

Case File / Name: SUB-S-46-2017 DSLC - St. Albans Residential City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

**LOCATION:** The 33.58 acre site zoned PD (MP-3-16) is located on the south side of St. Albans

Drive and north side of I-440 east of Church at North Hills Street, inside the city

limits.

**REQUEST:** This is a REVISION to a previously approved thirteen lot subdivision (with approved

sunset extension on April 22, 2021). The revision shows the same number of lots with a change in lot sizes and layout among four proposed lots on the east side of

the development (lots 7, 10, 11, and 12).

The original approval was on October 25, 2017 with a 3-year sunset date of March 25, 2021. The current 5-year sunset date is April 22, 2026. This subdivision of 33.58 acres is zoned Planned Development (North Hills East PD, MP-3-16). There are five phases in this development plan. Reference original approval Case File /

Name: S-46-17, North Hills East II, Transaction# 521956.

DESIGN ADJUSTMENT(S)/

ALTERNATES, ETC: RCMP-538309-S-46-2017-RA040646-12954: DSLC - Recorded Maps/Subdivision

RCMP-0163-2019: DSLC - Recorded Maps/Boundary Survey - Major SPR-0013-2020: DSLC - Site Permitting Review/Major [Signature Set] RCMP-0172-2020: DSLC - Recorded Maps/Boundary Survey - Major

RCMP-0009-2021: DSLC - Recorded Maps/Subdivision RCMP-0058-2021: DSLC - Recorded Maps/Subdivision

SUR-1230-2021: DSENG - Surety/Infrastructure

RCMP-0068-2022: DSLC - Recorded Maps/Subdivision

RCMP-0202-2023: DSLC - Recorded Maps/Boundary Survey - Major RCMP-0203-2023: DSLC - Recorded Maps/Boundary Survey - Major RCMP-0325-2023: DSLC - Recorded Maps/Boundary Survey - Major

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 August 7, 2024 by McAdams.

## **CONDITIONS OF APPROVAL and NEXT STEPS:**

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

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

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

#### **Stormwater**

1. 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).



Case File / Name: SUB-S-46-2017 DSLC - St. Albans Residential City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

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

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

V	Transit Easement Required	Ø	Stormwater Maintenance Covenant
			Required

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

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

## General

- 1. Revise the existing SPR to demonstrate the approved revisions to this subdivision
- 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.

#### **Engineering**

- 3. A public infrastructure surety is provided to the City of Raleigh Development Services Development Engineering program (UDO 8.1.3).
- 4. The required right of way for proposed and/or existing streets shall be dedicated to the City of Raleigh and shown on the map approved for recordation.

### **Public Utilities**

Infrastructure Construction Plans (SPR) for each phase must be approved by the City of Raleigh Public Utilities Department for all public water, public sewer and/or private sewer extensions within that phase

#### **Stormwater**

6. 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).



Case File / Name: SUB-S-46-2017 DSLC - St. Albans Residential City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

- 7. The flood prone areas, as approved by the City Stormwater Engineer and shown on the preliminary plan, shall be shown on the recorded map (UDO 9.3.3.G).
- 8. The maximum allocated impervious area for all applicable lots in the subdivision should be identified on all maps for recording.
- 9. 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).
- 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).

### **Transportation**

11. A transit easement meeting City of Raleigh standards shall be provided along eastbound St. Alban's Drive east of

the intersection at Church at North Hills Street. The final location of the easement shall be determined at the time of site review. The transit easement shall be improved per City of Raleigh standards. The transit deed of easement shall be approved by City staff and the location of the easement shall be shown on a plat approved for recordation. The deed of easement shall be recorded at Wake County Register of Deeds within one day of recordation of the recorded plat. A recorded copy of this document must be provided to the Development Services Department within one day from authorization of lot recording. If a recorded copy of the document is not provided, further recordings and building permit issuance will be withheld.

## **Urban Forestry**

12. A tree conservation plat shall be recorded with metes and bounds showing the designated tree conservation areas (UDO 9.1). This development proposes to record 2.2 acres of new tree conservation area.

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

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

## **Public Utilities**

1. a SUB RCMP for each phase must be recorded at the Wake County Register of Deeds office to include all utility easement dedications within that phase

#### **Stormwater**

2. 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).



Case File / Name: SUB-S-46-2017 DSLC - St. Albans Residential City of Raleigh
Development Services Department
One Exchange Plaza
Raleigh, NC 27602
(919) 996-2492
currentplanning@raleighnc.gov
www.raleighnc.gov

- 3. Impervious restrictions for each lot must be recorded on a plat prior to building permit issuance.
- 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).
- The City form document entitled Declaration of Maintenance Covenant and Grant of Protection Easement for Stormwater Control Facilities shall be approved by the City and recorded with the county register of deeds office (UDO 9.2.2.G).

## **Urban Forestry**

6. A tree impact permit must be obtained for the approved streetscape tree installation in the right of way. This development proposes 27 street trees along St Albans Drive, 15 street trees along Church at North Hills Street and 15 street trees along Hardimont Road.

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

#### General

1. All Water, Sanitary Sewer and Reuse facilities shall be installed, inspected, tested and accepted by the City of Raleigh Public Utilities Department for operations and maintenance.

### **Stormwater**

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

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:

3-Year Sunset Date: April 22, 2024

Record at least ½ of the land area approved.

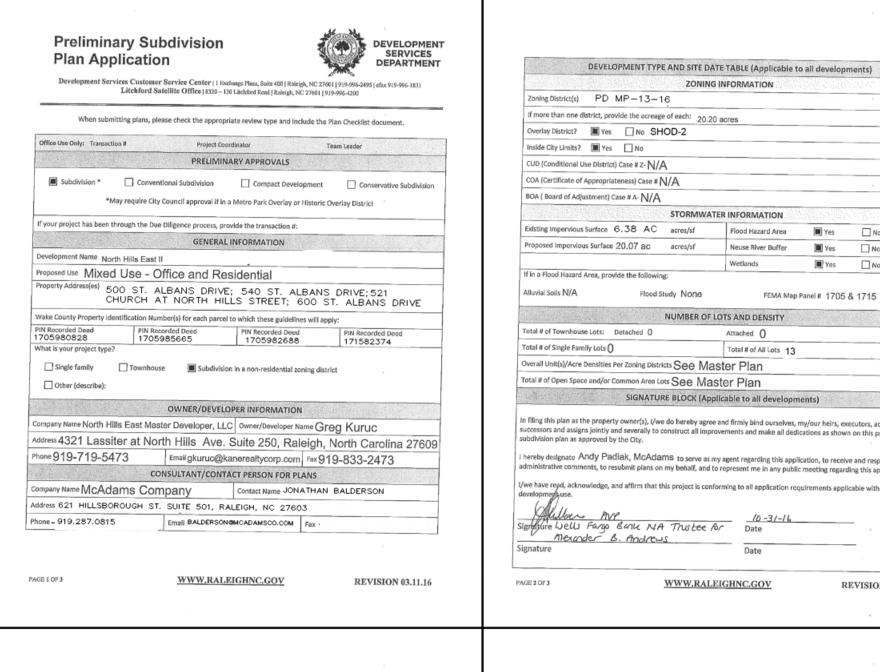
5-Year Sunset Date: April 22, 2026

Record entire subdivision.

I hereby certify this administrative decision.

Development Services Dir/Designee

Staff Coordinator: Michael Walters



DEVELOPMENT TYPE AND SITE DA	TE TABLE (Applicable to	all developn	nents)		DEVELOPMENT TYPE	AND SITE DAT	TE TABLE (Applicable to	all developn	nents)			
ZONING		ZONING INFORMATION										
Zoning District(s)	Office Mixed Us	se -3 Green (	(OX-3 GR)		Zoning District(s PD=(MP=3-16)							
If more than one district, provide the acreage of each: 13.38 acres					If more than one district, provide the acreage of each:							
Overlay District?					Overlay District?							
Inside City Limits?					Inside City Limits?							
CUD (Conditional Use District) Case # Z- N/A				- 1	CUD (Conditional Use District) Case # 2- N/A							
COA (Certificate of Appropriateness) Case # N/A				- 1	COA (Certificate of Appropriateness) Case #	N/A						
BOA ( Board of Adjustment) Case # A- N/A			,	- 1	BOA ( Board of Adjustment) Case # A- N/A				,			
STORMWA	TER INFORMATION	100			ALIES I TREPER	STORMWAT	ER INFORMATION	12.5	74 17 4			
Existing Impervious Surface 0.00 ac acres/sf	Flood Hazard Area	■ Yes	□ No		Existing Impervious Surface 0.00 ac	acres/sf	Flood Hazard Area	■ Yes	□ No			
Proposed Impervious Surface 20.07 ac acres/sf	Neuse River Buffer	■ Yes	□ No	- 1	Proposed Impervious Surface 20.07 ac	acres/sf	Neuse River Buffer	Yes	No			
	Wetlands		□ No	- 1			Wetlands	Yes	☐ No			
NUMBER OF	LOTS AND DENSITY				Total # of Townhouse Lots: Detached 0	NUMBER OF	Attached O					
Total # of Townhouse Lots: Detached 0	Attached ()				Total # of Townhouse Lots: Detached O Attached O							
Total # of Single Family Lots ()	Total # of All Lots 13				Total # of Single Family Lots () Total # of All Lots 13							
Overall Unit(s)/Acre Densities Per Zoning Districts See Ma	aster Plan			- 1	Overall Unit(s)/Acre Densities Per Zoning Dist	tricts See Ma	aster Plan					
Total # of Open Space and/or Common Area Lots See Ma	aster Plan		1	- 1	Total # of Open Space and/or Common Area	Lots See Ma	ster Plan		1			
SIGNATURE BLOCK (A	oplicable to all develop	ments)		- 1	SIGNATI	JRE BLOCK (Ap	plicable to all develop	ments)				
In filing this plan as the property owner(s), I/we do hereby agr successors and assigns jointly and severally to construct all impubilished plan as approved by the City.  I hereby designate Arrdy Padiak, McAdams to serve as administrative comments, to resubmit plans on my behalf, and interest and everlopment use. By the complete is considered by the city of the construction of the co	s my agent regarding this app to represent me in any pub unforming to all application re the server of the server	plications as shown in the property of the pro	eive and respond to arding this application.		In filing this plan as the property owner(s), I/successors and assigns jointly and severally to subdivision plan as approved by the City.  I hereby designate Andy Padiak, McAc administrative comments, to resubmit plans  I/we have read, acknowledge, and affirm that development use.  Leonard S. Woo Signature  Signature	o construct all imp lams to serve as on my behalf, and	my agent regarding this application represent me in any publication referring to all application referring	dications as show dication, to receive	vn on this proposed live and respond to rding this application.			
The Thomas A. Williams	of the Exempt	11-024										

# PRELIMINARY SUBDIVISION PLAN REVISION

CITY OF RALEIGH TRANSACTION #521956 CITY OF RALEIGH CASE #SUB-S-46-17 RALEIGH, NORTH CAROLINA PROJECT NUMBER: KAN-22008

> DATE: SEPTEMBER 20, 2017 REVISED: FEBRUARY 1, 2021 REVISED: MARCH 24, 2021 **REVISED: JULY 21, 2023** REVISED: SEPTEMBER 12, 2023 REVISED: MAY 31, 2024 **DEVELOPER:**

NHE MASTER DEVELOPER, LLC C/O KANE REALTY CORPORATION 4321 LASSITER AT NORTH HILLS AVE, SUITE 250 RALEIGH, NORTH CAROLINA 27609 CONTACT: GREG KURUC PHONE: 919-719-5438

EMAIL: gkuruc@kanerealtycorp.com

SHEET INDEX PROJECT NOTES OVERALL EXISTING CONDITION EXISTING CONDITIONS AREA 'A' OVERALL DEMOLITION PLAN **DEMOLITION PLAN AREA 'A' DEMOLITION PLAN AREA 'B'** OVERALL DEVELOPMENT TRACKING PLAN OVERALL SUBDIVISION PLAN SITE PLAN AREA "A" SITE PLAN AREA "B" GRADING PLAN AREA "A" GRADING PLAN AREA "B' UTILITY PLAN AREA "A" UTILITY PLAN AREA "B' SITE DETAILS SITE DETAILS C8.02 WATER DETAILS WATER AND STORM DRAINAGE DETAILS SANITARY SEWER DETAILS LANDSCAPE PLAN AREA "A" LANDSCAPE PLAN AREA "B" TREE CONSERVATION PLAN TREE CONSERVATION BOUNDARY PLAN TREE CONSERVATION BOUNDARY PLAN

## **OFF-SITE ROAD IMPROVEMENTS:**

IN ADDITION TO THE IMPROVEMENTS SHOWN ON THE PRELIMINARY SUBDIVISION PLANS. THE FOLLOWING OFF-SITE ROAD IMPROVEMENTS ARE REQUIRED AS PER THE PHASES DESCRIBED BELOW PHASE 2 - RESTRIPE HARDIMONT ROAD BETWEEN ST. ALBAN'S DRIVE AND TUFTS COURT TO PROVIDE AN EXCLUSIVE SOUTHBOUND RIGHT TURN LANE AND SHARED THROUGH/LEFT TURN LANE ALONG

PHASE 2 - INSTALL A TRAFFIC SIGNAL AT ST. ALBAN'S DRIVE AND HARDIMONT ROAD WHEN

PHASE 3 - MODIFY THE TRAFFIC SIGNAL AT DARTMOUTH ROAD AND ST. ALBAN'S DRIVE TO PROVIDE A PROTECTED PHASE FOR THE NORTHBOUND LEFT TURN MOVEMENT FROM ST. ALBAN'S DRIVE. PHASE 4 - CONSTRUCT AN ADDITIONAL RIGHT TURN LANE ON THE I-440 WESTBOUND OFF-RAMP WITH A MINIMUM OF 600 FEET OF STORAGE AND APPROPRIATE TAPERS

# **GREENWAY NOTES:**

NORTH HILLS INNOVATION DISTRICT GREENWAY

- GREENWAY CONSTRUCTION SPECS AND ALIGNMENT WILL REQUIRE STAFF APPROVAL PRIOR TO ACCEPTING MAINTENANCE RESPONSIBILITIES.
- 2. MAINTENANCE AGREEMENT MAY BE NECESSARY TO CONFIRM DATE AND ROLE OF CITY OF
- 3. FINAL CONSTRUCTION APPROVAL NECESSARY PRIOR TO CITY OF RALEIGH TAKING

# NOTES:

1. THE MINIMUM CORNER CLEARANCE FROM THE CURB LINE OR EDGE OF PAVEMENT INTERSECTING STREETS SHALL BE AT LEAST TWENTY (20) FEET FROM THE POINT OF TANGENCY OF THE RADIUS CURVATURE OR 20' FROM THE INTERSECTION OF THE RIGHT-OF-WAY LINES, WHICHEVER IS GREATER. NO DRIVEWAYS OR PARKING SPACES SHALL ENCROACH ON THIS MINIMUM CORNER

2. WITHIN THE AREA OF A DEFINED SIGHT TRIANGLE, THERE SHALL BE NO SIGHT OBSTRUCTING OR PARTLY OBSTRUCTING WALL, FENCE, SIGN, FOLIAGE, BERMING OR PARKED VEHICLES BETWEEN THE HEIGHTS OF TWENTY-FOUR (24) INCHES AND EIGHT (8) FEET ABOVE THE CURB ELEVATION OR THE NEAREST TRAVELED WAY, IF NO CURBING EXISTS.

3. ALL CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH CITY OF RALEIGH STANDARDS AND

# SANITARY SEWER EASEMENT ABANDONMENT

- . SUBMIT A WRITTEN REQUEST TO ABANDON SEWER EASEMENT FROM PROPERTY OWNER TO ROBERT MASSENGILL (PUBLIC UTILITIES DIRECTOR) IN C/O CESAR SANCHEZ (DEVELOPMENT
- 2. A PLAT MUST BE RECORDED SHOWING THE EASEMENT PORTIONS TO BE ABANDONED WITH A NOTE STATING "EXISTING 30" CITY OF RALEIGH SANITARY SEWER EASEMENT INTENDED TO BE DISPOSED OF BY A FUTURE INSTRUMENT (I.E.NON-WARRANTY DEED OF EASEMENT)".
- 3. EASEMENT BOUNDARIES TO BE DESCRIBED BY METES AND BOUNDS AND AREA (SQFT). 4. REFERENCE: ADMINISTRATIVE REGULATION "DISPOSAL OF EASEMENTS IN REAL PROPERTY"



# **VICINITY MAP**



F DENSITIES INCREASE BEYOND WHAT IS IDENTIFIED IN THE ORIGINAL SUBMITTED PLANS OR IF PROJECT TIMELINES ARE QUICKER THAN THE CITY'S REPLACEMENT OF BIG BRANCH OUTFALL, FURTHER DOWNSTREAM IMPROVEMENTS ALONG THE OUTFALL MAY BE REQUIRED TO ACCOMMODATE

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

# ATTENTION CONTRACTORS

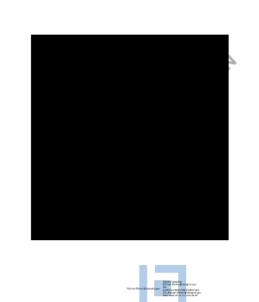
REVISION 03.11.16

The Construction Contractor responsible for the extension of water, sewer, and/or reuse, as approved in these plans, is responsible for contacting the Public Works Department at (919) 996-2409, and the Public Utilities Department at (919) 996-4540 at least twenty four hours prior to beginning any of their construction.

Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.

Failure to call for Inspection, Install a Downstream Plug, have Permitted Plans on the Jobsite, or any other Violation of City of Raleigh Standards will result in a Fine and Possible Exclusion from future work in the City of Raleigh.

ALL CONSTRUCTION SHALL CONFORM WITH THE LATEST VERSION OF THE CITY OF RALEIGH AND NCDOT STANDARDS, SPECIFICATIONS AND DETAILS.





THE JOHN R. McADAMS COMPANY, INC.

2905 Meridian Parkway Durham, North Carolina 27713 License No.: C-0293 (800) 733-5646 **McAdamsCo.com** Contact: Andy Padiak padiak@mcadamsco.com

## SANITARY SEWER NOTES:

- 1. ALL SEWER SERVICES IN PUBLIC R.O.W. SHALL BE INSTALLED BY A LICENSED UTILITY CONTRACTOR.
- 2. BEFORE COMMENCING ANY EXCAVATION IN ANY HIGHWAY, STREET, PUBLIC SPACE, OR IN AN EASEMENT THE NORTH CAROLINA UNDERGROUND DAMAGE PREVENTION ACT REQUIRES NOTIFICATION OF FACH UTILITY OWNER HAVING U.G. UTILITIES LOCATED IN THE PROPOSED AREA TO BE EXCAVATED, EITHER ORALLY OR IN WRITING, NOT LESS THAN 2 DAYS NOR MORE THAN 10 WORKING DAYS PRIOR TO STARTING OF THE 2. INTENT TO EXCAVATE.
- 3. ANY EXISTING UTILITY APPURTENANCES SHALL NOT BE REUSED ON PROPOSED IMPROVEMENTS.
- ALL PROPOSED SEWER ON THIS SITE IS TO BE PRIVATE
- 5. ALL 8" SEWER SHALL BE PVC SDR-35 AND ALL 6" SEWER SHALL BE PVC SCH.40 UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- 6. MINIMUM COVER TO FINISHED GRADE OF 5 FEET IN TRAFFIC AREAS TO BE PROVIDED FOR ALL COLLECTOR LINES 4 INCHES AND LARGER. IF LESS THAN 5 FEET OR DEEPER THAN 12', DUCTILE IRON PIPE SHALL BE REQUIRED WITH TYPE 1 BEDDING TO A COVER AT A MIN OF 3 FEET.
- MINIMUM SLOPE FOR THE 8 INCH SANITARY SEWER COLLECTION LINE IS 0.50% AND THE MINIMUM SLOPE FOR THE 6 INCH SANITARY SEWER SHALL BE NO LESS THAN 1.0% (WITH CLEANOUTS EVERY 75 LINEAL FEET).
- SEWER CLEANOUTS ARE NOT ALLOWED IN DRIVEWAYS, SIDEWALKS AND PARKING LOTS UNLESS SHOWN OTHERWISE. CLEANOUTS WITHIN ASPHALT PAVED TRAFFIC AREAS SHALL BE INSTALLED IN TRAFFIC RATED MINI-MANHOLES, DOMESTICALLY CAST.
- 9. ALL EXISTING UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY ACTUAL LOCATION AND DEPTHS IN FIELD PRIOR TO BEGINNING CONSTRUCTION.
- 10. UTILITY SLEEVES SHALL BE PVC (SCH. 40). INSTALL WITH 2' MINIMUM COVER. CAP AND MARK BOTH ENDS.

## RETAINING WALL NOTES

- THE RETAINING WALL ALIGNMENT SHOWN ON THESE PLANS DEPICTS THE LOCATION OF THE FRONT FACE OF THE RETAINING WALL AT THE TOP OF THE WALL. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING RETAINING WALLS ARE NOT LOCATED IN ANY STREAM BUFFERS, AND THEIR CONSTRUCTION DOES NOT ENCROACH INTO ANY ADJACENT PROPERTIES DUE TO ANY BATTER INCORPORATED IN THE DESIGN OF THE WALLS.
- RETAINING WALLS ARE TO BE DESIGN-BUILD PROJECTS BY THE CONTRACTOR. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN FINAL CONSTRUCTION DRAWINGS FROM A REGISTERED ENGINEER AND GAIN ALL REQUIRED PERMITS NECESSARY FOR THE CONSTRUCTION OF THE RETAINING
- RETAINING WALLS SHALL BE ASSUMED TO BE BACKFILLED WITH OFF-SITE BORROW MATERIAL OR PROCESSED FILL, UNLESS THE CONTRACTOR CAN PROVIDE TO THE OWNER WITH CONFIRMATION FROM
- THE TOP AND BOTTOM OF WALL ELEVATIONS SHOWN ON THESE PLANS IDENTIFY FINISHED GRADE ELEVATIONS ONLY. THE EXTENT THAT THE RETAINING WALL WILL BE EXTENDED BELOW GRADE TO THE FOOTING OR ABOVE GRADE TO THE TOP OF THE CAP BLOCK COURSE SHALL BE IDENTIFIED ON THE RETAINING WALL CONSTRUCTION DRAWINGS.
- 5. ALL RETAINING WALLS OVER 30" HIGH SHALL HAVE A SAFETY FENCE (DESIGN BY OTHERS).
- ANY PART OF ANY RETAINING WALL THAT EXTENDS INTO THE RIGHT-OF-WAY WILL REQUIRE AN ENCROACHMENT AGREEMENT. ENCROACHMENT AGREEMENTS FOR RETAINING WALLS SHALL BE APPROVED PRIOR TO CONSTRUCTION DRAWING APPROVAL
- ANY TIEBACK SYSTEMS FOR THE RETAINING WALLS SHALL NOT BE ALLOWED WITHIN PUBLIC RIGHT-OF-WAY.
- STORMWATER RUN-OFF SHALL BE DIRECTED AWAY FROM RETAINING WALLS. ANY RUN-OFF FLOWING TO AND OVER A RETAINING WALL SHALL BE KEPT TO AN ABSOLUTE MINIMUM AND BROUGHT TO THE ATTENTION OF THE WALL DESIGNER PRIOR TO THEIR DESIGN.
- RETAINING WALL THAT ARE LOCATED WITHIN 30 FEET OF A PUBLIC SIDEWALK SHALL BE REQUIRED TO ADHERE TO THE FOLLOWING. A FREESTANDING WALL MAY NOT EXCEED A CONTINUOUS, UNINTERRUPTED HEIGHT OF 10 FEET. ADDITIONAL HEIGHT ABOVE 10 FEET MAY BE PERMITTED PROVIDED THE WALL CONTAINS A MINIMUM 2-FOOT STEP BACK FOR EACH ADDITIONAL 10 FEET OF WALL HEIGHT. A TYPE C2 STREET PROTECTIVE YARD SHALL BE REQUIRED FOR ANY FREESTANDING RETAINING WALL OF AT LEAST 10 FEET IN HEIGHT, WHERE THE RETAINING WALL GAINS ADDITIONAL HEIGHT WILL A STEP BACK, THE STEP BACK AREA SHALL PROVIDE THE QUANTITY OF SHRUBS EQUAL TO A TYPE C3 STREET PROTECTIVE YARD.

## SITE PLAN NOTES

- NON-ALLEY LOADED DRIVEWAYS MAY INTERSECT A STREET NO CLOSER THAN 20 FEET FROM THE INTERSECTION OF TWO STREET RIGHT-OF-WAYS. THE MINIMUM CORNER CLEARANCE FROM CURB LINE OR EDGE OF PAVEMENT OF INTERSECTING STREETS SHALL BE AT LEAST 20 FEET FROM THE POINT OF TANGENCY OF THE RADIUS OF CURVATURE, OR 20 FEET FROM THE INTERSECTION OF RIGHT-OF-WAY LINES, WHICH EVER IS GREATER. THE RADIUS OF THE DRIVEWAY SHALL NOT ENCROACH ON THE MINIMUM CORNER CLEARANCE. REFER TO SECTION 6.5 OF THE LATEST VERSION OF THE RALEIGH STREET DESIGN MANUAL FOR ADDITIONAL DETAILS.
- RIGHT-OF-WAY SHALL BE CLEARED AND GRUBBED WITHIN 50' OF ALL MINOR RESIDENTIAL, RESIDENTIAL, AND RESIDENTIAL COLLECTOR INTERSECTIONS. THE FULL LENGTH OF THE RIGHT-OF-WAY SHALL BE CLEARED AND GRADED ALONG ALL MAJOR,
- WITHIN THE AREA DEFINED SIGHT TRIANGLES SHOWN ON THESE PLANS, THERE SHALL BE NO SIGHT OBSTRUCTING OR PARTLY OBSTRUCTING WALL, FENCE, SIGN, FOLIAGE BERMS, OR PARKED VEHICLES BETWEEN THE HEIGHTS OF 24 INCHES AND 8 FEET ABOVE THE CURB LINE ELEVATION OR THE NEAREST TRAVEL WAY IF NO CURB LINE EXISTS. REFER TO SECTION 6.12 OF THE LATEST VERSION OF THE RALEIGH STREET DESIGN MANUAL FOR ADDITIONAL DETAILS.
- 4. MULTIWAY STOP CONTROL WILL NOT BE USED AT ANY PUBLIC STREET INTERSECTION WITHOUT AN ENGINEERING STUDY TO PROVIDE DATA TO CITY OF RALEIGH TRANSPORTATION DIVISION THAT THE MULTIWAY STOP INSTALLATION WARRANTS CAN BE MET AND ORDINANCED BY CITY COUNCIL APPROVAL.
- ALL CONSTRUCTION SHALL CONFORM TO THE LATEST CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS AS APPLICABLE
- ALL DIMENSIONS SHOWN ON SITE PLAN ARE MEASURED TO FACE OF CURB UNLESS OTHERWISE NOTED.
- CONTRACTOR SHALL MAINTAIN AN "AS-BUILT" SET OF DRAWINGS TO RECORD THE EXACT LOCATION OF ALL PIPING PRIOR TO CONCEALMENT. DRAWINGS SHALL BE GIVEN TO THE ENGINEER UPON COMPLETION OF THE PROJECT WITH A COPY OF THE TRANSMITTAL LETTER TO THE OWNER.
- EXISTING IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED/RESTORED TO THEIR ORIGINAL CONDITION AND TO THE SATISFACTION OF THE OWNER, BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.
- THE CONTRACTOR SHALL NOTE THAT THE DRAWINGS MAY NOT SHOW EVERY OFFSET, TRANSITION, FITTING, ETC. THAT MAY BE REQUIRED. THE CONTRACTOR SHALL INSTALL SUCH STANDARD APPURTENANCES AS REQUIRED TO CLOSELY FOLLOW THE GRADES AND ALIGNMENTS DEPICTED ON THE PLANS.
- 10. CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER
- 11. CONTRACTOR IS RESPONSIBLE FOR COORDINATING CONSTRUCTION ACTIVITIES WITH THE APPROPRIATE UTILITY COMPANIES FOR ANY REQUIRED RELOCATIONS (I.E. POWER POLES, TELEPHONE PEDESTALS, WATER METERS, ETC.).
- PRIOR TO BEGINNING CONSTRUCTION BEYOND EROSION CONTROL MEASURES, THE GENERAL CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF RALEIGH PUBLIC WORKS DEPARTMENT (919) 996-2409. AND A REPRESENTATIVE OF THE ENGINEER AND OWNER. THE PURPOSE OF THIS MEETING IS TO REVIEW THE SPECIFIC COMPONENTS OF THE PLAN AND OPERATION OF THE FACILITIES DURING CONSTRUCTION.
- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION, FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- THE GEOTECHNICAL ENGINEER AND THE RETAINING WALL DESIGNER, THAT READILY AVAILABLE ON-SITE

  14. ACCESSIBLE RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF RALEIGH UNIFIED DEVELOPMENT ORDINANCE
  - 15. ALL SIDEWALKS THAT CONNECT TO THE PUBLIC RIGHT-OF-WAY MUST BE ACCESSIBLE TO PERSONS WHO ARE BLIND. HAVE LOW VISION AND PEOPLE WITH MOBILITY DISABILITIES. PEDESTRIAN EXISTING ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION WILL BE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
  - 16. TYPICAL PAVEMENT SECTION DETAILS ARE SHOWN WITHIN THIS SET AND INTENDED TO BE A MINIMUM PAVEMENT SECTION REQUIREMENT. THE CURRENT GEOTECHNICAL REPORT SHALL OVER-RIDE ALL TYPICAL PAVEMENT SECTIONS SHOWN, IF THE GEOTECHNICAL ENGINEER DEEMS A HEAVIER SECTION IS REQUIRED.
  - 17. EQUIPMENT AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED PROVIDED APPROVAL HAS BEEN OBTAINED FROM THE OWNER IN WRITING PRIOR TO ORDERING OR INSTALLATION. THE CONTRACTOR SHALL WAIVE ANY CLAIM FOR ADDITIONAL COST RELATED TO SUBSTITUTION OF ALTERNATE EQUIPMENT.
  - 18. IF UNFORESEEN CONDITIONS DEVELOP DURING CONSTRUCTION, REFER TO THE LATEST VERSION OF THE RALEIGH STREET DESIGN MANUAL AND CONTACT PUBLIC WORKS STAFF FOR FURTHER GUIDANCE.
  - 19. ALL SIGNAGE ASSOCIATED WITH THE PUBLIC STREET SYSTEM SHALL ADHERE TO MUTCD STANDARDS AND SPECIFICATIONS.
  - 20. ANY TRANSIT STOP LOCATIONS SHOWN ARE PRELIMINARY ONLY. FINAL LOCATION SHALL BE DETERMINED ONCE THE CITY OF RALEIGH TRANSIT ROUTE HAS BEEN FINALIZED. ALL TRANSIT STOPS SHALL HAVE A 10'x20'x6" (3000 PSI) CONCRETE PAD.

## CONSTRUCTION NOTES

- ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH AND/OR NC DOT STANDARDS.
- THE CONTRACTOR SHALL CONDUCT THE WORK IN A SAFE MANNER WITH A MINIMUM AMOUNT OF INCONVENIENCE TO TRAFFIC
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SHALL ADHERE TO THE PROVISIONS OF THE MUTCD
- PRIOR TO THE START OF WORK, A PRE-CONSTRUCTION MEETING MUST BE SET UP WITH THE CONTRACTOR AND CITY OF RALEIGH TRANSPORTATION FIELD SERVICES STAFF. CONTACT ENGINEERING INSPECTIONS AT 919-996-2409 TO SET UP THE MEETING.
- THE CONTRACTOR SHALL OBTAIN A RIGHT-OF-WAY OBSTRUCTION PERMIT FOR ANY WORK WHICH REQUIRES THE TEMPORARY CLOSURE OF A STREET, TRAVEL LANE, PARKING SPACE OR SIDEWALK FROM THE RIGHT-OF-WAY SERVICES AT LEAST 48 HOURS IN ADVANCE, ANY TEMPORARY STREET CLOSURE MUST BE SUBMITTED 2 WEEKS PRIOR, SEE "RIGHT-OF-WAY CLOSURES" ON WWW.RALEIGHNC.GOV AND SEND THE RIGHT-OF-WAY OBSTRUCTION PERMIT TO RIGHTOFWAYSERVICES@RALEIGHNC.GOV
- PRIOR TO CONSTRUCTION BEGINNING, ALL SIGNAGE AND TRAFFIC CONTROL SHALL BE IN PLACE.
- THE CONTRACTOR SHALL REPAIR ALL DAMAGED INFRASTRUCTURE IN THE RIGHT-OF-WAY AND RESTORE IT TO PREVIOUS OR BETTER CONDITION
- 8. THE CONTRACTOR SHALL REPAIR ANY DAMAGES TO ADJACENT PROPERTIES AND RESTORE IT TO PREVIOUS OR BETTER
- 9. ALL SIDEWALKS MUST BE ACCESSIBLE TO PERSONS WHO ARE VISUALLY IMPAIRED AND PEOPLE WITH MOBILITY DISABILITIES. EXISTING PEDESTRIAN ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION WILL BE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

# GENERAL NOTES:

- OWNER RESERVES RIGHT TO ADJUST SITE IMPROVEMENTS AND MODIFY BUILDING FOOTPRINTS FROM THOSE SHOWN ON THIS PLAN.
- PRIOR TO BEGINNING CONSTRUCTION, THE GENERAL CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF RALEIGH PUBLIC WORKS, ENGINEERING INSPECTIONS DEPARTMENT (919) 996-6824, AND A REPRESENTATIVE OF THE ENGINEER AND OWNER.
- CONSTRUCTION, MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE SITE CONTRACTOR, AFTER PERMISSION BY EROSION CONTROL INSPECTOR.
- 4. EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE OWNER'S REPRESENTATIVE AND ENGINEER IMMEDIATELY.

## CITY OF RALEIGH PUBLIC UTILITIES STANDARD UTILITY NOTES (AS APPLICABLE)

- 1. ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK, CURRENT EDITION)
- 2. UTILITY SEPARATION REQUIREMENTS:
  - a) 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
  - b) 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
  - c) 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
  - d) 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER e) MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATERMAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 18" 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 &
  - f) ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION
- 3. 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
- 4. DEVELOPER SHALL PROVIDE 30 DAYS ADVANCE WRITTEN NOTICE TO OWNER FOR ANY WORK REQUIRED WITHIN AN EXISTING CITY OF RALEIGH UTILITY EASEMENT TRAVERSING PRIVATE PROPERTY
- 5. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER & SEWER SERVICE TO EXISTING RESIDENCES & BUSINESSES THROUGHOUT CONSTRUCTION OF PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24 HOUR ADVANCE NOTICE TO
- 6. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCEMAINS, 4.0' MINIMUM COVER IS REQUIRED ON ALL
- 7. IT IS THE DEVELOPER'S RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & 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
- 8. INSTALL 4" DIP WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 20'X10' WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE APPLICANT'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW & PRESSURE
- 9. INSTALL 8" PVC\* SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED **EVERY 75 LINEAR FEET MAXIMUM**
- 10. 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
- 11. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWQ, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION
- 12. NCDOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS &
- SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION
- 13. GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE RW FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A UC / BLDG PERMIT. CONTACT (919) 996-4516 OR FOG@RALEIGHNC.GOV FOR MORE INFORMATION
- 14. 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. A CERTIFICATE OF COMPLIANCE SHALL ALSO BE OBTAINED FROM THE RW CROSS-CONNECTION COORDINATOR FOR EACH DEVICE PRIOR TO ISSUANCE OF A UC / BLDG PERMIT. CONTACT (919) 996-5923 OR CROSS.CONNECTION@RALEIGHNC.GOV FOR MORE INFORMATION
- 15. NOTICE FOR PROJECTS WITH REPLACED OR OVERSIZED MAINS: IF THE CITY'S REIMBURSEMENT FOR AN OVERSIZED MAIN OR URBAN MAIN REPLACEMENT PROJECT IS \$250,000 OR GREATER - THE PROJECT MUST BE PUBLICLY BID

# TRAFFIC CONTROL NOTES

THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT

- 1. THE CONTRACTOR SHALL CONDUCT ALL WORK IN A SAFE MANNER AND WITH A MINIMUM AMOUNT OF INCONVENIENCE TO
- 2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL TRAFFIC CONTROL AND SHALL ADHERE TO THE PROVISIONS OF THE MUTCD (MOST CURRENT EDITION).
- 3. NO WORK ON, OR BLOCKAGE OF, EXISTING THROUGH TRAFFIC LANES SHALL OCCUR DURING THE PEAK TRAFFIC HOURS OF 7AM-9AM AND 4PM-6PM, MONDAY THROUGH FRIDAY, THE CONTRACTOR MUST OBTAIN A LANE CLOSURE PERMIT FOR ANY WORK WHICH REQUIRES THE CLOSURE OF A TRAVEL LANE. PLEASE CONTACT THE CITY PUBLIC WORKS DEPARTMENT -TRANSPORTATION OPERATIONS DIVISION AT (919)-996-3030 FOR LANE CLOSURES AT LEAST 48 HOURS IN ADVANCE AND FOR STREET CLOSURES, AT LEAST 2 WEEKS IN ADVANCE. PROVIDE EXACT LOCATION, CROSS STREET, DATES FOR LANE CLOSURE, CONTACT PERSON AND FAX NUMBER.
- 4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE INSPECTIONS DEPARTMENT TO OBTAIN A STREET CUT PERMIT. THE PERMIT FORM IS ON-LINE (RALEIGH.GOV) AND SHALL BE COMPLETED AND FAXED TO (919)-516-2685. THE PERMIT LASTS FOR 30 DAYS AND CAN BE EXTENDED AT NO COST IF REQUEST IS MADE PRIOR TO PERMITS EXPIRATION DATE. INQUIRIES SHALL BE
- 5. PRIOR TO CONSTRUCTION BEGINNING, ALL SIGNAGE AND TRAFFIC CONTROL SHALL BE IN PLACE.
- 6. THE CONTRACTOR SHALL HAVE A COMPLETE SET OF CONTRACT DOCUMENTS AS WELL AS ALL PERMITS, APPROVALS AND
- 7. THE CONTRACTOR SHALL REPAIR ALL DAMAGED DRIVEWAYS, DRIVEWAY PIPES, CURB AND GUTTER, SIDEWALKS AND STREETS TO EXISTING CONDITION OR BETTER
- 8. ALL SIDEWALKS MUST BE ACCESSIBLE TO PERSONS WHO ARE BLIND, HAVE LOW VISION AND PEOPLE WITH MOBILITY DISABILITIES. EXISTING PEDESTRIAN ROUTES AND ALTERNATE PEDESTRIAN ROUTES DURING CONSTRUCTION WILL BE REQUIRED TO BE COMPLIANT WITH THE PUBLIC RIGHTS OF WAY ACCESSIBILITY GUIDELINES (PROWAG), 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

# **DEMOLITION NOTES:**

- 1. IN ACCORDANCE WITH 40 CFR, PART 61, SUBPART M, A THOROUGH INSPECTION SHALL BE CONDUCTED FOR ASBESTOS-CONTAINING MATERIALS, PRIOR TO CONDUCTING A RENOVATION OR DEMOLITION ACTIVITY OF AN EXISTING STRUCTURE. THE ASBESTOS INSPECTION MUST BE CONDUCTED BY A NORTH CAROLINA ACCREDITED ASBESTOS INSPECTOR. ALL REGULATED AND/OR FRIABLE ASBESTOS-CONTAINING MATERIALS IDENTIFIED DURING THE SURVEY, WHICH WILL BE DISTURBED, MUST BE PROPERLY REMOVED BY ACCREDITED INDIVIDUALS BEFORE BEGINNING THE RENOVATION OR DEMOLITION ACTIVITY. IF REGULATED AND/OR FRIABLE ASSESTOS CONTAINING MATERIALS TO BE REMOVED EXCEED 160 SQUARE FEET, 260 LINEAR FEET OR 35 CUBIC FEET, A PERMIT SHALL BE APPLIED FOR THROUGH THE NORTH CAROLINA DEPARTMENT OF HEALTH AND HUMAN SERVICES.
- 2. ALL MATERIAL TO BE DEMOLISHED SHALL BE REMOVED FROM THE SITE AND DISPOSED OF AT A PERMITTED SITE IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL LAWS.

# WATER NOTES:

- 1. WATER TO BE USED DURING CONSTRUCTION SHALL EITHER HAVE A PERMANENT TAP INSTALLED THROUGH A NEW SERVICE TAP PERMIT, OR A RENTAL OF A HYDRANT METER SHALL BE SECURED TEMPORARILY; THROUGH THE CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT
- WATER DESIGN 2.1. PUBLIC WATER SYSTEMS SHALL CONFORM TO PUBLIC DISTRIBUTION SYSTEM STANDARDS. 2.2. PRIVATE DISTRIBUTION SYSTEMS SHALL HAVE A MASTER METER AND MASTER BACK FLOW DEVICE.
- 3. ALL 6" & 8" WATERLINES, SHALL BE DUCTILE IRON PRESSURE CLASS 350 PER CITY OF RALEIGH STANDARDS. ALL 2" WATERLINE SHALL BE TYPE K-COPPER.
- 4. ALL MAINS SHALL HAVE A MINIMUM 36" COVER.
- 5. ALL MAINS SHALL HAVE A TYPE 1 LAYING CONDITIONS (GEOTECHNICAL EVALUATION AND COMPACTION REPORTS SHALL BE PROVIDED TO ENGINEER WITH AS-BUILT SUBMITTAL)
- ALL MAINS SHALL HAVE A WORKING PRESSURE OF 150 PSI AND A SURGE PRESSURE OF 300 PSI.
- 7. SERVICE CONNECTIONS CAN ONLY BE MADE TO A PRESSURIZED PIPE UP TO 12" PER CORPUD HANDBOOK.
- 9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI.

8. REFER TO CORPUD HANDBOOK FOR TESTING AND APPROVAL PROCEDURE PRIOR TO ACCEPTANCE.

10. ALL EXISTING UTILITIES ARE SHOWN AT APPROXIMATE LOCATIONS. CONTRACTOR SHALL VERIFY ACTUAL LOCATION AND DEPTHS IN FIELD PRIOR TO BEGINNING CONSTRUCTION

## GRADING NOTES

- ALL DIMENSIONS AND GRADES SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION CONTRACTOR SHALL NOTIFY THE ENGINEER IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION, FOR NECESSARY PLAN OR GRADE CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR ANY WORK DONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
- OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) STANDARDS FOR EXCAVATIONS; FINAL RULE 29CFR PART 1926, SUBPART "P" APPLIES TO ALL EXCAVATIONS EXCEEDING FIVE (5) FEET IN DEPTH. EXCAVATION EXCEEDING TWENTY (20) FEET IN DEPTH REQUIRES THE DESIGN OF A TRENCH SAFETY SYSTEM BY A REGISTERED PROFESSIONAL ENGINEER, PROVIDED BY CONTRACTOR RESPONSIBLE FOR EXCAVATION.
- 3. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH AND/OR NCDOT STANDARDS AND SPECIFICATIONS AS
- 4. CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER
- 5. PRIOR TO BEGINNING CONSTRUCTION. THE GENERAL CONTRACTOR SHALL SCHEDULE AND ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE CITY OF RALEIGH STORMWATER AND EROSION CONTROL DEPARTMENT, THE ENGINEER AND A
- 6. CONSTRUCTION, MAINTENANCE AND REMOVAL OF ALL EROSION CONTROL DEVICES ARE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. TIMING OF REMOVAL SHALL BE COORDINATED WITH THE EROSION CONTROL INSPECTOR.
- EXISTING UTILITIES AND STRUCTURES SHOWN, BOTH UNDERGROUND AND ABOVE GROUND, ARE BASED ON A FIELD SURVEY AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS PRIOR TO BEGINNING RELATED CONSTRUCTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- 8. SOIL UNDER BUILDINGS, PAVED AREAS AND WITHIN SLOPES GREATER THAN 3:1 (H:V) SHALL BE APPROVED, PLACED AND COMPACTED AS RECOMMENDED BY THE GEOTECHNICAL ENGINEER.

## STORM DRAINAGE NOTES

- ALL STORM DRAINAGE PIPES SHOWN SHALL BE REINFORCED CONCRETE (RCP) (MINIMUM CLASS III) UNLESS NOTED OTHERWISE. CONTRACTOR TO COORDINATE WITH THE GEOTECH TO VERIFY TYPE OF BEDDING REQUIRED BASED ON SOIL CONDITIONS. CONTRACTOR TO SELECT REQUIRED CLASS OF PIPE BASED ON DEPTH OF PIPE AND BEDDING PROVIDED PER THE AMERICAN CONCRETE PIPE ASSOCIATION GUIDELINES.
- 2. ALL STORM DRAINAGE CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF RALEIGH STANDARDS.
- ALL CONCRETE SHALL MEET A MINIMUM 3000 PSI COMPRESSIVE STRENGTH
- 4 ALL PIPE IN STORM DRAIN STRUCTURES SHALL BE STRUCK EVEN WITH INSIDE WALL.
- 5. ALL PIPE JOINTS SHALL BE MADE WITH PREFORMED JOINT SEALER, WHICH CONFORMS TO AASHTO SPECIFICATION M-198 FOR TYPE B FLEXIBLE PLASTIC GASKETS UNLESS OTHERWISE NOTED.
- 6. THE INTERIOR SURFACES OF ALL STORM DRAINAGE STRUCTURES SHALL BE POINTED UP AND SMOOTHED TO AN ACCEPTABLE STANDARD, USING MORTAR MIXED TO MANUFACTURER'S SPECIFICATIONS.
- ALL BACKFILL SHALL BE NON-PLASTIC IN NATURE, FREE FROM ROOTS, VEGETATION MATTER, WASTE CONSTRUCTION MATERIAL OR OTHER OBJECTIONABLE MATERIAL. SAID MATERIAL SHALL BE CAPABLE OF BEING COMPACTED BY MECHANICAL MEANS AND SHALL HAVE NO TENDENCY TO FLOW OR BEHAVE IN A PLASTIC MANNER UNDER THE TAMPING BLOWS OR PROOF ROLLING.
- 8. MATERIALS DEEMED BY THE OWNER'S REPRESENTATIVE OR GEOTECH AS UNSUITABLE FOR BACKFILL PURPOSES SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL.
- 9. BACKFILLING OF TRENCHES SHALL BE ACCOMPLISHED IMMEDIATELY AFTER PIPE IS LAID. THE FILL AROUND THE PIPE SHALL BE THOROUGHLY COMPACTED TO 95 % OF THE MAXIMUM DRY DENSITY OBTAINABLE WITH THE STANDARD PROCTOR TEST. THE TOP EIGHT (8) INCHES SHALL BE COMPACTED TO 100 PERCENT STANDARD PROCTOR.
- 10. UNDER NO CIRCUMSTANCES SHALL WATER BE ALLOWED TO RISE IN UNBACKFILLED TRENCHES AFTER PIPE HAS BEEN PLACED.
- 11. ALL CONCRETE PIPE AND PRECAST STORM STRUCTURES SHALL MEET NCDOT STANDARDS BY MANUFACTURER.
- 12. CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL PIPE AND STRUCTURES FOR CRACKS OR BREAKS, PRIOR TO INSTALLATION. ANY DAMAGED ITEMS SHALL NOT BE INSTALLED.
- 13. "KNOCK-OUT" BOXES OR HDPE PIPE SHALL NOT BE ALLOWED WITHIN PUBLIC RIGHT-OF-WAYS UNLESS APPROVED IN WRITING BY CITY OF RALEIGH STORMWATER DEPARTMENT.

# ADDITIONAL UTILITY NOTES

- ALL WATER MAINS, SERVICES AND FIRE SERVICES GREATER THAN 2" DIAMETER ARE TO BE DUCTILE IRON PIPE. 2" & SMALLER DOMESTIC SERVICES MUST BE TYPE K SOFT COPPER (WITHOUT FITTINGS) TO THE WATER METER.
- 2. ALL SEWER MAINS SHALL BE EITHER PVC OR DUCTILE IRON PIPE AS SHOWN ON THE PLANS. ALL PIPE MATERIAL SHALL MEET CITY OF RALEIGH STANDARDS AND SPECIFICATIONS AS DEFINED IN THE LATEST ISSUE OF THE PUBLIC UTILITIES HANDBOOK AND/OR UNIFIED DEVELOPMENT ORDINANCE (UDO)
- 3. ALL FIRE HYDRANTS ALONG PUBLIC R/W LINES SHALL HAVE A 3'Wx3'L CITY OF RALEIGH WATERLINE EASEMENT ONTO ADJACENT
- 4. ALL SANITARY SEWER INTERCEPTOR LINES (12" AND LARGER), AS WELL AS MANHOLES AND FITTINGS ASSOCIATED WITH THE INTERCEPTOR LINE, SHALL BE INTERNALLY LINED WITH PROTECTO 401 OR APPROVED EQUAL TO PREVENT HYDROGEN SULFIDE CORROSION. SEE THE CURRENT CITY OF RALEIGH PUBLIC UTILITIES DEPARTMENT HANDBOOK FOR APPROVED COATINGS AND

DEPARTMENT FOR DETAILS AND SPECIFICATIONS FOR MEETING THESE REQUIREMENTS.

- APPLICATION METHODS. 5. IN ACCORDANCE WITH GENERAL STATUTE 87-121(G), ALL UNDERGROUND UTILITIES INSTALLED AFTER OCTOBER 1, 2014 SHALL BE ELECTRONICALLY LOCATABLE. CONTRACTOR SHALL COORDINATE DIRECTLY WITH THE CITY OF RALEIGH PUBLIC UTILITIES
- 6. EXISTING UTILITIES SHOWN ARE BASED ON FIELD SURVEYS AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- 7. ALL WATER AND SEWER MAINS WITHIN PUBLIC EASEMENTS OR RIGHTS-OF-WAY TO BE OWNED, OPERATED, AND MAINTAINED BY
- ALL WATER AND SEWER MAINS NOT WITHIN PUBLIC EASEMENTS OR RIGHTS-OF-WAY TO BE PRIVATELY OWNED, OPERATED, AND
- CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER

10. ALL UTILITY SLEEVES SHALL BE SCHEDULE 40 PVC AND INSTALLED WITH 2' MINIMUM COVER. BOTH ENDS SHALL BE CAPPED AND

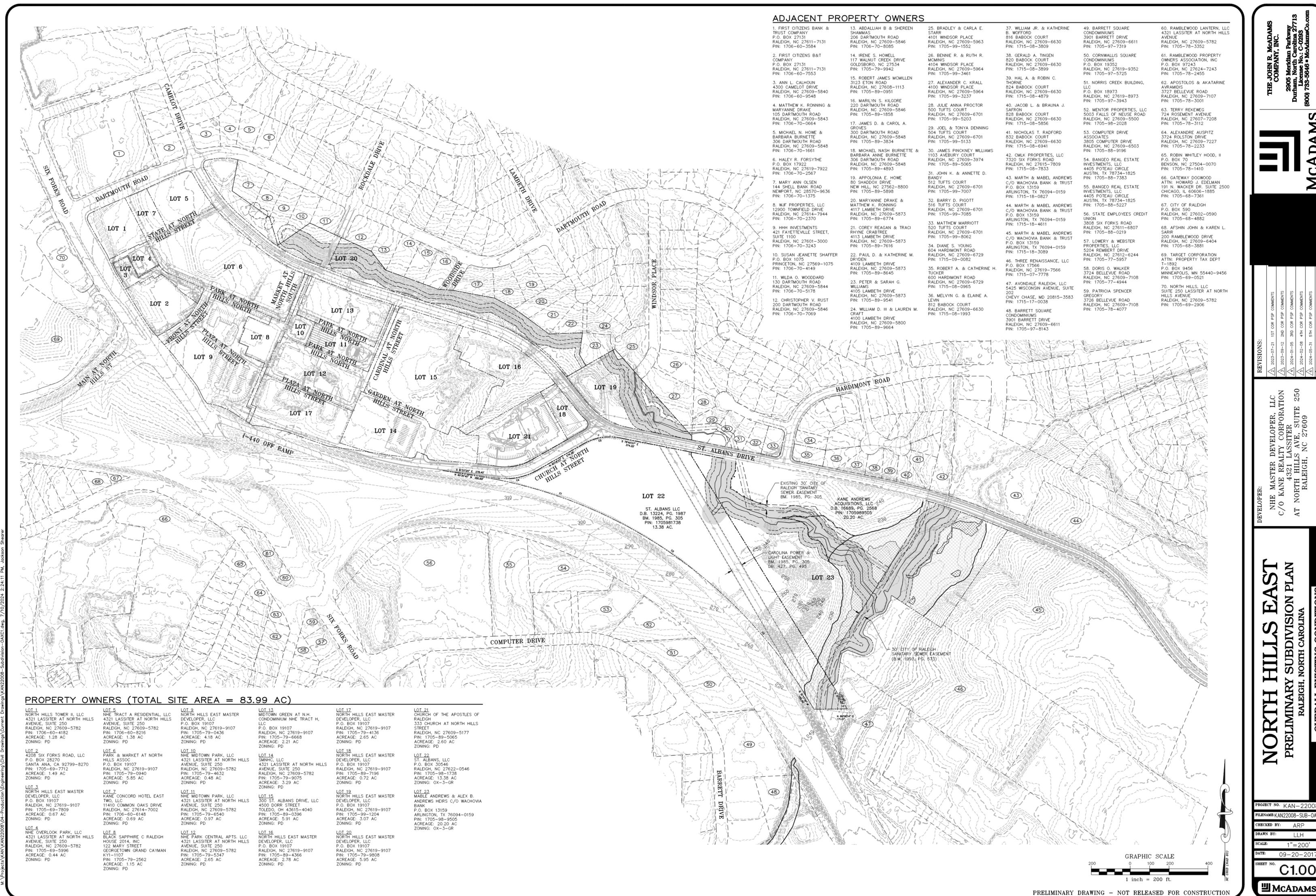
9. CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING

# PAVEMENT MARKING NOTES

- ALL PAVEMENT MARKINGS SHOWN IN THESE PLANS FOR CITY OF RALEIGH MAINTAINED STREETS ARE SUBJECT TO FINAL APPROVAL FROM PUBLIC WORKS TRANSPORTATION OPERATIONS DIVISION. CONTRACTOR SHALL CONTACT TRANSPORTATION OPERATIONS AT 919-996-3030 FOR COORDINATION AND FINAL APPROVAL PRIOR TO PLACEMENT OF ANY PAVEMENT MARKINGS. MARKINGS WITHIN NCDOT RIGHT-OF-WAYS SHALL BE IN COMPLIANCE WITH NCDOT STANDARDS AND SPECIFICATIONS.
- 2. ALL SIGNS & PAVEMENT MARKINGS ASSOCIATED WITH THE PUBLIC STREET SYSTEM WILL REQUIRE APPROVAL BY CITY COUNCIL TO BE ORDINANCED FOR ENFORCEMENT.
- ALL PAVEMENT MARKINGS SHALL BE PLACED PER THE NCDOT DIVISION 12 STANDARD DETAILS. BICYCLE LANE MARKINGS SHALL BE PLACED PER CITY OF RALEIGH STANDARD BICYCLE FACILITIES DETAILS.

CONTRACTOR SHALL NOTIFY "NC811" (811) OR (1-800-632-4949) AT LEAST 3 FULL BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.

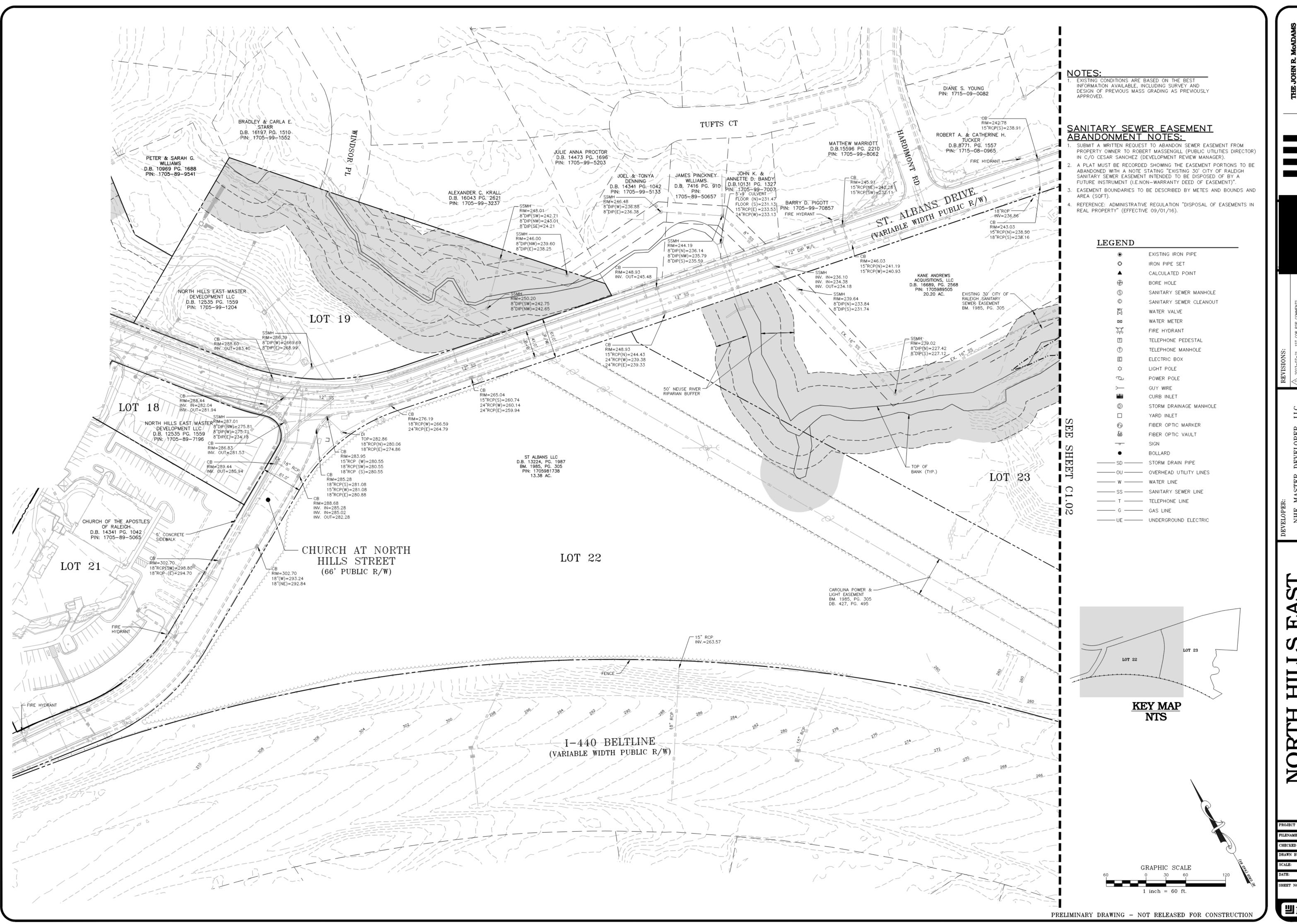
Know what's below.



PROJECT NO. KAN-2200 FILENAME:KAN22008-SUB-04

CHECKED BY: ARP LLH 1"=200' 09-20-201

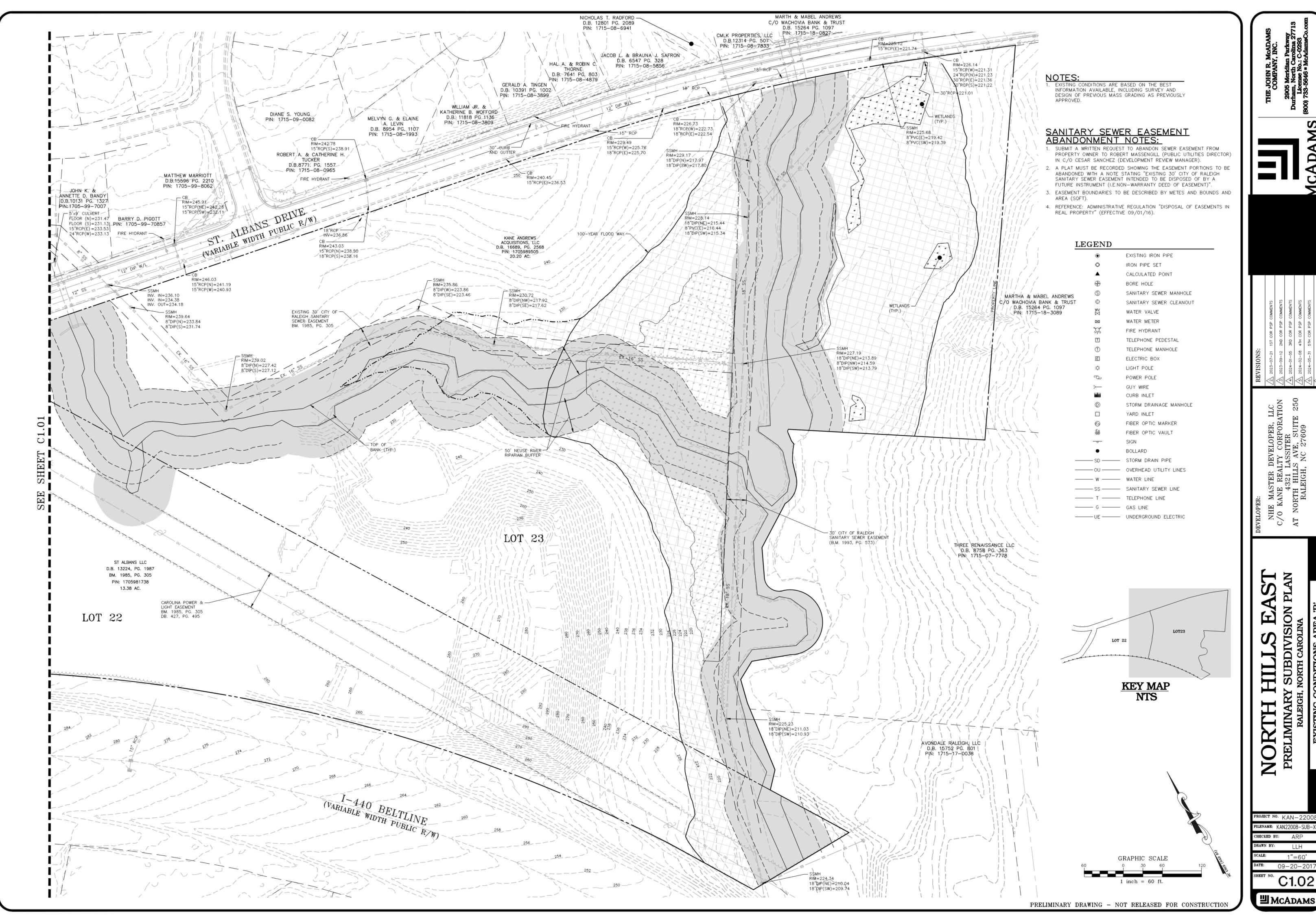
C<sub>1.00</sub>



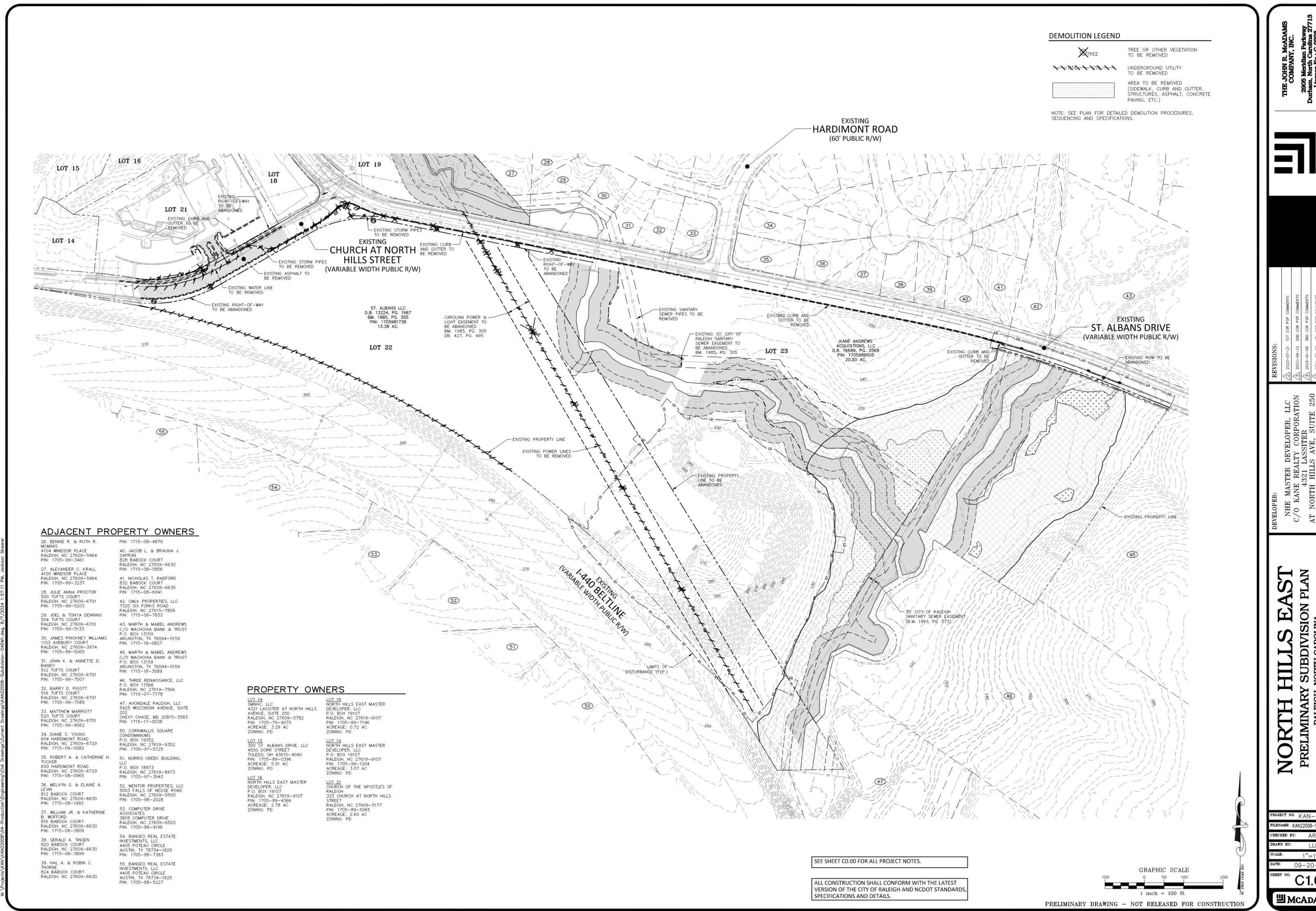
PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB-

09-20-201

C1.01

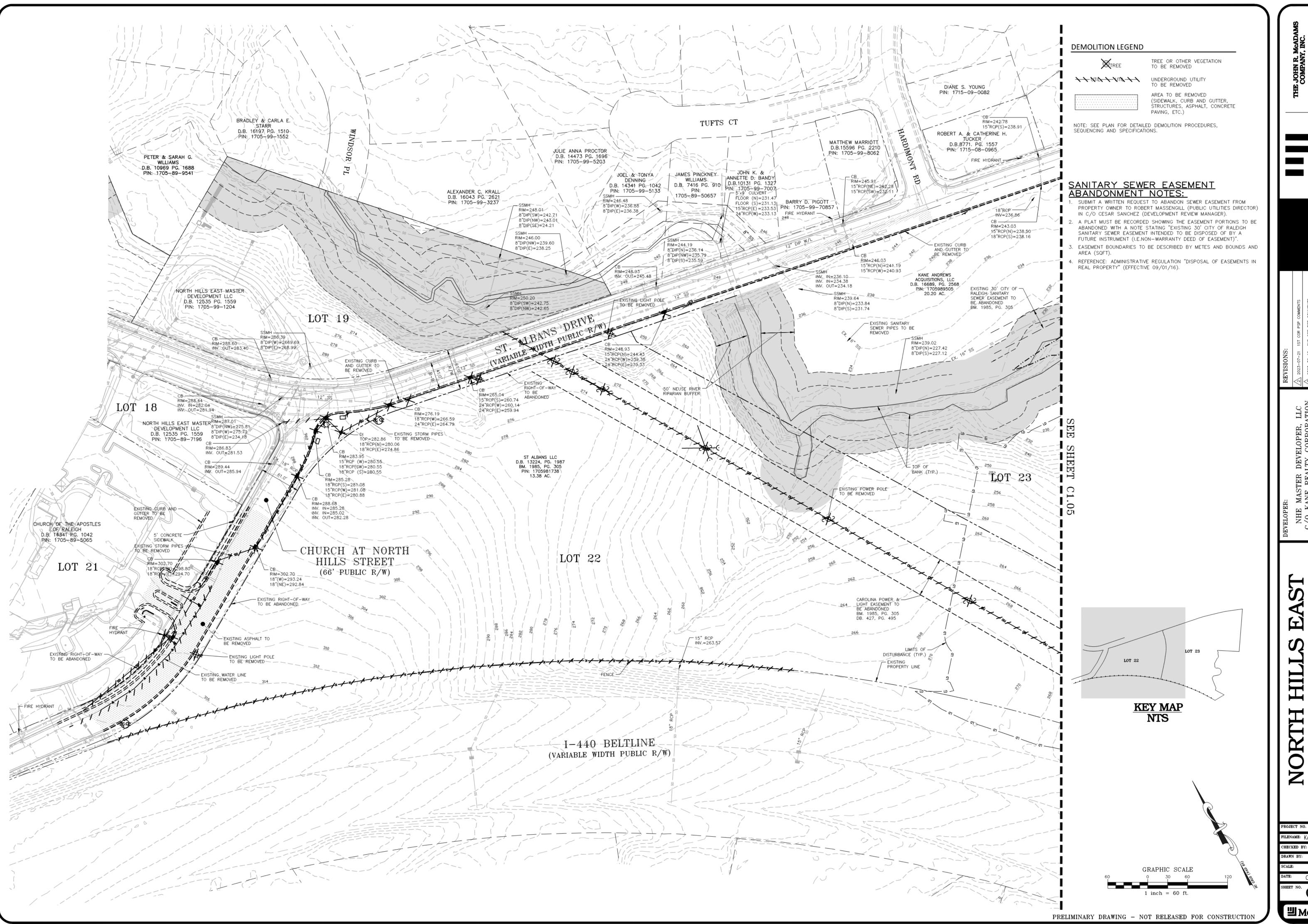


PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB-X



PROJECT NO. KAN-22008 FILENAME: KAN22008-SUB-OADI CHECKED BY: ARP LLH 1"=100'

09-20-2017

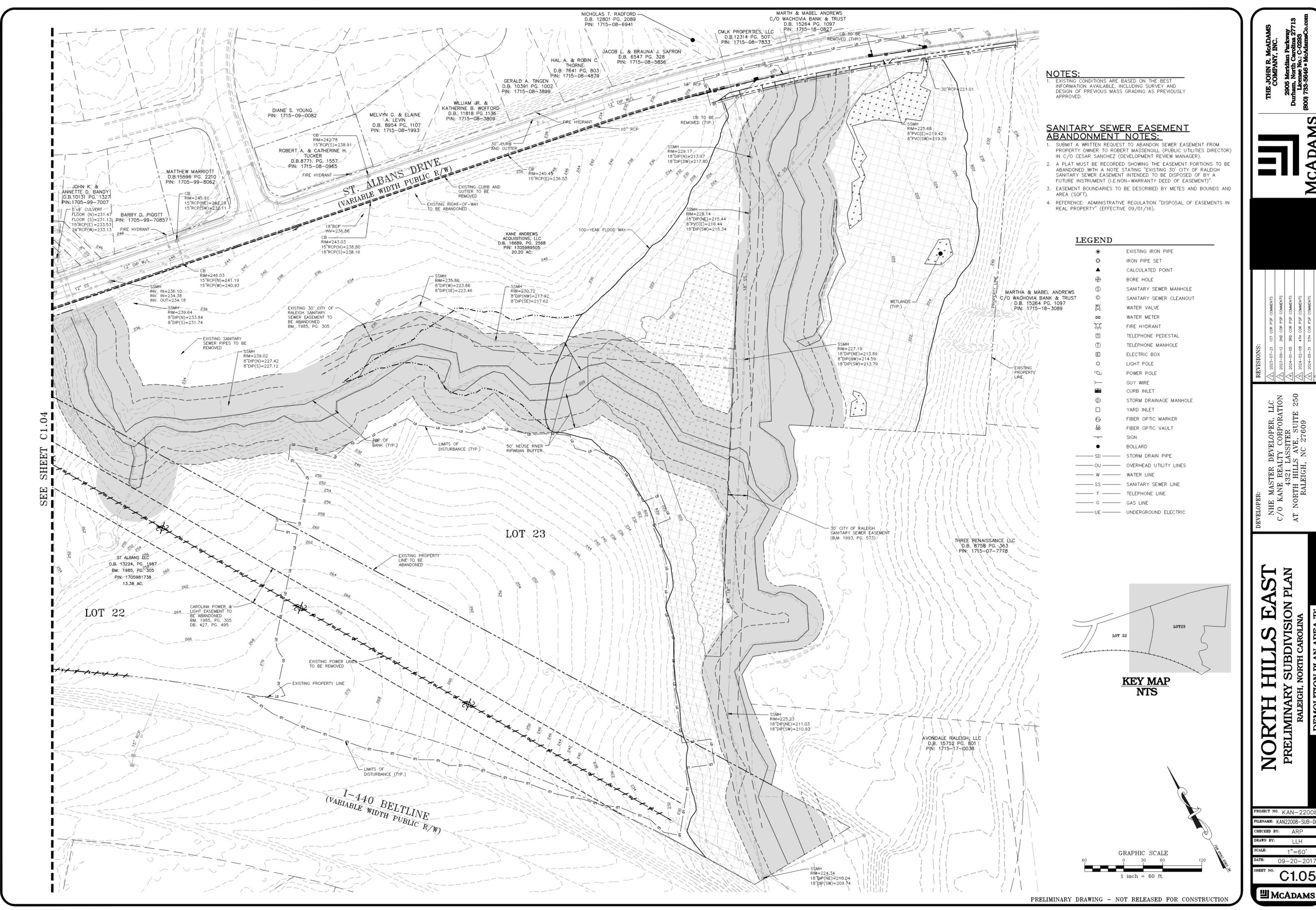


PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB-[ CHECKED BY: ARP

09-20-201

C1.04

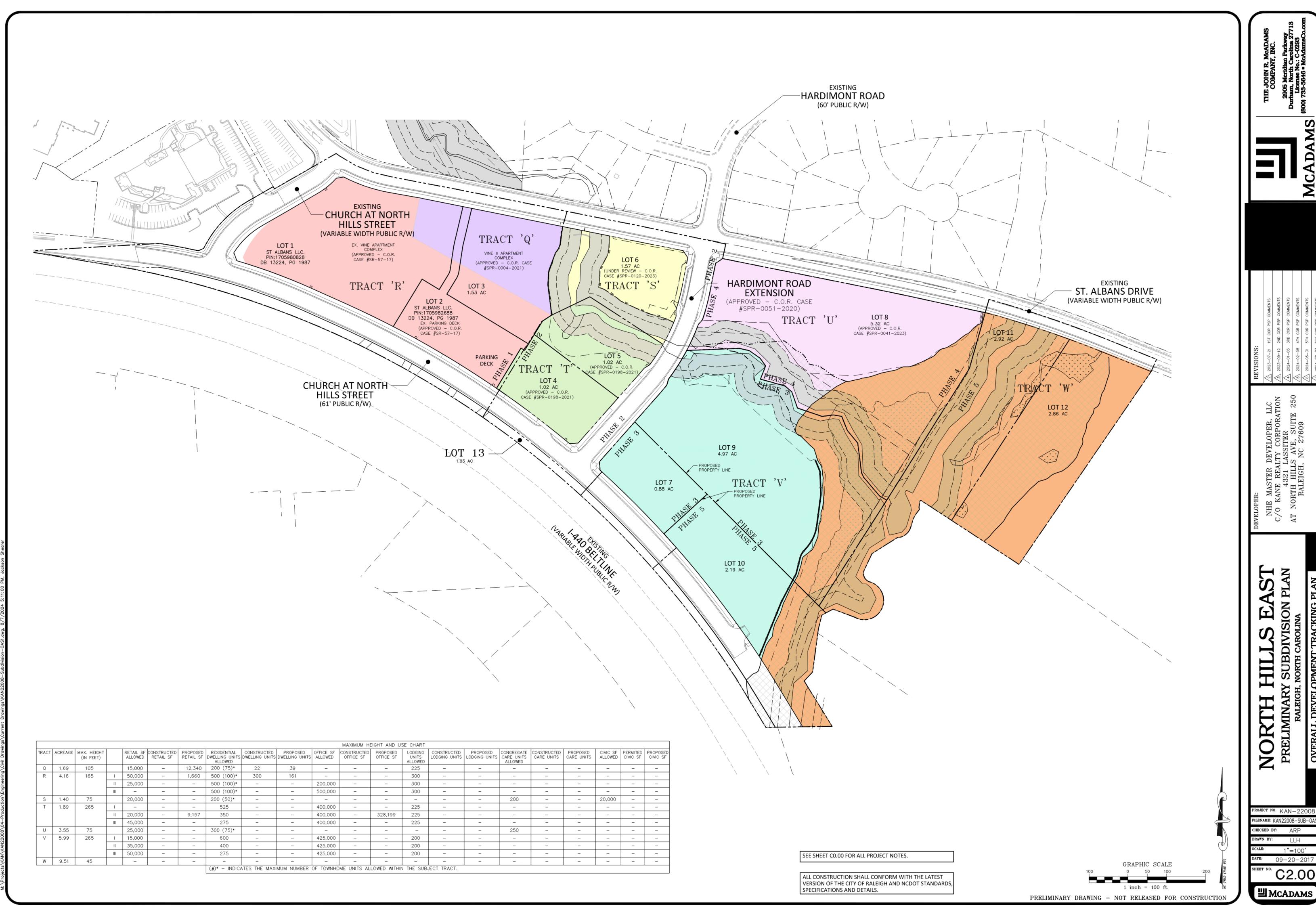
**MCADAMS** 



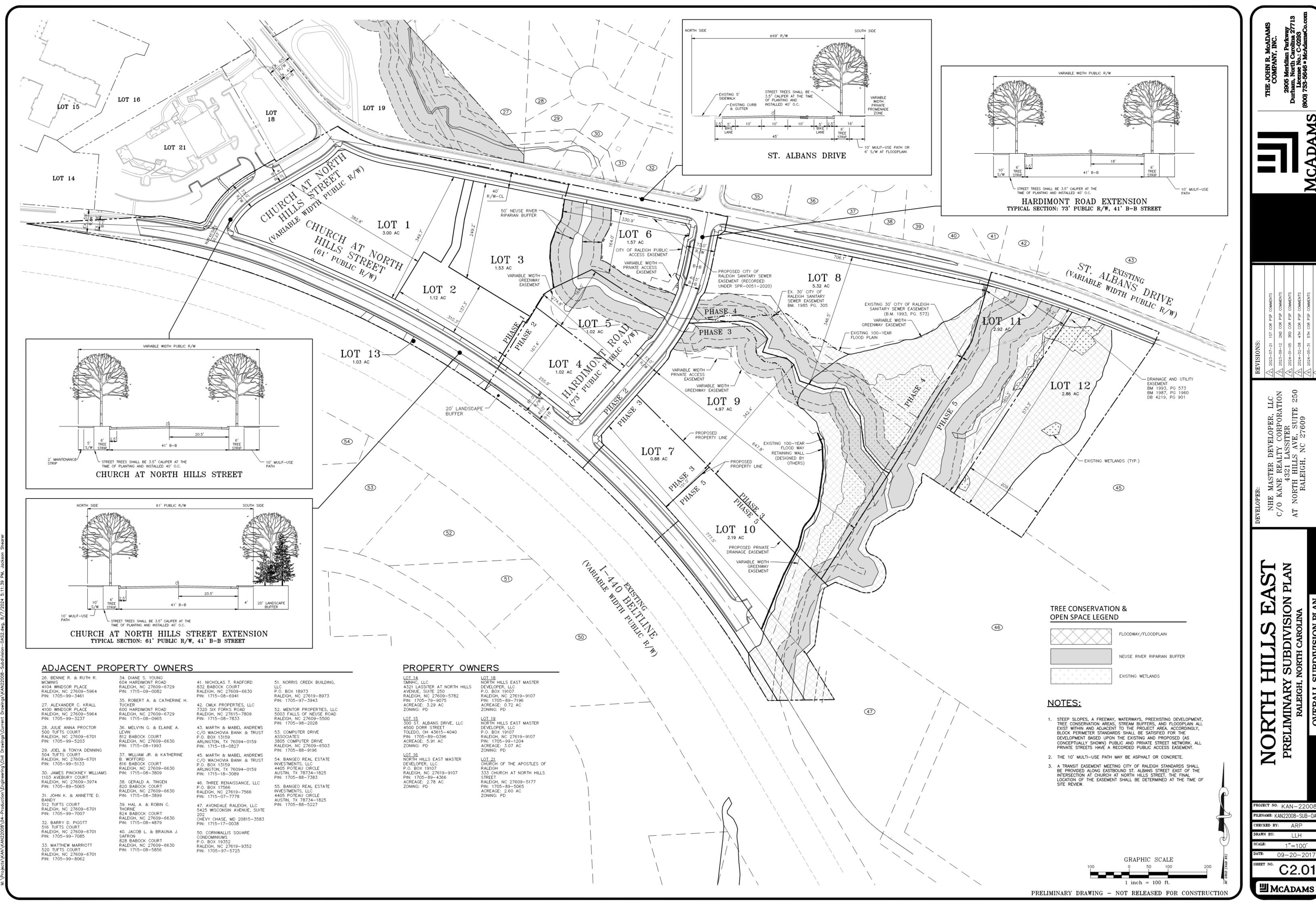
PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB-[ CHECKED BY: ARP

1"=60' 09-20-2017

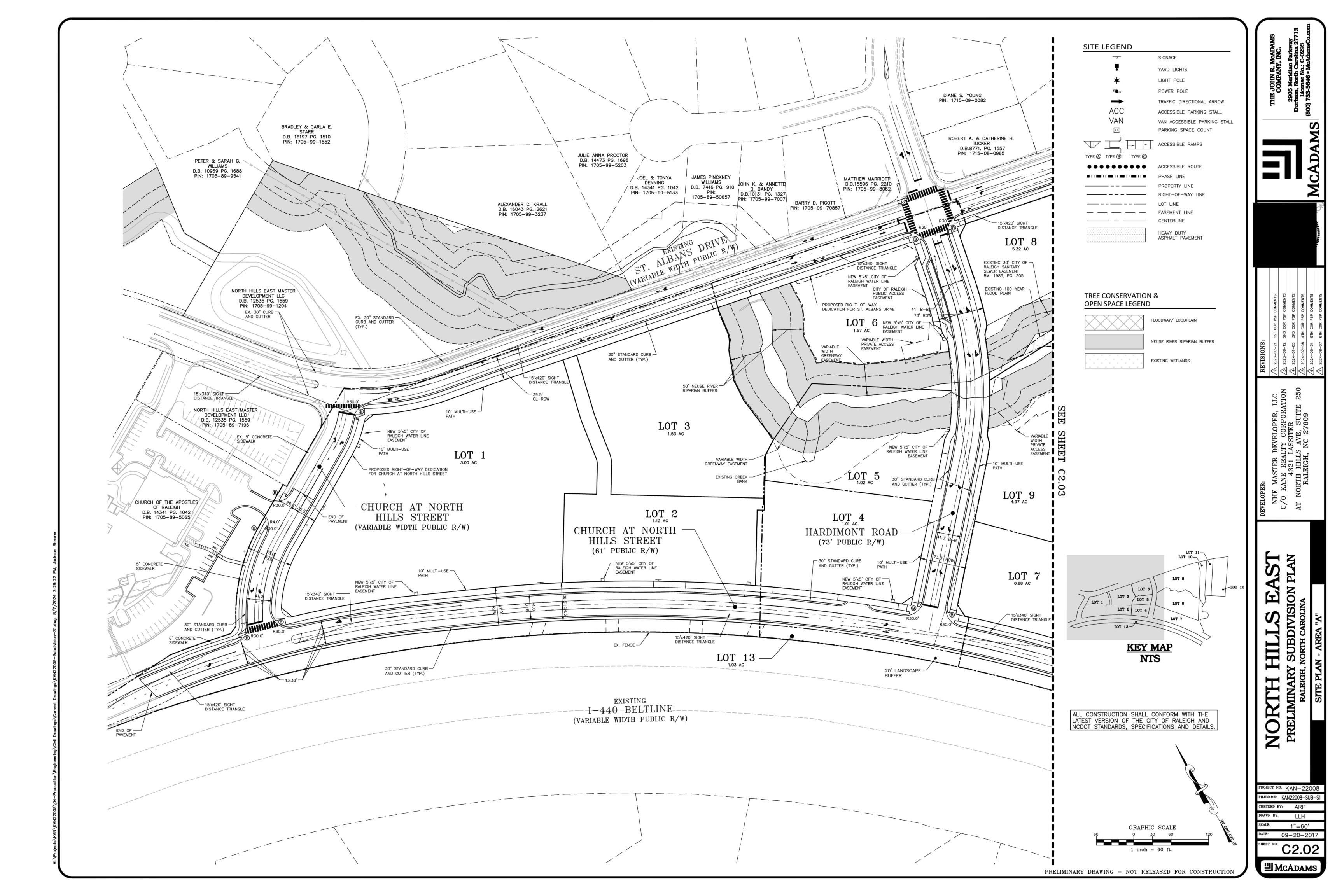
C1.05

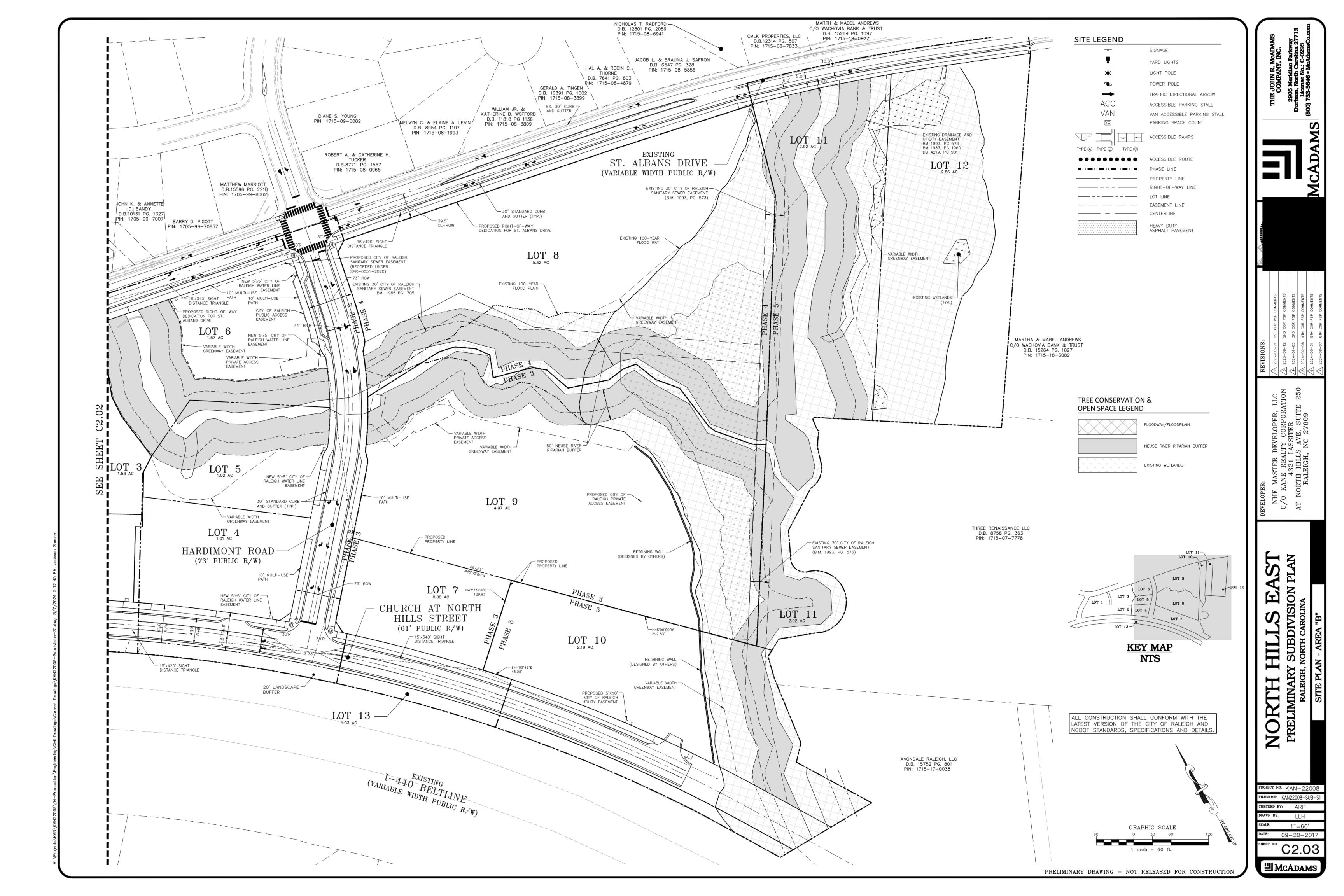


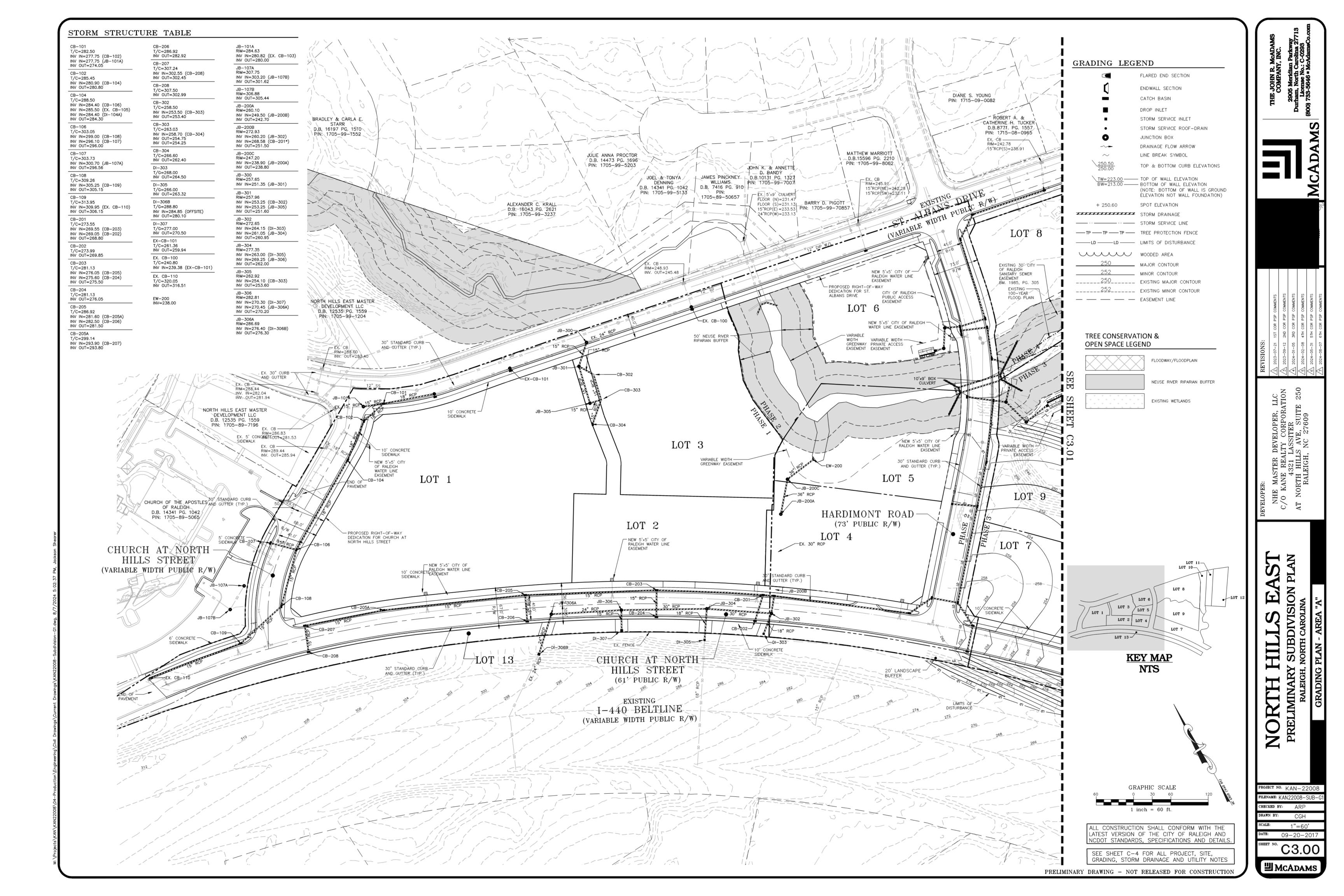
PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB-0 CHECKED BY: ARP 1"=100' 09-20-2017

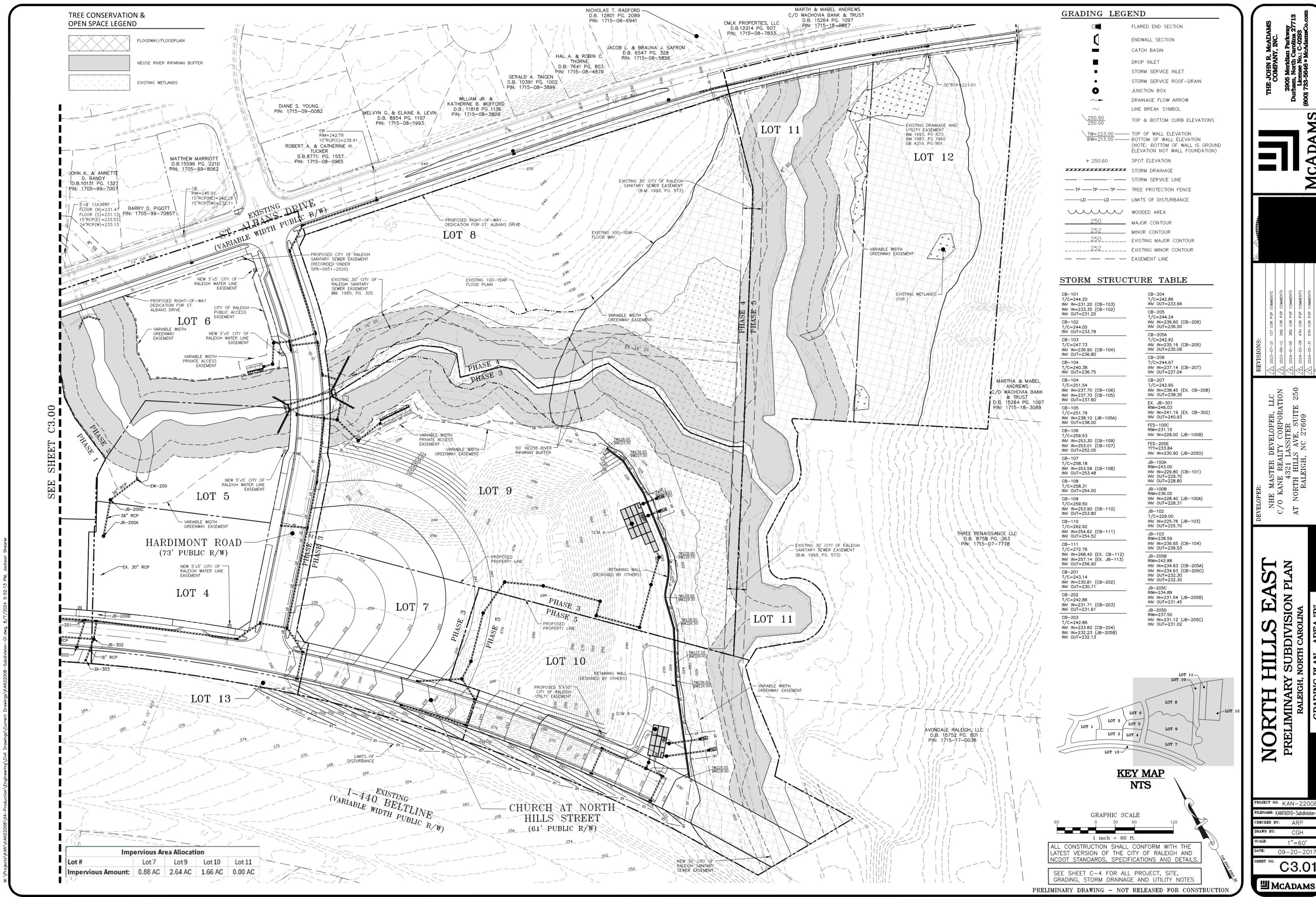


PROJECT NO. KAN-22008 FILENAME: KAN22008-SUB-0 LLH 1"=100' 09-20-201

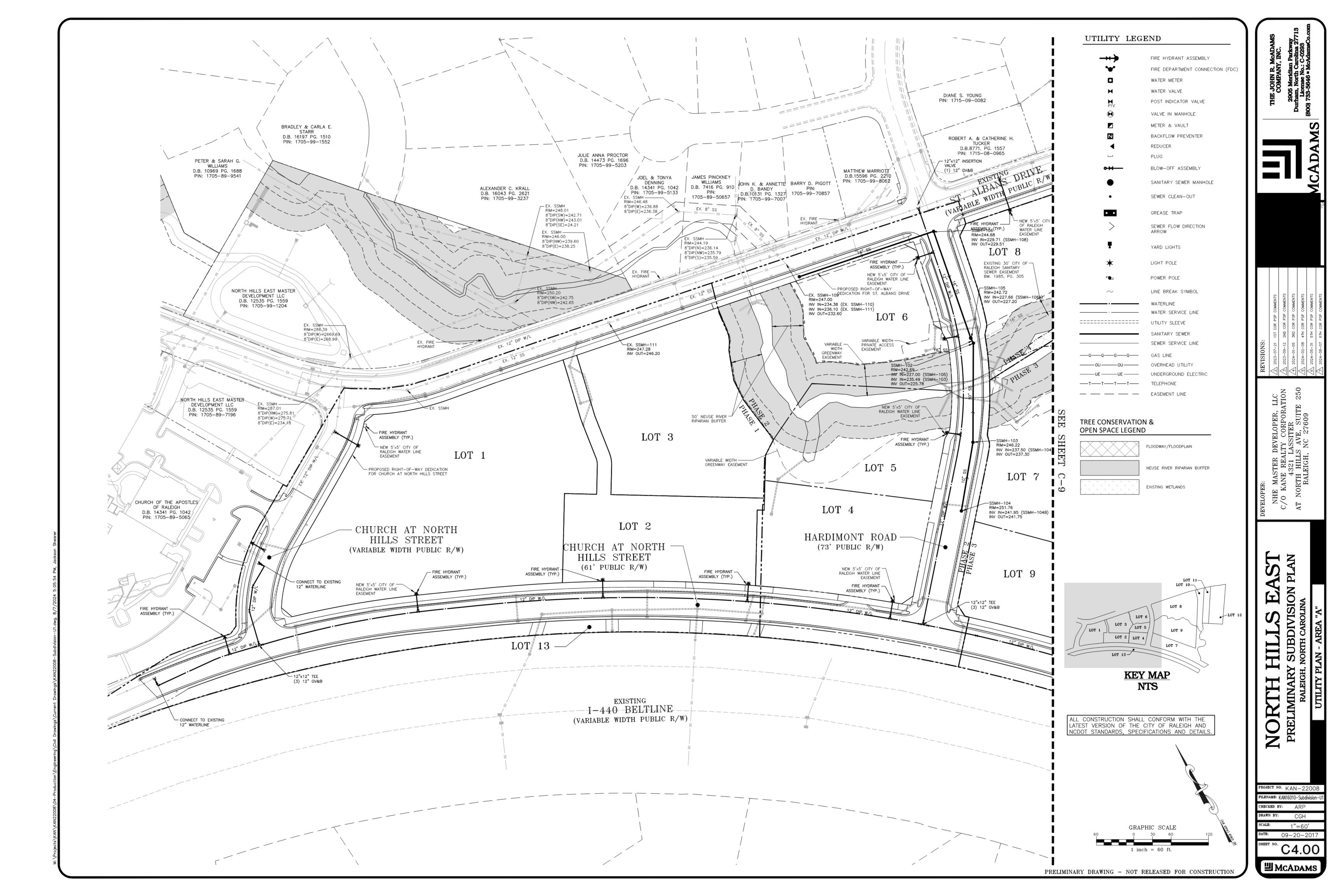


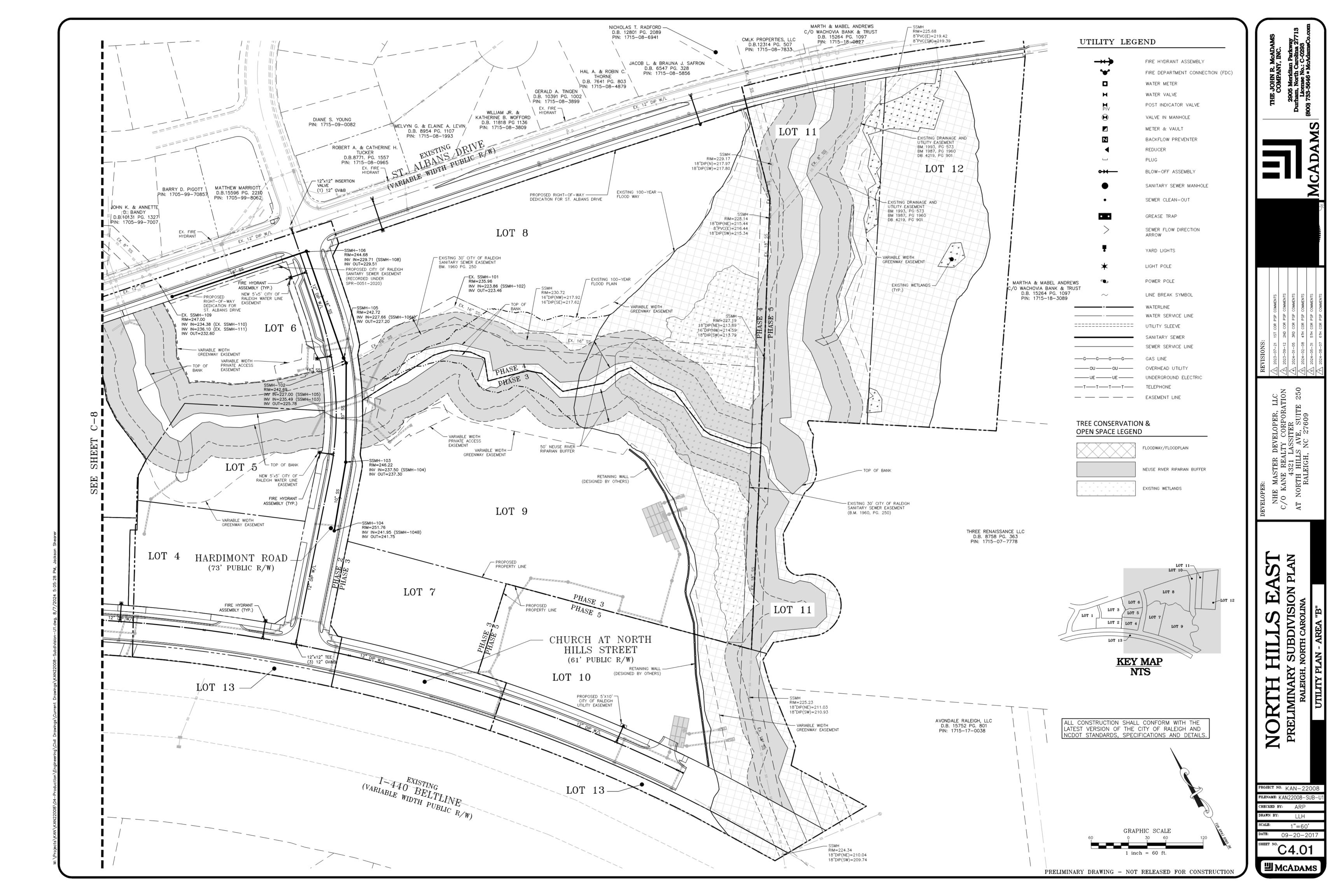


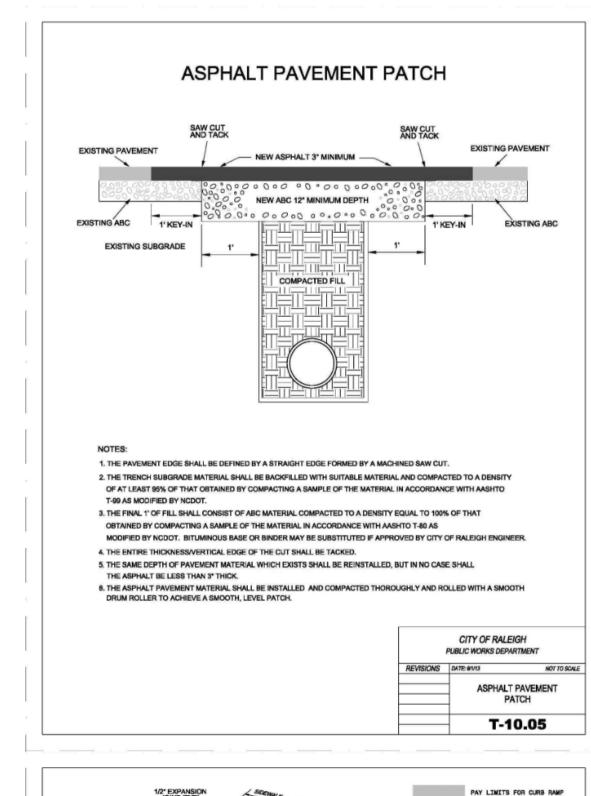




PROJECT NO. KAN-2200 09-20-2017



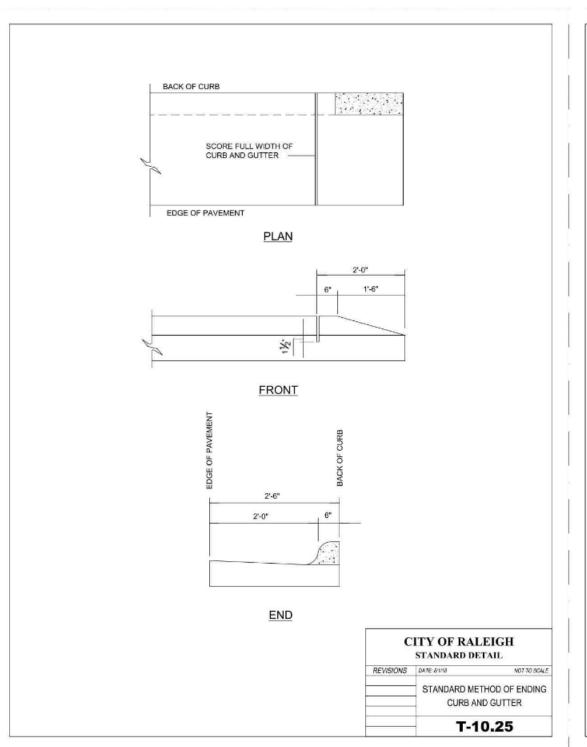


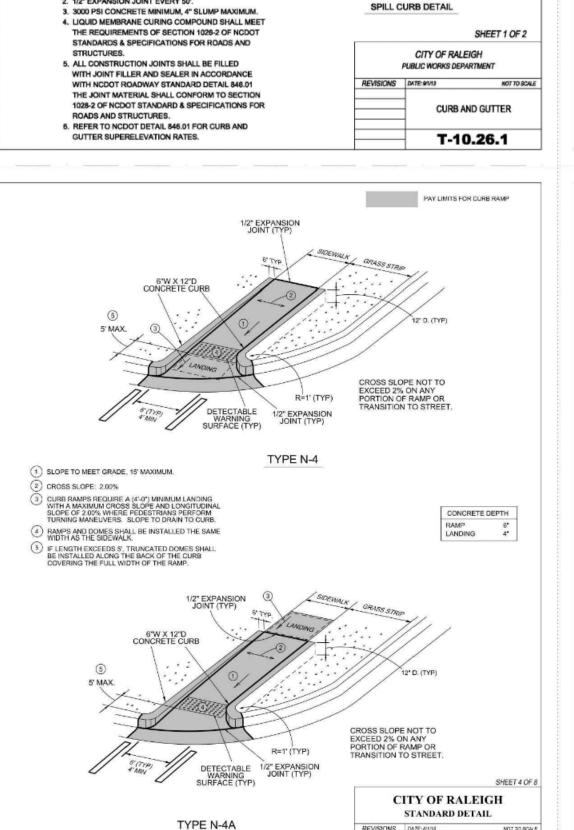


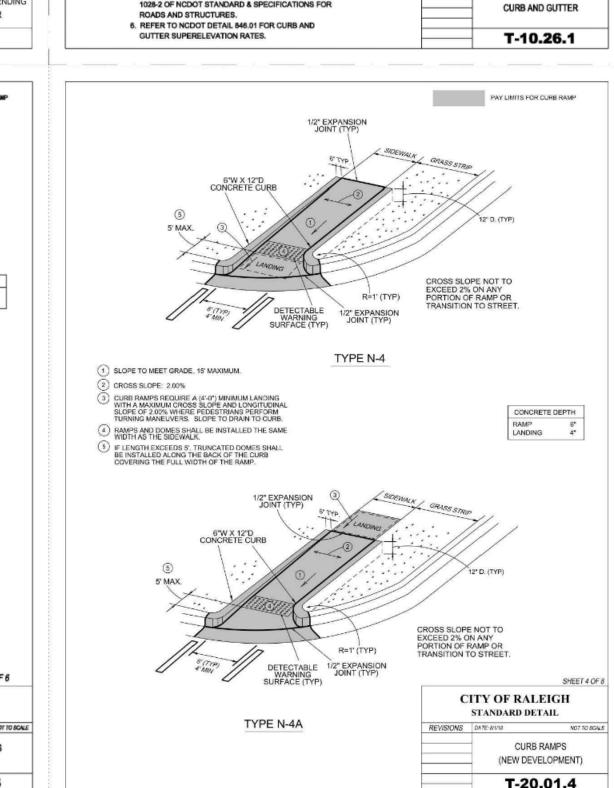
1) 8.33% (12:1) MAX RAMP SLOPE

6" W X 12"D CONCRETE CURB-

CROSS SLOPE: 2.00%







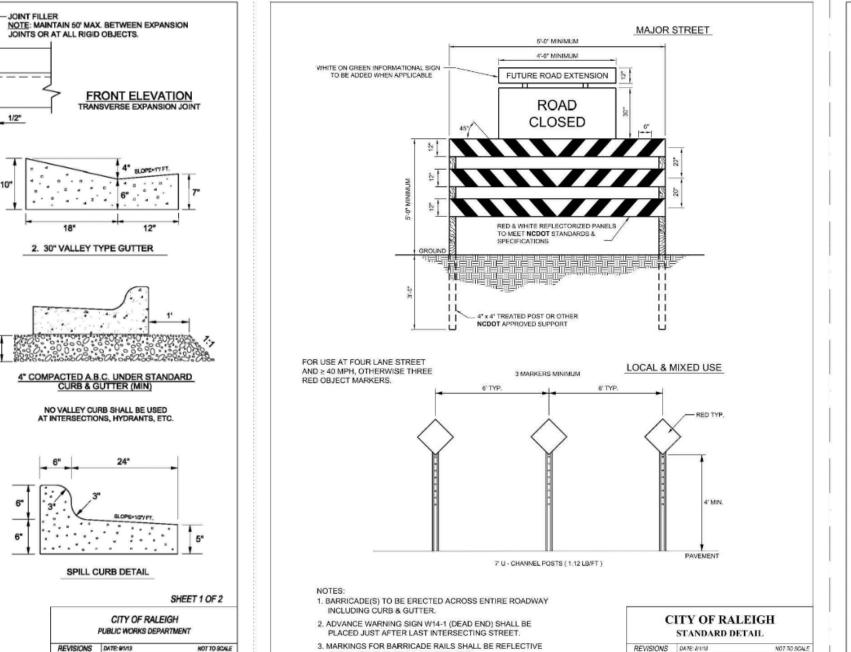
1/8" RADIUS (TYP.)

1. 30" CURB & GUTTER

1. 10' MAXIMUM BETWEEN DUMMY JOINTS.

2. 1/2" EXPANSION JOINT EVERY 50'.

15' MAXIMUM BETWEEN DUMMY JOINTS ON



AND ALTERNATE RED & WHITE STRIPS.

WHERE SIDEWALK IS REQUIRED.

THE GRADE OF THE STREET.

NONSKID SURFACE.

EXISTING CONCRETE.

AREA SHALL BE YELLOW FOR CONTRAST.

4. "ROAD CLOSED" SIGN SHALL MEET SPECIFICATIONS OF

M.U.T.C.D. R11-2 AND BE REQUIRED ATOP EACH BARRICADE USED.

5. CALL 811 FOR UNDERGROUND UTILITY LOCATE PRIOR TO INSTALLATION.

CITY OF RALEIGH **CURB RAMPS** 

**GENERAL NOTES** 

1. CITY OF RALEIGH STANDARD CURB RAMPS HAVE BEEN DEVELOPED IN ACCORDANCE WITH THE AMERICANS WITH DISABILITIES ACT (ADA) AND PUBLIC RIGHT OF WAY ACCESS GUIDELINES (PROWAG)

OR AS DIRECTED BY THE ENGINEER. SIDEWALK ACCESS RAMPS SHALL BE LOCATED AS

3. DOUBLE WHEELCHAIR RAMPS ARE TO BE INSTALLED AT ALL PUBLIC STREET INTERSECTIONS

4. THE WALKING SURFACE SHALL BE SLIP RESISTANT. THE COLOR FOR THE DETECTABLE WARNING

5. NO SLOPE ON THE SIDEWALK ACCESS RAMP SHALL EXCEED 1"/FT (12:1) IN RELATIONSHIP TO

7. USE CLASS A (3000 PSI) CONCRETE WITH A SIDEWALK FINISH IN ORDER TO OBTAIN A ROUGH

8. A 1/2" EXPANSION JOINT INSTALLED FULL DEPTH WILL BE REQUIRED WHERE THE CONCRETE

SIDEWALK ACCESS RAMP JOINS THE CURB AND ALSO WHERE NEW CONCRETE ABUTS

6. IN NO CASE SHALL THE WIDTH OF THE SIDEWALK ACCESS RAMP BE LESS THAN 48"

ALL RAMPS SHALL BE INSTALLED THE SAME WIDTH AS THE SIDEWALK.

9. CURB RAMPS SHOULD BE PLACED PARALLEL TO THE DIRECTION OF TRAVEL.

INDICATED IN THE DETAIL, HOWEVER, THE LOCATION MAY BE ADJUSTED IN COORDINATION WITH THE CITY OF RALEIGH WHERE EXISTING LIGHT POLES, FIRE HYDRANTS, DROP INLETS, ETC. AFFECT

2. CURB RAMPS SHALL BE PROVIDED AT LOCATIONS AS SHOWN ON THE PLANS

DEAD END ROADS

T-10.28

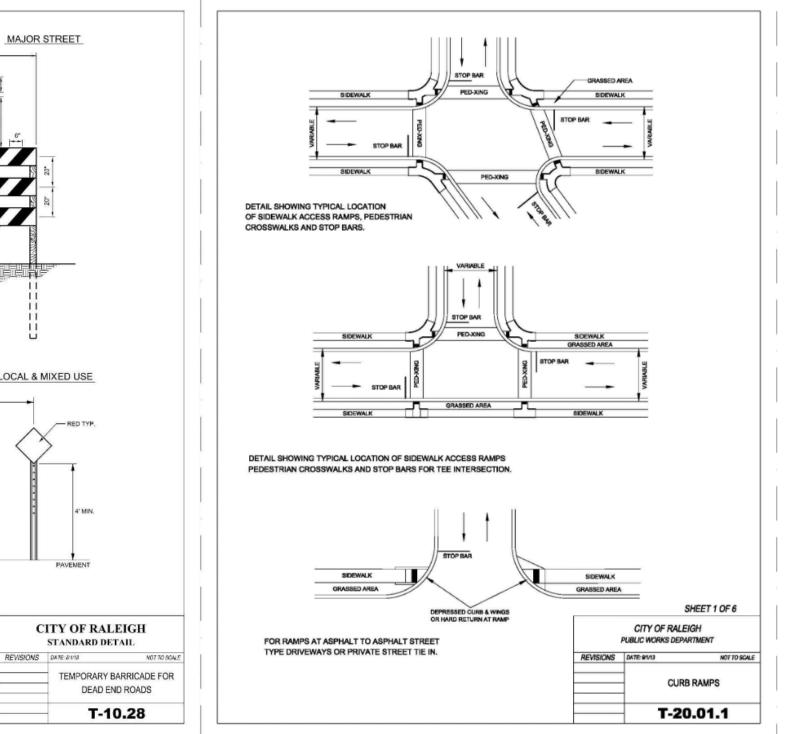
CITY OF RALEIGH

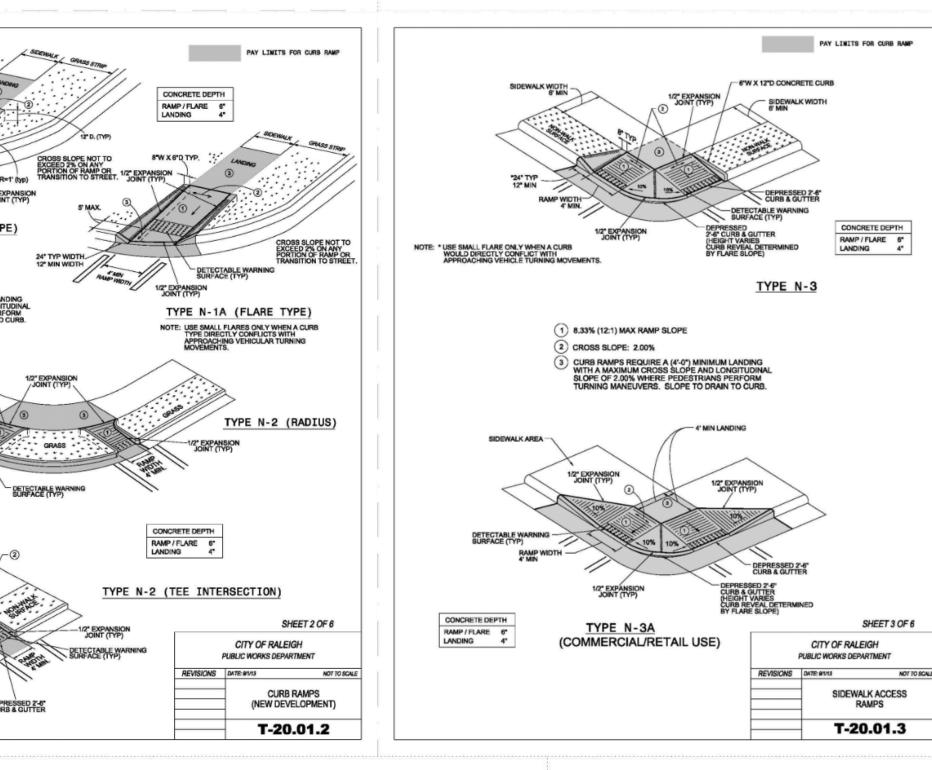
STANDARD DETAIL

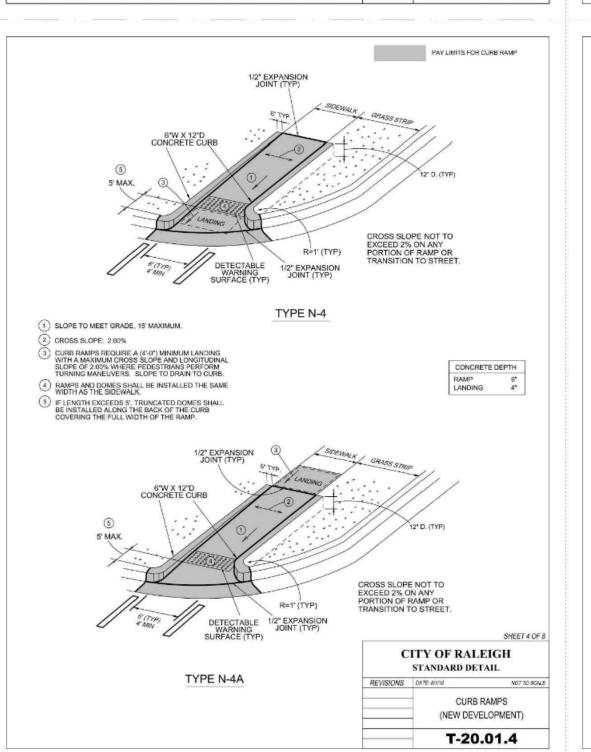
CURB RAMP NOTES

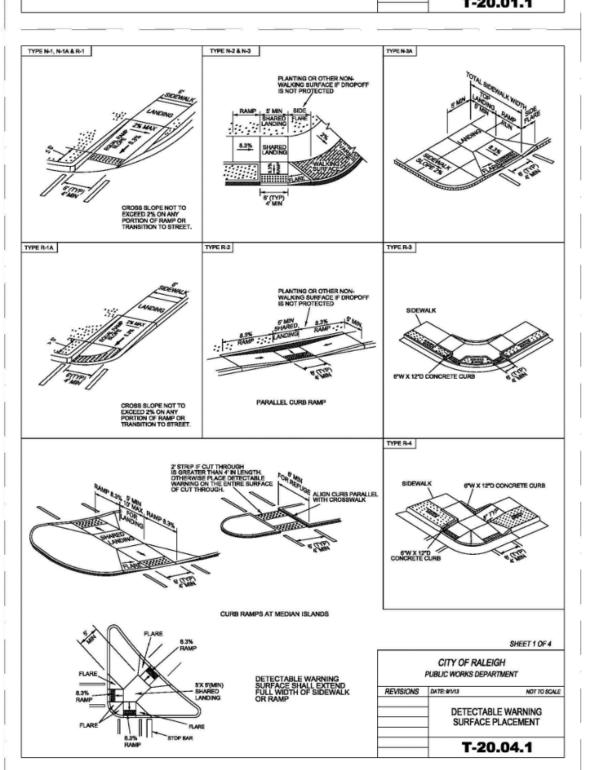
T-20.01.8

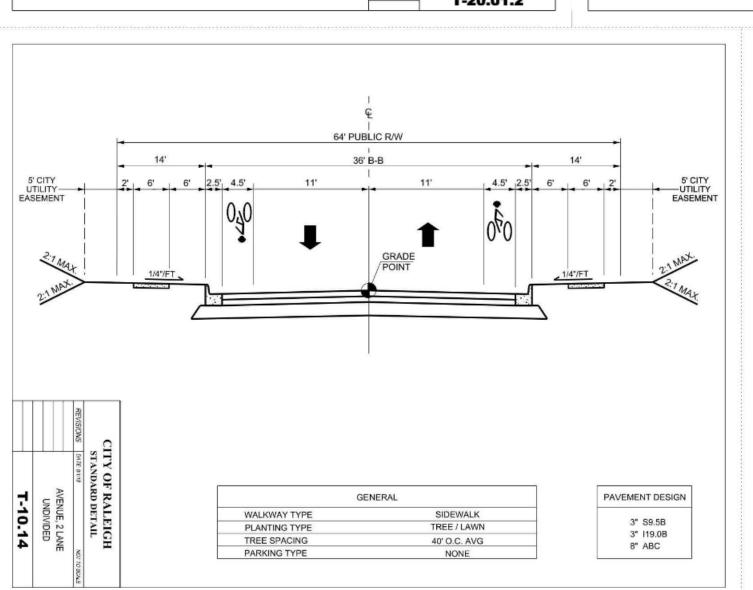
REVISIONS DATE: 611/18

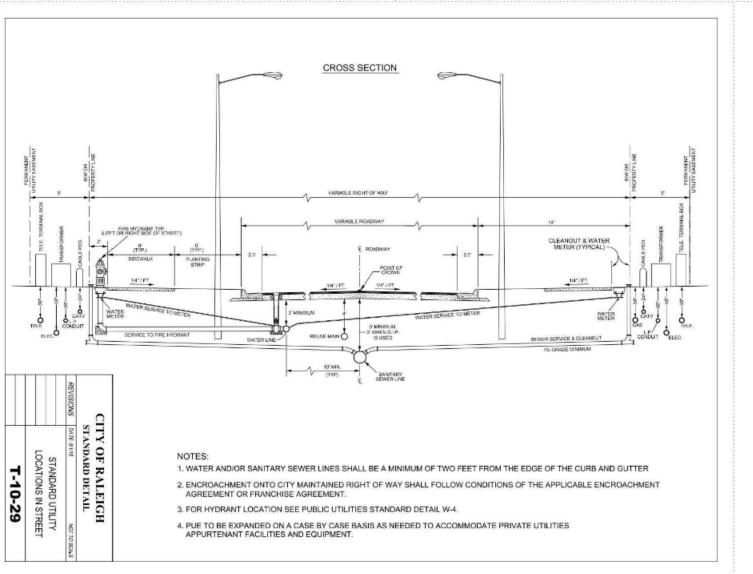




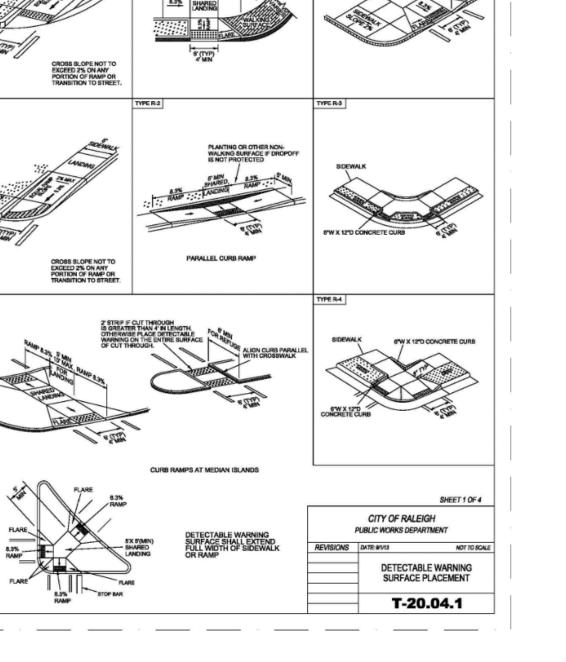






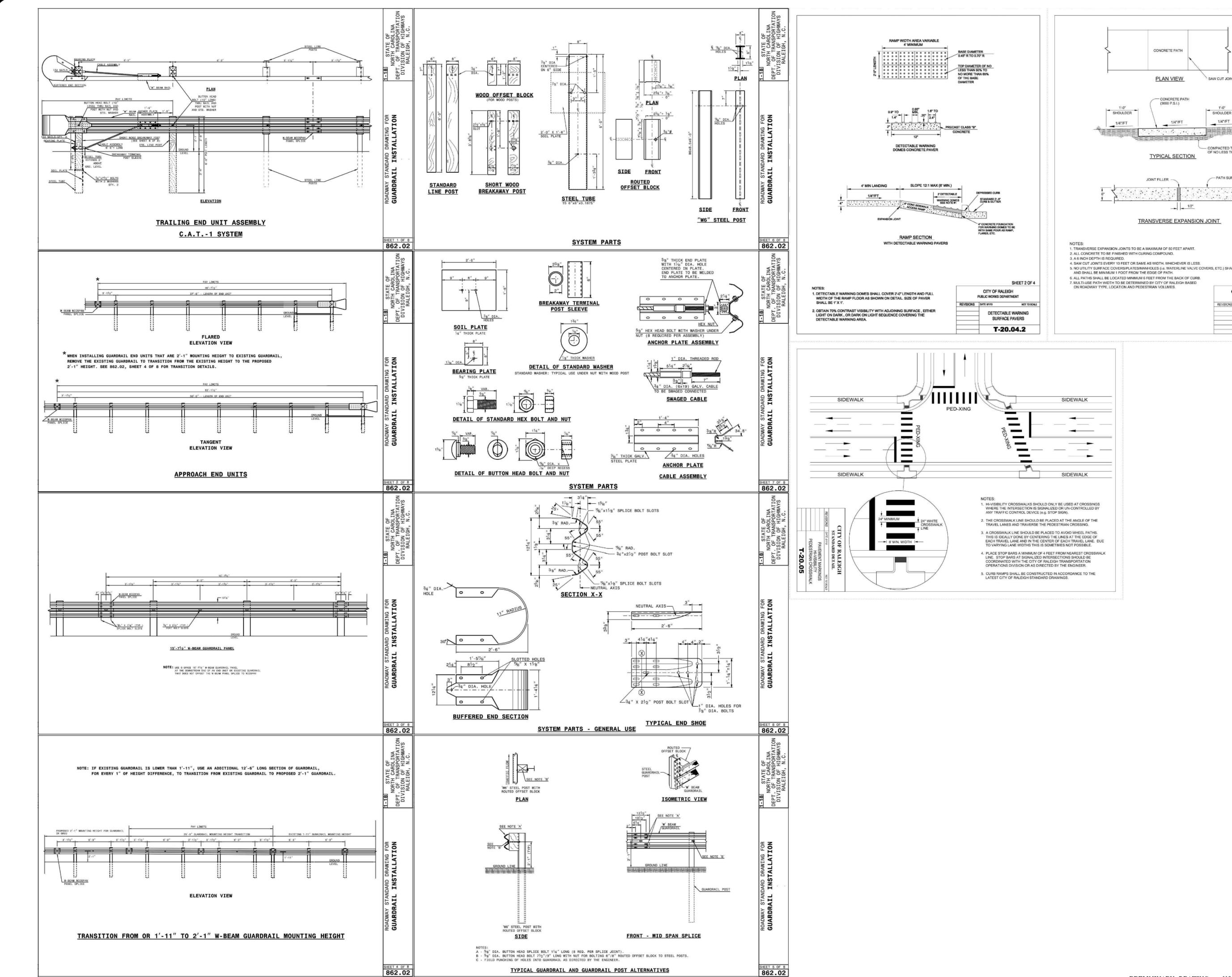






PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB CHECKED BY: ARP LLH NTS

09-20-2017 C8.00

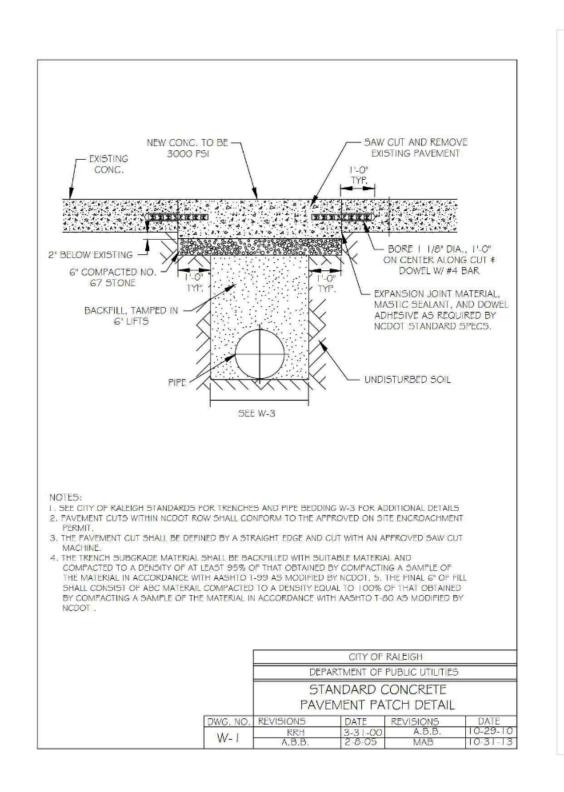


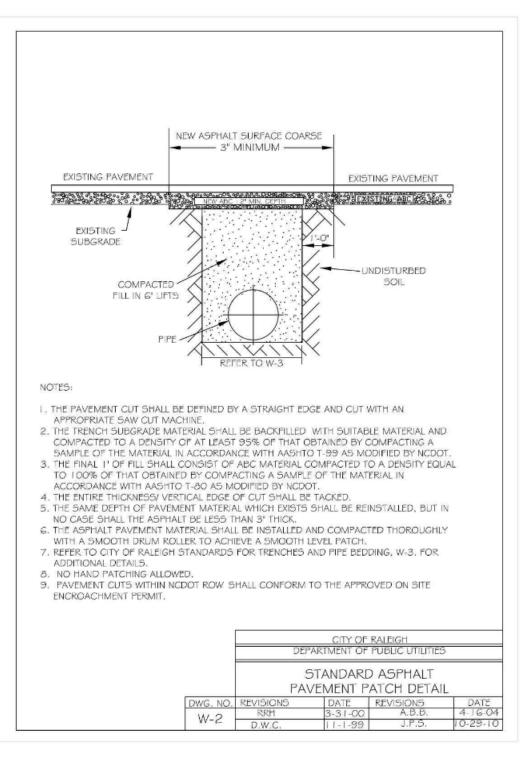
SAW CUT JOINT SPACING @ 10' O.C. OF NO LESS THAN 95% 4. SAW CUT JOINTS EVERY 10 FEET OR SAME AS WIDTH, WHICHEVER IS LESS.
5. NO UTILITY SURFACE COVERS/PLATES/MANHOLES (i.e. WATERLINE VALVE COVERS, ETC.) SHALL BE LOCATED WITHIN PATH CITY OF RALEIGH STANDARD DETAIL CONCRETE MULTI-PURPOSE PATH T-30.02.2

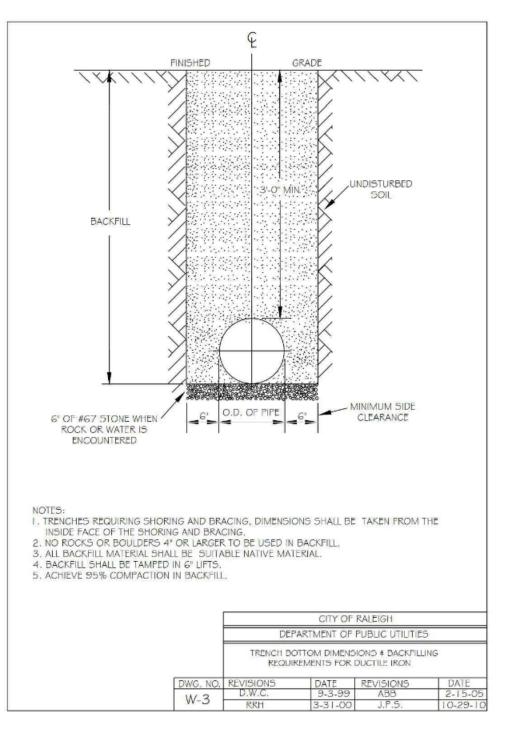
PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB CHECKED BY: ARP LLH NTS

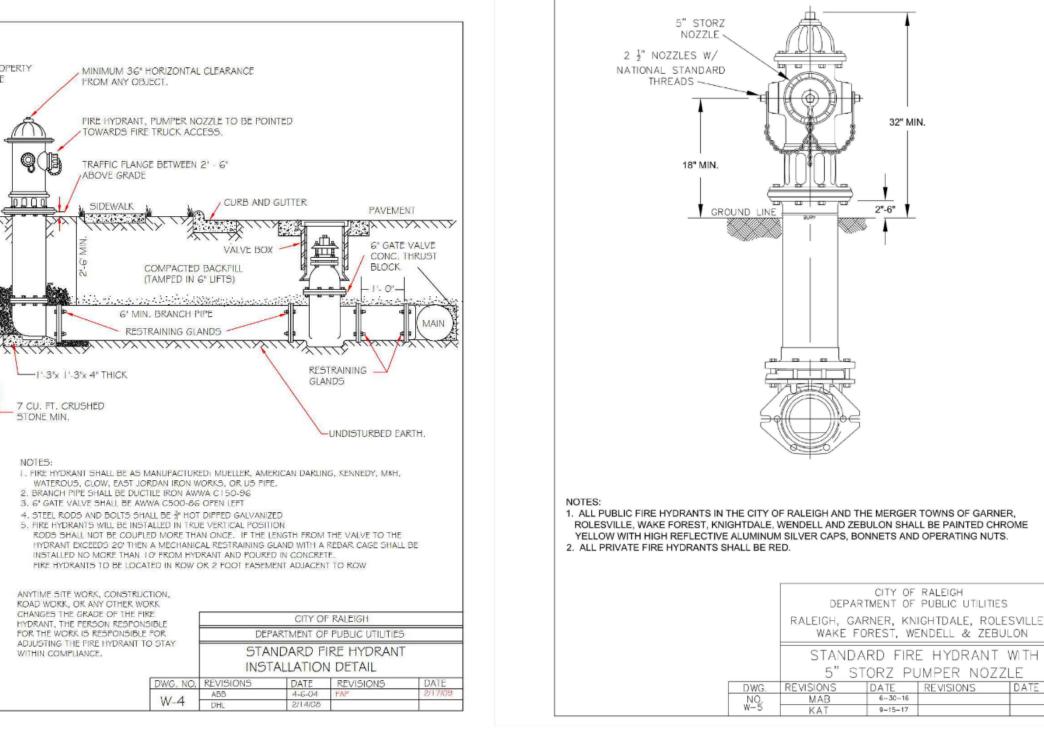
09-20-2017

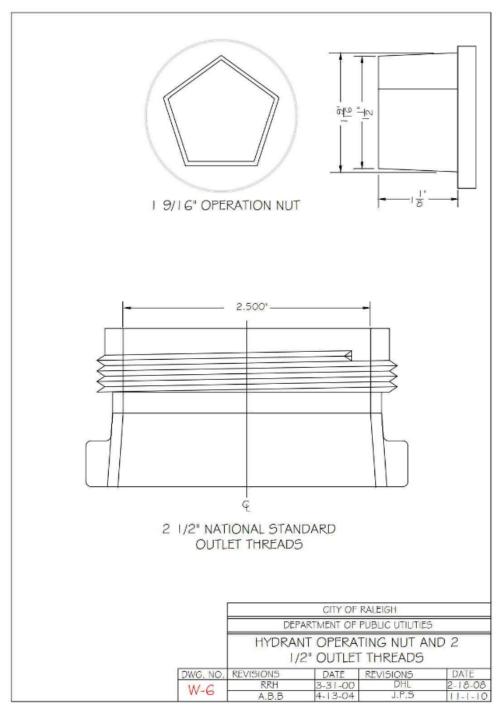
C8.01 **MCADAMS** 

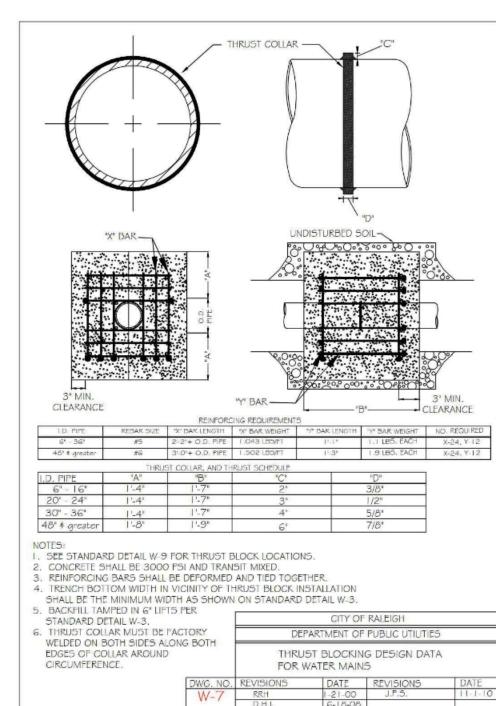


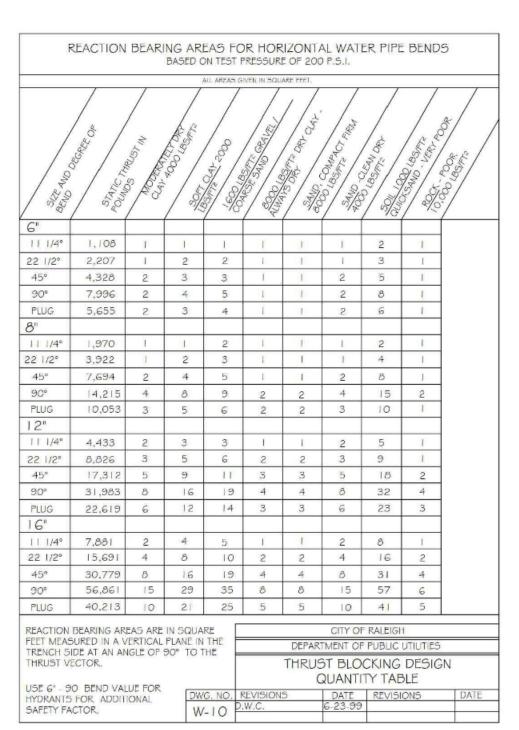


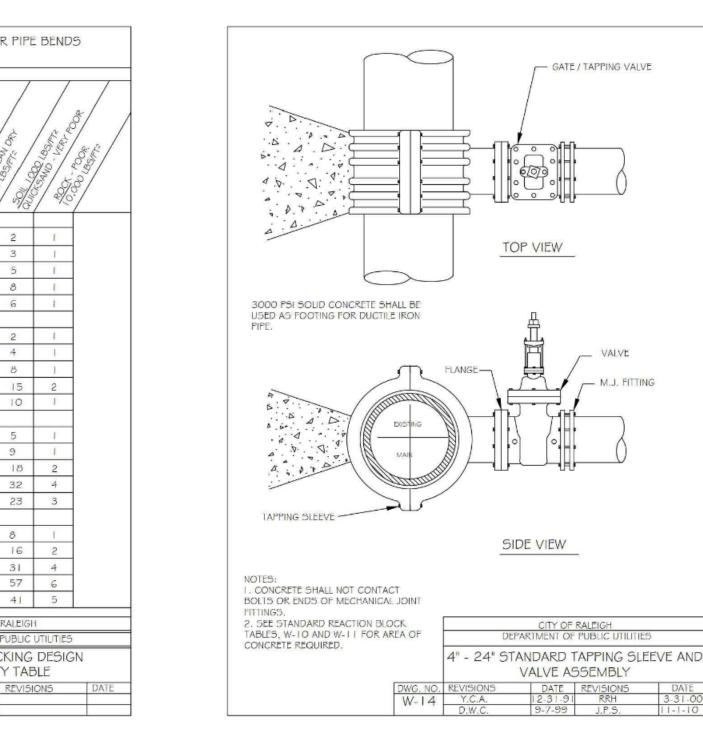


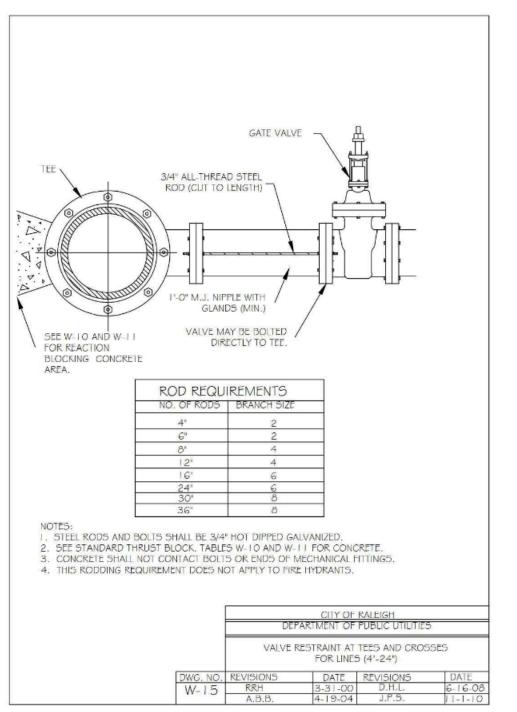


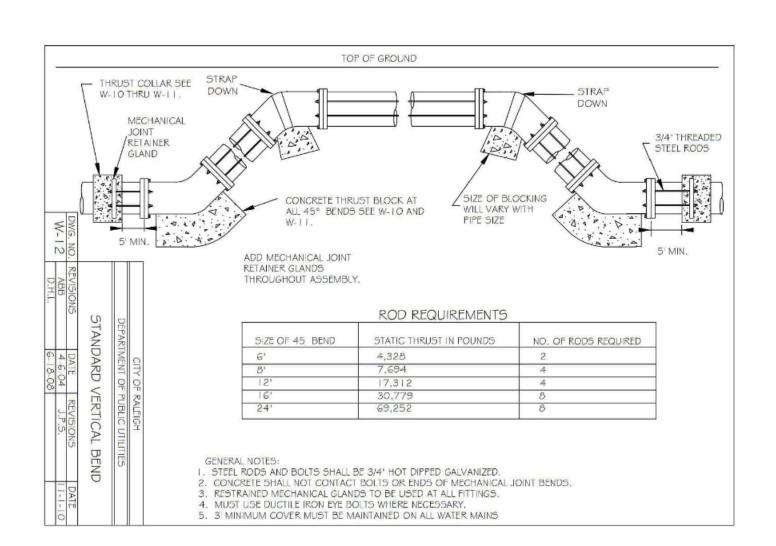


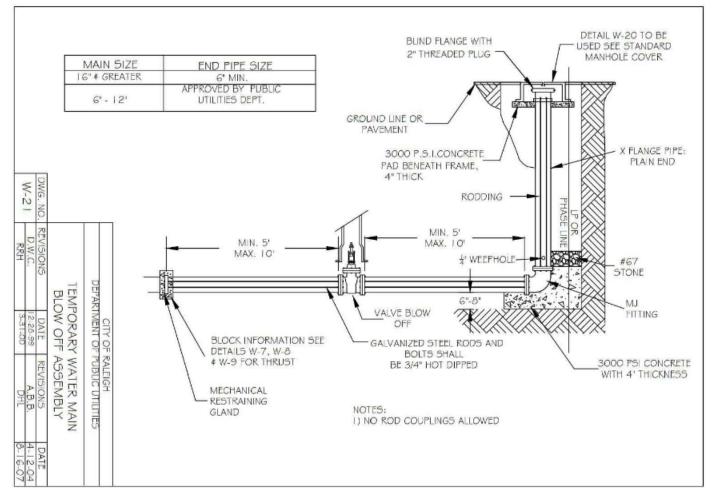


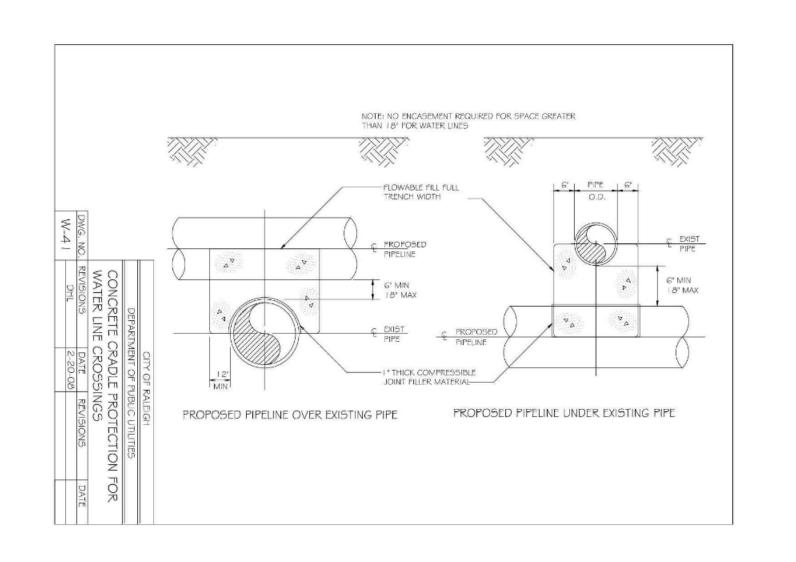












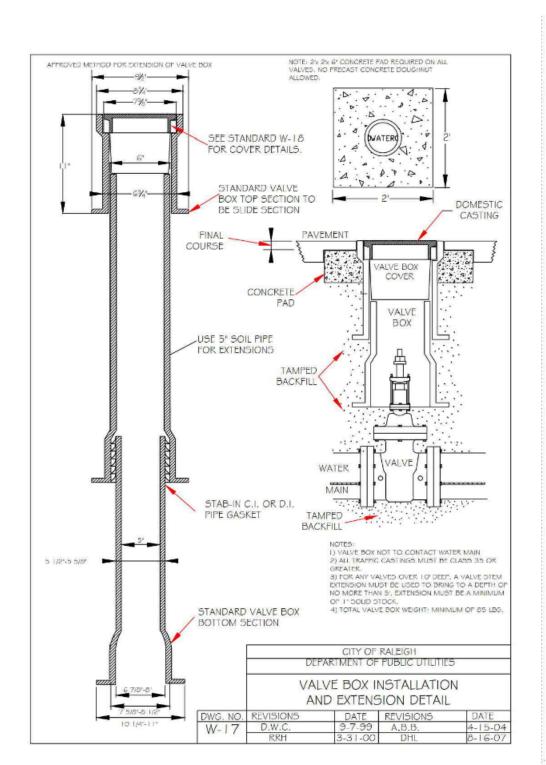


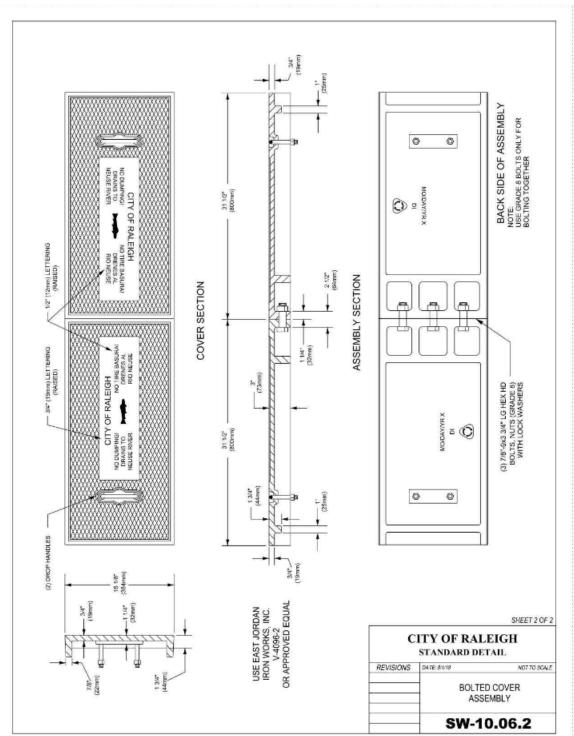
PROJECT NO. KAN-22008 FILENAME: KAN22008-SUB CHECKED BY: ARP LLH NTS 09-20-2017

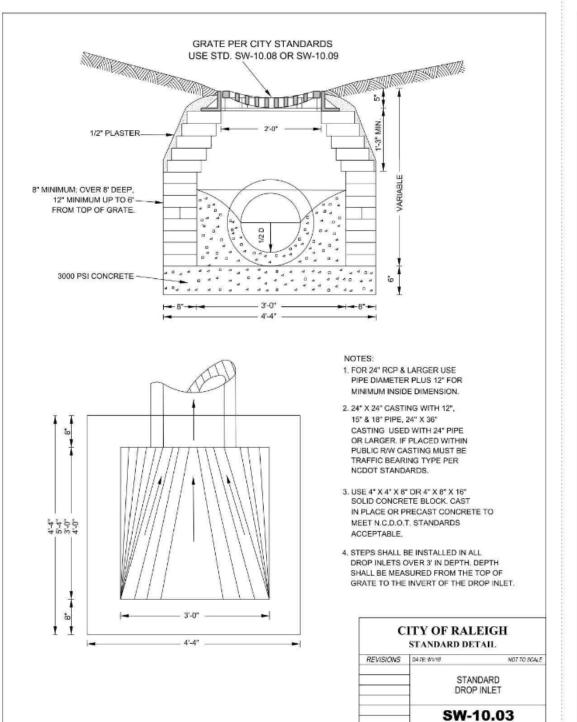
**当MCADAMS** 

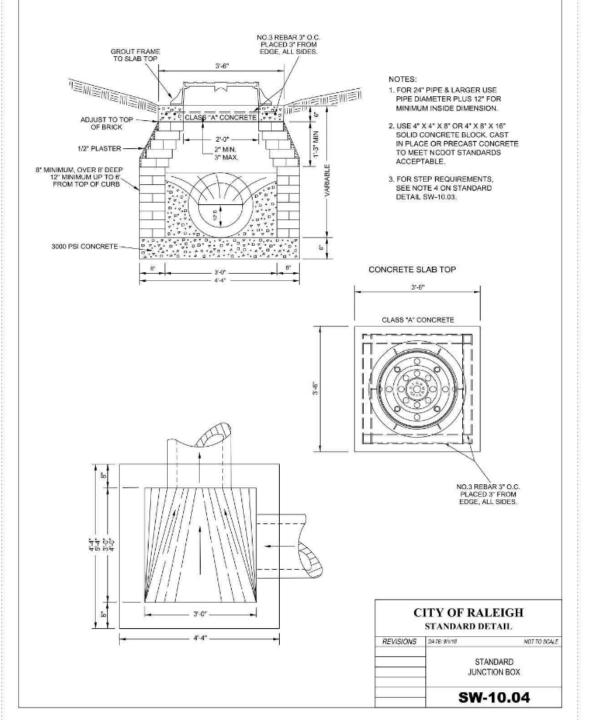
PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

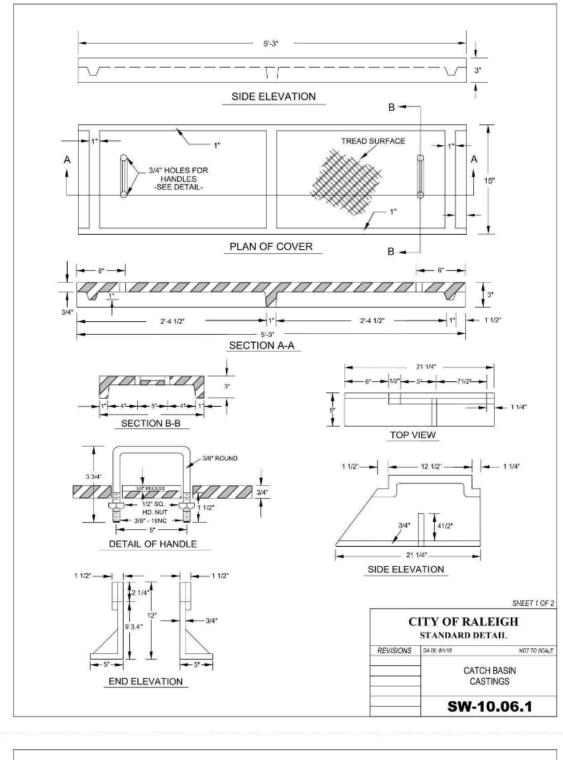
C8.02

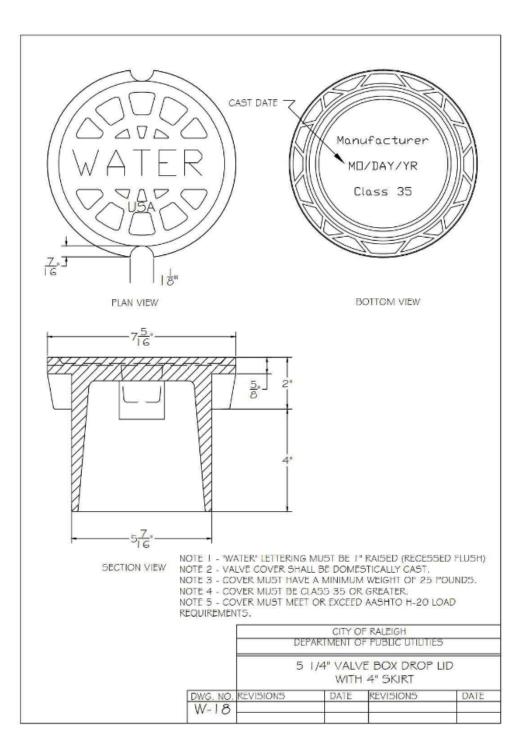


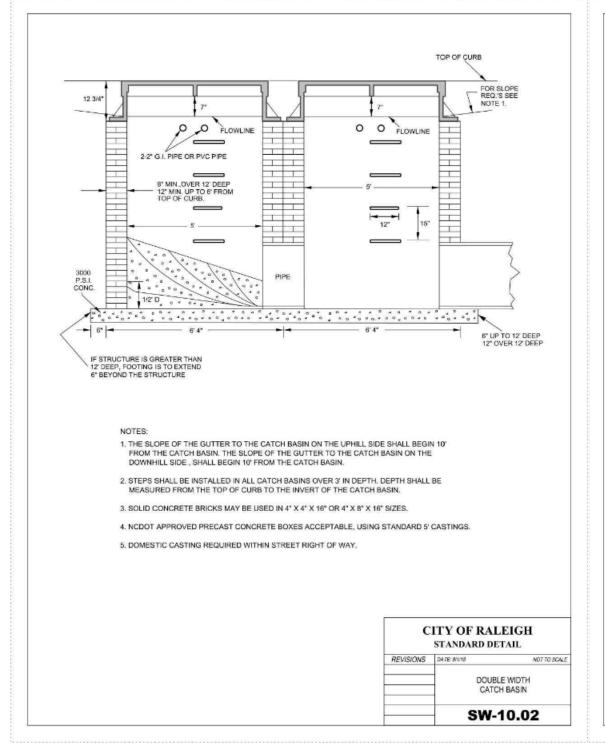


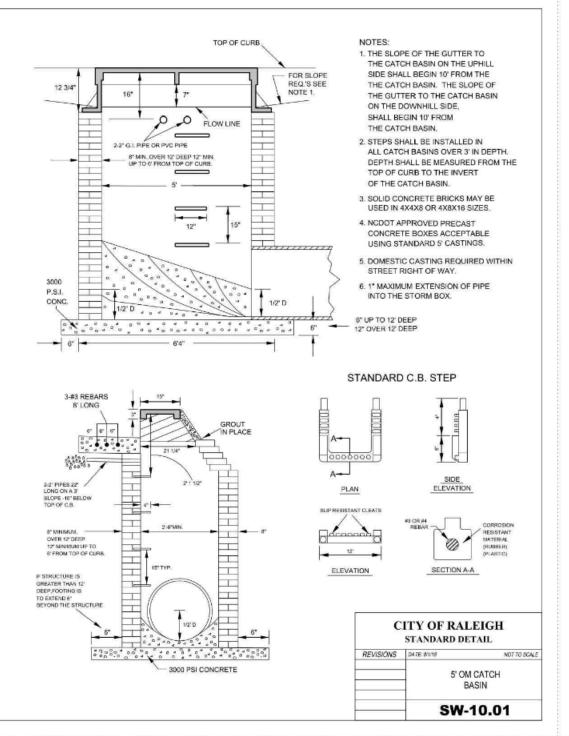


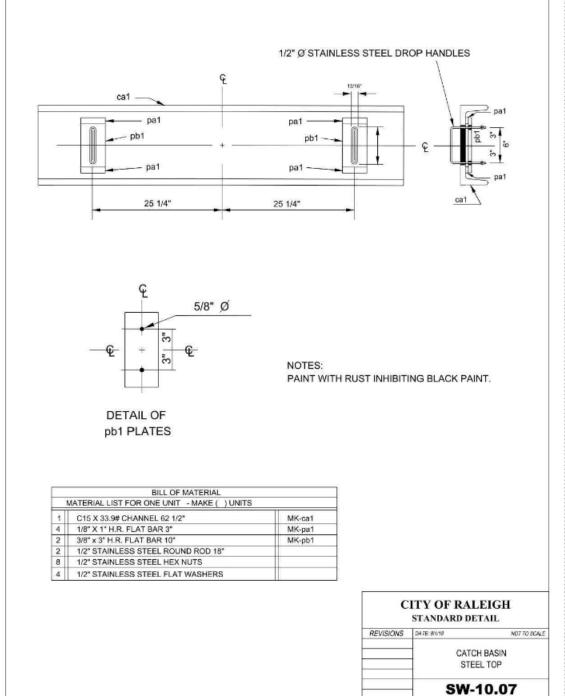


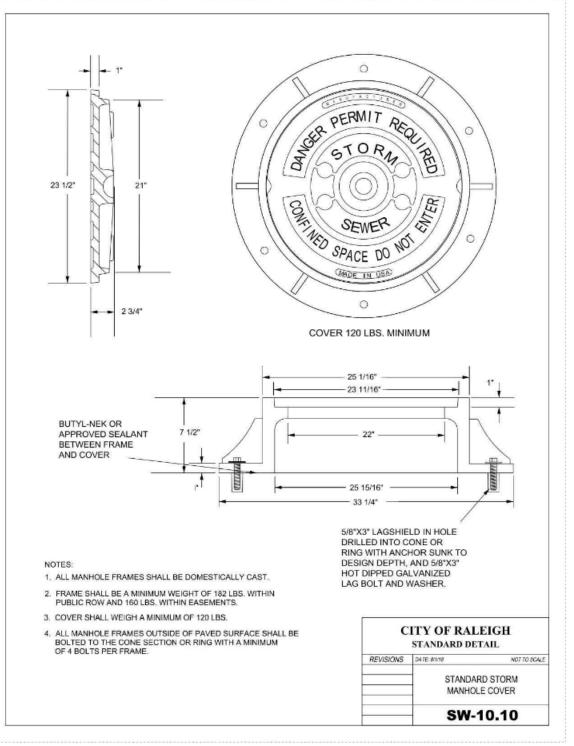


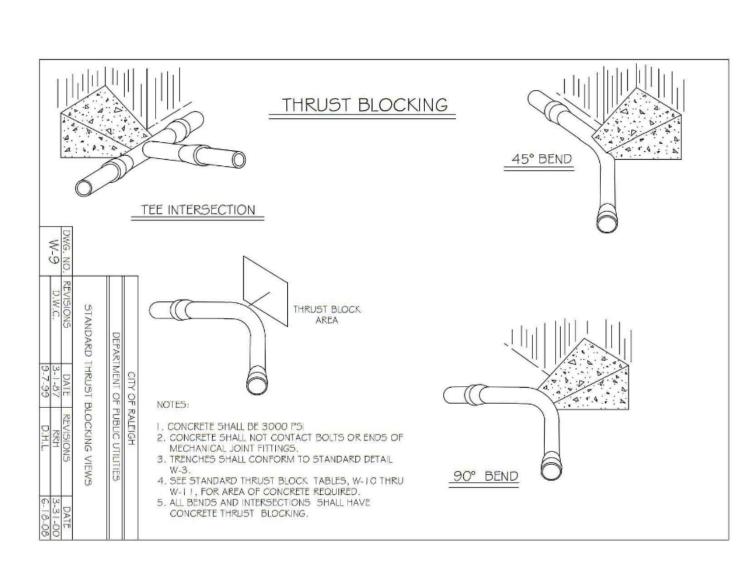












NORTH HILLS EAST PRELIMINARY SUBDIVISION PIRELIMINARY SUBDIVISION SUBDIVISION PIRELIMINARY SUBDIVISION SUBDIVISION

ADAN

PROJECT NO. KAN-22008

FILENAME: KAN22008-SUB-D1

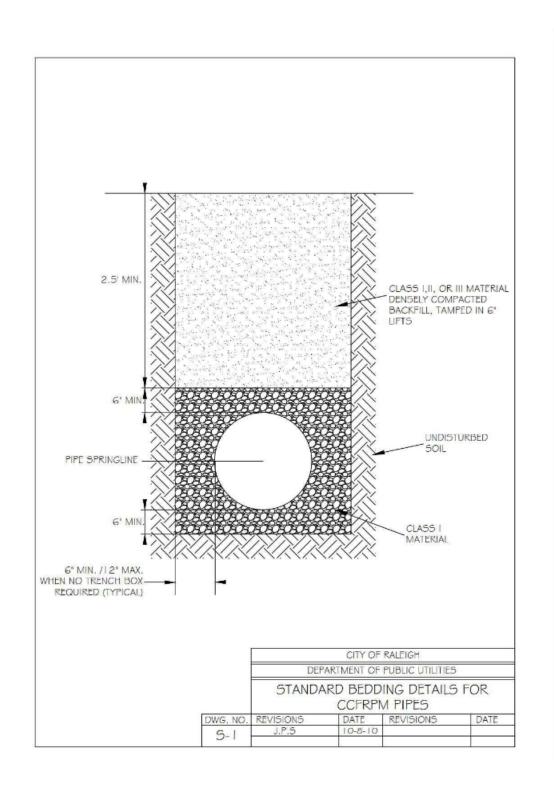
CHECKED BY: ARP

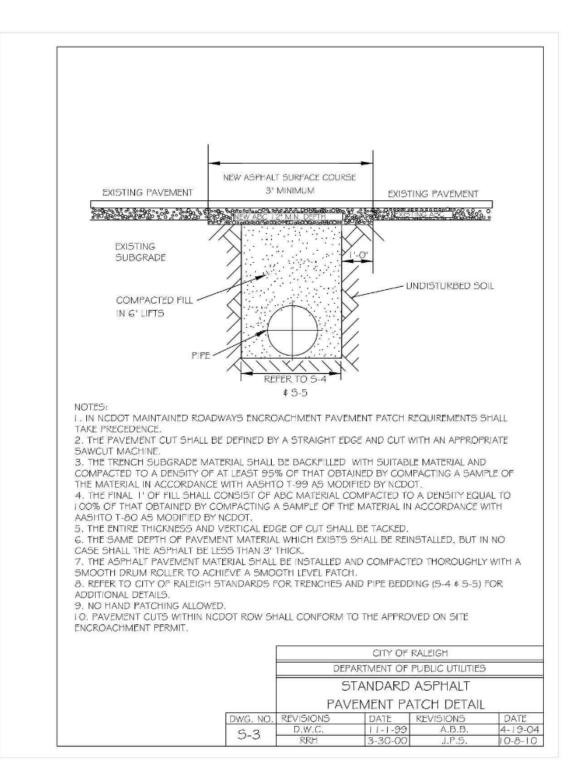
DRAWN BY: LLH

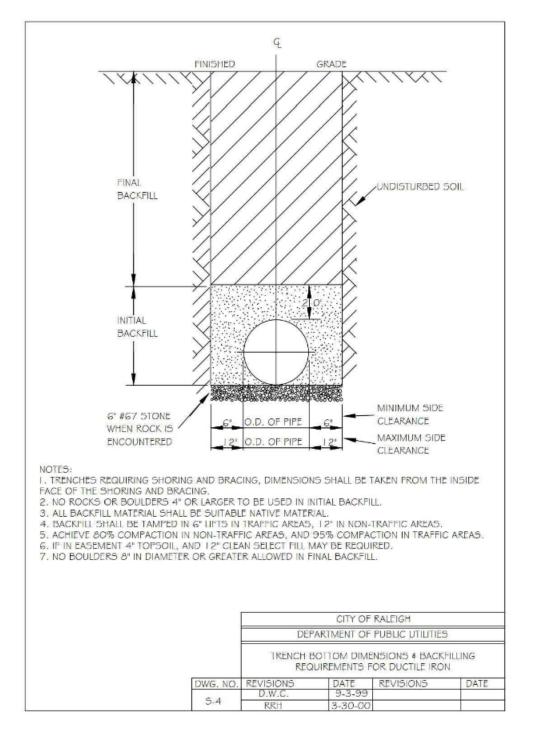
SCALE: NTS

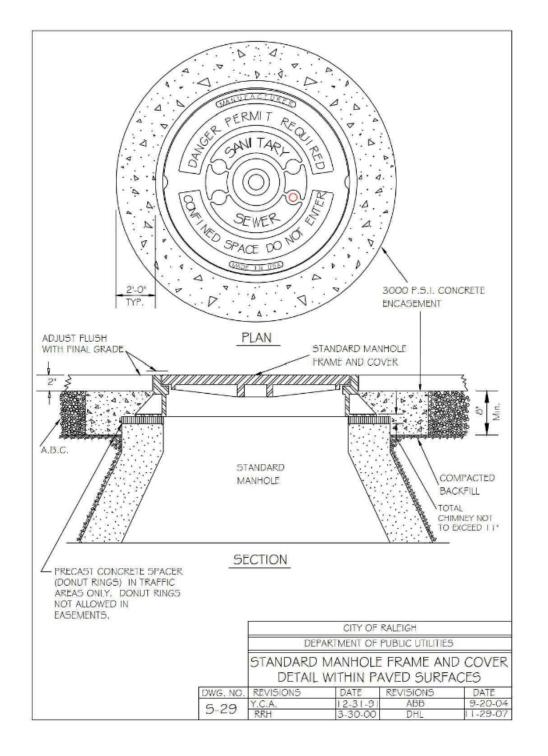
DATE: 09-20-2017

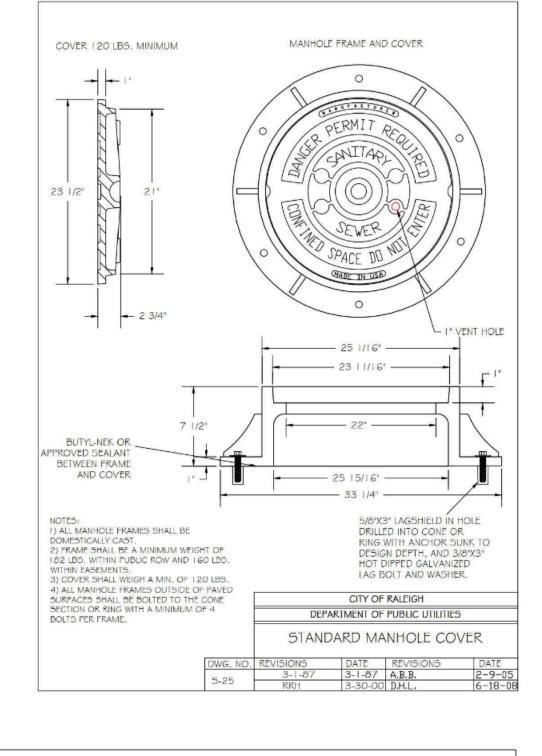
C8.03

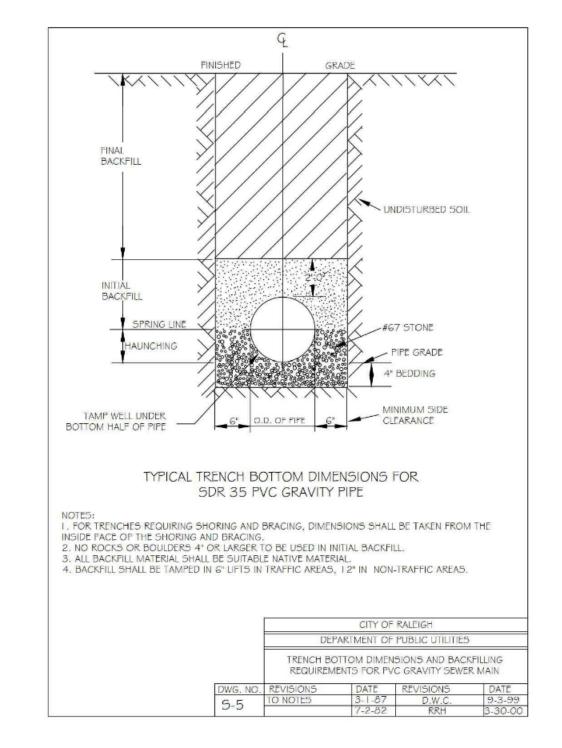


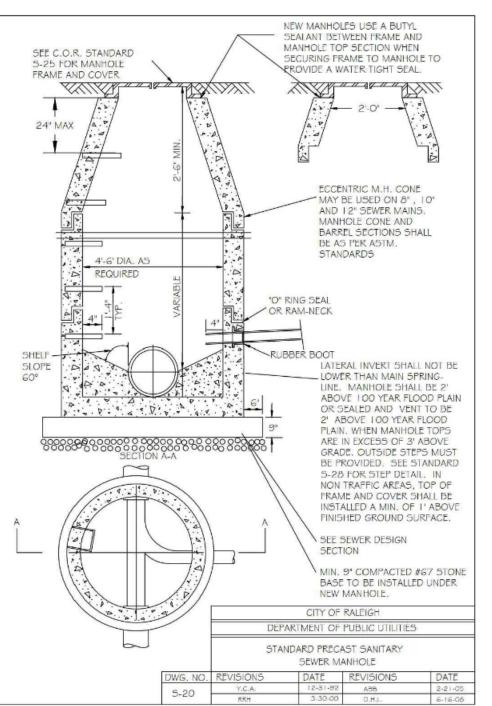


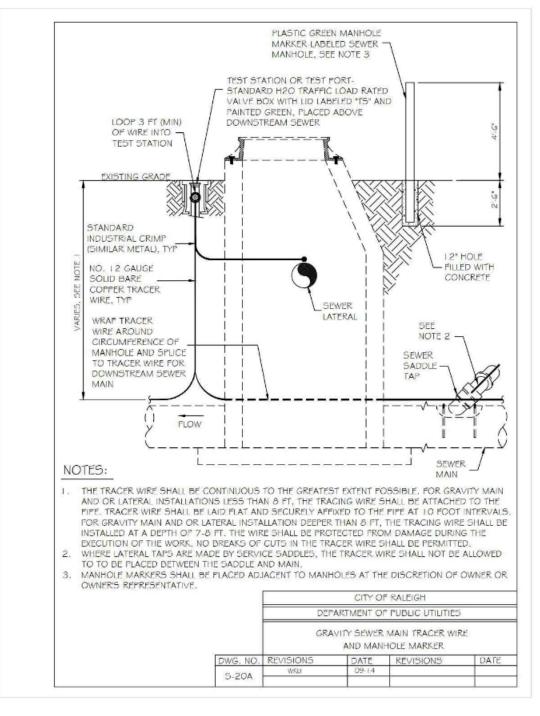


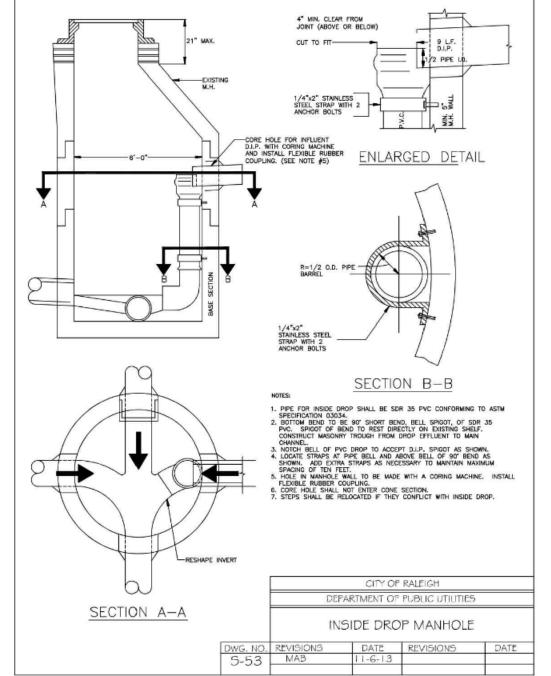


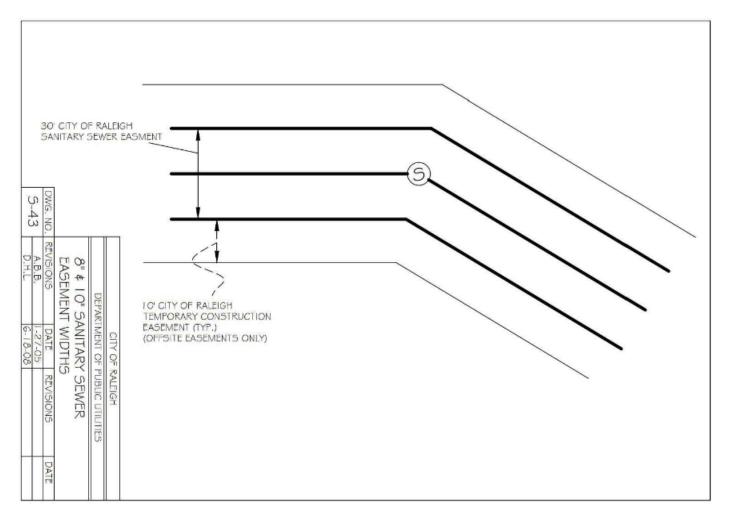


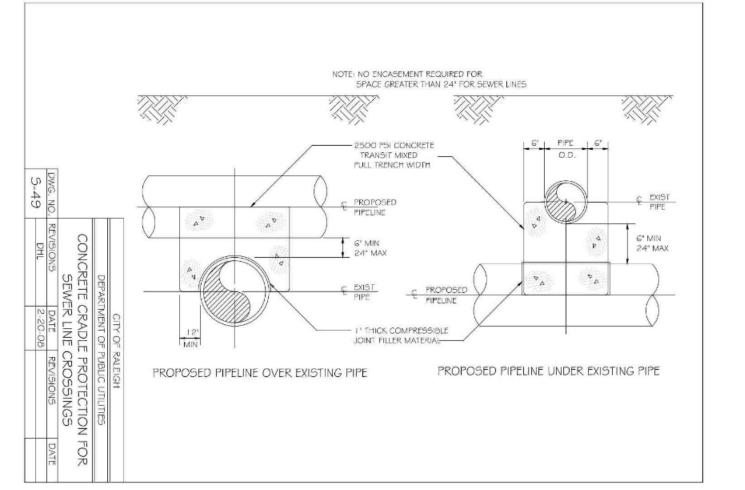






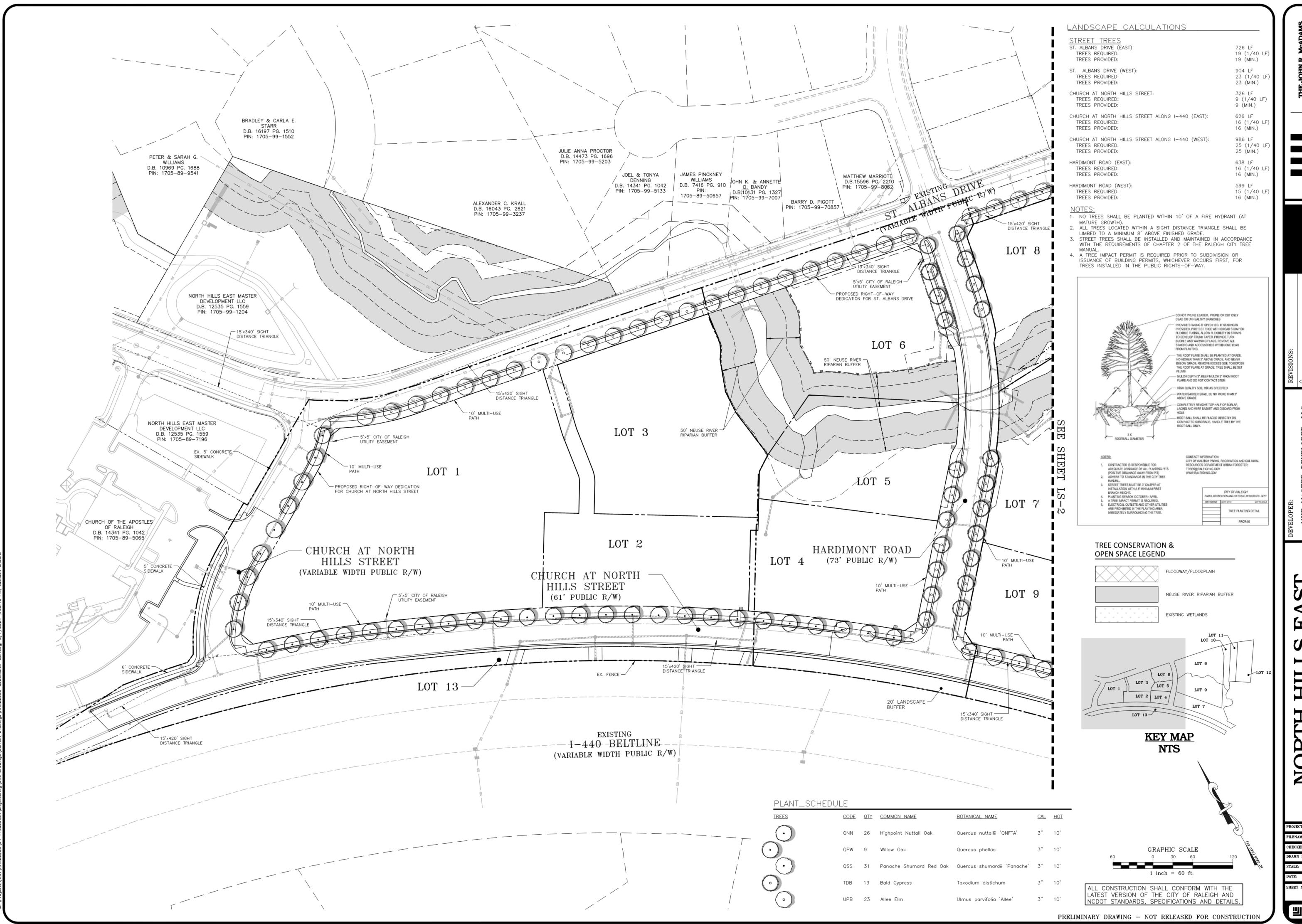








C8.04

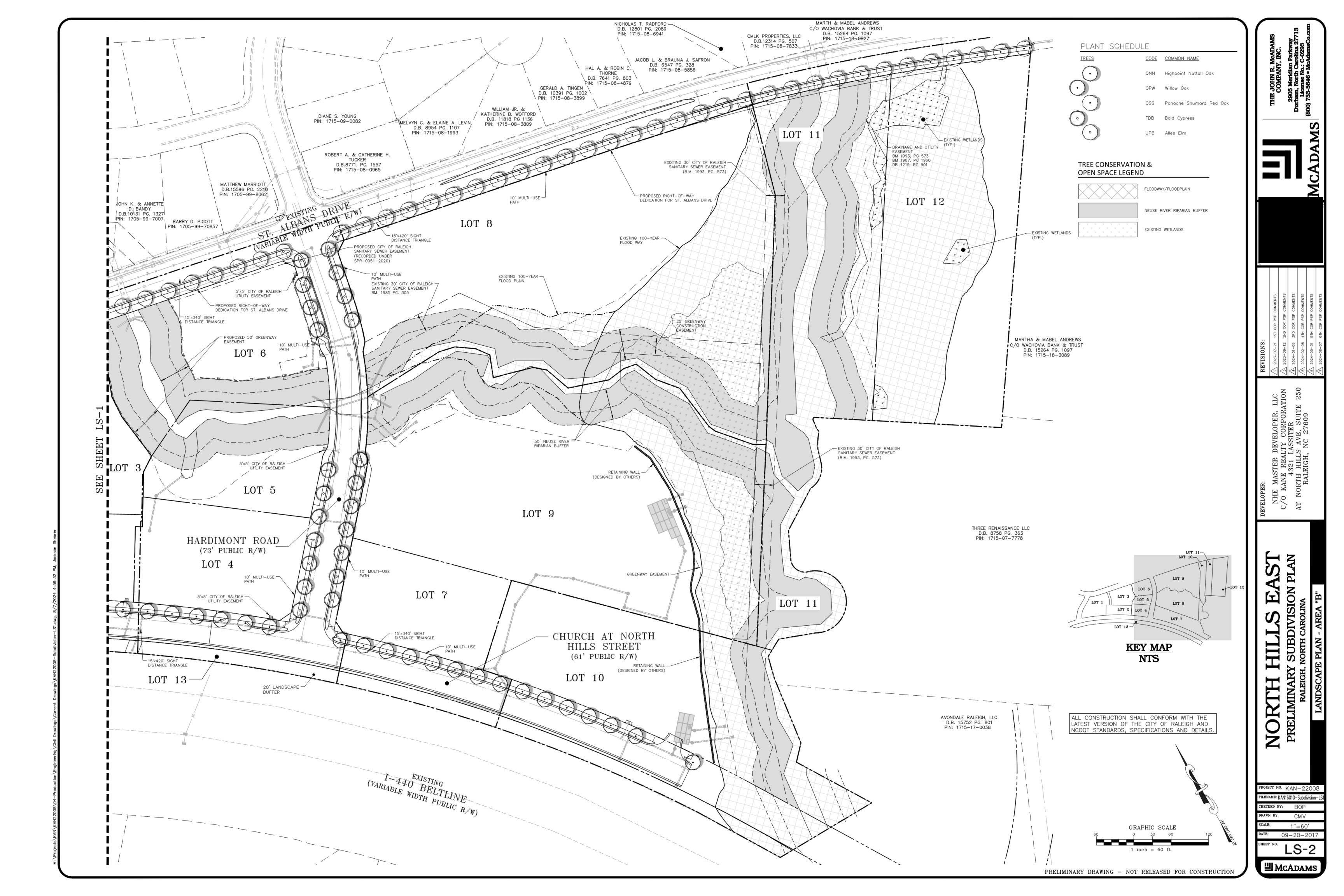


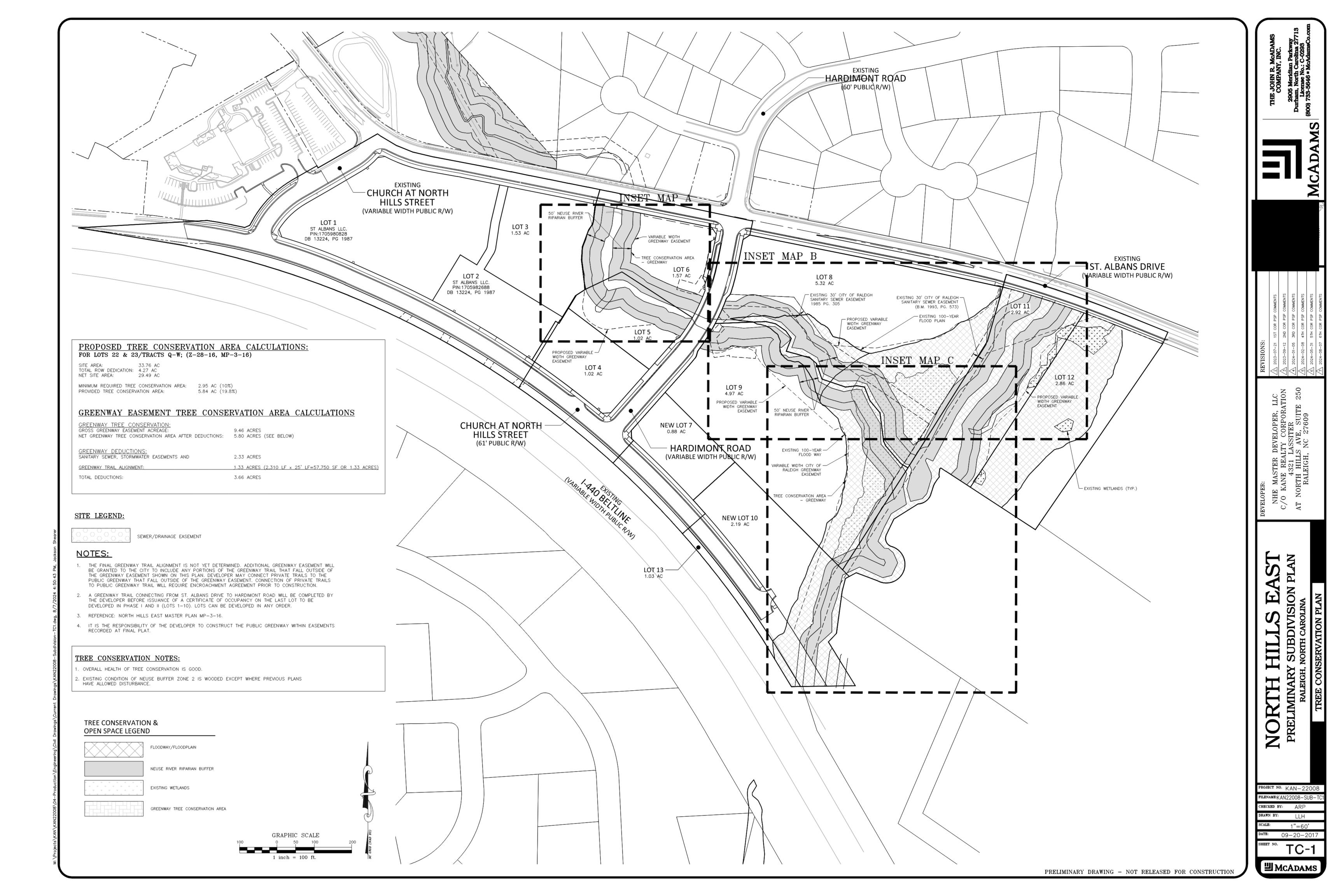
PROJECT NO. KAN-2200 FILENAME: KAN22008-SUB-LS CHECKED BY: ARP

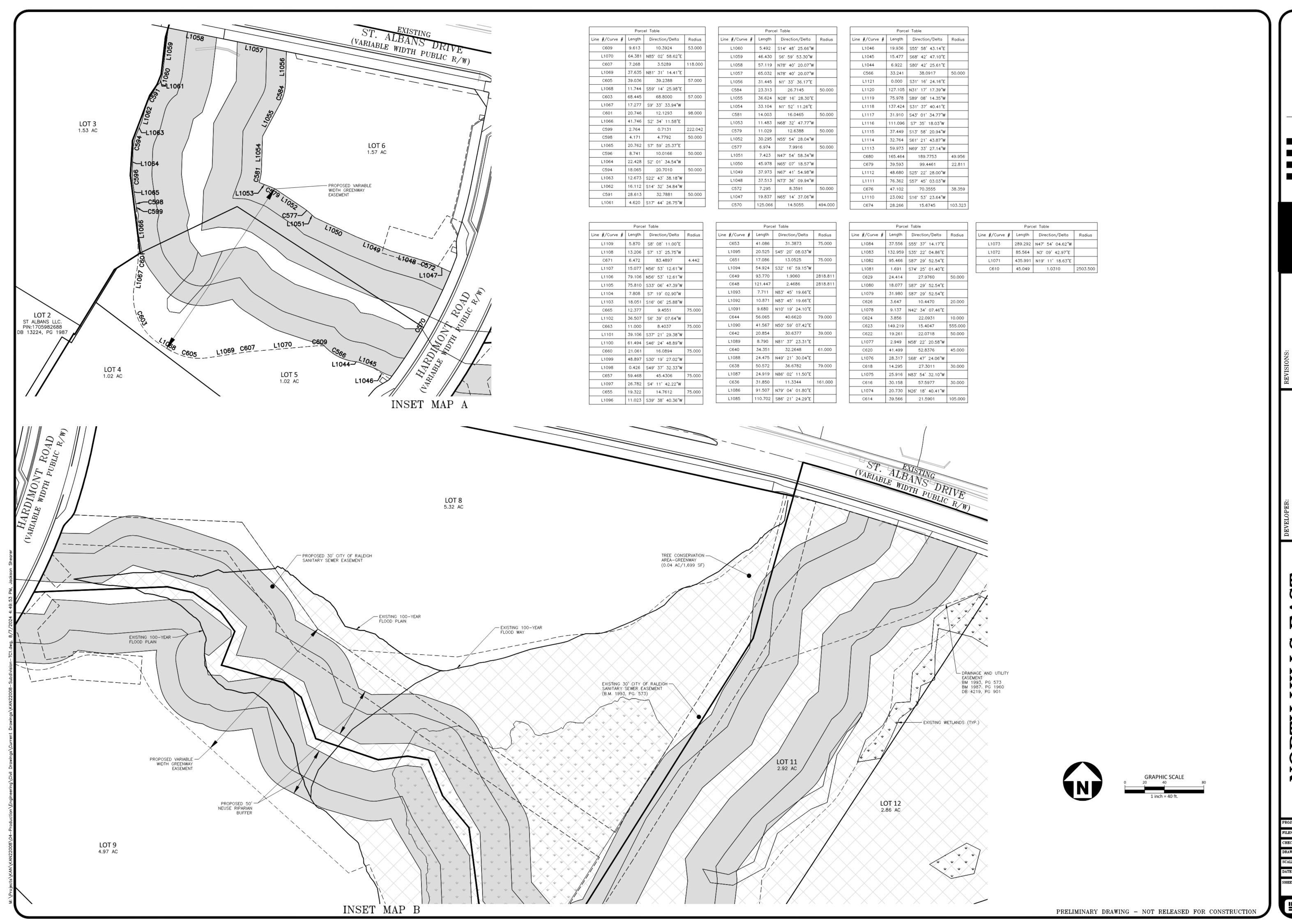
1"=60' 09-20-201

LS-1

**쁴MCADAMS** 







THE JOHN R. McADAN COMPANY, INC.

2905 Meridian Parkwa Durham, North Carolina 2 License No.: C-0299 (800) 739-5646 • McAdamsc

S EASI ISION PLAN
AT DILINA

ELIMINARY SUBDIVISION RALEIGH, NORTH CAROLINA EE CONSERVATION BOUNDARY

PROJECT NO. KAN-22008

FILENAME:KAN22008-SUB-TC1

 FILENAME: KAN22008-SUB-TC1

 CHECKED BY:
 ARP

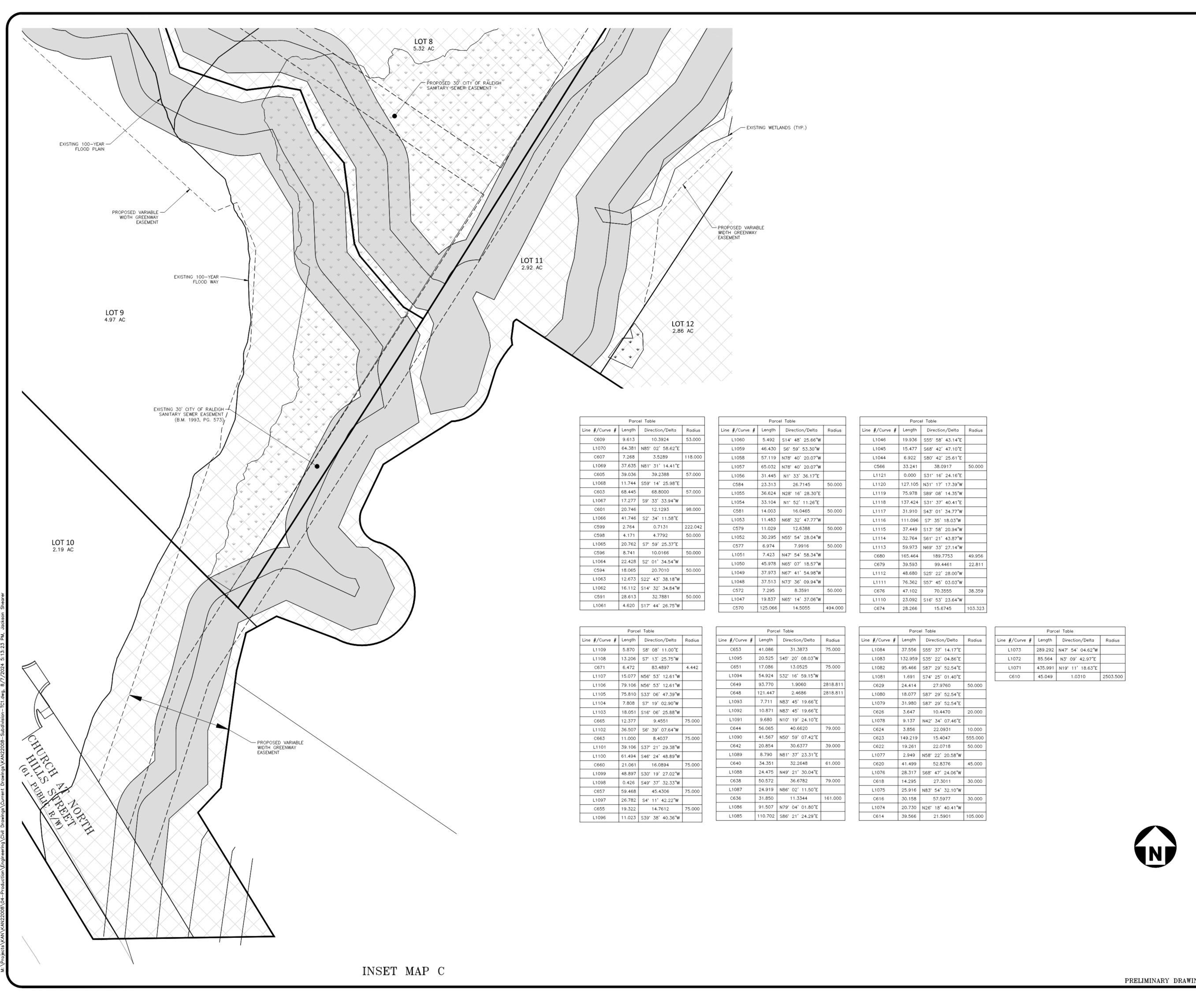
 DRAWN BY:
 LLH

 SCALE:
 1"=60'

 DATE:
 09-20-2017

09-20-201
SHEET NO. TC-2

**Ш** McAdams



PROJECT NO. KAN-22008 FILENAME:KAN22008-SUB-CHECKED BY: ARP

LLH 1"=60'

09-20-2017 TC-3

