

The waterline will need to terminate with a 8" blow off assembly. Also, CORWLE should be extended 5' on each side of the FH from the R/W.

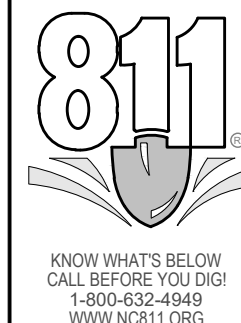
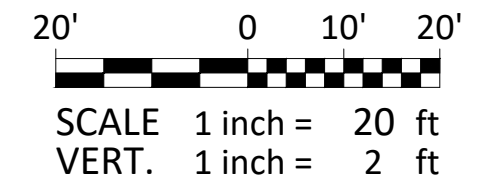
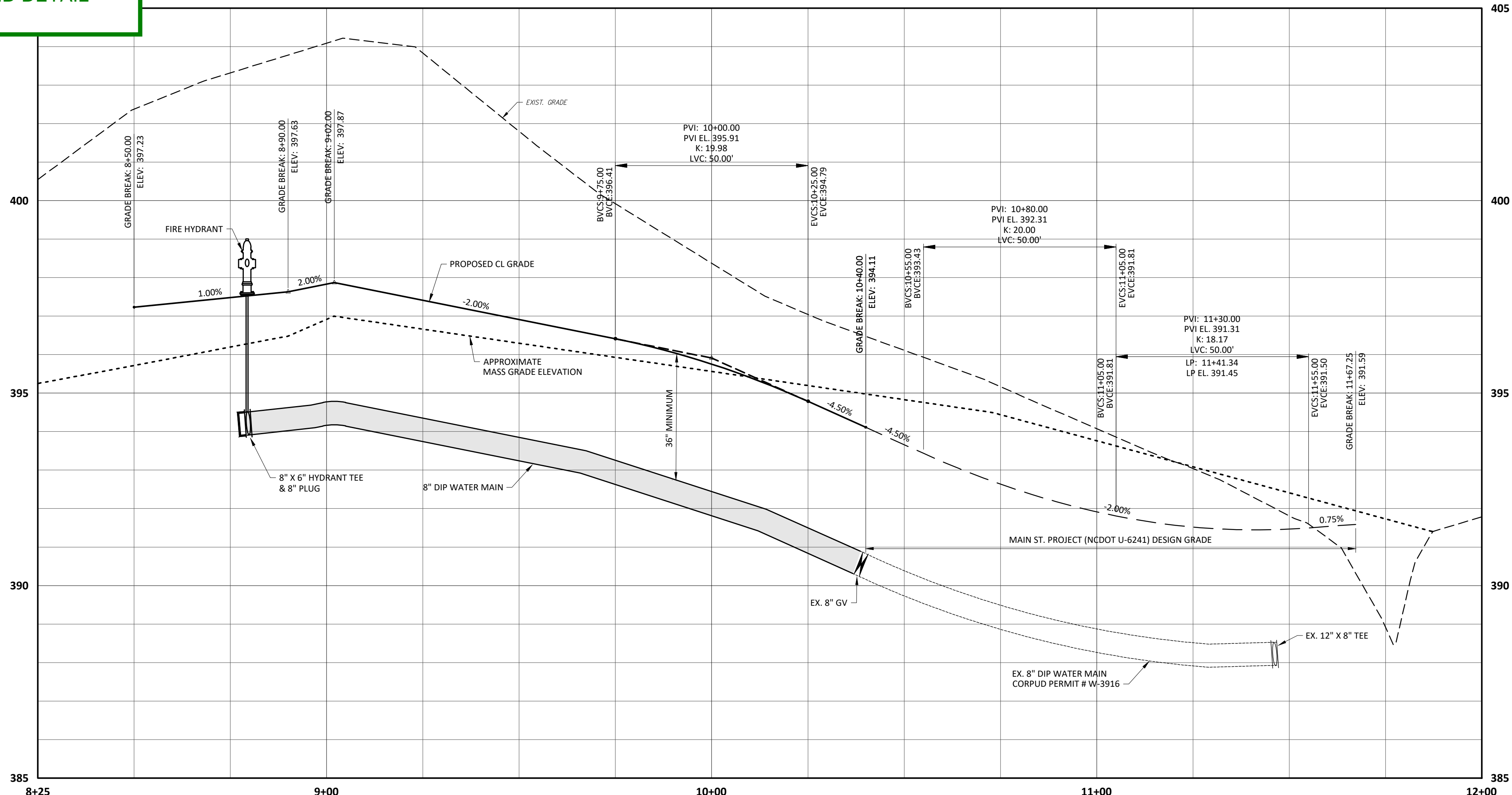
EASEMENT ADDED. BLOWOFF NOTE ADDED AND DETAIL ADDED TO C4.1.

Grading Notes:

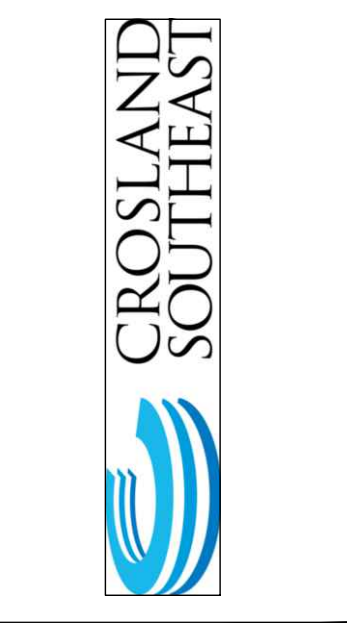
- SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET.
- SITE CONTRACTOR TO GRADE ALL AREAS WITHIN THE LIMITS OF DISTURBANCE FROM BUILDING TO PROPERTY LINES AND TO EDGE OF PAVEMENT ON STREET SIDES, INCLUDING ROW.
- TREES OUTSIDE OF CONSTRUCTION LIMITS OR TREES NOT INDICATED TO BE REMOVED SHALL BE PROTECTED.
- TOP SOIL SHALL BE STRIPPED FROM ALL CUT AND FILL AREAS, STOCKPILED AND REDISTRIBUTED OVER GRADED AREAS. PROVIDE EROSION AND SEDIMENTATION CONTROLS AROUND STOCKPILES DURING CONSTRUCTION.
- TILL TOP SOIL TO A DEPTH OF 4" MINIMUM AND REMOVE ALL ROCKS LARGER THAN 1" MEASURED IN LARGEST DIRECTION.
- GRADE ALL AREAS TO MAINTAIN POSITIVE SLOPE AWAY FROM BUILDING.
- ALL GRADED AREAS TO RECEIVE SEED OR SOIL, TOP SOIL, STRAW AND WATER UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- INSTALL TEMPORARY TURF REINFORCEMENT MATTING ON ALL SLOPES STEEPER THAN 3:1. MATTING SHALL BE CONTECH LANDLOK C2 OR EQUAL.
- REFER TO CIVIL DETAILS FOR PAVEMENT IN PARKING AND DRIVE AREAS.
- ALL SIDEWALKS SHALL BE CONSTRUCTED OF 3,500 PSI CONCRETE AND SHALL HAVE TOOLED CONTROL JOINTS PER THE JOINT SPACING REFERENCED ON THE PLAN.
- MATERIALS SELECTED FOR USE AS STRUCTURAL FILL SHALL BE FREE OF VEGETABLE MATTER, WASTE CONSTRUCTION DEBRIS, AND OTHER DELETERIOUS MATERIALS. THE MATERIAL SHALL NOT CONTAIN ROCKS HAVING A DIAMETER OVER 3 INCHES.
- SOILS REPRESENTED BY THEIR USCS GROUP SYMBOLS WILL TYPICALLY BE SUITABLE FOR USE AS STRUCTURAL FILL (ML), (CL), (SM), AND (SC).
- THE FOLLOWING SOILS ARE CONSIDERED SUITABLE IN AREAS WHERE A MINIMUM THICKNESS OF 3' OF LOW PERMEABILITY SOILS CAN BE USED AS COVER: (SW), (SP), (SP-SM), AND (SP-SC).
- THE FOLLOWING SOILS ARE CONSIDERED SUITABLE IN AREAS WHERE A MINIMUM THICKNESS OF 3' OF NON-EXPANSIVE SOILS CAN BE USED AS COVER: (MH) AND (CH).
- THE FOLLOWING SOIL TYPES ARE CONSIDERED UNSUITABLE: (OL), (OH), AND (PI).
- ALL STRUCTURAL FILL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698). ADDITIONALLY, THE IN-PLACE MAXIMUM DRY DENSITY OF STRUCTURAL FILL SHOULD BE NO LESS THAN 90 PCF.
- THE UPPER 12" OF BUILDING FLOOR SLAB SUBGRADES SHALL BE COMPACTED TO AT LEAST 98% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D698).
- FILL PLACEMENT IN PAVEMENT AREAS SHALL BE PERFORMED IN ACCORDANCE WITH NCDOT STANDARD SPECIFICATIONS.
- SUITABLE FILL MATERIAL SHALL BE PLACED IN 8" LIFTS AND COMPACTED BY MECHANICAL MEANS. PROOFROLLING WITH RUBBER TIRE, HEAVILY LOADED VEHICLES MAY BE DESIRABLE AT INTERVALS OF APPROXIMATELY 2 VERTICAL FEET TO BIND THE LIFTS TOGETHER AND TO SEAL THE SURFACE OF EACH COMPACTED AREA.
- ALL BUILDING, SIDEWALK, AND PAVEMENT SUB-GRADE COMPACTIONS SHALL BE INTERMEDIATELY TESTED THROUGHOUT FILL PLACEMENT OPERATIONS AND APPROVED BY THE GEOTECHNICAL ENGINEER. ALL SUB-GRADES SHALL BE THOROUGHLY PROOF-ROLLED TO IDENTIFY SMALL LOCALIZED AREAS OF UNSUITABLE SOILS. ALL UNSUITABLE SOILS SHALL BE UNDERCUT, REPLACED WITH STRUCTURAL FILL, AND COMPACTED AS DESCRIBED ABOVE.
- WHERE A HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER, MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & 5-49).
- ANY OTHER UNDERGROUND UTILITIES SHALL CROSS WATER & SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
- ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW & APPROVAL OF AN AMENDED PLAN &/OR PROFILE BY CORPUD PRIOR TO CONSTRUCTION.
- 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 CORPUD.
- 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS & SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
- IT IS THE DEVELOPERS RESPONSIBILITY TO ABANDON OR REMOVE EXISTING WATER & SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY CORPUD. THIS INCLUDES ABANDONING TAP AT MAIN & REMOVAL OF SERVICE FROM ROW OR EASEMENT PER CORPUD HANDBOOK PROCEDURE.
- INSTALL PVC WATER SERVICES WITH METERS LOCATED AT ROW OR WITHIN A 2' X 2' WATERLINE EASEMENT IMMEDIATELY ADJACENT.
- INSTALL PVC SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE & SPACED EVERY 75 LINEAR FEET MAXIMUM.
- PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1.0' ABOVE THE NEXT UPSTREAM MANHOLE.
- ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDWR, USACE &/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND &/OR FLOODPLAIN IMPACTS PRIOR TO CONSTRUCTION.
- NC DOT / RAILROAD ENCROACHMENT AGREEMENTS ARE REQUIRED FOR ANY UTILITY WORK (INCLUDING MAIN EXTENSIONS & SERVICE TAPS) WITHIN STATE OR RAILROAD ROW PRIOR TO CONSTRUCTION.
- GREASE INTERCEPTOR / OIL WATER SEPARATOR SIZING CALCULATIONS & INSTALLATION SPECIFICATIONS SHALL BE APPROVED BY THE CORPUD FOG PROGRAM COORDINATOR PRIOR TO ISSUANCE OF A BUILDING PERMIT. CONTACT TIM BEASLEY AT (919) 996-2334 OR TIMOTHY.BEASLEY@RALEIGHNC.GOV FOR MORE INFORMATION.
- CROSS-CONNECTION CONTROL PROTECTION DEVICES ARE REQUIRED BASED ON DEGREE OF HEALTH HAZARD INVOLVED AS LISTED IN APPENDIX-B OF THE RULES GOVERNING PUBLIC WATER SYSTEMS IN NC. THESE GUIDELINES ARE THE MINIMUM REQUIREMENTS. THE DEVICES SHALL MEET AMERICAN SOCIETY 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 MANUFACTURERS RECOMMENDATIONS OR THE LOCAL CROSS-CONNECTION CONTROL PROGRAM, WHICHEVER IS MORE STRINGENT. CONTACT JOANIE HARTLEY AT (919) 996-5923 OR JOANIE.HARTLEY@RALEIGHNC.GOV FOR MORE INFORMATION.

CORPUD Standard Utility Notes:

- ALL MATERIALS & CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF RALEIGH DESIGN STANDARDS, DETAILS & SPECIFICATIONS (REFERENCE: CORPUD HANDBOOK)
- UTILITY SEPARATION REQUIREMENTS:
 - A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPROUNDED RESERVOIR, USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATER SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - WHEN INSTALLING WATER &/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IN THE WATER MAIN IS 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.
 - WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASMENT EXTENDED 10' ON EACH SIDE OF CROSSING MUST BE SPECIFIED & INSTALLED TO WATERLINE SPECIFICATIONS.
 - 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER & STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - MAINTAIN 18" MIN. VERTICAL SEPARATION AT ALL WATER MAIN & RCP STORM DRAIN CROSSINGS; MAINTAIN 24" MIN. VERTICAL SEPARATION AT ALL SANITARY SEWER & RCP STORM DRAIN CROSSINGS. WHERE ADEQUATE SEPARATIONS CANNOT BE ACHIEVED, SPECIFY DIP MATERIALS & A CONCRETE CRADLE HAVING 6" MIN. CLEARANCE (PER CORPUD DETAILS W-41 & 5-49).
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-Final Drawing - Issued for Permit Review Purposes Only



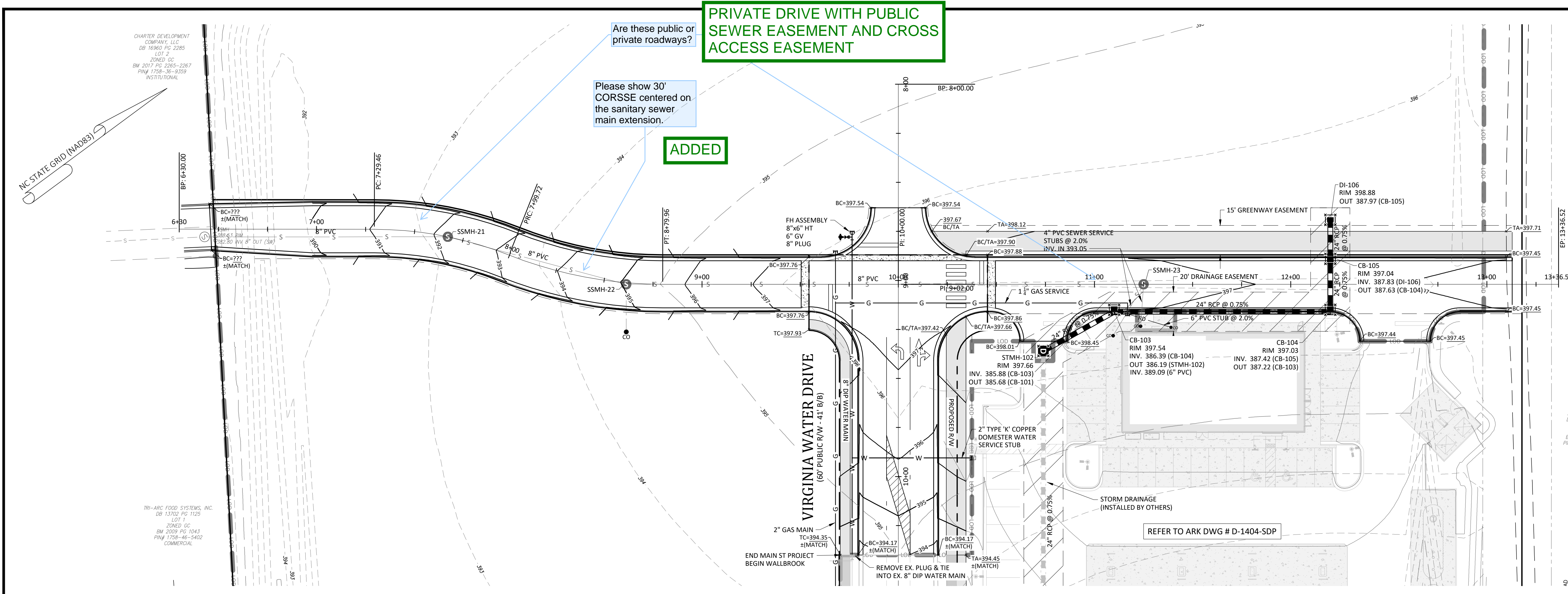
VIRGINIA WATER DRIVE EXT - PLAN-PROFILE
WALLBROOK ROADWAY IMPROVEMENTS
 VIRGINIA WATER DRIVE EXTENSION (SERVING LOTS 9-11)
 Town of Rolesville Project No. CID 23-
 US 401 Business / S. Main Street & Virginia Water Drive
 Wake Forest Township, Wake County, North Carolina



Project Manager: BCF
 Drawn By: DLT/TN
 Checked By: TN
 Project Number: 22049
 Drawing Number: D-1404-CID

C3.0

Date: May 2023



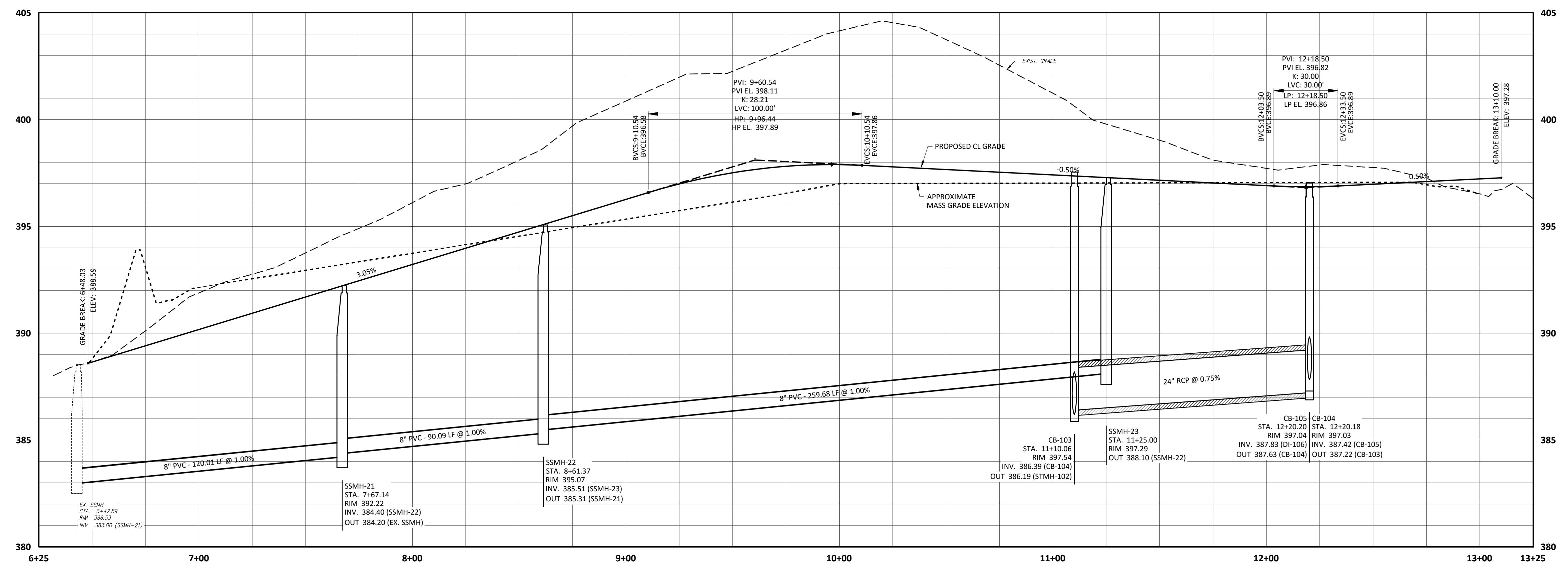
PRIVATE DRIVE WITH PUBLIC SEWER EASEMENT AND CROSS ACCESS EASEMENT

Are these public or private roadways?
Please show 30' CORSE centered on the sanitary sewer main extension.

ADDED

The intent of these CDs may not be to subdivide these parcels but the master plan clearly shows a subdivision with 3 lots. Please clearly show the lots lines for all 3 of these lots so that it is demonstrated that all 3 will have access to public water and sewer. For example, if the east and west roadway extensions are private, you'll need to demonstrate that public sewer easement touches each parcel so that they will have access to sanitary sewer.

PUBLIC SEWER EASEMENT AND CROSS ACCESS EASEMENT EXTENDS TO ALL THREE PARCELS. ADDITIONAL LABELS ADDED ON SHEET C2.0.



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

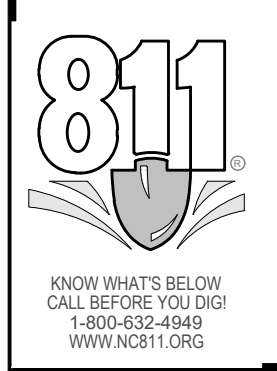
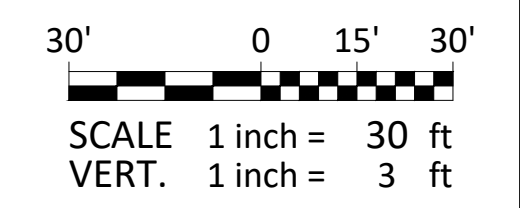
Failure to notify both City Departments in advance of beginning construction, will result in the issuance of monetary fines, and require reinstallation of any water or sewer facilities not inspected as a result of this notification failure.
Failure to call for Inspection, Install a Downstream Plug, have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

Public Water Distribution / Extension System
The City of Raleigh consents to the connection and extension of the City's public water system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # _____
Authorization to Construct _____
Date _____

Public Sewer Collection / Extension System
The City of Raleigh consents to the connection and extension of the City's public sewer system as shown on this plan. The material and construction methods used for this project shall conform to the standards and specifications of the City's Public Utilities Handbook.

City of Raleigh
Public Utilities Department Permit # _____
Authorization to Construct _____
Date _____



- Final Drawing - Issued for Permit Review Purposes Only

REVISIONS:

CROSLAND SOUTHEAST

ACCESS DRIVE - PLAN-PROFILE

WALLBROOK ROADWAY IMPROVEMENTS
VIRGINIA WATER DRIVE EXTENSION (SERVING LOTS 9-11)
Town of Rolesville Project No. CID 23-
US 401 Business / S. Main Street & Virginia Water Drive
Wake Forest Township, Town of Rolesville, Wake County, North Carolina

ARK CONSULTING GROUP PLLC
ENGINEERS & PLANNERS
2755-B Charles Blvd
Raleigh, NC 27608
(757) 558-8888
www.arkconsultinggroup.com

Project Manager: BCF
Drawn By: DLT/TN
Checked By: TN
Project Number: 22049
Drawing Number: D-1404-CID

C3.1

Date: May 2023