Mayor
Christy Clark

Mayor Pro Tem
Jennifer Hunt

Commissioners
Scott Coronet
Edwin Quarles
LaToya Rivers
Heather Smallwood
Nick Walsh

AGENDA
Regular Town Board Meeting
July 21, 2026 - 6:00 PM
TOWN HALL (14704 N Old Statesville Road)

Meeting available via YouTube @townofhuntersvillenc28078

Town Manager
Anthony Roberts

Deputy Town Manager
Jackie Huffman

Assistant Town Manager
Bobby Williams

Town Attorney
Emily Sloop

Town Clerk
Janet Pierson

1. Pre-meeting - 5:30 p.m.

1.A. Closed Session pursuant to N.C.G.S. §143-318.11(a)(6) to consider the qualifications, competence, and performance of an employee. *(Lara Cagle)*

2. Call to Order

3. Moment of Silence

4. Pledge of Allegiance

5. Announcements and Presentations

5.A. Town Announcements *(Ethan Smith)*

6. Public Comments

7. Agenda Changes

8. Adoption of Agenda

9. Consent Agenda

9.A. Approve the minutes of the June 16, 2026 Town Board Meeting. *(Janet Pierson)*

9.B. Adopt Resolution to award the bid for the Waymer Park Splash Pad and approve the construction contract. *(Michael Jaycocks)*

9.C. Approve edits to Memorandum of Understanding with CRPTO. *(Emily Sloop)*

9.D. Approve budget amendment appropriating Fund Balance in the amount of $1,420,000 to purchase 1.727 acres at 106 Gilead Road. *(Pattie McGinnis)*

9.E. Call a public hearing for August 4, 2026, at 6:00 p.m. at Huntersville Town Hall on Petition #R26-08, a request by Veer Development, LLC to rezone property near the intersection of Sam Furr Road and Old Statesville Road from Neighborhood Residential to Neighborhood Residential Conditional District for a townhome development. *(Brad Priest)*

10. Public Hearings

10.A. Conduct public hearing on Rezoning Petition #R26-07, a request by Bi-Part Development LLC, located at 23331 Maple Branch Drive, to amend the approved Rezoning #R24-04 to allow for two additional flex buildings on Parcel A. *(Jesse James)*

10.B. Conduct public hearing on Petition #R26-09, a request by Treenail Development, to amend the approved Rezoning #R22-07 to allow for the addition of 1.042 acres of land and site plan revisions, located at the northeast corner of Hambright Road and Mt. Holly-Huntersville Road. *(Brian Richards)*

10.C. Conduct public hearing on Petition #TA26-01, a request by the Huntersville Planning Department to amend Article 3.2.9 of the Huntersville Zoning Ordinance to increase the amount of "indoor recreation" in the Corporate Business zoning district. *(Brian Richards)*

11. Other Business

11.A. Consider decision on Petition #R25-17, a request by BDG Properties, LLC to rezone +/- 1.066 acres at the corner of Glendale and Huntersville-Concord Road from General Residential to Neighborhood Residential Conditional District for three single-family homes. *(Brian Richards)*

11.B. Consider decision on Petition #R26-04, a request by Tori Thompson, to develop a school at 7601 Babe Stillwell Road. *(Nathan Farber)*

11.C. Consider decision on Petition #R26-03 Vermillion Village, a request by MPV Properties to amend Petition #R20-05 to reduce the building height for Shopfront Buildings B and C. *(Lauren Speight)*

12. Closing Comments

13. Adjourn

General Meeting Information

Town Board:
The Town of Huntersville Mayor and Board of Commissioners are elected for two-year terms. Huntersville operates under the council-manager form of government, which establishes the Town's policies that are carried out by the Town Manager and staff. For more information, visit www.huntersville.org.

Meeting Time, Place and Agenda:
All meetings of the Board are open to the public and the public is invited and encouraged to attend. The Board meets in the Town Hall at 6:00 p.m. on the first and third Tuesday of each month (unless otherwise posted). Agendas are published Thursdays before the meeting on our website. The Board reserves the right to deviate from the agenda.

Public Comment and Public Hearing Policy:
Persons desiring to address the Board during the public comment period or a public hearing shall sign up via the speaker sign-up sheet no later than five (5) minutes prior to the designated meeting start time. Once the meeting has begun, a person may not sign up to speak. Persons who have signed up to speak shall be allowed to speak for up to three (3) minutes. The Mayor shall have the discretion to shorten the allotted speaking time depending on the number persons registered to speak and in consideration of the length of the agenda. *(Public Comment and Public Hearing Policy - Amended March 3, 2026)*

Special Accommodations:
Please contact the Town Clerk, 72 hours prior to the meeting, for special accommodations to attend this meeting and/or if this information is needed in an alternative format. Janet Pierson can be reached at clerk@huntersville.org or 704-875-6541.

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Janet Pierson, Town Clerk

Subject: Approval of Minutes

Explain Request:
Approve the minutes of the June 16, 2026 Town Board Meeting.

Action Recommended: Approve Item

Alternative Action:
None

Financial Implications:
N/A

Attachments:
1. DraftMinutes

Mayor
Christy Clark

Mayor Pro Tem
Jennifer Hunt

Commissioners
Scott Coronet
Edwin Quarles
LaToya Rivers
Heather Smallwood
Nick Walsh

MINUTES
Regular Town Board Meeting
June 16, 2026 - 6:00 PM
TOWN HALL (14704 N Old Statesville Road)

Meeting available via YouTube @townofhuntersvillenc28078

Town Manager
Anthony Roberts

Deputy Town Manager
Jackie Huffman

Assistant Town Manager
Bobby Williams

Town Attorney
Emily Sloop

Town Clerk
Janet Pierson

The Huntersville Board of Commissioners meeting was held at Town Hall 14704 N Old Statesville Road, Huntersville, NC 28078, at 6:00 PM on June 16, 2026.

GOVERNING BODY MEMBERS PRESENT: Mayor Christy Clark, Mayor Pro Tem Jennifer Hunt, Commissioner Scott Coronet, Commissioner Edwin Quarles, Commissioner LaToya Rivers, Commissioner Heather Smallwood, Commissioner Nick Walsh

1. Pre-meeting - None

2. Call to Order
Mayor Clark called the meeting to order.

3. Moment of Silence
Mayor Clark called for a moment of silence.

4. Pledge of Allegiance
Mayor Clark led the Pledge of Allegiance.

5. Announcements and Presentations

5.A. <u>Town Announcements</u>
Town Announcements

Pam Escobar presented announcements.

- *Juneteenth Celebration is June 18, 2026 at Veterans Park.*
- *Tyler Beardsley announced as the Town's Electric Director.*
- *Charlotte Water mandatory water restrictions are still in place.*

5.B. Carolina Diving Academy Presentation

Presentation by Carolina Diving Academy on their 2025 Season achievements and economic impact.

Aaron Hintz provided update on Carolina Diving Academy. Mr. Hintz encouraged the Board to continue to consider its investment in HFFA and understand the value it has both for the community itself and producing athletes. PowerPoint attached hereto as Exhibit 5.B-1.

5.C. Big Day at the Lake Proclamation

Big Day at the Lake Proclamation.

Mayor Clark presented proclamation for Big Day at the Lake. Proclamation attached hereto as Exhibit 5.C-1.

5.D. Parks and Recreation Month Proclamation

A Proclamation for Parks and Recreation Month.

Mayor Clark presented proclamation for Parks and Recreation Month. Proclamation attached hereto as Exhibit 5.D-1.

5.E. Verhoeff Alignment Study Update

Presentation on public input received on the updated Verhoeff Drive alignment study.

Stephen Trott provided update on the Verhoeff Alignment Study. PowerPoint attached hereto as Exhibit 5.E-1.

Following discussion, it was the general consensus of the Board to request Mr. Trott bring back two options - one similar to the black line shown in the presentation and another that does not go through any of the nature preserve property.

6. Public Comments

Mayor Clark opened public comments.

1. *Gatewood Campbell requested an apology from the Board concerning a previous incident.*
2. *BeeJay Caldwell spoke about segregation and invited Board to Juneteenth event at the Waymer Center on June 17.*
3. *Skip Hudspeth spoke in support of Rebuilding Together of Greater Charlotte, Inc.*

4. *Janelle Harris made various comments about her non-profit.*

Mayor Clark closed public comments.

7. Agenda Changes

(no agenda changes)

8. Adoption of Agenda

Commissioner Coronet made a motion to adopt the Agenda.
Commissioner Quarles seconded the motion.
Motion Passed with Yes 6, No 0, Abstained 0

9. Consent Agenda

Mayor Pro Tem Hunt made a motion to approve the Consent Agenda.
Commissioner Smallwood seconded the motion.
Motion Passed with Yes 6, No 0, Abstained 0

9.A. Town Board Meeting Minutes Approval

Approve the minutes of the June 2, 2026 Town Board Meeting.

Item approved via Consent Agenda.

9.B. Fire Department air packs surplus

The equipment is valued from $10,000 to $60,000. The equipment is no longer of value to the Huntersville Fire Department. This equipment has been replaced as of April 2026 as part of the CIP with new equipment following the replacement schedule of replacing fire equipment over 10 years of age.

Item approved via Consent Agenda.

9.C. Call a Public Hearing on Rezoning Petition #R26-07: Northbrook Flex Site Area A

Call a public hearing for July 21, 2026, at 6 p.m. at Huntersville Town Hall 28078 on Rezoning Petition #R26-07, a request by Bi-Part Development LLC to rezone +/- 5.262 acres located on Maple Branch Drive from SP-CD Special Purpose-Conditional District, to SP-CD for commercial uses. This request is to amend the approved rezoning R24-04 to allow for two additional flex buildings on Parcel A with an ordinance modification.

Item approved via Consent Agenda.

10. Public Hearings

No Public Hearings

11. Other Business

11.A. Petition #R26-01

Consider making a decision on Petition #R26-01, a request by 2311 Real Estate Holdings LLC to rezone (+/- 14.78 acres) 12311 Airspeed Drive from Corporate Business Conditional District (CB-CD) to Corporate Business Conditional District (CB-CD) for revisions to an approved site plan.

Brian Richards entered the Staff Report into the record and reviewed the request. The Planning Board and staff recommend approval. Staff Report attached hereto as Exhibit 11.A-1. PowerPoint attached hereto as Exhibit 11.A-2.

Commissioner Quarles made a motion to approve Petition #R26-01, 2311 race shop, with the following conditions. The 60' buffer be reduced to 50' adjacent to the proposed parking lot, the buffer plantings meet the planting schedule as shown in the Staff Report, and all minor staff comments and red lines be addressed. With conditions, the application is consistent with Policies LU1.1, LU5.1, and EV1.2 of the Huntersville 2040 Plan. It is reasonable and in the public interest to approve the petition because the proposed rezoning is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan.

Mayor Pro Tem Hunt seconded the motion.
Motion Passed with Yes 6, No 0, Abstained 0

11.B. Petition #R26-06

Consider decision on Petition #R26-06, a request by Charter Properties, Inc. to revise a rezoning requirement for Charter Caldwell Station Apartments, located at 17155 Old Statesville Road to remove a portion of a brick wall.

Brian Richards entered the Staff Report into the record and reviewed request. The Planning Board and staff recommend approval. Staff Report attached hereto as Exhibit 11.B-1. PowerPoint attached hereto as Exhibit 11.B-2.

Commissioner Smallwood made a motion to approve Petition #R26-06. The petition is consistent with the Huntersville 2040 Community Plan Policy LU1.1. It is reasonable and in the public interest to revise the rezoning condition to permit the middle portion of the 6' tall brick wall to be removed as it is no longer serving as a buffer from adjacent parcels. The proposed revision is consistent with the envisioned use and development patterns set forth in the 2040 Community Plan.

Commissioner Walsh seconded the motion.
Motion Passed with Yes 6, No 0, Abstained 0

11.C. Nonprofit Funding Agreement - Rebuilding Together of Greater Charlotte, Inc.

If approved, this nonprofit funding agreement would appropriate $75,000.00 to Rebuilding Together of Greater Charlotte, Inc. to use to make critical home repairs in the Huntington Green community for income-qualified homeowners making less than 50% AMI.

Bobby Williams introduced Beth Morrison-North who presented information on Rebuilding Together of Greater Charlotte, Inc. PowerPoint attached hereto as Exhibit 11.C-1. Agreement attached hereto as Exhibit 11.C-2.

Sarah Fortner from Caterpillar Ministries spoke in support of Rebuilding Together of Greater Charlotte, Inc.

Commissioner Rivers made a motion to approve nonprofit funding agreement for Rebuilding Together of Greater Charlotte, Inc.
Mayor Pro Tem Hunt seconded the motion.
Motion Passed with Yes 6, No 0, Abstained 0

11.D. <u>Planning Board Appointments</u>

Consider appointing three (3) members to the Planning Board, due to three expiring terms, from 21 applicants.

1. Three-year term, expiring 3/31/2029 (Christopher Boyd has served two terms and is not eligible for another term)
2. Three-year term, expiring 3/31/2029 (Lee Hallman has served one term, and is eligible, and is applying for another term)
3. Three-year term, expiring 3/31/2029 (Jodi Wright has served one partial and one term, and is eligible, and is applying for another term)

Mayor Clark called for nominations for three members to the Planning Board due to three expiring terms.

Commissioner Coronet nominated Lee Hallman, Caleb Newman and Jodi Wright.
Mayor Pro Tem Hunt nominated Caleb Newman, Jodi Wright and Garrett Moise.
Commissioner Quarles nominated Christine Somers, Jodi Wright and Caleb Newman.
Commissioner Rivers nominated Jodi Wright, Caleb Newman and Christine Somers.
Commissioner Smallwood nominated Jodi Wright, Amber Kovacs and Lee Hallman.
Commissioner Walsh nominated Jodi Wright, Caleb Newman and Christine Somers.

Commissioner Walsh made a motion to appoint Jodi Wright, Caleb Newman and Christine Somers to the Planning Board through March 2029.
Commissioner Coronet seconded the motion.
Motion with Yes 5, No 1, Abstained 0
No Vote: Commissioner Smallwood

12. Closing Comments

Mayor Clark asked for any closing comments.

Commissioner Smallwood wished everyone a happy summer.
Commissioner Quarles wished everyone happy June 19.
Mayor Pro Tem Hunt wished everyone happy June 19 and 4th of July.
Commissioner Rivers commended Commissioner Coronet for event at Main Street Tavern and wished everyone happy June 19 and 4th of July.
Commissioner Walsh commented events over the weekend were a success and wished everyone happy Juneteenth and 4th of July.
Commissioner Coronet expressed appreciation to everyone that came out and showed support for Pride and wished everyone happy Juneteenth.
Mayor Clark wished everyone happy Juneteenth and 4th of July.

13. Adjourn

There being no further business, Commissioner Coronet made a motion to adjourn.
Commissioner Rivers seconded the motion.
Motion Passed with Yes 6, No 0, Abstained 0

Mayor Clark adjourned the meeting.

EXHIBIT
5.B-1

Carolina Diving Academy

2025–2026 Impact Report: Town of Huntersville

PRESENTATION OVERVIEW

OUR CORE PHILOSOPHY

"Carolina Diving Academy fosters youth development through camps, clinics, and championship competitions. We provide a structured pipeline for every athletic ambition, guiding divers from their first camp or lesson, to high school state titles, all the way to the World Championships. We are proud to offer an inclusive environment where every athlete can thrive.



Economic Engine & Tourism

Analyzing the $1.87M+ economic impact and 2,290 room nights generated for Huntersville.



Athletic & Team Excellence

Reviewing our USA Diving rankings, Team USA representation, and state championship dominance.



Collegiate & Academic Pipeline

Spotlighting our scholarship commitments to MIT, West Virginia, Davidson, and more.



Strategic Partnerships

Detailing our collaboration with Queens University and our future as a Power 4 host facility.

2025 Tourism & Event Footprint

2025 Event Series	Participants	Total Room Nights
BIG DIVE Invitational	200	500+
RWB AAU National Championships	350	1,200+
USA Diving Zone A Championships	240	700+
Carolina Winter Invitational	100	90+
TOTAL 2025 IMPACT	**890 Visitors**	**2,290 ROOM NIGHTS**

2026 Tourism & Event Footprint

2026 Event Series	Participants	Total Room Nights
BIG DIVE Invitational	200	500+
USA Diving Zone A Championships	220	680+
TOTAL 2026 IMPACT (to date)	**890 Visitors**	**1,180 ROOM NIGHTS**

Economic Impact Summary

$1.87M

Total Economic Impact (Est.)

Driving Local Revenue

Based on an average spend of **$300 per night, per participant** , CDA has generated massive direct spend for Huntersville businesses.

- 2025 Total Direct Spend: $687,000
- 2026 Total Direct Spend: $354,000
- Multiplier Impact (1.4-1.8x): $1.45M – $1.87M

Workforce & Employment

3 Full Time

Core professional coaching and administrative staff sustaining operations throughout 2026.

1 Part Time

Dedicated staff member working 20+ hours per week to support program growth.

14 Seasonal

Seasonal or part-time roles supporting event surge capacity and recreational programs.

Competitive Team Excellence

2025 Honors

- USA Diving Nationals 7th place
- AAU RWB Team Champion
- Zone A 3rd place | Region 2 2nd place
- BIG DIVE “BEST” Team





2026 Honors

- Region 2 Champion
- Zone A Championships: 4th place
- BIG DIVE “Best Team”

International & Individual Elite

2025

- 2 Junior National Champions
- 2 divers representing Team USA in London, England.





International & Individual Elite

2026

- 5 divers at Junior World Trials
- 3 divers at TYR Junior America's Cup.
- 1 Diver qualified for Junior Worlds in Rijeka, Croatia.







2025 NCHSAA High School Success

Three State Champions:

- **Addison Nardon:** Girls 1A/2A (Community Sch. of Davidson)
- **Reagan Leckner:**Girls 4A (Charlotte Catholic)
- **Mason Kramer:** Boys 4A (Charlotte Catholic)

Five State Medalists:

- **Brady McSorley:** Bronze (Christ the King)
- **Camryn Clark:** Silver (Thomas Jefferson)
- **Avery Nardone:** Bronze (Comm. Sch. Davidson)
- **Kaitlyn Knutsen:** Silver (Lake Norman Charter)

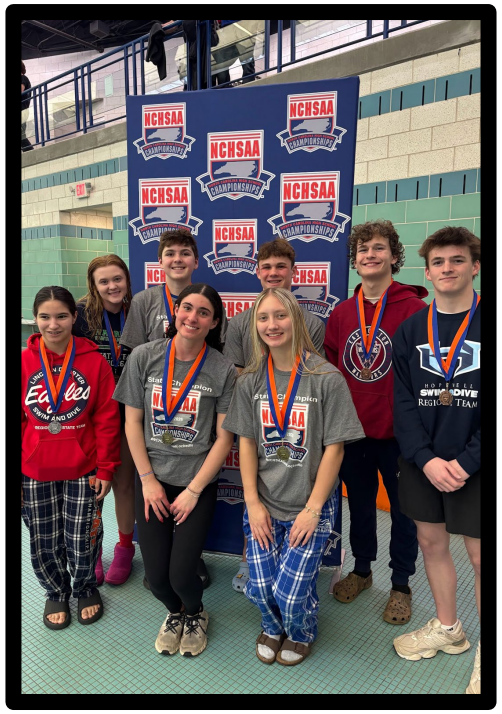
8 of the 18 NCHSAA diving medalists trained at HFFA.

2026 NCHSAA Excellence

Avery Noonan: Girls 1A/2A/3A (Christ the King)
Colby Novick: Boys 1A/2A/3A (Mtn. Island)
Kaitlyn Knutsen: Girls 4A (L. Norman Charter)
Sawyer Landman: Boys 4A (L. Norman Charter)

Reagan Leckner: Girls 6A (Charlotte Catholic)
Gabbie Panichella: Girls 7A (L. Norman High)
Tobin Tise: Boys 7A (L. Norman High)
Nate Robinson: 8A Champion (Myers Park)

CDA trained 8 of the 12 NCHSAA State Champions in 2026.





18 of 33 NCHSAA Medalists

Avery Nardone - Girls 1A/2A/3A Silver Medalist, Community School of Davidson
Addison Nardone - Girls 1A/2A/3A Bronze Medalist, Community School of Davidson
Grayson Conley - Boys 1A/2A/3A Bronze Medalist, Pine Lake Prep High School
Addison Braun - Girls 4A Silver Medalist, Lincoln Charter High School
Wyatt Smith - Boys 4A Bronze Medalist, East Gaston High School
Camryn Russell - Girls 5A Silver Medalist, Crest High School
Mason Kramer - Boys 6A Silver Medalist, Charlotte Catholic High School
Miley Cook - Girls 7A Bronze Medalist, Weddington High School
Brett Weaver - Boys 7A Bronze Medalist, Hopewell High School
Blyth Duley - Girls 8A Bronze Medalist, Myers Park High School



College Scholarship Pipeline

2025 College Scholarships

Bella Wilhelm - UNC Wilmington
Logan Yee - MIT

2026 College Scholarships

Gabbie Panichella - West Virginia University
Mason Kramer - University of Delaware
Addison Nardone - Davidson College
Avery Nardone - Georgia Southern University
Miley Cook - UNC Asheville
Nate Robinson - Queens University Charlotte
Blythe Duley - Denison University



Queens University Partnership

Division II Perennial Powerhouse moves to DI

CDA partners with **Queens University** to add diving

2025

Atlantic Sun Men's Champions

Atlantic Sun Men's Coach of the Year Honors

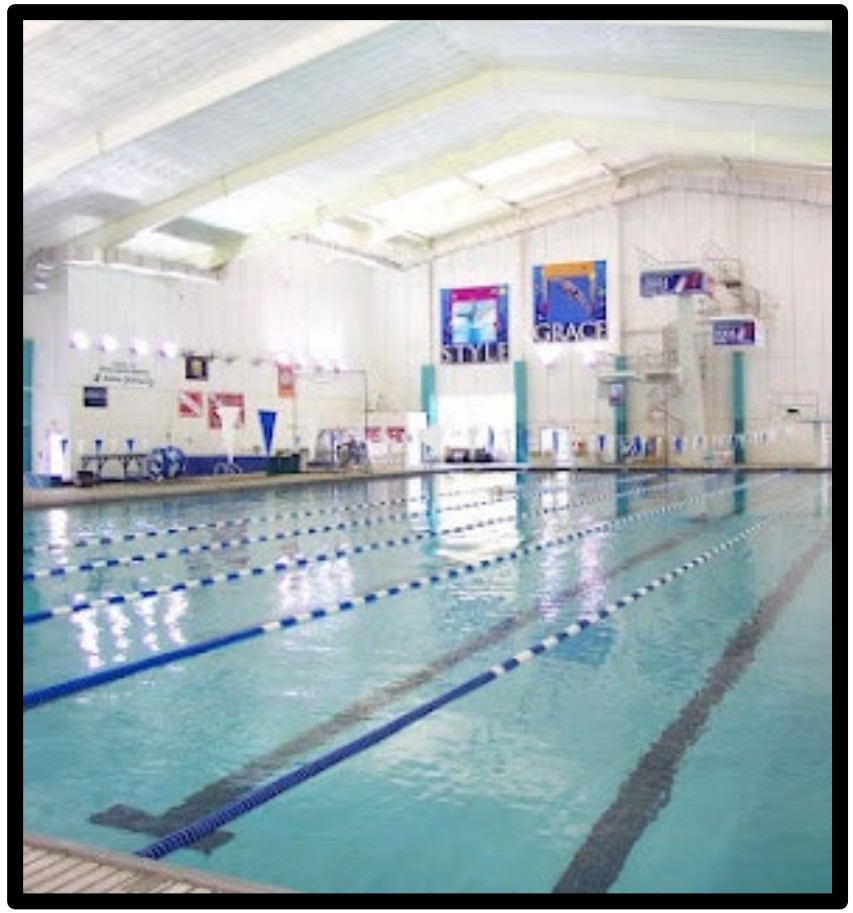
2026

Adds women's teams

Host dual meets with Power 4 conference schools

at HFFA

Facility Partnership



Carolina Diving Academy (CDA) depends on Huntersville Family Fitness & Aquatics to be a regional hub for elite youth development and national-caliber competitions.

Over the last 18 months, CDA has driven significant tourism dollars and economic injection into the local economy through its high-volume events.

When HFFA was constructed in 2002, it was a State of the Art facility. To maintain that status it needed constant upkeep and updates that were deprioritized over the passing decades. We are committed to growing and contributing to the betterment of Huntersville and the surrounding communities. This progress depends on the town's continued support of HFFA and limited only by the scale of improvements and updates.

Questions?

Supporting the Future of Aquatics in Huntersville

Carolina Diving Academy | Huntersville Family Fitness & Aquatics

EXHIBIT
5.C-1

A PROCLAMATION FOR BIG DAY AT THE LAKE

WHEREAS, Big Brothers Big Sisters (BBBS) of Greater Charlotte provides one-to-one mentoring relationships that focus on school success, works with families and volunteers to keep children out of delinquency, and supports the family competency; and

WHEREAS, in celebration of its annual accomplishments and, more importantly, in celebration of the youth BBBS of Greater Charlotte serves, the Big Day at the Lake Committee (Committee) will hold its "Big Day at the Lake" event on July 18, 2026; and

WHEREAS, the Committee organizes through volunteers a day full of fun activities on Lake Norman for participating BBBS of Greater Charlotte matches; and

WHEREAS, since 2003, the "Big Day at the Lake" events have hosted more than 1,500 BBBS youth, all of whom have treasured this opportunity to laugh, play, mingle, and make new friends; and

WHEREAS, over the past 23 years, the Committee has raised more than $2,000,000 for BBBS of Greater Charlotte; and

WHEREAS, the Committee encourages volunteers to become BBBS mentors, known as "Bigs," following in the footsteps of past Big Day at the Lake participants who have embraced the opportunity to mentor; and

WHEREAS, the Committee and BBBS of Greater Charlotte, along with many volunteers and sponsors, deserve appreciation and recognition for enhancing the quality of life of the residents in Mecklenburg County and surrounding areas, especially the youth.

NOW, THEREFORE, I, Christy Clark, Mayor of Huntersville, do hereby proclaim July 18 as **"BIG DAY AT THE LAKE"** in Huntersville, North Carolina.

IN WITNESS WHEREOF, I do hereby set my hand and cause the Seal of the Town to be affixed, this the 16th day of June, 2026.

_____
Christy Clark, Mayor

EXHIBIT
5.D-1

A PROCLAMATION FOR PARKS AND RECREATION MONTH

WHEREAS, parks and recreation is an integral part of communities throughout this country, including the state of North Carolina and the Town of Huntersville; and

WHEREAS, parks and recreation promotes health and wellness, improving the physical and mental health of people who live near parks; and

WHEREAS, parks and recreation promotes time spent in nature, which positively impacts mental health by increasing cognitive performance and well-being, and alleviating illnesses such as depression, attention deficit disorders, and Alzheimer's; and

WHEREAS, parks and recreation encourages physical activities by providing space for popular sports, hiking trails, natural areas and many other activities designed to promote active lifestyles; and

WHEREAS, parks and recreation programming, events, and educational activities, such as out-of-school time programming, youth sports and environmental education, are critical to childhood development; and

WHEREAS, parks and recreation increases a community's economic prosperity through increased property values, expansion of the local tax base, increased tourism, the attraction and retention of businesses, and crime reduction; and

WHEREAS, the Huntersville Parks and Recreation Department was created in 1995 and now serves more than 2 million visitors per year to its local parks; and

WHEREAS, our parks and natural recreation areas ensure the ecological beauty of our state and provide a place for children and adults to connect with nature and recreate outdoors; and

WHEREAS, the U.S. House of Representatives has designated July as Parks and Recreation Month; and

WHEREAS, Huntersville recognizes the benefits derived from parks and recreation resources.

NOW, THEREFORE, I, Christy Clark, Mayor of Huntersville, do hereby proclaim July as **"PARKS AND RECREATION MONTH"** in Huntersville, North Carolina.

IN WITNESS WHEREOF, I do hereby set my hand and cause the Seal of the Town to be affixed, this the 16th day of June, 2026.

_____

Christy Clark, Mayor

EXHIBIT
5.E-1

Verhoeff Alignment Study

Town Board Meeting
June 16, 2026

Town of Huntersville
NORTH CAROLINA

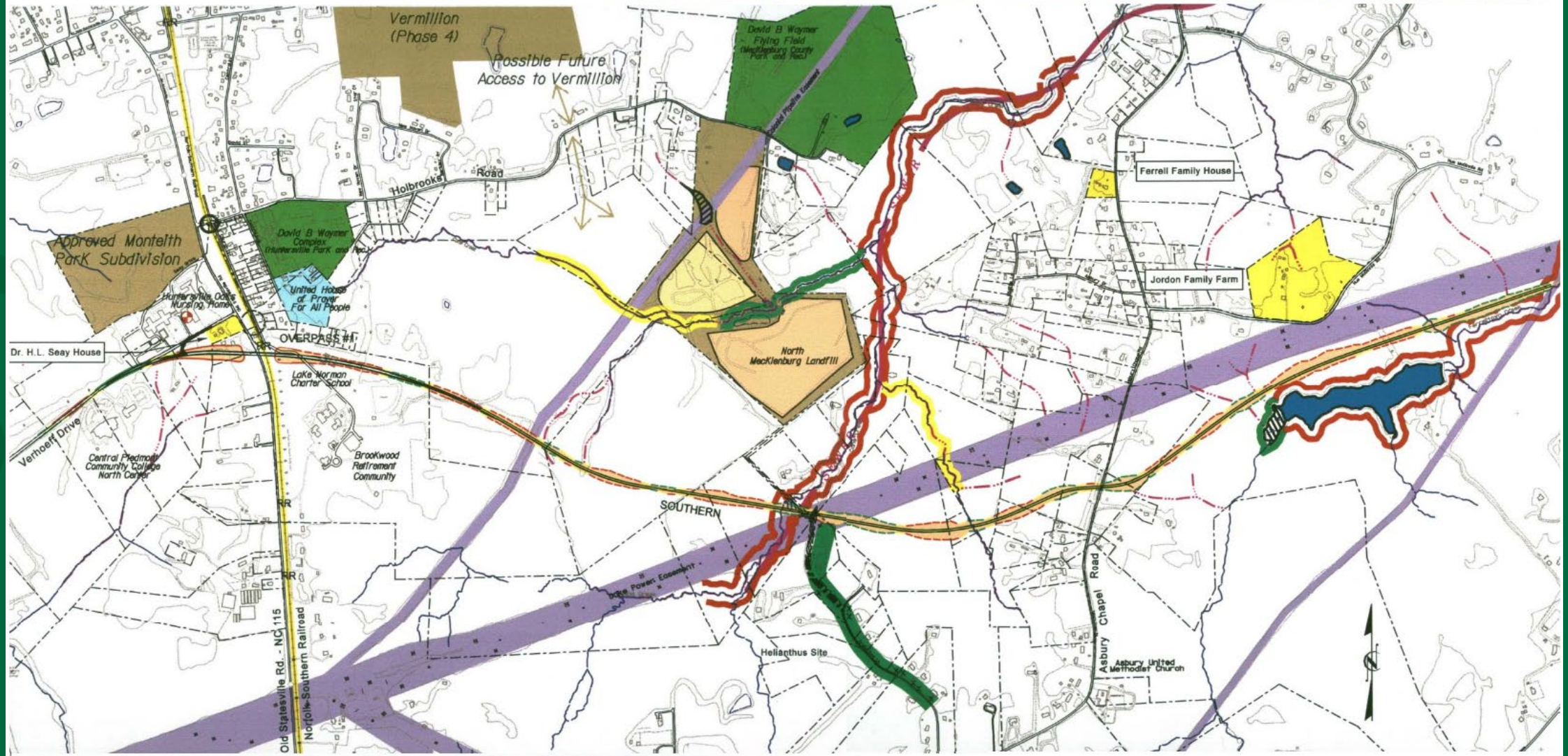
Verhoeff Alignment Study

- Current Alignment Adopted in November 2002
- Portion of Alignment has been constructed
- Development has occurred in the area since 2002

  (more development proposed)
- Utility Transmission Facility crossings

VERHOEFF DRIVE

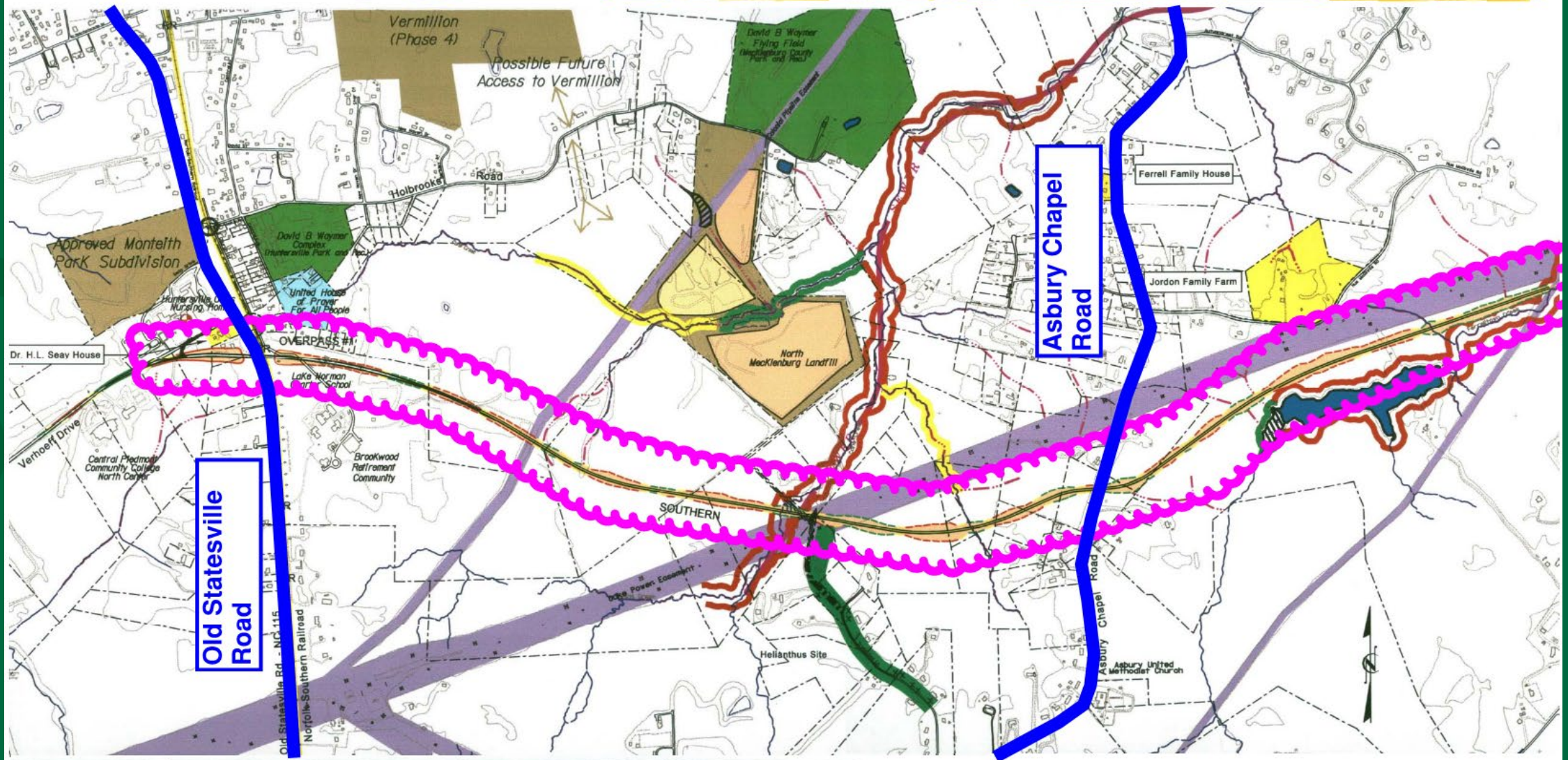
SOUTHERN ALIGNMENT



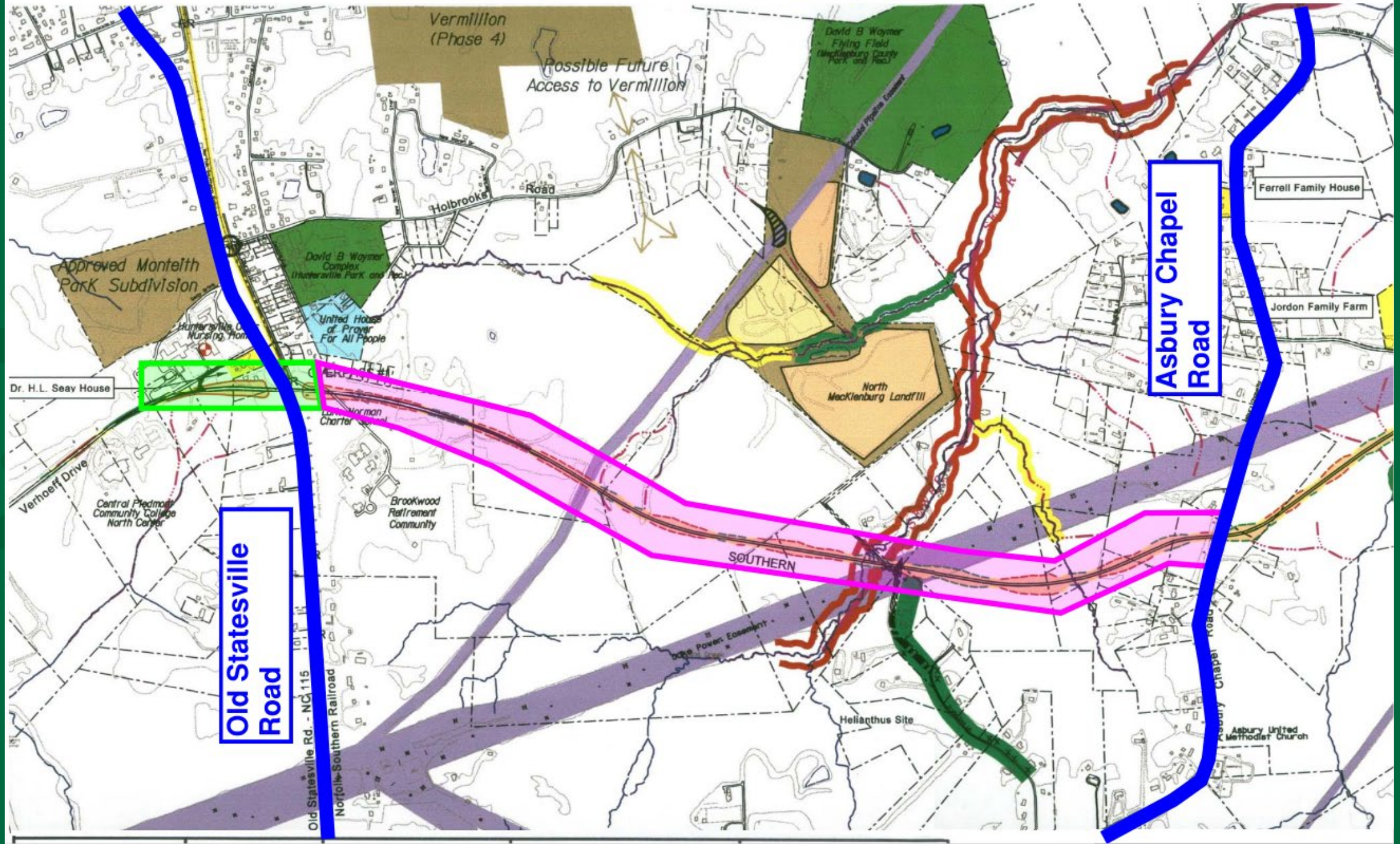
Alignment approved by MUMPO
November 20, 2002

VERHOEFF DRIVE

SOUTHERN ALIGNMENT

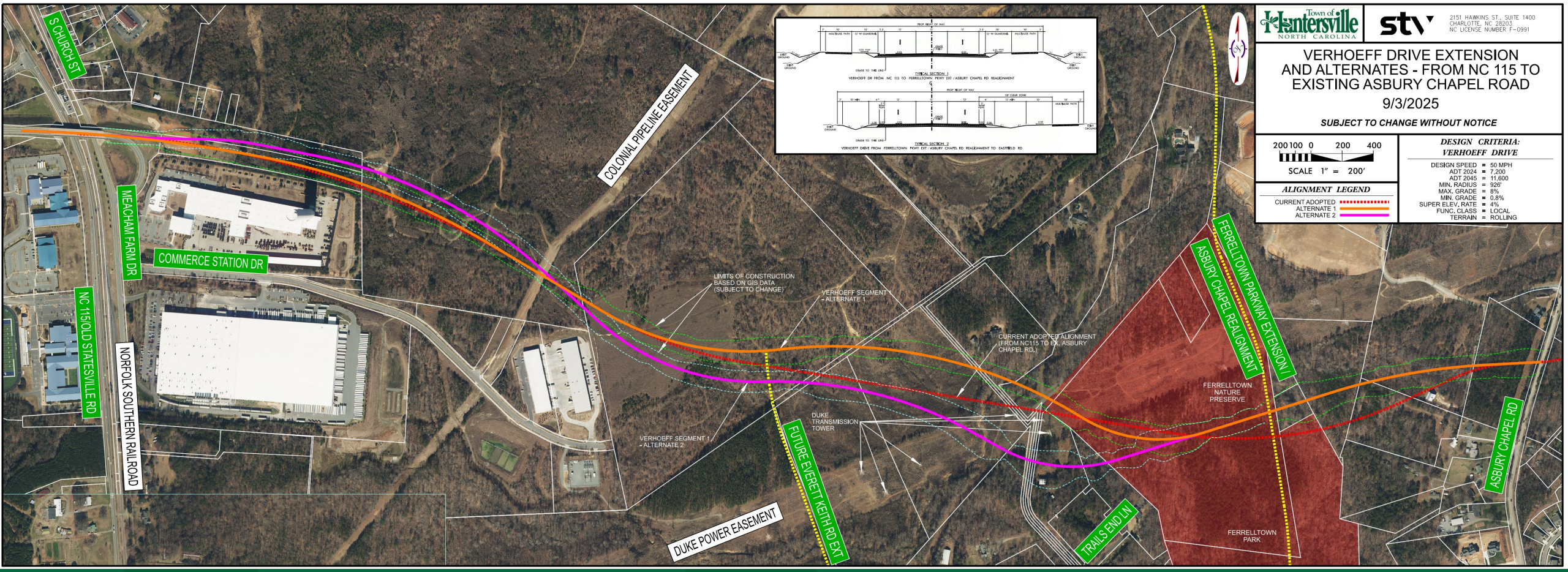


Alignment approved by MUMPO
November 20, 2002


Vermillion (Phase 4)
Possible Future Access to Vermillion
David B Waymer Flying Field (Mecklenburg County Park and Rec.)
Holbrooks Road
Approved Monteith ParK Subdivision
David B Waymer Complex (Huntersville Park and Rec.)
United House of Prayer For All People
Dr. H.L. Seay House
Norman Charter School
Verhoeff Drive
Central Piedmont Community College North Center
BrooKwood Retirement Community
North MecKlenburg Landfill
Old Statesville Road
Asbury Chapel Road
Ferrell Family House
Jordon Family Farm
SOUTHERN
Duke Power Easement
Old Statesville Rd. - NC 115
Norfolk Southern Railroad
Helianthus Site
Asbury United Methodist Church

Verhoeff Alignment Study

- Developed two potential alternatives
- Utilize portion of alignment constructed
- Design Criteria input from NCDOT, Duke Energy, Colonial Pipeline



Town of Huntersville
NORTH CAROLINA

stv
2151 HAWKINS ST., SUITE 1400
CHARLOTTE, NC 28203
NC LICENSE NUMBER F-0991

VERHOEFF DRIVE EXTENSION AND ALTERNATES - FROM NC 115 TO EXISTING ASBURY CHAPEL ROAD

9/3/2025

SUBJECT TO CHANGE WITHOUT NOTICE

200 100 0 200 400

SCALE 1" = 200'

ALIGNMENT LEGEND

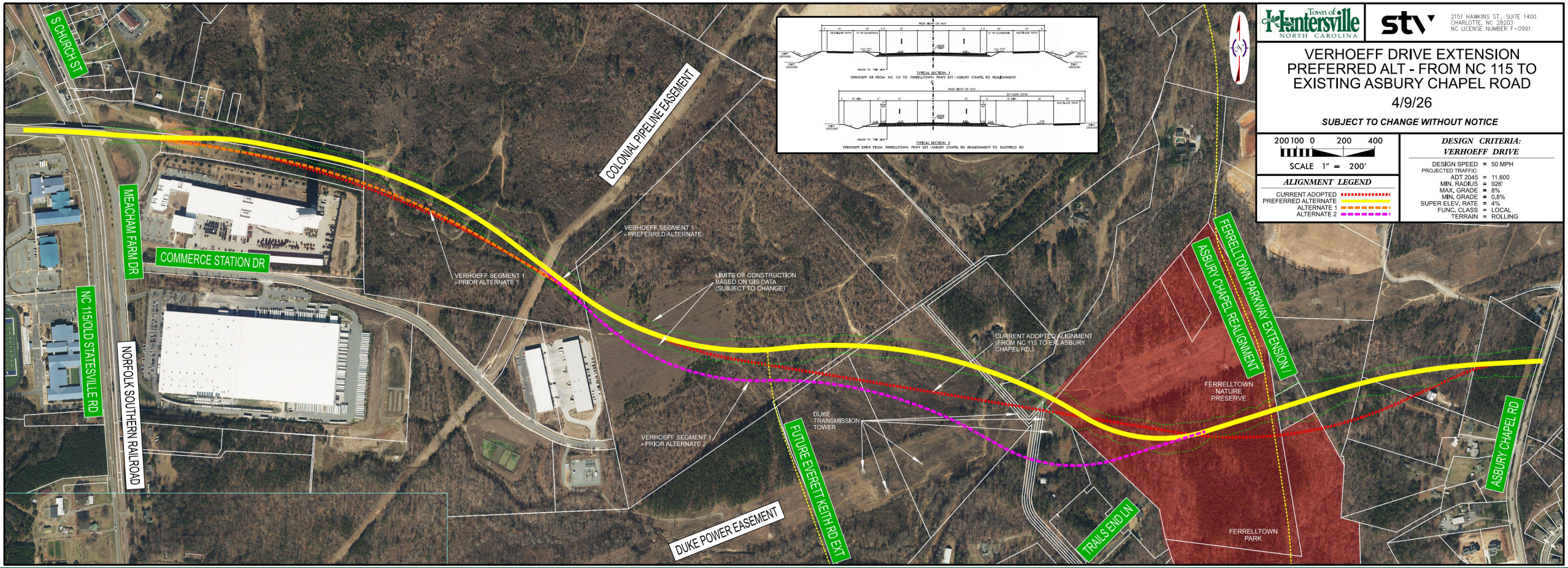
- CURRENT ADOPTED
- ALTERNATE 1
- ALTERNATE 2

DESIGN CRITERIA: VERHOEFF DRIVE

DESIGN SPEED	= 50 MPH
ADT 2024	= 7,200
ADT 2045	= 11,600
MIN. RADIUS	= 926'
MAX. GRADE	= 8%
MIN. GRADE	= 0.8%
SUPER ELEV. RATE	= 4%
FUNC. CLASS	= LOCAL
TERRAIN	= ROLLING

Verhoeff Alignment Study

- Presented to Town Board, CRTPO, Meck Co. Parks and Recreation
- Online and in person input received
- Presented to Town Board in January 2026
- Town Board directed to develop a combined Alternative



Town of Huntersville
NORTH CAROLINA

stv
2151 HAWKINS ST., SUITE 1400
CHARLOTTE, NC 28203
NC LICENSE NUMBER F-0991

VERHOEFF DRIVE EXTENSION PREFERRED ALT - FROM NC 115 TO EXISTING ASBURY CHAPEL ROAD

4/9/26

SUBJECT TO CHANGE WITHOUT NOTICE

200 100 0 200 400

SCALE 1" = 200'

ALIGNMENT LEGEND

- CURRENT ADOPTED
- PREFERRED ALTERNATE
- ALTERNATE 1
- ALTERNATE 2

DESIGN CRITERIA: VERHOEFF DRIVE

DESIGN SPEED	= 50 MPH
PROJECTED TRAFFIC:	
ADT 2045	= 11,600
MIN. RADIUS	= 926'
MAX. GRADE	= 8%
MIN. GRADE	= 0.8%
SUPER ELEV. RATE	= 4%
FUNC. CLASS	= LOCAL
TERRAIN	= ROLLING

Verhoeff Alignment Study

- Additional 2-week public comment period.
- Meeting with Mecklenburg County Parks and Recreation Staff on April 28.
- Present information to Town Board for next steps.

Verhoeff Alignment Study

- Top Comments:
  - No Road/Do not extend
  - Cut through traffic in Olmstead
  - Looks good/in favor
  - Avoid the Park
  - Concerned about new development
  - Request another route
  - widen Asbury Chapel Road

- Options in order of preference: Other or Purple (tie), Yellow, Red, Orange

Verhoeff Alignment Study

- Ferrelltown Nature Preserve
- State of North Carolina approved acceptance on 10/1/24
- Articles of Dedication for the Ferrelltown Nature Preserve approved 4/10/26

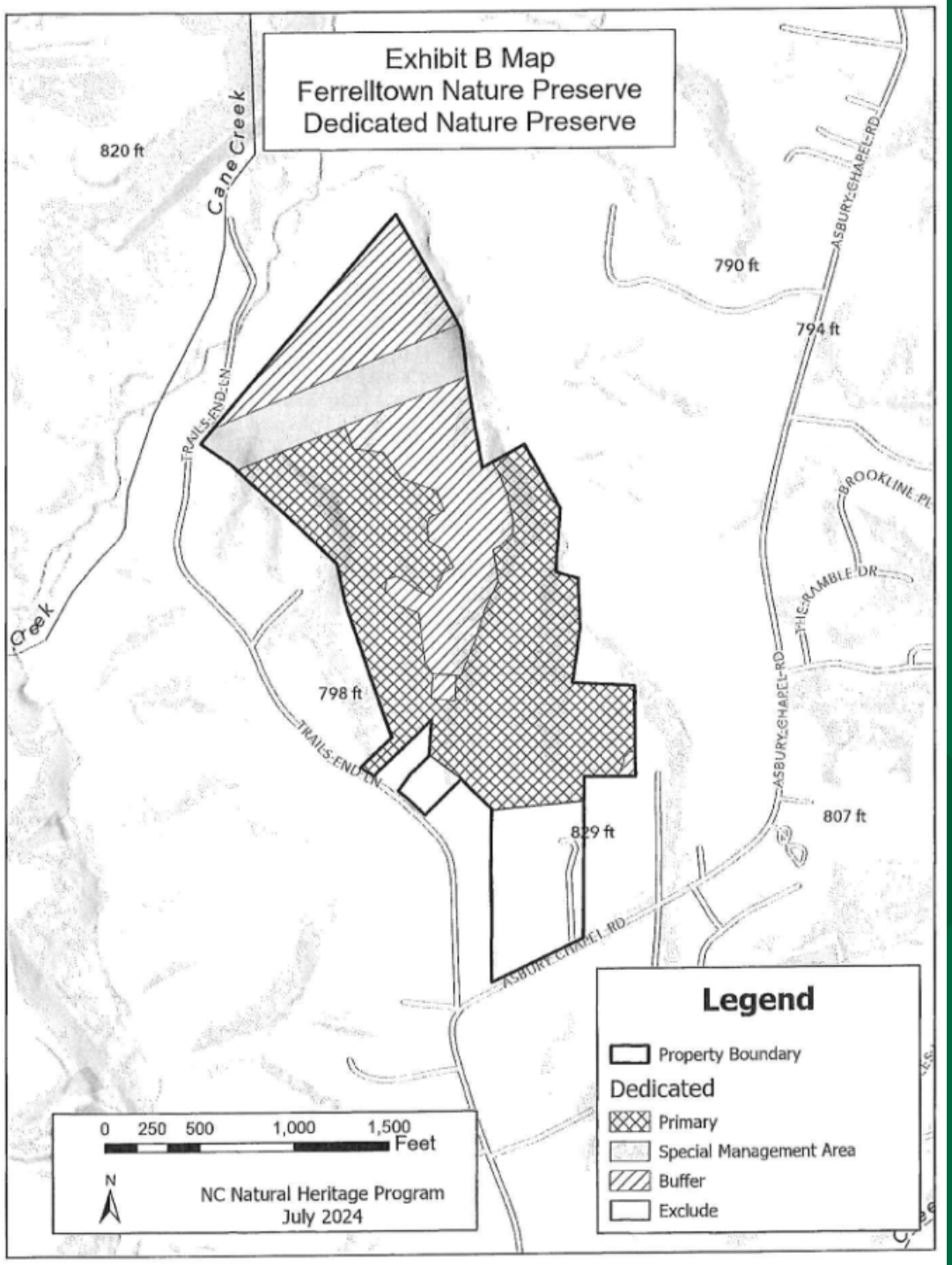
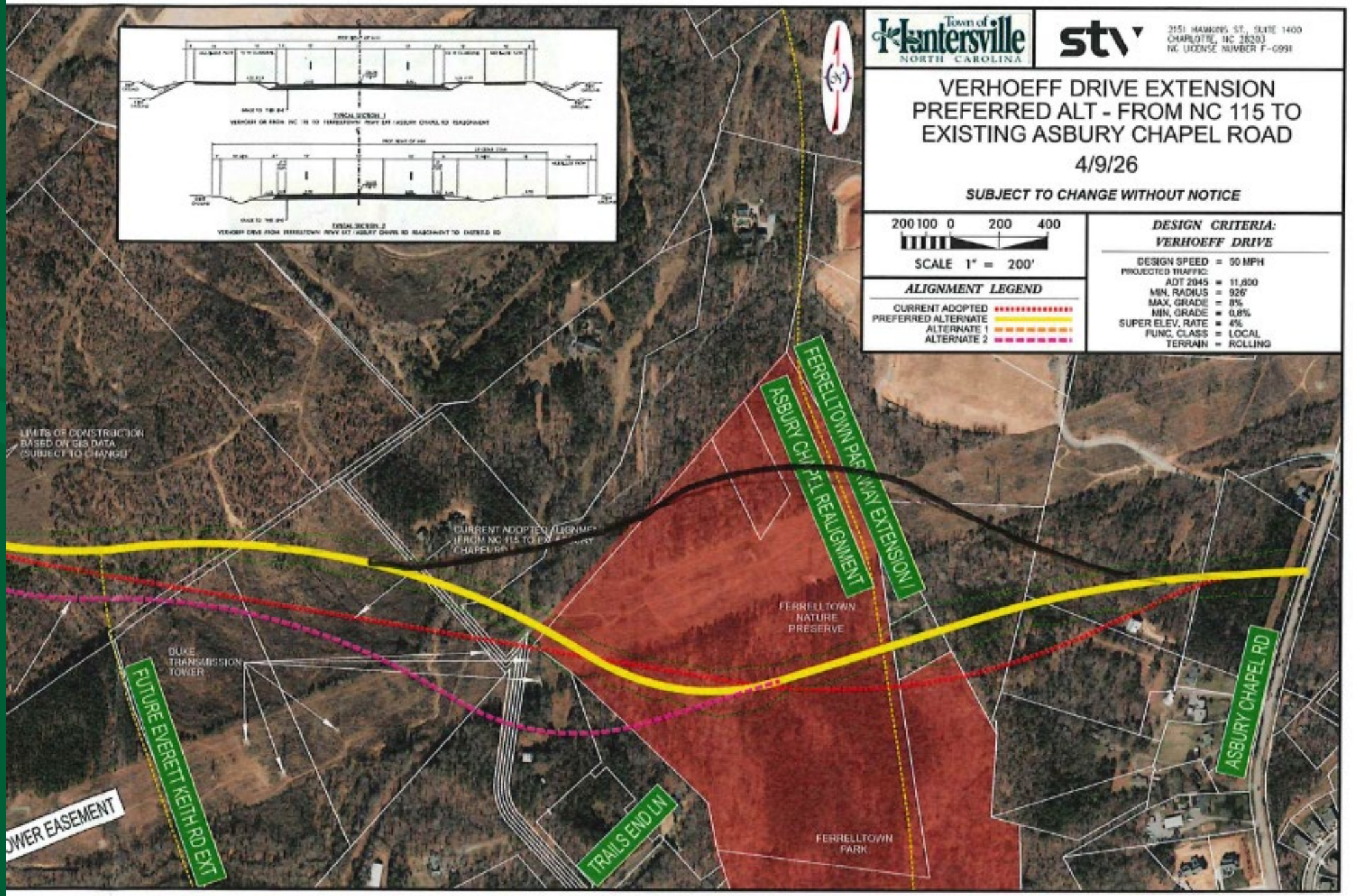


Exhibit B Map
Ferrelltown Nature Preserve
Dedicated Nature Preserve
820 ft
Cane Creek
790 ft
794 ft
ASBURY CHAPEL RD
TRAILS END LN
BROOKLINE PL
THE RAMBLE DR
798 ft
807 ft
829 ft
0 250 500 1,000 1,500
Feet
N
NC Natural Heritage Program
July 2024
Legend
Property Boundary
Dedicated
Primary
Special Management Area
Buffer
Exclude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CURRENT ADOPTED
PREFERRED ALTERNATE
ALTERNATE 1
ALTERNATE 2
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VERHOEFF DRIVE
DESIGN SPEED = 50 MPH
PROJECTED TRAFFIC:
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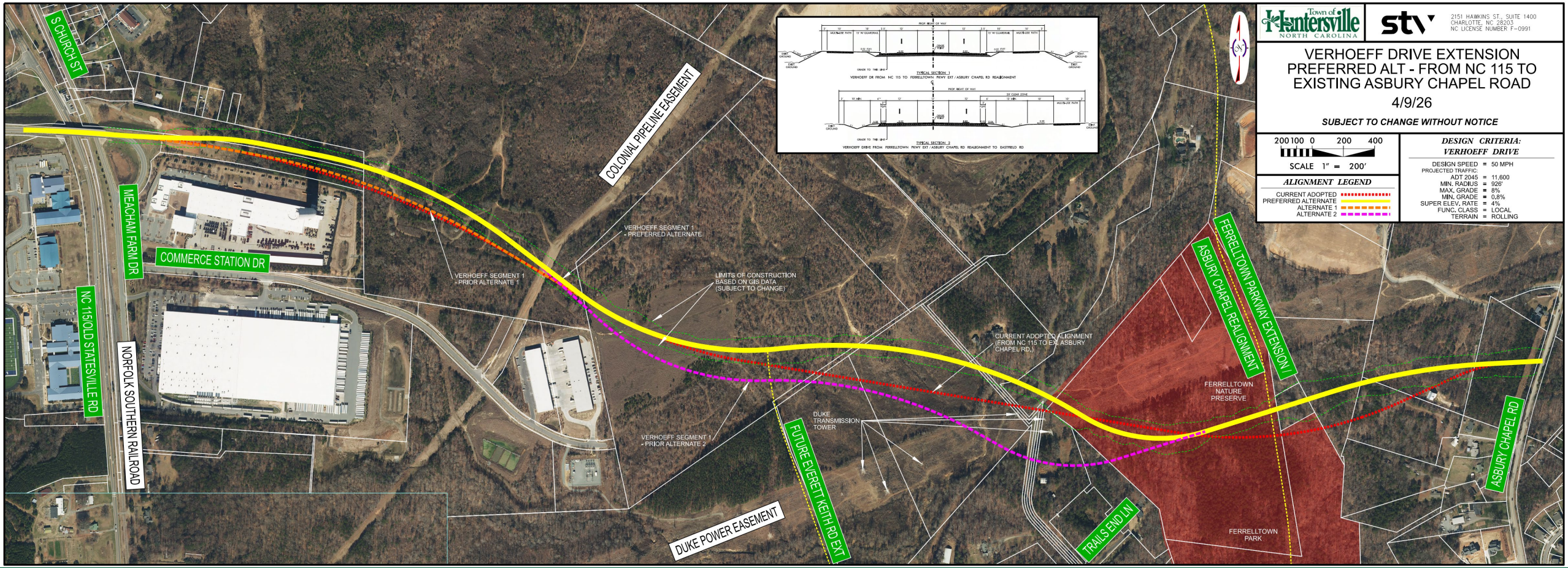
MIN. RADIUS = 926'
MAX. GRADE = 8%
MIN. GRADE = 0.8%
SUPER ELEV. RATE = 4%
FUNC. CLASS = LOCAL
TERRAIN = ROLLING
TYPICAL SECTION 1
TYPICAL SECTION 2
LIMITS OF CONSTRUCTION
BASED ON GIS DATA
(SUBJECT TO CHANGE)
CURRENT ADOPTED ALIGNMENT
(FROM NC 115 TO EXISTING ASBURY CHAPEL RD)
FERRELLTOWN PARKWAY EXTENSION
ASBURY CHAPEL REALIGNMENT
FERRELLTOWN
NATURE
PRESERVE
DUKE
TRANSMISSION
TOWER
FUTURE EVERETT KEITH RD EXT
TRAILS END LN
FERRELLTOWN
PARK
ASBURY CHAPEL RD
OWER EASEMENT



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Town of Huntersville

THRIVE HERE

EXHIBIT
9.B-1

RESOLUTION OF THE TOWN OF HUNTERSVILLE TO DISPOSE OF SURPLUS PROPERTY

Resolution No. R-2026-22

WHEREAS, the Town of Huntersville owns personal air pack systems (the "Equipment") described further in **Exhibit A** attached hereto and incorporated herein; and

WHEREAS, the Equipment is surplus property which the Town desires to sell by either private sale or electronic public auction; and

WHEREAS, N. C. G. S. § 160A-270(b) permits the Town to sell personal property by electronic public auction; and

WHEREAS, section 7. 2 of the Town of Huntersville' s Charter permits the Town to sell personal property by private sale; and

WHEREAS, the Town of Huntersville Board of Commissioners (the" Town Board") now desires to authorize the sale of the Equipment by private sale or electronic public auction.

NOW THEREFORE, BE IT RESOLVED AS FOLLOWS:
1. The Town Board hereby declares the Equipment surplus property and authorizes the sale of the Equipment pursuant to N. C. G. S. § 160A-270(b) or section 7.2 of the Town's Charter.
2. The Town Board authorizes the Town Manager or his designee to sell the Equipment described in **Exhibit A** by private sale or electronic auction on GovDeals.com.
3. The Town Board authorizes the Town Manager, acting upon the advice of legal counsel, to take actions necessary to execute the sale of the Equipment without further Town Board action.
4. The notice attached hereto as **Exhibit B** shall be published on the Town's website a minimum of ten (10) days prior to any sale by electronic auction.
5. The Town reserves the right to withdraw the Equipment from sale at any time and the right to reject all bids and/or offers.

Adopted this 16th day of June, 2026

ATTEST:

Janet Pierson, Town Clerk

Christy Clark, Mayor

APPROVED AS TO FORM:

Emily Sloop, Town Attorney

Exhibit A

(50) SCOTT#X3415022200302 X3 BACKFRAME SBCA, 5.5, QUICK CONNECT REGULATOR, WAIST MOUNTED DUAL EBSS BUDDY BREATHING SYSTEM, FACTORY INSTALLED PAK TRACKING PASS DEVICE.

(50) SCOTT#20121505 AV-3000HT SERIES FACEPIECE WITH KEVLAR HEADNET

(100) SCOTT#200970-01 5500PSIG CARBON CYLINDER, 45 MINUTE DURATION CYLINDER, WITH QUICK CONNECT CYLINDER VALVE ASSEMBLY

(8) SCOTT#200954-04 RIT PAK III WITH RIT MASK AND REGULATOR

(8) SCOTT#804723-01 60 MINUTE CYLINDER FOR RIT PAK III

Exhibit B

PUBLIC NOTICE

SALE OF TOWN SURPLUS PERSONAL PROPERTY BY ELECTRONIC AUCTION (N.C.G.S. § 160A-270(b))

Commented [ES1]: Need to include the time, date, place, and terms of the sale by electronic auction, the electronic address where information about the property to be sold can be found, and the electronic address where electronic bids may be posted. We should have a notice sample from the last time we did a sale by auction.

The Town of Huntersville Board of Commissioners passed a resolution on June 16, 2026, authorizing the electronic auction of the fire equipment, described further below, beginning August 13, 2026 at 8:00 a.m. and ending August 27, 2026 at 5:00 p.m. on GovDeals.com. A minimum selling price will be set for the equipment.

The terms of the final sale are that:

1. The payment must be by Certified or cashier' s check.
2. All items are to be removed within ten (10) business days from close of auction.
3. All other terms may be found on GovDeals.com.

For questions regarding this sale, contact: Jim Dotoli, Fire Chief, at 704- 464-5581 or jdotoli@huntersville.org.

SCOTT#X3415022200302 X3 BACKFRAME SBCA, 5.5, QUICK CONNECT REGULATOR, WAIST MOUNTED DUAL EBSS BUDDY BREATHING SYSTEM, FACTORY INSTALLED PAK TRACKING PASS DEVICE.

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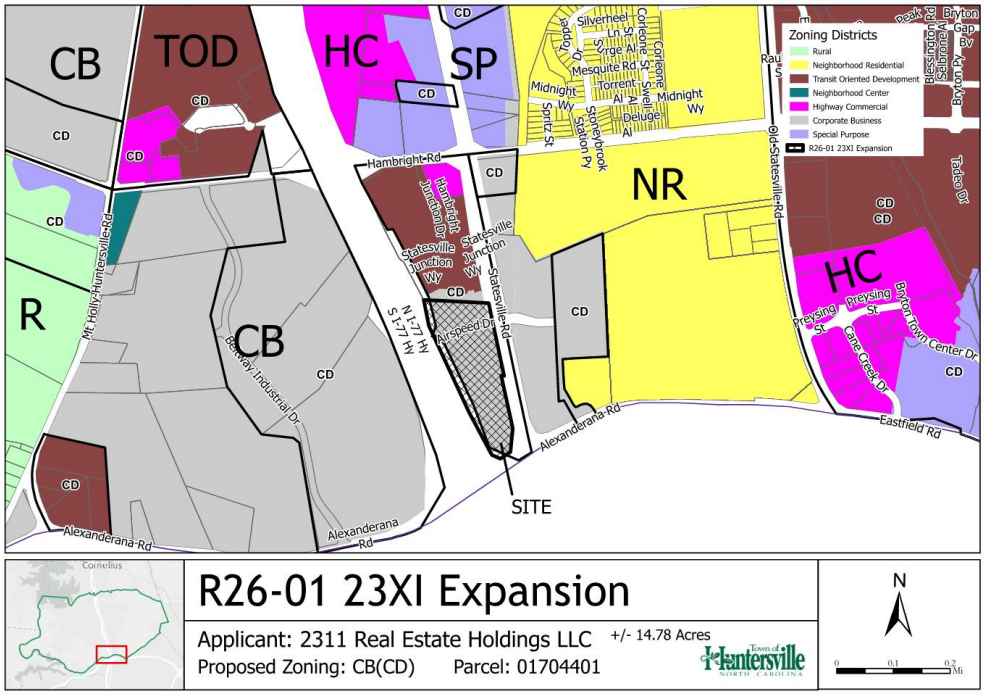
SCOTT#200954-04 RIT PAK III WITH RIT MASK AND REGULATOR

SCOTT#804723-01 60 MINUTE CYLINDER FOR RIT PAK III

EXHIBIT
11.A-1

Petition R26-01
23XI Race Shop Revision

PART 1: PROJECT SUMMARY



Applicant: 2311 Real Estate Holdings LLC.

Property Owner: 2311 Real Estate Holdings LLC

Property Address: 12311 Airspeed Dr.

Project Size: (+/-) 14.78 acres

Parcel Numbers: 01704401

Current Zoning: Corporate Business Conditional District (CB-CD)

Current Land Use: Race Shop

Proposed Zoning: Corporate Business Conditional District (CB-CD)

Proposed Land Use: Race Shop

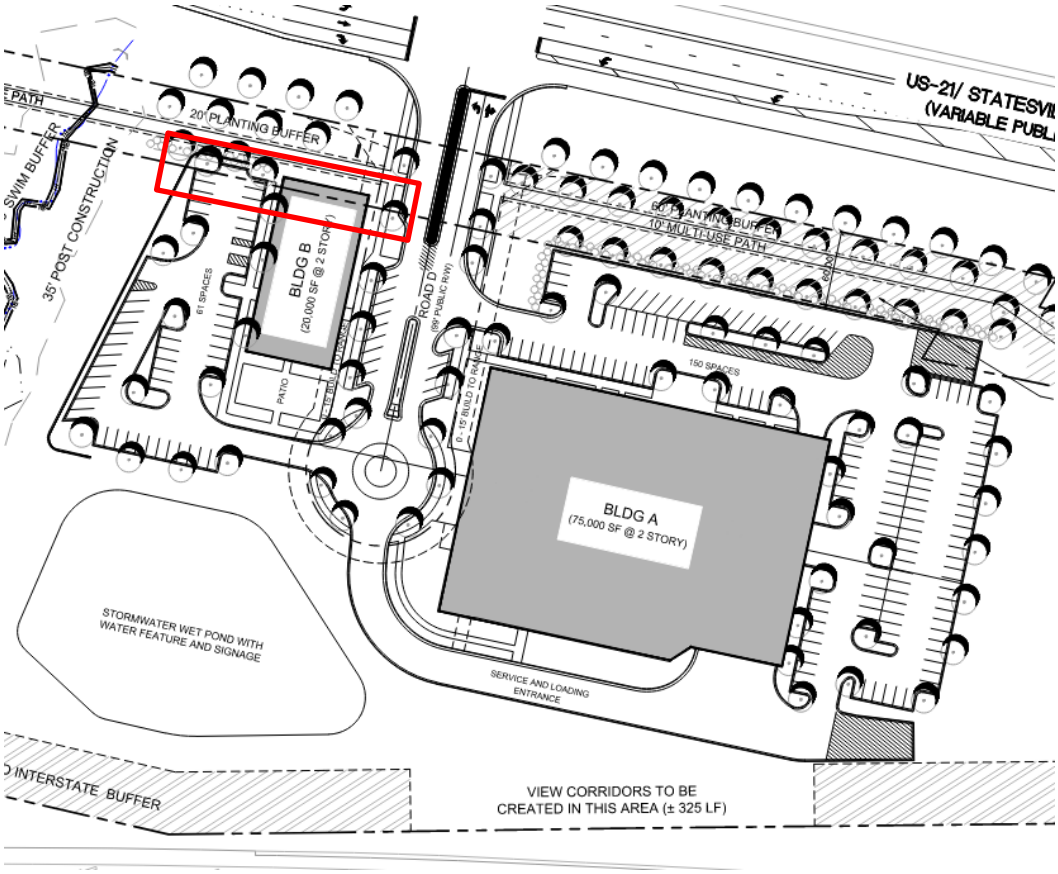
1. Purpose: Petition #R26-01, a request by 2311 Real Estate Holdings LLC to rezone +/- 14.78 acres located at 12311 Airspeed Dr (parcel id # 01704401) from Corporate Business Conditional District to Corporate Business Conditional District.
2. Adjoining Zoning and Land Uses.
   North: Transit Oriented Development (TOD) zoning, Existing Multi-Family Residential
   South: City of Charlotte, I-485
   East: Corporate Business (CB) zoning, Existing Office Park – Incomplete (Northlake Business Park)
   West: I-77
3. A Community meeting was held on Thursday, February 26th, 2026. The invitation, site plan, and summary of the meeting are included in the agenda packet for review.
4. Planning staff certifies that notice for this rezoning petition was sent via a postcard to adjoining property owners; a legal ad was placed in the Charlotte Observer, and a rezoning sign was posted along Statesville Rd in front of the property.

PART 2: REZONING/SITE PLAN

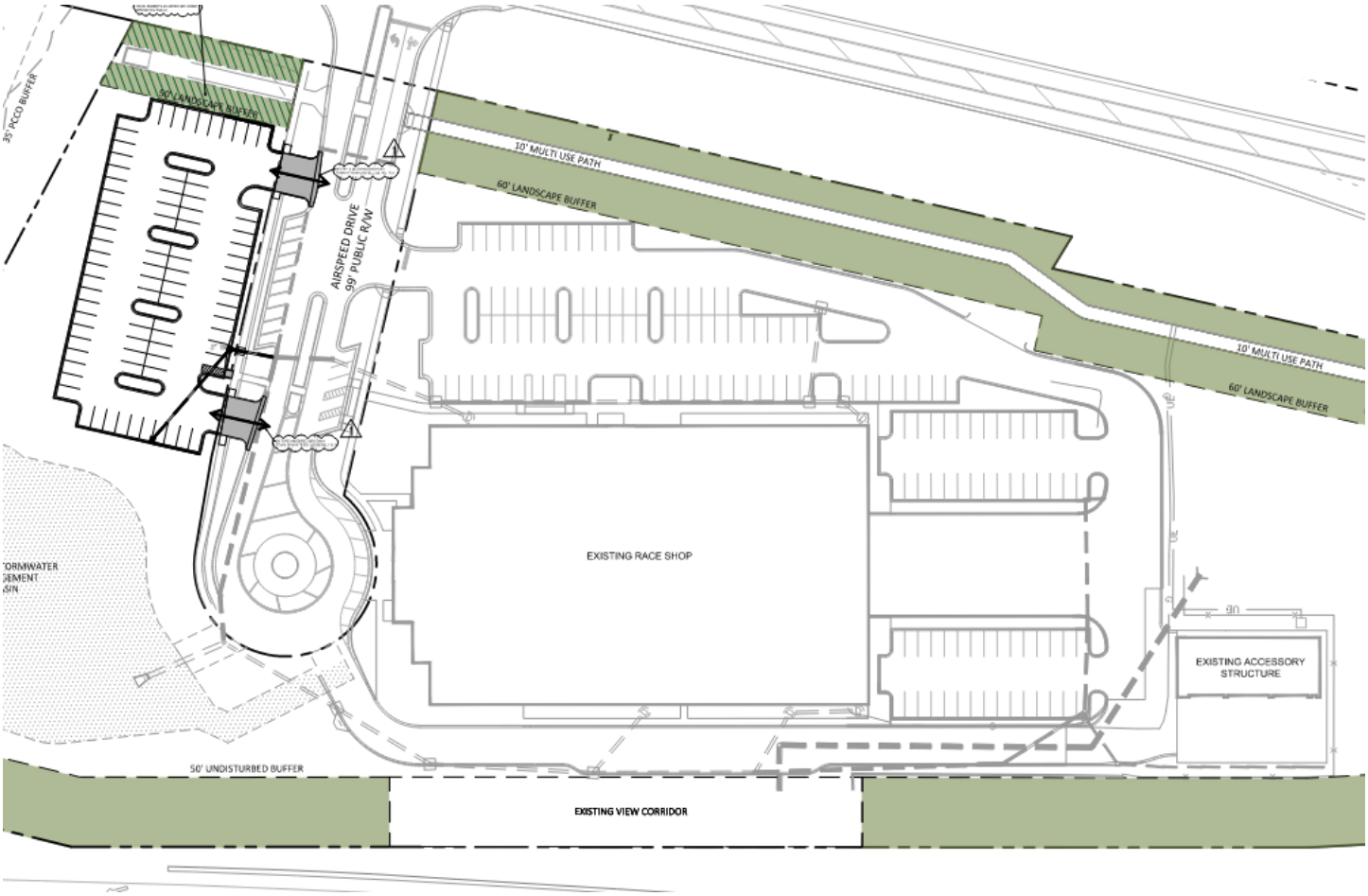
Site Plan Description

- The applicants are proposing to develop an 86-space parking lot where a building was previously proposed.
- Additionally, the 60’ buffer along Statesville Rd is proposed to be reduced to 50’. This is a cleanup as the previously approved plan has a portion of a building located in the buffer area.
- Lastly the building sizes are being revised. The R20-04 had 2 buildings totaling 95,000 Sqft. R26-01 has one primary building of 113,293 Sqft. and an accessory building at 4,407 Sqft. totaling 117,700 Sqft.

Approved Rezoning Plan:



Proposed Rezoning Plan:



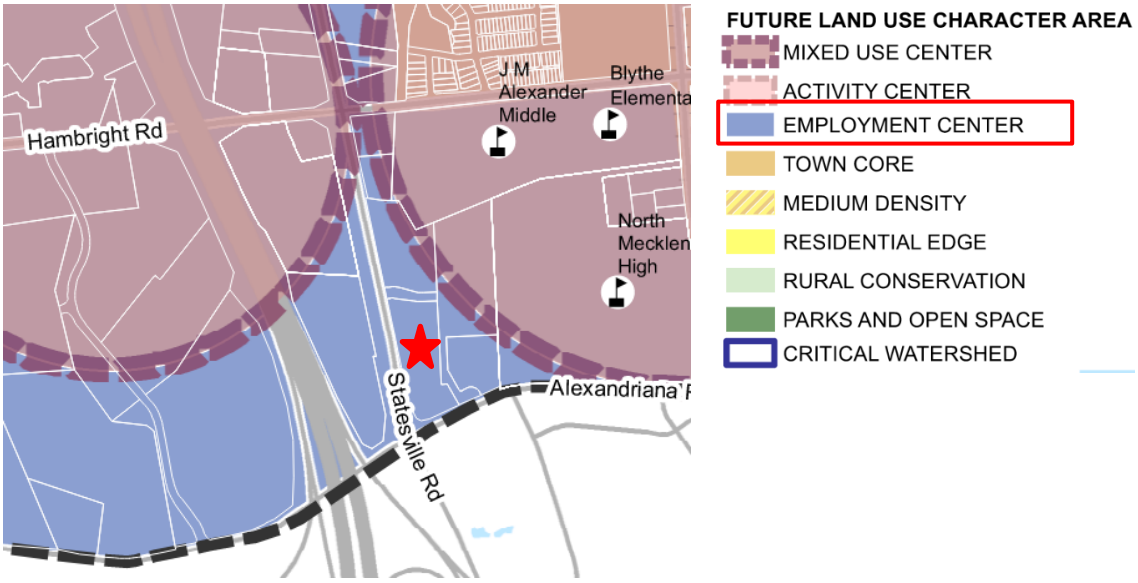
PART 3: TRANSPORTATION ISSUES

No issues, see Town Engineering Summary attachment

PART 4: REZONING CRITERIA

Article 11.4.7(d) of the Zoning Ordinance states that "in considering any petition to reclassify property, the Planning Board in its recommendation and the Town Board in its decision shall take into consideration any identified relevant adopted land-use plans for the area including, but not limited to, comprehensive plans, strategic plans, district plans, area plans, neighborhood plans, corridor plans, and other land-use policy documents".

2040 Huntersville Community Plan – "Employment Center"





Employment Center

Employment centers contain a mix of uses including office, industrial, and institutional. Modern employment campuses and cutting -edge employers are now incorporating some retail and residential to create a live, work, and play environment. These areas offer workspace where innovation can grow while meeting employee lifestyle needs.

STAFF COMMENT – The 2040 Huntersville Community Plan **DOES** SUPPORT this project through the following sections:

- **Policy LU 1.1**: Utilize the Future Land Use Map during development approval process to ensure compatibility with long range plans.
    - STAFF COMMENT: The proposed property is in the Employment Center Character Area of the Huntersville 2040 plan as shown above. The proposed rezoning matches the characteristics of the surrounding properties.

- **Policy LU 5.1:** Allow more intense development only where transportation infrastructure and utilities already exist.
    - STAFF COMMENT: The proposed development is adjacent to the existing I-77/US 21 corridor.

- **Policy EV 1.2**: Focus economic development in areas that support growth.
    - STAFF COMMENT: The proposed development is adjacent to the I-77/US 21 corridor.

Article 11 Section 11.4.7(e) of the Zoning Ordinance states that: "in considering any petition to reclassify property the Planning Board in its recommendation and the Town Board in its decision should consider:

1. **Whether the proposed reclassification is consistent with the overall character of existing development in the immediate vicinity of the subject property.**
   STAFF COMMENT:
   Staff recommends that the reclassification from Corporate Business Conditional District to Corporate Business Conditional District would be consistent with the overall character of adjacent development.

2. **The adequacy of public facilities and services intended to serve the subject property, including but not limited to roadways, transit service, parks and recreational facilities, police and fire protection, hospitals and medical services, schools, stormwater drainage systems, water supplies, and wastewater and refuse disposal.**

   STAFF COMMENT:
   - A Transportation Impact Analysis (TIA) is not required, and engineering staff has determined no improvements are needed.
   - Staff has no other indication that the proposed use will adversely affect the adequacy of public facilities.

3. **Whether the proposed reclassification will adversely affect a known archeological, environmental, historical or cultural resource."**
   STAFF COMMENT:
   Planning staff has no indication that the request will adversely affect known archeological, environmental, or cultural resources.

PART 5: STAFF RECOMMENDATION

The application to reclassify the zoning of the property is consistent with the character area recommendations of the Huntersville 2040 Plan. Therefore, Staff recommends approval of the rezoning with the following conditions:

- 60' buffer be reduced to 50' adjacent to the proposed parking lot and buffer plantings meet the planting schedule as shown.

PART 6: PUBLIC HEARING COMMENTS

A Public Hearing was held on May 4, 2026

PART 7: PLANNING BOARD RECOMMENDATION

The Planning Board was held on May 26, 2026

L. Hallman made a motion to recommend approval of R26-01 2311 Race Shop with conditions, the application is consistent with policies LU 1, LU 5.1, EV 1.2 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to approve the rezoning because this is also consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan. C. Boyd seconded the motion.
Vote: The motion passed unanimously (7-0).

PART 8: TOWN BOARD CONSIDERATION

Town Board consideration is scheduled for June 16, 2026

PART 9: ATTACHMENTS/ENCLOSURES

Attachments

- Rezoning Application
- R26-01 Rezoning Plan
- Community Meeting Report
- Engineering Report

PART 10: CONSISTENCY STATEMENT – R25-17 Glendale Dr Subdivision

Planning Department	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed rezoning application R26-01 23XI Race Shop, staff recommends approval of the application with conditions. With conditions the application is consistent with Policies LU 1.1, LU 5.1, and EV 1.2 of the Huntersville 2040 Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because the proposed rezoning is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan.	APPROVAL: In considering the proposed rezoning application R26-01 23XI Race Shop, the Planning Board recommends approval with conditions, the application is consistent with policies LU 1, LU 5.1, EV 1.2 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to approve the rezoning because this is also consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan.	APPROVAL: In considering the proposed rezoning application R26-01 23XI Race Shop, the Town Board recommends approval based on the Plan being consistent with **(insert applicable plan reference)**. **It is reasonable and in the public interest to approve the Rezoning Plan because… (Explain)**
DENIAL: N/A	DENIAL:	DENIAL: In considering the proposed rezoning application R26-01 23Xi Race Shop, the Town Board recommends denial based on the Plan being **(consistent OR inconsistent) with (insert applicable plan reference).** **It is not reasonable and in the public interest to approve the Rezoning Plan because… (Explain)**

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

☐ Change of Use ☐ Commercial Site Plan ■ Conditional Rezoning ☐ General Rezoning ☐ Master Signage Program ☐ Special Use Permit ☐ Revision to Original Project # _____ ☐ Other _____	SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance ☐ Sketch Plan ☐ Preliminary Plan ☐ Final Plat (Includes Minor Subdivision) ☐ Exempt Subdivision ☐ Final Plat Revision ☐ Farmhouse Cluster

2. Project Data

Date of Application 11/26/2025

Name of Project 23XI Corporate Office and Race Shop Phase # (if subdivision) _____

Project Address 12311 Airspeed Dr., Huntersville, NC, 28078

Parcel Identification Number(s) (PIN) 01704401

Current Zoning District CB (CD) Proposed District (for rezoning only) CB (CD)

Property Size (acres) 14.78 Street Frontage (feet) ~1,350

Current Land Use Corporate Office and Race Shop

Proposed Land Use(s) Corporate Office and Race Shop

Is the project within Huntersville's corporate limits?
Yes X No_____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Provide a detailed summary. (i.e. RTAP identify what you are revising). Additional sheets may be added.

The applicant is seeking to revise the approved site plan to provide clarity on entitlements consistent with as-built conditions at the Site and to allow additional parking on the Site. The Site has been developed with a total of 117,800 SF of development comprised of a race shop, office, and pit training facility. The approved Site plan allows a minimum of 95,000 SF of development and the potential for additional development. Other than additional parking, the applicant is not seeking approval of development beyond what is currently constructed on the Site and is not seeking to alter current transportation improvement commitments.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name 2311 Real Estate Holdings LLC Phone 704.906.0496

☐ Corporation ■ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title Partnership Representative Email rick@prosportmanagement.com

Address of Applicant 12311 Airspeed Dr., Huntersville, NC, 28078

7. Property Owner (if different than applicant)

*Printed Name 2311 Real Estate Holdings LLC Phone 704.906.0496

☐ Corporation ■ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title Partnership Representative Email Rick@prosportmanagement.com

Address of Property Owner 12311 Airspeed Dr., Huntersville, NC, 28078

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

Moore & Van Allen PLLC	John T. Floyd	704.331.3578	johnfloyd@mvalaw.com
Agent Firm	Name of Contact	Phone	Email
Orsborn Engineering Group	Jeff Orsborn	980.227.2355	jorsborn@orsborn-eng.com
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

REZONING NUMBER: R26-01 23 XI REVISION

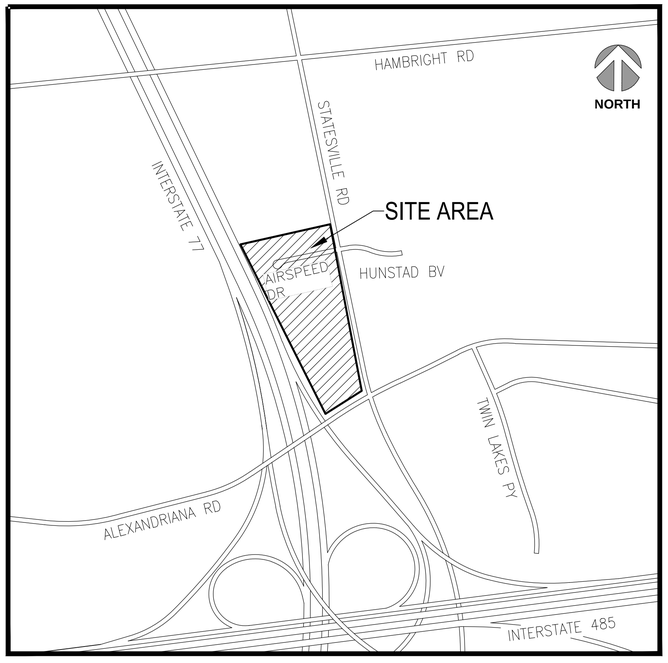
ACCELA NUMBER: CSP- 500120

12311 AIRSPEED DRIVE REZONING PLAN

HUNTERSVILLE, NORTH CAROLINA

MECKLENBURG COUNTY

PROJECT CONTACTS	
OWNER	2311 REAL ESTATE HOLDINGS, LLC. 12311 AIRSPEED DRIVE HUNTERSVILLE, NC 28078 (P) (704) 906-0496
CIVIL ENGINEER & LANDSCAPE ARCHITECT	ORSBORN DESIGN GROUP 605 LEXINGTON AVE, SUITE 301 CHARLOTTE, NC 28203 (P) (704) 749-1432
SURVEYOR	CORNERSTONE PROFESSIONAL LAND SURVEYING P.O. BOX 1296 MONROE, NC 28111 (P) (704) 956-5611



VICINITY MAP

NOT TO SCALE

SHEET INDEX	
Sheet Number	Sheet Title
RZ 0.0	COVER SHEET
RZ 1.0	EXISTING CONDITIONS AND TREE SURVEY
RZ 2.0	REZONING PLAN
C3.1	GRADING AND DRAINAGE PLAN
L1.0	LANDSCAPE PLAN

811

BEFORE YOU DIG!
CALL 811 OR 1-800-632-4949
N.C. ONE-CALL CENTER
IT'S THE LAW!

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY ORSBORN DESIGN GROUP, PA SHALL BE WITHOUT LIABILITY TO ORSBORN DESIGN GROUP, PA.

ORSBORN DESIGN GROUP
605 LEXINGTON AVENUE, SUITE 301
CHARLOTTE, NC 28203
704-749-1432
NCBELS C-3139 NCBLA AUTHORIZED
www.orsborndesign.com

CLIENT INFORMATION:
2311 REAL ESTATE HOLDINGS, LLC.
12311 AIRSPEED DRIVE
HUNTERSVILLE, NC 28078

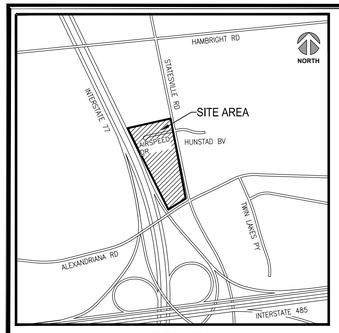
PROJECT INFORMATION:
COVER SHEET
FOR
12311 AIRSPEED DRIVE-
REZONING PLAN
12311 AIRSPEED DRIVE
HUNTERSVILLE, NC 28078

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT No. 1445 LILIAN W. LEE
04/14/26

NO.	DATE	REVISIONS
1	04/09/26	REVISED PER COMMENTS

JOB #	24050
DATE:	11/18/25
SCALE:	NTS
DRAWN BY:	SKU
APPROVED BY:	JCO

RZ 0.0

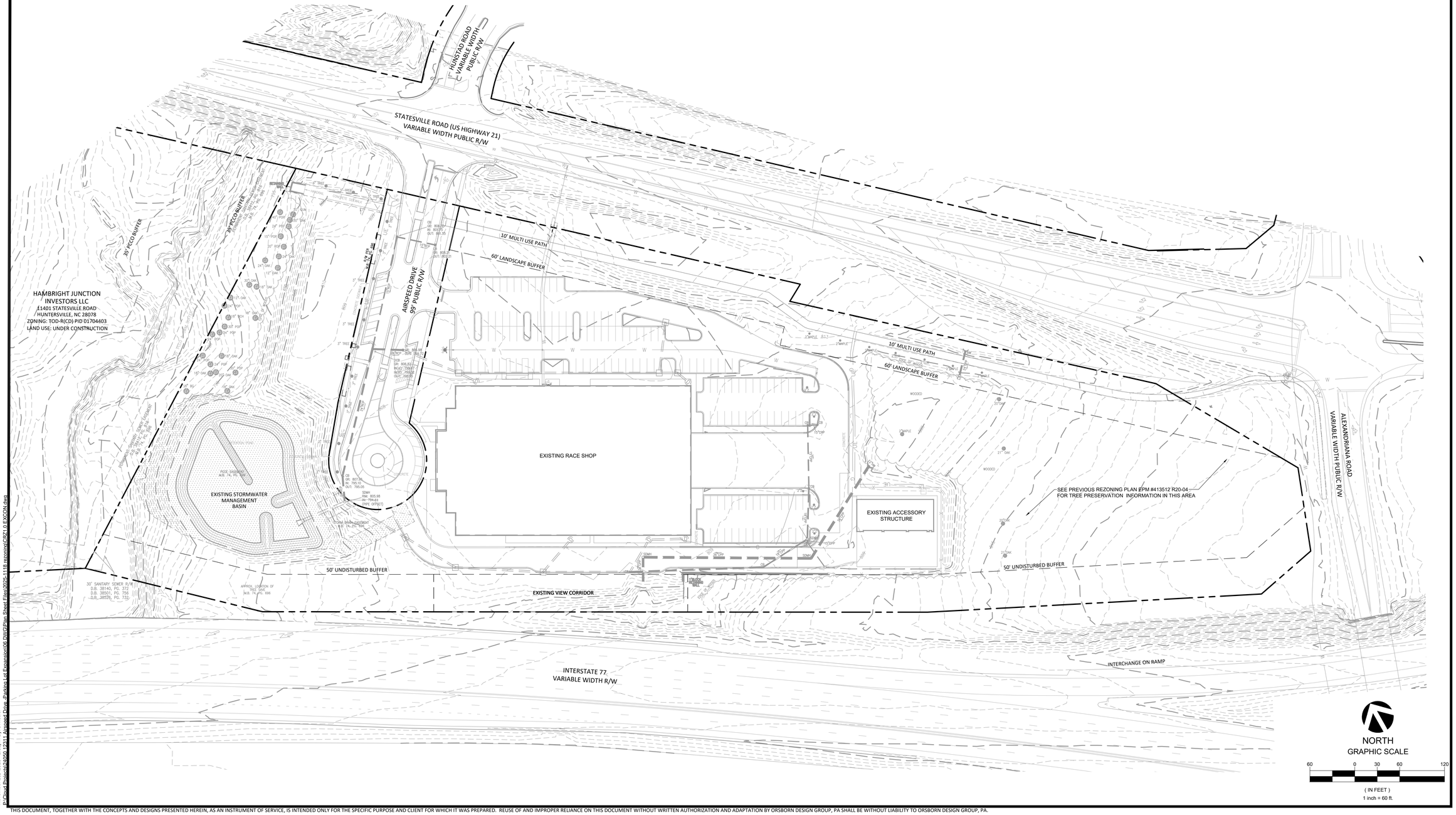


VICINITY MAP
NOT TO SCALE

TREE PRESERVATION SUMMARY			
# OF SPECIMEN TREES REQUIRED TO BE SAVED	SPECIMEN TREES SAVED PER PREVIOUSLY APPROVED PLANS	SPECIMEN TREES TO BE REMOVED PER THIS PLAN	TOTAL # OF SPECIMEN TREES TO BE PRESERVED
26	35	0	35

TREES 12" CALIPER AND GREATER

2	12" OAK
1	15" POPLAR
1	15" BLACK GUM
5	18" OAK
1	18" BEECH
1	20" GUM
1	20" POPLAR
1	20" OAK
6	24" POPLAR
2	24" OAK
2	30" POPLAR
2	30" OAK
1	40" POPLAR



NORTH
GRAPHIC SCALE
60 0 30 60 120
(IN FEET)
1 inch = 60 ft.

ORSBORN DESIGN GROUP
605 LEXINGTON AVENUE, SUITE 301
CHARLOTTE, NC 28203
704-749-1432
NCBELS C-3139 NCBLA AUTHORIZED
www.orsborndesign.com

CLIENT INFORMATION:
2311 REAL ESTATE HOLDINGS, LLC
12311 AIRSPEED DRIVE
HUNTERSVILLE, NC 28078

PROJECT INFORMATION:
EXISTING CONDITIONS
FOR
12311 AIRSPEED DRIVE
12311 AIRSPEED DRIVE
HUNTERSVILLE, NC 28078

PROGRESS DRAWINGS
DO NOT USE FOR
CONSTRUCTION

REVISIONS	DATE

JOB #	24050
DATE:	12/20/2024
SCALE:	1"=60'
DRAWN BY:	
APPROVED BY:	

RZ 1.0

November 20, 2025 - 2:58pm By: JWheeler
P:\Cloud Projects\24050 12311 Airspeed Drive - Parking Lot Expansion\06 PW\PWIP\Sheet Files\2025-1118 rezoning\CRZ1.0 EXICON.dwg

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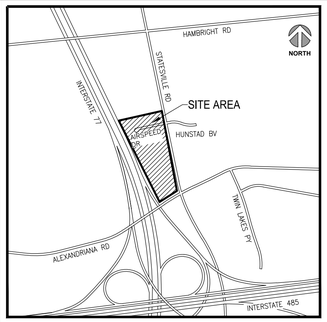
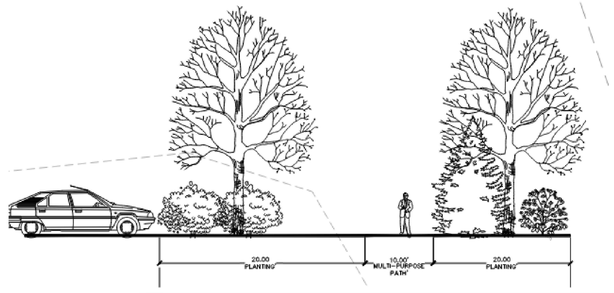
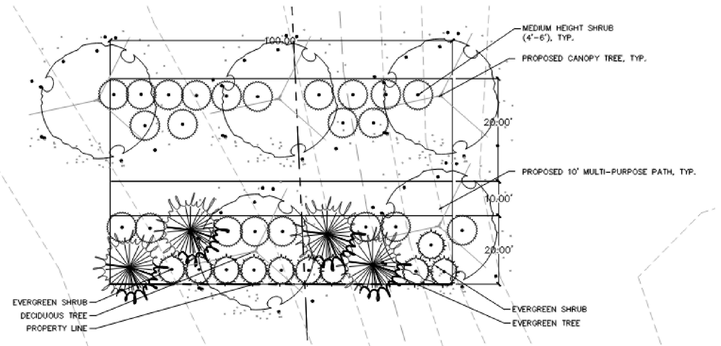


VICINITY MAP
NOT TO SCALE



50' LANDSCAPE BUFFER - SECTION SCALE: 1" = 10'



50' LANDSCAPE BUFFER - PLAN SCALE: 1" = 20'

ZONING CODE SUMMARY

PROJECT NAME: 12311 AIRSPEED DRIVE - PARKING LOT EXPANSION

PROJECT ADDRESS: 12311 AIRSPEED DRIVE TAX PARCEL: 07104401

OWNER : 2311 REAL ESTATE HOLDINGS, LLC PHONE # -

OWNER ADDRESS: 12311 AIRSPEED DRIVE, HUNTERSVILLE, NC 28078

PLANS PREPARED BY: ORSBORN DESIGN GROUP PHONE # (704)-749-1432

ZONING: CB (CD) - REZONING/SKETCH PLAN EPM #413512 R20-04 JURISDICTION: TOWN OF HUNTERSVILLE

PROPOSED USE: PARKING LOT EXPANSION TO RACE SHOP

LOT AND BUILDING TYPE (ARTICLE 4): HIGHWAY COMMERCIAL

LOT SIZE: 14.78 ACRES NUMBER OF BUILDINGS: 2 EXISTING

PROPOSED BUILDING AREA: -

PROPOSED BUILDING HEIGHT: -

YARD REQUIREMENTS:

SETBACK (FRONT): - FT. FROM R/W

SETBACK (SIDE): - FT.

SIDE YARD: - FT.

REAR YARD: - FT.

REQUIRED BUFFERS:

FRONT: NO (YES) 60 FT.

REAR: NO (YES) 50 FT.

SIDE (L): (NO) / YES FT.

SIDE (R): (NO) / YES FT.

REQUIRED SCREENING:

FRONT NO (YES) 60' LANDSCAPE BUFFER

REAR NO (YES) 50' UNDISTURBED BUFFER

SIDE (L) (NO) / YES

SIDE (R) (NO) / YES

PARKING NO (YES)

WATERSHED: LONG CREEK

SITE DEVELOPMENT TABLE	
TOTAL AREA (AC):	14.78
PROPOSED DISTURBED AREA (AC):	< 1 AC
RIVER BASIN:	CATAWBA
PRINCIPAL USE:	PARKING FOR RACE SHOP
BUILDING TYPE (ARTICLE 4):	HIGHWAY COMMERCIAL
ZONING DISTRICT:	CB (CD) - REZONING/SKETCH PLAN EPM #413512 R20-04
EXISTING USE:	RACE SHOP
PERCENTAGE OF IMPERVIOUS ALLOWED:	83.5% (PER PREVIOUSLY APPROVED PLAN)
PERCENTAGE OF IMPERVIOUS SHOWN:	33.62%
IS THE PROPERTY IN A REGULATED WATERSHED DISTRICT:	NO
WATERSHED DISTRICT:	LONG CREEK
MODIFICATIONS FROM PREVIOUSLY APPROVED PLAN:	MODIFICATION FROM REZONING/SKETCH PLAN EPM #413512 R20-04 REMOVE BUILDING B. PROVIDE PARKING AND 50' LANDSCAPE BUFFER ALONG STATESVILLE ROAD R/W AS SHOWN ON PLANS.

1

BUILT-UPON AREA SUMMARY:

EXISTING BUA PER PREVIOUSLY APPROVED PLAN: 182,516 SF (28.4% OF LOT AREA)

FUTURE BUA PER PREVIOUSLY APPROVED PLAN: 354,578 SF (55.1% OF LOT AREA)

TOTAL APPROVED BUA PER PREVIOUSLY APPROVED PLAN: 537,094 SF (83.5% OF LOT AREA)

MAXIMUM ALLOWABLE BUA PER WATERSHED: 450,709 SF (70% OF LOT AREA)

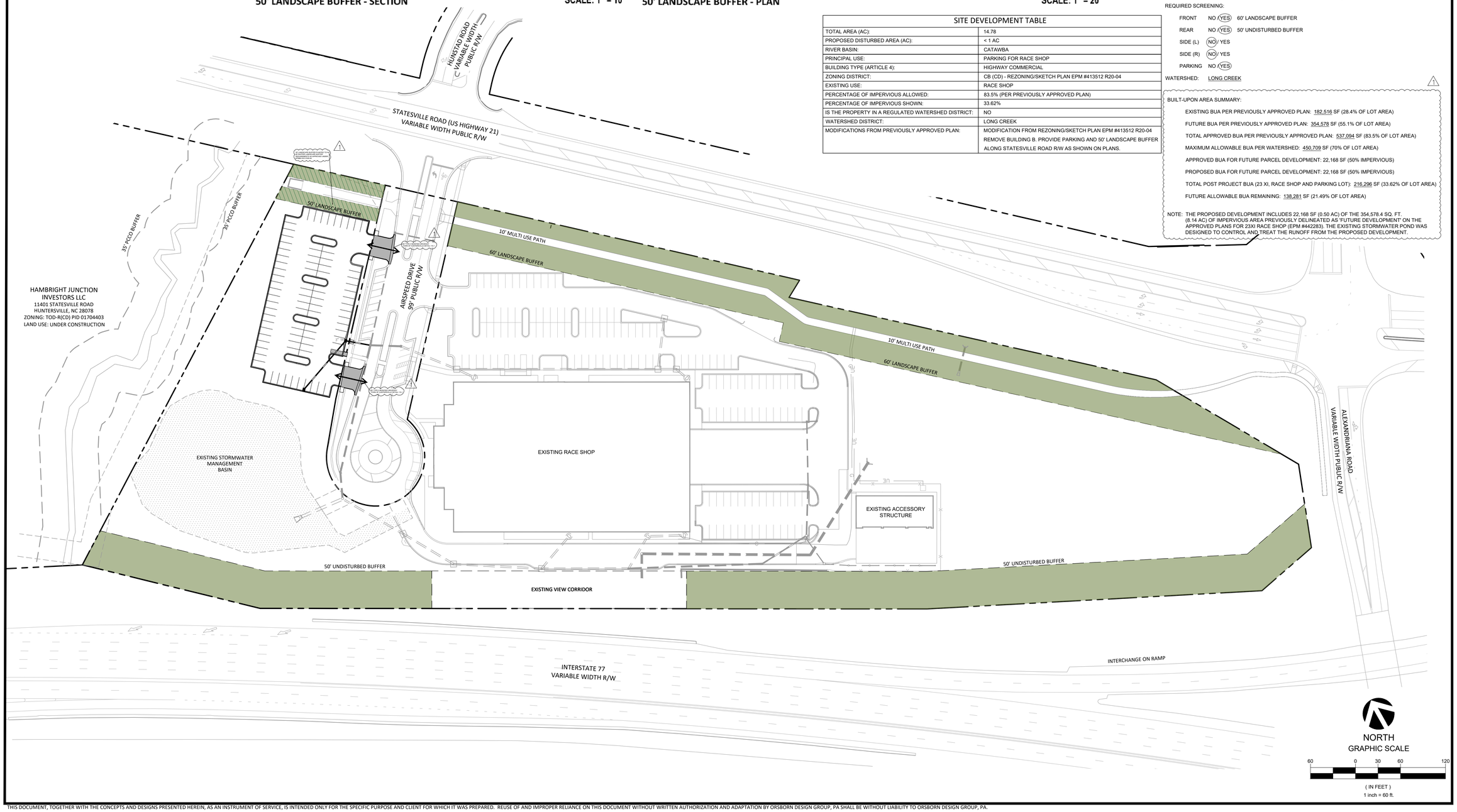
APPROVED BUA FOR FUTURE PARCEL DEVELOPMENT: 22,168 SF (50% IMPERVIOUS)

PROPOSED BUA FOR FUTURE PARCEL DEVELOPMENT: 22,168 SF (50% IMPERVIOUS)

TOTAL POST PROJECT BUA (23 XI, RACE SHOP AND PARKING LOT): 216,296 SF (33.62% OF LOT AREA)

FUTURE ALLOWABLE BUA REMAINING: 138,281 SF (21.49% OF LOT AREA)

NOTE: THE PROPOSED DEVELOPMENT INCLUDES 22,168 SF (0.50 AC) OF THE 354,578.4 SQ. FT. (8.14 AC) OF IMPERVIOUS AREA PREVIOUSLY DELINEATED AS 'FUTURE DEVELOPMENT' ON THE APPROVED PLANS FOR 23XI RACE SHOP (EPM #442283). THE EXISTING STORMWATER POND WAS DESIGNED TO CONTROL AND TREAT THE RUNOFF FROM THE PROPOSED DEVELOPMENT.



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HUNTERSVILLE, NC 28078

NORTH CAROLINA
REGISTERED LANDSCAPE ARCHITECT
LILLIAN W. LESSLEY
No. 1445
04/14/26

NO.	DATE	REVISIONS
1	04/09/26	REVISED PER COMMENTS

JOB #	24050
DATE:	12/20/2024
SCALE:	1"=60'
DRAWN BY:	
APPROVED BY:	

RZ 2.0

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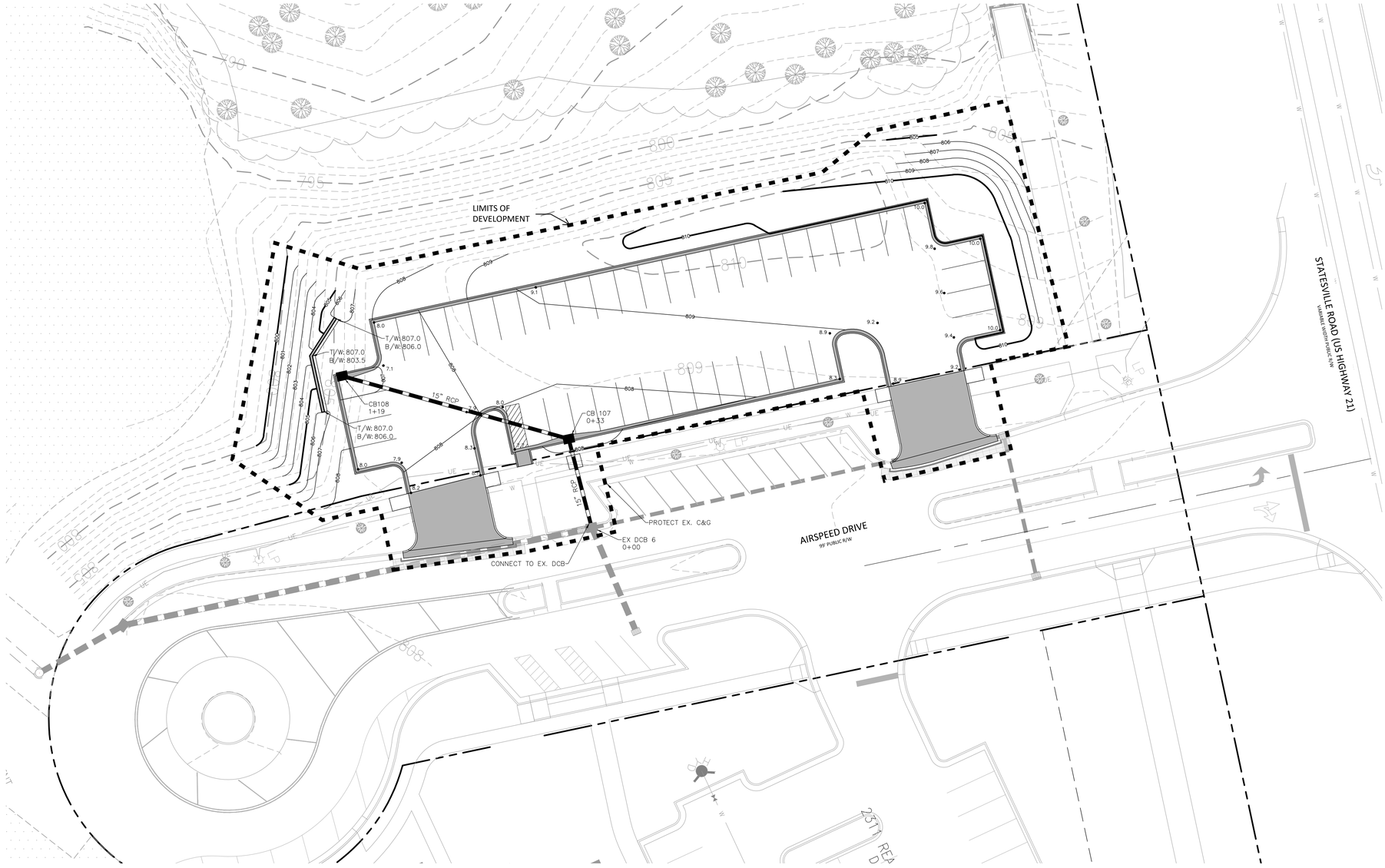

GRADING & DRAINAGE NOTES

1. ALL ELEVATIONS ARE IN REFERENCE TO THE BENCHMARK INDICATED ON THE SITE SURVEY. CONTRACTOR SHALL VERIFY BENCHMARK PRIOR TO BEGINNING CONSTRUCTION.
2. CONTRACTOR SHALL REPORT ANY GRADE DISCREPANCIES TO THE ENGINEER AND OWNER IMMEDIATELY.
3. CONTOURS AND ELEVATIONS SHOWN ON THESE DRAWINGS REPRESENT FINISHED GRADE. CONTRACTOR SHALL ALLOW FOR PAVEMENT THICKNESS, TOPSOIL THICKNESS, SOD THICKNESS, FLOOR SLABS, ETC. WHEN GRADING TO SUBGRADE.
4. DURING CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE PROPER SOIL AND EROSION CONTROL MEASURES FOR THE PROTECTION OF ALL ADJACENT LANDS AND ROADS. CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENT CONTROL DURING THE CONSTRUCTION PHASE PER NCDEQ REQUIREMENTS AND THESE PLANS.
5. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY AND ALL SOILS REPORTS PREPARED FOR THE SITE. CONTRACTOR SHALL PERFORM ALL EARTHWORK OPERATIONS INCLUDING SUBSURFACE REMEDIATION, SUBGRADE PREPARATION, GRADING, FILL PLACEMENT, COMPACTION, ETC. PER RECOMMENDATIONS OF THE SOILS REPORT. IF A CONFLICT EXISTS BETWEEN THE SOILS REPORT AND THESE PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL SUBMIT A REQUEST FOR CLARIFICATION TO THE ENGINEER AND OWNER FOR REVIEW.
6. THE OWNER WILL ENGAGE A QUALIFIED GEOTECHNICAL ENGINEER TO PERFORM SOIL TESTING AND INSPECTIONS DURING CONSTRUCTION. THE TESTING FIRM WILL BE RESPONSIBLE FOR SUBGRADE INSPECTION, SOIL MATERIAL CLASSIFICATION, IN-PLACE DENSITY TESTING, BACKFILL OBSERVATION, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING WITH THE TESTING FIRM.
7. SUBGRADES SHALL BE TESTED PRIOR TO PLACING BACKFILL. SOFT SPOTS OR AREAS WITH EXCESSIVE PUMPING OR RUTTING SHALL BE UNDERCUT OR OTHERWISE ADDRESSED AS DIRECTED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACING FILL.
8. ALL MATERIAL USED FOR BACKFILL SHALL MEET THE REQUIREMENTS OF THE SPECIFICATIONS. REQUIRED IMPORTED FILL MATERIAL MUST BE OBTAINED FROM OFF-SITE, TESTED & APPROVED FOR IMPORT BY THE GEOTECHNICAL ENGINEER.
9. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR SPECIFICATIONS OR SUGGESTED IN THE SOILS REPORT, CONTRACTOR SHALL PERFORM ALL EARTHWORK OPERATIONS IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS, DIVISION 2. ALL EARTHWORK OPERATIONS UNDER BUILDING PADS SHALL BE PERFORMED IN ACCORDANCE WITH THE NORTH CAROLINA BUILDING CODE, SECTION 1804.
10. PLACE FILL MATERIALS ON SUBGRADES FREE OR MUD, FROST, SNOW, OR ICE IN LAYERS NOT MORE THAN 8" THICK FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND NOT MORE THAN 4" THICK FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. PLACE FILL EVENLY IN UNIFORM LIFTS.
11. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR SPECIFICATIONS OR SUGGESTED IN THE SOILS REPORT, FILL IN LAWN, LANDSCAPE, AND GRAVEL AREAS SHALL BE COMPACTED TO AT LEAST 95% STD. PROCTOR. FILL IN PAVEMENT AND BUILDING AREAS SHALL BE COMPACTED TO AT LEAST 98% STD. PROCTOR.
12. UNLESS OTHERWISE SPECIFIED IN THESE PLANS OR SPECIFICATIONS OR SUGGESTED IN THE SOILS REPORT, FILL IN THE UPPER 24" IN PAVEMENT AND BUILDING AREAS SHALL BE COMPACTED TO 100% STD. PROCTOR. CONTRACTOR SHALL ENSURE THIS EXTRA COMPACTIVE EFFORT DOES NOT DAMAGE SUBSURFACE PIPE AND STRUCTURES.
13. FILL IN THE UPPER 24" IN LAWN AND LANDSCAPE AREAS, NOT INCLUDING SLOPES, SHALL BE COMPACTED TO 85% -92% STD. PROCTOR.
14. PIPE BACKFILL SHALL BE COMPACTED TO 95% STD. PROCTOR AND SHALL MEET MANUFACTURER RECOMMENDED MAXIMUM FILL HEIGHT REQUIREMENTS.
15. SOIL MATERIAL SHALL BE WITHIN 3 PERCENT OF OPTIMUM MOISTURE CONTENT AT TIME OF COMPACTION UNLESS OTHERWISE DIRECTED BY THE GEOTECHNICAL ENGINEER.
16. CUT AND FILL SLOPES SHALL BE NO STEEPER THAN 2.5 HORIZONTAL TO 1 VERTICAL, UNLESS OTHERWISE SPECIFIED OR APPROVED BY GEOTECHNICAL ENGINEER.
17. BENCH SLOPED AREAS STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL SO FILL MATERIAL WILL BOND WITH EXISTING MATERIAL.
18. CONTRACTOR SHALL BLEND NEW EARTHWORK TO PROVIDE A SMOOTH TRANSITION TO EXISTING GRADE.
19. PORTIONS OF THIS PROJECT MAY REQUIRE SLOPES ACROSS PAVED AREAS AND LAWNS LESS THAN 2% CONTRACTOR SHALL TAKE CARE IN THESE AREAS TO PROVIDE POSITIVE DRAINAGE TO ENSURE RUNOFF SHEETS ACROSS NEW PAVEMENT OR LAWN AREAS TO PROPOSED OR EXISTING STORM INLETS.
20. ALL STORM DRAINAGE PIPE (RCP, HDPE, ETC.) SHALL CONFORM TO NCDOT STD. SPEC. SECTION 1032. PIPE SHALL BE INSTALLED PER NCDOT STD. SPEC. SECTION 300.
21. PIPE LENGTHS ARE MEASURED FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
22. PRIOR TO COMMENCING STORM SEWER INSTALLATION, CONTRACTOR SHALL VERIFY SIZE OF EACH EXISTING STORM STRUCTURE REQUIRED TO BE MODIFIED TO ACCEPT A NEW PIPE. STRUCTURES NOT ADEQUATELY SIZED FOR NEW PIPE SHALL BE REPLACED OR MODIFIED, REUSING PORTIONS OF THE EXISTING STRUCTURE WHEREVER POSSIBLE.
23. CONTRACTOR SHALL PROVIDE STORM DRAINAGE AS-BUILT DRAWINGS (CAD & PDF) PREPARED AND SEALED BY A NORTH CAROLINA PROFESSIONAL LAND SURVEYOR. AS-BUILT DATA SHALL INCLUDE STRUCTURE RIM ELEVATIONS AND HORIZONTAL PIPE LENGTHS, BEARINGS, INVERTS, SLOPES, PIPE SIZES, AND PIPE MATERIALS, AT A MINIMUM.
24. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL NEWLY CONSTRUCTED STORM DRAINAGE IMPROVEMENTS AND RECEIVING STORM DRAINAGE SYSTEMS ARE CLEAN OF SEDIMENT ACCUMULATION AND DEBRIS. FLUSH SYSTEMS AS NECESSARY PRIOR TO OWNER ACCEPTANCE.
25. IF REQUIRED BY THE LOCAL JURISDICTION, CONTRACTOR SHALL PROVIDE THE OWNER WITH A VIDEO INSPECTION OF THE STORM SEWER SYSTEM. THIS VIDEO MAY NEED TO BE REVIEWED AND ACCEPTED BY THE LOCAL JURISDICTION PRIOR TO ISSUANCE OF A FINAL BUILDING CERTIFICATE OF OCCUPANCY.
26. ORSBORN DESIGN GROUP HAS NOT REVIEWED THE STRUCTURAL STABILITY OF ANY EXISTING RETAINING WALLS NOTED TO REMAIN.
27. ALL DISTURBED AREAS BEYOND THE LIMITS OF PAVEMENT AND BUILDING NOT IMPROVED WITH LANDSCAPE BEDS PER THE LANDSCAPE PLANS SHALL BE IMPROVED WITH A NEW LAWN SEEDED OR SODDED AS DIRECTED BY OWNER. CONTRACTOR SHALL MAINTAIN NEW SEEDED LAWN AREAS UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF ALL LANDSCAPE BUFFERS, RETENTION AND DETENTION FACILITIES, EASEMENTS, ETC. UNTIL THE WORK HAS BEEN ACCEPTED BY THE OWNER. ALL DISRUPTED AREAS OUTSIDE THE LIMITS OF WORK SHALL BE RETURNED TO THEIR ORIGINAL CONDITION.

LEGEND

- STRUCTURE IDENTIFICATION TAG
- PROPOSED CATCH BASIN
- PROPOSED DROP INLET
- PROPOSED MANHOLE
- PROPOSED YARD INLETS
- PROPOSED CLEANOUT
- PROPOSED HEADWALL
- PROPOSED FLARED END SECTION
- PROPOSED SWALE/DITCH
- PROPOSED STORM PIPE
- PROPOSED ROOF DRAIN PIPE
- EXISTING STORM PIPE
- PROPOSED CONTOURS
- EXISTING CONTOURS

STORM LEGEND

STRUCTURE TAG	STRUCTURE TYPE	DETAIL REFERENCE	
		STRUCTURE	FRAME & GRATE
CB	CATCH BASIN	NCDOT 840.02	NCDOT 840.03
DI	DROP INLET	NCDOT 840.14	NCDOT 840.16
MH	MANHOLE	NCDOT 840.52	NCDOT 840.54
ID	INLINE DRAIN	SEE DETAIL 2/C3.2	
FD	FLOOR DRAIN		ZURN Z1727 OR SIMILAR
RCP	CLASS III REINFORCED CONCRETE PIPE		
RCP IV	CLASS IV REINFORCED CONCRETE PIPE		
RCP V	CLASS V REINFORCED CONCRETE PIPE		
HDPE	HIGH DENSITY POLYETHYLENE PIPE		

PRECAST STRUCTURE NOTES

1. ALL STORM DRAINAGE STRUCTURES SHALL BE PRECAST CONCRETE CONFORMING TO NCDOT STANDARDS AND SPECIFICATIONS. PROVIDE BUTYL MASTIC JOINTS (ASTM C990).
2. STRUCTURAL DESIGN OF ALL PRECAST STRUCTURES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR STANDARD PRECAST CONCRETE STRUCTURES SHOWING COMPLIANCE WITH NCDOT STANDARD DETAILS. CONTRACTOR SHALL SUBMIT ENGINEER SEALED SHOP DRAWINGS FOR EACH NON-STANDARD STRUCTURE (I.E. STRUCTURES WITH DIMENSIONS THAT DO NOT CONFORM TO THE NCDOT STANDARD DETAILS).
3. SHOP FABRICATION DRAWINGS FOR EACH STANDARD STRUCTURE ARE NOT REVIEWED BY OEG. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY ALL DIMENSIONS AND INVERTS WITH THE MOST CURRENT SET OF DESIGN PLANS.
4. DROP INLETS IN TRAFFIC AREAS SHALL UTILIZE TRAFFIC BEARING GRATES IN LIEU OF NCDOT 840.16. PROVIDE EAST JORDAN IRONWORKS V-5660 OR SIMILAR.
5. CONTRACTOR SHALL USE TRAFFIC BEARING PRECAST DRAINAGE STRUCTURES COMPLYING WITH NCDOT 840.46 FOR ALL STRUCTURES LOCATED WITHIN PAVED AREAS. CONTRACTOR SHALL USE PRECAST DRAINAGE STRUCTURES COMPLYING WITH 840.45 FOR ALL STRUCTURES LOCATED OUTSIDE OF PAVED AREAS.
6. UNDER NO CIRCUMSTANCES SHALL A PRECAST STRUCTURE BE CUT OR ALTERED WITHOUT A PROFESSIONAL ENGINEER'S CERTIFICATION OF ADEQUATE LOAD BEARING STRENGTH FOLLOWING THE ALTERATION OF THE STRUCTURE, EXCEPT WHERE KNOCK-OUT PANELS ARE PROVIDED.
7. DRAINAGE STRUCTURES GREATER THAN 3'-6" DEEP SHALL BE REQUIRED TO HAVE STEPS PLACED AT 1'-2" ON CENTER. REFER TO NCDOT 840.66.

EROSION CONTROL NOTES

PROJECT DISTURBS LESS THAN 1 ACRE AND THEREFORE DOES NOT REQUIRE A LAND DISTURBING PERMIT. CONTRACTOR SHALL CONTROL SEDIMENT RUNOFF WITH SILT FENCE OR OTHER APPLICABLE DEVICES SO AS TO PREVENT SEDIMENT FROM LEAVING PROJECT AREA. REFER TO SHEET C3.3 FOR EROSION CONTROL DETAILS.

1. CONTRACTOR SHALL ENSURE THAT AT ALL TIMES THE REQUIREMENTS OF THE NPDES CONSTRUCTION STORMWATER GENERAL PERMIT NCG010000 AND THESE PLANS ARE BEING MET. ANY LAND DISTURBING ACTIVITY > 1 ACRE REQUIRES COMPLIANCE WITH ALL CONDITIONS OF THIS GENERAL PERMIT. ANY NONCOMPLIANCE IS A VIOLATION OF THE CLEAN WATER ACT AND MAY REQUIRE ENFORCEMENT BY NCDEQ.
2. A RAIN GAUGE, SELF-INSPECTIONS RECORDS, GRADING PERMIT, CERTIFICATE OF COVERAGE, AND THE APPROVED EROSION AND SEDIMENT CONTROL PLANS ARE REQUIRED TO BE MAINTAINED ON SITE AT ALL TIMES AND SHALL BE ACCESSIBLE TO THE INSPECTOR DURING SITE VISITS. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE PROJECT ENTRANCE.
3. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED DAILY BY THE CONTRACTOR UNTIL DIRECTED OTHERWISE BY THE INSPECTOR. WRITTEN RECORDS OF INSPECTIONS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT. SUBMIT SELF-INSPECTION DOCUMENTATION THROUGHOUT THE PROJECT AS REQUIRED BY THE NPDES CONSTRUCTION STORMWATER GENERAL PERMIT.
4. NO DISTURBANCE BEYOND THE DENUDED LIMITS SHOWN ON THESE PLAN SHALL BE PERMITTED.
5. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED IN THE BEST LOCATION BASED ON FIELD CONDITIONS.
6. THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS ARE THE MINIMUM REQUIREMENTS FOR THE ANTICIPATED SITE CONDITIONS. DURING CONSTRUCTION, CONTRACTOR SHALL INSTALL ADDITIONAL EROSION CONTROL MEASURES AS NEEDED TO ACCOUNT FOR CHANGING SITE CONDITIONS. ADDITIONAL MEASURES TO CONTROL EROSION MAY BE REQUIRED BY THE INSPECTOR.
7. INSTALL ADEQUATE EROSION CONTROL MEASURES AND/OR INCREASE FREQUENCY WHERE APPROVED MEASURES FAIL TO PREVENT EROSION, OFFSITE SEDIMENTATION, OR CAUSE REPETITIVE NON-COMPLIANCE ISSUES.
8. ALL ROADS SURROUNDING THE PROJECT SHALL BE KEPT CLEAN AT ALL TIMES. INSTALL TEMPORARY GRAVEL CONSTRUCTION ENTRANCE/EXIT TO PROTECT PAVED ROADS FROM TRACKED MUD AND SILT. WASH TIRES OF CONSTRUCTION VEHICLES IF NECESSARY TO MINIMIZE TRACKING OF MUD AND SOIL ONTO ROADS.
9. PROVIDE DUST CONTROL AS NECESSARY TO PREVENT ANNOYANCE AND/OR DAMAGE TO ADJACENT SITES. DUST CONTROL MEASURES MAY INCLUDE BUT ARE NOT LIMITED TO WETTING DOWN THE SITE AND INSTALLING TEMPORARY GROUNDCOVER ON AREAS THAT ARE NOT ACTIVE. DO NOT USE CALCIUM CHLORIDE OR ANY OTHER CHEMICALS ON AREAS TO BE SEEDED OR PLANTED.
10. TEMPORARY SLOPES SHALL BE GRADED NO STEEPER THAN 2:1 WITHOUT DETAILED METHODS OF STABILIZATION. SOILS ENGINEER TO VERIFY STABILITY OF SLOPES STEEPER THAN 2:1.
11. RUNOFF SHOULD NOT BE ALLOWED TO FLOW OVER THE TOP OF SLOPES. MAINTAIN DIVERSION DITCHES ALONG THE TOP OF FILL SLOPES AS FILL IS BEING PLACED.
12. SOIL STABILIZATION SHALL BE REQUIRED ON ANY AREA OF A SITE WHERE LAND-DISTURBING ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED ACCORDING TO THE FOLLOWING SCHEDULE:
    - 12.1. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
    - 12.2. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND-DISTURBING ACTIVITY.
13. ALL EROSION CONTROL DEVICES SHALL BE MAINTAINED AND REPAIRED AS NEEDED TO ENSURE CONTINUED PERFORMANCE OF THEIR INTENDED FUNCTION.
14. SILT FENCE, INLET PROTECTION, SEDIMENT BASINS, AND SIMILAR MEASURES SHALL BE CLEANED OUT WHEN THEY ARE HALF FULL. STONE FILTERS MUST BE REFRESHED OR REPLACED WHEN CLOGGED. TORN SILT FENCE MUST BE REPAIRED IMMEDIATELY.
15. ALL STORM DRAINAGE SYSTEMS SHALL BE FLUSHED TO REMOVE SEDIMENT PRIOR TO FINAL ACCEPTANCE. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT LADEN WATER INTO THE DOWNSTREAM SYSTEM.
16. BORROW AND/OR WASTE AREAS NOTE: IF THE SAME PERSON CONDUCTS THE LAND-DISTURBING ACTIVITY & ANY RELATED BORROW OR WASTE ACTIVITY, THE RELATED BORROW OR WASTE ACTIVITY SHALL CONSTITUTE PART OF THE LAND-DISTURBING ACTIVITY UNLESS THE BORROW OR WASTE ACTIVITY IS REGULATED UNDER THE MINING ACT OF 1971, OR IS A LANDFILL REGULATED BY THE DIVISION OF WASTE MANAGEMENT. IF THE LAND-DISTURBING ACTIVITY AND ANY RELATED BORROW OR WASTE ACTIVITY ARE NOT CONDUCTED BY THE SAME PERSON, THEY SHALL BE CONSIDERED SEPARATE LAND-DISTURBING ACTIVITIES AND MUST BE PERMITTED EITHER THROUGH THE SEDIMENTATION POLLUTION CONTROL ACT AS A ONE-USE BORROW SITE OR THROUGH THE MINING ACT.
17. TOTAL DISTURBED AREA = LESS THAN 1 ACRE.

NORTH

GRAPHIC SCALE

20 0 10 20 40

(IN FEET)

1 inch = 20 ft.

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CLIENT INFORMATION:

CHOATE CONSTRUCTION COMPANY
2907 PROVIDENCE ROAD, SUITE 400
CHARLOTTE NC, 28211

PROJECT INFORMATION:

GRADING & DRAINAGE
FOR
12311 AIRSPEED DRIVE-
PARKING LOT EXPANSION
12311 AIRSPEED DRIVE
HUNTERSVILLE, NC 28078

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL No. 1445 WILLIAM W. LESLIE 04/14/26

REVISIONS	DATE

JOB #	24050
DATE:	12/20/2024
SCALE:	1" = 20'
DRAWN BY:	SKU
APPROVED BY:	JCO

C3.1

December 19, 2024 - 8:01am By: surlette
P:\Cloud Projects\24050 12311 Airspeed Drive -Parking Lot Expansion\06 DWG\Plan Sheet Files\C3.0 GRADING & DRAINAGE.dwg

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TOWN OF HUNTERSVILLE STANDARD PLANTING NOTES

1. INSTALLATION GUARANTEE REQUIRED: A FINAL CERTIFICATION OF OCCUPANCY MAY BE ISSUED PRIOR TO THE INSTALLATION OF TREES AND SHRUBS, EXCLUDING YARD TREES DURING THE NON-PLANTING SEASON IF A CASH BOND, SURETY BOND OR LETTER OF CREDIT IS ISSUED FOR 120% OF THE COST OF MATERIALS AND INSTALLATION. PLANTING SHALL BE COMPLETED DURING THE NEXT PLANTING SEASON.
2. THE PLANTING SEASON SHALL RUN FROM OCTOBER 15 TO MARCH 15, EXCEPT FOR EXTREME WEATHER CONDITIONS AS DETERMINED BY STAFF. A FINAL CERTIFICATE OF OCCUPANCY SHALL NOT BE GIVEN DURING THE PLANTING SEASON UNLESS ALL OF THE LANDSCAPING IS COMPLETELY INSTALLED ACCORDING TO THIS ARTICLE.
3. MAINTENANCE SURETY REQUIRED: DEVELOPERS SHALL ENTER INTO A MAINTENANCE SURETY AGREEMENT WITH MECKLENBURG COUNTY GUARANTEEING THE VIABILITY OF STREET TREES AND TREES AND SHRUBS PLANTED IN BUFFER YARDS FOR A PERIOD OF 1 YEAR FOLLOWING PLANTING. THE AMOUNT OF THE SURETY SHALL BE EQUAL TO 50% OF THE VALUE OF THE NEW TREES OR LANDSCAPING MATERIAL AND THEIR INSTALLATION. THE MAINTENANCE SURETY SHALL BE PROVIDED WHEN ALL OF THE REQUIRED TREES AND SHRUBS HAVE BEEN PLANTED.

50' LANDSCAPE BUFFER CALCULATION:

50' LANDSCAPE BUFFER REQUIRED PER 100 LF:
- (5) CANOPY TREES PER 100 LF
- (4) EVERGREEN TREES PER 100 LF
- (32) EVERGREEN SHRUBS PER 100 LF

LENGTH OF R/W ALONG OLD STATESVILLE ROAD: 126 LF R/W

50' LANDSCAPE BUFFER REQUIRED FOR 126 LF R/W ALONG OLD STATESVILLE ROAD:
- CANOPY TREES: 126 LF/1 TREE PER 20 LF = 6 CANOPY TREES
- EVERGREEN TREES: 126 LF/1 TREE PER 25 LF = 5 EVERGREEN TREES
- EVERGREEN SHRUBS: 126 LF/ 1 SHRUB PER 3 LF = 40 EVERGREEN SHRUBS

50' LANDSCAPE BUFFER PROVIDED:
OR 126 LF R/W ALONG OLD STATESVILLE ROAD:
- CANOPY TREES: 126 LF/1 TREE PER 20 LF = 6 CANOPY TREES
- EVERGREEN TREES: 126 LF/1 TREE PER 25 LF = 5 EVERGREEN TREES
- EVERGREEN SHRUBS: 126 LF/ 1 SHRUB PER 3 LF = 42 EVERGREEN SHRUBS

PLANTING SUMMARY

NOTE: PLANTING PLAN INCLUDES CODE COMPLIANT LANDSCAPING FOR THE AREA WITHIN THE LIMITS OF DISTURBANCE ONLY.

PARKING SCREENING: PARKING AREAS ARE REQUIRED TO BE SCREENED BY A CONTINUOUS ROW OF EVERGREEN SHRUBS SPACE AT 4' O.C. MAX.

PLAN PROVIDES SHRUBS SPACED AT 3.5' O.C PROVIDED TO SCREEN PARKING AND AS REPLACEMENTS FOR REMOVED LANDSCAPING.

AMENDED SOIL DEPTH NOTES:

CONTRACTOR SHALL AMEND SOILS IN AREAS WITH TURF TO DEPTH OF 6"

CONTRACTOR SHALL AMEND SOILS IN LANDSCAPE BED AREAS TO DEPTH OF 12"

CONTRACTOR SHALL AMEND SOILS IN LANDSCAPE BED AREAS AND AT TREES NOT IN LANDSCAPE BEDS TO DEPTH OF 18".

EXISTING SOIL MODIFICATONS (AMENDED SOILS):

A. CONTRACTOR SHALL REMOVE ALL ROCK AND DEBRIS FROM PLANTED AREAS.
B. CONTRACTOR SHALL REMOVE EXCESS SOIL.
C. CONTRACTOR SHALL TILL SOIL IN PLANTED AREAS TO DEPTH SPECIFIED.
D. CONTRACTOR SHALL AMEND SOIL AND TILL.

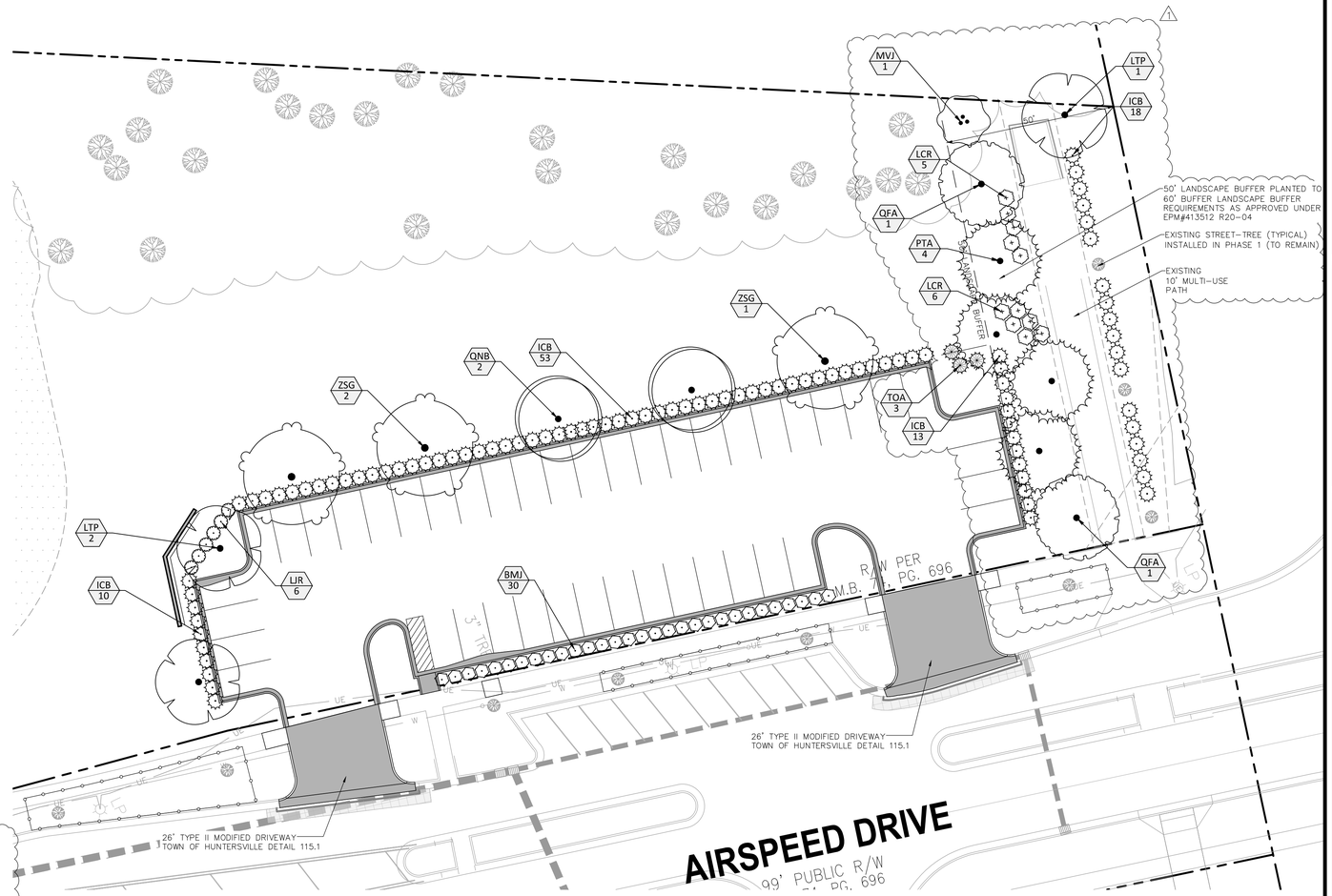
XXX — PLANT CODE
XX — PLANT QUANTITY

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONT.	HEIGHT	REMARKS
TREES							
	LTP	3	Liriodendron tulipifera / Tulip Poplar	2.5" Cal.	B&B	10`-12` Ht.	
	QNB	2	Quercus nuttallii 'Ochlocknee' / Breezeway® Nuttall Oak	2.5" Cal.	B&B	10`-12` Ht.	
	ZSG	3	Zelkova serrata 'Glodell' / Autumn Glow™ Japanese Zelkova	2.5" Cal.	B&B	10`-12` Ht.	
LARGE MATURING TREES							
	PTA	4	Pinus taeda / Loblolly Pine	2" Cal.			
	QFA	2	Quercus falcata / Southern Red Oak	2" Cal.			
SMALL MATURING TREES							
	TOA	3	Thuja occidentalis 'American Pillar' / American Pillar Arborvitae	5` Ht.			
MEDIUM MATURING TREES							
	MVJ	1	Magnolia virginiana 'Jim Wilson' / Moonglow Sweetbay Magnolia	10-12` Ht.			Mulit-stem, Matching

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER	MIN. HEIGHT	REMARKS
SHRUBS							
	BMJ	30	Buxus microphylla japonica 'Winter Gem' / Winter Gem Japanese Boxwood	24-30" ht	Pot		
	ICB	94	Ilex cornuta 'Burfordii Nana' / Dwarf Burford Holly	36" Ht.	Pot		
	LJR	6	Ligustrum japonicum 'Recurvifolium' / Curly Leaf Japanese Privet	30-36" ht	Pot		
	LCR	11	Loropetalum chinense rubrum 'Ever Red' / Ever Red Fringe Flower	24-30" ht			

* PLANT COUNTS PROVIDED FOR CONVENIENCE ONLY AND MAY DIFFER FROM QUANTITY DEPICTED ON PLAN. CONTRACTOR WILL BE HELD TO THE STRICTER STANDARD.



NORTH
GRAPHIC SCALE
20 0 10 20 40
(IN FEET)
1 inch = 20 ft.

ORSBORN DESIGN GROUP
605 LEXINGTON AVENUE, SUITE 301
CHARLOTTE, NC 28203
704-749-1432
NCBELS C-3139 NCBLA AUTHORIZED
www.orsborndesign.com

CLIENT INFORMATION:
CHOATE CONSTRUCTION COMPANY
2907 PROVIDENCE ROAD, SUITE 400
CHARLOTTE NC, 28211

PROJECT INFORMATION:
LANDSCAPE PLAN
FOR
12311 AIRSPEED DRIVE-
PARKING LOT EXPANSION
12311 AIRSPEED DRIVE
HUNTERSVILLE, NC 28078

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT
LILLIAN W. LESESNE
No. 1445
04/14/26

NO.	DATE	REVISIONS
1	04/09/26	REVISED PER COMMENTS

JOB #	24050
DATE:	12/20/2024
SCALE:	1" = 20'
DRAWN BY:	-
APPROVED BY:	-

L1.0

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COMMUNITY MEETING REPORT FOR GENERAL APPLICATION # CSP-500120

Petitioner: **2311 Real Estate Holdings LLC**

Rezoning Petition Nos.: **CSP-500120**

Property: **±14.78-acres located at 12311 Airspeed Drive**

This Community Meeting Report is being filed with the Town of Huntersville Planning Department pursuant to the Zoning Ordinance Article 11.4.

PERSONS AND ORGANIZATIONS CONTACTED WITH DATES AND EXPLANATIONS OF HOW CONTACTED:

A representative of the Petitioner sent via certified mail a written notice of the date, time and details of the Community Meeting to the individuals and organizations set out on **Exhibit A** by depositing the Community Meeting Notice in the U.S. mail on 2/12/2026. A copy of the written notice is attached as **Exhibit B**.

TIME AND DATE OF MEETING:

The Community Meeting required by the Ordinance was held on Thursday, February 26, 2026, at 6:00 p.m. The meeting was held at 23XI Race Shop (Board Room), 12311 Airspeed Drive, Huntersville, North Carolina, 28078.

PERSONS IN ATTENDANCE AT MEETING:

The list of attendees from the required Community Meeting is attached as **Exhibit C**. The Petitioner's representatives were Mike Wheeler with 2311 Real Estate Holdings LLC and John Floyd with Moore & Van Allen, PLLC. Brian Richards, planning director with Town of Huntersville, also attended the meeting.

SUMMARY OF ITEMS DISCUSSED AT MEETING:

I. Introduction and Overview of Development Plan & Process:

Mr. Floyd shared a slide presentation of the project. He explained that the primary reason for the rezoning was to amend the existing site plan to allow a new parking lot and to slightly modify the buffer between the parking lot and Statesville Road. He showed the proposed site with the addition of the new parking lot and the 50-foot landscape buffer planted to a 60-foot landscape buffer standard and provided a closer look at the additional parking lot and landscape plan.

II. Summary of Questions/Comments and Responses:

Mr. Hallman asked questions to confirm that the site, after development of the new parking lot, would remain in compliance with (i) limits on impermeable surfaces, (ii) stormwater requirements, and (iii) tree save requirements. Mr. Richards and Mr. Floyd explained that the site would continue to meet all those requirements and that the site was originally designed with a parking lot in an area where one is being proposed.

There being no further questions, the meeting was adjourned and the attendee was thanked for their time and interest in the project.

CHANGES MADE TO PETITION AS A RESULT OF THE MEETING:

The development team will continue to coordinate efforts with City Staff.

cc: Christy Clark, Mayor of Huntersville
Brian Richards, Huntersville Planning Director
Mike Wheeler, 2311 Real Estate Holdings LLC
John Floyd, Moore & Van Allen, PLLC

Exhibit A

Adjacent Owners and Neighborhood Organizations:

ownrfrstnm	ownrlstnme	ownr2frstn	ownr2lstnm	mailaddr1	zipcode	state	mailcity
	KB RE LLC			11208 STATESVILLE RD STE 300	28078	NC	HUNTERSVILLE
	HAMBRIGHT JUNCTION INVESTORS LLC			825 SISK AV STE 200	38655	MS	OXFORD
	HAMBRIGHT PROPERTIES LLC			9643 ASHLEY GREEN CT NW	28027-7236	NC	CONCORD
	2311 REAL ESTATE HOLDINGS LLC			12311 AIRSPEED DR	28078	NC	HUNTERSVILLE
	TOWN OF HUNTERSVILLE			PO BOX 664	28070	NC	HUNTERSVILLE
	BLUEGREEN CAPITAL PARTNERS II LLC			PO BOX 352	28025	NC	CONCORD
	NORTH MECK SELF STORAGE LLC			PO BOX 1659	28031	NC	CORNELIUS
	MJMS DEPOT LLC			1515 SUNNYSIDE AVE	28204	NC	CHARLOTTE
	PTU LLC		SHOE PROPERTIES LLC	426 FOSTER AV	28203	NC	CHARLOTTE
A KELLY	PHARR	WENDY C	SPECKMAN	207 ASHBY DR	28036	NC	DAVIDSON
	STONEYBROOK STATION HOMEOWNERS ASSOCIATION INC			1612 MILITARY CUTOFF RD STE 108	28403	NC	WILMINGTON
	BRYTON CROSSING HOMEOWNERS ASSOCIATION INC			1400 SUNDAY DR STE 101	27607	NC	RALEIGH

Email Notifications:

MAYOR CHRISTY CLARK C/O TOWN OF HUNTERSVILLE	cclark@huntersville.org
MPT JENNIFER HUNT C/O TOWN OF HUNTERSVILLE	jhunt@huntersville.org
COMMISSIONER EDWIN QUARLES C/O TOWN OF HUNTERSVILLE	equarles@huntersville.org
COMMISSIONER LATOYA RIVERS C/O TOWN OF HUNTERSVILLE	lrivers@huntersville.org
COMMISSIONER NICK WALSH C/O TOWN OF HUNTERSVILLE	nwalsh@huntersville.org
Commissioner Scott Coronet	scoronet@huntersville.org
Commissioner Heather Smallwood	hsmallwood@huntersville.org
Planning Board - general email	planningboard@huntersville.org
TOWN CLERK JANET PIERSON C/O TOWN OF HUNTERSVILLE	jpierson@huntersville.org
PLANNING DIRECTOR BRIAN RICHARDS C/O TOWN OF HUNTERSVILLE	brichards@huntersville.org
PLANNING ADMINISTRATIVE ANALYST TRACY BARRON C/O TOWN OF HUNTERSVILLE	tbarron@huntersville.org
TOWN MANAGER ANTHONY ROBERTS C/O TOWN OF HUNTERSVILLE	aroberts@huntersville.org
ASSISTANT TOWN MANAGER BOBBY WILLIAMS C/O TOWN OF HUNTERSVILLE	bwilliams@huntersville.org
Asst Planning Director	bpriest@huntersville.org
JESSE JAMES C/O TOWN OF HUNTERSVILLE	jjames@huntersville.org
Planning Review Technician Amy Bruce	abruce@huntersville.org
Planner II Nathan Farber	nfarber@huntersville.org
Transportation Planner Heather Maloney	hmaloney@huntersville.org
Planner II Patrick Patterson	ppatterson@huntersville.org
Principal Planner - Long Range David Peete	dpeete@huntersville.org
Planner II Becca Prichard	bprichard@huntersville.org
Senior Planner Lauren Speight	lspeight@huntersville.org
GIS Technician Jake Stoner	wstoner@huntersville.org
GIS Coordinator Frances Tucker	ftucker@huntersville.org
Planner I Danielle Upright	dupright@huntersville.org
Development Code Officer Au'Darius Blackwood	ablackwood@huntersville.org
Code Enforcement Technician Claudia Schruhl	cschruhl@huntersville.org

Exhibit B

NOTICE TO INTERESTED PARTIES OF A GENERAL APPLICATION
PROJECT # CSP-500120

Subject:	Project No. CSP-500120 for property located at 12311 Airspeed Drive in Huntersville
Applicant:	2311 Real Estate Holdings LLC
Current Land Use:	Corporate Office and Race Shop
Existing Zoning:	CB(CD) (Corporate Business, Conditional)
Rezoning Requested:	CB(CD) (Corporate Business, Conditional)
Date and Time of Meeting:	***Thursday, February 26, 2026, at 6:00 p.m.***
Location of Meeting:	**23XI Race Shop (Board Room)** **12311 Airspeed Drive** **Huntersville, North Carolina 28078**
Meeting Registration:	***Please send an email to CommunityMeeting@mvalaw.com to register to attend and reference project # CSP-500120.***
Date of Notice:	2/12/2026

Moore & Van Allen is assisting 2311 Real Estate Holdings LLC (the "Applicant") on a recently filed revision request for an approximately ±14.78-acre site located at 12311 Airspeed Drive (the "Site"), in Huntersville, North Carolina. The parcel ID number for the Site is 01704401. The request is to revise the approved site plan to provide clarity on entitlements consistent with as-built conditions at the site and to allow additional parking on the site.

The Applicant will hold a **Community Meeting** to discuss this rezoning proposal with nearby property owners and organizations. The Huntersville Planning and Zoning Department's records indicate that you are either a representative of a registered neighborhood organization or an owner of property near the Site.

Accordingly, we are extending an invitation to participate in the upcoming Community Meeting at the 23X1 Race Shop (Board Room), 12311 Airspeed Drive, Huntersville, North Carolina, 28078, to be held on Thursday, February 26, 2026, at 6:00 p.m. To register to attend, please send an email to CommunityMeeting@mvalaw.com before Wednesday, February 25th and reference project #CSP-500120.

Representatives of the Applicant look forward to discussing this proposal at the Community Meeting. Thank you.

cc: Christy Clark, Mayor of Huntersville
Brian Richards, Huntersville Planning Director
Mike Wheeler, 2311 Real Estate Holdings LLC
John Floyd, Moore & Van Allen, PLLC

14606994v1

Exhibit B (Continued)

Site location:



14606994v1

14652023v1

Exhibit C

Name	Email	Notes
Lee Hallman	hallmans@roadrunner.com	Huntersville Planning Board
Brian Richards		Huntersville Planning Staff
Kim Richards		

Town Engineering Rezoning Comment Summary
R26-01 23XI Race Shop
12311 Airspeed Dr.
Huntersville, NC 28078

General Project Information

This proposed rezoning is located at the Northeast corner of Airspeed Dr. & Statesville Rd. This rezoning incorporates approximately 28,000 square feet of additional parking and driveways into an existing commercial development. This parcel has existing Stormwater Control Measures (SCM) which were designed for the proposed increase in built upon area, therefore no additional SCM will be required.

Engineering Staff Comments

Traffic Impact Analysis (TIA):

1) A TIA was not required as part of this proposed rezoning due to not meeting trip generation thresholds.

Site Plan Comments:

1) There are no additional Engineering Staff comments, as preliminary calculations were provided showing that the existing SCM could contain and treat the additional proposed impervious area.

EXHIBIT
11.A-2

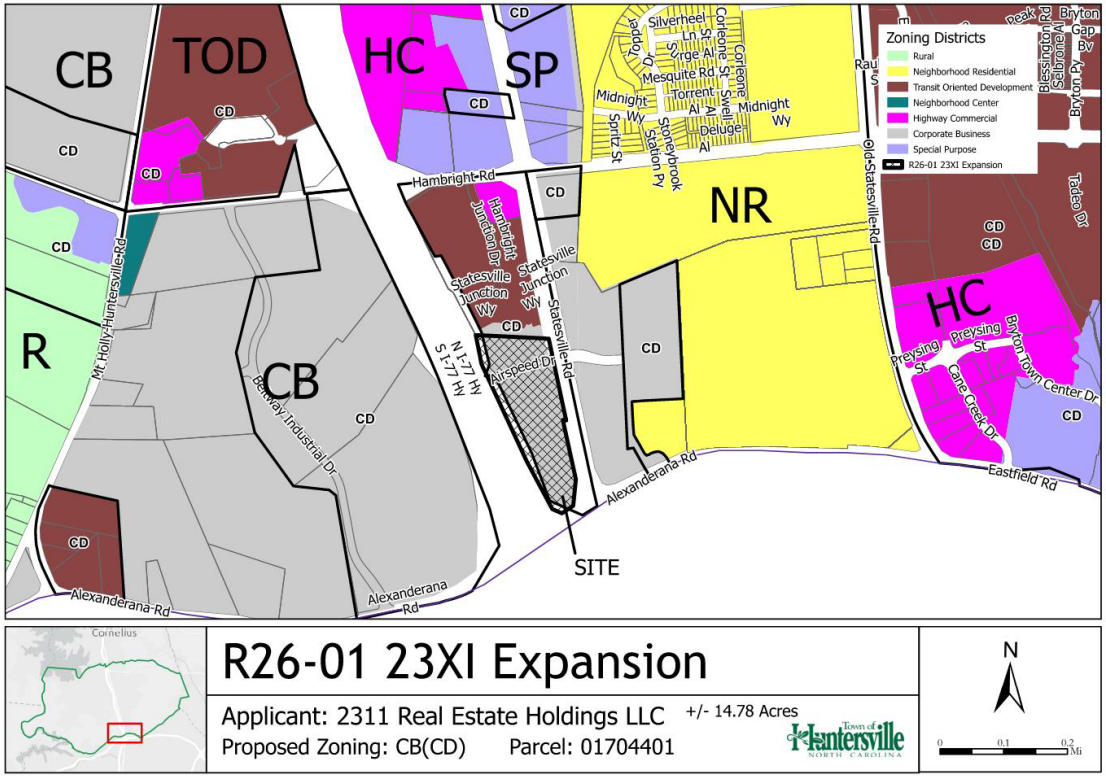
R26-01
23 XI Race Shop

June 16, 2026
Town Board

Town of Huntersville
NORTH CAROLINA

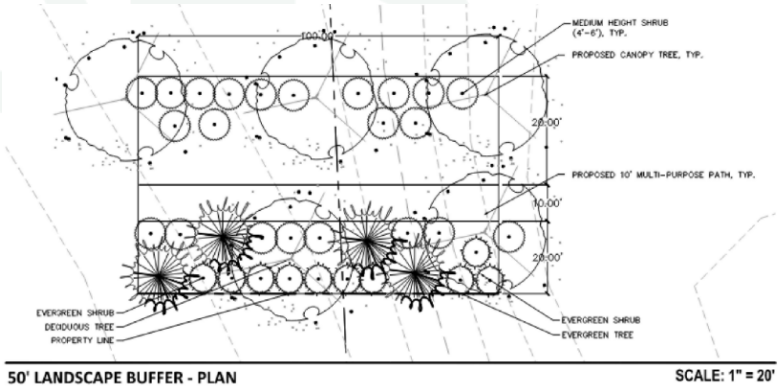
Rezoning Request

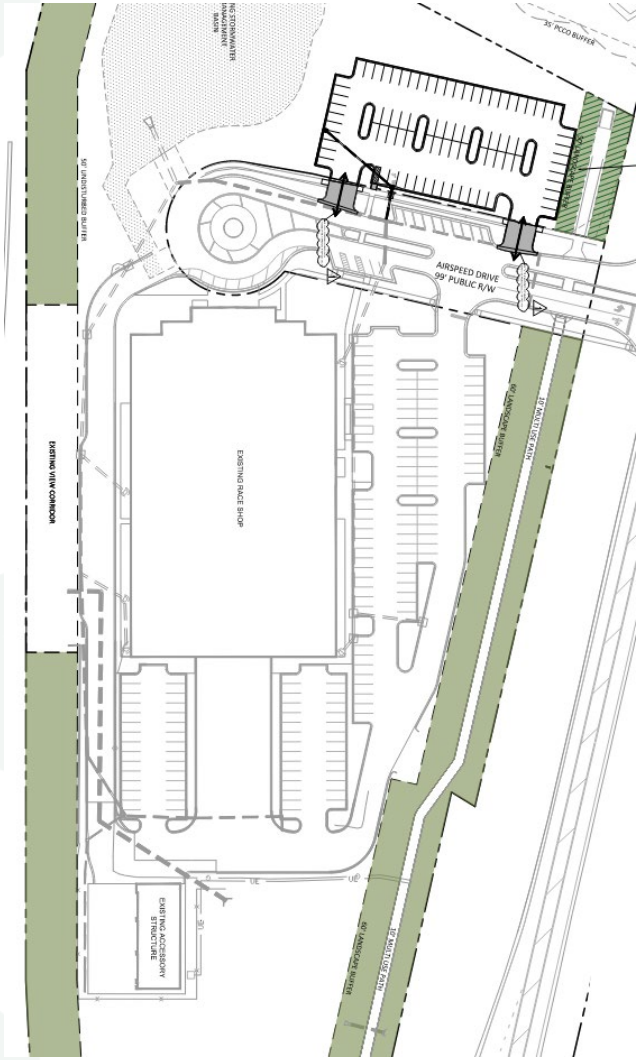
Conditional Rezoning from
Corporate Business
Conditional District (CB-CD)
to
Corporate Business
Conditional District (CB-CD)



Rezoning Highlights

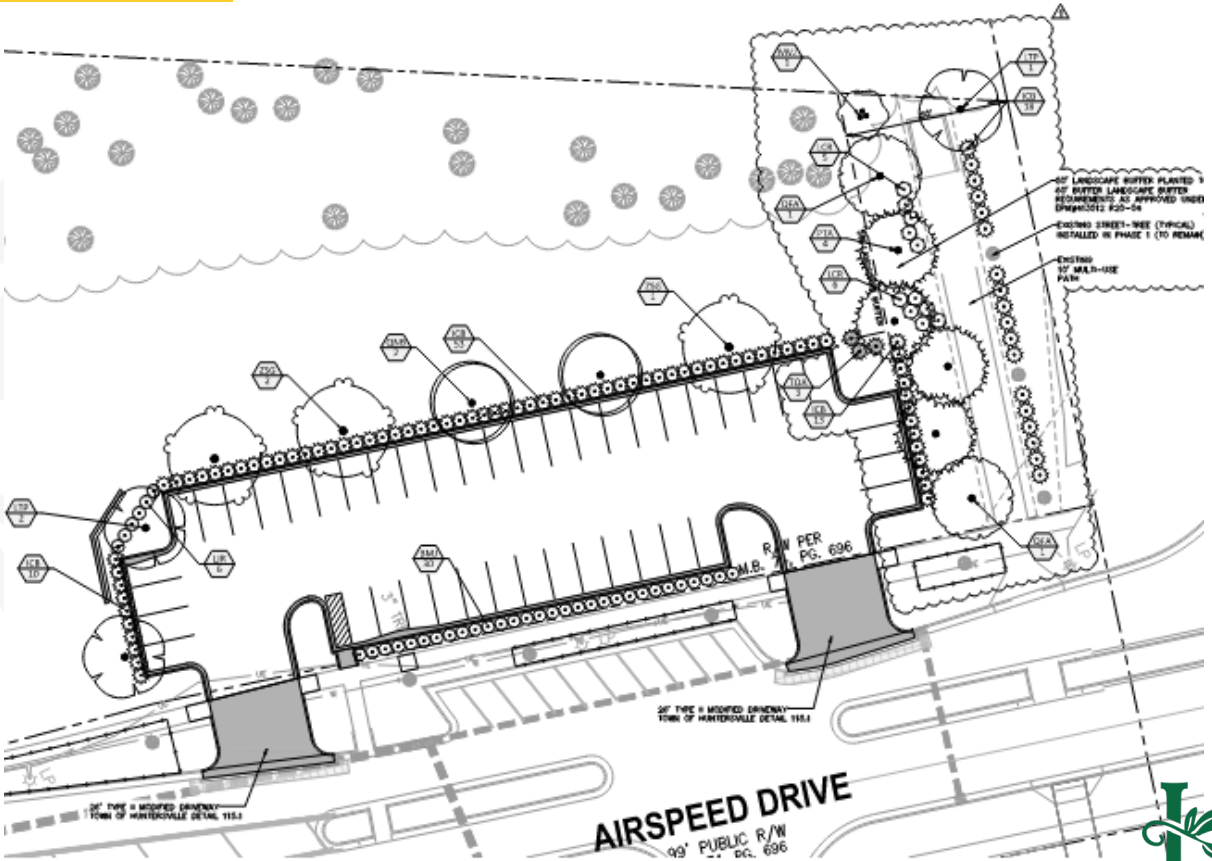
- Revise building size from 95,000 SF to 117,800 SF.
- Revise Buffer from 60’ to 50’ adjacent to US21
- No tree save or TIA changes





Rezoning Highlights

- Buffer to be planted at the same rate as a 60’ buffer with an increase in evergreen material
- Required parking: 121
- Existing parking: 163
- Proposed parking: 249



2040 Huntersville Community Plan



FUTURE LAND USE CHARACTER AREA

- MIXED USE CENTER
- ACTIVITY CENTER
- EMPLOYMENT CENTER
- TOWN CORE
- MEDIUM DENSITY
- RESIDENTIAL EDGE
- RURAL CONSERVATION
- PARKS AND OPEN SPACE
- CRITICAL WATERSHED

Application Supports

- Policy LU1.1 – Utilize Future Land Use Map
- Policy LU 5.1 – Develop where there's infrastructure to support
- Policy EV 1.2 – Focus Economic Growth in appropriate areas



Employment Center

Employment centers contain a mix of uses including office, industrial, and institutional. Modern employment campuses and cutting -edge employers are now incorporating some retail and residential to create a live, work, and play environment. These areas offer workspace where innovation can grow while meeting employee lifestyle needs.

Recommendations

Planning Board May 26, 2026

Motion: L. Hallman made a motion to recommend approval of R26-01 2311 Race Shop with conditions, the application is consistent with policies LU 1, LU 5.1, EV 1.2 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to approve the rezoning because this is also consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan. C. Boyd seconded the motion.

Vote: The motion passed unanimously (7-0).

Recommendations

The application to reclassify the zoning of the property is consistent with the character area recommendations of the Huntersville 2040 Plan. Therefore, Staff recommends approval of the rezoning with the following conditions:

60’ buffer be reduced to 50’ adjacent to the proposed parking lot and buffer plantings meet the planting schedule as shown.

Thank You

Questions?

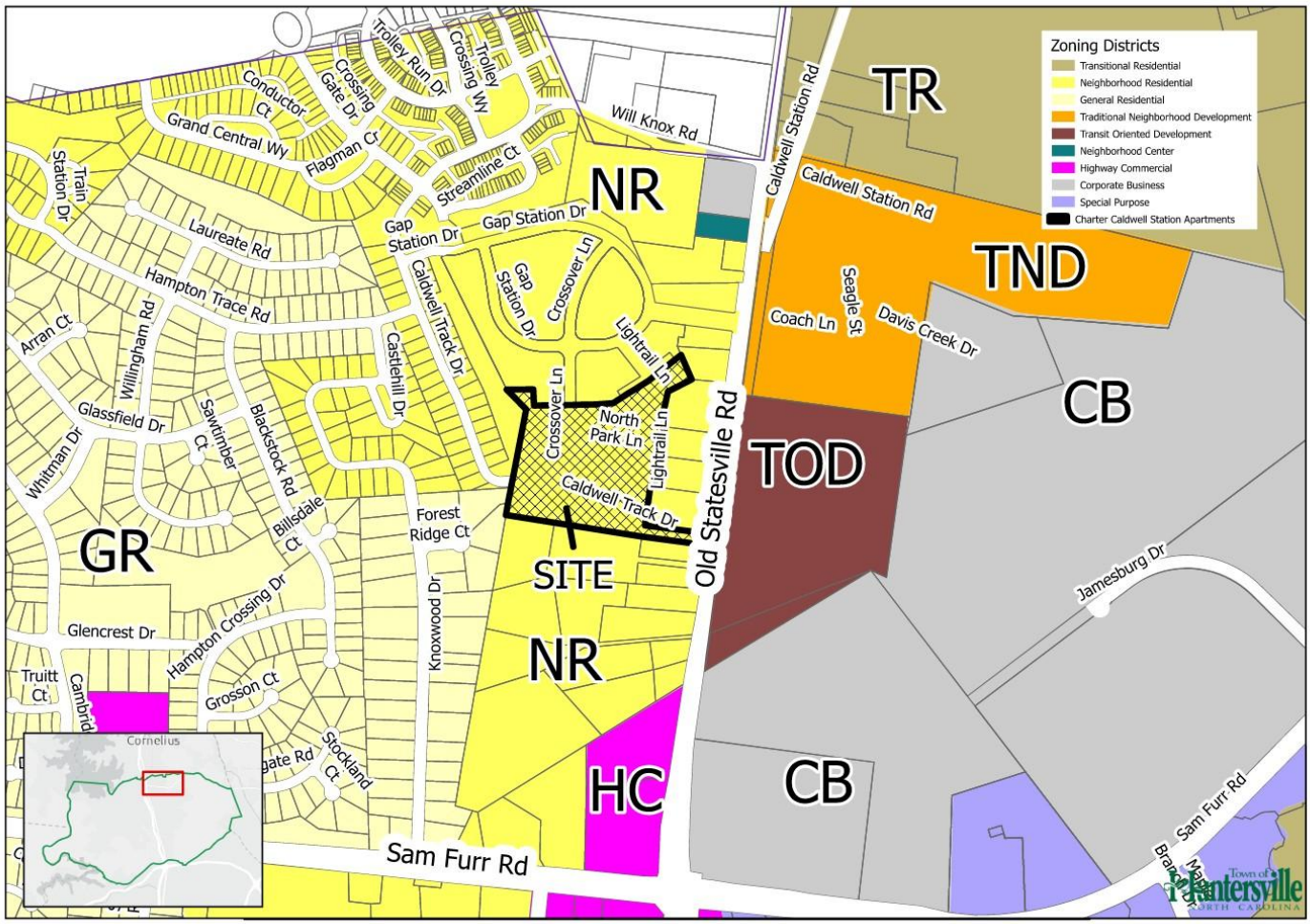
Town of Huntersville
NORTH CAROLINA



EXHIBIT
11.B-1

Petition 26-06
Charter Caldwell Station Apartments – Revision

PART 1: PROJECT SUMMARY



1. Purpose: Rezoning revision of Charter Caldwell Station Apartments, an 11.67-acre multi-family development currently under construction at 17155 Old Statesville Road (approx. 1,200 linear ft. south of the Cornelius town limit). The property is zoned Neighborhood Residential (Traditional Neighborhood Development – Overlay) (NR – TND-O) and is to be developed as a 166-unit apartment complex. The proposed revision is to the 1998 Rezoning Plan that governs this property which has the following condition:

   "A six-foot high brick wall of approximately 1,000 feet in length shall be constructed".

   This wall was constructed as part of the Caldwell Station Apartments – Phase 1 project.

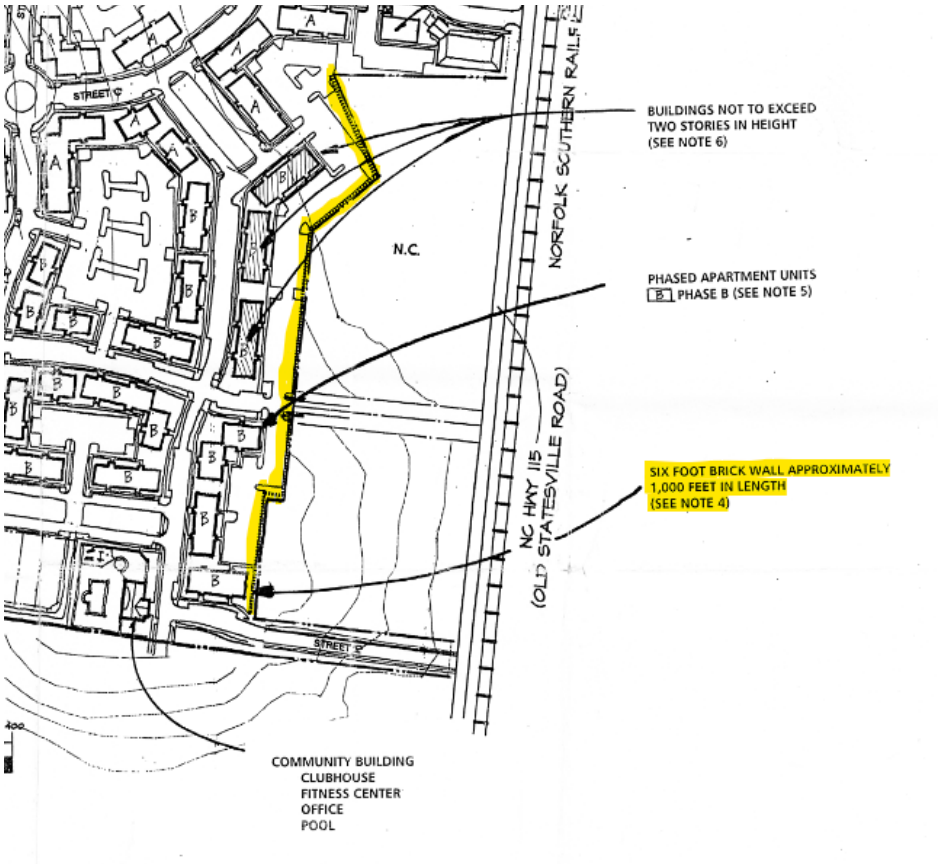
2. Adjoining Zoning and Land Uses.
   North: Neighborhood Residential – Traditional Neighborhood Development Overlay (NR – TND-O), apartments (The Pointe at Caldwell Station).
   South: Neighborhood Residential (NR), large-lot, single-family homes.
   East: Neighborhood Residential (NR), townhomes (under construction).
   West: Neighborhood Residential – Traditional Neighborhood Development Overlay (NR – TND-O), single-family homes (Caldwell Station).
3. A neighborhood meeting was held on Monday, April 20, 2026. No residents or interested parties attended the meeting. The Community Meeting Report is attached (see Attachment C).
4. Notice for this rezoning revision petition were sent via letter to adjoining property owners; a legal ad placed in the Charlotte Observer; and (2) rezoning signs were posted on the property along the frontage of NC 115 and at the end of Caldwell Track Drive.

Background

1. Brief History: In 1998, the Town of Huntersville approved the Caldwell Station rezoning to Neighborhood Residential – Traditional Neighborhood Development Overlay (NR-TND-O) with several conditions, one of which was for "a six-foot high brick wall of approximately 1,000 feet in length" to be constructed along the eastern edge of the development as a screen-wall to buffer the proposed apartments from several adjacent single-family homes that fronted along NC 115 (see image below):

Approved Rezoning Plan for R98-08 – 1998



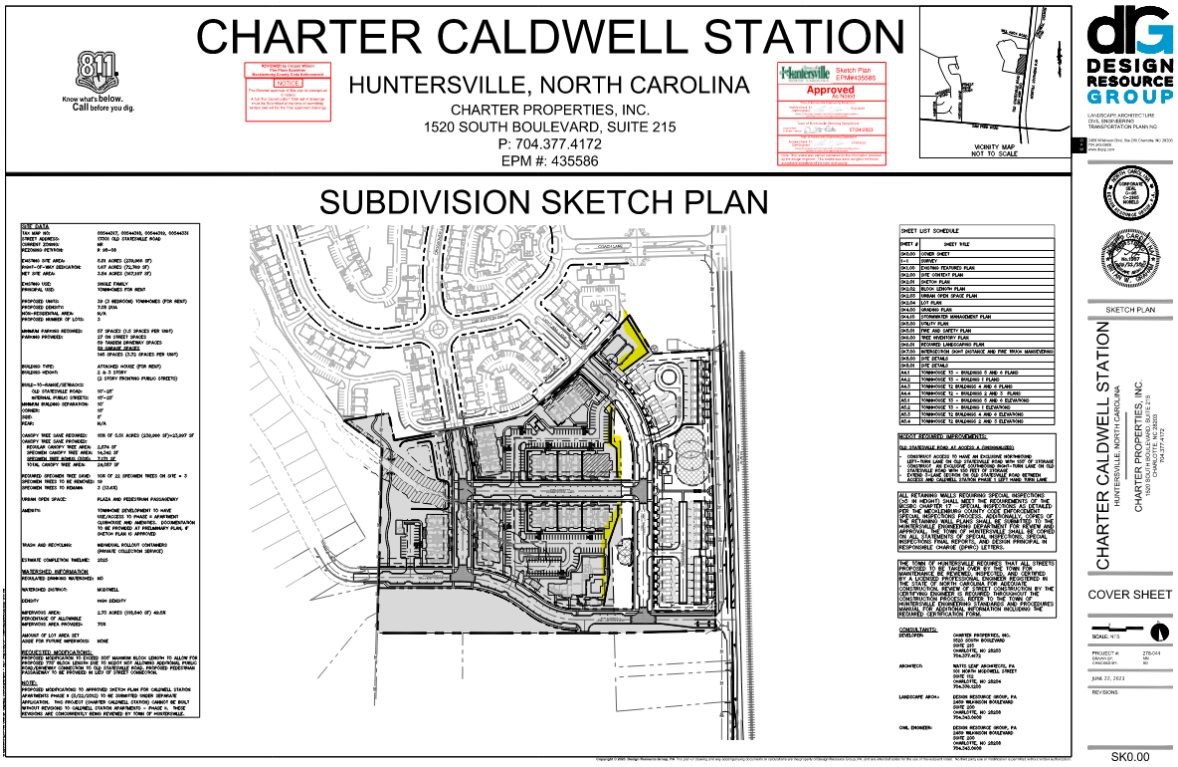


When Phase 1 of the Caldwell Station Apartments (currently named The Pointe at Caldwell Station) was begun, the requirement to build the brick wall was fulfilled (see below from 2019).

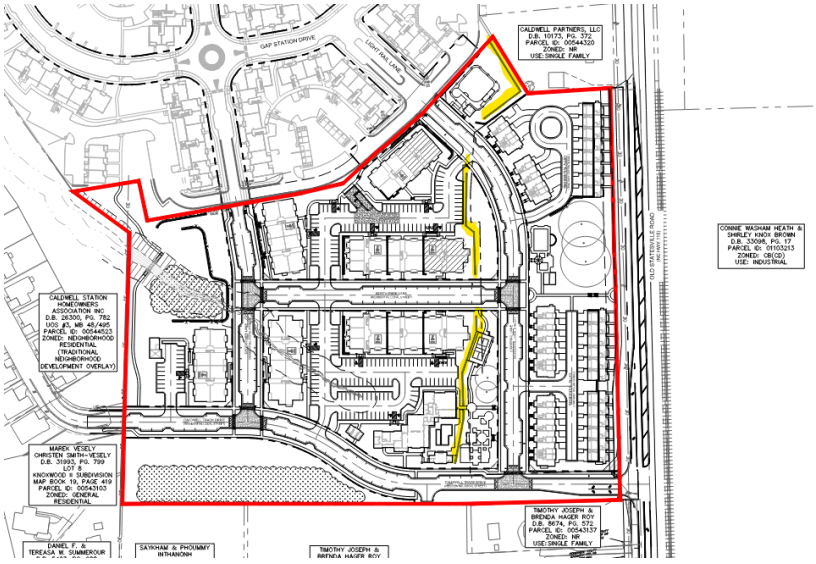


On July 24, 2023, Phase 2 of the apartments was approved, with the brick wall already in place. During review of the plans for Phase 2 of the Caldwell Station Apartments, the single-family homes along NC 115 (with one exception) were acquired by the applicant and plans were submitted to combine the adjacent parcels with the Phase 2 apartments. This was approved on April 24, 2025. On March 26, 2026, the owner of all the parcels (except one) along both sides of the brick wall submitted a petition to revise the brick wall condition to allow a portion of the wall in the middle to be removed.

Approved Sketch Plan for Charter Caldwell Station (Apartments) - 2023



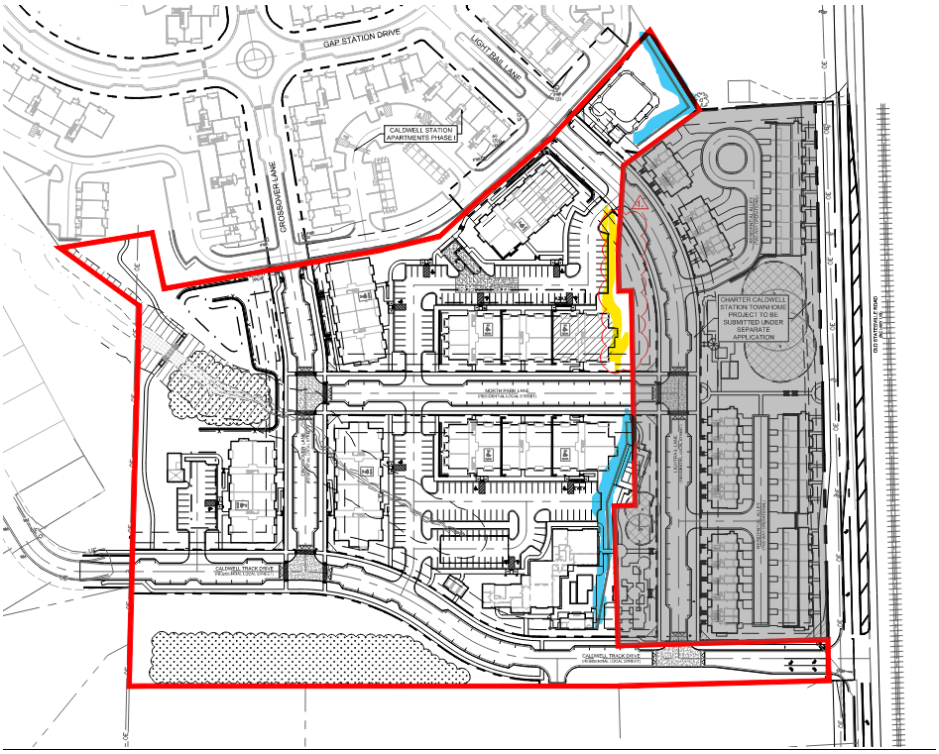
Approved Plan for both Charter Caldwell Station & frontage properties - 2025.

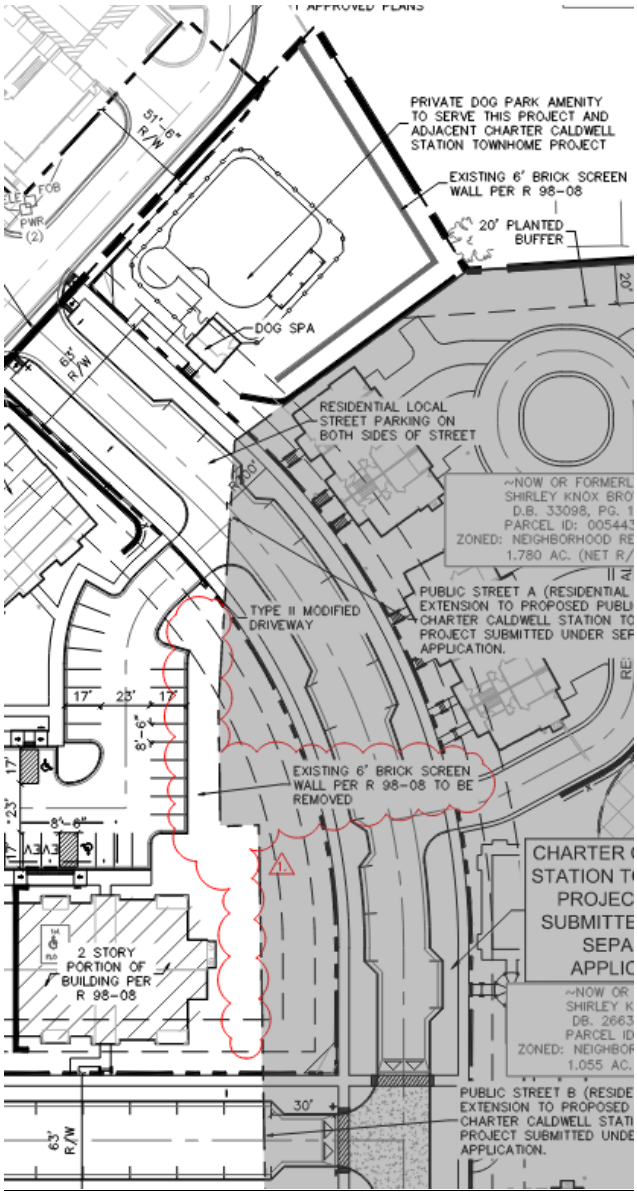


PART 2: REZONING/SITE PLAN

Of the approx. 1,000 feet of currently existing brick wall, only a 222-foot section located in the middle of the project is requested to be removed. The location of the 222 ft. portion to be removed is shown below in yellow. The portions of wall to remain are shown in blue:

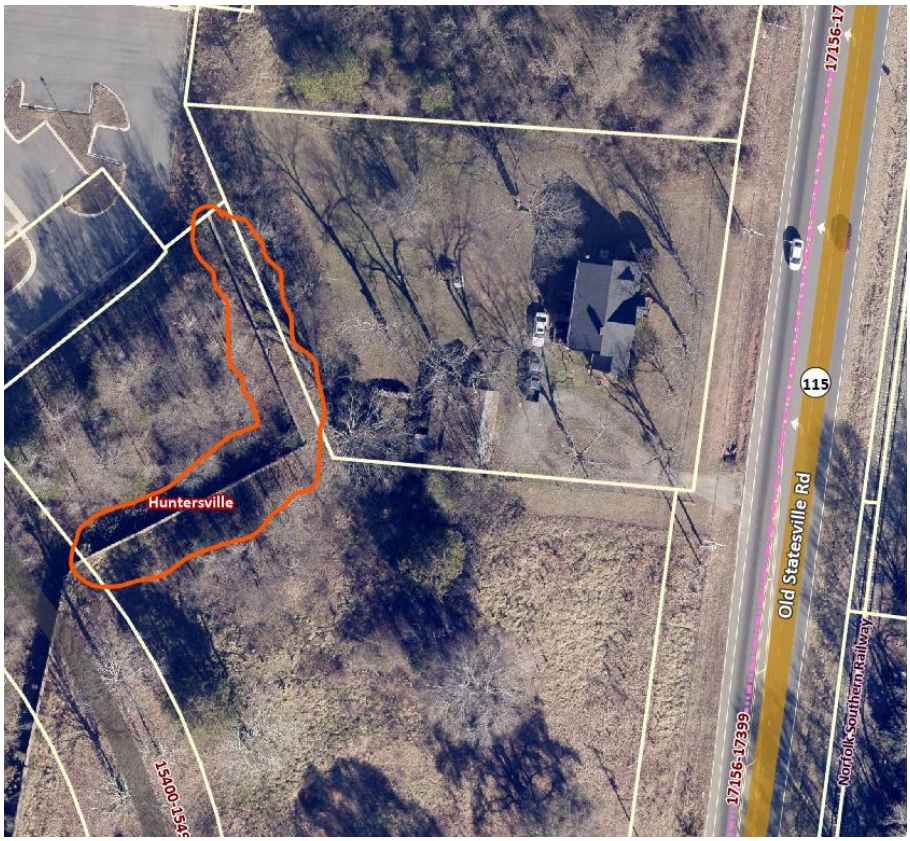
Proposed Revision Plan - 2026





Site Plan Comments:

- The northern portion of the wall is important to remain, as the adjacent property located on the east side of the wall is not owned by the applicant – therefore, it should remain to continue to serve as a screen-wall. Removing this portion of the wall is NOT a part of this request. (see below)

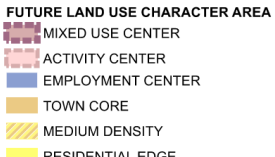


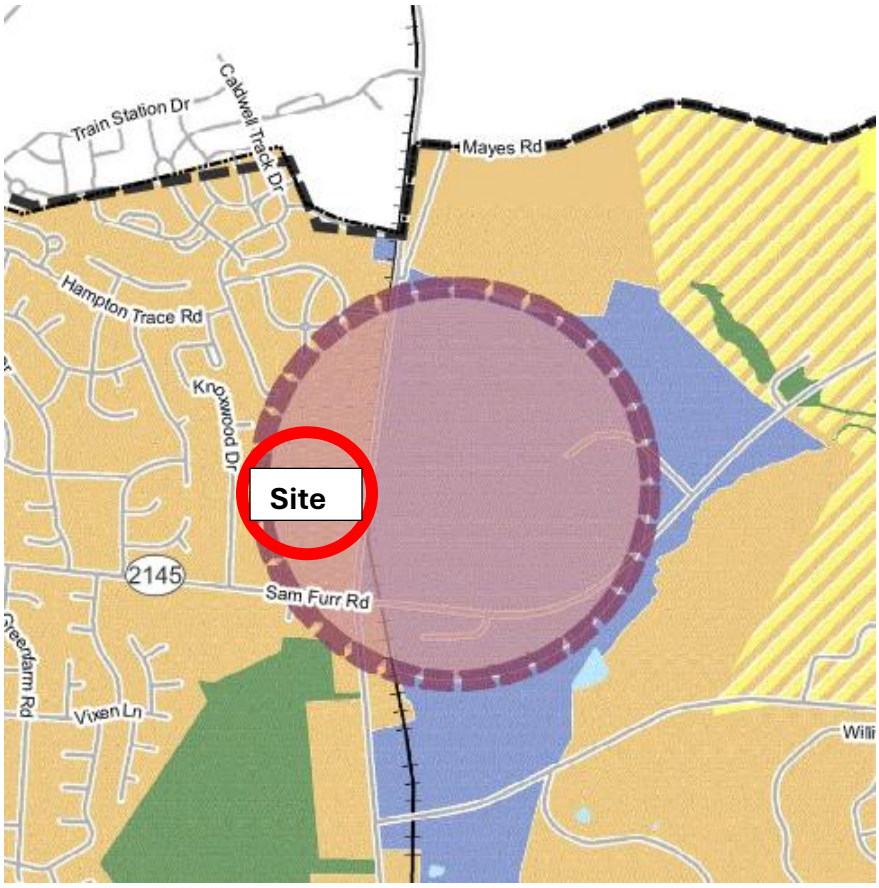
PART 3: REZONING CRITERIA

Article 11.4.7(d) of the Zoning Ordinance states that "in considering any petition to reclassify property, the Planning Board in its recommendation and the Town Board in its decision shall take into consideration any identified relevant adopted land-use plans for the area including, but not limited to, comprehensive plans, strategic plans, district plans, area plans, neighborhood plans, corridor plans, and other land-use policy documents".

2040 Huntersville Community Plan with Site of R26-06

Activity Center: Activity centers contain mixed-uses along key frontages. A mix of housing is allowed, including urban options throughout (apartments, townhomes, cottage homes, etc.).
Staff Comment: The proposed rezoning revision petition meets the uses defined within the Community Plan as seen in the map provided and described within the definition of Activity Center. A mix of housing is provided.





STAFF COMMENT – Staff finds the proposed plan revision is ***consistent*** with the following policies of the *2040 Huntersville Community Plan*:

- LU 1.1: Utilize the Future Land Use Map during development approval process to ensure compatibility with long-range plans.
  Staff Comment: The future land use map designates this property as an Activity Center. Activity centers call for infill housing consistent with the density provided in this application.

Article 11 Section 11.4.7(e) of the Zoning Ordinance states that: "in considering any petition to reclassify property the Planning Board in its recommendation and the Town Board in its decision should consider:

1. **Whether the proposed reclassification is consistent with the overall character of existing development in the immediate vicinity of the subject property.**
   STAFF COMMENT:

   This revision does not change the intent of the original plan. The proposed uses and their arrangement are not changing, only a portion of brick wall is to be removed, which is not an issue since the owner owns the land on both sides of the wall.

2. **The adequacy of public facilities and services intended to serve the subject property, including but not limited to roadways, transit service, parks and recreational facilities, police and fire protection, hospitals and medical services, schools, storm water drainage systems, water supplies, and wastewater and refuse disposal.**
   STAFF COMMENT:
   There is no evidence that this revision will have a negative impact on public facilities and/or services.

3. **Whether the proposed reclassification will adversely affect a known archeological, environmental, historical or cultural resource."**
   STAFF COMMENT:
   There is no evidence that this revision will adversely affect a known archeological, environmental, historical or cultural resource.

PART 5: STAFF RECOMMENDATION

In considering the proposed rezoning petition R26-06, Charter Caldwell Station Apartments - Revision, staff recommends approval to remove the 222 ft. long portion of the wall generally located in the middle of the property, as shown in yellow on page 5 of this report. The remaining sections of wall are to remain.

The proposal is consistent with the Huntersville 2040 Community Plan policy LU1.1. It is reasonable and in the public interest to revise the rezoning condition to permit the middle portion of the 6 feet tall brick wall to be removed, as it is no longer serving as a buffer from adjacent parcels. The proposed revision is consistent with the envisioned use and development patterns set forth in the 2040 Community Plan.

PART 6: PUBLIC HEARING

Public Hearing was held on May 4, 2026. No public or interested parties offered comments.

PART 7: PLANNING BOARD RECOMMENDATION

The application was heard at the Planning Board meeting on May 26, 2026. The request was unanimously approved (7-0) as follows: The Planning Board recommend approval of R26-06 Charter Caldwell Station, with the condition that only the middle portion of the 6-foot-tall brick wall, as shown on page 5 (of the staff report), be removed, as it no longer buffers different property owners. The application is consistent with policies LU 1.1 of the Huntersville 2040 Community Plan. It is reasonable and in the public interest to approve the rezoning because this is also consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan.

PART 8: TOWN BOARD FINAL ACTION

The application is proposed for Town Board Final Action at the meeting scheduled for June 16, 2026.

PART 9: ATTACHMENTS

A – General Application
B – Proposed Revised Plan
C – Community Meeting Report (05-20-2026)

PART 10: CONSISTENCY STATEMENT – CHARTER CALDWELL STATION APARTMENTS - REVISION		
Planning Department	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed rezoning revision petition R26-06, Charter Caldwell Station, staff recommends approval with the conditions that: 1) Only the middle portion of the 6-foot-tall brick wall (222 ft., as shown on page 5 of this report) may be removed, as it no longer buffers different property owners. The proposal is consistent with the Huntersville 2040 Community Plan policies LU1.1. It is reasonable and in the public's interest to revise the plan as described above and is consistent with the envisioned use and development patterns set forth in the 2040 Community Plan.	APPROVAL: In considering the proposed rezoning revision petition R26-06, Charter Caldwell Station, Planning Board recommends approval (7-0) with the conditions that: 1) Only the middle portion of the 6-foot-tall brick wall (222 ft., as shown on page 5 of this report) may be removed, as it no longer buffers different property owners. The proposal is consistent with the Huntersville 2040 Community Plan policies LU1.1. It is reasonable and in the public's interest to revise the plan as described above and is consistent with the envisioned use and development patterns set forth in the 2040 Community Plan.	APPROVAL:
DENIAL:	DENIAL:	DENIAL:

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

☐ Change of Use ☐ Commercial Site Plan ☐ Conditional Rezoning ☐ General Rezoning ☐ Master Signage Program ☐ Special Use Permit ☒ Revision to Original Project # CALDWELL STATION PHASE II (5/22/2012) ☐ Other _____	SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance ☒ Sketch Plan ☐ Preliminary Plan ☐ Final Plat (Includes Minor Subdivision) ☐ Exempt Subdivision ☐ Final Plat Revision ☐ Farmhouse Cluster

2. Project Data

Date of Application 04/23/26

Name of Project CHARTER CALDWELL STATION APARTMENTS Phase # (if subdivision) _____

Project Address 17155 OLD STATESVILLE ROAD

Parcel Identification Number(s) (PIN) 00544330

Current Zoning District NR (TND-O) Proposed District (for rezoning only) _____

Property Size (acres) 11.67 (EXISTING) Street Frontage (feet) 57

Current Land Use VACANT

Proposed Land Use(s) MULTI-FAMILY APARTMENTS

Is the project within Huntersville's corporate limits?
Yes X No_____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Explain the nature of this request. If a separate sheet is necessary, please attach to this application.

ADMINISTRATIVE REVIEW FOR PROPOSED MULTI-FAMILY APARTMENT DEVELOPMENT

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name CHARTER PROPERTIES, INC. Phone 704-377-4172

☒ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☒ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name: PHIL VETTER

Title VICE - PRESIDENT Email PAV@CHARTERPROPERTIES.COM

Address of Applicant 1520 SOUTH BLVD, SUITE 215, CHARLOTTE, NC 28203

7. Property Owner (if different than applicant)

*Printed Name NORTH PARK APARTMENTS LLC Phone 704-377-4172

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____ Printed Name PHIL VETTER

Title VICE - PRESIDENT Email PAV@CHARTERPROPERTIES.COM

Address of Property Owner 1520 SOUTH BLVD, STE 215, CHARLOTTE, NC 28203

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

CHARTER PROPERTIES, INC.	JOHN PORTER	704-377-4172	JDP@CHARTERPROPERTIES.COM
Development Firm	Name of Contact	Phone	Email
DESIGN RESOURCE GROUP	BRIAN GRAHAM	704-343-0608	BRIAN@DRGRP.COM
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville
Planning Department
PO Box 664
Huntersville, NC 28070

Phone: 704-875-7000
Fax: 704-992-5528
Physical Address: 105 Gilead Road, Third Floor
Website: https://www.huntersville.org/228/Planning-Department

CHARTER CALDWELL STATION APARTMENTS

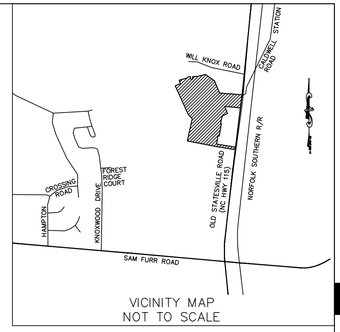
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
P: 704.377.4172
EPM #: 447695

Know what's **below.** **Call** before you dig.

REVISIONS TO APPROVED PLANS (RTAP) FOR LDCP-2023-00451:
- REVISION PURPOSES:
- TO REMOVE A PORTION OF EXISTING 6' BRICK SCREEN WALL PER R 98-08

1



VICINITY MAP
NOT TO SCALE

SUBDIVISION SKETCH PLAN

SITE DATA

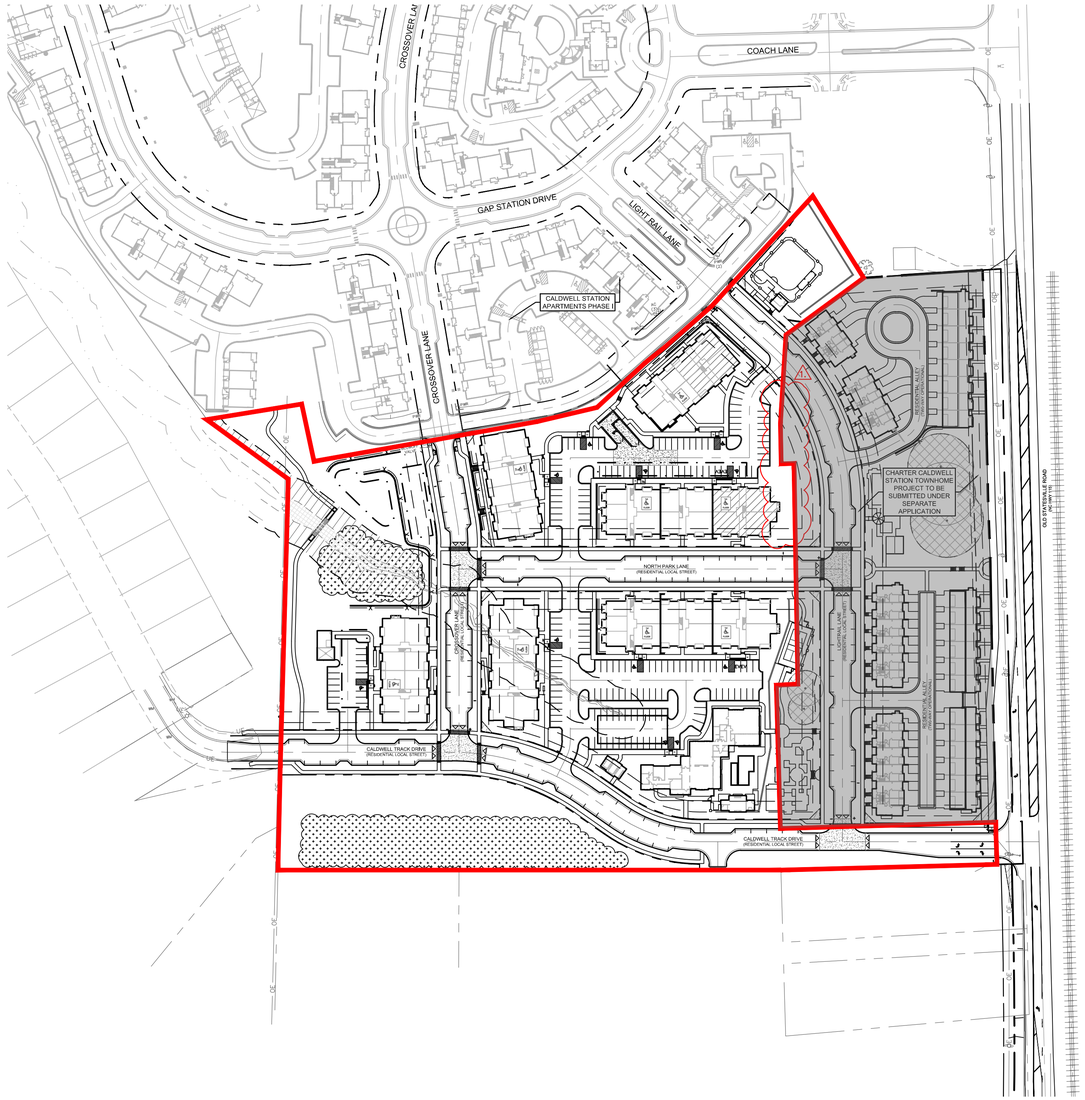
TAX MAP NO:	00544330
STREET ADDRESS:	17155 OLD STATESVILLE ROAD
CURRENT ZONING:	NR (TND-O)
REZONING PETITION:	R 98-08
EXISTING SITE AREA:	11.67 ACRES (508,143 SF)
RIGHT-OF-WAY DEDICATION:	2.97 ACRES (129,400 SF)
NET SITE AREA:	8.70 ACRES (378,743 SF)
EXISTING USE:	VACANT
PRINCIPAL USE:	MULTI-FAMILY APARTMENTS
PROPOSED UNITS:	166 APARTMENTS (FOR RENT) (76 1BR, 90 2 BR)
PROPOSED DENSITY:	14.22 DUA
NON-RESIDENTIAL AREA:	±8,000 SF (CLUBHOUSE, DOG SPA, CARWASH/MAINTENANCE)
PROPOSED NUMBER OF LOTS:	4
MINIMUM PARKING REQUIRED:	211 SPACES (1 SPACE/1 BR UNIT, 1.5 SPACES/2 BR UNIT)
PARKING PROVIDED:	74 ON STREET SPACES 195 STANDARD SPACES 9 ACCESSIBLE SPACES 278 SPACES (1.67 SPACES PER UNIT)
BUILDING TYPE:	APARTMENT (FOR RENT)
BUILDING HEIGHT:	2 & 3 STORY
SETBACKS:	
BUILD-TO-RANGE/SETBACKS	10'-25'
MINIMUM BUILDING SEPARATION:	10'
CORNER:	10'
SIDE:	5'
REAR:	5'
CANOPY TREE SAVE REQUIRED:	N/A
REQUIRED SPECIMEN TREE SAVE:	N/A
URBAN OPEN SPACE:	GREENWAY (±400 LF MULTI-PURPOSE PATH 5' WIDE)
AMENITY:	CLUBHOUSE, DOG SPA, DOG PARK, MAINTENANCE/CARWASH, POOL COURTYARD,
TRASH AND RECYCLING:	TRASH COMPACTOR & RECYCLING ENCLOSURE (PRIVATE COLLECTION SERVICE)
ESTIMATE COMPLETION TIMELINE:	2025

WATERSHED INFORMATION

REGULATED DRINKING WATERSHED:	NO
WATERSHED DISTRICT:	MCDOWELL
DENSITY	HIGH DENSITY
IMPERVIOUS AREA:	4.86 ACRES (211,701 SF) 41.6%
PERCENTAGE OF ALLOWABLE IMPERVIOUS AREA PROVIDED:	70%
AMOUNT OF LOT AREA SET ASIDE FOR FUTURE IMPERVIOUS:	NONE

NOTE:

ADJACENT TOWNHOME PROJECT (CHARTER CALDWELL STATION) SUBMITTED UNDER SEPARATE APPLICATION. THIS PROJECT (CHARTER CALDWELL STATION APARTMENTS PHASE II) CANNOT BE BUILT WITHOUT APPROVAL TO CHARTER CALDWELL STATION TOWNHOMES. THESE REVISIONS ARE CONCURRENTLY BEING REVIEWED BY TOWN OF HUNTERSVILLE.



SHEET LIST SCHEDULE

SHEET #	SHEET TITLE
SK0.00	COVER SHEET
~~1~~ 1	SURVEY
~~SK1.00~~	EXISTING FEATURES PLAN
SK2.00	SITE CONTEXT PLAN
SK2.01	SKETCH PLAN
SK2.02	BLOCK LENGTH PLAN
SK4.00	GRADING PLAN
SK4.10	STORMWATER MANAGEMENT PLAN
SK5.00	UTILITY PLAN
SK5.01	FIRE AND SAFETY PLAN
SK6.00	TREE INVENTORY PLAN
SK6.01	REQUIRED LANDSCAPING PLAN
SK7.00	INTERSECTION SIGHT DISTANCE AND FIRE TRUCK MANUEVERING
SK8.00	SITE DETAILS
SK8.01	SITE DETAILS
A5.1	BUILDING 1 ELEVATIONS
A5.2	BUILDING 2 ELEVATIONS
A5.3	BUILDING 3 ELEVATIONS
A5.4	BUILDING 4 ELEVATIONS
A5.5	BUILDING 5 ELEVATIONS
A5.6	BUILDING 6 ELEVATIONS

NCDOT REQUIRED IMPROVEMENTS:

OLD STATESVILLE ROAD AT ACCESS A (UNSIGNALIZED)

- CONSTRUCT ACCESS TO HAVE AN EXCLUSIVE NORTHBOUND LEFT-TURN LANE ON OLD STATESVILLE ROAD WITH 150' OF STORAGE
- CONSTRUCT AN EXCLUSIVE SOUTHBOUND RIGHT-TURN LANE ON OLD STATESVILLE ROAD WITH 150 FEET OF STORAGE
- EXTEND 3-LANE SECTION ON OLD STATESVILLE ROAD BETWEEN ACCESS AND CALDWELL STATION PHASE 1 LEFT HAND TURN LANE

ALL RETAINING WALLS REQUIRING SPECIAL INSPECTIONS (>5' IN HEIGHT) SHALL MEET THE REQUIREMENTS OF THE MCSBC CHAPTER 17 – SPECIAL INSPECTIONS AS DETAILED PER THE MECKLENBURG COUNTY CODE ENFORCEMENT SPECIAL INSPECTIONS PROCESS. ADDITIONALLY, COPIES OF THE RETAINING WALL PLANS SHALL BE SUBMITTED TO THE HUNTERSVILLE ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. THE TOWN OF HUNTERSVILLE SHALL BE COPIED ON ALL STATEMENTS OF SPECIAL INSPECTIONS, SPECIAL INSPECTIONS FINAL REPORTS, AND DESIGN PRINCIPAL IN RESPONSIBLE CHARGE (DPIRC) LETTERS.

THE TOWN OF HUNTERSVILLE REQUIRES THAT ALL STREETS PROPOSED TO BE TAKEN OVER BY THE TOWN FOR MAINTENANCE BE REVIEWED, INSPECTED, AND CERTIFIED BY A LICENSED PROFESSIONAL ENGINEER REGISTERED IN THE STATE OF NORTH CAROLINA FOR ADEQUATE CONSTRUCTION. REVIEW OF STREET CONSTRUCTION BY THE CERTIFYING ENGINEER IS REQUIRED THROUGHOUT THE CONSTRUCTION PROCESS. REFER TO THE TOWN OF HUNTERSVILLE ENGINEERING STANDARDS AND PROCEDURES MANUAL FOR ADDITIONAL INFORMATION INCLUDING THE REQUIRED CERTIFICATION FORM.

CONSULTANTS:

DEVELOPER:	CHARTER PROPERTIES, INC. 1520 SOUTH BOULEVARD SUITE 215 CHARLOTTE, NC 28203 704.377.4172
ARCHITECT:	WATTS LEAF ARCHITECTS, PA 101 NORTH MCDOWELL STREET SUITE 112 CHARLOTTE, NC 28204 704.376.1200
LANDSCAPE ARCH.:	DESIGN RESOURCE GROUP, PA 2459 WILKINSON BOULEVARD SUITE 200 CHARLOTTE, NC 28208 704.343.0608
CIVIL ENGINEER:	DESIGN RESOURCE GROUP, PA 2459 WILKINSON BOULEVARD SUITE 200 CHARLOTTE, NC 28208 704.343.0608

DESIGN RESOURCE GROUP
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING
O 2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
P 704.343.0608
W www.drgrp.com

NORTH CAROLINA CORPORATE SEAL C-95 C-2165 NCBELS DESIGN RESOURCE GROUP, P.A.

REGISTERED LANDSCAPE ARCHITECT No.1987 10/01/25 BRYAN W. GRAHAM

SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

COVER SHEET

SCALE: NTS

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:
1 3/13/26 RTAP

SK0.00

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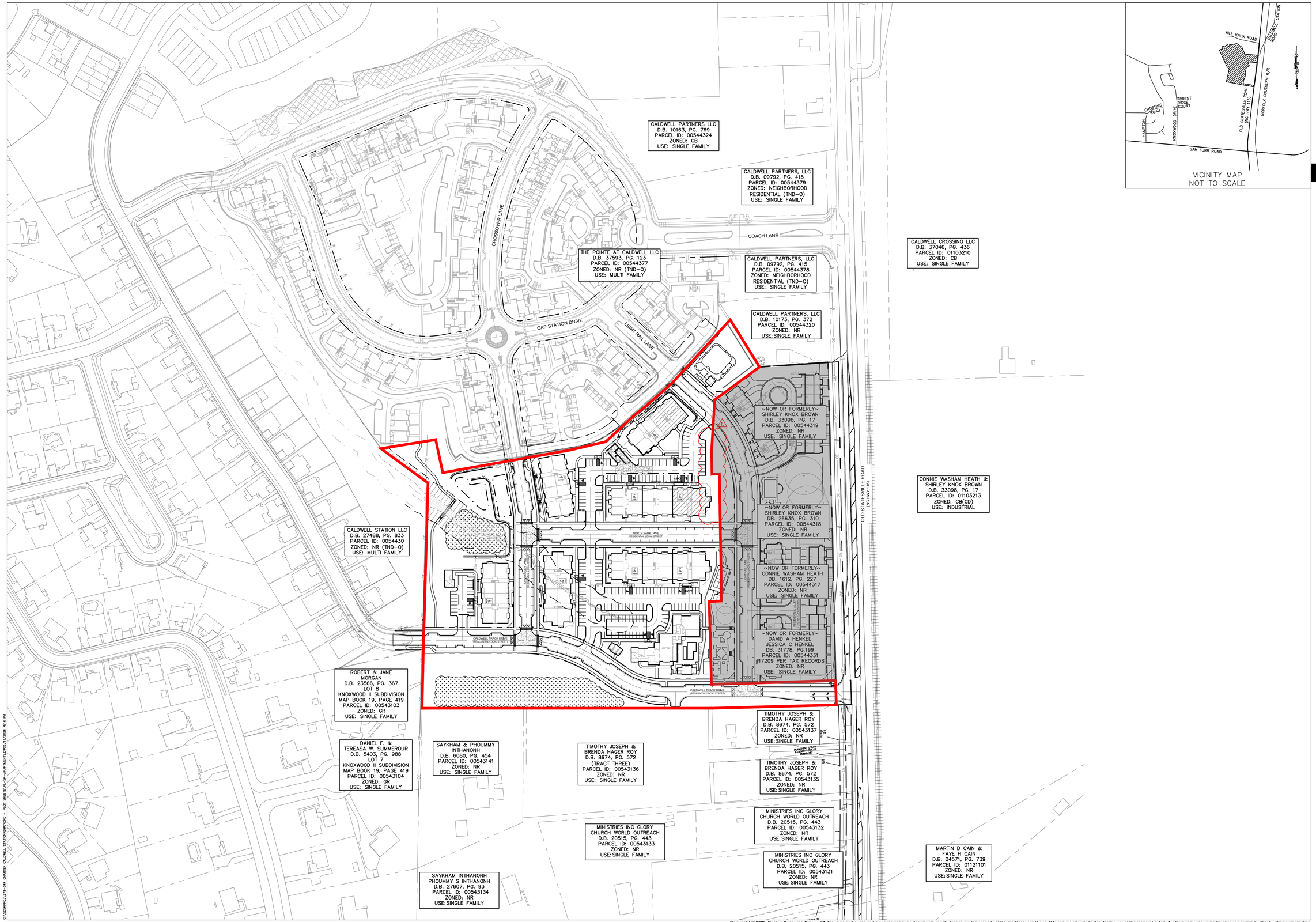

VICINITY MAP
NOT TO SCALE

DESIGN RESOURCE GROUP

LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING

O 2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
P 704.343.0608
W www.drgrp.com

NORTH CAROLINA
CORPORATE SEAL C-95 C-2165 NCBELS
DESIGN RESOURCE GROUP, P.A.

REGISTERED LANDSCAPE ARCHITECT
No.1987
10/01/25

SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS

HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

SITE CONTEXT PLAN

50 0 50 100 N

SCALE: 1"=100'

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:
1 3/13/26 RTAP

SK2.00

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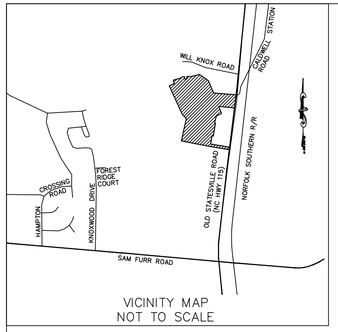

VICINITY MAP
NOT TO SCALE

GAP STATION DRIVE

LIGHT RAIL LANE

CALDWELL STATION NC LLC
D.B. 30411/400, PG. 989
LOT 1, MB 49/733
PARCEL ID: 00544377
ZONED: NEIGHBORHOOD RESIDENTIAL (TND-O) SPA

LIMITS OF PUBLIC RIGHT-OF WAY PER CALDWELL STATION APARTMENTS PHASE I APPROVED PLANS

CALDWELL PARTNERS, LLC
D.B. 10173, PG. 372
PARCEL ID: 00544320
ZONED: NEIGHBORHOOD RESIDENTIAL
1.18 ACRES

PRIVATE DOG PARK AMENITY TO SERVE THIS PROJECT AND ADJACENT CHARTER CALDWELL STATION TOWNHOME PROJECT

EXISTING 6' BRICK SCREEN WALL PER R 98-08

20' PLANTED BUFFER

DOG SPA

PUBLIC STREET A (RESIDENTIAL LOCAL STREET) EXTENSION TO EXISTING PUBLIC STREET ON CALDWELL STATION APARTMENTS PHASE I PER R 98-08

CALDWELL STATION APARTMENTS PHASE I

2 STORY PORTION OF BUILDING PER R-98-08

10'-25' BUILD-TO-LINE (TYP.)

7' PLANTING STRIP
5' PUBLIC SIDEWALK

CROSSOVER LANE

LIMITS OF PUBLIC RIGHT-OF WAY PER CALDWELL STATION APARTMENTS PHASE I APPROVED PLANS

PROPOSED 20' PUBLIC ACCESS EASEMENT

EXISTING PROPERTY LINE (TYP.)

PUBLIC STREET C (RESIDENTIAL LOCAL STREET) EXTENSION TO EXISTING PUBLIC STREET ON CALDWELL STATION APARTMENTS PHASE I PER R 98-08

MODULAR BLOCK RETAINING WALL (TYP.)

RESIDENTIAL LOCAL STREET PARKING ON BOTH SIDES OF STREET

~NOW OR FORMERLY~
SHIRLEY KNOX BROWN
D.B. 33098, PG. 17
PARCEL ID: 00544319
ZONED: NEIGHBORHOOD RESIDENTIAL
1.780 AC. (NET R/W)

TYPE II MODIFIED DRIVEWAY

PUBLIC STREET A (RESIDENTIAL LOCAL STREET) EXTENSION TO PROPOSED PUBLIC STREET ON CHARTER CALDWELL STATION TOWNHOME PROJECT SUBMITTED UNDER SEPARATE APPLICATION.

EXISTING 6' BRICK SCREEN WALL PER R 98-08 TO BE REMOVED

TRASH COMPACTOR AND RECYCLING ENCLOSURE TO SERVE ENTIRE DEVELOPMENT

CHARTER CALDWELL STATION TOWNHOME PROJECT TO BE SUBMITTED UNDER SEPARATE APPLICATION

~NOW OR FORMERLY~
SHIRLEY KNOX BROWN
DB. 26635, PG. 310
PARCEL ID: 00544318
ZONED: NEIGHBORHOOD RESIDENTIAL
1.055 AC. (NET R/W)

2 STORY PORTION OF BUILDING PER R 98-08

PUBLIC STREET B (RESIDENTIAL LOCAL STREET) EXTENSION TO PROPOSED PUBLIC STREET ON CHARTER CALDWELL STATION TOWNHOME PROJECT SUBMITTED UNDER SEPARATE APPLICATION.

EXISTING RIGHT-OF-WAY

FUTURE RIGHT-OF-WAY (60' FROM EXISTING CENTERLINE)

EXISTING CENTERLINE OF ROAD

10' SIDEWALK ALONG OLD STATESVILLE ROAD (TYP.)

PROPOSED ROAD CROSS SECTION AA, SEE SHEET SK8.01

OLD STATESVILLE ROAD (NC HWY 115)

ASSOCIATION INC CALDWELL STATION HOMEOWNERS
D.B. 26300, PG. 782
PARCEL ID: 00544523
ZONED: NEIGHBORHOOD RESIDENTIAL (TRADITIONAL NEIGHBORHOOD DEVELOPMENT OVERLAY)

SWIM BUFFER CROSS SECTION CC, SEE SHEET SK8.00

TOP OF BANK

30' SWIM/PCCO BUFFER

RAISED INTERSECTION (TRAFFIC CALMING)

WETLAND "D" DISTURBANCE ± 106 SF (0.002 AC)

±13,000 SF UNDISTURBED TREE SAVE AREA

RESIDENTIAL LOCAL STREET PARKING ON BOTH SIDES OF STREET

68' DUKE R/W

EXISTING PROPERTY LINE (TYP.)

CARWASH/MAINTENANCE

5' MULTI-PURPOSE PATH (URBAN OPEN SPACE - GREENWAY) PER PREVIOUSLY APPROVED SKETCH PLAN FOR CALDWELL STATION APARTMENTS PHASE II, SEE DETAIL 6 SHEET C8.00

SIDEWALK TO BE 25' MINIMUM FROM FINAL LOCATION OF DUKE TRANSMISSION POLE

APPROXIMATE NEW LOCATION OF DUKE TRANSMISSION PULL-FINAL LOCATION TO BE DETERMINED BY DUKE

EXISTING TRANSMISSION POLE TO BE RELOCATED BY DUKE ENERGY

±29'

TYPE II MODIFIED DRIVEWAY

10'-25' BUILD-TO-LINE (TYP.)

NORTH PARK LANE (RESIDENTIAL LOCAL STREET)

63' R/W

CROSSOVER LANE (RESIDENTIAL LOCAL STREET)

RESIDENTIAL LOCAL STREET PARKING ON BOTH SIDES OF STREET

LIGHTRAIL LANE (IDENTICAL LOCAL STREET)

PRIVATE POOL AMENITY COURTYARD TO SERVE THIS PROJECT AND ADJACENT CHARTER CALDWELL STATION TOWNHOME PROJECT

EXISTING 6' BRICK SCREEN WALL PER R 98-08

RESIDENTIAL ALLEY (TWO-WAY OPERATIONAL)

MAIL KIOSK

CALDWELL TRACK DRIVE (RESIDENTIAL LOCAL STREET)

~NOW OR FORMERLY~
CONNIE WASHAM HEATH
DB. 1612, PG. 227
PARCEL ID: 00544317
ZONED: NEIGHBORHOOD RESIDENTIAL
1.120 AC. (NET R/W)

~NOW OR FORMERLY~
DAVID A HENKEL
JESSICA C HENKEL
DB. 31778, PG.199
PARCEL ID: 00544331
#17209 PER TAX RECORDS
ZONED: NEIGHBORHOOD RESIDENTIAL
1.555 AC. (NET R/W)

10'-25' BUILD-TO-LINE ALONG OLD STATEVILLE ROAD (TYP.)

PROPOSED ROAD WIDENING ALONG PROPERTY FRONTAGE

PROPOSED RIGHT HAND TURN LANE

PROPOSED ROAD CROSS SECTION BB, SEE SHEET SK8.01

35'X35'/10'X70' SIGHT TRIANGLE

PROPOSED PUBLIC STREET PER PREVIOUSLY APPROVED SKETCH PLAN FOR CALDWELL STATION APARTMENTS PHASE II

PROPOSED LEFT HAND TURN LANE PER PREVIOUSLY APPROVED SKETCH PLAN FOR CALDWELL STATION APARTMENTS PHASE II

PROPOSED ROAD WIDENING PER PREVIOUSLY APPROVED SKETCH PLAN FOR CALDWELL STATION APARTMENTS PHASE II

ROBERT & JANE MORGAN
D.B. 23566, PG. 367
LOT 8
KNOXWOOD II SUBDIVISION
MAP BOOK 19, PAGE 419
PARCEL ID: 00543103
ZONED: GENERAL RESIDENTIAL

PUBLIC STREET D (RESIDENTIAL LOCAL STREET) EXTENSION TO EXISTING CALDWELL TRACK DRIVE PER R 98-08

RAISED INTERSECTION (TRAFFIC CALMING)

RESIDENTIAL LOCAL STREET PARKING ON BOTH SIDES OF STREET

SINGLE FAMILY LOTS PER R 98-08 NO PROPOSED DEVELOPMENT

INTERMITTENT STREAM "B" STREAM DISTURBANCE ± 359 LF, ± 1,296 SF (0.029 AC)

WETLAND "C" DISTURBANCE ± 207 SF (0.005 AC)

±32,000 SF UNDISTURBED TREE SAVE AREA

WETLAND "A" DISTURBANCE ± 1,660 SF (0.038 AC)

10'-25' BUILD-TO-LINE (TYP.)

CALDWELL TRACK DRIVE (RESIDENTIAL LOCAL STREET)

RAISED INTERSECTION (TRAFFIC CALMING)

VARIABLE WIDTH

PUBLIC STREET A (RESIDENTIAL LOCAL STREET) EXTENSION TO PROPOSED PUBLIC STREET ON CHARTER CALDWELL STATION TOWNHOME PROJECT SUBMITTED UNDER SEPARATE APPLICATION.

PUBLIC ROAD STUB PER R 98-08

AREA BETWEEN BACK OF CURB AND PROPERTY LINE TO BE DEDICATED R/W. SEE SHEET SK6.01 FOR TREATMENT OF AREA

SAYKHAM & PHOUMMY INTHANONH
D.B. 6080, PG. 454
PARCEL ID: 00543141
ZONED: NEIGHBORHOOD RESIDENTIAL

TIMOTHY JOSEPH & BRENDA HAGER ROY
D.B. 8674, PG. 572 (TRACT THREE)
PARCEL ID: 00543136
ZONED: NEIGHBORHOOD RESIDENTIAL

TIMOTHY JOSEPH & BRENDA HAGER ROY
D.B. 8674, PG. 572 (TRACT ONE)
PARCEL ID: 00543137
ZONED: NEIGHBORHOOD RESIDENTIAL

68' DUKE R/W (MB 49/733)

65' DUKE R/W (MB 49/733)

SITE DATA

TAX MAP NO:	00544330
STREET ADDRESS:	17155 OLD STATESVILLE ROAD
CURRENT ZONING:	NR (TND-O)
REZONING PETITION:	R 98-08
EXISTING SITE AREA:	11.67 ACRES (508,143 SF)
RIGHT-OF-WAY DEDICATION:	2.97 ACRES (129,400 SF)
NET SITE AREA:	8.70 ACRES (378,743 SF)
EXISTING USE:	VACANT
PRINCIPAL USE:	MULTI-FAMILY APARTMENTS
PROPOSED UNITS:	166 APARTMENTS (FOR RENT) (76 1BR, 90 2 BR)
PROPOSED DENSITY:	14.22 DUA
NON-RESIDENTIAL AREA:	±8,000 SF (CLUBHOUSE, DOG SPA, CARWASH/MAINTENANCE)
PROPOSED NUMBER OF LOTS:	4
MINIMUM PARKING REQUIRED:	211 SPACES (1 SPACE/1 BR UNIT, 1.5 SPACES/2 BR UNIT)
PARKING PROVIDED:	74 ON STREET SPACES 195 STANDARD SPACES 9 ACCESSIBLE SPACES 278 SPACES (1.67 SPACES PER UNIT)
BUILDING TYPE:	APARTMENT (FOR RENT)
BUILDING HEIGHT:	2 & 3 STORY
SETBACKS:	
BUILD-TO-RANGE/SETBACKS	10'-25'
MINIMUM BUILDING SEPARATION:	10'
CORNER:	10'
SIDE:	5'
REAR:	5'
CANOPY TREE SAVE REQUIRED:	N/A
REQUIRED SPECIMEN TREE SAVE:	N/A
URBAN OPEN SPACE:	GREENWAY (±400 LF MULTI-PURPOSE PATH 5' WIDE)
AMENITY:	CLUBHOUSE, DOG SPA, DOG PARK, MAINTENANCE/CARWASH, POOL COURTYARD,
TRASH AND RECYCLING:	TRASH COMPACTOR & RECYCLING ENCLOSURE (PRIVATE COLLECTION SERVICE)
ESTIMATE COMPLETION TIMELINE:	2025

WATERSHED INFORMATION

REGULATED DRINKING WATERSHED:	NO
WATERSHED DISTRICT:	MCDOWELL
DENSITY	HIGH DENSITY
IMPERVIOUS AREA:	4.86 ACRES (211,701 SF) 41.6%
PERCENTAGE OF ALLOWABLE IMPERVIOUS AREA PROVIDED:	70%
AMOUNT OF LOT AREA SET ASIDE FOR FUTURE IMPERVIOUS:	NONE

NOTE:

ADJACENT TOWNHOME PROJECT (CHARTER CALDWELL STATION) SUBMITTED UNDER SEPARATE APPLICATION. THIS PROJECT (CHARTER CALDWELL STATION APARTMENTS PHASE II) CANNOT BE BUILT WITHOUT APPROVAL TO CHARTER CALDWELL STATION TOWNHOMES. THESE REVISIONS ARE CONCURRENTLY BEING REVIEWED BY TOWN OF HUNTERSVILLE.

GENERAL NOTES:

1. ALL DEVELOPMENT AND CONSTRUCTION SHALL COMPLY WITH ALL ZONING AND SUBDIVISION STANDARDS OF THE TOWN OF HUNTERSVILLE, MECKLENBURG COUNTY, AND NCDOT, AS APPLICABLE.
2. THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD.
3. ALL AREAS DESIGNATED AS COMMON AND/OR URBAN OPEN SPACE SHALL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER AND DEDICATED FOR PERPETUITY.
4. ACCESS (INGRESS/EGRESS) LOCATION AND DESIGN SHOWN ON THIS SKETCH PLAN AREA SUBJECT TO ACHIEVING VERTICAL AND HORIZONTAL SIGHT DISTANCES, TURN LANE IMPROVEMENTS (INCLUDING) RIGHT-OF-WAY) AND INTERSECTION WITH ADJACENT AND OPPOSIING ACCESS POINTS. MODIFICATIONS TO PLAN MY RESULT.
5. LARGE MATURING TREES WILL BE PLANTED 40' O/C WITHIN THE REQUIRED PLANTING STRIP ALONG ALL STREETS WITH THE EXCEPTION OF RURAL PARKWAYS WHERE EXISTING TREES CAN SATISFY THE STREET TREE REQUIREMENT.
6. SMALL MATURING TREES ARE TO BE USED WHERE OVERHEAD POWER LINES EXIST.
7. BUILD-TO LINE (10-25' ALONG PUBLIC ROADS). A LINE EXTENDING THROUGH A LOT WHICH IS GENERALLY PARALLEL TO THE FRONT PROPERTY LINE AND MARKS THE LOCATION FROM WHICH THE PRINCIPLE VERTICAL PLANE OF THE FRONT BUILDING ELEVATION, EXCLUSIVE OF PORCHES, BAY WINDOWS AND SIMILAR APPURTENANCES, MUST BE ERECTED; INTENDED TO CREATE AN EVEN BUILDING FACADE LINE ON A STREET. THE BUILD-TO LINE IS ESTABLISHED ON THE RECORD PLAT (FINAL PLAT).
8. MAIL DELIVERY TO BE A COMMUNAL STRUCTURE FOR THE ENTIRE PROJECT. TRASH AND RECYCLING TO BE PROVIDED VIA PRIVATE COLLECTION.
9. DIRECT ACCESS FROM LOTS TO A THOROUGHFARE IS PROHIBITED.
10. LOTS SUBJECT TO FLOODING SHOULD NOT BE ESTABLISHED IN SUBDIVISIONS EXCEPT AS PROVIDED IN SECTION 7.280.
8. ALL ROOF MOUNTED MECHANICAL EQUIPMENT WILL BE SCREENED FROM VIEW FROM PUBLIC RIGHT-OF-WAY.
9. RETAINING WALL PLANS ARE REQUIRED TO BE SUBMITTED WITH FIRST SUBMITTAL OF CONSTRUCTION DOCUMENTS REVIEW.
10. STREET TREE LOCATIONS ARE SUBJECT TO CHANGE DURING CONSTRUCTION PLAN PHASE TO SATISFY THE TOWN'S ENGINEERING STANDARDS AND PROCEDURE MANUAL
11. TIA DETERMINATION OF NEED WAS SUBMITTED AND NO TIA WAS REQUIRED.
12. THE SITE WILL BE SERVED THROUGH A MIXTURE OF PUBLIC AND PRIVATE UTILITIES. THROUGHOUT ON-SITE PUBLIC ROADS, CHARLOTTE WATER AND SEWER SERVICE WILL BE EXTENDED AND USED AS CONNECTION POINTS FOR PRIVATE WATER AND SEWER.

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REGISTERED LANDSCAPE ARCHITECT
No.1987
10/01/25
BRIAN W. STRATTON

CHARTER CALDWELL STATION APARTMENTS
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

SKETCH PLAN

25 0 25 50
SCALE: 1"=50'

N

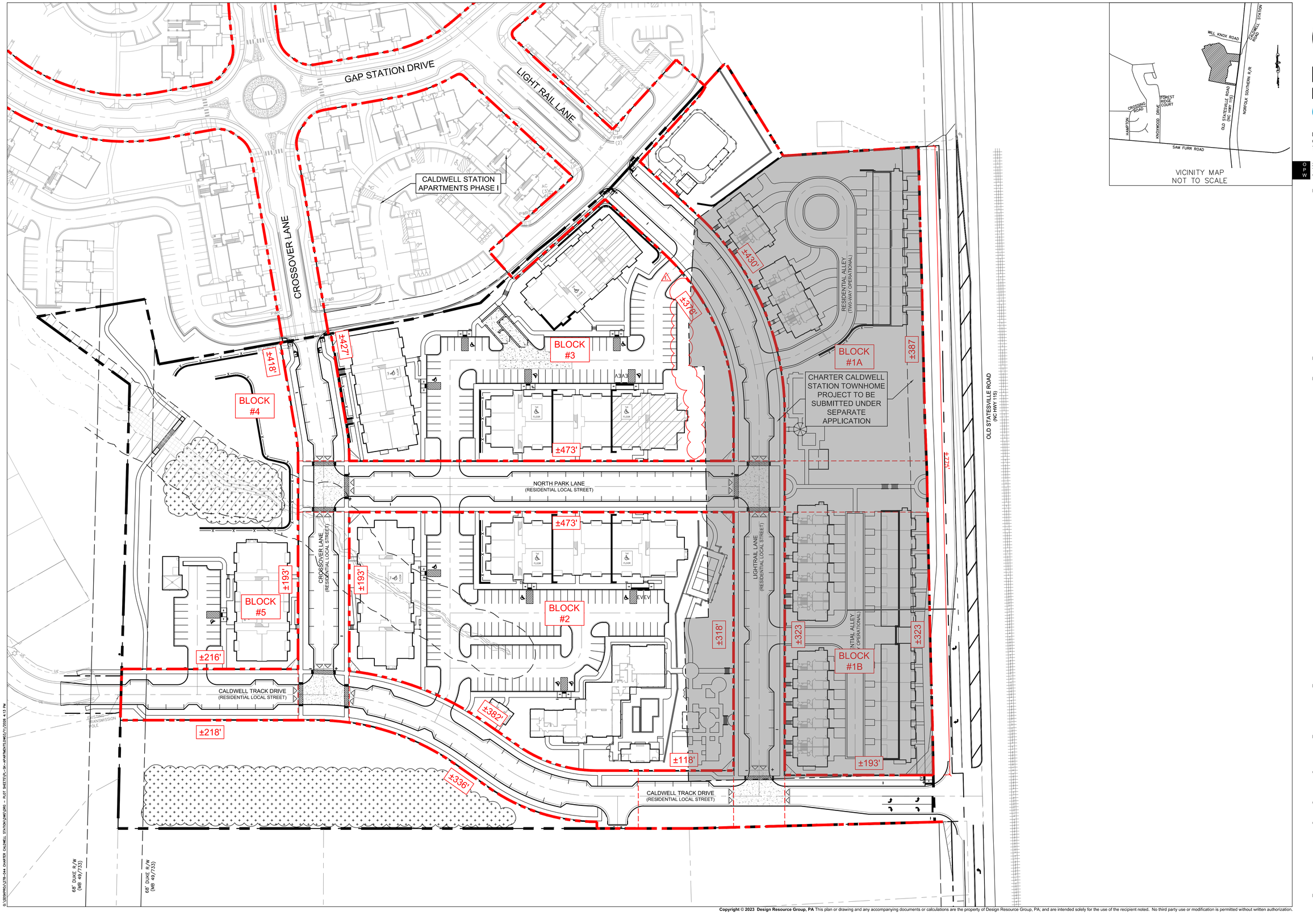
PROJECT #:	278-044
DRAWN BY:	MM
CHECKED BY:	BG

AUGUST 02,2023

REVISIONS:
1. 3/13/26 RTAP

SK2.01

G:\DESIGN\JOBS-044 CHARTER CALDWELL STATION\DWG\SP1 - PLOT SHEETS\SK-2 APARTMENTS.DWG(1/1/2026 4:15 PM



VICINITY MAP
NOT TO SCALE

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SKETCH PLAN

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BLOCK LENGTH PLAN

SCALE: 1"=50'

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:
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SK2.02

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SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS

HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
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GRADING PLAN

SCALE: 1"=50'

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:
1. 3/13/26 RTAP

SK4.00

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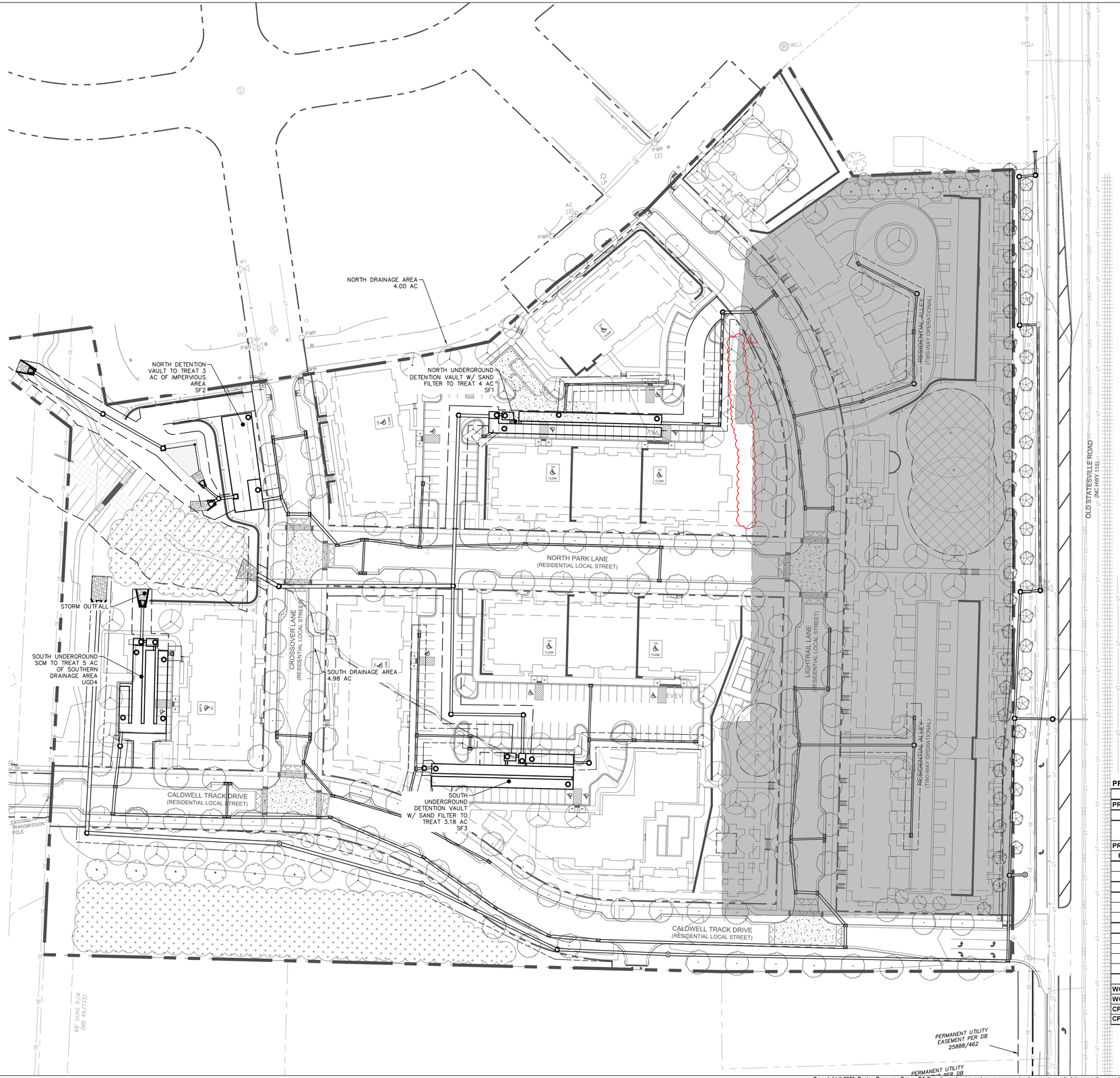

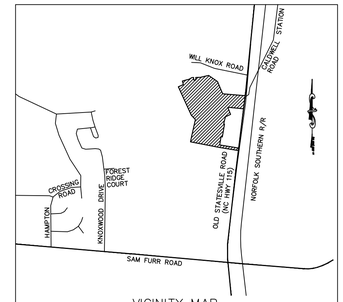

VICINITY MAP
NOT TO SCALE

STORM DRAINAGE LEGEND

- MANHOLE (NCDOT DET.840.52)
- CATCH BASIN (NCDOT DET.840.02)
- DROP INLET (NCDOT DET.840.14)
- ADS NYLOPLAST INLINE DRAIN. CONTACT MANUFACTURER FOR ADDITIONAL PARTS REQUIRED. (SEE DETAIL SHEETS)
- ADS NYLOPLAST INLINE CLEANOUT. CONTACT MANUFACTURER FOR ADDITIONAL PARTS REQUIRED. (SEE DETAIL SHEETS)
- RCP
- EXISTING STORM DRAINAGE PIPE
- HDPE

PRE AND POST DEVELOPMENT SUMMARY CHART

	NORTH AREA		SOUTH AREA	
PRE-DEVELOPMENT	**TOWNHOME**	**APARTMENT**	**TOWNHOME**	**APARTMENT**
DRAINAGE AREA (AC)	2.33	4.00	2.20	4.98
SCM	**SAND FILTER 1**	**SAND FILTER 2**	**SAND FILTER 3**	**UNDERGROUND DETENTION 4**
PRE-DEVELOPMENT DRAINAGE AREA TO SCM	4.24	2.77	3.18	5.00
PRE PERCENT IMPERVIOUS AREA	0%	7%	0%	0%
2-YR STORM EVENT BMP (CFS)	0.61	0.54	0.46	0.75
10-YR STORM EVENT BMP (CFS)	4.15	2.86	3.14	5.03
POST-DEVELOPMENT				
POST PERCENT IMPERVIOUS AREA	**63%**	**100%**	**63%**	**61%**
2-YR STORM EVENT BMP (CFS)	9.15	11.38	10.4	7
10-YR STORM EVENT BMP (CFS)	18.14	16.78	20.96	13.80
ROUTED-DEVELOPMENT				
2-YR STORM EVENT BMP (CFS)	0.1	0.12	0.04	0.15
PRE VS POST DIFFERENCE (CFS)	-0.51	-0.42	-0.42	-0.60
10-YR STORM EVENT BMP (CFS)	3.93	2.74	2.42	4.87
PRE VS POST DIFFERENCE (CFS)	-0.22	-0.12	-0.72	-0.16
WQ VOLUME REQUIRED (CF)	9,458	9536	7,180	10,871
WQ VOLUME PROVIDED (CF)	9,452	9583	7,143	10933
CP_v VOLUME REQUIRED (CF)	9,155	11793	7,217	11395
CP_v VOLUME PROVIDED (CF)	10,895	12499	10,411	12324

IMPERVIOUS FROM APARTMENTS: 5.8 AC

PREVIOUSLY APPROVED IMPERVIOUS AREA FOR APARTMENTS: 11 AC

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CONSTRUCTION PLAN

NORTH PARK APARTMENTS
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

STORMWATER MANAGEMENT PLAN

SCALE: 1" = 50'

PROJECT #: 278-044
DRAWN BY: KAH
CHECKED BY: JBB

APRIL 07, 2025

REVISIONS:
1 3/13/26 RTAP

SK4.10

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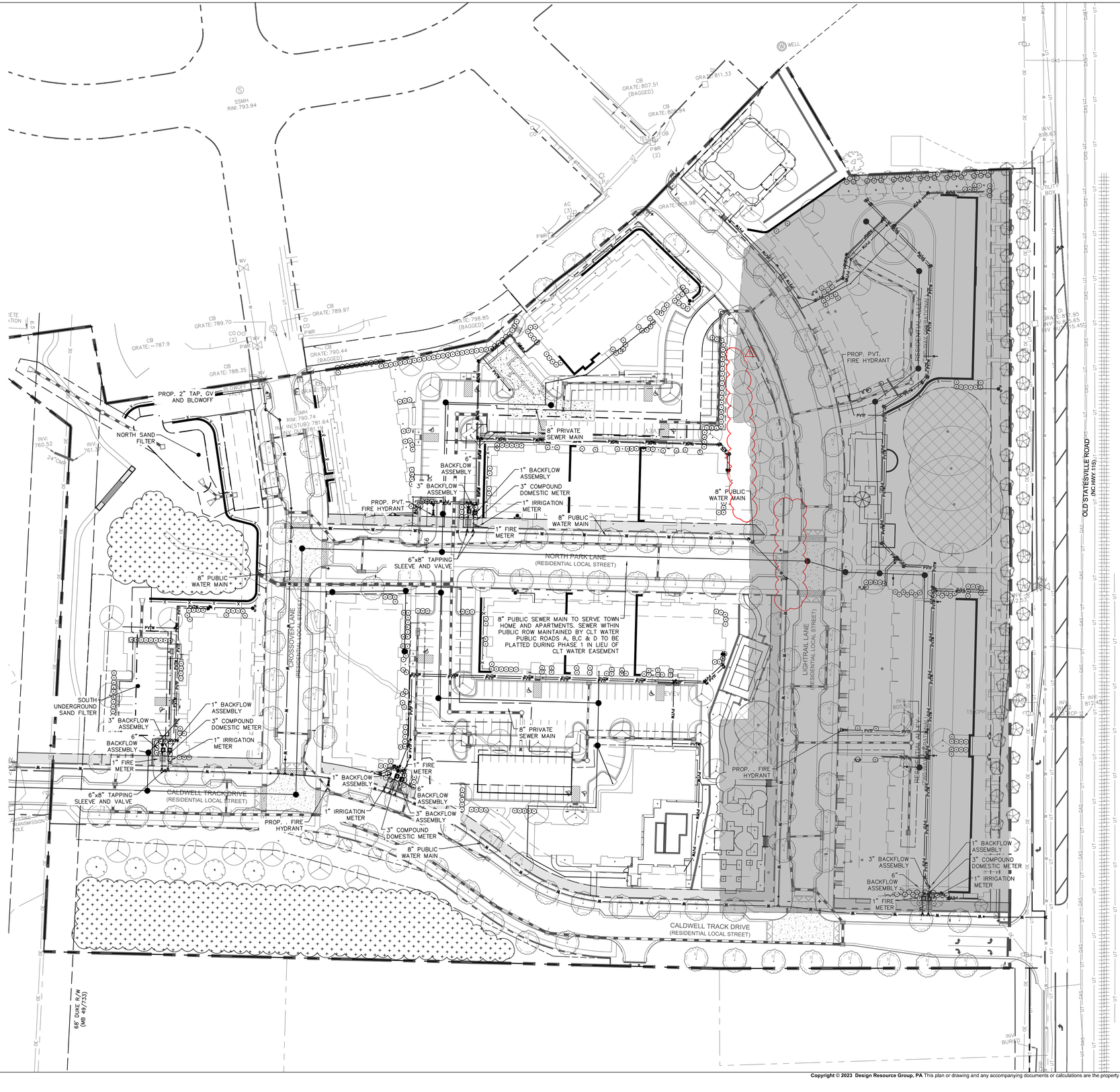

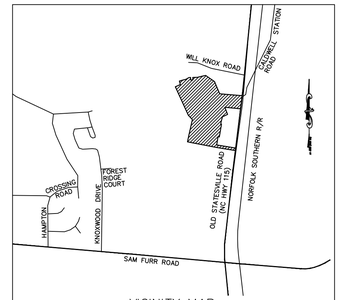

VICINITY MAP
NOT TO SCALE

LEGEND

- 4' PRECAST MANHOLE
- SANITARY SEWER CLEANOUT
- 8" PVC SANITARY SEWER (SDR 35)
- 45° VERTICAL BEND
- X" CLEAN OUT, X" SAN. SWR LAT. 5' OFF BLDG.
- X" DOMESTIC WATER SVC., X" GV., X" PLUG, 5' OFF BLDG.
- X" FIRE SERVICE, X" GV., X" PLUG, 5' OFF BLDG.
- FIRE DEPARTMENT CONNECTION
- REMOTE FIRE DEPARTMENT CONNECTION
- YARD HYDRANT
- WATER REDUCER
- WATER GATE VALVE
- TEE WITH THRUST BLOCKING
- BLOW OFF WITH GV AND REDUCER
- PROPOSED FIRE HYDRANT
- WATER MAIN AND SERVICES
- TRENCH RESURFACING
- RIGHT-OF-WAY
- SETBACK
- XX" BEND W/ THRUST BLOCKING
- BACKWATER VALVE

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SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
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UTILITY PLAN

25 0 25 50
SCALE: 1" = 50'

N

PROJECT #: 278-044
DRAWN BY: AVK
CHECKED BY: JBB

AUGUST 02,2023

REVISIONS:
1. 3/13/26 RTAP

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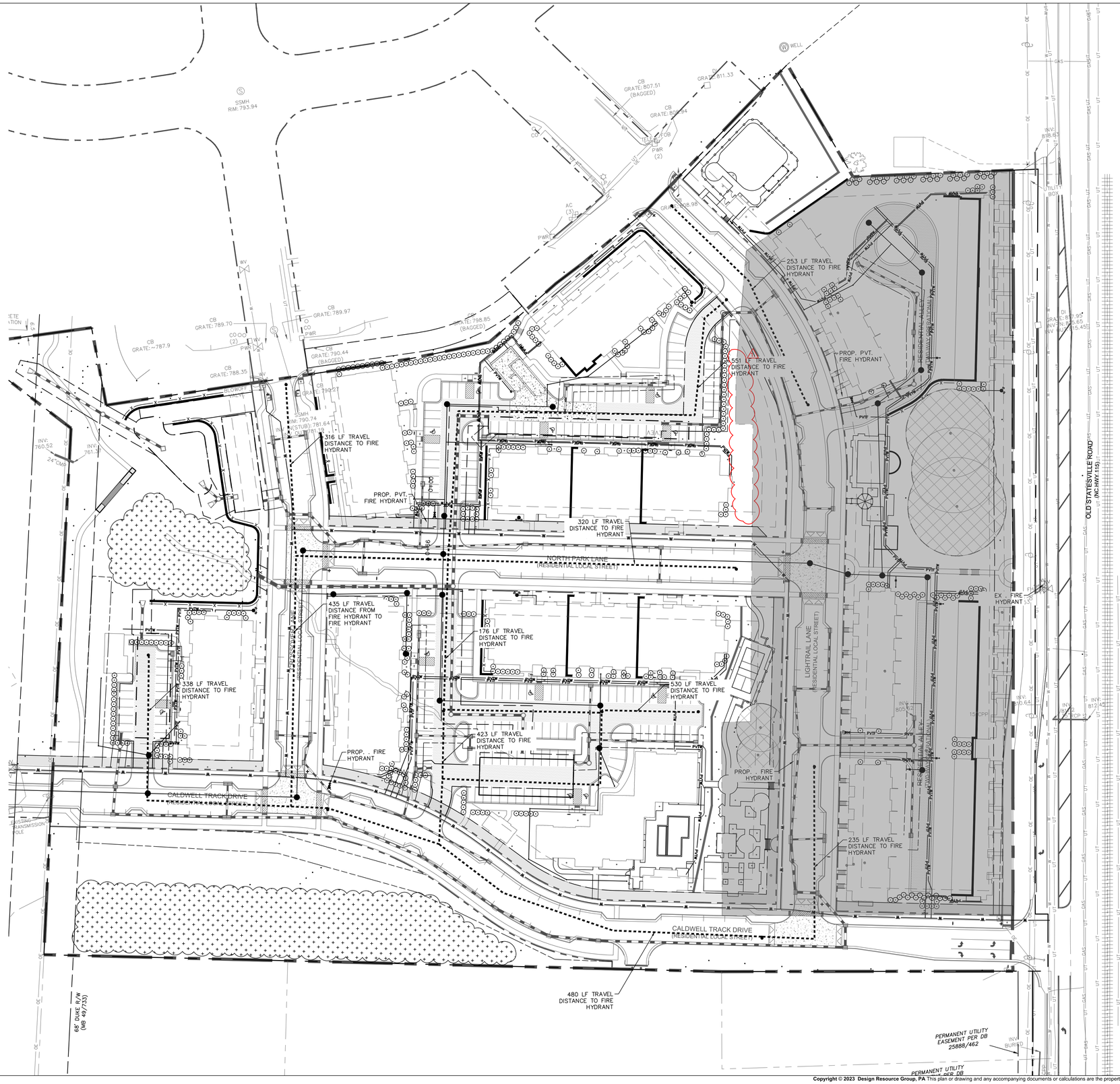

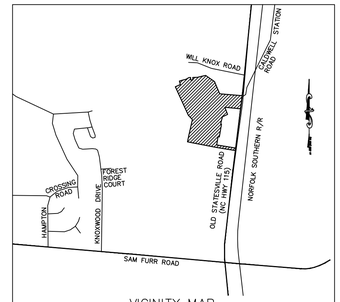

VICINITY MAP
NOT TO SCALE

LEGEND

- 4' PRECAST MANHOLE
- SANITARY SEWER CLEANOUT
- 8" PVC SANITARY SEWER (SDR 35)
- 45° VERTICAL BEND
- SV — X" CLEAN OUT, X" SAN. SWR LAT. 5' OFF BLDG.
- WV — X" DOMESTIC WATER SVC., X" GV., X" PLUG, 5' OFF BLDG.
- 4" — X" FIRE SERVICE, X" GV., X" PLUG, 5' OFF BLDG.
- FIRE DEPARTMENT CONNECTION
- REMOTE FIRE DEPARTMENT CONNECTION
- YARD HYDRANT
- WATER REDUCER
- WATER GATE VALVE
- TEE WITH THRUST BLOCKING
- BLOW OFF WITH GV AND REDUCER
- PROPOSED FIRE HYDRANT
- W — WATER MAIN AND SERVICES
- TRENCH RESURFACING
- RIGHT-OF-WAY
- SETBACK
- XX — XX° BEND W/ THRUST BLOCKING
- BV — BACKWATER VALVE

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SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

FIRE AND SAFETY PLAN

25 0 25 50 N

SCALE: 1" = 50'

PROJECT #:	278-044
DRAWN BY:	AVK
CHECKED BY:	JBB

AUGUST 02,2023

REVISIONS:
1 3/13/26 RTAP

SK5.01

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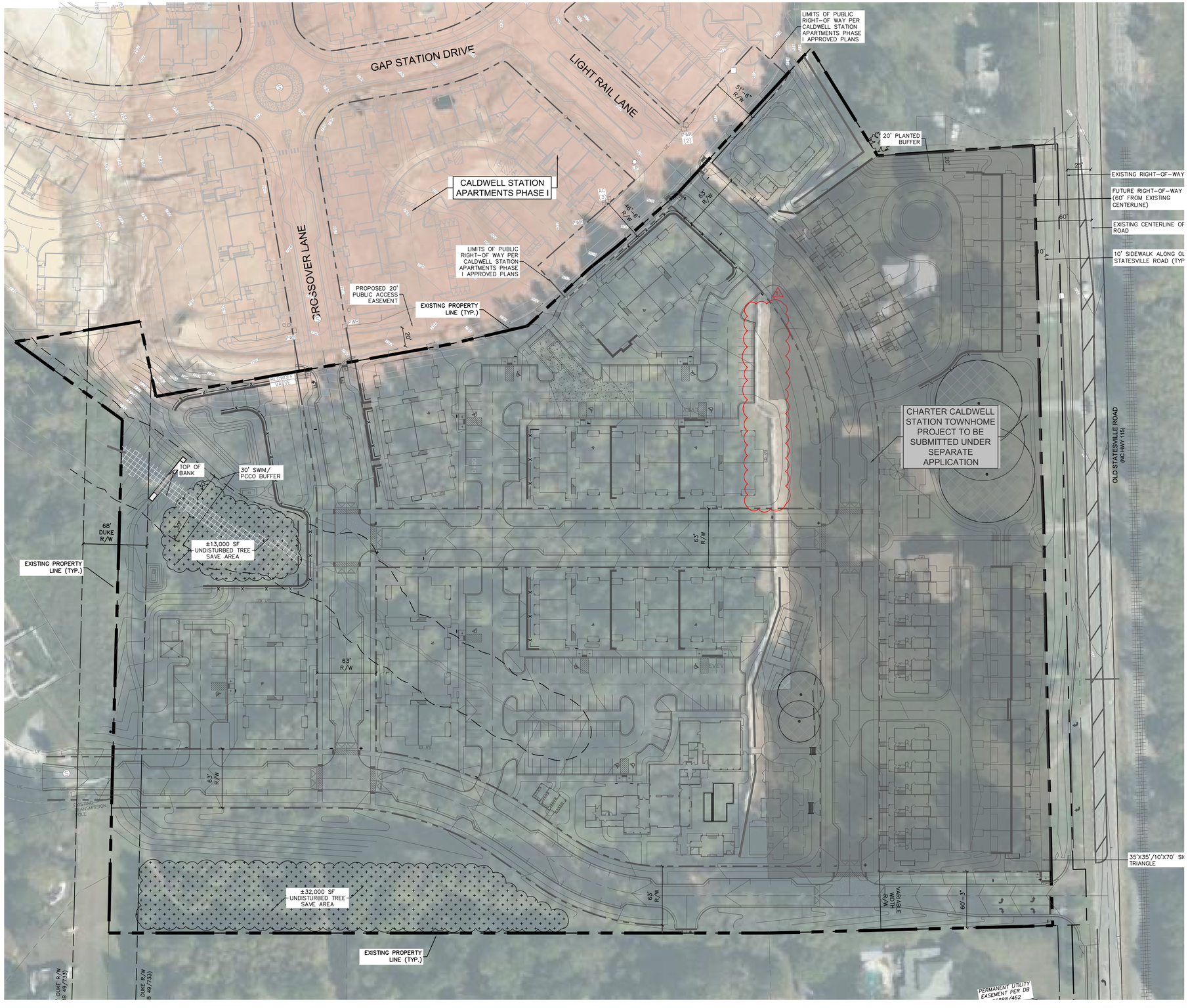

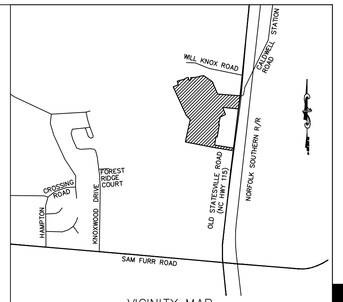

VICINITY MAP
NOT TO SCALE

TREE PRESERVATION: PER APPROVED SKETCH PLAN FOR CALDWELL STATION APARTMENTS PHASE II (5/22/2012)

N/A, NO CONDITIONS PLACED ON REZONING PETITION 98-08, ATTEMPTS WILL BE MADE DURING SITE DESIGN AND ACTUAL GRADING TO PRESERVE EXISTING TREES

HAS THIS SITE BEEN FORESTED OR CLEARED IN THE PAST THREE YEARS – NO

% OF SITE COVERED BY TREE CANOPY – APPROXIMATELY 85%
% OF TREE CANOPY PRESERVATION REQUIRED BY DISTRICT – 10%
% OF TREE CANOPY ACTUALLY SAVED–APPROXIMATELY 9% OF SITE

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SKETCH PLAN

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HUNTERSVILLE, NORTH CAROLINA

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TREE INVENTORY PLAN

SCALE: 1"=50'

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:
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SK6.00

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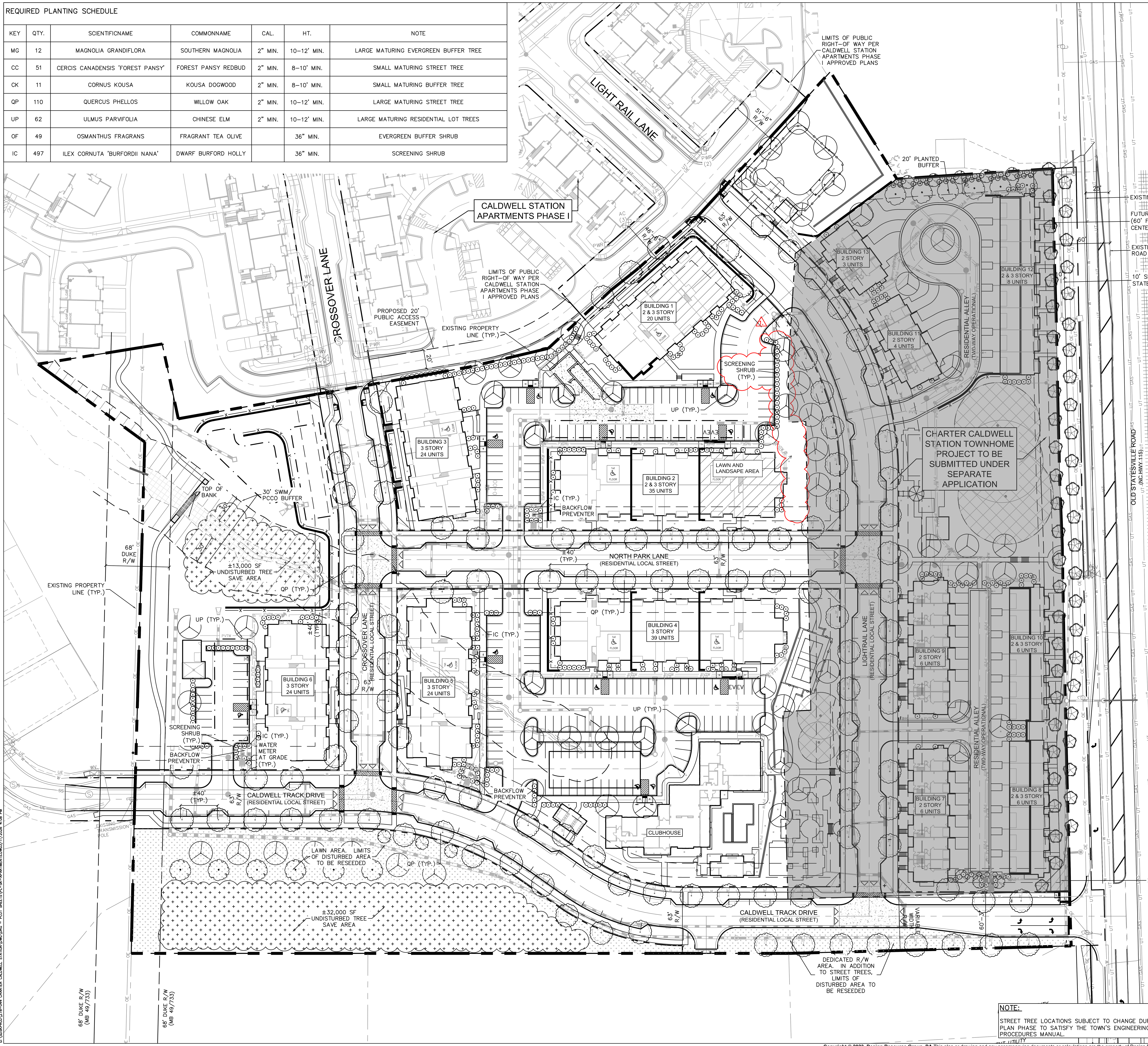
REQUIRED PLANTING SCHEDULE

KEY	QTY.	SCIENTIFICNAME	COMMONNAME	CAL.	HT.	NOTE
MG	12	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	2" MIN.	10–12' MIN.	LARGE MATURING EVERGREEN BUFFER TREE
CC	51	CERCIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	2" MIN.	8–10' MIN.	SMALL MATURING STREET TREE
CK	11	CORNUS KOUSA	KOUSA DOGWOOD	2" MIN.	8–10' MIN.	SMALL MATURING BUFFER TREE
QP	110	QUERCUS PHELLOS	WILLOW OAK	2" MIN.	10–12' MIN.	LARGE MATURING STREET TREE
UP	62	ULMUS PARVIFOLIA	CHINESE ELM	2" MIN.	10–12' MIN.	LARGE MATURING RESIDENTIAL LOT TREES
OF	49	OSMANTHUS FRAGRANS	FRAGRANT TEA OLIVE		36" MIN.	EVERGREEN BUFFER SHRUB
IC	497	ILEX CORNUTA 'BURFORDII NANA'	DWARF BURFORD HOLLY		36" MIN.	SCREENING SHRUB



NOTE:

STREET TREE LOCATIONS SUBJECT TO CHANGE DURING CONSTRUCTION PLAN PHASE TO SATISFY THE TOWN'S ENGINEERING STANDARDS AND PROCEDURES MANUAL.

TREE PLANTING NOTES

PLANTING MATERIAL

1. MINIMUM SHADE TREE SIZE AT PLANTING IS 2"–2.5" CALIPER AND 10'–12' TALL AT TIME OF PLANTING. ORNAMENTAL TREES SHALL MEASURE 1.5–2" CALIPER FOR SINGLE–STEM AND 1–1.5" CALIPER FOR ALL MULTI–STEM TREES AND BE A MINIMUM 8' IN HEIGHT AT TIME OF PLANTING.
2. LARGE SHRUBS, PLANTED FOR SCREENING PURPOSES SHALL MEASURE A MINIMUM OF 3–3.5' IN HEIGHT AT TIME OF PLANTING. SHRUBS PLANTED FOR SCREENING PURPOSES SHALL FORM A REQUIRED DENSITY TO BLOCK VISIBILITY WITHIN 3 YEARS FROM DATE OF INSTALLATION.
3. SMALL SHRUBS SHALL MEASURE A MINIMUM OF 36" IN SPREAD AND/OR HEIGHT AT TIME OF PLANTING.
4. ALL NEW TREES MUST HAVE STRAIGHT TRUNKS WITH STRONG CENTRAL LEADERS INTACT TO THE TOP OF THE CROWN UNLESS MULTI–STEM TREES ARE SPECIFIED. ALL REQUIRED TREES SHALL BE TYPICAL OF THEIR SPECIES AND VARIETY, HAVE NORMAL GROWTH HABITS, HAVE WELL–DEVELOPED BRANCHES, BE VIGOROUS AND HAVE FIBROUS ROOT SYSTEMS. TREES WITH MAJOR GIRDLING ROOTS WILL NOT BE ACCEPTED. TREES WITH CO–DOMINANT BRANCHING WILL NOT BE ACCEPTED. TREES THAT HAVE BEEN SHEARED, TOPPED OR CUT BACK TO MULTIPLY THE BRANCHING STRUCTURE WILL NOT BE ACCEPTED. TREE SHALL BE FREE OF ABRASIONS, DAMAGE, DISEASE, PESTS AND CRACKS. ALL PRUNING CUTS GREATER THAN ½ INCH DIAMETER SHALL HAVE CALLUS TISSUE FORMED PRIOR TO PLANTING. NO PRUNING CUT ON THE TRUCK SHALL BE MORE THAN ONE–HALF THE DIAMETER OF THE CENTRAL LEADER AT THE HEIGHT WHERE THE CUT IS MADE. ROOT FLARES SHALL BE LOCATED AT GRADE. TREES WITH MORE THAN 2" OF SOIL COVERING ROOT BALL/FLARE WILL NOT BE ACCEPTED.
5. SIZE OF REQUIRED PLANTS, SPREAD OF ROOTS AND SIZE OF BALLS SHALL BE IN ACCORDANCE WITH ANSI Z60.1 (LATEST EDITION) AS PUBLISHED BY THE AMERICAN NURSERY & LANDSCAPE ASSOCIATION, EXCEPT WHERE SPECIFIED/AUTHORIZED BY THE ADMINISTRATOR.
6. ALL REQUIRED TREES OF A PARTICULAR SPECIES AND VARIETY SHALL BE UNIFORM IN SIZE AND CONFIGURATION.
7. THE PRESENCE OF OVERHEAD POWER LINES REQUIRES STREET YARD TREES TO BE ORNAMENTAL TREES. LARGER SHADE TREE VARIETIES ARE ENCOURAGED WHERE OVERHEAD POWER LINES ARE NOT PRESENT.

PLANTING REQUIREMENTS

8. SEE DETAILS 1–3 SHEET C8.02 FOR TREE AND SHRUB PLANTING DETAILS.
9. PLASTIC HOSE PARTS WILL NOT BE ACCEPTED FOR TREE STAKING.
10. ALL STRAPPING, AND TOP ⅓ OF OF WIRE BASKET AND BURLAP MUST BE CUT AWAY AND REMOVED FROM ROOT BALL WHEN PLANTING.
11. FOR NEW PLANTING AREAS, REMOVE ALL PAVEMENT, GRAVEL SUB–BASE AND CONSTRUCTION DEBRIS; REMOVE COMPACTED SOIL AND ADD 18" NEW TOPSOIL, OR TILL AND AMEND THE TOP 18" OF EXISTING SOIL TO MEET TOPSOIL/PLANTING MIX STANDARDS FOR TREES.
12. TREES PLANTED IN NCDOT RIGHT–OF–WAY WILL NEED APPROVAL FROM NCDOT.

UTILITY ISSUES

13. IF ANY UTILITY IS BEING INSTALLED IN OR NEAR ANY REQUIRED TREE(S), CALL LANDSCAPE ARCHITECT TO RESOLVE PRIOR TO UTILITY INSTALLATION.
14. LARGE MATURING TREES MAY NOT BE PLANTED WITHIN 25' OF OVERHEAD POWER DISTRIBUTION OR TRANSMISSION LINES
15. IF TREES CONFLICT WITH ANY UTILITIES OR SIGNS, CALL LANDSCAPE ARCHITECT TO RESOLVE BEFORE PLANTING
16. ADJUST TREE PLANTING LOCATIONS TO AVOID EXISTING UNDERGROUND UTILITIES. PLANT 15' FROM ALL UNDERGROUND UTILITIES.

AMENDED SOIL (AS):

AMENDED SOIL (AS) MAY BE MET IN ONE OF THE FOLLOWING WAYS:

1. PREPARING THE EXISTING SOIL FOR PLANTING BY TILLING TO A DEPTH OF 18", AND ADDING SOME NEW PLANTING MIX AND/OR ORGANIC MATTER. THIS OPTION MAY ALSO REQUIRE THE REMOVAL OF SOME EXISTING SOIL ALONG WITH OTHER MITIGATION WORK AND SOIL AMENDMENTS TO IMPROVE SOIL STRUCTURE.
2. REMOVING ALL EXISTING SOIL FROM A TREE ORDINANCE PROTECTED/REQUIRED PLANTING AREA AND REPLACING IT WITH NEW PLANTING MIX AND OTHER SOIL AMENDMENTS.

PLANTING MIX USED FOR AMENDED SOIL SHALL HAVE UNIFORM COMPOSITION THROUGHOUT, WITH A MIXTURE OF SUBSOIL. IT SHALL BE FREE OF STONES, LUMPS, LIVE PLANTS AND THEIR ROOTS, STICKS, AND OTHER EXTRANEOUS MATTER. IT SHALL CONTAIN NO MAN–MADE MATERIALS UNLESS OTHERWISE SPECIFIED. PLANTING MIX SHALL NOT BE USED WHILE IN A FROZEN OR MUDDY CONDITION.

UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, NEW/ADDED PLANTING MIX SHALL CONTAIN THE FOLLOWING SPECIFIED PERCENTAGES OF CONSTITUENTS:

CLAY	MIN. 10%/MAX. 40%	SAND	MIN. 20%/MAX. 50%
SILT	MIN. 20%/MAX. 50%	ORGANIC MATTER	MIN. 5%/MAX. 10%

ORGANIC MATTER IS DEFINED AS COMPOST/HUMUS SUCH AS SAWDUST OR LEAF MOLD THAT HAS COMPLETED THE DECOMPOSITION

PROCESS. PERCENTAGE OF ORGANIC MATTER SHALL BE DETERMINED BY LOSS ON IGNITION OF MOISTURE FREE SAMPLES DRIED AT 65 DEGREES.

AMENDED SOIL SHALL HAVE AN ACIDITY RANGE OF pH 5.5 TO 7.0.

AMENDED SOIL SHALL HAVE A CATION EXCHANGE CAPACITY (CEC) FROM 5 TO 25 CMOL +/KG(MEQ/100G)

AMENDED SOIL SHALL HAVE NORMAL CONTENTS OF NITROGEN, PHOSPHOROUS, POTASSIUM, CALCIUM, MAGNESIUM, SULFUR, AND PROPER MICRONUTRIENT LEVELS. NUTRIENT LEVELS MUST SATISFY GROWING NEEDS (AS RECOMMENDED BY LAB REPORT) OF THE EXISTING OR PLANNED PLANT MATERIAL.

LAB TESTING MAY BE REQUIRED TO VERIFY THE QUALITY OF EXISTING SOILS, AS AND OTHER SOIL AMENDMENTS.

INSTALLATION GUARANTEE REQUIRED:

- A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED PRIOR TO THE INSTALLATION OF TREES AND SHRUBS, EXCLUDING YARD TREES, DURING THE NON–PLANTING SEASON IF A CASH BOND, SURETY BOND OR LETTER OF CREDIT IS ISSUED FOR 120% OF THE COST OF MATERIALS AND INSTALLATION. PLANTING SHALL BE COMPLETED DURING THE NEXT PLANTING SEASON.
- THE PLANTING SEASON SHALL RUN FROM OCTOBER 15 TO MARCH 15, EXCEPT FOR EXTREME WEATHER CONDITIONS AS DETERMINED BY STAFF. A FINAL CERTIFICATE OF OCCUPANCY SHALL NOT BE GIVEN DURING THE PLANTING SEASON UNLESS ALL OF THE LANDSCAPING IS COMPLETELY INSTALLED ACCORDING TO THIS ARTICLE.

MAINTENANCE SURETY REQUIRED:

- DEVELOPERS SHALL ENTER INTO A MAINTENANCE SURETY AGREEMENT WITH THE TOWN OF HUNTERSVILLE GUARANTEEING THE VIABILITY OF STREET TREES AND TREES AND SHRUBS PLANTED IN BUFFER YARDS FOR A PERIOD OF 1 YEAR FOLLOWING PLANTING. THE AMOUNT OF THE SURETY SHALL BE EQUAL TO 50% OF THE VALUE OF THE NEW TREES OR LANDSCAPE MATERIAL AND THEIR INSTALLATION. THE MAINTENANCE SURETY SHALL BE PROVIDED WHEN ALL OF THE REQUIRED TREES AND SHRUBS HAVE BEEN PLANTED.

PERIMETER TREE REQUIREMENTS

LARGE MATURING CANOPY TREES SHALL BE PLANTED AT A SPACING NOT TO EXCEED 40' O.C.

PUBLIC STREET A (WEST SIDE) – 147 LF
REQUIRED: 147/40 = 4 TREES
PROVIDED: 2 TREES

PUBLIC STREET A (EAST SIDE) – 100 LF
REQUIRED: 100/40 = 3 TREES
PROVIDED: 2 TREES

PUBLIC STREET B (NORTH SIDE) – 440 LF
REQUIRED: 440/40 = 11 TREE
PROVIDED: 10 TREE

PUBLIC STREET B (SOUTH SIDE) – 440 LF
REQUIRED: 440/40 = 11 TREE
PROVIDED: 10 TREE

PUBLIC STREET C (WEST SIDE) – 400 LF
REQUIRED: 400/40 = 10 TREES
PROVIDED: 9 TREES

PUBLIC STREET C (EAST SIDE) – 354 LF
REQUIRED: 354/40 = 9 TREES
PROVIDED: 8 TREES

PUBLIC STREET D (NORTH SIDE) – 898 LF
REQUIRED: 898/40 = 23 TREE
PROVIDED: 18 TREE

PUBLIC STREET D (SOUTH SIDE) – 966 LF
REQUIRED: 966/40 = 25 TREE
PROVIDED: 23 TREE

BUFFER YARD REQUIREMENTS

20' RESIDENTIAL LANDSCAPE BUFFER LOCATED IN ALL APPLICABLE AREAS
N/A PER 1998 CODE

RESIDENTIAL LOT TREES

REQUIRED: MORE THAN 20,000 SF. 3 FRONT YARD, 3 REAR YARD TREES

PROVIDED: (27) 2" CAL. LARGE MATURING TREES

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DESIGN RESOURCE GROUP
LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
TRANSPORTATION PLANNING
2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
704.343.0608
www.drgrp.com

NORTH CAROLINA DESIGN RESOURCE GROUP, P.A. CORPORATE SEAL C–95 C–2165 NCBELS

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT No.1987 BRIAN W. GRAHAM 08/02/23

SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS
HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

REQUIRED LANDSCAPING PLAN

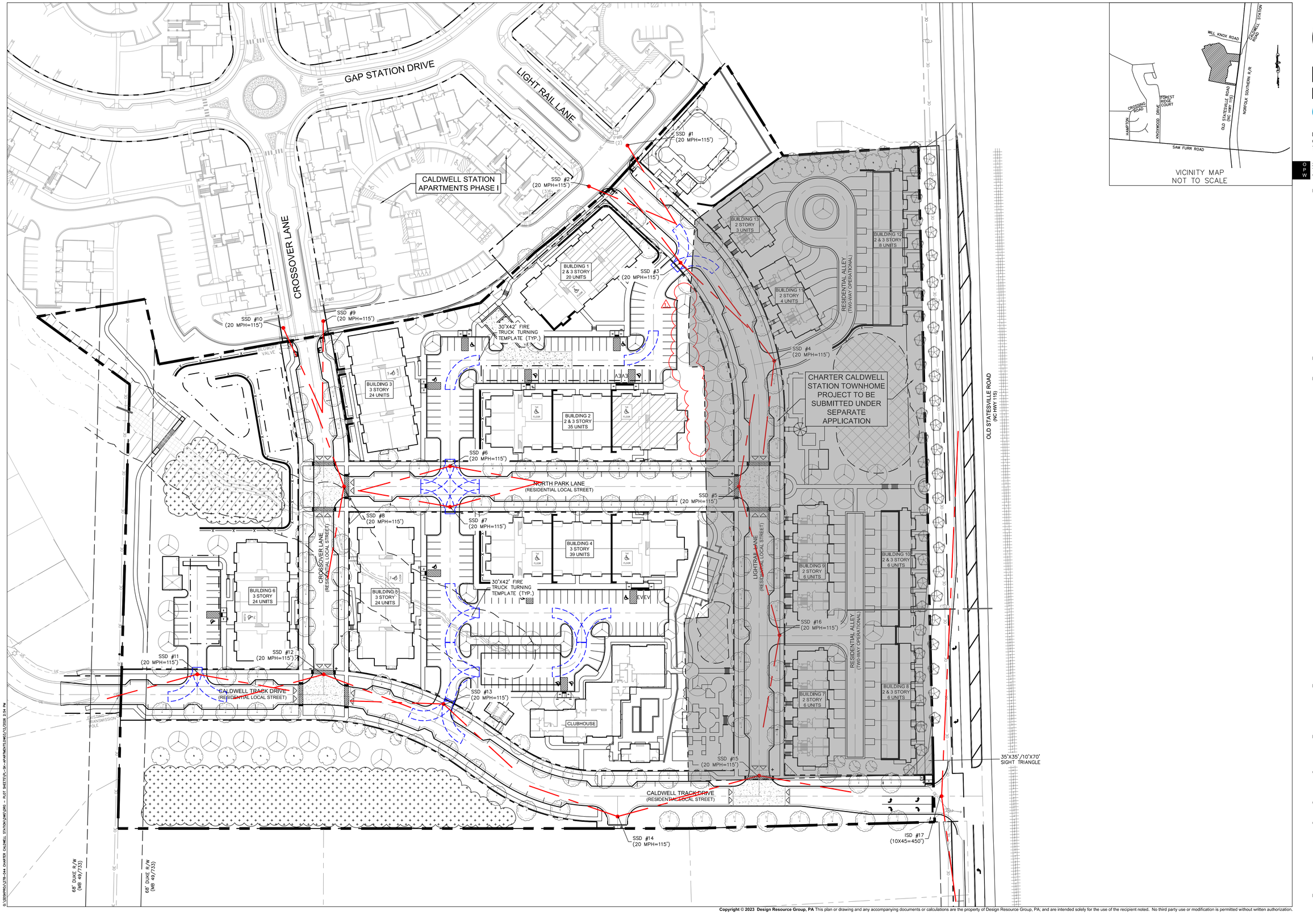
SCALE: 1"=50'

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:
1. 3/13/26 RTAP

SK6.01



DESIGN RESOURCE GROUP

LANDSCAPE ARCHITECTURE
CIVIL ENGINEERING
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2459 Wilkinson Blvd, Ste 200 Charlotte, NC 28208
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NORTH CAROLINA CORPORATE SEAL C-95 C-2165 NCBELS DESIGN RESOURCE GROUP, P.A.

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SKETCH PLAN

CHARTER CALDWELL STATION APARTMENTS

HUNTERSVILLE, NORTH CAROLINA

CHARTER PROPERTIES, INC.
1520 SOUTH BOULEVARD, SUITE 215
CHARLOTTE, NC 28203
704.377.4172

INTERSECTION SIGHT DISTANCE AND FIRE TRUCK MANUEVERING

25 0 25 50
SCALE: 1" = 50'

PROJECT #: 278-044
DRAWN BY: MM
CHECKED BY: BG

AUGUST 02,2023

REVISIONS:

SK7.00

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NEIGHBORHOOD MEETING REPORT FORM

CHARTER-NORTH PARK APARTMENTS

TOWN OF HUNTERSVILLE

Date and Time of Meeting: The meeting was commenced April 20, 2026, at 6 p.m. The meeting was adjourned at 6:25 p.m.

Persons and Organizations Contacted: The Town of Huntersville provided an Excel list of 28 net total neighbors/interested parties to contact. Each name on the Town's list was sent a letter. The mailing list and invitation letter form are attached.

Location of Meeting: Town Hall meeting room, Town of Huntersville, 14704 North Old Statesville Rd.

Persons in Attendance: Zero (0) adult neighbors attended the meeting.

David Peete, Town of Huntersville Planning Dept., attending the meeting on behalf of the Town.

Eric Williams and Phil Vetter attended the meeting on behalf of the applicant, Charter Properties/North Park Apartments.

Summary of Issues Discussed: None.

Respectfully submitted,



Eric M. Williams

Charter Properties

EXHIBIT
11.B-2

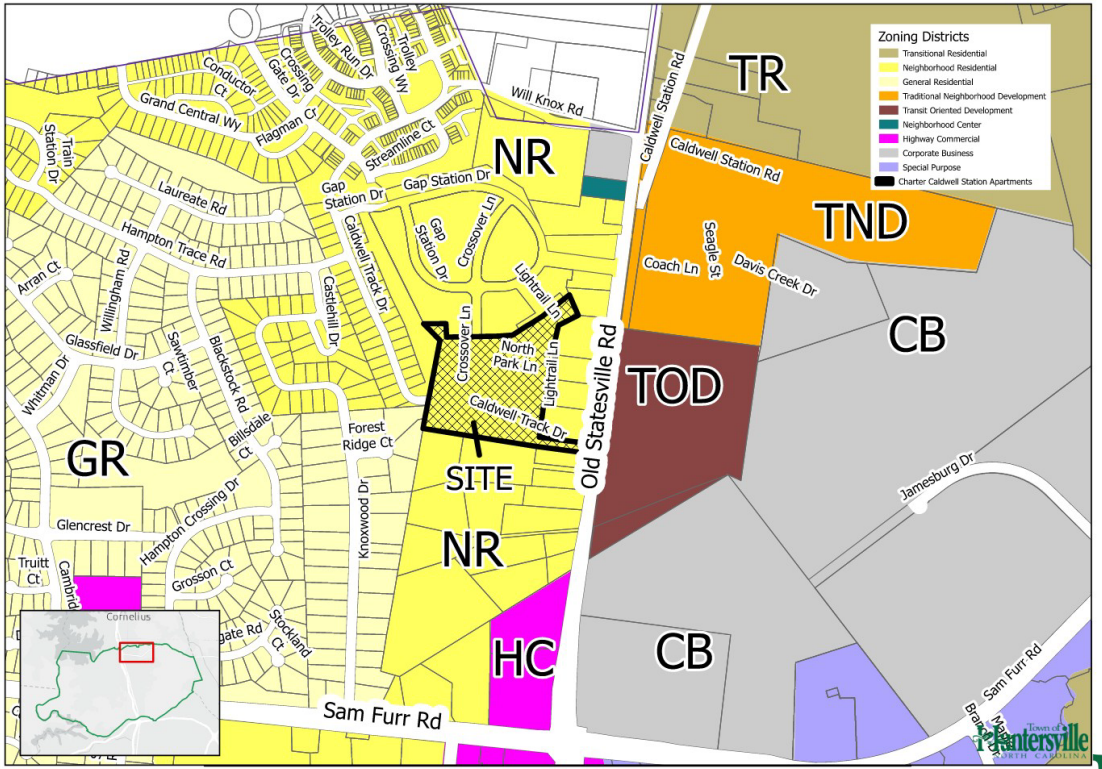
R26-06
Charter Caldwell Station Apts - Revision

May 4, 2026
Town Board

Town of Huntersville
NORTH CAROLINA

Rezoning Request

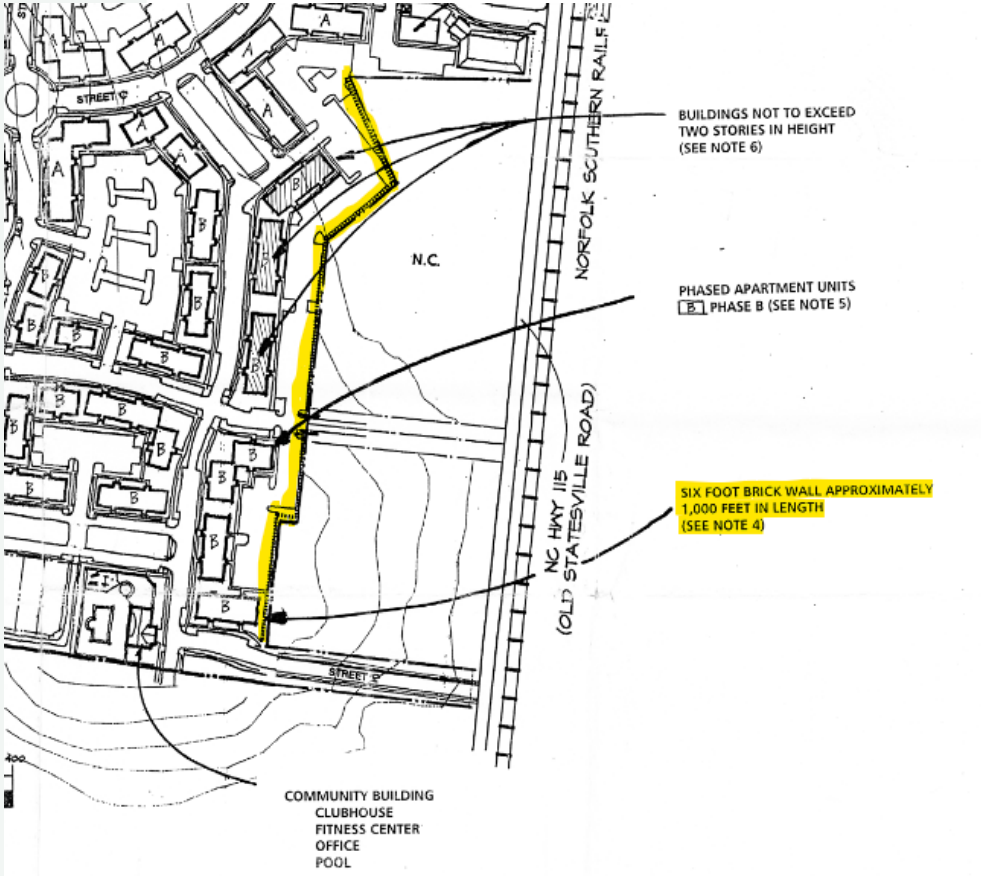
Currently zoned Neighborhood Residential – Traditional Neighborhood Development - Overlay (NR-TND-O). This is a revision to the overlay requirements.



Revision History

R98-08 – 1998





Revision History

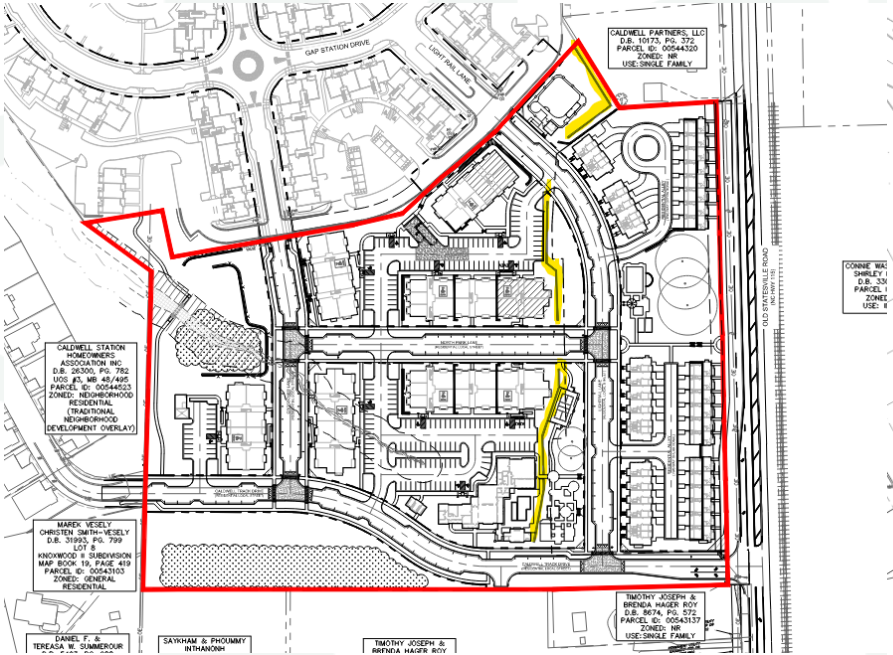


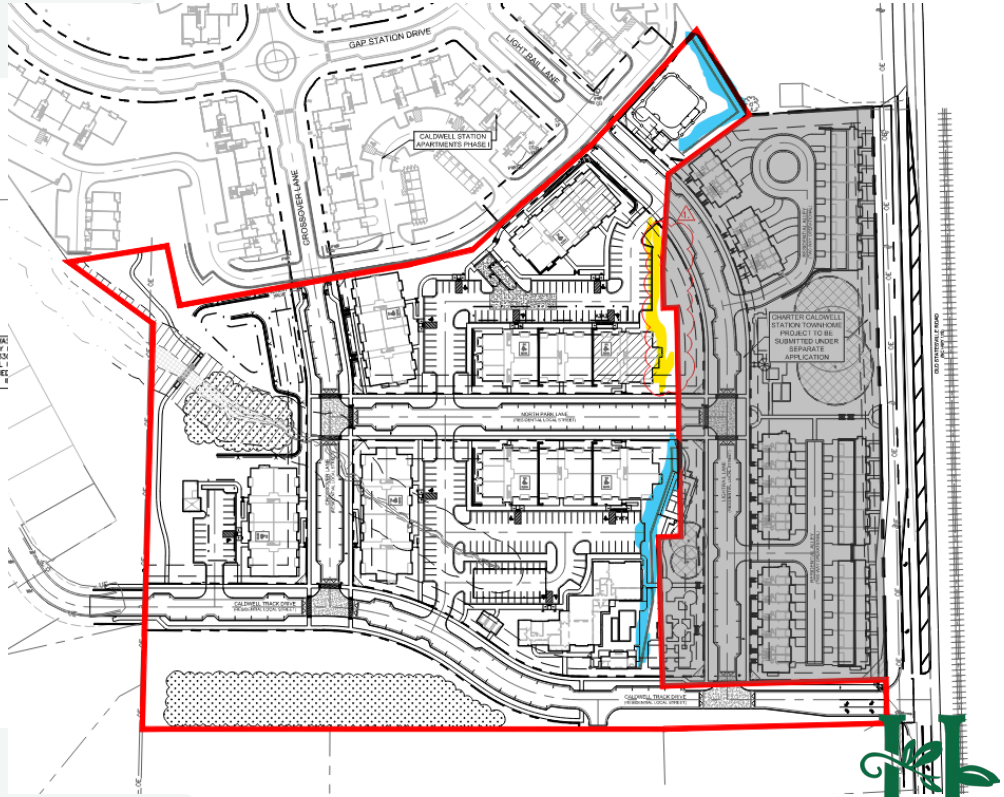




Revision History

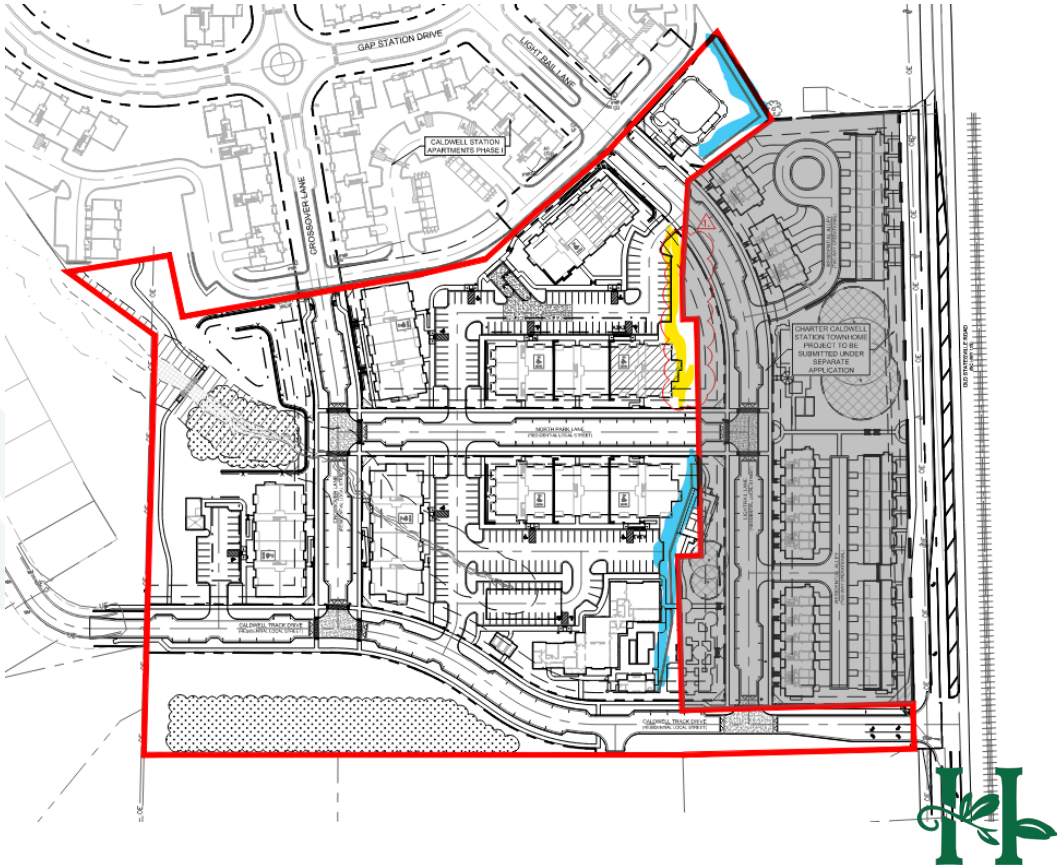
Approved Plan for both Charter Caldwell Station & frontage properties - 2025.





Revision Highlights

- To remove a 222-ft. section of a screen wall located in the center of the project where both sides of the wall are now owned by the applicant (North Park Apartments, LLC)



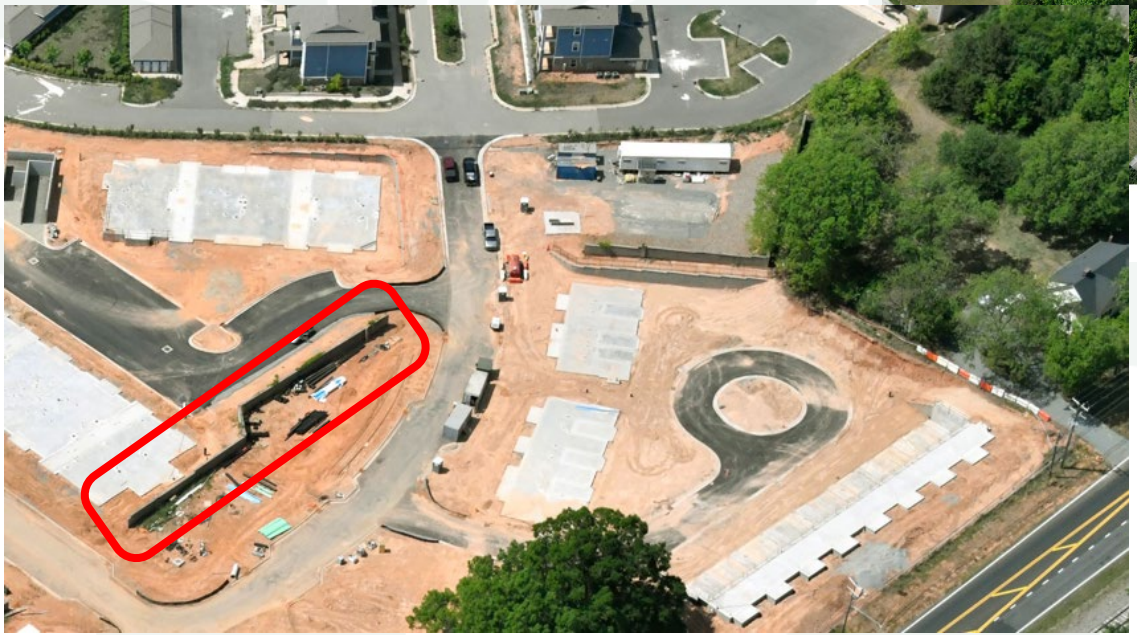
Revision History



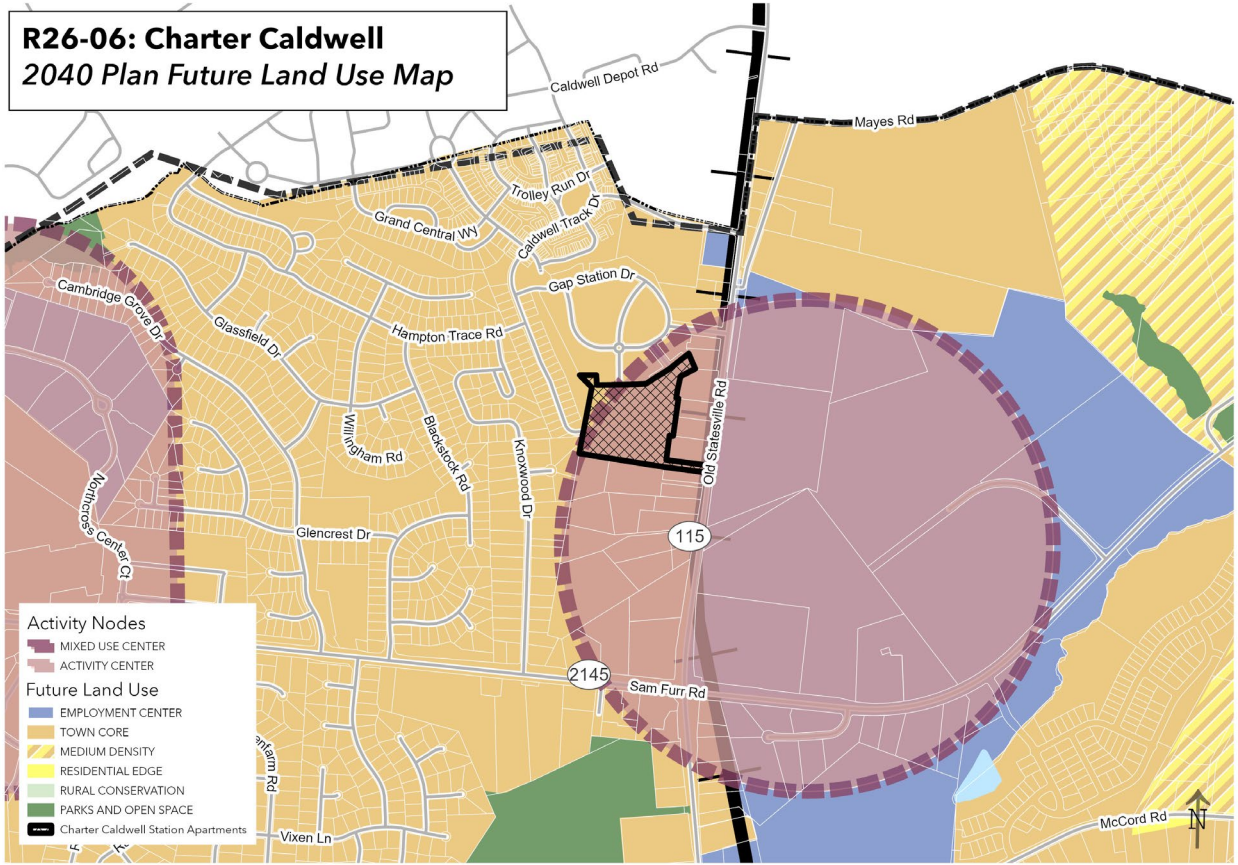


North Park

Image # 11
Date 04.21.26



2040 Huntersville Community Plan



Application Supports

- Policy LU1.1 – Utilize Future Land Use Map

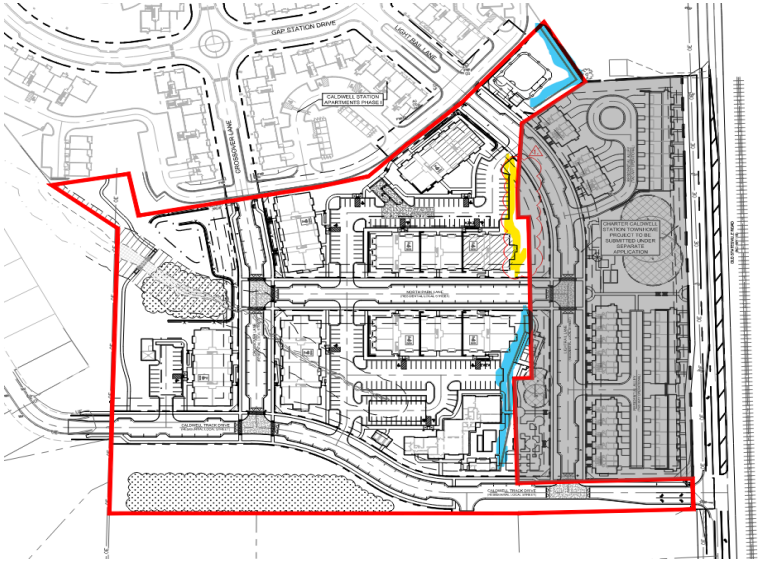
Recommendations

The application to revise the overlay requirement to permit the removal of a 222-ft. section of the screen-wall is consistent with the recommendations of the Huntersville 2040 Plan. Therefore, Staff recommends approval of the rezoning with the following conditions:

The request to remove the middle 222 linear feet of brick wall can be supported, by Town Staff, as shown:

Planning Board-
Scheduled for May 25, 2026

Town Board- Scheduled for June 16, 2026



Thank You

Questions?

Town of Huntersville
NORTH CAROLINA



Revision History



Rebuilding Together
Of Greater Charlotte

EXHIBIT
11.C-1



Preserving Affordable Homeownership in Huntington Green

Critical Home Repairs for Huntersville Residents

Beth Morrison North, Executive Director

Qwt'Okuukqp

Repairing homes, revitalizing communities, rebuilding lives.

We mobilize community volunteers and contractors to provide repairs that make homes safer and healthier for our neighbors in need. We also actively partner with other local organizations to connect the communities we serve with additional resources to meet their needs and help them create healthier, more vibrant neighborhoods. Our vision is safe homes and communities for everyone.

Our Affiliate Network



Rebuilding Together is a network of more than 100 affiliates providing home repair services tailored to the needs of our communities.

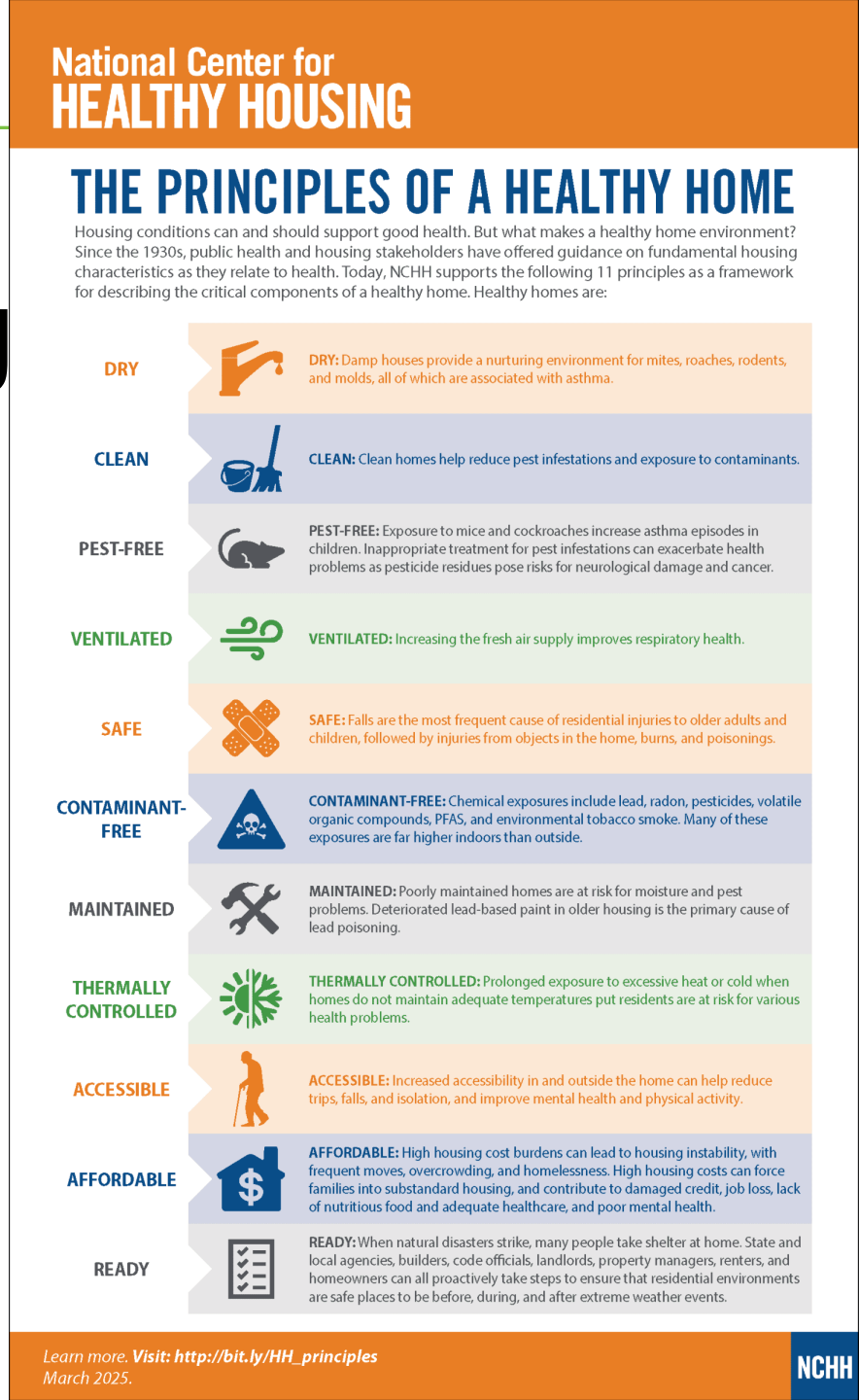
Our Story

- RTGC was established in 2010. In 2018, we hired our first full-time Executive Director and have since experienced significant growth.
- Our staff includes 7 full-time and 2 part-time team members.
- RTGC service area includes Mecklenburg, Union, Cabarrus, Iredell, and Gaston counties.

Safe and Healthy Housing

Safe and Healthy Housing is the foundation of Rebuilding Together's home repair work, targeting significant safety and health hazards based on **The Principles of a Healthy Home** from the **National Center for Healthy Housing**.

Each project is scored in a before and after assessment to track where we are moving the needle for safe and healthy housing through repairs and modifications.



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- Our mission extends beyond repairing homes. A part of our Building a Healthy Neighborhood program, we want to support the neighborhoods serve through community improvement and beautification projects.
- Examples of previous projects:
  - Revitalizing Tom Hunter Park in Hidden Va in Charlotte
  - Painting a mural and improving public spac at ClearWate Arts Center in Concord
  - Building picnic tables and landscaping at A Jenkins









Huntington Green Community Overview

Presented by Sarah Fortner, Executive Director of Caterpillar Ministries

- 350 mobile and manufactured homes
- 2,220 residents
- Established in 1969
- Long-term resident stability

Strong neighborhood engagement and support through Caterpillar Ministries

- Caterpillar Ministries serving since 2007
- 95% graduation rate
- “womb-to-tomb” holistic care
- family stability and academic enrichment

“Contrary to what many people assume, this is not a transient neighborhood.”
- Sarah Fortner

Immediate Repair Needs Identified

Seven families have already applied with more expected as repairs proceed. Many homes need foundation and floo
roof replacement, new cabinets and plumbing, electrical upgrades, and accessibility modifications.



Subfloor and foundation repair,
Install new durable flooring



Black mold remediation,
Install new sink and cabinet



Install new cabinets and proper ventilation
for range

Leveraging Community Investment

Thanks to our partners for supporting this work in Huntington Green.

- Lowe's has donated $25,000 for our She Builds project-June 9
- Lake Norman CDC has committed $25,000 for critical repairs in Huntington Green.
- Mecklenburg County CDBG funding will be leveraged on homes that are eligible (single family/deeded as real estate).
- 90 volunteers will volunteer their time in June on the first five homes.

We are requesting $75,000 from the Town of Huntersville to support these critical repair efforts.

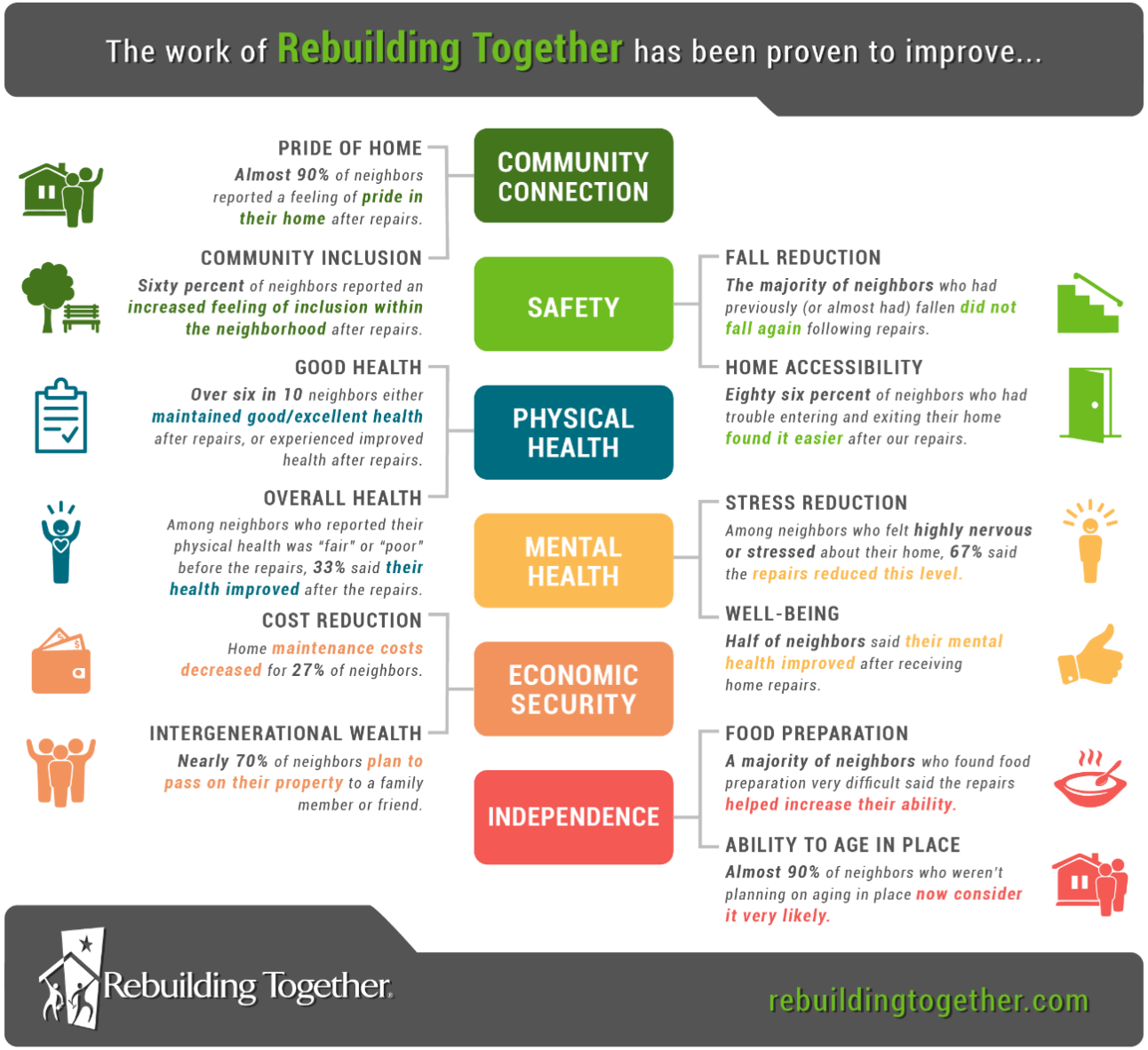
General Eligibility Requirements

- You must own your home, live in it, and intend to remain in it for at least five years after receiving repairs from RTGC (affordability periods documented through deed restrictions and promissory notes).
- The total gross combined income for all residents of your home must be less than 80% of the Area Median Income (some programs cut off at 50% AMI).
- You must be current on property taxes and mortgage payments or on a documented payment plan.
- You must have an active homeowner's insurance policy or must agree to obtain one as soon as repairs are completed.
- Other requirements may apply depending on the funding source utilized for the project.
- Higher prioritization given to households with disabled, elderly, or veteran members, families of five or more, children under six with lead hazards, incomes below 50% and 30% of AMI, or those in need of urgent repairs.

Construction Expertise

- RTGC is a licensed general contractor (license number L.101222).
- Repairs are delivered through a combination of RTGC skilled construction staff, supervised volunteers, and licensed and insured subcontractors.
- Our organization is a certified renovation firm for Lead-Safe work practices (certificate number RRP3697).
- Several of our construction staff hold additional certifications including Certified Aging In Place Specialists and Executive Certificate in Home Modifications.

Nqpi /Vgto "Ko r cev"cpf "Qweqo g"Ogcuwtgo gpv



Empowering Homeowners Through Education

Home Maintenance Workshops

- 🏠 Rtkpekrngu'qh'c'J gcnvj {'J qo g
- 🛠️ J qo g'Ockpvgpcpeg'Dcukeu
- 🔥 Hktg'('J qo g'Uchgv{
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- 💰 Dwf i gvkpi '('Oclqt'Tgr cktu
- 📑 Rtqr gtv{'Vczgu'('Guvcvg'Rncppkpi

SCAN TO LEARN MORE

Building knowledge, confidence, and stability to keep families safe and preserve generational wealth.

Questions?

Rebuilding Together®
Of Greater Charlotte

9625 Southern Pine Blvd, Suite A
Charlotte, NC 28273

Ecm"*; : 2+"458/2; 9;

Go ckn"kphqB tgdwkf kpi vqi gvj gten0qti

EXHIBIT
11.C-2

EXTERNAL AGENCY FUNDING AGREEMENT

NORTH CAROLINA
TOWN OF HUNTERSVILLE

This Agreement made and entered into the _____ day of August, 2026 by between Town of Huntersville, North Carolina, hereinafter referred to as the "TOWN", and Rebuilding Together of Greater Charlotte, Inc., a North Carolina Non-profit Corporation, hereinafter referred to as the "AGENCY".

WHEREAS, the TOWN has requested services from the AGENCY to carry out programs and activities; and

WHEREAS, the Town of Huntersville Board of Commissioners, agreed to appropriate the sum of Seventy-five Thousand and no/100 ($75,000.00) in funding for fiscal year ending June 30, 2027 to support this purpose, subject to the terms hereof; and

WHEREAS, the terms and conditions for receiving said funds from the TOWN set out herein are necessary to ensure accountability for the expenditure of public funds by the TOWN.

NOW, THEREFORE, in consideration of the following the parties hereto do mutually agree as follows:

1. The AGENCY, agrees to use the funds appropriated by the TOWN in a manner and the purposes specified in their application, to wit, for the direct repair costs to benefit residents excluding administrative expenses, salaries and related expenses, and operating expenses, of a copy of which is attached hereto and incorporated by reference as if to set forth fully herein.
2. In consideration for the performance by the AGENCY of the services outlined in its application, the TOWN agrees to pay the AGENCY up to the amount of money authorized in the TOWN budget for the fiscal year. Payment shall be made in lump sum within 30 days of the budget approval. Any and all payments to the AGENCY are dependent upon and subject to the availability of funds to the Town for the purpose set forth in this agreement.
3. If the AGENCY violates any of the provisions of this Agreement, the TOWN may terminate this Agreement (upon 30 days written notice to the AGENCY). In such event, all unexpended funds at the time of such termination, whether held by the AGENCY or the TOWN, shall be the property of and be returned to (or remain with) the TOWN.
4. The AGENCY shall not assign any interest in this Agreement and shall not transfer any interest in the Agreement without prior written consent of the TOWN.
5. In connection with the performance of this Agreement, the AGENCY shall not discriminate against any employee, applicant for employment, or program participant because of race, religion, color, sex (including gender expression or identity, sexual orientation, or pregnancy), age, handicap or disability, or national origin, genetic information, or on account of their limited English language proficiency.
6. The AGENCY shall maintain all accounts, books, ledgers, journals, and records in accordance with generally accepted accounting principles, practice, and procedures.

7. The AGENCY shall submit to the TOWN a semi-annual status report in January 2027, and an annual status report in May 2027, of all programs and activities, including a summary of the accomplishment of stated goals and objectives.
8. The AGENCY shall provide an accounting of TOWN funds to the TOWN to demonstrate that the funds allocated to the AGENCY have been used for the purpose(s) specified herein. The accounting report shall be submitted to the TOWN within 30 days of the end of the agreement term (ending June 30, 2027). Further, the TOWN shall be entitled to audit the AGENCY's expenditure of TOWN funds at the TOWN's discretion. Any excess funds or funds not used for the expressed purpose(s) stated herein must be returned to the TOWN within thirty (30) days of the TOWN's request for said funds.
9. The TOWN shall be entitled to conduct an evaluation of the AGENCY's programs and activities, particularly as it relates to the accomplishments of established goals and objectives and the measurements of the services being delivered.
10. All books and records shall be maintained by the AGENCY for a period of at least three years from the day of the final payment under this Agreement and shall be made available for audit or evaluation upon request during regular business hours of the AGENCY.
11. The AGENCY must adopt a Drug-Free Workplace Policy in accordance with the Drug-Free Workplace Policy of 1988 (41 U.S.C. 701).
12. The Town is in no way responsible for the administration and supervision of the AGENCY's officers, employees, and agents, whom it is agreed are not officers, employees, or agents of the TOWN.
13. As a condition of payment for services rendered under any agreement the AGENCY has with the TOWN, the AGENCY must comply with requirements of Article 2 Chapter 64 of the North Carolina General Statutes. Further, if the AGENCY provides services to the TOWN utilizing a subcontractor, the AGENCY shall require the subcontractor to comply with the requirements of Article 2 of Chapter 64 the General Statutes. The AGENCY shall verify, by affidavit, compliance of the terms of this section upon request by the TOWN.
14. The AGENCY certifies that, as of the date of this agreement, it is not listed on the Fiscal Divestment List created by the State Treasurer pursuant to N.C. Gen. Stat. § 147-86.58.
15. The Agreement may only be amended in writing as mutually agreed upon by the TOWN and the AGENCY.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in their name by their duly authorized officers, their seals to be hereto affixed the day and year first above written.

Agency

Name:

REBUILDILNG TOGETHER OF GREATER CHARLOTTE, INC.

By:

_____
(Signature)

Title:

_____

Attest:

_____
(Secretary, if a corporation)

Town of Huntersville

_____
Town Manager

Attest: _____
Town Clerk

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act

_____
Finance Director

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Michael Jaycocks, Director of Parks and Recreation

Subject: Waymer Park Splash Pad Project Construction Contract

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Explain Request:

The Waymer Park Splash Pad is a project funded by the Town's Parks and Recreation Bonds. We received three bids for this project. Fairwood Construction, LLC. was the lowest responsible responsive bidder. Fairwood Construction, LLC. has completed similar splash pads in our area.

Action Recommended: Approve Item

Alternative Action:

None

Financial Implications:

$928,796.00 from Park Bonds

Attachments:

1. Waymer Park Splash Pad- Fairwood Contract - signed
2. Waymer - Huntersville Project Manual_-Final
3. 2026-05-05 Waymer - Huntersville Bid Set (1)
4. 2026-05-05 Waymer Park Splash Pad_Addendum 1 Memo
5. Legal Ad- Waymer Park Splash Pad
6. Splash Pad Bid Proposal Fariwood Construction
7. Waymer Splash Pad Project Bid Tab 5-10-26-

Parks and Recreation
14704 N Old Statesville Road
Huntersville, NC 28078
(704) 766-2220

CONTRACT FOR CONSTRUCTION SERVICES

CONTRACTOR: **Fairwood Construction, LLC.**
2136 Remount Road
Charlotte, NC 28208
Jordan Zell
jordanz@fairwoodbuilds.com

PROJECT: **Waymer Park Splash Pad**
SITE LOCATION(S): **14200 Holbrooks Road**
Huntersville, NC 28078

This Contract for Construction and Repair, and all exhibits, (collectively this "Contract") is entered into this ___1st_____day of _July_____, 20__26___ by and between the Town of Huntersville, a municipal corporation of the State of North Carolina, (the "Town") and_____ **Fairwood Construction, LLC.** _located at **_2136 Remount Road Charlotte, NC 28208_** (the "Contractor").

WITNESSETH:

That for and in consideration of the mutual promises set forth in this Contract, the sufficiency of which is acknowledged by the parties hereto, the parties do mutually agree as follows:

1. Scope of Services. The Contractor agrees to perform for the Town the services according to the following construction design drawings, plans, and specifications, which is incorporated herein by reference as Exhibit C. The Contractor agrees to provide the labor, service, equipment, and materials, and other services included in Exhibit C, which shall constitute the "Work." The Contractor warrants that the Contractor has visited the location of the project and is familiar with all field conditions bearing upon the Contractor's performance of the Work; that the materials and equipment furnished under the Contract are of good quality and new (unless otherwise permitted); that the Work meets or exceeds the standards ordinarily observed in the industry; and that the Work conforms to the requirements of the Contract and to all applicable codes, ordinances, laws, or regulations. The Contractor further warrants and promises that the Work shall be free from defects and nonconformities in materials and workmanship for a period of one year from the later of the "Date of Completion" or such date as the Contractor actually completes all the Work. During such period, the Contractor will remedy at Contractor's expense any nonconformities or defects in the Work within a reasonable time after receiving notice thereof from the Town.
2. Fees: Fees for the Work shall be specified in a fee schedule attached hereto as Exhibit D, (the "Contract Price").
3. Change Orders. The Contractor agrees that the Town may order changes to the general scope of the Work, including additions, deletions, and similar revisions ("Change Orders"). The parties agree to adjust the Contract Price to reflect the effects of such changes. These changes shall be authorized

only upon execution of a written Change Order. The amount of any increase or decrease in the Contract Price shall be by mutual acceptance of a total amount supported by sufficient data and information to substantiate the change. If the Town and Contractor do not mutually agree on the amount of the change in the Contract Price, the Contractor will proceed with the Work described in the Change Order and the Town will pay the reasonable costs of any additional work as determined by the Town, including a reasonable amount for the Contractor's overhead and profit. Any decrease in Contract Price for a decrease in the Work will be the reasonable costs of the Work deleted as determined by the Town, including a reasonable amount for the decrease in the Contractor's overhead. The Contractor may submit claims for an increase in the Contract Price or an extension of the Date of Completion by means of a written Change Request. The Contractor agrees to submit the Change Request within a reasonable time after the event giving rise to the requested change and before the Contractor undertakes any additional work. Upon receipt of a Change Request, the Town, at its sole discretion, shall inform the Contractor whether to proceed with the additional work and shall approve any adjustment in the Contract Price or Date of Completion by issuing a Change Order as provided above. The timely submission of a written Change Request shall be a condition precedent to the issuance of a Change Order, and the Town will have no obligation to pay the Contractor for additional work performed by the Contractor without a Change Order approved in writing by the Town.

4. Historically Underutilized Businesses (HUB). It is the policy of the Town of to provide minorities and women equal opportunity for participating in all aspects of the Town's contracting and procurement programs, including but not limited to employment, construction development projects, materials/services contracts and/or lease agreements, consistent with the laws of the State of North Carolina.
5. Personal Protective Equipment (PPE). The Contractor and his/her employees will wear the proper equipment such as, but not limited to, high visibility clothing, safety glasses, hearing protection, etc. at all times when performing the Work at the Site Location(s). Failure to be in the appropriate PPE will result in removal from the project site.
6. Contract Insurance. Contractor shall be required to purchase and maintain, during its performance under this Contract, insurance coverage as shown on the Insurance Requirements as stated in Exhibit B, which is incorporated herein by reference. All insurance purchased shall have a specific endorsement, copy of which shall be provided to the Town, naming the Town as an additional insured and providing that such insurance will not be cancelled without providing thirty (30) days advance written notice to the Town.
7. Coordination with Others. The Contractor agrees to coordinate the Work with the work of any other unaffiliated contractors or with the work of the Town's own forces to avoid delaying or interfering with their work.
8. Working Drawings and Specifications at the Job Site. The Contractor shall maintain, in readable condition at his job site one complete set of working drawings and specifications for his work including all shop drawings. Such drawings and specifications shall be available for use by the owner, designer, or his authorized representative. The Contractor shall also maintain at the job site, a day-to-day record of work-in-place that is at variance with the contract documents. Such variations shall be fully noted on Project drawings by the Contractor and submitted to the designer upon Project completion and no later than 30 days after acceptance of the Project.
9. Materials, Equipment, Employees. The Contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, fuel, heat, sanitary facilities, water, scaffolding and incidentals necessary for the completion of the work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the

best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents. All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as stipulated in written standards of recognized organizations or institutes of the respective trades except as exceeded or qualified by specifications.

10. Cleaning Up and Restoration of Site. The Contractor shall keep the sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the Project, the Contractor shall thoroughly clean the sites, and completely prepare the Project and site for use by the Owner. At the end of construction, the Contractor shall oversee and implement the restoration of the construction site to its original state. Restoration includes but not limited to walks, drives, lawns, trees and shrubs, corridors, stairs, and other elements shall be repaired, cleaned, or otherwise restored to their original state.
11. Protection of Work, Property, the Public, and Safety. The Contractor shall be solely responsible for the entire site and the building or construction of the same and provide all the necessary protections, as required by the owner or designer, and by laws or ordinances governing such conditions. The Contractor shall be responsible for any damage to the owner's property or of that of others on the job, by them, their personnel, or their subcontractors, and shall make good such damages. The Contractor shall be responsible for and pay for any damages caused to the owner.
12. As-Built Marked-Up Construction Documents. Contractor shall provide one complete set of legible "as-built" marked-up construction drawings and specifications recording any and all changes made to the original design during the course of construction. In the event no changes occurred, submit construction drawings and specifications set with notation "No Changes." The Designer/Owner must receive "As-built" marked-up construction drawings and specifications before the final pay request can be processed.
13. Retainage. Retainage on periodic or final payments on public construction contracts in which the total project costs are $100,000 or more are allowed pursuant to N.C.G.S. § 143-134.1.
14. Addendums: If applicable, Contractor acknowledges that it has received, executed, and shall abide by any addendums issued by the Town prior to this Contract.
15. Standard Terms and Conditions. The Standard Terms and Conditions, attached hereto as Exhibit A, shall be a part of this Contract. The Standard Terms and Conditions are hereby incorporated by reference, and all parties agree to be bound thereby.
16. Contract Term. Work will be completed within (120) days of receipt of the Notice to Proceed from the Town. The Contractor and the Town recognize that time is of the essence for completion of the Work. Any Notice to Proceed shall also contain a date that the Contractor shall complete the Work by (the "Date of Completion"). The terms of this Contract shall apply to every Notice to Proceed issued by the Town.
17. Liquidated Damages. Contractor and Town recognize that time is of the essence and that Town will suffer financial and other losses if the Work is not completed by the Date of Completion, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Town if the Work is not completed on time. Accordingly, instead of requiring any such proof, Town and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Town $500 for each day that expires after the end of the Date of Completion (as duly adjusted pursuant to the Contract) until the Work is complete.

18. Payment for Work In consideration of the above Work, the Town will pay the Contractor the sum as further described on Exhibit D.

In witness thereof, the contracting parties, by their authorized agents, affix their signatures and seals at Huntersville, North Carolina, this 30th day of June, 2026.

Contractor

Name: MANDY ALFARO, FAIRWOOD CONSTRUCTION
Name of Contractor (type or print)

By: Mandy Alfaro
(Signature)

Title: PRESIDENT, FAIRWOOD CONSTRUCTION

Attest:
(Secretary, if a corporation)

Town of Huntersville

Town Manager

Attest:
Town Clerk

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act

Finance Director

EXHIBIT A
STANDARD TERMS & CONDITIONS

1. **Acceptance**. Contractor's acknowledgment of the terms of this Contract constitutes an agreement to: (i) all terms and conditions set forth or referenced herein, (ii) on any attachments hereto, (iii) any applicable solicitation documentation related to this Contract (including without limitation any request for proposals or invitation for bids or Contractor's response thereto) that deal with the same subject matter as this Contract, and (iv) any other terms and conditions of a written agreement signed by Contractor and the Town that deals with the same subject matter as this Contract (collectively, the "Contract Documents"). The terms and provisions set forth in the Contract Documents shall constitute the entire agreement between Contractor and the Town with respect to the purchase by the Town of the: (i) goods ("Goods") and/or (ii) services provided or work performed ("Services") as described in the Contract Documents. The agreements set forth in the Contract Documents are sometimes referred to herein as the "Contract." In the event of any conflict between any terms and conditions of the Contract Documents, the terms and conditions most favorable to the Town shall control. No additional or supplemental provision or provisions in variance herewith that may appear in Contractor's quotation, acknowledgment, invoice, or in any other communication from Contractor to the Town shall be deemed accepted by or binding on the Town. The Town hereby expressly rejects all such provisions which supplement, modify, or otherwise vary from the terms of the Contract Documents, and such provisions are superseded by the terms and conditions stated in the Contract Documents, unless and until the Town's authorized representatives expressly assent, in writing, to such provisions. Stenographic and clerical errors and omissions by the Town are subject to correction.
2. **Entire Agreement**. These terms and conditions and any other specifications contained in any other documents referenced shall constitute and represent the complete and entire agreement between the Town and Contractor and supersede all previous communications, either written or verbal with respect to the subject matter of this Contract.
3. **Changes, Additions, Deletions**. No changes, additions, deletions, or substitutions of scope of work, specifications, terms and conditions, quantity, unit of issue, delivery date, delivery charges or price will be permitted without the prior written approval from the Town.
4. **Relationship of the Parties**. The Contractor is an independent contractor and not an employee of the Town. The conduct and control of the work will lie solely with the Contractor. The Contract shall not be construed as establishing a joint venture, partnership, or any principal-agent relationship for any purpose between the Contractor and the Town. Employees of the Contractor shall remain subject to the exclusive control and supervision of the Contractor, which is solely responsible for their compensation.
5. **Prices**. If Contractor's price or the regular market price of any of the Goods or Services covered hereunder is lower than the price stated in the Contract Documents on the date of shipment of such Goods or performance of such Services, Contractor agrees to give the Town the benefit of such lower price on any such Goods or Services. In no event shall Contractor's price be higher than the price last quoted or last charged to the Town unless otherwise agreed in writing. No charges for transportation, boxing, crating, etc. are allowable unless such charges are included in the Contract Documents.
6. **Taxes**. Any applicable taxes shall be invoiced as a separate item.
7. **Substitutions**. No substitutions or cancellations shall be permitted without prior written approval from the Town.
8. **Indemnification.** To the greatest extent allowed by North Carolina law the Contractor shall indemnify and hold harmless the Town, its officers, agents, employees and assigns from and against all claims, losses, costs, damages, expenses (including expenses of litigation and attorneys'

fees), and attorneys' fees ("Claims"). In the event that any portion of the Work performed under the Contract shall be defective in any respect whatsoever, the Firm shall indemnify and save harmless the Town, its officers, agents, employees, and assigns from and against all Claims as defined herein, but only to the extent allowed by law.
Nothing contained in this Contract shall waive the Constitutional limitation on the Town indemnifying obligations of other parties.

9. **Invoices and Payment Terms**. It is understood and agreed that orders will be shipped at the established Contract prices in effect on dates orders are placed. Invoicing that does not comply with this provision will subject the Contract to cancellation. Upon satisfactory delivery of the Goods or satisfactory completion of the Work, all invoices and statements shall reference the Contract number and be submitted to: Town of Huntersville, Accounts Payable, PO Box 664, Huntersville, North Carolina, 28070. Payment terms are Net 30 days after receipt of correct, undisputed invoice or acceptance of Goods or Services, whichever is later.

   When the Contract is for construction services, the Contractor will submit monthly Requests for Payment for Work performed, for review. The Request for payment shall be based upon the Contractor's estimate of the percentage of the total Work completed during the period represented on the Request for Payment. The Contractor must certify that the Work represented in the Contractor's Request for Payment has been completed in accordance with the Contract Documents and certify that the Request for Payment is appropriate for payment before the Town shall be obligated to make such payment to the Contractor. If any Request for Payment is disputed by the Town, in whole or in part, the Town shall provide a written explanation for such dispute to Contractor within five days of receipt of the certified Request for Payment and shall pay all undisputed amounts therein.
10. **Anti-Discrimination and Equal Employment**. During the performance of the Contract, Contractor shall comply with all federal and state requirements concerning fair and equal employment and shall not discriminate against or deny the Contract's benefits to any person on the basis of race, religion, color, creed, national origin, age, sex (including sexual orientation, gender identity, and pregnancy), disability or handicapping condition, or genetic information.
11. **Insurance**. The Contractor shall provide the insurance coverages shown on Exhibit B, attached hereto and incorporated herein by reference. The Contractor shall provide the Town with a North Carolina Certificate of Insurance and such endorsements as may be required by the Contract Documents prior to the commencement of any work under the Contract and agrees to maintain such insurance until the completion of the Contract. Such certificates of insurance shall be considered part of the Contract.
12. **Ethics in Public Contracting**. By submitting their prices and acceptance of this Contract, all Contractors certify that their bids are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other supplier, manufacturer, or subcontractor in connection with their offer, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.
13. **Applicable Laws and Courts**. All Town Contracts shall be governed in all respects by the laws of the State of North Carolina. All matters, whether sounding in contract or tort relating to the validity, construction, interpretation, and enforcement of the Contract, shall be governed in all respects by the laws of the State of North Carolina and venue shall be proper only in a court of competent jurisdiction located in Mecklenburg County, North Carolina. The Contractor represents and warrants that it shall comply with all applicable federal, state, and local laws, regulations, and orders, including, not limited to, licensure requirements.

14. **Codes and Permits**. When applicable, the Contractor shall obtain all required permits, give all required notices, and comply with all laws, ordinances, codes, rules, and regulations bearing on the conduct of the work under this contract. If the Contractor observes that the drawings and specifications are at variance therewith, he shall promptly notify the designer in writing. All work under this contract shall conform to the current North Carolina Building Code and other state and national codes as are applicable. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules, and regulations, and without such notice to the Town, Contractor shall bear all cost arising therefrom.
15. **License Requirement**. If applicable, the Contractor must be a licensed General Contractor as required by North Carolina General Statutes Section 87-1 and must have a good ethical and professional standing with the North Carolina General Contractor's Licensing Board. The Contractor will be responsible for providing properly qualified, licensed (if required) personnel to complete the Work in accordance with the standard of care ordinarily used by members of the Contractor's profession practicing under similar circumstances and at the same time in Mecklenburg County.
16. **Strict Compliance**. The Town may at any time insist upon strict compliance with these terms and conditions notwithstanding any previous course of dealing or course of performance between the parties to the contrary.
17. **Assignment**. Contractor may not assign, pledge, or in any manner encumber Contractor's rights under this Contract or delegate the performance of any of its obligations hereunder, without Town's prior, express written consent.
18. **General Provisions**. The Town's remedies as set forth herein are not exclusive. Any delay or omission by the Town in exercising any right hereunder, or any waiver by the Town of any single breach or default hereunder, shall not be deemed to be a waiver of such right or of any other right, breach, or default.
19. **Warranties**. The Contractor warrants it shall adhere to all laws, codes, ordinances, and regulations of the United States, the State of North Carolina, the County of Mecklenburg, and the Town in the performance of the Work outlined in this Contract and any attached specifications. Contractor warrants that any finished Work completed hereunder shall also adhere to all laws, codes, ordinances, and regulations of the United States, the State of North Carolina, the County of Mecklenburg, and the Town. Contractor warrants that all Work delivered hereunder will be free from defects in materials and workmanship and will conform strictly to the specifications, drawings, or samples specified or furnished. This warranty shall survive any inspection, delivery, acceptance, or payment by the Town for the Work and shall run to the Town and any user of the Work. Contractor warrants that all Work will be performed in a professional and workman like manner in accordance with best industry practices. This express warranty is in addition to Contractor's implied warranties of merchantability and fitness for a particular purpose which shall not be disclaimed. In addition to any other rights available at law or in equity, the Town shall be entitled to consequential and incidental damages.
20. **Quality and Workmanship**. All Work shall be performed to the satisfaction of the Town. The Work shall not be considered complete nor applicable payments rendered until the Town is satisfied with the Work provided.
21. **Default**. The Town may terminate the Contract, in whole or in part, immediately and without prior notice upon breach of the Contract by the Contractor. In addition to any other remedies available to the Town in law or equity, the Town may procure upon such terms as the Town shall deem appropriate, Work substantially similar to those so terminated, in which case the Contractor shall be liable to the Town for any excess costs for such similar supplies or services and any expenses incurred in connection therewith.

22. **Termination for Convenience**. The Town shall have the right, without assigning any reason therefore, to terminate any Work under the Contract, in whole or in part, at any time at its complete discretion by providing 10 days' notice in writing from the Town to Contractor. If the Contract is terminated by the Town in accordance with this paragraph, the Contractor will be paid in an amount which bears the same ratio to the total compensation as does the Work actually delivered or performed to the total originally contemplated in the Contract. The Town will not be liable to the Contractor for any costs for materials acquired or contracted for if such costs were incurred prior to the date of this Contract.
23. **Risk of Loss.** Risk of Loss for all supplies, materials, the Work performed, and the Project as it is being constructed, shall be on the Contractor until such time as substantial completion is achieved, and approved by the Town.
24. **No Third-Party Beneficiaries**. There shall be no intended nor incidental third-party beneficiaries of this Contract. Contractor shall include in all contracts, subcontracts, or other agreements relating to the Contract an acknowledgment by the contracting parties that the Contract creates no third-party beneficiaries.
25. **Exclusivity.** Nothing in this Contract shall require the Town to use the Contractor or prohibit the Town from soliciting third parties for the good or services provided in this Contract.
26. **Confidentiality**. The Contractor acknowledges the Town is subject public records law and no term shall be inconsistent with N.C.G.S. §132 et al.
27. **Valid Contract for Services**. In order for a Contract for Services of the Town to be valid, it must be executed by the Town Manager or his or her authorized designee and must be pre-audited in that manner required by the Local Government Budget and Fiscal Control Act, as the same may be amended.
28. **Verification of Work Authorization.** Contractor shall comply with, and require all contractors and subcontractors to comply with, the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, "Verification of Work Authorization," sometimes known as E-verify, for all contractors and subcontractors.
29. **Iran Divestment List.** With the execution hereof, Contractor, certifies that they are not on the Iran Final Divestment List created by the N.C. State Treasurer pursuant to N.C.G.S. § 147-86.58, and will not contract with anyone on such List in performance of the work hereunder.
30. **Buyer.** references to Buyer or Town, throughout these terms and conditions, shall refer to the Town of Huntersville, North Carolina.
31. **Contractor**. All references to Contractor, Seller, or Firm throughout these terms and conditions shall refer to the contractor identified on page 1 of this Contract.
32. **Authority to Sign**. Each of the Parties herein represents and warrants that the execution, delivery, and performance of this Contract has been duly authorized to execute this Contract and to bind that party of whose behalf the individual is signing.
33. **Availability of Funds**. Any and all payments to the Contractor are dependent upon and subject to the availability of funds to the Town for the purpose set forth in this agreement.
34. **Severability**. If any provision of this Contract is found to be invalid or unlawful, then remainder of this Contract shall not be affected thereby, and each remaining provision shall be valid and enforced to the fullest extent permitted by law.
35. **Companies that Boycott Israel**. With the execution hereof, Contractor, certifies that they are not on the Companies that Boycott Israel List created by the N.C. State Treasurer pursuant to N.C.G.S. § 147-86.80, and will not contract with anyone on such List in performance of the work hereunder.
36. **Governmental Immunity**. Nothing contained in this Contract shall constitute a waiver of the Town's governmental immunity or of any limitation on liability or damages created by law.

EXHIBIT B
INSURANCE AND BOND REQUIREMENTS

1. The Work under this Contract shall not commence until the Contractor has obtained all required insurance and verifying certificates of insurance have been approved in writing by the Town. The Contractor shall furnish the Town with satisfactory proof of carriage of the insurance required before written approval is granted by the Town.

2. The insurance coverage shall be provided and maintained for the duration of the Contract.

3. Except for Worker's Compensation and Professional Liability policies, the Town shall be named as additional insured on all policies with coverage at least as broad as that provided to the named insureds.

4. The verifying certificates shall document that coverages afforded under the policies will not be cancelled, reduced in amount, or coverages eliminated until at least thirty (30) days after mailing written notice, by certified mail, return receipt requested, to the insured and the Town of such alteration or cancellation.

5. If endorsements are needed to comply with the notification or other requirements of this Agreement, copies of the endorsements shall be submitted with the certificates.

6. Any deductible, if applicable to loss covered by insurance provided, is to be borne by the Contractor.

7. The Contractor is required to provide and maintain the following minimum insurance coverage:

   a. **Worker's Compensation and Employer's Liability.**

      The Contractor shall provide and maintain, until final acceptance, Workers' Compensation insurance, as required by law, as well as employer's liability coverage with minimum limits of $1,000,000.

   b. **Commercial General Liability (CGL) Insurance.**

      The Contractor shall provide and maintain, commercial general liability insurance, including coverage for premises operations, independent contractors, completed operations, products and contractual exposures, as shall protect such contractors from claims arising out of any bodily injury, including accidental death, as well as from claims for property damages which may arise from operations under this contract, whether such operations be by the Contractor or by any subcontractor, or by anyone directly or indirectly employed by either of them and the minimum limits of such insurance shall be as follows:

Bodily Injury:	$1,000,000 per occurrence/$2,000,000 aggregate
Property Damage:	$1,000,000 per occurrence/$2,000,000 aggregate
Products/ Completed Operations:	$1,000,000 per occurrence/$2,000,000 aggregate

Such coverage for completed operations must be maintained for at least two (2) years following final acceptance of the Work performed under the contract.

The commercial general liability insurance policy shall provide that such insurance is primary to and non-contributory with any liability insurance carried by the additional insureds and provide a severability of interests clause.

c. **Automobile Liability.**

The Contractor shall provide and maintain automobile liability coverage including coverage for owned, hired, and non-owned vehicles, with limits no less than $1,000,000 per accident for bodily injury and property damage.

d. **Builder's Risk/Course of Construction**.

For construction projects, the Contractor shall provide and maintain builder's risk coverage utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

This coverage is not required for road maintenance projects.

e. **Professional Liability.**

The Contractor shall provide and maintain professional liability coverage with limits no less than $1,000,000.

f. **Pollution Liability.**

The Contractor shall provide and maintain pollution liability coverage with minimum limits of $1,000,000 per occurrence/aggregate.

g. **Umbrella Coverage.**

The Contractor shall provide and maintain umbrella coverage with minimum limits of no less than $1,000,000 per occurrence/aggregate.

h. **Other Insurance.**

The Contractor shall obtain such additional insurance as may be required by the Town or by the General Statutes of North Carolina including motor vehicle insurance, in amounts not less than the statutory limits.

8. If the Contractor maintains broader coverage and/or higher limits than the minimum limits shown above, the Town requires and shall be entitled to the broader coverage and/or high limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Town.

9. The policies shall provide that any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town or its officers, officials, employees, agents, or volunteers.

10. All liability and Workers' Compensation insurance policies shall provide that the insurance

company waives all rights of recovery by way of subrogation against the Town and other insureds.

11. The insurance providers shall be North Carolina admitted insurers (licensed to do business in North Carolina) with a current A.M. Best's rating of no less than A-VIII. Notwithstanding the foregoing, if no North Carolina admitted insurance company provides the required insurance, it is acceptable to procure the required insurance from a United States domiciled carrier that meets the required Best's rating.

12. The Town reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.

13. The limits of insurance described herein shall not limit the liability of the Contractor and Contractor's officers, employees, agents, representatives, and subcontractors. The Contractor's obligation to defend, indemnify, and hold the Town and its officers, officials, employees, agents and volunteers harmless under the provisions of this paragraph are not limited to or restricted by any requirement in the Contract for Contractor to procure and maintain a policy of insurance.

14. For construction projects only, the Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Town is an additional insured on insurance required from subcontractors.

15. For construction projects only, the Contractor shall provide a payment bond and a performance bond in a sum equal to 100% of the contract price.

EXHIBIT C – PLANS AND SPECIFICATIONS

(plans and specs attached)

EXHIBIT D – FEE SCHEDULE

Base Bid Total: $855,496.00

Base Bid includes all items in Addendum No. 1 including shade canopy

Alternate No. 1 Spray Pad Flooring: (ADD) $73,300.00

Total Cost with Alternate: $928,796.00

Unit Prices		
Description	**Unit**	**Unit Price**
Undercut of Unsuitable Soils	CY	48
Mass Rock Removal as describe in	CY	185 w/ min of $8500
Trench Rock as Removal	CY	230 w/ min of $8500
Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.		

FAIRWOOD CONSTRUCTION — 6/30/2024

Company Name — Date

MANDY ALFARO — PRESIDENT

Print Name — Title

Signature

WAYMER PARK SPLASH PAD
Construction Drawings Specifications

March 31, 2026

Project No. HUN-24004

MCADAMS
2100 South Tryon Street, Suite 400, Charlotte, NC 28203 • 704. 527. 0800

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END OF SECTION 000102

SECTION 000107 - SEALS PAGE

1.1 DESIGN PROFESSIONALS OF RECORD

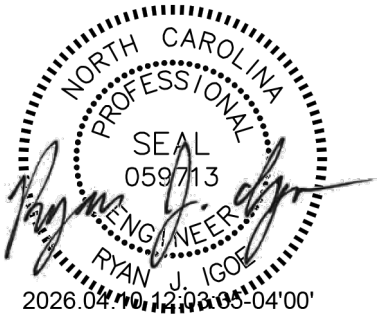
A. Landscape Architect:

1. Haley Mae-Eady.
2. License No. NC 2431.
3. Responsible for:
   a. Section 033000 “Cast-In-Place Concrete.”
   b. Section 055213 “Pipe and Tube Railings.”
   c. Division 32 Sections



B. Civil Engineer:

1. Ryan J. Igoe.
2. License No. NC 059713.
3. Responsible for:
   a. Section 024119 “Selective Demolition.”
   b. Division 22 Sections
   c. Division 31 Sections
   d. Division 33 Sections



C. Aquatics Engineer (PL200, PL210):

1. Jeff Rosner.
2. License No. NC 059917
3. Responsible for:
   a. Section 131118 “Pool Concrete.”

   Note: Lori L. Rosenthal (the EOR for the Construction Drawings) has retired. Jeff Rosner (as shown herein) will be reviewing pertinent submittals and answering necessary technical questions during bidding and construction.



D. Aquatics Engineer (PL100 - PL112, PL300 - PL301):

1. Brian W. Freber
2. License No. NC 035471.
3. Responsible for:
   a. Division 13 Sections except where indicated as prepared by other design professionals of record.



E. Electrical Engineer:

1. Alexander G. Raymond.
2. License No. NC 054372.
3. Specifications provided in the drawing set.



END OF SECTION 000107

INVITATION TO BID

FOR THE CONSTRUCTION OF WAYMER PARK SPLASH PAD PROJECT

Town of Huntersville, North Carolina

Sealed, single prime bids for the construction of a splash pad and surrounding hardscape with associated demolition / clearing, grading, erosion control, installation of stormwater conveyance measures, utilities, furnishings, and landscape. Bids for the project will be received by the Town of Huntersville Parks and Recreation Department, in person at: 14704 N. Old Statesville Road, Huntersville, NC 28070, or by mail at: P.O. Box 2879, Huntersville, NC, 28070 until **10:00 AM, local time, Wednesday May 13, 2026**, and there at said office, at said time. Bid Proposals will be received for:

THE CONSTRUCTION OF WAYMER PARK SPLASH PAD
FOR
HUNTERSVILLE PARKS AND RECREATION

The Bid Package, consisting of the Invitation to Bid, Instructions to Bidders, Bid Proposal Form, Non-collusion Affidavit, Substitution Listing Form, General Conditions of the Contract, and Contract Drawings may be obtained from the Huntersville Parks and Recreation Department, 14704 N. Old Statesville Road, Huntersville, NC, or may be accessed at the following web address: www.huntersville.org. Contract documents will not be mailed to Bidders.

Copies of the Contract Documents may be examined at the Huntersville Parks and Recreation, Huntersville, North Carolina 28078.

Each Bid must be accompanied by cash, cashier's check, certified check on a bank or trust company insured by the Federal Deposit Insurance Corporation or Bid Bond in the amount not less than five percent (5%) of the amount of the Bid in the form and subject to the conditions provided in the Information for Bidders.

1. The Contract Drawings for this Project were provided to the Town by McAdams. If awarded, the Project will be awarded to the lowest responsive, responsible Bidder, taking into account quality, performance and time specified in the Contract Documents.

A pre-bid meeting shall be held on **Wednesday, April 22, 2026, at 10:00 AM** at the project site located at 14200 Holbrooks Road, Huntersville, NC 28078. Meet shelter and restroom building near the hockey/basketball court. Any questions regarding this meeting should be directed to Michael Jaycocks, Director of Parks and Recreation at 704-766-2228.

The Town of Huntersville ("Town") reserves the right to waive any minor deviations in the Bid Proposal and to reject any or all Bid Proposals.

END OF INVITATION TO BID

INSTRUCTIONS TO BIDDERS

Project Designer: McAdams
2100 South Tryon Street
Suite 400
Charlotte, NC 28203
704.527.0800

PLEASE NOTE: ALL QUESTIONS REGARDING THE CONTRACT DRAWINGS, AND THE CONSTRUCTION SPECIFICATIONS INDICATED ON SAID DRAWINGS SHOULD BE DIRECTED TO THE PROJECT DESIGNER. ALL QUESTIONS AND ANSWERS PROVIDED WILL BE POSTED ON THE TOWN'S WEBSITE AS AN ADDENDUM TO THE CONTRACT DOCUMENTS. BIDDERS WILL BE RESPONSIBLE FOR ENSURING THAT THEY HAVE RECEIVED AND RELIED UPON ALL ADDENDA FOR THE PROJECT IN SUBMITTING THEIR BIDS.

1. FAMILIARITY WITH WORK AND CONDITIONS: Before preparing Bid Proposals, Bidders are urged to visit the site of the Project to inform and familiarize themselves with all conditions involved and under which the Project is to be constructed or apparatus erected or installed. The Town of Huntersville will not be responsible to the Contractor for payments other than as set out in the contract price, should conditions be different than those assumed or contemplated by the Contractor. The Contractor is required to satisfy himself, before bidding, as to the correctness of the site as indicated by the plans.

2. FAMILIARITY WITH LAWS, ETC.: The Bidder is assumed to have made himself familiar with all Federal, State, and Local Laws, ordinances and regulations which may in any manner affect those engaged or employed in work or the materials or equipment in or upon the work, or in any way affect the conduct of the work, and no pleas of misunderstanding will be considered on account of the ignorance thereof. If the Bidder or Contractor shall discover any provisions in the plans, specifications, or contract which are contrary or inconsistent with any such law, ordinance, or regulation, he shall forthwith report it to the Project Designer in writing before the bid opening.

3. INTERPRETATIONS OF PLANS: If any prospective Bidder is in doubt as to the true meaning of any part of the plans, or other proposed contract documents, he may submit to the Project Designer, a written request for an interpretation thereof, who will either answer or secure an answer based upon their relative expertise. The person submitting such request will be responsible for its prompt delivery. Note, requests for clarification or interpretation must be submitted no later than **5:00 PM on April 29, 2026**. Any interpretation of the proposed documents will be made only by addendum duly issued and posted on the Town's website. The Project Designer will not be responsible for any other explanations or interpretations of the proposed document. The Contractor shall acknowledge receipt of all addenda in the space provided in the Bid Proposal.

4. CONTRACT DOCUMENTS: The Contract Documents consist of the Invitation to Bid, Instructions to Bidders, Bid Proposal Form, Non-collusion Affidavit, Substitution Listing, all Addenda issued, the Contract Drawings, the Town's Standard Form Contract, the General Conditions of the Construction Contract, and all exhibits and attachments incorporated by reference to any of the Contract Documents.

5. BID PROPOSAL FORM: Each Bidder must submit a Bid Proposal on the blank forms herewith provided including: Bid Proposal Form, Non-collusion Affidavit, and Substitution Listing Form and Bidder's Qualification Form. Each Bidder must include both the Bid Proposal Form and the Non-collusion Affidavit with their Bid Proposal, otherwise the Bid Proposal will not be considered. Each Bidder shall sign his Bid Proposal correctly by one duly authorized and Bid Proposals may be rejected if they show any omissions, alterations of form, additions not called for, or other irregularities of any kind. Conditioning and unbalancing of bids will not be permitted.

6. BID PROPOSAL REPRESENTATIONS: Submission of a Bid Proposal Form shall be a representation of the Bidder of all of the following:

    a. The Bidder has carefully examined the CONTRACT DOCUMENTS and fully understands them.

    b. The Bidder has carefully examined the site or sites of the Project and is familiar with the conditions under which the Work, or any part of it, is to be done, and the conditions which must be fulfilled in the furnishing and/or erection or construction of any or all items of the Project.

    c. The Bidder has the financial means and stability to provide all materials and all necessary tools, machinery, and all means necessary to do all the Work in the manner prescribed in the Contract Documents and according to the Plans and the requirements of the Town of Huntersville, in a workmanlike manner, consistent with the standards of the profession in and around Huntersville.

    d. The Bid has been made without connection with any other person, company, or parties making a similar Bid Proposal, and that it is in all respects fair and in good faith, without collusion or fraud.

    e. The Bidder understands that it is the intention of the Town of Huntersville, North Carolina, to award the Contract on the basis of Bid Proposals received at this letting, however, the Town reserves the right to reject any or all bids.

    f. If the Bid Proposal is made by a Corporation or Contractor, the Bid Proposal Form has been signed by its proper officers or members, as applicable, in a legal manner and its official address stated therein.

    g. The Bidder will enter into the Town's Construction Agreement, included as part of the Contract Documents, and will perform all of the work necessary for the construction of facilities outlined in the CONTRACT DOCUMENTS for the Town of Huntersville, North Carolina, for the bid price stated in the Bid Proposal Form.

    h. The Bidder has received and completely understood the Addenda and the bid price stated in the Bid Proposal Form reflects all Addenda.

7. SUBMISSION OF BID PROPOSALS: It is the responsibility of each Bidder, without excuse, to ensure that their Bid Proposal is submitted at the right place by the deadline. Each Bid Proposal must be submitted in a sealed envelope, to indicate its contents without being opened. The name of the Bidder, his address and his license number must be marked on the outside of the envelope. **This envelope shall be placed in another one** addressed to the attention of Michael Jaycocks, Town of Huntersville Parks and Recreation Department, 14704 N. Old Statesville Road, P.O. Box 2879, Huntersville, North Carolina, 28070, and if forwarded otherwise than by mail, must be delivered to Mr. Michael Jaycocks at the above address. If the mail is delayed beyond the date and hour set for the Bid Proposal opening, proposals thus delayed will not be considered. The outer envelope must also state the Project Name and the name of the Bidder. Bid Proposals will be accepted until 2:00 PM on the date of the Bid Proposal Opening. Bid Proposals submitted after this time cannot be accepted.

8. OPENING OF BID PROPOSALS: Bid Proposals will be opened publicly and read promptly at the time, on the date, and at the place set forth in the "Invitation to Bid". Bidders or their authorized agents and other interested parties are invited to be present. The Bid Proposal shall be deemed valid for a period of sixty (60) calendar days after the opening thereof. The Bidder may request to withdraw their Bid Proposal in writing, received prior to the time for opening of the Bid Proposals, directed to the Town of Huntersville. Bid Proposals may be withdrawn after the opening of the Bid Proposals **for unintentional and substantial arithmetic errors or omissions pursuant to N.C.G.S. § 143-129.1 only (not for mistakes in judgment)** if the request is made in writing to and received by Michael Jaycocks, Huntersville Parks and Recreation Director, within seventy-two hours after the time for opening Bid Proposals. Such written request of withdrawal must include sufficient documentation of the clerical error or math computational error.

9. AWARDING OF CONTRACT: If awarded, the Town of Huntersville, North Carolina will award the contract conditioned upon funds being made available for such construction. If awarded, the contract will be awarded to the lowest, responsive, responsible Bidder taking into account quality, performance, and time specified in the Contract Documents. Consideration will be given only to Bid Proposals of contractors who are experienced in the class of work proposed and who can refer to projects of similar magnitude and/or character as have been completed by them. The Town also reserves to itself the right to reject any or all Bid Proposals and to waive minor informalities or technicalities, as it may deem to be in the Town's best interest.

10. EXECUTION OF CONTRACT: The successful Bidder will be required to enter into the Town's Standard Form Contract, included as part of this Project Manual, and must execute the Contract no later than ten (10) consecutive calendar days following receipt of the Notice of Award from the Town. Failure of a Bidder to execute the Contract within said ten (10) day period shall result in the forfeiture of the bidder's bid bond as described below.

11. CHECKS, CASH, OR BID BOND: Each proposal must be accompanied by a Bid Bond executed by a corporate surety licensed under the laws of North Carolina to execute such bonds, conditioned that the surety will, upon demand for with make payment to the Owner if the bidder fails to execute the Contract. The Bid Bond shall be in the amount of five percent (5%) of the total bid plus all of the alternates. The Bid Bond shall be valid for a minimum of ninety (90) calendar days. In lieu of a Bid Bond, a deposit equal to five percent (5%) of the total bid plus all alternates in the form of a Cashier's Check or Certified Check on some bank or trust

company insured by the Federal Deposit Insurance Corporation and payable to the Town of Huntersville may be provided. The purpose of the Bid Deposit or Bid Bond is to ensure that the bidder will enter into a Contract with the Owner with the terms stipulated in the Bid Proposal and the bidder guarantees that a Performance, Labor and Material will be executed. If the Contractor fails to execute a Contract, the Bid Bond or Bid Deposit shall be forfeited to the Town. Bid security shall be submitted separately for each project bid.

12. PERFORMANCE BOND: The successful Bidder shall provide a performance bond equal to 100% of the contract sum and shall conform to the Town's requirements. Bond/surety shall be provided in a form as noted in item 11 above.

13. PAYMENT BOND: The successful Bidder shall provide a payment bond equal to 100% of the contract sum and shall conform to the Town's requirements. Bond/surety shall be provided in a form as noted in item 11 above.

14. COORDINATION OF WORK: During the performance of the contract, it shall be the responsibility of the successful Bidder to pursue the orderly progress of all work stages throughout the Project and to assure that all work is completed within the time period stipulated herein as the Contract Period. In executing the duties incurred by these responsibilities, the successful Bidder shall provide sufficient executive and supervisory staff in the field to enable efficient and expeditious progress of the work. The Town relies upon the organization, management, skill, cooperation, and efficiency of the successful Bidder to supervise, direct, control and manage the work and the efforts of the sub-contractors so as to deliver the intended construction to the Contract Documents and within the scheduled time.

15. LIQUIDATED DAMAGES: The successful Bidder is required to complete the Project as outlined in the Project progress schedule and as defined by the Contract Period. Should the successful Bidder fail to assure the completion of the total Project satisfactorily within the time period specified in the contract, the successful Bidder shall be charged with liquidated damages at a rate of **Five Hundred Dollars ($500.00) per calendar day** until the total Project is successfully completed.

    If in the event the successful Bidder is granted substantial completion by the Project Designer and fails to complete and/or correct all of the remaining list of items to be corrected within 30 days of the date of substantial completion, the successful Bidder shall be charged with **liquidated damages at a rate of Five Hundred Dollars ($500.00) per calendar day** until all of the remaining items on the list are completed and corrected and approved by the Project Manager or Project Designer.

16. CONTRACT REDUCTION: The Town retains the exclusive right to reduce any or all of the scope of work within the Contract Documents after award of the contract for budgetary or other reasons. Should the Town choose to reduce any or all of said scope of work, the successful Bidder shall not be allowed any claims for anticipated profit or overhead on such deleted work.

17. CONTRACTOR'S LICENSE: All Bidders must possess a valid North Carolina General Contractors License to do work in North Carolina as required by N.C.G.S. Chapter 87, plus any other applicable licenses. A copy of these requirements is included in the bid documentation.

18. TIME OF CONSTRUCTION: The Successful Bidder shall begin work on the date specified in the Notice to Proceed and shall pursue all necessary phases of construction in order to substantially complete the base bid work within **140 consecutive calendar days**. This time of construction shall be defined as the Date of Completion.

19. CONSTRUCTION SCHEDULES: The Contractor, promptly after being awarded the Contract, shall prepare and submit for the Town and Project Designer's information, a construction schedule. The construction schedule shall be a detailed bar chart or Critical Path Method, for the Work to be performed. The schedule shall not exceed time limits current under the Contract Documents and shall include weather delays and delays due to delivery of the equipment. The schedule shall be related to the entire Project to the extent required by the Contract Documents and shall provide for expeditious and practicable execution of Work.

    The Contractor shall maintain the construction schedule, making monthly adjustments, updates, and corrections. The construction schedule shall be reviewed at each construction meeting.

    The Contractor shall also prepare a schedule of submittals which shall be coordinated with the Contractor's construction schedule. The submittal schedule shall also be reviewed at each construction meeting and adjusted as necessary.

    The following chart is the anticipated adverse weather delays for this project.

Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
10	10	11	6	6	6	6	5	6	6	7	9

    The construction schedule shall reflect the anticipated adverse weather delays.

    National Oceanic and Atmospheric Administration (NOAA) data shall be used to claim addition construction days beyond the above chart for critical path activities. Weather days occurring on holidays or Sundays will not be considered as delays significant to the Contract completion date. The request for a weather delay must be submitted to the Consultant in writing with supporting data within (20) days following the occurrence.

    The Contractor shall allocate sufficient resources to meet the current construction schedule.

20. TECHNICAL SPECIFICATIONS. Technical specifications are included both on the Contract Drawings themselves, and within the Project Manual and are included in the bid documents. It is up to each Bidder to satisfy themselves that these technical specifications are sufficient to enable them to perform the Work. If a Bidder determines that the technical specifications are not sufficient, the Bidder should pose appropriate questions to the Project Manager who will secure answers from the Project Designer. All such inquiries and answers will be put out in the form of an Addendum prior to the time for opening bids.

21. SUBSTITUTIONS: Requests for approval of substitutions for specified products or “or equal” or “equivalent” submittals other than those listed as acceptable products will be considered only upon submission of samples and manufacturers’ data, in triplicate, of both the product specified and the product intended for substitution. All such requests for substitutions must be received for consideration by the Project Designer no later than 10 business days prior to the Bid Proposal opening. All substitutions approved will be put into an Addendum. The Town reserves the right to consider and accept any and all substitutions proposed in determining the lowest responsible bidder.

END OF INSTRUCTIONS TO BIDDERS

BID PROPOSAL

SINGLE PRIME GENERAL CONSTRUCTION CONTRACT BID PROPOSAL

WAYMER PARK SPLASH PAD

ALTERING THE FACE OF THIS FORM IN ANY MANNER, OR PROVIDING INFORMATION NOT SPECIFICALLY REQUESTED SHALL RENDER THIS BID PROPOSAL NON-RESPONSIVE AND INELIGIBLE FOR CONSIDERATION BY THE TOWN.

Date: _____

TO: Town of Huntersville, North Carolina

To Whom It May Concern:

The undersigned Bidder, having examined carefully the site, the Invitation to Bid, Instructions to Bidders, Construction Drawings, the form Construction Agreement, Supplementary Documents (if any) and subsequent Addenda (as acknowledged herein) for the construction of a splash pad and pedestrian hardscape areas with associated demolition/clearing, grading, erosion control, installation of utilities, stormwater conveyance measures, and landscaping. Bidder hereby proposes to furnish all labor, materials, equipment, and services necessary to perform the Work required in the Construction Documents and terms of this Proposal for the amounts listed below.

Base Bid Total: $_____ (Lump Sum)

Splash Pad Statements:
The bid total provided above includes the basis of design equipment as shown on the Contract documents for the Splashpad. Circle, Yes or No?

If "no", complete the following:
The bid total listed above includes specialty pool play equipment provided by the following named manufacturer,_____, conformant with the requirements of specification section 131147, Pool Play Equipment.

The bid total provides equivalent value to the basis of design and includes the following,
_____ Above Grade Spray/Play Equipment Elements (*Insert quantity)*
_____ Flush Mounted Spray/Play Equipment Elements *(Insert quantity)*
_____ Flush Mounted Drains *(Insert quantity)*
_____ Activators *(Insert quantity)*
_____ Drains *(Insert quantity* ***and dimensions****)*
_____ Flow required for all features *(insert total flow in GPM)*
_____ Flow limited by sequencing of controller. *(insert total flow in GPM)*

in the concept orientation shown in the attached sheets. (*Bidder shall attach no more than ten letter size pages to define the layout, aesthetics, play value and theming for the pool play equipment included in the bid total).*

- The pool play equipment included in the bid required no change to slope or elevations.
    - Circle Yes or No?

- The equipment included in the bid includes swappable bases for easy relocation or replacement of features?
    - Circle Yes or No

- A manufactured manifold, cabinet and controller are included in the bid as standard to the play equipment manufacturer?
    - Circle Yes or No?

Please note any other modifications to the basis of design included/assumed in your bid total.

Town reserves the right to award contract based on Base Bid only, or combination of Base Bid and any/all of the Alternate Bid Items below. The Bidder shall indicate if the Alternate is an add or deduct for the overall bid. If the Alternate is left blank, then the Alternate will not change the Base Bid if accepted. The Bidder agrees to provide the Alternates as described in the Contract Documents for the following prices:

Alternate #1 – Spray Pad Floor Finish: Add $_____(Lump Sum)

Unit Prices		
Description	**Unit**	**Unit Price**
Undercut of Unsuitable Soils	CY	
Mass Rock Removal as describe in	CY	
Trench Rock as Removal	CY	
Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.		

The undersigned further agrees that this Bid Proposal shall be valid for a period of sixty (60) days from the date of receipt of the Bid Proposal and that if this Bid Proposal is

accepted by the Town within this period, the Bidder will execute the Construction Agreement provided as part of the Contract Documents.

The undersigned further agrees to begin the work promptly upon receipt of the Notice to Proceed and to pursue the work with an adequate work force to complete the work within 140 calendar days from receipt of the Notice to Proceed. Liquidated Damages of $500.00 per calendar day are hereby agreed upon as an assessment from the Contractor for failure to complete the work within the time period stated herein.

The undersigned Bidder further proposes and agrees to commence the work promptly upon notice, with an adequate force to satisfactorily complete the Project.

The undersigned acknowledges receipt of the following addenda which will be considered as part of the Contract Documents.

Addendum No. _____Dated_____

Addendum No. _____Dated_____

Addendum No. _____ Dated _____

CONTRACTOR: _____
(Company)

Contractor □ is or □ is not a historically underutilized business, registered with the North Carolina Office of Historically Underutilized Businesses. (Must be completed by all Bidders.)

ADDRESS: _____

_____

BY: _____

(signature) (typed name)

TITLE: _____

NC General Contractor's License No. _____

NC State Sales and Use Tax Registration _____

□ Non-collusion Affidavit has been completed and is attached to this Bid Proposal Form (Required)
Note: Inclusion of the non-collusion affidavit is mandatory. A bid will be rejected as non-responsive if not included in the bid submission.

Select One (one or the other must be chosen by the Bidder):

□ Substitution Listing (if substitutions are being proposed) is attached to this Bid Proposal Form.
Note: Failure to include the Substitution Listing with this Bid Proposal will render the substitutions ineligible for consideration by the Town.

OR

□ Substitution Listing is not attached to this Bid Proposal Form (No substitutions are proposed.)

SUBSTITUTION LISTING

TO: **Town of Huntersville, North Carolina**
Hereinafter called "Owner"

1. A Bidder requesting a substitution must submit this form to the Project Manager and Project Landscape Architect at least five (5) business days prior to the time stated for Bid Opening.

2. Pursuant to bidding requirements for the Work titled:

   WAYMER PARK SPLASH PAD

   The Contract Sum proposed by the under signed on the Bid Proposal form is for the Work as shown on the Drawings, and otherwise defined in the Contract Documents. However, the undersigned proposes the following substitutions for the Owner's consideration. Should the Owner accept any or all of the proposed substitutions, the Bidder's proposed contract sum will be reduced by the amount shown.

Standard Form Contract

NON-COLLUSION AFFIDAVIT

I, on behalf of the Bidder, being first duly sworn or as the Contractor, do hereby represent on behalf of the Bidder that the Bid Proposal submitted was made without collusion or fraud and that neither I, nor anyone else affiliated with the Bidder to my knowledge, have offered or received any kickbacks or inducements from any other supplier, manufacturer or subcontractor in connection with their Bid Proposal, and neither I, nor anyone else affiliated with the Bidder to my knowledge, have conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

This the _____ day of _____, 2026.

BIDDER:

_____

_____

Print Name:

_____

Print Title:

State of _____

County of _____

Sworn to or subscribed before me this the _____ day of _____,2026.

(Official Seal)

_____

Notary Public:

_____

Print Name:

BIDDER'S QUALIFICATION REQUIREMENTS FORM

In order to be considered for this project, the Contractor must meet the following minimum qualification requirements.

A. The companying bidding on the project shall have been in business for at least 5 years, and been the prime contractor, and have performed similar types of splash pad installation projects.

B. Possess a North Carolina General Contractors License

C. Company and/or principals of firm must not have been accessed liquidated damages on similar type of projects in the past 3 years.

D. Be capable of providing percent performance and payment bonds as specified in the contract.

E. Be able to provide the insurance required by the Contractor and all the subcontractors that will be on site.

F. Provide at least three (3) splash pad projects completed by the Contractor with reference names and phone numbers.

I have read and understand all sections of the Bidder's Qualifications. This page must be submitted with bid.

Signed By:

_____

Title: (Owner, Partner or Corporate President or Vice President only)

_____

Parks and Recreation
105 Gilead Road, Suite 300
Huntersville, NC 28078
(704) 766-2220

CONTRACT FOR CONSTRUCTION SERVICES

CONTRACTOR: **Contractor Name**
Address 1
City, State Zip
Contact Name
Contact Email

PROJECT: **Waymer Park Splash Pad**
SITE LOCATION(S): **14200 Holbrooks Road Huntersville, NC 28078**

This Contract for Construction and Repair, and all exhibits, (collectively this "Contract") is entered into this _____day of _____, 20_____ by and between the Town of Huntersville, a municipal corporation of the State of North Carolina, (the "Town")
and_____ located at _____ (the "Contractor").

WITNESSETH:

That for and in consideration of the mutual promises set forth in this Contract, the sufficiency of which is acknowledged by the parties hereto, the parties do mutually agree as follows:

1. Scope of Services. The Contractor agrees to perform for the Town the services according to the following construction design drawings, plans, and specifications, which is incorporated herein by reference as Exhibit C. The Contractor agrees to provide the labor, service, equipment, and materials, and other services included in Exhibit C, which shall constitute the "Work." The Contractor warrants that the Contractor has visited the location of the project and is familiar with all field conditions bearing upon the Contractor's performance of the Work; that the materials and equipment furnished under the Contract are of good quality and new (unless otherwise permitted); that the Work meets or exceeds the standards

ordinarily observed in the industry; and that the Work conforms to the requirements of the Contract and to all applicable codes, ordinances, laws, or regulations. The Contractor further warrants and promises that the Work shall be free from defects and nonconformities in materials and workmanship for a period of one year from the later of the "Date of Completion" or such date as the Contractor actually completes all the Work. During such period, the Contractor will remedy at Contractor's expense any nonconformities or defects in the Work within a reasonable time after receiving notice thereof from the Town.

2. Fees: Fees for the Work shall be specified in a fee schedule attached hereto as Exhibit D, (the "Contract Price").
3. Change Orders. The Contractor agrees that the Town may order changes to the general scope of the Work, including additions, deletions, and similar revisions ("Change Orders"). The parties agree to adjust the Contract Price to reflect the effects of such changes. These changes shall be authorized only upon execution of a written Change Order. The amount of any increase or decrease in the Contract Price shall be by mutual acceptance of a total amount supported by sufficient data and information to substantiate the change. If the Town and Contractor do not mutually agree on the amount of the change in the Contract Price, the Contractor will proceed with the Work described in the Change Order and the Town will pay the reasonable costs of any additional work as determined by the Town, including a reasonable amount for the Contractor's overhead and profit. Any decrease in Contract Price for a decrease in the Work will be the reasonable costs of the Work deleted as determined by the Town, including a reasonable amount for the decrease in the Contractor's overhead. The Contractor may submit claims for an increase in the Contract Price or an extension of the Date of Completion by means of a written Change Request. The Contractor agrees to submit the Change Request within a reasonable time after the event giving rise to the requested change and before the Contractor undertakes any additional work. Upon receipt of a Change Request, the Town, at its sole discretion, shall inform the Contractor whether to proceed with the additional work and shall approve any adjustment in the Contract Price or Date of Completion by issuing a Change Order as provided above. The timely submission of a written Change Request shall be a condition precedent to the issuance of a Change Order, and the Town will have no obligation to pay the Contractor for additional work performed by the Contractor without a Change Order approved in writing by the Town.
4. Historically Underutilized Businesses (HUB). It is the policy of the Town of to provide minorities and women equal opportunity for participating in all aspects of the Town's contracting and procurement programs, including but not limited to

employment, construction development projects, materials/services contracts and/or lease agreements, consistent with the laws of the State of North Carolina.

5. Personal Protective Equipment (PPE). The Contractor and his/her employees will wear the proper equipment such as, but not limited to, high visibility clothing, safety glasses, hearing protection, etc. at all times when performing the Work at the Site Location(s). Failure to be in the appropriate PPE will result in removal from the project site.
6. Contract Insurance. Contractor shall be required to purchase and maintain, during its performance under this Contract, insurance coverage as shown on the Insurance Requirements as stated in Exhibit B, which is incorporated herein by reference. All insurance purchased shall have a specific endorsement, copy of which shall be provided to the Town, naming the Town as an additional insured and providing that such insurance will not be cancelled without providing thirty (30) days advance written notice to the Town.
7. Coordination with Others. The Contractor agrees to coordinate the Work with the work of any other unaffiliated contractors or with the work of the Town's own forces to avoid delaying or interfering with their work.
8. Working Drawings and Specifications at the Job Site. The Contractor shall maintain, in readable condition at his job site one complete set of working drawings and specifications for his work including all shop drawings. Such drawings and specifications shall be available for use by the owner, designer, or his authorized representative. The Contractor shall also maintain at the job site, a day-to-day record of work-in-place that is at variance with the contract documents. Such variations shall be fully noted on Project drawings by the Contractor and submitted to the designer upon Project completion and no later than 30 days after acceptance of the Project.
9. Materials, Equipment, Employees. The Contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, power, fuel, heat, sanitary facilities, water, scaffolding and incidentals necessary for the completion of the work, and shall install, maintain and remove all equipment of the construction, other utensils or things, and be responsible for the safe, proper and lawful construction, maintenance and use of same, and shall construct in the best and most workmanlike manner, a complete job and everything incidental thereto, as shown on the plans, stated in the specifications, or reasonably implied therefrom, all in accordance with the contract documents. All materials shall be new and of quality specified, except where reclaimed material is authorized herein and approved for use. Workmanship shall at all times be of a grade accepted as the best practice of the particular trade involved, and as stipulated in written standards of recognized

organizations or institutes of the respective trades except as exceeded or qualified by specifications.

10. Cleaning Up and Restoration of Site. The Contractor shall keep the sites and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the Project, the Contractor shall thoroughly clean the sites, and completely prepare the Project and site for use by the Owner. At the end of construction, the Contractor shall oversee and implement the restoration of the construction site to its original state. Restoration includes but not limited to walks, drives, lawns, trees and shrubs, corridors, stairs, and other elements shall be repaired, cleaned, or otherwise restored to their original state.
11. Protection of Work, Property, the Public, and Safety. The Contractor shall be solely responsible for the entire site and the building or construction of the same and provide all the necessary protections, as required by the owner or designer, and by laws or ordinances governing such conditions. The Contractor shall be responsible for any damage to the owner's property or of that of others on the job, by them, their personnel, or their subcontractors, and shall make good such damages. The Contractor shall be responsible for and pay for any damages caused to the owner.
12. As-Built Marked-Up Construction Documents. Contractor shall provide one complete set of legible "as-built" marked-up construction drawings and specifications recording any and all changes made to the original design during the course of construction. In the event no changes occurred, submit construction drawings and specifications set with notation "No Changes." The Designer/Owner must receive "As-built" marked-up construction drawings and specifications before the final pay request can be processed.
13. Retainage. Retainage on periodic or final payments on public construction contracts in which the total project costs are $100,000 or more are allowed pursuant to N.C.G.S. § 143-134.1.
14. Addendums: If applicable, Contractor acknowledges that it has received, executed, and shall abide by any addendums issued by the Town prior to this Contract.
15. Standard Terms and Conditions. The Standard Terms and Conditions, attached hereto as Exhibit A, shall be a part of this Contract. The Standard Terms and Conditions are hereby incorporated by reference, and all parties agree to be bound thereby.
16. Contract Term. Work will begin within ten (10) days of receipt of the Notice to Proceed from the Town. The Contractor and the Town recognize that time is of the essence for completion of the Work. Any Notice to Proceed shall also contain a date

that the Contractor shall complete the Work by (the "Date of Completion"). The terms of this Contract shall apply to every Notice to Proceed issued by the Town.

17. Liquidated Damages. Contractor and Town recognize that time is of the essence and that Town will suffer financial and other losses if the Work is not completed by the Date of Completion, plus any extensions thereof allowed in accordance with the Contract. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by Town if the Work is not completed on time. Accordingly, instead of requiring any such proof, Town and Contractor agree that as liquidated damages for delay (but not as a penalty) Contractor shall pay Town $500 for each day that expires after the end of the Date of Completion (as duly adjusted pursuant to the Contract) until the Work is complete.
18. Payment for Work In consideration of the above Work, the Town will pay the Contractor the sum as further described on Exhibit D.

In witness thereof, the contracting parties, by their authorized agents, affix their signatures and seals at Huntersville, North Carolina, this _____ day of _____, 20_____.

Contractor

Name:

_____
Name of Contractor (type or print)

By:

_____
(Signature)

Town of Huntersville

_____
Town Manager

Attest: _____
Town Clerk

Title:
_____

Attest:

_____
(Secretary, if a corporation)

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act

_____
Finance Director

EXHIBIT A
STANDARD TERMS & CONDITIONS

1. **Acceptance**. Contractor's acknowledgment of the terms of this Contract constitutes an agreement to: (i) all terms and conditions set forth or referenced herein, (ii) on any attachments hereto, (iii) any applicable solicitation documentation related to this Contract (including without limitation any request for proposals or invitation for bids or Contractor's response thereto) that deal with the same subject matter as this Contract, and (iv) any other terms and conditions of a written agreement signed by Contractor and the Town that deals with the same subject matter as this Contract (collectively, the "Contract Documents"). The terms and provisions set forth in the Contract Documents shall constitute the entire agreement between Contractor and the Town with respect to the purchase by the Town of the: (i) goods ("Goods") and/or (ii) services provided or work performed ("Services") as described in the Contract Documents. The agreements set forth in the Contract Documents are sometimes referred to herein as the "Contract." In the event of any conflict between any terms and conditions of the Contract Documents, the terms and conditions most favorable to the Town shall control. No additional or supplemental provision or provisions in variance herewith that may appear in Contractor's quotation, acknowledgment, invoice, or in any other communication from Contractor to the Town shall be deemed accepted by or binding on the Town. The Town hereby expressly rejects all such provisions which supplement, modify, or otherwise vary from the terms of the Contract Documents, and such provisions are superseded by the terms and conditions stated in the Contract Documents, unless and until the Town's authorized representatives expressly assent, in writing, to such provisions. Stenographic and clerical errors and omissions by the Town are subject to correction.
2. **Entire Agreement**. These terms and conditions and any other specifications contained in any other documents referenced shall constitute and represent the complete and entire agreement between the Town and Contractor and supersede all previous communications, either written or verbal with respect to the subject matter of this Contract.
3. **Changes, Additions, Deletions**. No changes, additions, deletions, or substitutions of scope of work, specifications, terms and conditions, quantity, unit of issue, delivery date, delivery charges or price will be permitted without the prior written approval from the Town.
4. **Relationship of the Parties**. The Contractor is an independent contractor and not an employee of the Town. The conduct and control of the work will lie solely with the Contractor. The Contract shall not be construed as establishing a joint venture,

partnership, or any principal-agent relationship for any purpose between the Contractor and the Town. Employees of the Contractor shall remain subject to the exclusive control and supervision of the Contractor, which is solely responsible for their compensation.

5. **Prices**. If Contractor's price or the regular market price of any of the Goods or Services covered hereunder is lower than the price stated in the Contract Documents on the date of shipment of such Goods or performance of such Services, Contractor agrees to give the Town the benefit of such lower price on any such Goods or Services. In no event shall Contractor's price be higher than the price last quoted or last charged to the Town unless otherwise agreed in writing. No charges for transportation, boxing, crating, etc. are allowable unless such charges are included in the Contract Documents.
6. **Taxes**. Any applicable taxes shall be invoiced as a separate item.
7. **Substitutions**. No substitutions or cancellations shall be permitted without prior written approval from the Town.
8. **Indemnification.** To the greatest extent allowed by North Carolina law the Contractor shall indemnify and hold harmless the Town, its officers, agents, employees and assigns from and against all claims, losses, costs, damages, expenses (including expenses of litigation and attorneys' fees), and attorneys' fees ("Claims"). In the event that any portion of the Work performed under the Contract shall be defective in any respect whatsoever, the Firm shall indemnify and save harmless the Town, its officers, agents, employees, and assigns from and against all Claims as defined herein, but only to the extent allowed by law.

   Nothing contained in this Contract shall waive the Constitutional limitation on the Town indemnifying obligations of other parties.
9. **Invoices and Payment Terms**. It is understood and agreed that orders will be shipped at the established Contract prices in effect on dates orders are placed. Invoicing that does not comply with this provision will subject the Contract to cancellation. Upon satisfactory delivery of the Goods or satisfactory completion of the Work, all invoices and statements shall reference the Contract number and be submitted to: Town of Huntersville, Accounts Payable, PO Box 664, Huntersville, North Carolina, 28070. Payment terms are Net 30 days after receipt of correct, undisputed invoice or acceptance of Goods or Services, whichever is later.

   When the Contract is for construction services, the Contractor will submit monthly Requests for Payment for Work performed, for review. The Request for payment shall be based upon the Contractor's estimate of the percentage of the total Work completed during the period represented on the Request for Payment. The Contractor must certify that the Work represented in the Contractor's Request for

Payment has been completed in accordance with the Contract Documents and certify that the Request for Payment is appropriate for payment before the Town shall be obligated to make such payment to the Contractor. If any Request for Payment is disputed by the Town, in whole or in part, the Town shall provide a written explanation for such dispute to Contractor within five days of receipt of the certified Request for Payment and shall pay all undisputed amounts therein.

10. **Anti-Discrimination and Equal Employment**. During the performance of the Contract, Contractor shall comply with all federal and state requirements concerning fair and equal employment and shall not discriminate against or deny the Contract's benefits to any person on the basis of race, religion, color, creed, national origin, age, sex (including sexual orientation, gender identity, and pregnancy), disability or handicapping condition, or genetic information.
11. **Insurance**. The Contractor shall provide the insurance coverages shown on Exhibit B, attached hereto and incorporated herein by reference. The Contractor shall provide the Town with a North Carolina Certificate of Insurance and such endorsements as may be required by the Contract Documents prior to the commencement of any work under the Contract and agrees to maintain such insurance until the completion of the Contract. Such certificates of insurance shall be considered part of the Contract.
12. **Ethics in Public Contracting**. By submitting their prices and acceptance of this Contract, all Contractors certify that their bids are made without collusion or fraud and that they have not offered or received any kickbacks or inducements from any other supplier, manufacturer, or subcontractor in connection with their offer, and that they have not conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.
13. **Applicable Laws and Courts**. All Town Contracts shall be governed in all respects by the laws of the State of North Carolina. All matters, whether sounding in contract or tort relating to the validity, construction, interpretation, and enforcement of the Contract, shall be governed in all respects by the laws of the State of North Carolina and venue shall be proper only in a court of competent jurisdiction located in Mecklenburg County, North Carolina. The Contractor represents and warrants that it shall comply with all applicable federal, state, and local laws, regulations, and orders, including, not limited to, licensure requirements.
14. **Codes and Permits**. When applicable, the Contractor shall obtain all required permits, give all required notices, and comply with all laws, ordinances, codes, rules, and regulations bearing on the conduct of the work under this contract. If the Contractor observes that the drawings and specifications are at variance therewith, he

shall promptly notify the designer in writing. All work under this contract shall conform to the current North Carolina Building Code and other state and national codes as are applicable. If the Contractor performs any work knowing it to be contrary to such laws, ordinances, codes, rules, and regulations, and without such notice to the Town, Contractor shall bear all cost arising therefrom.

15. **License Requirement**. If applicable, the Contractor must be a licensed General Contractor as required by North Carolina General Statutes Section 87-1 and must have a good ethical and professional standing with the North Carolina General Contractor's Licensing Board. The Contractor will be responsible for providing properly qualified, licensed (if required) personnel to complete the Work in accordance with the standard of care ordinarily used by members of the Contractor's profession practicing under similar circumstances and at the same time in Mecklenburg County.
16. **Strict Compliance**. The Town may at any time insist upon strict compliance with these terms and conditions notwithstanding any previous course of dealing or course of performance between the parties to the contrary.
17. **Assignment**. Contractor may not assign, pledge, or in any manner encumber Contractor's rights under this Contract or delegate the performance of any of its obligations hereunder, without Town's prior, express written consent.
18. **General Provisions**. The Town's remedies as set forth herein are not exclusive. Any delay or omission by the Town in exercising any right hereunder, or any waiver by the Town of any single breach or default hereunder, shall not be deemed to be a waiver of such right or of any other right, breach, or default.
19. **Warranties**. The Contractor warrants it shall adhere to all laws, codes, ordinances, and regulations of the United States, the State of North Carolina, the County of Mecklenburg, and the Town in the performance of the Work outlined in this Contract and any attached specifications. Contractor warrants that any finished Work completed hereunder shall also adhere to all laws, codes, ordinances, and regulations of the United States, the State of North Carolina, the County of Mecklenburg, and the Town. Contractor warrants that all Work delivered hereunder will be free from defects in materials and workmanship and will conform strictly to the specifications, drawings, or samples specified or furnished. This warranty shall survive any inspection, delivery, acceptance, or payment by the Town for the Work and shall run to the Town and any user of the Work. Contractor warrants that all Work will be performed in a professional and workman like manner in accordance with best industry practices. This express warranty is in addition to Contractor's implied warranties of merchantability and fitness for a particular purpose which shall not be

disclaimed. In addition to any other rights available at law or in equity, the Town shall be entitled to consequential and incidental damages.

20. **Quality and Workmanship**. All Work shall be performed to the satisfaction of the Town. The Work shall not be considered complete nor applicable payments rendered until the Town is satisfied with the Work provided.
21. **Default**. The Town may terminate the Contract, in whole or in part, immediately and without prior notice upon breach of the Contract by the Contractor. In addition to any other remedies available to the Town in law or equity, the Town may procure upon such terms as the Town shall deem appropriate, Work substantially similar to those so terminated, in which case the Contractor shall be liable to the Town for any excess costs for such similar supplies or services and any expenses incurred in connection therewith.
22. **Termination for Convenience**. The Town shall have the right, without assigning any reason therefore, to terminate any Work under the Contract, in whole or in part, at any time at its complete discretion by providing 10 days' notice in writing from the Town to Contractor. If the Contract is terminated by the Town in accordance with this paragraph, the Contractor will be paid in an amount which bears the same ratio to the total compensation as does the Work actually delivered or performed to the total originally contemplated in the Contract. The Town will not be liable to the Contractor for any costs for materials acquired or contracted for if such costs were incurred prior to the date of this Contract.
23. **Risk of Loss.** Risk of Loss for all supplies, materials, the Work performed, and the Project as it is being constructed, shall be on the Contractor until such time as substantial completion is achieved, and approved by the Town.
24. **No Third-Party Beneficiaries**. There shall be no intended nor incidental third-party beneficiaries of this Contract. Contractor shall include in all contracts, subcontracts, or other agreements relating to the Contract an acknowledgment by the contracting parties that the Contract creates no third-party beneficiaries.
25. **Exclusivity.** Nothing in this Contract shall require the Town to use the Contractor or prohibit the Town from soliciting third parties for the good or services provided in this Contract.
26. **Confidentiality**. The Contractor acknowledges the Town is subject public records law and no term shall be inconsistent with N.C.G.S. §132 et al.
27. **Valid Contract for Services**. In order for a Contract for Services of the Town to be valid, it must be executed by the Town Manager or his or her authorized designee and must be pre-audited in that manner required by the Local Government Budget and Fiscal Control Act, as the same may be amended.

28. **Verification of Work Authorization.** Contractor shall comply with, and require all contractors and subcontractors to comply with, the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, "Verification of Work Authorization," sometimes known as E-verify, for all contractors and subcontractors.
29. **Iran Divestment List.** With the execution hereof, Contractor, certifies that they are not on the Iran Final Divestment List created by the N.C. State Treasurer pursuant to N.C.G.S. § 147-86.58, and will not contract with anyone on such List in performance of the work hereunder.
30. **Buyer.** references to Buyer or Town, throughout these terms and conditions, shall refer to the Town of Huntersville, North Carolina.
31. **Contractor**. All references to Contractor, Seller, or Firm throughout these terms and conditions shall refer to the contractor identified on page 1 of this Contract.
32. **Authority to Sign**. Each of the Parties herein represents and warrants that the execution, delivery, and performance of this Contract has been duly authorized to execute this Contract and to bind that party of whose behalf the individual is signing.
33. **Availability of Funds**. Any and all payments to the Contractor are dependent upon and subject to the availability of funds to the Town for the purpose set forth in this agreement.
34. **Severability**. If any provision of this Contract is found to be invalid or unlawful, then remainder of this Contract shall not be affected thereby, and each remaining provision shall be valid and enforced to the fullest extent permitted by law.
35. **Companies that Boycott Israel**. With the execution hereof, Contractor, certifies that they are not on the Companies that Boycott Israel List created by the N.C. State Treasurer pursuant to N.C.G.S. § 147-86.80, and will not contract with anyone on such List in performance of the work hereunder.
36. **Governmental Immunity**. Nothing contained in this Contract shall constitute a waiver of the Town's governmental immunity or of any limitation on liability or damages created by law.

ADDITIONAL TERMS AND CONDITIONS FOR FEDERAL CONTRACTS

For contracts using federal funds, the following additional terms and conditions shall apply:

1. **Davis-Bacon Act.** For all contracts in excess of $2,000.00 for construction, alteration, or repair, including painting and decorating, of public buildings or public works, the Contractor shall comply with the Davis-Bacon Act, including payment of no less than the locally prevailing wages as determined by the Secretary of Labor. The contract shall not be valid unless the current prevailing wage as determined by the North Carolina Department of Labor is accepted. The Contractor shall also be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public work, to give up any part of the compensation to which he or she is otherwise entitled. The Town shall report all suspected or reported violations to the Federal awarding agency.
2. **Contract Work Hours and Safety Standards Act**. For contracts in excess of $100,000 that involve the employment of mechanics or laborers, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. For construction work, no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous.
3. **Funding Agreements**. If a Federal award meets the definition of "funding agreement" under 37 C.F.R. § 401.2(a) and the Town or Contractor enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 C.F.R. Part 401.
4. **Clean Air Act and Federal Water Pollution Control Act**. Contractor shall comply with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act and Federal Water Pollution Control Act as amended for any Contract in excess of $150,000.00.
5. **Debarment and Suspension**. Contractor acknowledges and warrants that it is not listed on the governmentwide exclusions in the System Award Management (SAM) Exclusions, in accordance with the OMB guidelines at 2 C.F.R. § 180 for "Debarment and Suspension."

6. **Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352)**. For an award exceeding $100,000, Contractors must file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. § 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the Town.
7. **Prohibition on Certain Telecommunications and Video Surveillance Services or Equipment**. The Contractor warrants that their systems or equipment are not covered under telecommunication equipment as described in Public Law 115-232.
8. **Domestic Preference for Procurements**. As appropriate and to the extent consistent with law, the Contractor will, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products), as required under 2 C.F.R. § 200.322.
9. **Procurement of Recovered Material**. The Contractor agrees to comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 C.F.R. Part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition, where the purchase price of the item exceeds $10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.
10. **Energy Policy and Conservation Act**. Contractor shall comply with all mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201).
11. **Uniform Guidance Policies**. The Contractor agrees to be bound by all Town Uniform Guidance Policies, which are included herein by reference.
12. **2 C.F.R. Part 200, Appendix II**. The Contractor agrees to be bound by all of the provisions under 2 C.F.R. Part 200, Appendix II, which are included herein by reference.
13. **Equal Employment Opportunity**. Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of "federally assisted construction contract" in

41 CFR Part 60-1.3 include, by reference, the equal opportunity clause provided under 41 CFR 60-1.4(b). The Contractor agrees to abide by 41 CFR 60-1.4(b) during the performance of the contract[1].

14. **Build America, Buy America Act.** When federal funds subject to the requirements of the Build America, Buy American Act ("BABA") are used in an infrastructure project as defined by BABA, for which the total cost of the project exceeds the federal simplified acquisition threshold, the Buy America Preference ("BAP") as set forth in 2 C.F.R. Part § 184 shall apply to all project materials that are subject to the provisions of BABA, unless otherwise excepted.

[1] 60 CFR Part 60-1.4(b) can be accessed at: https://www.ecfr.gov/current/title-41/subtitle-B/chapter-60/part-60-1/subpart-A/section-60-1.4#p-60-1.4(b)

EXHIBIT B
INSURANCE AND BOND REQUIREMENTS

1. The Work under this Contract shall not commence until the Contractor has obtained all required insurance and verifying certificates of insurance have been approved in writing by the Town. The Contractor shall furnish the Town with satisfactory proof of carriage of the insurance required before written approval is granted by the Town.

2. The insurance coverage shall be provided and maintained for the duration of the Contract.

3. Except for Worker's Compensation and Professional Liability policies, the Town shall be named as additional insured on all policies with coverage at least as broad as that provided to the named insureds.

4. The verifying certificates shall document that coverages afforded under the policies will not be cancelled, reduced in amount, or coverages eliminated until at least thirty (30) days after mailing written notice, by certified mail, return receipt requested, to the insured and the Town of such alteration or cancellation.

5. If endorsements are needed to comply with the notification or other requirements of this Agreement, copies of the endorsements shall be submitted with the certificates.

6. Any deductible, if applicable to loss covered by insurance provided, is to be borne by the Contractor.

7. The Contractor is required to provide and maintain the following minimum insurance coverage:

    a. **Worker's Compensation and Employer's Liability.**

    The Contractor shall provide and maintain, until final acceptance, Workers' Compensation insurance, as required by law, as well as employer's liability coverage with minimum limits of $1,000,000.

    b. **Commercial General Liability (CGL) Insurance.**

    The Contractor shall provide and maintain, commercial general liability insurance, including coverage for premises operations, independent

contractors, completed operations, products and contractual exposures, as shall protect such contractors from claims arising out of any bodily injury, including accidental death, as well as from claims for property damages which may arise from operations under this contract, whether such operations be by the Contractor or by any subcontractor, or by anyone directly or indirectly employed by either of them and the minimum limits of such insurance shall be as follows:

Bodily Injury:	$1,000,000 per occurrence/$2,000,000 aggregate
Property Damage:	$1,000,000 per occurrence/$2,000,000 aggregate
Products/ Completed Operations:	$1,000,000 per occurrence/$2,000,000 aggregate

Such coverage for completed operations must be maintained for at least two (2) years following final acceptance of the Work performed under the contract.

The commercial general liability insurance policy shall provide that such insurance is primary to and non-contributory with any liability insurance carried by the additional insureds and provide a severability of interests clause.

c. **Automobile Liability.**

The Contractor shall provide and maintain automobile liability coverage including coverage for owned, hired, and non-owned vehicles, with limits no less than $1,000,000 per accident for bodily injury and property damage.

d. **Builder's Risk/Course of Construction**.

For construction projects, the Contractor shall provide and maintain builder's risk coverage utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.

This coverage is not required for road maintenance projects.

e. **Professional Liability.**

The Contractor shall provide and maintain professional liability coverage with limits no less than $2,000,000.

f. **Pollution Liability.**

The Contractor shall provide and maintain pollution liability coverage with minimum limits of $1,000,000 per occurrence/aggregate.

g. **Umbrella Coverage.**

The Contractor shall provide and maintain umbrella coverage with minimum limits of no less than $1,000,000 per occurrence/aggregate.

h. **Other Insurance.**

The Contractor shall obtain such additional insurance as may be required by the Town or by the General Statutes of North Carolina including motor vehicle insurance, in amounts not less than the statutory limits.

8. If the Contractor maintains broader coverage and/or higher limits than the minimum limits shown above, the Town requires and shall be entitled to the broader coverage and/or high limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Town.

9. The policies shall provide that any failure to comply with reporting provisions of the policies shall not affect coverage provided to the Town or its officers, officials, employees, agents, or volunteers.

10. All liability and Workers' Compensation insurance policies shall provide that the insurance company waives all rights of recovery by way of subrogation against the Town and other insureds.

11. The insurance providers shall be North Carolina admitted insurers (licensed to do business in North Carolina) with a current A.M. Best's rating of no less than A-VIII. Notwithstanding the foregoing, if no North Carolina admitted insurance company provides the required insurance, it is acceptable to procure the required insurance from a United States domiciled carrier that meets the required Best's rating.

12. The Town reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.

13. The limits of insurance described herein shall not limit the liability of the Contractor and Contractor's officers, employees, agents, representatives, and subcontractors. The Contractor's obligation to defend, indemnify, and hold the Town and its officers, officials, employees, agents and volunteers harmless under the provisions of this paragraph are not limited to or restricted by any requirement in the Contract for Contractor to procure and maintain a policy of insurance.

14. For construction projects only, the Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Town is an additional insured on insurance required from subcontractors.

15. For construction projects only, the Contractor shall provide a payment bond and a performance bond in a sum equal to 100% of the contract price.

EXHIBIT C – PLANS AND SPECIFICATIONS

(insert plans and specs)

EXHIBIT D – FEE SCHEDULE

Service	Unit Cost	Quantity	Total
		Total Cost =	

_____

Company Name Date

_____

Print Name Title

_____

Signature

SECTION 011000 – SUMMARY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 WORK COVERED BY CONTRACT DOCUMENTS

A. Project Identification: Waymer Splash Pad.

B. Consultant Identification: The Contract Documents, dated 03-31-2026, were prepared for the Project by McAdams.

C. The Work consists of the construction of a splash pad and pedestrian hardscape areas with associated demolition/clearing, grading, erosion control, installation of utilities, stormwater conveyance measures, and landscaping.

1. Contractor shall furnish all material, labor, tools, supplies, equipment, transportation, superintendence, temporary construction of every nature, insurance, taxes, contributions and all services and facilities, unless specifically excepted, and install all materials, items and equipment required to complete the construction of the Project, as set forth in the Contract Documents and as required to provide complete and operational systems.

2. The Contractor shall act as the Project Expediter and be responsible for coordinating the work and schedules of others hired by him.

1.3 CONTRACT

A. Project will be constructed as a Single Prime Contract.

1.4 CONTRACTOR'S USE OF SITE AND PREMISES

A. Restricted Use of Site: Contractor shall have limited use of Project site for construction operations as indicated on Drawings by the Contract limits and as indicated by requirements of this Section.

B. Limits on Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

1. Driveways, Walkways and Entrances: Keep driveways and entrances serving premises clear and available to Owner, users, and emergency vehicles at all times. Do not use these areas for parking or for storage of materials.

a. Schedule deliveries to minimize use of driveways and entrances by construction operations.

1.5 SPECIFICATION FORMATS AND CONVENTIONS

A. Technical Specifications Format: The Specifications are organized into Divisions and Sections using the 33-division format and “MasterSpec” numbering system.

1. Section Identification: The Technical Specifications use section numbers and titles to help cross-referencing in the Contract Documents. Sections in the Project Manual are in numeric sequence; however, the sequence is incomplete. Consult the table of contents at the beginning of the Project Manual to determine numbers and names of sections in the Contract Documents.

B. Technical Specifications Content: The Technical Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

1. Abbreviated Language: Language used in the Technical Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.

2. Imperative mood and streamlined language are generally used in the Technical Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.

a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 011000

SECTION 012600 - CONTRACT MODIFICATION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements for handling and processing Contract modifications whereas all parties agree to the following:

1. A modification in the Work or Contract Documents.
2. The amount of the adjustment in the Contract Sum, if any.
3. The extent of the adjustment in the Contract Time, if any.

1.3 NOTIFICATION TO SURETY

A. The Contractor shall notify the Surety of any modifications to the Work or provisions of the Contract Documents, including, but not limited to, the Contract Price or Contract Time.

1.4 MINOR CHANGES IN THE WORK

A. The Consultant shall have authority to order Minor Changes in the Work not involving adjustment to the Contract Sum or extension of the Contract Time, and consistent with the intent of the Contract Documents. Such changes shall be in a form of a written order and shall be binding for both the Owner and Contractor when fully executed.

1.5 CLAIMS FOR ADDITIONAL COST:

A. No claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph.

Notice: Written notice stating the general nature of each claim shall be delivered by the claimant to the other party to the Contract promptly, but in no event later than thirty (30) days after the start of the event giving rise to the claim.

The responsibility to substantiate a claim shall rest with the party making the claim. The amount or extent of the claim, with supporting data, shall be delivered to the other party to the Contract within fifteen (15) days after the initial Notice of the Claim.

Each claim shall be accompanied by claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event.

The opposing party shall submit any response to the claimant within thirty (30) days after receipt of the claimant's last submittal. Prior notice is not required for Claims relating to an emergency endangering life or property.

B. The Contractor shall submit a claim if he believes additional cost is involved for reasons including but not limited to the following:

1. A written interpretation from the Consultant,
2. An order by the Owner to stop the Work where the Contractor was not at fault,
3. A written order for a minor change in the Work issued by the Consultant,
4. A change in the Scope of the Work by the Consultant.

1.6 PROPOSAL REQUESTS

A. The Owner initiated Proposal Requests is generated by the Owner to modify the Work or Contract Documents. The Consultant will issue a detailed description of proposed modifications in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications. The description is for information and shall be considered as a directive to automatically stop work or execute the proposed change.

1. Within ten 10-calendar days after receipt of the Proposal Request, the Contractor shall submit a Proposal Request Form with an estimate to adjust the Contract Sum and the Contract Time if necessary to execute the change. Proposal shall include support documents from Subcontractor, if applicable.

    a. Include a list of quantities of (plus or minus) the materials and/or products required with unit prices, total amount of purchases, and credits to be made. If requested, furnish survey data to substantiate quantities.

    b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

    c. Include costs of labor and supervision directly attributable to the change, including social security, old age and unemployment insurance, fringe benefits, and workmen’s compensation insurance.

    d. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start, and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

2. The Contractor may initiate proposals if latent or unforeseen conditions require modifications to the Contract, Contractor may propose changes by submitting a request for a change to Consultant.

    a. Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.

    b. Include a list of quantities of (plus or minus) the materials and/or products required with unit prices, total amount of purchases, and credits to be made. If requested, furnish survey data to substantiate quantities.

    c. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

    d. Include costs of labor and supervision directly attributable to the change, including social security, old age and unemployment insurance, fringe benefits, and workmen's compensation insurance.

    e. Include an updated Contractor's Construction Schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time.

    f. Comply with requirements in Division 1 Section, of the Technical Specifications "Product Requirements" if the proposed change requires substitution of one product or system for product or system specified.

B. An alternative method to price the changes in the work is to utilize current "Mean's Cost Data".

C. Profit and Overhead shall not exceed ten percent (10%) of the cost of the changes to the Work.

D. Use Proposal Request Form provided by Owner. A "Sample is included in the Appendix. The Contractor shall prepare three copies, one for the Consultant, one for the Owner and one for himself and for all parties to sign. Each shall keep a copy.

E. The Contractor shall be responsible for keeping and updating a "Proposal Request Log", listing all Proposal Requests and Minor Changes. The log shall also indicate the date of the Proposal Request, approval date, action taken, running balances, and a complete description of the change.

F. After all parties have signed "The Proposal Request Form", it shall be the Contractor's authorization to proceed with the changes to the Work.

If the Owner and Contractor do not agree with the requested adjustment in the Contract Sum, the Contract Time or the method of determining each, the provisions for Mediation shall be utilized.

1.7 CHANGE ORDER PROCEDURES

A. The Consultant shall issue a Change Order for signatures once all of the Proposal Request(s) amounts exceeds the contingency amount or at the end of the project.

B. The Contractor shall not invoice for the Change Order until it has been executed by all parties.

1.8 CONSTRUCTION CHANGE DIRECTIVE

A. The Consultant may issue a Construction Change Directive that has been signed by the Owner to the Contractor directing a change in the Work. Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.

1. Work Change Directive contains a complete description of change in the Work. It also designates method to be followed to determine change in the Contract Sum or the Contract Time.

B. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved. And the Contractor shall advise the Consultant of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

C. The Contractor shall maintain detailed records on a time and material basis of work required by the Construction Change Directive.

1. After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PROCESSING CHANGE ORDERS

A. The Change Order will be issued describing the change or changes to the Work and/or Contract Documents and will refer to the Proposal Requests.

B. The Consultant shall issue one copy of the Change Order to the Contractor. The Contractor shall promptly sign the copy and return the copy to the Consultant who will sign the Change Order and forward the Change Order to the Owner to execute

C. Once the Change Order has been fully executed, a copy shall be forwarded to the Consultant and to the Contractor for their files.

END OF SECTION 012600

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section 012600 "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.

2. Division 1, of the Technical Specifications Section 013200 "Construction Progress Documentation" for administrative requirements governing preparation and submittal of Contractor's Construction Schedule and Submittals Schedule.

1.3 DEFINITIONS

A. Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

A. Coordination: Coordinate preparation of the Schedule of Values with preparation of Contractor's Construction Schedule.

1. Correlate line items in the Schedule of Values with other required administrative forms and schedules, including the following:

a. Application for Payment forms AIA G702.
b. Continuation Sheets

2. Submit the Schedule of Values to the Consultant at earliest possible date but no later than fourteen (14) days before the date scheduled for submittal of initial Applications for Payment.

3. Sub-schedules: Where the Work is separated into phases requiring separately phased payments, provide sub-schedules showing values correlated with each phase of payment.

B. Format and Content: Use the Project Manual table of contents as a guide to establish line items for the Schedule of Values. Provide at least one (1) line item for each of the Technical Specifications Section.

1. Identification: Include the following Project information on the Schedule of Values:

   a. Project name and location.
   b. Owner's name.
   c. Name of Consultant.
   d. Contract number.
   e. Contractor's name and address.
   f. Date of submittal.

2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:

   a. Related Technical Specifications Section or Division.
   b. Description of the Work.
   c. Name of subcontractor.
   d. Name of manufacturer or fabricator.
   e. Name of supplier.
   f. Change Orders (numbers) that affect value.
   g. Dollar value.

3. Group items that are “Non-Tangible & Non-Taxable and Tangible & Taxable Items” on the Schedule of Values.

4. Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide several line items for principal subcontract amounts, where appropriate.

5. Round amounts to nearest whole dollar; total shall equal the Contract Sum.

6. Provide a separate line item in the Schedule of Values for each part of the Work where Applications for Payment may include labor and materials and/or equipment purchased or fabricated and stored but not yet installed.

   a. Differentiate between items stored on-site and items stored off-site. Include evidence of insurance or bonded warehousing if required.

7. Provide separate line items in the Schedule of Values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.

8. Each item in the Schedule of Values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.

    a. Temporary facilities and other major cost items that are not direct cost of actual work-in-place may be shown as separate line items in the Schedule of Values or distributed as general overhead expense, at Contractor's option.

9. Schedule Updating: Update and resubmit the Schedule of Values before the next Applications for Payment when Change Orders result in a change in the Contract Sum.

1.5 APPLICATIONS FOR PAYMENT

A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Consultant and paid for by Owner.

    1. Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment involves additional requirements.

B. Such applications shall not include requests for payment of amounts the Contractor does not intend to pay to a Subcontractor or material supplier because of a dispute or other reason.

C. Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for material and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner’s title to such material and equipment or otherwise protect the owner’s interest, and shall include applicable insurance, storage and transportation to the site for such material and equipment stored off the site.

    The Contractor warrants that title to all Work covered by an Application and Certificate for payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application and Certificate for payment all work for which Certificates for payment have been previously issued and payment received from the Owner shall, to the best of the Contractor’s knowledge, information and belief, be free and clear of claims of liens, claims, security, interests or encumbrances in favor of the Contractor, Subcontractors, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

D. Payment Application Times: Each Month, the Owner can make a partial payment to the Contractor on the basis of a duly notarized Application and Certification for Payment approved and certified by the Consultant.

E. Application Preparation: Complete every entry on form. Notarize and execute by a person authorized to sign legal documents on behalf of Contractor. The Consultant will return incomplete applications without action.

1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions were made.

2. Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.

3. Retainage shall be retained in accordance with N.C.G.S § 143-134.1. The Town will retain five percent (5%) of each payment up to fifty (50%) completion of the Contract, for public construction contracts in which the total project costs are equal to or greater than one hundred thousand dollars ($100,000). No retainage on periodic or final payments made by the Owner or prime contractor shall be allowed on public construction contracts in which the total project costs are less than one hundred thousand dollars ($100,000).

a. The Owner shall not retain more than five percent (5%) of any periodic payment due to a prime Contractor.

b. When the project is fifty percent (50%) complete, The Owner, with written consent of the surety, shall not retain any further retainage from periodic payments due the Contractor if the Contractor continues to perform satisfactorily and any nonconforming work identified in writing prior to that time by the Consultant or Owner has been corrected by the Contractor and accepted by the Consultant and Owner. If the Consultant determines the Contractor’s performance is unsatisfactory, the owner may reinstate retainage for each subsequent periodic payment application as authorized in this subsection up to the maximum amount of five percent (5%). The project shall be deemed fifty percent (50%) complete when the Contractor’s gross project invoices, excluding the value of materials store off-site, equal or exceed fifty percent (50%) of the value of the contract, except the value of materials store on-site shall not exceed twenty percent(20%) of the Contractor’s gross project invoices for the purpose of determining whether the project is fifty percent (50%) complete.

c. A subcontract on a contract governed by this section may include a provision for the retainage on periodic payments made by the prime contractor to the subcontractor. However, the percentage of the payment retained: (i) shall be paid to the subcontractor under the same terms and conditions as provided in subdivision (E)(3)(b.) of this subsection and (ii) subject to subsection (E)(5.) of this section, and shall not exceed the percentage of retainage on payments made by the owner to the prime contractor. Subject to subsection (E)(5.) of this section, any percentage of retainage on payments made by the prime contractor to the subcontractor that exceeds the percentage of retainage on payments made by the owner to the prime contractor shall be subject to interest to be paid by the prime contractor to the subcontractor at the rate of one percent (1%) per month or fraction thereof.

d. Within sixty (60) days after the submission of a pay request and one of the following occurs, as specified in the contract documents, the Owner with written consent of the surety shall release to the Contractor all retainage on payments held by the Owner:

i. The Owner receives a certificate of substantial completion from the Consultant in charge of the project; or

ii. the Owner receives beneficial occupancy or use of the project.

However, the Owner may retain sufficient funds to secure completion of the project or corrections on any work. If the Owner retains funds, the amount retained shall not exceed two and one-half times the estimated value of the work to be completed or corrected. Any reduction in the amount of the retainage on payments shall be with the consent of the Contractor's surety.

e. The existence of any third-party claims against the Contractor or any additive change orders to the construction contract shall not be a basis for delaying the release of any retainage on payments.

f. Full payment, less authorized deductions, shall also be made for those trades that have reached one hundred percent (100%) completion of their contract by or before the project is fifty percent (50%) complete if the Contractor has performed satisfactorily. However, payment to the early finishing trades is contingent upon the Owner's receipt of an approval or certification from the Consultant of record or applicable engineer that the work performed by the subcontractor is acceptable and in accordance with the contract documents. At that time, the Owner shall reduce the retainage for such trades to five-tenths percent (0.5%) of the contract. Payments under this subsection shall be made no later than sixty (60) days following receipt of the subcontractor's request or immediately upon receipt of the surety's consent, whichever occurs later. Early finishing trades under this subsection shall include structural steel, piling, caisson, and demolition. The early finishing trades for which line-item release of retained funds is required shall not be construed to prevent an Owner or an Owner's representative from identifying any other trades not listed in this subsection that are also allowed line-item release of retained funds. Should the Owner or Owner's representative identify any other trades to be afforded line-item release of retainage, the trade shall be listed in the original bid documents. Each bid document shall list the inspections required by the Owner before accepting the work, and any financial information required by the Owner to release payment to the trades, except the failure of the bid documents to contain this information shall not obligate the Owner to release the retainage if it has not received the required certification from the Consultant of record or applicable engineer.

g. Notwithstanding 3-a & b of this section, following fifty percent (50%) completion of the project, the Owner shall be authorized to withhold additional retainage from a subsequent periodic payment, not to exceed five percent (5%) as set forth in 3-a of this section, in order to allow the Owner to retain two and one-half percent (2.5%) total retainage through the completion of the project. In the event that the Owner elects to withhold additional retainage on any periodic payment subsequent to release of retainage pursuant to 3-d-i of this section, the General Contractor may also withhold from the subcontractors remaining on the project sufficient retainage to offset the additional retainage held by the Owner, notwithstanding the actual percentage of retainage withheld by the Owner of the project as a whole.

h. Neither the Owner's nor Contractor's release of retainage on payments as part of a payment in full on a line-item of work under 3-d-i of this section shall affect any applicable warranties on work done by the Contractor or subcontractor, and the warranties shall not begin to run any earlier than either the Owner's receipt of a certificate of substantial completion from the Consultant in charge of the project or the Owner receives beneficial occupancy.

4. Nothing in this section shall prevent the prime Contractor at the time of application and certification to the Owner from withholding application and certification to the Owner for payment to the subcontractor for unsatisfactory job progress; defective construction not remedied; disputed work; third party claims filed or reasonable evidence that claim will be filed; failure of subcontractor to make timely payments for labor, equipment, and materials; damage to prime Contractor or another subcontractor; reasonable evidence that subcontract cannot be completed for the unpaid balance of the subcontract sum; or a reasonable amount for retainage not to exceed the initial percentage retained by the Owner.

5. Nothing in this section shall prevent the Owner from withholding payment to the Contractor in addition to the amounts authorized by this section for unsatisfactory job progress, defective construction not remedied, disputed work, or third-party claims filed against the Owner or reasonable evidence that a third-party claim will be filed.

F. Transmittal: Submit two (2) signed and notarized original hard copies, or one (1) signed and notarized electronic copy, of each Application for Payment to the Consultant. Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

G. With each Application and Certification for payment, the Contractor must furnish for themselves, as well as for all Subcontractors, certified statements stating the cost of the property purchased from each vendor and the amount of sales and/or use taxes paid. See General Conditions, Sales and Use Tax for additional information.

H. Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.

I. Neither Final payment nor any remaining retained percentage shall become due until the Contractor submits the following to the Consultant for approval:

1. An affidavit that payrolls, bills for material and other indebtedness connected with the Work has been paid or otherwise satisfied,

2. A certificate evidencing that insurance required by the Contract Document to remain in force after Final payment is currently in effect and will not be canceled or allowed to expire until at least thirty (30) days prior written notice has been given to the Owner,

3. Consent of surety to Final payment and

4. If required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts, releases and waivers of claim of liens, claims security interests or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If the Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such claim of lien. If such claim of lien remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging such claim, including all costs and reasonable attorneys' fees.

5. M/WSBE Form VI.

6. A list of all suppliers and subcontractors that were involved with the project. As part of the list, the Contractor shall include the address, phone number, what they supplied or Work performed, and a contact name.

7. "As-Builts" Drawings

8. Maintenance and Operation instructions and guarantees.

J. Final Payment Application: Submit with the final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

1. Warranties and Test results required by the Contract Documents.

2. Updated final statement, accounting for final changes to the Contract Sum.

3. AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."

4. AIA Document G706A, "Contractor's Affidavit of Release of Liens."

5. AIA Document G707, "Consent of Surety to Final Payment."

6. Additional Evidence that claims has been settled if required by the Owner. An example of the evidence could be a letter from a subcontractor indicating that he has been paid in full for the work that he has performed.

7. Certificates from all local and State Governing Agencies as required by Law.

8. Final liquidated damages settlement statement.

9. List of Sub-Contractors and Suppliers that has contributed to the completion of the Work. The list shall include:

    a. Material they supplied or type of construction they performed.
    b. Address
    c. Contact person
    d. Phone number

10. M/WSBE Form VI

11. Final Sales Tax Form.

PRODUCTS (Not Used)

EXECUTION (Not Used)

END OF SECTION 012900

SECTION 013100 - PROJECT MANAGEMENT AND COORDINATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. To enable orderly review during progress of the Work, and to provide for systematic discussion of problems, the Contractor will chair and conduct project meetings and compile an agenda for each meeting throughout the construction period.

B. This Section includes administrative provisions for coordinating construction operations on the Project including, but not limited to, the following:

1. General project coordination procedures.
2. Conservation.
3. Coordination Drawings.
4. Administrative and supervisory personnel.
5. Project meetings.

C. Related Sections: The following Sections contain requirements that relate to this Section:

1. Division 1, of the Technical Specifications Section 013200 "Construction Progress Documentation" for preparing and submitting the Contractor's Construction Schedule.

2. Division 1, of the Technical Specifications Section 017300 "Execution" for procedures for coordinating general installation and field- engineering services, including establishment of benchmarks and control points.

3. Division 1, of the Technical Specifications Section 017700 "Closeout Procedures" for coordinating Contract closeout.

1.3 COORDINATION

A. Coordination: Coordinate construction operations included in various Sections of the Technical Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

1. Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components.

2. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.

3. Make adequate provisions to accommodate items scheduled for later installation.

B. If necessary, the Contractor shall prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1. Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1. Preparation of Contractor's Construction Schedule.
2. Preparation of the Schedule of Values.
3. Installation and removal of temporary facilities and controls.
4. Delivery and processing of submittals.
5. Progress meetings.
6. Pre-installation conferences.
7. Project closeout activities.

D. Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials.

1. Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work.

1.4 SUBMITTALS

A. Coordination Drawings: Prepare Coordination Drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities.

1. Indicate relationship of components shown on separate Shop Drawings.
2. Indicate required installation sequences.

1.5 REQUEST FOR INFORMATION (RFI)

A. General: Immediately on discovery of the need for additional information, clarification, or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.

1. Consultant will return without response those RFIs submitted to Conultatn by other entities controlled by Contractor.

2. Coordinate and submit RFIs in a prompt manner to avoid delays in Contractor's work or work of subcontractors.

B. Content of the RFI: Include a detailed, legible description of item needing information or interpretation.

C. Consultant’s Action: Consultant will review each RFI, determine action required, and respond. Allow seven days for Consultant's response for each RFI. RFIs received by Consultant after 1:00 p.m. will be considered as received the following working day.

1. Consultant's action may include a request for additional information, in which case Consultant's time for response will date from time of receipt by Consultant of additional information.

2. Consultant's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Section 012600 "Contract Modification Procedures."

a. If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify Consultant in writing within five days of receipt of the RFI response.

D. On receipt of Consultant's action, immediately distribute the RFI response to affected parties. Review response and notify Consultant within three days if Contractor disagrees with response.

1.6 PROJECT MEETINGS

A. General: Schedule and conduct meetings and conferences at Project site, unless otherwise indicated.

1. Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting.

2. Agenda: The Contractor shall prepare the meeting agenda. Distribute the agenda to all invited attendees.

3. Minimum agenda:

    a. Review, revise as necessary, and approve minutes of previous meetings.
    b. Review progress of the Work since last meeting, including status of submittals for approval.
    c. Identify problems which impede planned progress.
    d. Develop corrective measures and procedures to regain planned schedule.
    e. Complete other current business.

4. Minutes:

    a. The Contractor will compile minutes of each project meeting and will distribute copies to the Contractor and required copies to the Owner.
    b. Recipients of copies may make and distribute such other copies as they wish.

5. Attendance:

    a. To the maximum extent practical, assign the same person or persons to represent the Contractor at the project meetings throughout progress of the Work.
    b. Subcontractors, materials suppliers, and others may be invited to attend those project meetings in which their aspect of the Work is involved.

B. Pre-construction Conference: Schedule a pre-construction conference before starting construction, at a time convenient to Owner and Consultant, but no later than fourteen (14) days after execution of the Construction Contract. Hold the conference at Project site or another convenient location. Conduct the meeting to review responsibilities and personnel assignments.

1. Attendees: Authorized representatives of Owner, Consultant, and their consultants; Contractor and its superintendent; major subcontractors and other concerned parties shall attend the conference. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Discuss items of significance that could affect progress, including the following:

    a. Tentative construction schedule.
    b. Phasing.
    c. Critical work sequencing and long lead times.
    d. Designation of responsible personnel.
    e. Procedures for processing field decisions and Change Orders.
    f. Procedures for processing Applications for Payment.
    g. Distribution of the Contract Documents.
    h. Submittal procedures.
    i. Preparation of Record Documents.
    j. Use of the premises.
    k. Responsibility for temporary facilities and controls.
    l. Parking availability.
    m. Office, work, and storage areas.
    n. Equipment deliveries and priorities.
    o. Security.
    p. Working hours.

C. Pre-installation Conferences: Conduct a pre-installation conference at Project site before each construction activity that requires coordination with other construction.

1. Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Consultant of scheduled meeting dates.

2. Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

   a. Contract Documents.
   b. Options.
   c. Related Change Orders.
   d. Purchases.
   e. Deliveries.
   f. Submittals.
   g. Review of mockups.
   h. Possible conflicts.
   i. Time schedules.
   j. Weather limitations.
   k. Manufacturer's written recommendations.
   l. Temporary facilities and controls.
   m. Space and access limitations.
   n. Regulations of authorities having jurisdiction.
   o. Testing and inspecting requirements.
   p. Required performance results.
   q. Protection of construction and personnel.

3. Record significant conference discussions, agreements, and disagreements. Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.

D. Progress Meetings: Conduct progress meetings at monthly intervals.

1. Attendees: Representatives at the meeting shall be the Owner, Consultant, Subcontractors, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.

2. Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.

3. Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's Construction Schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time.

4. Review present and future needs of each entity present, including the following:

    a. Interface requirements.
    b. Sequence of operations.
    c. Status of submittals.
    d. Deliveries.
    e. Access.
    f. Work hours.
    g. Hazards and risks.
    h. Review of Record Drawings
    i. Review of construction defects that has been identified by the Consultant

5. Reporting: Distribute minutes of the meeting to each party present and to parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.

    a. Schedule Updating: Revise Contractor's Construction Schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue revised schedule concurrently with the report of each meeting.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

1. Preliminary Construction Schedule.
2. Contractor's Construction Schedule.
3. Submittals Schedule.
4. Daily construction reports.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section 012900 "Payment Procedures" for submitting the Schedule of Values.
2. Division 1, of the Technical Specifications Section 013100 "Project Management and Coordination" for submitting and distributing meeting and conference minutes.
3. Division 1, of the Technical Specifications Section 013300 "Submittal Procedures" for submitting schedules and reports.
4. Division 1, of the Technical Specifications Section 014000 "Quality Requirements" for submitting a schedule of tests and inspections.
5. Division 1, of the Technical Specifications Section 017700 "Closeout Procedures" for Project Record Documents at Project closeout.

1.3 SUBMITTALS

A. Format for Submittals: Submit required submittals in the following format:

1. Working electronic copy of schedule file.
2. PDF file.

B. Preliminary Construction Schedule

C. Contractor's Construction Schedule: Initial schedule, large enough to show entire schedule for entire construction period.

D. Submittals Schedule: Arrange the following information in a tabular format:

1. Scheduled date for first submittal.
2. Technical Specifications Section number and title.
3. Submittal category (action or informational).
4. Name of subcontractor.
5. Description of the Work covered.
6. Scheduled date for Consultant's final release or approval.

E. Daily Construction Reports: Submit at monthly intervals.

F. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of Consultants and owners, and other information specified. The date shall be submitted for any change of construction personal.

1.4 COORDINATION

A. Coordinate preparation and processing of schedules and daily construction reports with performance of construction activities and with scheduling and reporting of separate contractors.

B. Coordinate Contractor's Construction Schedule with the Schedule of Values, list of subcontracts, Submittals Schedule, payment requests, and other required schedules and reports.

1. Secure time commitments for performing critical elements of the Work from parties involved.
2. Coordinate each construction activity in the network with other activities and schedule them in proper sequence.

1.5 PRELIMINARY CONSTRUCTION SCHEDULE

A. Bar-Chart Schedule: If requested, submit preliminary horizontal bar-chart- type construction schedule within seven (7) days of date established for the Notice to Proceed

B. Preparation: Indicate each significant construction activity separately. Identify first workday of each week with a continuous vertical line. Outline significant construction activities for first sixty (60) days of construction. Include skeleton diagram for the remainder of the Work.

1.6 CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

A. Time Frame: Extend schedule from date established for the Notice to Proceed, through the date of Substantial Completion and Final Completion.

1. Contract completion date shall not be changed, unless specifically authorized by Change Order.

2. Submittal Review Time: Include review and resubmittal times indicated in Division 1 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's Construction Schedule with Submittals Schedule.
3. Startup and Testing Time: Include no fewer than 15 days for startup and testing.
4. Substantial Completion: Indicate completion in advance of date established for Substantial Completion and allow time for Consultant's administrative procedures necessary for certification of Substantial Completion.
5. Punch List and Final Completion: Include not more than 30 days for completion of punch list items and Final Completion.

B. Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in the schedule and show how the sequence of the Work is affected.

1. Phasing: Arrange list of activities on schedule by phase.
2. Work Restrictions: Show the effect of the following items on the schedule:

    a. Coordination with existing construction.
    b. Limitations of continued occupancies.
    c. Uninterruptible services.
    d. Partial occupancy before Substantial Completion.
    e. Use of premises restrictions.
    f. Environmental control.

3. Work Stages: Indicate important stages of construction for each major portion of the Work, including, but not limited to, the following:

    a. Submittals.
    b. Purchases.
    c. Mockups.
    d. Fabrication.
    e. Sample testing.
    f. Deliveries.
    g. Installation.
    h. Tests and inspections.
    i. Startup and placement into final use and operation.

C. Milestones: If not included in the Construction Documents, milestones shall be indicated in the Construction Schedule for the Consultant’s and Owner’s approval and shall be reference points of the construction progress.

D. Contract Modifications: For each proposed contract modification and concurrent with its submission, prepare a time-impact analysis using fragments to demonstrate the effect of the proposed change on the overall project schedule.

C. Contractor's Construction Schedule Updating: At monthly intervals, update schedule to reflect actual construction progress and activities. Issue schedule one week before each regularly scheduled progress meeting.

1. Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
2. Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
3. As the Work progresses, indicate Actual Completion percentage for each activity.

D. Distribution: Distribute copies of approved schedule to Consultant, Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

1. Post copies in Project meeting rooms and temporary field offices.
2. When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

1.7 SUBMITTALS SCHEDULE

A. Preparation: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, resubmittal, ordering, manufacturing, fabrication, and delivery when establishing dates.

1. Coordinate Submittals Schedule with list of subcontracts, the Schedule of Values, and Contractor's Construction Schedule.

2. Initial Submittal: Submit concurrently with preliminary bar-chart schedule. Include submittals required during the first sixty (60) days of construction. List those required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.

a. At Contractor's option, show submittals on the Preliminary Construction Schedule, instead of tabulating them separately.

i. Final Submittal: Submit concurrently with the first complete submittal of Contractor's Construction Schedule.

1.8 REPORTS

A. Daily Construction Reports: Prepare a daily construction report recording the following information concerning events at Project site:

1. List of subcontractors at Project site.
2. List of separate contractors at Project site.
3. Approximate count of personnel at Project site.
4. Equipment at Project site.
5. Material deliveries.

6. High and low temperatures and general weather conditions, including presence of rain or snow.
7. Testing and inspection.
8. Accidents.
9. Meetings and significant decisions.
10. Unusual events.
11. Stoppages, delays, shortages, and losses.
12. Meter readings and similar recordings.
13. Emergency procedures.
14. Orders and requests of authorities having jurisdiction.
15. Change Orders received and implemented.
16. Construction Change Directives received and implemented.
17. Services connected and disconnected.
18. Equipment or system tests and startups.
19. Partial completions and occupancies.
20. Substantial Completions authorized.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 013200

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other miscellaneous submittals.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section 012900 "Payment Procedures" for submitting Applications for Payment.
2. Division 1, of the Technical Specifications Section 013100 "Project Management and Coordination" for submitting Coordination Drawings.
3. Division 1, of the Technical Specifications Section 013200 "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule and the Submittals.
4. Division 1, of the Technical Specifications Section "Quality Requirements" for test and inspection reports and for erecting mockups.
5. Division 1, of the Technical Specifications Section 017700 "Closeout Procedures" for submitting warranties Project Record Documents and operation and maintenance manuals.
6. Division 1, of the Technical Specifications Section 017839 "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.

1.3 DEFINITIONS

A. Action Submittals: Written and graphic information that requires Consultant's responsive action.

B. Informational Submittals: Written information that does not require Consultant's approval. Submittals may be rejected for not complying with requirements.

1.4 SUBMITTAL PROCEDURES

A. Prepare and submit submittals required by individual Specification Sections and Contract Drawings. Types of submittals are indicated in individual Specification Sections and on the Construction Drawings.

B. General: Electronic copies of CAD Drawings of the Contract Drawings will not be provided by Consultant for Contractor's use in preparing submittals.

C. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.

a. Consultant reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

D. Submittals Schedule: Comply with requirements in Division 1, of the Technical Specifications Section "Construction Progress Documentation" for schedule format and required information (Submittal Log).

E. Processing Time: Allow enough time for submittal review, including time for re- submittals, as follows. Time for review shall commence on Consultant's receipt of submittal.

1. Initial Review: Allow seven (7) days for initial review of each submittal. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. Consultant will advise Contractor when a submittal being processed must be delayed for coordination.
2. Concurrent Review: Where concurrent review of submittals by Consultant's consultants, Owner, or other parties is required, allow twenty one (21) days for initial review of each submittal.
3. Resubmittals: Make resubmittals in same form as initial submittal. Process it in same manner as initial submittal. Allow seven (7) days for processing each re-submittal.
4. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing.

F. Identification: Place a permanent label or title block on each submittal for identification.

1. Indicate name of firm or entity that prepared each submittal on label or title block.
2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Consultant.

3. Include the following information on label for processing and recording action taken:

    a. Project name.
    b. Date.
    c. Name and address of Consultant.
    d. Name and address of Contractor.
    e. Name and address of subcontractor.
    f. Name and address of supplier.
    g. Name of manufacturer.
    h. Unique identifier, including revision number.
    i. Number and title of appropriate Technical Specifications Section.
    j. Drawing number and detail references, as appropriate.
    k. Other necessary identification.

G. Deviations: Highlight, encircle, or otherwise identify deviations from the Contract Documents on submittals.

H. Additional Copies: Unless additional copies are required for final submittal, and unless Consultant observes noncompliance with provisions of the Contract Documents, initial submittal may serve as final submittal.

1. Submit one copy of submittal to concurrent reviewer in addition to specified number of copies to Consultant.
2. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.

I. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Consultant will return submittals, without review, received from sources other than Contractor.

1. On an attached separate sheet, prepared on Contractor's letterhead, record relevant information, requests for data, revisions other than those requested by Consultant on previous submittals, and deviations from requirements of the Contract Documents, including minor variations and limitations. Include the same label information as the related submittal.
2. Include Contractor's certification stating that information submitted complies with requirements of the Contract Documents.
3. Transmittal Form: Use on form to be defined by the Consultant.

J. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

K. Use for Construction: Use only final submittals with mark indicating action taken by Consultant in connection with construction.

PART 2 - PRODUCTS

2.1 ACTION SUBMITTALS

A. General: Prepare and submit Action Submittals required by individual Specification Sections.

B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

1. If information must be specially prepared for submittal because standard printed data is not suitable for use, submit as Shop Drawings, not as Product Data.
2. Mark each copy of each submittal to show which products and options are applicable.
3. Include the following information, as applicable:

a. Manufacturer's written recommendations.
b. Manufacturer's product specifications.
c. Manufacturer's installation instructions.
d. Standard color charts.
e. Manufacturer's catalog cuts.
f. Wiring diagrams showing factory-installed wiring.
g. Printed performance curves.
h. Operational range diagrams.
i. Mill reports.
j. Standard product operating and maintenance manuals.
k. Compliance with recognized trade association standards.
l. Compliance with recognized testing agency standards.
m. Application of testing agency labels and seals.
n. Notation of coordination requirements.
o. Manufacturer’s location.

C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.

1. Preparation: Include the following information, as applicable:

a. Dimensions.
b. Identification of products.
c. Fabrication and installation drawings.
d. Roughing-in and setting diagrams and existing conditions.
e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
f. Shopwork manufacturing instructions.
g. Templates and patterns.
h. Schedules.
i. Design calculations.
j. Compliance with specified standards.
k. Notation of coordination requirements.
l. Notation of dimensions established by field measurement.

2. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
3. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.

D. Coordination Drawings: Comply with requirements in Division 1 Section "Project Management and Coordination."

E. Samples: Prepare physical units of materials or products, including the following:

1. Comply with requirements in Division 1 Section "Quality Requirements" for mockups. Verify the samples are true presentations of the materials to be used.
2. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
3. Preparation: Mount, display, or package Samples in manner specified to facilitate review of qualities indicated. Prepare Samples to match Consultant's sample where so indicated. Attach label on unexposed side that includes the following:

    a. Generic description of Sample.
    b. Product name or name of manufacturer.
    c. Sample source.

4. Additional Information: On an attached separate sheet, prepared on Contractor's letterhead, provide the following:

    a. Size limitations.
    b. Compliance with recognized standards.
    c. Availability.
    d. Delivery time.

5. Submit Samples for review of kind, color, pattern, and texture for a final check of these characteristics with other elements and for a comparison of these characteristics between final submittal and actual component as delivered and installed.

    a. If variation in color, pattern, texture, or other characteristic is inherent in the product represented by a Sample, submit at least three sets of paired units that show approximate limits of the variations. The consultant will return submittal with the option selected.
    b. Refer to individual Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.

6. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.

    a. Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.

b. Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.

F. Product Schedule or List: Prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

1. Type of product. Include unique identifier for each product.
2. Number and name of room or space.
3. Location within room or space.

G. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."

H. Application for Payment: Comply with requirements in Division 1 Section "Payment Procedures."

I. Schedule of Values: Comply with requirements in Division 1 Section "Payment Procedures."

J. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:

1. Name, address, and telephone number of entity performing subcontract or supplying products.

2.2 INFORMATIONAL SUBMITTALS

A. General: Prepare and submit Informational Submittals required by other Specification Sections.

1. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

B. Contractor's Construction Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation."

C. Qualification Data: If requested, prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of Consultants and owners, and other information specified.

D. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements.

E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.

F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements and, where required, is authorized for this specific Project.

G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements. Include evidence of manufacturing experience where required.

H. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements.

I. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation for the application.

J. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

K. Coordinate individual Specification Sections with paragraph below by including specific model code organization in that Section. If all are same, insert name below. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements in Division 1 Section "Closeout Procedures Operation and Maintenance Data."

L. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer. Include the following, as applicable:

1. Preparation of substrates.
2. Required substrate tolerances.
3. Sequence of installation or erection.
4. Required installation tolerances.
5. Required adjustments.
6. Recommendations for cleaning and protection.

M. Manufacturer's Field Reports: Prepare written information documenting factory- authorized service representative's tests and inspections. Include the following, as applicable:

1. Name, address, and telephone number of factory-authorized service representative making report.
2. Statement on condition of substrates and their acceptability for installation of product.
3. Statement that products at Project site comply with requirements.
4. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
5. Results of operational and other tests and a statement of whether observed performance complies with requirements.
6. Statement whether conditions, products, and installation will affect warranty.
7. Other required items indicated in individual Specification Sections.

N. Material Safety Data Sheets: Submit one digital copy each for the Consultant and the Owner and keep a printed copy at the job site. Post warning signs when appropriate.

2.3 DELEGATED DESIGN SERVICES

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

1. If criteria indicated are insufficient to perform services or certification required, submit a written request for additional information to Consultant.

B. Delegated Design Services Certification: In addition to Shop Drawings, Product Data, and other required submittals, submit digitally signed PDF file signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

PART 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

A. Review each submittal and check for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Consultant.

B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

3.2 CONSULTANT'S ACTION

A. General: Consultant will not review submittals that do not bear Contractor's approval stamp and will return them without action.

B. Action Submittals: Consultant will review each submittal, make marks to indicate corrections or modifications required, and return it. Consultant will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.

C. Informational Submittals: Consultant will review each submittal and will not return it, or will reject and return it if it does not comply with requirements. Consultant will forward each submittal to appropriate party.

D. Submittals not required by the Contract Documents will not be reviewed and may be discarded unless a justification is also submitted.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for quality assurance and quality control.

B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.

1. Specific quality-control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
2. Specified tests, inspections, and related actions do not limit Contractor's quality- control procedures that facilitate compliance with the Contract Document requirements.
3. Requirements for Contractor to provide quality-control services required by Consultant, Owner, or authorities having jurisdiction are not limited by provisions of this Section.

C. Related Sections include the following:

1. Division 1, of the Technical Specifications Section 013200 "Construction Progress Documentation" for developing a schedule of required tests and inspections.
2. Division 1, of the Technical Specifications Section 017310 "Cutting and Patching" for repair and restoration of construction disturbed by testing and inspecting activities.
3. Divisions 2 through 33, of the Technical Specifications Sections for specific test and inspection requirements.

1.3 DEFINITIONS

A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and ensure that proposed construction complies with requirements.

B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that completed construction comply with requirements. Services do not include contract enforcement activities performed by Consultant.

C. Mockups: Full-size, physical example assemblies to illustrate finishes and materials. Mockups are used to verify selections made under Sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Mockups establish the standard by which the Work will be judged.

D. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

1.4 CONFLICTING REQUIREMENTS

A. Conflicting Standards and Other Requirements: If compliance with two or more standards or requirements is specified and the standards or requirements establish different or conflicting requirements for minimum quantities or quality levels, inform the Consultant regarding the conflict and obtain clarification prior to proceeding with the Work. Refer conflicting requirements that are different, but apparently equal, to Consultant for clarification before proceeding.

B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified is the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Consultant for a decision before proceeding.

1.5 SUBMITTALS

A. Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1. Technical Specifications Section number and title.
2. Description of test and inspection.
3. Identification of applicable standards.
4. Identification of test and inspection methods.
5. Number of tests and inspections required.
6. Time schedule or time span for tests and inspections.
7. Entity responsible for performing tests and inspections.
8. Requirements for obtaining samples.
9. Unique characteristics of each quality-control service.

B. Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

1.6 QUALITY ASSURANCE

A. Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.

B. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.

C. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect, demonstrate, repair, and perform service on installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.

D. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.

E. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units. As applicable, procure products from manufacturers able to meet qualification requirements, warranty requirements, and technical or factory-authorized service representative requirements.

F. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar in material, design, and extent to those indicated for this Project.

G. Testing and Inspecting Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspection indicated, as documented in accordance with ASTM E329, and with additional qualifications specified in individual Sections; and, where required by authorities having jurisdiction, that is acceptable to authorities.

H. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:

1. Build mockups of size indicated.
2. Build mockups in location indicated or, if not indicated, as directed by Consultant.
3. Notify Consultant seven days in advance of dates and times when mockups will be constructed.
4. Employ workers who will be employed to perform same tasks during the construction at Project.
5. Demonstrate the proposed range of aesthetic effects and workmanship.
6. Obtain Consultant’s approval of mockups before starting corresponding Work, fabrication, or construction.
7. Allow seven days for initial review and each re-review of each mockup.
8. Promptly correct unsatisfactory conditions noted by Consultant’s preliminary review, to the satisfaction of the Consultant, before completion of final mockup.
9. Approval of mockups by the Consultant does not constitute approval of deviations from the Contract Documents contained in mockups unless Consultant specifically approves such deviations in writing.

10. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
11. Demolish and remove mockups when directed unless otherwise indicated.

1.7 QUALITY CONTROL

A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.

1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of the types of testing and inspecting they are engaged to perform.
2. Costs for retesting and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.

B. Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities, whether specified or not, to verify and document that the Work complies with requirements.

1. Unless otherwise indicated, provide quality-control services specified and required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.

2. Engage a qualified testing agency to perform these quality-control services.

a. Contractor shall not employ the same entity engaged by Owner, unless agreed to in writing by Owner.

3. Notify testing agencies at least twenty-four (24) hours in advance of time when Work that requires testing or inspecting will be performed.
4. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
5. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
6. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.

C. Special Tests and Inspections: Owner will engage a testing agency to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner.

1. Testing agency will notify Consultant and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
2. Testing agency will submit a certified written report of each test, inspection, and similar quality-control service to Consultant with copy to Contractor and to authorities having jurisdiction.
3. Testing agency will submit a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.

4. Testing agency will interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
5. Testing agency will retest and re-inspect corrected work.

D. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing.

E. Retesting/Re-inspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services as requested by the Consultant at the Contractor’s expense, including retesting and re-inspecting, for construction that revised or replaced Work, at the Contractor’s expense, that failed to comply with requirements established by the Contract Documents.

F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:

1. Access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
4. Facilities for storage and field-curing of test samples.
5. Delivery of samples to testing agencies.
6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
7. Security and protection for samples and for testing and inspecting equipment at Project site.

G. Coordination: Coordinate sequence of activities to accommodate required quality- assurance and quality-control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.

1. Schedule times for tests, inspections, obtaining samples, and similar activities.

H. Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents. Submit schedule within thirty (30) days of date established for the Notice to Proceed.

1. Distribution: Distribute schedule to Owner, Consultant, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 REPAIR AND PROTECTION

A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

1. Provide materials and comply with installation requirements specified in other Sections of these Specifications. Restore patched areas and extend restoration into adjoining areas in a manner that eliminates evidence of patching.
2. Comply with the Contract Document requirements for Division 1, of the Technical Specifications Section "Cutting and Patching."

B. Protect construction exposed by or for quality-control service activities.

C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes requirements for temporary facilities and controls, including temporary utilities, support facilities, and security and protection facilities.

B. Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

C. Temporary utilities include, but are not limited to, the following:

1. Water service and distribution.
2. Sanitary facilities, including toilets, wash facilities, and drinking-water facilities.
3. Ventilation.
4. Electric power service.
5. Lighting as required.

D. Support facilities include, but are not limited to, the following:

1. Project identification and temporary signs.
2. Waste disposal facilities.

E. Security and protection facilities include, but are not limited to, the following:

1. Environmental protection.
2. Security enclosure and lockup.

1.3 USE CHARGES

A. General: Cost or use charges for temporary facilities are not chargeable to Owner or Consultant and shall be included in the Contract Sum. Allow other entities to use temporary services and facilities without cost, including, but not limited to, the following:

1. Testing agencies.
2. Personnel of authorities having jurisdiction.
3. Consultant.
4. Sub-Contractor.
5. Any additional Owner provided Contractor.

B. Water Service: Pay water service use charges, whether metered or otherwise, for water used by all entities engaged in construction activities at Project site.

C. Electric Power Service: Pay electric power service use charges, whether metered or otherwise, for electricity used by all entities engaged in construction activities at Project site.

1.4 QUALITY ASSURANCE

A. Standards: Comply with ANSI A10.6, NECA's "Temporary Electrical Facilities," and NFPA 241.

1. Trade Jurisdictions: Assigned responsibilities for installation and operation of temporary utilities are not intended to interfere with trade regulations and union jurisdictions.
2. Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.

B. Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.5 PROJECT CONDITIONS

A. Conditions of Use: The following conditions apply to use of temporary services and facilities by all parties engaged in the Work:

1. Keep temporary services and facilities clean and neat.
2. Relocate temporary services and facilities as required by progress of the Work.

PART 2 - PRODUCTS

2.1 TEMPORARY FACILITIES

A. Field Offices:

1. Prefabricated or mobile units with serviceable finishes, temperature controls, and foundations adequate for normal loading.

B. Common-Use Field Office: Of sufficient size to accommodate needs of Owner, Consultant and construction personnel office activities and to accommodate Project meetings specified in other Division 01 Sections. Keep office clean and orderly. Furnish and equip offices as follows:

1. Furniture required for Project-site documents, including file cabinets, plan tables, plan racks, and bookcases.
2. Drinking water.
3. Heating and cooling equipment necessary to maintain a uniform indoor temperature of 68 to 72 deg F.
4. Lighting fixtures capable of maintaining average illumination of 20 fc at desk height.

2.2 EQUIPMENT

A. General: Provide equipment suitable for use intended.

B. Fire Extinguishers: Hand carried, portable, UL rated. Provide class and extinguishing agent as indicated or a combination of extinguishers of NFPA-recommended classes for exposures.

1. Comply with NFPA 10 and NFPA 241 for classification, extinguishing agent, and size required by location and class of fire exposure and the requirements of the local Governing agency. Contractor to supply a minimum of 1 fire extinguisher on site at all times.

C. Self-Contained Toilet Units: Single-occupant units of chemical or aerated recirculation or combustion type; vented; fully enclosed with a glass-fiber-reinforced polyester shell or similar nonabsorbent material.

D. Drinking-Water Fixtures: Containerized, tap-dispenser, bottled-water drinking-water units, including paper cup supply.

E. Electrical Outlets: Properly configured, NEMA-polarized outlets to prevent insertion of 110- to 120-V plugs into higher-voltage outlets; equipped with ground-fault circuit interrupters, reset button, and pilot light.

PART 3 - EXECUTION

3.1 TEMPORARY FACILITIES, GENERAL

A. Conservation: Coordinate construction and use of temporary facilities with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

3.2 INSTALLATION, GENERAL

A. Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required.

B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.3 TEMPORARY UTILITY INSTALLATION

A. General: Engage appropriate local utility company to install temporary service or connect to existing service. Where utility company provides only part of the service, provide the remainder with matching, compatible materials and equipment. Comply with utility company recommendations.

1. Arrange with utility company, Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.
2. Provide adequate capacity at each stage of construction. Before temporary utility is available, provide trucked-in services.
3. If existing easements can not be used, the Contractor shall consult and coordinate with the Consultant and Owner to secure as necessary to obtain the temporary easement. Add provisions for work not in the Contract but served by temporary facilities if required.

B. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking-water fixtures. Comply with regulations and health codes for type, number, location, operation, and maintenance of fixtures and facilities.

1. Disposable Supplies: Provide toilet tissue, paper towels, paper cups, and similar disposable materials for each facility. Maintain adequate supply. Provide covered waste containers for disposal of used material.
2. Toilets: Install self-contained toilet units. Shield toilets to ensure privacy.
3. Wash Facilities: Install wash facilities supplied with potable water at convenient locations as required. Dispose of drainage properly. Supply cleaning compounds appropriate for each type of material handled.
4. Drinking-Water Facilities: Provide drinking-water.

C. Electric Power Service: Provide weatherproof, grounded electric power service and distribution system of sufficient size, capacity, and power characteristics during construction period. Include meters, transformers, overload-protected disconnecting means, automatic ground-fault interrupters, and main distribution switchgear as required.

D. Electric Distribution: Provide receptacle outlets adequate for connection of power tools and equipment.

1. Provide waterproof connectors to connect separate lengths of electrical power cords if single lengths will not reach areas where construction activities are in progress. Do not exceed safe length-voltage ratio.

3.4 SUPPORT FACILITIES INSTALLATION

A. General: If required, Comply with the following:

1. Locate field offices, storage sheds, sanitary facilities, and other temporary construction and support facilities for easy access.
2. Maintain support facilities until approved by the Consultant to be removed.

B. Traffic Controls: Comply with requirements of authorities having jurisdiction.

1. Protect existing site improvements to remain, including curbs, pavement, and utilities.
2. Maintain access for fire-fighting equipment and access to fire hydrants.
3. Parking: Parking areas for construction personnel shall be in the existing parking lot onsite.

C. Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Containerize and clearly label hazardous, dangerous, or unsanitary waste materials separately from other waste. Comply with “Construction and Demolition Waste Management Recycling. Placement of Dumpster/Sanitary Facilities shall only be in locations designated in the Contract Drawings.

3.5 SECURITY AND PROTECTION FACILITIES INSTALLATION

A. Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B. Environmental Protection: Provide protection, operate temporary facilities, and conduct construction in ways and by methods that comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C. Temporary Erosion and Sedimentation Control: Comply with requirements specified in Section 312500 “Erosion and Sedimentation Control."

D. Stormwater Control: Comply as indicated on the erosion control plan/measures before any earth disturbing activities start.

E. Tree and Plant Protection: Comply with requirements specified in Section 015639 "Temporary Tree and Plant Protection."

F. Site Enclosure Fence: Before construction operations begins, furnish and install site enclosure fence in a manner that will prevent people from easily entering site except by entrance gates.

1. Extent of Fence: As required to enclose entire Project site or portion determined sufficient to accommodate construction operations.

3.6 OPERATION, TERMINATION, AND REMOVAL

A. Maintenance: Maintain facilities in good operating condition until removal. Protect from damage caused by freezing temperatures and similar elements.

B. Termination and Removal: Remove each temporary facility when need for its service has ended, when it has been replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with temporary facility. Repair existing site elements that may have been damaged during construction to their pre-construction condition or better upon removal of all temporary facilities. Elements may include but are not limited to asphalt, wheel stops, or pavement striping. Repair damaged Work, clean exposed surfaces, and replace construction that cannot be satisfactorily repaired.

1. Materials and facilities that constitute temporary facilities are the property of Contractor.
2. At Substantial Completion, clean and renovate permanent facilities used during construction period. Comply with final cleaning requirements in Division 1, of the Technical Specifications Section "Closeout Procedures.

END OF SECTION 015000

SECTION 015639 - TEMPORARY TREE AND PLANT PROTECTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. The Work of this Section Includes: General protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for temporary controls, utilities, support facilities, temporary site fencing, and, if applicable, temporary erosion and sedimentation controls if not specified in Section 311000 "Site Clearing".
2. Section 311000 "Site Clearing" for removing existing trees and shrubs and for temporary erosion- and sedimentation-control measures if not specified in Section 015000 "Temporary Facilities and Controls".

1.3 DEFINITIONS

A. Caliper: Diameter of a trunk measured by a diameter tape at a height 6 inches above the ground for trees up to and including 4-inch size at this height and as measured at a height of 12 inches above the ground for trees larger than 4-inch size.

B. Caliper (DBH): Diameter breast height; diameter of a trunk as measured by a diameter tape at a height 54 inches above the ground line.

C. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

D. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.

E. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Review methods and procedures related to temporary tree and plant protection including, but not limited to, the following:

a. Construction schedule.
b. Tree-service firm's personnel and equipment needed to make progress and avoid delays.
c. Enforcing requirements for protection zones.
d. Arborist's responsibilities.
e. Quality-control program.
f. Coordination of Work and equipment movement with the locations of protection zones.
g. Trenching by hand or with air spade within protection zones.
h. Field quality control.

1.5 ACTION SUBMITTALS

A. Product Data:

1. General protection and pruning of existing trees and plants that are affected by execution of the Work, whether temporary or permanent construction

B. Shop Drawings:

1. Include plans showing trees and plants to be protected, locations of protection-zone fencing and signage, and the relationship between equipment-movement routes and material storage locations with protection zones.
2. Indicate extent of utility boring and trenching by hand or with air spade within protection zones.

C. Tree-Pruning Schedule: Written schedule detailing scope and extent of pruning of trees to remain that interfere with or are affected by construction.

1. Species and size of tree.
2. Location on site plan. Include unique identifier for each.
3. Reason for pruning.
4. Description of pruning to be performed.
5. Description of maintenance following pruning.

D. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Statements: For arborist and tree service firm.

B. Certification: From arborist, certifying that trees indicated to remain have been protected during construction in accordance with recognized standards and that trees were promptly and properly treated and repaired when damaged.

C. Maintenance Recommendations: From arborist, for care and protection of trees affected by construction during and after completing the Work.

D. Existing Conditions: Documentation of existing trees and plantings indicated to remain, which establishes preconstruction conditions that might be misconstrued as damage caused by construction activities.

1. Use sufficiently detailed photographs or video recordings.
2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.

E. Quality-control program.

1.7 QUALITY ASSURANCE

A. Arborist Qualifications: Certified Arborist as certified by ISA and Licensed in jurisdiction where Project is located.

B. Tree-Service Firm Qualifications: An experienced tree-service firm that has successfully completed temporary tree- and plant-protection work similar to that required for this Project and that will assign an experienced, qualified arborist to Project site during execution of the Work.

C. Quality-Control Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work without damaging trees and plantings. Include dimensioned diagrams for placement of protection-zone fencing and signage, the arborist's and tree-service firm's responsibilities, instructions given to workers on the use and care of protection zones, and enforcement of requirements for protection zones.

1.8 FIELD CONDITIONS

A. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
2. Moving or parking vehicles or equipment.
3. Foot traffic.
4. Erection of sheds or structures.
5. Impoundment of water.
6. Excavation or other digging unless otherwise indicated.
7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

B. Do not direct vehicle or equipment exhaust toward protection zones.

C. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones and organic mulch.

D. Take precautions to protect plants from airborne contaminants, such as paint or fireproofing overspray.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Backfill Soil: Planting soil of suitable moisture content and granular texture for placing around tree; free of stones, roots, plants, sod, clods, clay lumps, pockets of coarse sand, concrete slurry, concrete layers or chunks, cement, plaster, building debris, and other extraneous materials harmful to plant growth.

1. Planting Soil: Planting soil as specified in Section 329115 "Soil Preparation (Performance Specification)."

B. Topsoil: Natural or cultivated top layer of the soil profile or manufactured topsoil; containing organic matter and sand, silt, and clay particles; friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 1 inch in diameter; and free of weeds, roots, and toxic and other non-soil materials.

1. Obtain topsoil only from well-drained sites where topsoil is 4 inches deep or more; do not obtain from bogs or marshes.
2. Stockpiled topsoil from project site and imported or manufactured topsoil complying with ASTM D 5268.

C. Organic Mulch: Free from deleterious materials and suitable as a top dressing for trees and shrubs, consisting of one of the following:

1. Type: Shredded hardwood.
2. Size Range: 3 inches maximum, 1/2 inch minimum.
3. Color: Natural.

D. Protection-Zone Fencing: Fencing fixed in position and meeting the following requirements:

1. Plastic Protection-Zone Fencing: Plastic construction fencing constructed of high-density extruded and stretched polyethylene fabric with 2-inch maximum opening in pattern and weighing a minimum of 0.4 lb/ft.; remaining flexible from minus 60 to plus 200 deg F; inert to most chemicals and acids; minimum tensile yield strength of 2000 psi and ultimate tensile strength of 2680 psi; secured with plastic bands or galvanized-steel or stainless steel wire ties; and supported by 2-by-4-inch preservative-treated wood posts spaced not more than 96 inches apart.

a. Height: 36 inches minimum.
b. Color: High-visibility orange, nonfading.

E. Protection-Zone Signage: Shop-fabricated, rigid plastic or metal sheet with attachment holes prepunched and reinforced; legibly printed with nonfading lettering and as follows:

1. Size and Text: As indicated on Drawings.
2. Lettering: 3-inch-high minimum, black characters on white background.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Erosion and Sedimentation Control: Examine the site to verify that temporary erosion- and sedimentation-control measures are in place. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

B. Prepare written report, endorsed by arborist, listing conditions detrimental to tree and plant protection.

3.2 PREPARATION

A. Locate and clearly identify trees, shrubs, and other vegetation to remain. Flag each tree trunk at 54 inches above the ground.

B. Protect tree root systems from damage caused by runoff or spillage of noxious materials while mixing, placing, or storing construction materials. Protect root systems from ponding, eroding, or excessive wetting caused by dewatering operations.

3.3 TREE PROTECTION

A. Tree-Protection Zones: Mulch areas inside tree-protection zones. Do not exceed indicated thickness of mulch.

1. Apply 4-inch uniform thickness of organic mulch unless otherwise indicated. Do not place mulch within 6 inches of tree trunks.

3.4 PROTECTION ZONES

A. Protection-Zone Fencing: Install protection-zone fencing along edges of protection zones before materials or equipment are brought on the site and construction operations begin in a manner that will prevent people and animals from easily entering protected areas except by entrance gates. Construct fencing so as not to obstruct safe passage or visibility at vehicle intersections where fencing is located adjacent to pedestrian walkways or in close proximity to street intersections, drives, or other vehicular circulation.

1. Posts: Set or drive posts into ground one-third the total height of the fence without concrete footings. Where a post is located on existing paving or concrete to remain, provide appropriate means of post support acceptable to Designer.
2. Plastic Fencing: Stretch fabric taut and secure to posts without bows or sags.

B. Protection-Zone Signage: Install protection-zone signage in visibly prominent locations in a manner approved by Designer. Install one sign spaced approximately every 50 ft. on protection-zone fencing, but no fewer than four signs with each facing a different direction.

C. Maintain protection zones free of weeds and trash.

D. Maintain hydration of plants to assure plant survival.

E. Maintain protection-zone fencing and signage in good condition as acceptable to Designer and remove when construction operations are complete, and equipment has been removed from the site.

1. Do not remove protection-zone fencing, even temporarily, to allow deliveries or equipment access through the protection zone.
2. Temporary access is permitted subject to preapproval in writing by arborist if a root buffer effective against soil compaction is constructed as directed by arborist. Maintain root buffer so long as access is permitted.

3.5 EXCAVATION

A. General: Excavate at edge of protection zones and for trenches indicated within protection zones in accordance with requirements in Section 312000 "Earth Moving" unless otherwise indicated.

B. Trenching within Protection Zones: Where utility trenches are required within protection zones, excavate under or around tree roots by hand or with air spade, or tunnel under the roots by drilling, auger boring, or pipe jacking. Do not cut main lateral tree roots or taproots; cut only smaller roots that interfere with installation of utilities. Cut roots as required for root pruning. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots.

C. Redirect roots in backfill areas where possible. If encountering large, main lateral roots, expose roots beyond excavation limits as required to bend and redirect them without breaking. If encountered immediately adjacent to location of new construction and redirection is not practical, cut roots approximately 3 inches back from new construction and as required for root pruning.

D. Do not allow exposed roots to dry out before placing permanent backfill. Provide temporary earth cover or pack with peat moss and wrap with burlap. Water and maintain in a moist condition. Temporarily support and protect roots from damage until they are permanently relocated and covered with soil.

3.6 ROOT PRUNING

A. Prune tree roots that are affected by temporary and permanent construction. Prune roots as follows:

1. Cut roots manually by digging a trench and cutting exposed roots with sharp pruning instruments; do not break, tear, chop, or slant the cuts. Do not use a backhoe or other equipment that rips, tears, or pulls roots.
2. Cut Ends: Do not paint cut root ends.
3. Temporarily support and protect roots from damage until they are permanently covered with soil.
4. Cover exposed roots with burlap and water regularly.
5. Backfill as soon as possible in accordance with requirements in Section 312000 "Earth Moving."

B. Root Pruning at Edge of Protection Zone: Prune tree roots 12 inches outside of the protection zone by cleanly cutting all roots to the depth of the required excavation.

C. Root Pruning within Protection Zone: Clear and excavate by hand or with air spade to the depth of the required excavation to minimize damage to tree root systems. If excavating by hand, use narrow-tine spading forks to comb soil to expose roots. Cleanly cut roots as close to excavation as possible.

3.7 CROWN PRUNING

A. Prune branches that are affected by temporary and permanent construction. Prune branches as directed by arborist.

1. Prune to remove only injured, broken, dying, or dead branches unless otherwise indicated. Do not prune for shape unless otherwise indicated.
2. Do not remove or reduce living branches to compensate for root loss caused by damaging or cutting root system.
3. Pruning Standards: Prune trees where necessary as directed by aroborist in accordance with ANSI A300 (Part 1).

    a. Type of Pruning: Cleaning, raising, reducing, and thinning.
    b. Specialty Pruning: Structural, restoration, vista, and utility.

B. Unless otherwise directed by arborist and acceptable to Designer, do not cut tree leaders.

C. Cut branches with sharp pruning instruments; do not break or chop.

D. Do not paint or apply sealants to wounds.

E. Provide subsequent maintenance pruning during Contract period as recommended by arborist.

F. Chip removed branches and dispose of off-site.

3.8 REGRADING

A. Lowering Grade: Where new finish grade is indicated below existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.

B. Raising Grade: Where new finish grade is indicated above existing grade around trees, slope grade beyond the protection zone. Maintain existing grades within the protection zone.

C. Minor Fill within Protection Zone: Where existing grade is 2 inches or less below elevation of finish grade, fill with topsoil. Place topsoil in a single uncompacted layer and hand grade to required finish elevations.

3.9 FIELD QUALITY CONTROL

A. Inspections: Engage a qualified arborist to direct plant-protection measures in the vicinity of trees, shrubs, and other vegetation indicated to remain and to prepare inspection reports.

3.10 REPAIR AND REPLACEMENT

A. General: Repair or replace trees, shrubs, and other vegetation indicated to remain or to be relocated that are damaged by construction operations, in a manner approved by Designer.

1. Submit details of proposed pruning and repairs.
2. Perform repairs of damaged trunks, branches, and roots within 24 hours in accordance with arborist's written instructions.
3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Designer.

B. Trees: Remove and replace trees indicated to remain that are more than 25 percent dead or in an unhealthy condition before the end of the corrections period or are damaged during construction operations that Designer determines are incapable of restoring to normal growth pattern.

1. Small Trees: Provide new trees of same size and species as those being replaced for each tree that measures 4 inches or smaller in caliper size.
2. Large Trees: Provide one new tree of 4-inch caliper size for each tree being replaced that measures more than 4 inches in caliper size.

    a. Species: same as those being replaced.

3. Plant and maintain new trees as specified in Section 329300 "Plants."

C. Soil Aeration: Where directed by Designer, aerate surface soil compacted during construction. Aerate 10 ft. beyond drip line and no closer than 36 inches to tree trunk. Drill 2-inch diameter holes a minimum of 12 inches deep at 24 inches o.c. Backfill holes with an equal mix of augered soil and sand.

END OF SECTION 015639

SECTION 01600 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes the following administrative and procedural requirements: selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; and product substitutions.

B. Related Requirements:

1. Section 012500 "Substitution Procedures" for requests for substitutions.
2. Section 01770 "Closeout Procedures" for submitting warranties.

1.3 DEFINITIONS

A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation, shown or listed in manufacturer's published product literature that is current as of date of the Contract Documents.
2. New Products: Items that have not previously been incorporated into another project or facility Products salvaged or recycled from other projects are not considered new products.

B. Basis-of-Design Product Specification: A specification in which a single manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation. Published attributes and characteristics of basis-of-design product establish salient characteristics of products.

1.4 SUBMITTALS

A. Product List: Submit a list, in tabular from, showing specified products. Include generic names of products required. Include manufacturer's name and proprietary product names for each product.

1. Coordinate product list with Contractor's Construction Schedule and the Submittals Schedule.

2. Form: Tabulate information for each product under the following column headings:

    a. Specification Section number and title.
    b. Generic name used in the Contract Documents.
    c. Proprietary name, model number, and similar designations.
    d. Manufacturer's name and address.
    e. Supplier's name and address.
    f. Installer's name and address.
    g. Projected delivery date or time span of delivery period.
    h. Identification of items that require early submittal approval for scheduled delivery date.

3. Initial Submittal: Within thirty (30) days after date of commencement of the Work, submit three (3) copies of initial product list. Include a written explanation for omissions of data and for variations from Contract requirements.
4. Completed List: Within sixty (60) days after date of commencement of the Work, submit one (1) copy of completed product list. Include a written explanation for omissions of data and for variations from Contract requirements.
5. Consultant's Action: Consultant will respond in writing to Contractor within fifteen (15) days of receipt of completed product list. Consultant's response will include a list of unacceptable product selections and a brief explanation of reasons for this action. Consultant's response, or lack of response, does not constitute a waiver of requirement that products comply with the Contract Documents.

1.5 QUALITY ASSURANCE

A. Identification of Products: Except for required labels and operating data, do not attach or imprint manufacturer or product names or trademarks on exposed surfaces of products or equipment that will be exposed to view in occupied spaces or on the exterior.

1. Labels: Locate required product labels and stamps on a concealed surface, or, where required for observation following installation, on a visually accessible surface that is not conspicuous.
2. Equipment Nameplates: Provide a permanent nameplate on each item of service- or power-operated equipment. Locate on a visually accessible but inconspicuous surface. Include information essential for operation, including the following:

    a. Name of product and manufacturer.
    b. Model and serial number.
    c. Capacity.
    d. Speed.
    e. Ratings.

3. See individual identification Sections in Divisions 13 and 22 for additional equipment identification requirements.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.
5. Provide a secure location and enclosure at Project site for storage of materials and equipment.
6. Store products to allow for inspection and measurement of quantity or counting of units.
7. Store materials in a manner that will not endanger Project structure.
8. Store products that are subject to damage by the elements, under cover in a weather tight enclosure above ground, with ventilation adequate to prevent condensation.
9. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
10. Protect stored products from damage.

1.7 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

1. Manufacturer's Warranty: Written standard warranty form furnished by individual manufacturer for a particular product and issued in the name of the Owner or endorsed by manufacturer to Owner.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A. General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.

2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
3. Owner reserves the right to limit selection to products with warranties meeting requirements of the Contract Documents.
4. Where products are accompanied by the term "as selected," Consultant will make selection.
5. Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
6. Or Equal: For products specified by name and accompanied by the term "or equal," "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.
7. Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications may additionally indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

2.2 COMPARABLE PRODUCTS

A. Conditions for Consideration of Comparable Products: Consultant will consider Contractor's request during bidding for comparable product when the following conditions are satisfied.

1. Evidence that proposed product does not require revisions to the Contract Documents, is consistent with the Contract Documents, will produce the indicated results, and is compatible with other portions of the Work.
2. Detailed comparison of significant qualities of proposed product with those of the named basis-of-design product. Significant product qualities include attributes, such as type, function, in-service performance and physical properties, weight, dimension, durability, visual characteristics, and other specific features and requirements.
3. Evidence that proposed product provides specified warranty.
4. List of similar installations for completed projects, with project names and addresses and names and addresses of architects and owners, if requested.
5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017000 - EXECUTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:

1. Construction layout.
2. Field engineering and surveying.
3. Installation.
4. Progress cleaning.
5. Starting and adjusting.
6. Protection of installed construction.
7. Correction of the Work.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section 013100 "Project Management and Coordination" for procedures for coordinating field engineering with other construction activities.
2. Division 1, of the Technical Specifications Section 013300 "Submittal Procedures" for submitting surveys.
3. Division 1, of the Technical Specifications Section 017310 "Cutting and Patching" for procedural requirements for cutting and patching necessary for the installation or performance of other components of the Work.
4. Division 1, of the Technical Specifications Section 017700 "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
5. Division 1, of the Technical Specifications Section “Construction Waste Management” method of disposal of construction waste.

1.3 QUALITY ASSURANCE

A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

B. Manufacturer's Installation Instructions: Obtain and maintain on-site manufacturer's written recommendations and instructions for installation of specified products and equipment.

PART 2 - PRODUCTS (Not Used)

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, underground and other utilities, and construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.

1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.

B. Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.

1. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.

3.2 PREPARATION

A. Existing Utility Information: Furnish information to local utility, Owner, and Consultant that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.

B. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Consultant, Owner, adjacent property owners not less than two (2) days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Consultant's and Owner's written permission.

C. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.

D. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.

E. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Consultant. Include a detailed description of problem encountered, together with recommendations for modifications of the Contract Documents.

3.3 CONSTRUCTION LAYOUT

A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Consultant promptly.

B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.

1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
3. Inform installers of lines and levels to which they must comply.
4. Check the location, level and plumb, of every major element as the Work progresses.
5. Notify Consultant when deviations from required lines and levels exceed allowable tolerances.
6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.

C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.

D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.

E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Consultant.

3.4 FIELD ENGINEERING

A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.

1. Do not change or relocate existing benchmarks or control points without prior written approval of Consultant. Report lost or destroyed permanent benchmarks or control points promptly. Report the need to relocate permanent benchmarks or control points to Consultant before proceeding.
2. Replace lost or destroyed permanent benchmarks and control points promptly. Base replacements on the original survey control points.

3.5 INSTALLATION

A. Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.

1. Make vertical work plumb and make horizontal work level.
2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
3. Conceal pipes, ducts, and wiring in finished areas unless otherwise indicated.

B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.

C. Install products at the time and under conditions that will ensure satisfactory results as judged by Consultant. Maintain conditions required for product performance until Substantial Completion.

D. Conduct construction operations, so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy of type expected for Project.

E. Sequence the Work and allow adequate clearances to accommodate movement of construction items on-site and placement in permanent locations.

F. Tools and Equipment: Select tools or equipment that minimize production of excessive noise levels.

G. Templates: Obtain and distribute to the parties involved templates for Work specified to be factory prepared and field installed. Check Shop Drawings of other portions of the Work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.

H. Attachment: Provide blocking and attachment plates and anchors and fasteners of adequate size and number to securely anchor each component in place, accurately located and aligned with other portions of the Work. Where size and type of attachments are not indicated, verify size and type required for load conditions with manufacturer.

1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Consultant.
2. Allow for thermal expansion and contraction.

3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete. Deliver such items to Project site in time for installation.

I. Joints: Make joints of uniform width. Where joint locations in exposed Work are not indicated, arrange joints for the best visual effect, as judged by Consultant. Fit exposed connections together to form hairline joints.

3.6 PROGRESS CLEANING

A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly.

1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
2. Do not hold materials more than seven (7) days during normal weather or three (3) days if the temperature is expected to rise above 80 deg F.
3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations. Dispose of material accordance to Division 1, Section “Construction Waste Management”.

B. Site: Maintain Project site free of waste materials and debris.

C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.

1. Remove liquid spills promptly.
2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.

D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.

E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.

F. Exposed Surfaces: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.

G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.

H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration until Substantial Completion.

I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.

J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.7 STARTING AND ADJUSTING

A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.

B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.

C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

3.8 PROTECTION OF INSTALLED CONSTRUCTION

A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.

B. Protection of Existing Items: Provide protection and ensure that existing items to remain undisturbed by construction are maintained in condition that existed at commencement of the Work.

C. Comply with manufacturers written instructions for temperature and relative humidity.

3.9 CORRECTION OF THE WORK

A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."

1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.

B. Restore permanent facilities used during construction to their specified condition.

C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.

D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.

E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017000

SECTION 017310 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes procedural requirements for cutting and patching.

1. Refer to individual sections for specific requirements and limitations applicable to cutting and patching individual parts of the Work.

1.3 DEFINITIONS

A. Cutting: Removal of existing construction necessary to permit installation or performance of other Work.

B. Patching: Fitting and repair work required to restore surfaces to original conditions after installation of other Work.

1.4 QUALITY ASSURANCE

A. Structural Elements: When cutting and patching structural elements, or when encountering the need for cutting and patching of elements whose structural function is not known, notify Consultant of locations and details of cutting and await directions from Architect before proceeding. Shore, brace, and support structural elements during cutting and patching. Do not cut and patch structural elements in a manner that could change their load-carrying capacity or load-deflection ratio.

B. Operational Elements: Do not cut and patch the following operating elements and related components in a manner that results in reducing their capacity to perform as intended or that results in increased maintenance or decreased operational life or safety.

1. Primary operational systems and equipment.
2. Air or smoke barriers.
3. Fire-protection systems.
4. Control systems.
5. Communication systems.
6. Conveying systems.
7. Electrical wiring systems.
8. Operating systems of special construction in Division 13 Sections.

C. Miscellaneous Elements: Do not cut and patch the following elements or related components in a manner that could change their load-carrying capacity, that results in reducing their capacity to perform as intended, or those results in increased maintenance or decreased operational life or safety.

1. Water, moisture, or vapor barriers.
2. Membranes and flashings.
3. Exterior curtain-wall construction.
4. Equipment supports.
5. Piping, ductwork, vessels, and equipment.
6. Noise- and vibration-control elements and systems.

D. Visual Requirements: Do not cut and patch construction in a manner that results in visual evidence of cutting and patching. Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in Architect's opinion, reduce the building's aesthetic qualities. Remove and replace construction that has been cut and patched in a visually unsatisfactory manner.

1. If possible, retain original Installer or Fabricator to cut and patch exposed Work listed below. If it is impossible to engage original Installer or Fabricator, engage another recognized, experienced, and specialized firm.

a. Processed concrete finishes.
b. Stonework and stone masonry.
c. Ornamental metal.
d. Roofing.
e. Firestopping.
f. Stucco and ornamental plaster.
g. Fluid-applied flooring.
h. Aggregate wall coating.
i. Wall covering.
j. Swimming pool finishes.
k. HVAC enclosures, cabinets, or covers.

1.5 WARRANTY

A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during cutting and patching operations, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS

2.1 MATERIALS

A. General: Comply with requirements specified in other Sections of the Technical Specifications.

B. Existing Materials: Use materials identical to existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.

1. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching are to be performed.

1. Compatibility: Before patching, verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
2. Proceed with installation only after unsafe or unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Temporary Support: Provide temporary support of Work to be cut.

B. Protection: Protect existing construction during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of Project that might be exposed during cutting and patching operations.

C. Adjoining Areas: Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Existing Utility Services and Mechanical/Electrical Systems: Where existing services/systems are required to be removed, relocated, or abandoned, bypass such services/systems before cutting to minimize interruption to occupied areas.

3.3 PERFORMANCE

A. General: Employ skilled workers to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time, and complete without delay.

1. Cut existing construction to provide for installation of other components or performance of other construction, and subsequently patch as required to restore surfaces to their original condition.

B. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. If possible, review proposed procedures with original Installer; comply with original Installer's written recommendations.

1. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.
2. Existing Finished Surfaces: Cut or drill from the exposed or finished side into concealed surfaces.
3. Concrete and Masonry: Cut using a cutting machine, such as an abrasive saw or a diamond-core drill.
4. Excavating and Backfilling: Comply with requirements in applicable Division 2 Sections where required by cutting and patching operations.
5. Proceed with patching after construction operations requiring cutting are complete.

C. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations following performance of other Work. Patch with durable seams that are as invisible as possible. Provide materials and comply with installation requirements specified in other Sections of the Technical Specifications.

1. Inspection: Where feasible, test and inspect patched areas after completion to demonstrate integrity of installation.
2. Exposed Finishes: Restore exposed finishes of patched areas and extend finish restoration into retained adjoining construction in a manner that will eliminate evidence of patching and refinishing.

    a. Clean piping, conduit, and similar features before applying paint or other finishing materials.
    b. Restore damaged pipe covering to its original condition.

D. Cleaning: Clean areas and spaces where cutting and patching are performed. Remove paint, mortar, oils, putty, and similar materials from adjacent finished surfaces.

END OF SECTION 329300

SECTION 017419 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. Section includes administrative and procedural requirements for the following:

1. Recycling nonhazardous demolition and construction waste.
2. Disposing of nonhazardous demolition and construction waste.

B. Related Requirements:

1. Section 311000 "Site Clearing" for disposition of waste resulting from site clearing and removal of above- and below-grade improvements.

1.3 DESCRIPTION

A. The Owner has established that this Project shall include proactive measures for waste management participation by all parties to the contract.

1. The purpose of this program is to ensure that during the course of the Project all diligent means are employed to pursue practical and economically feasible waste management and recycling options.
2. Upon award, each subcontractor shall be required to furnish documentation from suppliers or manufacturers regarding waste management and recycling options for those products and procedures furnished.
3. Waste disposal to landfills shall be minimized.

1.4 DEFINITIONS:

A. Waste: Any material that has reached the end of its intended use. Waste includes salvageable, returnable, recyclable and reusable material.

B. Construction waste: Solid wastes including, but not limited to, building materials, packaging materials, debris and trash resulting from construction operations.

C. Demolition Waste: Building, structure, and site improvement materials resulting from demolition operations.

D. Disposal: Removal of demolition or construction waste and subsequent salvage, sale, recycling, or deposit in landfill, incinerator acceptable to authorities having jurisdiction, or designated spoil areas on Owner's property.

E. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.

F. Hazardous waste: Any material or byproduct of construction that is regulated by the Environmental Protection Agency and that may not be disposed in any landfill or other waste end-source without adherence to applicable laws.

G. Trash: Any product or material unable to be returned, reused, recycled or salvaged.

H. Landfill: Any public or private business involved in the practice of trash disposal.

I. Waste Management Plan: A Project-related plan for the collection, transportation, and disposal of the waste generated at the construction site.

1.5 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition and construction waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.6 SUBMITTALS:

A. Project Information:

1. Contractor's Construction Waste Management Plan.

1.7 CONSTRUCTION WASTE MANAGEMENT PLAN

A. Waste Management Plan shall include the following:

1. Solid Waste Disposal and Diversion document.

a. Identification of materials recycled.
b. Identification of materials landfill.
c. Identification of hazardous wastes and disposal.

2. Locations of sorting and waste storage facilities on Site Plan of project.
3. Final documentation of subcontractor/supplier waste management/recycling data.
4. Final documentation of hazardous waste disposal plan.

B. Construction Waste Management Plan Implementation:

1. The Contractor shall designate an on-site party (or parties) responsible for instructing workers and overseeing and documenting the Waste Management Plan.
2. The "Summary of Construction Waste/Recycling" shall be completed each month and submitted as part of Application For Payment.

    a. All materials identified in the Summary shall be reported by weight.
    b. Where weight is not applicable, Contractor shall report materials by units applicable to material recipient.
    c. Contractor shall procure receipts or other validation of waste management procedures and include them as part of the submittal.

3. The Contractor shall distribute copies of the "Summary of Construction Waste / Recycling" to the Consultant, Owner and each subcontractor involved in the plan.
4. The Contractor shall provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse and return methods to be used by all parties at appropriate stages of the Work.
5. Separation facilities:

    a. Contractor shall define specific areas to facilitate separation of materials for recycling, salvage, re-use or return.
    b. Recycle and waste bin areas are to be maintained in an orderly manner and clearly marked to avoid contamination of materials.
    c. Do not mix recyclable materials.
    d. Store hazardous wastes in secure areas.

6. Hazardous wastes:

    a. Hazardous wastes shall be separated, stored and disposed of in accordance with local and EPA regulations and additional criteria listed below:

        1) Building products manufactured with PVC or containing chlorinated compounds shall not be incinerated
        2) Disposal of fluorescent tubes to open containers is not permitted.
        3) Unused fertilizers shall not be co-mingled with construction waste.

C. Program profits:

1. All profits from recycling of construction waste shall be granted to the Contractor.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION (Not Used)

END OF SECTION 017419

SECTION 01770 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

1. Substantial Completion procedures.
2. Final Completion procedures.
3. List of incomplete items.
4. Project Record Documents.
5. Submittal of Project warranties.
6. Final cleaning.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications Section 012900 "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
2. Division 1, of the Technical Specifications Section 013200 "Construction Progress Documentation" for submitting Final Completion construction photographs.
3. Division 1, of the Technical Specifications Section 017000 "Execution" for progress cleaning of Project site.
4. Division 1, of the Technical Specifications Section 017419 “Construction Waste Management and Disposal” method of disposal of construction waste.
5. Division 1, of the Technical Specifications Section 017839 “Project Record Documents”.

1.3 ACTION SUBMITTALS

A. Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

B. Certified List of Incomplete Items: Final submittal at Final Completion.

1.4 SUBSTANTIAL COMPLETION

A. Contractor's List of Incomplete Items: Prepare and submit a list of items to be completed and corrected (Contractor's "punch list"), indicating the value of each item on the list and reasons why the Work is incomplete.

B. Submittals Prior to Substantial Completion: The Contractor shall complete the following prior to requesting inspection for determining date of Substantial Completion. List items below that are incomplete at time of request.

1. Certificates of Release: Obtain and submit releases from authorities having jurisdiction, permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
2. Submit closeout submittals specified in other Division 01 Sections, including Project Record Documents, operation and maintenance manuals, property surveys, and similar final record information.
3. Submit closeout submittals specified in individual Sections, including specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
4. Submit maintenance material submittals specified in individual Sections, including tools, spare parts, extra materials, and similar items, and deliver to location designated by Owner. Label with manufacturer's name and model number.
5. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
6. Submit testing, adjusting, and balancing records.

C. Procedures Prior to Substantial Completion: The Contractor shall, before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete at time of request.

1. Advise Owner of pending insurance changeover requirements.
2. Complete startup testing of systems and equipment.
3. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
4. Advise Owner of changeover in utility services.
5. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
6. Complete final cleaning requirements.
7. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.

D. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Consultant will either proceed with inspection or notify Contractor of unfulfilled requirements. Consultant will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Consultant, that must be completed or corrected before certificate will be issued. The Consultant’s Substantial Completion list is composed by verification of the punch list submitted by the Contractor and any additional defects in the work observed by the Consultant.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. Results of completed inspection will form the basis of requirements for Final Completion.

1.5 FINAL COMPLETION

A. Submittals Prior to Final Completion: Before requesting final inspection for determining Final Completion, complete the following:

1. Submit a final Application for Payment according to Division 1, of the Technical Specifications Section "Payment Procedures."
2. Submit certified copy of Consultant's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Consultant. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
4. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems. Submit demonstration and training videotapes if required.

B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Consultant will either proceed with inspection or notify Contractor of unfulfilled requirements. Consultant will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.

1. Re-inspection: Request re-inspection when the Work identified in previous inspections as incomplete is completed or corrected.
2. The Contactor shall take immediate steps to correct the stated deficiencies, and send a written notice to the Consultant, certifying the Project is complete, at which time the Consultant will re-inspect the Work. This review and additional reviews by the Consultant where the Work is not considered Substantial Completion or Final Completion will be considered an additional service from the Consultant. The Contractor will be charged for these additional services incurred by such failure including travel time, observation time, and administrative time at the Consultant’s hourly rate, as well as all expenses associated with the distribution of a written notice stating the reasons for failure to reach final completion.
3. In the event the Contractor is granted Substantial Completion by the Consultant and the Contractor fails to complete and/or correct all of the items listed in the Substantial Completion within thirty (30) calendar days of the date of Substantial Completion, the liquated damages shall start to accrued until all of the items on the Substantial Completion list are completed and/or corrected and have been approved by the Consultant.
4. If the Consultant is required to make more than two (2) inspections for the project to achieve Substantial Completion, the Contractor shall pay for the Consultant’s time and expenses.

1.6 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A. Preparation: Submit one (1) copy of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

1. Organize list of spaces in sequential order. For the exterior areas include a location diagram indicating the defects.
2. Organize items applying to each space by major element.
3. Include the following information at the top of each page:

a. Project name.
b. Date.
c. Name of Consultant.
d. Name of Contractor.
e. Page number.

1.7 PROJECT RECORD DOCUMENTS

A. The Contractor shall provide Project Record Documents, O&M, “As-Builts” Drawings, and Warranties as indicated in Division 1, of the Technical Specifications Section “Project Record Documents.”

1.8 WARRANTIES

A. Submittal Time: Submit written warranties on request of Consultant for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

C. Provide copies of each warranty to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

PART 3 - EXECUTION

3.1 FINAL CLEANING

A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.

1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:

a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
d. Remove tools, construction equipment, machinery, and surplus material from Project site.
e. Remove snow and ice to provide safe access to building.
f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
h. Sweep concrete floors broom clean in unoccupied spaces.
i. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision- obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
j. Remove labels that are not permanent.
k. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.

1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.

l. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
m. Replace parts subject to unusual operating conditions.

n. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
o. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
p. Leave Project clean and ready for occupancy.

C. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 017700

SECTION 01781 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all Divisions of the Technical Specifications, apply to this Section.

1.2 SUMMARY

A. This Section includes administrative and procedural requirements for Project Record Documents, including the following:

1. As-Built Drawings.
2. Record Specifications.
3. Record Product Data.

B. Related Sections include the following:

1. Division 1, of the Technical Specifications, Section 017700 "Closeout Procedures" for general closeout procedures.
2. Divisions 2 through 33, of the Technical Specifications, Sections for specific requirements for Project Record Documents of products in those Sections.

1.3 SUBMITTALS

A. As-Built Drawings: Comply with the following:

1. Number of Copies: Submit three (3) sets of marked-up As-Built Drawings to the Consultant for the Consultant to prepare the Record Drawings.

B. Record Specifications: Submit three (3) copies of Project's marked up Specifications, including addenda and contract modifications.

C. Record Product Data: Submit three (3) copies of each Product Data submittal.

1. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in the manual instead of submittal as Record Product Data.

PART 2 - PRODUCTS

2.1 AS-BUILT DRAWINGS

A. As-Built Drawings: Maintain one set of black-line white prints of the Contract Drawings and Shop Drawings.

1. Preparation: Mark As-Built Drawings to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up As-Built Drawings.

    a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
    b. Accurately record information in an understandable drawing technique.
    c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.

2. Content: Types of items requiring marking include, but are not limited to, the following:

    a. Dimensional changes to Drawings.
    b. Revisions to details shown on Drawings.
    c. Locations and depths of underground utilities.
    d. Revisions to routing of piping and conduits.
    e. Revisions to electrical circuitry.
    f. Actual equipment locations.
    g. Changes made by Change Order or Construction Change Directive.
    h. Changes made following Consultant's written orders.
    i. Details not on the original Contract Drawings.
    j. Field records for variable and concealed conditions.
    k. Record information on the Work that is shown only schematically.
    l. Clarification Drawings.

3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at the same location.
5. Mark important additional information that was either shown schematically or omitted from original Drawings.
6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
7. Identify and date each As-Builts Drawing; include the designation "PROJECT AS-BUILTS DRAWING" in a prominent location. Organize into manageable sets; bind each set with durable paper cover sheets. Include identification on cover sheets.

B. Newly Prepared As-Built Drawings: Prepare new Drawings instead of preparing As- Built Drawings where Consultant determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.

1. New Drawings may be required when a Change Order is issued as a result of accepting a substitution or other modification.
2. Consult with Consultant for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared As-Built Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.

2.2 RECORD SPECIFICATIONS

A. Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
3. Record the name of the manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
5. Note related Change Orders, As-Built Drawings, and Product Data where applicable.

2.3 RECORD PRODUCT DATA

A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
3. Note related Change Orders, As-Built Drawings, and Product Data where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A. Assemble miscellaneous records required by other of the Technical Specifications Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.

B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Consultant's reference during normal working hours.

END OF SECTION 017839

SECTION 024119 – SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Demolition and removal of selected portions of building or structure.
2. Demolition and removal of selected site elements.
3. Salvage of existing items to be reused or recycled.

B. Related Requirements:

1. Section 011000 "Summary" for restrictions on use of the premises, Owner-occupancy requirements, and phasing requirements.
2. Section 015639 "Temporary Tree and Plant Protection" for temporary protection of existing trees and plants that are affected by selective demolition.
3. Section 017310 "Execution" for cutting and patching procedures.
4. Section 311000 "Site Clearing" for site clearing and removal of above- and below-grade improvements not part of selective demolition.

C. Related Requirements:

1. Section 01500 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

1.2 DEFINITIONS

A. Remove: Detach items from existing construction and dispose of them off-site unless indicated to be salvaged or reinstalled.

B. Remove and Salvage: Detach items from existing construction, in a manner to prevent damage, and store.

C. Remove and Reinstall: Detach items from existing construction, in a manner to prevent damage, prepare for reuse, and reinstall where indicated.

D. Existing to Remain: Leave existing items that are not to be removed and that are not otherwise indicated to be salvaged or reinstalled.

1.3 MATERIALS OWNERSHIP

A. Unless otherwise indicated, demolition waste becomes property of Contractor.

B. Historic items, relics, antiques, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, and other items of interest or value to Owner that may be uncovered during demolition remain the property of Owner.

1. Carefully salvage in a manner to prevent damage and promptly return to Owner.

1.4 INFORMATIONAL SUBMITTALS

A. Proposed Protection Measures: Submit report, including Drawings, that indicates the measures proposed for protecting individuals and property for environmental protection, and for dust control. Indicate proposed locations and construction of barriers.

B. Schedule of Selective Demolition Activities: Indicate the following:

1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity. Ensure Owner's on-site operations are uninterrupted.
2. Interruption of utility services. Indicate how long utility services will be interrupted.
3. Coordination for shutoff, capping, and continuation of utility services.
4. Use of elevator and stairs.
5. Coordination of Owner's continuing occupancy of portions of existing building and of Owner's partial occupancy of completed Work.

C. Predemolition Photographs or Video: Show existing conditions of adjoining construction, including finish surfaces, that might be misconstrued as damage caused by salvage and demolition operations. Comply with Section 013233 "Photographic Documentation." Submit before Work begins.

1.5 CLOSEOUT SUBMITTALS

A. Inventory: Submit a list of items that have been removed and salvaged.

1.6 QUALITY ASSURANCE

A. Refrigerant Recovery Technician Qualifications: Certified by an EPA-approved certification program.

1.7 FIELD CONDITIONS

A. Owner will occupy portions of building immediately adjacent to selective demolition area. Conduct selective demolition so Owner's operations will not be disrupted.

B. Conditions existing at time of inspection for bidding purpose will be maintained by Owner as far as practical.

C. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.

D. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.

1. Hazardous materials will be removed by Owner before start of the Work.
2. If suspected hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Hazardous materials will be removed by Owner under a separate contract.

E. Storage or sale of removed items or materials on-site is not permitted.

F. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.

1. Maintain fire-protection facilities in service during selective demolition operations.

1.8 COORDINATION

A. Arrange selective demolition schedule so as not to interfere with Owner's operations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.

B. Standards: Comply with ANSI/ASSP A10.6 and NFPA 241.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verify that utilities have been disconnected and capped before starting selective demolition operations.

B. Review Project Record Documents of existing construction or other existing condition and hazardous material information provided by Owner. Owner does not guarantee that existing conditions are same as those indicated in Project Record Documents.

C. Perform an engineering survey of condition of building to determine whether removing any element might result in structural deficiency or unplanned collapse of any portion of structure or adjacent structures during selective building demolition operations.

1. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

D. Survey of Existing Conditions: Record existing conditions by use of measured drawings and preconstruction photographs or video.

1. Inventory and record the condition of items to be removed and salvaged.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

A. Existing Services/Systems to Remain: Maintain services/systems indicated to remain and protect them against damage.

B. Existing Services/Systems to Be Removed, Relocated, or Abandoned: Locate, identify, disconnect, and seal or cap off utility services and mechanical/electrical systems serving areas to be selectively demolished.

1. Owner will arrange to shut off indicated services/systems when requested by Contractor
2. Arrange to shut off utilities with utility companies.
3. If services/systems are required to be removed, relocated, or abandoned, provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.
4. Disconnect, demolish, and remove fire-suppression systems, plumbing, and HVAC systems, equipment, and components indicated on Drawings to be removed.

    a. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
    b. Piping to Be Abandoned in Place: Drain piping and cap or plug piping with same or compatible piping material and leave in place.
    c. Equipment to Be Removed: Disconnect and cap services and remove equipment.
    d. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make equipment operational.
    e. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Owner.
    f. Ducts to Be Removed: Remove portion of ducts indicated to be removed and plug remaining ducts with same or compatible ductwork material.
    g. Ducts to Be Abandoned in Place: Cap or plug ducts with same or compatible ductwork material and leave in place.

3.3 PROTECTION

A. Temporary Protection: Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1. Provide protection to ensure safe passage of people around selective demolition area and to and from occupied portions of building.

2. Provide temporary weather protection, during interval between selective demolition of existing construction on exterior surfaces and new construction, to prevent water leakage and damage to structure and interior areas.
3. Protect walls, ceilings, floors, and other existing finish work that are to remain or that are exposed during selective demolition operations.
4. Cover and protect furniture, furnishings, and equipment that have not been removed.
5. Comply with requirements for temporary enclosures, dust control, heating, and cooling specified in Section 015000 "Temporary Facilities and Controls."

B. Temporary Shoring: Design, provide, and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished.

1. Strengthen or add new supports when required during progress of selective demolition.

C. Remove temporary barricades and protections where hazards no longer exist.

3.4 SELECTIVE DEMOLITION, GENERAL

A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations and as follows:

1. Proceed with selective demolition systematically, from higher to lower level. Complete selective demolition operations above each floor or tier before disturbing supporting members on the next lower level.
2. Neatly cut openings and holes plumb, square, and true to dimensions required. Use cutting methods least likely to damage construction to remain or adjoining construction. Use hand tools or small power tools designed for sawing or grinding, not hammering and chopping. Temporarily cover openings to remain.
3. Cut or drill from the exposed or finished side into concealed surfaces to avoid marring existing finished surfaces.
4. Do not use cutting torches until work area is cleared of flammable materials. At concealed spaces, such as duct and pipe interiors, verify condition and contents of hidden space before starting flame-cutting operations. Maintain portable fire-suppression devices during flame-cutting operations.
5. Maintain fire watch during and for at least 1 hours after flame-cutting operations.
6. Maintain adequate ventilation when using cutting torches.
7. Remove decayed, vermin-infested, or otherwise dangerous or unsuitable materials and promptly dispose of off-site.
8. Remove structural framing members and lower to ground by method suitable to avoid free fall and to prevent ground impact or dust generation.
9. Locate selective demolition equipment and remove debris and materials so as not to impose excessive loads on supporting walls, floors, or framing.
10. Dispose of demolished items and materials promptly. Comply with requirements in Section 017419 "Construction Waste Management and Disposal."

B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

C. Removed and Salvaged Items:

1. Clean salvaged items.
2. Pack or crate items after cleaning. Identify contents of containers.
3. Store items in a secure area until delivery to Owner.
4. Transport items to Owner's storage area as directed by Owner.
5. Protect items from damage during transport and storage.

D. Removed and Reinstalled Items:

1. Clean and repair items to functional condition adequate for intended reuse.
2. Pack or crate items after cleaning and repairing. Identify contents of containers.
3. Protect items from damage during transport and storage.
4. Reinstall items in locations indicated. Comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make item functional for use indicated.

E. Existing Items to Remain: Protect construction indicated to remain against damage and soiling during selective demolition. When permitted by Architect, items may be removed to a suitable, protected storage location during selective demolition and cleaned and reinstalled in their original locations after selective demolition operations are complete.

3.5 SELECTIVE DEMOLITION PROCEDURES FOR SPECIFIC MATERIALS

A. Concrete: Demolish in sections. Cut concrete full depth at junctures with construction to remain and at regular intervals using power-driven saw, and then remove concrete between saw cuts.

B. Masonry: Demolish in small sections. Cut masonry at junctures with construction to remain, using power-driven saw, and then remove masonry between saw cuts.

C. Concrete Slabs-on-Grade: Saw-cut perimeter of area to be demolished, and then break up and remove.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

A. Remove demolition waste materials from Project site and dispose of them in an EPA-approved construction and demolition waste landfill acceptable to authorities having jurisdiction.

1. Do not allow demolished materials to accumulate on-site.
2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

B. Burning: Do not burn demolished materials.

3.7 CLEANING

A. Clean adjacent structures and improvements of dust, dirt, and debris caused by selective demolition operations. Return adjacent areas to condition existing before selective demolition operations began.

3.8 SELECTIVE DEMOLITION SCHEDULE

A. Strip topsoil to depth 6 inches in a manner to prevent intermingling with underlying subsoil or other waste materials.

1. Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other objects larger than 2 inches in diameter; trash, debris, weeds, roots, and other waste materials.

B. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

1. Limit height of topsoil stockpiles to 72 inches.
2. Do not stockpile topsoil within protection zones.
3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.

END OF SECTION 024119

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Cast-in-place concrete, including concrete materials, mixture design, placement procedures, and finishes.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of the following: blended hydraulic cement, fly ash, slag cement, other pozzolans, and silica fume; materials subject to compliance with requirements.

B. Water/Cement Ratio (w/cm): The ratio by weight of water to cementitious materials.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as part of the overall project pre-construction meeting.

1. Require representatives of each entity directly concerned with cast-in-place concrete to attend, including the following:

a. Contractor's superintendent.
b. Independent testing agency responsible for concrete design mixtures.
c. Ready-mix concrete manufacturer.
d. Concrete Subcontractor.
e. Special concrete finish Subcontractor.

2. Review the following:

a. Special inspection and testing and inspecting agency procedures for field quality control.
b. Construction joints, control joints, isolation joints, and joint-filler strips.
c. Semirigid joint fillers.

d. Anchor rod and anchorage device installation tolerances.
e. Cold and hot weather concreting procedures.
f. Concrete finishes and finishing.
g. Curing procedures.
h. Forms and form-removal limitations.
i. Shoring and reshoring procedures.
j. Methods for achieving specified slab flatness and levelness.
k. Slab flatness and levelness measurements.
l. Concrete repair procedures.
m. Concrete protection.
n. Initial curing and field curing of field test cylinders (ASTM C31/C31M.)
o. Protection of field cured field test cylinders.

1.5 ACTION SUBMITTALS

A. Product Data: For each of the following.

1. Portland cement.
2. Fly ash.
3. Slag cement.
4. Blended hydraulic cement.
5. Silica fume.
6. Performance-based hydraulic cement
7. Aggregates.
8. Admixtures:

    a. Include limitations of use, including restrictions on cementitious materials, supplementary cementitious materials, air entrainment, aggregates, temperature at time of concrete placement, relative humidity at time of concrete placement, curing conditions, and use of other admixtures.

9. Slab treatments.
10. Curing materials.
11. Joint fillers.
12. Repair materials.

B. Design Mixtures: For each concrete mixture, include the following:

1. Mixture identification.
2. Minimum 28-day compressive strength.
3. Durability exposure class.
4. Maximum w/cm.
5. Calculated equilibrium unit weight, for lightweight concrete.
6. Slump limit.
7. Air content.
8. Nominal maximum aggregate size.
9. Steel-fiber reinforcement content.
10. Synthetic micro-fiber content.

11. Indicate amounts of mixing water to be withheld for later addition at Project site if permitted.
12. Include manufacturer's certification that permeability-reducing admixture is compatible with mix design.
13. Include certification that dosage rate for permeability-reducing admixture matches dosage rate used in performance compliance test.
14. Intended placement method.
15. Submit alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

C. Shop Drawings:

1. Construction Joint Layout: Indicate proposed construction joints required to construct the structure.

    a. Location of construction joints is subject to approval of the Consultant.

D. Concrete Schedule: For each location of each Class of concrete indicated in "Concrete Mixtures" Article, including the following:

1. Concrete Class designation.
2. Location within Project.
3. Exposure Class designation.
4. Formed Surface Finish designation and final finish.
5. Final finish.
6. Curing process.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For the following:

1. Installer: Include copies of applicable ACI certificates.
2. Ready-mixed concrete manufacturer.
3. Testing agency: Include copies of applicable ACI certificates.

B. Material Certificates: For each of the following, signed by manufacturers:

1. Cementitious materials.
2. Admixtures.
3. Curing compounds.
4. Slab treatments.
5. Bonding agents.
6. Adhesives.
7. Semirigid joint filler.
8. Joint-filler strips.
9. Repair materials.

C. Material Test Reports: For the following, from a qualified testing agency:

1. Portland cement.
2. Fly ash.
3. Slag cement.
4. Blended hydraulic cement.
5. Silica fume.
6. Performance-based hydraulic cement.
7. Aggregates.
8. Admixtures:

    a. Permeability-Reducing Admixture: Include independent test reports, indicating compliance with specified requirements, including dosage rate used in test.

D. Preconstruction Test Reports: For each mix design.

E. Field quality-control reports.

F. Minutes of preinstallation conference.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: A qualified installer who employs Project personnel qualified as an ACI-certified Flatwork Technician and Finisher and a supervisor who is a certified ACI Flatwork Concrete Finisher/Technician or an ACI Concrete Flatwork Technician with experience installing and finishing concrete, incorporating permeability-reducing admixtures.

    1. Post-Installed Concrete Anchors Installers: ACI-certified Adhesive Anchor Installer.

B. Ready-Mixed Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.

    1. Manufacturer certified in accordance with NRMCA's "Certification of Ready Mixed Concrete Production Facilities."

C. Laboratory Testing Agency Qualifications: A testing agency qualified in accordance with ASTM C1077 and ASTM E329 for testing indicated and employing an ACI-certified Concrete Quality Control Technical Manager.

    1. Personnel performing laboratory tests to be an ACI-certified Concrete Strength Testing Technician and Concrete Laboratory Testing Technician, Grade I. Testing agency laboratory supervisor to be an ACI-certified Concrete Laboratory Testing Technician, Grade II.

D. Field Quality-Control Testing Agency Qualifications: An independent agency, acceptable to authorities having jurisdiction, qualified in accordance with ASTM C1077 and ASTM E329 for testing indicated.

1. Personnel conducting field tests to be qualified as an ACI Concrete Field Testing Technician, Grade 1, in accordance with ACI CPP 610.1 or an equivalent certification program.

1.8 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction testing on each concrete mixture.

1. Include the following information in each test report:

a. Admixture dosage rates.
b. Slump.
c. Air content.
d. Seven-day compressive strength.
e. 28-day compressive strength.
f. Permeability.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Comply with ASTM C94/C94M and ACI 301.

1.10 FIELD CONDITIONS

A. Cold-Weather Placement: Comply with ACI 301 and ACI 306.1 and as follows.

1. Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing actions, or low temperatures.
2. When average high and low temperature is expected to fall below 40 deg F for three successive days, maintain delivered concrete mixture temperature within the temperature range required by ACI 301.
3. Do not use frozen materials or materials containing ice or snow.
4. Do not place concrete in contact with surfaces less than 35 deg F, other than reinforcing steel.
5. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in mixture designs.

B. Hot-Weather Placement: Comply with ACI 301and ACI 305.1, and as follows:

1. Maintain concrete temperature at time of discharge to not exceed 95 deg F.
2. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade uniformly moist without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with ACI 301 unless modified by requirements in the Contract Documents.

2.2 CONCRETE MATERIALS

A. Source Limitations:

1. Obtain all concrete mixtures from a single ready-mixed concrete manufacturer for entire Project.
2. Obtain each type or class of cementitious material of the same brand from the same manufacturer's plant.
3. Obtain aggregate from single source.
4. Obtain each type of admixture from single source from single manufacturer.

B. Cementitious Materials:

1. Portland Cement: ASTM C150/C150M, Type I, gray.
2. Fly Ash: ASTM C618, Class C or F.
3. Slag Cement: ASTM C989/C989M, Grade 100 or 120.
4. Blended Hydraulic Cement: ASTM C595/C595M, Type IS, portland blast-furnace slag cement.

C. Normal-Weight Aggregates: ASTM C33/C33M, Class 3S coarse aggregate or better, graded. Provide aggregates from a single source.

1. Maximum Coarse-Aggregate Size: 1-1/2 inches nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

D. Air-Entraining Admixture: ASTM C260/C260M.

E. Chemical Admixtures: Certified by manufacturer to be compatible with other admixtures that do not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride in steel-reinforced concrete.

1. Water-Reducing Admixture: ASTM C494/C494M, Type A.

2. Retarding Admixture: ASTM C494/C494M, Type B.
3. Water-Reducing and -Retarding Admixture: ASTM C494/C494M, Type D.
4. High-Range, Water-Reducing Admixture: ASTM C494/C494M, Type F.
5. High-Range, Water-Reducing and -Retarding Admixture: ASTM C494/C494M, Type G.
6. Plasticizing and Retarding Admixture: ASTM C1017/C1017M, Type II.
7. Set-Accelerating Corrosion-Inhibiting Admixture: Commercially formulated, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete and complying with ASTM C494/C494M, Type C.
8. Non-Set-Accelerating Corrosion-Inhibiting Admixture: Commercially formulated, non-set-accelerating, anodic inhibitor or mixed cathodic and anodic inhibitor; capable of forming a protective barrier and minimizing chloride reactions with steel reinforcement in concrete.
9. Permeability-Reducing Admixture: ASTM C494/C494M, Type S, hydrophilic, permeability-reducing crystalline admixture, capable of reducing water absorption of concrete exposed to hydrostatic pressure (PRAH).

    a. Permeability: No leakage when tested in accordance with U.S. Army Corps of Engineers CRD C48 at a hydraulic pressure of 200 psi (1.28 MPa) for 14 days.

F. Water and Water Used to Make Ice: ASTM C94/C94M, potable

2.3 CURING MATERIALS

A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.

B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. when dry.

C. Moisture-Retaining Cover: ASTM C171, polyethylene film burlap-polyethylene sheet.

1. Color:

    a. Ambient Temperature Below 50 deg F: Black.
    b. Ambient Temperature between 50 deg F and 85 deg F: Any color.
    c. Ambient Temperature Above 85 deg F: White.

D. Curing Paper: 8-feet- wide paper, consisting of two layers of fibered kraft paper laminated with double coating of asphalt.

E. Water: Potable or complying with ASTM C1602/C1602M.

2.4 RELATED MATERIALS

A. Expansion- and Isolation-Joint-Filler Strips: ASTM D1751, asphalt-saturated cellulosic fiber.

B. Semirigid Joint Filler: Two-component, semirigid, 100 percent solids, in accordance with ASTM D2240.

C. Bonding Agent: ASTM C1059/C1059M, Type II, nonredispersible, acrylic emulsion or styrene butadiene.

D. Epoxy Bonding Adhesive: ASTM C881, two-component epoxy resin, capable of humid curing and bonding to damp surfaces, of class suitable for application temperature and of grade and class to suit requirements, and as follows:

1. Types I and II, nonload bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

2.5 CONCRETE MIXTURES, GENERAL

A. Prepare design mixtures for each type and strength of concrete, proportioned on the basis of laboratory trial mixture or field test data, or both, in accordance with ACI 301.

1. Use a qualified testing agency for preparing and reporting proposed mixture designs, based on laboratory trial mixtures.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:

1. Fly Ash or Other Pozzolans: 25 percent by mass.
2. Slag Cement: 50 percent by mass.
3. Silica Fume: 10 percent by mass.
4. Total of Fly Ash or Other Pozzolans, Slag Cement, and Silica Fume: 50 percent by mass, with fly ash or pozzolans not exceeding 25 percent by mass and silica fume not exceeding 10 percent by mass.
5. Total of Fly Ash or Other Pozzolans and Silica Fume: 35 percent by mass with fly ash or pozzolans not exceeding 25 percent by mass and silica fume not exceeding 10 percent by mass.

C. Admixtures: Use admixtures in accordance with manufacturer's written instructions.

1. Use water-reducing admixture in concrete, as required, for placement and workability.
2. Use water-reducing and -retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.
3. Use water-reducing admixture in pumped concrete
4. Use corrosion-inhibiting admixture in concrete mixtures where indicated.
5. Use permeability-reducing admixture in concrete mixtures where indicated.

2.6 CONCRETE MIXTURES

A. Class A: Normal-weight concrete used for footings.

1. Exposure Class: ACI 318 F1
2. Minimum Compressive Strength: 4,000 psi at 28 days.
3. Maximum w/cm: 0.50.
4. Slump Limit: 4 inches, plus or minus 1 inch.
5. Air Content:

    a. Exposure Class F1: 5.0 percent, plus or minus 1.5 percent at point of delivery for concrete containing 3/4-inch nominal maximum aggregate size.

6. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

B. Class B: Normal-weight concrete used for exterior retaining walls and stairs.

1. Exposure Class: ACI 318 F1
2. Minimum Compressive Strength: 4,000 psi at 28 days.
3. Maximum w/cm: 0.45.
4. Slump Limit: 4 inches, plus or minus 1 inch.
5. Air Content:

    a. Exposure Class F1: 5.0 percent, plus or minus 1.5 percent at point of delivery for concrete containing 3/4-inch nominal maximum aggregate size.

6. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

2.7 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete in accordance with ASTM C94/C94M, and furnish batch ticket information.

B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete in accordance with ASTM C94/C94M. Mix concrete materials in appropriate drum-type batch machine mixer.

1. For mixer capacity of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than five minutes after ingredients are in mixer, before any part of batch is released.
2. For mixer capacity larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd..
3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixture time, quantity, and amount of water added. Record approximate location of final deposit in structure.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Verification of Conditions:

1. Before placing concrete, verify that installation of concrete forms, accessories, and reinforcement, and embedded items is complete and that required inspections have been performed.
2. Do not proceed until unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Provide reasonable auxiliary services to accommodate field testing and inspections, acceptable to testing agency, including the following:

1. Daily access to the Work.
2. Incidental labor and facilities necessary to facilitate tests and inspections.
3. Secure space for storage, initial curing, and field curing of test samples, including source of water and continuous electrical power at Project site during site curing period for test samples.
4. Security and protection for test samples and for testing and inspection equipment at Project site.

3.3 INSTALLATION OF EMBEDDED ITEMS

A. Place and secure anchorage devices and other embedded items required for adjoining Work that is attached to or supported by cast-in-place concrete.

1. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
2. Install anchor rods, accurately located, to elevations required and complying with tolerances in Section 7.5 of ANSI/AISC 303.

3.4 JOINTS

A. Construct joints true to line, with faces perpendicular to surface plane of concrete.

B. Construction Joints: Coordinate with floor slab pattern and concrete placement sequence.

1. Install so strength and appearance of concrete are not impaired, at locations indicated on Drawings or as approved by Consultant.
2. Place joints perpendicular to main reinforcement.

a. Continue reinforcement across construction joints unless otherwise indicated.

b. Do not continue reinforcement through sides of strip placements of floors and slabs.

3. Form keyed joints as indicated. Embed keys at least 1-1/2 inches into concrete.
4. Locate joints for beams, slabs, joists, and girders at third points of spans. Offset joints in girders a minimum distance of twice the beam width from a beam-girder intersection.
5. Locate horizontal joints in walls and columns at underside of floors, slabs, beams, and girders and at the top of footings or floor slabs.
6. Space vertical joints in walls as indicated on Drawings. Unless otherwise indicated on Drawings, locate vertical joints beside piers integral with walls, near corners, and in concealed locations where possible.
7. Use epoxy-bonding adhesive at locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.

C. Control Joints in Slabs-on-Ground: Form weakened-plane control joints, sectioning concrete into areas as indicated. Construct control joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form control joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch. Repeat grooving of control joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
2. Sawed Joints: Form control joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action does not tear, abrade, or otherwise damage surface and before concrete develops random cracks.

D. Isolation Joints in Slabs-on-Ground: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.

1. Extend joint-filler strips full width and depth of joint, terminating flush with finished concrete surface unless otherwise indicated on Drawings.
2. Terminate full-width joint-filler strips not less than 1/2 inch or more than 1 inch below finished concrete surface, where joint sealants are indicated.
3. Install joint-filler strips in lengths as long as practicable. Where more than one length is required, lace or clip sections together.

E. Doweled Joints:

1. Install dowel bars and support assemblies at joints where indicated on Drawings.
2. Lubricate or asphalt coat one-half of dowel bar length to prevent concrete bonding to one side of joint.

3.5 CONCRETE PLACEMENT

A. Before placing concrete, verify that installation of formwork, reinforcement, embedded items, and waterproof membrane is complete and that required inspections are completed.

1. Immediately prior to concrete placement, inspect waterproof membrane for damage and deficient installation, and repair defective areas.
2. Provide continuous inspection of waterproof membrane during concrete placement and make necessary repairs to damaged areas as Work progresses.

B. Notify Consultant and testing and inspection agencies 24 hours prior to commencement of concrete placement.

C. Before test sampling and placing concrete, water may be added at Project site, subject to limitations of ACI 301, but not to exceed the amount indicated on the concrete delivery ticket.

1. Do not add water to concrete after adding high-range water-reducing admixtures to mixture.

D. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete is placed on concrete that has hardened enough to cause seams or planes of weakness.

1. If a section cannot be placed continuously, provide construction joints as indicated.
2. Deposit concrete to avoid segregation.
3. Deposit concrete in horizontal layers of depth not to exceed formwork design pressures and in a manner to avoid inclined construction joints.
4. Consolidate placed concrete with mechanical vibrating equipment in accordance with ACI 301.

    a. Do not use vibrators to transport concrete inside forms.
    b. Insert and withdraw vibrators vertically at uniformly spaced locations to rapidly penetrate placed layer and at least 6 inches into preceding layer.
    c. Do not insert vibrators into lower layers of concrete that have begun to lose plasticity.
    d. At each insertion, limit duration of vibration to time necessary to consolidate concrete, and complete embedment of reinforcement and other embedded items without causing mixture constituents to segregate.

E. Deposit and consolidate concrete for slabs in a continuous operation, within limits of construction joints, until placement of a panel or section is complete.

1. Do not place concrete slabs in a checkerboard sequence.
2. Consolidate concrete during placement operations, so concrete is thoroughly worked around reinforcement and other embedded items and into corners.
3. Maintain reinforcement in position on chairs during concrete placement.
4. Screed slab surfaces with a straightedge and strike off to correct elevations.
5. Level concrete, cut high areas, and fill low areas.
6. Slope surfaces uniformly to drains where required.
7. Begin initial floating using bull floats or darbies to form a uniform and open-textured surface plane, before excess bleedwater appears on the surface.
8. Do not further disturb slab surfaces before starting finishing operations.

3.6 FINISHING FORMED SURFACES

A. As-Cast Surface Finishes:

1. ACI 301 Surface Finish SF-1.0: As-cast concrete texture imparted by form-facing material.

    a. Patch voids larger than 1-1/2 inches wide or 1/2 inch deep.
    b. Remove projections larger than 1 inch (25 mm).
    c. Tie holes do not require patching.
    d. Surface Tolerance: ACI 117 Class D.
    e. Apply to concrete surfaces not exposed to public view.

B. Rubbed Finish: Apply the following to as cast retaining wall surface finishes exposed to public view:

1. Smooth-Rubbed Finish:

    a. Perform no later than one day after form removal.
    b. Moisten concrete surfaces and rub with carborundum brick or another abrasive until producing a uniform color and texture.
    c. If sufficient cement paste cannot be drawn from the concrete by the rubbing process, use a grout made from the same cementitious materials used in the in-place concrete.
    d. Maintain required patterns or variances as shown on Drawings.

C. Trowel and Fine-Broom Finish: Apply a first trowel finish to surfaces indicated on Drawings. While concrete is still plastic, slightly scarify surface with a fine broom perpendicular to main traffic route.

1. Coordinate required final finish with Consultant before application.
2. Comply with flatness and levelness tolerances for trowel-finished floor surfaces.

D. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and locations indicated on Drawings.

1. Immediately after float finishing, slightly roughen trafficked surface by brooming with fiber-bristle broom perpendicular to main traffic route.
2. Coordinate required final finish with Consultant before application.

3.7 INSTALLATION OF MISCELLANEOUS CONCRETE ITEMS

A. Filling In:

1. Fill in holes and openings left in concrete structures after Work of other trades is in place unless otherwise indicated.
2. Mix, place, and cure concrete, as specified, to blend with in-place construction.

3. Provide other miscellaneous concrete filling indicated or required to complete the Work.

B. Curbs: Provide monolithic finish to interior curbs by stripping forms while concrete is still green and by steel-troweling surfaces to a hard, dense finish with corners, intersections, and terminations slightly rounded.

3.8 CONCRETE CURING

A. Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

1. Comply with ACI 301 and ACI 306.1 for cold weather protection during curing.
2. Comply with ACI 301 and ACI 305.1 for hot-weather protection during curing.
3. Maintain moisture loss no more than 0.2 lb/sq. ft. x h before and during finishing operations.

3.9 TOLERANCES

A. Conform to ACI 117.

3.10 JOINT FILLING

A. Prepare, clean, and install joint filler in accordance with manufacturer's written instructions.

1. Defer joint filling until concrete has aged at least one month(s).
2. Do not fill joints until construction traffic has permanently ceased.

B. Remove dirt, debris, saw cuttings, curing compounds, and sealers from joints; leave contact faces of joints clean and dry.

C. Install semirigid joint filler full depth in saw-cut joints and at least 2 inches deep in formed joints.

D. Overfill joint, and trim joint filler flush with top of joint after hardening.

3.11 CONCRETE SURFACE REPAIRS

A. Defective Concrete:

1. Repair and patch defective areas when approved by Consultant.
2. Remove and replace concrete that cannot be repaired and patched to Consultant's approval.

B. Patching Mortar: Mix dry-pack patching mortar, consisting of 1 part portland cement to 2-1/2 parts fine aggregate passing a No. 16 sieve, using only enough water for handling and placing.

C. Repairing Formed Surfaces: Surface defects include color and texture irregularities, cracks, spalls, air bubbles, honeycombs, rock pockets, fins and other projections on the surface, and stains and other discolorations that cannot be removed by cleaning.

1. Immediately after form removal, cut out honeycombs, rock pockets, and voids more than 1/2 inch in any dimension to solid concrete.

a. Limit cut depth to 3/4 inch.
b. Make edges of cuts perpendicular to concrete surface.
c. Clean, dampen with water, and brush-coat holes and voids with bonding agent.
d. Fill and compact with patching mortar before bonding agent has dried.
e. Fill form-tie voids with patching mortar or cone plugs secured in place with bonding agent.

2. Repair defects on surfaces exposed to view by blending white portland cement and standard portland cement, so that, when dry, patching mortar matches surrounding color.

a. Patch a test area at inconspicuous locations to verify mixture and color match before proceeding with patching.
b. Compact mortar in place and strike off slightly higher than surrounding surface.

3. Repair defects on concealed formed surfaces that will affect concrete's durability and structural performance as determined by Consultant.

4. Repair random cracks and single holes 1 inch or less in diameter with patching mortar.

a. Groove top of cracks and cut out holes to sound concrete, and clean off dust, dirt, and loose particles.
b. Dampen cleaned concrete surfaces and apply bonding agent.
c. Place patching mortar before bonding agent has dried.
d. Compact patching mortar and finish to match adjacent concrete.
e. Keep patched area continuously moist for at least 72 hours.

D. Perform structural repairs of concrete, subject to Consultant's approval, using epoxy adhesive and patching mortar.

E. Repair materials and installation not specified above may be used, subject to Consultant's approval.

3.12 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a special inspector to perform field tests and inspections and prepare testing and inspection reports.

B. Testing Agency: Engage a qualified testing and inspecting agency to perform tests and inspections and to submit reports.

1. Testing agency to be responsible for providing curing container for composite samples on Site and verifying that field-cured composite samples are cured in accordance with ASTM C31/C31M.
2. Testing agency to immediately report to Consultant, Contractor, and concrete manufacturer any failure of Work to comply with Contract Documents.
3. Testing agency to report results of tests and inspections, in writing, to Owner, Consultant, Contractor, and concrete manufacturer within 48 hours of inspections and tests.

    a. Test reports to include reporting requirements of ASTM C31/C31M, ASTM C39/C39M, and ACI 301, including the following as applicable to each test and inspection:

        1) Project name.
        2) Name of testing agency.
        3) Names and certification numbers of field and laboratory technicians performing inspections and testing.
        4) Name of concrete manufacturer.
        5) Date and time of inspection, sampling, and field testing.
        6) Date and time of concrete placement.
        7) Location in Work of concrete represented by samples.
        8) Date and time sample was obtained.
        9) Truck and batch ticket numbers.
        10) Design compressive strength at 28 days.
        11) Concrete mixture designation, proportions, and materials.
        12) Field test results.
        13) Information on storage and curing of samples before testing, including curing method and maximum and minimum temperatures during initial curing period.
        14) Type of fracture and compressive break strengths at seven days and 28 days.

C. Batch Tickets: For each load delivered, submit three copies of batch delivery ticket to testing agency, indicating quantity, mix identification, admixtures, design strength, aggregate size, design air content, design slump at time of batching, and amount of water that can be added at Project site.

D. Inspections:

1. Headed bolts and studs.
2. Verification of use of required design mixture.
3. Concrete placement, including conveying and depositing.
4. Curing procedures and maintenance of curing temperature.
5. Verification of concrete strength before removal of shores and forms from beams and slabs.
6. Batch Plant Inspections: On a random basis, as determined by Consultant.

E. Concrete Tests: Testing of composite samples of fresh concrete obtained in accordance with ASTM C 172/C 172M to be performed in accordance with the following requirements:

1. Testing Frequency: Obtain one composite sample for each day's pour of each concrete mixture exceeding 5 cu. yd., but less than 25 cu. yd., plus one set for each additional 50 cu. yd. or fraction thereof.

    a. When frequency of testing provides fewer than five compressive-strength tests for each concrete mixture, testing to be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C143/C143M:

    a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    b. Perform additional tests when concrete consistency appears to change.

3. Slump Flow: ASTM C1611/C1611M:

    a. One test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture.
    b. Perform additional tests when concrete consistency appears to change.

4. Air Content: ASTM C231/C231M pressure method, for normal-weight concrete.

    a. One test for each composite sample, but not less than one test for each day's pour of each concrete mixture.

5. Concrete Temperature: ASTM C1064/C1064M:

    a. One test hourly when air temperature is 40 deg F and below or 80 deg Fand above, and one test for each composite sample.

6. Compression Test Specimens: ASTM C31/C31M:

    a. Cast and laboratory cure two sets of two6-inch by 12-inch cylinder specimens for each composite sample.

7. Compressive-Strength Tests: ASTM C39/C39M.

    a. Test one set of two laboratory-cured specimens at seven days and one set of two specimens at 28 days.
    b. A compressive-strength test to be the average compressive strength from a set of two specimens obtained from same composite sample and tested at age indicated.

8. Strength of each concrete mixture will be satisfactory if every average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength, and no compressive-strength test value falls below specified compressive

strength by more than 500 psi if specified compressive strength is 5000 psi , or no compressive strength test value is less than 10 percent of specified compressive strength if specified compressive strength is greater than 5000 psi.

9. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Consultant but will not be used as sole basis for approval or rejection of concrete.
10. Additional Tests:

    a. Testing and inspecting agency to make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Consultant.
    b. Testing and inspecting agency may conduct tests to determine adequacy of concrete by cored cylinders complying with ASTM C42/C42M or by other methods as directed by Consultant.

        1) Acceptance criteria for concrete strength to be in accordance with ACI 301, Section 1.6.6.3.

11. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.
12. Correct deficiencies in the Work that test reports and inspections indicate do not comply with the Contract Documents.

3.13 PROTECTION

A. Protect concrete surfaces as follows:

1. Protect from petroleum stains.
2. Diaper hydraulic equipment used over concrete surfaces.
3. Prohibit vehicles from interior concrete slabs.
4. Prohibit use of pipe-cutting machinery over concrete surfaces.
5. Prohibit placement of steel items on concrete surfaces.
6. Prohibit use of acids or acidic detergents over concrete surfaces.
7. Protect liquid floor treatment from damage and wear during the remainder of construction period. Use protective methods and materials, including temporary covering, recommended in writing by liquid floor treatments installer.

END OF SECTION 033000

SECTION 055213 - PIPE AND TUBE RAILINGS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Aluminum railings.

1.3 COORDINATION

A. Coordinate selection of shop primers with topcoats to be applied over them. Comply with paint and coating manufacturers' written recommendations to ensure that shop primers and topcoats are compatible with one another.

B. Coordinate installation of anchorages for railings. Furnish setting drawings, templates, and directions for installing anchorages, anchor bolts, and items with integral anchors. Deliver such items to Project site in time for installation.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Manufacturer's product lines of mechanically connected railings.
2. Fasteners.
3. Post-installed anchors.
4. Nonshrink, nonmetallic grout.
5. Metal finishes.

B. Shop Drawings: Include plans, elevations, sections, details, and attachments to other work.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For testing agency.

B. Welding certificates.

C. Product Test Reports: For tests on railings performed by a qualified testing agency, in accordance with ASTM E894 and ASTM E935.

D. Research Reports: For post-installed anchors, from ICC-ES or other qualified testing agency acceptable to authorities having jurisdiction.

1.6 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel in accordance with the following:

1. AWS D1.2/D1.2M, "Structural Welding Code - Aluminum."

1.7 DELIVERY, STORAGE, AND HANDLING

A. Protect mechanical finishes on exposed surfaces of railings from damage by applying a strippable, temporary protective covering before shipping.

1.8 FIELD CONDITIONS

A. Field Measurements: Verify actual locations of walls and other construction contiguous with railings by field measurements before fabrication.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Structural Performance: Railings, including attachment to construction, shall withstand the effects of gravity loads and the following loads and stresses within limits and under conditions indicated:

1. Handrails:

a. Uniform load of 50 lbf/ ft. (0.73 kN/m) applied in any direction.
b. Concentrated load of 200 lbf (0.89 kN) applied in any direction.
c. Uniform and concentrated loads need not be assumed to act concurrently.

B. Thermal Movements: Allow for thermal movements from ambient and surface temperature changes.

1. Temperature Change: 120 deg F, ambient; 180 deg F, material surfaces.

2.2 METALS, GENERAL

A. Metal Surfaces, General: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations, or blemishes.

B. Brackets, Flanges, and Anchors: Cast or formed metal of same type of material and finish as supported rails unless otherwise indicated.

2.3 ALUMINUM RAILINGS

A. Source Limitations: Obtain each type of railing from single source from single manufacturer.

B. Aluminum, General: Provide alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with not less than the strength and durability properties of alloy and temper designated below for each aluminum form required.

C. Extruded Structural Pipe and Round Tubing: ASTM B429/B429M, Alloy 6063-T6.

1. Provide Standard Weight (Schedule 40) pipe unless otherwise indicated.

2.4 FASTENERS

A. Fastener Materials:

1. Aluminum Railing Components: Type 304 stainless steel fasteners.
2. Finish exposed fasteners to match appearance, including color and texture, of railings.

B. Fasteners for Anchoring Railings to Other Construction: Select fasteners of type, grade, and class required to produce connections suitable for anchoring railings to other types of construction and capable of withstanding design loads.

C. Fasteners for Interconnecting Railing Components:

1. Provide concealed fasteners for interconnecting railing components and for attaching them to other work, unless exposed fasteners are unavoidable or are the standard fastening method for railings indicated.
2. Provide tamper-resistant flat-head machine screws for exposed fasteners unless otherwise indicated.

2.5 MISCELLANEOUS MATERIALS

A. Welding Rods and Bare Electrodes: Select in accordance with AWS specifications for metal alloy welded.

1. For aluminum railings, provide type and alloy as recommended by producer of metal to be welded and as required for color match, strength, and compatibility in fabricated items.

B. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout, complying with ASTM C1107/C1107M. Provide grout specifically recommended by manufacturer for exterior applications.

2.6 FABRICATION

A. General: Fabricate railings to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish, and anchorage, but not less than that required to support structural loads.

B. Shop assemble railings to greatest extent possible to minimize field splicing and assembly. Disassemble units only as necessary for shipping and handling limitations.

1. Clearly mark units for reassembly and coordinated installation.
2. Use connections that maintain structural value of joined pieces.

C. Cut, drill, and punch metals cleanly and accurately.

1. Remove burrs and ease edges to a radius of approximately 1/32 inch unless otherwise indicated.
2. Remove sharp or rough areas on exposed surfaces.

D. Form work true to line and level with accurate angles and surfaces.

E. Fabricate connections that are exposed to weather in a manner that excludes water.

1. Provide weep holes where water may accumulate.
2. Locate weep holes in inconspicuous locations.

F. Cut, reinforce, drill, and tap as indicated to receive finish hardware, screws, and similar items.

G. Connections: Fabricate railings with welded connections unless otherwise indicated.

H. Welded Connections for Aluminum Pipe: Fabricate railings to interconnect members with concealed internal welds that eliminate surface grinding, using manufacturer's standard system of sleeve and socket fittings.

I. Form changes in direction as follows:

1. By radius bends of radius indicated or by bending to smallest radius that will not result in distortion of railing member if not indicated.

J. Bend members in jigs to produce uniform curvature for each configuration required. Maintain cross section of member throughout entire bend without buckling, twisting, cracking, or otherwise deforming exposed surfaces of components.

K. Flanges, Fittings, and Anchors: Provide flanges, miscellaneous fittings, and anchors to interconnect railing members to other work unless otherwise indicated.

L. Provide inserts and other anchorage devices for connecting railings to concrete or masonry work.

1. Fabricate anchorage devices capable of withstanding loads imposed by railings.
2. Coordinate anchorage devices with supporting structure.

2.7 ALUMINUM FINISHES

A. Baked-Enamel or Powder-Coat Finish: AAMA 2604 except with a minimum dry film thickness of 1.5 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Color and Gloss:
   a. Handrail and Guardrail Posts and Top Rail: Black, Semi-gloss as indicated by manufacturer's designations.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

A. Perform cutting, drilling, and fitting required for installing railings.

1. Fit exposed connections together to form tight, hairline joints.
2. Install railings level, plumb, square, true to line; without distortion, warp, or rack.
3. Set railings accurately in location, alignment, and elevation; measured from established lines and levels.
4. Do not weld, cut, or abrade surfaces of railing components that are coated or finished after fabrication and that are intended for field connection by mechanical or other means without further cutting or fitting.
5. Set posts plumb within a tolerance of 1/16 inch in 3 feet.
6. Align rails so variations from level for horizontal members and variations from parallel with rake of steps and ramps for sloping members do not exceed 1/4 inch in 12 feet.

B. Control of Corrosion: Prevent galvanic action and other forms of corrosion by insulating metals and other materials from direct contact with incompatible materials.

1. Coat concealed surfaces of aluminum that will be in contact with grout, concrete, masonry, wood, or dissimilar metals, with a heavy coat of bituminous paint.

C. Adjust railings before anchoring to ensure matching alignment at abutting joints.

D. Fastening to In-Place Construction: Use anchorage devices and fasteners where necessary for securing railings and for properly transferring loads to in-place construction.

3.2 RAILING CONNECTIONS

A. Welded Connections: Use fully welded joints for permanently connecting railing components. Comply with requirements for welded connections in "Fabrication" Article, whether welding is performed in the shop or in the field.

3.3 ANCHORING POSTS

A. Form or core-drill holes not less than 8 inches deep and 1/2 inch larger than OD of post for installing posts in concrete. Clean holes of loose material, insert posts, and fill annular space between post and concrete with nonshrink, nonmetallic grout mixed and placed to comply with anchoring material manufacturer's written instructions.

B. Cover anchorage joint with flange of same metal as post, welded to post after placing anchoring material.

3.4 REPAIR

A. Touchup Painting:

1. Immediately after erection, clean field welds, bolted connections, and abraded areas of shop paint, and paint exposed areas with the same material used for shop painting to comply with SSPC-PA 1 for touching up shop-painted surfaces.

a. Apply by brush or spray to provide a minimum 2.0-mil dry film thickness.

3.5 CLEANING

A. Clean aluminum by washing thoroughly with clean water and soap and rinsing with clean water.

3.6 PROTECTION

A. Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.

B. Restore finishes damaged during installation and construction period, so no evidence remains of correction work. Return items that cannot be refinished in the field to the shop; make required alterations and refinish entire unit or provide new units.

END OF SECTION 055213

SECTION 131113 - POOL GENERAL

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Project administrative requirements that relate to Division 13 11 Pools.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

B. The following contain requirements that relate in Division 13 11:

1. Mechanical/Electrical/Equipment Coordination: General Conditions, Supplementary General Conditions and Division 01 General Requirements
2. Earth Work and Pool Excavation: Division 31
3. Concrete Deck Work: Division 32
4. Mechanical: Plumbing Systems - Division 22, HVAC Systems and Equipment - Division 23
5. Electrical: Division 26

C. Applicable requirements of the following Codes and Standards apply to Work in Division 13 11:

1. National Spa and Pool Institute (NSPI)

    a. Minimum Standard for Public Swimming Pools

2. National Electrical Code (NEC)
3. National Sanitation Foundation (NSF): Seal of Approval Program
4. American Society for Testing and Materials (ASTM): Specifications referenced herein
5. Governmental Health and Building Codes
6. ADA Accessibility Guidelines for Buildings and Facilities
7. American National Standards Institute

1.3 REFERENCES

A. Refer to individual Division 13 11 sections.

1.4 DESCRIPTION OF WORK

A. Work of Division 13 11 includes, but is not limited to, the following:

1. Layout of all pool(s) and pool related work required under Division 13 11.

2. Project benchmarks and control points.
3. Excavation and stone fill as required for pool tank structure and pipe trenching.
4. Refer to Division 01 and 31 for special conditions.
5. Pool structure, as detailed on Contract Drawings and Shop Drawings.
6. Pool mechanical systems, including piping and activity mechanical systems.
7. Pool finish.
8. Coordination of all electrical interlocks, controllers for pool and pool related equipment.
9. Miscellaneous pool testing, safety and control equipment.
10. Low voltage wiring for pool and pool related equipment is installed and connected by the Swimming Pool Contractor unless required otherwise by code. Where code requires that low voltage wiring is installed by a licensed electrical contractor, low voltage wiring is specified in Electrical Documents.
11. Please see drawings for owner supplied equipment from spray feature manufacturer. All owner purchased items must be fully coordinated, and installed by contractor.

B. Definitions

1. The term "pool" as used in Division 13 11 shall refer to the following:

    a. Pool A = Spray Pad

2. The term "concrete" as used in Division 13 11 refers to concrete for pool construction only.
3. The term "Architect/Engineer" as used in Division 13 11 refers to the pool designer only.
4. The term "Contractor" as used in Division 13 11 refers to the pool contractor only.
5. The term “Low Voltage Wiring”, as used in Division 13 11, includes wiring <= 24V. All Low Voltage Wiring is Provided with the Equipment. Low voltage wiring is shown in Low Voltage Wiring Diagram included in the pool drawings except where specified by Electrical Consultant.
6. The term “Control Wiring” as used in Division 13 11 refers to connections from individual equipment components to the Building Management System (BMS).

C. Applicable Code, Permit and Inspection Responsibilities.

1. State and/or County Health Department permit fees by Owner. NOTE: DSPS permitting is not required.
2. Local Departments of Health inspection fees by Contractor.
3. Other permits/fees required paid by Contractor.
4. Scheduling of Required Inspections – Contractor
5. Documentation and Submission of accepted modifications to approved plans to Permit Authorities – Contractor.

D. Related Work Not in Division 13 11 Specified Elsewhere

1. Pool deck construction, including finishes, sealants, and drains.
2. Potable water or fresh water connection to feature manifold (see Contract Drawings).
3. Pool electrical work: Electrical connections shall be by the General Construction Contract Electrical Sub-Contractor. The Pool Contractor shall provide, controllers, solenoids, relays, motorized valves, etc., as shown on Contract Drawings and required

by pool systems equipment manufacturer. The Electrical Contractor shall install and wire electrical equipment furnished by the Pool Contractor and shall provide motor starters and disconnect switches as indicated or required by Codes. The Electrical Contractor shall provide grounding and bonding per NEC Article 680.

1.5 QUALITY ASSURANCE

A. Qualifications of Pool Contractor: Work of Division 13 11 shall be performed by a contractor who has a minimum of five (5) projects with a proven five (5) year record of competence and experience in the construction of similar facilities of this size and complexity.

B. Performance Criteria: Certain sections of Division 13 11 contain performance criteria rather than product descriptions. It shall be the obligation of the Pool Contractor to ensure that all criteria are satisfied and the burden or proof of conformance shall rest with the Pool Contractor. The Architect/Engineer shall require complete calculations, past performance records and, if required, inspection trips of similar facilities to substantiate conformance with these criteria. The Architect/Engineer shall be sole judge of conformance, and the Pool Contractor is cautioned that he will be required to provide a finished product meeting all stated criteria and meeting or exceeding Department of Public Health requirements.

C. All work of Division 13 11 shall be performed by the qualified Pool Contractor or a Subcontractor to the qualified Pool Contractor unless otherwise pre-approved in writing by the Architect/Engineer. A representative of the Pool Contractor shall oversee work subcontracted by the Pool Contractor.

D. The following shall be performed during construction of the project.

1. Refer to General Conditions, Division 01, and other Division 13 11 sections for further requirements.

1.6 SUBMITTALS

A. Submittals Required

1. Refer to General Conditions, Division 01, and individual Division 13 11 sections for number required.
2. The Contractor shall submit for approval to the Architect/Engineer complete lists, including descriptions, catalogs, product cut sheets, etc, fixtures and equipment to be furnished and installed as part of Division 13 11.
3. Submittals shall adequately and completely describe the equipment, including where necessary or requested complete construction and installation dimensions, complete capacity and performance data, all accessories and auxiliary equipment and all pertinent details of manufacture.
4. Submittals shall be provided complete and bound in a 3-ring binder or as pre-approved by Architect/Engineer or as required in division 1.

B. Product Data: Provide manufacturer's/installer's written installation instructions.

C. Shop Drawings

1. The drawings accompanying this Specification are diagrammatic in nature and show the general arrangement of all equipment, piping, ductwork, services, etc. Because of the small scale of the drawings, it is not possible to show all offsets, fittings and accessories that may be required. The Contractor shall carefully investigate the structural and finish conditions of his work and shall arrange such work accordingly; furnishing all fittings, pipe and accessories that may be required to meet such conditions. Where conditions necessitate a rearrangement, the Contractor shall obtain the Architect/Engineer's approval.
2. Shop drawings for equipment shall be submitted, and Engineer’s review of shop drawing shall be obtained before proceeding with fabrication. Shop drawings shall not be "doctored" reproductions of Architect/Engineer’s drawings.

D. Samples: Submit samples of materials, finishes, and trim as requested by the Architect/Engineer.

E. Schedule of Values

1. Provide Architect/Engineer with a copy of the Schedule of Values developed for this project relevant to Division 13 11 for approval.

F. Valve Charts: Submit two (2) copies of valve charts for each piping system, consisting of Isometric Drawings or piping layouts showing and identifying each valve and describing its function to the Architect/Engineer for approval.

1. Upon completion of the Work, one (1) copy of each chart sealed to rigid backboard with clear lacquer placed under glass and framed, shall be hung in a conspicuous location in the equipment room.

G. Furnish to the Architect/Engineer the following:

1. Refer to individual Division 13 11 sections for additional requirements.
2. Submittals

    a. Concrete Mix Design
    b. Non-shrink Grouts
    c. PVC and Preformed Plastic Adhesive Waterstop
    d. Expansion/Construction Joint Materials
    e. Caulking/Sealants
    f. Valves
    g. Piping Materials (pipe, fittings, solvents, cements)
    h. Wall Sleeves and Seals for Piping

3. Shop Drawings

    a. Reinforcing Steel
    b. Water Activities

4. Test Results

    a. Compaction
    b. Piping Pressure Testing

5. Samples
6. Guarantees/Warranties

    a. Standard 1-Year
    b. Future 3-Days of Instruction and Operational Checkout

7. Close Out Documents

    a. O & M Manuals
    b. Record Drawings
    c. Owner’s Certification of Instruction
    d. Extra Materials

1.7 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

B. Along with the Shop Drawings, the Contractor shall submit, in duplicate, a certificate properly attested, stating the material, equipment, and construction comply with the requirements of the Contract Documents, for all equipment and materials proposed as a Substitute for the specified equipment and materials.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Refer to General Requirements and Division 01 of the Specifications for additional requirements.

B. Deliver all materials and equipment to the work site in original packages, fully identified with manufacturer's label. Store off ground and protect from weather with a suitable covering.

C. Protect plastic pipe from exposure to chemicals (aromatic hydrocarbons, halogenated hydrocarbons and other esters and keytones) that might attack the material. Protect all pipes from mechanical damage and long exposure to sunlight during storage.

1.9 WARRANTIES

A. Warranty: Provide one (1) year warranty covering all pool workmanship, materials, and equipment. Refer to General Requirements and Division 01 of the Specifications for additional requirements.

B. All standard manufacturer's warranties shall apply to all equipment and products provided by this Contractor.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 EQUIPMENT BASES AND SUPPORTS

A. Provide for major equipment, reinforced concrete housekeeping bases poured directly on structural floor slabs (or as required by equipment manufacturer) 4 inches thick minimum; unless noted otherwise on plans, extended 4 inches beyond machinery bedplates. Provide templates, anchor bolts, vibration isolators, and accessories required for mounting and anchoring equipment. Anchorage system shall be in accordance with the equipment manufacturer's specifications and local code requirements. Consult with equipment manufacturer for length and installation of anchor bolts.

3.2 CLEAN UP AND PROTECTION

A. After work of Division 13 11 has been completed, clean-up work areas and remove all equipment, excess materials, and debris. Protect pool from damage until substantial completion. Remove and replace equipment and finishes that are chipped, cracked, abraded, improperly adhered, or otherwise damaged.

END OF SECTION 131113

SECTION 131114 - POOL START-UP MAINTENANCE & OPERATIONS TRAINING

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Training of the Owner's personnel in Pool operations procedures.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

1.3 DESCRIPTION OF WORK

A. Operations and maintenance instruction and manuals.

B. Water Treatment and Balancing.

1.4 SUBMITTALS

A. Operations and Maintenance (O&M) Manual

1. Pool Contractor shall deliver to the Architect/Engineer, bound together in a three-ring binder a complete manual, three (3) complete sets of operating and maintenance instructions for the swimming pool structure(s), finishes, and all component equipment. O&M Manual shall include, but is not limited to, the following:

    a. Table of contents.
    b. All equipment cut sheets.
    c. Accurate parts lists.
    d. Pool start-up, emptying, and winterization instructions.
    e. Pool cleaning instructions.
    f. Pool maintenance requirements, divided into the following:

        1) Daily
        2) Weekly
        3) Monthly
        4) Seasonally
        5) Annually

    g. Narrative on the pool operation through all sequences.
    h. A DVD of complete start-up and shut-down procedures and training session.
    i. Trouble shooting information and procedures.

j. A schematic of piping as installed.
k. Valve charts for each piping system, consisting of isometric drawings or piping layouts showing and identifying each valve and describing its function.
l. Record Drawings
m. Warranties

PART 2 - MATERIALS

2.1 NOT USED

PART 3 - EXECUTION

3.1 OPERATIONS & MAINTENANCE INSTRUCTION

A. Provide an experienced swimming pool operator-instructor (NSPI certified pool operator) for a period of not less than two (2) days; one (1) full day's operations and start-up, and one (1) full day shut-down assistance) after the pool has been filled and initially placed into operation.

1. During this period the Owner's designated representative(s) shall be thoroughly instructed in all phases of the pool's operation, including start-up, emptying, and winterizing procedures.
2. Prior to this instructor leaving the Site, instructor shall obtain written certification from the Owner's designated representative acknowledging that the instruction period has been completed and all necessary operating information provided, including but not limited to the activity controller programming.

B. Include the cost of one (1) additional day of instruction and operational checkout/verification by an experienced swimming pool operator-instructor during the first year's operation.

C. Provide a DVD documenting training and operational requirements, including start-up, emptying, and winterizing procedures.

D. In addition to initial pool instruction listed, the Pool Contractor shall perform the first season pool closing (winterizing) and the following season pool start-up, including all labor and materials required.

END OF SECTION 131114

SECTION 131118 - POOL CONCRETE

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. This Section specifies cast-in-place concrete for pools and related structures, including formwork, reinforcement, concrete materials, mix design, placement procedures, and finishes.

B. This Section of the Specifications covers the furnishings of all labor, materials, tools, equipment, and the performance of all Work and services necessary or incidental to furnish and place all concrete necessary as shown on the Drawings and as specified, in accordance with the provisions of the Contract Documents, and completely coordinated with the Work of all other trades.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

1.3 REFERENCES

A. The following latest edition reference specifications, guides and standards shall become part of this Specification as if herein written. If provisions conflict, the more stringent provisions shall apply.

1. ACI-318 – Building Code Requirements for Reinforced Concrete
2. ASTM C172 – Methods for Sampling Fresh Concrete
3. ASTM C31 – Making and Curing Concrete Test Specimens in the Field
4. ASTM C39 – Compressive Strength of Cylindrical Concrete Specimens
5. ASTM C143 – Standard Method of Test for Slump of Portland Cement Concrete
6. ASTM C231 – Standard Method of Test for Air Content of Freshly Mixed Concrete by the Pressure Method
7. ASTM C260 – Specification for Air-Entraining Admixtures for Concrete
8. ASTM C494 – Specification for Chemical Admixture for Concrete
9. ASTM C618 – Specification for Fly Ash and Raw or Calcinated Natural Pozzolan for Use as a Mineral Admixture in Portland Cement Concrete
10. ACI-304 – Recommended Practice for Measuring, Mixing, Transporting and Placing Concrete
11. ACI-305 – Hot Weather Concreting
12. ACI-306 – Recommended Practice for Cold Weather Concreting
13. ACI-308 – Standard Practice for Curing Concrete
14. CRD C-527 – Corps of Engineers Specifications for Polyvinylchloride Waterstop
15. CRSI – Manual of Practice

16. CRSI 63 – Recommended Practice for Placing Reinforcing Bars
17. CRSI 65 – Recommended Practice for Placing Bar Supports, Specifications and Nomenclature

1.4 SUBMITTALS

A. Product Data: For each type of manufactured material and product indicated.

B. Design Mixes: For each concrete mix. Include alternate mix designs when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments. Indicate amounts of mix water to be withheld for later addition at Project site.

C. Steel Reinforcement Shop Drawings: Details of fabrication, bending, and placement, prepared according to ACI 315. Include material, grade, bar schedules, stirrup spacing, bent bar diagrams, arrangement, and supports of concrete reinforcement. Include special reinforcement required for openings through concrete structures.

D. Submit five copies of each to Architect/Engineer.

1.5 QUALITY ASSURANCE

A. Concrete Work: All concrete work in Division 13 11, including formwork and reinforcing, shall comply with applicable requirements of Division 13 11.

B. Qualifications of Pool Contractor

1. Work of this Section shall be performed by a Contractor who has a proven record of competence and experience in the construction of similar facilities of this size and complexity for not less than 5 years. Contractors shall have an established record of reliability.

C. The following tests shall be performed during construction of the project. Refer to General Conditions and Division 01 for further requirements.

1. Concrete

a. Tests to measure slump, entrained air content and compressive strength shall be conducted by independent testing laboratory employed by the Owner.

1) Provide minimum of four (4) test cylinders per 50 cubic yard or fraction thereof for each class of concrete poured each day. Comply with ACI-318, Subsection 4.3 (samples secured - ASTM C172, cylinders prepared and cured - ASTM C31, and tested - ASTM C39). Identify samples moist cure at 70 degrees F for five (5) days and ship samples to laboratory.

b. Slump and Air Content Tests

1) Perform on concrete from same batch as sampled for strength tests and whenever there is consistency of concrete. Slump tests shall be made in accordance with ASTM C143. Air content tests shall be made in accordance with ASTM C231. If measured slump or air content falls outside specified limits, check shall be made immediately on another portion of same sample. In event of second failure, concrete shall not be used in Work.

c. Compliance

1) Average of any three (3) consecutive strength tests for each class of concrete shall be equal to or greater than specified strength, and no individual test shall fall more than 500 psi below specified strength.
2) When tests results are below specified requirements or when tests of field cured cylinders indicate deficiencies in protection and curing, Architect/Engineer may require additional tests in accordance with ACI-318, Subsection 4.3.

2. Wet Mix Process Cylinder Sample

a. Where automated wet mix equipment is used, test cylinders shall be taken from the mixer or ready-mix truck and tested in accordance with the requirements specified in this Section. Wet mix processes shall only be used with approved automated equipment.

1.6 SUBMITTALS

A. Submittals Required:

1. Refer to General Conditions, Division 01, and Section 13 1101.
2. Pool Finish Experience/Qualification Requirements
3. Concrete Mix Design
4. Non-Shrink Grouts
5. PVC and Preformed Plastic Adhesive Waterstop
6. Expansion/Construction Joint Materials
7. Caulking
8. Provide three (2) 3’x3’ onsite mock-ups of light broom finish of varying grades of coarseness for Owner’s approval. The pool contractor is responsible to coordinate owner approval of mock ups prior to the concrete placement.
9. Caulking

B. Shop Drawings Required:

1. Reinforcing Steel

C. Test Results:

1. Concrete Testing
2. Compaction

1.7 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Refer to General Requirements and Division 01.

B. Deliver cementitious materials to work site in manufacturer's standard packages. Immediately upon delivery to work site, store in waterproof sheds. Sheds required shall be provided by the Pool Contractor. No cementitious or other material that has become caked or hardened will be permitted in the work.

1.9 WARRANTIES

A. Special 2-Year on Concrete Structure: The Pool Contractor shall guarantee for two (2) years repair of the concrete pool structure.

PART 2 - PRODUCTS

2.1 CAST-IN-PLACE CONCRETE

A. Admixtures: Air Entraining: Refer to ASTM C260.

B. Concrete shall be ready-mixed conforming to ASTM C 94 and these Specifications. The use of non-agitating equipment will not be allowed.

C. Fine Aggregates: Conform to ASTM C 33. Materials finer than the 200 sieve shall not exceed 4 percent. Use only clean, sharp, natural sand.

D. Coarse Aggregate: Conform to ASTM C 33. Use only natural gravels, a combination of gravels and crushed gravels, crushed stone, or a combination of these materials containing no more than 15 percent flat or elongated particles (long dimension more than five times the short dimension). Materials finer than the 200 sieve shall not exceed 0.5 percent. Size of coarse aggregate shall be 3/4 inch on slabs and footings; 3/4 inch for walls. Approval of other aggregate gradations must be received in writing before use on the project.

E. Portland cement shall be Type I, conforming to ASTM C150.

F. Slump range shall be 2 to 4 inches and the air entrainment between 6 percent plus or minus 1.5% by volume. The water-cement ratio shall not exceed 0.49 by weight and the minimum cement content shall be 564 pounds per cubic yard - 6 bag mix. Submit complete data on the concrete mix for approval in conformance with the requirements of ASTM C 94, Alternate 2.

G. The minimum allowable 28-day compressive field strength shall be 4000 psi when cured and tested in conformance with ASTM C 31 and C 39.

2.2 REINFORCING STEEL

A. Use deformed bars of sizes shown on the drawings conforming to ASTM A 615 Grade 60.

2.3 REINFORCEMENT ACCESSORIES

A. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire fabric in place. Manufacture bar supports according to CRSI's "Manual of Standard Practice" from steel wire, plastic, or precast concrete or fiber-reinforced concrete of greater compressive strength than concrete.

2.4 CONCRETE ADMIXTURES

A. Air-entraining admixture: Provide air-entraining admixture in all concrete. Admixture shall conform to ASTM C 260, except it shall be nontoxic after 30 days and shall contain no chlorides. Furnish manufacturer's compliance statement for these requirements to Architect/Engineer forty days prior to use.

B. Water-Reducing Admixture: All concrete shall contain a water-reducing admixture. The admixture shall conform to ASTM C 494, Type A or Type D; except it shall contain no chlorides, shall be nontoxic after 30 days, and shall be compatible with the air-entraining admixtures. The amount of admixture added to the concrete shall be in accordance with the manufacturer's recommendations. Furnish a compliance statement that the admixture used satisfies all requirements of this Specification to Architect/Engineer forty days prior to use.

2.5 WATERSTOP

A. Center bulb type, as shown on Drawings, extruded from an elastomeric plastic compound, the basic resin of which shall be polyvinyl chloride (PVC). The size shall be as shown. Specific gravity shall be approximately 1.37, and the Shore durometer Type A hardness approximately 80. No reclaimed PVC shall be used in the compound. Meet the performance requirements of CRD C-572.

B. Waterstop shall have a constant thickness from the edge of the bulb to the outside edge. All waterstops shall have a number of parallel ribs or protrusions on each side of the center of the strip. Corrugated type or tapered waterstops are not acceptable. The minimum weight per foot for waterstop shall be 1.62 pounds for 3/8-inch by 6-inch and 2.30 pounds for 3/8-inch by 9-inch.

C. Manufacturers and suppliers who have provided samples meeting the specified geometry and who have the specified waterstop readily available are listed below. A wire loop waterstop meeting the geometry requirements as listed below may be used by the Contractor, at his option, as an alternate to those listed. Waterstops that do not contain the wire loops are not acceptable. Other products shall not be used without prior review and acceptance by the Architect/Engineer.

1. Vinylex Corporation, 2636 Byington-Solway Road, Knoxville, Tennessee 37921-0887, phone: (615) 690-2211 or fax: (615) 691-6273; Catalog No. RB6-38H for the 6-inch by 3/8-inch and Catalog No. RB9-38H for the 9-inch by 3/8-inch.
2. Greenstreak Plastic Products, P.O. Box 7139, St. Louis, Missouri 63177, phone: (314) 225-9400 or fax: (314) 225-9854. These products are also distributed by the Burke Company, San Mateo, California. Style 732 for the 6-inch by 3/8-inch and Style 735 for the 9-inch by 3/8-inch.
3. Synko-Flex waterstop, where specifically called out on the drawings, shall be Synko-Flex Preformed Plastic Adhesive Waterstop with Synko-Flex primer or equal. Manufacturer: Henry Company, 800-486-1278. Products containing Bentonite clay or hydrophilic materials are prohibited.

2.6 NON-SHRINK GROUT

A. Upcon High Flow, the Upco Company, Cleveland, Ohio; Master Flow 713, The Master Builder Company, Cleveland, Ohio; Crystex, L & M Construction Chemicals, Inc., Omaha, Nebraska.

2.7 GUN GRADE SEALANTS

A. Two-part polysulfide sealant and primer certified by Manufacturer as suitable for use in pools including submerged locations. “Deck-O-Seal” and “P/G” solvent based primer as manufactured by W.R. Meadows or equal. Color shall be white.

PART 3 - EXECUTION

3.1 CAST-IN-PLACE CONCRETE

A. Concrete shall be agitated by at least 70 revolutions of the mixing drum but not by more than 270 revolutions. Concrete shall be placed within 1-1/2 hours after the cement has been added to the mix.

B. Provide concrete blocks of same strength as the concrete mix to support reinforcing bars. Do not use broken concrete, brick or stone.

3.2 WATERSTOP

A. Split formwork is generally required for slab-to-slab, slab-to-wall and wall-to-wall joints where ribbed style waterstops are used. The centerline of the waterstop should be aligned with the center of the joint. The split form shall firmly hold the waterstop in position to prevent misalignment of waterstop during concrete placement. Secure waterstop with hog rings prior to concrete placement. Loop tie wires through the hog ring and tie off to adjacent reinforcing steel to prevent displacement of the waterstop during concrete placement. Fasteners through the body of the waterstop are not permitted.

B. Lapping of the waterstop is not permitted. PVC waterstop may be butt spliced in the field with Teflon coated, thermostatically controlled splicing iron. Direct exposure to a flame is not permitted. Factory fabricated fittings are recommended for ells, tees and crosses.

C. Thoroughly consolidate the concrete around the waterstop to prevent voids or honeycombing next to the waterstop. Maintain adequate clearance between reinforcing steel and the waterstop. Typical clearance should be twice the maximum aggregate size. Maintain continuity of the entire waterstop system. Properly store PVC waterstops prior to installation to prevent UV degradation

3.3 FORMWORK

A. Forms: Materials shall produce tight forms and an acceptable finish.

3.4 WORKMANSHIP

A. Forms: Construct forms accurately to dimensions and elevations required and to be strong and unyielding. Construct forms with tight joints to prevent the escape of mortar and to avoid the formation of fins. Brace as required to prevent distortion during concrete placement.

B. Placing reinforcing steel: Place reinforcing steel in conformance with the information on the Contract Drawings and CRSI Recommended Practice for Placing Reinforcing Bars, except as modified herein. Minimum length of splices shall be as shown in table on Contract Drawings. Tie splices with 18-gauge annealed wire as specified in the referenced CRSI standard.

C. Placing concrete:

1. Prior to placing concrete, remove water from excavation and all debris and foreign material from forms. Check the reinforcing steel for proper placement and correct any discrepancies.
2. Place concrete as soon as possible after leaving mixer, without segregation or loss of ingredients, without splashing forms or steel above, and in layers not over 2 feet deep. The vertical drop to final placement shall not exceed 6 feet. Placement shall conform to the requirements of ACI 318, except as modified herein.
3. Do not place concrete when the ambient temperature is below 40 degrees F and falling without special protection. Any concrete damaged by freezing shall be removed and replaced at no additional cost to the Owner.
4. Compaction: Apply approved vibrator at points spaced not farther apart than vibrator's effective radius. Apply close enough to forms to vibrate surface effectively but not damage form surfaces. Vibrate until concrete becomes uniformly plastic. Vibrator must penetrate the fresh placed concrete and into the previous layer of fresh concrete below.

3.5 FINISHING

A. Provide light broom slip-resistant finish on all exposed concrete-see required mock-up requirements of this section.

B. Screed surfaces of floor slabs and tops of exposed walls to true level planes. After the initial water has been absorbed, float and trowel with steel trowel. Provide light broom finish.

C. Do not absorb wet spots with neat cement. Pool floors shall not vary from level or true plane more than 1/4 inch in 10 feet when measured with a straightedge.

3.6 FORM REMOVAL

A. Remove after concrete has set sufficiently to carry the dead load and construction load it has to sustain. Remove forms with care to prevent scarring and damaging the surface.

3.7 PROTECTION AND CURING

A. Protect fresh concrete from direct rays of the sun, drying winds and wash by rain. The method of water curing shall be the responsibility of the Contractor; however, the method used shall guarantee that all concrete surfaces remain wet to the touch, (free moisture present), at all times during the cure period.

B. Wet cure shall be used conforming to ACI 308. Keep concrete slabs and wall continuously wet for a 7-day period. Intermittent wetting is not acceptable. Any product used shall be compatible with finish bond requirements.

3.8 PROTECTION OF ADJACENT SURFACES

A. Contractor shall take every possible precaution to protect adjacent concrete surfaces, equipment, etc., from being damaged by overshooting concrete.

3.9 FINISHING FORMED SURFACES

A. Areas not subject to water: Cut out all honeycombed and defective areas. Cut edges perpendicular to surface at least 1 inch deep, no feather edge allowed, and patch. Using bonding agent fill holes flush with cement mortar composed of 1 part cement and 2 parts sand. Rub surface with wood float and burlap. Keep patches damp for a minimum of seven days. Fill all form tie holes in same manner.

B. Areas subject to water: Cut out all honeycombed and defective areas, cut edges perpendicular to surface at least 1 inch deep, no featheredge allowed, soak area to be patched for 24 hours, then allow surface to drain free of standing water, then patch with color matched non-shrink grout:

C. The grout used shall be cured as recommended by grout manufacturer.

3.10 3.10 EXPANSION JOINTS

A. The pre-molded expansion joint filler shall be of sufficient width to completely fill the joint. Filler shall be accurately cut to butt tightly against the waterstop and the side forms.

B. At locations where joint sealant is to be applied, the pre-molded joint filler shall be precut to the required depth.

C. Cavities for joint sealant shall be formed with either precut, pre-molded joint filler or smooth, accurately shaped material that can be removed.

D. Concrete shall be thoroughly vibrated along the joint form to produce a dense, smooth surface. Surface irregularities along the joint sealant cavity, due to improper concrete consolidation or faulty form removal, shall be repaired with an approved compound compatible with the joint sealant in a manner that is satisfactory to the sealant manufacturer.

E. Installation of Cellular Neoprene: Install in joint accurately as shown. Attach to concrete with a bonding agent approved in writing by the joint sealant and joint filler manufacturer for compatibility.

F. All joints require gun grade sealant.

3.11 3.11 PLACING REINFORCING STEEL

A. Place reinforcing steel in conformance with the information on the drawings and CRSI 63 and CRSI, except as modified herein. Minimum length of splices shall be as shown in table on drawings. Tie splices with 18-gauge annealed wire as specified in the referenced CRSI standard. All tie wires shall be “made tight” for electrical bonding purposes, as required by NEC, Article 680.

END OF SECTION 131118

SECTION 131120 - POOL PIPE AND PIPE FITTINGS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Pipe, pipe fittings, connections, wall penetrations.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

1.3 REFERENCES/PIPE – FITTING REQUIREMENTS

A. The following latest edition reference specifications, guides and standards shall become part of this Specification as if herein written. If provisions conflict, the more stringent provisions shall apply.

1. ANSI/ASTM D2564 - Solvent Cements and ASTM F656 – Primers for Polyvinyl Chloride (PVC) Plastic Pipe and Fittings
2. ASTM D2855 – Practice for Making Solvent Cemented Joints with PVC Pipe and Fittings
3. ANSI/ASTM D1785 – Standard Specification for Polyvinyl Chloride (PVC) Plastic Pipe Schedules 40, 80 and 120, NSF Seal for Potable Water
4. ASTM D2466 – PVC Plastic Pipe Fittings, Schedule 40, Injection Molded, Sizes Through 12”, NSF Listed. As manufactured by Spears Manufacturing Company, “or approved equal”.
5. ASTM D2467 – Socket Type PVC Plastic Pipe Fittings, Schedule 80, Injection Molded, Sizes through 12”, NSF Listed. As manufactured by Spears Manufacturing Company, “or approved equal”.
6. ASTM F679 – PVC Large Diameter Plastic Gravity Sewer Pipe and Fittings, Bell Gasketed Joints, Sizes 18” Through 36”. As manufactured by J-M Manufacturing Co., Inc. “Perma-Loc”, “or approved equal”.
7. ASTM B88 – Seamless Copper Water Tube
8. Eslon Engineering Manual for Plastic Piping Systems
9. ASTM D2563 – Fabricated, Fiberglass Wrapped PVC Pipe Fittings 12”, 14”, and above, Schedule 40 or 80 manufactured from PVC pipe conforming to ASTM D1785 and compliant to the most recent publication of the “Spears General Specification for Standard Fabricated Fittings (FAB-7-702)”. Butt-fusion welded fabricated fittings are not acceptable. All fittings shall be certified for potable water service by NSF. As manufactured by Spears Manufacturing Company or “approved equal”.
10. CLASS 150 - All plastic pipe flanges shall be Class 150 and of the same schedule as the associated pipe with neoprene gaskets where required.

1.4 QUALITY ASSURANCE

A. Qualifications of Pool Contractor

1. Work of this Section shall be performed by a Contractor who has a proven record of competence and experience in the construction of similar facilities of this size and complexity for not less than 5 years. Contractors shall have an established record of reliability.

B. The following tests shall be performed during construction of the project. Refer to General Conditions and Division 01 for further requirements.

1. Testing and Flushing of Piping

a. Contractor shall be responsible for discovering leaks and making necessary repairs.

1) Pressure piping and suction piping: After the piece is laid, the joints completed and the trench partially backfilled, leaving joints exposed for examination, subject new lines to a hydrostatic pressure of not less than 50 pounds per square inch. Joints shall remain watertight under this pressure for a period of two (2) hours. All air must be expelled from pipes prior to testing.
2) Gravity lines: A water test shall be applied to all gravity drain piping systems, either in their entirety or in sections. All openings shall be tightly plugged and each system filled with water and tested with at least a 10-foot head of water (4.3 psi). The water shall be kept in the system, or in the portion under test, for at least fifteen (15) minutes before the inspection starts. System shall be water tight at all joints.
3) Leaks shall be repaired and tested repeatedly until leakage or infiltration is approved.

b. Provide test results to the Architect/Engineer before covering with concrete.

1.5 SUBMITTALS

A. Refer to General Requirements and Division 01.

B. Product Data: For each type of manufactured material and product indicated.

C. Provide Shop Drawings showing pipe locations, location of pipe penetrating water tight walls, pipe sizes, how the system will be drained and the location of the drain valves.

1.6 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

PART 2 - PRODUCTS

2.1 PIPE and FITTINGS

A. Refer to Section 1.03 for pipe and fitting requirements.

B. Refer to pipe schedule(s) on drawings for size and type.

2.2 THREAD TAPE

A. Teflon 2

2.3 SOLVENT CEMENTS AND PRIMERS

A. PVC pipe shall be installed using solvent weld materials including primers, cleaners, and cements. All solvent weld materials, methods, and applicator tools shall conform to all ASTM Standards for solvent cements used for plastic pipe installations.

B. Manufacturer: IPS Corporation, Weld-On Product Line

2.4 WALL SLEEVES

A. Pipes penetrating all water tight walls shall use "Century Line" thermoplastic wall sleeves in combination with “Link Seals” having stainless steel service designation. As manufactured by Thunderline Corporation, or the Metraflex Company, “or approved equal”.

2.5 NON-SHRINK GROUT

A. Upcon High Flow, The Upco Company, Cleveland, Ohio; Masterflow 713, The Master Builder Company, Cleveland, Ohio; Crystex L & M Construction Chemicals, Inc., Omaha, Nebraska.

2.6 PIPE SIGNAGE

A. Brady, B-946, custom legend, self-sticking markers and arrows or equal.

PART 3 - EXECUTION

3.1 PIPE INSTALLATION

A. Excavation and Backfill

1. Excavation for all pool systems and related piping.

a. Comply with Division 31.

2. Special backfill and bedding materials.

a. Existing subsoil materials shall not be used for pipe bedding.
b. All pipe shall be bedded with a minimum of 6" of clear stone material and a minimum of 2'-0" clear stone material top cover. The balance may be existing site material, provided no organic material, clay or topsoil is used.

B. Piping Placement and Use

1. Base Bid shall be on pipe materials shown. See the PL Drawings and associated schedules for required pipe material types.
2. All material transitions shall be above-grade, flange to flange connections and include ribbed EPDM type rubber gaskets. Below-grade materials transitions will not be allowed.
3. Piping must be laid on a grade so it will drain completely by gravity. In all instances where gravity drainage is not provided, the contractor shall install drain valves so that all lines can be drained completely. Shop drawings will be required on any such installation.
4. No installation shall be made that will provide a cross connection or inter-connection between distribution supply for drinking purposes and the swimming pool that will permit a backflow of water into the potable water supply. Pipe openings shall be closed with caps or plugs during installation. Equipment and pool fittings shall be tightly covered and protected against dirt, water and chemical or mechanical injury. At the completion of work the fittings, materials and equipment shall be thoroughly clean and adjusted for proper operation.
5. All above grade outdoor piping shall be painted, in accordance with the manufacturer's recommendations, to protect against ultraviolet degradation.

C. PVC Pipe

1. Cut all pipe with mechanical cutter without damage to pipe.
2. Placing and laying: Inspect pipe for defects before installation. Clean the interior of pipe thoroughly of foreign matter and keep clean during laying operation. Pipe shall not be laid in water or when trench conditions are unstable. Water shall be kept out of the trench until the pipe is installed. When Work is not in progress, open ends of pipe and fittings shall be securely closed so that no trench water, earth or other substance will enter the pipes or fittings.
3. Threaded joints: After cutting and before threading, the pipe shall be reamed and shall have burrs removed. Screw joints shall be made with graphite or inert filler and oil or with an approved graphite compound applied to male threads only. Threads shall be full-cut and not more than 3 threads on the pipe remained exposed. Use Teflon II tape on the male threads of all threaded pipe joints. Caulking of threaded joints to stop or prevent leaks will not be permitted. Unions shall be provided where required for disconnection of exposed piping. Unions will be permitted only where access is provided.
4. All PVC pipe connections shall be flanged or solvent welded.

5. Solvent welded joints shall be made in accordance with the manufacturer's printed instructions and the following minimum standards:

    a. All fittings shall fit easily on the pipe before applying cement. The outer surface area of pipe and inner wall of fitting shall be dry and clean. Cleaner is to be applied to the outer surface of the pipe and to the inner surface of the fitting. Cement is to be applied to the outer surface of the pipe, or on the male section of fittings only. When the outside surface area of the pipe is satisfactorily covered with cement allow ten (10) seconds open time to lapse before inserting pipe end into fittings. After full insertion of pipe into fitting, turn fitting about the pipe end approximately 1/8 to 1/4 of a turn. Wipe off excess cement at the joint in a neat cove bead. Follow manufacturer's instructions on solvents. Remove all debris, including, containers, brushes, applicators and other items from premises, dispose of properly. Burying of debris on site is not permitted.
    b. In addition to the requirements outlined above, the solvent weld process for pipe sizes of 6” diameter and larger includes additional requirements outlined below. As pipe diameter increases, so does the difficulty in installing it. Follow all of the solvent weld manufacturer’s recommendations for larger diameter pipe.

        1) The installer shall use proper size applicators to ensure enough cement is applied to fill the larger gap that exists between the pipe and fittings.
        2) Use the applicable cement for the size of pipe and fittings being installed.
        3) End of pipe must be cut square and chamfered (beveled).
        4) Provide adequate crew size to properly handle and fit pipe installations.
        5) It is important in large diameter joining that the primer and cement be applied simultaneously to the pipe and fittings. Apply a second, full layer of cement to the pipe. Pipe must be bottomed into the fitting.
        6) Large diameter pipe and fittings require longer set and cure times. Prefabricate as many joints as possible. If pipe is to be buried, fabricate as many joints as possible above ground, after joints have cured, carefully lower into trench.

    c. All joints shall remain completely undisturbed for a minimum of 10 minutes from time of jointing the pipe and fitting. If necessary to apply pressure to a newly made joint, limit to 10% of rated pipe pressure, during the first 24 hours after the joint has been made.
    d. Make provisions for expansion and contraction by way of swing joints or snaking.
    e. Protect plastic pipe from exposure to aromatic hydrocarbons, halogenated hydrocarbons, and most of esters and keytones that attack the material. Protect all pipe from mechanical damage and long exposure to sunlight during storage.
    f. PVC welding is not allowed without prior approval of the Architect/Engineer.

D. Field Coordination

1. It is the Contractor's responsibility to provide piping by means that account for all necessary coordination, including, but not limited to: routing, water stops, oversize sleeves, pipe supports, valves and other attachments, over-excavations required for fusion machinery or other equipment, etc.

2. Provide pipe extensions and temporary caps necessary for pressure testing requirements.
3. Contractor is required to provide coordination and adequate protection as needed to all external services (i.e. ducts, pipes, cables) that run throughout the project site. Plumbing shall be located and placed to prevent damage during and after construction from traffic loads above.

E. Pipe Identification

1. Provide identification on all piping located in the manifold enclosure.
2. All piping description of line and arrows indicating direction of flow.
3. Mark at least once on each line and at 5 ft. intervals minimum. Consult Health Department Code for minimum marking requirements.
4. Color code per Health Department requirements. If code does not identify color coding requirements consult Architect/Engineer.

3.2 SLEEVES AND WALL PENETRATIONS

A. Patch exterior side of wall penetrations with non-shrink grout. Other methods of water tightness shall be pre-approved by the Architect/Engineer.

END OF SECTION 131120

SECTION 131123 - POOL PIPE SUPPORTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Pipe Hangers & Supports

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

1.3 SUBMITTALS

A. Refer to General Requirements and Division 01.

B. Product data including manufacturer’s specifications, installation instructions.

C. Shop Drawings showing type and locations

1.4 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

1.5 DELIVERY, STORAGE AND HANDLING

A. Refer to General Requirements and Division 01.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Hangers and Supports

1. General

    a. All hangers, pipe supports, threaded rod, hardware, etc. shall be zinc plated or galvanized steel.

2. Strut

a. Minimum height 1 5/8”, minimum width 1 5/8”, minimum thickness 12-gauge material.
b. Finish shall be hot-dip galvanized steel, ASTM A123; or type 304 stainless steel or better grade, ASTM A240.

3. Strut Clamps

a. Pipe sizes ½” thru 12”, two-piece clamps with clamping bolt and nut. Pipe sizes 14” and larger, provide “U” bolts, nuts and washers.
b. Finish shall be hot-dip galvanized steel, ASTM A123; or type 304 stainless steel or better grade, ASTM A240.

4. Strut Accessories

a. Flat plate fittings, corner braces, post bases, etc. Finish shall be hot-dip galvanized steel, ASTM A123; or type 304 stainless steel or better grade, ASTM A240.

5. Wedge Anchors

a. One-piece assembly, 3/8” minimum body diameter.
b. Grade 2, zinc plated with stainless steel clips; or type 304 stainless steel or better grade, ASTM A240.

6. Beam Clamps

a. Steel “C” clamp type with locknut.
b. Finish shall be electro-plated galvanized; or type 304 stainless steel or better grade, ASTM A240.

7. Support Components

a. All threaded rod, threaded rod couplings, nuts, washers, etc. Finish shall be electro-plated galvanized; or type 304 stainless steel or better grade, ASTM A240.

PART 3 - EXECUTION

3.1 GENERAL

A. All mechanical room piping must be properly supported using the schedule indicated on the drawings as a guideline for maximum allowable spacing between supports.

B. It shall be the contractor’s responsibility to properly support piping at all valves, pumps, equipment, overhead areas and changes in direction.

C. All piping must be supported laterally as well as vertically hung.

D. Ring, clevis, roller and J hook type hangers are not acceptable.

E. Comply with manufacturer’s written instructions

END OF SECTION 131123

SECTION 131124 - POOL VALVES

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Butterfly Valves

B. Ball Valves

C. Check Valves

D. Drainage Valves

E. Reducers

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

1.3 REFERENCES

A. The following latest edition reference specifications, guides and standards shall become part of this Specification as if herein written. If provisions conflict, the more stringent provisions shall apply.

1. ANSI – American National Standards Institute
2. ASTM – American Society of Testing Materials

1.4 SUBMITTALS

A. Refer to General Requirements and Division 01.

B. Submit Shop Drawings, clearly indicating make, model, location, type, size, pressure rating, and type of service.

C. Valve charts

1. Submit two copies of valve charts for each piping system, consisting of isometric Drawings, or piping layouts showing and identifying each valve and describing its function to the Architect/Engineer for approval.

2. Upon completion of the Work, one copy of each valve chart sealed to rigid backboard with clear lacquer, placed under glass and framed, shall be hung in a conspicuous location in the equipment room.

1.5 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

1.6 DELIVERY, STORAGE AND HANDLING

A. Refer to General Requirements and Division 01.

1.7 WARRANTIES

A. Standard Manufacturer's Warranty

PART 2 - PRODUCTS

2.1 GENERAL

A. Cast Iron valves 3" and larger shall have an epoxy coated body on all interior and exterior surfaces, ductile iron-nylon II coated disc, one piece 416 stainless steel shaft with Buna-N or EPDM seat minimum, 150 PSI rating, or cast aluminum ASTM S12A housing and fully coated with Rilsan on all interior and exterior surfaces. Internal components include EPDM resilient lining, Rilsan coated ductile iron disc and T304 stainless steel shaft. 150 psi rating.

B. Cast Aluminum valves 3" and larger shall have an ASTM S12A body and coated with Rilsan on all interior and exterior surfaces. Internal components include Buna-N or EPDM resilient lining and seat, Rilsan coated ductile iron disc and T304 stainless steel shaft. 150 psi rating.

C. Thermoplastic valves 3" and larger shall be constructed from PVC Type 1 Cell Classification 12454 or CPVC type 4 cell classification 23447. Thermoplastic valves shall include PVC disc with solid type 316L stainless steel shaft with Buna-N or EPDM seat pressure rated to 150 psi @ 73 degrees Fahrenheit.

2.2 BUTTERFLY VALVES

A. Butterfly valves 3" - 12" shall be wafer or lug bodies and shall be suitable for use between ANSI 125 and 150 lb. Flanges.

B. Bodies of the flangeless design shall be provided with at least two bolt guides to center the valve in the pipeline.

C. All valves shall be as manufactured by Bray Valve (713) 894-5454, Dominion or equal.

D. All bolts and nuts shall be corrosion resistant zinc plated steel with plated washers to be used when secured to PVC flanges.

2.3 BALL VALVES

A. PVC True Union Ball Valves, Ipex, Asahi, Spears or equal.

2.4 CHECK VALVES

A. ½” thru 2 ½” shall be PVC body, true union, ball type, seal material EPDM as manufactured by Ipex, Asahi Spears or equal as indicated on Contract Drawings.

B. 3” thru 12” shall be cast iron epoxy coated body, bronze split disc, stainless steel fitted and Buna N seal material. Check valve shall be the CVXX style as manufactured by the Metraflex Company, model 5050 manufactured by Cameron Valves & Measurement, Series 8800 by Val-Matic or approved equal.

2.5 DRAINAGE VALVES

A. Provide min. 3/4" True Union Ball valve on all piping at such a location to allow complete drainage of system.

2.6 REDUCERS

A. Use Eccentric reducers on pump suction lines only and concentric reducers on pump discharge lines only.

B. Stainless steel body and flanges, T304 materials, ANSI 125# rated flanges.

C. Use Neptune Benson, 15-CNS/15ECS series “or equal”.

D. Provide valves of same manufacturer throughout where possible and practical.

E. Provide valves with manufacturer's name and pressure rating clearly marked on outside of body.

2.7 VALVE LABELS

A. Provide and install 2” round, 1/16” thick, multi-layered valve tags with contrasting lettering with non-corrosive beaded tie on all valves. All labels shall be me labeled in accordance with the valve chart per Section 13 11 14.

PART 3 - EXECUTION

3.1 VALVE CONNECTIONS

A. Provide valves suitable for connection to adjoining piping.

B. Valve size shall be the same as the pipe size.

3.2 VALVE USE

A. Pipe sizes 3" - 14" – Butterfly

B. Miscellaneous valves 1/2" – 2-1/2" - PVC True Union Ball Valves

C. All chemical lines and equipment - PVC True Union Ball Valves

3.3 VALVE OPERATORS

A. All butterfly valves shall have gear operators and chain operators as required unless drawings indicate otherwise. Chain operators shall be required on all gear operators located 7’-0” or higher above finished floor

B. Provide extension lengths as necessary to operate submerged or below surface valves and the appropriate valve box access cover.

END OF SECTION 131124

SECTION 131147 - POOL PLAY EQUIPMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Pool Play Specialty Equipment

1. Interactive spray and play equipment manufactured for use in swimming pools and/or spray pads.
2. Above ground and flush mounted aquatic spray/play equipment.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

1.3 REFERENCES

A. Pool Play Equipment shall:

1. Be designed by the manufacturer to meet all federal, state, and local requirements.
2. Meet applicable requirements of Consumer Product Safety Commission, ASTM, UL, and other applicable standards.
3. Comply with ASTM F2461, Standard Practice for Manufacture, Construction, Operation, and Maintenance of Aquatic Play Equipment
4. Comply with ASTM F1487 Standard Consumer Safety Performance Specification for Playground Equipment for Public Use
5. Comply with 2010 ADA Standards for Accessible Design
6. ASTM A780, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.

1.4 DESCRIPTION OF WORK

A. Refer to General Requirements and Division 01 of the Specifications for additional requirements.

1.5 QUALITY ASSURANCE

A. Refer to General Requirements and Division 01 of the Specifications for additional requirements.

B. Manufacturer's Qualifications:

1. Manufacturer shall have a minimum of 10 years of experience in the design, engineering, manufacture, and fabrication of pool play equipment and components. The person(s) responsible for installation shall have supervised/installed a minimum of 5 (Five) installations of a similar nature and scope to the installation described herein.
2. Manufacturer shall provide independent and accredited certification that it applies a quality management system which meets the requirements of ISO 9001:2008 or ASTMF1193, manufacturing, sales, marketing and servicing of recreational aquatic products and accessories.
3. The person(s) responsible for installation shall be on-site performing such service.

C. Provide evidence of commitment of quality craftsmanship as demonstrated by the following:

1. Products shall be designed and produced at a facility owned and directly supervised by the supplier.
2. A full-time licensed engineer must be on staff.
3. A full-time quality control manager must be on staff.
4. Established customer service department and a ready supply of replacement parts.

1.6 SUBMITTALS

A. Refer to General Requirements and Division 01.

B. Shop drawings:

1. Promptly after award of the contract, the contractor shall submit complete shop drawings to include, but not be limited to:

    a. Location and sizes of pipe connections and spray fittings
    b. Equipment flowrates and pressure demands
    c. Required Safety equipment (landing pads, stanchions, etc.)
    d. Required conventional footings, thickened slabs, fasteners and/or anchors as engineered by the manufacturer.
    e. Materials of construction
    f. Color Renderings of Thematic Finishes and Structures
    g. Structure Elevations above Finished Grade and Required Clearances
    h. Area of pool or pad requiring flat concrete work
    i. Details of connections to sloping concrete work
    j. Comprehensive Color Selection Work Sheet and Color Samples
    k. Recommended safety signage

2. Submittals for above grade features shall be certified and sealed by a structural engineer, licensed in the project state.

C. Provide a printed, bound hard copy of the operation, maintenance and service instructions for the complete system including the following: operational functions as designed, scheduled maintenance, maintenance processes, start-up procedures, and winterization requirements.

1.7 SUBSTITUTIONS

A. Refer to General Requirements and Division 01.

B. Pool Play Equipment, other than the basis of design, must be pre-approved for equivalency by the Owner and Engineer prior to bidding. Vortex, Whitewater West Industries, Splashtacular, Waterplay, Raindrop and Proslide shall be permitted manufacturers for equivalent substitutions.

C. Above grade pool play equipment will be reviewed for thematic, aesthetic and play value equivalency.

1. Spray and play elements shall provide similar spray patterns and/or interactive play value to the basis of design product.
2. Substituted play equipment shall provide a cohesive theme to match the basis of design and complement the facility.
3. Because form, aesthetics and theme are subjective in nature, the Owner shall have the ultimate approval authority for equivalent above grade specialty equipment.

D. Submittal: Provide for review, a complete set of renderings and engineering shop drawings, photos of similar installations, hydraulic calculations, and specifications, prepared specifically for this project and submitted to the Engineer/Owner for review. Drawings shall include the located play structure with footings, pipe connections, safety zones and spray zones identified. Modifications required to electrical design, piping and surface drains design for use of the substituted products must be specifically identified as part of the submittal package. The proposed electrical panel modifications, hydraulic calculations, pipe size, pipe penetration layout, drain size and sump design shall be provided as part of the submittal.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Refer to General Requirements and Division 01.

B. Product Delivery, Storage and Handling

1. Pool play equipment must be properly wrapped and secured in place while in transit to the project site. Care shall be observed during offloading and handling to prevent excessive stress and abrasions.
2. Store pool play equipment in safe areas, out of the way of traffic and other construction activities, until the actual time of the installation. If required, provide safety barricades or other like precautions for the protection of public and adjacent property.
3. Unless otherwise required by the manufacturer, maintain safety wrapping through installation.
4. Loading and unloading equipment, as required, shall be coordinated and provided by Contractor.
5. Identifying and resolving shipping damage issues shall be the responsibility of the Contractor.

1.9 WARRANTIES

A. Provide the minimum warranties as follows:

1. All materials, components, and coatings to be warranted to be free from defects in workmanship or materials and free from defects arising from process of manufacture for a period of 1 year.
2. The warranty period shall start at the time of substantial completion.
3. All warranties are to be managed by the equipment manufacturer.

PART 2 - PRODUCTS

2.1 GENERAL

A. Provide the equipment scheduled on the drawings, and any necessary fittings, anchors, and connectors as required and not provided by the manufacturer. The equipment shall be the manufacturer and design/model number listed on the drawings or a pre-approved substitution. Although unit quantities are shown, it is the installing contractor's responsibility to verify actual quantities required.

B. Pool Play Equipment shall be suitable for installation in aquatic facilities and public play areas.

C. Pool Play equipment shall be provided with Grounding / Bonding lugs compliant with NEC requirements.

D. Safety and Craftsmanship

1. All exposed edges of pool play equipment shall be machined to a rounded edge.
2. All welds shall be grinded, polished, watertight, and factory pressure tested.
3. Nozzles and Spray heads shall be recessed, flat or rounded to provide no protrusion hazard.
4. All assembly and interactive pool play components shall be designed and built to ensure a completely safe play environment with no pinch, entrapment potential or protrusion hazard.
5. All accessible posts and support posts shall have material covering the anchoring assembly and hardware.
6. All products shall be designed in accordance with the latest ASTM and CPSC standards for aquatic play equipment.

E. Provide manufacturer's recommended safety signage and AHJ required signage, rated for outdoor use, except where noted otherwise.

2.2 ABOVE GRADE POOL PLAY EQUIMPENT (Other than Climbable Aquatic Structures)

A. Above grade pool play equipment shall be as shown and scheduled on the contract documents or substituted in accordance with 1.7.

B. Materials of Construction for Above Grade Specialty Equipment shall be:

1. Safety: Non-climbable, aquatic play features shall meet ADA compliance for handicap accessibility and meet or exceed current ASTM playground safety standards. Equipment must be designed and manufactured to prevent finger entrapment.
2. Steel Components: Factory Powder Coated, Type 304/304L Stainless Steel or hot-dipped galvanized for structural tubing and components. All curved support posts shall be smooth with no joints or ripples.
3. Fasteners: All fasteners and hardware shall be constructed of 304L/316L marine grade stainless steel. No unfinished plain steel hardware shall be allowed. Exposed and accessible hardware shall be tamper-resistant, requiring a special tool for removal.
4. Finish: Provide a factory installed finish that is UV, chemical resistant, damage resistant and suitable for public spaces.

    a. Powder coat paint finish coatings shall be heat-cured super-durable powder coating.
    b. Galvanized steel shall be hot-dipped galvanized, with catalyzed epoxy primer, painted with two coats of catalyzed polyurethane topcoat or an equivalent high performance tnemec epoxy paint system.

5. Spray Nozzles, Caps and Heads: Shall be manufactured from corrosion resistant solid Ultra-High Molecular Weight Polyethylene (UHMW) plastic, rigid UV treated polyurethane, Lead Free Brass or 304/304L Stainless Steel. Exposed hardware shall be tamper resistant. PVC, Nylon, and Delrin™ material shall not be utilized.
6. Rotational Joints: This joint shall provide smooth operation, be free of any pinch points and contain no flexible hoses.
7. Hoses: Flexible hose shall be constructed of high-grade PVC compound for flexibility with internal braided reinforcement. It shall be installed using stainless steel hose fittings and two (2) protective covers without sharp edges and pinch points. Hose shall be installed to prevent entanglement.
8. Interactive Valves: All Butterfly valves shall be stainless steel with EPDM seat. Valve handles shall be non-climbable and located to prevent impact. All ball valves shall be PVC. All rope pull operated valves shall be self-closing with stainless steel or bras bodies and/or operating parts. Valves and piping shall be capable of withstanding a 79 kg (175 lb.) live load.
9. Water guns/cannons: The water gun/cannon shall be mounted on a base that will allow the gun to be directed by the user. Water guns/Cannons shall have pivot controls, capable of limiting rotational range.

C. Manifolds:

1. Mounting and Connections: Provide a water distribution manifold consisting of a main pipe divided in multiple water outputs and valves to permit water flow adjustment for each output line. Manifold shall include all valves and winterization connections for a complete and operational system.
2. Location: The Water Distribution Manifold shall be located as shown on the drawings

2.3 FLUSH MOUNTED POOL PLAY EQUIPMENT

A. Flush mounted pool play equipment shall be as shown on the contract documents.

B. Materials of Construction for Flush Mounted Equipment shall be:

1. Safety: Installed flush with adjacent surfaces, except where noted on contract documents. Pool play features are to meet or exceed current ASTM playground safety standards, ADA Standard for handicap accessibility and be designed and manufactured to prevent finger and toe entrapment.
2. Nozzles: Provided with temper resistant brass, stainless-steel or equivalent material spray cap and winterizing cap.
3. Maintenance: All outdoor pool play features of flush mount design shall address winterization.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Product Installation

1. When applicable, templates shall be supplied to facilitate the installation of embedded anchoring equipment.
2. All posts shall have electrical grounding studs incorporated into their associated anchoring equipment. All play products shall be grounded by the installer per local codes.
3. Drawings and Instructions: Product drawings and installation manuals shall be supplied by the manufacturer for ease of installation.

B. Concrete Pedestal Finishes:

1. Contractor shall install pool finish materials on all submerged and freeboard level concrete pedestals. Match pool wall finishes detailed in the Pool Drawings and Finish Schedule.

C. Manufacturer’s Installation Instructions

1. All equipment of this section shall be installed in accordance with industry standards and comply with manufacturer’s installation instructions/recommendation. The contractor shall notify the engineer in writing of any discrepancies between the contract documents and the manufacturer’s instruction. This notification shall include a request for clarification prior to installation.

D. Install equipment true and level, with flush fitment to surfacing material.

E. Protect Equipment from damage during installation and up to substantial completion. Repair or replace damaged parts.

F. Touch up:

1. Touch up finish paint (if applicable) and touch up paint for cold galvanizing shall be provided by the manufacturer.
2. All repairs to galvanized surfaces shall be carried out in accordance with ASTM A780, Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.

G. Start up:

1. Follow manufacturer's instructions for start-up.
2. Prior to start-up Contractor shall confirm all piping is free of debris that can clog nozzles.
3. Contractor shall adjust the overall flow and/or distribution to the pool play equipment for balanced aesthetic and safe play.
4. Contractor shall verify proper operation of all interactive components.
5. Upon completion of construction, the contractor shall provide the owner /operator adequate training on the pool play equipment uses, operations and maintenance.

END OF SECTION 131147

SECTION 131162 - SPRAY PAD FLOOR FINISH – **ALTERNATE BID**

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Includes but is not limited to the complete installation of the spray pad soft floor finish material. Design shall be a 3 color scheme of greens and blues with a “lily pad on water theme.” Design and color selection shall be made by architect/owner.

B. Basis of design is Life Floor – Installation by Inside Edge Commercial Services, LLC or Life Floor Mfg.

1.2 RELATED DOCUMENTS

A. Drawings and Contracting Requirements, including General and Supplementary Conditions and Division 01 - General Requirements, apply to this Section.

B. Division 13 11 Pool Specifications apply to this section.

C. Division 13 11 18 Pool Concrete

1.3 REFERENCES

A. The following latest edition of reference specifications, guides and standards shall become part of the Specification as if herein written. If provisions conflict, the more stringent provisions shall apply.

1. ANSI – American National Standards Institute
2. NSF – National Sanitation Foundation Standard 50
3. MAHC – Model Aquatic Health Code
4. ASTM – G154 – UV Resistance

1.4 QUALITY ASSURANCE

A. The individual that is installing the Life Floor Product shall provide documentation of a minimum of five (5) successful installations of similar scope and complexity with current contact information and phone number.

B. The installer shall be an employee of Inside Edge or Life Floor with more than 2 years of experience installing Life Floor on an Outdoor Spray Pad application.

1.5 SUBMITTALS

A. Refer to General Requirements and Division 01.

B. Submit product literature and sample colors for Life Floor Material Product data including manufacturer's specifications, installation instructions.

C. Submit Shop Drawings clearly indicating the lily pad design intent for the spray pad and the color options.

1.6 SUBSTITUTIONS

A. Refer to General Requirements and Division 01

B. Substitutions must mee all requirements noted in the specification and must receive Owner Approval prior to bidding.

1.7 DELIVERY, STORAGE AND HANDLING

A. If material is stored, it must be stored in a cool, dry area, protected from the elements.

1.8 WARRANTIES

A. The surface is required to be cleaned with products approved or provided by Life Floor Manufacturer

B. Provide Manufacturer's Product Warranty on the Life Floor Product. The Life Floor manufacturer shall acknowledge that the Spray Pad Surface shall guarantee that Life Floor Material for five (5) years from date of delivery.

C. Provide install by "Preferred installer" Warranty on the Life Floor Install. The "Preferred Installer" shall be Inside Edge Commercial Interior Services, LLC or Life Floor Manufacturer. The surface installer shall acknowledge that the spray pad surface conforms with manufacturer requirements prior to installation.

D. Life Floor and Inside Edge are "Preferred Installers" and shall provide full written warranty, including limitations to warranty and directions for making a warranty claim.

PART 2 - PRODUCTS

2.1 ACCEPTABLE PRODUCTS AND MANUFACTURERS

A. Installation shall be Life Floor 3/8" thick floor tiles. Specific colors and design patterns must be provided to the Architect based on Life Floor basic 3 color pattern options.

B. Basis of design is Life Floor – Installed by Inside Edge Commercial Services LLC or Life Floor Mfg.

C. Engineer Approved Equal.

2.2 MATERIALS

A. Must be NSF/ANSI 50 Certified

B. Density Thickness shall be 3/8”

C. Design Pattern - Specific colors and design patterns must be provided to the Architect based on design submittals.

D. Slip Resistance

E. Material must be independently tested via the British Pendulum Method (BPN) and must achieve a minimum 40 BPN

F. Impact Absorption

G. Material must have a Head Injury Criterion (HIC) value of 750 or below. With a .20 Meter fall height.

H. Cleanability

1. Material must be certified to a 99.9% reduction of organisms after being sanitized using the “dirty slurry’ testing for two major bacterial groups found in aquatic environments.

2.3 INSPECTION/MEETINGS AND PREPARATION

A. Schedule a Life Floor pre-installation conference before applying the floor finish

1. Attendees: Manufacture’s representative, Spray Pad Finish Installer, Contractor and its superintendent, Architect and other concerned parties shall attend the conference. All participants at the conference shall be familiar with the project and authorized to conclude matters relating to the work.
2. Agenda: Review the manufacturer’s application instructions and discuss items of significance that could affect the progress and installation, including but not limited to the following:

a. Construction/Installation Schedule
b. Critical Work Sequencing
c. Accessibility
d. Designation of responsible personnel qualified to perform the work.
e. Concrete surface preparation
f. Application of adhesive materials and time sensitive issues related to application.
g. Life Floor application and surface preparation.

h. Discuss requirements for post-installation to protect surface from damage prior to facility hand off to owner.
i. Verify and discuss proposed work force is adequate to complete the installation as recommended by the manufacturer and on schedule.

3. Record significant discussions and agreements and/or disagreements of the conference, and the approved schedule. Promptly publish and distribute meeting minutes highlighting all issues or discrepancies to the Architect/Engineer prior to installing the Life Floor product.

PART 3 - EXECUTION

3.1 PREPARATION

A. All Life Floor installation must strictly follow manufacture installation guidelines, references and recommendations.

B. Environmental conditions must comply with manufacturer's requirements

C. The Life Floor installer shall coordinate with the spray pad concrete contractor, specific concrete finish requirements for the pool finish application.

D. Concrete surface shall be left ¼' below all adjoining hard surface/objects that the Life Floor material will transition to. This includes but is not limited to ground spray features and covers, drains and surrounding deck. The installation will result in the Life Floor material being left 1/8" higher than the hard surface/object that it interacts with.

E. It is the "Preferred Installers" responsibility to ensure that the concrete substrate is adequate for proper installation of the Life Floor material in accordance with the manufacturer's requirements.

F. Prepare all spray pad surfaces to receive the Life Floor materials per the manufacturer's requirements.

3.2 APPLICATION

A. All Life Floor installation must strictly follow manufacture installation guidelines, references and recommendations.

B. Apply the Life Floor finish so it is 1/8" high than adjacent ground spray features and covers, drains and surrounding deck etc.

C. Spray Pad Floor must be installed so it is a minimum 99.6% impervious – sealing all joints to not allow water seepage between floor material joints.

D. The contractor is responsible of all cleaning (using Life Floor Mfg required cleaner), chemical monitoring and other requirements set forth bey the manufacture installation and curing instructions. This shall not be the responsibility of the owner.

E. The installing contractor shall guarantee the finish to be free of loose edges that may cause deterioration of the flooring material.

F. ensure that the concrete substrate is adequate for proper installation of the Life Floor material in accordance with the manufacturer's requirements.

G. Prepare all spray pad surfaces to receive the Life Floor materials per the manufacturer's requirements.

END OF SECTION 131162

SECTION 221313 - FACILITY SANITARY SEWERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. PVC pipe and fittings.
   2. Cleanouts.

1.3 ACTION SUBMITTALS

A. Product Data: For the following:

   1. Pipe and fittings.
   2. Backwater valves.
   3. Cleanouts.

B. Shop Drawings: For manholes. Include plans, elevations, sections, details, and frames and covers.

1.4 INFORMATIONAL SUBMITTALS

A. Coordination Drawings:

   1. Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from sewer system piping. Indicate interface and spatial relationship between manholes, piping, and proximate structures.
   2. Show system piping in profile. Draw profiles to horizontal scale of not less than 1 inch equals 50 feet and to vertical scale of not less than 1 inch equals 5 feet. Indicate manholes and piping. Show types, sizes, materials, and elevations of other utilities crossing system piping.

B. Product Certificates: For each type of pipe and fitting.

C. Field quality-control reports.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Do not store plastic manholes, pipe, and fittings in direct sunlight.

B. Protect pipe, pipe fittings, and seals from dirt and damage.

C. Handle manholes according to manufacturer's written rigging instructions.

1.6 FIELD CONDITIONS

A. Interruption of Existing Sanitary Sewerage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:

1. Notify Owner no fewer than two days in advance of proposed interruption of service.
2. Do not proceed with interruption of service without Owner's written permission.

PART 2 - PRODUCTS

2.1 PVC PIPE AND FITTINGS

A. PVC Water-Service Piping:

1. Pipe: ASTM D1785, Schedule 40 PVC, with plain ends for solvent-cemented joints.
2. Fittings: ASTM D2466, Schedule 40 and ASTM D2467, Schedule 80 PVC, socket type.

2.2 BACKWATER VALVES

A. PVC Backwater Valves:

1. Description: Horizontal type; with PVC body, PVC removable cover, and PVC swing check valve.

2.3 CLEANOUTS

A. PVC Cleanouts:

1. Description: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping.
2. Resilient Pipe Connectors: ASTM C923, cast or fitted into manhole walls, for each pipe connection.

3. Steps: Individual FRP steps or FRP ladder, wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 60 inches.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavating, trenching, and backfilling are specified in Section 312000 "Earth Moving."

3.2 PIPING INSTALLATION

A. General Locations and Arrangements: Drawing plans and details to indicate general location and arrangement of underground sanitary sewer piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.

B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements.

C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.

D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.

E. When installing pipe under streets or other obstructions that cannot be disturbed, use pipe-jacking process of microtunneling.

F. Install force-main, pressure piping according to the following:

1. Install piping with restrained joints at tee fittings and at horizontal and vertical changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place-concrete supports or anchors.
2. Install piping with 3’ minimum cover.
3. Install PVC pressure piping according to AWWA M23 or to ASTM D2774 and ASTM F1668.
4. Install PVC water-service piping according to ASTM D2774 and ASTM F1668.

G. Clear interior of piping and manholes of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed. Place plug in end of incomplete piping at end of day and when work stops.

3.3 PIPE JOINT CONSTRUCTION

A. Join force-main, pressure piping according to the following:

1. Join ductile-iron pressure piping according to AWWA C600 or AWWA M41 for push-on joints.
2. Join ductile-iron special fittings according to AWWA C600 or AWWA M41 for push-on joints.
3. Join PVC pressure piping according to AWWA M23 for gasketed joints.
4. Join PVC water-service piping according to ASTM D2855.
5. Join dissimilar pipe materials with pressure-type couplings.

B. Pipe couplings, expansion joints, and deflection fittings with pressure ratings at least equal to piping rating may be used in applications below unless otherwise indicated.

1. Use pressure pipe couplings for force-main joints.

3.4 BACKWATER VALVE INSTALLATION

A. Install horizontal-type backwater valves in piping manholes or pits.

B. Install combination horizontal and manual gate-type valves in piping and in manholes.

C. Install terminal-type backwater valves on end of piping and in manholes. Secure units to sidewalls.

3.5 CLEANOUT INSTALLATION

A. Install cleanouts and riser extensions from sewer pipes to cleanouts at grade. Use cast-iron soil pipe fittings in sewer pipes at branches for cleanouts, and use cast-iron soil pipe for riser extensions to cleanouts. Install piping so cleanouts open in direction of flow in sewer pipe.

1. Use Light-Duty, top-loading classification cleanouts in earth or unpaved foot-traffic areas.
2. Use Medium-Duty, top-loading classification cleanouts in paved foot-traffic areas.

B. Set cleanout frames and covers in earth in cast-in-place-concrete block, 18 by 18 by 12 inches deep. Set with tops 1 inch above surrounding grade.

C. Set cleanout frames and covers in concrete pavement and roads with tops flush with pavement surface.

3.6 CONNECTIONS

A. Connect force-main piping to building's existing sanitary force main manhole. Terminate piping where indicated.

B. Make connections to existing piping and underground manholes.

1. Use commercially manufactured wye fittings for piping branch connections. Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye fitting plus 6-inch overlap with not less than 6 inches of concrete with 28-day compressive strength of 3000 psi.
2. Make branch connections from side into existing piping, NPS 4 to NPS 20. Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye with not less than 6 inches of concrete with 28-day compressive strength of 3000 psi.
3. Make branch connections from side into existing piping, NPS 21 or larger, or to underground manholes by cutting opening into existing unit large enough to allow 3 inches of concrete to be packed around entering connection. Cut end of connection pipe passing through pipe or structure wall to conform to shape of, and be flush with, inside wall unless otherwise indicated. On outside of pipe or manhole wall, encase entering connection in 6 inches of concrete for minimum length of 12 inches to provide additional support of collar from connection to undisturbed ground.

    a. Use concrete that will attain a minimum 28-day compressive strength of 3000 psi unless otherwise indicated.
    b. Use epoxy-bonding compound as interface between new and existing concrete and piping materials.

4. Protect existing piping and manholes to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

C. Connect to grease oil and sand interceptors specified in Section 221323 "Sanitary Waste Interceptors."

3.7 CLOSING ABANDONED SANITARY SEWER SYSTEMS

A. Abandoned Piping: Close open ends of abandoned underground piping indicated to remain in place. Include closures strong enough to withstand hydrostatic and earth pressures that may result after ends of abandoned piping have been closed. Use either procedure below:

1. Close open ends of piping with at least 8” thick, brick masonry bulkheads.
2. Close open ends of piping with threaded metal caps, plastic plugs, or other acceptable methods suitable for size and type of material being closed. Do not use wood plugs.

B. Backfill to grade according to Section 312000 "Earth Moving."

3.8 IDENTIFICATION

A. Comply with requirements in Section 312000 "Earth Moving" for underground utility identification devices. Arrange for installation of green warning tapes directly over piping and at outside edges of underground manholes.

1. Use warning tape or detectable warning tape over ferrous piping.
2. Use detectable warning tape over nonferrous piping and over edges of underground manholes.

3.9 FIELD QUALITY CONTROL

A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.

1. Submit separate report for each system inspection.
2. Defects requiring correction include the following:

    a. Alignment: Less than full diameter of inside of pipe is visible between structures.
    b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
    c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
    d. Infiltration: Water leakage into piping.
    e. Exfiltration: Water leakage from or around piping.

3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
4. Reinspect and repeat procedure until results are satisfactory.

B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.

1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems according to requirements of authorities having jurisdiction.
3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
4. Submit separate report for each test.
5. Hydrostatic Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction and the following:

    a. Fill sewer piping with water. Test with pressure of at least 10-foot head of water, and maintain such pressure without leakage for at least 15 minutes.
    b. Close openings in system and fill with water.
    c. Purge air and refill with water.
    d. Disconnect water supply.
    e. Test and inspect joints for leaks.

6. Air Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction, UNI-B-6, and the following:

    a. Test plastic gravity sewer piping according to ASTM F1417.

b. Test concrete gravity sewer piping according to ASTM C1628.

7. Force Main: Perform hydrostatic test after thrust blocks, supports, and anchors have hardened. Test at pressure not less than 1-1/2 times the maximum system operating pressure, but not less than 150 psig.

a. Ductile-Iron Piping: Test according to AWWA C600, "Hydraulic Testing" Section.
b. PVC Piping: Test according to AWWA M23, "Testing and Maintenance" Chapter.

8. Manholes: Perform hydraulic test according to ASTM C969.

C. Leaks and loss in test pressure constitute defects that must be repaired.

D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.10 CLEANING

A. Clean dirt and superfluous material from interior of piping. Flush with potable water.

END OF SECTION 221313

SECTION 221423 - STORM DRAINAGE PIPING SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:
   1. Miscellaneous storm drainage piping specialties.
   2. Cleanouts.

1.2 ACTION SUBMITTALS

A. Product Data:
   1. Miscellaneous storm drainage piping specialties.
   2. Cleanouts.

1.3 QUALITY ASSURANCE

A. Provide drainage piping specialties are to bear label, stamp, or other markings of specified testing agency.

PART 2 - PRODUCTS

2.1 MISCELLANEOUS STORM DRAINAGE PIPING SPECIALTIES

A. Downspout Adapters:

   1. Description: Manufactured, gray-iron casting, for attaching to horizontal-outlet, parapet roof drain and to exterior sheet metal downspout.
   2. Size: Inlet size to match parapet drain outlet.

B. Downspout Boots:
   1. Description: Manufactured, ASTM A48/A48M, gray-iron casting, with strap or ears for attaching to building; NPS 4 outlet; and shop-applied bituminous coating.
   2. Size: Inlet size to match downspout and NPS 4 outlet.

PART 3 - EXECUTION

3.1 INSTALLATION

A. Install roof drains in accordance with roof membrane manufacturer's written installation instructions at low points of roof areas.

1. Install flashing collar or flange of roof drain to maintain integrity of waterproof membranes where penetrated.
2. Install expansion joints, if indicated, in roof drain outlets.
3. Position roof drains for easy access and maintenance.

B. Install downspout adapters on outlet of back-outlet parapet roof drains and connect to sheet metal downspouts.

C. Install downspout boots at grade with top 6 inches above grade. Secure to building wall.

D. For floor cleanouts for piping below floors, install cleanout deck plates with top flush with finished floor.

E. Install horizontal backwater valves in floor with cover flush with floor.

3.2 CONNECTIONS

A. Comply with requirements for piping specified in Section 221414 "Storm Drainage Piping." Drawings indicate general arrangement of piping, fittings, and specialties.

3.3 CLEANING

A. Clean piping specialties during installation and remove dirt and debris as work progresses.

3.4 PROTECTION

A. Protect piping specialties during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic and construction work.

B. Place plugs in ends of uncompleted piping at end of each day and when work stops.

END OF SECTION 221423

SECTION 311000 - SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Protecting existing vegetation to remain.
2. Removing existing vegetation.
3. Clearing and grubbing.
4. Stripping and stockpiling topsoil.
5. Stripping and stockpiling rock.
6. Removing above- and below-grade site improvements.
7. Temporary erosion and sedimentation control.
8. Disconnecting, capping or sealing, and abandoning site utilities in place.

B. Related Requirements:

1. Section 015000 "Temporary Facilities and Controls" for temporary erosion- and sedimentation-control measures.

1.3 DEFINITIONS

A. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.

B. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil," but in disturbed areas such as urban environments, the surface soil can be subsoil.

C. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow.

D. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil; the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects larger than 2 inches in diameter; and free of weeds, roots, toxic materials, or other nonsoil materials.

E. Plant-Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction and indicated on Drawings.

F. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction and indicated on Drawings.

G. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.5 MATERIAL OWNERSHIP

A. Except for materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site.

1.6 INFORMATIONAL SUBMITTALS

A. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.

1. Use sufficiently detailed photographs or video recordings.
2. Include plans and notations to indicate specific wounds and damage conditions of each tree or other plant designated to remain.

B. Topsoil stripping and stockpiling program.

C. Rock stockpiling program.

D. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.

1.7 QUALITY ASSURANCE

A. Topsoil Stripping and Stockpiling Program: Prepare a written program to systematically demonstrate the ability of personnel to properly follow procedures and handle materials and equipment during the Work. Include dimensioned diagrams for placement and protection of stockpiles.

1.8 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed trafficways if required by Owner or authorities having jurisdiction.

B. Improvements on Adjoining Property: Authority for performing site clearing indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.

1. Do not proceed with work on adjoining property until directed by Architect.

C. Utility Locator Service: Notify Call Before You Dig for area where Project is located before site clearing.

D. Do not commence site clearing operations until temporary erosion- and sedimentation-control and plant-protection measures are in place.

E. Tree- and Plant-Protection Zones: Protect according to requirements in Section 015639 "Temporary Tree and Plant Protection."

F. Soil Stripping, Handling, and Stockpiling: Perform only when the soil is dry or slightly moist.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Satisfactory Soil Material: Requirements for satisfactory soil material are specified in Section 312000 "Earth Moving."

1. Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect and maintain benchmarks and survey control points from disturbance during construction.

B. Verify that trees, shrubs, and other vegetation to remain or to be relocated have been flagged and that protection zones have been identified and enclosed according to requirements in Section 015639 "Temporary Tree and Plant Protection."

C. Protect existing site improvements to remain from damage during construction.

1. Restore damaged improvements to their original condition, as acceptable to Owner.

3.2 TEMPORARY EROSION AND SEDIMENTATION CONTROL

A. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.

B. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.

C. Inspect, maintain, and repair erosion- and sedimentation-control measures during construction until permanent vegetation has been established.

D. Remove erosion and sedimentation controls, and restore and stabilize areas disturbed during removal.

3.3 TREE AND PLANT PROTECTION

A. Protect trees and plants remaining on-site according to requirements in Section 015639 "Temporary Tree and Plant Protection."

B. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.4 EXISTING UTILITIES

A. Owner will arrange to shut off indicated utilities when requested by Contractor.

1. Verify that utilities have been disconnected and capped before proceeding with site clearing.

B. Locate, identify, disconnect, and seal or cap utilities indicated to be abandoned in place.

C. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or others, unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated:

1. Notify Owner not less than two days in advance of proposed utility interruptions.
2. Do not proceed with utility interruptions without Architect's written permission.

D. Excavate for and remove underground utilities indicated to be removed.

3.5 CLEARING AND GRUBBING

A. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.

1. Do not remove trees, shrubs, and other vegetation indicated to remain or to be relocated.
2. Grind down stumps and remove roots larger than 3 inches in diameter, obstructions, and debris to a depth of 18 inches below exposed subgrade.
3. Use only hand methods or air spade for grubbing within protection zones.
4. Chip removed tree branches and stockpile in areas approved by Architect. dispose of off-site.

B. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.

1. Place fill material in horizontal layers not exceeding a loose depth of 6 inches, and compact each layer to a density equal to adjacent original ground.

3.6 TOPSOIL STRIPPING

A. Remove sod and grass before stripping topsoil.

B. Strip topsoil to depth 6 inches in a manner to prevent intermingling with underlying subsoil or other waste materials.

1. Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other objects larger than 2 inches in diameter; trash, debris, weeds, roots, and other waste materials.

C. Stockpile topsoil away from edge of excavations without intermixing with subsoil or other materials. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.

1. Limit height of topsoil stockpiles to 72 inches.
2. Do not stockpile topsoil within protection zones.
3. Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be stockpiled or reused.

3.7 STOCKPILING ROCK

A. Remove from construction area naturally formed rocks that measure more than 1 foot across in least dimension. Do not include excavated or crushed rock.

1. Separate or wash off non-rock materials from rocks, including soil, clay lumps, gravel, and other objects larger than 2 inches in diameter; trash, debris, weeds, roots, and other waste materials.

B. Stockpile rock away from edge of excavations without intermixing with other materials. Cover to prevent windblown debris from accumulating among rocks.

1. Limit height of rock stockpiles to 36 inches
2. Do not stockpile rock within protection zones.
3. Dispose of surplus rock. Surplus rock is that which exceeds quantity indicated to be stockpiled or reused.

3.8 SITE IMPROVEMENTS

A. Remove existing above- and below-grade improvements as indicated and necessary to facilitate new construction.

B. Remove paving and aggregate base as indicated.

1. Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
2. Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.

3.9 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property.

B. Burning tree, shrub, and other vegetation waste is permitted according to burning requirements and permitting of authorities having jurisdiction. Control such burning to produce the least smoke or air pollutants and minimum annoyance to surrounding properties. Burning of other waste and debris is prohibited.

C. Separate recyclable materials produced during site clearing from other nonrecyclable materials. Store or stockpile without intermixing with other materials, and transport them to recycling facilities. Do not interfere with other Project work.

END OF SECTION 311000

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Excavating and filling for rough grading the Site.
2. Preparing subgrades for walks, pavements, turf and grasses, and plants.
3. Excavating and backfilling for buildings and structures.
4. Drainage course for concrete slabs on grade.
5. Subbase course for concrete walks, pavements.
6. Subsurface drainage backfill for walls and trenches.
7. Excavating and backfilling trenches for utilities and pits for buried utility structures.

B. Related Requirements:

1. Section 013200 "Construction Progress Documentation" and Section 013233 "Photographic Documentation" for recording pre-excavation and earth-moving progress.
2. Section 311000 "Site Clearing" for site stripping, grubbing, stripping and stockpiling topsoil, and removal of above- and below-grade improvements and utilities.
3. Section 315000 "Excavation Support and Protection" for shoring, bracing, and sheet piling of excavations.
4. Section 329200 "Turf and Grasses" for finish grading in turf and grass areas, including preparing and placing planting soil for turf areas.
5. Section 329300 "Plants" for finish grading in planting areas and tree and shrub pit excavation and planting.

1.2 UNIT PRICES

A. Work of this Section is affected by unit prices for earth moving specified in Section 012200 "Unit Prices."

B. Quantity allowances for earth moving are included in Section 012100 "Allowances."

C. Rock Measurement: Volume of rock actually removed, measured in original position, but not to exceed the following. Unit prices for rock excavation include replacement with approved materials.

1. 24 inches outside of concrete forms other than at footings.
2. 12 inches outside of concrete forms at footings.
3. 6 inches outside of minimum required dimensions of concrete cast against grade.
4. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.

5. 6 inches beneath bottom of concrete slabs-on-grade.
6. 6 inches beneath pipe in trenches, and the greater of 24 inches wider than pipe or 42 inches wide.

1.3 DEFINITIONS

A. Backfill: Soil material or controlled low-strength material used to fill an excavation.

1. Initial Backfill: Backfill placed beside and over pipe in a trench, including haunches to support sides of pipe.
2. Final Backfill: Backfill placed over initial backfill to fill a trench.

B. Base Course: Aggregate layer placed between the subbase course and hot-mix asphalt paving.

C. Bedding Course: Aggregate layer placed over the excavated subgrade in a trench before laying pipe.

D. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.

E. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.

F. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.

1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Architect. Authorized additional excavation and replacement material will be paid for according to Contract provisions for unit prices changes in the Work.
2. Bulk Excavation: Excavation more than 10 feet in width and more than 30 feet in length.
3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Architect. Unauthorized excavation, as well as remedial work directed by Architect, will be without additional compensation.

G. Fill: Soil materials used to raise existing grades.

H. Rock:

1. Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material that exceed 1 cu. yd. for bulk excavation or 3/4 cu. yd. for footing, trench, and pit excavation that cannot be removed by rock-excavating equipment equivalent to the following in size and performance ratings, without systematic drilling, ram hammering, ripping, or blasting, when permitted:
   a. Equipment for Bulk Excavation: Late-model, track-mounted loader; rated at not less than 230-hp flywheel power and developing a minimum of 47,992-lbf breakout force with a general-purpose bare bucket.

2. Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. or more in volume that exceed a standard penetration resistance of[100 blows/2 inches when tested by a geotechnical testing agency, according to ASTM D1586.

I. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other fabricated stationary features constructed above or below the ground surface.

J. Subbase Course: Aggregate layer placed between the subgrade and base course for hot-mix asphalt pavement, or aggregate layer placed between the subgrade and a cement concrete pavement or a cement concrete or hot-mix asphalt walk.

K. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.

L. Utilities: On-site underground pipes, conduits, ducts, and cables as well as underground services within buildings.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct pre-excavation conference at Project site.

1. Review methods and procedures related to earthmoving, including, but not limited to, the following:

a. Personnel and equipment needed to make progress and avoid delays.
b. Coordination of Work with utility locator service.
c. Coordination of Work and equipment movement with the locations of tree- and plant-protection zones.
d. Extent of trenching by hand or with air spade.
e. Field quality control.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of the following manufactured products required:

1. Geotextiles.
2. Controlled low-strength material, including design mixture.
3. Geofoam
4. Warning tapes.

B. Samples for Verification: For the following products, in sizes indicated below:

1. Geotextile: 12 by 12 inches.
2. Warning Tape: 12 inches long; of each color.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Material Test Reports: For each on-site and borrow soil material proposed for fill and backfill as follows:

1. Classification according to ASTM D2487.
2. Laboratory compaction curve according to ASTM D698.

1.7 QUALITY ASSURANCE

A. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E329 and ASTM D3740 for testing indicated.

1.8 FIELD CONDITIONS

A. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during earth-moving operations.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
2. Provide alternate routes around closed or obstructed traffic ways if required by Owner or authorities having jurisdiction.

B. Improvements on Adjoining Property: Authority for performing earth moving indicated on property adjoining Owner's property will be obtained by Owner before award of Contract.

1. Do not proceed with work on adjoining property until directed by Architect.

C. Utility Locator Service: Notify “Call Before You Dig" for area where Project is located before beginning earth-moving operations.

D. Do not commence earth-moving operations until temporary site fencing and erosion- and sedimentation-control measures specified in Section 015000 "Temporary Facilities and Controls" and Section 311000 "Site Clearing" are in place.

E. Do not commence earth-moving operations until plant-protection measures specified in Section 015639 "Temporary Tree and Plant Protection" are in place.

F. The following practices are prohibited within protection zones:

1. Storage of construction materials, debris, or excavated material.
2. Parking vehicles or equipment.
3. Foot traffic.
4. Erection of sheds or structures.
5. Impoundment of water.
6. Excavation or other digging unless otherwise indicated.
7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.

G. Do not direct vehicle or equipment exhaust towards protection zones.

H. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

A. General: Provide borrow soil materials when sufficient satisfactory soil materials are not available from excavations.

B. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM according to ASTM D2487, Groups A-1, A-2-4, A-2-5, and A-3 according to AASHTO M 145, or a combination of these groups; free of rock or gravel larger than 3 inches in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.

C. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, and PT according to ASTM D2487 Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7 according to AASHTO M 145, or a combination of these groups.

1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.

D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 95 percent passing a 1-1/2-inch sieve and not more than 8 percent passing a No. 200 sieve.

F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; with at least 90 percent passing a 1-1/2-inch sieve and not more than 12 percent passing a No. 200 sieve.

G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D2940/D2940M; except with 100 percent passing a 1-inch sieve and not more than 8 percent passing a No. 200) sieve.

H. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch sieve and zero to 5 percent passing a No. 8 sieve.

I. Filter Material: Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D448; coarse-aggregate grading Size 67; with 100 percent passing a 1-inch sieve and zero to 5 percent passing a No. 4 sieve.

J. Sand: ASTM C33/C33M; fine aggregate.

K. Impervious Fill: Clayey gravel and sand mixture capable of compacting to a dense state.

2.2 ACCESSORIES

A. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, 6 inches wide and 4 mils thick, continuously inscribed with a description of the utility; colored as follows:

1. Red: Electric.
2. Yellow: Gas, oil, steam, and dangerous materials.
3. Orange: Telephone and other communications.
4. Blue: Water systems.
5. Green: Sewer systems.

B. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of the utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored as follows:

1. Red: Electric.
2. Yellow: Gas, oil, steam, and dangerous materials.
3. Orange: Telephone and other communications.
4. Blue: Water systems.
5. Green: Sewer systems.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth-moving operations.

B. Protect and maintain erosion and sedimentation controls during earth-moving operations.

C. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

A. Provide dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of ground water and permit excavation and construction to proceed on dry, stable subgrades.

B. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area.

C. Protect subgrades from softening, undermining, washout, and damage by rain or water accumulation.

1. Reroute surface water runoff away from excavated areas. Do not allow water to accumulate in excavations. Do not use excavated trenches as temporary drainage ditches.

D. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water and sediment in a manner that avoids inconvenience to others.

3.3 EXPLOSIVES

A. Explosives:

1. Do not use explosives.

3.4 EXCAVATION, GENERAL

A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.

1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:

    a. 24 inches outside of concrete forms other than at footings.
    b. 12 inches outside of concrete forms at footings.
    c. 6 inches outside of minimum required dimensions of concrete cast against grade.
    d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
    e. 6 inches beneath bottom of concrete slabs-on-grade.
    f. 6 inches beneath pipe in trenches and the greater of 24 inches wider than pipe or 42 inches wide.

B. Classified Excavation: Excavate to subgrade elevations. Material to be excavated will be classified as earth and rock. Do not excavate rock until it has been classified and cross sectioned by Architect. The Contract Sum will be adjusted for rock excavation according to unit prices included in the Contract Documents. Changes in the Contract Time may be authorized for rock excavation.

1. Earth excavation includes excavating pavements and obstructions visible on surface; underground structures, utilities, and other items indicated to be removed; and soil, boulders, and other materials not classified as rock or unauthorized excavation.

2. Rock excavation includes removal and disposal of rock. Remove rock to lines and subgrade elevations indicated to permit installation of permanent construction without exceeding the following dimensions:

    a. 24 inches outside of concrete forms other than at footings.
    b. 12 inches outside of concrete forms at footings.
    c. 6 inches outside of minimum required dimensions of concrete cast against grade.
    d. Outside dimensions of concrete walls indicated to be cast against rock without forms or exterior waterproofing treatments.
    e. 6 inches beneath bottom of concrete slabs-on-grade.
    f. 6 inches beneath pipe in trenches and the greater of 24 inches wider than pipe or 42 inches wide.

3.5 EXCAVATION FOR STRUCTURES

A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch. If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.

1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.

B. Excavations at Edges of Tree- and Plant-Protection Zones:

1. Excavate by hand or with an air spade to indicated lines, cross sections, elevations, and subgrades. If excavating by hand, use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
2. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.6 EXCAVATION FOR WALKS AND PAVEMENTS

A. Excavate surfaces under walks and pavements to indicated lines, cross sections, elevations, and subgrades.

3.7 EXCAVATION FOR UTILITY TRENCHES

A. Excavate trenches to indicated gradients, lines, depths, and elevations.

1. Beyond building perimeter, excavate trenches to allow installation of top of pipe below frost line.

B. Excavate trenches to uniform widths to provide the following clearance on each side of pipe or conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated.

1. Clearance: 12 inches each side of pipe or conduit As indicated.

C. Trench Bottoms:

1. Excavate and shape trench bottoms to provide uniform bearing and support of pipes and conduit. Shape subgrade to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits. Remove projecting stones and sharp objects along trench subgrade.

a. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

2. Excavate trenches 4 inches deeper than bottom of pipe and conduit elevations to allow for bedding course. Hand-excavate deeper for bells of pipe.

a. Excavate trenches 6 inches deeper than elevation required in rock or other unyielding bearing material to allow for bedding course.

D. Trenches in Tree- and Plant-Protection Zones:

1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.
3. Cut and protect roots according to requirements in Section 015639 "Temporary Tree and Plant Protection."

3.8 SUBGRADE INSPECTION

A. Notify Architect when excavations have reached required subgrade.

B. If Architect determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.

C. Proof-roll subgrade below the pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.
2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Architect, and replace with compacted backfill or fill as directed.

D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

E. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, as directed by Architect, without additional compensation.

3.9 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi, may be used when approved by Architect.

1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Architect.

3.10 STORAGE OF SOIL MATERIALS

A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.11 BACKFILL

A. Place and compact backfill in excavations promptly, but not before completing the following:

1. Construction below finish grade including, where applicable, subdrainage, dampproofing, waterproofing, and perimeter insulation.
2. Surveying locations of underground utilities for Record Documents.
3. Testing and inspecting underground utilities.
4. Removing concrete formwork.
5. Removing trash and debris.
6. Removing temporary shoring, bracing, and sheeting.
7. Installing permanent or temporary horizontal bracing on horizontally supported walls.

B. Place backfill on subgrades free of mud, frost, snow, or ice.

3.12 UTILITY TRENCH BACKFILL

A. Place backfill on subgrades free of mud, frost, snow, or ice.

B. Place and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide continuous support for bells, joints, and barrels of pipes and for joints, fittings, and bodies of conduits.

C. Trenches under Roadways: Provide 4-inch- thick, concrete-base slab support for piping or conduit less than 30 inches below surface of roadways. After installing and testing, completely encase piping or conduit in a minimum of 4 inches of concrete before backfilling or placing roadway subbase course. Concrete is specified in Section 033000 "Cast-in-Place Concrete."

D. Backfill voids with satisfactory soil while removing shoring and bracing.

E. Initial Backfill:

1. Soil Backfill: Place and compact initial backfill of subbase material, satisfactory soil], free of particles larger than 1 inch in any dimension, to a height of 12 inches over the pipe or conduit.

   a. Carefully compact initial backfill under pipe haunches and compact evenly up on both sides and along the full length of piping or conduit to avoid damage or displacement of piping or conduit. Coordinate backfilling with utilities testing.

2. Controlled Low-Strength Material: Place initial backfill of controlled low-strength material to a height of 12 inches (300 mm) over the pipe or conduit. Coordinate backfilling with utilities testing.

F. Final Backfill:

1. Soil Backfill: Place and compact final backfill of satisfactory soil to final subgrade elevation.
2. Controlled Low-Strength Material: Place final backfill of controlled low-strength material to final subgrade elevation.

G. Warning Tape: Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches below subgrade under pavements and slabs.

3.13 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:

1. Under grass and planted areas, use satisfactory soil material.
2. Under walks and pavements, use satisfactory soil material.
3. Under steps and ramps, use engineered fill.
4. Under building slabs, use engineered fill.
5. Under footings and foundations, use engineered fill

C. Place soil fill on subgrades free of mud, frost, snow, or ice.

3.14 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.15 COMPACTION OF SOIL BACKFILLS AND FILLS

A. Place backfill and fill soil materials in layers not more than 6 inches in loose depth for material compacted by heavy compaction equipment and not more than 4 inches in loose depth for material compacted by hand-operated tampers.

B. Place backfill and fill soil materials evenly on all sides of structures to required elevations and uniformly along the full length of each structure.

C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D698:

1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches of existing subgrade and each layer of backfill or fill soil material at 95 percent.
2. Under walkways, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 95 percent.
3. Under turf or unpaved areas, scarify and recompact top 6 inches below subgrade and compact each layer of backfill or fill soil material at 85 percent.
4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

3.16 GRADING

A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.

1. Provide a smooth transition between adjacent existing grades and new grades.
2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.

B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to elevations required to achieve indicated finish elevations, within the following subgrade tolerances:

1. Turf or Unpaved Areas: Plus or minus 1 inch.
2. Walks: Plus or minus 1 inch.
3. Pavements: Plus or minus 1/2 inch.

C. Grading inside Building Lines: Finish subgrade to a tolerance of 1/2 inch when tested with a 10-foot straightedge.

3.17 SUBSURFACE DRAINAGE

A. Subsurface Drain: Place subsurface drainage geotextile around perimeter of subdrainage trench. Place a 6-inch course of filter material on subsurface drainage geotextile to support subdrainage pipe. Encase subdrainage pipe in a minimum of 12 inches of filter material, placed in compacted layers 6 inches thick, and wrap in subsurface drainage geotextile, overlapping sides and ends at least 6 inches.

B. Drainage Backfill: Place and compact filter material over subsurface drain, in width indicated, to within 12 inches of final subgrade, in compacted layers 6 inches thick. Overlay drainage backfill with one layer of subsurface drainage geotextile, overlapping sides and ends at least 6 inches.
1. Place and compact impervious fill over drainage backfill in 6-inch- thick compacted layers to final subgrade.

3.18 SUBBASE AND BASE COURSES UNDER PAVEMENTS AND WALKS

A. Place subbase course and base course on subgrades free of mud, frost, snow, or ice.

B. On prepared subgrade, place subbase course and base course under pavements and walks as follows:

1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
2. Place base course material over subbase course under hot-mix asphalt pavement.

C. Pavement Shoulders: Place shoulders along edges of subbase course[and base course] to prevent lateral movement. Construct shoulders, at least 12 inches (300 mm) wide, of satisfactory soil materials and compact simultaneously with each subbase[and base] layer to not less than [95] <Insert number> percent of maximum dry unit weight according to [ASTM D698] [ASTM D1557].

3.19 FIELD QUALITY CONTROL

A. Special Inspections: Owner will engage a qualified special inspector to perform the following special inspections:

1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
2. Determine that fill material classification and maximum lift thickness comply with requirements.
3. Determine, during placement and compaction, that in-place density of compacted fill complies with requirements.

B. Testing Agency: Owner will engage a qualified geotechnical engineering testing agency to perform tests and inspections.

C. Allow testing agency to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.

D. Testing agency will test compaction of soils in place according to ASTM D1556, ASTM D2167, ASTM D2937, and ASTM D6938, as applicable. Tests will be performed at the following locations and frequencies:

1. Paved and Building Slab Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2000 sq. ft. or less of paved area or building slab but in no case fewer than three tests.
2. Foundation Wall Backfill: At each compacted backfill layer, at least one test for every 100 feet or less of wall length but no fewer than two tests.
3. Trench Backfill: At each compacted initial and final backfill layer, at least one test for every 150 feet or less of trench length but no fewer than two tests.

E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.20 PROTECTION

A. Protecting Graded Areas: Protect newly graded areas from traffic, freezing, and erosion. Keep free of trash and debris.

B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.

1. Scarify or remove and replace soil material to depth as directed by Architect; reshape and recompact.

C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.

1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.21 DISPOSAL OF SURPLUS AND WASTE MATERIALS

A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

END OF SECTION 312000

SECTION 312317 - TRENCHING

PART 1 GENERAL

1.1 GENERAL NOTES

A. Prior to beginning Work, Contractor to request a field inspection with the Owner and Engineer for inspection before project start and before project acceptance.

B. Trenches for underground piping, where necessary shall be excavated to the required depth and bell holes shall be provided where necessary to insure uniform bearing. Trench excavation lines shall provide sufficient clearance for proper execution of underground work.

C. Trenches shall be open cut from the surface. Irregularities at bottom of trench, or where excavation is below required depth shall be refilled to required grade with compacted soil, or flowable fill at direction of onsite geotechnical engineer.

D. The Contractor shall be held responsible for the sufficiency of sheeting and bracing and for all damages to property or injury to persons resulting from improper quality, strength, placing and maintenance of trench shoring, sheeting or bracing.

E. Existing utility lines to be retained that are shown on construction drawings or locations of which are made known to the Contractor prior to excavation operations, shall be protected from damage during excavation and backfilling, and if damaged shall be repaired by Contractor, at own expense.

F. Existing utility lines found during excavations that were not shown on construction drawings or made known to Contractor prior to excavation shall be protected and remain uninterrupted until approval by Owner or Engineer to proceed.

G. The Contractor shall be responsible for providing and maintaining a pedestrian and traffic control plan in accordance with Owner standards.

H. All underground utilities encountered during the projects construction shall be located by a Professional Land Surveyor licensed in North Carolina.

1.2 SUMMARY

A. Section Includes:

1. Excavating trenches for utilities.
2. Compacted fill from top of utility bedding to subgrade elevations.
3. Backfilling and compaction.

1.3 UNIT PRICE - MEASUREMENT AND PAYMENT

A. Trenching:

1. Basis of Measurement: By cubic foot.
2. Basis of Payment: Includes excavating to required elevations, protecting excavation, and stockpiling excavated materials removing excavated materials from site. Over Excavating: Payment is not made for over excavated work nor for replacement materials.

B. Subsoil Fill:

1. Basis of Measurement: By cubic foot.
2. Basis of Payment: Includes furnishing fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.

C. Structural Fill:

1. Basis of Measurement: By cubic foot yard.
2. Basis of Payment: Includes furnishing fill material, stockpiling, shaping substrate surface, placing where required, and compacting.

D. Granular Fill:

1. Basis of Measurement: By cubic foot.
2. Basis of Payment: Includes furnishing fill material, stockpiling, scarifying substrate surface, placing where required, and compacting.

E. Concrete Fill:

1. Basis of Measurement: By cubic foot.
2. Basis of Payment: Includes furnishing materials, forming, mixing and placing where required, and curing.

1.4 REFERENCES

A. American Association of State Highway and Transportation Officials:

1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.

B. ASTM International:

1. ASTM D698 - Standard Test Method for Laboratory Compaction Characteristics of Soil Using Standard Effort (12,400 ft-lbf/ft3 (600 kN-m/m3)).
2. ASTM D1556 - Standard Test Method for Density and Unit Weight of Soil in Place by the Sand-Cone Method.

3. ASTM D1557 - Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft3 (2,700 kN-m/m3)).
4. ASTM D2167 - Standard Test Method for Density and Unit Weight of Soil in Place by the Rubber Balloon Method.
5. ASTM D2922 - Standard Test Method for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
6. ASTM D3017 - Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.5 DEFINITIONS

A. Utility: Any buried pipe, duct, conduit, or cable.

1.6 SUBMITTALS

A. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.

B. Product Data: Submit data for geotextile fabric indicating fabric and construction.

C. Materials Source: Submit name of imported fill materials suppliers.

1.7 QUALITY ASSURANCE

A. Perform Work in accordance with Municipality of Huntersville.

B. Prepare excavation protection plan under direct supervision of professional engineer experienced in design of this Work and licensed in State of North Carolina.

C. Maintain one copy of each document on site.

1.8 QUALIFICATIONS

A. Prepare excavation protection plan under direct supervision of Professional Engineer experienced in design of this Work and licensed at Project location. in State of North Carolina.

1.9 FIELD MEASUREMENTS

A. Verify field measurements prior to fabrication.

1.10 COORDINATION

A. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 PRODUCTS

2.1 FILL MATERIALS

A. Subsoil Fill: Type as specified in Standard Specifications

B. Structural Fill: Type as specified in Standard Specifications

C. Granular Fill: Type as specified in Standard Specifications

D. Concrete: Lean concrete

2.2 ACCESSORIES

A. Geotextile Fabric: Non-biodegradable, non-woven. Use NCDOT standard for fabric application and type by use.

PART 3 EXECUTION

3.1 LINES AND GRADES

A. Lay pipes to lines and grades indicated on Drawings.

1. Owner reserves right to make changes in lines, grades, and depths of utilities when changes are required for Project conditions.

B. Use laser-beam instrument with qualified operator to establish lines and grades.

3.2 PREPARATION

A. Call Local Utility Line Information service at 1-800-632-4949 not less than three working days before performing Work.

1. Request underground utilities to be located and marked within and surrounding construction areas.

B. Identify required lines, levels, contours, and datum locations.

C. Protect plant life, lawns, rock outcropping and other features remaining as portion of final landscaping.

D. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.

E. Maintain and protect above and below grade utilities indicated to remain.

3.3 TRENCHING

A. Excavate subsoil required for utilities.

B. Remove lumped subsoil, boulders, and rock over 6 inches.

C. Perform excavation within 24 inches of existing utility service in accordance with utility's requirements

D. Do not advance open trench more than 200 ahead of installed pipe.

E. Cut trenches to width indicated on Drawings. sufficiently wide to enable installation and allow inspection. Remove water or materials that interfere with Work.

F. Excavate bottom of trenches maximum 2 feet wider than outside diameter of pipe.

G. Excavate trenches to depth indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and utilities.

H. Do not interfere with 45 degree bearing splay of foundations.

I. When Project conditions permit, slope side walls of excavation starting 2 feet above top of pipe. When side walls can not be sloped, provide sheeting and shoring to protect excavation as specified in this section.

J. When subsurface materials at bottom of trench are loose or soft, excavate to greater depth as directed by Engineer until suitable material is encountered. notify Engineer, and request instructions.

K. Cut out soft areas of subgrade not capable of compaction in place. Backfill with Fill Type and compact to density equal to or greater than requirements for subsequent backfill material.

L. Trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.

M. Correct areas over excavated areas with compacted backfill as specified for authorized excavation or replace with fill concrete as directed by Engineer.

N. Remove excess subsoil not intended for reuse, from site.

3.4 SHEETING AND SHORING

A. Sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.

B. Support trenches excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation or at direction of onsite geotechnical engineer.

C. Design sheeting and shoring to be removed at completion of excavation Work.

D. Repair damage caused by failure of sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.

E. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing.

3.5 BACKFILLING

A. Backfill trenches to contours and elevations with unfrozen fill materials.

B. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen, or spongy subgrade surfaces.

C. Place fill material in continuous layers and compact to 95 percent of the material's standard Proctor maximum dry density ASTM D698), except in the top 12 inches where this shall be increased to 98 percent.

D. Protect open trench to prevent danger to the public

3.6 FIELD QUALITY CONTROL

A. Perform laboratory material tests in accordance with ASTM D1557.

B. Perform in place compaction tests in accordance with the following:

1. Density Tests: ASTM D1556.
2. Moisture Tests: ASTM D3017.

C. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

D. Test as required in Section 31200, "Field Quality Control".

3.7 PROTECTION OF FINISHED WORK

A. Section 01 70 00 - Execution and Closeout Requirements: Protecting finished work.

B. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION 312317

SECTION 312319 - DEWATERING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Construction dewatering.

B. Related Requirements:

1. Section 013233 "Photographic Documentation" for recording preexisting conditions and dewatering system progress.
2. Section 015723 "Temporary Storm Water Pollution Control" for temporary storm water pollution controls mandated under the EPA's National Pollutant Discharge Elimination System.
3. Section 312000 "Earth Moving" for excavating, backfilling, site grading, and controlling surface-water runoff and ponding.

1.2 ALLOWANCES

A. See Section 012100 "Allowances" for description of allowances affecting items specified in this Section.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1. Verify availability of Installer's personnel, equipment, and facilities needed to make progress and avoid delays.
2. Review condition of site to be dewatered, including coordination with temporary erosion-control measures and temporary controls and protections.
3. Review geotechnical report.
4. Review proposed site clearing and excavations.
5. Review existing utilities and subsurface conditions.
6. Review observation and monitoring of dewatering system.

1.4 ACTION SUBMITTALS

A. Shop Drawings: For dewatering system, prepared by or under the supervision of a qualified professional engineer.

1. Include plans, elevations, sections, and details.
2. Show arrangement, locations, and details of wells and well points; locations of risers, headers, filters, pumps, power units, and discharge lines; and means of discharge, control of sediment, and disposal of water.
3. Include layouts of piezometers and flow-measuring devices for monitoring performance of dewatering system.
4. Include written plan for dewatering operations, including sequence of well and well-point placement coordinated with excavation shoring and bracings and control procedures to be adopted if dewatering problems arise.

B. Delegated Design Submittals: For dewatering system, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1.5 INFORMATIONAL SUBMITTALS

A. Field Quality-Control Submittals:

1. Field quality-control reports.

B. Qualification Statements: For Installer and land surveyor

C. Delegated design engineer qualifications.

D. Existing Conditions: Using photographs, show existing conditions of adjacent construction and site improvements that might be misconstrued as damage caused by dewatering operations. Submit before Work begins.

E. Record Drawings: Identify locations and depths of capped wells and well points and other abandoned-in-place dewatering equipment.

1.6 QUALITY ASSURANCE

A. Qualifications:

1. Installer: An experienced installer that has specialized in design of dewatering systems and dewatering work.
2. Delegated Design Engineer: A professional engineer who is legally qualified to practice in state where Project is located and who is experienced in providing engineering services of the type indicated.
3. Land Surveyor: A professional land surveyor who is legally qualified to practice in state where Project is located.

1.7 FIELD CONDITIONS

A. Project-Site Information: A geotechnical report has been prepared for this Project and is available for information only. The opinions expressed in this report are those of a geotechnical engineer and represent interpretations of subsoil conditions, tests, and results of analyses conducted by a geotechnical engineer. Owner is not responsible for interpretations or conclusions drawn from this data.

1. Make additional test borings and conduct other exploratory operations necessary for dewatering in accordance with the performance requirements.
2. The geotechnical report is included elsewhere in Project Manual.

B. Survey Work: Engage a qualified land surveyor or professional engineer to survey adjacent existing buildings, structures, and site improvements; establish exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Delegated Design: Engage a qualified professional engineer, as defined in Section 014000 "Quality Requirements," to design dewatering system.

B. Dewatering Performance: Design, furnish, install, test, operate, monitor, and maintain dewatering system of sufficient scope, size, and capacity to control hydrostatic pressures and to lower, control, remove, and dispose of groundwater and permit excavation and construction to proceed on dry, stable subgrades.

1. Design dewatering system, including comprehensive engineering analysis by a qualified professional engineer.
2. Continuously monitor and maintain dewatering operations to ensure erosion control, stability of excavations and constructed slopes, prevention of flooding in excavation, and prevention of damage to subgrades and permanent structures.
3. Prevent surface water from entering excavations by grading, dikes, or other means.
4. Accomplish dewatering without damaging existing buildings, structures, and site improvements adjacent to excavation.
5. Remove dewatering system when no longer required for construction.

C. Regulatory Requirements: Comply with governing EPA notification regulations before beginning dewatering. Comply with water- and debris-disposal regulations of authorities having jurisdiction.

PART 3 - EXECUTION

3.1 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by dewatering operations.

1. Prevent surface water and subsurface or groundwater from entering excavations, from ponding on prepared subgrades, and from flooding site or surrounding area.
2. Protect subgrades and foundation soils from softening and damage by rain or water accumulation.

B. Install dewatering system to ensure minimum interference with roads, streets, walks, and other adjacent occupied and used facilities.

1. Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

C. Provide temporary grading to facilitate dewatering and control of surface water.

D. Protect and maintain temporary erosion and sedimentation controls, which are specified in Section 311000 "Site Clearing," during dewatering operations.

3.2 INSTALLATION

A. Install dewatering system utilizing wells, well points, or similar methods complete with pump equipment, standby power and pumps, filter material gradation, valves, appurtenances, water disposal, and surface-water controls.

1. Space well points or wells at intervals required to provide sufficient dewatering.
2. Use filters or other means to prevent pumping of fine sands or silts from the subsurface.

B. Place dewatering system into operation to lower water to specified levels before excavating below groundwater level.

C. Provide sumps, sedimentation tanks, and other flow-control devices as required by authorities having jurisdiction.

D. Provide standby equipment on-site, installed and available for immediate operation, to maintain dewatering on continuous basis if any part of system becomes inadequate or fails.

3.3 OPERATION

A. Operate system continuously until drains, sewers, and structures have been constructed and fill materials have been placed or until dewatering is no longer required.

B. Operate system to lower and control groundwater to permit excavation, construction of structures, and placement of fill materials on dry subgrades. Drain water-bearing strata above and below bottom of foundations, drains, sewers, and other excavations.

1. Do not permit open-sump pumping that leads to loss of fines, soil piping, subgrade softening, and slope instability.
2. Reduce hydrostatic head in water-bearing strata below subgrade elevations of foundations, drains, sewers, and other excavations.

C. Dispose of water removed by dewatering in a manner that avoids endangering public health, property, and portions of work under construction or completed. Dispose of water and sediment in a manner that avoids inconvenience to others.

D. Remove dewatering system from Project site on completion of dewatering. Plug or fill well holes with sand or cut off and cap wells a minimum of 36 inches below overlying construction.

3.4 FIELD QUALITY CONTROL

A. Observation Wells: Provide observation wells or piezometers, take measurements, and maintain at least the minimum number indicated; additional observation wells may be required by authorities having jurisdiction.

1. Observe and record daily elevation of groundwater and piezometric water levels in observation wells.
2. Repair or replace, within 24 hours, observation wells that become inactive, damaged, or destroyed. In areas where observation wells are not functioning properly, suspend construction activities until reliable observations can be made. Add or remove water from observation-well risers to demonstrate that observation wells are functioning properly.
3. Fill observation wells, remove piezometers, and fill holes when dewatering is completed.

B. Survey-Work Benchmarks: Resurvey benchmarks [regularly] [monthly] <Insert time period> during dewatering and maintain an accurate log of surveyed elevations for comparison with original elevations. Promptly notify Architect if changes in elevations occur or if cracks, sags, or other damage is evident in adjacent construction.

C. Provide continual observation to ensure that subsurface soils are not being removed by the dewatering operation.

D. Prepare reports of observations.

3.5 PROTECTION

A. Protect and maintain dewatering system during dewatering operations.

B. Promptly repair damages to adjacent facilities caused by dewatering.

END OF SECTION 312319

SECTION 312500 - EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 SUMMARY

A. This section covers work necessary for stabilization of soil to prevent erosion during and after construction and land disturbance activities. The work shall include furnishing all labor, materials, tools, and equipment to perform all work and services necessary for or incidental to the furnishing and installation, complete, of all operations in connection with erosion control as shown on drawings and as specified, in accordance with provisions of the Contract Documents, and completely coordinated with work of all other trades. The Contractor shall insure that all sedimentation features are in place prior to construction as necessary. Contractor shall remove the features as ground cover is established with approval of the Engineer and/or controlling authorities.

B. The minimum areas requiring soil erosion and sediment control measures are indicated on the Drawings. The right is reserved to modify the use, location, and quantities of soil erosion and sedimentation control measures based on activities of the Contractor and as the Engineer considers to be the best interest of the Owner.

C. Any governmental agency standard as noted below should be referenced as the latest, most recent, or current version of the referenced standard.

D. The Contractor shall implement the approved Erosion and Sediment Control plan and follow all state requirements regarding sedimentation and erosion control. Construction methods shall minimize sedimentation and erosion.

E. See additional information noted on the Drawings.

1.2 DEFINITIONS

A. NCDOT: North Carolina Department of Transportation

B. NCDEQ - DEMLR: North Carolina Department of Environmental Quality - Division of Energy, Mineral, and Land Resources.

C. Standard Erosion Control Specification: North Carolina Erosion and Sediment Control Planning and Design Manual, latest version.

1.3 GENERAL

A. All activities shall conform to the Standard Erosion Control Specification: North Carolina Erosion and Sediment Control Planning and Design Manual, latest version; the approved erosion control permit; the Specifications; and the Drawings. In the event of a conflict, the more stringent requirement shall apply.

B. The Sections of the Standard Erosion Control Specifications referenced include, but are not limited to:

Standard & Specification No	Title
507.1	TEMPORARY SILT FENCE
509.1	SILT FENCE OUTLET OPTION 2
510.1	BLOCK AND GRAVEL STONE INLET PROTECTION
514.1	STABILIZED CONSTRUCTION ENTRANCE
525.1	EMBANKMENT MATTING DETAIL

C. Soil erosion stabilization and sedimentation control shall consist of the following elements:

1. Maintenance of existing permanent or temporary storm drainage piping and channel systems, as necessary.
2. Construction of temporary erosion control facilities such as silt fences, inlet protection, etc.
3. Topsoil, Temporary Seeding, and Sod:
   a. Placement and maintenance of Temporary Seeding on all areas disturbed by construction, as necessary
   b. Placement of permanent topsoil, fertilizer, and sod, etc. in areas as specified on the Drawings.
4. It is the intent that all areas in which construction activities have disturbed existing vegetation shall be temporarily seeded, as required, top soiled, and permanently sodded.

D. The Contractor shall be responsible for phasing Work in areas allocated for his / her exclusive use during this Project, including any proposed stockpile areas, to restrict sediment transport. This will include installation of any temporary erosion control devices, ditches, or other facilities that may be required to comply with NCDEQ regulations and requirements.

E. The areas set aside for the Contractor's use during the Project may be temporarily developed to provide satisfactory working, staging, and administrative areas for his / her exclusive use. Preparation of these areas shall be in accordance with other requirements contained within these Specifications and shall be done in a manner to both control all sediment transport from the project area, and to permit the area to be returned to design grades and drainage patterns upon completion of the project.

F. Upon completion of the Project, all areas that have been disturbed by the Contractor shall be stabilized by top-soiling and permanent sodding seeding as shown on the Drawings.

G. All permanent stockpiles, if any, shall be seeded with soil stabilization seed and protected by construction of two (2) rows of silt fence.

H. Sediment transport and erosion from working stockpiles shall be controlled and restricted from moving beyond the immediate stockpile area by construction of temporary silt fence, as necessary. The Contractor shall keep these temporary facilities in operational condition by regular cleaning, re-grading, and maintenance.

I. The Contractor shall maintain all elements of the Soil Erosion Stabilization and Sedimentation Control systems to be constructed during this Project for the duration of his / her activities on this Project. Formal inspections made jointly by the Contractor and the Engineer shall be conducted every week to evaluate the Contractor's conformance to the requirements of both these Specifications and NCDEQ regulations.

J. Maintenance of the Soil Erosion Stabilization and Sedimentation Control systems constructed as part of this project shall be in accordance with the Drawings and NCDEQ Standard Erosion Control Specifications.

K. Contractor shall remove all erosion control measures from the site once permit requirements for vegetation establishment have been met. All areas disturbed during the removal of erosion control measures shall be raked, stabilized, and planted per the Drawings.

1.4 SUBMITTALS

A. Submittals shall be made in accordance with the Specifications, Section 013300, "Submittal Procedures."

B. In addition, the Contractor shall provide the following specific information:

1. If Contractor plans to vary erosion control phasing from the Drawings, then he / she shall submit a written plan, including definition and locations of phased erosion and sediment control for areas that will be disturbed during staged construction sequences. This information shall be provided to the Engineer and Owner, for review, before commencing any Work on the Project.

1.5 QUALITY ASSURANCE

A. Perform Work according to NCDEQ-DEMLR standards.

1.6 INSPECTIONS AND RECORD KEEPING

A. The Contractor is responsible for self-inspection of sedimentation and erosion control devices throughout the life of the Work, including preparation of self-inspection reports and NPDES Self-Monitoring Reports, to make sure the approved erosion and sedimentation control plan is being followed. To simplify documentation of Self-Inspection Reports and NPDES Self-Monitoring Reports, Contractor shall use a combined form available at http://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms

B.Contractor shall refer to Self-Inspection Reports Reporting Requirements on Drawings.

PART 2 - PRODUCTS

2.1 AGGREGATE

A. Temporary Construction Entrance

1. Furnish according to Standard Erosion Control Specification

B. Silt Fence Outlet

1. Furnish according to Standard Erosion Control Specification

2.2 GEOTEXTILES

A. Sediment Fence Geotextile

1. Furnish according to Standard Erosion Control Specification

B. Construction Entrance Geotextile

1. Furnish according to Standard Erosion Control Specification

C. Rolled Erosion Control Blanket

1. Rolled erosion control blankets shall have a minimum allowable shear stress of 1.5-lbs/ft2 and a minimum longevity of 12 months
2. Anchoring devices for rolled erosion control blankets shall be minimum 11 gauge staples, 1-in wide, and 6-in long or 12-in minimum length wooden stakes.

2.3 TEMPORARY SLOPE DRAINS

A. Furnish according to Standard Erosion Control Specification

2.5 SEDIMENT FENCE STEEL POSTS

A. Furnish according to Standard Erosion Control Specification

2.6 SEDIMENT FENCE FABRIC REINFORCEMENT

A. Furnish according to Standard Erosion Control Specification

2.7 COIR FIBER WATTLE

A. Coir Fiber Wattle shall meet the following specifications:

1. 100% Coir (Coconut) Fibers
2. Minimum Diameter 12 in.
3. Minimum Density 3.5 lb/ft3 +/- 10%
4. Net Material Coir Fiber
5. Net Openings 2 in. x 2 in.

6. Net Strength 90 lbs.
7. Minimum Weight 2.6 lbs./ft. +/- 10%

2.8 PLANTING MATERIALS

A. Temporary Seeding and Soil Supplements:

1. Furnish according to Standard Erosion Control Specification

B. Permanent Seeding (if used)

1. Furnish according to Standard Erosion Control Specification

C. Sod (if used)

1. Furnish according to Owner requirements matching the existing natural turf within the project area.

PART 3 - EXECUTION

3.1 GENERAL

A. The Contractor shall install erosion and sediment control measures and maintain in accordance with the Drawings, the sequence of construction shown on the Drawings are made a part of these Contract Documents.

B. The Contractor shall install any additional measures which the Engineer or Inspector may deem necessary to comply with the Standard Erosion Control Specification general criteria or NCDEQ Erosion Control requirements, at no additional cost to the Owner.

C. The Contractor shall provide and maintain Temporary Seeding at all times.

3.2 SILT FENCE

A. Silt fence to be installed as indicated on Drawings and per the Standard Erosion Control Specification. Silt fence to be placed prior to demolition, trench installations, or other clearing activities. Silt fence may be temporarily removed and replaced to facilitate construction.

B. Maintenance shall be performed per the Standard Erosion Control Specification.

C. After ground cover has been established and approved by Engineer and NCDEQ Erosion Control Inspector, the silt fence shall be removed and disposed of in an approved off-site location at the Contractor’s expense.

3.3 SILT FENCE OUTLETS

A. Install silt fence outlets per the details shown on Drawings and per the Standard Erosion Control Specification.

B. Maintenance shall be performed per the Standard Erosion Control Specification.

C. Contractor to verify silt fence outlet placement at low points as they exist or develop. Additional silt fence outlets may be required to prevent erosion during and after construction and land disturbance activities. If additional silt fence outlets are necessary, Contractor to add additional silt fence outlets per Engineer, NCDEQ Erosion Control Inspector, or Owner direction at no additional cost to the Owner.

3.4 TEMPORARY DIVERSION DITCHES AND SLOPE DRAINS

A. Install temporary diversion ditches as shown on the drawings, details and per the Standard Erosion Control Specification.

B. Where shown on the drawings, install rolled erosion control blankets and rock check dams per the details and the Standard Erosion Control Specification.

C. Install temporary slope drains per the drawings and the Standard Erosion Control Specification where runoff from diversion ditches enters the sediment basins, as shown on the drawings.

D. Maintenance shall be performed per the Standard Erosion Control Specification.

3.5 INLET PROTECTION

A. Install Inlet Protection per the detail shown on Drawings and per the Standard Erosion Control Specification.

B. Inlet protection shall be placed at the upstream side of any pipe or structure discharging outside of the disturbed limits. See Drawings for location.

3.6 CONSTRUCTION ENTRANCE

A. Install construction entrance per the detail shown on Drawings and per the Standard Erosion Control Specification.

B. Shall be maintained in a condition to prevent tracking or direct flow of mud onto adjacent roadways.

3.7 STOCKPILES

A. Install stockpiles per the detail shown on Drawings and per the Standard Erosion Control Specification.

B. Stockpile height shall not to exceed 15 feet and side slopes shall be 2 (H) to 1 (V) or flatter.

C. Stockpile shall have a minimum double row of silt fence as shown on Drawings.

3.8 GROUND STABILIZATION

A. Contractor shall provide ground stabilization per the Standard Erosion Control Specification and in accordance with the table below:

Site Area Description	Stabilization Time Frame	Stabilization Time Frame Exceptions
Perimeter Dikes, Swakes, Ditches, and Slope	7 Days	None
High Quality Water (HQW) Zones	7 Days	None
Slopes Steeper Than 3:1	7 Days	If Slopes are 10' or less in length and are not steeper than 2:1, 14 Days
Slopes 3:1or Flatter	14 Days	7-Days for slopes greater than 50-ft in length
All other areas with slopes flatter than 4:1	14 Days	None (except for perimeters and HQW zones)

3.9 TEMPORARY SEEDING

A. Temporary Seeding is to be placed and maintained over all disturbed areas prior to Permanent Sodding per the detail shown on Drawings and per the Standard Erosion Control Specification

B. Maintain Temporary Seeding until such time as areas are approved for permanent seeding. As a minimum, maintenance shall include the following:

1. Fix-up and reseeding of bare areas or re-disturbed areas.

2. Mowing for stands of grass or weeds exceeding 6 inches in height.

END OF SECTION 312500

SECTION 321313 - CONCRETE PAVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes Concrete Paving. Including the Following:

1. Walks.

B. Related Requirements:

1. Section 033000 "Cast-in-Place Concrete" for general building applications of concrete.
2. Section 321373 "Concrete Paving Joint Sealants" for joint sealants in expansion and contraction joints within concrete paving and in joints between concrete paving and asphalt paving or adjacent construction.

1.3 DEFINITIONS

A. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash, slag cement, and other pozzolans.

B. W/C Ratio: The ratio by weight of water to cementitious materials.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as part of the overall project pre-construction meeting.

1. Review methods and procedures related to concrete paving, including but not limited to, the following:

a. Concrete mixture design.
b. Quality control of concrete materials and concrete paving construction practices.

2. Require representatives of each entity directly concerned with concrete paving to attend, including the following:

    a. Contractor's superintendent.
    b. Independent testing agency responsible for concrete design mixtures.
    c. Concrete paving Subcontractor.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Design Mixtures: For each concrete paving mixture. Include alternate design mixtures when characteristics of materials, Project conditions, weather, test results, or other circumstances warrant adjustments.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For qualified testing agency.

B. Material Certificates: For the following, from manufacturer:

1. Cementitious materials.
2. Steel reinforcement and reinforcement accessories.
3. Admixtures.
4. Curing compounds.
5. Bonding agent or epoxy adhesive.
6. Joint fillers.

C. Material Test Reports: For each of the following:

1. Aggregates: Include service-record data indicating absence of deleterious expansion of concrete due to alkali-aggregate reactivity.

D. Field quality-control reports.

1.7 QUALITY ASSURANCE

A. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C94/C94M requirements for production facilities and equipment.

1. Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control Manual - Section 3, "Plant Certification Checklist").

B. Testing Agency Qualifications: Qualified according to ASTM C1077 and ASTM E329 for testing indicated.

1. Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI CP-1 or an equivalent certification program.

1.8 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified independent testing agency to perform preconstruction testing on concrete paving mixtures.

1.9 FIELD CONDITIONS

A. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities.

B. Cold-Weather Concrete Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following:

1. When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of placement.
2. Do not use frozen materials or materials containing ice or snow.
3. Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.

C. Hot-Weather Concrete Placement: Comply with ACI 301 and as follows when hot-weather conditions exist:

1. Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.
2. Cover steel reinforcement with water-soaked burlap, so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.
3. Fog-spray forms, steel reinforcement, and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water, soft spots, or dry areas.

PART 2 - PRODUCTS

2.1 CONCRETE, GENERAL

A. ACI Publications: Comply with ACI 301 unless otherwise indicated.

2.2 FORMS

A. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth, continuous, straight, and smooth exposed surfaces.

1. Use flexible or uniformly curved forms for curves with a radius of 100 feet or less. Do not use notched and bent forms.

B. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect concrete surfaces and that will not impair subsequent treatments of concrete surfaces.

2.3 STEEL REINFORCEMENT

A. Epoxy-Coated, Joint Dowel Bars: ASTM A775/A775M; with ASTM A615/A615M, Grade 60 plain-steel bars.

2.4 CONCRETE MATERIALS

A. Cementitious Materials: Use the following cementitious materials, of same type, brand, and source throughout Project:

1. Portland Cement: ASTM C150/C150M, gray portland cement Type I.
2. Fly Ash: ASTM C618, Class C.
3. Slag Cement: ASTM C989/C989M, Grade 100 or 120.
4. Blended Hydraulic Cement: ASTM C595/C595M, Type IS, portland blast-furnace slag cement.

B. Normal-Weight Aggregates: ASTM C33/C33M, Class 4S, uniformly graded. Provide aggregates from a single source with documented service-record data of at least 10 years' satisfactory service in similar paving applications and service conditions using similar aggregates and cementitious materials.

1. Maximum Coarse-Aggregate Size: 1-1/2 inches nominal.
2. Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement.

C. Air-Entraining Admixture: ASTM C260/C260M.

D. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more than 0.1 percent water-soluble chloride ions by mass of cementitious material.

1. Water-Reducing Admixture: ASTM C494/C494M, Type A.
2. Retarding Admixture: ASTM C494/C494M, Type B.
3. Water-Reducing and Retarding Admixture: ASTM C494/C494M, Type D.

E. Water: Potable and complying with ASTM C94/C94M.

2.5 CURING MATERIALS

A. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd.

B. Moisture-Retaining Cover: ASTM C171, polyethylene film or white burlap-polyethylene sheet.

C. Water: Potable.

D. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete.

2.6 RELATED MATERIALS

A. Joint Fillers: ASTM D1751, asphalt-saturated cellulosic fiber in preformed strips.

B. Bonding Agent: ASTM C1059/C1059M, Type II, non-redispersible, acrylic emulsion or styrene butadiene.

C. Epoxy-Bonding Adhesive: ASTM C881/C881M, two-component epoxy resin capable of humid curing and bonding to damp surfaces; of class suitable for application temperature, of grade complying with requirements, and of the following types:

1. Types I and II, non-load bearing, for bonding hardened or freshly mixed concrete to hardened concrete.

2.7 CONCRETE MIXTURES

A. Prepare design mixtures, proportioned according to ACI 301 for each type and strength of normal-weight concrete, and as determined by either laboratory trial mixtures or field experience.

1. Use a qualified independent testing agency for preparing and reporting proposed concrete design mixtures for the trial batch method.
2. When automatic machine placement is used, determine design mixtures and obtain laboratory test results that comply with or exceed requirements.

B. Cementitious Materials: Limit percentage, by weight, of cementitious materials other than portland cement in concrete as follows:

1. Fly Ash or Pozzolan: 25 percent.
2. Slag Cement: 50 percent.
3. Combined Fly Ash or Pozzolan, and Slag Cement: 50 percent, with fly ash or pozzolan not exceeding 25 percent.

C. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement having an air content as follows:

1. Air Content, 1-1/2-inch Nominal Maximum Aggregate Size: 5-1/2 percent plus or minus 1-1/2 percent.

D. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement.

E. Chemical Admixtures: Use admixtures according to manufacturer's written instructions.

1. Use water-reducing admixture in concrete as required for placement and workability.
2. Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse placement conditions.

F. Concrete Mixtures: Normal-weight concrete.

1. Compressive Strength (28 Days): 3600 psi.
2. Maximum W/C Ratio at Point of Placement: 0.50.
3. Slump Limit: 3 inches plus or minus 1 inch.

2.8 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M. Furnish batch certificates for each batch discharged and used in the Work.

1. When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes.

B. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C94/C94M. Mix concrete materials in appropriate drum-type batch machine mixer.

1. For concrete batches of 1 cu. yd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes after ingredients are in mixer, before any part of batch is released.
2. For concrete batches larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd.
3. Provide batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, mixture type, mixing time, quantity, and amount of water added.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine exposed subgrades and subbase surfaces for compliance with requirements for dimensional, grading, and elevation tolerances.

B. Proof-roll prepared subbase surface below concrete paving to identify soft pockets and areas of excess yielding.

1. Completely proof-roll subbase in one direction and repeat in perpendicular direction. Limit vehicle speed to 3 mph.
2. Proof-roll with a pneumatic-tired and loaded, 10-wheel, tandem-axle dump truck weighing not less than 15 tons.
3. Correct subbase with soft spots and areas of pumping or rutting exceeding depth of 1/2 inch according to requirements in Section 312000 "Earth Moving."

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Remove loose material from compacted subbase surface immediately before placing concrete.

3.3 EDGE FORMS AND SCREED CONSTRUCTION

A. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete placement.

B. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage.

3.4 INSTALLATION OF STEEL REINFORCEMENT

A. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement.

B. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials.

C. Arrange, space, and secure reinforcement in position during concrete placement. Maintain minimum cover to reinforcement.

3.5 JOINTS

A. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated.

1. When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated.

B. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving operations are stopped for more than one-half hour unless paving terminates at isolation joints.

1. Butt Joints: Use bonding agent at joint locations where fresh concrete is placed against hardened or partially hardened concrete surfaces.
2. Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Use a slip dowel sleeve system or lubricate one-half of dowel length to prevent concrete bonding to one side of joint.

C. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, structures, other fixed objects, and where indicated.

1. Locate expansion joints at intervals of 45 feet unless otherwise indicated.
2. Extend joint fillers full width and depth of joint.
3. Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated.
4. Place top of joint filler flush with finished concrete surface if joint sealant is not indicated.
5. Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections together.
6. During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint.

D. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows, to match jointing of existing adjacent concrete paving:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/8” radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.

E. Edging: After initial floating, tool edges of paving and joints in concrete with an edging tool to a 1/8-inch radius. Repeat tooling of edges after applying surface finishes. Eliminate grooving-tool marks on concrete surfaces.

3.6 CONCRETE PLACEMENT

A. Before placing concrete, inspect and complete formwork installation and items to be embedded or cast-in.

B. Remove snow, ice, or frost from subbase surface and steel reinforcement before placing concrete. Do not place concrete on frozen surfaces.

C. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment.

D. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.

E. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing.

F. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

G. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or tamping.

1. Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating dowel joint devices.

H. Screed paving surface with a straightedge and strike off.

I. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleedwater appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

J. Slip-Form Paving: Use design mixture for automatic machine placement. Produce paving to required thickness, lines, grades, finish, and jointing.

1. Compact subbase and prepare subgrade of sufficient width to prevent displacement of slip-form paving machine during operations.

3.7 FLOAT FINISHING

A. General: Do not add water to concrete surfaces during finishing operations.

B. Float Finish: Begin the second floating operation when bleedwater sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform granular texture.

1. Medium-to-Coarse-Textured Broom Finish: Provide a coarse finish by striating float-finished concrete surface 1/16 to 1/8 inch deep with a stiff-bristled broom, perpendicular to line of traffic.

3.8 CONCRETE PROTECTION AND CURING

A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

B. Comply with ACI 306.1 for cold-weather protection.

C. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing.

D. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

E. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound, or a combination of these as follows:

1. Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

    a. Water.
    b. Continuous water-fog spray.
    c. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inchlap over adjacent absorptive covers.

2. Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover, placed in widest practicable width, with sides and ends lapped at least 12 inches, and sealed by waterproof tape or adhesive. Immediately repair any holes or tears occurring during installation or curing period, using cover material and waterproof tape.
3. Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

3.9 PAVING TOLERANCES

A. Comply with tolerances in ACI 117 and as follows:

1. Elevation: 3/4 inch.
2. Thickness: Plus 3/8 inch, minus 1/4 inch.
3. Surface: Gap below 10-feet- long; unleveled straightedge not to exceed 1/2 inch.
4. Alignment of Tie-Bar End Relative to Line Perpendicular to Paving Edge: 1/2 inch per 12 inches of tie bar.
5. Lateral Alignment and Spacing of Dowels: 1 inch.
6. Vertical Alignment of Dowels: 1/4 inch.
7. Alignment of Dowel-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of dowel.
8. Joint Spacing: 3 inches.
9. Contraction Joint Depth: Plus 1/4 inch, no minus.
10. Joint Width: Plus 1/8 inch, no minus.

3.10 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Testing Services: Testing and inspecting of composite samples of fresh concrete obtained according to ASTM C172/C172M shall be performed according to the following requirements:

1. Testing Frequency: Obtain at least one composite sample for each 100 cu. yd. or fraction thereof of each concrete mixture placed each day.

    a. When frequency of testing will provide fewer than five compressive-strength tests for each concrete mixture, testing shall be conducted from at least five randomly selected batches or from each batch if fewer than five are used.

2. Slump: ASTM C143/C143M; one test at point of placement for each composite sample, but not less than one test for each day's pour of each concrete mixture. Perform additional tests when concrete consistency appears to change.
3. Air Content: ASTM C231/C231M, pressure method; one test for each composite sample, but not less than one test for each day's pour of each concrete mixture.
4. Concrete Temperature: ASTM C1064/C1064M; one test hourly when air temperature is 40 deg F and below and when it is 80 deg F and above, and one test for each composite sample.
5. Compression Test Specimens: ASTM C31/C31M; cast and laboratory cure one set of three standard cylinder specimens for each composite sample.
6. Compressive-Strength Tests: ASTM C39/C39M; test one specimen at seven days, three specimens at 28 days, and one cylinder at 56 days (if needed).

    a. A compressive-strength test shall be the average compressive strength from three specimens obtained from same composite sample and tested at 28 days.

C. Strength of each concrete mixture will be satisfactory if average of any three consecutive compressive-strength tests equals or exceeds specified compressive strength and no compressive-strength test value falls below specified compressive strength by more than 500 psi.

D. Test results shall be reported in writing to Designer, concrete manufacturer, and Contractor within 48 hours of testing. Reports of compressive-strength tests shall contain Project identification name and number, date of concrete placement, name of concrete testing and inspecting agency, location of concrete batch in Work, design compressive strength at 28 days, concrete mixture proportions and materials, compressive breaking strength, and type of break for both 7- and 28-day tests.

E. Nondestructive Testing: Impact hammer, sonoscope, or other nondestructive device may be permitted by Designer but will not be used as sole basis for approval or rejection of concrete.

F. Additional Tests: Testing and inspecting agency shall make additional tests of concrete when test results indicate that slump, air entrainment, compressive strengths, or other requirements have not been met, as directed by Designer.

G. Concrete paving will be considered defective if it does not pass tests and inspections.

H. Additional testing and inspecting, at Contractor's expense, will be performed to determine compliance of replaced or additional work with specified requirements.

I. Prepare test and inspection reports.

3.11 REPAIR AND PROTECTION

A. Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Designer.

B. Drill test cores, where directed by Designer, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive.

C. Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur.

D. Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.

END OF SECTION 321313

SECTION 321373 - CONCRETE PAVING JOINT SEALANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Cold-applied joint sealants.
2. Joint-sealant backer materials.
3. Primers.

B. Related Requirements:

1. Section 321313 "Concrete Paving" for constructing joints in concrete pavement.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as part of the overall project pre-construction meeting.

1.4 ACTION SUBMITTALS

A. Product Data:

1. Concrete pavement joint sealants.
2. Joint-sealant backer materials.

B. Samples for Initial Selection: Manufacturer's standard color samples, showing full range of available colors for each type of joint sealant.

C. Paving-Joint-Sealant Schedule: Include the following information:

1. Joint-sealant application, joint location, and designation.
2. Joint-sealant manufacturer and product name.
3. Joint-sealant formulation.
4. Joint-sealant color.

1.5 QUALITY ASSURANCE

A. Qualifications:

1. Installers: Entity that employs installers and supervisors who are trained and approved by manufacturer.

1.6 PRECONSTRUCTION TESTING

A. Preconstruction Testing: Performed by a qualified testing agency.

1.7 FIELD CONDITIONS

A. Do not proceed with installation of joint sealants under the following conditions:

1. When ambient and substrate temperature conditions are outside limits permitted by joint-sealant manufacturer or are below 40 deg F.
2. When joint substrates are wet.
3. Where joint widths are less than those allowed by joint-sealant manufacturer for applications indicated.
4. Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.

PART 2 - PRODUCTS

2.1 SOURCE LIMITATIONS

A. Obtain joint sealants from single manufacturer for each sealant type.

2.2 JOINT SEALANTS, GENERAL

A. Compatibility: Provide joint sealants, backer materials, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint-sealant manufacturer, based on testing and field experience.

2.3 COLD-APPLIED JOINT SEALANTS

A. Single-Component, Self-Leveling, Silicone Joint Sealant: ASTM D5893/D5893M, Type SL.

2.4 JOINT-SEALANT BACKER MATERIALS

A. Joint-Sealant Backer Materials: Nonstaining; compatible with joint substrates, sealants, primers, and other joint fillers; and approved for applications indicated by joint-sealant manufacturer, based on field experience and laboratory testing.

B. Round Backer Rods for Cold-Applied Joint Sealants: ASTM D5249, Type 1, of diameter and density required to control sealant depth and prevent bottom-side adhesion of sealant.

2.5 PRIMERS

A. Primers: Product recommended by joint-sealant manufacturer where required for adhesion of sealant to joint substrates indicated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine joints to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint-sealant performance.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Surface Cleaning of Joints: Before installing joint sealants, clean out joints immediately to comply with joint-sealant manufacturer's written instructions.

1. Remove all foreign material from joint substrates that could interfere with adhesion of joint sealant, including dust, old joint sealants, oil, grease, waterproofing, water repellents, water, surface dirt, and frost.

B. Joint Priming: Prime joint substrates where indicated or where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.

3.3 INSTALLATION OF JOINT SEALANTS

A. Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply.

B. Joint-Sealant Installation Standard: Comply with recommendations in ASTM C1193 for use of joint sealants as applicable to materials, applications, and conditions.

C. Install joint-sealant backers to support joint sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to joint widths that allow optimum sealant movement capability.

1. Do not leave gaps between ends of joint-sealant backer materials.
2. Do not stretch, twist, puncture, or tear joint-sealant backer materials.
3. Remove absorbent joint-sealant backer materials that have become wet before sealant application and replace them with dry materials.

D. Install joint sealants immediately following backer material installation, using proven techniques that comply with the following:

1. Place joint sealants so they fully contact joint substrates.
2. Completely fill recesses in each joint configuration.
3. Produce uniform, cross-sectional shapes and depths relative to joint widths that allow optimum sealant movement capability.

E. Provide joint configuration to comply with joint-sealant manufacturer's written instructions unless otherwise indicated.

3.4 CLEANING AND PROTECTION

A. Clean off excess joint sealant as the Work progresses, by methods and with cleaning materials approved in writing by joint-sealant manufacturers.

B. Protect joint sealants, during and after curing period, from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately and replace with joint sealant so installations in repaired areas are indistinguishable from the original work.

3.5 PAVING-JOINT-SEALANT SCHEDULE

A. Joints within concrete paving:

1. Joint Location:

a. Expansion and isolation joints in concrete paving.
b. Contraction joints in concrete paving.
c. Other joints as indicated.

B. Single-Component, Self-Leveling, Silicone Joint Sealant: ASTM D5893/D5893M, Type SL.

1. Joint-Sealant Color: Selected from manufacturer's full range.

END OF SECTION 321373

SECTION 323119 - DECORATIVE METAL FENCES AND GATES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Decorative aluminum fences.
2. Swing gates.

B. Related Sections:

1. Section 033000 "Cast-in-Place Concrete" for concrete bases for posts.

1.3 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings: For fencing and gates.

1. Include plans, elevations, sections, gate locations, post spacing, mounting, attachment, and grounding details.

1.5 INFORMATIONAL SUBMITTALS

A. Field quality-control reports.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Data: For gate operators to include in maintenance manuals.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: Fabricator of products.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Wind Loading:

1. Fence Height: 0 to 15 feet.
2. Wind Exposure Category: B.
3. Design Wind Speed: 105 mph.

B. Lightning-Protection System: Maximum grounding-resistance value of 25 ohms under normal dry conditions.

2.2 DECORATIVE ALUMINUM FENCES

A. Decorative Aluminum Fences: Fences made from aluminum extrusions.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following, or approved equal:

a. Ameristar.
b. Alumi-Guard, Inc.
c. Elite Fence Products, Inc.
d. Master Halco.

B. Posts: Square extruded tubes.

1. Line Posts: 2-1/2 by 2-1/2 inches with min 0.100-inch wall thickness, or as specified by the manufacturer.
2. End and Corner Posts: 2-1/2 by 2-1/2 inches with min 0.100-inch wall thickness, or as specified by the manufacturer.
3. Swing Gate Posts: 2-1/2 by 2-1/2 inches with min 0.125-inch wall thickness, or as specified from the manufacturer.

C. Post Caps: Aluminum castings that cover entire top of posts.

D. Rails: Extruded-aluminum channels, 1-1/2 by 1-1/2 inches, maximum, with 0.100-inch-thick sidewalls and 0.070-inch-thick top, or as specified by the manufacturer.

E. Pickets: Extruded-aluminum tubes, 3/4 inch maximum, square, with 0.050-inch wall thickness, or as specified by the manufacturer.

1. Terminate tops of pickets at top rail for flush top appearance.

2. Picket Spacing: 3 – 7/8” clear, maximum.

F. Fasteners: Manufacturer's standard tamperproof, corrosion-resistant, color-coated fasteners matching fence components.

G. Fabrication: Assemble fences into sections by fastening pickets to rails.

1. Pickets, rails, and posts shall be pre-cut to specified lengths. Rails shall be pre-punched to accept pickets. Grommets shall be inserted into the pre-punched holes in the rails and pickets shall be inserted through the grommets so that pre-drilled picket holes align with the rails. Panels to be preassembled by manufacturer.

H. Finish exposed welds to comply with NOMMA Guideline 1, Finish #2 - completely sanded joint, some undercutting and pinholes okay.

I. Finish: Baked enamel or powder coating.

2.3 SWING GATES

A. Gate Configuration: Single leaf.

B. Gate Frame Height: 60 inches.

C. Gate Opening Width: 48 inches.

D. Aluminum Frames and Bracing: Fabricate members from square extruded-aluminum tubes 2-1/2 by 2-1/2 inches with min 0.125-inch wall thickness, or as specified from the manufacturer.

E. Frame Corner Construction: Welded

F. Additional Rails: Provide as indicated, complying with requirements for fence rails.

G. Infill: Comply with requirements for adjacent fence.

H. Picket Size, Configuration, and Spacing: Comply with requirements for adjacent fence.

I. Exit Hardware: Von Duprin 99NL US28 WH Exit Device, lever, core, and self-closing hinges, or approved equal.

J. Finish exposed welds to comply with NOMMA Guideline 1, Finish #2 - completely sanded joint, some undercutting and pinholes okay.

K. Aluminum Finish: Baked enamel or powder coating.

2.4 ALUMINUM

A. Aluminum, General: Provide alloys and tempers with not less than the strength and durability properties of alloy and temper designated in paragraphs below for each aluminum form required.

B. Extrusions: ASTM B221, Alloy 6063-T5.

C. Tubing: ASTM B429/B429M, Alloy 6063-T6.

D. Plate and Sheet: ASTM B209, Alloy 6061-T6.

E. Die and Hand Forgings: ASTM B247, Alloy 6061-T6.

F. Castings: ASTM B26/B26M, Alloy A356.0-T6.

2.5 MISCELLANEOUS MATERIALS

A. Concrete: Normal-weight, air-entrained, ready-mix concrete complying with requirements in Section 033000 "Cast-in-Place Concrete" with a minimum 28-day compressive strength of 3000 psi, 3-inch slump, and 1-inch maximum aggregate size or dry, packaged, normal-weight concrete mix complying with ASTM C387/C387M mixed with potable water according to manufacturer's written instructions.

B. Nonshrink Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107/C1107M and specifically recommended by manufacturer for exterior applications.

2.6 GROUNDING MATERIALS

A. Comply with requirements as indicated on Electrical Drawings.

2.7 ALUMINUM FINISHES

A. Baked-Enamel or Powder-Coat Finish: AAMA 2603 except with a minimum dry film thickness of 2 mils. Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Color and Gloss: As indicated by manufacturer's designations – black.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas and conditions, with Installer present, for compliance with requirements for site clearing, earthwork, pavement work, construction layout, and other conditions affecting performance of the Work.

B. Do not begin installation before final grading is completed unless otherwise permitted by Architect.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Stake locations of fence lines, gates, and terminal posts. Do not exceed intervals of 500 feet or line of sight between stakes. Indicate locations of utilities, lawn sprinkler system, underground structures, benchmarks, and property monuments.

1. Construction layout and field engineering are specified in Section 017300 "Execution."

3.3 DECORATIVE FENCE INSTALLATION

A. Install fences according to manufacturer's written instructions.

B. Post Excavation: Drill or hand-excavate holes for posts in firm, undisturbed soil. Excavate holes to a diameter of not less than 4 times post size and a depth of not less than 24 inches plus 3 inches for each foot or fraction of a foot that fence height exceeds 4 feet.

C. Post Setting: Set posts in concrete at indicated spacing into firm, undisturbed soil.

1. Verify that posts are set plumb, aligned, and at correct height and spacing, and hold in position during setting with concrete or mechanical devices.
2. Concrete Fill: Place concrete around posts and vibrate or tamp for consolidation. Protect aboveground portion of posts from concrete splatter.

a. Concealed Concrete: Top 2 inches below grade to allow covering with surface material. Slope top surface of concrete to drain water away from post.

3. Posts Set in Concrete: Extend post to within 6 inches of specified excavation depth, but not closer than 3 inches to bottom of concrete.
4. Space posts uniformly at 8 feet o.c.

3.4 GATE INSTALLATION

A. Install gates according to manufacturer's written instructions, level, plumb, and secure for full opening without interference. Attach hardware using tamper-resistant or concealed means. Install ground-set items in concrete for anchorage. Adjust hardware for smooth operation and lubricate where necessary.

3.5 GROUNDING AND BONDING

A. Comply with specifications as indicated on Electrical Drawings.

B. Protection at Crossings of Overhead Electrical Power Lines: Ground fence at location of crossing and at a maximum distance of 150 feet on each side of crossing.

C. Grounding Method: At each grounding location, drive a grounding rod vertically until the top is 6 inches below finished grade. Connect rod to fence with No. 6 AWG conductor. Connect conductor to each fence component at grounding location.

D. Bonding Method for Gates: Connect bonding jumper between gate post and gate frame.

E. Connections: Make connections so possibility of galvanic action or electrolysis is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact are galvanically compatible.

1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer in order of galvanic series.
2. Make connections with clean, bare metal at points of contact.
3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
4. Make aluminum-to-galvanized-steel connections with tin-plated copper jumpers and mechanical clamps.
5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

1. Grounding-Resistance Tests: Subject completed grounding system to a megger test at each grounding location. Measure grounding resistance not less than two full days after last trace of precipitation, without soil having been moistened by any means other than natural drainage or seepage and without chemical treatment or other artificial means of reducing natural grounding resistance. Perform tests by two-point method according to IEEE 81.
2. Excessive Grounding Resistance: If resistance to grounding exceeds specified value, notify Architect promptly. Include recommendations for reducing grounding resistance and a proposal to accomplish recommended work.
3. Report: Prepare test reports of grounding resistance at each test location certified by a testing agency. Include observations of weather and other phenomena that may affect test results.

3.7 ADJUSTING

A. Gates: Adjust gates to operate smoothly, easily, and quietly, free of binding, warp, excessive deflection, distortion, nonalignment, misplacement, disruption, or malfunction, throughout entire operational range. Confirm that latches and locks engage accurately and securely without forcing or binding.

B. Lubricate hardware and other moving parts.

3.8 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's personnel to adjust, operate, and maintain gates.

END OF SECTION 323119

SECTION 329113 - SOIL PREPARATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Provide or create soil mixes for planting that meets or exceeds the standards contained herein.

B. Related Sections:

1. Section 311000 "Site Clearing" for topsoil stripping and stockpiling.
2. Section 329119 “Landscape Grading”
3. Section 329200 "Turf and Grasses" for placing planting soil for turf and grasses.
4. Section 329300 "Plants" for placing planting soil for plantings.

1.3 DEFINITIONS

A. AAPFCO: Association of American Plant Food Control Officials.

B. Backfill: The earth used to replace or the act of replacing earth in an excavation. This can be amended or unamended soil as indicated.

C. CEC: Cation exchange capacity.

D. Compost: The product resulting from the controlled biological decomposition of organic material that has been sanitized through the generation of heat and stabilized to the point that it is beneficial to plant growth.

E. Imported Soil: Soil that is transported to Project site for use.

F. Manufactured Soil: Soil produced by blending soils, sand, stabilized organic soil amendments, and other materials to produce planting soil.

G. Organic Matter: The total of organic materials in soil exclusive of undecayed plant and animal tissues, their partial decomposition products, and the soil biomass; also called "humus" or "soil organic matter."

H. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified as specified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.

I. RCRA Metals: Hazardous metals identified by the EPA under the Resource Conservation and Recovery Act.

J. SSSA: Soil Science Society of America.

K. Subgrade: Surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

L. Subsoil: Soil beneath the level of subgrade; soil beneath the topsoil layers of a naturally occurring soil profile, typified by less than 1 percent organic matter and few soil organisms.

M. Surface Soil: Soil that is present at the top layer of the existing soil profile. In undisturbed areas, surface soil is typically called "topsoil"; but in disturbed areas such as urban environments, the surface soil can be subsoil.

N. USCC: U.S. Composting Council.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as part of the overall project pre-construction meeting.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include recommendations for application and use.
2. Include test data substantiating that products comply with requirements.
3. Include sieve analyses for aggregate materials.
4. Material Certificates: For each type of imported soil and soil amendment and fertilizer before delivery to the site, according to the following:

    a. Manufacturer's qualified testing agency's certified analysis of standard products.
    b. Analysis of fertilizers, by a qualified testing agency, made according to AAPFCO methods for testing and labeling and according to AAPFCO's SUIP #25.
    c. Analysis of nonstandard materials, by a qualified testing agency, made according to SSSA methods, where applicable.

B. Samples: For each bulk-supplied material, 1-gal. volume of each in sealed containers labeled with content, source, and date obtained. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of composition, color, and texture.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For each testing agency.

B. Preconstruction Test Reports: For preconstruction soil analyses specified in "Preconstruction Testing" Article.

C. Field quality-control reports.

1.7 QUALITY ASSURANCE

A. Testing Agency Qualifications: An independent, state-operated, or university-operated laboratory; experienced in soil science, soil testing, and plant nutrition; with the experience and capability to conduct the testing indicated; and that specializes in types of tests to be performed.

1. Laboratories: Subject to compliance with requirements.
2. Multiple Laboratories: At Contractor's option, work may be divided among qualified testing laboratories specializing in physical testing, chemical testing, and fertility testing.

1.8 PRECONSTRUCTION TESTING

A. Preconstruction Testing Service: Engage a qualified testing agency to perform preconstruction soil analyses on imported soil.

1. Notify Designer seven days in advance of the dates and times when laboratory samples will be taken.

B. Preconstruction Soil Analyses: For each unamended soil type, perform testing on soil samples and furnish soil analysis and a written report containing soil-amendment and fertilizer recommendations by a qualified testing agency performing the testing according to "Soil-Sampling Requirements" and "Testing Requirements" articles.

1. Have testing agency identify and label samples and test reports according to sample collection and labeling requirements.

1.9 SOIL-SAMPLING REQUIREMENTS

A. General: Extract soil samples according to requirements in this article.

B. Sample Collection and Labeling: Have samples taken and labeled by Contractor under the direction of the testing agency.

1. Number and Location of Samples: Minimum of five representative soil samples from varied locations for each soil to be used or amended for landscaping purposes.
2. Procedures and Depth of Samples: According to USDA-NRCS's "Field Book for Describing and Sampling Soils."
3. Division of Samples: Split each sample into two, equal parts. Send half to the testing agency and half to Owner for its records.
4. Labeling: Label each sample with the date, location keyed to a site plan or other location system, visible soil condition, and sampling depth.

1.10 TESTING REQUIREMENTS

A. General: Perform tests on soil samples according to requirements in this article.

B. Physical Testing:

1. Soil Texture: Soil-particle, size-distribution analysis by one of the following methods according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods":

   a. Sieving Method: Report sand-gradation percentages for very coarse, coarse, medium, fine, and very fine sand; and fragment-gradation (gravel) percentages for fine, medium, and coarse fragments; according to USDA sand and fragment sizes.
   b. Hydrometer Method: Report percentages of sand, silt, and clay.

2. Total Porosity: Calculate using particle density and bulk density according to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods."
3. Water Retention: According to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods."
4. Saturated Hydraulic Conductivity: According to SSSA's "Methods of Soil Analysis - Part 1-Physical and Mineralogical Methods"; at 85% compaction according to ASTM D698 (Standard Proctor).

C. Chemical Testing:

1. CEC: Analysis by sodium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."
2. Clay Mineralogy: Analysis and estimated percentage of expandable clay minerals using CEC by ammonium saturation at pH 7 according to SSSA's "Methods of Soil Analysis - Part 1- Physical and Mineralogical Methods."
3. Metals Hazardous to Human Health: Test for presence and quantities of RCRA metals including aluminum, arsenic, barium, copper, cadmium, chromium, cobalt, lead, lithium, and vanadium. If RCRA metals are present, include recommendations for corrective action.
4. Phytotoxicity: Test for plant-available concentrations of phytotoxic minerals including aluminum, arsenic, barium, cadmium, chlorides, chromium, cobalt, copper, lead, lithium, mercury, nickel, selenium, silver, sodium, strontium, tin, titanium, vanadium, and zinc.

D. Fertility Testing: Soil-fertility analysis according to standard laboratory protocol including the following:

1. Percentage of organic matter.
2. CEC, calcium percent of CEC, and magnesium percent of CEC.
3. Soil reaction (acidity/alkalinity pH value).
4. Buffered acidity or alkalinity.
5. Nitrogen ppm.
6. Phosphorous ppm.
7. Potassium ppm.
8. Manganese ppm.
9. Manganese-availability ppm.
10. Zinc ppm.
11. Zinc availability ppm.
12. Copper ppm.

13. Sodium ppm and sodium absorption ratio.
14. Soluble-salts ppm.
15. Presence and quantities of problem materials including salts and metals cited in the Standard protocol. If such problem materials are present, provide additional recommendations for corrective action.
16. Other deleterious materials, including their characteristics and content of each.

E. Organic-Matter Content: Analysis using loss-by-ignition method according to SSSA's "Methods of Soil Analysis - Part 3- Chemical Methods."

F. Recommendations: Based on the test results, state recommendations for soil treatments and soil amendments to be incorporated to produce satisfactory planting soil suitable for healthy, viable plants indicated. Include, at a minimum, recommendations for nitrogen, phosphorous, and potassium fertilization, and for micronutrients.

1. Fertilizers and Soil Amendment Rates: State recommendations in weight per 1000 sq. ft. for 6-inch depth of soil.
2. Soil Reaction: State the recommended liming rates for raising pH or sulfur for lowering pH according to the buffered acidity or buffered alkalinity in weight per 1000 sq. ft. for 6-inch depth of soil.

1.11 DELIVERY, STORAGE, AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and compliance with state and Federal laws if applicable. In lieu of containers, fertilizer and soil amendments may be furnished in bulk, with a certificate indicating the above information accompanying each delivery.

B. Before and after delivery, fertilizer and soil amendments shall be kept in a dry storage area away from contaminants. Precautions shall be taken prior to use to prevent rupture of packaging and to prevent wetting, contamination, or deterioration.

C. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials, discharge of soil-bearing water runoff, and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Do not move or handle materials when they are wet or frozen.
4. Accompany each delivery of bulk fertilizers and soil amendments with appropriate certificates.

PART 2 - PRODUCTS

2.1 SOIL TYPES

A. General: Soil amendments, fertilizers, and rates of application specified in this article are guidelines that may need revision based on testing laboratory's recommendations after preconstruction soil analyses are performed.

B. Topsoil: Native soil on site or natural soil harvested from another site that naturally has the texture and composition to meet the specification described below, and is free of noxious weed see, shall constitute an Acceptable Planting Media (APM).

C. Planting mix for Lawn, Turf or Seeding Areas: A planting mix may be developed that will be an Acceptable Planting Media by amending the existing soil or by removing the existing soil and replacing it with new planting mix. The planting mix shall have uniform composition throughout, with a mixture of subsoil. It shall be free of stones, lumps, live plants and their roots, sticks, and other extraneous matter. It shall contain no man-made materials unless otherwise specified. Planting mix shall not be used while in a frozen or muddy condition.

1. Unless there are unusual circumstances with project and unless otherwise specified in the contract documents and approved by the Grounds Superintendent and/or designee, the Acceptable Planting Media shall contain the following specified percentages of constituents:

    a. CLAY Minimum 10%/Maximum 40%
    b. SAND Minimum 20%/Maximum 50%
    c. SILT Minimum 20%/Maximum 50%
    d. ORGANIC MATTER Minimum 5%/Maximum 10%

2. Organic Matter is defined as compost/humus such as sawdust or leaf mold that has completed the decomposition process. Compost shall be well-composted, stable, and weed-free material bearing USCC's "Seal of Testing Assurance". Wood derivatives shall be shredded and composted, nitrogen-treated, of uniform texture and free of chips, stones, sticks, soil, or toxic materials. Percentage of organic matter shall be determined by loss on ignition of moisture free samples dried at 65 degrees.
3. APM shall have an acidity range of pH 6.5 to 7.0.

D. Planting mix for Tree and/or Bed/Shrub Planting Areas: A planting mix may be developed that will be an Acceptable Planting Media by amending the existing soil or by removing the existing soil and replacing it with new planting mix. The planting mix shall have uniform composition throughout, with a mixture of subsoil. It shall be free of stones, lumps, live plants and their roots, sticks, and other extraneous matter. It shall contain no man-made materials unless otherwise specified. Planting mix shall not be used while in a frozen or muddy condition.

1. Unless there are unusual circumstances with project and unless otherwise specified in the contract documents and approved by the Grounds Superintendent and/or designee, the Acceptable Planting Media shall contain the following specified percentages of constituents:

a. CLAY Minimum 10%/Maximum 40%
b. SAND Minimum 20%/Maximum 50%
c. SILT Minimum 20%/Maximum 50%
d. ORGANIC MATTER Minimum 15%/Maximum 20%

2. Organic Matter is defined as compost/humus such as sawdust or leaf mold that has completed the decomposition process. Compost shall be well-composted, stable, and weed-free material bearing USCC's "Seal of Testing Assurance". Wood derivatives shall be shredded and composted, nitrogen-treated, of uniform texture and free of chips, stones, sticks, soil, or toxic materials. Percentage of organic matter shall be determined by loss on ignition of moisture free samples dried at 65 degrees.
3. APM shall have an acidity range of pH 6.5 to 7.0.

E. Soils can be placed on a pre-approved list by the Grounds Superintendent and/or designee, after a vendor has proved that they have the ability to provide the soils as described and be consistent with the mixtures. The Grounds Department retest soils and recompiles this list annually. Other soils can be tested throughout the year and placed on the list, if approved, at the contractor's or vendor's request. Thirty calendar days for approval is required. Grounds Management will collect the samples and submit the first soil samples for laboratory testing. Any sample that requires resubmittal for approval will be the contractor's or vendor's responsibility and must be tested by a reputable soil testing lab.

2.2 SOIL CONDITIONER

A. Work covered in this special provision includes supplying and applying composted soil conditioner. Soil conditioner is an organic soil additive that is mixed with the soil in order to improve its internal drainage, structure, nutrient holding capacity, nutrient holding capacity or to improve organic matter composition. Composted soil conditioner must be thoroughly mixed and tilled into the top 8" and 10" of the existing soil in all areas to be planted.

B. Soil conditioner shall be composted and aged pine bark, screened to be 9/16" size or smaller. It shall be black in color, not be fresh, have no pine bark smell and have an acidity of pH 5.8 to 6.0. A sample of the composted soil conditioner must be submitted to the Owner's Representative for approval prior to installation.

2.3 ORGANIC SOIL AMENDMENTS

A. Compost: Well-composted, stable, and weed-free organic matter produced by composting feedstock, and bearing USCC's "Seal of Testing Assurance," and as follows:

1. Reaction: pH of 5.5 to 8.
2. Soluble-Salt Concentration: Less than 4 dS/m.
3. Moisture Content: 35 to 55 percent by weight.
4. Organic-Matter Content: 30 to 40 percent of dry weight.
5. Particle Size: Minimum of 98 percent passing through a 1/2-inch sieve.

B. Sphagnum Peat: Partially decomposed sphagnum peat moss, finely divided or of granular texture with 100 percent passing through a 1/2-inch sieve, a pH of 3.4 to 4.8, and a soluble-salt content measured by electrical conductivity of maximum 5 dS/m.

C. Muck Peat: Partially decomposed moss peat, native peat, or reed-sedge peat, finely divided or of granular texture with 100 percent passing through a 1/2-inch sieve, a pH of 6 to 7.5, a soluble-salt content measured by electrical conductivity of maximum 5 dS/m, having a water-absorbing capacity of 1100 to 2000 percent, and containing no sand.

D. Wood Derivatives: Shredded and composted, nitrogen-treated sawdust, ground bark, or wood waste; of uniform texture and free of chips, stones, sticks, soil, or toxic materials.

1. Partially Decomposed Wood Derivatives: In lieu of shredded and composted wood derivatives, mix shredded and partially decomposed wood derivatives with ammonium nitrate at a minimum rate of 0.15 lb/cu. ft. of loose sawdust or ground bark, or with ammonium sulfate at a minimum rate of 0.25 lb/cu. ft. of loose sawdust or ground bark.

2.4 FERTILIZERS

A. Slow-Release Fertilizer: Granular or pelleted fertilizer consisting of 50 percent water-insoluble nitrogen, phosphorus, and potassium in the following composition:

1. Composition: 20 percent nitrogen, 10 percent phosphorous, and 10 percent potassium, by weight.
2. Composition: Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified testing agency.

PART 3 - EXECUTION

3.1 GENERAL

A. Place planting soil and fertilizers according to requirements in other Specification Sections.

B. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in planting soil.

C. Proceed with placement only after unsatisfactory conditions have been corrected.

D. Product supplied must meet the specification above as determined by soil testing at an approved lab or be supplied from a vendor on the Grounds Department’s pre-approved list. Soil shall not be handled or spread when moisture content is excessively high.

3.2 PREPARATION OF UNAMENDED, ON-SITE SOIL BEFORE AMENDING

A. Excavation: Excavate soil from designated area(s) to a depth of 6 inches and stockpile until amended.

B. Unacceptable Materials: Clean soil of concrete slurry, concrete layers or chunks, cement, plaster, building debris, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, acid, and other extraneous materials that are harmful to plant growth.

C. Unsuitable Materials: Clean soil to contain a maximum of 5 percent by dry weight of stones, roots, plants, sod, clay lumps, and pockets of coarse sand.

D. Screening: Pass unamended soil through a 2-inch sieve to remove large materials.

3.3 PLACING AND MIXING PLANTING SOIL OVER EXPOSED SUBGRADE

A. General: Apply and mix unamended soil with amendments on-site to produce required planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.

B. Subgrade Preparation: Till subgrade to a minimum depth of 18 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off the project site.

1. Apply, add soil amendments, and mix approximately half the thickness of unamended soil over prepared, loosened subgrade according to "Mixing" Paragraph below. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.

C. Mixing: Spread unamended soil to total depth of 6 inches but not less than required to meet finish grades after mixing with amendments and natural settlement. Do not spread if soil or subgrade is frozen, muddy, or excessively wet.

1. Amendments: Apply soil amendments and fertilizer, if required, evenly on surface, and thoroughly blend them with unamended soil to produce planting soil.

    a. Mix lime and potassium with dry soil before mixing fertilizer.
    b. Mix fertilizer with planting soil no more than seven days before planting.

2. Lifts: Apply and mix unamended soil and amendments in lifts not exceeding 12 inches in loose depth for material compacted by compaction equipment, and not more than 6 inches in loose depth for material compacted by hand-operated tampers.

D. Compaction: Compact each blended lift of planting soil to 75 percent of maximum Standard Proctor density according to ASTM D698 and tested in-place.

E. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.4 PLACING MANUFACTURED PLANTING SOIL OVER EXPOSED SUBGRADE

A. General: Apply manufactured soil on-site in its final, blended condition. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.

B. Subgrade Preparation: Till subgrade to a minimum depth of 18 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

1. Apply approximately half the thickness of planting soil over prepared, loosened subgrade. Mix thoroughly into top 4 inches of subgrade. Spread remainder of planting soil.

C. Application: Spread planting soil to total depth of 6 inches but not less than required to meet finish grades after natural settlement. Do not spread if soil or subgrade is frozen, muddy, or excessively wet.

1. Lifts: Apply planting soil in lifts not exceeding 12 inches in loose depth for material compacted by compaction equipment, and not more than 6 inches in loose depth for material compacted by hand-operated tampers.

D. Compaction: Compact each lift of planting soil to 75 percent of maximum Standard Proctor density according to ASTM D698.

E. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.5 BLENDING PLANTING SOIL IN PLACE

A. General: Mix amendments with in-place, unamended soil to produce required planting soil. Do not apply materials or till if existing soil or subgrade is frozen, muddy, or excessively wet.

B. Preparation: Till unamended, existing soil in planting areas to a minimum depth of 18 inches. Remove stones larger than 1-1/2 inches in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

C. Mixing: Apply soil amendments and fertilizer, if required, evenly on surface, and thoroughly blend them into full depth of unamended, in-place soil to produce planting soil.

1. Mix lime and potassium with dry soil before mixing fertilizer.
2. Mix fertilizer with planting soil no more than seven days before planting.

D. Compaction: Compact blended planting soil to 75 percent of maximum Standard Proctor density according to ASTM D698.

E. Finish Grading: Grade planting soil to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

3.6 FIELD QUALITY CONTROL

A. Testing Agency: Engage a qualified testing agency to perform tests and inspections.

B. Perform the following tests:

1. Compaction: Test planting-soil compaction after placing each lift and at completion using a densitometer or soil-compaction meter calibrated to a reference test value based on laboratory testing according to ASTM D698. Space tests at no less than one for each 1000 sq. ft. of in-place soil or part thereof.

C. Soil will be considered defective if it does not pass tests.

D. Prepare test reports.

E. Label each sample and test report with the date, location keyed to a site plan or other location system, visible conditions when and where sample was taken, and sampling depth.

3.7 PROTECTION

A. Protection Zone: Identify protection zones according to Section 015639 "Temporary Tree and Plant Protection."

B. Protect areas of in-place soil from additional compaction, disturbance, and contamination. Prohibit the following practices within these areas except as required to perform planting operations:

1. Storage of construction materials, debris, or excavated material.
2. Parking vehicles or equipment.
3. Vehicle traffic.
4. Foot traffic.
5. Erection of sheds or structures.
6. Impoundment of water.
7. Excavation or other digging unless otherwise indicated.

C. If planting soil or subgrade is overcompacted, disturbed, or contaminated by foreign or deleterious materials or liquids, remove the planting soil and contamination; restore the subgrade as directed by Designer and replace contaminated planting soil with new planting soil.

3.8 CLEANING

A. Protect areas adjacent to planting-soil preparation and placement areas from contamination. Keep adjacent paving and construction clean and work area in an orderly condition.

B. Remove surplus soil and waste material including excess subsoil, unsuitable materials, trash, and debris and legally dispose of them off Owner's property unless otherwise indicated.

1. Dispose of excess subsoil and unsuitable materials on-site where directed by Owner.

END OF SECTION 329113

SECTION 329119 - LANDSCAPE GRADING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Stripping, stockpiling, and redistribution of topsoil, rough grading, rock removal, and excavation of the site.
2. Final grade topsoil for finish landscaping shown on grading plans.

B. Related Sections:

1. Section 312000 “Earth Moving”
2. Section 329113 “Soil Preparation”
3. Section 329200 “Turf and Grasses”
4. Section 329300 “Plants”

C. Existing Conditions:

1. Contractor shall accept actual conditions at the project site and do work specified without additional compensation for possible variation from grades and conditions shown, whether surface or subsurface. All grading work shall be unclassified except for rock removal as described herein.

D. Protection:

1. Benchmarks and Monuments: Maintain carefully all benchmarks, monuments and other reference points. If disturbed or destroyed, replace as directed. If found at variance with the drawings, notify the Project Coordinator before proceeding to lay out work.
2. Protection of Existing Work Remaining: All existing curbs, sidewalks, driveways and paving damaged in performance of this work shall be restored without additional cost to the Owner in the manner prescribed by authorities having jurisdiction.
3. Tree Preservation and Protection: During all phases of earthwork and site grading, the Contractor shall comply with Section 015639 “Temporary Tree and Plant Protection”.

PART 2 - PRODUCT

2.1 MATERIALS:

A. Topsoil and Planting Mix: See Section 329113 “Soil Preparation”.

B. Non-woven Filter Fabric: Fabric for wrapping perforated pipe and washed stone shall be the non-woven filter type, Mirafi 140NL, Webtec NO-4, Linq 130 EX, or an approved equal.

C. Surplus Material: Contractor shall remove unsuitable materials and surplus excavated materials from the site and legally dispose of it.

PART 3 - EXECUTION

3.1 INSPECTION:

A. Verify trench backfilling has been inspected.

B. Verify subsoil base has been contoured and compacted.

C. Examine the areas and UPM under which earthwork and site grading is to be performed and notify the Designer in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

D. Testing:

1. Laboratory: The Contractor shall employ services of a testing laboratory to perform tests required under this section.
2. Quality Control Testing During Construction: It is the responsibility of the Contractor to notify the Designer at appropriate times when Testing is required. Field density tests shall be performed in accordance with ASTM D-698.
3. Density tests will be provided to Designer for areas compacted during construction before proceeding with soil work.

3.2 SUBSOIL PREPARATION:

A. Eliminate uneven areas and low spots.

B. Remove debris, roots, branches, and stones in excess of 1/2 inch (13 mm) in size. Remove subsoil contaminated with petroleum products.

C. Scarify subgrade to depth of 3 inches (75 mm), where topsoil is to be placed. Scarify areas where equipment used for hauling and spreading topsoil has compacted subsoil.

3.3 SOIL PREPARATION:

A. Soils for all landscaped areas will conform to Section 329113 “Soil Preparation” for all soil types, either topsoil or planting mix.

B. Soil Test: A sample of the proposed topsoil or planting mix shall be submitted to the Designer 30 calendar days prior to installation and be approved prior to delivery to the site. Organic matter will be defined as organic/humus such as sawdust or leaf-mold that has completed the decomposition process.

C. Soil preparations for planting areas are divided into categories depending on the situation. Only Type 2 and Type 3 are applicable.

1. Type 2

a. The “Type 2” planting bed preparation is intended for areas in which the existing soil is to be removed to a depth of 18” and replaced with soil meeting the plant mix specification. This preparation also includes the tilling, loosening, sub-soiling of the material from18” to 36” deep in order to provide aeration and lessen the compaction. Backfill materials/soils fit into this category and must be removed/replaced.
b. Existing soil shall be removed and disposed of in accordance with the contract provisions. The existing layer of soil between 18” and 36” deep shall be tilled in place and inspected by Designer prior to plant mix/soil being added to reach final grade.
c. The contractor shall install a sufficient quantity of approved plant mix to achieve the desired/specified grade. Soil shall be added in an amount sufficient to account for natural consolidation. Unless otherwise specified, the plant bed shall be graded as follows:

i. Plant beds in turf areas or around buildings – 6” above surrounding grade at center of bed, 2” above grade at edge of bed.

d. All planting beds and areas to be mulched shall have a 4” V-cut trench installed at the perimeter of the planting bed and adjacent to concrete walks, curbing, and grassed areas. The V-cut trench shall form the bed line edge. Trench depth and width shall be consistent and uniform throughout the installation.
e. All work shall be achieved from the sides of the planting bed areas. The contractor shall not allow equipment to operate on the loosened soil or plant mix.

2. Type 3

a. The “Type 3” planting is intended for individual tree and individual/group Shrub planting where no soil replacement is required unless specified by the Designer. Type 3 planting is applicable to landscape to be installed at building edges. The tree and shrub planting procedures, including preparation of backfill and planting hole are found under Section 329300 “Plants”.

3.4 PLACING TOPSOIL:

A. Place topsoil in areas to be seeded or sodded and planted, to thickness as scheduled (Paragraph 3.8).

B. Use topsoil in relatively dry state. Place during dry weather.

C. Fine grade topsoil eliminating rough and low areas. Maintain levels, profiles, and contours of subgrade.

D. Remove roots, weeds, and foreign material while spreading.

E. Manually spread topsoil close to building to prevent damage.

F. Lightly compact placed topsoil.

G. Leave site clean and raked, ready to receive seeding or sodding and landscape planting.

3.5 TOLERANCES:

A. Top of Topsoil: Plus or minus 1/2 inch (6 mm).

3.6 DRAINAGE:

A. Subsurface drainage shall be installed as indicated in the plans and be tied into the existing storm drain system. A 4” perforated drain pipe shall be installed in the bottom of the planting area. Drain pipe shall be laid in the specified non-woven geotextile fabric, then covered with a minimum 6” of #57 washed stone, then wrapped with the specified non-woven geotextile fabric. Special care shall be exercised when filling planting area with soil so as not to crush or damage the drainage system.

3.7 PROTECTION:

A. Protect landscaping and other features remaining as final work.

B. Protect existing structures, walls, sidewalks, and paving.

3.8 SCHEDULE OF TOPSOIL DEPTHS:

A. The following paragraphs identify compacted topsoil thickness for various locations.

1. Perennial Planting Beds: Minimum 12 inches
2. Native Plants and Grass Areas: Minimum 12 inches.
3. Shrub Beds: Minimum 18 inches.
4. Turf seeded and sodded Areas: Minimum 6 inches
5. Ground Cover: Minimum 6 inches.

END OF SECTION 329119

SECTION 329200 - TURF AND GRASSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Sodding.

B. Related Sections:

1. Section 312500 “Erosion and Sedimentation Control”
2. Section 329113 “Soil Preparation”
3. Section 329119 “Landscape Grading”
4. Section 329300 "Plants" for trees, shrubs, ground covers, and other plants as well as border edgings and mow strips.

1.3 DEFINITIONS

A. Finish Grade: Elevation of finished surface of planting soil.

B. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.

C. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

D. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 “Soil Preparation” and drawing designations for planting soils.

E. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as part of the overall project pre-construction meeting.

1.5 INFORMATIONAL SUBMITTALS

A. Qualification Data: For landscape Installer.

B. Certification of Sod: Certification of each seed mixture for turfgrass sod. Include identification of source and name and telephone number of supplier.

C. Product Certificates: For fertilizers, from manufacturer.

D. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.

E. Soil Analysis: Submit complete results of analysis, identifying required soil amendments, and amendment rates and procedures.

1.6 CLOSEOUT SUBMITTALS

A. Maintenance Instructions: Prior to expiration of Contractor’s Maintenance Period, submit instructions recommending procedures to be followed by OWNER for maintenance of lawns for one full year following expiration of Contractor’s Maintenance Period. Meet with the OWNER and/or their representatives, to review instructions and to assure adequate understanding for OWNER to carry out instructions.

1.7 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful turf establishment.

1. Professional Membership: Installer shall be a member in good standing of either the National Association of Landscape Professionals or AmericanHort.
2. Experience: Five years' experience in turf installation in addition to requirements in Section 014000 “Quality Requirements”.
3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
4. Personnel Certifications: Installer's field supervisor shall have certification in one of the following categories from the National Association of Landscape Professionals:

    a. Landscape Industry Certified Technician - Exterior.
    b. Landscape Industry Certified Lawn Care Manager.
    c. Landscape Industry Certified Lawn Care Technician.

5. Pesticide Applicator: State licensed, commercial.

B. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work in this section.

C. Comply with all regulations applicable to landscape materials.

D. Soil Analysis: Provide and pay for the services of an approved, independent testing agency to perform an analysis of soil to be used. Analysis shall include a comprehensive description of soil, and a listing of types and quantities of soil amendments required for the establishment, growth and health of lawns. The number of samples required shall be a minimum of two samples per acre of lawn area, unless additional samples are recommended by testing agency.

1.8 DELIVERY, STORAGE, AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws, as applicable.

B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.

C. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Accompany each delivery of bulk materials with appropriate certificates.

1.9 FIELD CONDITIONS

A. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with initial maintenance periods to provide required maintenance from date of Substantial Completion.

1. Spring Planting: April 15th – May 30th.
2. Fall Planting: September 23rd – December 30th.

B. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.

C. Utilities: Locate and avoid damage to all underground utilities; perform work in a manner which will avoid damage. Utilities not necessarily shown on Drawings.

D. Maintain grade stakes set by others until removal is mutually agreed upon by parties concerned.

E. When conditions detrimental to lawn establishment, growth and maintenance are encountered, such as rubble, adverse drainage conditions, or obstructions, notify Owner's Representative for directions before planting.

F. Sodding shall only be permitted after irrigation system is installed and operating properly.

PART 2 - PRODUCTS

2.1 TURFGRASS SOD

A. Turfgrass Sod: Certified Number 1 Quality/Premium, including limitations on thatch, weeds, diseases, nematodes, and insects, complying with "Specifications for Turfgrass Sod Materials" in TPI's "Guideline Specifications to Turfgrass Sodding." Furnish viable sod of uniform density, color, and texture that is strongly rooted and capable of vigorous growth and development when planted.

B. Sod shall be delivered machine cut to a uniform thickness of ¾" to 1½", excluding top growth and thatch. Length and width shall be the supplier's standard, with a maximum allowable deviation of 5%. Torn, uneven, or desiccated pads or edges shall not be acceptable.

C. Standard size sections of sod shall be capable of supporting their own weight and shape when suspended vertically.

D. Turfgrass Species, Warm-Season Grass: 419 Bermudagrass (Cynodon dactylon).

E. Provide sod composed of species specified, free of weeds and other extraneous grass types.

2.2 FERTILIZERS

A. Commercial Fertilizer: Commercial-grade complete fertilizer of neutral character, consisting of fast- and slow-release nitrogen, 50 percent derived from natural organic sources of urea formaldehyde, phosphorous, and potassium in the following composition:

1. Composition:

a. 1 lb/1000 sq. ft. of actual nitrogen, 4 percent phosphorous, and 2 percent potassium, by weight.
b. Nitrogen, phosphorous, and potassium in amounts recommended in soil reports from a qualified soil-testing laboratory.

2.3 PESTICIDES

A. General: Pesticide, registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to be planted for compliance with requirements and other conditions affecting installation and performance of the Work.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
3. Uniformly moisten excessively dry soil that is not workable or which is dusty.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

C. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Designer and replace with new planting soil.

3.2 PREPARATION

A. Protect structures; utilities; sidewalks; pavements; and other facilities, trees, shrubs, and plantings from damage caused by planting operations.

1. Protect grade stakes set by others until directed to remove them.

3.3 TURF AREA PREPARATION

A. General: Prepare planting area for soil placement and mix planting soil according to Section 329113 "Soil Preparation.”

B. Placing Planting Soil: Place and mix planting soil in place over exposed subgrade.

1. Reduce elevation of planting soil to allow for soil thickness of sod.

C. Moisten prepared area before planting if soil is dry. Water thoroughly and allow surface to dry before planting. Do not create muddy soil.

D. Before planting, obtain Designer's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 SODDING

A. Sodding shall not be done when the ground is frozen, snow covered, saturated, excessively dry, or in any other condition which would make establishment and survival of sod reasonably unlikely.

B. Prior to sod bed preparation, soil shall be in a loose, smooth, friable condition, free from stones over 1-½" in any dimension, sticks, roots, construction debris, and other extraneous matter. If soil has become crusty, hardened or eroded since being spread, it shall be a part of this work to restore the soil to the loose, smooth condition described above.

C. Prior to preparation of previously undistributed areas, completely remove existing vegetation and debris, and dispose of such material off-site; do not turn under vegetation into soil being prepared for sod bed. Loosen existing grade to a depth of 4"; remove all debris which surfaces.

D. Spread fertilizer at the rate of 16 lbs per 1000 sq. ft. or as otherwise recommended by the soil test report for the specified turf species. Add pH balancing agents at rate recommended by soil test report to achieve a pH of 5.5 to 6.5 for Centipede grass, 6.5 to 7.0 for Bermuda grass, 6.5 to 7.5 for St. Augustine grass and 6.0 to 7.0 for Zoysia grass. Add peat and other additives as recommended by the soil test report. Blend additives thoroughly into upper 4" of soil. Remove any rock or other debris which may surface. Till areas until soil is loose and friable and all soil amendments are uniformly distributed.

E. Work areas to a smooth even surface free from surface irregularities, ridges or depressions. Prepared areas shall meet required finish grade elevations allowing for sod thickness, and shall have positive drainage.

F. Moisten prepared areas if soil is dry. Water thoroughly, and then allow surface moisture to evaporate. Do not create muddy soil conditions; do not saturate soil.

G. Lay sod within 24 hours of harvesting. Do not lay sod if dormant or if ground is frozen or muddy.

H. The first row of sod shall be laid in a straight line with subsequent rows placed parallel to and butting tightly against each other. Stagger strips to offset joints in adjacent courses. Care shall be taken to ensure that sod is not stretched or overlapped and that all joints are butted tight. On slopes, sod shall be laid parallel to the contour.

I. Avoid damage to soil or sod during installation. Tamp and roll lightly to ensure contact with soil, eliminate air pockets, and form a smooth surface. Work sifted soil or fine sand into minor cracks between pieces of sod; remove excess to avoid smothering sod and adjacent grass.

1. Lay sod across slopes exceeding 1:3.
2. Anchor sod on slopes exceeding 1:6 with wood pegs or steel staples spaced as recommended by sod manufacturer but not less than two anchors per sod strip to prevent slippage.

J. Immediately after laying and firming the sod, irrigate to a depth of 4 inches below the underside of the strips.

K. During the first seven days after installation, maintain a continuous moist soil depth of at least 4 inches. After that period, water as necessary to maintain moist root zone.

3.5 TURF RENOVATION

A. Renovate turf damaged by Contractor's operations, such as storage of materials or equipment and movement of vehicles.

1. Reestablish turf where settlement or washouts occur or where minor regrading is required.
2. Install new planting soil as required.

B. Remove sod and vegetation from diseased or unsatisfactory turf areas; do not bury in soil.

C. Remove topsoil containing foreign materials, such as oil drippings, fuel spills, stones, gravel, and other construction materials resulting from Contractor's operations, and replace with new planting soil.

D. Mow, dethatch, core aerate, and rake existing turf.

E. Remove weeds before sodding. Where weeds are extensive, apply selective herbicides as required. Do not use pre-emergence herbicides.

F. Remove waste and foreign materials, including weeds, soil cores, grass, vegetation, and turf, and legally dispose of them off Owner's property.

G. Till stripped, bare, and compacted areas thoroughly to a soil depth of 6 inches.

H. Apply soil amendments and initial fertilizer required for establishing new turf and mix thoroughly into top 4 inches of existing soil. Install new planting soil to fill low spots and meet finish grades.

1. Soil Amendment(s): according to requirements of the soils preparation and required soils testing.
2. Initial Fertilizer: Slow-release fertilizer applied according to manufacturer's recommendations.

I. Apply sod as required for new turf.

J. Water newly planted areas and keep moist until new turf is established.

3.6 TURF MAINTENANCE

A. General: Maintain and establish turf by watering, fertilizing, weeding, mowing, trimming, replanting, and performing other operations as required to establish healthy, viable turf. Roll,

regrade, and replant bare or eroded areas and remulch to produce a uniformly smooth turf. Provide materials and installation the same as those used in the original installation.

1. Fill in as necessary soil subsidence that may occur because of settling or other processes. Replace materials and turf damaged or lost in areas of subsidence.
2. In areas where mulch has been disturbed by wind or maintenance operations, add new mulch and anchor as required to prevent displacement.
3. Apply treatments as required to keep turf and soil free of pests and pathogens or disease. Use integrated pest management practices whenever possible to minimize the use of pesticides and reduce hazards.

B. Watering: Install and maintain temporary piping, hoses, and turf-watering equipment to convey water from sources and to keep turf uniformly moist to a depth of 4 inches.

1. Schedule watering to prevent wilting, puddling, erosion, and displacement of mulch. Lay out temporary watering system to avoid walking over muddy or newly planted areas.
2. Water turf with fine spray at a minimum rate of 1 inch per week unless rainfall precipitation is adequate.

C. Mow turf as soon as top growth is tall enough to cut. For sod, the first mowing shall not be attempted until the sod is firmly rooted. Repeat mowing to maintain specified height without cutting more than one-third of grass height. Remove no more than one-third of grass-leaf growth in initial or subsequent mowings. Do not delay mowing until grass blades bend over and become matted. Do not mow when grass is wet. Schedule initial and subsequent mowings to maintain the following grass height:

1. Mow bermudagrass to a height of 1/2 to 1 inch.
2. Prior to cutting secured areas, drive peds flush with grade.

D. Turf Postfertilization: Apply slow-release fertilizer after initial mowing and when grass is dry.

1. Use fertilizer that provides actual nitrogen of at least 1 lb/1000 sq. ft. to turf area.

3.7 SATISFACTORY TURF

A. Turf installations shall meet the following criteria as determined by Designer:

1. Satisfactory Sodded Turf: At end of maintenance period, a healthy, well-rooted, even-colored, viable turf has been established, free of weeds, open joints, bare areas, and surface irregularities.

B. Use specified materials to reestablish turf that does not comply with requirements, and continue maintenance until turf is satisfactory.

3.8 PESTICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents according to requirements of authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.9 CLEANUP AND PROTECTION

A. Promptly remove soil and debris created by turf work from paved areas. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Remove surplus soil and waste material, including excess subsoil, unsuitable soil, trash, and debris, and legally dispose of them off Owner's property.

C. Erect temporary fencing or barricades and warning signs as required to protect newly planted areas from traffic. Maintain fencing and barricades throughout initial maintenance period and remove after plantings are established.

D. Remove nondegradable erosion-control measures after grass establishment period.

3.10 MAINTENANCE SERVICE

A. Turf Maintenance Service: Provide full maintenance by skilled employees of landscape Installer. Maintain as required in "Turf Maintenance" Article. Begin maintenance immediately after each area is planted and continue until acceptable turf is established, but for not less than the following periods:

1. Sodded Turf: 30 days from date of Substantial Completion.

END OF SECTION 329200

SECTION 329300 - PLANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Plants.
2. Mulches.
3. Herbicides and pesticides.
4. Tree stabilization.
5. Landscape edgings.

B. Related Sections:

1. Section 015639 “Temporary Tree and Plant Protection” for protecting, trimming, pruning, repairing, and replacing existing trees to remain that interfere with, or are affected by, execution of the Work.
2. Section 311000 “Site Clearing” for protection of existing trees and plantings, topsoil stripping and stockpiling, and site clearing.
3. Section 312500 Erosion and Sedimentation Control for erosion control material.
4. Section 329200 "Turf and Grasses" for turf (lawn) planting.

1.3 DEFINITIONS

A. Backfill: The earth used to replace or the act of replacing earth in an excavation.

B. Balled and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with a ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.

C. Bare-Root Stock: Plants with a well-branched, fibrous-root system developed by transplanting or root pruning, with soil or growing medium removed, and with not less than the minimum root spread according to ANSI Z60.1 for type and size of plant required.

D. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.

E. Finish Grade: Elevation of finished surface of planting soil.

F. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant. Some sources classify herbicides separately from pesticides.

G. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

H. Planting Area: Areas to be planted.

I. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. See Section 329113 "Soil Preparation" for drawing designations for planting soils.

J. Plant; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.

K. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.

L. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.

M. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 COORDINATION

A. Coordination with Turf Areas (Lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.

1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

1.5 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site as part of the overall project pre-construction meeting.

1.6 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
2. Plant Photographs: Include color photographs in digital format of each required species and size of plant material as it will be furnished to Project. Take photographs from an angle depicting true size and condition of the typical plant to be furnished. Include a scale rod or other measuring device in each photograph. For species where more than 20 plants are required, include a minimum of three photographs showing the average plant, the best quality plant, and the worst quality plant to be furnished. Identify each photograph with the full scientific name of the plant, plant size, and name of the growing nursery.

B. Samples for Selection: Actual sample of finished products for each of the following:

1. Mineral Mulch: Sample of each mineral mulch required; typical of the lot of material to be furnished, in sealed plastic bags labeled with source of mulch. Provide accurate indication of color, texture, and makeup.

1.7 INFORMATIONAL SUBMITTALS

A. Qualification Data: For landscape Installer. Include list of similar projects completed by Installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of owners' contact persons.

B. Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:

1. Manufacturer's certified analysis of standard products.
2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.

C. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.

D. Sample Warranty: For special warranty.

1.8 CLOSEOUT SUBMITTALS

A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of plants during a calendar year. Submit before expiration of required maintenance periods.

1.9 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of plants.

1. Professional Membership: Installer shall be a member in good standing with the National Association of Landscape Professionals or AmericanHort.
2. Experience: Five years' experience in landscape installation in addition to requirements in Section 014000 "Quality Requirements."
3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
4. Personnel Certifications: Installer's field supervisor, personnel assigned to the Work shall have certification in one of the following categories from the National Association of Landscape Professionals:

a. Landscape Industry Certified Technician - Exterior.
b. Landscape Industry Certified Horticultural Technician.

5. Pesticide Applicator: State licensed, commercial.

B. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.

C. Measurements: Measure according to ANSI Z60.1. Do not prune to obtain required sizes.

1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container-grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches the root flare for trees up to 4-inch caliper size, and 12 inches above the root flare for larger sizes.
2. Other Plants: Measure with stems, petioles, and foliage in their normal position.

D. Plant Material Observation: Designer may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Designer may also observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and may reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.

1. Notify Designer of sources of planting materials seven days in advance of delivery to site.

1.10 DELIVERY, STORAGE, AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws if applicable.

B. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk materials with appropriate certificates.

C. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.

D. Handle planting stock by root ball.

E. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.

1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.

F. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

G. Deliver plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.

1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
2. Do not remove container-grown stock from containers before time of planting.
3. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly wet condition.

1.11 FIELD CONDITIONS

A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.

B. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

1. Spring Planting: April 15th – May 30th.
2. Fall Planting: September 23rd – December 30th.

C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

1.12 WARRANTY

A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner.
b. Structural failures including plantings falling or blowing over.
c. Faulty performance of tree stabilization.
d. Deterioration of metals, metal finishes, and other materials beyond normal weathering.

2. Warranty Periods: From date of Substantial Completion.

a. Trees, Shrubs, Vines, and Ornamental Grasses: 12 months.
b. Ground Covers, Biennials, Perennials, and Other Plants: 12 months.

3. Include the following remedial actions as a minimum:

a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.
b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
c. A limit of one replacement of each plant is required except for losses or replacements due to failure to comply with requirements.
d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

PART 2 - PRODUCTS

2.1 PLANT MATERIAL

A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant List, Plant Schedule, or Plant Legend indicated on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.

1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch in diameter; or with stem girdling roots are unacceptable.
2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.

B. Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of plants required. Plants of a larger size may be used if acceptable to Designer, with a proportionate increase in size of roots or balls.

C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which begins at root flare according to ANSI Z60.1. Root flare shall be visible before planting.

D. Labeling: Label each plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant.

E. If formal arrangements or consecutive order of plants is indicated on Drawings, select stock for uniform height and spread, and number the labels to assure symmetry in planting.

2.2 FERTILIZERS

A. Planting Tablets: Tightly compressed chip-type, long-lasting, slow-release, commercial-grade planting fertilizer in tablet form. Tablets shall break down with soil bacteria, converting nutrients into a form that can be absorbed by plant roots.

1. Size: 5-gram tablets.
2. Nutrient Composition: 20 percent nitrogen, 10 percent phosphorous, and 5 percent potassium, by weight plus micronutrients.

2.3 MULCHES

A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

1. Type: Shredded hardwood, Ground or shredded bark, Wood and bark chips, Pine straw, Pine needles, Peanut, pecan, and cocoa-bean shells.
2. Size Range: 3 inches maximum, 1/2 inch minimum.
3. Color: Natural. NO DYED MULCH PRODUCTS.

B. Mineral Mulch: Hard, durable stone, washed free of loam, sand, clay, and other foreign substances, of the following type, size range, and color:

1. Type: Smooth-faced river rock stone.
2. Size Range: 2 inch – 4 inch.
3. Color: Contractor to provide river rock color sample for approval by Landscape Architect.

2.4 PESTICIDES

A. General: Pesticide registered and approved by the EPA, acceptable to authorities having jurisdiction, and of type recommended by manufacturer for each specific problem and as required for Project conditions and application. Do not use restricted pesticides unless authorized in writing by authorities having jurisdiction.

B. Pre-Emergent Herbicide (Selective and Nonselective): Effective for controlling the germination or growth of weeds within planted areas at the soil level directly below the mulch layer.

C. Post-Emergent Herbicide (Selective and Nonselective): Effective for controlling weed growth that has already germinated.

2.5 TREE-STABILIZATION MATERIALS

A. Trunk-Stabilization Materials:

1. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal by length indicated, pointed at one end.
2. Wood Deadmen: Timbers measuring 8 inches in diameter and 48 inches long, treated with specified wood pressure-preservative treatment.
3. Flexible Ties: Wide rubber or elastic bands or straps of length required to reach stakes or turnbuckles.
4. Guys and Tie Wires: Are NOT permitted.
5. Tree-Tie Webbing: UV-resistant polypropylene or nylon webbing with brass grommets.
6. Guy Cables: Are NOT permitted.
7. Flags: Standard surveyor's plastic flagging tape, white, 6 inches long.
8. Proprietary Staking-and-Guying Devices: Proprietary stake or anchor and adjustable tie systems to secure each new planting by plant stem; sized as indicated and according to manufacturer's written recommendations.

2.6 LANDSCAPE EDGINGS

A. Aluminum Edging: Standard-profile extruded-aluminum edging, ASTM B221, Alloy 6063-T6, fabricated in standard lengths with interlocking sections with loops stamped from face of sections to receive stakes.

1. Edging Size: 3/16 inch thick by 4 inches deep.
2. Stakes: Aluminum, ASTM B221, Alloy 6061-T6, approximately 1-1/2 inches wide by 15 inches long.
3. Finish: Manufacturer's standard color finish.

a. Color: Brown.

2.7 MISCELLANEOUS PRODUCTS

A. Wood Pressure-Preservative Treatment: AWPA U1, Use Category UC4a; acceptable to authorities having jurisdiction, and containing no arsenic or chromium.

B. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.

C. Burlap: Non-synthetic, biodegradable.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive plants, with Installer present, for compliance with requirements and conditions affecting installation and performance of the Work.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Verify that plants and vehicles loaded with plants can travel to planting locations with adequate overhead clearance.
3. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable or which is dusty.

B. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Designer and replace with new planting soil.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.

B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Designer's acceptance of layout before excavating or planting. Make minor adjustments as required.

D. Lay out plants at locations directed by Designer. Stake locations of individual trees and shrubs and outline areas for multiple plantings.

3.3 PLANTING AREA ESTABLISHMENT

A. General: Prepare planting area for soil placement and mix planting soil according to Section 329113 "Soil Preparation.”

B. Placing Planting Soil: Blend planting soil in place.

C. Before planting, obtain Designer’s acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 EXCAVATION FOR TREES AND SHRUBS

A. Planting Pits and Trenches: Excavate circular planting pits.

1. Excavate planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are unacceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
2. Excavate approximately three times as wide as ball diameter for all plant stock.
3. Excavate at least 12 inches wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
4. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
5. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
6. Maintain angles of repose of adjacent materials to ensure stability. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
7. Maintain supervision of excavations during working hours.
8. Keep excavations covered or otherwise protected when unattended by Installer's personnel.

B. Backfill Soil: Subsoil and topsoil removed from excavations may be used as backfill soil unless otherwise indicated.

C. Obstructions: Notify Designer if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

D. Drainage: Notify Designer if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.

E. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.5 TREE, SHRUB, AND VINE PLANTING

A. Inspection: At time of planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.

B. Roots: Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.

C. Balled and Burlapped Stock: Set each plant plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.

1. Backfill: use planting soil for backfill. For trees, use excavated soil for backfill.
2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets equally distributed around each planting pit when pit is approximately one-half filled. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.

    a. Quantity: Two per plant or three for each caliper inch of tree.

5. Continue backfilling process. Water again after placing and tamping final layer of soil.

D. Balled and Potted and Container-Grown Stock: Set each plant plumb and in center of planting pit or trench with root flare 1 inch above adjacent finish grades.

1. Backfill: use planting soil for backfill. For trees, use excavated soil for backfill.
2. Carefully remove root ball from container without damaging root ball or plant.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.

4. Place planting tablets equally distributed around each planting pit when pit is approximately one-half filled. Place tablets beside the root ball about 1 inch from root tips; do not place tablets in bottom of the hole.

    a. Quantity: Two per plant or three for each caliper inch of tree.

5. Continue backfilling process. Water again after placing and tamping final layer of soil.

E. Slopes: When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball.

3.6 TREE, SHRUB, AND VINE PRUNING

A. Remove only dead, dying, or broken branches. Do not prune for shape.

B. Prune, thin, and shape trees, shrubs, and vines as directed by Designer.

C. Prune, thin, and shape trees, shrubs, and vines according to standard professional horticultural and arboricultural practices. Unless otherwise indicated by Designer, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.

D. Do not apply pruning paint to wounds.

3.7 TREE STABILIZATION

A. Trunk Stabilization by Upright Staking and Guying: Install trunk stabilization as follows unless otherwise indicated on Drawings. Stake and guy trees more than 14 feet in height and more than 3 inches in caliper unless otherwise indicated. NO WIRES TO STABILIZE TREES, USE FIBROUS OR WEBB GUYING MATERIAL.

1. Site-Fabricated, Staking-and-Guying Method: Install no fewer than three guys spaced equally around tree.

    a. Securely attach guys to stakes 30 inches long, driven to grade. Adjust spacing to avoid penetrating root balls or root masses.
    b. For trees more than 6 inches, anchor guys to wood deadmen buried at least 36 inches below grade.
    c. Support trees with bands of flexible ties at contact points with tree trunk and reaching to turnbuckle. Allow enough slack to avoid rigid restraint of tree.
    d. Support trees with fabric or webbing, connected to the brass grommets of tree-tie webbing at contact points with tree trunk and reaching to turnbuckle. Allow enough slack to avoid rigid restraint of tree.
    e. Attach flags to each guy wire, 30 inches above finish grade.
    f. Paint turnbuckles with luminescent white paint.

2. Proprietary Staking and Guying Device: Install staking and guying system sized and positioned as recommended by manufacturer unless otherwise indicated and according to manufacturer's written instructions.

3.8 GROUND COVER AND PLANT PLANTING

A. Set out and space ground cover and plants other than trees, shrubs, and vines as indicated on Drawings in even rows with triangular spacing.

B. Use planting soil for backfill.

C. Dig holes large enough to allow spreading of roots.

D. For rooted cutting plants supplied in flats, plant each in a manner that minimally disturbs the root system but to a depth not less than two nodes.

E. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

F. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

G. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.9 PLANTING AREA MULCHING

A. Mulch backfilled surfaces of planting areas and other areas indicated.

1. Trees and Treelike Shrubs in Turf Areas: Apply mulch ring of 3-inch average thickness, to cover the planting pit or trench. Do not place mulch within of trunks or stems.
2. Organic Mulch in Planting Areas: Apply 3-inch average thickness of organic mulch extending 12 inches beyond edge of individual planting pit or trench and over whole surface of planting area, and finish level with adjacent finish grades. Do not place mulch within 3 inches of trunks or stems.
3. Mineral Mulch: Apply 6-inch average thickness of mineral mulch where indicated and finish level with adjacent finish grades. Do not place mulch within 3 inches of trunks or stems.

3.10 INSTALLATION OF EDGING

A. Aluminum Edging: Install aluminum edging where indicated in accordance with manufacturer's written instructions. Anchor with aluminum stakes spaced approximately 36 inches apart, driven below top elevation of edging.

B. Shovel-Cut Edging: Separate mulched areas from turf areas, curbs, and paving with a 45-degree, 4- to 6-inch deep, shovel-cut edge as indicated on Drawings.

3.11 PLANT MAINTENANCE

A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings.

B. Fill in, as necessary, soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.

C. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices when possible, to minimize use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.

3.12 PESTICIDE APPLICATION

A. Apply pesticides and other chemical products and biological control agents according to authorities having jurisdiction and manufacturer's written recommendations. Coordinate applications with Owner's operations and others in proximity to the Work. Notify Owner before each application is performed.

B. Pre-Emergent Herbicides (Selective and Nonselective): Apply to tree, shrub, and ground-cover areas according to manufacturer's written recommendations. Do not apply to seeded areas.

C. Post-Emergent Herbicides (Selective and Nonselective): Apply only as necessary to treat already-germinated weeds and according to manufacturer's written recommendations.

3.13 REPAIR AND REPLACEMENT

A. General: Repair or replace existing or new trees and other plants that are damaged by construction operations, in a manner approved by Designer.

1. Submit details of proposed pruning and repairs.
2. Perform repairs of damaged trunks, branches, and roots within 24 hours, if approved.
3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Designer.

B. Remove and replace trees that are more than 25 percent dead or in an unhealthy condition before the end of the corrections period or are damaged during construction operations that Designer determines are incapable of restoring to normal growth pattern.

1. Provide new trees of same size as those being replaced for each tree of 6 inches or smaller in caliper size.
2. Provide one new tree of 6-inch caliper size for each tree being replaced that measures more than 6 inches in caliper size.
3. Species of Replacement Trees: Same species being replaced.

3.14 CLEANING AND PROTECTION

A. During planting, keep adjacent paving and construction clean and work area in an orderly condition. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.

C. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

D. After installation and before Substantial Completion remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.

E. At time of Substantial Completion, verify that tree-watering devices are in good working order and leave them in place. Replace improperly functioning devices.

3.15 MAINTENANCE SERVICE

A. Maintenance Service for Trees and Shrubs: Provide maintenance by skilled employees of landscape Installer. Maintain as required in "Plant Maintenance" Article. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below:

1. Maintenance Period: 12 months from date of Substantial Completion.

B. Maintenance Service for Ground Cover and Other Plants: Provide maintenance by skilled employees of landscape Installer. Maintain as required in "Plant Maintenance" Article. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below:

1. Maintenance Period: 12 months from date of Substantial Completion.

END OF SECTION 329300

SECTION 331415 - SITE WATER DISTRIBUTION PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Water-distribution piping and related components outside the building for domestic water service. Terminate water-service piping with appropriate fitting for extension by Divisions 21 and 22.

B. Related Requirements:

1. Section 315000 "Excavation Support and Protection."

1.2 DEFINITIONS

A. EPDM: Ethylene-propylene-diene terpolymer rubber.

B. PA: Polyamide (nylon) plastic.

C. PE: Polyethylene plastic.

D. PP: Polypropylene plastic.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings:

1. Detail precast concrete vault assemblies and indicate dimensions, method of field assembly, and components.

1.4 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: For piping and specialties including relation to other services in same area, drawn to scale. Show piping and specialty sizes and valves, meter and specialty locations, and elevations.

B. Field Quality-Control Submittals:

1. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For each type of product indicated.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Preparation for Transport: Prepare piping, valves, and meters, to the following:

1. Ensure that piping, valves, and meters, are dry and internally protected against rust and corrosion.
2. Protect threaded ends and flange faces against damage.
3. Set piping, valves, and meters in best position for handling and to prevent rattling.

B. During Storage: Use precautions for piping, valves, and meters, according to the following:

1. Do not remove end protectors unless necessary for inspection; then reinstall for storage.
2. Protect from weather. Store indoors and maintain temperature higher than ambient dew point temperature. Support off the ground or pavement in watertight enclosures when outdoor storage is necessary.

C. Handling: Use sling to handle products if size requires handling by crane or lift. Rig products to avoid damage to exposed parts. Do not use handwheels or stems as lifting or rigging points.

D. Deliver piping with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe-end damage and to prevent entrance of dirt, debris, and moisture.

E. Protect stored piping from moisture and dirt. Elevate above grade. Do not exceed structural capacity of floor when storing inside.

F. Protect flanges, fittings, and specialties from moisture and dirt.

G. Store plastic piping protected from direct sunlight. Support to prevent sagging and bending.

1.7 PROJECT CONDITIONS

A. Interruption of Existing Water-Distribution Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary water-distribution service in accordance with requirements indicated:

1. Notify Owner no fewer than two days in advance of proposed interruption of service.
2. Do not proceed with interruption of water-distribution service without Owner's written permission.

1.8 COORDINATION

A. Coordinate connection to water main with utility company.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Comply with requirements of utility company supplying water. Include tapping of water mains and backflow prevention.

B. Comply with standards of authorities having jurisdiction for domestic water-service piping, including materials, installation, testing, and disinfection.

C. Piping materials to bear label, stamp, or other markings of specified testing agency.

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a testing agency acceptable to authorities having jurisdiction, and marked for intended location and application.

E. Comply with ASTM F645 for selection, design, and installation of thermoplastic water piping.

F. Comply with NFPA 24 for materials, installations, tests, flushing, and valve and hydrant supervision for fire-suppression water-service piping.

G. All piping and appurtenances intended to convey or dispense water for human consumption are to comply with the U.S. Safe Drinking Water Act (SDWA), with requirements of the Authority Having Jurisdiction (AHJ), and with NSF 61/NSF 372 or are certified in compliance with NSF 61/NSF 372 by an ANSI-accredited third-party certification body, that the weighted average lead content at wetted surfaces is less than or equal to 0.25 percent.

2.2 PIPING MATERIALS

A. Comply with requirements in "Piping Applications" Article for applications of pipe, tube, fitting materials, and joining methods for specific services, service locations, and service sizes.

B. Potable-water piping and components comply with NSF 14, NSF 61, and NSF 372.

1. match PE pipe dimensions and class.

2.3 PE PIPE AND FITTINGS

A. PE, ASTM Pipe: ASTM D2239, SIDR No. 5.3, 7, or 9; with PE compound number required to give pressure rating not less than 160 psig.

1. Insert Fittings for PE Pipe: ASTM D2609, made of PA, PP, or PVC with serrated male insert ends matching inside of pipe. Include bands or crimp rings.
2. Molded PE Fittings: ASTM D3350, PE resin, socket- or butt-fusion type, made to match PE pipe dimensions and class.

B. PE, AWWA Pipe: AWWA C906, DR No. 7.3, 9, or 9.3; with PE compound number required to give pressure rating not less than 160 psig.

1. PE, AWWA Fittings: AWWA C906, socket- or butt-fusion type, with DR number matching pipe and PE compound number required to give pressure rating not less than 160 psig.

2.4 PVC PIPE AND FITTINGS

A. PVC, Schedule 40 Pipe: ASTM D1785.

1. PVC, Schedule 40 Socket Fittings: ASTM D2466.

B. PVC, Schedule 80 Pipe: ASTM D1785.

1. PVC, Schedule 80 Socket Fittings: ASTM D2467.
2. PVC, Schedule 80 Threaded Fittings: ASTM D2464.

C. PVC Pipe: AWWA C900 UL 1285, Class 150 and Class 200, with bell end with gasket, and with spigot end.

1. Comply with UL 1285 for fire-suppression water service.
2. PVC Fabricated Fittings: AWWA C900, Class 150 and Class 200, with bell-and-spigot or double-bell ends. Include elastomeric gasket in each bell.
3. PVC Molded Fittings: AWWA C907, Class 150, with bell-and-spigot or double-bell ends. Include elastomeric gasket in each bell.

2.5 PIPING JOINING MATERIALS

A. Plastic Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer unless otherwise indicated.

2.6 PIPING SPECIALTIES

A. Transition Fittings: Manufactured fitting or coupling same size as, with pressure rating at least equal to and ends compatible with, piping to be joined.

2.7 GATE VALVES

A. Gate Valves - AWWA, Cast Iron:

1. Source Limitations: Obtain gate valves - AWWA, cast iron, from single manufacturer.

2. 5Gate Valves - OS&Y, Rising Stem, Resilient Seated: Cast- or ductile-iron body and bonnet, with bronze or cast- or ductile-iron gate, resilient seats, and bronze stem.

    a. Standard: AWWA C509 or AWWA C515.
    b. Minimum Pressure Rating: 200 psig.
    c. End Connections: Mechanical joint, flanged, threaded, or push on.

B. Gate Valves - UL/FM Global, Cast Iron:

1. Source Limitations: Obtain gate valves - UL/FM Global, cast iron, from single manufacturer.

2. Gate Valves - OS&Y, Rising Stem, Resilient Seated: Cast- or ductile-iron body and bonnet and bronze seating material.

    a. Standards: AWWA C509 or AWWA C515, UL listed and FM Global approved.
    b. Minimum Pressure Rating: 175 psig.
    c. End Connections: Mechanical joint or flanged.
    d. Interior Coating: Complying with AWWA C550.

2.8 GATE VALVE ACCESSORIES AND SPECIALTIES

A. Tapping-Sleeve Assemblies: Sleeve and valve compatible with drilling machine.

1. Source Limitations: Obtain tapping-sleeve assemblies from single manufacturer.
2. Standard: MSS SP-60.
3. Tapping Sleeve: Cast- or ductile-iron or stainless steel, two-piece bolted sleeve with flanged outlet for new branch connection. Include sleeve matching size and type of pipe material being tapped and with recessed flange for branch valve.
4. Valve: AWWA, cast-iron, nonrising-stem, metal resilient-seated gate valve with one raised face flange mating tapping-sleeve flange.

B. Valve Boxes: Comply with AWWA M44 for cast-iron valve boxes. Include top section, adjustable extension of length required for depth of burial of valve, plug with lettering "WATER," and bottom section with base that fits over valve and with a barrel approximately 5 inches (125 mm) in diameter.

1. Operating Wrenches: Steel, tee-handle with one pointed end, stem of length to operate deepest buried valve, and socket matching valve operating nut.

C. Indicator Posts: UL 789, FM Global approved, vertical-type, cast-iron body with operating wrench, extension rod, and adjustable cast-iron barrel of length required for depth of burial of valve.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Comply with excavating, trenching, and backfilling requirements in Section 312000 "Earth Moving."

3.2 PIPING APPLICATIONS

A. Transition couplings and special fittings with pressure ratings at least equal to piping pressure rating may be used unless otherwise indicated.

B. Do not use flanges or unions for underground piping.

C. Flanges, unions, grooved-end-pipe couplings, and special fittings may be used, instead of joints indicated, on aboveground piping and piping in vaults.

D. Underground water-service piping to be the following:

1. PVC 1120 in accordance with AWWA C-900. Pipe jointing will be elastomeric joints only.
2. Ductile-iron in accordance with AWWA Standard C-151 and shall have a cement-mortar lining of standard thickness in accordance with AWWA C-104. Push on joints in accordance with AWWA C-111.

3.3 VALVE APPLICATIONS

A. General Application: Use mechanical-joint-end valves for NPS 3 (DN 80) and larger underground installation. Use threaded- or flanged-end valves for installation in vaults. Use UL/FM Global, nonrising-stem gate valves for installation with indicator posts. Use corporation valves and curb valves with ends compatible with piping, for NPS 2 (DN 50) and smaller installation.

3.4 PIPING SYSTEMS - COMMON REQUIREMENTS

A. Comply with Section 330500 "Common Work Results for Utilities" for piping-system common requirements.

B. Provide a continuous bare copper or aluminum tracer wire not less than 0.10 inch in diameter in sufficient length over each separate run of nonmetallic pipe.

3.5 INSTALLATION OF PIPING

A. Water-Main Connection:

1. Tap water main in accordance with requirements of water utility company and of size and in location indicated.

B. Make connections NPS 2 and smaller with drilling machine according to the following:

1. Install tapping sleeve and tapping valve in accordance with MSS SP-60.
2. Install tapping sleeve on pipe to be tapped. Position flanged outlet for gate valve.
3. Use tapping machine compatible with valve and tapping sleeve; cut hole in main. Remove tapping machine and connect water-service piping.
4. Install gate valve onto tapping sleeve. Comply with MSS SP-60. Install valve with stem pointing up and with valve box.

C. Install PE pipe in accordance with ASTM D2774 and ASTM F645.

D. Install PVC, AWWA pipe in accordance with ASTM F645 and AWWA M23.

E. Bury piping with depth of cover over top at least 36 inches, with top at least 12 inches below level of maximum frost penetration, and according to the following:

1. Under Driveways: With at least 36 inches of cover over top.

2. In Loose Gravelly Soil and Rock: With at least 12 inches of additional cover.

F. Install piping by tunneling or jacking, or combination of both, under streets and other obstructions that cannot be disturbed.

G. Sleeves are specified in Section 210517 "Sleeves and Sleeve Seals for Fire-Suppression Piping" and Section 220517 "Sleeves and Sleeve Seals for Plumbing Piping."

H. Mechanical sleeve seals are specified in Section 220517 "Sleeves and Sleeve Seals for Plumbing Piping."

I. Install underground piping with restrained joints at horizontal and vertical changes in direction. Use restrained-joint piping, thrust blocks, anchors, tie-rods and clamps, and other supports.

3.6 JOINT CONSTRUCTION

A. Comply with Section 330500 "Common Work Results for Utilities" for basic piping joint construction.

B. Make pipe joints according to the following:

1. PE Piping Insert-Fitting Joints: Use plastic insert fittings and fasteners in accordance with fitting manufacturer's written instructions.

2. PVC Piping Gasketed Joints: Use joining materials in accordance with AWWA C900. Construct joints with elastomeric seals and lubricant in accordance with ASTM D2774 or ASTM D3139 and pipe manufacturer's written instructions.

3.7 INSTALLATION OF VALVES

A. AWWA Gate Valves: Comply with AWWA C600 and AWWA M44. Install each underground valve with stem pointing up and with valve box.

B. UL-Listed or FM Global-Approved Gate Valves: Comply with NFPA 24. Install each underground valve and valves in vaults with stem pointing up and with vertical cast-iron indicator post.

C. Comply with requirements for concrete piers in Section 033000 "Cast-in-Place Concrete" for support of valves and piping not direct buried.

3.8 INSTALLATION OF BACKFLOW PREVENTERS

A. Install backflow preventers of type, size, and capacity indicated. Include valves and test cocks. Install in accordance with requirements of plumbing and health department and authorities having jurisdiction.

B. Do not install backflow preventers that have relief drain in vault or in other spaces subject to flooding.

C. Do not install bypass piping around backflow preventers.

3.9 CONNECTIONS

A. See Section 330500 "Common Work Results for Utilities" for piping connections to valves and equipment.

B. Connect water-distribution piping to existing water main. Use tapping sleeve and tapping valve.

C. Connect waste piping from concrete vault drains to sanitary sewerage system. See Section 221313 "Facility Sanitary Sewers" for connection to sanitary-sewer.

D. Ground equipment in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."

E. Connect wiring in accordance with Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

3.10 FIELD QUALITY CONTROL

A. Piping Tests: Conduct piping tests before joints are covered and after concrete thrust blocks have hardened sufficiently. Fill pipeline 24 hours before testing and apply test pressure to stabilize system. Use only potable water.

B. Hydrostatic Tests: Test at not less than one-and-one-half times working pressure for two hours.

1. Increase pressure in 50 psig increments and inspect each joint between increments. Hold at test pressure for one hour; decrease to 0 psig . Slowly increase again to test pressure and hold for one more hour. Maximum allowable leakage is 2 quarts per hour per 100 joints. Remake leaking joints with new materials and repeat test until leakage is within allowed limits.

C. Prepare reports of testing activities.

3.11 IDENTIFICATION

A. Install continuous underground detectable warning tape during backfilling of trench for underground water-distribution piping. Locate below finished grade, directly over piping. Underground warning tapes are specified in Section 312000 "Earth Moving."

B. Permanently attach equipment nameplate or marker indicating plastic water-service piping, on main electrical meter panel. See Section 330500 "Common Work Results for Utilities" for identifying devices.

3.12 CLEANING

A. Clean and disinfect water-distribution piping as follows:

1. Purge new water-distribution piping systems and parts of existing systems that have been altered, extended, or repaired before use.
2. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in NFPA 24 for flushing of piping. Flush piping system with clean, potable water until dirty water does not appear at points of outlet.
3. Use purging and disinfecting procedure prescribed by authorities having jurisdiction or, if method is not prescribed by authorities having jurisdiction, use procedure described in AWWA C651 or do as follows:

a. Fill system or part of system with water/chlorine solution containing at least 50 ppm of chlorine; isolate and allow to stand for 24 hours.

b. Drain system or part of system of previous solution and refill with water/chlorine solution containing at least 200 ppm of chlorine; isolate and allow to stand for three hours.
c. After standing time, flush system with clean, potable water until no chlorine remains in water coming from system.
d. Submit water samples in sterile bottles to authorities having jurisdiction. Repeat procedure if biological examination shows evidence of contamination.

B. Prepare reports of purging and disinfecting activities.

END OF SECTION 331415

SECTION 334200 - STORMWATER CONVEYANCE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:
   1. PVC pipe and fittings.
   2. Concrete pipe and fittings.
   3. Pressure pipe couplings.
   4. Cleanouts.
   5. Drains.
   6. Manholes.
   7. Stormwater inlets.
   8. Pipe outlets.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

B. Shop Drawings:

   1. Manholes: Include plans, elevations, sections, details, frames, and covers.
   2. Stormwater inlets. Include plans, elevations, sections, details, frames, covers, and grates.

1.4 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from storm drainage system piping. Indicate interface and spatial relationship between manholes, piping, and proximate structures.

B. Profile Drawings: Show system piping in elevation. Draw profiles at horizontal scale of not less than 1 inch equals 50 feet and vertical scale of not less than 1 inch equals 5 feet. Indicate manholes and piping. Show types, sizes, materials, and elevations of other utilities crossing system piping.

C. Product Certificates: For each type of cast-iron soil pipe and fitting, from manufacturer.

D. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Piping materials shall bear label, stamp, or other markings of specified testing agency.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Do not store plastic manholes, pipe, and fittings in direct sunlight.

B. Protect pipe, pipe fittings, and seals from dirt and damage.

C. Handle manholes in accordance with manufacturer's written rigging instructions.

D. Handle stormwater inlets in accordance with manufacturer's written rigging instructions.

1.7 FIELD CONDITIONS

A. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service in accordance with requirements indicated:

1. Notify Architect no fewer than two days in advance of proposed interruption of service.
2. Do not proceed with interruption of service without Architect's written permission.

PART 2 - PRODUCTS

2.1 CORRUGATED-PE PIPE AND FITTINGS

A. Source Limitations: Obtain corrugated-PE pipe and fittings from single manufacturer.

B. Corrugated-PE Drainage Pipe and Fittings NPS 3 to NPS 10 (DN 80 to DN 250): AASHTO M 252, Type S, with smooth waterway for coupling joints.

C. Corrugated-PE Pipe and Fittings NPS 12 to NPS 60 (DN 300 to DN 1500): AASHTO M 294, Type S, with smooth waterway for coupling joints.

D. Corrugated-PE Silttight Couplings: PE sleeve with ASTM D1056, Type 2, Class A, Grade 2 gasket material that mates with pipe and fittings.

E. Corrugated-PE Soiltight Couplings: AASHTO M 294, corrugated, matching pipe and fittings.

2.2 NONPRESSURE TRANSITION COUPLINGS

A. Comply with ASTM C1173, elastomeric, sleeve-type, reducing or transition coupling, for joining underground nonpressure piping. Include ends of same sizes as piping to be joined, and corrosion-resistant-metal tension band and tightening mechanism on each end.

B. Sleeve Materials:

1. For Concrete Pipes: ASTM C443 , rubber.

C. Ring-Type, Flexible Couplings:

1. Source Limitations: Obtain ring-type, flexible couplings from single manufacturer.
2. Description: Elastomeric compression seal with dimensions to fit inside bell of larger pipe and for spigot of smaller pipe to fit inside ring.

2.3 PVC Backwater Valves:

1. Source Limitations: Obtain PVC backwater valves from single manufacturer.
2. Description: Horizontal type; with PVC body, PVC removable cover, and PVC swing check valve.

2.4 PVC Cleanouts:

1. Source Limitations: Obtain PVC cleanouts from single manufacturer.
2. Description: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to cleanout of same material as sewer piping.

2.5 DRAINS

A. Cast-Iron Area Drains:
1. Source Limitations: Obtain cast-iron area drains from single manufacturer.
2. Description: ASME A112.6.3 gray-iron round body with anchor flange and round[secured] grate. Include bottom outlet with inside caulk or spigot connection, of sizes indicated.
3. Top-Loading Classification(s): Medium Duty and Heavy Duty.

2.6 STORMWATER INLETS

A. Combination Inlets: Made with vertical curb and horizontal gutter openings[, of materials and dimensions in accordance with utility standards]. Include heavy-duty frames and grates.

B. Frames and Grates: Heavy duty [, in accordance with utility standards].

2.7 PIPE OUTLETS

A. Riprap Basins: Broken, irregularly sized and shaped, graded stone in accordance with NSSGA's "Quarried Stone for Erosion and Sediment Control."

1. Average Size: NSSGA No. R-3, screen opening 2 inches.
2. Average Size: NSSGA No. R-4, screen opening 3 inches.
3. Average Size: NSSGA No. R-5, screen opening 5 inches.

B. Filter Stone: In accordance with NSSGA's "Quarried Stone for Erosion and Sediment Control," No. FS-2, No. 4 screen opening, average-size graded stone.

C. Energy Dissipaters: In accordance with NSSGA's "Quarried Stone for Erosion and Sediment Control," No. A-1, 3-ton average weight armor stone, unless otherwise indicated.

PART 3 - EXECUTION

3.1 EARTHWORK

A. Excavation, trenching, and backfilling are specified in Section 312000 "Earth Moving."

3.2 PIPING INSTALLATION

A. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of underground storm drainage piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.

B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings in accordance with manufacturer's written instructions for use of lubricants, cements, and other installation requirements.

C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.

D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.

E. When installing pipe under streets or other obstructions that cannot be disturbed, use pipe-jacking process of microtunneling.

F. Install gravity-flow, nonpressure drainage piping in accordance with the following:

1. Install piping pitched down in direction of flow.

2. Install piping NPS 6 and larger with restrained joints at tee fittings and at changes in direction. Use corrosion-resistant rods, pipe or fitting manufacturer's proprietary restraint system, or cast-in-place concrete supports or anchors.
3. Install piping with 36 inch- minimum cover.
4. Install PVC cellular-core piping in accordance with ASTM D2321 and ASTM F1668.
5. Install reinforced-concrete sewer piping in accordance with ASTM C1479 and ACPA's "Concrete Pipe Installation Manual."

3.3 PIPE JOINT CONSTRUCTION

A. Join gravity-flow, nonpressure drainage piping in accordance with the following:
1. Join PVC cellular-core piping in accordance with ASTM D2321 and ASTM F891 for solvent-cemented joints.
2. Join reinforced-concrete sewer piping in accordance with ACPA's "Concrete Pipe Installation Manual" for rubber-gasketed joints.
3. Join dissimilar pipe materials with nonpressure-type flexible couplings.

3.4 BACKWATER VALVE INSTALLATION

A. Install horizontal-type backwater valves in piping where indicated.

3.5 DRAIN INSTALLATION

A. Install type of drains in locations indicated.

1. Use Light-Duty, top-loading classification drains in earth or unpaved foot-traffic areas.
2. Use Medium-Duty, top-loading classification drains in paved foot-traffic areas.
3. Use Heavy-Duty, top-loading classification drains in vehicle-traffic service areas.
4. Use Extra-Heavy-Duty, top-loading classification drains in roads.

B. Embed drains in 4-inch- minimum concrete around bottom and sides.

C. Fasten grates to drains if indicated.

D. Set drain frames and covers with tops flush with pavement surface.

3.6 STORMWATER OUTLET INSTALLATION

A. Construct riprap of broken stone, as indicated.

B. Install outlets that spill onto grade, anchored with concrete, where indicated.

C. Install outlets that spill onto grade, with flared end sections that match pipe, where indicated.

D. Construct energy dissipaters at outlets, as indicated.

3.7 IDENTIFICATION

A. Materials and their installation are specified in Section 312000 "Earth Moving." Arrange for installation of green warning tape directly over piping and at outside edge of underground structures.

1. Use[warning tape or] detectable warning tape over ferrous piping.
2. Use detectable warning tape over nonferrous piping and over edges of underground structures.

3.8 FIELD QUALITY CONTROL

A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.

1. Submit separate reports for each system inspection.
2. Defects requiring correction include the following:

    a. Alignment: Less than full diameter of inside of pipe is visible between structures.
    b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
    c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
    d. Infiltration: Water leakage into piping.
    e. Exfiltration: Water leakage from or around piping.

3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
4. Reinspect and repeat procedure until results are satisfactory.

B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.

1. Do not enclose, cover, or put into service before inspection and approval.
2. Test completed piping systems in accordance with requirements of authorities having jurisdiction.
3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
4. Submit separate report for each test.
5. Gravity-Flow Storm Drainage Piping: Test in accordance with requirements of authorities having jurisdiction, UNI-B-6, and the following:

    a. Exception: Piping with soiltight joints unless required by authorities having jurisdiction.
    b. Option: Test plastic piping in accordance with ASTM F1417.

6. Force-Main Storm Drainage Piping: Perform hydrostatic test after thrust blocks, supports, and anchors have hardened. Test at pressure not less than 1-1/2 times the

maximum system operating pressure, but not less than [150] <Insert number> psig (kPa).

a. Ductile-Iron Piping: Test in accordance with AWWA C600, "Hydraulic Testing" Section.
b. PVC Piping: Test in accordance with AWWA M23, "Testing and Maintenance" Chapter.

C. Leaks and loss in test pressure constitute defects that must be repaired.

D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.9 CLEANING

A. Clean interior of piping of dirt and superfluous materials. Flush with potable water. Flush with water.

END OF SECTION 334200

WAYMER SPLASH PAD

14200 HOLBROOKS ROAD

HUNTERSVILLE, NC 28078

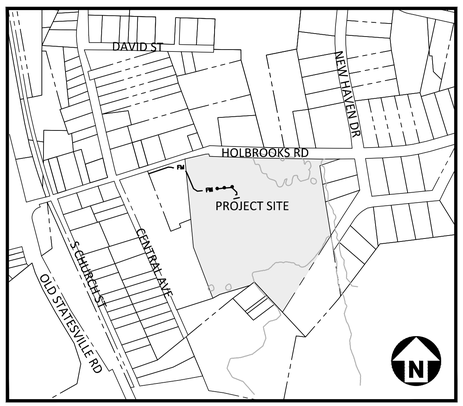
CITY: HUNTERSVILLE
COUNTY: MECKLENBURG
PUBLIC

100% CONSTRUCTION DOCUMENT SET

ACELLA PROJECT NUMBER: COM-500203

DATE: OCTOBER 22, 2025

REVISION DATE: MARCH 31, 2026



VICINITY MAP

N.T.S.

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E001	ELECTRICAL NOTES, ABBREVIATIONS + SYMBOL LEGEND
E051	ELECTRICAL SITE PLAN
E501	ELECTRICAL DETAILS

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NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C-0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE-EADY
05.01.2026

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN J. IGOE
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REVISIONS

NO.	DATE	
1	05. 01. 2026	ADDENDUM 1

CONSTRUCTION DRAWINGS FOR:

WAYMER SPLASH PAD
100% CD SET
HUNTERSVILLE, NC 28078
PROJECT NUMBER: HUN-24004

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-CS1.dwg, 5/5/2026 12:06:29 PM, Haley Mae-Eady

GENERAL NOTES

1. THIS CONSTRUCTION DOCUMENT SET HAS BEEN CREATED TO ILLUSTRATE THE GENERAL DESIGN INTENT OF THE PROJECT. CONTRACTOR SHALL WORK CLOSELY WITH THE OWNER'S REPRESENTATIVE, PROVIDING NOTIFICATION IF ADDITIONAL INFORMATION IS NEEDED TO PROPERLY CONSTRUCT/INSTALL/BUILD ELEMENTS DEPICTED HEREIN AND SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF DISCREPANCIES EXIST WITHIN THE CONSTRUCTION DOCUMENT SET.

2. CONTRACTOR TO PROVIDE THE MOST RECENT APPROVED AND PERMITTED CONSTRUCTION DOCUMENT SET TO ALL SUBCONTRACTORS. ALL SUBCONTRACTORS SHALL BE GIVEN THE ENTIRE SET OF DOCUMENTS. IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO REVIEW THE ENTIRE PLAN SET INCLUDING THE MOST RECENT CONTRACT DOCUMENT ADDENDUMS, AMENDMENTS, RE-ISSUES, BULLETIN DRAWINGS, ETC. AND ENSURE THEY HAVE THE NECESSARY INFORMATION TO ACCURATELY SCOPE THE PROJECT FOR THE SUBCONTRACTORS' RESPECTIVE TRADE. NO ALLOWANCE WILL BE MADE FOR FAILURE TO BECOME FAMILIAR WITH THE COMPLETE SET OF PROJECT DOCUMENTS.

3. CONTRACTOR IS ADVISED THAT ADDITIONAL NOTES MAY BE FOUND ON SUBSEQUENT SHEETS OF THE CONSTRUCTION DOCUMENT SET AND THAT SUCH NOTES, WHILE PERTAINING TO THE SPECIFIC DRAWINGS ON WHICH THEY ARE PLACED, SUPPLEMENT THE NOTES LISTED HEREIN. ALL NOTES SHALL BE APPLICABLE TO ALL DRAWINGS, UNLESS OTHERWISE NOTED.

4. CONTRACTOR SHALL REFER TO AND COORDINATE WITH ARCHITECTURAL, STRUCTURAL, AND MEP DRAWINGS AT ALL TIMES PRIOR TO AND DURING CONSTRUCTION. CONFLICTS OR MISSING INFORMATION SHALL BE BROUGHT TO THE OWNER'S REPRESENTATIVE ATTENTION IN WRITING.

5. NOTES ARE PROVIDED FOR CONVENIENCE. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

6. DIGITAL BASE FILE MAY BE MADE AVAILABLE FOR USE IN FIELD LOCATION OF ELEMENTS AND SITE FEATURES. HARDCOPY INFORMATION THAT CONFLICTS SHALL BE BROUGHT TO THE OWNER'S REPRESENTATIVE'S ATTENTION. HARDCOPY INFORMATION SHALL PREVAIL. PHYSICAL HARDCOPIES (I.E. PRINTED) AS WELL AS PUBLISHED DIGITAL SETS (I.E. PDF FILE) ARE CONSIDERED HARDCOPY.

7. PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION, CONTRACTOR SHALL HOLD A PRE-CONSTRUCTION CONFERENCE. THE OWNER, CONTRACTOR, OWNER'S REPRESENTATIVE, AND REPRESENTATIVES FROM AUTHORITIES HAVING JURISDICTION SHALL BE INVITED TO ATTEND THE MEETING.

8. CONTRACTOR SHALL VERIFY THAT NECESSARY PERMITS HAVE BEEN OBTAINED PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION AND HAVE COPIES AVAILABLE ON JOBSITE.

9. CONTRACTOR SHALL COORDINATE AND SCHEDULE ALL APPLICABLE INSPECTIONS AND CERTIFICATIONS THAT MAY BE REQUIRED. ANY ASSOCIATED FEES OR SPECIALTY EQUIPMENT REQUIRED SHALL BE THE CONTRACTOR'S RESPONSIBILITY IN ACCORDANCE WITH THE CONTRACT TERMS.

10. THE DESIGN PROFESSIONAL DISCLAIMS ANY ROLE IN THE CONSTRUCTION MEANS/METHODS ASSOCIATED WITH THE PROJECT AS SET FORTH IN THESE PLANS. CONSTRUCTION MEANS/METHODS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

11. CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH CURRENT APPLICABLE BUILDING CODES, ORDINANCES, AND LOCAL REGULATIONS THROUGHOUT CONSTRUCTION OF THE PROJECT.

12. CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND CURRENT APPLICABLE LOCAL, STATE, AND FEDERAL AGENCIES' REGULATIONS, STANDARDS, AND SPECIFICATIONS.

13. CONSTRUCTION SHALL CONFORM TO OR EXCEED CURRENT REGULATIONS OF THE AMERICANS WITH DISABILITIES ACT AND OTHER CURRENT APPLICABLE STANDARDS AND GOVERNING AUTHORITIES. FIELD CONDITIONS THAT MAY RESULT IN NONCOMPLIANCE WITH ADA REGULATIONS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE TO DETERMINE RESOLUTION PRIOR TO PROCEEDING WITH WORK.

14. CONTRACTOR IS REQUIRED TO MEET CURRENT APPLICABLE FEDERAL, OSHA, STATE, AND LOCAL REGULATIONS CONCERNING PROJECT SAFETY AND ASSUMES RESPONSIBILITY FOR SAFETY ON THE PROJECT.

15. CONTRACTOR SHALL NOT DO WORK BEYOND THE LIMIT OF DISTURBANCE AS DEFINED ON THE DRAWINGS AND AUTHORIZED BY THE RESPECTIVE AUTHORITIES. IN SOME DRAWINGS, THE LIMIT OF DISTURBANCE IS GRAPHICALLY SHOWN TO CLEARLY DESCRIBE WORK TO BE PERFORMED. CONTRACTOR SHALL UTILIZE ONLY THAT SPACE WHICH IS REQUIRED TO PERFORM THE WORK AS PERMITTED/APPROVED. CONTRACTOR SHALL TAKE SOLE RESPONSIBILITY FOR UNAUTHORIZED WORK BEYOND THE LIMIT OF DISTURBANCE AND SHALL BE RESPONSIBLE FOR CORRECTING DISTURBED AREAS BEYOND THAT LIMIT AT NO ADDITIONAL COST TO THE OWNER. CORRECTIVE WORK SHALL BE TO THE SATISFACTION OF THE OWNER.

16. CONTRACTOR SHALL PROTECT THE PUBLIC FROM CONSTRUCTION AREAS AND ASSOCIATED ACTIVITY DURING LAND DISTURBING ACTIVITY, DEMOLITION, AND CONSTRUCTION.

17. CONTRACTOR TO PROVIDE REQUIRED CLEANING AND CONTROL MEASURES TO ENSURE STREETS AND SIDEWALKS ARE KEPT CLEAN FROM DIRT AND DEBRIS TO THE STANDARD ESTABLISHED BY PERMITTING AUTHORITIES.

18. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THE OWNER HAS IDENTIFIED EXISTING WETLANDS, STREAMS, AND OTHER WATER BODIES, ESTABLISHED JURISDICTION, AND PERMITTED CONSTRUCTION IMPACTS PRIOR TO CONTRACTOR STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION.

19. CONTRACTOR SHALL TIE FIELD SURVEY POINTS TO THE SAME CONTROL POINTS AS THE EXISTING CONDITIONS SURVEY. CONTRACTOR TO MAINTAIN BENCHMARK UNTIL CERTIFICATE OF OCCUPANCY IS ISSUED.

20. OWNER SHALL PROVIDE GEOTECHNICAL REPORT TO CONTRACTOR FOR DETERMINING EFFECTS OF SUB-SURFACE CONDITIONS ON WORK AND SHALL BID AND CONSTRUCT WORK IN ACCORDANCE WITH FINDINGS.

21. PRIOR TO SUBMITTING BID PRICING, CONTRACTOR SHALL VISIT THE PROJECT SITE AND INVESTIGATE CONDITIONS AFFECTING THE WORK INCLUDING BUT NOT LIMITED TO CONDITIONS THAT HAVE BEARING UPON:
    a. TRANSPORTATION, DISPOSAL, OR HANDLING AND STORAGE OF MATERIALS
    b. AVAILABILITY OF LABOR, WATER, ELECTRICAL POWER, ROADS AND UNCERTAINTIES OF WEATHER, OR SIMILAR PHYSICAL CONDITIONS AT THE PROJECT SITE
    c. THE CHARACTER OF EQUIPMENT AND FACILITIES NEEDED PRIOR TO AND DURING EXECUTION OF THE WORK

    CONTRACTOR SHALL BRING UNUSUAL CONDITIONS AND DISCREPANCIES THAT MAY IMPACT CONSTRUCTION COSTS TO THE OWNER'S ATTENTION PRIOR TO SUBMITTING BID PRICING.

22. FAILURE BY THE CONTRACTOR TO BECOME ACQUAINTED WITH EXISTING SITE CONDITIONS AND AVAILABLE INFORMATION PRESENTED BY THE CONTRACT DOCUMENTS, OR ANY OTHER INFORMATION MADE AVAILABLE TO THE CONTRACTOR PRIOR TO RECEIPT OF BIDS, SHALL NOT RELIEVE THE CONTRACTOR FROM THE RESPONSIBILITY FOR ESTIMATING PROPERLY THE DIFFICULTY OR COST OF SUCCESSFULLY PERFORMING THE WORK.

23. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON FIELD SURVEYS AND THE AVAILABLE RECORD DRAWINGS. CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND LOCATIONS OF EXISTING UTILITIES PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION. UNUSUAL CONDITIONS AND DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE IMMEDIATELY.

24. CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATING SERVICES INDEPENDENT OF "NC811". REPORT DISCREPANCIES TO THE OWNER'S REPRESENTATIVE IMMEDIATELY. CONTRACTOR SHALL NOT COMMENCE WORK UNTIL UTILITY LINES HAVE BEEN MARKED. UTILITY MARKINGS ARE VALID FOR NO MORE THAN 14 DAYS.

25. SHOULD UNCHARTED OR INCORRECTLY CHARTED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION, CONSULT THE OWNER'S REPRESENTATIVE IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.

26. CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE UTILITY PROVIDER FOR REQUIRED DISCONNECTION, REMOVAL, AND/OR RELOCATION OF EXISTING POWER POLES, POWER LINES, TELEPHONE PEDESTALS, WATER METERS, GAS LINES, ETC.

27. CONTRACTOR SHALL MAINTAIN UTILITY SERVICES TO ADJOINING PROPERTIES DURING LAND DISTURBING ACTIVITY, DEMOLITION, AND CONSTRUCTION. OTHER EXISTING FACILITIES THAT ARE SCHEDULED TO STAY OPEN SHALL REMAIN OPERATIONAL DURING LAND DISTURBING ACTIVITY, DEMOLITION, AND CONSTRUCTION.

28. CONTRACTOR SHALL COORDINATE STAGING AREA AND LOCATION OF CONSTRUCTION TRAILER WITH OWNER'S REPRESENTATIVE IF NOT SHOWN ON PLANS.

29. CONTRACTOR SHALL ACCEPT, HANDLE, AND STORE PRODUCTS USING MEANS AND METHODS THAT PREVENT DAMAGE, DETERIORATION, AND LOSS, INCLUDING THEFT AND VANDALISM. COMPLY WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

30. CONTRACTOR SHALL PROVIDE INGRESS/EGRESS TO ALL EXISTING BUILDINGS, PARKING LOTS, AND PATHS OF PEDESTRIAN TRAVEL THROUGHOUT THE CONSTRUCTION PERIOD UNLESS OTHERWISE NOTED.

31. EXISTING CONDITIONS SLATED TO REMAIN THAT ARE DAMAGED BY THE CONTRACTOR AND/OR THEIR SUB-CONTRACTORS, SHALL BE REPLACED/RESTORED BY THE CONTRACTOR TO THE ORIGINAL CONDITION OR TO THE SATISFACTION OF THE OWNER'S REPRESENTATIVE AT THE CONTRACTOR'S EXPENSE.

32. EXISTING TREES TO BE SAVED SHALL HAVE TREE PROTECTION FENCES INSTALLED AROUND THEM AS SHOWN IN THE DETAILED DRAWINGS AND IN THE ALIGNMENT AS SHOWN ON SHEET C1.01 - DEMOLITION PLAN - SOUTH, PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION. WORK IN THOSE AREAS TO BE DONE BY HAND. TREE PROTECTION FENCES SHALL BE MAINTAINED AND KEPT IN PLACE AT ALL TIMES UNTIL WORK IS COMPLETED. SEE TREE PROTECTION NOTES FOR ADDITIONAL INFORMATION.

33. CONTRACTOR SHALL NOTE THAT THE DRAWINGS MAY NOT SHOW EVERY OFFSET, TRANSITION, FITTING, ETC. THAT MAY BE REQUIRED. CONTRACTOR SHALL INSTALL SUCH STANDARD APPURTENANCES AS REQUIRED TO CLOSELY FOLLOW THE GRADES AND ALIGNMENTS DEPICTED ON THE PLANS.

34. DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE IF DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH AFFECTED WORK. CONTRACTOR RECOMMENDED FIELD ADJUSTMENTS SHALL REQUIRE APPROVAL FROM OWNER'S REPRESENTATIVE IN WRITING PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR WORK DONE TO RESOLVE DISCREPANCIES IF SUCH NOTIFICATION AND APPROVAL HAS NOT BEEN GIVEN.

35. CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING PROPER DRAINAGE OF AREAS WHICH ARE FIELD ADJUSTED DURING CONSTRUCTION.

36. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED THAT WRITTEN APPROVAL HAS BEEN OBTAINED FROM THE OWNER'S REPRESENTATIVE PRIOR TO ORDERING OR INSTALLATION. DIFFERENCE IN COST TO THE OWNER TO BE APPROVED THROUGH AN ESTABLISHED CHANGE ORDER PROCEDURE PRIOR TO ORDERING OR INSTALLATION.

37. CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION OF CONDUITS AND SLEEVING FOR PROPOSED UTILITIES TO BE INSTALLED.

38. CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF UTILITIES PRIOR TO CONCEALMENT AND FIELD ADJUSTMENTS MADE DURING CONSTRUCTION THAT WERE APPROVED BY THE DESIGN PROFESSIONAL OF RECORD AND AUTHORITIES HAVING JURISDICTION. DRAWINGS SHALL BE GIVEN TO THE OWNER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE DESIGN PROFESSIONAL.

39. PLANTS, MATERIAL, AND WORKMANSHIP ARE SUBJECT TO THE APPROVAL OF THE OWNER'S REPRESENTATIVE, IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.

40. CONTRACTOR SHALL PREPARE AND SUBMIT THE FOLLOWING OPERATION AND MAINTENANCE DOCUMENTATION FOR PRODUCTS AND EQUIPMENT:
    a. OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY - FOR USE AS AN ORGANIZED REFERENCE TO EMERGENCY, OPERATION, AND MAINTENANCE MANUALS.
    b. EMERGENCY MANUAL - A COMPLETE SET OF EMERGENCY INFORMATION INDICATING PROCEDURES FOR USE BY EMERGENCY PERSONNEL AND BY OWNER'S OPERATING PERSONNEL.
    c. PRODUCT MAINTENANCE MANUAL - A COMPLETE SET OF MAINTENANCE DATA INDICATING CARE AND MAINTENANCE OF EACH PRODUCT, MATERIAL, AND FINISH INCORPORATED INTO THE WORK.
    d. OPERATION AND MAINTENANCE MANUAL - A COMPLETE SET OF OPERATION AND MAINTENANCE DATA INDICATING OPERATION AND MAINTENANCE OF EACH SYSTEM, SUBSYSTEM, AND PIECE OF EQUIPMENT NOT PART OF A SYSTEM.
    e. MANUFACTURERS' DATA - WHERE MANUALS CONTAIN MANUFACTURERS' STANDARD PRINTED DATA, INCLUDE ONLY SHEETS PERTINENT TO PRODUCT OR COMPONENT INSTALLED. MARK EACH SHEET TO IDENTIFY EACH PRODUCT OR COMPONENT INCORPORATED INTO THE WORK. PREPARE SUPPLEMENTARY TEXT IF MANUFACTURERS' STANDARD PRINTED DATA IS NOT AVAILABLE AND WHERE THE INFORMATION IS NECESSARY FOR PROPER OPERATION AND MAINTENANCE OF EQUIPMENT OR SYSTEMS.
    f. MAINTENANCE SERVICE AGREEMENTS - AS APPLICABLE.
    g. PRODUCT SPECIFIC WARRANTY INFORMATION.

42. SUBMIT EACH OPERATION AND MAINTENANCE MANUAL IN ITS FINAL FORM FOR OWNER REVIEW AND APPROVAL AT LEAST 30 DAYS PRIOR TO SCHEDULED OPERATION AND MAINTENANCE DEMONSTRATION AND TRAINING EXERCISES. REVISE AS NECESSARY AND RETURN CORRECTED MANUALS PRIOR TO COMMENCING DEMONSTRATION AND TRAINING.

43. CONTRACTOR SHALL LEAD OWNER'S PERSONNEL THROUGH DEMONSTRATIONS OF SYSTEMS, SUBSYSTEMS, AND EQUIPMENT TO INSTRUCT AND TRAIN PERSONNEL ON OPERATION AND MAINTENANCE NEEDS AND TO REVIEW WARRANTY INFORMATION.

44. CONTRACTOR SHALL GUARANTEE, FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF SYSTEMS BY OWNER, EACH AND EVERY PIECE OF APPARATUS WHICH HAS BEEN INSTALLED UNDER THIS CONTRACT.

45. REQUIRED MAINTENANCE AND INSPECTIONS AFTER WARRANTY PERIOD SHALL BE THE RESPONSIBILITY OF THE OWNER.

46. CONTRACTOR SHALL DELIVER TOOLS, SPARE PARTS, EXTRA MATERIALS, AND SIMILAR ITEMS TO LOCATION DESIGNATED BY OWNER. LABEL WITH THE MANUFACTURER'S NAME AND MODEL NUMBER WHERE APPLICABLE.

DEMOLITION NOTES

1. CONTRACTOR SHALL PERFORM DEMOLITION ACTIVITIES AS NOTED AND SHOWN ON THE DEMOLITION PLAN AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE IN ACCORDANCE WITH CURRENT APPLICABLE LOCAL, STATE, AND FEDERAL LAWS.

2. CONTRACTOR SHALL OBTAIN PERMITS AND PAY FEES REQUIRED FOR DEMOLITION AND HAUL-OFF FROM THE APPROPRIATE AUTHORITIES. THESE FEES ARE TO BE INCLUDED WITH THE BID.

3. THE DEMOLITION PLAN IS INTENDED TO DEPICT GENERAL DEMOLITION AND UTILITY WORK. IT IS NOT INTENDED TO IDENTIFY EACH ELEMENT OF DEMOLITION OR RELOCATION. CONTRACTOR IS RESPONSIBLE FOR APPROPRIATE SEQUENCING OF UTILITY DEMOLITION WITH THE RESPECTIVE UTILITY AGENCIES AND SHALL COORDINATE WITH THE OWNER'S REPRESENTATIVE AND APPROPRIATE UTILITY COMPANIES PRIOR TO WORK.

4. INSTALL EROSION AND SEDIMENT CONTROL DEVICES AND TREE PROTECTION FENCE PRIOR TO STARTING DEMOLITION WORK. SEE EROSION CONTROL NOTES AND PLANS AND TREE PROTECTION NOTES FOR ADDITIONAL INFORMATION.

5. CONTRACTOR TO COORDINATE UTILITY CUT OFF TO EXISTING STRUCTURES WITH APPROPRIATE UTILITY COMPANY.
    a. CONTRACTOR SHALL CARRY COSTS FOR NECESSARY REMOVAL AND RELOCATIONS OF UTILITY APPURTENANCES AS DETERMINED NECESSARY THROUGH THEIR COORDINATION WITH UTILITY PROVIDERS. UTILITY APPURTENANCES TO BE REMOVED MAY INCLUDE BUT ARE NOT LIMITED TO HYDRANTS, FIRE DEPARTMENT CONNECTIONS, VALVES/VALVE BOXES, STORM DRAIN AND/OR SANITARY SEWER CLEANOUTS, AND STORM DRAIN INLETS. ALL UTILITIES AND ASSOCIATED APPURTENANCES SCHEDULED TO BE SALVAGED SHALL BE RETURNED TO THE APPROPRIATE UTILITY AGENCY. ANY CREDIT/REIMBURSEMENT ASSOCIATED WITH RETURNING SAID APPURTENANCES SHALL BE REMITTED TO THE OWNER.
    b. REMOVE AND/OR PLUG EXISTING UTILITIES SUCH AS SANITARY SEWER, WATER, GAS, ELECTRIC, AND TELECOMMUNICATIONS AS NOTED ON PLANS.
    c. CONTRACTOR SHALL CUT AND PLUG OR ARRANGE FOR THE APPROPRIATE UTILITY COMPANY TO CUT AND PLUG ALL SERVICE PIPING AT THE STREET LINE OR MAIN, AS REQUIRED, OR AS OTHERWISE NOTED. ALL SERVICES MAY NOT BE SHOWN ON THE PLAN. CONTRACTOR SHALL INVESTIGATE THE SITE PRIOR TO BIDDING TO DETERMINE THE EXTENT OF SERVICE PIPING TO BE REMOVED, CUT, OR PLUGGED.
    d. WATER OR SEWER ABANDONMENT OR RELOCATION SHALL BE REQUIRED AT THE MAIN LINE.

6. CONTRACTOR SHALL TAKE MEASURES TO AVOID CONFLICTS WITH EXISTING UTILITIES TO REMAIN. DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.

7. EXISTING WATER METERS AND SANITARY SEWER LATERALS SLATED FOR REMOVAL ARE TO BE REMOVED BY CONTRACTOR AND RETURNED TO THE APPROPRIATE ENTITY AS APPLICABLE.

8. CONTRACTOR IS RESPONSIBLE FOR THE PROTECTION OF UTILITIES TO REMAIN IN PLACE.

9. CONTRACTOR SHALL ARRANGE FOR RESETTING OF CURB BOXES, VALVE BOXES, ETC. WITH THE APPROPRIATE UTILITY COMPANY/DEPARTMENT.

10. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE OWNER OR OTHERS DURING OCCUPIED HOURS EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE OWNER'S REPRESENTATIVE AND THE LOCAL MUNICIPALITIES. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.

11. ALL WASTE MATERIAL GENERATED FROM DEMOLITION ACTIVITIES SHALL BE DISPOSED OF OFF SITE IN ACCORDANCE WITH ALL APPLICABLE RULES AND REGULATIONS.

12. CONTRACTOR TO DEMOLISH AND DISPOSE OF EXISTING BUILDINGS, INCLUDING FOUNDATIONS AND SITE APPURTENANCES NOT LIMITED TO CURBS, SIDEWALKS, FENCES, STAIRS, WALLS, CONDUITS, LIGHT POLE BASES, DEBRIS, AND RUBBISH AS NOTED AND SHOWN ON THE DEMOLITION PLAN AND AS DIRECTED BY THE OWNER'S REPRESENTATIVE. DEMOLISHED ITEMS SHALL BE DISPOSED OF OFF SITE AT AN APPROVED LANDFILL AND IN A LAWFUL MANNER.

13. CONTRACTOR IS RESPONSIBLE FOR THE DEMOLITION OF TREES MARKED TO BE REMOVED. TREES MAY BE EITHER INDIVIDUALLY MARKED OR WITHIN A DESIGNATED REMOVAL AREA. DEMOLITION OF TREES INCLUDES REMOVAL AND DISPOSAL OF ENTIRE TREE INCLUDING STUMP.

14. TREES, SHRUBS, AND BRUSH REMOVED DURING CLEARING & GRUBBING ACTIVITIES SHALL BE CHIPPED ON SITE AND HAULED OFF SITE FOR DISPOSAL.

15. MATERIALS, FURNISHINGS, UTILITIES AND PAVEMENT THAT ARE NOT SCHEDULED TO BE DEMOLISHED AND ARE DAMAGED BY THE CONTRACTOR AS A RESULT OF THE DEMOLITION OR CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

16. EXISTING CONCRETE SURFACES TO BE REMOVED OR DEMOLISHED SHALL BE SAWCUT AT NEAREST JOINTS, PROVIDING A CLEAN EDGE WHEN RESTORED. SAWCUT EXISTING PAVEMENT AT THE RIGHT OF WAY UNLESS OTHERWISE SHOWN.

17. CONTRACTOR IS TO ASSUME NO HAZARDOUS MATERIALS EXIST. SHOULD SUSPECTED OR KNOWN HAZARDOUS MATERIALS BE ENCOUNTERED, STOP WORK IMMEDIATELY AND NOTIFY OWNERS' REPRESENTATIVE. SHOULD HAZARDOUS MATERIAL BE ENCOUNTERED AND REMOVED; CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING HAZARDOUS MATERIALS REPORT AS REQUIRED BY AUTHORITIES HAVING JURISDICTION.

18. ASBESTOS OR HAZARDOUS MATERIAL, IF FOUND ON SITE, SHALL BE REMOVED BY A LICENSED HAZARDOUS MATERIAL CONTRACTOR, AND DISPOSED OF IN A LAWFUL MANNER.

19. IN ACCORDANCE WITH 40 CODE OF FEDERAL REGULATIONS (CFR), PART 61, SUBPART M, A THOROUGH INSPECTION SHALL BE CONDUCTED FOR ASBESTOS-CONTAINING MATERIALS, PRIOR TO CONDUCTING A RENOVATION OR DEMOLITION ACTIVITY OF AN EXISTING FACILITY OR ANY FACILITY COMPONENT. THE ASBESTOS INSPECTION MUST BE CONDUCTED BY A NORTH CAROLINA ACCREDITED ASBESTOS INSPECTOR. REGULATED AND/OR FRIABLE ASBESTOS-CONTAINING MATERIALS IDENTIFIED DURING THE SURVEY WHICH WILL BE DISTURBED, MUST BE PROPERLY REMOVED BY ACCREDITED INDIVIDUALS BEFORE BEGINNING THE RENOVATION OR DEMOLITION ACTIVITY. IF REGULATED AND/OR FRIABLE ASBESTOS CONTAINING MATERIALS TO BE REMOVED EXCEED 160 SQUARE FEET, 260 LINEAR FEET OR 35 CUBIC FEET, A PERMIT SHALL BE APPLIED FOR THROUGH THE NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES.

20. NEAR SURFACE ROCK BELOW PROPOSED FOOTINGS DEEMED BY THE GEOTECHNICAL ENGINEER TO BE UNSUITABLE FOR LOAD BEARING SHALL BE REMOVED AS NECESSARY AND AS DIRECTED BY THE GEOTECHNICAL ENGINEER. BLASTING SHALL NOT BE ALLOWED WITHOUT PRIOR CONSENT OF OWNER'S REPRESENTATIVE. NO ADDITIONAL PAYMENT SHALL BE MADE FOR ROCK REMOVAL.

21. CONTRACTOR IS RESPONSIBLE FOR REMOVING EXISTING LANDSCAPE WITHIN AREA OF DISTURBANCE UNLESS SPECIFICALLY NOTED TO REMAIN.

22. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF LANDSCAPE DEMOLITION MATERIAL FROM THE SITE. LANDSCAPE DEMOLITION MATERIAL UNDER 18" DIAMETER TO BE TAKEN TO COMMUNITY NATURAL WASTE RECYCLING CENTER. ALTERNATE METHODS OF DISPOSAL OF NATURAL MATERIAL SHALL BE ALLOWED UPON APPROVAL BY OWNER'S REPRESENTATIVE AND OBTAINING OF ALL REQUIRED PERMITS.

23. STOCKPILE LOCATIONS OF ALL MATERIALS SLATED TO BE REUSED OR REPURPOSED SHALL BE IDENTIFIED AND APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO STARTING LAND DISTURBING ACTIVITY, DEMOLITION, OR CONSTRUCTION.

24. CONTRACTOR SHALL COORDINATE WITH OWNER'S REPRESENTATIVE IN THE REMOVAL, RELOCATION, AND/OR STORAGE OF OWNER OWNED SITE FURNISHINGS SCHEDULED TO BE SALVAGED.

TREE PROTECTION NOTES

1. TREE PROTECTION TO BE INSTALLED PER THE CURRENT APPLICABLE TOWN OF HUNTERSVILLE TREE PROTECTION DETAIL FOR THE EXISTING TREES IDENTIFIED TO REMAIN. SEE SHEET L5.10 FOR THE TREE PROTECTION DETAIL. TREE PROTECTION TO BE VERIFIED BY MUNICIPAL STAFF PRIOR TO STARTING ANY CONSTRUCTION ACTIVITY.

2. BEFORE BEGINNING WORK, THE PROJECT MANAGER, LANDSCAPE ARCHITECT AND/OR OWNER OR THEIR AGENTS ARE REQUIRED TO MEET AT THE SITE TO REVIEW ALL WORK PROCEDURES, ACCESS ROUTES, STORAGE AREAS, AND TREE PROTECTION MEASURES. ANY INTENDED CONSTRUCTION ACTIVITIES INSIDE THE TREE PROTECTION ZONE SHALL BE CLEARLY OUTLINED.

3. CONTRACTOR SHALL STAKE IN THE FIELD THE LIMITS OF ALL TREE PROTECTION ZONES. THOSE LIMITS SHALL BE OBSERVED BY ALL CONTRACTORS, SUBCONTRACTORS, OPERATORS, INSPECTORS, ETC.

4. FENCES SHALL BE ERECTED TO PROTECT TREES TO BE PRESERVED PRIOR TO CONSTRUCTION EQUIPMENT ARRIVING ON THE PROJECT SITE. FENCES WILL DEFINE THE SPECIFIC PROTECTION ZONE FOR EACH TREE OR GROUP OF TREES.

5. CONTRACTOR SHALL CONTACT THE TOWN, ANY TIME ADJUSTMENT IS NEEDED OR IF ACCESS WITHIN THE FENCE IS REQUIRED, AND BEFORE TREE PROTECTION FENCE REMOVAL. ANY BRUSH CLEARING REQUIRED WITHIN THE TREE PROTECTION ZONE SHALL BE ACCOMPLISHED WITH HAND OPERATED EQUIPMENT. NO MATERIALS, EQUIPMENT, SPOIL, WASTE OR WASHOUT WATER IS ALLOWED WITHIN THE TREE PROTECTION ZONE.

6. CONSTRUCTION TRAILERS, TRAFFIC, STOCKPILE AREAS, AND STORAGE AREAS MUST REMAIN OUTSIDE FENCED TREE PROTECTION AREAS AT ALL TIMES.

7. ONLY THE LANDSCAPE CONTRACTOR SHALL BE PERMITTED INSIDE THE PRIMARY TREE PROTECTION FENCE TO PERFORM ROUTINE MAINTENANCE, COMPOST TOPDRESSING, AND FINAL PLANTING.

8. NO UTILITY WORK OR GRADING ADJUSTMENT SHALL BE EXECUTED WITHIN THE TREE PROTECTION FENCE ZONE.

9. IRRIGATION LINE MAY ROUTE IN ANY DIRECTION OUTSIDE THE DRIPLINE OF RETAINED TREES. IRRIGATION LINES INSIDE THE DRIPLINE MUST BE IN A STRAIGHT, RADIAL DIRECTION TOWARDS THE TREE TRUNK AND TERMINATE IN A DEAD-END SPRINKLER HEAD NO CLOSER THAN 7 FEET FROM A TREE TRUNK. IRRIGATION LINES SHALL NOT BISECT AND THEREFORE DAMAGE THE "SPOKE-LIKE" ROOT SYSTEM.

10. TREE PRUNING PRIOR TO CONSTRUCTION SHALL BE PERFORMED TO REDUCE IMPACT TO TREES DURING CONSTRUCTION AND ANY EXISTING CONDITIONS THAT MAY POSE A SAFETY HAZARD. SEE SPECIFICATIONS FOR MORE INFORMATION.

11. ALL TREES ON PUBLIC STREET RIGHT-OF-WAY/PROPERTY ARE PROTECTED UNLESS OTHERWISE NOTED AND REMOVAL MUST BE PERMITTED BY MUNICIPAL URBAN FORESTRY STAFF.

12. REFERENCE THE DEMOLITION PLAN FOR EXISTING TREES TO BE REMOVED. TREES TO BE REMOVED FROM WITHIN THE TREE PROTECTION ZONE SHALL BE REMOVED UNDER THE SUPERVISION OF A CERTIFIED ARBORIST. THE TREES SHALL BE CUT NEAR GROUND LEVEL AND THE STUMP COMPLETELY GROUND OUT.

13. CONTACT TOWN URBAN FORESTRY STAFF PRIOR TO ANY CRANE SET-UP, MACHINERY OPERATION, OR TEMPORARY BUILDING ERECTION THAT MAY IMPACT PROTECTED TREES, TREE SAVE AREAS, INCLUDING CITY TREES IN PUBLIC RIGHT-OF-WAY. IMPACTS MAY INCLUDE BUT ARE NOT LIMITED TO: ENCROACHING IN TREE DRIP-LINES, EXCAVATION, SOIL COMPACTION, TREE TRIMMING, ERECTING AND DISMANTLING OF CONSTRUCTION CRANES.

14. ALL TREES TO BE PRESERVED SHALL HAVE 4 INCHES OF HARDWOOD MULCH APPLIED INSIDE THE TREE PROTECTION ZONE. THIS HARDWOOD MULCH SHALL BE REPLENISHED AS NECESSARY TO MAINTAIN A 4-INCH DEPTH.

15. IF UNINTENTIONAL INJURY SHOULD OCCUR TO ANY TREE DURING CONSTRUCTION, IT SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE WITHIN SIX HOURS SO THAT REMEDIAL ACTION CAN BE TAKEN. TIMELINESS IS CRITICAL TO TREE HEALTH. THE COST OF ANY REMEDIAL TREATMENTS WILL BECOME THE BURD

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
(EXCEPT 1 AND 2-FAMILY DWELLINGS AND TOWNHOUSES)
(Reproduce the following data on the building plans sheet 1 or 2)

Name of Project: Waymer Splash Pad
Address: 14200 Holbrooks Road Huntersville, NC Zip Code 28078
Owner/Authorized Agent: Mecklenburg county Phone # ( ) - E-Mail
Owned By: ☒ City/County ☐ Private ☐ State
Code Enforcement Jurisdiction: ☐ City ☒ County Mecklenburg ☐ State

CONTACT:

DESIGNER	FIRM	NAME	LICENSE #	TELEPHONE #	E-MAIL
Architectural				( )	
Civil	McAdams	Michael Duval	048769	( )	mduval@mcadamsco.com
Electrical	LeBella Associates	Alexander Raymond	054372	( )	
Fire Alarm				( )	
Plumbing	Water Technology Inc	Lori Rosenthal	046850	( )	
Mechanical				( )	
Sprinkler-Standpipe				( )	
Structural				( )	
Retaining Walls >5' High				( )	
Other	McAdams	Haley Mae-Eady	2431	( )	mae-eady@mcadamsco.com
	McAdams	Kevin Baucom	4274		baucom@mcadamsco.com

2018 NC BUILDING CODE: ☐ New Building ☐ Addition ☐ Renovation
☐ 1st Time Interior Completion
☐ Shell/Core - Contact the local inspection jurisdiction for possible additional procedures and requirements
☐ Phased Construction - Shell/Core- Contact the local inspection jurisdiction for possible additional procedures and requirements

2018 NC EXISTING BUILDING CODE: EXISTING: ☐ Prescriptive ☐ Repair ☐ Chapter 14
Alteration: ☐ Level I ☐ Level II ☐ Level III
☐ Historic Property ☐ Change of Use

CONSTRUCTED: (date) _____ **CURRENT OCCUPANCY(S)** (Ch. 3): _____
RENOVATED: (date) _____ **PROPOSED OCCUPANCY(S)** (Ch. 3): A-3

RISK CATEGORY (Table 1604.5): **Current:** ☐ I ☐ II ☐ III ☐ IV
Proposed: ☐ I ☒ II ☐ III ☐ IV

BASIC BUILDING DATA
Construction Type: ☐ I-A ☐ II-A ☐ III-A ☐ IV ☐ V-A
(check all that apply) ☐ I-B ☐ II-B ☐ III-B ☐ V-B
Sprinklers: ☐ No ☐ Partial ☐ Yes ☐ NFPA 13 ☐ NFPA 13R ☐ NFPA 13D
Standpipes: ☐ No ☐ Yes Class ☐ I ☐ II ☐ III ☐ Wet ☐ Dry
Fire District: ☐ No ☐ Yes **Flood Hazard Area:** ☐ No ☐ Yes
Special Inspections Required: ☐ No ☐ Yes (Contact the local inspection jurisdiction for additional procedures and requirements.)

Gross Building Area Table

FLOOR	EXISTING (SQ FT)	NEW (SQ FT)	SUB-TOTAL
3rd Floor	N/A		
2nd Floor	N/A		
Mezzanine	N/A		
1st Floor	N/A		
Basement	N/A		
TOTAL	N/A		

ALLOWABLE AREA

Primary Occupancy Classification(s): N/A - no building. backflow only
Assembly ☐ A-1 ☐ A-2 ☒ A-3 ☐ A-4 ☐ A-5
Business ☐
Educational ☐
Factory ☐ F-1 Moderate ☐ F-2 Low
Hazardous ☐ H-1 Detonate ☐ H-2 Deflagrate ☐ H-3 Combust ☐ H-4 Health ☐ H-5 HPM
Institutional ☐ I-1 Condition ☐ 1 ☐ 2
☐ I-2 Condition ☐ 1 ☐ 2
☐ I-3 Condition ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5
☐ I-4
Mercantile ☐
Residential ☐ R-1 ☐ R-2 ☐ R-3 ☐ R-4
Storage ☐ S-1 Moderate ☐ S-2 Low ☐ High-piled
☐ Parking Garage ☐ Open ☐ Enclosed ☐ Repair Garage
Utility and Miscellaneous ☐

Accessory Occupancy Classification(s): N/A
Incidental Uses (Table 509): N/A
Special Uses (Chapter 4 – List Code Sections): N/A
Special Provisions: (Chapter 5 – List Code Sections): N/A
Mixed Occupancy: ☒ No ☐ Yes Separation: N/A Hr. Exception: N/A

☐ Non-Separated Use (508.3) - The required type of construction for the building shall be determined by applying the height and area limitations for each of the applicable occupancies to the entire building. The most restrictive type of construction, so determined, shall apply to the entire building.

☐ Separated Use (508.4) - See below for area calculations for each story, the area of the occupancy shall be such that the sum of the ratios of the actual floor area of each use divided by the allowable floor area for each use shall not exceed 1.

$$\frac{\text{Actual Area of Occupancy A}}{\text{Allowable Area of Occupancy A}} + \frac{\text{Actual Area of Occupancy B}}{\text{Allowable Area of Occupancy B}} \leq 1$$

N/A - no building. backflow only + _____ + ... = _____ ≤ 1.00

STORY NO.	DESCRIPTION AND USE	(A) BLDG AREA PER STORY (ACTUAL)	(B) TABLE 506.2[4] AREA	(C) AREA FOR FRONTAGE INCREASE[1,5]	(D) ALLOWABLE AREA PER STORY OR UNLIMITED[2,5]
	N/A				
	N/A				
	N/A				
	N/A				

[1] Frontage area increases from Section 506.3 are computed thus:
a. Perimeter which fronts a public way or open space having 20 feet minimum width = N/A (F)
b. Total Building Perimeter = N/A (P)
c. Ratio (F/P) = N/A (F/P)
d. W = Minimum width of public way = N/A (W)
e. Percent of frontage increase $I_f = 100[F/P - 0.25] \times W/30$ = N/A (%)
[2] Unlimited area applicable under conditions of Section 507.
[3] Maximum Building Area = total number of stories in the building x D (maximum3 stories) (506.2).
[4] The maximum area of open parking garages must comply with Table 406.5.4.
[5] Frontage increase is based on the unsprinklered area value in Table 506.2.

ALLOWABLE HEIGHT

	ALLOWABLE	SHOWN ON PLANS	CODE REFERENCE [1]
Building Height in Feet (Table 504.3) [2]	N/A	N/A	N/A
Building Height in Stories (Table 504.4) [3]	N/A	N/A	N/A

[1] Provide code reference if the "Shown on Plans" quantity is not based on Table 504.3 or 504.4.
[2] The maximum height of air traffic control towers must comply with Table 412.3.1.
[3] The maximum height of open parking garages must comply with Table 406.5.4.

FIRE PROTECTION REQUIREMENTS

BUILDING ELEMENT	FIRE SEPARATION DISTANCE (FEET)	RATING REQ'D	RATING PROVIDED (W/ _____ * REDUCTION)	DETAIL # AND SHEET #	DESIGN # FOR RATED ASSEMBLY	SHEET # FOR RATED PENETRATION	SHEET # FOR RATED JOINTS
Structural Frame, including columns, girders, trusses	N/A						
Bearing Walls	N/A						
Exterior	N/A						
North	N/A						
East	N/A						
West	N/A						
South	N/A						
Interior	N/A						
Nonbearing Walls and Partitions							
Exterior walls	N/A						
North	N/A						
East	N/A						
West	N/A						
South	N/A						
Interior walls and partitions	N/A						
Floor Construction Including supporting beams and joists		N/A					
Floor Ceiling Assembly		N/A					
Columns Supporting Floors		N/A					
Roof Construction, including supporting beams and joists		N/A					
Roof Ceiling Assembly		N/A					
Columns Supporting Roof		N/A					
Shaft Enclosures - Exit		N/A					
Shaft Enclosures - Other		N/A					
Corridor Separation		N/A					
Occupancy/Fire Barrier Separation		N/A					
Party/Fire Wall Separation		N/A					
Smoke Barrier Separation		N/A					
Smoke Partition		N/A					
Tenant/Dwelling Unit/ Sleeping Unit Separation		N/A					
Incidental Use Separation		N/A					

* Indicate section number permitting reduction

PERCENTAGE OF WALL OPENING CALCULATIONS

FIRE SEPARATION DISTANCE (FEET) FROM PROPERTY LINES	DEGREE OF OPENINGS PROTECTION (TABLE 705.8)	ALLOWABLE AREA (%)	ACTUAL SHOWN ON PLANS (%)
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A

LIFE SAFETY SYSTEM REQUIREMENTS

Emergency Lighting: ☒ No ☐ Yes
Exit Signs: ☒ No ☐ Yes
Fire Alarm: ☒ No ☐ Yes
Smoke Detection Systems: ☒ No ☐ Yes ☐ Partial _____
Carbon Monoxide Detection: ☒ No ☐ Yes

LIFE SAFETY PLAN REQUIREMENTS

Life Safety Plan Sheet #: N/A

☐ Fire and/or smoke rated wall locations (Chapter 7)
☐ Assumed and real property line locations (if not on the site plan)
☐ Exterior wall opening area with respect to distance to assumed property lines (705.8)
2 ☐ Occupancy Use for each area as it relates to occupant load calculation (Table 1004.1.2)
☒ Occupant loads for each area
☒ Exit access travel distances (1017)
☐ Common path of travel distances (Tables 1006.2.1 & 1006.3.2(1))
☐ Dead end lengths (1020.4)
☐ Clear exit widths for each exit door
☐ Maximum calculated occupant load capacity each exit door can accommodate based on egress width (1005.3)
☐ Actual occupant load for each exit door
2 ☐ A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation
☒ Location of doors with panic hardware (1010.1.10)
☐ Location of doors with delayed egress locks and the amount of delay (1010.1.9.7)
☐ Location of doors with electromagnetic egress locks (1010.1.9.9)
☐ Location of doors equipped with hold-open devices
☐ Location of emergency escape windows (1030)
☐ The square footage of each fire area (202)
☐ The square footage of each smoke compartment for Occupancy Classification I-2 (407.5)
☐ Note any code exceptions or table notes that may have been utilized regarding the items above

ACCESSIBLE DWELLING UNITS
(SECTION 1107)

TOTAL UNITS	ACCESSIBLE UNITS REQUIRED	ACCESSIBLE UNITS PROVIDED	TYPE A UNITS REQUIRED	TYPE A UNITS PROVIDED	TYPE B UNITS REQUIRED	TYPE B UNITS PROVIDED	TOTAL ACCESSIBLE UNITS PROVIDED
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

ACCESSIBLE PARKING
(SECTION 1106)

LOT OR PARKING AREA	TOTAL # OF PARKING SPACES REQUIRED	TOTAL # OF PARKING SPACES PROVIDED	# OF ACCESSIBLE SPACES PROVIDED: REGULAR WITH 5' ACCESS AISLE	VAN SPACES WITH 132" ACCESS AISLE	VAN SPACES WITH 8' ACCESS AISLE	TOTAL # ACCESSIBLE PROVIDED
N/A	N/A	N/A	N/A	N/A	N/A	N/A
TOTAL	N/A	N/A	N/A	N/A	N/A	N/A

PLUMBING FIXTURE REQUIREMENTS
(TABLE 2902.1)

USE		WATERCLOSETS MALE	WATERCLOSETS FEMALE	WATERCLOSETS UNISEX	URINALS	LAVATORIES MALE	LAVATORIES FEMALE	LAVATORIES UNISEX	SHOWERS /TUBS	DRINKING FOUNTAINS REGULAR	DRINKING FOUNTAINS ACCESSIBLE
SPACE	EXIST'G	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	NEW	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	REQ'D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

SPECIAL APPROVALS

Special approval: (Local Jurisdiction, Department of Insurance, OSC, DPI, DHHS, etc., describe below)
Charlotte Water Donated Projects

McADAMS
The John R. McAdams Company, Inc.
2100 South Tryon Street
Suite 400
Charlotte, NC 28203
phone 704. 527. 0800
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT
TOWN OF HUNTERSVILLE
105 GILEAD ROAD
TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 059113 RYAN I. ICE
2026.05.01 08:00:04 -04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE-EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-N1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	N/A
DATE	09.26.2025

SHEET
APPENDIX B
C0.10

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ENERGY SUMMARY

N/A - no building. backflow only

ENERGY REQUIREMENTS:
The following data shall be considered minimum and any special attribute required to meet the energy code shall also be provided. Each Designer shall furnish the required portions of the project information for the plan data sheet. If performance method, state the annual energy cost for the standard reference design vs annual energy cost for the proposed design.

Existing building envelope complies with code: ☐ No ☒ Yes (The remainder of this section is not applicable)

Exempt Building: ☐ No ☐ Yes (Provide code or statutory reference): N/A

Climate Zone: ☐ 3A ☐ 4A ☐ 5A

Method of Compliance: Energy Code ☐ Performance ☐ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive
(If "Other" specify source here) N/A

THERMAL ENVELOPE (Prescriptive method only)

Roof/ceiling Assembly (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A
Skylights in each assembly:
U-Value of skylight: N/A
total square footage of skylights in each assembly: N/A

Exterior Walls (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A
Openings (windows or doors with glazing)
U-Value of assembly: N/A
Solar heat gain coefficient: N/A
projection factor: N/A
Door R-Values: N/A

Walls below grade (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors over unconditioned space (each assembly)
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A

Floors slab on grade
Description of assembly: N/A
U-Value of total assembly: N/A
R-Value of insulation: N/A
Horizontal/vertical requirement: N/A
slab heated: N/A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
STRUCTURAL DESIGN
(PROVIDE ON THE STRUCTURAL SHEETS IF APPLICABLE)

DESIGN LOADS:

Importance Factors: Snow (I_S) N/A
Seismic (I_E) N/A

Live Loads: Roof N/A psf
Mezzanine N/A psf
Floor N/A psf

Ground Snow Load: N/A psf

Wind Load: Ultimate Wind Speed N/A mph (ASCE-7)
Exposure Category N/A

SEISMIC DESIGN CATEGORY: ☐ A ☐ B ☐ C ☐ D

N/A - no building. backflow only

Provide the following Seismic Design Parameters:
Risk Category (Table 1604.5) ☐ I ☐ II ☐ III ☐ IV
Spectral Response Acceleration S_S N/A %g S_1 N/A %g
Site Classification (ASCE 7) ☐ A ☐ B ☐ C ☐ D ☐ E ☐ F
Data Source: ☐ Field Test ☐ Presumptive ☐ Historical Data
Basic structural system ☐ Bearing Wall ☐ Dual w/Special Moment Frame
☐ Building Frame ☐ Dual w/Intermediate R/C or Special Steel
☐ Moment Frame ☐ Inverted Pendulum
Analysis Procedure: ☐ Simplified ☐ Equivalent Lateral Force ☐ Dynamic
Architectural, Mechanical, Components anchored? ☐ Yes ☐ No

LATERAL DESIGN CONTROL: Earthquake ☐ Wind ☐

SOIL BEARING CAPACITIES:
Field Test (provide copy of test report) N/A psf
Presumptive Bearing capacity N/A psf
Pile size, type, and capacity N/A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
MECHANICAL DESIGN
(PROVIDE ON THE MECHANICAL SHEETS IF APPLICABLE)

MECHANICAL SUMMARY

MECHANICAL SYSTEMS, SERVICE SYSTEMS AND EQUIPMENT

Thermal Zone
winter dry bulb: N/A
summer dry bulb: N/A

Interior design conditions
winter dry bulb: N/A
summer dry bulb: N/A
relative humidity: N/A

Building heating load: N/A

Building cooling load: N/A

Mechanical Spacing Conditioning System
Unitary
description of unit: N/A
heating efficiency: N/A
cooling efficiency: N/A
size category of unit: N/A
Boiler
Size category. If oversized, state reason.: N/A
Chiller
Size category. If oversized, state reason.: N/A

List equipment efficiencies: N/A

2018 APPENDIX B
BUILDING CODE SUMMARY FOR ALL COMMERCIAL PROJECTS
ELECTRICAL DESIGN
(PROVIDE ON THE ELECTRICAL SHEETS IF APPLICABLE)

ELECTRICAL SUMMARY

ELECTRICAL SYSTEM AND EQUIPMENT

N/A - no building. backflow only

Method of Compliance: Energy Code ☐ Performance ☐ Prescriptive
ASHRAE 90.1 ☐ Performance ☐ Prescriptive

Lighting schedule (each fixture type)
lamp type required in fixture
number of lamps in fixture
ballast type used in the fixture
number of ballasts in fixture
total wattage per fixture
total interior wattage specified vs. allowed (whole building or space by space)
total exterior wattage specified vs. allowed

Additional Efficiency Package Options
(When using the 2018 NCECC; not required for ASHRAE 90.1)
☐ C406.2 More Efficient HVAC Equipment Performance
☐ C406.3 Reduced Lighting Power Density
☐ C406.4 Enhanced Digital Lighting Controls
☐ C406.5 On-Site Renewable Energy
☐ C406.6 Dedicated Outdoor Air System
☐ C406.7 Reduced Energy Use in Service Water Heating

McADAMS
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Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL SEAL 059113 ENGINEER RYAN M. CLEM
2026.05.01 11:04:04-04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-N1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	N/A
DATE	09.26.2025

SHEET
APPENDIX B
C0.11

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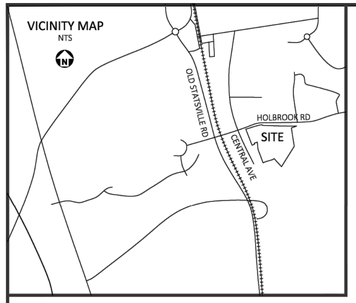


GENERAL NOTES

1.) THIS IS A SURVEY OF AN EXISTING PARCEL OF LAND. THIS IS A TOPOGRAPHIC SURVEY. THIS IS NOT A BOUNDARY SURVEY.

2.) BEARINGS FOR THIS SURVEY ARE BASED ON NC GRID NAD83(2011).

3.) ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES.

4.) FLOOD NOTE: THIS PROPERTY IS NOT LOCATED IN A SPECIAL FLOOD HAZARD ZONE. IT IS LOCATED IN ZONE "X" AS DEFINED BY FEMA F.I.R.M. MAP NUMBER 3710465000K DATED NOVEMBER 16, 2008.

5.) REFERENCES: DB 3314, PG 441; MB 332, PG 320; MB 38, PG 963 OF THE MECKLENBURG COUNTY REGISTRY
PIN 01909304 & 01909305

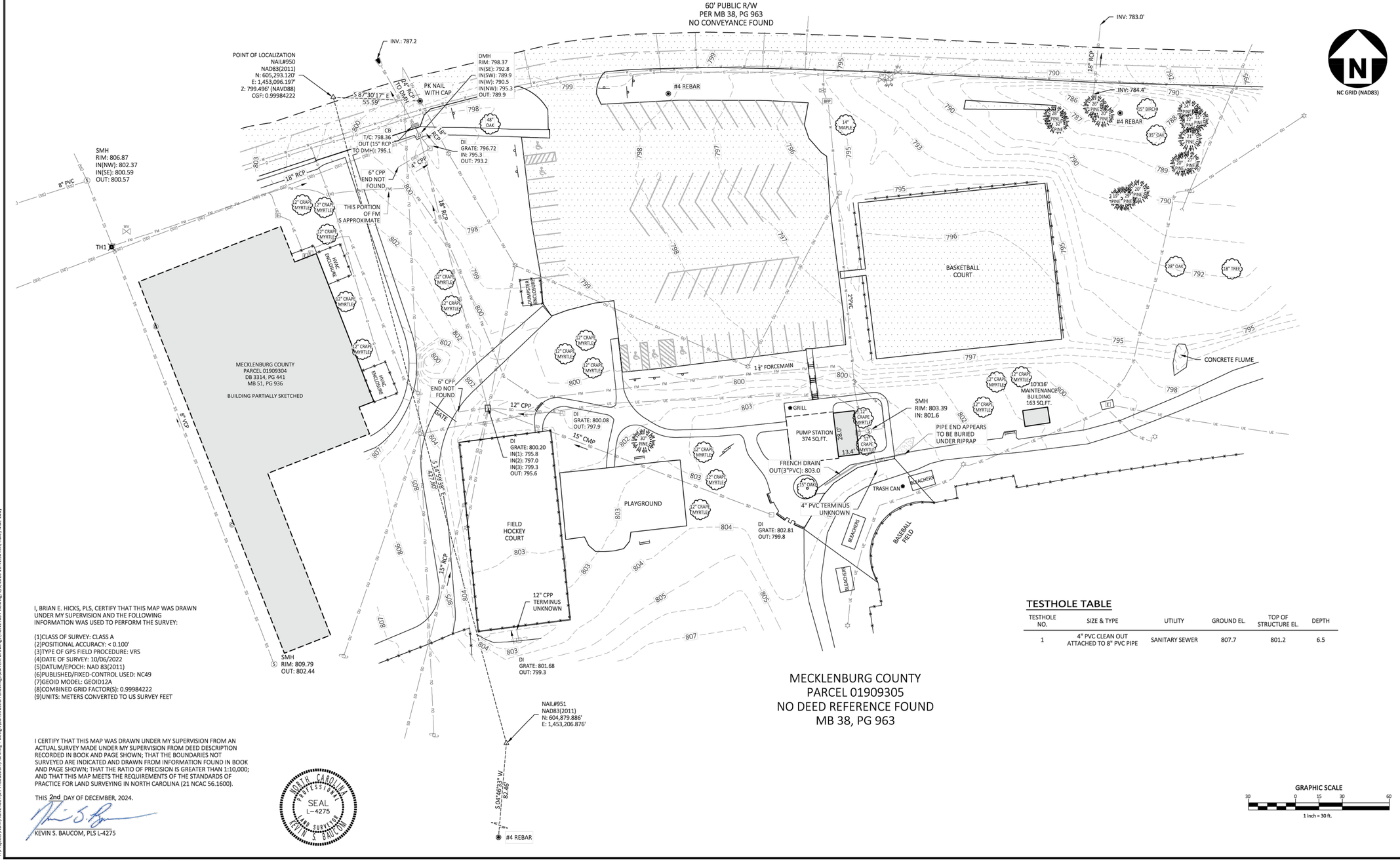
6.) NO GRID MONUMENTS FOUND WITHIN 2000' OF SITE.

7.) UTILITY STATEMENT: THE UNDERGROUND UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS.THE SURVEYOR MAKES NO GUARANTEE THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED ALTHOUGH HE DOES CERTIFY THAT THEY ARE LOCATED AS ACCURATELY AS POSSIBLE FROM INFORMATION AVAILABLE. THE SURVEYOR HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.

8.) THIS SURVEY PERFORMED AND MAP PREPARED WITHOUT BENEFIT OF A TITLE REPORT. THIS SURVEY SUBJECT TO ANY FACTS AND EASEMENTS WHICH MAY BE DISCLOSED BY A FULL AND ACCURATE TITLE SEARCH.

LEGEND

- Found property corner
- Concrete monument
- Set property corner
- Calculated corner
- Calculated corner
- Point of localization
- Catch basin
- Drop inlet
- Flared end section
- Storm drainage manhole
- Junction box
- Roof drain
- Sanitary sewer manhole
- Cleanout
- Grease trap
- Mailbox
- Electric vault
- Electric box
- Transformer
- Power pole
- Guy anchor
- Light pole
- Electric meter
- Electric manhole
- HVAC unit
- Traffic signal box
- Telephone manhole
- Telephone box
- Fiber optic manhole
- Fiber optic marker
- Fiber optic vault
- Cable box
- Water line marker
- Water valve
- Water Meter
- Backflow preventer
- Water vault
- Water manhole
- Irrigation control valve
- Fire hydrant
- Gas valve
- Gas meter
- Tree line
- Railroad tracks
- Guard rail
- Storm drain
- Traced Storm drain
- Overhead utility line
- Traced Overhead utility line
- Underground electric
- Traced Underground electric
- Underground communications line
- Traced communications line
- Water line
- Traced Water line
- Sanitary sewer line
- Traced Sanitary sewer line
- Force main line
- Gas line
- Traced Gas line
- Fence line
- Surveyed property line
- Property line not surveyed



NC GRID (NAD83)

I, BRIAN E. HICKS, PLS, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY:

(1)CLASS OF SURVEY: CLASS A
(2)POSITIONAL ACCURACY: < 0.100'
(3)TYPE OF GPS FIELD PROCEDURE: VRS
(4)DATE OF SURVEY: 10/06/2022
(5)DATUM/EPOCH: NAD 83(2011)
(6)PUBLISHED/FIXED-CONTROL USED: NC49
(7)GEOID MODEL: GEOID12A
(8)COMBINED GRID FACTOR(S): 0.99984222
(9)UNITS: METERS CONVERTED TO US SURVEY FEET

I CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION FROM DEED DESCRIPTION RECORDED IN BOOK AND PAGE SHOWN; THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED AND DRAWN FROM INFORMATION FOUND IN BOOK AND PAGE SHOWN; THAT THE RATIO OF PRECISION IS GREATER THAN 1:10,000; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56.1600).

THIS 2nd DAY OF DECEMBER, 2024.

KEVIN S. BAUCOM, PLS L-4275

NORTH CAROLINA PROFESSIONAL SEAL L-4275 LAND SURVEYOR KEVIN S. BAUCOM

TESTHOLE TABLE

TESTHOLE NO.	SIZE & TYPE	UTILITY	GROUND EL.	TOP OF STRUCTURE EL.	DEPTH
1	4" PVC CLEAN OUT ATTACHED TO 8" PVC PIPE	SANITARY SEWER	807.7	801.2	6.5

GRAPHIC SCALE
30 0 15 30 60
1 inch = 30 ft.

McADAMS
The John R. McAdams Company, Inc.
2100 South Tryon Street
Suite 400
Charlotte, NC 28203
phone 704. 527. 0800
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT

TOWN OF HUNTERSVILLE
105 GILEAD ROAD
TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA PROFESSIONAL SEAL 059773 ENGINEER RYAN J. GOE NOT FOR CONSTRUCTION

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-XC
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	1" = 30'
DATE	09.26.2025

SHEET

EXISTING CONDITIONS

C1.00

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-XC.dwg, 5/5/2026 11:41:59 AM, Haley Mae-Eady

EXISTING LEGEND

- EXISTING IRON PIPE/REBAR
- IRON PIPE SET
- EXISTING CONCRETE MONUMENT
- CONCRETE MONUMENT SET
- CALCULATED POINT
- CALCULATED POINT
- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- TELEPHONE MANHOLE
- GAS VALVE
- LIGHT POLE
- POWER POLE WITH GUY ANCHOR
- CURB INLET
- STORM DRAINAGE MANHOLE
- YARD INLET
- FLARED END SECTION
- BOLLARD
- SIGN
- EXISTING TREE

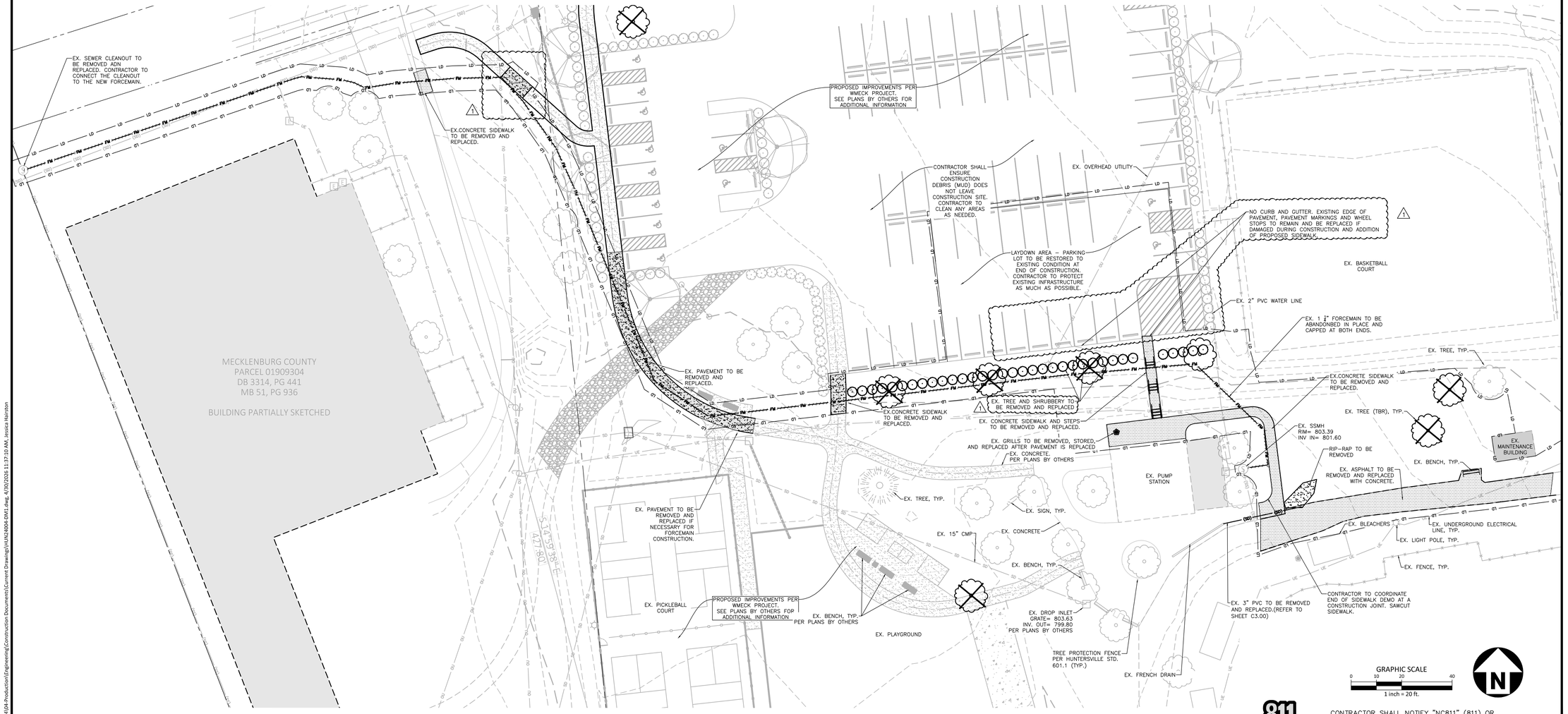
- STORM DRAIN
- OVERHEAD UTILITY LINE
- UNDERGROUND ELECTRIC
- UNDERGROUND COMMUNICATIONS LINE
- WATER LINE
- SANITARY SEWER LINE
- GAS LINE
- FENCE LINE
- SURVEYED PROPERTY LINE
- PROPERTY LINE NOT SURVEYED

DEMOLITION LEGEND

- EXISTING TREE TO BE REMOVED
- TREE PROTECTION FENCE
- UNDERGROUND UTILITY TO BE REMOVED, RELOCATED OR ABANDONED IN PLACE
- AREA TO BE REMOVED AND REPLACED (SIDEWALK, CURB AND GUTTER, STRUCTURES, ASPHALT, CONCRETE PAVING, ETC.)

NOTE: SEE PLAN FOR DETAILED DEMOLITION PROCEDURES, SEQUENCING AND SPECIFICATIONS.

NOTE: TREE PRUNING TO BE CONDUCTED PRIOR TO CONSTRUCTION BY CERTIFIED ARBORIST.



Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1–800–632–4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL SEAL 050713 ENGINEER JAMES MEINKE RYAN IGE
2026.01.30 10:20:00 -05'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-DM1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=20'
DATE	09.26.2025

SHEET

DEMOLITION PLAN - SOUTH

C1.01

V:\Projects\HUN\HUN24004\04-Production\Engineering\Construction Documents\Current Drawing\HUN24004-DM1.dwg, 4/30/2026 11:37:10 AM, Jessica Hairston

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Town of Huntersville
PARKS AND RECREATION

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CONSTRUCTION DOCUMENTS
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HUNTERSVILLE, NC 28078

NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
PROFESSIONAL
SEAL
059713
ENGINEER
RYAN J. IGOE
2026.05.05 10:27:00 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

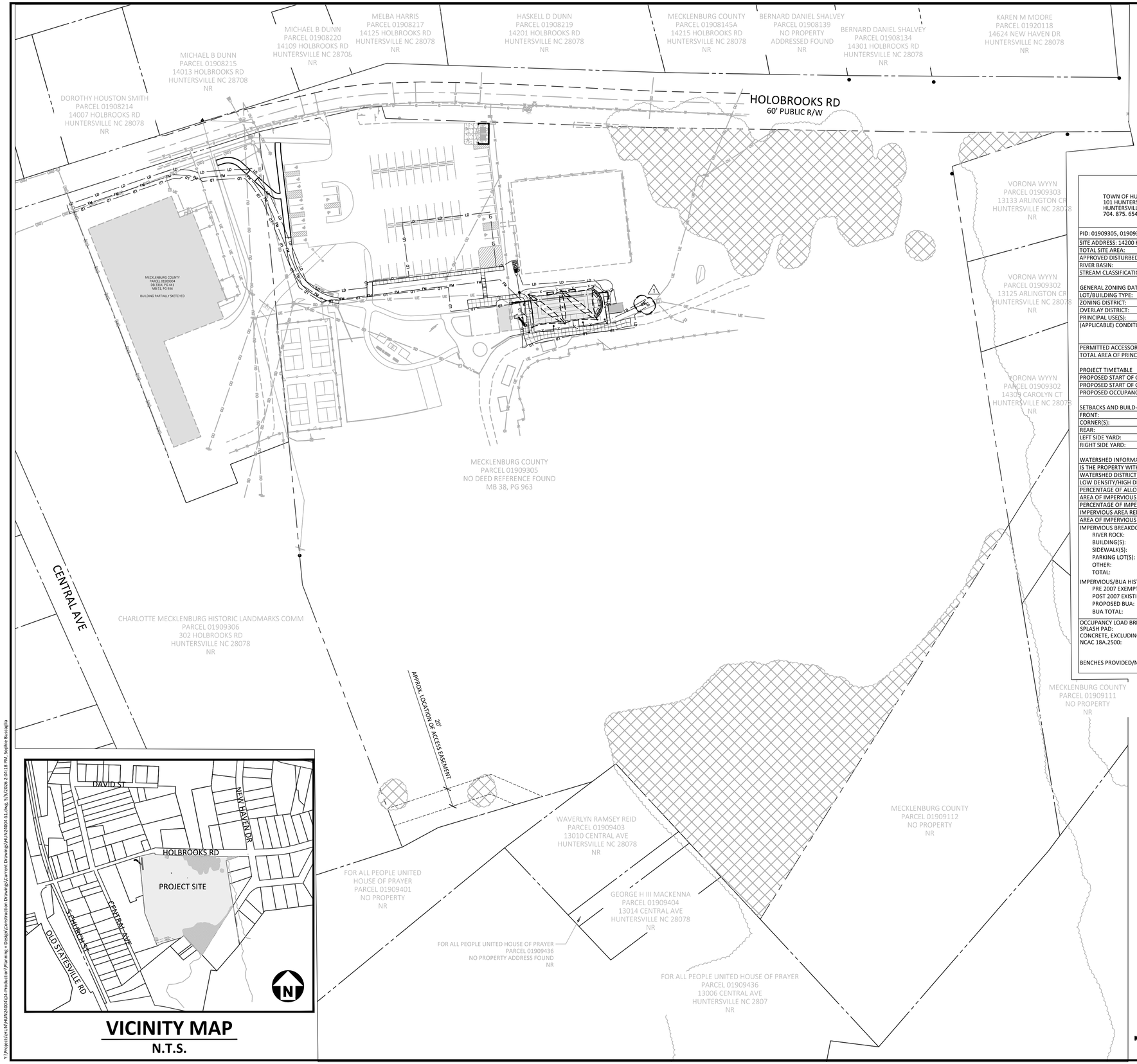
PROJECT NO.	HUN24004
FILENAME	HUN24004-DM1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=20'
DATE	09.26.2025

SHEET

DEMOLITION PLAN - NORTH

C1.02

Y:\Projects\HUN\HUN24004\04-Production\Engineering\Construction Documents\Current Drawings\HUN24004-DM1.dwg, 5/5/2026 12:10:14 PM, Haley Mae-Eady



VICINITY MAP
N.T.S.

SITE LEGEND

- SIGNAGE
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- EASEMENT LINE
- CENTERLINE
- TREE SAVE AREA

SITE DATA

TOWN OF HUNTERSVILLE
101 HUNTERSVILLE-CONCORD RD
HUNTERSVILLE, NC 28078
704. 875. 6541

PREPARED BY: MCADAMS COMPANY
2100 S TRYON ST, SUITE 400
CHARLOTTE, NC 28203
704. 527. 0800

PID: 01909305, 01909304	
SITE ADDRESS: 14200 HOLOBROOKS RD. HUNTERSVILLE, NC 28078 (MECKLENBURG COUNTY)	
TOTAL SITE AREA:	± 13.73 AC (± 598,060 SF)
APPROVED DISTURBED AREA:	± 0.47 AC (± 20,407 SF)
RIVER BASIN:	YADKIN PEE-DEE
STREAM CLASSIFICATION:	C- CLARKE CREEK
GENERAL ZONING DATA	
LOT/BUILDING TYPE:	CIVIC BUILDING
ZONING DISTRICT:	NR - NEIGHBORHOOD RESIDENTIAL
OVERLAY DISTRICT:	N/A
PRINCIPAL USE(S):	PARK
(APPLICABLE) CONDITIONS FOR USE:	HOURS OF OPERATION OF OUTDOOR RECREATION WILL BE NO EARLIER THAN 6:00 A.M. AND NO LATER THAN 11:00 P.M. FOR USES LOCATED IN OR ABUTTING A RESIDENTIAL DISTRICT.
PERMITTED ACCESSORY USES:	N/A
TOTAL AREA OF PRINCIPAL USE:	± 13.73 AC (± 598,060 SF)
PROJECT TIMETABLE	
PROPOSED START OF GRADING:	MARCH 2026
PROPOSED START OF CONSTRUCTION:	MARCH 2026
PROPOSED OCCUPANCY:	JULY 2026
SETBACKS AND BUILD-TO LINES (N/A FOR PROJECT AREA)	
FRONT:	N/A
CORNER(S):	N/A
REAR:	N/A
LEFT SIDE YARD:	N/A
RIGHT SIDE YARD:	N/A
WATERSHED INFORMATION	
IS THE PROPERTY WITHIN A REGULATED WATERSHED DISTRICT?	YES
WATERSHED DISTRICT:	CLARKE
LOW DENSITY/HIGH DENSITY:	N/A
PERCENTAGE OF ALLOWABLE IMPERVIOUS AREA:	N/A
AREA OF IMPERVIOUS ALLOWED:	N/A
PERCENTAGE OF IMPERVIOUS SHOWN ON PLANS:	0.95%
IMPERVIOUS AREA REMOVED:	± 0.00 AC (0000 SF)
AREA OF IMPERVIOUS SHOWN:	± 0.13 AC (6,928 SF)
IMPERVIOUS BREAKDOWN:	
RIVER ROCK:	± 00.04 AC (1,807 SF)
BUILDING(S):	± 00.0 AC (000 SF)
SIDEWALK(S):	± 0.09 AC (3,715 SF)
PARKING LOT(S):	± 00.0 AC (000 SF)
OTHER:	± 0.00 AC (1,256 SF)
TOTAL:	± 0.13 AC (5,522 SF)
IMPERVIOUS/BUA HISTORY BREAKDOWN:	
PRE 2007 EXEMPT BUA:	± 42,806 SF
POST 2007 EXISTING BUA:	± 32,029 SF
PROPOSED BUA:	± 19,051 SF
BUA TOTAL:	± 51,020 SF
OCCUPANCY LOAD BREAKDOWN:	
SPLASH PAD: CONCRETE, EXCLUDING 6' CLEAR ZONE, PER 15A NCAC 18A.2500:	± 995.26 SF ± 210 SF TOTAL: ±1,205 TOTAL PAVING OCCUPANCY, 1,205/50: 24 PEOPLE
BENCHES PROVIDED/NUMBER OF SEATS:	5 BENCHES | 20 SEATS **TOTAL OCCUPANCY**, 24 PEOPLE + 20 SEATS = **44 PEOPLE**

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

811 Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA — THE JOHN R. McADAMS COMPANY, INC. — C–0293 — CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA — PROFESSIONAL SEAL 059713 ENGINEER — RYAN I. GORDON
2026.05.01 14:04:00 -04'00'

NORTH CAROLINA — REGISTERED LANDSCAPE ARCHITECT — 2431 — HALEY MAE EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

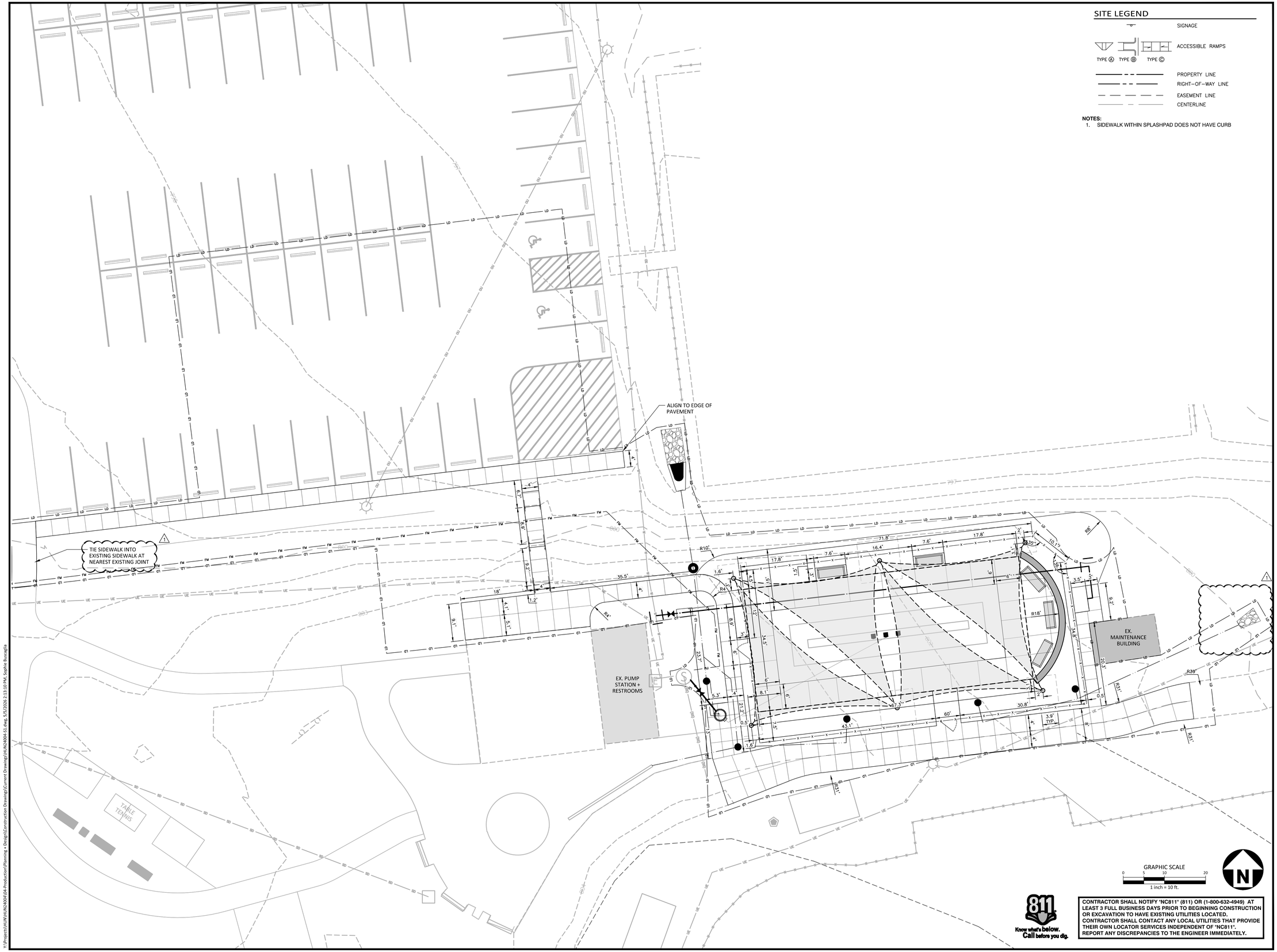
PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-S1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

OVERALL SITE PLAN
C2.00

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawing\Current Drawing\HUN24004-S1.dwg, 5/5/2026 2:04:18 PM, Sophie Bucsa@a



SITE LEGEND

- SIGNAGE
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- EASEMENT LINE
- CENTERLINE

NOTES:

1. SIDEWALK WITHIN SPLASHPAD DOES NOT HAVE CURB

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

Town of Huntersville
PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C-0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN J. IGOE
2026.05.05 11:17:08 -04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE-EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	REVISED PER COUNTY COMMENTS

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-S1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	1"=10'
DATE	09.26.2025

SHEET

LAYOUT SITE PLAN

C2.01

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-S1.dwg, 5/5/2026 2:13:10 PM, Sophie Buscaglia

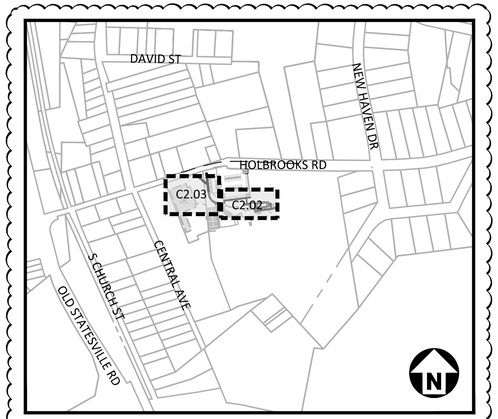
REFERENCE NOTES SCHEDULE

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL	PRODUCT	NOTES
FURNISHINGS						
1	F-101	SURFACE MOUNTED BENCH			AVONDALE BACKED BENCH #AV1-1000-RP	SLATS: CEDAR COLORED RECYCLED PLASTIC|FRAME: STERLING COLORED POWDERCOAT
	F-201	SHADE STRUCTURE - PERMITTED SEPARATELY		2/L4.01	GREAT SOUTHERN RECREATION BY SUPERIOR SHADE OR APPROVED EQUAL	

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL
LANDSCAPE FEATURES				
	L-101	LANDSCAPE EDGING	118 LF	3/L4.00

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL	SIZE	COLOR/FINISH
PAVING						
	P-101	CONCRETE	4,452 SF	1/L4.00		MEDIUM BROOM FINISH; FINISH PERPENDICULAR TO TRAVEL PATH
	P-102	ROCK MULCH	1,778 SF	4/L4.00	2-4"	SUBMIT COLOR SAMPLES. SMOOTH FINISH

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL
RAILING, FENCES, AND GATES				
	R-101	FENCE + GATE	249 LF	1/L4.01
STEPS AND RAMPS				
	ST-101	CONCRETE STAIRS WITH HANDRAIL		6/L4.00
WALLS AND CURBS				
	W-101	RETAINING SEATWALL	37 LF	5/L4.00



KEY MAP

N.T.S.

SITE LEGEND

- SIGNAGE
- ACCESSIBLE RAMPS (TYPE A, TYPE B, TYPE C)
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- EASEMENT LINE
- CENTERLINE
- TRAVEL PATH TO RESTROOMS
- ACCESSIBLE ROUTE

MATCHINE -SEE C2.03

TIE SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT

PATH TO MEN'S RESTROOM, 68'

CONTRACTOR TO TIE PROPOSED SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT

EX. BUILDING CONTAINS (1) MALE + (1) FEMALE RESTROOM

PATH TO WOMEN'S RESTROOM, 71'

RAIN DIVERTER SYSTEM, SEE SPLASHPAD PLANS

CONNECT PROPOSED SIDEWALK TO EXISTING ASPHALT

EX. PUMP STATION + RESTROOMS

TABLE TENNIS

6' CLEAR ZONE

PLUMBING MANIFOLD VAULT - SEE SPLASHPAD PLANS

75'-10"

59'-01"

51'-4"

SPLASH PAD

EX. MAINTENANCE BUILDING

CONNECT PROPOSED SIDEWALK TO EXISTING ASPHALT

GRAPHIC SCALE
0 5 10 20
1 inch = 10 ft.

Know what's below. Call before you dig.

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14200 HOLBROOKS ROAD
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NORTH CAROLINA CERTIFICATE OF AUTHORIZATION — THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN L. IGOE
2026.05.01 08:34:04 -04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-S1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

SITE PLAN ENLARGEMENT

C2.02

Y:\Projects\HUN\HUN24000\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-S1.dwg, 5/5/2026 2:15:39 PM, Sophie Buccaglia

REFERENCE NOTES SCHEDULE REMOVE AND REPLACE SIDEWALK

SYMBOL	CODE	DESCRIPTION	QTY	DETAIL	COLOR/FINISH
PAVING					
	P-101	CONCRETE	648 SF	1/L4.00	MEDIUM BROOM FINISH; FINISH PERPENDICULAR TO TRAVEL PATH

SITE LEGEND

- SIGNAGE
- ACCESSIBLE RAMPS — TYPE A, TYPE B, TYPE C
- PROPERTY LINE
- RIGHT–OF–WAY LINE
- EASEMENT LINE
- CENTERLINE
- TRAVEL PATH TO RESTROOMS
- ACCESSIBLE ROUTE

TIE SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT

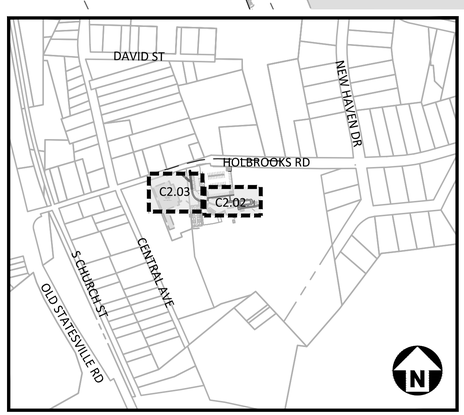
TIE SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT

TIE SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT

MECKLENBURG COUNTY
PARCEL 01909304
DB 3314, PG 441
MB 51, PG 936

BUILDING PARTIALLY SKETCHED

MATCHINE -SEE C2.02



KEY MAP
N.T.S.

GRAPHIC SCALE
0 5 10 20
1 inch = 10 ft.

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Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
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HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION — THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 059313 RYAN M. GOOCH
2026.05.01 09:04:04 -04'00'

NORTH CAROLINA LANDSCAPE ARCHITECT 2431 HALEY MAE EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

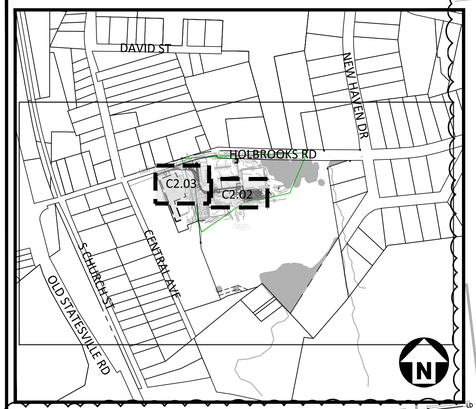
PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-S1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

SITE PLAN ENLARGEMENT
C2.03

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-S1.dwg, 5/4/2026 10:51:35 AM, Sophie Buccaglia



KEY MAP
N.T.S.

GRADING LEGEND

- FLARED END SECTION
- ENDWALL SECTION
- CATCH BASIN
- DROP INLET
- STORM SERVICE INLET
- STORM SERVICE ROOF–DRAIN
- JUNCTION BOX
- DRAINAGE FLOW ARROW
- LINE BREAK SYMBOL
- 250.50 / 250.00 — TOP & BOTTOM CURB ELEVATIONS
- TW=223.00 / BW=213.00 — TOP OF WALL ELEVATION / BOTTOM OF WALL ELEVATION (NOTE: BOTTOM OF WALL IS GROUND ELEVATION NOT WALL FOUNDATION)
- +HP=788.72 — LOW POINT SPOT ELEVATION
- +LP=788.70 — HIGH POINT SPOT ELEVATION
- + 250.60 — SPOT ELEVATION
- STORM DRAINAGE
- STORM SERVICE LINE
- RD RD RD — ROOF DRAIN, 8" ADS NON–PERFORATED TUBING OR EQUAL 1.0% MIN. SLOPE 3' MIN. COVER PVC SCHEDULE 40 IN TRAFFIC AREAS
- TP TP TP — TREE PROTECTION FENCE
- LD LD — LIMITS OF DISTURBANCE
- WOODED AREA
- 250 — MAJOR CONTOUR
- 252 — MINOR CONTOUR
- 250 — EXISTING MAJOR CONTOUR
- 252 — EXISTING MINOR CONTOUR
- EASEMENT LINE
- ACCESSIBLE PARKING AREA (2% MAX. SLOPE IN ALL DIRECTIONS)

EXISTING CONDITIONS LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- TELEPHONE PEDESTAL
- TELEPHONE MANHOLE
- ELECTRIC BOX
- LIGHT POLE
- POWER POLE
- CURB INLET
- STORM DRAINAGE MANHOLE
- YARD INLET
- GREASE PIT
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- OU — OVERHEAD UTILITY LINES
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- T — TELEPHONE LINE
- G — GAS LINE
- UE — UNDERGROUND ELECTRIC
- UT — UNDERGROUND TELEPHONE
- X — X — FENCE LINE

TOWN OF HUNTERSVILLEGRADING AND EROSION CONROL NOTES

- *INSPECTIONS SHALL BE CONDUCTED AS PRESCRIBED BY THE MAINTENANCE COVENANT. ADDITIONAL INSPECTIONS MAY BE CONDUCTED BY THE TOWN OF HUNTERSVILLE ON ANY REASONABLE BASIS, INCLUDING BUT NOT LIMITED TO: ROUTINE INSPECTIONS; RANDOM INSPECTIONS; INSPECTIONS BASED UPON COMPLAINTS OR OTHER NOTICE OF POSSIBLE VIOLATIONS; INSPECTIONS OF DRAINAGE BASINS OR AREAS IDENTIFIED AS HIGHER THAN TYPICAL SOURCES OF SEDIMENT OR OTHER CONTAMINANTS OR POLLUTANTS; INSPECTIONS OF BUSINESSES OR INDUSTRIES OF A TYPE ASSOCIATED WITH HIGHER THAN USUAL DISCHARGERS OF CONTAMINANTS OR POLLUTANTS OR WITH DISCHARGES OF A TYPE WHICH ARE MORE LIKELY THAN THE TYPICAL DISCHARGE TO CAUSE VIOLATIONS OF STATE OR FEDERAL WATER QUALITY STANDARDS OR THE NPDES STORM WATER PERMIT; AND JOINT INSPECTIONS WITH OTHER AGENCIES INSPECTING UNDER ENVIRONMENTAL AND SAFETY LAWS. INSPECTIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: REVIEWING MAINTENANCE AND REPAIR RECORDS; SAMPLING DISCHARGES, SURFACE WATER, GROUNDWATER, AND MATERIAL OR WATER IN BMPS; EVALUATING THE CONDITION OF BMPS AND STORM WATER MANAGEMENT PRACTICES.*
- RIGHT-OF-ENTRY FOR INSPECTION. WHEN ANY NEW BMP IS INSTALLED ON PRIVATE PROPERTY, THE PROPERTY OWNER SHALL GRANT TO THE TOWN OF HUNTERSVILLE THE RIGHT TO ENTER THE PROPERTY AT REASONABLE TIMES AND IN A REASONABLE MANNER FOR THE PURPOSE OF INSPECTION. THIS INCLUDES THE RIGHT TO ENTER A PROPERTY WHEN THE TOWN OF HUNTERSVILLE HAS A REASONABLE BASIS TO BELIEVE THAT A VIOLATION OF THIS REGULATION IS OCCURRING OR HAS OCCURRED, AND TO ENTER WHEN NECESSARY FOR ABATEMENT OF A PUBLIC NUISANCE OR CORRECTION OF A VIOLATION OF THIS REGULATION.

EX. 10" RCP
VELOCITY DISSIPATOR NCDOT CLASS 'A' RIP RAP 8'LX6'WX12" THICK D50=3"
MATCH EX.=797.85
MATCH EX.=797.74
MATCH EX.=797.60
MATCH EX.=797.90
22.80 LF 12" HDPE Pipe @ 2.19%
FG=797.90
FG=797.93
JUNCTION BOX–102 RIM=802.56 INV IN=798.58 (WYE) INV OUT=798.00
MATCH EX.=799.74
MATCH EX.=799.92
TIE SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT
MATCHLINE -SEE C3.01
FG=803.10
FG=803.67
FG=803.65
FG=803.70
27.6 LF 8" HDPE @ 4.15%
45° WYE (ADS HDPE FITTING)
FG=803.81
MATCH EX.=803.85
MATCH EX.=803.83
STORM CLEANOUT–101 RIM=803.51 INV IN=800.06 (RAIN DIVERTER) INV OUT=799.73
10.75 LF 4" HDPE @ 2.50%
CONTRACTOR TO TIE PROPOSED SIDEWALK INTO EXISTING SIDEWALK AT NEAREST EXISTING JOINT
PROPOSED IMPROVEMENTS PER WMECK PROJECT. SEE PLANS BY OTHERS FOR ADDITIONAL INFORMATION
21.33 LF 3" HDPE @ 11.30%
EX. FRENCH DRAIN INV OUT=803.00
EX. 15" CMP
TABLE TENNIS
BENCH, TYP.
EX. TRASH, TYP.
EX. PLAYGROUND
RAIN DIVERTER SYSTEM RIM=803.70 INV OUT=800.53
CONNECT PROPOSED SIDEWALK TO EXISTING ASPHALT
EX. DROP INLET GRATE= 803.63 INV. OUT= 799.80
CLEANOUT–201 TG=801.57 INV IN=800.59 (BEND) INV IN=800.59 (EX. FRENCH DRAIN) INV OUT=800.18
25.02 LF 6" HDPE @ 0.50%
EX. BASKETBALL COURT
CONTRACTOR TO INSTALL ALL SHADE SAIL FOUNDATION 2' BELOW GRADE.
18" SEAT WALL (SPLASH PAD SIDE)
DECORATIVE ROCK PAD 2–4" ROCK MULCH MIN LENGTH=5' MIN WIDTH=3' MIN DEPTH=6"
43.24 LF 6" HDPE Pipe @ 0.62%
4.86 LF 6" HDPE Pipe @ 1.00%
DOME INLET – 203 TG=802.00 INV OUT=800.46
DOME INLET – 202 TG=802.22 INV OUT=800.75
5.76 LF 6" HDPE Pipe @ 0.50%
25.74 LF 8" HDPE Pipe @ 0.60%
DOME INLET – 204 TG=801.25 INV OUT=800.30
3.00 LF 6" HDPE Pipe @ 1.00%
CONNECT PROPOSED SIDEWALK TO EXISTING ASPHALT

GRAPHIC SCALE
0 5 10 20
1 inch = 10 ft.

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CLIENT

TOWN OF HUNTERSVILLE
105 GILEAD ROAD
TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL SEAL 059771 ENGINEER RYAN K. LOCK
2026.01.05 13:06:04-04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

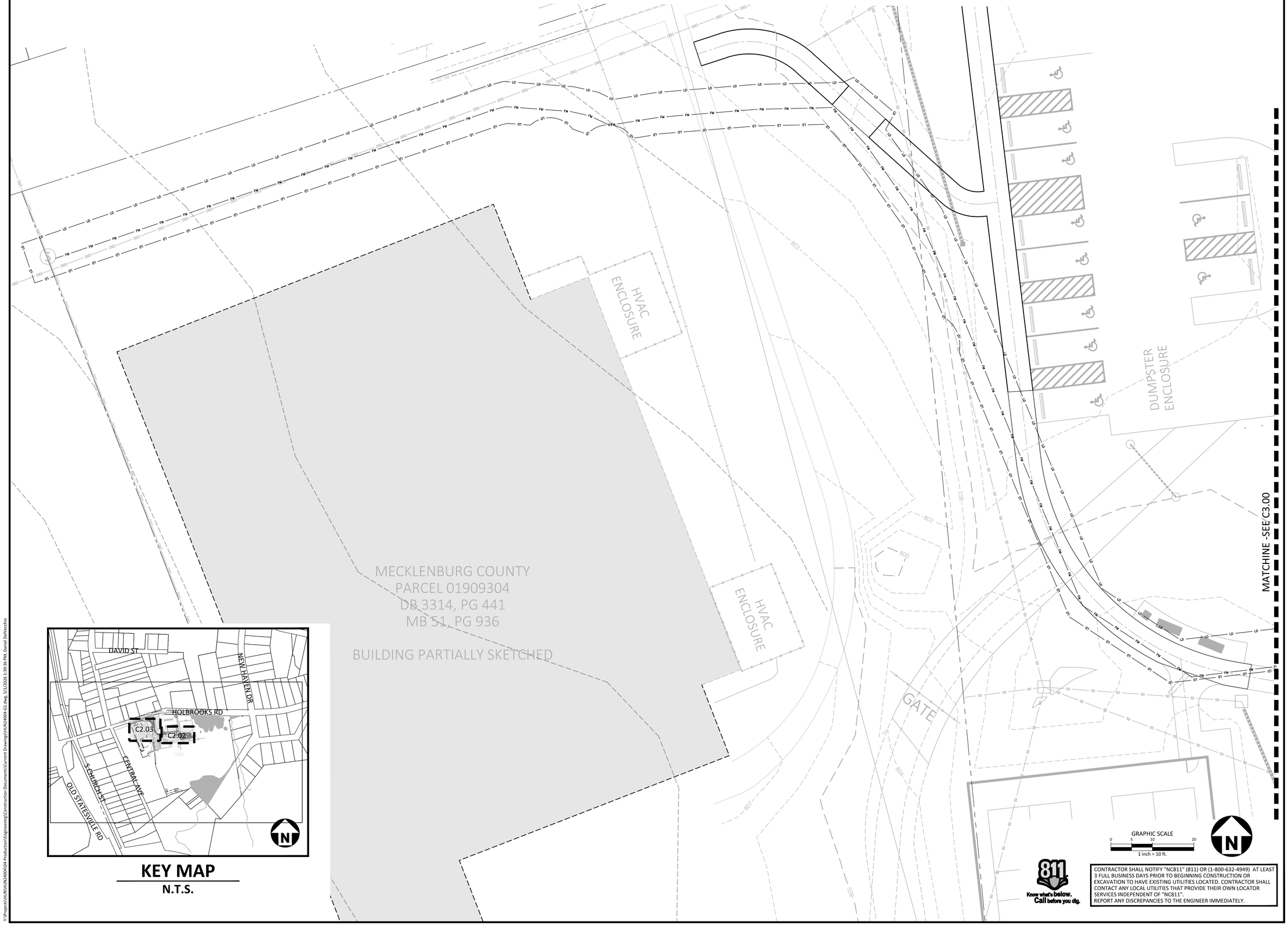
PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-G1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=10'
DATE	09.26.2025

SHEET

GRADING AND DRAINAGE PLAN - SOUTH

C3.00



KEY MAP

N.T.S.

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Town of Huntersville
PARKS AND RECREATION

WAYMER SPLASH PAD
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14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C-0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN J. IGOE
2026.05.01 10:34:34 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

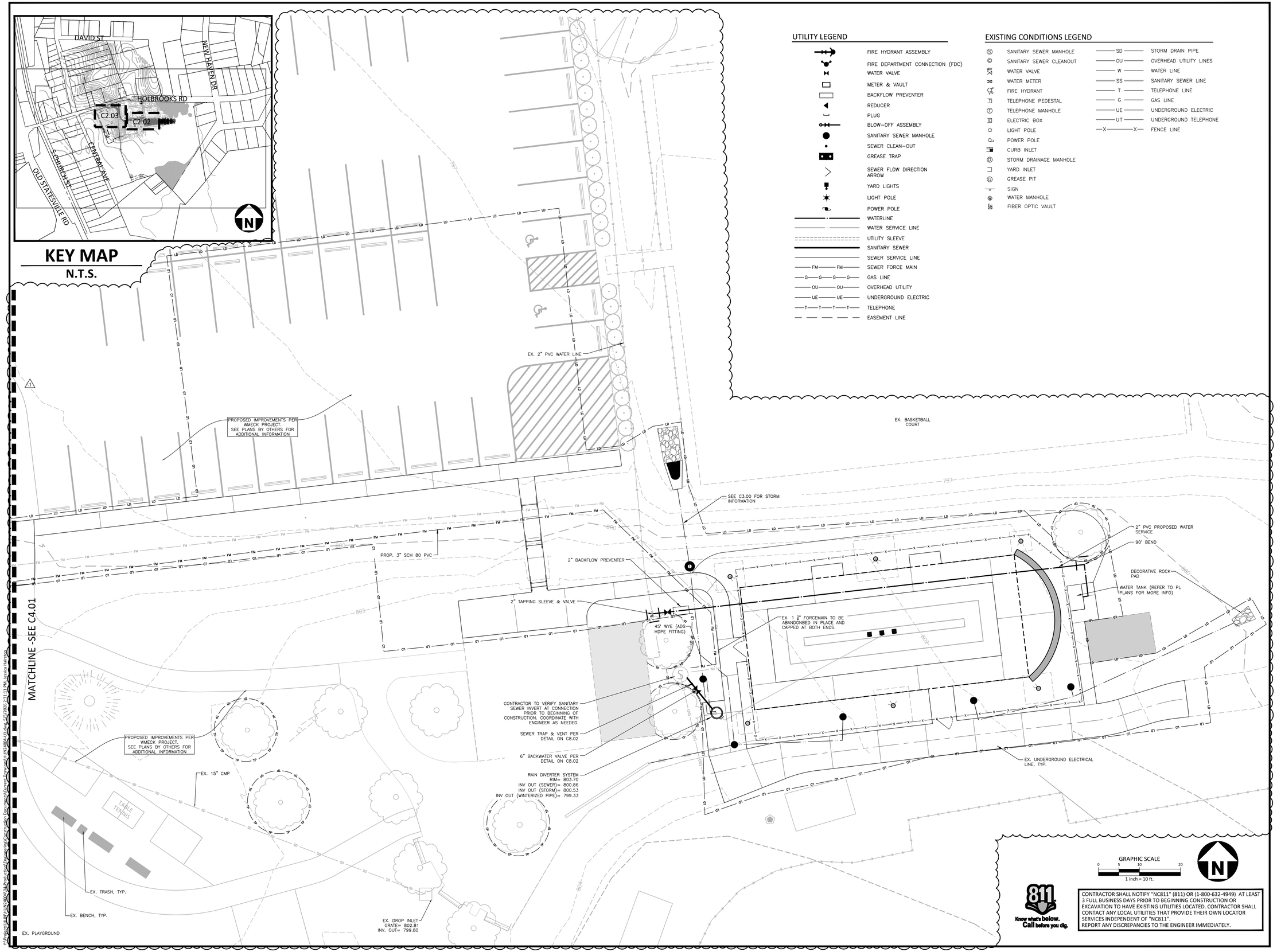
PROJECT NO.	HUN24004
FILENAME	HUN24004-G1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=10'
DATE	09.26.2025

SHEET 1

GRADING AND DRAINAGE PLAN

C3.01

Y:\Projects\HUN\HUN24004\04-Production\Engineering\Construction Documents\Current Drawings\HUN24004-G1.dwg, 5/1/2026 1:39:36 PM, Daniel DelVecchio



KEY MAP
N.T.S.

UTILITY LEGEND

- FIRE HYDRANT ASSEMBLY
- FIRE DEPARTMENT CONNECTION (FDC)
- WATER VALVE
- METER & VAULT
- BACKFLOW PREVENTER
- REDUCER
- PLUG
- BLOW-OFF ASSEMBLY
- SANITARY SEWER MANHOLE
- SEWER CLEAN-OUT
- GREASE TRAP
- SEWER FLOW DIRECTION ARROW
- YARD LIGHTS
- LIGHT POLE
- POWER POLE
- WATERLINE
- WATER SERVICE LINE
- UTILITY SLEEVE
- SANITARY SEWER
- SEWER SERVICE LINE
- FM — SEWER FORCE MAIN
- G — GAS LINE
- OU — OVERHEAD UTILITY
- UE — UNDERGROUND ELECTRIC
- T — TELEPHONE
- EASEMENT LINE

EXISTING CONDITIONS LEGEND

- SANITARY SEWER MANHOLE
- SANITARY SEWER CLEANOUT
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- TELEPHONE PEDESTAL
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HUNTERSVILLE, NC 28078

NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C-0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN L. IGOE
2026-05-14 14:04:04-04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

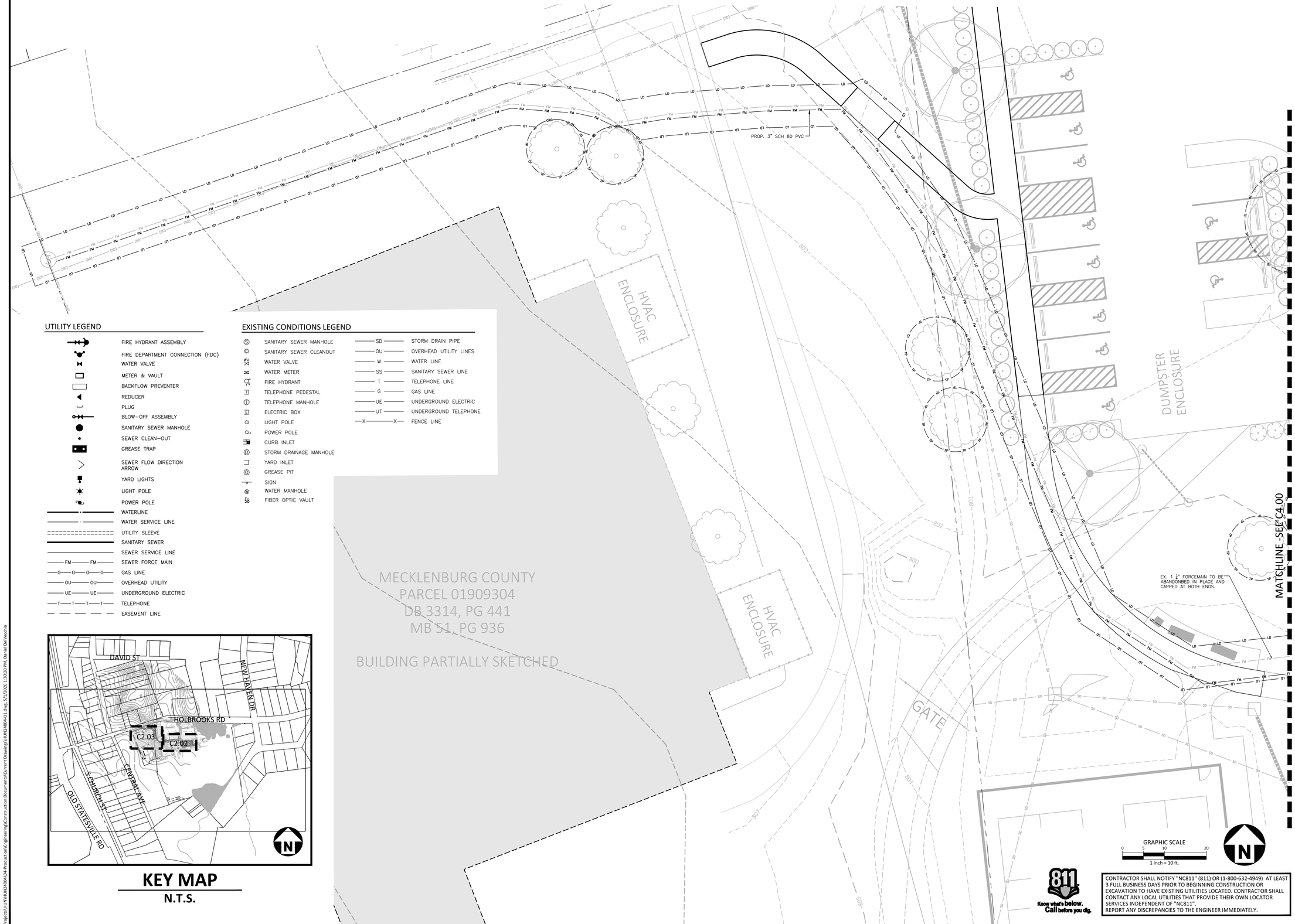
PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-U1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=10'
DATE	09.26.2025

SHEET

UTILITY PLAN - SOUTH

C4.00



UTILITY LEGEND

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KEY MAP

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PARKS AND RECREATION

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CONSTRUCTION DOCUMENTS
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HUNTERSVILLE, NC 28078

NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C-0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN J. IGOE
2026.05.04 10:24:38 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-U1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=10'
DATE	09.26.2025

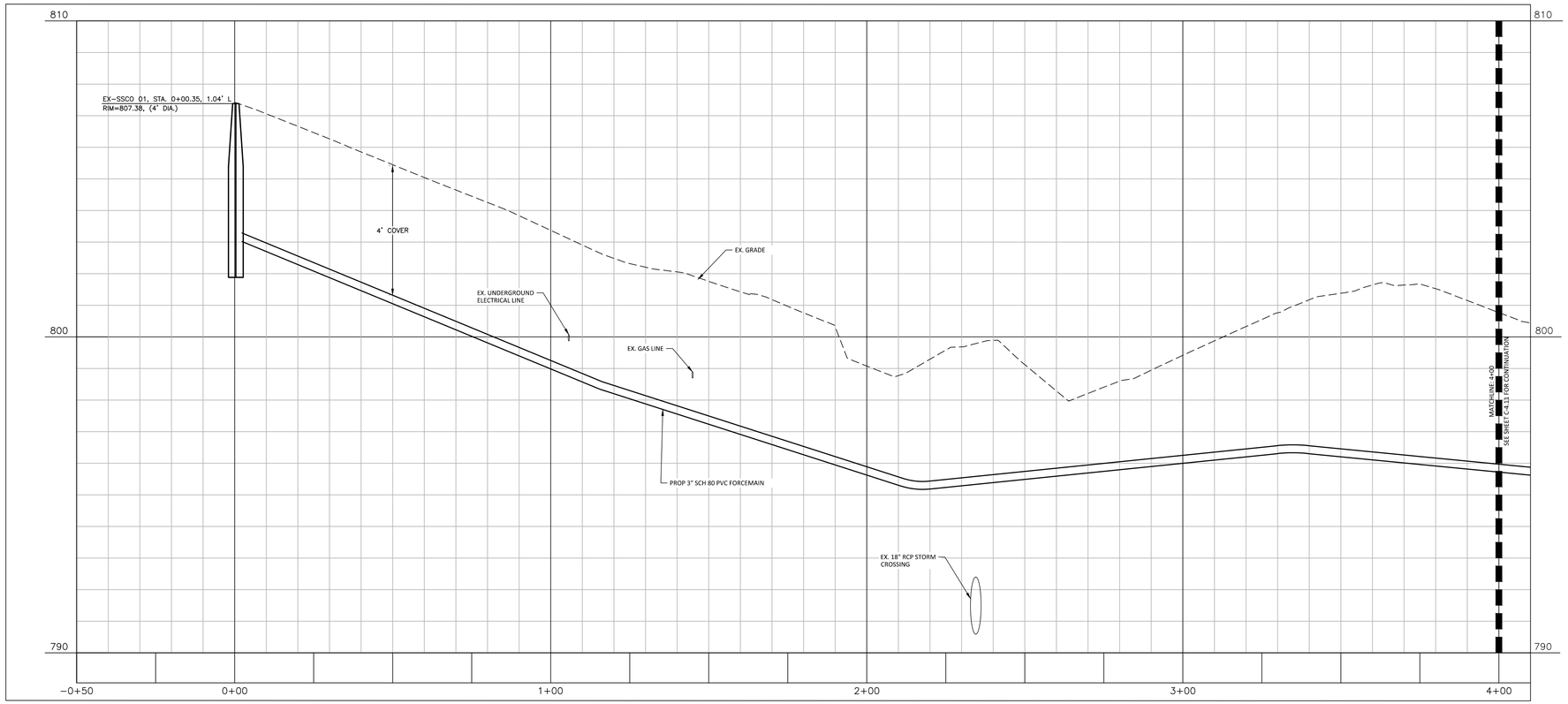
SHEET

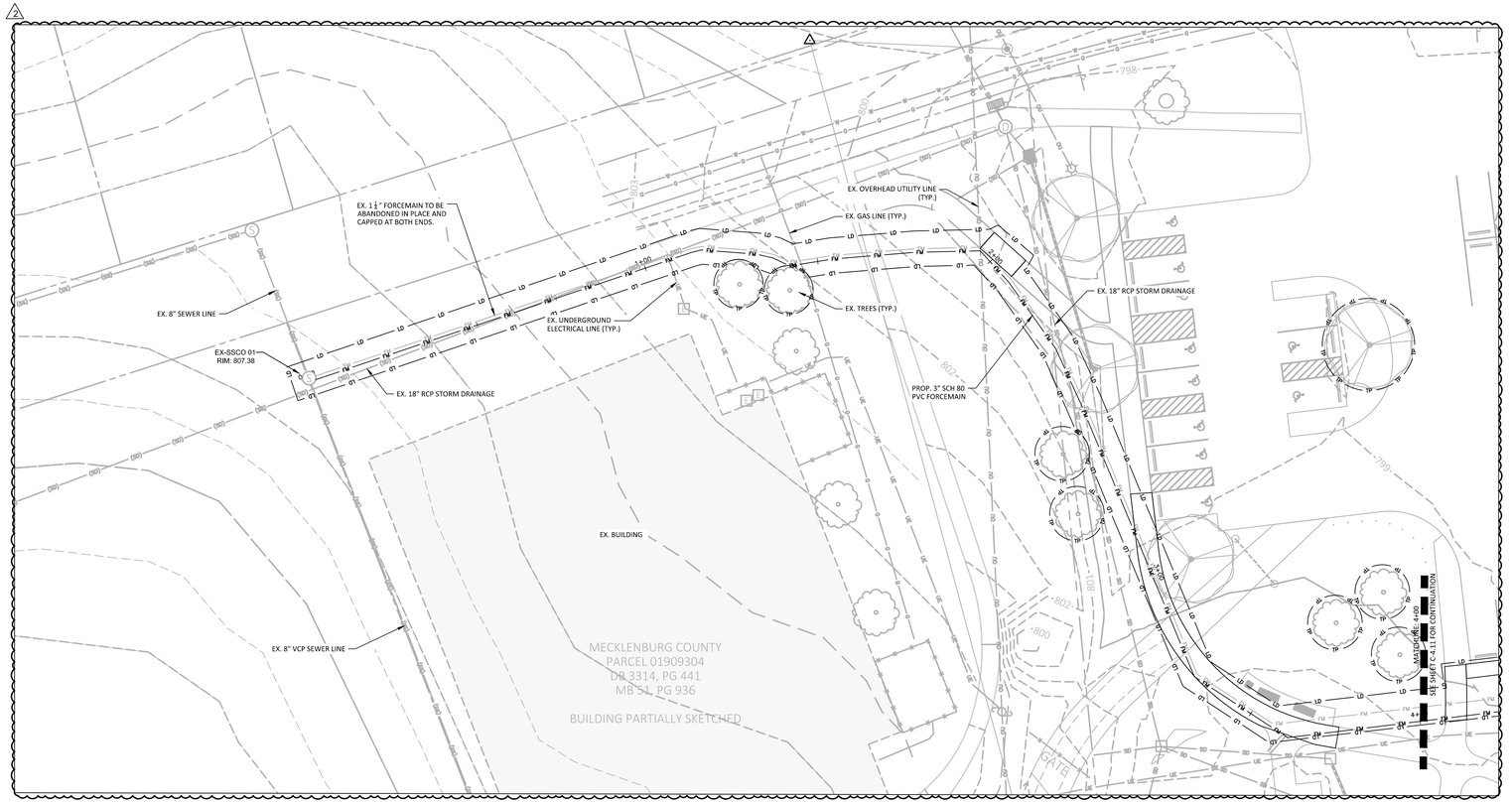
1

UTILITY PLAN

C4.01

Y:\Projects\HUN\HUN24004\04-Production\Engineering\Construction Documents\Current Drawings\HUN24004-U1.dwg, 5/1/2026 1:30:20 PM, Daniel DelVecchio





GRAPHIC SCALE
0 10 20 40
1 inch = 20 ft.

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Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
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14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION
THE JOHN R. McADAMS COMPANY, INC.
C-0293

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 059113 RYAN M. ICKE
2026.05.01 08:00:04 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-P1-SS
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=20'
DATE	09.26.2025

SHEET

FM PLAN AND PROFILE (0+00 TO 4+00)

C4.10

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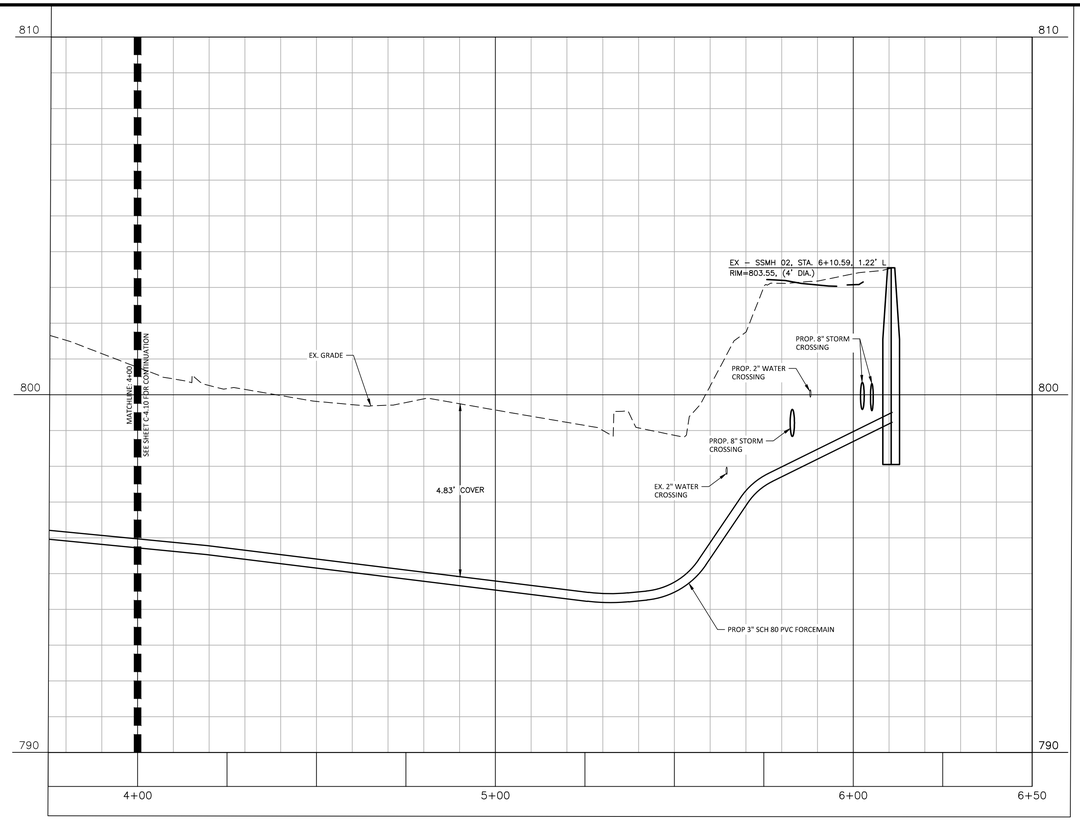

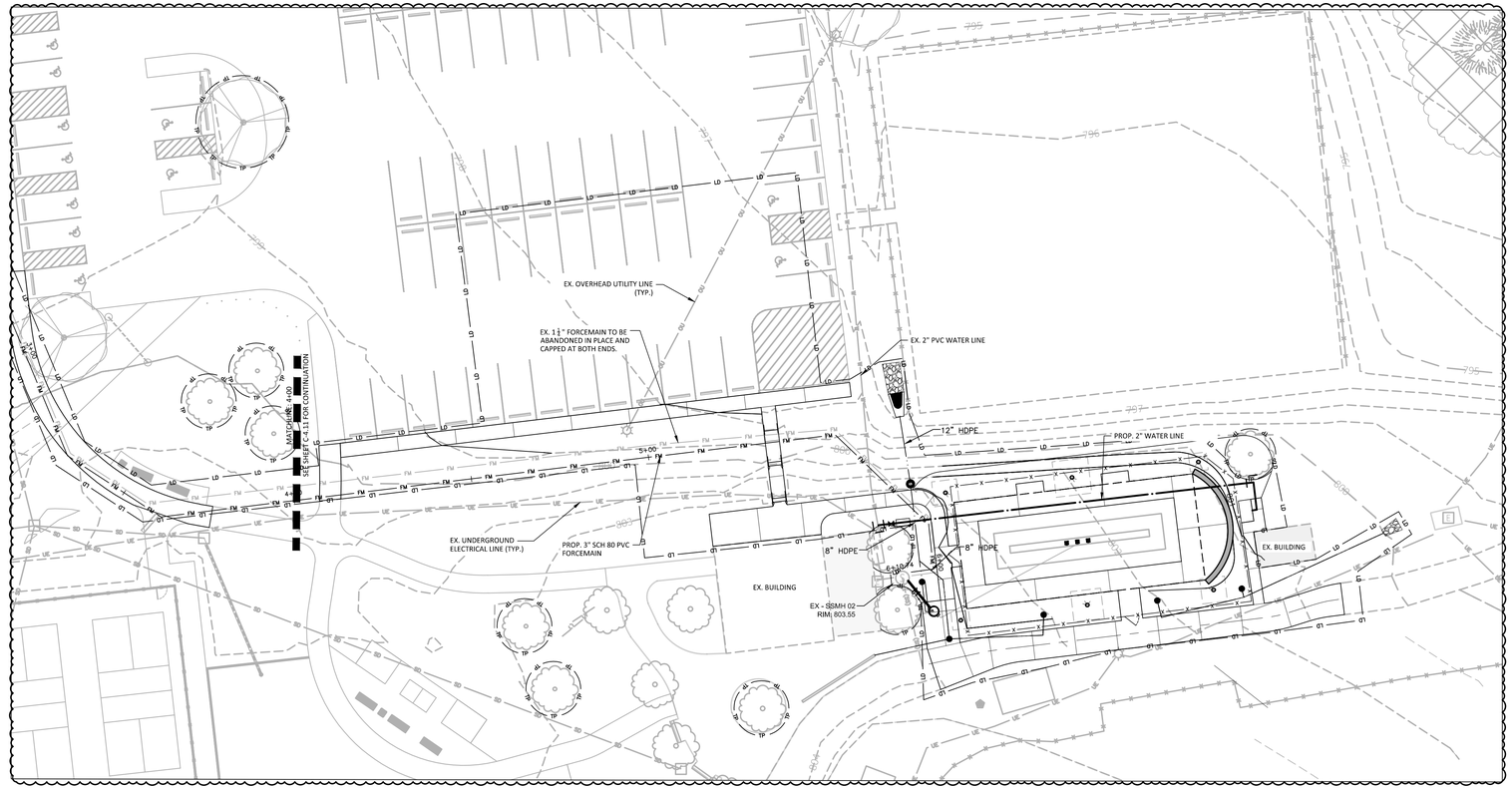

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NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C-0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN J. IGOE
2026.05.04 14:40:55-04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-P1-SS
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=20'
DATE	09.26.2025

SHEET

FM PLAN AND PROFILE (4+00 TO 6+13)

C4.11

Y:\Projects\HUN\HUN24004\04-Production\Engineering\Construction Documents\Current Drawings\HUN24004-P1-SS.dwg, 5/5/2026 2:32:00 PM, Jessica Hairston

CONSTRUCTION SEQUENCE - STAGE I:

ENFORCEMENT NOTE 1: FAILURE TO FOLLOW THIS CONSTRUCTION SEQUENCE MAY RESULT IN ENFORCEMENT ACTIONS, INCLUDING BUT NOT LIMITED TO CIVIL PENALTIES, INJUNCTIVE RELIEF, CRIMINAL PENALTIES, AND PERMIT REVOCATION. ADDITIONALLY, OFF-SITE SEDIMENTATION DISCHARGE MAY RESULT IN RESTORATION REQUIREMENTS.

ENFORCEMENT NOTE 2: IF EXCESSIVE SEDIMENT IS LEAVING THE SITE, A REVISED SEDIMENT AND EROSION CONTROL PLAN MAY BE REQUIRED, WITH ASSOCIATED REQUIREMENTS FOR ADDITIONAL S&E MEASURES.

1. OBTAIN GRADING/EROSION CONTROL PLAN APPROVAL FROM THE NCDEQ ENGINEERING DEPARTMENT AND OTHER APPLICABLE PERMITS AND KEEP HARD-COPIES POSTED ON-SITE.
2. SET UP PRE-CONSTRUCTION/GRADING MEETING WITH THE NORTH CAROLINA DIVISION OF ENERGY, MINING AND LAND RESOURCES, MOORESVILLE REGIONAL OFFICE EROSION CONTROL INSPECTOR (704) 235-2100, OWNER, ENGINEER, GENERAL CONTRACTOR AND GRADING CONTRACTOR.
3. OBTAIN CERTIFICATE OF COVERAGE FROM NCDEQ FOR NPDES NCG01.
4. INSTALL PERIMETER MEASURES INCLUDING, BUT NOT LIMITED TO, SILT FENCE (STANDARD AND HIGH HAZARD) AND SILT FENCE OUTLETS CLEARING ONLY AS NECESSARY TO INSTALL THESE DEVICES. CONTRACTOR TO INSTALL ADDITIONAL STONE SILT FENCE OUTLETS AS REQUIRED AROUND THE SITE PERIMETER TO RELIEVE PRESSURE FROM THE SILT FENCE AS DIRECTED BY THE INSPECTOR OR AS A RESULT OF CONSTRUCTION CONDITIONS.
5. THE CONTRACTOR SHALL DILIGENTLY AND CONTINUOUSLY MAINTAIN ALL EROSION CONTROL DEVICES AND STRUCTURES.
6. ALL AREAS THAT WILL GO UNWORKED FOR 14 DAYS OR MORE MUST BE STABILIZED IMMEDIATELY. STABILIZATION STANDARDS SHOULD BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
7. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, THE U.S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE ENGINEERING STANDARDS MANUAL.
8. CALL FOR ON-SITE INSPECTION BY NCDEQ INSPECTOR. WHEN APPROVED, INSPECTOR ISSUES THE GRADING PERMIT AND CLEARING AND GRUBBING MAY BEGIN. LIMIT CLEARING AND GRUBBING OF SITE TO AREAS THAT WILL BE MASS GRADED. WHENEVER POSSIBLE, EXISTING VEGETATION SHALL REMAIN IN-PLACE TO PREVENT EROSION OF SITE.

CONSTRUCTION SEQUENCE - STAGE II:

1. BEGIN MASS GRADING ACTIVITIES.
2. AS SITE IS BROUGHT TO GRADE, CONSTRUCTION SHALL COMMENCE. CONTRACTOR TO INSTALL ANY ADDITIONAL EROSION CONTROL MEASURES AS NEEDED.
3. BEGIN INSTALL OF PROPOSED UTILITIES.
4. RUNOFF FROM THE PROPOSED BUILDING PAD AREAS, AND OTHER RELATIVELY LEVEL AREAS SHOULD NOT BE ALLOWED TO SHEET FLOW OVER FILL SLOPES. DURING THE FILL PLACEMENT PROCESS THE CONTRACTOR SHOULD MAINTAIN DIVERSIONS ALONG THE TOP OF FILL SLOPES WHICH SHOULD DRAIN TO SLOPE DRAINS. THESE MEASURES SHOULD REMAIN IN PLACE UNTIL THE FILL SLOPES HAVE BEEN ADEQUATELY STABILIZED WITH ESTABLISHED VEGETATION.
5. UTILITIES TO BE INSTALLED AS CONSTRUCTION ALLOWS. UTILITIES TO BE COMPLETED AND INSPECTED.
6. INSTALL INLET PROTECTION, AND OTHER MEASURES, AS SHOWN AS THE PROPOSED STORM SEWER SYSTEM IS INSTALLED. WHEN APPLICABLE THE CONTRACTOR SHOULD MINIMIZE THE DISTURBANCE ALLOWED AT ONE TIME TO THE GREATEST EXTENT PRACTICAL.
7. STABILIZE SITE AS AREAS ARE BROUGHT TO FINAL GRADE. REFER TO C3.00 FOR FINAL GRADING/CONFIGURATION.

CONSTRUCTION SEQUENCE - STAGE III:

1. ALL AREAS THAT WILL GO UNWORKED FOR 14 DAYS OR MORE MUST BE STABILIZED IMMEDIATELY. STABILIZATION STANDARDS SHOULD BE MAINTAINED THROUGHOUT THE CONSTRUCTION PROCESS.
2. ALL EROSION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE N.C. EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, U. S. DEPT. OF AGRICULTURE, AND THE TOWN OF HUNTERSVILLE ENGINEERING STANDARDS MANUAL.
3. THE LAND DEVELOPMENT INSPECTOR SHOULD BE CALLED TO CONDUCT INSPECTIONS ON STORM DRAINAGE, SIDEWALKS, DRIVEWAY IMPROVEMENTS, AND ALL ASPECTS OF ROAD CONSTRUCTION.
4. WHEN VEGETATION IS ESTABLISHED, CALL FOR SITE INSPECTION, IF THE SITE IS APPROVED THE CONTRACTOR MAY REMOVE THE IN-PLACE E&SC MEASURES.

EROSION CONTROL NOTES:

1. ANY GRADING BEYOND THE DENUDED LIMITS SHOWN ON THE PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO A FINE.
2. GRADING MORE THAN ONE ACRE WITHOUT AN APPROVED EROSION CONTROL PLAN IS A VIOLATION OF THE CITY/COUNTY EROSION CONTROL ORDINANCE AND IS SUBJECT TO FINE.
3. ALL PERIMETER DIKES, SWALES, DITCHES, PERIMETER SLOPES AND ALL SLOPES STEEPER THAN 3 HORIZONTAL TO 1 VERTICAL (3:1) SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 7 DAYS CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY. ALL OTHER DISTURBED AREAS SHALL BE PROVIDED TEMPORARY OR PERMANENT STABILIZATION WITH GROUND COVER AS SOON AS PRACTICABLE BUT IN ANY EVENT WITHIN 14 CALENDAR DAYS FROM THE LAST LAND DISTURBING ACTIVITY.
4. ADDITIONAL MEASURES TO CONTROL EROSION AND SEDIMENT MAY BE REQUIRED BY A REPRESENTATIVE OF THE CITY ENGINEERING DEPARTMENT.
5. SLOPES SHALL BE GRADED NO STEEPER THAN 2:1. FILL SLOPES GREATER THAN 10' REQUIRE ADEQUATE TERRACING.
6. A GRADING PLAN MUST BE SUBMITTED FOR ANY LOT GRADING EXCEEDING ONE ACRE THAT WAS NOT PREVIOUSLY APPROVED.
7. DRIVEWAY PERMITS FOR CONSTRUCTION ENTRANCES IN NCDOT RIGHT OF WAY MUST BE PRESENTED AT PRE CONSTRUCTION MEETING.
8. THIS SITE IS TO BE INSPECTED AND DOCUMENTED IN ACCORDANCE WITH THE NCG010000 GENERAL CONSTRUCTION PERMIT.
9. EROSION CONTROL INSPECTIONS MUST BE INSPECTED AT A MINIMUM OF ONCE PER WEEK AND AFTER EVERY 1" RAIN EVENT.
10. FOR SLOPES GREATER THAN 10' IN LENGTH AND PROTECTED BY SILT FENCE AT THE TOE OF THE SLOPE, SLOPE TERRACING WILL BE REQUIRED.
11. WASHED STONE AND WIRE BACKING SHALL BE USED WITH SILT FENCE WHENEVER SILT FENCE IS PLACED AT THE TOE OF A SLOPE >10' VERTICAL OR ALONG ANY CHANNEL OR WATER COURSE WHERE 50' OF BUFFER IS NOT PROVIDED.
12. ALL TREES & BRUSH REMOVED DURING CLEARING & GRUBBING OF SITE SHALL BE CHIPPED ON SITE AND HAULED OFF SITE FOR DISPOSAL.
13. ALL DISTURBED AREAS TO BE SEEDED.
14. NO DEMOLITION TO OCCUR PRIOR TO PRE-CONSTRUCTION MEETING.

EROSION CONTROL DEVICE MAINTENANCE SCHEDULE:

1. INSPECT ALL SEDIMENTATION AND EROSION CONTROL DEVICES FOR STABILITY AND FUNCTION EACH WEEK AND FOLLOWING EACH RAINFALL EVENT.
2. REMOVE ACCUMULATED SILT/SEDIMENT FROM BEHIND SEDIMENT FENCE WHEN DEPTH EXCEEDS APPROXIMATELY 0.5'. REPAIR AND REPLACE SILT FENCE AS NECESSARY.
3. CONTRACTOR SHALL APPOINT AN ON-SITE INSPECTOR AND MAINTAIN RECORDS OF INSPECTIONS IN ACCORDANCE WITH THE PROVISIONS OF THE GENERAL NPDES STORMWATER DISCHARGE PERMIT FOR CONSTRUCTION ACTIVITIES.

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

MAINTAIN THE GRAVEL PAD IN A CONDITION TO PREVENT MUD OR SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. THIS MAY REQUIRE PERIODIC TOPDRESSING WITH 2-INCH STONE. AFTER EACH RAINFALL, INSPECT ANY STRUCTURE USED TO TRAP SEDIMENT AND CLEAN IT OUT AS NECESSARY. IMMEDIATELY REMOVE ALL OBJECTIONABLE MATERIALS SPILLED, WASHED, OR TRACKED ONTO PUBLIC ROADWAYS.

TEMPORARY SEEDING

RESEED AND MULCH AREAS WHERE SEEDLING EMERGENCE IS POOR, OR WHERE EROSION OCCURS, AS SOON AS POSSIBLE. DO NOT MOW. PROTECT FROM TRAFFIC AS MUCH AS POSSIBLE.

SILT FENCE

INSPECT SEDIMENT FENCES AT LEAST ONCE A WEEK AND AFTER EACH RAINFALL. MAKE ANY REQUIRED REPAIRS IMMEDIATELY. SHOULD THE FABRIC OF A SEDIMENT FENCE COLLAPSE, TEAR, DECOMPOSE OR BECOME INEFFECTIVE, REPLACE IT PROMPTLY. REPLACE BURLAP EVERY 60 DAYS. REMOVE SEDIMENT DEPOSITS AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE FENCE. TAKE CARE TO AVOID UNDERMINING THE FENCE DURING CLEANOUT. REMOVE ALL FENCING MATERIALS AND UNSTABLE SEDIMENT DEPOSITS AND BRING THE AREA TO GRADE AND STABILIZE IT AFTER THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

TOWN OF HUNTERSVILLEGRADING AND EROSION CONROL NOTES

- *INSPECTIONS SHALL BE CONDUCTED AS PRESCRIBED BY THE MAINTENANCE COVENANT. ADDITIONAL INSPECTIONS MAY BE CONDUCTED BY THE TOWN OF HUNTERSVILLE ON ANY REASONABLE BASIS, INCLUDING BUT NOT LIMITED TO: ROUTINE INSPECTIONS; RANDOM INSPECTIONS; INSPECTIONS BASED UPON COMPLAINTS OR OTHER NOTICE OF POSSIBLE VIOLATIONS; INSPECTIONS OF DRAINAGE BASINS OR AREAS IDENTIFIED AS HIGHER THAN TYPICAL SOURCES OF SEDIMENT OR OTHER CONTAMINANTS OR POLLUTANTS; INSPECTIONS OF BUSINESSES OR INDUSTRIES OF A TYPE ASSOCIATED WITH HIGHER THAN USUAL DISCHARGERS OF CONTAMINANTS OR POLLUTANTS OR WITH DISCHARGES OF A TYPE WHICH ARE MORE LIKELY THAN THE TYPICAL DISCHARGE TO CAUSE VIOLATIONS OF STATE OR FEDERAL WATER QUALITY STANDARDS OR THE NPDES STORM WATER PERMIT; AND JOINT INSPECTIONS WITH OTHER AGENCIES INSPECTING UNDER ENVIRONMENTAL AND SAFETY LAWS. INSPECTIONS MAY INCLUDE, BUT ARE NOT LIMITED TO: REVIEWING MAINTENANCE AND REPAIR RECORDS; SAMPLING DISCHARGES, SURFACE WATER, GROUNDWATER, AND MATERIAL OR WATER IN BMPS; EVALUATING THE CONDITION OF BMPS AND STORM WATER MANAGEMENT PRACTICES.*
- RIGHT-OF-ENTRY FOR INSPECTION. WHEN ANY NEW BMP IS INSTALLED ON PRIVATE PROPERTY, THE PROPERTY OWNER SHALL GRANT TO THE TOWN OF HUNTERSVILLE THE RIGHT TO ENTER THE PROPERTY AT REASONABLE TIMES AND IN A REASONABLE MANNER FOR THE PURPOSE OF INSPECTION. THIS INCLUDES THE RIGHT TO ENTER A PROPERTY WHEN THE TOWN OF HUNTERSVILLE HAS A REASONABLE BASIS TO BELIEVE THAT A VIOLATION OF THIS REGULATION IS OCCURRING OR HAS OCCURRED, AND TO ENTER WHEN NECESSARY FOR ABATEMENT OF A PUBLIC NUISANCE OR CORRECTION OF A VIOLATION OF THIS REGULATION.

1

EXISTING LEGEND

EXISTING IRON PIPE/REBAR
IRON PIPE SET
EXISTING CONCRETE MONUMENT
CONCRETE MONUMENT SET
CALCULATED POINT
CALCULATED POINT
SANITARY SEWER MANHOLE
SANITARY SEWER CLEANOUT
WATER VALVE
WATER METER
EXISTING TREE
FIRE HYDRANT
TELEPHONE MANHOLE
GAS VALVE
LIGHT POLE
POWER POLE WITH GUY ANCHOR
CURB INLET
STORM DRAINAGE MANHOLE
YARD INLET
FLARED END SECTION
BOLLARD
SIGN
STORM DRAIN
OVERHEAD UTILITY LINE
UNDERGROUND ELECTRIC
UNDERGROUND COMMUNICATIONS LINE
WATER LINE
SANITARY SEWER LINE
GAS LINE
FENCE LINE
SURVEYED PROPERTY LINE
PROPERTY LINE NOT SURVEYED

EROSION CONTROL LEGEND

SILT FENCE OUTLET
INLET PROTECTION
INLET PROTECTION FOR EXISTING STRUCTURES
CHECK DAM
EMBANKMENT MATTING
SILT FENCE
TREE PROTECTION FENCE
LIMITS OF DISTURBANCE
WOODED AREA



AREA OF DISTURBANCE = 0.47 AC

GROUND STABILIZATION

SITE AREA DESCRIPTION	STABILIZATION TIME FRAME	STABILIZATION TIME FRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED
SLOPES 3:1 OR FLATTER	14 DAYS	7-DAYS FOR SLOPES GREATER THAN 50 FEET IN LENGTH
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE (EXCEPT FOR PERIMETERS AND HQW ZONES)

811 Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1–800–632–4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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MCADAMS
The John R. McAdams Company, Inc.
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license number: C-0293, C-187
www.mcadamsco.com

CLIENT

TOWN OF HUNTERSVILLE
105 GILEAD ROAD
TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA THE JOHN R. McADAMS COMPANY, INC. C–0293 CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER RYAN J. IGOE
2026.05.05 14:49:36-04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-EC1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=20'
DATE	09.26.2025

SHEET

EROSION CONTROL PLAN - SOUTH

C6.00

PAGE NO LONGER IN USE

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Town of Huntersville
PARKS AND RECREATION

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HUNTERSVILLE, NC 28078

NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
PROFESSIONAL
SEAL
059713
ENGINEER
RYAN J. IGOE
2026.05.05 10:27:00 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-EC1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	1"=20'
DATE	09.26.2025

SHEET

EROSION CONTROL PLAN - NORTH

C6.01

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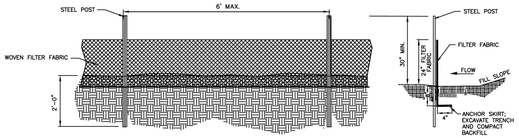


GENERAL NOTES:

1. FILTER FABRIC FENCE SHALL BE A MINIMUM OF 32" IN WIDTH AND SHALL HAVE A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
2. WOVEN FILTER FABRIC BE USED WHERE SILT FENCE IS TO REMAIN FOR A PERIOD OF MORE THAN 30 DAYS.
3. STEEL POSTS SHALL BE 5'-0" IN HEIGHT AND BE OF THE SELF-FASTENER ANGLE STEEL TYPE.
4. TURN SILT FENCE UP SLOPE AT ENDS.
5. ORANGE SAFETY FENCE IS REQUIRED AT BACK OF SILT FENCE WHEN GRADING IS ADJACENT TO SWIM BUFFERS, STREAMS OR WETLANDS (REFER TO SWIM BUFFER GUIDELINES). THE COLOR ORANGE IS RESERVED FOR VISUAL IDENTIFICATION OF ENVIRONMENTALLY SENSITIVE AREAS.
6. DRAINAGE AREA CAN NOT BE GREATER THAN 1/4 ACRE PER 100 FT OF FENCE.
7. SLOPE LENGTHS CAN NOT EXCEED CRITERIA SHOWN IN TABLE 6.62A NORTH CAROLINA EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL.
8. DO NOT INSTALL SEDIMENT FENCE ACROSS STREAMS, DITCHES, WATERWAYS OR OTHER AREAS OF CONCENTRATED FLOW.

MAINTENANCE NOTES:

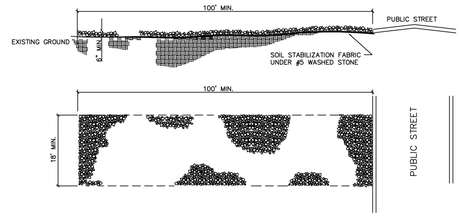
1. FILTER BARRIERS SHALL BE INSPECTED BY THE FINANCIALLY RESPONSIBLE PARTY OR HIS AGENT IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REPAIRS NEEDED SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER STILL IS NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHOULD BE REMOVED WHEN DEPOSITS REACH APPROX. HALF THE HEIGHT OF THE BARRIER. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE IS REMOVED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	TEMPORARY SILT FENCE	REV. DATE 10/14/09 · STD. NO. 507.1

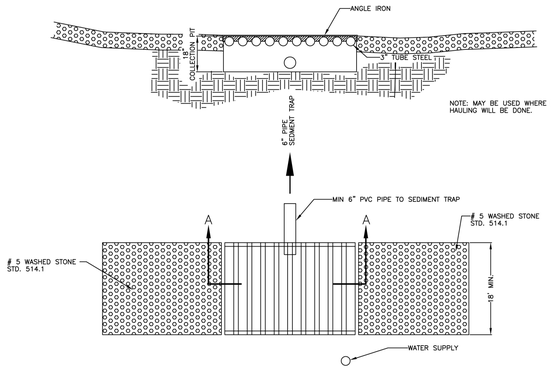
NOTES:

1. A STABILIZED ENTRANCE PAD OF #5 WASHED STONE OR RAIL ROAD BALLAST SHALL BE LOCATED WHERE TRAFFIC WILL ENTER OR LEAVE THE CONSTRUCTION SITE ONTO A PUBLIC STREET.
2. FILTER FABRIC OR COMPACTED CRUSHER RUN STONE SHALL BE USED AS A BASE FOR THE CONSTRUCTION ENTRANCE.
3. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC STREETS OR EXISTING PAVEMENT. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS WARRANT AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
4. ANY SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC STREETS MUST BE REMOVED IMMEDIATELY.
5. WHEN APPROPRIATE, WHEELS MUST BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTERING A PUBLIC STREET. WHEN WASHING IS REQUIRED, IT SHALL BE DONE IN AN AREA STABILIZED WITH CRUSHED STONE WHICH DRAINS INTO AN APPROVED SEDIMENT BASIN SEE STD. NO. 515.1.
6. TOWN MAY REQUIRE A STANDARD COMMERCIAL DRIVEWAY (STD. 108.1 – 116.1) TO ACCESS THE CONSTRUCTION SITE IF THE DRIVEWAY IS ON A THOROUGHFARE.



NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	STABILIZED CONSTRUCTION ENTRANCE	REV. DATE 10/14/09 · STD. NO. 514.1

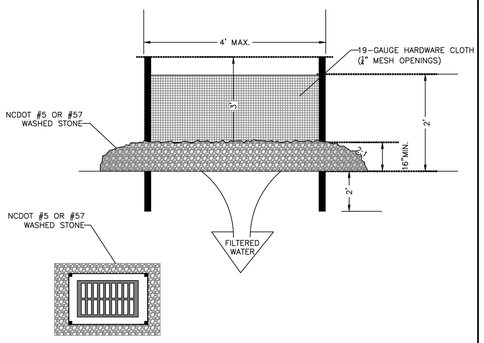


NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	CONSTRUCTION ENTRANCE TIRE WASH	REV. DATE 10/14/09 · STD. NO. 515.1

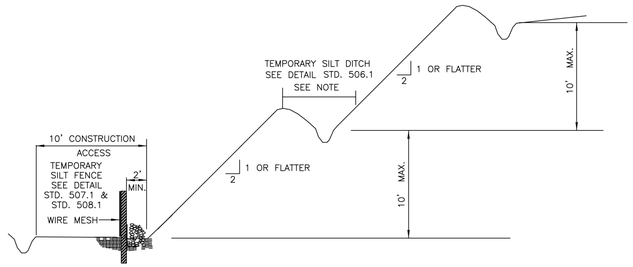
GENERAL NOTES:

1. UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
2. DRIVE 5-FOOT STEEL POSTS 2 FEET INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FEET APART.
3. SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FOOT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
4. PLACE CLEAN GRAVEL (NC DOT #5 OR #57 STONE) ON A 2:1 SLOPE WITH A HEIGHT OF 16 INCHES AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
5. ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT, AND ESTABLISH FINAL GRADING ELEVATIONS.
6. COMPACT THE AREA PROPERLY AND STABILIZED IT WITH GROUNDCOVER.



NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	HARDWARE CLOTH AND GRAVEL INLET PROTECTION	REV. DATE 7/1/24 · STD. NO. 512.1



NOTE:

DIVERSION DITCH SHOULD FLOW INTO SEDIMENT BASIN ROCK CHECK DAM, OR SLOPE DRAIN

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	SLOPE STABILITY	REV. DATE 11/13/09 · STD. NO. 520.1

TEMPORARY SEEDING FOR WARM AND COOL SEASON

	EARLY SUMMER SEASON	STEEP SLOPES
SEEDING MIXTURE	40 lbs/acre of German millet 80 lbs/acre of tall fesue	120 lbs/acre Rye (grain) 80 lbs/acre tall fesue
SEEDING DATES	May 1 – August 15 Refertilize if growth is not fully adequate. Apply 4000 lbs/acre straw or equivalent hydroseeding.	October 25 – December 30 Between December 30 – February 15, add 50 lbs/acre of annual Kobe lespedeza. Apply 4000 lbs/acre straw or equivalent hydroseeding.
SEEDING AMENDMENTS	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10–10–10 fertilizer.	Apply lime and fertilizer per soil tests, or 2000 lbs/acre limestone and 750 lbs/acre 10–10–10 fertilizer.

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	SEEDING SCHEDULE (SEASONAL)	REV. DATE 10/14/09 · STD. NO. 522.1

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Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL SEAL 059913 ENGINEER RYAN J. IGSIC
2026.05.01 13:44:04 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-EC1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	
DATE	09.26.2025

SHEET

EROSION CONTROL DETAILS

C6.10

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GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 CONSTRUCTION GENERAL PERMIT

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCG01 Construction General Permit (Sections E and F, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

SECTION E: GROUND STABILIZATION

Site Area Description	Required Ground Stabilization Timeframes: Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10' or less in length and are not steeper than 2:1, 14 days are allowed -7 days for slopes greater than 50' in length and with slopes steeper than 4:1 -7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed
(d) Slopes 3:1 to 4:1	14	-7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones -10 days for Falls Lake Watershed unless there is zero slope
(e) Areas with slopes flatter than 4:1	14	

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

GROUND STABILIZATION SPECIFICATION

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below:

Temporary Stabilization	Permanent Stabilization
• Temporary grass seed covered with straw or other mulches and tackifiers • Hydromulching • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

1. Select flocculants that are appropriate for the soils being exposed during construction, selecting from the *NC DWR List of Approved PAMS/Flocculants*.
2. Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
3. Apply flocculants at the concentrations specified in the *NC DWR List of Approved PAMS/Flocculants* and in accordance with the manufacturer's instructions.
4. Provide ponding area for containment of treated Stormwater before discharging offsite.
5. Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

1. Do not dump paint and other liquid waste into storm drains, streams or wetlands.
2. Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
3. Contain liquid wastes in a controlled area.
4. Containment must be labeled, sized and placed appropriately for the needs of site.
5. Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

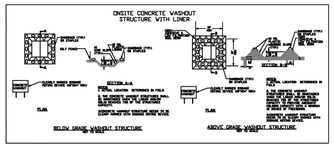
PORTABLE TOILETS

1. Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

EARTHEN STOCKPILE MANAGEMENT

1. Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

NORTH CAROLINA Environmental Quality



CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
3. Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter silt fence.
4. Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
5. Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
6. Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
7. Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
8. Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
9. Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
3. Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

1. Create designated hazardous waste collection areas on-site.
2. Place hazardous waste containers under cover or in secondary containment.
3. Do not store hazardous chemicals, drums or bagged materials directly on the ground.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

EFFECTIVE: 04/01/19

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION A: SELF-INSPECTION

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and this will determine if a site inspection is needed). Days on which no rainfall occurred shall be recorded as "zero." The permittee may use another rain-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measures, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration, 5. Indication of visible sediment leaving the site, 6. Description, evidence, and date of corrective actions taken.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream has visible increased turbidity from the construction activity, then a record of the following shall be made: 1. Description, evidence and date of corrective actions taken, and 2. Records of the required reports to the appropriate Division Regional Office per Part III, Section C, Item (2)(a) of this permit.
(6) Ground stabilization measures	After each phase of grading	1. The phase of grading (installation of perimeter E&SC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land-disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or an assurance that they will be provided as soon as possible.

NOTE: The rain inspection resets the required 7 calendar day inspection requirement.

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

The approved E&SC plan as well as any approved deviation shall be kept on the site. The approved E&SC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the E&SC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved E&SC plan.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

2. Additional Documentation to be Kept on Site

In addition to the E&SC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) Oil spills if:
- They are 25 gallons or more,
- They are less than 25 gallons but cannot be cleaned up within 24 hours,
- They cause sheen on surface waters (regardless of volume), or
- They are within 100 feet of surface waters (regardless of volume).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes and Other Requirements

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timeframes and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0368.

Occurrence	Reporting Timeframes [After Discovery] and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***Within 24 hours***, an oral or electronic notification. The notification shall include information about: the date, time, nature, volume and location of the spill or release.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***A report at least ten days before the date of the bypass, if possible.*** The report shall include an evaluation of the anticipated quality and effect of the bypass.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days***, a report that contains a description of the noncompliance, and its causes; the period of noncompliance, including exact dates and times, and the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

PART II, SECTION G, ITEM (4)
DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare (for example, times with extended cold weather). Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

(a) The E&SC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

NORTH CAROLINA Environmental Quality

NCG01 SELF-INSPECTION, RECORDKEEPING AND REPORTING

EFFECTIVE: 04/01/19

McADAMS
The John R. McAdams Company, Inc.
2100 South Tryon Street
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Charlotte, NC 28203
phone 704. 527. 0800
fax 919. 361. 2269
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CLIENT

TOWN OF HUNTERSVILLE
105 GILEAD ROAD
TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

Town of Huntersville
PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
PROFESSIONAL SEAL 059113 ENGINEER
RYAN J. IGOE
2026.05.01 08:04:00 -04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-EC1
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	
DATE	09.26.2025

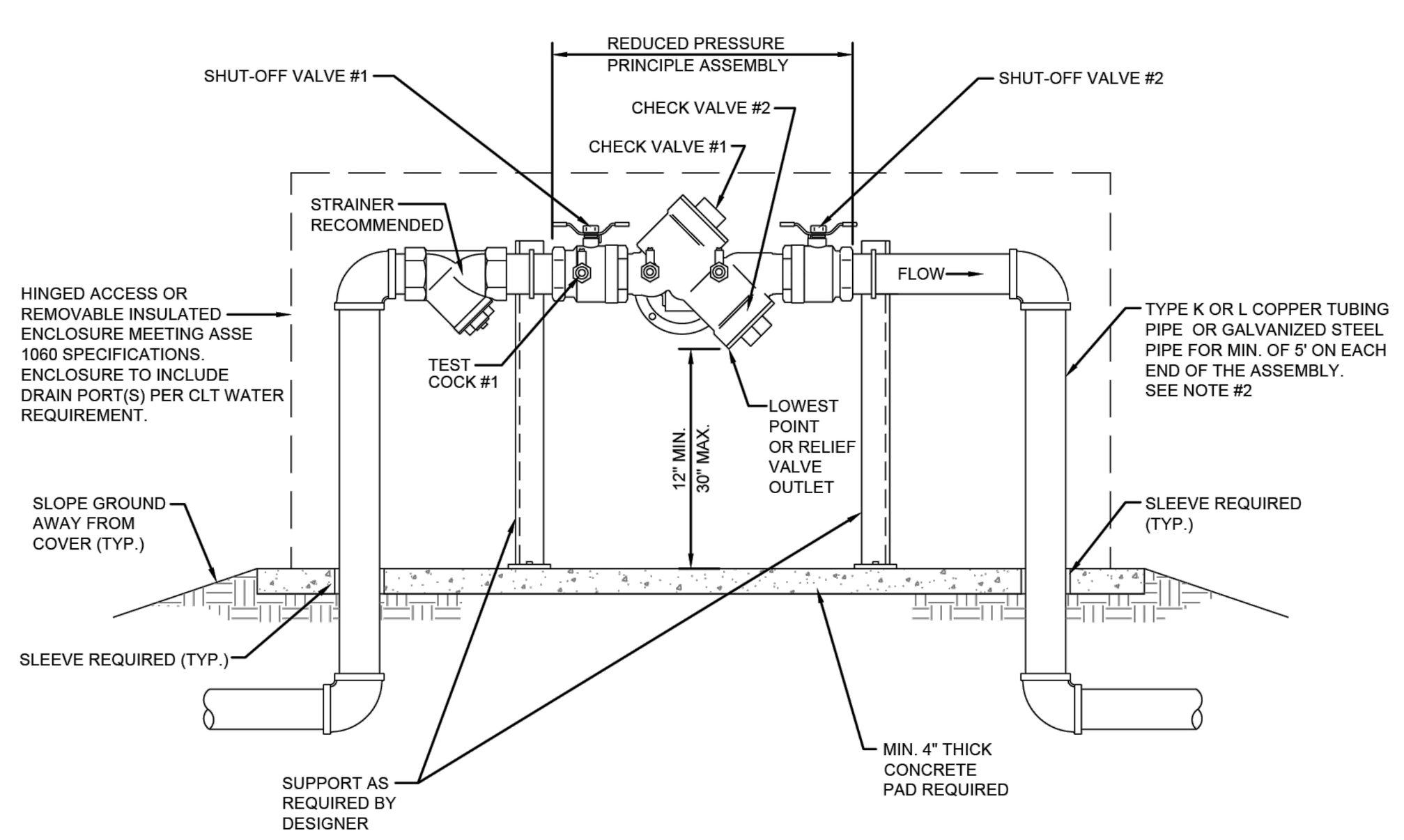
SHEET

EROSION CONTROL DETAILS

C6.11

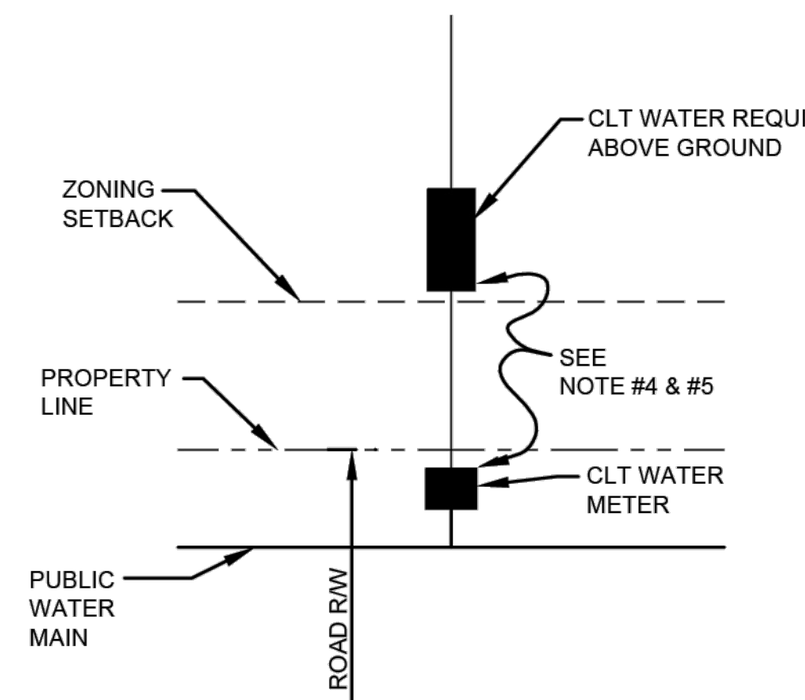
Y:\Projects\HUN\HUN24004\04-Production\Engineering\Construction Documents\Current Drawings\HUN24004-EC1.dwg, 5/5/2026 11:42:46 AM, Haley Mae-Daly

REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) 1 1/2" & 2" ABOVE GROUND



NOTES:

1. BACKFLOW PREVENTION ASSEMBLIES (BPA's) SHALL CONFORM TO CLT WATER SPECIFICATIONS. SHUT-OFF VALVES ARE SPECIFIC TO EACH APPROVED BPA AND NO SUBSTITUTIONS OF SHUT-OFF VALVES ARE PERMITTED. REFER TO CLT WATER APPROVED LIST OF BPA's.
2. PIPE MATERIAL AND FITTINGS SHALL BE AS SPECIFIED IN CLT WATER STANDARDS & SPECIFICATIONS.
3. INSULATED ENCLOSURE SHALL BE AS SPECIFIED IN CLT WATER ENCLOSURE INFORMATION - HEATED INSULATED ENCLOSURE IS RECOMMENDED. NO INSULATION SHALL BE WRAPPED AROUND BPA.
4. ALL LOCATIONS FOR BPA'S REQUIRE CLT WATER APPROVAL AND MUST BE OUTSIDE OF ZONING SET-BACK/ DIRECTLY BEHIND METER.
5. THERE SHALL BE NO TAPS, PIPING BRANCHES, UNAPPROVED BYPASS PIPING, HYDRANTS, FIRE DEPT. CONNECTION POINTS, OR OTHER WATER - USING APPURTENANCES CONNECTED TO THE SUPPLY LINE BETWEEN ANY WATER METER AND ITS CLT WATER - REQUIRED BACKFLOW PREVENTER.
6. EACH CLT WATER-REQUIRED BPA IS REQUIRED TO BE TESTED BY A CLT WATER - APPROVED CERTIFIED TESTER PRIOR TO PLACING THE WATER SYSTEM IN SERVICE. TEST RESULTS SHALL BE SUBMITTED TO CLT WATER WITHIN 30 DAYS AND TESTED ANNUALLY THEREAFTER SUBMITTING RESULTS TO CLT WATER.
7. ALL INSTALLATIONS INTENDED FOR ADDRESSING CLT WATER REQUIREMENTS, REQUIRE PRIOR APPROVAL FROM THE APPROPRIATE CLT WATER BACKFLOW INSPECTOR.



TYPICAL LOCATION REQUIREMENT FOR ABOVE GROUND INSTALLATION

N.T.S.

NO SCALE | STANDARD NO. 1 | VERSION NO. 1.1 | VERSION DATE 5.3.2016

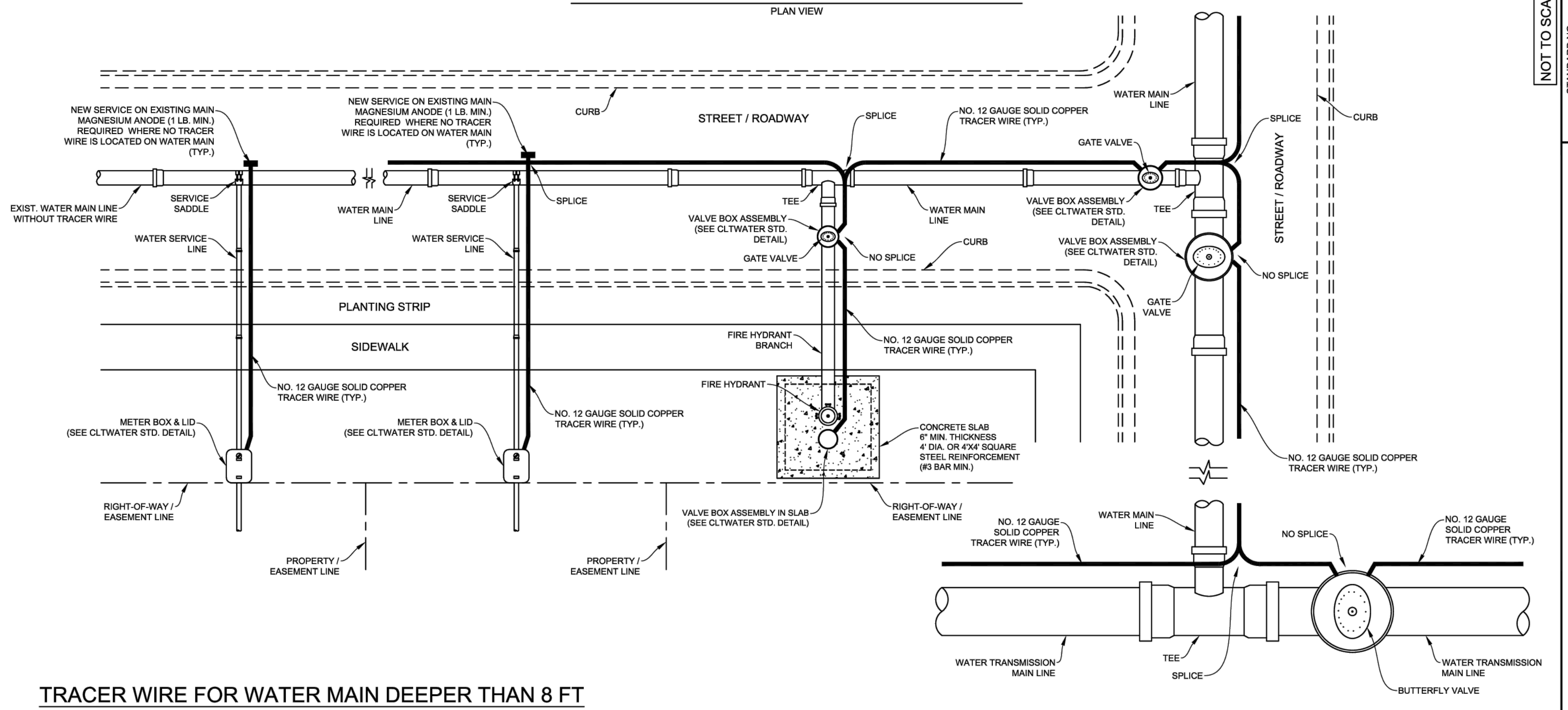
REDUCED PRESSURE PRINCIPLE ASSEMBLY (RP) 1 1/2" & 2" ABOVE GROUND

CHARLOTTE WATER — STANDARD DETAILS — BACKFLOW PREVENTION

CHARLOTTE WATER — A CITY OF CHARLOTTE DEPARTMENT

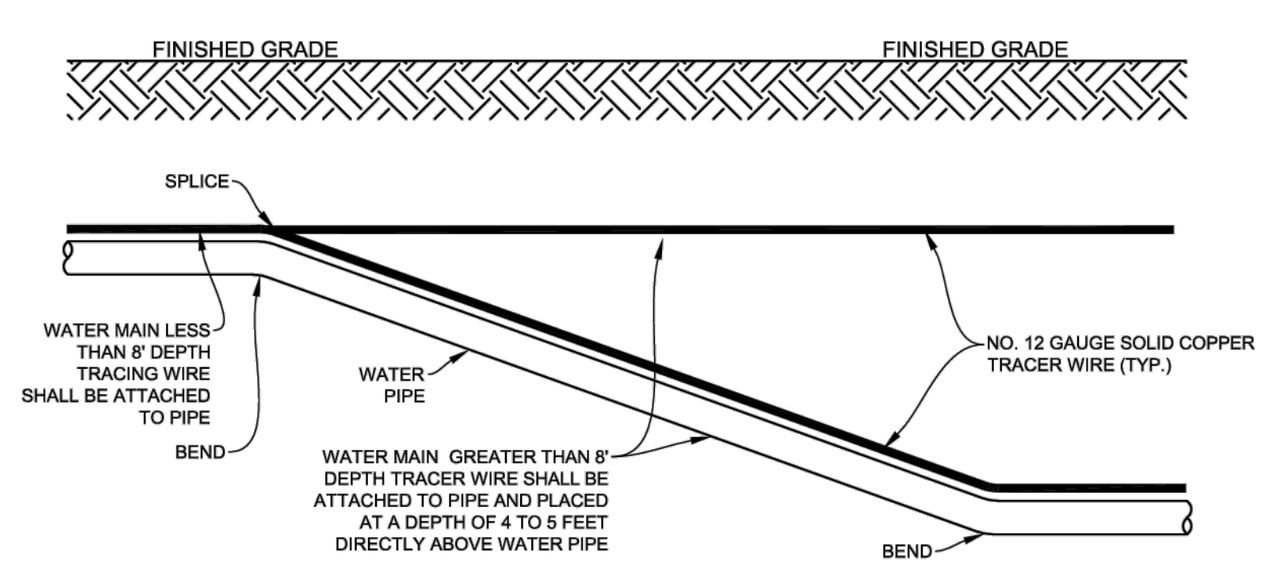
STREET VIEW - WATER MAIN TRACER WIRE

PLAN VIEW



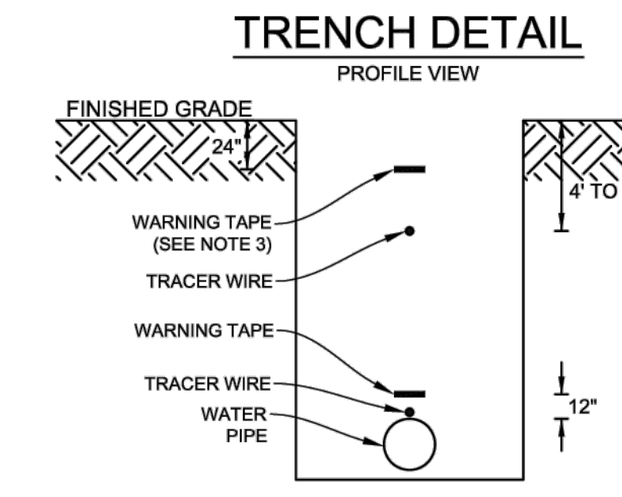
TRACER WIRE FOR WATER MAIN DEEPER THAN 8 FT

SECTION VIEW



TRENCH DETAIL

PROFILE VIEW



NOTES:

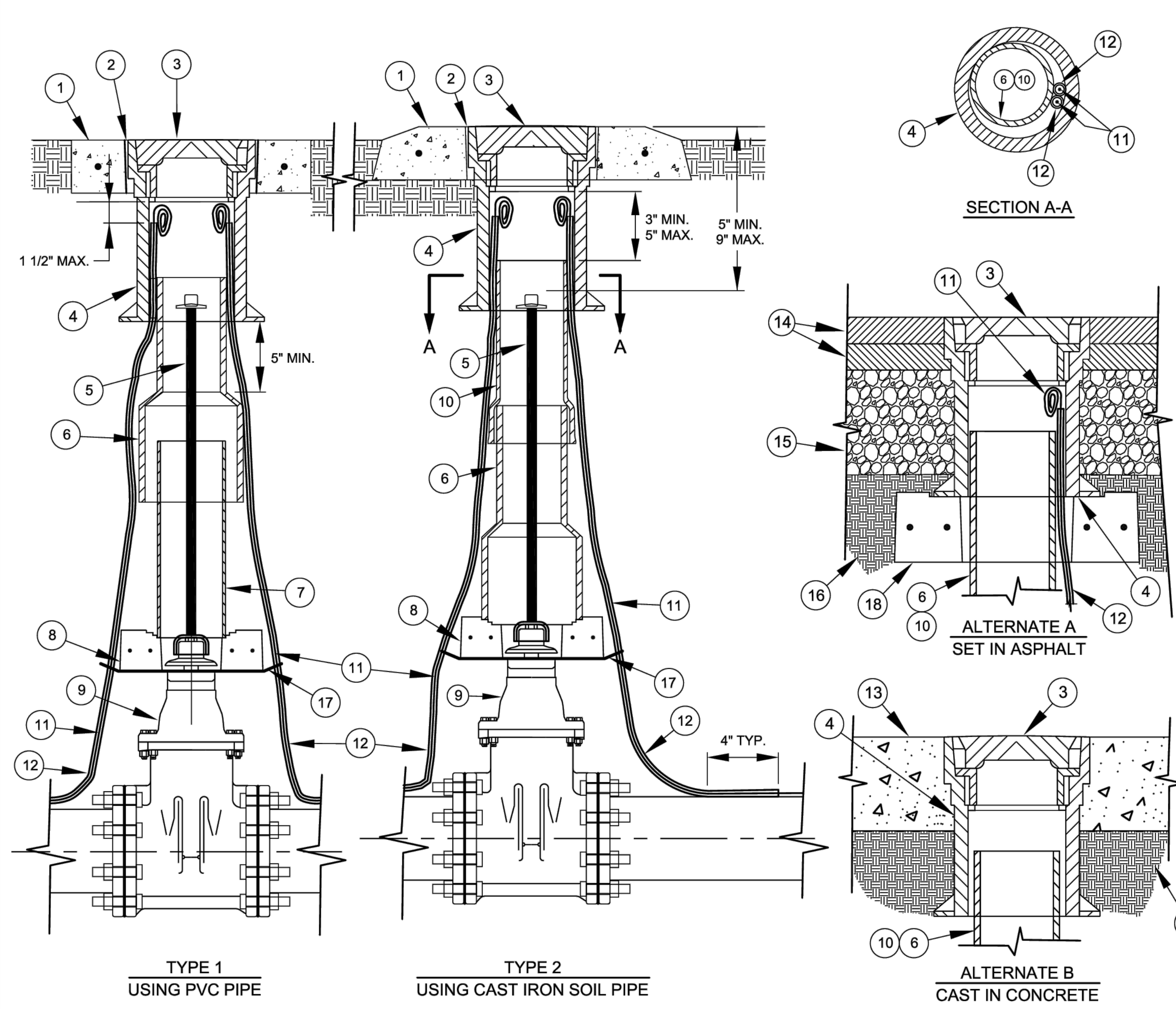
1. TRACER WIRE SHOWN AWAY FROM PIPE FOR CLARITY. TRACER WIRE SHALL BE INSTALLED IMMEDIATELY ADJACENT TO THE WATER PIPE. TRACER WIRE SHALL BE FASTENED TO THE PIPE WITH ZIP TIES AT 10 FOOT INTERVALS.
2. TRACER WIRE SHALL BE SOLID COPPER NO. 12 WITH 30 MILS BLUE HDPE INSULATION.
3. WARNING TAPE REQUIRED FOR 16 INCH AND LARGER WATER MAINS ONLY.
4. NEED LOCATOR POST FOR 30 INCH AND LARGER DISTRIBUTION MAINS ONLY.

NOT TO SCALE | STANDARD NO. TW1 | VERSION NO. 1.0 | VERSION DATE 7.21.2017

TRACER WIRE - WATER MAIN

CHARLOTTE WATER — STANDARD DETAILS — WATER

VALVE BOX ASSEMBLY INSTALLATION - 12" AND SMALLER VALVES



NO.	DESCRIPTION
1.	18" x 18" PRECAST (OR CAST IN PLACE) CONCRETE PAD OR 24" DIAMETER PRECAST PAD.
2.	NON - SHRINK GROUT - IN ANNULAR SPACE.
3.	VALVE BOX COVER.
4.	TOP SECTION VALVE BOX.
5.	EXTENSION STEM AS REQUIRED. SEE NOTES
6.	BOTTOM SECTION VALVE BOX.
7.	6" PVC PIPE (C900 OR SDR 26).
8.	PRECAST CONCRETE FOOTING - TYPE II - SEE DETAIL.
9.	GATE VALVE (OR BALL VALVE, AS APPLICABLE).
10.	5" DIA. CAST IRON SOIL PIPE - BELL OF PIPE WILL RECEIVE BOTTOM SECTION OF VALVE BOX.
11.	AWG #12 GAUGE COPPER TRACER WIRE (THWN) WITH BLUE INSULATION, TERMINATE WITH 24 INCH EXCESS WIRE (COILED) AT METER BOX AND VALVE BOX (TYP.)
12.	1/4" OR 3/8" ID CONDUIT - SDR 9 PEX TUBING - ASTM F 876.
13.	CONCRETE (ROADWAY, DRIVEWAY OR SIDEWALK)
14.	ASPHALT PAVEMENT.
15.	COMPACTED AGGREGATE BASE COURSE (CABC) OR ASPHALT BASE COURSE.
16.	COMPACTED SUBGRADE.
17.	NONWOVEN GEOTEXTILE FABRIC - 18" x 18" - 2 LAYERS - MIRAFI #140N OR CARTHAGE MILLS # FX - 40HS.
18.	PRECAST CONCRETE FOOTING - TYPE I - SEE DETAIL.

NOTES:

A. CONCRETE FOOTING TO BE CENTERED OVER VALVE NUT, AND SHALL NOT BEAR ON VALVE BODY.
B. PROVIDE CLEARANCE BETWEEN VALVE FOOTING AND THE VALVE.
C. WHEN OPERATING NUT DEPTH EXCEEDS 3'-0" BELOW FINISHED GRADE, PROVIDE EXTENSION STEM WITH STANDARD 2" SQUARE OPERATING NUT IN TOP SECTION OF VALVE BOX. SEE STANDARD DETAIL.
D. VALVE BOX ASSEMBLY SHALL CONSIST OF NO MORE THAN 3 VERTICAL SECTIONS - 1 TOP SECTION, 1 - BOTTOM SECTION, AND 1 - PIPE RISER SECTION.
E. CONCRETE PADS SHALL NOT BE USED IN PAVEMENT (CONCRETE OR ASPHALT), SIDEWALKS OR DRIVEWAYS.

NO SCALE | STANDARD NO. HH | VERSION NO. V1.0 | VERSION DATE 1.14.2011

VALVE BOX ASSEMBLY INSTALLATION - 12" AND SMALLER VALVES

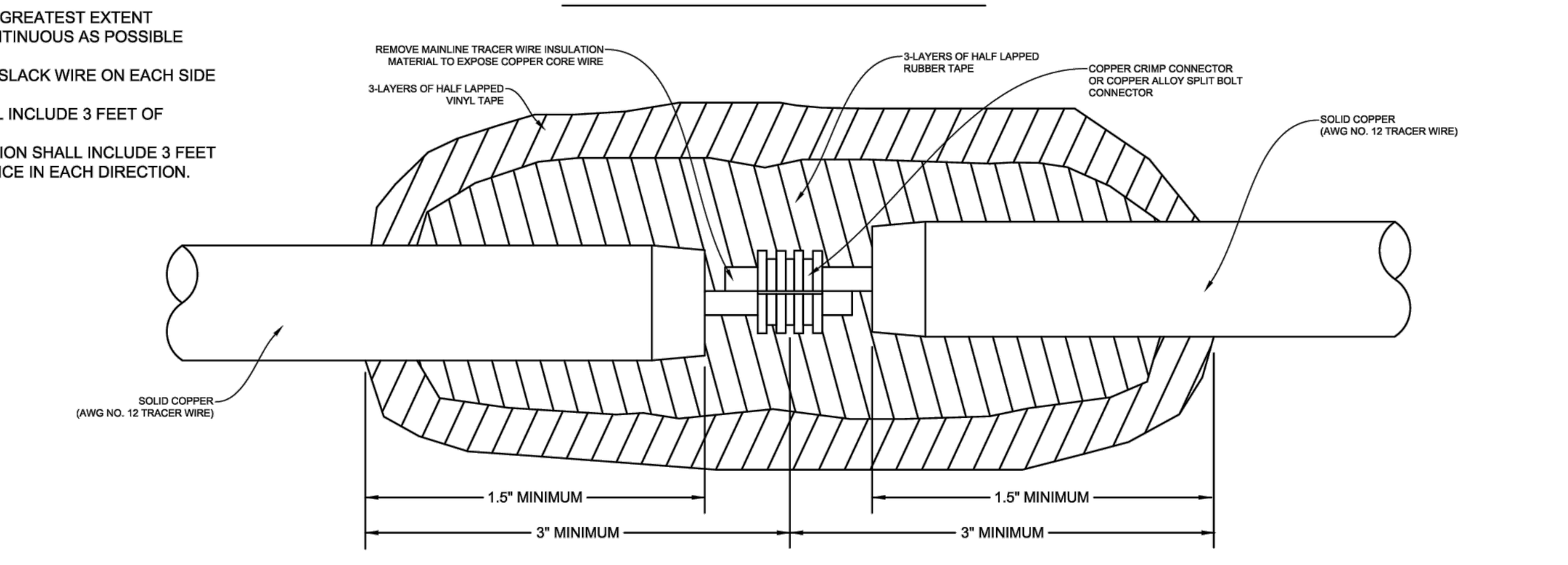
CHARLOTTE-MECKLENBURG UTILITIES — STANDARD DETAILS — WATER

CHARLOTTE

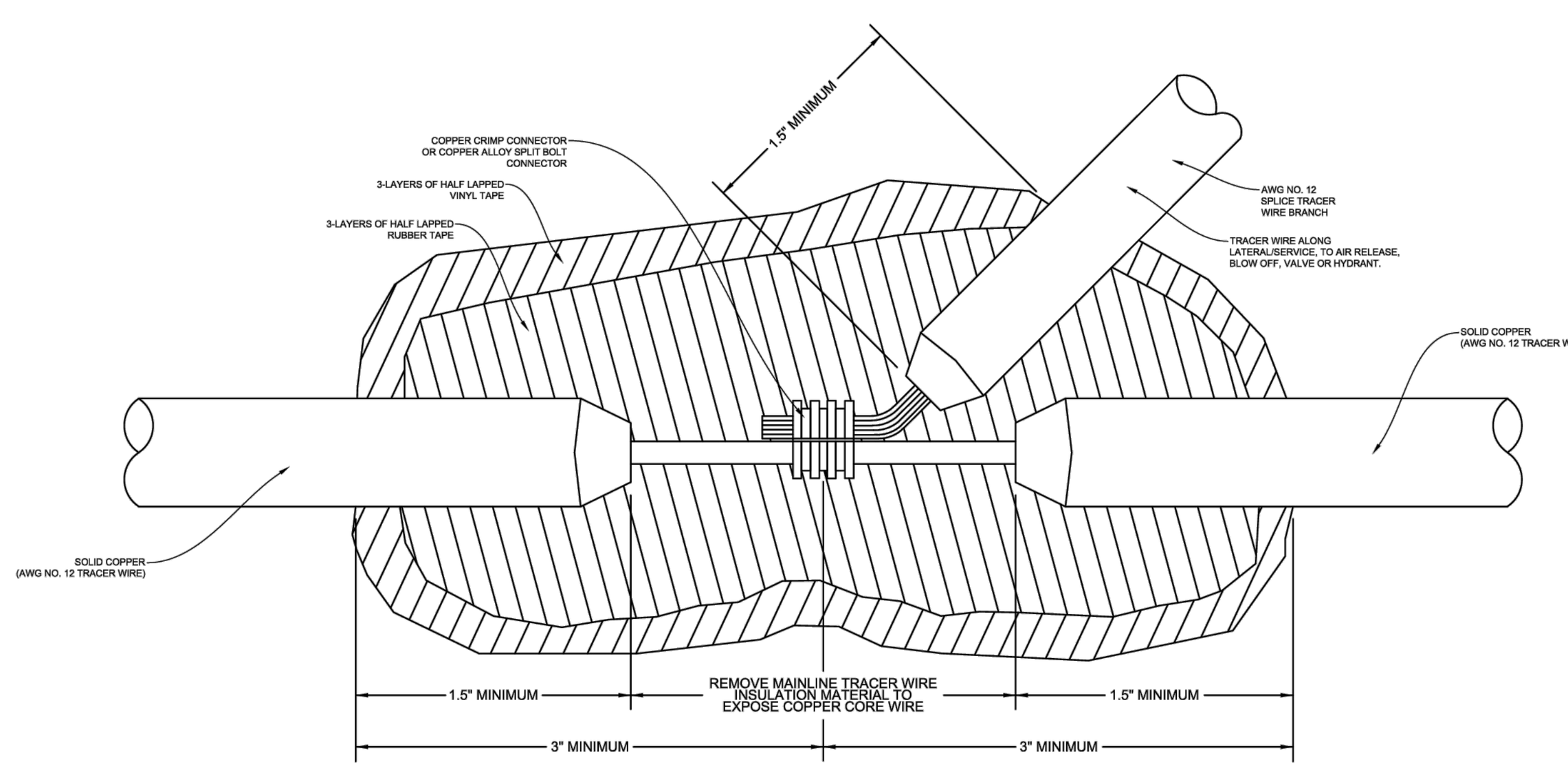
NOTES:

1. IN LINE SPLICES SHALL BE LIMITED TO THE GREATEST EXTENT POSSIBLE. TRACER WIRE SHALL BE AS CONTINUOUS AS POSSIBLE WITHOUT SPLICES.
2. INLINE SPLICES SHALL INCLUDE 3 FEET OF SLACK WIRE ON EACH SIDE OF EACH SPLICE.
3. BRANCH SPLICES ON EXISTING WIRE SHALL INCLUDE 3 FEET OF SLACK WIRE ON THE NEW BRANCH WIRE.
4. BRANCH SPLICES ON NEW MAIN INSTALLATION SHALL INCLUDE 3 FEET OF SLACK WIRE ON EACH SIDE OF THE SPLICE IN EACH DIRECTION.

IN-LINE OR REPAIR SPLICE



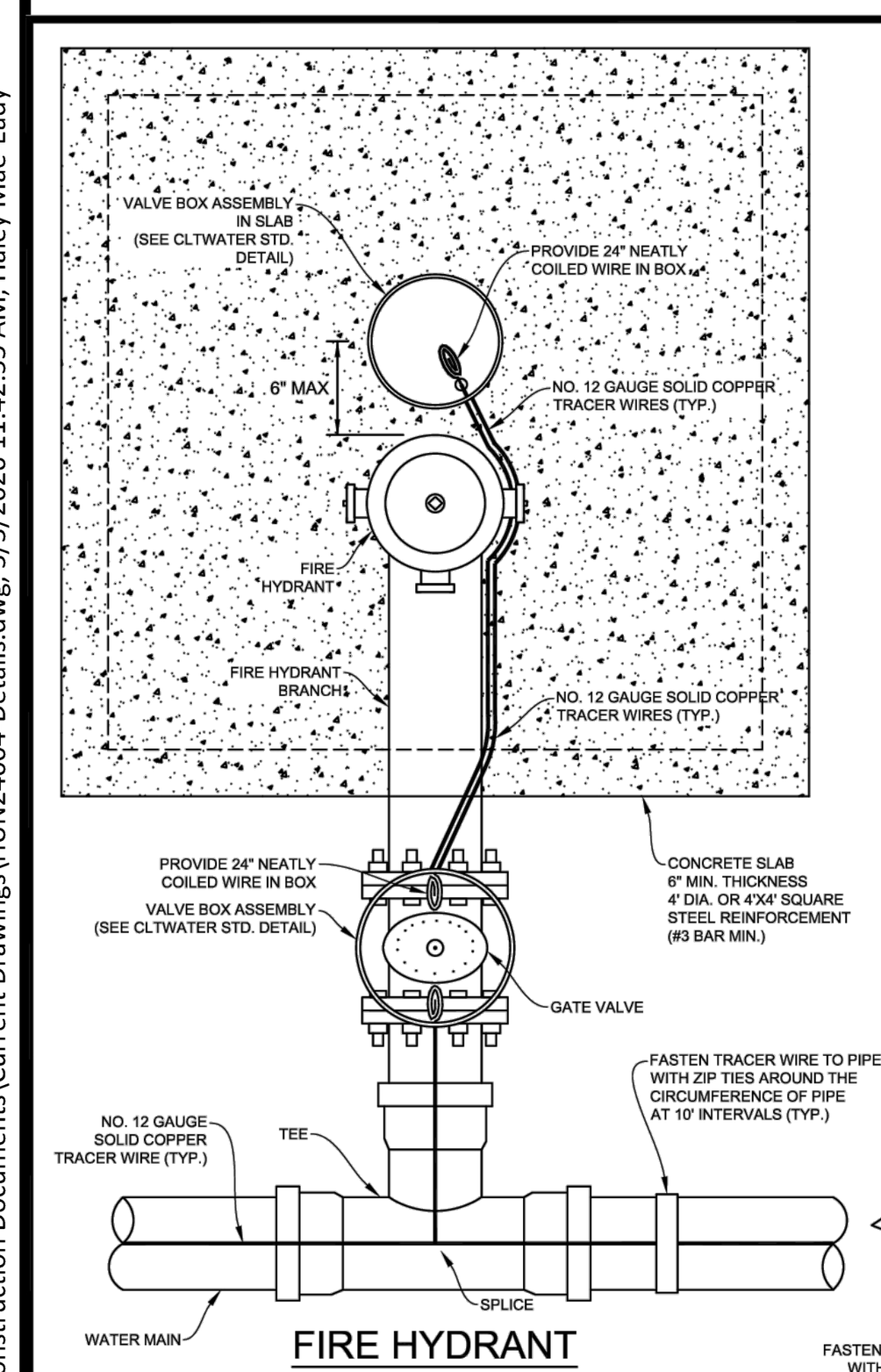
BRANCH IN-LINE SPLICE FOR SERVICE/LATERAL, TEE, CROSS, AIR RELEASE, BLOW OFF, HYDRANT OR VALVE



NOT TO SCALE | STANDARD NO. TW3 | VERSION NO. 1.0 | VERSION DATE 7.21.2017

TRACER WIRE - WATER MAIN - SPLICE

CHARLOTTE WATER — STANDARD DETAILS — WATER

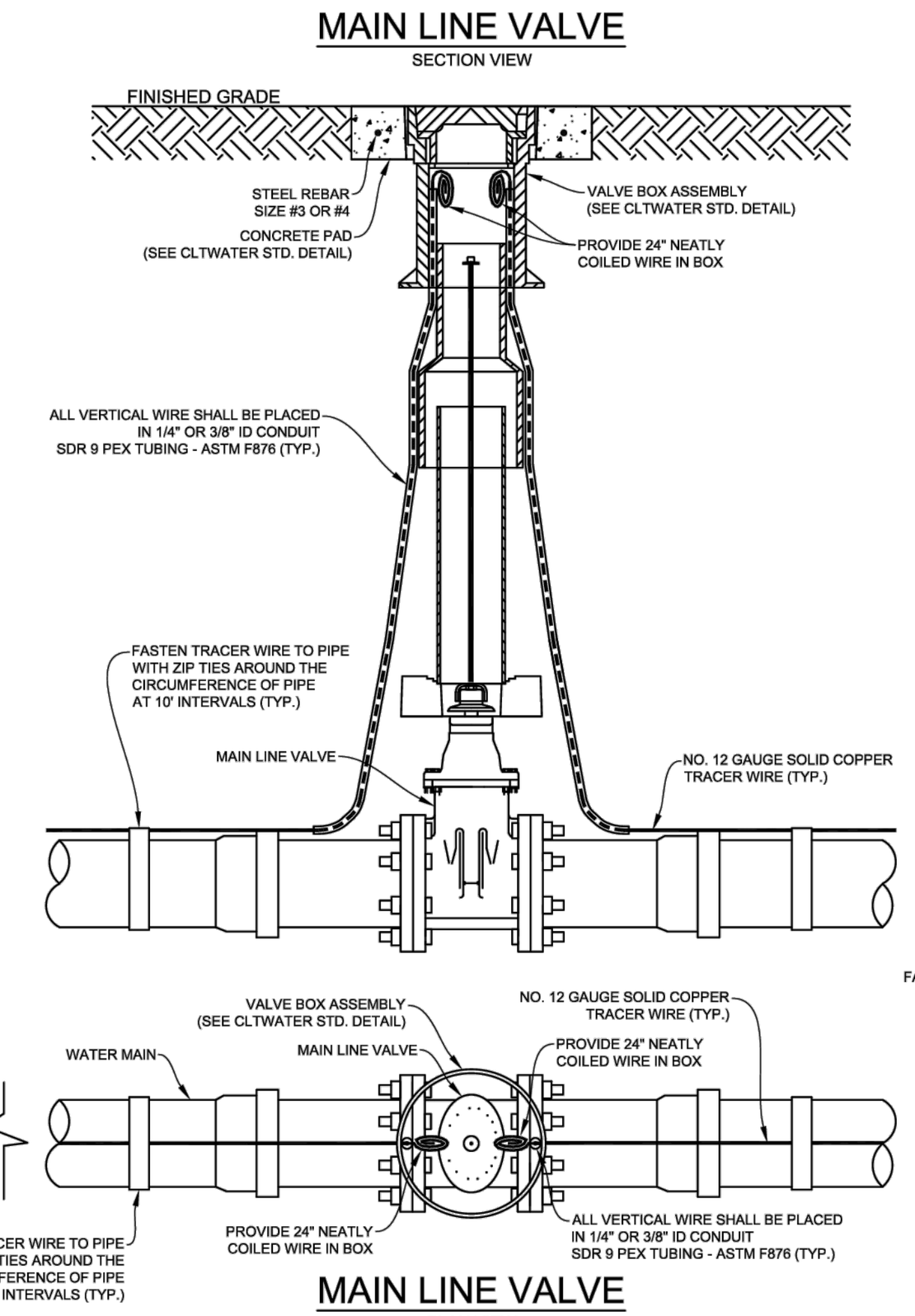


FIRE HYDRANT

PLAN VIEW

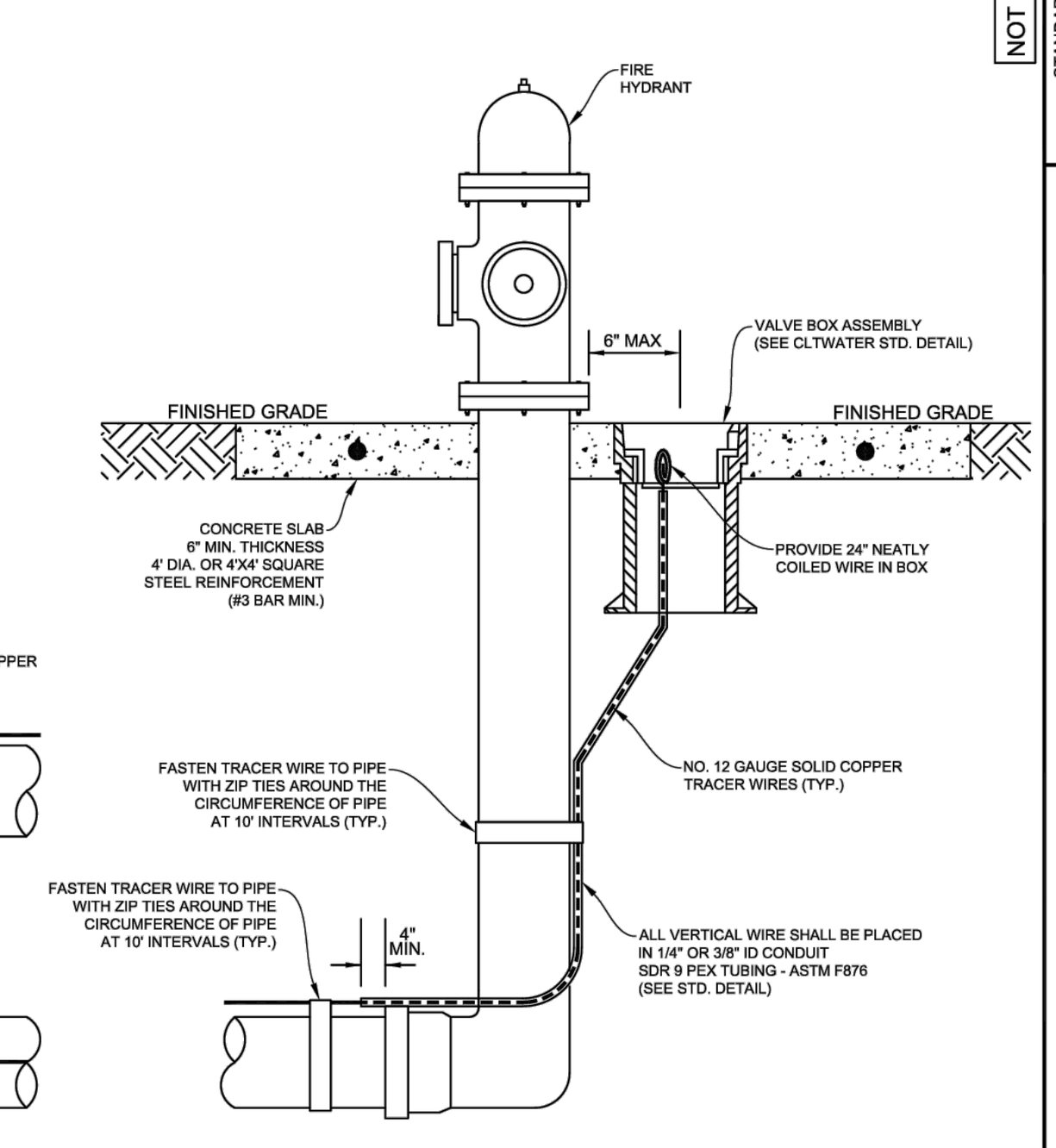
MAIN LINE VALVE

SECTION VIEW



MAIN LINE VALVE

PLAN VIEW

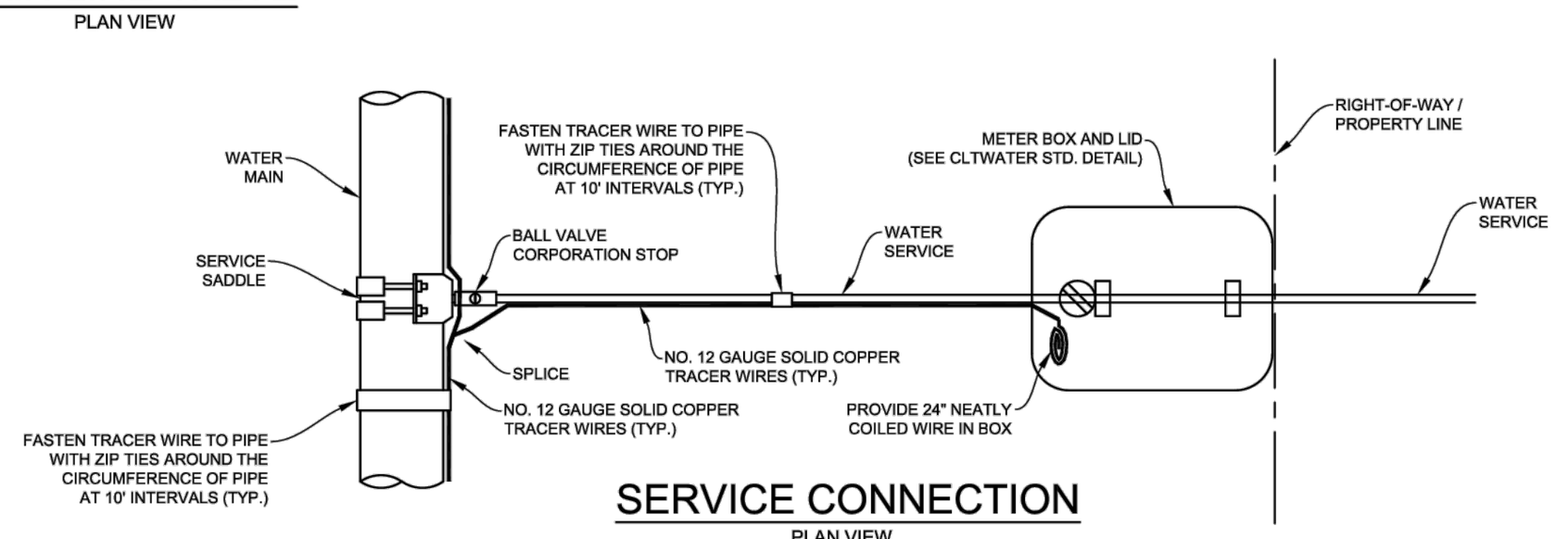


FIRE HYDRANT

SECTION VIEW

NOTES:

1. TRACER WIRE SHALL BE AWG NO. 12 GUAGE SOLID COPPER WITH 30 MILS BLUE HDPE INSULATION.
2. THE TRACER WIRE SHALL BE CONTINUOUS TO THE GREATEST EXTENT POSSIBLE. WHERE SPLICES ARE NECESSITATED IN THE WIRE, THE SPLICES SHALL BE SECURELY BONDED TOGETHER WITH AN APPROVED INDUSTRIAL CONNECTOR TO PROVIDE ELECTRICAL CONTINUITY. CONNECTOR SHALL BE COPPER AND INSULATION SHALL BE REPAIRED AS DETAILED TO SEAL OUT MOISTURE AND CORROSION AND SHALL BE INSTALLED SO AS TO PREVENT ANY UNINSULATED WIRE EXPOSURE. SEE STANDARD DETAIL TW3.
3. SPLICED CONNECTIONS SHALL BE ALLOWED BETWEEN THE MAIN TRACER WIRE AND THE WATER SERVICE TRACER WIRE.
4. TRACER WIRE SHALL BE PROTECTED FROM DAMAGE DURING THE EXECUTION OF THE WORK. NO BREAKS OR CUTS IN THE TRACER WIRE OR INSULATION SHALL BE PERMITTED.
5. PRIOR TO ACCEPTANCE (POST PUNCH LIST) EACH WIRE SEGMENT SHALL PASS A CONDUCTIVITY TEST, WITNESSED BY THE ENGINEER OR ENGINEER'S REPRESENTATIVE.
6. WHERE 2 OR MORE WIRES ENTER A VALVE BOX ASSEMBLY, (PROVIDE 24 INCHES OF NEATLY COILED WIRE) AFTER ACCEPTANCE TESTING, CONNECT ENDS OF ALL WIRES WITH WATER PROOF WIRE CONNECTOR NUT AND 3" BARE #12 PIGTAIL.
7. SPLICES IN THE PRIMARY TRACER WIRE ALONG THE WATER MAIN SHALL INCLUDE 3 FEET OF SLACK WIRE ON EACH SIDE OF EACH SPLICE.
8. FOR INSTALLING A NEW SERVICE LINE ON AN EXISTING MAIN WITH TRACER WIRE, ONLY SPLICE TO EXISTING WIRE WITH 3 FEET OF SLACK ON NEW SERVICE LINE.



SERVICE CONNECTION

PLAN VIEW

NOT TO SCALE | STANDARD NO. TW2 | VERSION NO. 1.0 | VERSION DATE 7.21.2017

TRACER WIRE - WATER MAIN

CHARLOTTE WATER — STANDARD DETAILS — WATER

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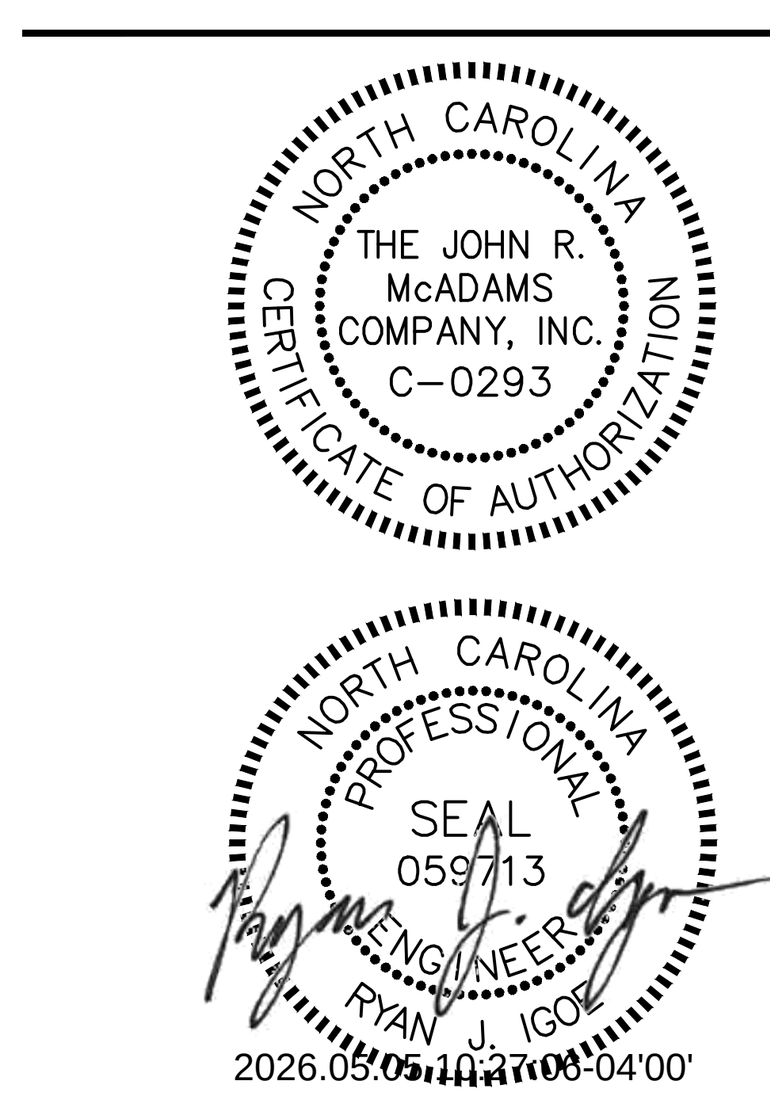


REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

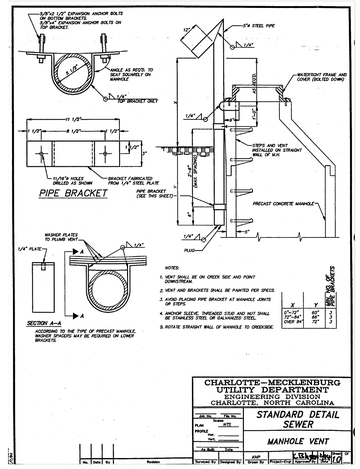
PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-DETAILS
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	
DATE	09.26.2025

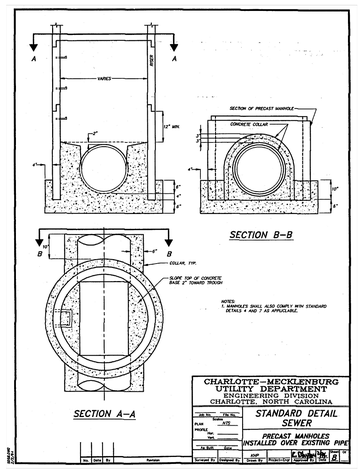
SHEET

WATER DETAILS

C8.01



July 27, 1995 XV-66 Sewer Specifications/Details (SD)



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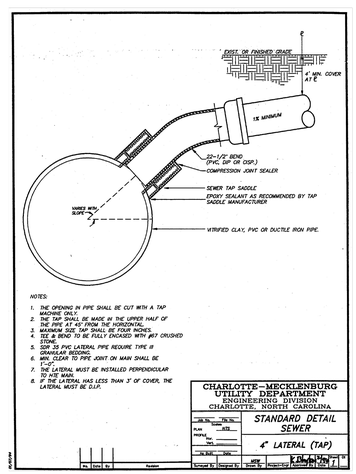

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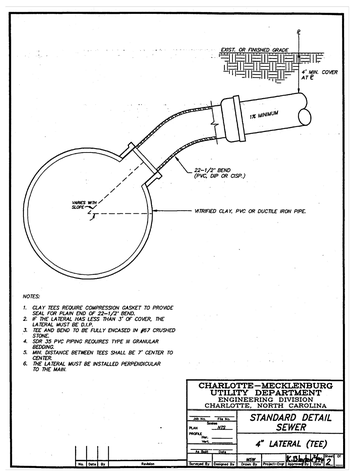
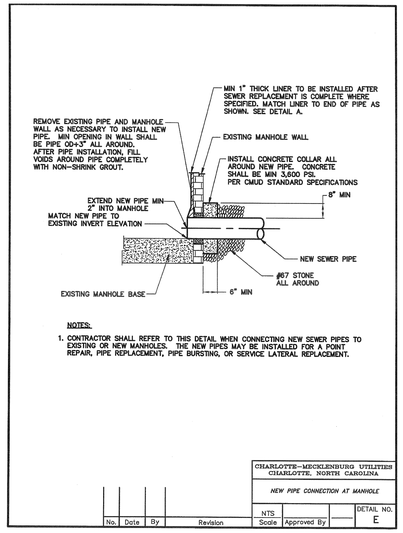


July 27, 1995 XV-58 Sewer Specifications/Details (SD)



Utility Backwater Valve

UBV-2-0716



A Backwater Valve is designed to function as a check valve in a drainage pipe to prevent flowing liquid, such as sewage, from reversing its direction. There are other applications for Backwater Valves, such as multi-level pond balancing for Aquascape applications or for storage tank balancing for industrial and agricultural applications. Backwater Valves should not be confused with Backflow Preventers which are used in potable water supply systems.

Backwater valves are most important if you are on a public sewer system, especially if you are the lowest home on the line where you could have everyone's sewage above you flow into your home if there is a stoppage in the mainline after your connection. Some jurisdictions require Backwater Valves on new construction.

Spears® Utility Backwater Valves feature an easily serviceable and replaceable Flapper Assembly with extendable access using standard piping components. Designed for direct solvent cement connection to ASTM D 2665 DWV drainage pipe or any other IPS size pipe. Spears® IPS x Sewer adapters easily convert valve to ASTM D 3034 SDR 35 Sewer Pipe. Backwater Valves conform to requirements of ASME/ANSI A112.14.1 Utility Backwater Valves are designed to prevent backflow in numerous applications where easy service access for maintenance and cleaning is needed.

Features

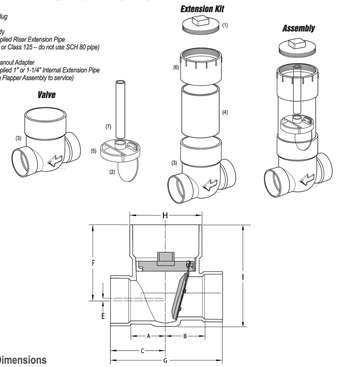
- Replaceable internal flapper assembly
- Extension Kit Adapter components allow easy construction of a valve extension with user supplied pipe cut to desired length
- Direct Valve Connection to ASTM D 2665 PVC DWV or other IPS size pipe. Spears® IPS DWV x Sewer & Drain Adapter Bushings are available for connection to ASTM D 3034 & ASTM D 2729 Sewer pipe
- Standard Valve Adapters Pressure Rated to 50 psi (115 feet of head) @ 73°F (23°C) - Optional 100 psi Adapter (232 feet of head) available
- Conforms to ASME/ANSI A112.14.1 for Backwater Valves

PROGRESSIVE PRODUCTS FROM SPEARS® INNOVATION & TECHNOLOGY

Visit our web site: www.spearsmfg.com

Spears® Utility Backwater Valve has been engineered for easier installation with included Extension Kit Adapter components for use with User-Supplied Schedule 40 Class 125 Extension Riser pipe cut to desired length. Utility Backwater Valve package comes with 50 psi (115 feet of head) rated Extension Adapters. Optional Adapter Kits available in 100 psi (232 feet of head) rating. Can also use User-supplied equivalent adapter components.

(1) Access Plug
(2) Flapper
(3) Valve Body
(4) User Supplied Riser Extension Pipe (SCH 40 or Class 125 – do not use SCH 80 pipe)
(5) Collar
(6) DWV Cleanout Adapter
(7) User Supplied 1" or 1-1/4" Internal Extension Pipe (for lifting Flapper Assembly to service)



Valve Dimensions

Size	A	B	C	E	F	G	H	I
3"	3-5/8	3-13/16	5-3/16	7/16	7-5/8	10-5/8	7-1/4	9-5/8
4"	3-3/4	3-3/16	5-1/2	3/8	7-9/16	11-1/4	7-1/4	10-1/8
6"	4-15/16	4-15/16	8	1/2	9-15/16	15-15/16	9-3/8	13-9/16

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15853 Olden St., Sylmar, CA 91342 • PO Box 9203, Sylmar, CA 91392
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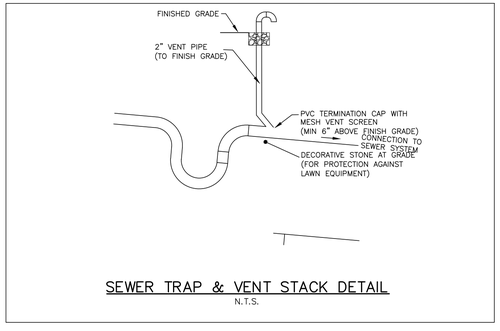
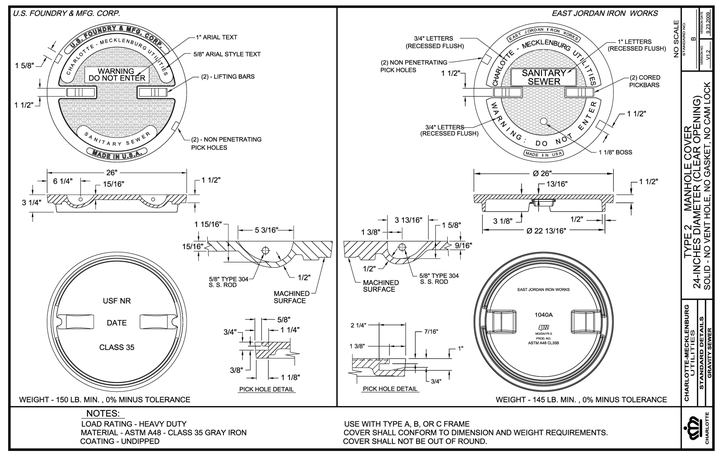
UBV-2-0716



SEWER TRAP & VENT STACK DETAIL

N.T.S.

DETAIL REMOVED



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HUNTERSVILLE, NC 28078

NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
PROFESSIONAL
SEAL
059773
ENGINEER
RYAN M. KEPLEY
2026.01.14 10:25:04-04'00'

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-DETAILS
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	
DATE	09.26.2025

SHEET

SEWER DETAILS

C8.02

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NOTES:

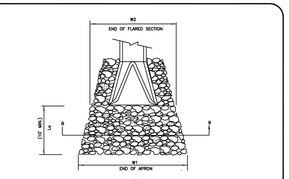
1. CLASS OR MEDIAN SIZE OF RIPRAP AND LENGTH, WIDTH AND DEPTH OF APRON TO BE DESIGNED BY THE ENGINEER.
2. REFER TO THE CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR RIPRAP APRON DESIGN STANDARDS.
3. RIPRAP SHOULD EXTEND UP BOTH SIDES OF THE APRON AND AROUND THE END OF THE PIPE OR CULVERT AT THE DISCHARGE OUTLET AT A MAXIMUM SLOPE OF 2:1 AND A HEIGHT NOT LESS THAN TWO THIRDS THE PIPE DIAMETER OR CULVERT HEIGHT.
4. THERE SHALL BE NO OVERFLOW FROM THE END OF THE APRON TO THE SURFACE OF THE RECEIVING CHANNEL. THE AREA TO BE PAVED OR RIPRAPPED SHALL BE UNDERCUT SO THAT THE INVERT OF THE APRON SHALL BE AT THE SAME GRADE (FLUSH) WITH THE SURFACE OF THE RECEIVING CHANNEL. THE APRON SHALL HAVE A CUTOFF OR TOE WALL AT THE DOWNSTREAM END.
5. THE WIDTH OF THE END OF THE APRON SHALL BE EQUAL TO THE BOTTOM WIDTH OF THE RECEIVING CHANNEL; MAXIMUM TAPER TO RECEIVING CHANNEL 5:1.
6. ALL SUBGRADE FOR STRUCTURE TO BE COMPACTED TO 95% OR GREATER.
7. THE PLACING OF FILL, EITHER LOOSE OR COMPACTED IN THE RECEIVING CHANNEL SHALL NOT BE ALLOWED.
8. NO BENDS OR CURVES IN THE HORIZONTAL ALIGNMENT OF THE APRON WILL BE PERMITTED.
9. FILTER FABRIC SHALL BE INSTALLED ON COMPACTED SUBGRADE PRIOR TO PLACEMENT OF RIP RAP.
10. ANY DISTURBED AREA FROM END OF APRON TO RECIEVING CHANNEL MUST BE STABILIZED.

USE USDA NOMOGRAPH FROM NC SEDIMENT AND EROSION CONTROL MANUAL OR CHARLOTTE MECKLENBURG STORM WATER DESIGN MANUAL FOR DESIGN DATA.

RIPRAP SUMMARY CHART

OUTLET	La	W1	W2	H	d50	dmax	*T

* d50 (see fig. 8.06 a&b "NC SEDIMENT AND EROSION CONTROL MANUAL"
dmax = 1.5 x d50
T = 1.5 X dmax.

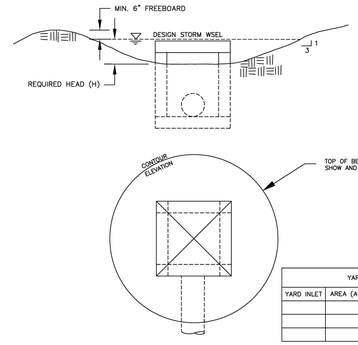


NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

RIPRAP APRON AT PIPE OUTFALLS OTHER THAN SWIM

REV. DATE
08/01/017
STD. NO.
306.1



YARD INLET SUMMARY CHART

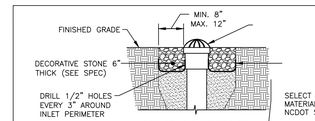
YARD INLET	AREA (AC.)	CFS	HEAD H (FT.)	COMMENT

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

GRADING AT DROP INLET

REV. DATE
10/7/09
STD. NO.
316.1



NOTES:

1. PLANTING BED: "NYLOPLAST" DUCTILE IRON DOME GRATE.
2. HARDSCAPE: INLET GRATE TO BE "NYLOPLAST" SQUARE PEDESTRIAN LIGHT DUTY WITH BRONZE FINISH.
3. FOLLOW MANUFACTURER'S GUIDELINES FOR MATERIAL REQUIREMENTS AND INSTALLATION METHODS.
4. SEE GRADING PLAN FOR ALL GRATE SIZES.

DETAIL 'D1' – 8"–12" DRAIN INLET

N.T.S.

1

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NORTH CAROLINA PROFESSIONAL SEAL 056713 ENGINEER RYAN D. HOSS

2026.05.01 09:34:00

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-DETAILS
CHECKED BY	MDD
DRAWN BY	JMH
SCALE	
DATE	09.26.2025

SHEET

STORM DETAILS

C8.03

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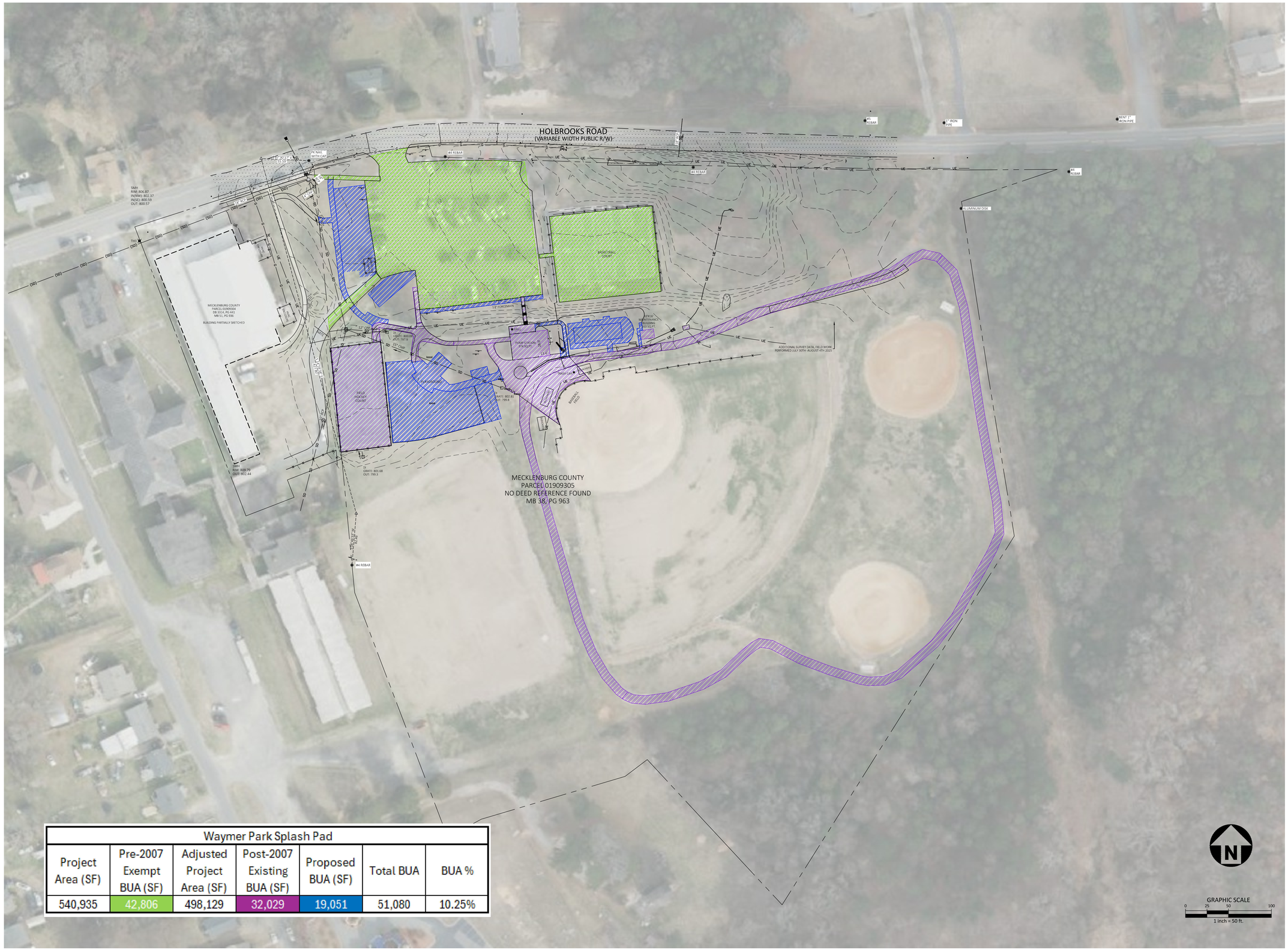

Waymer Park Splash Pad						
Project Area (SF)	Pre-2007 Exempt BUA (SF)	Adjusted Project Area (SF)	Post-2007 Existing BUA (SF)	Proposed BUA (SF)	Total BUA	BUA %
540,935	42,806	498,129	32,029	19,051	51,080	10.25%

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NORTH CAROLINA PROFESSIONAL SEAL 051351 ENGINEER SERGIO A. SORIA 05/01/26

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004X-BUA
CHECKED BY	SAS
DRAWN BY	AMC
SCALE	1" = 50'
DATE	12. 12. 2025

SHEET

BUILT-UPON AREA EXHIBIT

C9.00

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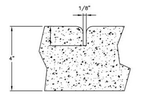
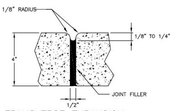


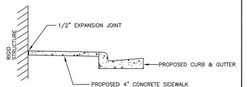
GROOVE JOINT IN SIDEWALK



TRANSVERSE EXPANSION JOINT IN SIDEWALK

GENERAL NOTES:

1. A GROOVE JOINT 1" DEEP WITH 1/8" RADII SHALL BE REQUIRED IN THE CONCRETE SIDEWALK AT 5' INTERVALS. ONE 1/2" EXPANSION JOINT WILL BE REQUIRED AT 45' INTERVALS NOT TO EXCEED 50' AND MATCHING EXPANSION/CONSTRUCTION JOINT IN ADJACENT CURB. A SEALED 1/2" EXPANSION JOINT WILL BE REQUIRED WHERE THE SIDEWALK JOINS ANY RIGID STRUCTURE.
2. SIDEWALK AT DRIVEWAY ENTRANCES TO BE 6" THICK.
3. WIDTH OF SIDEWALK ON TOWN STREETS SHALL BE A MINIMUM OF 5'.
4. WIDTH OF SIDEWALKS ON NON-TOWN STREETS SHALL BE A MINIMUM OF 5'.
5. SIDEWALK TO BE POURED TO END OF RADIUS AT INTERSECTING STREETS.
6. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3600 PSI. IN 28 DAYS.
7. ZONING CONDITIONS MAY REQUIRE ADDITIONAL WIDTH SIDEWALKS WHICH SHALL SUPERSEDE THESE STANDARD DIMENSIONS SHOWN.



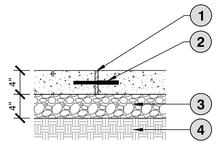
DETAILS SHOWING EXPANSION JOINTS FOR CONCRETE SIDEWALK

NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING

CONCRETE SIDEWALKS DETAILS AND NOTES

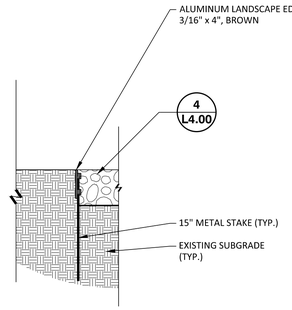
REV. DATE: 10/15/09
STD. NO.: 106.1



1. 3/4" EXPANSION JOINT W/ SELF LEVELING JOINT SEALANT COLOR TO MATCH CONCRETE
2. 3/4" X 12" SMOOTH, SLIP DOWEL WITH SLEEVE (24" O.C.)
4. COMPACTED AGGREGATE SUBGRADE
4. COMPACTED SUBBASE

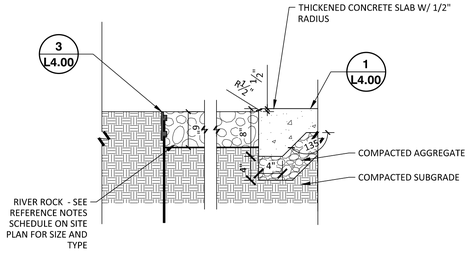
NOTES:

1. DOWELED EXPANSION JOINT TO BE CAULKED AND TOOL SMOOTHED TO MATCH CONCRETE COLOR.
2. USE SPEED DOWEL SLEEVE/ABSE OR OTHER APPROVED DOWEL AND SLEEVE SYSTEM
3. SEE PLANS FOR LOCATION OF DOWELED CONCRETE SURFACES.



NOTES:

1. SEE LANDSCAPE OR SITE PLAN FOR LANDSCAPE EDGING LOCATIONS.

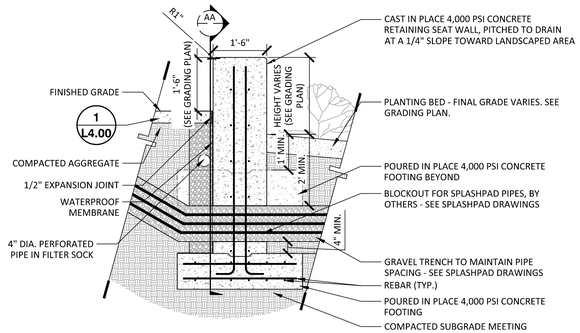


NOTE:

1. CONTRACTOR TO PROVIDE RIVER ROCK COLOR SAMPLE FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO PURCHASE AND INSTALLATION.
2. ALL CONCRETE SHALL BE 3,600 PSI UNLESS OTHERWISE REQUIRED GEOTECHNICAL/STRUCTURAL ENGINEER. REFER TO STRUCTURAL FOR CONCRETE REINFORCEMENT.
3. TOP 6" OF SUBGRADE BENEATH THE CURB SHALL BE COMPACTED TO 96% STANDARD PROCTOR DENSITY.

1 CONCRETE SIDEWALKS AND JOINTS

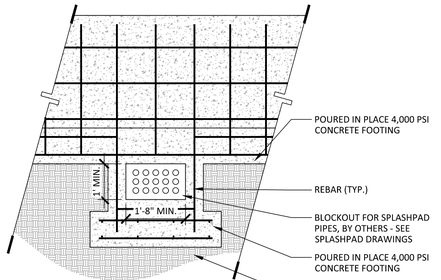
SCALE: NTS



SECTION A

2 DOWELED EXPANSION JOINT

SCALE: 1" = 1'-0"



SECTION AA

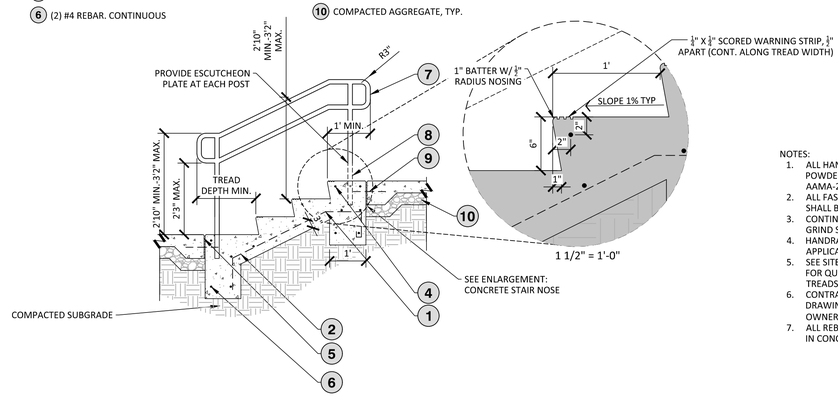
NOTES:

1. PROVIDE CONTROL JOINTS EVERY 8'-0" MAX.
2. PROVIDE EXPANSION JOINTS AT 24'-0" O.C.
3. CONTRACTOR TO PROVIDE SHOP DRAWINGS, INCLUDING ALL REINFORCEMENT, HARDWARE, CONNECTORS, MATERIALS, ETC., SIGNED AND SEALED BY A LICENSED STRUCTURAL ENGINEER, FOR APPROVAL PRIOR TO CONSTRUCTION.

3 LANDSCAPE EDGING

SCALE: 1" = 1'-0"

1. #4 REBAR CONTINUOUS 12" O.C.
2. #4 REBAR CONTINUOUSE 24" O.C.
4. #4 REBAR AT NOSING
5. EXPANSION JOINT (TYP)
6. (2) #4 REBAR. CONTINUOUS
7. 1 1/2" ALUMINUM PIPE HANDRAIL
8. CORE DRILL AND SET HANDRAIL W/ NON SHRINK GROUT MIN. 8" INTO THICKENED CONCRETE
9. 12" #5 DOWEL 18" O.C. WITH NONBINDING AGENT COATED ON ONE SIDE
10. COMPACTED AGGREGATE, TYP.



NOTES:

1. ALL HANDRAIL SHALL BE ALUMINUM, POWDER COATED BLACK TO MEET AAMA-2604.
2. ALL FASTENERS AND HARDWARE SHALL BE S.S.
3. CONTINUOUS WELD ALL JOINTS & GRIND SMOOTH.
4. HANDRAIL TO BE INSTALLED PER ALL APPLICABLE CODES.
5. SEE SITE PLAN AND GRADING PLAN FOR QUANTITY AND LOCATION OF TREADS AND RISERS.
6. CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL BY OWNER/ LANDSCAPE ARCHITECT.
7. ALL REBAR 2" MINIMUM EMBEDMENT IN CONCRETE OR DIMENSION SHOWN

4 ROCK MULCH

SCALE: 1" = 1'-0"

5 RETAINING SEATWALL

SCALE: 1/2" = 1'-0"

6 CONCRETE STAIRS WITH HANDRAIL

SCALE: 1/2" = 1'-0"

Detail Number	Detail Name	Submittal type for Approval	Description
3/L4.00	LANDSCAPE EDGING	PRODUCT DATA / CUT SHEET	
4/L4.00	ROCK MULCH	COLOR SAMPLE	
5/L4.00	RETAINING SEATWALL	SHOP DRAWING	
6/L4.00	CONCRETE STAIRS WITH RAILING	SHOP DRAWING	
1/L4.01	SPLASH PAD FENCE + GATE	PRODUCT DATA / CUT SHEET	GATE, FENCE, + HARDWARE

NOTE: THIS TABLE IS PROVIDED FOR CONVENIENCE ONLY. CONTRACTOR SHALL FULLY REVIEW THE ENTIRE SET OF PLANS FOR REQUIRED SUBMITTALS INCLUDING BUT NOT LIMITED TO PRODUCT AND COLOR SAMPLES, SHOP DRAWINGS, AND CUT SHEETS. DISCREPANCIES BETWEEN THE SUBMITTAL TABLE, SPECIFICATIONS, AND DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.

McADAMS
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phone 704. 527. 0800
fax 919. 361. 2269
license number: C-0293, C-187
www.mcadamsco.com

CLIENT

TOWN OF HUNTERSVILLE
105 GILEAD ROAD
TOWN CENTER - 3RD FLOOR
PHONE: 704.766.2220

Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERS AND SURVEYORS — THE JOHN R. McADAMS COMPANY, INC. — C-0293 — CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA PROFESSIONAL SEAL 059713 ENGINEER IVAN L. IGOR — 2026.05.01 11:43:04 -04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE-EADY — 05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

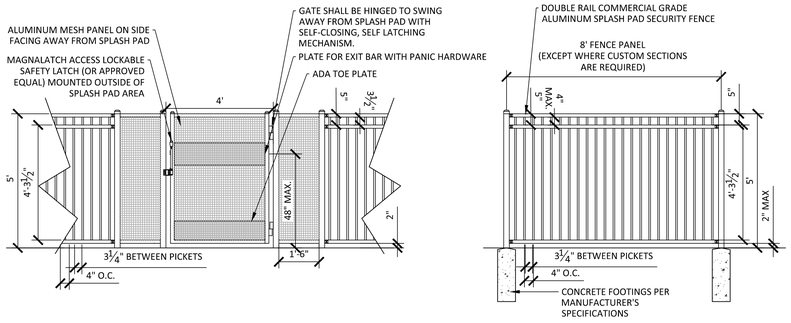
PROJECT NO.	HUN24004
FILENAME	HUN24004-HD1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

SITE DETAILS

L4.00

Y:\Projects\HUN\HUN24000\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-HD1.dwg, 5/5/2026 11:43:08 AM, Haley Mae-Eady



SPLASH PAD ACCESS GATE

GATE MATERIAL AND SIZE:
1. GATE SHALL BE COMMERCIAL GRADE ALUMINUM (OR APPROVED EQUAL)
2. ALL FASTENERS AND HARDWARE SHALL BE S.S.
3. GATE COMPONENT SIZES:

POSTS: POST SIZE WILL DEPEND ON GATE HEIGHT, WEIGHT, AND WIND LOADS. FOLLOW MANUFACTURER SPECIFICATIONS FOR POST SIZING.
RAILS: $1\frac{1}{2}$" X $1\frac{1}{2}$" - NO EXPOSED SCREW SYSTEM
PICKETS: $\frac{3}{4}$" X $\frac{3}{4}$" W/ 3 $\frac{3}{4}$" SPACING BETWEEN PICKETS (4 $\frac{3}{4}$" O.C.)
FINISH: BLACK, SHOP APPLIED POWDER COAT

SPLASH PAD FENCE

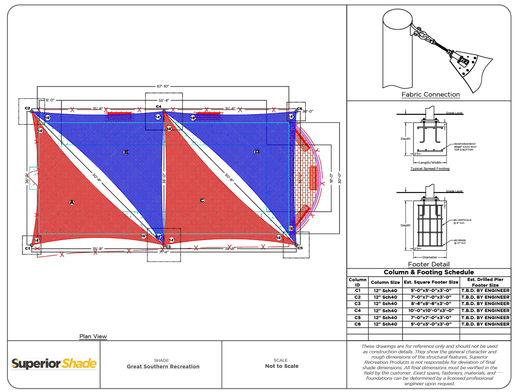
FENCE MATERIAL AND SIZE:
1. FENCE SHALL BE COMMERCIAL GRADE ALUMINUM (OR APPROVED EQUAL)
2. ALL FASTENERS AND HARDWARE SHALL BE S.S.
3. FENCE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.
4. FENCE DIMENSIONS (OR EQUAL) - CONTRACTOR TO ENSURE FENCE MEETS ALL APPLICABLE POOL CODES COMMERCIAL STRENGTH ALUMINUM

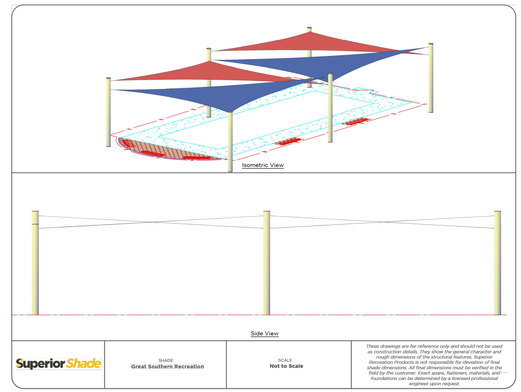
POSTS: POST SIZE WILL DEPEND ON FENCE HEIGHT, WEIGHT, AND WIND LOADS. FOLLOW MANUFACTURER SPECIFICATIONS FOR POST SIZING.
RAILS: $1\frac{1}{2}$" X $1\frac{1}{2}$" - NO EXPOSED SCREW SYSTEM
PICKETS: $\frac{3}{4}$" X $\frac{3}{4}$" W/ 3 $\frac{3}{4}$" SPACING BETWEEN PICKETS (4 $\frac{3}{4}$" O.C.)
COLOR: BLACK, SHOP APPLIED POWDER COAT

SPLASH PAD ACCESS GATE AND FENCE NOTES:
1. THE BASIS OF DESIGN FOR THE ACCESS GATE AND FENCE IS THE ECHELON MAJESTIC LINE BY AMERISTAR.
2. GATE HARDWARE WILL BE OPERABLE WITH ONE HAND AND WILL NOT REQUIRE >5LBS OF FORCE, PINCHING, TIGHT GRASPING OR TWISTING OF THE WRIST TO OPERATE.
3. GATE ENTRY CONTROLS WILL BE LOCATED NOT LESS THAN 34" MINIMUM AND 48" MAXIMUM ABOVE FINISHED GRADE.
4. CONTRACTOR TO SUBMIT MANUFACTURER INFORMATION AND CUT SHEETS FOR LATCH PRIOR TO ORDERING. COORDINATE THE SYSTEM WITH OTHER SITE ACCESS CONTROLS AS REQUIRED.
5. CONFIRM GATE AND FENCE MEET LOCAL CODE CRITERIA.
6. GATE AND FENCE TO BE FLUSH.
7. SELF-CLOSING LATCH IS TO BE MOUNTED ON THE SPLASH PAD SIDE OF THE GATE AT A MAXIMUM 48" ABOVE FINISHED GRADE.
8. SPLASH PAD GATE SHALL MEET ADA & ALL CODES. BRING ANY DISCREPANCIES TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE/LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION.
9. ALUMINUM MESH PANEL SHALL BE USED ON GATE AND 18" MINIMUM ON EITHER SIDE OF GATE PER CODE. THE BARRIER SHALL HAVE NO OPENINGS GREATER THAN ½" WITHIN 18" OF THE RELEASE MECHANISM.
10. GATE AND FENCE MANUFACTURER TO BE APPROVED BY OWNER'S REP PRIOR TO INSTALLATION.
11. MESH PANEL PATTERN TO BE APPROVED BY OWNER'S REPRESENTATIVE PRIOR TO INSTALLATION.
12. GATE AND FENCE TO BE INSTALLED PER MANUFACTURER'S SPECIFICATIONS.

1 SPLASH PAD FENCE + GATE

SCALE: 3/8" = 1'-0"





SHADE STRUCTURE NOTES:
1. FOR DESIGN INTENT ONLY.
2. CHANGES TO SPLASH PAD MAY NOT BE REFLECTED IN THIS DETAIL.
3. SHADE STRUCTURE SHALL BE 6" TALLER THAN THE SPRAY HEIGHT OF THE TALLEST FEATURE.
4. CONTRACTOR TO SUBMIT SHOP DRAWINGS TO LANDSCAPE ARCHITECT PRIOR TO PURCHASE FOR APPROVAL.
5. PERMITS ASSOCIATED WITH THE SHADE STRUCTURE ARE THE RESPONSIBILITY OF THE CONTRACTOR.

2 SHADE STRUCTURE

SCALE: NTS

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PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 059713 RYAN J. NOLL
2026.05.01 11:00:04 -04'00'

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE-EAST

REVISIONS 05.01.2026

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-HD1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

SITE DETAILS

L4.01

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-HD1.dwg, 5/4/2026 10:51:44 AM, Sophie Buscaglia



TREE PRESERVATION AND SPECIMEN TREE MITIGATION

SPECIMEN TREE AREA DEFINED AS:
- LARGE MATURING TREES: DBH OVER 24"
- SMALL MATURING TREES: DBH OVER 12"
- NO HERITAGE TREES FOUND ON SITE

SPECIMEN TREES

EXISTING SPECIMEN TREES:	22
REQUIRED SPECIMEN TREES TO BE PRESERVED:	3 (10% OF TOTAL ON-SITE SPECIMEN TREES)
EXISTING SPECIMEN TREES TO BE REMOVED:	3 (14% OF TOTAL ON-SITE SPECIMEN TREES)
EXISTING SPECIMEN TREES TO BE PRESERVED:	*19 (86% OF TOTAL ON-SITE SPECIMEN TREES)

TREE CANOPY

AREA OF EXISTING TREE CANOPY:	+/- 2.04 AC (16.2% OF SITE AREA)
AREA OF TREE CANOPY PRESERVATION REQUIRED BY DISTRICT (SITE AREA X 10%):	1.27 AC (12.620 AC x 0.10)
AREA OF TREE CANOPY TO BE REMOVED:	+/-0 AC (0.0% OF SITE AREA)
AREA OF TREE CANOPY PRESERVATION PROVIDED:	+/-2.04 AC (100.0% OF SITE AREA)

*SPECIMEN TREE #3 IS TO BE SAVED BUT NOT COUNTED TOWARD SPECIMEN TREES TO BE PRESERVED

TREE PRESERVATION LEGEND

- TREE SAVE AREA
- LD — LD — LIMIT OF DISTURBANCE
- TP — TP — TP — TREE PROTECTION FENCING
- EXISTING TREE CANOPY LINE
- SPECIMEN TREE
- X — TREE TO BE REMOVED

ID #	SPECIES	DBH	TREE DESIGNATION	STATUS
1	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
2	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
3	OAK	48"	SPECIMEN	REMAIN*
4	RED MAPLE	12"	NON-SPECIMEN	REMOVE
5	MAPLE	14"	NON-SPECIMEN	REMAIN
6	PINE	28"	SPECIMEN	REMAIN
7	PINE	32"	SPECIMEN	REMAIN
8	PINE	26"	SPECIMEN	REMAIN
9	PINE	20"	NON-SPECIMEN	REMAIN
10	BIRCH	15"	NON-SPECIMEN	REMAIN
11	OAK	35"	SPECIMEN	REMAIN
12	PINE	24"	SPECIMEN	REMAIN
13	PINE	15"	NON-SPECIMEN	REMAIN
14	PINE	22"	NON-SPECIMEN	REMAIN
15	PINE	21"	NON-SPECIMEN	REMAIN
16	PINE	27"	SPECIMEN	REMAIN
17	PINE	20"	NON-SPECIMEN	REMAIN
18	PINE	20"	NON-SPECIMEN	REMAIN
19	PINE	29"	SPECIMEN	REMAIN
20	PINE	19"	NON-SPECIMEN	REMAIN
21	OAK	28"	SPECIMEN	REMAIN
22	TREE	18"	NON-SPECIMEN	REMAIN
23	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
24	CRAPE MYRTLE	12"	SPECIMEN	REMOVE
25	CRAPE MYRTLE	12"	SPECIMEN	REMOVE
26	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
27	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
28	WILLOW OAK	8"	NON-SPECIMEN	REMAIN
29	WILLOW OAK	8"	NON-SPECIMEN	REMAIN
30	WILLOW OAK	8"	NON-SPECIMEN	REMAIN
31	WILLOW OAK	8"	NON-SPECIMEN	REMAIN
32	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
33	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
34	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
35	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
36	RED MAPLE	10"	NON-SPECIMEN	REMAIN
37	BIRCH	10"	NON-SPECIMEN	REMAIN
38	CRAPE MYRTLE	12"	SPECIMEN	REMAIN
39	RED MAPLE	10"	NON-SPECIMEN	REMAIN
40	OAK	15"	NON-SPECIMEN	REMAIN
41	RED MAPLE	10"	NON-SPECIMEN	REMAIN
42	CRAPE MYRTLE	12"	SPECIMEN	REMOVE
43	RED MAPLE	10"	NON-SPECIMEN	REMAIN
44	OAK	2"	NON-SPECIMEN	REMAIN

GRAPHIC SCALE
0 25 50 100
1 inch = 50 ft.

811 Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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Town of Huntersville
PARKS AND RECREATION

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CONSTRUCTION DOCUMENTS
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HUNTERSVILLE, NC 28078

NORTH CAROLINA
THE JOHN R. McADAMS COMPANY, INC.
C-0293
CERTIFICATE OF AUTHORIZATION

NORTH CAROLINA
REGISTERED LANDSCAPE ARCHITECT
2431
HALEY MAE-EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-TS
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

REQUIRED LANDSCAPE PLAN

L5.00

Y:\Projects\HUN\HUN24004\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-TS.dwg, 1/14/2026 10:51:49 AM, Sophie Buscaglia

MATCHINE -SEE L5.02

EXISTING SHRUBS TO REMAIN ON OTHER SIDE OF EXISTING SIDEWALK, TYP.

EXISTING SHRUB, TYP.

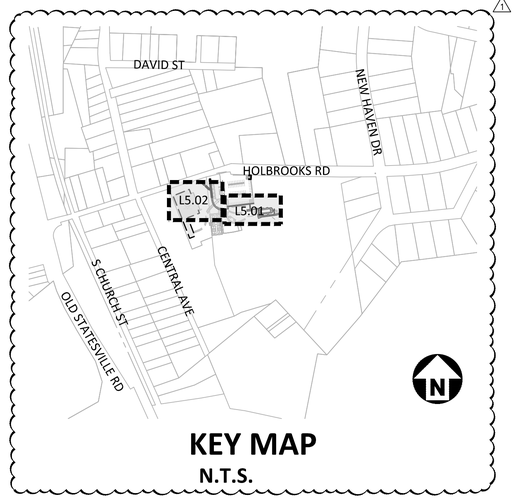
EXISTING TREE, TYP.

TREE PROTECTION, TYP.

EXISTING TREE, TYP.

EX. PUMP STATION

EX. MAINTENANCE BUILDING



KEY MAP
N.T.S.

PLANT SCHEDULE

SYMBOL	BOTANICAL / COMMON NAME
CANOPY TREES	
	QUERCUS PHELLOS WILLOW OAK
SHRUBS	
	DISTYLIUM X 'PIIDIST-I' EMERALD HEIGHTS® DISTYLIUM
	PRUNUS LAUROCERASUS 'OTTO LUYKEN' OTTO LUYKEN ENGLISH LAUREL

TOWN OF HUNTERSVILLE LANDSCAPE NOTES

INSTALLATION GUARANTEE REQUIRED

- A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED PRIOR TO THE INSTALLATION OF TREES AND SHRUBS, EXCLUDING YARD TREES.DURING THE NON-PLANTING SEASON IF A CASH BOND, SURETY BOND OR LETTER OF CREDIT IS ISSUED FOR 120% OF THE COST OF MATERIALS AND INSTALLATION. PLANTING SHALL BE COMPLETED DURING THE NEXT PLANTING SEASON.
- THE PLANTING SEASON SHALL RUN FROM OCTOBER 15 TO MARCH 15, EXCEPT FOR EXTREME WEATHER CONDITIONS AS DETERMINED BY STAFF. A FINAL CERTIFICATE OF OCCUPANCY SHALL NOT BE GIVEN DURING THE PLANTING SEASON UNLESS ALL OF THE LANDSCAPING IS COMPLETELY INSTALLED ACCORDING TO THIS ARTICLE.

MAINTENANCE SURETY REQUIRED

- DEVELOPERS SHALL ENTER INTO A MAINTENANCE SURETY AGREEMENT WITH THE TOWN OF HUNTERSVILLE GUARANTEEING THE VIABILITY OF STREET TREES AND TREES AND SHRUBS PLANTED IN BUFFER YARDS FOR A PERIOD OF 1 YEAR FOLLOWING PLANTING. THE AMOUNT OF THE SURETY SHALL BE EQUAL TO 50% OF THE VALUE OF THE NEW TREES OR LANDSCAPE MATERIAL AND THEIR INSTALLATION. THE MAINTENANCE SURETY SHALL BE PROVIDED WHEN ALL OF THE REQUIRED TREES AND SHRUBS HAVE BEEN PLANTED.

GRAPHIC SCALE
0 5 10 20
1 inch = 10 ft.

Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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2431
HALEY MAE EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-LS1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	1"=10'
DATE	09.26.2025

SHEET

ENLARGED REQUIRED LANDSCAPE PLAN

L5.01

Y:\Projects\HUN\HUN24004-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-LS1.dwg, 5/5/2026 2:00:07 PM, Sophie Buzaglia

TOWN OF HUNTERSVILLE LANDSCAPE NOTES

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MECKLENBURG COUNTY
PARCEL 01909304
DB 3314, PG 441
MB 51, PG 936

BUILDING PARTIALLY SKETCHED

MATCHINE -SEE L5.01

GATE

DAVID ST
NEW HAVEN DR
HOLBROOKS RD
L5.02
L5.01
CENTRAL AVE
S CHURCH ST
OLD STATESVILLE RD

KEY MAP
N.T.S.

GRAPHIC SCALE
0 5 10 20
1 inch = 10 ft.

811 Know what's below. Call before you dig.

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NORTH CAROLINA
REGISTERED LANDSCAPE ARCHITECT
24.31
HALEY MAE EADY
05.01.2026

REVISIONS

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1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

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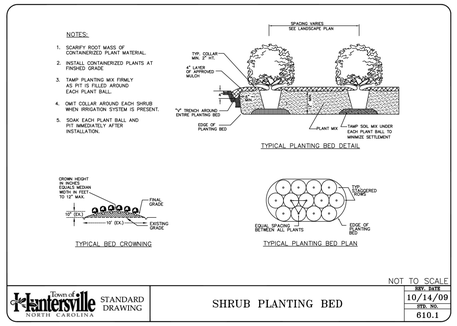
FILENAME	HUN24004-LS1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	1"=10'
DATE	09.26.2025

SHEET

ENLARGED REQUIRED LANDSCAPE PLAN

L5.02

Y:\Projects\HUN\HUN24000\04-Production\Planning + Design\Construction Drawings\Current Drawings\HUN24004-LS1.dwg, 5/4/2026 10:52:11 AM, Sophie Buscaglia

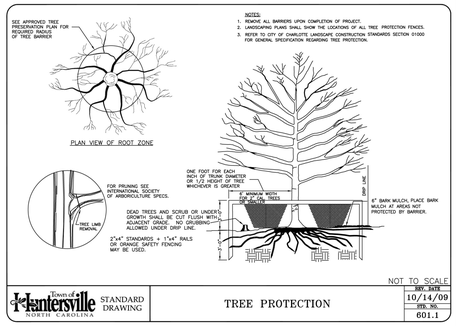


NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	SHRUB PLANTING BED	REV. DATE 10/14/09 RPA. NO. 610.1

1 SHRUB PLANTING BED

SCALE: 1" = 1'-0"



NOT TO SCALE

Town of Huntersville NORTH CAROLINA STANDARD DRAWING	TREE PROTECTION	REV. DATE 10/14/09 RPA. NO. 601.1

2 TREE PROTECTION

SCALE: 1" = 1'-0"

TOWN OF HUNTERSVILLE TREE PROTECTION NOTES

1. APPLICABILITY

- A TREE AND ROOT PRESERVATION PLAN DELINEATING AREAS OF TREE SAVE SHALL BE INCORPORATED AS PART OF THE LANDSCAPING, GRADING, AND EROSION CONTROL PLANS. THE FOLLOWING MEASURES SHALL BE FOLLOWED TO PROTECT EXISTING TREES ON A DEVELOPING SITE PRIOR TO DEMOLITION, CLEARING, CONSTRUCTION, GRADING, AND INSTALLATION OF EROSION CONTROL MEASURES; TREE PROTECTIVE BARRIERS MUST BE INSTALLED AROUND ALL TREE SAVE AREAS BY THE DEVELOPER AND APPROVED BY THE TOWN.
- THE TREE PROTECTION FENCE SHALL BE LOCATED ALONG THE PERIMETER OF THE TREE SAVE AREA (DRIP LINE PLUS 5 FEET). TREE PROTECTION FENCING FOR A FOREST CANOPY STANDS AREA IS TO BE LOCATED ALONG THE PERIMETER OF THE TREE SAVE AREA AROUND THE FOREST EDGE. TREE PROTECTION FENCING SHALL CONSIST OF ORANGE SAFETY FENCING OR A COMBINATION OF ORANGE SAFETY FENCING WITH SILT FENCING AT A MINIMUM OF 4 FEET IN HEIGHT ON METAL OR WOOD POSTS.
- ALL TREE PROTECTION AREAS MUST BE DESIGNATED AS SUCH WITH "TREE SAVE AREA SIGNS" POSTED IN ADDITION TO THE REQUIRED PROTECTIVE FENCING. SIGNS REQUESTING SUBCONTRACTOR COOPERATION AND COMPLIANCE WITH TREE PROTECTION STANDARDS ARE RECOMMENDED FOR SITE ENTRANCES
- NO SOIL DISTURBANCE OR COMPACTION, STOCK PILING OF SOIL OR OTHER CONSTRUCTION MATERIAL, VEHICULAR TRAFFIC, OR STORAGE OF EQUIPMENT AND MATERIALS ARE ALLOWED WITHIN THE TREE SAVE AREA.
- NO ROPES, SIGNS, WIRES, UNPROTECTED ELECTRICAL INSTALLATION OR OTHER DEVICE OR MATERIAL, SHALL BE SECURED OR FASTENED AROUND OR THROUGH A TREE OR SHRUB.
- ALL PROTECTIVE MEASURES SHALL BE MAINTAINED THROUGHOUT THE LAND DISTURBING AND CONSTRUCTION PROCESS, AND SHALL NOT BE REMOVED UNTIL FINAL LANDSCAPING IS INSTALLED.

2. ENCROACHMENT

IF ENCROACHMENT INTO A REQUIRED TREE SAVE/PRESERVATION AREA OCCURS WHICH CAUSES IRREPARABLE DAMAGE TO THE TREES, THE TREE PRESERVATION AND/OR REPLACEMENT PLAN SHALL BE REVISED TO COMPENSATE FOR THE LOSS. ENCROACHMENTS SHALL BE SUBJECT TO THE PENALTIES LISTED IN ARTICLE 7.9. ENCROACHMENTS, DAMAGE AND REMOVAL OF VEGETATION IN A TREE SAVE/PRESERVATION AREA SHALL BE REPLANTED IN ACCORDANCE WITH ARTICLE 7.4.5

3. TREE REMOVAL

LAND DISTURBING PERMIT REQUIRED. LAND DISTURBING ACTIVITIES SHALL NOT COMMENCE UNTIL SUCH ACTIVITIES HAVE BEEN AUTHORIZED BY ISSUANCE OF A VALID LAND DISTURBING PERMIT AS SPECIFIED UNDER THE PROVISIONS OF THE CHARLOTTE-MECKLENBURG LAND DEVELOPMENT STANDARDS MANUAL AND EROSION AND SEDIMENTATION CONTROL MANUAL.

4. MITIGATION

IF A REQUIRED TREE SAVE/PRESERVATION AREA OR REQUIRED UNDISTURBED BUFFER YARD IS DISTURBED FOR ANY REASON, IT SHALL BE RESTORED AT A RATE OF 10 TREES PER 1000 SQUARE FEET. TREES TO BE PLANTED SHALL HAVE A MINIMUM CALIPER OF 2 INCHES, SHALL BE 8-10 FEET IN HEIGHT AT INSTALLATION, AND SHALL BE AT LEAST 75% LARGE MATURING VARIETIES. WHERE A DISTURBED AREA ALSO FUNCTIONED TO BUFFER ADJACENT PROPERTIES OR PUBLIC STREETS), AT LEAST 50% OF THE TREES SHALL BE EVERGREEN VARIETIES. TREES SHALL BE DISTRIBUTED THROUGHOUT THE DISTURBED AREA IN SUCH A WAY AS TO EFFECTIVELY REPLACE THE VEGETATION DISTURBED. WHERE UNDER STORY VEGETATION IS REMOVED OR DISTURBED IT SHALL BE REPLACED AT A RATE OF 40 SHRUBS PER 100 LINEAR FEET. SHRUBS SHALL BE EVERGREEN AND 3 FEET IN HEIGHT WHEN INSTALLED AND ARE EXPECTED TO REACH A MINIMUM HEIGHT OF 6 FEET AT MATURITY. WHEN A TREE IS DESTROYED DUE TO AN ACT OF GOD, IT SHALL BE REPLACED WITH THE SAME SPECIES OR COMPARABLE SPECIES, 2 INCH IN CALIPER IN SIZE. A PLANTING PLAN IS REQUIRED FOR STAFF REVIEW AND APPROVAL PRIOR TO COMMENCEMENT OF PLANTING.

5. TREE DESIGNATION

ALL LARGE MATURING HARDWOOD SPECIES ARE CONSIDERED SPECIMEN TREES AT A SIZE OF 24" AND GREATER.
ALL SMALL MATURING SPECIES ARE CONSIDERED SPECIMEN TREES AT A SIZE OF 12" AND GREATER. ALL LARGE MATURING HARDWOOD SPECIES ARE CONSIDERED SIGNIFICANT TREES AT A SIZE BETWEEN 18" AND 23".

LANDSCAPE NOTES

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN ACCORDANCE WITH CURRENT APPLICABLE TOWN OF HUNTERSVILLE AND THE STATE OF NC STANDARDS AND SPECIFICATIONS.
2. CONTRACTOR IS RESPONSIBLE FOR INSPECTING THE SITE BEFORE LANDSCAPE CONSTRUCTION AND INSTALLATION IN ORDER TO BECOME FAMILIAR WITH THE EXISTING CONDITIONS.
3. CONTRACTOR IS RESPONSIBLE FOR LOCATING UNDERGROUND UTILITIES, NEW AND PRIOR EXISTING, BEFORE BEGINNING LANDSCAPE INSTALLATION. DAMAGE TO UTILITIES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
4. THE LANDSCAPE PLAN IS FOR PLANTING PURPOSES ONLY. FOR INFORMATION REGARDING BUILDINGS, GRADING, WALLS, ETC., REFER TO ARCHITECTURE, SITE, GRADING DRAWINGS, ETC.
5. CONTRACTOR SHALL FULLY REVIEW PLANS AND SPECIFICATIONS PRIOR TO INSTALLATION AND SHALL NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES BETWEEN THE NOTES, SPECIFICATIONS, DRAWINGS, OR SITE CONDITIONS FOR RESOLUTION PRIOR TO INSTALLATION.
6. VERIFICATION OF TOTAL PLANT QUANTITIES AS SHOWN IN THE PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. DISCREPANCIES BETWEEN THE PLANT SCHEDULE AND LANDSCAPE PLAN SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO SUBMITTING THE BID/PROPOSAL.
7. CONTRACTOR IS RESPONSIBLE FOR VERIFYING THAT PLANT MATERIAL IS AVAILABLE AS SPECIFIED WHEN BID/PROPOSAL IS SUBMITTED AND RESERVING / SECURING PLANT MATERIAL AS NECESSARY TO MEET THE REQUIREMENTS OF THE LANDSCAPE PLAN.
8. PLANTS TO MEET MINIMUM REQUIREMENTS AS SPECIFIED IN THE PLANT SCHEDULE. ROOT TYPE MAY BE FREELY SUBSTITUTED FOR BALLED AND BURLAPPED OR CONTAINER GROWN TREES, WITH OTHER SPECIFICATIONS REMAINING UNCHANGED. OTHER CHANGES OR SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT AND GOVERNING JURISDICTION PRIOR TO PROCUREMENT OF PLANT MATERIAL.
9. DEVIATION FROM THESE PLANS MUST BE SPECIFICALLY APPROVED BY LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL NOT MAKE SUBSTITUTIONS OR REVISIONS WITHOUT APPROVAL.
10. CONTRACTOR TO COORDINATE WITH LANDSCAPE ARCHITECT TO ESTABLISH THE EXTENTS OF MULCH/SEED/SOD IF NOT SPECIFICALLY SHOWN ON PLANS.
11. CONTRACTOR SHALL VERIFY CONDITIONS AND ELEVATIONS OF EXISTING TREES TO REMAIN ADJACENT TO OR WITHIN LIMITS OF DISTURBANCE PRIOR TO INSTALLATION OF NEW PLANT MATERIAL. CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT OF DISCREPANCIES.
12. CONTRACTOR SHALL BE RESPONSIBLE FOR THE TESTING, AMENDING AND SPREADING OF TOPSOIL PRIOR TO PLANT INSTALLATION, SUPPLEMENTING WITH AMENDMENTS TO ADJUST PH AND FERTILITY AS NECESSARY BASED ON THE TEST RESULTS. SEE SPECIFICATIONS FOR SOIL TEST REPORT SUBMITTAL REQUIREMENTS.
13. CONTRACTOR SHALL PREPARE PLANTING BEDS BY TILLING SOIL TO A 12" DEPTH PRIOR TO INSTALLING PLANT MATERIAL. CONTRACTOR SHALL ENSURE THAT SHALLOW BEDROCK WILL NOT INHIBIT THE ROOT GROWTH OF PLANT MATERIAL. PLANTING BEDS SHALL NOT BE BACKFILLED WITH ANY MATERIAL OTHER THAN AMENDED OR IMPORTED PLANTING SOIL IN ACCORDANCE WITH THE SPECIFICATIONS FOR PLANTING SOIL.
14. FINE GRADE PLANTING AREAS TO A SMOOTH, UNIFORM SURFACE PLANE WITH LOOSE, UNIFORMLY FINE TEXTURE. GRADE TO WITHIN PLUS OR MINUS 1/2 INCH OF FINISH ELEVATION. HAND ROLL AND RAKE, REMOVE RIDGES AND DEBRIS, AND FILL DEPRESSIONS TO MEET FINISH GRADES. LIMIT FINISHED GRADING TO AREAS THAT CAN BE PLANTED IN THE IMMEDIATE FUTURE.
15. CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE IN PLANTING AREAS.
16. AFTER TREE PLANTING HOLES HAVE BEEN DUG AND PRIOR TO INSTALLATION OF TREES, CONTRACTOR TO CONFIRM THAT WATER DRAINS OUT OF THE SOIL. USE LOWERED PLANTING HOLE DEPTH AND INSTALL ALTERNATIVE DRAINAGE AND AERATION SYSTEMS AS REQUIRED.
17. PERFORM PERCOLATION TEST FOR EACH TREE PIT. PROVIDE GRAVEL SUMP FILTER FABRIC & VENT PIPE IF DRAINAGE DOES NOT OCCUR WITHIN 24 HOURS. INCLUDE ALL SUMPS IN BASE BID. SHOULD SUMPS NOT BE NECESSARY AFTER PERCOLATION TEST, PROVIDE CHANGE ORDER DEDUCT TO OWNER.
18. IF PLANTING HOLES ARE DUG WITH A LARGE AUGER, BREAK DOWN THE SIDES OF THE HOLE WITH A SHOVEL TO ELIMINATE GLAZING AND TO CREATE THE SPECIFIED SIDE SLOPE ON THE INSIDE OF THE PLANTING HOLE.
19. CONTRACTOR SHALL KEEP AREAS OF WORK CLEAN, NEAT, AND ORDERLY. PAVED SURFACES ARE TO BE CLEANED OF SOIL AND DEBRIS AT THE CLOSE OF EACH WORKDAY.
20. LANDSCAPE MATERIAL SHALL BE WELL FORMED, VIGOROUS, GROWING SPECIMENS WITH GROWTH TYPICAL OF VARIETIES SPECIFIED AND SHALL BE FREE FROM DAMAGE, INSECTS, AND DISEASES. MATERIAL SHALL EQUAL OR SURPASS #1 QUALITY AS DEFINED IN THE CURRENT ISSUE OF "AMERICAN STANDARD FOR NURSERY STOCK" AS PUBLISHED BY THE AMERICANHORT (F.K.A. AMERICAN NURSERY & LANDSCAPE ASSOCIATION).
21. PLANT MATERIAL IS TO BE WELL ROOTED, NOT ROOT BOUND, SUCH THAT THE ROOT BALL REMAINS INTACT THROUGHOUT THE PLANTING PROCESS. DEFICIENT PLANT MATERIAL SHALL BE REJECTED BY THE LANDSCAPE ARCHITECT.
22. CONTAINER GROWN STOCK SHALL HAVE BEEN GROWN IN A CONTAINER LONG ENOUGH FOR THE ROOT SYSTEM TO HAVE DEVELOPED SUFFICIENTLY TO HOLD THE SOIL TOGETHER FIRMLY, BUT NOT SO LONG AS TO HAVE BECOME POT BOUND. CONTAINER GROWN STOCK SHALL HAVE A WELL-ESTABLISHED ROOT SYSTEM REACHING THE SIDES OF THE CONTAINER TO MAINTAIN A FIRM BALL BUT SHALL NOT HAVE EXCESSIVE ROOT GROWTH ENCIRCLING THE INSIDE OF THE CONTAINER.
23. PLANT MATERIAL IS TO BE CAREFULLY HANDLED BY THE ROOT BALL, NOT THE TRUNK, BRANCHES, AND/OR FOLIAGE OF THE PLANT. MISHANDLED PLANT MATERIAL SHALL BE REJECTED BY THE LANDSCAPE ARCHITECT. PLANTS WITH BROKEN ROOT BALLS OR SUBSTANTIAL DAMAGE SHALL BE REPLACED PRIOR TO PLANTING.
24. CONTRACTOR SHALL STAKE TREE LOCATIONS FOR APPROVAL PRIOR TO INSTALLATION. CONFLICTS OR DISCREPANCIES SHALL BE FIELD ADJUSTED AND APPROVED BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. NOTIFY THE GOVERNING JURISDICTION AND OWNER'S REPRESENTATIVE OR LANDSCAPE ARCHITECT OF SIGNS, POWER LINES, OR OTHER CONFLICTS BEFORE PLANTING TREES.
25. NO TREE PLANTING SHALL OCCUR WITHIN SIGHT DISTANCE TRIANGLE AREAS INDICATED ON THE PLAN SET. CONTRACTOR SHALL STAKE THE LOCATION OF TREE PLANTING IN THE RIGHT-OF-WAY IN THE FIELD PRIOR TO INSTALLATION FOR REVIEW AND APPROVAL BY LANDSCAPE ARCHITECT AND AUTHORITIES HAVING JURISDICTION. OWNER SHALL AGREE TO MAINTAIN THE STRUCTURE OF TREE PLANTING IN THE RIGHT-OF-WAY TO ELIMINATE SIGHT DISTANCE CONFLICTS.
26. PROPOSED TREES TO BE PLANTED A MINIMUM 15 FEET FROM LIGHT POLES AS MEASURED FROM TRUNK OF THE TREE TO THE POLE.
27. PROPOSED TREES TO BE PLANTED A MINIMUM 10 FEET FROM FIRE HYDRANTS AS MEASURED FROM TRUNK OF THE TREE TO THE HYDRANT.
28. CONTRACTOR SHALL LAY OUT ON THE GROUND SHRUBS, ORNAMENTAL GRASSES, AND GROUNDCOVERS FOR APPROVAL BY LANDSCAPE ARCHITECT PRIOR TO INSTALLATION. CONTRACTOR SHALL ANTICIPATE THAT SOME REARRANGEMENT OF MATERIAL WILL OCCUR.
29. MULCH SHALL BE ORGANIC, FREE OF TRASH, AND MAINTAINED WEED FREE. MULCH SHALL BE APPLIED IMMEDIATELY AFTER COMPLETION OF PLANTING OPERATIONS. SEE SPECIFICATIONS FOR MORE INFORMATION.
30. CONTRACTOR IS RESPONSIBLE FOR WATERING PLANTED AREAS THROUGHOUT THE WARRANTY PERIOD TO ENSURE PLANT ESTABLISHMENT.
31. REPAIR OR REPLACE, IN A MANNER APPROVED BY THE LANDSCAPE ARCHITECT, NEW TREES AND OTHER PLANTS THAT ARE DAMAGED AFTER INSTALLATION BY CONSTRUCTION OPERATIONS.
32. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MONITOR THE PROJECT DURING THE GUARANTEE PERIOD AND INFORM THE OWNER IF PROBLEMS DEVELOP WITH THE PLANT MATERIAL. CONTRACTOR SHALL REMOVE DEAD AND UNHEALTHY PLANT MATERIAL AS DEFINED IN THE SPECIFICATIONS AND IMMEDIATELY REPLACE AT THE CONTRACTOR'S EXPENSE.
33. REFER TO SPECIFICATIONS FOR MORE INFORMATION ON DELIVERY, STORAGE AND HANDLING OF PLANT MATERIAL, QUALITY ASSURANCE, PRODUCTS AND MATERIALS, SOIL TESTING AND AMENDMENTS, INSTALLATION, MAINTENANCE AND WARRANTIES, AND ADDITIONAL PLANTING REQUIREMENTS.
34. LANDSCAPE WORK SHALL INCLUDE THE FURNISHING, INSTALLATION, AND WARRANTY OF ALL PLANTING MATERIALS WITHIN THE PROJECT AREA.

PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CAL	HEIGHT
CANOPY TREES					
	QPW	4	QUERCUS PHELLOS WILLOW OAK	2.5" MIN	8` MIN

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD
SHRUBS						
	DPEH	4	DISTYLIUM X 'PIIDIST-I' EMERALD HEIGHTS® DISTYLIUM	-	24" MIN	18" MIN
	PLOL	19	PRUNUS LAUROCERASUS 'OTTO LUYKEN' OTTO LUYKEN ENGLISH LAUREL	-	24" MIN	24" MIN.

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Town of Huntersville PARKS AND RECREATION

WAYMER SPLASH PAD
CONSTRUCTION DOCUMENTS
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA CERTIFICATE OF AUTHORIZATION THE JOHN R. McADAMS COMPANY, INC. C-0293

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 VALEY MAE EADY

05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-LS1
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	AS SHOWN
DATE	09.26.2025

SHEET

LANDSCAPE NOTES AND DETAILS

L5.10

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PLANT SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CAL	HEIGHT
UNDERSTORY TREES					
	SJS	4	STYRAX JAPONICUS JAPANESE SNOWBELL	2" MIN	8` MIN

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	CONT	HEIGHT	SPREAD
SHRUBS						
	DPCD	15	DISTYLIUM X 'PIIDIST-III' FIRST EDITIONS® COPPERTONE™ DISTYLIUM	3 GAL	24" MIN	18" MIN
	DPEH	11	DISTYLIUM X 'PIIDIST-I' EMERALD HEIGHTS® DISTYLIUM	3 GAL	24" MIN	18" MIN
	HPLL	3	HYDRANGEA PANICULATA 'LITTLE LIME' LITTLE LIME HYDRANGEA	3 GAL	24" MIN	18" MIN
	LSSL	6	LIGUSTRUM SINENSE 'SUNSHINE' SUNSHINE CHINESE PRIVET	3 GAL	24" MIN	18" MIN
	PADL	29	PEROVSKIA ATRIPLICIFOLIA 'DENIM 'N LACE' DENIM 'N LACE RUSSIAN SAGE	3 GAL	12" MIN	12" MIN
GRASSES						
	MCWC	36	MUHLENBERGIA CAPILLARIS 'WHITE CLOUD' WHITE CLOUD MUHLY GRASS	1 GAL	12" MIN	12" MIN
	PVNW	53	PANICUM VIRGATUM 'NORTHWIND' NORTHWIND SWITCH GRASS	1 GAL	12" MIN	12" MIN
	SSSO	52	SCHIZACHYRIUM SCOPARIUM 'STANDING OVATION' STANDING OVATION LITTLE BLUESTEM	1 GAL	12" MIN	12" MIN

EXISTING SHRUBS TO REMAIN, TYP.

EXISTING SHRUBS TO REMAIN ON OTHER SIDE OF EXISTING SIDEWALK, TYP.

SEE L5.00

SEE L5.01 ENLARGED REQUIRED LANDSCAPE PLAN

EX. PUMP STATION

EX. MAINTENANCE BUILDING

30" PINE

GRAPHIC SCALE
0 5 10 20
1 inch = 10 ft.

N

811 Know what's below. Call before you dig.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

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NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2431 HALEY MAE EADY
05.01.2026

REVISIONS

NO.	DATE	
1	05.01.2026	ADDENDUM 1

PLAN INFORMATION

PROJECT NO.	HUN24004
FILENAME	HUN24004-LS2
CHECKED BY	ANL
DRAWN BY	HMD
SCALE	1"=10'
DATE	09.26.2025

SHEET

ENHANCED LANDSCAPE PLAN

L5.20

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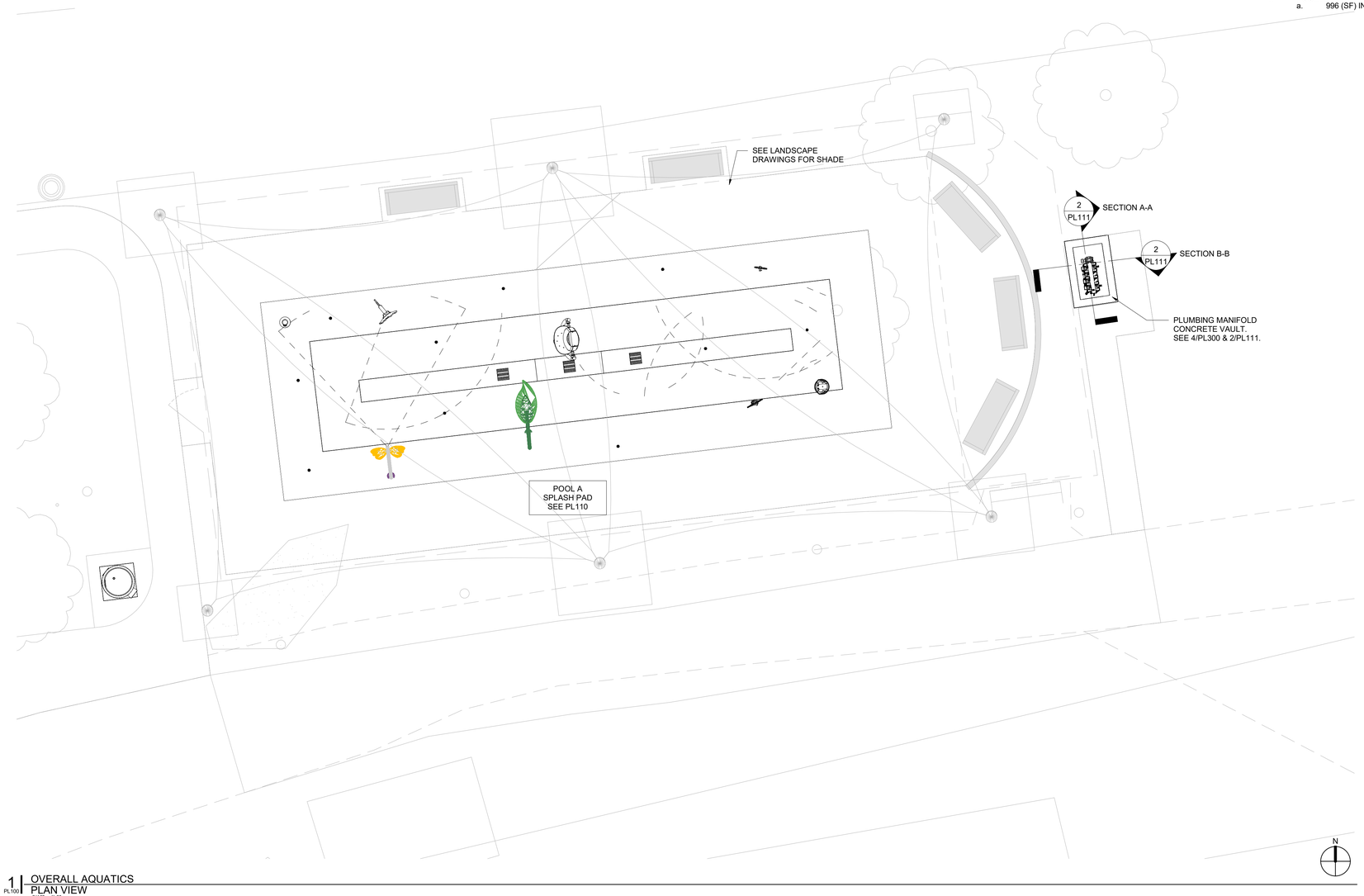
SCHEDULE - SAFETY & MAINTENANCE EQUIPMENT

QTY	PRODUCT NAME	MANUFACTURER	NOTES
1	25 PERSON AQUATIC FIRST AID KIT	WATER SAFETY PRODUCTS	25 PERSON OSHA FIRST AID KIT TO INCLUDE BIOHAZARD COMPLIANCE RESPONSE AND CPR MICROMASK WITH NITRILE GLOVES

SCHEDULE - SHEET LIST

SHEET NO.	SHEET NAME
PL100	OVERALL AQUATIC PLAN
PL110	POOL A - SPLASH PAD PLANS
PL111	POOL A - SPLASH PAD FEATURE DIMENSION PLAN
PL112	POOL A - SPLASH PAD SECTION AND DETAILS
PL200	STRUCTURAL NOTES, PLAN(S) AND SCHEDULE
PL210	STRUCTURAL DETAILS
PL300	OVERALL PIPING PLAN
PL301	MECHANICAL NOTES



1 PL100 OVERALL AQUATICS PLAN VIEW
3/16" = 1'-0"

WTI
WATER TECHNOLOGY INC.
World Leaders in Aquatic Planning, Design and Engineering
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GENERAL NOTES:
1. SCHEDULE QUANTITIES ARE SHOWN FOR VALUE ENGINEERING PURPOSES. IT IS THE INSTALLING CONTRACTORS RESPONSIBILITY TO VERIFY QUANTITIES REQUIRED.
2. CONTRACTOR SHALL CONTACT ENGINEER FOR ELECTRONIC DRAWING FILES PRIOR TO COMMENCING POOL STAKING WORK.
3. ENGINEER WILL PROVIDE ELECTRONIC PLAN VIEW OF ALL POOLS IN AUTOCAD DRAWING FORMAT FOR CONTRACTOR'S USE TO LOCATE STRUCTURES AND RELATED POOL DECK EQUIPMENT.
4. SEE 13 / PL112 BONDING DETAIL FOR ALL POOLS.

CODES, STANDARDS AND REGULATIONS:
CONTRACTOR SHALL BE FAMILIAR WITH ALL CODES AND STANDARDS LISTED BELOW AND ALERT THE ARCHITECT/ENGINEER TO CONFLICTS IN THE DRAWINGS

CODE JURISDICTION
UNITED STATES, HUNTERSVILLE, NORTH CAROLINA, MECKLENBURG COUNTY

HEALTH & SAFETY CODE:
2018 NORTH CAROLINA STATE BUILDING CODE

ACCESSIBILITY STANDARDS AND REGULATIONS:

UNITED STATES:
2010 ADA STANDARDS FOR ACCESSIBLE DESIGN

BATHER CAPACITY

BATHER CAPACITY IS CALCULATED IN ACCORDANCE WITH SECTION 15A NCAC 18A.2529 OF THE NORTH CAROLINA CODE AS FOLLOWS:

1. POOL A:
   a. 996 (SF) INTERACTIVE PLAY AREA DIVIDED BY 25 (SF/BATHER) = 39 BATHERS.

TAG LEGEND

PIPE TAG — P1-20A
- LINE TYPE IDENTIFIER
- SYSTEM IDENTIFIER
- PIPE IDENTIFIER
- POOL IDENTIFIER

POOL EQUIPMENT TAG — A01
- POOL IDENTIFIER
- EQUIPMENT IDENTIFIER

MECHANICAL EQUIPMENT TAG — P1A
- EQUIPMENT IDENTIFIER
- SYSTEM IDENTIFIER
- POOL IDENTIFIER

DIMENSION TAG — ⌀ 100
- POINT LOCATION
- POINT IDENTIFIER

WATER FEATURE TAG — F01
- FEATURE DESIGNATOR
- EQUIPMENT IDENTIFIER

ELEVATION TAG
- ELEVATION
- 100.00 REFERENCE
- LOCATION

CUSTOM RAILGOODS TAG — A01
- POOL IDENTIFIER
- RAILGOODS IDENTIFIER

POOL STRUCTURAL TAG — AH1
- POOL IDENTIFIER
- WALL TYPE IDENTIFIER

POOL FIXTURE TAG — A-PF1
- POOL IDENTIFIER
- POOL FIXTURE DESIGNATOR
- EQUIPMENT IDENTIFIER

REVISION TAG — 1
- REVISION NUMBER

POOL FINISH TAG
- FINISH TYPE ID
- POOL IDENTIFIER — A<CA, CQT> WATERLINE TILE
- FINISH COLOR ID
- FINISH DESCRIPTION

DIMENSIONAL UNITS
- IMPERIAL UNITS — 7/8"
- METRIC UNITS (mm) — [25]

POOL ACCESSIBILITY TAG — ADA-P-SE
- P = PRIMARY
- S = SECONDARY
- MEANS OF ACCESS

POOL FLOOR ELEVATION RELATIVE TO (SWL)
- ELEVATION — -5'-0" WD

EQUIPMENT IDENTIFIER KEY

AC	-	AIR COMPRESSOR	FP	-	FLOW METER POWER SUPPLY
AF	-	AUTOFILL	H	-	HEATER
AOP	-	ADVANCED OXIDATION PROCESS	HX	-	HEAT EXCHANGER
AP	-	pH CONTROL PUMP	P	-	PUMP
AS	-	pH CONTROL STORAGE	PV	-	PNEUMATIC MAIN DRAIN VALVE
BP	-	BOOSTER PUMP	S	-	STRAINER
C	-	CHEMICAL CONTROLLER	SC	-	CONTAINMENT PALLETE
CP	-	CHLORINE FEED PUMP	SV	-	SURGE TANK FAN
CS	-	CHLORINE STORAGE	UV	-	ULTRA-VIOLET DISINFECTION
EV	-	ELECTRONIC MAIN DRAIN VALVE	V	-	VARIABLE FREQUENCY DRIVE
F	-	FILTER	WC	-	WATER CHILLER
FM	-	FLOW METER			

ABBREVIATIONS

AHJ	- AUTHORITY HAVING JURISDICTION	P&ID	- PIPING & INSTRUMENTATION DIAGRAM
BO	- BOTTOM OF	PL	- POOL LIFT
CJ	- CONTROL JOINT	PS	- POOL STAIRS
DIA	- DIAMETER	SCH	- SCHEDULE
EJ	- EXPANSION JOINT	SE	- SLOPED ENTRY
EW	- EACH WAY	SS	- STAINLESS STEEL
FFE	- FINISH FLOOR ELEVATION	SWL	- STATIC WATER LEVEL
ID	- INSIDE DIAMETER	TO	- TOP OF
MAX	- MAXIMUM	TS	- TRANSFER SYSTEM
MIN	- MINIMUM	TUBC	- TRUE UNION CHECK VALVE
NC	- NORMALLY CLOSED	TUBV	- TRUE UNION BALL VALVE
NO	- NORMALLY OPEN	TW	- TRANSFER WALL
NPS	- NOMINAL PIPE SIZE	TYP	- TYPICAL
OC	- ON CENTER	WD	- WATER DEPTH
OD	- OUTSIDE DIAMETER		
OWE	- OPERATING WATER ELEVATION		

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DD SUBMITTAL
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HUNTERSVILLE, NC 28078

NORTH CAROLINA PROFESSIONAL SEAL 035471 ENGINEER BRIAN W. FREEBER
2/21/2025

REVISIONS

NO.	DATE

PLAN INFORMATION

PROJECT NO.	24477
FILENAME	
CHECKED BY	HAC
DRAWN BY	T.ED
SCALE	SEE DRAWING REFERENCE
DATE	02/21/2025

SHEET

OVERALL AQUATIC PLAN

PL100

E:\2024\24477 NC Huntersville Waymer Splash Pad\Drawings\Disciplines\From McAdams\2025.01.22\HUN2400AX-TTBL STD.dwg, 10/15/2018 4:06:37 PM, Trent Edmunds

SCHEDULE - WATER FEATURE - POOL A

POOL ID	FEATURE ID	FEATURE	QTY	MANUFACTURER	DESCRIPTION	GPM (ea)	GPM (Total)
A	F01	ABOVE GROUND	1	WATERPLAY	FS: SLING SOAKER	20	20
A	F02	ABOVE GROUND	1	WATERPLAY	FS: LEAFLET	8	8
A	F03	ABOVE GROUND	1	WATERPLAY	FS: PAPILLON	11	11
A	F04	ABOVE GROUND	1	WATERPLAY	FS: BOTTLE BUD	1	1
A	F05	ABOVE GROUND	1	WATERPLAY	FS: TURTLE	2	2
A	F06	ABOVE GROUND	1	WATERPLAY	FS: FLUTTERBY	1	1
A	F07	ABOVE GROUND	1	WATERPLAY	FS: OWL	2	2
A	F08	GROUND SPRAY	3	WATERPLAY	GS: THE WAVE	3	9
A	F09	GROUND SPRAY	1	WATERPLAY	GS: STARLET SPRAY	5	5
A	F10	GROUND SPRAY	1	WATERPLAY	GS: MISTY MOUNTAIN	2	2
A	F11	GROUND SPRAY	2	WATERPLAY	GS: TULIP	6	12
A	F12	GROUND SPRAY	1	WATERPLAY	GS: MONSTER 5	10	10
A	F13	GROUND SPRAY	2	WATERPLAY	GS: BUTTERCUP	7	14

SCHEDULE - BASIS OF DESIGN - POOL A

POOL ID	EQUIPMENT ID	EQUIPMENT	QTY	MANUFACTURER	DESCRIPTION
A	01	ACTIVATOR	1	WATERPLAY	ACTIVATOR ON/OFF, POWER POST, 304 SS

POOL A-SPLASH PAD DATA

DESCRIPTION	QTY	UNITS
PAD PERIMETER	146'-7"	FEET
PAD SURFACE AREA	995	SQUARE FEET

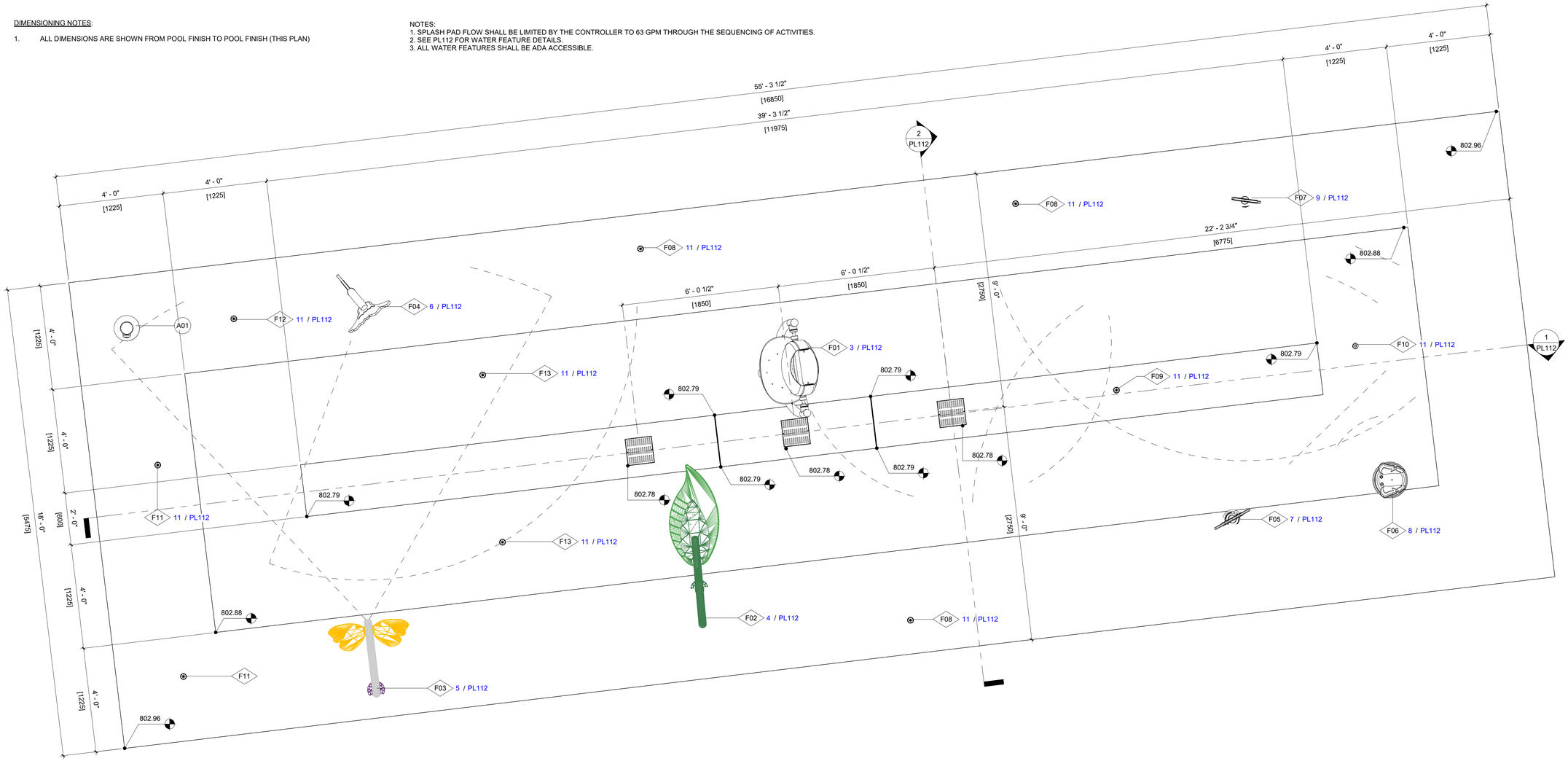
LEGEND - FINISHES & COLOR CODES - POOL A

AREA	FINISHES		COLORS		NOTES
	FINISH ID	FINISH	COLOR ID	COLOR	
SPLASH PAD SURFACE	LB	LIGHT BROOM	C01	AS SELECTED BY ARCHITECT	BASE-BID
SPLASH PAD SURFACE	LF	LIFE FLOOR	C01	AS SELECTED BY ARCHITECT	ADD-ALTERNATE

DIMENSIONING NOTES:

1. ALL DIMENSIONS ARE SHOWN FROM POOL FINISH TO POOL FINISH (THIS PLAN)

NOTES:
1. SPLASH PAD FLOW SHALL BE LIMITED BY THE CONTROLLER TO 63 GPM THROUGH THE SEQUENCING OF ACTIVITIES.
2. SEE PL112 FOR WATER FEATURE DETAILS.
3. ALL WATER FEATURES SHALL BE ADA ACCESSIBLE.



1 | POOL A - SPLASH PAD
PL110 | PLAN VIEW
1/2" = 1'-0"

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Town of Huntersville
NORTH CAROLINA

WAYMER SPLASH PAD

DD SUBMITTAL
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA PROFESSIONAL
SEAL
035471
ENGINEER
BRIAN W. FREBER
2/21/2025

REVISIONS

NO. DATE

PLAN INFORMATION

PROJECT NO.	24477
FILENAME	
CHECKED BY	**HAC**
DRAWN BY	**T.ED**
SCALE	SEE DRAWING REFERENCE
DATE	02/21/2025

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POOL A - SPLASH PAD PLANS

PL110

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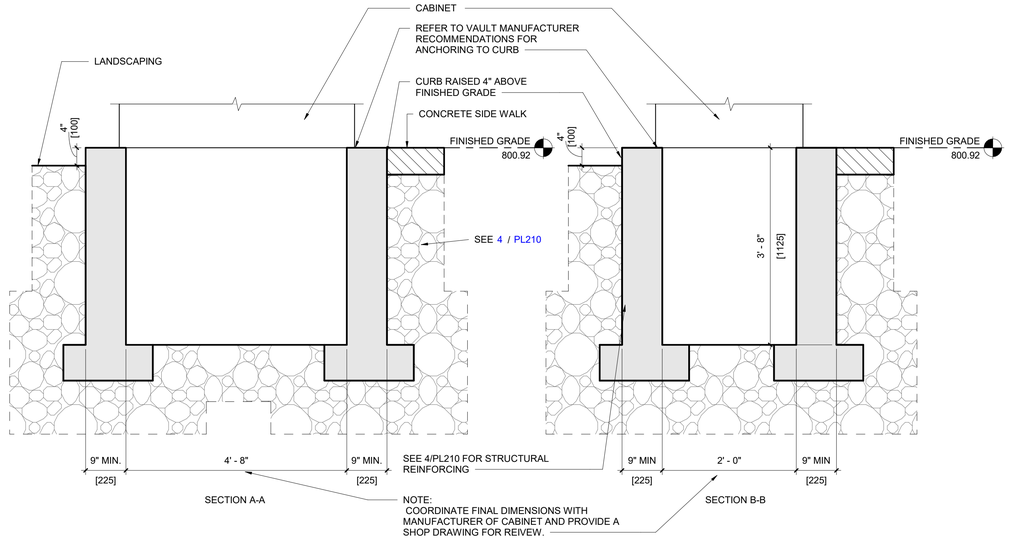
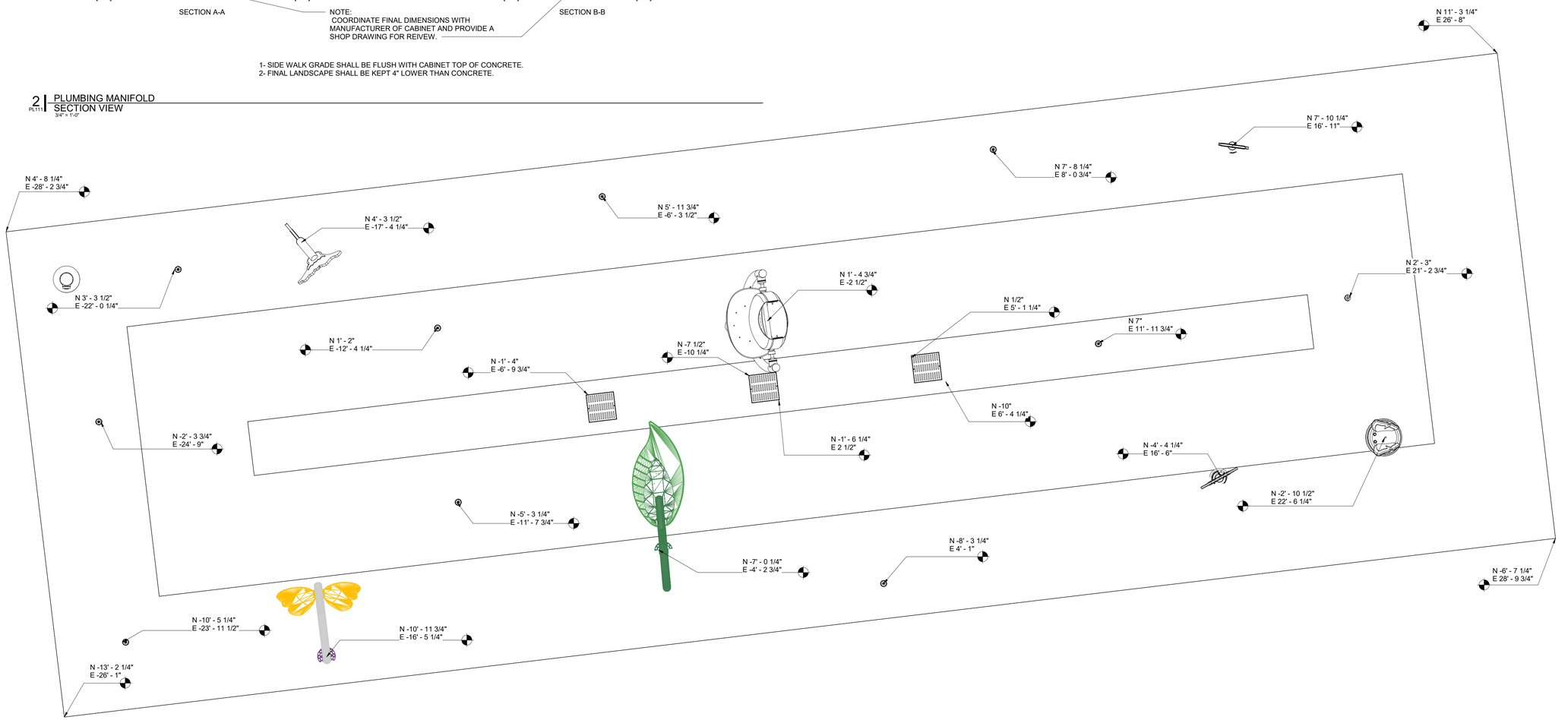


1- SIDE WALK GRADE SHALL BE FLUSH WITH CABINET TOP OF CONCRETE.
2- FINAL LANDSCAPE SHALL BE KEPT 4" LOWER THAN CONCRETE.

2 PL111 PLUMBING MANIFOLD SECTION VIEW
3/4" = 1'-0"



1 PL111 POOL A - SPLASH PAD FEATURE DIMENSION PLAN VIEW
1/2" = 1'-0"

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POOL A - SPLASH PAD FEATURE DIMENSION PLAN

PL111

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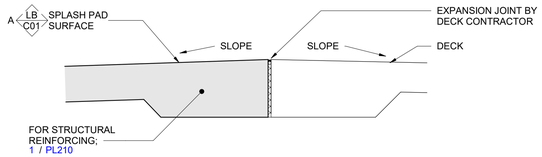
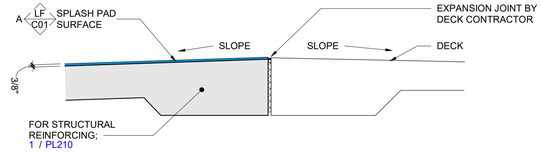
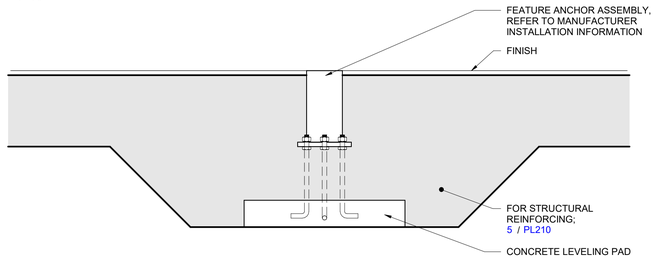




NOTES:
1. LIFEFLOOR "RIPPLE" TEXTURE, 3/8" THICK TILE REQUIRED.
2. SPLASH PAD CONCRETE SHALL BE RECESSED 1/4" FOR 3/8" THICK LIFEFLOOR TILE INSTALLATION.
3. INSTALL CONCRETE WITH A SLOPED SMOOTH TROWELED FINISH MEETING LIFEFLOOR TOLERANCE REQUIREMENTS.

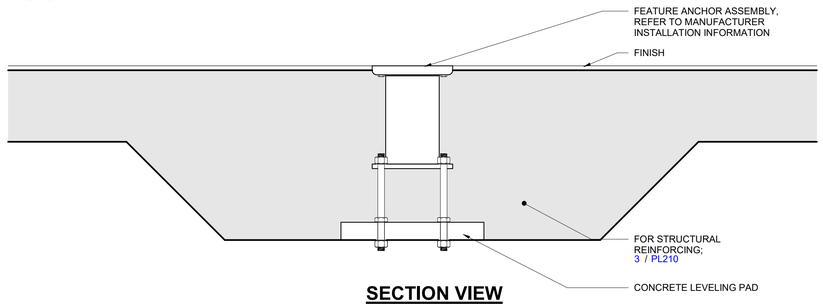
10 | PL112 SPLASH PAD EDGE DETAIL VIEW
1" = 1'-0"



SECTION VIEW

NOTES:
1. FOR COMPLETE INSTALL DETAILS REFER TO WATERPLAY ASSEMBLY DOCUMENTS.

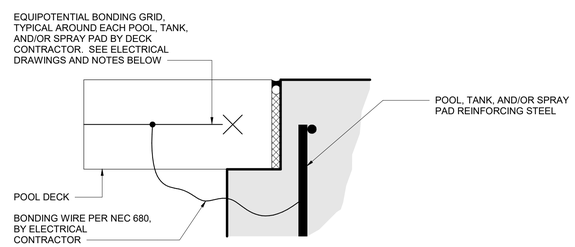
11 | PL112 ACTIVITY INSTALLATION - GROUND SPRAY BASE PLAN VIEW
1 1/2" = 1'-0"



SECTION VIEW

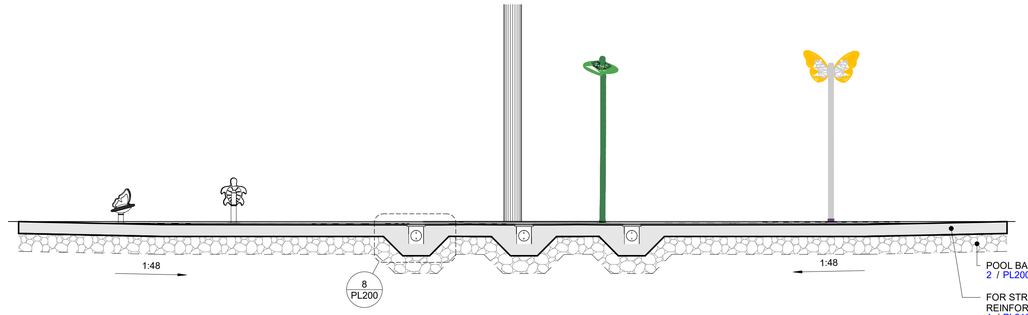
NOTES:
1. FOR COMPLETE INSTALL DETAILS REFER TO WATERPLAY ASSEMBLY DOCUMENTS.

12 | PL112 ACTIVITY INSTALLATION - PLAYPHASE BASE PLAN VIEW
1 1/2" = 1'-0"

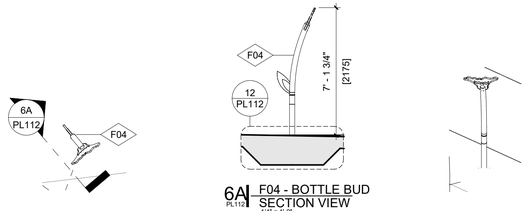


NOTES:
1. THIS DETAIL IS INTENDED TO ILLUSTRATE THE EQUIPOTENTIAL BONDING GRID AROUND EACH POOL, TANK, AND/OR SPRAY PAD AS REQUIRED BY NEC 680.
2. THE GRID SHALL CONFORM TO ALL NEC 680 REQUIREMENTS.
3. PER NEC 680, THE GRID SHALL:
   3.a. COMPLETELY SURROUND THE PERIMETER OF THE POOL, TANK, AND/OR SPRAY PAD AND EXTEND 3 FEET HORIZONTALLY FROM THE INSIDE WALLS OF THE POOL, AND/OR TANK, OR PERIMETER EXPANSION JOINT AT SPRAY PADS.
   3.b. BE ARRANGED IN A 12" X 12" (OR LESS) NETWORK OF CONDUCTORS IN A UNIFORMLY SPACED PATTERN.
   3.c. BE BONDED TO THE POOL, TANK, AND/OR SPRAY PAD REINFORCING STEEL.
4. THIS DETAIL IS NOT INTENDED TO DETAIL THE WALLS, SLABS, OR THE DECKS. THE ABOVE DETAIL IS SCHEMATIC. SEE POOL, TANK, AND/OR SPRAY PAD SECTIONS AND DECK SECTIONS FOR ADDITIONAL CONSTRUCTION REQUIREMENTS.
5. SEE POOL, TANK, AND/OR SPRAY PAD ELECTRICAL DRAWINGS FOR ADDITIONAL BONDING & GROUNDING REQUIREMENTS.

13 | PL112 POOL EQUIPOTENTIAL BONDING GRID DETAIL VIEW
3" = 1'-0"

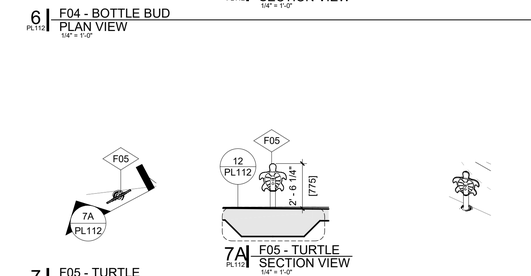


1 | PL112 POOL A - SPLASH PAD SECTION VIEW
1/4" = 1'-0"



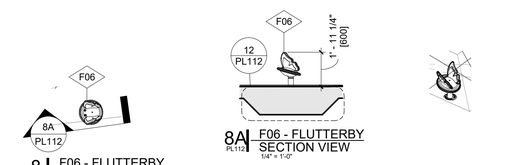
6 | PL112 F04 - BOTTLE BUD PLAN VIEW
1/4" = 1'-0"

6A | PL112 F04 - BOTTLE BUD SECTION VIEW
1/4" = 1'-0"



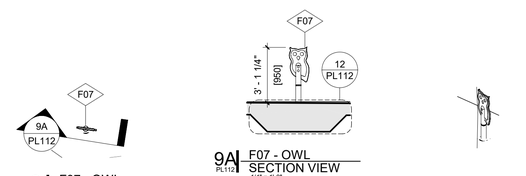
7 | PL112 F05 - TURTLE PLAN VIEW
1/4" = 1'-0"

7A | PL112 F05 - TURTLE SECTION VIEW
1/4" = 1'-0"



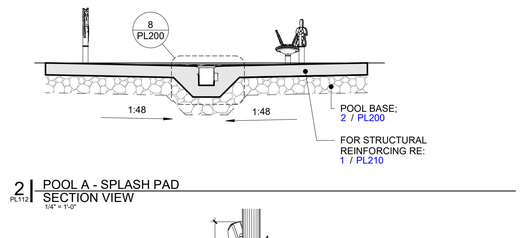
8 | PL112 F06 - FLUTTERBY PLAN VIEW
1/4" = 1'-0"

8A | PL112 F06 - FLUTTERBY SECTION VIEW
1/4" = 1'-0"

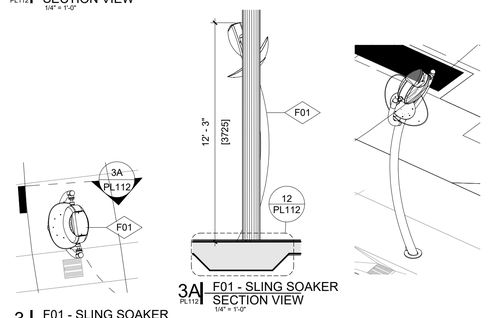


9 | PL112 F07 - OWL PLAN VIEW
1/4" = 1'-0"

9A | PL112 F07 - OWL SECTION VIEW
1/4" = 1'-0"

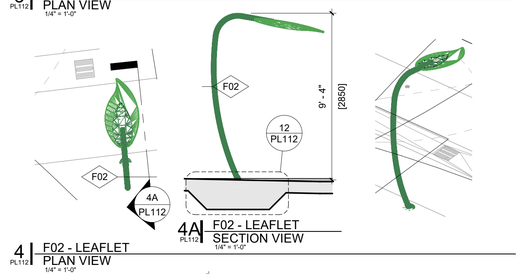


2 | PL112 POOL A - SPLASH PAD SECTION VIEW
1/4" = 1'-0"



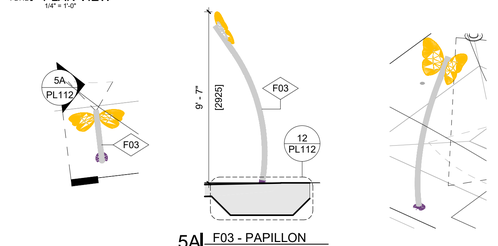
3 | PL112 F01 - SLING SOAKER PLAN VIEW
1/4" = 1'-0"

3A | PL112 F01 - SLING SOAKER SECTION VIEW
1/4" = 1'-0"



4 | PL112 F02 - LEAFLET PLAN VIEW
1/4" = 1'-0"

4A | PL112 F02 - LEAFLET SECTION VIEW
1/4" = 1'-0"



5 | PL112 F03 - PAPILLON PLAN VIEW
1/4" = 1'-0"

5A | PL112 F03 - PAPILLON SECTION VIEW
1/4" = 1'-0"

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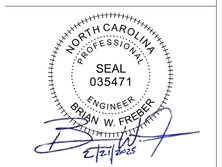

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DRAWN BY	T.ED
SCALE	SEE DRAWING REFERENCE
DATE	02/21/2025

SHEET

POOL A - SPLASH PAD SECTION AND DETAILS

PL112

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DESIGN IS IN ACCORDANCE WITH THE 2018 NORTH CAROLINA STATE BUILDING CODE AND THE 2015 INTERNATIONAL BUILDING CODE AS AMENDED TO DATE.

NOTE

STRUCTURAL DRAWINGS AND POOL DRAWINGS MUST BE USED IN CONJUNCTION WITH EACH OTHER. POOL DRAWINGS DICTATE ALL FINAL CONDITIONS OF POOL, FEATURES, AND DIMENSIONS OF POOL SHELL, INCLUDING POOL FINISH. UNLESS OTHERWISE INDICATED, STRUCTURAL DIMENSIONS ARE CONCRETE TO CONCRETE, AND DICTATE REQUIRED THICKNESSES FOR STRUCTURAL INTEGRITY ONLY.

GEOTECHNICAL PARAMETERS

SOIL PARAMETERS FOR POOL STRUCTURAL DESIGN

1. POOL DESIGNED FOR EMPTY AND FULL CONDITIONS.
2. ALL SOIL PARAMETERS FOR THE POOL STRUCTURAL DESIGN ARE BASED UPON RECOMMENDATIONS FROM THE GEOTECHNICAL REPORT BY ECS SOUTHEAST, LLC, DATED OCTOBER 29, 2024. SUBGRADE PREPARATION OF THE SOILS BELOW THE POOL BASE LAYER IS THE RESPONSIBILITY OF THE CONTRACTOR PREPARING THE REMAINDER OF THE SITE AND SHALL BE EXECUTED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. OVER EXCAVATION OF UNSUITABLE SOILS IS REQUIRED PER THE GEOTECHNICAL ENGINEER. SUBGRADE BELOW POOL BASE SHALL BE PITCHED TO DRAIN OUTWARD FROM CENTER OF SPLASH PAD. REFER TO DETAIL 2 / PL210.
3. ASSUMED NET ALLOWABLE SOIL BEARING CAPACITY = 1500 PSF
4. ASSUMED SETTLEMENT AND/OR PVR FOR THE POOL DOES NOT EXCEED 1/2" TOTAL MOVEMENT AND 1/4" DIFFERENTIAL MOVEMENT.

STRUCTURAL AND REINFORCEMENT NOTES

STRUCTURAL NOTES

1. REINFORCEMENT AT WALL CORNERS AND WALL BENDS SHALL BE DETAILED PER THE ASSOCIATED TYPICAL DETAILS. CORNER AND BEND BARS SHALL BE THE SAME SIZE AND SPACING AS THE TYPICAL HORIZONTAL WALL REINFORCING OF THE ASSOCIATED WALLS.
2. UNLESS OTHERWISE INDICATED, ALL WALL REINFORCEMENT BARS SHALL BE CONTINUOUS AROUND CORNERS. REINFORCEMENT SHALL BE EXTENDED INTO CONNECTING WALLS. UNLESS OTHERWISE INDICATED, CONTRACTOR MAY SPLICE CONTINUOUS SLAB BARS AT LOCATIONS OF THEIR CHOOSING, EXCEPT THAT TOP BAR SPLICES SHALL BE LOCATED AT MID-SPAN AND BOTTOM BAR SPLICES SHALL BE LOCATED AT SUPPORTS. ALL REINFORCEMENT BENDS AND LAPS, UNLESS OTHERWISE INDICATED, SHALL SATISFY THE MINIMUM REQUIREMENTS FOR CLASS B SPLICES.
3. FOR REINFORCEMENT AT WALL OR FLOOR SLAB PENETRATIONS, SEE 7 / PL200
4. MINIMUM POURED CONCRETE DESIGN STRENGTH = 4500 PSI, MINIMUM SHOTCRETE DESIGN STRENGTH = 5000 PSI

REINFORCEMENT NOTES: 60KSI, A615, DEFORMED BARS

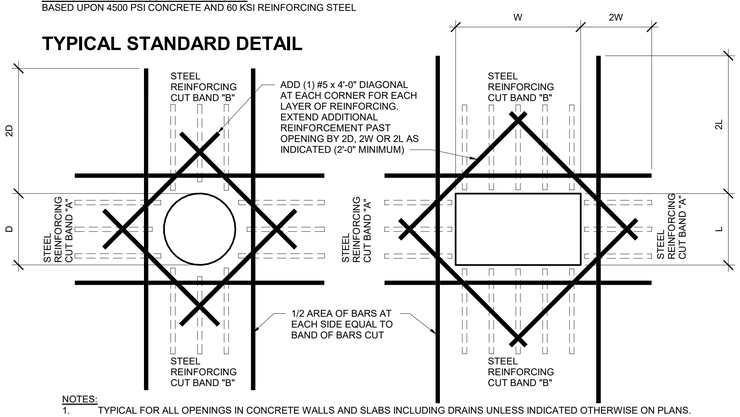
1. REINFORCEMENT SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH ACI "MANUAL OF CONCRETE PRACTICE", LATEST EDITION, UNLESS OTHERWISE NOTED.
2. ALL LAPS SHALL BE CLASS "B" PER ACI 318 UNLESS OTHERWISE NOTED ON THE DESIGN DRAWINGS. USE TOP BAR LAP LENGTHS FOR ALL HORIZONTAL WALL BARS AND FOR TOP BARS IN SLABS AND BEAMS OVER 14" DEEP
3. LAP LENGTH SHALL BE SPECIFICALLY NOTED ON PLACING DRAWINGS WHERE MORE THAN ONE BAR MAKES UP A CONTINUOUS STRING.
4. TIE POOL REINFORCING STEEL WITH 18-GAUGE ANNEALED WIRE AS SPECIFIED IN THE CRSI 63 RECOMMENDED PRACTICE FOR PLACING REINFORCING BARS. ALL TIE WIRES SHALL BE "MADE TIGHT" FOR ELECTRICAL BONDING PURPOSES, AS REQUIRED PER 13 / PL112.
5. ALL HOOKS SHALL BE STANDARD HOOKS UNLESS NOTED OTHERWISE.
6. REINFORCING IN SINGLE MAT SECTIONS SHALL BE CENTERED IN THE SECTION, UNLESS SHOWN OTHERWISE IN DETAILS.

REINFORCING STEEL MINIMUM CLEAR COVER REQUIREMENTS
COORDINATE WITH REINFORCEMENT STEEL PLACING REQUIREMENTS

1. 3" FOR CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH
2. 2" TYPICAL ALL ELSE, UNLESS NOTED OTHERWISE ON DETAILS

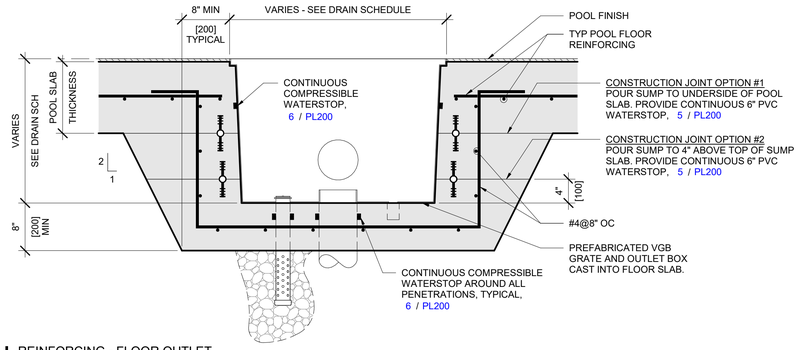
REINFORCEMENT CLASS "B" LAP LENGTHS
BASED UPON 4500 PSI CONCRETE AND 60 KSI REINFORCING STEEL

TYPICAL STANDARD DETAIL

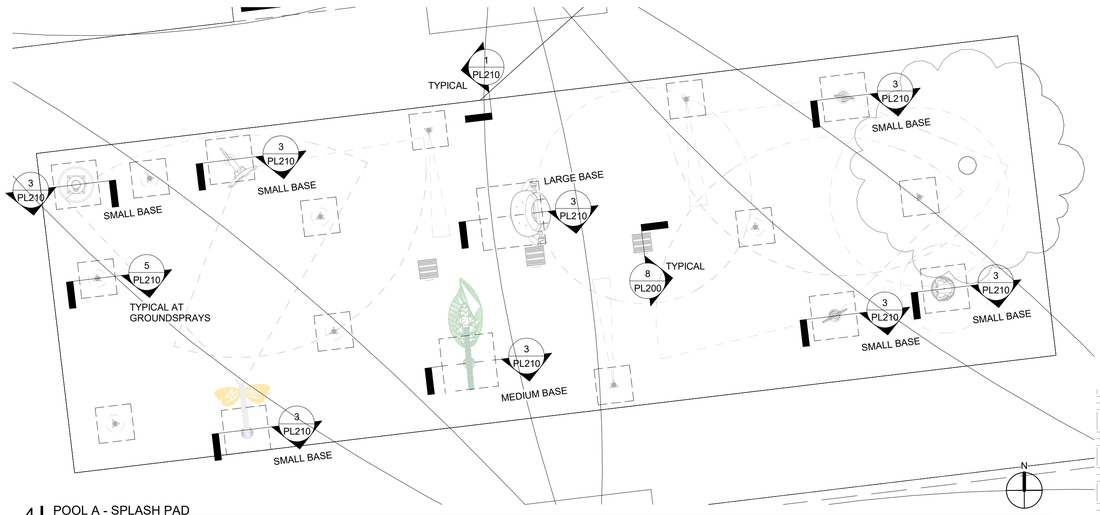


NOTES:
1. TYPICAL FOR ALL OPENINGS IN CONCRETE WALLS AND SLABS INCLUDING DRAINS UNLESS INDICATED OTHERWISE ON PLANS.
2. DO NOT WELD REINFORCEMENT TO PIPE SLEEVES AND INSERTS.
3. ALL OPENINGS THROUGH WATERTIGHT TANK REQUIRE WATERSTOPS.
4. PROVIDE MINIMUM LAP AS NOTED OR SHOWN ON PLANS (TYPICAL).

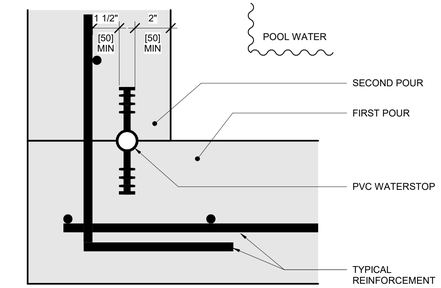
7 PL200 | REINFORCING - REINFORCEMENT AT OPENINGS DETAIL VIEW
NTS



8 PL200 | REINFORCING - FLOOR OUTLET DETAIL VIEW
NOT TO SCALE



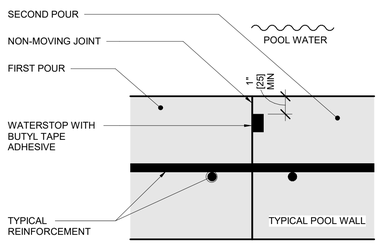
4 PL200 | POOL A - SPLASH PAD PLAN VIEW
1/4" = 1'-0"



SECTION B-B FLOOR / WALL JOINT

NOTES:
1. DETAIL IS SCHEMATIC AND INDICATES CLEARANCES AND INSTALLATION INFORMATION ONLY. FOR APPLICABLE INSTALLATION LOCATIONS SEE POOL STRUCTURAL DETAILS.
2. WATERSTOP SHALL BE 6" PVC RIBBED WITH 1" DIA CENTERBULB UNLESS NOTED OTHERWISE.
3. INSTALL WATERSTOP ON WET SIDE(S) OF REINFORCEMENT.
4. ALL WATERSTOPS SHALL BE WELDED PER MANUFACTURER'S REQUIREMENTS.
5. SPACING BETWEEN REINFORCING STEEL AND WATERSTOP SHALL BE NO LESS THAN 1.5 x DIA OF THE LARGEST AGGREGATE IN THE APPROVED CONCRETE MIX.
6. SEE SPECIFICATION SECTION 131120 FOR ADDITIONAL WATERSTOP REQUIREMENTS.

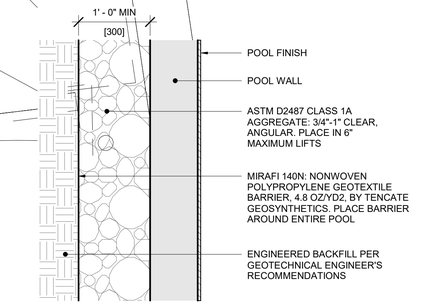
5 PL200 | WATERSTOP - PVC DETAIL VIEW
NOT TO SCALE



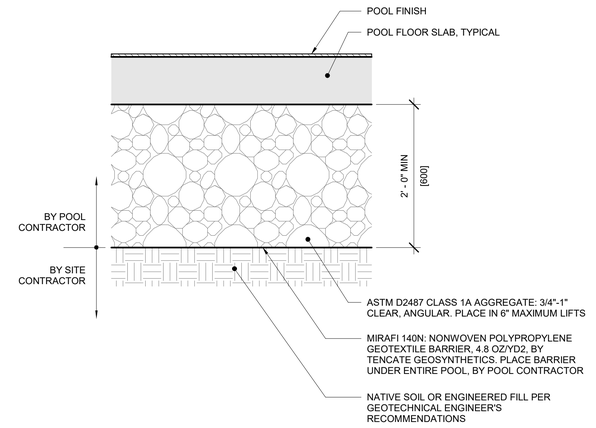
SECTION A-A: WALL / WALL JOINT OR FLOOR/FLOOR JOINT

NOTE:
1. DETAIL IS SCHEMATIC AND INDICATES CLEARANCES AND INSTALLATION INFORMATION ONLY. FOR APPLICABLE INSTALLATION LOCATIONS SEE POOL STRUCTURAL DETAILS.
2. BASIS OF DESIGN IS TYPE KBA-1510FP WATERSTOP BY ADEKA. SUBSTITUTIONS MUST BE APPROVED BY ENGINEER. NOTE THAT CLEARANCES FOR SUBSTITUTIONS MAY DIFFER. REFER TO MANUFACTURER REQUIREMENTS.
3. INSTALL WATERSTOP ON WET SIDE(S) OF REINFORCEMENT.
4. DIMENSION ABOVE IS A MIN FOR CONCRETE COVERAGE AND DOES NOT INCLUDE THE POOL FINISH. PROVIDE ADDITIONAL CONCRETE COVERAGE IF POSSIBLE.
5. PROTECT WATERSTOP FROM WATER, DIRT, DEBRIS, AND DAMAGE PRIOR TO COVERING WITH CONCRETE.
6. SEE SPECIFICATION SECTION 131120 FOR ADDITIONAL WATERSTOP REQUIREMENTS.

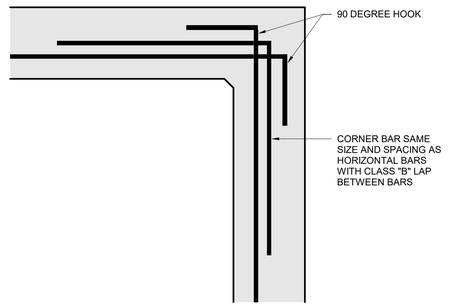
6 PL200 | WATERSTOP - COMPRESSIBLE NON-MOVING JOINT - ADEKA DETAIL VIEW
NOT TO SCALE



1 PL200 | POOL WALL BACKFILL DETAIL VIEW
NOT TO SCALE



2 PL200 | FLOOR SUB BASE DETAIL VIEW
NOT TO SCALE



3 PL200 | REINFORCING - SINGLE MAT REINFORCING AT CORNER DETAIL VIEW
NOT TO SCALE

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WAYMER SPLASH PAD
DD SUBMITTAL
14200 HOLBROOKS ROAD
HUNTERSVILLE, NC 28078

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040050 2/21/2025 ENGINEERING LORI L. ROSENTHAL

REVISIONS

NO.	DATE

PLAN INFORMATION

PROJECT NO.	24477
FILENAME	
CHECKED BY	SAC
DRAWN BY	AMZ
SCALE	SEE DRAWING REFERENCE
DATE	02/21/2025

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STRUCTURAL NOTES, PLAN(S) AND SCHEDULE

PL200

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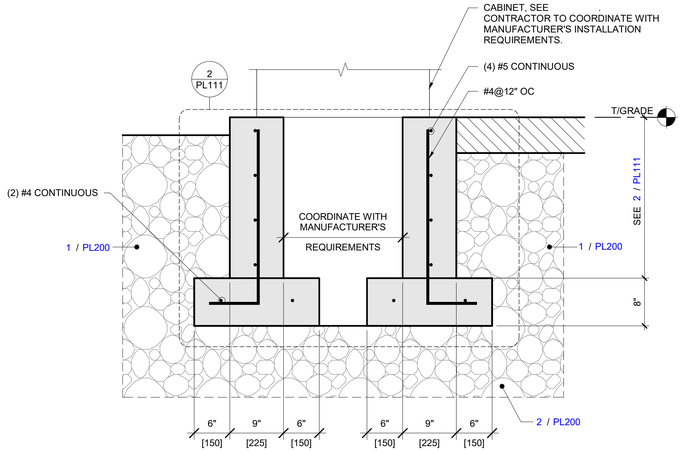
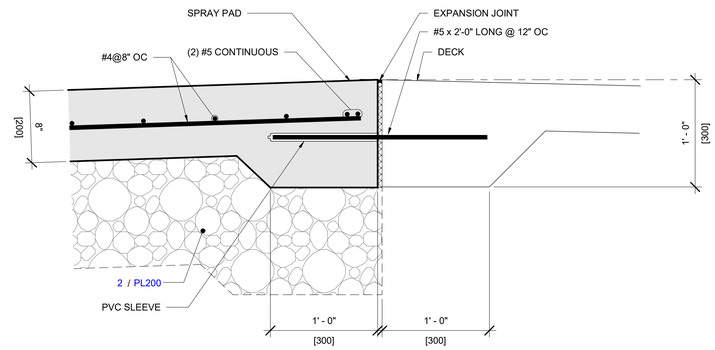
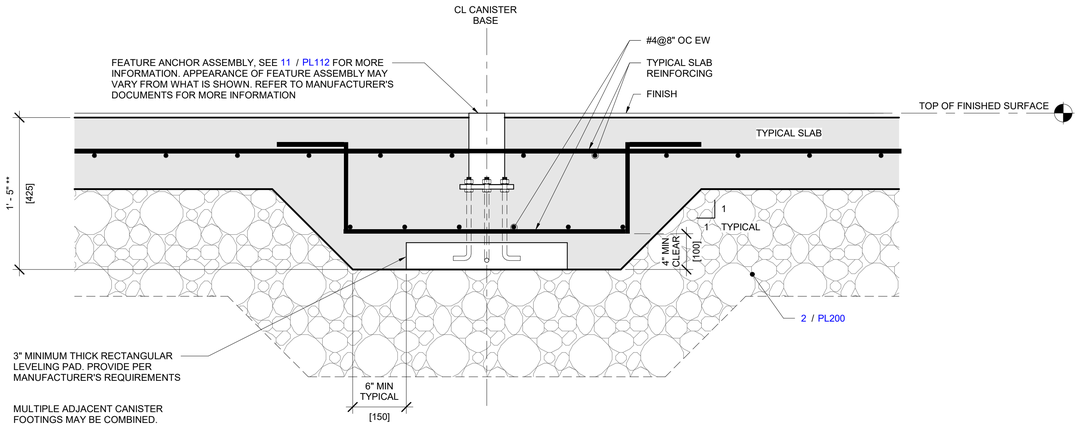


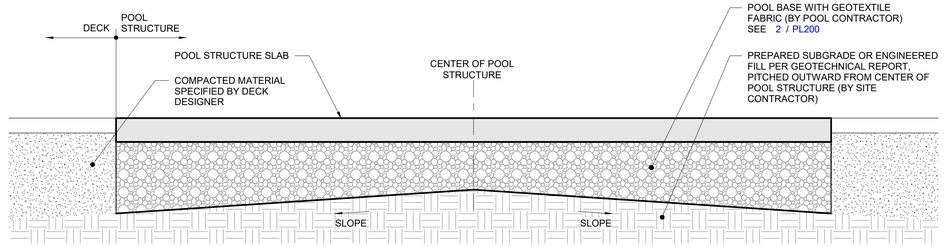
4 PL210 REINFORCING - VAULT DETAIL VIEW
1" = 1'-0"



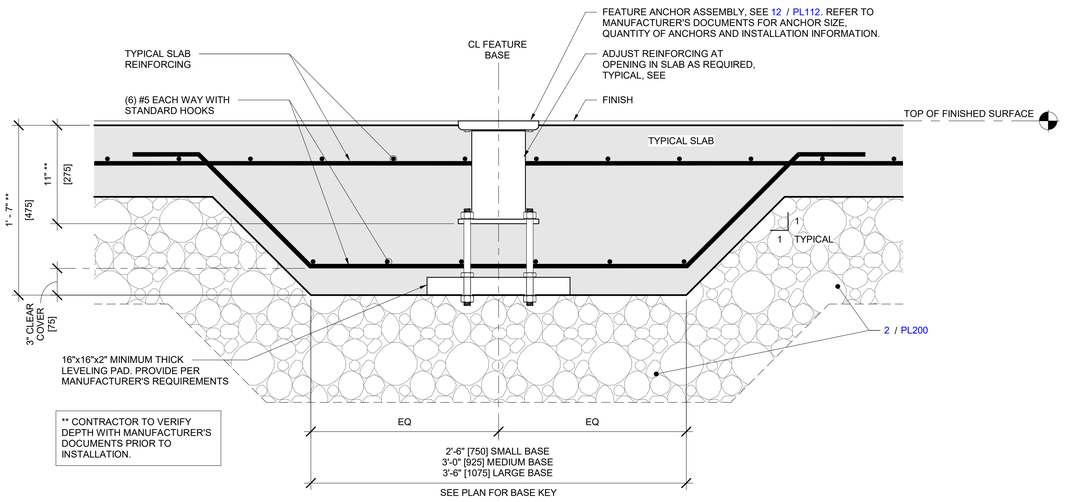
1 PL210 REINFORCING - SPRAY PAD EDGE DETAIL VIEW
1 1/2" = 1'-0"



5 PL210 REINFORCING - WATERPLAY GROUNDSPRAY BASE DETAIL VIEW
1 1/2" = 1'-0"



2 PL210 SLOPED SUBGRADE SCHEMATIC DETAIL VIEW
1/2" = 1'-0"



3 PL210 REINFORCING - WATERPLAY PLAYPHASE BASE DETAIL VIEW
1 1/2" = 1'-0"

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STRUCTURAL DETAILS

PL210

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THE FOLLOWING NOTES APPLY TO SPLASHPAD PIPING PLANS:

1. THE PIPING LAYOUTS ON THIS DRAWING ARE SCHEMATIC AND FOR REFERENCE ONLY. PIPING AS SHOWN AS SPREAD OUT FOR CLARITY. CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING FINAL PIPE ROUTING AND ELEVATIONS.
2. REDUCE THE USE OF FITTINGS AND LONG PIPE RUNS TO MINIMIZE HEAD LOSS IN THE SYSTEM.
3. ALL PIPING SHALL BE INSTALLED IN A PIPE TRENCH WITH BEDDING AND COVER MATERIALS PER SPECIFICATIONS. PIPING MAY BE STACKED IN THE PIPE TRENCH.
4. ARROWS DENOTE DIRECTION OF FLOW.
5. REFER TO ALL DISCIPLINES DOCUMENTATION AND COORDINATE ALL PIPING AND EMBEDMENTS WITH AFFECTED TRADES.
6. ALL GRAVITY PIPING SHALL BE INSTALLED AT A MINIMUM SLOPE OF 1" DROP PER 10' LENGTH. ALL OUTDOOR PIPING SHALL BE INSTALLED WITH A SLOPE TO ALLOW COMPLETE DRAINING OR THE ABILITY TO BLOW OUT THE LINES AND ISOLATE THEM FOR WINTERIZATION. PROVIDE WINTERIZING/DRAINING INSTRUCTIONS AND SCHEMATICS TO OWNER.
7. CONTRACTOR SHALL USE SWING JOINTS OR OTHER MEANS AND METHODS AS REQUIRED TO PROVIDE FEATURES FLUSH AND PLUMB AND AS REQUIRED FOR WINTERIZATION.

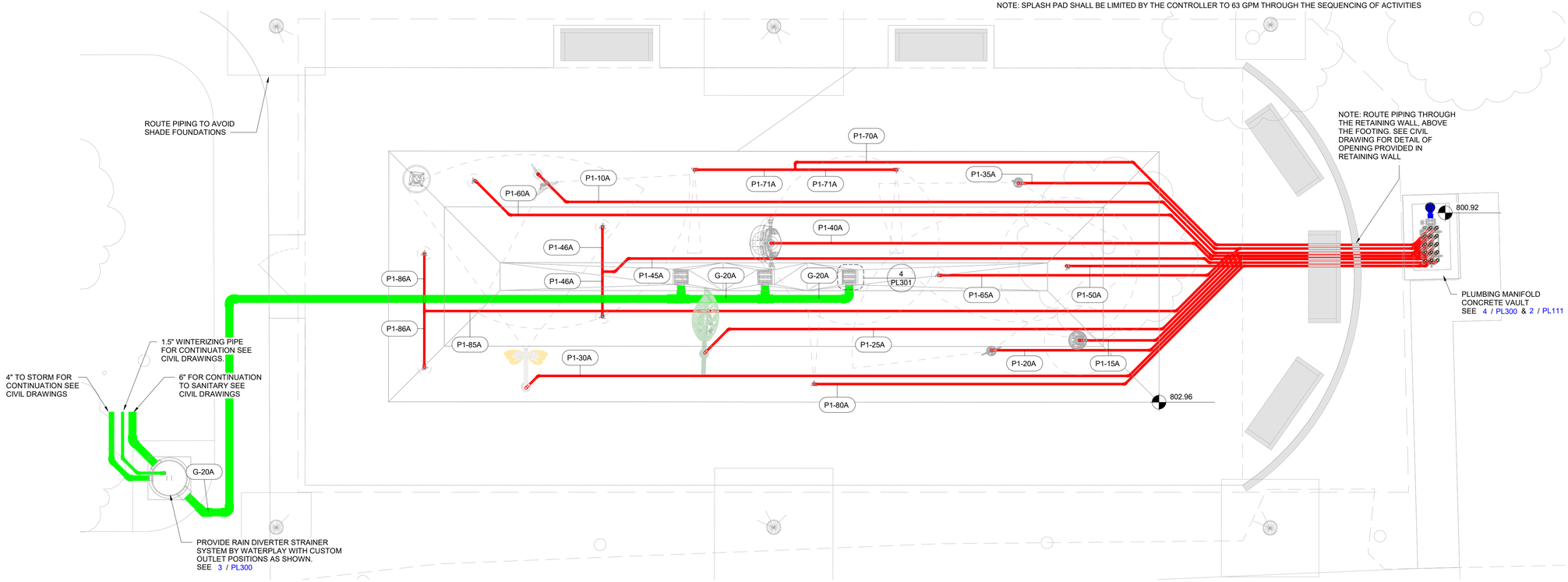
PIPING LEGEND

PIPE DESCRIPTION	PIPE COLOR
ACTIVITY SUPPLY:	
GRAVITY:	

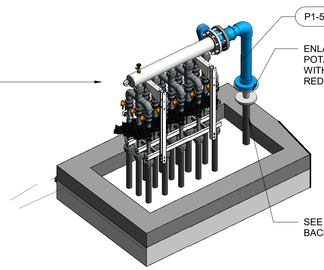
POOL A - SPLASH PAD PIPE SCHEDULE

PIPE ID	TYPE	NPS (in)	FLOW (gpm)	VELOCITY (fps)	DESCRIPTION
G-20A	PVC SCH 40	6	63	1.9	DRAIN
-	-	-	-	-	-
P1-5A	PVC SCH 80	3	63	3.1	POTABLE WATER CONNECTION
-	-	-	-	-	-
P1-10A	PVC SCH 80	1.5	1	0.2	BOTTLE BUD
-	-	-	-	-	-
P1-15A	PVC SCH 80	1.5	1	0.2	FLUTTERBY
-	-	-	-	-	-
P1-20A	PVC SCH 80	1.5	2	0.4	TURTLE
-	-	-	-	-	-
P1-25A	PVC SCH 80	1.5	8	1.5	LEAFLET
-	-	-	-	-	-
P1-30A	PVC SCH 80	1.5	11	2.1	PAPILLION
-	-	-	-	-	-
P1-35A	PVC SCH 80	1.5	2	0.4	OWL
-	-	-	-	-	-
P1-40A	PVC SCH 80	1.5	20	3.7	SLING SOAKER
-	-	-	-	-	-
P1-45A	PVC SCH 80	1.5	14	2.6	BUTTERCUP
P1-46A	PVC SCH 80	1.5	7	1.3	BUTTERCUP
-	-	-	-	-	-
P1-50A	PVC SCH 80	1.5	2	0.4	MISTY MOUNTAIN
-	-	-	-	-	-
P1-60A	PVC SCH 80	1.5	10	1.9	MONSTER 5
-	-	-	-	-	-
P1-65A	PVC SCH 80	1.5	5	0.9	STARLET
-	-	-	-	-	-
P1-70A	PVC SCH 80	1.5	6	1.1	THE WAVE
P1-71A	PVC SCH 80	1.5	3	0.6	THE WAVE
-	-	-	-	-	-
P1-80A	PVC SCH 80	1.5	3	0.6	THE WAVE
-	-	-	-	-	-
P1-85A	PVC SCH 80	1.5	12	2.2	TULIP
P1-86A	PVC SCH 80	1.5	6	1.1	TULIP

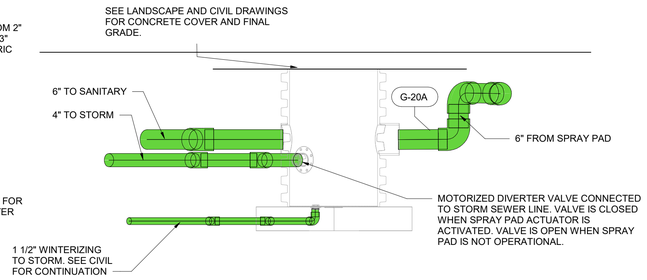
NOTE: SPLASH PAD SHALL BE LIMITED BY THE CONTROLLER TO 63 GPM THROUGH THE SEQUENCING OF ACTIVITIES



2 PL300 | POOL A PIPING PLAN
PLAN VIEW
1/4" = 1'-0"



4 PL300 | MANIFOLD DETAIL



3 PL300 | RAIN DIVERTER SECTION VIEW
1/2" = 1'-0"

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NORTH CAROLINA PROFESSIONAL SEAL 035471 ENGINEER BRIAN W. FREBER
2/21/2025

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OVERALL PIPING PLAN

PL300

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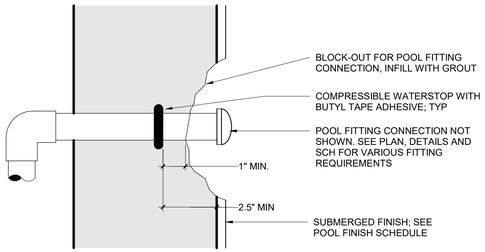
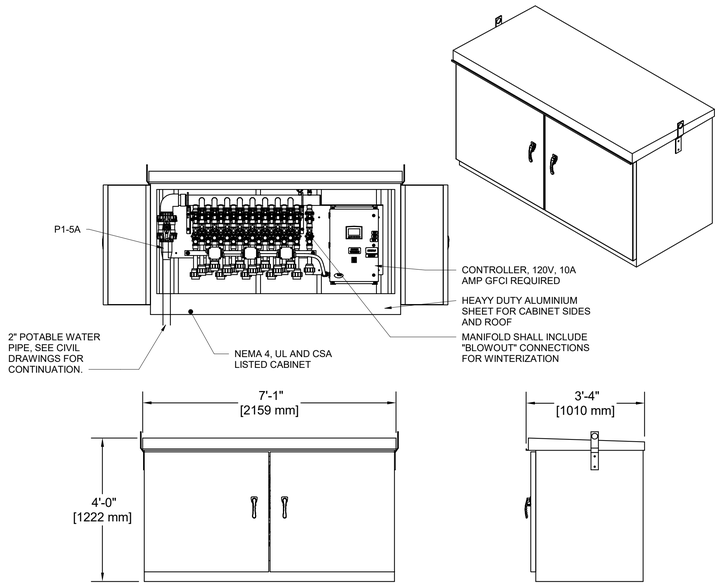


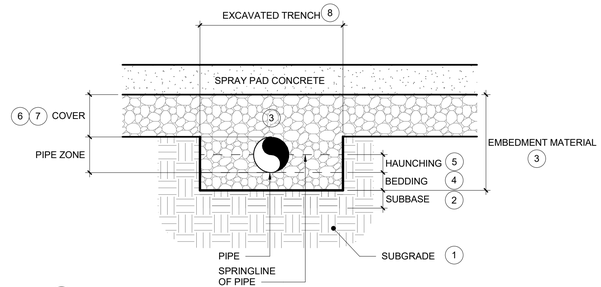
FLOOR / WALL SECTION

NOTES:
1. DETAIL ILLUSTRATES COMPRESSIBLE WATERSTOP FOR PIPE PENETRATIONS THROUGH POOL SHELL. SEE PIPING PLANS AND DETAILS FOR APPLICABLE INSTALLATION LOCATIONS.
2. BASIS OF DESIGN FOR 6" OD PIPES OR LARGER IS TYPE KBA-1510FP COMPRESSIBLE WATERSTOP BY ADEKA. FOR PIPES SMALLER THAN 6" OD USE SYNKOFLEX FLEXIBLE WATERSTOP. SUBSTITUTIONS MUST BE APPROVED BY ENGINEER.
3. DIMENSION ABOVE IS A MIN FOR CONCRETE COVERAGE AND DOES NOT INCLUDE THE POOL FINISH. PROVIDE ADDITIONAL CONCRETE COVERAGE IF POSSIBLE.
4. PROTECT WATERSTOP FROM WATER, DIRT, DEBRIS, AND DAMAGE PRIOR TO COVERING WITH CONCRETE.
5. SEE SPECIFICATION SECTION 131120 FOR ADDITIONAL WATERSTOP REQUIREMENTS.
6. STEEL REINFORCEMENT OMITTED FOR CLARITY. SEE STRUCTURAL DETAILS FOR TYPICAL WALL/FLOOR REINFORCING STEEL REQUIREMENTS AND STEEL REQUIREMENTS AROUND PIPE PENETRATIONS. SPACING BETWEEN REINFORCING STEEL AND WATERSTOP SHALL BE NO LESS THAN 1.5xDIAMETER OF THE LARGEST AGGREGATE IN THE APPROVED CONCRETE MIX. INSTALL WATERSTOP ON POOL FINISH SIDE OF REINFORCING STEEL.

5 PL301 | WATERSTOP DETAIL - TYPICAL POOL PIPE PENETRATION
DETAIL VIEW
NOT TO SCALE



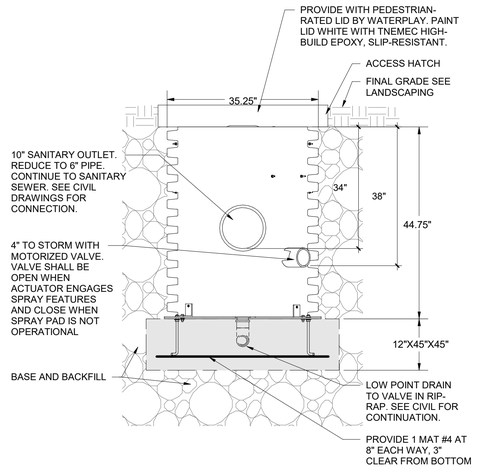
3 PL301 | VALVE CABINET
DETAIL VIEW
NOT TO SCALE



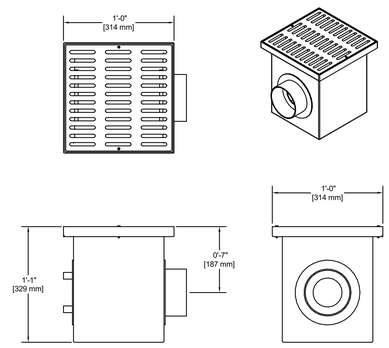
(#) KEY NOTES:
1. SUBGRADE: MINIMIZE DISTURBANCE OF EXISTING SOILS ON SIDES AND BELOW PIPE TRENCH DURING EXCAVATION. CLEAR SUBGRADE OF LARGE STONES & ORGANIC MATERIALS.
2. SUBBASE MATERIALS: REQUIRED ONLY IF EXISTING SUBGRADE CONTAINS UNSUITABLE SOILS AND/OR DOES NOT MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT FOR UTILITY TRENCHES.
3. EMBEDMENT MATERIALS: ASTM D2487 CLASS 1A OR 1B AGGREGATE, 1.5" MAXIMUM SIZE.
4. BEDDING: MINIMUM 6 INCH THICK AGGREGATE LAYER.
5. HAUNCHING: PLACE AND COMPACT HAUNCHING MATERIALS UNDER AND AROUND PIPE/S UP TO THE PIPE SPRINGLINE BY HAND TO ASSURE CONTINUOUS AND EFFECTIVE PIPE SUPPORT.
6. COVER: MINIMUM 6 INCHES ABOVE TOP OF PIPE.
7. POOL BEDDING COURSE/SUBBASE. SEE PL200 FOR REQUIREMENTS.
8. TRENCH WIDTH FOR EMBEDMENT MATERIALS: MINIMIZE WIDTH TO 6 - 12" BETWEEN TRENCH WALL AND EDGE OF NEAREST PIPE. ALLOW 6" MINIMUM BETWEEN ADJACENT PIPE WALLS WHEN PLACING MULTIPLE PIPES IN A COMMON TRENCH.

GENERAL NOTES:
A. SEE SPECIFICATIONS SECTION 13 11 20 FOR ADDITIONAL POOL PIPE TRENCH MATERIAL AND INSTALLATION REQUIREMENTS.
B. PLACE ALL PIPE TRENCH MATERIALS IN 6" MAXIMUM LOOSE LIFTS.

1 PL301 | POOL PIPE TRENCH BENEATH POOL FLOOR
DETAIL VIEW
NOT TO SCALE

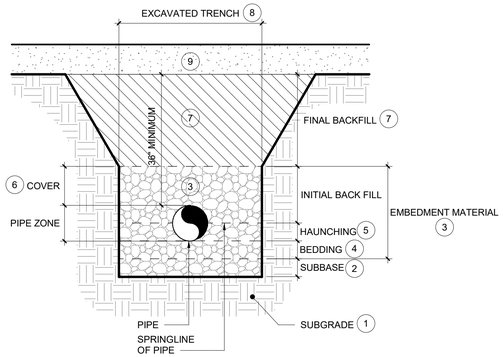


6 PL301 | RAIN DIVERTER
DETAIL VIEW
NOT TO SCALE



NOTE:
1- PROVIDE 12"X12" STAINLESS STEEL SUMPS WITH FLAT HDPE/PEHD DRAIN GRATES AS MANUFACTURED BY WATERPLAY OR EQUAL.
2- ENCASE IN PAD CONCRETE PER DETAIL 5/PL210.

4 PL301 | DRAIN DETAIL
DETAIL VIEW
NOT TO SCALE



(#) KEY NOTES:
1. SUBGRADE: MINIMIZE DISTURBANCE OF EXISTING SOILS ON SIDES AND BELOW PIPE TRENCH DURING EXCAVATION. CLEAR SUBGRADE OF LARGE STONES & ORGANIC MATERIALS.
2. SUBBASE MATERIALS: REQUIRED ONLY IF EXISTING SUBGRADE CONTAINS UNSUITABLE SOILS AND/OR DOES NOT MEET THE REQUIREMENTS OF THE GEOTECHNICAL REPORT FOR UTILITY TRENCHES.
3. EMBEDMENT MATERIALS: ASTM D2487 CLASS 1A OR 1B AGGREGATE, 1.5" MAXIMUM SIZE.
4. BEDDING: MINIMUM 6 INCH THICK AGGREGATE LAYER.
5. HAUNCHING: PLACE AND COMPACT HAUNCHING MATERIALS UNDER AND AROUND PIPE/S UP TO THE PIPE SPRINGLINE BY HAND TO ASSURE CONTINUOUS AND EFFECTIVE PIPE SUPPORT.
6. COVER: MINIMUM 6 INCHES ABOVE TOP OF PIPE.
7. FINAL BACKFILL: USE ON-SITE EXISTING SOILS MEETING THE PROJECT GEOTECHNICAL REPORT REQUIREMENTS FOR BACKFILL MATERIALS. DO NOT USE ORGANIC MATERIAL, CLAY, TOPSOIL, OR OTHER DELETERIOUS SUBSTANCES. SLOPE TRENCH EXCAVATION IN FINAL BACKFILL ZONE AS NEEDED.
8. TRENCH WIDTH FOR EMBEDMENT MATERIALS: MINIMIZE WIDTH TO 6" - 12" BETWEEN TRENCH WALL AND EDGE OF NEAREST PIPE. ALLOW 6" MINIMUM BETWEEN ADJACENT PIPE WALLS WHEN PLACING MULTIPLE PIPES IN A COMMON TRENCH.
9. FINAL GRADE MATERIALS: SEE RELATED PROJECT DRAWINGS AND SPECIFICATIONS FOR SOIL MATERIALS AND PLACEMENT REQUIREMENTS AT FINAL GRADE ELEVATIONS (E.G. DECK, CIVIL, LANDSCAPE, ETC. DRAWINGS).

GENERAL NOTES:
A. SEE SPECIFICATIONS SECTION 13 11 20 FOR ADDITIONAL POOL PIPE TRENCH MATERIAL AND INSTALLATION REQUIREMENTS.
B. PLACE ALL PIPE TRENCH MATERIALS IN 6" MAXIMUM LOOSE LIFTS.
C. COORDINATE WITH OTHER TRADES AS NEEDED TO ASSURE FOOTING/FOUNDATIONS ABOVE DO NOT LOAD THE PIPES. MAINTAIN PROPER CLEARANCES TO PREVENT UNDERMINING OF ADJACENT FOOTINGS/FOUNDATIONS.

2 PL301 | POOL PIPE TRENCH
DETAIL VIEW
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 035471 ENGINEER BRIAN W. FREEBER
2/21/2025

REVISIONS

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MECHANICAL NOTES

PL301

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ELECTRICAL LEGEND

ELECTRICAL GENERAL NOTES

1. FOR EXACT LOCATIONS AND SURFACE FINISH CONDITIONS OF CEILINGS, WALLS, OR FLOORS, REFER TO ARCHITECTURAL DRAWINGS.
2. REFER TO HAZARDOUS MATERIALS DRAWINGS FOR LOCATIONS OF HAZARDOUS OR POSSIBLE HAZARDOUS MATERIALS BEFORE PERFORMING ANY WORK ON EXISTING STRUCTURES.
3. FOR EXACT LOCATION OF FACILITY EXPANSION JOINTS, FIRE RATED WALLS, AND SMOKE WALLS, REFER TO ARCHITECTURAL DRAWINGS.
4. FOR EXACT LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS, WATER FLOW SWITCHES, AND TAMPER SWITCHES REFER TO HVAC / FP DRAWINGS.
5. VERIFY EXACT LOCATION OF CONNECTION POINTS PRIOR TO ROUGH-IN.
6. COORDINATE LOCATIONS OF ALL RECEPTACLES AND LUMINAIRES IN MECHANICAL SPACES WITH HVAC CONTRACTOR PRIOR TO ROUGH-IN TO AVOID CONFLICTS WITH EQUIPMENT AND DUCTWORK.
7. MOUNTING HEIGHTS ARE TO CENTER OF DEVICE OR EQUIPMENT UNLESS NOTED OTHERWISE, EXCEPT FOR PENDANT LIGHTING WHICH ARE TO THE BOTTOM OF THE LUMINAIRE. FOR AREAS WITH DIFFERENT FLOOR LEVELS, HEIGHT IS BASED UPON CLOSEST FLOOR OR LANDING TO DEVICE, EQUIPMENT, OR LUMINAIRE. ELEVATIONS GIVEN ON LEGEND SHEET ARE UNLESS NOTED OTHERWISE ON DRAWINGS.
8. PROVIDE RACEWAY, WIRE AND CABLE, ASSOCIATED FITTINGS AND CONNECTORS, AND COMPLETE CONNECTIONS REQUIRED FOR DESIGNATED BRANCH CIRCUITS FROM DEVICE(S) TO FINAL OVERCURRENT DEVICE AND TO LOCAL CONTROL DEVICE(S) PER SPECIFICATIONS.
9. MINIMUM BRANCH CIRCUIT WIRE SIZE SHALL BE #12 AWG. SIZE BRANCH CIRCUIT CONDUCTORS AS PER NEC AND AS SCHEDULED ON THIS DRAWING BASED ON ACTUAL CIRCUIT DISTANCE. INCLUDE GROUND CONDUCTOR DERATINGS.
10. PULL A SEPARATE NEUTRAL CONDUCTOR FOR ALL BRANCH CIRCUITS REQUIRING A NEUTRAL CONNECTION. DERATE CONDUCTORS PER NEC ACCORDINGLY. MULTIWIRE BRANCH CIRCUITS ARE NOT ACCEPTABLE.
11. PROVIDE GROUNDING PER NEC & TIA 607B. PROVIDE GREEN GROUND CONDUCTOR IN ALL BRANCH AND FEEDER CIRCUITS.
12. DO NOT INSTALL ANY NEW WORK DIRECTLY ABOVE ANY ELECTRICAL PANELS, SWITCHBOARDS, SWITCHGEAR, OR TRANSFORMERS.
13. CIRCUIT NUMBERS SHOWN FOR EQUIPMENT TO BE CONNECTED TO EXISTING PANELBOARD(S) IS SHOWN FOR DESIGN INTENT ONLY AND MAY NOT CORRESPOND TO ACTUAL CIRCUIT BREAKER MOUNTING POSITION IN THE PANEL. UPDATE THE RECORD DRAWINGS & PANELBOARD DIRECTORY WITH THE ACTUAL CIRCUIT NUMBERS USED TO CORRESPOND TO THE PANEL DIRECTORY.
14. CONFIRM ALL LABELS AND ROOM NUMBERS WITH OWNER PRIOR TO FINALIZING LABELING AND PROGRAMMING.
15. COORDINATE FINAL OUTLET LOCATION WITH ALL TRADES AND FURNITURE/MILLWORK PLACEMENT PRIOR TO ROUGH-IN. GENERAL CONTRACTOR SHALL PROVIDE ALL DRILLING AND GROMMETING IN FURNITURE/CASEWORK FOR CORD ACCESS IF REQUIRED.
16. INSTALL DATA OUTLETS 6" ADJACENT TO ASSOCIATED ELECTRICAL OUTLET.
17. SWITCHES SHOWN SIDE BY SIDE OR GANGED SHALL BE INSTALLED UNDER A COMMON COVERPLATE, UNLESS NOTED OTHERWISE.
18. PROVIDE FIRESTOPPING AT ALL PENETRATIONS THROUGH FIRE RATED WALLS, FLOORS, CEILINGS, & ROOFS AS CALLED OUT ON ARCHITECTURAL PLANS. PROVIDE ACOUSTICAL SEALANT AT PENETRATIONS THROUGH ALL NON-FIRE RATED WALLS, FLOORS, & CEILINGS.
19. PROVIDE CONDUIT EXPANSION JOINTS AT ALL EXPANSION JOINTS AS CALLED OUT ON ARCHITECTURAL PLANS.
20. ALL ELECTRICAL MATERIALS, DEVICES, APPLIANCES, AND EQUIPMENT SHALL BE NEW AND APPROVED BY THE UNDERWRITER LABORATORY IN EVERY CASE FOR WHICH THEY HAVE ESTABLISHED A STANDARD FOR THE PARTICULAR TYPE OF MATERIAL(S) TO BE INSTALLED, OR SHALL BE LABEL LISTED BY AN EQUIVALENT (NC) APPROVED THIRD-PARTY TESTING AGENCY. 2

ELECTRICAL DEMOLITION GENERAL NOTES

1. REMOVE ALL ELECTRICAL EQUIPMENT ON OR IN EXISTING WALLS, CEILINGS AND PARTITIONS WHICH ARE TO BE DEMOLISHED. WHERE EQUIPMENT IS SCHEDULED TO BE REMOVED, ABANDON CONCEALED RACEWAY AND REMOVE CONDUCTORS BACK TO SOURCE OR LAST SCHEDULED DEVICE TO REMAIN. REMOVE EXPOSED RACEWAY AND CONDUCTORS BACK TO POWER SOURCE OR LAST DEVICE SCHEDULED TO REMAIN IN ALL OTHER AREAS.
2. WHERE EXISTING WALLS ARE TO REMAIN, REMOVE ALL EXPOSED RACEWAYS, SURFACE AND RECESSED OUTLET BOXES, ETC. WHICH ARE NOT TO BE REUSED. WHERE NEW CONDUITS AND OUTLETS ARE TO BE ADDED TO EXISTING WALLS IN FINISHED ROOMS, THEY SHALL BE CONCEALED BY CUTTING AND PATCHING THE WALLS UNLESS OTHERWISE NOTED.
3. UTILIZE EXISTING OUTLET BOXES AND RACEWAY SYSTEMS WHEREVER PRACTICAL IN RENOVATION AREAS. WHERE SUCH EXISTING OUTLET BOXES ARE USED, INSTALL NEW WIRING DEVICES, COVERPLATES, AND WIRING. PROVIDE SPECIAL COVERPLATES TO SUIT FIELD CONDITIONS.
4. REARRANGE EXISTING CONDUITS AND WIRING TO ACCOMMODATE NEW CIRCUIT ARRANGEMENTS INDICATED AND TO MAINTAIN CONTINUITY OF EXISTING CIRCUITS FEEDING DEVICES THAT ARE TO REMAIN.
5. CONTRACTOR SHALL BE RESPONSIBLE TO REMOVE AND REINSTALL EXISTING ELECTRICAL EQUIPMENT TO ACCOMMODATE THE WORK OF OR DISTURBED BY ALL TRADES.
6. STORE REMOVED ELECTRICAL EQUIPMENT SUCH AS LUMINAIRES, POWER AND COMMUNICATION DEVICES, DISTRIBUTION EQUIPMENT, CONTROLLERS, ETC. ON JOB SITE FOR REUSE UNTIL SUBSTANTIAL COMPLETION OR PROJECT CLOSEOUT. PROVIDE OWNER RIGHT OF FIRST REFUSAL OF ELECTRICAL EQUIPMENT OTHERWISE REMOVE THOSE FROM SITE AT CONTRACTORS EXPENSE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS THAT THE OWNER DOES NOT WISH TO SALVAGE.
7. EXISTING DEVICE LOCATIONS WERE IDENTIFIED AS COMPLETELY AS POSSIBLE BY A SITE SURVEY AND BY RECORD DOCUMENTS AS AVAILABLE. BE RESPONSIBLE FOR PROPER DEMOLITION AND REWORK OF DEVICES NOT SHOWN ON DRAWINGS BUT NECESSARY FOR PROJECT RENOVATIONS TO CONFORM WITH INTENT OF DOCUMENTS. VISIT THE SITE TO DETERMINE THE EXACT EXTENT OF ELECTRICAL DEMOLITION WORK REQUIRED TO COMPLETE THE NEW CONSTRUCTION. CONTRACTOR SHALL PROVIDE IN BASE BID A NOMINAL AMOUNT OF UNKNOWN BRANCH CIRCUITS, FIXTURES, DEVICES, AND SYSTEMS WIRING BEING REMOVED OR RELOCATED FOR NEW WORK.
8. WHERE DEMOLITION OF DEVICE OR EQUIPMENT AND REMOVAL OF CONDUIT OR OTHER ACCESSORY LEAVES OPENINGS IN THE FLOORS, WALLS, OR CEILINGS, SAME SHALL BE PATCHED AND PAINTED TO MATCH EXISTING ADJACENT FINISH. ALL OPENINGS IN FLOORS SHALL BE PINNED WITH REBAR.
9. REFER TO DEMOLITION DRAWINGS & NOTES OF ALL CONTRACTS OR TRADES FOR COORDINATION.
10. IN AREAS OF DEMOLITION WHERE THE REMOVAL OF ELECTRICAL EQUIPMENT INTERFERES WITH THE NORMAL BUILDING OPERATIONS AND SYSTEMS, CONSULT WITH THE OWNER PRIOR TO PERFORMING ANY DEMOLITION.
11. WHERE UNFORESEEN CONDITIONS CONFLICT WITH CONTRACT DOCUMENTS, SUBMIT AN RFI PRIOR TO PROCEEDING WITH ANY WORK.
12. WHERE DEVICES ARE SCHEDULED FOR RELOCATION, DISCONNECT AND REMOVE EXISTING DEVICE AND REMOVE ASSOCIATED WIRING. RELOCATE DEVICE AS SHOWN, EXTEND WIRING AS REQUIRED, AND MATCH EXISTING.
13. WHERE REMOVALS AFFECT EXISTING CIRCUITS SCHEDULED TO REMAIN, MAINTAIN CONTINUITY OF POWER TO THESE CIRCUITS AND EXTEND WIRING AS NEEDED.
14. WHERE ANY EMPTY BACKBOXES OR EMPTY JUNCTION BOXES REMAIN DUE TO ELECTRICAL DEMOLITION, PROVIDE COVERPLATE(S) OVER EXISTING BOX(ES).
15. WHERE EQUIPMENT CONNECTIONS ARE SHOWN, REMOVE ELECTRICAL CONNECTION, CONDUIT AND WIRE BACK TO POWER SOURCE. DISCONNECT AND REMOVE ASSOCIATED CONTROLLER SERVING EQUIPMENT AND ASSOCIATED CONTROL WIRING.
16. DISCONNECT AND REMOVE EXISTING ELECTRIC WORK NOT NECESSARY FOR EXISTING OR NEW INSTALLATION, BUT INTERFERING WITH NEW CONSTRUCTION.
17. DISCONNECT, REMOVE, RELOCATE, AND RECONNECT ANY AND ALL EXISTING ELECTRIC WORK REQUIRED TO REMAIN, BUT INTERFERING WITH NEW CONSTRUCTION.
18. WHERE DEMOLITION NOTES SCHEDULE EXISTING WIRING DEVICES, LIGHTING FIXTURES, SYSTEMS DEVICES, EQUIPMENT CONNECTIONS, ETC. TO BE "DISCONNECTED AND REMOVED IN THE ENTIRETY", THE CONTRACTOR SHALL DISCONNECT AND REMOVE THE EXISTING LIGHTING FIXTURE, WIRING DEVICES, COVERPLATES, BRANCH CIRCUIT WIRING, CONDUIT OR RACEWAY, OUTLET AND/OR SPLICE BOX(ES) ETC. BACK TO EITHER LAST DEVICE SCHEDULED TO REMAIN, OR BACK TO POWER SOURCE.
19. PROPERLY DISPOSE OF ALL PCB CONTAINING FLUORESCENT BALLASTS MANUFACTURED PRIOR TO 1980 ACCORDING TO STATE AND FEDERAL REGULATIONS.
20. IF ADDITIONAL SUSPECT ASBESTOS-CONTAINING MATERIALS ARE DISCOVERED DURING THE COURSE OF THE WORK, THE CONTRACTOR SHALL IMMEDIATELY STOP WORK AND NOTIFY THE OWNER AND ARCHITECT IMMEDIATELY. THE CONTRACTOR SHALL COOPERATE WITH THE OWNER AND ARCHITECT TO WITH REGARD TO CONDUCTING ADDITIONAL BULK SAMPLING AND ABATEMENT AT THE OWNER'S EXPENSE.

APPLICABLE CODES

2

- 2020 NATIONAL ELECTRICAL CODE (NEC)
- 2018 NORTH CAROLINA BUILDING CODE

ABBREVIATIONS

°	DEGREES
Δ	DELTA
Ω	OHMS
Ø	PHASE
Y	WYE
A	AMPERE
AFCI	ARC-FAULT CIRCUIT INTERRUPTING
AF	AMPERE FUSE
AFF	ABOVE FINISHED FLOOR
AFS	AMPERE FRAME SIZE
AFG	ABOVE FINISHED GRADE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ALUM	ALUMINUM
AM	AMMETER
ANN	ANNUNCIATOR
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ATS	AUTOMATIC TRANSFER SWITCH
AV	AUDIO VISUAL
AVG	AVERAGE
AWG	AMERICAN WIRE GAUGE
BAS	BUILDING AUTOMATION SYSTEM
BFC	BELOW FINISHED CEILING
BFG	BELOW FINISHED GRADE
BKBD	BACKBOARD
BLDG	BUILDING
CND	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	CEILING
CM	CONSTRUCTION MANAGER
CO	COMPANY/CARBON MONOXIDE
CT	CURRENT TRANSFORMER
CU	COPPER
DC	DIRECT CURRENT
DIA	DIAMETER
DISC	DISCONNECT
DIV	DIVISION
DN	DOWN
DO	DRAWOUT
DPDT	DOUBLE POLE DOUBLE THROW
DPST	DOUBLE POLE SINGLE THROW
DWG	DRAWING
EA	EACH
EC	ELECTRICAL CONTRACTOR
EF	EXHAUST FAN
EGS	ENGINE-GENERATOR SET
EGC	EQUIPMENT GROUNDING CONDUCTOR
ELEC	ELECTRIC
ELEV	ELEVATOR
EMT	ELECTRICAL METALLIC TUBING
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EPRF	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FATC	FIRE ALARM TERMINAL CABINET
FC	FOOTCANDLE
FLR	FLOOR
FLUOR	FLUORESCENT
FPS	FUSED SWITCH
FTL	FEED THRU LUGS
GC	GENERAL CONTRACTOR
GEC	GROUND ELECTRODE CONDUCTOR
GEN	GENERATOR
GFCI	GROUND FAULT CIRCUIT INTERRUPTING
GFI	GROUND FAULT INTERRUPTING
G	GROUND
HID	HIGH INTENSITY DISCHARGE
HP	HORSEPOWER
HSKPG	HOUSEKEEPING
HTR	HEATER
HV	HIGH VOLTAGE
HZ	HERTZ (CYCLES/SECOND)
ICC	INTERMEDIATE CROSS CONNECT
ID	INSIDE DIAMETER
IMC	INTERMEDIATE METAL CONDUIT
IR	INFRARED
J-BOX	JUNCTION BOX
kAIC	KILOAMPERE INTERRUPTING CURRENT
kAIR	KILOAMPERE INTERRUPTING RATING
KO	KNOCK OUT
kV	KILOVOLT
kVA	KILOVOLT AMPERE
kW	KILOWATT
kWh	KILOWATT HOUR
LA	LIGHTNING ARRESTOR
LCP	LIGHTING CONTROL PANEL
LED	LIGHT EMITTING DIODE
LS	LIFE SAFETY
LTG	LIGHTING
LV	LOW VOLTAGE
MAX	MAXIMUM
[MC	**METAL CLAD CABLE]**
MC	MECHANICAL CONTRACTOR
MCA	MINIMUM CIRCUIT AMPERES
MCB	MAIN CIRCUIT BREAKER
MDF	MAIN DISTRIBUTION FRAME
MDP	MAIN DISTRIBUTION PANELBOARD
MECH	MECHANICAL
MFR	MANUFACTURER
MI	MINERAL INSULATED CABLE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MOCP	MAXIMUM OVERCURRENT PROTECTION
MTD	MOUNTED
NEUT	NEUTRAL
NA	NOT APPLICABLE
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NOC	NORMALLY OPEN CONTACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OCPD	OVERCURRENT PROTECTIVE DEVICE
OD	OUTSIDE DIAMETER
OF/CI	OWNER FURNISHED/CONTRACTOR INSTALLED
OF/OI	OWNER FURNISHED/OWNER INSTALLED
OH	OVERHEAD
OL	OVERLOAD
P	POLE
PA	PUBLIC ADDRESS
PB	PULLBOX
PC	PERSONAL COMPUTER
PH	PHASE
PNL	PANEL
PLC	PROGRAMMABLE LOGIC CONTROLLER
POE	POWER OVER ETHERNET
PRI	PRIMARY
PT	POTENTIAL TRANSFORMER
PTZ	PAN TILT ZOOM
PVC	POLYVINYL CHLORIDE
PWR	POWER
RAID	REDUNDANT ARRAY OF INDEPENDENT DISKS
RCP	REFLECTED CEILING PLANS
RECPT	RECEPTACLE
REF	REFRIGERATOR
RF	RADIO FREQUENCY
RFID	RADIO FREQUENCY IDENTIFICATION DEVICE
RL	RELOCATE
RM	REMAIN
RMC	RIGID METAL CONDUIT
RV	REMOVE
SCHED	SCHEDULE
SEC	SECONDARY
SFL	SUB FEED LUGS
SPD	SURGE PROTECTIVE DEVICE
SPDT	SINGLE POLE DOUBLE THROW
SPST	SINGLE POLE SINGLE THROW
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
SYMM	SYMMETRICAL
TERM	TERMINAL
TEL	TELEPHONE
TV	TELEVISION
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS NOTED OTHERWISE
V	VOLT
VA	VOLT-AMPERE
W	WATT
WAN	WIDE AREA NETWORK
WAP	WIRELESS ACCESS POINT
WP	WEATHERPROOF
WR	WEATHER RESISTANT
WSA	WIRE SIZING AMPS
XFMR	TRANSFORMER

DEVICE SUBSCRIPTS

II	ROMAN NUMERAL INDICATES QUANTITY OF GANGED DEVICES UNDER COMMON FACEPLATE
+xx	HEIGHT OF DEVICE ABOVE FINISHED FLOOR (IN INCHES)
a	LOWER CASE LETTER(S) INDICATES SWITCH CONTROL ARRANGEMENT
CL	INSTALL FLUSH IN CEILING
D	DIMMER SWITCH (LIGHTING CONTROL)
ER	EXISTING TO BE REMOVED
ERL	EXISTING TO BE RELOCATED
ETR	EXISTING TO REMAIN
EWC	RECEPTACLE FOR WATER COOLER. COORDINATE EXACT LOCATION WITH GC & PC PRIOR TO ROUGH-IN
EXP	EXPLOSION PROOF
FL	INSTALL FLUSH IN FLOOR
FB	INSTALL IN FLOORBOX/POKETHRU
FRA	FIRE RATED ASSEMBLY
GFCI	GROUND FAULT CIRCUIT INTERRUPTING RECEPTACLE
GFI	GROUND FAULT CIRCUIT INTERRUPTING BREAKER PROTECTED
IG	ISOLATED GROUND RECEPTACLE
K	KEY OPERATED
LV	LOW VOLTAGE
N	INDICATES NEW DEVICE
NIC	NOT IN CONTRACT/PROVIDE BY OTHERS
NL	NIGHT LIGHT LUMINAIRE (UNSWITCHED / INTEGRAL NIGHT LIGHT STYLE RECEPTACLE
O	OCCUPANCY SENSOR (AUTOMATIC 'ON' LIGHTING SENSOR SWITCH)
TR	TAMPER RESISTANT
TV	FOR TELEVISION/MONITOR, INSTALL 72" AFF (SEE DETAIL)
UC	INSTALL UNDER COUNTER. COORDINATE EXACT LOCATION WITH GC PRIOR TO ROUGH-IN
USB	RECEPTACLE WITH USB CHARGING PORTS
WP	WEATHERPROOF DEVICE / WEATHERPROOF WHILE-IN-USE EXTRA DUTY COVER & WEATHER RESISTANT RECEPTACLE

GENERAL LINEWORK DESCRIPTIONS & DRAWINGS NOTES

- NEW WORK
- EXISTING WORK / FUTURE PROVISIONS / NOT IN CONTRACT WORK
- WORK TO BE REMOVED (DEMO PLANS) - DEVICE AND ALL ASSOCIATED ELECTRICAL WORK SHALL BE REMOVED BACK TO THE SOURCE, UNLESS NOTED OTHERWISE / UNDERFLOOR CONDUIT (NEW PLANS)
- WIRE AND / OR CONDUIT RUN CONTINUED ON REFERENCED DETAIL
- MATCH LINE REFERENCING CONTINUATION ON OTHER DRAWING
- CALLOUT BOUNDARY - DETAIL AND / OR SECTION REFERENCE / SCOPE OF WORK
- BRANCH CIRCUIT BOUNDARY
- # DRAWING KEYED NOTES
- # BRANCH CIRCUITING NOTES
- # DEMO NOTE / FEEDER IDENTIFICATION
- # KITCHEN / LAB EQUIPMENT TAG
- SYMBOL WITH TAIL INDICATES WALL INSTALLATION, HEIGHT AS INDICATED
- INDICATES MULTIPLE DEVICES OF DIFFERENT TYPES INSTALLED UNDER COMMON COVERPLATE AT ONE LOCATION (DEVICES SHALL BE INSTALLED UNDER A COMMON COVERPLATE)

BRANCH CIRCUIT CONDUCTOR SIZING

CIRCUIT NOTATION:

11,13 ← CIRCUIT NUMBER(S)
1LNL1 ← SOURCE PANELBOARD (IF OTHER THAN NOTED ON SHEET/CIRCUIT BOUNDARY)

PROVIDE MINIMUM WIRE SIZE AS FOLLOWED UNLESS NOTED OTHERWISE:
20A CB - #12 AWG
30A CB - #10 AWG
40A CB - #8 AWG
50A CB - #8 AWG
INCREASE SIZE OF CONDUCTOR FOR DISTANCE AS SHOWN BELOW IN 20A BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE.

20A BRANCH CIRCUIT CONDUCTOR SIZING SCHEDULE:

CONDUCTOR SIZE (AWG)	#12	#10	#8	#6	#4
MAXIMUM BRANCH CIRCUIT LENGTH AT 120V (FEET)	90	140	225	355	565
MAXIMUM BRANCH CIRCUIT LENGTH AT 277V (FEET)	205	325	520	825	1310

NOTES:

1. INCREASE ALL BRANCH CIRCUIT CONDUCTORS AS INDICATED BASED ON LENGTH OF CIRCUIT, INCLUDING EQUIPMENT GROUNDING CONDUCTOR.
2. TRANSITION FROM LARGER CONDUCTOR SIZE TO #12 AWG FOR FINAL TERMINATION TO OUTLET DEVICE. PROVIDE JUNCTION BOX WITHIN 10' OF OUTLET AND EXTEND #12 AWG CONDUCTORS TO OUTLET.
3. LENGTHS ARE FROM OVERCURRENT PROTECTIVE DEVICE, ALONG CIRCUIT ROUTING, TO CENTER OF EQUIPMENT LOAD.
4. ALL EQUIPMENT AND DEVICES SHALL BE RATED FOR 75°C (MIN) COPPER TERMINATIONS. 2

EQUIPMENT CONNECTIONS

- SINGLE PHASE MOTOR/PUMP CONNECTION, REFER TO EQUIPMENT CONNECTION SCHEDULE
- THREE PHASE MOTOR/PUMP CONNECTION, REFER TO EQUIPMENT CONNECTION SCHEDULE
- SINGLE POINT EQUIPMENT CONNECTION, REFER TO EQUIPMENT CONNECTION SCHEDULE

PANELBOARDS

PANELBOARD - FLOOR PLAN NOTATION:

DOOR STYLE (DESIGNATES VOLTAGE):
- 208/120V OR 240V SYSTEM
- 480/277V SYSTEM

SIZE (DESIGNATES PANELBOARD TYPE):
- PANELBOARD
- DISTRIBUTION PANELBOARD

FILL (DESIGNATES BRANCH TYPE):
- NORMAL BRANCH PANELBOARD
- NEC 700 EMERGENCY BRANCH PANELBOARD
- NEC 701 STANDBY BRANCH PANELBOARD
- NEC 702 OPTIONAL BRANCH PANELBOARD

RACEWAY, BOXES, & BUSWAY

- J JUNCTION BOX, HEIGHT AS INDICATED
- J JUNCTION BOX, INSTALLED IN CEILING
- SYSTEMS CABINET, SURFACE OR FLUSH AS SHOWN, TOP OF TRIM 74" AFF

ELECTRICAL EQUIPMENT

- DISCONNECT SWITCH, SURFACE MOUNTED 48" AFF
- FUSED DISCONNECT SWITCH, SURFACE MOUNTED 48" AFF
- T TRANSFORMER (PLAN NOTATION)
- M METER CABINET/SOCKET (ONE-LINE & PLAN NOTATION)

DATA/TELECOMMUNICATION OUTLETS

NOTE: PROVIDE CONDUIT FROM BOX STUBBED INTO ACCESSIBLE CEILING SPACE IN NEAREST CORRIDOR. REFER TO DATA/TELECOMMUNICATION OUTLET SCHEDULE FOR ADDITIONAL DETAILS.

- DATA/TELECOMMUNICATIONS OUTLET, 18" AFF
- DATA/TELECOMMUNICATIONS OUTLET, 44" AFF OR 6" ABOVE COUNTER
- DATA/TELECOMMUNICATIONS OUTLET INSTALLED IN FLOORBOX / DEVICE, WITH CONDUIT ROUGH-IN IN SLAB TO ACCESSIBLE CEILING.

FIRE ALARM, GAS DETECTION, & MASS NOTIFICATION DEVICES

- SMOKE DETECTOR, CEILING MOUNTED
- SMOKE DETECTOR, WALL MOUNTED
- AHU-1 RETURN — SMOKE DETECTOR, INSTALLED IN DUCTWORK - MECHANICAL UNIT INDICATED
- H FIRE ALARM HORN, 90 dB, WALL MOUNTED 18" BELOW CEILING
- H FIRE ALARM HORN, 90 dB, CEILING MOUNTED
- 185 FIRE ALARM STROBE LIGHT, WALL MOUNTED, MIN 80"/ MAX 96" AFF (# INDICATES CANDELA RATING)
- 15 FIRE ALARM STROBE LIGHT, CEILING MOUNTED (# INDICATES CANDELA RATING)
- 75 FIRE ALARM HORN/STROBE**[EMERGENCY VOICE/ALARM SPEAKER & STROBE]**, 90 dB, WALL MOUNTED, MIN 80"/ MAX 96" AFF (# INDICATES CANDELA RATING)
- 15 FIRE ALARM HORN/STROBE**[EMERGENCY VOICE/ALARM SPEAKER & STROBE]**, 90 dB, CEILING MOUNTED (# INDICATES CANDELA RATING)
- F FIRE ALARM MANUAL PULL STATION, 44" AFF UNLESS NOTED OTHERWISE
- FS WATER FLOW SWITCH FIRE ALARM CONNECTION
- TS SUPERVISORY TAMPER SWITCH FIRE ALARM CONNECTION
- SYSTEM CABINET; FIRE ALARM CONTROL PANEL (FACP), FIRE ALARM ANNUNCIATOR PANEL (FAAP), FIRE ALARM GRAPHIC PANEL (FAGP), FIRE ALARM TERMINATION CABINET (FATC), NOTIFICATION APPLIANCE CIRCUIT PANEL (NAC),

ELECTRICAL DEVICES

GENERAL ELECTRICAL DEVICE NOTATION:

SOURCE PANELBOARD (IF OTHER THAN NOTED ON SHEET/CIRCUIT BOUNDARY) → 1LNL1
CIRCUIT # → 15
+30" ← INSTALLATION HEIGHT TO CENTER OF DEVICE IN INCHES (IF OTHER THAN SPECIFIED ON LEGEND)
PI ← SUBSCRIPT (IF APPLICABLE)

- NEMA 5-20R DUPLEX RECEPTACLE, 18" AFF
- RECEPTACLE AS SPECIFIED ABOVE, MOUNTED 48" AFF OR COUNTER HEIGHT WHERE APPLICABLE
- RECEPTACLE AS SPECIFIED ABOVE, OF GFCI TYPE
- NEMA 5-20R QUADPLEX (DOUBLE DUPLEX) RECEPTACLE, 18" AFF
- NEMA CONFIGURATION TO MATCH INDICATED EQUIPMENT OR AS CALLED OUT, 18" AFF
- SPD SURGE PROTECTION DEVICE, TOP OF ENCLOSURE 74" AFF

LIGHTING CONTROL DEVICES

NOTE: LIGHTING CONTROL DEVICES SHOW FUNCTIONAL REQUIREMENTS, NOT ALL DEVICES NEEDED FOR A FULLY FUNCTIONING SYSTEM. DEPENDING ON CONFIGURATION AND MANUFACTURER, DEVICES SUCH AS POWER PACKS, RELAYS, SINGLE/DOUBLE/TRIPLE OUTPUT ROOM CONTROLLERS MAY BE NECESSARY. REFER TO DETAILS & SPECIFICATIONS.

- $ SINGLE POLE TOGGLE SWITCH, 44" AFF
- $_2 2-POLE TOGGLE SWITCH, 44" AFF
- $_3 3-WAY TOGGLE SWITCH, 44" AFF
- $_4 4-WAY TOGGLE SWITCH, 44" AFF
- $^M MOMENTARY CONTACT SWITCH, 44" AFF
- $^LV 2 BUTTON SWITCH, SINGLE OR MULTIPLE LOCATION FUNCTIONALITY AS SHOWN LOW VOLTAGE DIGITAL NETWORK TYPE, 44" AFF
- $^D DIMMING SWITCH, SINGLE OR MULTIPLE LOCATION FUNCTIONALITY AS SHOWN, 44" AFF
- $^SD 4 BUTTON STEP DIMMER SWITCH, SINGLE OR MULTIPLE LOCATION FUNCTIONALITY AS SHOWN, LOW VOLTAGE DIGITAL NETWORK TYPE, 44" AFF
- $^T DIGITAL ELECTRONIC INTERVAL TIMER, WALL-BOX STYLE, 44" AFF
- $_TS DIGITAL ELECTRONIC PROGRAMMABLE TIME SWITCH, WALL-BOX STYLE, 44" AFF
- $^O OCCUPANCY SENSOR SWITCH, DUAL TECHNOLOGY, SINGLE POLE, WALL-BOX STYLE, 44" AFF. FIELD ADJUSTABLE TO VACANCY SENSOR.
- OS OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY, WIDE VIEW, CEILING MOUNTED
- OS OCCUPANCY SENSOR, LOW VOLTAGE, DUAL TECHNOLOGY, WIDE VIEW, WALL MOUNTED 90" AFF
- LIGHTING CONTROL CABINET; LIGHTING CONTACTOR (LC), LIGHTING CONTROL CABINET (LCC), LIGHTING RELAY CABINET (LRC), GENERATOR TRANSFER DEVICE (GTD), OR TIME CLOCK (TC) AS NOTED ON DRAWINGS. FLUSH OR SURFACE AS SHOWN ON DRAWINGS

LIGHTING

GENERAL LUMINAIRE NOTATION:

SOURCE PANELBOARD (IF OTHER THAN NOTED ON SHEET/CIRCUIT BOUNDARY) → 1LNL1
CIRCUIT # → 15
a ← SWITCHLEG CONTROL ARRANGEMENT
R4 ← RELAY DESIGNATION (IF APPLICABLE)
LD1 ← LUMINAIRE TYPE - REFER TO LUMINAIRE SCHEDULE

DOTS INDICATE PENDANT HUNG
ARROW INDICATES AIMING DIRECTION (WHERE APPLICABLE)
TAIL INDICATES WALL MOUNT STYLE LUMINAIRE

- PATTERN INDICATES LUMINAIRE PROVIDED WITH INTEGRAL BATTERY BACKUP.
- PATTERN INDICATES LUMINAIRE CONNECTED IN A "NIGHT LIGHT" CAPACITY.
- GEOMETRIC SHAPE LUMINAIRE, RECESSED OR SURFACE MOUNTED PER LUMINAIRE SCHEDULE
- ILLUMINATED EXIT SIGN - SINGLE/DOUBLE FACE AS SHOWN - DIRECTION OF ARROWS AS INDICATED - CEILING, SURFACE WALL, OR PERPENDICULAR WALL AS SHOWN
- SELF CONTAINED BATTERY LIGHTING UNIT
- REMOTE LIGHTING LAMP HEAD(S) - CONNECT TO REMOTE BATTERY PACK IN INTERIOR ACCESSIBLE CEILING SPACE

LaBella
Powered by partnership.

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NORTH CAROLINA PROFESSIONAL SEAL 054372 ENGINEER ALEXANDER G. RAYMOND
LABELLA ASSOCIATES, P.C. NCBELS CERTIFICATION NUMBER C-0430 NORTH CAROLINA
01/21/2026

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Town of Huntersville
Parks and Recreation
105 Gilead Road
Town Center - 3rd Floor
Huntersville, NC 28078

Waymer Splash Pad
14200 Holbrooks Road
Huntersville, NC 28078

NO:	DATE:	DESCRIPTION:
2	01/21/26	PRC COMMENTS
1	04/21/25	PRC COMMENTS

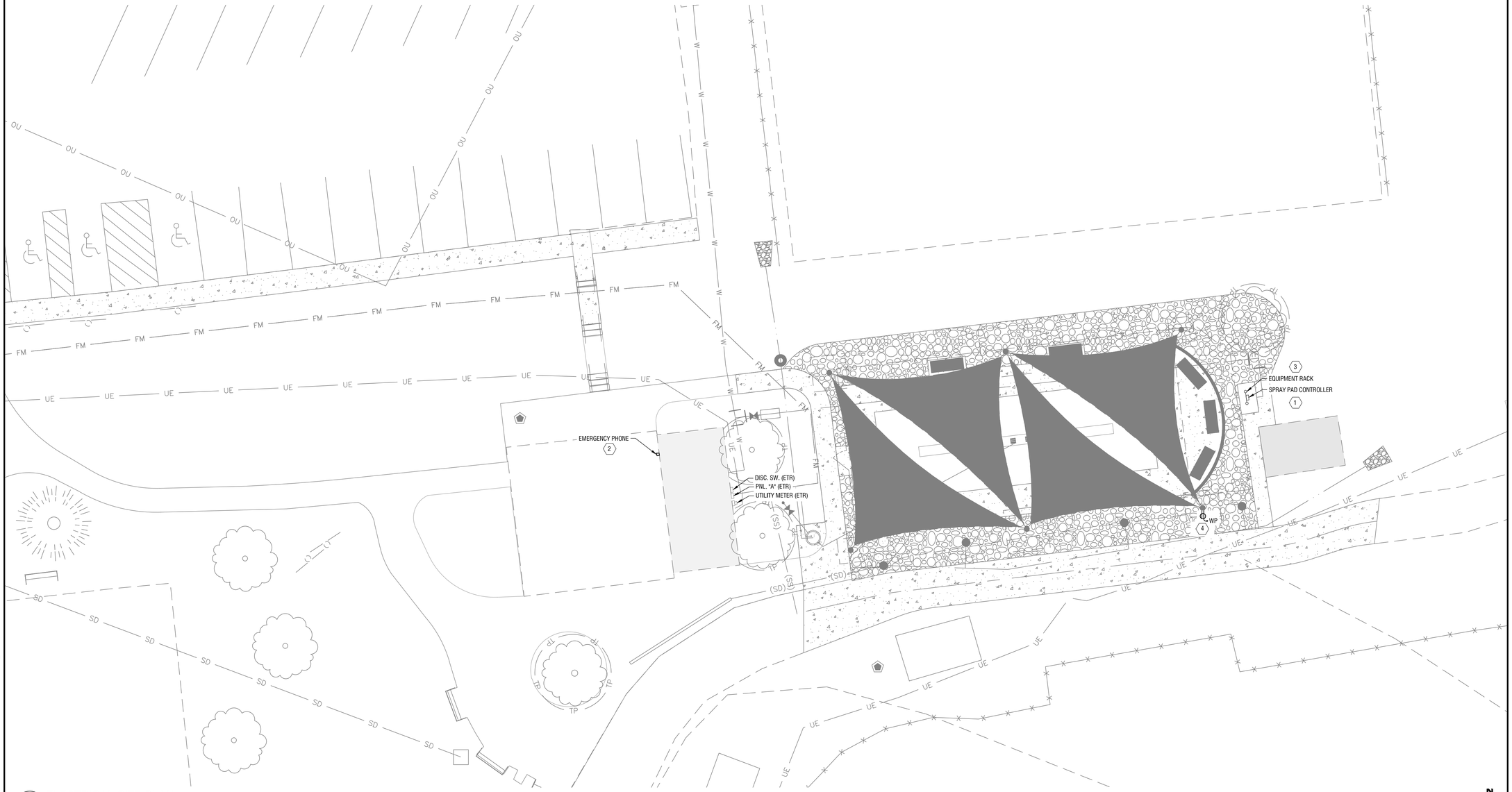
Revisions

PROJECT NUMBER: 2251185
DRAWN BY: CDM
REVIEWED BY: AGR
ISSUED FOR: 50% CD
DATE: 03/31/2025
DRAWING NAME: ELECTRICAL NOTES, ABBREVIATIONS, AND SYMBOL LEGEND
DRAWING NUMBER: E001

1/21/2026 3:54:13 PM
B:\GLOBAL\Projects\McAdams\2251185 - Waymer Park Splash Pad\06_Drawings\Electrical\E001 ELECTRICAL NOTES, ABBREVIATIONS, AND SYMBOL LEGEND.dwg

KEYED NOTES:

1. PROVIDE CONNECTION TO SPRAY PAD CONTROLLER (PROVIDED BY OTHERS). REFER TO PANEL SCHEDULE ON E501.
2. PROVIDE CELLULAR EMERGENCY PHONE AND CONNECTION TO EXISTING PANELBOARD. REFER TO PANEL SCHEDULE ON E501.
3. PROVIDE EQUIPMENT RACK AND MOUNT SPRAY PAD CONTROLLER. REFER TO DETAIL 5/E501.
4. PROVIDE OUTDOOR RATED GFCI PROTECTED RECEPTACLE WITH IN-USE LOCKABLE COVER AND MOUNT TO AWNING SUPPORT.



1 E051 ELECTRICAL SITE PLAN
1" = 10' - 0"

LaBella
Powered by partnership.

400 S. Tryon Street, Suite 1300
Charlotte, NC 28285
704-376-6423
labellapc.com

NORTH CAROLINA PROFESSIONAL SEAL 054372 ENGINEER ALEXANDER G. RAYMOND
03/31/2025

LABELLA ASSOCIATES, P.C. NCBELS CERTIFICATION NUMBER C-0430 NORTH CAROLINA

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Town of Huntersville
Parks and Recreation
105 Gilead Road
Town Center - 3rd Floor
Huntersville, NC 28078

Waymer Splash Pad
14200 Holbrooks Road
Huntersville, NC 28078

NO:	DATE:	DESCRIPTION:
2	01/21/26	PRC COMMENTS
1	04/21/25	PRC COMMENTS
Revisions		

PROJECT NUMBER: 2251185
DRAWN BY: CDM
REVIEWED BY: AGR
ISSUED FOR: 50% CD
DATE: 03/31/2025
DRAWING NAME: ELECTRICAL SITE PLAN
DRAWING NUMBER: E051

1/21/2026 3:36:04 PM
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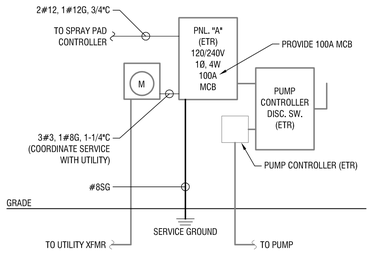
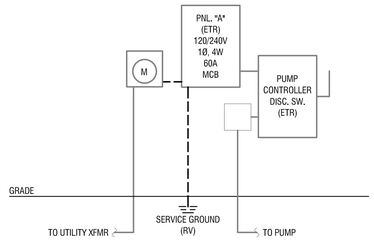


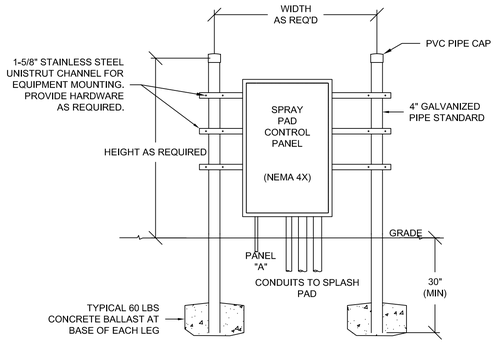
6 E501 RISER DIAGRAM - INSTALL

N.T.S.



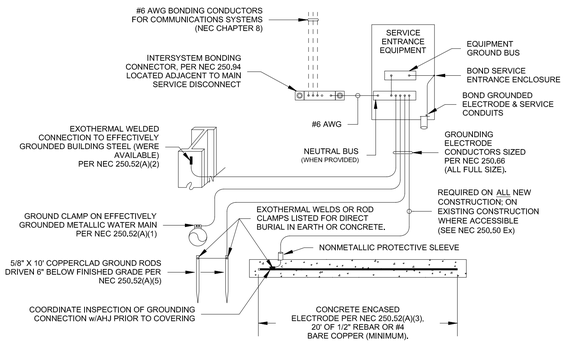
4 E501 RISER DIAGRAM - DEMO

N.T.S.



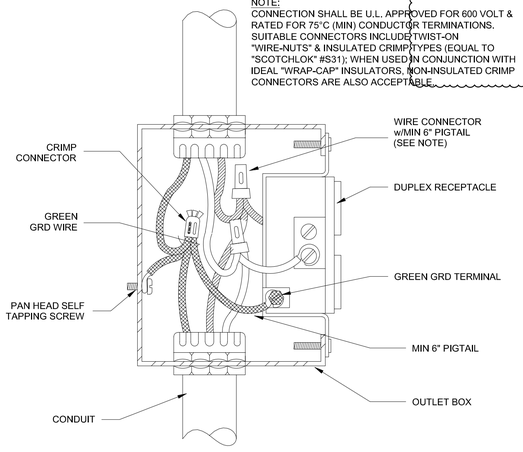
5 E501 SPRAY PAD CONTROLLER & EQUIPMENT RACK

N.T.S.



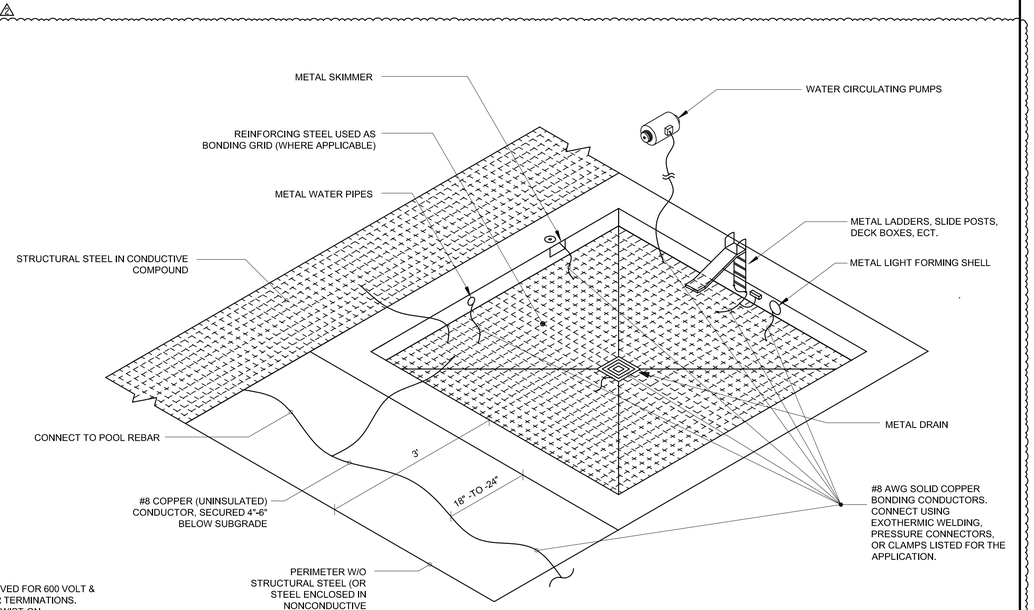
2 E501 GROUNDING DETAIL

N.T.S.



1 E501 TYPICAL DEVICE WIRING DETAIL

N.T.S.



3 E501 POOL GROUNDING DETAIL / SPLASH PAD (REFERENCE NEC 680)

N.T.S.

NOTE: REFERENCE DETAIL 13/PL112 ON SHEET PL112 FOR REFERENCE TO EQUIPOTENTIAL BONDING GRID.

PANEL: A					TYPE: EXISTING		SURFACE		120/240 VOLT		1 Ø	4 W	100 AMP MCB					
CCT	FR	P	TRIP	WIRE	COND	SERVING	VA	ØA	ØB	VA	SERVING		COND	WIRE	TRIP	P	FR	CCT
1	EX	1	100	3	1-1/4	MAIN BREAKER	N/A	1920		1920	PUMP (VIA PUMP CONTROLLER)		EX	EX	20	1	EX	2
3							N/A		1920	1920								4
5	EX	1	20	EX	EX	BATH LTS. [EX]	384	1584		1200	WATER HEAT [EX]		EX	EX	20	1	EX	6
7	EX	1	20	EX	EX	DECK LTS. [EX]	1152		1652	500	RECEPT. [EX]		EX	EX	20	1	EX	8
9	EX	1	20	EX	EX	FANS [EX]	1000	2200		1200	FANS [EX]		EX	EX	20	1	EX	10
11	EX	1	20	EX	EX	HEATER [EX]	1200		1700	500	BATT. PK. LTS. [EX]		EX	EX	20	1	EX	12
13	QO	1	20	12	3/4	EMERGENCY PHONE	500	1000		500	RECEPTACLE		3/4	12	20	1	QO	14
15	QO	1	20	12	3/4	SPLASH PAD CONTROLLER	1200		1200	0	SPACE [EX]		EX	EX	N/A	1	EX	16
17	EX	1	N/A	EX	EX	SPACE [EX]	0	0		0	SPACE [EX]		EX	EX	N/A	1	EX	18
19	EX	1	20	EX	EX	IN USE [EX]	500		1000	500	IN USE [EX]		EX	EX	20	1	EX	20
						.		.	.						.			
ALL TERMINATIONS SHALL BE SUITABLE FOR 75°C COPPER OR ALUMINUM					CONN. VA PER PHASE		6704	7472			TOTAL VOLT AMPS:				14176			
					AMPS PER PHASE		56	62			AVERAGE AMPS:				59			
					AIC RATING: EXISTING		.	.			.							
LOADS		LIGHTING		RECEPTS	ELEC HEAT	HVAC	OTHER											
CONN. VA		2036		1000	1200	2200	7740						TOTAL DEMAND VA:		14985			
DEMAND FACTOR		x 1.25		NEC 220.44	x1.25	x1.0	x 1.0						DEMAND AMPS:		62			
TOTAL		2545		1000	1500	2200	7740						.					

NOTES:
1. EXISTING PANEL SHOWN FOR INFORMATION PURPOSES ONLY.
2. PROVIDE EQUIPOTENTIAL BOND AS REQUIRED BY NEC 680.50 AND 680.26. PROVIDE BONDING ON ALL REBAR AND METALLIC ACTIVITY LEVELING FOOTING/BASE.
3. CCT 13, 14, & 15 ARE NEW BREAKERS, WIRE, AND CONDUIT IN EXISTING SPACES.

LaBella
Powered by partnership.

400 S. Tryon Street, Suite 1300
Charlotte, NC 28285
704-376-6423
labellapc.com

NORTH CAROLINA PROFESSIONAL SEAL 054372 ENGINEER ALEXANDER G. RAYMOND
01/21/2026

LABELLA ASSOCIATES, P.C. NCBELS CERTIFICATION NUMBER C-0430 NORTH CAROLINA

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Town of Huntersville
Parks and Recreation
105 Gilead Road
Town Center - 3rd Floor
Huntersville, NC 28078

Waymer Splash Pad
14200 Holbrooks Road
Huntersville, NC 28078

NO:	DATE:	DESCRIPTION:
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1	04/21/25	PRC COMMENTS
Revisions		

PROJECT NUMBER: 2251185
DRAWN BY: CDM
REVIEWED BY: AGR
ISSUED FOR: 50% CD
DATE: 03/31/2025
DRAWING NAME:

ELECTRICAL DETAILS

DRAWING NUMBER:

E501

1/23/2026 10:42:18 AM
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MCADAMS
2100 South Tryon Street
Suite 400
Charlotte, NC 28203
704. 527. 0800

HUN24004.00

May 5, 2026

RE: BID No. 04132026, Waymer Park Splash Pad

Addendum Number One

NOTICE TO BIDDERS:

Bidder is hereby notified that this Addendum shall become a part of the Contract Documents for the Project.

The following items are intended to revise and clarify the Drawings and Project Manual.

Bidder shall ensure that their Sub-Bidders are in full receipt of the information contained herein.

ADDENDA ITEMS:

Project Manual Sections

Instruction to Bidders
Section 329300 - Plants

Drawings

CS
C1.01
C2.00
C2.01
C2.02
C2.03
C3.00
C3.01
C4.00
C4.01
C4.11
C6.00
C8.03
L4.01
L5.01
L5.02

Reference Items

NONE

Miscellaneous

Questions
Clarifications

END OF TITLE PAGE

Project Manual

1. Instruction to Bidders: Page 3, Article 7: Submission of Bid Proposals
    a. Revision description Changed bid proposal acceptance time from 2:00 PM to 10:00 AM (to match the Invitation to Bid)

2. Section 329300 – Plants: Page 8, Article 2.3, Paragraph b.3
    a. Specified blue-gray color family as the Mineral Mulch color. Color sample is still to be provided.

Drawings

1. Sheet CS – Updated Sheet List Table
2. Sheet C1.01 - Turned on the limits of disturbance. Note added about pavement and wheel stops. All trees being removed now have "X"
3. Sheet C2.00, C2.01 – Viewport adjusted and matchline added to show full scope of work
4. Sheet C2.02 – Key Map added and shade structure no longer listed as alternate. Viewport adjusted and matchline added to show full scope of work.
5. Sheet C2.03 – Sheet added to show full extents of project limits.
6. Sheets C3.00 and C3.01 – Viewport adjusted and matchline added to show full scope of work. Decorative rock note added with details. Rip rap pad added to northern outfall.
7. Sheets C4.00, C4.01, C4.11, C6.00 – Viewport adjusted and matchline added to show full scope of work.
8. Sheet C8.03 – Drain Inlet detail added.
9. Sheet L4.01 – Shade Structure detail added.
10. Sheet L5.01 – Key map added and wiewport adjusted and matchline added to show full scope of work. .
11. Sheet L5.02, L5.20 – viewport adjusted and matchline added to show full scope of work.

Questions

The following questions were received during the open question period for the project. These answers are direct guidance to the bidders and will be reflected in the conformed set of contract documents upon which the project contract will be based. Our response comments are **bold.**

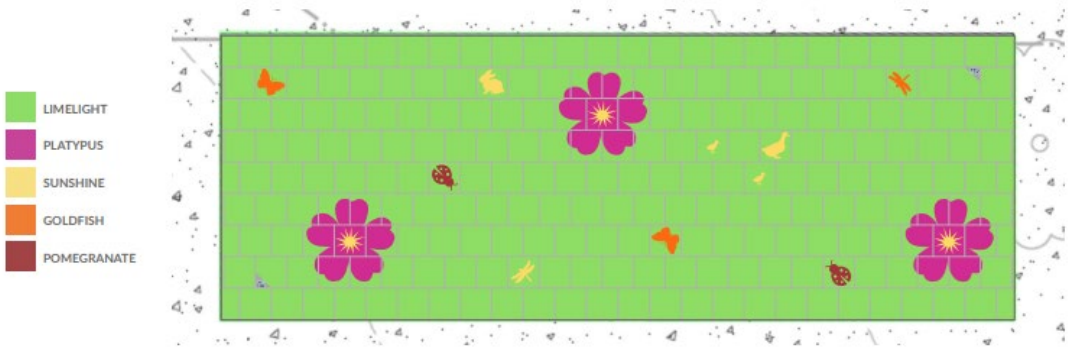
1. Is there a fire hydrant on site?
    There is an ex. Hydrant on site outside of our scope of work. There is no hydrant being proposed on site.

2. Has a flow test been completed?
    Yes, a flow test was completed in October 2024. 42 PSI and 1060 GPM.

3. I would like to submit a substitution request for matching splash equipment for the Waymer Park Splash Pad Project in Huntersville, NC. Can you please let me know who I should send this request to?
    McAdams Response: If the splash pad equipment is listed in 131147 1.7 B : *"Pool Play Equipment, other than the basis of design, must be pre-approved for equivalency by the Owner and Engineer prior to*

bidding. Vortex, Whitewater West Industries, Splashtacular, Waterplay, Raindrop and Proslide shall be permitted manufacturers for equivalent substitutions."
You will need to fill out a substitution form and include that in your bid. This is part of the bid package published online. If the splash pad equipment is not from pre-approved equivalency, you will need to submit to the designer for approval before filling out the substitution form.

4. What lifefloor should I use as the basis of design?
   McAdams Response: See snip below for basis of design for the Lifefloor.



Clarifications

The following are clarifications for the above-mentioned project.

Status of Permits

5. Mecklenburg County
   McAdams Response: Design Approved, Contractor responsible for obtaining permit
6. Town of Huntersville
   McAdams Response: Approved – 4/29/26
7. NCDEQ
   McAdams Response: Approved – 3/12/26

The period for Bidder questions and requests closed on 4/29/2026. No additional addenda will be issued.

All additional comments and questions must be submitted to Michael Jaycocks at mjaycocks@huntersville.org.

Sincerely,

MCADAMS

Haley Mae-Eady

Haley Mae-Eady, RLA
Landscape Architect

THANK YOU for your legal submission!

Your legal has been submitted for publication. Below is a confirmation of your legal placement. You will also receive an email confirmation.

ORDER DETAILS

Order Number:	**IPL0329483**
Order Status:	Submitted
Classification:	Legals & Public Noti...
Package:	CLT - Legal Ads
Site:	charlotte
Final Cost:	$110.32
Payment Type:	Account Billed
User ID:	IPL0021908

ACCOUNT INFORMATION

Janet Pierson
PO BOX 664
HUNTERSVILLE, NC 28070
704-875-6541
clerk@huntersville.org
TOWN OF
HUNTERSVILLE/ADMINISTRATION

TRANSACTION REPORT

Date	April 7, 2026 3:23:43...
Amount:	$110.32

SCHEDULE FOR AD NUMBER IPL03294830

April 10, 2026

The Charlotte Observer Print

PREVIEW FOR AD NUMBER IPL03294830

1.54inches x 8.51inches

WAYMER PARK SPLASH PAD, HUNTESVILLE, NC
INVITATION TO BID
FOR THE CONSTRUCTION OF WAYMER PARK SPLASH PAD PROJECT

Town of Huntersville, North Carolina
Sealed, single prime bids for the construction of a splash pad and surrounding hardscape with associated demolition / clearing, grading, erosion control, installation of stormwater conveyance measures, utilities, furnishings, and landscape. Bids for the project will be received by the Town of Huntersville Parks and Recreation Department, in person at: 14704 N. Old Statesville Road, Huntersville, NC 28070, or by mail at: P.O. Box 2879, Huntersville, NC, 28070 until **10:00 AM, local time, Wednesday May 13, 2026**, and there at said office, at said time. Bid Proposals will be received for:

THE CONSTRUCTION OF WAYMER PARK SPLASH PAD
FOR
HUNTERSVILLE PARKS AND RECREATION

The Bid Package, consisting of the Invitation to Bid, Instructions to Bidders, Bid Proposal Form, Non-collusion Affidavit, Substitution Listing Form, General Conditions of the Contract, and Contract Drawings may be obtained from the Huntersville Parks and Recreation Department, 14704 N. Old Statesville Road, Huntersville, NC, or

Publication

Statesville Road, Huntersville, NC, or may be accessed at the following web address: www.huntersville.org. Contract documents will not be mailed to Bidders.

Copies of the Contract Documents may be examined at the Huntersville Parks and Recreation, Huntersville, North Carolina 28078.

Each Bid must be accompanied by cash, cashier's check, certified check on a bank or trust company insured by the Federal Deposit Insurance Corporation or Bid Bond in the amount not less than five percent (5%) of the amount of the Bid in the form and subject to the conditions provided in the Information for Bidders.

1. The Contract Drawings for this Project were provided to the Town by McAdams. If awarded, the Project will be awarded to the lowest responsive, responsible Bidder, taking into account quality, performance and time specified in the Contract Documents.

A pre-bid meeting shall be held on **Wednesday, April 22, 2026, at 10:00 AM** at the project site located at 14200 Holbrooks Road, Huntersville, NC 28078. Meet shelter and restroom building near the hockey/basketball court. Any questions regarding this meeting should be directed to Michael Jaycocks, Director of Parks and Recreation at 704-766-2228.

The Town of Huntersville ("Town") reserves the right to waive any minor deviations in the Bid Proposal and to reject any or all Bid Proposals.
IPL0329483
Apr 10 2026

<< Click here to print a printer friendly version >>

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BID PROPOSAL

SINGLE PRIME GENERAL CONSTRUCTION CONTRACT BID PROPOSAL

WAYMER PARK SPLASH PAD

ALTERING THE FACE OF THIS FORM IN ANY MANNER, OR PROVIDING INFORMATION NOT SPECIFICALLY REQUESTED SHALL RENDER THIS BID PROPOSAL NON-RESPONSIVE AND INELIGIBLE FOR CONSIDERATION BY THE TOWN.

Date: 05/13/2026

TO: Town of Huntersville, North Carolina

To Whom It May Concern:

The undersigned Bidder, having examined carefully the site, the Invitation to Bid, Instructions to Bidders, Construction Drawings, the form Construction Agreement, Supplementary Documents (if any) and subsequent Addenda (as acknowledged herein) for the construction of a splash pad and pedestrian hardscape areas with associated demolition/clearing, grading, erosion control, installation of utilities, stormwater conveyance measures, and landscaping. Bidder hereby proposes to furnish all labor, materials, equipment, and services necessary to perform the Work required in the Construction Documents and terms of this Proposal for the amounts listed below.

Base Bid Total: $ 855,496 (Lump Sum)

Splash Pad Statements:
The bid total provided above includes the basis of design equipment as shown on the Contract documents for the Splashpad. Circle Yes or No?

If "no", complete the following:
The bid total listed above includes specialty pool play equipment provided by the following named manufacturer,_____, conformant with the requirements of specification section 131147, Pool Play Equipment.

The bid total provides equivalent value to the basis of design and includes the following,
_____ Above Grade Spray/Play Equipment Elements *(Insert quantity)*
_____ Flush Mounted Spray/Play Equipment Elements *(Insert quantity)*
_____ Flush Mounted Drains *(Insert quantity)*
_____ Activators *(Insert quantity)*
_____ Drains *(Insert quantity **and dimensions**)*
_____ Flow required for all features *(insert total flow in GPM)*
_____ Flow limited by sequencing of controller. *(insert total flow in GPM)*

in the concept orientation shown in the attached sheets. (*Bidder shall attach no more than ten letter size pages to define the layout, aesthetics, play value and theming for the pool play equipment included in the bid total).*

- The pool play equipment included in the bid required no change to slope or elevations.
    - Circle Yes or No?

- The equipment included in the bid includes swappable bases for easy relocation or replacement of features?
    - Circle Yes or No

- A manufactured manifold, cabinet and controller are included in the bid as standard to the play equipment manufacturer?
    - Circle Yes or No?

Please note any other modifications to the basis of design included/assumed in your bid total.

Town reserves the right to award contract based on Base Bid only, or combination of Base Bid and any/all of the Alternate Bid Items below. The Bidder shall indicate if the Alternate is an add or deduct for the overall bid. If the Alternate is left blank, then the Alternate will not change the Base Bid if accepted. The Bidder agrees to provide the Alternates as described in the Contract Documents for the following prices:

Alternate #1 – Spray Pad Floor Finish: Add $ 73,300 (Lump Sum)

Unit Prices		
Description	**Unit**	**Unit Price**
Undercut of Unsuitable Soils	CY	48
Mass Rock Removal as describe in	CY	185 w/ min of $8500
Trench Rock as Removal	CY	230 w/ min of $8500
Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.		

The undersigned further agrees that this Bid Proposal shall be valid for a period of sixty (60) days from the date of receipt of the Bid Proposal and that if this Bid Proposal is

Addendum No. _____Dated_____

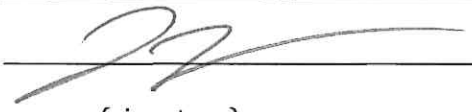
Addendum No. _____Dated_____

Addendum No. _____ Dated _____

CONTRACTOR: Fairwood Construction
(Company)

Contractor ☒ is or ☐ is not a historically underutilized business, registered with the North Carolina Office of Historically Underutilized Businesses. (Must be completed by all Bidders.)

ADDRESS: 2136 Remount Rd.
Charlotte, NC 28208

BY:  Jordan Zell
(signature) (typed name)

TITLE: Director of Preconstruction

NC General Contractor's License No. 76211

NC State Sales and Use Tax Registration 475036170

☒ Non-collusion Affidavit has been completed and is attached to this Bid Proposal Form (Required)
Note: Inclusion of the non-collusion affidavit is mandatory. A bid will be rejected as non-responsive if not included in the bid submission.

Select One (one or the other must be chosen by the Bidder):

☐ Substitution Listing (if substitutions are being proposed) is attached to this Bid Proposal Form.
Note: Failure to include the Substitution Listing with this Bid Proposal will render the substitutions ineligible for consideration by the Town.

OR

☒ Substitution Listing is not attached to this Bid Proposal Form (No substitutions are proposed.) But there is potential savings to go with a Votex pad.

accepted by the Town within this period, the Bidder will execute the Construction Agreement provided as part of the Contract Documents.

The undersigned further agrees to begin the work promptly upon receipt of the Notice to Proceed and to pursue the work with an adequate work force to complete the work within 140 calendar days from receipt of the Notice to Proceed. Liquidated Damages of $500.00 per calendar day are hereby agreed upon as an assessment from the Contractor for failure to complete the work within the time period stated herein.

The undersigned Bidder further proposes and agrees to commence the work promptly upon notice, with an adequate force to satisfactorily complete the Project.

The undersigned acknowledges receipt of the following addenda which will be considered as part of the Contract Documents.

Attach to bid (as appropriate) **Attach to bid (as appropriate)** **Attach to bid (as appropriate)**

AFFIDAVIT A
Listing of Good Faith Efforts
(The University of North Carolina)

County of Mecklenburg

Affidavit of Fairwood Construction

for Waymer Splash Pad - Huntersville, NC

(Name of Bidder) (Name of Project)

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive.
(1 NC Administrative Code 30 I.0101)

- ☒ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☒ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☐ **3 – (15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ☒ **5 – (10 pts)** Attended prebid meetings scheduled by the public owner.
- ☐ **6 – (20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☒ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ **8 – (25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ **9 – (20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☒ **10 - (20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

Attach to bid **Attach to bid** **Attach to bid to bid** **Attach to bid** **Attach**

Identification of HUB Certified/ Minority Business Participation

I, Fairwood Construction (Name of Bidder), do hereby certify that on this project (Waymer Splash Pad - Huntersville, NC (Name of Project)), we will use the following HUB Certified/ minority business(es) as construction subcontractors, vendors, suppliers, or providers of professional services.

Firm Name, Address and Phone Number	Work Type	*Minority Category	**HUB Certified
Fairwood Contruction, LLC 2136 Remount Rd. Charlotte, NC 28208	General Contracting	SBE WMBE	410028 Pending
			Y / N
			Y / N
			Y / N
			Y / N
			Y / N
			Y / N
			Y / N
			Y / N

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

The total value of minority business contracting will be ($) $87,053 .

Standard Form Contract

NON-COLLUSION AFFIDAVIT

I, on behalf of the Bidder, being first duly sworn or as the Contractor, do hereby represent on behalf of the Bidder that the Bid Proposal submitted was made without collusion or fraud and that neither I, nor anyone else affiliated with the Bidder to my knowledge, have offered or received any kickbacks or inducements from any other supplier, manufacturer or subcontractor in connection with their Bid Proposal, and neither I, nor anyone else affiliated with the Bidder to my knowledge, have conferred on any public employee having official responsibility for this procurement transaction any payment, loan, subscription, deposit of money, services or anything of more than nominal value, present or promised, unless consideration of substantially equal or greater value was exchanged.

This the 13 th day of May, 2026.

BIDDER:
Fairwood Construction

Jordan Zell
Print Name:

Director of Preconstruction
Print Title:

State of North Carolina

County of Mecklenburg

Sworn to or subscribed before me this the 13TH day of May,2026.

(Official Seal)

AMANDA ALFARO NOTARY PUBLIC UNION COUNTY, NC EXPIRES 3/14/2029

Notary Public:

AMANDA ALFARO
Print Name:

BIDDER'S QUALIFICATION REQUIREMENTS FORM

In order to be considered for this project, the Contractor must meet the following minimum qualification requirements.

A. The companying bidding on the project shall have been in business for at least 5 years, and been the prime contractor, and have performed similar types of splash pad installation projects. Yes

B. Possess a North Carolina General Contractors License Yes: #76211

C. Company and/or principals of firm must not have been accessed liquidated damages on similar type of projects in the past 3 years. Yes

D. Be capable of providing percent performance and payment bonds as specified in the contract. Yes

E. Be able to provide the insurance required by the Contractor and all the subcontractors that will be on site. Yes

F. Provide at least three (3) splash pad projects completed by the Contractor with reference names and phone numbers. (2) see below

I have read and understand all sections of the Bidder's Qualifications. This page must be submitted with bid.

Signed By: Mandy Allen

Title: (Owner, Partner or Corporate President or Vice President only)
PRESIDENT, FAIRWOOD CONSTRUCTION

Monroe Splash Pad
City of Monroe
Brian Borne - City Manager
bborne@monroenc.org

City of Pineville Lake Park Splash Pad
Ryan Spitzer - Town manager
704-889-2291
rspitzer@pinevillenc.gov

FORM OF BID BOND

KNOW ALL MEN BY THESE PRESENTS THAT _____

Fairwood Construction, LLC as principal, and Employers Mutual Casualty Company, as surety, who is duly licensed to act as surety in North Carolina, are held and firmly bound unto Town of Huntersville as obligee, in the penal sum of Five Percent of Amount Bid 5% DOLLARS, lawful money of the United States of America, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

Signed, sealed and dated this 13th day of May, 2026

WHEREAS, the said principal is herewith submitting proposal for

Waymer Splash Pad

and the principal desires to file this bid bond in lieu of making the cash deposit as required by G.S. 143-129.

NOW, THEREFORE, THE CONDITION OF THE ABOVE OBLIGATION is such, that if the principal shall be awarded the contract for which the bid is submitted and shall execute the contract and give bond for the faithful performance thereof within ten days after the award of same to the principal, then this obligation shall be null and void; but if the principal fails to so execute such contract and give performance bond as required by G.S. 143-129, the surety shall, upon demand, forthwith pay to the obligee the amount set forth in the first paragraph hereof. Provided further, that the bid may be withdrawn as provided by G.S. 143-129.1

Fairwood Construction, LLC (SEAL)

By: _____ (SEAL)

_____ (SEAL)

Fairwood Construction, LLC LIMITED LIABILITY COMPANY 2015 NORTH CAROLINA

Employers Mutual Casualty Company (SEAL)

By: _____ (SEAL)

Wendy E Lahm, Attorney-in-Fact

Surety Phone No. 515-280-2511

EMPLOYERS MUTUAL CASUALTY CO. CORPORATE SEAL DES MOINES, IOWA

emc INSURANCE

P.O. Box 712 • Des Moines, Iowa 50306-0712

POWER OF ATTORNEY APPOINTING INDIVIDUAL ATTORNEY-IN-FACT

KNOW ALL MEN BY THESE PRESENTS, that:

1. Employers Mutual Casualty Company, an Iowa Corporation
2. EMCASCO Insurance Company, an Iowa Corporation
3. Union Insurance Company of Providence, an Iowa Corporation
4. Illinois EMCASCO Insurance Company, an Iowa Corporation
5. Dakota Fire Insurance Company, a North Dakota Corporation
6. EMC Property & Casualty Company, an Iowa Corporation

hereinafter referred to severally as "Company" and collectively as "Companies", each does, by these presents, make, constitute and appoint:

Wendy E Lahm

its true and lawful attorney-in-fact, with full power and authority conferred to sign, seal, and execute the following Surety Bond(s):

Surety Bond Number : Bid Bond
Principal : Fairwood Construction, LLC
Obligee : Town of Huntersville

and to bind each Company thereby as fully and to the same extent as if such instruments were signed by the duly authorized officers of each such Company, and all of the acts of said attorney pursuant to the authority hereby given are hereby ratified and confirmed.

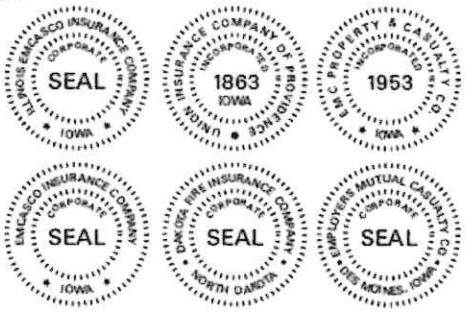
AUTHORITY FOR POWER OF ATTORNEY

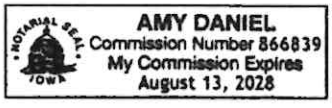
This Power-of-Attorney is made and executed pursuant to and by the authority of the following resolution of the Boards of Directors of each of the Companies at the first regularly scheduled meeting of each company duly called and held in 1999:

RESOLVED: The President and Chief Executive Officer, any Vice President, the Treasurer and the Secretary of Employers Mutual Casualty Company shall have power and authority to (1) appoint attorneys-in-fact and authorize them to execute on behalf of each Company and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof; and (2) to remove any such attorney-in-fact at any time and revoke the power and authority given to him or her. Attorneys-in-fact shall have power and authority, subject to the terms and limitations of the power-of-attorney issued to them, to execute and deliver on behalf of the Company, and to attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof, and any such instrument executed by any such attorney-in-fact shall be fully and in all respects binding upon the Company. Certification as to the validity of any power-of-attorney authorized herein made by an officer of Employers Mutual Casualty Company shall be fully and in all respects binding upon this Company. The facsimile or mechanically reproduced signature of such officer, whether made heretofore or hereafter, wherever appearing upon a certified copy of any power-of-attorney of the Company, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

IN WITNESS THEREOF, the Companies have caused these presents to be signed for each by their officers as shown, and the Corporate seals to be hereto affixed this 17th day of September, 2025.

Seals





Scott R. Jean, President & CEO
of Company 1; Chairman, President
& CEO of Companies 2, 3, 4, 5 & 6

Todd Strother, Executive Vice President
Chief Legal Officer & Secretary of
Companies 1, 2, 3, 4, 5 & 6

On this 17th day of September, 2025 before me a Notary Public in and for the State of Iowa, personally appeared Scott R. Jean and Todd Strother, who, being by me duly sworn, did say that they are, and are known to me to be the CEO, Chairman, President, Executive Vice President, Chief Legal Officer and/or Secretary, respectively, of each of the Companies above; that the seals affixed to this instrument are the seals of said corporations; that said instrument was signed and sealed on behalf of each of the Companies by authority of their respective Boards of Directors; and that the said Scott R. Jean and Todd Strother, as such officers, acknowledged the execution of said instrument to be their voluntary act and deed, and the voluntary act and deed of each of the Companies.

My Commission Expires August 13, 2028.

Notary Public in and for the State of Iowa

CERTIFICATE

I, Ryan J. Springer, Vice President of the Companies, do hereby certify that the foregoing resolution of the Boards of Directors by each of the Companies, and this Power of Attorney issued pursuant thereto on 17th day of September, 2025, are true and correct and are still in full force and effect.
In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 13th day of May, 2026.

Vice President

"For verification of the authenticity of the Power of Attorney you may call (515) 345-7548."

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date: 05/13/2026

Name of Authorized Officer: Jordan Zell

Signature: [signature]

Title: Director of Precontruction



State of NC, County of MECKLENBURG

Subscribed and sworn to before me this 8TH day of MAY 2026

Notary Public [signature]

My commission expires 3/14/2029

SUBSTITUTION LISTING

TO: **Town of Huntersville, North Carolina**
Hereinafter called "Owner"

1. A Bidder requesting a substitution must submit this form to the Project Manager and Project Landscape Architect at least five (5) business days prior to the time stated for Bid Opening.

2. Pursuant to bidding requirements for the Work titled:

   WAYMER PARK SPLASH PAD

   The Contract Sum proposed by the under signed on the Bid Proposal form is for the Work as shown on the Drawings, and otherwise defined in the Contract Documents. However, the undersigned proposes the following substitutions for the Owner's consideration. Should the Owner accept any or all of the proposed substitutions, the Bidder's proposed contract sum will be reduced by the amount shown.

Waymer Park Splash Pad Project

Town of Huntersville

May 13, 2026 – 10am

Bids for Single Prime

Contractor	License No.	Bid Bond	Non-Collusion Affidavit	Bidder's Qualification Form	Base Bid	Bid Alternate #1 Pad Flooring
Hoss Contracting, Inc.	77611	X	X	X	$910,777.00	$76,000.00
Fairwood Construction	76211	X	X	X	$855,496.00	$73,300.00
Bell Construction Group	106188	X	X	X	$749,950.55	$0.00 (No Response)

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Emily Sloop, Town Attorney

Subject: CRPTO Memorandum of Understanding

Explain Request:

Consider approval of edits to Memorandum of Understanding with Charlotte Regional Transportation Planning Organization.

Action Recommended: Approve Item

Alternative Action:

None

Financial Implications:

Attachments:

1. CRTPO MOU_2026_Update

Charlotte Regional
Transportation Planning Organization

Memorandum of Understanding

Effective Date: ~~November 6, 2024~~

Endorsed by the
Charlotte Regional
Transportation Planning Organization
~~July 17, 2024~~June 17, 2026

MEMORANDUM OF UNDERSTANDING

FOR

COOPERATIVE, COMPREHENSIVE, AND CONTINUING TRANSPORTATION PLANNING

AMONG

THE GOVERNOR OF THE STATE OF NORTH CAROLINA, THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION,
THE CITY OF CHARLOTTE, TOWN OF CORNELIUS, TOWN OF DAVIDSON, TOWN OF FAIRVIEW, TOWN OF HUNTERSVILLE, TOWN OF INDIAN TRAIL, IREDELL COUNTY, TOWN OF MARSHVILLE, VILLAGE OF MARVIN, TOWN OF MATTHEWS, MECKLENBURG COUNTY, TOWN OF MINERAL SPRINGS, TOWN OF MINT HILL, CITY OF MONROE, TOWN OF MOORESVILLE, TOWN OF PINEVILLE, TOWN OF STALLINGS, CITY OF STATESVILLE, TOWN OF TROUTMAN, UNION COUNTY, TOWN OF WAXHAW, TOWN OF WEDDINGTON, VILLAGE OF WESLEY CHAPEL, TOWN OF WINGATE, ~~and the METROPOLITAN TRANSIT COMMISSION,~~ and the METROPOLITAN PUBLIC TRANSPORTATION AUTHORITY ("MPTA"), the successor entity to the METROPOLITAN TRANSIT COMMISSION ("MTC").

(hereinafter, the State, the Municipalities, the Counties, ~~and the MTC~~ and the MPTA)

IN COOPERATION WITH THE UNITED STATES DEPARTMENT OF TRANSPORTATION

WITNESSETH THAT:

WHEREAS, Section 134(a) of Title 23 of the United States Code states in relevant part:

"It is in the national interest—(1) to encourage and promote the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of people and freight, foster economic growth and development within and between States and urbanized areas better connect housing and employment, and take into consideration resiliency needs while minimizing transportation-related fuel consumption and air pollution through metropolitan and statewide transportation planning processes identified in this chapter; and (2) to encourage the continued improvement and evolution of the metropolitan and statewide transportation planning processes by metropolitan planning organizations, State departments of transportation, and public transit operators";

WHEREAS, a transportation planning process includes the operational procedures and working arrangements by which short and long-range transportation plans are soundly conceived and developed and continuously

evaluated in a manner that will:

1. Assist governing bodies and official agencies in determining courses of action and in formulating attainable capital improvement programs in anticipation of community needs; and,
2. Guide private individuals and groups in planning their decisions, which can be important factors in the pattern of future development and redevelopment of the area;

WHEREAS, Chapter 136, Article 3A, Section 136-66.2(a) of the General Statutes of North Carolina requires that:

"Each MPO, with cooperation of the Department of Transportation, shall develop a comprehensive transportation plan in accordance with 23 U.S.C. § 134. In addition, an MPO may include projects in its transportation plan that are not included in a financially constrained plan or are anticipated

to be needed beyond the horizon year as required by 23 U.S.C. § 134. For municipalities located within an MPO, the development of a comprehensive transportation plan will take place through the metropolitan planning organization. For purposes of transportation planning and programming, the MPO shall represent the municipality's interests to the Department of Transportation.";

WHEREAS, Chapter 136, Article 3A, Section 136-66.2(b) and (b2) – (b4) of the N.C. General Statutes provides in relevant part that:

"After completion and analysis of the plan, the plan shall be adopted by both the governing body of the municipality or MPO and the Department of Transportation as the basis for future transportation improvements in and around the municipality or within the MPO. The governing body of the municipality and the Department of Transportation shall reach agreement as to which of the existing and proposed streets and highways included in the adopted plan will be a part of the State highway system and which streets will be a part of the municipal street system. As used in this Article, the State highway system shall mean both the primary highway system of the State and the secondary road system of the State within municipalities.

The municipality or the MPO shall provide opportunity for public comments prior to adoption of the transportation plan.

For portions of a county located within an MPO, the development of a comprehensive transportation plan shall take place through the metropolitan planning organization.

To complement the roadway element of the transportation plan, municipalities and MPOs may develop a collector street plan to assist in developing the roadway network. The Department of Transportation may review and provide comments but is not required to provide approval of the collector street plan.";

WHEREAS, Chapter 136, Article 3A, Section 136-66.2(d) of the N.C. General Statutes provides in relevant part that:

"For MPOs, either the MPO or the Department of Transportation may propose changes in the plan at any time by giving notice to the other party, but no change shall be effective until it is adopted by both the Department of Transportation and the MPO.";

WHEREAS, it is the desire of the State, the Municipalities, the Counties, and the ~~MTC~~ MPTA, in cooperation with the U.S. Department of Transportation, that their previously established continuing, comprehensive, and cooperative transportation planning process, as set forth in their Memorandum of Understanding effective as of October 10, 2013, be amended and restated to comply with 23 U.S.C. § 134 (Federal Highway Administration), 49 U.S.C. §§ 5303, 5305, 5306, and 5307 (Federal Transit Administration), and N.C. Gen. Stat. § 136-200.2; and

WHEREAS, the effective date of this document shall be the date on which it is signed by the Governor of the State of North Carolina, or his designee.

NOW, THEREFORE, the Memorandum of Understanding is amended and restated to read as follows:

SECTION I. It is hereby agreed that the State, the Municipalities, the Counties, and the ~~MTC~~ MPTA, as successor to the MTC, in cooperation with the U.S. Department of Transportation, will participate in a continuing transportation planning process with responsibilities and undertakings as related in the following paragraphs:

A. The Charlotte Regional Transportation Planning Organization, hereinafter referred to as the CRTPO, is hereby established and shall include the State, the Municipalities, the Counties, the ~~MTC~~ MPTA, successor entity to the MTC, and the various agencies and units of local, State, and Federal government participating in the transportation planning for the area and listed as a non-voting members in Section I.H below.

B. The area involved will consist of the Charlotte Urban Area as defined by the United States Department of Commerce, Bureau of the Census, in addition to that area beyond the Charlotte Urban Area that is expected to become urban within a twenty-year planning period (collectively referred to as the Planning Area).

   Portions of the Charlotte Urban Area located in the following counties are by agreement with adjacent metropolitan planning organizations (MPOs) not part of the Planning Area: Cabarrus, Catawba, Gaston, Lancaster, Lincoln and York. The responsibility for implementing a continuing transportation planning process shall be the responsibility of those MPOs, as noted in the mutually adopted agreements between the CRTPO and the adjacent MPOs.

C. The continuing transportation planning process will be a cooperative

one and all planning discussions will be reflective of and responsive to the comprehensive plans for growth and development of the Planning Area.

D. The continuing transportation planning process will be conducted in accordance with the intent, procedures, and programs of Title VI of the Civil Rights Act of 1964, as amended.

E. The CRTPO shall maintain a centralized information repository including, but not limited to, the Metropolitan Transportation Plan; the Comprehensive Transportation Plan; the Unified Planning Work Program (UPWP); air-quality conformity analysis; the Bylaws and membership lists of CRTPO and its Technical Coordinating Committee (TCC); copies of all final environmental studies, public hearing maps, roadway corridor official maps, and noise reports on projects within the Planning Area; copies of adopted transportation project alignments; the Transportation Improvement Program (local and state); and any other appropriate archival information. The CRTPO shall endeavor, through the affected local governments and appropriate technological means, to make this information easily available to local governments, residents, and individuals involved in land development and real estate transactions.

F. A Policy Board is hereby established with responsibility for cooperative transportation planning decision making for the CRTPO and coordinating transportation policy of the Municipalities and Counties within the Planning Area.

G. The duties and responsibilities of the Policy Board are as follows:

1. The Policy Board, in cooperation with the State and publicly owned operators of mass transportation services, shall be responsible for carrying out the urban transportation planning process specified by the U.S. Department of Transportation.

2. The Policy Board shall be the forum for cooperative decision-making by elected officials of the Municipalities and Counties and by the other members of the Policy Board. However, this shall not limit the Policy Board's local responsibility for (a) ensuring that the transportation planning process and the plans and improvement projects that emerge from that process are consistent with the policies and desires of the Municipalities and Counties; nor, (b) serving as a forum for the resolution of conflicts that arise while developing the UPWP, Metropolitan Transportation Plan, and Transportation Improvement Program.

3. The Policy Board shall review and approve the UPWP, Metropolitan Transportation Plan, and Transportation Improvement Program (or any amendments thereto).

4. The Policy Board shall be responsible for adopting and amending the

Comprehensive Transportation Plan. Action of the Policy Board in this regard (and this regard only) shall be construed as definitive action of any and all affected Municipalities and shall meet the statutory requirement of G.S. 136-66.2(b) without further action of the Municipality(ies).

5. The Policy Board shall have the responsibility for: keeping the Boards of the Municipalities and Counties informed of the status and requirements of the transportation planning process; assisting in the dissemination and clarification of the decisions, inclinations, and policies of those Boards; and ensuring meaningful resident participation in the transportation planning process.

6. The Policy Board shall review, approve, and endorse changes to the Federal-Aid Urban Area System and Boundary, in conformance with Federal regulations.

7. The Policy Board shall review, approve, and endorse a Prospectus for transportation planning that defines work tasks and responsibilities for the various governing bodies and agencies participating in the transportation planning process.

8. The Policy Board shall conduct the transportation planning process in conformance with the Clean Air Act, as amended.

   The Policy Board is responsible for conducting public involvement and technical analyses to determine the preliminary alignments for transportation projects included in the Comprehensive Transportation Plan and Metropolitan Transportation Plan. For mass transit projects, CRTPO will work in cooperation with the Charlotte Area Transit System (until such time as it becomes part of the MPTA) and the Metropolitan Public Transportation Authority ~~Transit Commission~~, or any other relevant governmental agency that has jurisdiction in the CRTPO planning area. These alignments will be used by local jurisdictions through their land development ordinances for right-of-way protection purposes. Once the Policy Board has adopted an alignment, it can be modified only by official Policy Board action as outlined in the Bylaws of the CRTPO and the TCC and in accordance with any applicable procedures detailed in the Public Involvement Plan.

   The Policy Board will adopt an alignment for right-of-way purposes even if it was produced through a State or locally funded environmental study process.

   All Policy Board alignment decisions are subject to the voting rules contained in Section I.I of this Memorandum of Understanding.

9. Each Municipality's or County's member of the Policy Board shall be responsible for instructing the clerk of his/her local government to submit certified and sealed copies of minutes or resolutions to the

secretary of the CRTPO when formal action involving the Comprehensive Transportation Plan is taken by his/her local government.

10. The Policy Board is responsible for the distribution of funds allocated to the CRTPO under the provisions of the federal Infrastructure Investment and Jobs Act, and successor legislation.

11. The Policy Board shall adopt a set of Bylaws for the CRTPO. Amendments to the Bylaws shall be approved by a vote according to Section I.I.6 below.

12. The Policy Board shall have the primary responsibility for facilitating resident input into the continuing transportation planning process.

13. Any other duties the Policy Board identifies as necessary to further facilitate the transportation planning process.

H. The Policy Board shall consist of both voting and non-voting members. The Policy Board shall have a Chairperson and Vice-Chairperson elected in accordance with the CRTPO Bylaws and shall meet in accordance with the Bylaws.

Voting membership: The voting members of the Policy Board shall consist of the Chief Elected Official (or a single representative designated by the Chief Elected Official) of each Municipality and County, as well as two members from the North Carolina Board of Transportation (as specified below) and one member representing the MPTA ~~MTC~~. The Chief Elected Official of each Municipality and County is strongly encouraged to designate an alternate, in accordance with the rules contained within the CRTPO Bylaws.

Each voting member shall have the indicated number of votes below for its respective governing body or agency for all voting purposes:

Unit	Number of votes
City of Charlotte	31
Town of Cornelius	2
Town of Davidson	1
Town of Fairview	1
Town of Huntersville	3
Town of Indian Trail	2
Iredell County	3
Town of Marshville	1
Village of Marvin	1
Town of Matthews	2
Mecklenburg County	3
Town of Mineral Springs	1
Town of Mint Hill	2

City of Monroe	2
Town of Mooresville	3
Town of Pineville	1
Town of Stallings	1
City of Statesville	2
Town of Troutman	1
Union County	3
Town of Waxhaw	2
Town of Weddington	1
Village of Wesley Chapel	1
Town of Wingate	1
N.C. Board of Transportation (Division 10)	1
N.C. Board of Transportation (Division 12)	1
~~Metropolitan Transit Commission~~ Metropolitan Public Transportation Authority	1
Total	74

Voting members will vote on matters pursuant to the authority granted by their respective governmental bodies. The term of any voting member that is designated by a Chief Elected Official shall be one calendar year from the date of designation.

Any municipality that does not act to adopt this Memorandum of Understanding by its effective date, and is otherwise eligible for voting membership, may still qualify to have a voting member on the Policy Board if it adopts this Memorandum of Understanding within three months after its effective date. The effective date shall be defined as the date on which the Governor of the State of North Carolina, or his designee, signs this Memorandum of Understanding.

A municipality within the Planning Area must have a local land use plan and development ordinance in place in order to be a voting member. A county other than Iredell, Mecklenburg, and Union that becomes part of the Planning Area in whole or in part with at least 5,000 persons in the unincorporated area will also be eligible to have a voting member on the Policy Board if such county adopts this Memorandum of Understanding and its membership is approved by the Policy Board.

Non-voting membership: One representative from each of the following bodies will serve as a non-voting member of the Policy Board:

Charlotte-Mecklenburg Planning Commission
Iredell County Planning Board
Union County Planning Board
U.S. Department of Transportation – FHWA, FTA

Other local, State, or Federal agencies impacting transportation in the

Planning Area, as well as municipalities in the Planning Area that do not otherwise qualify for voting membership, can become non-voting members upon invitation by the Policy Board.

I. Policy Board Voting Rules

1. Quorum for Policy Board meetings shall be established in accordance with the CRTPO Bylaws.

2. Each voting member of the Policy Board shall be eligible to vote and shall qualify as an "Eligible Member"; provided, however, a Municipality or County must be in good standing, as defined in Section I.L of this document, for its voting member to be an Eligible Member.

3. At Policy Board meetings where a quorum is present, an affirmative vote of the Eligible Members having at least a simple majority of the total votes cast by Eligible Members (according to the table in Section I.H above) shall determine all issues, except as provided in paragraphs 4, 5, and 6 below.

4. When any transportation project concerns a road that does not carry an Interstate, U.S., or

   N.C. route designation, and is totally contained within a single Municipality's corporate limits or sphere of influence, its alignment shall not be determined by the Policy Board without the consent of such Municipality.

5. When any transportation project concerns a road that does not carry an Interstate, U.S. or

   N.C route designation and is within a Municipality's corporate limits or sphere of influence, the Policy Board cannot override the position of such Municipality about the alignment of the road only within its corporate limits or sphere of influence, but not outside its corporate limits or sphere of influence. However, the position of such a Municipality can be overridden by an affirmative vote of the Eligible Members having at least a ¾ supermajority of the total votes held by Eligible Members (according to the table in Section I.H above). Such vote must occur at a Policy Board meeting where a quorum is present.

6. Amendments to this Memorandum of Understanding or the CRTPO Bylaws require an affirmative vote of the Eligible Members having at least a ¾ supermajority of the total votes held by Eligible Members (according to the table in Section I.H above). Such vote must occur at a Policy Board meeting where a quorum is present.

J. A Technical Coordinating Committee, also referred to herein as the TCC, shall be established with the responsibility for (1) general review, guidance, and coordination of the transportation planning process for the Planning Area; (2) making recommendations to the respective local and State governmental

agencies and the Policy Board regarding any necessary actions relating to the continuing transportation planning process; (3) facilitating coordination and communication between the State, the Municipalities, the Counties, the MTC MPTA, and other member agencies of the TCC; (4) facilitating coordination of transportation planning with other planning efforts, such as those concerning land use, public utilities, and maintenance of air quality; and (5) facilitating public involvement and resident participation regarding transportation planning issues. The TCC shall also be responsible for the development, review, and recommendation for approval of the Prospectus, UPWP, Comprehensive Transportation Plan, Transportation Improvement Program, Federal-Aid Urban System and Boundary, and Metropolitan Transportation Plan, and planning resident participation.

Membership of the TCC shall be defined according to the TCC's Bylaws and shall include technical representation from all local, county and State governmental agencies directly related to and concerned with the transportation planning process for the Planning Area.

A TCC member (or alternate) cannot be an elected official of any Municipality or County. TCC members from the Municipalities shall be the chief administrative officers (i.e. city/town managers) or their designees. TCC members from other entities may be their chief administrative officers or their designees. TCC members must be employees of the governing body or agency they represent. Each TCC member shall have one vote.

K. Administrative coordination for the Policy Board and TCC will be performed by the Charlotte Planning, Design & Development Department's Regional Transportation Planning Division Manager (Division Manager), in collaboration with the Chairperson of the Policy Board. Administrative support shall be furnished by the Director of the Charlotte Planning, Design & Development Department. The Division Manager shall supervise additional CRTPO staff as necessary and approved in the annual work program. The Division Manager, or their designee, will serve as the Secretary for the Policy Board and TCC with the responsibility for such functions as follows:

   a. Arranging meetings and agendas
   b. Maintaining minutes and records
   c. Preparing the Prospectus and UPWP
   d. Assembling and publishing the Transportation Improvement Program
   e. Preparing the Metropolitan Transportation Plan
   f. Collecting from Municipalities and Counties certified and sealed minutes and resolutions that document transportation plan revisions and submitting these for mutual adoption by the North Carolina Department of Transportation annually or more often if deemed necessary by the Policy Board or the Municipalities or Counties involved.

g. Monitoring the transportation planning process to ensure its execution is in accordance with the CRTPO's goals and objectives

h. Performing other coordinating functions as assigned by the Policy Board

i. Taking lead responsibility for structuring public involvement in the transportation planning process

j. Preparing the quarterly reimbursement requests for Section 104(f) planning funds and Section 5303 funds.

k. Supervising CRTPO staff

The Division Manager shall be hired by the Director of the Charlotte Planning, Design & Development Department. The Division Manager shall regularly report to the Policy Board and TCC on coordination activities and shall electronically or in writing inform interested parties of actions scheduled for consideration by the Policy Board and TCC.

L. Federal Aid Transportation Planning Grant Funds

a. All transportation and related Federal Aid planning grant funds available to promote the cooperative transportation planning process will be expended in accordance with the UPWP adopted by the Policy Board.

The required local match for Section 5303 funds shall be paid by the Municipality or County that is using such funds. The required local match for Section 104(f) planning funds shall be shared among all Municipalities and Counties pro rata based on population. The population totals used to calculate a Municipality's or County's pro rata share shall be based upon the most recent decennial Census.

b. A Municipality or County providing its share of the local-match funding by the beginning of the next Federal fiscal year shall be considered in good standing. Any Municipality or County not providing its share of the funding by the beginning of the next Federal fiscal year shall not be in a good standing during the next two Federal fiscal years.

Administration of funding in support of the transportation planning process on behalf of the CRTPO will be conducted by the City of Charlotte, which will execute appropriate agreements with funding agencies as provided by the UPWP.

SECTION II. The State, the Municipalities, the Counties, and the ~~MTC~~ MPTA may terminate their participation in the continuing transportation planning process and the CRTPO by giving 30 calendar days written notice to the Policy Board Chairperson prior to the date of termination. When annexation occurs and a Municipality's boundaries extend beyond the Planning Area, the newly expanded boundaries will automatically become part of the Planning Area and will be so designated on the Comprehensive Transportation Plan within 60 calendar days of the annexation. It is further agreed that the State, the Municipalities, the Counties, and the ~~MTC~~ MPTA will assist in the transportation planning process by providing

planning assistance, data, and inventories in accordance with the Prospectus. Additionally, the Municipalities and Counties shall coordinate zoning and subdivision approval in accordance with the adopted Comprehensive Transportation Plan.

SECTION III. In witness whereof, the Division Administrator (Federal Highway Administration), on behalf of the United States Department of Transportation, and the Secretary of Transportation, on behalf of the Governor of the State of North Carolina, have signed this Memorandum of Understanding and the other parties to this Memorandum of Understanding have authorized appropriate officials to sign the same, the City of Charlotte by its Mayor, the Town of Cornelius by its Mayor, the Town of Davidson by its Mayor, the Town of Fairview by its Mayor, the Town of Huntersville by its Mayor, the Town of Indian Trail by its Mayor, Iredell County by the Chair of its Board of Commissioners, the Town of Marshville by its Mayor, the Village of Marvin by its Mayor, the Town of Matthews by its Mayor, Mecklenburg County by the Chair of its Board of Commissioners, the Town of Mineral Springs by its Mayor, the Town of Mint Hill by its Mayor, the City of Monroe by its Mayor, the Town of Mooresville by its Mayor, the Town of Pineville by its Mayor, the Town of Stallings by its Mayor, the City of Statesville by its Mayor, the Town of Troutman by its Mayor, Union County by the Chair of its Board of Commissioners, the Town of Waxhaw by its Mayor, the Town of Weddington by its Mayor, the Village of Wesley Chapel by its Mayor, the Town of Wingate by its Mayor, ~~and the Metropolitan Transit Commission by its Chair~~ and the Metropolitan Public Transportation Authority, by its Chair, as successor to the Metropolitan Transit Commission.

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Pattie McGinnis, Finance Director

Subject: Budget Amendment - Purchase of 106 Gilead Road

Explain Request:

Appropriate Fund Balance (103890.9999) of $1,420,000 to purchase 1.727 acres at 106 Gilead Road (104200.0550). The Board approved the purchase at the June 2, 2026 meeting. The budget amendment of $1,420,000 represents a purchase price of approximately $1,380,000 and an additional $40,000 for soft costs such as surveying and other closing costs.

Action Recommended: Approve Item

Alternative Action:

None

Financial Implications:

Decrease in fund balance of $1,420,000.

Attachments:

None

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Brad Priest, Assistant Planning Director

Subject: Petition #R26-08 Northline Row

Explain Request:

Call a public hearing for August 4, 2026, at 6:00 p.m. at Huntersville Town Hall on Petition #R26-08, a request by Veer Development, LLC to rezone property near the intersection of Sam Furr Road and Old Statesville Road from Neighborhood Residential to Neighborhood Residential Conditional District for a townhome development.

Action Recommended: Approve Item

Alternative Action:

None

Financial Implications:

N/A

Attachments:

None

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Jesse James, Principal Planner

Subject: Petition #R26-07 Northbrook Flex

Explain Request:

Conduct a public hearing on Rezoning Petition #R26-07, a request by Bi-Part Development LLC to rezone +/- 5.262 acres located on Maple Branch Drive from Special Purpose - Conditional District to Special Purpose - Conditional District for commercial uses. This request is to amend the approved Rezoning #R24-04 to allow for two additional flex buildings on Parcel A with an ordinance modification.

Action Recommended: Conduct Public Hearing

Alternative Action:

None

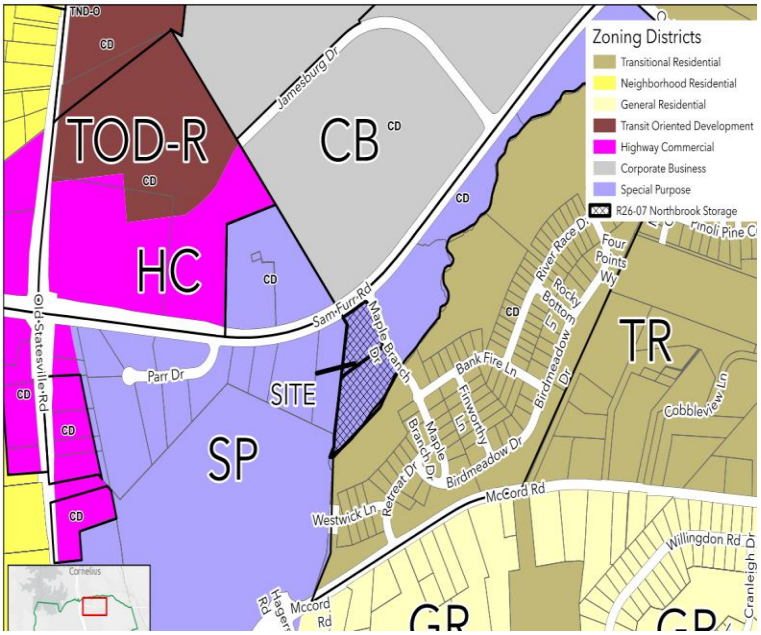
Financial Implications:

Attachments:

1. R26-07 Public Hearing Staff Report
2. R26-07 ENG Staff Report_Public Hearing_7.6.26
3. REVISED ToH General Application - Rezoning_signed
4. Northbrook Flex Rezoning Plans 05.19.2026
5. Town Community Meeting Forms and Report
6. TIA Fall 2025 Update_2026-04-07_Recommended Improvements Exhibit
7. Concept Building Elevations

Application Summary

Case Number/Project Name: R26-07 Northbrook Flex
Project Address: 23331 MAPLE BRANCH DRIVE
Proposed Zoning: **Special Purpose-Conditional District (SP-CD)**
Proposed Land Use: Flex Warehousing
Applicant: Bi-Part Development
Property Owner: Bi-Part Development
Staff Contact: **Jesse James, 704-766-2212 (jjames@huntersville.org)**



Site Data

Acreage (+/-): 5.262
Parcel Numbers: 01122118&01122117
Current Zoning: **Special Purpose-Conditional District (SP-CD)**
Current Land Use: Flex Warehousing
Proposed Building Type: Highway Commercial
Proposed Lot Type: Highway Commercial

Adjoining Zoning and Land Uses

North: **Corporate Business-Conditional District (CB-CD);** *Industrial/warehousing*
South: **Transitional Residential-Conditional District (TR-CD);** *Single Family Housing*
East: **Transitional Residential-Conditional District (TR-CD);** *Single Family Housing*
West: **Special Purpose (SP);** *Flex Space/Warehousing/Storage*

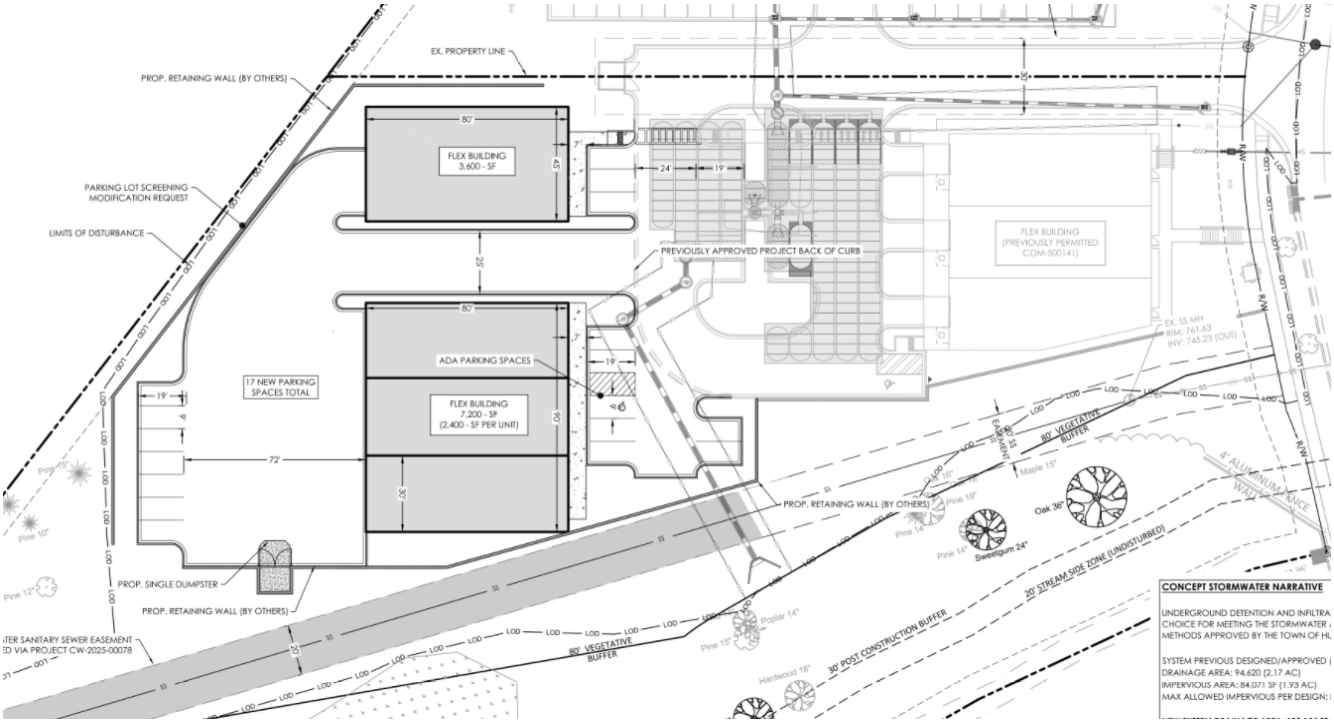
Project Description

This application is to amend the previously approved R24-04 Northbrook Storage Rezoning to allow Parcel A (4 Parcels in that rezoning) in that plan to include a modification to allow 2 additional flex commercial buildings to the rear of the parcel. The ordinance requires that all buildings front on a public street or urban open space. This plan asks for relief of this requirement.

Update Status

- Public Hearing: To be added when available.
- Planning Board: To be added when available.

Rezoning/Site Plan



Density: ***Not Applicable***

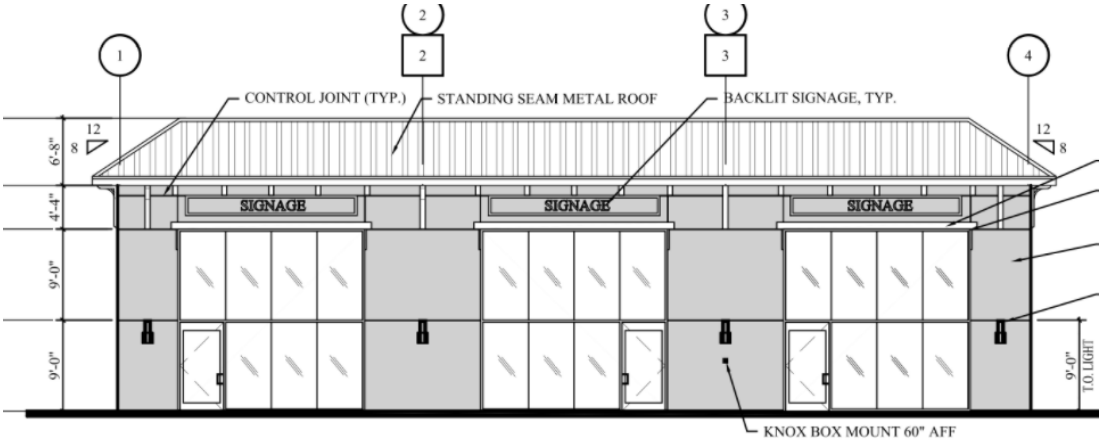
- Proposed:
- Staff comments:

Parking: *Applicant has met the requirement.*

- Proposed: 29 Parking Spaces
- Staff comments: No Issues

Building Height/Scale: *Applicant has met the requirement.*

- Proposed: 23 feet height
- Staff comments: No Issues



Buffers: *Applicant has met the requirement.*

- Proposed: 80-Foot Vegetated Buffer adjacent to single-family.

- Staff comments: No Issues

Open Space: ***Applicant does not meet the requirement.***

- Proposed: No Urban Open Space Provided
- Staff comments: The applicant could add one large building while not as functional as the one proposed. Staff have no issues with the modification to not front on Urban Open Space

Build-To Lines: *Applicant has met the requirement.*

- Proposed: 15foot-BTL
- Staff comments: No Issues

Tree Save: ***Applicant exceeds the requirement***

- Proposed: 3 Specimen Tree Saved and mitigation paid to tree bank fund
- Staff comments: There is no change from the previously approved plan on this site.

Vesting: ***Not Applicable***

- Proposed:
- Staff comments:

Conditional Notes: ***Not Applicable***

- Proposed:
- Staff comments:

Minor Outstanding Comments: ***Applicant is requesting a modification.***

- Staff comments: Screening for the parking/loading areas on the back buildings are still needed. The applicant is requesting a modification.

Transportation Comments: ***Applicant has met the requirement.***

- Staff comments: See attached report for Engineering comments.

Applicant Modification Requests

Modification Request 1: *Relief from article 8.1 For street frontage requirements*

- Applicable Zoning Requirements: Any lot on which a building (or buildings) is to be erected or use is to be established shall abut a public street with the following exceptions…
- Zoning Comments: The exception is to front on an Urban Open Space if appropriate. The Applicant proposes due to the size and orientation of the lot, a modification to not use one of the fronting options for the back 2 buildings.

Staff Recommendation: *Staff recommends approval*

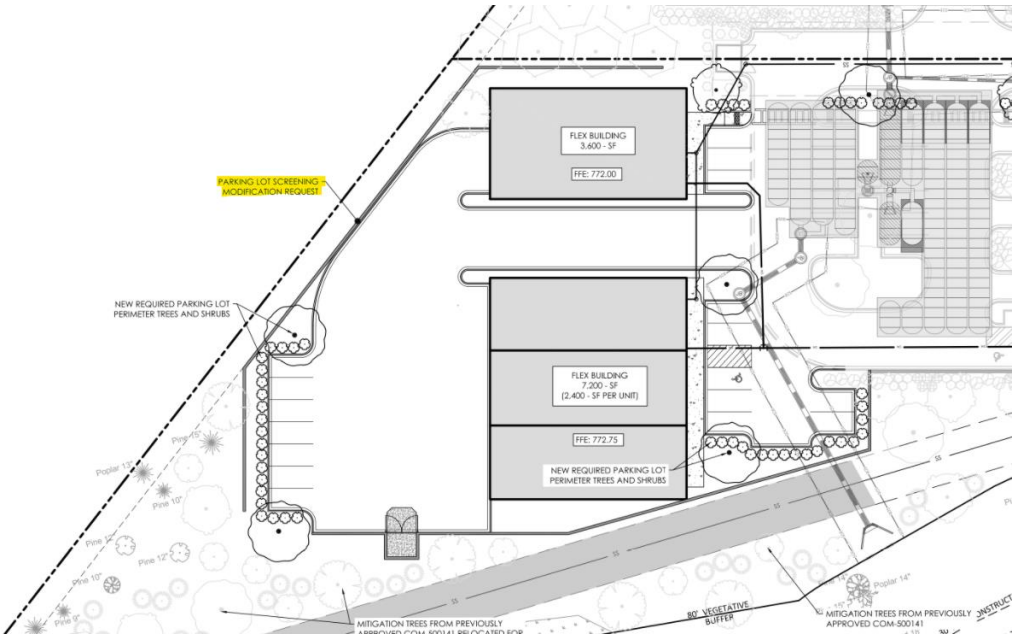
- Staff Comments: Since the lot still offers an 80-foot vegetated buffer, staff is ok with 2 small buildings not including Urban Open Space for frontage. It is appropriate in this situation with lot shape and size along with appropriate screening at the street level and adjacent to single family parcels with an 80-foot vegetated buffer.

Modification Request 2: *Relief from Article 6.1 Off Street Parking Design. Specifically Screening.*

- Applicable Zoning Requirements: Screening shall be provided by installing along the perimeter of the parking lot a continuous row of evergreen shrubs max, separation 4' on center but in no case less than what is necessary to achieve a complete visual screening depending on the variety of shrubs planted (minimum height 2' at installation, expected height at maturity at least 6' except adjacent to street right-of-way where the expected height at maturity is at least 4') and/or a masonry wall 3' to 6' in height. This screen may be penetrated for access between parking lots.
- Zoning Comments: The ordinance requires parking, driveways, and loading bays be screened from adjacent properties, no matter the condition or use of those properties (Adjacent property is storage/flex/warehousing). All properties can be re-developed so planning and zoning look at screening in that sense.

Staff Recommendation: *Staff could recommend approval*

- Staff Comments: Staff recommend screening per ordinance standards due to the potential of redevelopment of the adjacent parcel.



Rezoning Criteria – Zoning Ordinance, Article 11.4.7 (d)(e)

Comprehensive Plan: Huntersville 2040 Community Plan

Future Land Use Map: *Supports Rezoning*



- Staff comments: The Future Land Use Map calls for this area to remain Employment Center, which this rezoning amendment does. The amendment maximizes the area on the subject parcel by increasing the leasable space for potential tenants.

Policy Recommendations - *Support rezoning*

- LU-6-Support a mix of land uses in key locations.
  -LU 6.1: A mix of land uses is encouraged in Mixed Use Centers, Activity Centers, Employment Centers identified on the Future Land Use Map.
- Staff comments: These parcels are all within an Employment Center land use character area and by approving SP zoning with use exclusions it opens the possibilities of a rich mix of land uses from flex space to retail and other commercial uses.

- LU 8.1: Continue to emphasize form and flexibility in development regulations for these areas. (employment centers) The current zoning ordinance has basic form-based standards with flexibility built-in. Key elements include allowing multiple types of land uses, a mix of uses, minimal setbacks, and parking requirements.
- Staff Comments: Due to the orientation and shape of the parcel when factoring the required 80-foot buffer, the proposed design makes more sense to maximize buildable area than by constructing one large building.

Consistency with Existing Development:

- Staff Findings: The proposed rezoning is consistent with the overall character of the existing development in the immediate vicinity of the subject parcels by maintaining the 80-foot vegetated buffer and the additional buildings being screened at the street by the frontage building that meets all development standards for architectural design and orientation.

Adequacy of Public Facilities and Services: (Roadways, Transit Service, Public Safety, Schools, Utilities, Storm Drainage)

- Staff Findings: There is no indication this project will have a negative impact on public facilities and or services.

Impact on Sensitive Resources: (Archaeological, Environmental, Historical, Cultural)

- Staff Findings: Planning staff has no indication that the request will adversely affect known archeological, environmental, historical, or cultural resources.

Staff Recommendation: *Approval with Conditions*

- Staff comments: In considering the proposed rezoning amendment petition R26-07 Northbrook Flex, staff could support the rezoning revision with the following conditions:

  A) The modification to allow the two buildings to the rear of the site is approved
  B) The modification for relief of parking/loading screening is revised to show compliance with ordinance standards.
  C) Any additional minor staff comments are revised prior to the final stamped plan approval.

Public Notices/Meetings/Comments: All meetings are subject to change; hyperlinks added to recording of meetings when available.

Community Meeting: The applicant has hosted one meeting with the community on May 18, 2026. The applicant's report is attached.
Public Notice: Staff confirms that the public notice postcard, rezoning sign, and legal ad were all placed.
Public Comments: All public comments received by mail or electronic mail have been forwarded to all Board members.
Public Hearing: July 21, 2026
Planning Board: July 28, 2026

- Motion to be added when available

Final Action: August 18, 2026.

Attachments

Draft Motion Worksheet
Attachment A – Rezoning Application
Attachment B – Site Plan
Attachment C – Public Notices/Meetings
Attachment D – Engineering Report and TIA Determination

Draft Motion Worksheet

Motion to recommend APPROVAL

In considering the proposed rezoning application <<CASE_PROJECT>>, the <<MEETING_TYPE>> recommends APPROVAL of the rezoning plan with the following conditions:

_____

Including the following modifications: _____

_____

_____

_____

_____

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

Motion to recommend DENIAL

In considering the proposed rezoning application <<CASE_PROJECT>>, the Planning Board recommends DENIAL of the rezoning plan.

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

Town Engineering Rezoning Comment Summary
R26-07 Northbrook Flex (CSP-500126)
PID 01122118
Huntersville, NC 28078

General Project Information

This proposed rezoning consists of additional flex buildings and parking lot to parcel A of the previous conditional rezoning R24-04 Northbrook Storage. This rezoning additionally includes a sketch plan and stormwater concept plan for the proposed flex space, utilizing a driveway to Maple Branch Drive approved in previous construction plans (COM-500141).

Engineering Staff Comments

Traffic Impact Analysis (TIA):

1) A TIA is required as part of this proposed rezoning.
    a. The initial TIA was deferred to NCDOT for review. A draft TIA has been submitted to NCDOT, confirmation that this has been accepted by NCDOT has not yet been submitted to the Town.
2) Transportation and Stormwater:
    a. All other transportation and stormwater follow ordinance and design manual requirements.

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

☐ Change of Use ☐ Commercial Site Plan ☒ Conditional Rezoning ☐ General Rezoning ☐ Master Signage Program ☐ Special Use Permit ☐ Revision to Original Project # _____ ☐ Other _____	SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance ☐ Sketch Plan ☐ Preliminary Plan ☐ Final Plat (Includes Minor Subdivision) ☐ Exempt Subdivision ☐ Final Plat Revision ☐ Farmhouse Cluster

2. Project Data

Date of Application 03/27/2026

Name of Project Northbrook Flex Rezoning Phase # (if subdivision) _____

Project Address 23325 Maple Branch Dr, Huntersville NC

Parcel Identification Number(s) (PIN) 01122118 & 01122117

Current Zoning District SP (CD) Proposed District (for rezoning only) SP (CD)

Property Size (acres) 5.262 acres Street Frontage (feet) _____

Current Land Use Vacant

Proposed Land Use(s) Daycare Facility, Flex Building

Is the project within Huntersville's corporate limits?
Yes X No_____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Provide a detailed summary. (i.e. RTAP identify what you are revising). Additional sheets may be added.
This request is to amend the original rezoning R24-04 for this parcel to allow for two additional flex buildings on

Parcel "A" ; 01122118.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name Bi-Part Development LLC Phone 704-363-7902

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☒ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title Owner Email jpalillo@aol.com

Address of Applicant 18611 Starcreek Rd, Cornelius NC 28031

7. Property Owner (if different than applicant)

*Printed Name _____ Phone _____

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title _____ Email _____

Address of Property Owner _____

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

Development Firm	Name of Contact	Phone	Email
W&A Engineering	Tess Fallova	704-237-0979	tfallova@waengineering.com
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

Town of Huntersville NORTH CAROLINA

General Application
Owner/Applicant Signature Addendum

Application Information

Date of Application 03/27/2026 EPM Number _____

Name of Project Northbrook Flex Rezoning Phase # (if subdivision) _____

Parcel Identification Number(s) (PIN) 01122118 & 01122117

Additional Owners/Applicants: (Signature indicates intent that this page be affixed to Application.)

* ^ Printed Name of Signer New Horizon Real Estate Development - North Carolina LLP Phone Number _____

☐ Corporation ☐Limited Liability Company ☐ Trust ■ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant/owner (circle one) my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title Partner Email pennya074@gmail.com

Address of Property Owner/Applicant 3405 Annapolis Ln N, Suite 100 Plymouth, MN 55447

---

* ^ Printed Name of Signer _____ Phone Number _____

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant/owner (circle one) my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title _____ Email _____

Address of Property Owner/Applicant _____

---

* ^ Printed Name of Signer _____ Phone Number _____

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant/owner (circle one) my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title _____ Email _____

Address of Property Owner/Applicant _____

---

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

^ If signed by an agent on behalf of the Owner, this petition MUST be accompanied by a Limited Power of Attorney signed by the property owner (s) and notarized, specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION.

REZONING SITE PLAN PACKAGE
PROPOSED

NORTHBROOK FLEX REZONING
HUNTERSVILLE, MECKLENBURG COUNTY, NC

ROADWAY IMPROVEMENTS PER APPROVED TIA ASSOCIATED WITH THIS REZONING

2. NC 73 (SAM FURR ROAD) AT MAPLE BRANCH DRIVE

PHASE 1:
- AS DETERMINED THROUGH COORDINATION WITH NCDOT, MODIFY THE INTERSECTION TO PROVIDE LEFT-IN, RIGHT-IN, RIGHT-OUT (LIRIRO) ACCESS.*
- PROVIDE A CHANNELIZED WESTBOUND LEFT-TURN LANE.*

FULL BUILD:
- PROVIDE A WESTBOUND-TO-EASTBOUND U-TURN BULB ON THE SOUTH SIDE OF NC 73 BETWEEN JAMESBURG DRIVE AND MAPLE BRANCH DRIVE, WITH A DEDICATED U-TURN LANE WITH 100 FEET OF STORAGE AND APPROPRIATE DECELERATION AND TAPER.*^

OTHER ROADWAY IMPROVEMENTS PER APPROVED TIA

1. NC 73 (SAM FURR ROAD) AT NC 115 (OLD STATESVILLE ROAD)

PHASE 1 AND FULL BUILD:
- MAINTAIN THE SIGNAL'S EXISTING LEFT-TURN PHASING FOR ALL APPROACHES.

3. NC 73 (SAM FURR ROAD) AT OAK FARM LANE

PHASE 1:
- PROVIDE AN EASTBOUND-TO-WESTBOUND U-TURN BULB ON THE NORTH SIDE OF NC 73 BETWEEN JAMESBURG DRIVE AND OAK FARM LANE, WITH A DEDICATED U-TURN LANE WITH 100 FEET OF STORAGE AND APPROPRIATE DECELERATION AND TAPER.*^

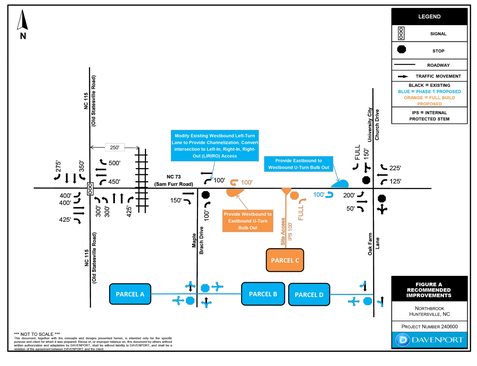
FULL BUILD:
- AS DETERMINED THROUGH COORDINATION WITH NCDOT, NO IMPROVEMENTS REQUIRED.

4. NC 73 (SAM FURR ROAD) AT PARCEL C SITE ACCESS

PHASE 1:
- NOT APPLICABLE.

FULL BUILD:
- THE SITE ACCESS SHOULD BE DESIGNED IN ACCORDANCE WITH APPLICABLE NCDOT AND LOCAL STANDARDS, WITH A RIGHT-IN/RIGHT-OUT CHANNELIZING MEDIAN ON THE NORTHBOUND APPROACH, ONE INGRESS LANE, AND ONE STOP-CONTROLLED EGRESS LANE.

NOTES:
* COORDINATION WITH NCDOT DURING THE PERMITTING PROCESS MAY DETERMINE THAT THE REQUIRED IMPROVEMENT CAN BE WAIVED, DEPENDING ON THE PROPOSED DEVELOPMENT AND R-2632AB CONSTRUCTION TIMELINES.
^ SPECIFIC LOCATIONS OF U-TURN BULBS SHOULD BE COORDINATED WITH NCDOT AND THE TOWN OF HUNTERSVILLE.



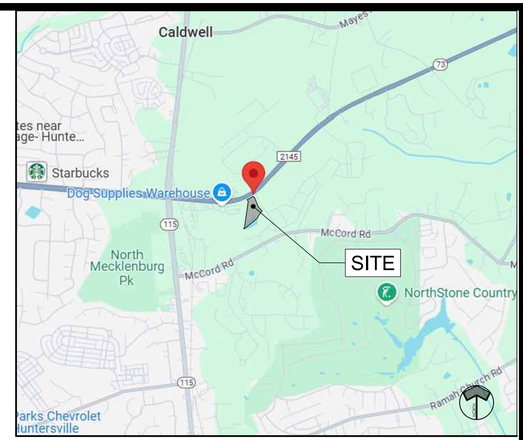
RELATED PROJECT #'s:
R24-04 (REZONING); CSP-500036 ; COM-500141

OWNER/DEVELOPER:

BI-PART DEVELOPMENT, LLC
18611 STARCREEK RD
CORNELIUS, NC 28031
PH: (704) 363-7902

OWNER/DEVELOPER:

NEW HORIZON REAL ESTATE DEVELOPMENT - NORTH CAROLINA LLP
3405 ANNAPOLIS LN N, SUITE 100
PLYMOUTH, MN 55447



VICINITY MAP
SCALE: N.T.S.

Sheet List Table	
Sheet Number	Sheet Title
Z01	COVER
Z02	SURVEY
Z02.1	TREE SURVEY
Z02.2	SLOPE ANALYSIS
Z03	REZONING PLAN
Z03.1	TREE SAVE PLAN
Z04	PRELIM GRADING
Z05	PRELIM LANDSCAPE + UTILITY
Z06	CONCEPT ARCH. ELEVATIONS

REZONING CONDITIONS - APPROVED R24-04

1) THE PERMITTED USES FOR PARCELS A, B, C AND D ARE LIMITED TO THE USES LISTED IN THE REZONING PLAN. IN ADDITION, COMMUNICATIONS TOWERS, ESSENTIAL SERVICES 1&2, AND OUTDOOR STORAGE OF CONSTRUCTION EQUIPMENT SHALL NOT BE A PERMITTED USE.
2) PARCEL C MAY BE DEVELOPED AS A MINI-WAREHOUSE STORAGE FACILITY AS PROPOSED IN THE REZONING PLANS.
3) SCREEN THE BACK OF THE STORAGE FACILITY ON PARCEL C WITH EVERGREEN TREES.
4) THE BUFFER REDUCTION MODIFICATION FOR PARCEL C IS APPROVED AS SHOWN IN THE PLANS.
5) THE CORNER LOT FRONTAGE MODIFICATION TO ALLOW A DAYCARE PLAYGROUND IN THE FRONT YARD OF PARCEL A IS APPROVED AS SHOWN IN THE PLANS.
6) THE DEVELOPER MAKES ANY TRAFFIC NETWORK IMPROVEMENTS THAT ARE SUGGESTED BY THE NCDOT TIA, WHICH HAS NOT BEEN RETURNED YET.
7) THE DEVELOPER SHALL ADDRESS ALL OTHER MINOR STAFF COMMENTS IN THE STAFF REPORT.

RETAINING WALL NOTE:

ALL RETAINING WALLS REQUIRING SPECIAL INSPECTIONS (>5' IN HEIGHT) SHALL MEET THE REQUIREMENTS OF THE MCSBC CHAPTER 17 - SPECIAL INSPECTIONS AS DETAILED PER THE MECKLENBURG COUNTY CODE ENFORCEMENT SPECIAL INSPECTIONS PROCESS. ADDITIONALLY, COPIES OF THE RETAINING WALL PLANS SHALL BE SUBMITTED TO THE HUNTERSVILLE ENGINEERING DEPARTMENT FOR REVIEW AND APPROVAL. THE TOWN OF HUNTERSVILLE SHALL BE COPIED ON ALL STATEMENTS OF SPECIAL INSPECTIONS, SPECIAL INSPECTIONS FINAL REPORTS, AND DESIGN PRINCIPAL IN RESPONSIBLE CHARGE (DPIRC) LETTERS.

811 Know what's below. Call before you dig.

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CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE
LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT
121 GILEAD RD
HUNTERSVILLE, NC 28078
P: (704) 875-1615
WAENGINEERING.COM

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NORTHBROOK FLEX REZONING
MECKLENBURG COUNTY, NC
23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS	
DATE	COMMENT

FOR REVIEW

DATE:

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT 2415 Alyssa Faulkner 5/19/2026

W&A PROJECT #: 24-00534

COVER

Z01

N:\24-00495 New Horizon Daycare Huntersville\DWG\Sheets\REZONING\Z01 - COVER.dwg 5-19-26 05:25:59 PM stalkva



VICINITY MAP
NOT TO SCALE

CURVE	LENGTH	RADIUS	CHORD	CHORD BRG
C1	180.90'	1700.00'	180.80'	N 60°38'55" E
C2	24.87'	20.00'	23.30'	S 86°48'45" E
C3	35.98'	168.00'	35.91'	S 27°25'11" E
C4	80.37'	271.38'	80.07'	S 30°53'49" E

LINE	BEARING	DISTANCE
L1	S 35°23'49" E	39.12'
L2	S 41°56'58" E	64.15'
L3	S 51°56'04" E	20.19'
L4	S 42°36'47" E	37.79'
L5	S 47°03'29" W	30.26'
L6	S 23°56'41" W	13.11'
L7	S 35°54'09" W	17.87'
L8	S 86°09'24" W	26.58'
L9	N 33°43'53" E	20.32'
L10	N 37°37'27" W	50.29'
L11	S 47°38'30" W	56.91'
L12	S 42°22'51" E	6.16'

I, BRIAN K. EVERSOLE, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL FIELD SURVEY UNDER MY SUPERVISION. THAT THE DEEDS AND MAPS NOTED WERE USED AS REFERENCES. THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION INDICATED, THAT THE RATIO OF PRECISION AS CALCULATED IS GREATER THAN 1:10,000; THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA(21 NCAC 56.1600).

WITNESS MY HAND AND SEAL THIS 16th DAY OF November, 2022.

Brian K. Eversole

BRIAN K. EVERSOLE, N.C. PLS-4674

NORTH CAROLINA PROFESSIONAL SEAL L-4674 11/16/22 LAND SURVEYOR BRIAN K. EVERSOLE

NOTES:

1. THIS MAP IS DRAWN FROM AN ACTUAL FIELD SURVEY PERFORMED BY PPS ON NOVEMBER 4th, 2022.
2. NORTH BASED ON NC NAD 83/NSRS 2011.
3. THIS SURVEY WAS MADE WITHOUT BENEFIT OF TITLE REPORT OR OPINION AND DOES NOT PURPORT TO SHOW ALL MATTERS OF TITLE THAT A COMPLETE TITLE REPORT MAY REVEAL.
4. THIS PROPERTY IS SUBJECT TO ALL EASEMENTS AND RIGHTS OF WAY OF RECORD.
5. APPARENT SOURCE OF TITLE: DB. 33862, PG. 535.
6. UNLESS SIGNED AND SEALED, THIS PLAT IS PRELIMINARY NOT FOR RECORDATION, SALES OR CONVEYANCE.
7. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
8. TRAVERSE ADJUSTED BY THE COMPASS RULE ADJUSTMENT METHOD.
9. PHYSICAL IMPROVEMENTS MAY EXIST ON THESE PROPERTIES THAT ARE NOT SHOWN HEREON.
10. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD AREA ACCORDING TO FEMA FLOOD INSURANCE RATE MAP - COMMUNITY PANEL #3710465200K; EFFECTIVE DATE: 11/16/2018.
11. THE SUBJECT PROPERTY IS CURRENTLY ZONED: (CB) "CORPORATE-BUSINESS; CONSULT WITH GOVERNING AGENCY FOR PREVAILING LAND DEVELOPMENT AND ZONING REQUIREMENTS PRIOR TO DESIGN OR CONSTRUCTION OF ANY IMPROVEMENTS.
12. SUBJECT PARCEL IS NOT LOCATED IN A REGULATED DRINKING WATERSHED.
13. THE LOCATION OF UNDERGROUND UTILITIES & THEIR RIGHT OF WAYS SHOWN ON THIS MAP ARE APPROXIMATE, BASED ON INFORMATION PROVIDED BY OTHERS OR BY FIELD LOCATION. UTILITY LOCATIONS AS SHOWN HEREON ARE INTENDED FOR PLANNING ONLY. ACTUAL LOCATION, SIZE OR DEPTH OF LINE SHOULD BE VERIFIED WITH THE INDIVIDUAL UTILITY COMPANY BEFORE CONSTRUCTION.
14. VERTICAL DATUM BASED ON NAVD 88. CONTOURS ARE AT 1' INTERVALS.
15. TIE TO NCGS MONUMENT "WESTMORE" SHOWN HEREON. VERTICAL INFORMATION FOR THIS PROJECT WERE PRODUCED WITH VRS GPS OBSERVATIONS AND PROCESSED WITH VRS SOFTWARE ON 8/19/2022. THE NETWORK POSITIONAL ACCURACY OF THE VRS DERIVED POSITIONAL INFORMATION IS 0.07' AND SURVEY CLASS MEETS OR EXCEED CLASS C.

LEGEND:

NCGS MONUMENT	
#4 REBAR FOUND	
#4 REBAR SET	
ANGLE IRON	
COMPUTED POINT	
ELECTRIC BOX	
CATCH BASIN	
UTILITY POLE	
GUY WIRE	
SEWER MANHOLE	
STORM DRAIN MANHOLE	
WATERMAIN MANHOLE	
DROP INLET	
FIRE HYDRANT	
TRANSFORMER	
SUBJECT PROPERTY LINE	
ADJOINER PROPERTY LINE	
PUBLIC DRAINAGE EASEMENT	
SEWER EASEMENT	
OVERHEAD UTILITIES	OU
SANITARY SEWER PIPE	SS
DUKE POWER EASEMENT	
TREE SAVE	
REINFORCED CONCRETE PIPE	RCP
COREGATED METAL PIPE	CMP
TEMPORARY BENCHMARK	TBM

REVISION TABLE			
NO.	DATE	DESCRIPTION	BY

TOPOGRAPHICAL SURVEY OF PARCEL A OF NORTHBROOK, PHASE 1, MAP 1

– SURVEY FOR –
JAKE PALILLO
–ADDRESS–
11326 SAM FURR ROAD
HUNTERSVILLE, MECKLENBURG COUNTY, NORTH CAROLINA
AS RECORDED IN MAP BOOK 69, PAGE 212
TAX PARCELS: 011–221–17
SURVEY DATE: 11/04/2022

Professional Property Surveyors, Inc.
Firm License-C-3666
18335 Old Statesville Rd.
Suite A
Cornelius, N.C. 28031
(704) 765–5134 Phone/Fax

ANY ADDITIONAL PAVEMENT OR CURB NOT LOCATED BY SURVEY OR THAT CONFLICTS WITH PROPOSED PAVEMENT & CURB AND GUTTER MUST BE REMOVED

ALL PAVEMENT AND CURB TO BE REMOVED SHALL BE SAW CUT AT THE PROPOSED JOINT LOCATION

IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY W&A ENGINEERING IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

THIS SURVEY WAS PROVIDED BY OTHERS AND IS INCLUDED AS REFERENCE ONLY

SURVEY BY:
PROFESSIONAL PROPERTY SURVEYORS, INC.

W&A ENGINEERING
CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE
LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT
121 GILEAD RD
HUNTERSVILLE, NC 28078
P: (704) 875-1615
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NORTHBROOK FLEX REZONING

MECKLENBURG COUNTY, NC

23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS	
DATE	COMMENT

FOR REVIEW

DATE:

NORTH CAROLINA PROFESSIONAL LANDSCAPE ARCHITECT NO 2415 Andrea S. Tallarea 11/16/2022

W&A PROJECT #: 24-00534

SURVEY

Z02

M:\24_PROJECTS\24-00534 Northbrook Flex Rezoning\Civil\Design\Survey\24-00534 Northbrook Flex Rezoning.dwg, 11/16/2022 10:45:56 AM, Adobe PDF

SPECIES	SIZE	INVENTORY
OAK	26	PREV.DEMO
PINE	10	PREV.DEMO
MAPLE	10	PREV.DEMO
ELM	12	PREV.DEMO
POPLAR	18	PREV.DEMO
OAK	22	PREV.DEMO
ASH	18	PREV.DEMO
OAK	20	PREV.DEMO
ELM	16	PREV.DEMO
BEECH	14	PREV.DEMO
OAK	12	PREV.DEMO
OAK	18	PREV.DEMO
HARDWOOD	10	PREV.DEMO
HICKORY	22	PREV.DEMO
OAK	10	PREV.DEMO
POPLAR	12	PREV.DEMO
OAK	14	PREV.DEMO
OAK	10	PREV.DEMO
MAPLE	36	PREV.DEMO
BEECH	16	PREV.DEMO
BEECH	18	PREV.DEMO
POPLAR	24	PREV.DEMO
OAK	12	PREV.DEMO
OAK	24	PREV.DEMO
HICKORY	12	PREV.DEMO
OAK	18	PREV.DEMO
HARDWOOD	10	PREV.DEMO
ELM	22	PREV.DEMO
ELM	14	PREV.DEMO
OAK	18	PREV.DEMO
ELM	12	PREV.DEMO
OAK	18	PREV.DEMO
POPLAR	22	PREV.DEMO
ASH		PREV.DEMO
OAK	18	PREV.DEMO
OAK	20	PREV.DEMO
ASH	14	PREV.DEMO
HARDWOOD	10	PREV.DEMO
HARDWOOD	10	PREV.DEMO
OAK	16	PREV.DEMO
ASH	24	PREV.DEMO
OAK	22	PREV.DEMO
MAPLE	10	PREV.DEMO
OAK	24	PREV.DEMO
OAK	36	PREV.DEMO
OAK	18	PREV.DEMO
OAK	30	PREV.DEMO
POPLAR	18	PREV.DEMO
OAK	10	PREV.DEMO
ASH	20	PREV.DEMO
OAK	22	PREV.DEMO
OAK	16	PREV.DEMO
POPLAR	14	PREV.DEMO
POPLAR	14	PREV.DEMO
MAPLE	10	PREV.DEMO
OAK	18	PREV.DEMO
OAK	28	PREV.DEMO
OAK	22	PREV.DEMO
MAPLE	22	PREV.DEMO
OAK	18	PREV.DEMO
OAK	24	PREV.DEMO
HARDWOOD	10	PREV.DEMO
OAK	12	PREV.DEMO
POPLAR	12	PREV.DEMO
BEECH	12	PREV.DEMO

BEECH	15	PREV.DEMO
OAK	34	PREV.DEMO
OAK	22	PREV.DEMO
OAK	24	PREV.DEMO
OAK	24	PREV.DEMO
PINE	42	PREV.DEMO
PINE	24	PREV.DEMO
OAK	10	PREV.DEMO
OAK	10	PREV.DEMO
POPLAR	14	PREV.DEMO
MAPLE	16	PREV.DEMO
PINE	14	PREV.DEMO
OAK	10	PREV.DEMO
OAK	18	PREV.DEMO
ASH	20	PREV.DEMO
POPLAR	22	PREV.DEMO
OAK	12	PREV.DEMO
OAK	26	PREV.DEMO
OAK	18	PREV.DEMO
OAK	24	PREV.DEMO
OAK	18	PREV.DEMO
OAK	18	PREV.DEMO
ELM	34	PREV.DEMO
OAK	15	PREV.DEMO
ELM	26	PREV.DEMO
BIRCH	24	PREV.DEMO
BIRCH	25	PREV.DEMO
POPLAR	12	PREV.DEMO
POPLAR	14	PREV.DEMO
OAK	18	PREV.DEMO
OAK	14	PREV.DEMO
OAK	15	PREV.DEMO
HARDWOOD	10	PREV.DEMO
HARDWOOD	11	PREV.DEMO
ELM	20	PREV.DEMO
ASH	12	PREV.DEMO
POPLAR	16	PREV.DEMO
BIRCH	16	PREV.DEMO
BIRCH	48	PREV.DEMO
PINE	15	PREV.DEMO
PINE	15	PREV.DEMO
POPLAR	12	PREV.DEMO
POPLAR	12	PREV.DEMO
BLACK GUM	12	PREV.DEMO
POPLAR	12	PREV.DEMO
POPLAR	16	PREV.DEMO
POPLAR	16	PREV.DEMO
PINE	12	PREV.DEMO
OAK	15	PREV.DEMO
OAK	15	PREV.DEMO
OAK	13	PREV.DEMO
POPLAR	17	PREV.DEMO
POPLAR	16	PREV.DEMO
OAK	16	PREV.DEMO
OAK	18	KEEP
PINE	19	KEEP
MAPLE	15	PREV.DEMO

POPLAR	12	PREV.DEMO
MAPLE	14	PREV.DEMO
POPLAR	18	PREV.DEMO
OAK	12	PREV.DEMO
BLACK GUM	24	PREV.DEMO
POPLAR	26	PREV.DEMO
BEECH	10	PREV.DEMO
OAK	15	PREV.DEMO
PINE	23	PREV.DEMO
PINE	17	PREV.DEMO
PINE	15	PREV.DEMO
OAK	10	PREV.DEMO
OAK	10	PREV.DEMO
OAK	23	PREV.DEMO
POPLAR	13	PREV.DEMO
OAK	15	PREV.DEMO
POPLAR	12	PREV.DEMO
OAK	12	PREV.DEMO
POPLAR	15	PREV.DEMO
MAPLE	12	PREV.DEMO
OAK	18	PREV.DEMO
OAK	12	PREV.DEMO
OAK	11	PREV.DEMO
POPLAR	16	PREV.DEMO
BEECH	12	PREV.DEMO
HARDWOOD	10	PREV.DEMO
BEECH	19	PREV.DEMO
PINE	10	PREV.DEMO
OAK	10	PREV.DEMO
PINE	10	PREV.DEMO
PINE	14	PREV.DEMO
PINE	11	PREV.DEMO
PINE	12	PREV.DEMO
PINE	15	PREV.DEMO
POPLAR	12	PREV.DEMO
OAK	12	PREV.DEMO
PINE	15	PREV.DEMO
OAK	12	PREV.DEMO
PINE	10	PREV.DEMO
HARDWOOD	10	PREV.DEMO
HARDWOOD	10	PREV.DEMO
HARDWOOD	10	PREV.DEMO
POPLAR	10	PREV.DEMO
PINE	12	PREV.DEMO
OAK	15	PREV.DEMO
OAK	12	PREV.DEMO
POPLAR	18	PREV.DEMO
SWEET GUM	20	PREV.DEMO
POPLAR	15	PREV.DEMO
PINE	15	PREV.DEMO
PINE	15	PREV.DEMO
PINE	10	PREV.DEMO
PINE	18	PREV.DEMO
ASH	12	PREV.DEMO
POPLAR	11	PREV.DEMO
MAPLE	12	PREV.DEMO
MAPLE	14	PREV.DEMO

PINE	14	REMOVE
PINE	12	REMOVE
MAPLE	16	REMOVE
PINE	15	KEEP
POPLAR	13	KEEP
PINE	10	KEEP
HARDWOOD	9	REMOVE
PINE	12	KEEP
PINE	12	KEEP
PINE	10	KEEP
PINE	9	KEEP
PINE	14	KEEP
MAPLE	10	REMOVE
PINE	10	REMOVE
PINE	10	KEEP
PINE	12	PREV.DEMO
PINE	12	PREV.DEMO
PINE	13	PREV.DEMO
PINE	12	PREV.DEMO
PINE	18	PREV.DEMO
PINE	14	KEEP
PINE	15	KEEP
POPLAR	14	KEEP
POPLAR	24	KEEP
PINE	14	KEEP
OAK	20	PREV.DEMO
OAK	18	PREV.DEMO
OAK	16	PREV.DEMO
OAK	18	PREV.DEMO
OAK	16	PREV.DEMO
OAK	24	PREV.DEMO
OAK	12	PREV.DEMO
OAK	16	PREV.DEMO
OAK	20	PREV.DEMO
OAK	20	PREV.DEMO
OAK	12	PREV.DEMO
OAK	20	PREV.DEMO
OAK	18	PREV.DEMO
OAK	10	PREV.DEMO
OAK	10	PREV.DEMO
OAK	16	PREV.DEMO
OAK	16	PREV.DEMO
OAK	16	PREV.DEMO
OAK	18	PREV.DEMO
OAK	16	PREV.DEMO
SWEET GUM	18	PREV.DEMO
OAK	16	PREV.DEMO
OAK	14	PREV.DEMO
OAK	22	PREV.DEMO
HARDWOOD	14	PREV.DEMO
OAK	18	PREV.DEMO



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NORTHRBOOK FLEX REZONING

MECKLENBURG COUNTY, NC

23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS

DATE	COMMENT

FOR REVIEW

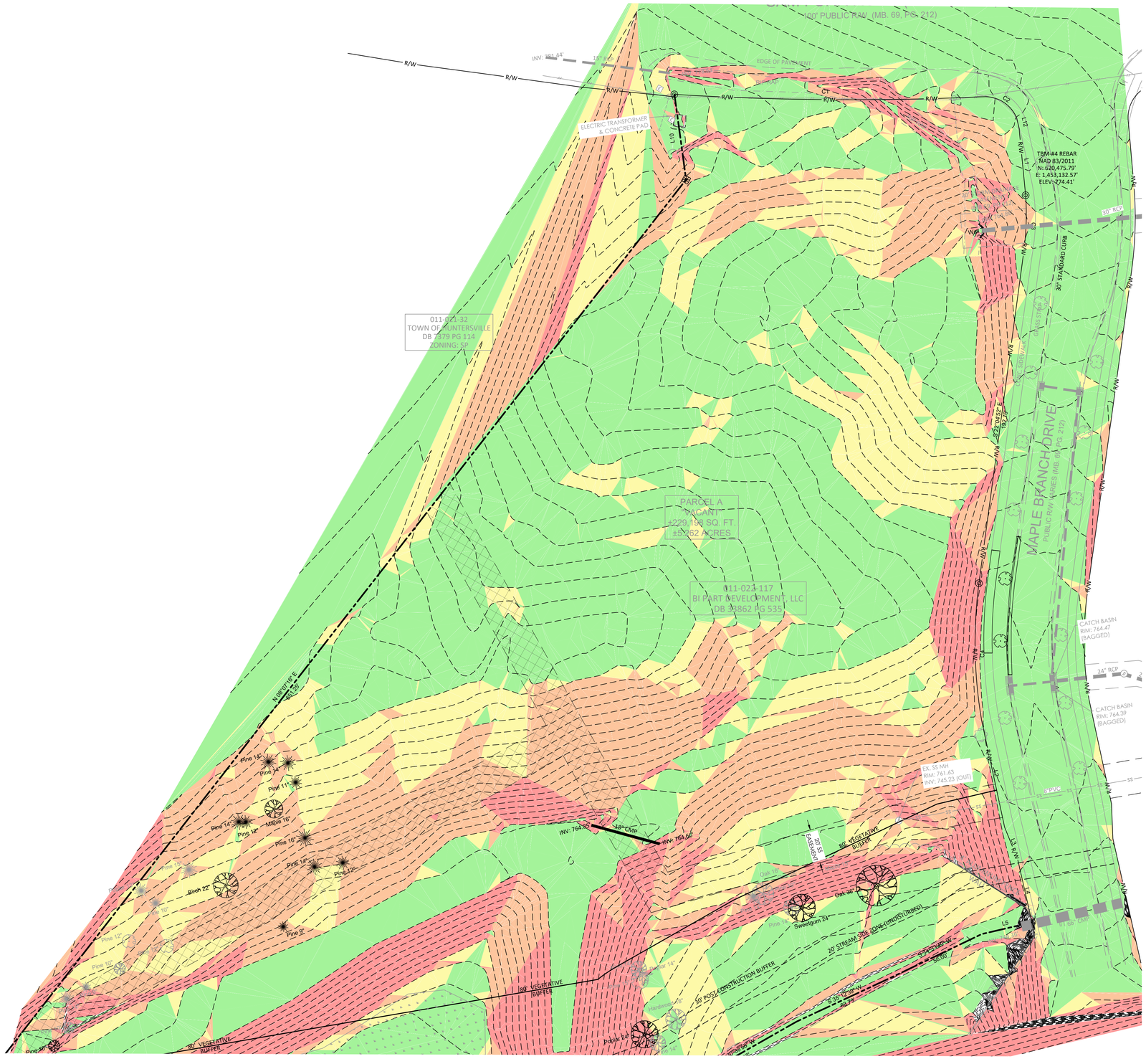
DATE:

NORTH CAROLINA LANDSCAPE ARCHITECTURE NO. 2415 TERESA S. FALLOW

W&A PROJECT #: 24-00534

TREE SURVEY

Z02.1


100' PUBLIC R/W (MB. 69, PG. 212)
R/W
EDGE OF PAVEMENT
INV: 783.44'
15" RCP
ELECTRIC TRANSFORMER & CONCRETE PAD
TBM-#4 REBAR
NAD 83/2011
N: 620,475.79'
E: 1,453,132.57'
ELEV=774.41'
30" RCP
30" STANDARD CURB
011-021-32
TOWN OF HUNTERSVILLE
DB 7379 PG 114
ZONING: SP
PARCEL A
VACANT
±229,198 SQ. FT.
±5.262 ACRES
011-023-117
BI PART DEVELOPMENT, LLC
DB 33862 PG 535
MAPLE BRANCH DRIVE
PUBLIC R/W VARIES (MB. 69, PG 212)
CATCH BASIN
RIM: 764.47
(BAGGED)
24" RCP
CATCH BASIN
RIM: 764.39
(BAGGED)
EX. SS MH
RIM: 761.63
INV: 745.23 (OUT)
8"PVC
INV: 764.85
18" CMP
INV: 764.66
20' SS EASEMENT
80' VEGETATIVE BUFFER
20' STREAM SIDE ZONE (UNDISTURBED)
50' POST-CONSTRUCTION BUFFER
22' WIDE E
NORTH 115' E
Pine 14"
Pine 14"
Pine 11"
Maple 16"
Pine 14"
Pine 12"
Pine 16"
Pine 14"
Pine 12"
Birch 22"
Pine 9"
Pine 12"
Pine 10"
Oak 14"
Pine 14"
Hardwood 18"
Pine 14"
Pine 20"
Oak 36"
Pine 14"
Sweetgum 24"
Oak 36"
Pine 14"
Pine 14"
Pine 14

GENERAL REZONING NOTES

SCHEMATIC NATURE OF REZONING PLAN
- THE PROPOSED IMPROVEMENTS SHOWN ON THE REZONING PLAN ARE SCHEMATIC IN NATURE. MINOR MODIFICATIONS TO THE PLAN MAY OCCUR DURING DESIGN, ENGINEERING AND CONSTRUCTION PHASES OF THE DEVELOPMENT AS APPROVED BY TOW N STAFF. THE REMOVAL OF TREES AND VEGETATION TO ACCOMPLISH THE IMPROVEMENTS IS GENERALLY CONTEMPLATED AS SHOWN ON THIS REZONING PLAN.
- THIS IS A REZONING PLAN AND AS SUCH IS TO BE GRAPHICALLY REPRESENTATIVE OF WHAT IS PROPOSED. THE FINAL ENGINEERING PLAN WILL HAVE MINOR CHANGES. THE BUILDING LOCATION, SIZE, ORIENTATION, AND FEATURES MAY HAVE MINOR CHANGES BASED ON FINAL ENGINEER DESIGN, AS APPROVED BY TOWN STAFF

USE AND COMPATIBILITY
- THIS SITE IS LOCATED JUST OFF THE INTERSECTION OF HWY 73 AND MAPLE BRANCH DRIVE. THE ADJACENT LAND USES CONSIST OF A FLEX BUILDING, DAYCARE CENTER, ELECTRICITIES, AND SINGLE FAMILY HOA OPEN SPACE.

PERMITTED USES
- SEE PERMITTED USES FROM APPROVED REZONING R24-04 ON THIS SHEET

MODIFICATION REQUESTS
- THE APPLICANT WOULD LIKE TO APPLY FOR THE MODIFICATION TO ADD TWO FLEX BUILDINGS AT THE BACK OF THE PROPERTY WITHOUT THE USE OF URBAN OPEN SPACE FOR FLEX BUILDING FRONTAGE.

ACCESS
- THE PRIMARY VEHICULAR ACCESS IS AN EXISTING SINGLE ACCESS DRIVEWAY LOCATED OFF MAPLE BRANCH DRIVE.

SIGNAGE
- ALL SIGNS SHALL COMPLY WITH THE TOWN OF HUNTERSVILLE CODE.

TRASH

GARBAGE SERVICES WILL BE PROVIDED IN A DUMPSTER FACILITY ON SITE.

HVAC / UTILITY EQUIPMENT

- HVAC UNITS WILL COMPLY WITH 7.6 OF THE ORDINANCE

WATER/ SEWER / UTILITIES
- PUBLIC WATER IS AVAILABLE ALONG MAPLE BRANCH DRIVE
- PUBLIC SEWER IS AVAILABLE WITHIN MAPLE BRANCH DRIVE

LIGHTING
- THE LIGHTING FOR THIS PROJECT WILL MEET THE REQUIREMENTS OF 8.26.

ENVIRONMENTAL
- EROSION CONTROL PLANS WILL COMPLY WITH CURRENT ORDINANCES AND BE APPLIED FOR DURING THE COMMERCIAL SITE PLAN PROCESS.
- WATER QUALITY, POST CONSTRUCTION, AND STORM WATER MANAGEMENT WILL COMPLY WITH THE CURRENT ORDINANCES AND WILL BE APPLIED FOR DURING THE SITE PLAN PROCESS.

BUFFERS/LANDSCAPING
- BUFFER YARDS SHALL BE PLANTED IN ACCORDANCE WITH ARTICLE 7.5 OF THE ZONING ORDINANCE. THE BUFFER WILL BE NATURAL, UNDISTURBED WOODED AREAS, AND SUPPLEMENTED IF AN OPAQUE BUFFER IS NOT CREATED WITH EXISTING VEGETATION PER ARTICLE 9.5 OF THE ORDINANCES.

PERMITTED USES

CORPORATE BUSINESS (CB) BY-RIGHT USES:
- OFFICE
- DISTRIBUTIVE BUSINESSES
- LABORATORIES AND RESEARCH FACILITIES
- MANUFACTURING AND ASSEMBLY, EXCLUDING HEAVY MANUFACTURING
- GOVERNMENT BUILDINGS
- WAREHOUSES, EXCEPT MINI-WAREHOUSE STORAGE
- WHOLESALE SALES
- VOCATIONAL AND TECHNICAL SCHOOLS

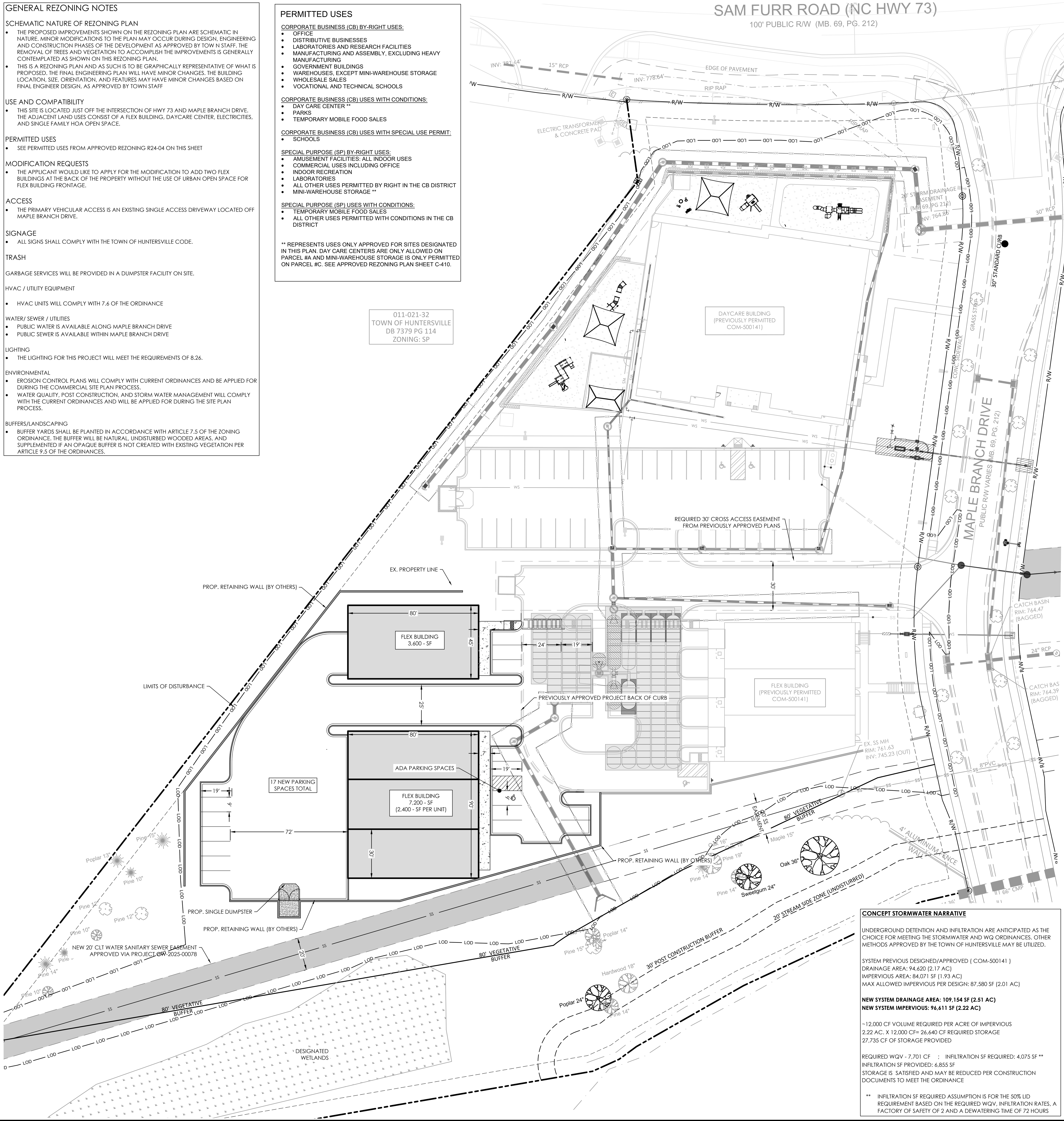
CORPORATE BUSINESS (CB) USES WITH CONDITIONS:
- DAY CARE CENTER **
- PARKS
- TEMPORARY MOBILE FOOD SALES

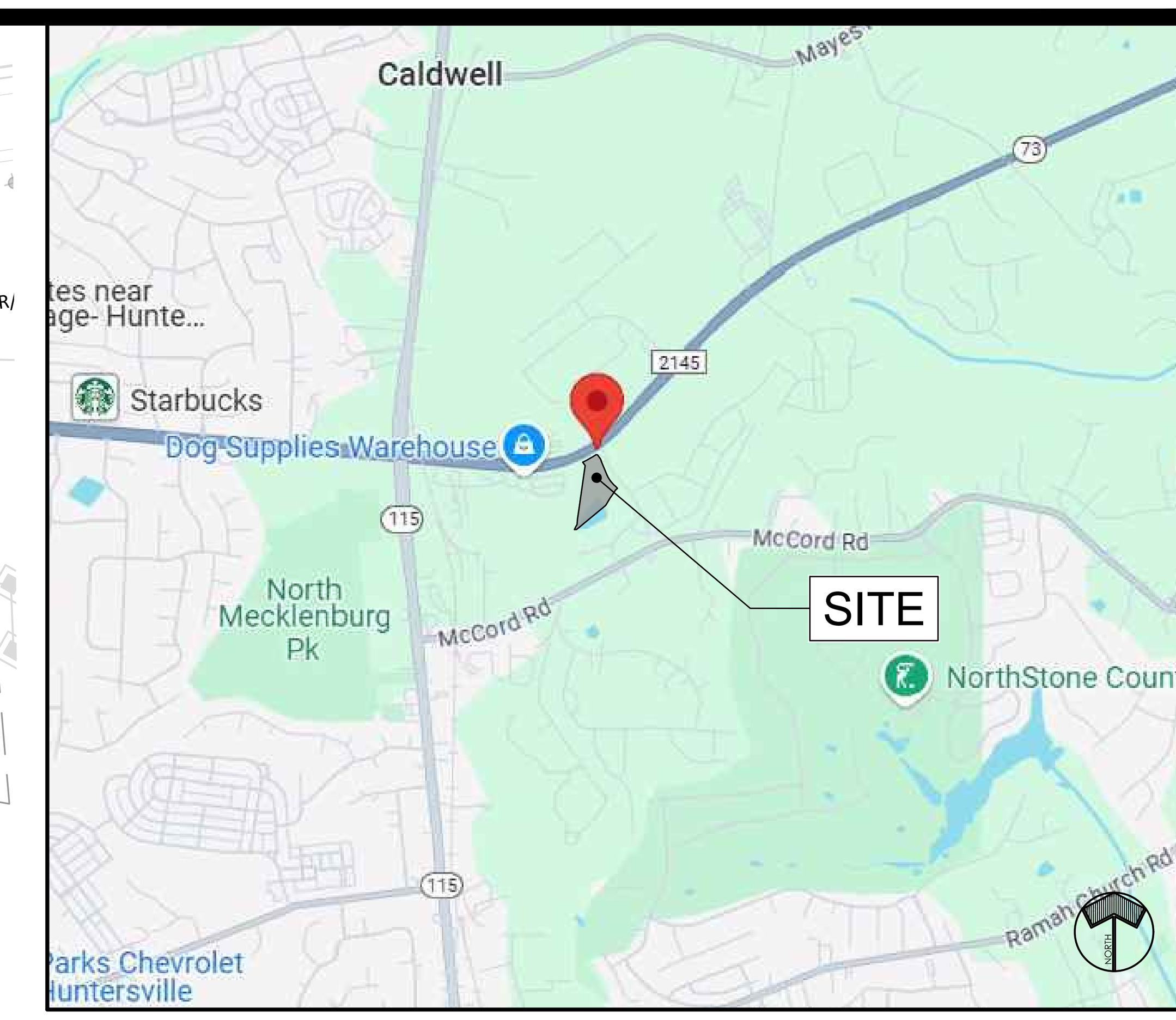
CORPORATE BUSINESS (CB) USES WITH SPECIAL USE PERMIT:
- SCHOOLS

SPECIAL PURPOSE (SP) BY-RIGHT USES:
- AMUSEMENT FACILITIES: ALL INDOOR USES
- COMMERCIAL USES INCLUDING OFFICE
- INDOOR RECREATION
- LABORATORIES
- ALL OTHER USES PERMITTED BY RIGHT IN THE CB DISTRICT
- MINI-WAREHOUSE STORAGE **

SPECIAL PURPOSE (SP) USES WITH CONDITIONS:
- TEMPORARY MOBILE FOOD SALES
- ALL OTHER USES PERMITTED WITH CONDITIONS IN THE CB DISTRICT

** REPRESENTS USES ONLY APPROVED FOR SITES DESIGNATED IN THIS PLAN. DAY CARE CENTERS ARE ONLY ALLOWED ON PARCEL #A AND MINI-WAREHOUSE STORAGE IS ONLY PERMITTED ON PARCEL #C. SEE APPROVED REZONING PLAN SHEET C-410.





VICINITY MAP
SCALE: N.T.S.

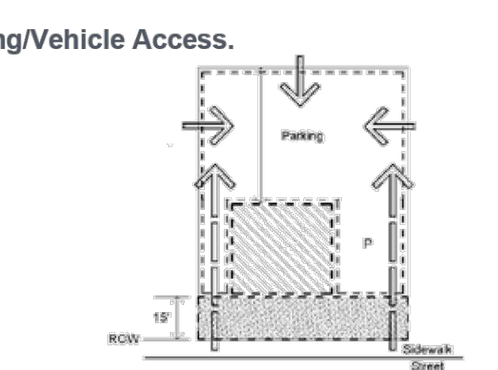
ZONING SUMMARY	
CURRENTLY APPROVED DEVELOPMENT	INDOOR STORAGE - 112,800 SF DAYCARE - 13,260 SF OFFICE/FLEX BUILDING - 146,400 SF
EXISTING DEVELOPMENT APPROVED COM-500141	DAYCARE - 13,246 SF OFFICE/FLEX BUILDING - 6,585 SF
PROPOSED DEVELOPMENT (AS A PART OF THIS REZONING)	OFFICE/FLEX BUILDINGS - 17,385 (+10,800 SF) DAYCARE: 13,246
REMAINING DEVELOPMENT ALLOWED	INDOOR STORAGE - 112,800 SF OFFICE/FLEX BUILDING - 129,015

TOWN OF HUNTERSVILLE MAJOR SUBDIVISION SITE DATA TABLE		
TOTAL AREA (ACRES, SQUARE FEET)	5.2620	229,198
TOTAL DISTURBED AREA (ACRES, SQ. FEET)	3.87 AC	168,891 SF
RIVER BASIN	YADKIN PEE-DEE	
STREAM CLASSIFICATION	TRIBUTARY OF RAMAH CREEK CLASSIFICATION C	
PCO19 APPLICABLE	YES	
ZONING DATA		
LOT, BUILDING TYPE (Z.O. ARTICLE 3, 4 AND 8.10)	HIGHWAY COMMERCIAL	
ZONING DISTRICT (Z.O. ARTICLE 3)	SP (CD)	
OVERLAY DISTRICT, IF APPLICABLE (Z.O. ARTICLE 3)	N/A	
CONDITIONS FOR USE (SEE ARTICLE 9)	SEE NOTE ON THIS SHEET	
PERMITTED ACCESSORY USES	SEE NOTE ON THIS SHEET	
PARKING SPACES: 0.25/1000 SF (REQ., PROVIDED)	4	29
ADA PARKING SPACES (REQ., PROVIDED)	2 ; 1 VAN	2 ; 2 VAN
SETBACKS AND BUILD-TO-LINES (Z.O. ARTICLE 3, 4, & 8)		
FRONT	0'	
CORNERS	0'	
REAR	0'	
LEFT SIDE YARD	0'	
RIGHT SIDE YARD	0'	
BUILD-TO-LINE	15'	
WATERSHED INFORMATION (Z.O. ARTICLE 3 AND S.O. SECTION 7.290)		
IS THE PROPERTY IN A REGULATED WATERSHED DISTRICT?	NO	
WATERSHED DISTRICT	CLARKE	
PARCEL AREA (ACRES, SQUARE FEET) INCLUDING DAYCARE SITE	5.26	229,199
PERCENTAGE OF IMPERVIOUS AREA SHOWN ON PLANS	41.46%	
AREA OF IMPERVIOUS SHOWN (ACRES, SQ. FEET)	2.18	95,024 SF
IMPERVIOUS (PREVIOUSLY APPROVED WITH COM-500141)	73,421 SF	
ADDITIONAL IMPERVIOUS PROPOSED WITH THIS REZONING	21,603 SF	
GENERAL INFORMATION		
PARCEL ID NUMBER	1122118	
PROPERTY OWNER INFORMATION	BI-PART DEVELOPMENT, LLC CONTACT: JAKE PALILLO 18611 STARCREEK RD CORNELIUS, NC 28031 704-363-7902	
ENGINEER INFORMATION	W&A ENGINEERING CONTACT: JAY HENSON, PLA 121 GILEAD ROAD HUNTERSVILLE, NC 28078	

2/16/24, 8:30 AM Print Preview

4.5 Lot Type / Highway Commercial

Building Placement/Parking/Vehicle Access.



1. Buildings shall be placed on the lot within zone represented by the hatched area. In most cases, the build to line will be 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback.
2. Setbacks may vary according to setting within limits indicated.
3. Building facades shall be generally parallel to frontage property lines.
4. Parking shall be located to the rear and/or side of the building. Except in the VS District, sideyard parking may occupy no more than 45% of the principal frontage line. In the VS District, sideyard parking may occupy 50% of the principal frontage line. Parking shall not be placed in any sideyard abutting an intersecting street. Where dimensions of existing lots restrict parking behind buildings, the limitations on sideyard parking may be modified.
5. Points of permitted access to the parking indicated by arrows.
6. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
7. Parking areas on adjacent lots shall be connected wherever practicable.
8. Trash containers shall be located in a rear parking area (see Parking Regulations).
9. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principal structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

https://huntersville.municipalcodeonline.com/book/print?type=zoning&name=4.5_Lot_Type_/_Highway_Commercial 1/2

2/16/24, 8:31 AM Print Preview

4.6 Building Type / Highway Commercial

Permitted Height and Uses.

1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above, and are further controlled by zoning district standards.
5. Hotels in the Highway Commercial (HC) zoning district may exceed the maximum building height (shown above), not to exceed six (6) stories, subject to the provisions of Article 9.45.

Architectural Standards.

Principles.

A. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street fronting building face. Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as canopies and their supporting structure. However, decorative metal panel accents may not exceed 30% of any façade.

B. All walls not visible from a public right-of-way may be constructed of cinder block, bricks, wood or vinyl siding, or approved metal paneling but shall be painted to match the overall color scheme of the rest of the building.

C. Trailers (mobile units) may not be used as permanent highway commercial buildings.

Configurations.

A. Two wall materials may be combined horizontally on one façade. The "heavier" material should be below (i.e. brick below wood siding).

B. Street level windows should be untinted. Tinted glass with a minimum visual transmittance factor of 35 is permitted. Mirrored or reflective glass is not permitted in any location.

Techniques.

https://huntersville.municipalcodeonline.com/book/print?type=zoning&name=4.6_Building_Type_/_Highway_Commercial 1/2

CONCEPT STORMWATER NARRATIVE

UNDERGROUND DETENTION AND INFILTRATION ARE ANTICIPATED AS THE CHOICE FOR MEETING THE STORMWATER AND WQ ORDINANCES. OTHER METHODS APPROVED BY THE TOWN OF HUNTERSVILLE MAY BE UTILIZED.

SYSTEM PREVIOUS DESIGNED/APPROVED (COM-500141)
DRAINAGE AREA: 94,620 (2.17 AC)
IMPERVIOUS AREA: 84,071 SF (1.93 AC)
MAX ALLOWED IMPERVIOUS PER DESIGN: 87,580 SF (2.01 AC)

NEW SYSTEM DRAINAGE AREA: 109,154 SF (2.51 AC)
NEW SYSTEM IMPERVIOUS: 96,611 SF (2.22 AC)

~12,000 CF VOLUME REQUIRED PER ACRE OF IMPERVIOUS
2.22 AC. X 12,000 CF= 26,640 CF REQUIRED STORAGE
27,735 CF OF STORAGE PROVIDED

REQUIRED WQV - 7,701 CF ; INFILTRATION SF REQUIRED: 4,075 SF **
INFILTRATION SF PROVIDED: 6,855 SF
STORAGE IS SATISFIED AND MAY BE REDUCED PER CONSTRUCTION DOCUMENTS TO MEET THE ORDINANCE

** INFILTRATION SF REQUIRED ASSUMPTION IS FOR THE 50% LID REQUIREMENT BASED ON THE REQUIRED WQV, INFILTRATION RATES, A FACTORY OF SAFETY OF 2 AND A DEWATERING TIME OF 72 HOURS

REQUESTED MODIFICATIONS:

1. APPLICANT REQUESTS FOR A MODIFICATION TO THE REQUIRED URBAN OPEN SPACE FRONTAGE FOR THE TWO NEW FLEX BUILDINGS AT THE REAR OF THE PROPERTY THAT ARE NOT CURRENTLY FRONTING PUBLIC R/W
2. APPLICANT REQUESTS FOR A MODIFICATION TO THE SPECIMEN TREE MITIGATION REQUIREMENT THAT 50% OF THE 30% SPECIMEN TREE REQUIREMENT NEEDS TO BE SAVED AND CAN NOT MITIGATED

NORTH ARROW

0 15 30 60
GRAPHIC SCALE 1"=30 FT.

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NORTHBOOK FLEX REZONING
MECKLENBURG COUNTY, NC
23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS	
DATE	COMMENT

FOR REVIEW

DATE:

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT NO. 2415 THERESA S. FALLOVA
Theresa S. Fallova 05/19/2026

W&A PROJECT #: 24-00534

REZONING PLAN

Z03

N:\24-00495 New Horizon Daycare Huntersville\DWG\Sheets\REZONING\Z03 - SITE PLAN.dwg 5-19-26 05:26:21 PM tfallova

SAM FURR ROAD (NC HWY 73)
100' PUBLIC R/W (MB. 69, PG. 212)

011-021-32
TOWN OF HUNTERSVILLE
DB 7379 PG 114
ZONING: SP

DAYCARE BUILDING
(PREVIOUSLY PERMITTED
COM-500141)

PREVIOUSLY APPROVED DAYCARE AND FLEX PROJECT
SEE COM-500141 PLANS FOR PREVIOUSLY APPROVED
TREE SAVE CALCS

FLEX BUILDING
3,600 - SF

FLEX BUILDING
(PREVIOUSLY PERMITTED
COM-500141)

NON-SPECIMEN TREES TO BE REMOVED

TREE CANOPY TO BE REMOVED

FLEX BUILDING
7,200 - SF
(2,400 - SF PER UNIT)

NON-SPECIMEN TREES TO BE SAVED

SPECIMEN TREES TO BE SAVED

TREE SAVE AREA:
8,209 SF (0.19 AC)

TREE SAVE AREA:
22,186 SF (0.51 AC)

80' VEGETATIVE BUFFER

30' POST CONSTRUCTION BUFFER

20' STREAM SIDE ZONE (UNDISTURBED)

MAPLE BRANCH DRIVE
PUBLIC R/W VARIES (MB. 69, PG. 212)

30" STANDARD CURB

4' ALUMINUM FENCE

WALL

EDGE OF PAVEMENT

RIP RAP

15" RCP

30" RCP

24" RCP

ELECTRIC TRANSFORMER & CONCRETE PAD

20' STORM DRAINAGE EASEMENT (MB. 69, PG 212)

CATCH BASIN RIM: 764.47 (BAGGED)

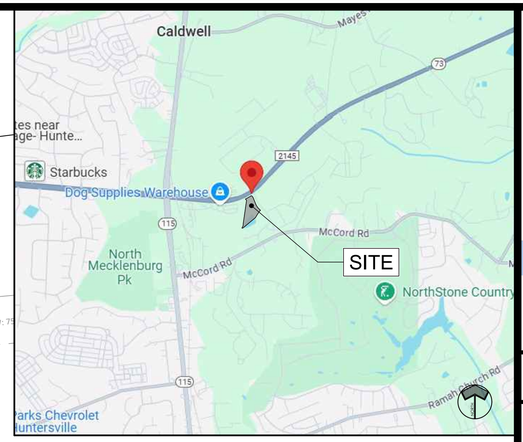
CATCH BASIN RIM: 764.39 (BAGGED)

EX. SS MH RIM: 761.63 INV: 745.23 (OUT)

8"PVC

11.68' CMP

INV: 744.36'



VICINITY MAP
SCALE: N.T.S.

TREE PROTECTION NOTES:

PROTECTIVE BARRICADES SHALL BE PLACED AROUND ALL PROTECTED TREES DESIGNATED TO BE SAVED IN DEVELOPMENT AREAS, PRIOR TO THE START OF DEVELOPMENT ACTIVITIES OR GRADING. PROTECTIVE BARRICADES SHALL REMAIN IN PLACE UNTIL DEVELOPMENT ACTIVITIES ARE COMPLETE OR CONSTRUCTION IN ACCORDANCE WITH STANDARDS SET FORTH IN THIS SECTION COMMENCES, THE AREA WITHIN THE PROTECTIVE BARRICADE SHALL REMAIN FREE OF ALL BUILDING MATERIALS, DIRT OR OTHER CONSTRUCTION DEBRIS, CONSTRUCTION TRAFFIC, STORAGE OF VEHICLES AND MATERIALS, AND GRADING SHALL NOT TAKE PLACE WITHIN THE DRIPLINE OF THE EXISTING TREES TO BE PROTECTED. BARRICADES SHALL BE ERECTED AT A MINIMUM DISTANCE FROM THE BASE OF PROTECTED TREES ACCORDING TO THE FOLLOWING STANDARDS:

A. FOR TREES 10" OR LESS DBH: PROTECTIVE BARRICADES SHALL BE PLACED A MINIMUM DISTANCE OF 5' FROM THE BASE OF EACH PROTECTED TREE, OR OUTSIDE THE DRIPLINE, WHICHEVER IS GREATER.

B. FOR TREES GREATER THAN 10" DBH: PROTECTIVE BARRICADES SHALL BE PLACED AT A MINIMUM DISTANCE EQUAL TO 10' FROM THE BASE OF THE PROTECTED TREE PLUS AN ADDITIONAL 1' FOR EACH ADDITIONAL 1" DBH GREATER THAN 10" DBH, OR OUTSIDE THE DRIPLINE, WHICHEVER IS GREATER.

C. CONSTRUCTION ACCESS TO A SITE SHOULD OCCUR WHERE AN EXISTING OR PROPOSED ENTRANCE/EXIT IS LOCATED.

D. EXCEPT FOR DRIVEWAY ACCESS POINTS, SIDEWALKS, CURB AND GUTTER, NO PAVING WITH CONCRETE OR OTHER IMPERVIOUS MATERIALS WITHIN A TREE DRIPLINE SHALL BE ALLOWED.

E. WHERE GRADING WITHIN A TREE DRIPLINE CANNOT BE AVOIDED.
1. LIMIT CUT AND FILLS TO 1/4 TO 1/2 THE AREA WITHIN THE DRIPLINE.
2. AVOID CUT AND FILL AROUND ENTIRE CIRCUMFERENCE OF TRUNK.

F. WHERE GRADING LEAVES ROOTS EXPOSED, CUT ROOTS CLEAN.
1. AVOID FILLING WITHIN THE DRIPLINE OF A TREE WITHOUT SOME MECHANISM TO ALLOW AIR AND WATER TO REACH THE ROOTS.

TREE SAVE REQUIREMENTS (SP ZONING)

- **REQUIRED TREE SAVE : 0%**
- **REQUIRED SPECIMEN TREE SAVE : 30%**
- **REQUIRED HERITAGE TREE SAVE: 100%**

TOTAL SITE AREA: 229,198 SF (5.262 AC)

EXISTING TREE CANOPY (PREVIOUS): 174,436 SF (4.00 AC)

EXISTING TREE CANOPY(AFTER APPROVED COM-500141): 56,550 SF (1.30 AC)
TREE CANOPY TO BE SAVED : 30,395 SF (0.69 AC)
TOTAL CANOPY TO BE REMOVED: 26,155 SF (0.60)

TOTAL SPECIMEN TREES ON SITE (PREVIOUS): 28 TREES
TOTAL SPECIMEN TREES ON SITE(AFTER APPROVED COM-500141): 3 TREES
SPECIMEN TREES SAVED: 3 TREES
SPECIMEN TREES REMOVED: 0

TOTAL HERITAGE TREES ON SITE: 0 TREES

LEGEND

- CANOPY TO BE SAVED
- CANOPY TO BE REMOVED
- TREE PROTECTION FENCING
- NON-SPECIMEN TREE - TO REMAIN
- SPECIMEN TREE - TO REMAIN
- NON-SPECIMEN TREE - TO REMOVE
- SPECIMEN TREE - TO REMOVE
- TREE DRIPLINE + 5'

NORTH ARROW

GRAPHIC SCALE 1"=30 FT.

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NORTHBROOK FLEX
REZONING

MECKLENBURG COUNTY, NC

23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS

DATE	COMMENT

FOR REVIEW

DATE:

NORTH CAROLINA LANDSCAPE ARCHITECT NO 2415 — 5/19/2026

W&A PROJECT #: 24-00534

TREE SAVE PLAN

Z03.1

N:\24-00495 New Horizon Daycare Huntersville\DWG\Sheets\REZONING\Z03 - SITE PLAN.dwg 5-19-26 05:26:29 PM ttalbva

PRELIM STORMWATER NARRATIVE

THERE IS CURRENTLY UNDERGROUND DETENTION PROPOSED FOR THE APPROVED FLEX AND DAYCARE SITE. AN ADS STORM TECH SYSTEM IS BEING UTILIZED.

TOTAL SITE AREA: 229,198 SF (5.26 AC)
DRAINAGE AREA TO BASIN: 108,497 SF (2.49 AC)
SITE IMPERVIOUS AREA: 95,024 SF (2.18 AC)

~10,000 CF VOLUME REQUIRED PER ACRE OF IMPERVIOUS
2.49 AC. X 10,000 CF= **24,900 CF** REQUIRED STORAGE
27,735 CF OF STORAGE PROVIDED

STORAGE IS SATISFIED AND MAY BE REDUCED PER CONSTRUCTION DOCUMENTS TO MEET THE ORDINANCE

SAM FURR ROAD (NC HWY 73)
100' PUBLIC R/W (MB. 69, PG. 212)

011-021-32
TOWN OF HUNTERSVILLE
DB 7379 PG 114 /
ZONING: SP

DAYCARE BUILDING
(PREVIOUSLY PERMITTED
COM-500141)

FLEX BUILDING
3,600 - SF
FFE: 772.00

FLEX BUILDING
7,200 - SF
(2,400 - SF PER UNIT)
FFE: 772.73

FLEX BUILDING
(PREVIOUSLY PERMITTED
COM-500141)

MAPLE BRANCH DRIVE
PUBLIC R/W VARIES (MB. 69, PG. 212)

30' STANDARD CURB

PROP. RETAINING WALL (BY OTHERS)

LIMITS OF DISTURBANCE

PREVIOUSLY APPROVED GRADING
(COM-500141)

LIMITS OF PREVIOUSLY APPROVED GRADING
(PREVIOUS BACK OF CURB)

PREVIOUSLY APPROVED GRADING
(COM-500141)

53.2 LF OF 18" RCP
27.0 LF OF 10" PVC
62.2 LF OF 18" RCP
33.4 LF OF 15" RCP
40.0 LF OF 10" PVC
124.0 LF OF 15" RCP
51.4 LF OF 15" RCP
51.4 LF OF 15" RCP
77.4 LF OF 18" RCP

01-CB
02-YT
03-CB
04-CB
05-CB
06-CB
07-CB
08-CB

80' VEGETATIVE BUFFER

20' STREAM SIDE ZONE (UNDISTURBED)

30' POST CONSTRUCTION BUFFER

NEW 20' CLT WATER SANITARY SEWER EASEMENT
APPROVED VIA PROJECT CW-2025-00078
GRADING TO BE APPROVED IN FUTURE RTAP
SHOWN FOR REFERENCE

EDGE OF PAVEMENT
RIP-RAP
ELECTRIC TRANSFORMER & CONCRETE PAD
15" RCP
30" RCP
Wall
GRASS STRIP
CONC. STRIP
CATCH BASIN
RIM: 764.47
(BAGGED)
CATCH BASIN
RIM: 764.39
(BAGGED)
24" RCP
SSMH
RIM: 750.38
INV: 740.38
INV: 740.08
EX. SS MH
RIM: 761.62
INV: 745.23 (OUT)
8"PVC
20' SANITARY SEWER E
(MB 69, PG 212)
Oak 36"
Sweetgum 24"
Poplar 24"
Hardwood 16"
Pine 14"
Pine 15"
Pine 18"
Pine 12"
Pine 10"
Pine 8"
Gate 8'
Master 15"
TYPICAL UNKNOWN UTILITY

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NORTH ARROW

0 15 30 60
GRAPHIC SCALE 1"=30 FT.

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NORTHRBOOK FLEX REZONING

MECKLENBURG COUNTY, NC

23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS

DATE	COMMENT

FOR REVIEW

DATE:

NORTH CAROLINA
REGISTERED LANDSCAPE ARCHITECT
NO 2415
Rivera
5/19/2026
SEAL

W&A PROJECT #: 24-00534

PRELIM GRADING

Z04

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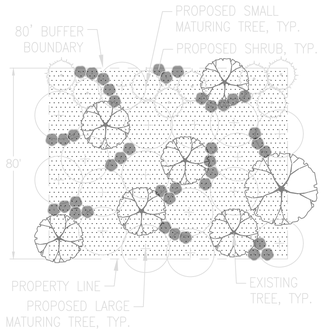

80' ENHANCED BUFFER PER CODE
TYPICAL SECTION OF 80' X 100' = 8000 SF
4 TREES PER 1000 SF = 32 TREES MIN.
75% LARGE MATURING = 24 TREES MIN.
25% SMALL MATURING = 8 TREES MIN.
50% EVERGREEN = 16 TREES MIN.
5 SHRUBS PER 1000 SF = 40 SHRUBS MIN.
75% EVERGREEN = 30 EVERGREEN SHRUBS MIN.

NOTES:
- BUFFERS ARE UNDISTURBED EXCEPT AS NOTED. SEE GRADING PLAN.
- SUPPLEMENT AS NEEDED TO PROVIDE AN OPAQUE SCREEN IF EXISTING VEGETATION DOES NOT ACHIEVE THIS.

80' ENHANCED BUFFER DIAGRAM

011-021-32
TOWN OF HUNTERSVILLE
DB 7379 PG 114
ZONING: SP

DAYCARE BUILDING
(PREVIOUSLY PERMITTED
COM-500141)

MITIGATION TREES FROM PREVIOUSLY APPROVED COM-500141

FLEX BUILDING
3,600 - SF
FFE: 772.00

FLEX BUILDING
7,200 - SF
(2,400 - SF PER UNIT)
FFE: 772.75

FLEX BUILDING
(PREVIOUSLY PERMITTED
COM-500141)

NEW REQUIRED PARKING LOT PERIMETER TREES

MAPLE BRANCH DRIVE
PUBLIC R/W VARIES (MB. 69, PG. 212)

6" TAP AND LATERAL PREVIOUSLY APPROVEDPER CLTW CW-2025-00078

PROP. 6" PRIVATE MAIN TO SERVE NEW FLEX BUILDINGS

PROP. 2" WATER SERVICE TO SERVE NEW FLEX BUILDINGS

EX. 2" WATER TAP AND METER PREVIOUSLY APPROVEDPER CLTW CW-2025-00078

EX. SS MH
RIM: 761.63
INV: 745.23 (OUT)

EX. STORM DRAINAGE EASEMENT (MB 69, PG 212)

INV: 764.86'

30" RCP

30" STANDARD CURB

CONC. SIDEWALK

GRASS STRIP

CATCH BASIN
RIM: 764.47'
(BAGGED)

CATCH BASIN
RIM: 764.39'
(BAGGED)

24" RCP

8"PVC

4' ALUMINUM FENCE

11' 66" CMP

INV: 744.36'

15" RCP

INV: 778.64'

EDGE OF PAVEMENT

RIP RAP

ELECTRIC TRANSFORMER & CONCRETE PAD

80' VEGETATIVE BUFFER

20' STREAM SIDE ZONE (UNDISTURBED)

MITIGATION TREES FROM PREVIOUSLY APPROVED COM-500141 RELOCATED FOR NEW SITE PLAN

NO MITIGATION TREES HAVE BEEN REMOVED FROM PREVIOUS APPROVAL ONLY RELOCATED

IF ADEQUATE VEGETATION IS NOT PROVIDED IN THE 80' VEGETATIVE BUFFER, IT SHALL BE REPLANTED PER TOWN STANDARDS. SEE DETAIL THIS SHEET

MITIGATION TREES FROM PREVIOUSLY APPROVED COM-500141

CONSTRUCTION BUFFER

Poplar 24"
Sweetgum 24"
Oak 36"
Hardwood 16"
Maple 15"
Oak 16"
Pine 19"
Pine 14"
Poplar 14"
Pine 15"
Poplar 15"
Pine 10"
Pine 12"
Pine 16"
Pine 9"

MITIGATION TREES PER COM-500141

SPECIMEN TREE MITIGATION

SYMBOL	CODE	BOTANICAL / COMMON NAME	CONT	CAL	SIZE	QTY
•	LIR TUL	Liriodendron tulipifera / Tulip Poplar Full and Matched, Strong Central Leader, No Broken Branching, Free of Disease and Insects	B&B	3" Cal. Min.	MIN 12' Height	3
•	MAG TED	Magnolia grandiflora 'Southern Charm' / Teddy Bear® Southern Magnolia Multi-Trunk., Full and Matched, Strong Central Leader, No Broken Branching, Free of Disease and Insects	B&B	3" Cal. Min.	MIN 8' Height	9
•	QUE SHU	Quercus shumardii / Shumard Oak Full and Matched, Strong Central Leader, No Broken Branching, Free of Disease and Insects	B&B	3" Cal. Min.	MIN 12' Height	12
•	ULM PAR	Ulmus parvifolia / Lacebark Elm Full and Matched, Strong Central Leader, No Broken Branching, Free of Disease and Insects	B&B	3" Cal. Min.	MIN 12' Height	17
•	CAR AME	Carpinus caroliniana / American Hornbeam Full and Matched, Strong Central Leader, No Broken Branching, Free of Disease and Insects	B&B	2" Cal. Min.	MIN 12' Height	8

PLEASE NOTE: CREDIT FOR 49 MITIGATION TREES ARE PLANTED ON SITE AND THE REMAINING 40 MITIGATION TREES HAVE BEEN PAID TO HUNTERSVILLE'S TREE BANK FUND.

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NORTH ARROW

0 15 30 60
GRAPHIC SCALE 1"=30 FT.

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LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT
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NORTHBOOK FLEX
REZONING

MECKLENBURG COUNTY, NC

23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS

DATE	COMMENT

FOR REVIEW

DATE:

NORTH CAROLINA
LANDSCAPE ARCHITECT
NO.2415
5/19/2026
JOSHUA S. PATTON

W&A PROJECT #: 24-00534

PRELIM LANDSCAPE + UTILITY

Z05

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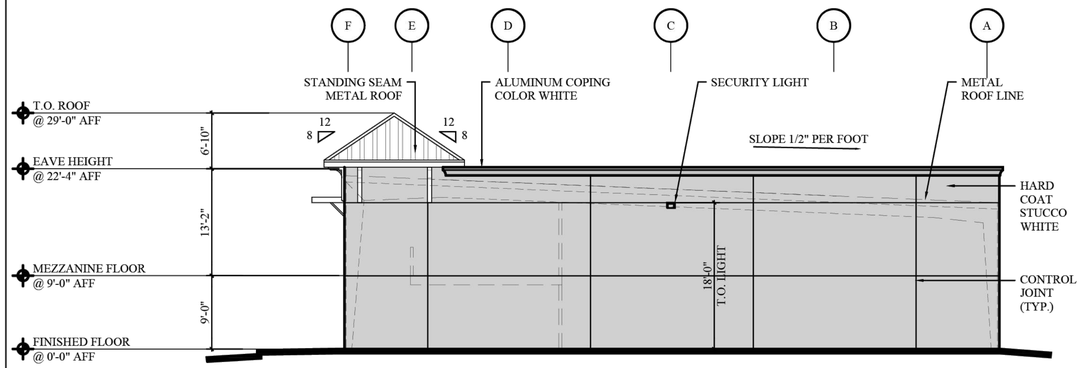

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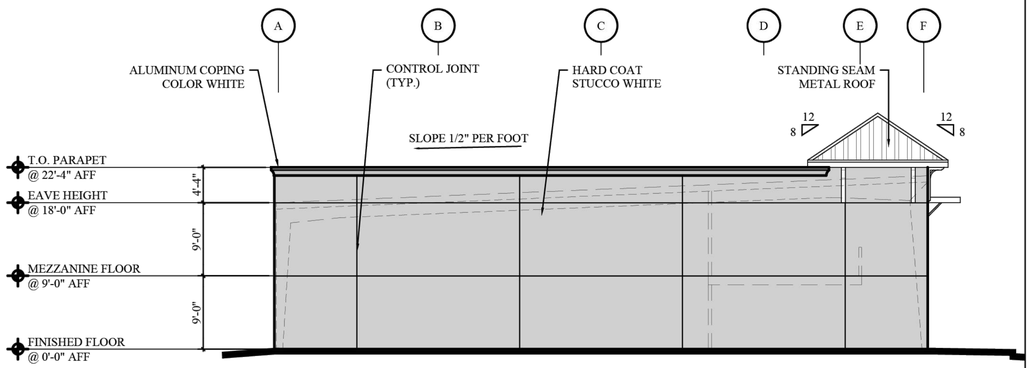
1/16" = 1' - 0"



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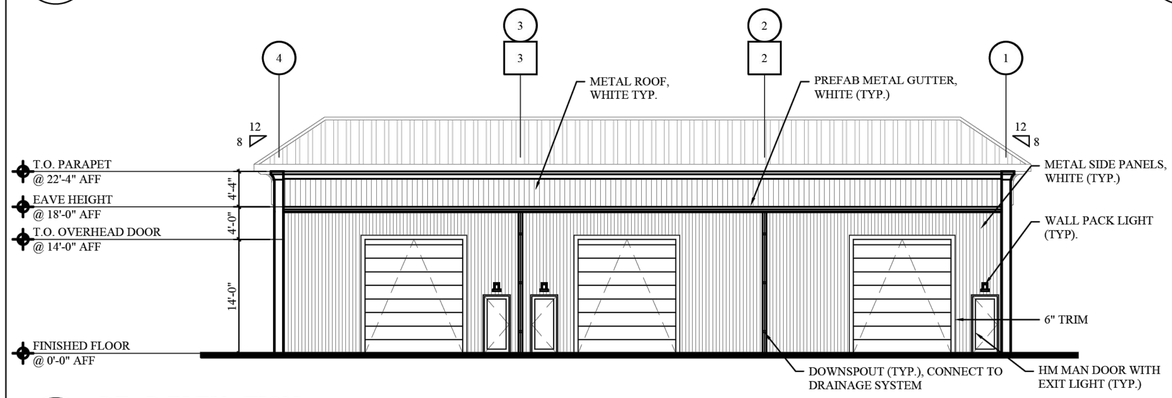

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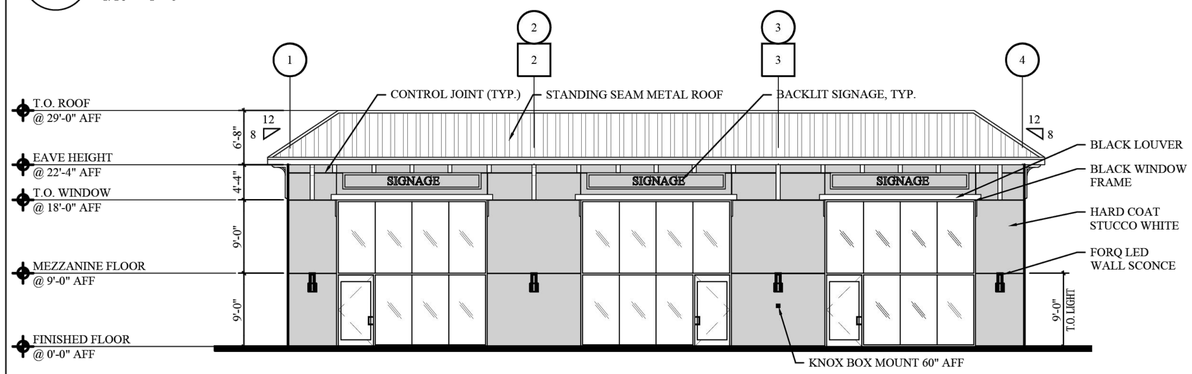

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HUNTERSVILLE, NC
22-035

05/16/25

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LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT
121 GILEAD RD
HUNTERSVILLE, NC 28078
P: (704) 875-1615
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NORTHBROOK FLEX REZONING
MECKLENBURG COUNTY, NC
23325 MAPLE BRANCH DRIVE, HUNTERSVILLE

REVISIONS

DATE	COMMENT

FOR REVIEW

DATE:

W&A PROJECT #: 24-00534

CONCEPT ARCH. ELEVATIONS

Z06

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Community Meeting Notices

Project Name	Northbrook Flex Rezoning

Pursuant to Huntersville Subdivision Ordinance 6.320.3 a list of all persons and organizations contacted about the meeting shall be s
and incorporated into the application for this project.

The following persons and organizations were sent notices of the community meeting (first and last nam

First and Last Name	Parcel ID	Date Sent	Method Sent	Reason Sen
GGG&B LLC	1102125	5/4/2026	Certified Mail	Within 250 ft of
Jerathen Tillman & Christinia Fong	1122218	5/4/2026	Certified Mail	Within 250 ft of
Richard & Barbara Weis	1122206	5/4/2026	Certified Mail	Within 250 ft of
Lennar Carolinas LLC	1122287	5/4/2026	Certified Mail	Within 250 ft of
:on Real Estate Development - North Ca	1122117	5/4/2026	Certified Mail	Within 250 ft of
MDH FI Huntersville JV LLC	1121110	5/4/2026	Certified Mail	Within 250 ft of
pathy Krishnasamy & Shobana NagaSw	1122301	5/4/2026	Certified Mail	Within 250 ft of
Kumar Gangegowda & Anusha Rajsheka	1122301	5/4/2026	Certified Mail	Within 250 ft of
Sooyon Cheong & Sokhun Moon	1122219	5/4/2026	Certified Mail	Within 250 ft of
David & Debora Ellison	1122207	5/4/2026	Certified Mail	Within 250 ft of
The Town of Huntersville	1102132	5/4/2026	Certified Mail	Within 250 ft of
Donco Properties LLC	1121107	5/4/2026	Certified Mail	Within 250 ft of
Suong Nguyen	1122208	5/4/2026	Certified Mail	Within 250 ft of
McCord Development LLC	1102115	5/4/2026	Certified Mail	Within 250 ft of
Northbrook Property Owners Associatio	1122281	5/4/2026	Certified Mail	Within 250 ft of
Oak Farm Home Owners Association	1105274	5/4/2026	Certified Mail	Within 250 ft of
Willowbrook Property Owners Associatio	1104338	5/4/2026	Certified Mail	Within 250 ft of

Community Meeting Attendance Log

Project Name:	Northbrook Flex Rezoning
Location of Meeting:	14615 S Old Statesville Rd, Huntersville, NC 28078
Date:	18-May-26
Time:	5:30-6:30 pm

Pursuant to Huntersville Subdivision Ordinance 6.320.3 a report including a roster of persons in attendance at the community meeting shall be submitted to the Planning Department and incorporated into the application for this project.

For the record of attendance, please list your first and last name:

1	Elizbeth McCormick	26	
2	Katheen & Chris Johnson	27	
3	Richard & Barbara Weis	28	
4	Will & Christine DuPriest	29	
5	Jay Tillman	30	
6	Anand Mugundhu	31	
7	Charanteja Machikatla	32	
8	Dinesh Reddy Mothe	33	
9	Syam Tadikamalla	34	
10	Jake Palillo	35	
11	Tess Fallova	36	
12	Jesse James	37	
13		38	
14		39	
15		40	
16		41	
17		42	
18		43	
19		44	
20		45	
21		46	
22		47	
23		48	
24		49	
25		50	

NORTHBROOK FLEX REZONING MEETING REPORT

Location:	14614 S Old Statesville Rd, Huntersville, NC 28078
Date:	May 18th, 2026
Time:	5:30-6:30pm

I. AGENDA

a. Applicant presentation and rezoning overview
b. Community Q & A
c. Discussions

II. QUESTIONS AND RESPONSES

1. Are they buffers going to remain intact or are we reducing them?
   Response: The 80' vegetative buffer and stream buffers will remain intact. No reduction is being proposed with this rezoning

2. Do you have tenants yet? What are the allowed uses? Are they changing?
   Response: No there are no proposed tenants yet. There is no change proposed to the allowed uses previously permitted in the original rezoning, R-24-04. The allowed uses previously approved are called out on the rezoning site plan.

3. What is the purpose of the public open space?
   Response: The reason for the required urban open space is a town requirement for buildings who are not fronting a public street, must front urban open space.

4. What is the traffic expected?
   Response: The tenants for these additional building are not yet solidified but the flex building use is covered under the current approved TIA.

5. What is the material of the building? We'll have to be staring at the back of it from our yards.
   Response: The current building elevations have a metal façade. At the lower elevation, you will likely be looking at the retaining wall holding the building up vs. the building side. There is also an 80' vegetative buffer that will need to be planted per the Town ordinance.

6. Why was the proposed traffic on Maple Branch not studied in the TIA. *A gentleman had a lot to say about discussions with NCDOT, Stephen Trott and the Northbrook Residents, on the safety of the road. Apparently, this has been brought to the board's attention before but nothing has been done. Apparently, NCDOT asked the TOH if Maple Branch should be studied and the Town declined.
   Response: This issue sounds like something between Town Engineering, NCDOT and the Board, we are not able to do anything about this. It was expressed to this gentleman to bring this back to the attention to the Board to see if TOH engineering could do something about it

7. There were several questions about traffic calming in the neighborhood. Most people said they wanted speed bumps, one woman said she wanted more stop signs near the roundabout.
   Response: The Town roads within the Northbrook Development were designed and approved. I'm sure there is no intersection that needed a stop sign that does not have one. The request for a stop sign at the roundabout is just incorrect, a roundabout itself is a traffic calming measure, it is not a stop condition, it is meant to be a steady flow of traffic with yield signs. The developer cannot be burdened with preexisting traffic issue and cut throughs in Maple Branch. The Town requires interconnectivity which opens up the opportunity for cut throughs. Individual driver negligence is not something you can design for. If speed bumps are what the community wants, they can bring that to the Town public works/engineering department. This issue is separate from this rezoning but is being looped in as a major concern.

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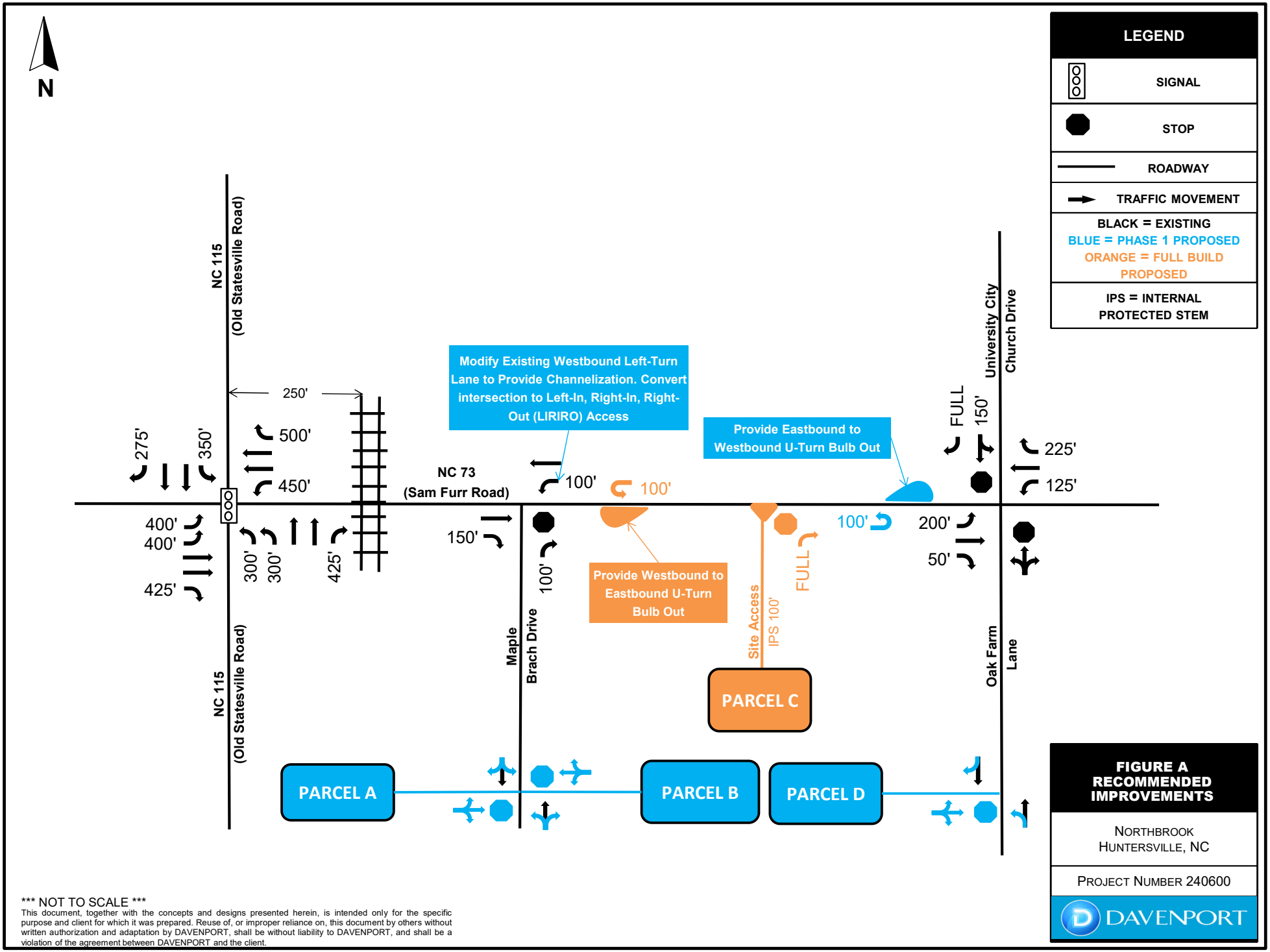

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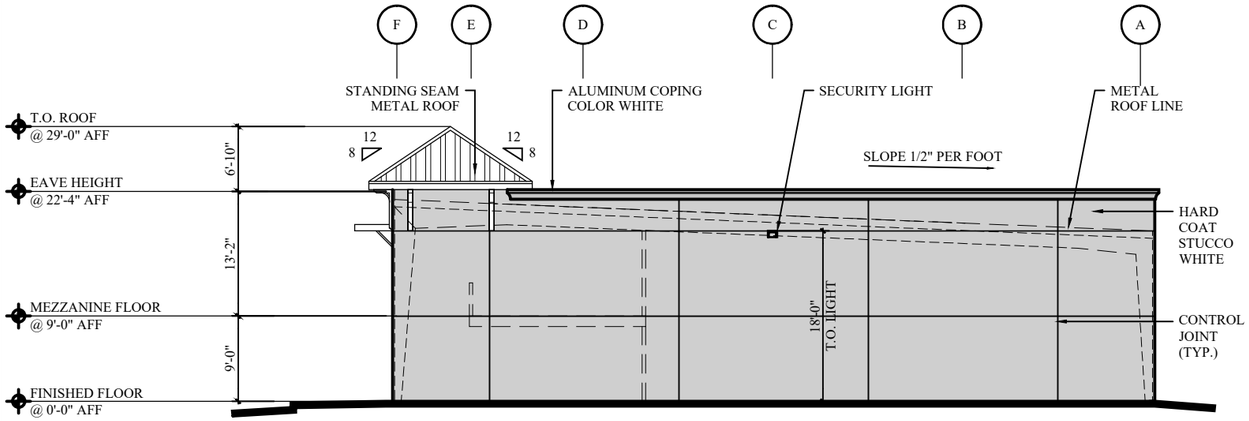

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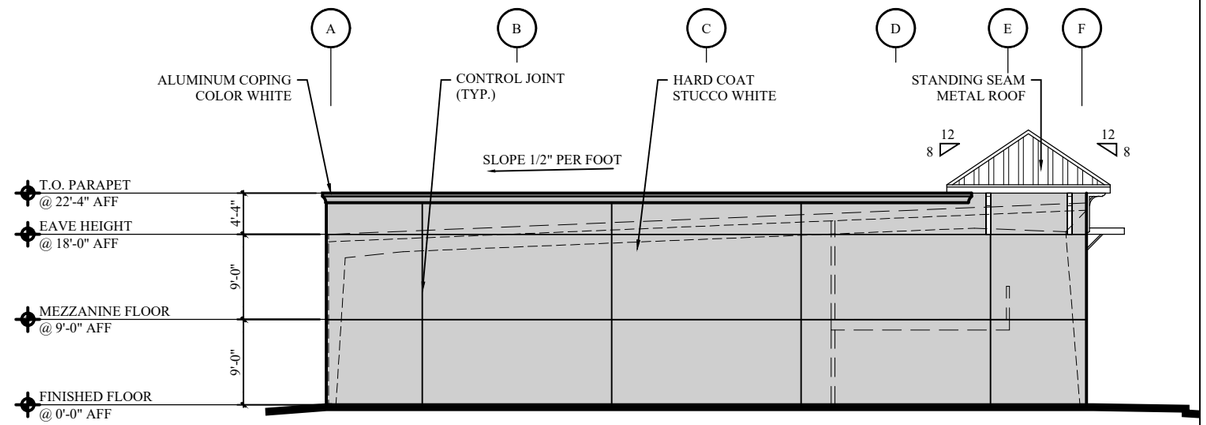

3 LEFT ELEVATION

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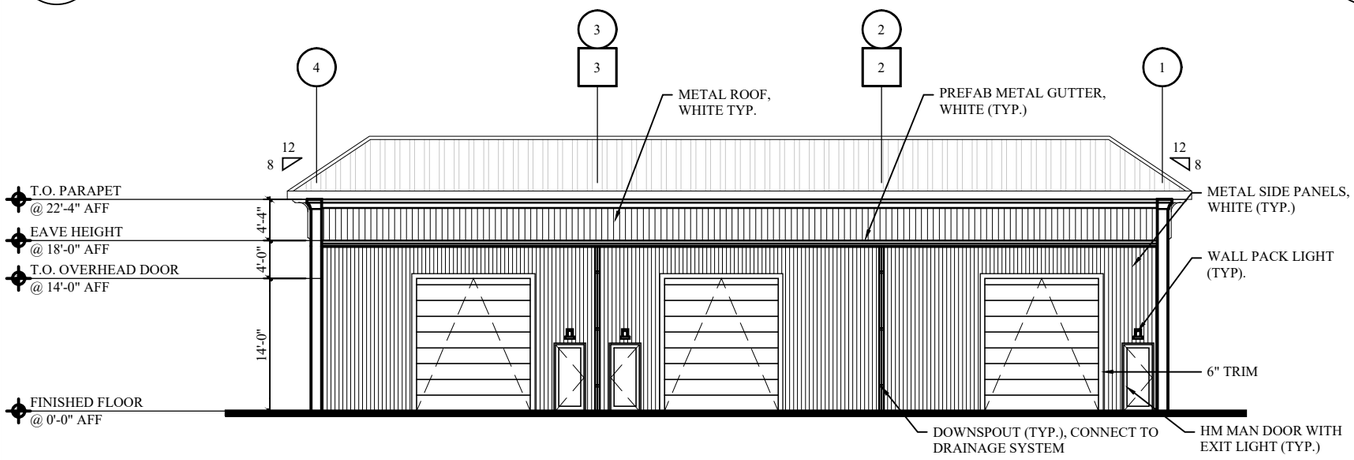

2 REAR ELEVATION

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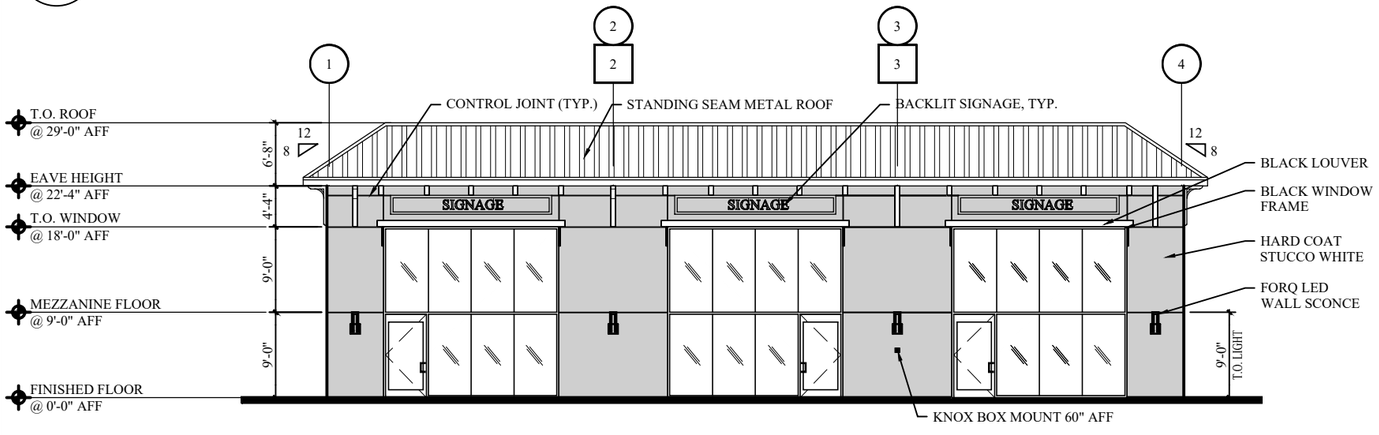

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HUNTERSVILLE, NC

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05/16/25

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Brian Richards, Planning Director

Subject: Petition #R26-09 Town 1 Revision

Explain Request:

Conduct a Public Hearing on Petition #R26-09, a request by Treenail Development to rezone (+/- 71.58 at the northeast corner of Hambright Rd & Mt. Holly-Huntersville Rd from Corporate Business (CB) Special Purpose-Conditional District (SP-CD) Highway Commercial-Conditional District (HC-CD) Transit-Oriented Development - Residential-Conditional District (TOD-R-CD) Transit-Oriented Development - Employment-Conditional District (TOD-E-CD) to Special Purpose-Conditional District (SP-CD) Highway Commercial-Conditional District (HC-CD) Transit-Oriented Development - Residential-Conditional District (TOD-R-CD) Transit-Oriented Development - Employment-Conditional District (TOD-E-CD) for a mixed-use development (Parcel #s 01721108, 01721110,01721118, 01721107, 01721119, 01721106, 01721105, 01721104, 01721102, 01721101).

Action Recommended: Conduct Public Hearing

Alternative Action:

None

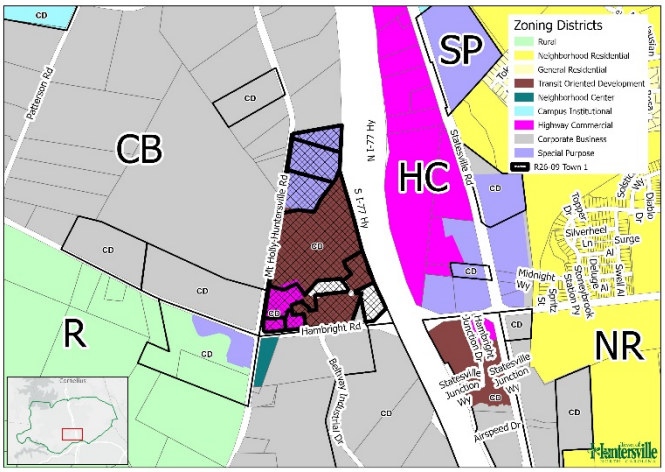
Financial Implications:

Attachments:

1. R26-09 Town 1 Revision PH 7.21.26
2. TOWN 1 Application-5-4-26-Signed
3. ZoningPlans-6-23-26
4. Town 1 R26-09 Community Mtg Report
5. Rezoning Engineering Comment Summary - Town 1 2026 Addition CSP-444291-R001

Application Summary

Case Number/Project Name: R26-09 Town 1 Revision
Project Address: Multiple
Proposed Zoning: Special Purpose-Conditional District (SP-CD) Highway Commercial-Conditional District (HC-CD) Transit-Oriented Development - Residential-Conditional District (TOD-R-CD) Transit-Oriented Development - Employment-Conditional District (TOD-E-CD)
Proposed Land Use: Mixed Use & Light Industrial
Applicant: Treenail Development, Inc
Property Owner: Aaron Cruz
Staff Contact: Brian Richards, 704-766-2218 (brichards@huntersville.org)



Site Data

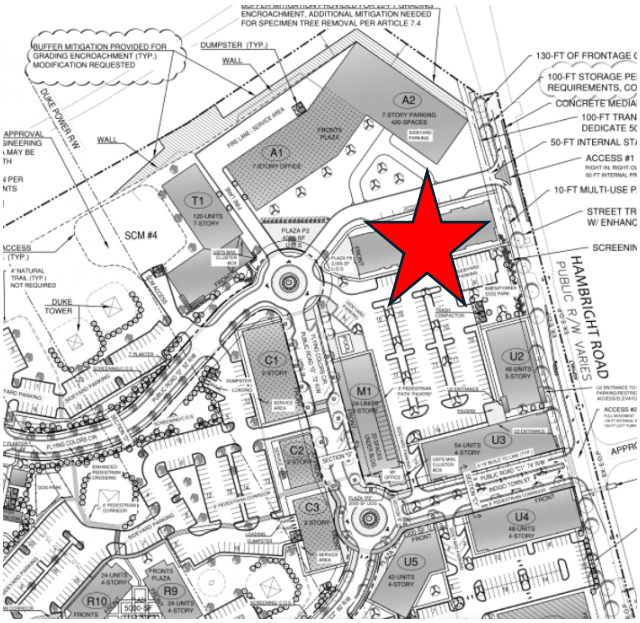
Acreage (+/-): 71.58
Parcel Numbers: 01721108, 01721110,01721118, 01721107, 01721119, 01721106, 01721105, 01721104, 01721102, 01721101
Current Zoning: Corporate Business (CB) Special Purpose-Conditional District (SP-CD) Highway Commercial-Conditional District (HC-CD) Transit-Oriented Development - Residential-Conditional District (TOD-R-CD) Transit-Oriented Development - Employment-Conditional District (TOD-E-CD)
Current Land Use: Vacant/Under Construction
Proposed Building Type: Multiple
Proposed Lot Type: Multiple

Adjoining Zoning and Land Uses

North: Corporate Business (CB); *Light Industrial*
South: Corporate Business (CB); *Light Industrial*
East: *I-77*
West: Corporate Business (CB); *Light Industrial*

Project Description

The request is to add approximately 1.042 acres to Town 1. Town 1 was previously approved under R22-07 for a Mixed-Use development. No additional square footage is requested as part of this application. There are modification requests for Buffer Impacts, Street Trees, and Block Length.





Update Status

- Public Hearing: 7/21/76
- Planning Board: 7/28/26

Rezoning/Site Plan

Density: *Applicant has met the requirement.*

- Proposed: 747 Units
- Staff comments: No change from R22-07

Parking: *Applicant has met the requirement.*

- Proposed: 1257 (747 required)
- Staff comments: No change from R22-07

Building Height/Scale: *Applicant has met the requirement.*

- Proposed:
- Staff comments: No change from R22-07

Buffers: *Applicant is requesting a modification.*

- Proposed: See Below
- Staff comments:

Open Space: *Applicant has met the requirement.*

- Proposed: Pedestrian passageways, plazas, and greens have been provided.
- Staff comments: No change from R22-07

Build-To Lines: *Applicant has met the requirement.*

- Proposed:
- Staff comments:

Tree Save: *Applicant has met the requirement.*

- Proposed: 107 Specimen Trees (34 to be saved) 32.1% saved. No canopy save required (3.67 ac provided).
- Staff comments: No significant change from R22-07

Vesting: ***Applicant has met the requirement.***

- Proposed:
- Staff comments: Adequate infrastructure has been installed to vest the development

Conditional Notes: ***Applicant has met the requirement.***

- Proposed: No additions
- Staff comments: No changes from R22-07

Minor Outstanding Comments: ***Applicant could meet the requirement.***

- Staff comments: Address outstanding plan review comments.

Transportation Comments: ***Applicant could meet the requirement.***

- Staff comments: See attached report for Engineering comments.

Applicant Modification Requests

Modification Request: *I77 Buffer Impact Revision*

- Applicable Zoning Requirements: R22-07 requested impacts to the 50' I77 Buffer. The applicant is asking to increase these impacts to accommodate appropriately sized drainage systems.
- Zoning Comments: Article 7 requires an undisturbed 50' buffer along I77

Staff Recommendation: *Staff could recommend approval*

- Staff Comments: Staff could support this request with appropriately designed buffer mitigation and replanting.

Modification Request: *Street Trees along Throughfare*

- Applicable Zoning Requirements: Two rows of Street Trees are required along major and minor throughfares. The applicant is requesting to have one row of street trees and enhanced plantings due to the NCDOT clear recovery zone and difficult topography with the associated drainage ditch.
- Zoning Comments: Article 7 requires two rows of street trees.

Staff Recommendation: *Staff could recommend approval*

Staff Comments: Staff can support this request with appropriately designed plantings. Staff have requested additional details.

Modification Request: *Block length waiver*

- Applicable Zoning Requirements: The applicant is requesting a block length waiver for block H. The request is to allow a block length of 572'.
- Zoning Comments: Article 3.2.13 limits TOD block lengths to 500'

Staff Recommendation: *Staff recommends approval*

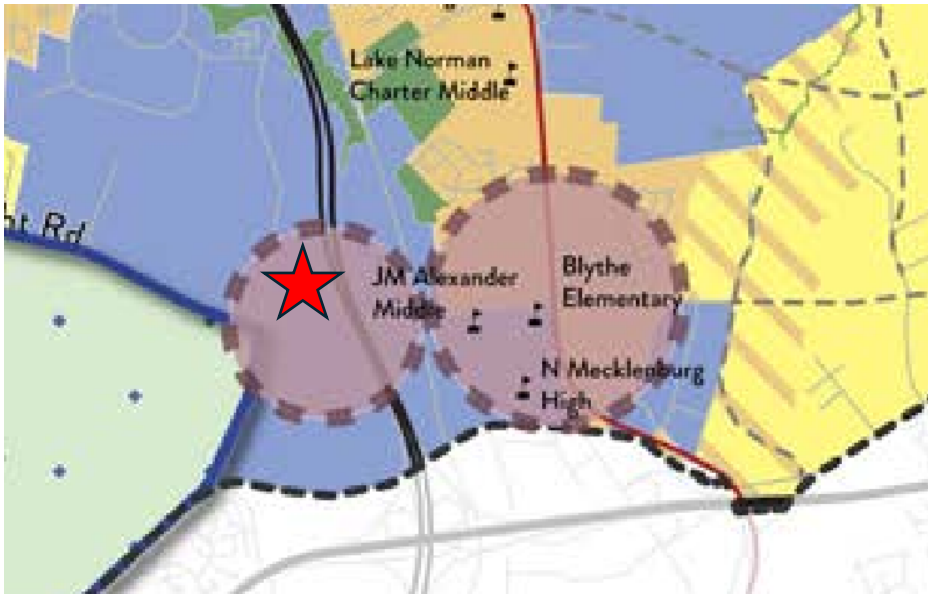
- Staff Comments: Given the areas' topography and previously approved design staff supports this request.

Rezoning Criteria – Zoning Ordinance, Article 11.4.7 (d)(e)

Comprehensive Plan: Huntersville 2040 Community Plan

Future Land Use Map: *Supports Rezoning*

- LU 1.1 Future Land Use Map





Mixed-Use Centers

Mixed-Use Centers contain vertical mixed-use along key frontages. New development includes wide sidewalks, buildings are close to the street with high levels of transparency, and parking is located in the rear. A mix of housing is allowed, including urban options throughout (apartments, townhomes, cottage homes, etc.). Downtown has specific requirements for streetscape and development intensity, including a maximum first floor footprint.

- Staff comments: The site is located within the Mixed-Use Node

Policy Recommendations - *Support rezoning*

- LU-2 Encourage residential development that follows the pattern outlined in the future land use map
- LU 2.1 Higher intensity residential uses will be focused generally within two miles of I-77.

  Staff comments: The project provides urban style housing which will be accessible to the future CATS park and ride as well as I-77 and the direct connect lanes.
- LU 5.1 Allow more intense development only where transportation infrastructure and utilities already exist.LU-2 Encourage residential development that follows the pattern outlined in the future land.

  Staff comment: The project is adjacent to I-77, and all needed infrastructure currently is in place.
- LU 6.1 A mix of land uses is encouraged in Mixed Use Centers, Activity Centers, Employment Center Identified on the Future Land Use Map.

  Staff comments: The project is located within a Mixed Use Center.

Policy Recommendations – *Do not support rezoning*

- N/A as this is a revision to an already approved plan.
- Staff comments:

Consistency with Existing Development:

- Staff Findings: The site will continue to be consistent with the approved rezoning and surrounding development.

Adequacy of Public Facilities and Services: (Roadways, Transit Service, Public Safety, Schools, Utilities, Storm Drainage)

- Staff Finding: No revisions need to the current TIA. No new impacts with this revision.

Impact on Sensitive Resources: (Archaeological, Environmental, Historical, Cultural)

- Staff Findings: Planning staff have no indication that the request will adversely affect known archeological, environmental, historical, or cultural resources.

Staff Recommendation: *Approval with Conditions*

- Staff comments: Staff could be in support of the application, as it is consistent with the character area recommendations of the Huntersville 2040 Community Plan, if the following conditions are met:
- Provide additional details for 50' buffer impacts
- Provide additional detail for the enhanced plantings along throughfare
- All outstanding staff comments are addressed

Public Notices/Meetings/Comments: All meetings are subject to change; hyperlinks added to recording of meetings when available.

Community Meeting: The applicant hosted a meeting with the community on May 28, 2028. The applicant's report is attached.
Public Notice: Staff confirms that the public notice postcard, rezoning sign, and legal ad were all placed.
Public Comments: All public comments received by mail or electronic mail have been forwarded to all Board members.
Public Hearing: 7/21/26
Planning Board: 7/28/26

- Motion to be added when available

Final Action: 8/18/26

Attachments

Draft Motion Worksheet
Attachment A – Rezoning Application
Attachment B – Site Plan
Attachment C – Public Notices/Meetings
Attachment D – Engineering Report and TIA Determination

Draft Motion Worksheet

Motion to recommend APPROVAL

In considering the proposed rezoning application <<CASE_PROJECT>>, the <<MEETING_TYPE>> recommends APPROVAL of the rezoning plan with the following conditions:

_____

Including the following modifications: _____

_____

_____

_____

_____

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

Motion to recommend DENIAL

In considering the proposed rezoning application <<CASE_PROJECT>>, the Planning Board recommends DENIAL of the rezoning plan.

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

☐ Change of Use ☐ Commercial Site Plan ☑ Conditional Rezoning ☐ General Rezoning ☐ Master Signage Program ☐ Special Use Permit ☐ Revision to Original Project # _____ ☐ Other _____	SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance ☑ Sketch Plan ☐ Preliminary Plan ☐ Final Plat (Includes Minor Subdivision) ☐ Exempt Subdivision ☐ Final Plat Revision ☐ Farmhouse Cluster

2. Project Data

Date of Application 5/5/26

Name of Project TOWN 1 - Mixed Use Center Phase # (if subdivision) _____

Project Address 11101 Hambright Rd. Huntersville, NC 28078

Parcel Identification Number(s) (PIN) 01721108, 01721110, 01721118, 01721107, 01721119, 01721106, 01721105, 01721104, 01721102, 01721101

Current Zoning District CB and SP(CD) Proposed District (for rezoning only) TOD-R(CD), HC(CD), SP(CD)

Property Size (acres) 71.58 Street Frontage (feet) 4255 ft. - Hambright/Mt Holly
2630 ft. - Interstate 77

Current Land Use Residential/Commercial

Proposed Land Use(s) Mixed Use

Is the project within Huntersville's corporate limits?
Yes X No _____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

"The purpose of this request is for an amendment to rezoning EPM# 444291 to add approximately 1.042-ac Mecklenburg Parcel ID #01721110 and change its zoning from CB to TOD-E and TOD-R, in addition to requesting changes to block length and street tree requirements."

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name Treenail Development, Inc Phone 704-699-4565

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other:

☑ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature

Title President Email ben@treenailnc.com

Address of Applicant 428 S. Main St., Suite-B 101, Davidson, NC 28036

7. Property Owner (if different than applicant)

*Printed Name Aaron Cruz Phone 704-507-5227

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other:

☑ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Aaron Cruz PID # 01721110

Title Owner Email Aaron250jr@gmail.com

Address of Property Owner 11229 HAMBRIGHT RD HUNTERSVILLE NC 28078

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

Development Firm	Name of Contact	Phone	Email
Treenail Development, Inc	Ben Geisler	704-699-4565	ben@treenailnc.com
Design Firm	**Name of Contact**	**Phone**	**Email**
Woodbine Design, PC	Peyton Woody	704-315-8367	pwoody@woodbinedesign.com

Contact Information

Town of Huntersville
Planning Department
PO Box 664
Huntersville, NC 28070

Phone: 704-875-7000
Fax: 704-992-5528
Physical Address: 105 Gilead Road, Third Floor
Website: https://www.huntersville.org/228/Planning-Department

Conditional District Rezoning/Sketch Plan Approval Application

Proposed

TOWN 1 - MIXED USE CENTER

TOWN 1

HAMBRIGHT RD

Applicant / Developer:

TREENAIL DEVELOPMENT, LLC
428 S. MAIN ST., STE B-101
DAVIDSON, NC 28036

June 23, 2026

Plans Prepared By:

Woodbine Design, P.C.
Land planning & civil engineering
blending nature & man

TREENAIL DEVELOPMENT • 2014 •

DEVELOPMENT NOTES:

REZONING NOTES
TOWN 1 - MIXED USE CENTER

1. REZONING PETITION. THESE REZONING NOTES COMPRISE THE DEVELOPMENT STANDARDS (" DEVELOPMENT STANDARDS") ASSOCIATED WITH THE REZONING PETITION (THE " REZONING PETITION") FILED BY TREENAIL DEVELOPMENT, INC. (" PETITIONER") ON DECEMBER 1, 2022 (THE " FILING DATE") AS REZONING PETITION R-22 - 07 & SKETCH PLAN (THE " REZONING PLAN") FOR THAT APPROXIMATELY 70.54 ACRE TRACT OF LAND, IDENTIFIED ON THIS SITE PLAN AS TOWN 1- MIXED USE CENTER (THE " PROJECT") IN CONNECTION WITH PART OF TAX PARCEL NUMBERS 01721101, 01721102, 01721103, 01721104, 01721105, 01721106, 01721107, 01721108, 01721109, (THE " PROPERTY"). THE PURPOSE OF THE REZONING PETITION IS TO CONVERT THE ZONING CLASSIFICATION OF THE PROPERTY FROM CORPORATE BUSINESS AND CORPORATE BUSINESS (CD) ZONING DISTRICTS TO TOD-R(CD), TOD-E(CD), HC (CD) AND SP (CD) IN ACCORDANCE WITH THE PROVISIONS OF THE TOWN OF HUNTERSVILLE ZONING ORDINANCE (THE "ORDINANCE").

2. DEVELOPMENT STANDARDS. DEVELOPMENT OF THE PROPERTY WILL BE GOVERNED BY THESE DEVELOPMENT STANDARDS, WHICH ARE PART OF THE REZONING PETITION, AND THE APPLICABLE PROVISIONS OF THE ORDINANCE IN PLACE ON THE DATE OF THE FILING OF THE REZONING PLAN. UNLESS THE REZONING PLAN ESTABLISHES A MORE STRINGENT STANDARD(S), OR UNLESS OTHERWISE NOTED ON THE REZONING PLAN OR IN THESE DEVELOPMENT STANDARDS, THE REGULATIONS ESTABLISHED UNDER THE ORDINANCE IN PLACE ON THE DATE OF THE FILING OF THE REZONING PLAN GOVERN DEVELOPMENT OF THE PROPERTY AS SHOWN ON THE REZONING PLAN.

3. SCHEMATIC NATURE OF REZONING PLAN. THE LOTS, PROPOSED IMPROVEMENTS AND URBAN OPEN SPACE SHOWN ON THE REZONING PLAN ARE SCHEMATIC IN NATURE AND EXACT LOCATIONS, ARCHITECTURAL STYLE AND MATERIALS, SIZE, NUMBER OR QUANTITY AND CONFIGURATIONS OF LOTS AND BUILDINGS, INCLUDING FIRST FLOOR AREA AND HEIGHT, MAY BE ALTERED DURING DESIGN, ENGINEERING AND CONSTRUCTION PHASES OF THE DEVELOPMENT SO LONG AS SUCH ALTERATION IS WITHIN THE PARAMETERS OF THE APPROVED TRAFFIC IMPACT ANALYSIS AND PERMITTED USES SET FORTH HEREIN. MULTIPLE BUILDINGS MAY BE COMBINED AS LONG AS THE RESULTING BUILDING COMPLIES WITH THE ORDINANCE STANDARDS. THE EXACT ALIGNMENTS OF THE INTERNAL DRIVES AND INTERNAL PUBLIC STREETS HAVE NOT BEEN DETERMINED AND ARE SUBJECT TO FINAL DESIGN AND ENGINEERING PLANS, AND MINOR ALTERATIONS OF THESE ALIGNMENTS MAY TAKE PLACE DURING DESIGN DEVELOPMENT AND CONSTRUCTION PHASES.

4. PHASING. THE DEVELOPMENT OF THE PROPERTY AS GENERALLY DEPICTED ON THE REZONING PLAN MAY BE PHASED, AS DETERMINED DURING THE COURSE OF CONSTRUCTION. ANY PROPOSED PHASING MUST ALIGN WITH TIA, INFRASTRUCTURE, PARKING, TREE SAVE, OPEN SPACE AND STORMWATER REQUIREMENTS FOR THAT PHASE; PROVIDED, HOWEVER, ANY MITIGATION REQUIRED BY NCDOT WILL BE COORDINATED WITH NCDOT AND EACH PHASE OR SEQUENCE OF IMPROVEMENTS IN THE PROJECT WILL MEET ALL ORDINANCE REQUIREMENTS.

5. VESTED RIGHTS. THIS REZONING PLAN IS A SITE-SPECIFIC DEVELOPMENT PLAN AND APPROVAL THEREOF CONSTITUTES VESTED RIGHTS IN THE REZONING PLAN PURSUANT TO THE PROVISIONS OF THE ORDINANCE. NOTWITHSTANDING ANY OTHER PROVISIONS OF THESE DEVELOPMENT STANDARDS, IF, AT SOME POINT, MODIFICATIONS ARE MADE TO THE ORDINANCE BY THE TOWN BOARD, PETITIONER MAY VOLUNTARILY AGREE TO APPLY SUCH MODIFICATIONS TO THE REZONING PLAN IN A MANNER CONSISTENT WITH THE ORDINANCE AS IT CHANGES FROM TIME TO TIME, AND WITHOUT PURSUING A REZONING. SUCH MODIFICATIONS TO THE ORDINANCE SHALL IN NO WAY IMPACT THE PETITIONER'S VESTED RIGHTS. DUE TO THE SIZE OF THE PROJECT, PHASING, AND LEVEL OF INVESTMENT, APPROVAL OF THIS CONDITIONAL REZONING SHALL CONSTITUTE ESTABLISHMENT OF VESTED RIGHTS IN THE LANDOWNER (AND ITS SUCCESSORS OR ASSIGNS) FOR A PERIOD OF FIVE YEARS AS PERMITTED BY N.C. GEN. STAT. § 160D-108.1

6. PERMITTED USES. THE PROPERTY MAY BE DEVELOPED FOR ANY USES (INCLUDING ACCESSORY USES) PERMITTED IN THE TOD-R, TOD-E, HC AND SP ZONING DISTRICTS, IN THE AREAS DESIGNATED FOR SUCH CONDITIONAL ZONING DISTRICTS ON THE REZONING PLAN, INCLUDING MULTI-FAMILY RESIDENTIAL, ATTACHED RESIDENTIAL, RETIREMENT COMMUNITY, COMMERCIAL USES, AND INDOOR/OUTDOOR STORAGE (SP(CD) ONLY), SUBJECT TO THE DEVELOPMENT STANDARDS ASSOCIATED WITH SUCH USES. ANY LABELLING OR TABLES SHOWN ON THE REZONING PLAN MAY BE AN INDICATION OF THE CURRENT INTENTION ON THE PART OF PETITIONER BUT SHALL NOT RESTRICT THE PROPERTY IN A MANNER THAT CONFLICTS WITH THE PROVISIONS OF THESE DEVELOPMENT NOTES. DRIVE-UP AND WALK-UP AUTOMATED TELLER MACHINES ARE SPECIFICALLY PERMITTED SO LONG AS THEY MEET THE DESIGN REQUIREMENTS OF THE ORDINANCE.

7. ACCESS. THE NUMBER OF SITE ACCESS POINTS, DRIVEWAYS AND CONNECTIONS TO ROADS ARE SCHEMATIC IN NATURE. TO THE EXTENT PERMITTED BY APPLICABLE DRIVEWAY PERMIT REQUIREMENTS, FUTURE DRIVEWAYS, ACCESS POINTS AND ROAD CONNECTIONS MAY CROSS THE SETBACK AND SHALL NOT REQUIRE A REZONING OF THE PROPERTY BUT SHALL OTHERWISE COMPLY WITH APPLICABLE DRIVEWAY PERMIT REQUIREMENTS. CROSS ACCESS AND PARKING EASEMENTS SHALL BE GRANTED AS NEEDED TO PROVIDE ACCESS OVER SHARED DRIVEWAYS AND RIGHTS TO SHARED PARKING. REQUIRED PARKING MAY BE CALCULATED ACROSS MULTIPLE LOTS AS LONG AS REASONABLE ACCESS IS PROVIDED. AS SHOWN ON THE REZONING PLAN, BUILDING C4 FRONTS A PLAZA TO THE EAST OF THE BUILDING; HOWEVER, FRONTAGE MAY BE ALTERED OR REORIENTED TO ADDRESS URBAN OPEN SPACE ON THE NORTH SIDE OF THE BUILDING TO PERMIT MULTIPLE TENANTS OR USERS. IN THE EVENT PETITIONER, OR ITS SUCCESSORS OR ASSIGNS, ACQUIRES TAX PARCEL NO. 017-211-10 (THE " ADJACENT PARCEL") AS SHOWN ON THE REZONING PLAN, THE ADJACENT PARCEL MAY ACCESS THE DRIVEWAY LOCATED TO THE EAST OF THE ADJACENT PARCEL, PROVIDED THE COST TO ACCESS THE DRIVEWAY SHALL BE BORNE BY THE OWNER OF THE ADJACENT PARCEL AND THE OWNER OF THE ADJACENT PARCEL SHALL SHARE IN THE COSTS OF THE MAINTENANCE, REPAIR AND REPLACEMENT OF THE COMMON AREAS WITHIN THE PROJECT AND SHALL ABIDE BY ALL RESTRICTIONS AND COVENANTS IMPOSED BY PETITIONER ON PROPERTY WITHIN THE PROJECT.

8. SUBDIVISION. THE PROPERTY IS ONE DEVELOPMENT AND MAY BE SUBDIVIDED WITHOUT A REZONING TO ALLOW SEPARATE OWNERS OF INDIVIDUAL PARCELS SO LONG AS SUCH SUBDIVISION FOLLOWS APPLICABLE LAW INCLUDING SUBDIVISION REGULATIONS. HOWEVER, RECOMBINATION, CONDOMINIUMIZATION, OR REDUCTION IN THE NUMBER OF PARCELS MAY OCCUR IN ACCORDANCE WITH THE REGULATIONS OF THE ORDINANCE. PURSUANT TO NOTE #4 OF THESE DEVELOPMENT STANDARDS, REQUIREMENTS THAT ARE MET BY THE PROJECT AS A WHOLE, SUCH AS OPEN SPACE, TREE SAVE AND IMPERVIOUS REQUIREMENTS, NEED NOT BE MET BY INDIVIDUAL PARCELS.

9. STREET IMPROVEMENTS. PETITIONER SHALL BE REQUIRED TO INSTALL SIDEWALKS, STREET TREES, PLANTING STRIPS, BICYCLE LANES OR OTHER STREET IMPROVEMENTS AS A CONDITION OF THE APPROVAL OF THIS REZONING PLAN AS SPECIFICALLY SHOWN ON THE REZONING PLAN AND AS REQUIRED BY THE ZONING ORDINANCE, SUBDIVISION ORDINANCE, APPLICABLE HUNTERSVILLE/NCDOT TIA, OR DRIVEWAY PERMIT REQUIREMENTS. STREET TREE LOCATIONS ARE SUBJECT TO CHANGE DURING THE CONSTRUCTION PLAN PHASE TO SATISFY THE TOWN'S ENGINEERING STANDARDS AND PROCEDURES MANUAL.

10. LANDSCAPING/BUFFERS. DEVELOPMENT OF THE PROPERTY SHALL COMPLY WITH THE LANDSCAPING AND BUFFER REQUIREMENTS OF THE ORDINANCE. LANDSCAPE EASEMENTS SHALL BE PROVIDED FOR STREET TREES AS REQUIRED BY THE ORDINANCE. BUFFER IMPACTS/MITIGATION SHALL BE PERMITTED THROUGH THE APPROPRIATE STATE OR FEDERAL AGENCY ACTING PURSUANT TO SECTIONS 401 OR 404 OF THE FEDERAL CLEAN WATER ACT.

11. AMENDMENT. FUTURE AMENDMENTS TO THE REZONING PLAN AND/OR THESE DEVELOPMENT STANDARDS MAY BE APPLIED FOR BY THE THEN OWNER OF OWNERS OF THE PROPERTY IN ACCORDANCE WITH THE PROVISIONS OF THE ORDINANCE; PROVIDED, HOWEVER, IN THE EVENT ANY PORTION OF THE PROPERTY IS CONVEYED TO A THIRD PARTY, PETITIONER MAY REQUEST AN AMENDMENT TO THE REZONING PLAN WITHOUT THE WRITTEN CONSENT OF ANY OTHER OWNER OF ALL OR ANY PORTION OF THE PROPERTY UNLESS SUCH AMENDMENT CONSTITUTES A CHANGE IN THE BUILDING OR USE OF THE PORTION OF THE PROPERTY OWNED BY SUCH OWNER, PROVIDED PETITIONER PROVIDES FOR SUCH AMENDMENT RIGHT IN THE RECORDED PRIVATE RESTRICTIVE COVENANTS THAT GOVERN THE PROJECT. ALL REQUIREMENTS IN CONNECTION WITH THE AMENDMENT WILL BE CALCULATED ON THE PROPERTY AS A WHOLE IN THE SAME MANNER SUCH REQUIREMENTS WERE CALCULATED AT THE TIME OF THE INITIAL APPROVAL. THIS NOTE SHALL BE SHOWN ON THE FINAL PLAT WHEN RECORDED.

12. BMP DESIGN. THE DESIGNS FOR THE BMPS SHOWN ON THE REZONING PLAN SHALL BE FINALIZED DURING THE CONSTRUCTION PHASE AND SHALL BE COMPLETED AS A PART OF THE INFRASTRUCTURE IMPROVEMENTS. ALTHOUGH NOT REQUIRED BY THE ORDINANCE, PETITIONER SHALL USE COMMERCIALLY REASONABLE EFFORTS TO EVALUATE AND CONSIDER MAINTENANCE OF THE PRE-DEVELOPED RATES FOR THE 25-YEAR STORM EVENT.

13. BINDING EFFECT OF THE REZONING DOCUMENTS AND DEFINITIONS. IF THIS REZONING APPLICATION IS APPROVED, ALL CONDITIONS APPLICABLE TO THE USE AND DEVELOPMENT OF THE SITE IMPOSED UNDER THESE DEVELOPMENT STANDARDS AND THE REZONING PLAN WILL, UNLESS AMENDED IN THE MANNER PROVIDED UNDER THE ORDINANCE, BE BINDING UPON AND INURE TO THE BENEFIT OF PETITIONER AND THE CURRENT AND SUBSEQUENT OWNERS OF THE PROPERTY AND THEIR RESPECTIVE SUCCESSORS IN INTEREST AND ASSIGNS. THROUGHOUT THESE DEVELOPMENT STANDARDS, THE TERM " PETITIONER" SHALL BE DEEMED TO INCLUDE THE HEIRS, DEVISEES, PERSONAL REPRESENTATIVES, SUCCESSORS IN INTEREST AND ASSIGNS OF PETITIONER OR THE OWNER OR OWNERS OF THE PROPERTY FROM TIME TO TIME WHO MAY BE INVOLVED IN ANY FUTURE DEVELOPMENT THEREOF.

14. FUTURE TRANSIT STATION. THE LOCATION FOR THE FUTURE TRANSIT STATION IS IDENTIFIED ON THE REZONING PLAN AS THE " FUTUREPARK & RIDE LOCATION." THE FINAL DESIGN, LAYOUT, AND EXACT LOCATION OF THE FUTURE PARK & RIDE LOCATION HAS NOT BEEN DETERMINED, AND THE FINAL CONFIGURATION MAY HAVE AN IMPACT ON THE PROJECT. THE APPROXIMATE LAYOUT AND CONFIGURATIONS OF LOTS AND BUILDINGS AND ALIGNMENTS OF STREETS AND DRIVES MAY BE ALTERED DURING DESIGN, ENGINEERING AND CONSTRUCTION PHASES OF THE DEVELOPMENT TO ACCOMMODATE THE FUTURE PARK & RIDE LOCATION AS PERMITTED BY CATS AND AS AGREED TO BY THE PETITIONER AND THE TOWN.

15. ELEVATIONS. THE ELEVATIONS ARE SUBMITTED AS EXAMPLES ONLY, AND DO NOT REPRESENT ACTUAL ELEVATIONS FOR THIS PROJECT. STAFF MAY APPROVE ELEVATIONS SUBMITTED DURING CONSTRUCTION THAT ARE GENERALLY CONSISTENT WITH THE RENDERINGS INCLUDED WITH THE REZONING PLAN.

16. APPROVAL. APPROVAL OF THIS SKETCH / CONCEPT PLAN DOES NOT IMPLY OR GUARANTEE APPROVAL AND/OR VESTING OF THE FINAL PRELIMINARY / CONSTRUCTION PLAN WILL BE REVIEWED FOR COMPLIANCE PER ALL TOWN, COUNTY AND STATE REGULATIONS IN EFFECT AT TIME OF SUBMITTAL.

17. AFFORDABLE HOUSING. AT ALL TIMES, AT LEAST TWO FLOATING AFFORDABLE HOUSING UNITS SHALL BE PROVIDED AMONG THE RESIDENTIAL UNITS INCLUDED ON LOT #14 OF THE DEVELOPMENT PURSUANT TO AND IN ACCORDANCE WITH N.C.G.S 160D-703(b1) THAT WILL BE AVAILABLE TO HOUSEHOLDS EARNING LESS THAN 80% OF THE AREA MEDIAN INCOME AS PUBLISHED BY HUD FOR THE CHARLOTTE-CONCORD-GASTONIA NC-SC HUD METRO FMR AREA. THEREFORE, SO LONG AS THE REQUIREMENTS OF N.C.G.S. 160D-703(b1) ARE SATISFIED ON LOT #14, THE BUILDINGS LOCATED ON LOT #14 ARE NOT REQUIRED TO COMPLY WITH THE MASSING REQUIREMENTS SET FORTH IN SECTIONS 3.2.13(D)(2)(A) AND 4.8(A)-(D) OF THE TOWN OF HUNTERSVILLE ZONING ORDINANCE. NOTWITHSTANDING THE FOREGOING, THE REQUIREMENTS TO CONTAIN AT LEAS TWO FLOATING AFFORDABLE HOUSING UNITS AT ALL TIMES ON LOT #14 OF THE DEVELOPMENT SHALL TERMINATE AT SUCH TIME THAT THE BUILDINGS ON THE ADJACENT PROPERTY TO THE EAST (TAX ID# 017-211-10) ARE REMOVED OR REDEVELOPED IN SUCH A MANNER THAT THE MASSING REQUIREMENTS PURSUANT TO 3.2.13(D)(2)(A) AND 4.8(A)-(D) OF THE TOWN OF HUNTERSVILLE ZONING ORDINANCE ARE NO LONGER APPLICABLE TO THE BUILDINGS ON LOT #14.

18. MASTER SIGNAGE PROGRAM. PETITIONER ELECTS TO APPLY FOR APPROVAL PURSUANT TO THE MASTER SIGNAGE PROGRAM PURSUANT TO SECTION 10.11 OF THE ORDINANCE.

19. FAR REQUIREMENTS AND FIRST FLOOR AREA. DEVELOPMENT IN THE TOD-R AND TOD-E PORTIONS OF THE PROJECT SHALL COMPLY WITH MINIMUM FAR AND FIRST FLOOR AREA REGULATIONS. THE PURPOSE OF THE FAR TABLE ON PAGE C3.1 OF THE REZONING PLAN IS INTENDED TO SHOW THAT THIS CONCEPTUAL REZONING PLAN MEETS THE REQUIREMENTS OF THE ORDINANCE; HOWEVER, THIS REZONING PLAN IS CONCEPTUAL AND SCHEMATIC IN NATURE AND THE TABLE IS NOT INTENDED TO LIMIT OR RESTRICT THE FINAL DEVELOPMENT ON THE PROPERTY AS LONG AS THE REQUIREMENTS OF THE ORDINANCE ARE MET, SUBJECT TO THE MODIFICATIONS OF THIS REZONING PLAN.

MODIFICATIONS TO STANDARDS
PURSUANT TO SECTION 11.4.7(K) OF THE ORDINANCE, THE STANDARDS OF THE ORDINANCE ARE MODIFIED TO PERMIT THE FOLLOWING:

1.SIDEYARD PARKING IS PERMITTED ON LOTS #6, 7, 8, 12, 13, 14, 18 & 19. ADDITIONAL SCREENING SHALL BE PROVIDED IN ACCORDANCE WITH SHEET C5 OF THE REZONING PLAN.

2.BUFFER DISTURBANCE IN THE I-77 BUFFER FOR GRADING (INCLUDING PORTION THAT APPEARS TO BE ALONG HAMBRIGHT RD.) SO LONG AS SUCH DISTURBANCE DOES NOT ENCROACH MORE THAN 20 FEET INTO THE BUFFER, PROVIDED AN ALTERNATE BUFFER YARD PLAN IS SUBMITTED IN ACCORDANCE WITH SECTION 7.5 OF THE ORDINANCE.

3.BUFFER MAY BE REDUCED AT LOTS #1 & #2 ALONG MT. HOLLY HUNTERSVILLE ROAD TO 60' AS SHOWN ON THE REZONING PLAN.

4.THE DISTANCE BETWEEN THE CUL-DE-SAC LOCATED IN PUBLIC ROAD A AND THE RIGHT OF WAY OF MT. HOLLY HUNTERSVILLE ROAD MAY BE INCREASED TO 380'.

5.MASSING REQUIREMENTS PURSUANT TO 3.2.14(D)(1)A AND 4.2 OF THE ORDINANCE ARE WAIVED FOR THE BUILDINGS LOCATED ON LOT #18.

6.VERTICAL PARKING MAY SERVE TOD-E AND TOD-R PORTIONS OF THE PROJECT AND PARKING MAY BE COMPLETED PRIOR TO THE COMPLETION OF ALL OF THE IMPROVEMENTS SUCH PARKING IS INTENDED TO SERVE.

7. REQUEST FOR MODIFICATION FROM 4.1 AND 4.2 OF THE ORDINANCE TO PROVIDE THAT NO BUILDING ENTRANCE SHALL BE REQUIRED TO BE CONSTRUCTED ON, AND NO SIDEWALK SHALL BE REQUIRED ALONG, THE PORTION OF BUILDING W2 THAT DOES NOT FRONT THE CUL-DE-SAC AND DRIVEWAY ADJOINING BUILDING W2.

8. SINGLE ROW STREET TREES ARE PERMITTED ALONG HAMBRIGHT RD AND MT. HOLLY-HUNTERSVILLE RD. AS SHOWN ON SHEET C7 OF THE REZONING PLAN.

9. BLOCK LENGTHS ARE PERMITTED TO EXCEED 500-FT AS SHOWN ON SHEET C7 OF THE REZONING PLAN.

GENERAL NOTES:

ALL DEVELOPMENT AND CONSTRUCTION SHALL COMPLY WITH ALL ZONING AND SUBDIVISION STANDARDS OF THE TOWN OF HUNTERSVILLE, MECKLENBURG COUNTY, AND NCDOT, AS APPLICABLE.

* THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS AND/OR RIGHT-OF-WAY OF RECORD.
* ALL AREAS DESIGNATED AS COMMON AND/OR URBAN OPEN SPACE SHALL BE OWNED AND MAINTAINED BY THE HOMEOWNERS ASSOCIATION AND DEDICATED FOR PERPETUITY.
* ACCESS (INGRESS/EGRESS) LOCATION AND DESIGN SHOWN ON THIS SKETCH PLAN AREA SUBJECT TO ACHIEVING VERTICAL AND HORIZONTAL SIGHT DISTANCES, TURN LANE IMPROVEMENTS (INCLUDING) RIGHT-OF-WAY) AND INTERSECTION WITH ADJACENT AND OPPOSING ACCESS POINTS. MODIFICATIONS TO PLAN MAY RESULT.
* LARGE MATURING TREES WILL BE PLANTED 40' O/C WITHIN THE REQUIRED PLANTING STRIP ALONG ALL STREETS. IF APPLICABLE, ADD THE FOLLOWING: WITH THE EXCEPTION OF RURAL PARKWAYS WHERE EXISTING TREES CAN SATISFY THE STREET TREE REQUIREMENT.
* SMALL MATURING TREES ARE TO BE USED WHERE OVERHEAD POWER LINES EXIST.
* MAIL DELIVERY SHALL OCCUR AT THE CLUBHOUSE FOR THE MULTI-FAMILY UNITS IN USPS APPROVED CLUSTER BOX, COMMERCIAL BUILDINGS SHALL HAVE A PO BOX OR INSIDE DELIVERY AT THE BUILDING.
* DUMPSTER LOCATIONS HAVE BEEN SHOWN THROUGHOUT THE SITE.
* BUILD-TO LINE. A LINE EXTENDING THROUGH A LOT WHICH IS GENERALLY PARALLEL TO THE FRONT PROPERTY LINE AND MARKS THE LOCATION FROM WHICH THE PRINCIPLE VERTICAL PLANE OF THE FRONT BUILDING ELEVATION, EXCLUSIVE OF PORCHES, BAY WINDOWS AND SIMILAR APPURTENANCES, MUST BE ERECTED; INTENDED TO CREATE AN EVEN BUILDING FAÇADE LINE ON A STREET. THE BUILD-TO LINE IS ESTABLISHED ON THE RECORD PLAT (FINAL PLAT).
* DIRECT ACCESS FROM LOTS TO A THOROUGHFARE IS PROHIBITED.
* SPEED LIMITS SHALL BE POSTED AT 20-MPH, 110-FT MIN CENTERLINE RADII

REQUIRED NCDOT & TOWN ROAD IMPROVEMENTS

Hambright Road (SR 2117) and Mt. Holly-Huntersville Road (SR 2004)
- Construction of a southbound right-turn lane along Mt. Holly-Huntersville Road (SR 2004) with 100 feet of storage.
- Coordination with the adjacent signals along Hambright Road (SR 2117)

Hambright Road (SR 2117) and Statesville Road (US 21)
- Additional northbound left-turn lane along Statesville Road (US 21) to create dual left-turn lanes with 375 feet of storage
- Additional eastbound receiving lane along Hambright Road (SR 2117) extending to the I-77 Express Lanes
- Restriping of the westbound right-turn lane along Hambright Road (SR 2117) into a shared through-right lane
- Coordination with the adjacent signals along Hambright Road (SR 2117)

Hambright Road (SR 2117) and I-77 Express Lanes
- Coordination with the adjacent signals along Hambright Road (SR 2117)

Hambright Road (SR 2117) and Access 1
- Construction of a westbound right-turn lane along Hambright Road with 100 feet of storage.
- Construction of the southbound approach of Access 1 with one ingress lane, one egress lanes, stop control, and an internal protected stem (IPS) of 100 feet.

Hambright Road (SR 2117) and Access 2
- Installation of a traffic signal coordinated with the adjacent signals along Hambright Road (SR 2117)
- Installation of a pedestrian crosswalk at the signal to provide access to the CATS Park and Ride
- Construction of the southbound approach of Access 2 with one ingress lane and two egress lanes - a dedicated left-turn and a shared through-right lane
- Restriping the existing two-way left turn lane along Hambright Road (SR 2117) on the eastbound approach to provide a dedicated left-turn lane with 100 feet of storage
- Construction of a westbound right-turn lane along Hambright Road (SR 2117) with 125 feet of storage

Hambright Road (SR 2117) and Access 3
- Construction of the southbound approach of Access 3 with one ingress lane, one egress lane, stop control, and an IPS of 100 feet.

Mt. Holly-Huntersville Road (SR 2004) and Access 4
- Construction of a left-over with a southbound left-turn lane along Mt. Holly-Huntersville Road (SR 2004) with 125 feet of storage.
- Construction of the westbound approach of Access 4 with one ingress lane, one egress lane, stop control, and an IPS of 100 feet.

Mt. Holly-Huntersville Road (SR 2004) and Access 5
- Construction of a southbound left-turn lane along Mt. Holly-Huntersville Road with 125 feet of storage.
- Construction of the westbound approach of Access 5 with a single ingress lane, two egress lanes, stop-control, and an IPS of 200 feet.

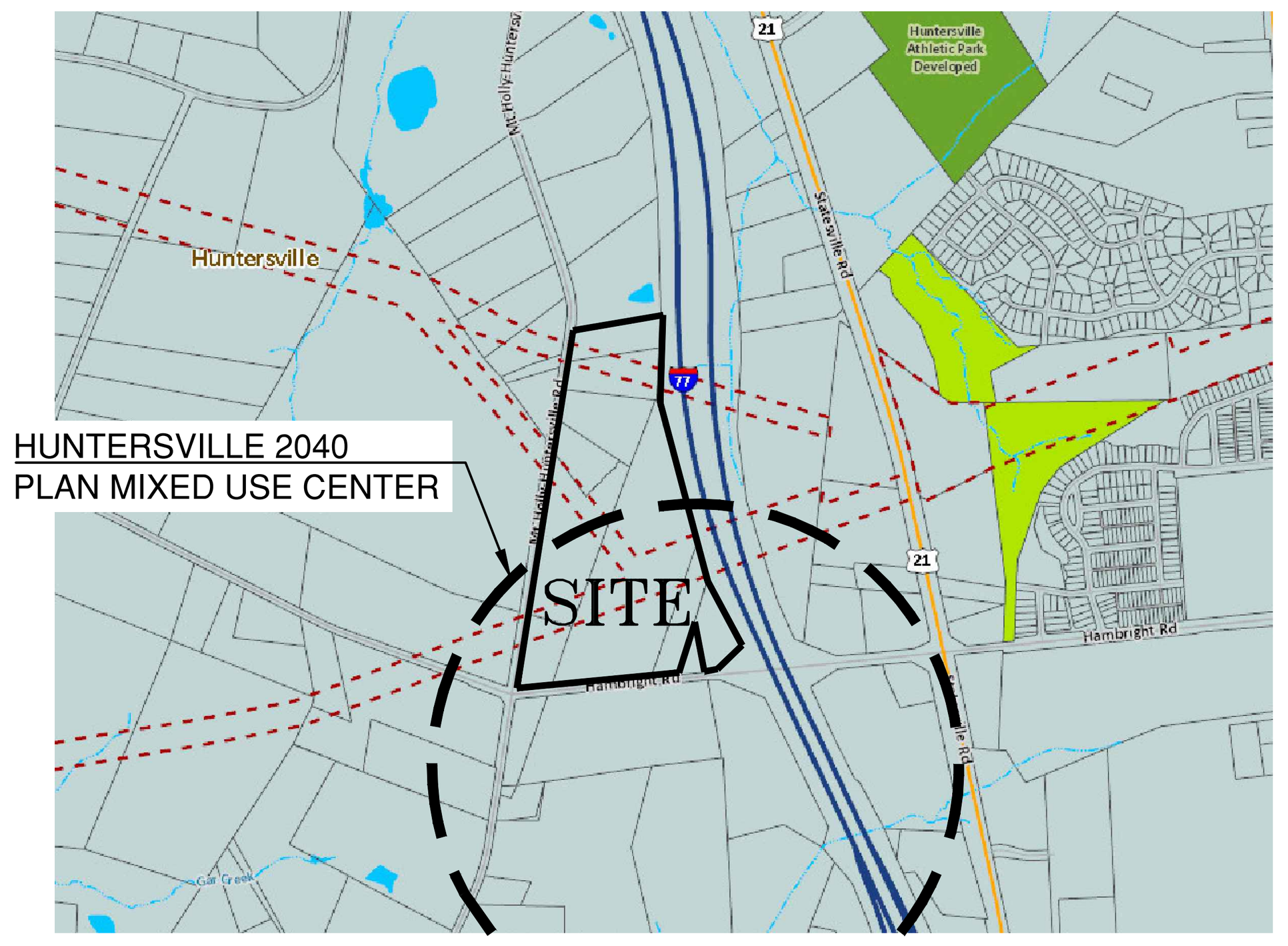
Mt. Holly-Huntersville Road (SR 2004) and Access 6
- Construction of a southbound left-turn lane along Mt. Holly-Huntersville with 100 feet of storage.
- Construction of a northbound right-turn lane along Mt. Holly-Huntersville with 100 feet of storage.
- Construction of the westbound approach of Access 6 with a single ingress lane, dual egress lane, and an IPS of 125 feet.

LEGEND

PROPOSED
- 795 — 5' CONTOURS
- 797 — 1' CONTOURS
- SS — SANITARY SEWER
- STORM SEWER
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- GRATE INLET
- = SPOT ELEVATION

EXISTING
- 795 — 5' CONTOURS
- 796 — 1' CONTOURS
- STORM SEWER
- SS — SANITARY SEWER
- W — WATER LINE
- STORM SEWER MANHOLE (MH)
- CURB INLET (CI)
- GRATE INLET/YARD INLET (GI/YI)

SITE LEGEND
- PROPOSED CURB & GUTTER
- REVERSED PITCH CURB & GUTTER
- PROPERTY LINE
- LOT LINES
- DECORATIVE FENCING
- PAVEMENT STRIPING
- PAVEMENT
- CONCRETE
- TRAFFIC FLOW
- PARKING BAY COUNT (23)
- SPOT ELEVATION
- HANDICAP RAMP — HC



VICINITY MAP n.t.s.

EPM# 444291

FIRE MARSHAL

FIRE MARSHAL'S OFFICE
ALL ITEMS ON THE CHECKLIST BELOW MUST BE MET FOR LAND DEVELOPMENT APPROVAL

The Mecklenburg County Fire Marshal's Office reviews land development drawings that are submitted thru the land development review process for the incorporated towns and their extra territorial jurisdiction (ETJ) areas. All land development drawings are reviewed for the following code requirements in the sketch and construction submittals:

- Road Width – Minimum 20 feet or per North Carolina Department of Transportation (NCDOT).
- Fire Apparatus Turning Radius – 30 feet inner, 42 feet outer.
  - Templates SB-30 (Engines) and B-40 (Ladder Trucks) are used and all drawings shall be scaled no smaller than 1:60.
- Water Utilities – Water lines and/or fire hydrant locations.
  - Fire hydrants required within 400 feet of any new structure. Exception: R3 and U occupancies or when the structure has an approved sprinkler system distant requirement shall be 600 feet.
  - Fire Department Connection (FDC) required within 200' for NFPA13/13R sprinkler systems and 100' for standpipes systems.
- Dead-End Roads – Maximum length of any dead-end road shall be 150 feet without an approved fire apparatus turn around
- Road Surfaces – All roads/commercial driveways for fire apparatus access shall be capable to support the imposed load of an 80,000-pounds.
- Secondary Access – Development of one-or two- family dwellings where the number of dwelling units exceed 100 and commercial structures 62,000sqft (no sprinklers) and 124,000sqft (with sprinklers) shall be provided with separate and approved remote fire apparatus access road.

Survey By:

CAROLINA GEOMATICS, PLLC
CHEVIS KING
980-329-3382
CKING@CAROLINAGEOMATICS.COM

PARCEL ID NUMBERS

ID#	OWNER
01721110	AARON CRUZ
01721118	HAMBRIGHT PARTNERS LLC
01721108	HAMBRIGHT PARTNERS LLC
01721107	CATAWBA PROPERTY INVESTMENTS LLC
01721119	MT HOLLY PARTNERS LLC
01721106	MT HOLLY PARTNERS LLC
01721105	JUNCTION T1 LLC
01721104	MT HOLLY PARTNERS LLC
01721102	MT HOLLY PARTNERS LLC
01721101	MT HOLLY PARTNERS LLC

SEE APPLICATION FOR CONTACT AND ADDRESS INFORMATION

SHEET LEGEND

C1	COVER SHEET
~~C2~~	~~COLOR CONCEPT PLAN~~ OMITTED
C3	B/W CONCEPT PLAN
C3.1	BUILDING TYPE & F.A.R. TABLE
C4	CONCEPT PLAN W/ TOPO
C5	LANDSCAPE PLAN/ FRONTAGE IMPROVEMENT
C5.1	UTILITY PLAN - CONCEPTUAL
C5.2	GRADING / STORMDRAIN / SCM - CONCEPTUAL
C6	LOT LAYOUT, DENSITY, BLOCK LENGTH
C7	CONNECTIVITY / PEDESTRIAN PLAN / TURN TEMPLATES & BLOCK LENGTH
C8	ZONING MAP
C9	STREET CROSS SECTIONS
C9.1	STANDARD DETAILS
C10	BUILDING TYPES - SHOP FRONT & HIGHWAY COMMERCIAL
C10.1	BUILDING TYPES - URBAN WORKPLACE & APARTMENT
C11	TREE SAVE PLAN
C11.1	TREE OVERLAY
C12	SLOPE ANALYSIS
	ATTACHED TREE & BOUNDARY SURVEY

PLOTTED: 6/23/2026
Z:\SHARED\PROJECTS_PROJECTS\21037 - HAMBRIGHT ROAD COMMERCIAL_CAD_ZONING

IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

Woodbine Design, P.C.
Land planning & civil engineering
blending nature & man
www.woodbinedesign.com
rburgess@woodbinedesign.com
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980.722.2669 20816 N. Main Street, Suite 204
704.315.8367 Cornelius, NC 28031

Riley D. Burgess, Jr. PE
2026.06.23 12:58:44-04'00'
NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS, JR.
SEAL

WOODBINE DESIGN P.C. CORPORATE NORTH CAROLINA SEAL NO: C-4063 2014

NORTH ARROW

Project: TOWN 1– MIXED USE DEVELOPMENT
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: COVER SHEET

DEVELOPER/OWNER
TREENAIL DEVELOPMENT
428 S. MAIN ST., STE B-101
DAVIDSON, NC 28036

Designed By: WOODBINE
Drawn By: WOODBINE
Date: 6/23/26

Revisions
5/11/23–4th Review Com.
6/8/23–5th Review Com.
8/2/23–6th Review Com.
4/23/26–RTAP

Sheet: C1 of 12
Project Number: 21037

MODIFICATIONS

MODIFICATIONS TO STANDARDS
PURSUANT TO SECTION 11.4.7(K) OF THE ORDINANCE, THE STANDARDS OF THE ORDINANCE ARE MODIFIED TO PERMIT THE FOLLOWING:

1.SIDEYARD PARKING IS PERMITTED ON LOTS #6, 7, 8, 13, 18 & 19. ADDITIONAL SCREENING SHALL BE PROVIDED IN ACCORDANCE WITH SHEET C5 OF THE REZONING PLAN.

2.BUFFER DISTURBANCE IN THE I-77 BUFFER FOR GRADING (INCLUDING PORTION THAT APPEARS TO BE ALONG HAMBRIGHT RD.) SO LONG AS SUCH DISTURBANCE DOES NOT ENCROACH MORE THAN 20 FEET INTO THE BUFFER, PROVIDED AN ALTERNATE BUFFER YARD PLAN IS SUBMITTED IN ACCORDANCE WITH SECTION 7.5 OF THE ORDINANCE.

3.BUFFER MAY BE REDUCED AT LOTS #1 & #2 ALONG MT. HOLLY HUNTERSVILLE ROAD TO 60' AS SHOWN ON THE REZONING PLAN.

4.THE DISTANCE BETWEEN THE CUL-DE-SAC LOCATED IN PUBLIC ROAD A AND THE RIGHT OF WAY OF MT. HOLLY HUNTERSVILLE ROAD MAY BE INCREASED TO 300'.

5.MASSING REQUIREMENTS PURSUANT TO 3.2.14(D)(1)A AND 4.2 OF THE ORDINANCE ARE WAIVED FOR THE BUILDINGS LOCATED ON LOT #18.

6.VERTICAL PARKING MAY SERVE TOD-E AND TOD-R PORTIONS OF THE PROJECT AND PARKING MAY BE COMPLETED PRIOR TO THE COMPLETION OF ALL OF THE IMPROVEMENTS SUCH PARKING IS INTENDED TO SERVE.

7. REQUEST FOR MODIFICATION FROM 4.1 AND 4.2 OF THE ORDINANCE TO PROVIDE THAT NO BUILDING ENTRANCE SHALL BE REQUIRED TO BE CONSTRUCTED ON, AND NO SIDEWALK SHALL BE REQUIRED ALONG, THE PORTION OF BUILDING W2 THAT DOES NOT FRONT THE CUL-DE-SAC AND DRIVEWAY ADJOINING BUILDING W2.

URBAN OPEN SPACE

TYPE OF URBAN OPEN SPACE	SIZE OF U.O.S.	PARKING SPACES
		PARKING IS PROVIDED THROUGHOUT THE DEVELOPMENT FOR ALL U.O.S.
P1–PLAZA @ U5	2300–SF	0
P2–PLAZA @ A1	4000–SF	0
P3–PLAZA @ R9 & R10	5000–SF	0
P4–PLAZA @ C4	2000–SF	0
P5–PLAZA @ M1	2000–SF	0
P6–PLAZA @ R11	4400–SF	0
P7–PLAZA @ R28	2400–SF	0
P8–PLAZA @ U1	2,000–SF	0
GREEN–1	10000–SF	0
GREEN–2	10000–SF	0
GREEN–3	20000–SF	0

PARK SIZE = NO MIN. FOR MINI PARKS (LINEAR)
PLAZA SIZE = 2,000–SF, 30,000–SF MAX.
PEDESTRIAN PASSAGEWAY = NO SIZE REQUIREMENT
GREEN SIZE = NO SIZE REQUIREMENTS

SIZE OF URBAN OPEN SPACE SUBJECT TO CHANGE, HOWEVER MIN./MAX. SIZE REQUIREMENTS SHALL BE MET PER ORDINANCE.

SITE LEGEND

- PROPOSED CURB & GUTTER
- REVERSED PITCH CURB & GUTTER
- PROPERTY LINE
- LOT LINES
- DECORATIVE FENCING
- PAVEMENT STRIPING
- PAVEMENT
- CONCRETE
- TRAFFIC FLOW
- PARKING BAY COUNT (23)
- SPOT ELEVATION
- HANDICAP RAMP (HC)

PATH LEGEND

- 4' NATURAL TRAIL MULCH/GRAVEL(OPTIONAL)
- 8' PEDESTRIAN CORRIDOR PAVED/CONCRETE
- 10' MULTI-USE PATH PAVED/CONCRETE
- 5' PEDESTRIAN PATH PAVED/CONCRETE
- 8' PEDESTRIAN PATH PAVED/CONCRETE

MAIL NOTE:
USPS APPROVED CLUSTER BOXES SHALL BE PROVIDED AT THE R1, T1 & M1. OFFICE AND COMMERCIAL USES SHALL HAVE POST OFFICE BOXES OR DELIVERY INSIDE EACH BUILDING. APPROVAL OF MAIL DELIVERY SHALL BE COORDINATED WITH POSTAL SERVICE

SEE SHEET C9 FOR STREET CROSS SECTIONS

PARKING DATA

PARKING REQUIREMENTS PER	TOWN OF HUNTERSVILLE
PARKING RESIDENTIAL (TOD-R) - MIN REQUIRED	1 SPACE PER UNIT x 747 - UNITS = 747 - SPACES
PARKING RESIDENTIAL (TOD-R) - MAX ALLOWED	2 SPACES PER UNIT x 747 - UNITS = 1494 - SPACES
PARKING RESIDENTIAL (TOD-R) - PROVIDED	1293 - SPACES
PARKING OFFICE (TOD-E) - MIN REQUIRED	1 SPACE PER 1,000 - SF x 126,000 = 126 - SPACES
PARKING OFFICE (TOD-E) - MAX ALLOWED	1 SPACE PER 500 - SF x 126,000 = 252 - SPACES
PARKING OFFICE (TOD-E) - PROVIDED	252 - SPACES
PARKING COMMERCIAL (TOD-E) - MIN REQUIRED	1 SPACE PER 1,000 - SF x 53,000 = 53 - SPACES
PARKING COMMERCIAL (TOD-E) - MAX ALLOWED	1 SPACE PER 500 - SF x 53,000 = 106 - SPACES
PARKING COMMERCIAL (TOD-E) - PROVIDED	80 - SPACES
PARKING COMMERCIAL (HC) - MIN REQUIRED	1 SPACE PER 500 - SF x 43,500 = 87 - SPACES
PARKING COMMERCIAL (HC) - MAX ALLOWED	N/A
PARKING COMMERCIAL (HC) - PROVIDED	227 - SPACES
PARKING WAREHOUSE (SP) - MIN REQUIRED	.25 SPACE PER 1000 - SF x 172,000 = 43 - SPACES
PARKING WAREHOUSE (SP) - MAX ALLOWED	N/A
PARKING WAREHOUSE (SP) - PROVIDED	55 - SPACES
TOTAL PARKING - MIN REQUIRED	1056 - SPACES
TOTAL PARKING - PROVIDED	1907 - SPACES
SIDE YARD PARKING: UPT TO 45% SIDEYARD PARKING ALLOWED IN HC	
MODIFICATION REQUIRED FOR SIDEYWARD PARKING IN TOD-R & TOD-E	

TRASH NOTES

TRASH COLLECTION SHALL BE PRIVATE. TRASH PICKUP WILL CONSIST OF ONSITE DUMPSTERS OR A PRIVATE COMPANY WILL COLLECT THE TRASH WITHIN THE BUILDING AND DISPOSE OFFSITE AT A PERMITTED FACILITY –RESIDENTIAL USES MAY BE SERVED BY TRASH COMPACTOR AND/OR TRASH SERVICE

BUFFER & SCREENING

1) 50–FT ALONG HWY–77
2) 10–FT ALONG RESIDENTIAL AT BLDG U1 & A1
3) 60–FT ALONG MT HOLLY HUNTERSVILLE RD AT BLDG W1 & S1 (MODIFICATION)

SCREENING REQUIREMENTS:
ALL LOADING, PARKING, DUMPSTERS & ABOVE GROUND UTILITIES SHALL BE SCREENED PER ORDINANCE

IMPERVIOUS AREA DATA

MAX. ALLOWABLE IMPERVIOUS: 70%
PROPOSED IMPERVIOUS: PAVEMENT/CONCRETE=1,208,557–SF BLDG=564,600–SF
TOTAL PROPOSED=1,773,157–SF 56.9% IMPERVIOUS

WATERSHED: MOUNTAIN ISLAND LAKE PA–2

NOTES:
1) THIS SITE SHALL UTILIZE THE HIGH DENSITY OPTION, BMP'S SHALL BE PROVIDED IN COMPLIANCE WITH THE PCO AND HUNTERSVILLE LOW IMPACT DEVELOPMENT REQUIREMENTS BY USING INFILTRATION/ UNDERGROUND DETENTION AND OTHER APPROVED S.C.M.'S.
2) THIS PROJECT DOES NOT LIE WITHIN A REGULATED FLOODWAY
3) SWIM BUFFER IMPACTS MUST BE PERMITTED VIA ARMY CORPS OF ENGINEERS & MECKLENBURG COUNTY STORM WATER
4) IMPERVIOUS IS SHOWN ILLUSTRATIVELY, FINAL NUMBER MAY VARY DURING THE DESIGN & PERMITTING PHASE

Total Acreage	71.58–ACRES
Total Square Feet	3,118,125–SF
Principal Uses(s) (Z.O Article 3)	MIXED–USE SEE SHEET C3.1
Building Type (Z.O. Article 3, 9 and 8.10)	SEE TABLE ON SHEET C3.1
Zoning District (Z.O. Article 3)	CURRENT=CB, CB(CD) PROPOSED=TOD–R(CD), HC(CD), SP(CD) TOD–E(CD)
Overlay District, if applicable (Article 3.2.O.)	
Percentage of Impervious Allowed (Article 3.2.C.)	70%
Percentage of Impervious Shown	56.9% IMPERVIOUS
Lot Count	19 PROPOSED
Total number of dwellings (detached/ attached)	747 MULTI–FAMILY
Mixed use/# of live/work units	24 (INCLUDED IN 747 ABOVE)
Total Square Foot of nonresidential	419,300
Lot size range	0.54 – 14.91 ACRES
Number of lots within each range (Use more lines if needed)	N/A
Lot widths range (Z.O Article 3)	N/A
Number of lots within each width (Use more lines if needed)	N/A

TOWN 1

TREENAIL DEVELOPMENT • 2014 •

ZONING DATA

OWNER: HAMBRIGHT PARTNERS PHONE # (704) 699–4565
PLANS PREPARED BY: WOODBINE DESIGN, P.C. PHONE # (980) 722–2669
TAX PARCEL ID: 01721108, 01721110, 01721118, 01721107, 01721119, 01721106, 01721105, 01721104, 01721102, 01721101
ZONING: CURRENT=CB,CB(CD) PROPOSED=TOD–R(CD), HC(CD), SP(CD), TOD–E(CD)
EXISTING USE: RESIDENTIAL/COMMERCIAL
LOT COUNT: 19 PROPOSED

DENSITY: TOD-R DENSITY
NUMBER OF UNITS: SEE SHEET C6
DENSITY: SEE SHEET C6 DUA
BUILD TO LINE: SEE SHEET C3.1

YARD REQUIREMENTS:
SETBACK (FRONT): SEE TABLE FT. SIDE YARD (L): SEE TABLE FT.
CORNER YARD: SEE TABLE FT. SIDE YARD (R): SEE TABLE FT.
REAR YARD: SEE TABLE FT. SEE TABLE ON SHEET C3.1

Woodbine Design, P.C.
Land planning | civil engineering
Marvelling | Q | nation & more
www.woodbinedesign.com 980.722.2669 20816 N. Main Street, Suite 204
jwood@woodbinedesign.com 704.315.8367 Cornelius, NC 28031

Riley D. Burgess, Jr. PE
2026.06.23 12:58:45-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

SEAL NO: C–4063

NORTH ARROW

Graphic Scale 1" = 100 ft.

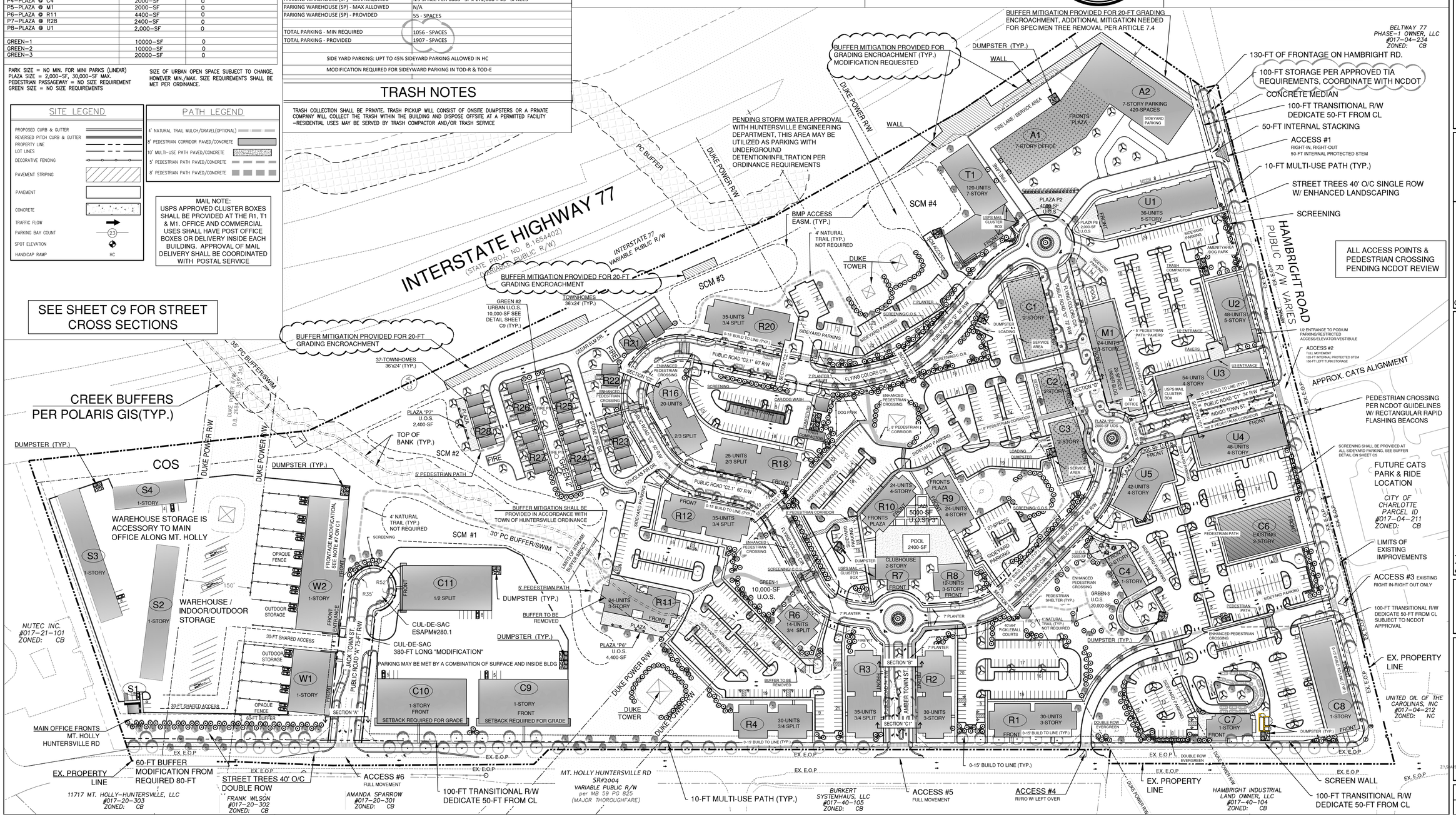
Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: CONCEPT PLAN B/W

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	5/11/23–4th Review Com. 6/8/23–5th Review Com. 4/23/26–RTAP

PLOTTED: 6/23/2026
Z:\SHARED\PROJECTS_PROJECTS\21037 – TOWNSMART WORK\COMMERCIAL CAD_ZONING FILES\07A–BASE–HAMBRIGHT–ZONING–RTAP.DWG

Sheet: C3 of 12
Project Number: 21037


INTERSTATE HIGHWAY 77
(STATE PROJ. NO. 8.1654402)
VARIABLE PUBLIC R/W
INTERSTATE 77 VARIABLE PUBLIC R/W
HAMBRIGHT ROAD PUBLIC R/W VARIES
BUFFER MITIGATION PROVIDED FOR GRADING ENCROACHMENT (TYP.) MODIFICATION REQUESTED
BUFFER MITIGATION PROVIDED FOR 20-FT GRADING ENCROACHMENT, ADDITIONAL MITIGATION NEEDED FOR SPECIMEN TREE REMOVAL PER ARTICLE 7.4
BUFFER MITIGATION PROVIDED FOR 20-FT GRADING ENCROACHMENT
BUFFER MITIGATION PROVIDED FOR 20-FT GRADING ENCROACHMENT
BUFFER MITIGATION SHALL BE PROVIDED IN ACCORDANCE WITH TOWN OF HUNTERSVILLE ORDINANCE
PENDING STORM WATER APPROVAL WITH HUNTERSVILLE ENGINEERING DEPARTMENT, THIS AREA MAY BE UTILIZED AS PARKING WITH UNDERGROUND DETENTION/INFILTRATION PER ORDINANCE REQUIREMENTS
SCM #1
SCM #2
SCM #3
SCM #4
BMP ACCESS EASM. (TYP.)
4' NATURAL TRAIL (TYP.) NOT REQUIRED
CREEK BUFFERS PER POLARIS GIS(TYP.)
30' PC BUFFER/SWIM
35' PC BUFFER/SWIM
DUKE POWER R/W
DUKE TOWER
DUMPSTER (TYP.)
WALL
FIRE LANE / SERVICE AREA
FRONTS PLAZA
SIDEYARD PARKING
FRONT
BUILD TO LINE (TYP.)
SECTION "A"
SECTION "B"
SECTION "C"
SECTION "C1"
SECTION "C2"
SECTION "D"
SECTION "E"
SECTION "F"
SECTION "G"
SECTION "H"
SECTION "I"
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SECTION "RRRRRRR"
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SECTION "TTTTTTT"
SECTION "UUUUUUU"
SECTION "VVVVVVV"
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CONCEPTUAL BUILDING / LOT TABLE

BUILDING #	PROJECT REFERENCE	FOOTPRINT	# FLOORS	TOTAL AREA	# UNITS	ZONING	BUILDING TYPE	HEIGHT RESTRICTIONS	1st FLOOR	LOT TYPE	STANDARD BTL	SPECIAL BTL	SIDE SET BACK	USES
A1	CLASS A OFFICE - 1	18,000	7	126,000	0	TOD- E	Urban Workplace	Greater of 7 Stories or 80'	No Min/Max	Workplace	0-15'	>15' + 5' Overhang	0'	All by right Uses. All Uses permitted with Conditions.
A2	CLASS A OFFICE - DECK 1	22,000	7	154,000	0	TOD-E								
T1	STRUCTURED MULTIFAMILY	20,000	7	140,000	0	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
U1	URBAN MULTIFAMILY	14,500	5	72,500	42	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment - Mixed Uses - Shopfront - Workplace	0'-25'	Urban = 0' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
U2	URBAN MULTIFAMILY	14,500	5	72,500	48	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment - Mixed Uses - Shopfront - Workplace	0'-25'	Urban = 0' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
U3	URBAN MULTIFAMILY	18,000	4	72,000	60	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment - Mixed Uses - Shopfront - Workplace	0'-25'	Urban = 0' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
U4	URBAN MULTIFAMILY	14,500	4	58,000	48	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment - Mixed Uses - Shopfront - Workplace	0'-25'	Urban = 0' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
U5	URBAN MULTIFAMILY	11,500	4	46,000	30	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment - Mixed Uses - Shopfront - Workplace	0'-25'	Urban = 0' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
M1	MIXED-USE RESIDENTIAL	18,700	3	58,200	30	TOD-R	Shopfront w/ >50% Residential	Max = 13 Stories or 182'	No Min/Max	Shopfront	0-15'	>15' + 5' Overhang	8'	All by right Uses. All Uses permitted with Conditions.
C1	COMMERCIAL-INDUSTRIAL	13,000	2	26,000	0	TOD-E	Highway Commercial-Mixed Use-Shopfront-Workplace	Varies	No Min/Max	Highway Commercial-Mixed Use-Shopfront-Workplace	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C2	COMMERCIAL	5,400	2	10,800	0	TOD-E	Highway Commercial-Mixed Use-Shopfront-Workplace	Varies	No Min/Max	Highway Commercial-Mixed Use-Shopfront-Workplace	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C3	COMMERCIAL	8,000	2	16,000	0	TOD-E	Highway Commercial-Mixed Use-Shopfront-Workplace	Varies	No Min/Max	Highway Commercial-Mixed Use-Shopfront-Workplace	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C4	COMMERCIAL	5,000	1	5,000	0	HC	Apartment-Highway Commercial-Mixed Used-Shopfront-Workplace	Varies	Up to 65k (Major), Up to 15k (Minor)	Varies	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C5	COMMERCIAL-INDUSTRIAL	16,000	2	32,000	0	HC	Apartment-Highway Commercial-Mixed Used-Shopfront-Workplace	Varies	Up to 65k (Major), Up to 15k (Minor)	Varies	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C7	COMMERCIAL-INDUSTRIAL	6,000	1	6,000	0	HC	Apartment-Highway Commercial-Mixed Used-Shopfront-Workplace	Varies	Up to 65k (Major), Up to 15k (Minor)	Varies	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C8	COMMERCIAL-INDUSTRIAL	17,500	1	17,500	0	HC	Apartment-Highway Commercial-Mixed Used-Shopfront-Workplace	Varies	Up to 65k (Major), Up to 15k (Minor)	Varies	Varies	Varies	Varies	All by right Uses. All Uses permitted with Conditions.
C9	COMMERCIAL-INDUSTRIAL	20,000	1	20,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
C10	COMMERCIAL-INDUSTRIAL	20,000	1	20,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
C11	COMMERCIAL-INDUSTRIAL	20,000	1/2 SPLIT	30,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
R1	WALK-UP MULTIFAMILY	15,000	3	45,000	30	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R2	WALK-UP MULTIFAMILY	15,000	3	45,000	30	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R3	WALK-UP MULTIFAMILY	15,000	3/4 SPLIT	52,500	35	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R4	WALK-UP MULTIFAMILY	10,000	3/4 SPLIT	35,000	30	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R6	WALK-UP MULTIFAMILY	5,000	3/4 SPLIT	17,500	14	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R7	CLUBHOUSE	6,000	2	12,000	0	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Accessory Use
R8	WALK-UP MULTIFAMILY	5,000	3	15,000	12	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R9	WALK-UP MULTIFAMILY	8,000	4	32,000	24	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R10	WALK-UP MULTIFAMILY	8,000	4	32,000	24	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R11	WALK-UP MULTIFAMILY	10,000	3	30,000	24	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R12	WALK-UP MULTIFAMILY	10,000	3/4 SPLIT	35,000	35	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R16	WALK-UP MULTIFAMILY	10,000	2/3 SPLIT	25,000	20	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R18	WALK-UP MULTIFAMILY	15,000	2/3 SPLIT	42,500	25	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R20	WALK-UP MULTIFAMILY	15,000	3/4 SPLIT	52,500	35	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R21	TOWNHOME MULTIFAMILY	4,500	2	9,000	5	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R22	TOWNHOME MULTIFAMILY	3,500	2	7,000	4	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R23	TOWNHOME MULTIFAMILY	4,500	2	9,000	5	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R24	TOWNHOME MULTIFAMILY	4,500	2	9,000	5	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R25	TOWNHOME MULTIFAMILY	4,500	2	9,000	5	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R26	TOWNHOME MULTIFAMILY	3,500	2	7,000	4	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R27	TOWNHOME MULTIFAMILY	3,500	2	7,000	4	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
R28	TOWNHOME MULTIFAMILY	4,500	2	9,000	5	TOD-R	Apartment	Max = 13 Stories or 182'	No Min/Max	Apartment	0'-25'	Urban = 0' + 5' Overhang	8'	Multi-family Homes, Single Family Homes
W1	WAREHOUSE W OUTDOOR STORAGE	15,000	1	15,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
W2	WAREHOUSE W OUTDOOR STORAGE	27,000	1	27,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
S1	WAREHOUSE/ STORAGE	2,000	1	2,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
S2	WAREHOUSE/ STORAGE	22,000	1	22,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
S3	WAREHOUSE/ STORAGE	22,000	1	22,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.
S4	WAREHOUSE/ STORAGE	14,000	1	14,000	0	SP	Workplace - Highway Commercial	36' - 45' (plus roof)	No Min/Max	Workplace - Highway Commercial	0-15'	>15' + 5' Overhang	0'	All by right uses excluding abattoirs, agricultural, foundries, lumber mills, outdoor theatre, power generation, railroad. All with conditions excluding house waste, junk yard, transit lots/structures, trucking terminals.

CONCEPTUAL TOD-E / F.A.R. TABLE

LOT #	ACREAGE (net of streets)	SQUARE FEET (net of streets)	BUILDING #	# FLOORS	TOTAL AREA	ZONING	Min. FAR REQUIREMENT	FAR PROPOSED
18	3.37	146,797	A1	7	126,000	TOD- E	0.35	0.86
17	0.80	34,848	C1	2	26,000	TOD-E	0.35	0.75
16	0.54	23,522	C2	2	10,800	TOD-E	0.35	0.46
15	0.69	30,056	C3	2	16,000	TOD-E	0.35	0.53

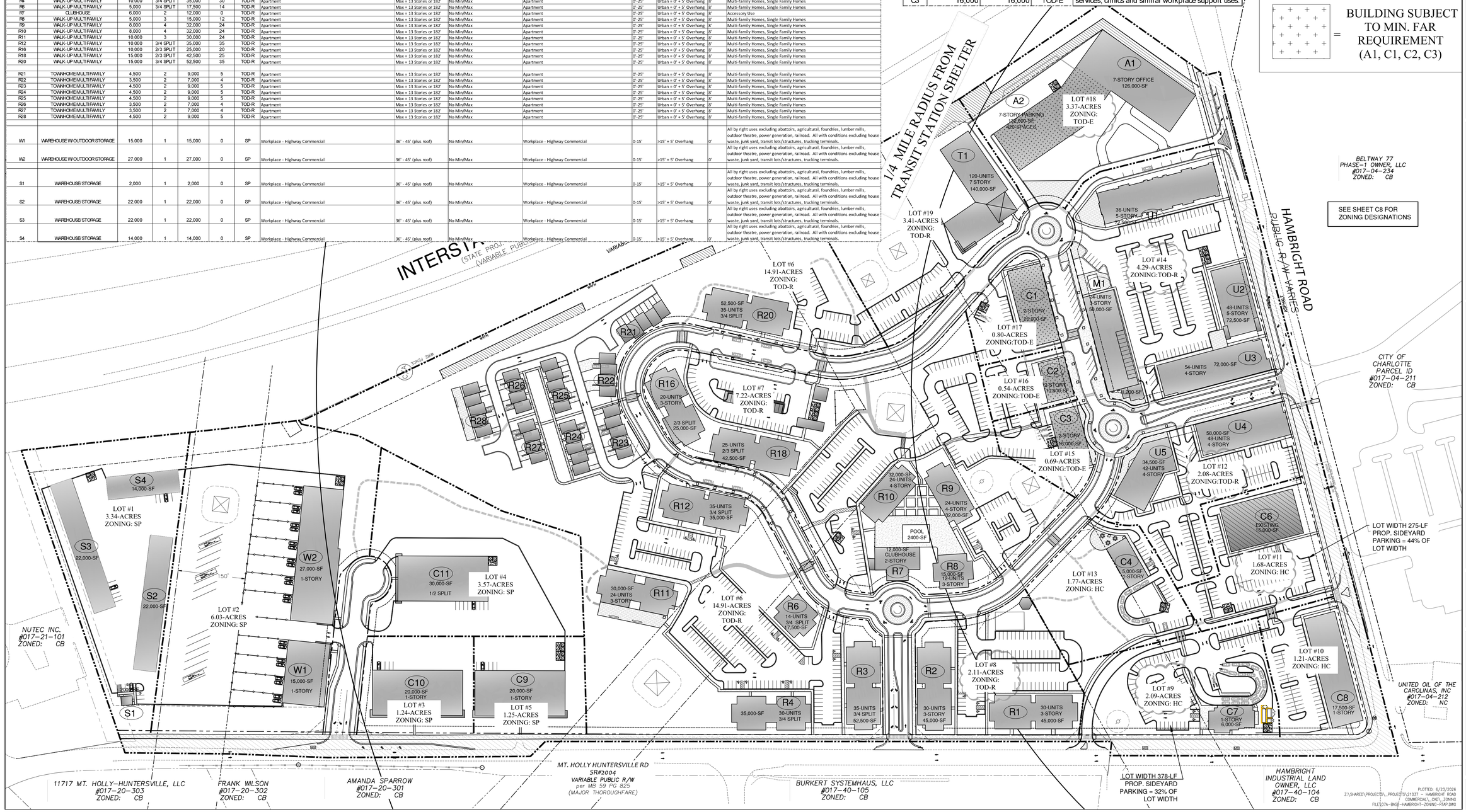
THE PURPOSE OF THE FAR & BUILDING/LOT TABLE ON THIS SHEET OF THE REZONING PLAN IS INTENDED TO SHOW THAT THIS CONCEPTUAL REZONING PLAN MEETS THE REQUIREMENTS OF THE ORDINANCE; HOWEVER, THIS REZONING PLAN IS CONCEPTUAL AND SCHEMATIC IN NATURE AND THE TABLE IS NOT INTENDED TO LIMIT OR RESTRICT THE FINAL DEVELOPMENT ON THE PROPERTY AS LONG AS THE REQUIREMENTS OF THE ORDINANCE ARE MET, SUBJECT TO THE MODIFICATIONS OF THIS REZONING PLAN.

CONCEPTUAL TOD-E ACCESSORY USE TABLE

BLDG	TOTAL SQUARE FEET	ACCESSORY* SQUARE FEET	ZONING	ACCESSORY USES
A1	126,000	20,000	TOD- E	Retail, restaurants, bars and taverns, personal services, clinics and similar workplace support uses.
C1	26,000	26,000	TOD-E	Retail, restaurants, bars and taverns, personal services, clinics and similar workplace support uses.
C2	10,800	10,800	TOD-E	Retail, restaurants, bars and taverns, personal services, clinics and similar workplace support uses.
C3	16,000	16,000	TOD-E	Retail, restaurants, bars and taverns, personal services, clinics and similar workplace support uses.

*PER SECTION 3.2.14 (C) OF THE ORDINANCE, RETAIL, RESTAURANTS, BARS AND TAVERNS, PERSONAL SERVICES, CLINICS AND SIMILAR WORKPLACE SUPPORT USES ARE PERMITTED ACCESSORY USES IN TOD-E, UP TO 20% OF FIRST FLOOR AREA OF THIS MULTI-BUILDING PROJECT TAKEN AS A WHOLE. THIS CONCEPTUAL REZONING PLAN CONTEMPLATES 564,600 SQUARE FEET OF TOTAL FIRST FLOOR AREA. AS SUCH, BUILDINGS A1, C1, C2 AND C3 MAY INCLUDE UP TO 112,920 SQUARE FEET OF THE TYPES OF ACCESSORY USES LISTED ABOVE.

= BUILDING SUBJECT TO MIN. FAR REQUIREMENT (A1, C1, C2, C3)



SEE SHEET C8 FOR ZONING DESIGNATIONS

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Riley D. Burgess, Jr. PE
2026.06.23 12:58:45-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

NORTH CAROLINA LICENSED LANDSCAPE ARCHITECT SEAL NO: C-4063

NORTH ARROW

0 50 100 200

Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: BUILDING TYPE/ F.A.R. TABLES

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	5/11/23-4th Review Com. 4/23/26-RTAP

Sheet: C3.1 of 12
Project Number: 21037

PLOTTED: 6/23/2026
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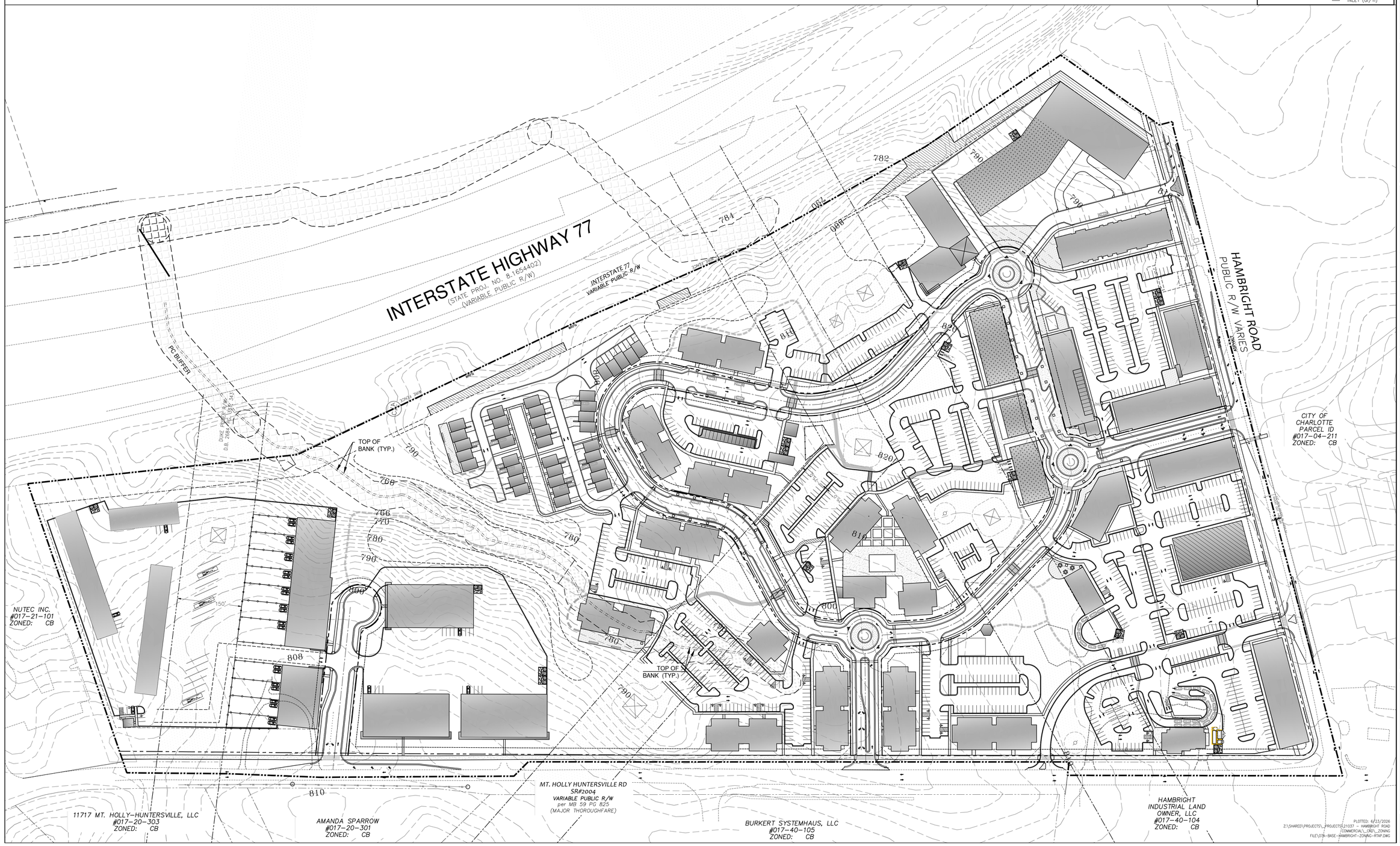
TREENAIL DEVELOPMENT • 2014 •

TOWN 1



LEGEND

PROPOSED

- 795 — 5' CONTOURS
- 797 — 1' CONTOURS
- SS — SANITARY SEWER
- STORM SEWER
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- GRATE INLET
- SPOT ELEVATION

EXISTING

- 795 — 5' CONTOURS
- 796 — 1' CONTOURS
- STORM SEWER
- SS — SANITARY SEWER
- W — WATER LINE
- STORM SEWER MANHOLE (MH)
- CURB INLET (CI)
- GRATE INLET/YARD INLET (GI/YI)

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NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS, JR.

SEAL

WOODBINE DESIGN, P.C. CORPORATE NORTH CAROLINA SEAL NO: C-4063

NORTH ARROW

0 50 100 200

Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER

Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078

Sheet Title: CONCEPT PLAN W/ EX. TOPO

DEVELOPER/OWNER

HAMBRIGHT PARTNERS

Designed By: WOODBINE

Drawn By: WOODBINE

Date: 6/23/26

Revisions: 4/23/26-RTAP

Sheet: C4 of 12

Project Number: 21037

PLOTTED: 6/23/2026
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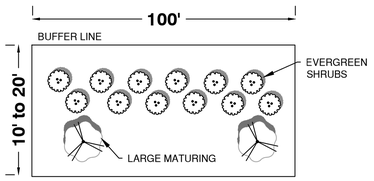
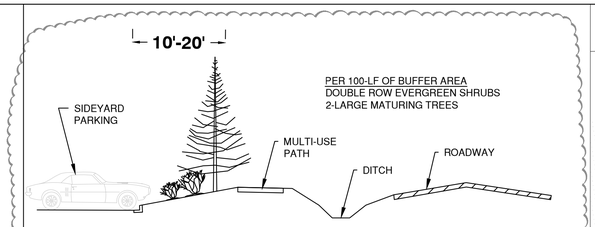
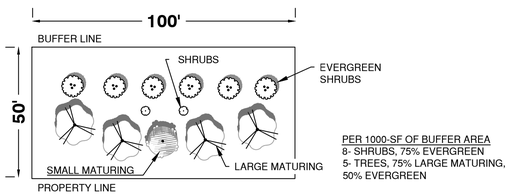


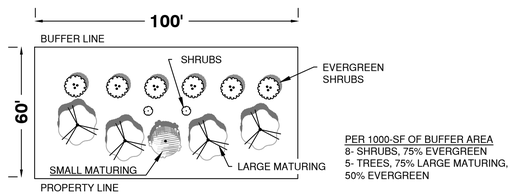
TYPICAL SIDEYARD PARKING SCREENING - (N.T.S)



TYPICAL SIDEYARD PARKING SCREENING - (N.T.S)
CROSS-SECTION



TYPICAL 50' MITIGATED I-77 BUFFER -(N.T.S)



60-FT LANDSCAPE BUFFER ALONG STORAGE FACILITY

LANDSCAPE NOTES

1) PERIMETER SCREENING ALONG I-77 SHALL REQUIRE 50-FT BUFFER
2) STREET TREES SHALL BE PROVIDED PER ORDINANCE
3) ALL PARKING SPACES SHALL BE LOCATED WITHIN 60-FT OF A CANOPY TREE.
4) FOUNDATION PLANTINGS SHALL BE PROVIDED
5) PARKING LOT LANDSCAPING SHALL COMPLY WITH THE TOWN ORDINANCE
6) ALL LANDSCAPING WITHIN THE DUKE POWER RIGHT-OF-WAY SHALL ADHERE TO DUKE REQUIREMENTS.

SITE LEGEND

- PROPOSED CURB & GUTTER
- REVERSED PITCH CURB & GUTTER
- PROPERTY LINE
- LOT LINES
- DECORATIVE FENCING
- PAVEMENT STRIPING
- PAVEMENT
- CONCRETE
- TRAFFIC FLOW
- PARKING BAY COUNT (23)
- SPOT ELEVATION
- HANDICAP RAMP (HC)

LEGEND

PROPOSED
- 795 / 797 — 5' CONTOURS / 1' CONTOURS
- SS — SANITARY SEWER
- STORM SEWER
- (S) SANITARY SEWER MANHOLE
- (D) STORM SEWER MANHOLE
- GRATE INLET
- SPOT ELEVATION

EXISTING
- 795 / 796 — 5' CONTOURS / 1' CONTOURS
- STORM SEWER
- SS — SANITARY SEWER
- W — WATER LINE
- (D) STORM SEWER MANHOLE (MH)
- CURB INLET (CI)
- GRATE INLET/YARD INLET (G/YI)

INTERSTATE HIGHWAY 77
(STATE PROJ. NO. 8.1654402)
(VARIABLE PUBLIC R/W)
INTERSTATE 77 VARIABLE PUBLIC R/W
PC BUFFER
DUKE POWER R/W
DUKE POWER R/W VARIES
HAMBRIGHT ROAD PUBLIC R/W VARIES
BUFFER MITIGATION PROVIDED FOR 20-FT GRADING ENCROACHMENT, ADDITIONAL MITIGATION NEEDED TO SPECIMEN TREE REMOVAL
BUFFER MITIGATION PROVIDED FOR GRADING ENCROACHMENT (TYP.) MODIFICATION REQUESTED (SEE DETAIL THIS SHEET)
WALL
FIRE LANE / SERVICE AREA
SCM #4
SCM #3
SCM #2
SCM #1
COS
NO VEGETATION WITHIN 25-FT OF TOWER OR POLE
SCREENING
STREET TREES 40' O/C SINGLE ROW W/ ENHANCED LANDSCAPING
SIDEYARD PARKING SCREENING
FRONTAGE IMPROVEMENTS
CITY OF CHARLOTTE PARCEL ID #017-04-211 ZONED: CB
FUTURE CATS PARK & RIDE LOCATION
LIMITS OF EXISTING IMPROVEMENTS
30-FT PC BUFFER (TYP.)
T.O.B.
TREE SAVE AREA (TYP.)
30' PC BUFFER
LIMITS OF STREAM BUFFER IMPACT
GREEN-1
GREEN-2
OPAQUE FENCE
WAREHOUSE W/ OUTDOOR STORAGE
OUTDOOR STORAGE
30-FT SHARED ACCESS
60-FT BUFFER
JACK TOWN ST PUBLIC ROAD "A" 75-FT R/W
STONE PINE DR
CEDAR ELM DR
DOUGLAS FIR DR
FLYING COLORS CIR
PUBLIC ROAD "C1" 74' R/W
PUBLIC ROAD "C2" 60' R/W
PUBLIC ROAD "C2.1" 60' R/W
INDIGO TOWN ST.
AMBER TOWN ST.
DUKE POWER 20-FT ACCESS
DUKE TOWER
37 SPACES
CAR WASH
SPEED HUMP
NUTEC INC. #017-21-101 ZONED: CB
11717 MT. HOLLY-HUNTERSVILLE, LLC #017-20-303 ZONED: CB
AMANDA SPARROW #017-20-301 ZONED: CB
MT. HOLLY HUNTERSVILLE RD SR#2004 VARIABLE PUBLIC R/W per MB 59 PG 825 (MAJOR THOROUGHFARE)
10-FT MULTI-USE PATH (TYP.)
BURKERT SYSTEMHAUS, LLC #017-40-105 ZONED: CB
HAMBRIGHT INDUSTRIAL LAND OWNER, LLC #017-40-104 ZONED: CB
SCREENING WALL W/ PLANTINGS

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Riley D. Burgess, Jr. PE
2026.06.23 12:58:46-04'00'
NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.
SEAL

SEAL NO: C-4063

NORTH ARROW
0 50 100 200
Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: CONCEPTUAL LANDSCAPE PLAN

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	5/11/23-4th Review Com. 4/23/26-RTAP

Sheet: C5 of 12
Project Number: 21037

PLOTTED: 6/23/2026
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UTILITY LEGEND

PROPOSED UTILITIES

- 2W — 2" WATER LINE
- 3W — 3" WATER LINE
- 4W — 4" WATER LINE
- 6W — 6" WATER LINE
- 8W — 8" WATER LINE
- 10W — 10" WATER LINE
- 12W — 12" WATER LINE
- 16W — 16" WATER LINE
- W — WATER LINE
- IRR — IRRIGATION LINE
- OHP — OVERHEAD POWER
- G — GAS LINE
- T — TELEPHONE COMMUNICATIONS
- UP — UNDERGROUND POWER
- OHT — OVERHEAD TELEPHONE
- UT — UNDERGROUND PHONE
- FM — FORCE MAIN
- SS — SANITARY SEWER
- STORM SEWER
- FLARED END SECTION (FES)
- SANITARY SEWER MANHOLE (SSMH)
- STORM SEWER MANHOLE (MH)
- GRATE INLET/YARD INLET (G/YI)
- CURB INLET (CI)
- WATER METER
- REDUCER
- BACKFLOW PREVENTOR
- FIRE HYDRANT
- GATE VALVE
- 11.25°, 22.5°, 45° OR 90° BEND
- TEE WITH THRUST BLOCK

EXISTING UTILITIES

- 795 — 5' CONTOURS
- 796 — 1' CONTOURS
- STORM SEWER
- SS — SANITARY SEWER
- FM — FORCE MAIN
- G — GAS LINE
- UP — UNDERGROUND POWER
- OHP — OVERHEAD POWER
- UT — UNDERGROUND PHONE
- OHT — OVERHEAD TELEPHONE
- T — TELEPHONE COMMUNICATIONS
- IRR — IRRIGATION LINE
- REC — RECIRCULATION LINE
- 2W — 2" WATER LINE
- 3W — 3" WATER LINE
- 4W — 4" WATER LINE
- 6W — 6" WATER LINE
- 8W — 8" WATER LINE
- 10W — 10" WATER LINE
- 12W — 12" WATER LINE
- 16W — 16" WATER LINE
- FIRE HYDRANT (FH)
- GATE VALVE (GV)
- SANITARY SEWER MANHOLE (SSMH)
- STORM SEWER MANHOLE (MH)
- CURB INLET (CI)
- GRATE INLET/YARD INLET (G/YI)
- SIGN
- UTILITY POLE
- LIGHT POLE
- WATER METER

BOC BACK OF CURB
EOP EDGE OF PAVEMENT
R/W RIGHT-OF-WAY
N/F NOW OR FORMERLY

INTERSTATE HIGHWAY 77
(STATE PROJ. NO. 8.1654402)
(VARIABLE PUBLIC R/W)
INTERSTATE 77 VARIABLE PUBLIC R/W
HAMBRIGHT ROAD PUBLIC R/W VARIES
MT. HOLLY HUNTERSVILLE RD SR#2004 VARIABLE PUBLIC R/W per MB 59 PG 825 (MAJOR THOROUGHFARE)
SCM #1
SCM #2
SCM #3
SCM #4
T.O.B.
TIE TO EXIST. MANHOLE
30-FT PC BUFFER
PROP. 8" SEWER
PROP. 8" WATER MAIN
PROP. 8"x8" TS&V
EX. 12" WATER MAIN
EX. 16" WATER MAIN
FUTURE CATS PARK & RIDE LOCATION
CITY OF CHARLOTTE PARCEL ID #017-04-211 ZONED: CB
NUTEC INC. #017-21-101 ZONED: CB
11717 MT. HOLLY-HUNTERSVILLE, LLC #017-20-303 ZONED: CB
AMANDA SPARROW #017-20-301 ZONED: CB
BURKERT SYSTEMHAUS, LLC #017-40-105 ZONED: CB
HAMBRIGHT INDUSTRIAL LAND OWNER, LLC #017-40-104 ZONED: CB

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Riley D. Burgess, Jr. PE
2026.06.23 12:58:46-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DALE BURGESS JR.

SEAL

SEAL NO: C-4063

NORTH ARROW

Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: CONCEPTUAL UTILITY

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	5/11/23-4th Review Com.
	6/8/23-5th Review Com.
	4/23/26-RTAP

Sheet: C5.1 of 12
Project Number: 21037

PLOTTED: 6/23/2026
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LEGEND

PROPOSED
- 795 — 5' CONTOURS
- 797 — 1' CONTOURS
- SS — SANITARY SEWER
- STORM SEWER
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- GRATE INLET
- + SPOT ELEVATION

EXISTING
- 795 — 5' CONTOURS
- 796 — 1' CONTOURS
- STORM SEWER
- SS — SANITARY SEWER
- W — WATER LINE
- STORM SEWER MANHOLE (MH)
- CURB INLET (CI)
- GRATE INLET/YARD INLET (GI/YI)
- INFILTRATION PIPE

STORM WATER NARRATIVE:

WATER QUALITY FOR THE 1-INCH STORM EVENT SHALL BE MET BY UTILIZATION OF INFILTRATION PIPES SPREAD ACROSS THE SITE. PIPES SHALL BE SIZED TO ACCOMMODATE BOTH STORM EVENTS. PIPES SHALL BE SIZE DURING THE CONSTRUCTION DOCUMENT PHASE. PRELIMINARY STORM WATER CALCS SHALL BE PROVIDED DURING REZONING TO COMPUTE THE REQUIRED VOLUME.

THE PRE-DEVELOPED RUNOFF RATES SHALL BE DETAINED WITHIN ABOVE GROUND EXTENDED DRY DETENTION FACILITIES WITH ADDITIONAL UNDERGROUND PIPES INSTALLED AS NEEDED TO DETAIN POST-DEVELOPED PEAK VOLUME PER THE HUNTERSVILLE STORM WATER REGULATIONS. BMP DESIGN. THE DESIGNS FOR THE BMPS SHOWN ON THE REZONING PLAN SHALL BE FINALIZED DURING THE CONSTRUCTION PHASE AND SHALL BE COMPLETED AS A PART OF THE INFRASTRUCTURE IMPROVEMENTS. ALTHOUGH NOT REQUIRED BY THE ORDINANCE, PETITIONER SHALL USE COMMERCIALLY REASONABLE EFFORTS TO EVALUATE AND CONSIDER MAINTENANCE OF THE PRE-DEVELOPED RATES FOR THE 25 YEAR STORM EVENT.

APPROVAL OF THIS SKETCH/CONCEPT PLAN DOES NOT IMPLY OR GUARANTEE APPROVAL AND/OR VESTING OF THE FINAL /PRELIMINARY CONSTRUCTION PLAN. FINAL/PRELIMINARY CONSTRUCTION PLAN WILL BE REVIEWED FOR COMPLIANCE PER ALL TOWN, COUNTY AND STATE REGULATIONS IN EFFECT AT THE TIME OF SUBMITTAL

STORM WATER CONTROL MEASURES AND WATER QUALITY SHALL BE COORDINATED WITH THE TOWN OF HUNTERSVILLE STORMWATER ENGINEER TO ENSURE THE INTENT OF THE ORDINANCES ARE MET, THE LAYOUT BELOW IS SCHEMATIC IN NATURE AND SHALL BE MODIFIED DURING THE CONSTRUCTION DOCUMENT PHASE TO PROVIDE AN OVERALL COMPOSITE STORMWATER DESIGN THAT MEETS THE ORDINANCE REQUIREMENTS

IMPERVIOUS AREA DATA

MAX. ALLOWABLE IMPERVIOUS: 70%

PROPOSED IMPERVIOUS: PAVEMENT/CONCRETE=1,208,557-SF BLDG=564,600-SF
TOTAL PROPOSED=1,773,157-SF 56.9% IMPERVIOUS

WATERSHED: MOUNTAIN ISLAND LAKE PA-2

NOTES:
1) THIS SITE SHALL UTILIZE THE HIGH DENSITY OPTION, BMP'S SHALL BE PROVIDED IN COMPLIANCE WITH THE PCO AND HUNTERSVILLE LOW IMPACT DEVELOPMENT REQUIREMENTS BY USING INFILTRATION/ UNDERGROUND DETENTION AND OTHER APPROVED S.C.M.'S.
2) THIS PROJECT DOES NOT LIE WITHIN A REGULATED FLOODWAY
3) SWIM BUFFER IMPACTS MUST BE PERMITTED VIA ARMY CORPS OF ENGINEERS & MECKLENBURG COUNTY STORM WATER

WATER QUALITY VOLUME

#	REQUIRED VOLUME	PROVIDED VOLUME	METHOD
SCM#1	39,939-CF	40,000-CF	VIA INFILTRATION PIPES
SCM#2	49,985-CF	50,000-CF	VIA INFILTRATION PIPES
SCM#3	23,450-CF	24,000-CF	VIA INFILTRATION PIPES
SCM#4	49,061-CF	50,000-CF	VIA INFILTRATION PIPES

DETENTION VOLUME

#	REQUIRED VOLUME	PROVIDED VOLUME	METHOD
SCM#1	13,655-CF	14,000-CF	COMBINATION OF ABOVE GROUND POND STORAGE AND UNDERGROUND PIPES SYSTEM.
SCM#2	21,831-CF	22,000-CF	
SCM#3	8,799-CF	9,000-CF	
SCM#4	24,217CF	25,000-CF	

TREENAIL DEVELOPMENT • 2014 •

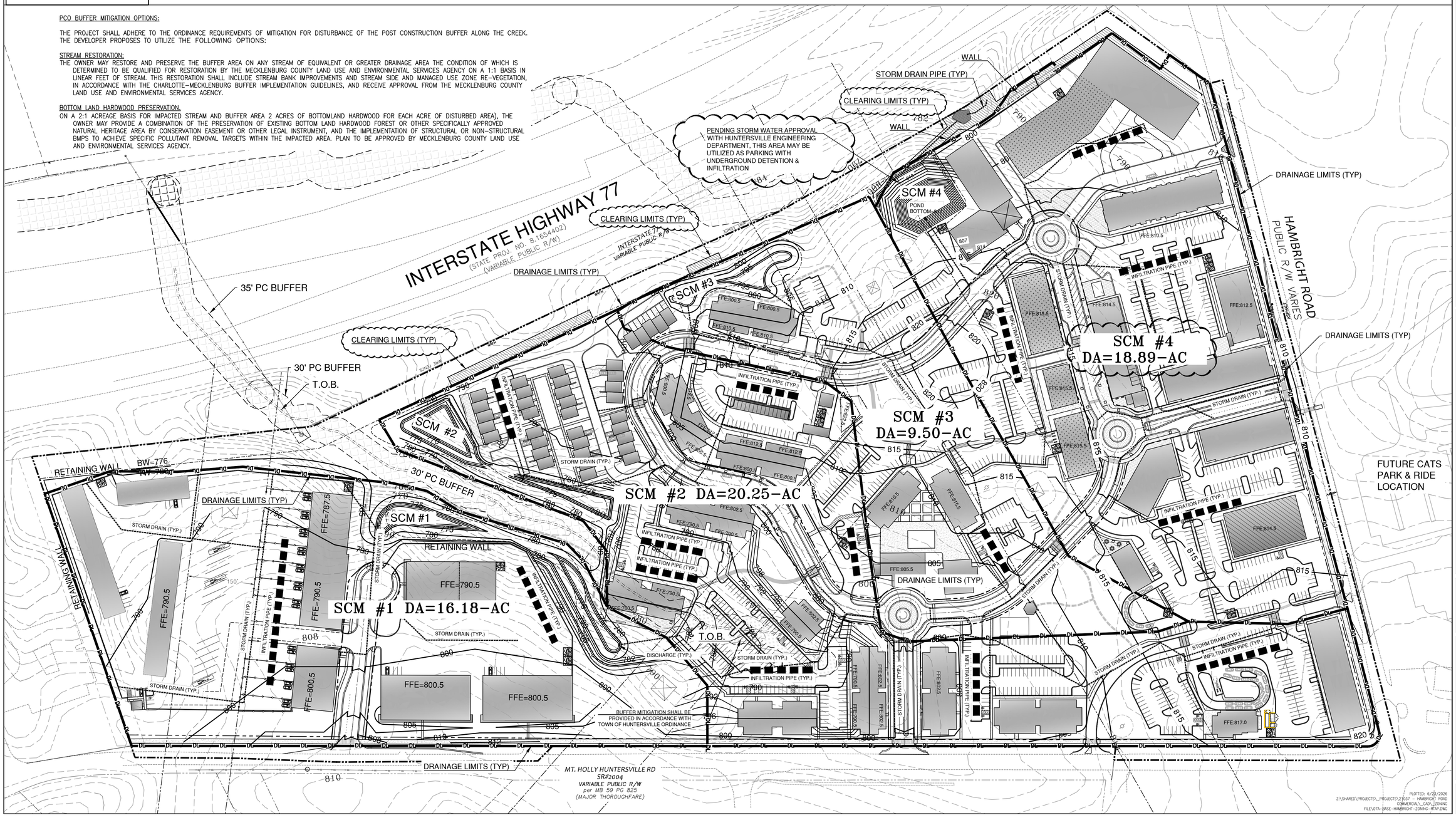
TOWN 1

PCO BUFFER MITIGATION OPTIONS:

THE PROJECT SHALL ADHERE TO THE ORDINANCE REQUIREMENTS OF MITIGATION FOR DISTURBANCE OF THE POST CONSTRUCTION BUFFER ALONG THE CREEK. THE DEVELOPER PROPOSES TO UTILIZE THE FOLLOWING OPTIONS:

STREAM RESTORATION:
THE OWNER MAY RESTORE AND PRESERVE THE BUFFER AREA ON ANY STREAM OF EQUIVALENT OR GREATER DRAINAGE AREA THE CONDITION OF WHICH IS DETERMINED TO BE QUALIFIED FOR RESTORATION BY THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY ON A 1:1 BASIS IN LINEAR FEET OF STREAM. THIS RESTORATION SHALL INCLUDE STREAM BANK IMPROVEMENTS AND STREAM SIDE AND MANAGED USE ZONE RE-VEGETATION, IN ACCORDANCE WITH THE CHARLOTTE-MECKLENBURG BUFFER IMPLEMENTATION GUIDELINES, AND RECEIVE APPROVAL FROM THE MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY.

BOTTOM LAND HARDWOOD PRESERVATION.
ON A 2:1 ACREAGE BASIS FOR IMPACTED STREAM AND BUFFER AREA 2 ACRES OF BOTTOMLAND HARDWOOD FOR EACH ACRE OF DISTURBED AREA), THE OWNER MAY PROVIDE A COMBINATION OF THE PRESERVATION OF EXISTING BOTTOM LAND HARDWOOD FOREST OR OTHER SPECIFICALLY APPROVED NATURAL HERITAGE AREA BY CONSERVATION EASEMENT OR OTHER LEGAL INSTRUMENT, AND THE IMPLEMENTATION OF STRUCTURAL OR NON-STRUCTURAL BMPS TO ACHIEVE SPECIFIC POLLUTANT REMOVAL TARGETS WITHIN THE IMPACTED AREA. PLAN TO BE APPROVED BY MECKLENBURG COUNTY LAND USE AND ENVIRONMENTAL SERVICES AGENCY.



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pwood@woodbinedesign.com
20816 N. Main Street, Suite 204
Cornelius, NC 28031

Riley D. Burgess, Jr. PE
2026.06.23 12:58:47-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

NORTH CAROLINA PROFESSIONAL SEAL NO: C-4063 LANDSCAPE ARCHITECT

NORTH ARROW

0 50 100 200
Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: CONCEPTUAL STORMWATER/GRADING

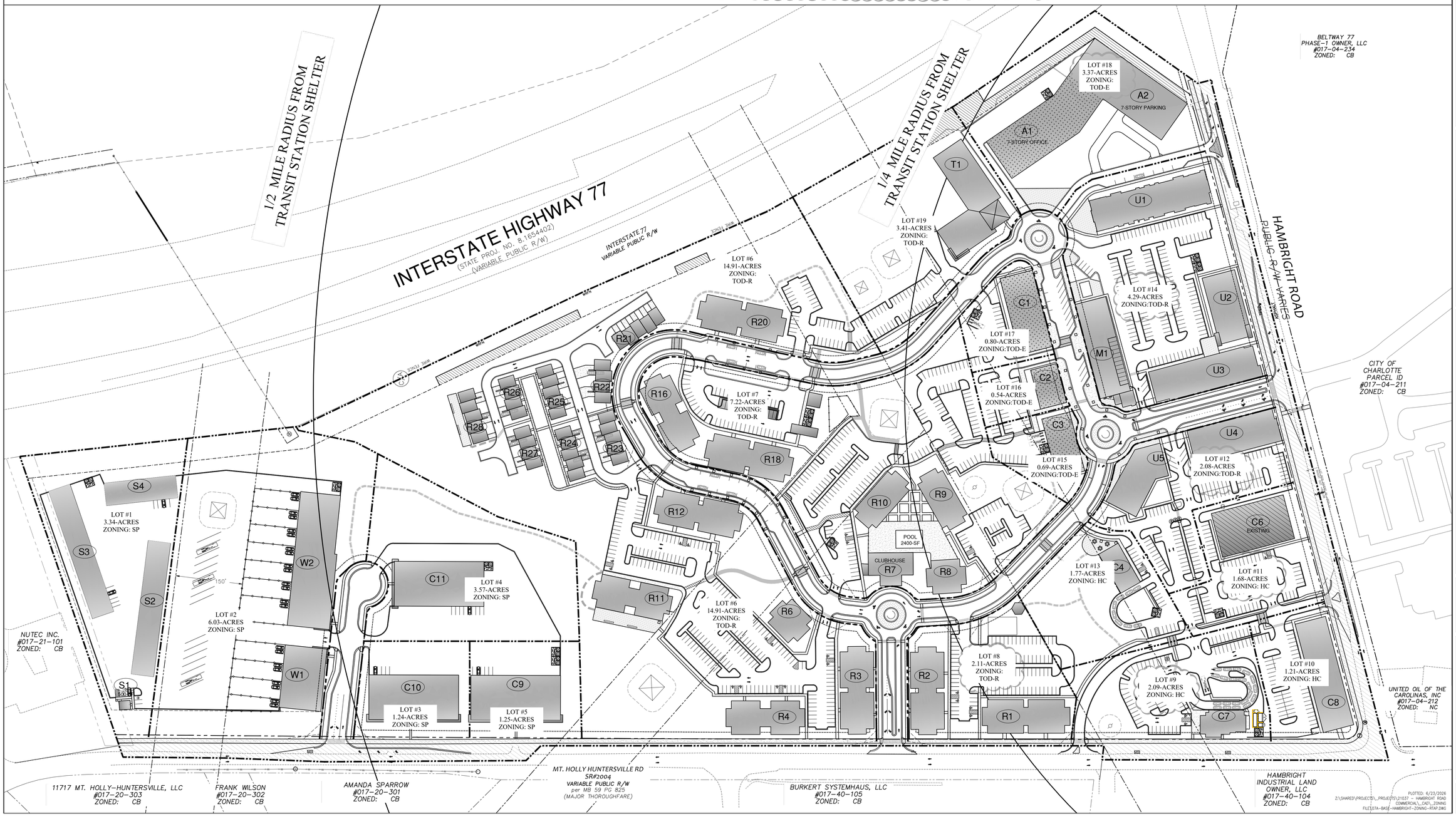
DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	5/11/23-4th Review Com. 4/23/26-RTAP

Sheet: C5.2 of 12
Project Number: 21037

PLOTTED: 6/23/2026
Z:\SHARED\PROJECTS_PROJECTS\21037 - HAMBRIGHT ROAD COMMERCIAL_CAD_ZONING FILE\07A-BASE-HAMBRIGHT-ZONING-RTAP.DWG

TOD-R AREA	UNITS	RESIDENTIAL ACREAGE	PROPOSED DU/A	RECCOMENDED DU/A
Total Site (Residential)	747	34.02	21.96	>15
<1/4 Mile of Station	372	11.89	31.29	18-40
1/4 to 1/2 Mile of Station	375	24.37	15.39	>6
Note: Maximum density on any lot in a TOD-R is 40 du/a net of streets.				



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rburgess@woodbinedesign.com 704.315.8367 Cornelius, NC 28031
pwoody@woodbinedesign.com

Riley D. Burgess, Jr. PE
2026.06.23 12:58:47-04'00'
NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS, JR.
SEAL

WOODBINE DESIGN, P.C. CORPORATE NORTH CAROLINA SEAL NO: C-4063

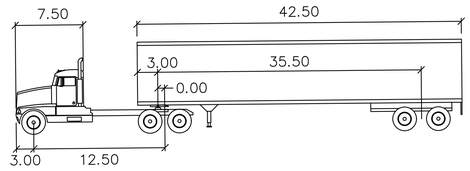
NORTH ARROW
0 50 100 200
Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: LOT LAYOUT, DENSITY

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

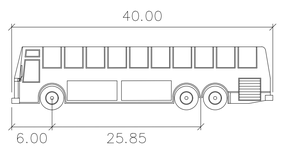
Designed By: WOODBINE
Drawn By: WOODBINE
Date: 6/23/26
Revisions:
5/11/23-4th Review Com.
4/23/26-RTAP

Sheet: C6 Of 12
Project Number: 21037



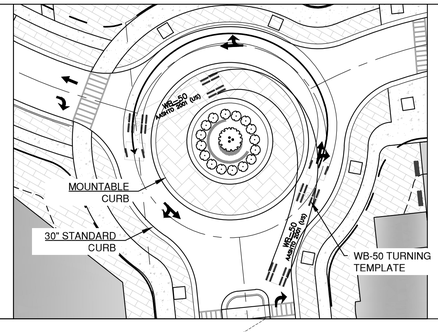
WB-50

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.50	Steering Angle	: 17.7
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.50		



BUS-40

	feet
Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 39.3



TRAFFIC CALMING METHOD	SPEED HUMP/ENHANCED PED. CORSSING
SIDEWALK WIDTH	5-FT MIN.
PLANTING STRIP WIDTH	7-FT

PATH LEGEND

- 4' NATURAL TRAIL MULCH/GRAVEL(OPTIONAL)
- 8' PEDESTRIAN CORRIDOR PAVED/CONCRETE
- 10' MULTI-USE PATH PAVED/CONCRETE
- 5' PEDESTRIAN PATH PAVED/CONCRETE
- 8' PEDESTRIAN PATH PAVED/CONCRETE

BLOCK LENGTH

BLOCK	LENGTH
A	252-FT
B	359-FT
C	226-FT
D	388-FT
E	306-FT
F	565-FT
G	314-FT
H	572-FT
I	198-FT
J	197FT

BLOCK LENGTH MEASURED ALONG CENTERLINE, ENHANCED PEDESTRIAN CROSSING USED TO BREAK UP AREAS EXCEEDING 500-FT

POSTED SPEED LIMIT 20-MPH



MIN. CENTERLINE RADIUS 110' W/ 20-MPH SPEED LIMIT POSTED.

INTERSTATE HIGHWAY 77
(STATE PROJ. NO. 8.1654402)
(VARIABLE PUBLIC R/W)

INTERSTATE 77
VARIABLE PUBLIC R/W

PC BUFFER

175-FT RIGHT TURN TAPER
75-FT STORAGE
130-FT OF FRONTAGE ON HAMBRIGHT RD.
CONCRETE MEDIAN

ACCESS #1
RIGHT-IN, RIGHT-OUT
50-FT INTERNAL PROTECTED STEM

10-FT MULTI-USE PATH (TYP.)

HAMBRIGHT ROAD
PUBLIC R/W VARIES

ACCESS #2
FULL MOVEMENT
125-FT INTERNAL PROTECTED STEM

PEDESTRIAN CROSSING PER NCDOT GUIDELINES W/ RECTANGULAR RAPID FLASHING BEACONS

WB-50 TURNING TEMPLATE

FUTURE CATS PARK & RIDE LOCATION

ACCESS #3
EXISTING FULL MOVEMENT

WB-50 TURNING TEMPLATE

WB-50 TURNING TEMPLATE

SCM

PEDESTRIAN PATH (TYP.)

FIRE TRUCK TURNAROUND (TYP.)

ENHANCED PEDESTRIAN CROSSING DETAIL-B

ENHANCED PEDESTRIAN CROSSING DETAIL-A

BLOCK J
BLOCK G
BLOCK H
BLOCK I
BLOCK A
BLOCK B
BLOCK C
BLOCK D
BLOCK E
BLOCK F

SIDEYARD PARKING "A"
SIDEYARD PARKING "B"
SIDEYARD PARKING "C"

8' PEDESTRIAN CORRIDOR

4' PEDESTRIAN PATH (TYP.)

COS

150'

MT. HOLLY HUNTERSVILLE RD
SR#2004
VARIABLE PUBLIC R/W
per MB 59 PG 825
(MAJOR THOROUGHFARE)

WB-50 TURNING TEMPLATE

ACCESS #6
FULL MOVEMENT

10-FT MULTI-USE PATH (TYP.)

ACCESS #5
FULL MOVEMENT

ACCESS #4
PROP. DIRECTIONAL LEFT, RIGHT-IN, RIGHT-OUT

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pwoody@woodbinedesign.com

Riley D. Burgess, Jr. PE
2026.06.23 12:58:47-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

SEAL NO: C-4063

NORTH ARROW

0 50 100 200

Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: CONNECTIVITY PLAN/TURN TEMPLATE

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By: WOODBINE
Drawn By: WOODBINE
Date: 6/23/26
Revisions: 5/11/23-4th Review Com.; 4/23/26-RTAP

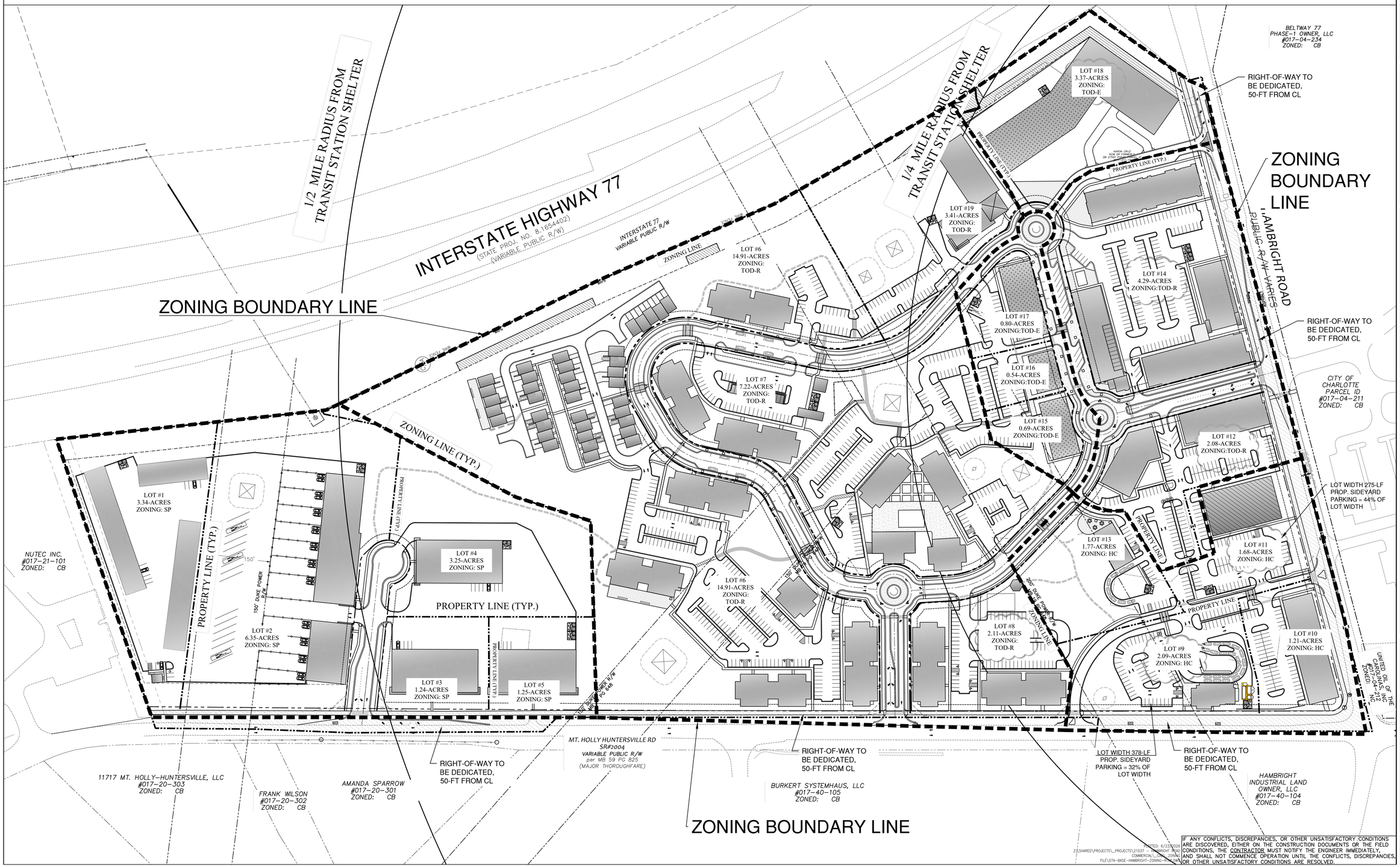
PLOTTED: 6/23/2026
Z:\SHARED\PROJECTS_PROJECTS\21037 - HAMBRIGHT ROAD COMMERCIAL, CAD_ZONING FILES\07A-BASE-HAMBRIGHT-ZONING-RTAP.DWG

Sheet: C7 of 12
Project Number: 21037

TREENAIL DEVELOPMENT • 2014 •

TOWN 1

RIGHT-OF-WAY TO BE DEDICATED =



IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

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Cornelius, NC 28031

Riley D. Burgess, Jr. PE
2026.06.23 12:58:47-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS, JR.

SEAL

WOODBINE DESIGN, P.C. CORPORATE NORTH CAROLINA SEAL NO: C-4063

NORTH ARROW

0 50 100 200

Graphic Scale 1" = 100 ft.

Project: TOWN 1 MIXED USE CENTER

Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078

Sheet Title: ZONING BOUNDARY AND NEIGHBORING PARCELS

DEVELOPER/OWNER

HAMBRIGHT PARTNERS

Designed By: WOODBINE

Drawn By: WOODBINE

Date: 6/23/26

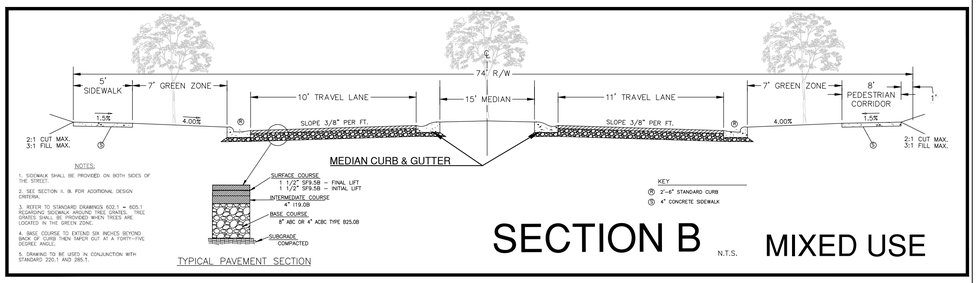
Revisions
5/11/23-4th Review Com.
4/23/26-RTAP

Sheet: C8 of 12

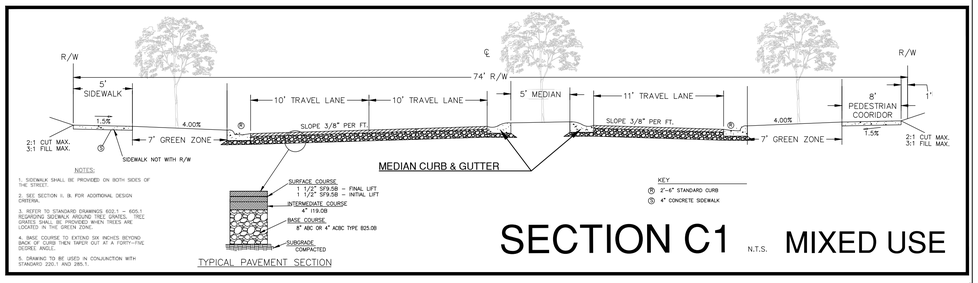
Project Number: 21037

STREET CROSS SECTIONS n.t.s.

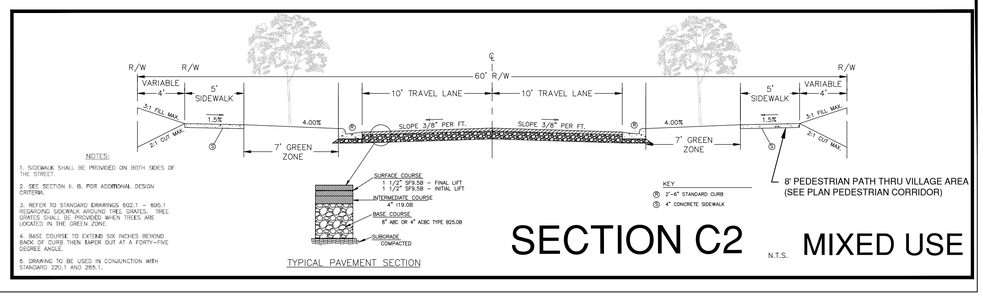
ALL SIDEWALKS OUTSIDE OF R/W SHALL BE LOCATED WITHIN AN EASEMENT (TYP.)



SECTION B N.T.S. MIXED USE



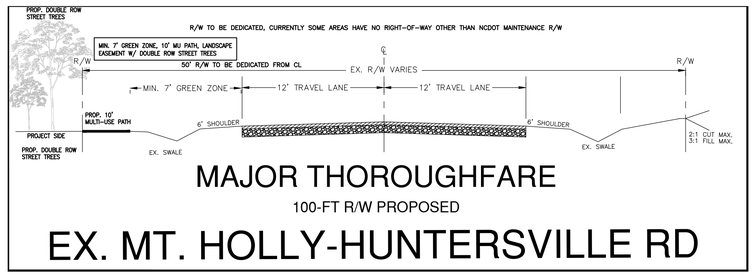
SECTION C1 N.T.S. MIXED USE



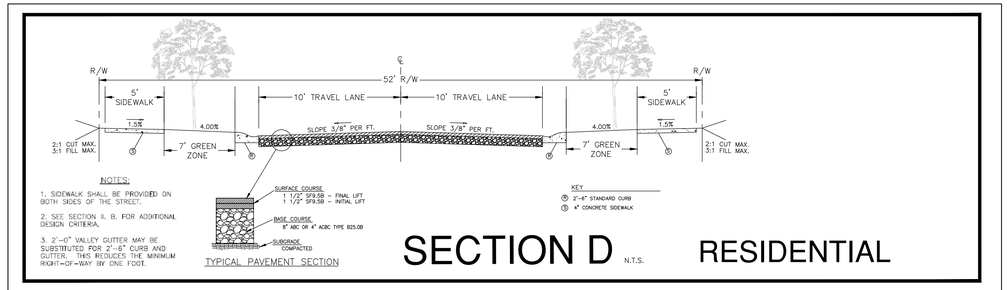
SECTION C2 N.T.S. MIXED USE

SECTION C2.1 N.T.S. RESIDENTIAL

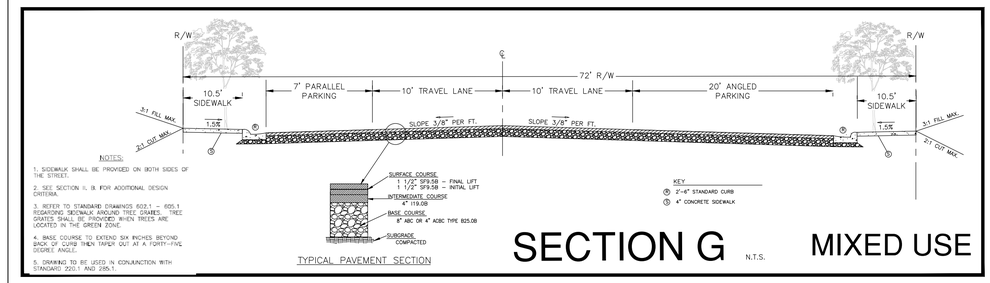
MAJOR THOROUGHFARE
100-FT R/W PROPOSED
EXISTING HAMBRIGHT RD



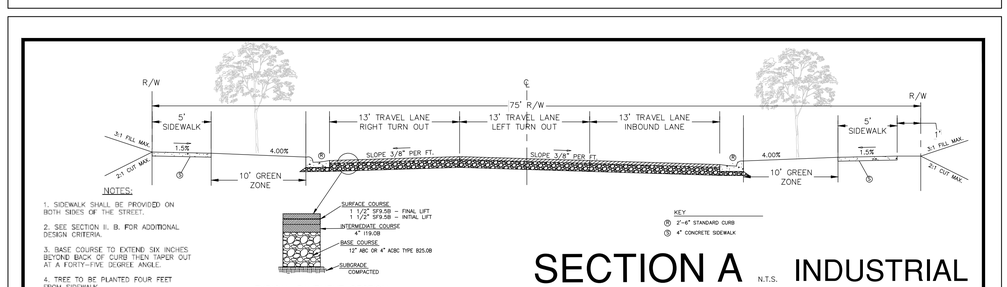
MAJOR THOROUGHFARE
100-FT R/W PROPOSED
EX. MT. HOLLY-HUNTERSVILLE RD



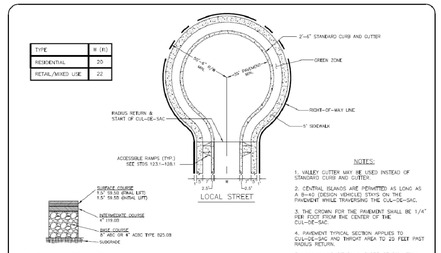
SECTION D N.T.S. RESIDENTIAL

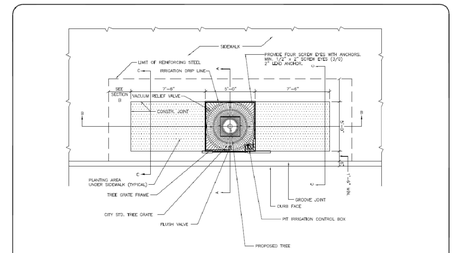


SECTION G N.T.S. MIXED USE



SECTION A N.T.S. INDUSTRIAL





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Riley D. Burgess, Jr. PE
2026.06.23 12:58:47-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

SEAL NO: C-4063

NORTH ARROW

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: STREET CROSS SECTIONS

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By: WOODBINE
Drawn By: WOODBINE
Date: 6/23/26
Revisions:
5/11/23-4th Review Com.
6/8/23-5th Review Com.
4/23/26-RTAP

Sheet: C9 of 12
Project Number: 21037

PLOTTED: 6/23/2026
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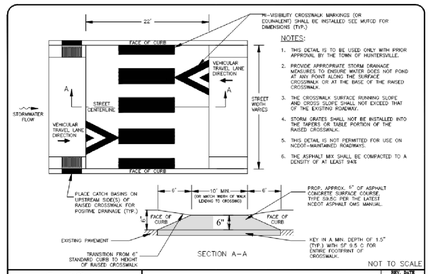
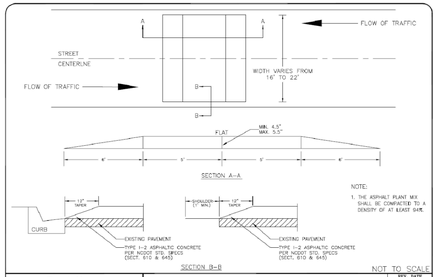


Town of Huntersville NORTH CAROLINA STANDARD DRAWING

RAISED CROSSWALK
DETAIL-A

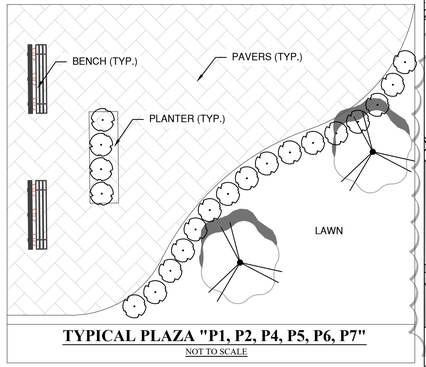
REV.	DATE
	12/1/25
PRS. NO.	
	721.2



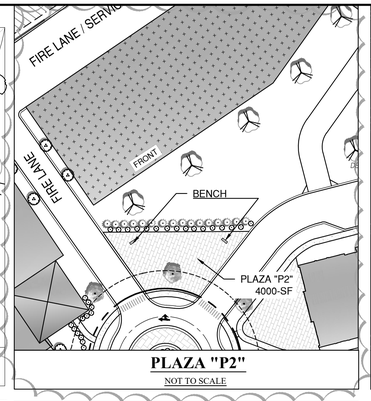
Town of Huntersville NORTH CAROLINA STANDARD DRAWING

SPEED HUMP
DETAIL-B

REV.	DATE
	08/01/17
PRS. NO.	
	721.1



TYPICAL PLAZA "P1, P2, P4, P5, P6, P7"
NOT TO SCALE



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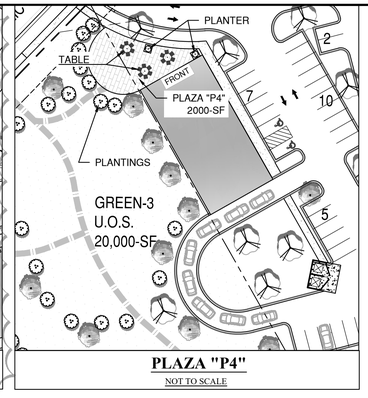

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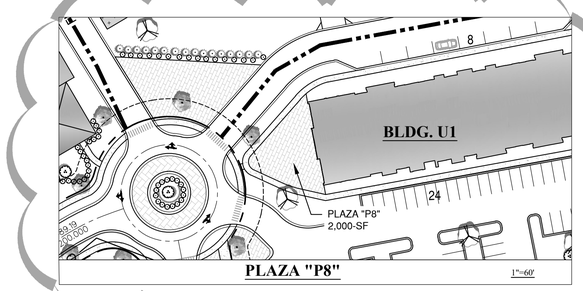
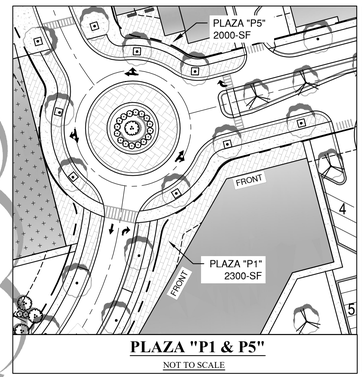
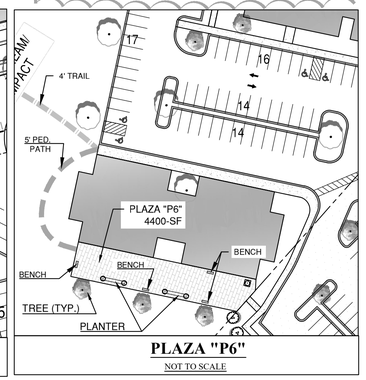


PLAZA "P8"
1"=60'



PLAZA "P1 & P5"
NOT TO SCALE



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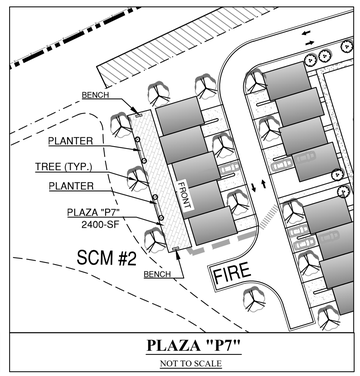
NOT TO SCALE



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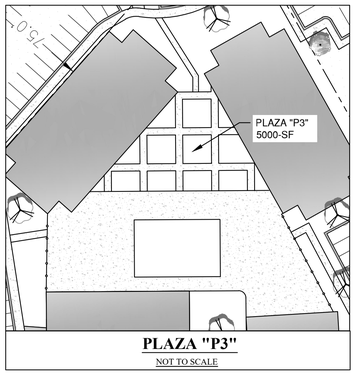

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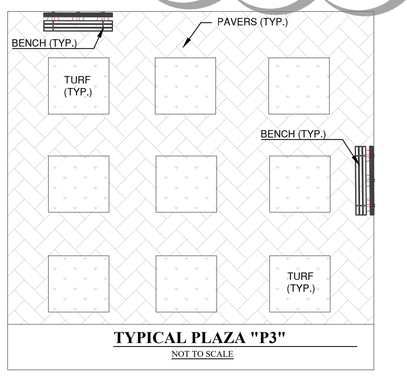

TYPICAL PLAZA "P3"
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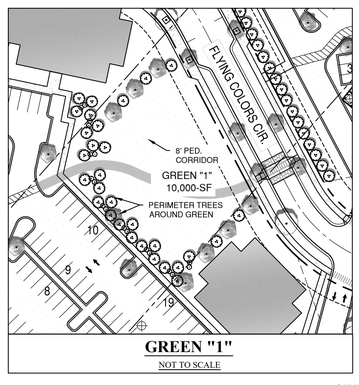
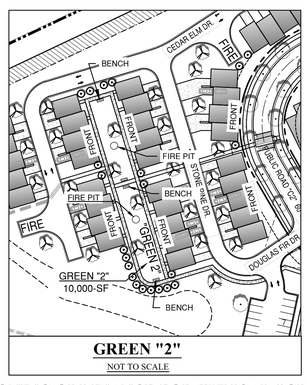


GREEN "1"
NOT TO SCALE



GREEN "2"
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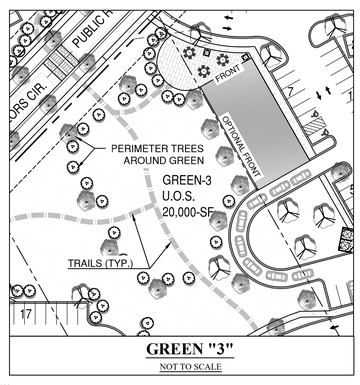


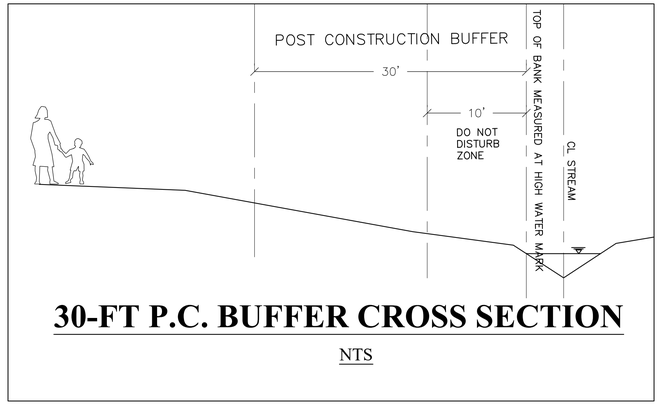
GREEN "3"
NOT TO SCALE

SEE ZONING ORDINANCE FOR TYPICAL "GREEN"

TYPE OF URBAN OPEN SPACE	SIZE OF U.O.S.	PARKING SPACES
		PARKING IS PROVIDED THROUGHOUT THE DEVELOPMENT FOR ALL U.O.S.
P1-PLAZA @ U5	2300-SF	0
P2-PLAZA @ A1	4000-SF	0
P3-PLAZA @ R9 & R10	5000-SF	0
P4-PLAZA @ C4	2000-SF	0
P5-PLAZA @ M1	2000-SF	0
P6-PLAZA @ R11	4400-SF	0
P7-PLAZA @ R28	2400-SF	0
P8-PLAZA @ U1	4000-SF	0
GREEN-1	10000-SF	0
GREEN-2	10000-SF	0
GREEN-3	20000-SF	0

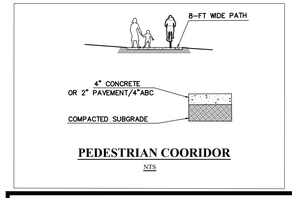
PARK SIZE = NO MIN. FOR MINI PARKS (LINEAR)
PLAZA SIZE = 2,000-SF, 30,000-SF MAX.
PEDESTRIAN PASSAGEWAY = NO SIZE REQUIREMENT
GREEN SIZE = NO SIZE REQUIREMENTS

SIZE OF URBAN OPEN SPACE SUBJECT TO CHANGE, HOWEVER MIN./MAX. SIZE REQUIREMENTS SHALL BE MET PER ORDINANCE.

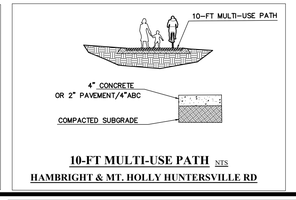


30-FT P.C. BUFFER CROSS SECTION

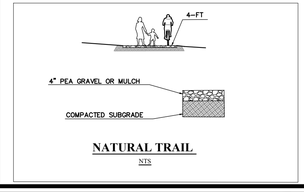
NTS



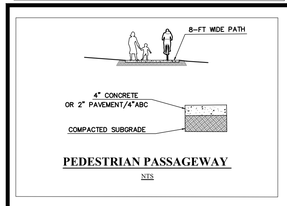
PEDESTRIAN COORIDOR
NTS



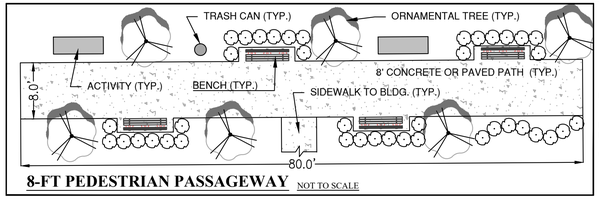
10-FT MULTI-USE PATH NTS
HAMBRIGHT & MT. HOLLY HUNTERSVILLE RD



NATURAL TRAIL
NTS



PEDESTRIAN PASSAGEWAY
NTS



8-FT PEDESTRIAN PASSAGEWAY NOT TO SCALE

PEDESTRIAN PASSAGEWAY SHOWN FOR FUTURE REFERENCE, THERE ARE CURRENTLY NONE PROPOSED WITHIN THE DEVELOPMENT, HOWEVCER IN THE EVENT ONE DOES BECOME UTILIZED, THIS DETAIL SHALL SERVE AS A STANDARD

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Riley D. Burgess, Jr. PE
2026.06.23 12:58:47-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

SEAL NO: C-4063

NORTH ARROW

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: DETIALS

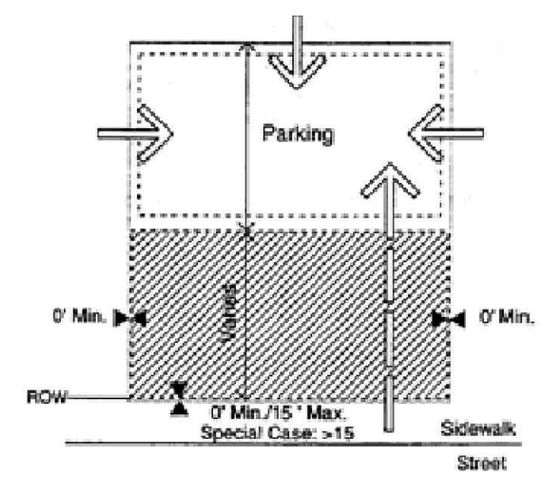
DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By: WOODBINE
Drawn By: WOODBINE
Date: 6/23/26
Revisions:
6/8/23-5th Review Com.
4/23/26-RTAP

Sheet: C9.1 of 12
Project Number: 21037

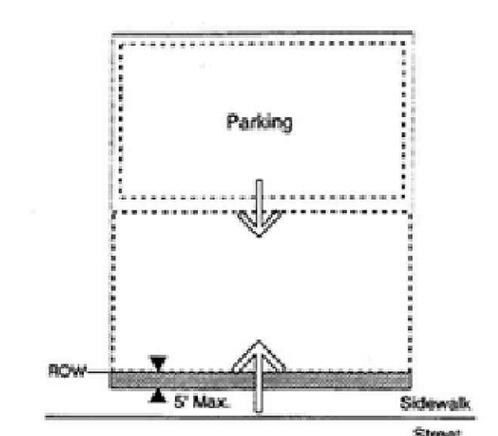
LOT TYPE / SHOP FRONT BUILDING

4.3 Lot Type / Shopfront Building
Building Placement/Parking/Vehicular Access.



1. Buildings shall be placed on the lot within the zone represented by the hatched area. In most cases, the build to line will range from 0' to 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback.
2. Building facades shall be generally parallel to frontage property lines.
3. Parking shall be located to the rear of the building; sideyard parking shall occupy no more than 25 percent of the primary frontage line and shall not be placed in an established sideyard abutting an intersecting street. Where dimensions of existing lots restrict parking behind buildings, the limitations on sideyard parking may be modified.
4. Points of permitted access to the parking indicated by arrows.
5. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
6. Parking areas on adjacent lots shall be connected wherever practicable.
7. Trash containers shall be located in a rear parking area (see Parking Regulations).
8. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principal structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

Encroachment/Pedestrian Access to Building.



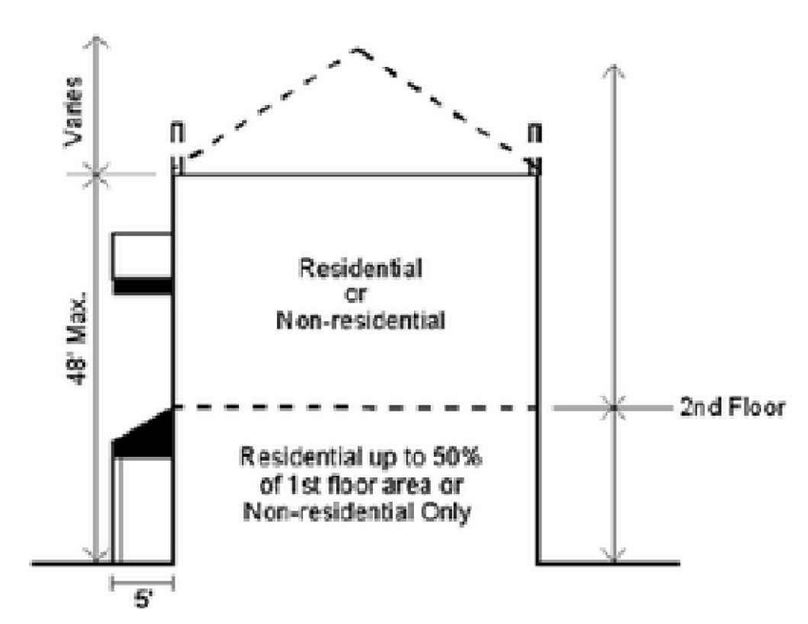
1. Balconies, bay windows, arcades, porches at an upper level and their supports at ground level, together with awnings above head height are permitted within the sidewalk as shown by the hatched area. Encroaching arcades should cover entire sidewalk.
2. Primary pedestrian access into the building shall be from the street frontage line (indicated by larger arrow). Secondary access may be from parking areas (indicated by smaller arrow).

Special Conditions.

1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public space of the street.
2. Drive-through customer services, if permitted in the district, must be located at the rear of the building or on a side which does not abut a street.
3. Setbacks at street corners will generally replicate frontage conditions. However, side setbacks on a minor street may be less than the front dimension.
4. Within the limits described, front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which encourages pedestrian activity. Squares or spatially defined plazas within building setback areas can act as focal points for pedestrians.

Description. The shopfront building is a small-scale structure which can accommodate a variety of uses. The structure is typically a maximum of 15,000 square feet. A group of shopfront buildings can be combined to form a mixed-use neighborhood center. Individual shopfront buildings can be used to provide some commercial service, such as a convenience food store, in close proximity to homes. Traditional commercial buildings in the old town provide good examples. Hotels, inns, and conference centers may be placed in shopfront or mixed-use buildings. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

4.4 Building Type / Shopfront Building
Permitted Height and Uses.



1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above, and are further controlled by district regulations.
5. Where an existing residential building converts to a mixed-use building, at least 40% of the habitable floors area shall be residential.

Architectural Standards.

Principles.

A. To perpetuate the unique building character of the town and its environs, and to re-establish its local identity, development shall generally employ building types that are sympathetic to the historic architectural vocabulary of the area in their massing and external materials.
B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as column wraps, entablature, canopies, and their supporting structure. Decorative metal panel accents, however, may not exceed 30% of any façade visible from the street.
C. The front elevations facing the street, and the overall massing shall communicate emphasis on the human scale and the pedestrian environment.
D. Each building should be designed to form part of a larger composition of the area in which it is situated. Adjacent buildings should thus be of similar scale, height, and configuration.
E. Shopfront Building Architectural Standards Principles A-D shall not apply to the residential portion of development on parcels where multifamily structures are an allowable use and the development contains two or more affordable housing units for families or individuals with incomes below eighty percent (80%) of the area median income.
F. Trailers (mobile units) may not be used as permanent shopfront buildings.

Configurations.

A. Two wall materials may be combined horizontally on one facade. The "heavier" material should be below and can cover the first floor only (i.e. brick below wood siding).
B. Street level windows should be untinged. Tinted glass with a minimum visual transmittance factor of 35 is permitted. Mirrored or reflective glass is not permitted in any location.
C. Windows shall be of square or vertical proportion. Special windows may be circular or regular polygons.

Techniques.

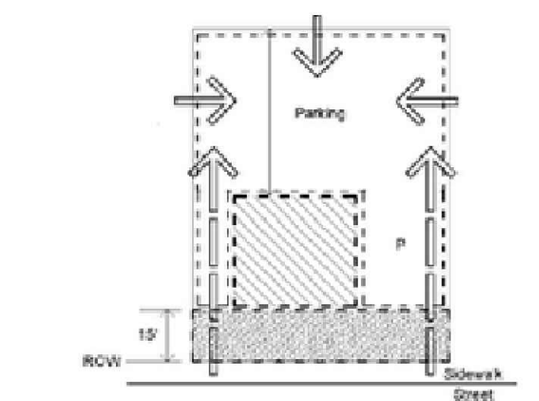
A. Windows should be set to the inside of the building face wall.
B. All rooftop equipment shall be enclosed in a building material that matches the structure or is visually compatible with the structure.





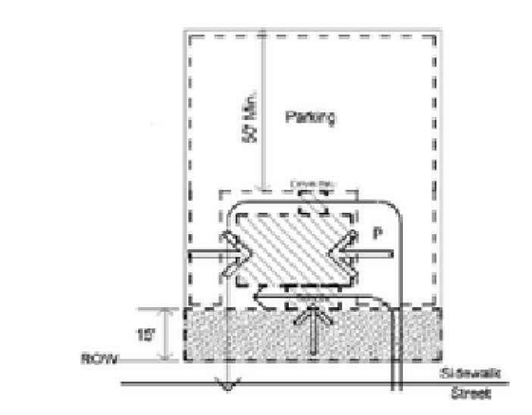
LOT TYPE / HIGHWAY COMMERCIAL

4.5 Lot Type / Highway Commercial
Building Placement/Parking/Vehicle Access.



1. Buildings shall be placed on the lot within zone represented by the hatched area. In most cases, the build to line will be 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback.
2. Setbacks may vary according to setting within limits indicated.
3. Building facades shall be generally parallel to frontage property lines.
4. Parking shall be located to the rear and/or side of the building. Except in the VS District, sideyard parking may occupy no more than 45% of the principal frontage line. In the VS District, sideyard parking may occupy 50% of the principal frontage line. Parking shall not be placed in any sideyard abutting an intersecting street. Where dimensions of existing lots restrict parking behind buildings, the limitations on sideyard parking may be modified.
5. Points of permitted access to the parking indicated by arrows.
6. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
7. Parking areas on adjacent lots shall be connected wherever practicable.
8. Trash containers shall be located in a rear parking area (see Parking Regulations).
9. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principal structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

Vehicular Circulation/Pedestrian Access.



1. Main pedestrian access to the building may be from the side (indicated by the larger arrows). Secondary access must be from the street frontage (indicated by the smaller arrow).
2. Drive-throughs shall be located to the rear of the building.
3. Entrance canopies (for motels, etc.) shall face the street.
4. Typical vehicular circulation movement is indicated by thin line arrows.

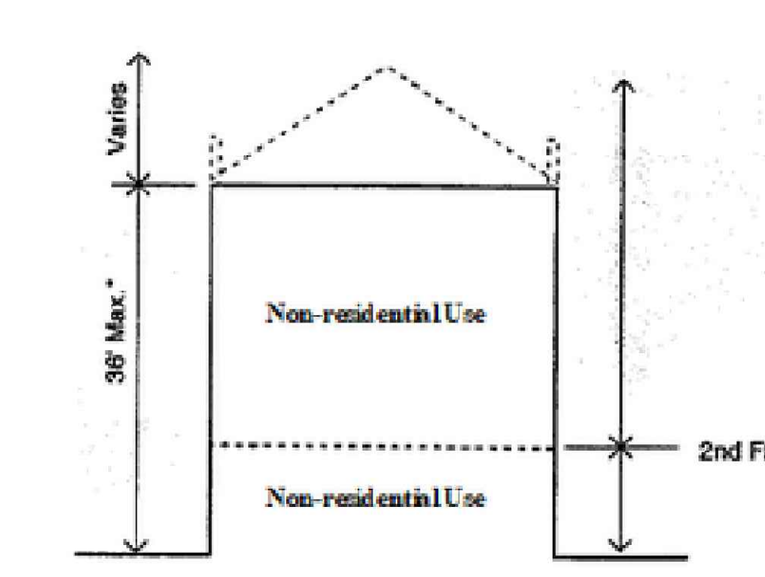
Special Conditions.

1. Buildings in all locations should relate a principal facade to the sidewalk and public space of the street.
2. Setback at street corners will generally replicate frontage conditions.

Description.

1. This building type generally comprises fast food retail, drive through banks, motels and other highway dependent uses. These regulations are designed to bring these building types into a framework of town streets. This building type shall be limited to the Highway Commercial, Campus Business, and Special Purpose Districts. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

4.6 Building Type / Highway Commercial
Permitted Height and Uses.



1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above, and are further controlled by zoning district standards.
5. Hotels in the Highway Commercial (HC) zoning district may exceed the maximum building height (shown above), not to exceed six (6) stories, subject to the provisions of Article 9.45.

Architectural Standards.

Principles.

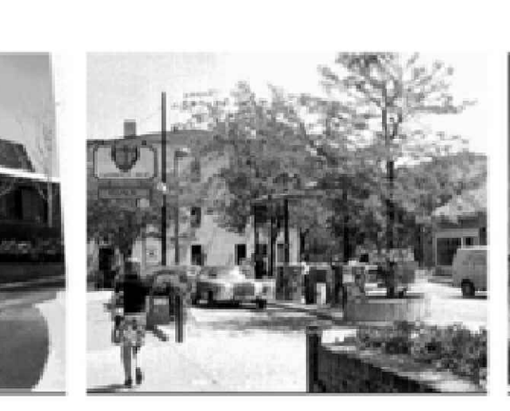
A. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street fronting building face. Decorative metal panels such as Aluminum Composite Material (ACM) panels may be used as an accent or trim material and as cladding for building accent elements such as canopies and their supporting structure. However, decorative metal panel accents may not exceed 30% of any façade.
B. All walls not visible from a public right-of-way may be constructed of cinder block, bricks, wood or vinyl siding, or approved metal paneling but shall be painted to match the overall color scheme of the rest of the building.
C. Trailers (mobile units) may not be used as permanent highway commercial buildings.

Configurations.

A. Two wall materials may be combined horizontally on one façade. The "heavier" material should be below (i.e. brick below wood siding).
B. Street level windows should be untinted. Tinted glass with a minimum visual transmittance factor of 35 is permitted. Mirrored or reflective glass is not permitted in any location.

Techniques.

A. All rooftop equipment shall be enclosed in a building material that matches the structure or is visually compatible with the structure.


PLOTTED: 6/23/2026
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Riley D. Burgess, Jr. PE
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NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS, JR.

SEAL

WOODBINE DESIGN P.C. CORPORATE NORTH CAROLINA SEAL NO: C-4063 2014

NORTH ARROW

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: BUILDING/LOT TYPES

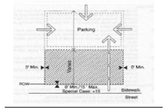
DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	4/23/26-RTAP

Sheet: C10 Of 12
Project Number: 21037

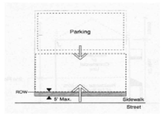
LOT TYPE / URBAN WORKPLACE

4.1 Lot Type / Urban Workplace
Building Placement/Parking/Vehicular Access.



1. Buildings shall be placed on the lot within the zone represented by the hatched area. In most cases, the build to line will range from 0' to 15' behind street right-of-way (ROW). Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback.
2. Building facades shall be generally parallel to frontage property lines. The façade shall be determined by the massing of the building.
3. Parking shall be located primarily to the rear of the building; sideyard parking shall occupy no more than 35% of the primary frontage line and shall not be placed in any sideyard abutting an intersecting street. Where dimensions of existing lots restrict parking behind buildings, the limitations on sideyard parking may be modified.
4. Points of permitted access to the parking indicated by arrows.
5. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
6. Parking areas on adjacent lots shall be connected wherever practicable.
7. Trash containers shall be located in a rear parking area (see Parking Regulations) and shall be screened from the right-of-way.
8. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principal structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.
9. Building facades at street frontage lines shall be pedestrian oriented and of pedestrian scale.

Encroachment/Pedestrian Access to Building.



1. Balconies, bay windows, arcades, porches at an upper level and their supports at ground level, together with awnings above head height (min. 7'-6") are permitted within the sidewalk as shown by the hatched area. Encroaching arcades should cover entire sidewalk.
2. Primary pedestrian access into the building shall be from the street frontage line (indicated by larger arrow). Secondary access may be from parking areas (indicated by smaller arrow).

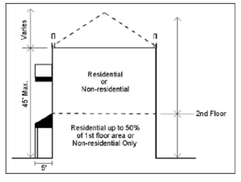
Special Conditions.

1. Buildings in all locations should relate the principal façade to the sidewalk and public space of the street.
2. Setback at street corners will generally replicate frontage conditions. Side setbacks on a minor street may be less than the front dimension.
3. Within the limits described, front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which encourages pedestrian activity. For example, squares or spatially defined plazas within building setback areas can act as focal points for pedestrians.

Description. The workplace building may be a large structure (15,000+ square feet) and may have a single use/tenant. Office, industrial, and commercial tenants are typical. Southern mill villages often provide examples of how these buildings can reasonably coexist with other businesses and homes. Locke Mill Plaza, in Concord, provides a good example with its placement at the end of prestigious Union Street. These buildings are critical to the town as employment centers and commercial service locations. The buildings will provide space for industry, large offices, as well as hotels, conference facilities, and large retail uses such as a full-service grocery store. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

4.2 Building Type / Urban Workplace
Permitted Height and Uses.

MAX HEIGHT SHALL VARY FOR URBAN WORKPLACE



1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, up to the eaves or the highest level of a flat roof.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above, and are further controlled by zoning district standards.

Architectural Standards.

Principles.

A. To perpetuate the unique building character of the town and its environs, and to re-establish its local identity, development shall generally employ building types that are compatible to the historic architectural vocabulary of the area in their massing and external treatment.

B. Building elevations fronting or visible from public streets shall be clad with masonry, wood, vinyl siding, stucco, or similar material. Metal paneling may not comprise a street fronting building face. Decorative metal panels, such as Aluminum Composite Material (ACM) panels, may be used as an accent or trim material and as cladding for building accent elements such as canopies and their supporting structure. However, decorative metal panel accents may not exceed 30% of any façade visible from the street.

C. The front elevations facing the street, and the overall massing shall communicate an emphasis on the human scale and the pedestrian environment.

D. Each building should be designed to form part of a larger composition of the area in which it is situated. Adjacent buildings should thus be of similar scale, height, and configuration.

E. Urban Workplace Architectural Standards Principles A-D shall not apply to the residential portion of development on parcels where multifamily structures are an allowable use and the development contains two or more affordable housing units for families or individuals with incomes below eighty percent (80%) of the area median income.

F.
Trailers (mobile units) may not be used as permanent workplace buildings.

Configurations.

A. Two wall materials may be combined horizontally on one facade. The "heavier" material should be below and can cover the first floor only (i.e. brick below wood siding).

B. Street level windows shall be untinted. Tinted glass with a minimum visual transmittance factor of 35 is permitted. Mirrored or reflective glass is not permitted in any location.

C. Windows shall be of square or vertical proportion. Special windows may be circular or regular polygons.

Techniques.

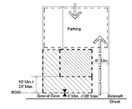
A. Windows should be set to the inside of the building face wall.

B. All rooftop equipment shall be enclosed in a building material that matches the structure or is visually compatible with the structure.



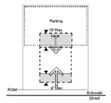
LOT TYPE / APARTMENT BUILDING

4.7 Lot Type / Apartment Building
Building Placement/Parking/Vehicle Access.



1. Buildings shall be placed on the lot within the zone represented within the hatched area.
2. In most cases, the build to line will be 15' behind street ROW. Special site conditions such as topography, pattern of lot widths, or setbacks of existing buildings permit a larger setback. In urban conditions, apartments may be set up to the property line at the sidewalk, including corner conditions.
3. Building facades shall be generally parallel to front property lines. All buildings shall front onto a public street. All ground floor residential units with exterior access shall front a public street, unless specifically exempted by one of the provisions of Section 8.1.
4. Parking shall be located to the rear of the building.
5. Points of permitted access to the parking indicated by arrows.
6. Hedges, garden walls, or fences may be built on property lines or as the continuation of building walls. A garden wall, fence, or hedge (min. 3' in height) shall be installed along any street frontage adjacent to parking areas.
7. Trash containers shall be located in the rear parking area (see Parking Regulations).
8. Mechanical and utility equipment at ground level shall be placed in the side or rear yard and shall be screened from view by opaque screening from grade level along any public street or adjacent property (Article 7.6.2). Buildings that front on more than one public street may have mechanical and utility equipment located within a street facing yard, provided it is visually screened using compatible building materials and design as the principal structure. This is applicable only where no other reasonable option exists as determined by the Administrator. Examples of features limiting the location of mechanical and utility equipment may include, but not limited to, the physical layout of existing building, the presence of easements, elevation changes, etc.

Encroachment/Pedestrian Access.



1. For buildings set back from sidewalk, balconies, stoops, stairs, open porches, bay windows, and awnings are permitted to encroach into setback area up to 8'.
2. Attached decks are permitted to encroach into the rear setback up to 15 feet.
3. For buildings set up to the sidewalk, upper level balconies, bay windows and their supports at ground level may encroach a maximum of 5'0" over the sidewalk.
4. Main pedestrian access to the building and to individual units is from the street (indicated by larger arrow), unless specifically exempted by one of the provisions of Section 8.1. Secondary access may be from parking areas (indicated by smaller arrow).

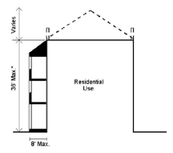
Description. The apartment building is a residential building accommodating several households. In traditional towns, this building type coexists with a variety of other building types. A successful contemporary design permits its integration with other residential types through the coordination of site and building design (see Architectural Regulations). Apartment complexes should be one or more separated buildings similar in their scale on the public street to large detached housing. Where possible, structures shall be designed to terminate vistas or serve as key focal points in the neighborhood.

Special Conditions:

1. The intention of buildings in all locations must be to relate the principal facade to the sidewalk and public space of the street.
2. Corners: Setback at street corners will generally replicate frontage conditions. However, side setbacks on a minor street may be less than the front dimension.
3. Within the limits described, front and side setbacks will vary depending upon site conditions. Setbacks should be used in a manner which encourages pedestrian activity. Squares or spatially defined plazas within building setback areas can act as focal points for pedestrians.

4.8 Building Type / Apartment Building
Permitted Height and Uses.

MAX HEIGHT SHALL VARY FOR TOD-R



1. Building height shall be measured as the vertical distance from the highest finished grade relative to the street frontage, or, if alternate frontage conditions from the constructed portion of a greenway along or within the project boundary, are provided, as permitted under Section 8.1.4, height may be measured from the highest finished grade of the side of the building opposite the greenway alternative frontage, up to the eaves. If building height is measured from the highest finished grade of the side of the building opposite the greenway alternative frontage, no more than one (1) additional story on the greenway side of the building may result from this arrangement.
2. The height of parapet walls may vary depending upon the need to screen mechanical equipment.
3. Building height to the ridge may vary depending on the roof pitch.
4. Permitted uses are indicated above.

Architectural Standards.

Principles.

A. To perpetuate the unique building character of the town and its environs, and to re-establish its local identity, development shall generally employ building types that are sympathetic to the historic architectural vocabulary of the area in their massing and external materials.

B. The front elevations facing the street, and the overall massing shall communicate an emphasis on the human scale and the pedestrian environment.

C. Each building should be designed to form part of a larger composition of the area in which it is situated. Adjacent buildings should thus be of similar scale, height, and configuration.

D. Building silhouettes should be generally consistent. The scale and pitch of roof lines should thus be similar across groups of buildings.

E. Apartment Building Architectural Standards Principles A-D shall not apply to the residential portion of development on parcels where multifamily structures are an allowable use and the development contains two or more affordable housing units for families or individuals with incomes below eighty percent (80%) of the area median income.

F. Porches should form a predominant motif of house designs and be located on the front or to the side of the dwelling. When attached to the front, they should extend over at least 15% of the front facade. All porches should be constructed of materials in keeping with those of the main building.

G. Front loaded garages, if provided, shall meet the standards of Section 8.16.

H. At a minimum, the Americans with Disabilities Act standards for accessibility shall be met.

Configurations.

A. Main roofs on residential buildings shall either be flat or symmetrical gables or hips with a pitch of between 4:12 and 12:12. Monopitch (shed) roofs are allowed only if they are attached to the wall of the main building. No monopitch shall be less than 4:12. All accessory buildings shall have roof pitches that conform to those of the main building.

B. Balconies should generally be simply supported by posts and beams. The support of cantilevered balconies should be assisted by visible brackets.

C. Two wall materials may be combined horizontally on one facade. The "heavier" material should be below.

D. Exterior chimneys should be finished in brick or stucco.

Techniques.

A. Overhanging eaves may expose rafters.

B. Flush eaves should be finished by profiled molding or gutters.



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Riley D. Burgess, Jr. PE
2026.06.23 12:58:48-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

SEAL NO: C-4063

NORTH ARROW

Project: TOWN 1 MIXED USE CENTER
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: BUILDING/LOT TYPES

DEVELOPER/OWNER
HAMBRIGHT PARTNERS

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	4/23/26-RTAP

Sheet: C10.1 of 12
Project Number: 21037

PLOTTED: 6/23/2026
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Tree Preservation and Canopy (Z.O. Article 7.4)

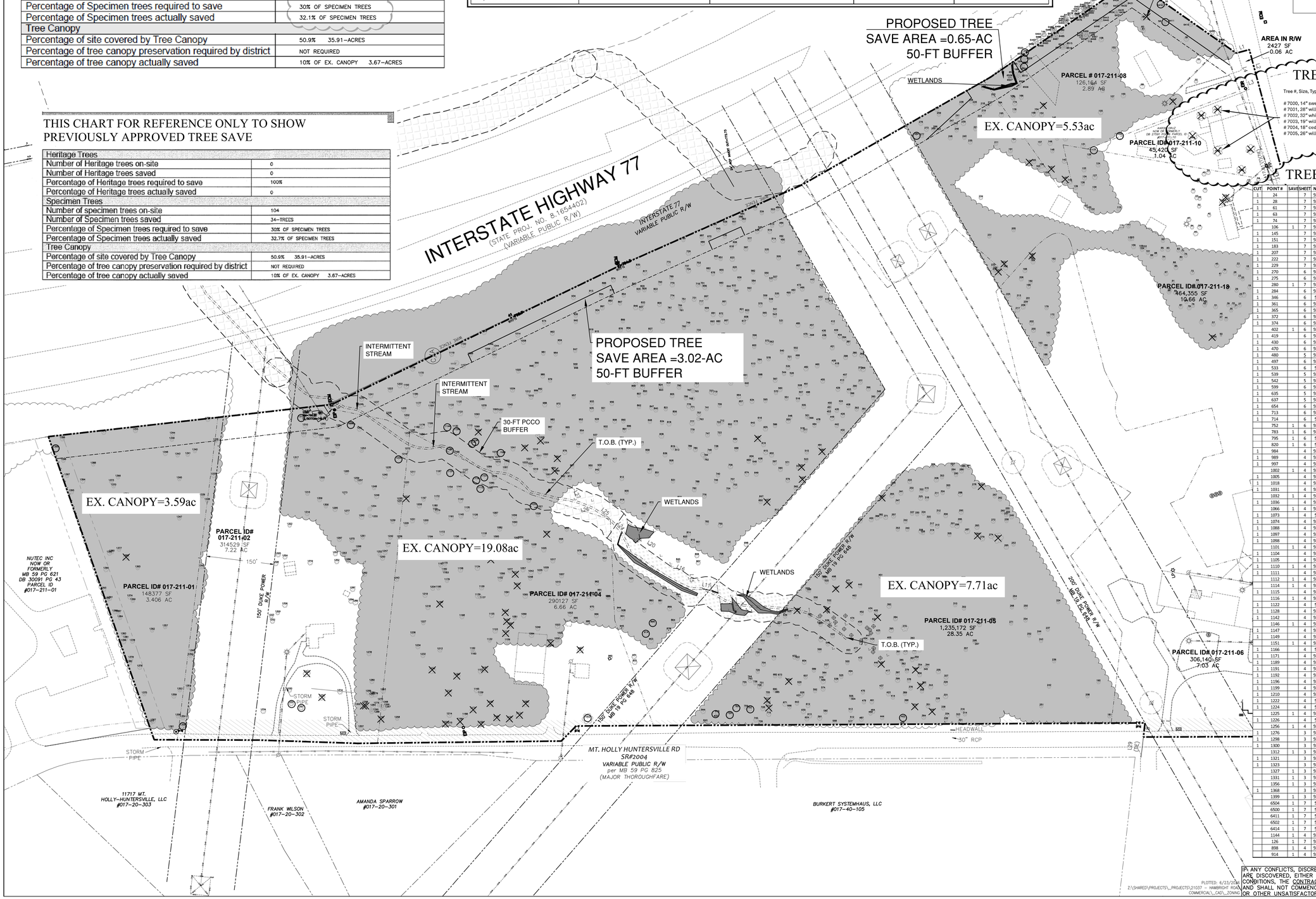
Has this site been forested or cleared in the past three years ___Yes ✓No

Heritage Trees	
Number of Heritage trees on-site	0
Number of Heritage trees saved	0
Percentage of Heritage trees required to save	100%
Percentage of Heritage trees actually saved	0
Specimen Trees	
Number of specimen trees on-site	107
Number of Specimen trees saved	34–TREES
Percentage of Specimen trees required to save	30% OF SPECIMEN TREES
Percentage of Specimen trees actually saved	32.1% OF SPECIMEN TREES
Tree Canopy	
Percentage of site covered by Tree Canopy	50.9% 35.91–ACRES
Percentage of tree canopy preservation required by district	NOT REQUIRED
Percentage of tree canopy actually saved	10% OF EX. CANOPY 3.67–ACRES

Zoning District	Minimum Tree Preservation Required			
	Existing canopy ≥ 10% of total site area	Existing canopy < 10% of total site area	Heritage Trees	Specimen Trees
R	50% of existing trees [2, 3, 4]	10% of total site area (existing and planted) [1, 2, 3, 4]	100%[2]	50%[2,4]
TR	35% of existing trees [2, 3]	10% of total site area (existing and planted) [1, 2, 3]	100%[2]	35%[2]
GR and NR Districts	10% of total site area (existing and planted) [2, 3]	10% of total site area (existing and planted) [1, 2, 3]	100%[2]	10%[2]
TC, CI, TND, NC, TOD, HC, SP, CB, VS Districts	0%	0%	100%[2]	30%[2]

THIS CHART FOR REFERENCE ONLY TO SHOW
PREVIOUSLY APPROVED TREE SAVE

Heritage Trees	
Number of Heritage trees on-site	0
Number of Heritage trees saved	0
Percentage of Heritage trees required to save	100%
Percentage of Heritage trees actually saved	0
Specimen Trees	
Number of specimen trees on-site	104
Number of Specimen trees saved	34–TREES
Percentage of Specimen trees required to save	30% OF SPECIMEN TREES
Percentage of Specimen trees actually saved	32.7% OF SPECIMEN TREES
Tree Canopy	
Percentage of site covered by Tree Canopy	50.9% 35.91–ACRES
Percentage of tree canopy preservation required by district	NOT REQUIRED
Percentage of tree canopy actually saved	10% OF EX. CANOPY 3.67–ACRES



TREE SPECIMEN TABLE

Tree #, Size, Type, Condition

7000, 14" sweet gum, fair, broken top
7001, 28" willow oak, fair due to power line pruning one side
7002, 32" white oak, good condition
7003, 19" willow oak, fair, root zone impacted but digging/current owners driveway
7004, 18" cedar tree, good condition
7005, 26" willow oak, good condition but roots impacted by home

TREE SPECIMEN TABLE

CUT	POINT #		SAVE	SHEET	NORTHING	EASTING	SIZE	TYPE	CATEGORY	Class
1	24			7	597031.718	1448572.53	24"	OAK	Hardwood	Specimen
1	28			7	597040.097	1448562.89	24"	OAK	Hardwood	Specimen
1	61			7	597110.519	1448271.2	15"	WILD CHERRY	Understory	Specimen
1	63			7	597112.749	1448800.12	24"	OAK	Hardwood	Specimen
1	74			7	597139.171	1448994.27	24"	OAK	Hardwood	Specimen
	106	1		7	597239.988	1448744.24	30"	OAK	Hardwood	Specimen
1	145			7	597375.034	1448668.57	24"	OAK	Hardwood	Specimen
1	151			7	597401.192	1448696.3	24"	OAK	Hardwood	Specimen
1	183			7	597473.496	1448513.24	12"	BEECH	Under	Specimen
1	207			7	597509.306	1448793.5	12"	WILD CHERRY	Understory	Specimen
1	222			7	597538.792	1448506.68	24"	POPLAR	Hardwood	Specimen
1	229			7	597553.634	1448490.46	24"	POPLAR	Hardwood	Specimen
1	270			6	597648.569	1447910.24	48"	OAK	Hardwood	Specimen
1	275			6	597667.071	1448028.7	24"	OAK	Hardwood	Specimen
	280	1		7	597683.345	1448816.89	24"	POPLAR	Hardwood	Specimen
1	284			6	597692.084	1447923.38	30"	OAK	Hardwood	Specimen
1	346			6	597853.86	1447555.96	20"	BEECH	Under	Specimen
1	361			6	597871.341	1447615.65	15"	BEECH	Under	Specimen
1	365			6	597874.924	1447651.58	15"	BEECH	Under	Specimen
1	372			6	597886.781	1448038.67	24"	OAK	Hardwood	Specimen
1	374			6	597889.844	1447573.03	18"	BEECH	Under	Specimen
	402	1		6	597919.549	1447551.47	24"	PINE	Softwood	Specimen
1	419			6	597938.762	1447780.19	24"	BEECH	Under	Specimen
1	430			6	597947.756	1447676.73	12"	BEECH	Under	Specimen
1	470			6	597989.115	1447860.82	18"	QUAD BEECH	Understory	Specimen
1	480			5	598001.069	1448161.68	24"	OAK	Hardwood	Specimen
1	497			6	598019.575	1447856.43	18"	BEECH	Under	Specimen
1	533			6	598047.16	1447814.35	18"	WILD CHERRY	Understory	Specimen
1	539			5	598051.976	1448134.85	24"	POPLAR	Hardwood	Specimen
1	542			5	598054.104	1448107.87	24"	OAK	Hardwood	Specimen
1	599			6	598111.878	1447823.14	24"	MAPLE	Hardwood	Specimen
1	635			5	598136.757	1448212.43	24"	OAK	Hardwood	Specimen
1	637			5	598138.182	1448071.65	24"	OAK	Hardwood	Specimen
1	654			6	598155.572	1447672.84	24"	PINE	Softwood	Specimen
1	713			6	598209.049	1447638.37	24"	POPLAR	Hardwood	Specimen
1	714			6	598209.28	1447621.93	30"	POPLAR	Hardwood	Specimen
	752	1		6	598250.461	1447625.6	42"	POPLAR	Hardwood	Specimen
	783	1		6	598278.047	1447632.61	30"	POPLAR	Hardwood	Specimen
	795	1		6	598296.07	1447620.29	24"	POPLAR	Hardwood	Specimen
	820	1		6	598326.12	1447626.62	30"	POPLAR	Hardwood	Specimen
1	984			4	598580.495	1448240.74	30"	OAK	Hardwood	Specimen
1	989			4	598590.473	1448214.7	24"	OAK	Hardwood	Specimen
1	997			4	598598.616	1447814.8	24"	MAPLE	Hardwood	Specimen
	1002	1		4	598607.207	1447662.93	48"	OAK	Hardwood	Specimen
1	1005			4	598610.705	1448284.53	24"	OAK	Hardwood	Specimen
1	1018			4	598630.814	1448080.26	24"	OAK	Hardwood	Specimen
1	1031			4	598647.912	1448275.55	24"	OAK	Hardwood	Specimen
	1032	1		4	598649.027	1448145.77	30"	POPLAR	Hardwood	Specimen
1	1036			4	598660.942	1447840.81	24"	OAK	Hardwood	Specimen
	1066	1		4	598703.783	1448272.52	24"	POPLAR	Hardwood	Specimen
1	1073			4	598713.28	1447977.03	30"	OAK	Hardwood	Specimen
1	1074			4	598713.385	1448003.41	30"	OAK	Hardwood	Specimen
1	1088			4	598736.412	1447717.5	30"	OAK	Hardwood	Specimen
1	1097			4	598742.174	1447893.65	24"	OAK	Hardwood	Specimen
1	1098			4	598743.319	1448326.15	24"	OAK	Hardwood	Specimen
	1101	1		4	598747.043	1448324.96	24"	POPLAR	Hardwood	Specimen
1	1104			4	598748.658	1447922.78	30"	OAK	Hardwood	Specimen
1	1105			4	598748.892	1447903.02	24"	OAK	Hardwood	Specimen
1	1110	1		4	598755.139	1447694.46	30"	OAK	Hardwood	Specimen
1	1111			4	598755.235	1447877.76	30"	OAK	Hardwood	Specimen
	1112	1		4	598758.983	1448200.93	24"	OAK	Hardwood	Specimen
	1114	1		4	598760.649	1448302.57	24"	OAK	Hardwood	Specimen
	1115	1		4	598760.982	1448043.5	24"	OAK	Hardwood	Specimen
	1116	1		4	598765.047	1448222.04	24"	OAK	Hardwood	Specimen
1	1122			4	598777.31	1447689.71	24"	OAK	Hardwood	Specimen
1	1128			4	598790.011	1448336.28	30"	OAK	Hardwood	Specimen
1	1142			4	598805.485	1447605.96	24"	OAK	Hardwood	Specimen
	1146	1		4	598812.659	1448294.95	24"	POPLAR	Hardwood	Specimen
1	1147			4	598813.995	1447806.75	24"	OAK	Hardwood	Specimen
1	1149			4	598814.056	1447730.11	24"	OAK	Hardwood	Specimen
	1151	1		4	598818.769	1448246.75	24"	HICKORY	Hardwood	Specimen
1	1166			4	598841.79	1447689.03	30"	OAK	Hardwood	Specimen
1	1171			4	598853.613	1447722.93	24"	OAK	Hardwood	Specimen
1	1189			4	598876.715	1447801.91	30"	OAK	Hardwood	Specimen
1	1191			4	598880.121	1448083.87	24"	OAK	Hardwood	Specimen
1	1192			4	598883.611	1448083.18	24"	POPLAR	Hardwood	Specimen
1	1196			4	598886.132	1447702.43	27"	OAK	Hardwood	Specimen
1	1199			4	598887.765	1447965.28	24"	MAPLE	Hardwood	Specimen
1	1210			4	598901.236	1447768.2	30"	OAK	Hardwood	Specimen
1	1222			4	598919.27	1447701.96	24"	OAK	Hardwood	Specimen
1	1224			4	598924.07	1448306.93	30"	TWIN OAK	Hardwood	Specimen
	1225	1		4	598926.797	1448294.79	24"	OAK	Hardwood	Specimen
1	1226			4	598928.22	1447823.4	30"	OAK	Hardwood	Specimen
	1256	1		4	599018.773	1448386.45	24"	POPLAR	Hardwood	Specimen
1	1276			3	599057.742	1447735.08	24"	GUM	Hardwood	Specimen
1	1298			3	599086.586	1447769.72	24"	MAPLE	Hardwood	Specimen
1	1300			3	599089.676	1447769.33	30"	TWIN MAPLE	Hardwood	Specimen
	1312	1		3	599124.448	1448419.38	24"	OAK	Hardwood	Specimen
1	1321			3	599178.402	1447803.52	24"	OAK	Hardwood	Specimen
1	1323			3	599203.064	1447860.8	30"	OAK	Hardwood	Specimen
	1327	1		3	599227.612	1447787.15	30"	PINE	Softwood	Specimen
	1331	1		3	599247.403	1447800	24"	PINE	Softwood	Specimen
	1356	1		3	599491.811	1447789.45	24"	PINE	Softwood	Specimen
1	1368			3	599555.318	1448178.62	24"	OAK	Hardwood	Specimen
	1399	1		3	599670.223	1448440.93	24"	GUM	Hardwood	Specimen
	6504	1		7	597427.068	1448931.85	48"	OAK	Hardwood	Specimen
	6500	1		7	597417.832	1448960.58	30"	OAK	Hardwood	Specimen
	6411	1		7	597102.362	1448976.28	24"	OAK	Hardwood	Specimen
	6502	1		7	597421.743	1448944.75	24"	GUM	Hardwood	Specimen
	6414	1		7	597098.196	1449014.3	24"	OAK	Hardwood	Specimen
	1144	1		4	598808.725	1448346.21	27"	OAK	Hardwood	Specimen
	126	1		7	597301.832	1448720.39	27"	GUM	Hardwood	Specimen
	898	1		4	598431.631	1447847.21	26"	OAK	Hardwood	Specimen
	914	1		4	598449.647	1447826.54	25"	OAK	Hardwood	Specimen

IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

PLOTTED: 6/23/2026
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Riley D. Burgess, Jr. PE
2026.06.23 12:58:48-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

NORTH CAROLINA REGISTERED LANDSCAPE ARCHITECT SEAL NO: C-4063

NORTH ARROW

0 50 100 200
Graphic Scale 1" = 100 ft.

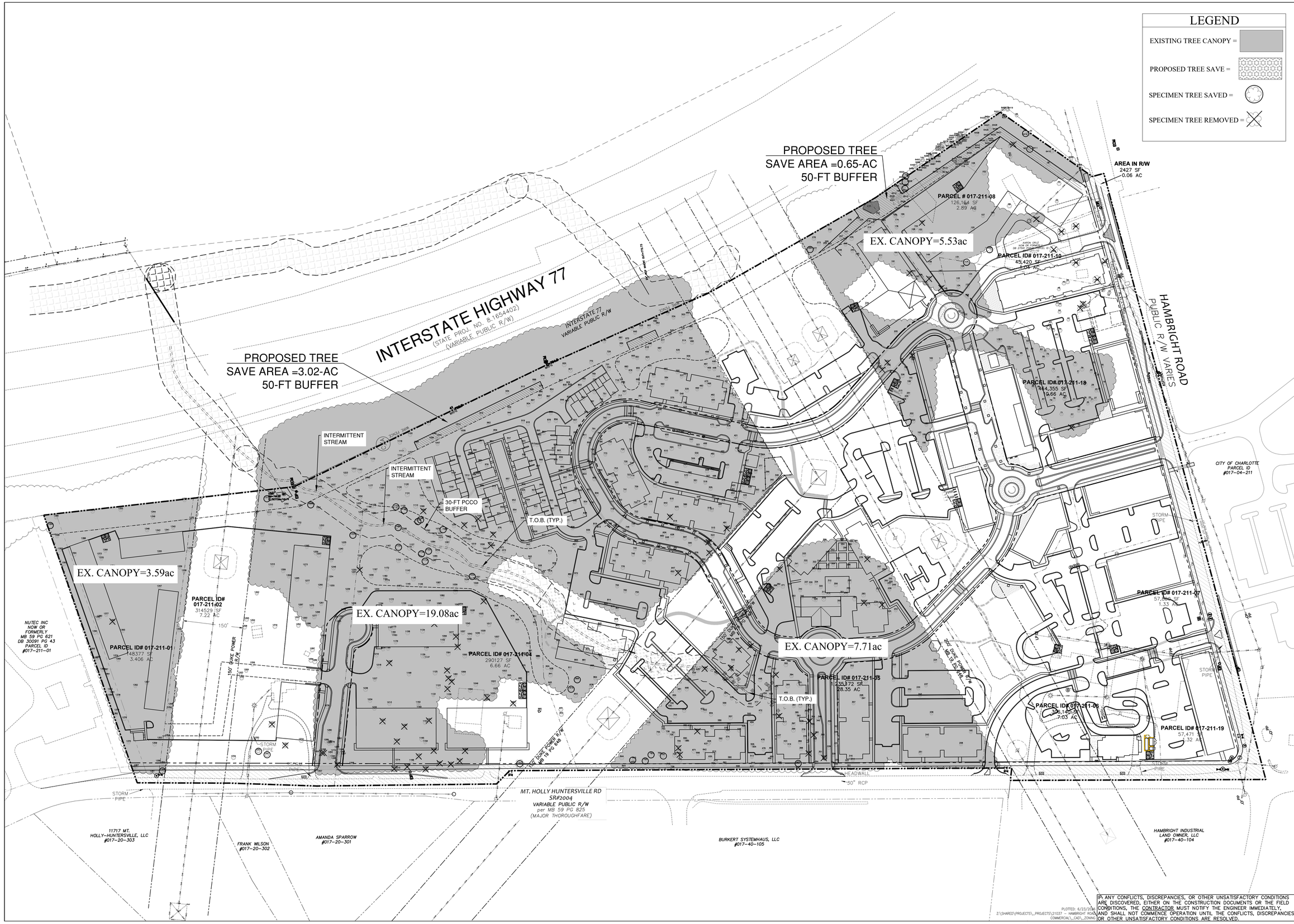
Project: TOWN 1 – MIXED USE DEVELOPMENT
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: TREE SAVE/EXIST. CONDITIONS

DEVELOPER/OWNER

TREENAIL DEVELOPMENT
428 S. MAIN ST., STE B–101
DAVIDSON, NC 28036

Designed By	WOODBINE
Drawn By	WOODBINE
Date	6/23/26
Revisions	4/23/26–RTAP

Sheet: C11 of 12
Project Number: 21037



IF ANY CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE DISCOVERED, EITHER ON THE CONSTRUCTION DOCUMENTS OR THE FIELD CONDITIONS, THE CONTRACTOR MUST NOTIFY THE ENGINEER IMMEDIATELY, AND SHALL NOT COMMENCE OPERATION UNTIL THE CONFLICTS, DISCREPANCIES, OR OTHER UNSATISFACTORY CONDITIONS ARE RESOLVED.

PLOTTED: 6/23/2026
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NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS, JR.

SEAL

WOODBINE DESIGN, P.C. CORPORATE NORTH CAROLINA SEAL NO: C-4063

Project: TOWN 1 - MIXED USE DEVELOPMENT
Location: 11101 HAMBRIGHT RD, HUNTERSVILLE, NC 28078
Sheet Title: TREE OVERLAY

DEVELOPER/OWNER
TREENAIL DEVELOPMENT
428 S. MAIN ST., STE B-101
DAVIDSON, NC 28036

Designed By: WOODBINE
Drawn By: WOODBINE
Date: 6/23/26
Revisions: 4/23/26-RTAP

Sheet: C11.1 of 12
Project Number: 21037

LEGEND

EXISTING SLOPE = 15%

PCO BUFFER =

WETLANDS =

PROPOSED TREE SAVE =

LEGEND

SYMBOL

- SLOPES LESS THAN 10% – 33.64 AC
- SLOPES BETWEEN 10% – 15% – 3.11 AC
- SLOPES BETWEEN 15% – 25% – 0.61 AC
- SLOPES GREATER THAN 25% – 0.06 AC

PROPOSED TREE SAVE AREA =0.65-AC

PERENNIAL STREAM

INTERSTATE HIGHWAY 77
(STATE PROJ. NO. 8.1654402)
(VARIABLE PUBLIC R/W)

INTERSTATE 77
VARIABLE PUBLIC R/W

HAMBRIGHT ROAD
PUBLIC R/W VARIES

AREA IN R/W
SAVE AREA
0.06 AC

INTERMITTENT STREAM

INTERMITTENT STREAM

WETLANDS

WETLANDS

PARCEL ID# 4670-51-1336
221828 SF
5.09 AC

PARCEL ID# 4670-51-1104
522967 SF
12.00 AC

177871 SF
4.08 AC

1208892 SF
27.75 AC

189914 SF
4.36 AC

STORM PIPE

HEADWALL
~30" RCP

MT. HOLLY HUNTERSVILLE RD
SR#2004
VARIABLE PUBLIC R/W
(NOT MIS SR PG. SIZE
(MAJOR THOROUGHFARE)

PLOTTED: 2/1/2023
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COMMERCIAL_CAD\03A-BASE-HAMBRIGHT RD. MIXED USE DEVELOPMENT.DWG

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Riley D. Burgess, Jr. PE
2026.02.23 12:58:49-04'00'

NORTH CAROLINA PROFESSIONAL SEAL 10051 ENGINEER RILEY DEE BURGESS JR.

SEAL

SEAL NO: C-4063

NORTH ARROW

0 50 100 200

Graphic Scale 1" = 100 ft.

Project: TOWN 1- MIXED USE DEVELOPMENT

Location: 11101 HAMBRIGHT RD. HUNTERSVILLE, NC 28078

Sheet Title: SLOPE ANALYSIS

DEVELOPER/OWNER

TREENAIL DEVELOPMENT
428 S. MAIN ST., STE B-101
DAVIDSON, NC 28036

Designed By	WOODBINE
Drawn By	WOODBINE
Date	2/1/23
Revisions	

Sheet: C12 of 12

Project Number: 21037

Town 1 R26-09

Community Meeting Report

Date: May 28, 2026

Time: 5:00pm-6:00 pm

Location: Clutch Studios, 11101 Hambright Road, Huntersville 28078

Roster of Persons in Attendance: See attached sign-in sheets

Agenda:

1. Applicant presentation & rezoning description
2. Neighborhood attendees' question & answer session

Applicant and the attendee discussed the following comments and questions:

General Discussion

• The Applicant shared site plan and representative images with the attendee.

• General discussion around the addition of 1.042 ac Mecklenburg Parcel ID #01721110 and the change of zoning from CB to TOD-E and TOD-R

• General discussion about the change in block lengths and street tree requirements.

• General discussion regarding the project timeline moving forward including:

  o When to expect the next round of Planning Staff comments.

  o Scheduling a meeting to go over Planning Staff comments.

  o Public Hearing date.

Questions

*Brian Richards, Huntersville Planning Director, was the only person in attendance for the

meeting so there were no questions from neighbors.

MAY 18, 2026

SUBJECT: Notice of neighborhood meeting for information related to Petition Number R26-09 Town 1 Revision, an amendment to the Conditional Rezoning of approximately 71.58 acres on the northeast side of the intersection at Mt. Holly-Huntersville Road and Hambright Road, Huntersville, NC. The parcels are 01721101, 01721102, 01721104, 01721105, 01721106, 01721107, 01721108, 01721110, 01721118, and 01721119. The property owners of the subject property are listed on the attached Exhibit A. The Applicant of the subject parcels is Treenail Development, Inc.

To Whom It May Concern:

Recipients of this letter meet the notification requirements of the Town of Huntersville as being adjacent landowners with at least a portion of their properties located within 250 ft. of the subject properties, and neighborhood organizations registered with the Town of Huntersville within 2,000 ft. of any portion of the rezoning site. The purpose of the meeting is to provide an opportunity for the Applicant/Developer to describe the proposed project and to answer any questions you may have. The Applicant/Developer is requesting approval from the Town to amend the current zoning districts of parcel 01721110 – consisting of 1.042 acres from Corporate Business (CB) to Transit-Oriented Development – Residential Conditional Use (TOD-R(CD)) and Transit-Oriented Development - Employment Conditional Use (TOD-E(CD)) in addition to several revisions to Rezoning R22-01, EPM# 444291, approved on August 25, 2023. Project site plans are available at www.huntersville.org/planning .

MEETING DETAILS:
5:00 P.M. to 6:00 P.M.
May, 28, 2026
Clutch Studios
11101 Hambright Road
Huntersville, NC 28078

You are welcome to attend the above-mentioned neighborhood meeting. There will be an opportunity to ask questions about the proposed project.

Sincerely,

Benjaman L. Geisler, President
Treenail Development, Inc.

EXHIBIT A

PARCEL ID NUMBERS

01721101	Mt. Holly Partners, LLC
01721102	Mt. Holly Partners, LLC
01721104	Mt. Holly Partners, LLC
01721105	Junction T1, LLC
01721106	Mt. Holly Partners, LLC
01721107	Catawba Property Investments, LLC
01721108	Hambright Partners, LLC
01721110	Aaron Cruz
01721118	Hambright Partners, LLC
01721119	Mt. Holly Partners, LLC

ownrlstnme	mailaddr1
11717 MT HOLLY-HUNTERSVILLE RD LLC	11717 MT HOLLY-HUNTERSVILLE RD
BURKERT SYSTEMHAUS LLC	11425 MOUNT HOLLY HUNTERSVILLE RD
BVK US II CHARLOTTE BELTWAY C LLC	ONE BEACON ST STE 2800
CATAWBA PROPERTY INVESTMENTS LLC	14316 REESE BLVD W
CITY OF CHARLOTTE	600 E 4TH ST
CP/IPERS HUNTERSVILLE LLC	1717 MCKINNEY AV STE 1900
CRUZ	11229 HAMBRIGHT RD
HAMBRIGHT PARTNERS LLC	428 S MAIN ST STE B 101
HARBORSIDE EXECUTIVE BUILDING LLC	204 C W WOODLAWN RD
JUNCTION T1 LLC	825 SISK AVE STE 200
LANDQUISITION LLC	209 ABINGDON CR
MT HOLLY PARTNERS LLC	428 SOUTH MAIN STE B-101
NUTEC INC	11810 MT HOLLY-HUNTERSVILLE RD
SELF-SPARROW	2417 PRIMM RD
THRIVE PROPERTY HOLDINGS LLC	11031 MT HOLLY HUNTERSVILLE RD
UNITED OIL OF THE CAROLINAS INC	PO BOX 68
STONEYBROOK STATION HOMEOWNERS ASSOCIATION INC	13925 BALLANTYNE CORPORATE PL STE 300
BRYTON TRACE HOMEOWNERS ASSOCIATION INC	PO BOX 11906
HAMBRIGHT PARTNERS LLC	428 S. MAIN ST STE B-101
CRUZ	11229 HAMBRIGHT RD
CATAWBA PROPERTY INVESTMENTS	14316 REESE BLVD W STE B-15
MT HOLLY PARTNERS LLC	428 S. MAIN ST STE B-101
JUNCTION T1 LLC	825 SISK AVE STE 200

Method

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COMMUNITY MEETING
SIGN IN SHEET
March 26, 2025, 6:00pm to 7:00pm
R25-01 Alex Yards Rezoning
Location: Clutch Studios
11101 Hambright Road, Huntersville, NC 28078

ATTENDEE NAME


Town Engineering Rezoning Comment Summary
R26-09 Town 1 2026 Addition (CSP-444291-R001)
11101 Hambright Rd. Huntersville, NC 28078
(PID 01721101, 01721102, 01721104, 01721105, 01721106, 01721107, 01721108, 01721110, and 01721119)

General Project Information

This proposed revision to an existing approved rezoning is located at the northeast corner of the intersection of Hambright Road and Mt. Holly-Huntersville Road and consists of modifications to the internal building layout, stream buffer encroachment, associated off-street parking and a driveway connection to Hambright Road.

Engineering Staff Comments

Traffic Impact Analysis (TIA):

1) A revision to the TIA was not required as part of this proposed revision due to not meeting trip generation thresholds.

Transportation and Stormwater:

1) Documentation to be provided from NCDOT approving the new proposed location of the easternmost driveway off Hambright Road (Access 1).
2) Documentation to be provided from the U.S. Army Core of Engineers (USACE) and North Carolina Department of Environmental Quality (NCDEQ) approving additional disturbance of a stream buffer located at the southeast corner of the site.
3) Additional mitigation to be provided for the new proposed Water-Quality-Buffer and Stream impacts via the previously approved mitigation method.
4) Other miscellaneous comments to be addressed.

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Brian Richards, Planning Director

Subject: Petition #TA 26-01 - Indoor Recreation in CB

Explain Request:

Conduct public hearing for Petition #TA26-01, a request by the Huntersville Planning Department to amend Article 3.2.9 of the Huntersville Zoning Ordinance. The purpose of the amendment is to increase the amount of "indoor recreation" in the Corporate Business zoning district.

Action Recommended: Conduct Public Hearing

Alternative Action:

Conduct public hearing

Financial Implications:

N/A

Attachments:

1. TA26-01 - PH Staff Report 7-21-26
2. Attachment 1 - Text Amendment Application (TA26-01)
3. Attachment 2 - Ordinance - Indoor Recreation expansion (TA26-01)

TA26-01 – Indoor Recreation in Corporate Business (CB)

PART 1: DESCRIPTION

TA26-01 is a request by the Huntersville Planning Department to amend Article 3.2.9 of the Huntersville Zoning Ordinance. The purpose of the amendment is to increase the allowable square footage of "indoor recreation" as a use within the Corporate Business (CB) Zoning District. The proposed text amendment would reclassify "indoor recreation" from the "Permitted Accessory Uses" section of Article 3.2.9 of the Zoning Ordinance and relocate it to the "Uses Permitted with Conditions" section.

PART 2: BACKGROUND

Per Article 12.2.1 of the Huntersville Zoning Ordinance, "Indoor Recreation" is defined as "Public or private health or exercise clubs, tennis or other racquet courts, swimming pools, YMCA's, YWCA's or similar uses which are enclosed in buildings and are operated on a fee or membership basis primarily for the use of persons who do not reside on the same lot as that on which the recreational use is located. "Indoor recreation" structures may include accessory uses, such as snack bars, pro shops, and locker rooms, which are designed and intended primarily for the use of patrons of the principal recreational use. "

The Town has received numerous inquiries into establishing indoor recreation uses within existing buildings throughout Town. Per the current Huntersville Zoning Ordinance, "Indoor Recreation" is permitted, by-right, in the Highway Commercial (HC) and Neighborhood Center (NC) zoning district. The use is also permitted, as an accessory use in the Corporate Business (CB) and Special Purpose (SP) zoning districts, with the use being limited to "10 percent of the gross floor area within the business or light industrial park or 70,000 sq. ft., whichever is less. Throughout Town, there are currently has 146 existing buildings located within the Corporate Business (CB) zoning district. Of these, 48 are over 50,000 sq. ft. in size. Often referred to as "flex buildings", these buildings are designed so that they may be divided into smaller units, based on a uses' needs. The buildings in the Corporate Business district range from 10,000 sq. ft. (or less), up to over 500,000 sq. ft.

Article 3.2.9 – Corporate Business – currently states that "indoor recreation" is permitted as an accessory use, as follows:

"Retail, restaurant, personal services, branch banks, conference facilities, clinics, indoor recreation and similar workplace support uses up to 10 percent of gross floor area within the business or light industrial park or 70,000 sq. ft., whichever is less."

The proposed amendment to Article 3.2.9 would remove "indoor recreation" from the Accessory Uses section and add it to "Uses Permitted with Conditions" section and expand the allowable limits for "indoor recreation" within the Corporate Business (CB) zoning district, as follows:

"• indoor recreation uses may occupy the following gross floor areas of an individual building, whether free-standing or within a business or light industrial park:

Tier	Percentage of Gross Square Footage (GSF)	Usable Area Range
15,000 SF or less	100 %	up to 15,000 SF
15,001 to 50,000 SF	50 %	7,500 to 25,000 SF
50,001 SF or more	40 %	25,000 to 100,000 SF

In all tiers, Indoor Recreation as a use is capped at a maximum square footage of 100,000 square feet."

Aside from the increased permittable square-footage for "indoor recreation" in existing buildings, this amendment would also permit "indoor recreation" to occupy an entire building, rather than as an accessory use and the "indoor recreation" would not need to be located within an established business or light-industrial park. This will enable existing (older) buildings or smaller buildings to be utilized for this land use. In all cases, "indoor recreation" would be capped at 100,000 sq. ft. in total.

PART 3: RELEVANT SECTIONS OF THE HUNTERSVILLE 2040 COMMUNITY PLAN

TA26-01 is consistent with the following Huntersville 2040 Community Plan policies:

- **EV-1.3: Allow new commercial or multi-family land uses in Employment Centers only if they are complimentary and do not jeopardize large employment sites' viability.**
  Staff Comment: This proposed text amendment would increase the amount of area that could be used for "indoor recreation" substantially over the current limitations, while still maintaining the focus of the Corporate Business (CB) zoning district, which is intended "to provide for large business or light industrial uses". "Indoor Recreation" uses tend to have a high percentage of utilization after 5:00 p.m. or on weekends, when the primary uses within the Corporate Business district are less active.

- **EV-1.4: Prioritize changes to standards that would encourage small business growth.**
  Staff Comment: This proposed text amendment would support small business growth by providing more locations for "indoor recreation" uses, while not dominating the large intention of the district.

PART 4: STAFF RECOMMENDATION

If the Town Board supports providing greater opportunity for the "indoor recreation" land use within the Corporate Business (CB) zoning district, Staff recommends approval of the proposed text amendment due to its consistency with policies EV-1.3 and , EV-1.4 of the Huntersville 2040 Plan, and due to the parameters outlined to base usable square-footage on the size of the building it is housed within, to prevent this use from dominating the zoning district. This amendment will also permit a greater range of uses within free-standing or established "flex buildings" that can serve as complimentary uses

PART 5: PUBLIC HEARING

The Public Hearing is scheduled for July 21, 2026.

PART 6: PLANNING BOARD RECOMMENDATION

The Planning Board review is scheduled for July 28, 2026.

PART 7: ATTACHMENTS

1. Text Amendment Application
2. Proposed Ordinance

PART 8: STATEMENT OF CONSISTENCY – TA26-01		
Planning Department	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed amendment TA26-01, Planning Staff recommends approval based on consistency with policies EV-1.3 and EV-1.4 of the Huntersville 2040 Plan. It is reasonable and in the public interest to approve the application because it will allow greater utilization of the Corporate Business (CB) zone for Indoor Recreation uses.	**APPROVAL:** In considering the proposed amendment TA26-01, the Planning Board recommends approval based on the amendment being consistent with **(insert applicable plan reference)** It is reasonable and in the public interest to amend the Zoning Ordinance because*…(Explain)*	**APPROVAL:** In considering the proposed amendment TA26-01, the Town Board recommends approval based on the amendment being consistent with **(insert applicable plan reference)** It is reasonable and in the public interest to amend the Zoning Ordinance because*…(Explain)*
DENIAL: N/A	**DENIAL:** In considering the proposed amendment TA26-01, the Planning Board recommends denial based on the amendment being **(consistent OR inconsistent)** with **(insert applicable plan reference).** It is not reasonable and in the public interest to amend the Zoning Ordinance because…. *(Explain)*	**DENIAL:** In considering the proposed amendment TA26-01, the Town Board recommends denial based on the amendment being **(consistent OR inconsistent)** with **(insert applicable plan reference).** It is not reasonable and in the public interest to amend the Zoning Ordinance because…. *(Explain)*

Town of Huntersville
NORTH CAROLINA

Text Amendment
Application

Date of Application Apr 1 2026

Fee

See Current Town of Huntersville Fee Schedule for Text Amendment to the Zoning/Subdivision Ordinance

Type of Change

_____ New Addition to text of Zoning Ordinance / Subdivision Ordinance / Other

X Revision/Modification to text of Zoning Ordinance / Subdivision Ordinance / Other

Description of Change

Proposed text amendment will affect the following:

Ordinance(s): Zoning Article(s): 3.2.9 Section(s): C Accessory Uses

Current Ordinance

Indoor Rec Imitation up to 70k

Proposed Text

See attach chart

Also note proposed to allow in freestanding buildings

Reason for Proposed Change

Economic Development

Attach additional pages if needed.

NOTE: If the proposed text amendment effects property located along Hwy 73; is 2000 feet from an adjoining municipality, and/or the Mountain Island and Lake Norman Watersheds, additional peer review is required.

Applicant

Printed Name Huntersville Planning Dept

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ☒ Other: _____

Signature _____ Date _____

Title Planning Director Email _____

Address of Applicant _____

Property Owner (if different than applicant)

* Printed Name N/A

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

Signature _____ Date _____

Title _____ Email _____

Address of Property Owner _____

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this petition MUST be accompanied by a Limited Power of Attorney signed by the property owner (s) and notarized, specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

Contact Information

Town of Huntersville
Planning Department
PO Box 664
Huntersville, NC 28070

Phone: 704-875-7000
Fax: 704-875-6546
Physical Address: 105 Gilead Road, Third Floor, Huntersville, NC 28078
Website: https://www.huntersville.org/228/Planning-Department

Date Received By Planning Department: _____

Staff Initials: 4/1/26

3.2.9 CORPORATE BUSINESS (CB)

Intent: The Corporate Business district is established to provide for large business or light industrial uses and parks which are already in place and for new business or light industrial uses or parks which, because of the scale of the buildings or the nature of the use, cannot be fully integrated into the fabric of the community. The predominant use is that of the workplace. Some institutional uses such as schools and religious institutions may be appropriate if they are sited properly and temporary. The corporate business district, unlike town districts, is buffered from neighboring properties; nonetheless, buildings in the corporate business district that front a town street shall relate to the street as prescribed by building type. Individual workplace buildings oriented to the street and scaled for compatibility with the surrounding environment are also permitted in the Highway Commercial district and, on a smaller scale, in the Town Center, Neighborhood Center, and TND Districts. Such workplaces should not be reclassified to the Corporate Business District. The corporate district is reserved for uses which require very large buildings and/or large parking and loading facilities such as warehouse/distribution operations.

1. **Permitted Uses**.

Uses Permitted by Right.

- office
- distributive businesses
- inns
- laboratories and research facilities
- manufacturing and assembly, excluding heavy manufacturing
- government buildings
- warehouses, except mini-warehouse storage
- wholesale sales
- vocational and technical schools

Uses Permitted With Conditions.

- automotive country club, (9.57)
- day care center, (9.11)
- commercial communication tower, (9.9)
- essential services 1 and 2, (9.14)
- hotels and motels, (9.45)

- indoor recreation uses may occupy the following gross floor areas of an individual building, whether free-standing or within a business or light industrial park:

Tier	Percentage of Gross Square Footage (GSF)	Usable Area Range
15,000 SF or less	100 %	up to 15,000 SF
15,001 to 50,000 SF	50 %	7,500 to 25,000 SF
50,001 SF or more	40 %	25,000 to 100,000 SF

In all tiers, Indoor Recreation as a use is capped at a maximum square footage of 100,000 square feet.

- schools, (9.35)
- parks, (9.29)

• temporary mobile food sales, (9.37)
• transit-oriented parking lots as a principal use, (9.49)
• transit shelters, (9.39)

Uses Permitted with Special Use Permit.
• wind energy facility, minor (accessory) (9.53)

2. **Permitted Building and Lot Types**.
• apartment
• townhome
• duplex
• triplex
• quadplex
• civic building
• highway commercial, up to 65,000 sq. ft. of first floor area
• mixed use, up to 6,000 sq. ft. of first floor area[1]
• shopfront, as accessory to workplace
• workplace

3. **Permitted Accessory Uses**.
• residential uses in a duplex, triplex, quadplex, townhome, or apartment intended for use by personnel employed for security or maintenance
• residential uses in a duplex, triplex, quadplex, townhome, or apartments in a corporate business development of 400 acres or more, with an approved, vested plan so long as (a) the gross land area of the residential use does not exceed 8 percent of the gross land area in the corporate business development; and (b) the number of residential housing developments within the corporate business development is limited to 3
• helistop, (9.18)
• home occupations, (9.19)
• outdoor storage, excluding the storage of construction equipment, (9.26)
• retail, restaurant, personal services, branch banks, conference facilities, clinics, ~~indoor recreation~~ and similar workplace support uses up to 10 percent of gross floor area within the business or light industrial park or 70,000 sq. ft., whichever is less.
• solar energy facility, minor residential (9.54)
• solar facility, minor non-residential (9.54)
• accessory uses permitted in all districts, (8.11)

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Brian Richards, Planning Director

Subject: Petition #R25-17 Glendale Drive Subdivision

Explain Request:

Consider making a decision on R25-17, a request by BDG Properties, LLC Rezone +/- 1.066 acres at the corner of Glendale and Huntersville-Concord Rd to rezone from General residential (GR) to Neighborhood Residential Conditional District(NR-CD) for 3 single-family home(Parcel: 01928207)

Action Recommended: Approve Item

Alternative Action:

None

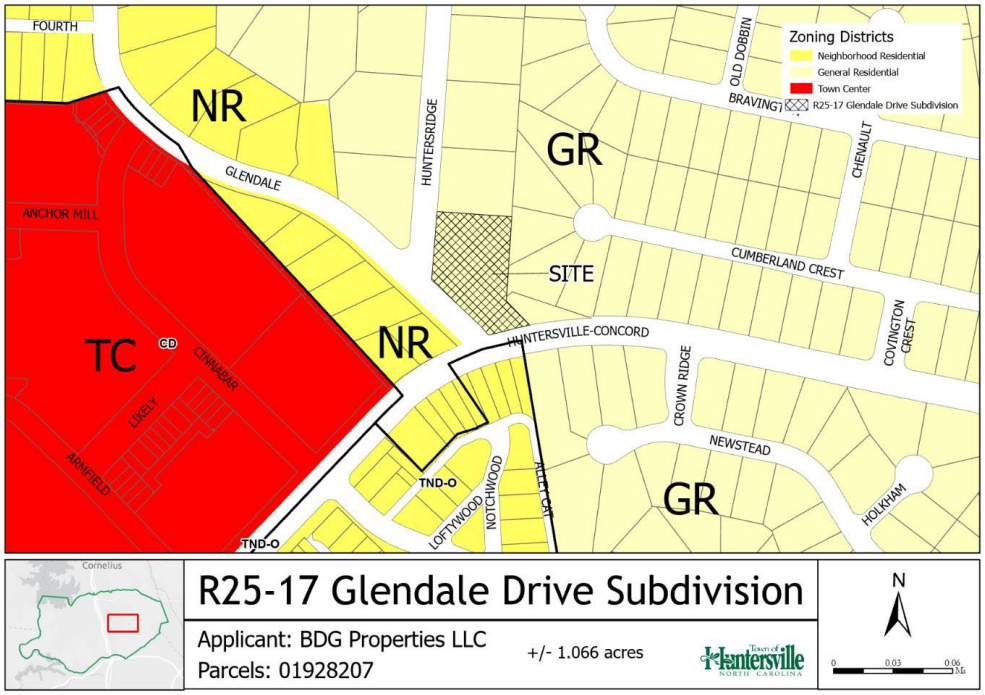
Financial Implications:

Attachments:

1. R25-17 Final Action Staff Report
2. R25-17 General Application
3. R25-17 Neighborhood Meeting Report
4. R25-17 Site Plan
5. R25-17 TIA Determination
6. R25-17 Engineering Report
7. DRB Homes - Davidson Exterior Elevations

Petition R25-17
Glendale Dr Subdivision

PART 1: PROJECT SUMMARY



Applicant: BDG Properties, LLC.

Property Owner: Bernice Gibson Bruce

Property Address: 14600 Glendale Dr

Project Size: (+/-) 1.066 acres

Parcel Numbers: 01928207

Current Zoning: General Residential

Current Land Use: Residential

Proposed Zoning: Neighborhood Residential- Conditional District (NR-CD)

Proposed Land Use: Residential- Single-Family homes

1. Purpose: Petition #R25-17, a request by BDG Properties, LLC to rezone +/- 1.066 acres located at 14600 Glendale Dr (parcel id # 01928207) from General Residential to Neighborhood Residential-Conditional District.
2. Adjoining Zoning and Land Uses.
   North: General Residential (GR) zoning, Existing Single Family Residential
   South: Neighborhood Residential (NR) zoning, Existing Single Family Residential (Vermillion Subdivision)
   East: General Residential (GR) zoning, Existing Single Family Residential (Covington Subdivision)
   West: Neighborhood Residential (NR) zoning, Existing Single Family Residential
3. A neighborhood meeting was held on Wednesday, January 28th, 2026. The invitation, site plan, and summary of the meeting are included in the agenda packet for review.
4. Planning staff certifies that notice for this rezoning petition was sent via a postcard to adjoining property owners; a legal ad was placed in the Charlotte Observer on February 15, 2026; and posting of a rezoning sign along Glendale Dr and Huntersville-Concord in front of the property.

PART 2: REZONING/SITE PLAN

Site Plan Description

- The applicants are proposing to develop a 3-lot minor subdivision with one single-family detached house per lot.
    - The lot sizes will range from .35 acres to .4 acres.
- The property is currently zoned General Residential (GR). The General Residential Zoning District is not intended for development projects in Huntersville which are initiated after the effective date of this ordinance.
    - The purpose of this rezoning is to rezone to a different zoning district that allows for greater density and is intended for development projects.
- No modifications from the standards of the Huntersville Zoning Ordinance are requested by the applicant as a part of this conditional rezoning request. The development proposal will comply with all applicable rules and regulations found within the Huntersville Zoning Ordinance.
    - While the applicant is not requesting modifications, the rezoning request is conditional, so the plans presented must be adhered to.
- Canopy and specimen tree save is required in the Neighborhood Residential zoning district (10% for Specimen tree save, 10% of total site area for tree canopy, and 100% heritage).
    - The applicant is meeting the minimum requirements for specimen tree save (10%) and nearly doubling the requirements for canopy tree save (18%).
- The applicant is using existing public right-of-way, so no new infrastructure will be added.

Rezoning Issues/Updates:

A public hearing was held, where Town Board members and citizens expressed concerns regarding density, conflict with future roadway projects, and compatibility with existing development. See updates below;

- The Town Board expressed concern regarding the density proposed and conflict with future roadway projects. In turn, the applicant has reduced the proposal from 4 lots to 3. Lot sizes are now ranging from .35 acres to .4 acres.
- Staff is still working with the applicant to address any R/W dedication or reservation that is needed for the future project at the intersection of Glendale Dr and Huntersville-Concord. A final representation of the dedication has not been finalized at this time. The applicant and staff will continue to work and find a solution that accommodates the road improvements, while keeping the homes compliant with zoning regulations.
- Staff is recommending a 10’ side setback on the northern property line to create a better transition from the larger lot/larger setbacks of the lots to the north/east.
- Staff is recommending the applicant incorporate elevated design elements for the homes. Staff has yet to receive any home elevations outside of conceptual pictures. Staff will continue requesting elevation information, and recommending the applicants adhere to the architectural principles found within Town of Huntersville Zoning Ordinance and Design Guidebook. Applicants have committed to the home being of the similar architectural character as homes in Vermillion.

PART 3: TRANSPORTATION ISSUES

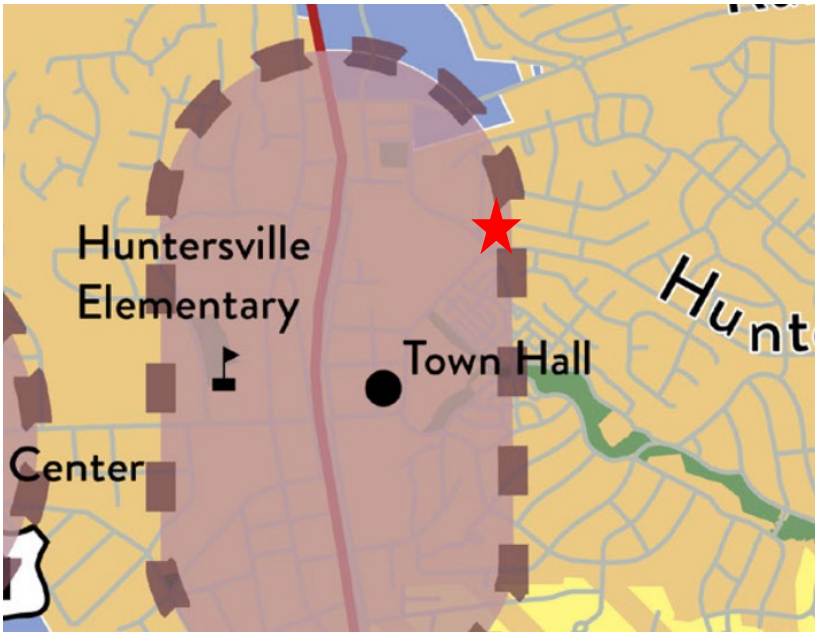
Traffic Impact Analysis (TIA)

- A TIA was not required as part of this proposed rezoning due to not meeting trip generation thresholds.
- See engineering memo attached

PART 4: REZONING CRITERIA

Article 11.4.7(d) of the Zoning Ordinance states that "in considering any petition to reclassify property, the Planning Board in its recommendation and the Town Board in its decision shall take into consideration any identified relevant adopted land-use plans for the area including, but not limited to, comprehensive plans, strategic plans, district plans, area plans, neighborhood plans, corridor plans, and other land-use policy documents".

2040 Huntersville Community Plan – "Town Core"





FUTURE LAND USE CHARACTER AREA

- MIXED USE CENTER
- ACTIVITY CENTER
- EMPLOYMENT CENTER
- TOWN CORE
- MEDIUM DENSITY
- RESIDENTIAL EDGE
- RURAL CONSERVATION
- PARKS AND OPEN SPACE
- CRITICAL WATERSHED

Town Core

The Town Core designation includes a variety of neighborhoods containing a mix of residential housing types, including single family homes, townhomes and apartments. Their design is focused on traditional neighborhood planning principles, including short blocks, connected streets, streetscape standards, and other features that improve walkability. These areas are denser than the "Moderate Density" and "Residential Edge" character areas and may include non-residential development as specified in small area plans and at other sites that meet locational criteria.

STAFF COMMENT – The 2040 Huntersville Community Plan **DOES** SUPPORT this project through the following sections:

- **Policy LU 1.1**: Utilize the Future Land Use Map during development approval process to ensure compatibility with long range plans.
    - STAFF COMMENT: The property proposed is in the Town Core Character Area of the Huntersville 2040 plan as shown above. The proposed rezoning matches the density of the surrounding properties.
- **Policy LU 2.1**: Higher intensity residential uses will be focused generally within two miles of the I-77/ NC-115 corridor and future activity centers in the eastern and western areas of Huntersville's zoning jurisdiction.
    - STAFF COMMENT: The proposed development is within the two-mile I-77/NC-115 corridor and within the higher density Town Core Character Area.
- **Policy LU 5.1:** Allow more intense development only where transportation infrastructure and utilities already exist
    - STAFF COMMENT: The applicant is using existing public right-of-way and will connect into existing utility connections, so no new infrastructure will be added.
    - **Policy EOS 4:** Encourage the preservation of tree canopy within more urban environments.
        - STAFF COMMENT: The current plan shows double the tree canopy preservation required (20% of the site area)

STAFF COMMENT – The 2040 Huntersville Community Plan **DOES NOT** SUPPORT this project through the following sections:

- **Policy LU 9.1:** Residential design principles
    - STAFF COMMENT: This policy recommends residential development include front porches and recessed front loaded garages. These principles emphasize the architecture of the home, encourage outdoor interaction in the front of the home, and decreases the visual focus on plain garage doors. No elevations or concepts of the exterior product have been submitted for review. Although the NC State Statutes do not permit municipalities to have architectural ordinances for single family homes, submitting designs that utilize these principles is another way to demonstrate consistency with the Huntersville 2040 Plan for a conditional rezoning.
        - UPDATE 3/24/26: The applicants are agreeable to staff's recommendations, but have only shown example elevations and offer no explicit commitment to elevations consistent with staff's recommendations. Staff recommends the applicants commit to certain aspects of the elevation they proposed to build, such as building materials, porches, recessed garages or sideloaded garages, etc.
        - UPDATE 4/13/26: The applicant has committed that the homes will be of similar architectural character to homes in the Vermillion neighborhood.

Article 11 Section 11.4.7(e) of the Zoning Ordinance states that: "in considering any petition to reclassify property the Planning Board in its recommendation and the Town Board in its decision should consider:

1. **Whether the proposed reclassification is consistent with the overall character of existing development in the immediate vicinity of the subject property.**
   STAFF COMMENT:
   Staff recommends that the reclassification from General Residential to Neighborhood Residential would be consistent with the overall character of adjacent development. The existing housing stock to the west and south is currently single-family houses, zoned Neighborhood Residential. Therefore, the character of the existing development will not substantially change by the rezoning.

2. **The adequacy of public facilities and services intended to serve the subject property, including but not limited to roadways, transit service, parks and recreational facilities, police and fire protection, hospitals and medical services, schools, stormwater drainage systems, water supplies, and wastewater and refuse disposal.**

   STAFF COMMENT:
   - A Transportation Impact Analysis (TIA) is not required, and engineering staff have determined no improvements are needed.
   - Staff have no other indication that the proposed use will adversely affect the adequacy of public facilities.

3. **Whether the proposed reclassification will adversely affect a known archeological, environmental, historical or cultural resource."**
   STAFF COMMENT:
   Planning staff has no indication that the request will adversely affect known archeological, environmental, or cultural resources.

PART 5: STAFF RECOMMENDATION

The application to reclassify the zoning of the property is consistent with the character area recommendations of the Huntersville 2040 Plan. Therefore, Staff recommends approval of the rezoning with the following conditions;

- R/W along Huntersville-Concord to be dedicated to accommodation for future roadway project
- Implement a larger side setback on the northern side of the property to create a more gradual transition from adjacent lots with larger setbacks
- Buildings shall incorporate elevated design and similar in character to homes in Vermillion.

PART 6: PUBLIC HEARING COMMENTS

A Public Hearing was held on March 3, 2026. See YouTube livestream link below.

https://www.youtube.com/live/GwcrPKnXvNw?si=fCia4BxwHqGh6lvr&t=1225

PART 7: PLANNING BOARD RECOMMENDATION

The Planning Board was held March 24, 2026.

C. Boyd made an amended motion to recommend approval of R25-17 Glendale Drive subdivision with all staff's recommended conditions. The Planning Board recommends approval based on the plan being consistent with conditions. With conditions the application is consistent with policies LU 1, LU2.1, LU 9.1, and ES 4 of the Huntersville 2040 Plan. It is reasonable and in the public interest to approve the rezoning plan because the proposed rezoning is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan. J. Davis seconded the motion. The motion passed unanimously (7-0).

See YouTube livestream link : https://www.youtube.com/watch?v=i2-cnKieFt4

PART 8: TOWN BOARD CONSIDERATION

Town Board consideration is scheduled for April 21, 2026

PART 9: ATTACHMENTS/ENCLOSURES

Attachments

- Rezoning Application
- R25-17 Rezoning Plan
- Neighborhood Meeting Report
- Engineering Report
- TIA Determination

PART 10: CONSISTENCY STATEMENT – R25-17 Glendale Dr Subdivision

Planning Department	Planning Board	Board of Commissioners
APPROVAL: In considering the proposed rezoning application R25-17 Glendale Dr Subdivision, staff recommends approval of the application with conditions. With conditions the application is consistent with Policies LU 1.1, LU 2.1, LU 9.1, and EOS 4 of the Huntersville 2040 Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because the proposed rezoning is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan.	APPROVAL: In considering the proposed rezoning application R25-17 Glendale Dr Subdivision, the Planning Board recommends approval of the application with conditions. With conditions the application is consistent with Policies LU 1.1, LU 2.1, LU 9.1, and EOS 4 of the Huntersville 2040 Plan. It is reasonable and in the public interest to amend the Zoning Ordinance because the proposed rezoning is consistent with the envisioned uses and development pattern set forth in the 2040 Community Plan.	APPROVAL: In considering the proposed rezoning application R25-17 Glendale Dr Subdivision, the Town Board recommends approval based on the Plan being consistent with **(insert applicable plan reference)**. **It is reasonable and in the public interest to approve the Rezoning Plan because… (Explain)**
DENIAL: N/A	DENIAL: N/A	DENIAL: In considering the proposed rezoning application R25-17 Glendale Dr Subdivision, the Town Board recommends denial based on the Plan being **(consistent OR inconsistent) with (insert applicable plan reference).** **It is not reasonable and in the public interest to approve the Rezoning Plan because… (Explain)**

dotloop signature verification: dtlp.us/0SKz-cNTs-nE5j

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

- ☐ Change of Use
- ☐ Commercial Site Plan
- ■ Conditional Rezoning
- ☐ General Rezoning
- ☐ Master Signage Program
- ☐ Special Use Permit
- ☐ Revision to
  Original Project # _____
- ☐ Other _____

SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance

- ☐ Sketch Plan
- ☐ Preliminary Plan
- ☐ Final Plat (Includes Minor Subdivision)
- ☐ Exempt Subdivision
- ☐ Final Plat Revision
- ☐ Farmhouse Cluster

2. Project Data

Date of Application 11/24/2025

Name of Project Glendale Dr. Subdivision Phase # (if subdivision) _____

Project Address 14600 Glendale Drive, Huntersville, NC 28078

Parcel Identification Number(s) (PIN) 01928207

Current Zoning District GR Proposed District (for rezoning only) NR (CD)

Property Size (acres) 1.066 Street Frontage (feet) 447' +/-

Current Land Use Residential

Proposed Land Use(s) Residential

Is the project within Huntersville's corporate limits?
Yes x No _____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Provide a detailed summary. (i.e. RTAP identify what you are revising). Additional sheets may be added.

Minor subdivision of 4 lots on 1.066 acres. This request requires a rezoning for a minor subdivision to allow the 4 lots due to the lot size.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

dotloop signature verification: dtlp.us/0SKz-cNTs-nE5j

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name W&A Engineering Phone 704-875-1615

☐ Corporation ■ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Jay A Henson

Title Director of Operations Email jhenson@waengineering.com

Address of Applicant 121 Gilead Road, Huntersville, NC 28078

7. Property Owner (if different than applicant)

*Printed Name Bernice Gibson Bruce Phone _____

☐ Corporation ☐ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Bernice Bruce dotloop verified 11/26/25 6:38 PM EST TS66-P2KY-GHJ4-KH6U

Title _____ Email _____

Address of Property Owner 110 Carr Road, Dallas, NC 28034

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

BDG Properties, LLC	Drew Bowman	704-609-6113	bowman31@gmail.com
Development Firm	Name of Contact	Phone	Email
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

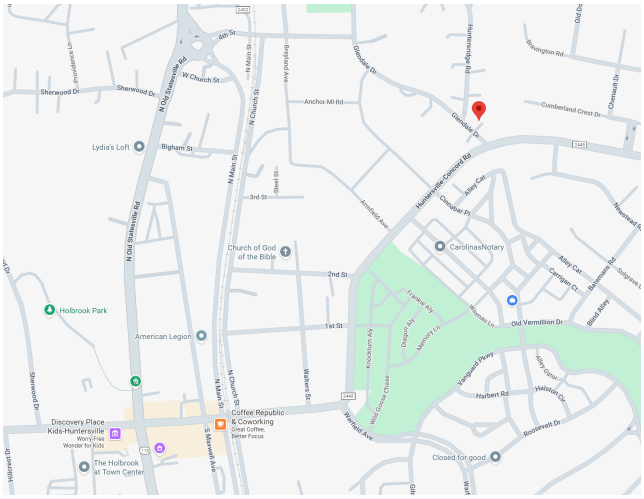
BOWMAN DEVELOPMENT GROUP

To: Property Owners Adjacent 14600 Glendale Drive
From: Robert Bowman, Bowman Development Group
Date: January 13, 2026
RE: Notice of public input meeting for a conditional rezoning of approximately +/- 1.066 acres from General Residential (GR) to Neighborhood Residential Conditional District (NR-CD).

Bowman Development Group is proposing to rezone the property located at 14600 Glendale Drive, Huntersville, NC 28078 from General Residential (GR) to Neighborhood Residential Conditional District (NR-CD) to allow for four single-family lots.

You are being notified of this neighborhood meeting because you own property adjacent to the subject rezoning and are invited to attend a public input meeting on Wednesday**, January 28, 2026 at 6 p.m. at the Huntersville Arts and Cultural Center, 14614 S Old Statesville Rd, Huntersville, NC 28078**. There will be an opportunity to ask questions about the proposed rezoning.

Enclosed, you will find the proposed rezoning plan. If you have questions about the meeting, please reach out to Whitney Hodges at whitneynhodges@gmail.com or 704-929-8396. You may also contact the Town of Huntersville Planning Department at 704-875-7000 for additional questions or visit the website for the project, https://huntersville.org/3433/Rezoning-R25-17-Glendale-Drive-Subdivisi



General Location Map

13815 Cinnabar Place • Huntersville • NC • 28078
704.875.9704

EXISTING HOUSE

N/F
PETER W NEUER
PARCEL ID:01928206
LOT 2
MB 21-960
DB 30418-520
GR ZONING

HUNTERS RIDGE ROAD
60' PUBLIC R/W

POTENTIAL DRIVEWAY LOCATION

NEW DITCH AND 15" DIA CULVERTS AT EACH DRIVEWAY

POTENTIAL DRIVEWAY LOCATION

DRIVEWAYS TO BE COORDINATED WITH POWER POLES AND ACCESS TO HUNTERS RIDGE. THERE IS A POTENTIAL FOR A SHARED DRIVEWAY IF NECESSARY

LOT 1
11,239.48 SF
0.258 AC

LOT 2
11,239.48 SF
0.258 AC

LOT 3
12,927.76 SF
0.297 AC

LOT 4
13,234.76 SF
0.305 AC

5' SETBACK
187.30'
186.74'
155.48'
76.51'+/-
BI RANGE 30-40'
25' REAR SETBACK
LIMITS OF DISTURBANCE 9 AC MAX
RESERVED R/W 40' FROM CL
SIDEWALK R/W

27" LOBLOLLY PINE
25" LOBLOLLY PINE
37" WILLOW OAK
27" WILLOW OAK
37" WILLOW OAK
30" SWAMP WHITE OAK
34" SWEET GUM

3 OAKS NOT COUNTED IN TREE SAVE CALCULATIONS BUT WILL BE SAVED IF POSSIBLE

2884 SF CANOPY SAVED
2149 SF CANOPY SAVED
4737 SF CANOPY SAVED

SPECIMEN TREE TO BE SAVED

N/F
RESIDENTIAL HOME
BUYER-E CHARLOITTE LLC
PARCEL ID:01926512
LOT 12
MB 28-243
DB 37335-619
GR ZONING

N/F
SARAH ANN ROGERS
PARCEL ID:01926511
LOT 11
MB 28-243
DB 26191-302
GR ZONING

N/F
EASTWOOD
DEVELOPMENT CORP
PARCEL ID:01926598
DB 18132-955
GR ZONING

CUMBERLAND
CREST
DRIVE

GLENDALE DRIVE
60' PUBLIC R/W

HUNTERSVILLE CONCORD ROAD
65' PUBLIC R/W

APPROXIMATE LOCATION (END OF PIPE NOT FOUND)

FES
IE: 793.44'

IE:794.02'

IE:781.89'

IE:781.21'

OVERHEAD POWER

EOP

DITCH

CL

TIE-LINE
L3

L1

L2

C1

C3

SITE DATA TABLE

PARCEL ID	01928207
LOCATION	14600 GLENDALE DRIVE
JURISDICTION	HUNTERSVILLE
OWNER	ANDREW STEVENSON GIBSON C/O BOWMAN DEV.
	110 CARR ROAD
	DALLAS, NC 28034
ZONING	EXISTING GR PROPOSED NR (CD)
TOTAL PARCEL AREA	1.066 AC
PROPOSED USE	SF RESIDENTIAL
PROPOSED BUILDING PRODUCT	SF DETACHED HOUSE
UNIT DENSITY	4 UNITS 4 UNITS / AC
MIN. FRONT / STREET SETBACK	30'
MIN. SIDE SETBACK	5'
MIN. REAR SETBACK	25'
MAX. BUILDING HEIGHT	-
MAX. NUMBER OF BUILDINGS	4 SF UNITS
PARKING SPACES REQUIRED	1.5 PER UNIT
PARKING SPACES PROVIDED	MIN 2 PER UNIT
REQUIRED OPEN SPACE	0
PROVIDED OPEN SPACE	0
REQUIRED TREE SAVE	10% OF CANOPY AND 10% SPECIMEN TREES
PROVIDED TREE SAVE	XXX
FEMA MAP NUMBER	3710465100K
FEMA MAP DATE	11/16/2018
SOIL TYPES	CeB2
TRASH COLLECTION	ROLLOUT CONTAINERS
BUFFER REQUIREMENTS	NO BUFFER

TREE SAVE REQUIREMENTS

TOTAL SPECIMEN TREES	7 TREES
TOTAL REQUIRED TO BE SAVED (10%)	1 TREE
TOTAL TREES SAVED	1 TREE
TOTAL TREE CANOPY AREA	38,606 SF
TOTAL TREE CANOPY REQUIRED (10% OF SITE 46,435 SF)	4643 SF
TOTAL TREE CANOPY SAVED	9770 SF 21% OF SITE



TREE CANOPY PLAN

POST CONSTRUCTION/WATER QUALITY

THIS PROJECT WILL COMPLY WITH THE TOWN OF HUNTERSVILLE POST CONSTRUCTION ORDINANCE-HOWEVER, WOULD BE EXEMPT PER 8.17.3 C) :

RESIDENTIAL DEVELOPMENT ACTIVITY THAT DISTURBS LESS THAN ONE ACRE OF LAND AND IS NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE, INCLUDING NEW DEVELOPMENT, REDEVELOPMENT OR EXPANSIONS, IS NOT SUBJECT TO THE PROVISIONS OF THIS ORDINANCE.

THIS PROJECT WILL DISTURB < 1 ACRE
NO DRAINAGE INFRASTRUCTURE TO OCCUR ACROSS LOTS
NO IMPERVIOUS LIMITS ON LOTS

NC ENGINEERING BOARD LICENSE #: P-2743
NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

W&A ENGINEERING
CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE
LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT
121 GILEAD RD
HUNTERSVILLE, NC 28078
P: (704) 875-1615
WAENGINEERING.COM

ALL DRAWINGS SHALL REMAIN THE PROPERTY OF W&A ENGINEERING. THESE INSTRUMENTS OF SERVICE ARE TO BE USED SOLELY FOR THIS SPECIFIC PROJECT. W&A ENGINEERING SHALL RETAIN ALL LEGAL RIGHTS TO THE USE OF THE INSTRUMENTS OF SERVICE AND SHALL RETAIN FULL PROTECTION UNDER UNITED STATES COPYRIGHT LAW.

N
W E
S
NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

GLENDALE DRIVE
14600 GLENDALE DRIVE
HUNTERSVILLE, NC
PARCEL ID#01928207
SITE PLAN

Know what's below. Call before you dig. 811

REVISIONS

11-24-25	1ST SUBMITTAL

INITIAL SUB. DATE: 11-24-25

ISSUANCE DATE: ####

W&A PROJECT #: XXXX

SITE PLAN

C-2

N:\25-00450 - Glendale Drive\DWG\Sheets\C03 - SITE PLAN.dwg 11-25-25 03:54:43 PM jhenson

Glendale Rezoning
Neighborhood Meeting Summary
January 28, 2026 | 6 pm
Huntersville Arts and Cultural Center

The meeting began at 6:01 pm and was shared via Teams. The attendance list is attached. Presenting from Bowman Development Group were Nate Bowman and Whitney Hodges. Patrick Patterson was present from the Town's Planning Department.

Bowan Development Group proposes to rezone the parcel at the corner of Glendale Drive and Huntersville-Concord Road from General Residential (GR) to Neighborhood Residential (NR). The GR zone was applied to the property in 1996 to match Mecklenburg County zoning at the time, with the intent that parcels would be rezoned as development occurs. The GR allows 20,000 sq ft lots that are 90 feet wide. The proposed rezoning would subdivide the 1.066 acres into four lots, each approximately 60 feet wide lots. The rezoning proposes incremental density and aligns with the Town's intent to add density within the core to support transit and downtown activities.

Neighborhood Concerns and Property Lines

- Mr. Bowman stated that the plan is to preserve as many trees as possible and connect to existing water and sewer services. The proposed builder, Brookline Homes, intends for the new homes to have the same look and character of the newer construction in the area.
- Mr. Neuer, an adjoining property owner, expressed concerns regarding potential impacts to existing trees and the proximity of proposed homes to his property line. Mr. Bowman suggested meeting on site after the snow melts to review these concerns.
- One attendee asked about restrictive covenants, emphasizing the importance of maintaining neighborhood character. Mr. Bowman noted that the lots would be part of the Vermillion Homeowners Association.
- Additional concerns were raised regarding potential impacts on property values and the adequacy of neighborhood infrastructure. One attendee expressed concern that the Town was forcing development around the neighborhood.
- Mr. Bowman noted previous efforts to attract a grocery store to this side of Huntersville-Concord Road.

Traffic Concerns

- Attendees expressed concerns about increased density and potential traffic impacts, including driveway safety and effects on the surrounding neighborhood.
- Mr. Bowman stated that driveway access would require approval from the North Carolina Department of Transportation (NCDOT) and that a traffic scoping report would be submitted to the Town.
- Concerns were raised about delays when turning from Glendale Drive onto Huntersville-Concord Road and safety issues related to children waiting for school buses.

Mr. Bowman collected email addresses of anyone wanting more information. The meeting ended at 6:45 pm.



VICINITY MAP
SCALE: N.T.S.

REZONING PLANS FOR:
PROPOSED

GLENDALE DR. SUBDIVISION
HUNTERSVILLE, NC

SHEET LIST

C1-COVER SHEET
C2-SURVEY
C3-SITE PLAN

DEVELOPER:
BOWMAN DEVELOPMENT
13815 CINNABAR PLACE
HUNTERSVILLE, NC 28078

REZONING NUMBER R25-17
ACCELA # CSP-500119

OWNER:
ANDREW STEVENSON GIBSON
110 CARR ROAD
DALLAS, NC 28034

MECKLENBURG COUNTY
FIRE MARSHAL'S OFFICE
LAND DEVELOPMENT PLAN REVIEW CHECKLIST

The Mecklenburg County Fire Marshal's Office reviews land development drawings that are submitted thru the land development review process for the incorporated towns and their extra territorial jurisdiction (ETJ) areas. All land development drawings are reviewed for the following code requirements in the sketch and construction submittals:

Road Width – Minimum 20 feet or per North Carolina Department of Transportation (NCDOT).

Fire Apparatus Turning Radius – 30 feet inner, 42 feet outer.

Templates SB-30 (Engines) and B-40 (Ladder Trucks) are used and all drawings shall be scaled no smaller than 1:60.

Water Utilities – Water lines and/or fire hydrant locations.

Fire hydrants required within 400 feet of any new structure. Exception: R3 and U occupancies or where structure has an approved sprinkler system distant requirement shall be 600 feet.

Dead-End Roads – Maximum length of any dead-end road shall be 150 feet without an approved fire apparatus turn around.

Road Surfaces – All roads/commercial driveways for fire apparatus access shall be capable to support the imposed load of an 85,000 LBS

811 Know what's below. Call before you dig.

NC ENGINEERING BOARD LICENSE #: P-2743
NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

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GLENDALE DRIVE
14600 GLENDALE DRIVE
HUNTERSVILLE, NC
PARCEL ID#01928207

Know what's below. Call before you dig. 811

REVISIONS

11-24-25	1ST SUBMITTAL
1-5-26	2ND SUBMITTAL
2-24-26	SUBMITTAL FOR PLANNING BOARD
03-16-26	3 LOTS

INITIAL SUB. DATE: 11-24-25

ISSUANCE DATE: 1-30-26

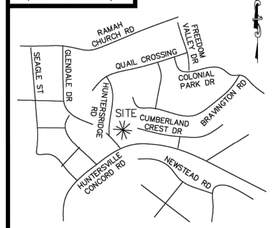
W&A PROJECT #: XXXX

COVER

C000

N:\25-00450 - Glendale Drive\DWG\Sheets\C01 - COVER.dwg 3-16-26 08:34:08 AM jhenson

VICINITY MAP
(NOT TO SCALE)



LINETYPE LEGEND

BOUNDARY LINE	
BOUNDARY TIE LINE	
ADJOINING BOUNDARY LINE (NOT SURVEYED)	
RIGHT-OF-WAY	
OLD LOT LINE	
OVERHEAD UTILITY LINE	
WOOD & WIRE FENCE LINE	
WOOD FENCE LINE	
SIGHT TRIANGLE	

SYMBOL LEGEND

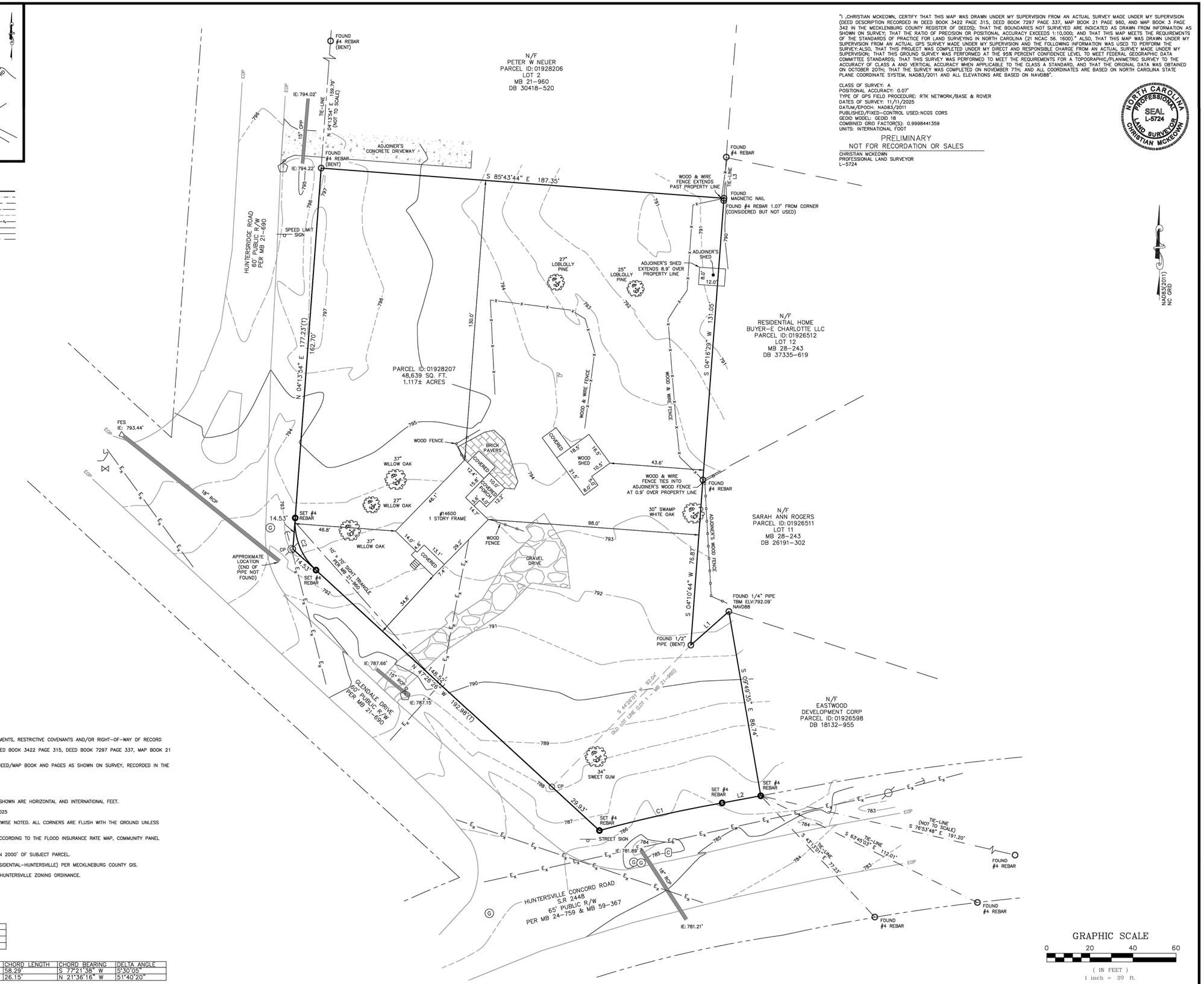
FOUND	
SET	
CALCULATED POINT	
UTILITY POLE	
GUY WIRE	
COMMUNICATIONS VAULT	
GAS VALVE	
SIGN	
WATER VALVE	
FLAG	
TREE	
MAILBOX	

NOTATION LEGEND

CP	CALUCLATED POINT
CPP	CORRUGATED PLASTIC PIPE
DB	DEED BOOK
EOP	EDGE OF PAVEMENT
FES	FLARED END SECTION
IE	INVERT ELEVATION
MB	MAP BOOK
N/F	NOW OR FORMERLY
PG	PAGE
RCP	REINFORCED CONCRETE PIPE
R/W	RIGHT-OF-WAY
SQ. FT.	SQUARE FOOT
S.R	STATE ROAD
(T)	TOTAL

HATCHING LEGEND

BRICK PAVERS
STORM DRAIN PIPE
GRAVEL
CONCRETE



GRAPHIC SCALE
0 20 40 60
(IN FEET)
1 inch = 20 ft.

SURVEYOR NOTES:

THIS PROPERTY MAY BE SUBJECT TO ANY EASEMENTS, RESTRICTIVE COVENANTS AND/OR RIGHT-OF-WAY OF RECORD

SUBJECT BOUNDARY INFORMATION BASED ON DEED BOOK 3422 PAGE 315, DEED BOOK 7297 PAGE 337, MAP BOOK 21 PAGE 960, AND MAP BOOK 3 PAGE 342.

ADJOINING BOUNDARY INFORMATION BASED ON DEED/MAP BOOK AND PAGES AS SHOWN ON SURVEY, RECORDED IN THE MECKLENBURG COUNTY REGISTER OF DEEDS.

BASIS OF BEARINGS: NC GRID NAD 83/2011

VERTICAL DATUM: NAVD88

AREA BY COORDINATE METHOD. ALL DISTANCES SHOWN ARE HORIZONTAL AND INTERNATIONAL FEET.

DATE OF FIELD SURVEY: 10/20/2025-11/07/2025

#4 REBARS SET AT ALL CORNER UNLESS OTHERWISE NOTED. ALL CORNERS ARE FLUSH WITH THE GROUND UNLESS OTHERWISE NOTED.

THIS PROPERTY IS LOCATED WITHIN ZONE "X" ACCORDING TO THE FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NUMBER 3710465100K, DATED 11/16/2018.

NO NCGS OR USGS MONUMENTS LOCATED WITHIN 2000' OF SUBJECT PARCEL.

SUBJECT PROPERTY IS ZONED GR (GENERAL RESIDENTIAL-HUNTERSVILLE) PER MECKLENBURG COUNTY GIS.

SETBACKS ARE LISTED PER CURRENT TOWN OF HUNTERSVILLE ZONING ORDINANCE.

40' SETBACK
20' STREET SIDEYARD
10' SIDEYARD
50' REARYARD

LINE	BEARING	DISTANCE
L1	N 48°29'55" E	23.51'
L2	S 79°30'05" W	18.23'
L3	N 03°07'19" E	19.04'

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING	DELTA ANGLE
C1	607.35'	58.32'	58.29'	S 77°21'38" W	5°30'05"
C2	30.00'	27.06'	26.15'	N 21°36'16" W	51°40'20"

"I ,CHRISTIAN MCKEOWN, CERTIFY THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN DEED BOOK 3422 PAGE 315, DEED BOOK 7297 PAGE 337, MAP BOOK 21 PAGE 960, AND MAP BOOK 3 PAGE 342 IN THE MECKLENBURG COUNTY REGISTER OF DEEDS); THAT THE BOUNDARIES NOT SURVEYED ARE INDICATED AS DRAWN FROM INFORMATION AS SHOWN ON SURVEY; THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY EXCEEDS 1:10,000; AND THAT THIS MAP MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR LAND SURVEYING IN NORTH CAROLINA (21 NCAC 56. 1600)." ALSO, THAT THIS MAP WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL GPS SURVEY MADE UNDER MY SUPERVISION AND THE FOLLOWING INFORMATION WAS USED TO PERFORM THE SURVEY: ALSO, THAT THIS PROJECT WAS COMPLETED UNDER MY DIRECT AND RESPONSIBLE CHARGE FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION; THAT THIS GROUND SURVEY WAS PERFORMED AT THE 95% PERCENT CONFIDENCE LEVEL TO MEET FEDERAL GEOGRAPHIC DATA COMMITTEE STANDARDS; THAT THIS SURVEY WAS PERFORMED TO MEET THE REQUIREMENTS FOR A TOPOGRAPHIC/PLANIMETRIC SURVEY TO THE ACCURACY OF CLASS A AND VERTICAL ACCURACY WHEN APPLICABLE TO THE CLASS A STANDARD, AND THAT THE ORIGINAL DATA WAS OBTAINED ON OCTOBER 20TH; THAT THE SURVEY WAS COMPLETED ON NOVEMBER 7TH; AND ALL COORDINATES ARE BASED ON NORTH CAROLINA STATE PLANE COORDINATE SYSTEM, NAD83/2011 AND ALL ELEVATIONS ARE BASED ON NAVD88".

CLASS OF SURVEY: A
POSITIONAL ACCURACY: 0.07'
TYPE OF GPS FIELD PROCEDURE: RTK NETWORK/BASE & ROVER
DATES OF SURVEY: 11/11/2025
DATUM/EPOCH: NAD83/2011
PUBLISHED/FIXED-CONTROL USED:NCGS CORS
GEOID MODEL: GEOID 18
COMBINED GRID FACTOR(S): 0.9998441359
UNITS: INTERNATIONAL FOOT

PRELIMINARY
NOT FOR RECORDATION OR SALES

CHRISTIAN MCKEOWN
PROFESSIONAL LAND SURVEYOR
L-5724

NORTH CAROLINA PROFESSIONAL SEAL L-5724 LAND SURVEYOR CHRISTIAN MCKEOWN

DELTA LAND SERVICES, INC.
NC FIRM LICENSE #C-735
608 MATTHEWS-MINT HILL ROAD
SUITE G
MATTHEWS, NC 28105
T 704. 847.4700
www.deltalandservices.net

SEAL:

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERING AND SURVEYING
DELTA LAND SERVICES, INC.
NO. C-735
CERTIFICATE OF AUTHORIZATION

PREPARED FOR:
BOWMAN DEVELOPMENT GROUP

ADDRESS:
13815 CINNABAR PL,
HUNTERSVILLE, NC 28078

OWNER(S):
ANDREW STEVENSON GIBSON
DEED BOOK 3422 PAGE 315

ADDRESS:
110 CARR RD,
DALLAS NC 28034

BOUNDARY/TOPOGRAPHIC SURVEY
PARCEL ID#:01928207
HUNTERSVILLE TOWNSHIP
MECKLENBURG COUNTY, NORTH CAROLINA

SHEET NUMBER:

SHEET 1 0F 1

PROJECT NAME:

14600 GLENDALE DRIVE - HUNTERSVILLE

DRAWN BY: CCM	DATE: 11/11/2025
CHECKED BY: TMG	SCALE : 1" = 20'

REVISION NO:	DATE:

DRAWING TITLE:

14600 GLENDALE DRIVE - BOUNDARY/TOPO.DWG

C 01

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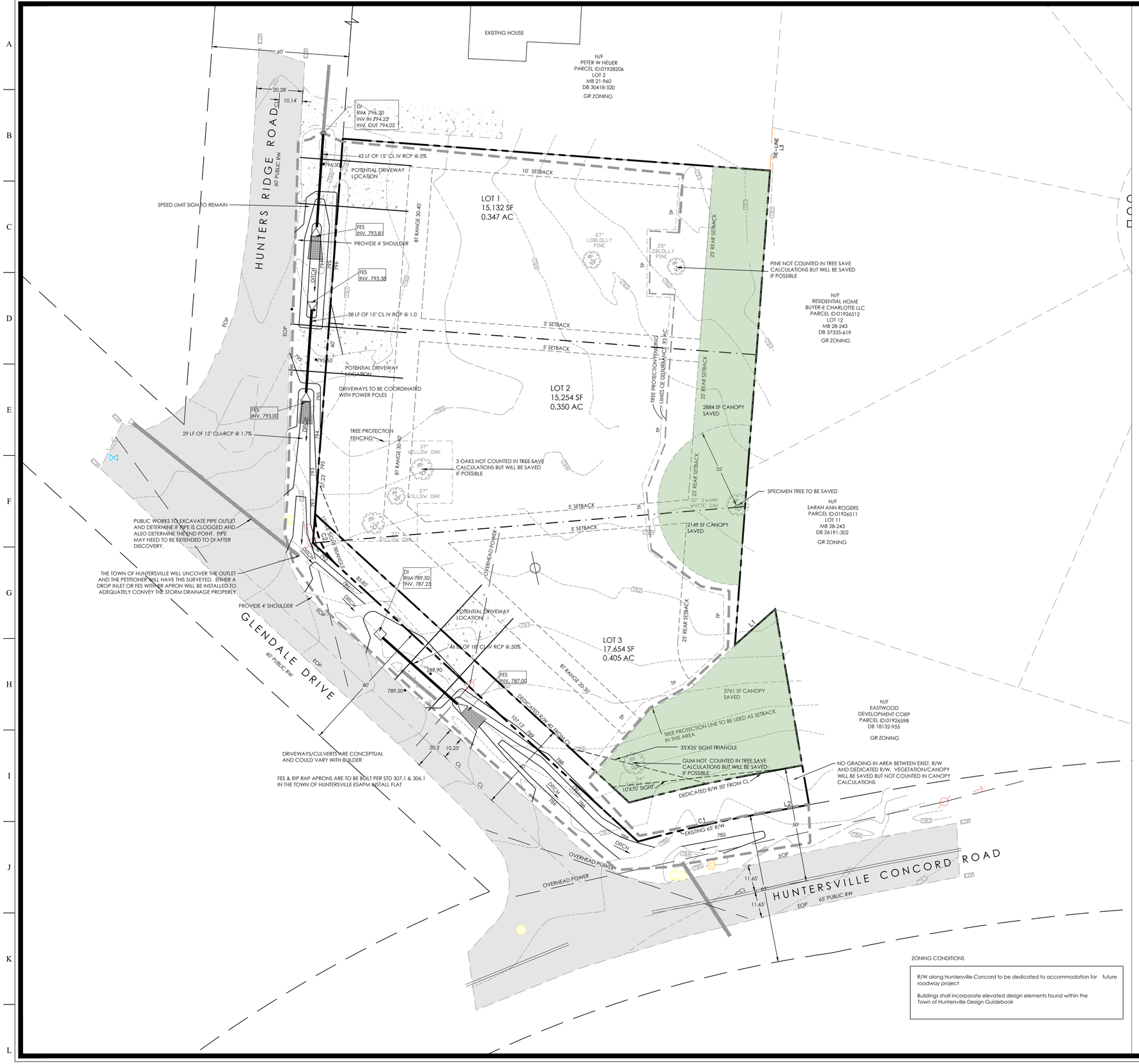

SITE DATA TABLE

PARCEL ID	01928207
LOCATION	14600 GLENDALE DRIVE
JURISDICTION	HUNTERSVILLE
OWNER	ANDREW STEVENSON GIBSON C/O BOWMAN DEV.
	110 CARR ROAD
	DALLAS, NC 28034
ZONING	EXISTING GR PROPOSED NR (CD)
TOTAL PARCEL AREA	1.066 AC
PROPOSED USE	SF RESIDENTIAL
PROPOSED BUILDING PRODUCT	SF DETACHED HOUSE
UNIT DENSITY	3 UNITS 3 UNITS / AC
BUILD TO LINE	30'-40'
MIN. SIDE SETBACK	5'-10' SEE PLAN
MIN. REAR SETBACK	25'
MAX. BUILDING HEIGHT	-
MAX. NUMBER OF BUILDINGS	4 UNITS
PARKING SPACES REQUIRED	1.5 PER UNIT
PARKING SPACES PROVIDED	MIN 2 PER UNIT
REQUIRED TREE SAVE	10% OF CANOPY AND 10% SPECIMEN TREES
PROVIDED TREE SAVE	SEE BELOW
FEMA MAP NUMBER	3710465100K
FEMA MAP DATE	11/16/2018
SOIL TYPES	CeB2
TRASH COLLECTION	ROLLOUT CONTAINERS
BUFFER REQUIREMENTS	NO BUFFER

TREE SAVE REQUIREMENTS

TOTAL SPECIMEN TREES	7 TREES
TOTAL REQUIRED TO BE SAVED (10%)	1 TREE
TOTAL TREES SAVED	1 TREE
TOTAL TREE CANOPY AREA	38,606 SF
TOTAL TREE CANOPY REQUIRED (10% OF SITE 48,639 SF)	4863 SF
TOTAL TREE CANOPY SAVED	8794 SF 18% OF SITE



TREE CANOPY PLAN

POST CONSTRUCTION/WATER QUALITY

THIS PROJECT WILL COMPLY WITH THE TOWN OF HUNTERSVILLE POST CONSTRUCTION ORDINANCE-HOWEVER, WOULD BE EXEMPT PER 8.17.3 C) :

RESIDENTIAL DEVELOPMENT ACTIVITY THAT DISTURBS LESS THAN ONE ACRE OF LAND AND IS NOT PART OF A LARGER COMMON PLAN OF DEVELOPMENT OR SALE, INCLUDING NEW DEVELOPMENT, REDEVELOPMENT OR EXPANSIONS, IS NOT SUBJECT TO THE PROVISIONS OF THIS ORDINANCE.

THIS PROJECT WILL DISTURB < 1 ACRE
NO NEW DRAINGE INFRASTRUCTURE OR NEW DRAINAGE EASEMENTS SHALL BE CREATED THOUGH LOTS
NO IMPERVIOUS LIMITS ON LOTS

ZONING CONDITIONS

R/W along Huntersville-Concord to be dedicated to accommodation for future roadway project

Buildings shall incorporate elevated design elements found within the Town of Huntersville Design Guidebook

NC ENGINEERING BOARD LICENSE #: P-2743
NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

W&A ENGINEERING
CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE
LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT
121 GILEAD RD
HUNTERSVILLE, NC 28078
P: (704) 875-1615
WAENGINEERING.COM

ALL DRAWINGS SHALL REMAIN THE PROPERTY OF W&A ENGINEERING. THESE INSTRUMENTS OF SERVICE ARE TO BE USED SOLELY FOR THIS SPECIFIC PROJECT. W&A ENGINEERING SHALL RETAIN ALL LEGAL RIGHTS TO THE USE OF THE INSTRUMENTS OF SERVICE AND SHALL RETAIN FULL PROTECTION UNDER UNITED STATES COPYRIGHT LAW.

N
W E
S
NORTH ARROW
0 10 20 40
GRAPHIC SCALE 1"=20 FT.

GLENDALE DRIVE
14600 GLENDALE DRIVE
HUNTERSVILLE, NC
PARCEL ID#01928207
SITE PLAN

Know what's below. Call before you dig. 811

REVISIONS

11-24-25	1ST SUBMITTAL
1-5-26	2ND SUBMITTAL
2-24-26	SUBMITTAL FOR PLANNING BOARD
03-16-26	3 LOTS

INITIAL SUB. DATE: 11-24-25
ISSUANCE DATE: 1-30-26

W&A PROJECT #: XXXX

SITE PLAN

C-2

N:\25-00450 - Glendale Drive\DWG\Sheets\C03 - SITE PLAN.dwg 3-16-26 08:36:13 AM jhenson

Town of Huntersville
NORTH CAROLINA

Traffic Impact Analysis (TIA)
Application for Determination of TIA Need

Article 14.2 of the Zoning Ordinance requires that a Traffic Impact Analysis (TIA) be performed for any residential subdivision, multifamily site plan, or non-residential development, or portion thereof, which is expected to create one hundred (150) or more peak hour vehicle trips or 1,500 or more daily trips.

In order to determine whether a TIA will be required for your proposed development, please fill out the form below and submit to the Planning Department. A "Determination of TIA Need" will be made within 10 working days.

Applicant: BDG PROPERTIES LLC

Project Name: GLENDALE DR 4 LOT MINOR SUBDIVISION

Project Address: 14600 GLENDALE DR

Project Description (including square footage for each proposed land use):
Minor Subdivision of a 1.066 acre parcel into 4 lots.

Applicant

Printed Name BDG PROPERTIES LLC Phone 704-875-9704

☐ Corporation ☑ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

Signature _____

Title ROBERT BOWMAN - MANAGER Email BOWMAN31@GMAIL.COM

Contact Information

Town of Huntersville Engineering Department
(704) 766 - 2220

For Town Staff Use Only

Project File # _____

Date Submitted 12/2/25

Daily Trips Anticipated 36

Peak Hour Trips Anticipated AM 3 **PM** 4

TIA Required (Yes/No) No

Date of Determination: 12/9/25

Comments: Determination based on 4 single family detached housing units.

Town Engineering Rezoning Comment Summary
R25-17 Glendale Dr Subdivision
14600 Glendale Dr.
Huntersville, NC 28078

General Project Information

This proposed rezoning is located at the Northeast corner parcel of Glendale Dr. & Huntersville-Concord Rd. This rezoning plans the subdivision of three (3) single family lots with residential driveway connections along Glendale Dr. & Huntersridge Rd. This project does not meet the disturbed acreage threshold required to trigger the post construction ordinance and thus is not subject to stormwater and/or water quality requirements.

Engineering Staff Comments

Traffic Impact Analysis (TIA):

1) A TIA was not required as part of this proposed rezoning due to not meeting trip generation thresholds.

Site Plan Comments:

1) Both 35'X35' & 10'X70' triangular maintenance easements need to be provided on the subject parcel at the intersection of Glendale Dr. and Huntersville-Concord Rd. per Town of Huntersville ESAPM II B.10.
2) A 15'X15' triangular maintenance easement needs to be provided on the subject parcel at the intersection of Glendale Dr. and Huntersridge Rd. per Town of Huntersville ESAPM II B.10.

   UPDATE The triangular maintenance easements are now shown. No further comments.

STONEFIELD - CHLT

CHARLOTTE

(MODEL #1635)

DRB HOMES

SHEET INDEX

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A1.3.1 – 7	REAR ELEVATIONS, ELEV. 1 – 7
A1.4.1 – 7	SIDE ELEVATIONS, ELEV. 1 – 7
A1.5.1 – 7	ROOF PLANS, ELEV. 1 – 7
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A3.0.1	BASEMENT FLOOR PLAN, OPTIONS
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A6.1.1 – 2	SECTIONS
D1.1 –	STANDARD DETAILS –
K1.1.1	CABINET LAYOUTS
E3.0.1	BASEMENT ELECTRICAL PLANS
E3.1.1 – 3	FIRST FLOOR ELECTRICAL PLAN
E3.2.1	SECOND FLOOR ELECTRICAL PLANS

AREA CALCULATIONS

BASE HOUSE	
FIRST FLOOR 1	1542 SQ. FT.
SECOND FLOOR 1	1616 SQ. FT.
TOTAL 1 ELEVATIONS	3158 SQ. FT.
PORCH 1	103 SQ. FT.
FIRST FLOOR 2	1572 SQ. FT.
SECOND FLOOR 2	1646 SQ. FT.
TOTAL 2 ELEVATION	3218 SQ. FT.
PORCH 2	145 SQ. FT.
FIRST FLOOR 3	1561 SQ. FT.
SECOND FLOOR 3	1647 SQ. FT.
TOTAL 3 ELEVATION	3208 SQ. FT.
PORCH 3	17 SQ. FT.
FIRST FLOOR 4	1552 SQ. FT.
SECOND FLOOR 4	1624 SQ. FT.
TOTAL 4 ELEVATION	3176 SQ. FT.
PORCH 4	142 SQ. FT.
FIRST FLOOR 5	1544 SQ. FT.
SECOND FLOOR 5	1652 SQ. FT.
TOTAL 5 ELEVATION	3196 SQ. FT.
PORCH 5	222 SQ. FT.
FIRST FLOOR 6	1578 SQ. FT.
SECOND FLOOR 6	1686 SQ. FT.
TOTAL 6 ELEVATION	3264 SQ. FT.
PORCH 6	17 SQ. FT.
FIRST FLOOR 7	1542 SQ. FT.
SECOND FLOOR 7	1622 SQ. FT.
TOTAL 7 ELEVATION	3164 SQ. FT.
PORCH 7	214 SQ. FT.
GARAGE	496 SQ. FT.
OPT. 3–CAR GARAGE	264 SQ. FT.
UNFINISHED BASEMENT	1473 SQ. FT.
OPT. EXT. KITCHEN/BREAKFAST	93 SQ. FT.
OPT. EXT. OWNER'S SUITE	93 SQ. FT.
OPT. MORNING RM	140 SQ. FT.

AREA CALCULATIONS CONTINUED

OPT. SUNROOM	160 SQ. FT.
OPT. SCREENED PORCH	160 SQ. FT.
OPT. FINISHED BASEMENT	1411 SQ. FT.
OPT. REAR SCREENED PORCH	144 SQ. FT.
OPT. 3 CAR GARAGE	234 SQ. FT.

GENERAL REVISIONS

#	DATE	DESCRIPTION
1–CHLT	01–29–19	RELEASE OF CHARLOTTE DIVISION SPECIFIC SET BASED ON SOUTH REV. 18
	10–10–19	UPDATED ELECTRICAL
2–CHLT	11–04–19	REVISED TO ADD DECK AND STEMWALL W/BRICK PERIMETER
	11–07–19	UPDATED/CORRECTED STEMWALL ELEVATIONS TO HAVE RAISED FOUNDATION UNDER SIDE PORCH AND CORRECTED ALL STAIRS
	07–02–20	REVISED BASEMENT WINDOWS DIMENSIONS TO MATCH FLEX ROOM
		ABOVE
	10–06–21	SHOW LIGHT FIXTURES CENTERED ABOVE SINKS
		SHOW FIXTURE AS DASHED ABOVE OPTIONAL SINK @ BATH 2
	03–08–22	CHANGED CRAWL SPACE DIMENSIONS TO 3'–0"
		REMOVED DIMENSIONS SHOWING 1ST FLOORING DEPTH ON BASEMENT
		ELEVATIONS
	06–03–22	CHANGED VALET AND BUTLER'S PANTRY TO OPTION
	05–12–25	UPDATED ELECTRICAL: ADDED PUCK LIGHTS ILO FIXTURES

NOTES:

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- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
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- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.

KEY NOTES:

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3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
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6. NAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY, SEE DETAIL.
16. 8" SOLDIER COURSE.
17. ROWLOCK COURSE
18. STONE SILL/WATERTABLE.
19. SMOOTH PANEL SIDING.

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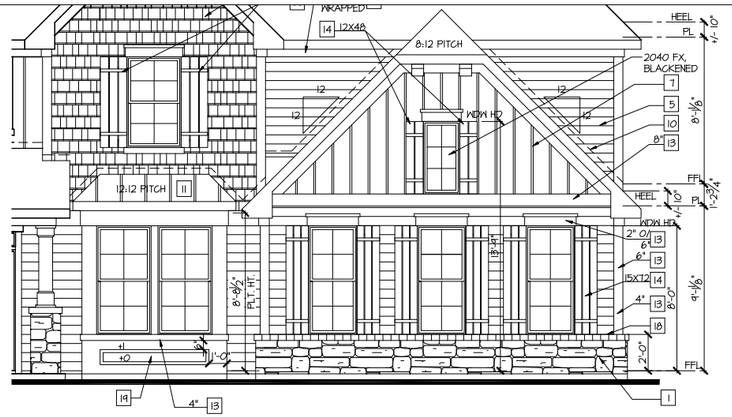
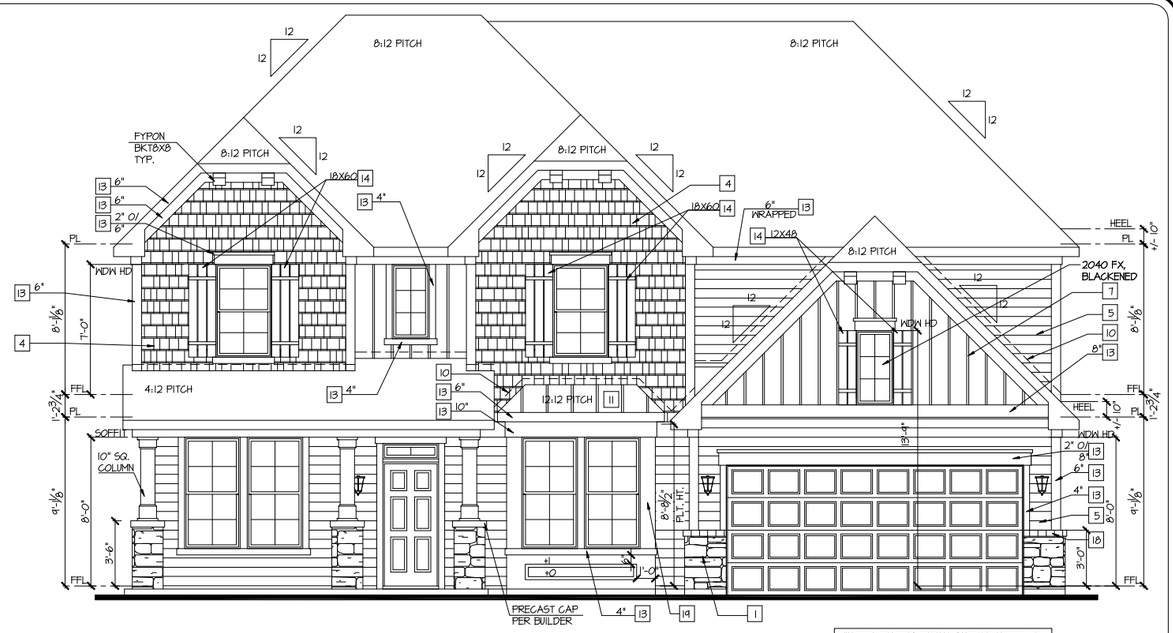


Front Elevation #4

ELEVATION OPT. #23025
SIDE LOAD GARAGE OPT. #25845

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

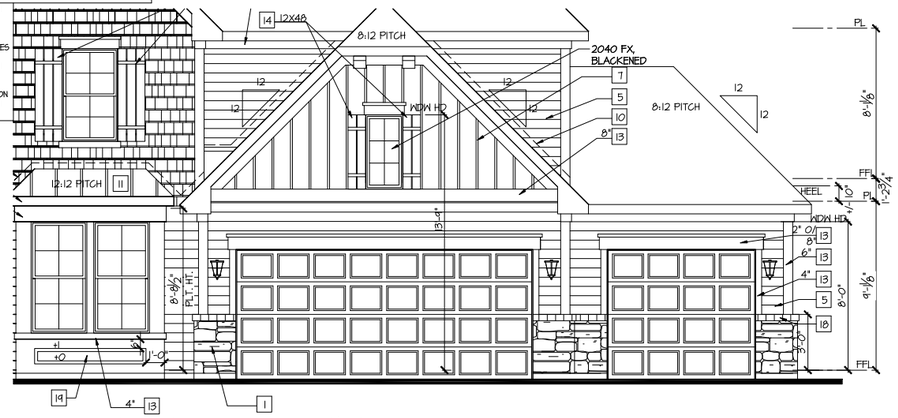


Front Elevation #4

ELEVATION OPT. #23025
SLAB OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

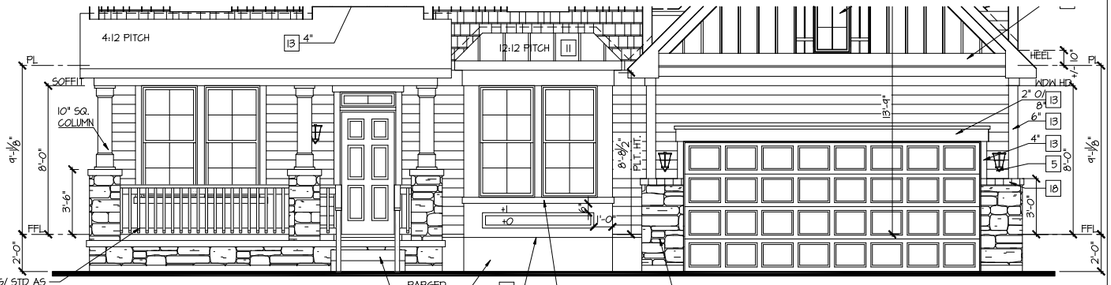
WINDOW GRID PATTERNS AND FRONT DOOR STYLE BY DIVISION, CHECK DIVISION SPECS FOR DETAILS



Front Elevation #4

ELEVATION OPT. #23025
GARAGE 3-CAR FRONT ENTRY OPT. #25855

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



OPT. RAILING/ STD AS REQ'D BY CODE

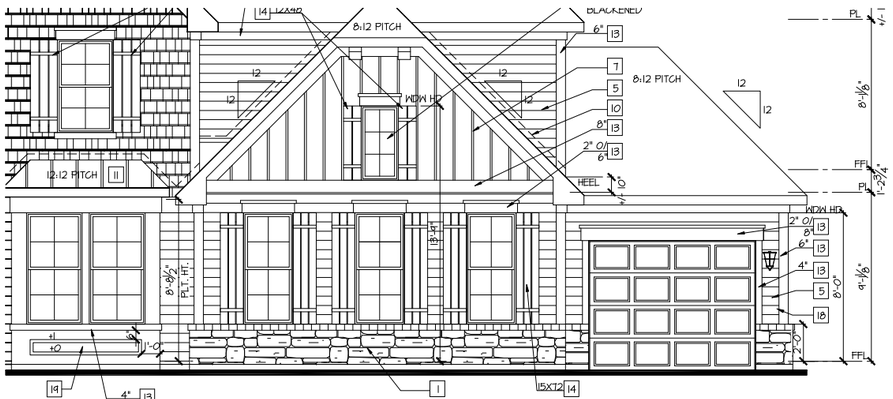
ELEV. SHOWN W/ 4 BLOCK STEM FOUNDATION (3 EXPOSED / 1 BURIED) AND 14" FLOOR SYS..

Front Elevation #4

ELEVATION OPT. #23025
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

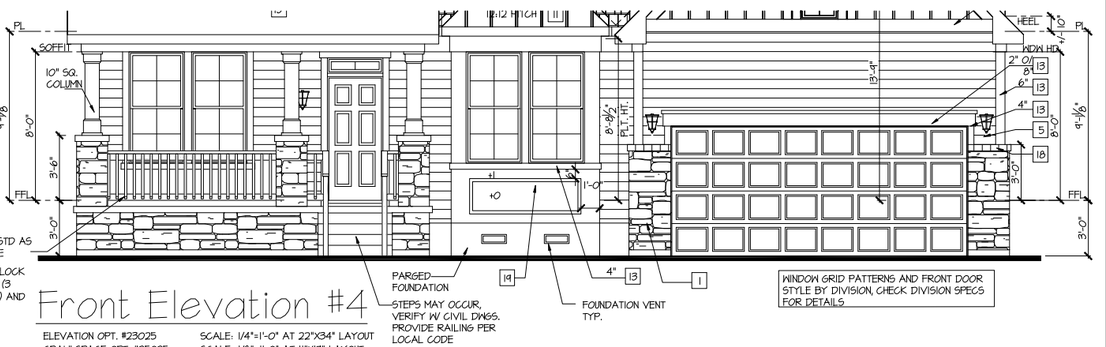
WINDOW GRID PATTERNS AND FRONT DOOR STYLE BY DIVISION, CHECK DIVISION SPECS FOR DETAILS



Front Elevation #4

ELEVATION OPT. #23025
3-CAR GARAGE W/ SIDE LOAD OPT. #25865

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



OPT. RAILING/ STD AS REQ'D BY CODE

ELEV. SHOWN W/ 4 BLOCK CRAWL FOUNDATION (3 EXPOSED / 1 BURIED) AND 14" FLOOR SYS..

Front Elevation #4

ELEVATION OPT. #23025
CRAWLSPACE OPT. #25025
BASEMENT OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

WINDOW GRID PATTERNS AND FRONT DOOR STYLE BY DIVISION, CHECK DIVISION SPECS FOR DETAILS

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

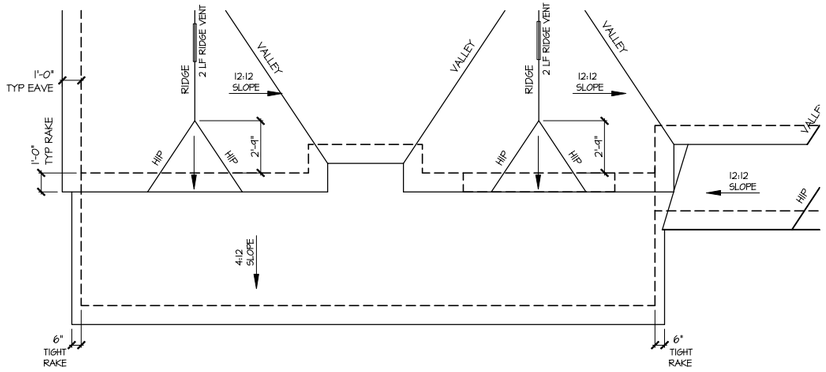
24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

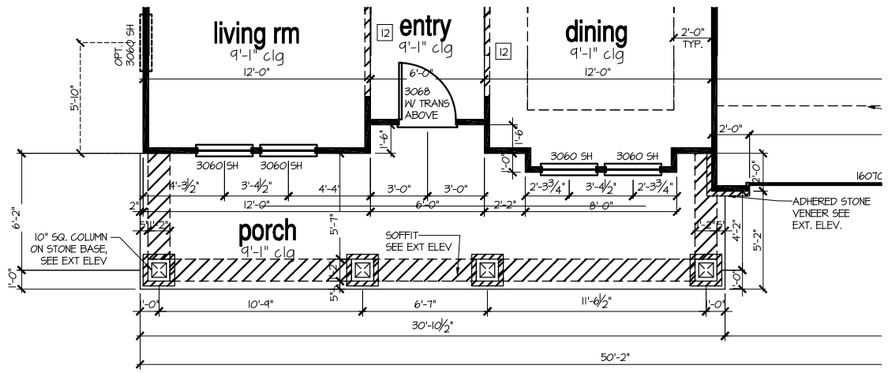
DRAWING TITLE: FRONT ELEVATION 4

SHEET No. A1.1.4



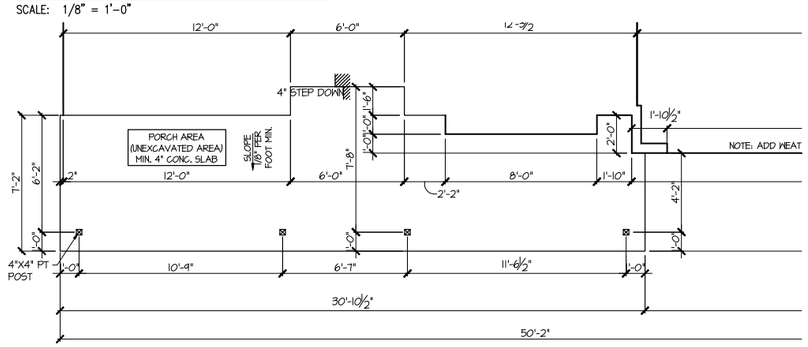
PARTIAL ROOF PLAN
OPT. EXTENDED FRONT PORCH
ELEVATION 4

SCALE: 1/8" = 1'-0"



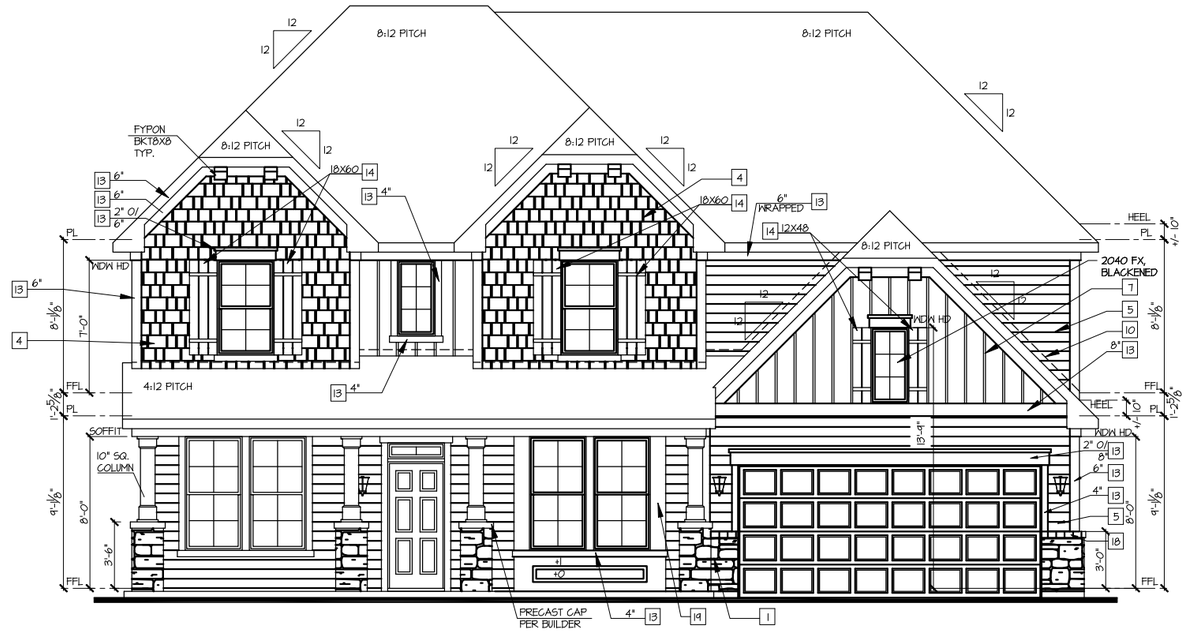
PARTIAL FIRST FLOOR PLAN
OPT. EXTENDED FRONT PORCH
ELEVATION 4

SCALE: 1/8" = 1'-0"



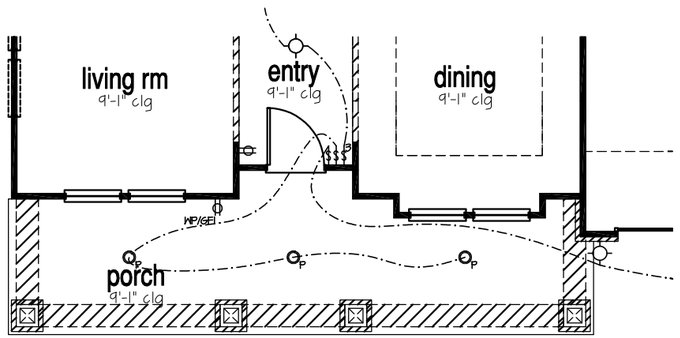
PARTIAL SLAB
OPT. EXTENDED FRONT PORCH
ELEVATION 4

SCALE: 1/8" = 1'-0"



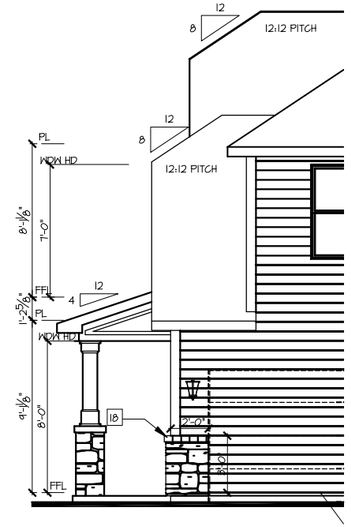
OPT. EXTENDED FRONT PORCH
FRONT ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL ELECTRICAL PLAN
OPT. EXTENDED FRONT PORCH
ELEVATION 4

SCALE: 1/8" = 1'-0"



OPT. EXTENDED FRONT PORCH
PARTIAL RIGHT SIDE ELEV. 4

SCALE: 1/8" = 1'-0"

FILE: stonefield opt full front porch 12-10-19.dwg DATE: 5/25/2021 9:05 AM

DATE	CHANGE

DRAWN BY: G. NEWELL
DATE: 12/4/19
PLAN NO. 1635

DRB GROUP

HOUSE NAME: STONEFIELD
DRAWING TITLE: OPT. FRONT PORCH - ELEV. 4

SHEET No. A1.1.4.1

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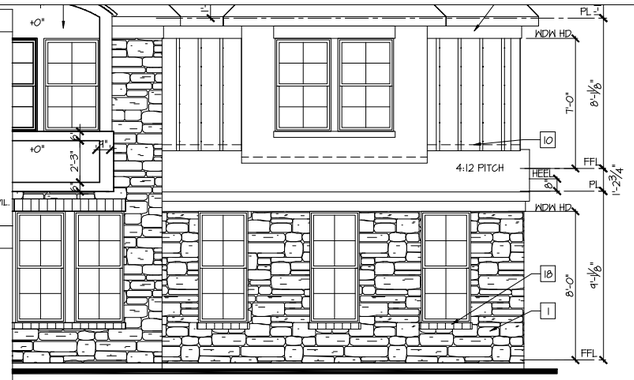
19. SMOOTH PANEL SIDING.

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW MUST HAVE WINDOW OPENING CONTROLLING DEVICES COMPLYING WITH THE NORTH CAROLINA RESIDENTIAL CODE SECTION R312.2. WINDOW FALL PROTECTION IS NOT REQUIRED IF PROJECT IS BUILT IN SOUTH CAROLINA. PER SOUTH CAROLINA 2018 IRC MODIFICATION SECTION R312.2 WINDOW FALL PROCTECTION DELETED IN SOUTH CAROLINA



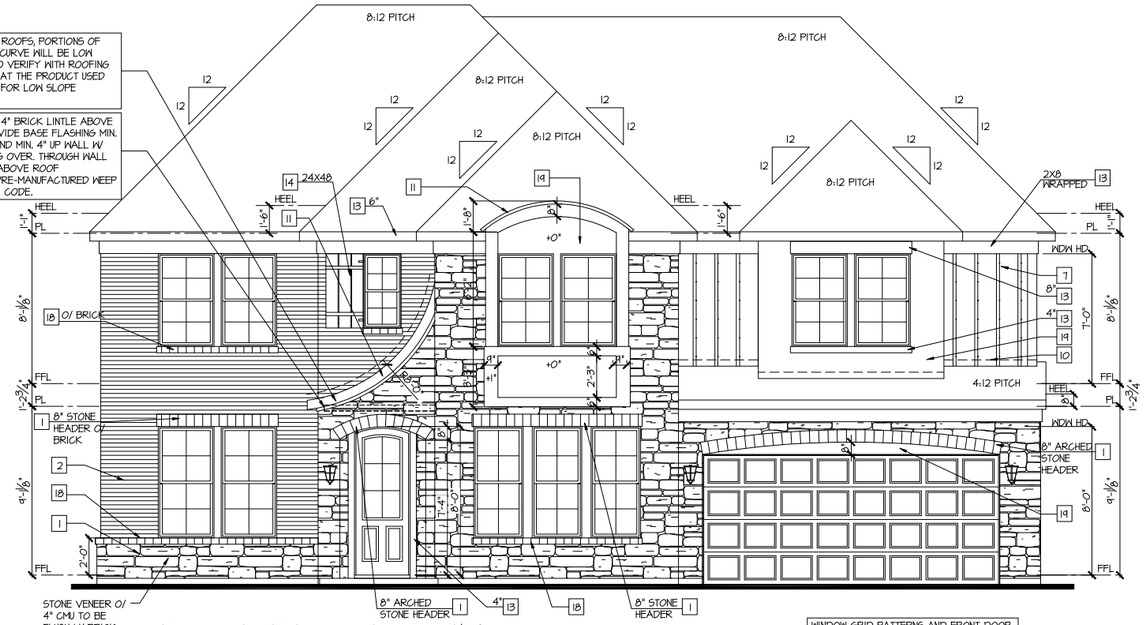
Front Elevation #6

ELEVATION OPT. #23045
SIDE LOAD GARAGE OPT. #25845

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

NOTE: AT CURVED ROOFS, PORTIONS OF ROOF ALONG THE CURVE WILL BE LOW SLOPE, BUILDER TO VERIFY WITH ROOFING MANUFACTURER THAT THE PRODUCT USED WILL BE SUITABLE FOR LOW SLOPE APPLICATIONS.

NOTE: PROVIDE A 4" BRICK LINTLE ABOVE PORCH C.L.G. PROVIDE BASE FLASHING MIN. 4" ALONG ROOF AND MIN. 4" UP WALL W/ COUNTER FLASHING OVER. THROUGH WALL FLASHING MIN. 6" ABOVE ROOF INTERSECTION W/ PRE-MANUFACTURED WEEP SLOTS PER LOCAL CODE.

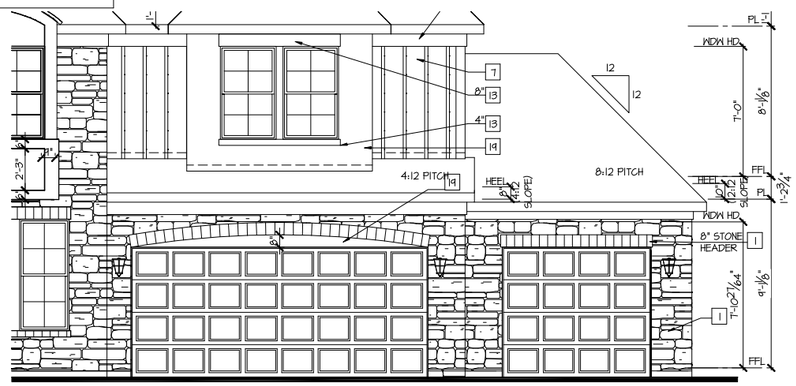


WINDOW GRID PATTERNS AND FRONT DOOR STYLE BY DIVISION, CHECK DIVISION SPECS FOR DETAILS

Front Elevation #6

ELEVATION OPT. #23045
SLAB OPT.

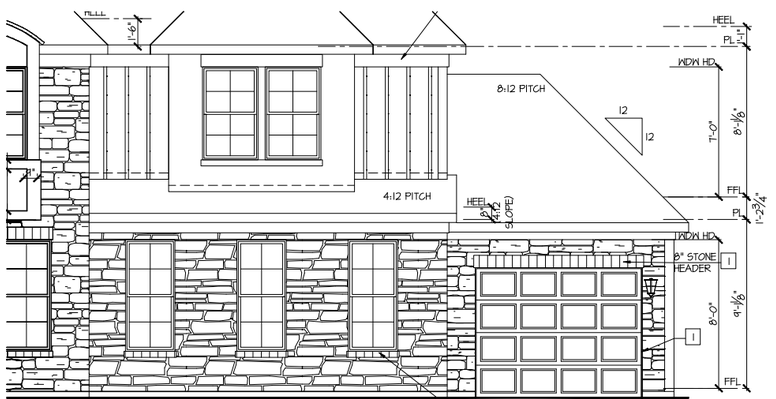
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation #6

ELEVATION OPT. #23045
GARAGE 3-CAR FRONT ENTRY OPT. #25855

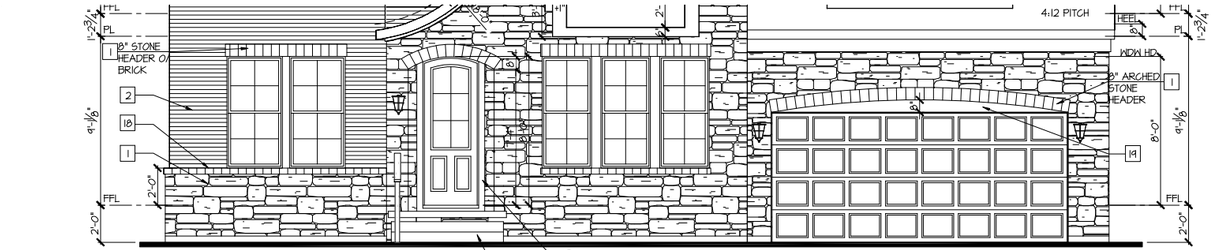
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation #6

ELEVATION OPT. #23045
3-CAR GARAGE W/ SIDE LOAD OPT. #25865

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



ELEV. SHOWN W/ 4 BLOCK STEM FOUNDATION (3 EXPOSED / 1 BURIED) AND 14" FLOOR SYS..

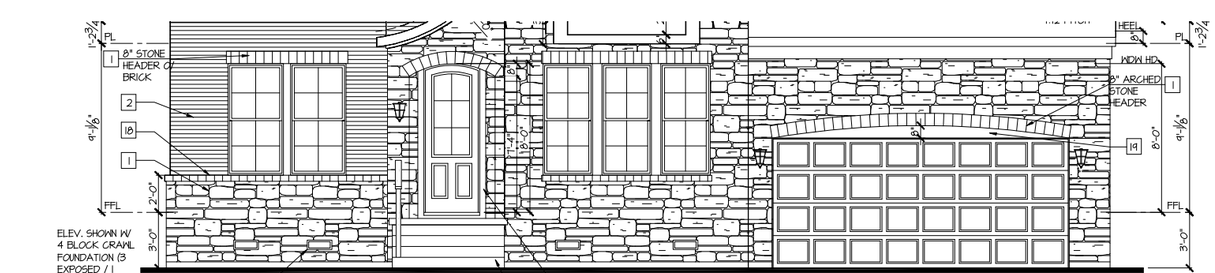
Front Elevation #6

ELEVATION OPT. #23045
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

STEPS MAY OCCUR, VERIFY W/ CIVIL DWGS. PROVIDE RAILING PER LOCAL CODE

WINDOW GRID PATTERNS AND FRONT DOOR STYLE BY DIVISION, CHECK DIVISION SPECS FOR DETAILS



ELEV. SHOWN W/ 4 BLOCK CRAWL FOUNDATION (3 EXPOSED / 1 BURIED) AND 14" FLOOR SYS..

FOUNDATION VENT (TYP.)

Front Elevation #6

ELEVATION OPT. #23045
CRAWLSPACE OPT. #25025
BASEMENT OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

STEPS MAY OCCUR, VERIFY W/ CIVIL DWGS. PROVIDE RAILING PER LOCAL CODE

WINDOW GRID PATTERNS AND FRONT DOOR STYLE BY DIVISION, CHECK DIVISION SPECS FOR DETAILS

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: FRONT ELEVATION 6

SHEET No. A1.1.6

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER, DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.

KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER, HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
5. LAP SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY. SEE DETAIL.
16. 8" SOLDIER COURSE.
17. ROWLOCK COURSE
18. STONE SILL/MATERTABLE.
19. SMOOTH PANEL SIDING.

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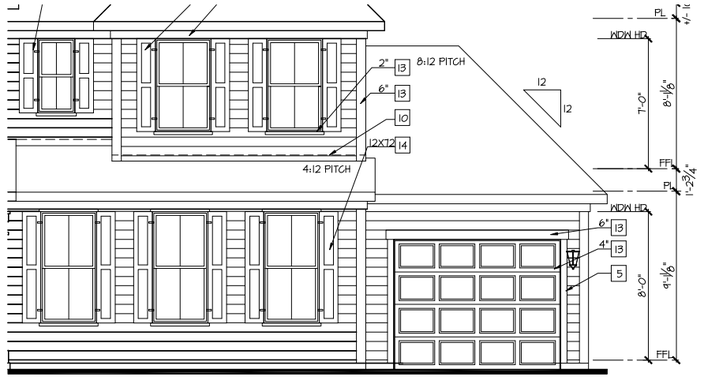
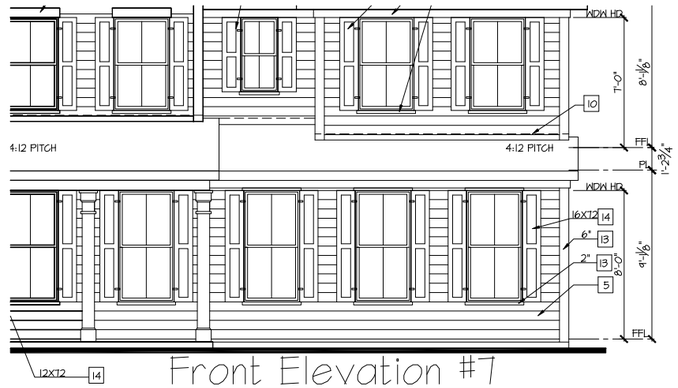


Front Elevation #7

ELEVATION OPT. #23055
3-CAR GARAGE W/ SIDE LOAD OPT. #25865

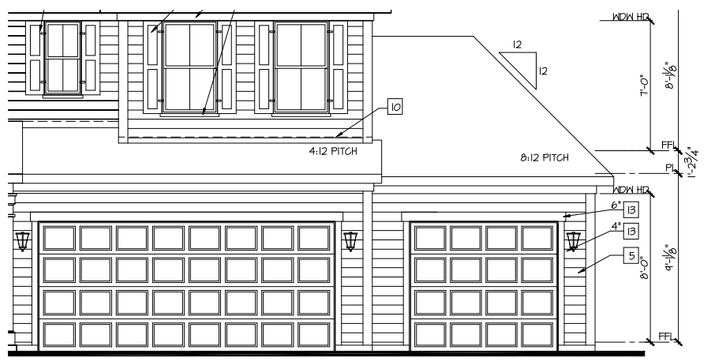
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation #7

ELEVATION OPT. #23055
SIDE LOAD GARAGE OPT. #25845

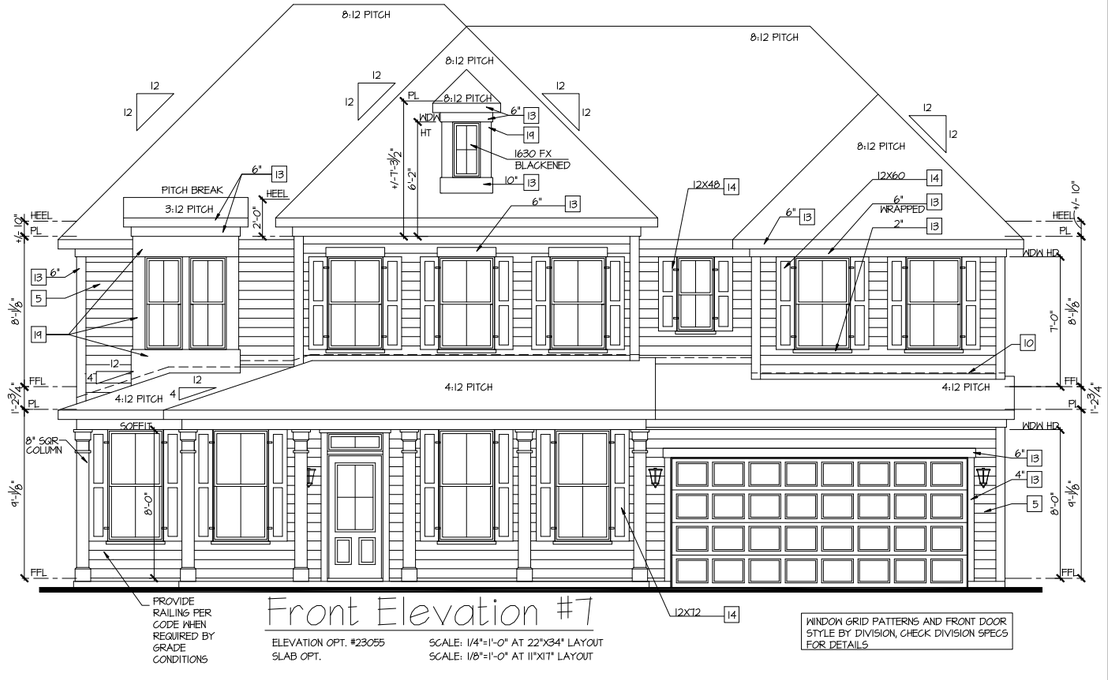
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation #7

ELEVATION OPT. #23055
GARAGE 3-CAR FRONT ENTRY OPT. #25855

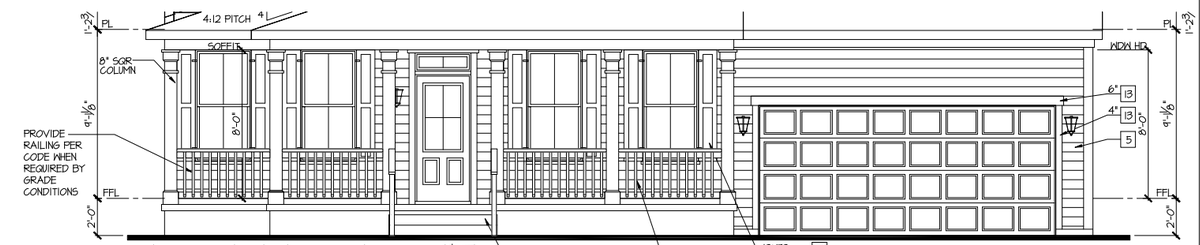
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Front Elevation #7

ELEVATION OPT. #23055
SLAB OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

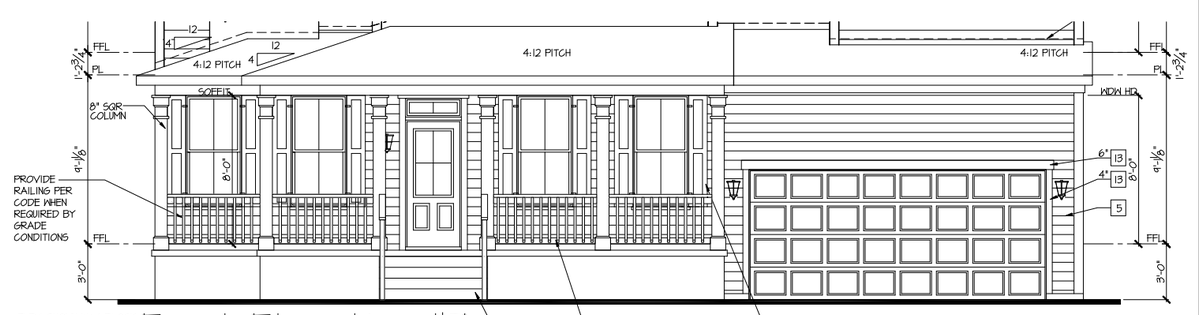


ELEV. SHOWN W/ 4 BLOCK STEM FOUNDATION (3 EXPOSED / 1 BURIED) AND 14" FLOOR SYS..

Front Elevation #7

ELEVATION OPT. #23055
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



ELEV. SHOWN W/ 4 BLOCK CRAWL FOUNDATION (3 EXPOSED / 1 BURIED) AND 14" FLOOR SYS..

Front Elevation #7

ELEVATION OPT. #23055
CRAWLSPACE OPT. #25025
BASEMENT OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: FRONT ELEVATION 7

SHEET No. A1.1.7

KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
5. LAP SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY. SEE DETAIL.
16. 8" SOLDIER COURSE.
17. ROWLOCK COURSE
18. STONE SILL/WATERTABLE.
19. SMOOTH PANEL SIDING.

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NOTES:

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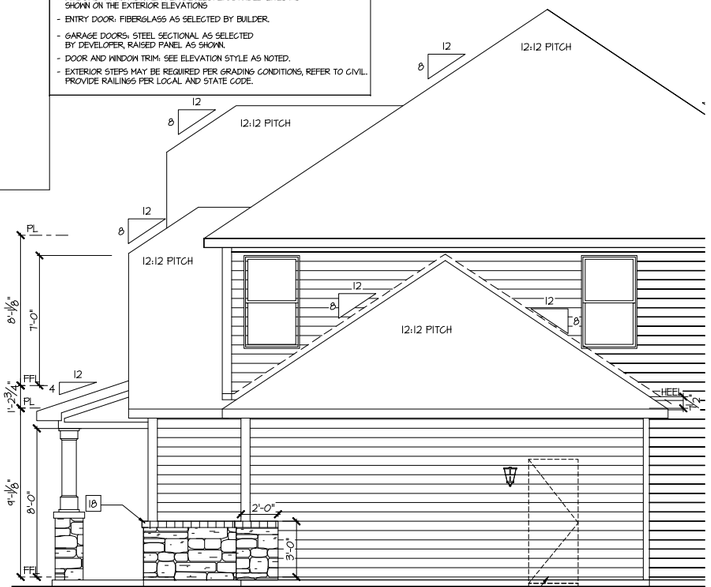
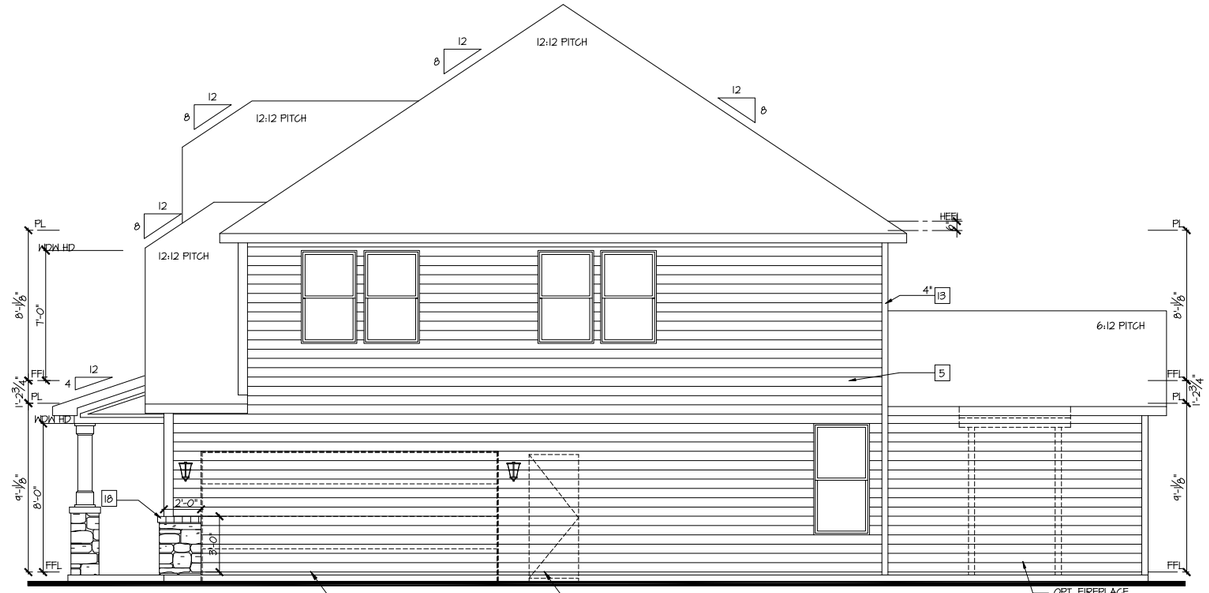
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.



Right Elevation #4

ELEVATION OPT. #23025
GARAGE 3-CAR FRONT ENTRY OPT. #25855

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

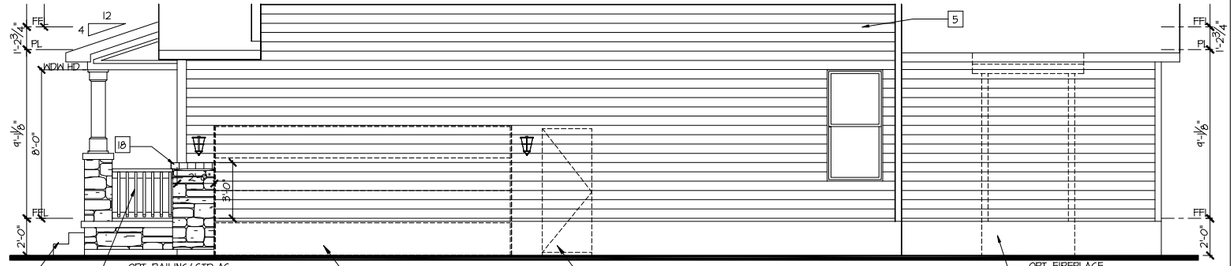


NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #4

ELEVATION OPT. #23025
SLAB OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

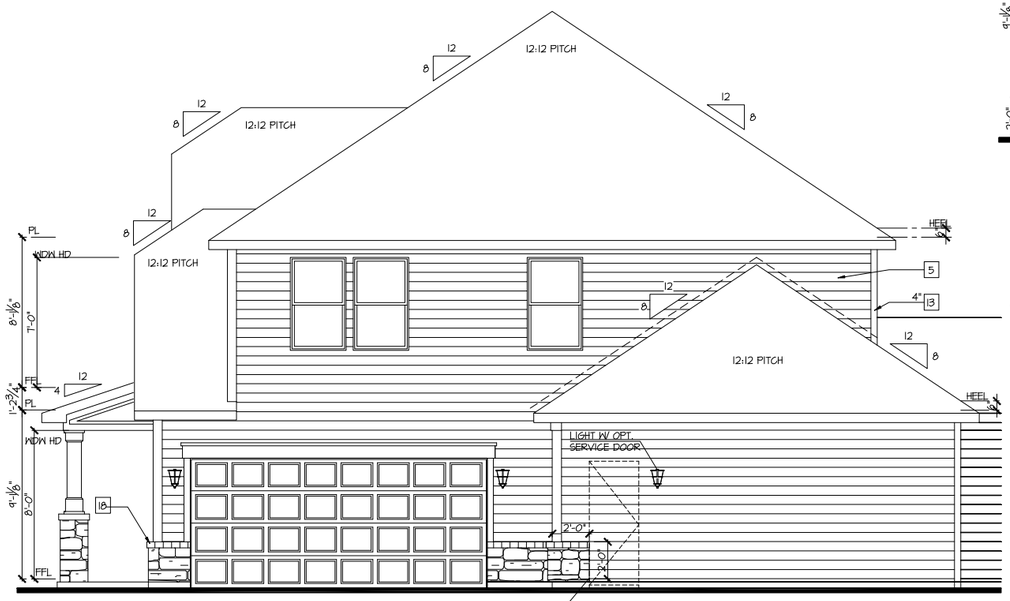


NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #4

ELEVATION OPT. #23025
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

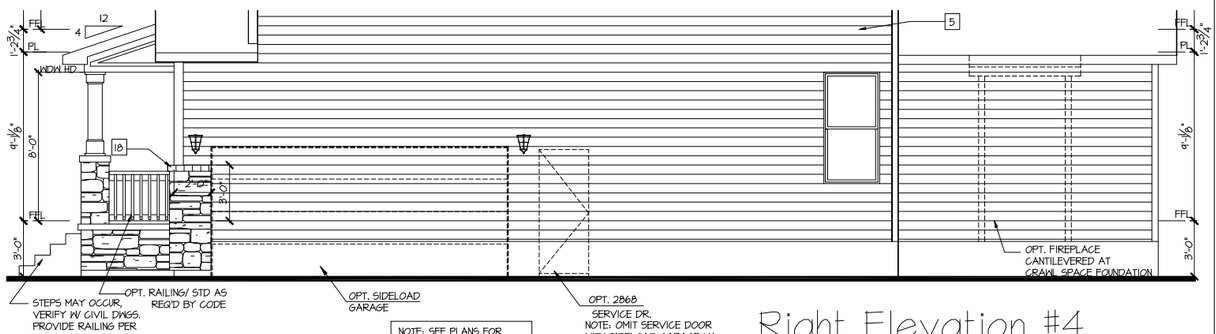


NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #4

ELEVATION OPT. #23025
3-CAR GARAGE W/ SIDE LOAD OPT. #25865

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #4

ELEVATION OPT. #23025
CRAWLSPACE OPT. #25025

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: SIDE ELEVATIONS ELEV. 4

SHEET No. **A1.2.4**

KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
5. LAP SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY. SEE DETAIL.
16. 8" SOLDIER COURSE.
17. ROWLOCK COURSE
18. STONE SILL/WATERTABLE.
19. SMOOTH PANEL SIDING.

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NOTES:

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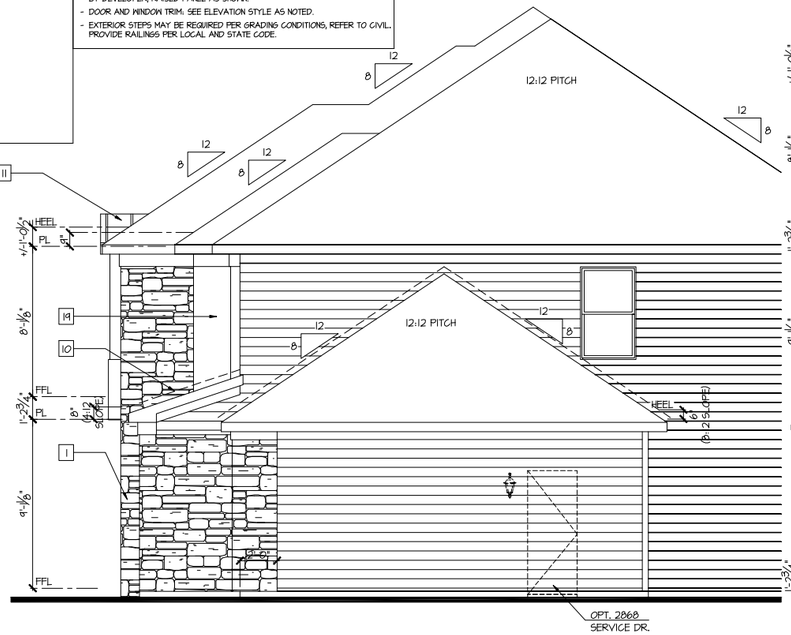
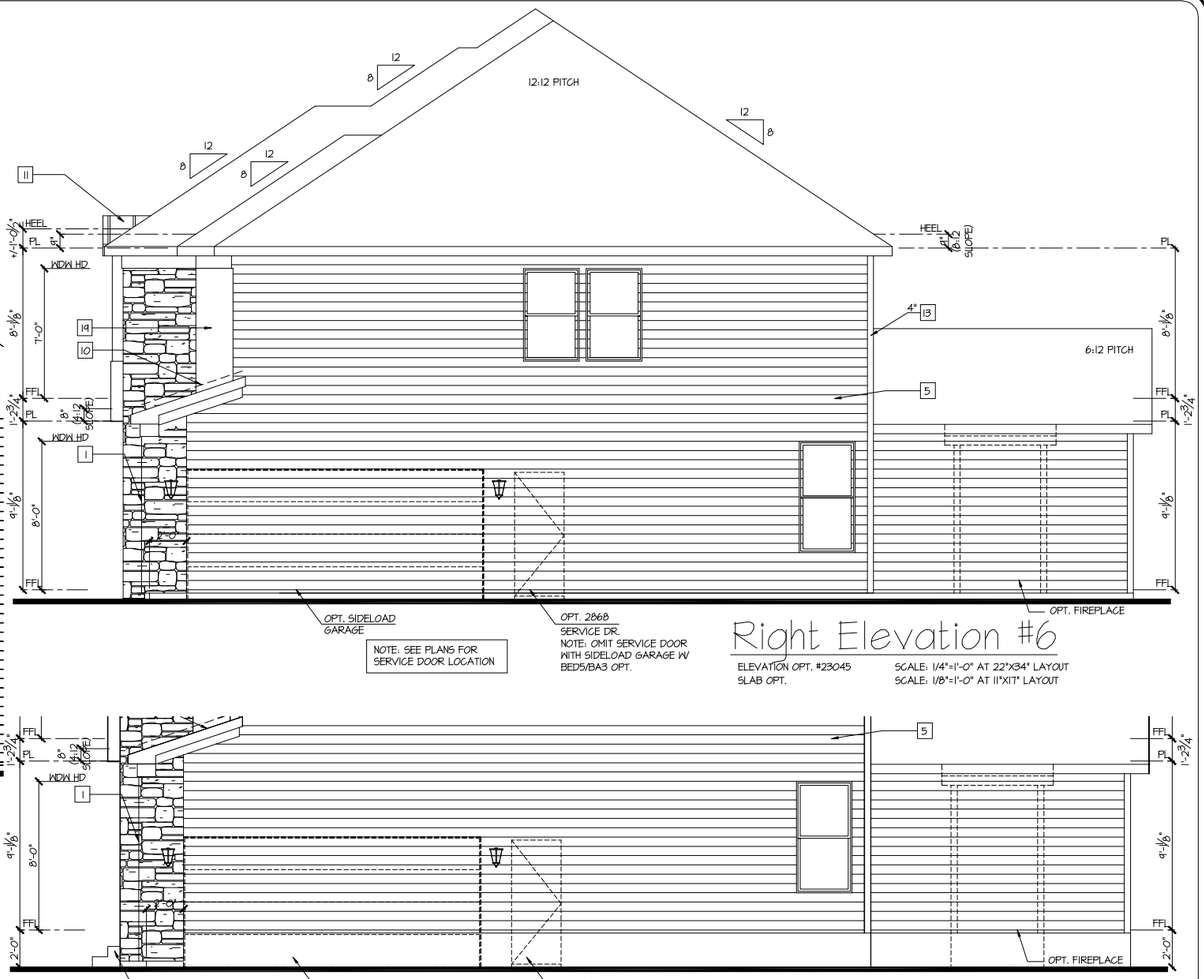
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS, MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM. SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.



Right Elevation #6

ELEVATION OPT. #23045
GARAGE 3-CAR FRONT ENTRY OPT. #25855

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



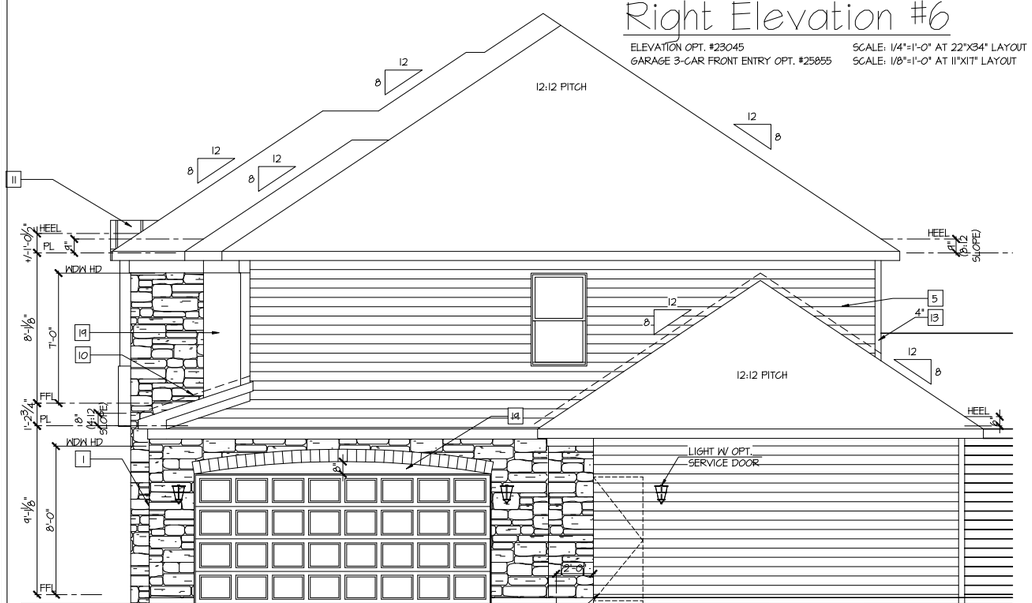
NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

NOTE: OMIT SERVICE DOOR WITH SIDELOAD GARAGE W/ BED5/BA3 OPT.

Right Elevation #6

ELEVATION OPT. #23045
SLAB OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #6

ELEVATION OPT. #23045
3-CAR GARAGE W/ SIDE LOAD OPT. #25865

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

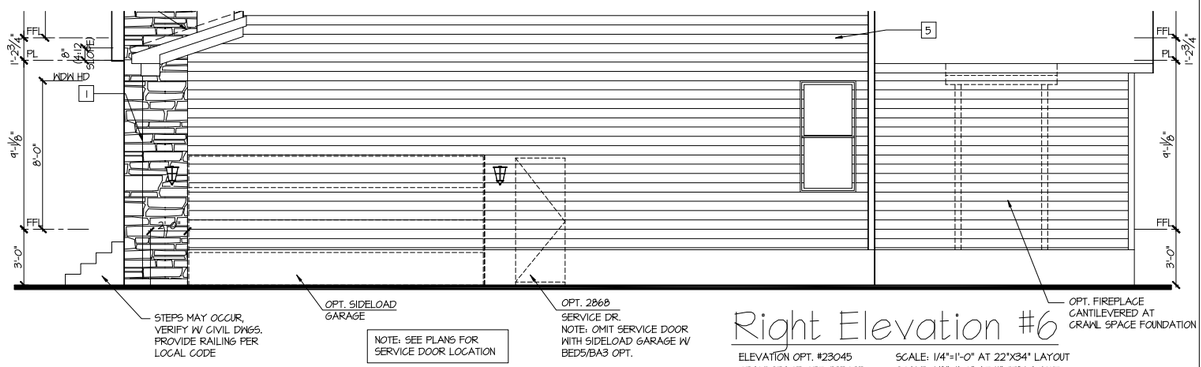
NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

NOTE: OMIT SERVICE DOOR WITH SIDELOAD GARAGE W/ BED5/BA3 OPT.

Right Elevation #6

ELEVATION OPT. #23045
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

NOTE: OMIT SERVICE DOOR WITH SIDELOAD GARAGE W/ BED5/BA3 OPT.

Right Elevation #6

ELEVATION OPT. #23045
CRAWLSPACE OPT. #25025

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	06/28/19
PLAN NO.	1635
11 X 17 SCALE	
24 X 36 SCALE	

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: SIDE ELEVATIONS ELEV. 6

SHEET No.

A1.2.6

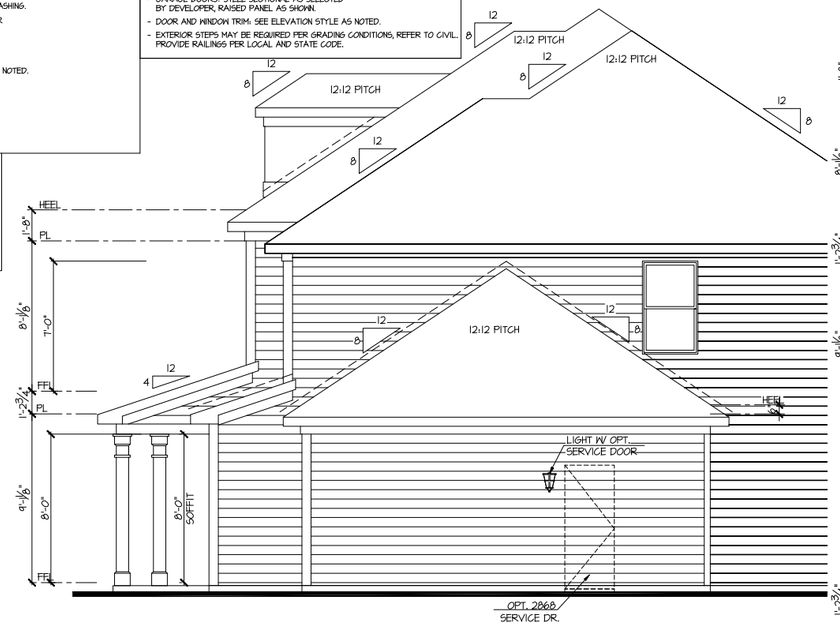
KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
5. LAP SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY. SEE DETAIL.
16. 8" SOLDIER COURSE.
17. ROWLOCK COURSE
18. STONE SILL/WATERTABLE.
19. SMOOTH PANEL SIDING.

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW MUST HAVE WINDOW OPENING CONTROLLING DEVICES COMPLYING WITH THE NORTH CAROLINA RESIDENTIAL CODE SECTION R312.2. WINDOW FALL PROTECTION IS NOT REQUIRED IF PROJECT IS BUILT IN SOUTH CAROLINA. PER SOUTH CAROLINA 2018 IRC MODIFICATION SECTION R312.2 WINDOW FALL PROTECTION DELETED IN SOUTH CAROLINA

NOTES:

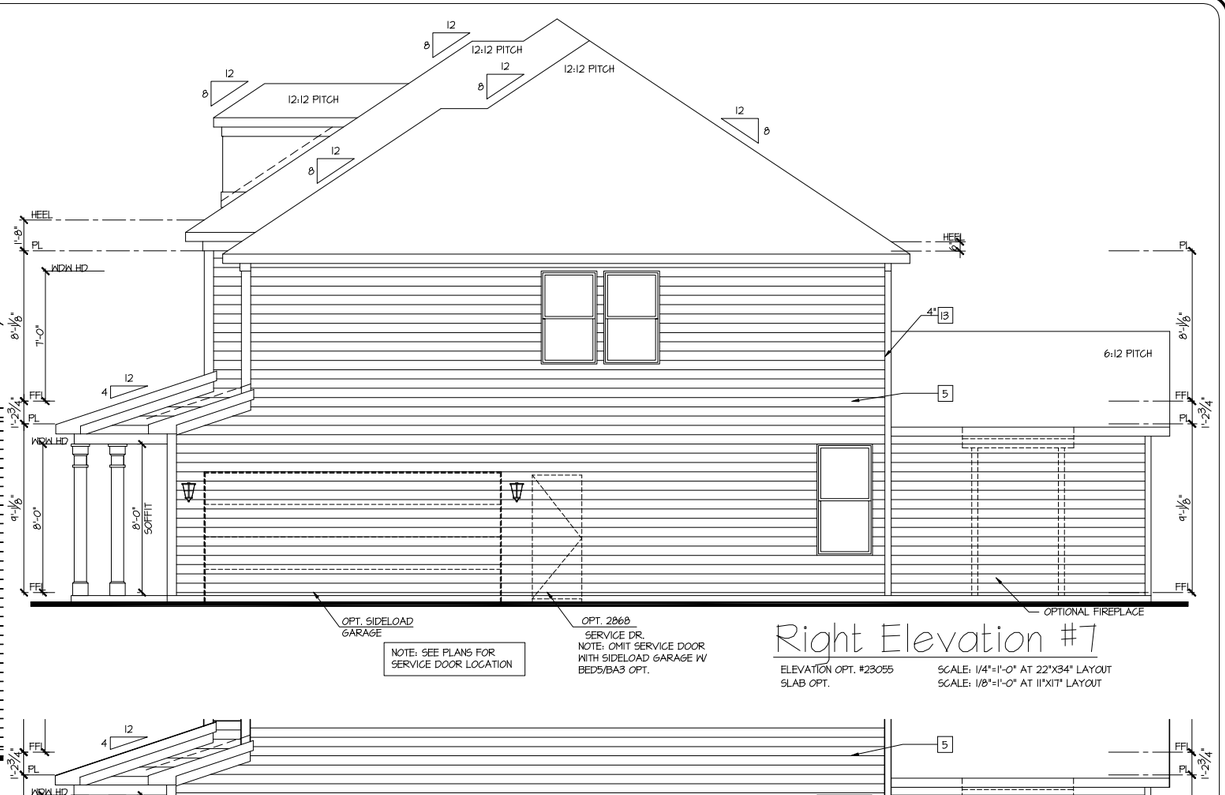
- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.



Right Elevation #7

ELEVATION OPT. #23055
GARAGE 3-CAR FRONT ENTRY OPT. #25855

SCALE: 1/4"=1'-0" AT 22"X34" LAYOU
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

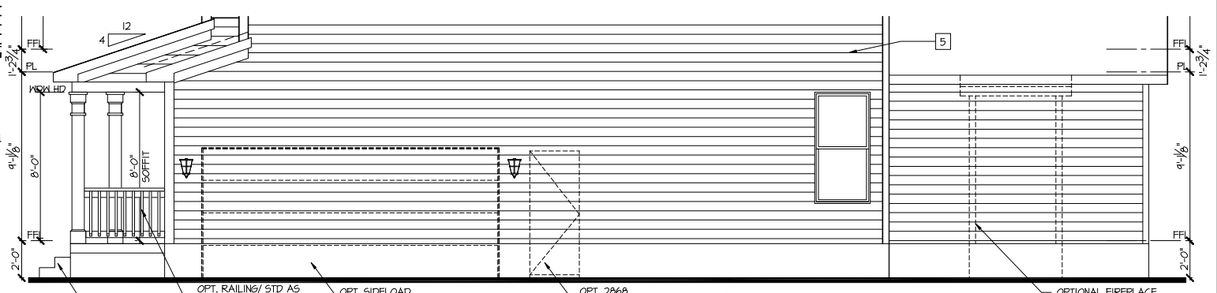


NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #7

ELEVATION OPT. #23055
SLAB OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

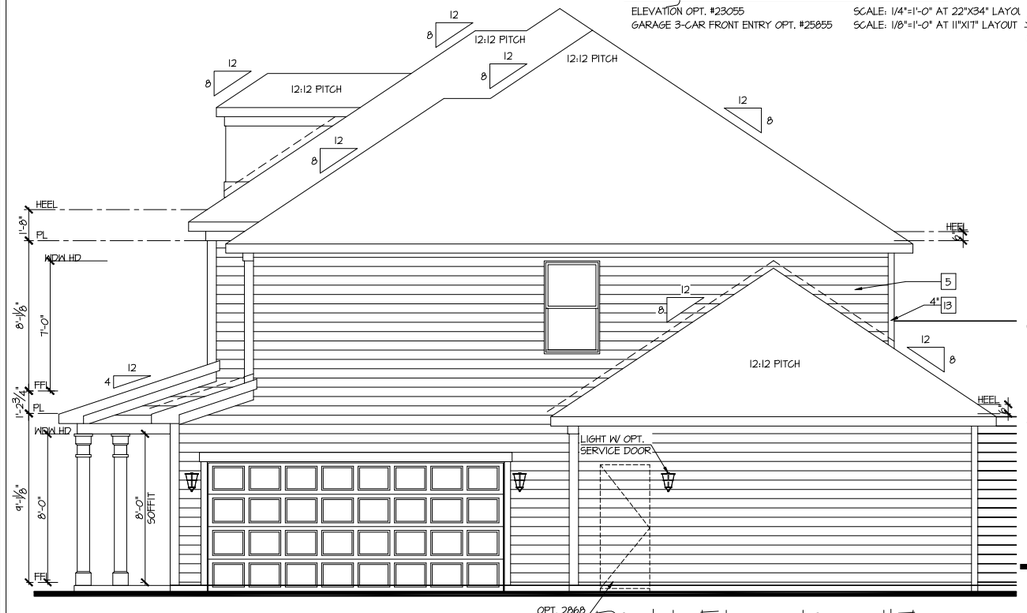


NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #7

ELEVATION OPT. #23055
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

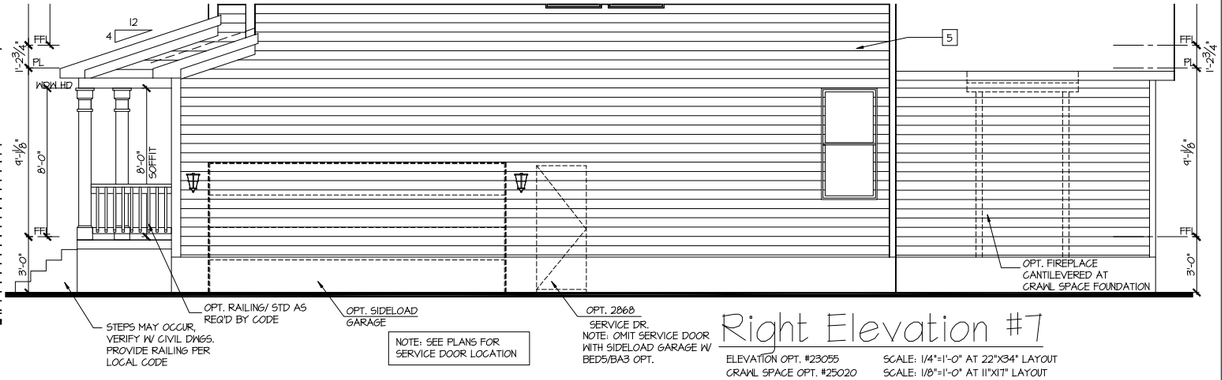


NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #7

ELEVATION OPT. #23055
3-CAR GARAGE W/ SIDE LOAD OPT. #25865

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



NOTE: SEE PLANS FOR SERVICE DOOR LOCATION

Right Elevation #7

ELEVATION OPT. #23055
CRAWL SPACE OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: SIDE ELEVATIONS ELEV. 7

SHEET No. A1.2.7

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
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- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.

KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
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6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY, SEE DETAIL.
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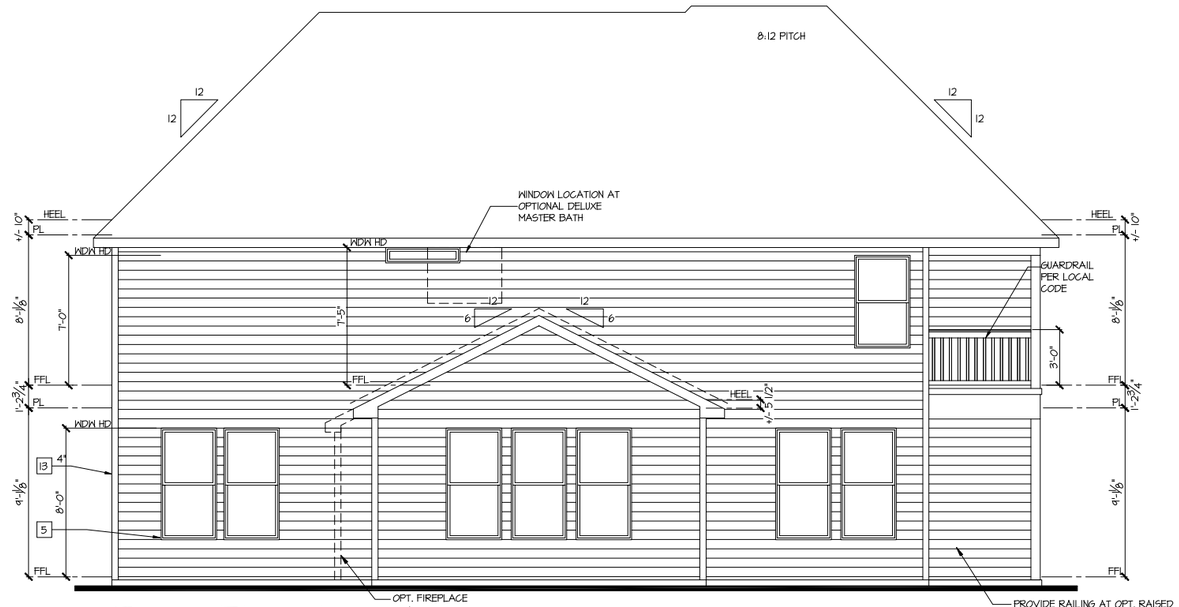
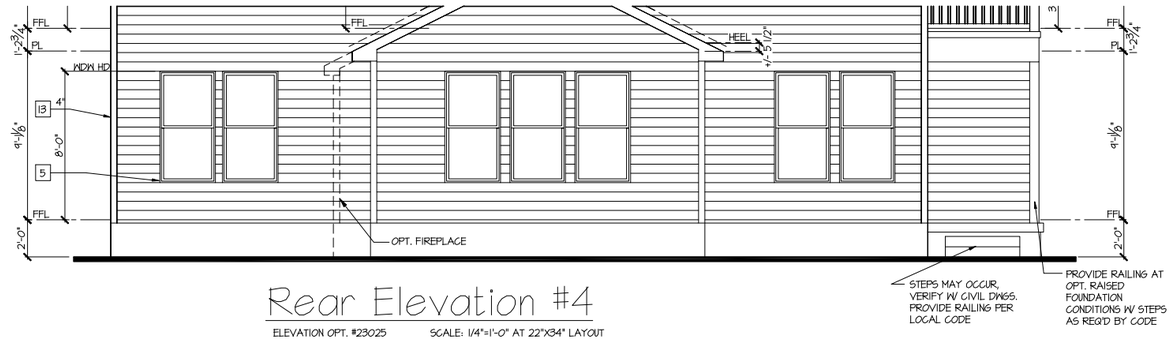


Rear Elevation #4

ELEVATION OPT. #23025
SLAB OPT.

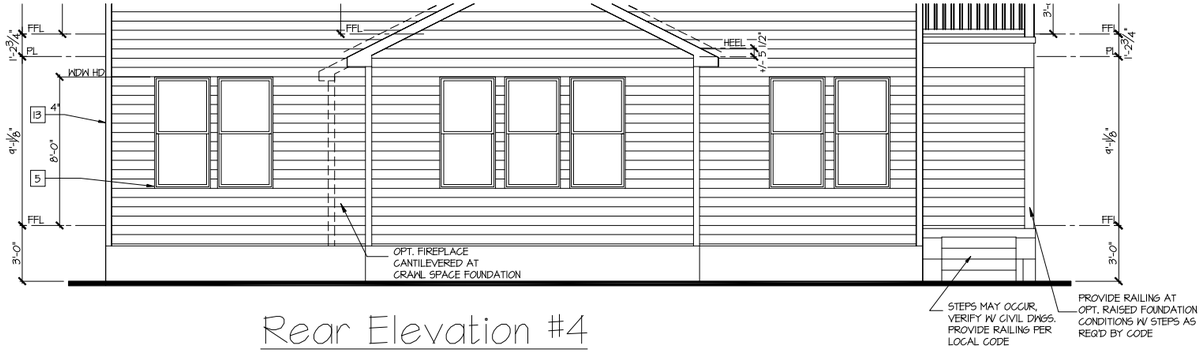
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Rear Elevation #4

ELEVATION OPT. #23025
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Rear Elevation #4

ELEVATION OPT. #23025
CRAWLSPACE OPT. #25025

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: REAR ELEVATION ELEV. 4

SHEET No. A1.3.4

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.

KEY NOTES:

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2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
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6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY, SEE DETAIL.
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17. ROWLOCK COURSE
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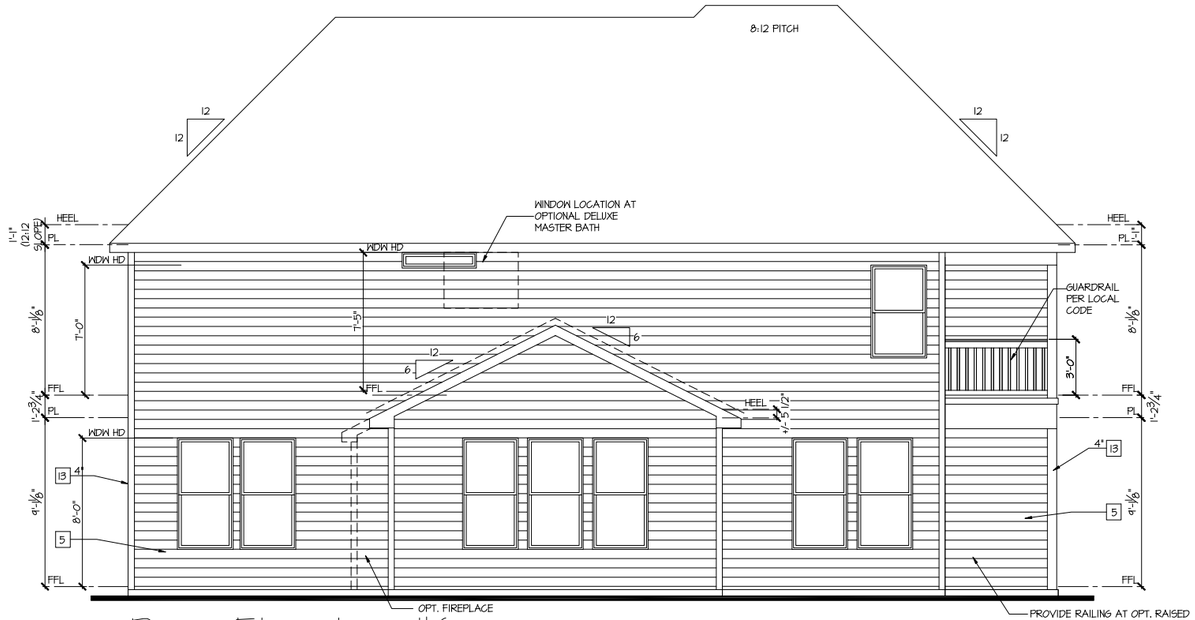
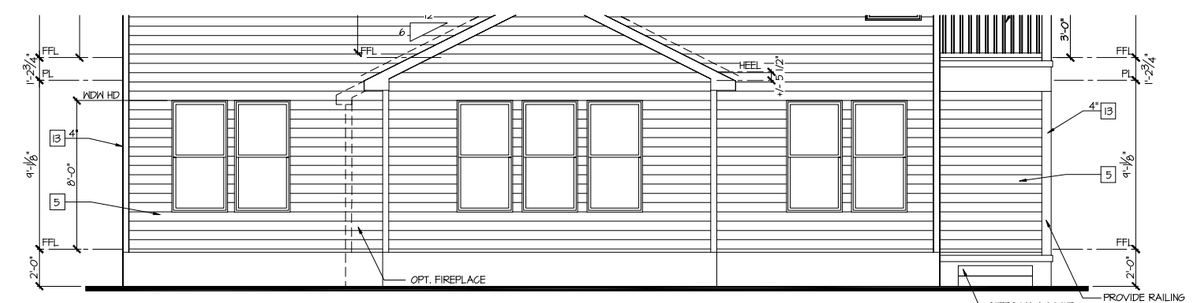


Rear Elevation #6

ELEVATION OPT. #23045
SLAB OPT.

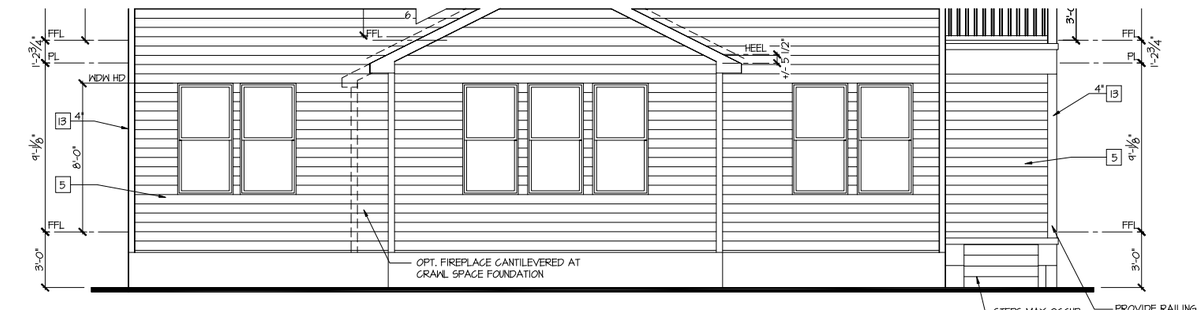
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Rear Elevation #6

ELEVATION OPT. #23045
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Rear Elevation #6

ELEVATION OPT. #23045
CRAWLSPACE OPT. #25025

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: REAR ELEVATION ELEV. 6

SHEET No. A1.3.6

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
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KEY NOTES:

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2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
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6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF. INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
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15. DECORATIVE KEY. SEE DETAIL.
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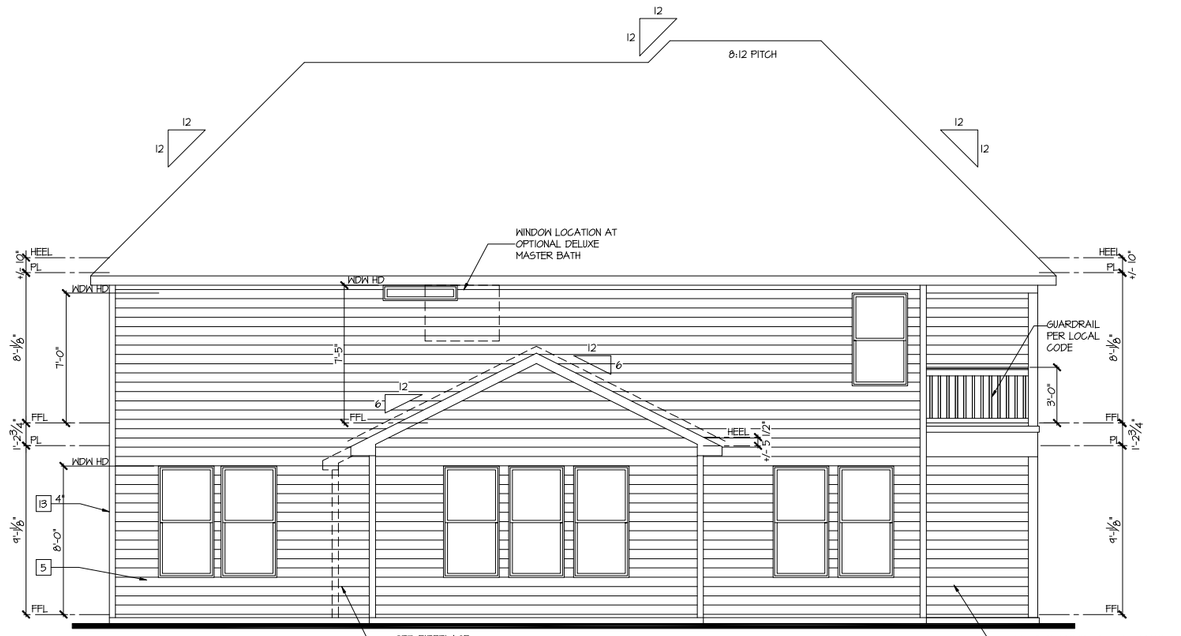
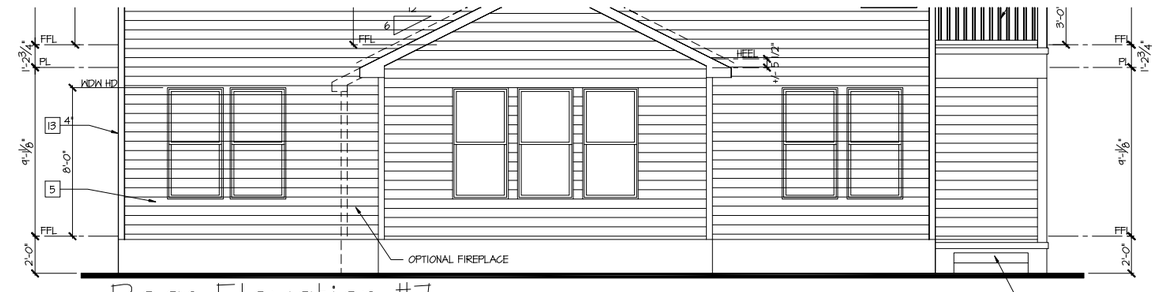
ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW MUST HAVE WINDOW OPENING CONTROLLING DEVICES COMPLYING WITH THE NORTH CAROLINA RESIDENTIAL CODE SECTION R312.2. WINDOW FALL PROTECTION IS NOT REQUIRED IF PROJECT IS BUILT IN SOUTH CAROLINA. PER SOUTH CAROLINA 2018 IRC MODIFICATION SECTION R312.2 WINDOW FALL PROCTECTION DELETED IN SOUTH CAROLINA



Rear Elevation #7

ELEVATION OPT. #23055
SLAB OPT.

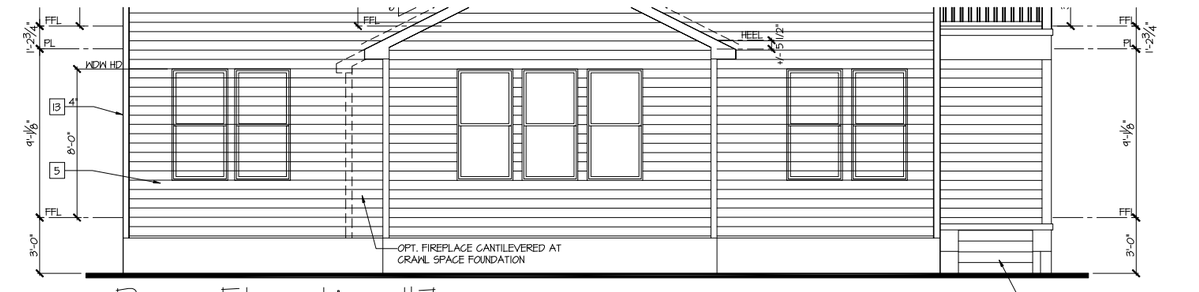
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Rear Elevation #7

ELEVATION OPT. #23055
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Rear Elevation #7

ELEVATION OPT. #23055
CRAWL SPACE OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: REAR ELEVATION ELEV. 7

SHEET No. A1.3.7

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
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12. DECORATIVE WROUGHT IRON. SEE DETAILS.
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15. DECORATIVE KEY. SEE DETAIL.
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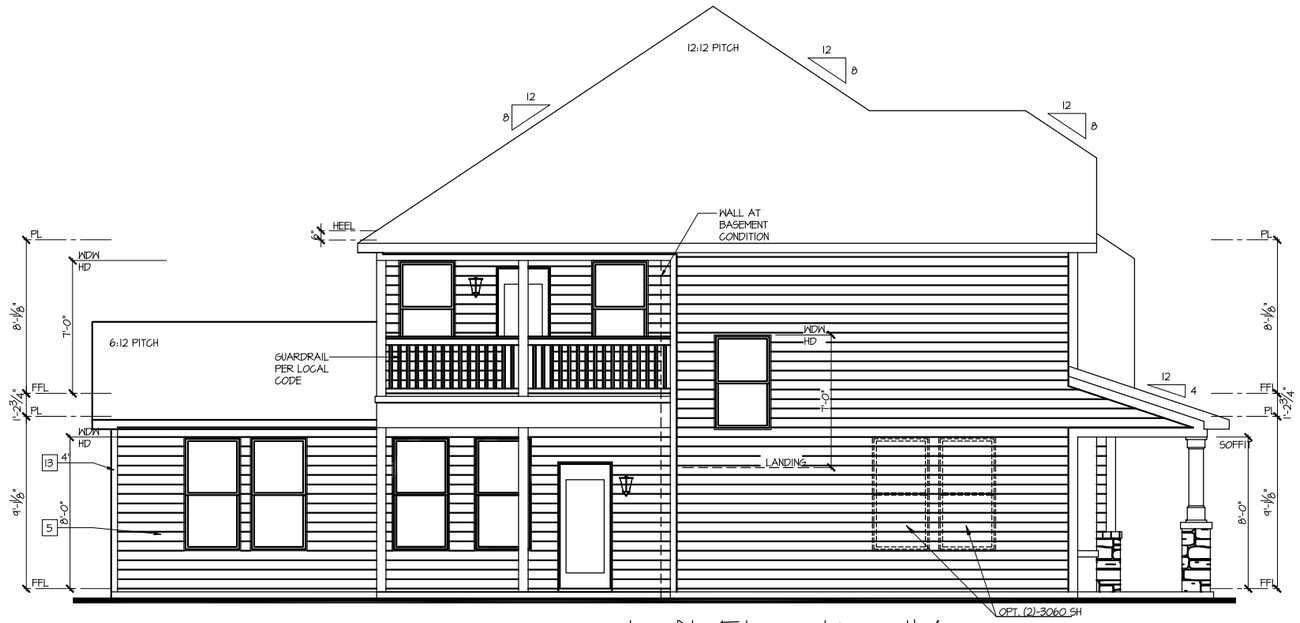
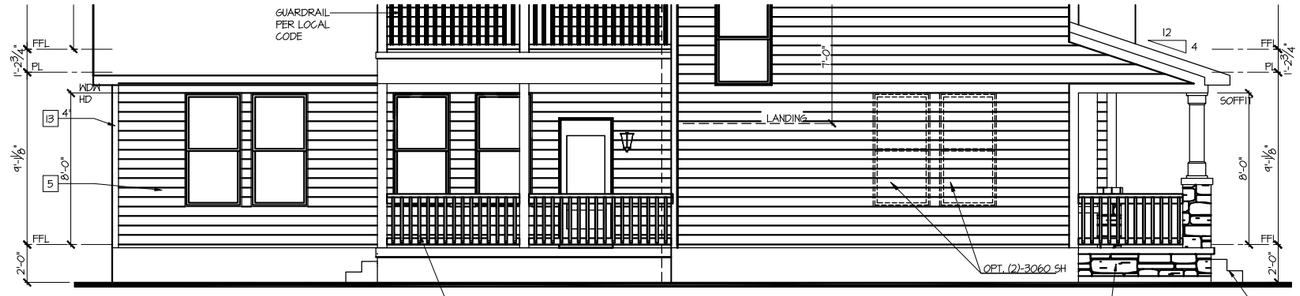


Left Elevation #4

ELEVATION OPT. #23025
SLAB OPT.

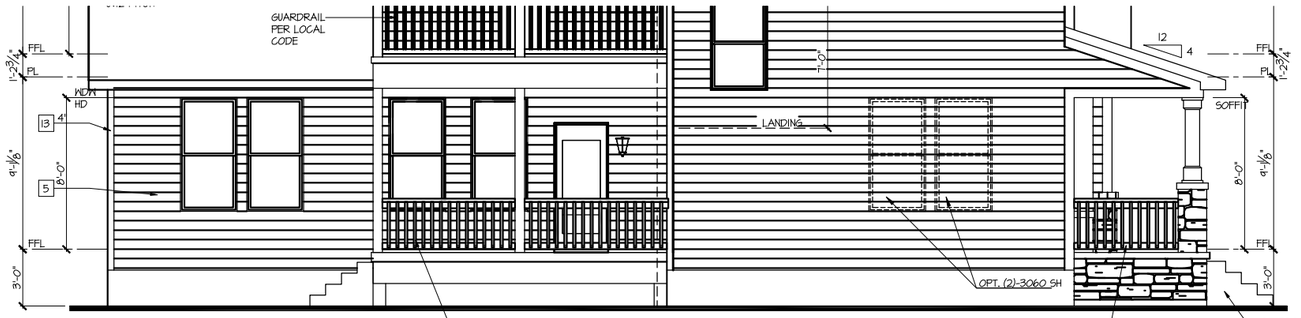
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Left Elevation #4

ELEVATION OPT. #23025
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Left Elevation #4

ELEVATION OPT. #23025
CRAWLSPACE OPT. #25025

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: SIDE ELEVATIONS ELEV. 4

SHEET No. A1.4.4

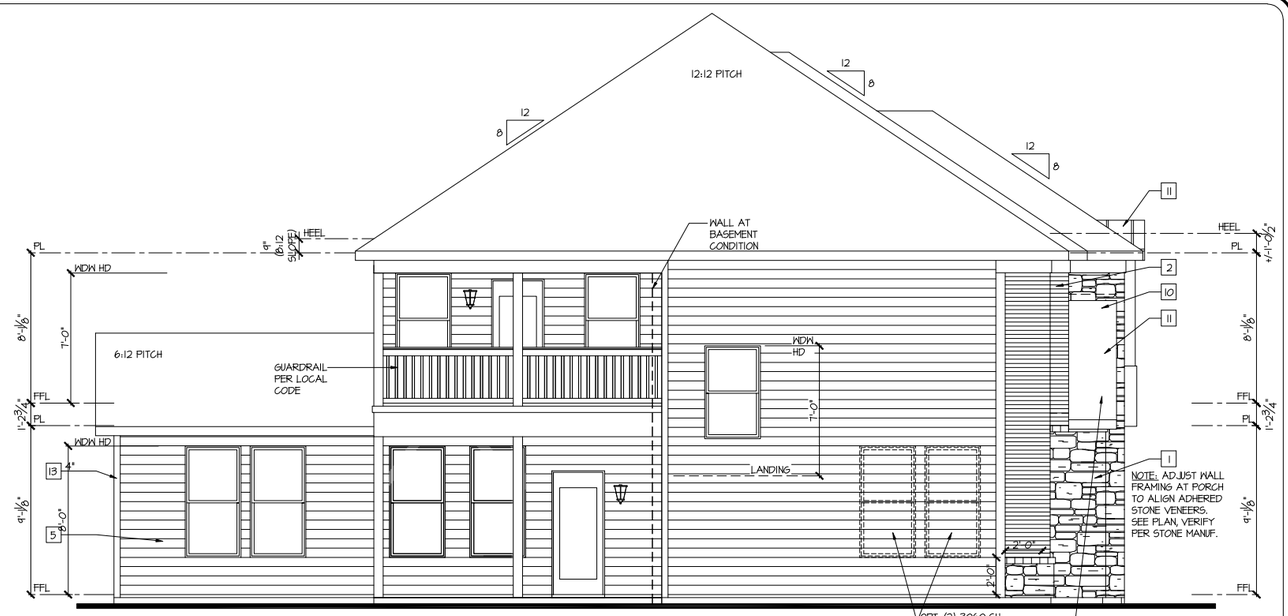
NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.

KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
5. LAP SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFCATURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY. SEE DETAIL.
16. 8" SOLDIER COURSE.
17. ROWLOCK COURSE
18. STONE SILL/WATERTABLE.
19. SMOOTH PANEL SIDING.

ALL WINDOWS WHOSE OPENING IS LESS THAN 24" ABOVE THE FINISH FLOOR AND WHOSE OPENING IS GREATER THAN 72" ABOVE THE FINISHED GRADE OR SURFACE BELOW MUST HAVE WINDOW OPENING CONTROLLING DEVICES COMPLYING WITH THE NORTH CAROLINA RESIDENTIAL CODE SECTION R312.2. WINDOW FALL PROTECTION IS NOT REQUIRED IF PROJECT IS BUILT IN SOUTH CAROLINA. PER SOUTH CAROLINA 2018 IRC MODIFICATION SECTION R312.2 WINDOW FALL PROCTECTION DELETED IN SOUTH CAROLINA

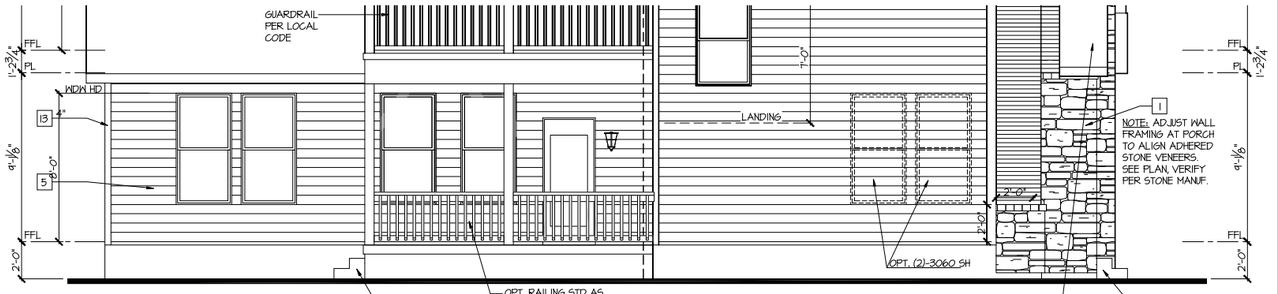


Left Elevation #6

ELEVATION OPT. #23045
SLAB OPT.

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

NOTE: AT CURVED ROOFS, PORTIONS OF ROOF ALONG THE CURVE WILL BE LOW SLOPE, BUILDER TO VERIFY WITH ROOFING MANUFACTURER THAT THE PRODUCT USED WILL BE SUITABLE FOR LOW SLOPE APPLICATIONS.

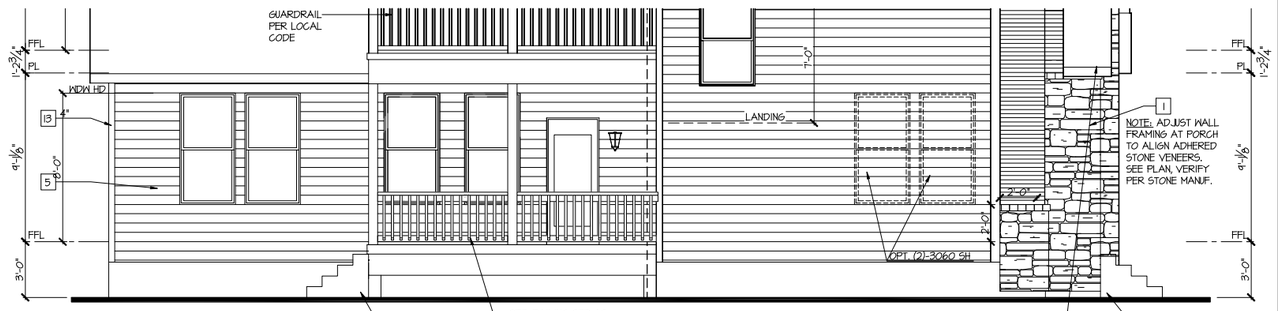


Left Elevation #6

ELEVATION OPT. #23045
STEM WALL OPT. #25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

NOTE: AT CURVED ROOFS, PORTIONS OF ROOF ALONG THE CURVE WILL BE LOW SLOPE, BUILDER TO VERIFY WITH ROOFING MANUFACTURER THAT THE PRODUCT USED WILL BE SUITABLE FOR LOW SLOPE APPLICATIONS.



Left Elevation #6

ELEVATION OPT. #23045
CRAWLSPACE OPT. #25025

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

NOTE: AT CURVED ROOFS, PORTIONS OF ROOF ALONG THE CURVE WILL BE LOW SLOPE, BUILDER TO VERIFY WITH ROOFING MANUFACTURER THAT THE PRODUCT USED WILL BE SUITABLE FOR LOW SLOPE APPLICATIONS.

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: SIDE ELEVATIONS ELEV. 6

SHEET No. A1.4.6

NOTES:

- GRADE CONDITIONS MAY VARY FOR INDIVIDUAL SITE FROM THAT SHOWN. BUILDER SHALL VERIFY AND COORDINATE PER ACTUAL SITE CONDITIONS.
- WINDOW HEAD HEIGHTS:
  1ST FLOOR = 8'-0" U.N.O. ON ELEVATIONS.
  2ND FLOOR = 7'-0" U.N.O. ON ELEVATIONS.
- EXTERIOR WALLS: SEE ELEVATION STYLE AS NOTED.
- ROOFING: FIBERGLASS 3-TAB SHINGLES PER BUILDER.
- WINDOWS: MANUFACTURER PER DEVELOPER. DIVIDED LITES AS SHOWN ON THE EXTERIOR ELEVATIONS
- ENTRY DOOR: FIBERGLASS AS SELECTED BY BUILDER.
- GARAGE DOORS: STEEL SECTIONAL AS SELECTED BY DEVELOPER, RAISED PANEL AS SHOWN.
- DOOR AND WINDOW TRIM: SEE ELEVATION STYLE AS NOTED.
- EXTERIOR STEPS MAY BE REQUIRED PER GRADING CONDITIONS, REFER TO CIVIL. PROVIDE RAILINGS PER LOCAL AND STATE CODE.

KEY NOTES:

1. ADHERED STONE VENEER AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
2. MASONRY FULL BRICK AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
3. MASONRY FULL STONE AS SELECTED BY DEVELOPER. HEIGHT AS NOTED.
4. SHAKE SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
5. LAP SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
6. WAVY SIDING PER DEVELOPER W/ 5/4X CORNER TRIM BOARDS.
7. BOARD AND BATT SIDING
8. DECORATIVE VENTS, SIZE AS NOTED.
9. I.C.B.O. APPROVED TERMINATION CHIMNEY CAP.
10. CORROSION RESISTANT ROOF TO WALL FLASHING.
11. STANDING SEAM METAL ROOF, INSTALL PER MANUFACTURER'S WRITTEN INSTRUCTIONS.
12. DECORATIVE WROUGHT IRON. SEE DETAILS.
13. TRIM OR EQUAL, U.N.O. SIZE AS NOTED
14. PANEL SHUTTERS, TYPE AS SHOWN. SIZE AS NOTED.
15. DECORATIVE KEY. SEE DETAIL.
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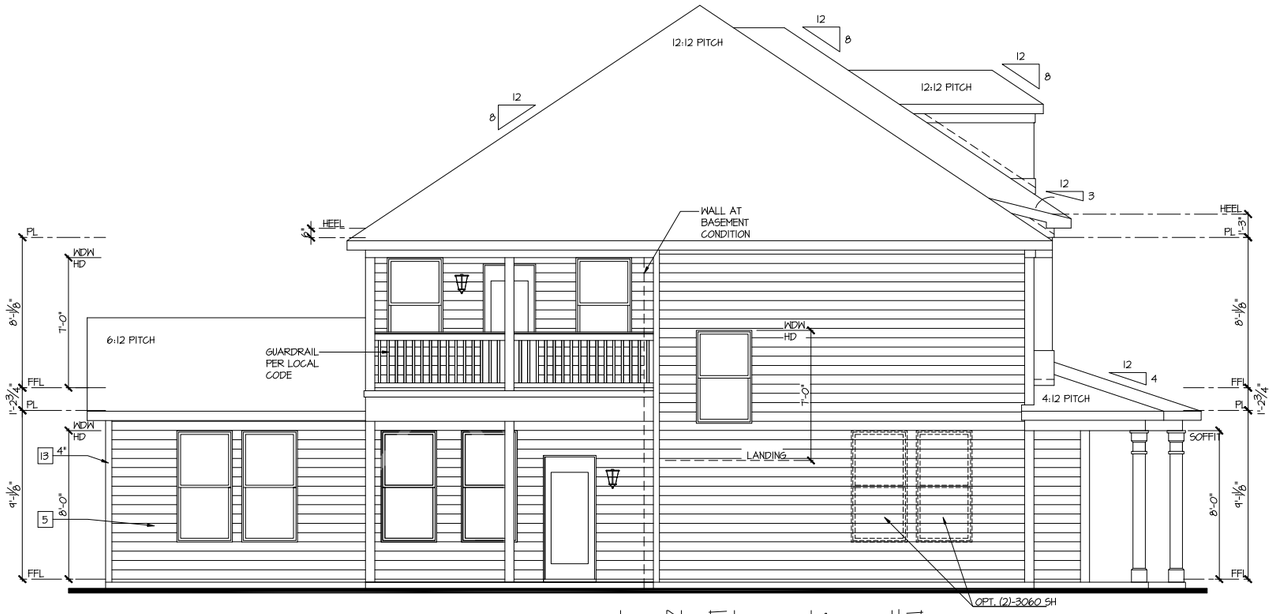
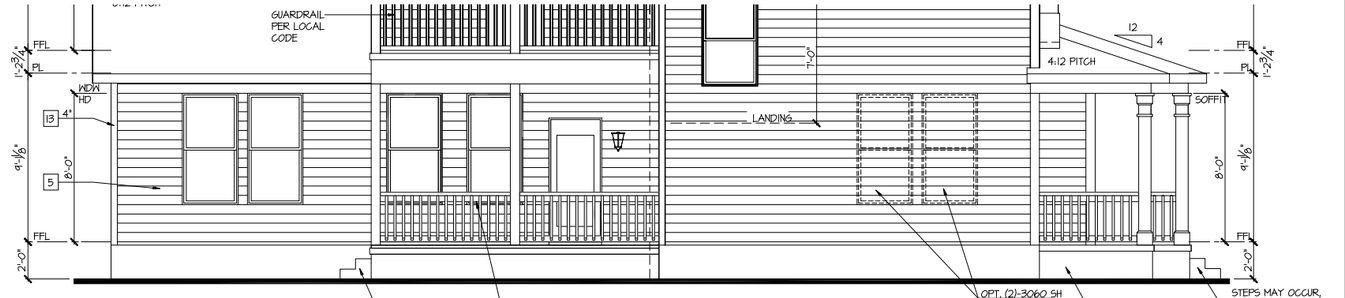


Left Elevation #7

ELEVATION OPT. #23055
SLAB OPT.

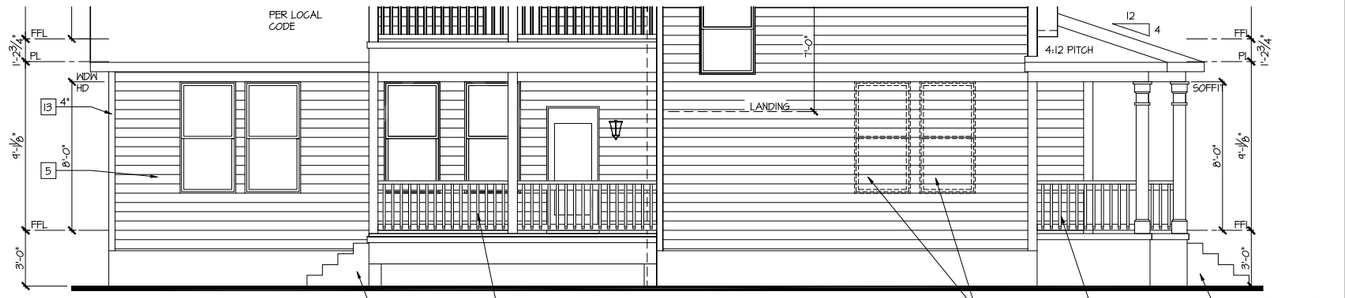
SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Left Elevation #7

ELEVATION OPT. #23055
STEM WALL OPT. 25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT



Left Elevation #7

ELEVATION OPT. #23055
CRAWL SPACE OPT. 25020

SCALE: 1/4"=1'-0" AT 22"X34" LAYOUT
SCALE: 1/8"=1'-0" AT 11"X17" LAYOUT

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE: 06/28/19

PLAN NO. 1635

11 X 17 SCALE

24 X 36 SCALE

DRB HOMES

HOUSE NAME: STONEFIELD

DRAWING TITLE: SIDE ELEVATIONS ELEV. 7

SHEET No. **A1.4.7**

NORRIS - CHLT

CHARLOTTE
MODEL #3186
(GARAGE RIGHT)

DRB HOMES

SHEET INDEX

TITLE	DESCRIPTION
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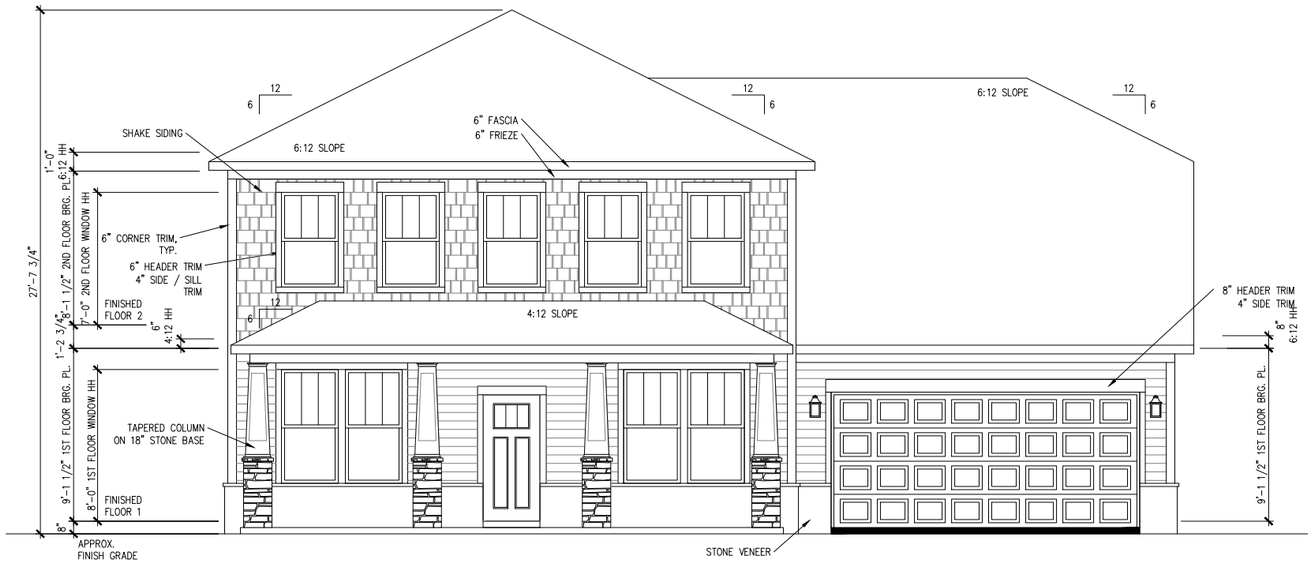
A1.2.1–5	SIDE ELEVATIONS, ELEV. 1 – 5
A1.3.1–5	REAR ELEVATIONS, ELEV. 1 – 5
A1.4.1–5	SIDE ELEVATIONS, ELEV. 1 – 5
A1.5.1–5	ROOF PLANS
A2.1.1–3	MONOSLAB FOUNDATION PLANS
A2.2.1–3	RAISED SLAB FOUNDATION PLANS
A2.3.1–3	CRAWLSPACE FOUNDATION PLANS
A2.4.1	OPT. UNFINISHED BASEMENT PLAN
A3.0.1	BASEMENT PLANS
A3.1.1–5	FIRST FLOOR PLANS
A3.2.1–2	SECOND FLOOR PLANS
A4.1.1	STRUCTURAL OPTIONS
A5.1.1–4	STRUCTURAL OPTIONS
A6.1.1	BUILDING SECTIONS
F3.0.1	BASEMENT FLOORING BREAK LAYOUTS
F3.1.1	1ST FLOOR FLOORING BREAK LAYOUTS
F3.2.1	2ND FLOOR FLOORING BREAK LAYOUTS
K1.1.1	CABINET LAYOUTS
E3.0.1	BASEMENT ELECTRICAL PLANS
E3.1.1–2	FIRST FLOOR ELECTRICAL PLANS
E3.2.1	SECOND FLOOR ELECTRICAL PLANS

AREA CALCULATIONS

BASE HOUSE	HEATED	COVERED / UNHEATED	UNCOVERED
FIRST FLOOR – ALL ELEV.	1626 SF		
FRONT PORCH – ELEV. 1		45 SF	
GARAGE – ALL ELEV.		424 SF	
SECOND FLOOR – ALL ELEV.	1560 SF		
BASE HOUSE TOTAL	3186 SF	3655 SF	
OPTIONS			
BASEMENT			
FINISHED BASEMENT	+1416 SF	+210 SF	
UNFINISHED BASEMENT		+1626 SF	
1ST FLOOR			
REAR FIREPLACE	+10 SF		
SIDE BAY (1ST FLOOR)	+41 SF		
ELEVATION 5	+18 SF		
REAR PORCH		+462 SF	
FRONT PORCH – ELEV. 2		+61 SF	
FRONT PORCH – ELEV. 3		+132 SF	
FRONT PORCH – ELEV. 4		+124 SF	
FRONT PORCH – ELEV. 5		+80 SF	
3RD CAR GARAGE		+264 SF	
2ND FLOOR			
FRONT PORCH SECOND FLOOR – ELEV. 4		+169 SF	
BONUS ROOM / GUEST SUITE	+344 SF		
SIDE BAY (2ND FLOOR)	+41 SF		
ELEVATION 5	+18 SF		

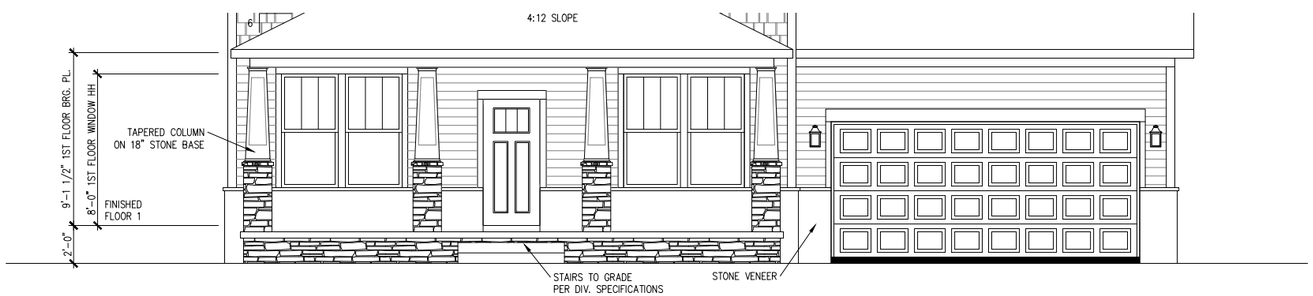
GENERAL REVISIONS

#	DATE	DESCRIPTION
99	9/8/21	RELEASE OF PLAN TO CHARLOTTE DIVISION
98	9/28/21	REVISION PER CHARLOTTE DIVISION COMMENTS
97	10/12/21	REVISION PER MEETING WITH YORK COUNTY PLANNING
N/A	10/19/21	REVISION PER CHARLOTTE DIVISION REVIEW
N/A	11/8/21	CHANGE TO GARAGE DOOR PORTAL PER ENGINEERING
N/A	11/22/21	REMOVED SIDE RETURN OF FRONT SIDING – ELEV. 2, 3, AND 5
N/A	12/14/21	REVISED LOCATION OF INT. BASEMENT WALLS PER ENGINEERING
N/A	11/28/22	UPDATED ELEC SHEET – SC2021 CODE UPDATE
N/A	9/13/23	OPT. BED 6 – CORRECTED CLOSET DOOR LOCATION
R1-CHLT	4/3/24	PROTOTYPE WALK CHANGES – SEE ARCH LOG
N/A	5/8/24	UPDATED FAMILY WINDOW LOC. W/ OPT. REAR PORCH
N/A	5/22/24	SEE ARCH LOG
N/A	5/30/24	OPT. STUDY ILO FLEX ADDED
N/A	8/13/24	UPDATED ELECTRICAL LAYOUT – SEE ARCH LOG



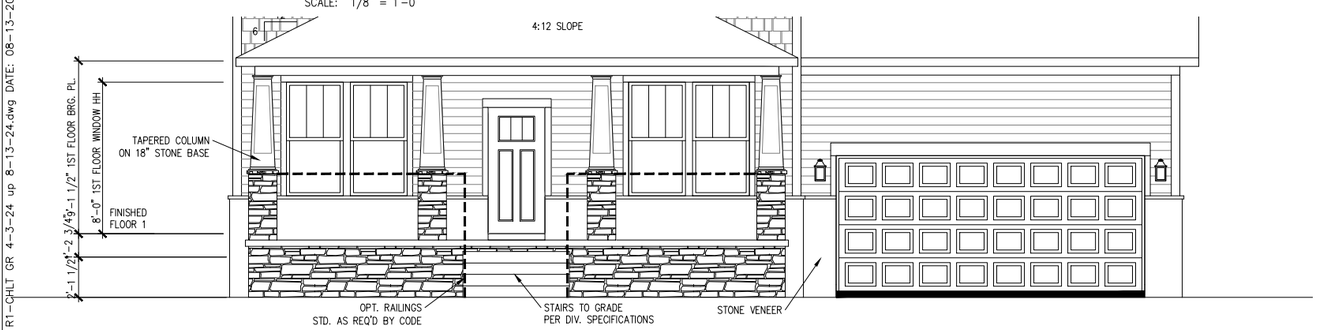
FRONT ELEVATION 3

SCALE: 1/8" = 1'-0"



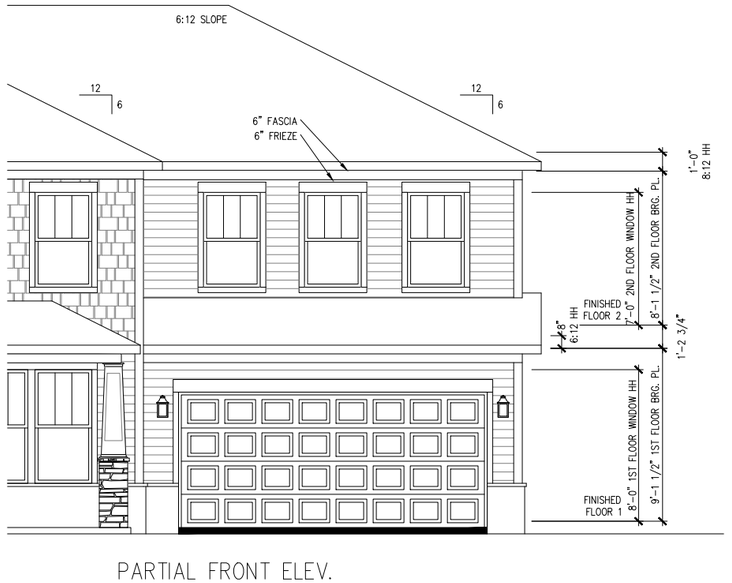
PARTIAL FRONT ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



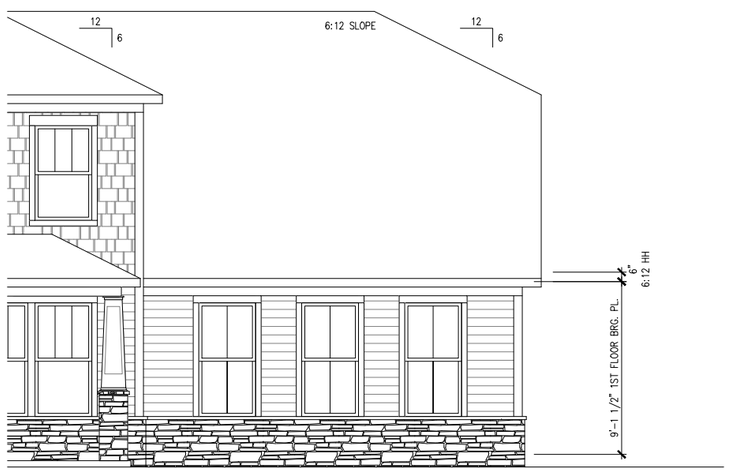
PARTIAL FRONT ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL FRONT ELEV. OPT. BONUS ROOM

SCALE: 1/8" = 1'-0" OPT. GUEST SUITE SIM.



PARTIAL FRONT ELEV. OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 9/8/21

24 X 36 SCALE 3186

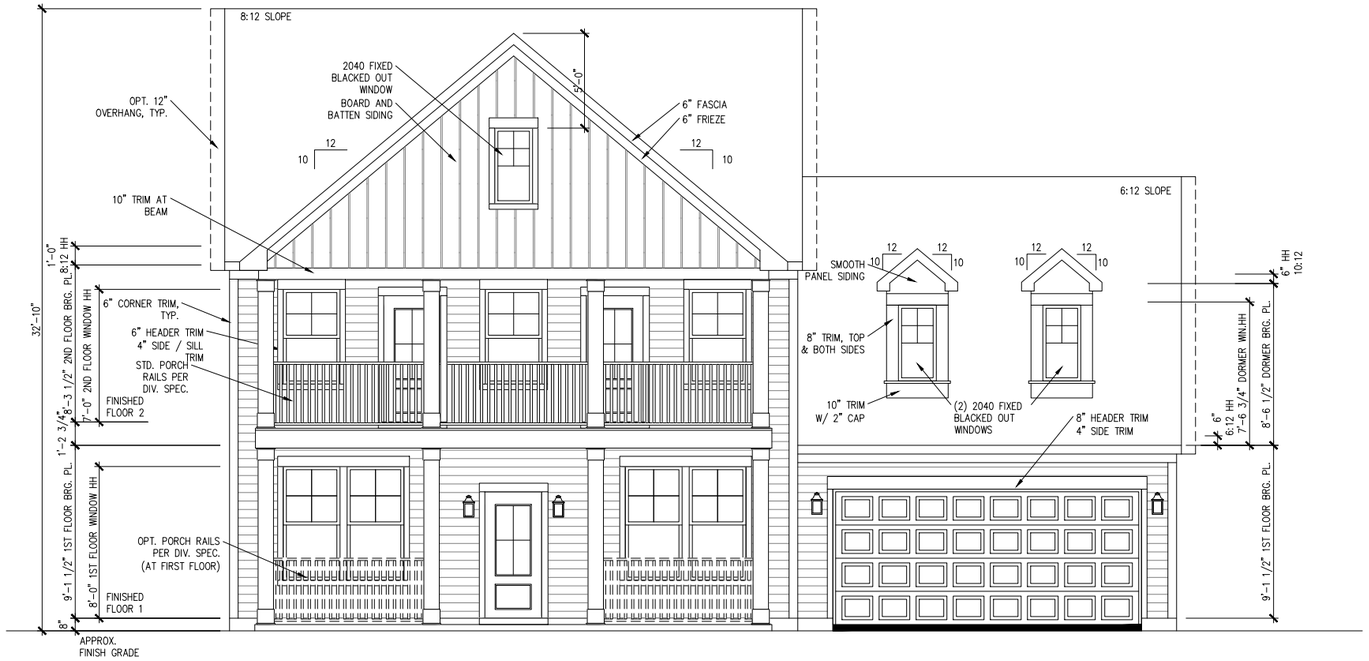
DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: FRONT ELEVATIONS

SHEET No. A1.1.3

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024



FRONT ELEVATION 4

SCALE: 1/8" = 1'-0"



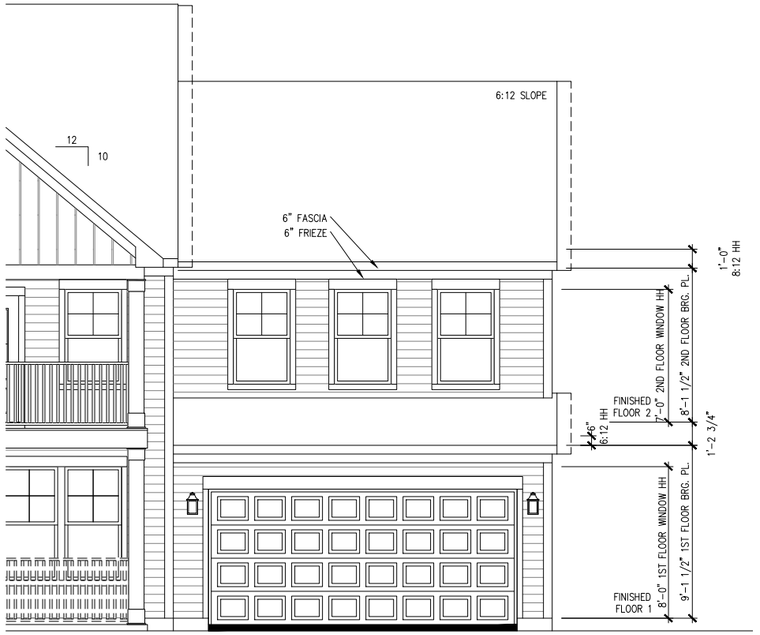
PARTIAL FRONT ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



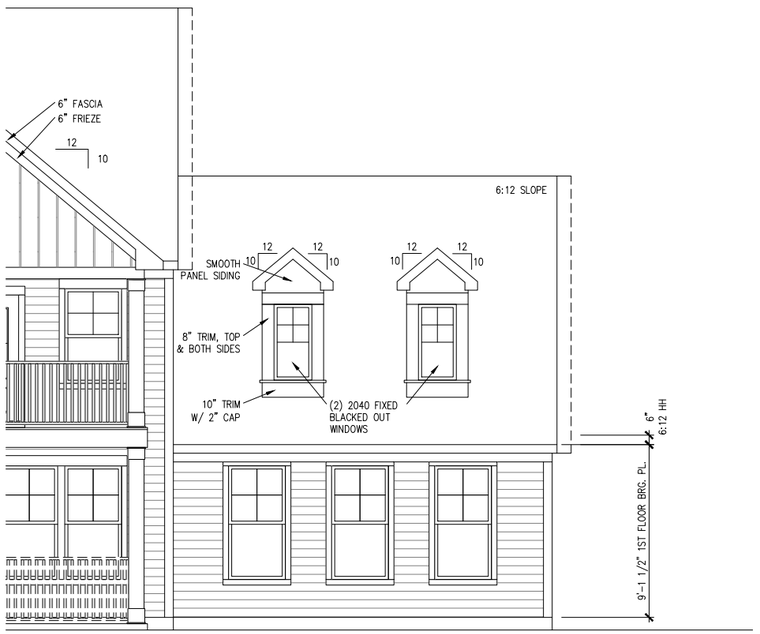
PARTIAL FRONT ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL FRONT ELEV. OPT. BONUS ROOM

SCALE: 1/8" = 1'-0" OPT. GUEST SUITE SIM.



PARTIAL FRONT ELEV. OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 9/8/21

24 X 36 SCALE 3186

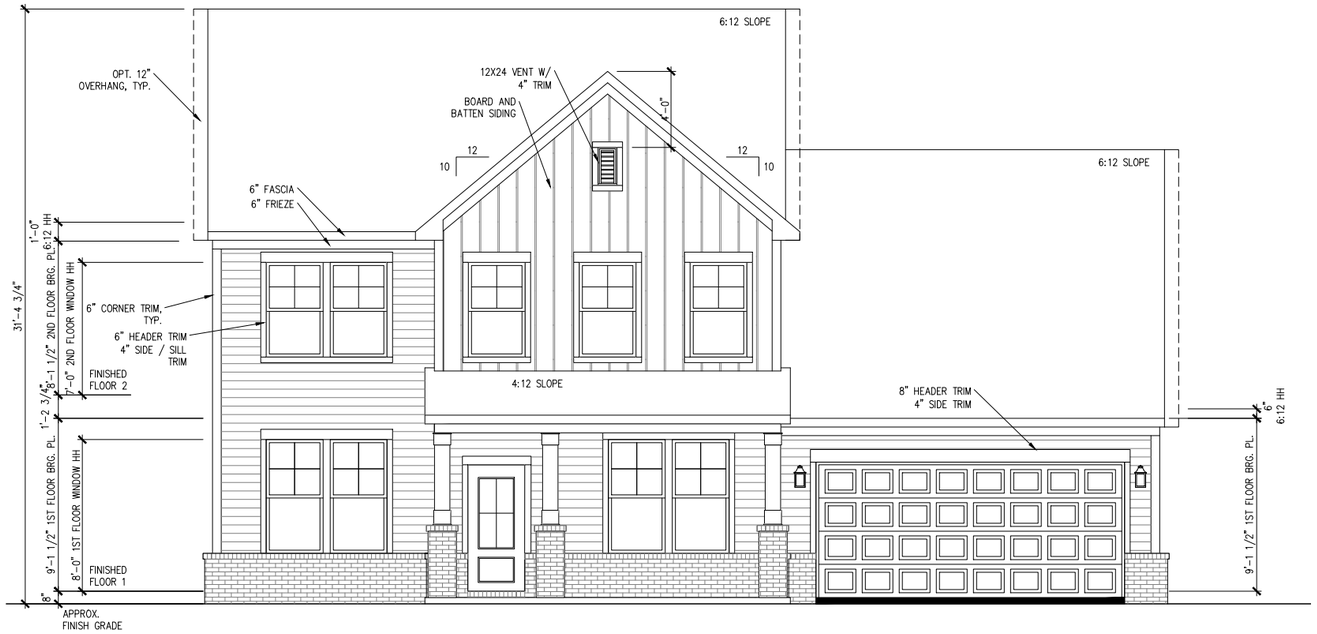
DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: FRONT ELEVATIONS

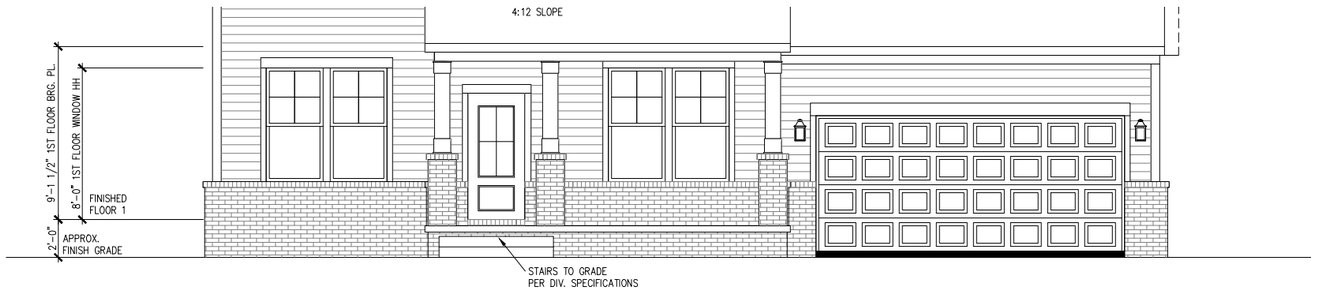
SHEET No. A1.1.4

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024



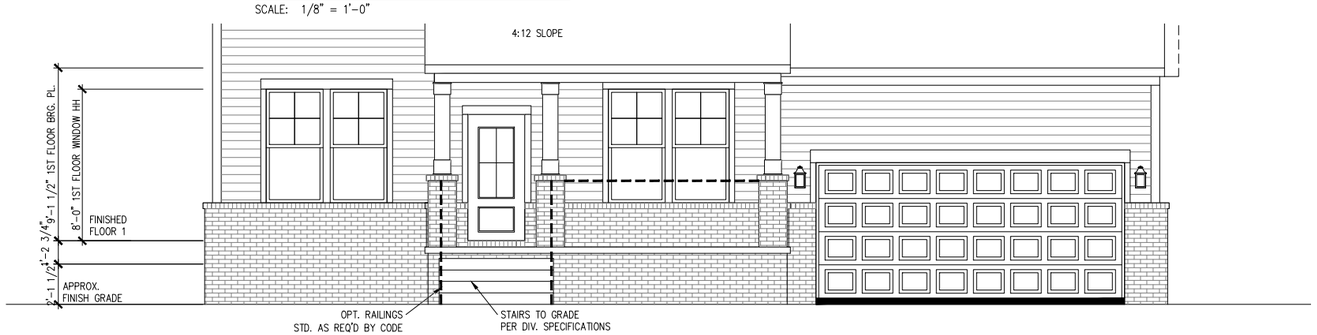
FRONT ELEVATION 5

SCALE: 1/8" = 1'-0"



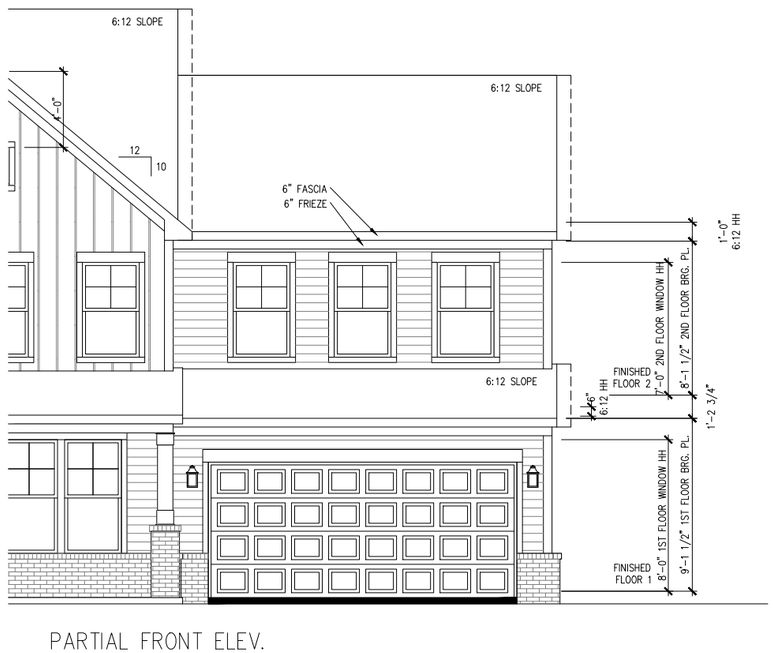
PARTIAL FRONT ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL FRONT ELEV.
OPT. BONUS ROOM

SCALE: 1/8" = 1'-0" OPT. GUEST SUITE SIM.



PARTIAL FRONT ELEV.
OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 9/8/21

24 X 36 SCALE 3186

DRB HOMES

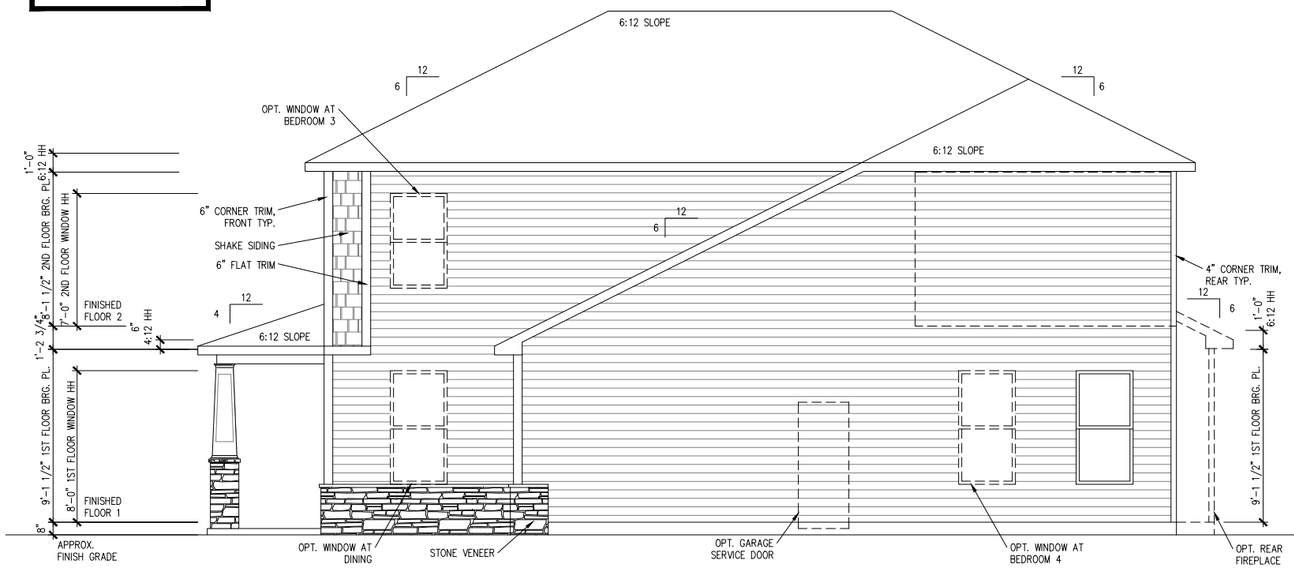
HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: FRONT ELEVATIONS

SHEET No. A1.1.5

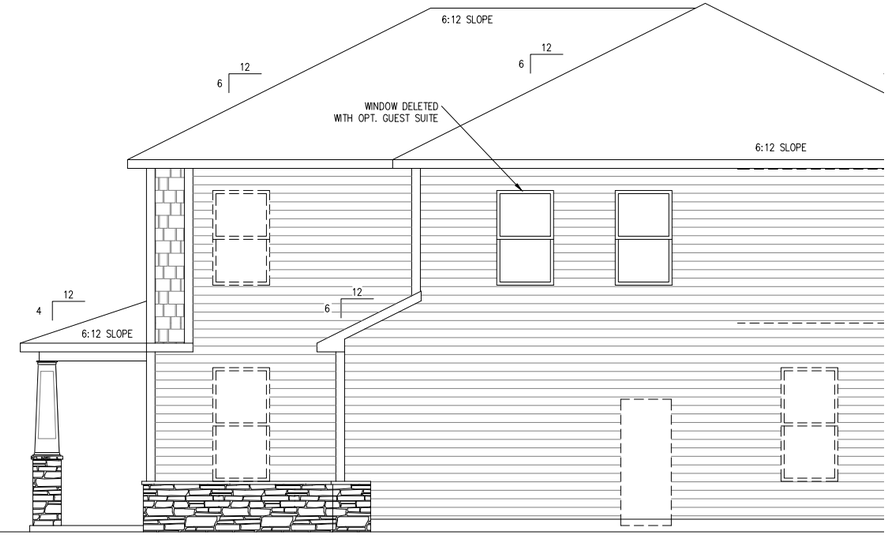
FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



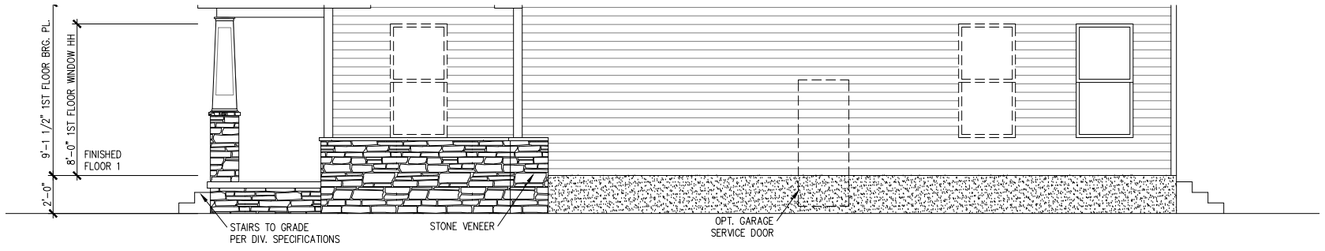
RIGHT SIDE ELEVATION 3

SCALE: 1/8" = 1'-0"



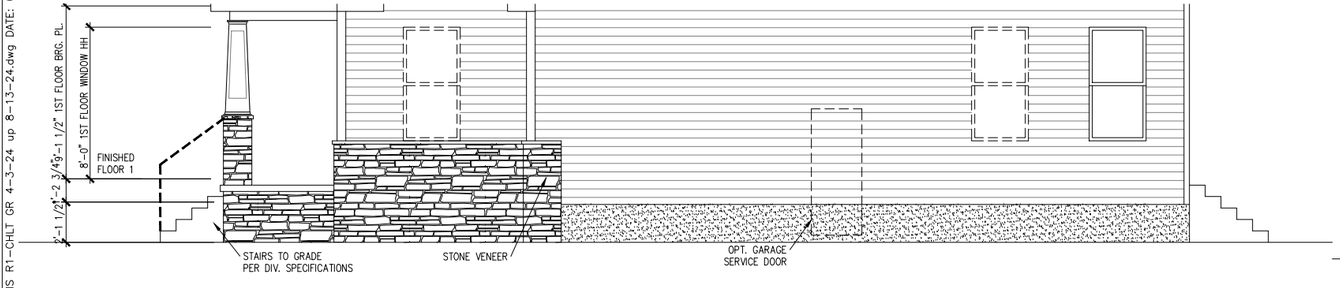
PARTIAL SIDE ELEV. OPT. BONUS ROOM

SCALE: 1/8" = 1'-0" OPT. GUEST SUITE SIM.



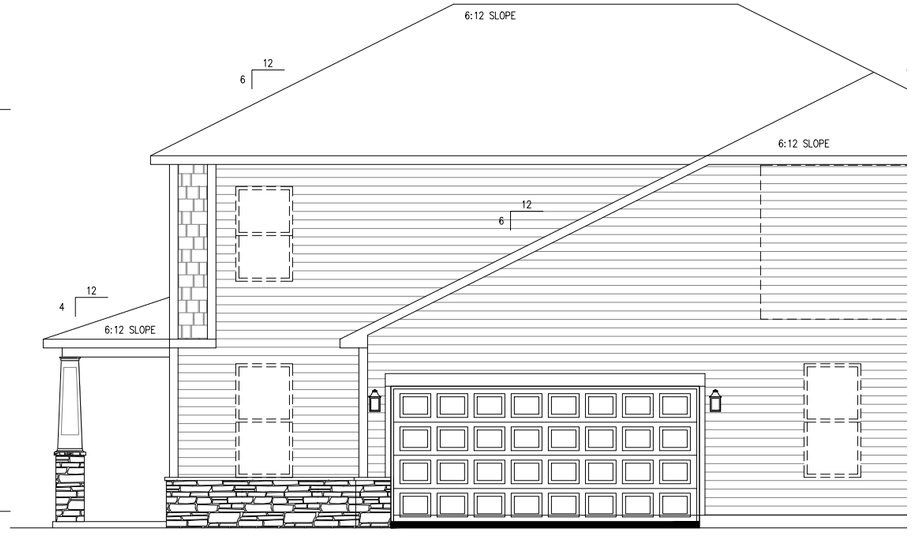
PARTIAL SIDE ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL SIDE ELEV. OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

SEAL

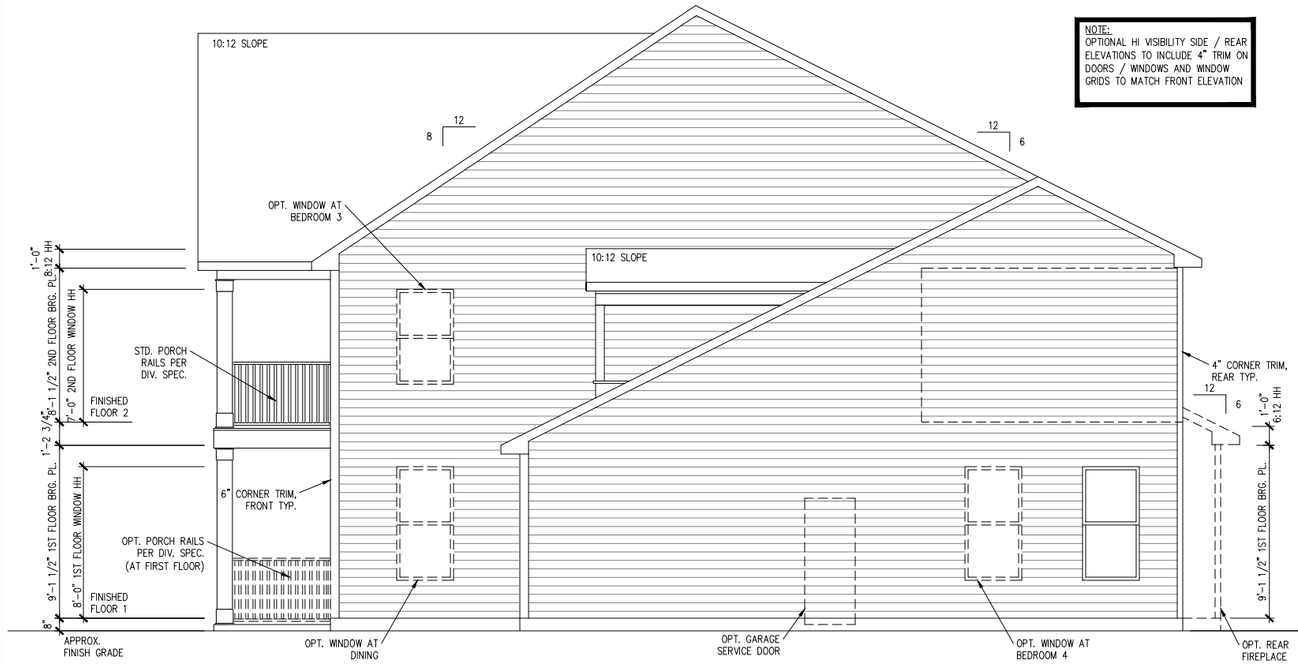
DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	9/8/21
24 X 36 SCALE	3186

DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: SIDE ELEVATIONS

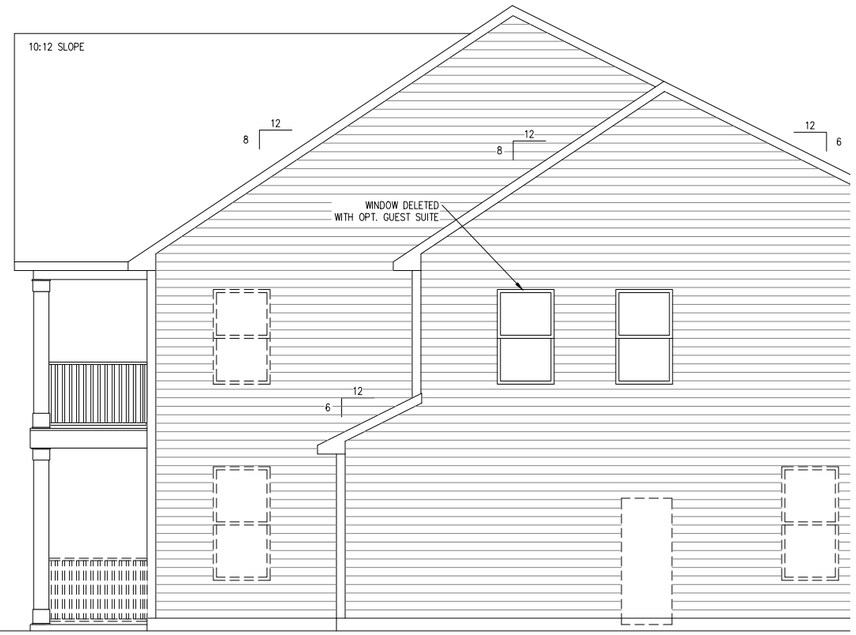
SHEET No. A1.2.3



RIGHT SIDE ELEVATION 4

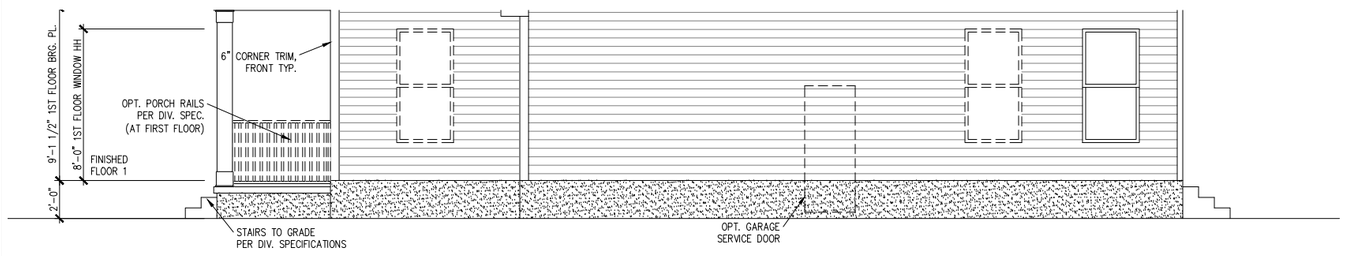
SCALE: 1/8" = 1'-0"

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



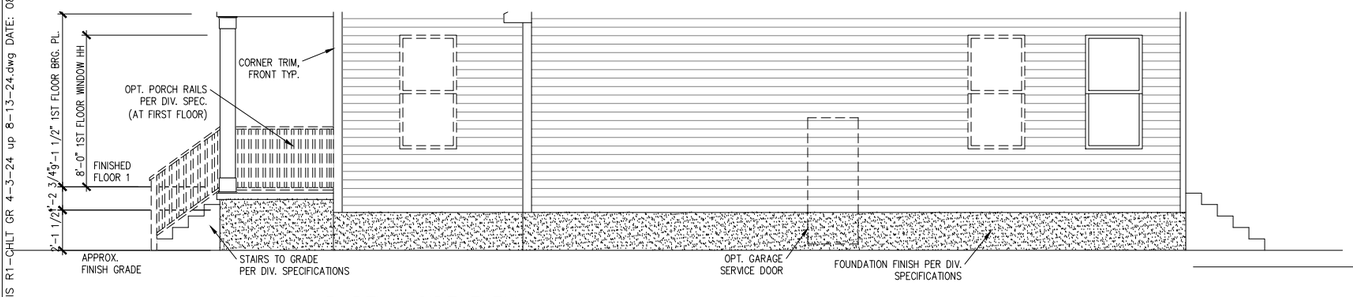
PARTIAL SIDE ELEV.
OPT. BONUS ROOM

SCALE: 1/8" = 1'-0" OPT. GUEST SUITE SIM.



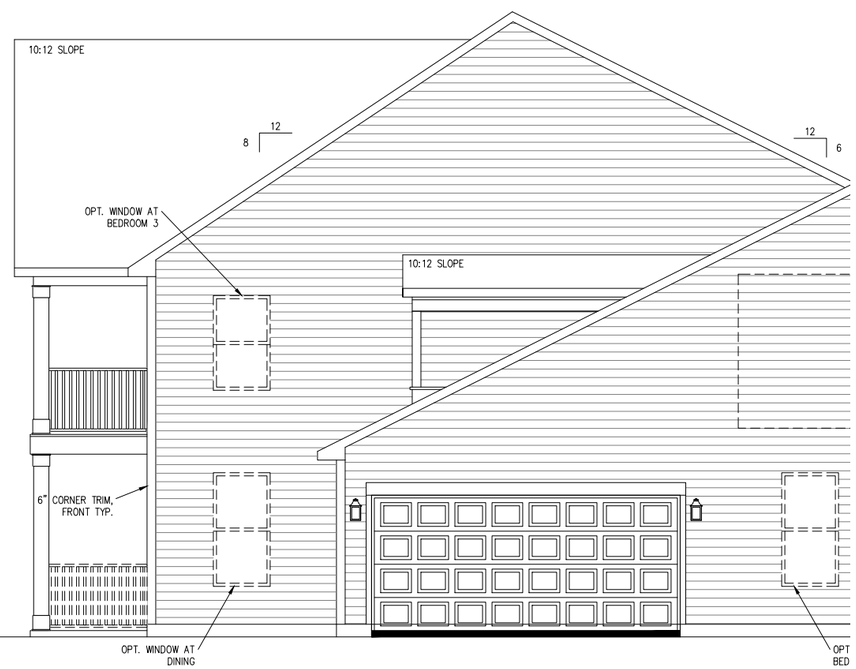
PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL SIDE ELEV.
OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	9/8/21
24 X 36 SCALE	3186

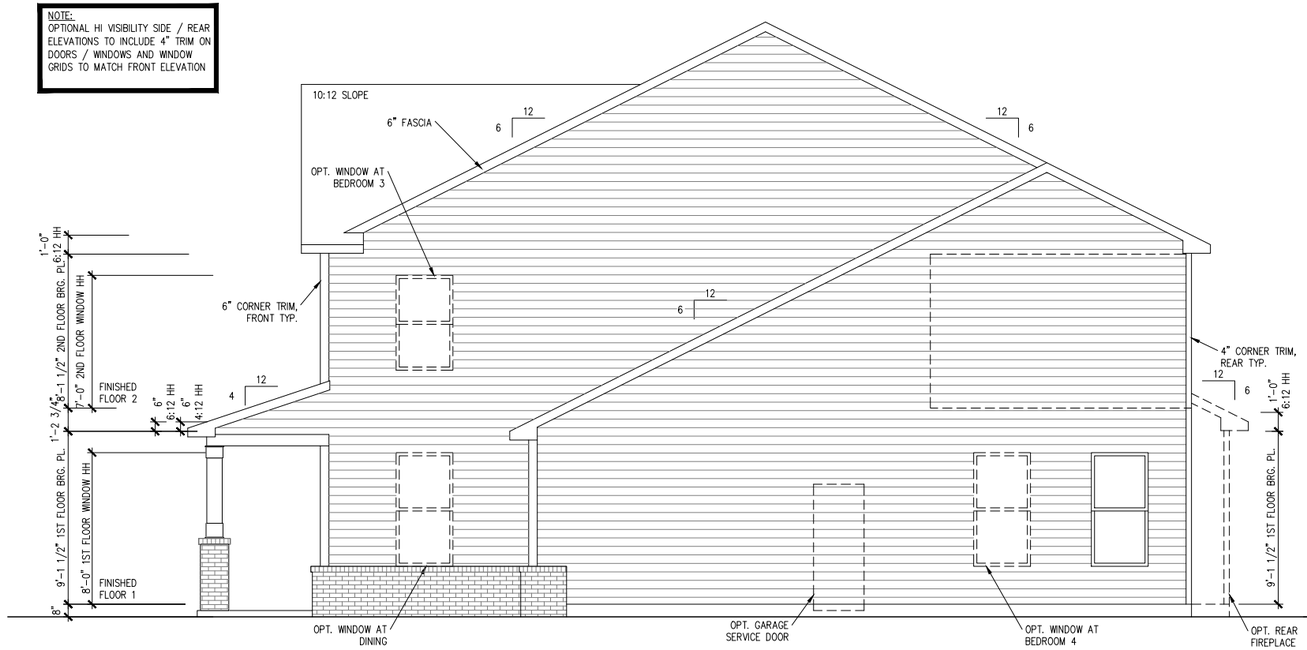
DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: SIDE ELEVATIONS

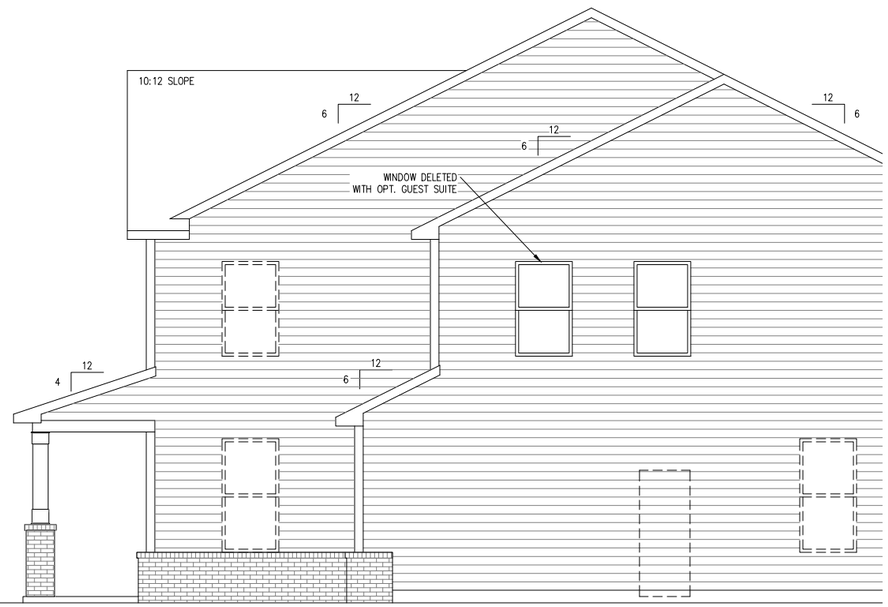
SHEET No. A1.2.4

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



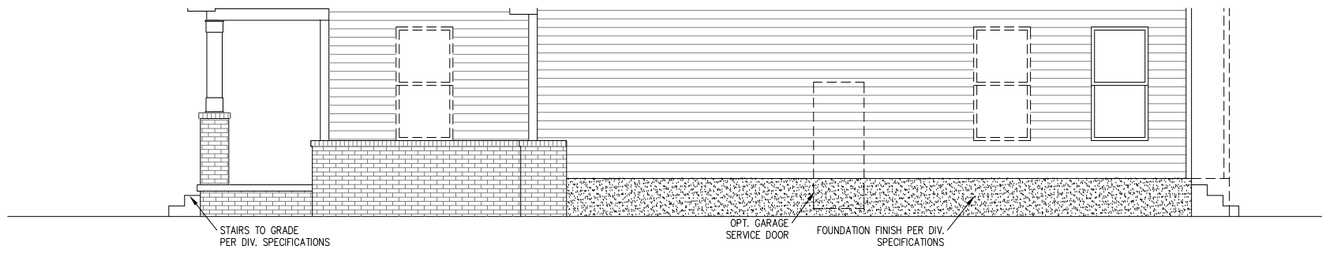
RIGHT SIDE ELEVATION 5

SCALE: 1/8" = 1'-0"



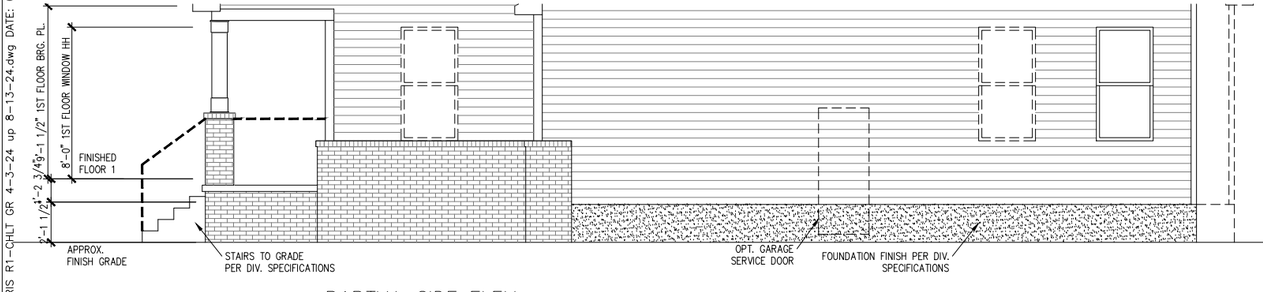
PARTIAL SIDE ELEV. OPT. BONUS ROOM

SCALE: 1/8" = 1'-0" OPT. GUEST SUITE SIM.



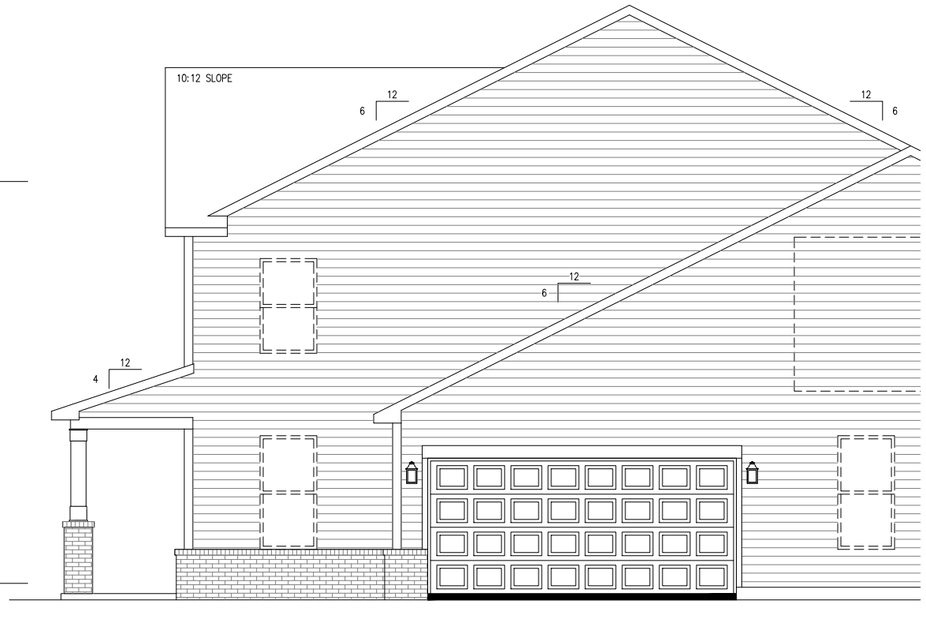
PARTIAL SIDE ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL SIDE ELEV. OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 9/8/21

24 X 36 SCALE 3186

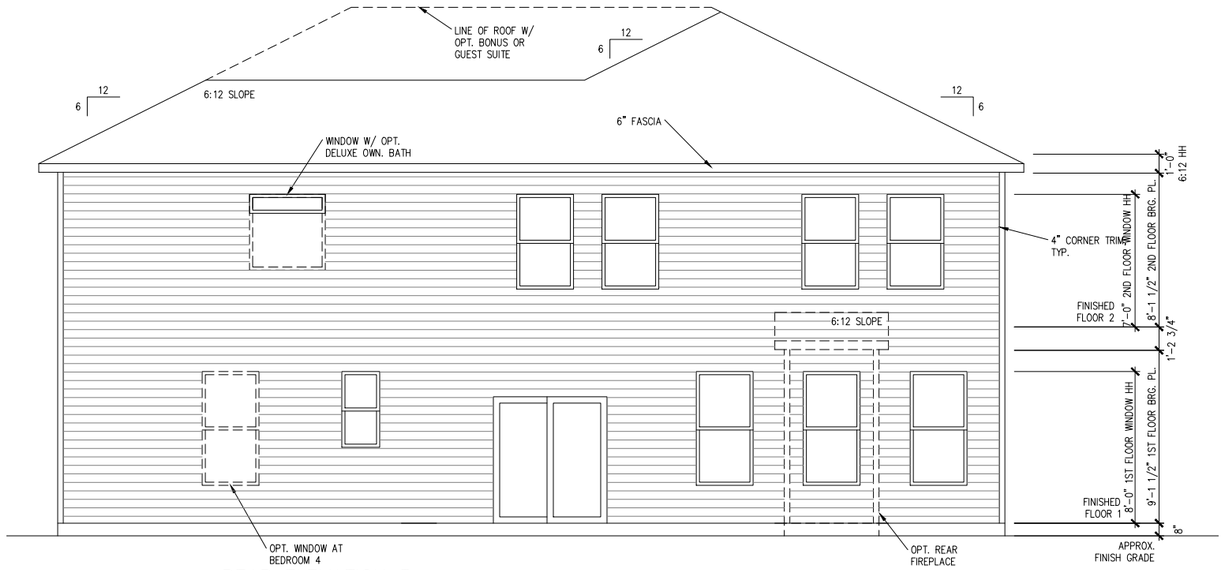
DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: SIDE ELEVATIONS

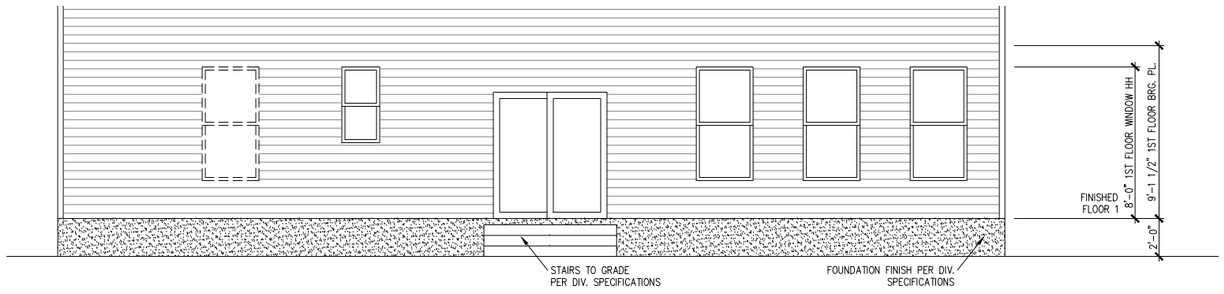
SHEET No. A1.2.5

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



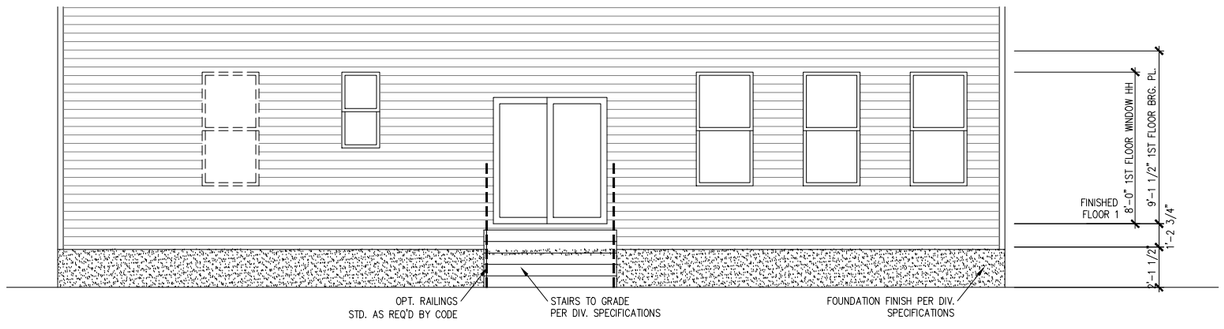
REAR ELEVATION 3

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

SEAL

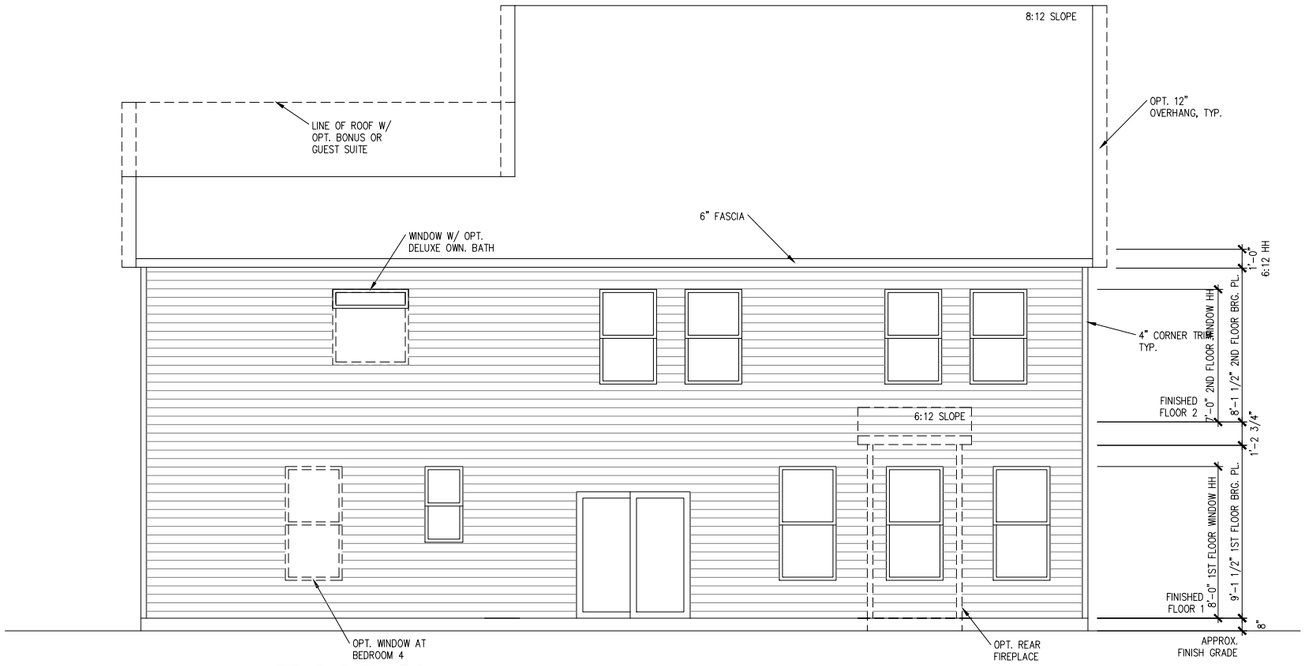
DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	9/8/21
24 X 36 SCALE	3186

DRB HOMES

HOUSE NAME: NORRIS - CHLT

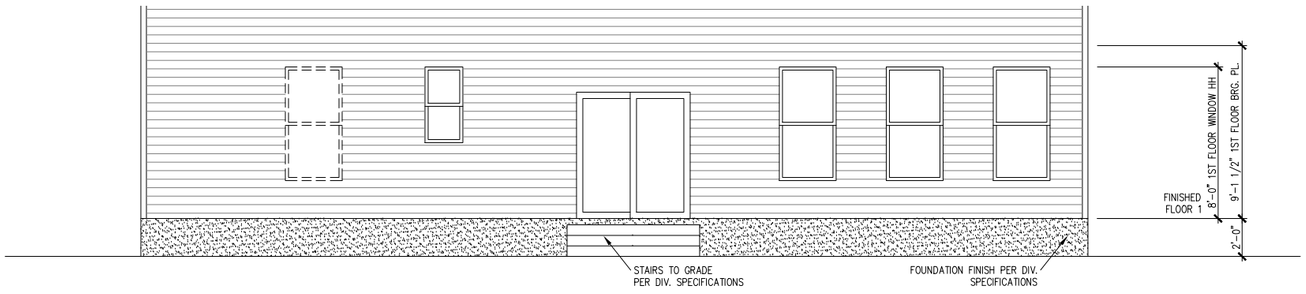
DRAWING TITLE: REAR ELEVATIONS

SHEET No. A1.3.3



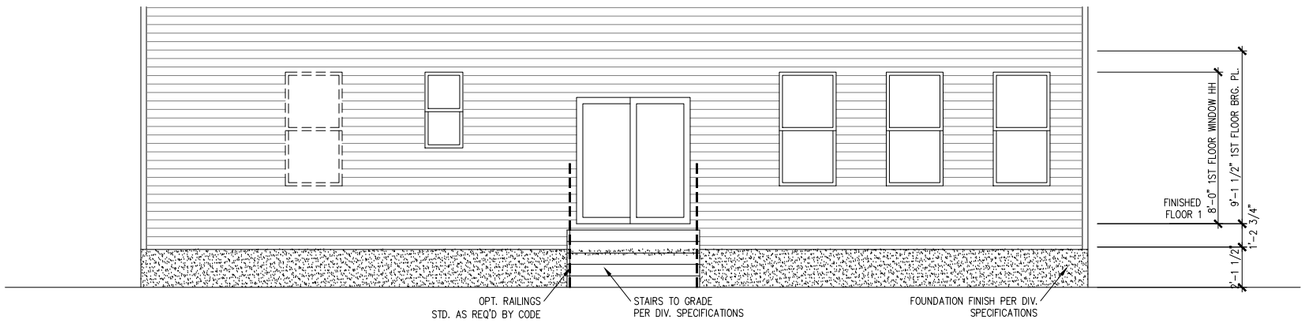
REAR ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
G. NEWELL

11 X 17 SCALE
9/8/21

24 X 36 SCALE
3186

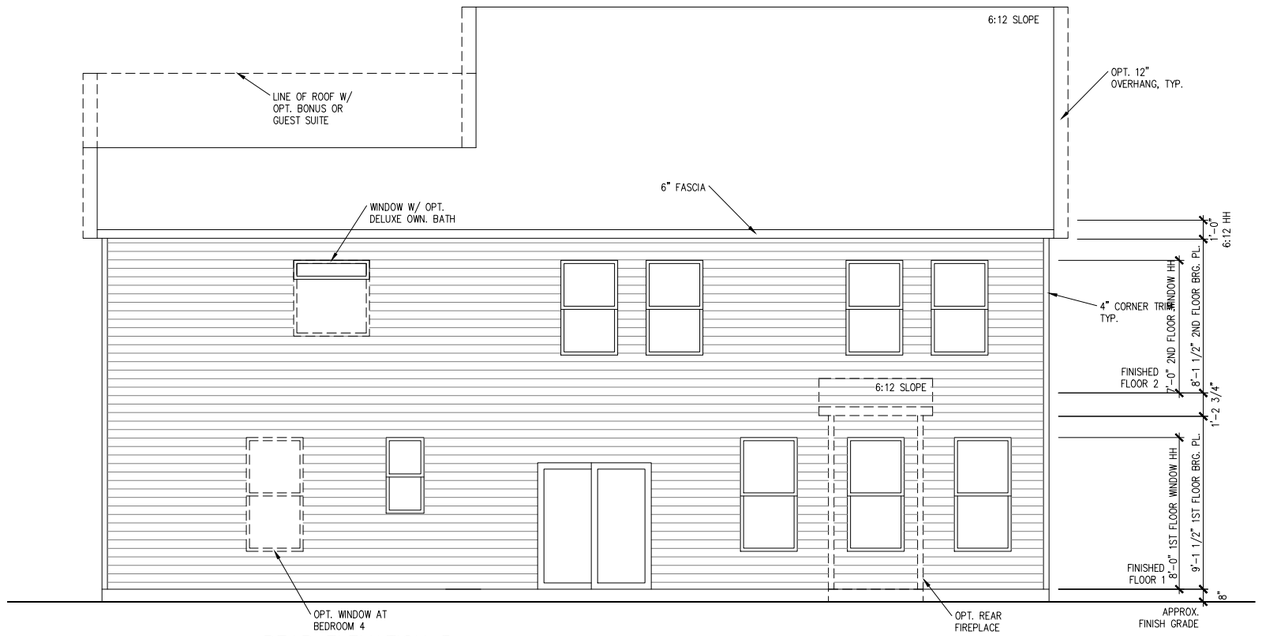
DRB HOMES

HOUSE NAME:
NORRIS - CHLT

DRAWING TITLE
REAR ELEVATIONS

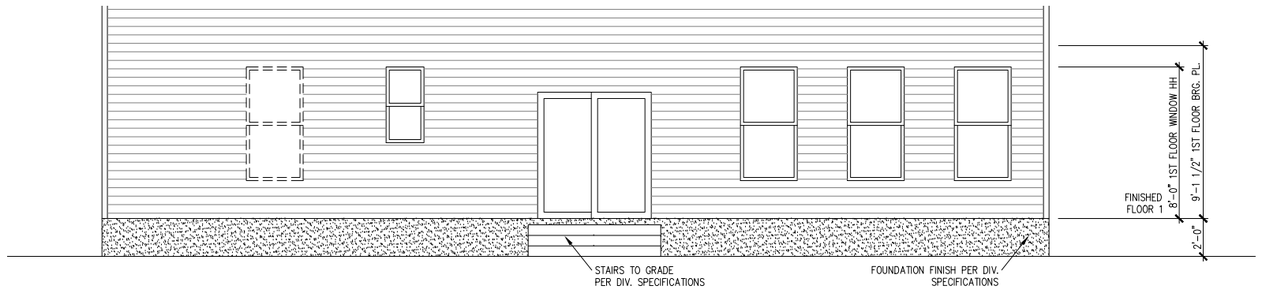
SHEET No.
A1.3.4

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024



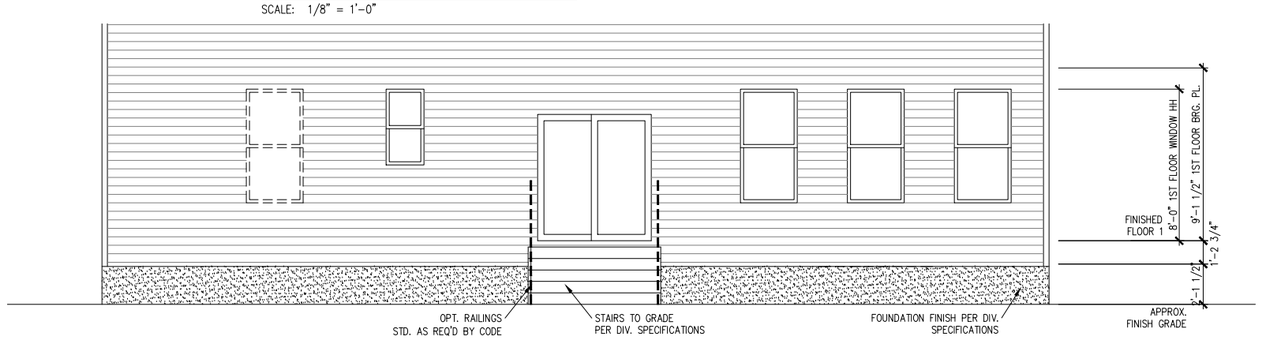
REAR ELEVATION 5

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
G. NEWELL

11 X 17 SCALE
9/8/21

24 X 36 SCALE
3186

DRB HOMES

HOUSE NAME:
NORRIS - CHLT

DRAWING TITLE
REAR ELEVATIONS

SHEET No.
A1.3.5

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

NOTE:
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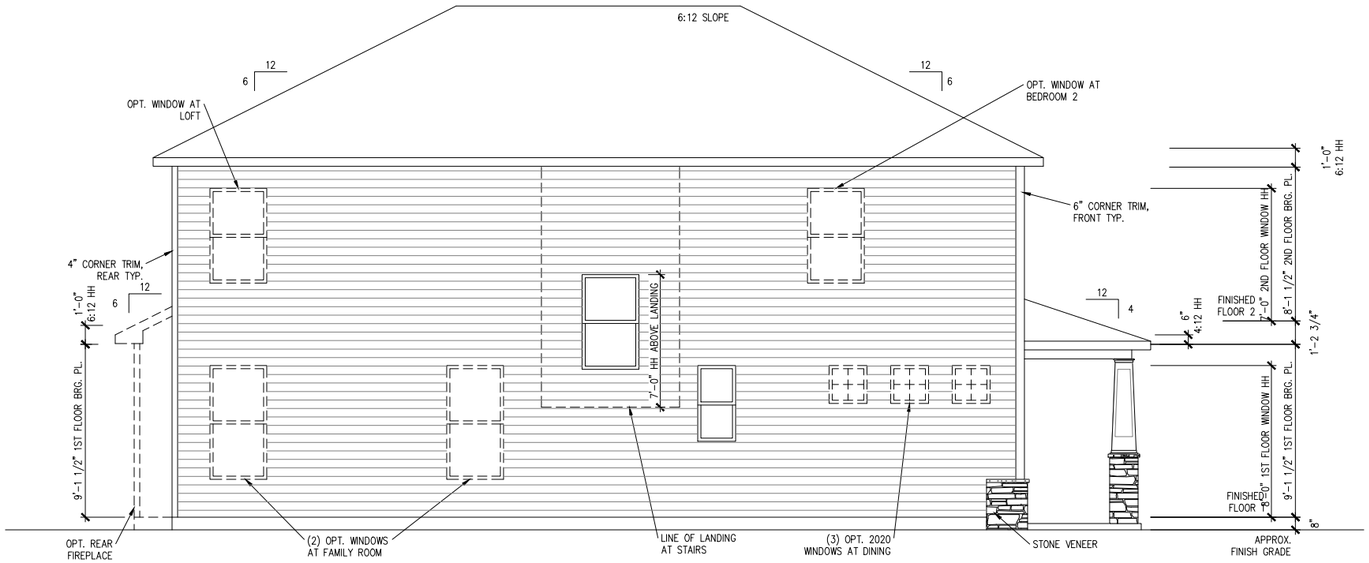
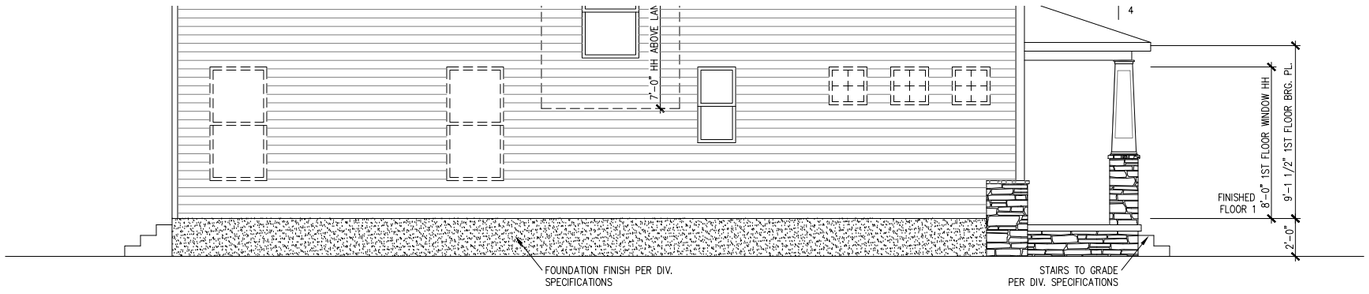


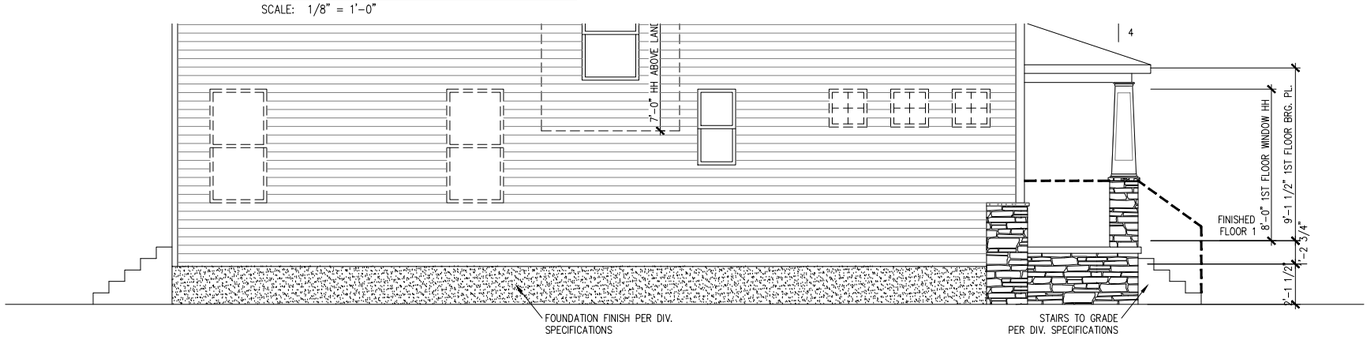
LEFT SIDE ELEVATION 3

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	9/8/21
24 X 36 SCALE	3186

DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: SIDE ELEVATIONS

SHEET No. A1.4.3

NOTE:
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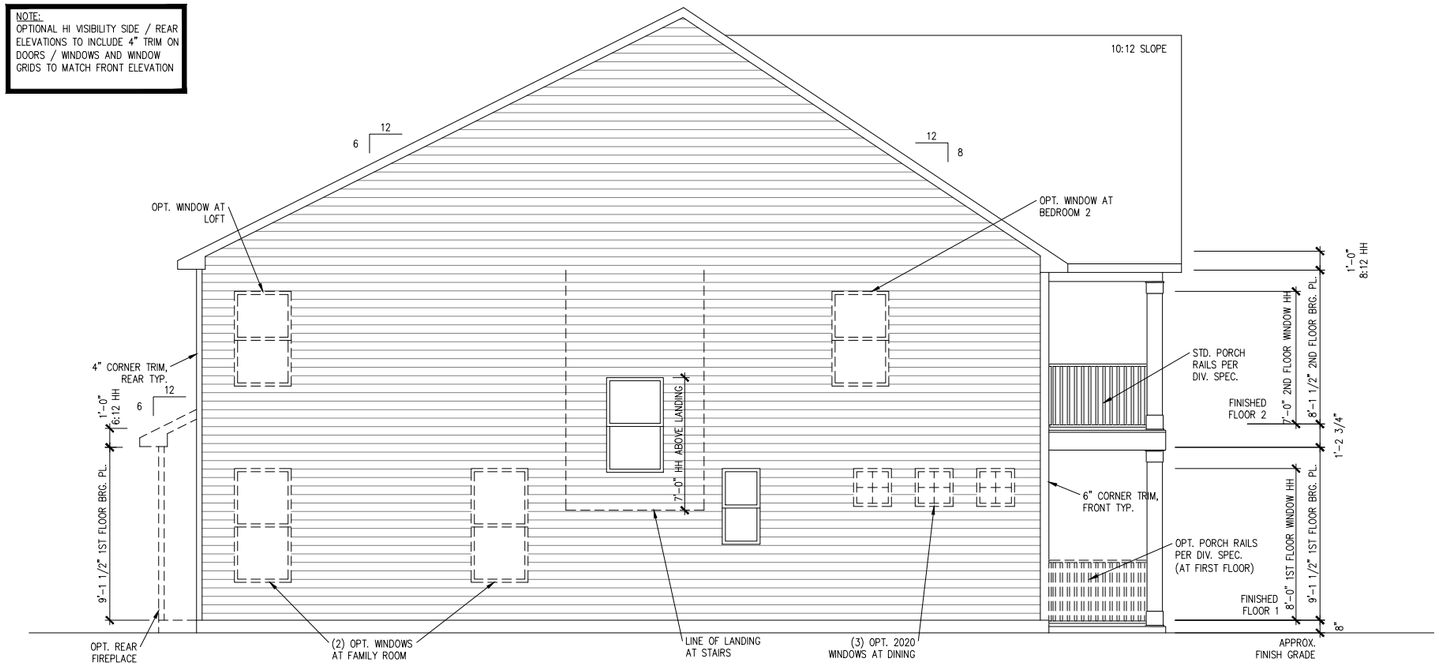
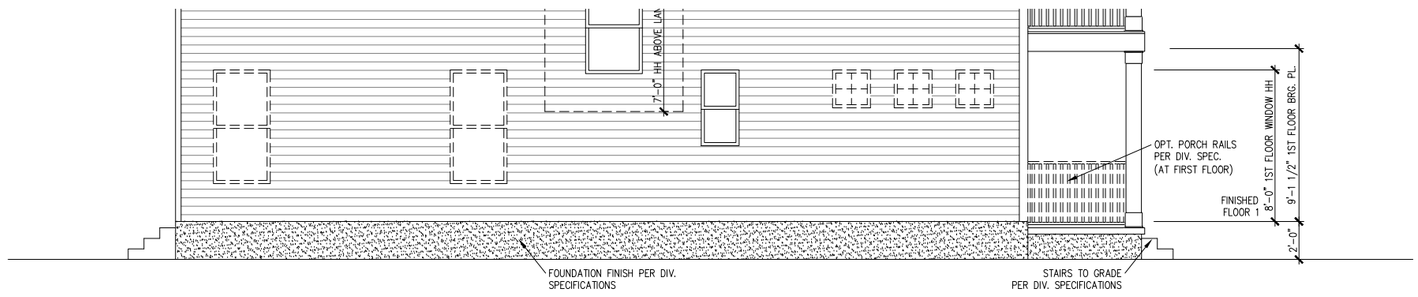


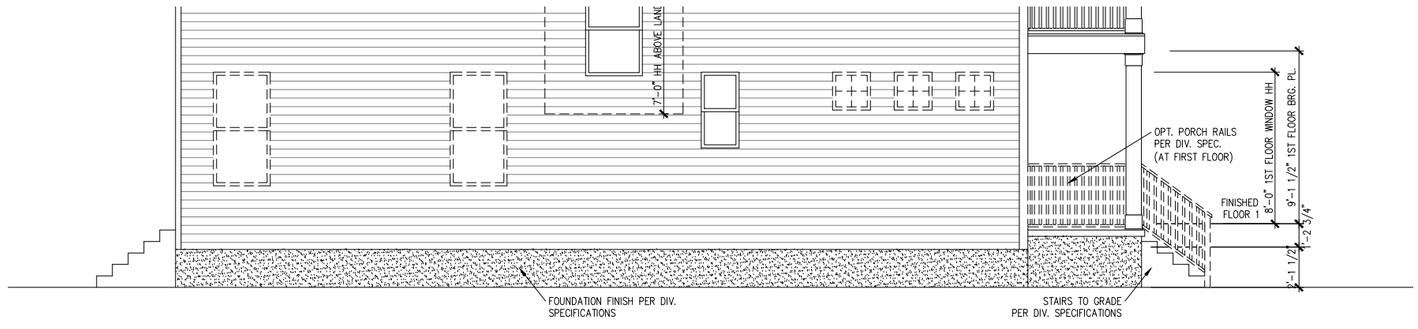
LEFT SIDE ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

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DRAWN BY:	
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PLAN NO.	G. NEWELL
11 X 17 SCALE	9/8/21
24 X 36 SCALE	3186

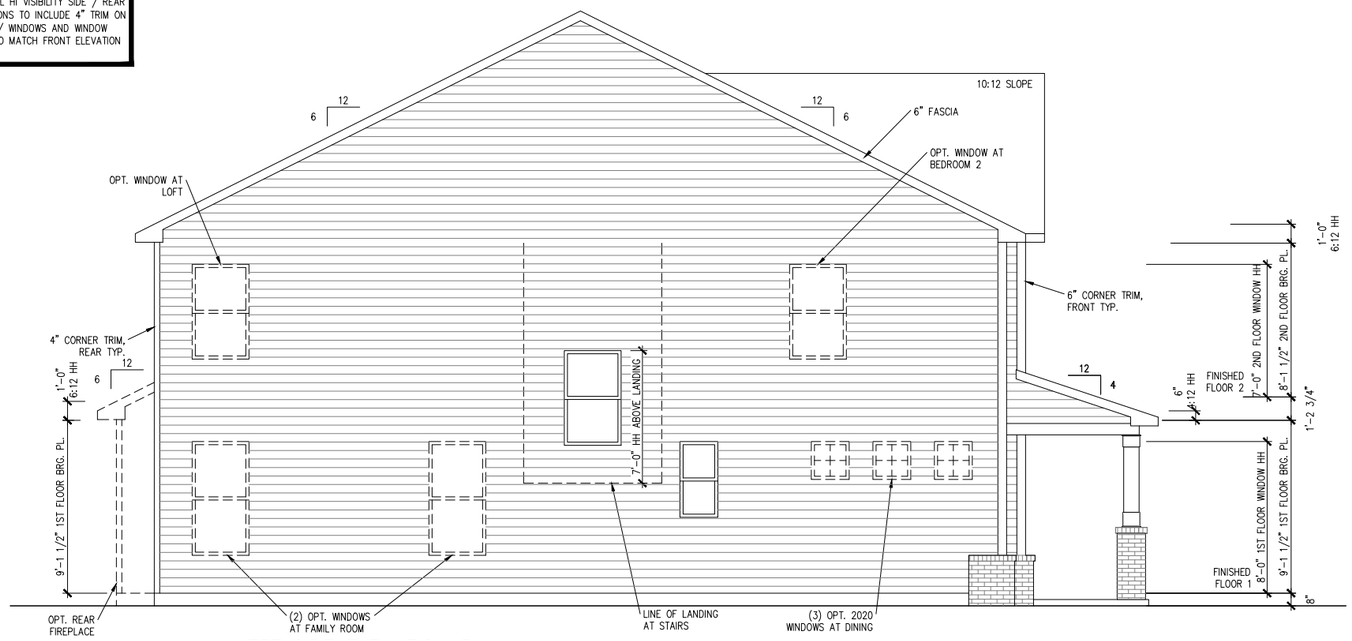
DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: SIDE ELEVATIONS

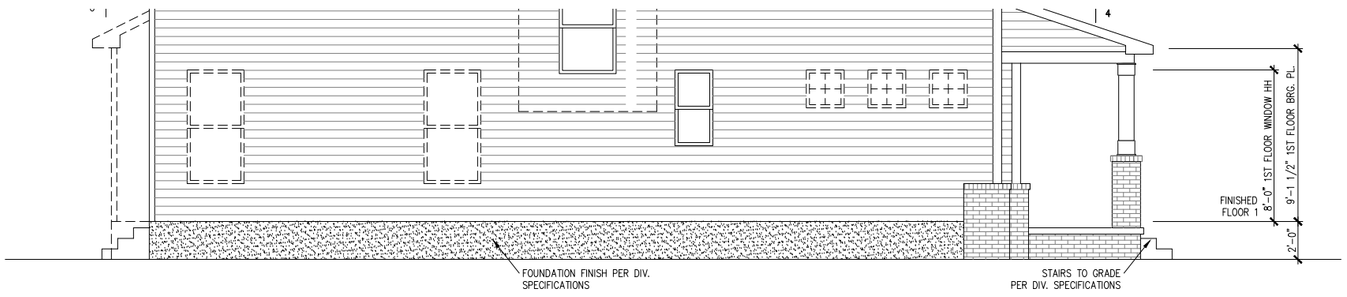
SHEET No. A1.4.4

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



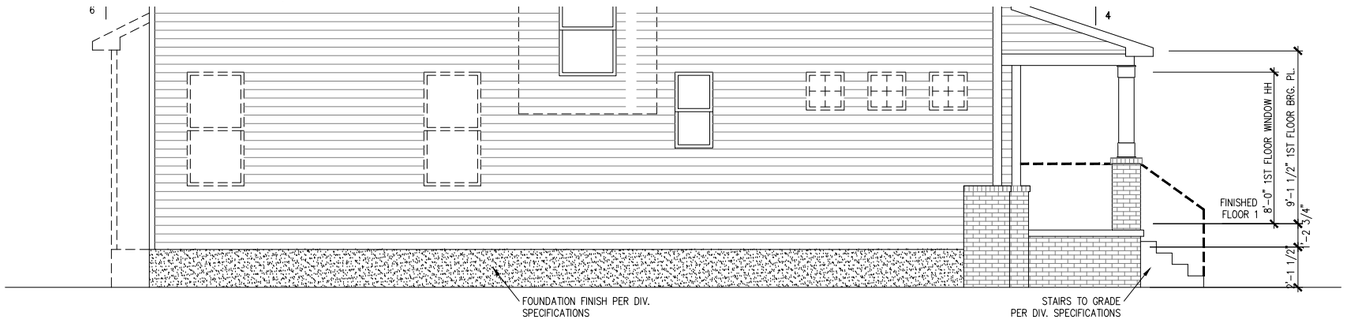
LEFT SIDE ELEVATION 5

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: NORRIS R1-CHLT GR 4-3-24 up 8-13-24.dwg DATE: 08-13-2024

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	9/8/21
24 X 36 SCALE	3186

DRB HOMES

HOUSE NAME: NORRIS - CHLT

DRAWING TITLE: SIDE ELEVATIONS

SHEET No. A1.4.5

TOWNSEND - CHLT

CHARLOTTE
MODEL #3501

SHEET INDEX

TITLE	DESCRIPTION
A1.1.1–5	FRONT ELEVATIONS, ELEV. 1 – 5
A1.2.1–5	SIDE ELEVATIONS, ELEV. 1 – 5
A1.3.1–5	REAR ELEVATIONS, ELEV. 1 – 5
A1.4.1–5	SIDE ELEVATIONS, ELEV. 1 – 5
A1.5.1–5	ROOF PLANS
A2.1.1–2	MONOSLAB FOUNDATION PLANS
A2.2.1–2	RAISED SLAB FOUNDATION PLANS
A2.3.1–2	CRAWLSPACE FOUNDATION PLANS
A2.4.1–5	OPT. UNFINISHED BASEMENT PLAN
A3.0.1–5	BASEMENT PLANS
A3.1.1–5	FIRST FLOOR PLANS
A3.2.1–5	SECOND FLOOR PLANS
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A5.1.1–4	STRUCTURAL OPTIONS
A6.1.1	BUILDING SECTIONS
F3.0.1	BASEMENT FLOORING BREAK LAYOUTS
F3.1.1	1ST FLOOR FLOORING BREAK LAYOUTS
F3.2.1	2ND FLOOR FLOORING BREAK LAYOUTS
K1.1.1	CABINET LAYOUTS
E3.0.1	BASEMENT ELECTRICAL PLANS
E3.1.1–2	FIRST FLOOR ELECTRICAL PLANS
E3.2.1	SECOND FLOOR ELECTRICAL PLANS

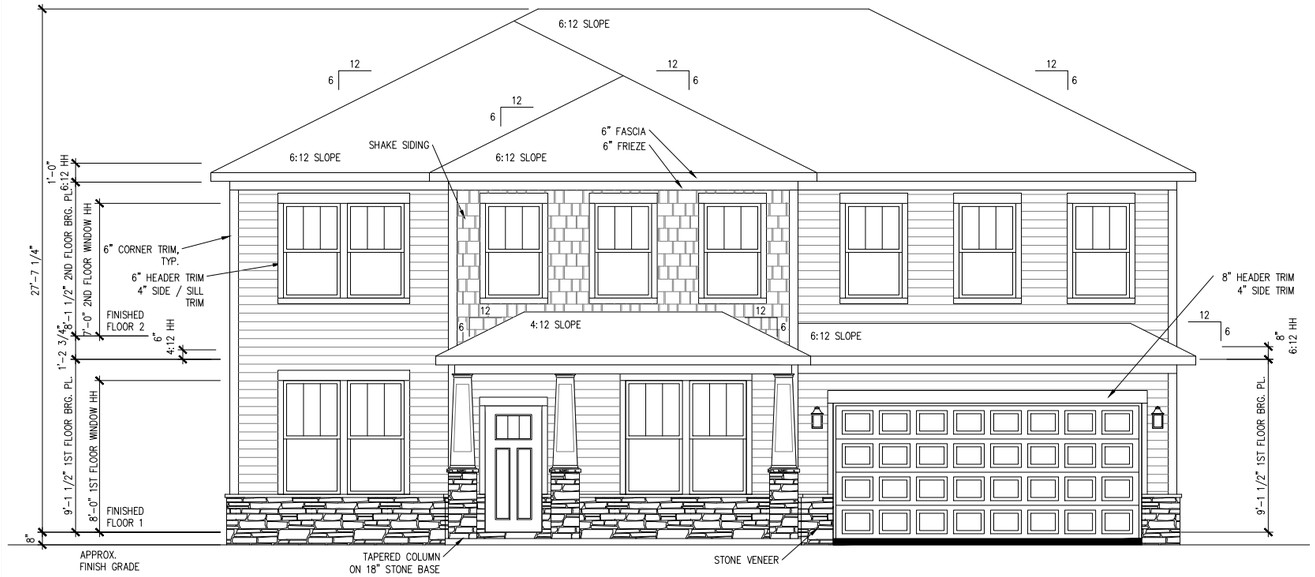
DRB HOMES

AREA CALCULATIONS

	HEATED	COVERED / UNHEATED	UNCOVERED
BASE HOUSE			
FIRST FLOOR – ELEV. 1 – 4	1588 SF		
FRONT PORCH – ELEV. 1–4		116 SF	
GARAGE – ALL ELEV.		439 SF	
SECOND FLOOR – ALL ELEV.	1913 SF		
BASE HOUSE TOTAL	3501 SF	4056 SF	
OPTIONS			
BASEMENT			
FINISHED BASEMENT ELEV. 1–4	+1313 SF	+275 SF	
FINISHED BASEMENT ELEV. 5	+1319 SF	+310 SF	
UNFINISHED BASEMENT ELEV. 1–4		+1588 SF	
UNFINISHED BASEMENT ELEV. 5		+1629 SF	
1ST FLOOR			
REAR FIREPLACE	+10 SF		
SIDE BAY	+36 SF		
ELEVATION 5	+41 SF		
FRONT PORCH – ELEV. 5		+9 SF	
REAR PORCH		+462 SF	
2ND FLOOR			
FRONT PORCH SECOND FLOOR – ELEV. 4		+116 SF	
ELEVATION 5	+41 SF		

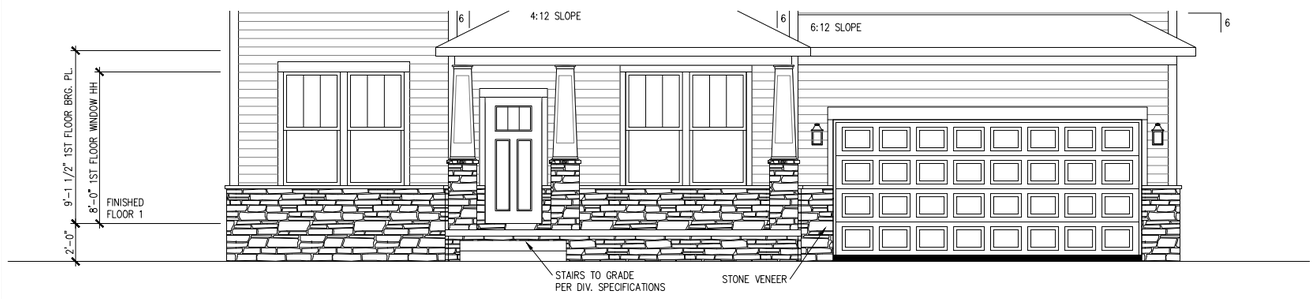
GENERAL REVISIONS

#	DATE	DESCRIPTION
99	9/22/21	RELEASE OF REVISION 1 TO CHARLOTTE DIVISION
98	9/30/21	REVISIONS PER CHARLOTTE DIVISION COMMENTS
97	10/13/21	REVISIONS PER MEETING WITH YORK COUNTY PLANNING
N/A	10/19/21	REVISION PER CHARLOTTE DIVISION REVIEW
N/A	11/8/21	CHANGE TO GARAGE DOOR PORTAL PER ENGINEERING
N/A	11/18/21	CORRECTED BATHROOM NAMES
N/A	11/22/21	REMOVED SIDE RETURN OF FRONT SIDING – ELEV. 2, 3, AND 5
N/A	1/5/22	ADDED ELEV. 5 BASEMENT PLAN
N/A	11/28/22	UPDATED ELEC. SHEETS
1–CHLT	4/3/24	PROTOTYPE CHANGES – SEE ARCH LOG
2–CHLT	5/21/25	NEW REVISION – SEE ARCH LOG
N/A	8/12/25	UPDATE – SEE ARCH LOG
N/A	1/5/26	UPDATE – SEE ARCH LOG



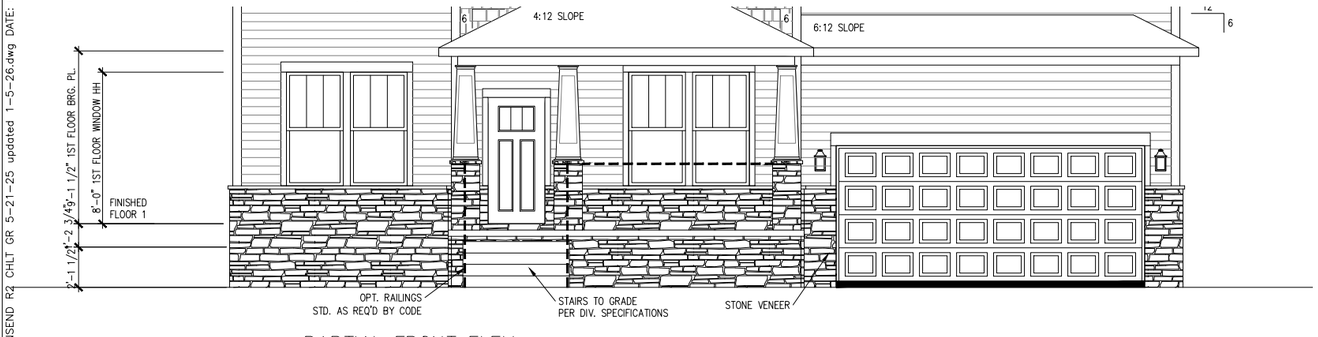
FRONT ELEVATION 3

SCALE: 1/8" = 1'-0"



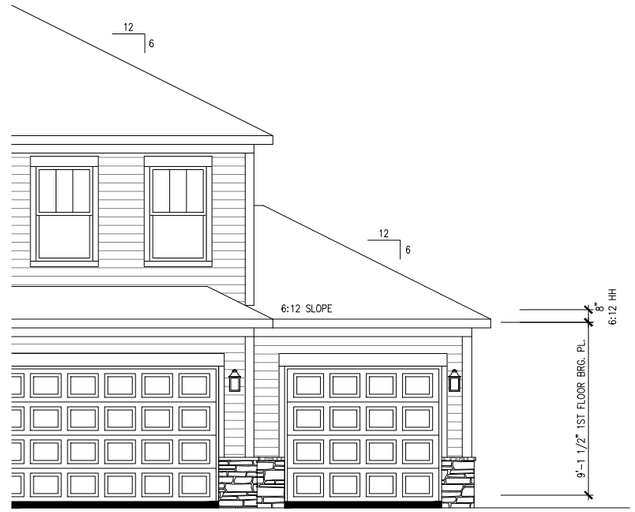
PARTIAL FRONT ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



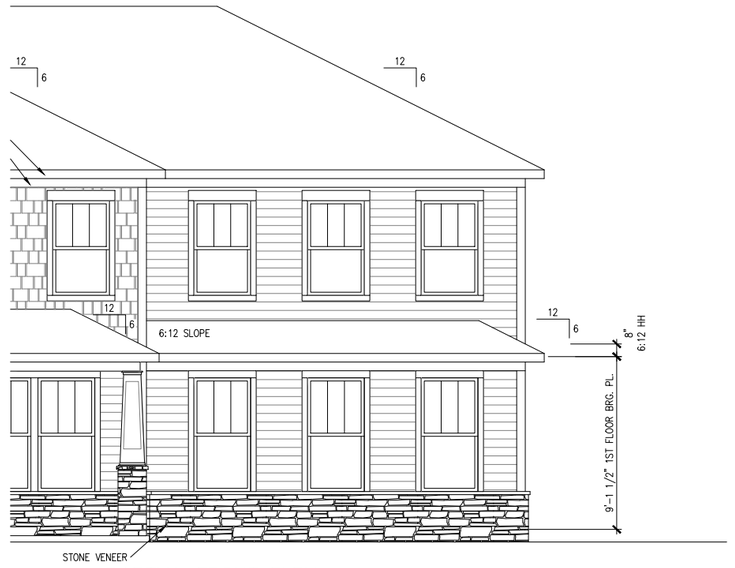
PARTIAL FRONT ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL FRONT ELEV.
OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEV.
OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	1/8"/1'-0"
24 X 36 SCALE	1/4"/1'-0"

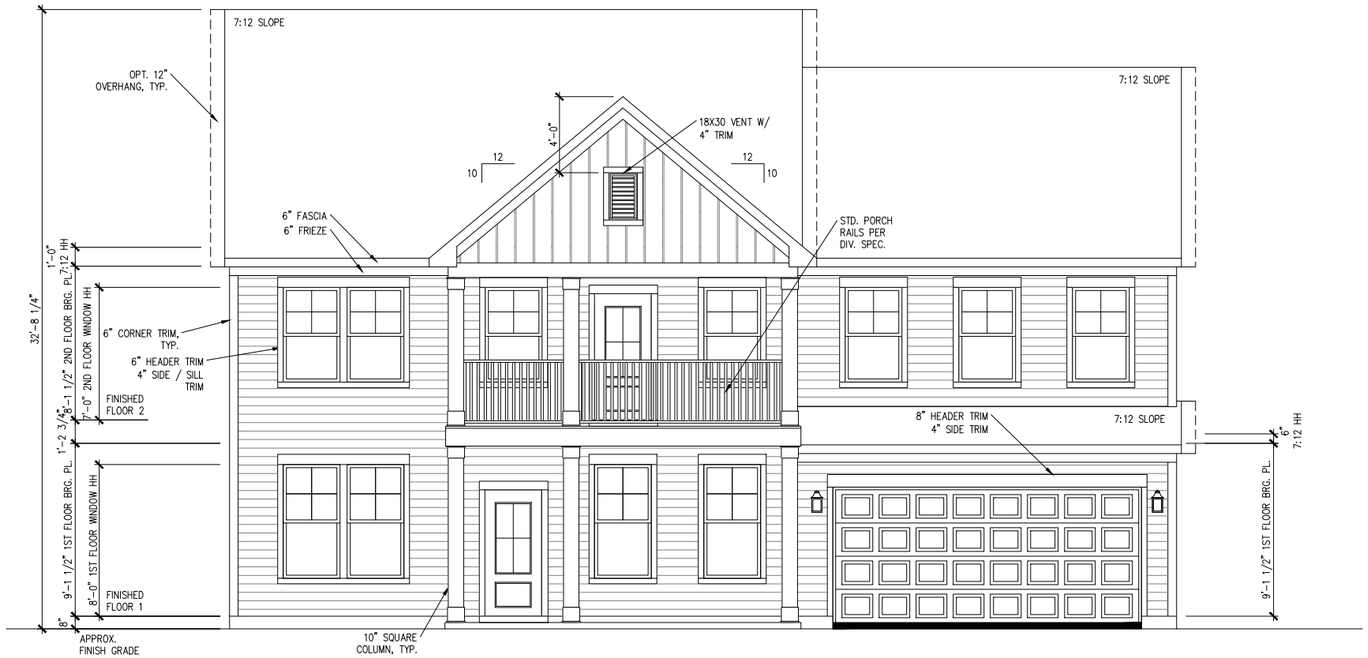
DRB HOMES

HOUSE NAME: TOWNSEND – CHLT

DRAWING TITLE: FRONT ELEVATIONS

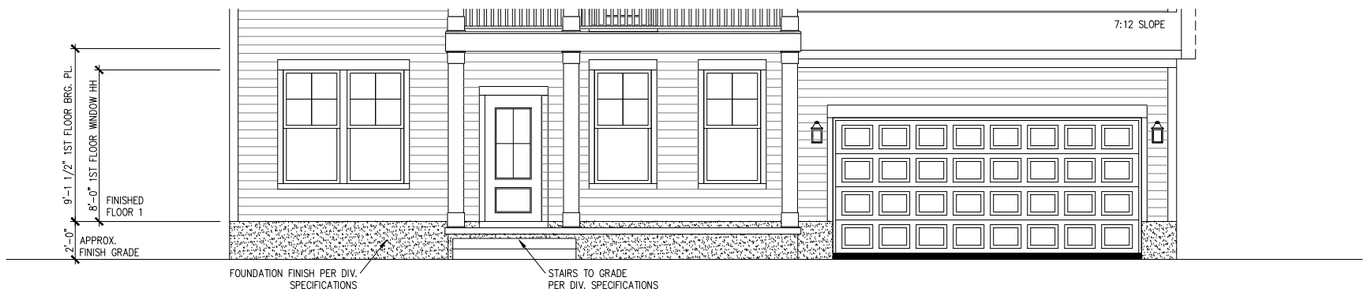
SHEET No. A1.1.3

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026



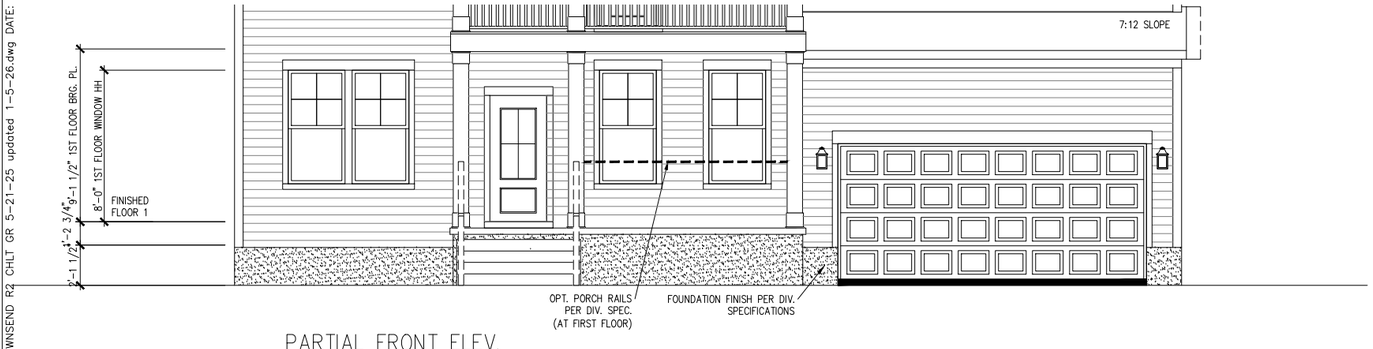
FRONT ELEVATION 4

SCALE: 1/8" = 1'-0"



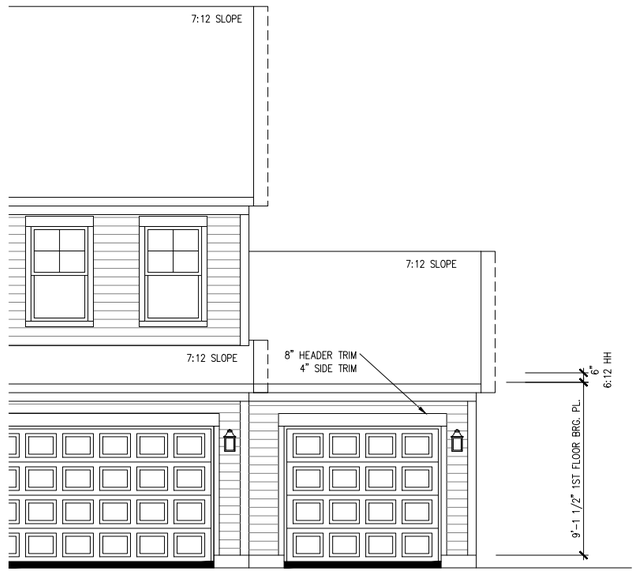
PARTIAL FRONT ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL FRONT ELEV.
OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEV.
OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	1/8"/1'-0"
24 X 36 SCALE	1/4"=1'-0"

DRB HOMES

HOUSE NAME: TOWNSEND – CHLT

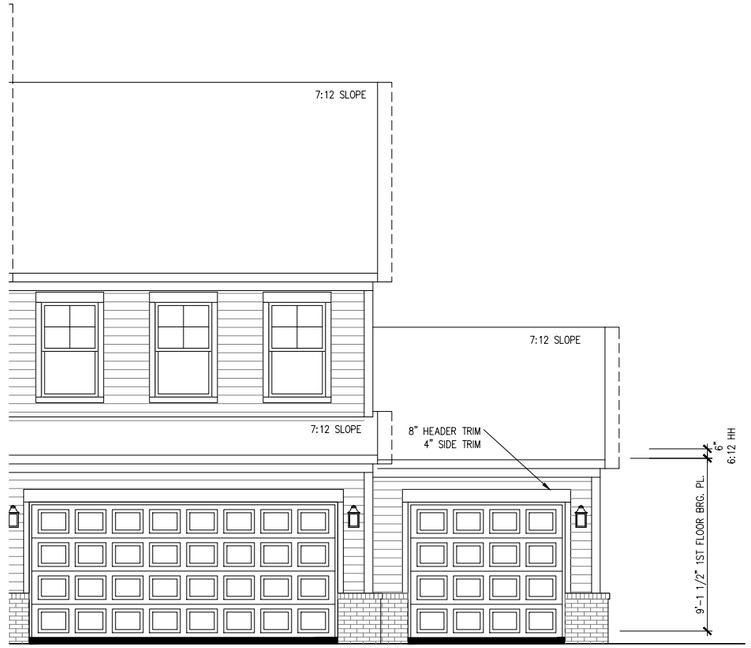
DRAWING TITLE: FRONT ELEVATIONS

SHEET No. A1.1.4



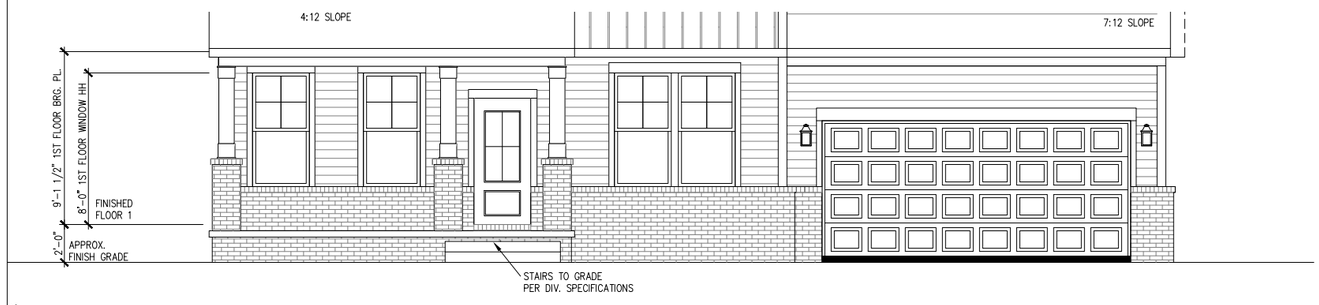
FRONT ELEVATION 5

SCALE: 1/8" = 1'-0"



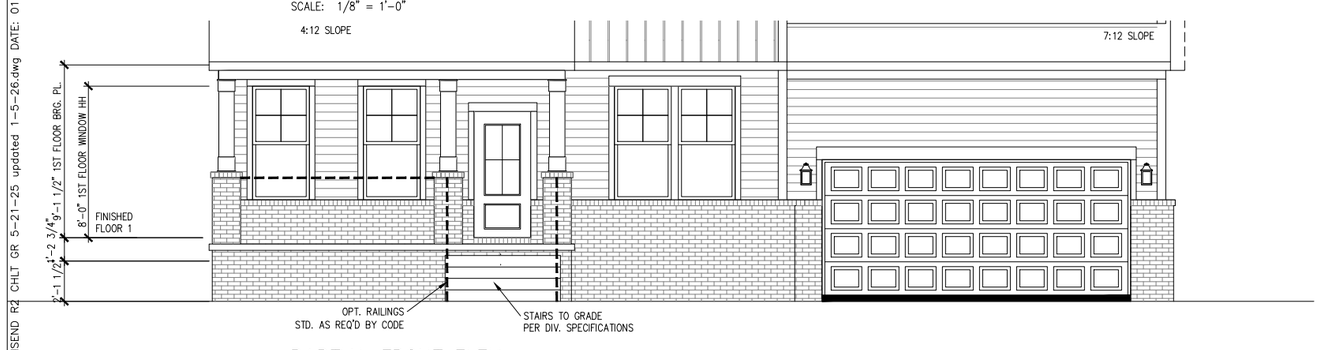
PARTIAL FRONT ELEV.
OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL FRONT ELEV.
OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
G. NEWELL

11 X 17 SCALE
1/8"=1'-0"

24 X 36 SCALE
1/4"=1'-0"

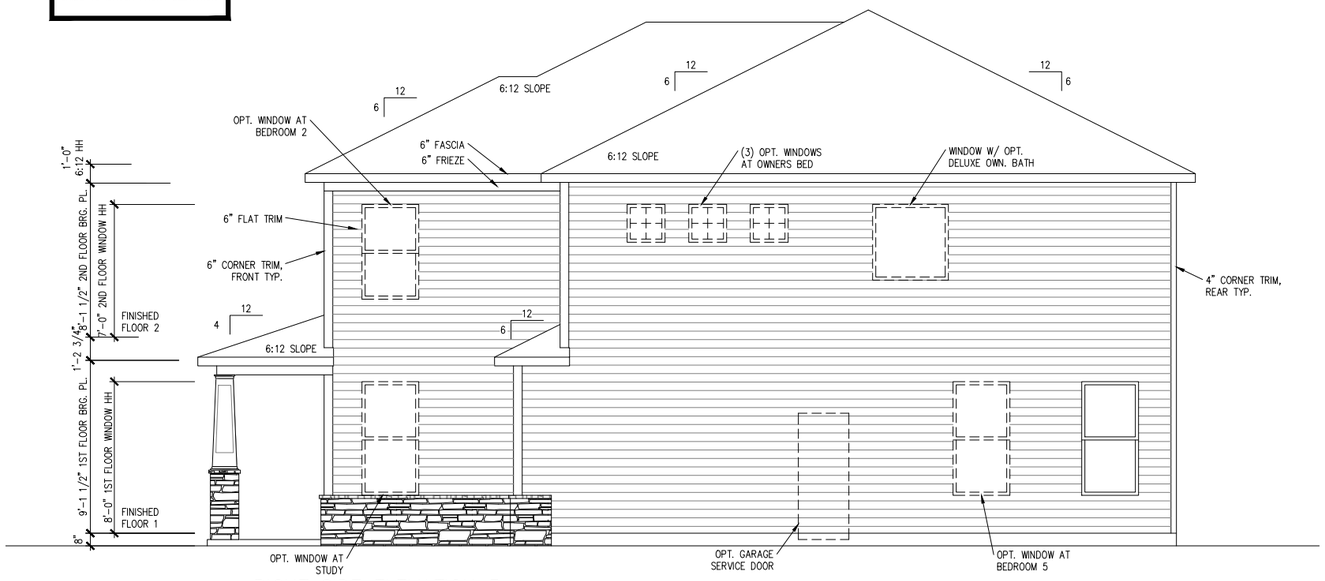
DRB HOMES

HOUSE NAME:
TOWNSEND – CHLT

DRAWING TITLE
FRONT ELEVATIONS

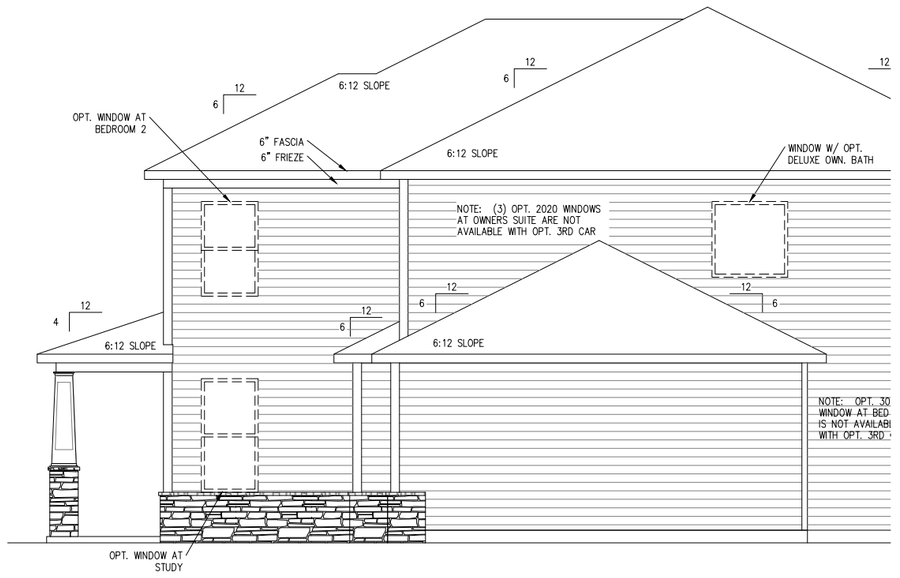
SHEET No.
A1.1.5

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



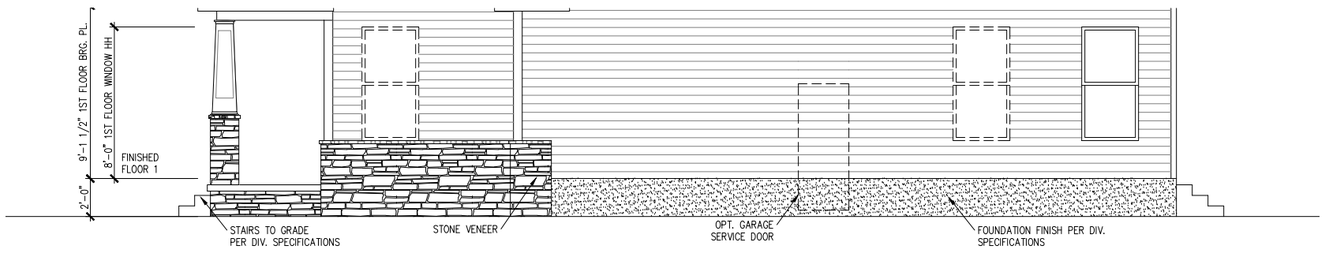
RIGHT SIDE ELEVATION 3

SCALE: 1/8" = 1'-0"



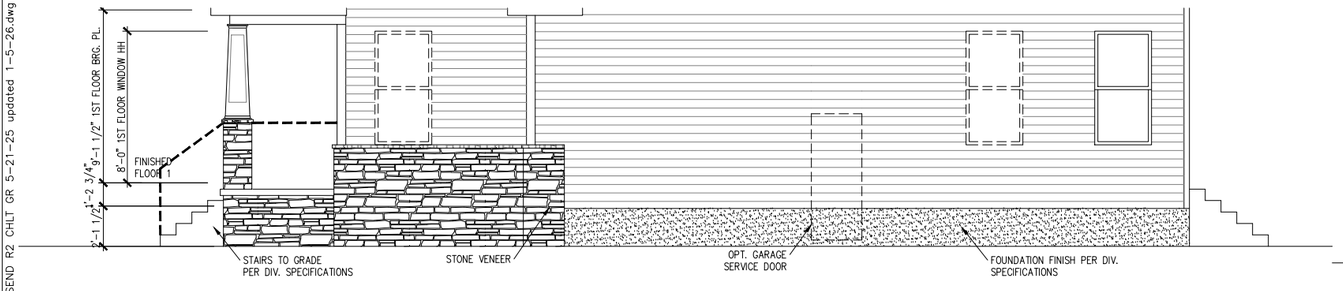
PARTIAL SIDE ELEV.
OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



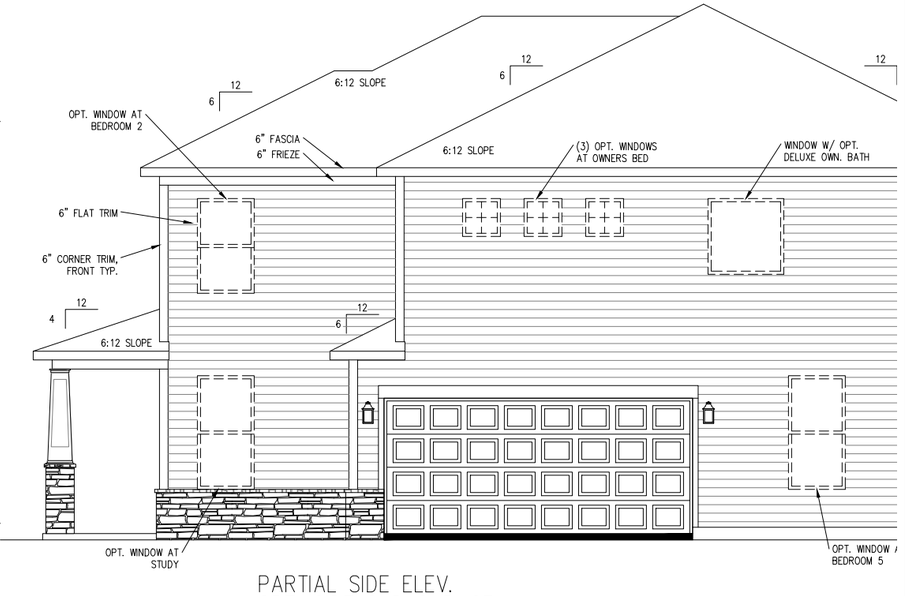
PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL SIDE ELEV.
OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
G. NEWELL

11 X 17 SCALE
1/8"/1'-0"

24 X 36 SCALE
1/4"/1'-0"

DRB HOMES

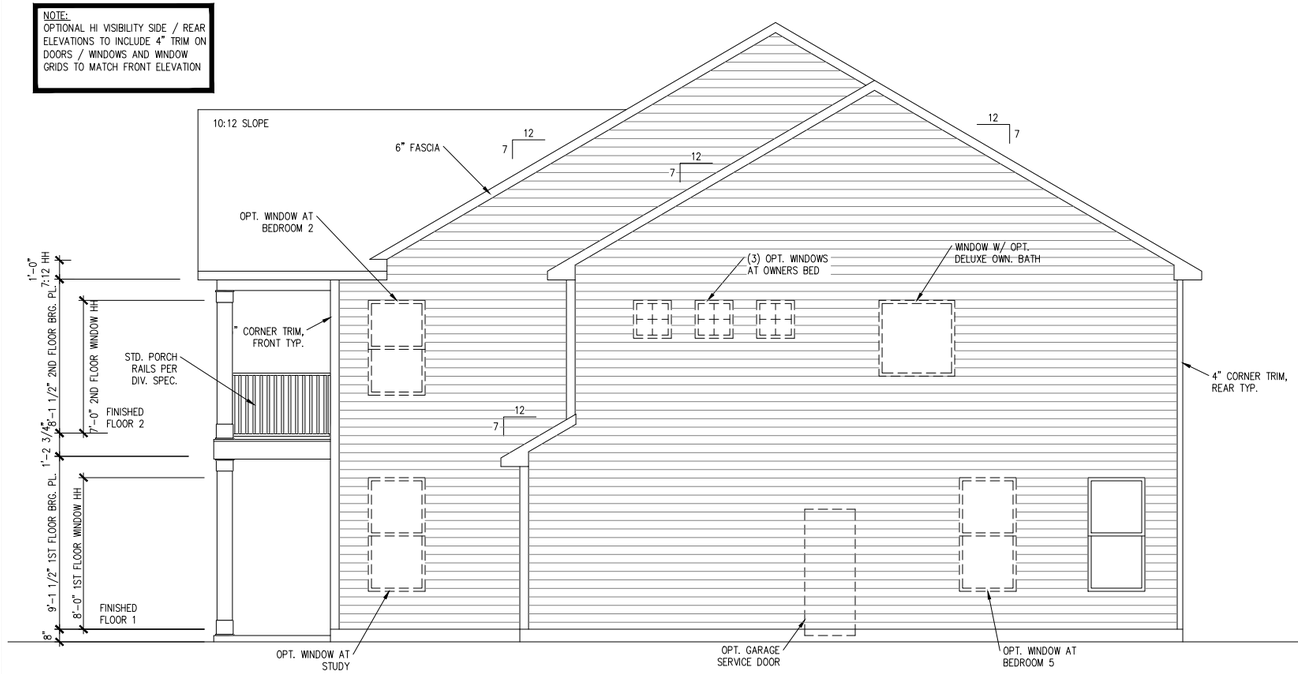
HOUSE NAME:
TOWNSEND - CHLT

DRAWING TITLE
SIDE ELEVATIONS

SHEET No.
A1.2.3

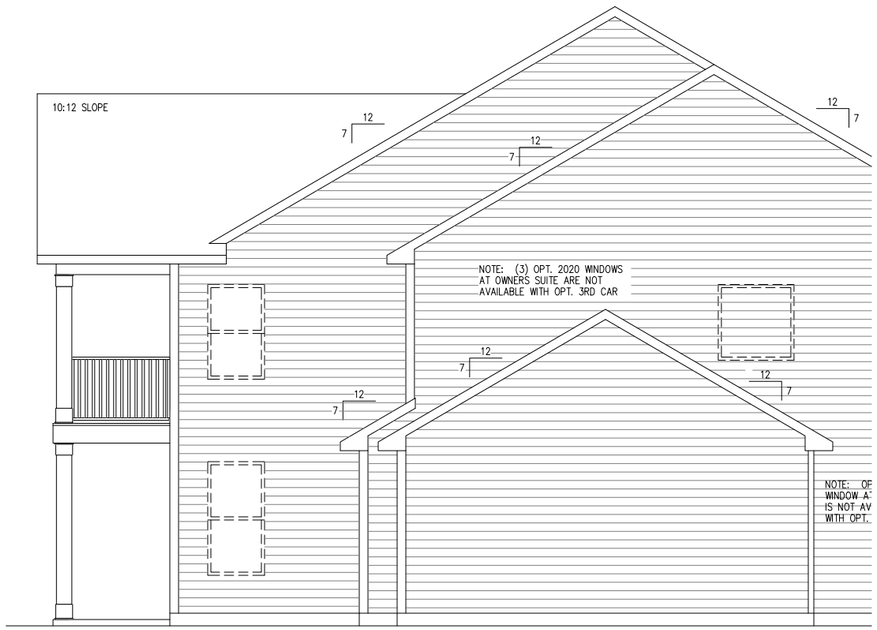
FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



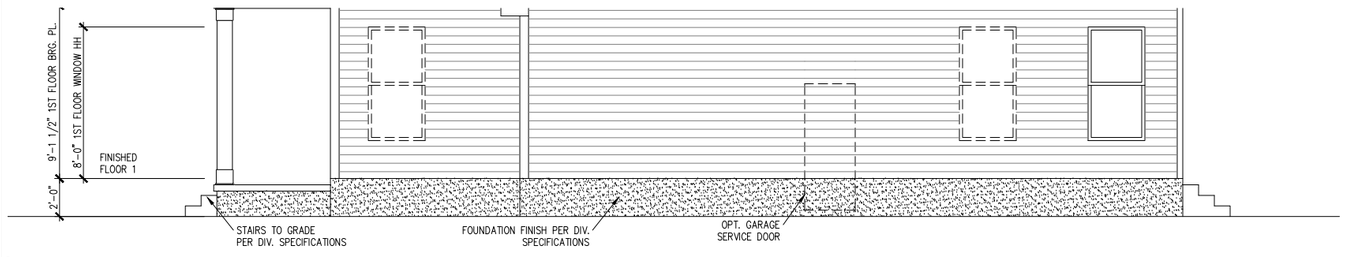
RIGHT SIDE ELEVATION 4

SCALE: 1/8" = 1'-0"



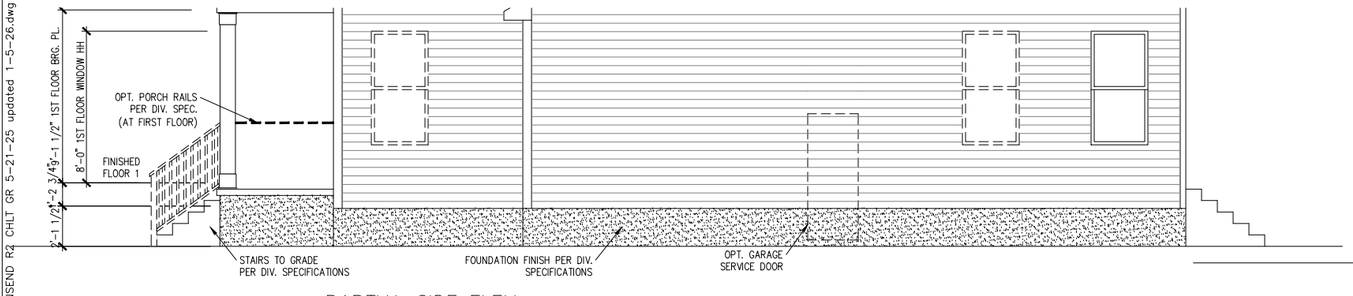
PARTIAL SIDE ELEV. OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



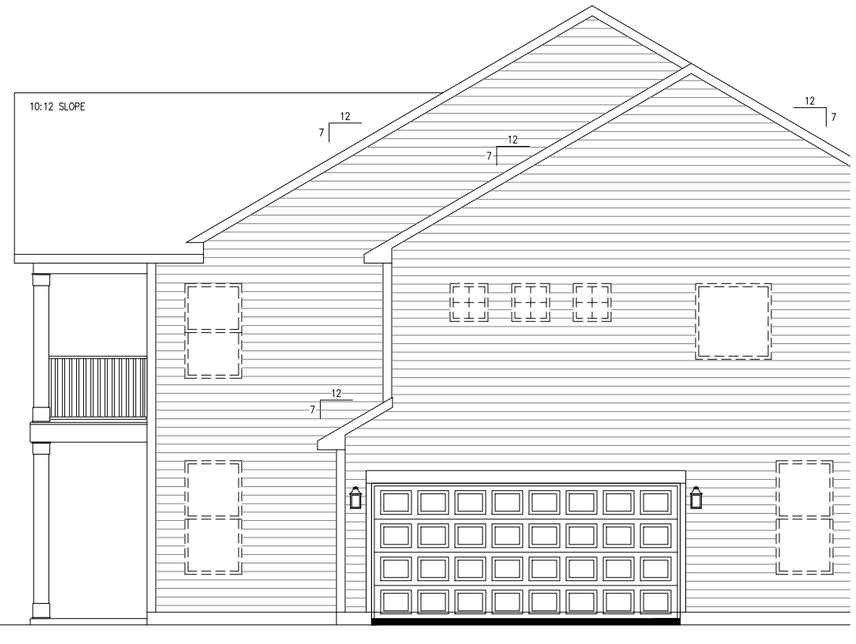
PARTIAL SIDE ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL SIDE ELEV. OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 1/8"=1'-0"

24 X 36 SCALE 1/4"=1'-0"

DRB HOMES

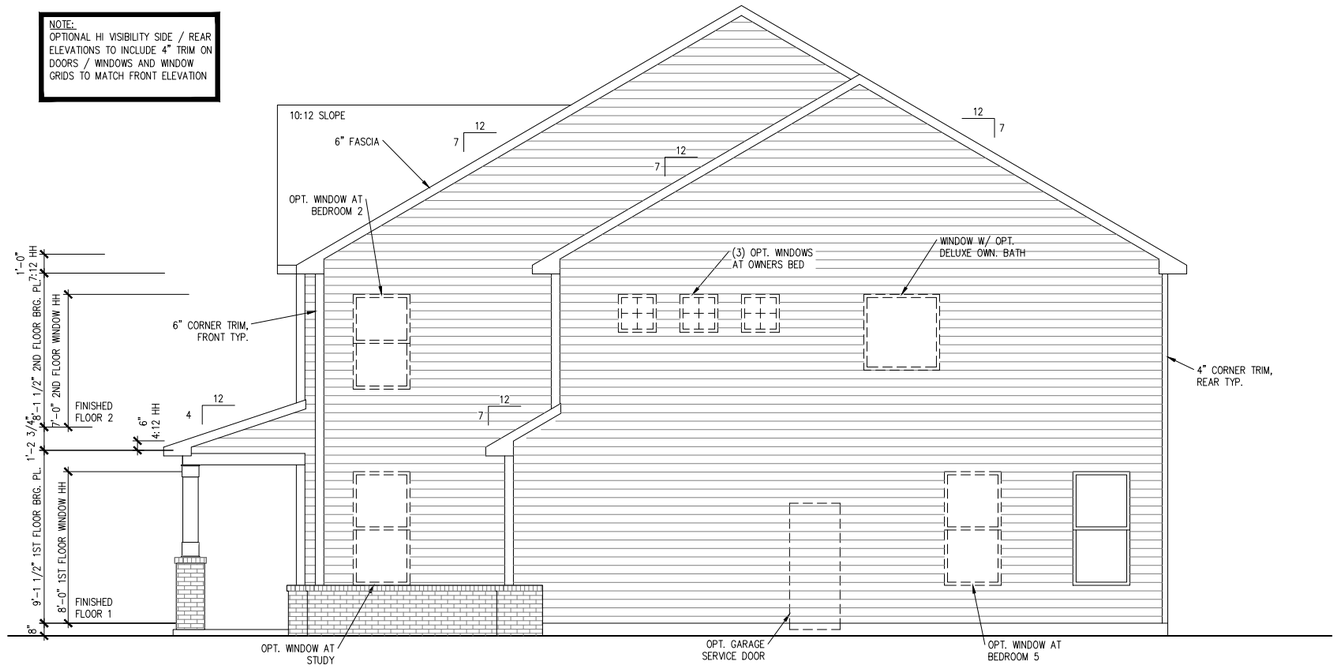
HOUSE NAME: TOWNSEND - CHLT

DRAWING TITLE: SIDE ELEVATIONS

SHEET No. A1.2.4

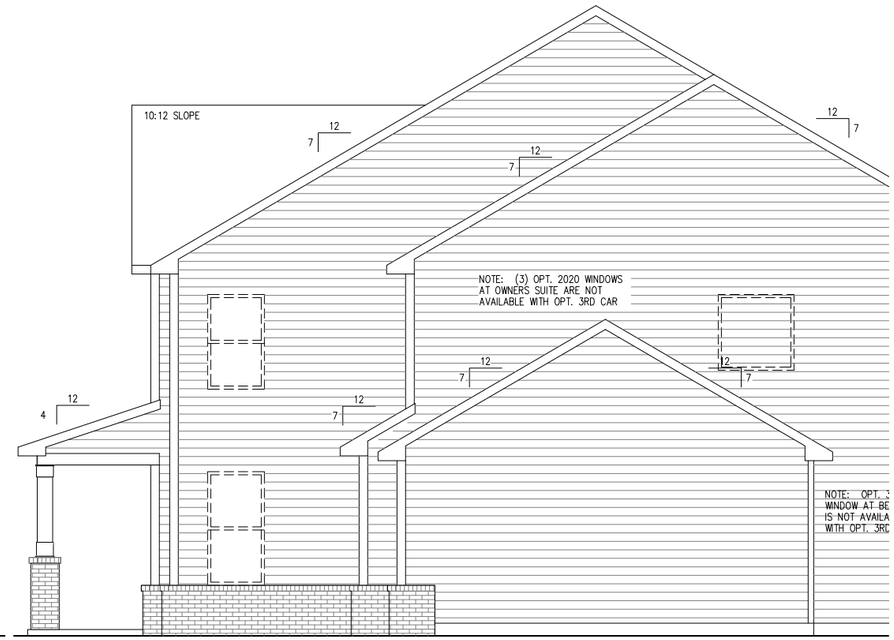
FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



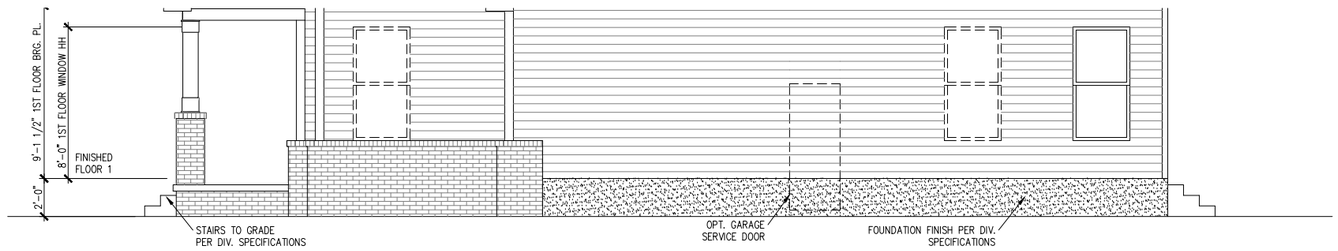
RIGHT SIDE ELEVATION 5

SCALE: 1/8" = 1'-0"



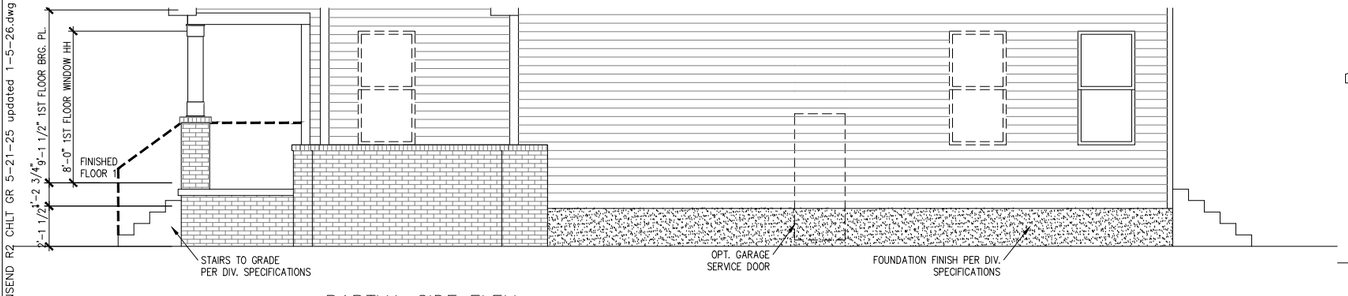
PARTIAL SIDE ELEV. OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



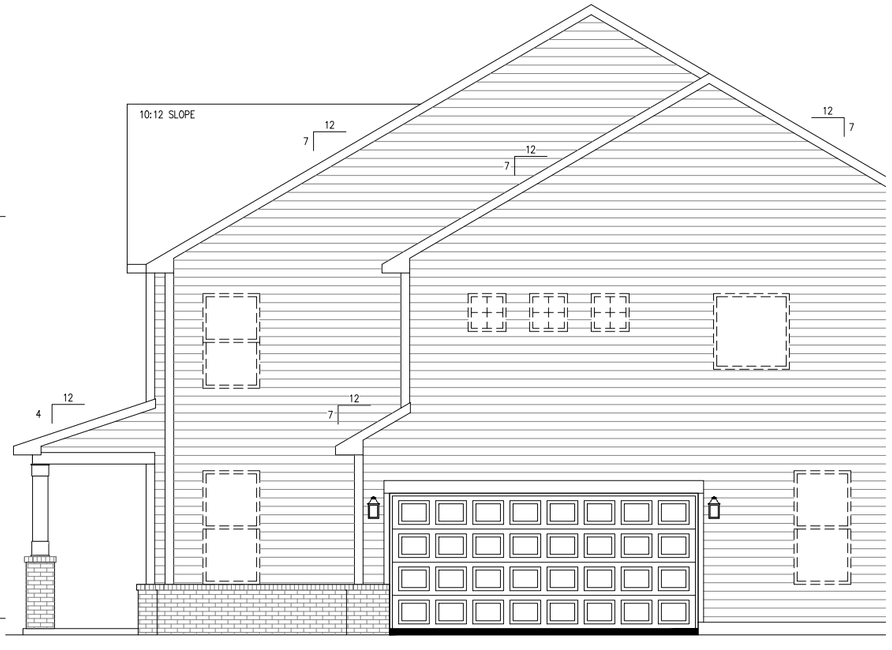
PARTIAL SIDE ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL SIDE ELEV. OPT. SIDELOAD GARAGE

SCALE: 1/8" = 1'-0"

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
G. NEWELL

11 X 17 SCALE
1/8"/1'-0"

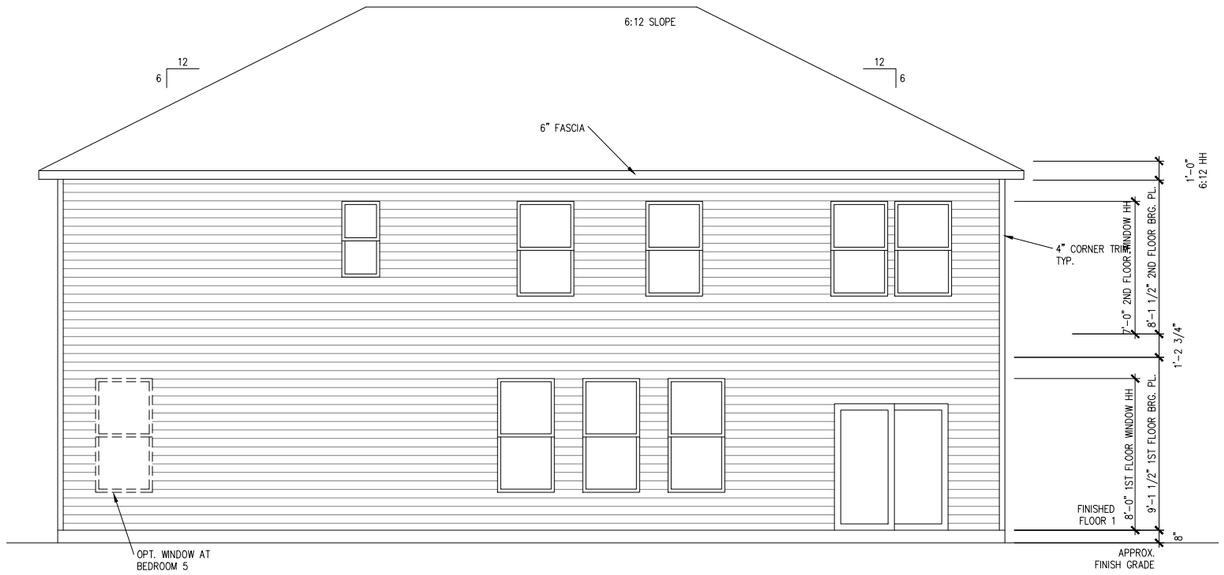
24 X 36 SCALE
1/4"/1'-0"

DRB HOMES

HOUSE NAME:
TOWNSEND - CHLT

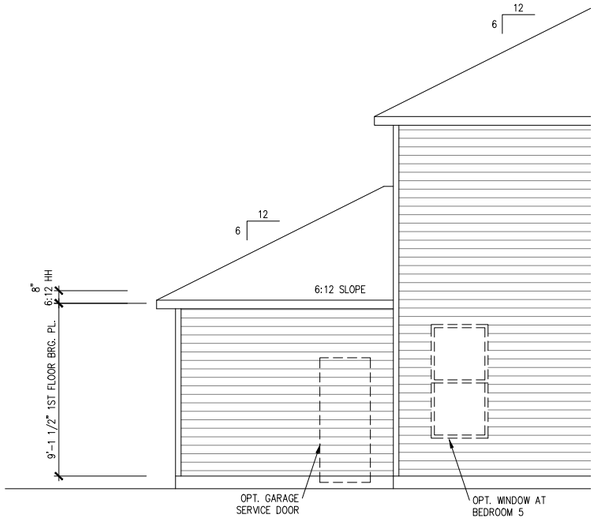
DRAWING TITLE
SIDE ELEVATIONS

SHEET No.
A1.2.5



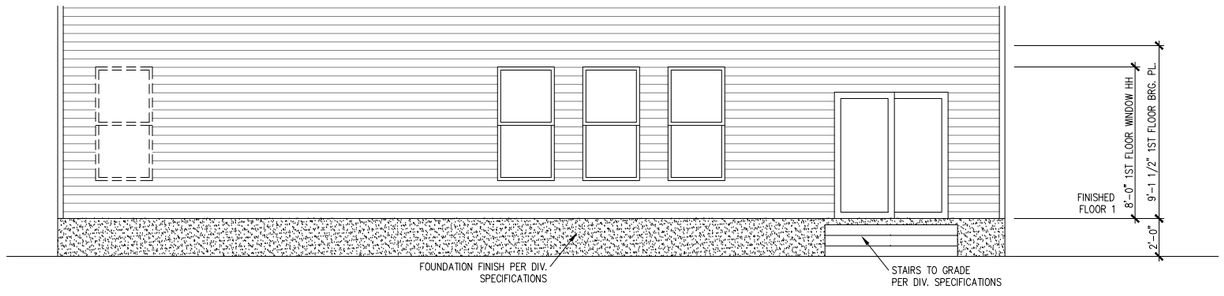
REAR ELEVATION 3

SCALE: 1/8" = 1'-0"



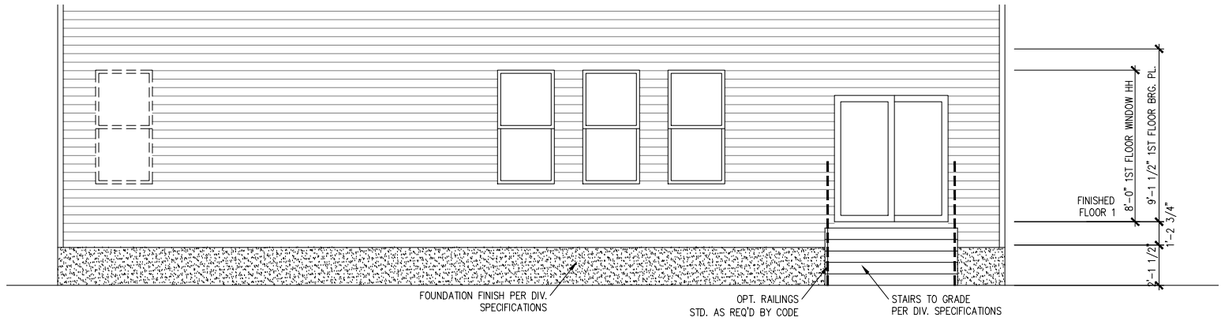
PARTIAL REAR ELEV.
OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 1/8" = 1'-0"

24 X 36 SCALE 1/4" = 1'-0"

DRB HOMES

HOUSE NAME: TOWNSEND - CHLT

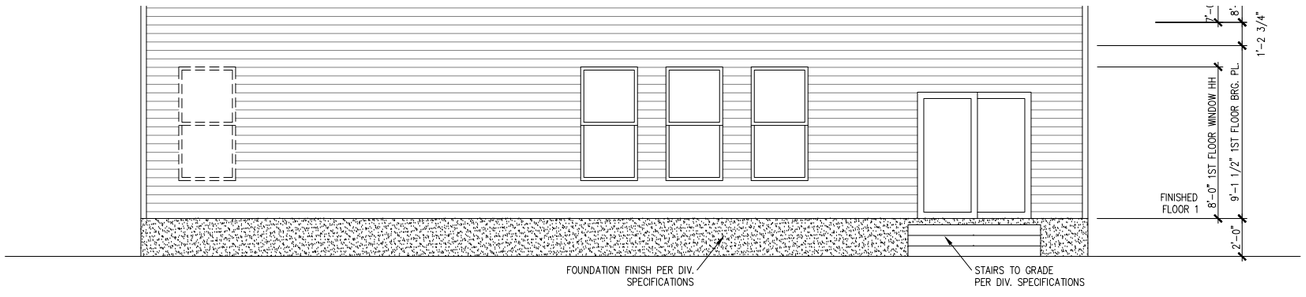
DRAWING TITLE: REAR ELEVATIONS

SHEET No. A1.3.3



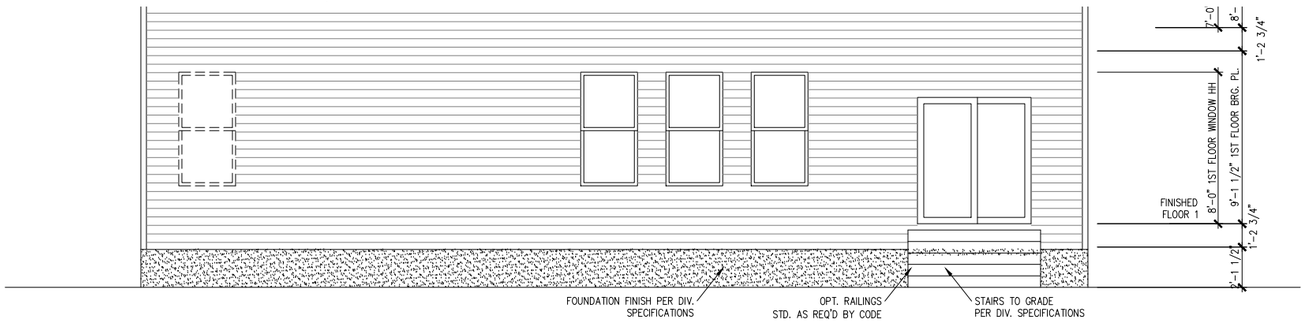
REAR ELEVATION 4

SCALE: 1/8" = 1'-0"



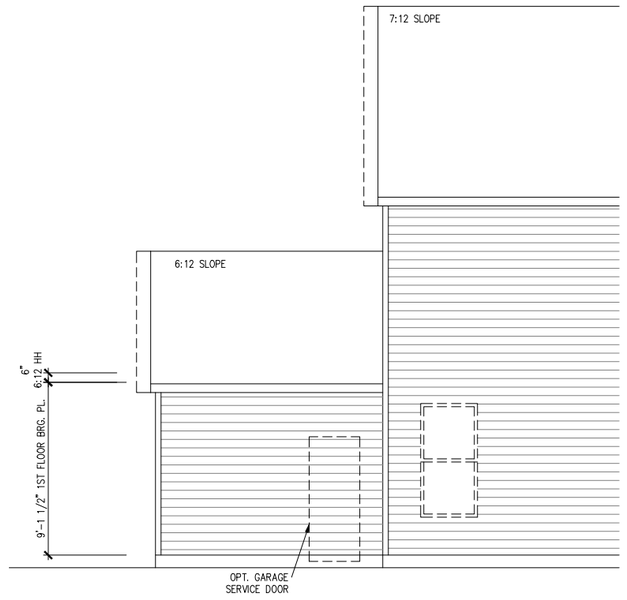
PARTIAL REAR ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.



PARTIAL REAR ELEV. OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
G. NEWELL

11 X 17 SCALE
1/8"=1'-0"

24 X 36 SCALE
1/4"=1'-0"

DRB HOMES

HOUSE NAME:
TOWNSEND - CHLT

DRAWING TITLE
REAR ELEVATIONS

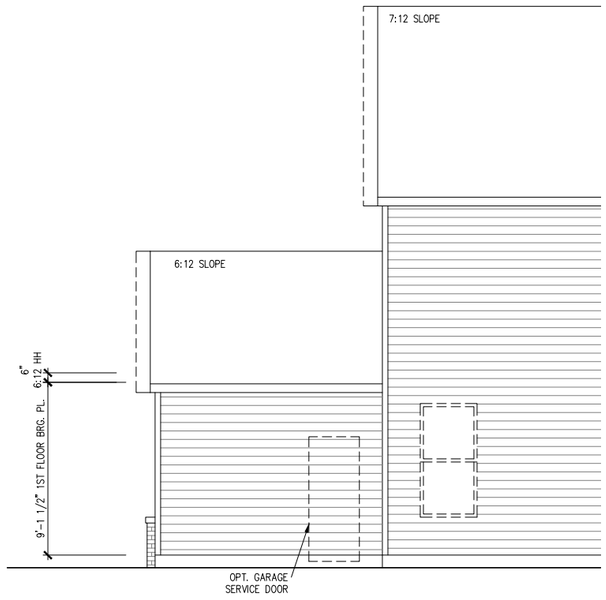
SHEET No.
A1.3.4

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026



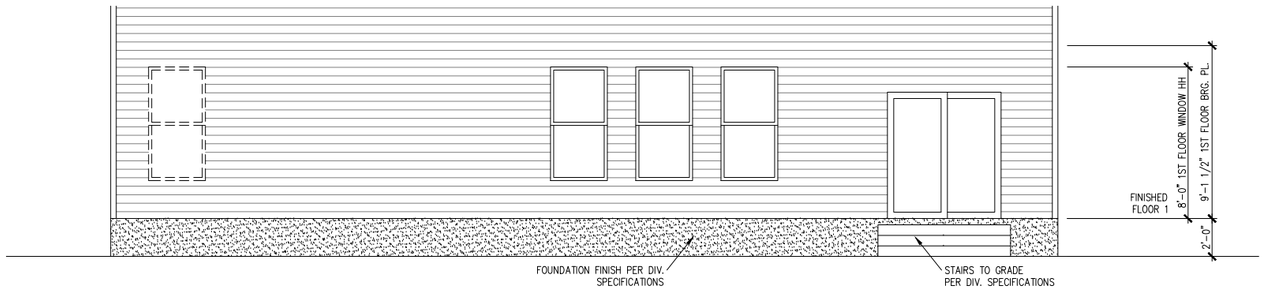
REAR ELEVATION 5

SCALE: 1/8" = 1'-0"



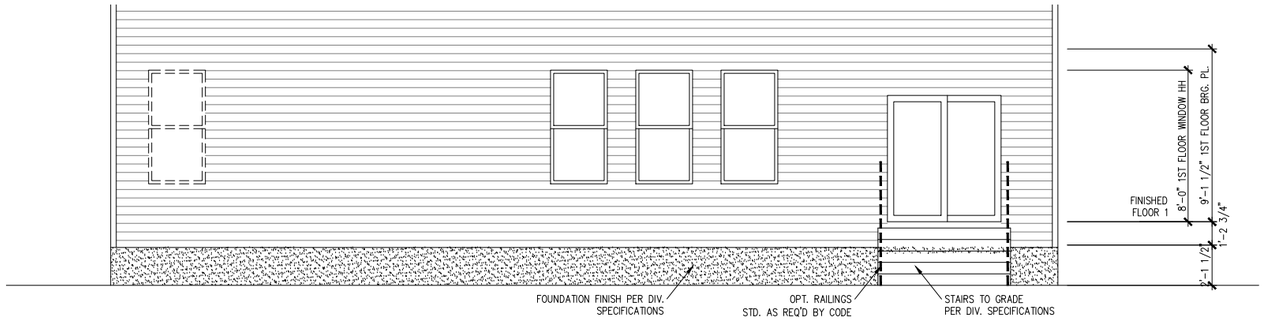
PARTIAL REAR ELEV. OPT. 3RD CAR GARAGE

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO. G. NEWELL

11 X 17 SCALE 1/8"=1'-0"

24 X 36 SCALE 1/4"=1'-0"

DRB HOMES

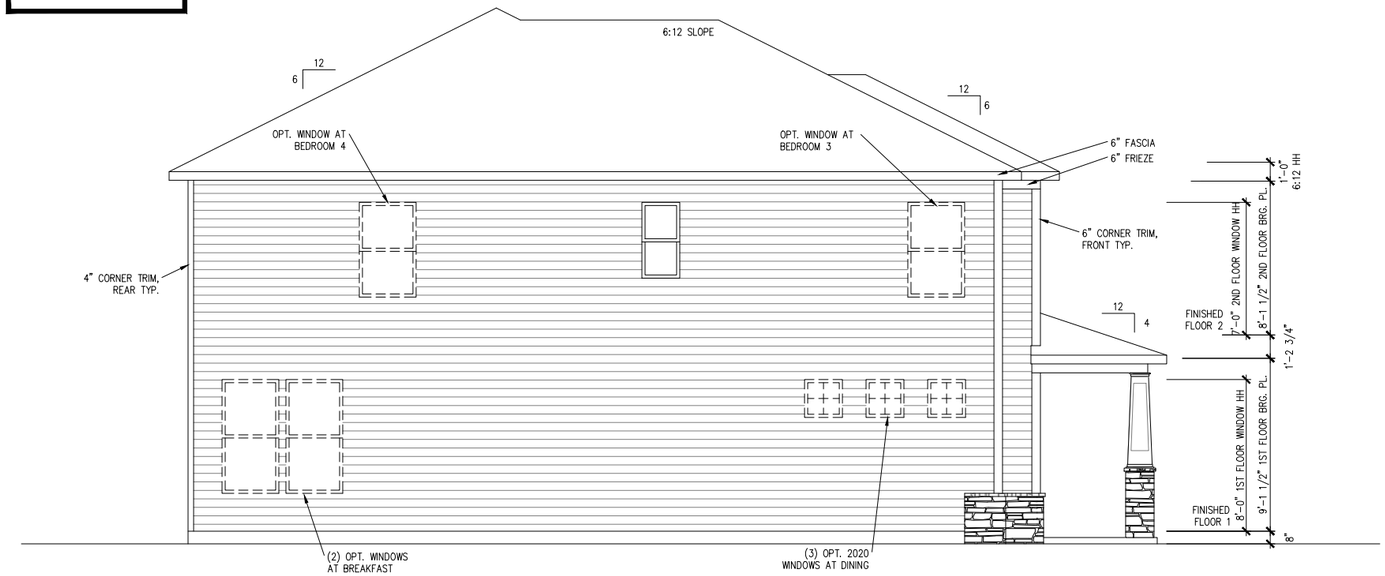
HOUSE NAME: TOWNSEND - CHLT

DRAWING TITLE: REAR ELEVATIONS

SHEET No. A1.3.5

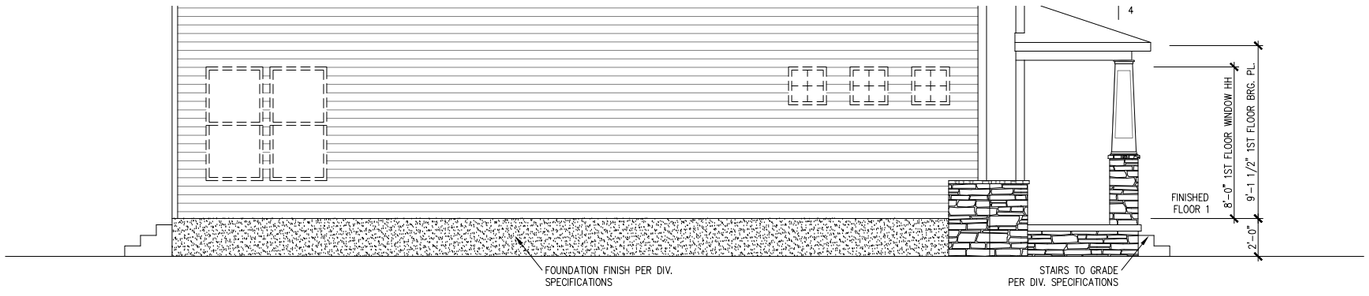
FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



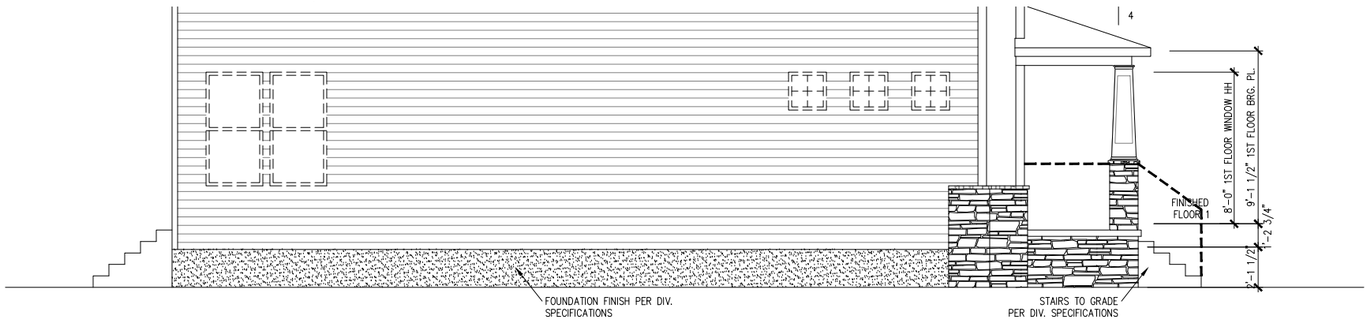
LEFT SIDE ELEVATION 3

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	1/8"/1'-0"
24 X 36 SCALE	1/4"/1'-0"

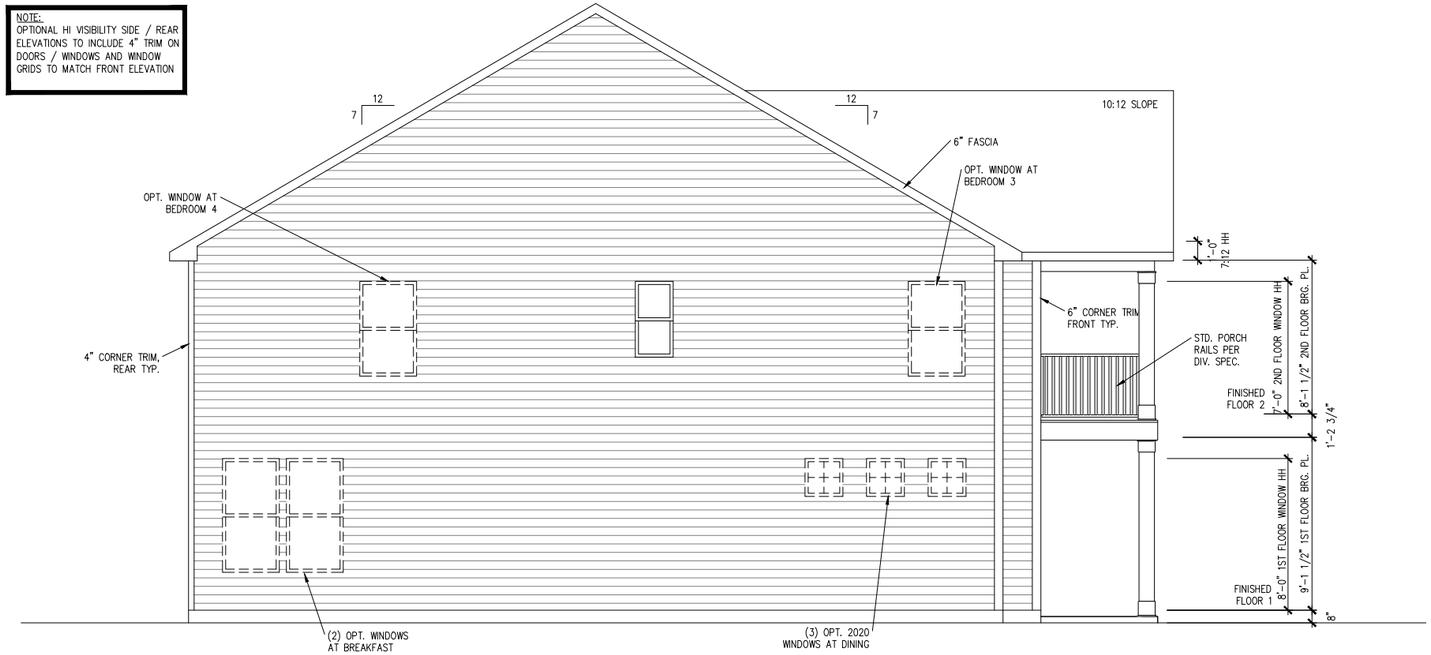
DRB HOMES

HOUSE NAME: TOWNSEND - CHLT

DRAWING TITLE: SIDE ELEVATIONS

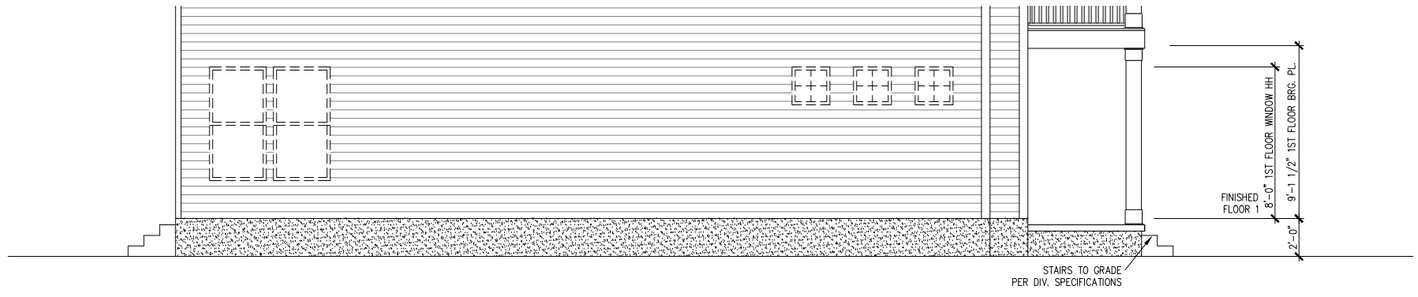
SHEET No. A1.4.3

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



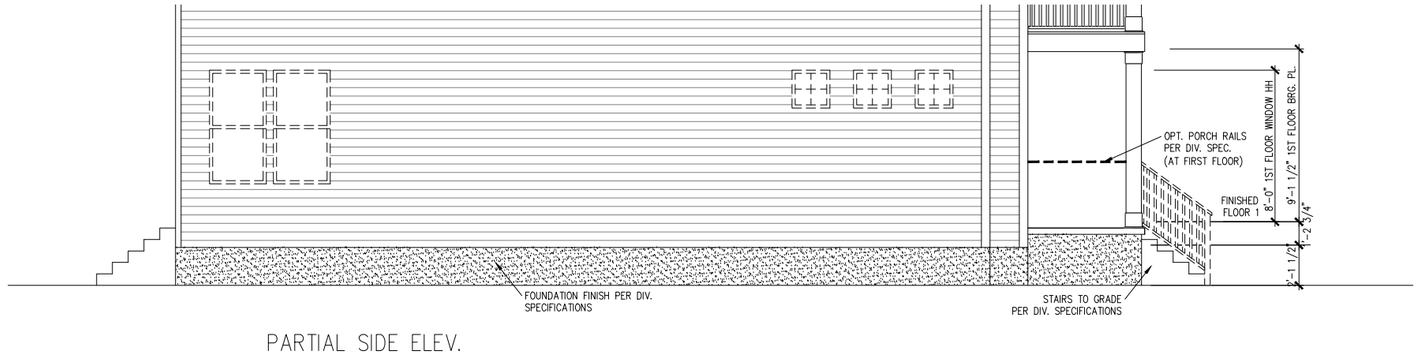
LEFT SIDE ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	G. NEWELL
11 X 17 SCALE	1/8" 1/4" 1/2" 1'-0"
24 X 36 SCALE	1/4" 3/8" 1/2" 1'-0"

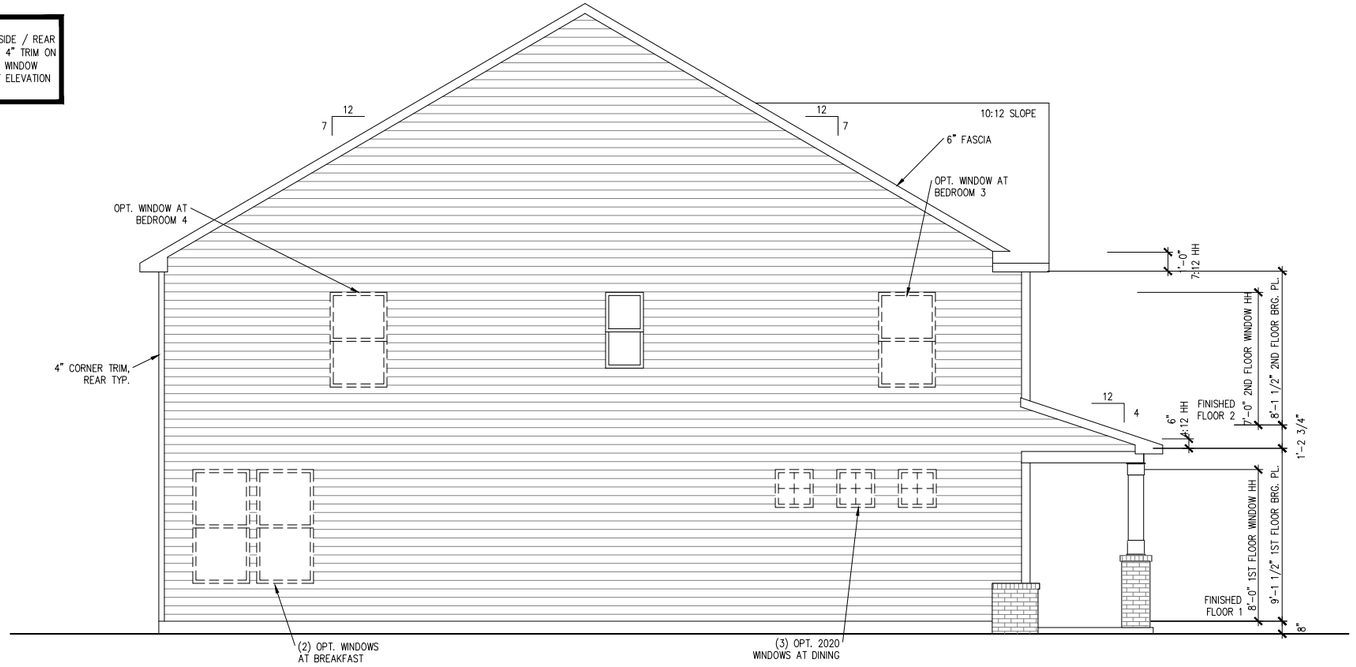
DRB HOMES

HOUSE NAME: TOWNSEND - CHLT

DRAWING TITLE: SIDE ELEVATIONS

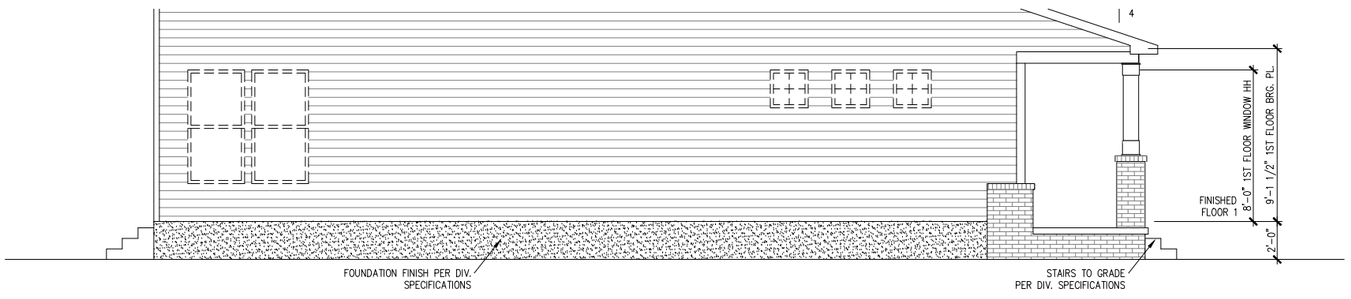
SHEET No. A1.4.4

NOTE:
OPTIONAL HI VISIBILITY SIDE / REAR ELEVATIONS TO INCLUDE 4" TRIM ON DOORS / WINDOWS AND WINDOW GRIDS TO MATCH FRONT ELEVATION



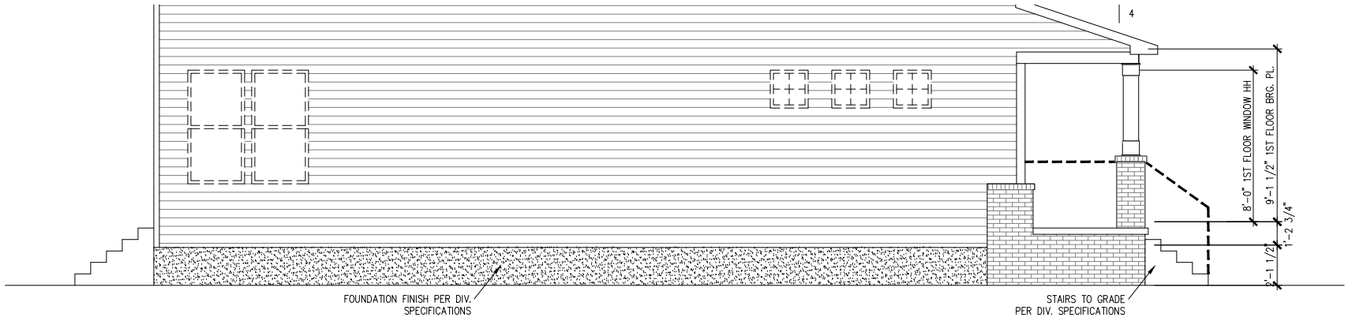
LEFT SIDE ELEVATION 5

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. STEMWALL / RAISED FOUNDATION

SCALE: 1/8" = 1'-0"



PARTIAL SIDE ELEV.
OPT. CRAWL SPACE FOUNDATION

SCALE: 1/8" = 1'-0" OPT. BASEMENT SIM.

FILE: TOWNSEND R2 CHLT GR 5-21-25 updated 1-5-26.dwg DATE: 01-05-2026

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO. G. NEWELL	
11 X 17 SCALE	1/8"~~1/2~~-0"
24 X 36 SCALE	1/4"~~1~~-0"

DRB HOMES

HOUSE NAME: TOWNSEND - CHLT

DRAWING TITLE: SIDE ELEVATIONS

SHEET No. A1.4.5

STONEHAVEN-CHLT

CHARLOTTE
(MODEL #3656)
GARAGE RIGHT)

DRB HOMES

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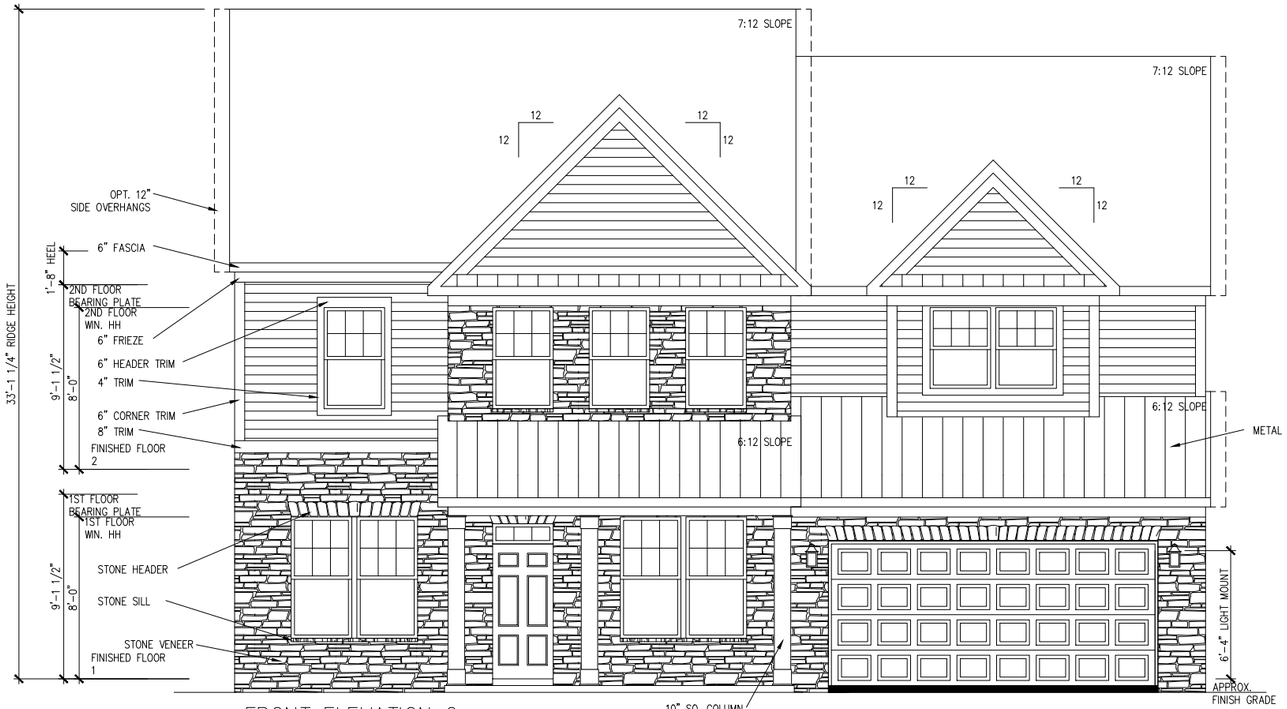
E3.3.1	OPTIONAL THIRD FLOOR ELECTRICAL PLANS
M3.0.1	BASEMENT MECHANICAL PLANS
M3.1.1	FIRST FLOOR MECHANICAL PLANS
M3.2.1	SECOND FLOOR MECHANICAL PLANS
M3.3.1	OPTIONAL THIRD FLOOR MECHANICAL PLANS

AREA CALCULATIONS

BASE HOUSE	HEATED	UNDER ROOF
FIRST FLOOR – ELEV. 1 & 3	1724 SF	
GARAGE		487 SF
FRONT PORCH – ELEV. 1 & 3		169 SF
SECOND FLOOR – ELEV. 1 & 3	1939 SF	
BASE HOUSE TOTAL	3663 SF	
OPTIONS		
ELEVATION 2, 4, 5, 6, & 7 – 1ST FLR	−21 SF	
ELEVATION 2, 4, 5, 6 & 7 – 2ND FLR	−21 SF	
REAR FIREPLACE	+10 SF	
MORNING ROOM	+251 SF	
BEDROOM 5	+26 SF	
FINISHED BASEMENT	+1271 SF	+468 SF
3RD FLOOR / BONUS ROOM	+526 SF	
FRONT PORCH – ELEV. 2		106 SF
FRONT PORCH – ELEV. 4 & 6		113 SF
FRONT PORCH – ELEV. 5		249 SF
FRONT PORCH – ELEV. 7		189 SF
3RD CAR GARAGE		+286 SF
SCREENED PORCH		+150 SF
UNFINISHED BASEMENT		+1739 SF

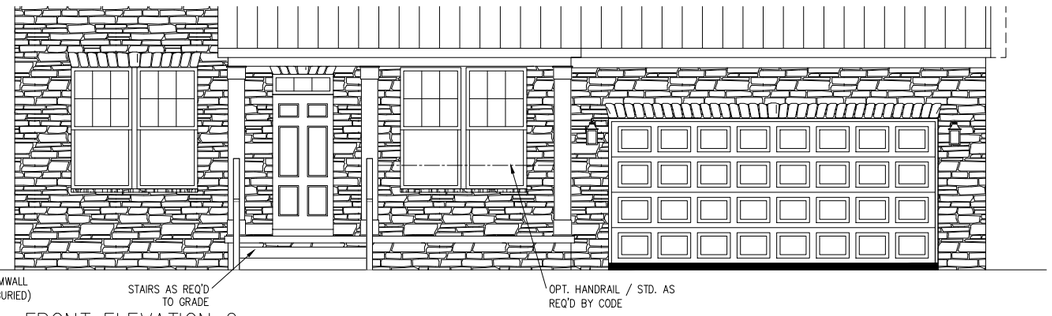
GENERAL REVISIONS

#	DATE	DESCRIPTION
1–CHLT	5/24/19	RELEASE OF CHARLOTTE DIVISION SPECIFIC
		SET BASED ON SOUTH REV.11
2–CHLT	09/23/19	ADDED COVERED PORCH OPTION
2–CHLT	10/15/19	ADDED PLUMBING STUB–OUTS TO BASEMENT PLANS
3–CHLT	6/1/20	ADDED BRICK PERIMETER STEMWALL
4–CHLT	03/07/20	CHANGED OWNER'S SHOWER TO ORIGINAL(48"x60" W/ 12" SEAT)
5–CHLT	6/1/20	STANDARD OWNER'S SHOWER 36" x 60"
		OPTIONAL OWNER'S SHOWER 48"x60" W/ 12" SEAT
	10/28/20	UPDATED HVAC PLATFORMS W/ 3RD FLOOR
		UPDATED BRACKET SIZES: ELEV. 4 AND 6
		UPDATED BRICK STEMWALL FOR REAR PORCH OPTIONS
	1/21/21	ADDED CHASE IN BED 2 CLOSET SECOND FLOOR
6–CHLT	3/6/21	REMOVE 2ND FLOOR FIREPLACE CHASE W/ OPT.MORNING ROOM
	10/6/21	SHOW LIGHT FIXTURES CENTERED ABOVE SINKS
		SHOW FIXTURE AS DASHED ABOVE OPTIONAL SINK @ BATH 2
	12/16/21	BASEMENT REAR ELEV: 4X4 POST ADDED @ OPT. DECKING ABOVE
	5/8/25	UPDATED ELECTRICAL: ADDED PUCK LIGHTS ILO FIXTURES



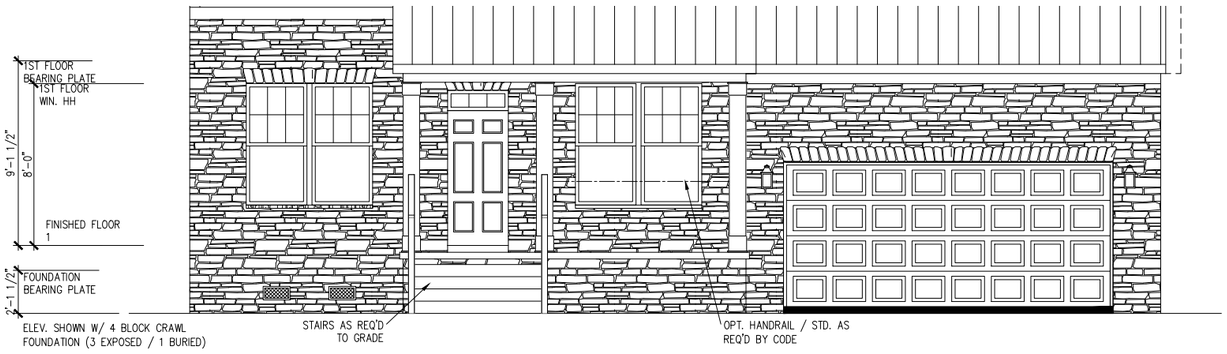
FRONT ELEVATION 2

SCALE: 1/8" = 1'-0"



FRONT ELEVATION 2
RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"

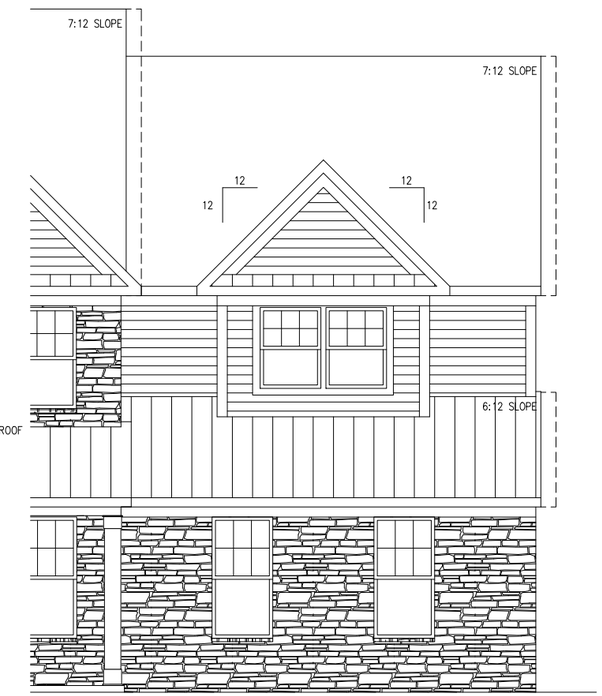


FRONT ELEVATION 2
CRAWL SPACE / BASEMENT

SCALE: 1/8" = 1'-0"

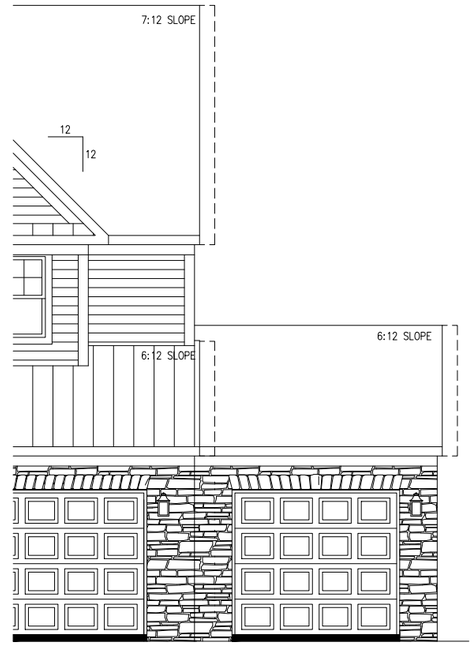
NOTE:
TYPICAL FRONT DOOR SHOWN
REFER TO DIVISION SPECS

NOTE:
TYPICAL WINDOW GRIDS SHOWN
REFER TO DIVISION SPECS



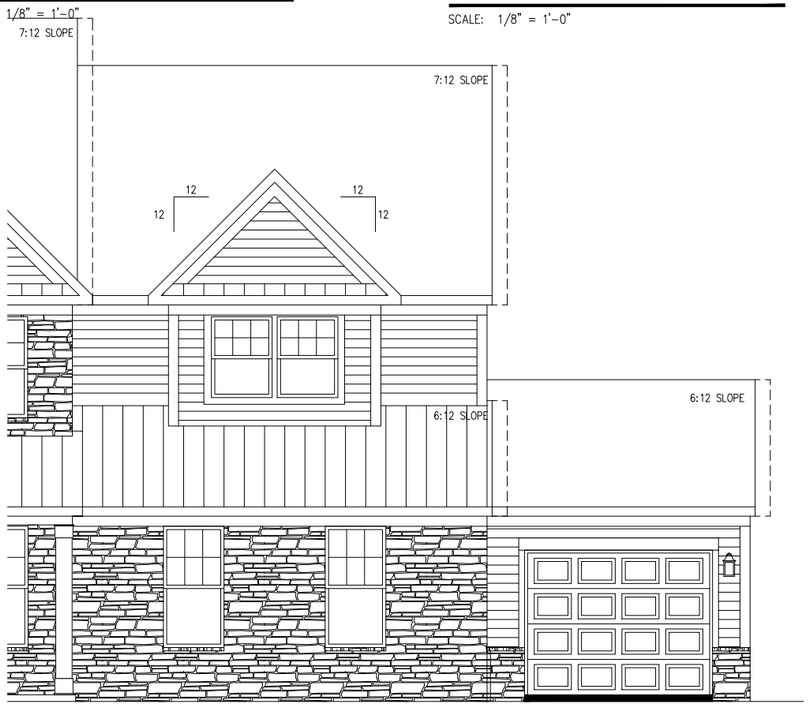
PARTIAL FRONT ELEVATION
OPT. 2 CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEVATION
OPT. 3 CAR FRONT ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEVATION
OPT. 3 CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8" = 1'-0"

24 X 36 SCALE
1/4" = 1'-0"

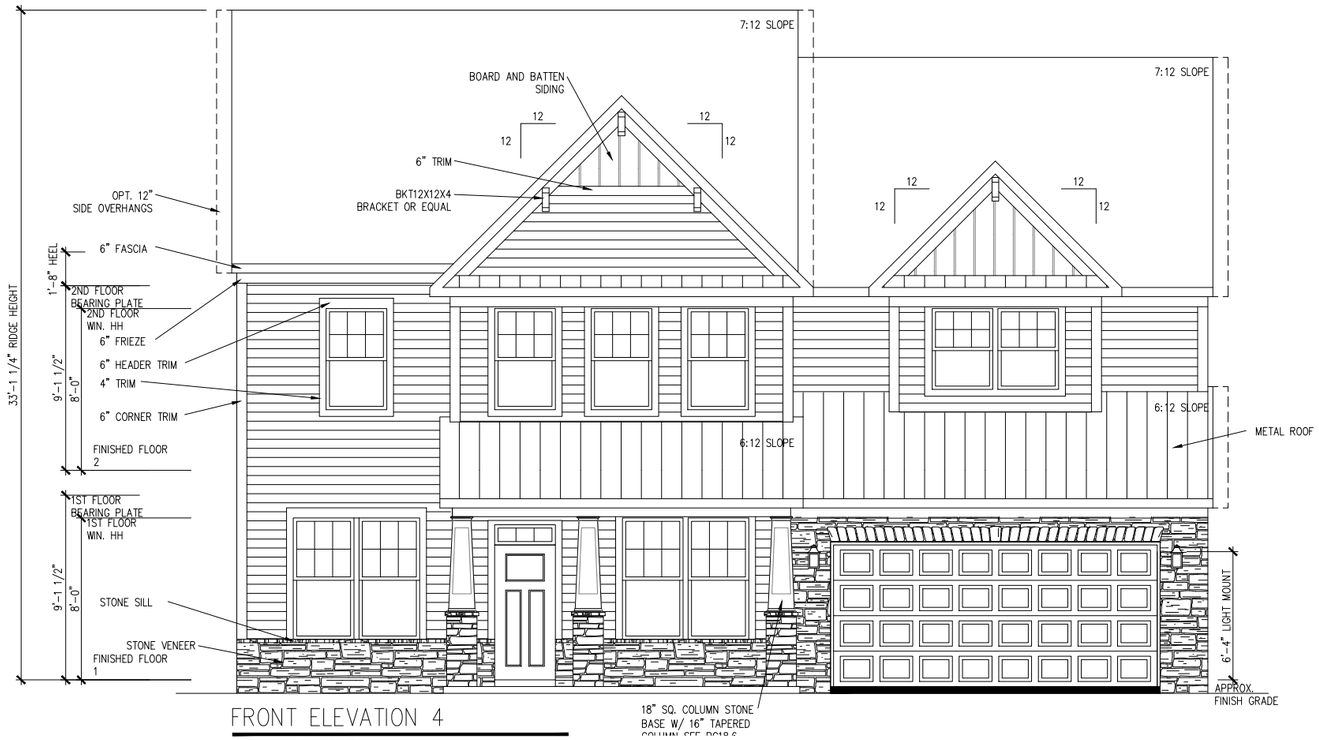
DRB HOMES

HOUSE NAME:
STONEHAVEN

DRAWING TITLE
FRONT ELEVATION 2

SHEET No.
A1.1.2

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



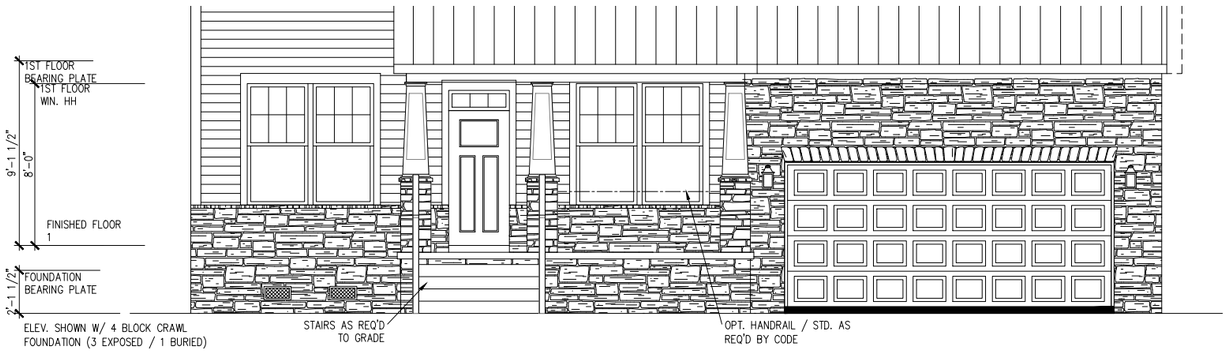
FRONT ELEVATION 4

SCALE: 1/8" = 1'-0"



FRONT ELEVATION 4
RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"

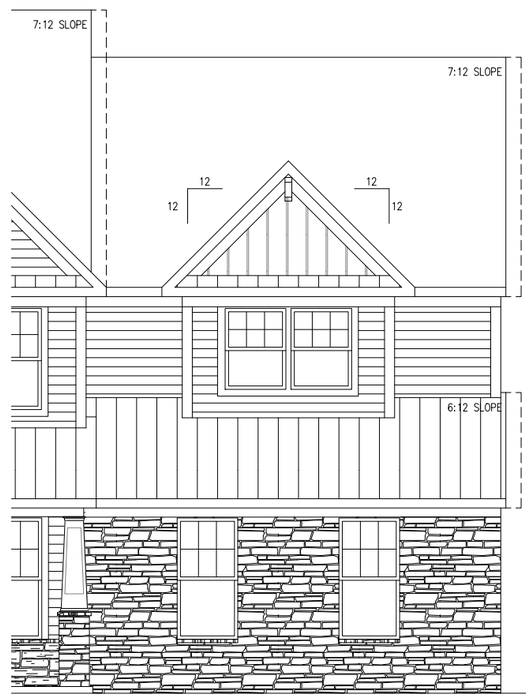


FRONT ELEVATION 4
CRAWL SPACE / BASEMENT

SCALE: 1/8" = 1'-0"

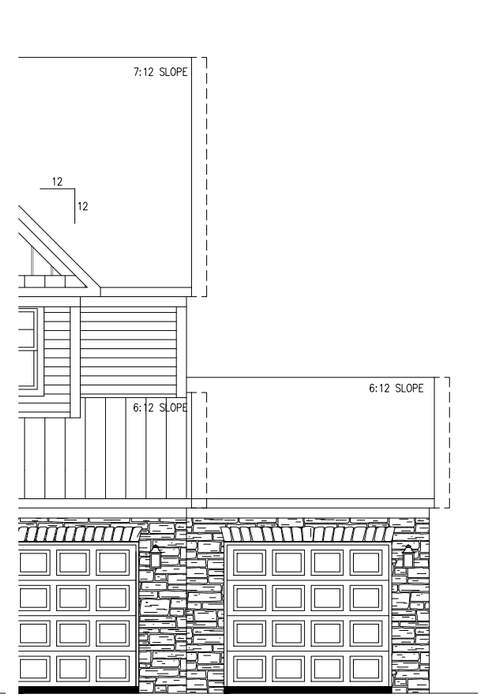
NOTE:
TYPICAL FRONT DOOR SHOWN
REFER TO DIVISION SPECS

NOTE:
TYPICAL WINDOW GRIDS SHOWN
REFER TO DIVISION SPECS



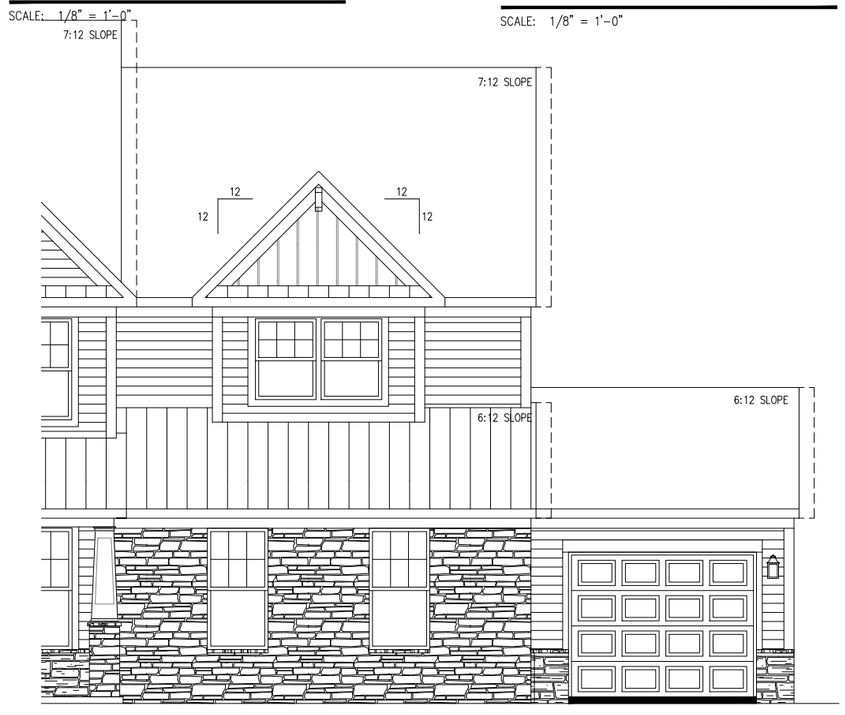
PARTIAL FRONT ELEVATION
OPT. 2 CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEVATION
OPT. 3 CAR FRONT ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEVATION
OPT. 3 CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8" = 1'-0"

24 X 36 SCALE
1/4" = 1'-0"

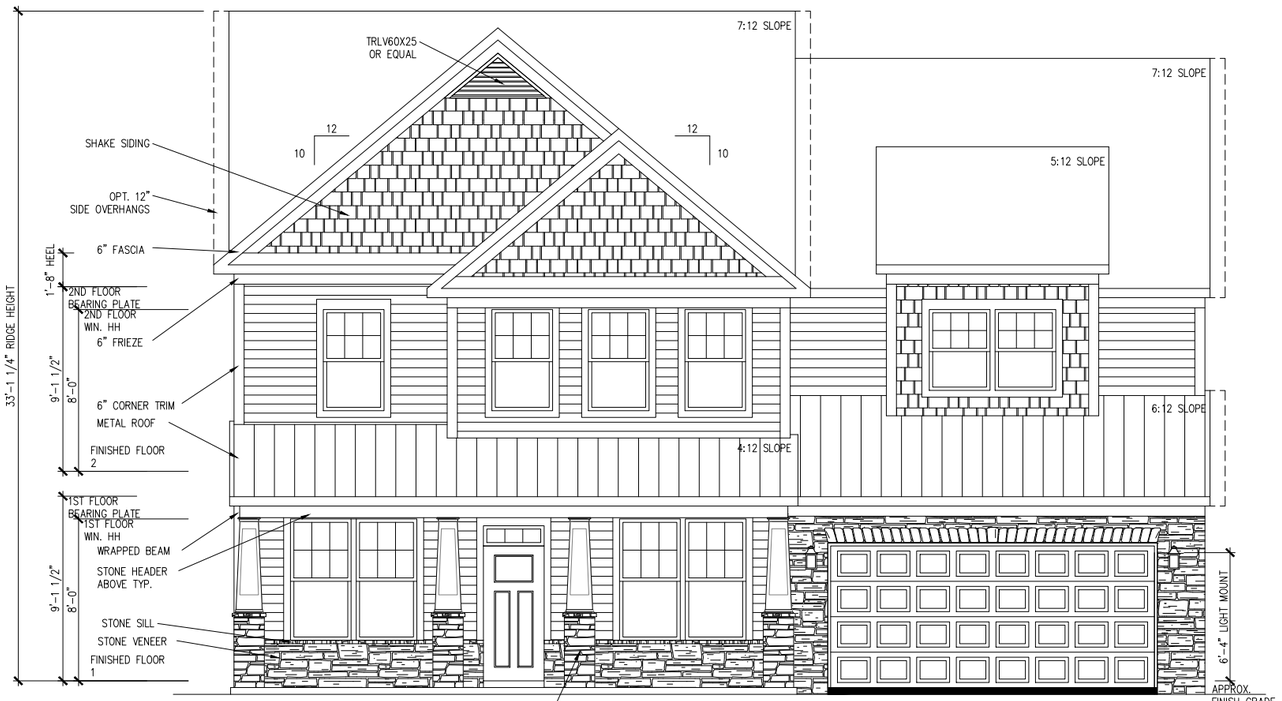
DRB HOMES

HOUSE NAME:
STONEHAVEN

DRAWING TITLE
FRONT ELEVATION 4

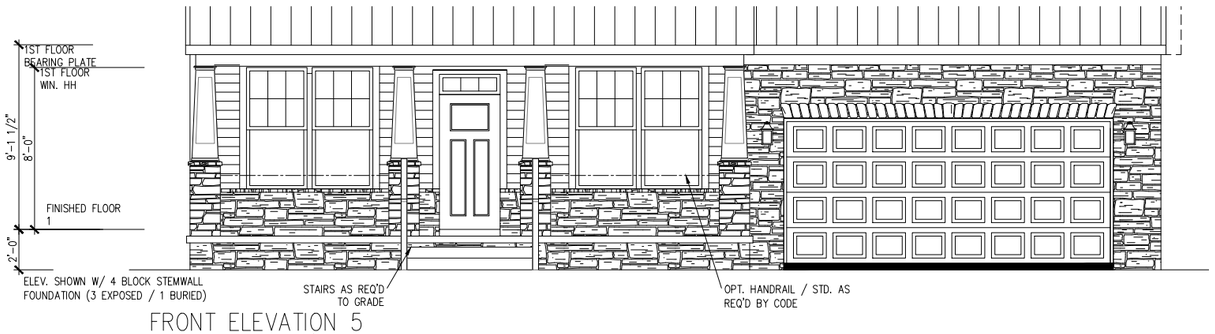
SHEET No.
A1.1.4

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



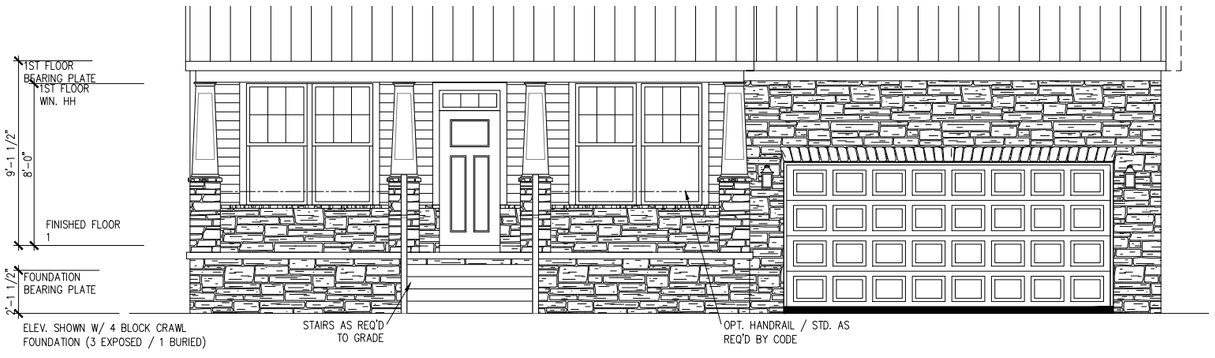
FRONT ELEVATION 5

SCALE: 1/8" = 1'-0"



FRONT ELEVATION 5
RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



FRONT ELEVATION 5
CRAWL SPACE / BASEMENT

SCALE: 1/8" = 1'-0"

NOTE:
TYPICAL FRONT DOOR SHOWN
REFER TO DIVISION SPECS

NOTE:
TYPICAL WINDOW GRIDS SHOWN
REFER TO DIVISION SPECS

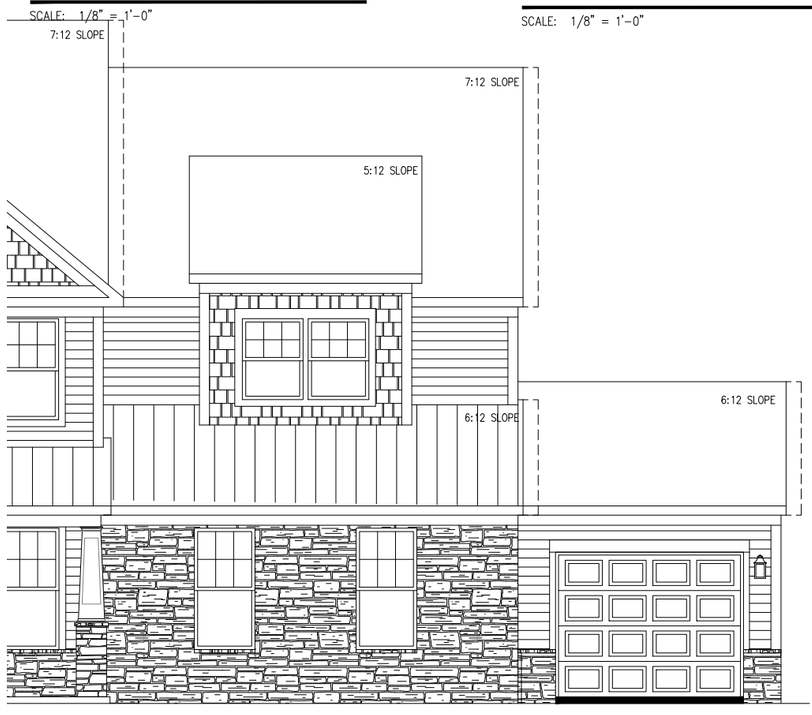


PARTIAL FRONT ELEVATION
OPT. 2 CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

PARTIAL FRONT ELEVATION
OPT. 3 CAR FRONT ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL FRONT ELEVATION
OPT. 3 CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	L. BEAVERS
11 X 17 SCALE	1/8"=1'-0"
24 X 36 SCALE	1/4"=1'-0"

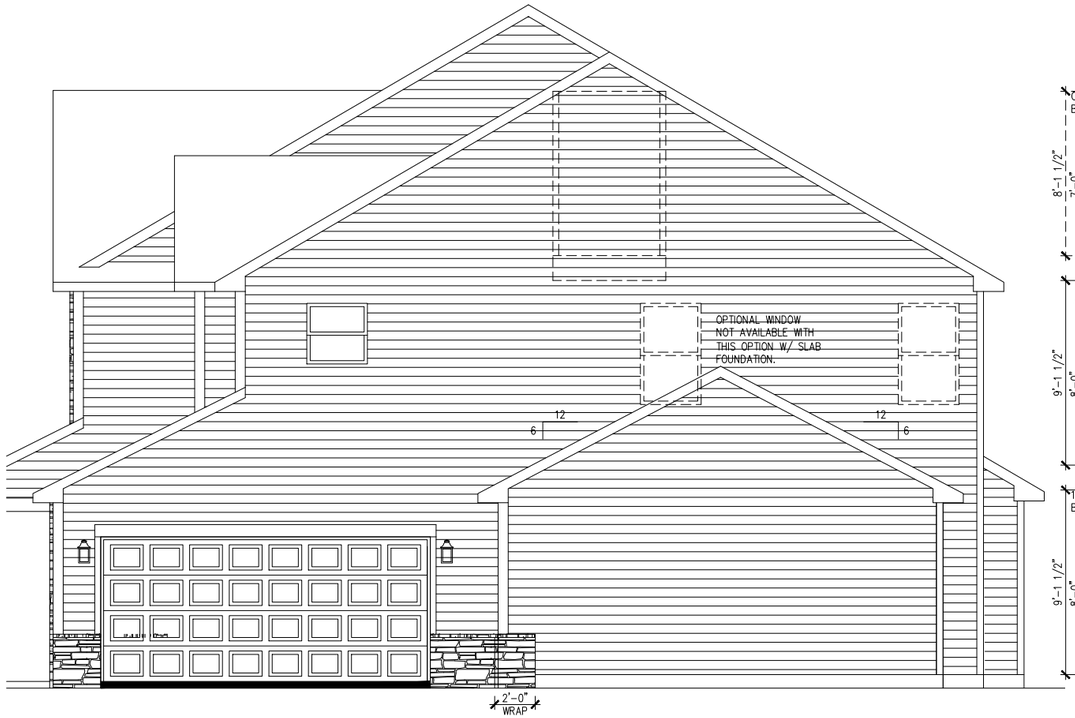
DRB HOMES

HOUSE NAME: STONEHAVEN

DRAWING TITLE: FRONT ELEVATION 5

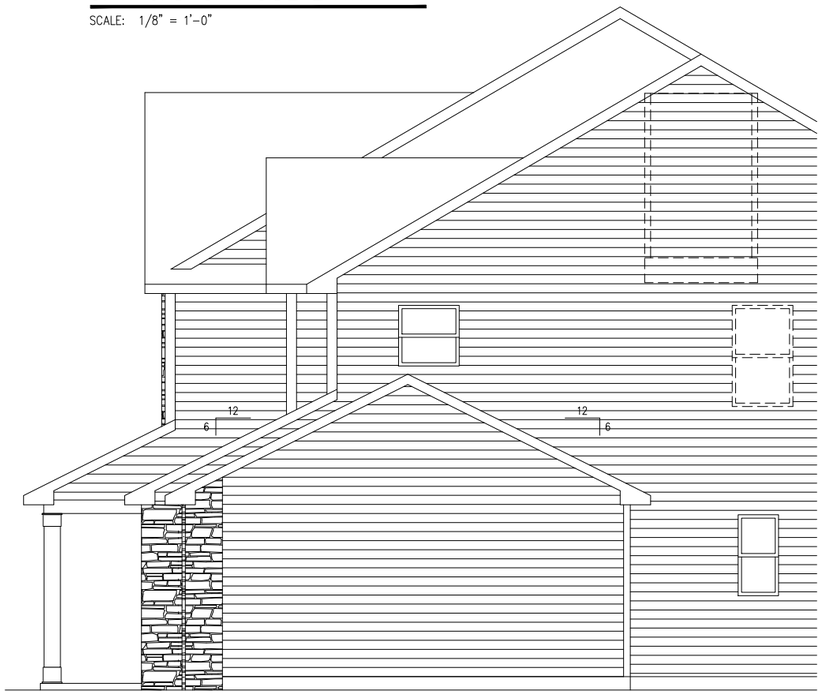
SHEET No. A1.1.5

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



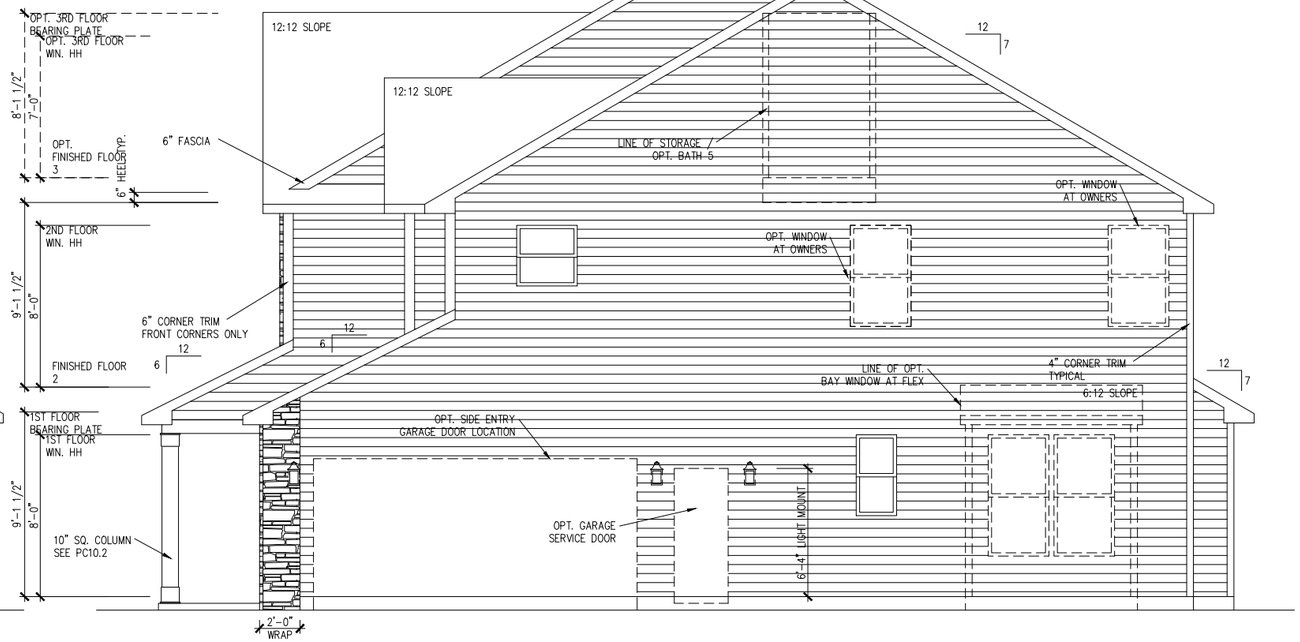
PARTIAL RIGHT ELEV. 2
OPT. 3RD CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"



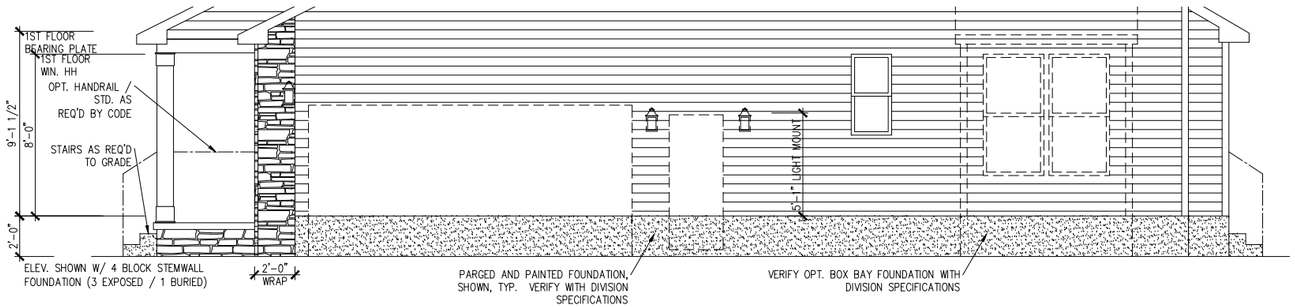
PARTIAL RIGHT ELEV. 2
OPT. 3RD CAR FRONT ENTRY

SCALE: 1/8" = 1'-0"



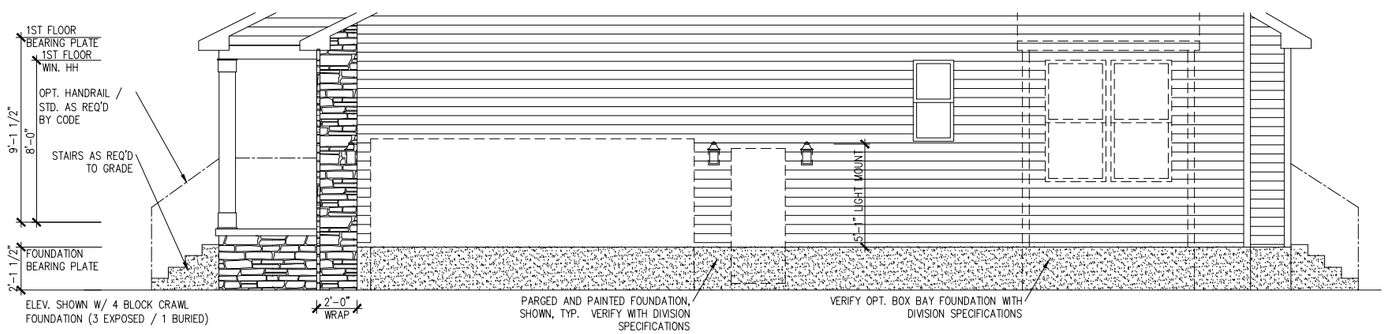
RIGHT ELEVATION 2

SCALE: 1/8" = 1'-0"



PARTIAL RIGHT ELEV. 2
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL RIGHT ELEV. 2
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8"=1'-0"

24 X 36 SCALE
1/4"=1'-0"

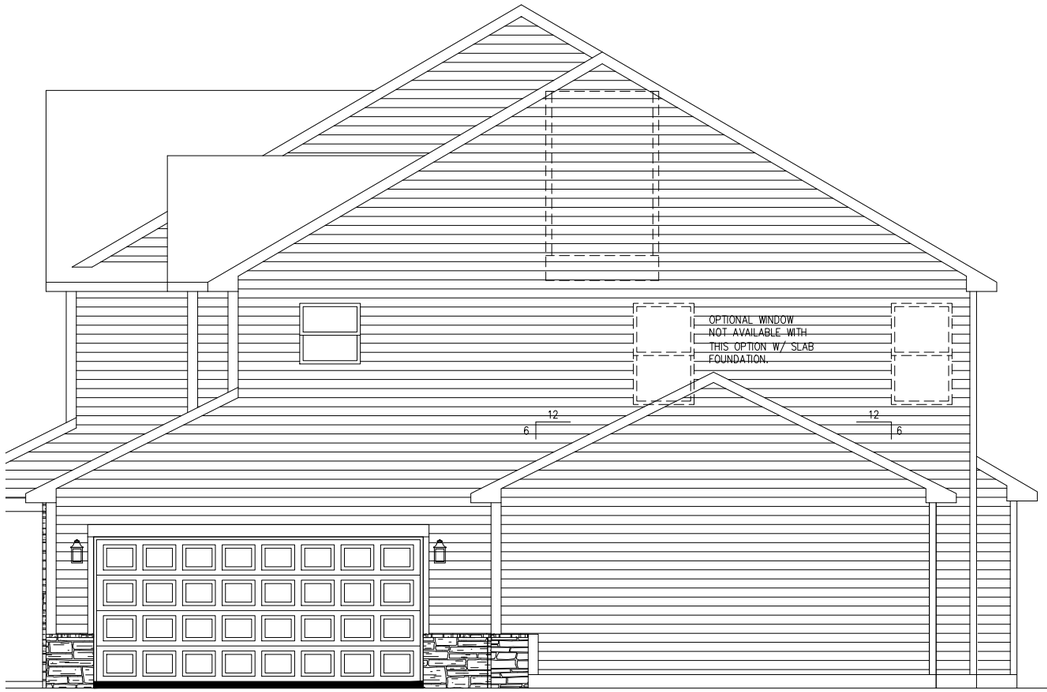
DRB HOMES

HOUSE NAME:
STONEHAVEN

DRAWING TITLE
SIDE ELEVATIONS - ELEV. 2

SHEET No.
A1.2.2

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025

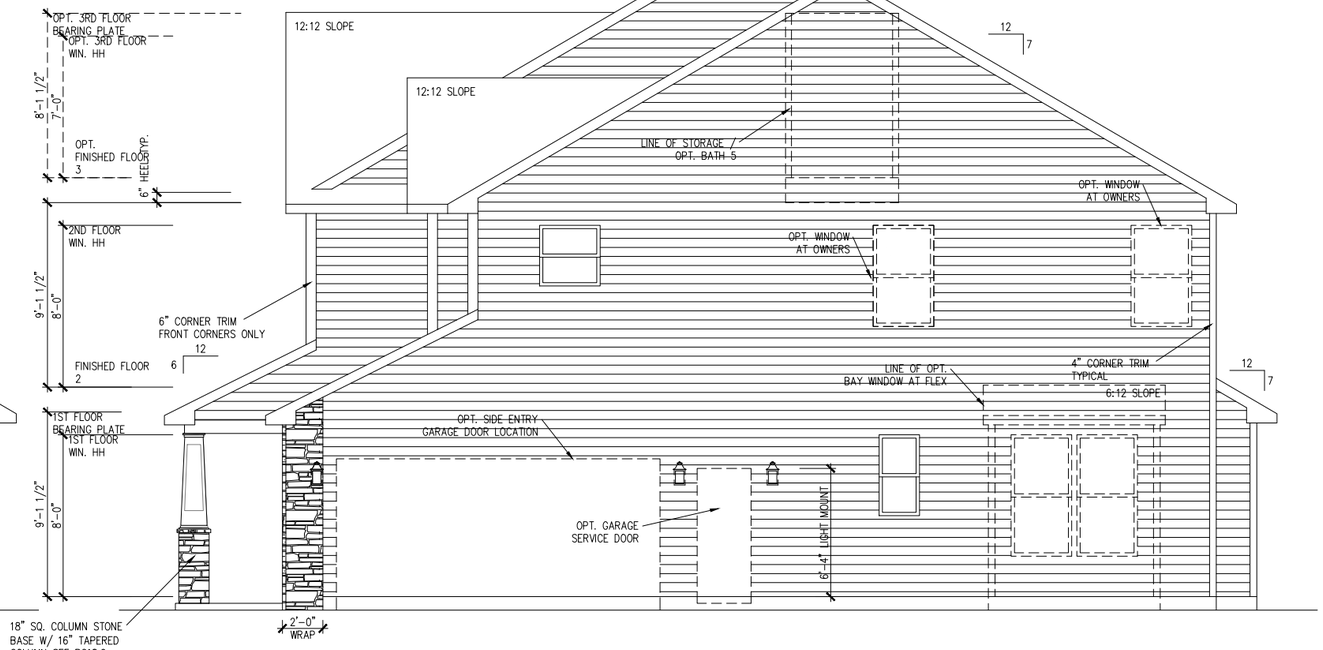


PARTIAL RIGHT ELEV. 4
OPT. 3RD CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

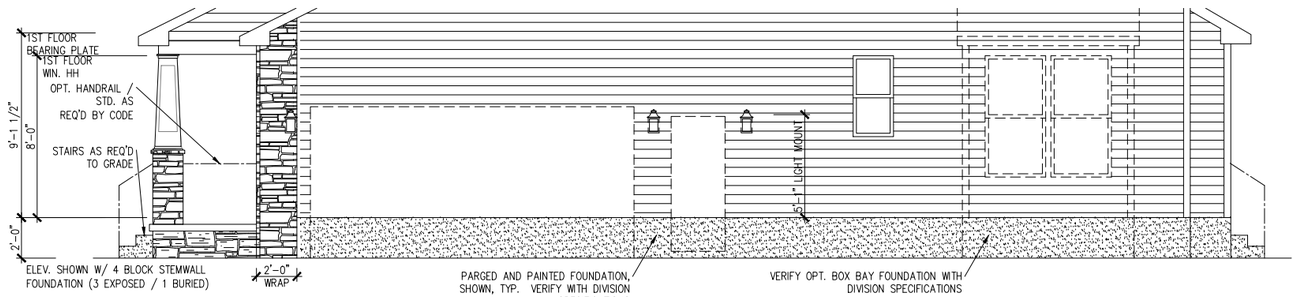
PARTIAL RIGHT ELEV. 4
OPT. 3RD CAR FRONT ENTRY

SCALE: 1/8" = 1'-0"



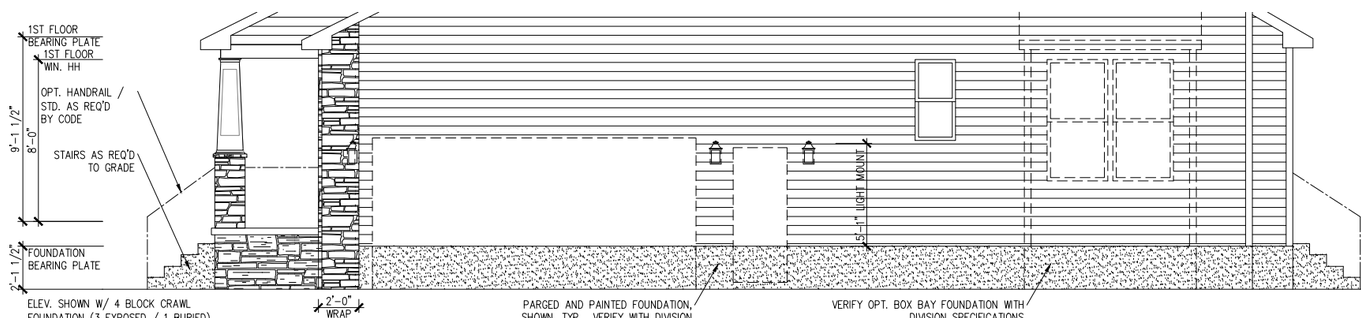
RIGHT ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL RIGHT ELEV. 4
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL RIGHT ELEV. 4
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025

CONSULTANT LOGO

SEAL

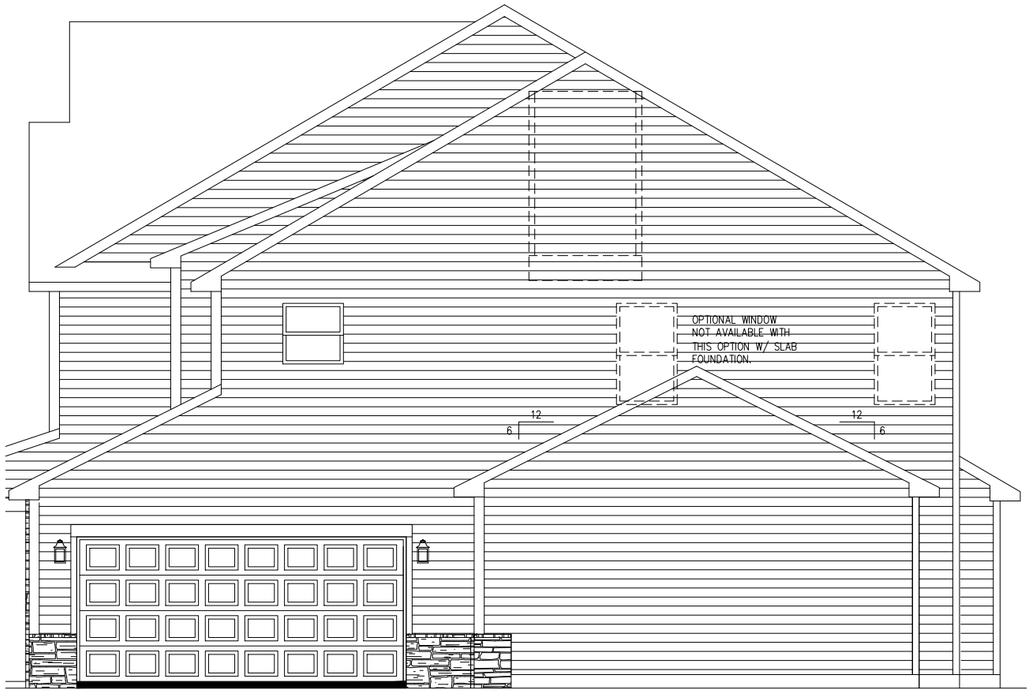
DRAWN BY:	
DATE:	
PLAN NO.	L. BEAVERS
11 X 17 SCALE	1/8" = 1'-0"
24 X 36 SCALE	1/4" = 1'-0"

DRB HOMES

HOUSE NAME: STONEHAVEN

DRAWING TITLE: SIDE ELEVATIONS - ELEV. 4

SHEET No.
A1.2.4

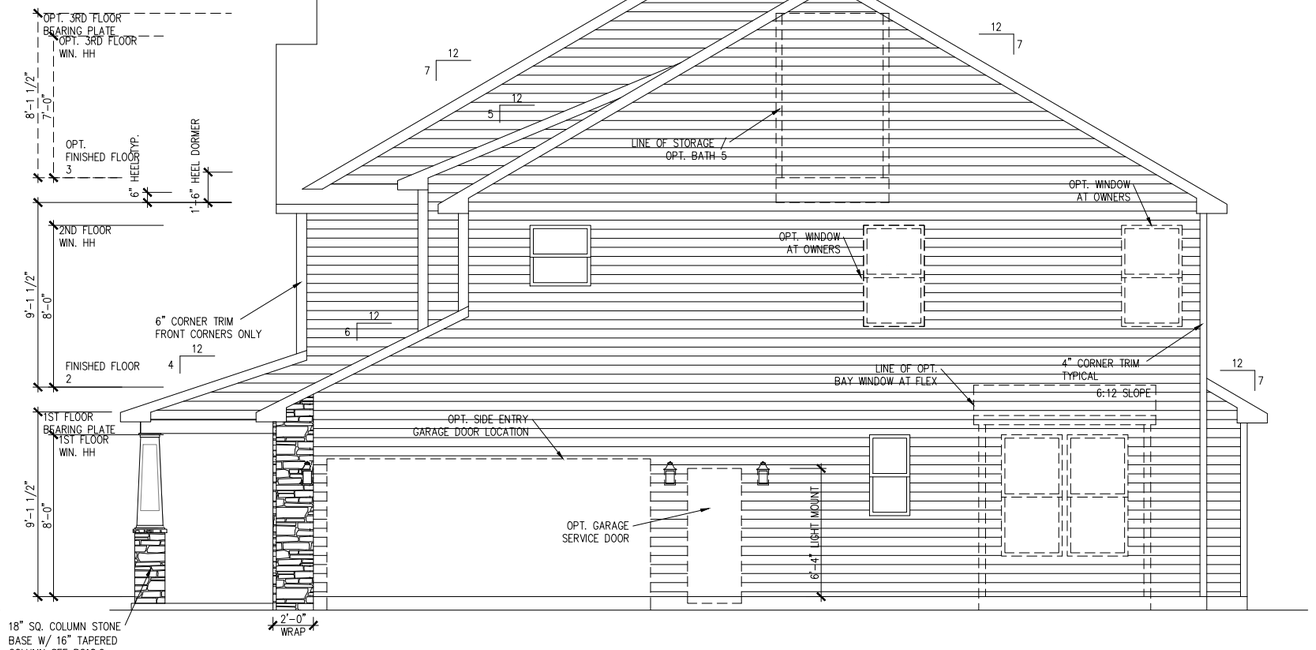


PARTIAL RIGHT ELEV. 5
OPT. 3RD CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

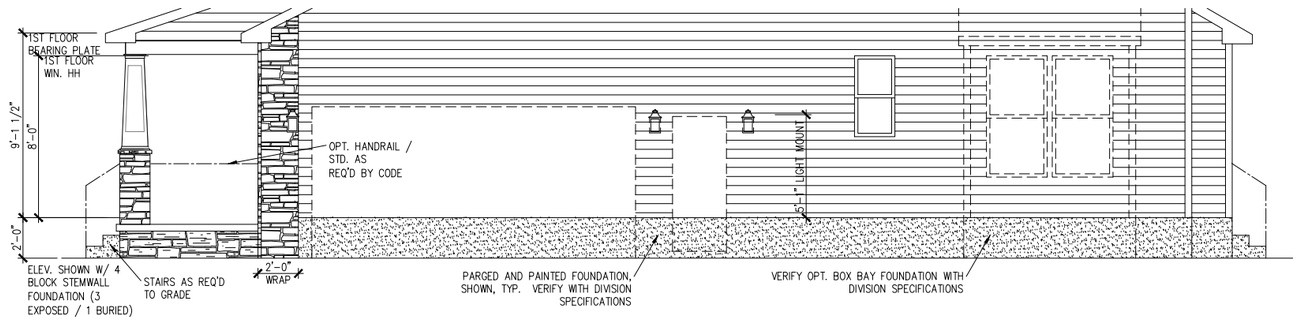
PARTIAL RIGHT ELEV. 5
OPT. 3RD CAR FRONT ENTRY

SCALE: 1/8" = 1'-0"



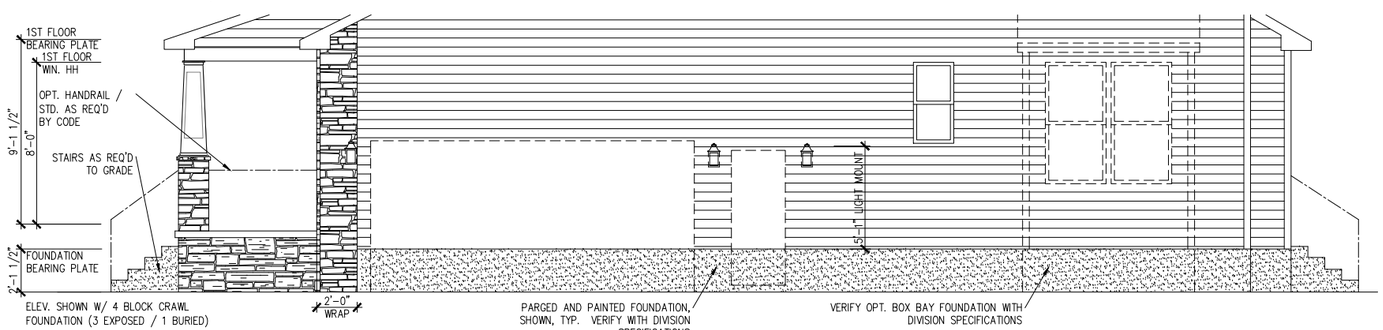
RIGHT ELEVATION 5

SCALE: 1/8" = 1'-0"



PARTIAL RIGHT ELEV. 5
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL RIGHT ELEV. 5
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8" = 1'-0"

24 X 36 SCALE
1/4" = 1'-0"

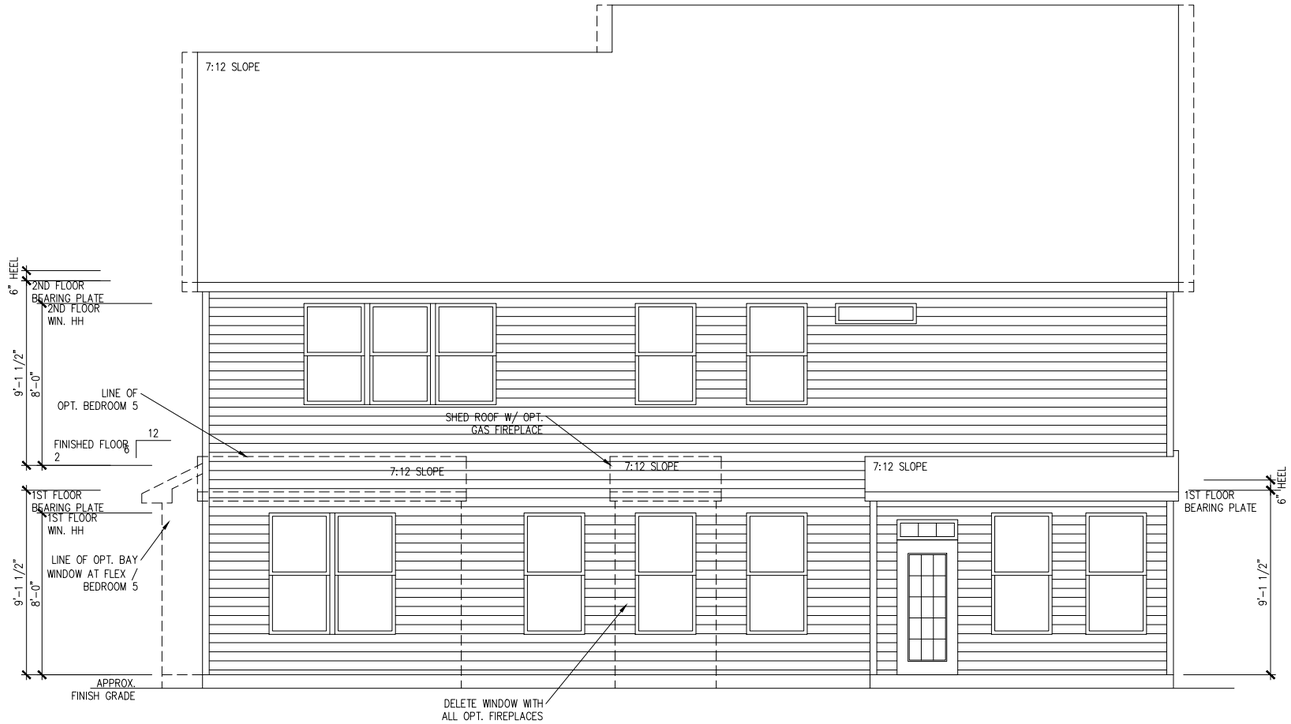
DRB HOMES

HOUSE NAME:
STONEHAVEN

DRAWING TITLE
SIDE ELEVATIONS - ELEV. 5

SHEET No.
A1.2.5

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



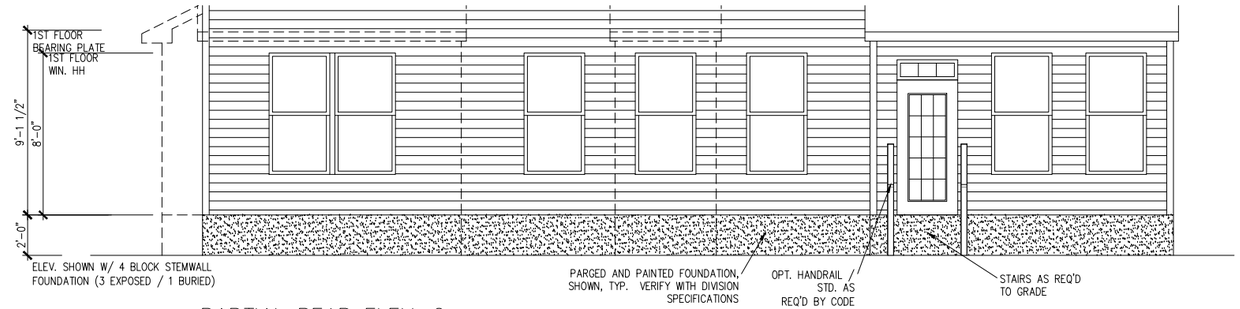
REAR ELEVATION 2

SCALE: 1/8" = 1'-0"



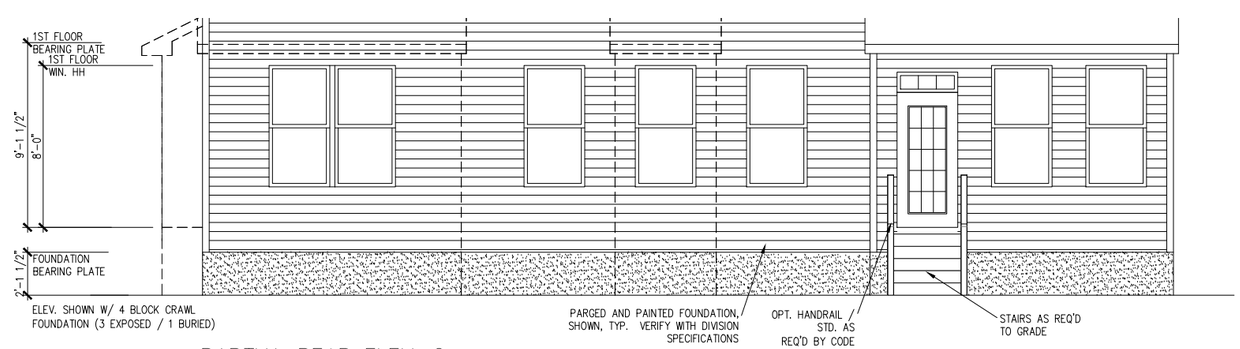
PARTIAL REAR ELEV. 2
OPT. 3RD CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 2
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 2
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8~~"~~ = 1'-0"

24 X 36 SCALE
1/4"~~=1'-0"~~

DRB HOMES

HOUSE NAME:
STONEHAVEN

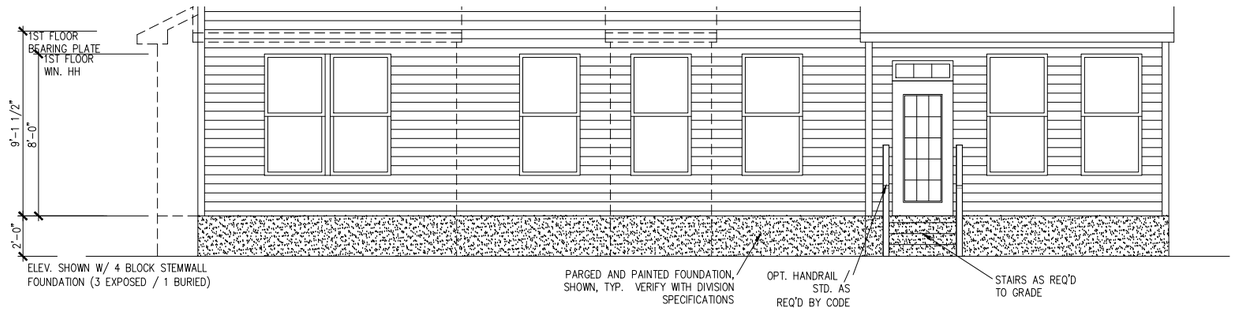
DRAWING TITLE
REAR ELEVATION
ELEVATION 2

SHEET No.
A1.3.2



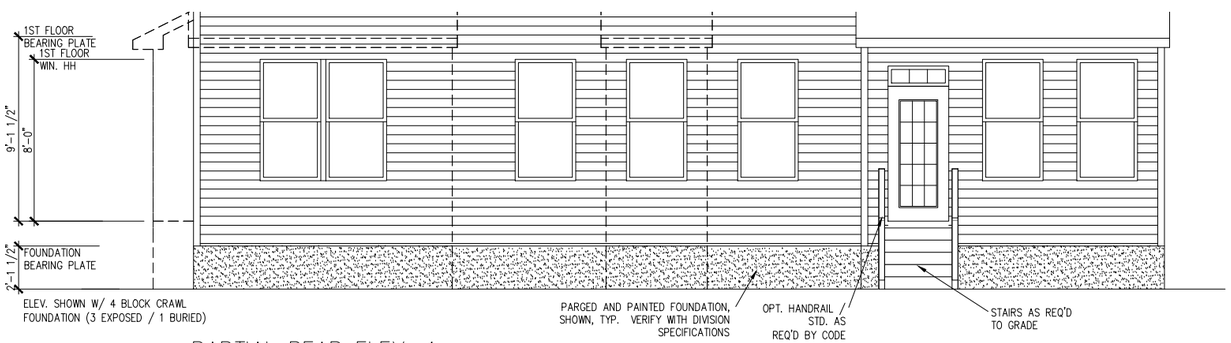
REAR ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 4
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 4
OPT. BASEMENT

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 4
OPT. 3RD CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025

CONSULTANT LOGO

SEAL

DRAWN BY:

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PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8"=1'-0"

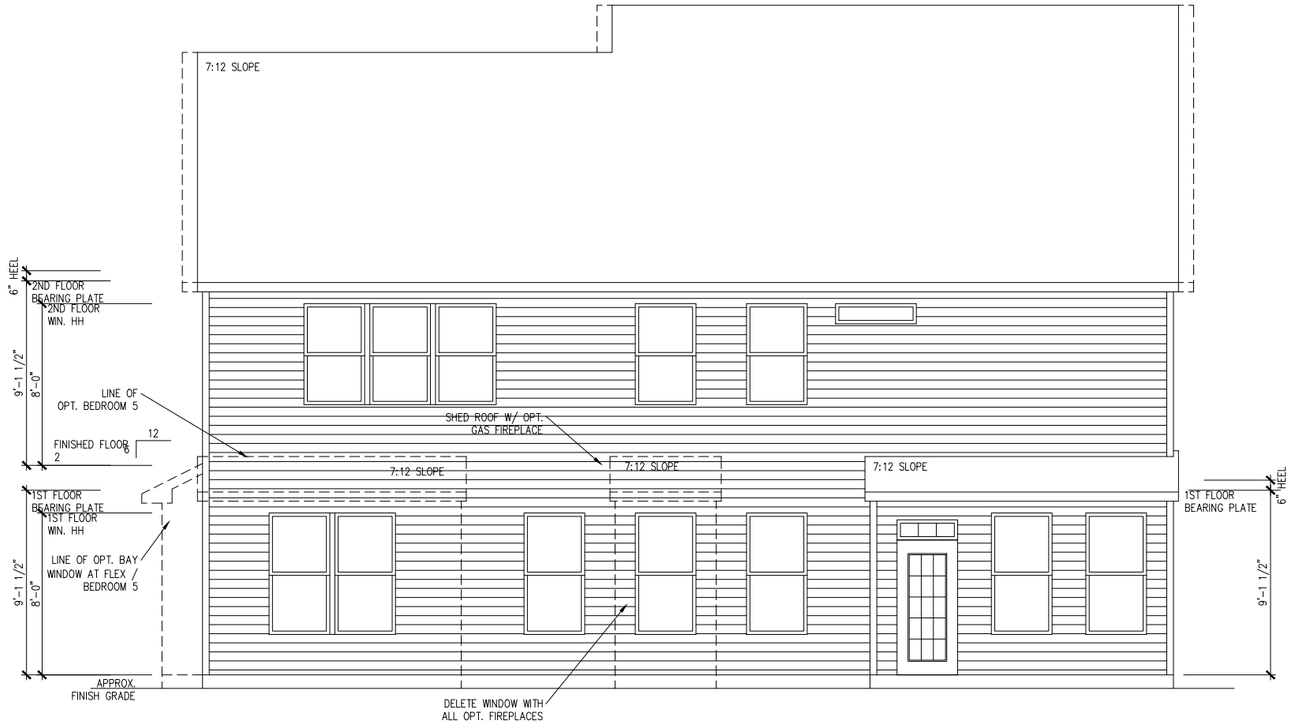
24 X 36 SCALE
1/4"=1'-0"

DRB HOMES

HOUSE NAME:
STONEHAVEN

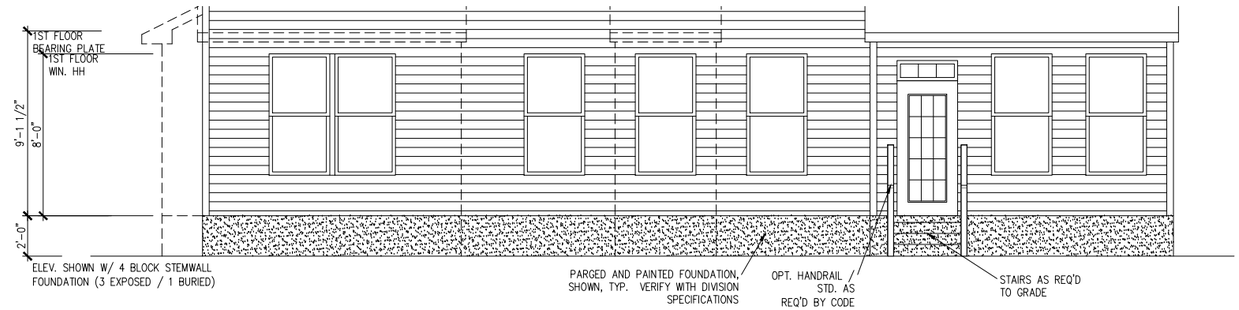
DRAWING TITLE
REAR ELEVATION
ELEVATION 4

SHEET No.
A1.3.4



REAR ELEVATION 5

SCALE: 1/8" = 1'-0"



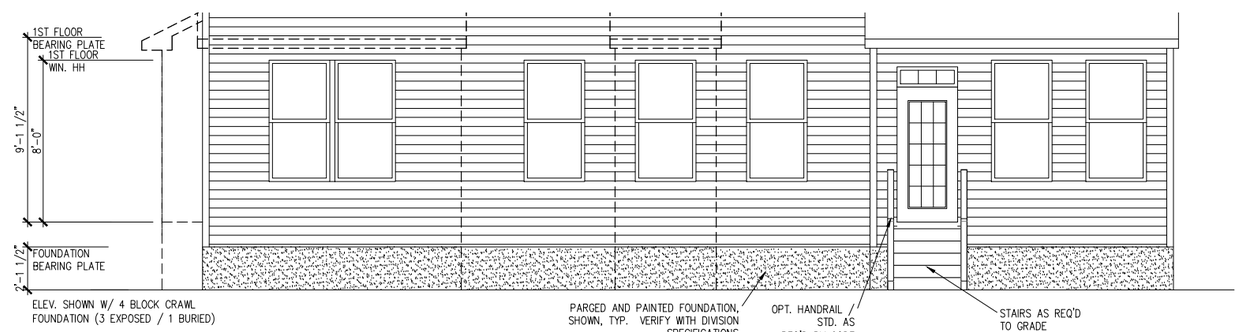
PARTIAL REAR ELEV. 5
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 5
OPT. 3RD CAR SIDE ENTRY

SCALE: 1/8" = 1'-0"



PARTIAL REAR ELEV. 5
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8"=1'-0"

24 X 36 SCALE
1/4"=1'-0"

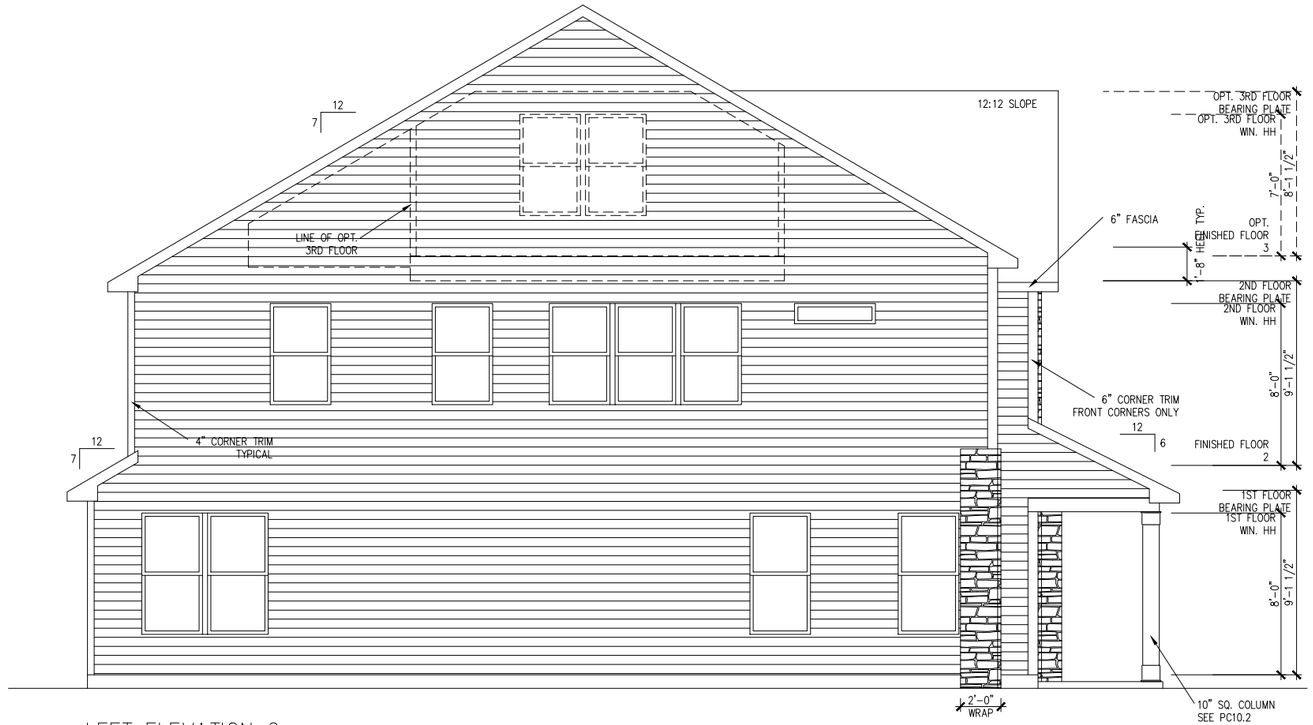
DRB HOMES

HOUSE NAME:
STONEHAVEN

DRAWING TITLE
REAR ELEVATION
ELEVATION 5

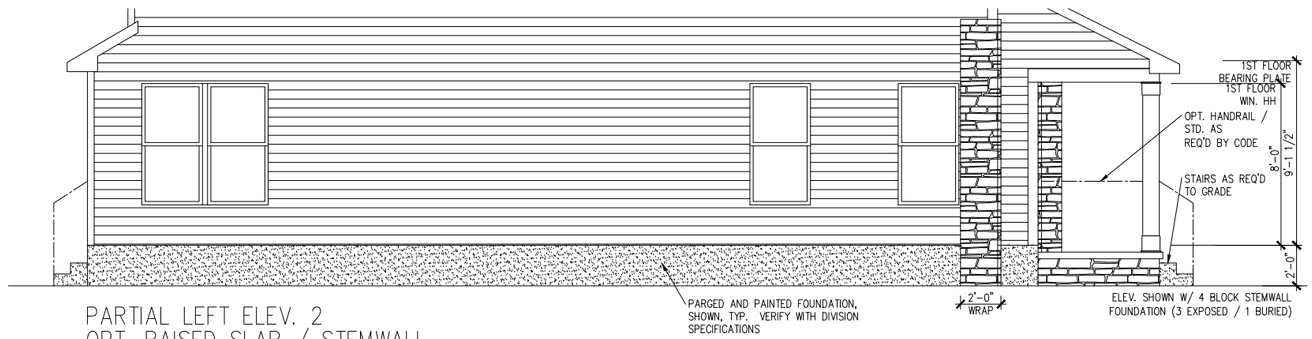
SHEET No.
A1.3.5

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



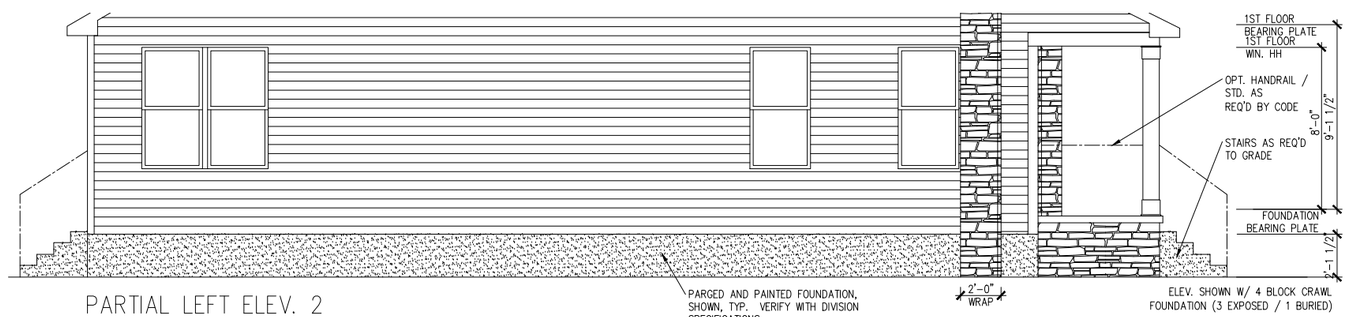
LEFT ELEVATION 2

SCALE: 1/8" = 1'-0"



PARTIAL LEFT ELEV. 2
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL LEFT ELEV. 2
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:	
DATE:	
PLAN NO.	L. BEAVERS
11 X 17 SCALE	1/8~~1/4~~"=1'-0"
24 X 36 SCALE	1/4~~3/8~~"=1'-0"

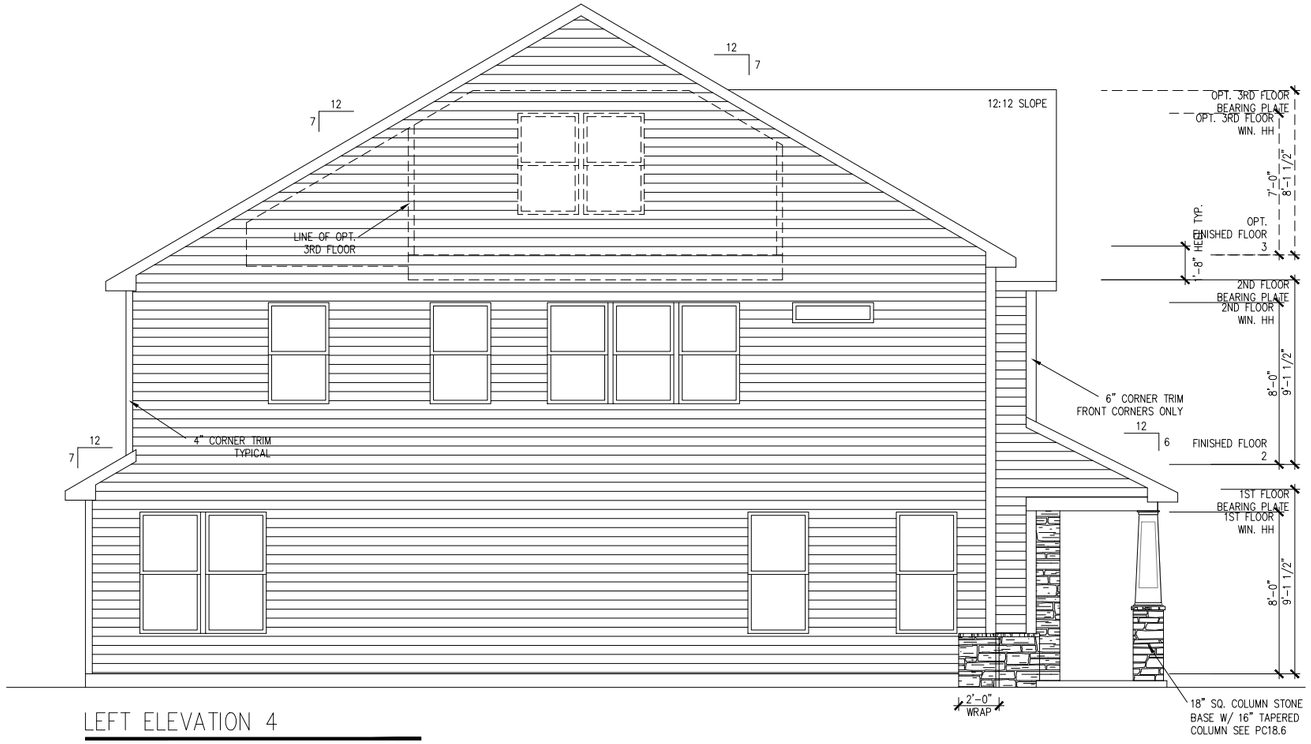
DRB HOMES

HOUSE NAME: STONEHAVEN

DRAWING TITLE: SIDE ELEVATION 2

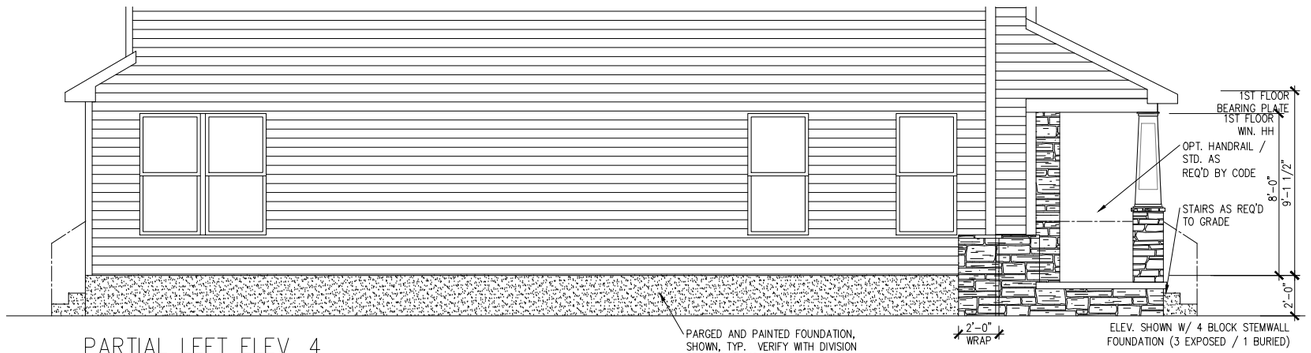
SHEET No. A1.4.2

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



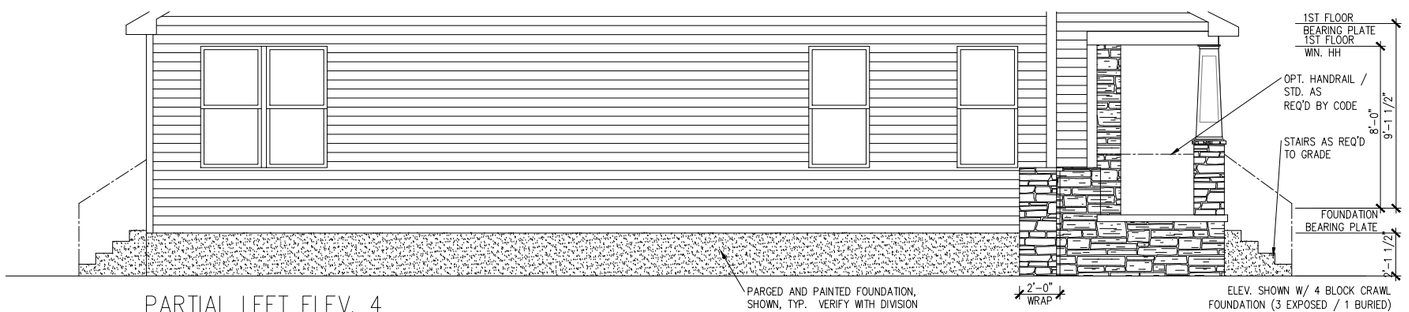
LEFT ELEVATION 4

SCALE: 1/8" = 1'-0"



PARTIAL LEFT ELEV. 4
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL LEFT ELEV. 4
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8" = 1'-0"

24 X 36 SCALE
1/4" = 1'-0"

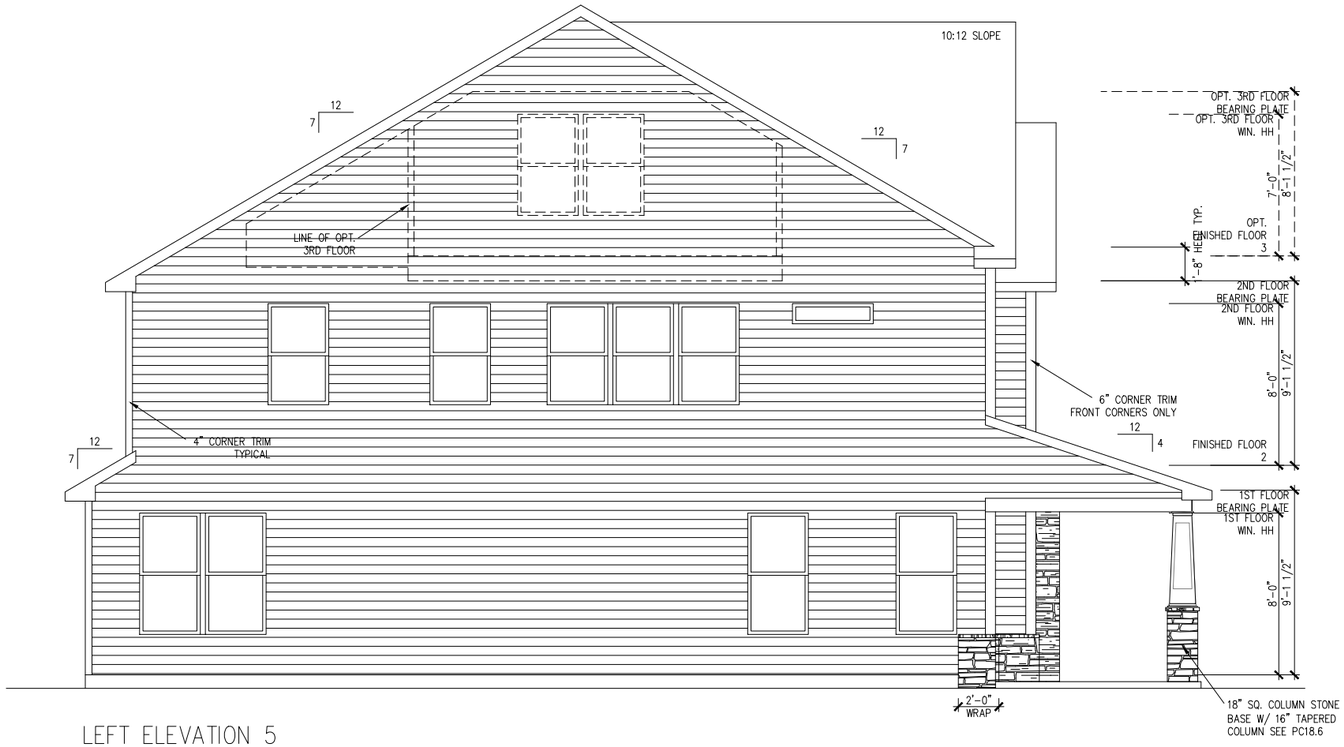
DRB HOMES

HOUSE NAME: STONEHAVEN

DRAWING TITLE
SIDE ELEVATION
ELEVATION 4

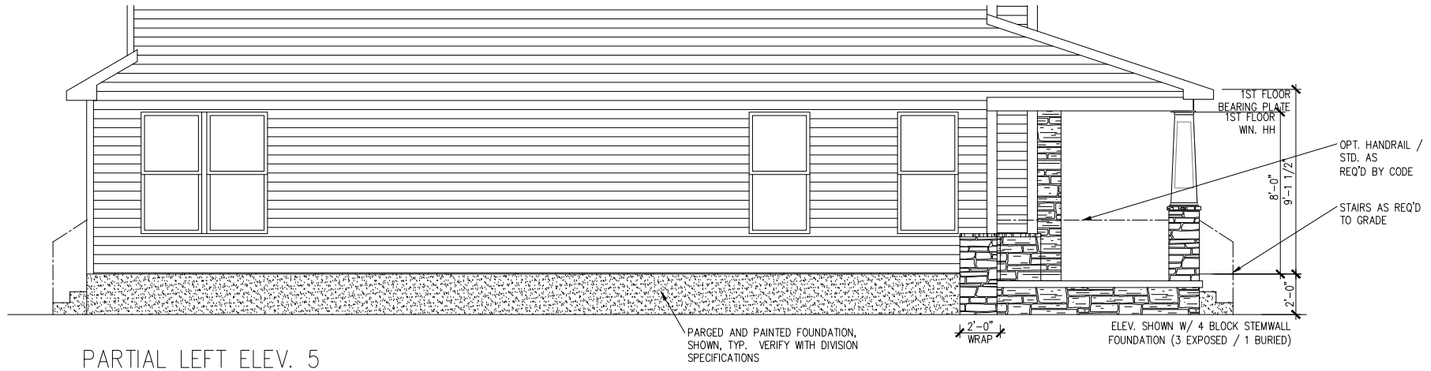
SHEET No.
A1.4.4

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025



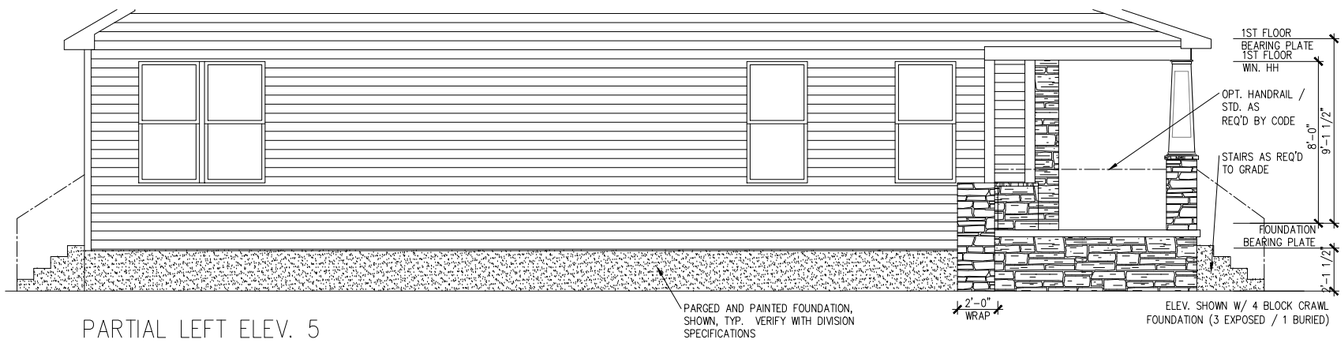
LEFT ELEVATION 5

SCALE: 1/8" = 1'-0"



PARTIAL LEFT ELEV. 5
OPT. RAISED SLAB / STEMWALL

SCALE: 1/8" = 1'-0"



PARTIAL LEFT ELEV. 5
OPT. CRAWL SPACE

SCALE: 1/8" = 1'-0"

CONSULTANT LOGO

SEAL

DRAWN BY:

DATE:

PLAN NO.
L. BEAVERS

11 X 17 SCALE
1/8"=1'-0"

24 X 36 SCALE
1/4"=1'-0"

DRB HOMES

HOUSE NAME: STONEHAVEN

DRAWING TITLE: SIDE ELEVATION 5

SHEET No.
A1.4.5

FILE: Stonehaven r6-CHLT GR 3-6-21 updated 5-8-25.dwg DATE: 05-08-2025

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Nathan Farber, Senior Planner

Subject: Petition #R25-04 Elysium School

Explain Request:

Consider a decision on Rezoning Petition #R26-04, a request by Tori Thompson, located at 7601 Babe Stillwell Road. The request would permit the development of a school at this location.

Action Recommended:

Alternative Action:

None

Financial Implications:

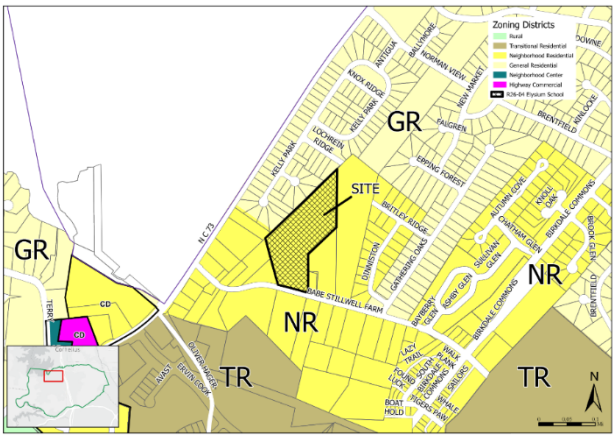
NA

Attachments:

1. R26-04 FA Staff Report
2. Attachment A - Rezoning Application
3. Attachment B - Site Plan
4. Attachment C - Public Meeting Report
5. Attachment D - Engineering Report and TIA Determination

Application Summary

Case Number/Project Name: R26-04 Elysium School
Project Address: 7601 BABE STILLWELL FARM RD HUNTERSVILLE NC 28078
Proposed Zoning: Neighborhood Residential-Conditional District (NR-CD)
Proposed Land Use: School
Applicant: Tory Thompson
Property Owner: Larry and Judy Irvin
Staff Contact: Nathan Farber, 704-766-2237 (nfarber@huntersville.org)



Site Data

Acreage (+/-): 8.72 acres
Parcel Numbers: 009-151-08
Current Zoning: Neighborhood Residential (NR)
Current Land Use: Vacant

Adjoining Zoning and Land Uses

North: General Residential (GR); *Single Family Residential*
South: Neighborhood Residential (NR); *Single Family Residential*
East: Neighborhood Residential (NR); *Single Family Residential*
West: Neighborhood Residential (NR); *Single Family Residential*

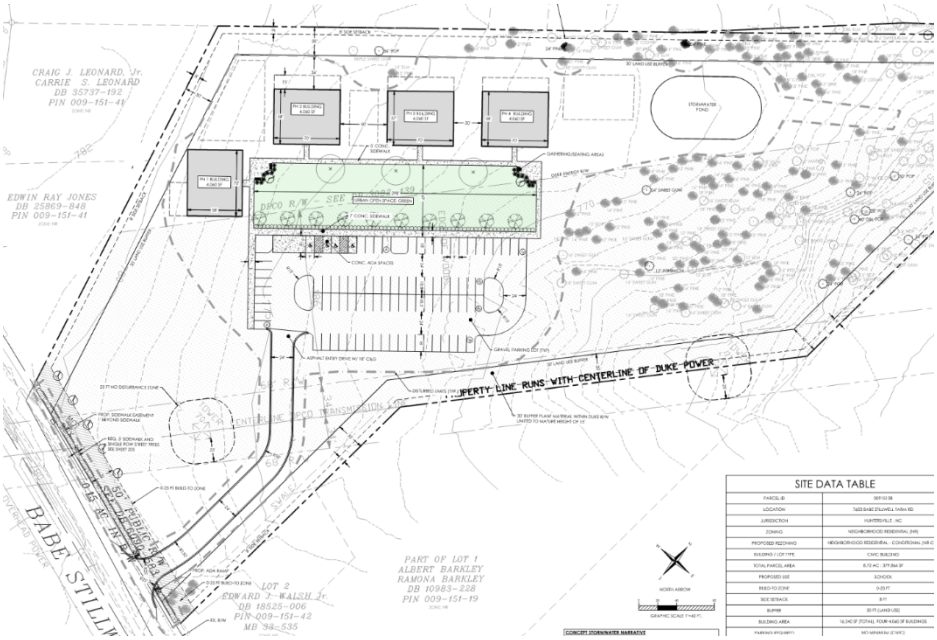
Project Description

Petition #R26-04 is a request by Tory Thompson to rezone +/- 8.72 acres located at 7601 Babe Stillwell Rd (Parcel 009-151-08) from Neighborhood Residential to Neighborhood Residential with a Conditional District. The purpose of the rezoning is to develop a school. The applicant is proposing to build the school at the rear of the lot and not along the road frontage due to a large power line easement that limits space along the road.

Update Status

- Public Hearing:
  - Since the public hearing the applicant has updated their rezoning site plans to include the requested Vehicle Stacking Plan and improved urban open space.
  - Changes have been proposed to the previously included architectural elevations. The applicant has removed the architectural elevations from the rezoning request and added a note that they will address the elevations during the construction site plan review process while complying with Article 4.14 of the Zoning Ordinance and the Huntersville Design Guidebook.
- Planning Board:

- Applicant has provided the requested phased stacking plan showing how vehicle stacking will remain compliant throughout all four phases.
- The Phasing plan now shows the applicants request for the buffer plantings to be phased.



Rezoning/Site Plan

Density: ***Not Applicable***

- Proposed:
- Staff comments:

Parking: ***Applicant has met the requirement.***

- Proposed: The applicant proposes to provide 95 spaces, 4 of which would be for Handicap parking and 2 for van parking.
- Staff comments: Civic uses do not have a minimum parking requirement.

Building Height/Scale: ***Applicant has met the requirement with conditions***

- Proposed: The applicant has requested the below note in-lieu of conceptual elevations. The previously provided architectural elevations have been removed.
  - "The Rezoning plan shows general building locations, orientations and square footages which may be modified during the development of the design, engineering, and construction phases, as approved by town staff. All buildings shall comply with Article 4.14 building Type / Civic Building and shall meet the recommendations of the Huntersville Design Guidebook".

- Staff comments: The above note provides the applicant with flexibility regarding their elevations while stating that the future designs will meet all of the Zoning Requirements and heightened design recommendations of the Design Guidebook. Staff is comfortable with this given that the building will be setback significantly from the street and will be reviewed as if the project is by-right.

Architectural Elevations: ***Applicant has met the requirement with Conditions.***

- Proposed: The applicant has requested the below note in-lieu of conceptual elevations. The previously provided architectural elevations have been removed.
  - "The Rezoning plan shows general building locations, orientations and square footages which may be modified during the development of the design, engineering, and construction phases, as approved by town staff. All buildings shall comply with Article 4.14 building Type / Civic Building and shall meet the recommendations of the Huntersville Design Guidebook".
  - The applicant has requested a modification to allow an increase in metal paneling on the façade. Please see the modification section for more information.
- Staff comments: The above note provides the applicant with flexibility regarding their elevations while stating that the future designs will meet all of the Zoning Requirements and heightened design recommendations of the Design Guidebook. Staff is comfortable with this given that the building will be setback significantly from the street.

Buffers: ***Applicant is requesting a modification.***

- Proposed: A 30' buffer is being provided along the property line of the property as required by the ordinance. Portions of the buffer have existing vegetation and will remain undisturbed while other portions do not contain any vegetation and will require additional plantings according to Article 7.5. The portions of the buffer that run through the 250' Duke easement would have a height limitation of 15' for all plantings as required by Duke Power. This would limit some of the future growth of the planted vegetation but would not prevent the buffer from being planted according to code. The applicant is requesting to phase portions of the planted buffer though no phasing plan showing how that would be implemented was provided.
- Staff comments: The applicant is in compliance with the ordinance regarding the required plantings within their 30' perimeter buffers.
  - The applicant is requesting a modification regarding the phasing of the buffers. Please see the "Phasing" section and the Modification section for more information regarding the modification request.

Commented [BP1]: Can this be clearer? Buffer is in comliance with modification approval?

Open Space: ***Applicant has met the requirement.***

- Proposed: Applicant is requesting a modification to place the four school structures at the rear of the property. In doing so, the applicant is providing a "Green" urban open space to front the buildings on. Additional open spaces are shown in between and at the rear of the school buildings.
- Staff comments: The applicant is requesting a modification to set the buildings at the rear of the lot. Article 4 Civic Lot type requires that the buildings front on an urban open space when setback from the street. The farther back the request the larger the urban open space should be to meet the intent of the ordinance. The provided urban open space relates to each of the four proposed buildings and provides a large and functional space for the school. Staff finds the new urban open space size to be acceptable for the use.

Landscaping: ***Applicant has met the requirement.***

- Proposed: Applicant is in compliance with all requirements regarding street trees and parking screening.
- Staff comments: No additional comments.

Build-To Lines: ***Applicant is requesting a modification.***

- Proposed: The applicant has proposed to place all four school buildings at least 260ft from the front property line.
- Staff comments: The Civic Lot Type requires a build to line between 0ft and 25ft from the road right of way. The applicant is requesting this modification due to the 250ft Duke Power easement the runs through the front of the property. This easement leaves minimal space to build along the road front.

Tree Save: ***Applicant exceeds the requirement***

- Proposed: The Neighborhood Residential district requires 10% Tree canopy save and 10% Specimen save. The applicant is proposing to save 30% of tree canopy and 86% of the specimen trees on site.
- Staff comments: The applicant is meeting all tree save requirements. Please note that the canopy that is within the Duke Power easement does not count towards the total tree save and does not count against the applicant as maintenance and clearing could take place by Duke Power.

Vesting: ***Not Applicable***

- Proposed: NA
- Staff comments: NA

Conditional Notes: ***Applicant has met the requirement.***

- Proposed: The applicant has provided the following schematic note: "The proposed improvements shown on the rezoning plan are schematic in nature. The exact locations and architecture of the units and buildings may be modified, as approved by Planning staff, during the design, engineering, and construction phases of the development so long as such modifications are within the boundaries of the conditional district rezoning and compatible and in harmony with the general layout of the rezoning plan".
- Staff comments: The applicant has provided staff with our recommended schematic note to ensure that the site is constructed according to the site plan.

Minor Outstanding Comments: ***Applicant does not meet the requirement.***

- Staff comments: Staff are working with the applicant to ensure that all remaining minor comments are addressed.

Transportation Comments: ***Applicant has met the requirement.***

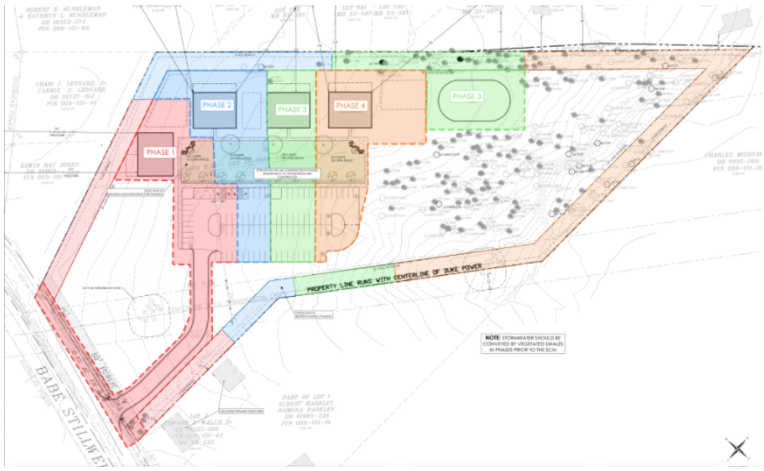
- Proposed: Access to the site will be from Babe Stillwell Rd with a single driveway entrance. A 10' sidepath will be provided along all frontages as required by the ordinance.
- Planning Staff Comments: NA
- Engineering Staff comments: The requested stacking plan has been provided. Please see the attached report for Engineering comments regarding TIA.

Stormwater Comments: ***Applicant has met the requirement.***

- Engineering Staff comments: See attached report for Engineering comments.
- Planning Staff Comments: NA

Phasing: ***Applicant is requesting a modification.***

- Proposed: The applicant is proposing to split the project into four phases. See sheet Z03.1 on the Rezoning plans for the phasing sheet. See the Modification section for more information.
- Planning Staff Comments: The updated phasing plan now includes the updated urban open space and includes the urban open space with each phase of the development. Staff is not



in support of the requested modification to allow for the phasing of the planted buffers. Phase one would already include the majority of the required buffer landscaping and staff wants to ensure that the surrounding residential properties are adequately screened from a higher intensity use.

Applicant Modification Requests

Modification Request 1: *Request to allow the proposed buildings to be set back further from the street because of the large amount of frontage being taken up by the Duke Energy Right-of-way where no buildings are allowed*

- **Applicable Zoning Requirements:** Article 4.13 Lot Type / Civic Building (1) of the zoning ordinance states that the build-to line will range from 0'-25' behind the ROW.

Staff Recommendation: *Staff recommends approval*

- **Staff Comments:** Staff can support this modification request as the 250' wide Duke Power easement does not allow adequate space for any buildings to be constructed along the street frontage. The Power easement does not allow for the construction of any primary structures. The buildings are situated as far forward as possible, which is at least 260'. The easement does allow the construction of parking, infrastructure, and plantings up to 15' tall. With the addition of good urban open space, this modification would meet the intent of the ordinance.

Modification Request 2: *Request to allow the proposed building's façade to exceed the 30% maximum for use of metal paneling.*

- **Applicable Zoning Requirements:** Article 4.14 Building Type / Civic Building (B) of the zoning ordinance states that no more than 30% of the façade visible from the street can be made up of metal paneling

Staff Recommendation: *Staff recommends approval*

- **Staff Comments:** Staff can support this modification request as the building will be setback at a minimum of 260' and will be partially screened by required landscaping (street and parking trees).

Modification Request 3: *Request to allow for the phasing of the required buffer plantings so that not all of the plantings are installed in phase 1.*

- **Applicable Zoning Requirements:** Article 7.5 of the zoning ordinance states that a 30' planted buffer is required when existing vegetation does not exist.

Staff Recommendation: *Staff does not recommend approval*

- **Staff Comments:** Staff does not support this modification request as we lack the necessary information to make an informed decision. Additionally, the construction of phase one would affect much of the buffer area that needs planted. In the interest of ensuring that neighboring properties are protected and sufficiently screened we would ask that all plantings go in with phase one. The

Rezoning Criteria – Zoning Ordinance, Article 11.4.7 (d)(e)

Comprehensive Plan: Huntersville 2040 Community Plan

Future Land Use Map: *Supports Rezoning*



Policy Recommendations - *Support rezoning*

- **Policy EOS-3:** Prioritize tree canopy preservation in the lower intensity areas
  - STAFF COMMENT: The project is proposing to save 30% of the tree canopy and 86% of the specimen trees on the site which greatly exceeds the required amount.

- **Policy LU 7.1:** Require new development to follow design principles that reinforce the vision for the Town as expressed in this plan and other adopted plans. "All buildings shall front a public street or open space.
    - STAFF COMMENT: The elevations note provided will require the applicant to design a zoning compliant building at minimum and to go above and beyond using the recommendations of the Huntersville Design Guidebook.
- **Policy LU 8.2:** Evaluate and strengthen incentives to encourage the achievement of higher design standards.
    - STAFF COMMENT: The larger and more functional urban open space helps meet the intent of the ordinance since the applicant is requesting a modification to place the buildings away from the road frontage. Additionally, as each phase of the development is built a portion of that urban open space will be provided ensuring that the intent is provided while allowing some flexibility to the applicant.

Policy Recommendations – *Do not support rezoning*

- Policy LU-11.1: Protect existing housing stock.
    - The proposed modification to phase the planting of the required 30' buffer does not screen the more intense civic use from all of the surrounding residential properties.

Consistency with Existing Development:

Staff Findings: Staff recommend that the reclassification to the Neighborhood Residential Conditional District (NR-CD) would be consistent with the overall character of adjacent development for the following reasons:

- Use is allowed by right within the NR zoning district and is buffered against neighboring residential units.

Adequacy of Public Facilities and Services: (Roadways, Transit Service, Public Safety, Schools, Utilities, Storm Drainage)

- Staff Findings: A Transportation Impact Analysis (TIA) is not required for this development (Please see the TIA and Engineering Report for further information).

Impact on Sensitive Resources: (Archaeological, Environmental, Historical, Cultural)

- Staff Findings: Planning staff has no indication that the request will adversely affect known archeological, environmental, historical, or cultural resources.

Staff Recommendation: *Approval with Conditions*

- Staff comments: Staff recommends approval, as it is consistent with the character area recommendations of the Huntersville 2040 Plan, if the following conditions are met for:
    - The entire buffer is planted at Phase one.
    - All minor staff comments are addressed.

Commented [BP2]: Can we phrase it more positive? Recommend approval with the following conditions?

Public Notices/Meetings/Comments: All meetings are subject to change; hyperlinks added to recording of meetings when available.

Community Meeting: The applicant has hosted one meeting with the community on Wednesday, April 22nd, 2026. The applicant's report is attached.

Public Notice: Staff confirms that the public notice postcard, rezoning sign, and legal ad were all placed.
Public Comments: All public comments received by mail or electronic mail have been forwarded to all Board members.
Public Hearing: The public hearing occurred on June 2nd, 2026.
Planning Board: June 26th, 2026

- Planning Board recommended approval with a vote of 5-0-1.

Final Action: July 21st, 2026

Attachments

Draft Motion Worksheet
Attachment A – Rezoning Application
Attachment B – Site Plan
Attachment C – Public Notices/Meetings
Attachment D – Engineering Report and TIA Determination

Draft Motion Worksheet

Motion to recommend APPROVAL

In considering the proposed rezoning application R26-04 Elysium School, the Planning Board recommends APPROVAL of the rezoning plan with the following conditions:

_____

Including the following modifications: _____

_____

_____

_____

_____

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

Motion to recommend DENIAL

In considering the proposed rezoning application R26-04 Elysium School, the Planning Board recommends DENIAL of the rezoning plan.

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

dotloop signature verification: dtlp.us/I3ix-hJ2N-JM7O

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

- ☐ Change of Use
- ☐ Commercial Site Plan
- ■ Conditional Rezoning
- ☐ General Rezoning
- ☐ Master Signage Program
- ☐ Special Use Permit
- ☐ Revision to
  Original Project # _____
- ☐ Other _____

SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance

- ☐ Sketch Plan
- ☐ Preliminary Plan
- ☐ Final Plat (Includes Minor Subdivision)
- ☐ Exempt Subdivision
- ☐ Final Plat Revision
- ☐ Farmhouse Cluster

2. Project Data

Date of Application 02/19/2026

Name of Project Tory Thompson Phase # (if subdivision) _____

Project Address 7601 Babe Stillwell Farm Rd

Parcel Identification Number(s) (PIN) 00915108

Current Zoning District NR Proposed District (for rezoning only) NR-CD

Property Size (acres) 8.72 AC Street Frontage (feet) 297 FT

Current Land Use Undeveloped

Proposed Land Use(s) School

Is the project within Huntersville's corporate limits?
Yes X No _____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Provide a detailed summary. (i.e. RTAP identify what you are revising). Additional sheets may be added.
The project consists of (4) 4,000 sf school buildings and associated parking as needed. The need for the rezoning is due to the modification request to have the proposed buildings set back from Babe Stillwell Rd because of the Duke R/W spanning the majority of the frontage

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

dotloop signature verification: dtlp.us/I3ix-hJ2N-JM7O

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name Tory Thompson Phone 512-922-4937

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ■ Other: Individual

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Tory Thompson

Title _____ Email Tory.S.Thompson@gmail.com

Address of Applicant 167 Chance Rd. Moorseville, NC 28115

7. Property Owner (if different than applicant)

*Printed Name Larry and Judy Irvin Phone 704-746-5708

☐ Corporation ☐Limited Liability Company ☐ Trust ☐ Partnership ■ Other: Individual(s)

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Larry Dalton Irwin dotloop verified 02/23/26 2:53 PM EST W5XU-UOHF-K2UI-DXF6 Judy Dove Irwin dotloop verified 02/23/26 2:53 PM EST D7KI-U0HM-1BXD-O4MA

Title Property Owner Email _____

Address of Property Owner PO Box 1427 Huntersville, NC 28070

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

Development Firm	Name of Contact	Phone	Email
W&A Engineering	Tess Fallova	704-275-3877	tfallova@waengineering.com
Design Firm	**Name of Contact**	**Phone**	**Email**

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

REZONING PLANS FOR

ELYSIUM SCHOOL REZONING

7603 BABE STILLWELL FARM RD
HUNTERSVILLE, NC 28078

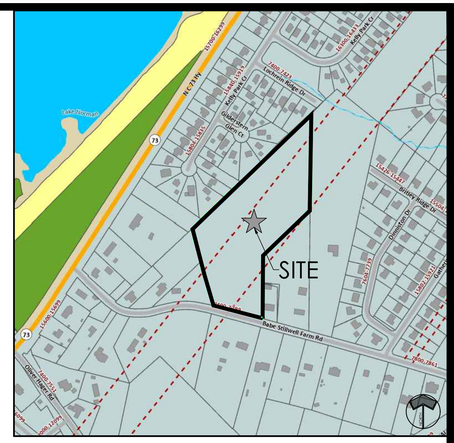
ACCELA # CSP-500122 (R26-04)

DEVELOPER:

ELYSIUM SCHOOL OF INNOVATION
157 CHANCE RD
MOORESVILLE, NC 28115

OWNER:

LARRY DALTON IRVIN
PO BOX 1427
HUNTERSVILLE, NC 28070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NC HWY 73
Lake Norman
Gilead Rd
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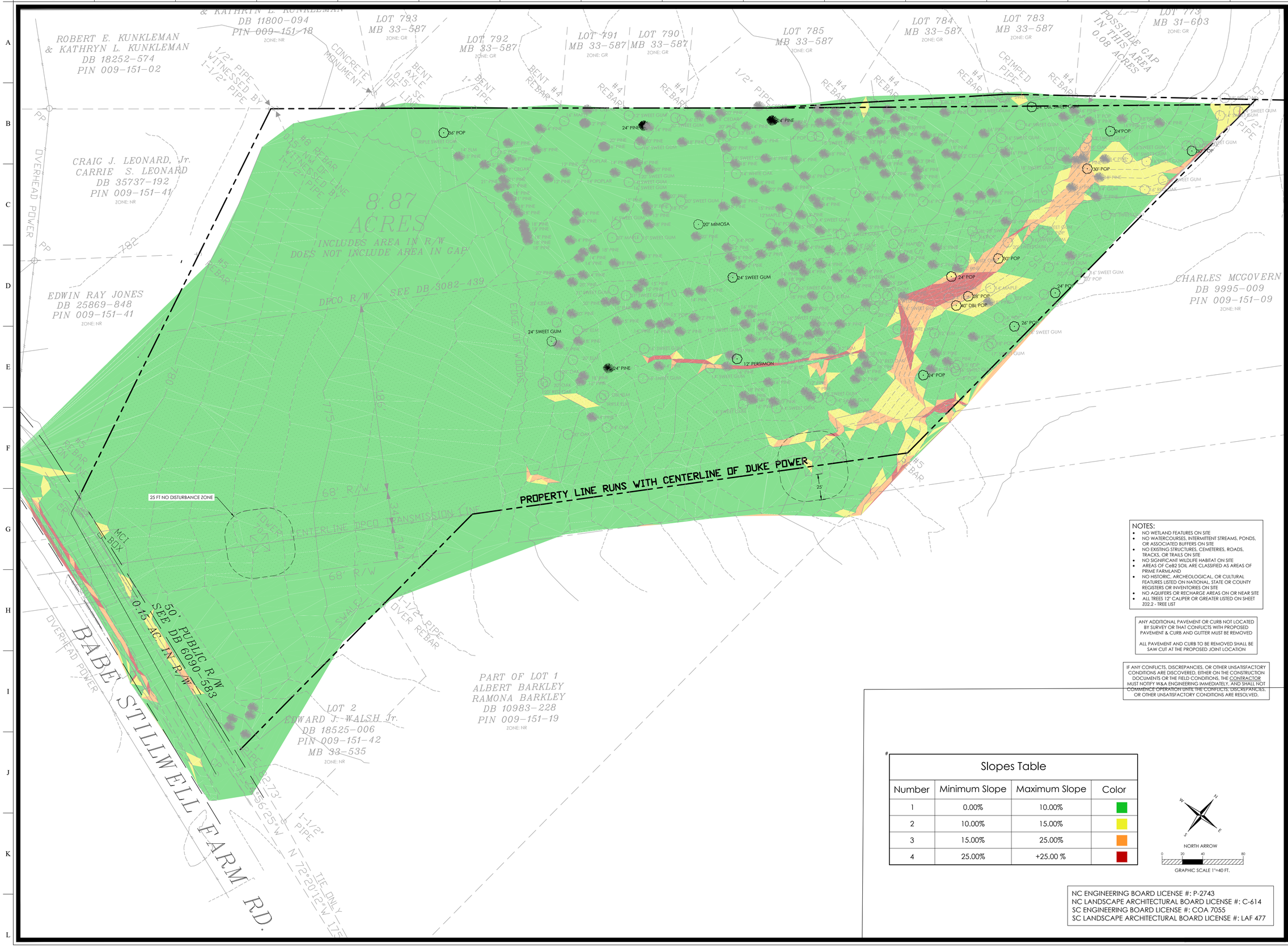
ROBERT E. KUNKLEMAN & KATHRYN L. KUNKLEMAN DB 18252-574 PIN 009-151-02
ROBERT E. KUNKLEMAN & KATHRYN L. KUNKLEMAN DB 11800-094 PIN 009-151-18 ZONE: NR
CRAIG J. LEONARD, Jr. CARRIE S. LEONARD DB 35737-192 PIN 009-151-41 ZONE: NR
EDWIN RAY JONES DB 25869-848 PIN 009-151-41 ZONE: NR
CHARLES MCGOVERN DB 9995-009 PIN 009-151-09 ZONE: NR
LOT 793 MB 33-587 ZONE: GR
LOT 792 MB 33-587 ZONE: GR
LOT 791 MB 33-587 ZONE: GR
LOT 790 MB 33-587 ZONE: GR
LOT 785 MB 33-587 ZONE: GR
LOT 784 MB 33-587 ZONE: GR
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LOT 773 MB 31-603 ZONE: GR
8.87 ACRES
INCLUDES AREA IN R/W
DOES NOT INCLUDE AREA IN GAP
DPCO R/W - SEE DB 3082-439
PROPERTY LINE RUNS WITH CENTERLINE OF DUKE POWER
25 FT NO DISTURBANCE ZONE
68' R/W
CENTERLINE DPCO TRANSMISSION LINE
50' PUBLIC R/W SEE DB 6090-583
0.15 AC. IN R/W
BABE STILLWELL FARM RD.
PART OF LOT 1 ALBERT BARKLEY RAMONA BARKLEY DB 10983-228 PIN 009-151-19 ZONE: NR
LOT 2 EDWARD J. WALSH Jr. DB 18525-006 PIN 009-151-42 MB 33-535 ZONE: NR
POSSIBLE GAP IN THIS AREA 0.08 ACRES
OVERHEAD POWER
EDGE OF WOODS
CONCRETE MONUMENT
1/2" PIPE WITNESSED BY 1-1/2" PIPE
1" BENT PIPE
BENT AXLE 0.15' SE OF LINE
BENT #4 REBAR
#4 REBAR
CRIMPED PIPE
#5 REBAR ON LINE
#5 REBAR 0.5' N OF LINE WITNESSED BY 1-1/2" PIPE
1-1/2" PIPE OVER REBAR
MC1 BOX
S 72°20'12" E 273.56'
S 17°56'25" W
N 72°20'12" W 175.00'
TIE ONLY
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24" PINE
36" POP
20" MIMOSA
24" SWEET GUM
12" PERSIMON
30" POP
28" POP
40" DBL POP
26" POP
24" POP
16" SWEET GUM
20" POP
6" REDBAY
4" WHITE OAK
4" MAPLE
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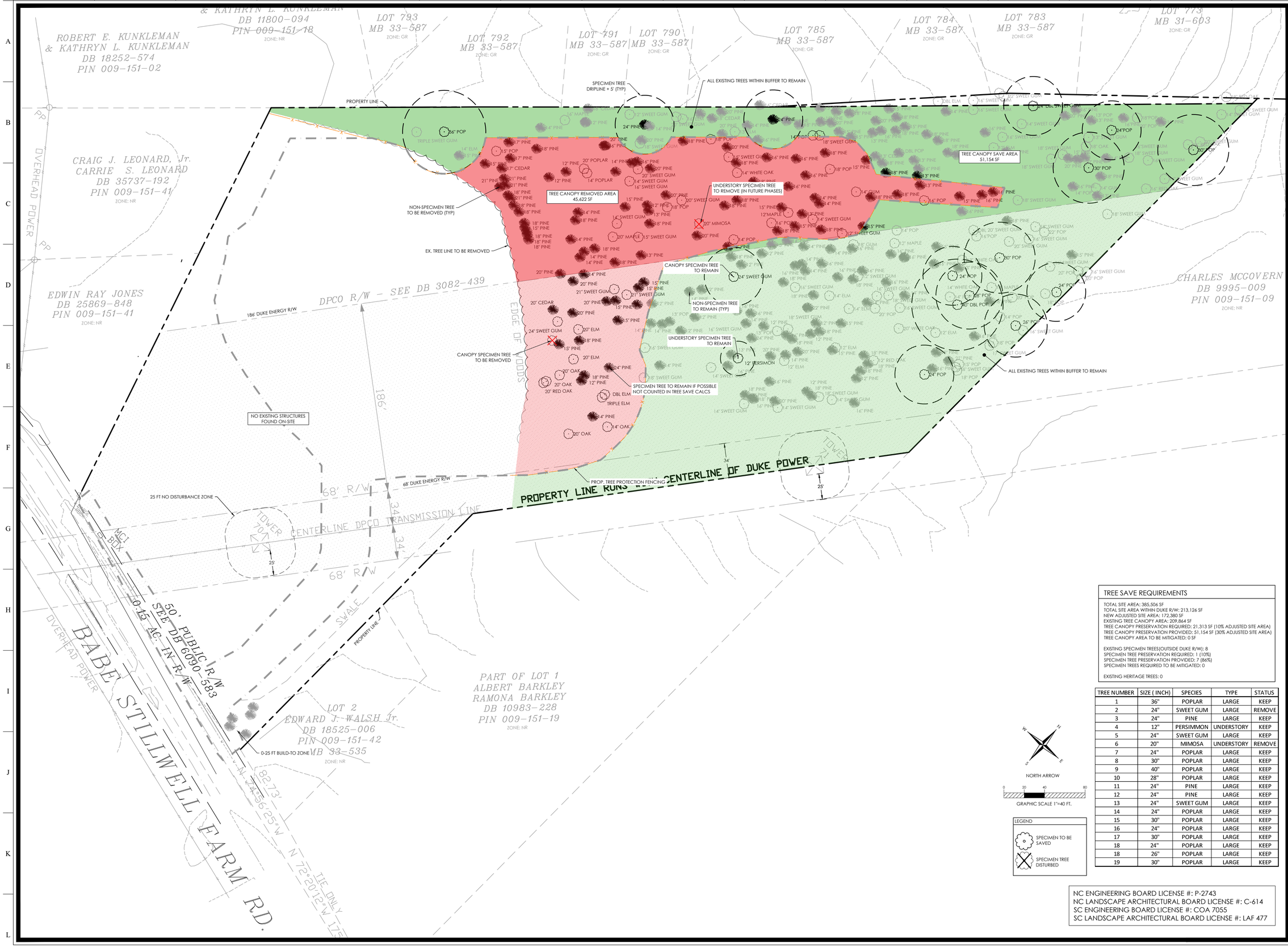

W&A ENGINEERING

CIVIL ENGINEERING | LANDSCAPE ARCHITECTURE
LAND SURVEYING | TRAFFIC ENGINEERING
ECONOMIC DEVELOPMENT

121 GILEAD RD
HUNTERSVILLE, NC 28078
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ELYSIUM SCHOOL REZONE

MECKLENBURG COUNTY, NORTH CAROLINA

7603 BABE STILLWELL FARM RD, HUNTERSVILLE, NC

Know what's below. Call before you dig. 811

REVISIONS

DATE	COMMENT

INITIAL SUB. DATE: ####

ISSUANCE DATE: ####

W&A PROJECT #: 25-00458

DEMO + TREE SAVE PLAN

Z02.1

TREE SAVE REQUIREMENTS

TOTAL SITE AREA: 385,506 SF
TOTAL SITE AREA WITHIN DUKE R/W: 213,126 SF
NEW ADJUSTED SITE AREA: 172,380 SF
EXISTING TREE CANOPY AREA: 209,864 SF
TREE CANOPY PRESERVATION REQUIRED: 21,313 SF (10% ADJUSTED SITE AREA)
TREE CANOPY PRESERVATION PROVIDED: 51,154 SF (30% ADJUSTED SITE AREA)
TREE CANOPY AREA TO BE MITIGATED: 0 SF

EXISTING SPECIMEN TREES(OUTSIDE DUKE R/W): 8
SPECIMEN TREE PRESERVATION REQUIRED: 1 (10%)
SPECIMEN TREE PRESERVATION PROVIDED: 7 (86%)
SPECIMEN TREES REQUIRED TO BE MITIGATED: 0

EXISTING HERITAGE TREES: 0

TREE NUMBER	SIZE (INCH)	SPECIES	TYPE	STATUS
1	36"	POPLAR	LARGE	KEEP
2	24"	SWEET GUM	LARGE	REMOVE
3	24"	PINE	LARGE	KEEP
4	12"	PERSIMMON	UNDERSTORY	KEEP
5	24"	SWEET GUM	LARGE	KEEP
6	20"	MIMOSA	UNDERSTORY	REMOVE
7	24"	POPLAR	LARGE	KEEP
8	30"	POPLAR	LARGE	KEEP
9	40"	POPLAR	LARGE	KEEP
10	28"	POPLAR	LARGE	KEEP
11	24"	PINE	LARGE	KEEP
12	24"	PINE	LARGE	KEEP
13	24"	SWEET GUM	LARGE	KEEP
14	24"	POPLAR	LARGE	KEEP
15	30"	POPLAR	LARGE	KEEP
16	24"	POPLAR	LARGE	KEEP
17	30"	POPLAR	LARGE	KEEP
18	24"	POPLAR	LARGE	KEEP
18	26"	POPLAR	LARGE	KEEP
19	30"	POPLAR	LARGE	KEEP

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

LEGEND

SPECIMEN TO BE SAVED

SPECIMEN TREE DISTURBED

NC ENGINEERING BOARD LICENSE #: P-2743
NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

N:\25-00458 - Elysium School Rezoning\DWG Sheets\02B - DEMO AND TREE SAVE.DWG 7-06-26 03:40:22 PM tfallova

SIZE	SPECIES	INVENTORY
36	**POPLAR**	**KEEP**
14	ELM	KEEP
15	PINE	KEEP
17	PINE	REMOVE
18	PINE	REMOVE
15	POPLAR	REMOVE
15	PINE	REMOVE
17	PINE	REMOVE
17	CEDAR	REMOVE
21	PINE	REMOVE
21	PINE	REMOVE
21	PINE	REMOVE
18	PINE	REMOVE
21	PINE	REMOVE
18	PINE	REMOVE
18	PINE	REMOVE
18	PINE	REMOVE
15	PINE	REMOVE
18	PINE	REMOVE
18	PINE	REMOVE
18	PINE	REMOVE
20	PINE	REMOVE
14	PINE	KEEP
16	MAPLE	KEEP
18	CEDAR	KEEP
12	PINE	KEEP
20	PINE	REMOVE
16	PINE	REMOVE
12	PINE	REMOVE
12	PINE	REMOVE
20	POPLAR	REMOVE
14	POPLAR	REMOVE
14	PINE	REMOVE
18	PINE	REMOVE
14	PINE	REMOVE
18	PINE	REMOVE
14	PINE	REMOVE
14	PINE	REMOVE
14	PINE	REMOVE
20	PINE	REMOVE
18	PINE	REMOVE
13	PINE	REMOVE
20	MAPLE	REMOVE
15	SWEET GUM	REMOVE
14	SWEET GUM	REMOVE
18	PINE	REMOVE
13	PINE	REMOVE
15	PINE	REMOVE
12	PINE	REMOVE
18	POPLAR	REMOVE
20	SWEET GUM	REMOVE
20	PINE	REMOVE
16	SWEET GUM	REMOVE
14	SWEET GUM	REMOVE
20	SWEET GUM	REMOVE
20	PINE	REMOVE
16	PINE	REMOVE
18	SWEET GUM	KEEP
20	PINE	KEEP
24	**PINE**	**KEEP**
12	SWEET GUM	KEEP
14	PINE	KEEP
20	SWEET GUM	KEEP
16	ELM	KEEP
20	PINE	KEEP
18	CEDAR	KEEP
20	PINE	KEEP
14	PINE	KEEP
13	PINE	KEEP
16	PINE	KEEP
18	PINE	REMOVE
18	POPLAR	REMOVE
20	PINE	REMOVE
15	SWEET GUM	REMOVE
16	PINE	REMOVE
18	PINE	REMOVE
14	WHITE OAK	REMOVE
18	PINE	REMOVE
22	PINE	REMOVE
18	PINE	REMOVE

18	PINE	REMOVE
20	**MIMOSA**	**REMOVE**
20	PINE	REMOVE
14	POPLAR	REMOVE
12	PINE	REMOVE
24	**PINE**	**KEEP**
18	PINE	KEEP
18	PINE	KEEP
15	PINE	KEEP
15	PINE	KEEP
16	PINE	KEEP
20	PINE	KEEP
18	PINE	KEEP
15	PINE	KEEP
15	PINE	KEEP
14	POPLAR	REMOVE
18	SWEET GUM	REMOVE
18	PINE	REMOVE
16	PINE	REMOVE
18	POPLAR	REMOVE
16	PINE	REMOVE
16	PINE	REMOVE
14	PINE	REMOVE
14	PINE	REMOVE
15	PINE	REMOVE
12	MAPLE	REMOVE
13	PINE	REMOVE
14	SWEET GUM	REMOVE
16	POPLAR	REMOVE
18	PINE	REMOVE
15	PINE	REMOVE
15	PINE	KEEP
14	PINE	REMOVE
18	PINE	REMOVE
12	SWEET GUM	REMOVE
15	PINE	KEEP
18	PINE	KEEP
18	PINE	KEEP
20	PINE	KEEP
13	PINE	KEEP
16	PINE	KEEP
18	PINE	KEEP
15	PINE	KEEP
18	PINE	KEEP
18	PINE	KEEP
18	PINE	KEEP
20	PINE	KEEP
18	PINE	KEEP
15	PINE	REMOVE
18	PINE	REMOVE
18	PINE	REMOVE
13	PINE	REMOVE
14	GUM	REMOVE
18	PINE	REMOVE
16	POPLAR	KEEP
15	PINE	REMOVE
16	SWEET GUM	KEEP
22	SWEET GUM	KEEP
14	PINE	KEEP
16	SWEET GUM	KEEP
14	SWEET GUM	KEEP
18	PINE	KEEP
18	PINE	KEEP
18	PINE	KEEP
12	CEDAR	KEEP
16	PINE	KEEP
16	SWEET GUM	KEEP
12	ELM	KEEP
16	PINE	KEEP
15	PINE	KEEP
16	PINE	KEEP
16	PINE	KEEP
16	PINE	KEEP
18	SWEET GUM	KEEP
24	**SWEET GUM**	**KEEP**
20	PINE	KEEP
16	PINE	KEEP
13	POPLAR	KEEP

13	PINE	KEEP
13	SWEET GUM	KEEP
18	OAK	KEEP
18	SWEET GUM	KEEP
18	SWEET GUM	KEEP
20	PINE	KEEP
15	PINE	KEEP
20	PINE	KEEP
30	**POPLAR**	**KEEP**
16	PINE	KEEP
14	POPLAR	KEEP
13	PINE	KEEP
14	GUM	KEEP
18	PINE	KEEP
14	PINE	KEEP
24	**POPLAR**	**KEEP**
16	PINE	KEEP
18	PINE	KEEP
20	POPLAR	KEEP
16	PINE	KEEP
16	SWEET GUM	KEEP
18	SWEET GUM	KEEP
16	SWEET GUM	KEEP
16	RED OAK	KEEP
16	SWEET GUM	KEEP
30	**POPLAR**	**KEEP**
16	RED OAK	KEEP
20	SWEET GUM	KEEP
14	SWEET GUM	KEEP
14	SWEET GUM	KEEP
18	SWEET GUM	KEEP
16	SWEET GUM	KEEP
20	POPLAR	KEEP
15	PINE	KEEP
24	**POPLAR**	**KEEP**
18	POPLAR	KEEP
16	SWEET GUM	KEEP
22	POPLAR	KEEP
18	SWEET GUM	KEEP
16	SWEET GUM	KEEP
18	PINE	KEEP
30	**POPLAR**	**KEEP**
14	MAPLE	KEEP
18	PINE	KEEP
20	POPLAR	KEEP
14	POPLAR	KEEP
26	**POPLAR**	**KEEP**
16	SWEET GUM	KEEP
20	SWEET GUM	KEEP
16	POPLAR	KEEP
13	WHITE OAK	KEEP
13	PINE	KEEP
24	**POPLAR**	**KEEP**
14	WHITE OAK	KEEP

14	PINE	KEEP
20	POPLAR	KEEP
18	PINE	KEEP
12	RED OAK	KEEP
18	PINE	KEEP
18	PINE	KEEP
12	PINE	KEEP
16	PINE	KEEP
14	SWEET GUM	KEEP
18	SWEET GUM	KEEP
18	PINE	KEEP
12	PINE	KEEP
15	PINE	KEEP
12	ELM	KEEP
15	PINE	KEEP
14	ELM	KEEP
18	PINE	KEEP
12	SWEET GUM	KEEP
16	PINE	KEEP
16	PINE	KEEP
18	GUM	KEEP
14	PINE	KEEP
16	PINE	KEEP
16	PINE	KEEP
14	ELM	KEEP
18	PINE	KEEP
22	PINE	KEEP
12	PINE	KEEP
18	PINE	KEEP
12	PINE	KEEP
14	SWEET GUM	KEEP
20	PINE	KEEP
14	SWEET GUM	KEEP
16	PINE	KEEP
18	PINE	KEEP
16	PINE	KEEP
14	SWEET GUM	KEEP
16	PINE	KEEP
12	**PERSIMMON**	**KEEP**
13	PINE	KEEP
12	ELM	KEEP
14	PINE	KEEP
20	PINE	KEEP
20	PINE	KEEP
18	PINE	KEEP
16	PINE	KEEP
24	**PINE**	**KEEP**
13	POPLAR	KEEP
12	PINE	KEEP
14	PINE	KEEP
16	PINE	KEEP
16	PINE	KEEP
16	SWEET GUM	KEEP
18	PINE	KEEP

15	PINE	REMOVE
24	**PINE**	**REMOVE**
14	PINE	KEEP
14	OAK	KEEP
20	OAK	KEEP
12	PINE	REMOVE
18	PINE	REMOVE
20	RED OAK	REMOVE
20	OAK	REMOVE
20	OAK	REMOVE
20	ELM	REMOVE
15	PINE	REMOVE
24	**SWEET GUM**	**REMOVE**
18	PINE	REMOVE
20	ELM	REMOVE
20	PINE	REMOVE
20	CEDAR	REMOVE

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ELYSIUM SCHOOL REZONE

MECKLENBURG COUNTY, NORTH CAROLINA

7603 BABE STILLWELL FARM RD, HUNTERSVILLE, NC

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REVISIONS

DATE	COMMENT

INITIAL SUB. DATE: ####

ISSUANCE DATE: ####

W&A PROJECT #: 25-00458

TREE LIST

Z02.2

N:\25-00458 - Elysium School Rezoning\DWG\Sheets\C02B - DEMO AND TREE SAVE.DWG 7-06-26 03:40:27 PM rfallova

ROBERT E. KUNKLEMAN & KATHRYN L. KUNKLEMAN
DB 18252-574
PIN 009-151-02

& KATHRYN L. KUNKLEMAN
DB 11800-094
PIN 009-151-18
ZONE: NR

LOT 793
MB 33-587
ZONE: GR

LOT 792
MB 33-587
ZONE: GR

LOT 791
MB 33-587
ZONE: GR

LOT 790
MB 33-587
ZONE: GR

LOT 785
MB 33-587
ZONE: GR

LOT 784
MB 33-587
ZONE: GR

LOT 783
MB 33-587
ZONE: GR

LOT 773
MB 31-603
ZONE: GR

CRAIG J. LEONARD, Jr.
CARRIE S. LEONARD
DB 35737-192
PIN 009-151-41
ZONE: NR

EDWIN RAY JONES
DB 25869-848
PIN 009-151-41
ZONE: NR

CHARLES MCGOVERN
DB 9995-009
PIN 009-151-09
ZONE: NR

LAND USE BUFFER (CIVIC USE > RESIDENTIAL USE)
4 TREES PER 1,000 SF BUFFER AREA (75% LM EG, 25% SM)
7 SHRUBS PER 1,000 SF BUFFER AREA (100% EG)
SEE DETAIL ON SHEET 205

EX. STRUCTURE

EX. STRUCTURE

8' SIDE SETBACK

30' LAND USE BUFFER

STORMWATER POND

PH 1 BUILDING
4,060 SF

PH 2 BUILDING
4,060 SF

PH 3 BUILDING
4,060 SF

PH 4 BUILDING
4,060 SF

5' CONC. SIDEWALK

GATHERING/SEATING AREAS

DUKE ENERGY R/W

DPCO R/W - SEE DB 3002 PG 139

URBAN OPEN SPACE: GREEN

7' CONC. SIDEWALK

CONC. ADA SPACES

GRAVEL PARKING LOT (TYP)

ASPHALT ENTRY DRIVE W/ 18' C&G

30' LAND USE BUFFER

DISTURBED LIMITS (TYP.)

PROPERTY LINE RUNS WITH CENTERLINE OF DUKE POWER

30' BUFFER PLANT MATERIAL WITHIN DUKE R/W
LIMITED TO MATURE HEIGHT OF 15'

25 FT NO DISTURBANCE ZONE

TOWER 704

CENTERLINE DPCO TRANSMISSION LINE

PROP. SIDEWALK EASEMENT
1' BEYOND SIDEWALK

REQ. 5' SIDEWALK AND
SINGLE ROW STREET TREES
SEE SHEET 205

0-25 FT BUILD-TO ZONE

50' PUBLIC R/W
SEE DB 6090 PG 183
0.15 AC. IN R/W

PROP. ADA RAMP

0-25 FT BUILD-TO ZONE

EX. R/W

EX. STRUCTURE

8' SIDE SETBACK

BABE STILLWELL FARM RD

OVERHEAD POWER

PART OF LOT 1
ALBERT BARKLEY
RAMONA BARKLEY
DB 10983-228
PIN 009-151-19
ZONE: NR

LOT 2
EDWARD J. WALSH Jr.
DB 18525-006
PIN 009-151-42
MB 33-535
ZONE: NR

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

BABE STILLWELL ROAD SECTION
N.T.S

BABE STILLWELL FARM RD
(50' PUBLIC R/W)

SIDEWALK EASEMENT TO BE 1 FT BEHIND EDGE

0-25 FT BUILD-TO LINE (MODIFICATION REQUEST)

SINGLE ROW STREET TREES BEHIND BUILD-TO LINE
SMALL MATURING WITHIN DUKE R/W

EXISTING FENCE

EASTBOUND

WESTBOUND

5' CONCRETE SIDEWALK

CONCEPT STORMWATER NARRATIVE

DRY DETENTION AND SAND FILTER ARE ANTICIPATED AS THE CHOICE FOR MEETING THE STORMWATER AND WQ ORDINANCES. OTHER METHODS APPROVED BY THE TOWN OF HUNTERSVILLE MAY BE UTILIZED.

TOTAL SITE AREA(EXCLUDING R/W): 379,864 SF
12% OF TOTAL SITE AREA: 45,584 SF

PHASING IMPERVIOUS
PHASE 1 : 24,875 SF
PHASE 2 : 12,508 SF
PHASE 3 : 15,421 SF (DETENTION WILL BE NEEDED AT THE TIME OF PH3)
PHASE 4 : 13,419 SF
TOTAL IMPERVIOUS: 66,223 SF (1.52 AC)

~12,000 CF VOLUME REQUIRED PER ACRE OF IMPERVIOUS
1.41 AC. X 12,000 CF= **16,920 CF** REQUIRED STORAGE
21,718 CF OF STORAGE PROVIDED

REQUIRED WQV - 5,056 CF
REQUIRED SAND FILTER SF: 516 SF

STORAGE IS SATISFIED AND MAY BE REDUCED PER CONSTRUCTION DOCUMENTS TO MEET THE ORDINANCE

SITE DATA TABLE

PARCEL ID	00915108
LOCATION	7603 BABE STILLWELL FARM RD
JURISDICTION	HUNTERSVILLE , NC
ZONING	NEIGHBORHOOD RESIDENTIAL (NR)
PROPOSED REZONING	NEIGHBORHOOD RESIDENTIAL - CONDITIONAL (NR-CD)
BUILDING / LOT TYPE	CIVIC BUILDING
TOTAL PARCEL AREA	8.72 AC ; 379,864 SF
PROPOSED USE	SCHOOL
BUILD-TO ZONE	0-25 FT
SIDE SETBACK	8 FT
BUFFER	30 FT (LAND USE)
BUILDING AREA	16,240 SF (TOTAL), FOUR 4,060 SF BUILDINGS
PARKING REQUIRED	NO MINIMUM (CIVIC)
PARKING PROVIDED	90 SPACES; 4 ADA SPACES TOTAL, 2 VAN SPACES
STREAM WATERSHED	MCDOWELL
REGULATED DRINKING WATERSHED	MTN ISLAND LAKE / PA-2
LOW DENSITY / HIGH DENSITY	LOW DENSITY
PERCENTAGE ALLOWABLE IMPERVIOUS	24% WITH CURB AND GUTTER STREETS
PERCENTAGE IMPERVIOUS SHOWN	16% (61,264 SF / 379,864 SF)
LOT AREA SET ASIDE FOR FUTURE IMPERVIOUS	0 SF
FEMA FLOOD PANEL #	3710446300J
SITE LIGHTING BY OTHERS & SHALL COMPLY WITH LAND DEVELOPMENT STANDARDS	

NOTE:

THE PROPOSED IMPROVEMENTS SHOWN ON THE REZONING PLAN ARE SCHEMATIC IN NATURE THE EXACT LOCATIONS AND ARCHITECTURE OF THE UNITS AND BUILDINGS MAY BE MODIFIED, AS APPROVED BY PLANNING STAFF, DURING THE DESIGN, ENGINEERING, AND CONSTRUCTION PHASES OF THE DEVELOPMENT SO LONG AS SUCH MODIFICATIONS ARE WITHIN THE BOUNDARIES OF THE CONDITIONAL DISTRICT REZONING AND COMPATIBLE AND IN HARMONY WITH THE GENERAL LAYOUT OF THE REZONING PLAN.

GENERAL REZONING NOTES

SCHEMATIC NATURE OF REZONING PLAN

- THE PROPOSED IMPROVEMENTS SHOWN ON THE REZONING PLAN ARE SCHEMATIC IN NATURE, THE EXACT LOCATIONS AND ARCHITECTURE OF THE PLAN AND BUILDINGS MAY BE MODIFIED, AS APPROVED BY PLANNING STAFF, DURING THE DESIGN, ENGINEERING, AND CONSTRUCTION PHASES OF THE DEVELOPMENT SO LONG AS SUCH MODIFICATIONS ARE WITHIN THE BOUNDARIES OF THE CONDITIONAL DISTRICT REZONING AND COMPATIBLE AND IN HARMONY WITH THE GENERAL LAYOUT OF THE REZONING PLAN.
- THE REZONING PLAN SHOWS GENERAL BUILDING LOCATIONS, ORIENTATIONS AND SQUARE FOOTAGES WHICH MAY BE MODIFIED DURING THE DEVELOPMENT OF THE DESIGN, ENGINEERING AND CONSTRUCTION PHASES, AS APPROVED BY TOWN STAFF. ALL BUILDINGS SHALL COMPLY WITH ARTICLE 4.14 BUILDING TYPE / CIVIC BUILDING AND SHALL MEET THE RECOMMENDATIONS OF THE HUNTERSVILLE DESIGN GUIDEBOOK

USE AND COMPATIBILITY

- THE SITE IS LOCATED ALONG THE NORTH SIDE OF BABE STILLWELL FARM RD WITHIN CLOSE PROXIMITY TO HWY 73 FOR EASY ACCESS. THE ADJACENT LAND USES CONSIST OF VACANT LAND AND SINGLE FAMILY RESIDENCES. THE 2040 PLAN SHOWS THIS AREA REMAINING AS A RESIDENTIAL EDGE LAND USE. PER THE TOWN ORDINANCE NEIGHBORHOOD RESIDENTIAL(NR) ZONING ALLOWS FOR SCHOOLS TO BE LOCATED WITHIN THIS DISTRICT UNDER THE CONDITION THAT PRINCIPAL BUILDINGS SHALL CONFORM TO THE STANDARDS OF CIVIC BUILDINGS AND LOTS.

PERMITTED USES

- BY RIGHT - BED AND BREAKFAST INNS , BOARDING OR ROOMING HOUSES FOR UP TO FOUR ROOMERS, CONGREGATE HOUSING DESIGNED WITHIN THE "CIVIC" BUILDING TYPE, FAMILY CARE HOME; **RESIDENTIAL USES**
- WITH CONDITIONS - CEMETERIES, (9.7) ; RELIGIOUS INSTITUTIONS, (9.8) ;COMMERCIAL USE IN A MIXED-USE BUILDING', LOCATED ON AN ARTERIAL OR AT THE INTERSECTION OF A LOCAL STREET AND A LARGER CAPACITY STREET ; COMMERCIAL USE, IN A DETACHED HOUSE BUILDING TYPE, LOCATED WITHIN 1/4 MILE OF A TOWN CENTER DISTRICT AND FRONTING A MAJOR OR MINOR THOROUGHFARE (INCLUDES PROPERTIES IN WHICH ANY PORTION FALLS WITHIN THE 1/4 MILE BOUNDARY) (9.51) ; ESSENTIAL SERVICES 1 AND 2, (9.14); GOVERNMENT BUILDINGS UP TO 5000 SQ. FT. OF GROSS FLOOR AREA ; NEIGHBORHOOD AND OUTDOOR RECREATION, (9.21) ; PARKS, (9.29) ; RETIREMENT COMMUNITIES (9.50); **SCHOOLS, (9.35)** ; TRANSIT-ORIENTED PARKING LOTS AS A PRINCIPAL USE, (9.49) ; TRANSIT SHELTERS, (9.39)
- CONDITIONAL USE: SCHOOL - PRINCIPAL BUILDINGS SHALL CONFORM TO THE STANDARDS OF CIVIC BUILDINGS AND LOTS

MODIFICATION REQUESTS

- THE APPLICANT WOULD LIKE TO APPLY FOR A MODIFICATION TO THE CIVIC BUILDING LOT TYPE REQUIREMENT FOR THE BUILD-TO ZONE (ZO.4.13.1). THE MODIFICATION WOULD ALLOW FOR THE PROPOSED BUILDINGS TO BE SET BACK FURTHER FROM THE MAIN STREET, WHICH IS NEEDED BECAUSE OF THE LARGE AMOUNT OF THE FRONTAGE BEING TAKEN UP BY THE DUKE ENERGY RIGHT-OF-WAY WHERE NO BUILDINGS ARE ALLOWED.
- THE APPLICANT WOULD LIKE TO APPLY FOR A MODIFICATION TO THE CIVIC BUILDING BUILDING TYPE FACADE REQUIREMENT FOR METAL PANELING (ZO.4.14.B). THE MODIFICATION WOULD ALLOW FOR THE PROPOSED BUILDINGS TO EXCEED 30% OF THE FACADE VISIBLE FROM THE STREET TO BE METAL PANALING.
- THE APPLICANT WOULD LIKE TO APPLY FOR A MODIFICATION TO BE ABLE TO INSTALL THE REQUIRED PLANTINGS FOR THE 30' BUFFER IN PHASES AS EACH BUILDING AND ASSOCIATED PARKING ARE BUILT OUT, NOT ALL WITHIN PHASE 1

ACCESS

- THE PRIMARY VEHICULAR ACCESS IS THE SINGLE ACCESS DRIVEWAY LOCATED OFF BABE STILLWELL FARM RD.

SIGNAGE

- ALL SIGNS SHALL COMPLY WITH THE TOWN OF HUNTERSVILLE CODE.

TRASH

GARBAGE SERVICES WILL BE PROVIDED IN A DUMPSTER FACILITY ON SITE.

HVAC / UTILITY EQUIPMENT

- HVAC UNITS WILL COMPLY WITH 7.6 OF THE ORDINANCE

WATER/ SEWER / UTILITIES

- PUBLIC WATER IS AVAILABLE ALONG BABE STILLWELL FARM RD
- SEWER WILL BE PROVIDED VIA SEPTIC ON SITE

LIGHTING

- THE LIGHTING FOR THIS PROJECT WILL MEET THE REQUIREMENTS OF 8.26.

ENVIRONMENTAL

- EROSION CONTROL PLANS WILL COMPLY WITH CURRENT ORDINANCES AND BE APPLIED FOR DURING THE COMMERCIAL SITE PLAN PROCESS.
- WATER QUALITY, POST CONSTRUCTION, AND STORM WATER MANAGEMENT WILL COMPLY WITH THE CURRENT ORDINANCES AND WILL BE APPLIED FOR DURING THE SITE PLAN PROCESS.

BUFFERS/LANDSCAPING

- BUFFER YARDS SHALL BE PLANTED IN ACCORDANCE WITH ARTICLE 7.5 OF THE ZONING ORDINANCE. THE BUFFER WILL BE NATURAL, UNDISTURBED WOODED AREAS, AND SUPPLEMENTED IF AN OPAQUE BUFFER IS NOT CREATED WITH EXISTING VEGETATION PER ARTICLE 9.5 OF THE ORDINANCES.

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NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

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MECKLENBURG COUNTY, NORTH CAROLINA

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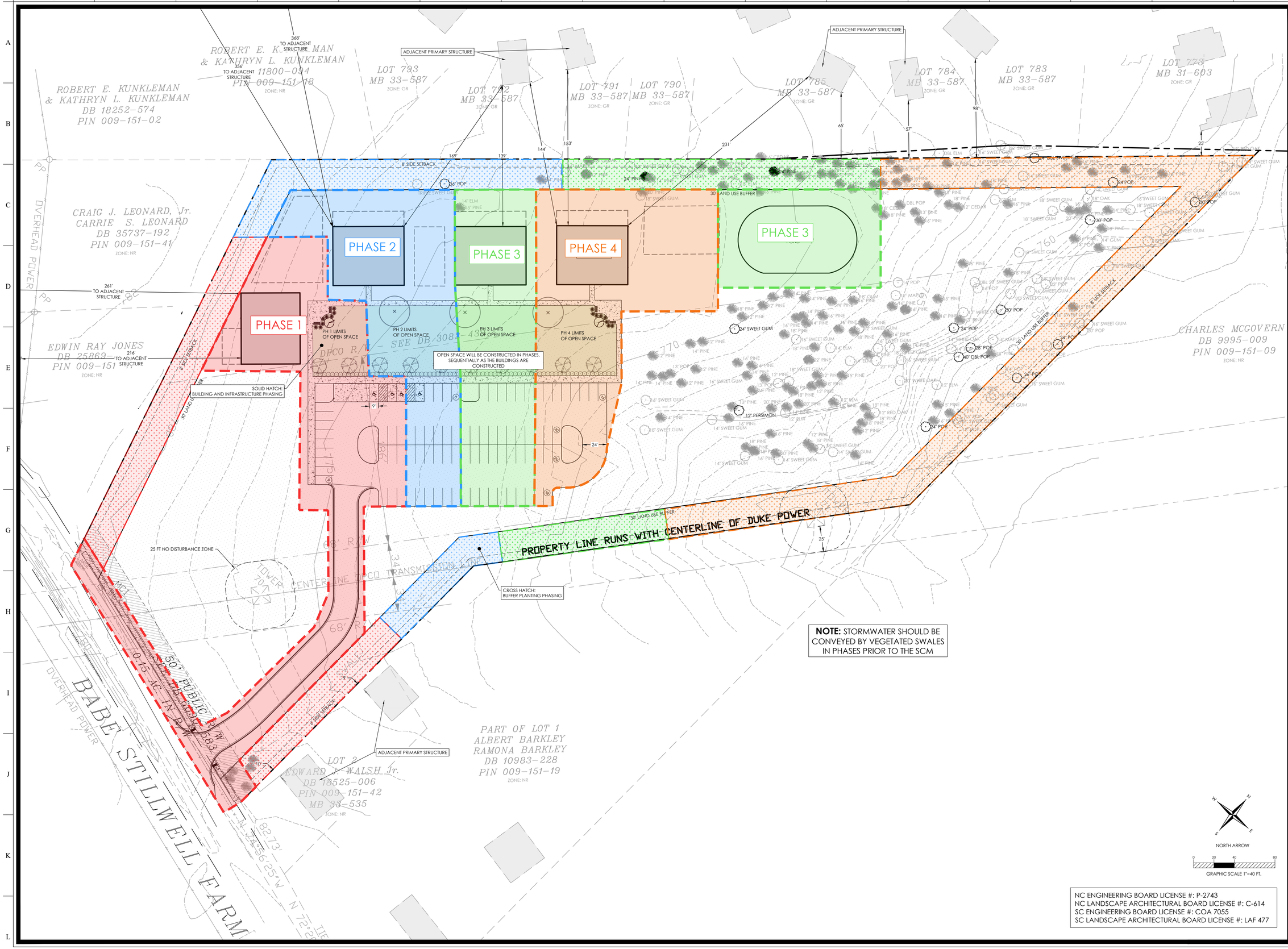
REZONING PLAN

Z03

N:\25-00458 - Elysium School Rezoning\DWG\Sheets\C03 - SITE PLAN.DWG 7:06:26 03:40:41 PM tfallova



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PHASING PLAN

Z03.1

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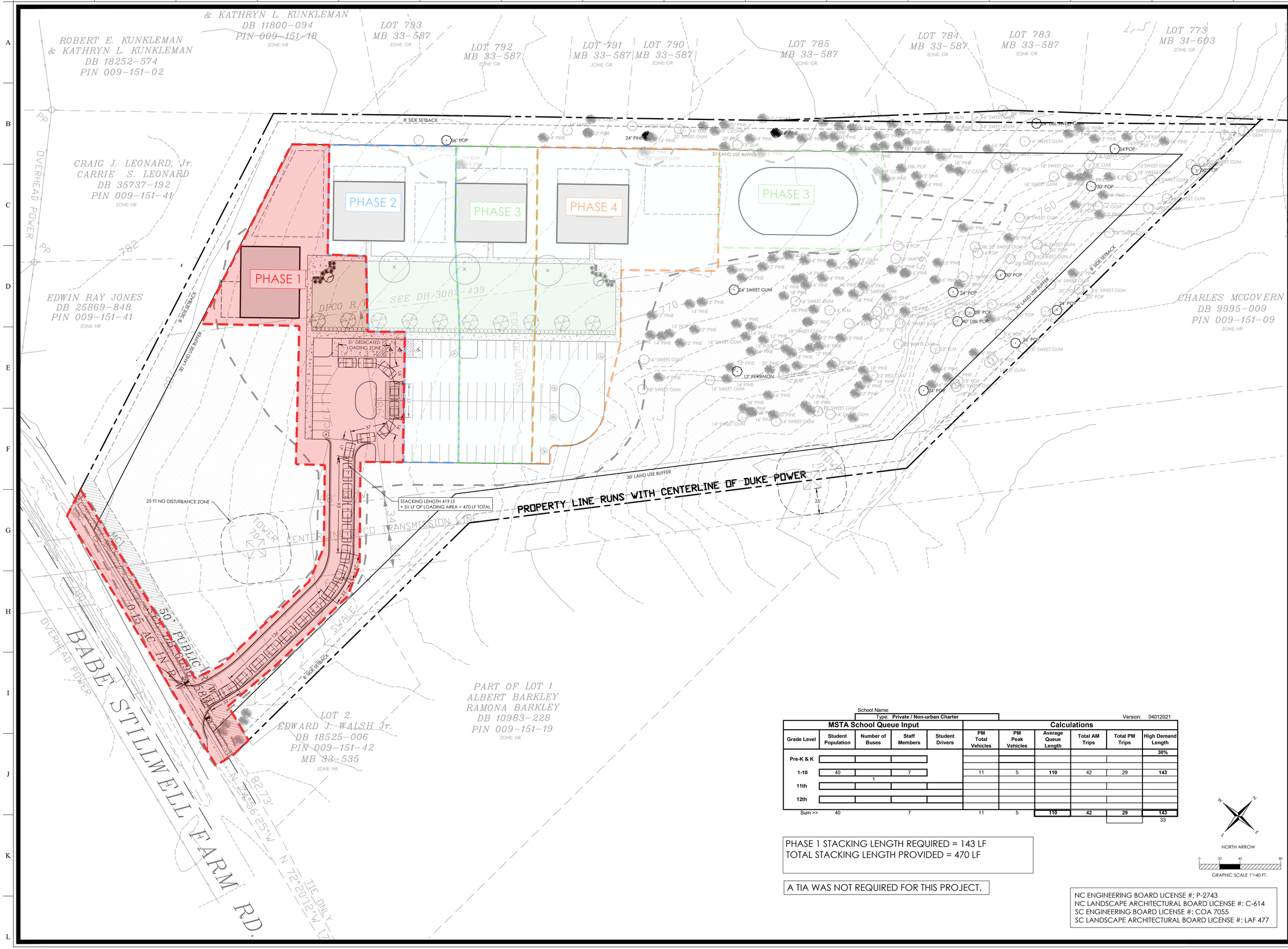

School Name:
Type: Private / Non-urban Charter
Version: 04012021

MSTA School Queue Input					Calculations					
Grade Level	Student Population	Number of Buses	Staff Members	Student Drivers	PM Total Vehicles	PM Peak Vehicles	Average Queue Length	Total AM Trips	Total PM Trips	High Demand Length
										30%
Pre-K & K										
1-10	40	1	7		11	5	110	42	29	143
11th										
12th										
Sum >>	40		7		11	5	110	42	29	143
										33

PHASE 1 STACKING LENGTH REQUIRED = 143 LF
TOTAL STACKING LENGTH PROVIDED = 470 LF

A TIA WAS NOT REQUIRED FOR THIS PROJECT.

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

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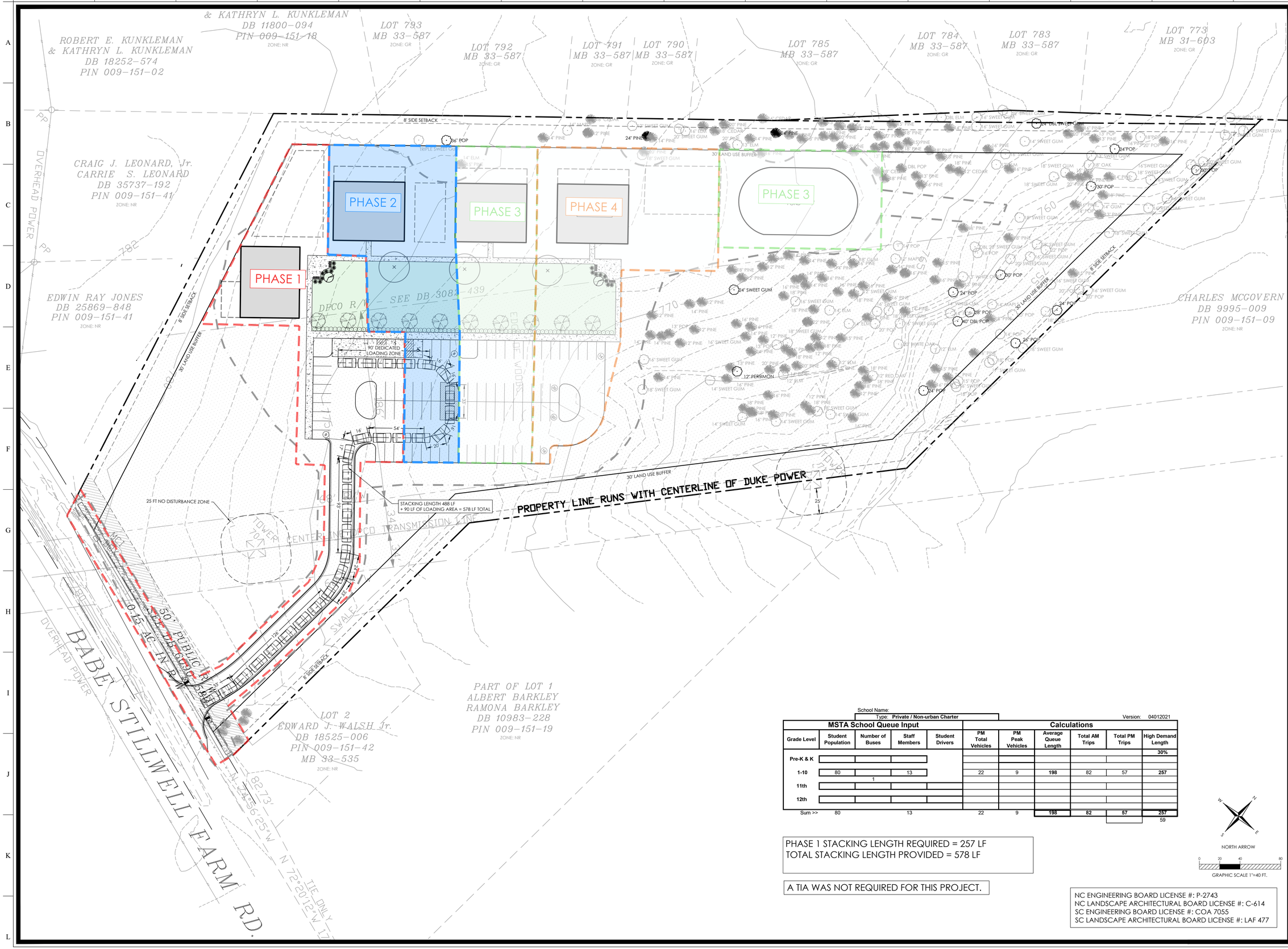
PH1 STACKING PLAN

Z03.2

N:\25-00458 - Elysium School Rezoning\DWG\Sheets\C03 - STACKING PLAN.DWG 7:06:26 03:41:01 PM tfallova



School Name:

Type: Private / Non-urban Charter

Version: 04012021

MSTA School Queue Input					Calculations					
Grade Level	Student Population	Number of Buses	Staff Members	Student Drivers	PM Total Vehicles	PM Peak Vehicles	Average Queue Length	Total AM Trips	Total PM Trips	High Demand Length
										30%
Pre-K & K										
1-10	80	1	13		22	9	198	82	57	257
11th										
12th										
Sum >>	80		13		22	9	198	82	57	257
										59

PHASE 1 STACKING LENGTH REQUIRED = 257 LF
TOTAL STACKING LENGTH PROVIDED = 578 LF

A TIA WAS NOT REQUIRED FOR THIS PROJECT.

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

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W&A PROJECT #: 25-00458

PH2 STACKING PLAN

Z03.3

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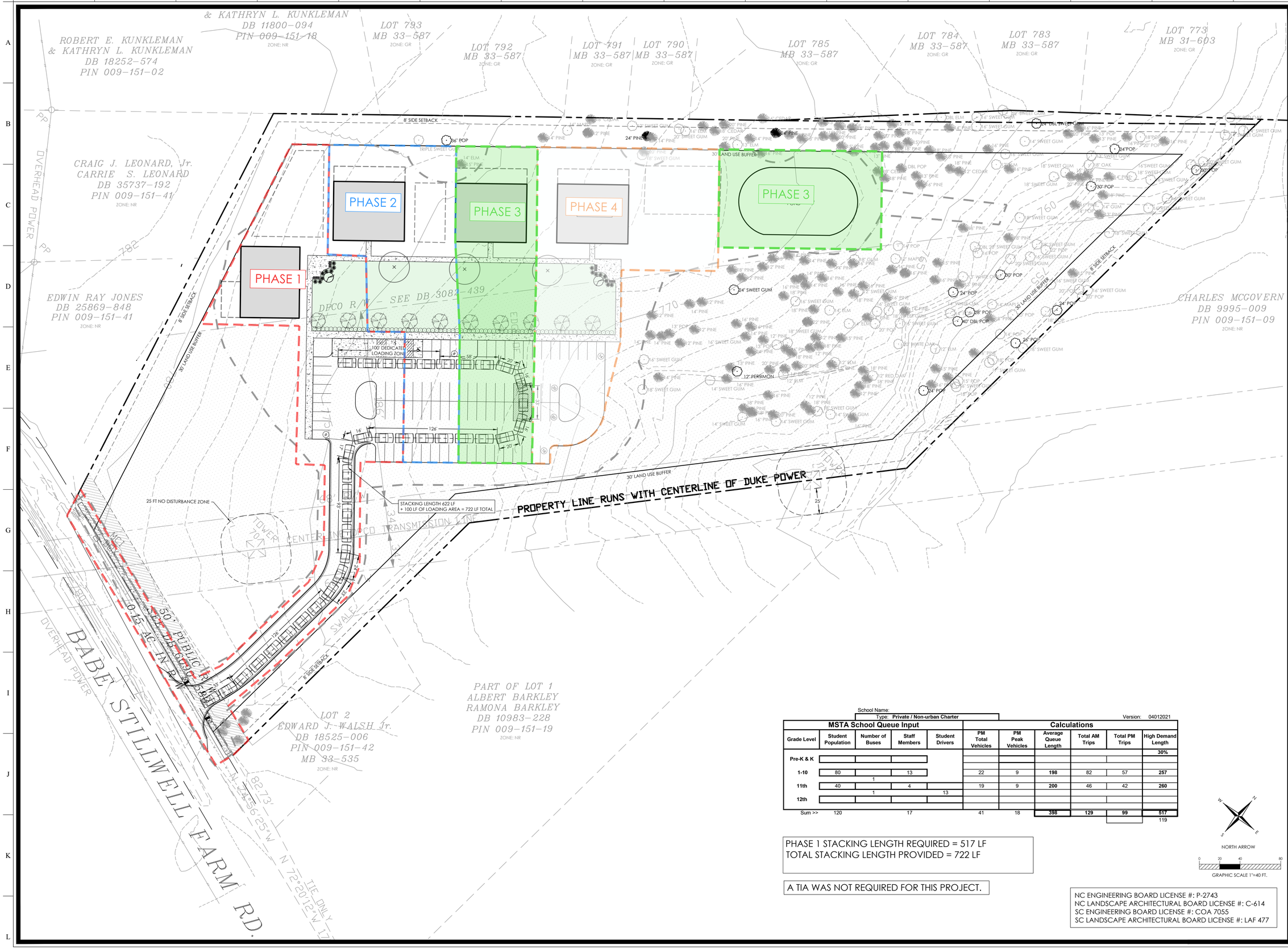

School Name:

Type: Private / Non-urban Charter

Version: 04012021

MSTA School Queue Input					Calculations					
Grade Level	Student Population	Number of Buses	Staff Members	Student Drivers	PM Total Vehicles	PM Peak Vehicles	Average Queue Length	Total AM Trips	Total PM Trips	High Demand Length
										30%
Pre-K & K										
1-10	80	1	13		22	9	**198**	82	57	**257**
11th	40	1	4	13	19	9	**200**	46	42	**260**
12th										
Sum >>	120		17		41	18	**398**	**129**	**99**	**517**
										119

PHASE 1 STACKING LENGTH REQUIRED = 517 LF
TOTAL STACKING LENGTH PROVIDED = 722 LF

A TIA WAS NOT REQUIRED FOR THIS PROJECT.

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

NC ENGINEERING BOARD LICENSE #: P-2743
NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

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ECONOMIC DEVELOPMENT
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HUNTERSVILLE, NC 28078
P: (704) 875-1615
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ELYSIUM SCHOOL REZONE

MECKLENBURG COUNTY, NORTH CAROLINA

7603 BABE STILLWELL FARM RD, HUNTERSVILLE, NC

Know what's **below.** **Call** before you dig. 811

REVISIONS

DATE	COMMENT

INITIAL SUB. DATE: ####

ISSUANCE DATE: ####

W&A PROJECT #: 25-00458

PH3 STACKING PLAN

Z03.4

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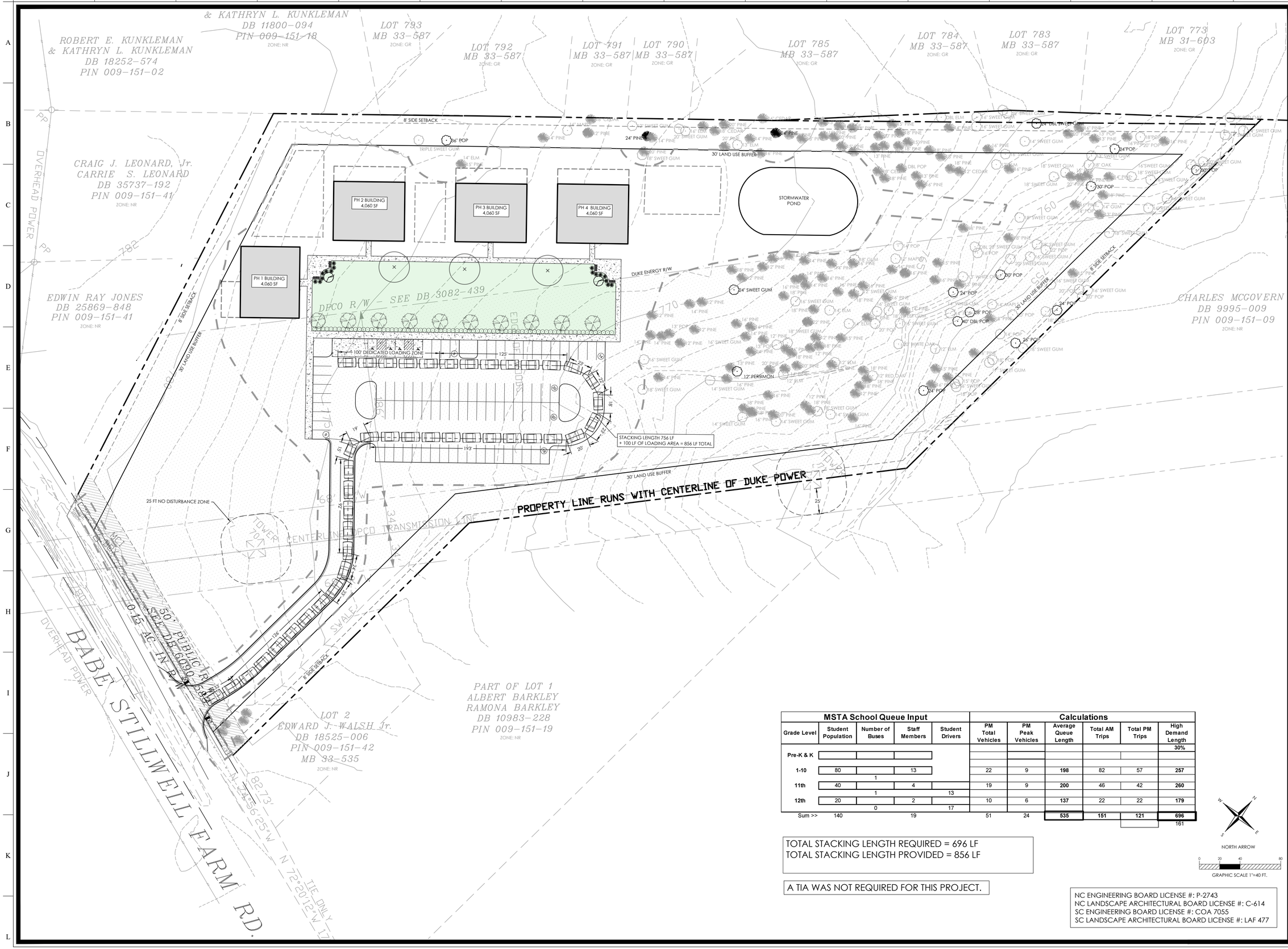

MSTA School Queue Input					Calculations					
Grade Level	Student Population	Number of Buses	Staff Members	Student Drivers	PM Total Vehicles	PM Peak Vehicles	Average Queue Length	Total AM Trips	Total PM Trips	High Demand Length
										30%
Pre-K & K										
1-10	80	1	13		22	9	198	82	57	257
11th	40	1	4	13	19	9	200	46	42	260
12th	20	0	2	17	10	6	137	22	22	179
Sum >>	140		19		51	24	535	151	121	696
										161

TOTAL STACKING LENGTH REQUIRED = 696 LF
TOTAL STACKING LENGTH PROVIDED = 856 LF

A TIA WAS NOT REQUIRED FOR THIS PROJECT.

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

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SC ENGINEERING BOARD LICENSE #: COA 7055
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ELYSIUM SCHOOL REZONE

MECKLENBURG COUNTY, NORTH CAROLINA

7603 BABE STILLWELL FARM RD, HUNTERSVILLE, NC

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REVISIONS

DATE	COMMENT

INITIAL SUB. DATE: ####

ISSUANCE DATE: ####

W&A PROJECT #: 25-00458

PH 4 STACKING PLAN

Z03.5

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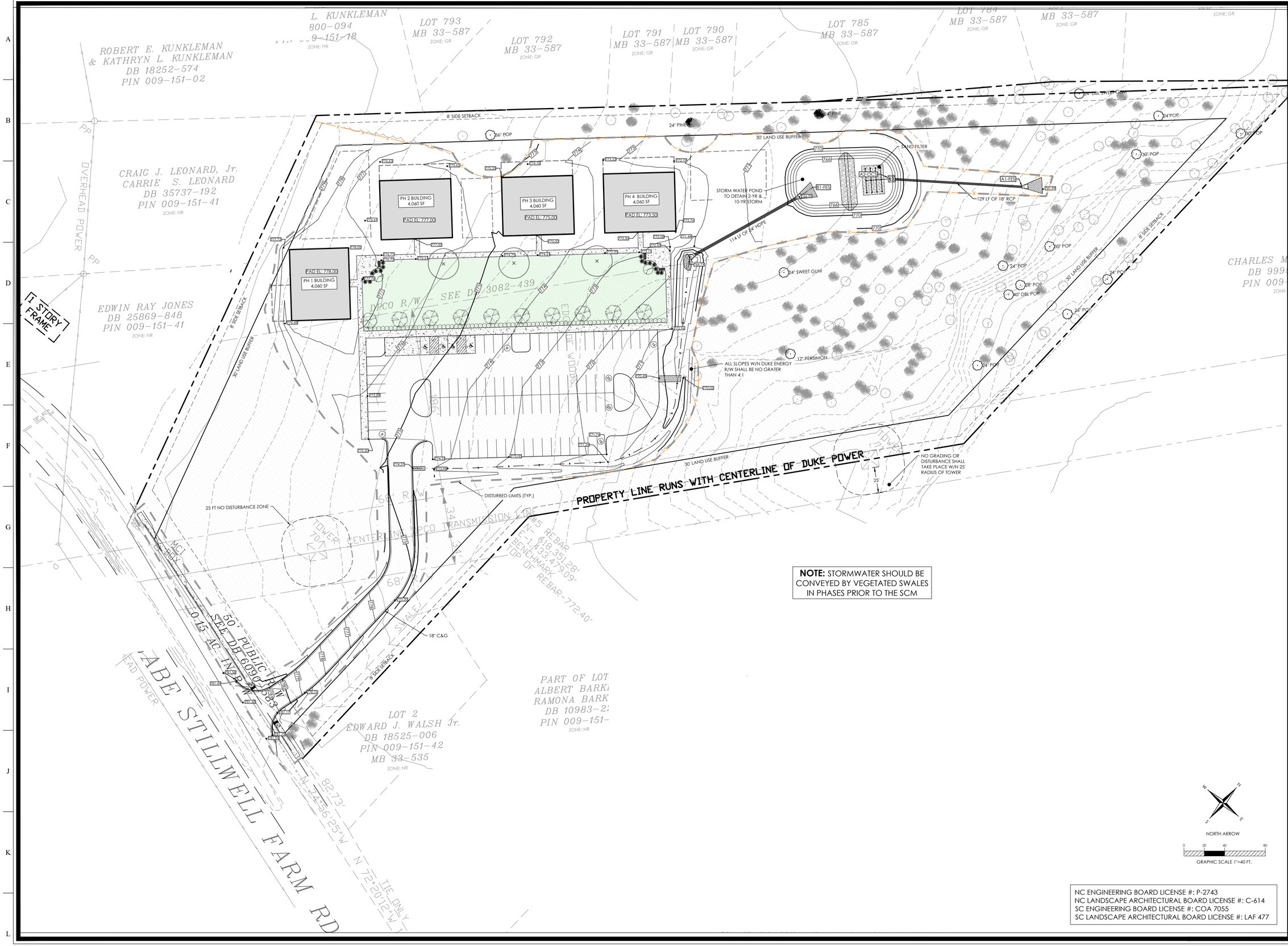

NOTE: STORMWATER SHOULD BE CONVEYED BY VEGETATED SWALES IN PHASES PRIOR TO THE SCM

NORTH ARROW

GRAPHIC SCALE 1"=40 FT.

NC ENGINEERING BOARD LICENSE #: P-2743
NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
SC ENGINEERING BOARD LICENSE #: COA 7055
SC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: LAF 477

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ELYSIUM SCHOOL REZONE

MECKLENBURG COUNTY, NORTH CAROLINA

7603 BABE STILLWELL FARM RD, HUNTERSVILLE, NC

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REVISIONS

DATE	COMMENT

INITIAL SUB. DATE: ####

ISSUANCE DATE: ####

W&A PROJECT #: 25-00458

PRELIM GRADING PLAN

Z04

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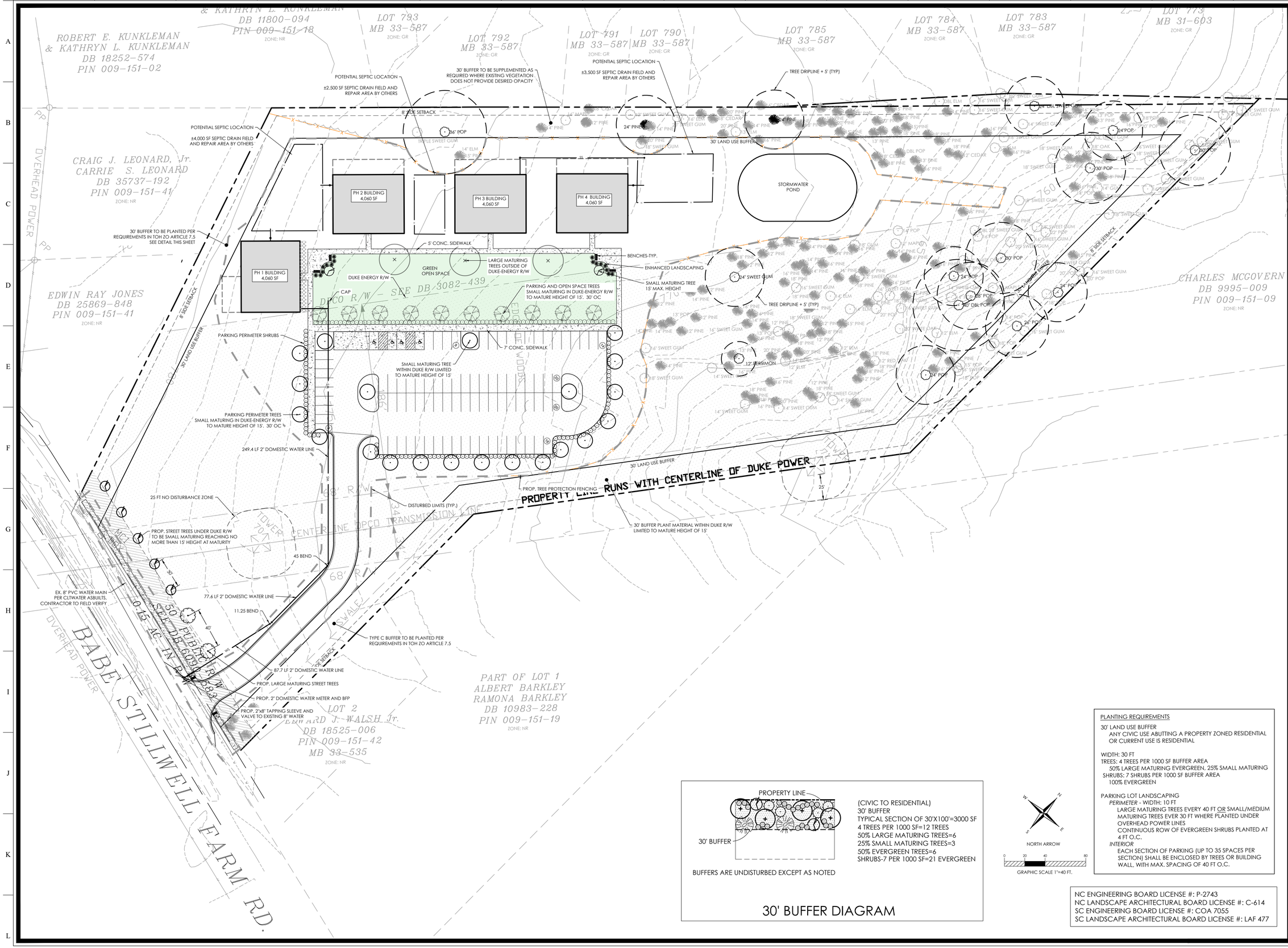

BUFFERS ARE UNDISTURBED EXCEPT AS NOTED

(CIVIC TO RESIDENTIAL)
30' BUFFER
TYPICAL SECTION OF 30'X100'=3000 SF
4 TREES PER 1000 SF=12 TREES
50% LARGE MATURING TREES=6
25% SMALL MATURING TREES=3
50% EVERGREEN TREES=6
SHRUBS-7 PER 1000 SF=21 EVERGREEN

30' BUFFER DIAGRAM

PLANTING REQUIREMENTS

30' LAND USE BUFFER
ANY CIVIC USE ABUTTING A PROPERTY ZONED RESIDENTIAL OR CURRENT USE IS RESIDENTIAL

WIDTH: 30 FT
TREES: 4 TREES PER 1000 SF BUFFER AREA
50% LARGE MATURING EVERGREEN, 25% SMALL MATURING
SHRUBS: 7 SHRUBS PER 1000 SF BUFFER AREA
100% EVERGREEN

PARKING LOT LANDSCAPING
PERIMETER - WIDTH: 10 FT
LARGE MATURING TREES EVERY 40 FT OR SMALL/MEDIUM MATURING TREES EVER 30 FT WHERE PLANTED UNDER OVERHEAD POWER LINES
CONTINUOUS ROW OF EVERGREEN SHRUBS PLANTED AT 4 FT O.C.
INTERIOR
EACH SECTION OF PARKING (UP TO 35 SPACES PER SECTION) SHALL BE ENCLOSED BY TREES OR BUILDING WALL, WITH MAX. SPACING OF 40 FT O.C.

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NC LANDSCAPE ARCHITECTURAL BOARD LICENSE #: C-614
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ELYSIUM SCHOOL REZONE

MECKLENBURG COUNTY, NORTH CAROLINA

7603 BABE STILLWELL FARM RD, HUNTERSVILLE, NC

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REVISIONS

DATE	COMMENT

INITIAL SUB. DATE: ####

ISSUANCE DATE: ####

W&A PROJECT #: 25-00458

PRELIM UTILITY + LANDSCAPE PLAN

Z05

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ELYSIUM REZONING MEETING REPORT

Location:	16500 Holly Crest Ln, Huntersville, NC 28078
Date:	April 22nd, 2026
Time:	5:30-6:30pm

I. AGENDA

a. Applicant presentation and rezoning overview
b. Community Q & A
c. Discussions

II. GENERAL DISCUSSION

The applicant, Tory Thompson introduced herself and told a little bit about who and what Elysium school is. She noted the school's current state and location and the need for a new location due to growth. There were 11x17 copies of the rezoning plan along with 8.5x11s provided to all community members of the proposed site, phasing and building

III. QUESTIONS AND RESPONSES

1. What are the projected traffic patterns?
   Response: Drop off and pick up will be staggered, with lots of families carpooling. No stacking on the road, no buses.

2. How are you allowed to put impervious under the Duke Power lines?
   Response: Impervious is allowed within the Duke R/W, no storm or sewer structures are allowed within the R/W. Driveways are allowed as long as the access is out of the easement area and you are crossing at a 70-90 degree angle.

3. Is there a health risk to students being under the power lines?
   Response: There have been studies on this and it has been proven this does not exhibit health risks to students or adults.

4. What is your phasing time line and disturbance?
   Response: 2-3 years, with the first building starting in 2026-2027. Disturbance will be minimal as these are prefab buildings, no stick built and will go up quickly.

5. How can residents be sure you aren't going to grow over the 140 students
   Response: We would not be able to go beyond that under this rezoning and also large schools is not what Elysium is about so if this location is doing very well and we need for space, we would acquire another piece of land like this in either Charlotte or Troutman area and keep the numbers about the same at the other locations.

6. What's the reason to have the driveway so close to the neighbor's property?
   Response: Duke does not allow us have a driveway access connection within their R/W and it needs to be at a certain angle so resituating the driveway further away would not allow for the same angle crossing the Duke R/W.

7. How are you getting sewer here?
   Response: It's too expensive for the extension from so far away, sewer will be via septic

8. How many students + staff?
   Response: 140 total final build out

9. How close will trees be taken down near our property line?
   Response: There is an undisturbed 30' buffer so we will not be able to take down any trees in that 30' buffer.

10. What Phase will the edge of the woods be cleared?
    Response: We will only clear what is needed for each phase so that edge is not being touched until Phase3.

11. What is your night lighting like?
    Response: It is very dim on the fronts of the buildings but we'll have motion sensor lighting for security cameras.

12. Will there be security cameras showing into our property?
    Response: No, there will be security cameras but the will be pointed in between the buildings and with the 30' vegetated buffer, they will not be able to see into your property

13. Are you fencing in the property?
    Response: No, kids will not be on the property without supervision, they will not be wandering into your back yards.

Town Engineering Rezoning Comment Summary
R26-04 Elysium School Rezoning (CSP-500122)
Babe Stillwell Farm Road (PID 00915108)
Huntersville, NC 28078

General Project Information

This proposed rezoning is located on Babe Stillwell Farm Road, approximately 950 feet south from the intersection of Babe Stillwell Farm Road and NC 73. The development consists of a private school, constructed in four phases per the site plan provided on 3/27/2026.

Engineering Staff Comments

Traffic Impact Analysis (TIA):

1) A TIA was not required as part of this proposed rezoning due to not meeting trip generation thresholds.

Transportation and Stormwater:

1) The development has not yet provided a vehicle stacking plan for its full buildout condition, as of the plan set provided on 3/27/2026. **UPDATE 6/23/2026* A vehicle stacking plan meeting NCDOT's minimum requirements has been provided.*

Request for Board Action

July 21, 2026

To: The Honorable Mayor and Board of Commissioners

From: Lauren Speight, Senior Planner

Subject: #R26-03 Vermillion Village Amendment #2

Explain Request:

Consider a decision on Petition #R26-03, a request by MPV Properties to rezone +/- 29.58 acres located along Huntersville-Concord Road between Second Street and Glendale Drive to amend the previously approved rezoning #R20-05 Town Center-Conditional District to a Town Center-Conditional District. The request is to reduce the building height of Shopfront Buildings B and C to one-story.

Action Recommended: Approve Item

Alternative Action:

Financial Implications:

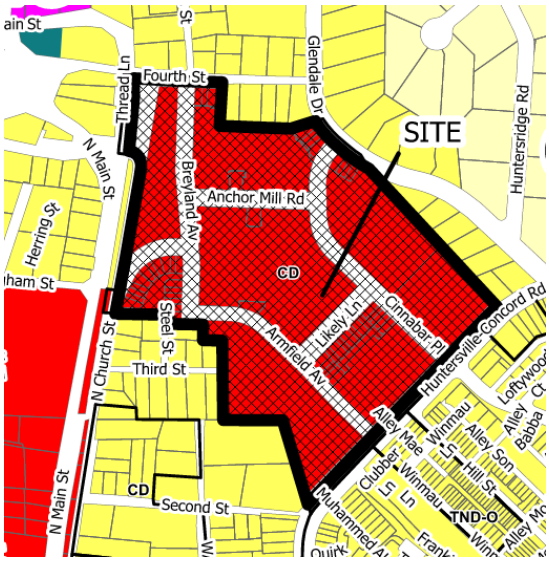
N/A

Attachments:

1. R26-03 Vermillion Village Amendment TB 7.21.2026
2. Attachment A - Signed Rezoning Application
3. Attachment B - Vermillion Village Rezoning Amendment for TB FA
4. Attachment C - R26-03 Community Meeting Packet 5.11.26
5. Attachment D - R26-03 Vermillion Village TIA Determination 7-9-26

Application Summary

Case Number/Project Name: R26-03 Vermillion Village Amendment
Project Address: 404 N CHURCH ST HUNTERSVILLE NC 28078
Proposed Zoning: **Town Center-Conditional District (TC-CD)**
Proposed Land Use: Uses Permitted in TC
Applicant: MPV Properties, LLC
Property Owner: VERMILLION VILLAGE LLC
Staff Contact: **Lauren Speight, 704-766-2254 (lspeight@huntersville.org)**



Site Data

Acreage (+/-): 29.58 acres
Parcel Numbers: 01902219 and 01902216
Current Zoning: **Town Center-Conditional District (TC-CD)**
Current Land Use: Vacant
Proposed Building Type: Shopfront
Proposed Lot Type: Shopfront

Adjoining Zoning and Land Uses

North: Neighborhood Residential (NR); *Residential Single Family*
South: Neighborhood Residential (NR); *Residential Single Family*
East: Neighborhood Residential (NR); *Residential Single Family*
West: Town Center (TC); Neighborhood Residential (NR); *Residential Single Family*

Project Description

Vermillion Village was originally approved under rezoning #R16-12 as a Town Center-Conditional District for 165,000 square feet of commercial space and 400 residential units. Subsequently, #R16-12 was amended under rezoning case #R20-05 for a combination of 70,000 square feet of commercial space and 341 residential units. MPV Properties, LLC is seeking to amend #R20-05 for Shopfront Buildings B and C only to reduce the building height from two stories to one story.

Update Status

- Public Hearing: The public hearing took place June 2, 2026.
- Planning Board: The case was heard by the Planning Board June 23, 2026.

Rezoning/Site Plan

Density: *Not Applicable*

- Proposed: Same as R20-05 rezoning.
- Staff comments: The previously approved rezoning included 341 residential units. The scope of changes to the conditional rezoning district does not seek to modify the density approved per R20-05.

Parking: *Applicant exceeds the requirement*

- Proposed: The site proposes 821 parking spaces. This total includes parking for residential and non-residential uses within the conditional rezoning district.
- Staff comments: The site will exceed the parking requirements, which require 1 space per 500 sf of commercial space. Non-residential uses within the conditional rezoning district require 85 spaces. And, residential uses within the conditional rezoning district require 349 spaces.

Building Height/Scale: *Applicant could meet the requirement*.

- Proposed: The applicant proposes to reduce the height of Buildings B and C to one-story.
- Staff comments: Shopfront buildings do not have a minimum building height. The request for one-story buildings is only a modification because the previously approved rezoning indicated Shopfront Buildings B and C to be two-story buildings. If the buildings are reduced to one story, staff recommend keeping the second story elevation to keep the massing previously provided along Huntersville-Concord Road.

Architectural Elevations: *Applicant has met the requirement*.

- Proposed: The applicant proposes one-story shopfront buildings for Buildings B and C.
- Staff comments: Architectural elevations are generally compliant with the Shopfront Building Type.

Buffers: *Not Applicable*

- Proposed: The applicant proposes to further supplement the buffer at the southeast of the site adjoining single-family homes along Glendale Drive.
- Staff comments: The previously approved rezoning included buffers along the western boundary of the development adjoining existing single-family residential uses. The scope of changes to the conditional rezoning district does not seek to modify buffer areas approved per R20-05. Staff recommended a modification to the buffer section behind the single-family homes along Glendale Drive to which the applicant agreed above the requirements of the previous rezoning.

Open Space: *Not Applicable*

- Proposed: Same as R20-05 rezoning.
- Staff comments: The previously approved rezoning included 1.77 acres of urban open space and 3.90 acres of natural open space. The scope of changes to the conditional rezoning district does not seek to modify open space areas approved per R20-05.

Build-To Lines: *Not Applicable*

- Proposed: Same as R20-05 rezoning.
- Staff comments: The previously approved rezoning included a front setback of 10-20 ft. The scope of changes to the conditional rezoning district does not seek to modify the front setback requirements approved per R20-05.

Tree Save: *Not Applicable*

- Proposed: Same as R20-05 rezoning.

- Staff comments: The scope of changes to the conditional rezoning district does not seek to modify required tree preservation areas approved per R20-05. R20-05 met or exceeded minimum tree preservation requirements for the Town Center Zoning District.

Vesting: ***Not Applicable***

- Proposed: The application seeks to comply with Ordinance requirements at the time of submission of the R20-05 rezoning application.
- Staff comments: Staff recommend future development come up to the current code standards with the modifications to the rezoning.

Conditional Notes: ***Applicant could meet the requirement*****.**

- Proposed:
  - The applicant is committing to a minimum of 7,500 sf of Shopfront Buildings A, B, and C to be reserved for uses that are not defined as "office" uses to encourage higher traffic and a more activated commercial environment. The 7,500 square feet of non-office space is 18% of the total minimum commercial space and 24% of the total area of Shopfront Buildings A-C owned by the applicant.
    - The applicant is proposing a minimum total of 42,300 square feet of commercial space and a maximum of 70,000 square feet
  - The applicant proposes, "This amendment to the rezoning plan is conceptual in nature and exact building locations and layouts, parking and internal road placements may be modified, as approved by Planning staff, during the design, engineering and construction phases.
  - The applicant proposes, "The elevations are submitted as examples only and are not the actual elevations for this development. Elevations submitted during construction that are generally consistent with the renderings included with this amendment to the rezoning plan are approved for the project."
  - The applicant proposes, "The development of the property as shown on this amendment to the rezoning plan may be built in one phase, but may be phased, as determined during the course of construction. Any phasing must align with the required infrastructure and stormwater improvements for that phase."
  - The applicant proposes, "Unless otherwise noted, the project will adhere to the TC (Town Center) zoning regulations of the Town of Huntersville."
  - The applicant proposes to amend the southern buffer adjoining the single-family parcels along Glendale Drive.
- Staff comments:
  - During the public hearing and final action Town Board meetings for R20-05, speakers for the public hearing and the Board's discussion focused significantly on activated commercial use in the downtown area. With the proposed reduction of area for commercial uses, staff support a minimum percentage of the remaining commercial area be allocated for uses to regularly attract activity to the downtown area of Huntersville, such as restaurant or retail spaces. Staff further recommend the activated uses meet the definition of either a "retail establishment" or "restaurant" per Article 12 of the Zoning Ordinance.
  - Staff recommend the applicant adopt the note proposed by staff regarding site layout, future modifications, elevations, and phasing.
    - "The proposed improvements shown on the rezoning plan are schematic in nature. The exact locations and architecture of the units and buildings may be modified, as approved by Planning staff, during the design, engineering, and

construction phases of the development so long as such modifications are within the boundaries of the conditional district rezoning and compatible and in harmony with the general layout of the rezoning plan. “

- Staff support the proposed condition the project will adhere to the Town Center (TC) zoning regulations of the Town of Huntersville, unless otherwise noted.
- Staff support an amended buffer along the southern buffer adjoining the single-family parcels along Glendale Drive.
- Staff recommend all remaining conditions of the R20-05 application are to be adopted as a function of approval action of the R26-03.

Minor Outstanding Comments: ***Applicant could meet the requirement.***

- Staff comments: There are not outstanding comments regarding site layout, only conditions.

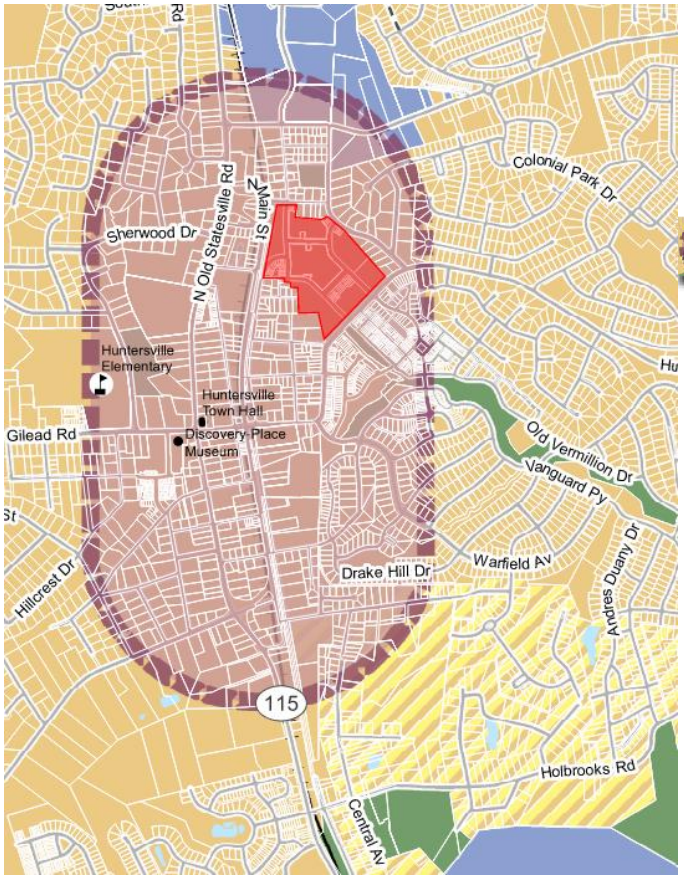
Transportation Comments: ***Applicant could meet the requirement.***

- Staff comments: The Town Transportation Impact Analysis Determination of Need returned that no TIA is required and this rezoning amendment proposes no changes to the improvements adopted with #R20-05.

Rezoning Criteria – Zoning Ordinance, Article 11.4.7 (d)(e)

Comprehensive Plan: Huntersville 2040 Community Plan

Future Land Use Map: *Supports Rezoning*





Mixed-Use Centers

Mixed-Use Centers contain vertical mixed-use along key frontages. New development includes wide sidewalks, buildings are close to the street with high levels of transparency, and parking is located in the rear. A mix of housing is allowed, including urban options throughout (apartments, townhomes, cottage homes, etc.). Downtown has specific requirements for streetscape and development intensity, including a maximum first floor footprint.

FUTURE LAND USE CHARACTER AREA

- MIXED USE CENTER
- ACTIVITY CENTER
- EMPLOYMENT CENTER
- TOWN CORE
- MEDIUM DENSITY
- RESIDENTIAL EDGE
- RURAL CONSERVATION
- PARKS AND OPEN SPACE
- CRITICAL WATERSHED

Policy Recommendations - *Support rezoning*

- **Policy LU 6.2: Commercial uses are encouraged in the Town Core and as specified in the adopted Small Area Plans.**
  - Staff comments: The proposed rezoning plan includes commercial uses within the Town Core.
- **Policy EV 2.3: Attract businesses to Downtown.**
  - Staff comments: The applicant has explained to staff it is highly improbable to lease the buildings as currently approved and by removing the second occupiable story the units would be more attractive to businesses to Downtown.

Policy Recommendations – *Do not support rezoning*

- **Policy DT 1.3:** In Tier 1 areas, encourage multistory buildings and allow for a mix of uses including commercial, office, residential.
- Staff comments: The proposed rezoning reduces the height of Shopfront Buildings B and C to one-story.

Consistency with Existing Development:

Staff Findings: The existing adjoining development is predominantly single-family detached homes. However, the proposed Conditional District Rezoning for the Vermillion Village Mixed-Use Conditional District Rezoning is supported by the Huntersville 2040 Community Plan and all other applicable Small Area Plans, as the property is located within the area eligible for higher intensity. The overall proposed density for Vermillion Village is 11-units per acre, which is higher than nearby developments, however the stated goals of the referenced Plans is to permit increased density, where appropriate, while ensuring that adequate transitions in land use and densities are provided. For-sale townhome units are proposed fronting Fourth Street and Glendale Drive where single-family homes are located. Buffers are provided adjacent to the existing single-family homes to provide a transition between the density of the project and the existing residential density.

Adequacy of Public Facilities and Services: (Roadways, Transit Service, Public Safety, Schools, Utilities, Storm Drainage)

- Staff Findings: A revised Transportation Impact Analysis Determination of Need is required for this revision to the approved development.

Impact on Sensitive Resources: (Archaeological, Environmental, Historical, Cultural)

- Staff Findings: The proposed development area includes a water tower of significance to the Town. Additionally, the subject property is under a Brownfields Agreement and corresponding environmental management plans.

Staff Recommendation: *Approval with Conditions*

- Staff comments: Staff supports the project, as it is consistent with the character area recommendations of the Huntersville 2040 Plan, if the following conditions are met for approval:
  - A minimum 7500 sf of buildings A, B, and C to be a “retail establishment” or “restaurant space”
  - As-built submittals shall comply with current requirements per Article 8.17 of the Zoning Ordinance.
  - The proposed improvements shown on the rezoning plan are schematic in nature. The exact locations and architecture of the units and buildings may be modified, as approved by Planning staff, during the design, engineering, and construction phases of the development so long as such modifications are within the boundaries of the conditional district rezoning and compatible and in harmony with the general layout of the rezoning plan.
  - Unless otherwise noted, the project will adhere to the Town Center (TC) zoning regulations of the Town of Huntersville.
  - Phasing shall be subject to approved construction plan, COM-435061-R002, which includes all units for residential occupancy in phase 1 and all buildings for non-residential uses in phase 2.
  - The buffer section adjoining the single-family properties along Glendale Drive is amended per coordination with the Town Arborist.
  - All conditions, including transportation improvements, of the R20-05 are adopted herein.
  - All outstanding staff comments are addressed.

Public Notices/Meetings/Comments:

Community Meeting: The applicant hosted one meeting with the community on April 23, 2026. The applicant's report is attached.
Public Notice: Staff confirms that the public notice postcard, rezoning sign, and legal ad were all placed. Two notices were returned both for no mail receptacle.
Public Comments: As of the date of this staff report, staff have not received phone or written comments on this application.
Public Hearing: June 2, 2026
Planning Board: June 23, 2026

In considering the proposed rezoning application, #R26-03 Vermillion Village Amendment, the Planning Board recommends approval of the rezoning plan with noted adjustment and staff conditions, specifically including 7500 sf of activated commercial space equaling 24%.

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan including policies LU6.2 and EV2.3. It is reasonable and in the public interest to approve the rezoning because the proposed is consistent with the envisioned use and development pattern set forth in the 2040 Community Plan.

Final Action: July 21, 2026

Attachments

Draft Motion Worksheet
Attachment A – Rezoning Application
Attachment B – Site Plan
Attachment C – Public Notices/Meetings
Attachment D – TIA Determination of Need Form

Draft Motion Worksheet

Motion to recommend APPROVAL

In considering the proposed rezoning application <<CASE_PROJECT>>, the <<MEETING_TYPE>> recommends APPROVAL of the rezoning plan with the following conditions:

_____

Including the following modifications: _____

_____

_____

_____

_____

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

Motion to recommend DENIAL

In considering the proposed rezoning application <<CASE_PROJECT>>, the Planning Board recommends DENIAL of the rezoning plan.

The Planning Board finds the rezoning request to be consistent with the Huntersville 2040 Community Plan, including Policies _____

_____,

because _____.

It is reasonable and in the public interest to approve the rezoning because

_____.

General Application

INCOMPLETE SUBMISSIONS WILL NOT BE ACCEPTED. PLEASE CHECK ALL ITEMS CAREFULLY.

1. Application Type

Please indicate the type of application you are submitting. In addition to the application, the submission process for each application type can be found at https://www.huntersville.org/528/Permits-Process

- ☐ Change of Use
- ☐ Commercial Site Plan
- ☐ Conditional Rezoning
- ☐ General Rezoning
- ☐ Master Signage Program
- ☐ Special Use Permit
- ■ Revision to Original Project # R20-05
- ☐ Other _____

SUBDIVISION CATEGORIES: Per the Huntersville Subdivision Ordinance

- ■ Sketch Plan
- ☐ Preliminary Plan
- ☐ Final Plat (Includes Minor Subdivision)
- ☐ Exempt Subdivision
- ☐ Final Plat Revision
- ☐ Farmhouse Cluster

2. Project Data

Date of Application 3.3.26

Name of Project Vermillion Village - MPV Phase # (if subdivision) 2

Project Address 14145 Huntersville-Concord Road, Huntersville, NC 28078

Parcel Identification Number(s) (PIN) 01902201 & 01902202

Current Zoning District TC-CD Proposed District (for rezoning only) _____

Property Size (acres) 29.58 Street Frontage (feet) _____

Current Land Use Mixed-Use Commercial & Residential

Proposed Land Use(s) _____

Is the project within Huntersville's corporate limits?
Yes x No _____ If no, does the applicant intend to voluntarily annex? _____

3. Description of Request

Provide a detailed summary. (i.e. RTAP identify what you are revising). Additional sheets may be added.

Amendment to original zoning plan to reduce building height and incorporate daycare use as shown on the plan.

4. Site Plan Submittals

Consult the particular type of *Review Process* for the application type selected above. These can be found at https://www.huntersville.org/528/Permits-Process.

5. Outside Agency Information

Other agencies may have applications and fees associated with the land development process. The *Review Process* list includes plan documents needed for most town and county reviewing agencies. For major subdivisions, commercial site plans, and rezoning petitions please enclose a copy of the Charlotte-Mecklenburg Utility *Willingness to Serve* letter for the subject property.

6. Applicant

Printed Name MPV Properties, LLC Phone 704-367-5020

☐ Corporation ■Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the applicant my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature Bailey W Patrick Jr.

Title Development Partner Email bwpatrick@mpvre.com

Address of Applicant 2400 South Blvd, Suite 300 Charlotte, NC 28203

7. Property Owner (if different than applicant)

*Printed Name Vermillion Village, LLC Phone _____

☐ Corporation ■Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

☐ By signature below, I hereby acknowledge, as/on behalf of (circle one) the owner my understanding this application will be considered in a quasi-judicial proceeding and that neither I, nor anyone on my behalf, may contact the Board of Commissioners except through sworn testimony at the public hearing. (Applicable for Special Use Permits and Subdivisions)

Signature _____

Title Manager Email svermillion@mpvre.com

Address of Property Owner 2400 South Blvd, Suite 300 Charlotte, NC 28203

* Property owner hereby grants permission to the Town of Huntersville personnel to enter the subject property for any purpose required in processing this application.

Every owner of each parcel included in this application, or the owner (s) duly authorized agent, must sign this application. If signed by an agent on behalf of the Owner, this application MUST be accompanied by a notarized Limited Power of Attorney signed by the property owner (s), specifically authorizing the agent to act on the owner (s) behalf in signing this application. Failure of each owner, or their duly authorized agent, to sign, or failure to include the authority of the agent signed by the property owner, will result in an INVALID APPLICATION. **If additional space is needed for signatures, attach the Town of Huntersville Signature Addendum Form.**

8. Development/Design Firm Contact Information

GMC NC, PLLC		864.527.0460	
Development Firm	Name of Contact	Phone	Email
Design Firm	Name of Contact	Phone	Email

Contact Information

Town of Huntersville	Phone:	704-875-7000
Planning Department	Fax:	704-992-5528
PO Box 664	Physical Address:	105 Gilead Road, Third Floor
Huntersville, NC 28070	Website:	https://www.huntersville.org/228/Planning-Department

REZONING/SKETCH PLANS
FOR
VERMILLION VILLAGE
404 NORTH CHURCH STREET
HUNTERSVILLE, NC

CSP-413507-R001

MECKLENBURG COUNTY FIRE MARSHALL REQUIREMENTS:

1. Road width 20' per NCDOT.
2. Fire Apparatus Turning Radius - 30' inner & 42' outer.
3. Water Utilities - Water lines and/or fire hydrant location
   - 3.1. No more than 750 feet from any structures remote point.
   - 3.2. FDC required within 200' for NFPA!# and 750' for NFPA13R sprinkler system.
4. Dead End Roads: max length of any dead end road shall be 150 feet without an approved fire apparatus turnaround.
5. Road Surfaces: All roads / commercial driveways for fire apparatus access shall be capable to support the imposed load of 80,000 lbs.
6. Secondary Access - Development of one or two- family dwellings where the number of dwelling units exceed 30 and commercial structures 62,000 sf (no sprinklers) and 124,000 sf (with sprinklers) shall be provided with separate and approved fire apparatus access road.

*ALL FIRE MARSHALL REQUIREMENTS WILL BE MET WITH THIS PROPOSED DEVELOPMENT.

NOTES:

1) Retaining Walls: All retaining walls requiring special inspections (>5' in height) shall meet the requirements of MCSBC chapter 17 - special inspections as detailed per the Mecklenburg County Code Enforcement Special Inspections Process. Additionally, copies of the retaining wall plans shall be submitted to the Huntersville Engineering Department for review and approval. The Town of Huntersville shall be copied on all statements of special inspections, special inspections final reports, and design principal in responsible charge (DPIRC) letters.

2) The Town of Huntersville requires that all streets proposed to be taken over by the Town for maintenance be reviewed, inspected, and certified by a licensed professional engineer registered in the state of North Carolina for adequate construction. Review of street construction by the certifying Engineer is required throughout the construction process. Refer to the Town of Huntersville Engineering Standards and Procedures Manual for additional information including the required certification form.

REQUIRED ROAD IMPROVEMENTS

Huntersville-Concord Road / Site Driveway #1 (Main Access Drive / Cinnabar Place)

- **Westbound left-turn lane on Huntersville-Concord Rd. w/ 100' of full storage and appropriate taper. NCDOT REQ.**
- **Westbound right-turn lane on Huntersville-Concord Rd. w/ 100' of full storage and appropriate taper. NCDOT REQ.**
- **Eastbound left turn lane on Huntersville-Concord Rd. w/ 100' of full storage and appropriate taper.**

Huntersville-Concord Road / Site Driveway #2 (Right-In / Right Out Access Drive)

- **Concrete median on Huntersville-Concord to restrict left-in and left-out movements. NCDOT REQ.**
- **Westbound right turn lane on Huntersville-Concordwith 100' of full storage and appropriate taper. Town of Huntersville REQ.**

NC 115 at Gilead Rd. / Huntersville-Concord Rd.

- **Addition of protected/permitted signal phasing for the existing southbound left turn lane on NC 115.**
- **or, applicant funding toward a future improvement project at the intersection.**

Site Driveways - connections to Huntersville-Concord Road

- **100' of internal protected stems. No curb openings or on-street parking allowed within protected stem. NCDOT REQ.**

***Building / Unit modifications within development may necessitate minor adjustments to proposed road improvements.**

PRELIMINARY
NOT FOR
CONSTRUCTION



LOCATION MAP

PARCEL ID NUMBER: 01902201 & 01902202

REZONING DEVELOPMENT DATA

LOCATION / LOT INFORMATION

PROPERTY OWNER (CURRENT):	VERMILLION VILLAGE LLC / VERMILLION ANCHOR MILL LLC
SITE ADDRESS:	404 NORTH CHURCH STREET
PARCEL ID NUMBER:	01902201 & 01902202
PARCEL SIZE:	29.58 ACRES
EXISTING ZONING:	TC-CD
EXISTING USE:	VACANT
EXISTING IMPERVIOUS SURFACE:	0.80 AC (DOES NOT INCLUDE PUBLIC ROADS)
PCCO DISTRICT:	HUNTERSVILLE
WATERSHED:	CLARKE
FLOOD PLAIN:	FEMA PANEL #3710465100J - DATE 03-02-2009
	(NOT IN FEMA FLOOD ZONE)

PROPOSED / REQUIRED SITE DATA

PROPOSED USE:	MIXED USE - COMMERCIAL & RESIDENTIAL
PROPOSED ZONING:	TC-CD (Rezoning Case #20-05)
BUILDING USE:	
COMMERCIAL / OFFICE:	42,300 SF
RESIDENTIAL:	292 APARTMENT UNITS (179 - 1BR, 113 - 2BR)
	49 TOWNHOME UNITS (ATTACHED HOUSING)
PROPOSED IMPERVIOUS COVERAGE:	21 AC
REQUIRED PARKING:	
COMMERCIAL / OFFICE:	1 SPACE / 500 SF (140 REQ'D COMMERCIAL SPACES)
ACTIVATED COMMERCIAL SPACE:	A MINIMUM OF 7500 TOTAL SF SHALL BE RESERVED IN BUILDINGS A, B & C FOR USES THAT ARE NOT DEFINED AS OFFICE USES IN ORDER TO ENCOURAGE HIGHER TRAFFIC AND A MORE ACTIVATED COMMERCIAL ENVIRONMENT
RESIDENTIAL:	292 APARTMENT UNITS (179 - 1BR, 113 - 2BR)
	49 TOWNHOME UNITS (ATTACHED HOUSING)
PROPOSED IMPERVIOUS COVERAGE:	21 AC
REQUIRED PARKING:	
COMMERCIAL / OFFICE:	1 SPACE / 500 SF (140 REQ'D COMMERCIAL SPACES)
PROVIDED (COMMERCIAL):	257 OFF-STREET PROVIDED COMMERCIAL PARKING SPACES
RESIDENTIAL:	1.0 SPACES / 1 BR APT UNIT (179 REQ'D) -
	1.5 SPACES / 2 BR + UNIT (170 REQ'D) -
	349 TOTAL REQ'D RESIDENTIAL SPACES
PROVIDED (RESIDENTIAL):	77 TUCK UNDER GARAGE SPACES & 327 OFF-STREET SPACES
	404 TOTAL PROVIDED RESIDENTIAL SPACES
ON-STREET PARKING (ALL USES):	REQ'D FOR TOWNHOME UNITS - 160 SPACES PROVIDED
TOTAL (REQ'D / PROPOSED):	489 REQUIRED / 821 TOTAL SPACES PROVIDED
URBAN OPEN SPACE:	1.77 ACRES (77,120 SF)
NATURAL OPEN SPACE:	3.90 ACRES (169,800 SF)

SITE PLAN DATA TABLE

TOTAL ACREAGE:	**29.58 ACRES**	
TOTAL SQUARE FEET:	**1,338,320 SF**	
PRINCIPLE USES:	**RESIDENTIAL AND LIMITED COMMERCIAL**	
BUILDING TYPE:	**APARTMENTS, TOWNHOMES & COMMERCIAL**	
ZONING DISTRICT:	**TC-CD (REZONING CASE #20-05)**	
PERCENTAGE IMPERVIOUS ALLOWED:	**N/A - NOT IN A RESTRICTIVE WATERSHED**	
PERCENTAGE OF IMPERVIOUS SHOWN	**60% (17.75 ACRES - NOT INCLUDING EXISTING PUBLIC ROADS)**	
LOT COUNT (SHOWN CURRENTLY)	**55 PROPOSED**	
APARTMENT DWELLINGS	**292**	
TOWNHOUSES:	**49**	
COMMERCIAL UNITS:	**4**	
TOTAL SF OF NON RESIDENTIAL:	**42,300**	
LOT SIZE RANGE & LOTS IN EACH (TOWNHOMES):	**1080SF - 5000 SF**	**49 LOTS**
LOT WIDTHS RANGE & LOTS IN EACH (TOWNHOMES):	**20' - 72'**	**49 LOTS**
SETBACKS AND BUILD-TO-LINES		
FRONT BTL RANGE OR SETBACK:	**5' - 25' FOR RESIDENTIAL / 0-20' FOR COMMERCIAL**	
CORNER SETBACKS:	**5' - 25' FOR RESIDENTIAL / 0-20' FOR COMMERCIAL**	
REAR SETBACKS:	**0**	
RIGHT SIDE SETBACK:	**0**	
LEFT SIDE SETBACK:	**0**	
WATERSHED INFORMATION		
IS THIS PROPERTY IN A REGULATED DISTRICT?	**NO**	
WATERSHED DISTRICT:	**CLARKE**	
LOW DENSITY / HIGH DENSITY:	**HIGH DENSITY**	
PERCENTAGE OF ALLOWABLE IMPERVIOUS AREA:	**N/A**	
PERCENTAGE OF IMPERVIOUS AREA SHOWN ON PLANS:	**60%**	
AMOUNT OF LOT AREA SET ASIDE FOR FUTURE IMPERVIOUS:	**N/A**	

*NOTE: THE USES THAT ARE SHOWN ON THE PLAN ARE SCHEMATIC AND CAN BE ADJUSTED ADMINISTRATIVELY, AS PERMITTED WITHIN THE TC ZONING DISTRICT.

DRAWING LIST

DRAWING LIST	SHEET
COVER SHEET	SP-0.0
EXISTING CONDITIONS	SP-1.0
REZONING PLAN	SP-1.1
TREE SURVEY / PRESERVATION PLAN	SP-1.2
STREET SECTION PLANS	SP-1.3
FRONTAGE SKETCH PLAN	SP-1.4
GRADING PLAN	SP-2.0
CONCEPT UTILITY PLAN	SP-3.0
CONCEPT LANDSCAPE PLAN	LP-1.0
APARTMENT ELEVATIONS	BY OTHERS
APARTMENT AMENITY AREA RENDERING	BY OTHERS

MECKLENBURG COUNTY APPROVAL WITH CONDITIONS NOTE:

APPROVAL OF THIS SKETCH / CONCEPT PLAN DOES NOT IMPLY OR GUARANTEE VESTING OR APPROVAL OF THE FINAL CONSTRUCTION PLAN. FINAL CONSTRUCTION PLAN WILL BE REVIEWED FOR COMPLIANCE PER ALL TOWN, COUNTY AND STATE REGULATIONS IN EFFECT AT THE TIME OF SUBMITTAL.

REVISIONS/SUBMITTALS:

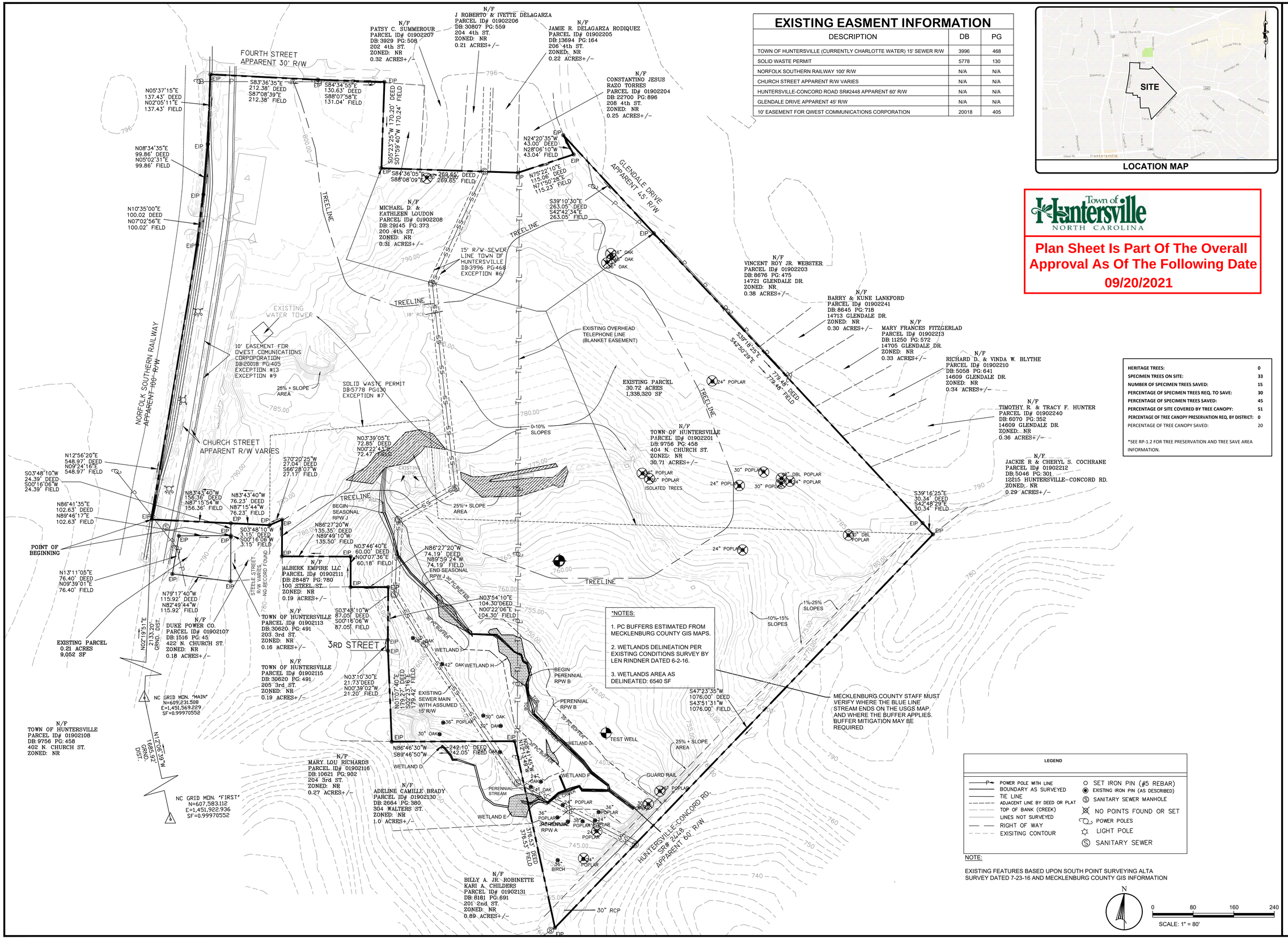
09-01-2020 Initial Rezoning Plan Submittal
10-28-2020 Rezoning Plan Resubmittal
12-04-2020 Rezoning Plan Resubmittal
02-26-2021 Rezoning Plan Resubmittal
04-26-2021 Rezoning Plan Resubmittal
06-09-2021 BOC
07-07-2021 Rezoning Plan Resubmittal
08-13-2021 Rezoning Plan Resubmittal
03-04-2026 Rezoning Plan Update
06-08-2026 Rezoning Plan Update

OWNER/DEVELOPER:

Vermillion Anchor Mill Village, LLC
13815 Cinnabar Place
Huntersville, NC 28078
Phone: 704-875-9704
Email: bowman31@gmail.com

ENGINEER:

GMC NC, PLLC
C.O.A. # P-2483
4601 Park Road #520
Charlotte, NC 28209
PH: 864-207-6836
Contact: Gene Hinkle, PE
Email: ghinkle@css-eng.com



EXISTING EASMENT INFORMATION

DESCRIPTION	DB	PG
TOWN OF HUNTERSVILLE (CURRENTLY CHARLOTTE WATER) 15' SEWER R/W	3996	468
SOLID WASTE PERMIT	5778	130
NORFOLK SOUTHERN RAILWAY 100' R/W	N/A	N/A
CHURCH STREET APPARENT R/W VARIES	N/A	N/A
HUNTERSVILLE-CONCORD ROAD SR#2448 APPARENT 60' R/W	N/A	N/A
GLENDALE DRIVE APPARENT 45' R/W	N/A	N/A
10' EASEMENT FOR QWEST COMMUNICATIONS CORPORATION	20018	405

LOCATION MAP

Town of Huntersville
NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021

HERITAGE TREES:	0
SPECIMEN TREES ON SITE:	33
NUMBER OF SPECIMEN TREES SAVED:	15
PERCENTAGE OF SPECIMEN TREES REQ. TO SAVE:	30
PERCENTAGE OF SPECIMEN TREES SAVED:	45
PERCENTAGE OF SITE COVERED BY TREE CANOPY:	51
PERCENTAGE OF TREE CANOPY PRESERVATION REQ. BY DISTRICT:	0
PERCENTAGE OF TREE CANOPY SAVED:	20

*SEE RP-1.2 FOR TREE PRESERVATION AND TREE SAVE AREA INFORMATION.

*NOTES:

1. PC BUFFERS ESTIMATED FROM MECKLENBURG COUNTY GIS MAPS.
2. WETLANDS DELINEATION PER EXISTING CONDITIONS SURVEY BY LEN RINDNER DATED 6-2-16.
3. WETLANDS AREA AS DELINEATED: 6540 SF

LEGEND

- POWER POLE WITH LINE
- BOUNDARY AS SURVEYED
- TIE LINE
- ADJACENT LINE BY DEED OR PLAT
- TOP OF BANK (CREEK)
- LINES NOT SURVEYED
- RIGHT OF WAY
- EXISITING CONTOUR
- SET IRON PIN (#5 REBAR)
- EXISTING IRON PIN (AS DESCRIBED)
- SANITARY SEWER MANHOLE
- NO POINTS FOUND OR SET
- POWER POLES
- LIGHT POLE
- SANITARY SEWER

NOTE:

EXISTING FEATURES BASED UPON SOUTH POINT SURVEYING ALTA SURVEY DATED 7-23-16 AND MECKLENBURG COUNTY GIS INFORMATION

N

0 80 160 240

SCALE: 1" = 80'

REVISIONS

ISSUED	COMMENT
10-28-20	PER TOWN COMMENTS

NORTH CAROLINA PROFESSIONAL SEAL 032313 ENGINEER EUGENE D. SHAKE 12-4-20

CSS, INC.
NORTH CAROLINA
COA #C-3123

CSS Civil Engineers
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

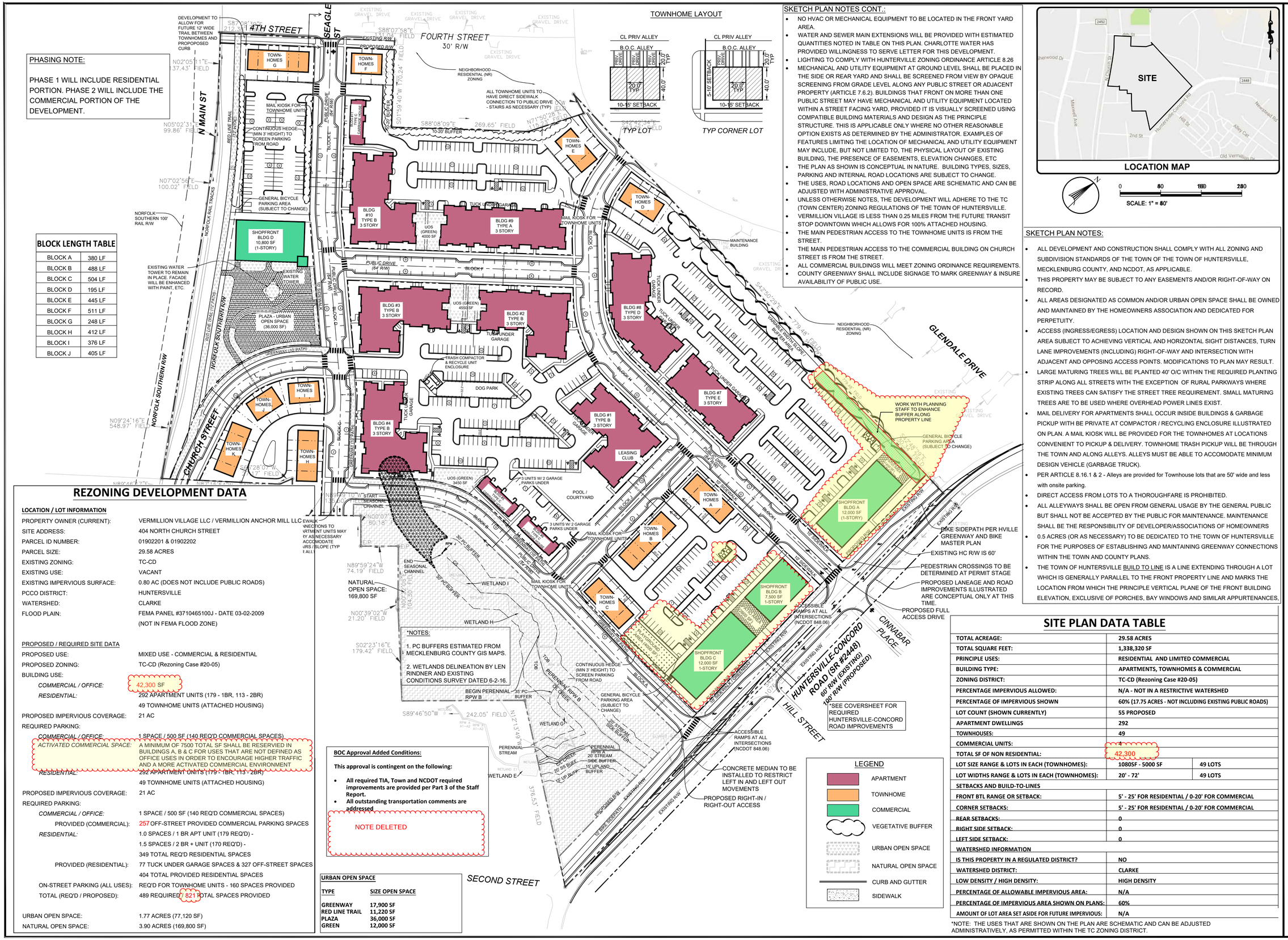
EXISTING FEATURES PLAN

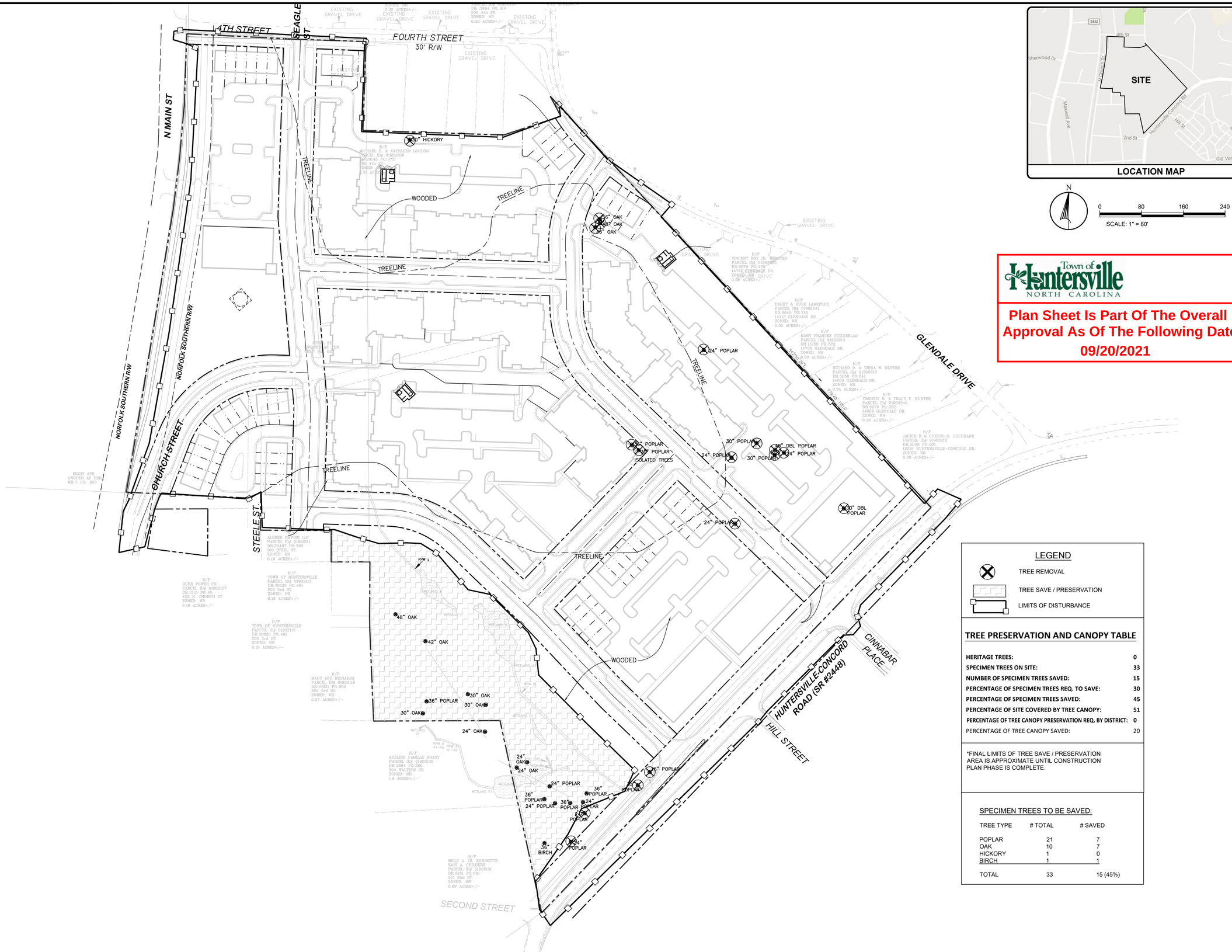
VERMILLION VILLAGE

404 NORTH CHURCH STREET
HUNTERSVILLE, NC 28078

Date:	9-1-2020
Drawn:	BDB
Checked:	GDH

SP-1.0
Sheet


4TH STREET
SEAGLE ST
FOURTH STREET
30' R/W
N MAIN ST
NORFOLK SOUTHERN RW
CHURCH STREET
HILL STREET
SECOND STREET
GLENDALE DRIVE
CINNABAR PLACE
HUNTERSVILLE-CONCORD ROAD (SR #2448)
60' R/W (EXISTING)
100' R/W (PROPOSED)
TOWN-HOMES G
TOWN-HOMES F
TOWN-HOMES E
TOWN-HOMES D
TOWN-HOMES A
TOWN-HOMES B
TOWN-HOMES C
TOWN-HOMES I
TOWN-HOMES H
BLDG #10 TYPE B 3 STORY
BLDG #9 TYPE A 3 STORY
BLDG #3 TYPE B 3 STORY
BLDG #2 TYPE B 3 STORY
BLDG #8 TYPE D 3 STORY
BLDG #7 TYPE E 3 STORY
BLDG #4 TYPE B 3 STORY
BLDG #1 TYPE B 3 STORY
LEASING CLUB
SHOPFRONT BLDG D 10,800 SF (1-STORY)
SHOPFRONT BLDG A 12,000 SF (1-STORY)
SHOPFRONT BLDG B 7,500 SF 1-STORY
SHOPFRONT BLDG C 12,000 SF 1-STORY
PLAZA - URBAN OPEN SPACE (36,000 SF)
PLAYGROUND AREA (4000 SF)
DOG PARK
POOL / COURTYARD
MAIL KIOSK FOR TOWNHOME UNITS
GENERAL BICYCLE PARKING AREA (SUBJECT TO CHANGE)
TRASH COMPACTOR & RECYCLE UNIT ENCLOSURE
MAINTENANCE BUILDING
EXISTING WATER TOWER
EXISTING WATER TOWER TO REMAIN IN PLACE. FACADE WILL BE ENHANCED WITH PAINT, ETC.
NORFOLK SOUTHERN 100' RAIL R/W
NORFOLK RAIL TRACKS
RED LINE TRAIL (4' PAVED)
GREENWAY (10' PATH)
PUBLIC DRIVE (64' R/W)
BLOCK A
BLOCK B
BLOCK C
BLOCK D
BLOCK E
BLOCK F
BLOCK G
BLOCK H
BLOCK I
BLOCK J
TUCK UNDER GARAGE
3 UNITS W/ 2 GARAGE PARKS UNDER
UOS (GREEN) 4000 SF
UOS (GREEN) 4550 SF
UOS (GREEN) 3450 SF
LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 9
LOT 10
LOT 11
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16
LOT 17
LOT 18
LOT 19
LOT 20
LOT



LOCATION MAP

N

0 80 160 240

SCALE: 1" = 80'

Town of Huntersville
NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date
09/20/2021

LEGEND

- TREE REMOVAL
- TREE SAVE / PRESERVATION
- LIMITS OF DISTURBANCE

TREE PRESERVATION AND CANOPY TABLE

HERITAGE TREES:	**0**
SPECIMEN TREES ON SITE:	**33**
NUMBER OF SPECIMEN TREES SAVED:	**15**
PERCENTAGE OF SPECIMEN TREES REQ. TO SAVE:	**30**
PERCENTAGE OF SPECIMEN TREES SAVED:	**45**
PERCENTAGE OF SITE COVERED BY TREE CANOPY:	**51**
PERCENTAGE OF TREE CANOPY PRESERVATION REQ. BY DISTRICT:	**0**
PERCENTAGE OF TREE CANOPY SAVED:	20

*FINAL LIMITS OF TREE SAVE / PRESERVATION AREA IS APPROXIMATE UNTIL CONSTRUCTION PLAN PHASE IS COMPLETE.

SPECIMEN TREES TO BE SAVED:

TREE TYPE	# TOTAL	# SAVED
POPLAR	21	7
OAK	10	7
HICKORY	1	0
BIRCH	1	1
TOTAL	33	15 (45%)

REVISIONS

ISSUED	COMMENT

NORTH CAROLINA PROFESSIONAL SEAL 032313 ENGINEER CHRISTOPHER D. SCHMALE 2-26-21

CSS, INC.
NORTH CAROLINA
COA #C-3123

CSS Civil Engineers
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

TREE PRESERVATION PLAN

VERMILLION VILLAGE

404 NORTH CHURCH STREET
HUNTERSVILLE, NC 28078

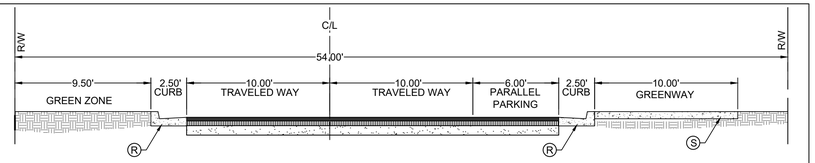
Date: 2-26-2021
Drawn: GDH
Checked: ---

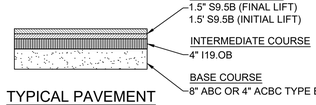
SP-1.2
Sheet

*SECTIONS ARE CONCEPTUAL ONLY.

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021





SURFACE COURSE
1.5" S9.5B (FINAL LIFT)
1.5' S9.5B (INITIAL LIFT)

INTERMEDIATE COURSE
4" I19.OB

BASE COURSE
8" ABC OR 4" ACBC TYPE B25.OB

TYPICAL PAVEMENT SECTION

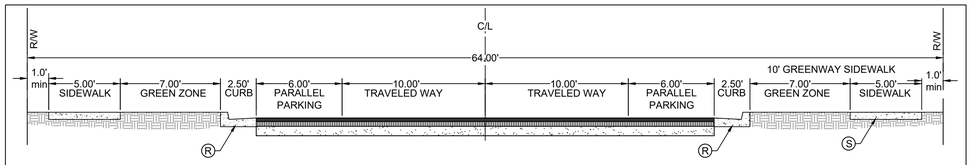
KEY

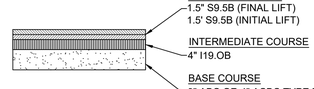
(R) 30" STD CURB AND GUTTER

(S) 4" CONCRETE SIDEWALK

NOTES:
1. SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE STREET.
2. SEE SECTION ii B. FOR ADDITIONAL DESIGN CRITERIA.
3. BASE COURSE TO EXTEND SIX INCHES BEYOND BACK OF CURB THEN TAPER OUT AT A 45 DEGREE ANGLE.
4. REFER TO STANDARD DRAWING 285.1 FOR PARALLEL PARKING LAYOUT.

SOUTHERN DRIVE SECTION "A-A"





SURFACE COURSE
1.5" S9.5B (FINAL LIFT)
1.5' S9.5B (INITIAL LIFT)

INTERMEDIATE COURSE
4" I19.OB

BASE COURSE
8" ABC OR 4" ACBC TYPE B25.OB

TYPICAL PAVEMENT SECTION

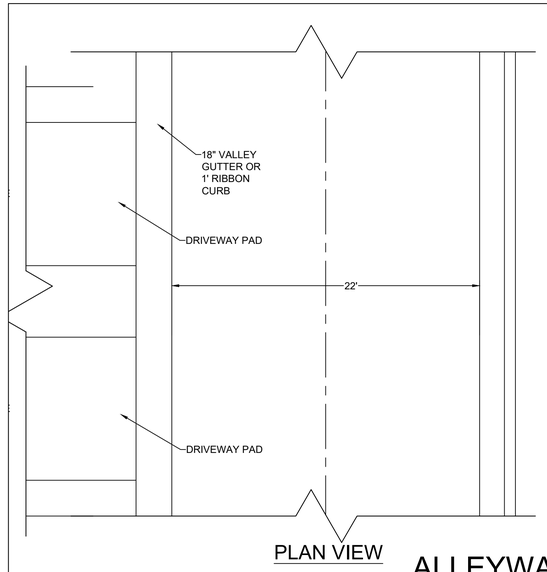
KEY

(R) 30" STD CURB AND GUTTER

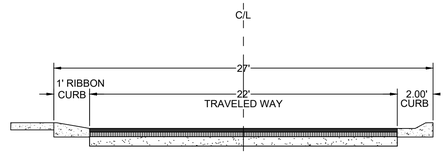
(S) 4" CONCRETE SIDEWALK

NOTES:
1. SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE STREET.
2. SEE SECTION ii B. FOR ADDITIONAL DESIGN CRITERIA.
3. BASE COURSE TO EXTEND SIX INCHES BEYOND BACK OF CURB THEN TAPER OUT AT A 45 DEGREE ANGLE.
4. REFER TO STANDARD DRAWING 285.1 FOR PARALLEL PARKING LAYOUT.

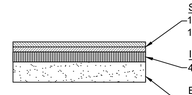
NORTHERN DRIVE SECTION "B-B"



PLAN VIEW



SECTION VIEW



SURFACE COURSE
1.5" S9.5B (FINAL LIFT)
1.5' S9.5B (INITIAL LIFT)

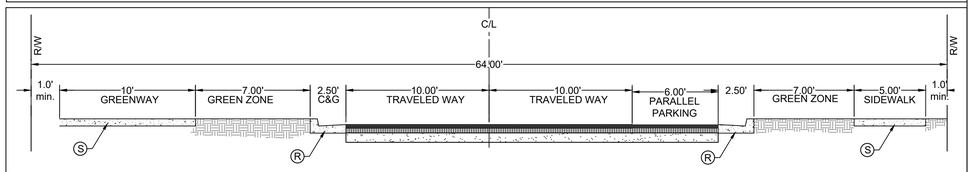
INTERMEDIATE COURSE
4" I19.OB

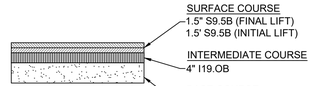
BASE COURSE
8" ABC OR 4" ACBC TYPE B25.OB

TYPICAL PAVEMENT SECTION

NOTES:
1. ALLEYS SHALL BE CONSIDERED PRIVATE EASEMENTS AND WILL NOT BE ACCEPTED FOR MAINTENANCE.
2. SUBGRADE SHALL BE COMPACTED TO PUBLIC STREET STANDARDS.
3. STORM DRAINAGE (NOT SHOWN) SHALL BE PROVIDED AS NECESSARY.
4. RIBBON CURB TO BE TEN INCHES THICK.

ALLEYWAY / PRIVATE DRIVE (TYP)





SURFACE COURSE
1.5" S9.5B (FINAL LIFT)
1.5' S9.5B (INITIAL LIFT)

INTERMEDIATE COURSE
4" I19.OB

BASE COURSE
8" ABC OR 4" ACBC TYPE B25.OB

TYPICAL PAVEMENT SECTION

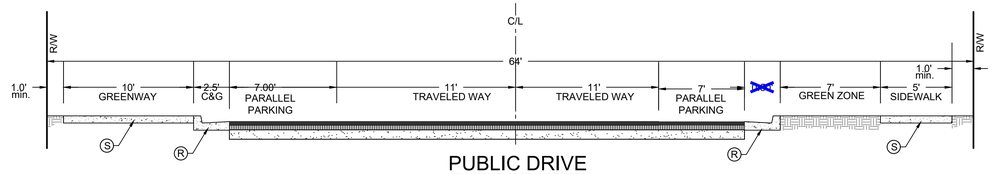
KEY

(R) 30" STD CURB AND GUTTER

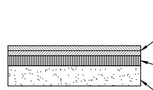
(S) 4" CONCRETE SIDEWALK

NOTES:
1. SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE STREET.
2. SEE SECTION ii B. FOR ADDITIONAL DESIGN CRITERIA.
3. BASE COURSE TO EXTEND SIX INCHES BEYOND BACK OF CURB THEN TAPER OUT AT A 45 DEGREE ANGLE.
4. REFER TO STANDARD DRAWING 285.1 FOR PARALLEL PARKING LAYOUT.

CHURCH STREET SECTION "E-E"



PUBLIC DRIVE



SURFACE COURSE
1.5" S9.5B (FINAL LIFT)
1.5' S9.5B (INITIAL LIFT)

INTERMEDIATE COURSE
4" I19.OB

BASE COURSE
8" ABC OR 4" ACBC TYPE B25.OB

TYPICAL PAVEMENT SECTION

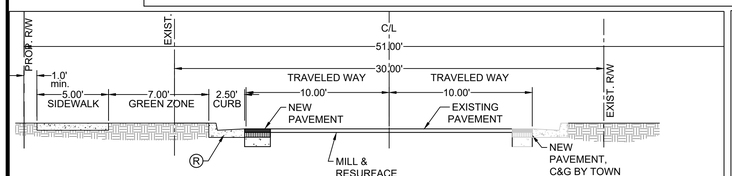
KEY

(R) 30" STD CURB AND GUTTER

(S) 4" CONCRETE SIDEWALK

NOTES:
1. SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE STREET.
2. SEE SECTION ii B. FOR ADDITIONAL DESIGN CRITERIA.
3. BASE COURSE TO EXTEND SIX INCHES BEYOND BACK OF CURB THEN TAPER OUT AT A 45 DEGREE ANGLE.
4. REFER TO STANDARD DRAWING 285.1 FOR PARALLEL PARKING LAYOUT.

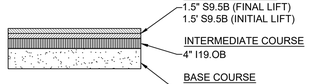
FUTURE THOROUGHFARE SECTION "G-G"



KEY

(R) 30" STD CURB AND GUTTER

(S) 4" CONCRETE SIDEWALK



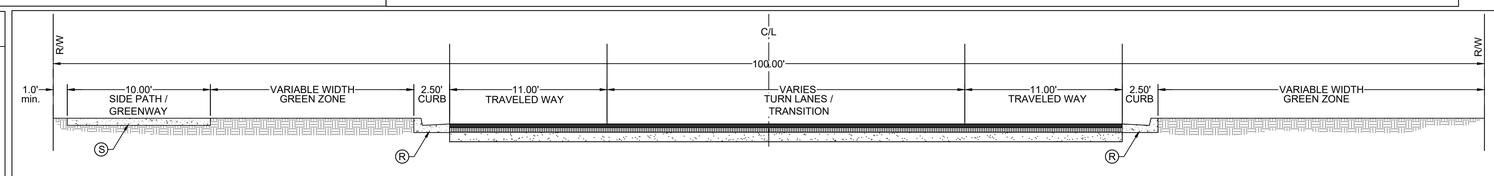
SURFACE COURSE
1.5" S9.5B (FINAL LIFT)
1.5' S9.5B (INITIAL LIFT)

INTERMEDIATE COURSE
4" I19.OB

BASE COURSE
8" ABC OR 4" ACBC TYPE B25.OB

TYPICAL PAVEMENT SECTION

4TH STREET SECTION "F-F"



NCDOT TO DETERMINE PAVEMENT SECTION FOR HUNTERSVILLE-CONCORD RD.

KEY

(R) 30" STD CURB AND GUTTER

(S) 4" CONCRETE SIDEWALK

NOTES:
1. SIDEWALK SHALL BE PROVIDED ON BOTH SIDES OF THE STREET.
2. SEE SECTION ii B. FOR ADDITIONAL DESIGN CRITERIA.
3. BASE COURSE TO EXTEND SIX INCHES BEYOND BACK OF CURB THEN TAPER OUT AT A 45 DEGREE ANGLE.
4. REFER TO STANDARD DRAWING 285.1 FOR PARALLEL PARKING LAYOUT.

HUNTERSVILLE CONCORD ROAD SECTION "C-C"

REVISIONS

ISSUED	COMMENT

NORTH CAROLINA PROFESSIONAL SEAL 042313 ENGINEER — 8-13-21

CSS Civil Engineers
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

STREET SECTION PLAN

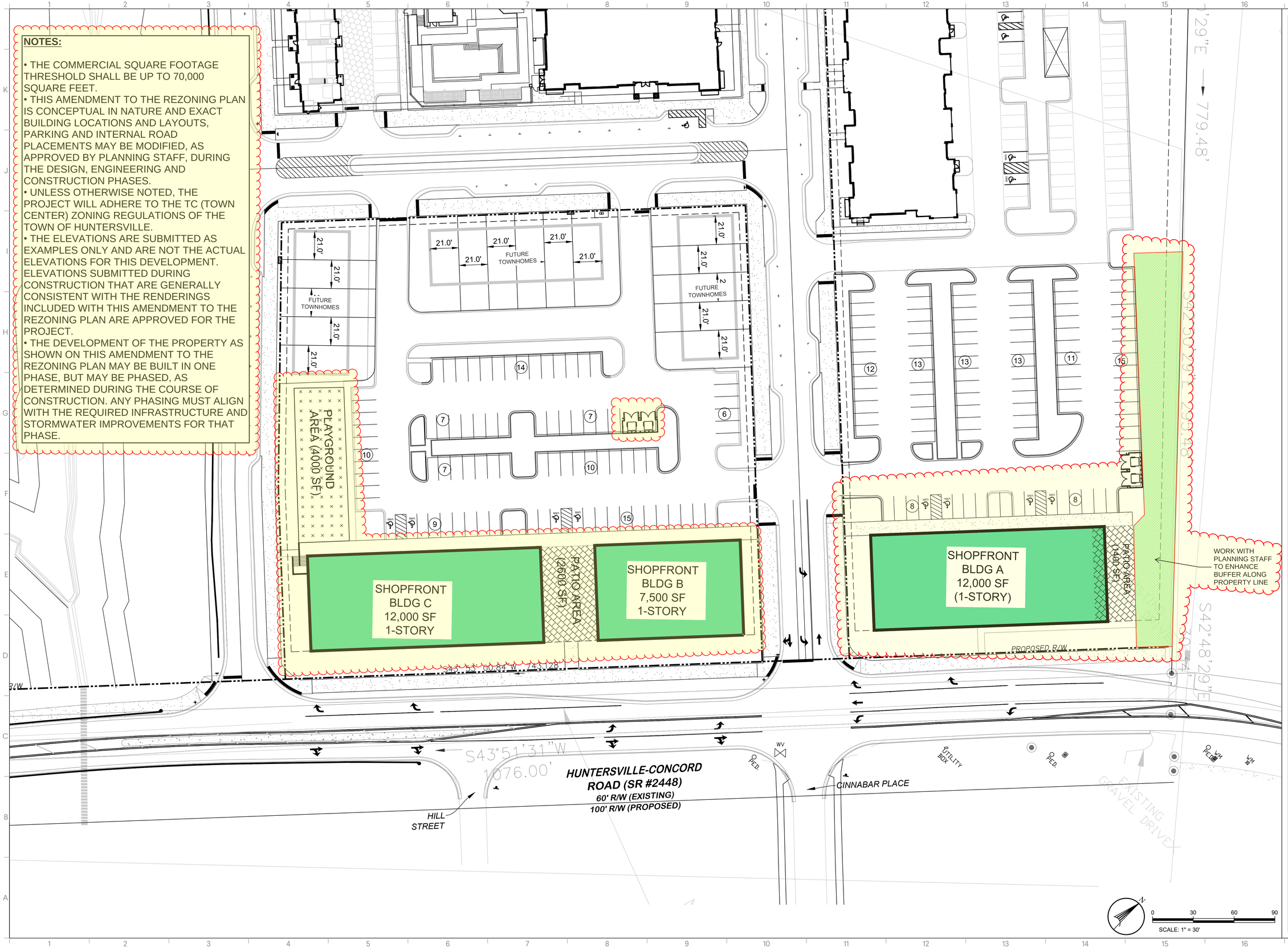
VERMILLION VILLAGE

Date: 8-13-21
Drawn: GDH
Checked: ---

SP 1.3
Sheet

NOTES:

- THE COMMERCIAL SQUARE FOOTAGE THRESHOLD SHALL BE UP TO 70,000 SQUARE FEET.
- THIS AMENDMENT TO THE REZONING PLAN IS CONCEPTUAL IN NATURE AND EXACT BUILDING LOCATIONS AND LAYOUTS, PARKING AND INTERNAL ROAD PLACEMENTS MAY BE MODIFIED, AS APPROVED BY PLANNING STAFF, DURING THE DESIGN, ENGINEERING AND CONSTRUCTION PHASES.
- UNLESS OTHERWISE NOTED, THE PROJECT WILL ADHERE TO THE TC (TOWN CENTER) ZONING REGULATIONS OF THE TOWN OF HUNTERSVILLE.
- THE ELEVATIONS ARE SUBMITTED AS EXAMPLES ONLY AND ARE NOT THE ACTUAL ELEVATIONS FOR THIS DEVELOPMENT. ELEVATIONS SUBMITTED DURING CONSTRUCTION THAT ARE GENERALLY CONSISTENT WITH THE RENDERINGS INCLUDED WITH THIS AMENDMENT TO THE REZONING PLAN ARE APPROVED FOR THE PROJECT.
- THE DEVELOPMENT OF THE PROPERTY AS SHOWN ON THIS AMENDMENT TO THE REZONING PLAN MAY BE BUILT IN ONE PHASE, BUT MAY BE PHASED, AS DETERMINED DURING THE COURSE OF CONSTRUCTION. ANY PHASING MUST ALIGN WITH THE REQUIRED INFRASTRUCTURE AND STORMWATER IMPROVEMENTS FOR THAT PHASE.



GMC
117 Welborn St.
Greenville, SC 29601
T 864.527.0460

OWNER / DEVELOPER:

ADDRESS

ISSUE	DATE
CONCEPT PLAN	02-03-26
SKETCH PLAN UPDATE	06-08-26

PROJECT MANAGER: MGL
DESIGNER(S): GMC

CONCEPT PLAN

VERMILLION VILLAGE - COMMERCIAL AREA 1
14145 HUNTERSVILLE-CONCORD ROAD
HUNTERSVILLE, NC 28078

SP-1.4



NOTE: WETLANDS VERIFICATION UPDATE WILL BE COMPLETED DURING CONSTRUCTION DRAWING PHASE OF PROJECT.

THE EXTENT OF THE CREEK BUFFER WILL BE CLARIFIED ONCE THE JURISDICTIONAL DETERMINATION CAN BE VERIFIED. PLAN MODIFICATIONS AND/OR ADDITIONAL PERMITTING STEPS MAY BE NECESSARY TO FOR THE SITE IMPROVEMENTS IN THAT VICINITY.

LEGEND

EXISTING	PROPOSED	DESCRIPTION
680	680	CONTOUR LINE
680.0	80.0	SPOT ELEVATION
		STORM DRAIN INLET
18" RCP		STORM DRAIN PIPE

NOTE: FULLY DESIGNED RETAINING WALL PLANS WILL BE REQUIRED AT CONSTRUCTION PLAN SUBMITTAL TO TOWN.



LOCATION MAP

N

0 80 160 240

SCALE: 1" = 80'

NOTE: THIS GRADING PLAN IS CONCEPTUAL IN NATURE. ADDITIONAL STUDIES ARE UNDERWAY TO ENSURE THAT THIS CONCEPTUAL PLAN WILL BE FEASIBLE. IF THE RESULT OF THOSE STUDIES PROVIDE INFORMATION CONTRARY TO THE ABILITY TO PROVIDE THE STORMWATER CONTROL MEASURES AS SHOWN IN THIS CONCEPTUAL PLAN, THE DESIGNER/OWNER WILL CONTACT THE LAND DEVELOPMENT REVIEW ENGINEER IMMEDIATELY TO BEGIN A DISCUSSION ON HOW TO ALTERNATIVELY MEET THE TOWN'S STORMWATER CONTROL ORDINANCES. IN THE EVENT THAT ALTERNATIVES REQUIRE A SURFACE LAYOUT MODIFICATION, THE DESIGNER/OWNER WILL CONTACT THE TOWN PLANNER TO DETERMINE AVAILABLE OPTIONS.

UNDERGROUND STORMWATER TABLE

	DRAINAGE AREA	APPROXIMATE SIZE
FACILITY #1	±3.85 AC	32,300 CF
FACILITY #2	±10.81 AC	90,800 CF
FACILITY #3	±12.80 AC	107,400 CF

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date

09/20/2021

REVISIONS

ISSUED	COMMENT

NORTH CAROLINA PROFESSIONAL SEAL 022313 ENGINEER 8-13-21

CSS, INC.
NORTH CAROLINA
COA #C-3123

CSS Civil Engineers
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

SKETCH GRADING PLAN

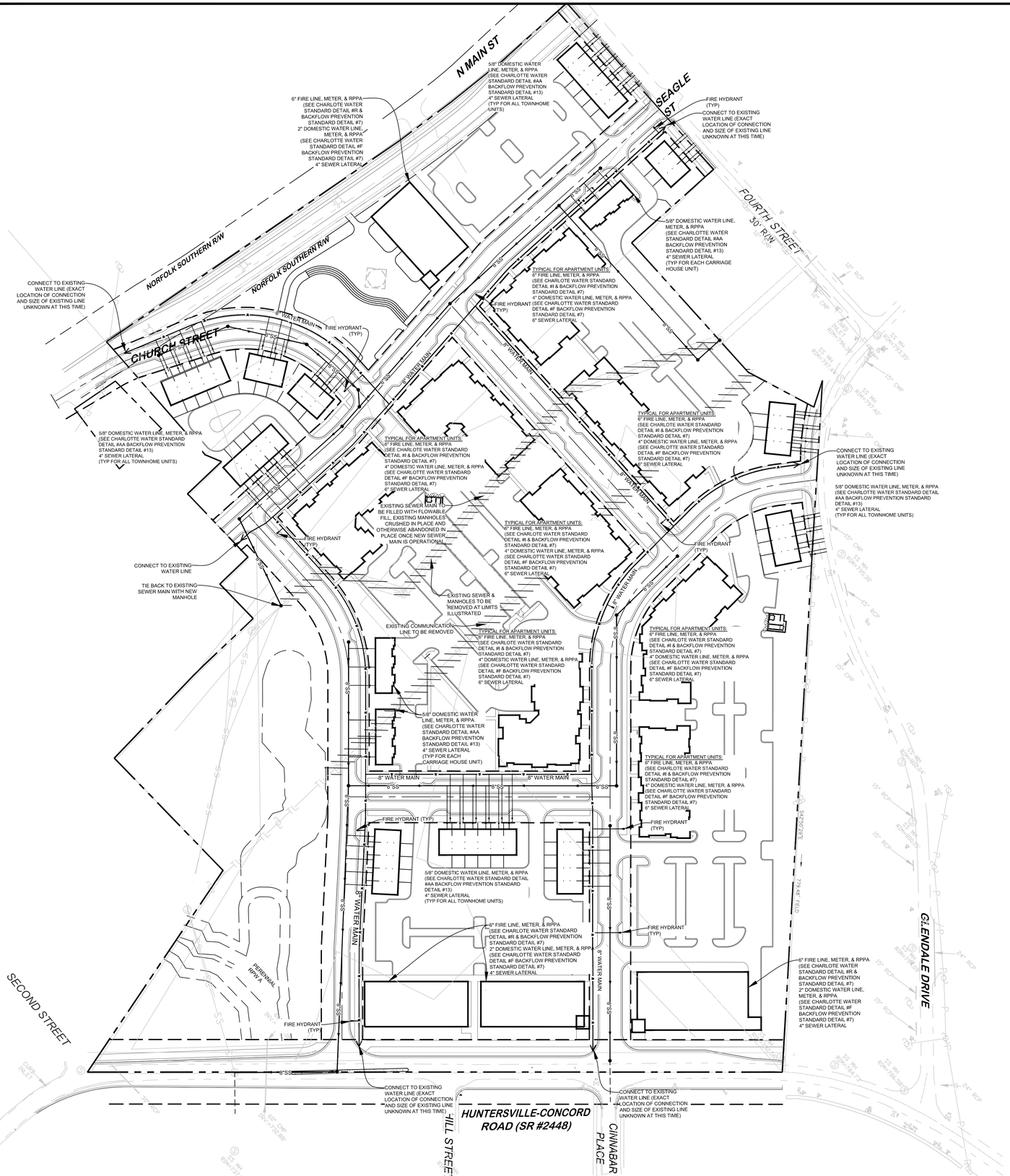
VERMILLION VILLAGE

404 NORTH CHURCH STREET
HUNTERSVILLE, NC 28078

Date: 8-13-2021
Drawn: GDH
Checked: ---

SP-2.0

Sheet





LOCATION MAP

CONCEPT UTILITIES QUANTITY TABLE

8" SANITARY SEWER MAIN	3600 LF
SANITARY SEWER MANHOLES	21 EA
4" LATERALS	62 EA / 1800 LF
6" LATERALS	6 EA / 200 LF
8" WATER MAIN	4200 LF
6" METERS / FIRE SERVICE LINE	12 EACH / 300 LF
FIRE HYDRANTS	10 EA
WATER MAIN CONNECTIONS	6 EA
5/8" TAPS & METERS / SERVICE	58 EA / 1700 LF
2" TAPS & METERS / SERVICE	4 EA / 100 LF
4" TAPS / METERS / SERVICE	8 EA / 200 LF

*NOTE - PROPOSED UTILITY INFORMATION IS CONCEPTUAL ONLY AT THIS TIME.

Town of Huntersville
NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date
09/20/2021

0 80 160 240
SCALE: 1" = 80'

REVISIONS

ISSUED	COMMENT

NORTH CAROLINA PROFESSIONAL SEAL 032313 ENGINEER EUGENE D. HINKLE
2-26-21

CSS Civil Engineers
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

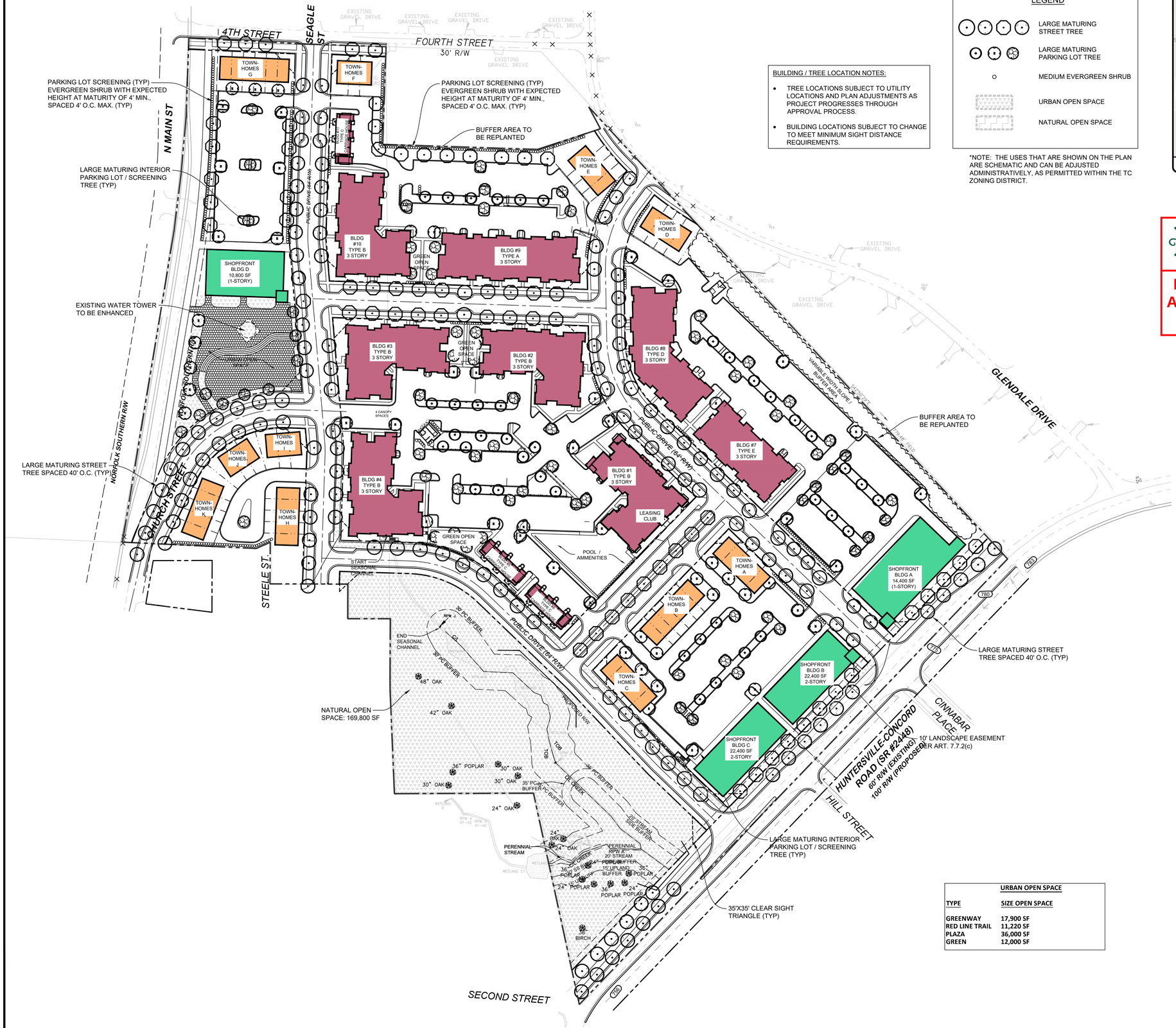
SKETCH UTILITY PLAN

VERMILLION VILLAGE

404 NORTH CHURCH STREET
HUNTERSVILLE, NC 28078

Date: 2-26-21
Drawn:
Checked:

SP-3.0



LEGEND

- LARGE MATURING STREET TREE
- LARGE MATURING PARKING LOT TREE
- MEDIUM EVERGREEN SHRUB
- URBAN OPEN SPACE
- NATURAL OPEN SPACE

BUILDING / TREE LOCATION NOTES:

- TREE LOCATIONS SUBJECT TO UTILITY LOCATIONS AND PLAN ADJUSTMENTS AS PROJECT PROGRESSES THROUGH APPROVAL PROCESS.
- BUILDING LOCATIONS SUBJECT TO CHANGE TO MEET MINIMUM SIGHT DISTANCE REQUIREMENTS.

*NOTE: THE USES THAT ARE SHOWN ON THE PLAN ARE SCHEMATIC AND CAN BE ADJUSTED ADMINISTRATIVELY, AS PERMITTED WITHIN THE TC ZONING DISTRICT.



LOCATION MAP

SCALE: 1" = 40'

URBAN OPEN SPACE

TYPE	SIZE OPEN SPACE
GREENWAY	17,900 SF
RED LINE TRAIL	11,220 SF
PLAZA	36,000 SF
GREEN	12,000 SF

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021

LANDSCAPE NOTES

- Street tree locations are conceptual - final locations will be determined during construction document phase.
- All trees shall be a minimum of 2 inches in caliper and 8 feet in height at the time of planting, unless otherwise specified.
- All shrubs shall be a minimum of 3 feet in height at the time of planting with an expected minimum height of at least 6 feet at maturity unless otherwise specified.
- Once streets have been accepted by the town or the state, street trees shall be maintained and cared for by the property owner adjacent to the tree except in subdivisions where the property owners association provides maintenance and care. Prior to street acceptance, the developer shall be responsible for ensuring maintenance and care. Maintenance shall include replacement and trimming as necessary. A maintenance responsibility statement shall be provided on the Final Plat and documented within the homeowners association articles of incorporation or the restrictive covenants / deed restrictions for the development.
- All tree save areas must be specified on the recorded plat, individual recorded deeds, and all property association documents for land held in common.

- Lots less than 10,000 sf. 1 Front Yard, 1 Rear Yard Tree Required.
- Lots less than 10,000-15,000 sf. 1 Front Yard, 2 Rear Yard Trees Required.
- Lots less than 15,001-20,000 sf. 2 Front Yard, 2 Rear Yard Trees Required.
- More than 20,000 sf. 3 Front Yard, 3 Rear Yard Trees Required.

PERIMETER PARKING LOT LANDSCAPING REQUIREMENTS

- Screening shall be provided by installing along the perimeter of the parking lot a continuous row of evergreen shrubs max, separation 6' on center (minimum height3' at installation, expected height at maturity at least 6') and/or masonry wall 3' to 6' in height. This screen may be penetrated for access between parking lots.
- As an alternative screening requirement for parking lot edge(s) which abut street rights of way, a 3' masonry wall to provide casual seating may be installed in place of the continuous row of shrubs described in A., above.

ADDITIONAL SCREENING REQUIREMENTS:

- Dumpsters shall be set on a concrete bed and shall be hidden by an opaque fence or wall of sufficient height to screen the bin and any appurtenances, but not less than 6' in height.
- Trash containers / dumpsters shall not be located abutting residential property.
- Wherever used, fences and walls should be constructed to match the architectural detail of the main building(s).
- All mechanical equipment shall be screened from view with an opaque screen.
- All tree/shrub types shall be listed as an approved type on the Town of Huntersville Tree & Shrub List.

REVISIONS

ISSUED	COMMENT

NORTH CAROLINA PROFESSIONAL SEAL 042313 LANDSCAPE ARCHITECT JASON E. KEARNS 6-15-21

CSS, INC.
NORTH CAROLINA
COA #C-3123

CSS Civil Engineers
402 East First Avenue
Easley, South Carolina 29640
(864) 855-5200
www.css-eng.com

SKETCH LANDSCAPE PLAN

VERMILLION VILLAGE

404 NORTH CHURCH STREET
HUNTERSVILLE, NC 28078

Date: 4-26-2021
Drawn: GDH
Checked: ---

L-1.0
Sheet



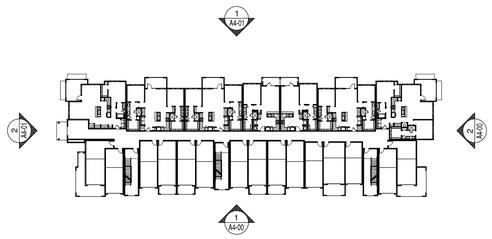
1 BUILDING TYPE 'A' ELEVATION

SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'A' ELEVATION

SCALE: 1/8" = 1'-0"



3 BUILDING KEY

SCALE: NTS

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021

ELEVATION LEGEND:

- SCUPPER AND DOWN SPOUT LOCATIONS INSIDE CORNER WHEN POSSIBLE
- (X) WINDOW KEY
- BRICK
- FIBER CEMENT PANEL
- BOARD AND BATTEN 1X4 TRIM 16" O.C.
- FIBER CEMENT SIDING

GENERAL NOTES:

- WALL MOUNTED SERVICE EQUIPMENT AND SERVICE LINES TO BE PAINTED TO MATCH BUILDING.
- DOWNSPOUT LOCATIONS ARE CONCEPTUAL IN NATURE AND MUST BE COORDINATED BY THE CONTRACTOR ON SITE WITH THE LANDSCAPING, RETAINING WALLS, SIDEWALKS AND INDIVIDUAL BUILDING ORIENTATION AND DRAINAGE TO INSURE THAT OUTFLOW FROM DOWNSPOUTS DOES NOT CROSS WALKING OR DRIVING SURFACES. IT IS THE INTENT OF THE ARCHITECT THAT GUTTER DOWNSPOUTS TERMINATE IN UNDERGROUND DRAINAGE PIPING AND CARRIED AWAY FROM THE BUILDING AND OTHER FINISHED SURFACES WHERE POSSIBLE.
- REFER TO MANUFACTURER REQUIREMENTS FOR INSTALLATION OF CONTROL JOINTS.
- ALIGN VENTS VERTICALLY AND HORIZONTALLY
- EXTERIOR MATERIALS TO TERMINATE ON INSIDE CORNERS. ARCHITECT TO BE NOTIFIED OF ANY DEVIATION.

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REVISIONS

HUNTERSVILLE

APARTMENTS IN HUNTERSVILLE, NORTH CAROLINA FOR
EMBREY DEVELOPMENT COMPANY

REVIEW SET NOT TO BE USED FOR REGULATORY APPROVAL, PERMIT, OR CONSTRUCTION.

HEDK ARCHITECTS
4595 EXCEL PARKWAY ADDISON, TX 75001
214.520.8878 hedk.com

DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-00
BUILDING 'A' ELEVATIONS



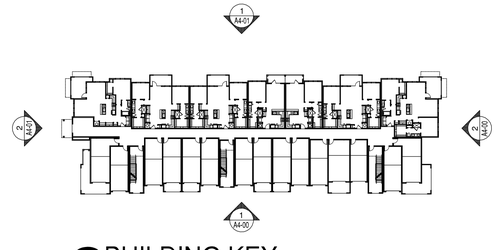
1 BUILDING TYPE 'A' ELEVATION

SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'A' ELEVATION

SCALE: 1/8" = 1'-0"



3 BUILDING KEY

SCALE: NTS

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021

ELEVATION LEGEND:

- SCUPPER AND DOWN SPOUT LOCATIONS INSIDE CORNER WHEN POSSIBLE
- X — WINDOW KEY
- BRICK
- FIBER CEMENT PANEL
- BOARD AND BATTEN 1X4 TRIM 16" O.C.
- FIBER CEMENT SIDING

GENERAL NOTES:

- WALL MOUNTED SERVICE EQUIPMENT AND SERVICE LINES TO BE PAINTED TO MATCH BUILDING.
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- REFER TO MANUFACTURER REQUIREMENTS FOR INSTALATION OF CONTROL JOINTS.
- ALIGN VENTS VERTICALLY AND HORIZONTALLY
- EXTERIOR MATERIALS TO TERMINATE ON INSIDE CORNERS. ARCHITECT TO BE NOTIFIED OF ANY DEVIATION.

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REVISIONS

HUNTERSVILLE

APARTMENTS IN HUNTERSVILLE, NORTH CAROLINA FOR
EMBREY DEVELOPMENT COMPANY

REVIEW SET NOT TO BE USED FOR REGULATORY APPROVAL, PERMIT, OR CONSTRUCTION.

HEDK ARCHITECTS
4595 EXCEL PARKWAY ADDISON, TX 75001
214.520.8878 hedk.com

DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-01
BUILDING 'A' ELEVATIONS



1 BUILDING TYPE 'B' ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'B' ELEVATION
SCALE: 1/8" = 1'-0"



3 BUILDING TYPE 'B' ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION LEGEND:

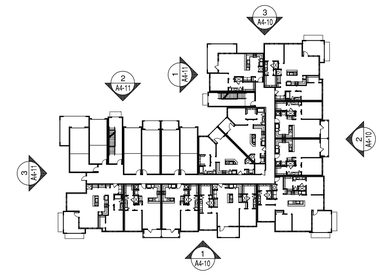
- SCUPPER AND DOWN SPOUT LOCATIONS INSIDE CORNER WHEN POSSIBLE
- X — WINDOW KEY
- BRICK
- FIBER CEMENT PANEL
- BOARD AND BATTEN 1X4 TRIM 16" O.C.
- FIBER CEMENT SIDING

GENERAL NOTES:

- WALL MOUNTED SERVICE EQUIPMENT AND SERVICE LINES TO BE PAINTED TO MATCH BUILDING.
- DOWNSPOUT LOCATIONS ARE CONCEPTUAL IN NATURE COORDINATED BY THE A/E AND MUST BE CONTRACTOR ON SITE WITH THE LANDSCAPING, RETAINING WALLS, SIDEWALKS AND INDIVIDUAL BUILDING ORIENTATION AND DRAINAGE TO INSURE THAT OUTFLOW FROM DOWNSPOUTS DOES NOT CROSS WALKING OR DRIVING SURFACES. IT IS THE INTENT OF THE ARCHITECT THAT GUTTER DOWNSPOUTS TERMINATE IN UNDERGROUND DRAINAGE PIPING AND CARRIED AWAY FROM THE BUILDING AND OTHER FINISHED SURFACES WHERE POSSIBLE.
- REFER TO MANUFACTURE REQUIREMENTS FOR INSTALATION OF CONTROL JOINTS.
- ALIGN VENTS VERTICALLY AND HORIZONTALLY
- THE SCREEN USED ON THE ROOF TOP HVAC SHALL BE REQUIRED TO MATCH/BLEND IN WITH THE ROOF COLOR.
- EXTERIOR MATERIALS TO TERMINATE ON INSIDE CORNERS. ARCHITECT TO BE NOTIFIED OF ANY DEVIATION.

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021



4 BUILDING KEY
SCALE: NTS

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REVISIONS

HUNTERSVILLE

APARTMENTS IN HUNTERSVILLE, NORTH CAROLINA FOR
EMBREY DEVELOPMENT COMPANY

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DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-10
BUILDING 'B' ELEVATIONS



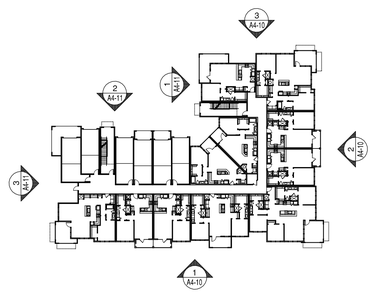
1 BUILDING TYPE 'B' ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'B' ELEVATION
SCALE: 1/8" = 1'-0"



3 BUILDING TYPE 'B' ELEVATION
SCALE: 1/8" = 1'-0"



4 BUILDING KEY
SCALE: NTS

Town of Huntersville
NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021

ELEVATION LEGEND:
- SCUPPER AND DOWN SPOUT LOCATIONS INSIDE CORNER WHEN POSSIBLE
- X — WINDOW KEY
- BRICK
- FIBER CEMENT PANEL
- BOARD AND BATTEN 1X4 TRIM 16" O.C.
- FIBER CEMENT SIDING

GENERAL NOTES:
- WALL MOUNTED SERVICE EQUIPMENT AND SERVICE LINES TO BE PAINTED TO MATCH BUILDING.
- DOWNSPOUT LOCATIONS ARE CONCEPTUAL IN NATURE AND MUST BE COORDINATED BY THE CONTRACTOR ON SITE WITH THE LANDSCAPING, RETAINING WALLS, SIDEWALKS AND INDIVIDUAL BUILDING ORIENTATION AND DRAINAGE TO INSURE THAT OUTFLOW FROM DOWNSPOUTS DOES NOT CROSS WALKING OR DRIVING SURFACES. IT IS THE INTENT OF THE ARCHITECT THAT GUTTER DOWNSPOUTS TERMINATE IN UNDERGROUND DRAINAGE PIPING AND CARRIED AWAY FROM THE BUILDING AND OTHER FINISHED SURFACES WHERE POSSIBLE.
- REFER TO MANUFACTURER REQUIREMENTS FOR INSTALATION OF CONTROL JOINTS.
- ALIGN VENTS VERTICALLY AND HORIZONTALLY
- EXTERIOR MATERIALS TO TERMINATE ON INSIDE CORNERS. ARCHITECT TO BE NOTIFIED OF ANY DEVIATION.

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REVISIONS

HUNTERSVILLE

APARTMENTS IN HUNTERSVILLE, NORTH CAROLINA FOR
EMBREY DEVELOPMENT COMPANY

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HEDK ARCHITECTS
4595 EXCEL PARKWAY ADDISON, TX 75001
214.520.8878 hedk.com

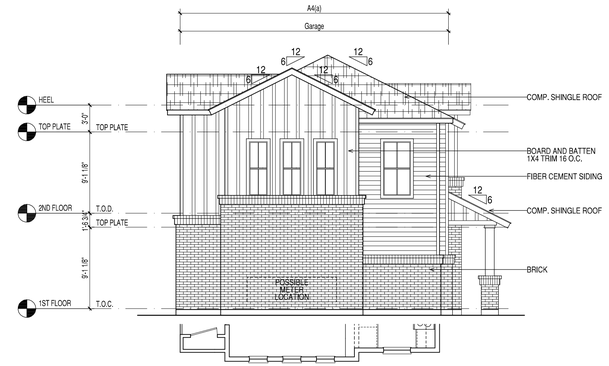
DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-11
BUILDING 'B' ELEVATIONS



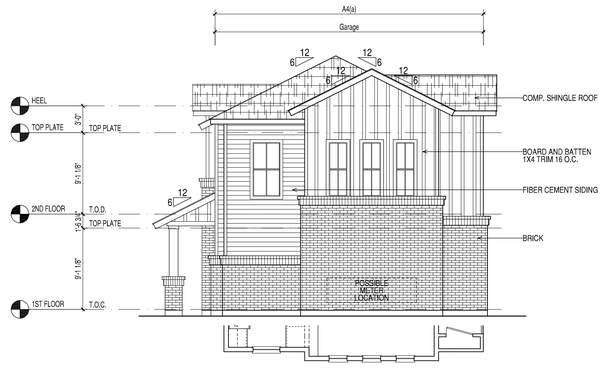
1 BUILDING TYPE 'C' ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'C' ELEVATION
SCALE: 1/8" = 1'-0"



3 BUILDING TYPE 'C' ELEVATION
SCALE: 1/8" = 1'-0"



4 BUILDING TYPE 'C' ELEVATION
SCALE: 1/8" = 1'-0"

ELEVATION LEGEND:
- SCUPPER AND DOWN SPOUT LOCATIONS INSIDE CORNER WHEN POSSIBLE
- X — WINDOW KEY
- BRICK
- FIBER CEMENT PANEL
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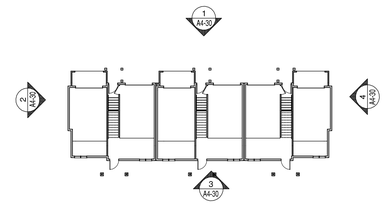
- REFER TO MANUFACTURE REQUIREMENTS FOR INSTALATION OF CONTROL JOINTS.
- ALIGN VENTS VERTICALLY AND HORIZONTALLY
- THE SCREEN USED ON THE ROOF TOP HVAC SHALL BE REQUIRED TO MATCH/BLEND IN WITH THE ROOF COLOR.
- EXTERIOR MATERIALS TO TERMINATE ON INSIDE CORNERS. ARCHITECT TO BE NOTIFIED OF ANY DEVIATION.

Town of Huntersville NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date
09/20/2021



5 BUILDING KEY
SCALE: NTS

REVISIONS

HUNTERSVILLE
APARTMENTS IN HUNTERSVILLE, NORTH CAROLINA FOR
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DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-20
BUILDING 'C' ELEVATIONS

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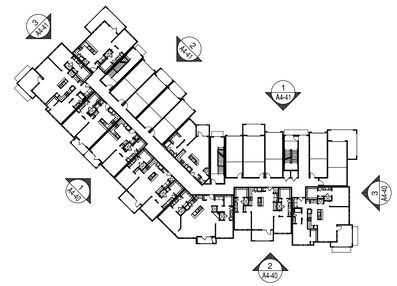
1 BUILDING TYPE 'D' ELEVATION
SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'D' ELEVATION
SCALE: 1/8" = 1'-0"



3 BUILDING TYPE 'D' ELEVATION
SCALE: 1/8" = 1'-0"



4 BUILDING KEY
SCALE: NTS

Town of Huntersville
NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date
09/20/2021

ELEVATION LEGEND:
- SCUPPER AND DOWN SPOUT LOCATIONS INSIDE CORNER WHEN POSSIBLE
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- FIBER CEMENT PANEL
- BOARD AND BATTEN 1X4 TRIM 16" O.C.
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HUNTERSVILLE

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DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-30

BUILDING 'D' ELEVATIONS



1 BUILDING TYPE 'D' ELEVATION

SCALE: 1/8" = 1'-0"



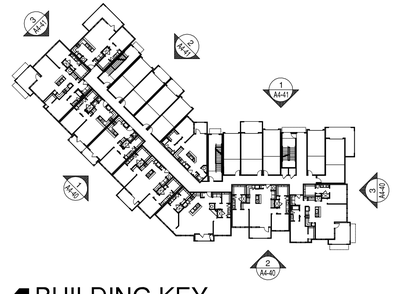
2 BUILDING TYPE 'D' ELEVATION

SCALE: 1/8" = 1'-0"



3 BUILDING TYPE 'D' ELEVATION

SCALE: 1/8" = 1'-0"



4 BUILDING KEY

SCALE: NTS

ELEVATION LEGEND:

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Town of Huntersville
NORTH CAROLINA

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DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-31

BUILDING 'D' ELEVATIONS



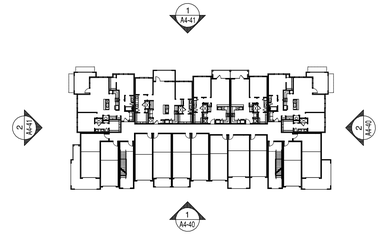
1 BUILDING TYPE 'E' ELEVATION

SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'E' ELEVATION

SCALE: 1/8" = 1'-0"



3 BUILDING KEY

SCALE: NTS

Town of Huntersville NORTH CAROLINA

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HUNTERSVILLE

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DATE XX-XX-2020

PROJECT 20159

SHEET NUMBER A4-40

BUILDING 'E' ELEVATIONS



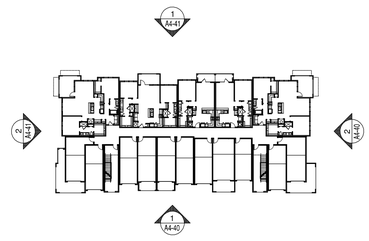
1 BUILDING TYPE 'E' ELEVATION

SCALE: 1/8" = 1'-0"



2 BUILDING TYPE 'E' ELEVATION

SCALE: 1/8" = 1'-0"



3 BUILDING KEY

SCALE: NTS

Town of Huntersville NORTH CAROLINA

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HUNTERSVILLE

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214.520.8878 hedk.com

DATE
XX-XX-2020

PROJECT
20159

SHEET NUMBER
A4-41
BUILDING 'E' ELEVATIONS

A. MANUFACTURER: TBD
PRODUCT: DECORATIVE BRACKET
COLOR: URBANE BRONZE SW 7048

B. MANUFACTURER: KAWNEER
PRODUCT: WINDOWS - STOREFRONT SYSTEM
COLOR: DARK BRONZE

C. MANUFACTURER: PAC-CLAD
PRODUCT: METAL COPING
COLOR: URBANE BRONZE SW 7048

D. MANUFACTURER: GENERAL SHALE
PRODUCT: MODULAR BRICK VENEER
COLOR: "WHITEWASH" WITH STANDARD GROUT

E. MANUFACTURER: DRYVIT
PRODUCT: STUCCO (SMOOTH FINISH)
COLOR: WHITETAIL SW 7103

F. MANUFACTURER: CUSTOM
PRODUCT: STANDING SEAM METAL AWNING
COLOR: DARK BRONZE

G. MANUFACTURER: MAPES
PRODUCT: PRE-FAB METAL CANOPY
COLOR: URBANE BRONZE SW 7048

H. MANUFACTURER: KAWNEER
PRODUCT: STOREFRONT SYSTEM
COLOR: DARK BRONZE

I. MANUFACTURER: GENERAL SHALE
PRODUCT: MODULAR BRICK VENEER ROCKLOCK
COLOR: "WHITEWASH" WITH STANDARD GROUT

J. MANUFACTURER: GENERAL SHALE
PRODUCT: MODULAR BRICK VENEER SOLDIER COURSE
COLOR: "WHITEWASH" WITH STANDARD GROUT

K. MANUFACTURER: BARN LIGHT
PRODUCT: GOOSENECK FIXTURE
COLOR: BLACK

LEGEND



NORTH - BUILDING A

NOTE: IF A MEZZANINE IS ADDED,
BRICK ELEMENTS AND PARAPETS MUST
BE EXTENDED PROPORTIONALLY.

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VERMILLION VILLAGE - EXAMPLE/GUIDE ELEVATIONS

HUNTERSVILLE, NC - PRELIMINARY ELEVATIONS - 06.08.2026

MPV PROPERTIES

ROBERT JOHNSON
architects
1808 West Morehead St.
Charlotte, NC 28208
T: 704.342.1058
E: info@robertjohnsonarchitects.com

A. MANUFACTURER: TBD
PRODUCT: DECORATIVE BRACKET
COLOR: URBANE BRONZE SW 7048

B. MANUFACTURER: KAWNEER
PRODUCT: WINDOWS - STOREFRONT SYSTEM
COLOR: DARK BRONZE

C. MANUFACTURER: PAC-CLAD
PRODUCT: METAL COPING
COLOR: URBANE BRONZE SW 7048

D. MANUFACTURER: GENERAL SHALE
PRODUCT: MODULAR BRICK VENEER
COLOR: "WHITEWASH" WITH STANDARD GROUT

E. MANUFACTURER: DRYVIT
PRODUCT: STUCCO (SMOOTH FINISH)
COLOR: WHITETAIL SW 7103

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PRODUCT: PRE-FAB METAL CANOPY
COLOR: URBANE BRONZE SW 7048

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PRODUCT: STOREFRONT SYSTEM
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PRODUCT: MODULAR BRICK VENEER ROCKLOCK
COLOR: "WHITEWASH" WITH STANDARD GROUT

J. MANUFACTURER: GENERAL SHALE
PRODUCT: MODULAR BRICK VENEER SOLDIER COURSE
COLOR: "WHITEWASH" WITH STANDARD GROUT

K. MANUFACTURER: BARN LIGHT
PRODUCT: GOOSENECK FIXTURE
COLOR: BLACK

LEGEND



SOUTH - BUILDING A

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VERMILLION VILLAGE - EXAMPLE/GUIDE ELEVATIONS

HUNTERSVILLE, NC - PRELIMINARY ELEVATIONS - 06.08.2026

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EAST - BUILDING A



WEST - BUILDING A

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A. MANUFACTURER: TBD
PRODUCT: DECORATIVE BRACKET
COLOR: URBANE BRONZE SW 7048

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PRODUCT: WINDOWS - STOREFRONT SYSTEM
COLOR: DARK BRONZE

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PRODUCT: METAL COPING
COLOR: URBANE BRONZE SW 7048

D. MANUFACTURER: GENERAL SHALE
PRODUCT: MODULAR BRICK VENEER
COLOR: "WHITEWASH" WITH STANDARD GROUT

E. MANUFACTURER: DRYVIT
PRODUCT: STUCCO (SMOOTH FINISH)
COLOR: WHITETAIL SW 7103

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PRODUCT: STANDING SEAM METAL AWNING
COLOR: DARK BRONZE

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PRODUCT: PRE-FAB METAL CANOPY
COLOR: URBANE BRONZE SW 7048

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PRODUCT: STOREFRONT SYSTEM
COLOR: DARK BRONZE

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COLOR: "WHITEWASH" WITH STANDARD GROUT

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PRODUCT: MODULAR BRICK VENEER SOLDIER COURSE
COLOR: ''WHITEWASH'' WITH STANDARD GROUT

K. MANUFACTURER: BARN LIGHT
PRODUCT: GOOSENECK FIXTURE
COLOR: BLACK

LEGEND

VERMILLION VILLAGE - EXAMPLE/GUIDE ELEVATIONS

HUNTERSVILLE, NC - PRELIMINARY ELEVATIONS - 06.08.2026

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COLOR: ‘‘WHITEWASH’’ WITH STANDARD GROUT

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PRODUCT: GOOSENECK FIXTURE
COLOR: BLACK

LEGEND



NORTH - BUILDING B

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PRODUCT: GOOSENECK FIXTURE
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LEGEND



SOUTH - BUILDING B

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VERMILLION VILLAGE - EXAMPLE/GUIDE ELEVATIONS

HUNTERSVILLE, NC - PRELIMINARY ELEVATIONS - 06.08.2026

MPV PROPERTIES

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EAST - BUILDING B



WEST - BUILDING B

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LEGEND

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LEGEND



NORTH - BUILDING C

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VERMILLION VILLAGE - EXAMPLE/GUIDE ELEVATIONS

HUNTERSVILLE, NC - PRELIMINARY ELEVATIONS - 06.08.2026

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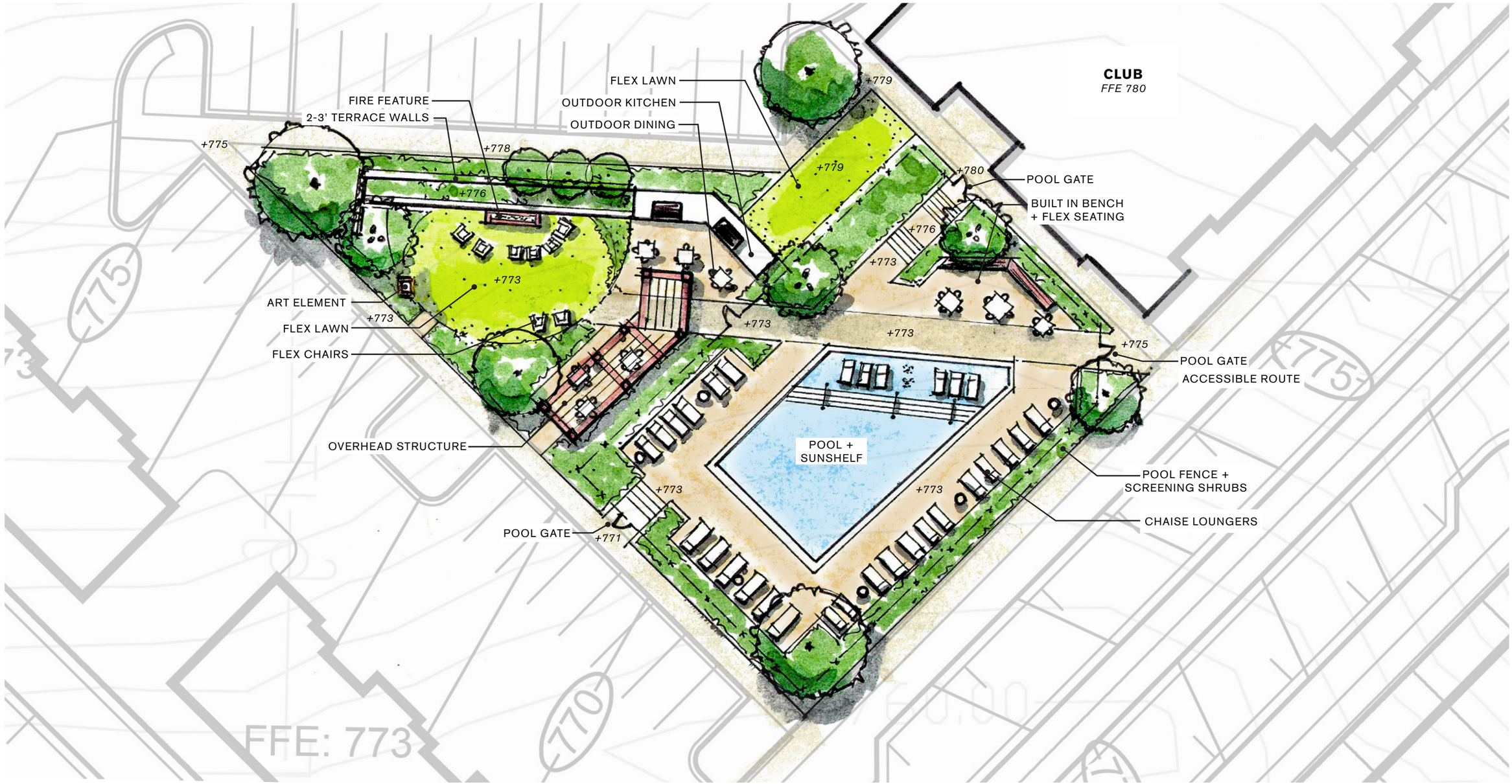
Town of Huntersville
NORTH CAROLINA

Plan Sheet Is Part Of The Overall Approval As Of The Following Date 09/20/2021

VERMILLION VILLAGE

AMENITY CONCEPT PLAN



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LandDesign.

















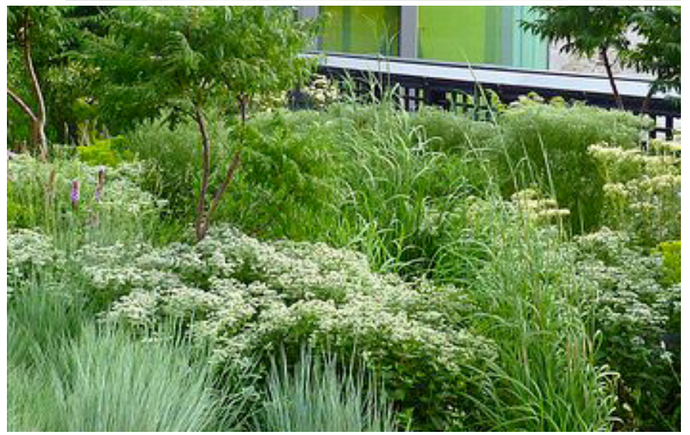

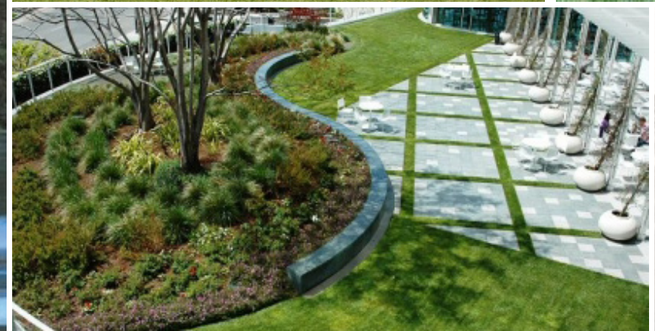

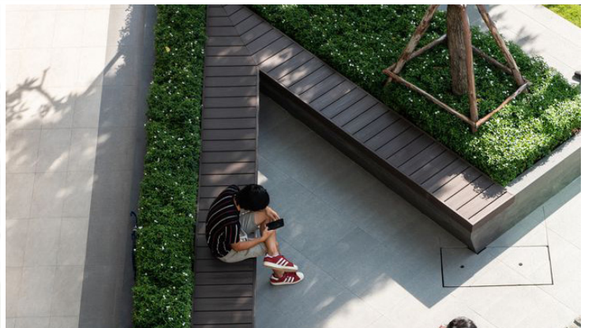

VERMILLION VILLAGE

AMENITY CONCEPT IMAGERY

Town of Huntersville
NORTH CAROLINA

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LandDesign.



EAST - BUILDING B



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LEGEND

VERMILLION VILLAGE - EXAMPLE/GUIDE ELEVATIONS

HUNTERSVILLE, NC - PRELIMINARY ELEVATIONS - 06.08.2026

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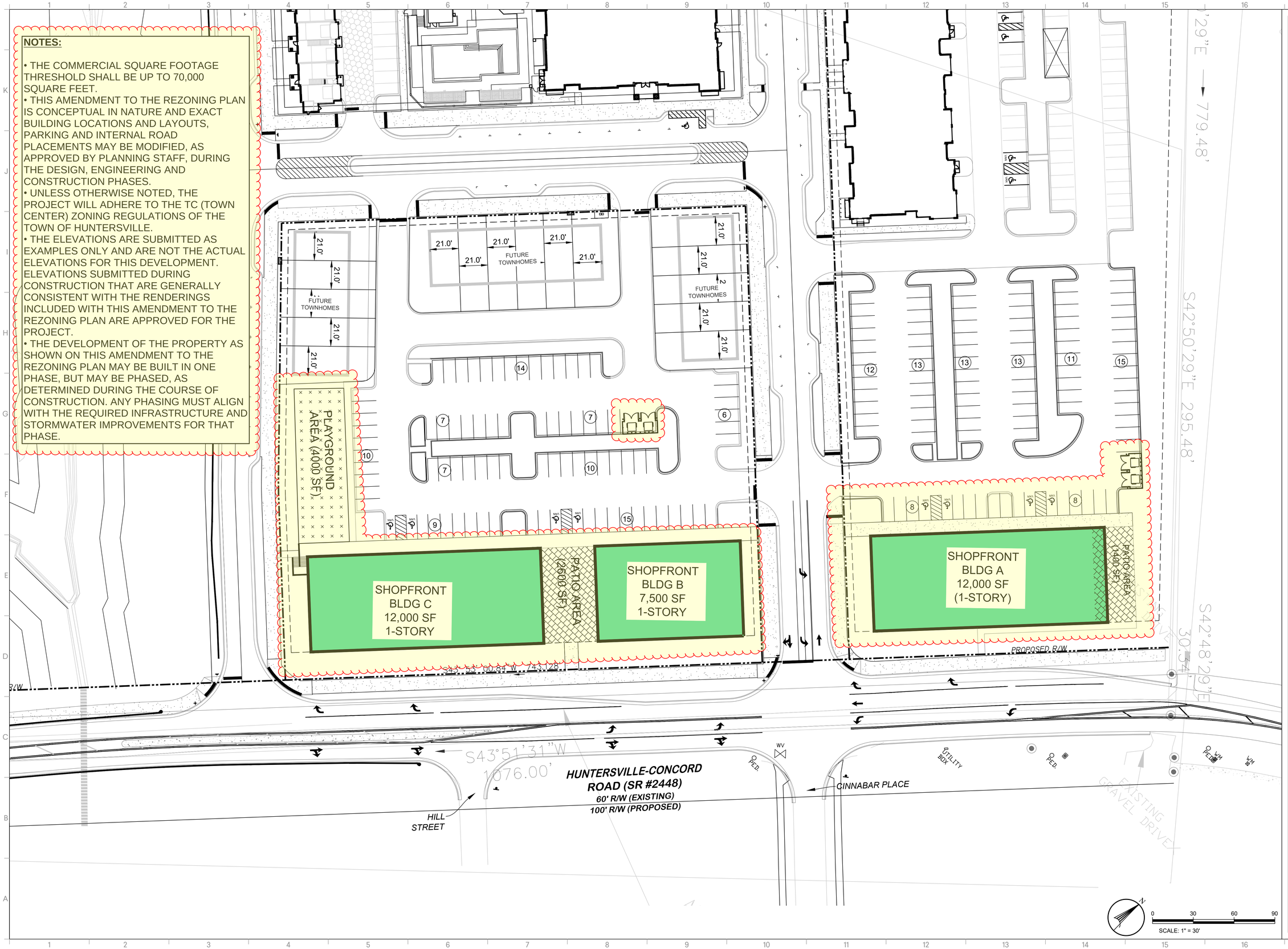
NOTES:

- THE COMMERCIAL SQUARE FOOTAGE THRESHOLD SHALL BE UP TO 70,000 SQUARE FEET.
- THIS AMENDMENT TO THE REZONING PLAN IS CONCEPTUAL IN NATURE AND EXACT BUILDING LOCATIONS AND LAYOUTS, PARKING AND INTERNAL ROAD PLACEMENTS MAY BE MODIFIED, AS APPROVED BY PLANNING STAFF, DURING THE DESIGN, ENGINEERING AND CONSTRUCTION PHASES.
- UNLESS OTHERWISE NOTED, THE PROJECT WILL ADHERE TO THE TC (TOWN CENTER) ZONING REGULATIONS OF THE TOWN OF HUNTERSVILLE.
- THE ELEVATIONS ARE SUBMITTED AS EXAMPLES ONLY AND ARE NOT THE ACTUAL ELEVATIONS FOR THIS DEVELOPMENT. ELEVATIONS SUBMITTED DURING CONSTRUCTION THAT ARE GENERALLY CONSISTENT WITH THE RENDERINGS INCLUDED WITH THIS AMENDMENT TO THE REZONING PLAN ARE APPROVED FOR THE PROJECT.
- THE DEVELOPMENT OF THE PROPERTY AS SHOWN ON THIS AMENDMENT TO THE REZONING PLAN MAY BE BUILT IN ONE PHASE, BUT MAY BE PHASED, AS DETERMINED DURING THE COURSE OF CONSTRUCTION. ANY PHASING MUST ALIGN WITH THE REQUIRED INFRASTRUCTURE AND STORMWATER IMPROVEMENTS FOR THAT PHASE.



GMC
117 Welborn St.
Greenville, SC 29601
T 864.527.0460

OWNER / DEVELOPER:

ADDRESS

ISSUE	DATE
CONCEPT PLAN	02-03-26
PROJECT MANAGER:	MGL
DESIGNER(S):	GMC

CONCEPT PLAN

VERMILLION VILLAGE - COMMERCIAL AREA 1
14145 HUNTERSVILLE-CONCORD ROAD
HUNTERSVILLE, NC 28078

CP-1.1

MPV Vermillion Revision (R26-03)

Community Meeting Report

Date: April 23, 2026

Time: 6:00 pm – 7:00 pm

Location: Torrence Lytle Community Center (Dellwood), 508 Dellwood Drive, Huntersville 28078

Roster of Persons in Attendance: **See attached sign-in sheets**

Agenda:

1. Applicant presentation & rezoning description
2. Attendees' question & answer session

Applicant and the attendees discussed the following comments and questions:

General Discussion

- Applicant introduction, background, and project history.
- The Applicant shared the PowerPoint presentation attached to this Community Meeting Report.
- Discussion updates to the Rezoning Plan compared to the original approved rezoning.
- Discussion about how the MPV Commercial project complements and fits in with the surrounding area and original Vermillion Village.
- General discussion regarding parking, pedestrian walkability and access, open space, and types of commercial tenants.
- Overview of the rezoning process and upcoming public meetings.
- Attendees voiced opinions of the types of tenants they would like to see in these commercial spaces. A restaurant, market, or coffee shop were some of the most desired uses for the space.

Questions

***Answers in bold**

- What does the rezoning process look like going forward? **The Community Meeting is the first step in the public rezoning process and will be followed by a public hearing, a planning board meeting, and a final vote potentially in July. During the time the Applicant and the Town will work to make sure the plan meets all the requirements of the Zoning Ordinance.**
- Does this include the entire Vermillion Project? **This rezoning (R26-03) is for the southern portion of the property only and includes the commercial buildings along Huntersville-Concord.**
- What are the spaces between the buildings and to the side of the Western-most building? **These are pedestrian and tenant open spaces. The space to the West could be an outdoor space if a daycare/childcare center leases the building.**

- What is the main change/reason for requesting this rezoning modification? **The commercial buildings were originally approved as 2-story commercial buildings. The Applicant would like to convert those into 1-story commercial buildings to help with parking and leasing.**
- Does this change in height help the development and construction process? **Yes, the change will improve the marketability of the commercial space and speed up the leasing process. Once half of the space is leased up then construction can begin. Lowering the height also eases the burden on parking.**
- Are the square footages the same? **The new plan reduces the square footage by almost half and shrinks the building footprint of Building A as shown on the site plan.**
- Will there be sidewalks along the frontages of the property? **Yes, there will be sidewalks along Huntersville-Concord.**
- Are the townhomes in the Vermillion project built yet? **They are mostly complete according to neighbors and some are still under construction.**
- What types of pedestrian connections will be included in the overall Vermillion project? **There are plans for a crosswalk at street crossings and in other places there are plans for additional pedestrian access over streams/roads.**
- Would the Town be in favor of this? **As the process continues the Town will release their staff report with their recommendation. This will come out prior to the Public Hearing.**
- What about the Brookline townhomes, will there be a connection there? **The Town said that there will be a bridge in place at that crossing location.**
- What are the overall goals for the types of tenants that would lease the buildings? **The Applicant is focused on neighborhood retail, medical tenants, coffee shops and restaurants and is open to other uses allowed in the Town Center zoning district.**
- What about the location of the dumpsters and utilities? **These are located on the plan, and the Applicant shared this information with the attendees (see attachments).**

COMMUNITY MEETING
SIGN IN SHEET
April 23, 2026, 6:00pm to 7:00pm
R26-03 Vermillion Village Revision
Location: Terrence Lytle Community Center (Dellwood)
508 Dellwood Drive, Huntersville, NC 28078

ATTENDEE NAME	ADDRESS (optional)
John O'Neill	507 Hville Concord Rd.
Anne Marie O'Neill	11
Steve Dalin	12811 Regent Grove Lane
Bob Lemay	
John Shaw	15828 Centennial Forest Dr

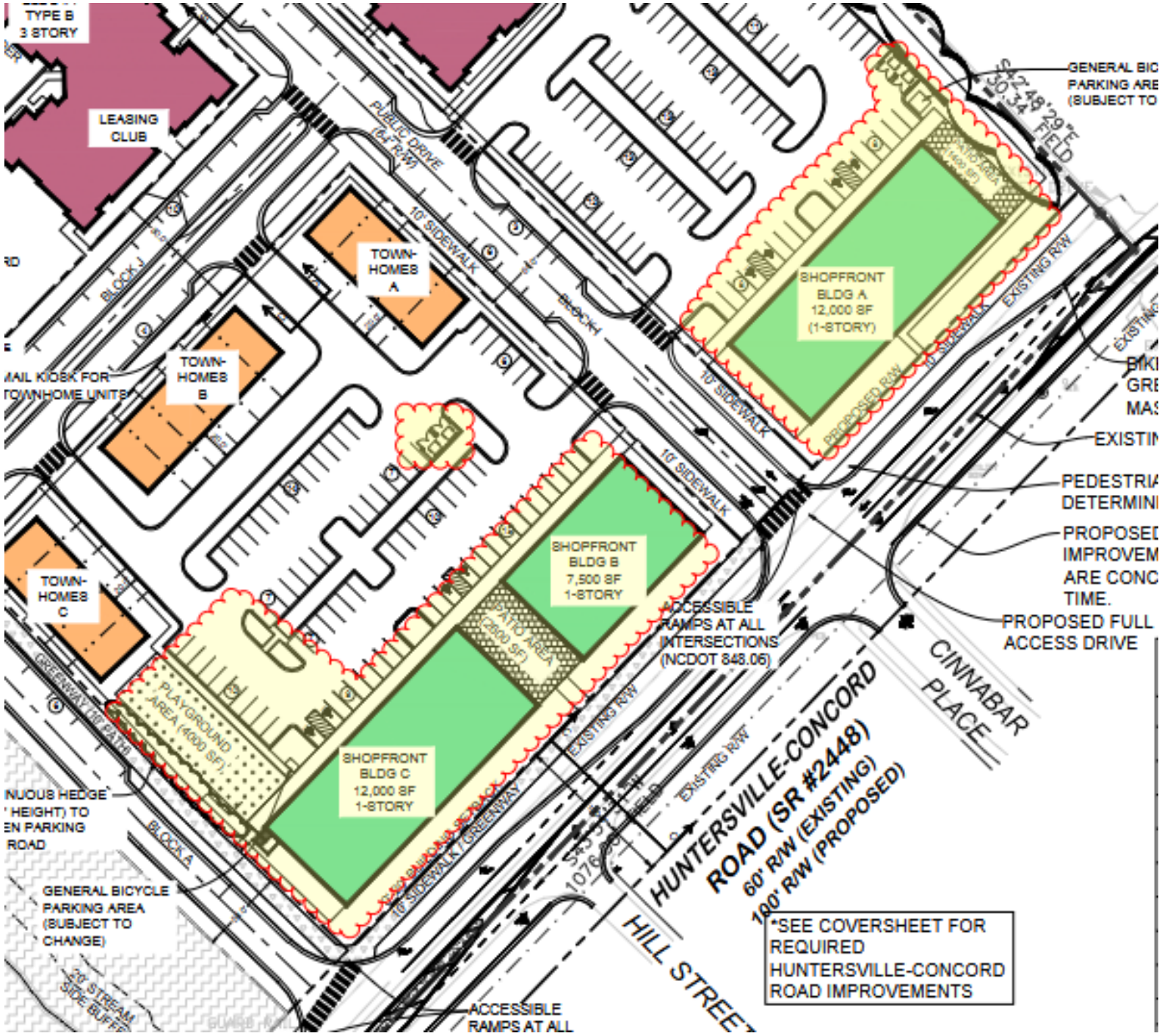
MPV Properties, LLC

R26-03

Vermillion Village Revision



Revision to the rezoning plan for the commercial portion of the property along Huntersville-Concord Road (highlighted in blue)



Commercial buildings will remain in place, the revision will do the following:

- Reduce occupiable building height to 1-story to help parking and attract better tenants



Previously Approved Plan

REZONING SCHEDULE

Community Meeting – April 23
Public Hearing – June 2
Planning Board – June 23
Town Board Final Action – July 21

April 8, 2026

SUBJECT: Notice of community meeting for information related to the R26-03 “Vermillion Village Revision” conditional rezoning revision of approximately 29.58 acres located at 14145 Huntersville-Concord Road, Huntersville, NC, shown on the map below and having Parcel ID Numbers of 01902201 and 01902202. The Applicant for the subject property is MPV Properties, LLC.

To Whom It May Concern:

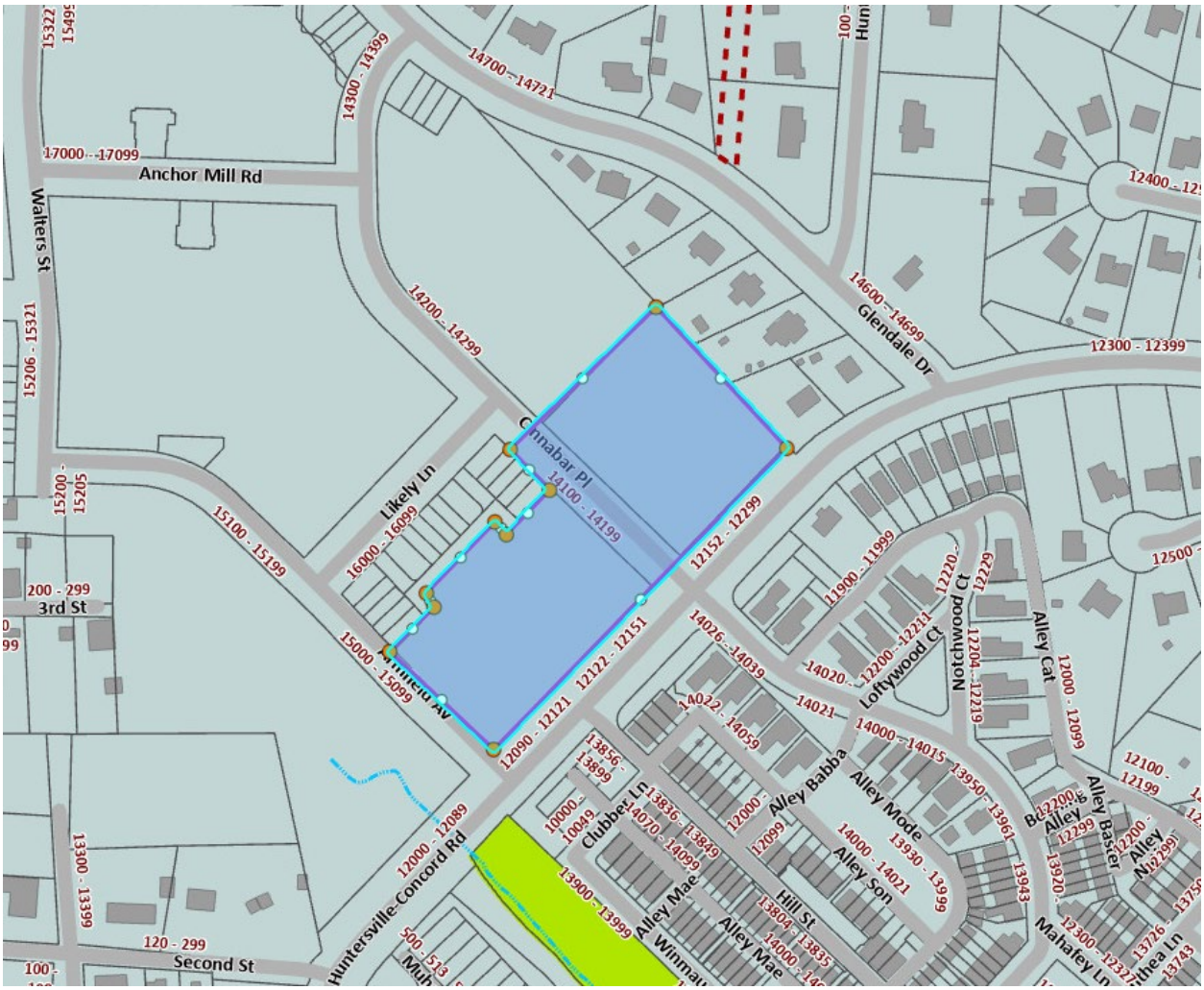
Recipients of this letter meet the notification requirements of the Town of Huntersville as being adjacent landowners with at least a portion of their properties located within 250 ft. of the subject property, and neighborhood organizations registered with the Town of Huntersville within 2,000 ft. of any portion of the rezoning site. The purpose of the community meeting is to provide an opportunity for the Applicant to describe the proposed project and to answer any questions you may have. The Applicant is requesting approval from the Town for a revision to the approved Conditional Rezoning TC(CD) to reduce building height and to approve daycare as a commercial use.

MEETING DETAILS:
6:00 P.M. to 7:00 P.M.
April 23, 2026
Torrence Lytle Community Center (Dellwood)
508 Dellwood Drive
Huntersville, NC 28078

You are welcome to attend the above-mentioned community meeting. There will be an additional opportunity to ask questions about the proposed development.

Sincerely,

MPV Vermillion



Anchor Mill Rd
Walters St
Glendale Dr
Cinnabar Pl
Likely Ln
3rd St
Second St
Huntersville-Concord Rd
Clubber Ln
Alley Mae
Alley Babba
Alley Mode
Alley Son
Hill St
Loftywood Ct
Notchwood Ct
Alley Cat
Alley Baster
Mahafey Ln
14700 - 14721
14300 - 14399
17000 - 17099
14200 - 14299
14600 - 14699
12300 - 12399
15206 - 15321
15200 - 15205
15100 - 15199
16000 - 16099
14100 - 14199
12152 - 12299
15000 - 15099
12122 - 12151
12090 - 12121
11900 - 11999
14026 - 14039
14022 - 14059
14021
14000 - 14015
13950 - 13961
13930 - 13999
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13856 - 13899
13836 - 13849
14070 - 14099
13804 - 13835
12000 - 12089
13300 - 13399
120 - 299
200 - 299
12000 - 12099
12100 - 12199
12400 - 12
12500

No	Parcel ID	Postal Address	Owner Name
1	01901105	100 HERRING ST HUNTERSVILLE NC 28078	CAROLINA BLUE PROPERTIES
2	01901111	201 N MAIN ST HUNTERSVILLE NC 28078	HUNTERSVILLE ARP CHURCH
3	01901112	203 N MAIN ST HUNTERSVILLE NC 28078	HINES REAL ESTATE GROUP LLC
4	01901113	205 N MAIN ST HUNTERSVILLE NC 28078	YATES MISHELL N
5	01901114	207 N MAIN ST B HUNTERSVILLE NC 28078 | 207 N MAIN ST A HUNTERSVILLE NC 28078 | 207 N MAIN ST HUNTERSVILLE NC 28078	HARRISON FORREST W | HARRISON LISA L
6	01901115	209 N MAIN ST HUNTERSVILLE NC 28078	NORTH MECKLENBURG PROPERTIES LLC
7	01901116	211 N MAIN ST DAVIDSON NC 28036	NORDENSTAM LARS M | NORDENSTAM LORI H
8	01901117	213 N MAIN ST DAVIDSON NC 28036	PDAN HOLDINGS LLC
9	01901118	104 W CHURCH ST HUNTERSVILLE NC 28078	TILSON CHARLES
10	01901121	103 BIGHAM ST HUNTERSVILLE NC 28078	CAROLINA BLUE PROPERTIES
11	01901201	14015 THREAD LN HUNTERSVILLE NC 28078 | 14023 THREAD LN HUNTERSVILLE NC 28078 | 14041 THREAD LN HUNTERSVILLE NC 28078	TOWN OF HUNTERSVILLE
12	01901205	13003 THREAD LN HUNTERSVILLE NC 28078	GUIGNARD CHARLES S
13	01901206	NA	GUIGNARD CHARLES S
14	01901207	NA	TOWN OF HUNTERSVILLE
15	01901307	14010 THREAD LN HUNTERSVILLE NC 28078	CEPEDA JOSE M | MONTOYA GRACIELA LOPEZ
16	01901308	12101 FOURTH ST HUNTERSVILLE NC 28078	KAM PROPERTIES LLC
17	01901309	12103 FOURTH ST HUNTERSVILLE NC 28078	NORTH MECKLENBURG PROPERTIES LLC
18	01901319	127 SEAGLE ST HUNTERSVILLE NC 28078 | 131 SEAGLE ST HUNTERSVILLE NC 28078	JHG PROPERTIES LLC
19	01901510	128 SEAGLE ST HUNTERSVILLE NC 28078	EAE REALTY LLC
20	01901511	12211 FOURTH ST HUNTERSVILLE NC 28078	DELAGARZA J ROBERTO | DELAGARZA IVETTE
21	01901513	12229 FOURTH ST HUNTERSVILLE NC 28078	DELAGARZA JAIME ROBERTO | DELAGARZA IVETTE
22	01901518	120 SEAGLE ST HUNTERSVILLE NC 28078	WILSON DARLA
23	01901519	12217 FOURTH ST HUNTERSVILLE NC 28078	BHANDERI HITESH S | BHANDERI DIPTI H
24	01901520	12223 FOURTH ST HUNTERSVILLE NC 28078	BHANDERI HITESH S | BHANDERI DIPTI H
25	01902107	NA	DUKE POWER CO ATTN: TAX DEPT - PB05B
26	01902108	402 N CHURCH ST HUNTERSVILLE NC 28078	VERMILLION ANCHOR MILL VILLAGE LLC

27	01902201	404 N CHURCH ST HUNTERSVILLE NC 28078 | 15445 WALTERS ST HUNTERSVILLE NC 28078	VERMILLION ANCHOR MILL VILLAGE LLC
28	01902207	12222 FOURTH ST HUNTERSVILLE NC 28078	SUMMEROUR PATSY C
29	01902208	12216 FOURTH ST HUNTERSVILLE NC 28078	LOUDON KATHLEEN | LOUDON MICHAEL DENVER
30	01902305	NA	GLATT HERBERT | MAGLA PRODUCTS INC **
31	01903202	14830 N OLD STATESVILLE RD HUNTERSVILLE NC 28078 | 129 N MAIN ST HUNTERSVILLE NC 28078 | 151 N MAIN ST HUNTERSVILLE NC 28078	HUNTERSVILLE A R P CHURCH
32	01903426	NA	HUNTERSVILLE ARP CHURCH
33	01902202	16035 LIKELY LN HUNTERSVILLE NC 28078 | 17020 ANCHOR MILL RD HUNTERSVILLE NC 28078 | 15324 WALTERS ST HUNTERSVILLE NC 28078	HUNTERSVILLE-NC LLC
34	01902294	17021 ANCHOR MILL RD HUNTERSVILLE NC 28078 | 17001 ANCHOR MILL RD HUNTERSVILLE NC 28078 | 17035 ANCHOR MILL RD HUNTERSVILLE NC 28078	HUNTERSVILLE-NC LLC
35	01902217	NA	VERMILLION ANCHOR MILL VILLAGE LLC
36	01902250	NA	VERMILLION ANCHOR MILL VILLAGE LLC
37	01902251	NA	VERMILLION ANCHOR MILL VILLAGE LLC
38	01902252	NA	VERMILLION ANCHOR MILL VILLAGE LLC
39	01902287	17013 ANCHOR MILL RD HUNTERSVILLE NC 28078	HUNTERSVILLE-NC LLC
40	01902253	NA	VERMILLION ANCHOR MILL VILLAGE LLC
41	01902254	NA	VERMILLION ANCHOR MILL VILLAGE LLC
42	01902255	NA	VERMILLION ANCHOR MILL VILLAGE LLC
43	01902256	NA	VERMILLION ANCHOR MILL VILLAGE LLC
44	01902257	NA	VERMILLION ANCHOR MILL VILLAGE LLC
45	01902258	NA	VERMILLION ANCHOR MILL VILLAGE LLC
46	01902259	NA	VERMILLION ANCHOR MILL VILLAGE LLC
47	01902260	NA	VERMILLION ANCHOR MILL VILLAGE LLC
48	01902261	NA	VERMILLION ANCHOR MILL VILLAGE LLC
49	01902262	NA	VERMILLION ANCHOR MILL VILLAGE LLC
50	01902263	NA	VERMILLION ANCHOR MILL VILLAGE LLC
51	01902264	NA	VERMILLION ANCHOR MILL VILLAGE LLC
52	01902265	NA	VERMILLION ANCHOR MILL VILLAGE LLC

53	01902266	NA	VERMILLION ANCHOR MILL VILLAGE LLC
54	01902267	NA	VERMILLION ANCHOR MILL VILLAGE LLC
55	01902268	NA	VERMILLION ANCHOR MILL VILLAGE LLC
56	01902288	406 N CHURCH ST HUNTERSVILLE NC 28078	VERMILLION ANCHOR MILL VILLAGE LLC
57	01902289	NA	VERMILLION ANCHOR MILL VILLAGE LLC

HOA WITHIN 2,000 FEET:

1	01926475	NA	CENTENNIAL AT HISTORIC HUNTERSVILLE HOMEOWNERS ASSOCIATION INC | C/O CEDAR MANAGEMENT GROUP

NEIGHBORHOOD ASSOCIATION WITHIN 2,000 FEET

341	01905231	NA	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
355	01905246	NA	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
356	01905258	14039 CINNABAR PL HUNTERSVILLE NC 28078	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
362	01905264	NA	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
376	01905601	14038 CINNABAR PL HUNTERSVILLE NC 28078	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
389	01905615	NA	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
396	01905666	13910 CINNABAR PL HUNTERSVILLE NC 28078	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
409	01905680	12209 NOTCHWOOD CT HUNTERSVILLE NC 28078	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
512	01905687	NA	VERMILLION COMMUNITY ASSOCIATION INC | C/O KUESTER MANAGEMENT GROUP LLC
513	01905688	NA	VERMILLION COMMUNITY ASSOCIATION INC
522	01905709	NA	VERMILLION COMMUNITY ASSOCIATION INC

559	01905735	NA	VERMILLION COMMUNITY ASSOCIATION INC|C/O KUESTER MANAGEMENT GROUP LLC
562	01905738	14050 ALLEY MAE HUNTERSVILLE NC 28078	VERMILLION COMMUNITY ASSOCIATION INC|C/O KUESTER MANAGEMENT GROUP LLC
567	01905744	NA	VERMILLION COMMUNITY ASSOCIATION INC|C/O KUESTER MANAGEMENT GROUP LLC
593	01905758	NA	VERMILLION COMMUNITY ASSOCIATION INC|C/O KUESTER MANAGEMENT GROUP LLC
598	01905763	NA	VERMILLION COMMUNITY ASSOCIATION INC|C/O KUESTER MANAGEMENT GROUP LLC
645	01905798	NA	VERMILLION COMMUNITY ASSOCIATION INC|C/O KUESTER MANAGEMENT GROUP LLC
854	01120C99	11967 RAMAH CHURCH RD HUNTERSVILLE NC 28078	BRIAR HILL BUSINESS PARK OWNERS ASSOCIATION INC|BRIAR HILL BUSINESS PARK CONDOMINIUM
855	01120C98	340 SEAGLE ST HUNTERSVILLE NC 28078	RAMAH EXECUTIVE PARK CONDOMINIUM OWNERS ASSOCIATION INC|RAMAH EXECUTIVE PARK CONDOMINIUM

Traffic Impact Analysis (TIA)
Application for Determination of TIA Need

Article 14.2 of the Zoning Ordinance requires that a Traffic Impact Analysis (TIA) be performed for any residential subdivision, multifamily site plan, or non-residential development, or portion thereof, which is expected to create one hundred (150) or more peak hour vehicle trips or 1,500 or more daily trips.

In order to determine whether a TIA will be required for your proposed development, please fill out the form below and submit to the Planning Department. A "Determination of TIA Need" will be made within 10 working days.

Applicant: MPV Properties, LLC

Project Name: Vermillion Village

Project Address: Huntersville-Concord Road

Project Description (including square footage for each proposed land use):
Commercial: 10,800 SF Retail, 15,000 SF daycare, 11,200 SF medical office, 5,000 SF restaurant, 7,500 SF retail

Residential: 292 apartments, 49 townhomes

Applicant

Printed Name Bailey Patrick Phone 704-975-0314

☐ Corporation ☒ Limited Liability Company ☐ Trust ☐ Partnership ☐ Other: _____

Signature Bailey W Patrick Jr

Title Development Partner Email bwpatrick@mpvre.com

Contact Information

Town of Huntersville Engineering Department
(704) 766 - 2220

For Town Staff Use Only

Project File # _____

Date Submitted 6/30/26

Daily Trips Anticipated 0

Peak Hour Trips Anticipated AM 0 **PM** 0

TIA Required (Yes/No) No

Date of Determination: 7/9/26

Comments: Determination shows increase in trips anticipated based on a trip generation comparison of Rezoning R20-05 to the proposed uses listed on this form and the commitment to not reduce the committed road improvements from the R20-05 rezoning.