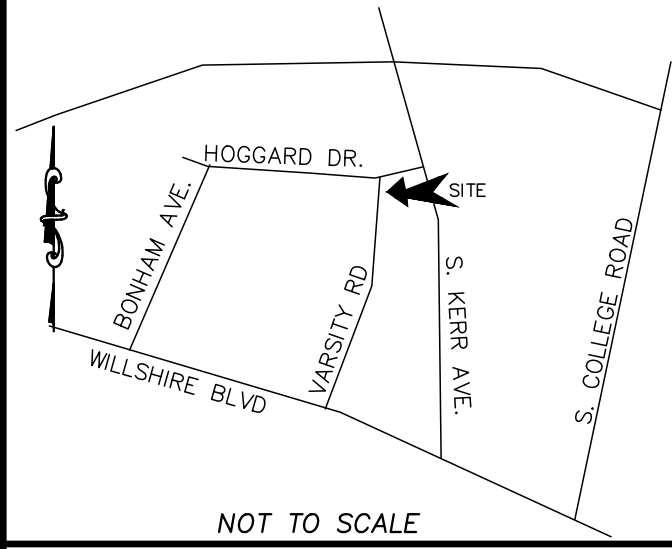


LOCATION MAP



NOT TO SCALE

CONSTRUCTION DRAWINGS for
SIERRA HEIGHTS
598 VARSITY DRIVE
 LOCATED IN CITY OF WILMINGTON
 NEW HANOVER COUNTY, NORTH CAROLINA

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
 NORTH CAROLINA
 Public Services Engineering Division
 APPROVED PLAN - NO PERMIT REQUIRED

Signed: _____

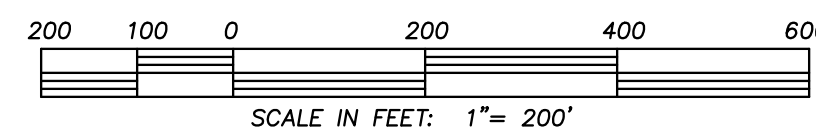
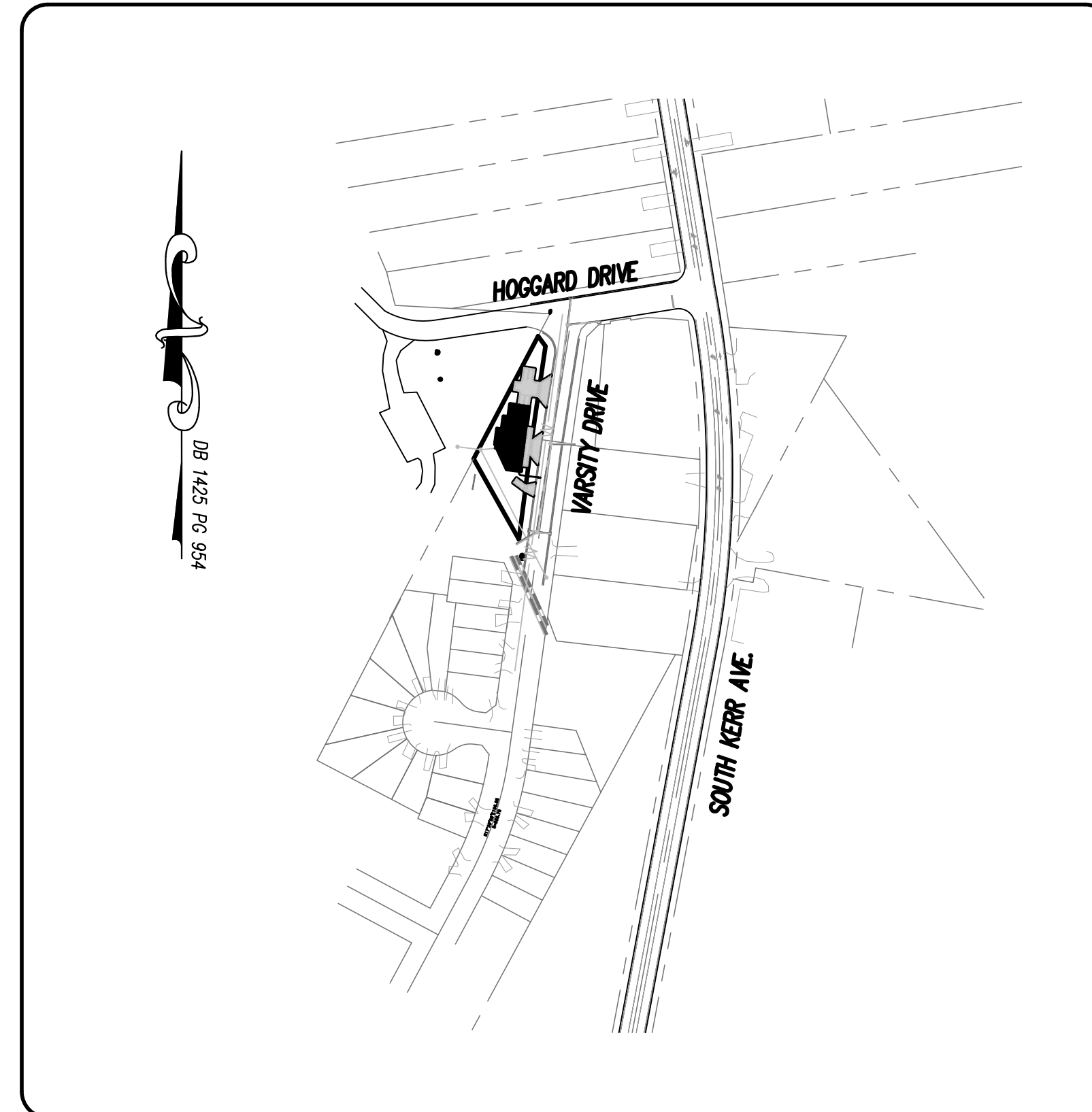
GENERAL NOTES:

- NEW HANOVER COUNTY PARCEL NUMBERS: PID = R0551-001-004-003
- TOTAL PROJECT AREA: 14,377 SF (0.33 AC)
- EXISTING ZONING DISTRICT: MF-M
- LAND CLASSIFICATION: URBAN
- THIS SITE IS LOCATED WITHIN ZONE "AE" ELEV 30.1 AND ZONE "X" ACCORDING TO FEMA FIRM COMMUNITY PANEL NUMBER 3720313700J, EFFECTIVE DATE 4/3/06
- SITE ADDRESS: 598 VARSITY DRIVE
- EXISTING IMPERVIOUS ONSITE = 0 SF
- ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY DANFORD ASSOCIATES; VERTICAL DATUM = 88
- STORMWATER DRAINS TO BURNT MILL CREEK, C/SW 18-74-63-2
- LAND OWNER - JEJ INVESTMENTS LLC 1705 CHESTNUT STREET WILMINGTON, NC 28405

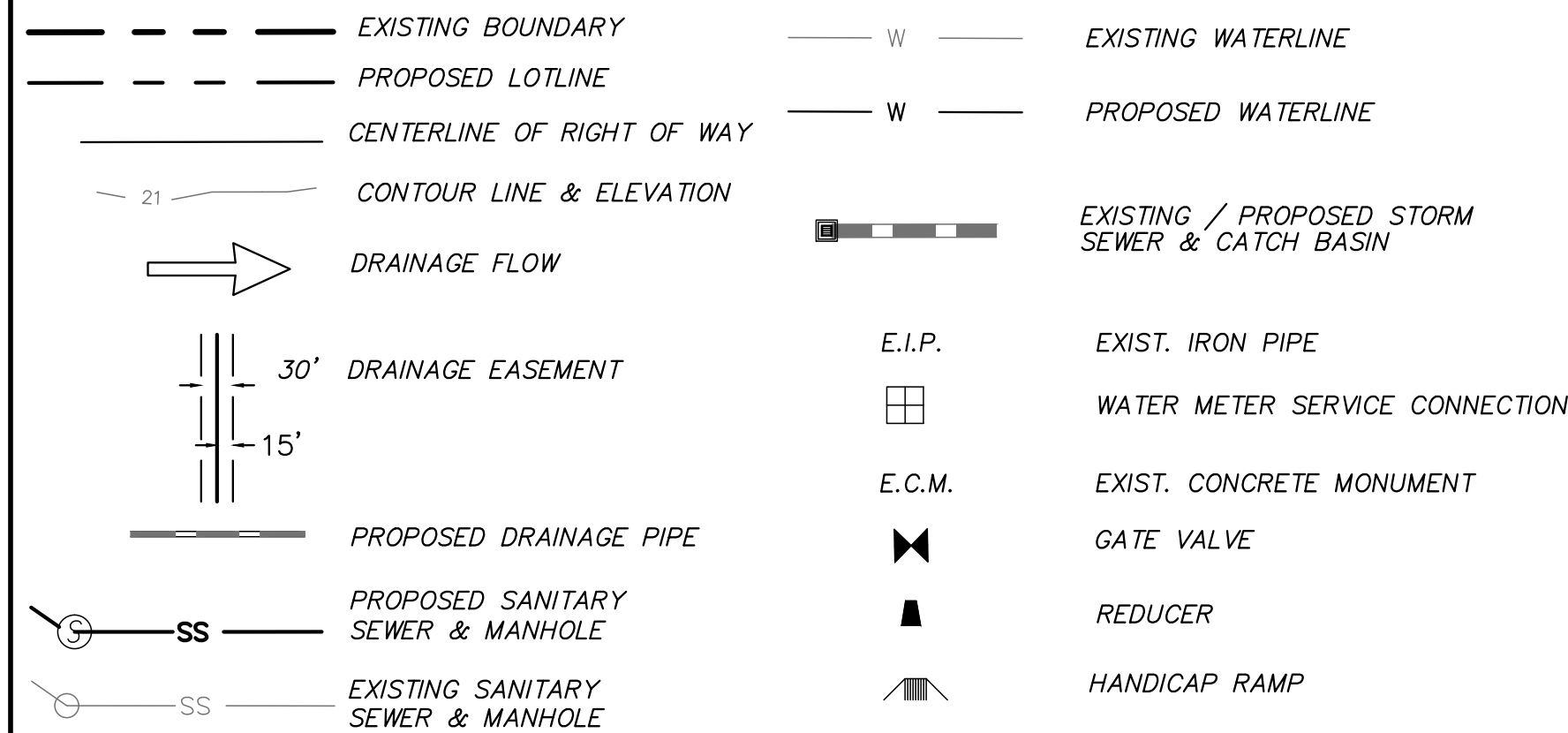
WATER & SEWER USAGE NOTES:

CURRENT WATER USAGE 0 GPD PROPOSED WATER USAGE 2,400 GPD
 CURRENT SEWER USAGE 0 GPD PROPOSED SEWER USAGE 2,400 GPD

WATER - 11 BEDROOM X 120 GPD = 1,320 GPD
 SEWER - 11 BEDROOMS X 120 GPD = 1,320 GPD



LEGEND



OWNER: JEJ INVESTMENTS LLC
 1705 CHESTNUT STREET
 WILMINGTON, NC 28405

WATER			
SIZE	2"		
TYPE	SDR-21		
LF	x		

SEWER (PUBLIC)			
SIZE	8"		
TYPE	C-900		
LF	x		

SEWER (PRIVATE)			
SIZE	8"		
TYPE	C-900		
LF	x		

INDEX TO DRAWINGS

SHEET No.	DESCRIPTION	DRAWING No.
1 OF 9	COVER SHEET	CD_COVER
2 OF 9	EXISTING BOUNDARY AND TOPOGRAPHY, ADJACENT TRAFFIC	CD_EX-COND
3 OF 9	SITE PLAN	SITE_PLAN
4 OF 9	CITY OF WILMINGTON CONSTRUCTION DETAILS	SP_DET-1
5 OF 9	CITY OF WILMINGTON CONSTRUCTION DETAILS	SP_DET-2
6 OF 9	UTILITY AND DRAINAGE PLAN	UP
7 OF 9	CFPUA STANDARD WATER DETAILS	WSD-1
8 OF 9	CFPUA STANDARD WATER DETAILS	WSD-2
9 OF 9	CFPUA STANDARD SEWER DETAILS	SSD-2

NOTES:

- ASBUILT, BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED AND PROVIDED TO CSD ENGINEERING BY DANFORD ASSOCIATES, 4002 1/2 OLEANDER DRIVE WILMINGTON, NC 28403, 910-799,4916 FIRM #C-2797
- THIS MAP IS NOT FOR CONVEYANCE, RECORDATION, OR SALES.
- THIS PROPERTY IS LOCATED WITHIN ZONE "X" AND "AE" (ELEV 30.1) ACCORDING TO THE FEMA FLOOD INSURANCE RATE MAP, 3720313700J, EFFECTIVE DATE 4/3/06
- THIS PROPERTY IS ZONED MF-M
- CFPUA WATER
- CFPUA SEWER
- ALL CONSTRUCTION TO CONFORM TO NEW HANOVER COUNTY STANDARDS AND APPLICABLE STATE & LOCAL CODES.
- CONTRACTOR TO COORDINATE ANY REQUIRED TRAFFIC CONTROL WITH CITY OF WILMINGTON AND OR NCDOT.
- CARE SHALL BE TAKEN DURING FINAL GRADING TO ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS AND TO RECEIVING STRUCTURES. ROOF DRAIN DOWNSPOUTS TO BE CONNECTED TO STORM DRAINAGE STUBOUTS OR DIRECTED TO STREET/PARKING AREAS.
- CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ANY RELOCATIONS, RE-ALIGNMENTS, DISCONNECTIONS OR CONNECTIONS OF EXISTING UTILITIES WITH APPLICABLE AUTHORITIES.
- CLEARING AND GRUBBING OF SITE TO INCLUDE REMOVAL OF EXISTING CURB, ASPHALT, INLETS, AND ANY OTHER STRUCTURES INCLUDING TREES, STUMPS AND DEBRIS EXISTING ON SITE. TREES NOT REQUIRED TO BE CLEARED FOR CONSTRUCTION SHALL REMAIN UNLESS OTHERWISE DIRECTED.
- INFORMATION CONCERNING UNDERGROUND UTILITIES WAS OBTAINED FROM AVAILABLE RECORDS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT ELEVATIONS AND LOCATIONS OF ALL EXISTING UTILITIES AT ALL CROSSINGS PRIOR TO COMMENCING TRENCH EXCAVATION. IF ACTUAL CLEARANCES ARE LESS THAN INDICATED ON PLAN, THE CONTRACTOR SHALL CONTACT THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION. ANY CONDITION DISCOVERED OR EXISTING THAT WOULD NECESSITATE A MODIFICATION OF THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE DESIGN ENGINEER BEFORE PROCEEDING WITH CONSTRUCTION.
- NO CONSTRUCTION IS TO BEGIN BEFORE LOCATION OF EXISTING UTILITIES HAS BEEN DETERMINED. CALL "NC ONE-CALL" AT LEAST 48 HOURS BEFORE COMMENCING CONSTRUCTION.
- CONTRACTOR SHALL ADJUST ALL MANHOLES, VALVE & CURB BOXES TO FINAL GRADE UPON COMPLETION OF ALL CONSTRUCTION. ANY BOXES DAMAGED OR OTHERWISE DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST AND EROSION DURING CONSTRUCTION AT HIS EXPENSE. PARKING AREAS SHALL BE WATERED TO CONTROL DUST WHEN ORDERED BY THE ENGINEER.
- NO GEOTECHNICAL TESTING HAS BEEN PERFORMED ON SITE. NO WARRANTY IS MADE FOR SUITABILITY OF SUBGRADE, AND UNDERCUT AND ANY REQUIRED REPLACEMENT WITH SUITABLE MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR TO ENSURE THAT PAVEMENT IS PLACED SO AS TO DRAIN POSITIVELY TO THE STREET INLETS AND CATCH BASINS. ALL FUTURE ROOF DRAIN DOWNSPOUTS TO BE DIRECTED TO THE STORM DRAINAGE STUBOUTS.
- CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS.
- THIS PLAN IS FOR SITE GRADING, UTILITIES, SITING, AND DRAINAGE ONLY. SEE BUILDING PLANS FOR DETAILED HOOKUPS TO BUILDINGS, ETC.
- CONTRACTOR AND BUILDER ARE RESPONSIBLE FOR COORDINATING FINISHED FLOOR ELEVATION OF ALL BUILDINGS WITH THE OWNER. ELEVATIONS GIVEN ARE MINIMUM GROUND ELEVATIONS AT THE BUILDING SITE AND DO NOT PURPORT TO BE FINISHED FLOOR. MINIMUM RECOMMENDED FF ELEVATIONS SHOWN ON PLANS.
- AFFECTED NON-MUNICIPAL UTILITIES SHALL BE CONTACTED AND PROVIDED WITH PLANS AND OTHER PERTINENT INFORMATION, WHEN FEASIBLE, TO COORDINATE APPROPRIATE SCHEDULING AND PLACEMENT.
- EXTREME CARE SHALL BE TAKEN TO ENSURE MINIMUM SEPARATIONS AT ALL UTILITY CROSSINGS.
- MINIMUM SEPARATION SHALL BE MAINTAINED AS FOLLOWS:
 - HORIZONTAL SEPARATION OF 10 FEET BETWEEN SANITARY SEWER AND WATER MAINS AND STORM SEWER.
 - WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND WATER OR WHERE SEWER LINE CROSSES ABOVE WATER MAIN, BOTH PIPES SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING.
 - WHERE VERTICAL CLEARANCE IS LESS THAN 24" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10 FEET EITHER SIDE OF CROSSING.
 - WHERE VERTICAL CLEARANCE IS LESS THAN 12" BETWEEN SANITARY SEWER AND STORM DRAIN, SANITARY SEWER SHALL BE DUCTILE IRON PIPE FOR A MINIMUM OF 10' EITHER SIDE OF CROSSING, AND BRIDGING SHALL BE INSTALLED PER APPLICABLE UTILITY AUTHORITY'S DETAILS.
 - IN NO CASE SHALL THERE BE LESS THAN 18" OF SEPARATION BETWEEN OUTSIDE OF WATER MAIN AND OUTSIDE OF SEWER OR STORM DRAINAGE.
 - MINIMUM COVER OF 36" SHALL BE PROVIDED FOR ALL BURIED WATER MAINS AND SANITARY SEWER MAINS.
- SEE DETAIL SHEETS FOR TYPICAL UTILITIES HOOKUPS.
- ALL SANITARY SEWER MAINS TO BE 8" UNLESS OTHERWISE INDICATED.
- ALL WATER MAINS TO BE 8" UNLESS OTHERWISE INDICATED.
- TWO VALVES ARE REQUIRED AT "T" INTERSECTIONS AND ONE VALVE ON THE WATER LINE TO FIRE HYDRANTS.
- A BLOW-OFF VALVE IS REQUIRED AT THE TERMINUS OF ALL "DEAD END" WATER LINES.



LICENSE # C-2710
 ENGINEERING
 LAND PLANNING
 COMMERCIAL / RESIDENTIAL

P.O. BOX 4041
 WILMINGTON, NC 28406
 (910) 791-4441

EXISTING CONDITIONS FOR
SIERRA HEIGHTS
598 VARSITY DRIVE

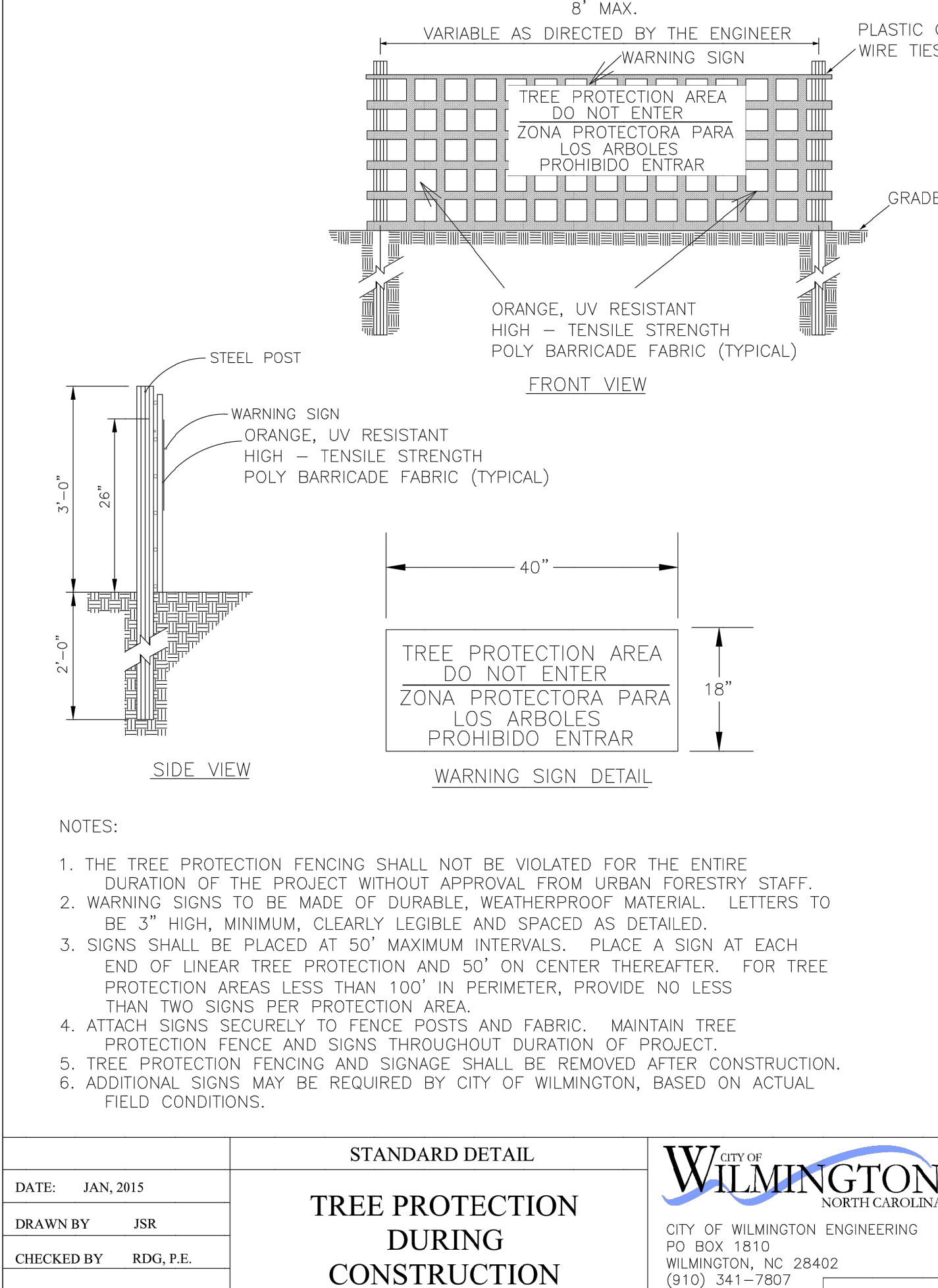
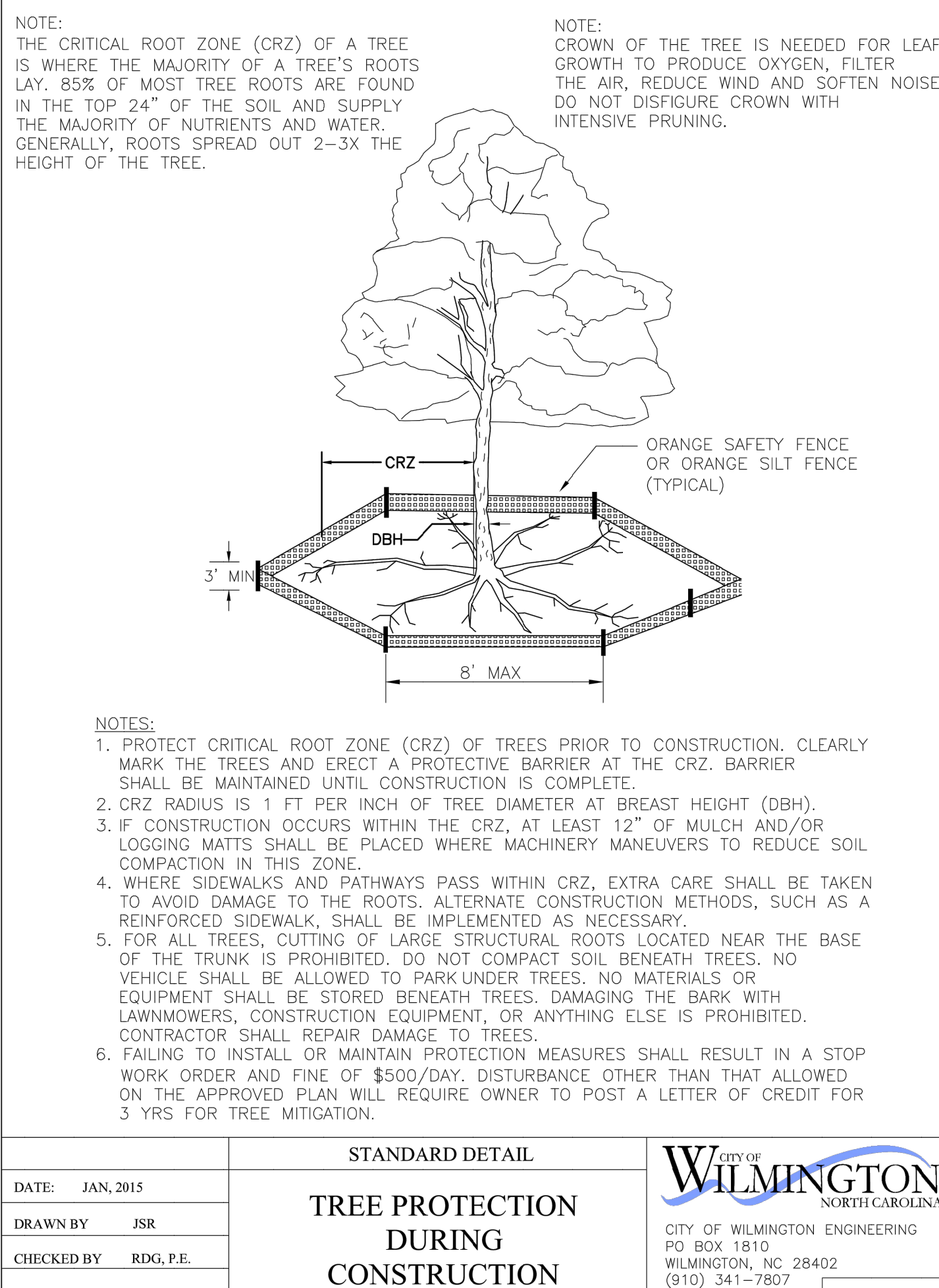
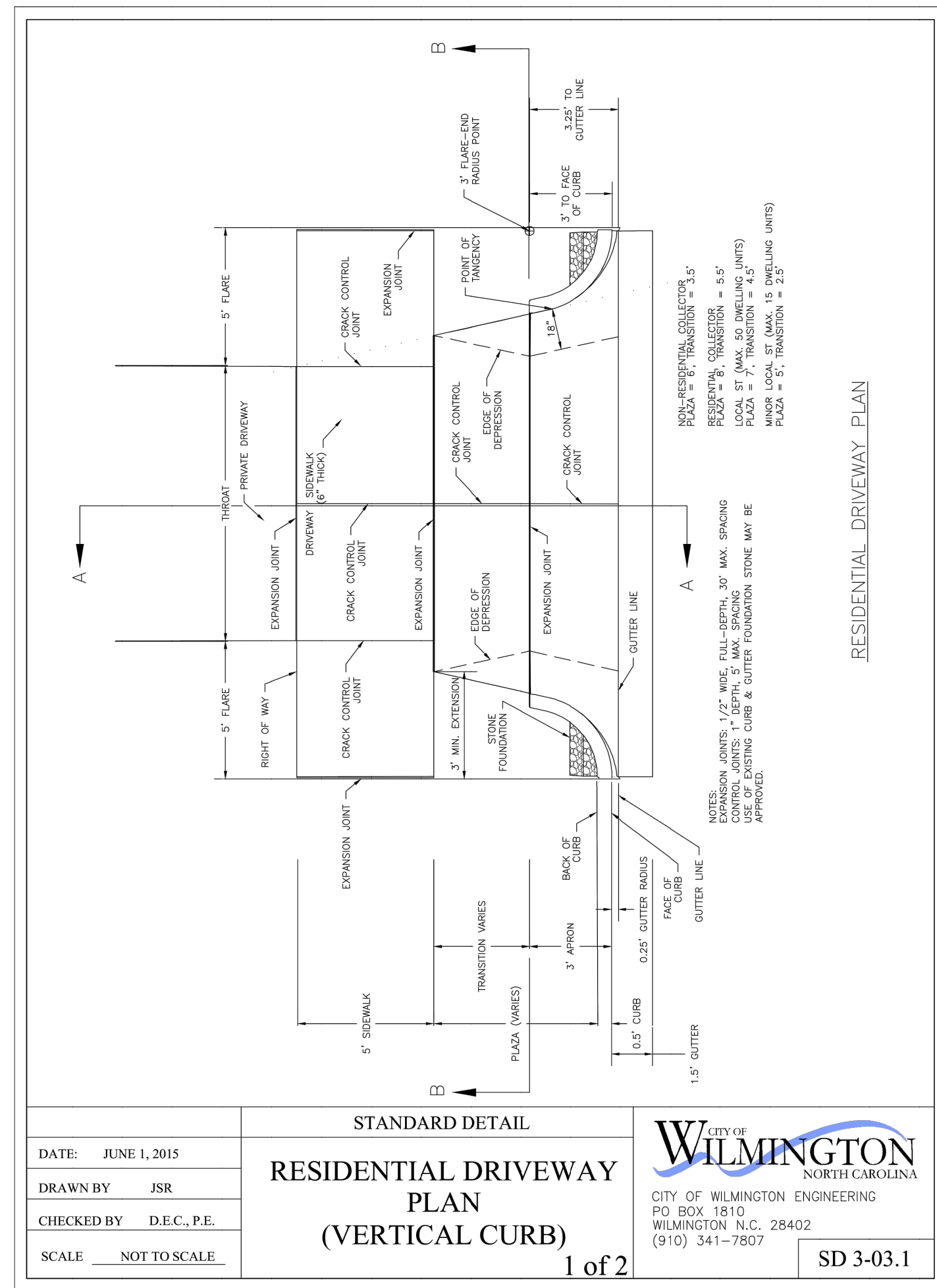
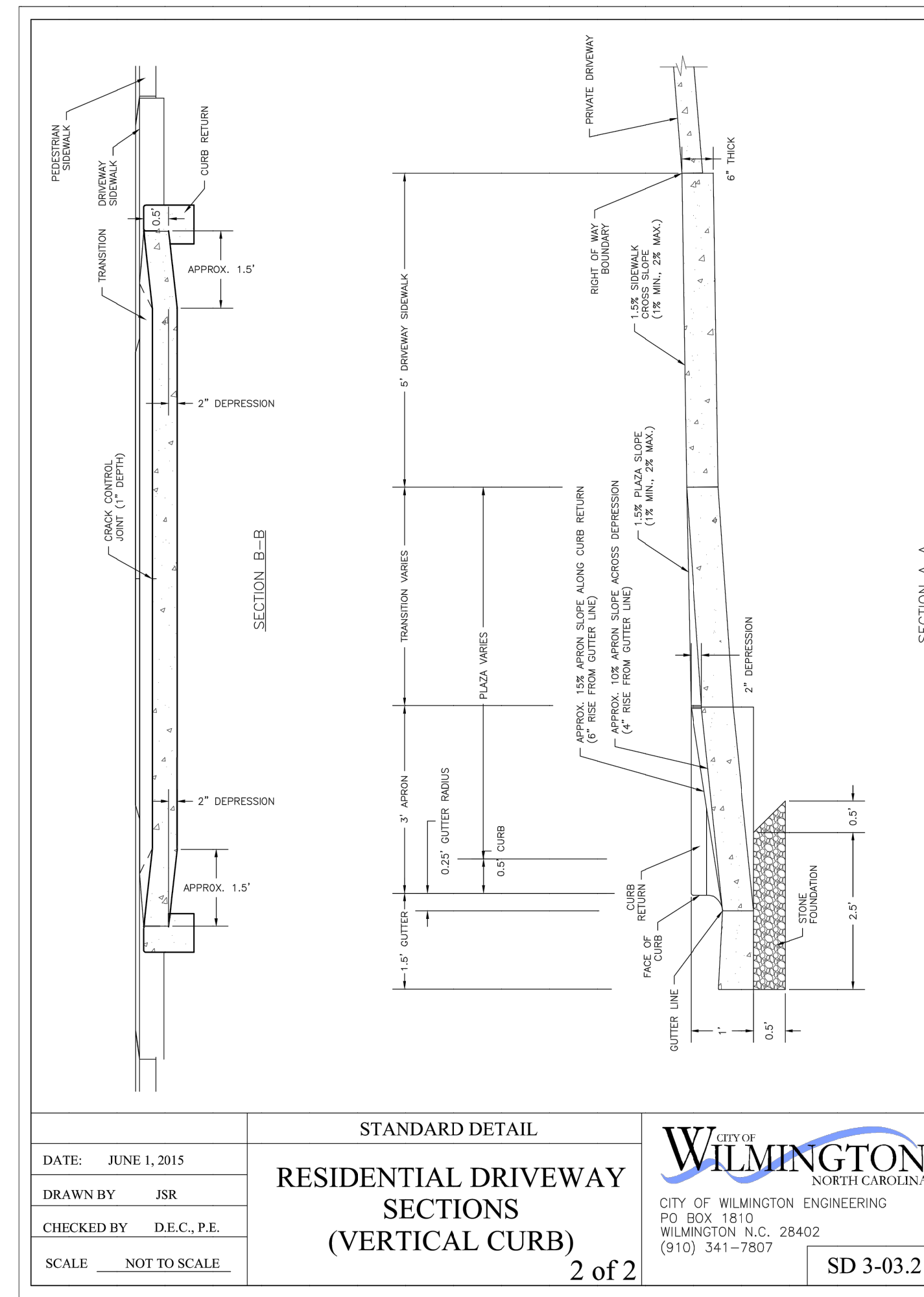
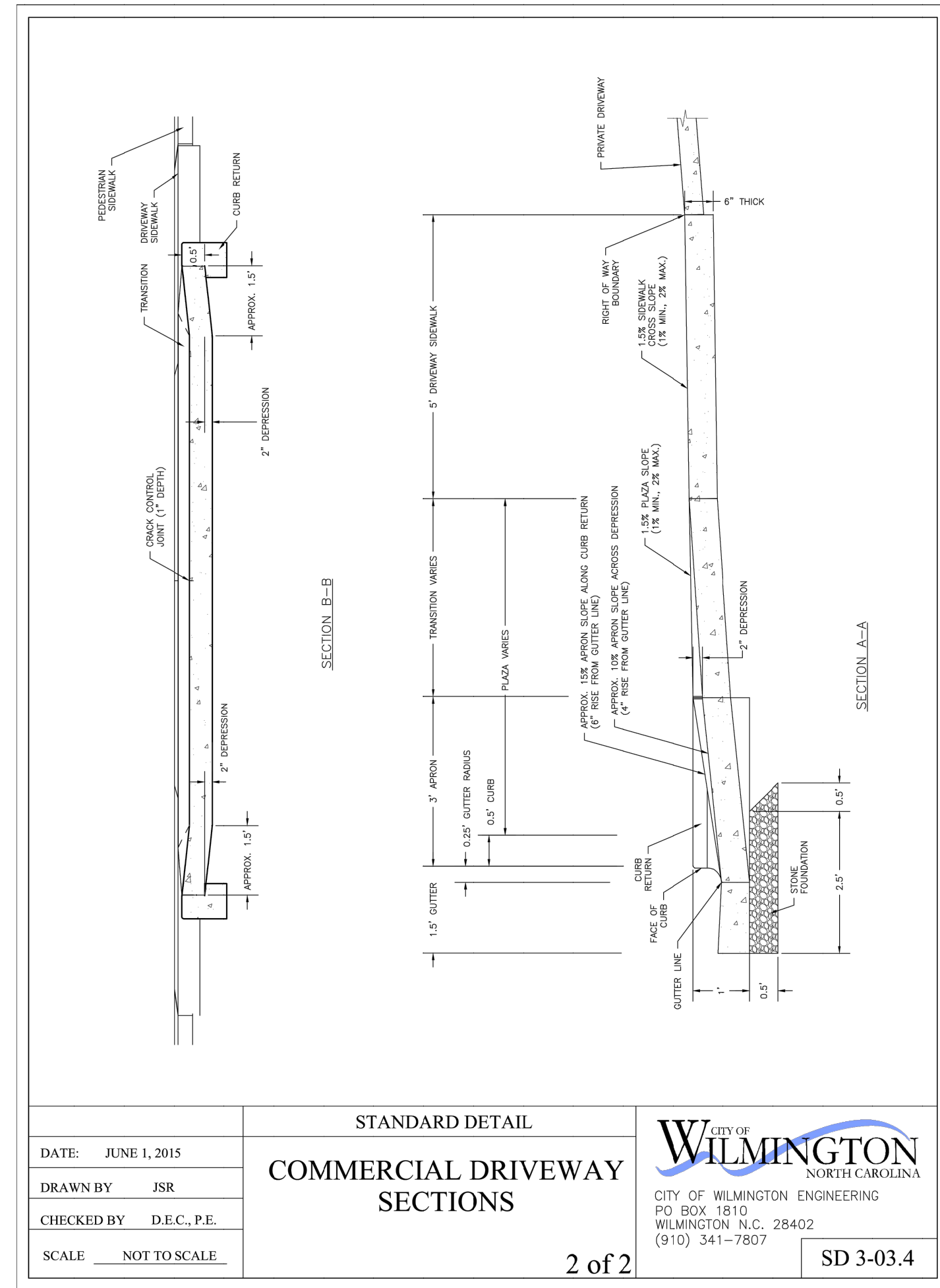
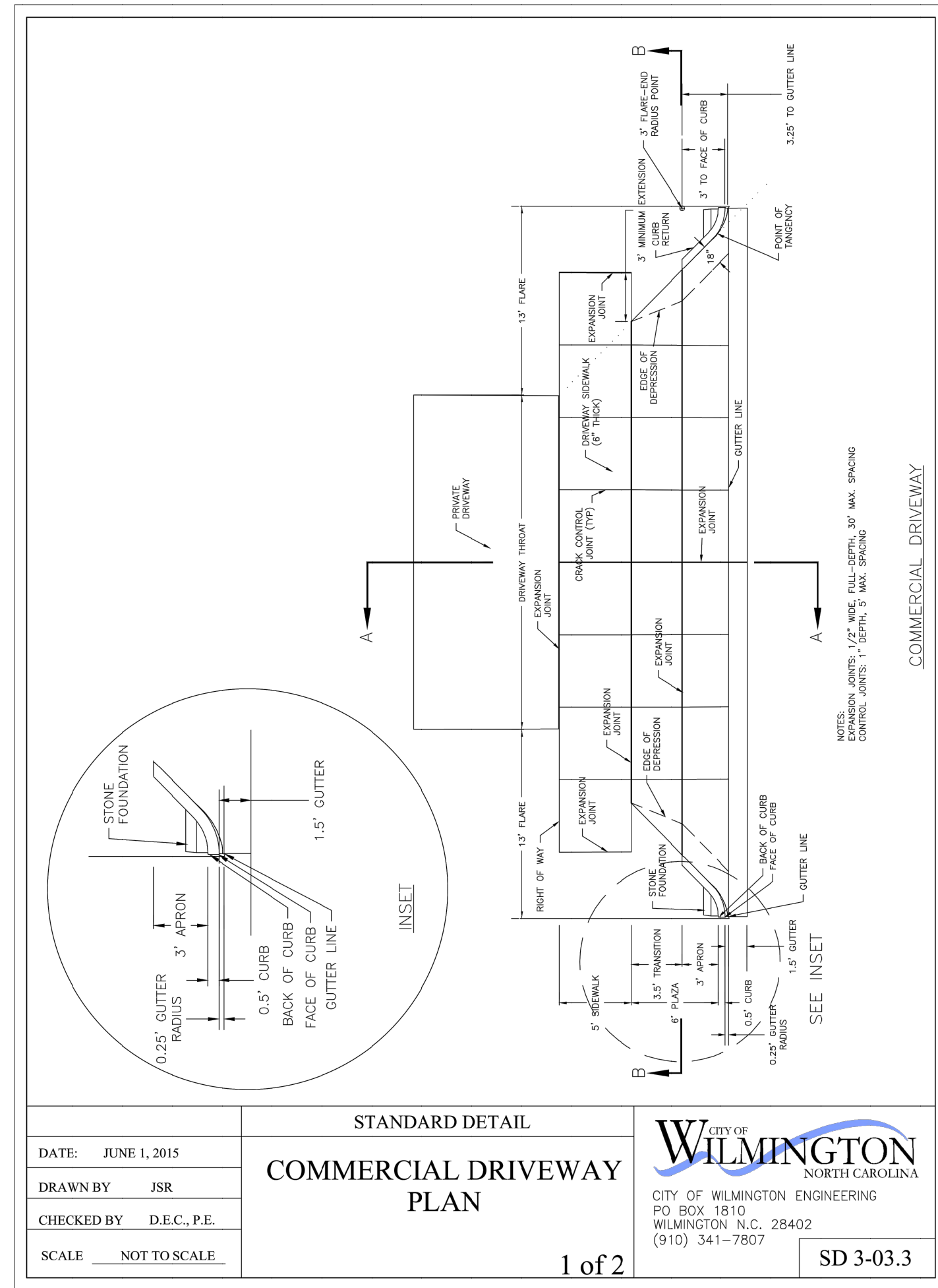
EXISTING CONDITIONS FOR
SIERRA HEIGHTS
598 VARSITY DRIVE
 LOCATED IN CITY OF WILMINGTON
 NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: JEJ INVESTMENTS LLC
 1705 CHESTNUT STREET
 WILMINGTON, NC 28405

PRELIMINARY

REV.	NO.	DATE	REMARKS

DATE: 2-26-17
 HORZ. SCALE: 1" = 200'
 VERT. SCALE: N/A
 DRAWN BY: MRB
 CHECKED BY: HSR
 PROJECT NO.: 16-0380



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
NORTH CAROLINA
Public Services Engineering Division
APPROVED PLAN - NO PERMIT REQUIRED

Signed: _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CSD ENGINEERING

LICENSE # C-2710
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL

P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

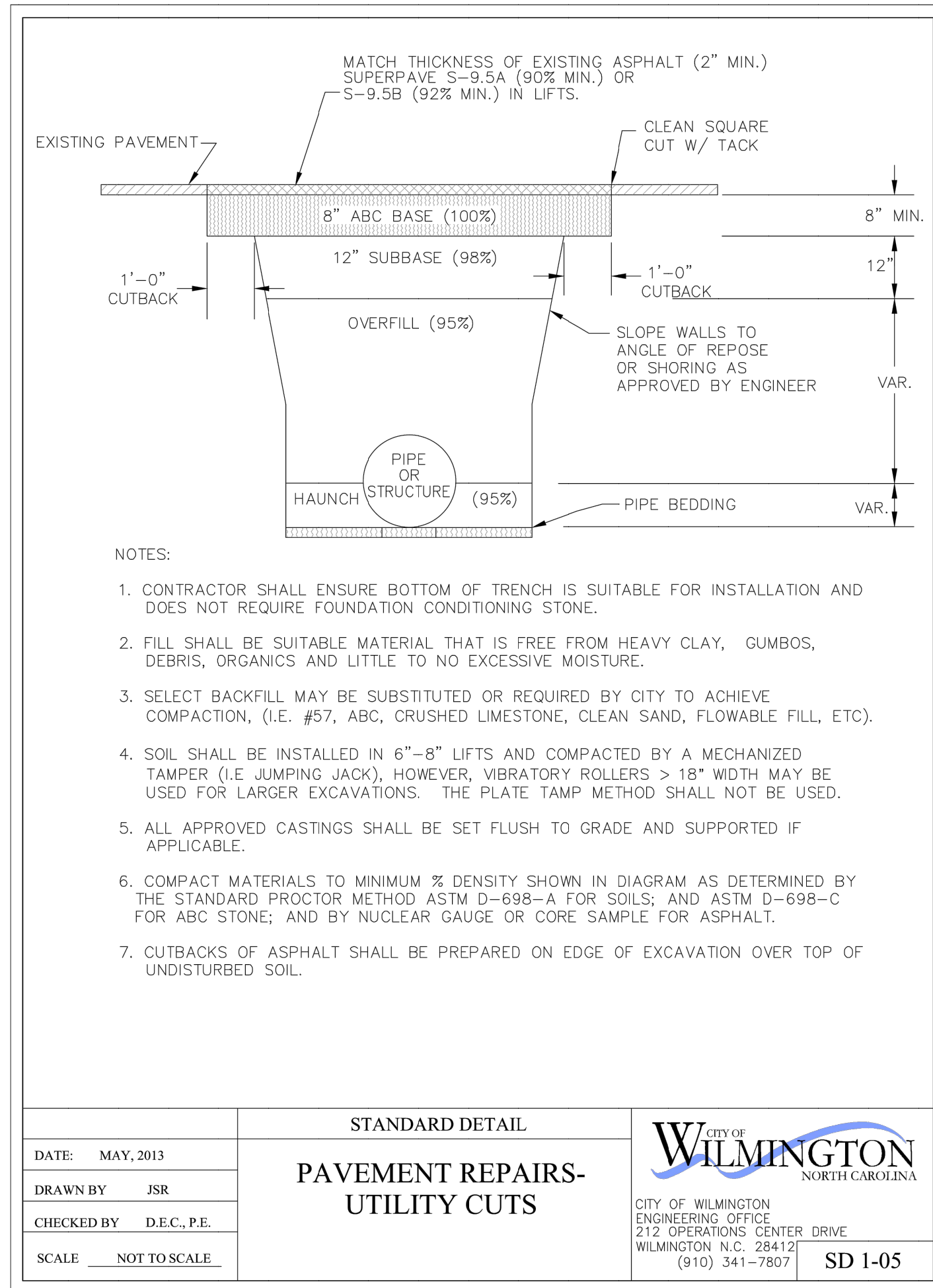
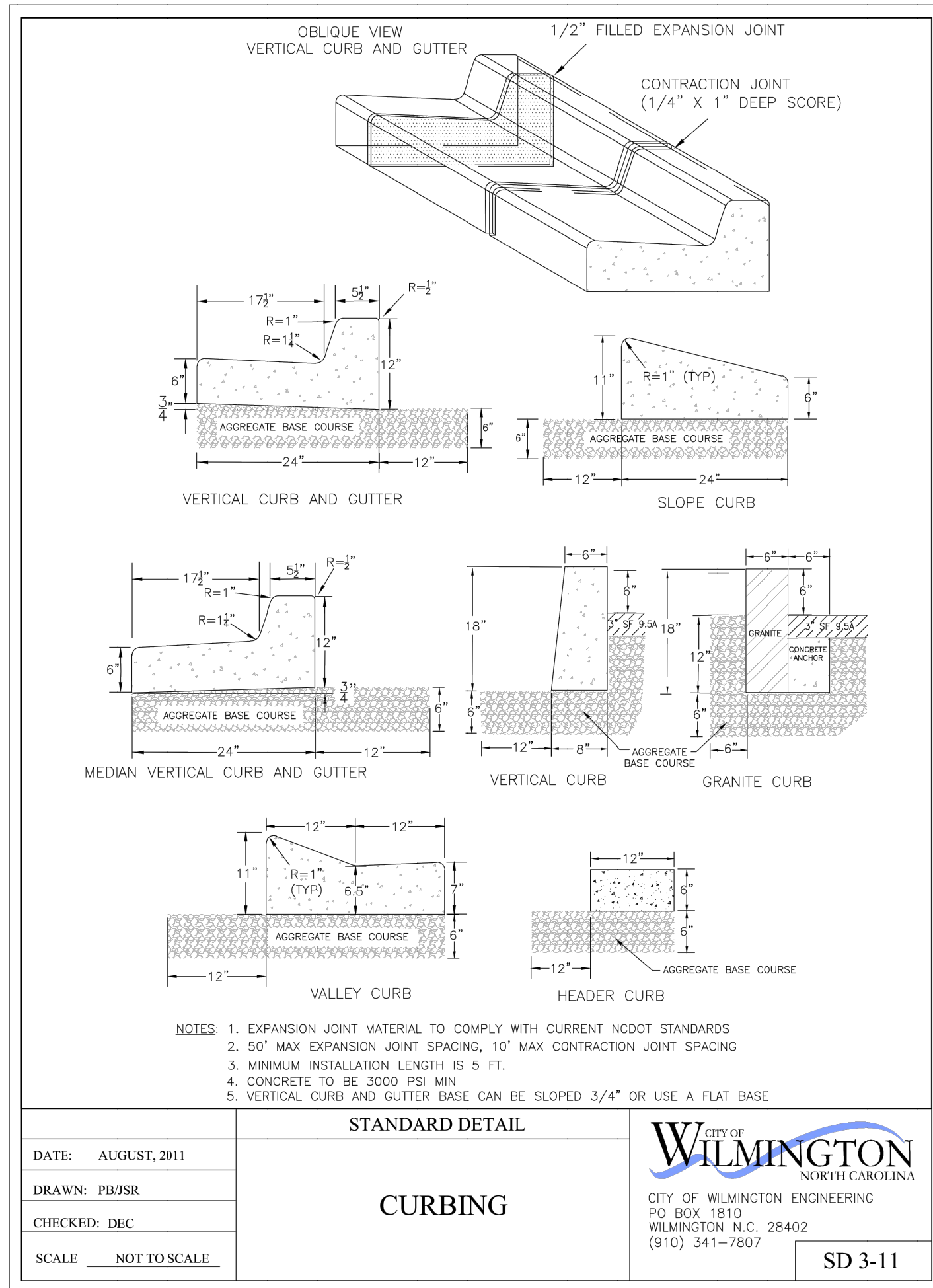
SITE PLAN DETAILS
SIERRA HEIGHTS
598 VARSITY DRIVE

SITE PLAN DETAILS
SIERRA HEIGHTS
598 VARSITY DRIVE
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: JEJ INVESTMENTS LLC
1705 CHESTNUT STREET
WILMINGTON, NC 28405

REV.	NO.	REMARKS	BY	DATE

DATE: 2-26-17
HORIZ. SCALE: AS NOTED
VERT. SCALE: N/A
DRAWN BY: RLW
CHECKED BY: HSR
PROJECT NO.: 16-0380



Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
NORTH CAROLINA
Public Services • Engineering Division
APPROVED PLAN - NO PERMIT REQUIRED

Signed: _____

For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

CSD ENGINEERING

LICENSE # C-2710
ENGINEERING
LAND PLANNING
COMMERCIAL / RESIDENTIAL

P.O. BOX 4041
WILMINGTON, NC 28406
(910) 791-4441

SITE PLAN DETAILS
SIERRA HEIGHTS
598 VARSITY DRIVE

This plan was prepared by CSD Engineering, Inc. on behalf of the City of Wilmington, North Carolina. It is not to be used for any other project without the express written consent of CSD Engineering, Inc. or the City of Wilmington, North Carolina. The City of Wilmington, North Carolina is not responsible for the accuracy of this plan.

SITE PLAN DETAILS
SIERRA HEIGHTS
598 VARSITY DRIVE
LOCATED IN CITY OF WILMINGTON
NEW HANOVER COUNTY, NORTH CAROLINA

OWNER: JEJ INVESTMENTS LLC
1705 CHESTNUT STREET
WILMINGTON, NC 28405

DATE: 2-26-17
HORIZ. SCALE: AS NOTED
VERT. SCALE: N/A
DRAWN BY: RLW
CHECKED BY: HSR
PROJECT NO.: 16-0380

REV. NO.	REMARKS	BY	DATE

PRELIMINARY

REV. NO.	REMARKS	BY	DATE

DATE: 2-26-17

HORIZ. SCALE: AS NOTED

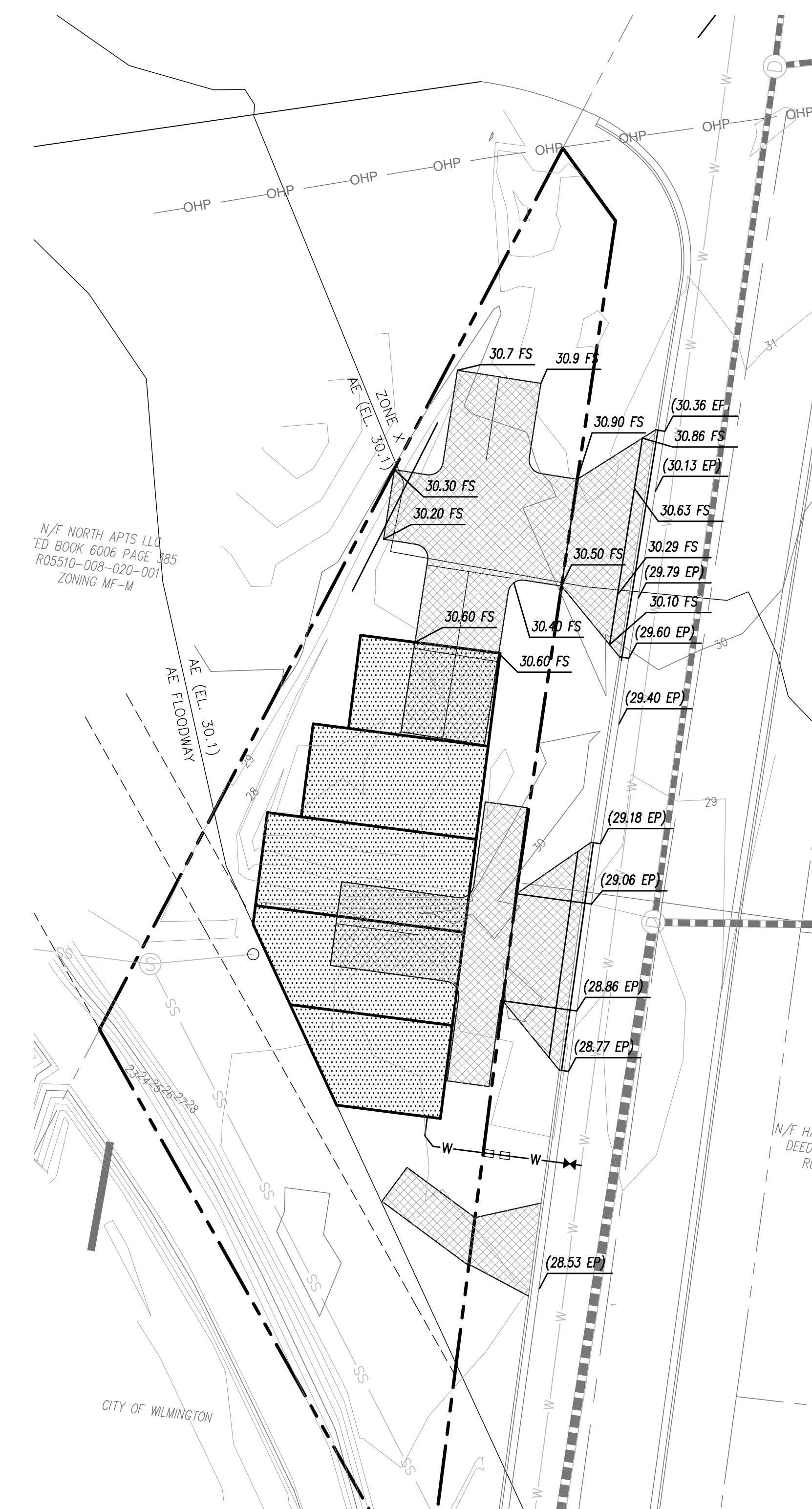
VERT. SCALE: N/A

DRAWN BY: RLW

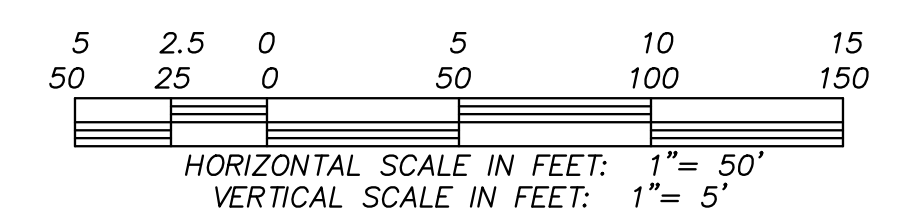
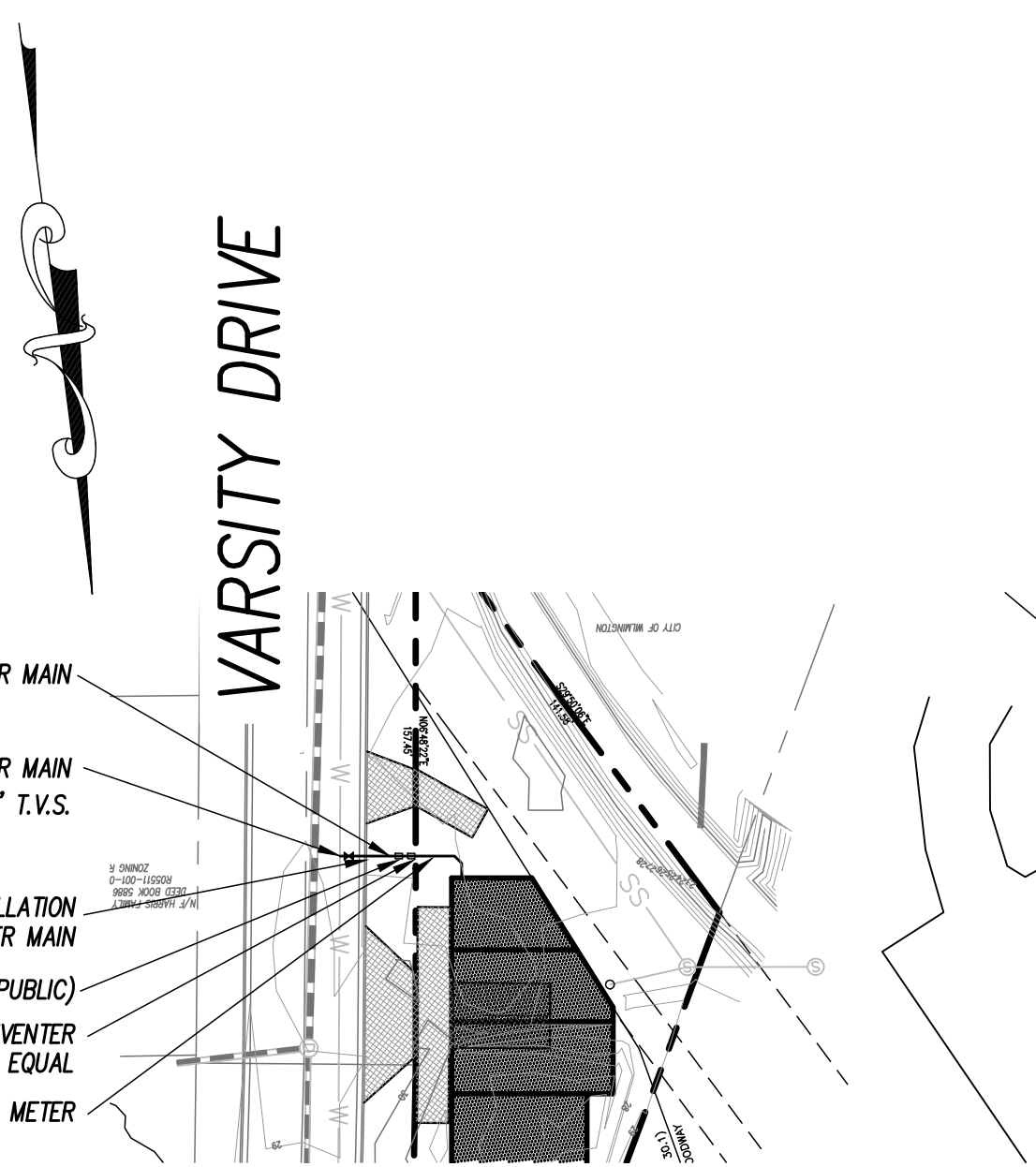
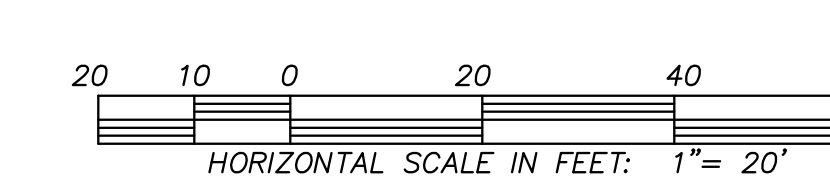
CHECKED BY: HSR

PROJECT NO.: 16-380

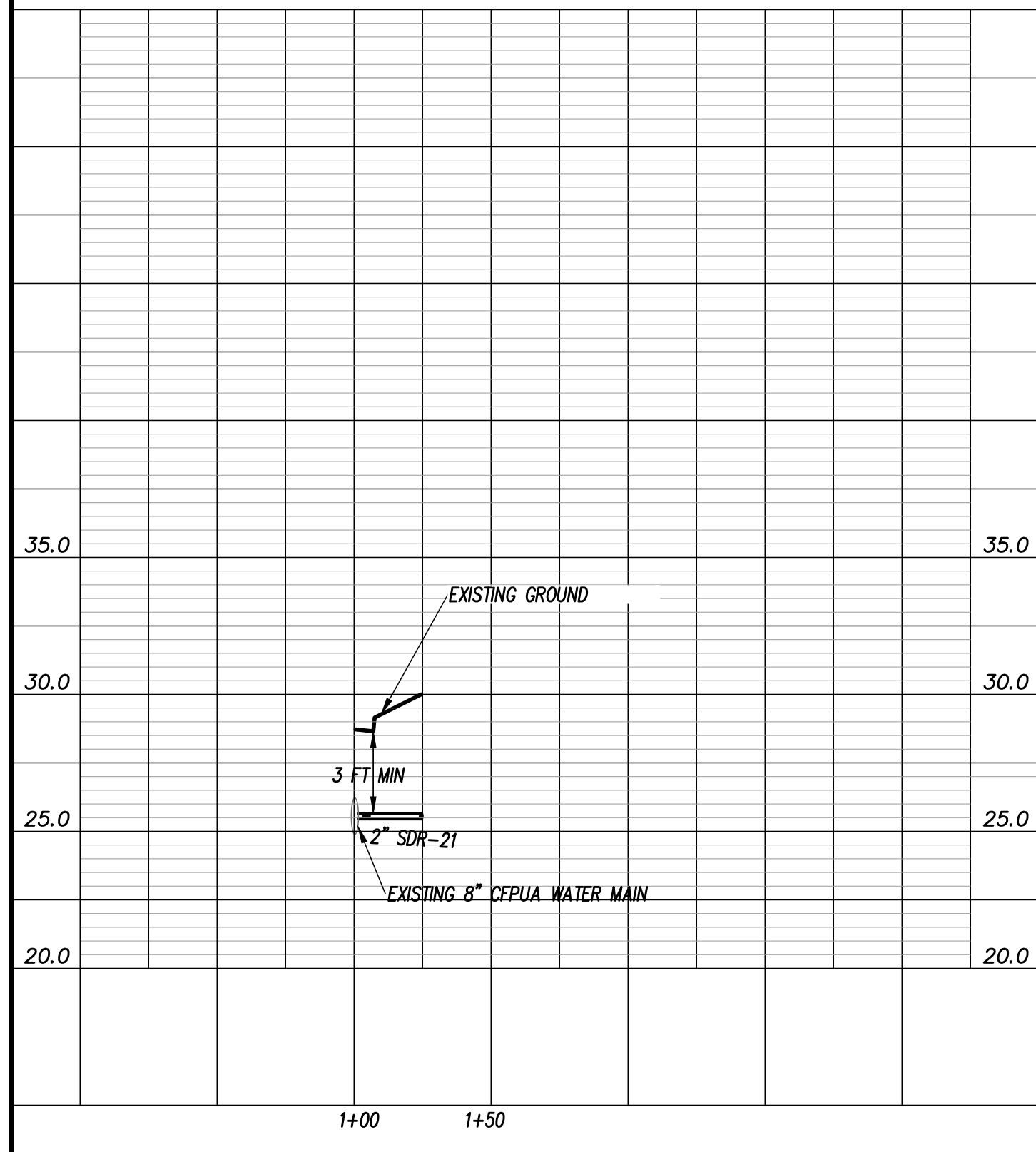
Sheet No. **6** of **9**



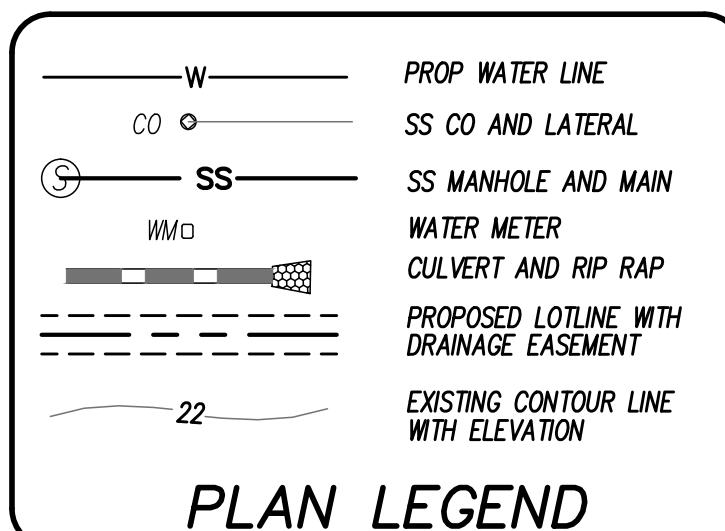
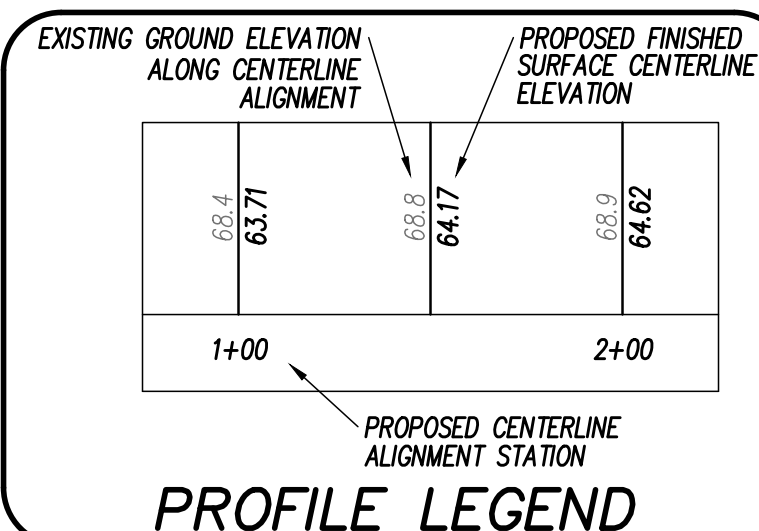
GRADING / DRAINAGE PLAN
1" = 20'



WATER CONNECTION



- CPVIA STANDARD NOTES:**
- SEWER GUARDS REQUIRED AT ALL MANHOLES. STAINLESS STEEL SEWER GUARDS REQUIRED AT MANHOLES LOCATED IN TRAFFIC AREAS.
 - WATER AND SEWER SERVICES SHALL BE PERPENDICULAR TO MAIN AND TERMINATE AT R/W LINE. SEWER SERVICES IN CUL-DE-SACS ARE REQUIRED TO BE PERPENDICULAR, OR MUST ORIGINATE IN END OF LINE MANHOLE AND TERMINATE AT RIGHT-OF-WAY LINE.
 - ALL SERVICES TYING INTO DUCTILE IRON MAINS SHALL BE CONSTRUCTED OF CLASS 50, DIP, WITH PROTECTO 401 CERAMIC EPOXY LINING.
 - MINIMUM 10' UTILITIES EASEMENT PROVIDED ALONG THE FRONTAGE OF ALL LOTS AND AS SHOWN FOR NEW DEVELOPMENTS.
 - NO FLEXIBLE COUPLINGS SHALL BE USED.
 - ALL STAINLESS STEEL FITTINGS SHALL BE 316.
 - CLEANOUTS SHALL BE LOCATED A MINIMUM OF 12 FEET FROM ALL PROPERTY CORNERS. WATER METER BOXES ARE TO BE A MINIMUM OF 5 FEET FROM THE PROPERTY CORNER.



For each open utility cut of City streets, a \$325 permit shall be required from the City prior to occupancy and/or project acceptance.

Approved Construction Plan

Name _____ Date _____

Planning _____

Traffic _____

Fire _____

CITY OF WILMINGTON
NORTH CAROLINA

Public Services • Engineering Division

APPROVED PLAN - NO PERMIT REQUIRED

Signed: _____