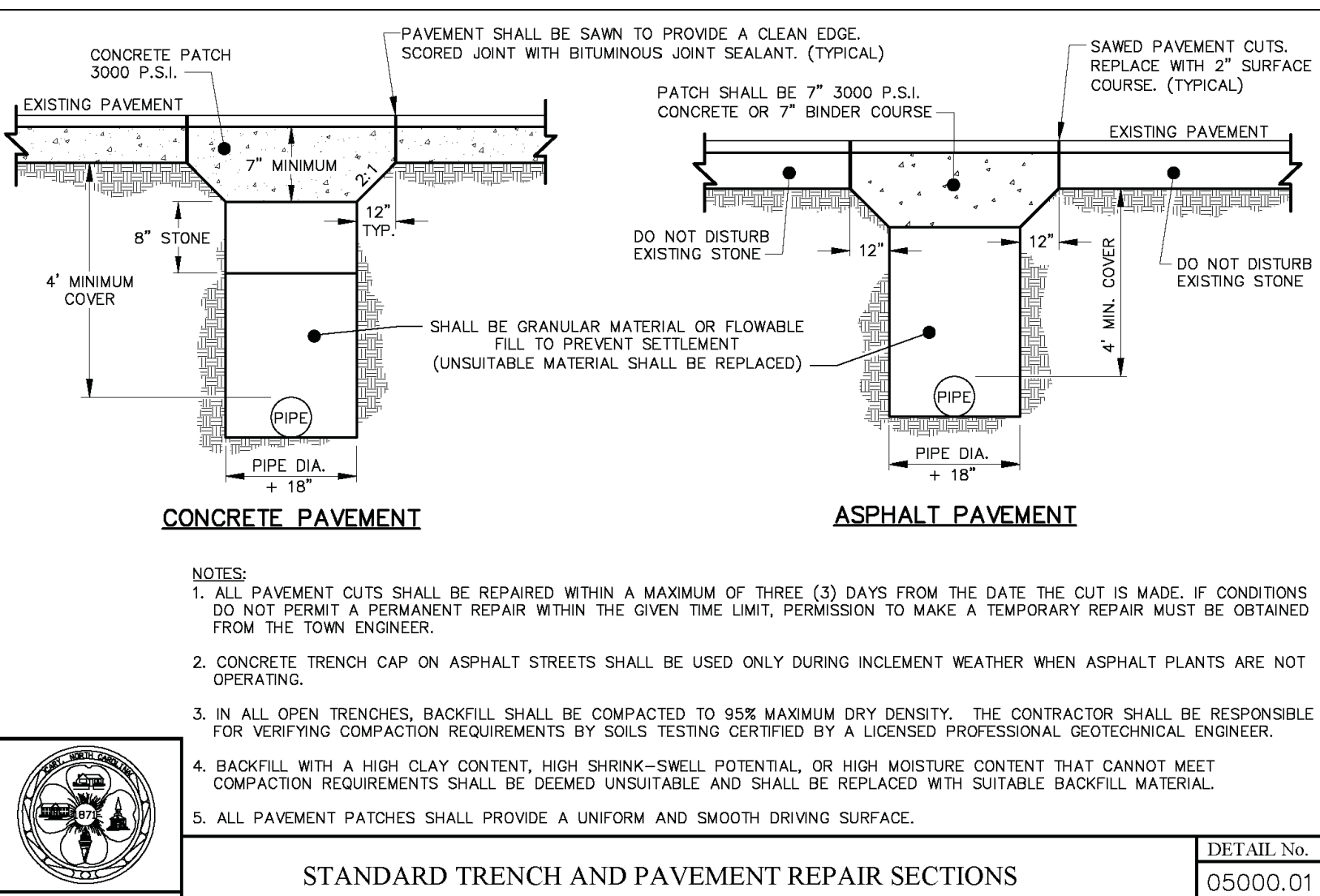
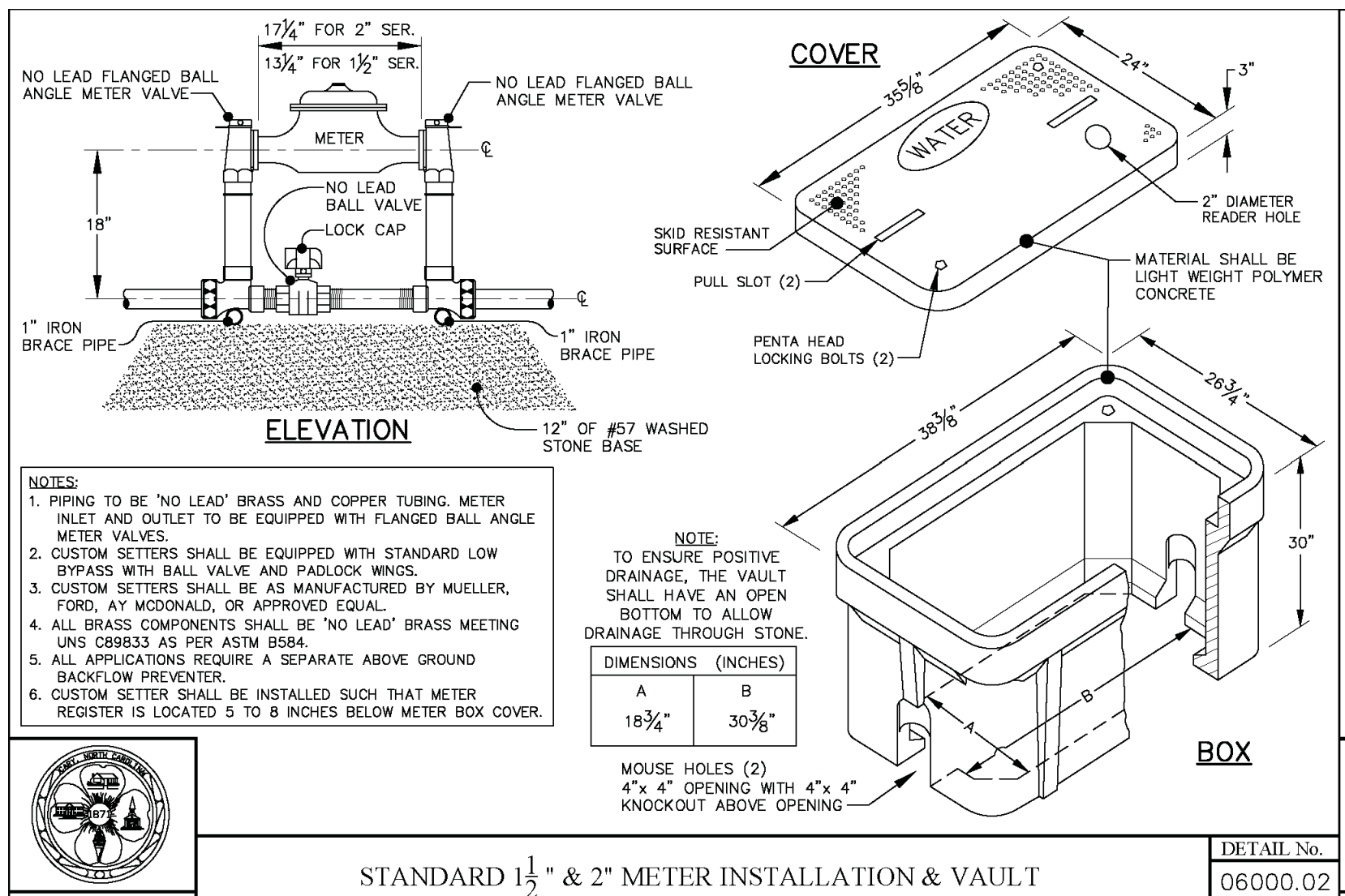
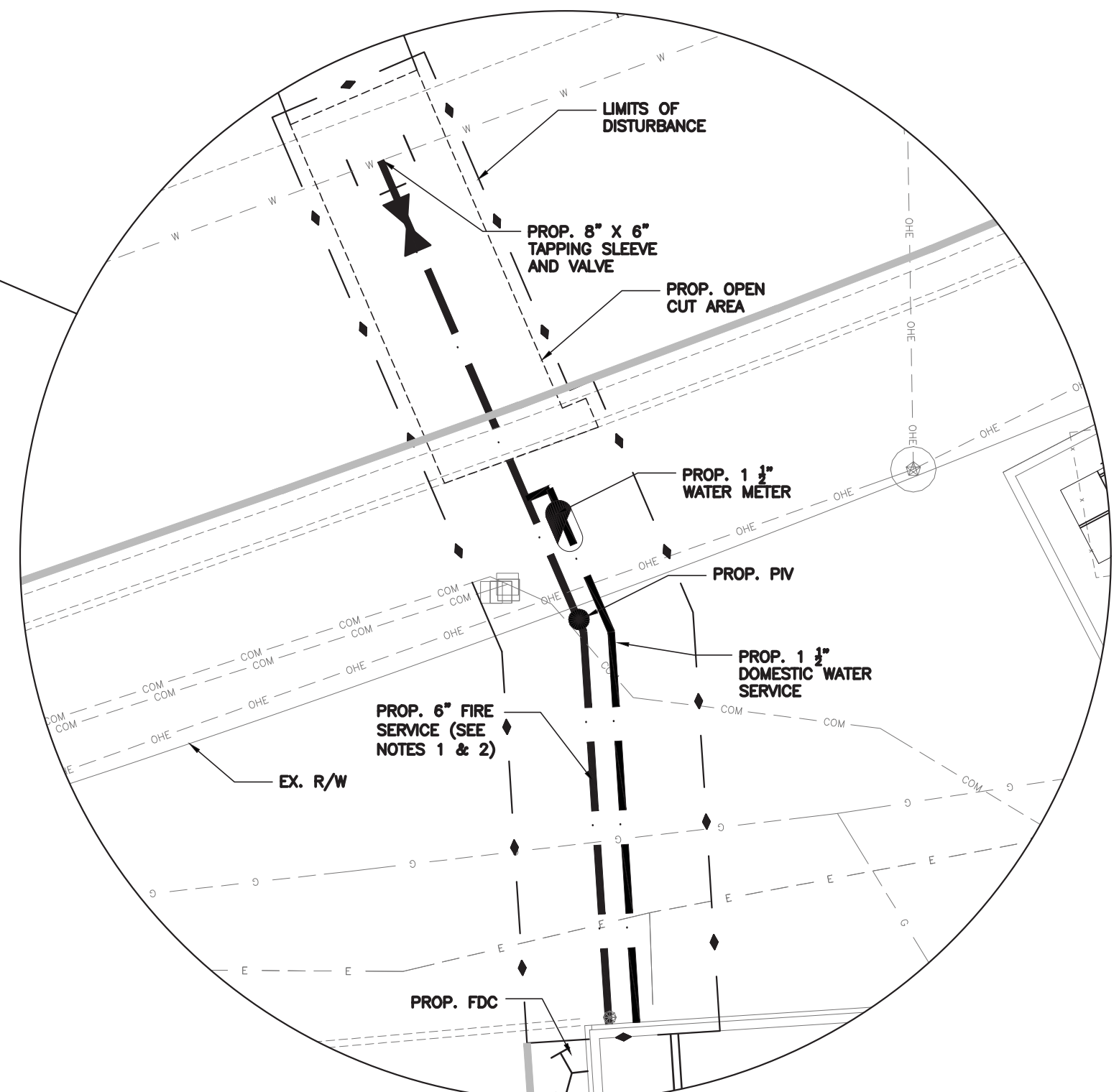
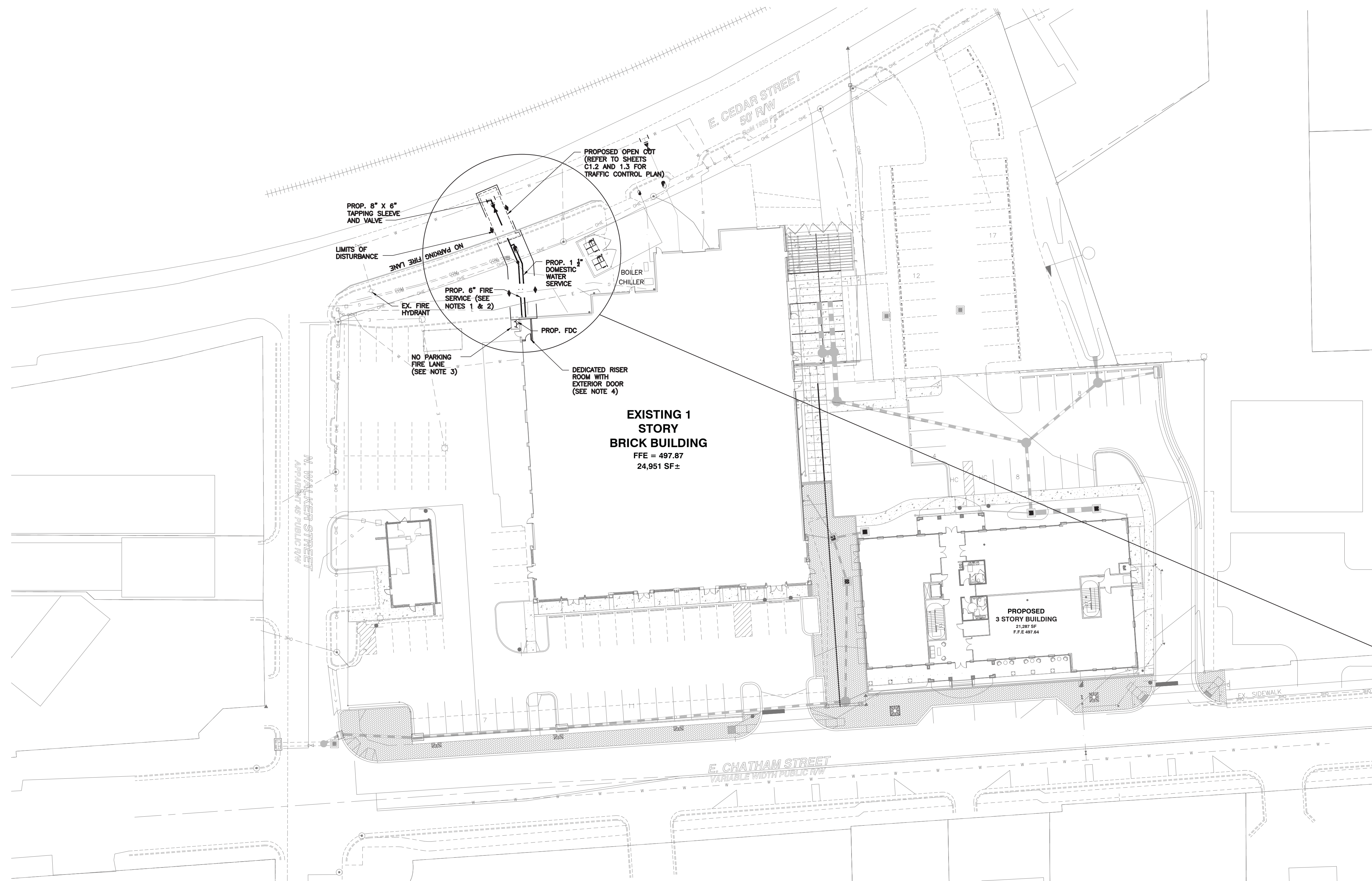


UTILITY NOTES

SANITARY SEWER:
 BACKWATER VALVES SHALL BE PROVIDED FOR ALL UNITS WITH FINAL FLOOR ELEVATIONS OF BUILDINGS LESS THAN 1' ABOVE MANHOLE.
 MINIMUM COVER OF 3' TO BE PROVIDED FOR ALL COLLECTION LINES 4" AND LARGER IN NON-TRAFFIC AREAS. IF LESS THAN 3', DUCTILE IRON PIPE SHALL BE REQUIRED IN CLASS 1 BEDDING.
 MINIMUM COVER OF 4' TO FINISHED SUBGRADE TO BE PROVIDED FOR ALL COLLECTION LINES 4" AND LARGER IN TRAFFIC AREAS. IF LESS THAN 4', DUCTILE IRON PIPE SHALL BE REQUIRED IN CLASS 1 BEDDING (MINIMUM COVER SHALL BE NO LESS THAN 3').
 MINIMUM SLOPE FOR 4" AND 6" SANITARY SEWER COLLECTION LINES SHALL BE NO LESS THAN 1.04% WITH CLEAN-OUTS EVERY 75 LINEAL FEET.
 MAINTAIN 24" VERTICAL SEPARATION FROM STORM SEWER OR SPECIFY DUCTILE IRON PIPE FOR SANITARY SEWER. ALSO MAINTAIN 10 FEET HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION FROM WATER MAINS OR SPECIFY DUCTILE IRON PIPE FOR SANITARY SEWER. IF WATER MAIN PASSES UNDER SANITARY SEWER, BOTH WATER AND SEWER SHALL BE DUCTILE IRON PIPE FOR 10' EACH SIDE OF CROSSING.
 IF SANITARY AND STORM SEWERS CROSS WITH LESS THAN 24" VERTICAL SEPARATION, A CONCRETE CRADLE OF FLOWABLE FILL SHALL BE INSTALLED TO THE SPRINGLINE OF BOTH PIPES. THE CRADLE SHALL BE THE FULL WIDTH OF THE PIPE TRENCH, WITH A MINIMUM OF 12" BEYOND THE OUTSIDE EDGES OF THE LARGER PIPE. THE LOWER PIPE SHALL BE HAVE 1" THICK COMPRESSIBLE JOINT MATERIAL BETWEEN THE CRADLE AND THE PIPE. THE MINIMUM VERTICAL PIPE SEPARATION WITH A CRADLE IS 6".
 CLEAN-OUTS IN TRAFFIC AREAS SHALL BE TRAFFIC BEARING ACCORDING TO TOWN OF CARY DETAILS.
WATER:
 MINIMUM COVER OF 4' TO BE PROVIDED. WHEN WATER LINES ARE INSTALLED ALONG A ROADWAY THEY SHALL BE INSTALLED AT A SUFFICIENT DEPTH TO MAINTAIN 4' OF COVER TO THE SUBGRADE OF ANY FUTURE ROAD IMPROVEMENTS.
 MAINTAIN 12" VERTICAL SEPARATION FROM STORM SEWER. ALSO MAINTAIN 10 FEET HORIZONTAL SEPARATION AND 18" VERTICAL SEPARATION FROM SANITARY SEWER MAINS. IF WATER MAIN PASSES UNDER SANITARY SEWER, BOTH WATER AND SEWER SHALL BE DUCTILE IRON PIPE FOR 10' EACH SIDE OF CROSSING.
 PRESSURE REDUCING VALVES SHALL BE PROVIDED IF PRESSURE IS IN EXCESS OF 80 PSI.
GENERAL:
 ALL WATER AND SEWER MAINS WITHIN PUBLIC EASEMENTS AND RIGHTS-OF-WAY TO BE OWNED, OPERATED, AND MAINTAINED BY THE TOWN OF CARY.
 ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE TOWN OF CARY AND THE STATE OF NORTH CAROLINA STANDARDS AND SPECIFICATIONS.
 ALL UNDERGROUND UTILITIES ARE APPROXIMATELY LOCATED. ACTUAL LOCATION AND DEPTH TO BE CONFIRMED IN THE FIELD BY CONTRACTOR PRIOR TO CONSTRUCTION. NOTIFY ENGINEER OF ANY DISCREPANCY.
 BEFORE STARTING ANY CONSTRUCTION OF IMPROVEMENTS WITHIN ANY CITY OR NCDOT STREET OR HIGHWAY RIGHT-OF-WAY, THE FOLLOWING PROCEDURES SHOULD BE UNDERTAKEN:
 CITY RIGHT-OF-WAY - CONTACT LOCAL AUTHORITIES TRAFFIC ENGINEERING DEPT. FOR INFORMATION ON DETOURS, OPEN CUTTING OF STREETS OR FOR ANY CONSTRUCTION WITHIN RIGHT-OF-WAY.
 NCDOT RIGHT-OF-WAY - CONTACT PROJECT ENGINEERS AND OBTAIN ALL PERMITS AND ENCROACHMENTS. (CROSS-CHECK PLANS WITH SPECIAL PROVISIONS, KEEP COPIES ON CONSTRUCTION SITE. ALSO CONTACT NCDOT DISTRICT OFFICE 24 HOURS IN ADVANCE BEFORE PLACING CURB AND GUTTER)



FIRE SERVICE NOTES

1. A FIRE INSPECTOR SHALL INSPECT THE UNDERGROUND FIRE LINE PIPING FROM THE PIV TO THE BUILDING AND FOR YARD FDC'S, THE UNDERGROUND FDC PIPING BEFORE IT IS COVERED UP.
2. BFP (RPDA) TO BE LOCATED WITHIN RISER ROOM.
3. ACCESS REQUIRED FOR FDC IS 36" FRONTAL, 36" WIDTH AND 78" HEIGHT.
4. EGRESS IS NOT PERMITTED THROUGH THE DEDICATED RISER ROOM AS THE SECOND EXIT.

NO WETLANDS EXIST ON-SITE

NO FLOODPLAINS EXIST ON-SITE

NOTE: ALL CONSTRUCTION ACTIVITY MUST BE IN ACCORDANCE WITH THE ACCEPTED POLICIES OF THE TOWN OF CARY, AND UNLESS SPECIFIED, DEFERS TO THE NCDOT STANDARDS AND SPECIFICATIONS



APPROVED by the Town of Cary Development Review Committee

18-DP-0163

By: dcorley
 11/28/2017

SCALE IN FEET

0 15 30 60 90 120

BASS, NIXON & KENNEDY, INC.
CONSULTING ENGINEERS
 6310 CHAPEL HILL ROAD, SUITE 250, RALEIGH, NC 27607
 TELEPHONE: (919)851-4222 OR (800)354-1879 FAX: (919)851-8666
 CERTIFICATION NUMBERS: NCBELS (C-0110); NCSOLA (C-0267)

110 N WALKER STREET
WATER SERVICE
205 EAST CHATHAM STREET
 TOWN OF CARY, WAKE COUNTY, NORTH CAROLINA

NOT RELEASED FOR CONSTRUCTION OR BID SOLICITATION

IP	DATE	DESCRIPTION	BY
2	11-16-17	PER TOC COMMENTS	IP
1	10-10-17	PER TOC COMMENTS	IP
NO.	DATE	DESCRIPTION	BY
1			

UTILITY PLAN

SCALE: 1" = 30'

CHK BY: DLD

SHEET C1.1 OF

TOWN OF CARY PROJECT NO. 18-DP-0163