

Case File / Name: ASR-0015-2024 DSLC - Mitchell Mill Apartments City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

LOCATION: This 10.41 acre site is located northeast of I-540 East, south of Forestville Road

Crossing Shopping Center, east of Louisburg Road, and west of Forestville Road. It is adjacent to the Brighton Subdivision and specifically identified as 3805 Mitchell

Mill Road. The property is zoned RX-3-PL-CU and is inside the city limits.

REQUEST: This development includes extending Caliber Woods Drive from Brighton

Subdivision south to Mitchell Mill Road. Site infrastructure and improvements are proposed including outdoor amenity areas, stormwater, and parking. The plan proposes eight apartment buildings, a total of 290,688 square feet gross floor area; and, a mix of 1-bedroom, 2-bedroom, and 3-bedroom units for a total of 216 dwelling units for multi-unit living. The subdivision plan to create the two lots and public street right-of-way for this development has been approved, case number

SUB-0027-2024.

DESIGN

ADJUSTMENT(S)/

ALTERNATES, ETC: N/A

FINDINGS: City Administration finds that this request, with the below conditions of

approval being met, conforms to the Unified Development Ordinance. This approval is based on a preliminary plan dated November 15, 2024 by

Advanced Civil Design.

CONDITIONS OF APPROVAL and NEXT STEPS:

This document must be applied to the second sheet of all future submittals except for final plats. This is a preliminary plan and as such no permits have been issued with this approval. To obtain permits and/or completion of the project, the following steps are required:

☑ <u>SITE PERMITTING REVIEW</u> - For land disturbance of 12,000 square feet or greater, public or private infrastructure, shared stormwater devices, etc. Site Permitting Review may be submitted upon receipt of this signed approval document.

The following items are required prior to approval of Site Permitting Review plans:

General

- 1. Prior to SPR approval, zoning permit(s) shall be issued for all retaining walls less than 5 feet in height. Walls greater than 5 feet in height will be issued building permits. Plan set shall demonstrate compliance with all standards for retaining walls (see UDO Section 7.2.8).
- Verify conformance with UDO section 7.1.7 D requiring that interior parking lot landscape islands must be a minimum of 8 feet in width and be a minimum of 300 square feet in area and revise the plans if needed.
- 3. Demonstrate compliance with the pedestrian access requirements set forth in UDO Section 3.4.5.

Engineering



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 Required NCDOT encroachment and/or driveway permits must be approved and copies provided to the City of Raleigh Transportation Department – Mobility Strategy and Infrastructure Division prior to Site Permit review approval.

Stormwater

- 5. A surety equal to of the cost of clearing, grubbing and reseeding a site, shall be paid to the City (UDO 9.4.4).
- 6. A nitrogen offset payment must be made to a qualifying mitigation bank (UDO 9.2.2.B).
- 7. A stormwater control plan with a stormwater operations and maintenance manual and budget shall be approved (UDO 9.2).

Urban Forestry

8. Tree protection fence must be inspected by Urban Forestry staff prior to the issuance of a grading permit. Please be aware, construction of retaining walls cannot pass the tree protection fence nor can work occur within Tree Conservation Areas.

☑ **LEGAL DOCUMENTS** - Email to legaldocumentreview@raleighnc.gov. Legal documents must be approved, executed, and recorded prior to or in conjunction with the recorded plat on which the associated easements are shown. Copies of recorded documents must be returned to the City within one business day of recording to avoid withholding of further permit issuance.

Ø	Right of Way Deed of Easement	V	Utility Placement Deed of Easement
	Required		Required

☑ <u>RECORDED MAP(S)</u> - Submit plat to record new property lines, easements, tree conservation areas, etc.). Plats may be submitted for review when the Site Permitting Review plans, if required, have been deemed ready for mylar signature.

The following items must be approved prior to recording the plat:

Engineering

1. A 5' utility placement easement deed of easement, in addition to a plat showing the location of the easement, shall be submitted to the Planning and Development Services Department for review, and if acceptable, approved for recordation. Approved plats must be recorded at the Wake County Register of Deeds Office on or before the 14th day following approval by the City. The 14-day expiration date shall be clearly indicated on the plat. By the end of the next business day following recordation of the plat, all required legal instruments (including deeds of easement) shall be recorded, and recorded copies of the plat and all legal instruments required by the City in association with development approval shall be provided to the City. (Reference: UDO 8.1.7.A; 10.2.5.F.4.d)



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2. A public street right-of-way deed of easement, in addition to a plat showing the location of the easement, shall be submitted to the Planning and Development Services Department for review, and if acceptable, approved for recordation. Approved plats must be recorded at the Wake County Register of Deeds Office on or before the 14th day following approval by the City. The 14-day expiration date shall be clearly indicated on the plat. By the end of the next business day following recordation of the plat, all required legal instruments (including deeds of easement) shall be recorded, and recorded copies of the plat and all legal instruments required by the City in association with development approval shall be provided to the City. (Reference: UDO 8.1.7.A; 10.2.5.F.4.d)

Public Utilities

3. Site Permit Review plans (SPR) must be approved by the City of Raleigh Public Utilities Department for all public water, public sewer and/or private sewer extensions.

Stormwater

- The riparian buffers, in accordance with the preliminary plan and the State of North Carolina regulations, shall be shown on plats for recording along with required buffer statement (Recorded Map Checklist).
- 5. All stormwater control measures and means of transporting stormwater runoff to and from any nitrogen and stormwater runoff control measures shall be shown on all plats for recording as private drainage easements (UDO 9.2).

☑ <u>BUILDING PERMITS</u> - For buildings and structures shown on the approved plans. Commercial building permit plans must include the signed, approved Site Permitting Review plans attached, if applicable. Permit sets may be reviewed prior to the recordation of required plats, but cannot be approved.

The following items must be approved prior to the issuance of building permits:

General

- 1. The subdivision creating the two lots and public street right-of-way for this development, case SUB-0027-2024, shall be recorded and all conditions of subdivision approval shall be met.
- Provide verification of conformance with zoning condition number 5 of Z-82-22, affordable housing, which states "Prior to the issuance of any building permit, this payment obligation shall be evidenced by a promissory note to the City."

Engineering

3. A fee-in-lieu for sidewalk shortage along Mitchell Mill Road frontage shall be paid to the City of Raleigh (UDO 8.1.10).

Public Utilities



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 A plat must be recorded at the Wake County Register of Deeds office for all utility easement dedications.

Stormwater

- 5. A surety equal to 125% of the cost of the construction of a stormwater device shall be paid to the Engineering Services Department (UDO 9.2.2.D.1.d).
- 6. The City form document entitled Declaration of Maintenance Covenant and Grant of Protection Easement for Stormwater Control Facilities shall be approved by the City and recorded with the county register of deeds office (UDO 9.2.2.G).

Urban Forestry

- 7. A tree impact permit must be obtained for the approved streetscape tree installation in the right of way. This development proposes 20 street trees along Mitchell Mill Rd, and 50 street trees along Caliber Wood Dr. Please note the following: 1) Understory trees are conditionally approved in planting strip along Mitchell Mill Rd, which is a NCDOT maintained road, per approval from NCDOT Roadside Environmental Unit; 2) Street trees along Caliber Wood Dr will require adjustment to improve spacing between street trees and proposed utilities.
- A public infrastructure surety for 20 street trees shall be provided to City of Raleigh Transportation –
 Development Engineering Division (UDO 8.1.3) in the amount of 100% of the improvement cost for
 the NCDOT portion.
 - A public infrastructure surety for 50 street trees shall be provided to City of Raleigh Transportation Development Engineering Division (UDO 8.1.3) in the amount of and 125% of the improvement cost for the City of Raleigh infrastructure.
- 9. A tree conservation plat shall be recorded with metes and bounds showing the designated tree conservation areas (UDO 9.1).

The following are required prior to issuance of building occupancy permit:

General

- 1. All Water, Sanitary Sewer and Reuse facilities shall be installed, inspected, tested and accepted by the City of Raleigh Public Utilities Department for operations and maintenance.
- Final inspection of all tree conservation areas and right of way street trees by Urban Forestry Staff
- 3. Provide verification of payment to the City's affordable housing program in accordance with zoning condition number 5 of Z-82-22.

Stormwater

4. As-built impervious survey is accepted by the Engineering Services Department (UDO 9.2).



Case File / Name: ASR-0015-2024 **DSLC - Mitchell Mill Apartments**

City of Raleigh **Development Services Department** One Exchange Plaza Raleigh, NC 27602 (919) 996-2492 currentplanning@raleighnc.gov www.raleighnc.gov

5. As-built drawings and associated forms for all Stormwater devices are accepted by the Engineering Services Department (UDO 9.2.2.D.3).

EXPIRATION DATES: The expiration provisions of UDO Section 10.2.8 E, including the ability to request extensions in the expiration date, apply to this site plan. If significant construction has not taken place on a project after administrative site review approval, that approval may expire and be declared void, requiring re-approval before permits may be issued. To avoid allowing this plan approval to expire the following must take place by the following dates:

3-Year Expiration Date: November 27, 2027

Obtain a valid building permit for the total area of the project, or a phase of the project.

4-Year Completion Date:

Within four years after issuance of the first building permit for the site plan, the construction of the entire site plan must be completed unless an applicant has been granted vested rights. Failure to complete construction within this specified time frame shall automatically void the approved site plan for which no building permits have been issued.

I hereby c	ertify this administrative decision.		
Signed: _	Keegan McDonald	Date:	11/27/2024
_	Development Services Dir/Designee	_	
Staff Coo	rdinator: Jessica Gladwin		

PROPERTY INFORMATION:

1747379686

290,688 SF

ADDRESS: 3805 MITCHELL MILL RD. TOTAL SITE AREA: 10.462/455,731 ACRES/SF

ZONING INFORMATION:

RX-3-PL-CU

(RESIDENTIAL MIXED USE-3 STORIES-CONDITIONAL USE)

Z-82-2022 CUD CASE NUMBER:

DEVELOPMENT INFORMATION: PARKING LIMITED

BUFFER TYPE: ZONE A PROTECTIVE YARD - TYPE 1 ZONE A PROTECTIVE YARD - TYPE 2

EXISTING USE: VACANT MULTI-UNIT LIVING PROPOSED USE:

EXISTING BUILDING AREA:

PROPOSED BUILDING AREA: APARTMENT

290,688 SF TOTAL AREA:

BUILDING DIMENSIONAL STANDARDS:

BUILDING HEIGHT: APARTMENT BUILDINGS

BLDG. TYPE I - 46' 2" BLDG. TYPE II - 46' 0" BLDG. TYPE II - 46' 0" **UNIT BREAKDOWN:**

2-BR UNITS: 3-BR UNITS: TOTAL UNITS: 216

GROUND FLOOR HEIGHT MINIMUM: 3 STORY PR. BUILDING HEIGHT: GROUND STORY TRANSPARENCY: 20% MINIMUM ACCESSORY STRUCTURE: 26' MAX PR. ACCESSORY STRUCTURE: N/A

PRIMARY STREET: MITCHELL MILL ROAD **BUILDING SETBACKS:**

PRIMARY STREET-SIDE STREET-SIDE LOT LINE- 0' OR 6' REAR LOT LINE- 0' OR 6'

121.17/178.44 = 67.91%

442.13/1,046.22 = 42.26%

REAR LOT LINE-

306 SPACES

11 SPACES

REQUIRED BUILD-TO: PRIMARY STREET (MITCHELL MILL) 50% 5'-100' FROM R/W 25% 0'-100' FROM R/W SIDE STREET (CALIBER WOODS)

LOT 1 - PROVIDED BUILD-TO: PRIMARY STREET (MITCHELL MILL)

SIDE STREET (CALIBER WOODS) 512.46/1,018.52 = 50.31%LOT 2 - REQUIRED BUILD-TO: PRIMARY STREET (MITCHELL MILL) 191.75/265.66 = 72.18%

SIDE STREET (CALIBER WOODS) PARKING DIMENSIONAL STANDARDS:

PARKING SETBACKS: SIDE LOT LINE-

EX. IMPERVIOUS AREA: 0.0/0 ACRES/SF 5.647/245,965 ACRES/SF PR. IMPERVIOUS AREA

SITE COVERAGE: 5.647/10.462 = 54.0%2.510/109.343 ACRES/SF PR. IMPERVIOUS AREA (LOT 1) 2.510/3.625 = 69.2%

PR. IMPERVIOUS AREA (LOT 2) 2.005/87,343 ACRES/SF 2.005/5.348 = 37.5%

FLOOD HAZARD AREA: NO, FEMA MAP PANEL #3720174700K

8.973 AC * 10% = 0.897 (39,087 SF)REQUIRED AMENITY AREA: (10% OF SITE AREA)

0.909 AC (39,579 SF) **PARKING CALCULATIONS:**

MAX PARKING ALLOWED 1.5(1BR) + 2.25(2BR) + 3(3BR)1.5(84) + 2.25(108) + 3(24)= 441 SPACES MAX

ACCESSIBLE PARKING: REQUIRED ACCESSIBLE PARKING:

PROVIDED AMENITY AREA:

TOTAL PROPOSED PARKING

301 TO 400 = 8 TOTAL (2 VAN)TOTAL PROVIDED ACCESSIBLE PARKING: 20 SPACES PROVIDED STANDARD ACCESSIBLE SPACES: 9 SPACES

PROVIDED VAN PARKING SPACES:

SHORT TERM BICYCLE PARKING 1 PER 20 UNITS 216 UNITS/20 = 10.8 = 11 SPACESPROVIDED SHORT TERM SPACES: 16 SPACES

LONG TERM BICYCLE PARKING 1 PER 7 BR

372 BR /7 = 53.1 = 53 SPACESPROVIDED LONG TERM SPACES: 53 SPACES (BUILDING)

ZONING CONDITIONS (Z-82-22):

Z-82-22 - 3805 Mitchell Mill Road, located on its north side approximately 1,000 feet west of Forestville Road, being Wake County PIN 1747379686. Approximately 10.41 acres rezoned to Residential Mixed Use—3 Stories—Parking Limited—Conditional Use

CONDITIONS DATED: MARCH 10, 2023

The following Principal Uses as listed in UDO Section 6.1.4. that are permitted, limited, or special uses in the RX- District shall be prohibited: (i) cemetery. RESPONSE: USE IS MULTI-UNIT LIVING, NO CEMETERY PROPOSED.

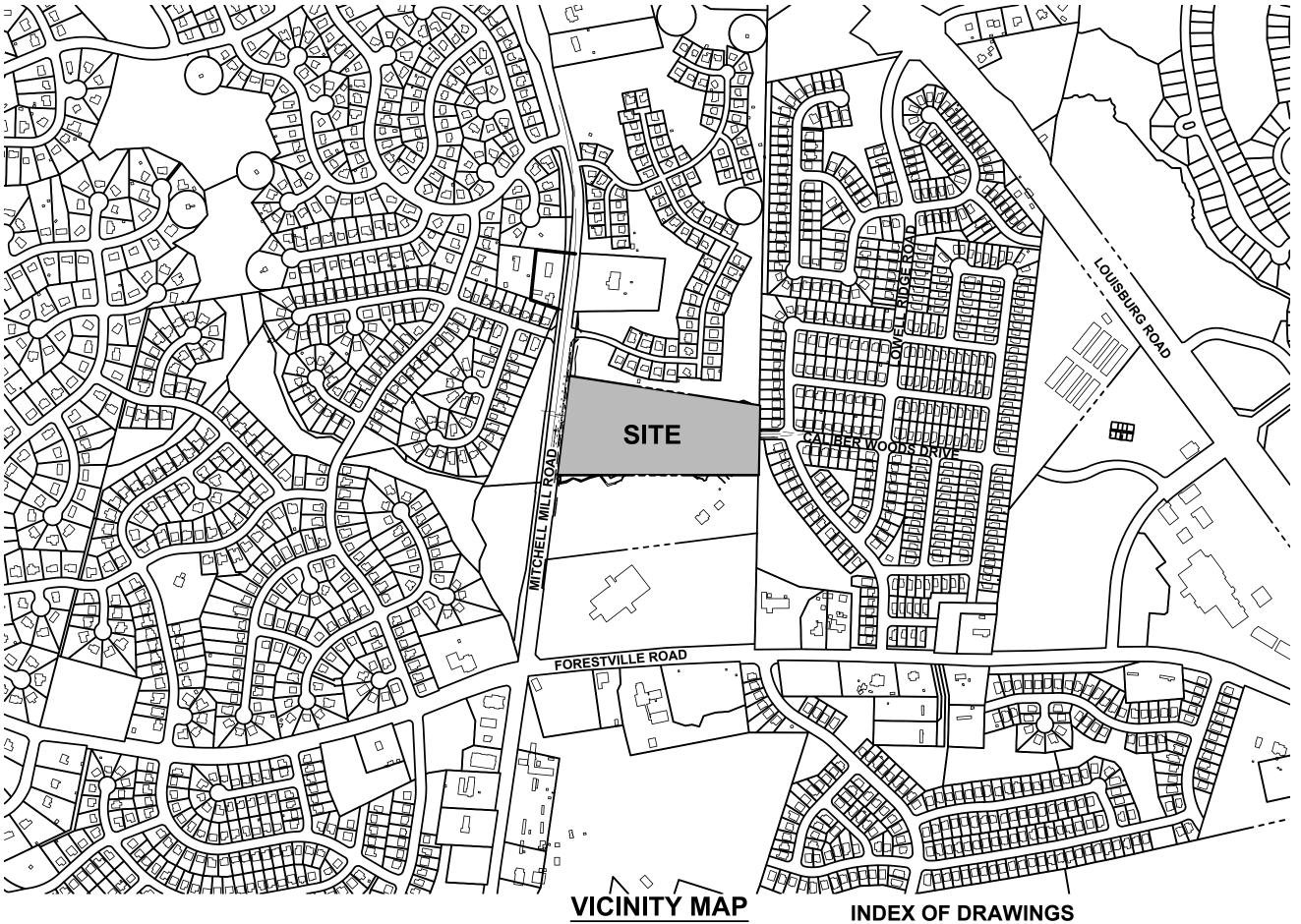
There shall be no more than twenty—four (24) residential units within any singlebuilding that is located within five hundred (500) feet of the northern boundary of the property. There shall be no more than thirty—six (36) residential units within any single building that is located on all other portions of the property. RESPONSE: BUILDINGS 3, 4, 5, & 6 HAVE TWENTY-FOUR UNITS PER BUILDING. NO BUILDINGS HAVE MORE THAN 36 UNITS. For those buildings fronting along Mitchell Mill Road, there shall be no private, on—site vehicular parking areas located between the Mitchell Mill Road right—ofway and the building facade located closest and most parallel to the Mitchell Mill Road right-of-way.response: NO PARKING AREAS PROPOSED BETWEEN FACADE OF BUILDINGS AND MITCHELL MILL R/W.

For those buildings fronting along Caliber Woods Drive, there shall be no private, on—site vehicular parking areas located between the Caliber Woods Drive right—ofway and the building facade located closest and most parallel to the Caliber Woods Drive right—of—way. However, this condition shall not prohibit vehicular parking areas located closer to the Caliber Woods Drive right—of—way than the closest and most parallel building facade so long as the vehicular parking areas are located to the sides of each building's facade located closest and most parallel to the Caliber Woods Drive right-of-way. RESPONSE: NO PARKING AREAS PROPOSED BETWEEN FACADE OF BUILDINGS AND CALIBER WOODS R/W.

The property owner shall pay to the City a total of \$20,000.00 to be placed in the fund designated for the City's Affordable Housing Program. The \$20,000.00 amount may be payable in four annual installments of \$5,000.00, with the first payment being due prior to the issuance of the first certificate of occupancy and with each other annual installment due on or before the same day of the successive years, although the property owner has a right to prepay any amounts due. Prior to the issuance of any building permit, this payment obligation shall be evidenced by a promissory note to the City. If a sale of the project or the property (or a portion thereof), including a sale of controlling interests of an ownership entity within the project, occurs subsequent to the issuance of the first building permit and prior to the payment in full of the sum described within this condition, any outstanding amount shall be paid prior to the change of ownership RESPONSE: UNDERSTOOD, PAYMENT WILL BE MADE TO CITY'S AFFORDABLE HOUSING PROGRAM.

ADMINISTRATIVE SITE REVIEW MITCHELL MILL APARTMENTS

CITY OF RALEIGH, WAKE COUNTY, NORTH CAROLINA



3.	THE CONTRACTOR SHALL LOCATE ALL EXISTING UTILITIES TO VERIFY LOCATIONS, DEPTHS, AND ELEVATIONS PRIOR TO STARTING ANY CONSTRUCTION ACTIVITIES. ANY DIFFERENCES SHALL BE REPORTED TO THE OWNER, ENGINEER, AND ARCHITECT.	0 250 500
4.	NO INFRASTRUCTURE TO BE CONSTRUCTED PRIOR TO CONSTRUCTION PLAN APPROVAL AND UTILITY PERMIT ISSUANCE BY THE CITY OF RALEIGH ENGINEERING DEPARTMENT.	1 inch = 500 feet
5.	LOCATIONS AND SIZES SHOWN FOR STORMWATER DEVICES ARE PRELIMINARY AND SUBJECT TO CHANGE PENDING FINAL LAYOUT AND DESIGN.	Evicting Site Date To
	DESIGN.	Existing Site Data Ta
6.	LOCATIONS AND SIZES SHOWN FOR WATER AND SEWER DEVISES ARE PRELIMINARY AND SUBJECT TO CHANGE PENDING FINAL LAYOUT AND	Owner: Mitche

GENERAL NOTES

ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ALL CITY OF

RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS.

2. CONTACT NC 811 FOR FIELD LOCATION OF UNDERGROUND UTILITIES.

PROPOSED GRADES SHOWN ARE PRELIMINARY AND SUBJECT TO

9. HANDICAP ACCESS RAMPS WILL BE PROVIDED IN ACCORDANCE WITH CURRENT RALEIGH ENGINEERING STANDARD DRAWING STANDARD

10. NO TEMPORARY OR PERMANENT ENCROACHMENTS (INCLUDING BUT NOT

SOLID WASTE INSPECTION STATEMENT

1. SOLID WASTE SERVICES ARE TO BE PROVIDED BY GFL ENVIRONMENTAL.

2. THE DEVELOPER WILL COMPLY WILL ALL REQUIREMENTS SET FORTH IN

THE SOLID WASTE MANUAL

C.O.1 - FOR GFL WILL SERVE LETTER

C.3.0 - FOR DUMPSTER PAD SPECIFICATIONS C.8.0 - FOR COLLECTION PATH EXHIBIT

TCP - FOR TRASH COMPACTOR ENCLOSURE DETAILS

OWNER

MITCHELL MILL, LLC 3301 BENSON DRIVE, SUITE 304

RALEIGH, NORTH CAROLINA 27619

LIMITED TO CLEARING, GRADING, FENCING, AND THE INSTALLATION OF

GREENWAY EASEMENT AREA WITHOUT PRIÓR APPROVAL BY THE CITY

RETAINING WALLS OR OTHER STRUCTURES) ARE PERMITTED WITHIN THE

THESE PLANS AND ALL CALCULATIONS HEREIN ARE PRELIMINARY AND

SUBJECT TO CHANGE PENDING FINAL CONSTRUCTION PLAN DESIGN.

CHANGE PENDING FINAL LAYOUT AND FINAL DESIGN.

Existing Site Data Table			
Owner:	Mitchell Mill, LLC		
Address:	3805 MITCHELL MILL RD		
PIN #:	1747-37-9686		
Tract Data:	D.B. 12985 Pg. 56		
Map Data:	B.M. 1981, Pg. 452 (Lot 6)		
Lot Area (square feet):	455,731		
Lot Area (acres):	10.462		

GRAPHIC SCALE

Proposed Site Data Table			
	Acres	Square Feet	
New Lot 1 Area:	3.625	157,910	
New Lot 2 Area:	5.348	232,941	
New R/W Area:	1.489	64,880	
Total Area:	10.462	455,731	

	DEMOLITION PLAN	C.2.0
	SITE PLAN	C.3.0
	LOTS & EASEMENTS PLAN	C.3.1
	GRADING AND DRAINAGE PLAN	C.4.0
	SCM PLAN - WET POND	C.5.0
	SCM PLAN - UNDERGROUND DETENTION	C.5.1
ì	SCM PLAN - UNDERGROUND DETAILS	C.5.2
	PRE-DEVELOPED STORMWATER PLAN	C.6.0
	POST-DEVELOPED STORMWATER PLAN	C.6.1
	UTILITY PLAN	C.7.0
	ACCESS PLAN	C.8.0
	STANDARD DETAILS	C.9.0
	SITE LIGHTING PLAN	SL1.0
	TREE CONSERVATION PLAN	L1.20
	LANDSCAPE PLAN	
	LANDSCAPE DETAILS	L9.10
•	EXTERIOR ELEVATIONS - BUILDING TYPE I, BLDG #1	B1-E
	EXTERIOR ELEVATIONS - BUILDING TYPE II, BLDG #2, 7	В2-Е
	EXTERIOR ELEVATIONS - BUILDING TYPE I, BLDG #3	B1-E
	EXTERIOR ELEVATIONS - BUILDING TYPE I, BLDG #4	B1-E
	EXTERIOR ELEVATIONS - BUILDING TYPE I, BLDG #5	B1-E
	EXTERIOR ELEVATIONS - BUILDING TYPE I, BLDG #6	B1-E
	EXTERIOR ELEVATIONS - BUILDING TYPE III, BLDG #8	В3-Е

Proposed Site Data Table		
	Acres	Square Feet
New Lot 1 Area:	3.625	157,910
New Lot 2 Area:	5.348	232,941
New R/W Area:	1.489	64,880
Total Area:	10.462	455,731

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ble	EXTERIOR ELEVA
	EXTERIOR ELEVA
quare Feet	EXTERIOR ELEVA
157,910	EXTERIOR ELEVA
232,941	EXTERIOR ELEVA
64,880	CLUB HOUSE EL
455,731	MAINTENANCE B
	TRASH COMPACT



TITLE SHEET_ WILL SERVE LETTER_ EXISTING CONDITIONS PLAN..... DEMOLITION PLAN C.2.0 0-C.7.30-C.9.30-L9.11 LEVATIONS-----BUILDING PLANS-----CTOR PLANS-----

Planning and Development Customer Service Center • One Exchange Plaza, Suite 400 | Raleigh, NC 27601 | 919-996-2500 This form is required when submitting site plans as referenced in Unified Development Ordinance (UDO) Section 10.2.8. Please check the appropriate building types and include the plan checklist document when submitting. Office Use Only: Case #: _ Please review UDO Section 10.2.8. to determine the site plan tier. If assistance determining a Site Plan Tier is needed a Site Plan Tier Verification request can be submitted online via the Permit and Development Portal. (Note: There is a Site Plan Tier: Tier Two Site Plan Tier Three Site Plan **Building and Development Type Site Transaction History** (Check all that apply) Detached Subdivision case #: SUB-0027-2024 General Scoping/sketch plan case #: SCOPE-0102-2023 Mixed use Attached Certificate of Appropriateness #: Townhous Civic Board of Adjustment #: Apartment Cottage Court Zoning Case #: Z-82-2022 Frequent Transit Tiny house Design Alternate #: Development Optior Open lot **GENERAL INFORMATION** Development name: Mitchell Mill Apartments Inside City limits? Yes 🗸 No Property address(es): 3805 Mitchell Mill Road Site P.I.N.(s): 1747-37-9686 Please describe the scope of work. Include any additions, expansions, and uses (UDO 6.1.4). Proposed improvements consist of 8 apartment buildings, a pool/clubhouse, and the necessary parking and site infrastructure. Current Property Owner(s): Mitchell Mill LLC Company: Mitchell Mill LLC Title: Owner's Representative Address: 3301 Benson Dr, Suite 304 Raleigh Phone #: 919-533-5341 Email: neil.king@dewittcarolinas.com Applicant Name (If different from owner. See "who can apply" in instructions): Jake Buzzell Relationship to owner: Lessee or contract purchaser Owner's authorized agent Easement holder Address: 51 Kilmayne Dr, Suite 102 Cary, NC 27511 Company: Advanced Civil Design Revision 03.01.24 raleighnc.gov Phone #: 919-460-2024 Email: jbuzzell@advancedcivildesign.com NOTE: please attach purchase agreement or contract, lease or easement when submitting this form. **Developer Contact:** Company Address:

Administrative Site Review Application

TYPE + SITE DATE TABLE
e to all developments)
BUILDING DATA
): Existing gross floor area (not to be demolished): n/a
Existing gross floor area to be demolished: n/a
New gross floor area: 290,688 sf
Total sf gross (to remain and new): 290,688 sf
Proposed # of buildings: 10
Proposed # of stories for each: 3
•

Email:

Address:

Phone #:

Company:

Phone #

Applicant Name:

Proposed use (UDO 6.1.4): Multi-Unit Living

STORMW	ATER INFORMATION
mperious Area on Parcel(s):	Impervious Area for Compliance (includes ROW):
Existing (sf) 0 Proposed total (sf) 196,918	
	Existing (sf) O Proposed total (sf) 245,965
RESIDENTIAL & OVERN	NIGHT LODGING DEVELOPMENTS
Total # of dwelling units: 216	Total # of hotel bedrooms:
# of bedroom units: 1br <u>84</u> 2br <u>108</u> 3b	r ²⁴ 4br or more
# of lots:	Is your project a cottage court? Yes No

Proposed # of basement levels (UDO 1.5.7.A.6) n/a

APPLICANT SIGNATURE BLOCK
Pursuant to state law (N.C. Gen. Stat. § 160D-403(a)), applications for development approvals may be made
by the landowner, a lessee or person holding an ontion or contract to purchase or lease land, or an authorized

by the landowner, a lessee or person holding an option or contract to purchase or lease land, or an authorized agent of the landowner. An easement holder may also apply for development approval for such development as is authorized by the easement. Acting as an authorized agent requires written permission from the property owner for the purposes of making

this development approval and/or permit application. Written permission from the property owner to act as an authorized agent must be made available to the City of Raleigh upon request.

By submitting this application, the undersigned applicant acknowledges that they are either the property owner or one of the persons authorized by state law (N.C.G.S. 160D-403(a)) to make this application, as specified in the application. The undersigned also acknowledges that the information and statements made in the application are correct and the undersigned understands that development approvals are subject to revocation for false statements or misrepresentations made in securing the development approval, pursuant to N.C. Gen.

The undersigned indicates that the property owner(s) is aware of this application and that the proposed project described in this application will be maintained in all respects in accordance with the plans and specifications submitted herewith, and in accordance with the provisions and regulations of the City of Raleigh Unified Development Ordinance.

The undersigned hereby acknowledges that, pursuant to state law (N.C.G.S. 143-755(b1), if this permit application is placed on hold at the request of the applicant for a period of six consecutive months or more, or if the applicant fails to respond to comments or provide additional information requested by the City for a period of six consecutive months or more, then the application review is discontinued, and a new application is required to proceed and the development regulations in effect at the time permit processing is resumed shall

Date: 7/15/24
Date:

apply to the new application.

Date: 11/15/2024 **Scale:** 1" = 500' Drawn By: Checked By

2 2 4

REVIEW

SITE

ADMINIST

Project Number: 18-0004-742

Drawing Number: C.0.0

ASR-0015-2024

DEVELOPER DEWITT CAROLINAS, INC. 3301 BENSON DRIVE, SUITE 103 RALEIGH, NORTH CAROLINA 27609 PHONF: 919-863-1000 CONTACT: NEIL KING NEIL.KING@DEWITTCAROLINAS.COM

CIVIL ENGINEER ADVANCED CIVIL DESIGN, INC. 51 KILMAYNE DRIVE, SUITE 102 PHONE: 919-481-6290 CONTACT: JAKE BUZZEL

CARY, NORTH CAROLINA 27511 BUZZELL@ADVANCEDCIVILDESIGN.COM

ADVANCED CIVIL DESIGN PLANWORX ARCHITECTURE PA 1 SIX FORKS ROAD, SUITE 100 LEIGH, NORTH CAROLINA 27609 PHONE: 919-424-1946 CONTACT: TATE HOLT THOLT@PLANWORX.COM

ARCHITECT

510 SOUTH WILMINGTON STREET RALEIGH, NORTH CAROLINA 2760° PHONE: 919-835-1500 CONTACT: SAWAKO BUSH SAWAKOB@JDAVISARCHITECTS.COM

LANDSCAPE

ARCHITECT



WILL SERVE LETTER FROM GFL ENVIRONMENTAL



July 15, 2024

Neil King

Dewitt 3301 Benson Dr. Suite #103

Raleigh, NC 27609

Attn: Neil

This is a letter of support for trash and recycling services for your new project being planned for Mitchell Mill Apartments located at 3805 Mitchell Mill Rd, Raleigh, NC.

We have reviewed the plans and have found that GFL Environmental will be able to safely perform all commercial waste and recycling services for this project. The site calls for a single corral with a recycling dumpster and a compactor. The frequency of service is to be determined.

If the project design changes, this letter is void and a new letter must be issued. Additionally, this letter is non-transferable.

We want to visit the site during the initial phases of construction to ensure that the site will continue to be safe to service and the trash enclosure will be large enough to accommodate the volume of trash that will be produced.

We look forward to providing waste and recycling services at your new property once it has been

Should you have any questions or need more information, please contact me at tara.zents@gflenv.com.

Sincerely, Tara Zents Account Manager GFL Environmental – Raleigh (M) 919-427-2399

SEE SHEET C.3.0 FOR DUMPSTER PAD SPECIFICATIONS SEE SHEET C.8.0 FOR VEHICLE TURNING EXHIBIT & COLLECTION PATH SEE SHEET TCP FOR TRASH COMPACTOR ENCLOSURE DETAILS

APPROVAL FROM CITY OF RALEIGH'S SOLID WASTE SERVICES

Staley, Marion < Marion. Staley@raleighnc.gov> Sent: Friday, August 23, 2024 1:28 PM Spence Hutcheson; SWS Code Compliance DL To: Cc: Jake Buzzell RE: Mitchell Mill (ASR-0015-2024) - Solid Waste Subject:

I hope you are very well. I do not see any issues. I see everything that we need with no compliance issues. I should receive this when you submit.

Kind Regards,

Hello Spence,

Marion

Marion O. Staley Code Compliance Supervisor

City of Raleigh - Solid Waste Services Code Compliance Program 630 Beacon Lake Drive Raleigh, NC 27610 919-996-6940 - Office 919-219-5437 - Cell 919-212-4290 - Fax

From: Spence Hutcheson < Shutcheson@advancedcivildesign.com Sent: Thursday, August 22, 2024 11:32 AM To: Staley, Marion < Marion. Staley@raleighnc.gov >; SWS Code Compliance DL <<u>SWSCodeCompliance@raleighnc.gov</u>> Cc: Jake Buzzell < jbuzzell@advancedcivildesign.com > Subject: RE: Mitchell Mill (ASR-0015-2024) - Solid Waste

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you verify that the attachment and content are safe. If you believe this email is suspicious, please click the 'Phish Alert' button in the banner to report this message.

Good Morning Marion,

We have updated our plans per your email below, could you possibly please review to make sure we are providing all the information you require? We want to make sure everything is acceptable so we can guarantee the "SWS approval" comment gets closed out with our next ASR submittal.

Below is a summary of the changes/updates that have been made to the sheets (attached) from <u>our plan set:</u>





ADMINISTRATIVE SITE REVIEW CITY OF RALEIGH, WAKE COUNTY, NORTH CAROLINA ADMINIS
CITY OF RALEIGH, WAKE COUNTY, NOK ...
MITCHELL MILL APARTME
FOR
DEWITT CAROLINAS

VAVIL 1 SERVE LETTER

Date: 11/15/2024 **Scale:** NO SCALE

Drawn By: Checked By Project Number:

18-0004-742 **Drawing Number:**

C.0.1



		LEGEND	<u> </u>	
•	Iron Pipe Found	xx	x	Fence Line
0	Iron Pin Set			Edge of Pavement
	Railroad Spike	WA	- WA	Underground Water Line
Ø	Light Pole	OHE-		Overhead Electric Line
[MB]	Mailbox	—— ST ———	- ST	Storm Sewer Line
	Traverse Point	—— SA ———	- SA	- Sanitary Sewer Line
¤	PK Set			Property Line
CA	CATV Pedestal			- Ex. Property Line
-0-	Sign			Ex. Right—of—Way
ĞV ⋉	Gas Valve		— —	Ex. Easement Line
	Pole Elec			Setback
\$ \$	Pole Elec Tele			Ex. Major Contour(s)
	Catch Basin			Ex. Minor Contour(s) Underground Gas
•	Curb Inlet			Underground Fiber Optic
[WM]	Water Meter			Underground Electric
Q	Fire Hydrant	OHF -		Overhead Electric
(MA)	Air Release Manho	ole		C.C.I.Odd Eloctric
0	Water Valve			

Sanitary Cleanout

Sanitary Manhole

Existing Site Data Table				
Mitchell Mill, LLC				
3805 MITCHELL MILL RD				
1747-37-9686				
D.B. 12985 Pg. 56				
B.M. 1981, Pg. 452 (Lot 6)				
455,731				
10.462				

LINE TABLE					
LINE	DISTANCE	BEARING			
L1	41.17'	N20°10'59"W			
L2	55.00'	N72°23'19"W			
L3	37.03'	S59*39'01"W			

- 2. BOUNDARY INFORMATION PROVIDED BY ADVANCED CIVIL DESIGN, INC.
- 3. TOPOGRAPHIC SURVEY PROVIDED BY ADVANCED CIVIL DESIGN, INC. 4. THE LOCATIONS OF UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES AND RECORDED DRAWINGS. LOCATIONS OF
- UNDERGROUND UTILITIES AND STRUCTURES MAY VARY FROM LOCATION
- 5. EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR LOCATION OF ALL EXISTING ABOVE AND BELOW GROUND UTILITIES PRIOR TO ANY CONSTRUCTION.
- EXISTING VEGETATION AND NATURAL AREAS WILL BE PROTECTED TO THE GREATEST EXTENT POSSIBLE AND MINIMUM CLEARING OF LAND SHALL BE UNDERTAKEN DURING DEVELOPMENT.

FLOOD NOTE

BY GRAPHIC PLOTTING ONLY THIS PROPERTY IS NOT LOCATED IN SPECIAL FLOOD HAZARD ZONE BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY ON FLOOD INSURANCE RATE MAP, COMMUNITY PANEL NO. 3720174700K WITH AN EFFECTIVE DATE OF JULY 19, 2022, IN WAKE COUNTY NORTH CAROLINA. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE.

North American Vertical Datum of 1988 (NAVD 88) elevations using the continually operating reference stations (CORS) maintained by the North Carolina Geodetic Survey. Class A Survey, 0.033 feet positional accuracy, VRS Field Procedure, Geoid 18.

BM #1: PK Nail along the centerline of Caliber Woods Drive. N: 778200.9660

E: 2144104.9640

Elevation: 355.02'

NOTE: SURVEY INFORMATION COMPLETED BY ADVANCED CIVIL DESIGN, INC. IN 2023.



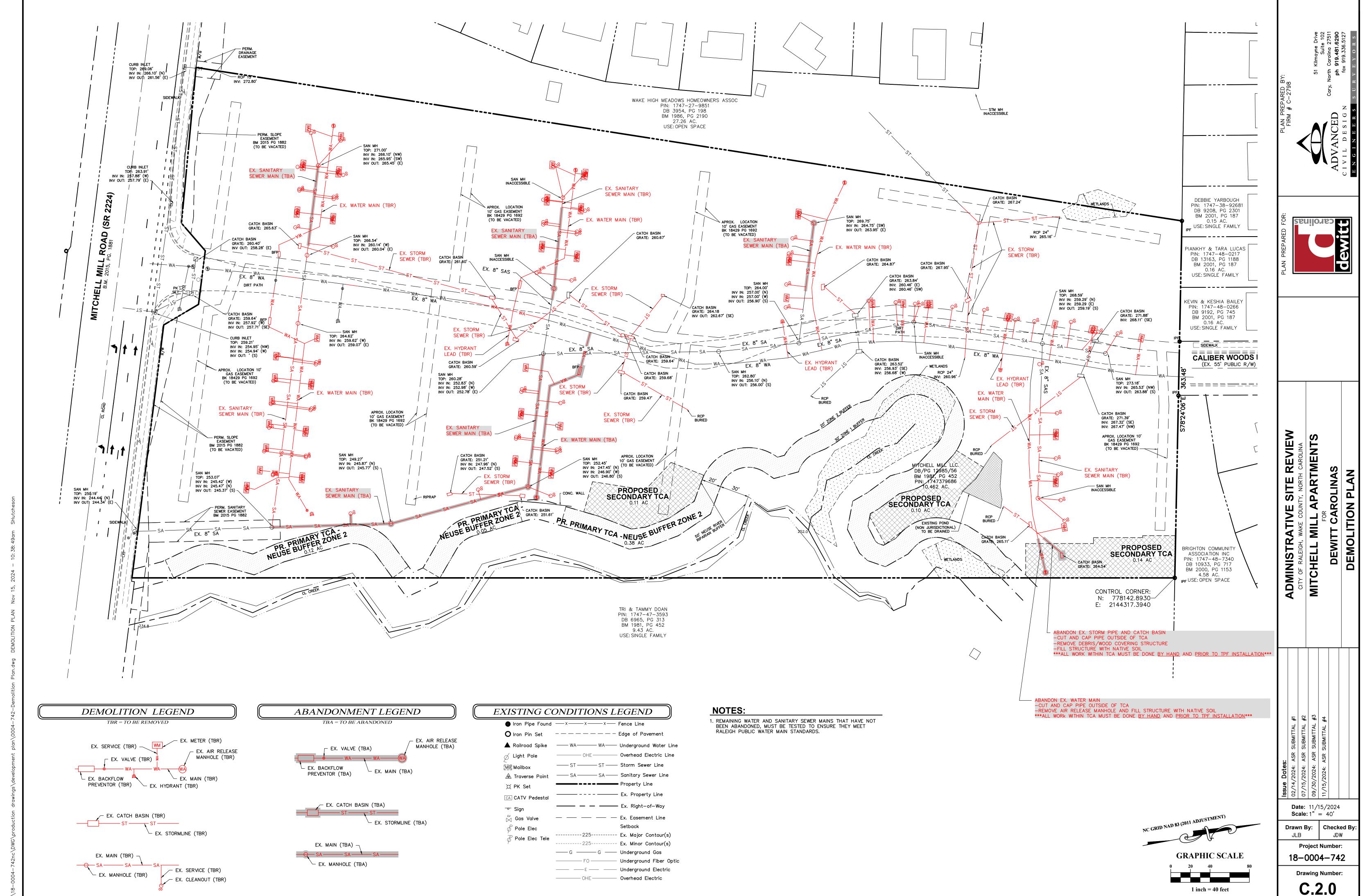
1 inch = 40 feet

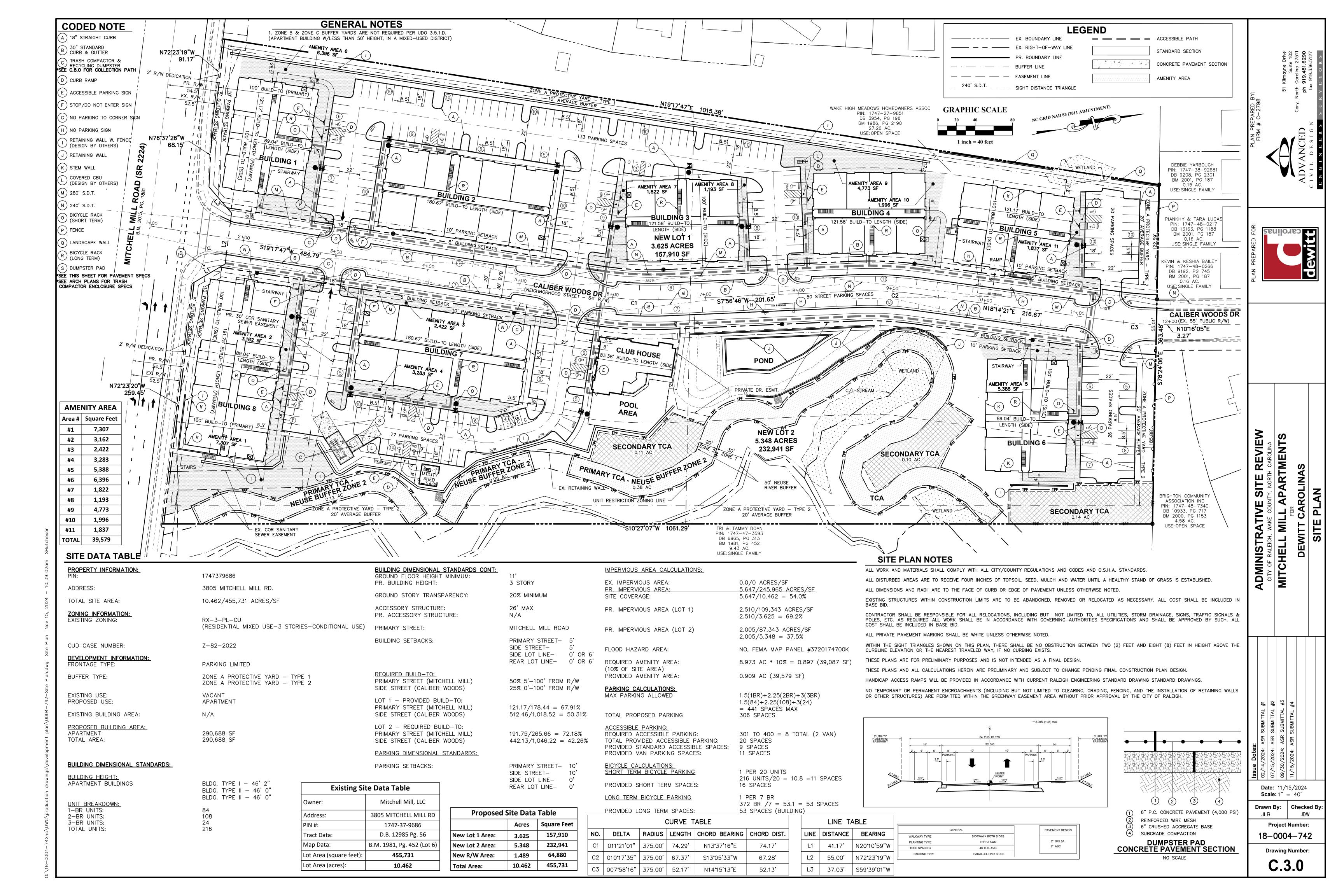
Date: 11/15/2024 **Scale:** 1" = 40'Drawn By: Checked By

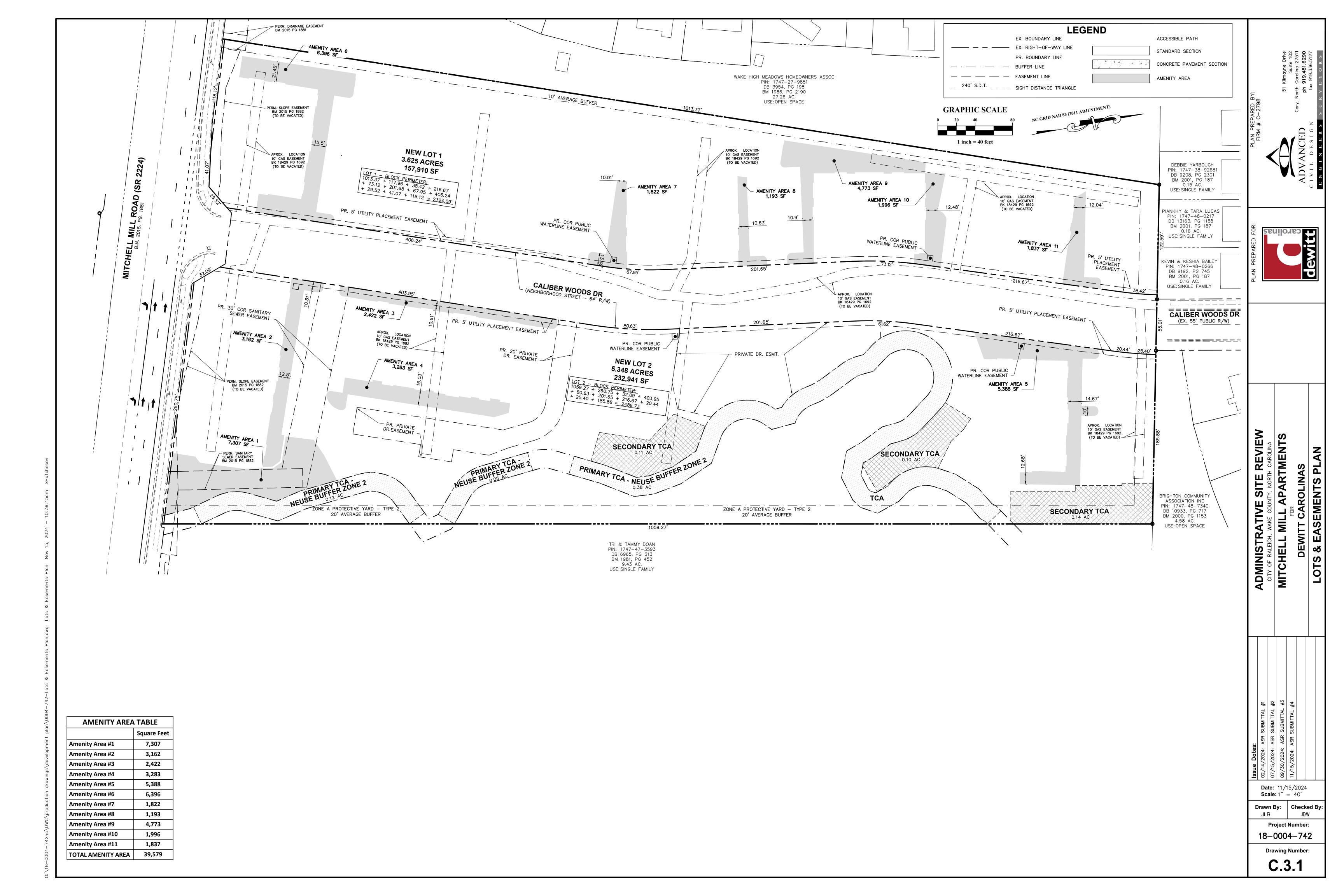
MILL

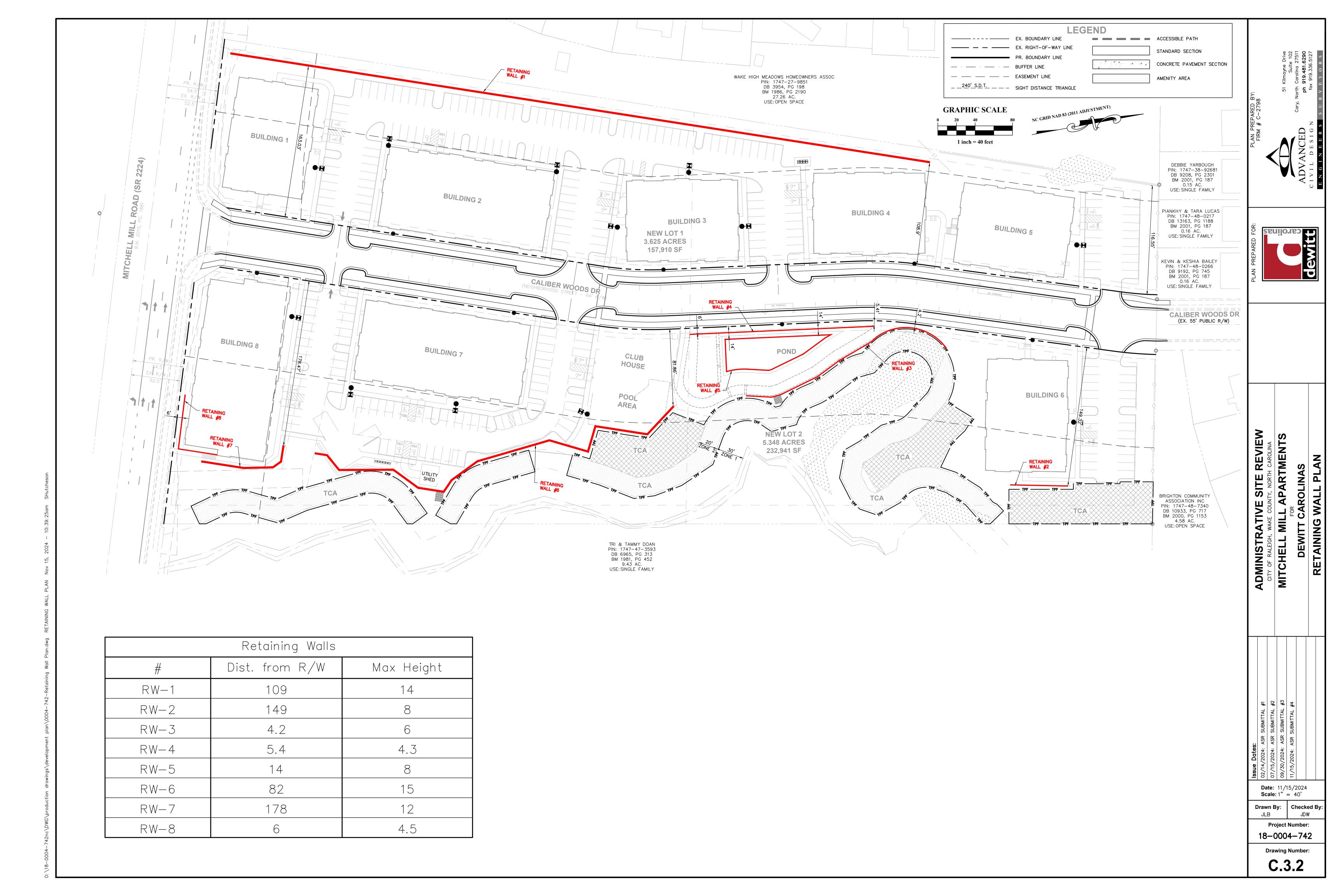
Project Number:

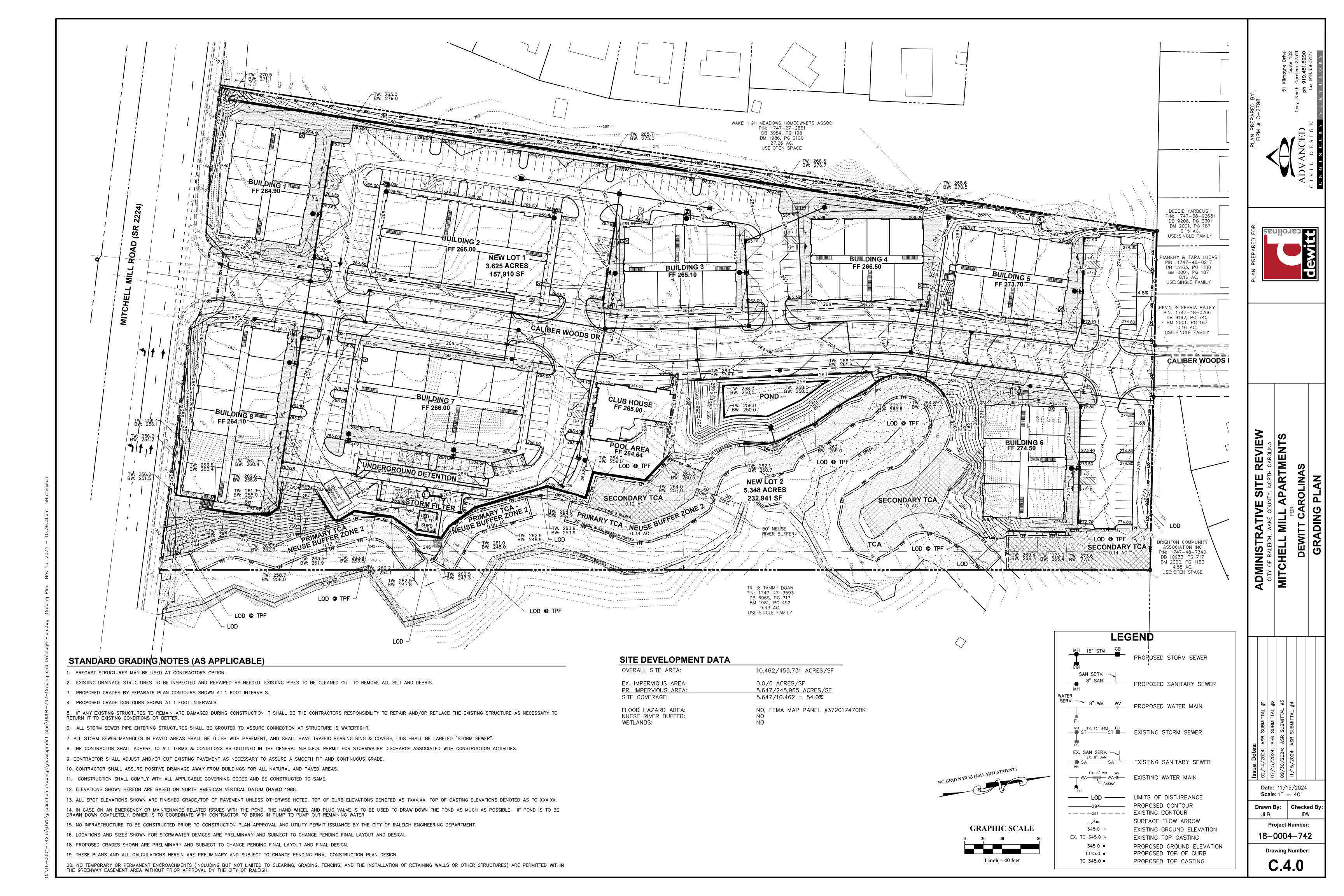
18-0004-742 **Drawing Number:**

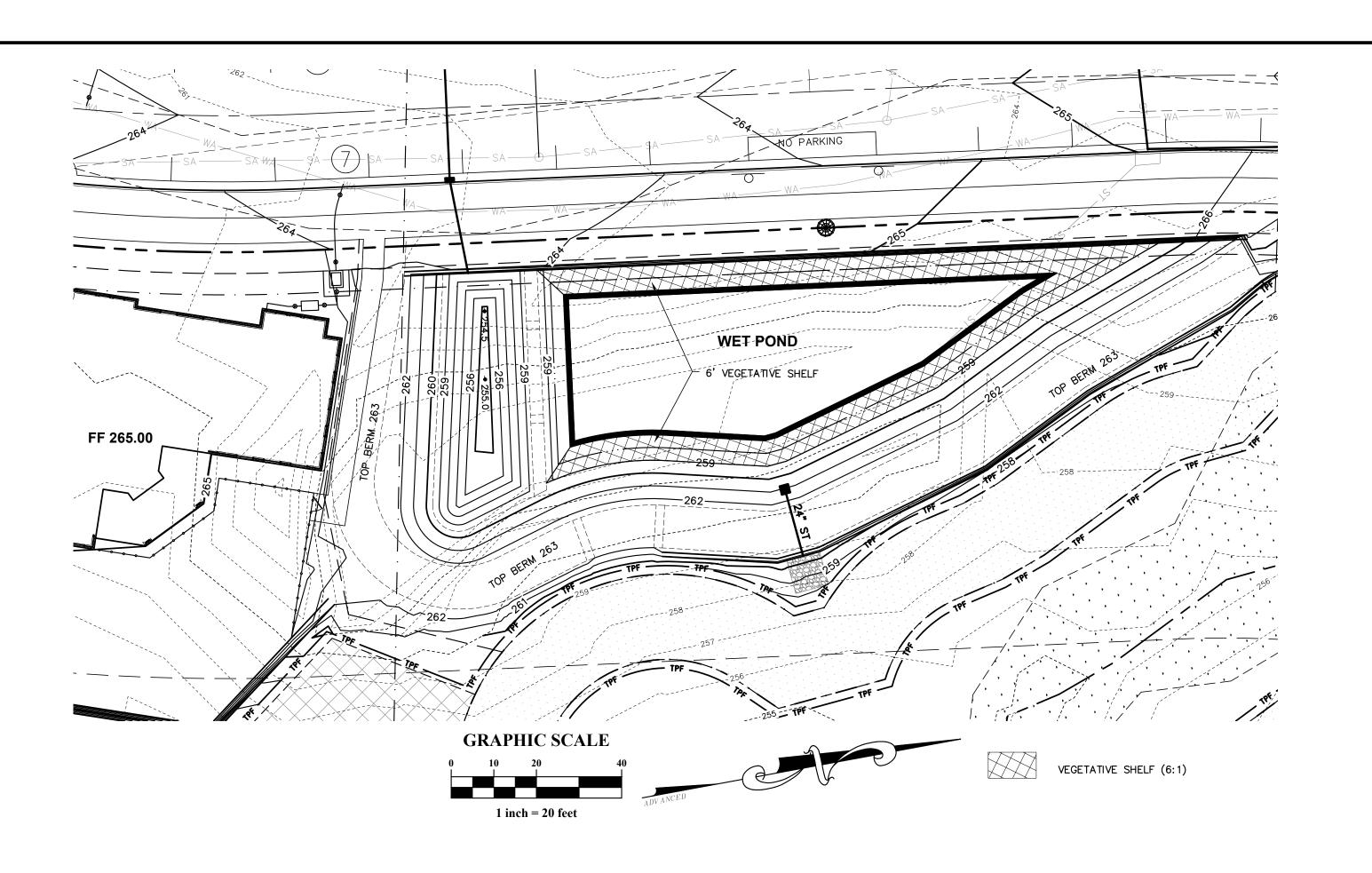


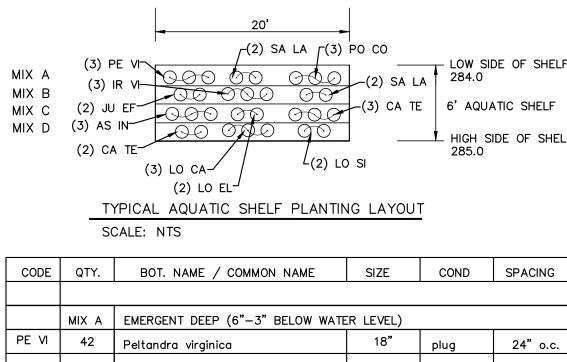












CODE	QTY.	BOT. NAME / COMMON NAME	SIZE	COND	SPACING
	MIX A	EMERGENT DEEP (6"-3" BELOW WATE	ED LEVEL)		
PE VI	42	Peltandra virginica	18"	plug	24" o.c
			'	plug	
SA LA	28	Arrow Arum	9"		Field Loc
	20	Sagittaria latifolia		plug	24" o.c
PO CO	42	Broad-Leaf Arrowhead Pontederia cordata	9"		Field Loc
10 00	72	Pickerel Weed	9	plug	24" 0.0
		Tickerel weed	<u> </u>		Field Loc
	MIX B	EMERGENT SHALLOW (3"-0" BELOW	WATER LEVE	L)	
IR VI	42	Iris virginica	18"	plug	24" o.d
		Blue Flag Iris			Field Loc
JU EF	28	Juncus effusus	9"	plug	24" o.c
		Common Rush			Field Loc
SA LA	28	Sagittaria latifolia	9"	plug	24" o.c
		Broad-Leaf Arrowhead			Field Loc
	MIX C	EDGE (0"-3" ABOVE WATER LEVEL)			
AS IN	42	Asclepias incarnata	24"	plug	24" o.
		Swamp Milkweed			Field Lo
CA TE	28	Carex Tenera	18"	plug	24" o.
		Quill Sedge			Field Lo
LO EL	28	Lobelia Elongata	18"	plug	24" o.
		Longleaf Lobelia			Field Lo
	MIX D	SATURATED (3"-6" ABOVE WATER LE	 :VEL)		
CA TE	28	Carex Tenera	18"	plug	24" o.c.
		Quill Sedge		' '	Field Loc
LO CA	42	Lobelia cardinalis	18"	plug	24" o.c.
		Cardinal Flower			Field Loc
LO SI	28	Lobelia siphilitica	24"	plug	24" o.c.
		Great Blue Lobelia		F 3	Field Loc

REVIEW

SITE

ADMINISTRATIVE

| # | # | # | # | # |

Date: 11/15/2024

Project Number:

18-0004-742

Drawing Number:

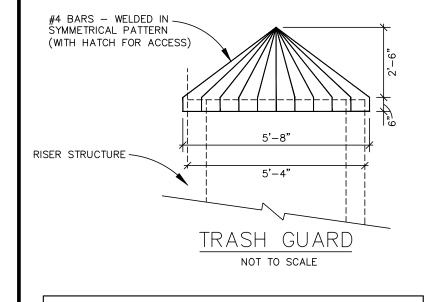
C.5.0

Checked By

Scale: 1" = 20'

Drawn By:

NOTE: 1. SIZE INDICATED AT TIME OF PLANTING.



STORMWATER MANAGEMENT SUMMARY - OUTLET POINT								
RETURN EVENT (YR)	PRE-DEV. RELEASE RATE (CFS)	BASIN POST-DEV. RELEASE RATE (CFS)	TOTAL POST-DEV. RELEASE RATE (CFS)					
2	14.25	5.80	13.43					
10	39.96	22.15	39.64					
100	78.04	33.31	63 93					

WET DETENTION POND: BASIN SIZING, CALCULATIONS, AND REQUIREMENTS

REQUIRED SURFACE AREA FOR PERMANENT POOL

TOTAL DRAINAGE AREA TO BASIN: 5.1 AC
IMPERVIOUS AREA DRAINING TO BASIN: 3.4 AC
PERCENT OF IMPERVIOUS FOR DRAINAGE AREA: 66.8%
PERMANENT POOL AVERAGE DEPTH: 6 FT.
SURFACE AREA/DRAINAGE AREA RATIO (SA/DA): 1.56
REQUIRED SURFACE AREA: SA = (1.56/100)*(5.104 AC)*(43,560 SF/AC)
= 3,468 SF

PROVIDED SURFACE AREA: SA = 3,870 SF

SURFACE AREA PROVIDED > SURFACE AREA REQUIRED 3,870 SF > 3,468 SF

REQUIRED VOLUME TO CONTROL THE 1" STORM

RUNOFF COEFFICIENT (RV): STORM RUNOFF (IN) / STORM RAINFALL (IN)
PERCENT IMPERVIOUS (I): DRAINAGE AREA (AC) / IMPERVIOUS PORTION OF DA (AC.)

RV = 0.05 + .009 * (I)= 0.05 + .009 * (66.8)= 0.651 IN/IN

REQ. VOL. FROM 1" OF RUNOFF= (DESIGN RAINFALL) * (RV) * (DRAINAGE AREA) = (1")*(0.651 IN/IN)*(5.104 AC)*(43,560 SF/AC)*(1FT/12IN) = 12,067 CF

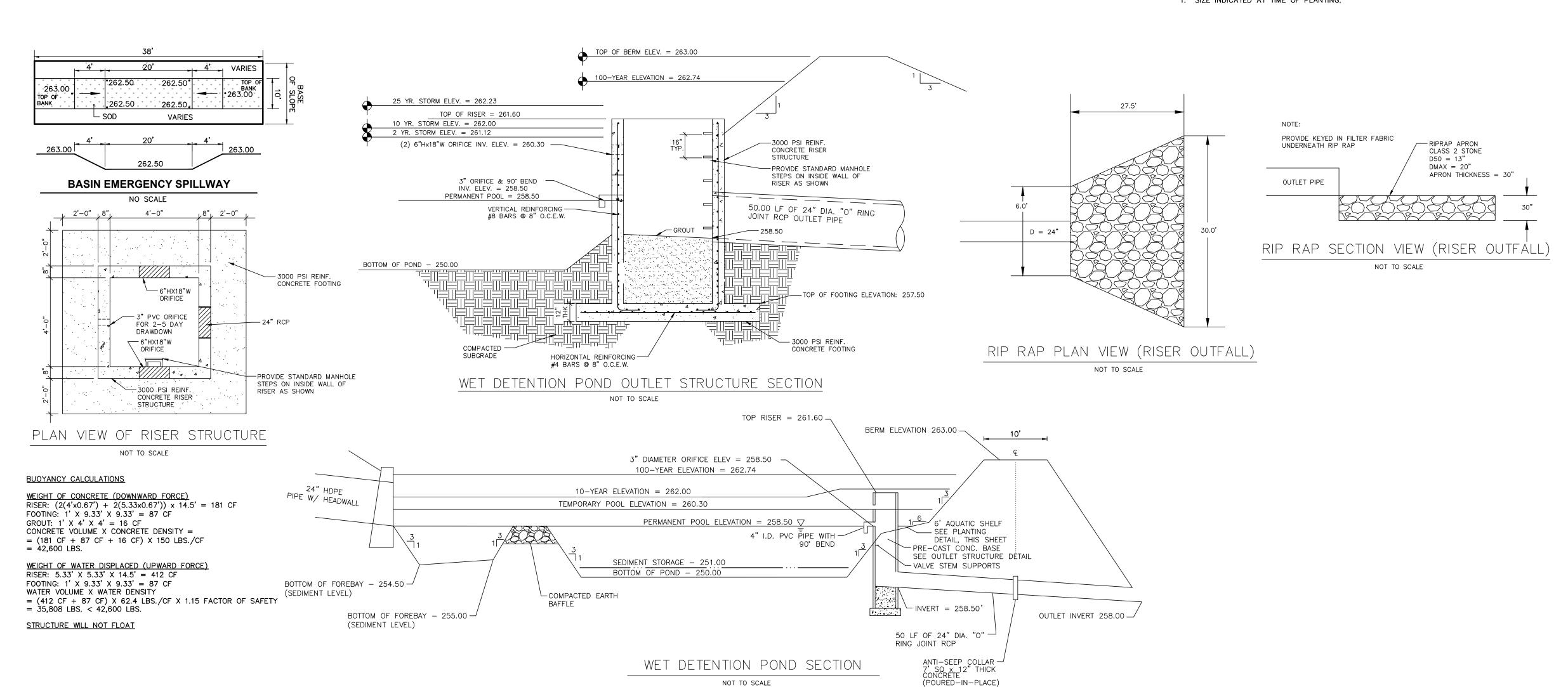
* VOLUME FROM 1-INCH PROVIDED BETWEEN ELEVATIONS 258.5 AND 260.3

PROVIDED VOLUME FROM 1" OF RUNOFF = 12,328 CF

VOLUME PROVIDED > VOLUME REQUIRED 12,328 CF > 12,067 CF

CITY OF RALEIGH SCM REQUIREMENTS

REQUIREMENT: THE POST-DEVELOPMENT PEAK RUNOFF RATE SHALL BE LIMITED TO THE PRE-DEVELOPMENT PEAK RUNOFF RATE FOR THE 1-YEAR, 24-HOUR AND THE 10-YEAR, 24-HOUR STORMS. SCMS SHALL STORE RUNOFF FROM A ONE-(1) INCH RAINFALL FROM THE SITE ABOVE THE PERMANENT POOL. THE DISCHARGE RATE FROM THE SCM SYSTEM FOLLOWING THE ONE- (1) INCH RAINFALL DESIGN STORM SHALL BE SUCH THAT THE RUNOFF DOES NOT DRAW DOWN TO THE PERMANENT POOL LEVEL IN LESS THAN TWO (2) DAYS AND THAT THE POND IS DRAWN DOWN TO THE PERMANENT POOL LEVEL WITHIN AT LEAST FIVE (5) DAYS.



PROJECT SUMMARY

CALCULATION DETAILS

- LOADING = HS20/HS25
- APPROX. LINEAR FOOTAGE = 285 LF

STORAGE SUMMARY

- STORAGE VOLUME REQUIRED = 14,300 CF
- PIPE STORAGE VOLUME = 14,326 CF
- BACKFILL STORAGE VOLUME = 0 CF
- TOTAL STORAGE PROVIDED = 14,363 CF

PIPE DETAILS

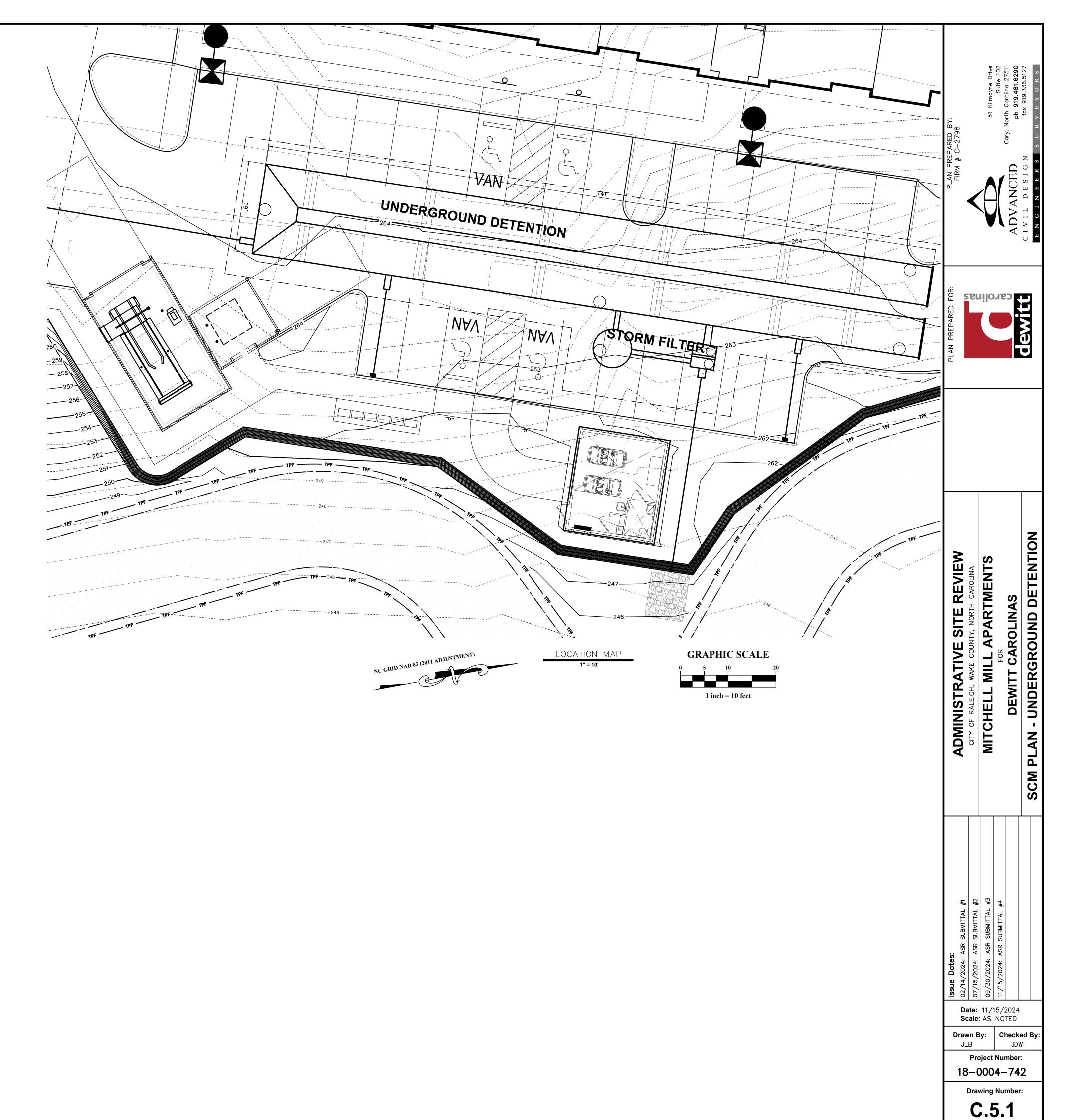
- DIAMETER = 96"
- CORRUGATION = 5x1
- GAGE = 14
- COATING = ALT2
- WALL TYPE = SOLID
- BARREL SPACING = 36"

BACKFILL DETAILS

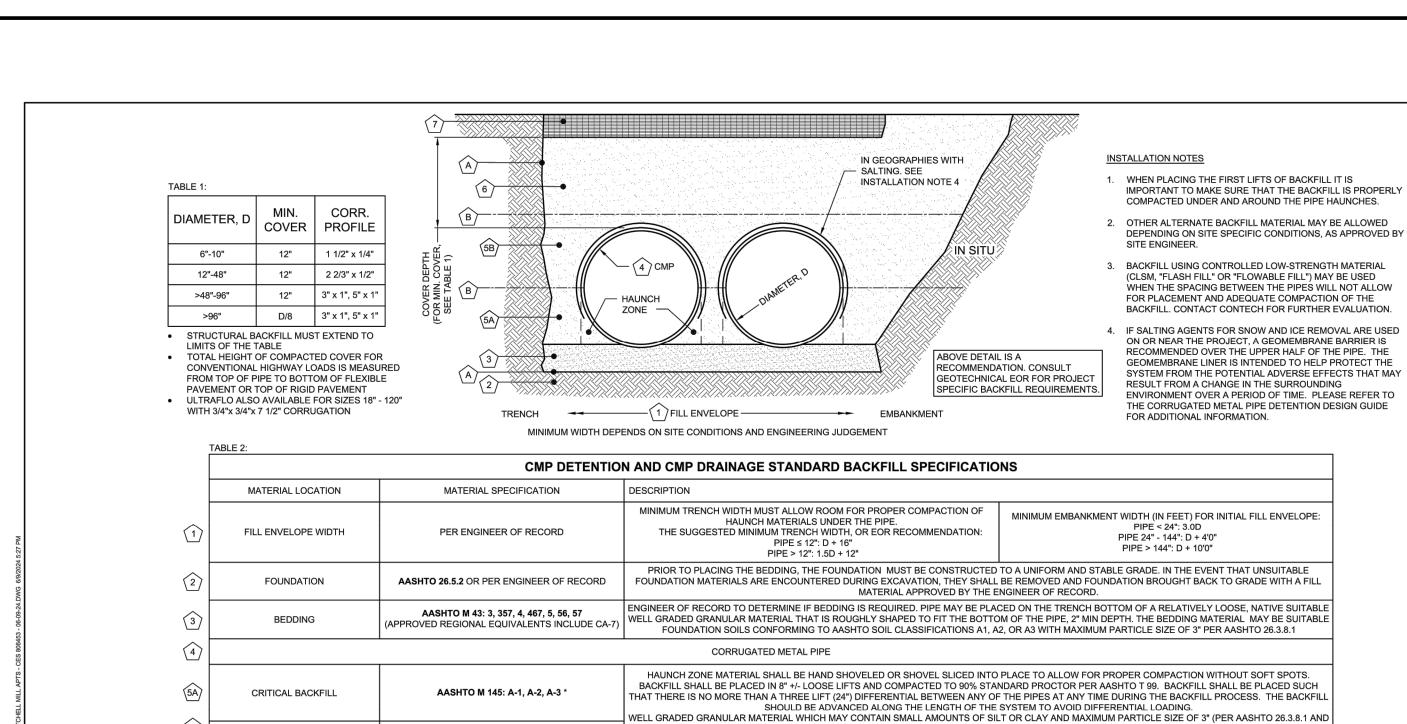
- WIDTH AT ENDS = 12"
- ABOVE PIPE = 0"
- WIDTH AT SIDES = 12"
- BELOW PIPE = 0"

NOTES

- ALL RISER AND STUB DIMENSIONS ARE TO CENTERLINE. ALL ELEVATIONS, DIMENSIONS, AND LOCATIONS OF RISERS AND INLETS, SHALL BE VERIFIED BY THE ENGINEER OF RECORD PRIOR TO RELEASING FOR FABRICATION.
- ALL FITTINGS AND REINFORCEMENT COMPLY WITH ASTM A998.
- ALL RISERS AND STUBS ARE 2⅓" x½" CORRUGATION AND 16 GAGE UNLESS OTHERWISE NOTED.
- RISERS TO BE FIELD TRIMMED TO GRADE.
- QUANTITY OF PIPE SHOWN DOES NOT PROVIDE EXTRA PIPE FOR CONNECTING THE SYSTEM TO EXISTING PIPE OR DRAINAGE STRUCTURES. OUR SYSTEM AS DETAILED PROVIDES NOMINAL INLET AND/OR OUTLET PIPE STUB FOR CONNECTION TO EXISTING DRAINAGE FACILITIES. IF ADDITIONAL PIPE IS NEEDED IT IS THE RESPONSIBILITY OF THE CONTRACTOR.
- BAND TYPE TO BE DETERMINED UPON FINAL DESIGN.
- THE PROJECT SUMMARY IS REFLECTIVE OF THE DYODS DESIGN, QUANTITIES ARE APPROX. AND SHOULD BE VERIFIED UPON FINAL DESIGN AND APPROVAL. FOR EXAMPLE, TOTAL EXCAVATION DOES NOT CONSIDER ALL VARIABLES SUCH AS SHORING AND ONLY ACCOUNTS FOR MATERIAL WITHIN THE ESTIMATED EXCAVATION FOOTPRINT.
- THESE DRAWINGS ARE FOR CONCEPTUAL PURPOSES AND DO NOT REFLECT ANY LOCAL PREFERENCES OR REGULATIONS. PLEASE CONTACT YOUR LOCAL CONTECH REP FOR MODIFICATIONS.



0:\18-0004-742nc\DWG\production drawings\development plan\0004-742-Wet Pond Plan.dwg SCM PLAN — UNDERGROUND Nov 15, 2024 —



• FOR MULTIPLE BARREL INSTALLATIONS, THE RECOMMENDED STANDARD SPACING BETWEEN PARALLEL PIPE RUNS SHALL BE THE PIPE DIAMETER /2 BUT NO LESS THAN 12" FOR DIAMETERS <72". FOR 72" AND LARGER DIAMETERS, THE MINIMUM SPACING IS 36". CONTACT YOUR CONTECH REPRESENTATIVE FOR NONSTANDARD SPACING. APPROVED REGIONAL EQUIVALENTS FOR SECTION 5A INCLUDE CA-7, CODOT #67, MIDOT 2G, 34G, OR 21AA STONE OR GRAVEL: #8: #57: MIDOT 6A. 2G. 3G. 34G

MANUFACTURER RECOMMENDED BACKFILL

12.4-1.3).

COVER MATERIAL MAY INCLUDE NON-BITUMINOUS, GRANULAR ROAD BASE MATERIAL WITHIN MIN COVER LIMITS

FLEXIBLE PAVEMENT SHOULD NOT BE COUNTED AS PART OF THE FILL HEIGHT OVER THE CMP. FINAL BACKFILL MATERIAL SELECTION AND COMPACTION

REQUIREMENTS SHALL FOLLOW THE PROJECT PLANS AND SPECIFICATIONS PER THE ENGINEER OF RECORD

GEOTEXTILE LAYER IS RECOMMENDED ON SIDES OF EXCAVATION TO PREVENT SOIL MIGRATION.

IF SOIL TYPES DIFFER AT ANY POINT ABOVE PIPE INVERT, A GEOTEXTILE LAYER IS RECOMMENDED TO BE PLACED BETWEEN THE LAYERS TO PREVENT SOIL

WHEN FLOWABLE FILL IS USED. YOU MUST PREVENT PIPE FLOATATION.

TYPICALLY, SMALL LIFTS ARE PLACED BETWEEN THE PIPES AND THEN

ALLOWED TO SET-UP PRIOR TO THE PLACEMENT OF THE NEXT LIFT. THE

ALLOWABLE THICKNESS OF THE CLSM LIFT IS A FUNCTION OF A PROPER

WEIGHT OF THE PIPE, AND THE EFFECT OF OTHER RESTRAINING

DETERMINE THE PROPER LIFT THICKNESS.

CONSTRUCTION LOADING

YOUR PRE-CONSTRUCTION MEETING.

ADDITIONAL CONSIDERATIONS

THE OUTLET PIPE

DYODS

MEASURES. THE PIPE CAN CARRY LIMITED FLUID PRESSURE WITHOUT

PIPE DISTORTION OR DISPLACEMENT, WHICH ALSO AFFECTS THE CLSM

WEIGHTED PIPE WITH MOBILE

(OR OTHER REMOVABLE WEIGHTS)

LIVE LOAD. BECAUSE CONSTRUCTION LOADS OFTEN EXCEED DESIGN LIVE

NECESSARY. SINCE CONSTRUCTION EQUIPMENT VARIES FROM JOB TO JOB,

LOADS. INCREASED TEMPORARY MINIMUM COVER REQUIREMENTS ARE

REQUIREMENTS WITH YOUR LOCAL CONTECH SALES ENGINEER DURING

BECAUSE MOST SYSTEMS ARE CONSTRUCTED BELOW-GRADE, RAINFALL

CAN RAPIDLY FILL THE EXCAVATION; POTENTIALLY CAUSING FLOATATION

AND MOVEMENT OF THE PREVIOUSLY PLACED PIPES. TO HELP MITIGATE

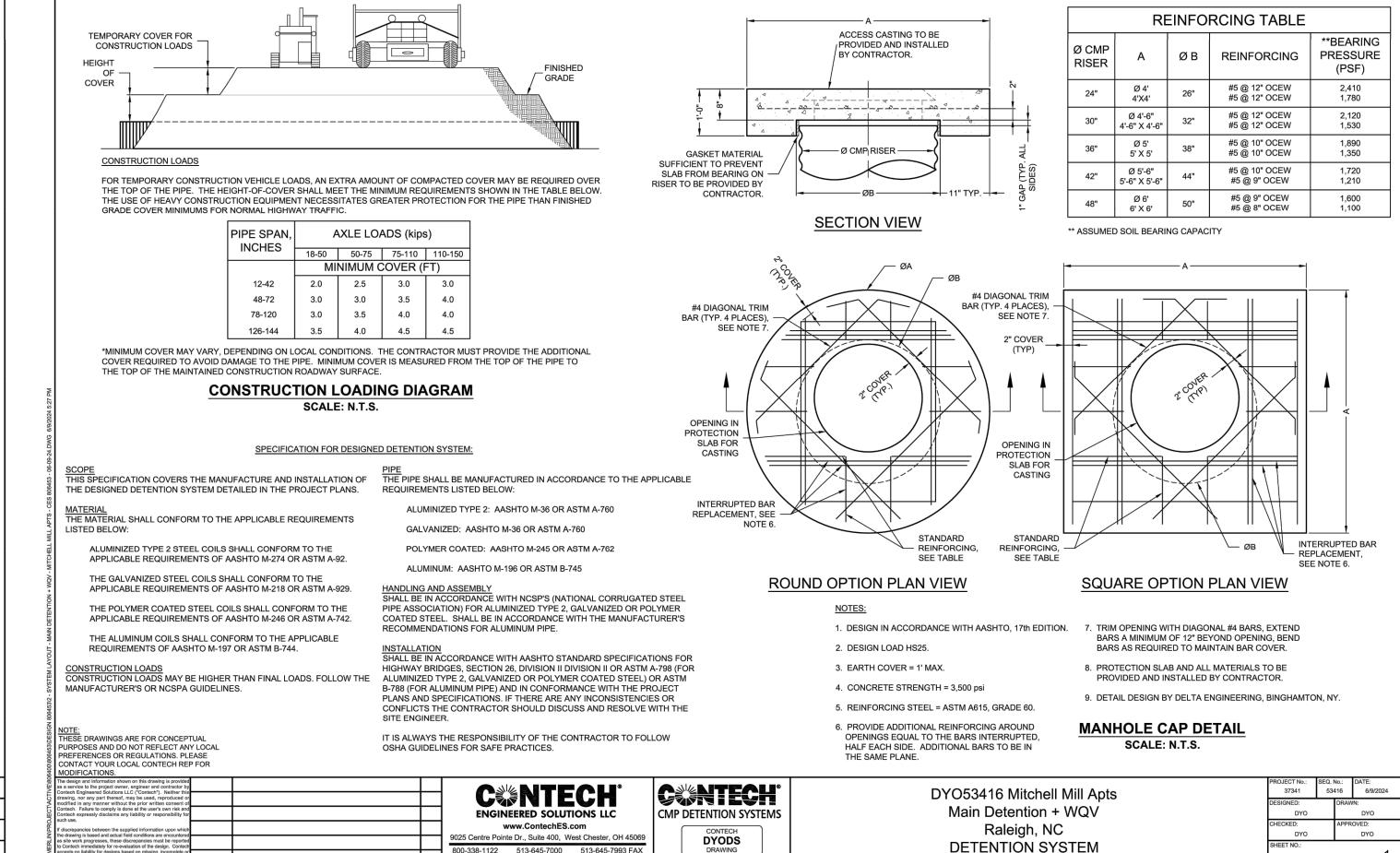
POTENTIAL PROBLEMS, IT IS BEST TO START THE INSTALLATION AT THE

DOWNSTREAM END WITH THE OUTLET ALREADY CONSTRUCTED TO ALLOW

A ROUTE FOR THE WATER TO ESCAPE, TEMPORARY DIVERSION MEASURES

IT IS BEST TO ADDRESS EQUIPMENT SPECIFIC MINIMUM COVER

The design and information shown on this drawing is provide as a service to the project owner, engineer and contractor be Contech Engineered Solutions LLC ("Contech"). Neither this				CINTECH'	C SATECH®	DYO53416 Mitchell Mill Apts	PROJECT No.: 37341	SEQ. No.: 53416	DATE: 6/9/2024
drawing, nor any part thereof, may be used, reproduced of modified in any manner without the prior written consent of Contech. Failure to comply is done at the user's own risk an Contech expressly disclaims any liability or responsibility for					CMP DETENTION SYSTEMS	M 1 D 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	DESIGNED: DYO	DRAW	VN: DYO
If discrepancies between the supplied information upon which the drawing is based and actual field conditions are encountered.	1			www.ContechES.com 9025 Centre Pointe Dr., Suite 400, West Chester, OH 45069	CONTECH	Raleigh, NC	CHECKED: DYO	APPRO	ROVED: DYO
as site work progresses, these discrepancies must be reported to Contech immediately for re-evaluation of the design. Contect accepts no liability for designs based on missing, incomplete of inaccurate information supplied by others.	DATE	REVISION DESCRIPTION	BY	800-338-1122 513-645-7000 513-645-7993 FAX	DYODS DRAWING	DETENTION SYSTEM	SHEET NO.:		1
•									





SYSTEMS OFTEN REQUIRES SPECIAL CONSTRUCTION PRACTICES THAT DIFFER FROM CONVENTIONAL FLEXIBLE PIPE CONSTRUCTION. CONTECH ENGINEERED SOLUTIONS STRONGLY SUGGESTS SCHEDULING A PRE-CONSTRUCTION MEETING WITH YOUR LOCAL SALES ENGINEER TO DETERMINE IF ADDITIONAL MEASURES, NOT COVERED IN THIS GUIDE, ARE APPROPRIATE FOR YOUR SITE.

BACKFILL

COVER MATERIAL

RIGID OR FLEXIBLE PAVEMENT (I

APPLICABLE)

OPTIONAL SIDE GEOTEXTILE

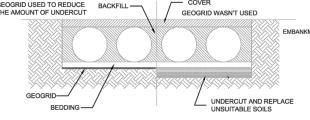
OPTIONAL GEOTEXTILE BETWEEN

FOUNDATION CONSTRUCT A FOUNDATION THAT CAN SUPPORT THE DESIGN LOADING

APPLIED BY THE PIPE AND ADJACENT BACKFILL WEIGHT AS WELL AS MAINTAIN TS INTEGRITY DURING CONSTRUCTION. IF SOFT OR UNSUITABLE SOILS ARE ENCOUNTERED, REMOVE THE POOR SOILS DOWN TO A SUITABLE DEPTH AND THEN BUILD UP TO THE APPROPRIATE ELEVATION WITH A COMPETENT BACKFILL MATERIAL. THE STRUCTURAL FILL MATERIAL GRADATION SHOULD NOT ALLOW THE MIGRATION

OF FINES. WHICH CAN CAUSE SETTLEMENT OF THE DETENTION SYSTEM OR BEDDING - WELL GRADED PAVEMENT ABOVE. IF THE STRUCTURAL FILL MATERIAL IS NOT COMPATIBLE

GRANULAR AND SMALLER-WITH THE UNDERLYING SOILS AN ENGINEERING FABRIC SHOULD BE USED AS A SEPARATOR. IN SOME CASES, USING A STIFF REINFORCING GEOGRID REDUCES OVER EXCAVATION AND REPLACEMENT FILL QUANTITIES.

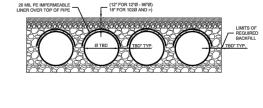


GRADE THE FOUNDATION SUBGRADE TO A UNIFORM OR SLIGHTLY SLOPING GRADE, IF THE SUBGRADE IS CLAY OR RELATIVELY NON-POROUS AND THE CONSTRUCTION SEQUENCE WILL LAST FOR AN EXTENDED PERIOD OF TIME IT IS BEST TO SLOPE THE GRADE TO ONE END OF THE SYSTEM. THIS WILL ALLOW EXCESS WATER TO DRAIN QUICKLY, PREVENTING SATURATION OF

GEOMEMBRANE BARRIER

A SITE'S RESISTIVITY MAY CHANGE OVER TIME WHEN VARIOUS TYPES OF SALTING AGENTS ARE USED, SUCH AS ROAD SALTS FOR DEICING AGENTS. IF SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE. A GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE SYSTEM. THE GEOMEMBRANE BARRIER IS RECOMMENDED WITH THE STATE OF THE SEQUENCE TO THE END OF THE RECENTLY PLACED FILL, AND BEGIN THE SEQUENCE POTENTIAL ADVERSE EFFECTS THAT MAY RESULT FROM THE USE OF SUCH AGENTS INCLUDING PREMATURE CORROSION AND REDUCED ACTUAL SERVICE CONSTRUCTION SEQUENCE PROVIDES ROOM FOR STOCKPILED BACKFILL

THE PROJECT'S ENGINEER OF RECORD IS TO EVALUATE WHETHER SALTING AGENTS WILL BE USED ON OR NEAR THE PROJECT SITE, AND USE HIS/HER BEST JUDGEMENT TO DETERMINE IF ANY ADDITIONAL PROTECTIVE MEASURES ARE REQUIRED. BELOW IS A TYPICAL DETAIL SHOWING THE PLACEMENT OF A GEOMEMBRANE BARRIER FOR PROJECTS WHERE SALTING AGENTS ARE USED ON OR NEAR THE PROJECT SITE.



IN-SITU TRENCH WALL

AASHTO M 145: A-1, A-2, A-3

UP TO MIN. COVER - SEE 5A AND 5B ABOVE

PER ENGINEER OF RECORD

NONE

NONE

ABOVE MIN. COVER - PER ENGINEER OF RECORD

PROPER INSTALLATION OF A FLEXIBLE UNDERGROUND DETENTION SYSTEM IF EXCAVATION IS REQUIRED, THE TRENCH WALL NEEDS TO BE CAPABLE OF WILL ENSURE LONG-TERM PERFORMANCE. THE CONFIGURATION OF THESE SUPPORTING THE LOAD THAT THE PIPE SHEDS AS THE SYSTEM IS LOADED. IF SOILS ARE NOT CAPABLE OF SUPPORTING THESE LOADS, THE PIPE CAN DEFLECT. PERFORM A SIMPLE SOIL PRESSURE CHECK USING THE APPLIED LOADS TO DETERMINE THE LIMITS OF EXCAVATION BEYOND THE SPRING LINE OF

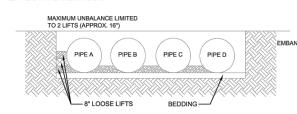
BALANCE BETWEEN THE UPLIFT FORCE OF THE CLSM, THE OPPOSING THE OUTER MOST PIPES.

IN MOST CASES THE REQUIREMENTS FOR A SAFE WORK ENVIRONMENT AND PROPER BACKFILL PLACEMENT AND COMPACTION TAKE CARE OF THIS CONCERN. LIFT THICKNESS. YOUR LOCAL CONTECH SALES ENGINEER CAN HELP

BACKFILL - WELL GRADED 3" GRANULAR AND SMALLER

BACKFILL PLACEMENT

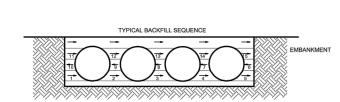
MATERIAL SHALL BE WORKED INTO THE PIPE HAUNCHES BY MEANS OF SHOVEL-SLICING, RODDING, AIR TAMPER, VIBRATORY ROD, OR OTHER



IF AASHTO T99 PROCEDURES ARE DETERMINED INFEASIBLE BY THE ECHNICAL ENGINEER OF RECORD, COMPACTION IS CONSIDEREI ADEQUATE WHEN NO FURTHER YIELDING OF THE MATERIAL IS OBSERVED UNDER THE COMPACTOR, OR UNDER FOOT, AND THE GEOTECHNICAL ENGINEER OF RECORD (OR REPRESENTATIVE THEREOF) IS SATISFIED WITH THE LEVEL OF COMPACTION.

FOR LARGE SYSTEMS, CONVEYOR SYSTEMS, BACKHOES WITH LONG

REACHES OR DRAGLINES WITH STONE BUCKETS MAY BE USED TO PLACE BACKFILL. ONCE MINIMUM COVER FOR CONSTRUCTION LOADING ACROSS THE ENTIRE WIDTH OF THE SYSTEM IS REACHED, ADVANCE THE EQUIPMENT IRECTLY BEHIND THE BACKHOE, AS WELL AS THE MOVEMENT OF CONSTRUCTION TRAFFIC. MATERIAL STOCKPILES ON TOP OF THE BACKFILLED DETENTION SYSTEM SHOULD BE LIMITED TO 8- TO 10-FEET HIGH AND MUST PROVIDE BALANCED LOADING ACROSS ALL BARRELS. TO DETERMINE THE PROPER COVER OVER THE PIPES TO ALLOW THE MOVEMENT OF CONSTRUCTION EQUIPMENT SEE TABLE 1, OR CONTACT YOUR LOCAL CONTECH SALES ENGINEER



www.ContechES.com

25 Centre Pointe Dr., Suite 400, West Chester, OH 4506

300-338-1122 513-645-7000 513-645-7993 FAX

CMP DETENTION SYSTEM INSPECTION AND MAINTENANCE

UNDERGROUND STORMWATER DETENTION AND INFILTRATION SYSTEMS MUST BE INSPECTED AND MAINTAINED AT REGULAR INTERVALS FOR PURPOSES OF PERFORMANCE AND LONGEVITY.

INSPECTION

INSPECTION IS THE KEY TO EFFECTIVE MAINTENANCE OF CMP DETENTION SYSTEMS AND IS FASILY PERFORMED. CONTECH RECOMMENDS ONGOING ANNUAL INSPECTIONS SITES WITH HIGH TRASH LOAD OR SMALL OUTLIET. CONTROL ORIFICES MAY NEED MORE FREQUENT INSPECTIONS. THE RATE AT WHICH THE SYSTEM COLLECTS POLLUTANTS WILL DEPEND MORE ON SITE SPECIFIC ACTIVITIES RATHER THAN THE SIZE OR CONFIGURATION OF THE

INSPECTIONS SHOULD BE PERFORMED MORE OFTEN IN EQUIPMENT WASHDOWN AREAS, IN CLIMATES WHERE SANDING AND/OR SALTING OPERATIONS TAKE PLACE, AND IN OTHER VARIOUS INSTANCES IN WHICH ONE WOULD EXPECT HIGHER ACCUMULATIONS OF SEDIMENT OR ARRASIVE/ CORROSIVE CONDITIONS. A RECORD OF EACH INSPECTION IS TO BE MAINTAINED FOR THE LIFE OF THE SYSTEM

MAINTENANCE CMP DETENTION SYSTEMS SHOULD BE CLEANED WHEN AN INSPECTION

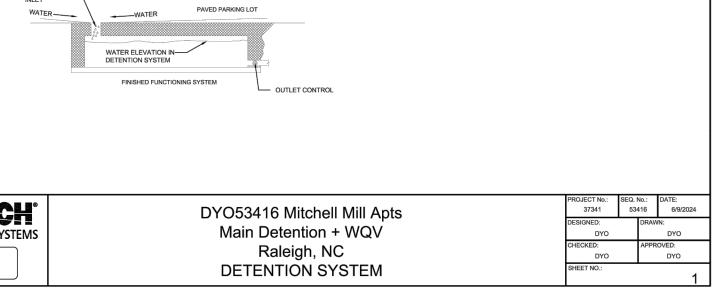
REVEALS ACCUMULATED SEDIMENT OR TRASH IS CLOGGING THE DISCHARGE

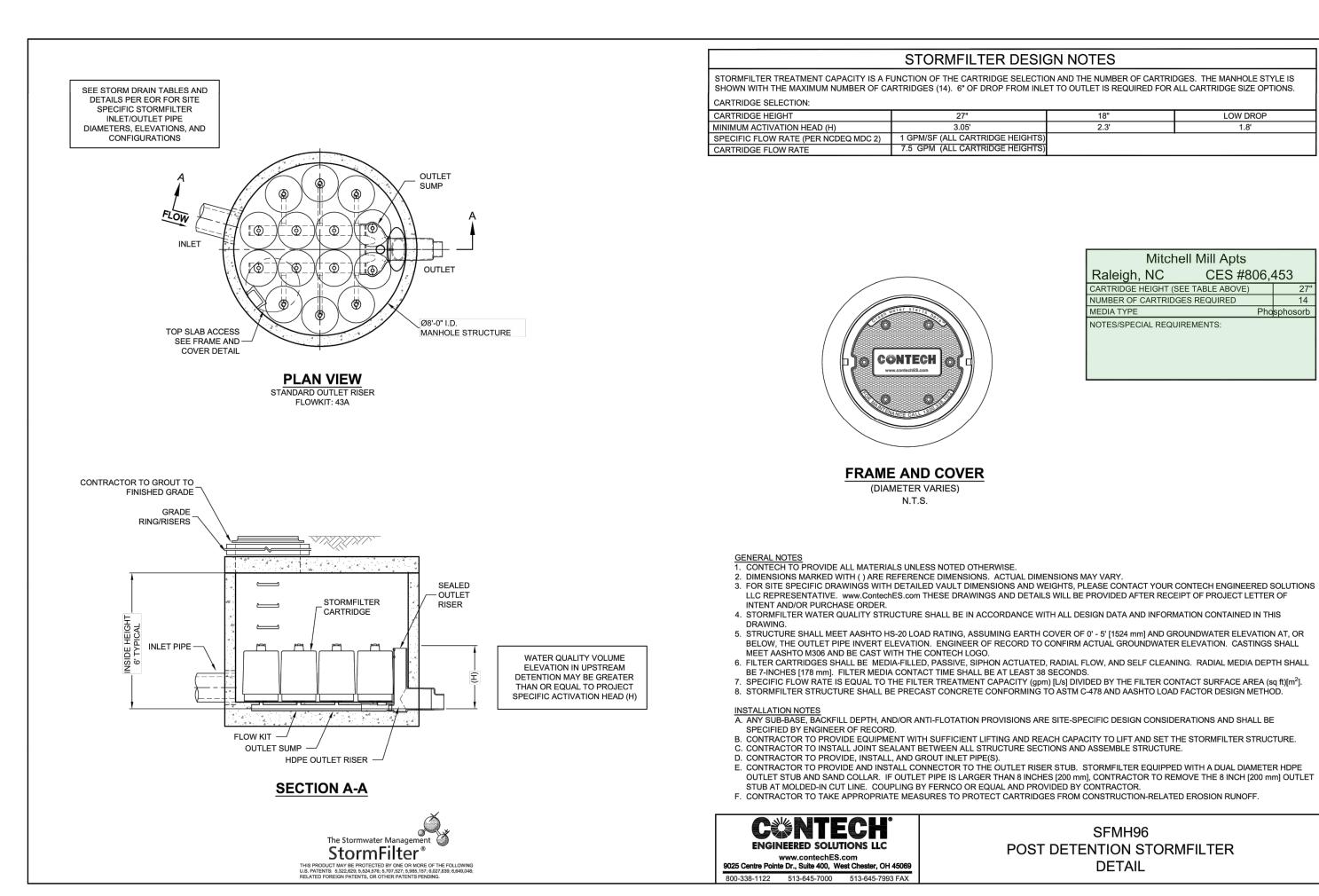
ACCUMULATED SEDIMENT AND TRASH CAN TYPICALLY BE EVACUATED THROUGH THE MANHOLE OVER THE OUTLET ORIFICE, IF MAINTENANCE IS NOT TYPICALLY, THE MINIMUM COVER SPECIFIED FOR A PROJECT ASSUMES H-20 PERFORMED AS RECOMMENDED, SEDIMENT AND TRASH MAY ACCUMULATE IN FRONT OF THE OUTLET ORIFICE. MANHOLE COVERS SHOULD BE SECURELY SEATED FOLLOWING CLEANING ACTIVITIES, CONTECH SUGGESTS THAT ALL SYSTEMS BE DESIGNED WITH AN ACCESS/INSPECTION MANHOLE SITUATED AT OR NEAR THE INLET AND THE OUTLET ORIFICE. SHOULD IT BE NECESSARY T GET INSIDE THE SYSTEM TO PERFORM MAINTENANCE ACTIVITIES. ALL APPROPRIATE PRECAUTIONS REGARDING CONFINED SPACE ENTRY AND OSHA REGULATIONS SHOULD BE FOLLOWED.

> ANNUAL INSPECTIONS ARE BEST PRACTICE FOR ALL UNDERGROUND SYSTEMS. DURING THIS INSPECTION, IF EVIDENCE OF SALTING/DE-ICING AGENTS IS OBSERVED WITHIN THE SYSTEM. IT IS BEST PRACTICE FOR THE SYSTEM TO BE RINSED, INCLUDING ABOVE THE SPRING LINE SOON AFTER THE PRING THAW AS PART OF THE MAINTENANCE PROGRAM FOR THE SYSTEM.

MAINTAINING AN UNDERGROUND DETENTION OR INFILTRATION SYSTEM IS EASIEST WHEN THERE IS NO FLOW ENTERING THE SYSTEM. FOR THIS REASON, IT IS A GOOD IDEA TO SCHEDULE THE CLEANOUT DURING DRY

MAY BE REQUIRED FOR HIGH FLOWS DUE TO THE RESTRICTED NATURE OF THE FOREGOING INSPECTION AND MAINTENANCE EFFORTS HELP ENSURE INDERGROUND PIPE SYSTEMS USED FOR STORMWATER STORAGE CONTINUE TO FUNCTION AS INTENDED BY IDENTIFYING RECOMMENDED REGULAR INSPECTION AND MAINTENANCE PRACTICES, INSPECTION AND MAINTENANCE RELATED TO THE STRUCTURAL INTEGRITY OF THE PIPE OR THE SOUNDNESS OF PIPE JOINT CONNECTIONS IS BEYOND THE SCOPE OF THIS GUIDE.





Drawing Number:

Date: 11/15/2024

Scale: AS NOTED

Project Number:

18-0004-742

Checked By

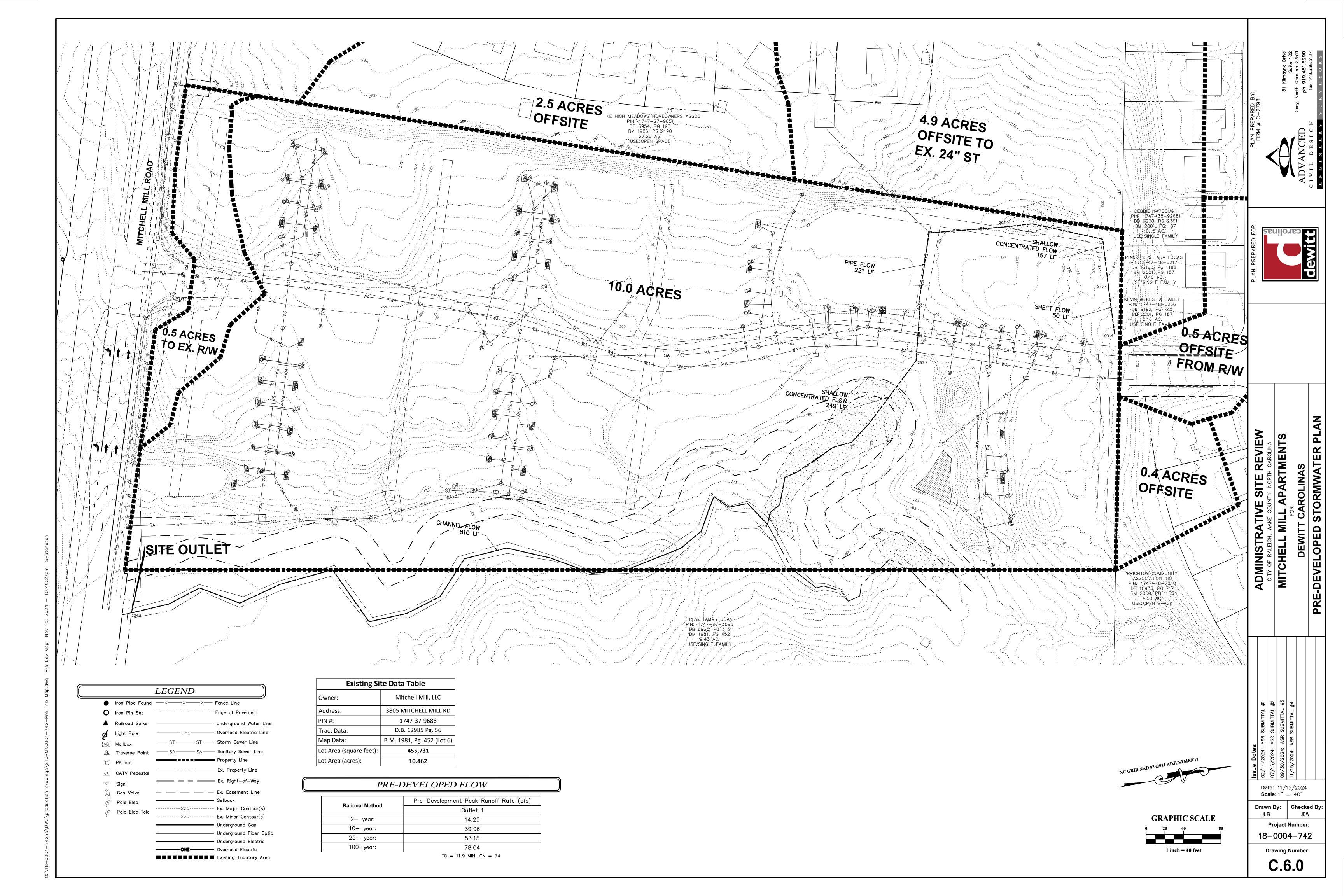
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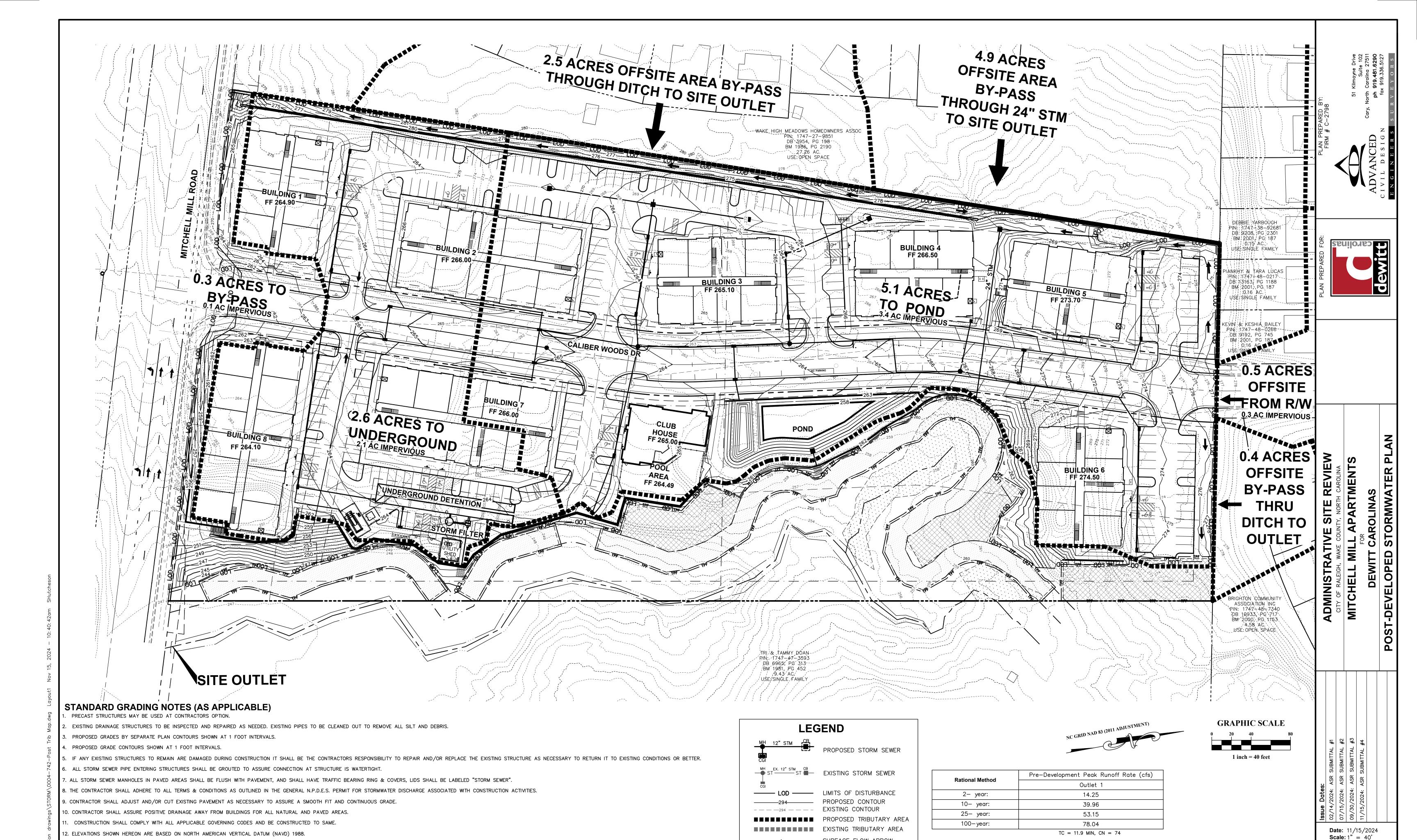
2

REVIEW

S

ADMINIST





13. ALL SPOT ELEVATIONS SHOWN ARE FINISHED GRADE/TOP OF PAVEMENT UNLESS OTHERWISE NOTED. TOP OF CURB ELEVATIONS DENOTED AS TXXX.XX. TOP OF CASTING ELEVATIONS DENOTED AS TC XXX.XX.

15. NO INFRASTRUCTURE TO BE CONSTRUCTED PRIOR TO CONSTRUCTION PLAN APPROVAL AND UTILITY PERMIT ISSUANCE BY THE CITY OF RALEIGH ENGINEERING DEPARTMENT.

16. LOCATIONS AND SIZES SHOWN FOR STORMWATER DEVICES ARE PRELIMINARY AND SUBJECT TO CHANGE PENDING FINAL LAYOUT AND DESIGN.

19. THESE PLANS AND ALL CALCULATIONS HEREIN ARE PRELIMINARY AND SUBJECT TO CHANGE PENDING FINAL CONSTRUCTION PLAN DESIGN.

18. PROPOSED GRADES SHOWN ARE PRELIMINARY AND SUBJECT TO CHANGE PENDING FINAL LAYOUT AND FINAL DESIGN.

lacktriangle with contractor to bring in pump to pump out remaining water.

APPROVAL BY THE CITY OF RALEIGH.

14. IN CASE ON AN EMERGENCY OR MAINTENANCE RELATED ISSUES WITH THE POND, THE HAND WHEEL AND PLUG VALVE IS TO BE USED TO DRAW DOWN THE POND AS MUCH AS POSSIBLE. IF POND IS TO BE DRAWN DOWN COMPLETELY, OWNER IS TO COORDINATE

20. NO TEMPORARY OR PERMANENT ENCROACHMENTS (INCLUDING BUT NOT LIMITED TO CLEARING, GRADING, FENCING, AND THE INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES) ARE PERMITTED WITHIN THE GREENWAY EASEMENT AREA WITHOUT PRIOR

SURFACE FLOW ARROW

EXISTING TOP CASTING

PROPOSED TOP OF CURB

PROPOSED TOP CASTING

EXISTING GROUND ELEVATION

PROPOSED GROUND ELEVATION

PROPOSED IMPERVIOUS AREA

Rational Method

2- year:

10- year:

25- year:

Basin Post—Dev Peak Runoff Rate (cfs)

Outlet 1

5.80

22.15

25.00

33.31

TC = 15.0 MIN

Drawn By:

Total Post—Dev Peak Runoff Rate (cfs)

Outlet 1

13.43

39.64

50.98

63.93

TC = 15.0 MIN

Checked By

Project Number:

18-0004-742

Drawing Number:

C.6.1

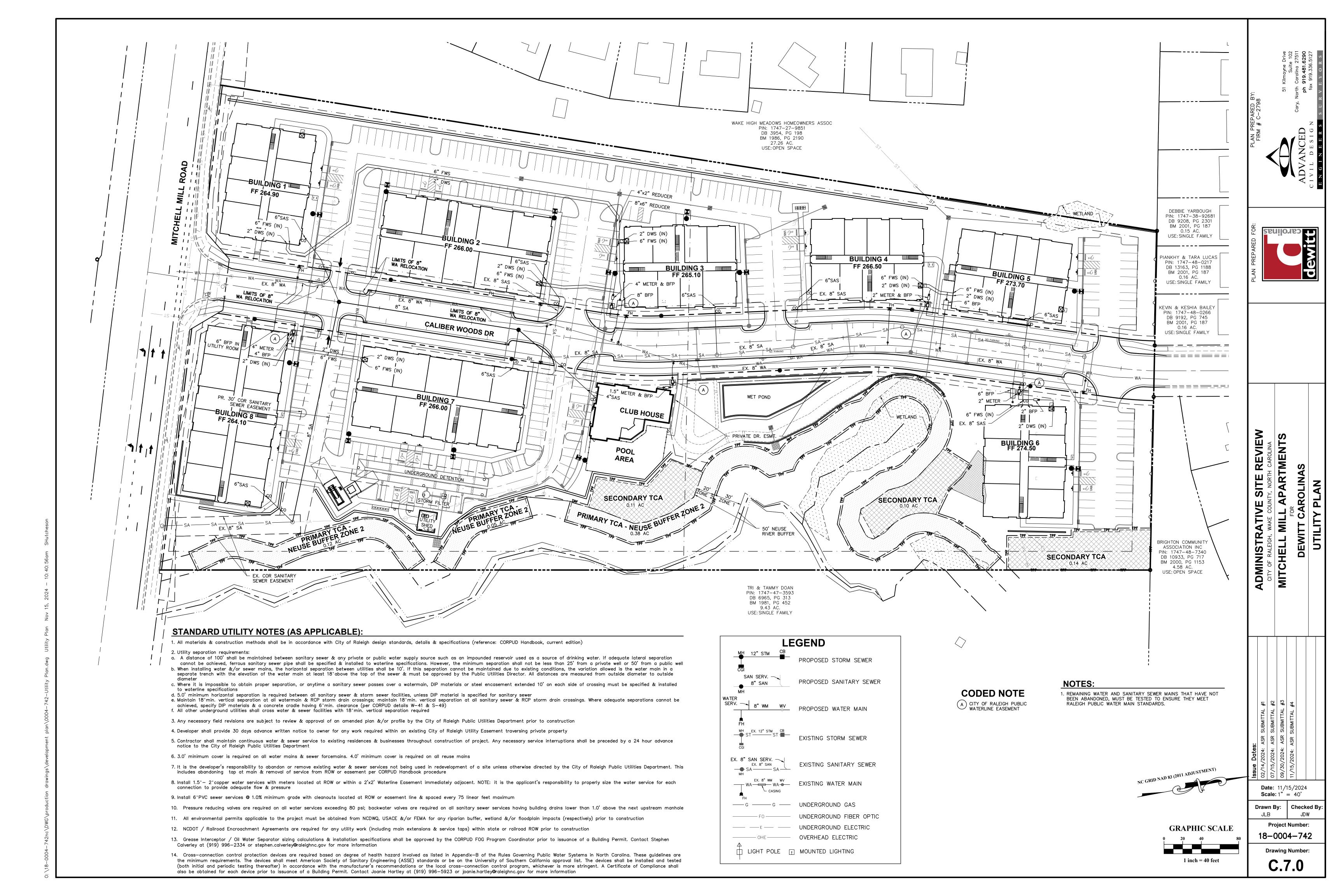
345.0 +

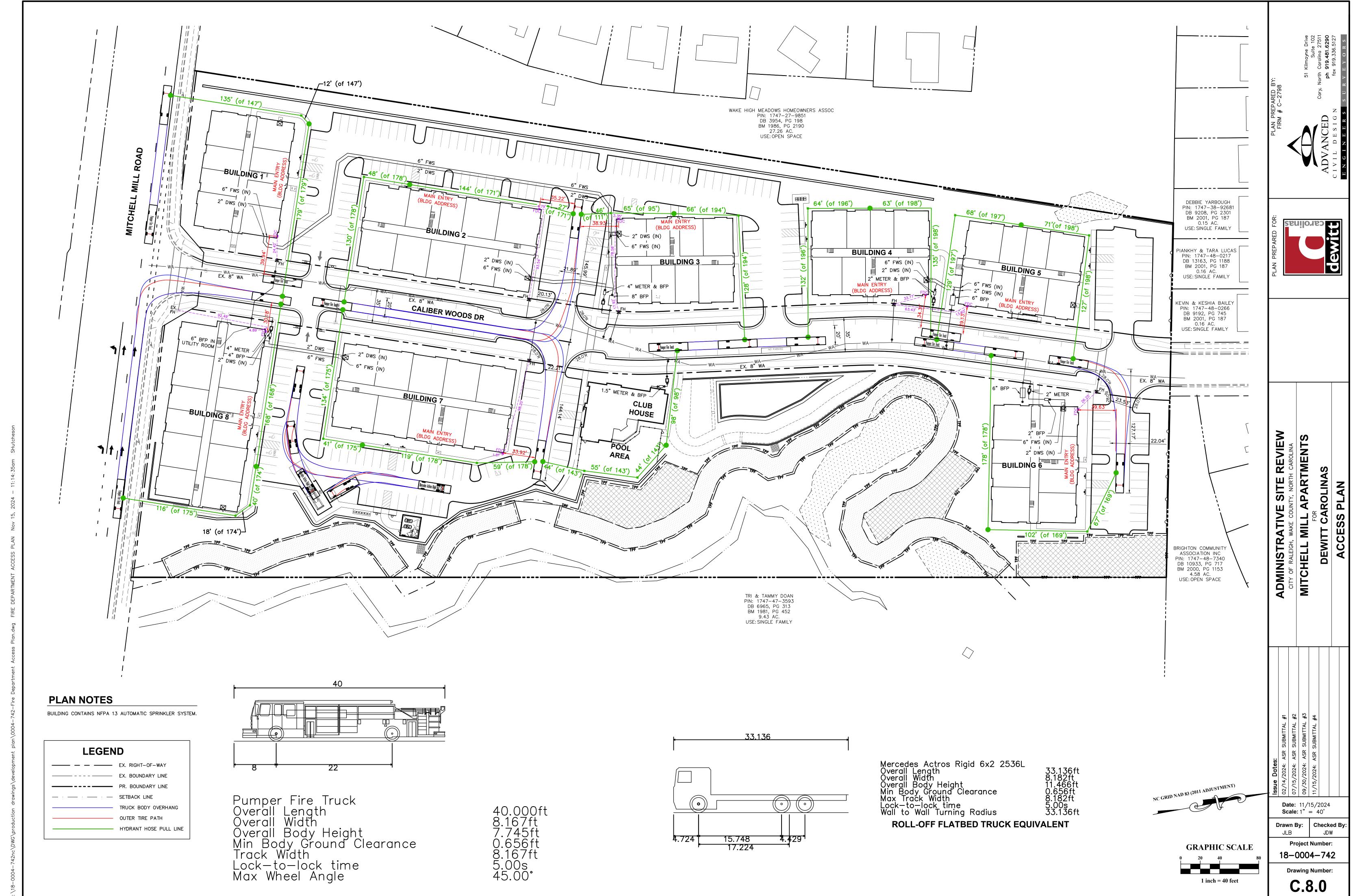
345.0 ●

T345.0 ●

TC 345.0 ●

EX. TC 345.0 +



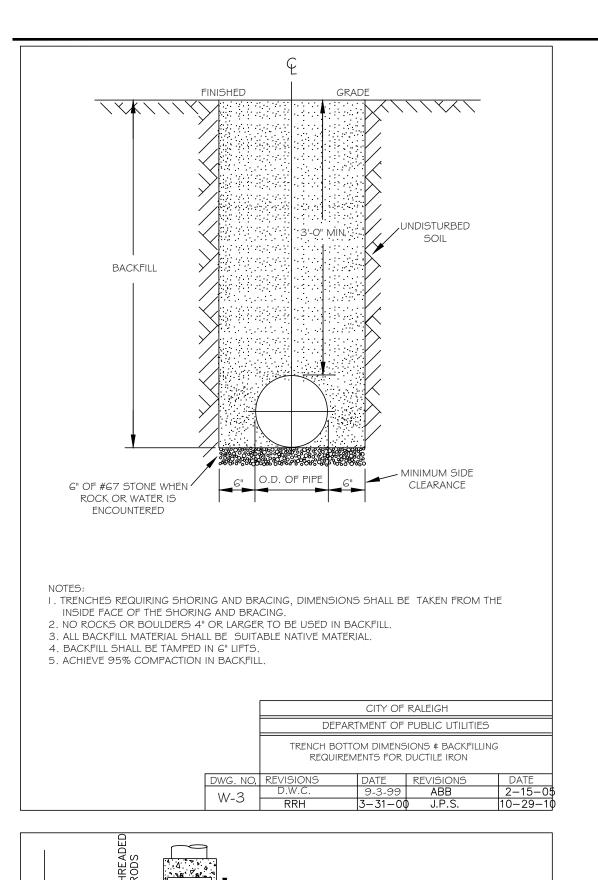


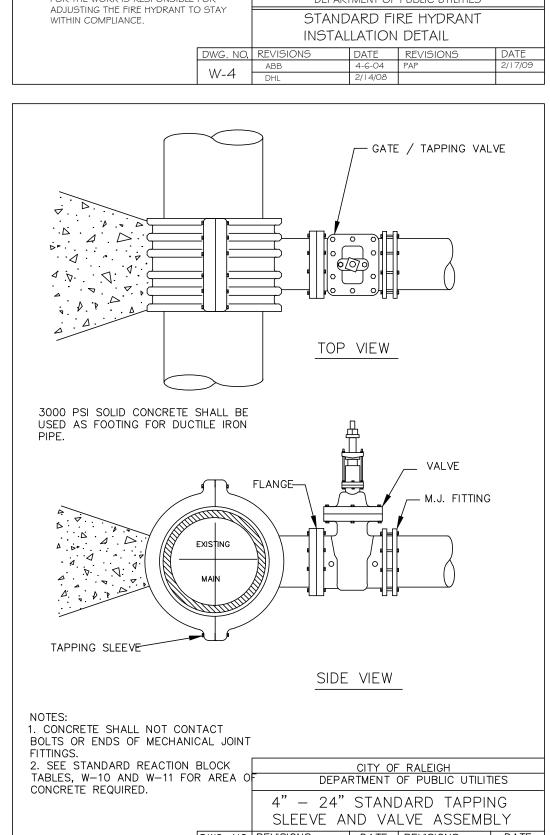
SITE REVIEW **ADMINISTRATIVE** MITCHELL # # # # **Date:** 11/15/2024 Scale: NO SCALE Drawn By: | Checked By JLB JDW Project Number: 18-0004-742

Drawing Number:

C.9.0

0: \18—0004—742nc\DWG\production drawings\development plan\0004—742—Details.dwg STANDARD DETAILS Nov 15, 2024 — 10:41:22am SHutcheson





, MINIMUM 36" HORIZONTAL CLEARANCE

TOWARDS FIRE TRUCK ACCESS.

TRAFFIC FLANGE BETWEEN 2" - 6"

FIRE HYDRANT, PUMPER NOZZLE TO BE POINTED

COMPACTED BACKFILL (TAMPED IN 6" LIFTS)

I. FIRE HYDRANT SHALL BE AS MANUFACTURED: MUELLER, AMERICAN DARLING, KENNEDY, M&H,

RODS SHALL NOT BE COUPLED MORE THAN ONCE. IF THE LENGTH FROM THE VALVE TO THE

INSTALLED NO MORE THAN 10' FROM HYDRANT AND POURED IN CONCRETE.

FIRE HYDRANTS TO BE LOCATED IN ROW OR 2 FOOT EASEMENT ADJACENT TO ROW

HYDRANT EXCEEDS 20' THEN A MECHANICAL RESTRAINING GLAND WITH A REBAR CAGE SHALL BE

RESTRAINING GLANDS

WATEROUS, CLOW, EAST JORDAN IRON WORKS, OR US PIPE.

4. STEEL RODS AND BOLTS SHALL BE $\frac{3}{4}$ " HOT DIPPED GALVANIZED

5. FIRE HYDRANTS WILL BE INSTALLED IN TRUE VERTICAL POSITION

2. BRANCH PIPE SHALL BE DUCTILE IRON AWWA C I 50-96 3. 6" GATE VALVE SHALL BE AWWA C500-86 OPEN LEFT

1'-3"x 1'-3"x 4" THICK

ANYTIME SITE WORK, CONSTRUCTION, ROAD WORK, OR ANY OTHER WORK

HYDRANT, THE PERSON RESPONSIBLE

FOR THE WORK IS RESPONSIBLE FOR

CHANGES THE GRADE OF THE FIRE

7 CU. FT. CRUSHED

STONE MIN.

-62 m 4 m 1

CITY OF RALEIGH

DEPARTMENT OF PUBLIC UTILITIES

STANDARD VERTICAL BEND

PAVEMENT

RESTRAINING _

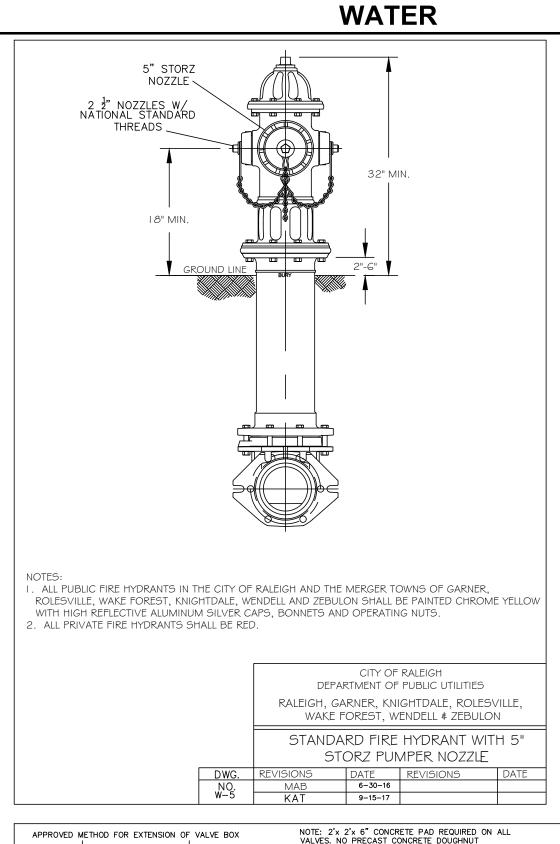
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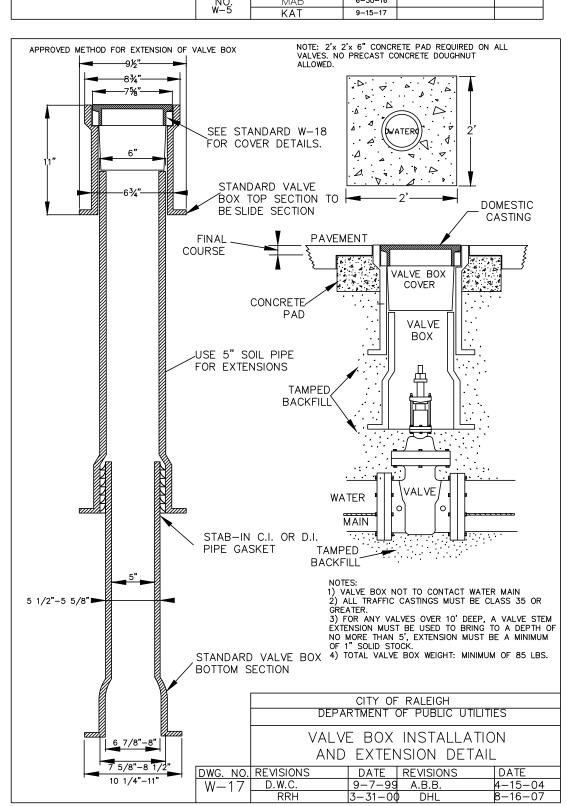
DEPARTMENT OF PUBLIC UTILITIES

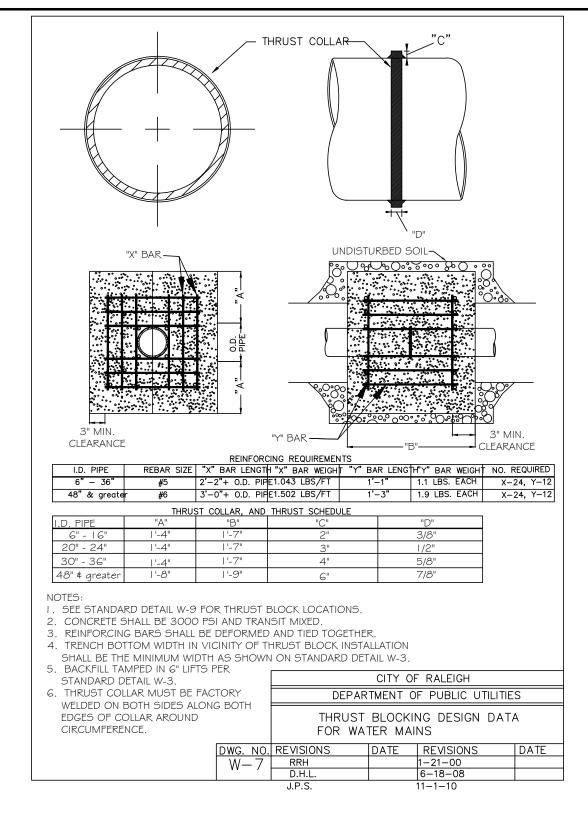
►UNDISTURBED EARTH.

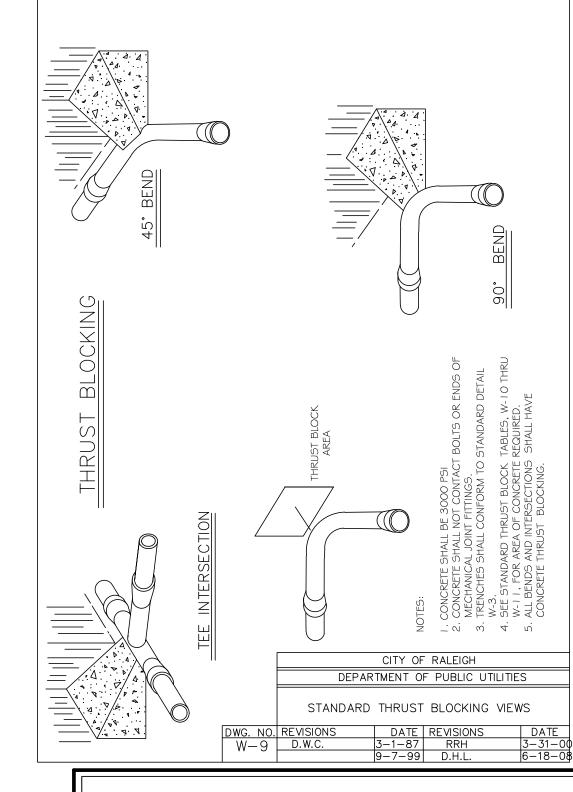
FROM ANY OBJECT.

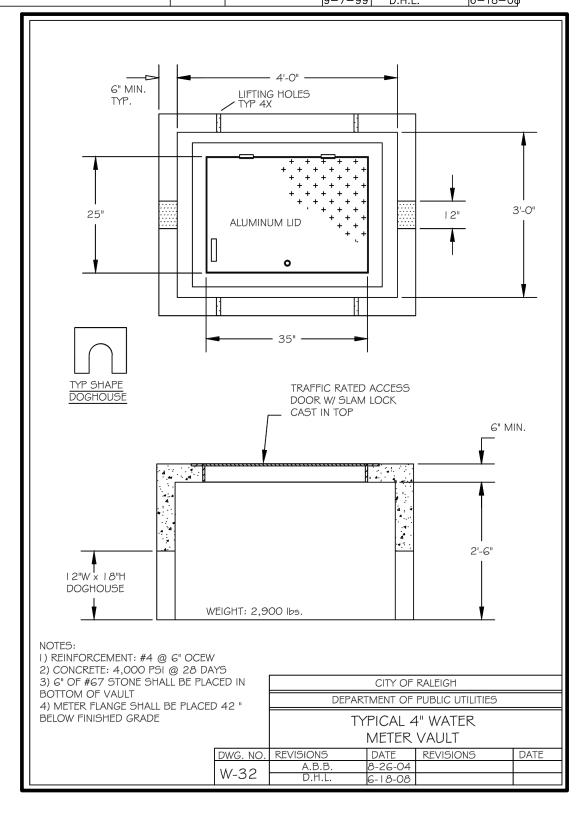
, ABOVE GRADE

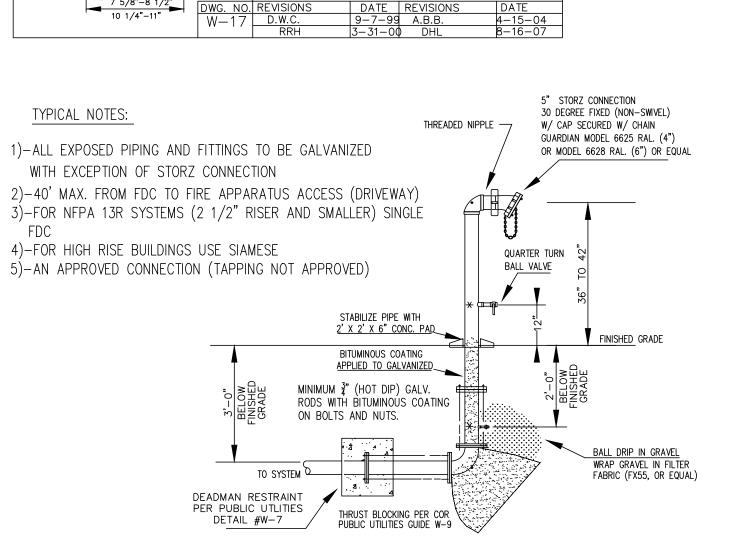














ADMINISTRATIVE SITE REVIEW CITY OF RALEIGH, WAKE COUNTY, NORTH CAROLINA MITCHELL MILL APARTMENTS
FOR DEWITT CAROLINAS
STANDARD DETAILS

::	02/14/2024: ASR SUBMITTAL #1	07/15/2024: ASR SUBMITTAL #2	09/30/2024: ASR SUBMITTAL #3	11/15/2024: ASR SUBMITTAL #4		
Issue Dates:	02/14/2024:	07/15/2024:	09/30/2024:	11/15/2024:		

Date: 11/15/2024 **Scale:** NO SCALE

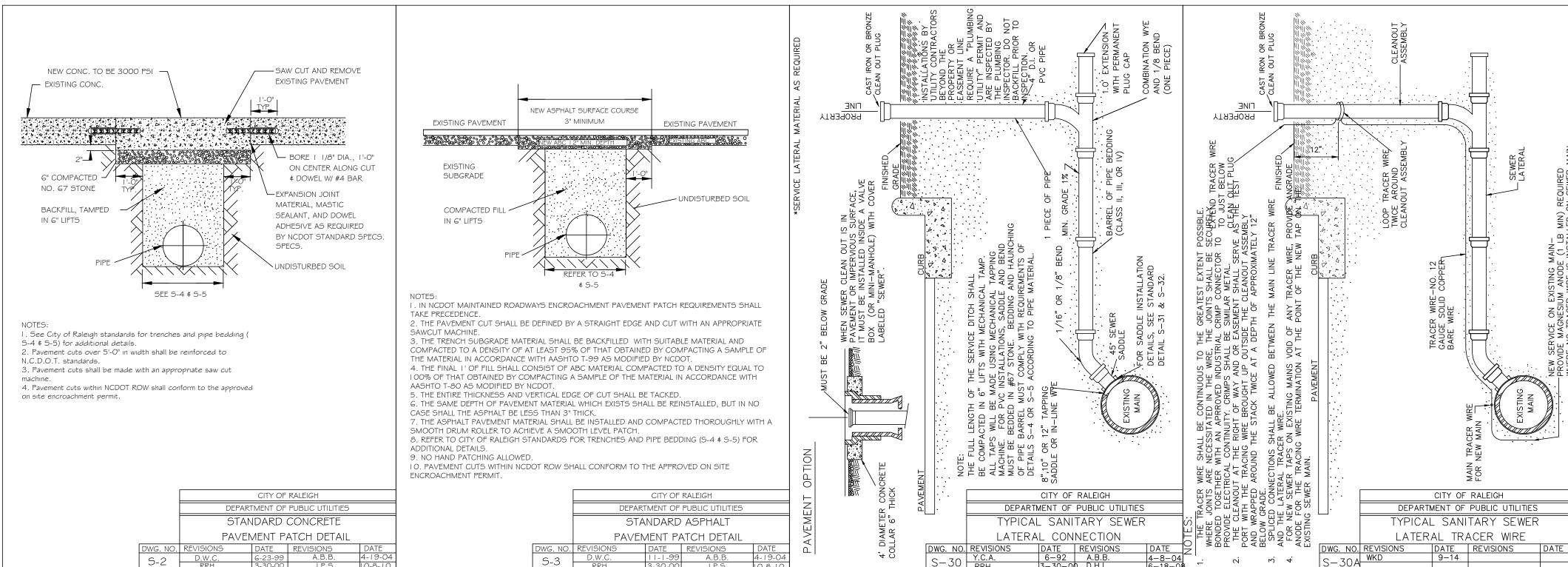
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Project Number:

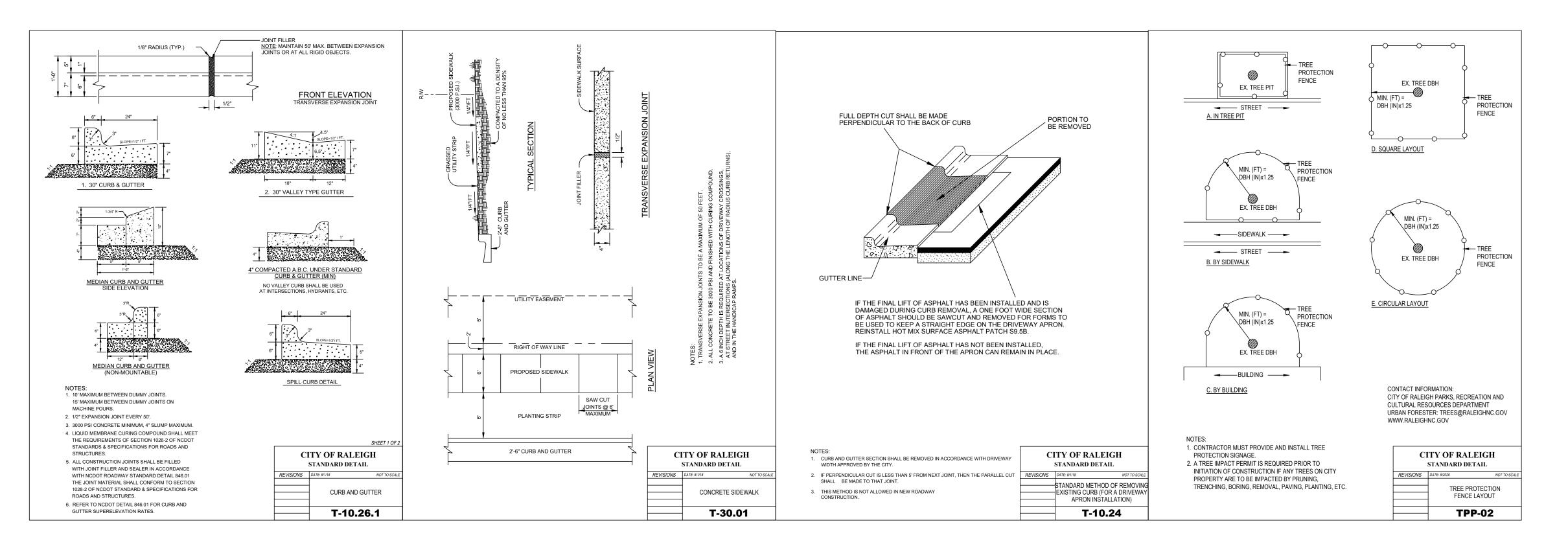
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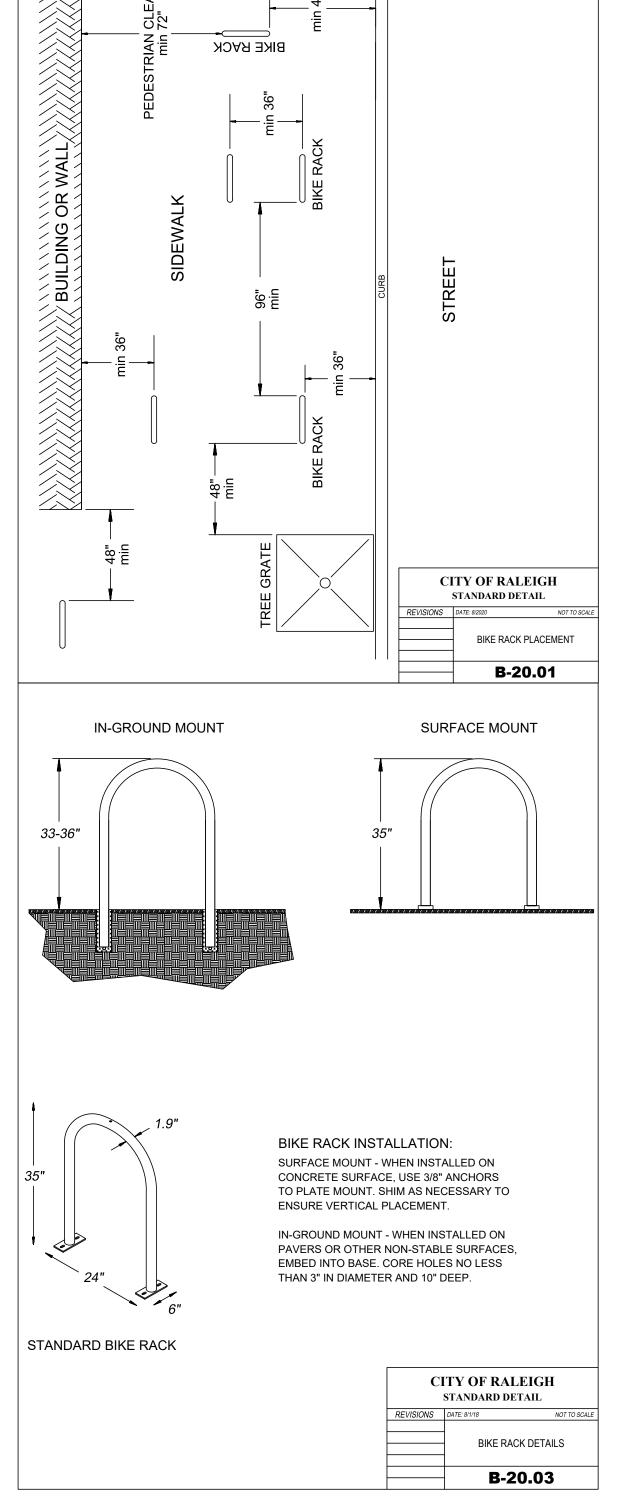
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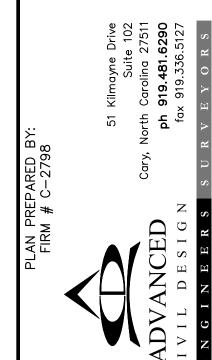
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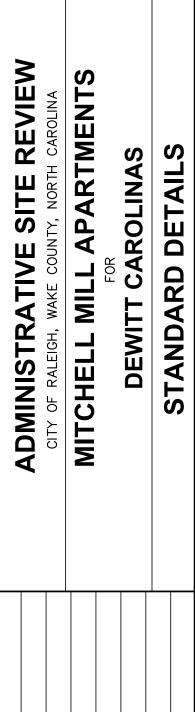
TRANSPORTATION TREE PROTECTION











Date: 11/15/2024 **Scale:** NO SCALE

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Project Number:

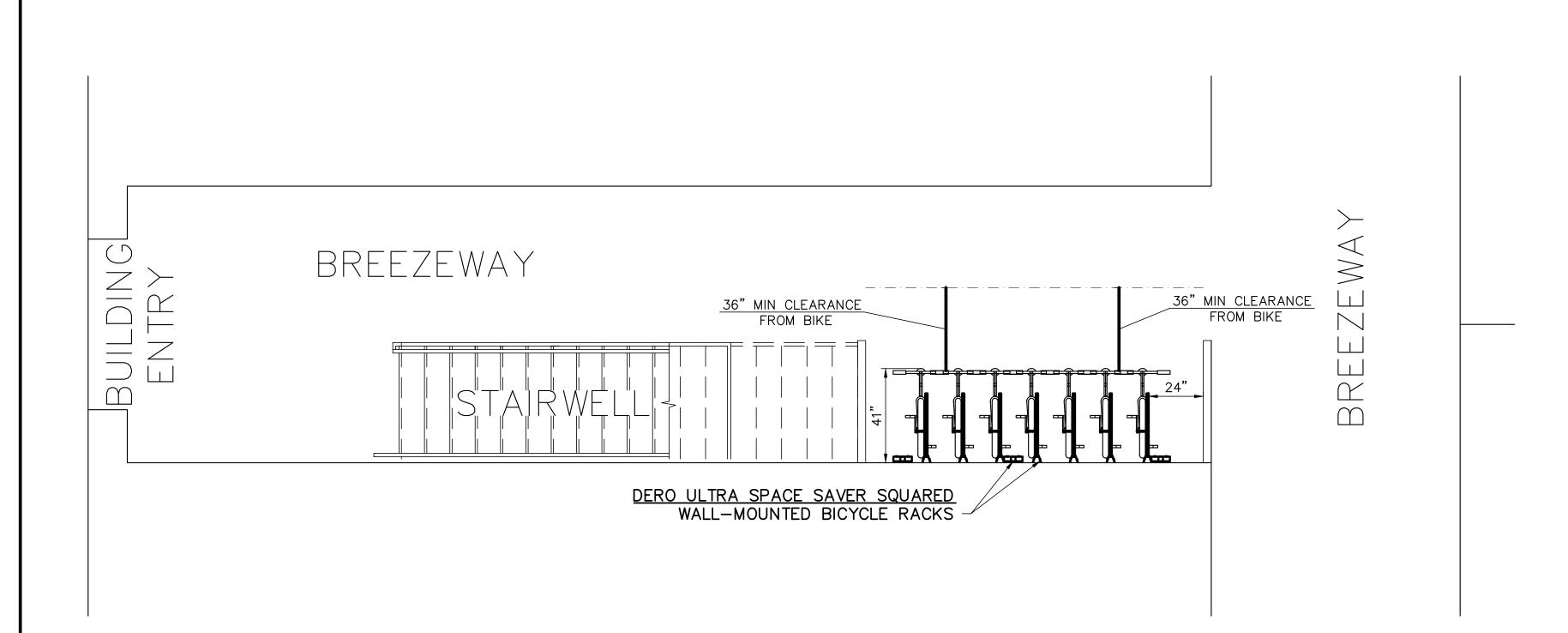
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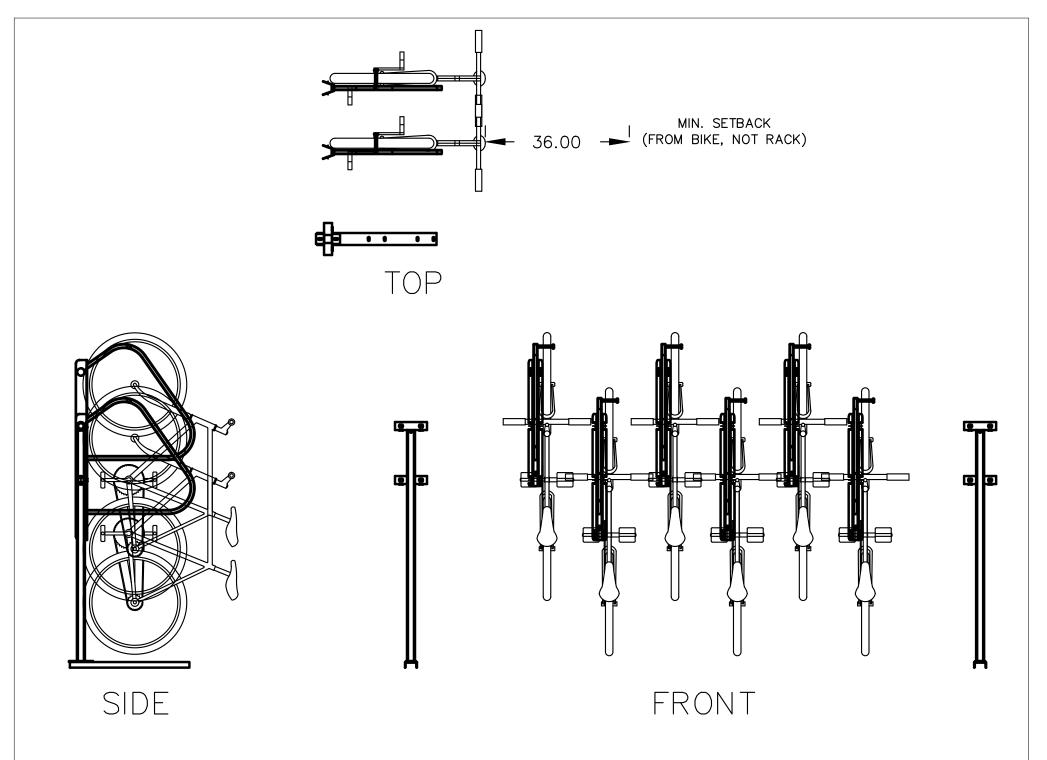
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LONG TERM BICYCLE FACILITIES

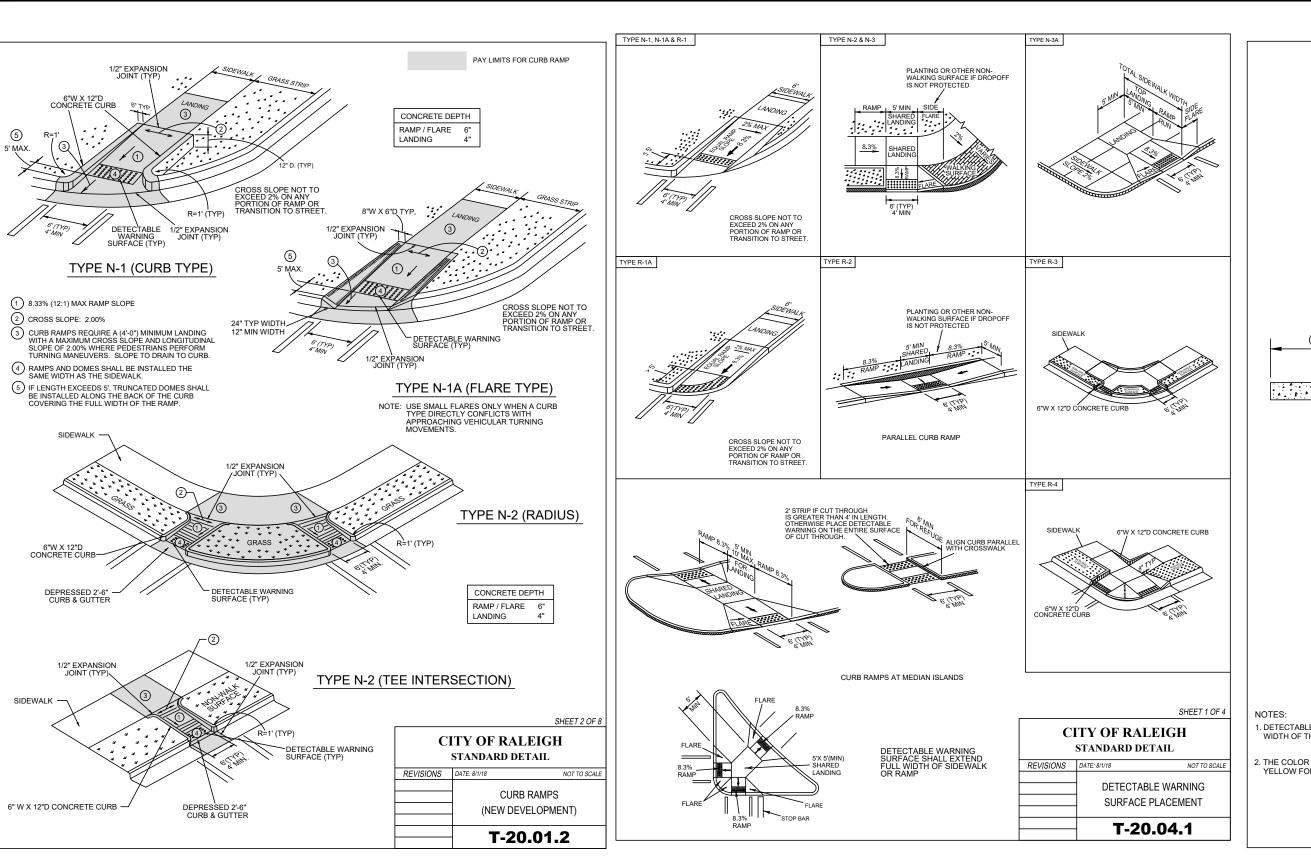
BIKE RACK LOCATION EXHIBIT

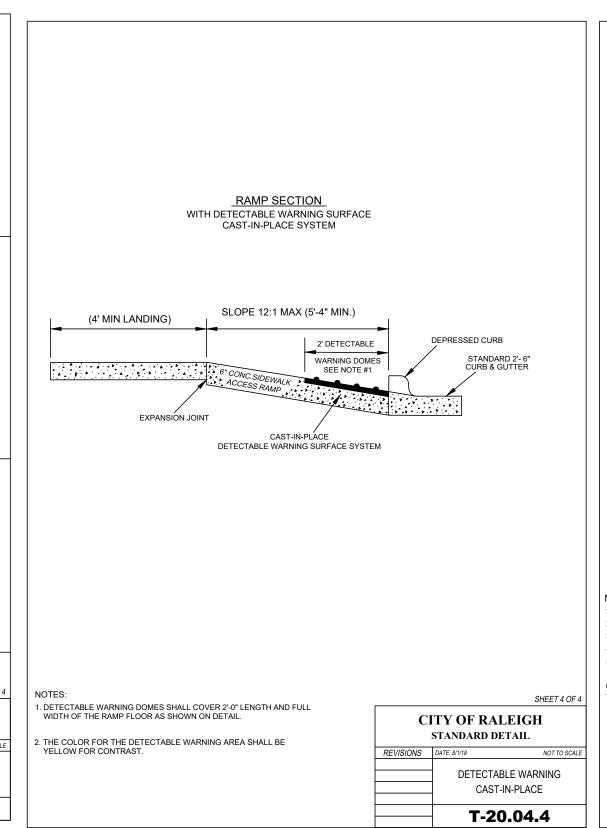


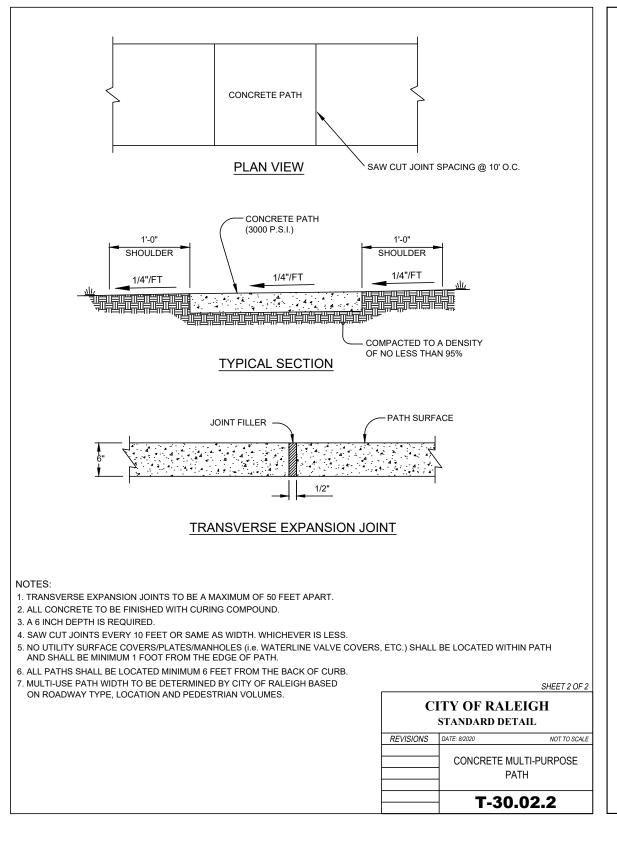
DERO ULTRA SPACE SAVER SQUARED SINGLE-SIDED

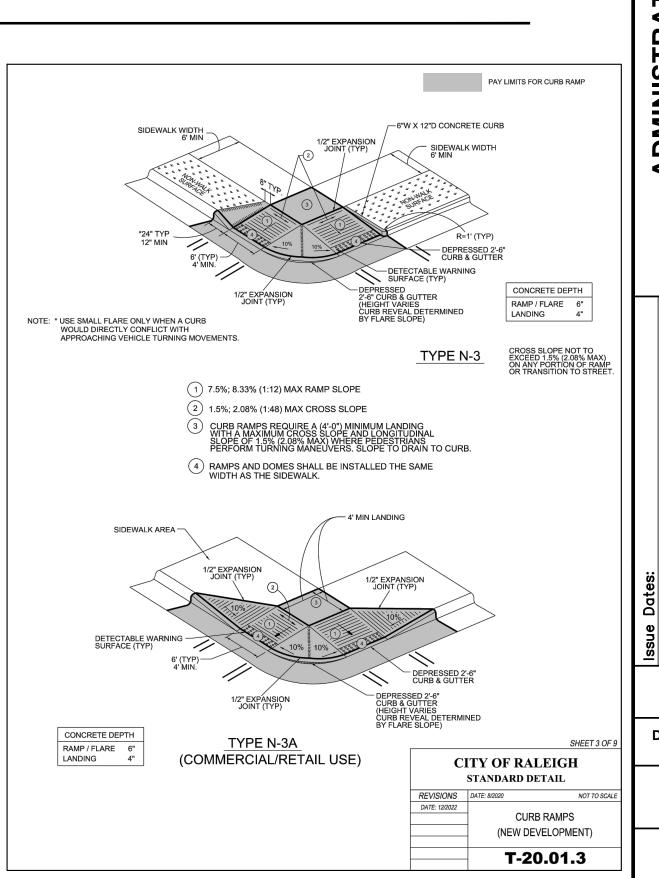


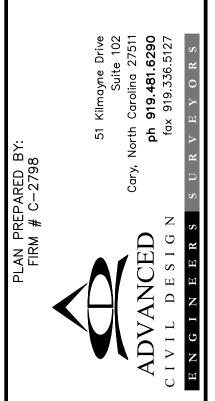
TRANSPORTATION

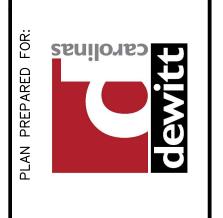


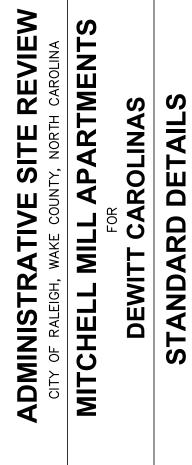


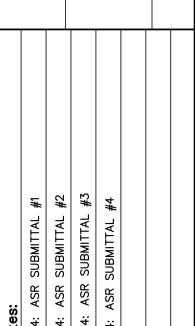










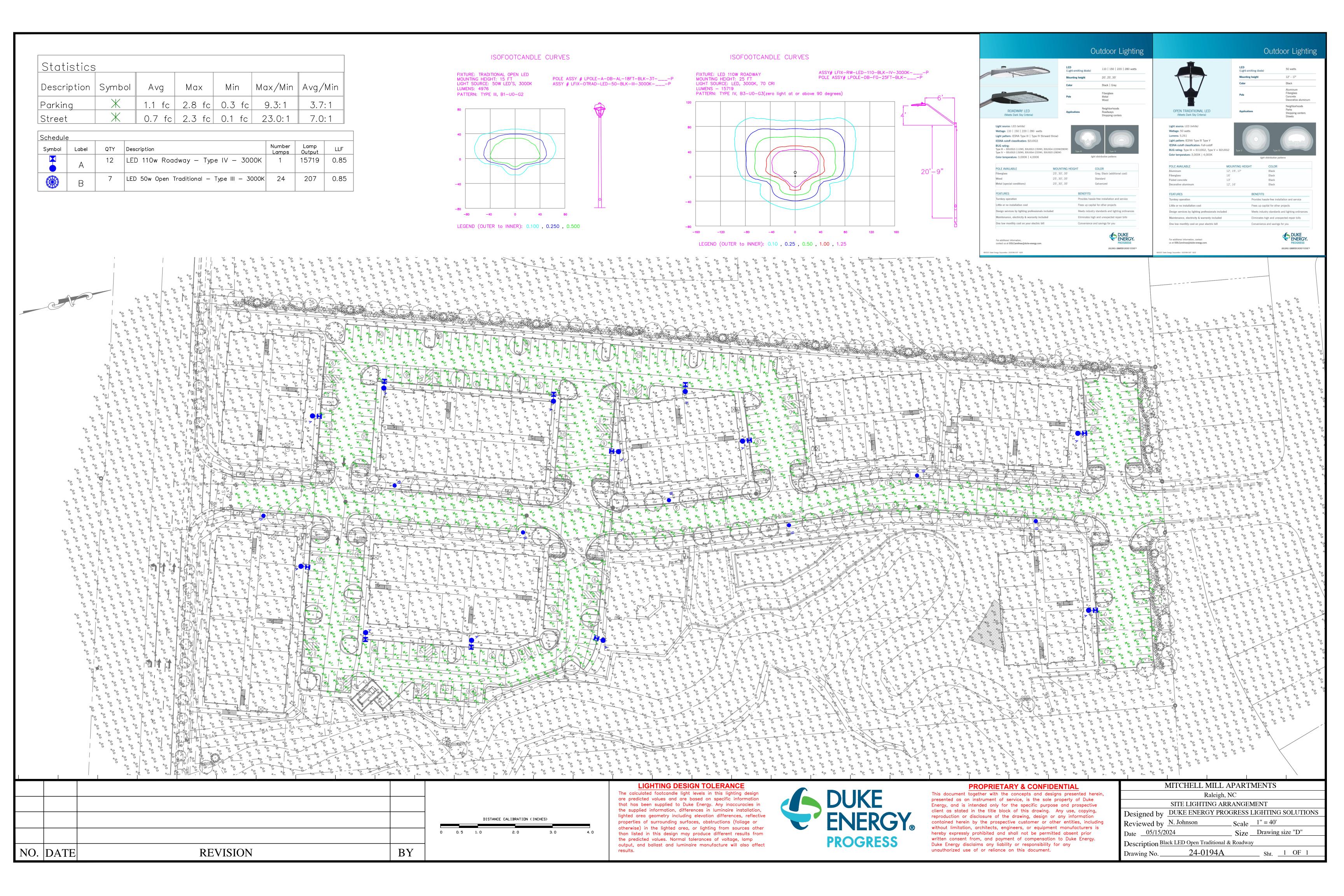


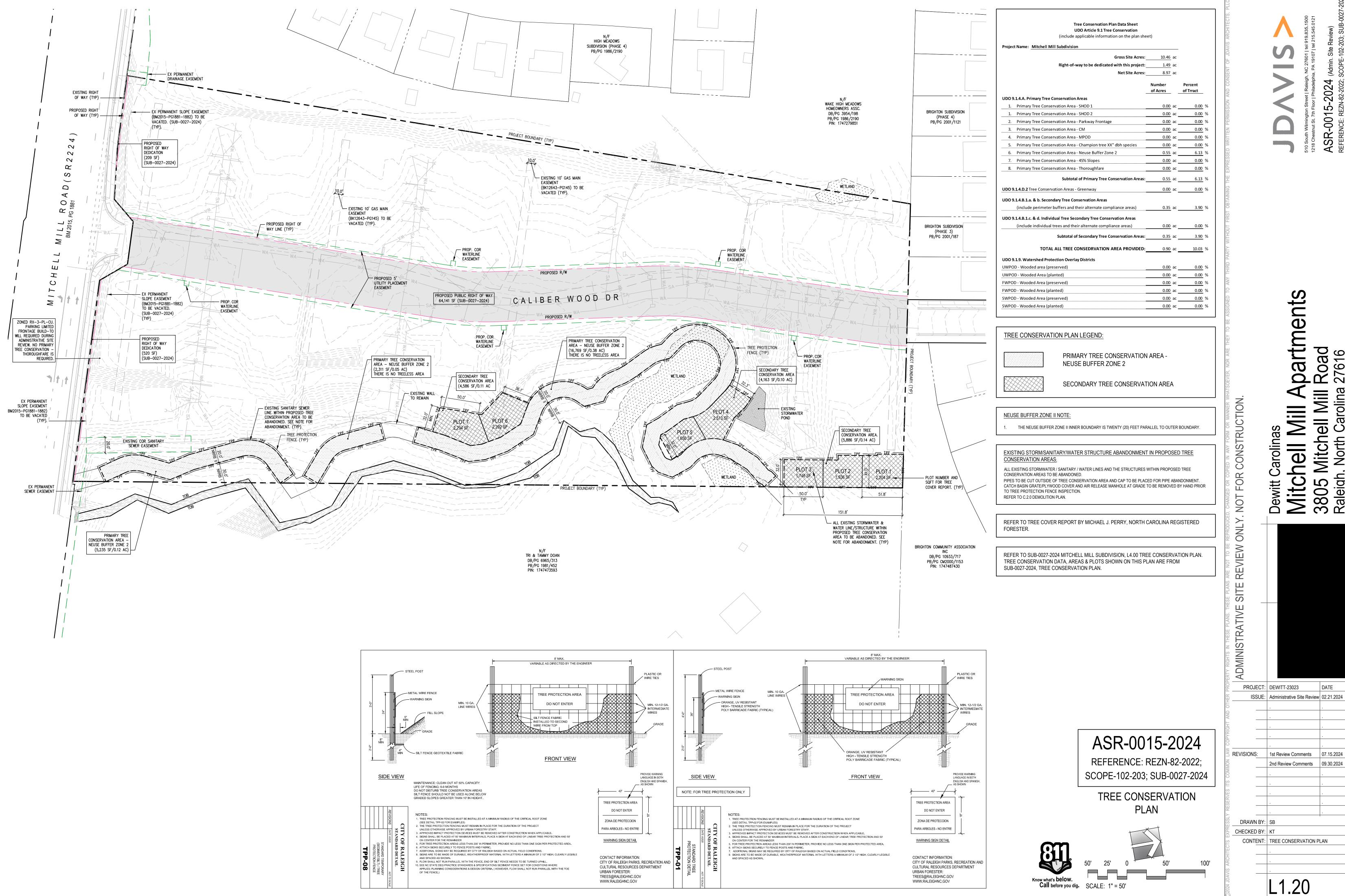
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	SUBMITTAL	SUBMITTAL	SUBMITTAL	SUBMITTAL				
;;	ASR	ASR	ASR	ASR				
Issue Dates:	02/14/2024: ASR SUBMITTAL #1	07/15/2024: ASR SUBMITTAL #2	09/30/2024: ASR SUBMITTAL #3	11/15/2024: ASR SUBMITTAL #4				
	Date: 11 /15 /2024							

Date: 11/15/2024 Scale: NO SCALE Drawn By: Checked By

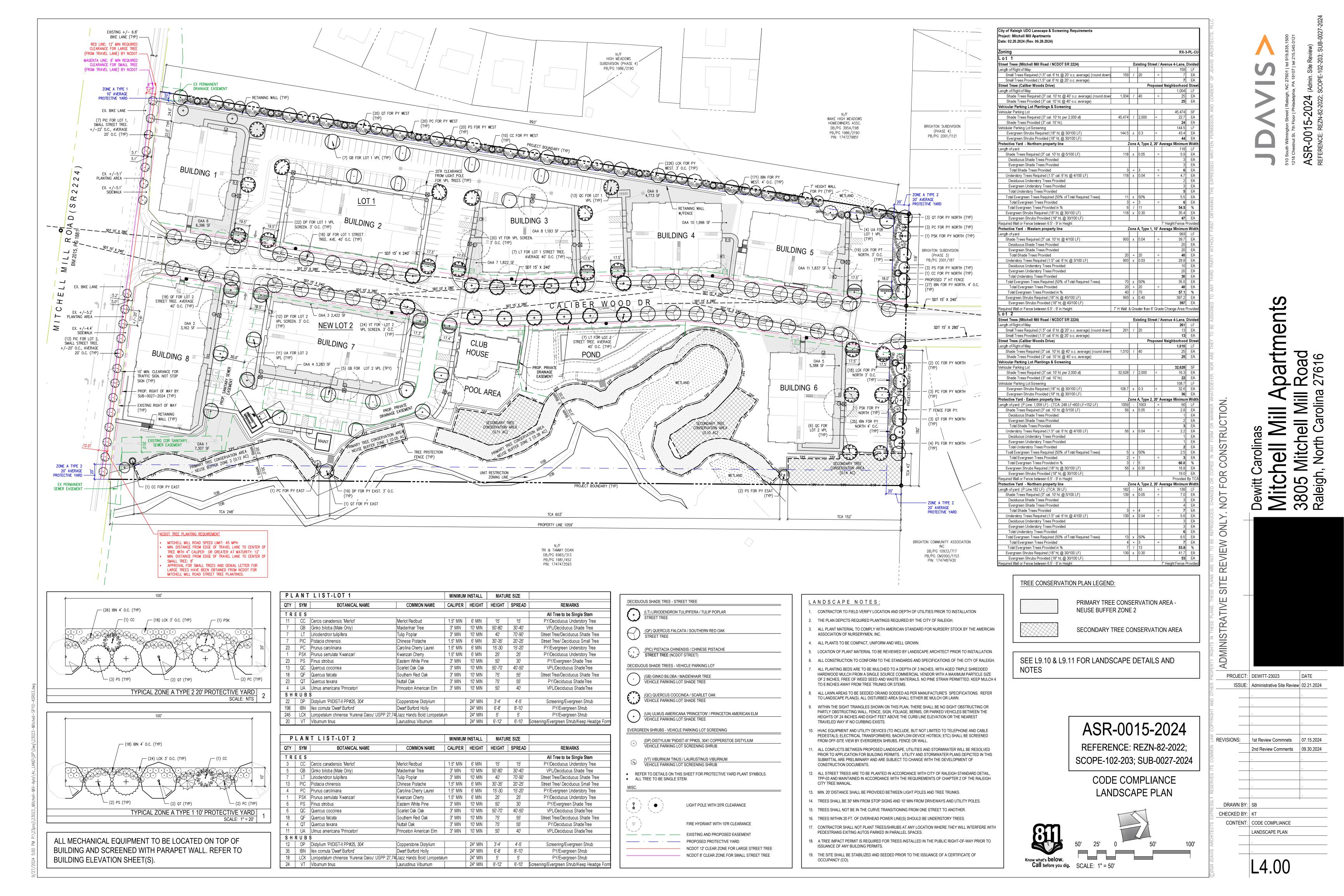
Project Number: 18-0004-742

Drawing Number: C.9.3





Road 27616 Carolina 3805 **№** Raleigh,



THE PARKS, RECREATION AND CULTURAL RESOURCES DEPARTMENT IS RESPONSIBLE FOR PLAN REVIEW, INSPECTION, MONITORING AND ENFORCEMENT ASSOCIATED WITH TREE PLANTING AND MAINTENANCE ON PROPERTY OWNED OR

- CONTROLLED BY THE CITY 1. DEVELOPMENT, PRIVATE CITIZEN OR CONTRACT PLANTING ON CITY OWNED OR CONTROLLED PROPERTY BY
- ANY INDIVIDUAL OR ORGANIZATION OTHER THAN THE CITY. THESE PROJECTS ARE AT THE EXPENSE OF THE REQUESTOR AND REQUIRE A TREE IMPACT PERMIT.
- PARTNERSHIP PLANTING UNDERTAKEN BY NON-PROFIT ORGANIZATIONS. PUBLIC-PRIVATE PARTNERSHIPS. AND CIVIC GROUPS. UNLESS WORK IS DONE UNDER STRICT GUIDANCE AND OVERSIGHT BY THE URBAN FORESTER, THESE PROJECTS ARE AT THE EXPENSE OF THE REQUESTOR AND REQUIRE A TREE IMPACT PERMIT.

C. REQUESTS FOR TREE PLANTING

B. TREE PLANTING ON CITY PROPERTY

1. REQUESTS FOR TREE PLANTING AND TREE IMPACT PERMITS ARE EVALUATED IN THE ORDER IN WHICH THEY ARE

- 2. TREE PLANTING IS CONTINGENT ON THE PLANTING SEASON, AVAILABILITY OF PLANT MATERIAL, SITE
- SUITABILITY, STAFFING, AND FUNDING 3. THE URBAN FORESTER OR DESIGNEE WILL PRIORITIZE TREE PLANTING REQUESTS ACCORDING TO THE
- FOLLOWING CRITERIA:
- A. NEEDS BASED: AREAS IDENTIFIED WITH THE GREATEST TREE CANOPY DEFICITS B. PRE-IDENTIFIED LOCATIONS: AREAS EARMARKED FOR BEAUTIFICATION IMPROVEMENTS
- C. ON DEMAND: CITY DEPARTMENTS, VOLUNTEER GROUPS, NEIGHBORHOODS, CITIZENS, AND

D. TREE QUALITY STANDARDS

- 1. GENERAL: FURNISH NURSERY-GROWN PLANTS TRUE TO GENUS, SPECIES, VARIETY, CULTIVAR, STEM FORM, SHEARING, AND OTHER FEATURES INDICATED ON DRAWINGS AND COMPLYING WITH ANSI Z60.1, WITH HEALTHY ROOT SYSTEMS DEVELOPED BY TRANSPLANTING OR ROOT PRUNING AND A VISIBLE ROOT FLARE. PROVIDE WELL-SHAPED, FULLY BRANCHED, HEALTHY, VIGOROUS STOCK FREE OF DISEASE, INSECTS, EGGS, LARVAE, AND
- DEFECTS SUCH AS KNOTS, SUN SCALD, INJURIES, ABRASIONS, AND DISFIGUREMENT TREES WITH MULTIPLE LEADERS, UNLESS SPECIFIED, WILL BE REJECTED. TREES WITH DAMAGED OR CROOKED LEADERS, BARK ABRASIONS, SUNSCALD, DISFIGURING KNOTS, INSECT DAMAGE, OR CUTS ON LIMBS OVER 1/2 IN.

BALL WILL BE REJECTED

CONDITIONS.

SPECIES SELECTION A. SELECTED TREE SPECIES SHALL BE OF A CULTIVAR THAT IS SUPERIOR IN FORM AND DISEASE RESISTANCE. PREFERENCE WILL BE GIVEN TO STREET TREES GROWN SPECIFICALLY FOR URBAN

IN DIAMETER THAT ARE NOT COMPLETELY CLOSED, OR ROOT FLARE MORE THAN 2" BELOW SURFACE OF ROOT

- B. EXOTIC INVASIVE SPECIES ARE NOT PERMITTED.
- C. TREES TO BE INSTALLED UNDER OVERHEAD POWERLINES SHALL HAVE A MATURE HEIGHT OF NO
- D. ALL SPECIES SELECTIONS SHALL BE REVIEWED BY THE URBAN FORESTER OR DESIGNEE.
- E. SPECIES DIVERSITY IS ENCOURAGED TO IMPROVE OVERALL URBAN FOREST HEALTH.
- F. ALL PLANT MATERIAL AND INSTALLATION WORK SHALL CONFORM TO THE STANDARDS DETAILED IN THIS MANUAL, THE AMERICAN NATIONAL STANDARDS FOR TREE CARE OPERATIONS, ANSI A300 AND NURSERY STOCK, ANSI Z60.1 AND APPROVED CITY STANDARD DETAILS.
- 4. ALL PLANT MATERIAL SHALL BE FREE OF ALL PESTS, DISEASES, AND CANKERS, IN HEALTHY CONDITION, AND FREE OF MECHANICAL DAMAGE AT THE TIME OF PLANTING AS DETERMINED BY URBAN FORESTRY STAFF.
- PROVIDE PLANTS OF SIZES, GRADES, AND BALL OR CONTAINER SIZES COMPLYING WITH ANSI Z60.1 FOR TYPES AND FORM OF PLANTS REQUIRED. PLANTS OF LARGER SIZE MAY BE USED IF ACCEPTABLE TO URBAN FORESTER, WITH A PROPORTIONATE INCREASE IN SIZE OF ROOTS OR BALLS.
- 6. LABEL EACH PLANT OF EACH VARIETY AND CALIPER WITH A SECURELY ATTACHED, WATERPROOF TAG BEARING LEGIBLE DESIGNATION OF BOTANICAL AND COMMON NAME. INCLUDE NOMENCLATURE FOR HYBRID, VARIETY, OR
- WHEN MORE THAN ONE PLANT OF ANY SPECIES IS PLANTED, ALL PLANT MATERIAL SHALL BE UNIFORM IN SIZE AND SHAPE WHEN POSSIBLE, ALL PLANT MATERIAL SHALL HAVE FULL FORM WITH EVEN-SPACED BRANCHING ONE-SIDED PLANTS OR TIGHT ROW PLANTS ARE NOT ACCEPTABLE IF THE GROWTH HABIT IS ADVERSELY

8. TREE AND SHRUB MEASUREMENTS

- A. MEASURE ACCORDING TO ANSI Z60.1 WITH BRANCHES AND TRUNKS OR CANES IN THEIR NORMAL POSITION. DO NOT PRUNE TO OBTAIN REQUIRED SIZES.
- B. INSTALLATION SIZE FOR RIGHT OF WAY TREES.
- SHADE TREES SHALL BE A MINIMUM OF 3" CALIPER AND 10' TALL.
- UNDERSTORY TREES SHALL BE A MINIMUM OF 1.5" CALIPER FOR SINGLE STEM AND 6' TALL FOR BOTH SINGLE AND MULTI-STEMMED TREES.

9. BALLED AND BURLAP (B&B). CONTAINER AND BARE ROOT PLANT MATERIALS

- A. TREES DESIGNATED B&B SHALL BE PROPERLY DUG WITH FIRM, NATURAL BALLS OF SOIL WITH BALL SIZE NOT LESS THAN DIAMETER AND DEPTH RECOMMENDED BY ANSI Z60.1 FOR TYPE AND SIZE OF TREE, RETAINING AS MANY FIBROUS ROOTS AS POSSIBLE. BALLS SHALL BE FIRMLY WRAPPED WITH BIODEGRADABLE BURLAP AND SECURED WITH NAILS AS RECOMMENDED BY ANSI Z60.1.
- B. THE ROOT FLARE SHALL BE APPARENT AT THE SURFACE OF THE ROOT BALL. OR THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING EXCESS SOIL FROM THE TOP OF THE ROOT BALL IN ORDER TO ESTABLISH THE CORRECT GRADE. TREES SHALL BE REJECTED IF THE ROOT FLARE HAS BEEN BURIED LONG ENOUGH FOR THE STEM TO SPROUT ADVENTITIOUS ROOTS. TREES WITH LOOSE, BROKEN, PROCESSED, OR MANUFACTURED ROOT BALLS WILL NOT BE ACCEPTED.
- C. CONTAINER-GROWN STOCK SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED EXTERIOR PLANTS GROWN IN A CONTAINER WITH WELL-ESTABLISHED ROOT SYSTEM REACHING SIDES OF CONTAINER AND MAINTAINING A FIRM BALL WHEN REMOVED FROM CONTAINER. THE ROOT FLARE SHALL BE APPARENT AT SURFACE OF BALL. OR THE CONTRACTOR WILL BE RESPONSIBLE FOR REMOVING EXCESS SOIL FROM THE TOP OF THE ROOT BALL IN ORDER TO ESTABLISH THE CORRECT GRADE. CONTAINER SHALL BE RIGID ENOUGH TO HOLD BALL SHAPE AND PROTECT ROOT MASS DURING SHIPPING AND BE SIZED ACCORDING TO ANSI Z60.1 FOR KIND, TYPE, AND SIZE OF EXTERIOR PLANT REQUIRED.
- D. BARE ROOT MATERIAL SHALL BE GROWN IN THE GROUND IN THE NURSERY WITHOUT ARTIFICIAL ROOT RESTRICTION DEVICES, SUCH AS CONTAINERS OR FABRIC BAGS, UNDER FAVORABLE GROWING CONDITIONS AND WHICH HAVE RECEIVED THE PROPER CULTURAL TREATMENT TO DEVELOP A WELL-BRANCHED ROOT SYSTEM. AFTER HARVEST, THE SOIL IS REMOVED FROM THE ROOTS.

10. DELIVERY, STORAGE AND HANDLING

- A. DO NOT PRUNE TREES AND SHRUBS BEFORE DELIVERY. PROTECT BARK. BRANCHES. AND ROOT SYSTEMS FROM SUN SCALD. DRYING. 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 EXTERIOR PLANTS DURING DELIVERY. DO NOT DROP EXTERIOR PLANTS DURING DELIVERY.
- B. HANDLE PLANTING STOCK BY ROOT BALL. HEAVIER MATERIAL SHALL BE HANDLED WITH STRAPS ON THE ROOT BALL AND APPROPRIATE EQUIPMENT SUCH AS A SMALL SKID STEER LOADER.
- C. DELIVER BARE-ROOT STOCK PLANTS FRESHLY DUG. IMMEDIATELY AFTER DIGGING UP BARE-ROOT STOCK, PACK ROOT SYSTEM IN WET STRAW, HAY, OR OTHER SUITABLE MATERIAL TO KEEP ROOT SYSTEM MOIST UNTIL PLANTING.
- D. DELIVER EXTERIOR PLANTS AFTER PREPARATIONS FOR PLANTING HAVE BEEN COMPLETED AND INSTALL IMMEDIATELY. IF PLANTING IS DELAYED MORE THAN SIX HOURS AFTER DELIVERY, SET EXTERIOR PLANTS IN THEIR APPROPRIATE ASPECT (SUN, FILTERED SUN, OR SHADE), PROTECT FROM WEATHER AND MECHANICAL DAMAGE, AND KEEP ROOTS MOIST.
- SET BALLED STOCK ON GROUND AND COVER BALL WITH SOIL, PEAT MOSS, SAWDUST, OR OTHER ACCEPTABLE MATERIAL.
- DO NOT REMOVE CONTAINER-GROWN STOCK FROM CONTAINERS BEFORE TIME OF PLANTING.
- WATER ROOT SYSTEMS OF EXTERIOR PLANTS STORED ON-SITE WITH A FINE-MIST SPRAY. WATER AS OFTEN AS NECESSARY TO MAINTAIN ROOT SYSTEMS IN A MOIST, BUT NOT OVERLY-WET CONDITION
- HEEL-IN BARE-ROOT STOCK. SOAK ROOTS THAT ARE IN DRY CONDITION IN WATER FOR TWO HOURS. REJECT DRIED-OUT PLANTS

NURSERY

- A. PLANTS SHALL BE GROWN WITHIN ONE COLD HARDINESS ZONE OF THE PROJECT SITE.
- B. PROVIDE DIGITAL PHOTOS FROM THE NURSERY WITH HEIGHT IDENTIFIED FOR REVIEW BY THE URBAN FORESTER OR DESIGNEE PRIOR TO DIGGING OR SHIPPING. ALL TREES SHALL ALSO BE REVIEWED AND APPROVED PRIOR TO INSTALLATION EITHER AT PLACE OF PURCHASE, NURSERY, HOLDING YARD OR WORK SITE BY THE URBAN FORESTER OR DESIGNEE

12. OBSERVATION AND REJECTION

A. URBAN FORESTER OR DESIGNEE MAY OBSERVE TREES AT PLACE OF PURCHASE, NURSERY HOLDING YARD, OR AT SITE BEFORE PLANTING FOR COMPLIANCE WITH REQUIREMENTS FOR GENUS, SPECIES, VARIETY, SIZE, AND QUALITY. URBAN FORESTER RETAINS RIGHT TO OBSERVE TREES FURTHER FOR SIZE AND CONDITION OF BALLS AND ROOT SYSTEMS, INSECTS, INJURIES, AND LATENT DEFECTS AND TO REJECT UNSATISFACTORY OR DEFECTIVE MATERIAL AT ANY TIME DURING PROGRESS OF WORK. REMOVE REJECTED TREES IMMEDIATELY FROM PROJECT SITE.

- A. REQUESTS FOR SUBSTITUTION FOR THE LISTED PLANT MATERIAL MUST BE MADE TO THE URBAN FORESTER IN WRITING. THE REQUEST SHALL INCLUDE A MINIMUM OF 5 NURSERIES ATTEMPTED FOR LOCATION AND CONTACT INFORMATION. SUBSTITUTIONS WILL BE CONSIDERED IF THE LISTED MATERIAL CANNOT BE LOCATED OR CONFIRMED BY KNOWN SUPPLIERS. PLANT SUPPLIERS MUST BE RESEARCHED AND LOCATED PRIOR TO SUBMITTAL. IF PLANT MATERIAL SUBSTITUTIONS ARE TO BE MADE AFTER AWARD OF THE CONTRACT OR PERMIT, THE SUBSTITUTION MUST BE OF SIMILAR GROWTH HABIT, FORM, AND CHARACTERISTICS; SIMILAR IN SPECIFIED SIZE; AND EQUAL IN PRICE AND SUBJECT TO APPROVAL OR REJECTION BY THE URBAN FORESTER.
- B. IF FOR ANY REASON TREES CANNOT BE INSTALLED ACCORDING TO THE PLANS A REQUEST SHALL BE MADE TO THE URBAN FORESTER IN WRITING. THE CONTRACTOR SHALL INFORM THE CITY AND ALTERNATE PLANTING LOCATIONS SHALL BE SELECTED FOR APPROVAL BY THE URBAN FORESTER.

- 1. PLEASE REFER TO CITY OF RALEIGH STANDARD DETAILS LOCATED AT RALEIGHNC.GOV
- 2. LINEAR SPACING AND LOCATION
 - TREES WILL BE PLANTED IN ACCORDANCE WITH SPACING REQUIREMENTS DETAILED IN THE UNIFIED DEVELOPMENT ORDINANCE UNLESS OTHERWISE DIRECTED BY THE URBAN FORESTER OR DESIGNEE
 - B. TREES TO BE INSTALLED UNDER OVERHEAD UTILITY LINES SHALL HAVE A MATURE HEIGHT OF NO GREATER THAN 30FT.

C. GROUPED PLANTINGS

 GROUPING TREES WHEREVER POSSIBLE AND DESIGNING TREE PITS OR MULCH AREAS THAT ALLOW SHARED ROOT SPACE PROVIDES A NUMBER OF BENEFITS TO THE HEALTH AND LONGEVITY OF URBAN TREES. DESIGNS THAT GROUP TREES ARE FAVORED OVER INDIVIDUAL PLANTINGS

A. TREE AND SHRUB EXCAVATION

- PLANTING HOLE: EXCAVATE CIRCULAR PITS WITH SIDES SLOPED INWARD. TRIM BASE LEAVING CENTER AREA RAISED SLIGHTLY TO SUPPORT ROOT BALL AND ASSIST IN DRAINAGE. DO NOT FURTHER DISTURB BASE. SCARIFY SIDES OF PLANT PIT SMEARED OR SMOOTHED DURING
- EXCAVATE APPROXIMATELY THREE TIMES AS WIDE AS BALL DIAMETER FOR ALL PLANT
- PLANTING HOLES SHALL BE NO DEEPER THAN THE ROOT FLARE OF THE TREE OR PLANT WHICH SHALL BE INSTALLED AT GRADE, A MAXIMUM OF 2 INCHES ABOVE GRADE, AND NEVER BELOW
- SOIL REMOVED FROM EXCAVATIONS MAY BE USED AS BACKFILL PROVIDED IT MEETS THE SPECIFIED PLANTING SOIL MIX REQUIREMENTS.
- OBSTRUCTIONS: NOTIFY URBAN FORESTER IF UNEXPECTED ROCK OR OBSTRUCTIONS DETRIMENTAL TO TREES OR SHRUBS ARE ENCOUNTERED IN EXCAVATIONS.
- DRAINAGE: PLANTING HOLES NOT ASSOCIATED WITH A DRAIN SYSTEM SHALL DRAIN FULLY WITHIN A 12-HOURPERIOD. NOTIFY URBAN FORESTER IF SUBSOIL CONDITIONS EVIDENCE UNEXPECTED WATER SEEPAGE OR RETENTION IN TREE OR SHRUB PITS.

B. TREE AND SHRUB PLANTING

- a. SET BALLED AND BURLAPPED STOCK PLUMB AND IN CENTER OF PIT OR TRENCH WITH ROOT FLARE AT GRADE. A MAXIMUM OF 2 INCHES ABOVE ADJACENT FINISH GRADES. AND NEVER BELOW GRADE. DO NOT MANEUVER BY TRUNK. HANDLE BY ROOT BALL
- b. REMOVE BURLAP AND WIRE BASKETS FROM THE TOP ½ OF ROOT BALL, CUT OFF AND DISCARD FROM HOLE, 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.
- c. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS, TAMPING GENTLY TO SETTLE MIX AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PIT IS APPROXIMATELY ONE-HALF BACKFILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. PLACING AND TAMPING FINAL LAYER OF PLANTING SOIL MIX.

CONTAINER

- a. SET CONTAINER-GROWN STOCK PLUMB AND IN CENTER OF PIT OR TRENCH WITH ROOT FLARE AT GRADE, A MAXIMUM OF 2 INCHES ABOVE ADJACENT FINISH GRADES, AND NEVER BELOW GRADE. DO NOT MANEUVER BY TRUNK. HANDLE BY ROOT BALL ONLY.
- b. CAREFULLY REMOVE ROOT BALL FROM CONTAINER WITHOUT DAMAGING ROOT BALL OR PLANT. GENTLY LOOSEN THE ROOTS AND CUT ANY GIRDLING ROOTS IN AT LEAST TWO
- c. PLACE PLANTING SOIL MIX AROUND ROOT BALL IN LAYERS, TAMPING TO SETTLE MIX AND ELIMINATE VOIDS AND AIR POCKETS. WHEN PIT IS APPROXIMATELY ONE-HALF BACKFILLED, WATER THOROUGHLY BEFORE PLACING REMAINDER OF BACKFILL. REPEAT WATERING UNTIL NO MORE WATER IS ABSORBED. WATER AGAIN AFTER PLACING AND TAMPING FINAL LAYER OF PLANTING SOIL MIX.

BARE ROOT

a. FOLLOW THE METHOD FOR CONTAINER PLANTING. STAKING REQUIRED.

C. TREES IN SIDEWALKS, PITS, GRATES AND TREE LAWNS

- TREE GRATES
- a. 4' X 6' GRAY IRON, ADA COMPLIANT b. TREE GRATES SHALL HAVE A PROVISION FOR TRUNK EXPANSION OF THE TREE. SUCH
- AS POP OUT CONCENTRIC RINGS IN THE GRATE AROUND THE TRUNK. c. NO UTILITIES OR ELECTRICAL CONDUITS ARE PERMITTED WITHIN THE TREE PIT OR GRATE. UTILITIES MAY RUN BELOW AND THROUGH THE SUBSURFACE ROOT EXPANSION
- TREES SHALL BE CENTERED IN THE PIT
- TREE PITS SHALL ACCOMMODATE A DEPTH OF 3' OF PLANTING SOIL.
- HIGH QUALITY PLANTING SOIL SHALL BE USED IN THE PIT DIRECTLY BELOW THE GRATE
- DRAINAGE SHALL BE PROVIDED.

D. TREE LAWN

- MINIMUM 6 FEET WIDE TREE LAWN.
- TREE CENTERED IN AREA.
- 600 CUBIC FEET OF HIGH-QUALITY PLANTING SOIL IN THE IMMEDIATE AREA WHERE TREE IS TO BE PLACED.

E. REQUIRED SUBSURFACE ROOT EXPANSION

- HIGH-QUALITY PLANTING SOIL OR STRUCTURAL SOIL SHALL BE USED TO ACCOMPLISH THE
- 600 CUBIC FEET OF SUBSURFACE ROOT EXPANSION AREA REQUIRED PER TREE.
- a. STRUCTURAL SOIL
- b. SUBSURFACE SOIL CONTAINMENT STRUCTURE
- c. ROOT PATHWAYS
- MAY ONLY BE USED IN COMBINATION WITH OTHER OPTIONS OR IN CASES WHERE CONNECTIONS TO AVAILABLE SOIL SPACE ACHIEVES THE 600 CUBIC FEET REQUIREMENT
- 20-FOOT MINIMUM EXTENSION FOR EACH PATH. CONNECT TO ADJACENT ROOT PATHS WHEN POSSIBLE.
- WHEN ROOT EXPANSION PATHS EXTEND UNDER THE SIDEWALK ENSURE MINIMUM DENSITY REQUIREMENTS ARE MET.
- d. SUSPENDED PAVEMENT

e. EXCEPTIONS AND DESIGN ALTERNATIVES ARE ENCOURAGED TO ACHIEVE SOIL VOLUME: G. TREE PROTECTION URBAN FORESTER REVIEW REQUIRED.DESIGNS THAT GROUP TREES AND CONNECT ROOT SPACES WILL BE FAVORED AS WELL AS THE INTRODUCTION OF LID MATERIALS

AND TECHNOLOGY.

- APPLY 3 INCH AVERAGE THICKNESS OF ORGANIC MULCH EXTENDING 12 INCHES BEYOND EDGE OF PLANTING PIT OR TRENCH. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS. ROOT FLARE SHALL BE VISIBLE AT BASE OF ALL PLANT MATERIAL.
- MULCH SHALL BE THE RESPONSIBILITY OF THE ADJACENT PROPERTY OWNER TO REFRESH AS NEEDED AND KEEP FREE OF DEBRIS AND TRASH.

- BACKFILL DIRECTLY IN TREE PIT OR PLANTING AREA SHALL BE HIGH-QUALITY PLANTING SOIL SUITABLE FOR SUCCESSFUL GROWTH.
- IF SOIL ON SITE IS SUITABLE IT MAY BE MIXED AT A RATE OF 50% WITH HIGH-QUALITY PLANTING
- SOIL MUST BE FREE OF SUBSOIL, HARD CLODS, STONE, RESIDUES OR UNDESIRABLE MATERIALS, STICKS, WEED SEED AND UNIFORM IN QUALITY.
- THE URBAN FORESTER OR DESIGNEE MAY REJECT UNSUITABLE SOIL.

H. GUYING AND STAKING

- DO NOT STAKE UNLESS THE TREE BECOMES UNSTABLE OR IT IS A HIGH WIND AREA.
- REMOVE ALL STAKING MATERIAL AFTER 1 YEAR.
- LEAVE SLIGHT SLACK IN TIE TO PROMOTE TRUNK TAPER.
- UPRIGHT STAKING AND TYING: WHEN REQUIRED USE A MINIMUM OF 3 STAKES. SET VERTICAL STAKES AND SPACE TO AVOID PENETRATING ROOT BALLS OR ROOT MASSES. SUPPORT TREES WITH TWO STRANDS OF TIE WIRE ENCASED IN HOSE SECTIONS OR ARBORIST TAPE AT CONTACT POINTS WITH TREE TRUNK. ALLOW ENOUGH SLACK TO AVOID RIGID RESTRAINT OF TREE. SPACE STAKES EQUALLY AROUND TREES AND ATTACH FLAGS TO EACH GUY WIRE FOR

F. MAINTENANCE AND WARRANTY STANDARDS

A TREE IMPACT PERMIT IS REQUIRED FOR MAINTENANCE ACTIVITIES

IT IS THE ADJACENT PROPERTY OWNER'S RESPONSIBILITY TO MAINTAIN THE MULCH RING OR TREE GRATE AROUND TREES IN THE RIGHT OF WAY AND PREVENT STRING TRIMMER OR MOWER DAMAGE.

A 2-YEAR WARRANTY AND MAINTENANCE PERIOD IS REQUIRED AFTER THE FINAL INSPECTION OF PERMITTED PLANTING.

TREE AND 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. SPRAY OR TREAT AS REQUIRED TO KEEP

- PLANTS FREE OF INSECTS AND DISEASE. B. FILL IN AS NECESSARY SOIL SUBSIDENCE THAT MAY OCCUR BECAUSE OF SETTLING, RUTTING OR DAMAGE BY EQUIPMENT OR OTHER PROCESSES. REPLACE MULCH MATERIALS DAMAGED OR LOST IN
- APPLY TREATMENTS AS REQUIRED TO KEEP PLANT MATERIALS, PLANTED AREAS AND SOILS FREE OF PESTS AND PATHOGENS OR DISEASE. USE INTEGRATED PEST MANAGEMENT PRACTICES WHENEVER POSSIBLE TO MINIMIZE THE USE OF PESTICIDES AND REDUCE HAZARDS. TREATMENTS INCLUDE PHYSICAL CONTROLS SUCH AS HOSING OFF FOLIAGE, MECHANICAL CONTROLS SUCH AS TRAPS, AND

BIOLOGICAL CONTROL AGENTS. 2. WATERING INSTRUCTIONS

- A. PROVIDE AND MAINTAIN TEMPORARY PIPING, HOSES, AND WATERING EQUIPMENT TO CONVEY WATER
- B. SCHEDULE WATERING TO COMPLY WITH THE CITY OF RALEIGH WATER CONSERVATION ORDINANCE. WATERING VOLUMES SHOULD BE BASED UPON DELIVERY OF INCH OF MOISTURE PER WEEK TO THE

PLANT IF PRECIPITATION DOES NOT MEET THAT AMOUNT DURING THE ACTIVE GROWING SEASON

- DEFINED AS APRIL 1 THROUGH NOVEMBER 1 D. SUPPLEMENTAL WATER SHALL BE APPLIED DURING THE ESTABLISHMENT PERIOD AS FREQUENTLY AS 3 TIMES PER WEEK AND DURING PERIODS OF DROUGHT OR EXCESSIVE HEAT.
- E. USE A SLOW FLOW HOSE END DEVICE AND WATER EACH TREE AT THE BASE FOR SEVERAL MINUTES. COMMERCIALLY AVAILABLE WATER BAGS ARE ACCEPTABLE. AT EACH VISIT MAKE SURE THE BAG IS EMPTY, THOROUGHLY SOAK THE ROOT BALL, THEN REFILL THE BAG CHECKING THE EMITTERS ALLOW FREE FLOW OF WATER TO ENSURE THE BAG WILL DRAIN. ALL WATERING BAGS SHALL BE REMOVED

FROM TREES STARTING NOVEMBER 1 UNTIL APRIL 1 OF FOLLOWING YEAR.

- MAINTAIN A 3-INCH AVERAGE THICKNESS OF ORGANIC MULCH EXTENDING 12 INCHES BEYOND EDGE OF PLANTING PIT OR TRENCH. TYPICAL MATERIAL IS SHREDDED HARDWOOD, PINE BARK, WOOD CHIPS OR PINE STRAW (NOT PERMITTED WITHIN 10' OF STRUCTURES).
- B. MULCH TO THE DRIP LINE OF MATURE TREES.
- C. DO NOT PLACE MULCH WITHIN 3 INCHES OF TRUNKS OR STEMS. ROOT FLARE SHALL BE VISIBLE AT BASE OF ALL PLANT MATERIAL. D. KEEP MULCH FREE OF WEEDS. TRASH AND DEBRIS
- THE MULCH RING PREVENTS STRING TRIMMER, MOWER AND OTHER MECHANICAL DAMAGE. IT ALSO

PESTICIDE AND HERBICIDE APPLICATION

IMPROVES SOIL QUALITY, MOISTURE AND TEMPERATURE EXCHANGE, AESTHETICS AND OVERALL HEALTH AND LONGEVITY OF THE URBAN TREE

- A. TREE GRATE MAINTENANCE IS THE RESPONSIBILITY OF THE ADJACENT PROPERTY OWNER. MAINTAIN GRATES FREE OF WEEDS TRASH AND DEBRIS
- B. REPLENISH GRAVEL AS NEEDED TO MAINTAIN AN EVEN SURFACE. GRAVEL SHALL MATCH EXISTING MATERIAL; TYPICALLY GRAY PEA GRAVEL/#67 WASHED STONE GRAVEL.
- C. NOTIFY URBAN FORESTER IF THE TREE GRATE IS GIRDLING TREE OR CAUSING DAMAGE TO TREE.

APPLY PESTICIDES AND OTHER CHEMICALS AND BIOLOGICAL CONTROL AGENTS IN ACCORDANCE WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION AND MANUFACTURER'S WRITTEN RECOMMENDATIONS. COORDINATE APPLICATIONS WITH CITY OPERATIONS AND OTHERS IN PROXIMITY TO THE WORK, NOTIFY URBAN FORESTER BEFORE EACH APPLICATION IS PERFORMED OR AS SPECIFIED

- B. PRE-EMERGENT HERBICIDE: APPLY TO TREE, SHRUB AND GROUND-COVER AREAS IN ACCORDANCE
- WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS. DO NOT APPLY TO SEEDED AREAS. POST-EMERGENT HERBICIDE: APPLY ONLY AS NECESSARY TO TREAT ALREADY-GERMINATED WEEDS AND IN ACCORDANCE WITH MANUFACTURER'S WRITTEN RECOMMENDATIONS.

- A. ALL TREE PRUNING SHALL BE DONE BY OR UNDER THE SUPERVISION OF AN ISA CERTIFIED ARBORIST
- B. ANSI A-300 PRUNING STANDARDS SHALL APPLY (CHAPTER 6)

DRAPE WITH WET BURLAP

8. TREE REPLACEMENT OF WARRANTIED TREES

- A. AREA FOR ROOT PRUNING MUST BE APPROVED BY AN ISA CERTIFIED ARBORIST TO PREVENT A
- HAZARDOUS TREE CONDITION (CHAPTER 6) B. ACCEPTABLE METHODS OF CUTTING ARE BY SHARP HAND PRUNERS, LOPPERS, HAND SAW OR
- HYDRAULIC TOOLS. IMPLEMENT MUST LEAVE A CLEAN CUT. C. IF EXCAVATION CAUSES PRUNED ROOTS OVER 1.5" IN DIAMETER TO REMAIN EXPOSED FOR MORE THAN 24 HOURS, ROOTS ON TREE SIDE SHALL BE KEPT MOIST. BACKFILL WITH TOPSOIL, MOIST MULCH, OR
- D. WHERE CONCRETE IS POURED ADJACENT TO PRUNED ROOTS HEAVY DUTY PLASTIC SHALL BE INSTALLED AGAINST THE TREE SIDE OF THE PRUNED ROOTS TO PREVENT UPTAKE (TOXIC TO TREE)

A. TREES SHALL BE REPLACED IN THE NEXT PLANTING SEASON IF THEY ARE MORE THAN 25% DEAD, IN RAPID DECLINE, ARE INFESTED BY INSECTS OR DISEASE, HAVE LOST THE NATURAL SHAPE DUE TO

MAINTENANCE, OR ARE FAILING DUE TO OTHER CAUSES.

B. REPLACEMENT TREES INSTALLED AFTER THE 1ST YEAR OF A 2-YEAR WARRANTY/MAINTENANCE PERIOD SHALL GET A FULL 1 YEAR OF WARRANTY/MAINTENANCE FROM THE TIME OF PLANTING. C. DEAD, DYING, DISEASED OR VANDALIZED TREES THAT ARE DESTROYED SHALL BE REMOVED WITHIN 15

DEAD BRANCHES. EXCESSIVE PRUNING INCLUDING VANDALISM. INADEQUATE OR IMPROPER

D. REPLACEMENT TREE SPECIES MAY BE CHANGED WITH APPROVAL FROM URBAN FORESTER OR DESIGNEE

A TREE PROTECTION PLAN IS REQUIRED FOR ANY ACTIVITY IMPACTING CITY TREES INTENDED TO REMAIN.

TREE PROTECTION PLAN

- A. SUBMIT PROJECT PLANS SHOWING TREE PROTECTION WITH THE TREE IMPACT PERMIT REQUEST.
- B. TREE PROTECTION PLAN SHALL INCLUDE ALL THAT APPLY
- EXISTING TREES ON SITE
- CRITICAL ROOT ZONES OF PROTECTED TREES
- TREE PROTECTION FENCING DELINEATION AND SPECIFICATION
- OTHER PRODUCTS FOR PROTECTION (MULCH/MATTING/ETC.)
- 2. TREE PROTECTION FENCING SHALL BE INSTALLED AT A MINIMUM RADIUS OF THE CRITICAL ROOT ZONE (CRZ) OF
- TREES (CRZ DEFINED AS RADIUS 1.25' FEET PER CALIPER INCH AT DBH FROM TRUNK OF TREE).

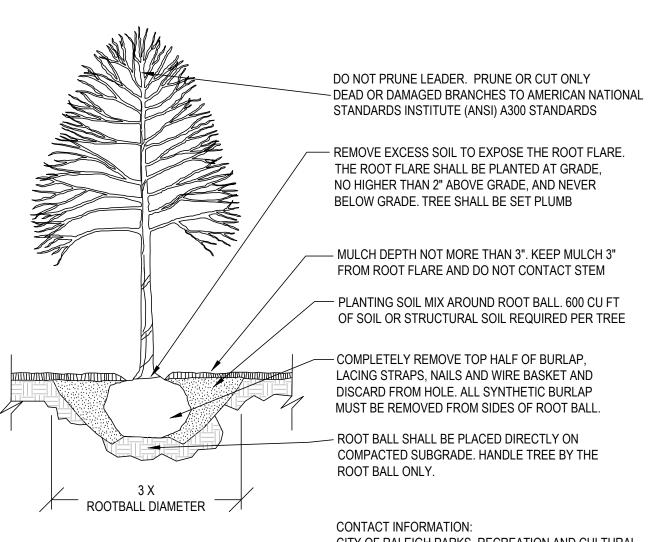
REMEDIATION

3. TREE PROTECTION SIGNAGE REQUIRED EVERY 50 FEET.

4. IF CONSTRUCTION OCCURS WITHIN THE CRZ AT LEAST 12" OF MULCH SHALL BE PLACED AND/OR LOGGING MATS

WHERE MACHINERY MANEUVERS TO REDUCE SOIL COMPACTION IN THIS ZONE AND IDENTIFY ON PLAN.

- 5. THE TREE PROTECTION FENCING SHALL NOT BE VIOLATED FOR THE DURATION OF THE PROJECT WITHOUT APPROVAL FROM URBAN FORESTRY STAFF.
- 6. THERE WILL BE ZERO TOLERANCE FOR STORING OR PARKING VEHICLES, SUPPLIES, OR EQUIPMENT UNDER
- 7. REMEDIATION INCLUDES BUT IS NOT LIMITED TO REPLACEMENT, PRUNING, SUPPLEMENTAL WATER, MULCH, NUTRITION (FERTILIZER, ORGANIC MATTER, ETC.), INSECT/DISEASE CONTROL, STAKING AND COMPACTION
- 8. AFTER CONSTRUCTION OR IMPACT PROTECTION DEVICES SHALL BE REMOVED. MULCH OR OTHER MATERIALS USED FOR A ROOT BUFFER SHALL BE REMOVED BY HAND WITHIN THE CRITICAL ROOT ZONE. IT MAY BE REMOVED MECHANICALLY BEYOND THIS ZONE. THERE SHALL BE 3" OF MULCH LEFT ON SITE AS DESCRIBED IN SECTION F.3 OF THIS CHAPTER.



STANDARDS INSTITUTE (ANSI) A300 STANDARDS - REMOVE EXCESS SOIL TO EXPOSE THE ROOT FLARE. THE ROOT FLARE SHALL BE PLANTED AT GRADE, NO HIGHER THAN 2" ABOVE GRADE, AND NEVER

- MULCH DEPTH NOT MORE THAN 3". KEEP MULCH 3" FROM ROOT FLARE AND DO NOT CONTACT STEM

COMPLETELY REMOVE TOP HALF OF BURLAP,

- ROOT BALL SHALL BE PLACED DIRECTLY ON COMPACTED SUBGRADE. HANDLE TREE BY THE

CITY OF RALEIGH PARKS, RECREATION AND CULTURAL RESOURCES DEPARTMENT URBAN FORESTER: TREES@RALEIGHNC.GOV WWW.RALEIGHNC.GOV

- TREES MUST MEET THE TREE QUALITY STANDARDS IN CH. 2 OF THE CITY TREE MANUAL.
- 2. CONTRACTOR IS RESPONSIBLE FOR ADEQUATE DRAINAGE OF ALL PLANTING PITS. (POSITIVE DRAINAGE AWAY FROM PIT)

3. TREES SHALL BE PLANTED BETWEEN

IMMEDIATELY SURROUNDING THE TREE.

OCTOBER 1ST AND APRIL 30TH.

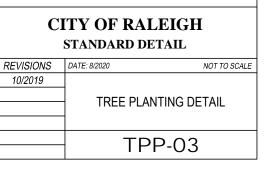
4. A TREE IMPACT PERMIT IS REQUIRED. 5. ELECTRICAL OUTLETS AND OTHER UTILITIES ARE PROHIBITED IN THE PLANTING AREA

7. TREES WILL HAVE A MINIMUM 1 YEAR WARRANTY

6. IF STAKING IN ACCORDANCE WITH THE CITY TREE MANUAL, THE STAKING MUST BE REMOVED WITHIN ONE YEAR.

AFTER THE INITIAL PLANTING IS APPROVED BY THE CITY.

CITY OF RALEIGH STANDARD DETAILS AND NOTES FOR CITY TREES



NOTE: DETAIL TPP-03 IS FOR STREET TREE PLANTINGS. SEE DETAIL # 5 SHEET L9.11 FOR ALL OTHER TREES ON SITE

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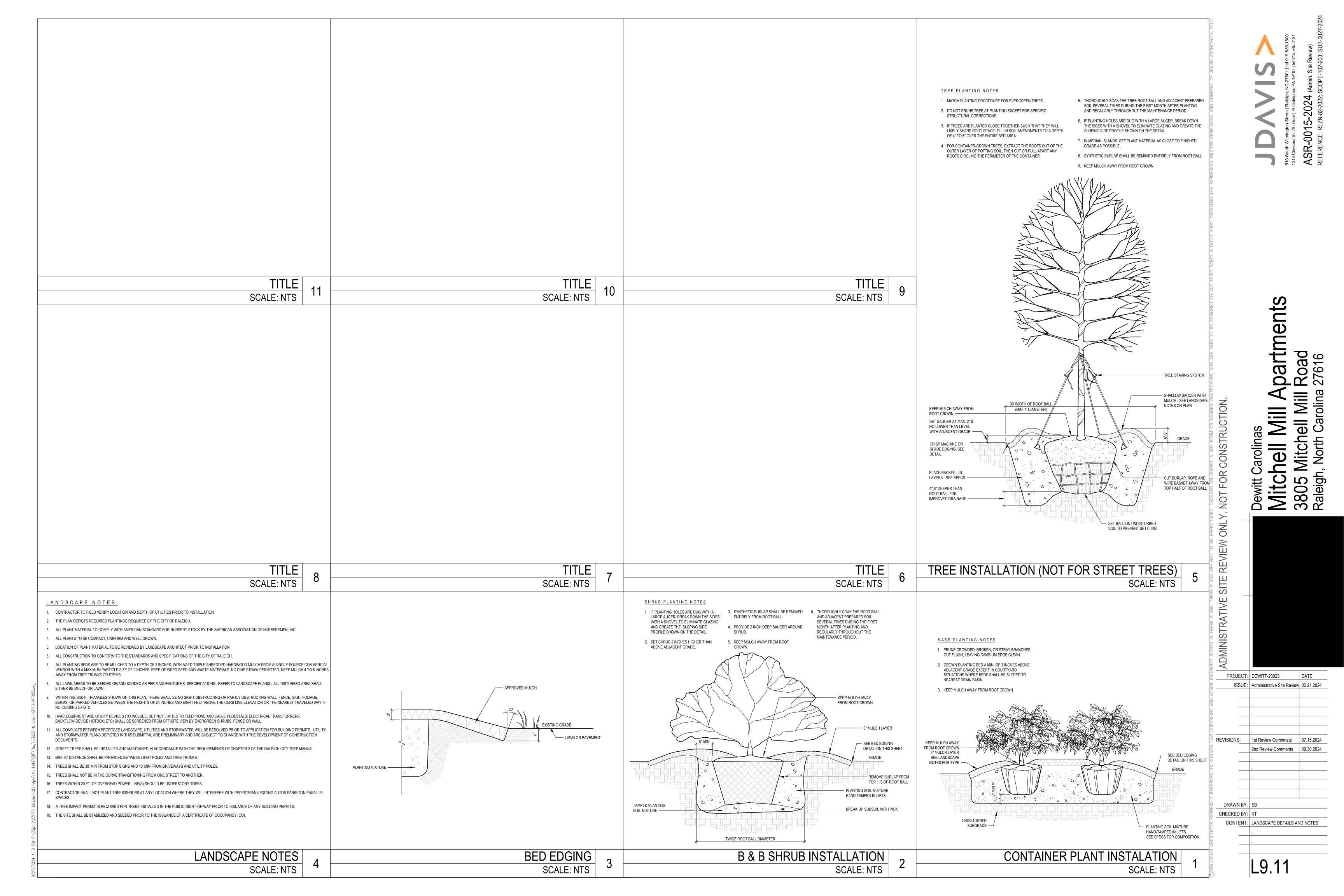
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PROJECT: DEWITT-23023 ISSUE: | Administrative Site Review | 02.21.2024 REVISIONS: 1st Review Commnets 2nd Review Comments

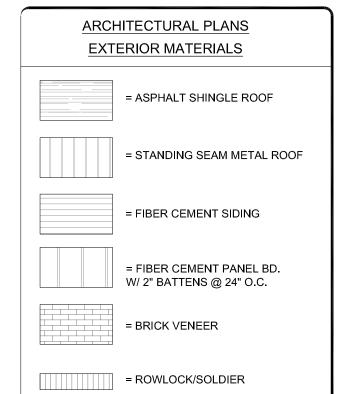
CONTENT: CITY OF RALEIGH STANDARD DETAILS AND NOTES FOR CITY TREE

DRAWN BY: SB

CHECKED BY: KT







264.4 264.4



FRONT ELEVATION



LEFT SIDE ELEVATION (CALIBER WOODS DRIVE)



RIGHT SIDE ELEVATION

— 46' 3" HIGHEST RIDGE	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
▼ HIGHEST RIDGE	
— 30' 6" TRUSS BEARING — L.	
9-1 ¹ " WALL HGT.	
3RD FLOOR	
9'-1 ¹ " WALL HGT.	
— 10' 8-1/4" — 10'	
9'-1" WALL HGT	
O'-0" FFE LEVEL - 264.9 AVG. GRADE PLANE	DS DS DS DS DS DS

REAR ELEVATION (MITCHELL MILL ROAD)







ARCHITECTURAL PLANS

EXTERIOR MATERIALS

= ASPHALT SHINGLE ROOF

= FIBER CEMENT SIDING

= FIBER CEMENT PANEL BD.

= BRICK VENEER

= ROWLOCK/SOLDIER

= STANDING SEAM METAL ROOF











REAR ELEVATION (MITCHELL MILL ROAD)

BUILDING TYPE 2 - BLDG #2, 7

Scale: 1/8" = 1'-0"





265.5 265.5

265.5

265.5

46.16'

Average Grade

Average Grade

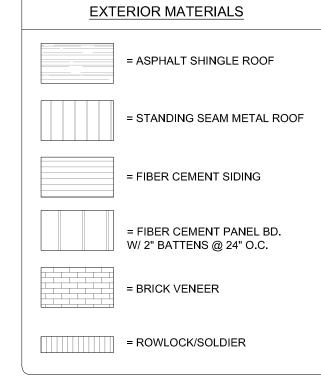
Max Building Height

Mitchell Mill Apartments **Average Grade Table**

00	F	

3 ods		12 10	12 12 10	
	30' 6" TRUSS BEARING			
	9'-12" WALL HGT.		132"	

ARCHITECTURAL PLANS EXTERIOR MATERIALS				
	= ASPHALT SHINGLE ROOF			
	= STANDING SEAM METAL ROOF			
	= FIBER CEMENT SIDING			
	= FIBER CEMENT PANEL BD. W/ 2" BATTENS @ 24" O.C.			
	= BRICK VENEER			
	= ROWLOCK/SOLDIER			



FRONT ELEVATION (CALIBER WOODS DRIVE)



0'-0" FFE

LEVEL - 265.1

AVG. GRADE PLANE
(LEVEL 264.6)

Mitchell Mill Apartments

264.6 264.6



LEFT SIDE ELEVATION

RIGHT SIDE ELEVATION



REAR ELEVATION

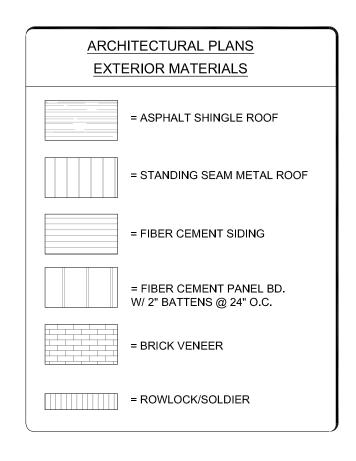




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Average Grade Ta	ble
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LICV.	Building 4
Primary Street Ca	aliber Woo
NE	266
E	266.3
SE	266
Average Grade	266.1
Finish Floor Elevation	266.5
Actual Building Height	46.33'
Max Building Height	50





FRONT ELEVATION (CALIBER WOODS DRIVE)





LEFT SIDE ELEVATION

RIGHT SIDE ELEVATION



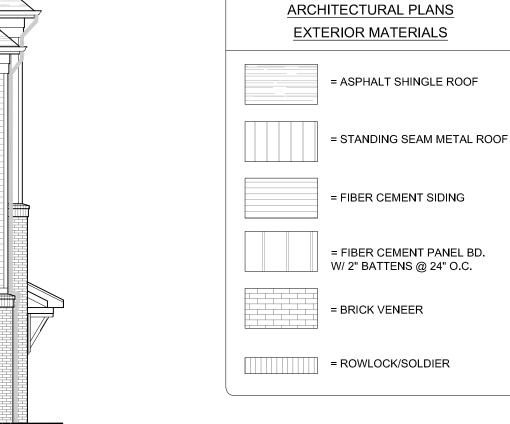
REAR ELEVATION







	— · • • • • • • • • • • • • • • • • • •			
	HIGHEST RIDGE			
Mitchell Mill Apartments				
Average Grade Table		12,		12
Elev. Building 5		10	12 12	10
Primary Street Caliber Woods			10 10	
NE 273.2		12 10		12 12
E 273.5		10		
SE 271				
rage Grade 272.6				
sh Floor Elevation 273.7	— 30' 6" TRUSS BEARING			
ual Building Height 46.91'	•			
k Building Height 50	9'-1 <u>1</u> " WALL HGT 7'-4" EAD HGT.			
	9'-1½" VALL HG 7'-4" AD HGT.			
	9, AL			
	— 21' 4-1/2" —			
	21/D1 FOOK			
	L'			
	<u> </u>			
	9'-1½" WALL HGT 7'-4"			
	— 10' 8-1/4" —			
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	HG H			
	9'-11" WALL HGT			
	9 VAI - 1			
	- 0'-0" FFE LEVEL - 273.7 BH CAP HGT	2. The state of th		
	AVG. GRADE PLANE			
	AVG. GRADE PLANE			



FRONT ELEVATION (CALIBER WOODS DR.)



(LEVEL 272.6)



LEFT SIDE ELEVATION





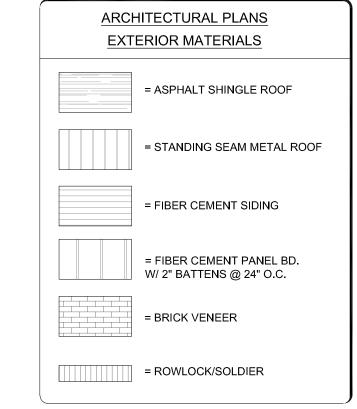
BUILDING TYPE 1 - BLDG #5

Scale: 1/8" = 1'-0"









Caliber Woods 272 274.3 274 273.4

274.5

Average Grade Finish Floor Elevation







REAR ELEVATION

BUILDING TYPE 1 - BLDG #6

Scale: 1/8" = 1'-0"









Mill Apartments

264.5 264.5 NW 264.5

= BRICK VENEER

= ROWLOCK/SOLDIER

ARCHITECTURAL PLANS



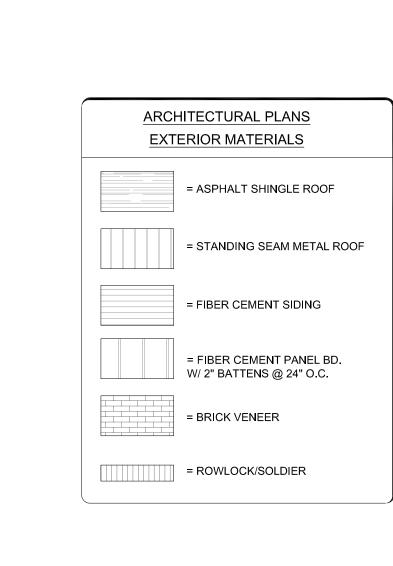
FRONT ELEVATION (PARKING)



LEFT SIDE ELEVATION (CALIBER WOODS DR.)





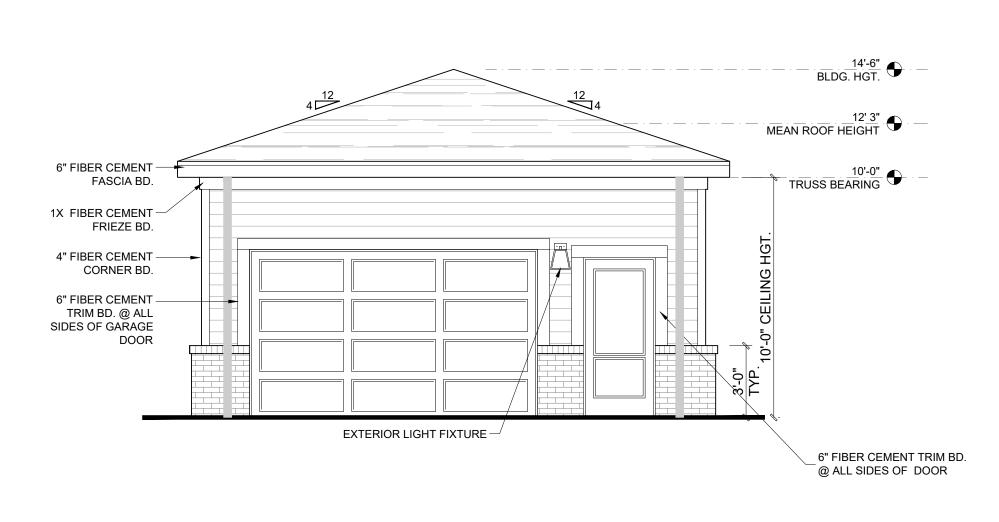


REAR ELEVATION

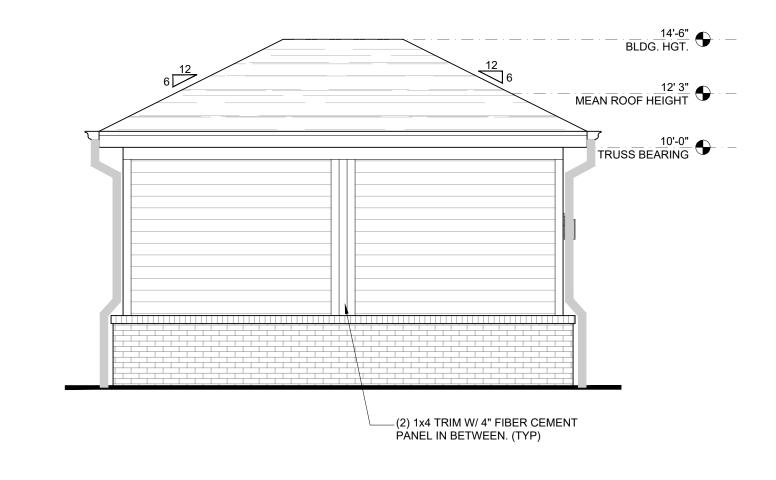








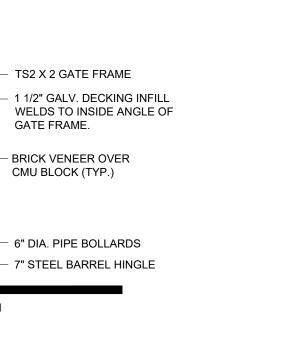
FRONT ELEVATION



SIDE ELEVATION (PARKING)







ARCHITECTURAL PLANS **EXTERIOR MATERIALS**

= ASPHALT SHINGLE ROOF

= FIBER CEMENT SIDING

= FIBER CEMENT PANEL BD. W/ 2" BATTENS @ 24" O.C.

= BRICK VENEER

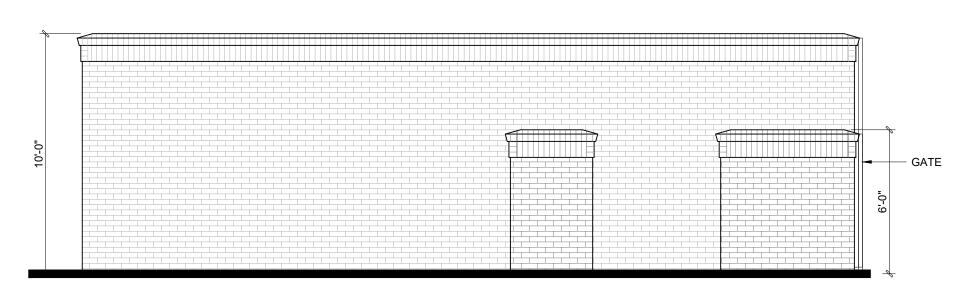
= ROWLOCK/SOLDIER

= STANDING SEAM METAL ROOF

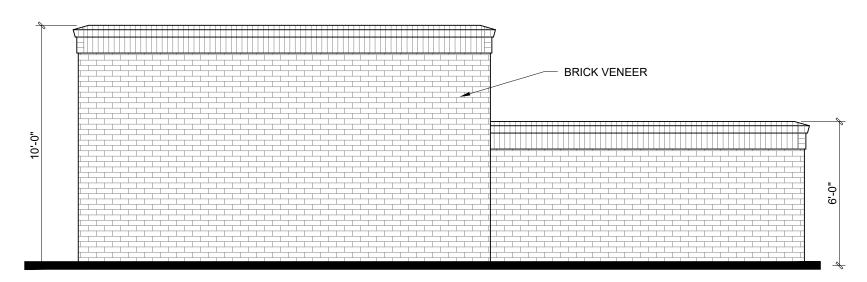
FRONT ELEVATION

UNDERCUT TO PROVIDE CLEARANCE — UNDER GATE THRU ENTIRE ARC OF SWING. VERIFY CLEARANCE IN FIELD.

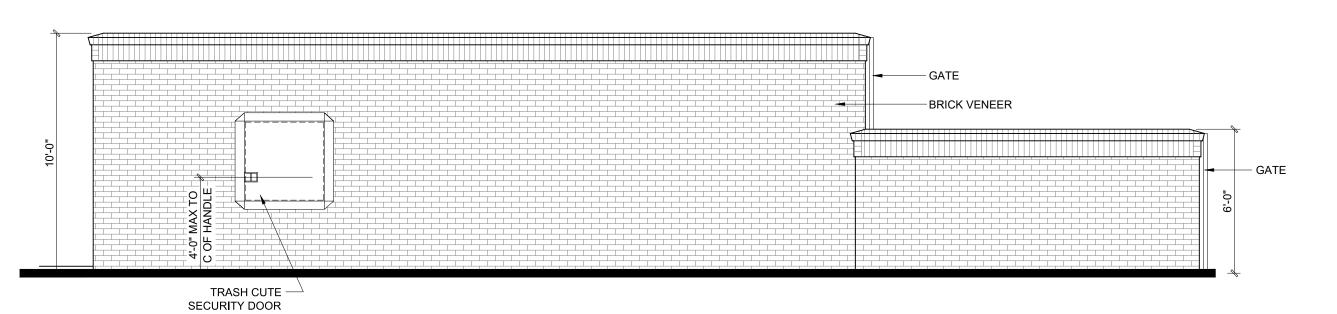
─ 5/8" DIA. X 24" DROP ROD ON BOTH DOORS INTO CONCRETE SLEEVE



LEFT ELEVATION



REAR ELEVATION



RIGHT ELEVATION



