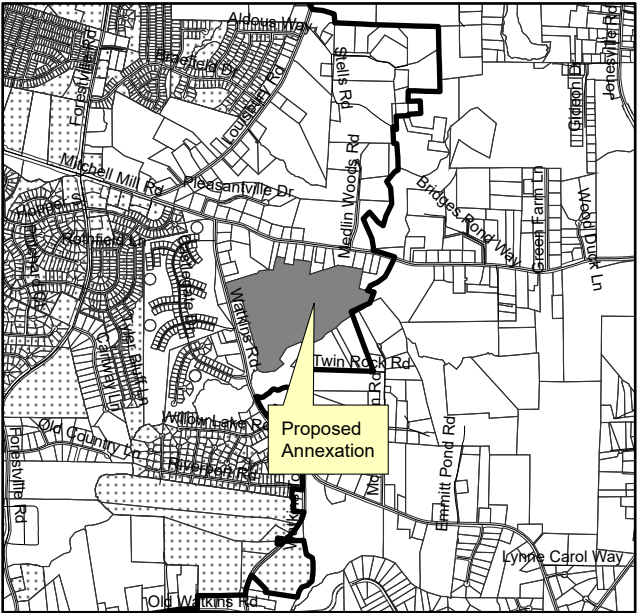





1:7,902

**3937 WATKINS RD RD
CONTIGUOUS PETITION ANNEXATION
PROPOSED EFFECTIVE X/XX/XX**



1:39,199

-  Proposed City Limits
-  Existing City Limits
-  ETJ



ANNEXATION ORDINANCE# _____

ORDINANCE ADOPTION DATE _____

APPROVED EFFECTIVE DATE _____

Subdivision or Building Permit Transaction Reference Number _____ Council District B Annexation Case File# AX-13-2022

THIS MAP IS NOT A CERTIFIED SURVEY AND NO RELIANCE ON IT AS TO METES AND BOUNDS OF INDIVIDUAL PROPERTIES MAY BE MADE.

This exhibit meets all statutory requirements for recording. _____
Planning Director / Wake County Review Officer Date

Petition for Annexation into Raleigh City Limits

Planning and Development Department • One Exchange Plaza, Suite 300 | Raleigh, NC 27601 | 919-996-2682



Section A Submittal Deadlines		
Petitions for annexation are accepted by Planning and Development at any time. There are no fees required for submittal of an annexation petition. The annexation will be scheduled for public hearing and becomes effective immediately upon adoption at the scheduled public hearing unless notified otherwise by the City Clerk.		
Section B Summary Information / Metes and Bounds Descriptions		
Development Project Name: Watkins Glen Subdivision		
Street Address: 3937 Watkins Road, Raleigh, NC 27616		
City of Raleigh Subdivision approval #: S- 19 - 2019 or	Building Permit #: _____ or	Group Housing #: GH- _____ - _____ - _____
Wake County (PINs) Property Identification Number(s): 1747847561		
Acreage of Annexation Site: 60.55 Acres	Linear Feet of New Public Streets within Annexation Boundaries: 5220 Linear Feet	
Annexation site is requesting connection to City of Raleigh Water <input checked="" type="checkbox"/> and/or Sewer <input checked="" type="checkbox"/>		
Number of proposed dwelling units: 100		
Unit Type/Unit Count:	Total Breakdown of Dwelling Units	
	Single-Family Home Unit Count <u>100</u>	Multi-Family - Condo/Apartment Unit Count <u>0</u>
	Multi-Family – Townhouse Unit Count <u>0</u>	
	Complete only for Townhome Units:	
	Are there more than 6 units in one group of townhomes? <input type="checkbox"/> Y <input type="checkbox"/> N	
	Complete only for Condo/Apartment units:	
Are buildings multi-story with stacked units? <input type="checkbox"/> Y <input type="checkbox"/> N	Will there be a community trash compactor? <input type="checkbox"/> Y <input type="checkbox"/> N	Unit Count +/- Description: <i>Example</i> 30 Studio + 1 Bath 50 1 BR + 1.5 Bath Count Bedroom + Bath ____ + ____ ____ + ____ ____ + ____

Building Square Footage of Non-Residential Space:	n/a	
Specific proposed use (office, retail, warehouse, school, etc.):	n/a	
Projected market value at build-out (land and improvements):	\$ 47,500,000	
Applicant Contact Information		
Property Owner(s):	Carlton Group of North Carolina, LLC	
Primary Mailing Address:	5856 Faringdon Place, Second Floor, Raleigh, NC 27609	
Phone:	914-403-7852	Email: morcarlton@aol.com
Project Contact information (if different that property owner)		
Contact(s):	Marshall 'Skip' Davis	
Primary Mailing Address:	95 New Clarkstown Road, Nanuet, NY 10954	
Phone:	914-403-7848	Email: skiod4@aol.com
Written metes and bounds description of property to be annexed: Attach additional sheets if necessary. An electronic copy in word format must be e-mailed to: JP.Mansolf@raleighnc.gov or Carmen.Kuan@raleighnc.gov .		

Section C Annexation Petition

State of North Carolina, County of Wake, Petition of Annexation of Property to the City of Raleigh, North Carolina

Part 1 The undersigned, being all the owners of the real property described in this application (Section B) respectfully request the annexation of said property to the City of Raleigh, North Carolina. **The petitioners understand and agree that all streets and utilities within the annexed area will be constructed and installed by the developer according to the Subdivision Ordinance and any utilities that must be extended to the annexed area are the responsibility of the developers or successive property owners.** The property to be annexed is:

☒

Contiguous to the present corporate limits of the City of Raleigh, North Carolina, or

☐

Not Contiguous to the municipal limits of the City of Raleigh, North Carolina and is located within three miles of the municipal limits of the City of Raleigh, North Carolina (pursuant to Chapter 989 of the Sessions Law of North Carolina, 1967).

Part 2 The undersigned certify that they have researched the assessment lien rolls of the City (located at <https://raleighnc.gov/services/doing-business/assessment-liens>), and that the property described in this application, including any portion thereof, ☐ is / ☒ is not (mark one) listed on any of the City's assessment lien rolls. If the property, or any portion thereof, is listed on the City's assessment lien rolls, the account number[s] for such assessment is _____.

Part 3 NC General Statutes require petitioners of both contiguous and satellite annexations to file a signed statement declaring whether vested rights have been established in accordance with G.S. §160D-108 and G.S. §160D-108.1 for properties subject to the petition.

Do you declare such vested rights for the property subject to this petition? ☒ Yes ☐ No

If yes, please submit proof that vested rights have been granted by governing board. I hereby declare that my failure to disclose existence of a vested right terminates any vested right previously acquired for this property.

Signed this 6 day of April, 2022 by the owners of the property described in Section B.

Owner's Signature(s):

Signature By: Marshall Davis Date 4-6-22
 Marshall Davis, Member/Manager
 Signature _____ Date _____
 Signature _____ Date _____
 Signature _____ Date _____

Corporate Seal

Print Owner Name(s) and Information:

Name: Marshall Davis Phone: 914-403-7848
 Address: 5856 Faringdon Place, Second Floor, Raleigh, NC 27609
 Name: _____ Phone: _____
 Address: _____

Above signature(s) attested by Morton Silberberg

Received by the City Council of Raleigh, North Carolina, this _____ day of _____, 20____, at a Council meeting duly held.

Signature of the City Clerk and Treasurer: _____

Section D Standard Payment Contract

If petitioner desires to be considered for waiver of outside sewer connection fees required by Raleigh City Code Section 8-2004 (a) and (b), which is generally a \$200 fee per dwelling, business, or industrial unit charged at the time sewer connection permit is issued if a property is outside the city limits, petitioner should submit the standard payment contract (see **Agreement**, pages 4-5). The project will be eligible for waiver of this sewer connection fee: (1) if corresponding petition is administratively recommended to be approved by City Council and (2) if the following payment contract has been submitted to the City with appropriate signatures.

State of North Carolina

County of Wake

Agreement

This Agreement ("the Agreement") is made this the _____ day of _____, year of 2022 by and between the City of Raleigh, North Carolina, (the "City") and Carlton Group of North Carolina, LLC, (the "Owner");

WITNESSETH

WHEREAS, The Owner has petitioned the City to be annexed into the corporate City limits, City File No. SUB-S-19-2019;

WHEREAS, The Owner has initiated a development project at 3937 Watkins Road, Raleigh, NC, City file SUB-S-19-2019, and said development contains sewer connections with the utility system of the City; and

WHEREAS, The parties hereto intend that during the pendency of the annexation petition, and after the petition has been recommended by staff to be approved by the City Council, the Owner should pay the City the same utility connection charges paid for developments located inside the corporate limits of the City, and further, if the City Council rejects the petition, then within thirty days following said rejection, the Owner shall pay additional moneys so that the total payment by Owner to the City is the same utility connection charges paid for developments located outside the City limits as set forth in Raleigh City Code Section 8-2004 (a) and (b).

NOW THEREFORE, in consideration for the mutual promises contained herein and other valuable consideration, the receipt of which is acknowledged by the parties, the parties hereto agree as follows:

1. Owner will be allowed to commence development without paying the City outside sewer connection charges.
2. That in the event that the annexation petition made by Owner is rejected by the City, Owner shall pay to the City all sewer connection fees required of developments located outside the City limits, as set forth in Raleigh City Code Section 8-2004 (a) and (b). Full payment shall be made within thirty days following the action of the City to deny the annexation petition.
3. That in the event Owner shall fail to make full payment to the City as required in paragraph two, the City in any cause of action for collection shall be entitled to interest at ten percent per annum plus reimbursement for all collection costs, including reasonable attorney fees.
4. That in the event Owner shall fail to make full payment to the City as required in paragraph two, the Owner agrees to allow the City to retain, as liquidated damages, any and all reimbursements owed to Owner by the City.
5. All rights granted herein in favor of the City are cumulative and supplemental to any other powers the City may have, and the rights established herein in favor of the City shall not in any way diminish or restrict the

City from exercising its police powers.

6. This Agreement shall be binding on and shall inure to the benefit of the parties hereto and their respective successors and assigns.
7. This Agreement may only be amended in writing signed by the parties hereto or their respective successors.
8. This Agreement and the legal relations of the parties hereto shall be governed by the laws of the State of North Carolina.
9. The parties hereto for themselves, their agents, officials, employees and servants agree not to discriminate in any manner on the basis of actual or perceived age, mental or physical disability, sex, religion, race, color, sexual orientation, gender identity or expression, familial or marital status, economic status, veteran status or national origin with reference to the subject matter of this Agreement, no matter how remote. The parties further agree in all respects to conform to the provisions and intent of Raleigh City Code, Section 4-1004, as amended. This provision is hereby incorporated into this Agreement for the benefit of the City of Raleigh and its residents, and may be enforced by action for specific performance, injunctive relief, or other remedy as by law provided.

In Witness Whereof, the parties hereto have caused this agreement to be executed the day and year first above written.

Owner

By Marchell Adams-David Member/Manager Attest Morton Silberberg

The City

By _____ Attest _____
Marchell Adams-David, City Manager Gail G. Smith, City Clerk

North Carolina

Wake

This is to certify that on the _____ day of _____ in the year _____, before me personally came Gail G. Smith, with whom I am personally acquainted, who, being by me duly sworn, says that she is the City Clerk and Treasurer and Marchell Adams-David is the City Manager of the City of Raleigh, the municipal corporation described in and which executed the foregoing; that she knows the corporate seal of said municipal corporation, that the seal affixed to the foregoing instrument is said corporate seal, and the name of the municipal corporation was subscribed thereto by the said City Clerk and Treasurer and that the said corporate seal was affixed, all by order of the governing body of said municipal corporation, and that the said instrument is the act and deed of said municipal corporation.

Notary Public

Seal

Witness my hand and official seal this the _____ day of _____ in the year of _____.

Notary Public: _____

My commission expires _____

Add appropriate notarized acknowledgement for owner such as individual owners, corporation owners, partnership owners, or limited liability corporation (LLC) owners.

Section E Submittal Checklist

Please include all of the following (check off). If any information is missing from the application package, you will be asked to complete the application and re-submit the petition, so please check the list below carefully before you submit:

<input checked="" type="checkbox"/>	Annexation Petition Fee (see the Development Fee Guide webpage for current fee)	
<input checked="" type="checkbox"/>	Written metes and bounds description of the property to be annexed must be attached to this application. See page 1	
<input checked="" type="checkbox"/>	Electronic Word document of the written metes and bounds must be e-mailed to: JP.Mansolf@raleighnc.gov or Carmen.Kuan@raleighnc.gov .	
<input checked="" type="checkbox"/>	Survey or Plat showing above written metes and bounds description of the property to be annexed must be submitted electronically in .pdf format, if possible. The survey or plat, if not already recorded, must be signed by a land surveyor licensed in the State of NC. The survey must be valid for the purposes of recording as set forth in NC General Statute § 47-30.	
<input checked="" type="checkbox"/>	City or County Property Map with parcels included in the annexation request clearly marked. An excerpt of a property map is acceptable, but the map number must appear on the excerpt. This map must show the existing and proposed city limits .	
<input checked="" type="checkbox"/>	Copy of Approved Preliminary Site Plan or Final Site Plan showing City Building Permit Transaction Number or Group Housing Number (GH-_____-13, etc.) or	Copy of Subdivision Plat submitted for lot recording approval with City file number (S-_____-13, etc.)
<input checked="" type="checkbox"/>	Projected Market Value of Development at build-out (land and improvements).	
<input checked="" type="checkbox"/>	General Annexation Area Data: Linear feet of public streets, total annexation area acreage, number of proposed residential units or square footage of commercial space, type of utility connections involved, specific land uses proposed.	
<input checked="" type="checkbox"/>	This application form completed, <u>dated and signed</u> by the property owner(s) and attested submitted by the deadlines noted in section B of this application , pages 1 and 2.	
Required, but often missing information. Please make sure to include the following:		
<input checked="" type="checkbox"/>	Correct Parcel Identification Number(s) (PIN). Call Wake County Geographic Information Services at 919-856-6360, if there is any question about the parcel identifier. This is very important. Please indicate if the property being requested for annexation is only a portion of an existing parcel.	
<input checked="" type="checkbox"/>	Owner's Signatures and Date of Signatures. See page 3 of this application. All real property owners must sign the application, and the <u>date of signature MUST be filled in!</u>	
<input type="checkbox"/>	Corporate Seal for property owned by a corporation. N/A	
<input type="checkbox"/>	Rezoning Application , if the property is currently outside <u>Raleigh's Extraterritorial Jurisdiction</u> . N/A	
Optional, but necessary if petitioner desires to have development project waived from paying outside sewer connection charges prior to annexation effective date.		
<input type="checkbox"/>	Standard Payment Contract should be <u>dated, signed and notarized</u> and submitted with this application (see Section D). N/A	

PETITION FOR ANNEXATION INTO RALEIGH CITY LIMITS

STATE OF NEW YORK)
) ss.:
COUNTY OF ROCKLAND)

I, the undersigned, a Notary Public of the County and State aforesaid, certify that Marshall Davis, Member/Manager of Carlton Group of North Carolina, LLC, a North Carolina Limited Liability Company, personally appeared before me this day and acknowledged that he is Member/Manager of Carlton Group of North Carolina, LLC, and that by authority duly given and as the act of the limited liability company, the foregoing instrument, a Petition for Annexation into Raleigh City Limits, was signed in its name by him as its Member/Manager.

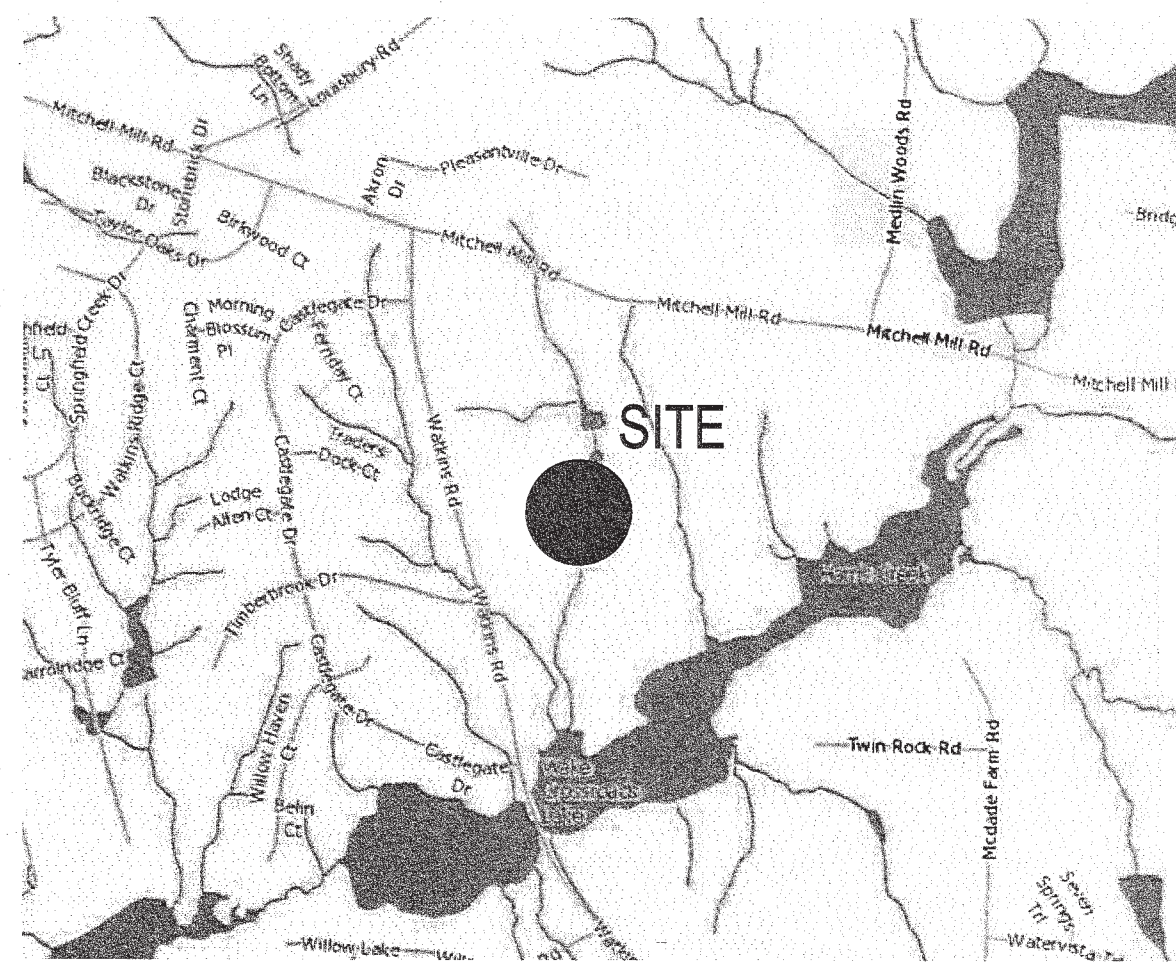
Witness my hand and official stamp or seal, this 6th day of April, 2022.

Morton N. Silberberg
Notary Public

My Commission Expires:

August 31, 2025

MORTON N. SILBERBERG
Notary Public, State Of New York
No. 4799869
Qualified In Rockland County
Commission Expires Aug. 31, 2025



VICINITY MAP
1"=800'

PROJECT INFORMATION:

PROJECT: WATKINS GLEN SUBDIVISION
PRELIMINARY SUBDIVISION PLAN

OWNER/DEVELOPER: CARLTON GROUP OF NC LLC
5856 FARINGDON PLACE, SUITE 200
RALEIGH, NC 27609
(914) 403-7848
MARSHALL SKIP DAVIS
SKIPD4@AOL.COM

PHONE: KEITH GETTLE, PE
CONTACT: caaENGINEERS, INC.
EMAIL: 4932 B WINDY HILL DRIVE
RALEIGH, NC 27609
ENGINEER: (919) 210-3934
KGETTLE@CAAENGINEERS.COM

PHONE: THE WOODCOCK GROUP LLC
SURVEYOR: P O BOX 336, YOUNGVILLE NC, 27598
(919) 522-7253

PROJECT ADDRESS: 3937 WATKINS ROAD , RALEIGH NC
PIN: 1747847561
ZONING: R-4 & CM
EXIST USE: SINGLE FAMILY RESIDENTIAL / VACANT
FLOOD ZONE: FEMA FIRM MAP 3720174700J



Know what's below.
Call before you dig.
(Or call: 1-800-632-4949)

LEGEND	
NEW	EXISTING
DRAINAGE STRUCTURE	
SANITARY SEWER MANHOLE	
SANITARY SEWER CLEANOUT	
WATER VALVE	
FIRE HYDRANT	
OVERHEAD UTILITY LINE	
UNDERGROUND ELECTRIC LINE	
UNDERGROUND TELECOM/DATA LINE	
FIBER OPTIC CABLE	
GAS LINE	
STORM DRAINAGE PIPE	
SANITARY SEWER LINE	
WATER LINE	
SURFACE ELEVATION CONTOUR	
SURFACE SPOT ELEVATION	
CLEARING LIMIT/TREE LINE	
LIMIT OF DISTURBANCE	
ELECTRICAL TRANSFORMER PAD	
TREE (LANDSCAPE / SURVEY)	

Preliminary Subdivision Plan

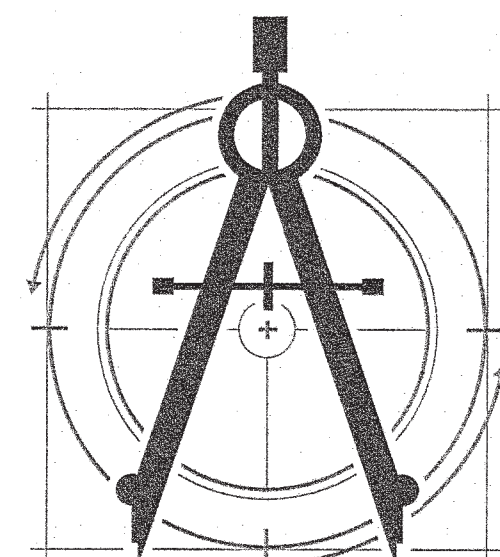
Watkins Glen Subdivision

City of Raleigh
Wake County, North Carolina
SUB-S-19-2019

SITE DATA

GROSS SITE AREA 60.55 AC (2,637,558 SF)
PROPOSED DEVELOPMENT R-4 CONSERVATION DEVELOPMENT
NET SITE AREA (LESS ROW WATKINS RD. DED) 2,637,558 SF - 2500 SF = 2,635,058 SF (60.49 AC)
LOT SUMMARY - SINGLE FAMILY 100 LOTS
PROPOSED RIGHT OF WAY DEDICATION (WATKINS) 2500 SF
MAXIMUM HEIGHT 40' MAX
DENSITY CALCULATIONS: R 4 = 4 UNITS / ACRE
DENSITY PROVIDED: 100 UNITS / 60.55 ACRES = 1.65 UNITS PER ACRE
% LOTS ABUTTING OPEN SPACE (REQ'D) 40 LOTS (40%)
% LOTS ABUTTING OPEN SPACE (PROVIDED) 97 LOTS (97%)
CONTIGUOUS AREA (% REQ'D) 907,144.8 SF (60%) - (20.82 ACRES)
CONTIGUOUS AREA (% PROVIDED) 1,099,018.8 SF (72%) - (25.23 ACRES)
OPEN SPACE WIDTH REQUIRED 50 FT (MIN)
OPEN SPACE WIDTH PROVIDED 50 FT
OPEN SPACE REQUIRED (40%) 1,055,023 SF (24.22 ACRES)
OPEN SPACE PROVIDED - TOTAL (57%) 1,516,323 SF (34.81 ACRES)
OPEN SPACE - PRIMARY (25%) 666,032 SF (15.29 ACRES)
OPEN SPACE - SECONDARY (16%) 436,471 SF (10.02 ACRES)
OPEN SPACE - TERTIARY (15%) 413,820 SF (9.5 ACRES)

SHEET	DESCRIPTION
C1	Cover Sheet
C2	Standard Notes
C3	Existing Conditions & Demolition Plan
C4	Overall Site Plan
C5	Subdivision and Transportation Plan - West
C6	Subdivision and Transportation Plan - East
C7	Grading and Storm Drainage - West
C8	Grading and Storm Drainage - East
C9	Utility Plan - West
C10	Utility Plan - East
C11	Utility Plan - Insets
C12	Landscape Plan
C13	Watkins Road Widening
C14	Overall Site Plan - Block Perimeter
C15	Tree Conservation Plan
C16	Tree Conservation Enlarged Plan
D-1	Standard Site Details
D-2	Site and Stormwater Details
D-3	Stormwater Details
D-4	Sanitary Sewer Details
D-5	Water Details



caaENGINEERS, Inc.
McIntyre, Gettle, Crowley
PROFESSIONAL ENGINEERS

1233 Heritage Links Drive, Wake Forest, North Carolina 27587
4932B Windy Hill Drive, Raleigh, North Carolina 27609
(919)625-6755

C-2151 © caaENGINEERS, Inc. All Rights Reserved

DEVELOPMENT SERVICES

Preliminary Subdivision Plan Application

Development Services Customer Service Center • One Exchange Plaza, Suite 400 | Raleigh, NC 27601 | 919-995-2495



This form is used when submitting a Preliminary Subdivision (UDO Section 10.2.5.5).
Please check the appropriate review type and include the plan checklist document.

Office Use Only: Transaction #:	Planning Coordinator:
DEVELOPMENT TYPE (UDO Section 2.1.2)	
<input type="checkbox"/> Conventional Subdivision	<input type="checkbox"/> Compact Development
<input type="checkbox"/> Conservation Development	<input type="checkbox"/> Cottage Court
NOTE: Subdivisions may require City Council approval if in a Metro Park Overlay or Historic Overlay District	
GENERAL INFORMATION	
Development name (subject to approval): Watkins Glen Subdivision	
Property Address(es): 3937 Watkins Rd., Raleigh, NC	
Recorded Deed PIN(s): 1747847561	
What is your project type?	<input checked="" type="checkbox"/> Single family <input type="checkbox"/> Apartment <input type="checkbox"/> Townhouse <input type="checkbox"/> Non-residential <input type="checkbox"/> Other: <input type="checkbox"/> Attached houses
CURRENT PROPERTY OWNER/DEVELOPER INFORMATION	
NOTE: please attach purchase agreement when submitting this form.	
Company: Carlton Group of NC, LLC	Owner/Developer Name and Title: Skip Davis, Member Mgr
Address: 5856 Faringdon Place, Suite 200, Raleigh NC 27609	
Phone #: 914-403-7848	Email: Skipd4@AOL.com
APPLICANT INFORMATION	
Company: CaaEngineers	Contact Name and Title: Mac McIntyre
Phone #: 919-427-5227	Address: 4932 B Windy Hill Drive
	Email: macmcintyre@gmail.com

DEVELOPMENT TYPE + SITE DATA TABLE (Applicable to all developments)	
ZONING INFORMATION	
Gross site acreage: 60.55 acres	
Zoning districts (if more than one, provide acreage of each): R4 and CM	
Overlay district:	Inside City limits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Conditional Use District (CUD) Case # Z-	Board of Adjustment (BOA) Case # A-

Please continue to page two...

GENERAL NOTES

- BOUNDARY AND TOPO INFORMATION TAKEN FROM THE WOODCOCK GROUP, LLC, DATED JANUARY 26, 2019.
- CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES & SHALL BE RESPONSIBLE FOR ANY DAMAGE RESULTING FROM HIS ACTIVITIES. CALL UTILITY LOCATOR SERVICE AT LEAST 48 HOURS PRIOR TO DIGGING.
- ALL CONSTRUCTION WILL BE IN STRICT CONFORMANCE TO THE CITY OF RALEIGH AND NCDOT STANDARDS AND SPECIFICATIONS.
- NO CHANGES MAY BE MADE TO THE APPROVED DRAWINGS WITHOUT WRITTEN PERMISSION FROM THE ISSUING AUTHORITY.
- CONCURRENT PLANS FOR PUBLIC STREETS AND UTILITIES MUST BE APPROVED BY THE DEVELOPMENT SERVICES DEPARTMENT AND PUBLIC UTILITIES DEPARTMENT PRIOR TO RECORDING OF ANY PLAT FOR THIS DEVELOPMENT.
- THIS PLAN DOES NOT GRANT APPROVAL OF PROPOSED DECKS, PATIOS, PORCHES AND HVAC UNITS, WHICH SHALL ADHERE TO SEC. 1.5.4.D.1 SETBACK ENCROACHMENTS AND WILL BE REVIEWED AT THE TIME OF BUILDING PERMIT ISSUANCE.
- ALL DRIVEWAYS ARE TO BE PERMITTED AT THE PLOT PLAN APPLICATION FOR EACH LOT AND MEET THE REQUIREMENTS AS PER COR, RSDM, ARTICLE 4.6.
- 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 APPROVAL BY THE CITY OF RALEIGH.

PRIVATE STREET INSPECTION STATEMENT

THE CONSTRUCTION INSPECTIONS OF PRIVATE STREETS WITHIN CLUSTER UNITS, CONDOMINIUMS, GROUP HOUSING, TOWNHOUSE DEVELOPMENTS AND MOBILE HOME PARKS SUBMITTED FOR CITY APPROVAL IS THE RESPONSIBILITY OF THE OWNER/ DEVELOPER. COPIES OF CERTIFIED INSPECTION REPORTS INVOLVING SUBGRADE/ AGGREGATE BASE PROOF ROLLS , AGGREGATE BASE AND ASPHALT DENSITIES AND THICKNESSES, AND OTHER PERTINENT INFORMATION MUST BE SUBMITTED TO THE ENGINEERING INSPECTIONS MANAGER AT P.O. BOX 590; RALEIGH N.C. , 27602. CONTACT ERIC BATTLE AT 919-995-2680 TO OBTAIN DETAILS OF THESE REQUIREMENTS.

INITIAL SUBMITTAL - APRIL 4, 2019
REVISION #1 - SEPTEMBER 20, 2019
REVISION #2 - DECEMBER 5, 2019
REVISION #3 - JANUARY 21, 2020
REVISION #4 - FEBRUARY 28, 2020

APPLICATION

STORMWATER INFORMATION	
Existing Impervious Surface: Acres: 25 Square Feet: 10,830	Proposed Impervious Surface: Acres: 14.13 Square Feet: 615,503
Neuse River Buffer: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Wetlands: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Is this a flood hazard area? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
If yes, please provide the following: Alluvial soils: _____ Flood study: N/A FEMA Map Panel #: 3720174700J, Dated May 2, 2005	
NUMBER OF LOTS AND DENSITY	
Total # of townhouse lots:	Detached Attached
Total # of single-family lots:	100
Proposed density for each zoning district (UDO 1.5.2.F): 1.75 Units / Acre	
Total # of open space and/or common area lots:	5
Total # of requested lots:	105
SIGNATURE BLOCK	
In filing this plan as the property owner(s), I/we do hereby agree and firmly bind ourselves, my/our heirs, executors, administrators, successors, and assigns jointly and severally to construct all improvements and make all dedications as shown on this proposed development plan as approved by the City of Raleigh.	
I hereby designate Keith P. Gettle, PE to serve as my agent regarding this application, to receive and respond to administrative comments, to resubmit plans on my behalf, and to represent me in any public meeting regarding this application.	
I/we have read, acknowledge, and affirm that this project is conforming to all application requirements applicable with the proposed development use. I acknowledge that this application is subject to the filing calendar and submittal policy, which states a application will expire after 180 days of inactivity.	
Signature: Marshall Skip Davis	Date: 1/21/19
Printed Name: MARSHALL SKIP DAVIS	
Signature:	Date:
Printed Name:	

Right-of-Way Obstruction Notes:

- Street, Lane, and Sidewalk closures or detours: Prior to any work that impacts the right-of-way or closing of any street, lane, or sidewalk, the contractor must apply for a permit with Right-of-Way Services.
- A permit request with a traffic control and/or pedestrian plan shall be submitted to rightofwayservices@raleighnc.gov at www.raleighnc.gov Keyword "Right-of-Way Services."
- Prior to the start of work, the Client shall schedule a Pre-Construction meeting with the Engineering Inspections Coordinator to review the specific components of the approved plan, and ensure all permits are issued.
- The City of Raleigh requires an approved Right-of-Way Obstruction Permit for work on any public street or sidewalk and NCDOT road within Raleigh's Jurisdiction.
- All Traffic Control Signage and practices shall adhere to the Manual on Uniform Traffic Control, and the latest edition of the NCDOT "Standard Specification for Roadway Structures", NCDOT "Roadway Standard Drawing Manual", and the NCDOT supplement to the MUTCD.
- All public sidewalks must be accessible to pedestrians who are visually impaired and/or people with mobility concerns. Existing and alternative pedestrian routes during construction shall be required to be compliant with the Public Rights of Way Accessibility Guidelines (PROWAG), the ADA Standards for Accessible Design and the Manual on Uniform Traffic Control Devices (MUTCD).
- All permits must be available and visible on site during the operation.

SOLID WASTE COMPLIANCE STATEMENT:

DEVELOPERS HAVE REVIEWED AND ARE IN COMPLIANCE WITH THE REQUIREMENTS SET FORTH IN THE SOLID WASTE DESIGN MANUAL.

REFUSE CONTAINERS WILL BE ROLLED TO THE CURB OF THE PUBLIC RIGHT-OF-WAY AND SERVICED BY CITY OF RALEIGH SOLID WASTE SERVICES.

Sketch Plan review (T) # 551543
Transaction # 592980
S-19-19

UTILITY SPECIFICATIONS

EXISTING CONDITIONS

- INFORMATION ABOUT EXISTING UNDERGROUND FACILITIES AND SUBSURFACE CONDITIONS INDICATED ON THESE DRAWINGS IS NOT BASED ON AN EXHAUSTIVE INVESTIGATION OF SUCH FACILITIES OR CONDITIONS, AND THE ENGINEER MAKES NO WARRANTY TO ANY PARTY REGARDING THEM. EXISTING UTILITY LINE LOCATIONS SHOWN SHOULD BE CONSIDERED APPROXIMATE, AND ACTUAL UTILITIES AND CONDITIONS MAY DIFFER FROM THOSE INDICATED, IF DIFFERING UTILITIES OR CONDITIONS EXIST, THEY MAY BE ENCOUNTERED DURING THE COURSE OF THE PROJECT WORK, AND MAY IMPACT THE PROJECT SCOPE AND TIME REQUIREMENTS.

PROTECTION AND SAFETY

- PRIOR TO BEGINNING WORK, AND AS NEEDED DURING THE COURSE OF PROJECT WORK, CONTRACTOR SHALL NOTIFY ALL APPLICABLE UTILITY LOCATION SERVICES AND UTILITY PROVIDERS TO REASONABLY VERIFY THE LOCATION OF ALL KNOWN OR SUSPECTED UTILITIES. IN ACCORDANCE WITH STATE REGULATIONS, CONTRACTOR IS ADVISED THAT SOME UTILITY PROVIDERS DO NOT SUBSCRIBE TO ONE-CALL SERVICES, AND MUST BE CONTACTED SEPARATELY.
- CONTRACTOR SHALL PROVIDE ADEQUATE MEANS AND METHODS FOR PROTECTION OF ALL EXISTING UTILITIES AND SITE FEATURES WHICH ARE INTENDED TO REMAIN IN SERVICE OR IN PLACE.
- CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL MEASURES DURING THE COURSE OF PROJECT WORK IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, THE N.C. SUPPLEMENT TO THE MUTCD, ANY REGULATORY AGENCY REQUIREMENTS, AND PROJECT-SPECIFIC SAFETY CONSIDERATIONS.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY PROGRAMS AND MEASURES ON THE PROJECT SITE OR OTHERWISE RELATING TO THE PROJECT WORK, AND SHALL COMPLY WITH ALL SAFETY CODES AND REGULATIONS APPLICABLE THERETO, FOR THE PROTECTION OF WORKERS, VISITORS, AND THE GENERAL PUBLIC.

COMPLIANCE

- ALL WATER SYSTEM AND SANITARY SEWER WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING:
 - 1. REQUIREMENTS OF THE CITY OF RALEIGH, INCLUDING THE LATEST EDITION OF CONSTRUCTION STANDARDS AND SPECIFICATIONS, CONSTRUCTION DETAILS, POLICIES AND PROCEDURES, AND FIELD DIRECTIVES BY THE UTILITY INSPECTOR.
 - 2. REGULATIONS OF NCDCNR-DIVISION OF WATER QUALITY, INCLUDING NCAO 2T REGULATIONS AND MINIMUM DESIGN CRITERIA FOR THE PERMITTING OF GRAVITY SEWERS.
 - 3. REGULATIONS OF NCDCNR-PUBLIC WATER SUPPLY, RULES GOVERNING PUBLIC WATER SYSTEMS.
 - 4. STREET RIGHT-OF-WAY ENCROACHMENT PERMIT REQUIREMENTS, AS APPLICABLE.
 - 5. OSHA REQUIREMENTS RELATED TO SAFETY.
 - 6. REQUIREMENTS OF THE N.C. PLUMBING CODE.

NOTIFICATIONS

- NOTIFY THE ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING WATERLINE OR SANITARY SEWER WORK. THE ENGINEER MUST OBSERVE CONNECTIONS, INSTALLATION, BACKFILLING, AND TESTING WORK, IN ORDER TO PROVIDE NECESSARY PROJECT CERTIFICATIONS AND CLOSE-OUT DOCUMENTS.
- NOTIFY THE CITY OF RALEIGH AND OR NCDOT IN ACCORDANCE WITH THEIR REQUIREMENTS PRIOR TO BEGINNING UTILITY WORK.
- NOTIFY THE GEOTECHNICAL ENGINEER AND TESTING SERVICE AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING TRENCHING OR BACKFILLING WORK.

TRENCHING AND BACKFILLING

- WHERE ROCK OR OTHER HARD MATERIAL OCCURS AT THE DESIGNED TRENCH BOTTOM, OVEREXCAVATE TRENCH DEPTH 6 INCHES AND REPLACE OVEREXCAVATION MATERIAL WITH #67 STONE BEDDING.
- WHERE THE DESIGNED TRENCH BOTTOM CONSISTS OF UNSUITABLE BEARING SOIL, UNDERCUT TRENCH BOTTOM AND REPLACE UNDERCUT MATERIAL IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- BACKFILL SOIL SHALL BE SUITABLE MATERIAL, AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.
- BACKFILL SOIL SHALL BE PLACED IN LOOSE LIFTS OF 8 INCH MAXIMUM THICKNESS AND COMPACTED TO 98% OF THE SOIL'S MAXIMUM DRY DENSITY, WITHOUT DAMAGING OR DISPLACING PIPE.
- INSTALL MARKING TAPE OR TRACER WIRE OVER UTILITY LINES AS REQUIRED BY THE LOCAL UTILITY AUTHORITY.

STORAGE AND HANDLING

- PIPING, FITTINGS, GASKETS, AND OTHER MATERIALS SHALL BE KEPT CLEAN WHILE BEING STORED AND DURING CONSTRUCTION ACTIVITIES. PIPE BUNDLES SHALL BE STORED ON FLAT SURFACES WITH UNIFORM SUPPORT, AND PROTECTED FROM PROLONGED EXPOSURE TO SUNLIGHT WITH A COVERING ALLOWING AIR FLOW UNDERNEATH. GASKETS SHALL NOT BE EXPOSED TO OIL, GREASE, OZONE, EXCESSIVE HEAT OR DIRECT SUNLIGHT. FOLLOW MANUFACTURER'S RECOMMENDATIONS FOR STORAGE AND HANDLING OF ALL MATERIALS.

WATER SYSTEM

- PROVIDE ALL WATER SYSTEM MATERIALS IN ACCORDANCE WITH LOCAL WATER AUTHORITY REQUIREMENTS.
- INSTALL WATERLINES TO PROVIDE A MIN OF 36" COVER TO FINISHED GRADE, UNLESS OTHERWISE SHOWN OR APPROVED BY THE ENGINEER AND INSPECTOR.
- ALL WATERLINE BENDS, CROSSES, TEES, AND ENDS SHALL BE RESTRAINED USING CONCRETE BLOCKING OR A MECHANICAL JOINT WEDGE-ACTION RESTRAINT SYSTEM RATED FOR 350 PSI.
- DO NOT OPERATE WATER SYSTEM VALVES WITHOUT PERMISSION OF THE WATER AUTHORITY.
- CONTRACTOR SHALL COORDINATE EXACT FIRE HYDRANT, WATER METER, AND BACKFLOW PREVENTER LOCATIONS WITH WATER AUTHORITY INSPECTOR PRIOR TO INSTALLATION.

BACKFLOW PREVENTION

- BACKFLOW PREVENTER ASSEMBLIES AND ENCLOSURES SHALL CONFORM TO ALL LOCAL WATER AUTHORITY REQUIREMENTS, AND SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. CONTRACTOR SHALL PROVIDE INITIAL TESTING AND CERTIFICATIONS AS REQUIRED FOR ACCEPTANCE.

FIRE PROTECTION

- WATER MAINS SHALL BE INSTALLED AND MADE OPERATIONAL AS SOON AS PRACTICAL TO PROVIDE ACTIVE FIRE HYDRANT SERVICE DURING BUILDING CONSTRUCTION.
- COORDINATE TYPE AND LOCATION OF HYDRANTS, FIRE DEPARTMENT CONNECTIONS, AND OTHER FIRE PROTECTION SYSTEM COMPONENTS WITH LOCAL FIRE CODE OFFICIAL PRIOR TO INSTALLATION.

UTILITY SPECIFICATIONS (cont.)

SANITARY SEWER

- SANITARY SEWER MAIN PIPING SHALL BE DUCTILE IRON PIPE PER AWWA C151, PRESSURE CLASS 350, WITH INTERIOR EPOXY LINING AND EXTERIOR UNISEAL JOINTS. JOINTS SHALL BE PUSH-ON TYPE WITH RUBBER GASKETS PER AWWA C111.
- SANITARY SEWER MAIN PIPING SHALL BE PVC PIPE PER ASTM D3034, SDR 35. JOINTS SHALL BE PUSH-ON TYPE WITH RUBBER GASKETS PER ASTM F477.
- SANITARY SEWER MAINS SHALL BE INSTALLED WITH 36 INCHES MINIMUM COVER TO FINISHED GRADE, EXCEPT AS OTHERWISE SPECIFIED.
- SANITARY SEWER SERVICE LINES AND CLEANOUTS SHALL BE INSTALLED IN ACCORDANCE WITH THE N.C. PLUMBING CODE, AND HAVE 24 INCHES MINIMUM COVER TO FINISHED GRADE. SERVICE LINES SHALL MAINTAIN MAXIMUM SERVICE DEPTH USING A 2% SLOPE UNLESS OTHERWISE SPECIFIED.
- SERVICE PIPE AND FITTINGS WITHIN PUBLIC STREET RIGHTS-OF-WAY SHALL BE CAST IRON WITH GASKETED JOINTS, AND IN OTHER AREAS SHALL BE SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS, EXCEPT ALL CLEANOUTS SHALL BE FITTED WITH THREADED BRONZE PLUGS.
- SERVICE LINE CLEANOUTS IN VEHICULAR AREAS SHALL BE TRAFFIC BEARING CLEANOUTS.

CONNECTIONS

- FOR CONNECTIONS TO EXISTING UTILITY AND DRAINAGE LINES, CONTRACTOR SHALL VERIFY EXISTING PIPE SIZE AND MATERIAL, AND PROVIDE APPROPRIATE CONNECTION FITTINGS.
- ANY CONNECTION TO EXISTING UTILITIES, OR ANY UTILITY SERVICE INTERRUPTION, SHALL BE FIRST COORDINATED WITH THE GOVERNING UTILITY AUTHORITY, AND PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THAT AUTHORITY.

TESTING AND ACCEPTANCE

- THE GEOTECHNICAL ENGINEER SHALL PROVIDE MATERIAL AND DENSITY TESTING DURING THE COURSE OF THE WORK. PRIOR TO PLACEMENT OF ANY BASE OR PAVEMENT, CONTRACTOR SHALL PROVIDE PROOF-ROLLING OF ALL TRENCH AREAS TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER.
- PRIOR TO ANY SANITARY SEWER OR WATER SYSTEM IMPROVEMENTS BEING PLACED INTO SERVICE:
 - 1. CONTRACTOR SHALL SUCCESSFULLY TEST ALL WATER MAINS FOR WATER LEAKAGE AND WATER QUALITY IN ACCORDANCE WITH CITY OF RALEIGH AND NCDCNR REQUIREMENTS.
 - 2. CONTRACTOR SHALL SUCCESSFULLY TEST ALL SANITARY SEWER MAINS FOR DEFLECTION AND LEAKAGE, AND TEST ALL SANITARY MANHOLES FOR LEAKAGE, IN ACCORDANCE WITH CITY OF RALEIGH AND NCDCNR REQUIREMENTS.
- CONTRACTOR SHALL PERFORM VIDEO INSPECTION OF INSTALLED SANITARY SEWER MAINS AND PROVIDE DOCUMENTATION PER LOCAL REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE TO ENGINEER A SET OF MARKED UP DRAWINGS SHOWING UTILITY CHANGES, DIMENSIONAL ADJUSTMENTS, DISCOVERED SUBSURFACE UTILITIES, AND OTHER AS-BUILT INFORMATION.
- CONTRACTOR SHALL PROVIDE DOCUMENTATION OF ALL TESTING RESULTS TO ENGINEER.
- ALL IMPROVEMENTS SHALL PASS FINAL INSPECTION BY ENGINEER AND THE UTILITY AUTHORITY.
- ENGINEER SHALL SUBMIT ALL CERTIFICATIONS AND OTHER CLOSE-OUT DOCUMENTS TO APPLICABLE LOCAL AND STATE AUTHORITIES.

OTHER

- CONTRACTOR SHALL PROVIDE PRIMARY COORDINATION WITH UTILITY SERVICE PROVIDERS FOR BUILDING UTILITY SERVICES. THIS WORK SHALL INCLUDE MAKING APPLICATIONS FOR SERVICE, COORDINATING AND SCHEDULING WORK BY OTHERS, VERIFYING ROUTINGS AND EQUIPMENT LOCATIONS, FURNISHING AND INSTALLING CONDUIT AND PADS, AND RELATED WORK AS NEEDED.
- CONTRACTOR SHALL PROVIDE PROPER RESTORATION AND CLEAN-UP OF ALL AREAS DISTURBED BY UTILITY CONSTRUCTION.

GENERAL GRADING AND STORM DRAINAGE SPECIFICATIONS

EXISTING CONDITIONS

- INFORMATION ABOUT EXISTING UNDERGROUND FACILITIES AND SUBSURFACE CONDITIONS INDICATED ON THESE DRAWINGS IS NOT BASED ON AN EXHAUSTIVE INVESTIGATION OF SUCH FACILITIES OR CONDITIONS, AND THE ENGINEER MAKES NO WARRANTY TO ANY PARTY REGARDING THEM. EXISTING UTILITY LINE LOCATIONS SHOWN SHOULD BE CONSIDERED APPROXIMATE, AND ACTUAL UTILITIES AND CONDITIONS MAY DIFFER FROM THOSE INDICATED, IF DIFFERING UTILITIES OR CONDITIONS EXIST, THEY MAY BE ENCOUNTERED DURING THE COURSE OF THE PROJECT WORK, AND MAY IMPACT THE PROJECT SCOPE AND TIME REQUIREMENTS.

PROTECTION AND SAFETY

- PRIOR TO BEGINNING WORK, AND AS NEEDED DURING THE COURSE OF PROJECT WORK, CONTRACTOR SHALL NOTIFY ALL APPLICABLE UTILITY LOCATION SERVICES AND UTILITY PROVIDERS TO REASONABLY VERIFY THE LOCATION OF ALL KNOWN OR SUSPECTED UTILITIES. IN ACCORDANCE WITH STATE REGULATIONS, CONTRACTOR IS ADVISED THAT SOME UTILITY PROVIDERS DO NOT SUBSCRIBE TO ONE-CALL SERVICES, AND MUST BE CONTACTED SEPARATELY.
- CONTRACTOR SHALL PROVIDE ADEQUATE MEANS AND METHODS FOR PROTECTION OF ALL EXISTING UTILITIES AND SITE FEATURES WHICH ARE INTENDED TO REMAIN IN SERVICE OR IN PLACE.
- CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL MEASURES DURING THE COURSE OF PROJECT WORK IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, THE N.C. SUPPLEMENT TO THE MUTCD, ANY REGULATORY AGENCY REQUIREMENTS, AND PROJECT-SPECIFIC SAFETY CONSIDERATIONS.
- CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY PROGRAMS AND MEASURES ON THE PROJECT SITE OR OTHERWISE RELATING TO THE PROJECT WORK, AND SHALL COMPLY WITH ALL SAFETY CODES AND REGULATIONS APPLICABLE THERETO, FOR THE PROTECTION OF WORKERS, VISITORS, AND THE GENERAL PUBLIC.

COMPLIANCE

- ALL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS AND REQUIREMENTS OF THE CITY OF RALEIGH, RALEIGH SEDIMENTATION AND EROSION CONTROL OFFICE, AND THE N.C. STATE BUILDING CODES.

NOTIFICATIONS

- NOTIFY THE ENGINEER AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING ANY STORM DRAINAGE OR STORMWATER IMPOUNDMENT BASIN WORK.
- NOTIFY THE APPLICABLE LOCAL GOVERNMENT AUTHORITIES IN ACCORDANCE WITH THEIR REQUIREMENTS PRIOR TO BEGINNING ANY WORK.
- NOTIFY THE GEOTECHNICAL ENGINEER AND TESTING SERVICE AT LEAST TWO BUSINESS DAYS PRIOR TO BEGINNING OR RESUMING ANY GRADING OR STORMWATER IMPOUNDMENT BASIN WORK.

QUALITY CONTROL

- ALL EARTHWORK OPERATIONS, INCLUDING TOPSOIL STRIPPING, STOCKPILING, EXCAVATION, FILLING, COMPACTING, TRENCHING, BACKFILLING, RETAINING WALLS, AND FINE-GRADING, SHALL BE PERFORMED IN ACCORDANCE WITH THE RECOMMENDATIONS OF A GEOTECHNICAL ENGINEER, WHO SHALL VERIFY THE SUITABILITY OF SOIL MATERIALS, MONITOR EARTHWORK ACTIVITIES, DIRECT AND OBSERVE PROOFROLLING, AND PROVIDE COMPACTION AND STABILITY TESTING DURING THE PROGRESS OF THE WORK.
- NO SOIL SHALL BE PLACED IN A PERMANENT LOCATION UNLESS IT HAS BEEN APPROVED BY THE GEOTECHNICAL ENGINEER FOR THE INTENDED USE AND LOCATION.
- PRIOR TO PLACEMENT OF ANY FILL, THE SUBGRADE OR PREVIOUS LIFT OF FILL SHALL BE SUCCESSFULLY TESTED OR OTHERWISE APPROVED, AND DETERMINED TO BE READY FOR SUBSEQUENT WORK.
- PRIOR TO PLACEMENT OF ANY AGGREGATE, PAVING, SLABS, STRUCTURES, FOOTINGS, PIPING, OR OTHER WORK, SUBGRADES AND OTHER BEARING SURFACES SHALL BE SUCCESSFULLY TESTED OR OTHERWISE APPROVED, AND DETERMINED TO BE READY FOR SUBSEQUENT WORK.
- CONTRACTOR SHALL ALLOW AND PARTICIPATE IN SOIL TESTING ACTIVITIES, INCLUDING ACTIVE COORDINATION WITH THE GEOTECHNICAL ENGINEER AND FURNISHING PROOFROLLING EQUIPMENT, MATERIALS, AND MANPOWER AS NEEDED.

CLEARING & GRUBBING

- ALL VEGETATIVE MATERIAL DISLOCATED BY CLEARING AND GRUBBING ACTIVITIES SHALL BE COMPLETELY REMOVED FROM THE PROJECT SITE AND LEGALLY DISPOSED. NO ONSITE BURNING OF CLEARING WASTE SHALL OCCUR.
- ALL PAVEMENT, CURB, PIPE, STRUCTURES AND OTHER PHYSICAL SITE FEATURES THAT ARE INDICATED OR REQUIRED TO BE REMOVED SHALL BE LEGALLY DISPOSED IN AN OFFSITE LOCATION.

GRADING

- STRUCTURAL FILL IS DEFINED AS SOIL CLASSIFIED AS SM, SC, ML, AND CL, FREE OF VEGETATIVE MATTER, DEBRIS OR OTHER UNSUITABLE MATTER, FREE OF ROCKS LARGER THAN 3 INCHES IN ANY DIMENSION, CAPABLE OF BEING COMPACTED TO THE REQUIRED DENSITY, AND WHICH HAS BEEN APPROVED FOR USE BY THE GEOTECHNICAL ENGINEER.
- OTHER SOIL NOT MEETING THE DEFINITION FOR STRUCTURAL FILL MAY BE APPROVED BY THE GEOTECHNICAL ENGINEER FOR USE UNDER LIMITED CONDITIONS OR IN LIMITED AREAS.
- STRUCTURAL FILL SHALL GENERALLY BE PLACED AND COMPACTED WHEN THE SOIL'S MOISTURE CONTENT IS WITHIN A PERCENTAGE POINTS OF THE SOIL'S OPTIMUM MOISTURE CONTENT, IN LIFTS NOT TO EXCEED 8 INCHES LOOSE THICKNESS. THE IN-PLACE COMPACTED DENSITY SHALL BE AT LEAST 90 PCF. TIGHTER SPECIFICATIONS MAY BE REQUIRED FOR CERTAIN AREAS, SOIL TYPES, OR COMPACTION METHODS.
- STRUCTURAL ZONES SHALL INCLUDE ALL AREAS SUBJECT TO DIRECT BEARING PRESSURE PLUS 10 FEET HORIZONTAL PLUS A 1:1 DOWNWARD SLOPE IN ANY AREAS OF FILL.
- ALL SOIL UNDER PAVEMENTS, BUILDINGS, AND WALKWAYS, OR IN STRUCTURAL ZONES ASSOCIATED WITH THESE AREAS SHALL BE APPROVED IN-SITU SOIL OR STRUCTURAL FILL, COMPACTED TO AT LEAST 95% OF THE SOIL'S MAXIMUM DRY DENSITY (MDD) PER ASTM D-698. TIGHTER REQUIREMENTS MAY APPLY FOR CERTAIN AREAS.
- IN THE BUILDING AREA, THE REQUIRED DENSITY OF FILL SHALL BE 100% MDD, EXCEPT THE TOP 12 INCHES OF FILL SHALL BE AT LEAST 98% MDD, WHERE THE BUILDING WILL BE PLACED ON IN-SITU SOIL. THE SOIL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER AND COMPACTED TO AT LEAST 98% MDD.
- ALL EXCESS OR UNSUITABLE SOIL SHALL BE LEGALLY DISPOSED IN AN OFFSITE OR APPROVED ONSITE LOCATION.
- WHERE LANDSCAPED OR YARD AREAS ABUT EXTERIOR BUILDING WALLS, FINISHED GROUND ELEVATIONS ADJACENT TO THE WALL SHALL BE AT LEAST 3 INCHES BELOW THE FINISHED FLOOR ELEVATION, AND SHALL SLOPE AWAY FROM THE BUILDING WITH POSITIVE DRAINAGE.

TRENCHING AND BACKFILLING

- WHERE ROCK OR OTHER HARD MATERIAL OCCURS AT THE DESIGNED TRENCH BOTTOM, OVEREXCAVATE TRENCH DEPTH 6 INCHES AND REPLACE OVEREXCAVATION MATERIAL WITH #67 STONE BEDDING.
- WHERE THE DESIGNED TRENCH BOTTOM CONSISTS OF UNSUITABLE BEARING SOIL, UNDERCUT TRENCH BOTTOM AND REPLACE UNDERCUT MATERIAL IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS.
- BACKFILL SOIL SHALL BE STRUCTURAL FILL, PLACED AND COMPACTED IN ACCORDANCE WITH REQUIREMENTS FOR THE SPECIFIC AREA OF WORK, WITHOUT DAMAGING OR DISPLACING PIPE OR STRUCTURES.

STORM DRAINAGE SYSTEM

- STORM DRAINAGE STRUCTURES SHALL CONFORM TO CITY OF RALEIGH AND NCDOT STANDARDS, AND MAY BE CONSTRUCTED OF EITHER SOLID MASONRY OR PRE-CAST CONCRETE. "KNOCK-OUT" TYPE PRE-CAST STRUCTURES SHALL NOT BE USED WHERE THE DESIGNED PIPE CONFIGURATION WOULD REQUIRE REMOVAL OF STRUCTURAL CORNERS OR ALTERATION OF DESIGNED PIPE ENTRY ANGLES.
- STORM DRAINAGE PIPE LENGTHS SHOWN ARE APPROXIMATE, AS MEASURED FROM THE CENTER OF DRAINAGE STRUCTURES, AND TO THE END OF ANY FLARED END SECTION (FES), AS APPLICABLE.
- CONTRACTOR SHALL VERIFY AND COORDINATE EXACT POSITIONING OF STORM DRAINAGE PIPING AND STRUCTURES, AND SHALL MAKE ADJUSTMENTS AS NEEDED TO PROVIDE PROPER CONNECTIONS, STRUCTURE LOCATIONS, ORIENTATIONS, DIMENSIONS, ELEVATIONS, FRAME PLACEMENT, AND SURFACE DRAINAGE. REFER TO STORM DRAINAGE STRUCTURE DETAILS FOR DIMENSIONS, OFFSETS, CLEARANCES, SETBACKS FROM CURB, AND OTHER REQUIREMENTS. MODIFY STRUCTURES AS NEEDED TO ACCOMMODATE LARGE-DIAMETER PIPING, MULTIPLE PIPE PENETRATIONS, AND PIPE CONNECTION ANGLES.
- STORM DRAINAGE PIPING SHALL BE REINFORCED CONCRETE PIPE (RCP), CLASS III, CONFORMING TO ASTM C75, UNLESS OTHERWISE SPECIFIED. ALL JOINTS SHALL BE FULLY SEALED USING PREFORMED FLEXIBLE BUTYL RUBBER SEALING COMPOUND.

SURFACE DRAINAGE

- ALL SPOT ELEVATIONS SHOWN ARE FINISHED SURFACE ELEVATIONS. SPOT ELEVATIONS SHALL TAKE PRECEDENCE OVER ELEVATION CONTOURS. ALL ELEVATIONS SHOWN ON CURB AND GUTTER REFER TO TOP OF CURB, UNLESS OTHERWISE INDICATED.
- ALL FINISHED PAVEMENT AND YARD SURFACES SHALL BE FINE-GRADED AND FINISHED TO HAVE POSITIVE SURFACE DRAINAGE TO A FREE-FLOWING DRAINAGE OUTLET, WITH NO IRREGULARITIES OR DEPRESSIONS THAT WOULD CAUSE UNDESIRABLE WATER POOLING.
- USE REVERSE-PITCH CURB AND GUTTER WHERE ADJACENT PAVEMENT SLOPES AWAY FROM CURB, AND STANDARD-PITCH CURB AND GUTTER ELSEWHERE, UNLESS OTHERWISE NOTED. PROVIDE POSITIVE DRAINAGE ALONG AND FROM ALL GUTTERS.
- TIE-INS TO EXISTING PAVEMENT, CURBS, WALKS, ETC. SHALL BE MADE WITH NEAT EDGES AND SMOOTH, GRADUAL TRANSITIONS THAT ARE SAFE, FUNCTIONAL, DURABLE, AND VISUALLY ACCEPTABLE TO THE OWNER AND REVIEW AUTHORITIES.

ACCESSIBILITY

- FINISHED WALKWAY ELEVATIONS ABUTTING EXTERIOR DOORWAY THRESHOLDS SHALL BE ONE-FOURTH INCH BELOW THE ADJOINING FINISHED FLOOR ELEVATION. EXTERIOR PADS AND WALKWAYS SHALL SLOPE AWAY FROM THE BUILDING AT A SLOPE NO LESS THAN 1.0% AND NO GREATER THAN 2.0%.
- SIDEWALKS, CROSSWALKS, AND OTHER WALKWAYS SHALL NOT EXCEED 2.0% CROSS-SLOPE.
- NO PORTION OF ANY HANDICAP ACCESSIBLE ROUTE SHALL EXCEED 2.0% CROSS-SLOPE OR 5.0% LONGITUDINAL SLOPE.
- NO PORTION OF ANY HANDICAP PARKING SPACE OR ADJOINING ACCESS AISLE SHALL EXCEED 2.0% SLOPE IN ANY DIRECTION.

SITE NOTES

- WHERE NEW CURB AND GUTTER IS INSTALLED IN A PUBLIC STREET RIGHT-OF-WAY, USE 30" CURB AND GUTTER. IN OTHER LOCATIONS, USE 24" CURB AND GUTTER.
- ALL CURB DIMENSIONS ARE MEASURED TO BACK OF CURB, AND ALL CURB RADI ARE 3 FEET, UNLESS INDICATED OTHERWISE.
- USE REVERSE-PITCH CURB AND GUTTER WHERE ADJACENT PAVEMENT SLOPES AWAY FROM CURB, AND STANDARD-PITCH CURB AND GUTTER ELSEWHERE, UNLESS OTHERWISE NOTED. PROVIDE POSITIVE DRAINAGE ALONG AND FROM ALL GUTTERS.
- ALL SITE CONCRETE SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI UNLESS OTHERWISE INDICATED.
- ALL BASE AND PAVING WORK SHALL COMPLY WITH CITY OF RALEIGH STANDARDS. INDICATED PAVEMENT THICKNESSES REFER TO COMPACTED THICKNESS.
- INSTALL ALL PAVEMENT WITH POSITIVE SURFACE DRAINAGE.
- ALL HANDICAPPED PARKING SPACES, AISLES, RAMPS, SIGNAGE, PAVEMENT MARKINGS, CROSSWALKS, AND ACCESSIBLE ROUTES SHALL MEET APPLICABLE REQUIREMENTS OF THE NORTH CAROLINA ACCESSIBILITY CODE.
- ALL HANDICAP ACCESSIBLE PARKING SPACES SHALL HAVE AN R7-8 AND R7-80 SIGN. ALL SIGNS FOR VAN ACCESSIBLE SPACES SHALL ALSO INCLUDE A "VAN ACCESSIBLE" SIGN.
- CONTRACTOR SHALL PROVIDE ADEQUATE TRAFFIC CONTROL MEASURES DURING THE COURSE OF PROJECT WORK IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR STREETS AND HIGHWAYS, THE N.C. SUPPLEMENT TO THE MUTCD, ANY REGULATORY AGENCY REQUIREMENTS, AND PROJECT-SPECIFIC SAFETY CONSIDERATIONS.
- TIE-INS TO EXISTING PAVEMENT, CURBS, WALKS, ETC. SHALL BE MADE WITH NEAT EDGES AND SMOOTH, GRADUAL TRANSITIONS THAT ARE SAFE, FUNCTIONAL, DURABLE, AND VISUALLY ACCEPTABLE TO THE OWNER AND REVIEW AUTHORITIES.
- BUILDING SIZE, CONFIGURATION, ARCHITECTURAL ELEMENTS, UTILITY STUBS, AND OTHER BUILDING FEATURES SHOWN ON THESE DRAWINGS ARE TAKEN FROM INFORMATION PROVIDED BY OTHERS. BUILDING LINES SHOWN GENERALLY REPRESENT THE EXTERIOR FACE OF THE BUILDING, BUT SHOULD NOT BE USED FOR BUILDING STAKING OR CONSTRUCTION. REFER TO BUILDING PLANS FOR ACTUAL BUILDING DIMENSIONS, DOOR LOCATIONS, COLUMN AND FOOTING LOCATIONS, WALL THICKNESSES, OVERHANGS, ROOF LINES, AND OTHER FEATURES. CONTRACTOR SHALL COORDINATE UTILITY AND DRAINAGE LOCATIONS, ELEVATIONS, MATERIALS, AND SIZES WITH INFORMATION SHOWN ON THE BUILDING DRAWINGS, AND SHALL VERIFY THAT BUILDING ELEMENTS WILL NOT ENCROACH INTO REQUIRED SETBACKS.
- SIGHT TRIANGLE DESIGN BASED ON CITY OF RALEIGH GUIDELINES. NO SIGHT OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, FOLIAGE, BERNI SIGN, PARKED VEHICLE OR OTHER OBJECT BETWEEN THE HEIGHTS OF TWO (2) FEET AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION SHALL BE PLACED WITHIN A SIGHT TRIANGLE. OBJECTS THAT MAY BE LOCATED IN THE SIGHT TRIANGLE ARE ITEMS SUCH AS: HYDRANTS, UTILITY POLES, UTILITY JUNCTION BOXES AND TRAFFIC CONTROL DEVICES PROVIDED THESE OBJECTS ARE LOCATED TO MINIMIZE VISUAL OBSTRUCTION.
- FENCES, WALLS AND OTHER STRUCTURES ARE PROHIBITED IN DRAINAGE AND UTILITY EASEMENTS-BOTH PUBLIC AND PRIVATE. DETERMINATION OF COMPLIANCE WILL BE MADE UPON ISSUANCE OF RESIDENTIAL BUILDING PERMITS. (SECTION 7.2.5 UDC)
- ANY UNUSED EXISTING UTILITY SERVICES SHALL BE ABANDONED AT THE TAP (MAIN) AND REMOVED FROM ROW OR EASEMENT PER PUBLIC UTILITIES HANDBOOK.
- ALL STREETS SHOWN SHALL BE PUBLIC AND TURNED OVER TO THE CITY OF RALEIGH FOR MAINTENANCE UPON COMPLETION. HOWEVER, WATKINS ROAD IS CURRENTLY AN NCDOT ROADWAY AND WILL REMAIN UNDER THEIR MAINTENANCE.
- ANY SIGNAGE LOCATED ON THE SITE SHALL BE APPROVED BY THE CITY OF RALEIGH AND SHALL BE LOCATED OUTSIDE OF ANY SIGHT TRIANGLES.
- THE MINIMUM CORNER CLEARANCE FOR A DRIVEWAY FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 20' FROM THE POINT OF TANGENCY OF THE CURB. NO DRIVEWAYS SHALL ENCRACH ON THIS MINIMUM CORNER CLEARANCE.

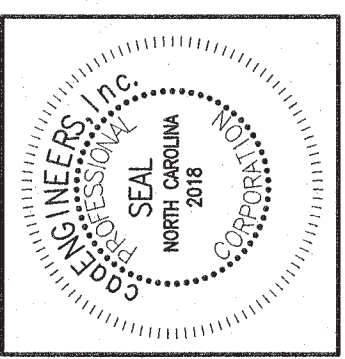
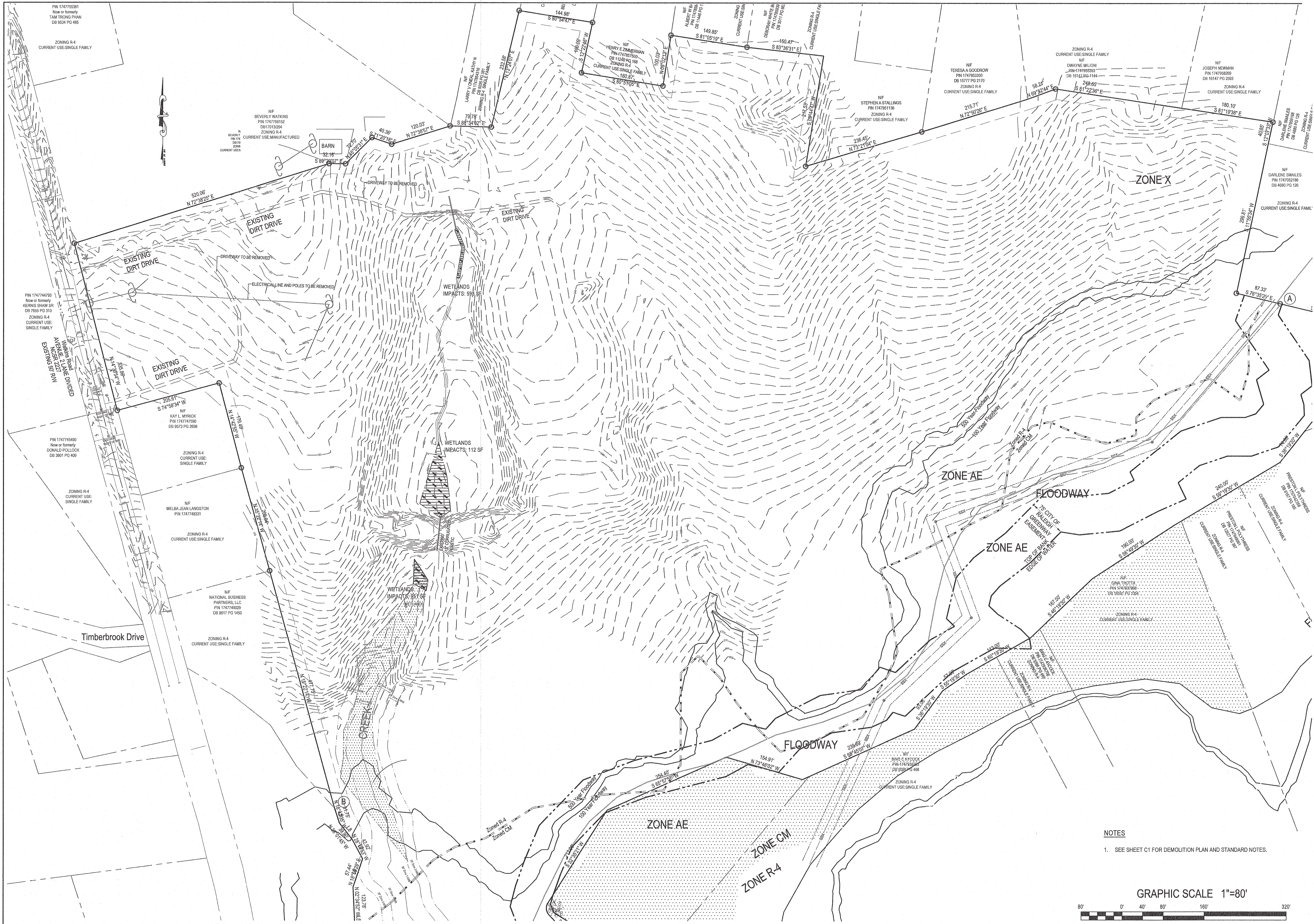
DEMOLITION PLAN NOTES:

- REMOVE / DEMOLISH/ ABANDON AFTER EROSION CONTROL MEASURES ARE IN PLACE AND APPROVAL OF THE CITY INSPECTOR. REFER TO MASS GRADING / EROSION CONTROL PLANS. DEMOLITION PERMIT REQUIRED PRIOR TO THE REMOVAL OF ANY EXISTING STRUCTURE ON SITE.
- DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED BY THE OWNER OR OTHERS EXCEPT WHEN PERMITTED UNDER THE FOLLOWING CONDITIONS AND THEN ONLY AFTER ARRANGING TO PROVIDE ACCEPTABLE TEMPORARY UTILITY SERVICES. (1) NOTIFY OWNER NOT LESS THAN ONE WEEK IN ADVANCE OF PROPOSED UTILITY INTERRUPTIONS, (2) DO NOT PROCEED WITH UTILITY INTERRUPTIONS WITHOUT RECEIVING OWNER WRITTEN PERMISSION, (3) COORDINATE ALL UTILITY RELOCATION WITH APPROPRIATE UTILITY PROVIDER.
- SUBSURFACE FEATURES ARE SHOWN IN APPROXIMATE LOCATION. CONTRACTOR IS RESPONSIBLE FOR SUBSURFACE UTILITY EXPLORATION TO DETERMINE UTILITY LOCATIONS AND DEPTHS.
- VERIFY LOCATIONS AND SIZES OF ALL EXISTING FEATURES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- LOCATE EXISTING UTILITIES PRIOR TO CONSTRUCTION, AND REPAIR OR REPLACE ANY DAMAGES TO EXISTING UTILITIES RESULTING FROM CONSTRUCTION.

CITY OF RALEIGH UTILITY NOTES:

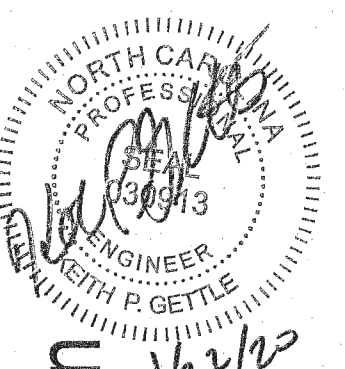
- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: COR PUD HANDBOOK, CURRENT EDITION)
- UTILITY SEPARATION REQUIREMENTS:
 - A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER & MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS, WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED. SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & S-49).
 - ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
- ONTRACTOR SHALL MAINTAIN CONTINUOUS WATER TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS. 4' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER AND SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL 3" COPPER WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2x2' WATERLINE EASEMENT IMMEDIATELY ADJACENT. (NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW AND PRESSURE).
- INSTALL 4" PVC SEWER SERVICES AT 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE AND SPACED EVERY 75 LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI. BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWM, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
- NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS AND SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS AND INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD POG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919)996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NORTH CAROLINA. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARDS OR BE ON THE UNIVERSITY OF SOUTHERN CALIFORNIA APPROVAL LIST--THE DEVICES SHALL BE INSTALLED AND TESTED (BOTH INITIAL AND PERIODIC TESTING THEREAFTER) IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 212-6922 OR JOANIE.HARTLEY@RALEIGH-NC.GOV FOR MORE INFORMATION.

Lot Summary				
Watkins Road Subdivision				
Raleigh, North Carolina				
Lot Number	Area (sq ft)	Lot Width	Lot Depth	Zoning
1	10,048	80.00	140.00	R4
2	9,562	70.00	155.50	R4
3	9,824	70.00	159.30	R4
4	7,707	70.00	110.00	R4
5	7,700	70.00	110.00	R4
6	7,700	70.00	110.00	R4
7	7,700	70.00	110.00	R4
8	8,193	70.00	110.00	R4
9	7,937	70.00	112.40	R4
10	10,615	80.00	125.00	R4
11	11,101	80.00	125.00	R4
12	8,466	65.00	130.00	R4
13	9,808	111.00	133.50	R4
14	9,976	96.50	133.80	R4
15	10,805	67.50	127.40	R4
16	13,978	83.30	65.50	R4
17	12,039	65.90	85.40	R4
18	9,691	80.00	115.00	R4
19	8,719	87.00	135.40	R4
20	11,501	129.40	114.00	R4
21	8,230	67.60	109.60	R4
22	9,058	65.50	109.30	R4
23	8,793	65.00	108.90	R4
24	8,222	80.40	75.80	R4
25	7,511	65.00	119.00	R4
26	7,173	65.00	110.00	R4
27	7,950	83.50	111.40	R4
28	8,320	96.10	111.30	R4
29	8,336	60.90	110.00	R4
30	8,032	64.30	110.00	R4
31	7,898	63.00	110.00	R4
32	7,748	62.90	110.00	R4
33	7,359	64.80	110.00	R4
34	7,158	65.00	110.00	R4
35	7,167	65.00	110.00	R4
36	7,276	74.90	110.00	R4
37	6,555	60.00	110.00	R4
38	6,600	60.00	110.00	R4
39	6,600	60.00	110.00	R4
40	6,600	60.00	110.00	R4
41	6,600	60.00	110.00	R4
42	6,680	60.00	110.00	R4
43	7,450	60.00	110.00	R4
44	7,476	60.00	110.00	R4
45	7,442	60.00	110.00	R4
46	7,404	60.00	110.00	R4
47	6,600	60.00	110.00	R4
48	6,600	60.00	110.00	R4
49	6,600	60.00	110.00	R4
50	6,600	60.00	110.00	R4
51	6,600	60.00	110.00	R4
52	6,600	60.00	110.00	R4
53	6,600	60.00	110.00	R4
54	7,261	60.00	110.00	R4
55	7,560	60.00	126.00	R4
56	7,714	61.20	126.00	R4
57	6,600	60.00	110.00	R4
58	6,600	60.00	110.00	R4
59	6,600	60.00	110.00	R4
60	6,600	60.00	110.00	R4
61	7,153	65.00	110.00	R4
62	8,244	74.80	110.00	R4
63	9,167	80.00	110.00	R4
64	7,553	75.50	110.00	R4
65	7,171	65.00	110.00	R4
66	7,171	65.00	110.00	R4
67	7,150	65.00	110.00	R4
68	7,150	65.00	110.00	R4
69	10,366	102.30	80.00	R4
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78	6,465	60.00	107.00	R4
79	7,872	80.00	98.40	R4
80	8,943	80.40	105.00	R4
81	6,600	60.00	110.00	R4
82	6,600	60.00	110.00	R4
83	6,600	60.00	109.60	R4
84	6,600	60.00	109.60	R4
85	6,705	60.90	109.60	R4
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89	8,136	84.60	111.80	R4
90	7,580	77.10	110.00	R4
91	7,150	65.00	110.00	R4
92	7,150	65.00	110.00	R4
93	11,737	130.80	110.00	R4
94	12,335	124.20	120.20	R4
95	9,233	82.90	105.50	R4
96	8,517	65.00	110.00	R4
97	8,098	60.50	108.80	R4
98	8,143	65.00	109.60	R4
99	8,211	65.00	109.20	R4
100	10,476	80.00	110.00	R4



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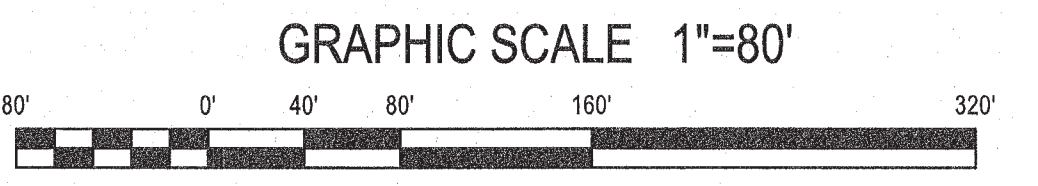
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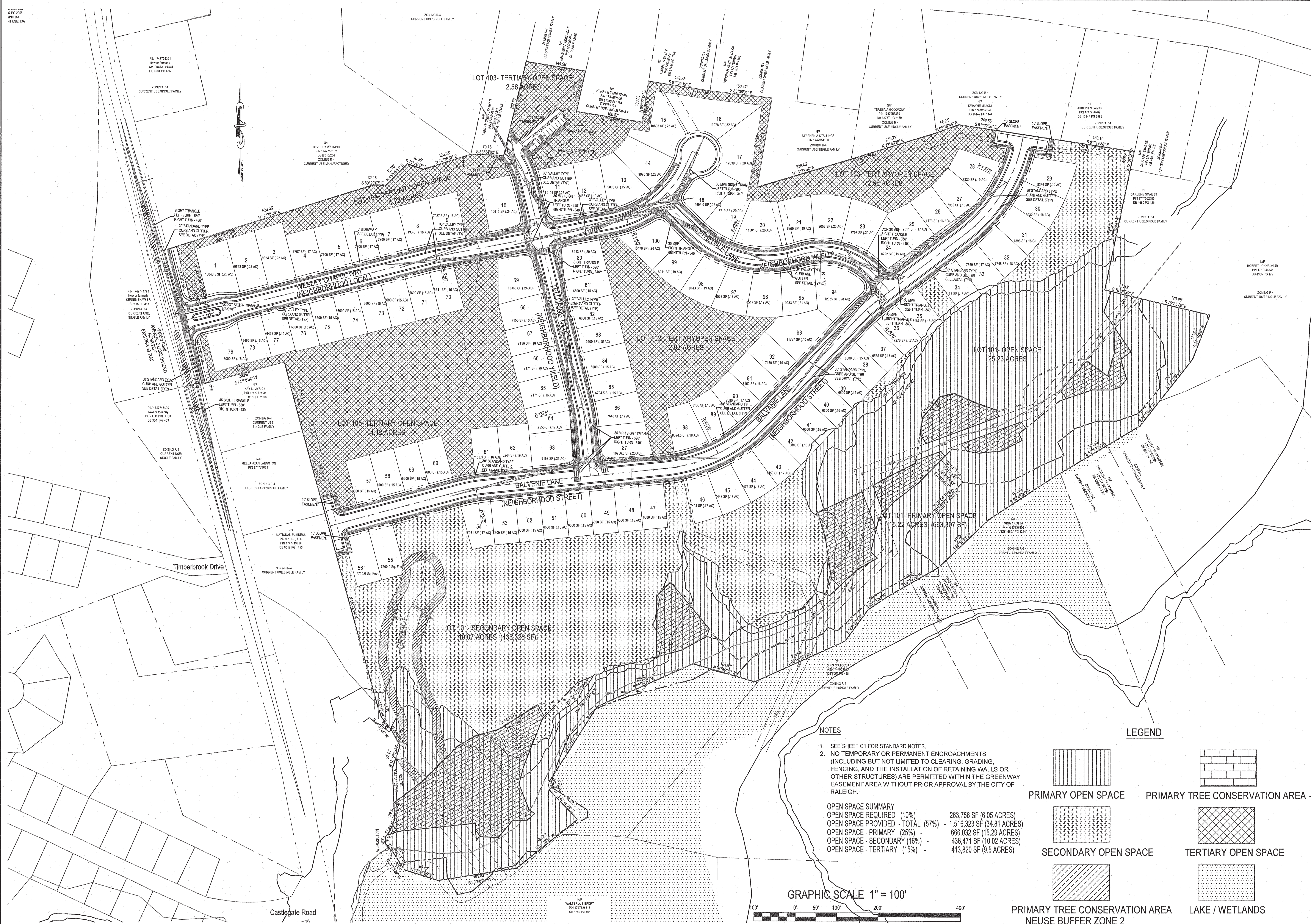


Existing Conditions and Demo Plan
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. C2

NOTES
1. SEE SHEET C1 FOR DEMOLITION PLAN AND STANDARD NOTES.





NOTES

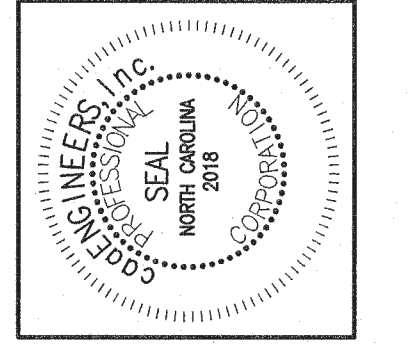
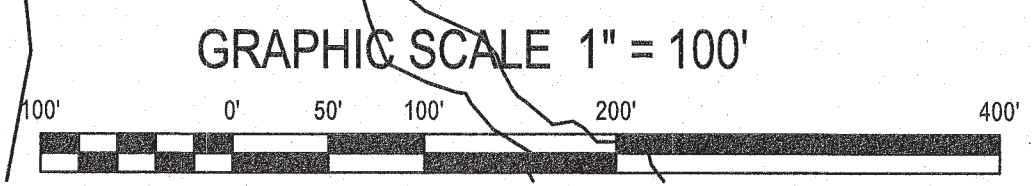
- SEE SHEET C1 FOR STANDARD NOTES.
- NO TEMPORARY OR PERMANENT ENCROACHMENTS (INCLUDING BUT NOT LIMITED TO CLEARING, GRADING, FENCING, AND THE INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES) ARE PERMITTED WITHIN THE GREENWAY EASEMENT AREA WITHOUT PRIOR APPROVAL BY THE CITY OF RALEIGH.

OPEN SPACE SUMMARY

OPEN SPACE REQUIRED (10%)	263,756 SF (6.05 ACRES)
OPEN SPACE PROVIDED - TOTAL (57%)	- 1,516,323 SF (34.81 ACRES)
OPEN SPACE - PRIMARY (25%)	666,032 SF (15.29 ACRES)
OPEN SPACE - SECONDARY (16%)	436,471 SF (10.02 ACRES)
OPEN SPACE - TERTIARY (15%)	413,820 SF (9.5 ACRES)

LEGEND

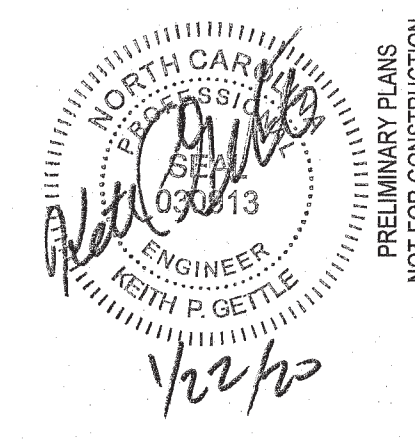
	PRIMARY OPEN SPACE		PRIMARY TREE CONSERVATION AREA - CM
	SECONDARY OPEN SPACE		TERTIARY OPEN SPACE
	PRIMARY TREE CONSERVATION AREA NEUSE BUFFER ZONE 2		LAKE / WETLANDS



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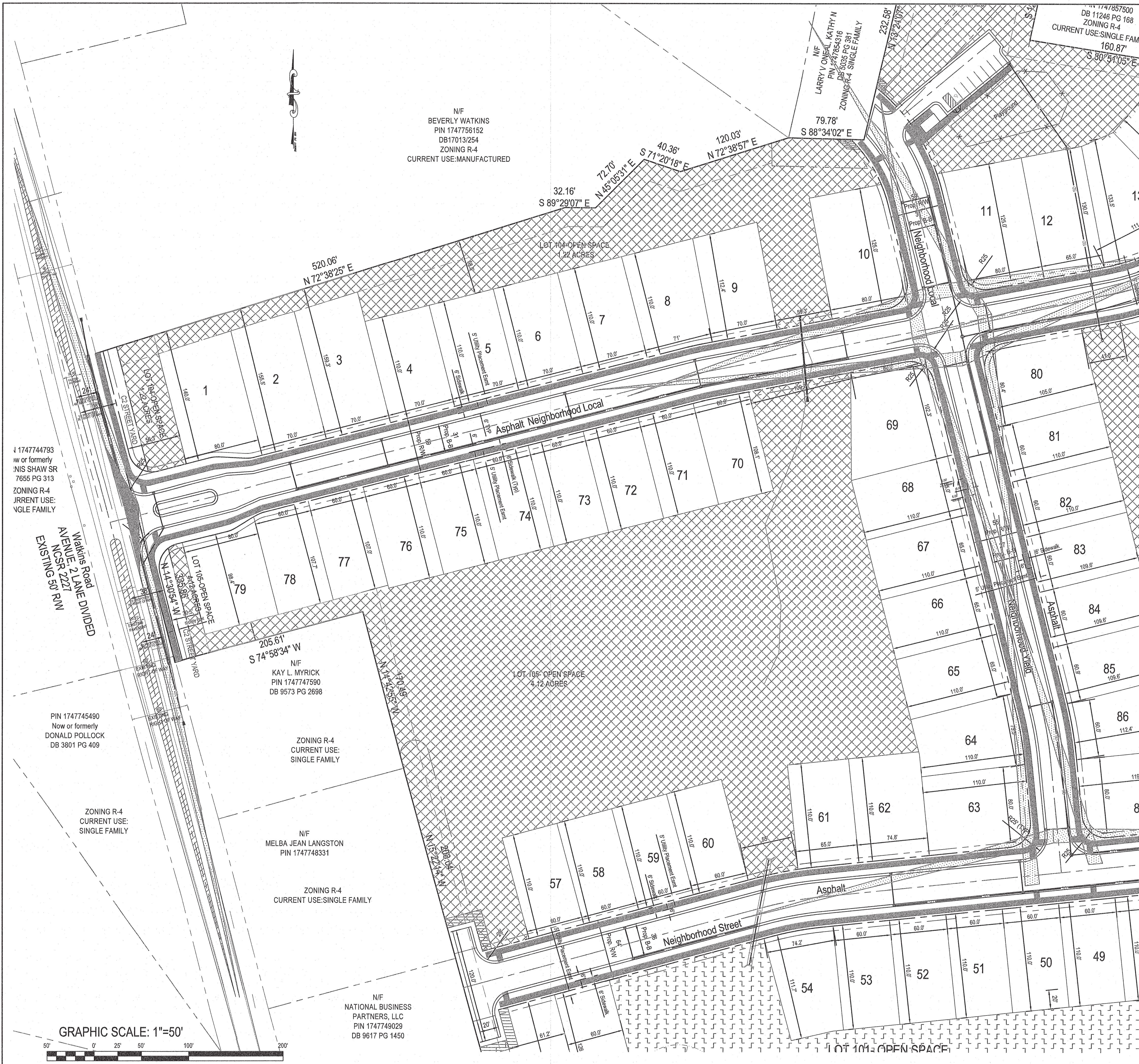
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1	08/20/2019	DESIGNING PER CITY	PCS
2	12/26/2019	REDESIGN PER CITY COMMENT	PCS
3	01/21/2020	REDESIGN PER CITY COMMENT	PCS
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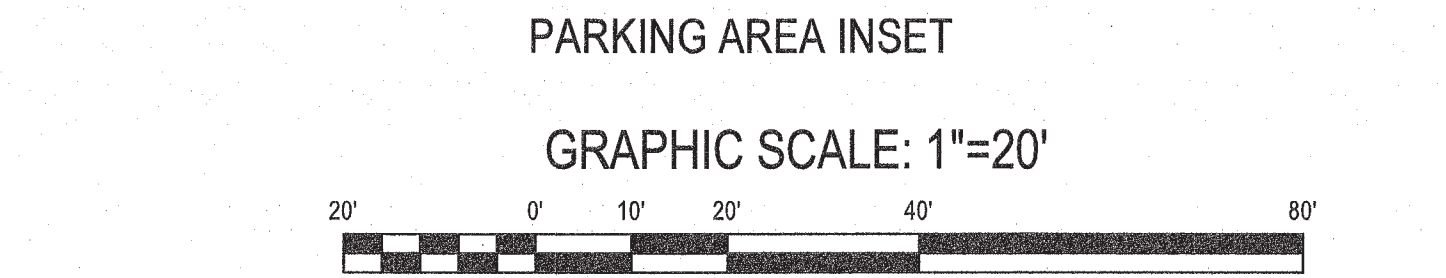
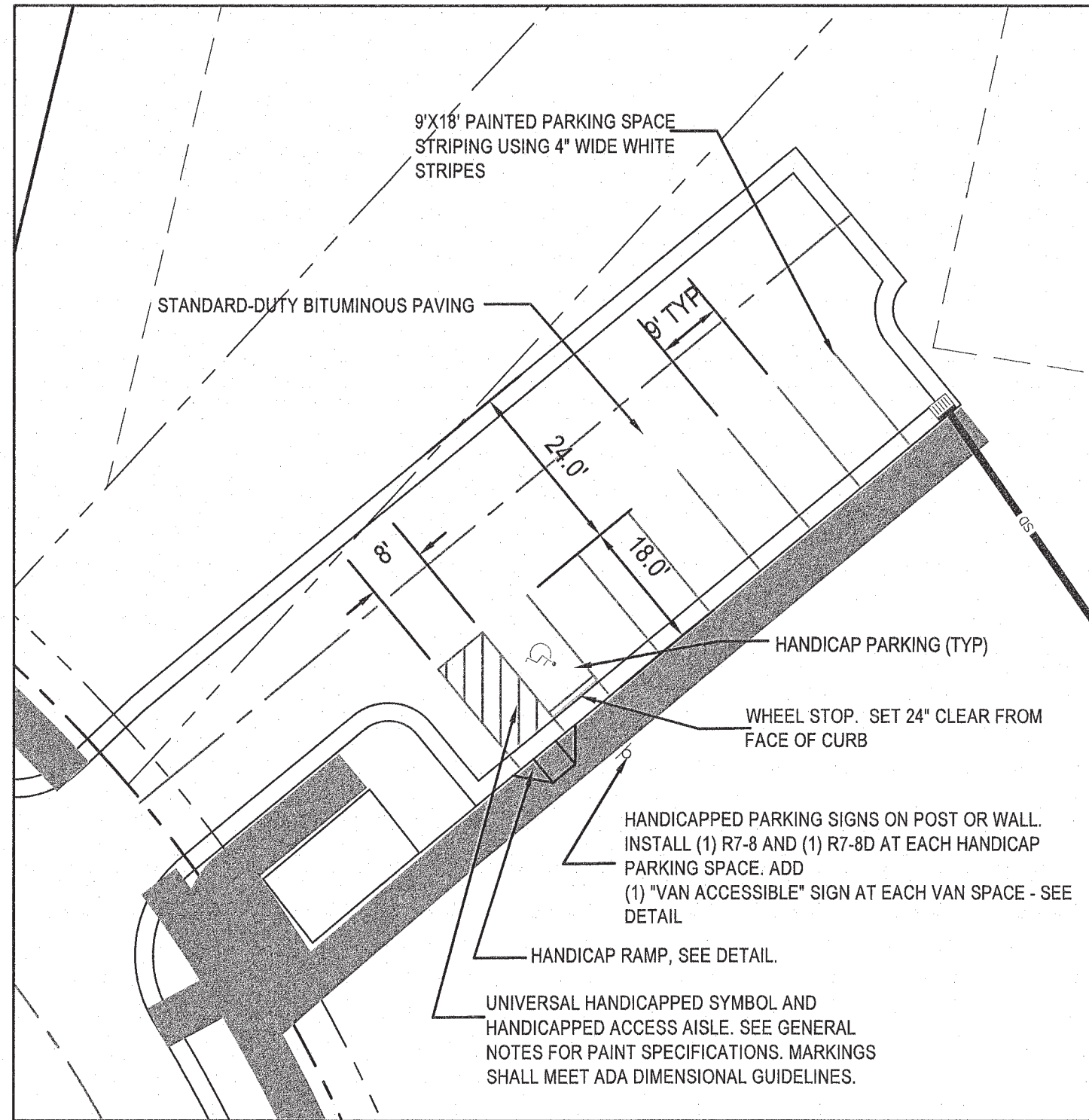
Overall Site Plan
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. **C3**

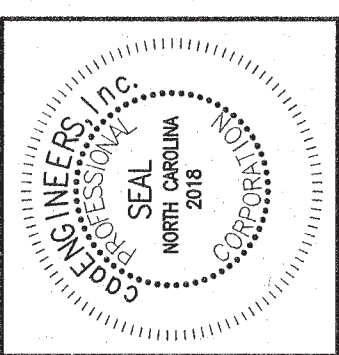


LEGEND

SECONDARY OPEN SPACE
TERTIARY OPEN SPACE
LAKE / WETLANDS
SIDEWALK
SIGHT TRIANGLE
PRIMARY OPEN SPACE



- NOTES**
- SEE SHEET C1 FOR STANDARD NOTES.
 - 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 APPROVAL BY THE CITY OF RALEIGH.



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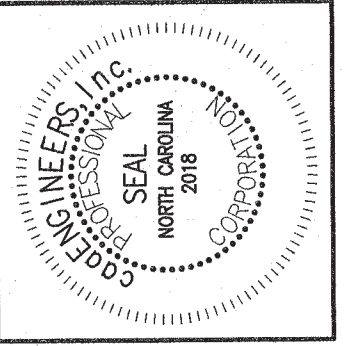
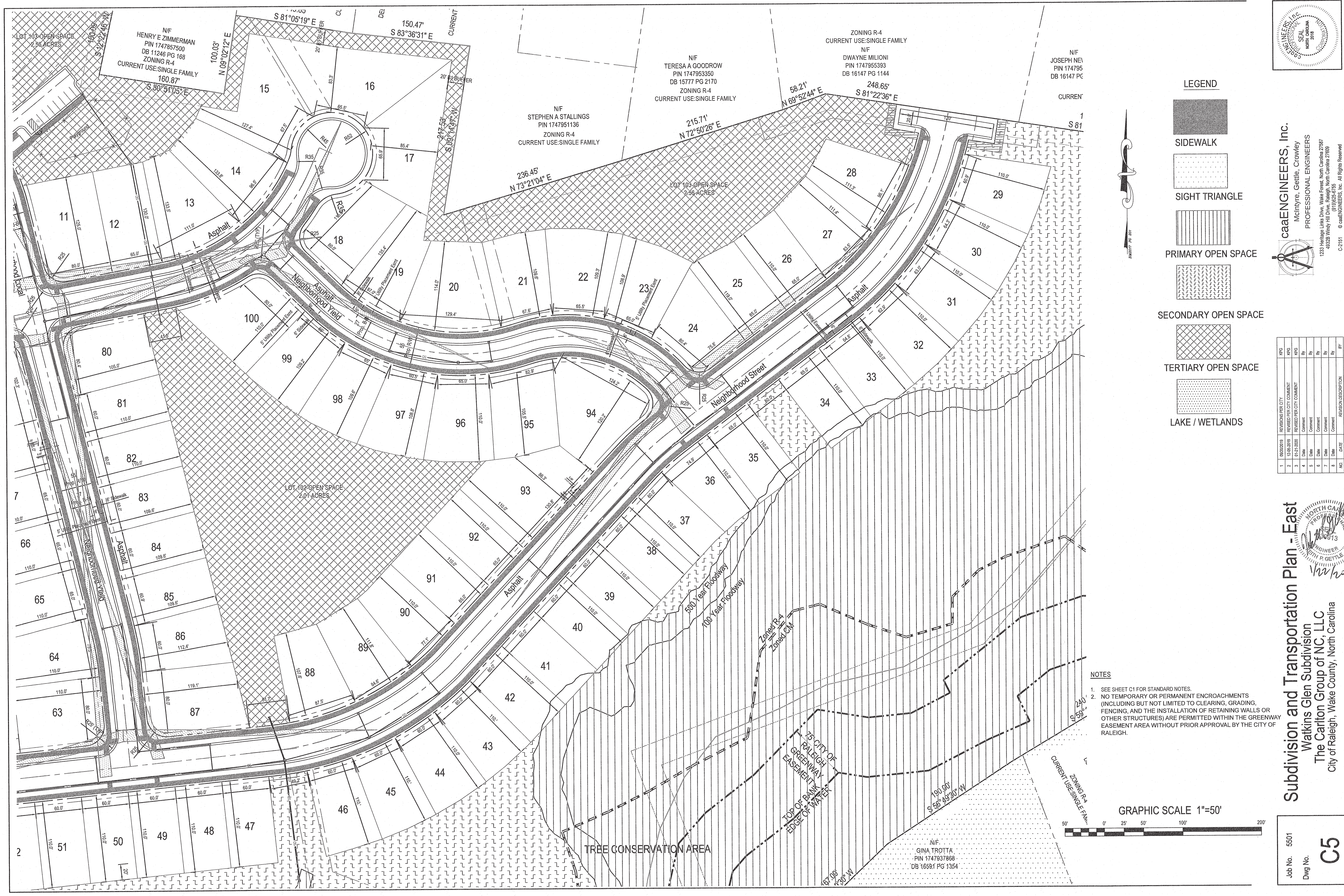
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Subdivision and Transportation Plan - West
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

1/22/20

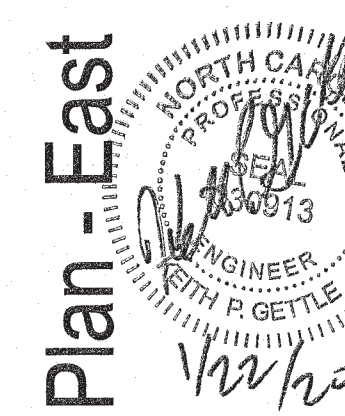
NOT FOR CONSTRUCTION

Job No. 5501
Dwg No. **C4**



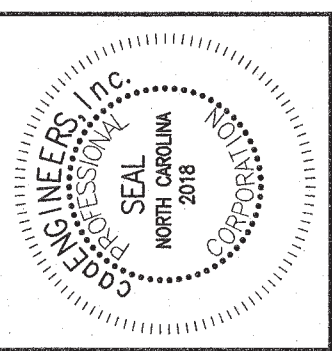
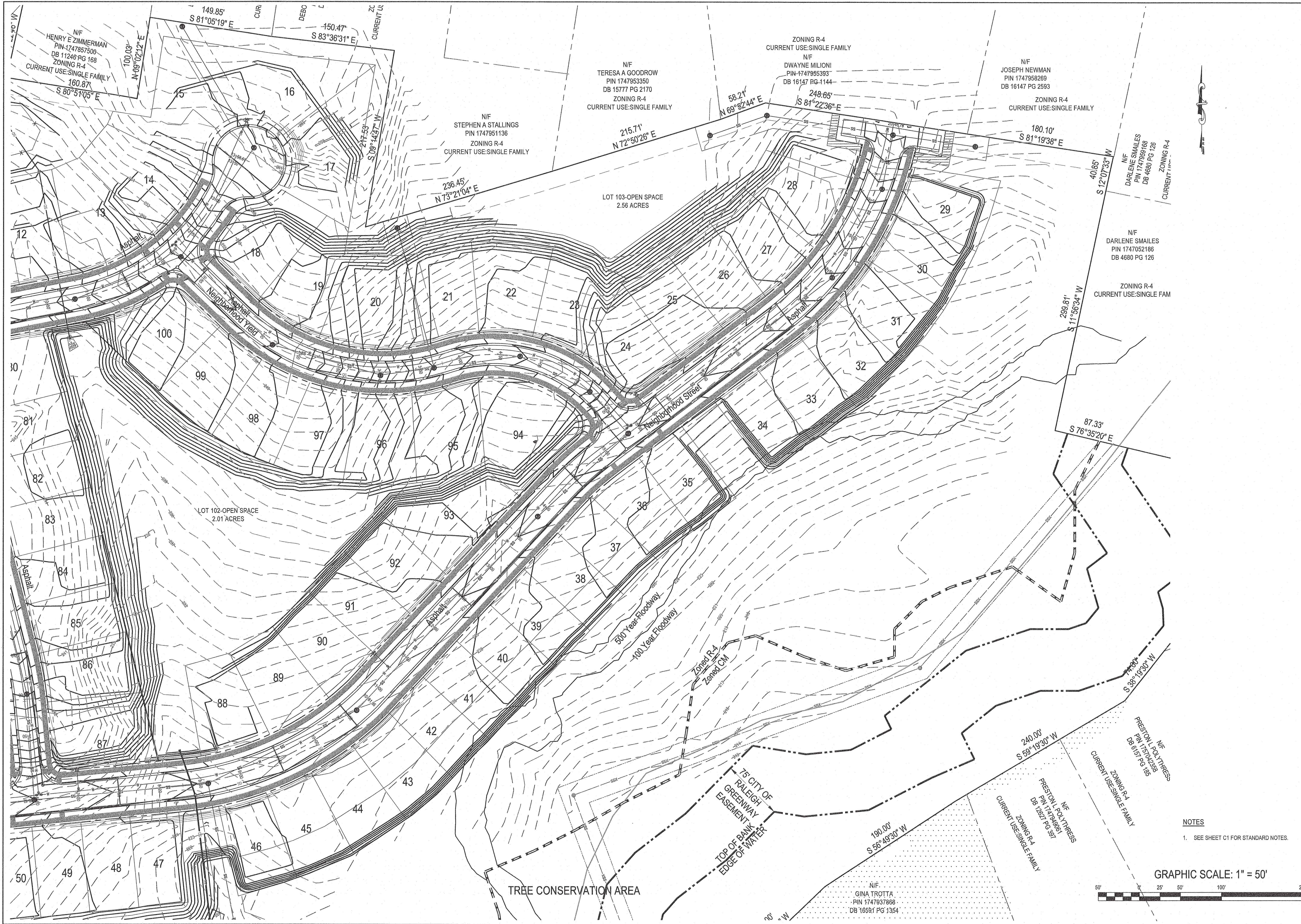
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NO.	DATE	REVISION DESCRIPTION	BY
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2	10/15/2018	REVISIONS PER CITY COMMENT	KPG
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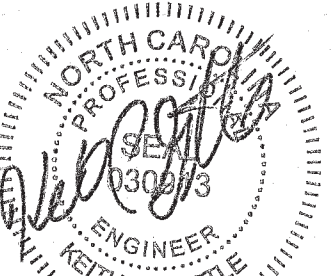
Subdivision and Transportation Plan - East
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. **C5**



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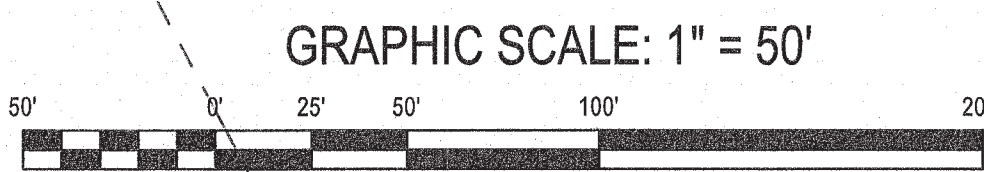
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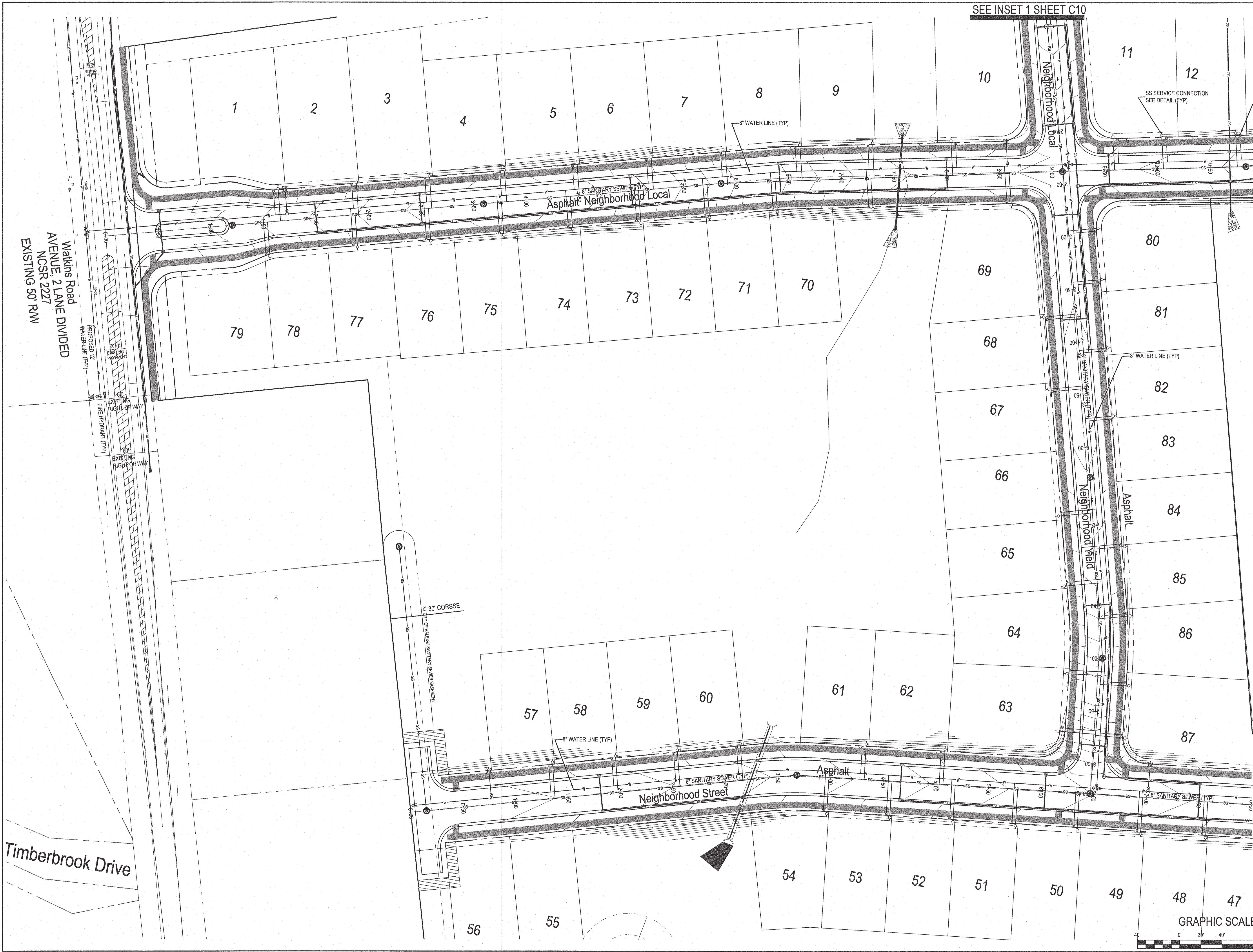
Grading \ Storm Drainage - East
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina
1/22/20

Job No. 5501
Dwg No. C7

NOTES
1. SEE SHEET C1 FOR STANDARD NOTES.

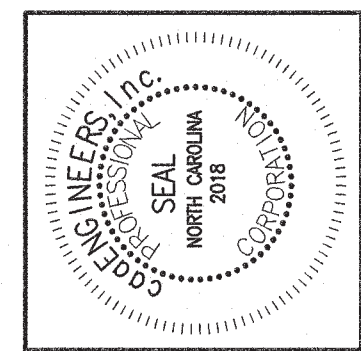
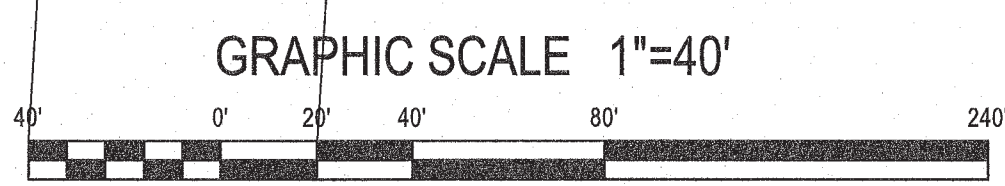


PRELIMINARY PLANS
NOT FOR CONSTRUCTION



NOTES

- 1. SEE SHEET C1 FOR STANDARD NOTES.



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3	01/21/20	REVISION PER CITY COMMENT	PG
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1/22/20
PRELIMINARY PLANS
NOT FOR CONSTRUCTION

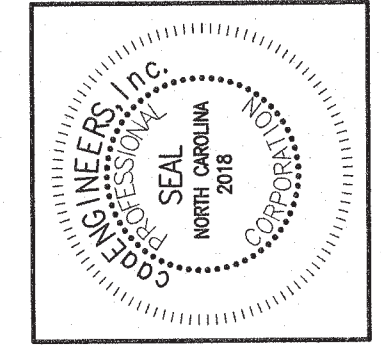
Utility Plan - East
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. C8

SEE INSET 2 SHEET C10

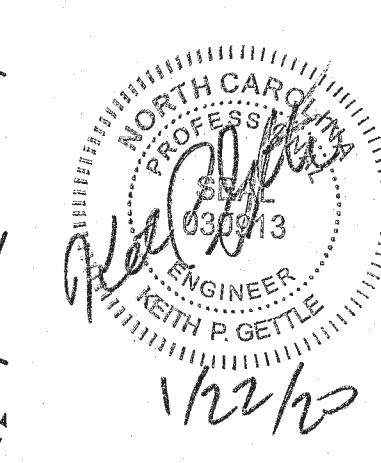


SEE INSET 3 SHEET C10



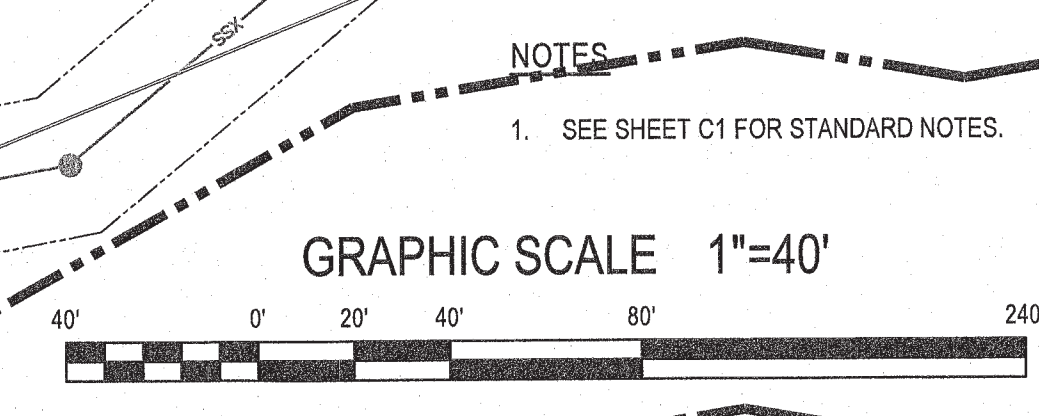
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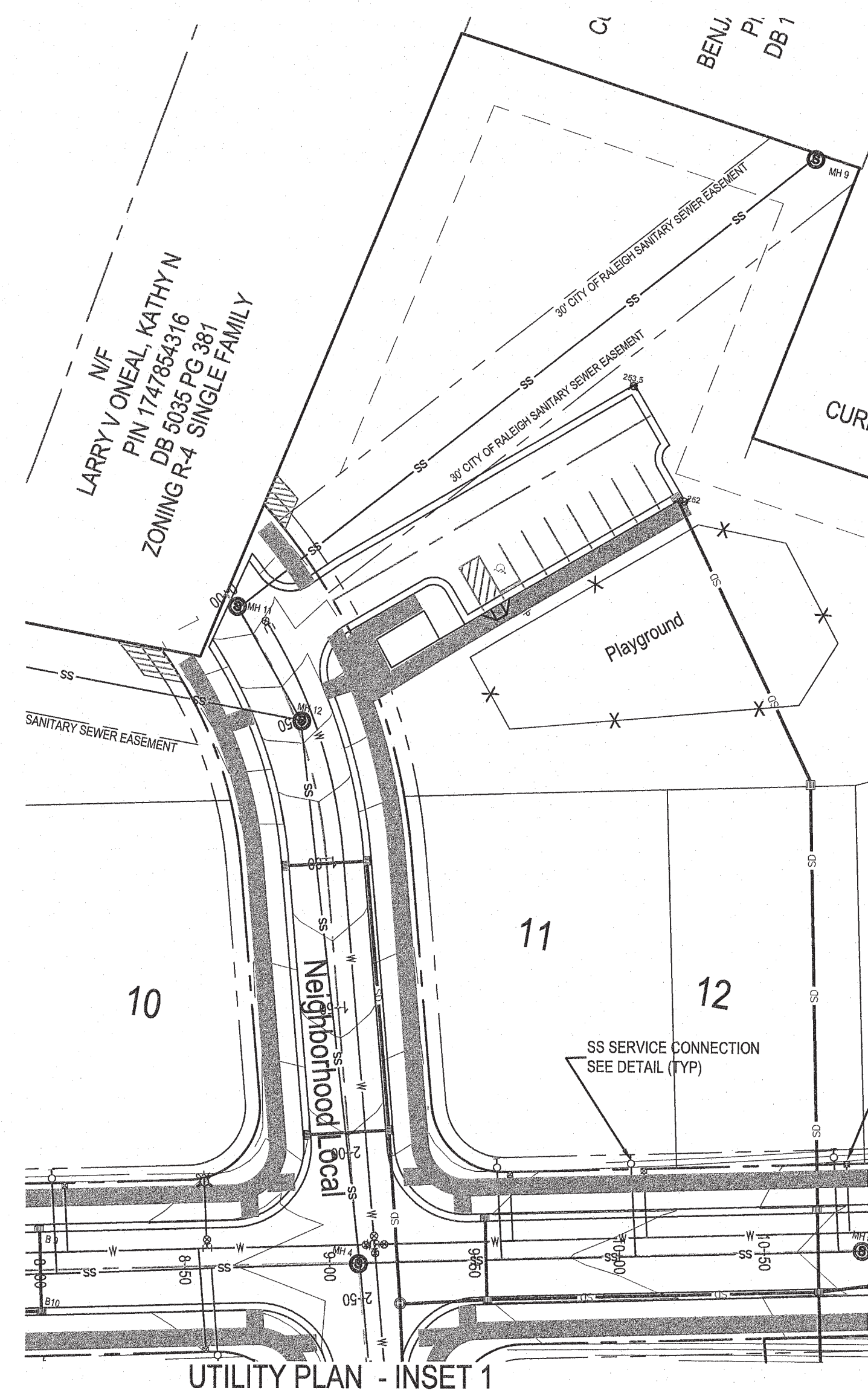
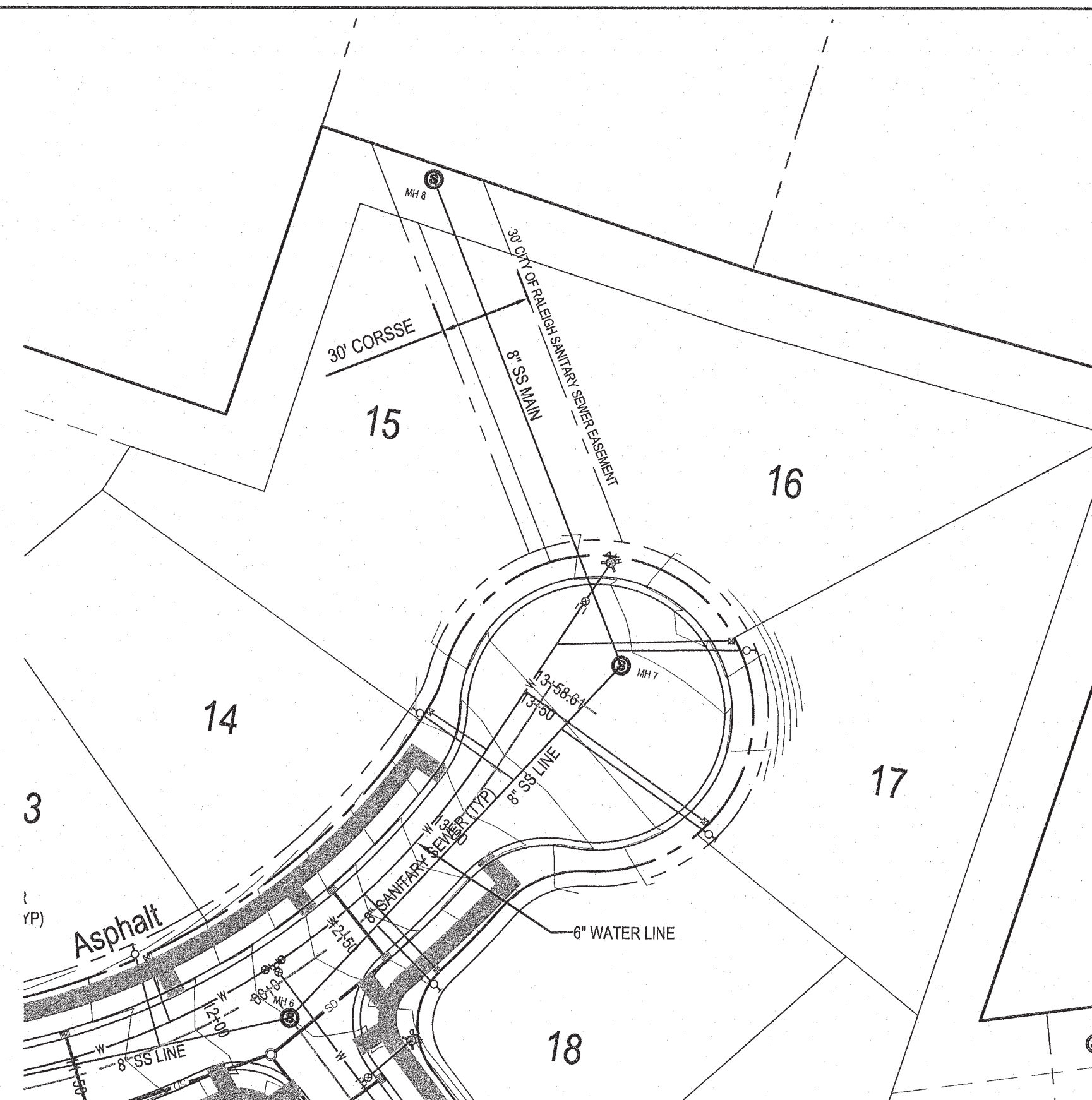
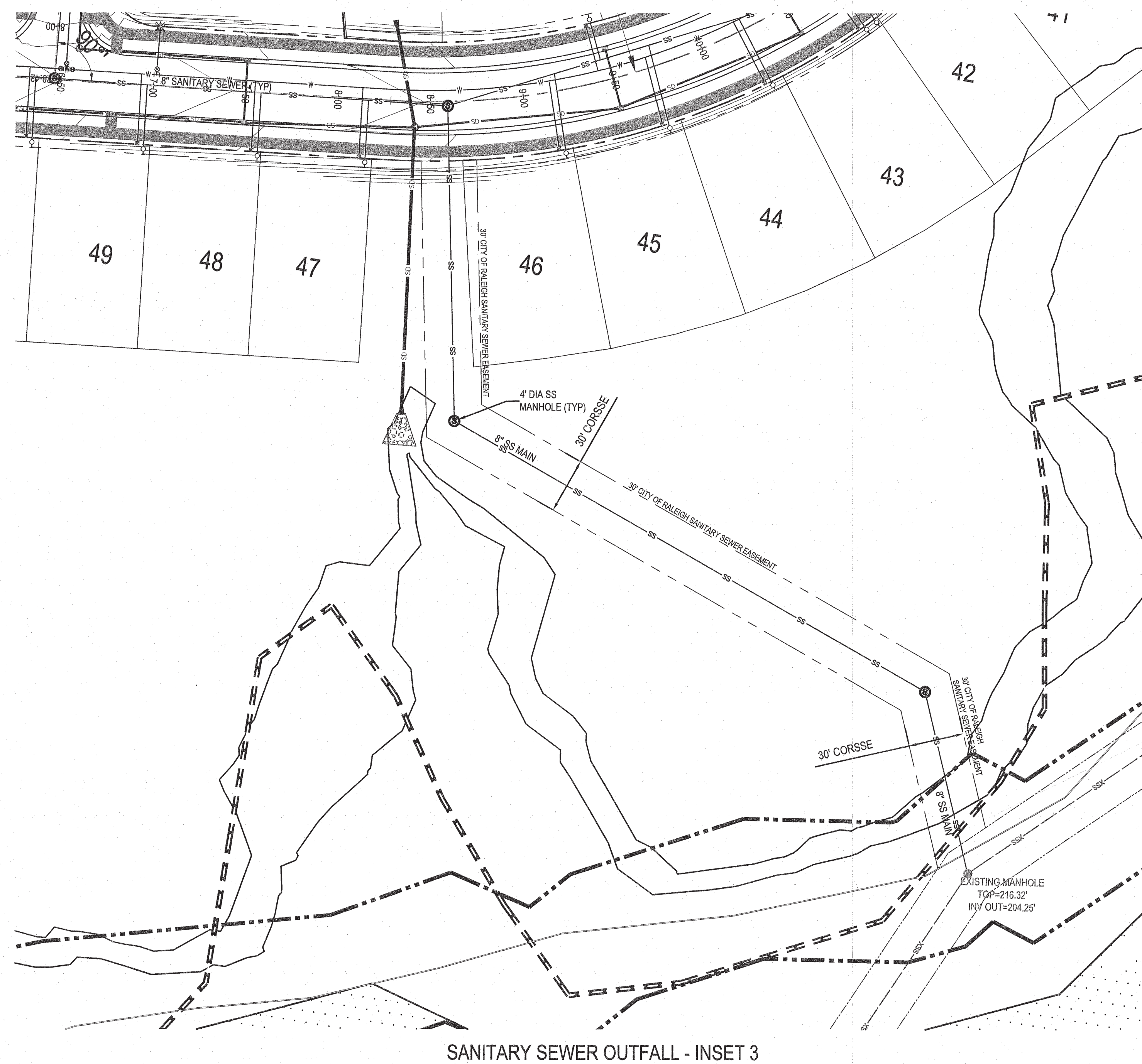
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Utility Plan - West
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina


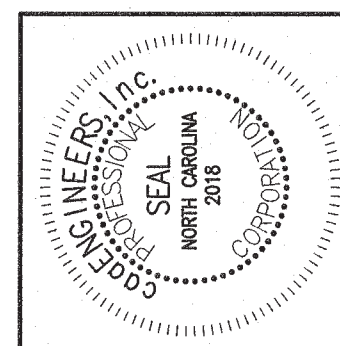
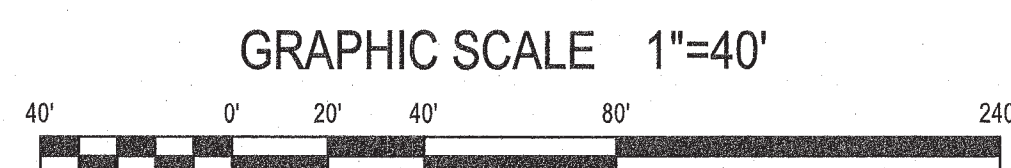
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NOTES

1. SEE SHEET C1 FOR STANDARD NOTES.

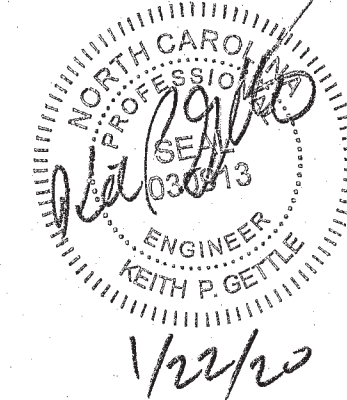


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C-2151

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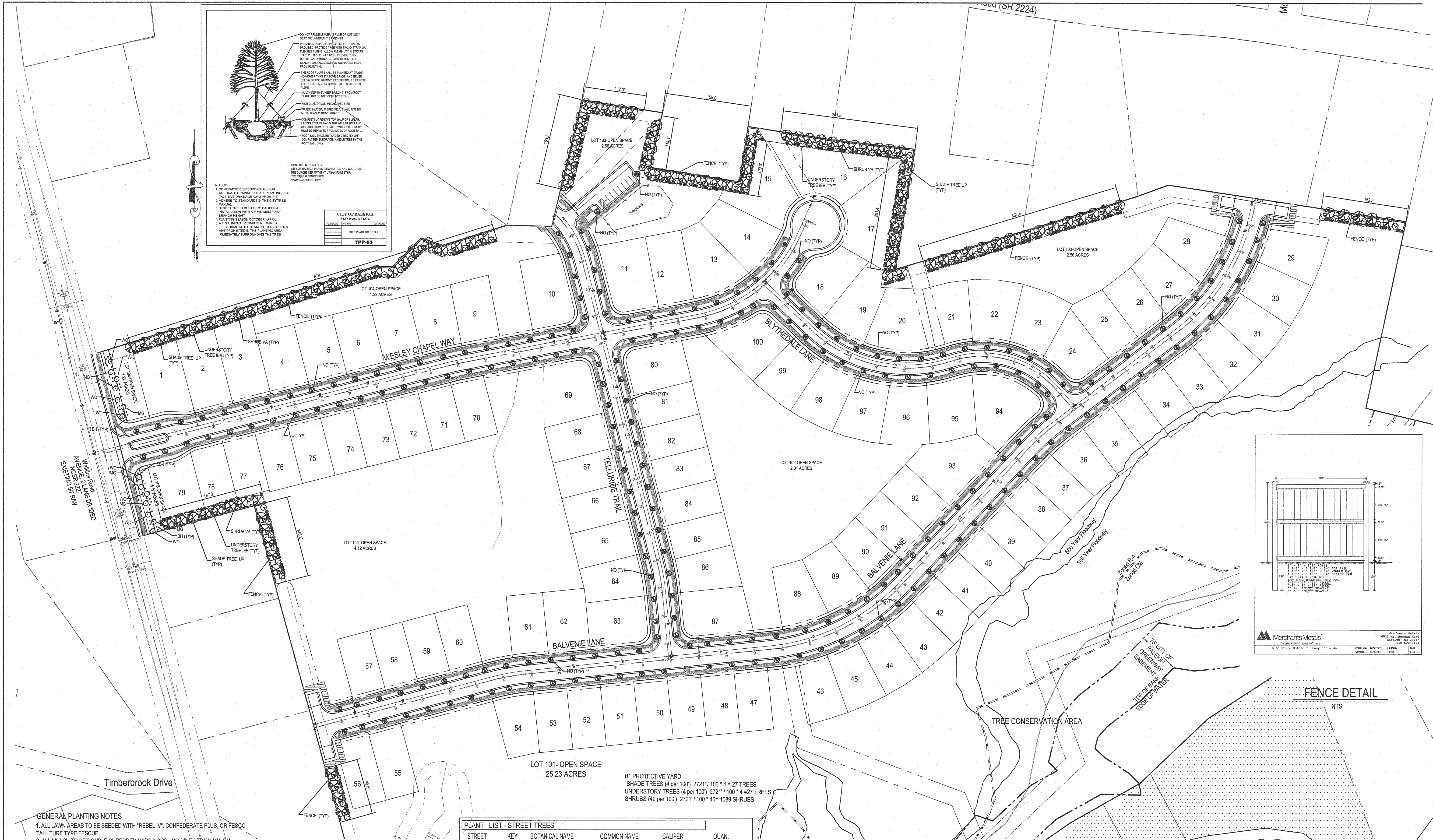
PRELIMINARY PLANS
NOT FOR CONSTRUCTION

Utility Plan - Insets
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501

Dwg No.

150



DO NOT PRUNE LEADER PRUNE OR CUT ONLY DEAD OR DISEASED BRANCHES
PROVIDE STAKES IF SPECIFIED. IF STAKING IS PROVIDED, PROTECT TREE WITH RUBBER STRAP OR FLEXIBLE TUBING. ALLOW SUFFICIENT CLEARANCE TO TRIMMER TO REACH BRANCHES. PROVIDE FENCE BUNDLE AND WARNING FLAG. REMOVE ALL STAKES AND ACCESSORIES WITHIN ONE YEAR FROM PLANTING.
THE ROOT PLATE SHALL BE PLANTED AT GRADE. NO FURTHER TRIMMING SHALL BE DONE. AND NO OTHER TRIMMING SHALL BE DONE. TO EXPOSE THE ROOT PLATE AT GRADE, TREE SHALL BE SET PLANT.
MULCH DEPTH 1" KEEP MULCH 1" FROM ROOT PLATE AND 30" FROM TRUNK STAM.
HIGH QUALITY SOIL MIX AS REQUIRED
WATER SAUCES, IF SPECIFIED, SHALL BE NO MORE THAN 7" ABOVE GRADE.
COMPLETELY REMOVE TOP HALF OF BARK, LATCH STAMPS, NAILS AND WIRE BASKET AND DISCARD PRODUCE. ALL STAMPS SHALL BE REMOVED FROM BARK. ALL STAMPS SHALL BE REMOVED FROM BARK. ALL STAMPS SHALL BE REMOVED FROM BARK.
ROOT SHALL BE PLANTED DIRECTLY ON COMPACTED SUBGRADE. HANDLE TREE BY THE ROOT BALL ONLY.

NOTES:
1. CONTRACTOR IS RESPONSIBLE FOR ASSURE DRAINAGE OF ALL PLANTING PITS. (POSITIVE DRAINAGE AWAY FROM PIT)
2. ADHERE TO STANDARDS IN THE CITY TREE MANUAL.
3. STREET TREES MUST BE 3" CALIPER AT INSTALLATION WITH A MINIMUM FIRST BRANCH HEIGHT.
4. PLANTING SCHEDULE OCTOBER - APRIL.
5. A TREE IMPACT PERMIT IS REQUIRED.
6. ELECTRICAL OUTLETS AND OTHER UTILITIES ARE PROHIBITED IN THE PLANTING AREA IMMEDIATELY SURROUNDING THE TREE.

CITY OF RALEIGH
STANDARD DETAIL
TREE PLANTING DETAIL
TPP-03

GENERAL PLANTING NOTES

1. ALL LAWN AREAS TO BE SEED WITH "REBEL IV", CONFEDERATE PLUS, OR PESCO TALL TURF TYPE FESCUE.
2. ALL MULCH TO BE DOUBLE SHREDDED HARDWOOD. NO PINE STRAW MULCH ADJACENT TO STRUCTURES.
3. PLANT MATERIAL ON THIS SITE MUST BE INSTALLED IN CONFORMANCE WITH THE GENERAL PLANTING NOTES AND DETAILS ON THIS PLAN OR TO THE STANDARDS OF THE CITY OF RALEIGH CODE OF ORDINANCES.
4. ALL PLANTS SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN.
5. OWNERS SHALL MAINTAIN ALL PLANT BEDS AND PLANT MATERIAL IN GOOD HEALTH, AND ANY DEAD, UNHEALTHY, OR MISSING PLANTS SHALL BE REPLACED WITH LOCALLY ADAPTED VEGETATION WHICH CONFORMS TO THE INITIAL PLANTING STANDARDS OF THE LANDSCAPING ORDINANCE.
6. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR LOCATING ANY UNDERGROUND UTILITIES PRIOR TO BEGINNING WORK.
7. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UNDERGROUND UTILITIES, SITE FEATURES, OR STRUCTURES.
8. THE LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR ALL REQUIRED PERMITS AND LICENSES TO PERFORM THE REQUIRED WORK.
9. ALL PLANT BEDS SHALL BE TREATED WITH PRE-EMERGENT WEED CONTROL (I.E. TREFLAN).
10. ALL PLANTS SHALL BE VIGOROUS, HEALTHY MATERIAL FREE FROM PESTS AND DISEASE.

PLANT SCHEDULE - C2 YARD

TREES	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM HEIGHT AT PLANTING	REMARKS
WO	7	QUERCUS PHELLOS	WILLOW OAK	3" CAL.	10'	C-2 YARD
MG	7	MAGNOLIA GRANDIFLORA	SOUTHERN MAGNOLIA	3" CAL.	10'	C-2 YARD
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM HEIGHT AT PLANTING	REMARKS
BH	51	ILEX CORNUTA BURFORDI	BURFORD HOLLY	5" HT/SPRD	18"	C-2 YARD

C-2 BUFFER YARD CALCULATIONS
4 SHADE TREES PER 100' X 336 LF OF FRONTAGE = 14 SHADE TREES
15 SHRUBS PER 100' X 336 LF OF FRONTAGE = 51 SHRUBS

PLANT LIST - STREET TREES

STREET	KEY	BOTANICAL NAME	COMMON NAME	CALIPER	QUAN.
Wesley Chapel	NO	Quercus nuttallii	Nuttall oak	3"	1200/40"2 = 60
Telluride Trail	NO	Quercus nuttallii	Nuttall oak	3"	760/40"2 = 38
Blythedale Ln	NO	Quercus nuttallii	Nuttall oak	3"	600/40"2 = 30
Balvenie Drive	NO	Quercus nuttallii	Nuttall oak	3"	1980/40"2 = 99

B1 PROTECTIVE YARD -
SHADE TREES (4 per 100') 2721' / 100' * 4 = 27 TREES
UNDERSTORY TREES (4 per 100') 2721' / 100' * 4 = 27 TREES
SHRUBS (40 per 100') 2721' / 100' * 40 = 1089 SHRUBS

B1 PROTECTIVE YARD

TREES	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM HEIGHT AT PLANTING	REMARKS
UP	27	Ulmus Parvifolia	CHINESE ELM	2.5" CAL.	14'	B1 YARD
IEB	27	Ilex x 'Emily Bruner'	EMILY BRUNER HOLLY	-	8"	B1 YARD
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	MINIMUM INSTALLED SIZE	MINIMUM HEIGHT AT PLANTING	REMARKS
VA	1089	Viburnum Awabaki 'Chindo'	SWEET VIBURNUM	-	2'	B1 YARD

NOTE: STREET TREES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH CHAPTER 2 OF THE CITY OF RALEIGH TREE MANUAL

PLANTING NOTES

1. STREET TREES WILL BE REQUIRED AT 40' ON CENTER WITHIN THE RIGHT OF WAY IN A 6 FOOT TREE LAWN.
2. EACH TREE WILL REQUIRE 600 CUBIC FEET OF IMPROVED / UNCOMPACTED SOIL BETWEEN THE CURB AND SIDEWALK.
3. TWO YEAR MAINTENANCE AND WARRANTY WILL BE REQUIRED FOR THE TREES AND CAN BE FOUND IN THE RALEIGH STREET DESIGN MANUAL SECTIONS 6.18.1 AND 6.18.2.
4. A TREE IMPACT PERMIT WILL BE REQUIRED PRIOR TO TREE INSTALLATION.

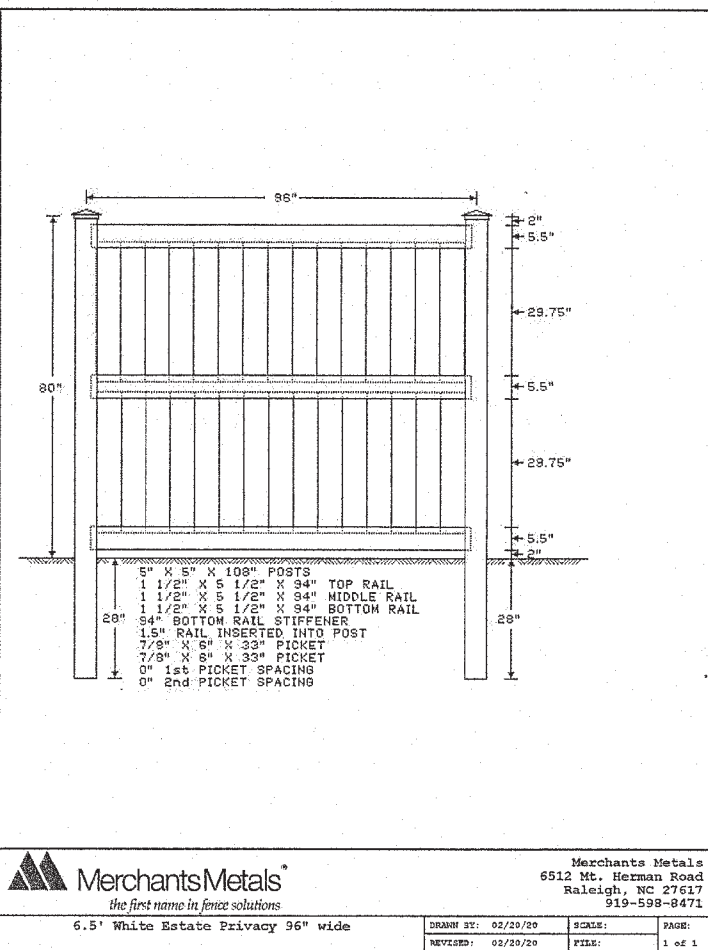
RETAINING EXISTING VEGETATION

ALL EXISTING HEALTHY VEGETATION (NON INVASIVE TREES, SHRUBS, ETC) THAT EXISTS OUTSIDE THE PROPOSED DISTURBED AREAS OF THIS DEVELOPMENT IS TO BE RETAINED TO THE MOST PRACTICAL EXTENT POSSIBLE.

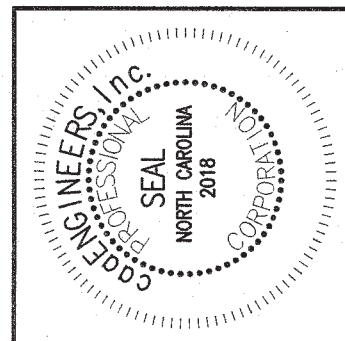
NOTES

1. SEE SHEET C1 FOR STANDARD NOTES.

GRAPHIC SCALE 1"=80'

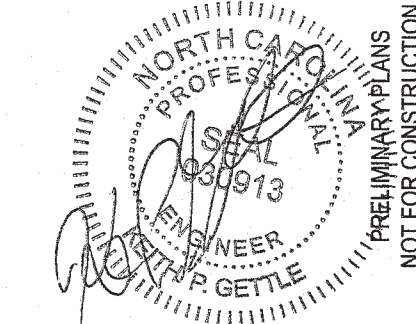


FENCE DETAIL
NTS



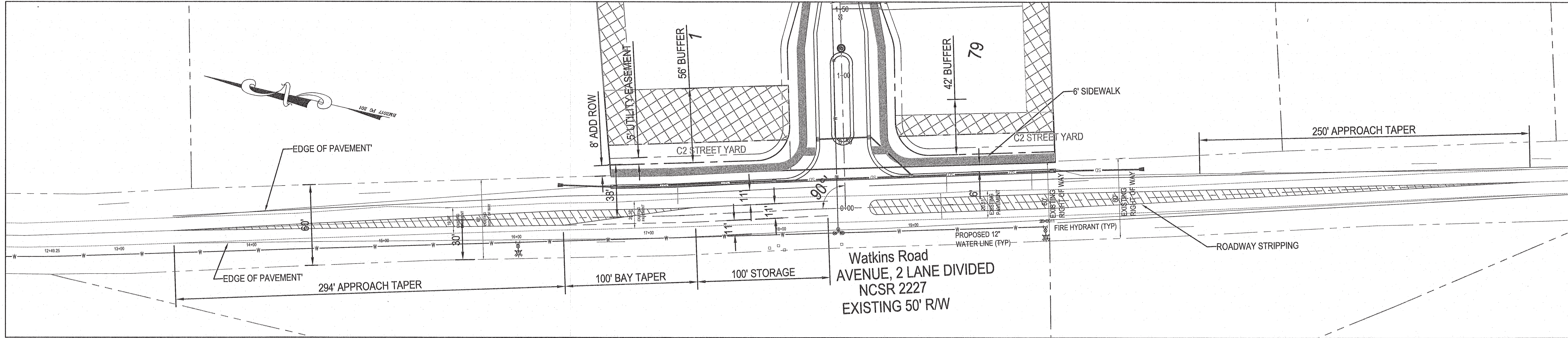
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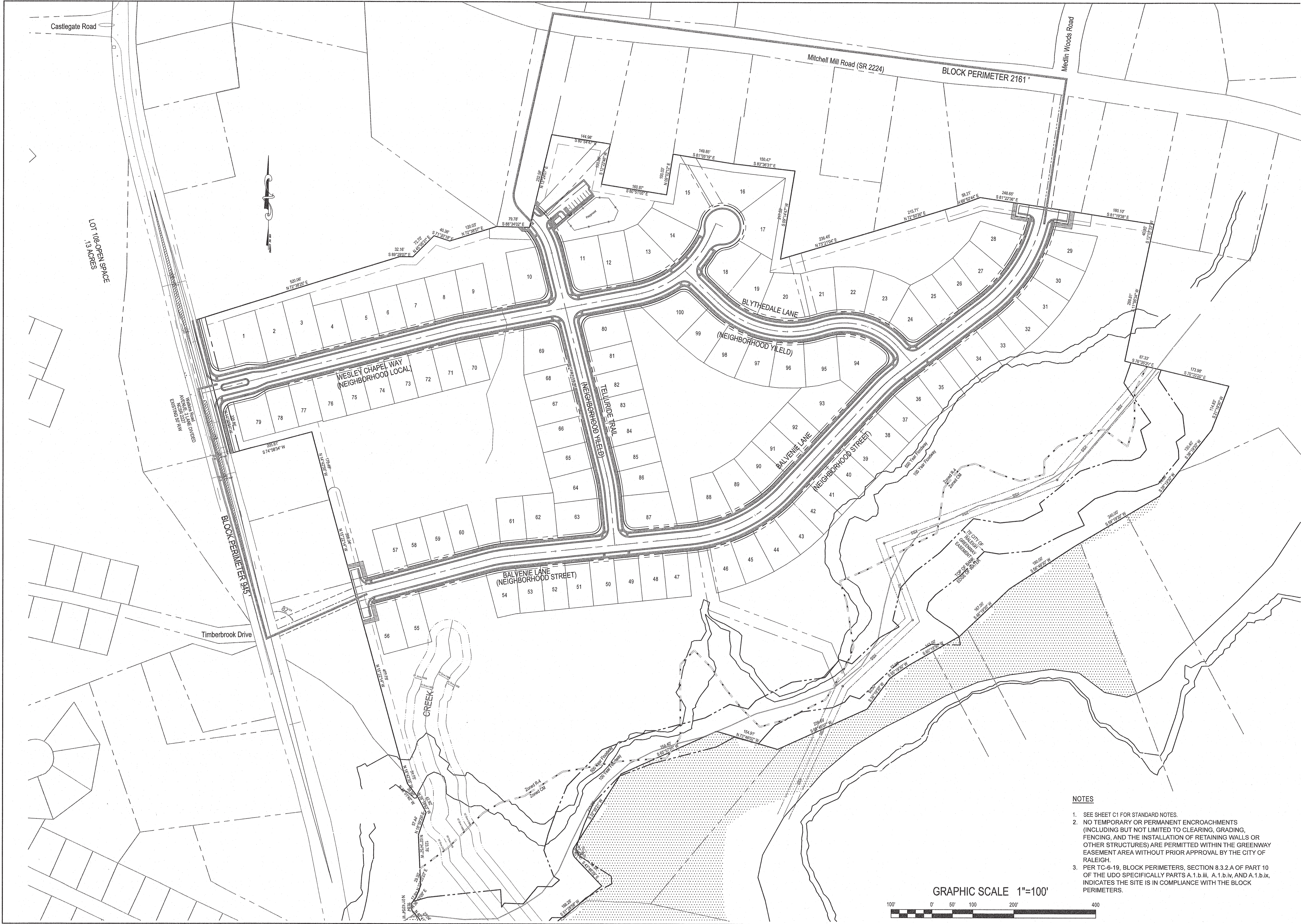
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3	01/24/2020	REVISED PER CITY COMMENT	PPG
4	02/28/2020	REVISED PER CITY COMMENT	PPG
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7	Date	Comment	By
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Landscape Plan
Watkins Glen Subdivision
The Carillon Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. C11



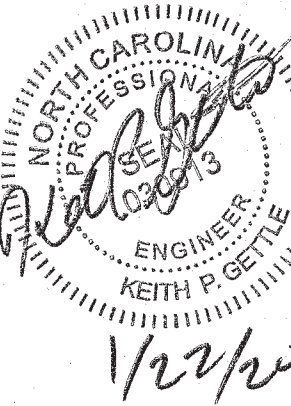


- NOTES
1. SEE SHEET C1 FOR STANDARD NOTES.
 2. NO TEMPORARY OR PERMANENT ENCROACHMENTS (INCLUDING BUT NOT LIMITED TO CLEARING, GRADING, FENCING, AND THE INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES) ARE PERMITTED WITHIN THE GREENWAY EASEMENT AREA WITHOUT PRIOR APPROVAL BY THE CITY OF RALEIGH.
 3. PER TC-6-19, BLOCK PERIMETERS, SECTION 8.3.2.A OF PART 10 OF THE UDO SPECIFICALLY PARTS A.1.b.iii, A.1.b.iv, AND A.1.b.ix, INDICATES THE SITE IS IN COMPLIANCE WITH THE BLOCK PERIMETERS.

Overall Site - Block Perimeter
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

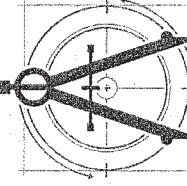
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Dwg No.

C13

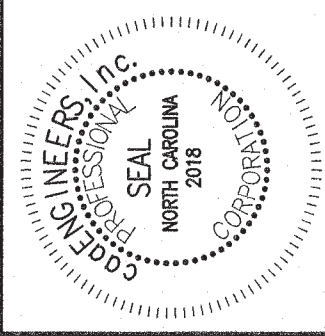


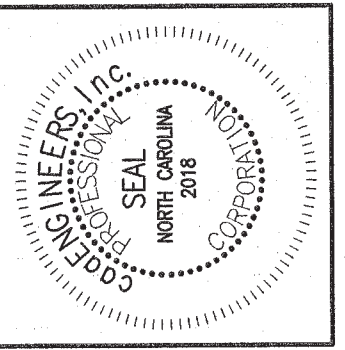
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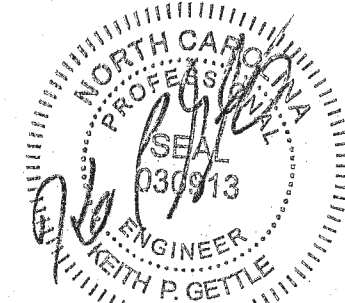
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McIntyre, Gettle, Crowley
PROFESSIONAL ENGINEERS
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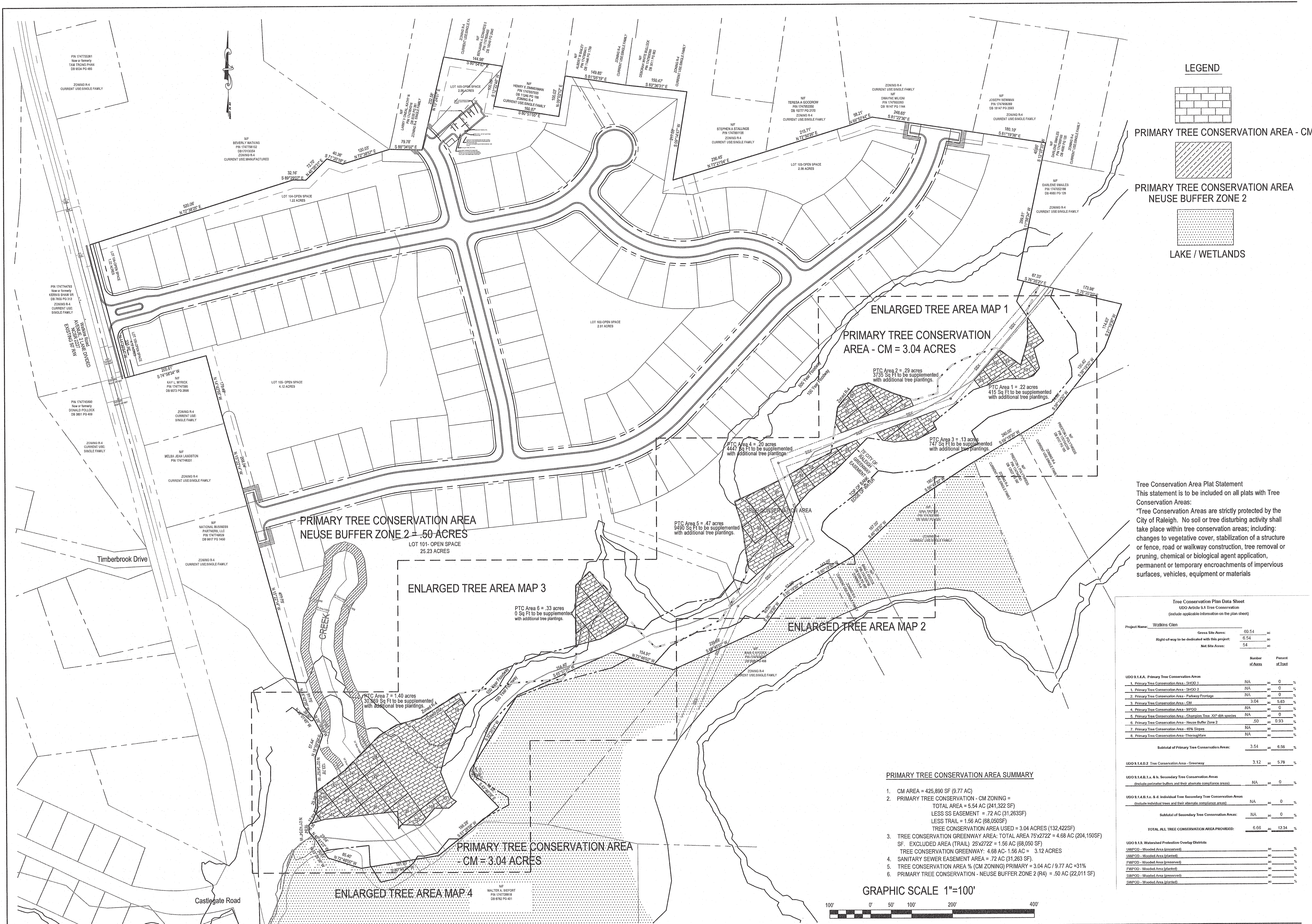
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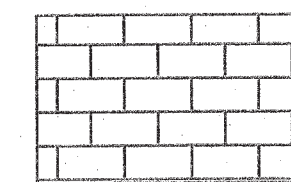
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Tree Conservation Plan
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

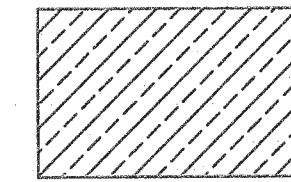
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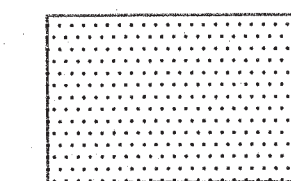
LEGEND



PRIMARY TREE CONSERVATION AREA - CM



PRIMARY TREE CONSERVATION AREA
NEUSE BUFFER ZONE 2



LAKE / WETLANDS

ENLARGED TREE AREA MAP 1

PRIMARY TREE CONSERVATION
AREA - CM = 3.04 ACRES

PTC Area 2 = 29 acres
3725 Sq Ft to be supplemented
with additional tree plantings.

PTC Area 1 = 22 acres
415 Sq Ft to be supplemented
with additional tree plantings.

PTC Area 3 = 13 acres
747 Sq Ft to be supplemented
with additional tree plantings.

PTC Area 4 = 20 acres
4447 Sq Ft to be supplemented
with additional tree plantings.

PTC Area 5 = 47 acres
6490 Sq Ft to be supplemented
with additional tree plantings.

ENLARGED TREE AREA MAP 3

PTC Area 6 = 33 acres
0 Sq Ft to be supplemented
with additional tree plantings.

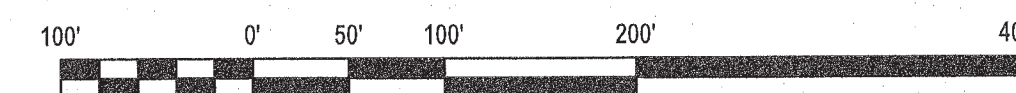
PTC Area 7 = 1.40 acres
30,869 Sq Ft to be supplemented
with additional tree plantings.

PRIMARY TREE CONSERVATION AREA
- CM = 3.04 ACRES

PRIMARY TREE CONSERVATION AREA SUMMARY

- CM AREA = 425,890 SF (9.77 AC)
- PRIMARY TREE CONSERVATION - CM ZONING =
TOTAL AREA = 5.54 AC (241,322 SF)
LESS SS EASEMENT = .72 AC (31,263 SF)
LESS TRAIL = 1.56 AC (68,050 SF)
TREE CONSERVATION AREA USED = 3.04 ACRES (132,422 SF)
SF EXCLUDED AREA (TRAIL) 25'x272' = 1.56 AC (68,050 SF)
TREE CONSERVATION GREENWAY: 4.68 AC - 1.56 AC = 3.12 ACRES
- SANITARY SEWER EASEMENT AREA = .72 AC (31,263 SF)
- TREE CONSERVATION AREA % (CM ZONING) PRIMARY = 3.04 AC / 9.77 AC = 31%
- PRIMARY TREE CONSERVATION - NEUSE BUFFER ZONE 2 (R4) = .50 AC (22,011 SF)

GRAPHIC SCALE 1"=100'

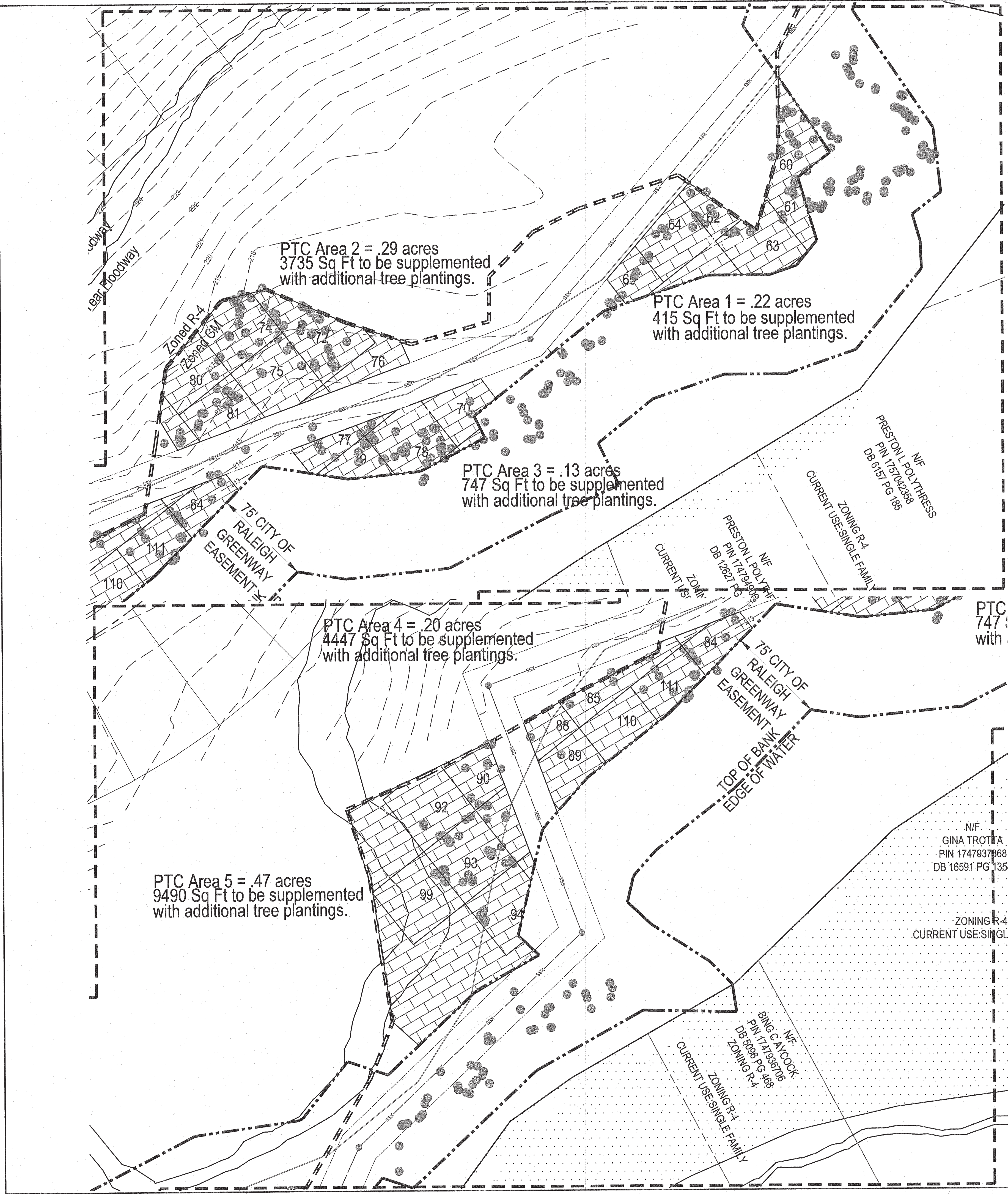


Tree Conservation Plan Data Sheet

UDO Article 5.1 Tree Conservation
(include applicable information on the plan sheet)

Project Name: <u>Watkins Glen</u>			
	Gross Site Acres:	<u>60.54</u>	<u>30</u>
	Right-of-way to be dedicated with this project:	<u>6.54</u>	<u>30</u>
	Net Site Acres:	<u>54</u>	<u>30</u>
		Number of Acres	Percent of Total
UDO 5.1.4.1. Primary Tree Conservation Areas			
1. Primary Tree Conservation Area - SHGD 1	NA	<u>30</u>	<u>0</u> %
2. Primary Tree Conservation Area - SHGD 2	NA	<u>30</u>	<u>0</u> %
2. Primary Tree Conservation Area - Parkway Frontage	NA	<u>30</u>	<u>0</u> %
3. Primary Tree Conservation Area - CM	<u>3.04</u>	<u>NA</u>	<u>5.63</u> %
4. Primary Tree Conservation Area - MFOD	NA	<u>30</u>	<u>0</u> %
5. Primary Tree Conservation Area - Champion Tree 30" dbh saplings	NA	<u>30</u>	<u>0</u> %
6. Primary Tree Conservation Area - Neuse Buffer Zone 2	<u>.50</u>	<u>NA</u>	<u>0.93</u> %
7. Primary Tree Conservation Area - 45% Slopes	NA	<u>30</u>	<u>0</u> %
8. Primary Tree Conservation Area - Thoroughfare	NA	<u>30</u>	<u>0</u> %
Subtotal of Primary Tree Conservation Areas:	<u>3.54</u>	<u>30</u>	<u>6.56</u> %
UDO 5.1.4.2. Tree Conservation Area - Greenway			
		<u>3.12</u>	<u>5.78</u> %
UDO 5.1.4.3.1. a. & b. Secondary Tree Conservation Areas (includes perimeter buffers and their alternate compliance areas)			
	NA	<u>30</u>	<u>0</u> %
UDO 5.1.4.3.1. c. & d. Individual Tree Secondary Tree Conservation Areas (includes individual trees and their alternate compliance areas)			
	NA	<u>30</u>	<u>0</u> %
Subtotal of Secondary Tree Conservation Areas:	NA	<u>30</u>	<u>0</u> %
TOTAL ALL TREE CONSERVATION AREA PROVIDED:	<u>6.66</u>	<u>30</u>	<u>12.34</u> %

UDO 5.1.5. Watershed Protection Overlay Districts	
UWPOD - Wooded Area (preserved)	%
UWPOD - Wooded Area (planted)	%
FWPOD - Wooded Area (preserved)	%
FWPOD - Wooded Area (planted)	%
SWPOD - Wooded Area (preserved)	%
SWPOD - Wooded Area (planted)	%



ENLARGED TREE AREA MAP 1

NOTE:

- GRID BLOCK AREAS NOTED BELOW ARE TO BE REPLANTED WITH SHADE TREES FROM LIST AND AT A RATE NOTED BELOW. THE AREAS NOTED ON THE SCHEDULE ARE FROM A REPORT PROVIDED BY LEAF AND LIMB. THE PTC AREAS SHOWN ON THE PLANS THAT DO NOT HAVE A GRID BLOCK NUMBER ARE INCLUDED IN THE TOTAL AREA TO BE REPLANTED AS REQUIRED BY THE CITY OF RALEIGH.
- UDO 4.2.1.C. -- SHADE TREES SHALL BE PLANTED IN ACCORDANCE WITH SECTION 9.1.9 UDO 9.1.9.A.6. INDICATES THAT THE REQUIREMENT IS EITHER 1 BARE ROOT SEEDLING EVERY 100 SQUARE FEET OR A 2" CALIPER TREE EVERY 200 SQUARE FEET.
- REPLACEMENT TREE TYPE TO BE SELECTED FROM COR "STREET TREE" LIST BELOW.

Tree Replanting Schedule					
Grid Block #	Basal Area	Basal Area/Acre	Req'd / UDO	Area to be seeded (SF)	1 Bare Root Sampling (Ea)
5	1	23	7	581	5.81
7	0	2	28	2324	23.24
25	1	20	10	830	8.3
27	0	5	25	2075	20.75
49	1	14	16	1328	13.28
54	2	28	2	166	1.66
57	2	28	2	166	1.66
63	1	25	5	415	4.15
68	0	2	28	2324	23.24
70	1	21	9	747	7.47
75	1	26	4	332	3.32
76	0	4	26	2158	21.58
80	1	15	15	1245	12.45
85	1	18	12	996	9.96
89	0	8	22	1826	18.26
91	1	17	13	1079	10.79
92	1	9	21	1743	17.43
94	1	12	18	1494	14.94
100	1	10	20	1660	16.6
102	1	15	15	1245	12.45

* Basal area provided from report by "Leaf and Limb, TCA Cover Report"

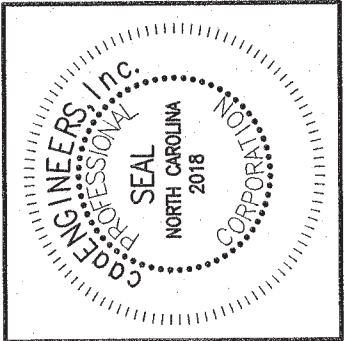
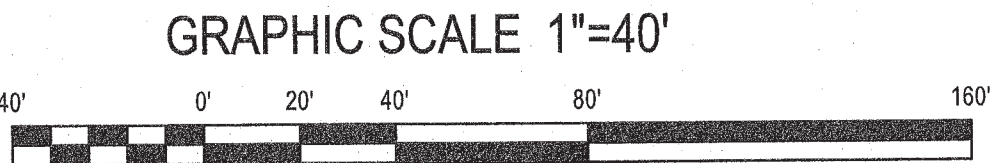
* Req'd per UDO indicates to reach a 30 basal area / acre.

* Area to be seeded based on the 50x50 grid (2500 SF). Basal area of 30 = 83 sf.

* Bare root sampling = 1 per 100 SF.

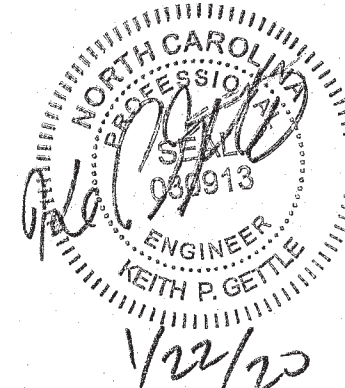
Large Maturing Trees
Not appropriate under power lines
Mature in excess of 60' in height
**American elm, <i>Ulmus americana</i>
Bald cypress, <i>Taxodium distichum</i>
Black gum, <i>Nyssa sylvatica</i>
*Ginkgo, <i>Ginkgo biloba</i>
Magnolia, <i>Magnolia grandiflora</i>
Oaks, <i>Quercus spp.</i>
**Red maple, <i>Acer rubrum</i>
River birch, <i>Betula nigra</i>
Sugar maple, <i>Acer saccharum</i>
Tulip poplar, <i>Liriodendron tulipifera</i>
*Male/Fruitless only
**Cultivars or hybrids must be selected for for
***Small maturing species/cultivars only
Minimum spacing requirements
Small maturing trees 15'+
Medium maturing trees 25'+
Large maturing trees 30'+

ENLARGED TREE AREA MAP 2



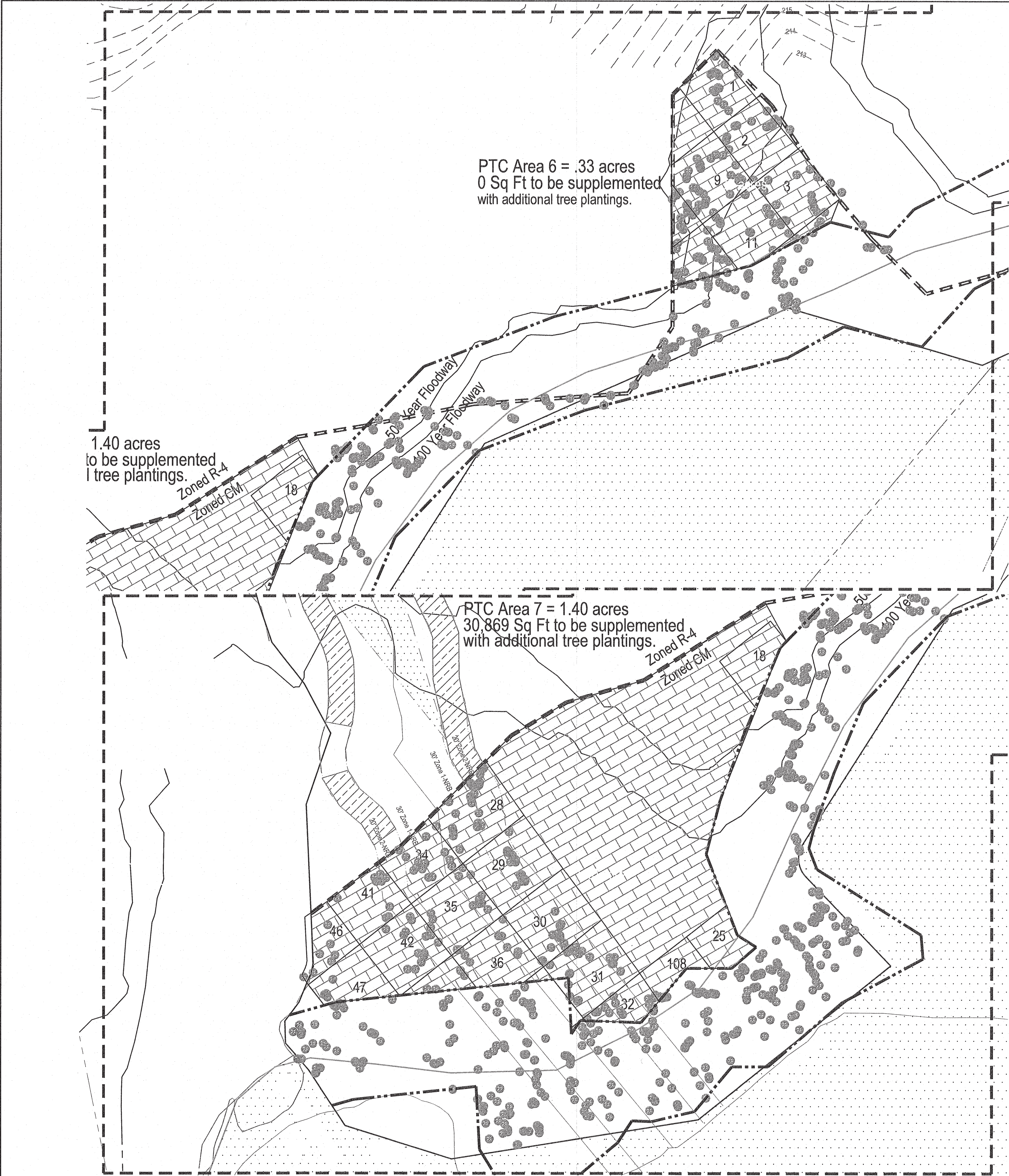
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7	Date	Comment	By
8	Date	Comment	By



Tree Conservation Enlarged Plan
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. C15



ENLARGED TREE AREA MAP 3

- NOTE:
- GRID BLOCK AREAS NOTED BELOW ARE TO BE REPLANTED WITH SHADE TREES FROM LIST AND AT A RATE NOTED BELOW. THE AREAS NOTED ON THE SCHEDULE ARE FROM A REPORT PROVIDED BY LEAF AND LIMB. THE PTC AREAS SHOWN ON THE PLANS THAT DO NOT HAVE A GRID BLOCK NUMBER ARE INCLUDED IN THE TOTAL AREA TO BE REPLANTED AS REQUIRED BY THE CITY OF RALEIGH.
 - UDO 4.2.1.C. -- SHADE TREES SHALL BE PLANTED IN ACCORDANCE WITH SECTION 9.1.9 UDO 9.1.9.A.6. INDICATES THAT THE REQUIREMENT IS EITHER 1 BARE ROOT SEEDLING EVERY 100 SQUARE FEET OR A 2" CALIPER TREE EVERY 200 SQUARE FEET.
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27	0	5	25	2075	20.75
49	1	14	16	1328	13.28
54	2	28	2	166	1.66
57	2	28	2	166	1.66
63	1	25	5	415	4.15
68	0	2	28	2324	23.24
70	1	21	9	747	7.47
75	1	26	4	332	3.32
76	0	4	26	2158	21.58
80	1	15	15	1245	12.45
85	1	18	12	996	9.96
89	0	8	22	1826	18.26
91	1	17	13	1079	10.79
92	1	9	21	1743	17.43
94	1	12	18	1494	14.94
100	1	10	20	1660	16.6
102	1	15	15	1245	12.45

* Basal area provided from report by "Leaf and Limb, TCA Cover Report"

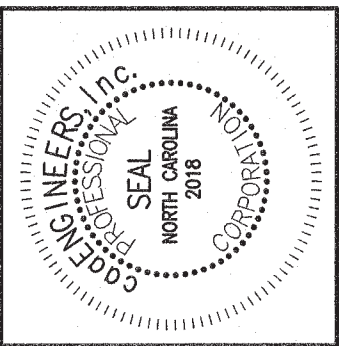
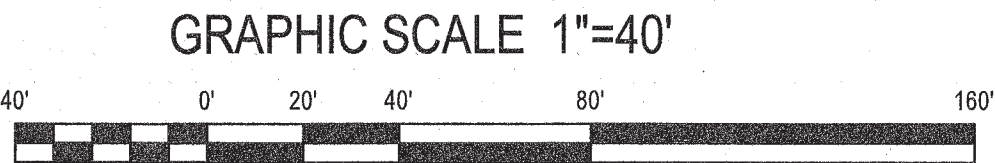
* Req'd per UDO indicates to reach a 30 basal area / acre.

* Area to be seeded based on the 50x50 grid (2500 SF). Basal area of 30 = 83 sf.

* Bare root sampling = 1 per 100 SF.

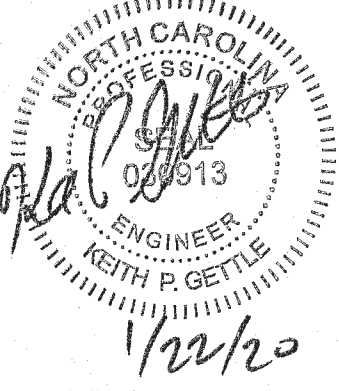
Large Maturing Trees
Not appropriate under power lines
Mature in excess of 60' in height
**American elm, <i>Ulmus americana</i>
Bald cypress, <i>Taxodium distichum</i>
Black gum, <i>Nyssa sylvatica</i>
*Ginkgo, <i>Ginkgo biloba</i>
Magnolia, <i>Magnolia grandiflora</i>
Oaks, <i>Quercus spp.</i>
**Red maple, <i>Acer rubrum</i>
River birch, <i>Betula nigra</i>
Sugar maple, <i>Acer saccharum</i>
Tulip poplar, <i>Liriodendron tulipifera</i>
*Male/Fruitless only
**Cultivars or hybrids must be selected for fox
***Small maturing species/cultivars only
Minimum spacing requirements
Small maturing trees 15'+
Medium maturing trees 25'+
Large maturing trees 30'+

ENLARGED TREE AREA MAP 4

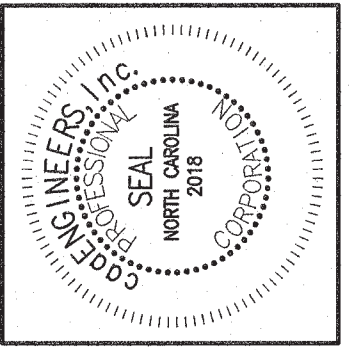
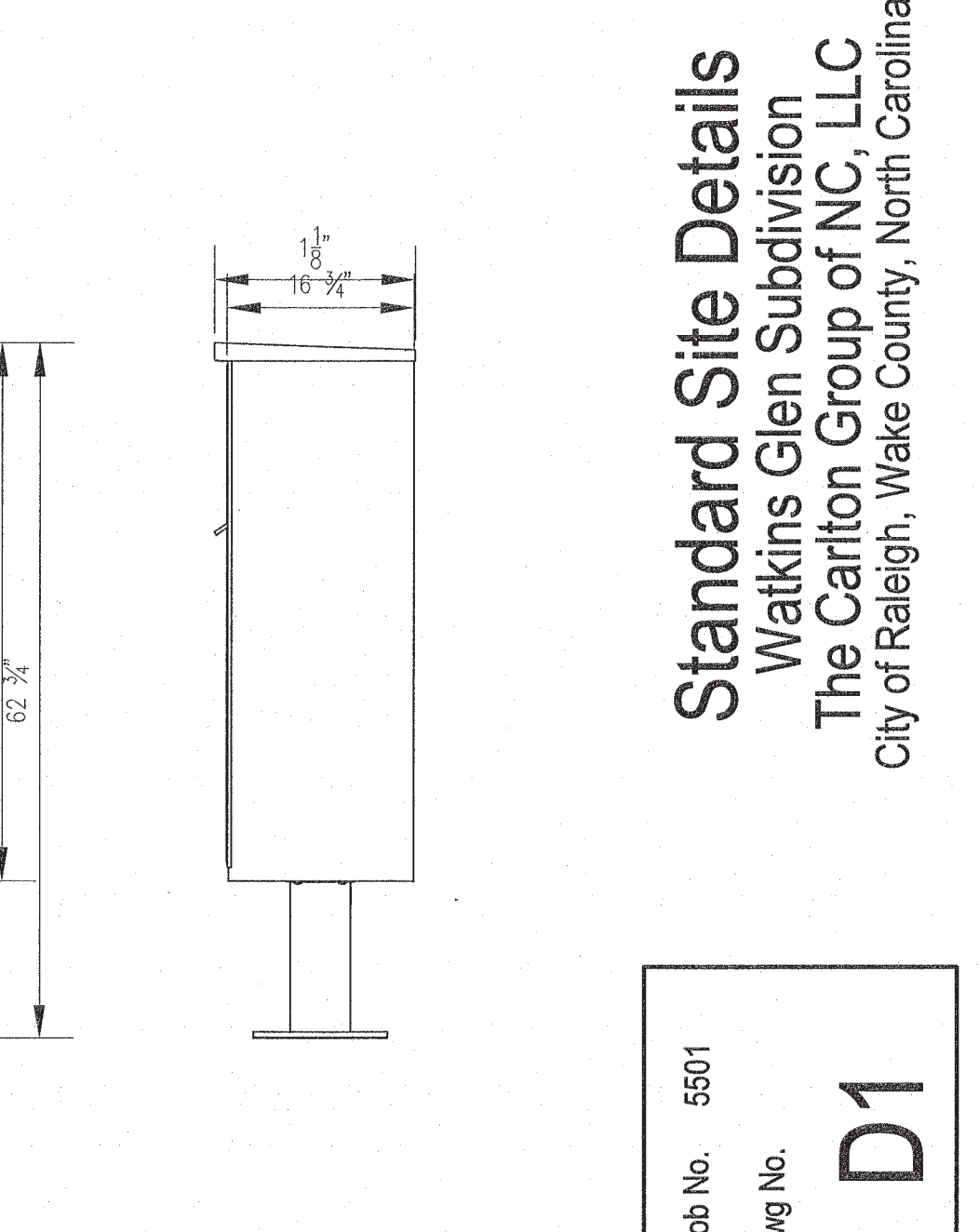
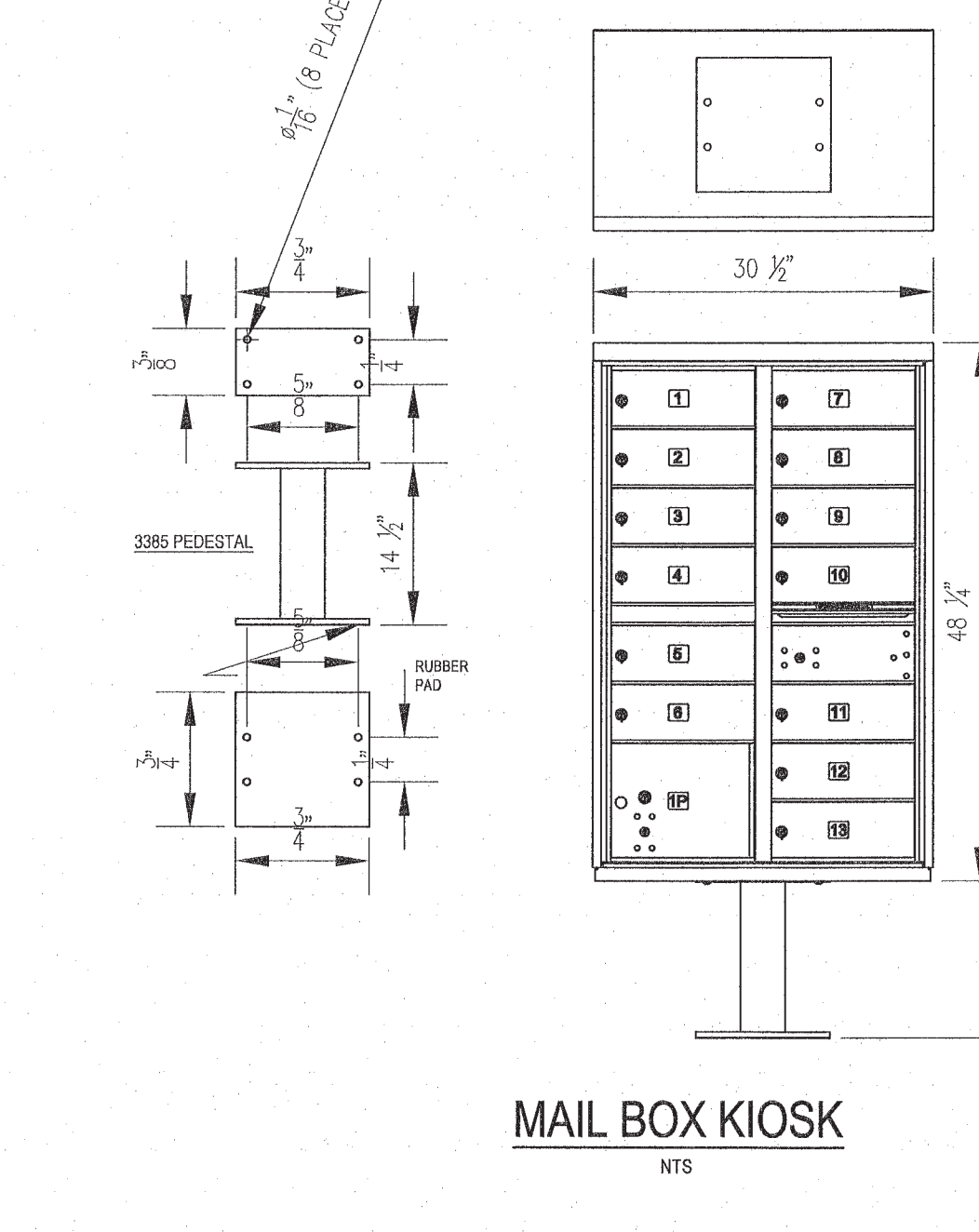
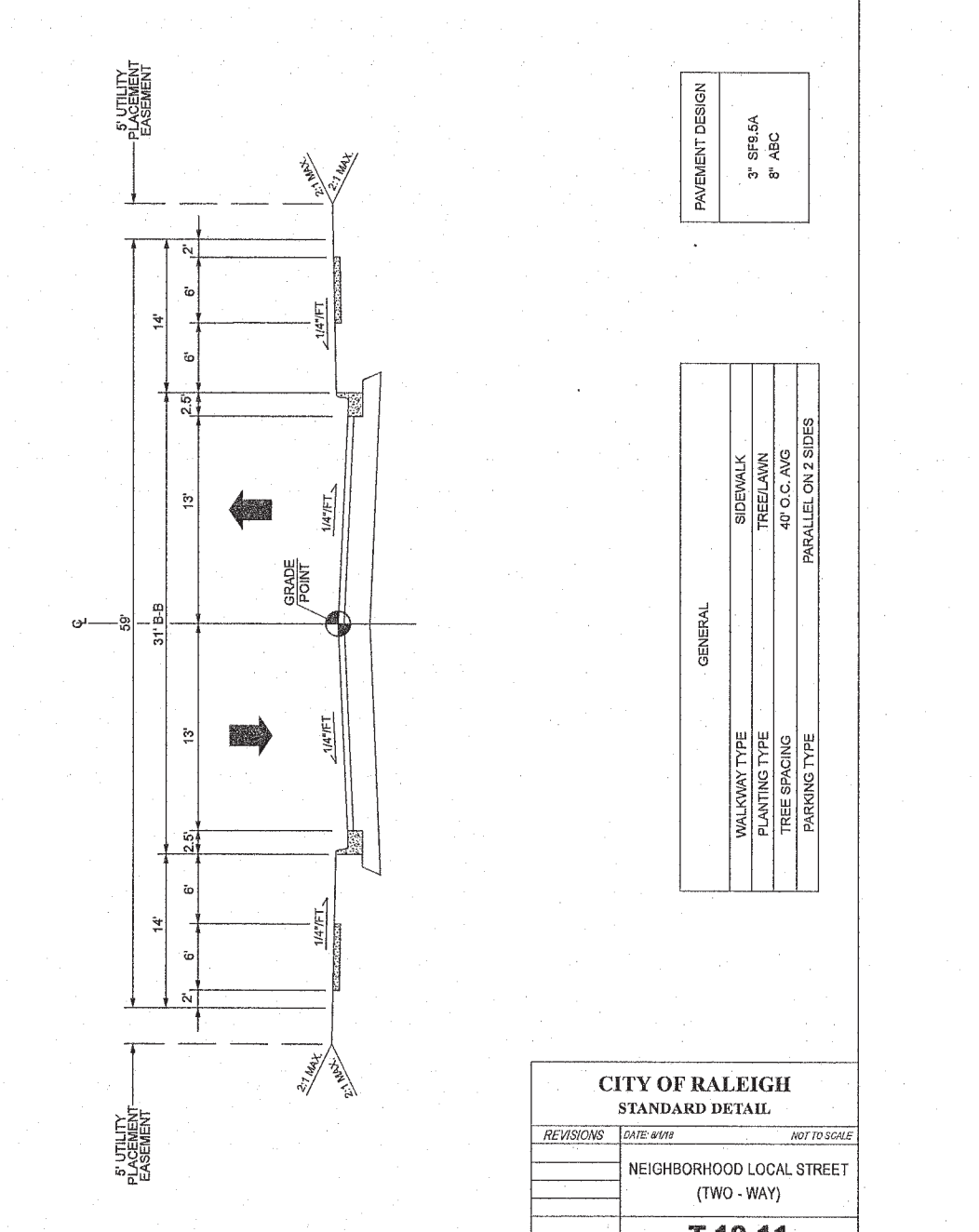
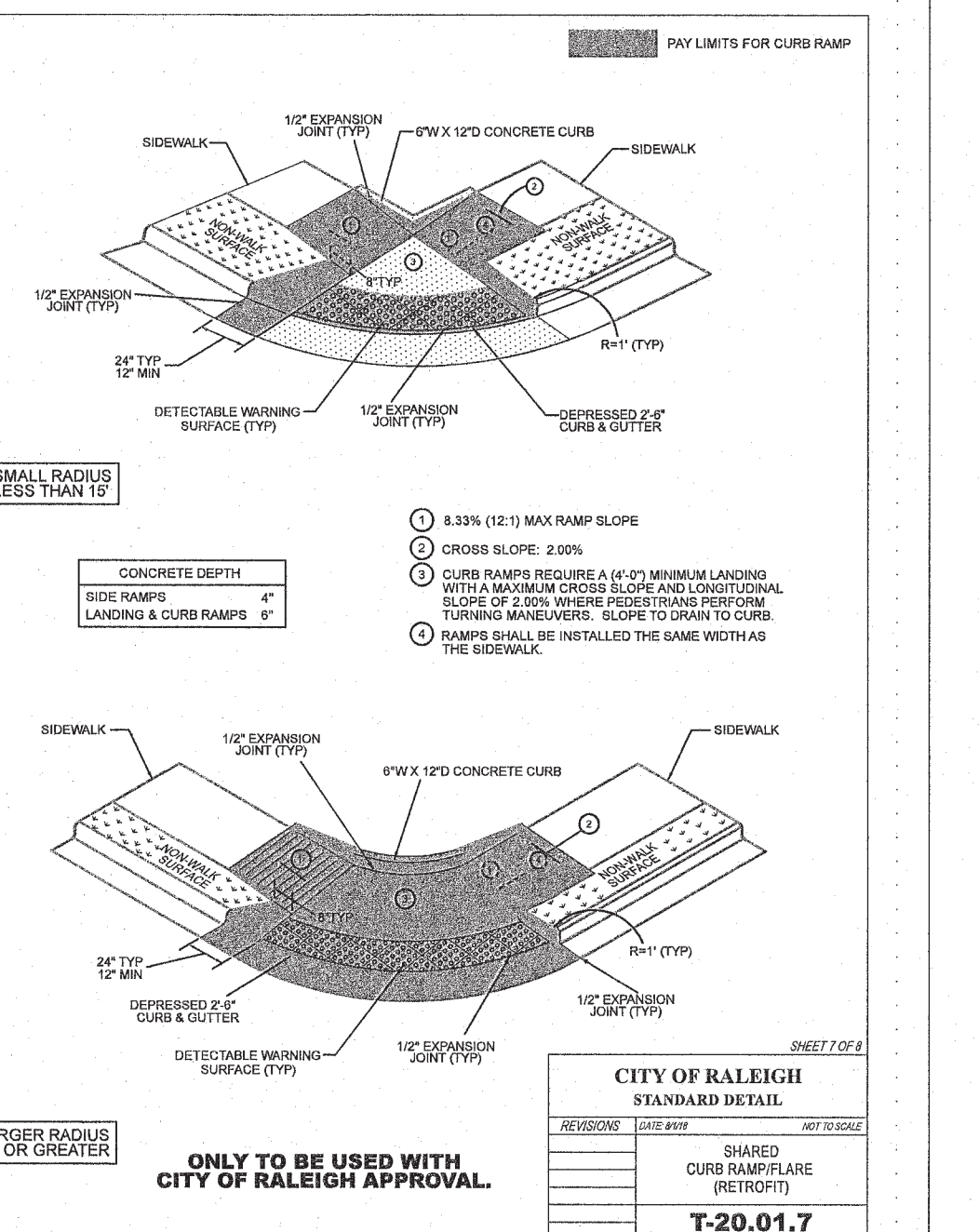
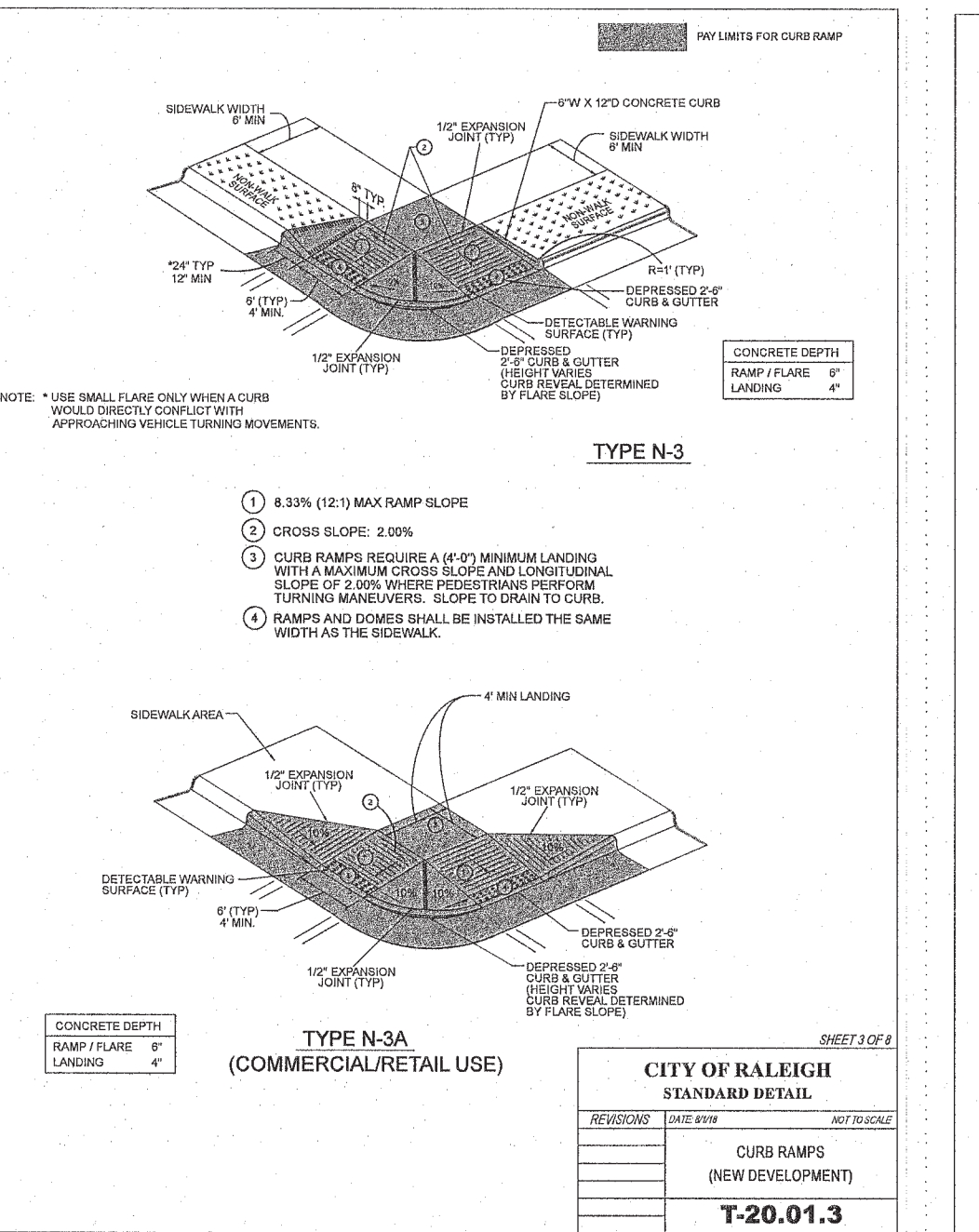
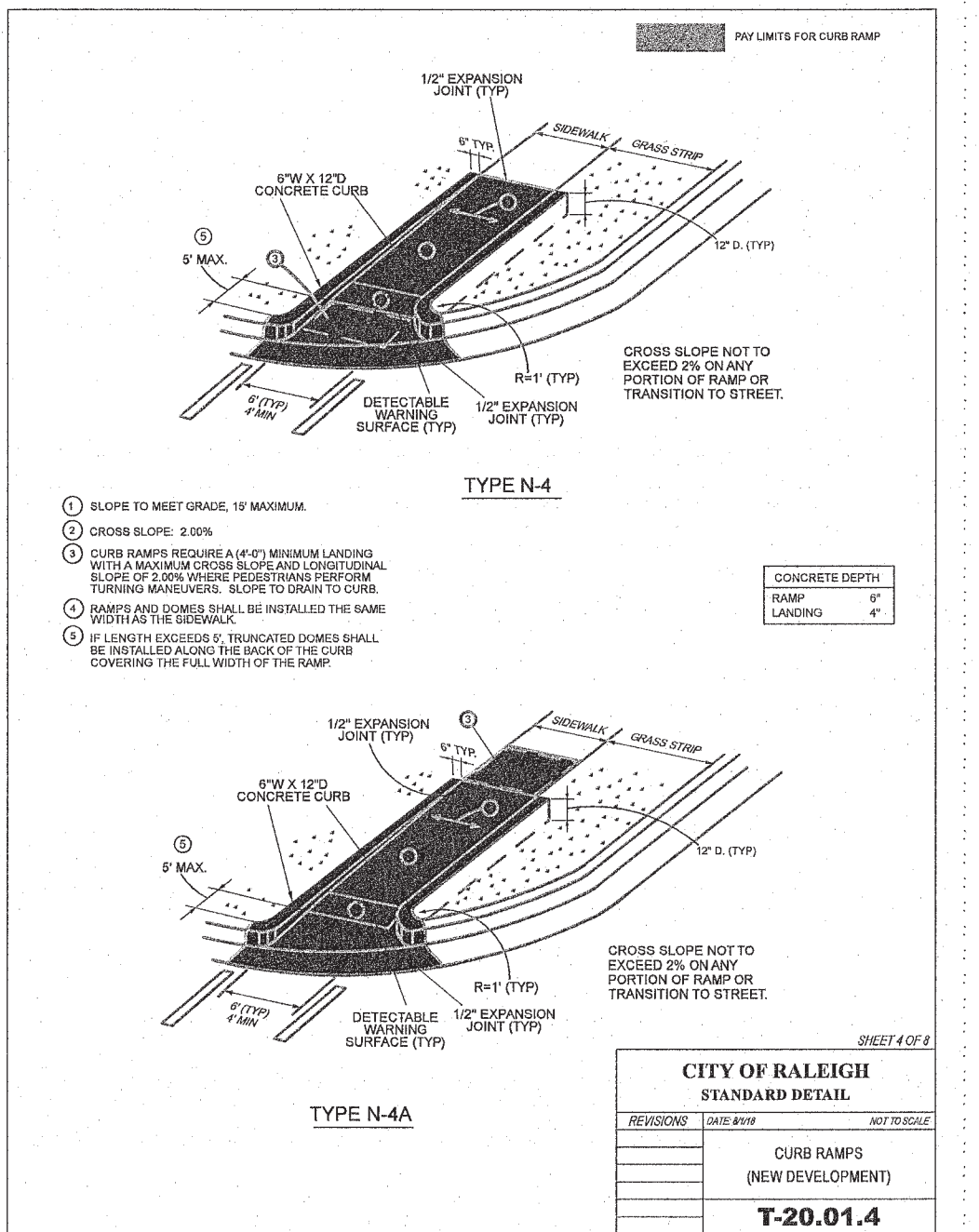
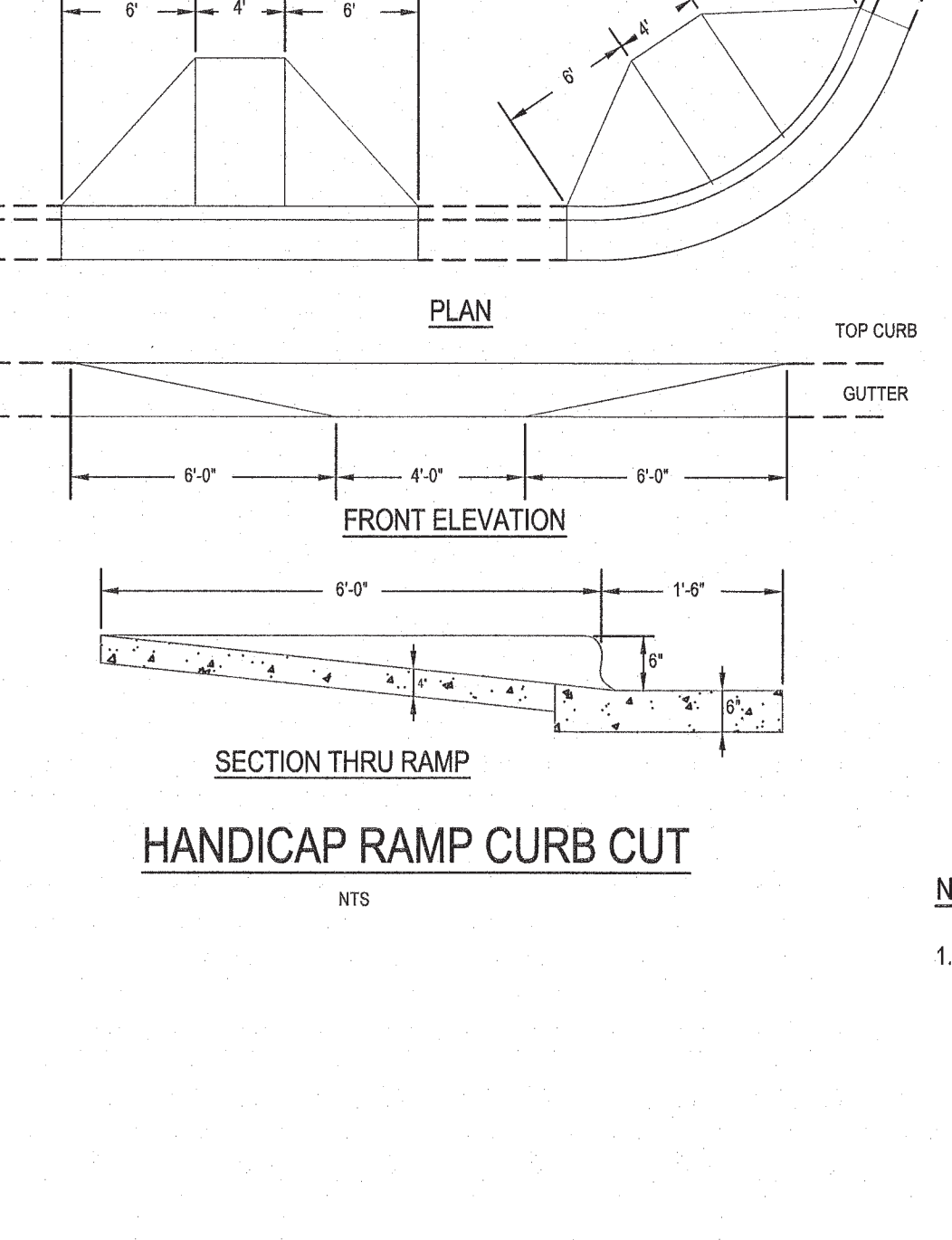
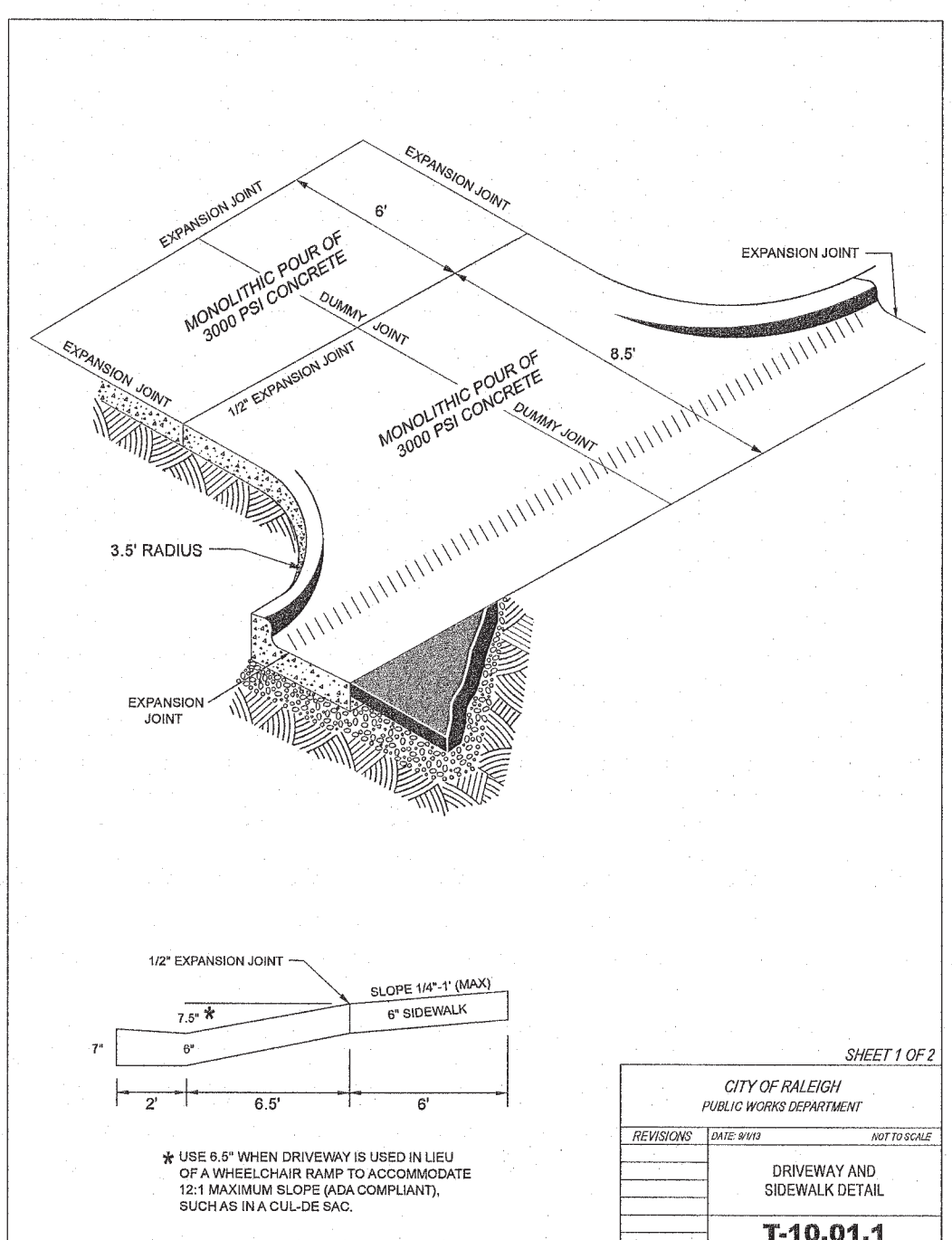
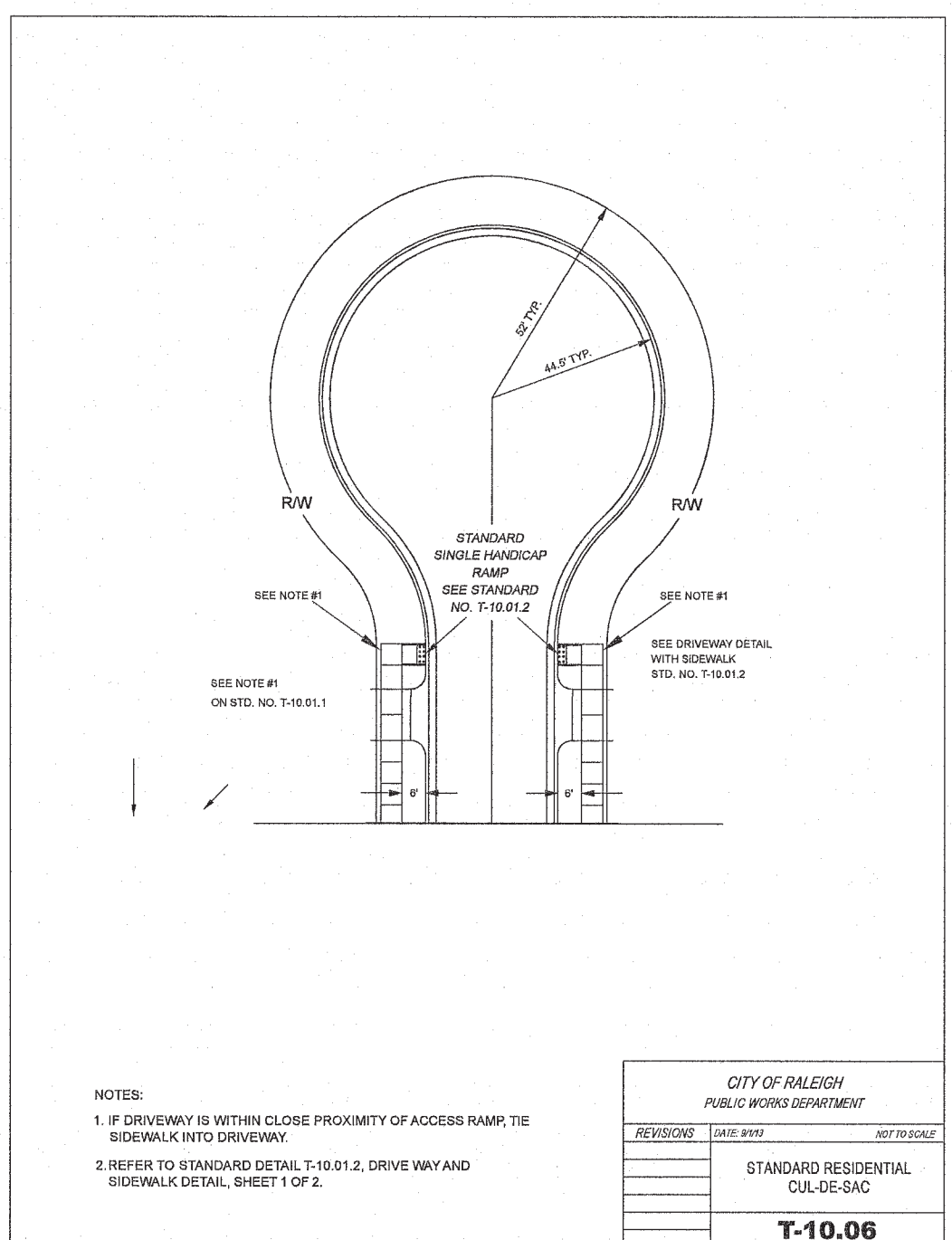
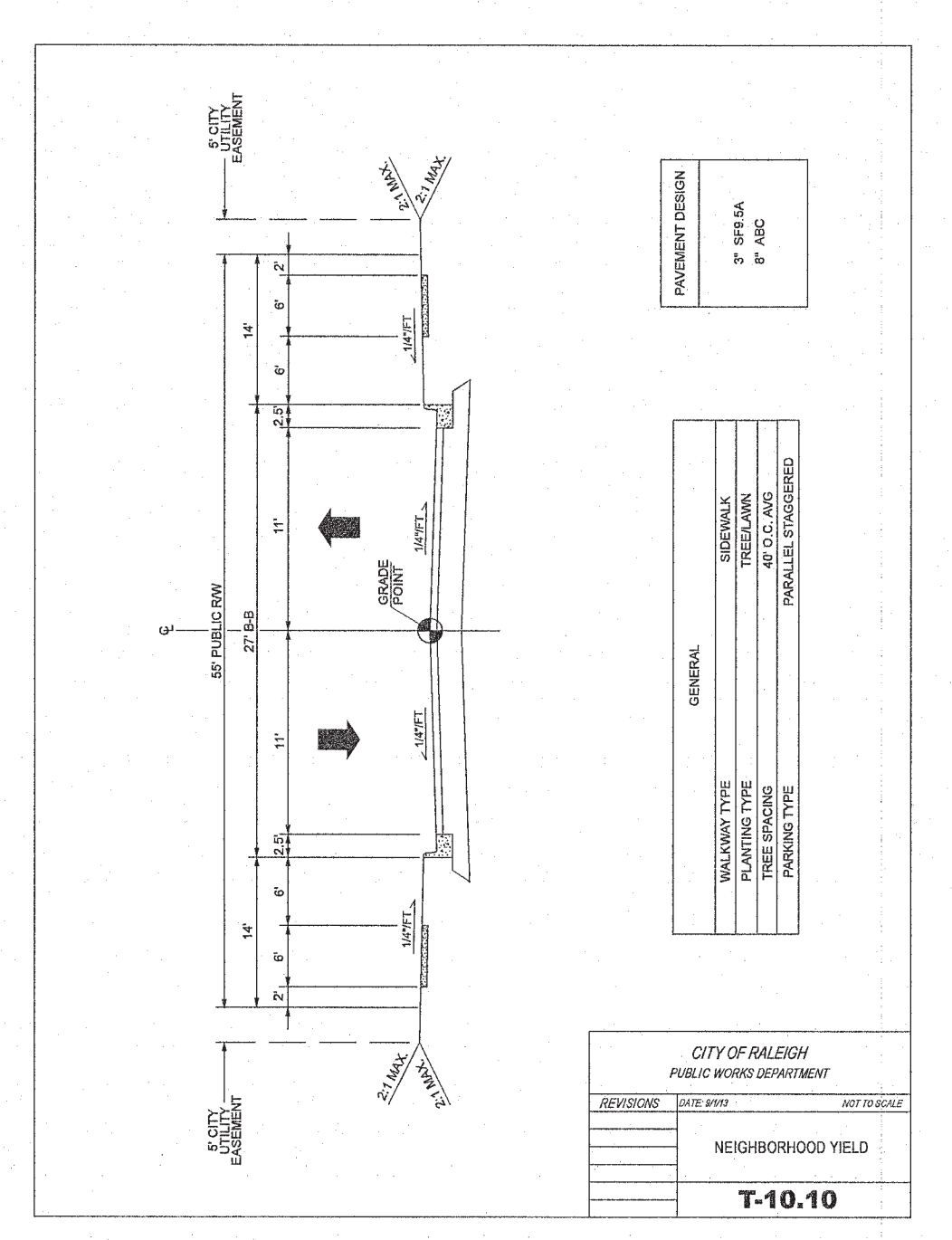
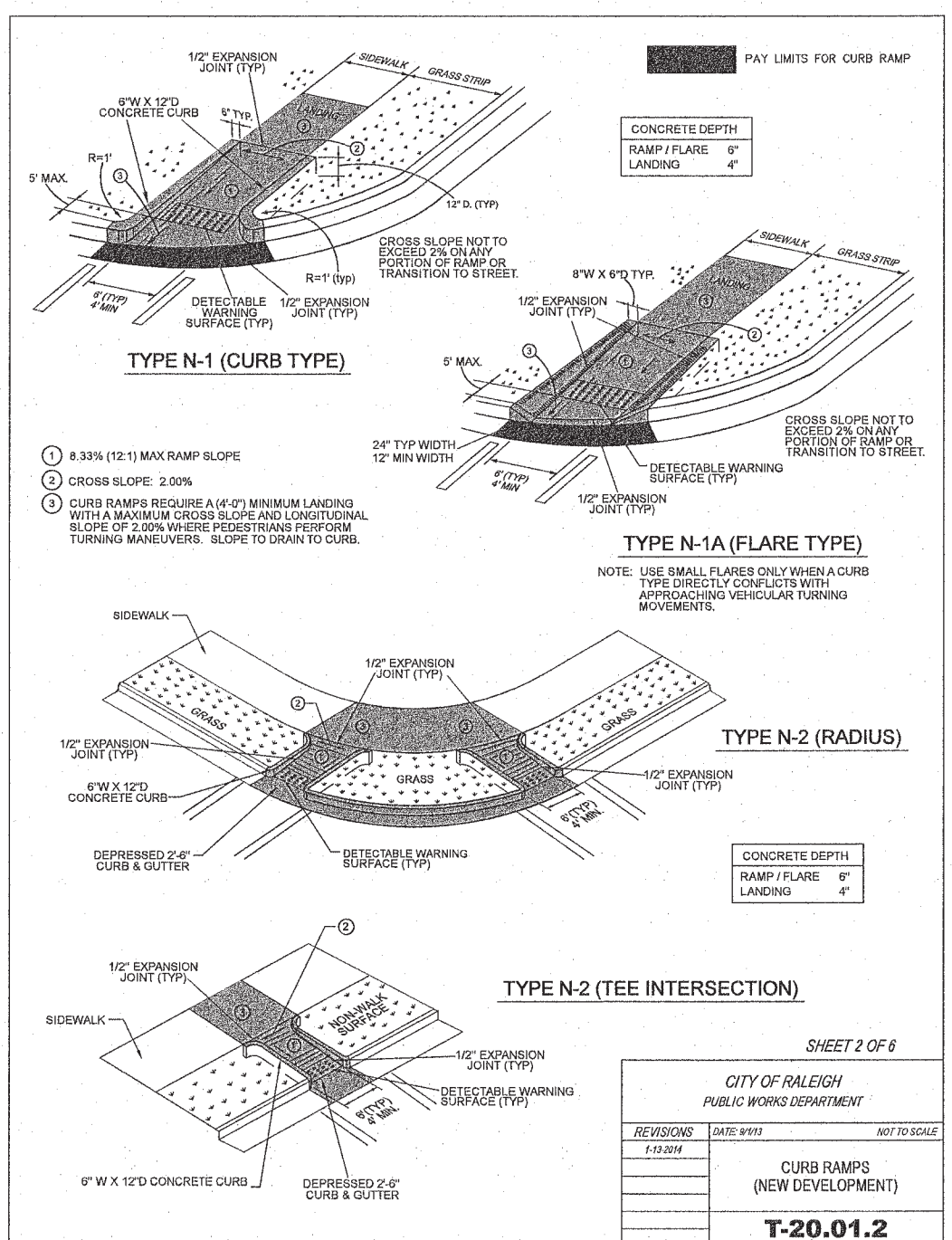
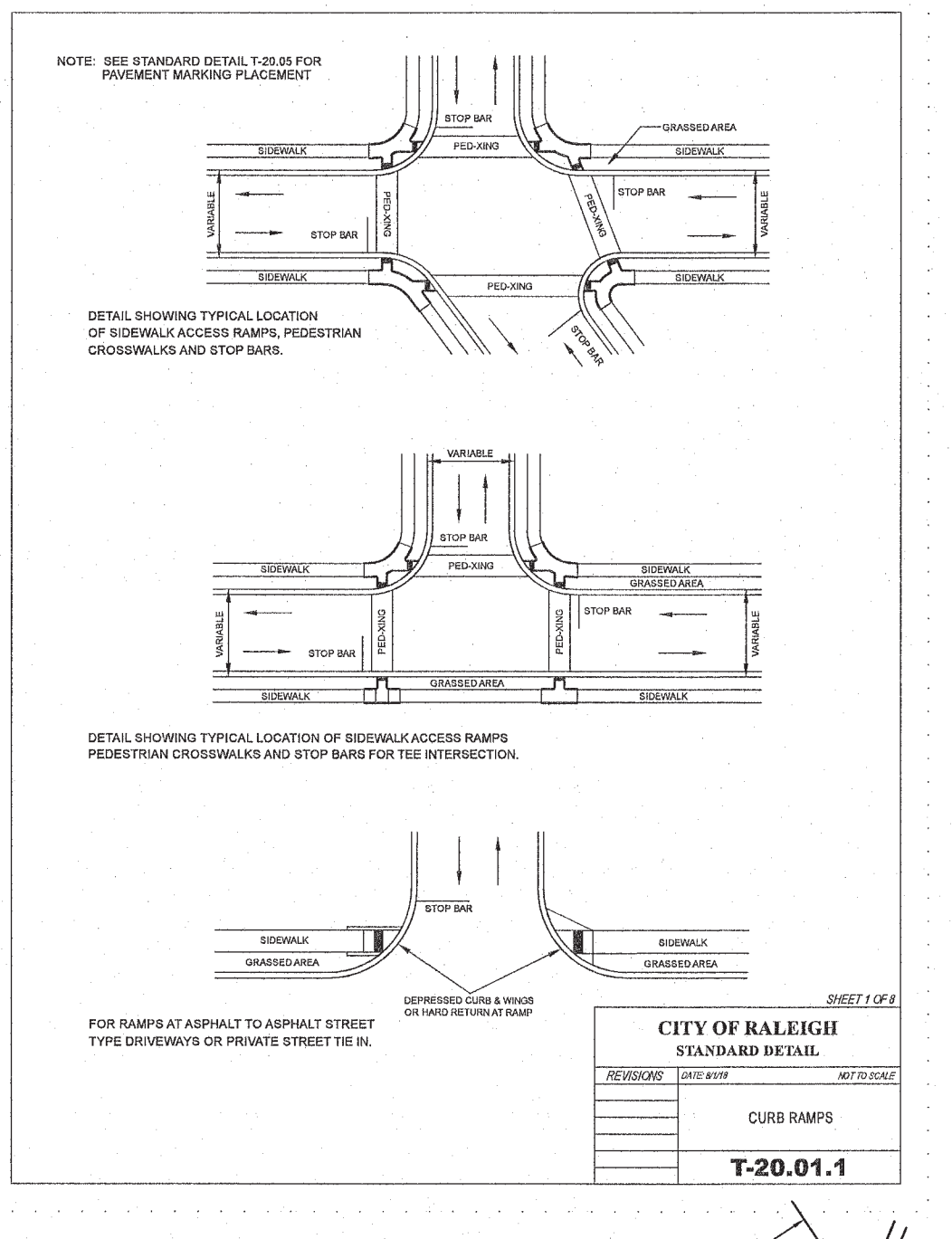
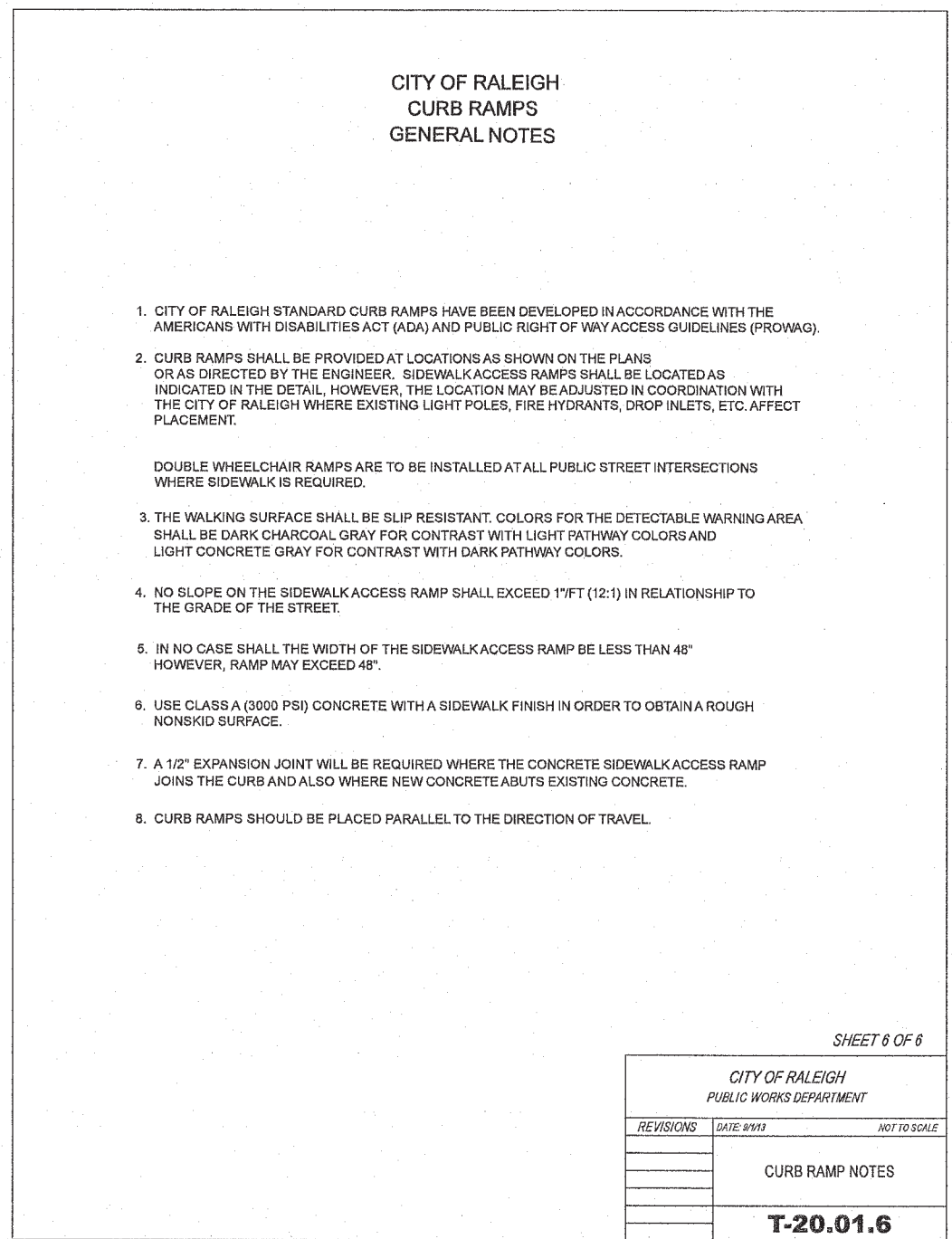
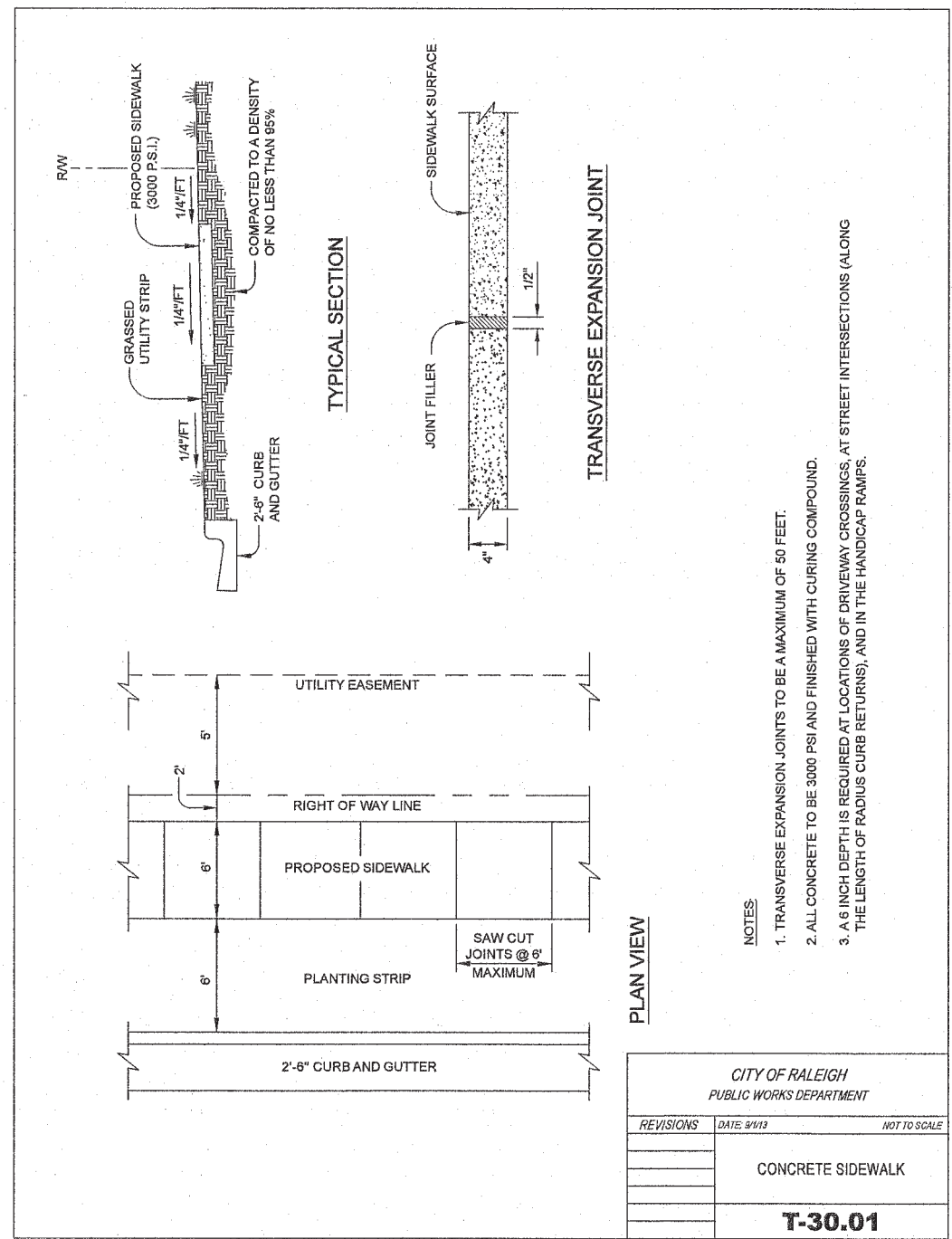
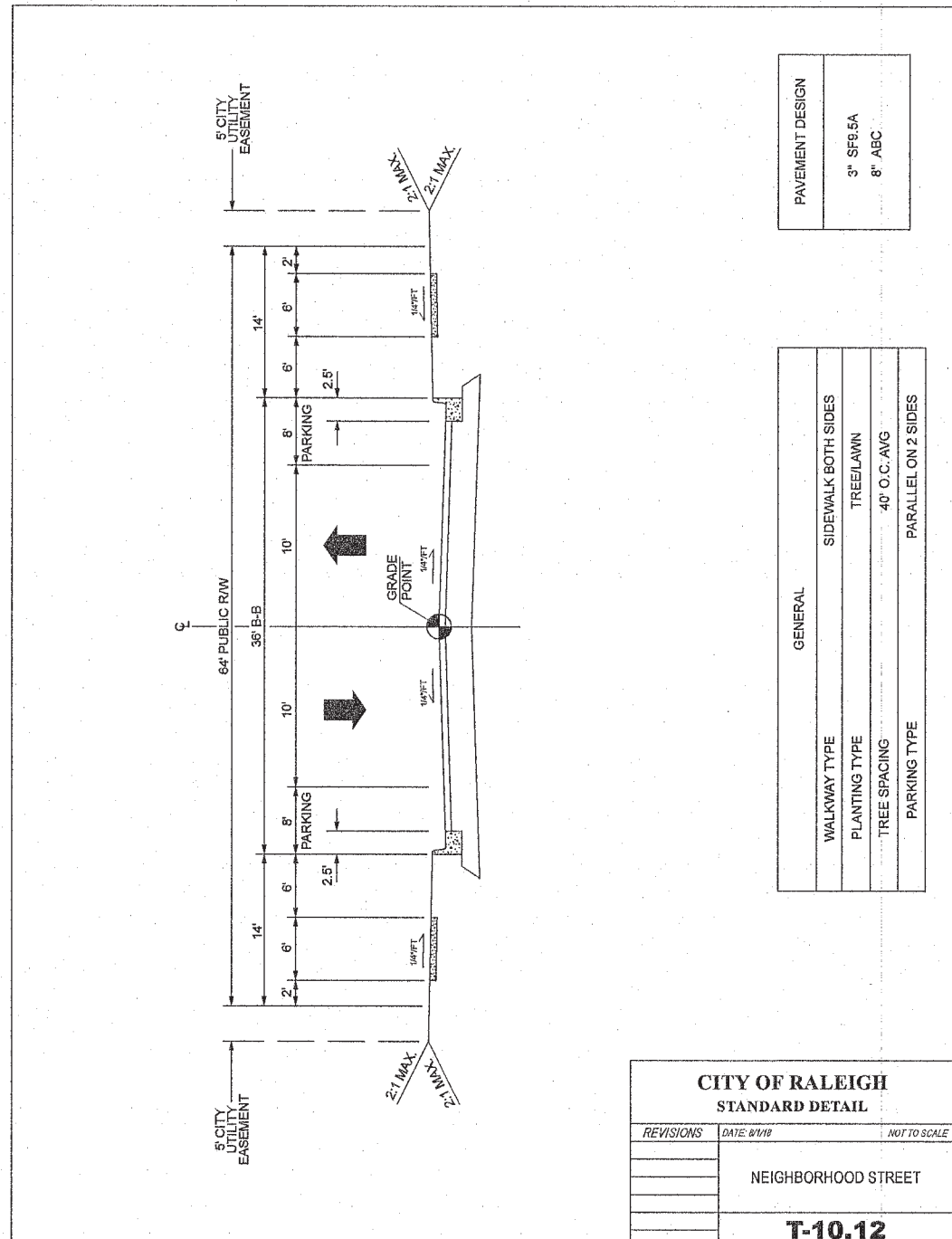
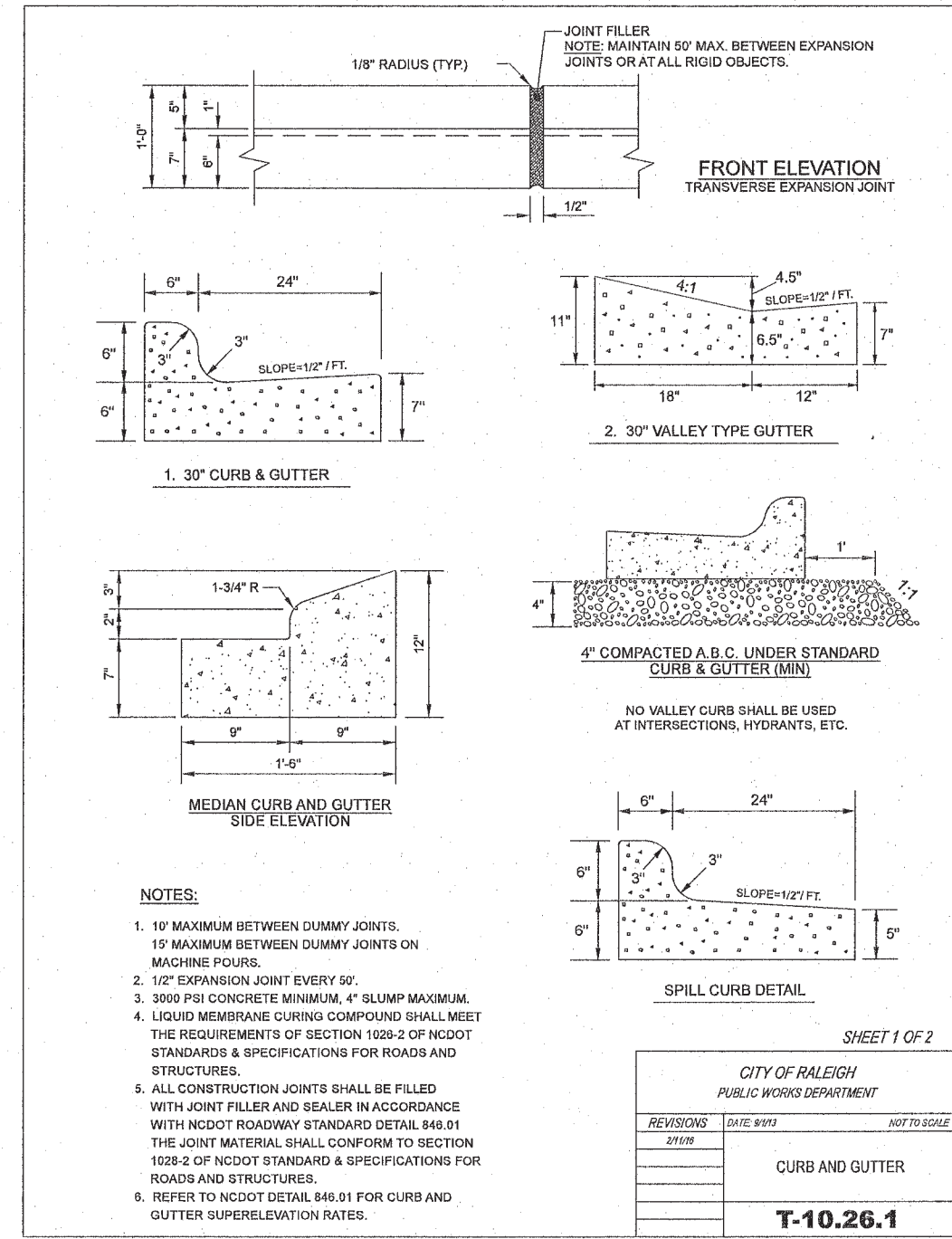


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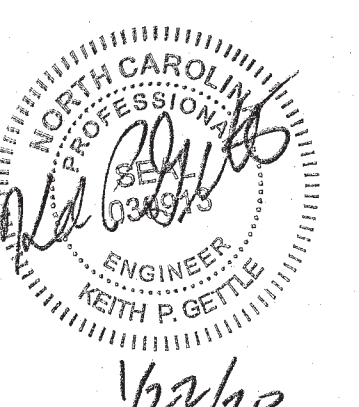


Tree Conservation Enlarged Plan
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina




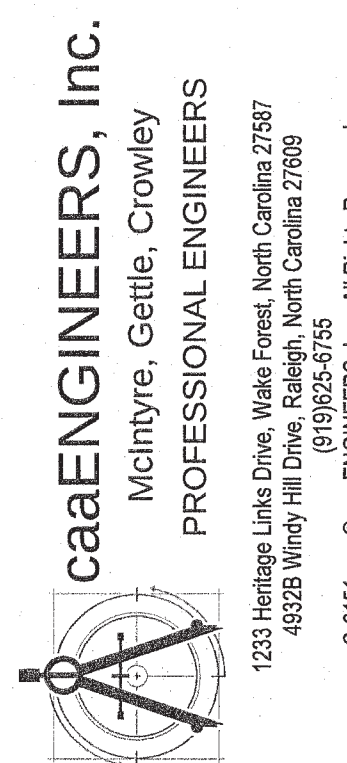
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Standard Site Details
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

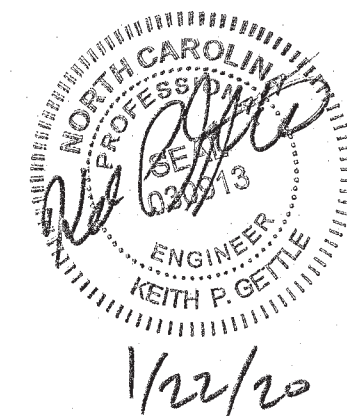
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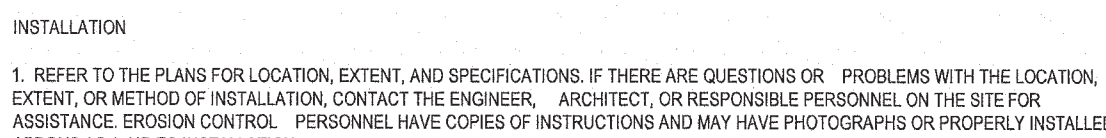
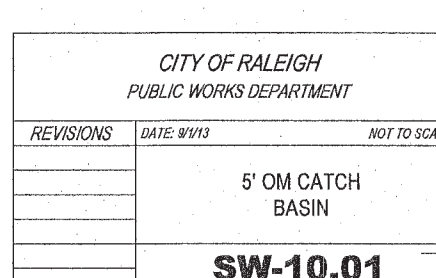
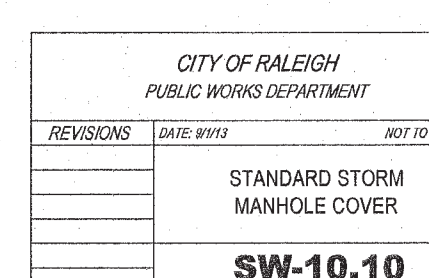
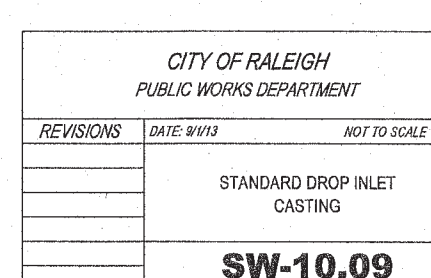
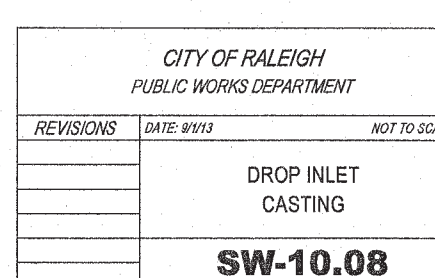
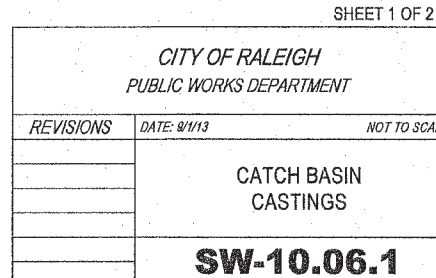


PRELIMINARY PLANS

Stormwater Details
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No.	5501
Dwg No.	

3D

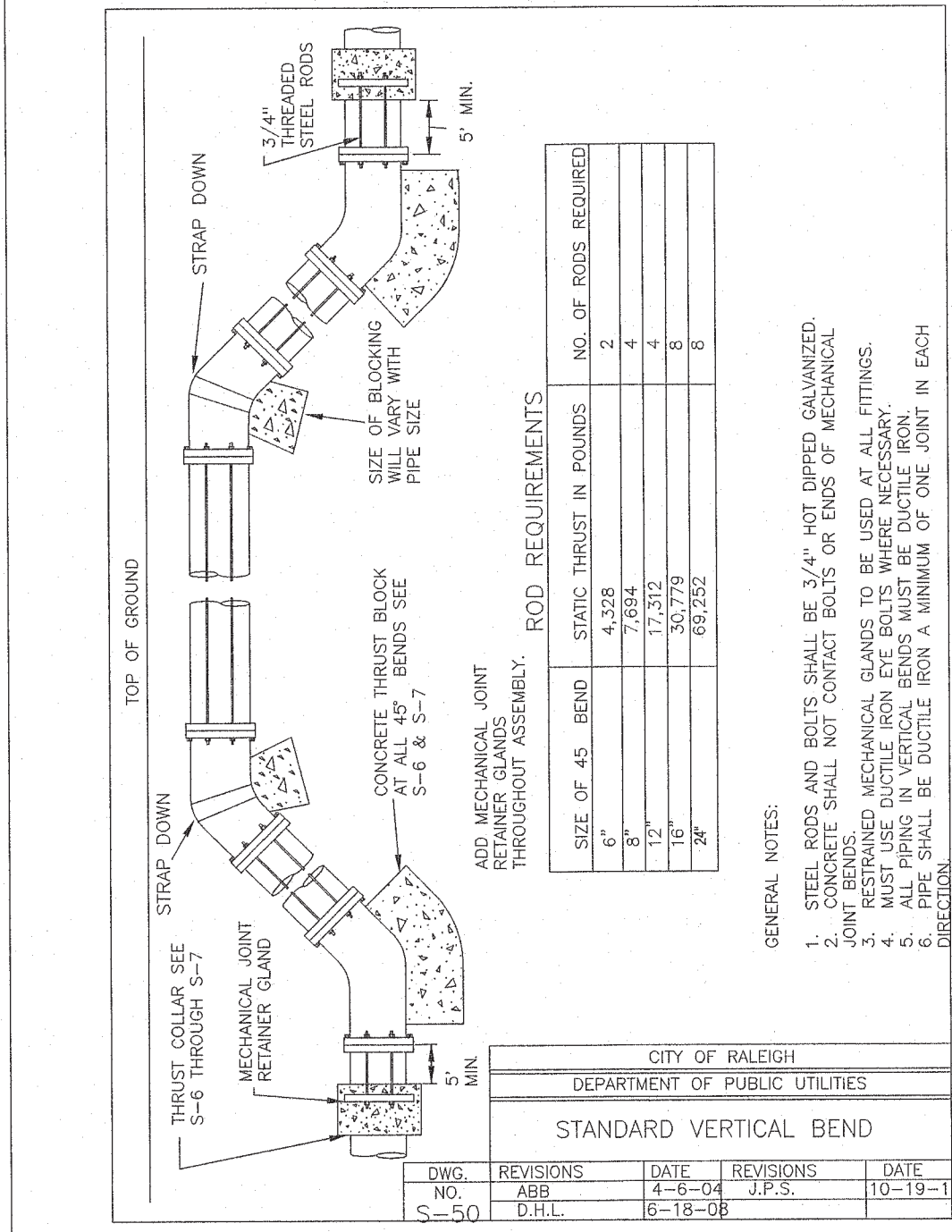
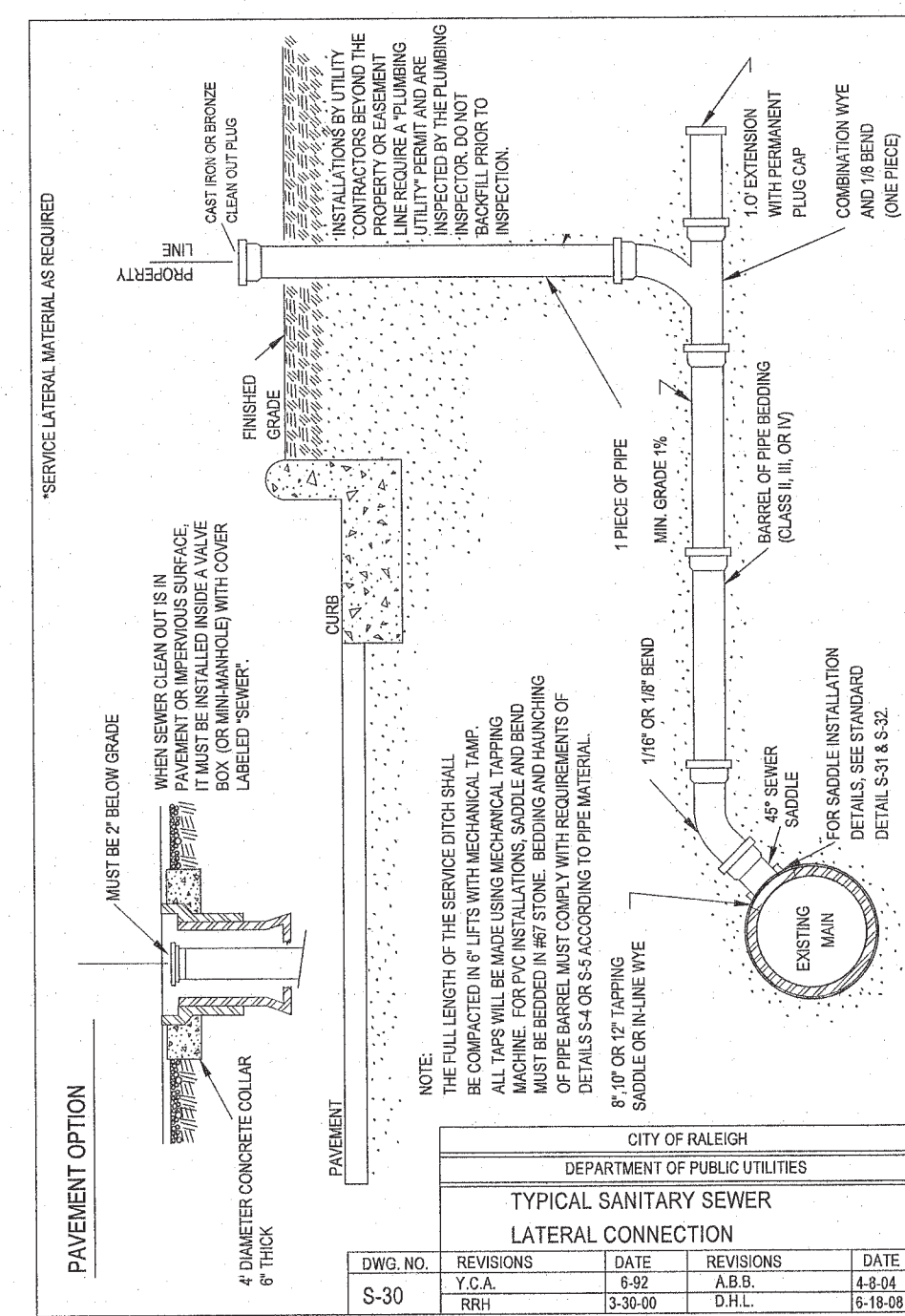
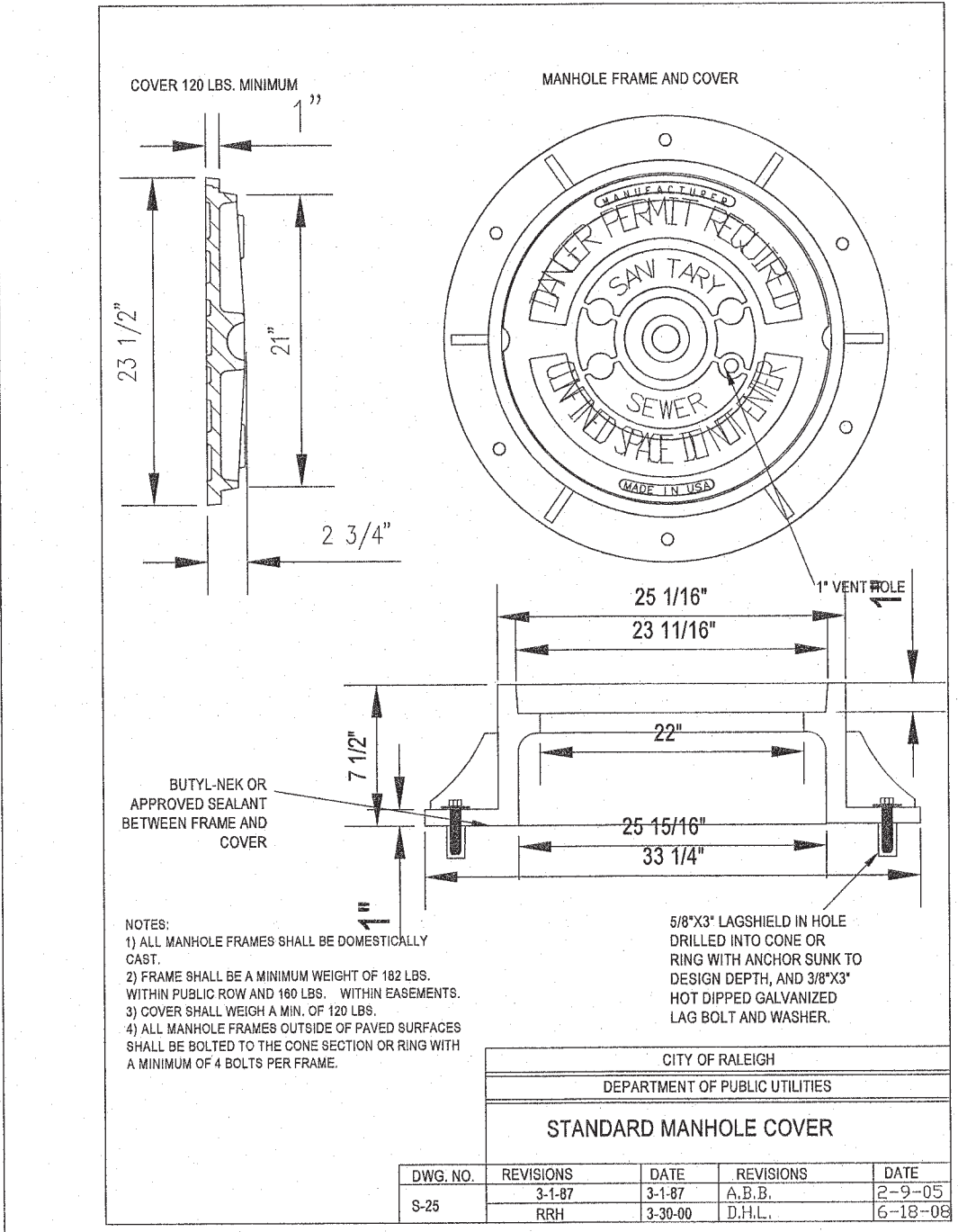
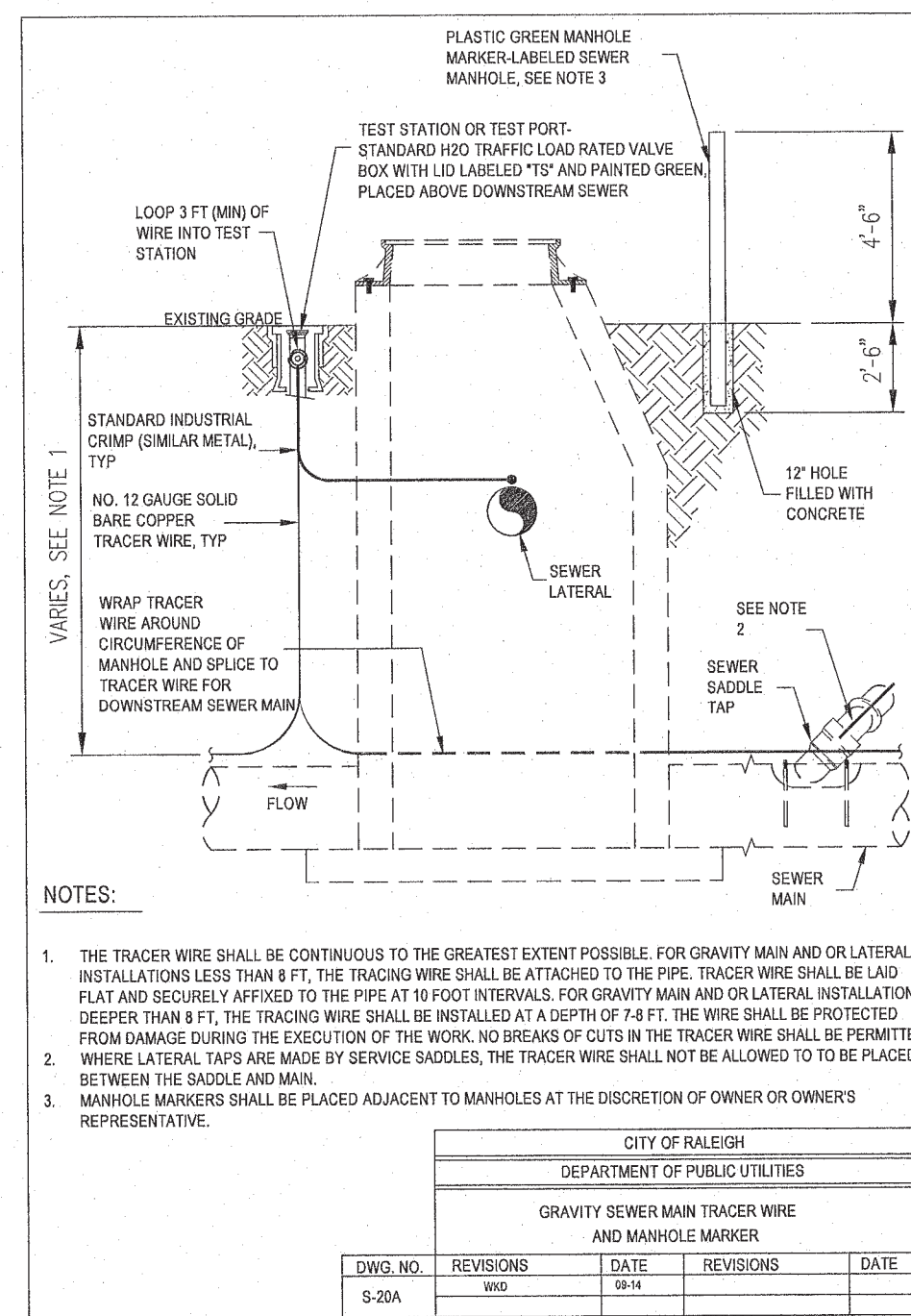
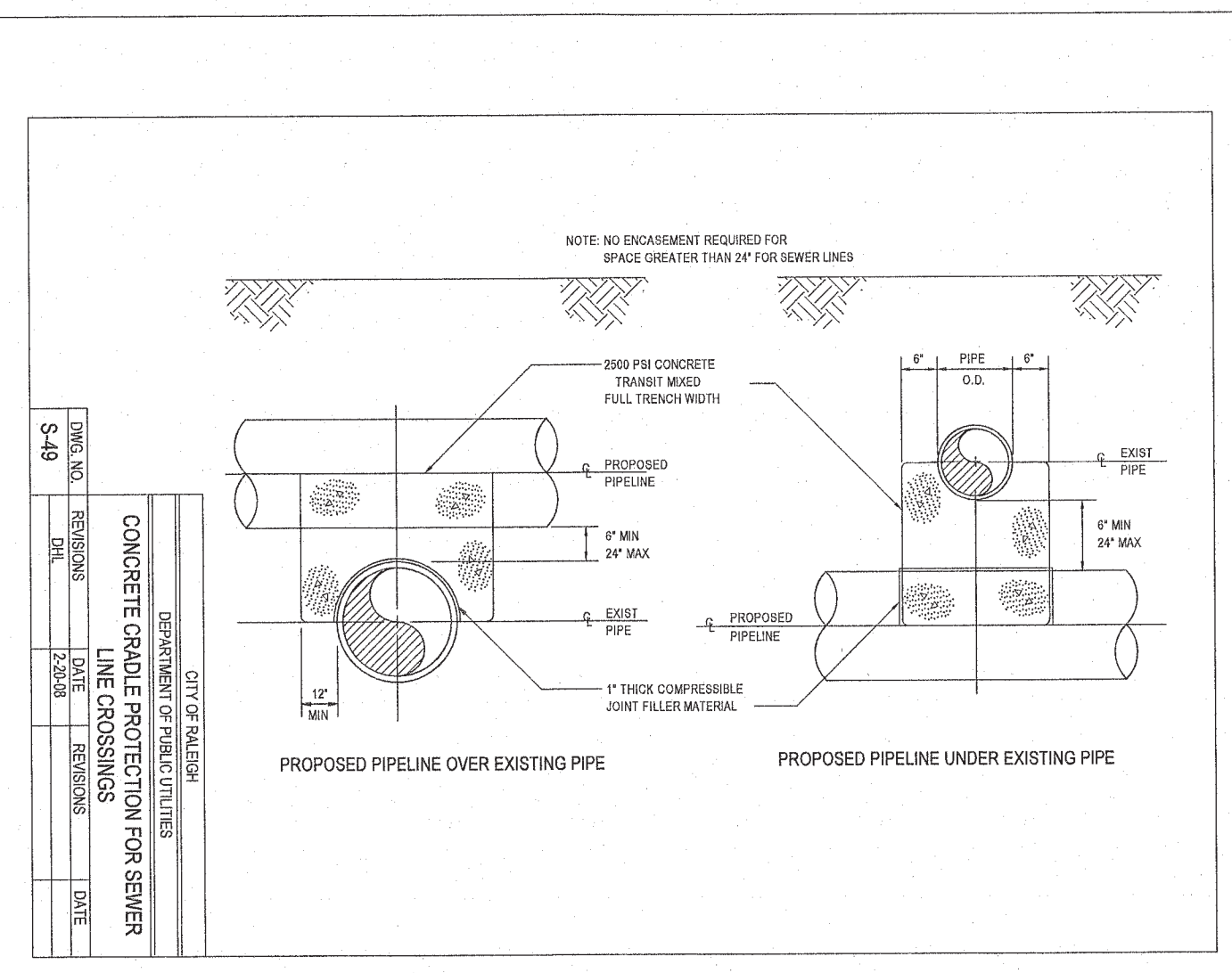
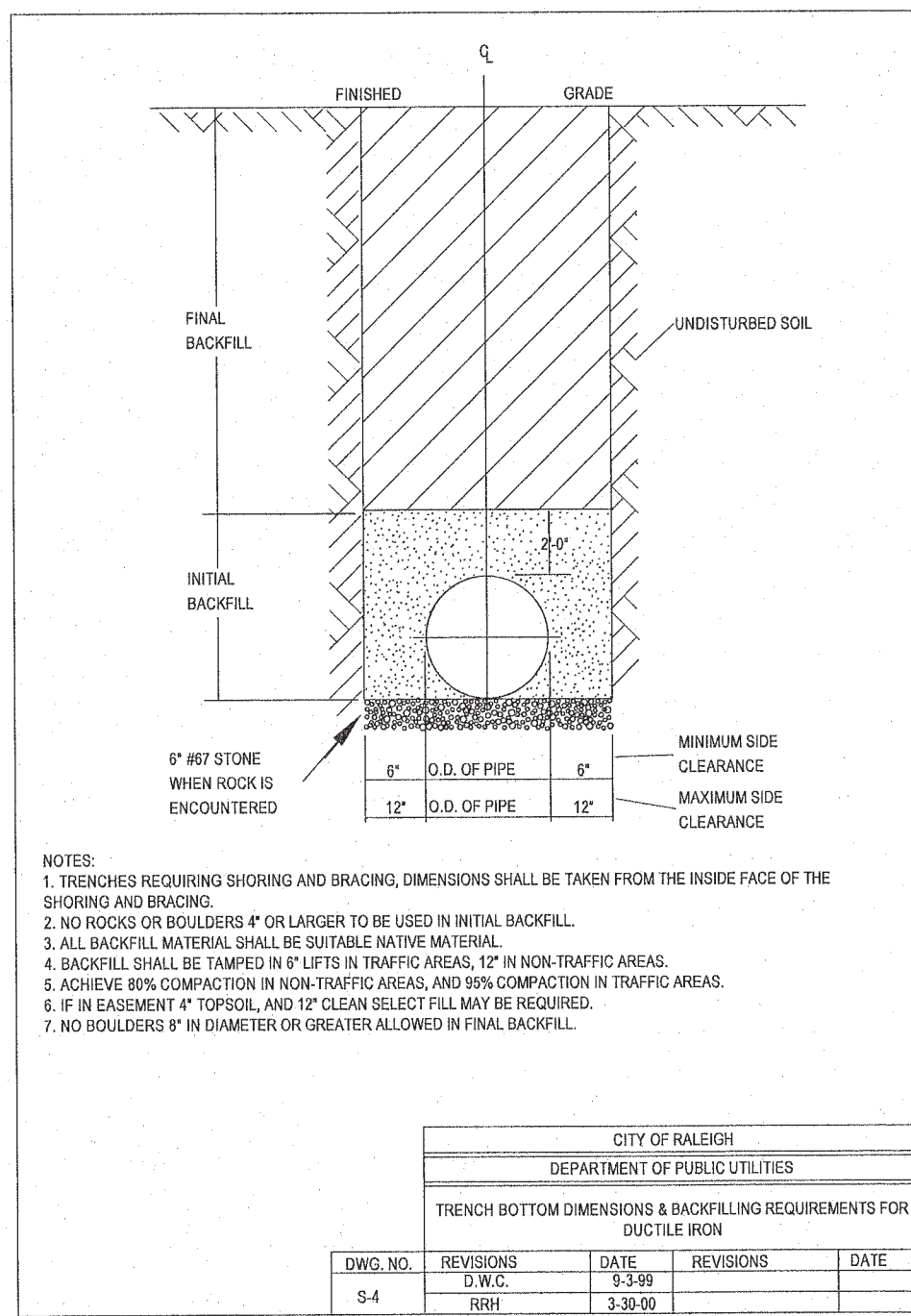
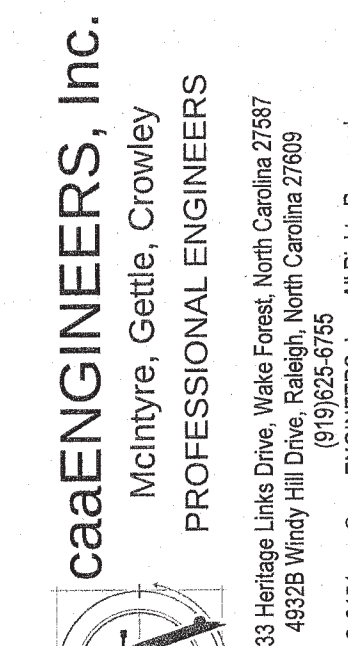


1. REFER TO THE PLANS FOR LOCATION, EXTENT, AND SPECIFICATIONS. IF THERE ARE QUESTIONS OR PROBLEMS WITH THE LOCATION, EXTENT, OR METHOD OF INSTALLATION, CONTACT THE ENGINEER, ARCHITECT, OR RESPONSIBLE PERSONNEL ON THE SITE FOR ASSISTANCE. EROSION CONTROL PERSONNEL HAVE COPIES OF INSTRUCTIONS AND MAY HAVE PHOTOGRAPHS OR PROPERLY INSTALLED

2. THE STONE APRON IS NOT INSTALLED CORRECTLY THE FIRST TIME, IT WILL HAVE TO BE REBUILT.
3. DETERMINE LOCATION ON THE GROUND TAKING INTO CONSIDERATION:
 - DECIDE HOW EQUIPMENT AND MATERIAL WILL REACH THE LOCATION TO CONSTRUCT THE APRON. DO NOT PAINT YOURSELF INTO A CORNER! AND PLACE FILLS, STRUCTURES, ETC. THAT COULD BLOCK THE LOCATION.
 - THE LOCATION OF THE APRON MUST BE SOLID GROUND. IT MAY BE NECESSARY TO EXCAVATE THE LOCATION TO REMOVE MUDS AND THEN BACKFILL WITH GOOD MATERIAL. THIS IS NECESSARY SO THE STONE DOES NOT DISAPPEAR INTO THE MUD, WHICH WOULD REQUIRE MUCH MORE STONE TO OBTAIN THE APRON AND MAKE INSTALLATION DIFFICULT.
4. CLEAR THE LOCATION OF THE APRON. LEAVE AS MUCH OF THE EXISTING VEGETATION AS POSSIBLE AROUND THE LOCATION TO HOLD THE SOIL IN PLACE AND REDUCE THE AREA THAT WILL HAVE TO BE STABILIZED AFTERWARD.
5. EXCAVATE THE BOTTOM TO THE REQUIRED DEPTH TO ACCEPT THE STONE. THE FLITER BLANKET WHEN FINISHED, THE BOTTOM OF THE APRON MUST BE LEVEL WITH THE BOTTOM OF THE CHANNEL. **THEY CANNOT BE AN OVERFALL AT THE END OF THE APRON.**
6. PLACE THE FLITER BLANKET, AS SPECIFIED IN THE PLAN, OVER THE LOCATION AND UNDER THE LIP OF THE FLARED END SECTION.
7. PLACE THE SPECIFIED STONE TO THE REQUIRED DIMENSIONS AND SHAPE IT TO THE CONFIGURATION SHOWN IN THE PLAN.
8. STABILIZE THE AREA AROUND THE APRON THAT WAS DISTURBED DURING CONSTRUCTION. USE ADDITIONAL STONE OR VEGETATION, WHICHEVER IS APPROPRIATE FOR THE SITUATION.

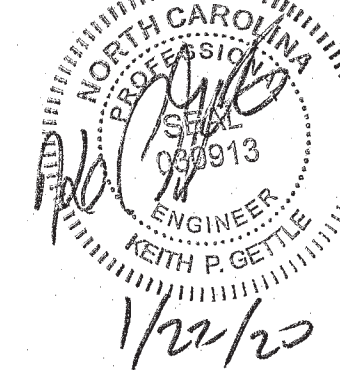
NOTES

1. SEE SHEET C1 FOR STANDARD NOTES



1. SEE SHEET C1 FOR STANDARD NOTES

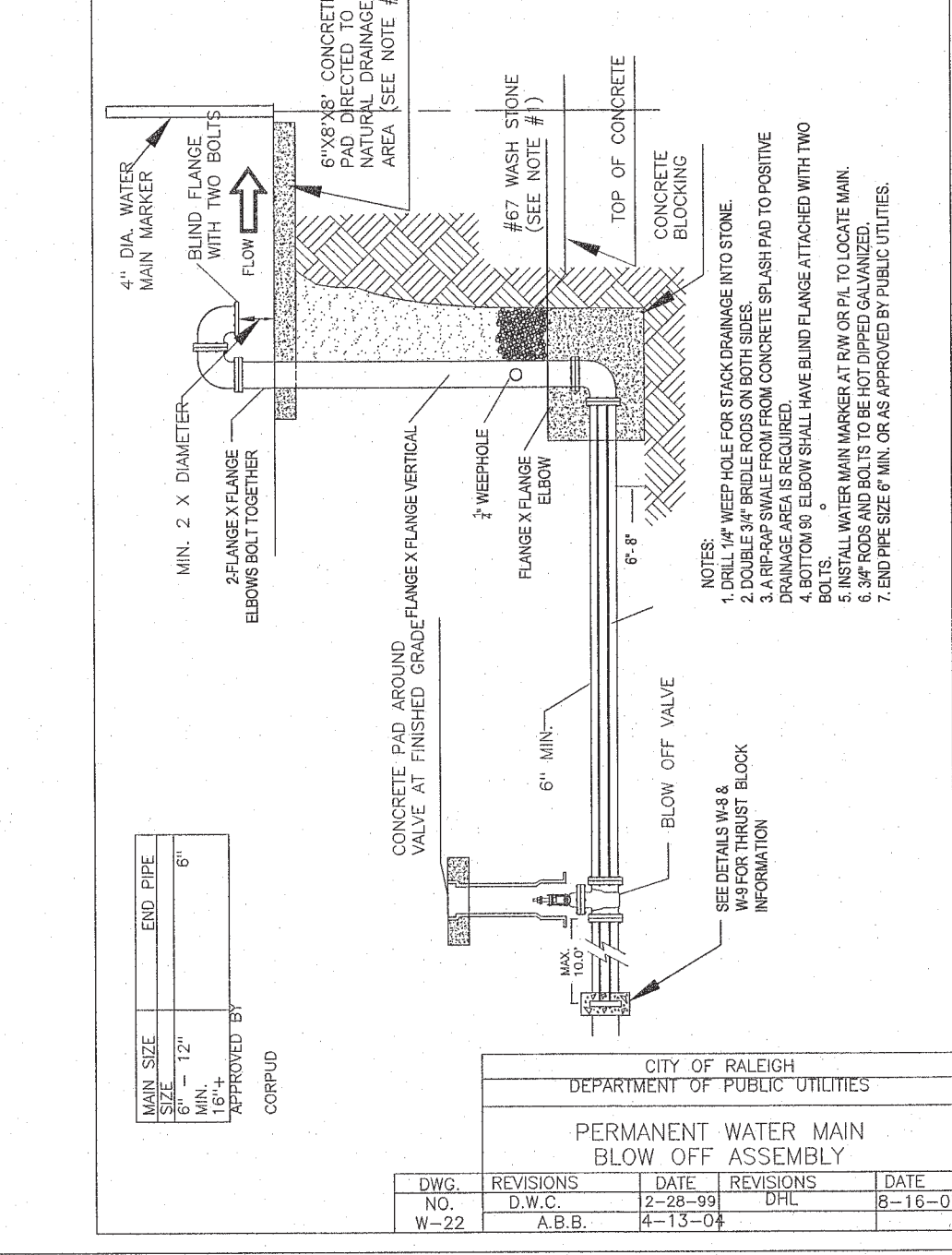
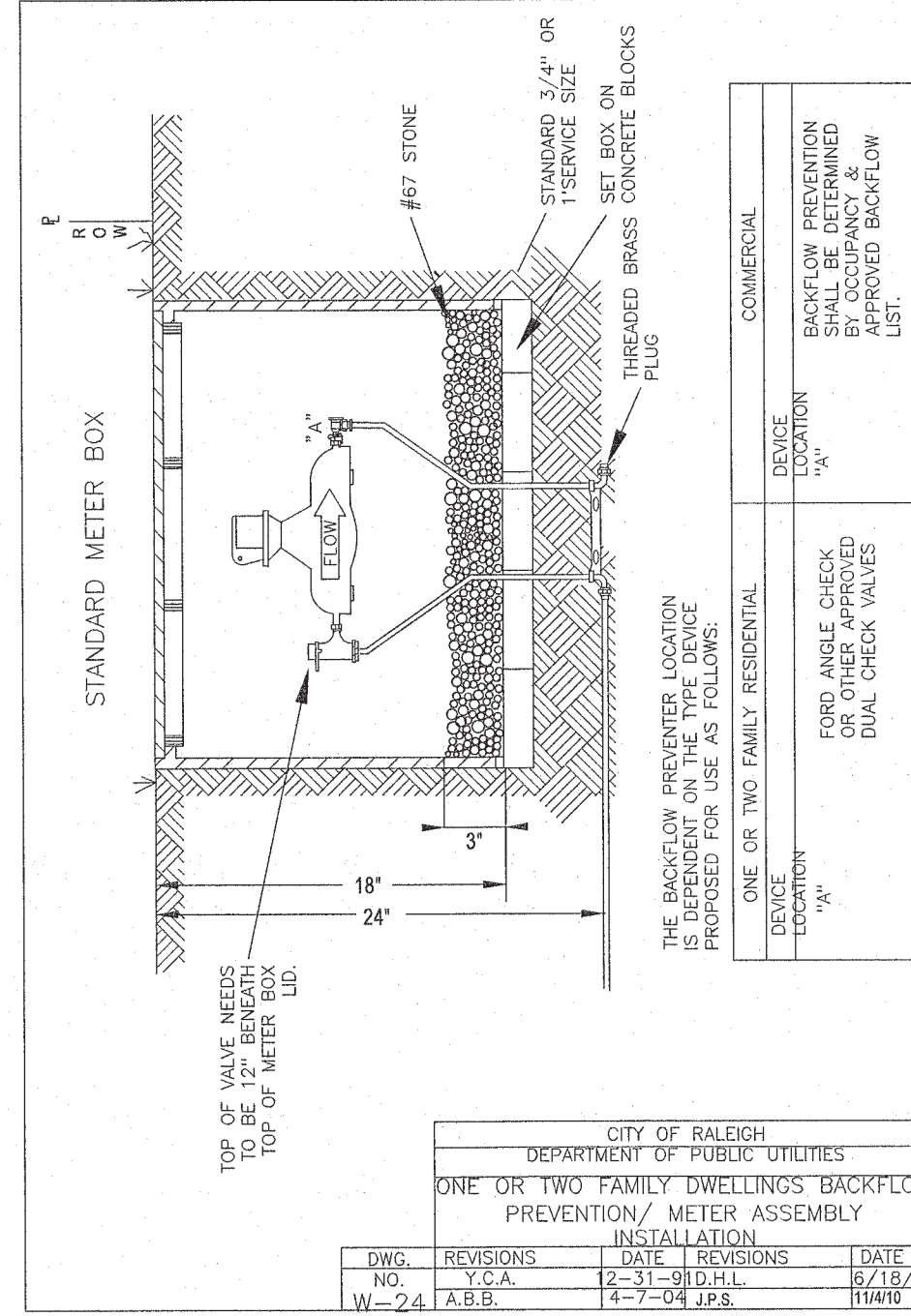
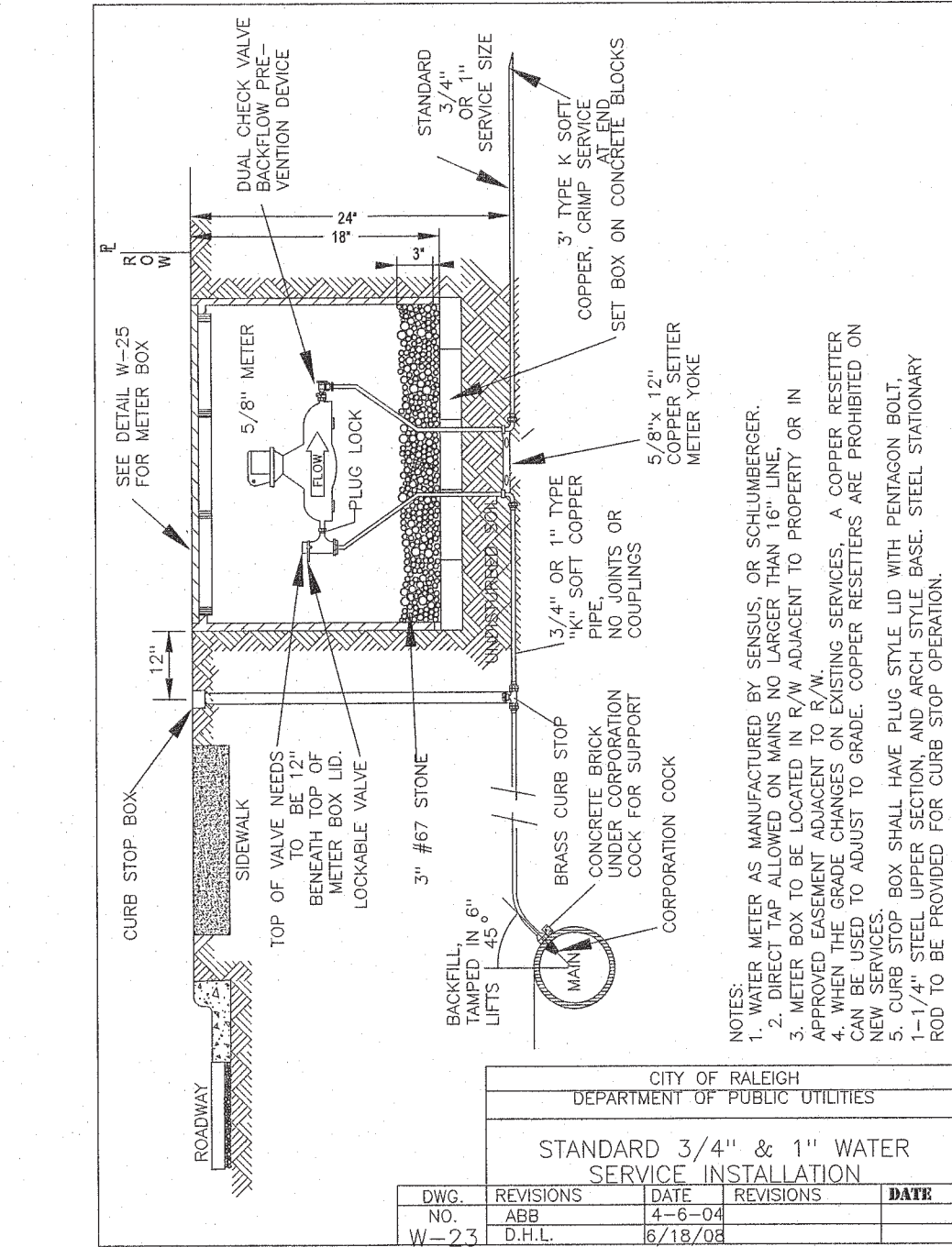
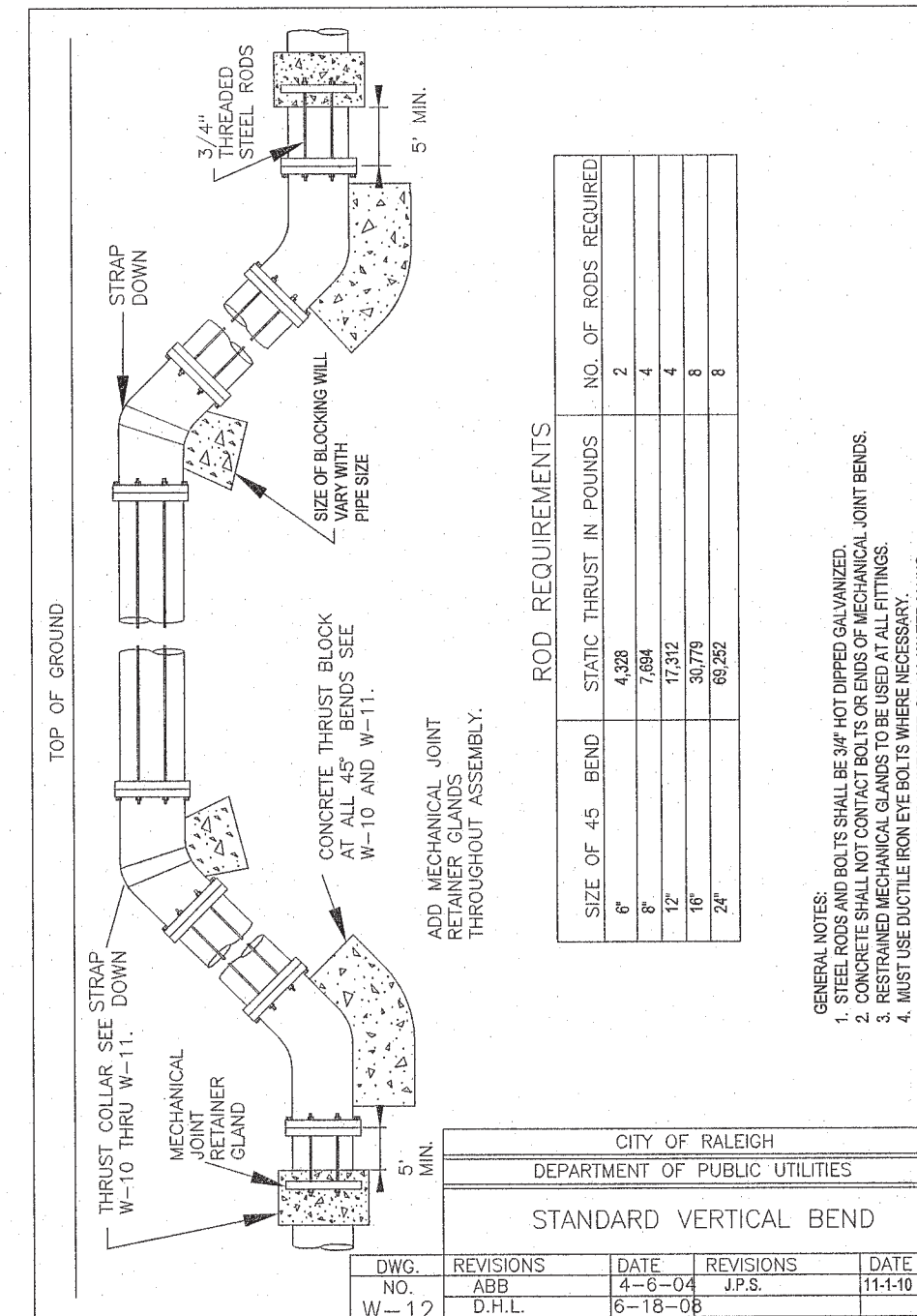
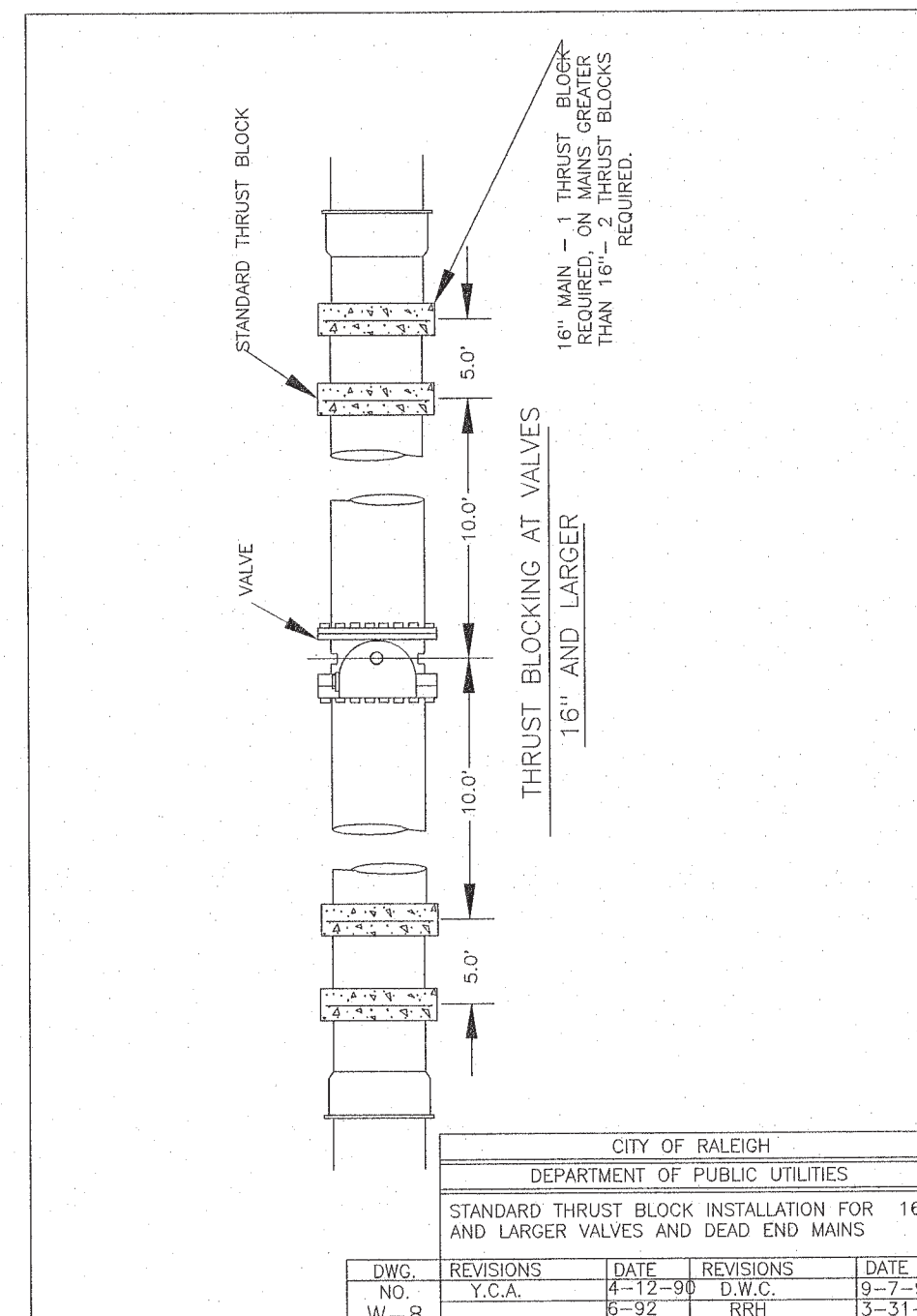
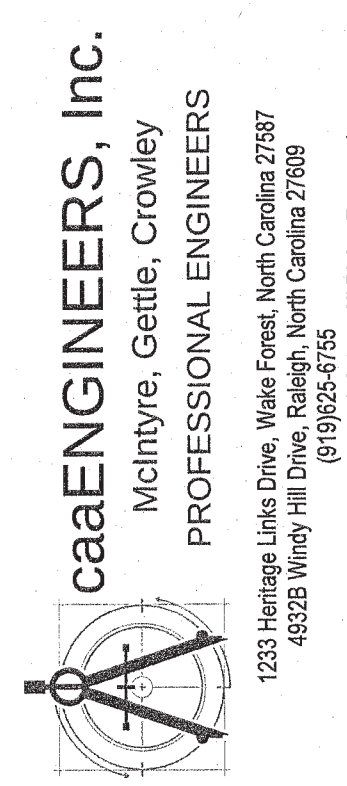
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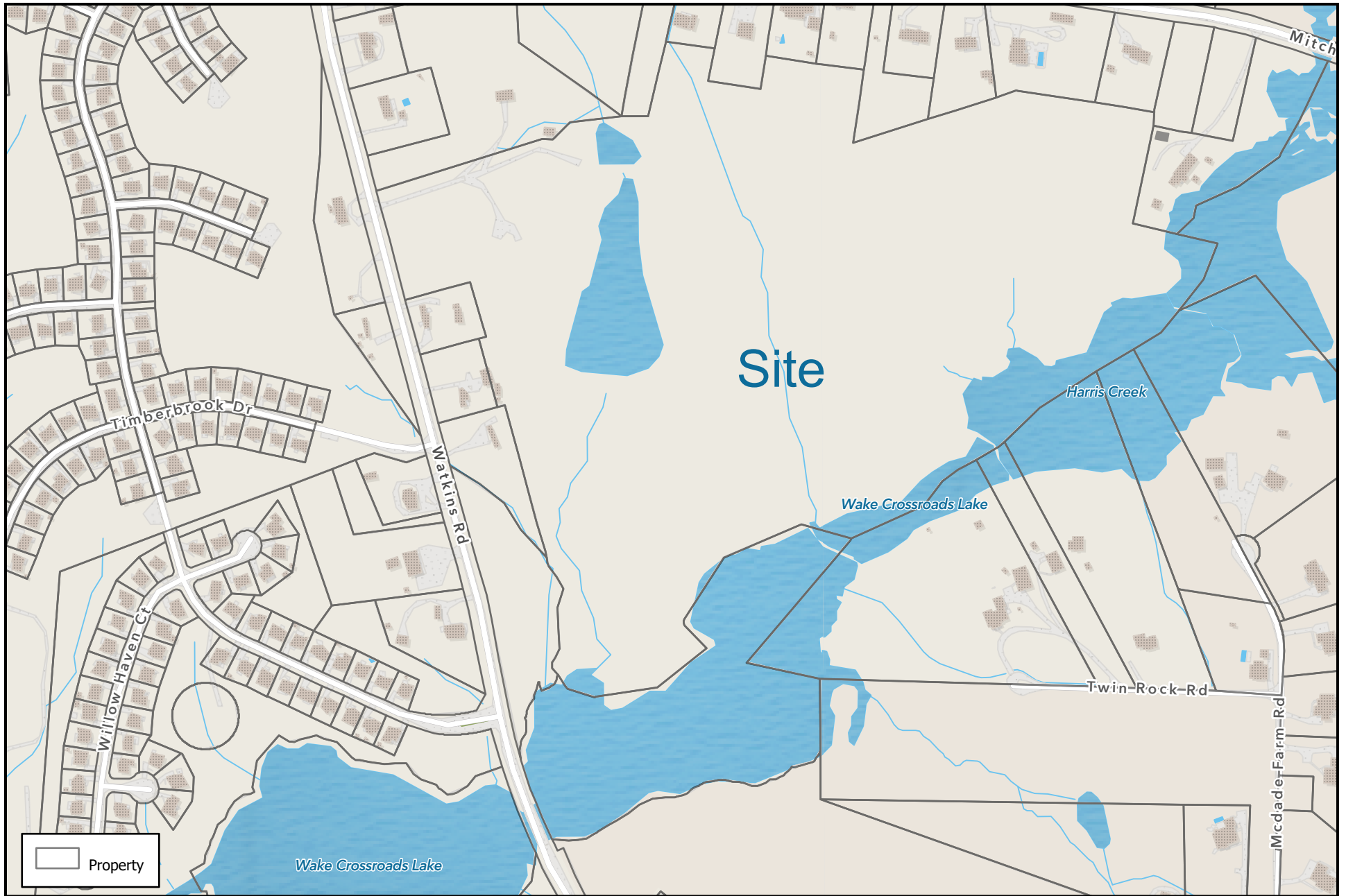


PRELIMINARY PLANS NOT FOR CONSTRUCTION

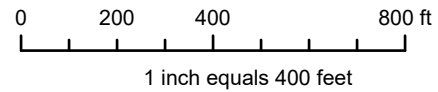
Sanitary Sewer Details
Watkins Glen Subdivision
The Carlton Group of NC, LLC
City of Raleigh, Wake County, North Carolina

Job No. 5501
Dwg No. D4

PRELIMINARY PLANS
NOT FOR CONSTRUCTION



Watkins Glen Site Map PIN:1747847561



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