



# Administrative Approval Action

Case File / Name: SUB-0038-2024  
DSLCL - Shallcross Park

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

**LOCATION:** The site is located at 3400 and 3500 Barwell Road, PIN # 1732239902 (north) and PIN 1732236388 (south). The site is split zoned with the northern portion zoned R-10-CU and the southern portion zoned RX-3-CU. The total site is 26.85 acres in size with the northern R-10-CU portion being 13.07 acres and the southern RX-3-CU portion being 13.78 acres. The site is outside the city limits.

**REQUEST:** This is a proposed conventional subdivision development consisting of 216 townhouse lots, 1 detached house lot, and 5 common area lots for a total of 222 lots. The common area lots will be owned and maintained by a homeowner's association and portions will be used as an amenity area. The subdivision will be developed in three phases.

**DESIGN ADJUSTMENT(S)/ALTERNATES, ETC:** N/A

**FINDINGS:** City Administration finds that this request, with the below conditions of approval being met, conforms to the Unified Development Ordinance. This approval is based on a preliminary plan dated November 19, 2024 by Jones & Clossen Engineering, PLLC.

## CONDITIONS OF APPROVAL and NEXT STEPS:

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

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

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

### Engineering

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

### Stormwater

2. The State of North Carolina shall approve any proposed disturbance within the riparian buffer prior to the issuance of any grading or site permit (UDO 9.2.3.E).
3. A surety equal to of the cost of clearing, grubbing and reseeding a site, shall be paid to the City (UDO 9.4.4).
4. A stormwater control plan with a stormwater operations and maintenance manual and budget shall be approved (UDO 9.2).

### Urban Forestry



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5. Tree protection fence must be inspected by Urban Forestry staff prior to the issuance of a grading permit.
6. Submit a final tree conservation plan that includes metes and bounds descriptions of all tree conservation areas and tree protection fencing as required (UDO 9.1.5).

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

<input checked="" type="checkbox"/>	Right of Way Deed of Easement Required
<input checked="" type="checkbox"/>	Stormwater Maintenance Covenant Required

<input checked="" type="checkbox"/>	Utility Placement Deed of Easement Required
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**RECORDED MAP(S)** - Submit plat to record new property lines, easements, tree conservation areas, etc.). Plats may be submitted for review when the Site Permitting Review plans, if required, have been deemed ready for mylar signature.

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

**General**

1. Provide documentation indicating a Property Owner's Association has been established for the subject development.
2. The greenway easement as shown on the preliminary plan shall be dedicated prior to, or in conjunction with the recording of a map in any phase affected by the greenway.
3. Street names for this development shall be approved by the Raleigh GIS Division and by Wake County.

**Engineering**

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





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5. A public street right-of-way deed of easement, in addition to a plat showing the location of the easement, shall be submitted to the Planning and Development Services Department for review, and if acceptable, approved for recordation. Approved plats must be recorded at the Wake County Register of Deeds Office on or before the 14th day following approval by the City. The 14-day expiration date shall be clearly indicated on the plat. By the end of the next business day following recordation of the plat, all required legal instruments (including deeds of easement) shall be recorded, and recorded copies of the plat and all legal instruments required by the City in association with development approval shall be provided to the City. (Reference: UDO 8.1.7.A; 10.2.5.F.4.d)
6. A public infrastructure surety shall be provided to City of Raleigh Transportation – Development Engineering Division (UDO 8.1.3) in the amount of 100% of the improvement cost for the NCDOT portion and 125% of the improvement cost for the City of Raleigh infrastructure.

## Public Utilities

7. Site Permit Review plans (SPR) must be approved by the City of Raleigh Public Utilities Department for all public water, public sewer and/or private sewer extensions.
8. A Petition for Annexation into the City limits shall be submitted in accordance with City Council policy for extension of utility service to properties currently outside of the City limits. This voluntary annexation in no way obligates the City to extend utility services to the property.

## Stormwater

9. The City form document entitled Declaration of Maintenance Covenant and Grant of Protection Easement for Stormwater Control Facilities shall be approved by the City and recorded with the county register of deeds office (UDO 9.2.2.G).
10. All stormwater control measures and means of transporting stormwater runoff to and from any nitrogen and stormwater runoff control measures shall be shown on all plats for recording as private drainage easements (UDO 9.2).
11. A surety equal to 125% of the cost of the construction of a stormwater device shall be paid to the Engineering Services Department (UDO 9.2.2.D.1.d).
12. The maximum allocated impervious area for all applicable lots in the subdivision should be identified on all maps for recording.
13. The riparian buffers, in accordance with the preliminary plan and the State of North Carolina regulations, shall be shown on plats for recording along with required buffer statement (Recorded Map Checklist).
14. If demolition causes a land disturbance of more than 12,000 sf, a mass grading permit will be required. (UDO 9.4.6)

## Urban Forestry



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15. A tree conservation plat shall be recorded with metes and bounds showing the designated tree conservation areas (UDO 9.1). This development proposes 2.24 acres of tree conservation area.
16. A public infrastructure surety for 47 street trees shall be provided to City of Raleigh Transportation – Development Engineering Division (UDO 8.1.3) in the amount of 100% of the improvement cost for the NCDOT portion, and a public infrastructure surety for 153 street trees shall be provided in the amount of 125% of the improvement cost for the City of Raleigh infrastructure.

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

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

### **Stormwater**

1. An encroachment agreement for Stormwater pipes within the public right-of-way shall be approved by City Council and the City Council approved encroachment agreement shall be filed with the Development Services Department, and the encroachment agreement shall be recorded with the Wake County Register of Deeds. A recorded copy of these documents must be provided to the Development Services Department.

### **Urban Forestry**

2. Tree impact permits must be obtained for the approved streetscape tree installations in the rights-of-way. This development proposes 28 street trees along Street A, 25 street trees along Street B, 34 street trees along Street C, 66 street trees along Street D, and 47 street trees along Barwell Road for a total of 200 street trees.

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

### **General**

1. Final inspection of tree conservation areas and rights-of-way street trees by Urban Forestry Staff.

### **Stormwater**

2. As-built impervious survey is accepted by the Engineering Services Department (UDO 9.2).
3. As-built drawings and associated forms for all Stormwater devices are accepted by the Engineering Services Department (UDO 9.2.2.D.3).

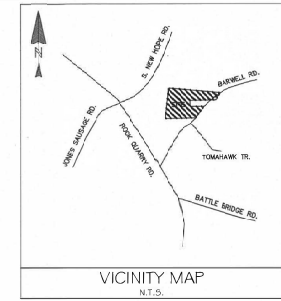
**EXPIRATION DATES: If significant construction has not taken place on a project after preliminary subdivision approval, that approval may "sunset" and be declared void, requiring re-approval before permits may be issued. To avoid allowing this preliminary approval to "sunset", the following must take place by the following dates:**



# SHALLCROSS PARK - PHASES 1-3

## PRELIMINARY SUBDIVISION PLAN

### SUB-0038-2024



**Jones & Cossen**  
ENGINEERING, PLLC  
Construction Management | Land Planning  
Civil Engineering

221 N SALEM ST  
SUITE 500  
PO BOX 1002  
APEX, NC 27502  
Office: 919-389-1134  
Registration: P-0151  
www.jonescossen.com

SHALLCROSS PARK - PHASES 1-3  
SUBDIVISION PLAN  
COVER SHEET  
CITY OF RALEIGH  
WAKE COUNTY, NORTH CAROLINA

Scale: 1" = 200'  
Date: July 17, 2024  
Revision: 02/24/24 1st Cycle Review  
1/11/24 2nd Cycle Review  
2348

**Preliminary Subdivision Application**  
Site Review

**DEVELOPMENT OPTIONS (UDO Chapter)**

Conventional Subdivision  Conventional Development  Conventional Development  
 Cottage Court  Flag M  Frontend Trained Development Option

**GENERAL INFORMATION**

Subdivision plan case number: SCDFE 2024-0038 & SCDFE 2021-2024  
 Development name (subject to approval): SHALLCROSS PARK  
 Property Address(es): 3400 & 3500 Barwell Road  
 Recorded Deed P/NV: 1732-23-6388 & 1732-23-9902

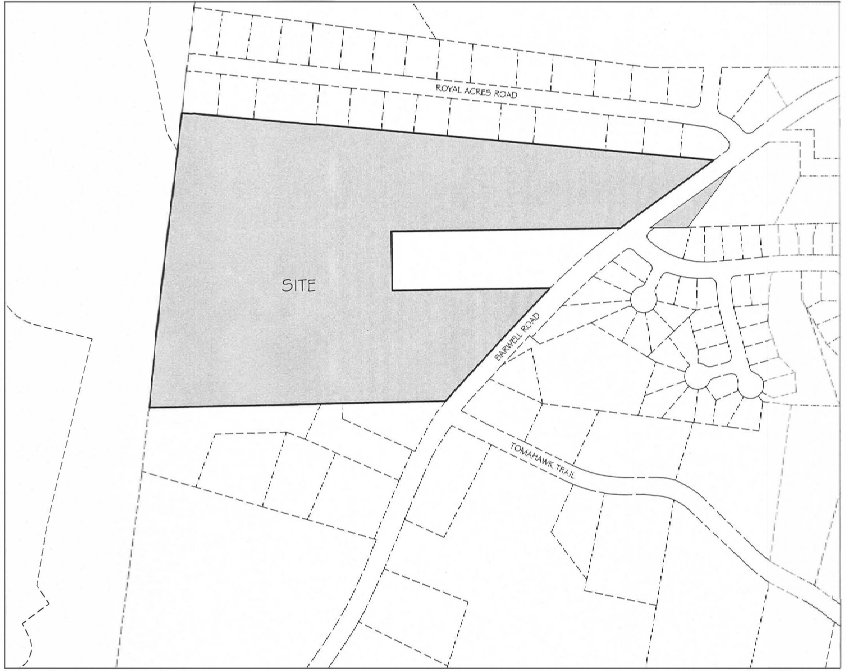
**CURRENT PROPERTY OWNER/APPLICANT/DEVELOPER INFORMATION**

Current Property Owner Name: Barwell Townhomes, LLC  
 Company: Barwell Townhomes, LLC | Joe Howard Moyer - Manager  
 Address: PO Box 20667 Raleigh, NC 27619  
 Phone #: 919-844-7888 | Email: jhmoyer@gmail.com

Applicant Name (if different from owner. See "who can apply" in instructions):  
 Relationship to owner:  Lessee or contract purchaser  Owner's authorized agent  Easement holder

Company: Jones & Cossen Engineering, PLLC | PO Box 1055 Apex, NC 27502  
 Phone #: 919-389-1134 | Email: jca@jonescossen.com

NOTE: please attach purchase agreement or contract, lease or easement when submitting this form.  
 Developer Contact Name: Howard Moyer  
 Company: Barwell Townhomes, LLC | Joe Manager  
 Address: PO Box 20667 Raleigh, NC 27619  
 Phone #: 919-844-7888 | Email: jhmoyer@gmail.com



**SITE DATA**

PROJECT NAME	SHALLCROSS PARK - PHASES 1-3
PREPARED BY CONTACT INFORMATION	JONES & COSSON ENGINEERING, PLLC P.O. BOX 1055 APEX, NORTH CAROLINA 27502 PHONE - (919) 389-1134 FAX - (919) 387-3375 CONTACT PERSON - PETER D. COSSON
OWNER / DEVELOPER CONTACT INFORMATION	BARWELL TOWNHOMES, LLC P.O. BOX 20667 RALEIGH, NC 27619 PHONE - (919) 844-7888 FAX - (919) 845-6639 CONTACT PERSON - HOWARD MOYER
CURRENT PROPERTY ZONING	RX-3-CU & R-10-CU
WAKE COUNTY P/NV	1732-23-6388 (13.76 AC) & 1732-23-9902 (13.07 AC)
TOTAL SITE AREA	26.85 ACRES
BARWELL RD. RW DEDICATION BY DEED OF GIFT	0.11 ACRES
BARWELL RD. RW DEDICATION BY SUBDIVISION	0.15 ACRES
SUBDIVISION STREET RW DEDICATION	4.76 ACRES
TOTAL NET SITE AREA	21.81 ACRES
EXISTING USE	VACANT
PROPOSED USE	TOWNHOMES
3400 BARWELL ROAD MAXIMUM LOTS/DENSITY	112 / 8 UNITS PER ACRE (Z.02-24)
3500 BARWELL ROAD PROPOSED LOTS/DENSITY	103 / 7.85 UNITS PER ACRE
3500 BARWELL ROAD MAXIMUM LOTS/DENSITY	165 / 12 UNITS PER ACRE (Z.1-2.21)
3500 BARWELL ROAD PROPOSED LOTS/DENSITY	114 / 8.27 UNITS PER ACRE
MAXIMUM BUILDING HEIGHT	3 STOREYS
TCA AREA REQUIRED	2.18 AC (10% OF 21.81 AC)
TCA AREA PROVIDED	2.24 AC (10.3%)
REQUIRED AMENITY SPACE	2.69 AC (10% OF 26.85 AC)
PROVIDED AMENITY SPACE	3.47 AC (12.9%)
AMENITY ITEM	DOG PARK
FEMA FLOODPLAIN INFORMATION	MAP #3720173200K (DATED JULY 19, 2022) PROJECT SHOWS NO 100 YEAR FLOODPLAIN ON THE SITE.

**PHASE DATA**

PHASE NO.	AREA (AC)	# OF LOTS	LOT NUMBERS	TCA (AC)	AMENITY AREA (AC)
1	13.36	72	1-3A, 195-216, 195-216	2.22	1.93
2	6.29	77	39-70, 138-154, 167-194	0	0.49
3	7.20	68	71-137, 222	0	1.05

**DEVELOPMENT TYPE / SITE DATA TABLE - ZONING INFORMATION**

Overall average: 25.85  
 Zoning District: RX-3-CU & R-10-CU  
 Density: 112 / 8 UNITS PER ACRE  
 Conditional Use District: RX-3-CU  
 Case #: 2-12-21-2-0224  
 Date: 08-04-2024

**PERMITTED USES / DEVELOPMENT INFORMATION**

Impervious Area Permitted: 100%  
 Existing: 0%  
 Proposed: 100%  
 Impervious Area to be Connected (Provide split if any): 0%  
 Impervious Area to be Connected (Provide split if any): 0%

**APPLICANT ACKNOWLEDGEMENT**

I, the undersigned, hereby acknowledge that, pursuant to state law (N.C.G.S. 163-759.1), if this permit application is processed on behalf of the applicant for a period of six consecutive months or more, or if the applicant fails to respond to correspondence or provide additional information requested by the City for a period of six consecutive months or more, that the applicant hereby authorizes the City to proceed with the development regulations in effect at the time permit processing is resumed until the next application.

The undersigned hereby acknowledges that, pursuant to state law (N.C.G.S. 163-759.1), if this permit application is processed on behalf of the applicant for a period of six consecutive months or more, or if the applicant fails to respond to correspondence or provide additional information requested by the City for a period of six consecutive months or more, that the applicant hereby authorizes the City to proceed with the development regulations in effect at the time permit processing is resumed until the next application.

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- ZONING CONDITIONS: Z-2-2.1**
- Residential density shall not exceed 12 units per acre.
  - Only those Residential Uses that are Permitted, Limited, or Special Uses in the R-10 district, as listed in UDO Section C.1.A., shall be allowed on the property.

- SOLID WASTE INSPECTION NOTES**
- COLLECTION WILL BE BY CITY OF RALEIGH SOLID WASTE SERVICES (SWS) UTILIZING 66-GALLON ROLL-OUT CARTS.
  - RESIDENTS WILL ROLL CONTAINERS TO THE STREET FOR COLLECTION AND REMOVE CARTS AFTER COLLECTION.
  - CONTAINERS WILL BE STORED IN GARAGES, ON THE SIDE, OR REAR OF THE TOWNHOMES.

**TRIP GENERATION SUMMARY**

LAND USE	ITE CODE	NUMBER OF LOTS	AM. PEAK HOUR TRIPS	PM. PEAK HOUR TRIPS	DAILY TRIPS
TOWNHOMES	215	222	110 (27 IN + 83 OUT)	129 (76 IN + 53 OUT)	1,641

- BUILDING SETBACKS**
- FROM PRIMARY STREET - 10'
  - FROM SIDE STREET - 10'
  - FROM SIDE BOUNDARY LINE - 10'
  - FROM REAR BOUNDARY LINE - 20'
  - INTERNAL BUILDING SEPARATION - 10'

**AMENITY AREA SUMMARY**

PHASE NO.	AREA (AC)	AMENITY AREA PROVIDED (AC)	AMENITY AREA AREA IN RX-3-CU (AC)	AMENITY AREA AREA IN R-10-CU (AC)	AMENITY AREA AREA IN R-10-CU (AC)	AMENITY AREA AREA IN R-10-CU (AC)
1	13.36	1.34	1.93	10.93	1.66	2.43
2	6.29	0.63	0.49	2.65	0.13	3.44
3	7.20	0.72	1.05	0	0	7.20

- SUBDIVISION SHEET INDEX**
- COVER SHEET
  - EXISTING CONDITIONS & DEMOLITION PLAN
  - PRELIMINARY OVERALL LAYOUT PLAN
  - PRELIMINARY LAYOUT PLAN 1
  - PRELIMINARY LAYOUT PLAN 2
  - PRELIMINARY LAYOUT PLAN 3
  - PRELIMINARY LAYOUT PLAN 4
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  - PRELIMINARY LAYOUT PLAN 11
  - PRELIMINARY LAYOUT PLAN 12
  - PRELIMINARY LAYOUT PLAN 13
  - PRELIMINARY DETAILS SHEET
  - LANDSCAPE PLAN 1
  - LANDSCAPE PLAN 2
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- Right-of-Way Obstruction Notes:**
- Street, Lane, and Sidewalk Closures or Detours: Prior to any work that impacts the right-of-way or closure 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 rightofwaypermits@raleighnc.gov at www.raleighnc.gov/permits - Right-of-Way Services.
  - Prior to the start of work, the Client shall schedule a Pre-Construction meeting with the Engineering Inspectors 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 equipment 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 (PROV) or 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.

- ZONING CONDITIONS: Z-2-2.2**
- Prohibit uses otherwise allowed in the R-10 zoning district: boardinghouse, school, public or private (K-12), and outdoor sports or entertainment facility.
  - Limit residential density to no more than eight (8) units per acre.
- BOARD OF ADJUSTMENTS: BOA-18-23**
- BOARD OF ADJUSTMENT CASE BOA-18-23 APPROVED ON JULY 10, 2023 REVOKED UDO SECTION 3.5.1 REQUIREMENTS FOR PROVIDING A ZONE A PROTECTIVE YARD WITHIN THIS SUBDIVISION.
- RESIDENTIAL INFILL COMPATIBILITY**
- PER UDO SECTION 3.2.3.83, TOWNHOME BUILDING TYPE IS NOT SUBJECT TO RESIDENTIAL INFILL COMPATIBILITY.

**Notes:**

The plan should be read in the order in which it is presented, but just in case:

The plan is approved to receive solid waste service. The site below must be transported on the cover sheet of the plans.

- Collection will be by City of Raleigh Solid Waste Services utilizing 66-gallon roll-out containers.
- Residents will roll containers to the street for collection and remove carts after collection.
- Containers will be stored in garages, on the side, or rear of homes.

Remain Work:  
 Merion  
 Marvin O. Shelby  
 Code Compliance Supervisor  
 City of Raleigh - Solid Waste Services  
 Code Compliance Program  
 600 Beeson Lake Drive  
 Raleigh, NC 27610

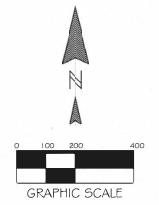
**TOWNHOME PARKING - NO MAXIMUM**

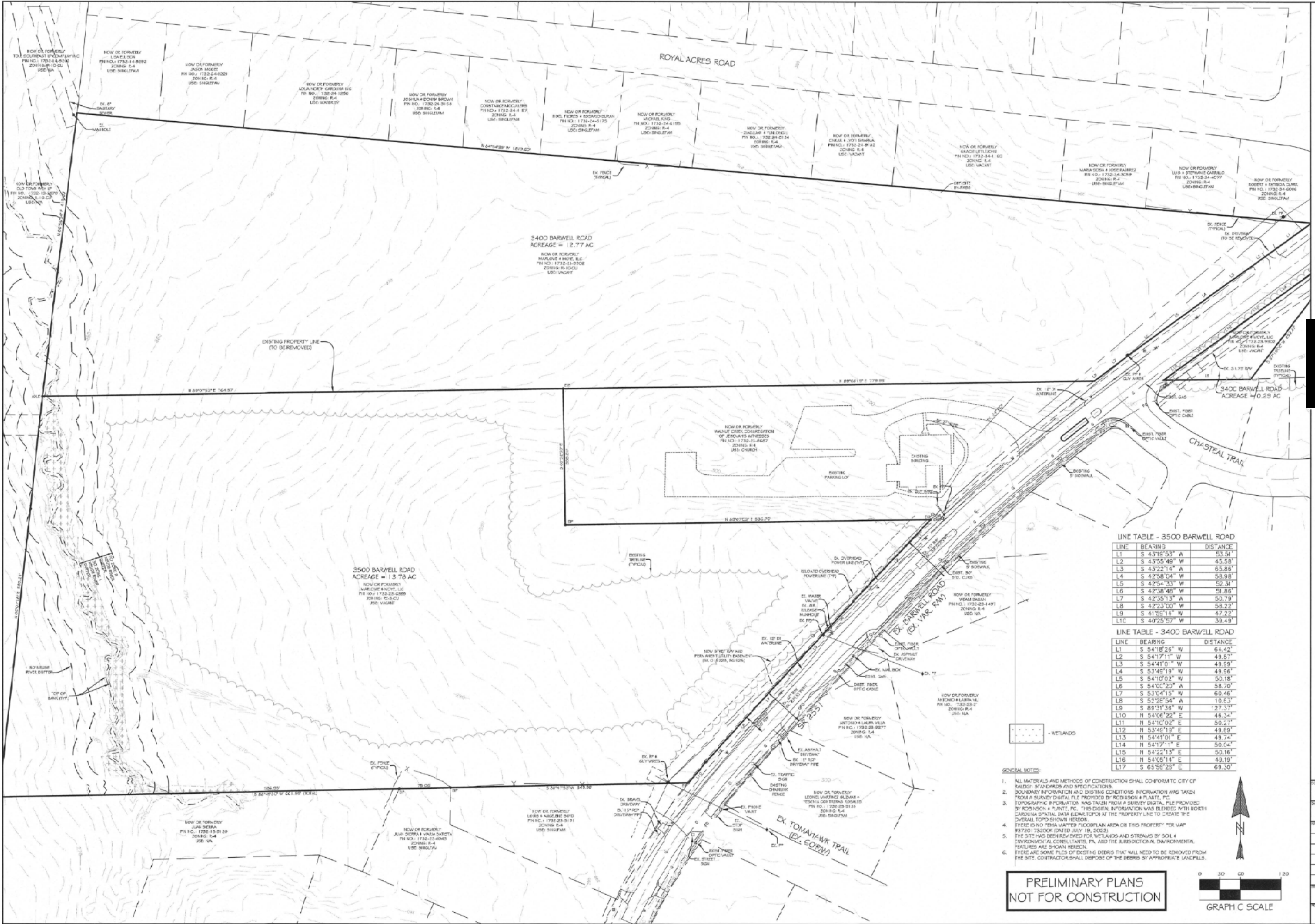
VEHICLE PARKING - NO MAXIMUM  
 SHORT-TERM BICYCLE PARKING - NONE REQUIRED  
 LONG-TERM BICYCLE PARKING - NONE REQUIRED  
 PROVIDED TOWNHOME PARKING - 432 (2 SPACES/LOT)  
 PROVIDED GUEST + MAIL KIOSK PARKING - 10

- NARRATIVE:**
- THIS PRELIMINARY SUBDIVISION SUBMITTAL IS TO APPROVE TOWNHOMES FOR THE SHALLCROSS PARK SUBDIVISION.
  - ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.

Digitally signed by  
 jeff.cainnes@raleighnc.gov  
 DN: cn=jeff.cainnes@raleighnc.gov, o=City of Raleigh, ou=City of Raleigh, email=jeff.cainnes@raleighnc.gov, serial=1, ip=192.168.1.101  
 Date: 2024.07.17  
 10:48:02-07

PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION





LINE TABLE - 3500 BARWELL ROAD

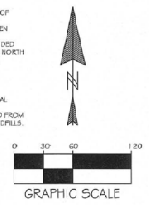
LINE	BEARING	DISTANCE
L1	S 43°18'53" A	63.51'
L2	S 43°55'48" W	43.58'
L3	S 43°22'14" W	65.86'
L4	S 42°58'04" W	58.98'
L5	S 42°54'33" W	50.51'
L6	S 42°38'48" W	51.86'
L7	S 42°33'13" W	53.78'
L8	S 42°23'00" W	58.72'
L9	S 41°55'14" W	47.72'
L10	S 40°52'57" W	33.43'

LINE TABLE - 3400 BARWELL ROAD

LINE	BEARING	DISTANCE
L1	S 54°18'28" W	64.42'
L2	S 54°17'11" W	43.83'
L3	S 54°48'0" W	43.93'
L4	S 53°46'19" W	49.66'
L5	S 54°10'02" W	30.16'
L6	S 54°02'22" W	38.00'
L7	S 53°04'15" W	60.48'
L8	S 52°58'54" W	116.83'
L9	S 52°11'58" W	27.73'
L10	N 54°14'22" E	46.34'
L11	N 54°16'02" E	33.27'
L12	N 53°46'19" E	49.65'
L13	N 54°41'01" E	48.74'
L14	N 54°17'11" E	50.64'
L15	N 54°21'53" E	50.16'
L16	N 54°15'14" E	49.16'
L17	S 63°58'23" E	69.30'

- GENERAL NOTES:
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL COMPLY WITH CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
  2. BOUNDARY INFORMATION AND EXISTING CONDITIONS INDICATOR AND TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY PECKHAM & PARTNERS, P.C.
  3. TOPOGRAPHIC INFORMATION AND TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY PECKHAM & PARTNERS, P.C. THIS DIGITAL INFORMATION HAS BEEN USED WITH NORTH CAROLINA SPATIAL DATA ELEMENTS AT THE PROPERTY LINE TO CREATE THE EXISTING TOPOGRAPHY RECORD.
  4. THERE IS NO FINAL VAPOR PROOFPLAN AREA ON THIS PROPERTY FOR VAPOR PROOF PLAN RECORD DATED NOV. 19, 2022.
  5. THE SITE HAS BEEN PROVIDED FOR VETLANDS AND STREAMS BY SOIL & ENVIRONMENTAL CONSULTANTS, P.C. AND THE SUBSEQUENT ENVIRONMENTAL TREATMENTS ARE SHOWN THEREON.
  6. THERE ARE SOME FLUOS OF EXISTING DEBRIS THAT WILL NEED TO BE REMOVED FROM THE SITE. CONTRACTOR SHALL DEPOSIT OF THE DEBRIS BY APPROPRIATE LANDFILLS.

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

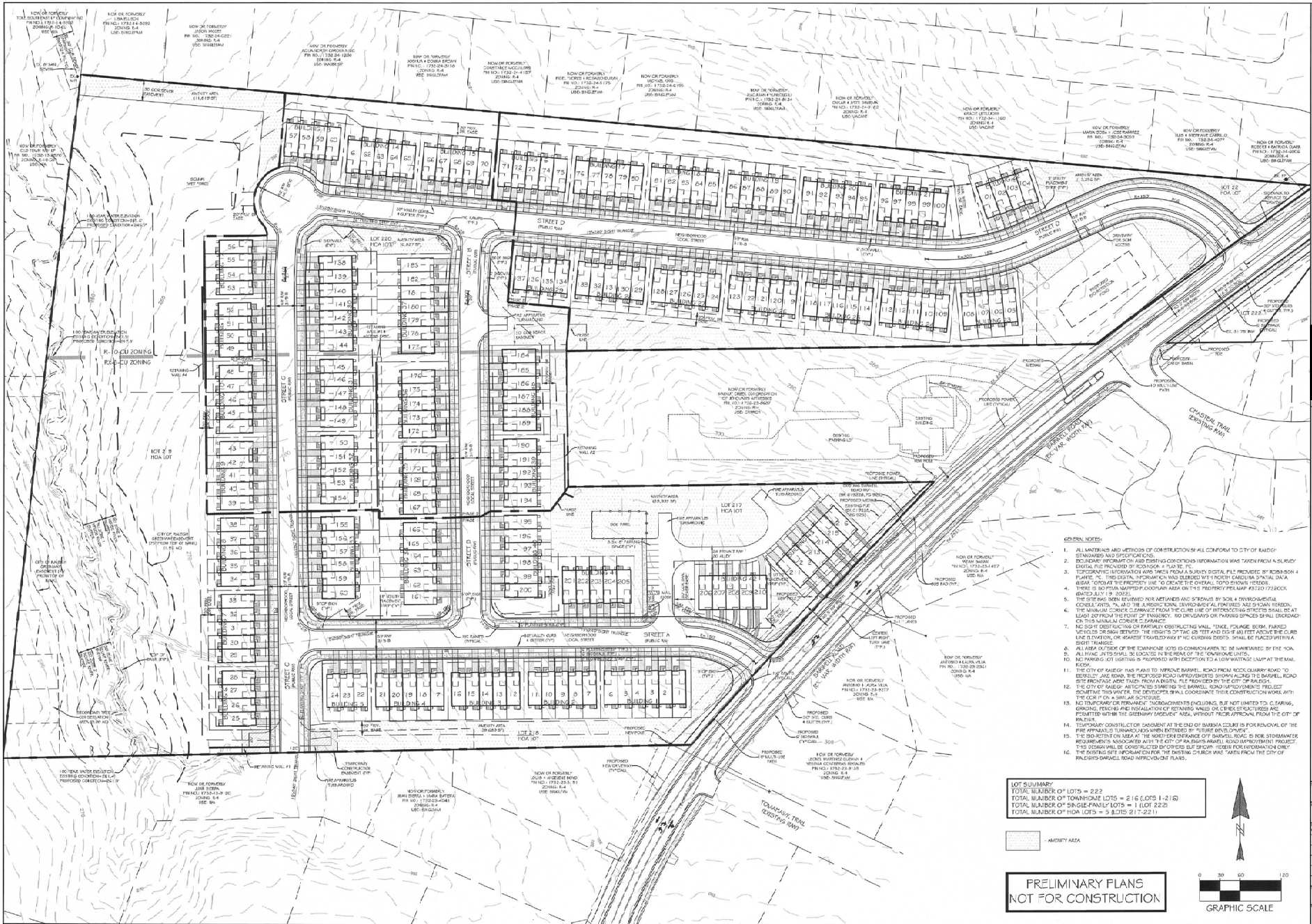


221 N. SALEM ST.  
SUITE 103  
PO BOX 1602  
APEX, NC 27502  
Office: 919-300-1114  
Registrator: P-1511  
www.jonescossen.com

SHALLCROSS PARK - PHASES 1-3  
SUBDIVISION PLAN  
EXISTING CONDITIONS & DEMOLITION PLAN

DATE	11-16-20	WCN
DATE	JULY 17, 2024	
REVISION		
NO.		
DATE		
NO.	2	
DATE	2348	



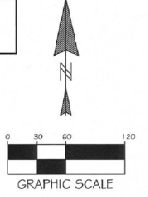


- GENERAL NOTES:**
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
  2. EXISTING INFORMATION ON AND PERTAINING TO THIS PROJECT WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY SUBMITTER. THE CITY OF RALEIGH HAS CONDUCTED VISUAL VERIFICATION OF THIS INFORMATION AND HAS DETERMINED THAT THE INFORMATION IS ACCURATE AND RELIABLE FOR THE PURPOSES OF THIS PROJECT.
  3. TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY SUBMITTER. THE CITY OF RALEIGH HAS CONDUCTED VISUAL VERIFICATION OF THIS INFORMATION AND HAS DETERMINED THAT THE INFORMATION IS ACCURATE AND RELIABLE FOR THE PURPOSES OF THIS PROJECT.
  4. THERE IS A SURVEY OF RECORD FOR THE PROPERTY AND THE RECORD NUMBER IS 43-001 (PERC. 04/21/19).
  5. THE SYSTEMS HAVE BEEN REVIEWED FOR ANTI-CORROSION AND STRENGTH BY SOIL ENVIRONMENTAL CONSULTANTS, AND THE PROPOSED CONSTRUCTION SHALL BE AS SHOWN HEREON.
  6. THE MINIMUM CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 20 FEET FROM THE POINT OF INTERSECTION. NO DRIVEWAYS OR PARKING SPACES SHALL ENDOURGE ON THIS MINIMUM CLEARANCE.
  7. NO SIGN OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, PLANTING, BUSH, PARKED VEHICLES, OR SIGNAGE BETWEEN THE CURB LINE OF THE STREET AND THE CURB LINE OF THE CURB LINE DIVIDER OR BARREST TRAVELWAY OR CURB CURBSIDE SIGNS, SHALL BE PLACED WITHIN A RIGHT-OF-WAY.
  8. ALL AREA OUTSIDE OF THE TOWNHOME LOTS OR COMMON AREAS TO BE MAINTAINED BY THE HOA.
  9. ALL VEHICLES SHALL BE LOADED TO THE REAR OF THE TOWNHOME LOTS.
  10. NO PARKING OR STORAGE IS PERMITTED WITHIN THE TOWNHOME LOTS.
  11. THE CITY OF RALEIGH HAS TAKEN TO IMPROVE BARRIERS FROM RAILROAD COUNTRY ROAD TO EXISTING AND NEW. THE PROPOSED IMPROVEMENTS SHOWN ALONG THE BARRIERS ROAD BY PRESENTING AREAS SHALL BE A BARRIER PROVIDED BY THE CITY OF RALEIGH.
  12. THE CITY OF RALEIGH ANTICIPATES SHARING THE BARRIERS ROAD IMPROVEMENTS PROJECT WITH THE CITY OF RALEIGH. THE BARRIERS ROAD IMPROVEMENTS PROJECT SHALL BE COORDINATED WITH THE CITY OF RALEIGH.
  13. ALL TOPOGRAPHIC INFORMATION INCLUDING, BUT NOT LIMITED TO, ELEVATION, GRADING, FENCING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES ARE PROVIDED WITHIN THE SUBMITTER'S PROVISIONS AND WITHOUT INTERFERENCE FROM THE CITY OF RALEIGH.
  14. TOPOGRAPHIC INFORMATION OF SUBMITTER AT THE TIME OF SUBMISSION IS FOR INFORMATION OF THE FIRE APPLICABLE JURISDICTIONS WHEN EXTENDED BY "FUTURE DEVELOPMENT".
  15. THE FIRE FIGHTING AREA AT THE NORTH END OF BARRIERS ROAD IS FOR INFORMATION OF THE JURISDICTIONS ASSOCIATED WITH THE CITY OF RALEIGH. BARRIERS ROAD IMPROVEMENTS PROJECT. THE DESIGN WILL BE CONDUCTED BY OTHERS BUT SHOWN HEREON FOR INFORMATION OF THE CITY OF RALEIGH.
  16. THE EXISTING SITE INFORMATION FOR THE BARRIERS ROAD WAS TAKEN FROM THE CITY OF RALEIGH'S EXISTING ROAD IMPROVEMENT PLANS.

**LOT SUMMARY:**  
 TOTAL NUMBER OF LOTS = 223  
 TOTAL NUMBER OF TOWNHOME LOTS = 216 (LOTS 1-216)  
 TOTAL NUMBER OF SINGLE-FAMILY LOTS = 1 (LOT 223)  
 TOTAL NUMBER OF HOA LOTS = 6 (LOTS 217-223)

AMBIENT AREA

**PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION**



**Jones & Crossen**  
 ENGINEERING, PLLC  
 Construction Management | Land Planning  
 Civil Engineering

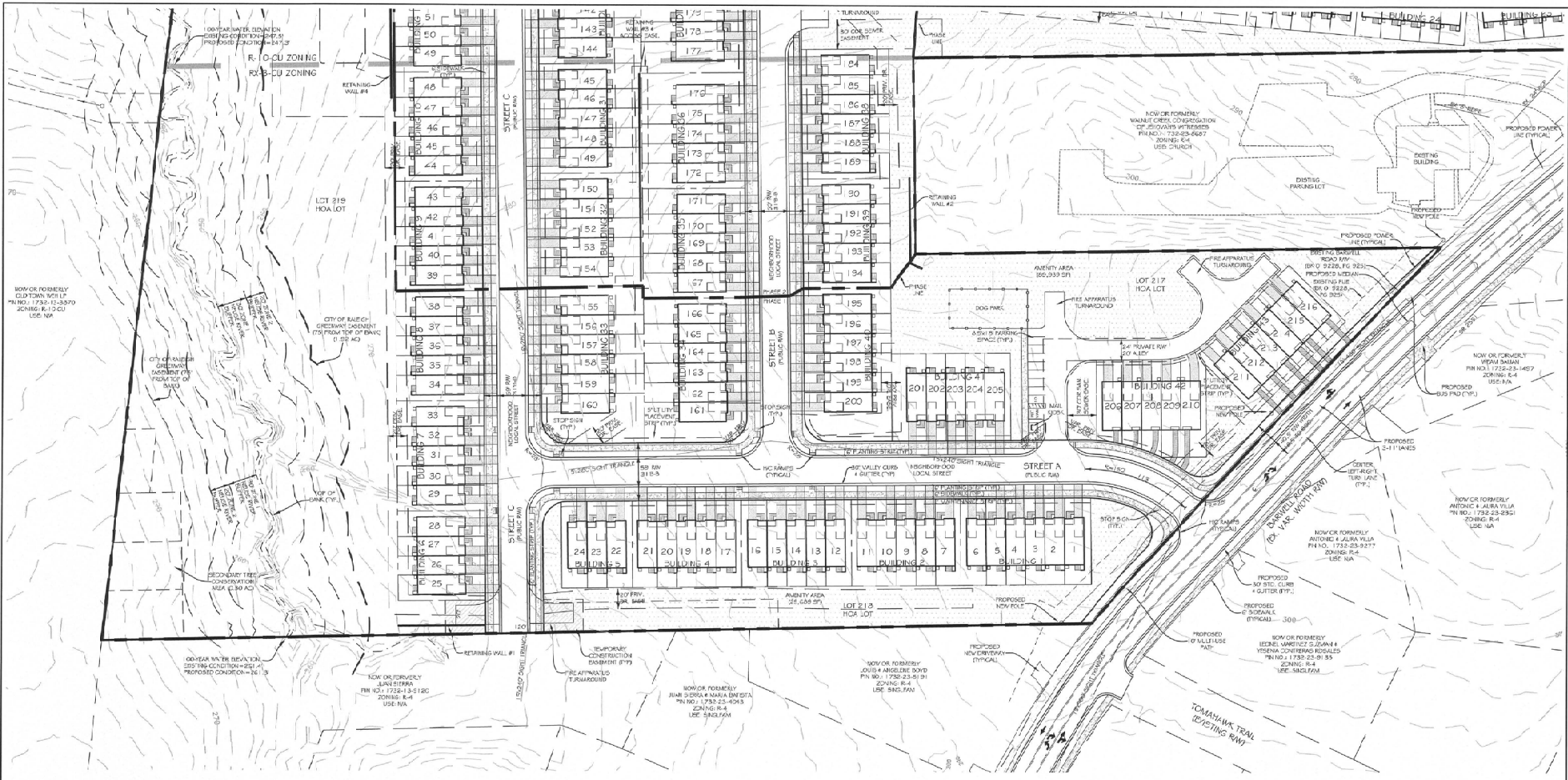
221 N. SALEM ST.  
 SUITE 101  
 PO BOX 1062  
 APEX, NC 27502  
 Office: 919-383-1111  
 Registration: F-C151  
 www.jonescrossen.com

**SHALLCROSS PARK - PHASES 1-3  
 SUBDIVISION PLAN  
 PRELIMINARY OVERALL LAYOUT PLAN**

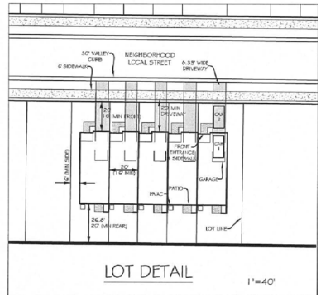
WAKE COUNTY, NORTH CAROLINA  
 CITY OF RALEIGH

SCALE	1" = 60'	WCN
DATE	JULY 17, 2024	
DRAWN BY	M. CYRUS/REVISED	
CHECKED BY	T. HENNING/REVISED	
DATE	3	
PROJECT NO.	2348	

SUB-0038-2024



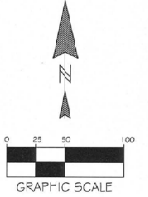
- GENERAL NOTES:**
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
  2. BOUNDARY INFORMATION AND EXISTING CONDITIONS INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLANT, P.C.
  3. TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLANT, P.C. THIS DIGITAL INFORMATION WAS SUPERIMPOSED WITH BEST AVAILABLE SPATIAL DATA (BNA) DATA AT THE PROPERTY LINE TO CREATE THE OVERALL TOPO SHOWN HEREON.
  4. THERE IS NO FEMA FLOODPLAIN AREA ON THIS PROPERTY PER MAP #8720173200K DATED JULY 3, 2022.
  5. THE SITE HAS BEEN REVIEWED FOR WETLANDS AND STREAMS BY SOIL & ENVIRONMENTAL CONSULTANTS, PA, AND THE JURISDICT CIVIL ENVIRONMENTAL REGULATIONS ARE SHOWN HEREON.
  6. THE MINIMUM CORNER CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 20' FROM THE POINT OF TANGENCY. NO DRIVEWAYS OR PARKING SPACES SHALL ENCRoACH ON THIS MINIMUM CORNER CLEARANCE.
  7. NO SIGN OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, FOLIAGE, BORN, PARKED VEHICLES OR SIGN BETWEEN THE HEIGHTS OF TWO (2) FEET AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION, OR NEAREST TRAVELED WAY IF NO CURBING EXIST'S, SHALL BE PLACED WITHIN A SIGHT TRIANGLE.
  8. ALL AREAS OUTSIDE OF THE TOWNHOUSE LOTS IS COMMON AREA TO BE MAINTAINED BY THE HOA.
  9. ALL TRAVEL LINES SHALL BE LOCATED IN THE REAR OF THE TOWNHOUSE UNITS.
  10. NO PARKING LOT LIGHTING IS PROPOSED WITH EXCEPTION TO ALLOW MARIAGE LAMP AT THE MAIL ROOM.
  11. THE CITY OF RALEIGH HAS PLANS TO IMPROVE BARNWELL ROAD FROM ROCK QUARRY ROAD TO BERKLEY LAKE ROAD. THE PROPOSED ROAD IMPROVEMENTS SHOWN ALONG THE BARNWELL ROAD SITE FROM ROCK QUARRY ROAD FROM A DIGITAL FILE PROVIDED BY THE CITY OF RALEIGH.
  12. THE CITY OF RALEIGH ANTICIPATES STARTING THE BARNWELL ROAD IMPROVEMENTS PROJECT SOMETIME THIS WINTER. THE DEVELOPER SHALL COORDINATE THEIR CONSTRUCTION WORK WITH THE CORP. ON A SIMILAR SCHEDULE.
  13. NO TEMPORARY OR PERMANENT ENCROACHMENTS INCLUDING, BUT NOT LIMITED TO, CLEARING, GRADING, FENCING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES ARE PERMITTED WITHIN THE GREENWAY BASINMENT AREA, WITHOUT PRIOR APPROVAL FROM THE CITY OF RALEIGH.
  14. TEMPORARY CONSTRUCTION BASINMENT AT THE END OF BARNWELL COURT IS FOR REMOVAL OF THE FIRE APPARATUS TURNAROUND WHEN EXTENDED BY FUTURE DEVELOPMENT.



- SOLID WASTE INSPECTION NOTES**
1. COLLECTION WILL BE BY CITY OF RALEIGH SOLID WASTE SERVICES (WWS) UTILIZING 95-GALON SCULLOUT CARTS.
  2. RESIDENTS WILL SCULL CONTAINERS TO THE STREET FOR COLLECTION AND REMOVE CARTS AFTER COLLECTION.
  3. CONTAINERS WILL BE STORED IN GARAGES, ON THE SIDE, OR REAR OF THE TOWNHOUSES.

**LOT SUMMARY**  
 TOTAL NUMBER OF LOTS = 222  
 TOTAL NUMBER OF TOWNHOUSE LOTS = 216 (LOTS 1-216)  
 TOTAL NUMBER OF SINGLE-FAMILY LOTS = 1 (LOT 222)  
 TOTAL NUMBER OF NON LOTS = 5 (LOTS 217-221)

**PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION**



**Jones & Crossen**  
 ENGINEERING, PLLC  
 Civil Engineering | Construction Management | Land Planning

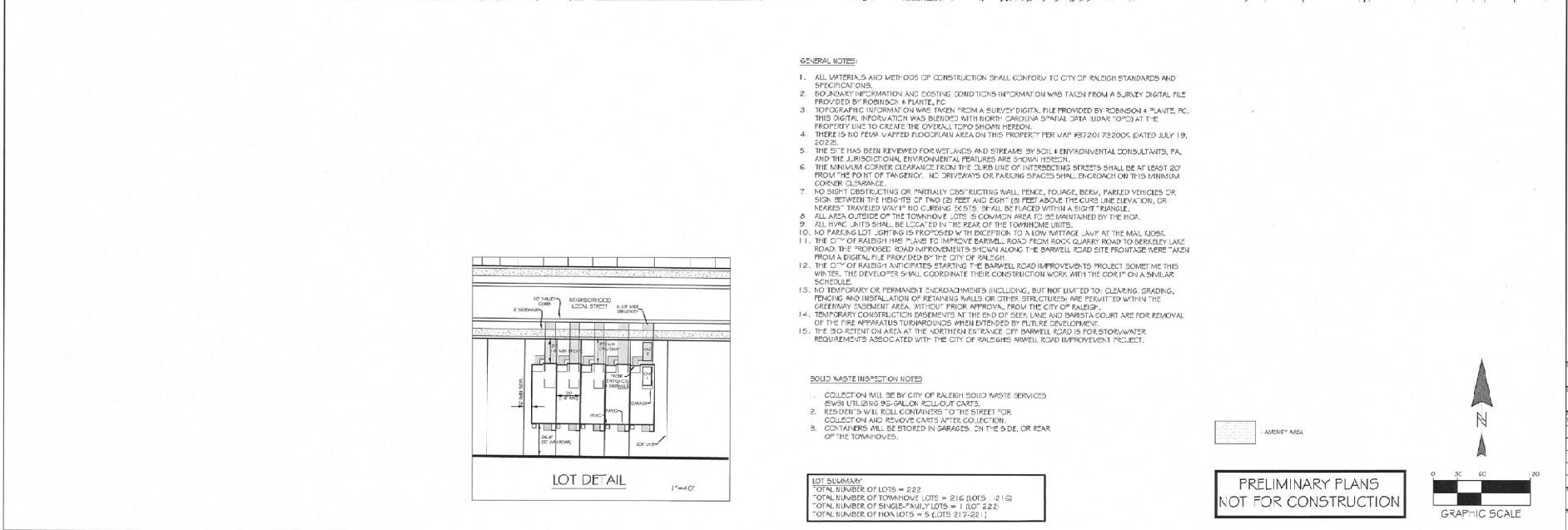
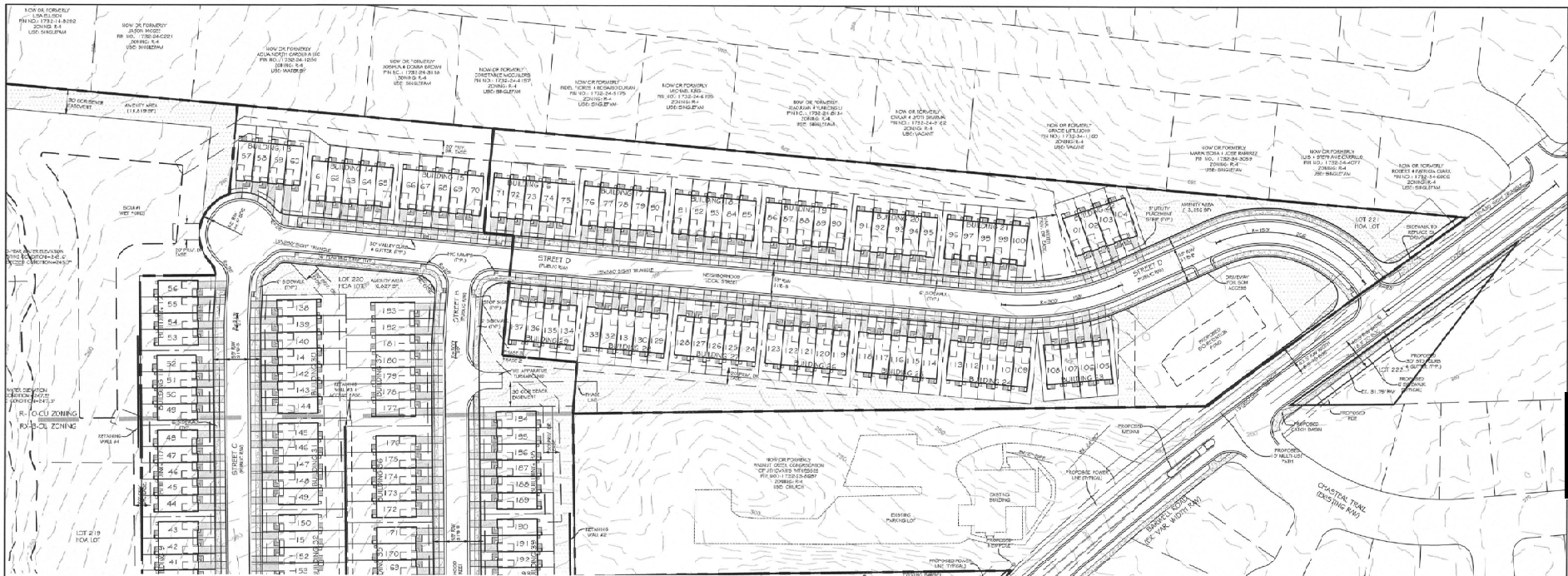
221 N. SALEM ST.  
 SUITE 601  
 PO BOX 942  
 APEX, NC 27502  
 OFFICE: 919-897-1174  
 MOBILE: 919-897-1174  
 www.jonescrossen.com

**SHALLCROSS PARK - PHASES 1-3  
 SUBDIVISION PLAN**  
 PRELIMINARY LAYOUT PLAN 1

SCALE	1"=50'	WCN
DATE	JULY 17, 2024	
DESIGNED	02/4/24	1/3/2024 REVIEW
DRAWN	1/11/2024	2/6/2024 REVIEW
CHECKED		
APPROVED		
NO. OF SHEETS	4	
SHEET NO.	2346	

SUB-0038-2024



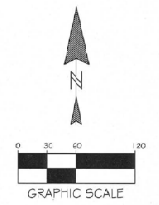


- GENERAL NOTES:**
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
  2. SO ADJACENT INFORMATION AND EXISTING CONDITIONS INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLANTE, PC.
  3. TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLANTE, PC. THIS DIGITAL INFORMATION WAS BLENDED WITH NORTH CAROLINA SPATIAL DATA (NCDAT) AT THE PROPERTY LINE TO CREATE THE OVERALL TOPO SHOWN HEREON.
  4. THERE IS NO FEMA MAPPED FLOODPLAIN AREA ON THIS PROPERTY PER MAP #8720173200K (DATED JULY 19, 2022).
  5. THE SITE HAS BEEN REVIEWED FOR WETLANDS AND STREAMS BY SOIL & ENVIRONMENTAL CONSULTANTS, PA, AND THE JURISDICTIONAL ENVIRONMENTAL FEATURES ARE SHOWN HEREON.
  6. THE MINIMUM CORNER CLEARANCE FROM THE CURB LINE OF INTERSECTING STREETS SHALL BE AT LEAST 20' FROM THE POINT OF TANGENCY. NO DRIVEWAYS OR PARKING SPACES SHALL ENCRUCH ON THIS MINIMUM CORNER CLEARANCE.
  7. NO SIGN OBSTRUCTING OR PARTIALLY OBSTRUCTING WALL, FENCE, FOULCE, BUSH, PARKED VEHICLES OR SIGN BETWEEN THE HEIGHTS OF TWO (2) FEET AND EIGHT (8) FEET ABOVE THE CURB LINE ELEVATION, OR NEARER TRAVELED WAY 11' TO CURBING EXISTS. SE ALL BE PLACED WITHIN A SIGHT TRIANGLE.
  8. ALL AREA OUTSIDE OF THE TOWNHOME LOTS IS COMMON AREA TO BE MAINTAINED BY THE HOA.
  9. ALL SWIMMING POOLS SHALL BE LOCATED IN THE REAR OF THE TOWNHOME UNITS.
  10. NO PARKING LOT LIGHTING IS PROPOSED WITH THE EXCEPTION TO A LOW MOUNTAGE LAMP AT THE MAIL BOX.
  11. THE CITY OF RALEIGH HAS PLANS TO IMPROVE BARWELL ROAD FROM ROCK QUARRY ROAD TO BARKWELL LANE ROAD. THE PROPOSED ROAD IMPROVEMENTS BEGIN ALONG THE BARWELL ROAD SITE FRONTAGE. MORE DETAILED DIGITAL FILE PROVIDED BY THE CITY OF RALEIGH.
  12. THE CITY OF RALEIGH ANTICIPATES STARTING THE BARWELL ROAD IMPROVEMENTS PROJECT SOME TIME THIS WINTER. THE DEVELOPER SHALL COORDINATE THEIR CONSTRUCTION WORK WITH THE CITY ON A SIMILAR SCHEDULE.
  13. NO TEMPORARY OR PERMANENT ENCROACHMENTS INCLUDING, BUT NOT LIMITED TO: CLEARING, GRADING, FENCING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES ARE PERMITTED WITHIN THE GREENWAY SUBSEMENT AREA, WITHOUT PRIOR APPROVAL FROM THE CITY OF RALEIGH.
  14. TEMPORARY CONSTRUCTION BASEMENTS AT THE END OF SIDE LANE AND BARWELL COURT ARE FOR REMOVAL OF THE FIRE APPARATUS TURNAROUNDS WHEN EXTENDED BY FUTURE DEVELOPMENT.
  15. THE 300' PORTION OF A AREA AT THE NORTHERN END OF THE BARWELL ROAD IS FOR STORVWATER REQUIREMENTS ASSOCIATED WITH THE CITY OF RALEIGH BARWELL ROAD IMPROVEMENT PROJECT.

- SOLID WASTE INSPECTION NOTES:**
1. COLLECTION WILL BE BY CITY OF RALEIGH SOLID WASTE SERVICES USING 95-GALON ROLL-OUT CARTS.
  2. RESIDENTS WILL BE NOTIFIED BY THE STREET WORK COLLECTION AND REMOVE CARTS AFTER COLLECTION.
  3. CONTAINERS WILL BE STORED IN GARAGES, ON THE SIDE, OR REAR OF THE TOWNHOMES.

**LOT SUMMARY:**  
 TOTAL NUMBER OF LOTS = 222  
 TOTAL NUMBER OF TOWNHOME LOTS = 216 (LOTS 216-219)  
 TOTAL NUMBER OF SINGLE-FAMILY LOTS = 1 (LOT 222)  
 TOTAL NUMBER OF HOME LOTS = 5 (LOTS 217-221)

**PRELIMINARY PLANS  
 NOT FOR CONSTRUCTION**



**SHALLCROSS PARK - PHASES 1-3  
 SUBDIVISION PLAN  
 PRELIMINARY LAYOUT PLAN 2**

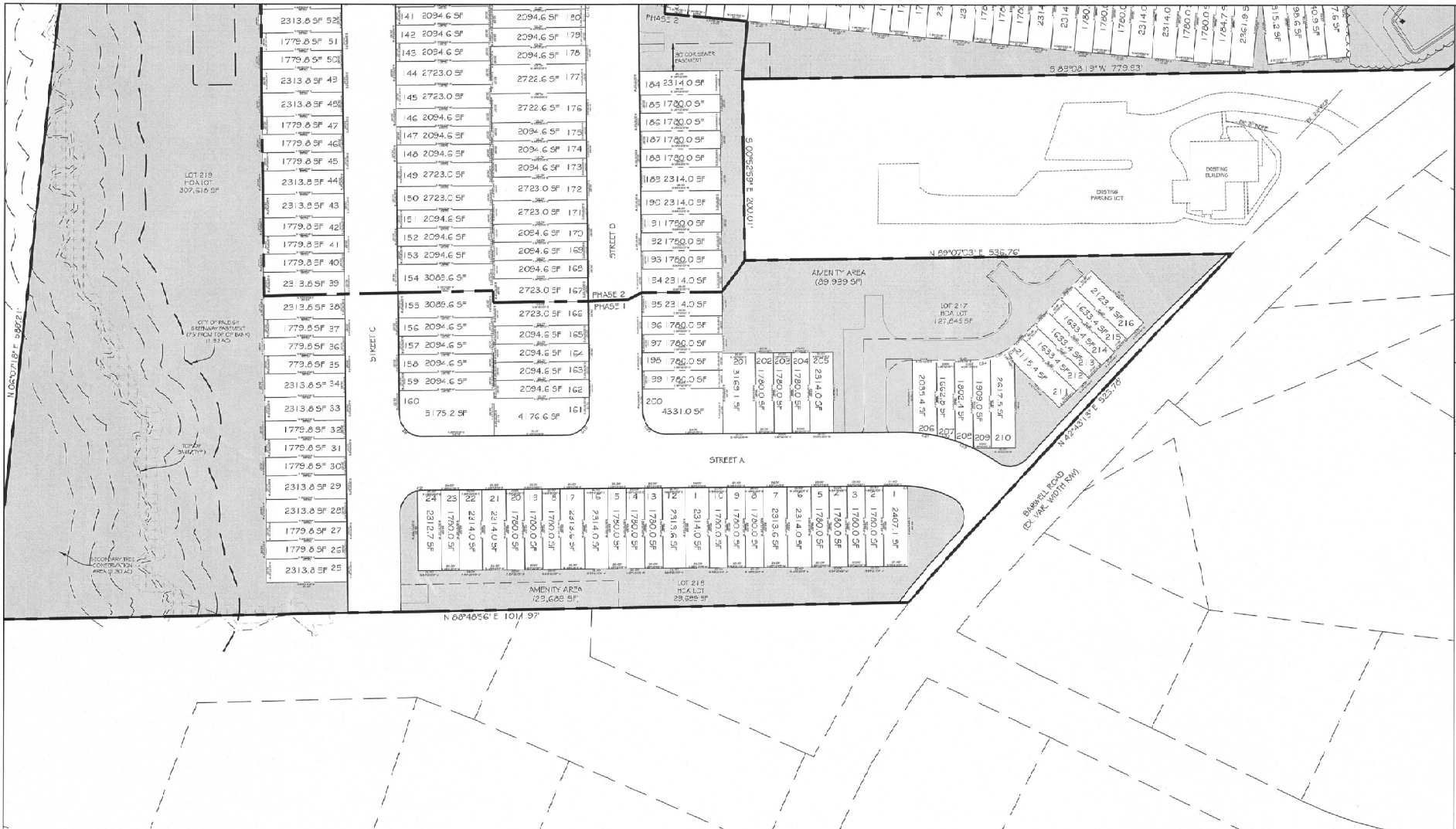
CITY OF RALEIGH

5  
 2346

**Jones & Cossen**  
 ENGINEERING, PLLC  
 Civil Engineering | Construction Management | Land Planning

221 N. SALEM ST.  
 SUITE 601  
 PO BOX 642  
 APEX, NC 27502  
 Office: 919-339-1174  
 Registration: P4551  
 www.jonescossen.com

DATE: 1"=50' WCN  
 JULY 17, 2024  
 BY: JVA/MSA 1st CYCLE REVIEW  
 CHECKED: EAC 2nd CYCLE REVIEW  
 SHEET: 5  
 TOTAL: 2346



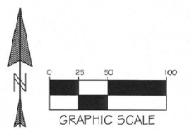
LOT NO.	AREA (SQ. FT.)	PERCENT COVERED	SETBACK (FRONT)	SETBACK (SIDE)	SETBACK (REAR)	SETBACK (CORNER)	SETBACK (MIN.)	SETBACK (MAX.)
1	2313.8	5.2	5	5	5	5	5	5
2	1779.8	5.1	5	5	5	5	5	5
3	1779.8	5.0	5	5	5	5	5	5
4	2313.8	5.0	5	5	5	5	5	5
5	2313.8	5.0	5	5	5	5	5	5
6	1779.8	5.0	5	5	5	5	5	5
7	1779.8	5.0	5	5	5	5	5	5
8	1779.8	5.0	5	5	5	5	5	5
9	2313.8	5.0	5	5	5	5	5	5
10	2313.8	5.0	5	5	5	5	5	5
11	1779.8	5.0	5	5	5	5	5	5
12	1779.8	5.0	5	5	5	5	5	5
13	1779.8	5.0	5	5	5	5	5	5
14	1779.8	5.0	5	5	5	5	5	5
15	1779.8	5.0	5	5	5	5	5	5
16	1779.8	5.0	5	5	5	5	5	5
17	1779.8	5.0	5	5	5	5	5	5
18	1779.8	5.0	5	5	5	5	5	5
19	1779.8	5.0	5	5	5	5	5	5
20	1779.8	5.0	5	5	5	5	5	5
21	1779.8	5.0	5	5	5	5	5	5
22	1779.8	5.0	5	5	5	5	5	5
23	1779.8	5.0	5	5	5	5	5	5
24	1779.8	5.0	5	5	5	5	5	5
25	1779.8	5.0	5	5	5	5	5	5
26	1779.8	5.0	5	5	5	5	5	5
27	1779.8	5.0	5	5	5	5	5	5
28	1779.8	5.0	5	5	5	5	5	5
29	1779.8	5.0	5	5	5	5	5	5
30	1779.8	5.0	5	5	5	5	5	5
31	1779.8	5.0	5	5	5	5	5	5
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33	1779.8	5.0	5	5	5	5	5	5
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38	1779.8	5.0	5	5	5	5	5	5
39	1779.8	5.0	5	5	5	5	5	5
40	1779.8	5.0	5	5	5	5	5	5
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44	1779.8	5.0	5	5	5	5	5	5
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70	1779.8	5.0	5	5	5	5	5	5
71	1779.8	5.0	5	5	5	5	5	5
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73	1779.8	5.0	5	5	5	5	5	5
74	1779.8	5.0	5	5	5	5	5	5
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76	1779.8	5.0	5	5	5	5	5	5
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78	1779.8	5.0	5	5	5	5	5	5
79	1779.8	5.0	5	5	5	5	5	5
80	1779.8	5.0	5	5	5	5	5	5
81	1779.8	5.0	5	5	5	5	5	5
82	1779.8	5.0	5	5	5	5	5	5
83	1779.8	5.0	5	5	5	5	5	5
84	1779.8	5.0	5	5	5	5	5	5
85	1779.8	5.0	5	5	5	5	5	5
86	1779.8	5.0	5	5	5	5	5	5
87	1779.8	5.0	5	5	5	5	5	5
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91	1779.8	5.0	5	5	5	5	5	5
92	1779.8	5.0	5	5	5	5	5	5
93	1779.8	5.0	5	5	5	5	5	5
94	1779.8	5.0	5	5	5	5	5	5
95	1779.8	5.0	5	5	5	5	5	5
96	1779.8	5.0	5	5	5	5	5	5
97	1779.8	5.0	5	5	5	5	5	5
98	1779.8	5.0	5	5	5	5	5	5
99	1779.8	5.0	5	5	5	5	5	5
100	1779.8	5.0	5	5	5	5	5	5

- GENERAL NOTES:**
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS. "BOUNDARY" INFORMATION AND EXISTING CONDITIONS INFORMATION WAS "TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLANTE, P.C.
  2. TOPOGRAPHIC INFORMATION WAS "TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLANTE, P.C. THIS DIGITAL INFORMATION WAS BLENDED WITH NORTH CAROLINA SPATIAL DATA (SDATOP02) AT THE PROPERTY LINE TO CREATE THE OVERALL TOPO SURFACE HEREON.
  3. THERE IS NO FEMA FLOODEPLAIN AREA ON THIS PROPERTY PER MAP #3220173200K (DATED JULY 19, 2022).
  4. THE SITE HAS BEEN REVIEWED FOR WETLANDS AND STREAMS BY SOIL & ENVIRONMENTAL CONSULTANTS, PA, AND THE JURISDICTIONAL ENVIRONMENTAL TABLES ARE SHOWN HEREON.
  5. ALL REQUIRED COMMON ELEMENTS SUCH AS STORMWATER, TREE CONSERVATION AREAS AND AMENITY AREAS SHALL BE RECORDED WITH THE FIRST PHASE.
  6. ALL AREA OUTSIDE OF THE TOWNPLOTS IS OPEN SPACE TO BE MAINTAINED BY THE HOA.



**LOT SUMMARY**  
 TOTAL NUMBER OF LOTS = 222  
 TOTAL NUMBER OF TOWNHOUSE LOTS = 216 (LOTS 1-216)  
 TOTAL NUMBER OF SINGLE-FAMILY LOTS = 1 (LOT 222)  
 TOTAL NUMBER OF MOB LOTS = 5 (LOTS 217-221)

**PRELIMINARY PLANS**  
 NOT FOR CONSTRUCTION



**Jones & Cossen**  
 ENGINEERING, PLLC  
 Civil Engineering | Construction Management | Land Planning

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 FAYETTEVILLE, NC 27402  
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 Registration: F-051  
 www.jonescossen.com

**SHALLCROSS PARK - PHASES 1-3**  
 SUBDIVISION PLAN  
 PRELIMINARY LOTTING PLAN 1

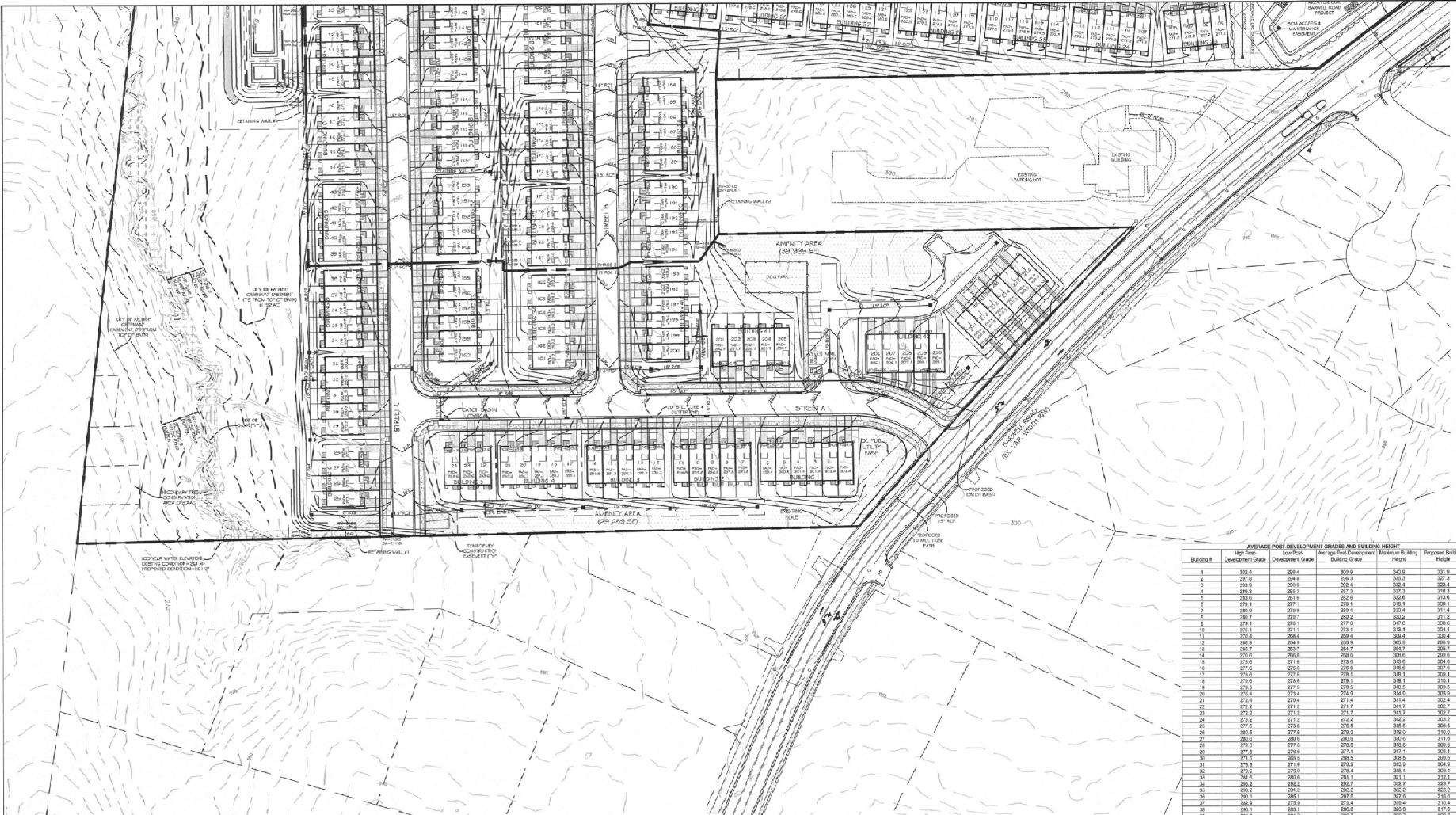
SCALE: 1" = 50'  
 DATE: JULY 17, 2024  
 SHEET: 6  
 TOTAL SHEETS: 6

PROJECT: 2348

WAKE COUNTY, NORTH CAROLINA  
 SUB-0038-2024







- GENERAL NOTES:**
- ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
  - BOUNDARY INFORMATION AND EXISTING CONDITIONS INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON # PLANTE, PC.
  - TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON # PLANTE, PC. THE DIGITAL INFORMATION WAS BLEND WITH NORTH CAROLINA SPATIAL DATA (L.D.A.R. TOP) AT THE PROPERTY LINE TO CREATE THE OVERALL TOPO SHOWN HEREON.
  - THERE IS NO FEMA FLOODED AREA ON THE PROPERTY PER MAP #52001722000 DATED JULY 19, 2022.
  - THE SITE HAS BEEN REVIEWED FOR WETLANDS AND STREAMS BY SOIL & ENVIRONMENTAL CONSULTANTS, PA AND THE JURISDICTIONAL ENVIRONMENTAL FEATURES ARE SHOWN HEREON.
  - PROJECT WALL ADDRESS PER VS. POST DETERMINER CONDITION BY PROVIDING ONE WET POND. FINAL DESIGN AND CALCULATIONS SHALL BE PROVIDED AT TIME OF SITE RESUBMITTAL REVIEW DRAWINGS.
  - STORMWATER SCUM SHALL BE LOCATED IN A PRIVATE DRAINAGE EASEMENT WITH ACCESS TO A PUBLIC RW.
  - RETAINING WALLS SHALL BE MAINTAINED BY THE POA.
  - RETAINING WALLS SHALL BE APPROVED UNDER A SEPARATE PERMIT.
  - RETAINING WALLS WILL REQUIRE SPECIAL INSPECTION SINCE IT IS OVER 8" IN HEIGHT.
  - BOTTOM OF WALL (BW) ELEVATIONS SHOWN ON THE PLAN REFERENCE FINISH GRADE.
  - THE CITY OF RALEIGH HAS PLANS TO IMPROVE BARRELL ROAD FROM ROCK QUARRY ROAD TO BOWENLY LAKE ROAD. THE PROPOSED ROAD IMPROVEMENTS SHOWN HEREON THE BARRELL ROAD SITE PRODUCE WERE TAKEN FROM A DIGITAL FILE PROVIDED BY THE CITY OF RALEIGH.
  - THE EXISTING SITE INFORMATION FOR THE EXISTING CHURCH WAS TAKEN FROM THE CITY OF RALEIGH BARRELL ROAD IMPROVEMENT PLANS.
  - NO TEMPORARY OR PERMANENT PROVISIONS INCLUDING, BUT NOT LIMITED TO: CLEARING, GRADING, FENCING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES ARE PERMITTED WITHIN THE GREENWAY EASEMENT AREA, WITHOUT PRIOR APPROVAL FROM THE CITY OF RALEIGH.

**RETAINING WALL INFORMATION**

RETAINING WALL NUMBER	LENGTH (FT)	HEIGHT (FT)
2 <td>56'</td> <td>1-4</td>	56'	1-4
3 <td>272'</td> <td>1-4</td>	272'	1-4
4 <td>137'</td> <td>1-4</td>	137'	1-4

**LOT IMPERVIOUS ALLOCATION**

LOT #	MAXIMUM IMPERVIOUS AREA (SQ. FT.)	TOTAL IMPERVIOUS AREA (SQ. FT.)
1-218	1400	392400
217	1068	1068
219	1420	1420
219	1420	1420
<b>Total ImperVIOUS Area (Lots)</b>		<b>315740</b>

**AVENUE, POST-DEVELOPMENT GRADES AND BUILDING HEIGHTS**

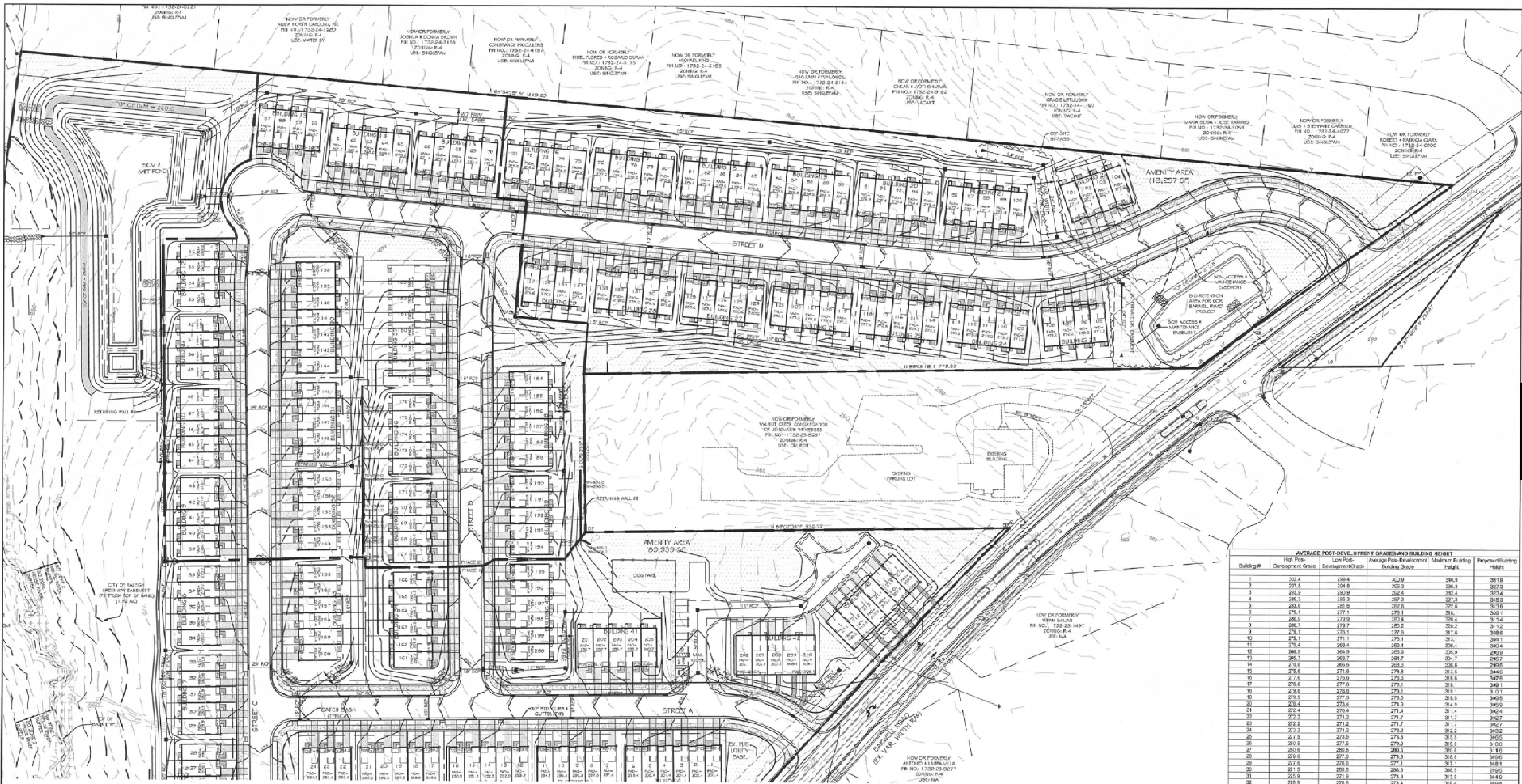
Building #	High Top	Low Top	Proposed Post-Development Building Height	Proposed Building Height
1	302.4	302.4	302.9	302.9
2	297.8	298.9	300.3	300.3
3	291.9	300.5	302.4	302.4
4	288.3	300.3	302.2	302.2
5	286.6	301.6	302.5	302.5
6	278.1	297.7	301.2	301.2
7	286.9	299.9	302.4	302.4
8	287.1	299.7	302.4	302.4
9	273.1	278.1	277.0	277.0
10	271.1	271.1	271.1	271.1
11	271.6	288.4	302.4	302.4
12	269.9	286.9	302.4	302.4
13	261.7	263.7	262.7	262.7
14	270.2	280.2	300.0	300.0
15	271.6	271.6	271.6	271.6
16	272.9	272.9	272.9	272.9
17	273.9	277.6	278.1	278.1
18	273.9	277.6	278.1	278.1
19	273.9	277.6	278.1	278.1
20	273.9	277.6	278.1	278.1
21	271.4	270.4	271.4	271.4
22	272.2	272.2	272.2	272.2
23	271.2	271.2	271.2	271.2
24	271.2	271.2	271.2	271.2
25	271.5	273.5	276.6	276.6
26	268.3	272.4	276.0	276.0
27	268.3	280.5	300.0	300.0
28	271.4	277.4	278.4	278.4
29	271.5	273.5	277.1	277.1
30	271.5	288.5	304.4	304.4
31	271.9	271.9	271.9	271.9
32	271.9	271.9	271.9	271.9
33	261.5	261.5	261.1	261.1
34	261.5	261.5	261.1	261.1
35	261.5	271.2	262.2	262.2
36	261.5	261.5	261.1	261.1
37	261.2	273.9	274.4	274.4
38	261.2	261.2	261.2	261.2
39	261.2	261.2	261.2	261.2
40	261.2	261.2	261.2	261.2
41	261.2	261.2	261.2	261.2
42	261.2	261.2	261.2	261.2
43	261.2	261.2	261.2	261.2
44	261.2	261.2	261.2	261.2
45	261.2	261.2	261.2	261.2
46	261.2	261.2	261.2	261.2
47	261.2	261.2	261.2	261.2
48	261.2	261.2	261.2	261.2
49	261.2	261.2	261.2	261.2
50	261.2	261.2	261.2	261.2
51	261.2	261.2	261.2	261.2
52	261.2	261.2	261.2	261.2
53	261.2	261.2	261.2	261.2
54	261.2	261.2	261.2	261.2
55	261.2	261.2	261.2	261.2
56	261.2	261.2	261.2	261.2
57	261.2	261.2	261.2	261.2
58	261.2	261.2	261.2	261.2
59	261.2	261.2	261.2	261.2
60	261.2	261.2	261.2	261.2
61	261.2	261.2	261.2	261.2
62	261.2	261.2	261.2	261.2
63	261.2	261.2	261.2	261.2
64	261.2	261.2	261.2	261.2
65	261.2	261.2	261.2	261.2
66	261.2	261.2	261.2	261.2
67	261.2	261.2	261.2	261.2
68	261.2	261.2	261.2	261.2
69	261.2	261.2	261.2	261.2
70	261.2	261.2	261.2	261.2
71	261.2	261.2	261.2	261.2
72	261.2	261.2	261.2	261.2
73	261.2	261.2	261.2	261.2
74	261.2	261.2	261.2	261.2
75	261.2	261.2	261.2	261.2
76	261.2	261.2	261.2	261.2
77	261.2	261.2	261.2	261.2
78	261.2	261.2	261.2	261.2
79	261.2	261.2	261.2	261.2
80	261.2	261.2	261.2	261.2
81	261.2	261.2	261.2	261.2
82	261.2	261.2	261.2	261.2
83	261.2	261.2	261.2	261.2
84	261.2	261.2	261.2	261.2
85	261.2	261.2	261.2	261.2
86	261.2	261.2	261.2	261.2
87	261.2	261.2	261.2	261.2
88	261.2	261.2	261.2	261.2
89	261.2	261.2	261.2	261.2
90	261.2	261.2	261.2	261.2
91	261.2	261.2	261.2	261.2
92	261.2	261.2	261.2	261.2
93	261.2	261.2	261.2	261.2
94	261.2	261.2	261.2	261.2
95	261.2	261.2	261.2	261.2
96	261.2	261.2	261.2	261.2
97	261.2	261.2	261.2	261.2
98	261.2	261.2	261.2	261.2
99	261.2	261.2	261.2	261.2
100	261.2	261.2	261.2	261.2

Note:  
1. Shadow building height was determined by the use development zoning (table on sheet 4) of lot.  
2. Proposed building height was determined by the use development area and zoning 3' lot.

PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

GRAPHIC SCALE

0 30 60 90 120



**GENERAL NOTES:**

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
2. BOUNDARY INFORMATION AND POSTING COORDINATE INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLAMTE, P.C.
3. TOPOGRAFC INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & PLAMTE, P.C. THIS DIGITAL INFORMATION WAS BLENDED WITH NORTH CAROLINA SPATIAL DATA (DARE TOPG) AT THE PROPERTY LINE TO CREATE THE OVERALL TOPG 5-DOWN MODEL.
4. THERE IS NO FEMA MAPPED FLOODPLAIN AREA ON THIS PROPERTY PER MAP #220173-0008, DATED JULY 13, 2022.
5. THE SITE HAS BEEN REVIEWED FOR WETLANDS AND STREAMS BY SOIL & ENVIRONMENTAL CONSULTANT'S, P.A. AND THE JURISDICTIONAL ENVIRONMENTAL FEATURES ARE SHOWN HEREON.
6. PROJECT WALL ADDRESS PER VS. POST STORMWATER CONDITION BY PROVIDING ONE WET POND. FINAL DESIGN AND CALCULATIONS SHALL BE PROVIDED AT TIME OF CONSTRUCTION DRAWINGS.
7. STORMWATER SWMP SHALL BE LOCATED IN A PRIVATE DRAINAGE EASEMENT WITH ACCESS TO A PUBLIC RW.
8. RETAINING WALLS 3-5 WILL BE MAINTAINED BY THE HOA.
9. RETAINING WALLS 3-5 SHALL BE APPROVED UNDER A SEPARATE PERMIT.
10. RETAINING WALLS 1, 4 & 5 WILL REQUIRE SPECIAL INSPECTION SINCE THEY ARE OVER 5' IN HEIGHT.
11. BOTTOM OF WALL (BW) ELEVATIONS SHOWN ON THIS PLAN REFERENCE FINISH GRADE.
12. THE CITY OF RALEIGH HAS PLANS TO IMPROVE BARWELL ROAD, FROM ROCK CHURCH ROAD TO BERRYBEE LAKE ROAD. THE PROPOSED ROAD IMPROVEMENTS 5-DOWN ALONG THE BARWELL ROAD SITE FRONTAGE WERE TAKEN FROM A DIGITAL FILE PROVIDED BY THE CITY OF RALEIGH.
13. NO TEMPORARY OR PERMANENT ENCROACHMENTS INCLUDING, BUT NOT LIMITED TO: CLEARING, GRADING, FENCING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES ARE PERMITTED WITHIN THE GATEWAY BASEMENT AREA, WITHOUT PRIOR APPROVAL FROM THE CITY OF RALEIGH.
14. THE 5-D-RETENTION AREA AT THE NORTHERN ENTRANCE OFF BARWELL ROAD IS FOR STORMWATER REQUIREMENTS ASSOCIATED WITH THE CITY OF RALEIGH'S BARWELL ROAD IMPROVEMENT PROJECT. THIS DESIGN WILL BE CONSTRUCTED BY OTHERS BUT SHOULD BE KEPT FOR INFORMATION ONLY.
15. THE EXISTING SITE INFORMATION FOR THE EXISTING C-URCH WAS TAKEN FROM THE CITY OF RALEIGH'S BARWELL ROAD IMPROVEMENT PLAN.

**RETAINING WALL INFORMATION**

RETAINING WALL NUMBER	LENGTH (LF)	HEIGHT (FT)
1	69	4'
2	102	4'
3	272	4'
4	137	4'

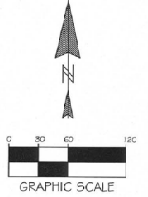
**LOT IMPERVIOUS AREA TOTAL**

LOT #S	MAXIMUM IMPERVIOUS AREA (SF)	TOTAL IMPERVIOUS AREA (SF)
1-218	~42K	392400
217	10455	10455
219	~42K	1420
219	~42K	1420
Total Impervious Area in Lots =		315764

BASIS #	AVERAGE POST-DEVELOPMENT GRADES AND BUILDING HEIGHT		Average Post-Development		Proposed Building Height
	High Post-Development Grade	Low Post-Development Grade	Max. Building Height	Min. Building Height	
1	350.4	329.4	300.9	340.9	311.6
2	297.4	296.9	296.9	296.9	302.3
3	295.6	285.9	295.6	285.9	302.3
4	295.6	285.9	295.6	285.9	318.3
5	295.6	285.9	295.6	285.9	318.3
6	295.6	285.9	295.6	285.9	318.3
7	295.6	285.9	295.6	285.9	318.3
8	295.6	285.9	295.6	285.9	318.3
9	295.6	285.9	295.6	285.9	318.3
10	295.6	285.9	295.6	285.9	318.3
11	295.6	285.9	295.6	285.9	318.3
12	295.6	285.9	295.6	285.9	318.3
13	295.6	285.9	295.6	285.9	318.3
14	295.6	285.9	295.6	285.9	318.3
15	295.6	285.9	295.6	285.9	318.3
16	295.6	285.9	295.6	285.9	318.3
17	295.6	285.9	295.6	285.9	318.3
18	295.6	285.9	295.6	285.9	318.3
19	295.6	285.9	295.6	285.9	318.3
20	295.6	285.9	295.6	285.9	318.3
21	295.6	285.9	295.6	285.9	318.3
22	295.6	285.9	295.6	285.9	318.3
23	295.6	285.9	295.6	285.9	318.3
24	295.6	285.9	295.6	285.9	318.3
25	295.6	285.9	295.6	285.9	318.3
26	295.6	285.9	295.6	285.9	318.3
27	295.6	285.9	295.6	285.9	318.3
28	295.6	285.9	295.6	285.9	318.3
29	295.6	285.9	295.6	285.9	318.3
30	295.6	285.9	295.6	285.9	318.3
31	295.6	285.9	295.6	285.9	318.3
32	295.6	285.9	295.6	285.9	318.3
33	295.6	285.9	295.6	285.9	318.3
34	295.6	285.9	295.6	285.9	318.3
35	295.6	285.9	295.6	285.9	318.3
36	295.6	285.9	295.6	285.9	318.3
37	295.6	285.9	295.6	285.9	318.3
38	295.6	285.9	295.6	285.9	318.3
39	295.6	285.9	295.6	285.9	318.3
40	295.6	285.9	295.6	285.9	318.3
41	295.6	285.9	295.6	285.9	318.3
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43	295.6	285.9	295.6	285.9	318.3

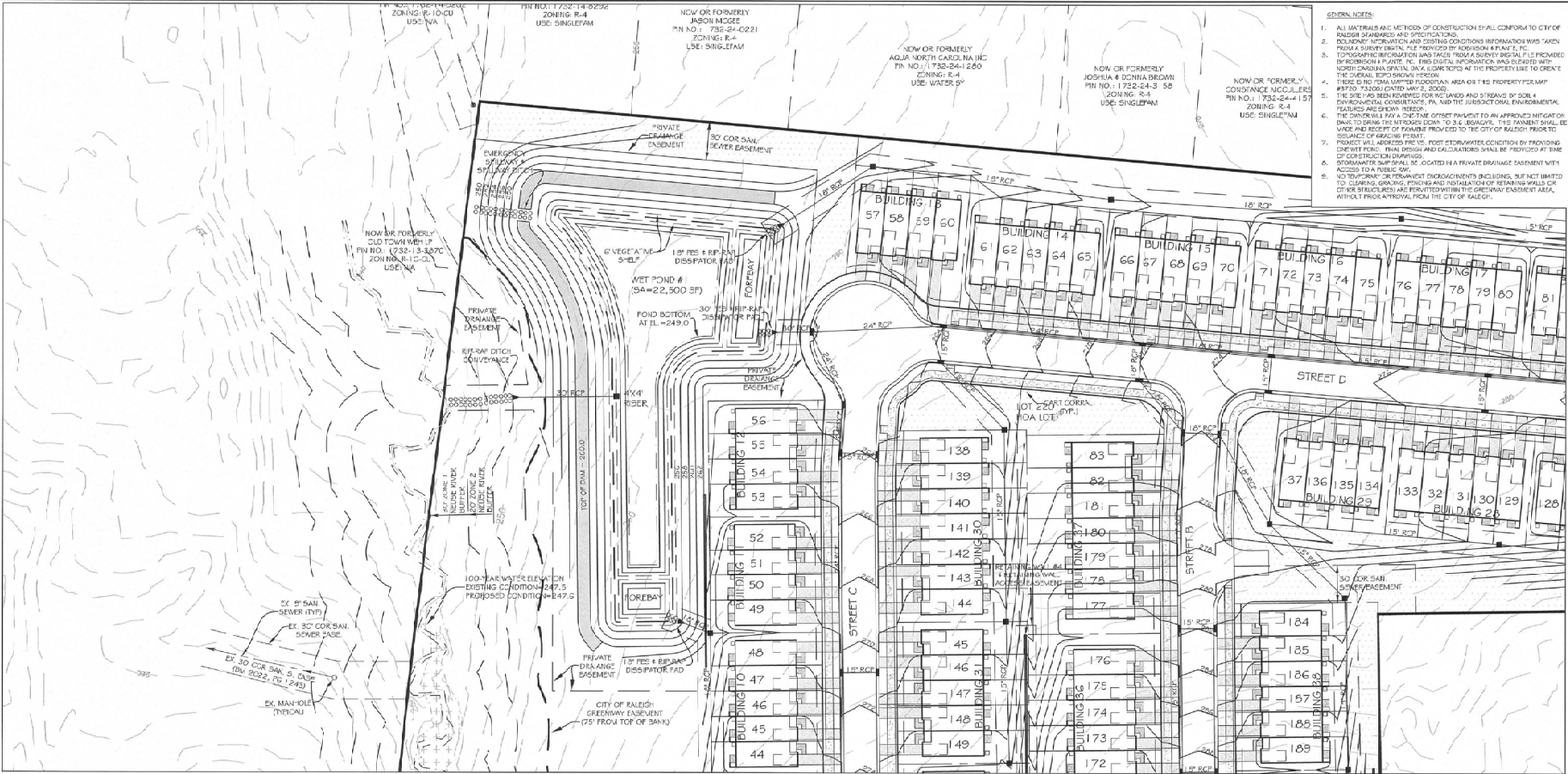
**Notes**  
 1. Maximum building height determined by taking the post-development average grade and adding 3 feet.  
 2. Proposed building height determined by taking the post-development average grade and adding 3 feet.

**PRELIMINARY PLANS  
NOT FOR CONSTRUCTION**

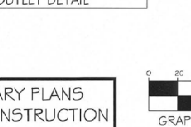
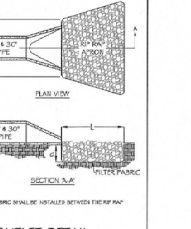
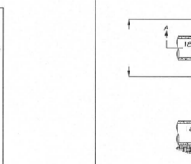
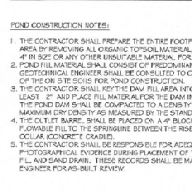
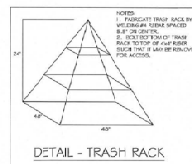
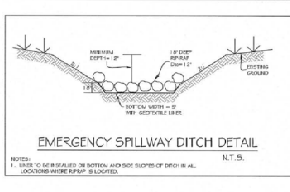
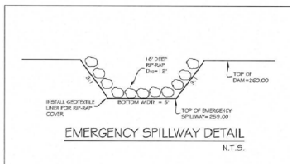
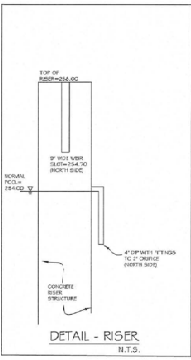
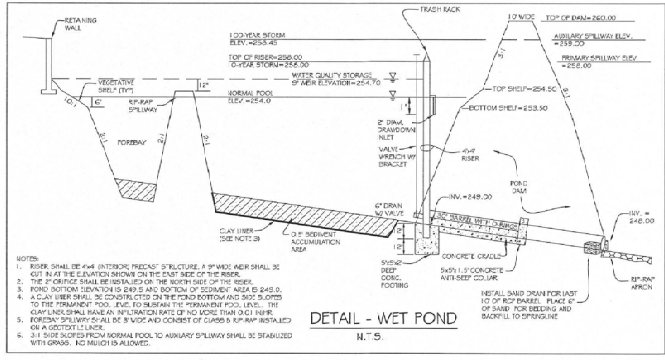


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SUB-0038-2024

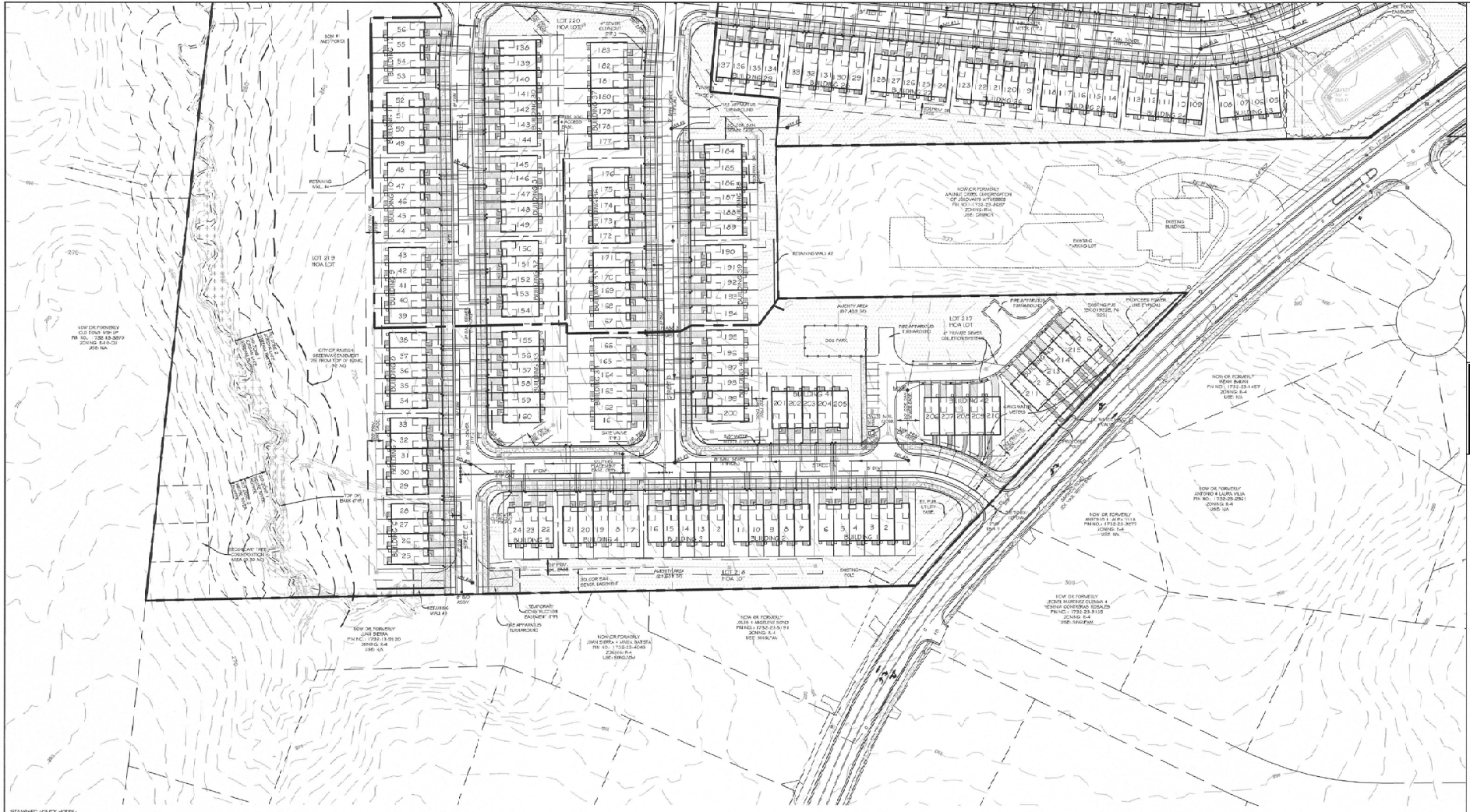


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Registration: F-0151  
www.jonescossen.com



**PRELIMINARY PLANS NOT FOR CONSTRUCTION**





**STANDARD UTILITY NOTES:**

1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS. DETAILS & SPECIFICATIONS REFERENCE: CSDPFD - HANDBOOK, CURRENT EDITION.
2. UTILITY SEPARATION REQUIREMENTS:
  - a. A DISTANCE OF 100 SHALL BE MAINTAINED BETWEEN SANITARY SEWERS & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN UNPROTECTED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, PROTECTIVE SANITARY SEWERS PROTECTIVE WALLS SHALL BE INSTALLED TO MAINTAIN SEPARATION. HOWEVER, THE MINIMUM SEPARATION ON GRADE SHALL BE AT LEAST 20 FEET FROM A PRIVATE WELL OR 30 FEET FROM A PUBLIC WELL.
  - b. WHEN INSTALLING WATER WORK SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10". IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE WATER MAIN IN A SEPARATE TRENCH WITH THE BOTTOM OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER. A 18" DEPTH APPROACH TO THE PUBLIC UTILITIES DEPARTMENT FOR ALL CONDUITS ARE REQUIRED FROM CONDUIT CONNECTOR TO CONDUIT CONNECTOR.
  - c. WHERE IT IS IMPROBABLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATERMAIN OR MATRIALS OR SITE. BACKFILLMENT SHOULD BE SPECIFIED ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO MAINTAIN SEPARATION.
  - d. A 50 MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES. UNLESS OTHERWISE SPECIFIED FOR SANITARY SEWER.
  - e. MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL INTERSECTIONS & REF. STORM DRAIN CROSSINGS. MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & REF. STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATION CANNOT BE ACHIEVED, DEPTH OF WATER MAIN & A CONCRETE OR CAST-IN-PLACE CONCRETE CURB SHALL BE PROVIDED TO MAINTAIN SEPARATION.
  - f. ALL OTHER UNDERGROUND UTILITIES SHALL MAINTAIN A MINIMUM VERTICAL SEPARATION OF 18" FROM SANITARY SEWER.
  3. NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF THE PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
  4. CONTRACTORS SHALL PROTECT EXISTING UTILITIES AND STRUCTURES WITHIN THE PROJECT AREA. ALL UTILITIES SHALL BE IDENTIFIED THROUGH THE PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
  5. CONTRACTORS SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES IN PROXIMITY TO THE PROJECT. ADEQUATE NOTICE SHALL BE PROVIDED BY A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
  6. A 30 MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER PIPES. UNLESS OTHERWISE SPECIFIED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES MAINTAINING TAP W/ A MINIMUM OF 36" COVER FROM FINISH GRADE TO PERCEPTION OF PROXIMITY DEPARTMENT.
  7. NORMAL 6" COVER WATER SERVICES WITH METERS LOCATED AT NEW OR EXISTING A 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. NOTE: IT IS THE APPLICATOR'S RESPONSIBILITY TO NOTIFY THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE COVER PROTECTION.
  8. A 30 MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER PIPES. UNLESS OTHERWISE SPECIFIED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES MAINTAINING TAP W/ A MINIMUM OF 36" COVER FROM FINISH GRADE TO PERCEPTION OF PROXIMITY DEPARTMENT.
  9. ALL ENVIRONMENTAL REGULATIONS AND REQUIREMENTS SHALL BE COMPLIED WITH. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH DESIGN STANDARDS. DETAILS & SPECIFICATIONS REFERENCE: CSDPFD - HANDBOOK, CURRENT EDITION.
  10. NOTIFICATION OF ANY ENVIRONMENTAL REGULATIONS AND REQUIREMENTS SHALL BE COMPLIED WITH. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH DESIGN STANDARDS. DETAILS & SPECIFICATIONS REFERENCE: CSDPFD - HANDBOOK, CURRENT EDITION.
  11. ALL ENVIRONMENTAL REGULATIONS AND REQUIREMENTS SHALL BE COMPLIED WITH. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH DESIGN STANDARDS. DETAILS & SPECIFICATIONS REFERENCE: CSDPFD - HANDBOOK, CURRENT EDITION.
  12. THE DESIGNER SHALL KEEP A RECORD OF ALL SANITARY SEWER ENGINEERING ASSESSMENTS OR BY CITY REQUIREMENT SPECIFIC TO THE PROJECT AREA.
  13. THE DESIGNER SHALL KEEP A RECORD OF ALL SANITARY SEWER ENGINEERING ASSESSMENTS OR BY CITY REQUIREMENT SPECIFIC TO THE PROJECT AREA.
  14. THE DESIGNER SHALL KEEP A RECORD OF ALL SANITARY SEWER ENGINEERING ASSESSMENTS OR BY CITY REQUIREMENT SPECIFIC TO THE PROJECT AREA.
  15. THE DESIGNER SHALL KEEP A RECORD OF ALL SANITARY SEWER ENGINEERING ASSESSMENTS OR BY CITY REQUIREMENT SPECIFIC TO THE PROJECT AREA.
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  20. THE DESIGNER SHALL KEEP A RECORD OF ALL SANITARY SEWER ENGINEERING ASSESSMENTS OR BY CITY REQUIREMENT SPECIFIC TO THE PROJECT AREA.

**GENERAL NOTES:**

1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS. BOUNDARY INFORMATION AND EXISTING CONDITIONS INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBSON & PLANT, PC.
2. TOPOGRAPHIC INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBSON & PLANT, PC. THIS DIGITAL INFORMATION WAS BLENDED WITH NORTH CAROLINA SPATIAL DATA (JUNIOR TOPO) AT THE PROJECT LINE TO CREATE THE OVERLAY TOPO SHOWN HEREON.
3. THERE IS NO FEMA FLOODPLAIN AREA ON THIS PROPERTY PER MAP #220121320 (DATED JULY 12, 2022).
4. THIS SITE HAS BEEN REVIEWED FOR WEEDS AND STRAWS BY SOIL & ENVIRONMENTAL CONSULTANTS, PA, AND THE JURISDICTIONAL ENVIRONMENTAL FEATURES ARE SHOWN HEREON.
5. INDIVIDUAL WATER METERS SHALL BE USED FOR THE TOWNHOME UNITS.
6. INDIVIDUAL SEWER SERVICES SHALL BE USED FOR THE TOWNHOME UNITS WITH EXCEPTION TO BUILDINGS 42 & 43 WHERE PRIVATE SEWER CONNECTION SYSTEMS WILL BE USED.
7. ALL SEWER AND WATER INFORMATION SHOWN HEREON IS APPROXIMATE. FINAL LOCATIONS SHALL BE PROVIDED ON THE CONSTRUCTION DRAWINGS.
8. CONTRACTOR SHALL COORDINATE THE LOCATION OF WATER AND SEWER SERVICES TO THE TOWN-ONE BUILDINGS WITH THE PLUMBING CONTRACTOR AND BUILDING PLANS.
9. CONTRACTOR SHALL NOTIFY NORTH CAROLINA ONE-CALL (1-800-632-4349) TO LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
10. TEMPORARY OR PERMANENT ENCROACHMENTS (INCLUDING BUT NOT LIMITED TO: CLEARING, GRADING, FENCING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES) ARE PERMITTED WITHIN THE GREENWAY EASEMENT AREA, WITHOUT PRIOR APPROVAL FROM THE CITY OF RALEIGH.

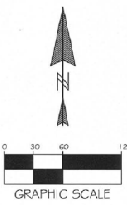
**ATTENTION CONTRACTORS:**

THE CONTRACTOR CONTRACTOR RESPONSIBLE FOR THE EXTENSION OF THE WATER AND SEWER, AS SPECIFIED IN THESE PLANS IS RESPONSIBLE FOR OBTAINING THE PUBLIC UTILITIES DEPARTMENT AT 315 S. SHELBY AND THE PUBLIC UTILITIES DEPARTMENT AT 315 S. SHELBY. ALL UTILITIES SHALL BE IDENTIFIED THROUGH THE PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.

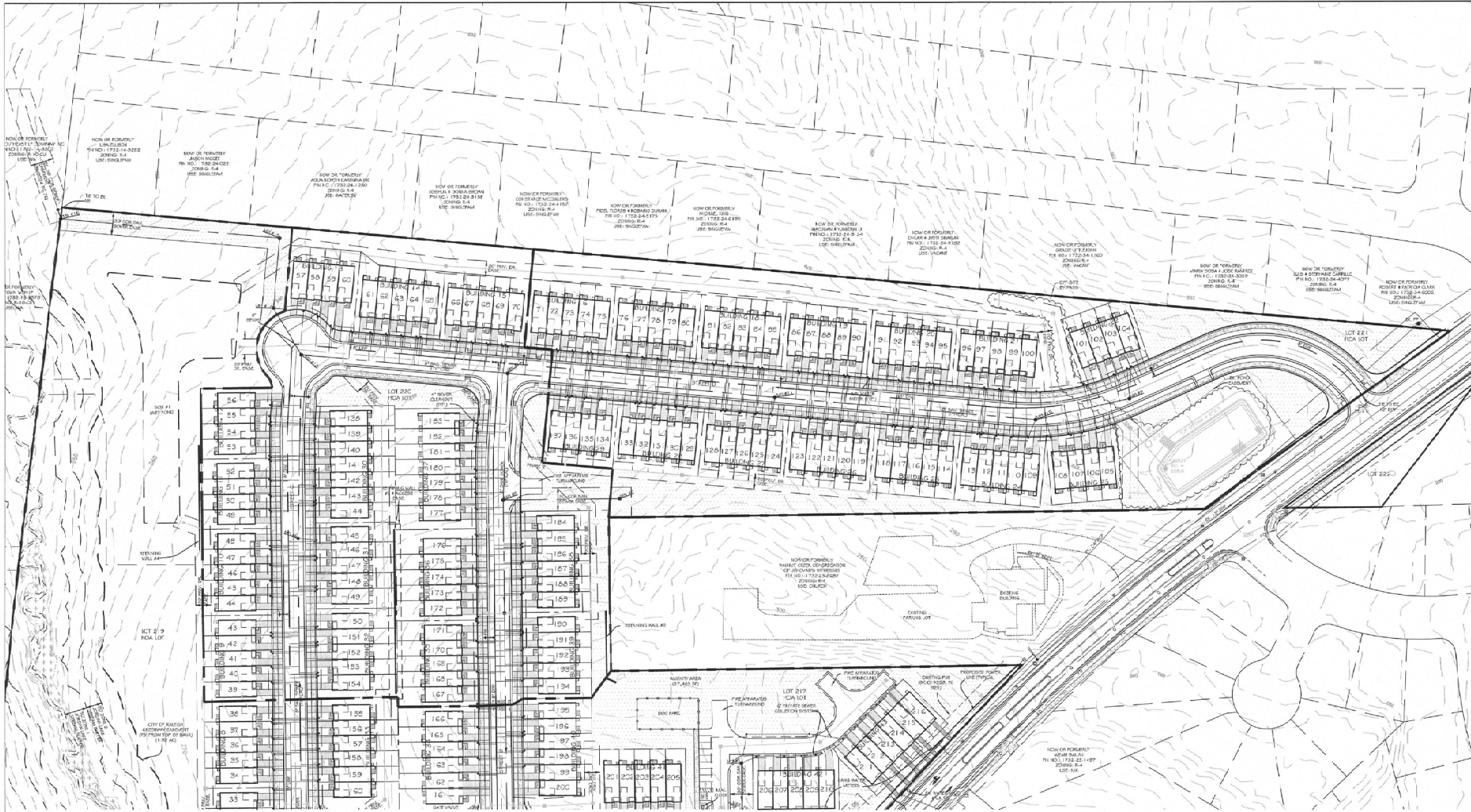
FAILURE TO NOTIFY BOTH CITY DEPARTMENTS IN ADVANCE OF BEGINNING CONSTRUCTION WILL RESULT IN THE CANCELLATION OF ANY WATER AND SEWER FACILITIES NOT INSTALLED AS A RESULT OF THIS NOTIFICATION FAILURE.

FAILURE TO CALL FOR INSPECTION, METERS & CONNECTIONS WILL BE REQUIRED REINSTALLATION OF ANY WATER OR SEWER FACILITIES NOT INSTALLED AS A RESULT OF THIS NOTIFICATION FAILURE.

**PRELIMINARY PLANS  
NOT FOR CONSTRUCTION**







- STANDARD UTILITY NOTES:**
1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CONCORD BARRACKS, CURRENT EDITION).
  2. UTILITY SEPARATION REQUIREMENTS:
    - a. A DISTANCE OF 10' (TOP TO TOP) SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ALL PRIVATE OR PUBLIC WATER SUPPLY SOURCE(S) SUCH AS AN UNPLUMBED RESIDUAL USE AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERRIS SANITARY SEWER PIPES SHALL BE SPECIFIED & INSTALLED TO MAINTAIN THE SPECIFICATED SEPARATION. THE MINIMUM SEPARATION SHALL BE 18" FOR ALL OTHER SEWER PIPES FROM A PRIVATE WELL (SEE "FROM A PUBLIC WELL").
    - b. WHEN INSTALLING WATER MAIN SERVICE LINES, THE MINIMUM SEPARATION BETWEEN UTILITIES SHALL BE 18". IF THIS SEPARATION CANNOT BE MAINTAINED (DUE TO THE ASSUMPTION ALLOWED IN THE WATER MAIN) IN A SEPARATE TRENCH WITH THE JOINDER OF THE WATER MAIN AS SHOWN BY ABOVE THE TOP OF THE SEWER PIPE MUST BE APPROVED BY THE PUBLIC UTILITIES DIVISION. ALL SEWER LINES ARE MARKED FROM CURBSIDE CAMELS TO CURBSIDE CAMEL.
    - c. WHERE IT IS NOT POSSIBLE TO OBTAIN PROPER SEPARATION, OR ANIMATE A SANITARY SEWER PASSES OVER A WATERMAIN, DP MATERIALS OR STEEL REINFORCING MUST BE SPECIFIED & INSTALLED TO MAINTAIN THE SPECIFICATIONS.
    - d. 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN SANITARY SEWER & 3" OR SMALLER WATER MAINS, UNLESS OTHERWISE SPECIFIED FOR SANITARY SEWERS.
    - e. MATERIALS (E.G. WIRE) USED FOR SEPARATION AT ALL WATERMAIN & SEWER TO OTHER GRAN CROSSINGS, MAINS, 18" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & HOT STEAM, STEAM CROSSINGS, WHOSE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SHALL BE OF MATERIALS & CONSTRUCTION MEETING ALL CITY OF RALEIGH STANDARDS (W-11 & 4-5-10).
  3. ALL UTILITIES SHALL BE MAINTAINED & REPAIRED IN ACCORDANCE WITH THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS.
  4. ANY REVISIONS TO THE PLAN SHALL BE SUBJECT TO REVIEW & APPROVAL BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
  5. DEVELOPER SHALL PROVIDE 24 HOUR ADVANCE NOTICE TO CONTACT RALEIGH CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT TO REQUEST A FIELD VISIT TO VERIFY THE LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.
  6. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICES TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE NOTICED BY 24 HOUR ADVANCE NOTICE TO THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT.
  7. A 3.0 MINIMUM COVER IS REQUIRED ON ALL WATERMANS & SEWER FORCE MAINS. A 0.6 MINIMUM COVER IS REQUIRED ON ALL COLLECTION MAINS.
  8. IF THE SEWER SERVICE IS PROVIDED BY THE CITY OF RALEIGH, THE SEWER SERVICE SHALL BE PROVIDED BY THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ADJOINING LOTS AT A PROPERTY OF SERVICE FROM SEWER SERVICE PROVIDED BY THE CITY OF RALEIGH.
  9. INITIAL SANITARY SEWER SERVICE WITH WATER MAIN SHALL BE PROVIDED WITHIN 100' FROM THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT. NOTES: IF THE APPLICANT'S RESPONSIBILITY TO PROVIDE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW PRESSURE.
  10. INITIAL SANITARY SEWER SERVICE AT 1.0 MINIMUM GRADE WITH 2.0' MINIMUM COVER LOCATED AT ROW OR GREENERY LINE & SPACED OVER THE UNDERGROUND MAINS.
  11. PRESSURE RECORDING VALVES ARE PROVIDED ON ALL WATER SERVICES EXCEPT 3/4" IPS. PRESSURE VALVES ARE PROVIDED ON ALL SANITARY SEWER SERVICES EXCEPT 12" AND LARGER. TRANSDUCERS SHALL BE LOCATED ABOVE THE NEXT UPSTREAM CONNECTION.
  12. ALL SANITARY SEWER SERVICES SHALL BE PROVIDED TO THE PROPERTY WITHIN THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS. THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS SHALL BE REFERRED TO FOR ALL SANITARY SEWER SERVICE REQUIREMENTS.
  13. ALL SANITARY SEWER SERVICES SHALL BE PROVIDED TO THE PROPERTY WITHIN THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS. THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS SHALL BE REFERRED TO FOR ALL SANITARY SEWER SERVICE REQUIREMENTS.
  14. ALL SANITARY SEWER SERVICES SHALL BE PROVIDED TO THE PROPERTY WITHIN THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS. THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS SHALL BE REFERRED TO FOR ALL SANITARY SEWER SERVICE REQUIREMENTS.
  15. THE DEVICES SHALL BE INSTALLED AND TESTED BOTH BEFORE AND AFTER CONSTRUCTION IN ACCORDANCE WITH THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS. THE CITY OF RALEIGH STANDARDS & SPECIFICATIONS SHALL BE REFERRED TO FOR ALL SANITARY SEWER SERVICE REQUIREMENTS.
  16. NOTICE FOR PROJECTS WITH REPAIRED OR OVERSIZED MAINS: IF THE CITY'S REQUIREMENT FOR AN OVERSIZED MAIN OR MAINS MAIN REPAIR/REPLACE PROJECT IS 36" OR GREATER, THE PROJECT MUST BE PUBLISHED.

- GENERAL NOTES:**
1. ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO CITY OF RALEIGH STANDARDS AND SPECIFICATIONS.
  2. BOUNDARY INFORMATION AND EXISTING CONDITIONS INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & FLUETTE, P.C.
  3. TOPOGRAPHY INFORMATION WAS TAKEN FROM A SURVEY DIGITAL FILE PROVIDED BY ROBINSON & FLUETTE, P.C. THIS DIGITAL INFORMATION WAS BLENDING WITH NORTH CAROLINA SPATIAL DATA (TOP) AT THE PROPERTY LINE TO CREATE THE OVERLAY TOPO SHOWN HEREON.
  4. THERE IS NO FLOOD HAZARD FLOODPLAIN AREA ON THIS PROPERTY PER MAP #220173300K (DATED JULY 12, 2022).
  5. THE SITE HAS BEEN REVIEWED FOR HAZARDOUS AND STREAMS BY SOI, 4 ENVIRONMENTAL CONSULTANTS, PA AND THE JURISDICTIONAL ENVIRONMENTAL FEATURES ARE SHOWN HEREON.
  6. INDIVIDUAL WATER METERS SHALL BE USED FOR THE TOWNHOME UNITS.
  7. INDIVIDUAL SEWER SERVICES SHALL BE USED FOR THE TOWNHOME UNITS WITH EXCEPTION TO BUILDINGS 42 & 43 WHERE PRIVATE SEWER CONNECTIONS WILL BE USED.
  8. ALL SEWER AND WATER INFORMATION SHOWN HEREON IS APPROXIMATE. FINAL LOCATIONS SHALL BE PROVIDED ON THE CONSTRUCTION DRAWINGS.
  9. CONTRACTOR SHALL COORDINATE THE LOCATION OF WATER AND SEWER SERVICES TO THE TOWNHOME BUILDINGS WITH THE PLUMBING CONTRACTOR AND BUILDING PLANS.
  10. CONTRACTOR SHALL NOTIFY NORTH CAROLINA ONE-CALL (1-800-662-4349) TO LOCATE ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION.
  11. NO TEMPORARY OR PERMANENT ENCROACHMENTS INCLUDING, BUT NOT LIMITED TO, CLEARING, GRADING, PILING AND INSTALLATION OF RETAINING WALLS OR OTHER STRUCTURES ARE PERMITTED WITHIN THE GREENWAY DISCUSS AREA, WITHOUT PRIOR APPROVAL FROM THE CITY OF RALEIGH.

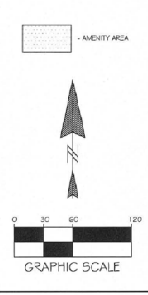
**ATTENTION CONTRACTOR:**

THE CONSTRUCTION CONTRACTOR RESPONSIBLE FOR THE DESIGN OF THE WATER AND SEWER SERVICE IS RESPONSIBLE FOR OBTAINING THE PUBLIC UTILITIES DEPARTMENT'S APPROVAL OF THE "PUBLIC UTILITIES DEPARTMENT" IN ORDER TO OBTAIN THE 24 HOURS PRIOR TO BEGINNING ANY OTHER CONSTRUCTION.

\*PLEASE TO NOTIFY BOTH CITY DEPARTMENTS IN ADVANCE OF BEGINNING CONSTRUCTION. FAILURE TO NOTIFY BOTH DEPARTMENTS WILL RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND REQUIRE RE-EVALUATION OF ANY WATER OR SEWER FACILITIES NOT NOTICED AS A RESULT OF THIS NOTIFICATION FAILURE.

\*PLEASE TO NOTIFY BOTH CITY DEPARTMENTS IN ADVANCE OF BEGINNING CONSTRUCTION. FAILURE TO NOTIFY BOTH DEPARTMENTS WILL RESULT IN THE ISSUANCE OF A STOP WORK ORDER AND REQUIRE RE-EVALUATION OF ANY WATER OR SEWER FACILITIES NOT NOTICED AS A RESULT OF THIS NOTIFICATION FAILURE.

**PRELIMINARY PLANS NOT FOR CONSTRUCTION**



**Jones & Crossen**  
ENGINEERING, PLLC  
Civil Engineering | Construction Management | Land Planning

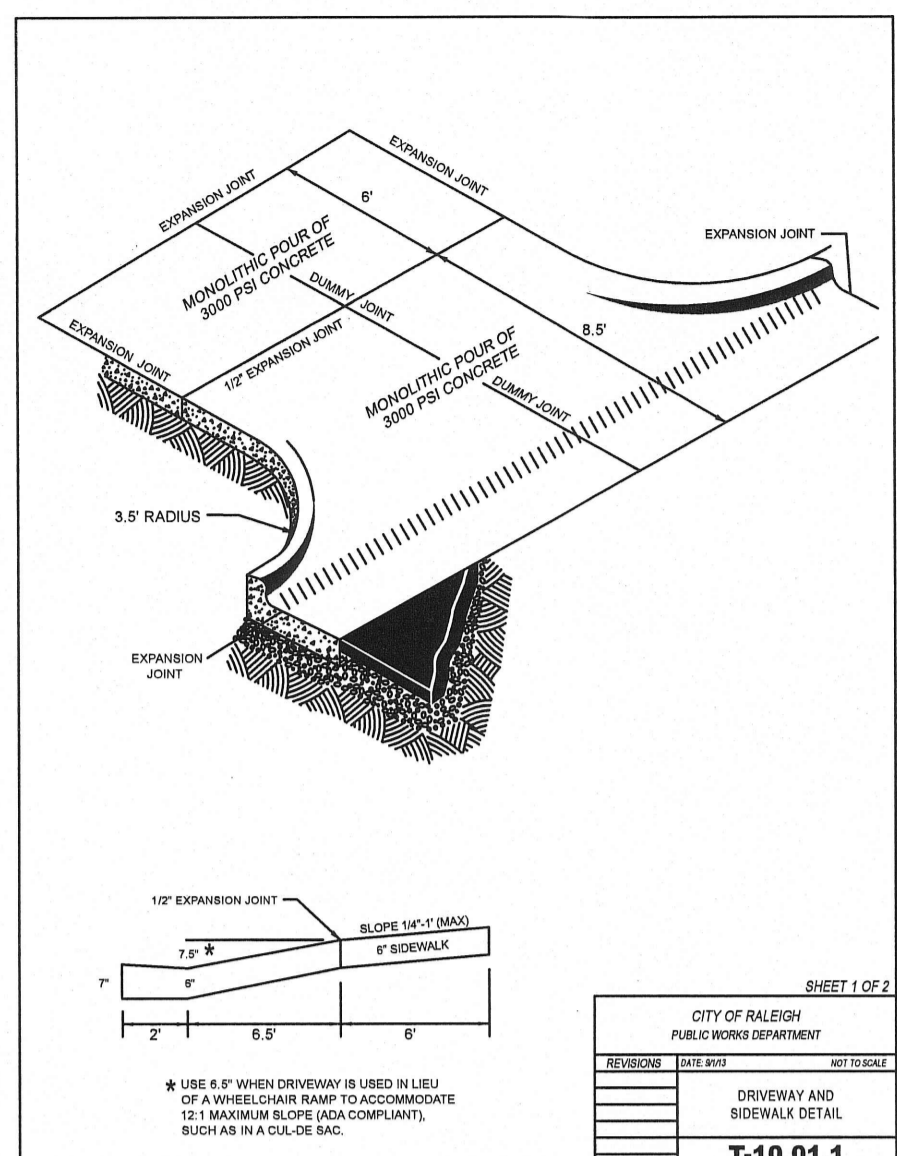
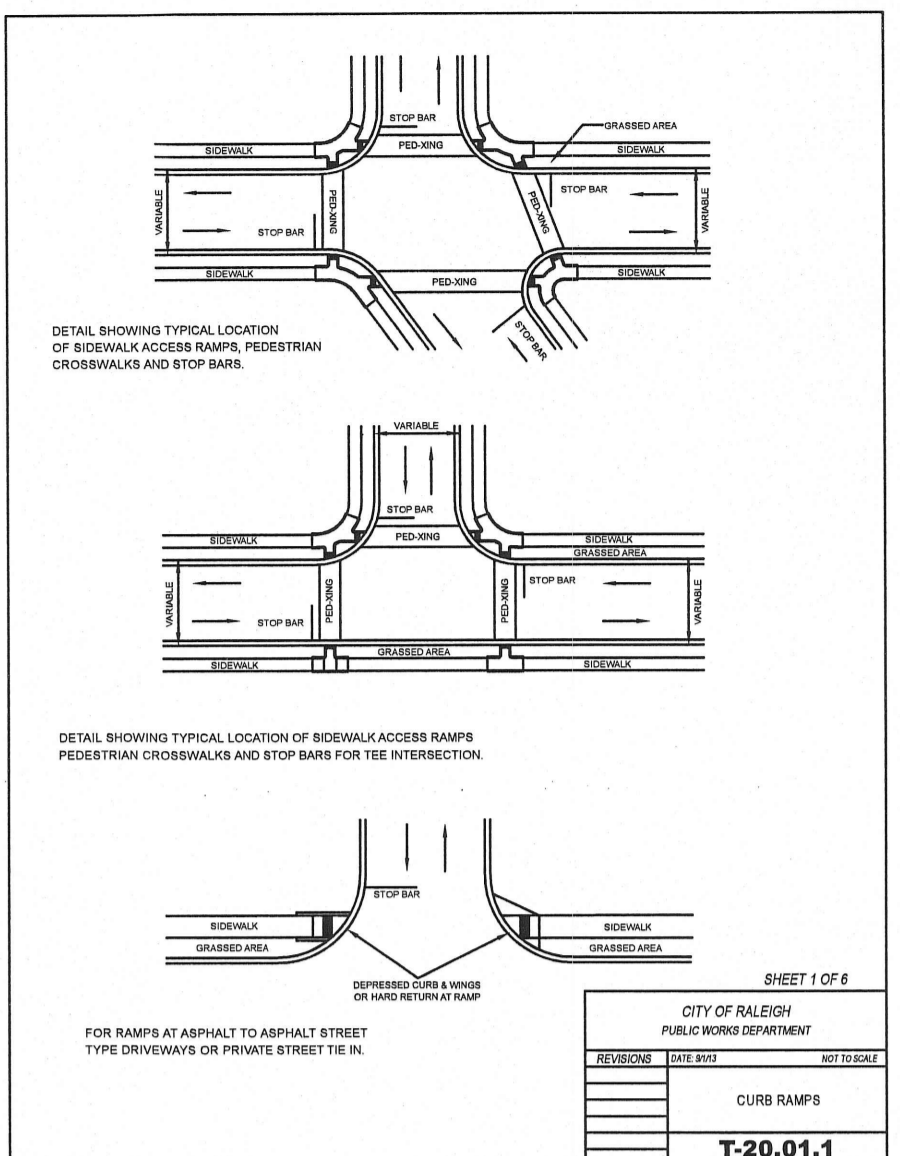
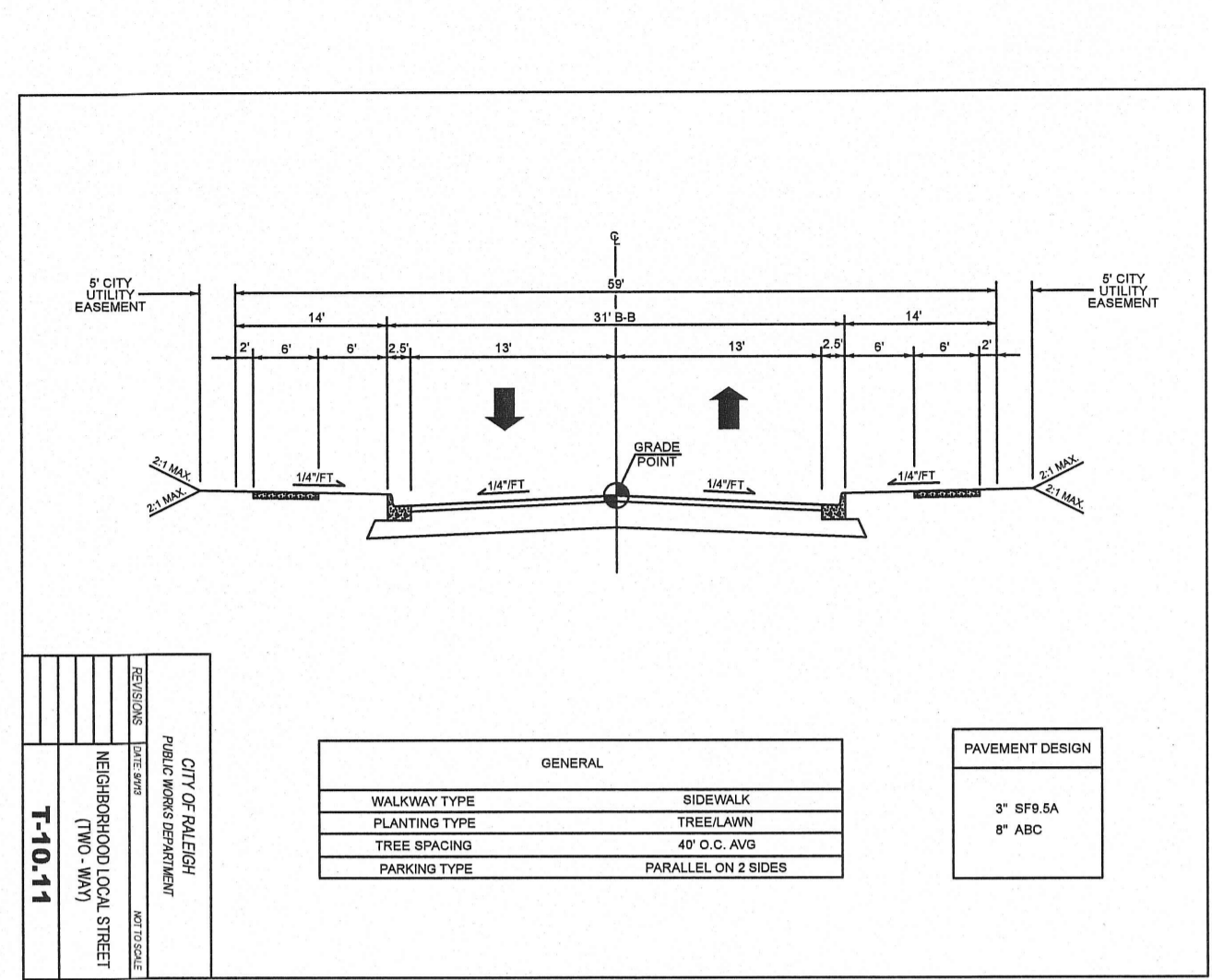
221 N SALEM ST.  
SUITE 801  
PO BOX 1962  
APEX NC 27502  
Office: 919.858.1124  
Registrator: P-0511  
www.jonescrossen.com

**SHALLCROSS PARK - PHASES 1-3**  
SUBDIVISION PLAN  
WAKE COUNTY, NORTH CAROLINA  
**PRELIMINARY UTILITY PLAN 2**

SUB-0038-2024

DATE	11-16-20	SCALE	1"=60'	PROJECT	FDC
DATE	JULY 17, 2024	SCALE		PROJECT	
DATE	05-04-24	SCALE		PROJECT	1st CYCLE REVIEW
DATE	11-16-24	SCALE		PROJECT	2nd CYCLE REVIEW
DATE		SCALE		PROJECT	12
DATE		SCALE		PROJECT	2348





**SEEDING SCHEDULE**  
(REVISED, 1-1-86)

**Shoulders, Side ditches, Slopes (Max. 3:1)**

DATE	TYPE	PLANTING RATE
Aug. 15 - Nov. 1	Tall Fescue	300 lbs. / acre
Nov. 1 - March 1	Tall Fescue and Abruzzi Rye	300 lbs. / acre
March 1 - April 15	Tall Fescue	25 lbs. / acre
April 15 - June 30	Hulled Common Bermudagrass	300 lbs. / acre
July 1 - Aug. 1	Tall Fescue and and Browtop Millet or Sorghum - Sudan Hybrids	25 lbs. / acre 35 lbs. / acre 30 lbs. / acre

**SLOPES (3:1 to 2:1)**

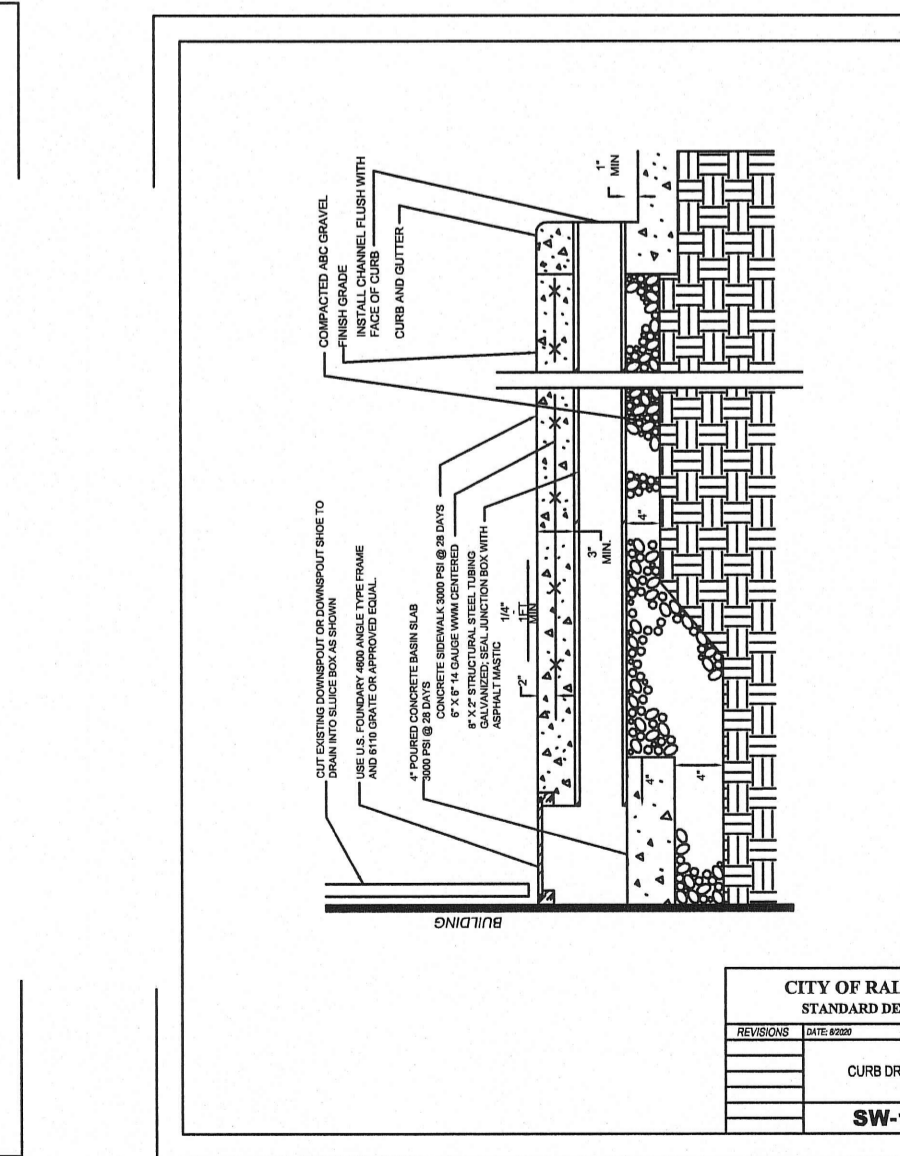
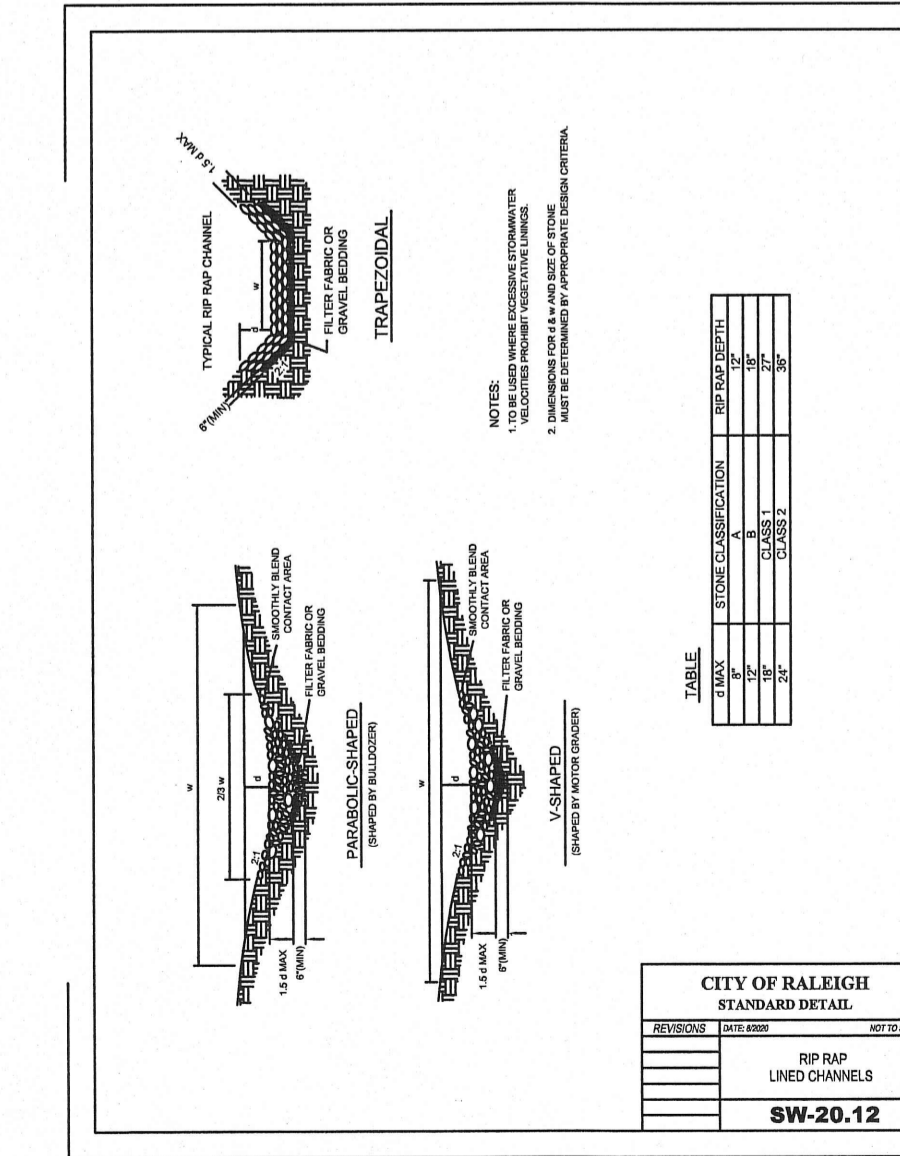
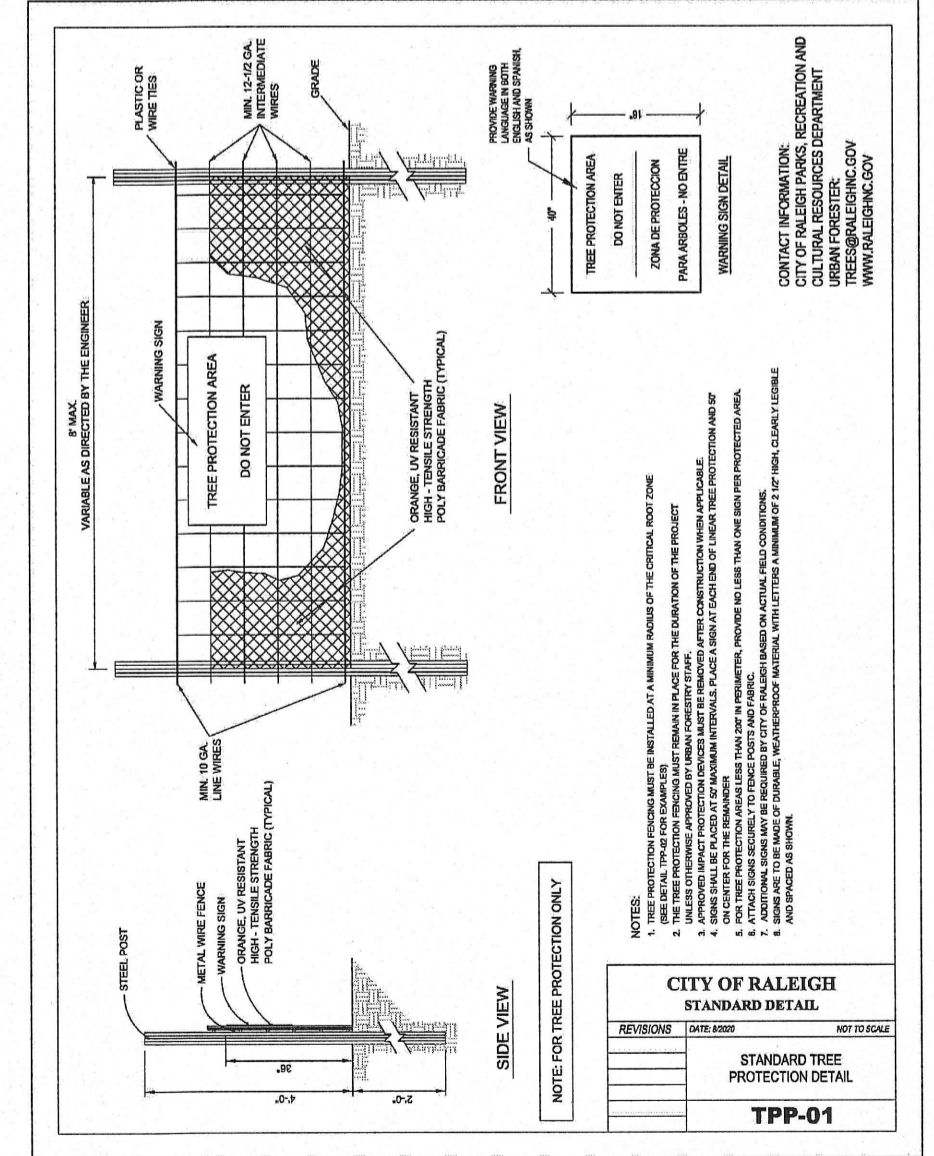
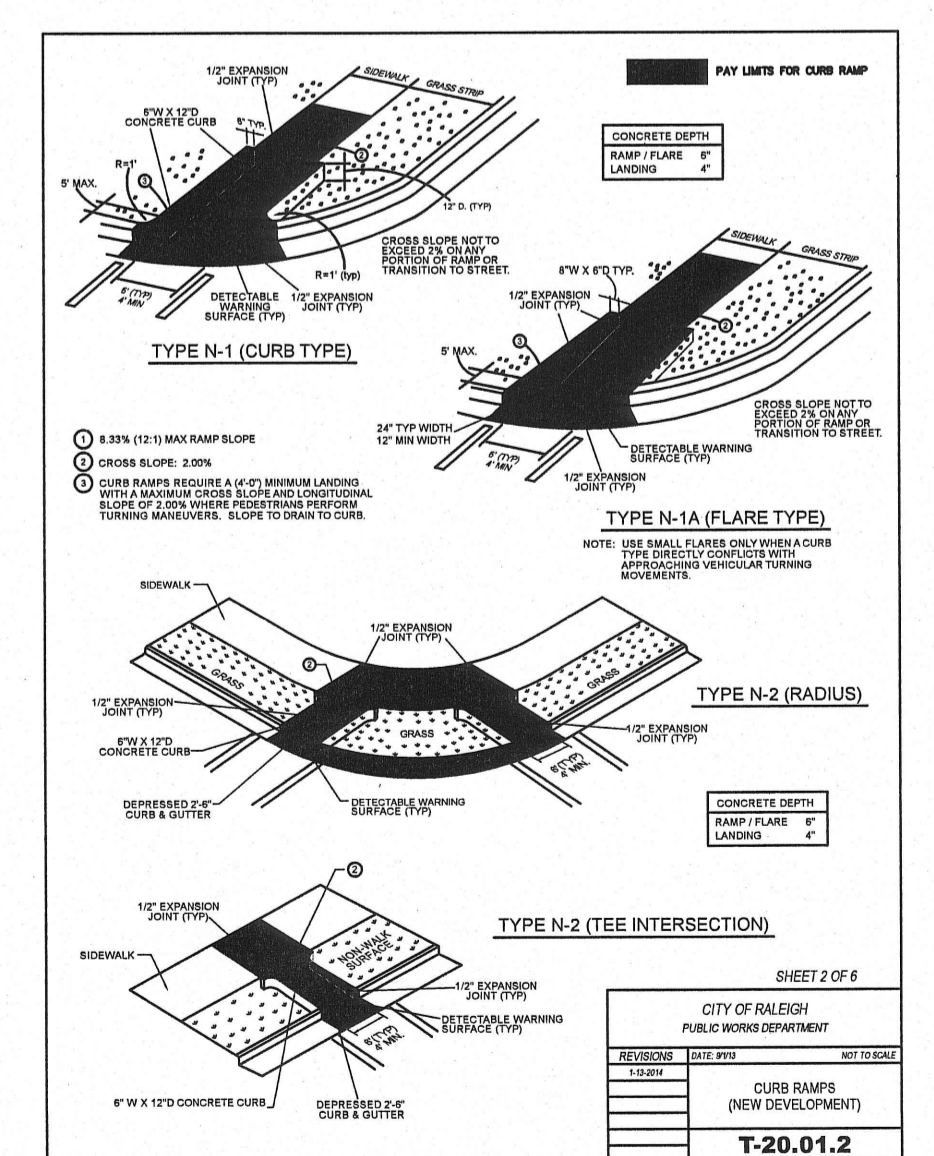
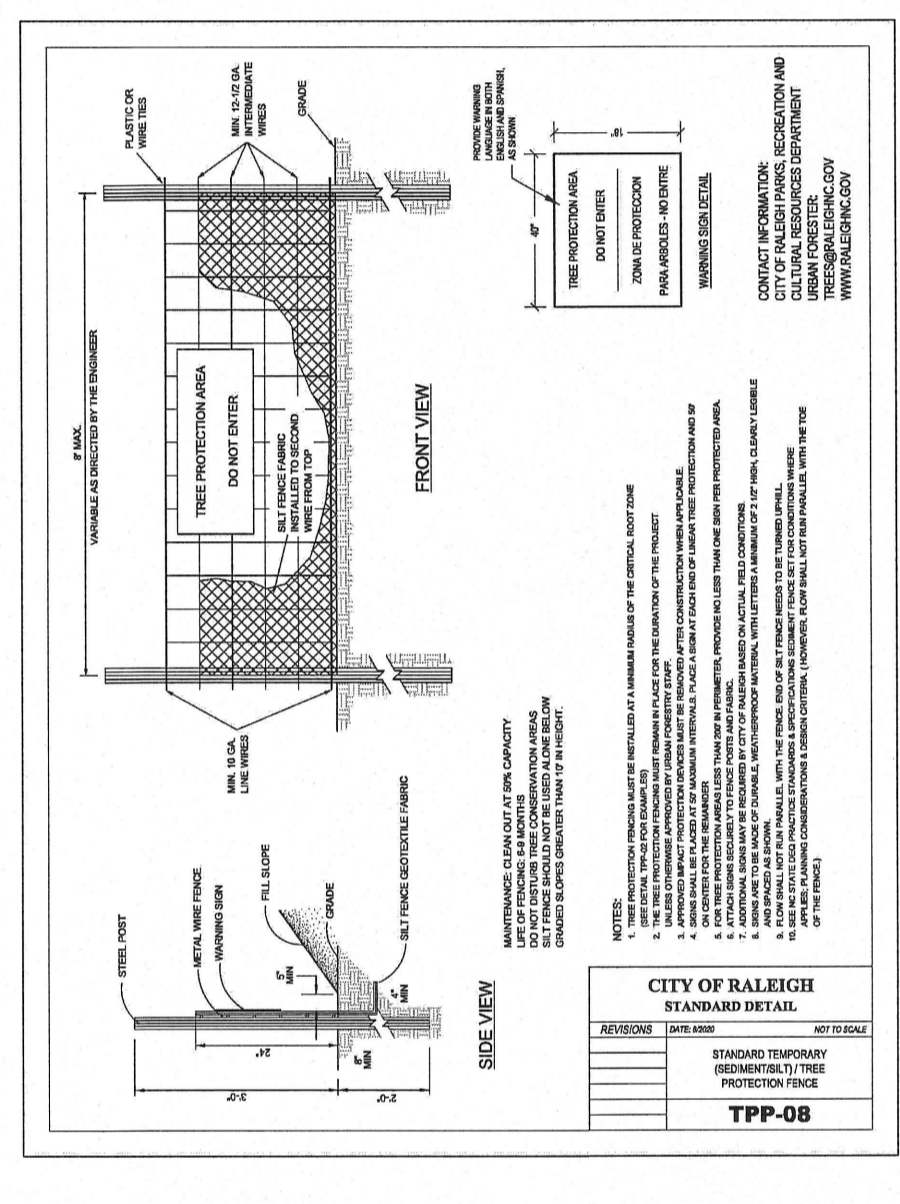
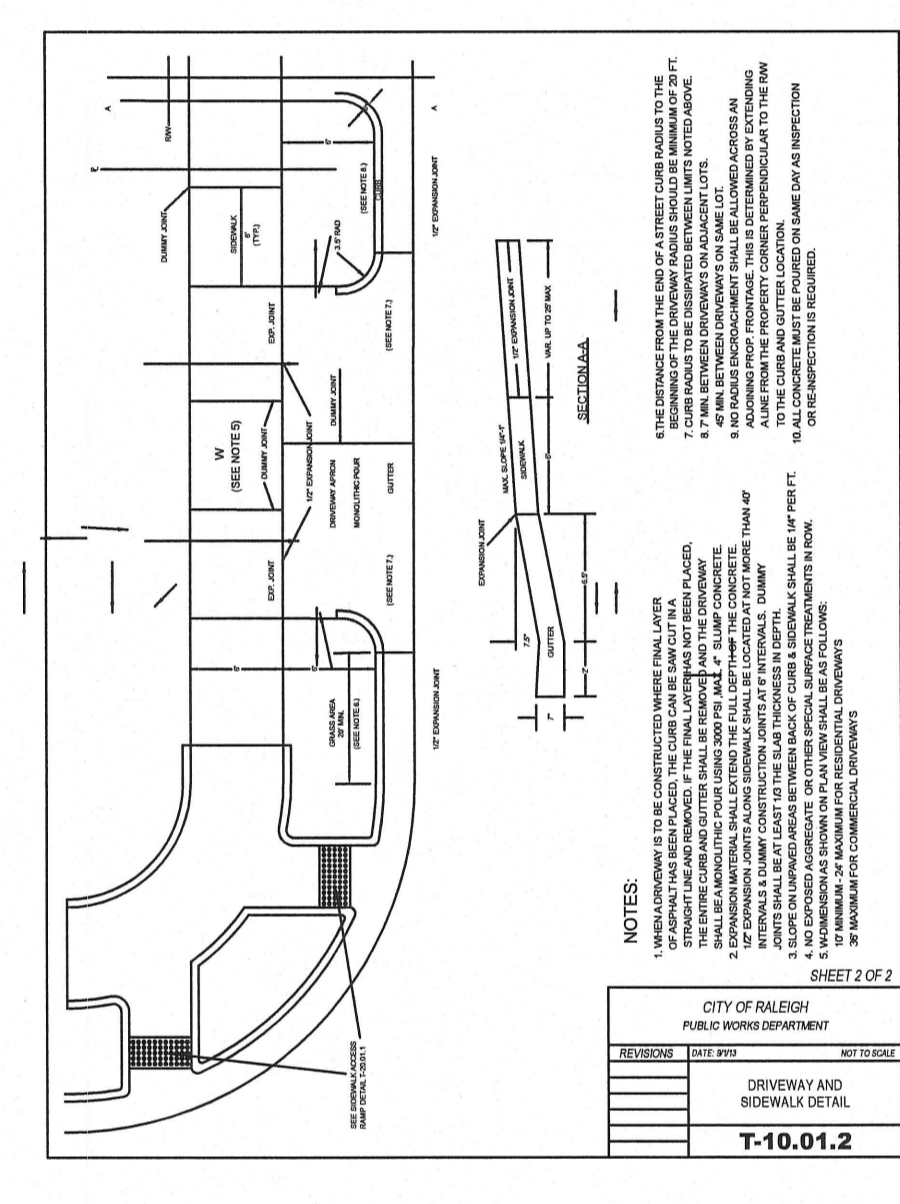
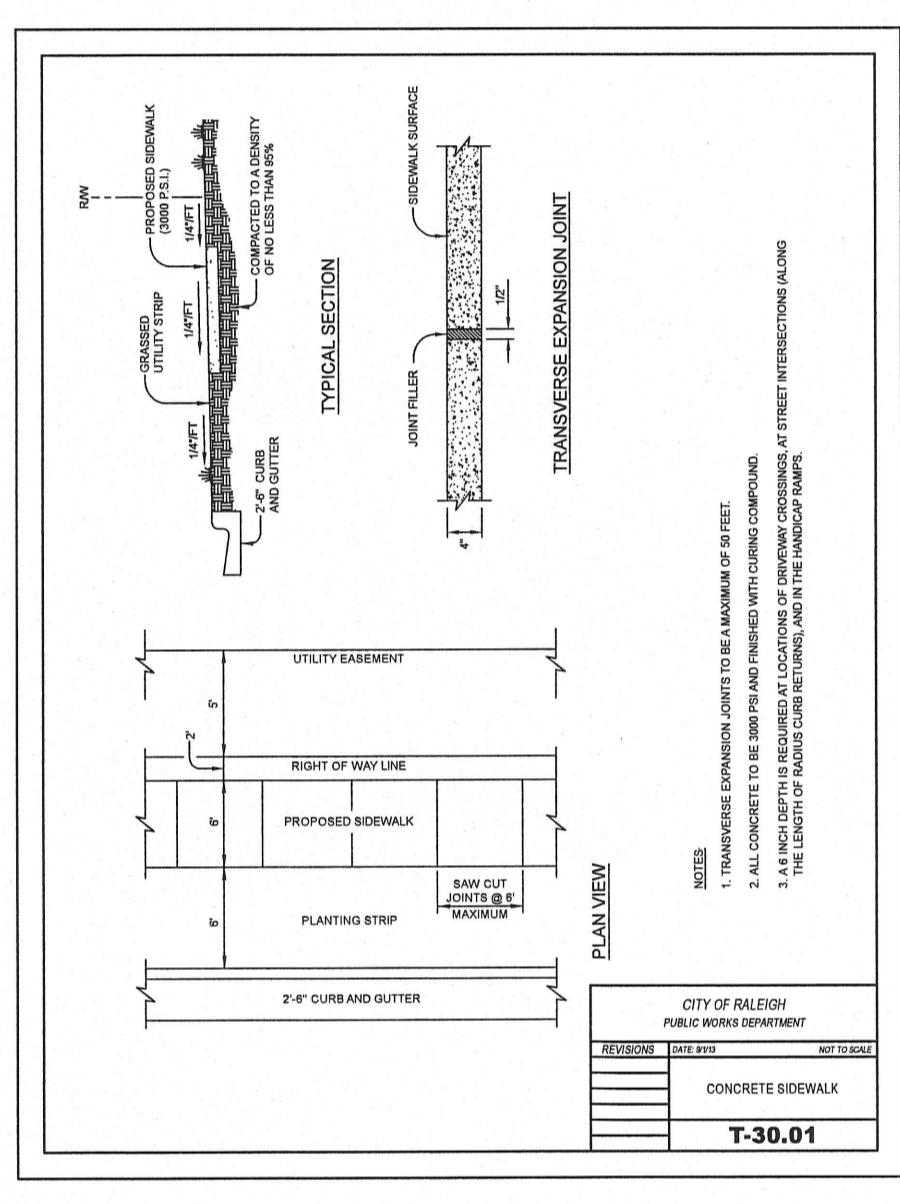
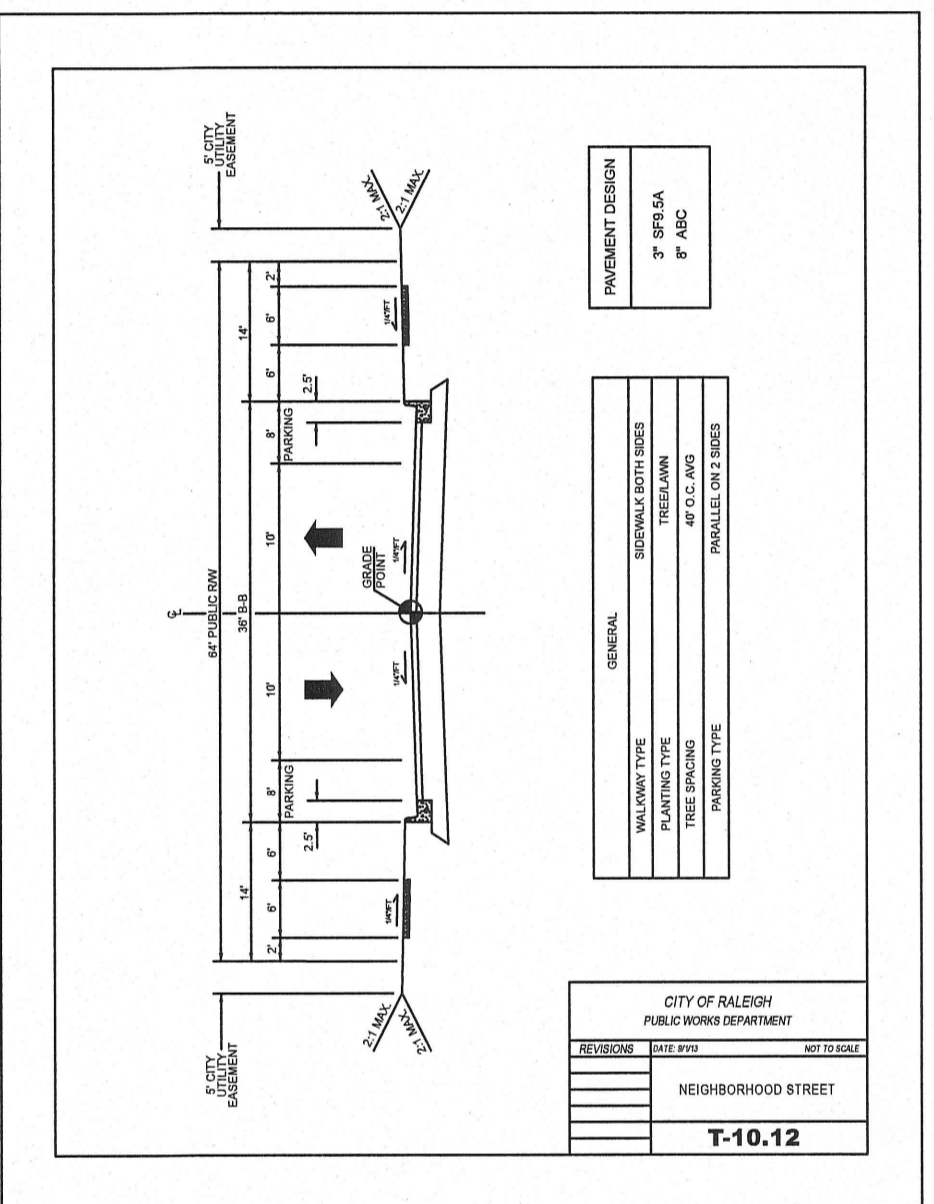
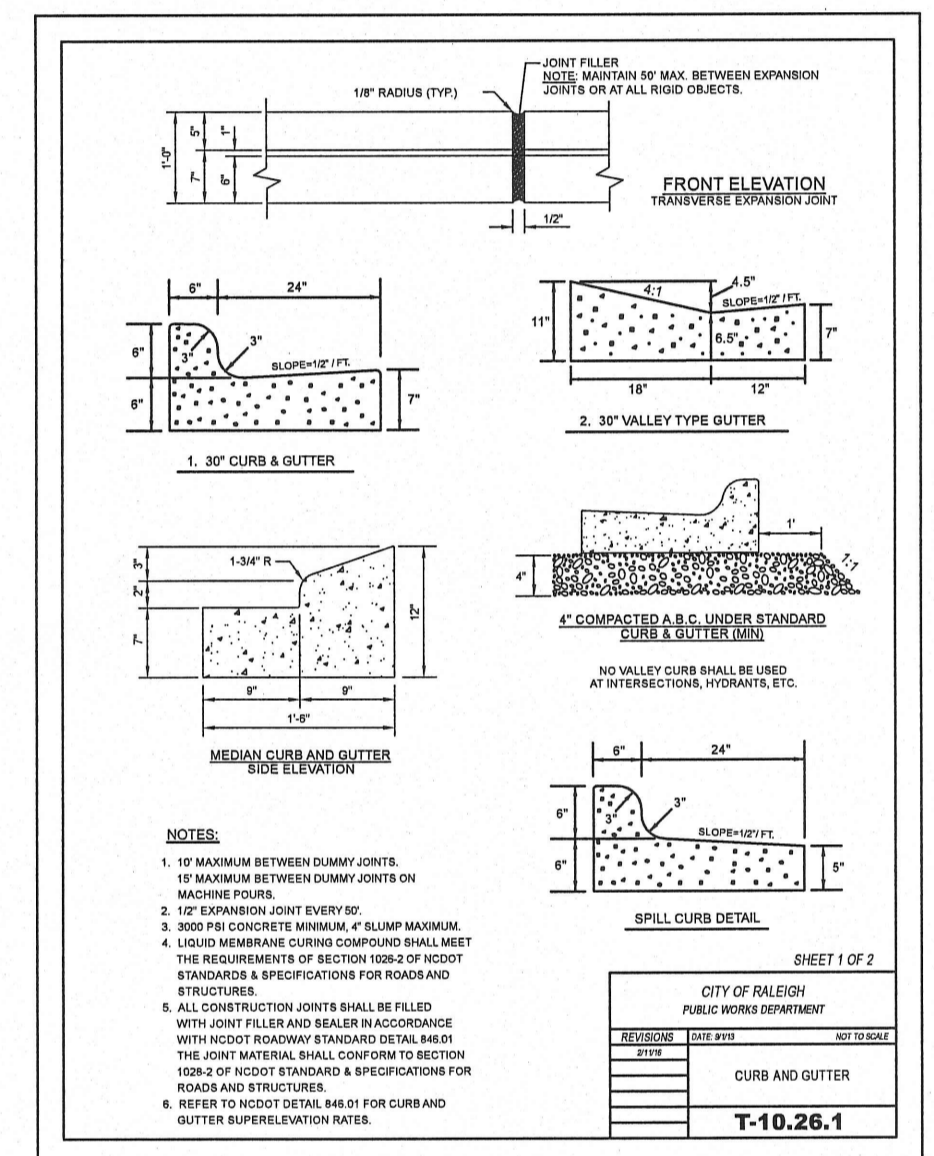
DATE	TYPE	PLANTING RATE
March 1 - June 1	Secoia Lespedeza (scarified) and	50 lbs. / acre
(March 1 - April 15)	Add Tall Fescue	120 lbs. / acre
(March 1 - June 30)	Or Add Weeping Lovegrass	10 lbs. / acre
(March 1 - June 30)	Or Add Hulled Common Bermudagrass	25 lbs. / acre
June 1 - Sept. 1	Tall Fescue and Browtop Millet or Sorghum - Sudan Hybrids	120 lbs. / acre 35 lbs. / acre 30 lbs. / acre
Sept. 1 - March 1	Secoia Lespedeza (unhulled - unscarified) and Tall Fescue	70 lbs. / acre 120 lbs. / acre
Nov. 1 - March 1	Add Abruzzi Rye	25 lbs. / acre

Consult Conservation Engineer or Soil Conservation Service for additional information concerning other alternatives for vegetation of denuded areas. The above vegetation rates are those which do well under local conditions; other seeding rate combinations are possible.

Reseed according to optimum season for desired perennate vegetation. Do not allow temporary cover to grow over 12" in height before mowing, otherwise fescue may be shaded out.

**SEEDBED PREPARATION**

- 1.) Chisel compacted areas and spread topsoil 3 inches deep over adverse soil conditions, if available.
  - 2.) Rip the entire area to 6 inches deep.
  - 3.) Remove all loose rock, roots, and other obstructions leaving surface reasonably smooth and uniform.
  - 4.) Apply agricultural lime, fertilizer, and superphosphate uniformly and mix with soil. (see below)
  - 5.) Continue tillage until a well-pulverized, firm, reasonably uniform seedbed is prepared 4 to 6 inches deep.
  - 6.) Seed on freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
  - 7.) Mulch immediately after seeding and anchor mulch.
  - 8.) Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be over 60% damaged, reestablish following original time, fertilizer, and seeding rates.
  - 9.) Consult Conservation Inspector for maintenance treatment and fertilization after permanent cover is established.
- Apply: Agricultural Limestone - 2 tons / acre (3 tons / acre in clay soils).  
Fertilizer - 1000 lbs. / acre 10-10-10. Superphosphate - 500 lbs. / acre - 20%.  
Mulch - 2 tons / acre - small grain straw. Anchor - Asphalt Emulsion @ 300 gals. / acre.



PRELIMINARY PLANS  
NOT FOR CONSTRUCTION

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ENGINEERING, PLLC

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Registration: P-0151  
www.jonescrossen.com

WAKE COUNTY, NORTH CAROLINA

SHALLCROSS  
SUBDIVISION PLAN

PRELIMINARY DETAILS SHEET

SCALE: NTS | PDG

DATE: JULY 17, 2024

PROVISION: 5/24/24 | 1st CYCLE REVIEW

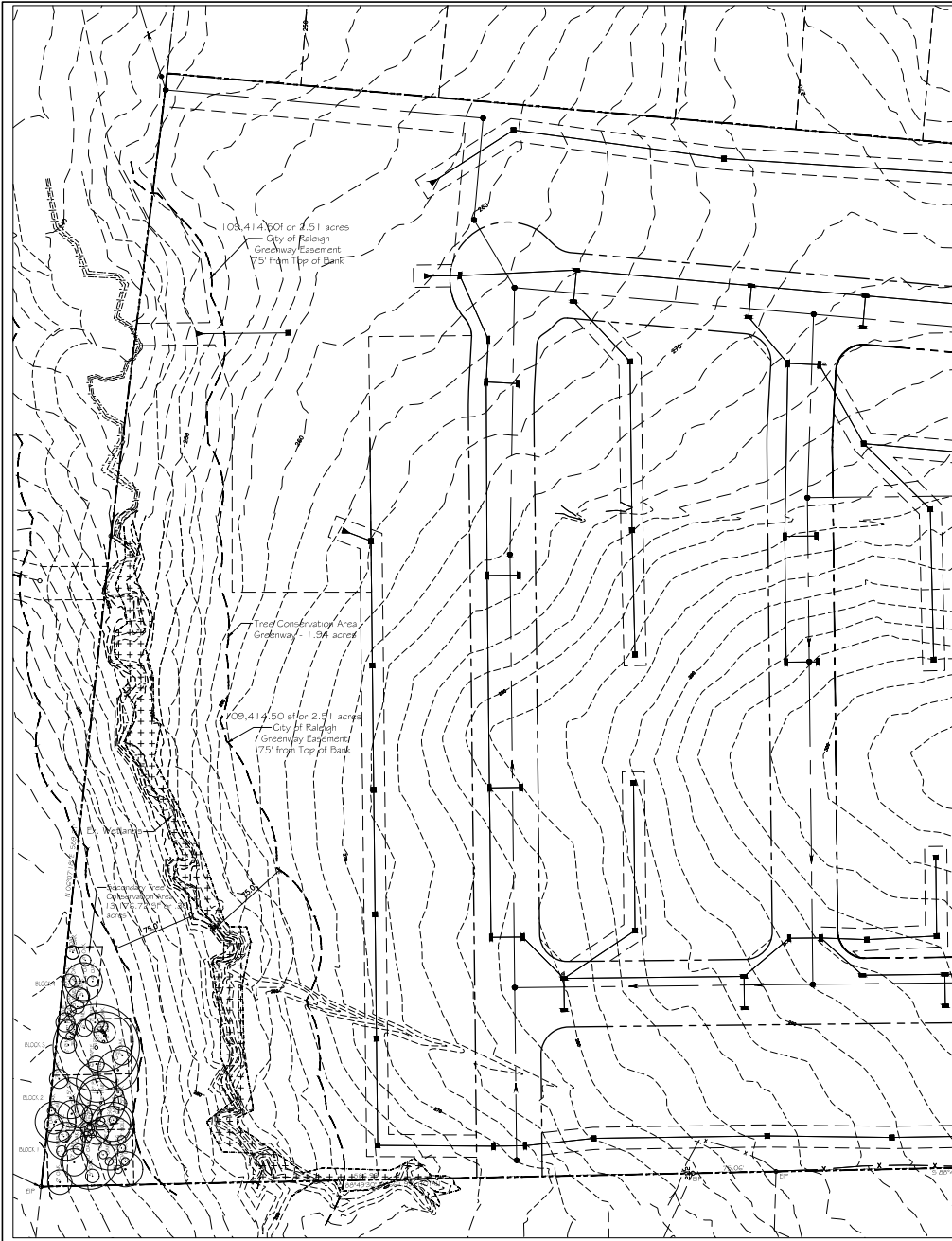
1/11/2024 | 2nd CYCLE REVIEW

SHEET: 13

PROJECT: 2348

SUB-0038-2024





**The Conservation Plan Data Sheet**  
 100' Wide 50' Tree Conservation

*(Include separate information on the plan sheet)*

Project Name: <u>Shallcross Park</u>	Gross Site Acres	
	36.85	ac
Right-of-way to be dedicated with this project:	8.54	ac
	21.81	ac

	Number	Percent
	Minimum	Maximum
<b>100' WIDE PRIMARY TREE CONSERVATION AREAS</b>		
1. Primary Tree Conservation Area - BMD 1	0	0%
2. Primary Tree Conservation Area - BMD 2	0	0%
3. Primary Tree Conservation Area - Parkway Edge	0	0%
4. Primary Tree Conservation Area - CM	0	0%
5. Primary Tree Conservation Area - BMD	0	0%
6. Primary Tree Conservation Area - Existing Tree 30' dbh or larger	0	0%
7. Primary Tree Conservation Area - Newer 6" dbh Tree 2	0	0%
8. Primary Tree Conservation Area - Throughline	0	0%
<b>Sum of Primary Tree Conservation Areas:</b>	0	0%
<b>100' WIDE TREE CONSERVATION AREA - OTHER</b>	1.94	5.3%
<b>100' WIDE 1.5 &amp; 6" SECONDARY TREE CONSERVATION AREAS</b> <i>(Include separate information for various tree species)</i>	3	1.4%
<b>100' WIDE 1.5 &amp; 6" SECONDARY TREE CONSERVATION AREAS</b> <i>(Include individual trees and their stems on plan sheet)</i>	0	0%
<b>Sum of Secondary Tree Conservation Areas:</b>	0	0%
<b>TOTAL ALL TREE CONSERVATION AREA PROVIDED:</b>	2.94	10.3%

100' WIDE WOODLAND PRESERVATION OVERLAY DESIGN	
WUPCO - Wooded Area (open)	0
WUPCO - Wooded Area (closed)	0
WUPCO - Wooded Area (open)	0
WUPCO - Wooded Area (open)	0
WUPCO - Wooded Area (open)	0
WUPCO - Wooded Area (open)	0
WUPCO - Wooded Area (open)	0

**TOTAL TREE CONSERVATION AREA REQUIRED:**  
 Total Gross Site Area = 1,169,631.34 SF or 26.85 acres  
 Total ROW - 219,539.45 SF or 5.04 acres  
 Net Site Area = 950,091.89 SF or 21.81 acres  
 x 10% = 95,009.19 SF or 2.18 acres required.

**CITY OF RALEIGH GREENWAY EASEMENT:**  
 109,414.50 SF (75' from top of bank)

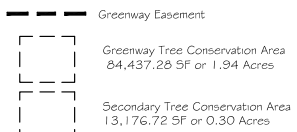
**TOTAL TREE CONSERVATION AREA PROVIDED:**  
**GREENWAY TREE CONSERVATION AREA:**  
 109,414.50 SF (entire area of 75' COR Greenway Easement)  
 Minus 22,652.5 SF (for trail construction) and 2,324.72 SF (for storm easement)  
 109,414.50 - 24,977.22 = **84,437.28 SF or 1.94 SF provided**

**GREENWAY TREE CONSERVATION AREA EXCLUDES:**  
 - Ex. Storm Easement - 2,324.72 SF  
 - Length of water body x 25 - 906.11 ft x 25 = 22,652.5 SF  
 - Total Area Excluded: 22,652.5 + 2,324.72 = 24,977.22 SF or .57 acres

**SECONDARY TREE CONSERVATION AREA:**  
 Secondary TCA Provided: = **13,176.72 SF or 0.30 acres**

**TOTAL TREE CONSERVATION PROVIDED:**  
**84,437.28 SF + 13,176.72 SF = 97,614 SF / 2.24 acres**

Total TCA Required: 95,009.19 SF / 2.18 acres  
 Total TCA Provided: 97,614 SF / 2.24 acres



No temporary or permanent encroachments (including but not limited to cleaning, 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.

**BLOCK 1**  
 COMPOSITION: MIXED STAND OF 19+ TREES: OAK, MAPLE, HOLLY, SWEET GUM  
 CHARACTERISTICS OF TREE STAND: MOSTLY HARDWOOD, SLOPING  
 SMALLEST CALIPER TREE: 3"  
 LARGEST DBH: 20"  
 TYPICAL DBH: 4"  
 TYPICAL SPACING: 15'-20'  
 BASAL AREA CALCULATION / ACRE: 93.78  
 GENERAL HEALTH: GOOD

**BLOCK 2**  
 COMPOSITION: MIXED STAND OF 18+ TREES: OAK, MAPLE, PINE, SWEET GUM  
 CHARACTERISTICS OF TREE STAND: MOSTLY HARDWOOD, SLOPING  
 SMALLEST CALIPER TREE: 3"  
 LARGEST DBH: 16"  
 TYPICAL DBH: 7"  
 TYPICAL SPACING: 15'-20'  
 BASAL AREA CALCULATION / ACRE: 128.87  
 GENERAL HEALTH: GOOD

**BLOCK 3**  
 COMPOSITION: MIXED STAND OF 14+ TREES: PINE, MAPLE, OAK, SWEET GUM  
 CHARACTERISTICS OF TREE STAND: MOSTLY HARDWOOD, SLOPING  
 SMALLEST CALIPER TREE: 3"  
 LARGEST DBH: 32"  
 TYPICAL DBH: 7"  
 TYPICAL SPACING: 15'-20'  
 BASAL AREA CALCULATION / ACRE: 149.67  
 GENERAL HEALTH: GOOD

**BLOCK 4**  
 COMPOSITION: MIXED STAND OF 11+ TREES: OAK, HOLLY, PINE  
 CHARACTERISTICS OF TREE STAND: MOSTLY HARDWOOD, SLOPING  
 SMALLEST CALIPER TREE: 4"  
 LARGEST DBH: 14"  
 TYPICAL DBH: 5"  
 TYPICAL SPACING: 15'-20'  
 BASAL AREA CALCULATION / ACRE: 51.29  
 GENERAL HEALTH: GOOD

**TREE CONSERVATION PLAN**

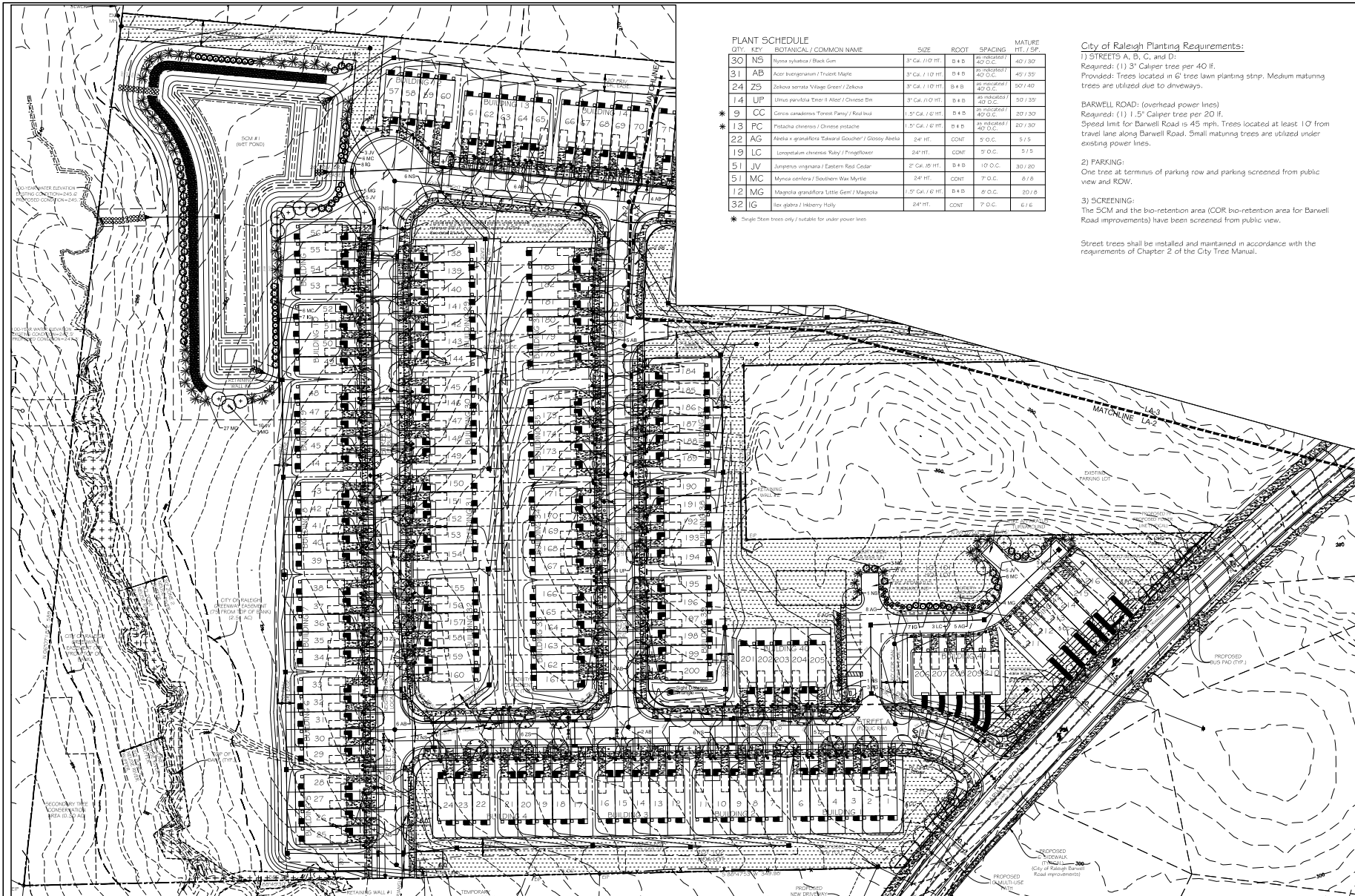


Date Issued: 7.17.24

Scale	1"=50'
By: RBS	
Drawn by: KJS	
Checked by: KJS	

**Revisions**

No.	Description	Date
1	Per City Comments 10.25.24	KJS
2	Per City Comments 11.19.24	KJS



**PLANT SCHEDULE**

QTY	KTY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	MATURE HT. / SP.
50	NS	Nymphaeaceae / Black Gum	3" Cal. / 10' HT.	2" x 2"	40' x 20' (20' x 20')	40' / 30'
31	AB	Acer balsamifolium / Trident Maple	3" Cal. / 10' HT.	2" x 2"	40' x 20' (20' x 20')	40' / 30'
24	ZS	Zelkova serrata / Village Green / Zelkova	3" Cal. / 10' HT.	2" x 2"	40' x 20' (20' x 20')	50' / 40'
14	UP	Ulmus parvifolia / European Elm / Chinese Elm	3" Cal. / 10' HT.	2" x 2"	40' x 20' (20' x 20')	30' / 20'
9	CC	Cercis canadensis / Red Flower / Red bud	3" Cal. / 10' HT.	2" x 2"	40' x 20' (20' x 20')	30' / 30'
13	PC	Potamogeton pectinatus / Chinese potatoe	3" Cal. / 10' HT.	2" x 2"	40' x 20' (20' x 20')	30' / 30'
22	AG	Abies x grandiflora / Edward Goucher / Glossy Aceda	2" x 2"	CONC.	5' O.C.	5' / 5'
19	LC	Limonium stramonium / Ruby / Ringflower	2" x 2"	CONC.	5' O.C.	5' / 5'
5	JV	Juncus virginiana / Eastern Red Cedar	2" Cal. / 10' HT.	2" x 2"	10' O.C.	30' / 30'
1	MC	Myrica caroliniana / Southern Wax Myrtle	2" Cal. / 10' HT.	CONC.	7' O.C.	6' / 6'
12	MG	Magnolia grandiflora Little Gem / Magnolia	2" Cal. / 10' HT.	2" x 2"	5' O.C.	25' / 2'
32	IG	Ilex glabra / Holly	2" Cal. / 10' HT.	CONC.	7' O.C.	6' / 6'

\* Single stem trees only / suitable for power pole lines

**City of Raleigh Planting Requirements:**

1) **STREETS A, B, C, and D:**  
 Required: (1) 3" Caliper tree per 40 lf.  
 Provided: Trees located in 6' tree lawn planting strip. Medium maturing trees are utilized due to driveways.

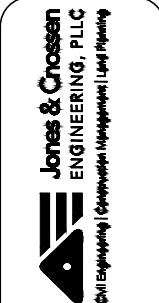
**BARWELL ROAD: (overhead power lines)**  
 Required: (1) 1.5" Caliper tree per 20 lf.  
 Speed limit for Barwell Road is 45 mph. Trees located at least 10' from travel lane along Barwell Road. Small maturing trees are utilized under existing power lines.

2) **PARKING:**  
 One tree at terminus of parking row and parking screened from public view and ROW.

3) **SCREENING:**  
 The SCM and the bio-retention area (COR bio-retention area for Barwell Road improvements) have been screened from public view.

Street trees shall be installed and maintained in accordance with the requirements of Chapter 2 of the City Tree Manual.

**LANDSCAPE PLAN**

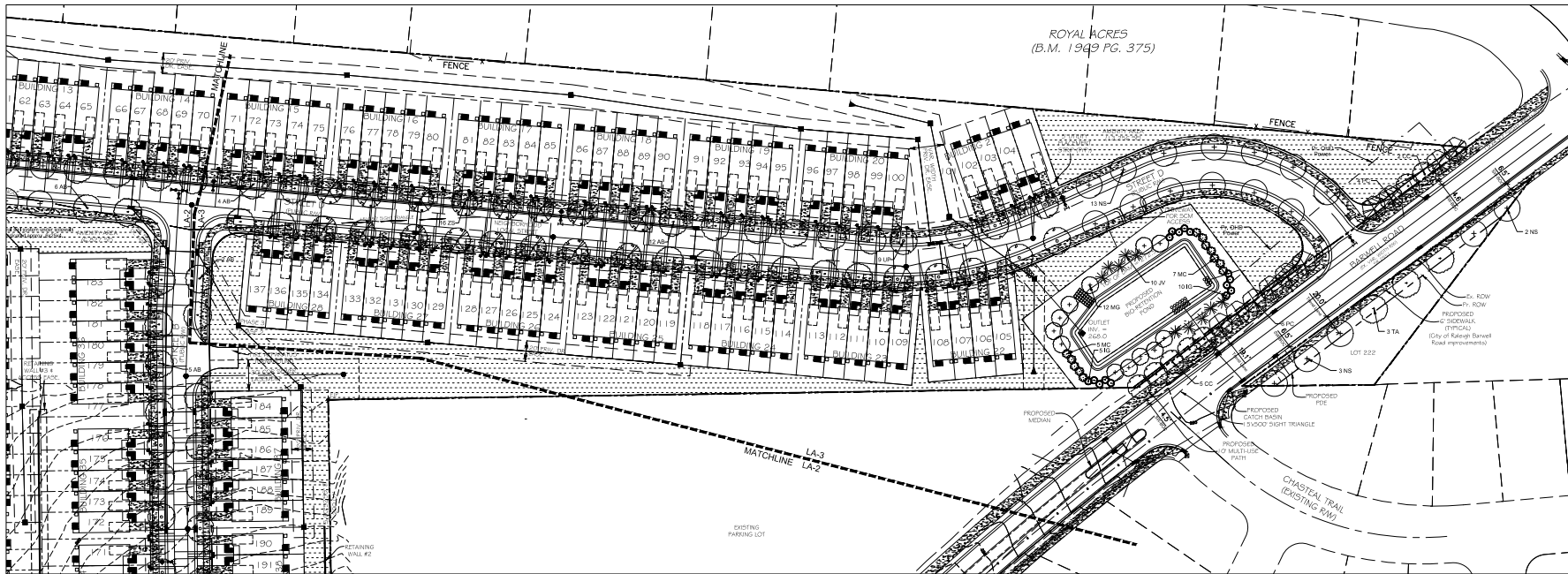


**SHALLCROSS PARK**  
 3600 BARWELL ROAD  
 RALEIGH, NC

**Revisions**

No.	Description	Date	By	Scale	Date Issued:
1	Per City Comments	10.23.24	KJS	RES	7-17-2
2	Per City Comments	11.19.24	KJS	Checked by:	

**LA-2**



ROYAL ACRES  
(B.M. 1999 PG. 375)

QTY.	KEY	BOTANICAL / COMMON NAME	SIZE	ROOT	SPACING	MATURE HT. / SP.
18	NS	Nyssa sylvatica / Black Gum	3" Cal. / 10' HT.	B + B	20' O.C.	40' / 30'
16	AB	Aster heterophyllus / Trident Aster	3" Cal. / 10' HT.	B + B	20' O.C.	45' / 35'
16	ZS	Salix sericea / Willow	3" Cal. / 10' HT.	B + B	20' O.C.	50' / 40'
9	UP	Ulmus parviflorus / Elm / Chinese Elm	3" Cal. / 10' HT.	B + B	30' O.C.	30' / 30'
7	CC	Cornus canadensis / Sweetgum / Red bud	1.5" Cal. / 6' HT.	B + B	20' O.C.	20' / 30'
10	FC	Fuchsia chrysocoma / Chinese Fuchsia	1.5" Cal. / 6' HT.	B + B	20' O.C.	20' / 30'
3	TA	Tilia americana / Redwood	3" Cal. / 10' HT.	B + B	20' O.C.	40' / 30'
10	JV	Juniperus virginiana / Eastern Red Cedar	2" Cal. / 8' HT.	B + B	10' O.C.	30' / 20'
12	MC	Myrica caroliniana / Southern Wax Myrtle	34" HT.	CONT.	7' O.C.	8' / 8'
12	MG	Magnolia grandiflora / Little Gem / Magnolia	1.5" Cal. / 6' HT.	B + B	8' O.C.	20' / 8'
15	IG	Ilex glabra / Holly	24" HT.	CONT.	7' O.C.	6' / 6'

\* Single Stem trees only / suitable for under power lines

City of Raleigh Planting Requirements:

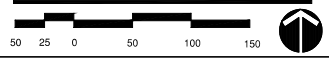
1) STREET TREES:  
BARWELL ROAD: (EAST SIDE)  
Required: (1) 3" Caliper tree per 40 ft.  
Provided: Speed limit on Barwell Road is 45 mph. Trees located at least 20' from travel lane of Barwell Road.  
City of Raleigh is making improvements to this section of Barwell Road and installing the 6' wide sidewalk. (Along Lot 222)

BARWELL ROAD: (WEST SIDE) (overhead power lines)  
Required: (1) 1.5" Caliper tree per 20 ft.  
Provided: Speed limit on Barwell Road is 45 mph. Trees located at least 10' from the travel lane of Barwell Road. Small maturing trees are utilized under existing power lines.

STREET D:  
Required: (1) 3" Caliper tree per 40 ft.  
Provided: Trees located in 6' tree lawn planting strip. Medium maturing trees are utilized due to driveways.

Street trees shall be installed and maintained in accordance with the requirements of Chapter 2 of the City Tree Manual.

LANDSCAPE PLAN

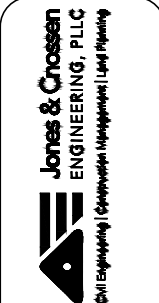


STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION  
November 14, 2024

Kimberly Bran  
Senior Design Engineer  
360200 Return Street, Suite 6  
Raleigh, North Carolina 27606  
Subject: Planning Permit for Shallcross Park  
To: Values in our youth

- Plan to be advanced for the planning permit has been conditionally approved for Shallcross Park located at 3500 Barwell Road in Wake County, North Carolina.
- This license authorizes the Planning Permit for Shallcross Park, including the Department of Transportation policy.
- The following standards and provisions are made part of this agreement:
- The permittee shall construct a clear right-of-way for outdoor parking driveway construction.
  - The location of all trees to be removed for any damage to the plan, which may be done by any party.
  - Measurement of the site plan will be the responsibility of the permittee. Should that plan not be submitted to the City Engineer for review, the permittee will be responsible.
  - Plan to be first class quality of clear plastic.
  - A copy of this permit shall be on the vehicle at all times while the work is being performed.
  - All trees and plants shall be protected and maintained in such a manner as to avoid any damage to the trees.

- The working public shall be warned of excavations with suitable and proper signage and traffic control devices in accordance with the current Manual on Uniform Traffic Device Control. The work shall be performed in the Right of Way unless the permittee is notified. NCDOT reserves the right to require a written traffic control plan for excavation operations.
- NCDOT does not guarantee the Right of Way on this road, nor will it be responsible for any claim or damage brought by any property owner by reason of the installation.
- The work shall be completed by the date specified on the permit.
- No late fee will be assessed for late completion of work.
- NCDOT reserves the right to suspend, modify, or suspend operations within the Right of Way in the event of NCDOT safety or traffic control concerns.
- The traffic engineer requires that the work be completed by 07:00 PM on the day prior to beginning work or a Right of Way if there are existing NCDOT signs, signals, or other equipment on or near the proposed work area. Once the work is complete, or after NCDOT signs, signals, or associated equipment shall be the responsibility of the contractor.
- The applicant will be required to notify the Resident Enforcement, Facilities, Mark Center or other staff in advance of beginning and after completion of work.
- All shall be the responsibility of the Contractor to obtain in the location of the utility lines in the construction area. The Contractor shall be responsible for protecting all utility lines and other underground utilities and shall be responsible for any damage to existing facilities and the necessary restoration to existing facilities.
- At the end of each working day, equipment shall be parked in a manner so that it does not obstruct the right-of-way and be located in an area not to have any equipment obtained in violation of the permit.
- The applicant is responsible for identifying product impacts in areas of the State of North Carolina. The contractor shall be responsible for identifying the NCDOT sign-off. The contractor shall be responsible for identifying the NCDOT sign-off. The contractor shall be responsible for identifying the NCDOT sign-off. The contractor shall be responsible for identifying the NCDOT sign-off.
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SHALLCROSS PARK  
3500 BARWELL ROAD  
RALEIGH, NC

Professional Seals

Date Issued:	7/17/24	
Scale:	1"=50'	
Drawn By:	RES	
Checked By:	KJS	
Revisions:		
N.O. Description	Date	By
1 Per City Comments	10.25.24	KJS
2 Per City Comments	11.19.24	KJS

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