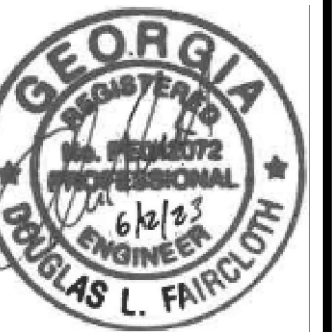


CONSTRUCTION PLANS FOR APARTMENTS 45TH AND BULL STREET



COLEMAN COMPANY
ENGINEERS • SURVEYORS
Savannah, Georgia | (912) 900-9041 | CCI-654V-004



RELEASED FOR CONSTRUCTION

REVISIONS:

ALL ROAD SIGNAGE AND PAVEMENT MARKINGS SHALL BE IN ACCORDANCE WITH THE MOST CURRENT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).

FIRE MARSHALL NOTE:
IF TIMBERING LEADS TO ON-SITE BURNING, A COMMERCIAL BURN PERMIT WILL NEED TO BE APPLIED FOR AND ISSUED BY THE EFFINGHAM COUNTY FIRE MARSHAL'S OFFICE IN ADDITION TO ANY GEORGIA FORESTRY COMMISSION PERMITS.

BENCHMARK NOTE:
CONTRACTOR SHALL VERIFY ONSITE BENCHMARK PRIOR TO STARTING WORK. ANY DISCREPANCY FROM BENCHMARK AS SHOWN ON PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.

BMPs FOR CONCRETE WASH DOWN OF TOOLS, CONCRETE MIXER CHUTES, HOPPERS, AND THE REAR OF THE WASHOUT OF THE DRUM AT THE CONSTRUCTION SITE IS PROHIBITED.

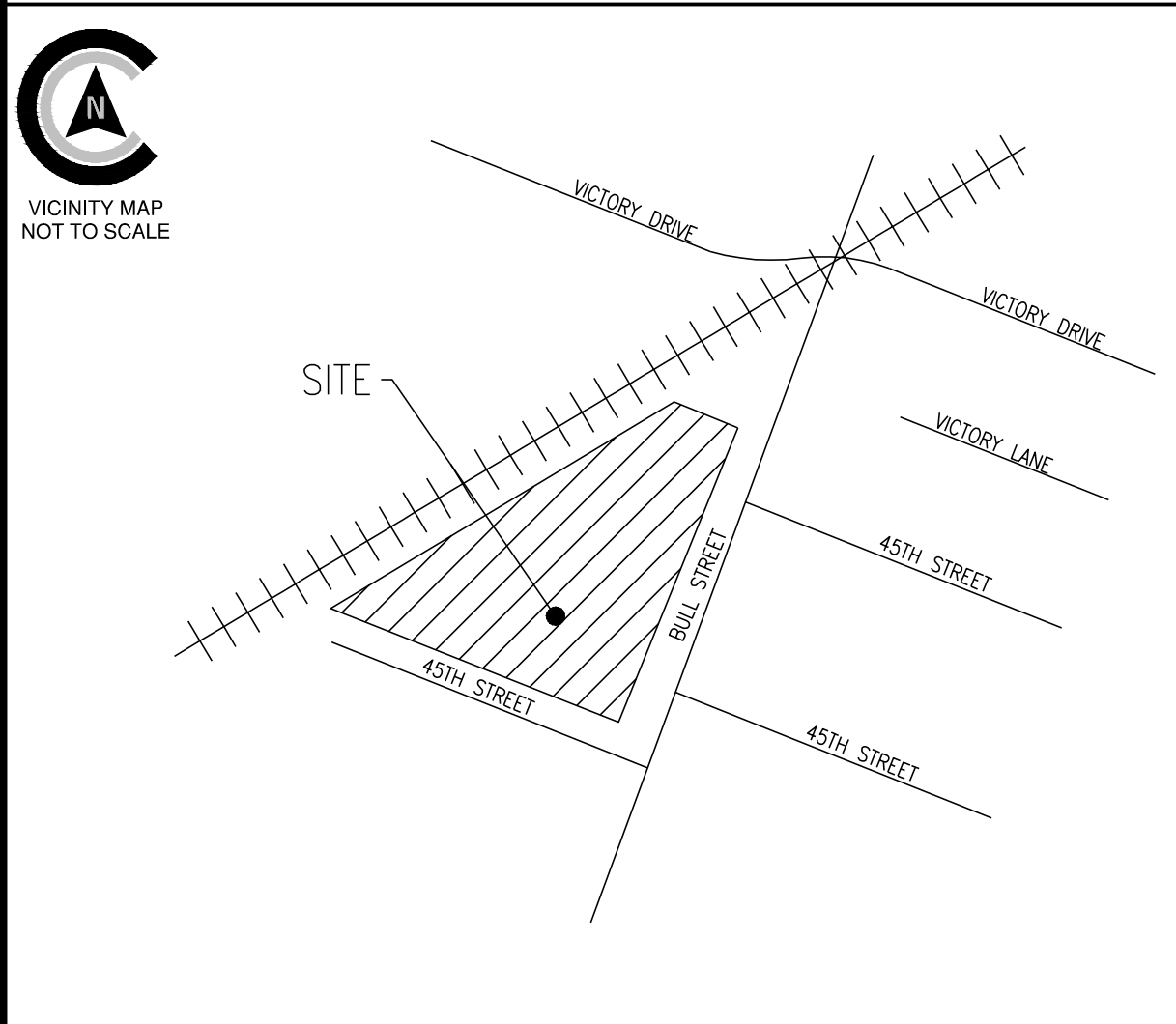
EXISTING UTILITIES NOTE:
ALL UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION. ENGINEER SHALL BE NOTIFIED IMMEDIATELY OF POTENTIAL CONFLICTS.

UNLOADING AND/OR STAGING OF CONSTRUCTION MATERIALS OR EQUIPMENT WILL NOT BE ALLOWED ON PUBLIC RIGHT OF WAY WITHOUT PRIOR APPROVAL.

APARTMENT SITE RECEIVING WATERS IS EXISTING STORM SEWER SYSTEM THEN SAVANNAH RIVER.

PREPARED FOR
MED DEVELOPERS, LLC

VICINITY MAP (N.T.S.) REVISIONS PROJECT SITE DATA SHEET INDEX



PROJECT ADDRESS:	2819 BULL STREET
PROJECT CITY, STATE:	SAVANNAH, GEORGIA
OWNER/REPRESENTATIVE:	MED DEVELOPERS, LLC
PROPERTY AREA:	1.904 AC
DISTURBED AREA:	2.25 AC
ZONING:	TC-1
VERTICAL DATUM:	NAVD 88
HORIZONTAL DATUM:	NAD 83
FLOOD ZONE:	X
WATER & SEWER PROVIDER:	CITY OF SAVANNAH
PINS:	20074, 33002, 33003, 33004, 33005, 33006, 33007, 33008, 33009
SURVEY PREPARED BY:	COLEMAN COMPANY, INC.
GEOTECHNICAL BY:	TERRACON
ARCHITECT:	LYNCH ASSOCIATES
CONSTRUCTION EXIT LOCATION:	45TH STREET

SHEET NO.	SHEET TITLE
COV	COVER SHEET
C0.1	CONSTRUCTION NOTES
C1.0	EXISTING CONDITIONS
C1.9	DEMOLITION PLAN
C2.0	STAKING PLAN
C3.0	GRADING
C3.1	DRAINAGE
C4.0	UTILITY PLAN
C5.0	PROFILES
C6.0 - C6.5	DETAILS
ES7.0	INITIAL EROSION CONTROL PLAN
ES7.1	INTERMEDIATE EROSION CONTROL PLAN
ES7.2	FINAL EROSION CONTROL PLAN
ES7.3-ES7.4	EROSION CONTROL DETAILS
ES7.5-ES7.6	PERMIT NOTES
L4.0	STREETSCAPE/LANDSCAPE PLAN

CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
DATE: 06/12/2023
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

COVER

SHEET:
COV

© 2018 COLEMAN COMPANY, INC. DATE PLOTTED: 07/02/2023 3:20 PM BY: William Stewart DRAWING NUMBER: 01202313

GENERAL NOTES:

- 1. CONTRACTOR WILL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION CONFERENCE WITH THE GOVERNMENTAL AGENCY IN CHARGE OF THE PROJECT.
2. CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS AND INSPECTIONS AS REQUIRED FOR APPROVAL OF THE WORK WITH THE GOVERNMENTAL AGENCY WITH JURISDICTION.
3. CONTRACTOR WILL BE RESPONSIBLE FOR COST OF AND COORDINATION WITH LOCAL UTILITY COMPANIES OR AGENCIES FOR RELOCATION OF, OR CONNECTION TO, ALL EXISTING UTILITIES INCLUDING POWER AND TELEPHONE POLES AND WIRES.
4. ALL ELEVATIONS ARE BASED ON MEAN SEA LEVEL DATUM, NAVD 88.
5. A MINIMUM SHOULDER WIDTH OF 4 FEET WITH A MINIMUM TRANSVERSE SLOPE OF 5% WILL BE PROVIDED ADJACENT TO CURBS AND WALKS. ALL WALKS SHALL HAVE A MINIMUM SLOPE OF 2%.
6. MAXIMUM EARTH SLOPES WILL BE 3:1. GRADE FROM SHOULDER EDGE TO RIGHT-OF-WAY AT 1% MINIMUM.
7. REMOVAL AND REPLACEMENT OF UNSUITABLE SUBGRADE MATERIAL WILL BE PAID FOR ON A CUBIC YARD BASIS IN PLACE MEASUREMENT, AT SUCH AUTHORIZED PRICE PER CUBIC YARD, AS AUTHORIZED BY THE ENGINEER.
8. PROVIDE 1/2" EXPANSION JOINT IN NEW WALKS FOR DEPTH OF CONCRETE WITH BITUMINOUS SEAL FOR TOP 1 INCH MINIMUM DEPTH AT ABUTMENTS WITH BUILDINGS OR OTHER CONCRETE STRUCTURES.
9. SAW-CUT CONTRACTION JOINTS WILL BE PROVIDED IN ACCORDANCE WITH DETAILS, CUT TO BE 1/4 DEPTH OF CONCRETE MINIMUM.
10. ALL DIMENSIONS ARE TO EXTERIOR FACE OF BUILDING, EDGE OF SURFACE COURSE OR FACE OF CURBING UNLESS OTHERWISE NOTED.
11. ALL ANGLES ARE 90 DEGREES UNLESS OTHERWISE NOTED.
12. THE CONTRACTOR SHALL KEEP ACCURATE RECORDS FOR "AS BUILT'S" PURPOSES AND PROVIDE THIS INFORMATION TO THE ENGINEER AT THE COMPLETION OF THE PROJECT. IF THE CONTRACTOR FAILS TO FURNISH THIS INFORMATION, THE ENGINEER WILL OBTAIN THE NECESSARY INFORMATION AND CHARGE THE CONTRACTOR FOR THE SERVICES. THE ENGINEER WILL CHECK INFORMATION PROVIDED BY THE CONTRACTOR FOR ACCURACY. AS BUILT INFORMATION INCLUDES, BUT IS NOT LIMITED TO, THE FOLLOWING: ALL UTILITIES INCLUDING INVERTS, TOP ELEVATIONS, PIPE LENGTHS AND TYPE OF CONSTRUCTION MATERIAL; SPOT ELEVATIONS ON FORCE MAINS AND WATER LINES, THE DISTANCE OF THE CENTERLINE OF UTILITIES FROM A PERMANENT STRUCTURE; ALL VALVE MANHOLES AND VALVE BOXES SHALL BE LOCATED WITH RESPECT TO A PERMANENT STRUCTURE. GRADES SHALL BE CONFIRMED IN ROADS AND PARKING AREAS AS WELL AS SWALES TO SHOW DIRECTION OF STORMWATER FLOW. THE FINISHED FLOOR ELEVATION SHALL BE SHOWN ON ALL BUILDINGS. IF THE LANDSCAPING IS CHANGED IN ANY WAY AS AS BUILT OF THE LANDSCAPE PLAN IS TO BE SUBMITTED TO THE ENGINEER, AND ANY OTHER REQUIREMENT MADE BY CITY OF SAVANNAH.
13. ALL NEW DISTURBED AREAS WILL BE GRASSED BY SEEDING OR SPRIGGING IN ACCORDANCE WITH CURRENT VERSION OF THE MANUAL FOR EROSION & SEDIMENT CONTROL, IN GEORGIA, AND AS DIRECTED BY THE ENGINEER.
14. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AND MAINTAINING ALL EROSION AND SEDIMENT CONTROL MEASURES IN ACCORDANCE WITH STATE AND LOCAL REQUIREMENTS.
15. CONTRACTOR SHALL PROVIDE DUST CONTROL OF ALL DISTURBED AREAS BY THE USE OF WATER AND FAST GROWING, TEMPORARY VEGETATION ON ALL STOCKPILED SOILS.
16. CONTRACTOR WILL PROVIDE A CONSTRUCTION SCHEDULE INCLUDING ALL EROSION AND SEDIMENT CONTROL MEASURES.
17. CONTRACTOR SHALL PROVIDE CRUSHED STONE 6" THICK, 50' MIN. LONG BY 20' MIN. WIDE AT ALL CONSTRUCTION EXITS TO MINIMIZE TRANSPORT OF SOIL FROM SITE BY VEHICLE WHEELS.
18. ALL EXISTING INLETS AND DITCHES SUBJECT TO STORM WATER RUNOFF FROM THE SITE AND ALL NEW INLETS SHALL BE PROVIDED WITH HAY BALES SILT BARRIERS TO MINIMIZE SOIL TRANSPORT OFF SITE BY STORM WATERS.
19. ALL MATERIAL AND INSTALLATION PRACTICES ASSOCIATED WITH THE CONSTRUCTION OF THIS PROJECT SHALL MEET THE CURRENT REQUIREMENTS OF THE CITY OF SAVANNAH AND CHATHAM COUNTY DEVELOPMENT REGULATIONS AND SPECIFICATIONS.
20. TESTING - PROVIDE ALL TESTING AS REQUIRED IN THE SPECIFICATIONS. PROVIDE ENGINEER WITH COPY DIRECT FROM TESTING LAB.
21. CONTRACTOR SHALL MAINTAIN SITE ON A DAILY BASIS TO PROVIDE FOR POSITIVE DRAINAGE. CONTRACTOR, AT HIS COST, SHALL GRADE SITE AND PROVIDE NECESSARY TEMPORARY DRAINAGE SWALES TO INSURE STORM WATER DOES NOT POND ON SITE.
22. ANY DETENTION BASINS SHALL BE CONSTRUCTED IN CONJUNCTION WITH CLEARING AND GRADING TO HELP PREVENT THE LOSS OF SEDIMENT FROM THE SITE. THE CONTRACTOR SHOULD CLEAN OUT ANY SEDIMENT DEPOSITED IN THE BASINS DURING THE CONSTRUCTION PERIOD SO THAT THE SPECIFIED WATER DEPTH AT NORMAL POOL IS MAINTAINED; THE CONTRACTOR MAY OVER EXCAVATE THE BASINS TO ACCOMPLISH THIS, IF DESIRED, AT HIS OWN EXPENSE AND WITH THE CONCURRENCE OF THE ENGINEER.
23. PRIOR TO CONSTRUCTION, ALL BUILDING AREAS, PLUS 10 FEET ON EACH SIDE AND ALL AREAS TO BE PAVED, SHOULD BE STRIPPED OF ALL VEGETATION, TOP SOIL AND ROOT SYSTEMS.
24. SITE DRAINAGE SHOULD BE ESTABLISHED TO PREVENT ANY PONDED WATER CONDITIONS WITHIN THE CONSTRUCTION AREA AND TO FACILITATE THE RAPID RUN-OFF OF STORM WATER.
25. ANY STUMP HOLES OR OTHER DEPRESSIONS SHOULD BE CLEARED OF LOOSE MATERIAL AND DEBRIS AND SHOULD THEN BE BACKFILLED WITH APPROVED FILL. THE BACKFILL SHOULD BE PLACED IN SIX INCH MAXIMUM LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM-D-1557.
26. ANY UTILITIES THAT UNDERLIE THE SITE SHOULD BE RELOCATED AND THE TRENCHES BACKFILLED WITH APPROVED SOIL. THE BACKFILL SHOULD BE PLACED IN SIX INCH MAXIMUM LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM-D-1557.
27. THE SUBGRADE SHOULD BE PROOFROLLED WITH A LOADED DUMP TRUCK TO LOCATE UNSTABLE OR SOFT AREAS. THESE AREAS SHOULD THEN BE INVESTIGATED TO DETERMINE THE CAUSE OF THE INSTABILITY. IF DUE TO UNSUITABLE SOIL, SUCH AS HIGHLY ORGANIC SOILS OR SOFT CLAYS, THE AREA SHOULD BE UNDERCUT TO A FIRM SOIL AND REPLACED WITH APPROVED FILL COMPACTED IN SIX INCH LIFTS TO MINIMUM DENSITY OF 95% IN ACCORDANCE WITH ASTM-D-1557. IF THE INSTABILITY IS DUE TO EXCESS MOISTURE IN OTHERWISE SUITABLE SOIL, THE AREA SHOULD BE DRAINED AND COMPACTED TO 95% DENSITY. ANY FILL REQUIRED TO LEVEL OR RAISE THE SITE SHOULD THAN BE PLACED IN 6" THICK LOOSE LIFTS AND COMPACTED TO 95% DENSITY IN ACCORDANCE WITH ASTM-D-1557.
28. ALL OF THE FILL FOR THIS PROJECT SHOULD CONSIST OF A CLEAN, FREE DRAINING SAND WITH A MAXIMUM OF 15% FINES. THE FILL SHOULD BE FREE OF OBJECTIONABLE ROOTS, CLAY LUMPS AND DEBRIS.
29. MOISTURE CONTENT SHALL BE AT OR BELOW OPTIMUM.
30. ALL WATER USED FOR CONSTRUCTION SHALL BE METERED THROUGH AN APPROVED BACKFLOW PREVENTION DEVICE AND FIRE HYDRANT METER OBTAINED FROM THE CITY OF SAVANNAH CONVEYANCE AND DISTRIBUTION DEPARTMENT.
31. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO FOLLOW THE COMPREHENSIVE MONITORING PLAN PREPARED FOR THE DEVELOPER BY COLEMAN COMPANY, INC.
32. ALL TAPS ON A MAIN FOR SERVICE LATERALS SHALL BE MADE WITH AN ALL STAINLESS STEEL DOUBLE STRAP EPOXY COATED TAPPING SADDLE. THE SIZE OF THE SADDLE SHALL BE WATER MAIN DIAMETER C-900 + 1" c.c. THREAD".
33. ALL FIRE HYDRANTS AND VALVES SHALL BE MANUFACTURED BY AMERICAN, DARLING, MUELLER OR M&H.
34. 50 L.F. OF 6" UNDERDRAIN AND ROCK SHALL BE INSTALLED FROM EACH SIDE OF EACH GRATE INLET. CONTRACTOR SHALL VERIFY THE STATIC WATER ELEVATION OF THE PROPOSED/EXISTING DRAINAGE SYSTEM EACH ROADSIDE INLET IS A COMPONENT OF AND NOT INSTALL THE UNDERDRAIN BELOW THAT STATIC ELEVATION.
35. ANY AND ALL UTILITY CROSSINGS FOR WATER MAINS BETWEEN STORM OR SEWER PIPING SHOULD BE ACCOMPLISHED BY USING OF 45° BENDS BOTH DOWN AND UP.
36. ALL KNOWN UTILITY FACILITIES ARE SHOWN SCHEMATICALLY ON THE PLANS AND ARE NOT NECESSARILY ACCURATE AS TO PLAN OR ELEVATION. UTILITY FACILITIES SUCH AS SERVICE LINES OR UNKNOWN FACILITIES NOT SHOWN ON THE PLANS WILL NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES. EXCEPT AS NOTED BELOW, THE CONTRACTOR WILL NOT BE RESPONSIBLE FOR THE COST OF REPAIRS TO DAMAGED UTILITY FACILITIES OTHER THAN SERVICE LINES FROM STREET MAINS TO ABUTTING PROPERTY WHEN SUCH FACILITIES ARE NOT SHOWN ON THE PLANS AND THEIR EXISTENCE IS UNKNOWN TO THE CONTRACTOR PRIOR TO THE DAMAGES OCCURRING PROVIDING THE ENGINEER DETERMINES THE CONTRACTOR HAS OTHERWISE FULLY COMPLIED WITH THE SPECIFICATIONS.
37. CONTRACTOR(S) SHALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES. CONTRACTOR(S) ARE RESPONSIBLE FOR LOCATING, PROTECTING, REPAIRING, AND REPLACING ANY AND ALL UNDERGROUND UTILITIES DURING ALL PHASES OF CONSTRUCTION. COLEMAN COMPANY, INC. HAS MADE A DILIGENT EFFORT TO LOCATE ALL ABOVE AND BELOW GROUND UTILITIES BUT CANNOT GUARANTEE THAT ALL PRESENT UTILITIES HAVE BEEN IDENTIFIED. CONTRACTOR SHALL CALL UTILITY PROTECTION CENTER (1-800-282-7411) AT LEAST 3 DAYS PRIOR TO DIGGING AND SHALL NOT BEGIN DIGGING UNTIL ALL UNDERGROUND UTILITY LOCATIONS ARE COMPLETE.
38. ALL DEMOLITION DEBRIS SHALL BE PROPERLY DISPOSED AT THE CONTRACTOR'S EXPENSE.
39. A CONTINUOUS RUN OF PLASTICIZED METALLIC TAPE SHALL BE INSTALLED ABOVE THE TOP OF PVC PIPE USED FOR GRAVITY SEWER AND FORCE MAINS AT APPROXIMATELY 30" BELOW FINISHED GRADE. THE TAPE SHALL BE SUITABLE FOR DETECTION WITH METAL PIPE LOCATION EQUIPMENT, COLOR CODED AND LABELED TO IDENTIFY CONTENTS OF THE PIPE AND BRIGHTLY COLORED TO CONTRAST WITH THE SOIL. IN ADDITION TO THE TAPE, A CONTINUOUS RUN OF TRACER WIRE SHALL BE ATTACHED TO THE PIPE AND CONNECTED TO MANHOLE RINGS, ON PIPE RUNS GREATER THAN 500'. THE TRACER WIRE SHALL BE ATTACHED TO A 2" GALVANIZED PIPE WITH A 180 DEGREE BEND AT THE TOP, EXTENDING 36" ABOVE GRADE FOR CONNECTION TO LOCATOR EQUIPMENT. THE MAXIMUM DISTANCE BETWEEN 2" PIPE STUBS SHALL BE 500'.
40. ALL SANITARY SEWER LATERALS SHALL BE PROPERLY MARKED AT THE POINT WHERE LATERALS TERMINATE WITH PVC PIPE PAINTED GREEN. ADDITIONAL MARKINGS SHALL BE STAMPED IN THE CURB OR MARKED ON THE EDGE OF PAVING WITH AN APPROVED PERMANENT MARKER CAPABLE OF BEING LOCATED BY A MAGNETIC LOCATOR, SUCH AS A NAIL WITH CAP, IF NO CURB PRESENT. LATERALS SHALL BE MARKED WITH MARKING TAPE AN TRACER WIRE AS DESCRIBED ABOVE.
41. A CONTINUOUS RUN OF PLASTICIZED METALLIC TAPE SHALL BE INSTALLED ABOVE THE TOP OF PVC PIPE USED FOR WATER MAINS AT APPROXIMATELY 18" TO 24" BELOW FINISHED GRADE. THE TAPE SHALL BE SUITABLE FOR DETECTION WITH METAL PIPE LOCATION EQUIPMENT, COLOR CODED AND LABELED TO IDENTIFY CONTENTS OF THE PIPE AND BRIGHTLY COLORED TO CONTRAST WITH THE SOIL. IN ADDITION TO THE TAPE, A CONTINUOUS RUN OF TRACER WIRE SHALL BE ATTACHED TO THE PIPE AND CONNECTED TO CURB STOPS AND BROUGHT TO TOP OF VALVE, ON PIPE RUNS GREATER THAN 500'. THE TRACER WIRE SHALL BE ATTACHED TO A 2" GALVANIZED PIPE WITH A 180 DEGREE BEND AT THE TOP, EXTENDING 36" ABOVE GRADE FOR CONNECTION TO LOCATOR EQUIPMENT. THE MAXIMUM DISTANCE BETWEEN 2" PIPE STUBS SHALL BE 500'.
42. ALL WATER SERVICES SHALL BE PROPERLY MARKED ABOVE GROUND WITH PVC PIPE PAINTED BLUE. ADDITIONAL MARKINGS SHALL BE STAMPED IN THE CURB OR MARKED ON THE EDGE OF PAVING WITH AN APPROVED PERMANENT MARKER CAPABLE OF BEING LOCATED BY A MAGNETIC LOCATOR, SUCH AS A NAIL WITH CAP, IF NO CURB PRESENT. SERVICES SHALL BE MARKED WITH MARKING TAPE AN TRACER WIRE AS DESCRIBED ABOVE.
43. TRACER WIRE SHALL BE REQUIRED ON ALL STORM PIPE.

- 44. THE CONTRACTOR SHALL HAVE APPROVED PLANS ON SITE AT ALL TIMES DURING LAND DISTURBING ACTIVITIES.
45. THE CONTRACTOR SHALL HAVE A CERTIFIED EROSION AND SEDIMENTATION CONTROL INSPECTOR ON SITE AT ALL TIMES DURING LAND DISTURBING ACTIVITIES.
46. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CITY OF SAVANNAH AND CHATHAM COUNTIES LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS.
47. ALL CURB AND GUTTER TO BE 18" STANDARD PITCH CURB UNLESS OTHERWISE NOTED.
48. FOR CITY WATER AND SEWER LINE LOCATIONS, CONTACT THE UTILITIES PROTECTION CENTER (1-800-282-7411) A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO DIGGING.
49. THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE REPORT OF GEOTECHNICAL ENGINEERING REPORT PREPARED FOR THIS PROJECT BY TERRACON LABORATORY INC. A COPY CAN BE OBTAINED, AT CONTRACTOR'S EXPENSE, EITHER DIRECTLY FROM TERRACON OR FROM THE ENGINEER.
50. STORM SEWER SPECIFICATIONS FOR MANHOLE COVER IN STREET:
GENERAL: ALL CASTINGS SHALL BE MANUFACTURED IN THE UNITED STATES OF AMERICA BY NEENAH FOUNDRY COMPANY, U.S. FOUNDRY & MANUFACTURING CORPORATION, EAST JORDAN IRON WORKS, INC. OR APPROVED EQUAL. THEY SHALL BE OF UNIFORM QUALITY, FREE FROM SAND HOLES, SHRINKAGE, CRACKS, COLD SHUTS OR OTHER DEFECTS, CASTINGS SHALL BE SMOOTH AND WELL CLEANED BY SHOT BLASTING.
MATERIALS: GRAY IRON CASTINGS SHALL BE MANUFACTURED FROM IRON CONFORMING TO ASTM A48 CLASS 35B AND ASTM A48 CLASS 30. DUCTILE IRON CASTINGS SHALL BE MANUFACTURED TRUE TO PATTERN AND COMPONENT PARTS SHALL FIT TOGETHER PROPERLY. ROUND MANHOLE FRAMES, COVERS AND GRATES SHALL HAVE MACHINED BEARING SURFACES TO PREVENT ROCKING. TOLERANCES SHALL BE ACCEPTED FOUNDRY STANDARDS AS OUTLINED IN THE IRON CASTINGS HANDBOOK PUBLISHED BY THE AMERICAN FOUNDRYMEN'S SOCIETY, INC. CASTINGS WEIGHTS SHALL NOT VARY MORE THAN 5% ABOVE OR BELOW THOSE VALUES REPRESENTED BY THE MANUFACTURER.
MARKINGS: ALL CASTINGS SHALL BE CLEARLY MARKED WITH THE MANUFACTURE'S NAME, COMPANY LOGO AND "MADE IN USA" IN CAST LETTERS. ADDITIONALLY, THE TOP OR TRAFFIC SIDE OF ALL CASTINGS SHALL BE CLEARLY MARKED "STORM" AND "CITY OF SAVANNAH" IN FLUSH CAST LETTERS AND THE TOP OR TRAFFIC SIDE OF ALL CASTINGS DESIGNED TO COLLECT WATER, (CATCH BASINS, GRATES, ETC.) SHALL BE CLEARLY MARKED "DRAINS TO RIVER - DO NOT DUMP" OR SIMILAR VERBIAGE THAT ACHIEVES THE SAME MEANING.
51. INTERNATIONAL FIRE CODE, 2018 EDITION:
SECTION 3310
ACCESS FOR FIREFIGHTING
3310.1 REQUIRED ACCESS. APPROVED VEHICLE ACCESS FOR FIREFIGHTING SHALL BE PROVIDED TO ALL CONSTRUCTION OR DEMOLITION SITES. VEHICLE ACCESS SHALL BE PROVIDED TO WITHIN 100 FEET (30.5 METERS) OF TEMPORARY OR PERMANENT FIRE DEPARTMENT CONNECTIONS. VEHICLE ACCESS SHALL BE PROVIDED BY EITHER TEMPORARY OR PERMANENT ROADS, CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS. VEHICLE ACCESS SHALL BE MAINTAINED UNTIL PERMANENT FIRE APPARATUS ACCESS ROADS ARE AVAILABLE.
SECTION 3312
WATER SUPPLY FOR FIRE PROTECTION
3312.1 WHEN REQUIRED, AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE.
52. MAXIMUM BUILDING HEIGHT IS TO BE 45' PER APPENDIX A, ARTICLE III, SECTION 6 OF THE CITY OF SAVANNAH CODIFIED ORDINANCES.
53. IN THE CASE OF ANY CONFLICT OF THESE CONSTRUCTION DOCUMENTS AND THE CITY OF SAVANNAH CODIFIED ORDINANCES, STANDARDS, SPECIFICATIONS, OR DETAILS, THE CITY OF SAVANNAH STANDARDS ARE TO TAKE PRECEDENCE.

SITE INFORMATION:

PARENT PIN: 20074 33002,33003,33004,33005,33006,33007,33008,33009
ZONING DISTRICT: TC-1
FLOOD ZONE: X
SIZE: 1.904 ACRES
PROPOSED LAND USE: MULTI-FAMILY APARTMENTS

EROSION CONTROL NOTES:

- 1. EROSION CONTROL IS THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING BEST MANAGEMENT PRACTICES (BMP'S) ON THE SITE AT ALL TIMES IN ACCORDANCE WITH THESE PLANS AND THE "MANUAL FOR EROSION AND SEDIMENT CONTROL OF GEORGIA".
2. NARRATIVE DESCRIPTION:
LOCATION: 2819 BULL STREET
PIN: 20074 33002, 33003, 33004, 33005, 33006, 33007, 33008, 33009
NATURE OF WORK: MULTI-FAMILY APARTMENTS
SIZE: TOTAL PROPERTY ACREAGE: 1.904 ACRES
DISTURBED ACREAGE: 2.25 ACRES
ZONING CLASSIFICATION: TC-1
MAXIMUM BUILDING HEIGHT:
PHASES: THE WORK WILL BE PERFORMED IN ONE PHASE.
3. THERE ARE NO APPARENT WATERS OF THE UNITED STATES WITHIN 200 FEET OF THE PROJECT SITE.
4. THERE ARE NO APPARENT WETLANDS PRESENT ON THE PROPERTY.
5. ALL SUITABLE TOPSOIL WILL BE STOCKPILED BY THE CONTRACTOR AND SPREAD IN PROPOSED VEGETATIVE AREAS PRIOR TO LANDSCAPE INSTALLATION.
6. THE SOILS ON SITE ARE: Ur - URBAN LAND
7. THIS SITE IS CURRENTLY DEVELOPED AS PARTIAL DEVELOPED LOT
8. THE CONTRACTOR SHALL INSTALL ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS OF THE "MANUAL FOR EROSION AND SEDIMENT CONTROL OF GEORGIA".
9. MAINTENANCE OF ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES, WHETHER TEMPORARY OR PERMANENT, SHALL BE AT ALL TIMES THE RESPONSIBILITY OF THE OWNER.
10. THE CONTRACTOR SHALL ENSURE THAT STRUCTURAL EROSION CONTROL MEASURES ARE INSPECTED DAILY. ANY DEFICIENCIES, INCLUDING SILT REMOVAL, OBSERVED SHALL BE REPAIRED BY THE END OF THAT DAY'S WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING A DAILY INSPECTION LOG AND NOTIFYING THE OWNER AND ENGINEER OF ANY DEFICIENCIES IDENTIFIED IN THE EROSION CONTROL MEASURES. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE STABILIZED.
11. THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND DISTURBING ACTIVITIES.
12. EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL WILL BE IMPLEMENTED TO CONTROL OR TREAT THE SEDIMENT SOURCE.
13. ANY DISTURBED AREA LEFT EXPOSED FOR A PERIOD OF GREATER THAN 14 DAYS SHALL BE STABILIZED WITH MULCH OR TEMPORARY SEEDING.
14. ACCORDING TO THE FLOOD INSURANCE RATE MAPS, AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, THIS PROJECT SITE DOES NOT APPEAR TO LIE IN AN FLOOD HAZARD AREA AS DEPICTED ON FRIM PANEL NO. 13051C0161G EFFECTIVE DATE: AUGUST 16, 2018.
15. CONTACT INFORMATION:
CIVIL ENGINEER: TRAVIS G. BURKE, PE
OWNER REPRESENTATIVE CONTACT: MED DEVELOPERS, LLC
ATTN: MR. NICK FINLAND
1480 CHATHAM PRVY, SUITE 100
SAVANNAH, GA 31405
P: 912.200.3041
F: 912.200.3056
MED DEVELOPERS, LLC
ATTN: MR. NICK FINLAND
1443 PENNSYLVANIA AVE. SE
WASHINGTON, DC 20003

Table with 4 columns: AREA, IMPERVIOUS CN, Q25, Q25. Rows for PRE-DEVELOPMENT and POST-DEVELOPMENT.

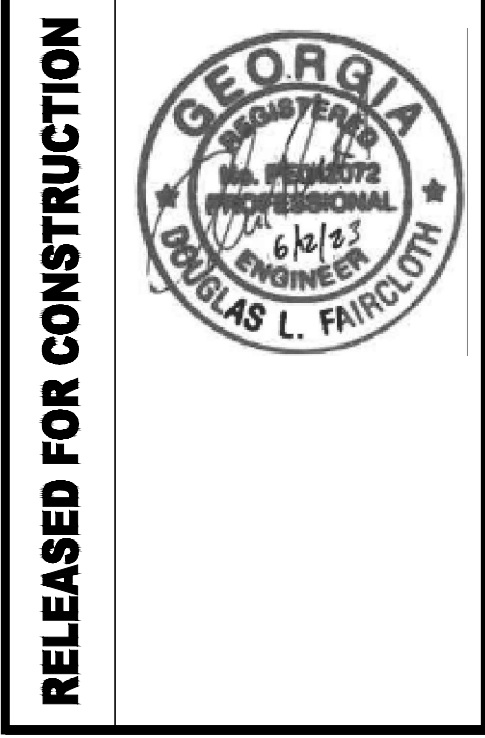
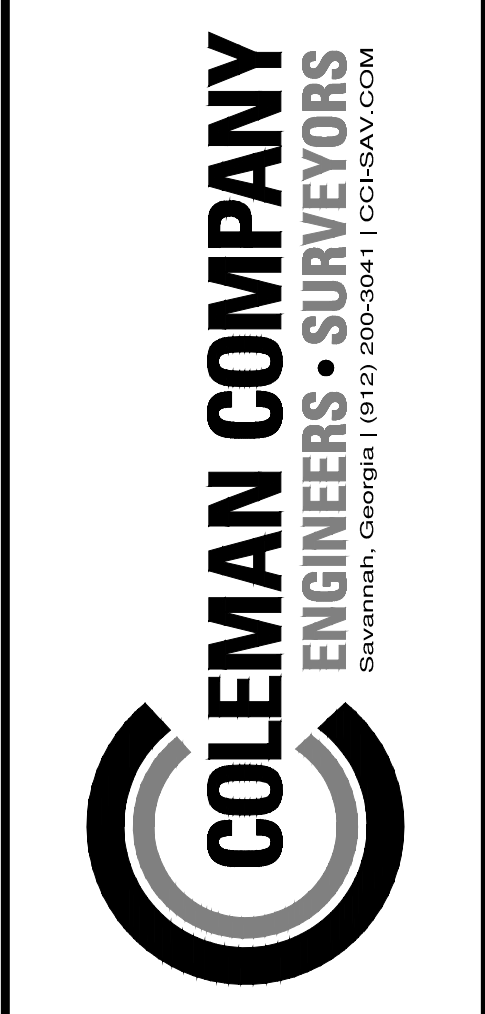


Table with 2 columns: REVISIONS, Description of revisions.

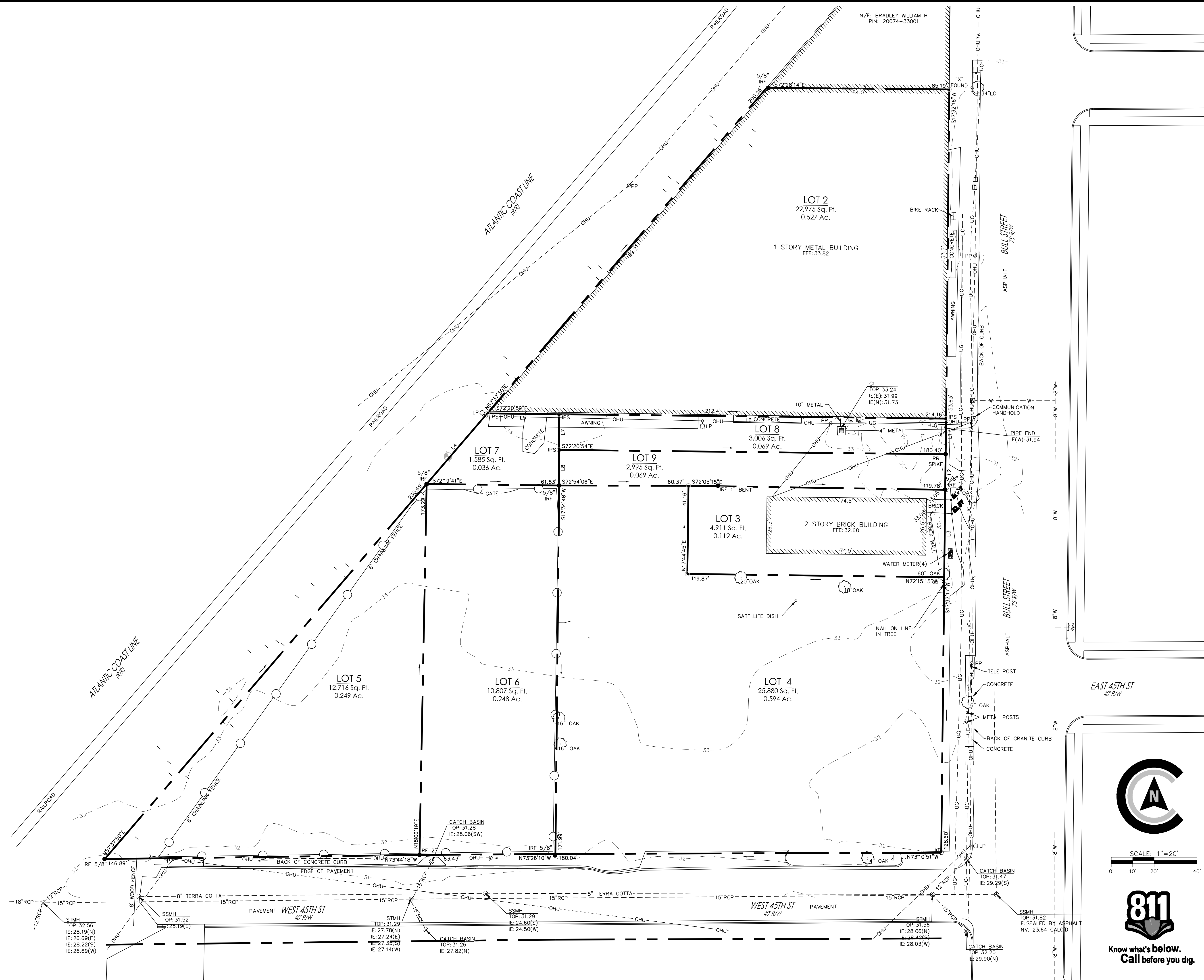
CIVIL CONSTRUCTION PLANS FOR APARTMENTS @ 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPERS, LLC

Table with 2 columns: JOB NUMBER, DATE, DRAWN BY, CHECKED BY, SCALE.

CONSTRUCTION NOTES

SHEET: C0.1





N/F: BRADLEY WILLIAM H
PIN: 20074-33001

LOT 2
22,975 Sq. Ft.
0.527 Ac.

1 STORY METAL BUILDING
FFE: 33.82

LOT 7
1,585 Sq. Ft.
0.036 Ac.

LOT 9
2,995 Sq. Ft.
0.069 Ac.

LOT 8
3,006 Sq. Ft.
0.069 Ac.

LOT 3
4,911 Sq. Ft.
0.112 Ac.

2 STORY BRICK BUILDING
FFE: 32.68

LOT 5
12,716 Sq. Ft.
0.249 Ac.

LOT 6
10,807 Sq. Ft.
0.248 Ac.

LOT 4
25,880 Sq. Ft.
0.594 Ac.

STMH
TOP: 32.56
IE: 28.19(N)
IE: 26.69(E)
IE: 28.22(S)
IE: 26.69(W)

SSMH
TOP: 31.52
IE: 25.19(E)

STMH
TOP: 31.23
IE: 27.78(N)
IE: 27.24(E)
IE: 27.35(S)
IE: 27.14(W)

CATCH BASIN
TOP: 31.26
IE: 27.82(N)

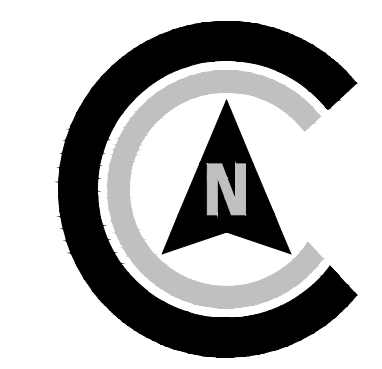
SSMH
TOP: 31.29
IE: 24.80(E)
IE: 24.50(W)

STMH
TOP: 31.56
IE: 28.06(N)
IE: 28.42(E)
IE: 28.03(W)

SSMH
TOP: 31.82
IE: SEALED BY ASPHALT
INV. 23.64 CALCD

CATCH BASIN
TOP: 31.47
IE: 29.29(S)

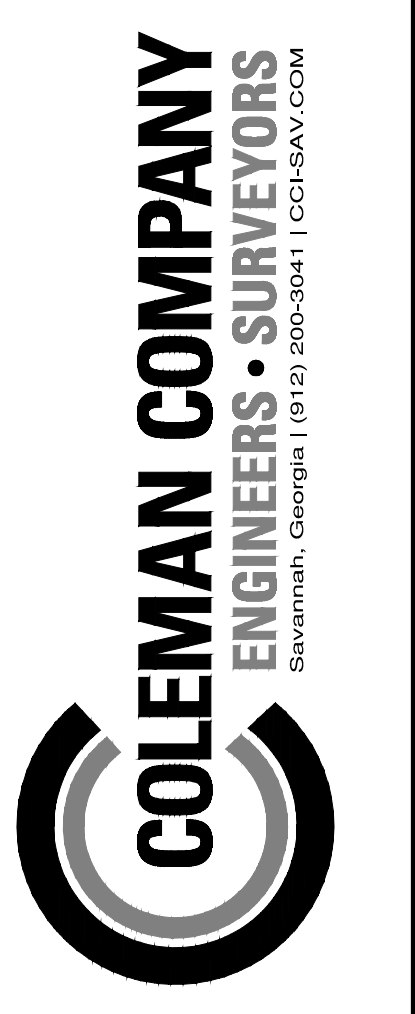
CATCH BASIN
TOP: 32.20
IE: 29.90(N)



SCALE: 1"=20'



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RELEASED FOR CONSTRUCTION

REVISIONS:

CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
DATE: 06/12/2023
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

EXISTING CONDITIONS

SHEET:
C1.0

TREE/LANDSCAPE CALCULATIONS

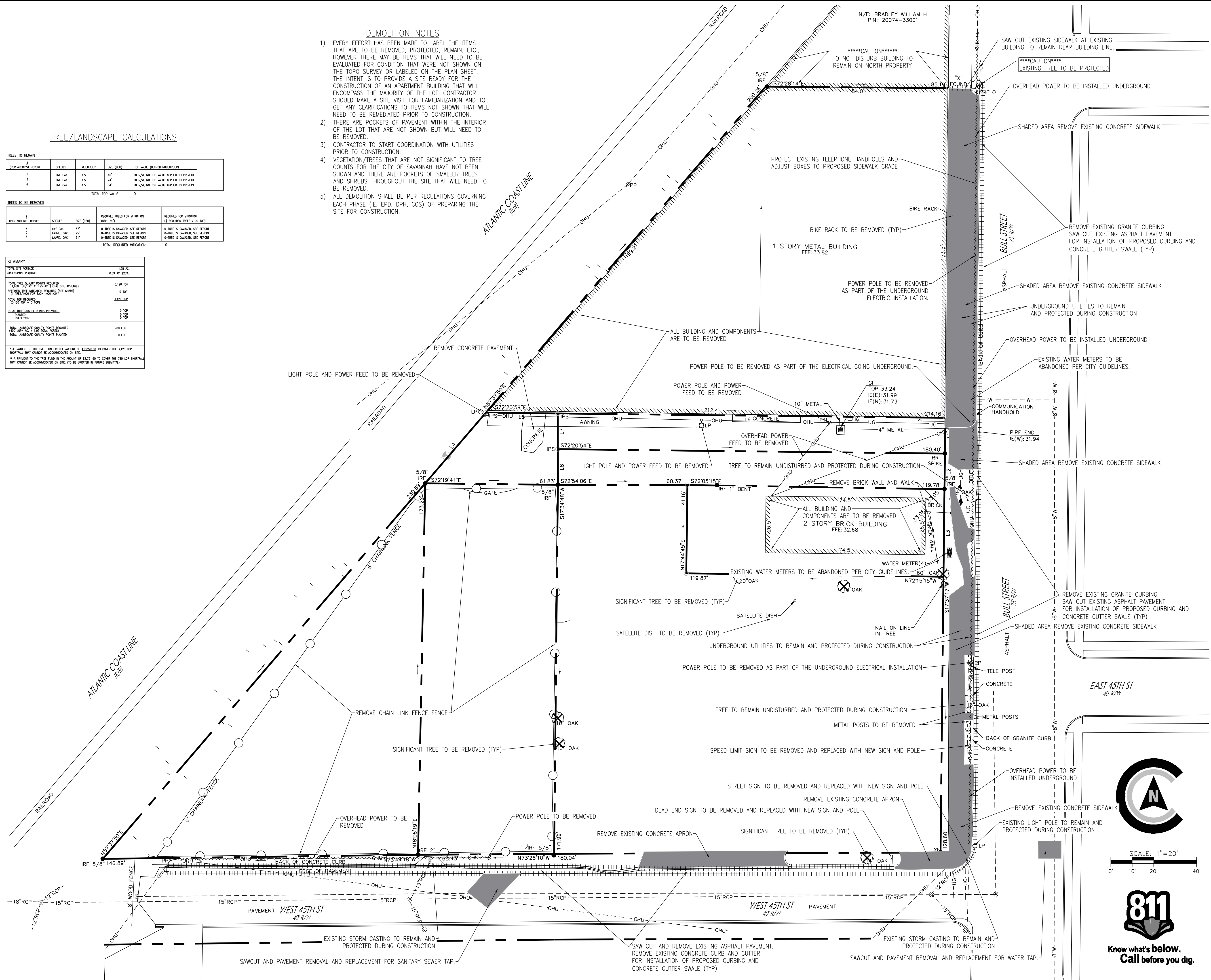
TREES TO REMAIN				
#	SPECIES	MULTIPLIER	SIZE (DBH)	TOP VALUE (DBHxMULTIPLIER)
1	LIVE OAK	1.5	14"	IN P.V. NO TOP VALUE APPLIED TO PROJECT
2	LIVE OAK	1.5	24"	IN P.V. NO TOP VALUE APPLIED TO PROJECT
4	LIVE OAK	1.5	34"	IN P.V. NO TOP VALUE APPLIED TO PROJECT
TOTAL TOP VALUE: 0				

TREES TO BE REMOVED				
#	SPECIES	SIZE (DBH)	REQUIRED TREES FOR MITIGATION (DBH=24")	REQUIRED TOP MITIGATION (# REQUIRED TREES x 90 TOP)
2	LIVE OAK	57"	0-TREE IS DAMAGED, SEE REPORT	0-TREE IS DAMAGED, SEE REPORT
3	LABEL OAK	24"	0-TREE IS DAMAGED, SEE REPORT	0-TREE IS DAMAGED, SEE REPORT
6	LABEL OAK	31"	0-TREE IS DAMAGED, SEE REPORT	0-TREE IS DAMAGED, SEE REPORT
TOTAL REQUIRED MITIGATION: 0				

SUMMARY	
TOTAL SITE AREA:	1.95 AC
CONCRETE REQUIRED:	0.33 AC (24")
TOTAL TREE QUALITY POINTS REQUIRED (3.00 TOP + 1.00 AC (24") SITE AREA):	3.100 TOP
TOTAL TREE QUALITY POINTS PROVIDED (0 DAMAGED, SEE REPORT):	0 TOP
TOTAL TREE QUALITY POINTS DEFICIENT (3.100 TOP - 0 TOP):	3.100 TOP
TOTAL LANDSCAPE QUALITY POINTS PROVIDED:	0 LQP
TOTAL LANDSCAPE QUALITY POINTS DEFICIENT (3.100 LQP - 0 LQP):	3.100 LQP

* A PAYMENT TO THE TREE FUND IN THE AMOUNT OF \$18,220.00 TO COVER THE 3.100 TOP SHORTFALL THAT CANNOT BE ACCOMMODATED ON SITE.
 ** A PAYMENT TO THE TREE FUND IN THE AMOUNT OF \$2,210.00 TO COVER THE 3.100 LQP SHORTFALL THAT CANNOT BE ACCOMMODATED ON SITE. (TO BE UPDATED IN FUTURE SUBMITTALS)

- DEMOLITION NOTES**
- 1) EVERY EFFORT HAS BEEN MADE TO LABEL THE ITEMS THAT ARE TO BE REMOVED, PROTECTED, REMAIN, ETC., HOWEVER THERE MAY BE ITEMS THAT WILL NEED TO BE EVALUATED FOR CONDITION THAT WERE NOT SHOWN ON THE TOPO SURVEY OR LABELED ON THE PLAN SHEET. THE INTENT IS TO PROVIDE A SITE READY FOR THE CONSTRUCTION OF AN APARTMENT BUILDING THAT WILL ENCOMPASS THE MAJORITY OF THE LOT. CONTRACTOR SHOULD MAKE A SITE VISIT FOR FAMILIARIZATION AND TO GET ANY CLARIFICATIONS TO ITEMS NOT SHOWN THAT WILL NEED TO BE REMEDIATED PRIOR TO CONSTRUCTION.
 - 2) THERE ARE POCKETS OF PAVEMENT WITHIN THE INTERIOR OF THE LOT THAT ARE NOT SHOWN BUT WILL NEED TO BE REMOVED.
 - 3) CONTRACTOR TO START COORDINATION WITH UTILITIES PRIOR TO CONSTRUCTION.
 - 4) VEGETATION/TREES THAT ARE NOT SIGNIFICANT TO TREE COUNTS FOR THE CITY OF SAVANNAH HAVE NOT BEEN SHOWN AND THERE ARE POCKETS OF SMALLER TREES AND SHRUBS THROUGHOUT THE SITE THAT WILL NEED TO BE REMOVED.
 - 5) ALL DEMOLITION SHALL BE PER REGULATIONS GOVERNING EACH PHASE (I.E. EPD, DPH, COS) OF PREPARING THE SITE FOR CONSTRUCTION.



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GEORGIA
 PROFESSIONAL ENGINEER
 61422
 DOUGLAS L. FAIRCLOTH

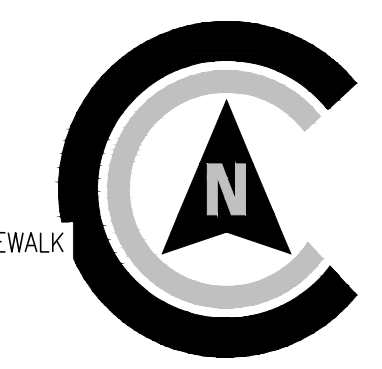
REVISIONS:

CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
 LOCATED IN SAVANNAH, GEORGIA
 PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
 DATE: 06/12/2023
 DRAWN BY: RAR
 CHECKED BY: DF
 SCALE: AS NOTED

DEMO PLAN

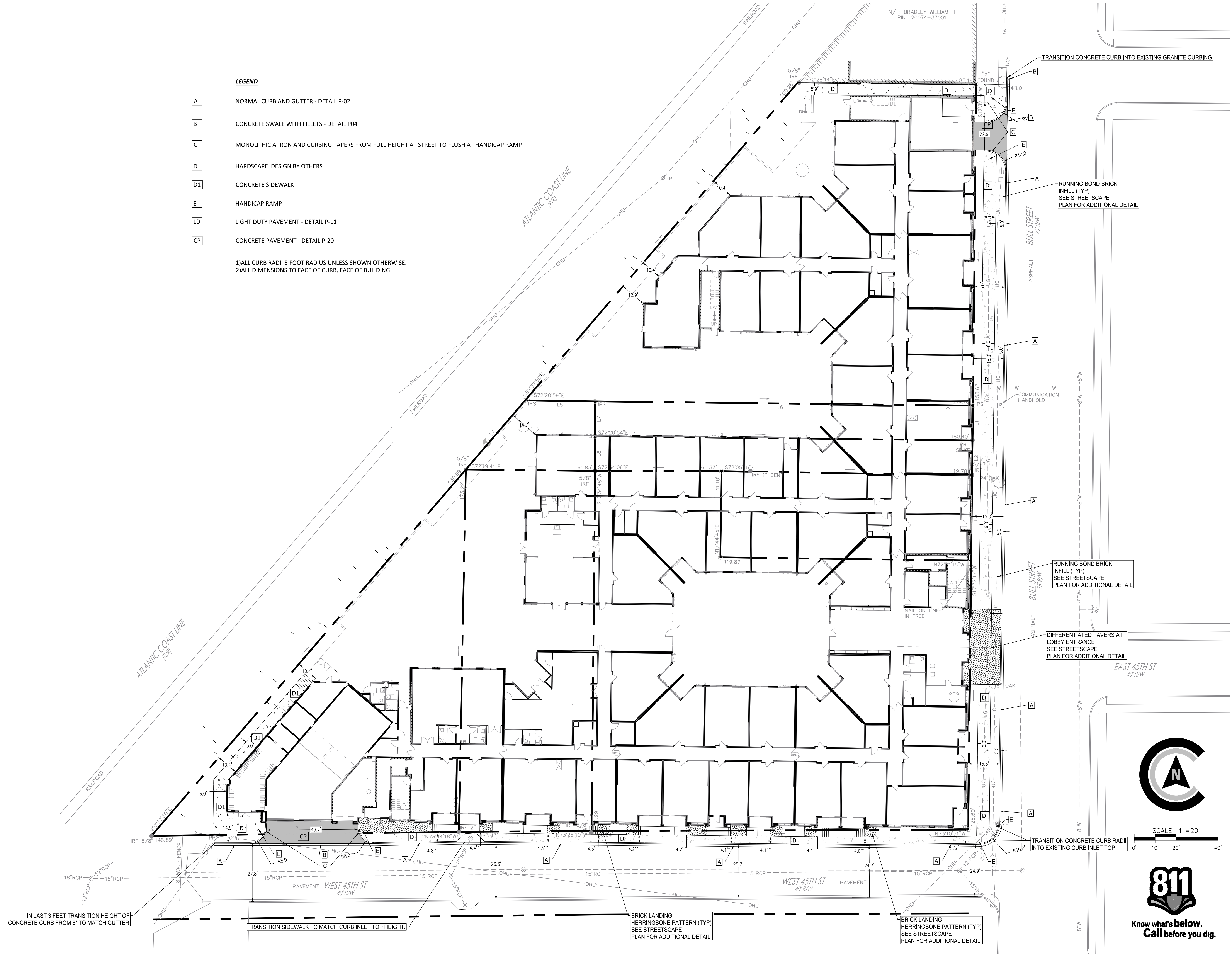
SHEET:
C1.9



SCALE: 1"=20'



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LEGEND

- A NORMAL CURB AND GUTTER - DETAIL P-02
- B CONCRETE SWALE WITH FILLETS - DETAIL P04
- C MONOLITHIC APRON AND CURBING TAPERS FROM FULL HEIGHT AT STREET TO FLUSH AT HANDICAP RAMP
- D HARDSCAPE DESIGN BY OTHERS
- D1 CONCRETE SIDEWALK
- E HANDICAP RAMP
- LD LIGHT DUTY PAVEMENT - DETAIL P-11
- CP CONCRETE PAVEMENT - DETAIL P-20

1) ALL CURB RADI 5 FOOT RADIUS UNLESS SHOWN OTHERWISE.
2) ALL DIMENSIONS TO FACE OF CURB, FACE OF BUILDING

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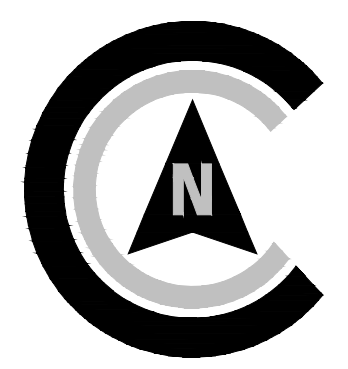
REVISIONS:

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JOB NUMBER: 22-406
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DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

STAKING PLAN

SHEET:
C2.0

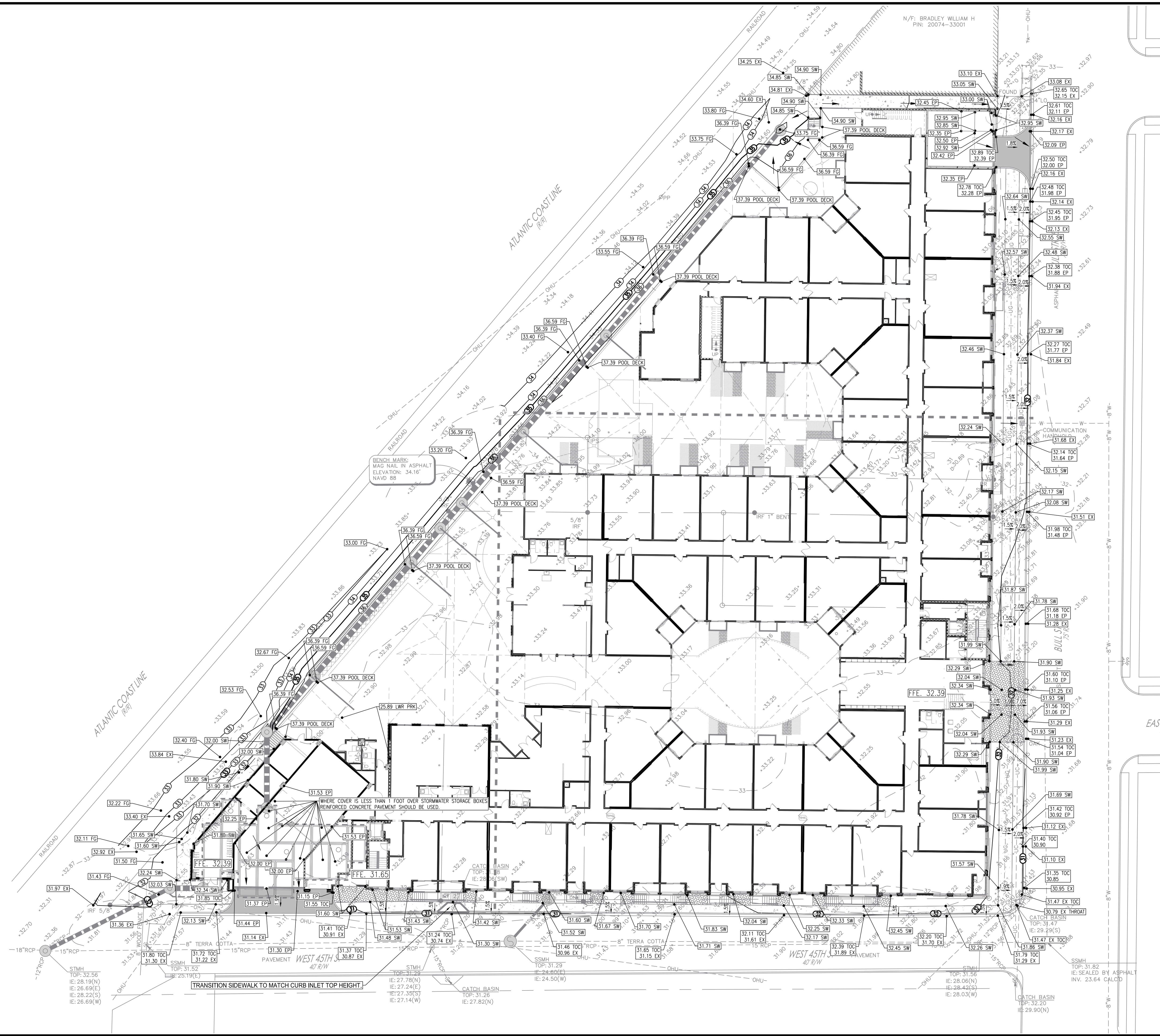


SCALE: 1"=20'

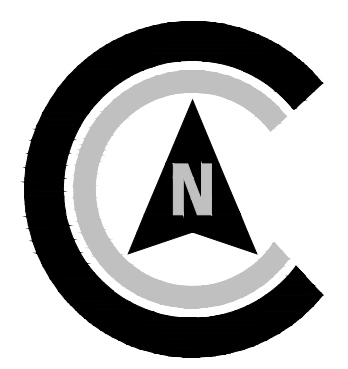


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GRADING LEGEND	
EX	EXISTING ELEVATION
EP	EDGE OF PAVEMENT
TOC	TOP OF CURB
BW	BOTTOM OF WALL
TW	TOP OF WALL
SW	TOP OF SIDEWALK
FG	FINISHED GRADE



SCALE: 1"=20'
0' 10' 20' 40'



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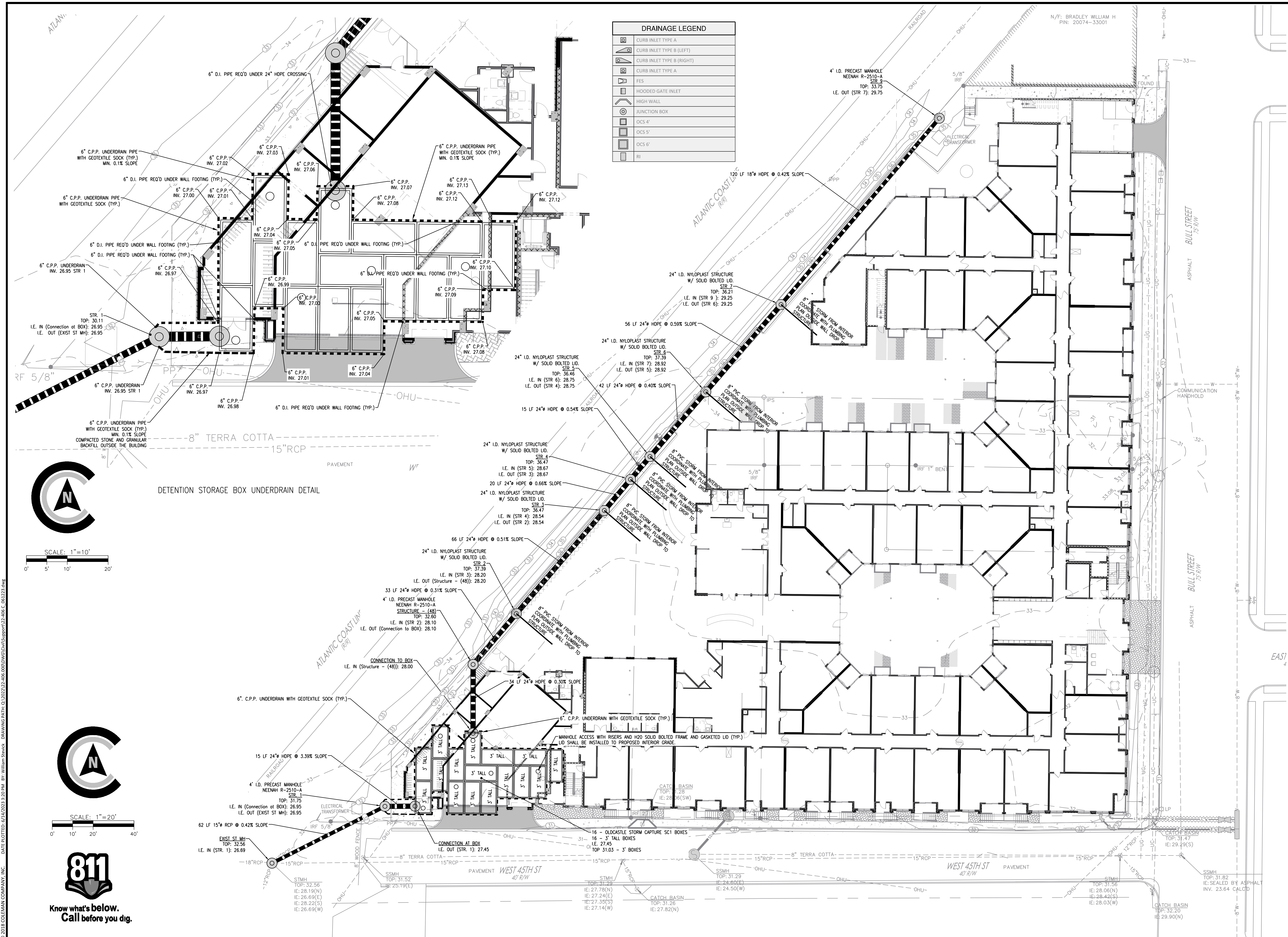
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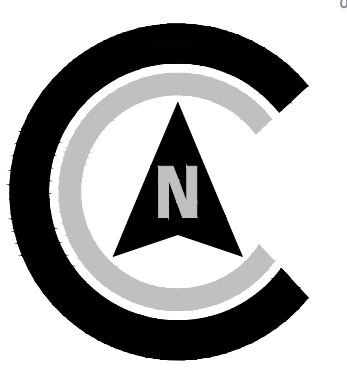
GRADING PLAN

SHEET:
C3.0

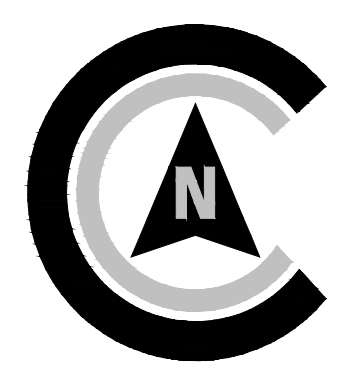


DRAINAGE LEGEND	
[Symbol]	CURB INLET TYPE A
[Symbol]	CURB INLET TYPE B (LEFT)
[Symbol]	CURB INLET TYPE B (RIGHT)
[Symbol]	FES
[Symbol]	HOODED GATE INLET
[Symbol]	HIGH WALL
[Symbol]	JUNCTION BOX
[Symbol]	OCS 4'
[Symbol]	OCS 5'
[Symbol]	OCS 6'
[Symbol]	RI

N/F: BRADLEY WILLIAM H
PIN: 20074-33001



SCALE: 1"=10'



SCALE: 1"=20'



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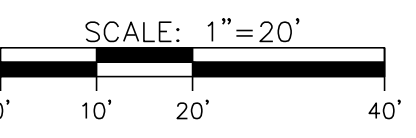
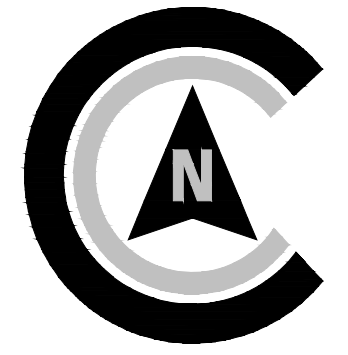
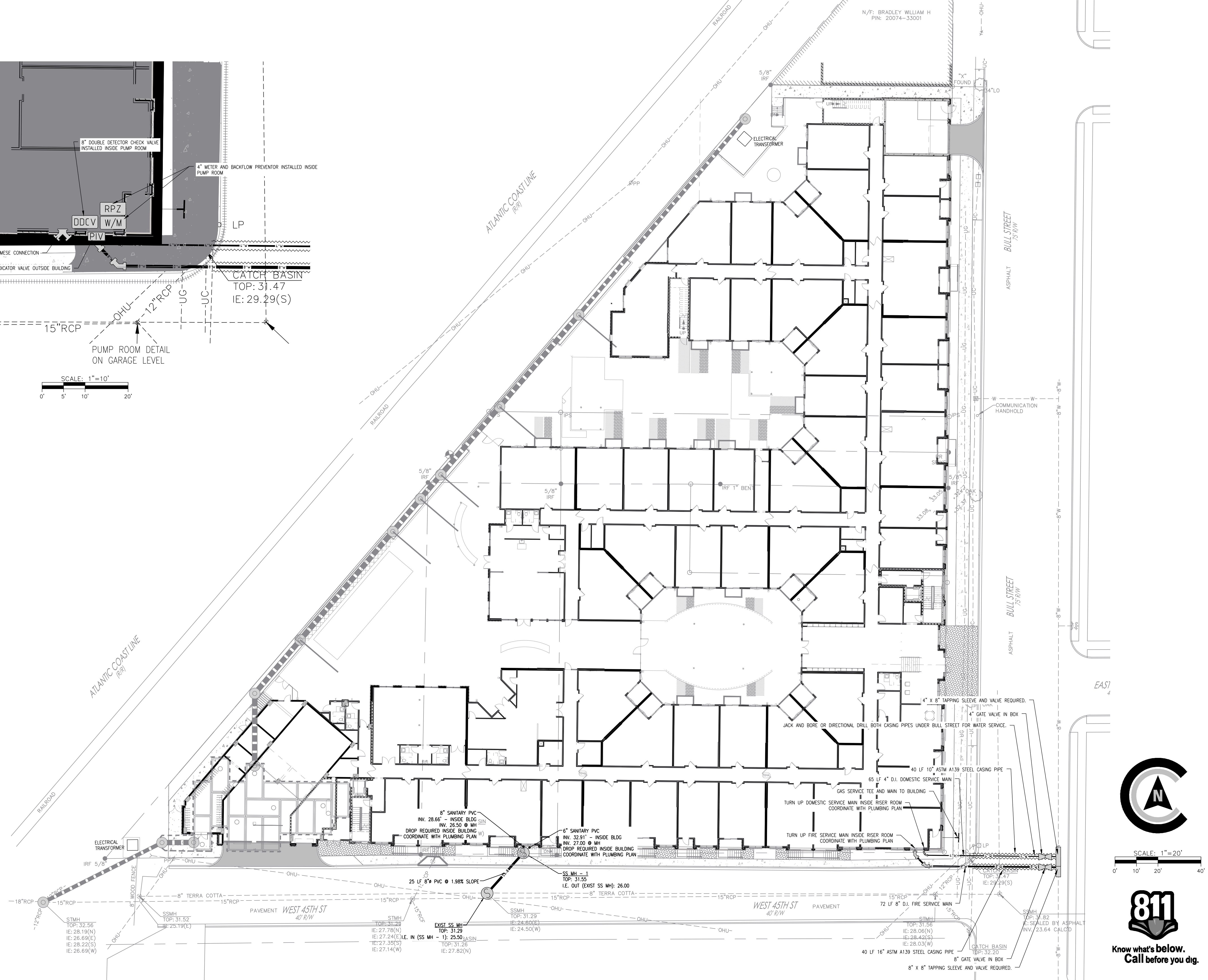
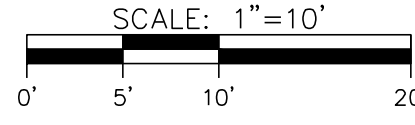
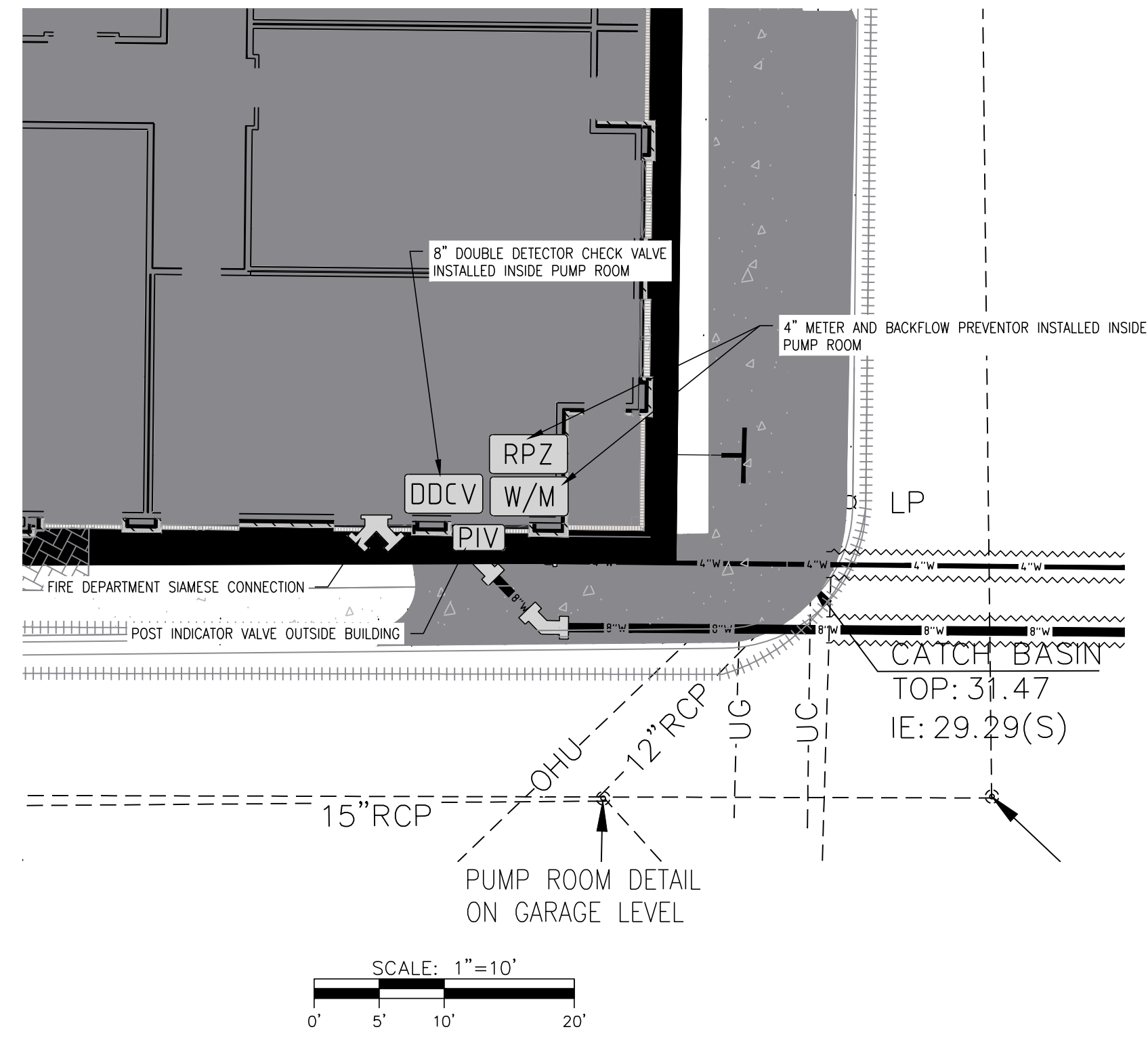
CIVIL CONSTRUCTION PLANS FOR
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CHECKED BY: DF
SCALE: AS NOTED

DRAINAGE
SHEET:
C3.1

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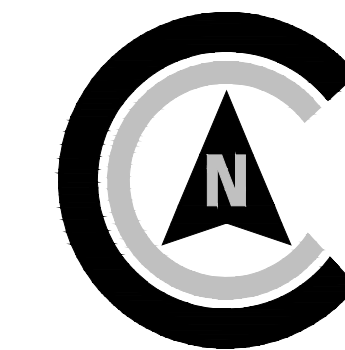
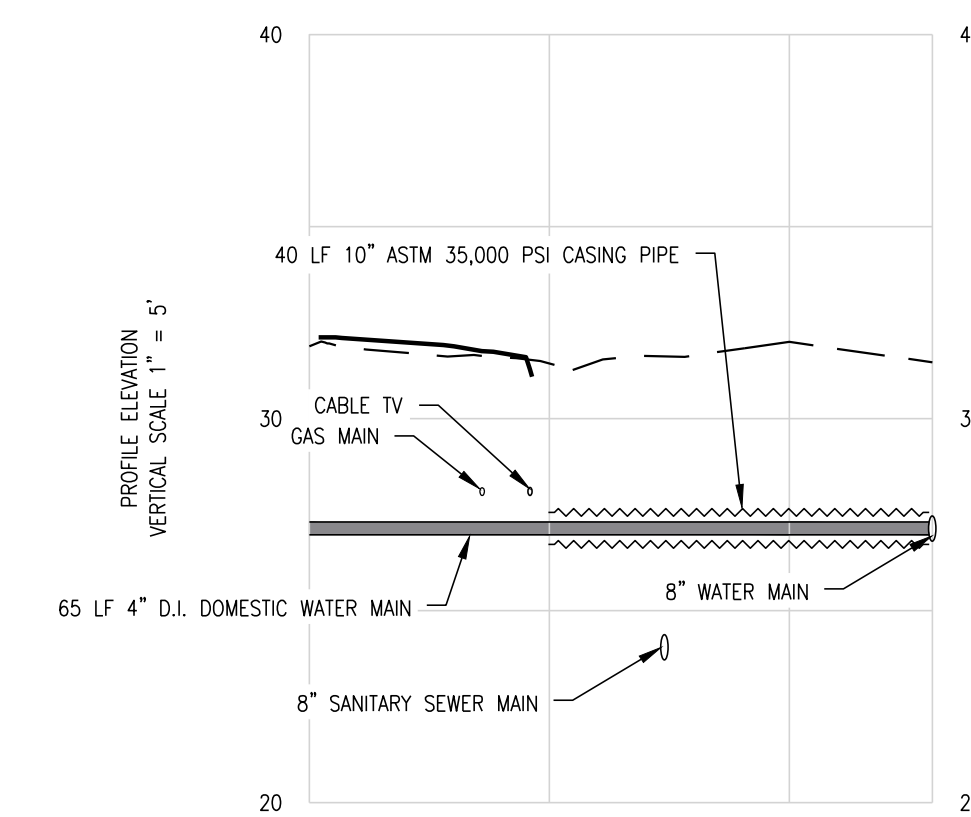
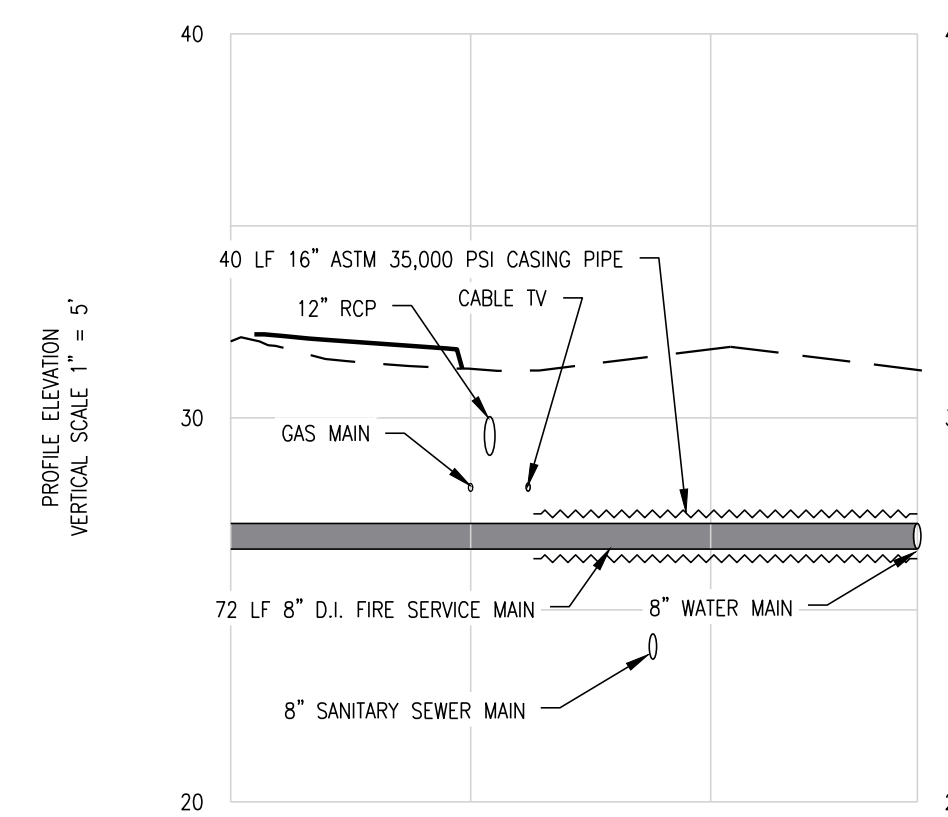
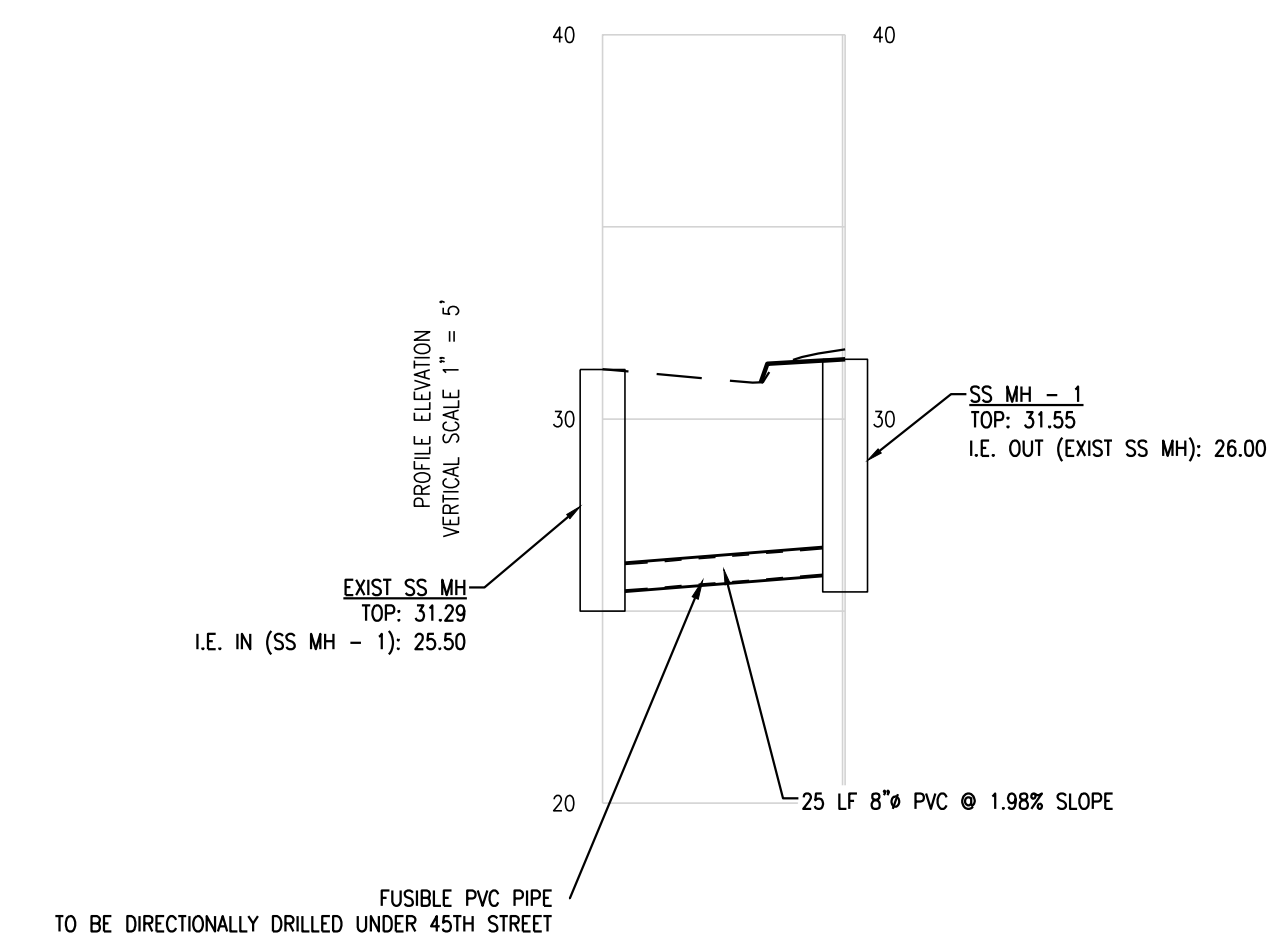
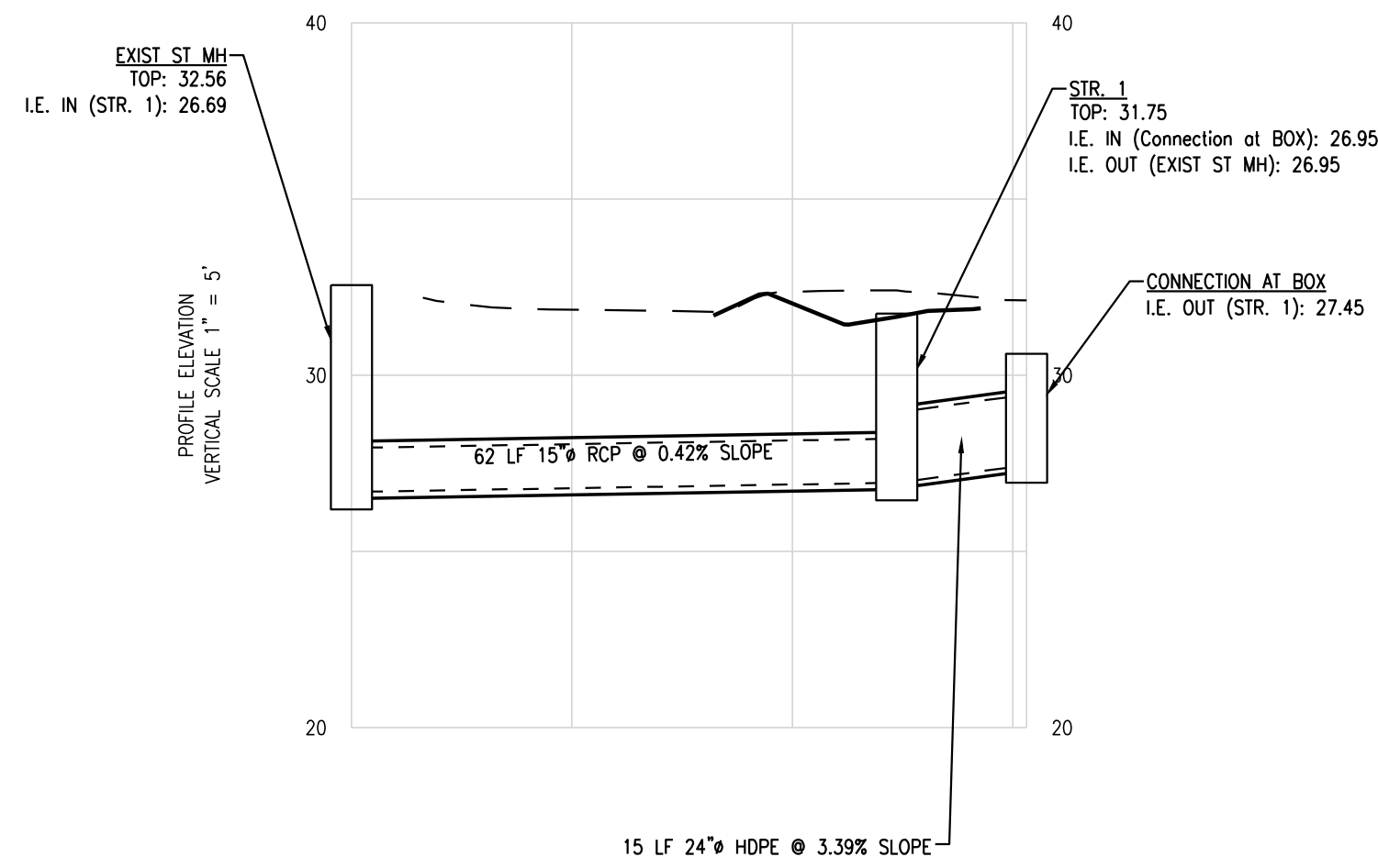
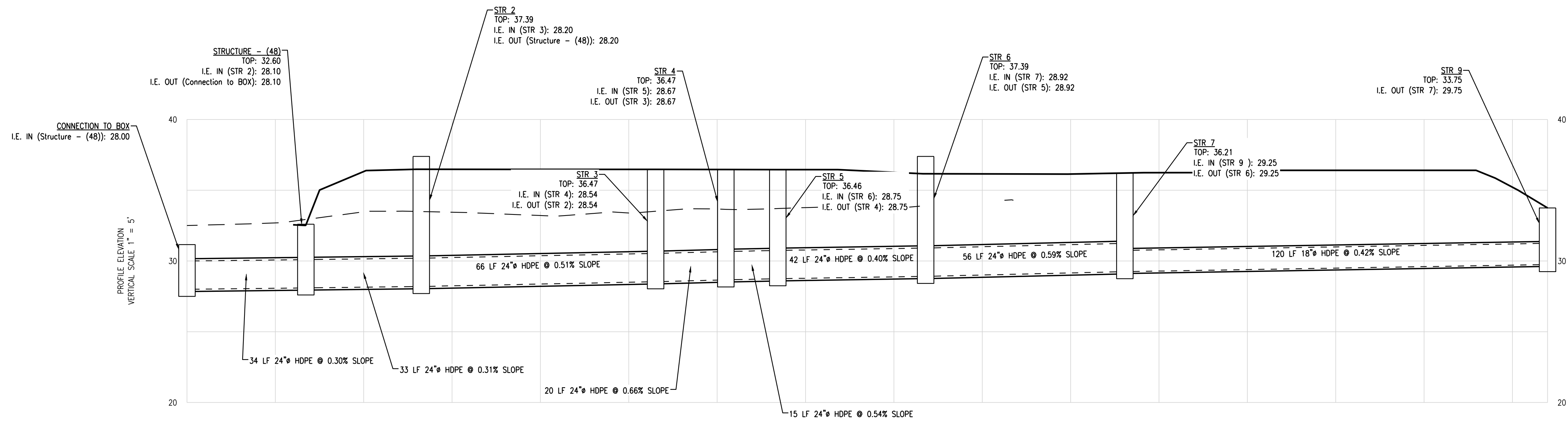
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DATE: 06/12/2023
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

UTILITY PLAN
SHEET:
C4.0



SCALE: 1"=20'
 0' 10' 20' 40'



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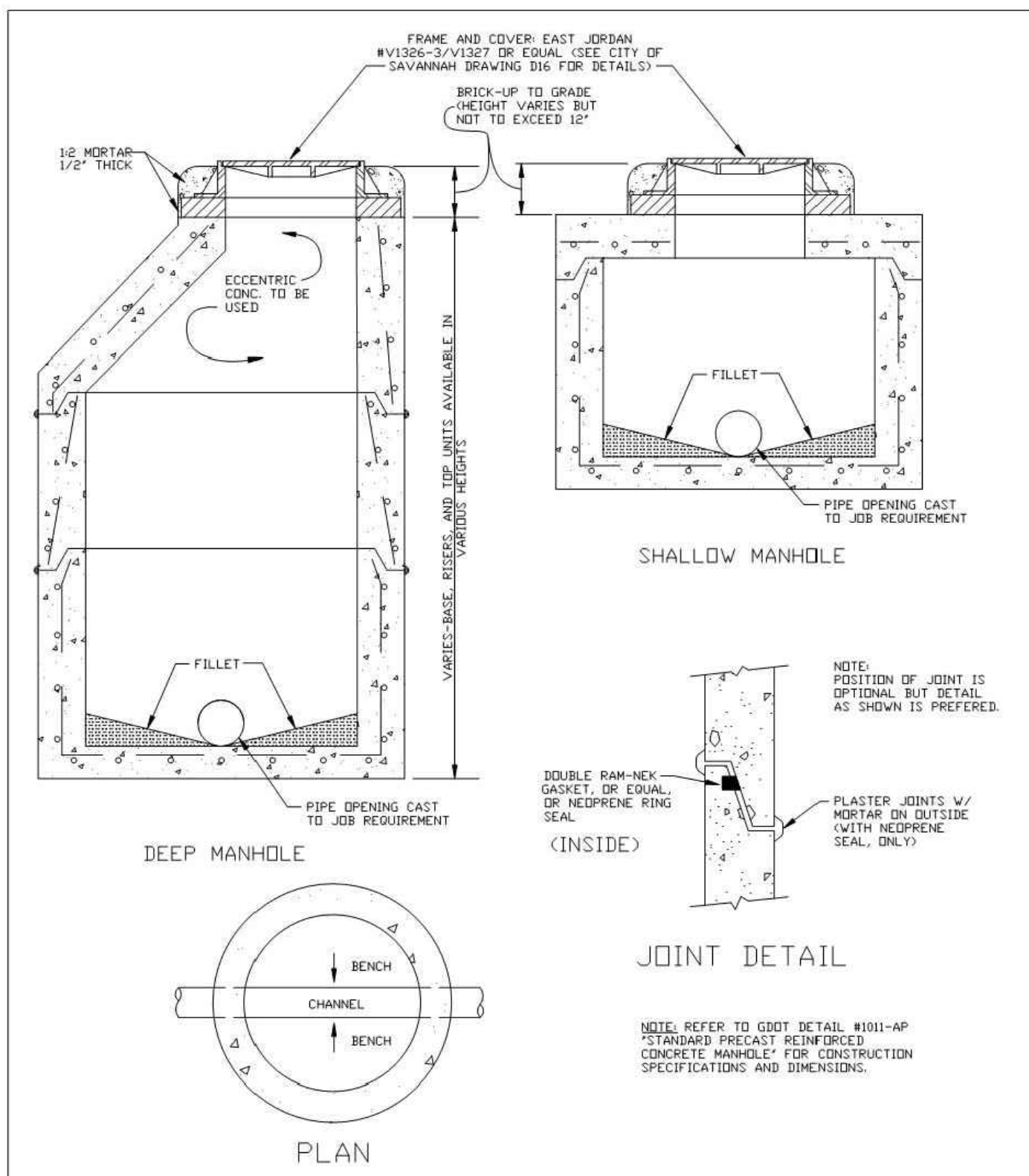
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CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
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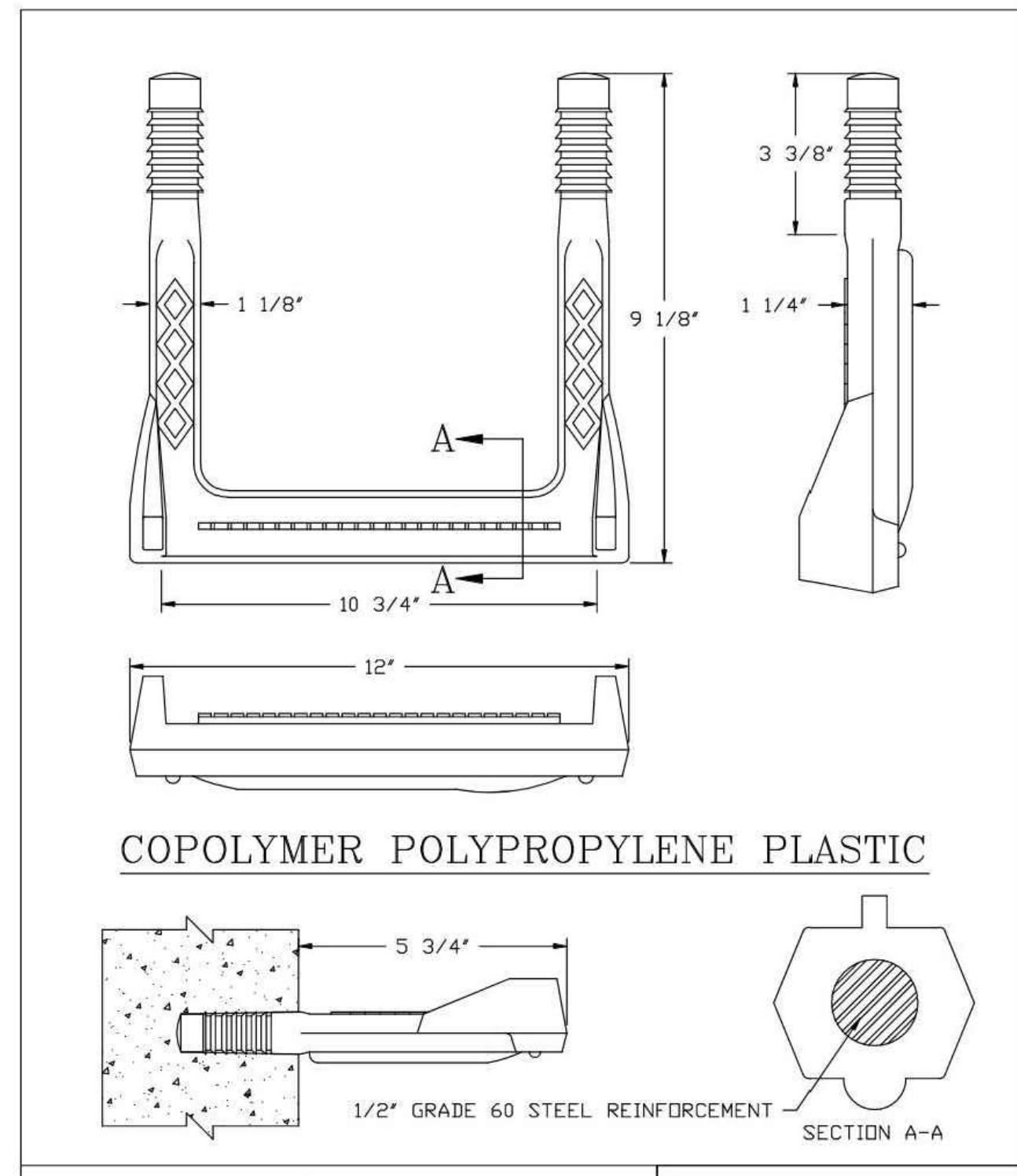
JOB NUMBER: 22-406
 DATE: 06/12/2023
 DRAWN BY: RAR
 CHECKED BY: DF
 SCALE: AS NOTED

PROFILES

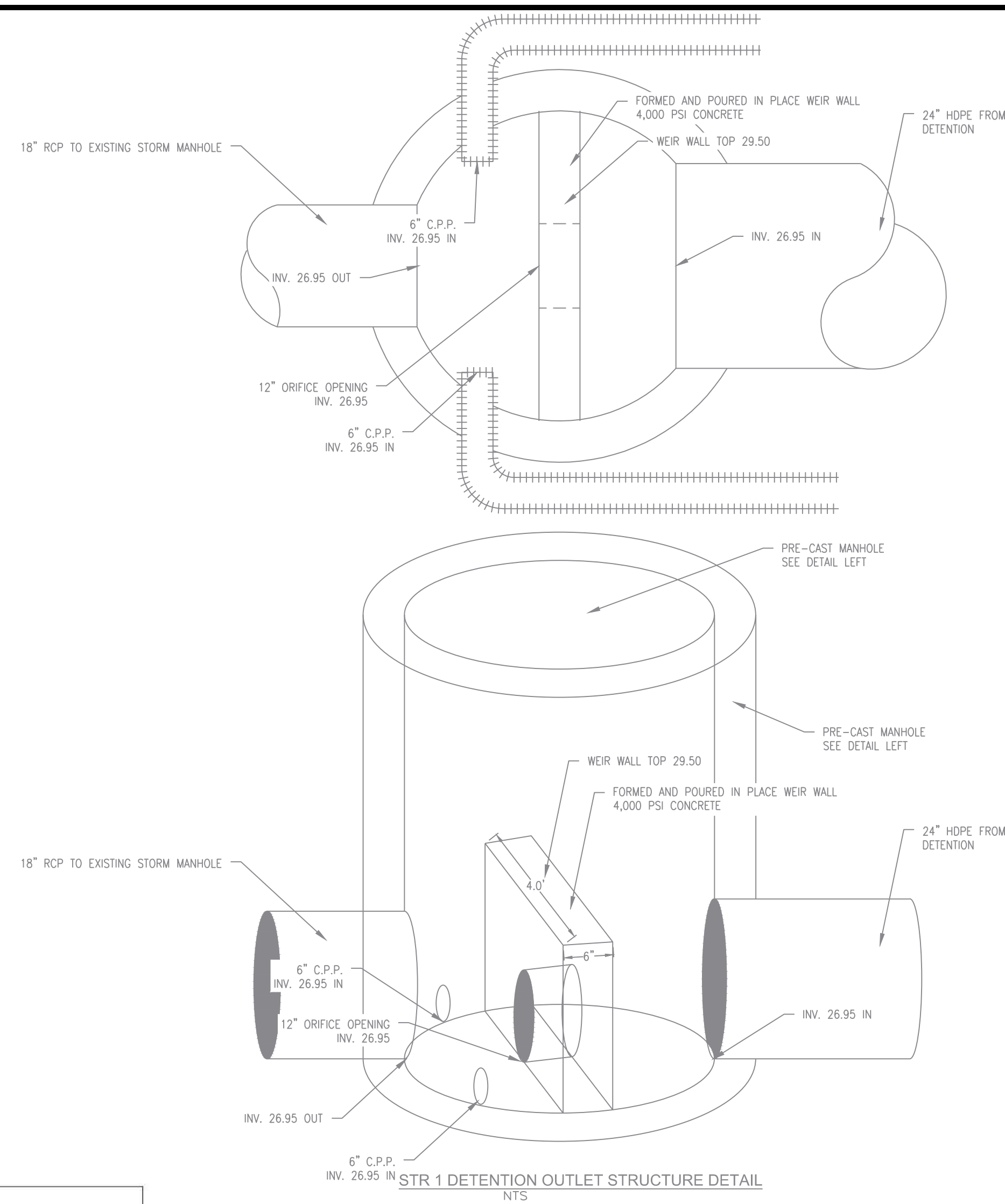
SHEET:
C5.0



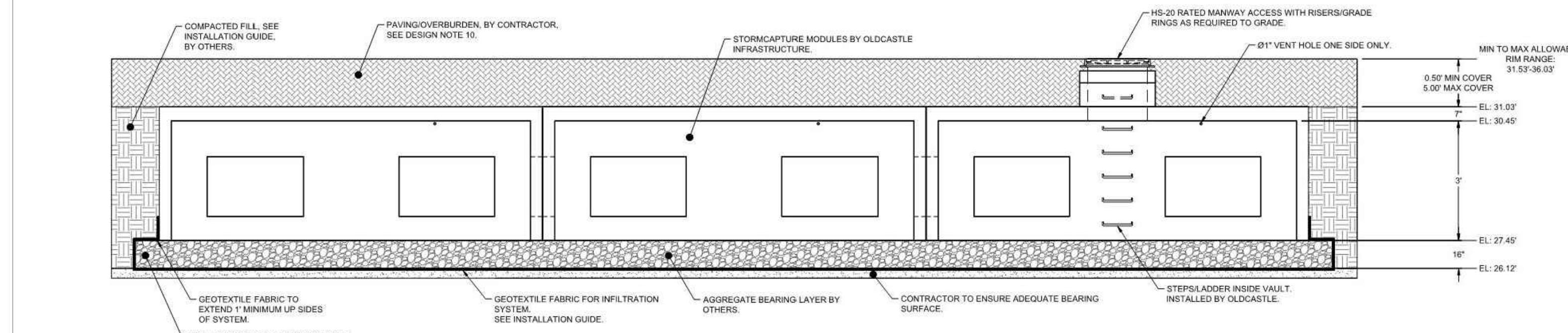
STANDARD CONSTRUCTION DETAILS		SAVANNAH savannahga.gov	PLATE NUMBER D13
STANDARD PRECAST CONCRETE MANHOLE			
APPROVED:	SCALE: N.T.S. DATED: MARCH 2022		



STANDARD CONSTRUCTION DETAILS		SAVANNAH savannahga.gov	PLATE NUMBER D15
MANHOLE STEP-POLYPROPYLENE			
APPROVED:	SCALE: N.T.S. DATED: FEBRUARY 2019		



- REVIEWING NOTES**
- THIS SYSTEM HAS BEEN DESIGNED PER THE DESIGN PARAMETERS SPECIFIED IN THE DESIGN NOTES. REVIEWING ENGINEER SHALL VERIFY THAT THESE PARAMETERS MEET OR EXCEED PROJECT SPECIFIC REQUIREMENTS. IF SITE CONDITIONS DIFFER FROM NOTED DESIGN PARAMETERS, REVIEWING ENGINEER SHALL NOTIFY OLDCASTLE FOR POTENTIAL REDESIGN AND/OR PRICING ADJUSTMENTS.
 - REVIEWING ENGINEER SHALL VERIFY ALL PIPE PENETRATION LOCATIONS, SIZES, AND INVERTS.
 - REVIEWING ENGINEER SHALL VERIFY ALL MANWAY ACCESS LOCATIONS AND RIM ELEVATIONS.
 - THIS SYSTEM IS DESIGNED FOR A GROUNDWATER TABLE ELEVATION PER DESIGN NOTE 2C. REVIEWING ENGINEER SHALL VERIFY THAT THE DESIGN GROUNDWATER ELEVATION MEETS OR EXCEEDS SITE CONDITION REQUIREMENTS. NOTIFY OLDCASTLE IF SITE CONDITIONS VARY FROM WHAT HAS BEEN SPECIFIED FOR POTENTIAL SYSTEM DESIGN CHANGES AND/OR PRICING ADJUSTMENTS.
 - STORMCAPTURE MODULES ARE NOT WATERTIGHT. IF A WATERTIGHT SOLUTION IS REQUIRED, CONTACT OLDCASTLE FOR RECOMMENDATIONS. THE WATERTIGHT APPLICATION TO BE PROVIDED AND IMPLEMENTED BY THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT THE SELECTED WATERTIGHT SOLUTION PERFORMS AS SPECIFIED BY THE MANUFACTURER.
 - DESIGN OF THE STORMCAPTURE PRECAST MODULE SYSTEM ASSUMES NO ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) WITHIN A 1:1 INFLUENCE LINE FROM THE BOTTOM EDGE OF ANY SYSTEM MODULE. ANY SITE ELEMENTS BEYOND THIS ZONE OF INFLUENCE ARE ASSUMED TO HAVE NO IMPACT ON THE SYSTEM AND EXERT ZERO LATERAL SURCHARGE ONTO THE MODULES. THE CONTRACTOR SHALL VERIFY THAT ANY ADJACENT BUILDING(S), WALL(S), OR STRUCTURAL FOUNDATION(S) DO NOT LIE WITHIN THIS INFLUENCE ZONE OR DO NOT SURCHARGE THE PRECAST MODULES.
 - WRITTEN APPROVAL OF SUBMITTAL DRAWINGS ALONG WITH SIGNED PURCHASE ORDER REQUIRED FOR BEGINNING OF PRODUCT FABRICATION. ANY SYSTEM MODIFICATION POST-APPROVAL MAY RESULT IN CHANGE ORDERS) AND/OR POTENTIAL DELIVERY DELAYS.
 - ALL SAND FILTER MEDIA, DRAIN ROCK, AGGREGATE, PIPE, AND FITTINGS PROVIDED BY CONTRACTOR.



NOTE: FOR INFILTRATION - EXPOSE THE AGGREGATE SURFACE AND CLEAN.

REV	DESCRIPTION	DATE
1	ISSUED FOR CONSTRUCTION	1/18/2023

Oldcastle Infrastructure
A CMC COMPANY

STORMCAPTURE SYSTEM
INFILTRATION SYSTEM

JOB NUMBER: 22-406
JOB NAME: 45th and Bull
DATE: 1/18/2023
SCALE: SC1 3-0
SHEET: 2 OF 3

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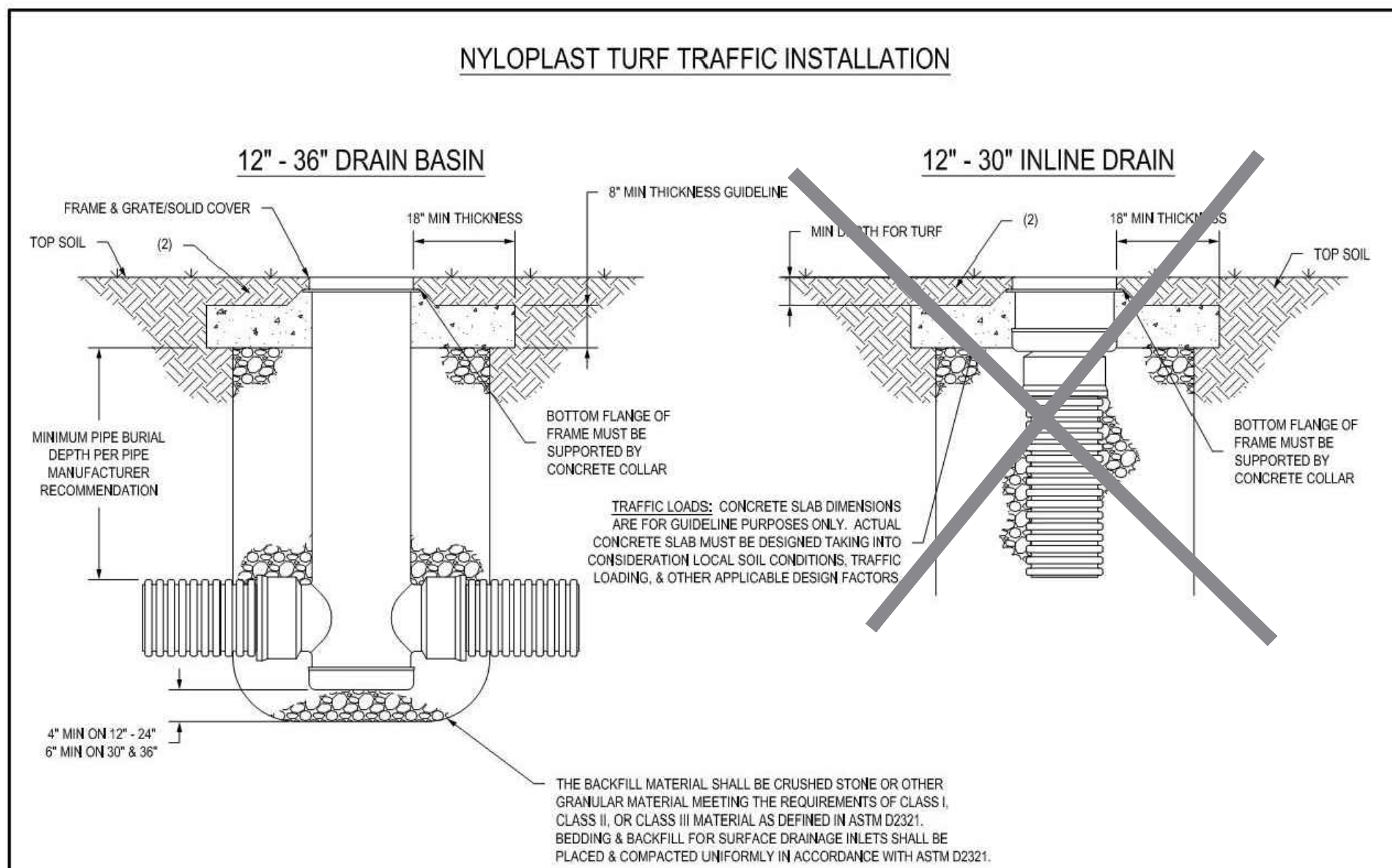
CIVIL CONSTRUCTION PLANS FOR
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LOCATED IN SAVANNAH, GEORGIA
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JOB NUMBER:	22-406
DATE:	06/12/2023
DRAWN BY:	RAR
CHECKED BY:	DF
SCALE:	AS NOTED

DETAILS

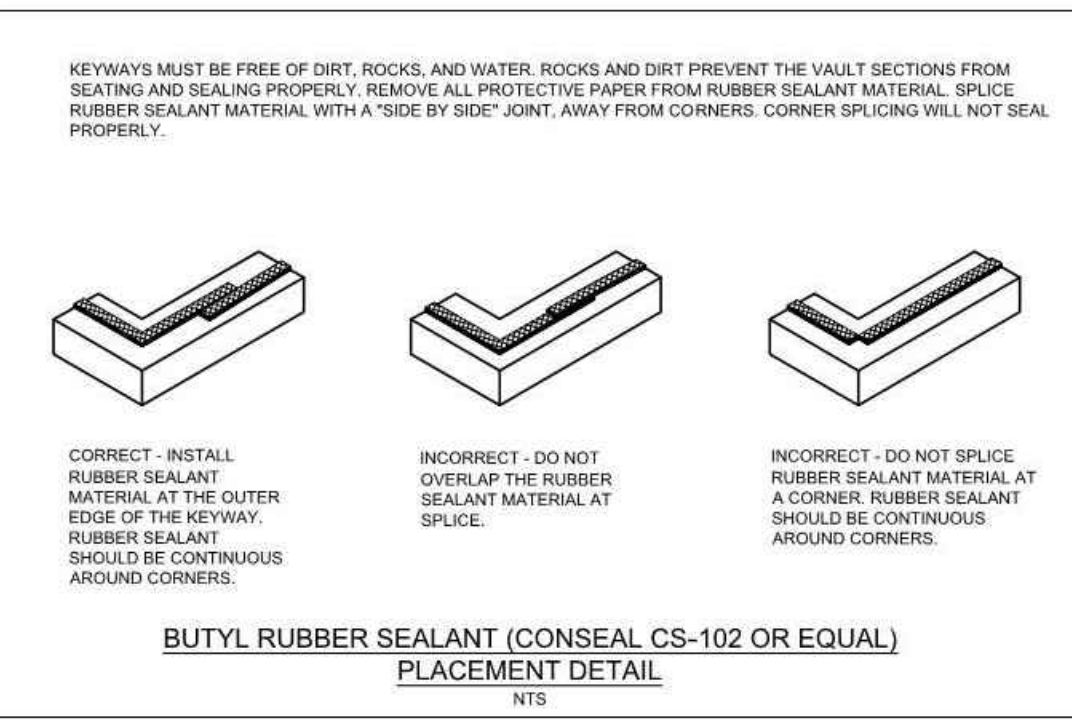
SHEET:
C6.0





1. GRATES/SOLID COVERS SHALL MEET H-20 LOAD RATING FOR 30' PEDESTRIAN & 12" - 30" STANDARD & SOLID	THIS PRINT DISCLOSES SUBJECT MATTER IN WHICH NYLOPLAST HAS PROPRIETARY RIGHTS. THE RECEIPT OR POSSESSION OF THIS PRINT DOES NOT CONSTITUTE A TRANSFER OR LICENSE OF THE USE OF THE DESIGN OR TECHNICAL INFORMATION SHOWN HEREIN. REPRODUCTION OF THIS PRINT OR INFORMATION CONTAINED HEREIN, OR MANUFACTURE OF ANY ARTICLE HEREFROM, FOR THE DISCLOSURE TO OTHERS IS FORBIDDEN EXCEPT BY SPECIFIC WRITTEN PERMISSION FROM NYLOPLAST.	DRAWN BY: EBC	MATERIAL:	3130 VERONA AVE BURFORD, GA 30816 P/N (770) 932-2443 FAX (770) 932-2460 www.nyloplast-us.com
2. DESIGN SHOULD ACCOUNT FOR ROOT DEPTH TO ALLOW TURF TO GROW AND PREVENT EROSION AROUND GRATE SO THAT HAZARDS DO NOT FORM.		DATE: 01-05-09	PROJECT NO./NAME:	TITLE: DRAIN BASIN & INLINE DRAIN TURF TRAFFIC INSTALLATION
3. 30" DRAIN BASIN REQUIRES 36"x36" REDUCING CONE. REDUCING CONE REQUIRES 2.25FT MINIMUM FROM GRADE TO TOP OF PIPE.	REVISED BY: NMR	DATE: 06-12-18	DWG SIZE: A	SCALE: 1/25

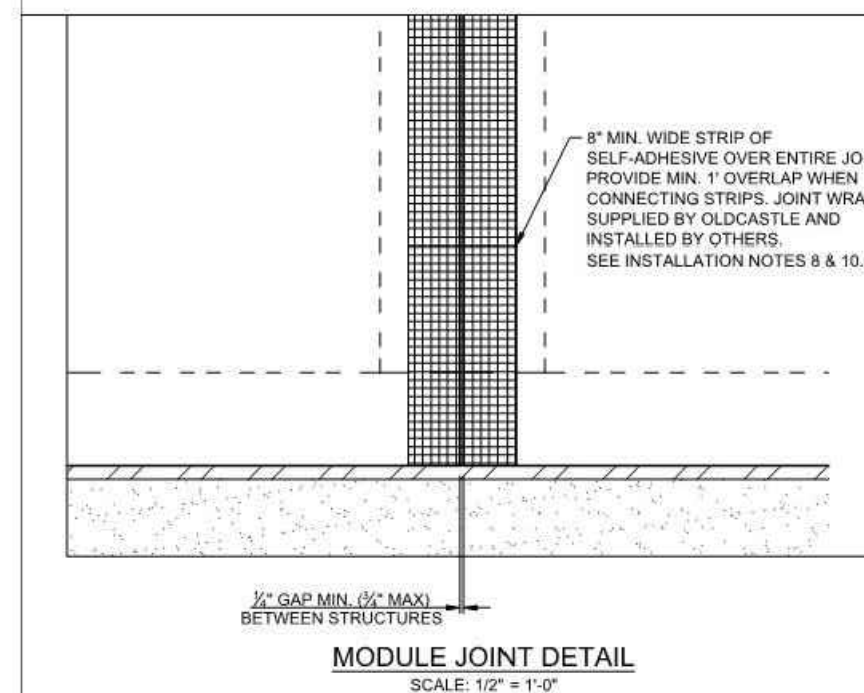
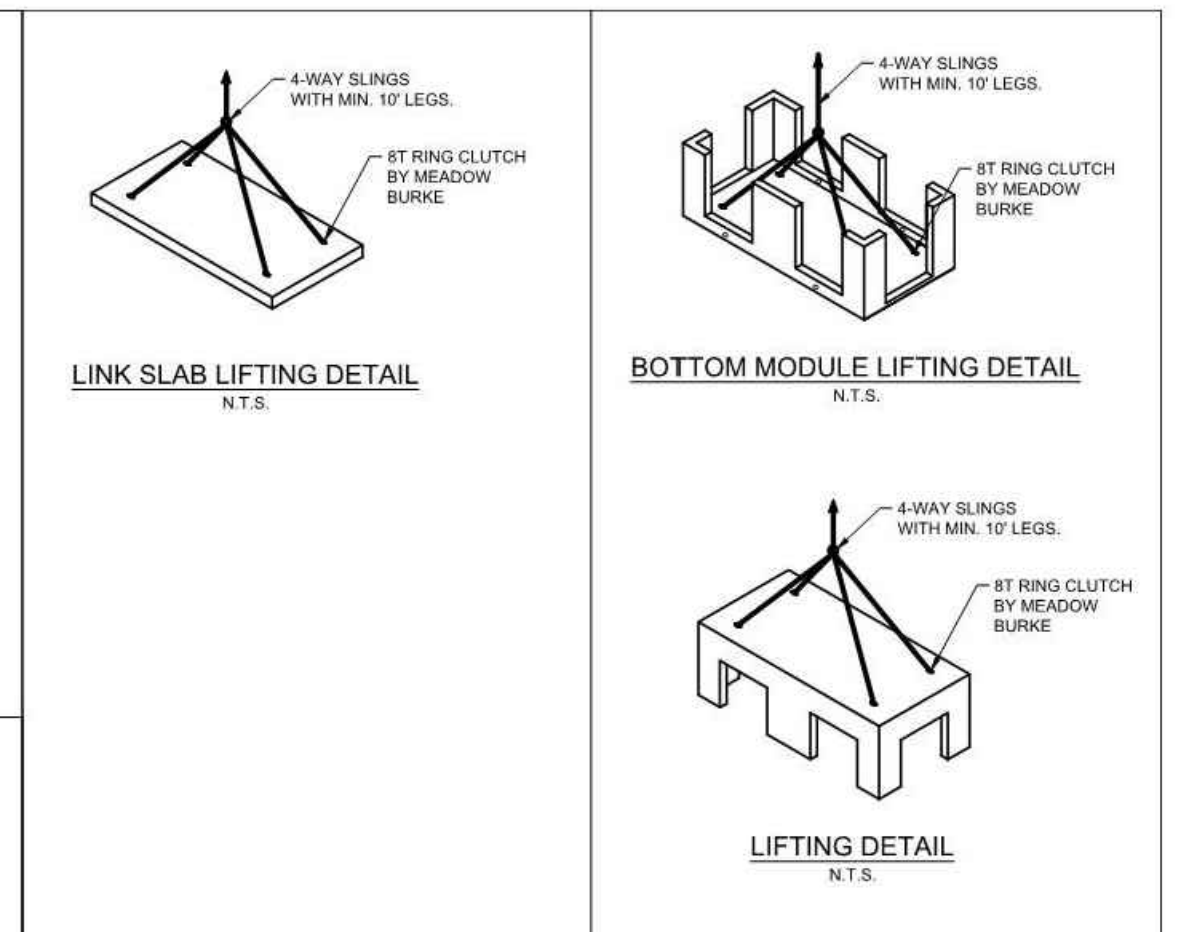
- #### INSTALLATION NOTES
- UNDERGROUND PRECAST CONCRETE SYSTEM INSTALLATION SHALL BE PER ASTM C891, "STANDARD PRACTICE FOR INSTALLATION OF UNDERGROUND PRECAST CONCRETE UTILITY STRUCTURES" AND PER OLDCASTLE.
 - MODULE SUBBASE OR SUBGRADE SHALL BE LEVEL, SLOTTED AND COMPACTED ADEQUATELY FOR REQUIRED BEARING CAPACITY PER DESIGN NOTE 2D. CONTRACTOR AND/OR INSTALLING SUB-CONTRACTOR SHALL VERIFY THAT SOIL BEARING CONDITIONS MEET OR EXCEED DESIGN REQUIRED MINIMUMS PRIOR TO PLACEMENT AND INSTALLATION OF MODULES.
 - ANY CONSTRUCTION EQUIPMENT EXCEEDING NOTED DESIGN LOADING IS NOT PERMITTED OVER OR ADJACENT TO ANY MODULE WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING. ELSE PRODUCT WARRANTY MAY BE VOIDED. ANY DESIGN CONSTRAINT EXCEEDING THE DESIGN PARAMETERS NOTED ABOVE MAY REQUIRE CUSTOM STRUCTURAL DESIGN, SUBGRADE REVISIONS, AND/OR PRICING ADJUSTMENTS.
 - HEAVY VIBRATORY COMPACTATION EQUIPMENT SHALL NOT BE OPERATED WITHIN 10 FEET OF MODULE EXTERIOR.
 - MINIMUM OF 0.50FT OF SOIL COVER REQUIRED FOR CONSTRUCTION EQUIPMENT OPERATION ON TOP OF SYSTEM. IT IS THE RESPONSIBILITY OF THE CONTRACTOR AND INSTALLING SUB-CONTRACTOR TO ENSURE THAT NO MODULES ARE DAMAGED DURING CONSTRUCTION.
 - UNLESS NOTED OTHERWISE, ALL PIPE SUPPLIED AND INSTALLED BY OTHERS. CONTRACTOR MAY MODIFY AT RISK ANY OLDCASTLE PRODUCT(S) IN THE FIELD OR AFTER DELIVERY WITHOUT FORMAL REVIEW AND WRITTEN APPROVAL BY OLDCASTLE ENGINEERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT ANY PRODUCT MODIFICATIONS DO NOT INVALIDATE THE PRODUCT WARRANTY.
 - MODULE PLACEMENT FIELD TOLERANCES SHALL NOT EXCEED 3/4" BETWEEN ADJACENT MODULES. IF MODULE GAP EXCEEDS 3/4", CONTRACTOR SHALL MAKE NECESSARY ADJUSTMENTS AND RESET MODULE(S) TO BRING WITHIN NOTED TOLERANCES.
 - CONTRACTOR IS RESPONSIBLE FOR PRODUCTS ONCE DELIVERED TO THE SITE. OLDCASTLE IS NOT RESPONSIBLE FOR OFFLOADING PRODUCTS, MAINTENANCE, AND INSTALLATION OF PRODUCTS ONCE THEY ARRIVE TO THE SITE.
 - CONTRACTOR SHALL INSTALL SYSTEM PER PROJECT WATERPROOFING AND SOILTIGHTNESS REQUIREMENTS. WATERPROOFING AND SOILTIGHTNESS INSTALLATION IS NOT BY OLDCASTLE AND OLDCASTLE WILL PROVIDE NO GUARANTEE FOR THIS COMPONENT OF SYSTEM INSTALLATION.



MAXIMUM EQUIPMENT OPERATING WEIGHT (OW) BY TRACK WIDTH

TRACK WIDTH	12"	18"	24"	30"
MIN TRACK LENGTH	8'-0"	10'-0"	12'-0"	14'-0"
FILL DEPTH	OW (LBS)	OW (LBS)	OW (LBS)	OW (LBS)
0	35,000	45,000	52,500	54,500
1	35,000	45,000	56,000	60,500
2	35,000	45,000	56,000	64,000
3	76,000	78,500	83,500	88,000
4	94,000	100,000	106,000	113,000
5	100,000	116,000	132,000	149,000

NOTES:
1. IF CONSTRUCTION EQUIPMENT EXCEEDS THE ABOVE OPERATING WEIGHT LIMITS REFER TO INSTALLATION NOTE 3.
2. FOR WHEELED CONSTRUCTION EQUIPMENT LIMITS REFER TO INSTALLATION NOTE 3.
3. MINIMUM AXLE SPACING FOR ALL TRACK WIDTHS IS 6'-0".

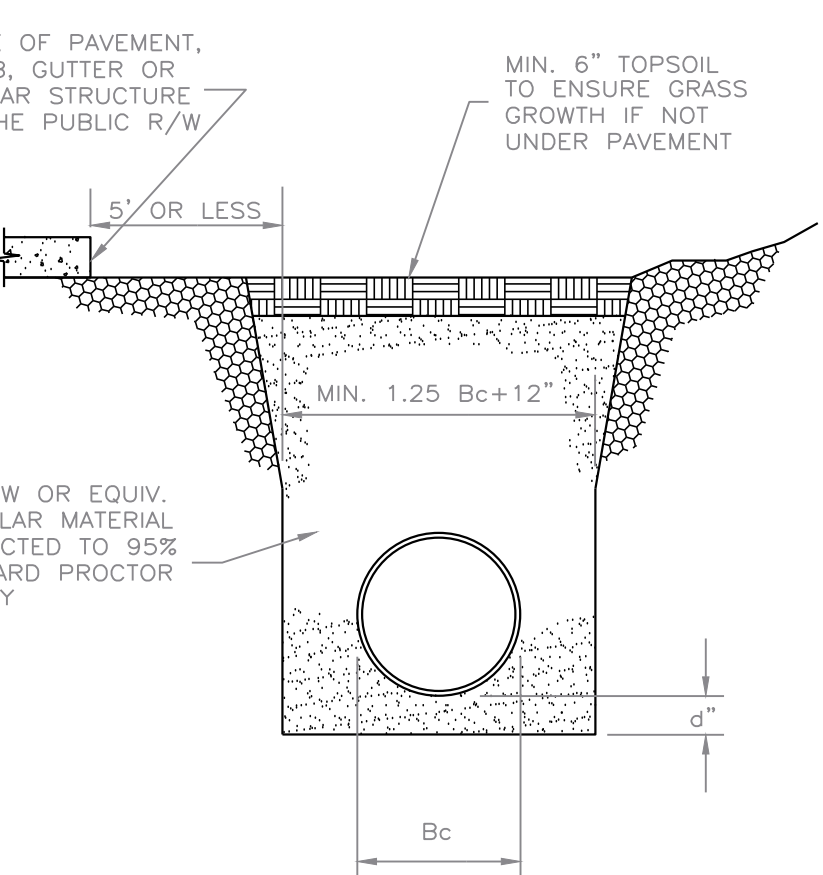


REV	DESCRIPTION	DATE

Oldcastle Infrastructure
A CRH COMPANY

STORMCAPTURE®
INFILTRATION SYSTEM 1

JOB NAME: 45th and Bull
DATE: 1/18/2023
SHEET: 3 OF 3

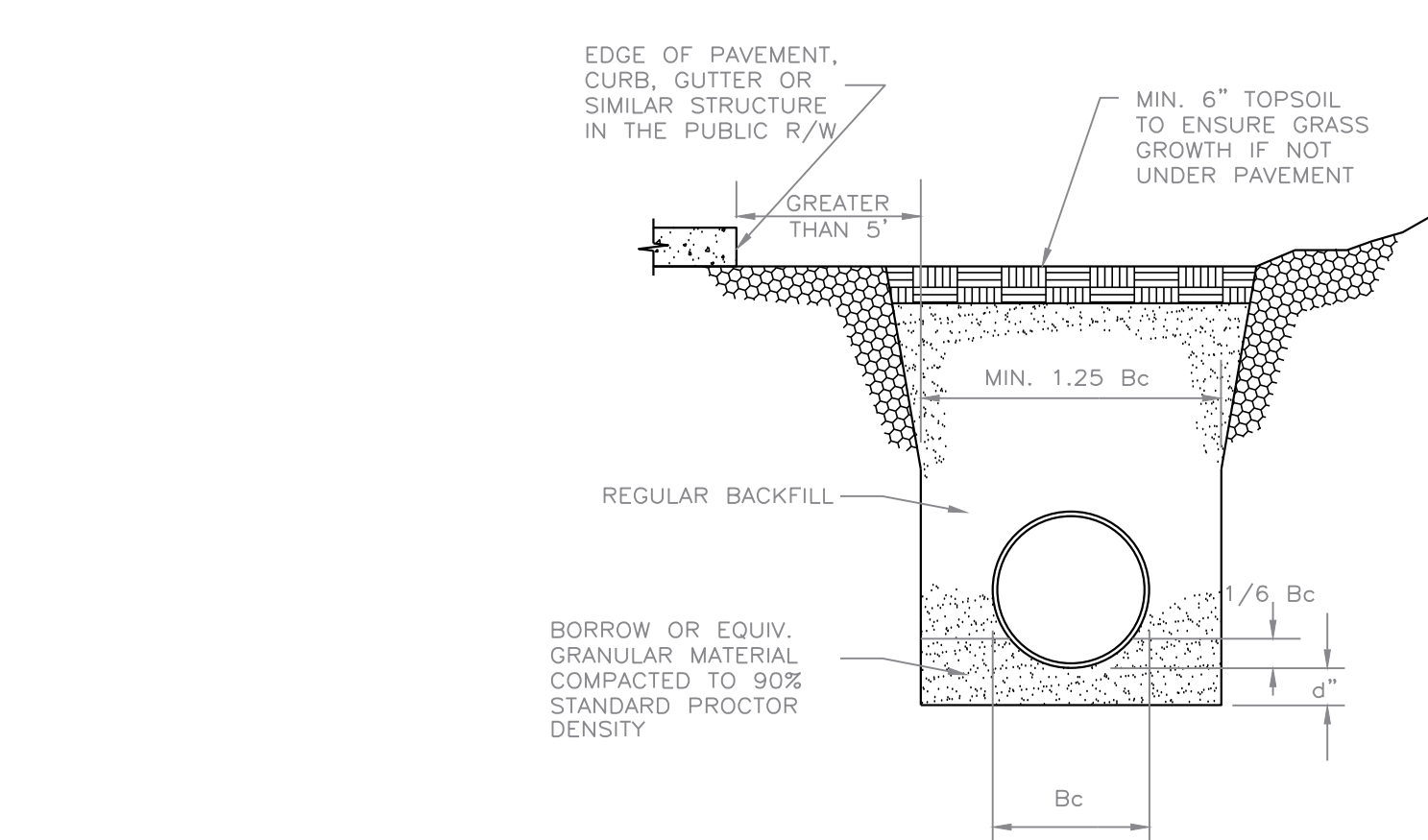


DEPTH OF BEDDING MATERIAL BELOW PIPE

NOTE: 1. ALL BEDDING & INITIAL BACKFILL SHALL BE INSTALLED IN 6" TO 12" BALANCED LIFTS. 2. MIN. 9" OF CLEARANCE SHALL BE PROVIDED ON EACH SIDE OF THE INSTALLED PIPE.

LEGEND: Bc = OUTSIDE DIAMETER, D = INSIDE DIAMETER, d = DEPTH OF BEDDING MATERIAL BELOW PIPE

27" & SMALLER	3"
30" TO 60"	4"
66" & LARGER	6"

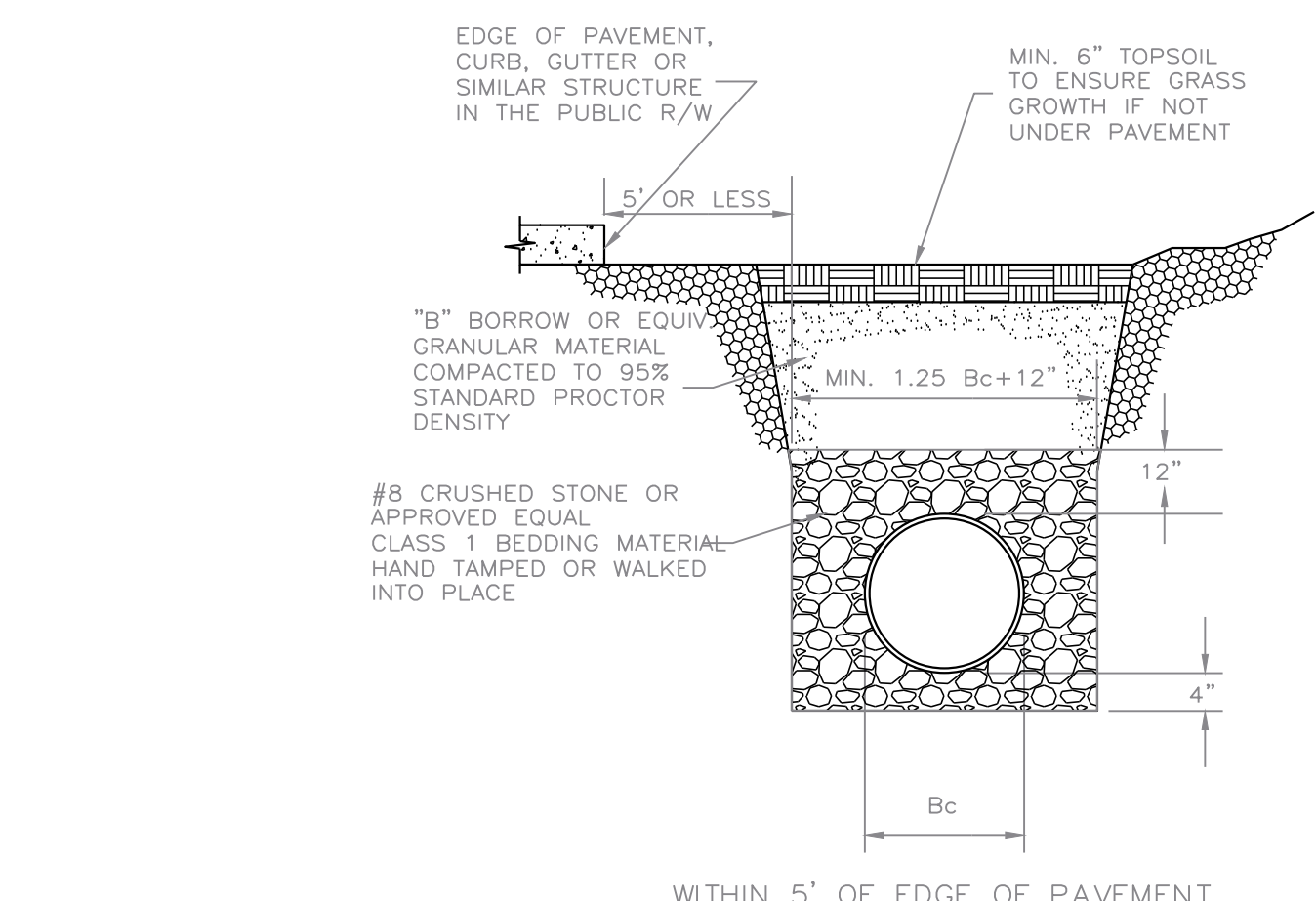


DEPTH OF BEDDING MATERIAL BELOW PIPE

NOTE: 1. ALL BEDDING & INITIAL BACKFILL SHALL BE INSTALLED IN 6" TO 12" BALANCED LIFTS. 2. MIN. 9" OF CLEARANCE SHALL BE PROVIDED ON EACH SIDE OF THE INSTALLED PIPE.

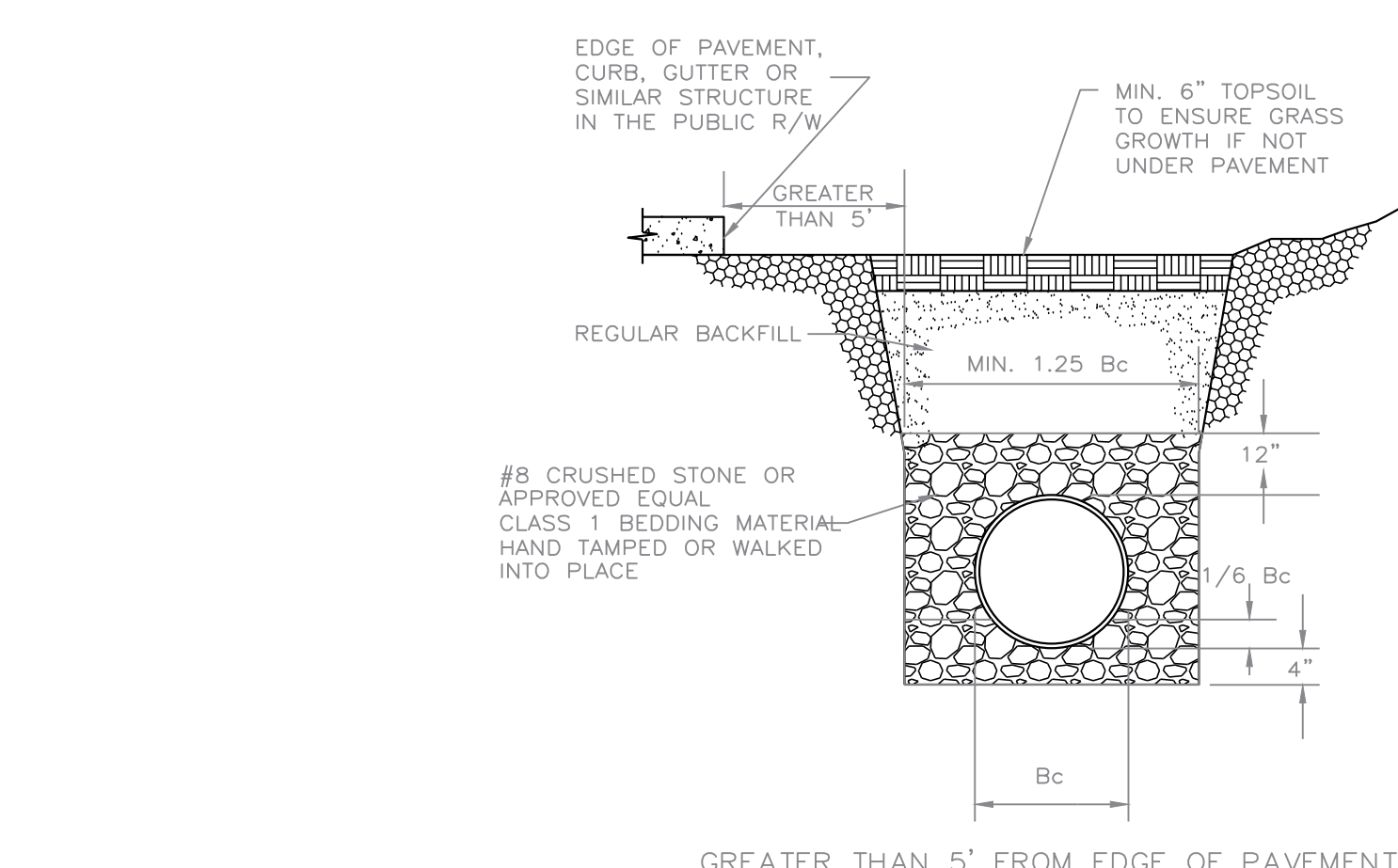
LEGEND: Bc = OUTSIDE DIAMETER, D = INSIDE DIAMETER, d = DEPTH OF BEDDING MATERIAL BELOW PIPE

27" & SMALLER	3"
30" TO 60"	4"
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NOTE: 1. ALL BEDDING & INITIAL BACKFILL SHALL BE INSTALLED IN 6" TO 12" BALANCED LIFTS. 2. MIN. 9" OF CLEARANCE SHALL BE PROVIDED ON EACH SIDE OF THE INSTALLED PIPE.

LEGEND: Bc = OUTSIDE DIAMETER, D = INSIDE DIAMETER, d = DEPTH OF BEDDING MATERIAL BELOW PIPE



NOTE: 1. ALL BEDDING & INITIAL BACKFILL SHALL BE INSTALLED IN 6" TO 12" BALANCED LIFTS. 2. MIN. 9" OF CLEARANCE SHALL BE PROVIDED ON EACH SIDE OF THE INSTALLED PIPE.

LEGEND: Bc = OUTSIDE DIAMETER, D = INSIDE DIAMETER, d = DEPTH OF BEDDING MATERIAL BELOW PIPE

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REVISIONS:

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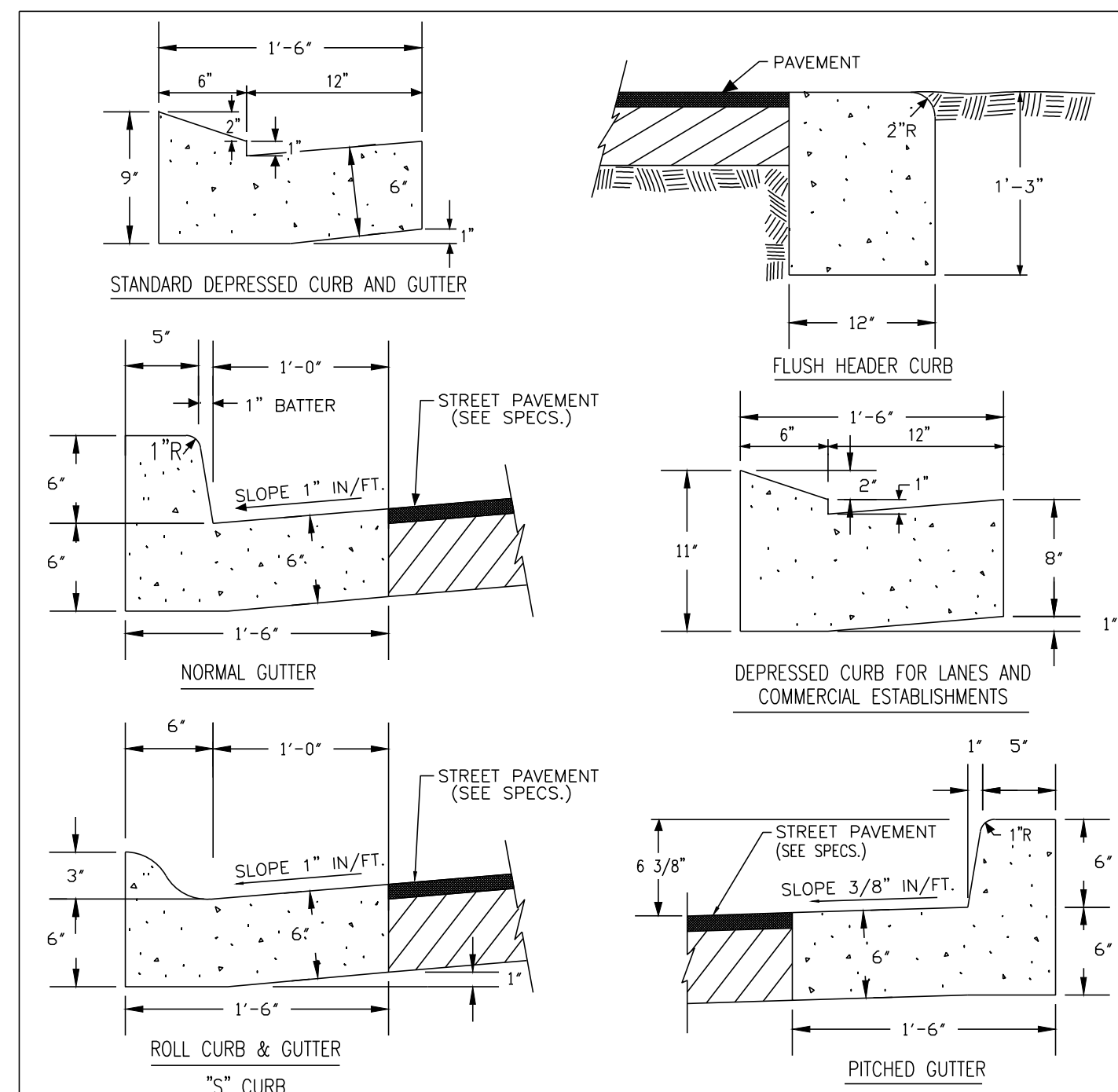
CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
DATE: 06/12/2023
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

DETAILS

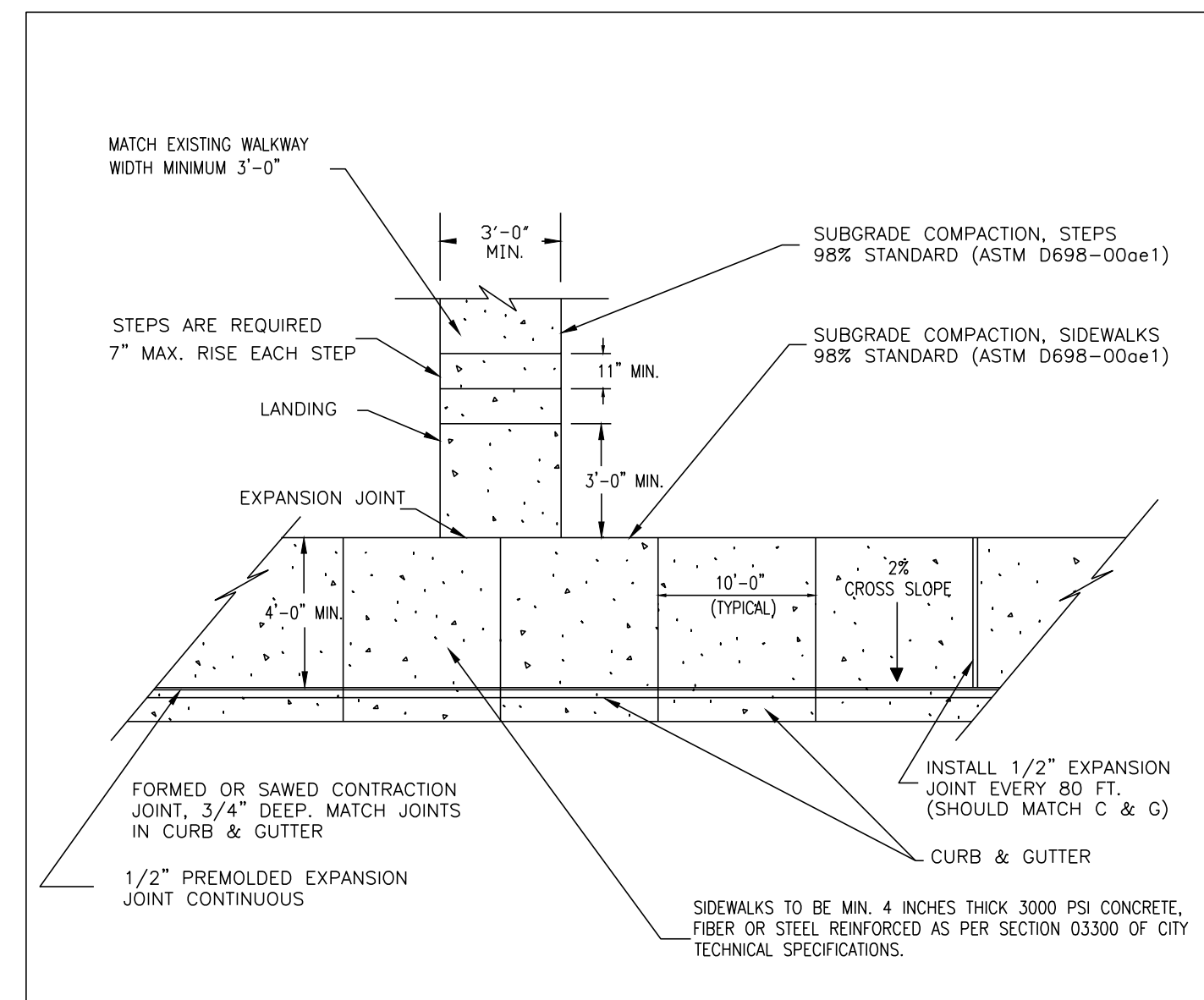
SHEET:
C6.1

811
Know what's below.
Call before you dig.



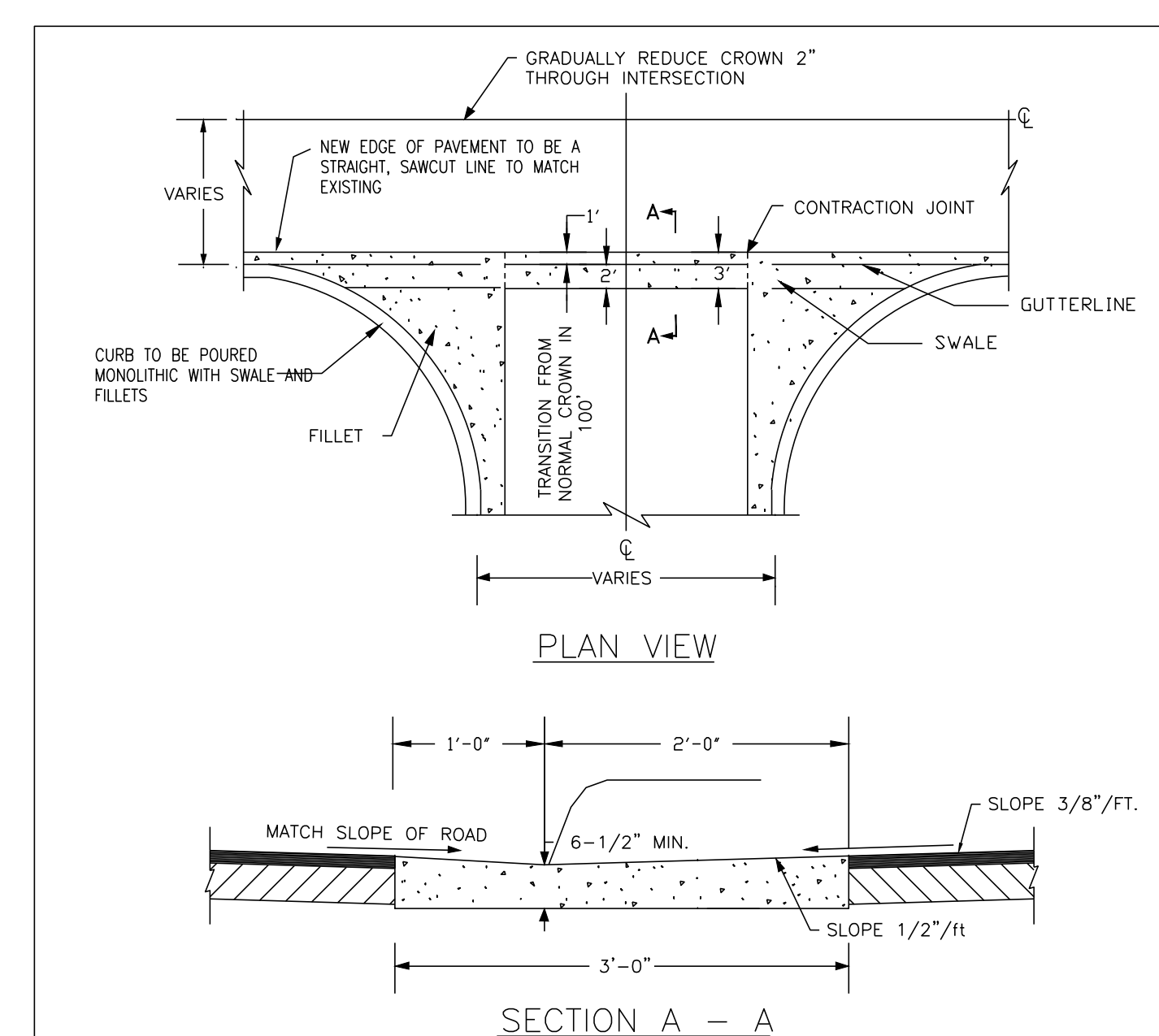
NOTES:
 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAVANNAH TECHNICAL SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, SECTION 02200 - EARTHWORK AND SECTION 03300 - CAST-IN-PLACE CONCRETE.
 2. BASE COMPACTION UNDER CURB TO BE 98% (ASTM D698).
 3. CONTRACTION JOINTS TO BE SAW CUT NO LATER THAN 24 HOURS AFTER THE POUR.

STANDARD CONSTRUCTION CITY OF SAVANNAH
 DETAILS
CURB AND GUTTER DETAILS
 PLATE NUMBER: P02
 APPROVED: SIGNATURE ON FILE N.T.S. DATE: FEBRUARY 2009
 CITY ENGINEER



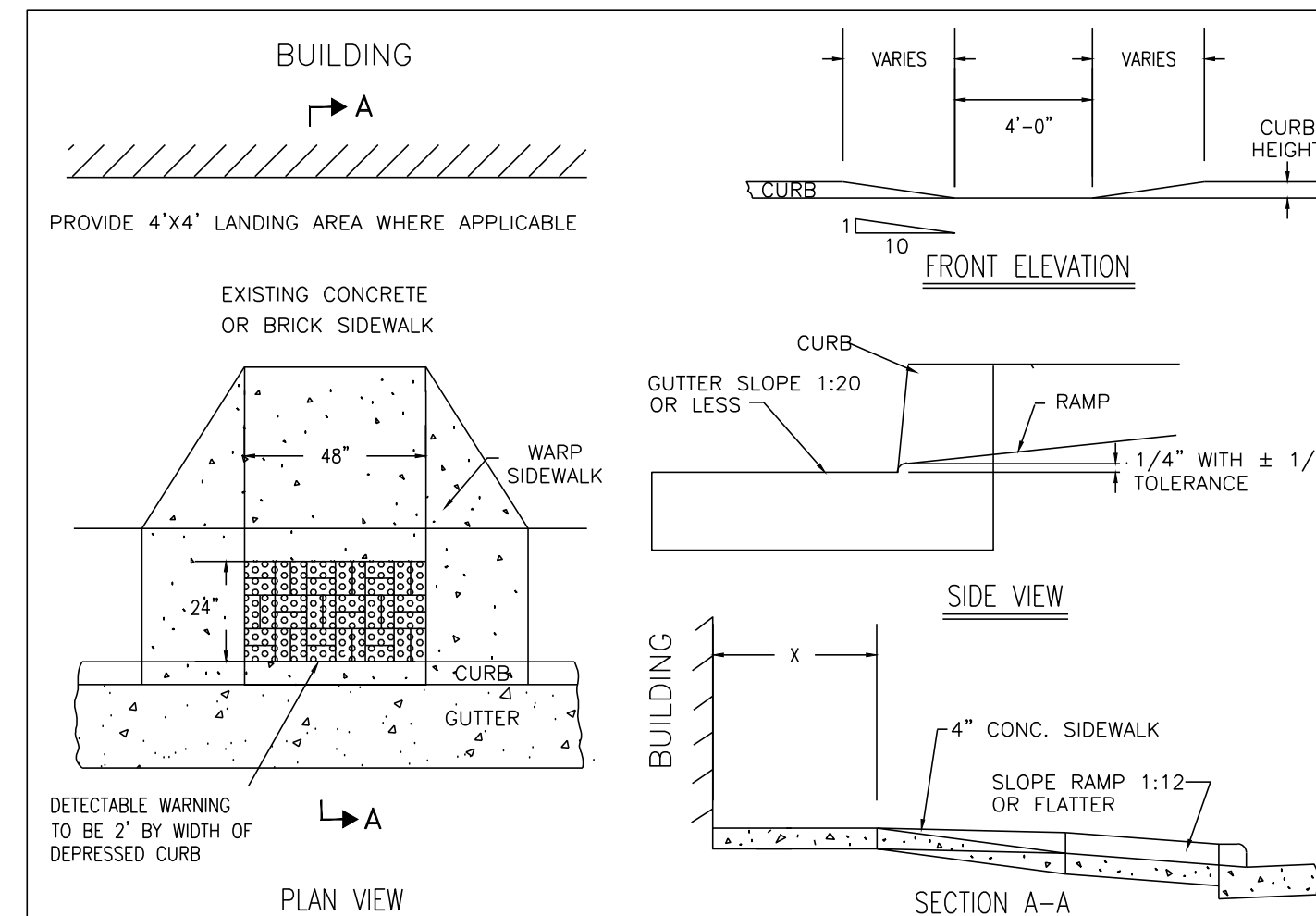
NOTES:
 1. ALL CONSTRUCTION SHALL CONFORM TO THE CITY OF SAVANNAH DEVELOPMENT GUIDELINES AND TECHNICAL SPECIFICATIONS INCLUDING, BUT NOT LIMITED TO, SECTION 02200 - EARTHWORK AND SECTION 03300 - CAST-IN-PLACE CONCRETE.
 2. CONTRACTION JOINTS SHOULD BE FORMED OR SAWED CONCURRENT WITH THE 10' JOINTS IN THE CURB.
 3. ALL NEW CONCRETE IN THE HISTORIC DISTRICT AND AS OTHERWISE SPECIFIED BY THE STREET MAINTENANCE DIRECTOR MUST BE TINTED. THE TINT SHALL BE LAMBERT CORPORATION SAVANNAH BROWN #4658 OR EQUAL TO BE SUPPLIED BY THE CONTRACTOR.
 4. ADA COMPLIANT WHEELCHAIR RAMPS SHALL BE INSTALLED AT EACH INTERSECTION OR DESIGNATED CROSSWALK LOCATION AND MUST MEET THE MOST CURRENT ADA STANDARDS AND CITY OF SAVANNAH SPECIFICATIONS AT THE TIME OF CONSTRUCTION.

STANDARD CONSTRUCTION CITY OF SAVANNAH
 DETAILS
SIDEWALK AND WALKWAY DETAILS
 PLATE NUMBER: P03
 APPROVED: SIGNATURE ON FILE N.T.S. DATE: FEBRUARY 2009
 CITY ENGINEER



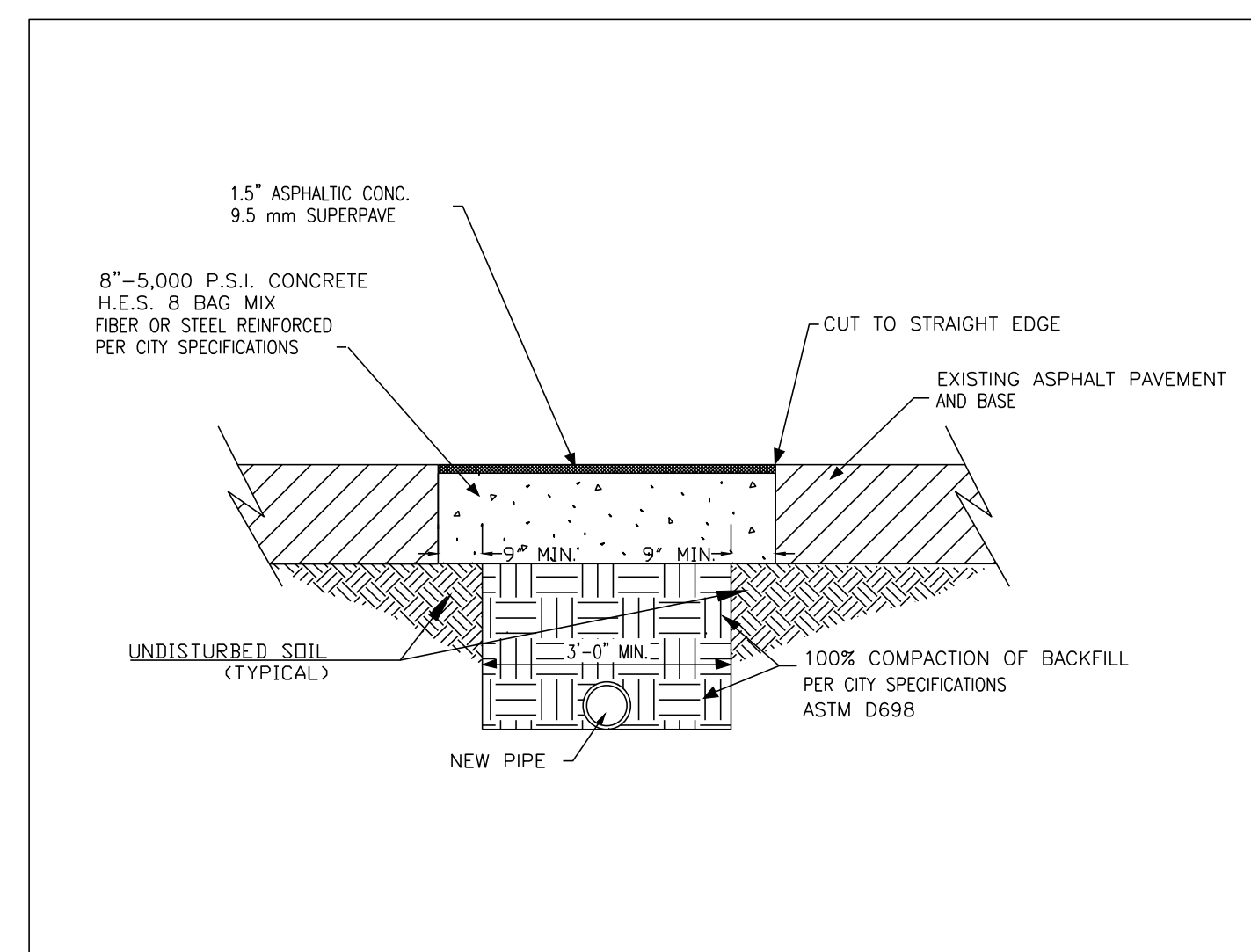
NOTES:
 1. WHERE SPECIFIED, DEPRESS THE CURB FOR INSTALLATION OF ADA COMPLIANT CURB RAMPS PER CITY PAVING DETAIL P06. WHERE A SIDEWALK CROSSES AT THE DRIVEWAY THERE MUST BE A 4' WIDE ACCESSIBLE PATH WITH NO MORE THAN 2% CROSS-SLOPE BETWEEN THE CURB RAMPS PER GA CODE 120-3-20-14(7).
 2. COMPACT BASE AND SUB-BASE TO 100% STANDARD (ASTM D-698) PER SECTION 02200, PART 3.01B OF CITY TECHNICAL SPECIFICATIONS.
 3. CONCRETE IN THE ROW TO BE 5000PSI PER SECTION 03300, CHAPTER 3.2 AND REINFORCED WITH FIBERMESH OR STEEL PER SECTION 3300, CHAPTER 5 OF CITY TECHNICAL SPECIFICATIONS.
 4. ALL PAVEMENT AND CONCRETE CUTS MUST BE STRAIGHT, SAWCUT LINES.

STANDARD CONSTRUCTION CITY OF SAVANNAH
 DETAILS
CONCRETE SWALE WITH FILLETS
 PLATE NUMBER: P04
 APPROVED: SIGNATURE ON FILE N.T.S. DATE: FEBRUARY 2009
 CITY ENGINEER



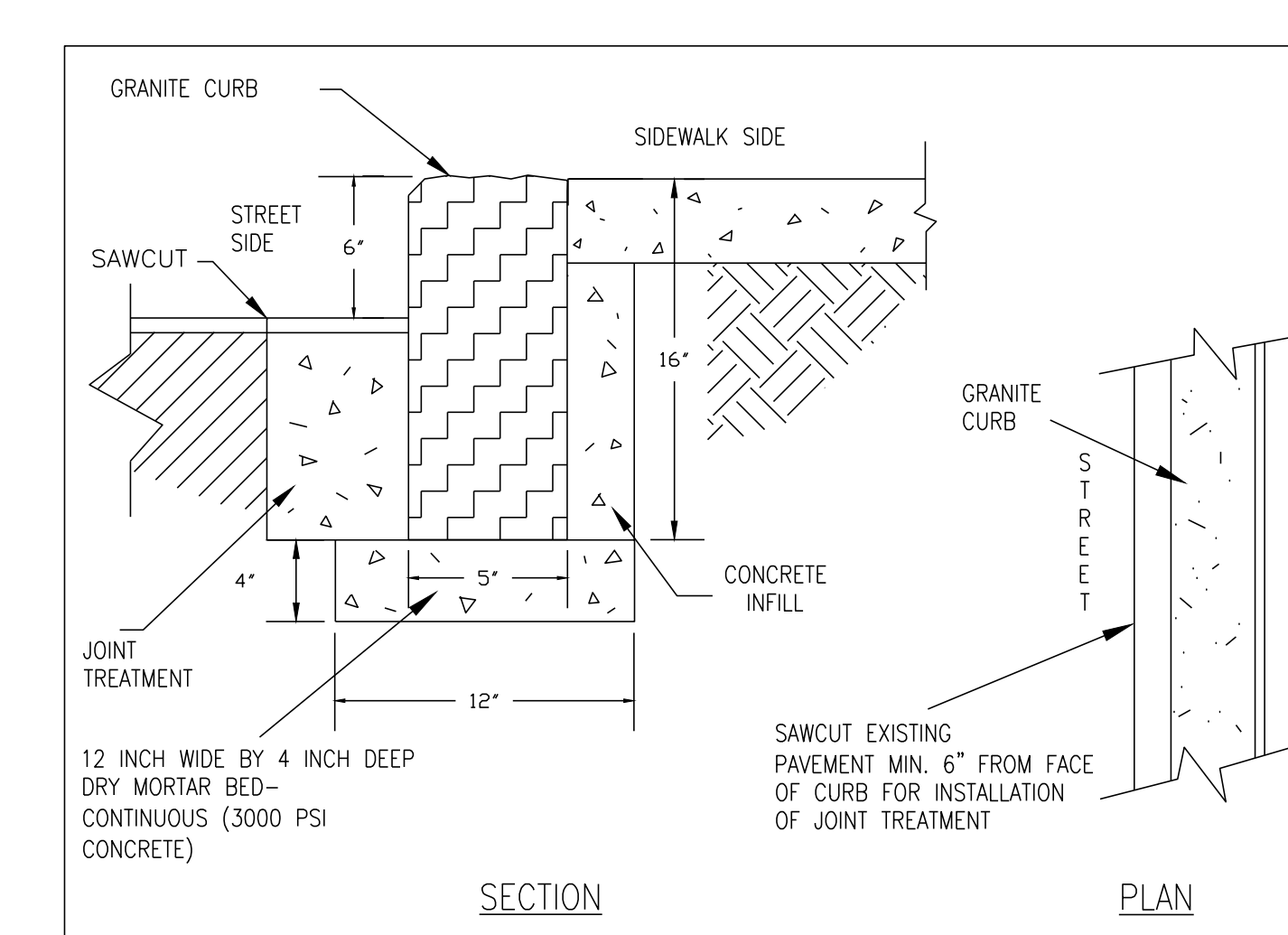
NOTES:
 1. HANDICAP RAMP CONSTRUCTION SHALL CONFORM TO ALL FEDERAL, STATE AND CITY OF SAVANNAH CODES AND SPECIFICATIONS.
 2. SURFACES SHALL MEET THE GUIDELINES OF THE ADA STANDARDS FOR ACCESSIBILITY, APPENDIX A, PART 36.
 3. WHERE SIDEWALK IS FLUSH WITH BACK OF CURB, DELETE ADDITIONAL 4" CONCRETE SIDEWALK AND TRANSITION THE CURB AND SIDEWALK SUCH THAT THE MAXIMUM SLOPE OF THE RAMP AND TRANSITION SIDEWALK IS 1:12.
 4. THE FLARED SIDES MUST HAVE A 1:10 SLOPE. IF THE DISTANCE X IS LESS THAN 48", THEN THE SLOPE OF THE FLARED SIDES SHALL NOT EXCEED 1:12.
 5. THE SLOPE OF THE GUTTER MUST NOT EXCEED 1:20 ADJACENT TO THE RAMP.
 6. DETECTABLE WARNING SHALL CONSIST OF RAISED TRUNCATED DOMES WITH A DIAMETER OF NOMINAL 0.9 INCHES, A HEIGHT OF NOMINAL 0.2 INCHES AND A CENTER TO CENTER SPACING OF NOMINAL 2.35 INCHES AND SHALL CONTRAST VISUALLY WITH ADJACING SURFACES. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF CONCRETE, THE WARNING AREA SHALL BE RED BRICK IN COLOR. IF THE SIDEWALK AND RAMP ARE CONSTRUCTED OF RED BRICK, THE WARNING AREA SHALL BE GRAY IN COLOR. THE COLOR USED TO PROVIDE CONTRAST SHALL BE AN INTEGRAL PART OF THE WALKING SURFACE.
 7. BRICK PAVERS SHALL BE SET IN A WET MORTAR BED. THE BED SHALL BE PLACED ON CONCRETE. THE CONCRETE SHALL BE A MINIMUM OF FOUR INCHES THICK.

STANDARD CONSTRUCTION CITY OF SAVANNAH
 DETAILS
HANDICAP RAMP
 PLATE NUMBER: P06
 APPROVED: SIGNATURE ON FILE N.T.S. DATE: JANUARY 2009
 CITY ENGINEER



NOTES:
 1. COMPACT BASE AND SUB-BASE TO 100% STANDARD (ASTM D698) PER SECTION 02200, PART 3.01B OF CITY TECHNICAL SPECIFICATIONS.
 2. CONCRETE IN THE ROW TO BE 5000PSI PER SECTION 03300, CHAPTER 3.2 AND REINFORCED WITH FIBERMESH OR STEEL PER SECTION 3300, CHAPTER 5 OF CITY TECHNICAL SPECIFICATIONS.
 3. ALL LATERAL STREET CUTS MUST BE COVERED WITH STEEL PLATES OF SUFFICIENT THICKNESS TO SPAN THE CUT WITHOUT NOTICEABLE DEFLECTION. PLATES TO REMAIN IN PLACE UNTIL THE CONCRETE BASE HAS GAINED SUFFICIENT STRENGTH TO WITHSTAND TRAFFIC LOADS (24 HOUR MINIMUM).
 4. WITH LONGITUDINAL CUTS EXCEEDING 150 FEET IN LENGTH, THE CONCRETE IN THE TRENCH WILL BE BROUGHT FLUSH WITH THE EXISTING PAVEMENT. PAVING WILL BE SAW CUT TO A STRAIGHT EDGE AND THE ENTIRE WIDTH OF THE ROADWAY WILL BE RESURFACED WITH A MINIMUM OF 1.5" OF 9.5mm HOT ASPHALT SUPERPAVE.
 5. ALL STREET PATCHES MUST BE SQUARE OR RECTANGULAR WITH STRAIGHT, SAW CUT EDGES.

STANDARD CONSTRUCTION CITY OF SAVANNAH
 DETAILS
BITUMINOUS PAVEMENT REPLACEMENT
 PLATE NUMBER: P07
 APPROVED: SIGNATURE ON FILE N.T.S. DATE: MARCH 2012
 CITY ENGINEER



NOTES:
 1. GRANITE CURBSTONE SHALL BE RECTANGULAR IN SHAPE, WITH A WIDTH OF 5 INCHES A DEPTH OF 16 INCHES, WITH A NOMINAL LENGTH OF 6 FEET. NO CURBSTONE SHALL BE LESS THAN 4 FEET OR GREATER THAN 8 FEET. WHEN THE BLOCKS ARE PLACED, THE MAXIMUM GAP BETWEEN THE BLOCKS SHOULD BE 1/8TH OF AN INCH. COMPACT BASE FOR NEW CURB 98% (ASTM D698).
 2. AFTER THE GRANITE CURB IS SET TO LINE AND GRADE, THE WIDENED AREA SHALL BE INFILLED WITH 3000 PSI CONCRETE. THE CONCRETE SHALL BE PLACED TO A DEPTH OF 1 1/2 INCHES BELOW FINAL PAVEMENT GRADE OR TO FINISHED GUTTER GRADE.
 3. AT EACH JOINT, 3000 PSI CONCRETE SHALL BE PLACED. THE CONCRETE SHALL BE PLACED APPROXIMATELY 10 INCHES DEEP, 3 INCHES ON EITHER SIDE OF THE JOINT AND A THICKNESS OF 6 INCHES. CONCRETE SHALL NOT BE PLACED WITHIN 4 INCHES OF THE TOP OF THE GRANITE CURB.

STANDARD CONSTRUCTION CITY OF SAVANNAH
 DETAILS
GRANITE CURB DETAIL
 PLATE NUMBER: P10
 APPROVED: SIGNATURE ON FILE N.T.S. DATE: FEBRUARY 2009
 CITY ENGINEER

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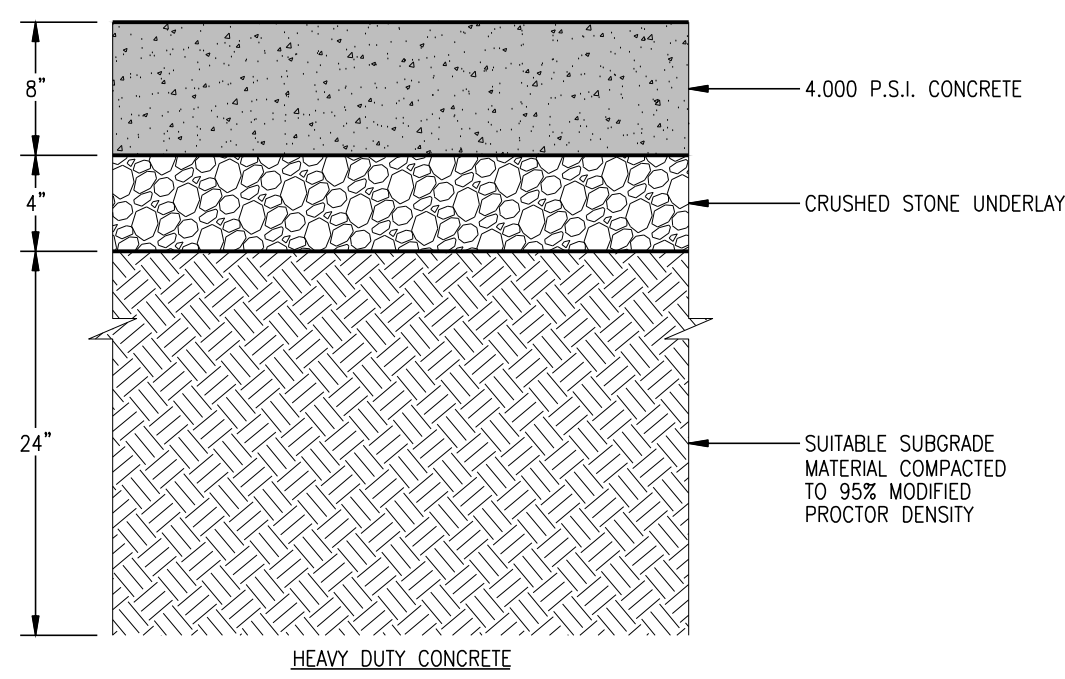
CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
 LOCATED IN SAVANNAH, GEORGIA
 PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
 DATE: 06/12/2023
 DRAWN BY: RAR
 CHECKED BY: DF
 SCALE: AS NOTED

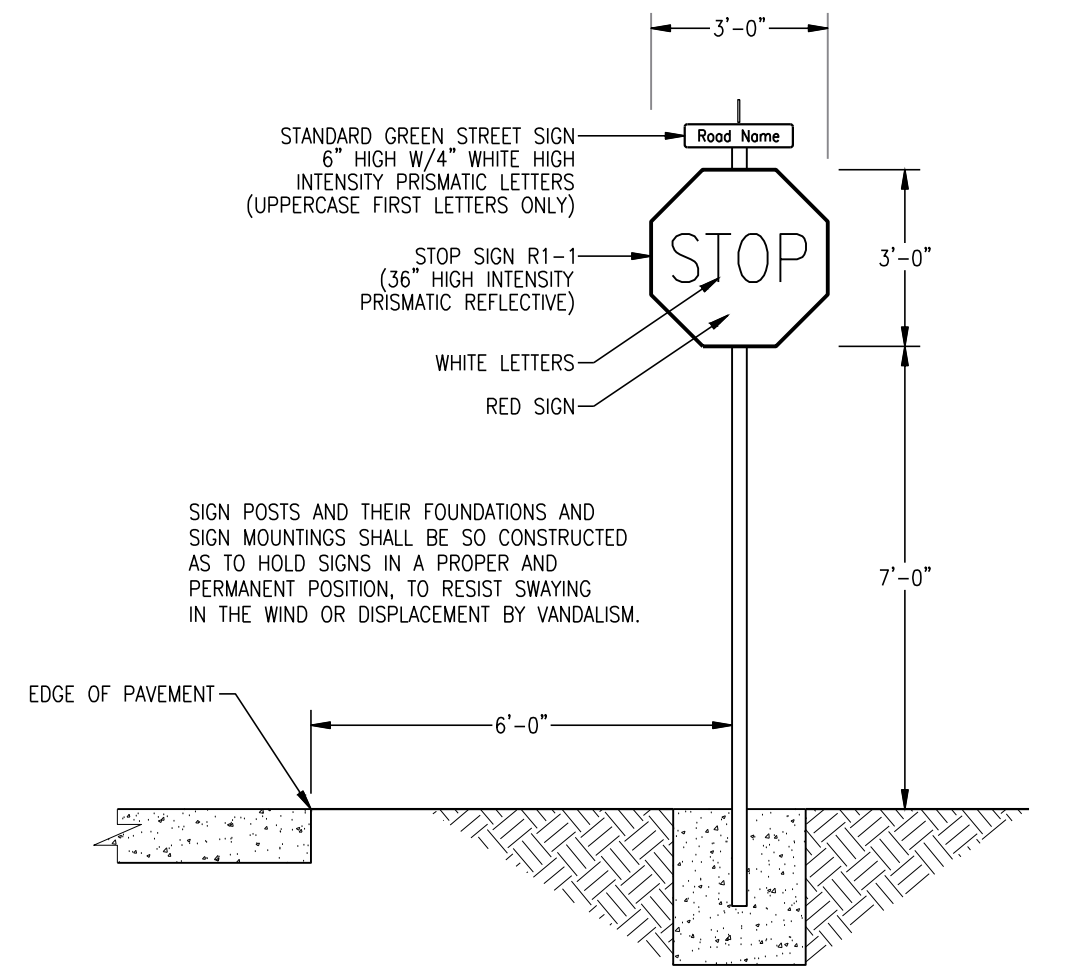
DETAILS

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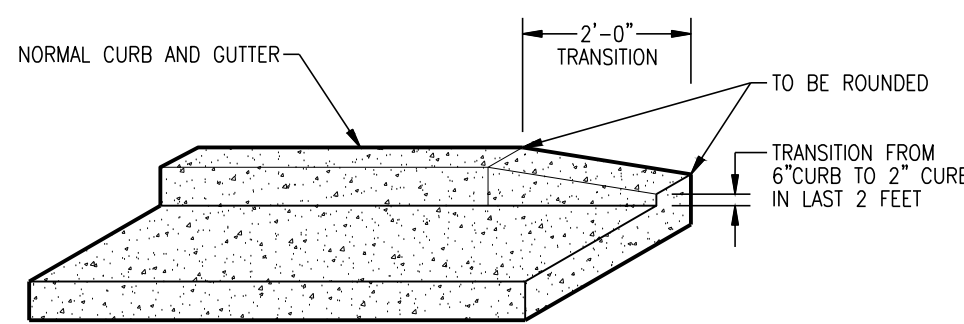




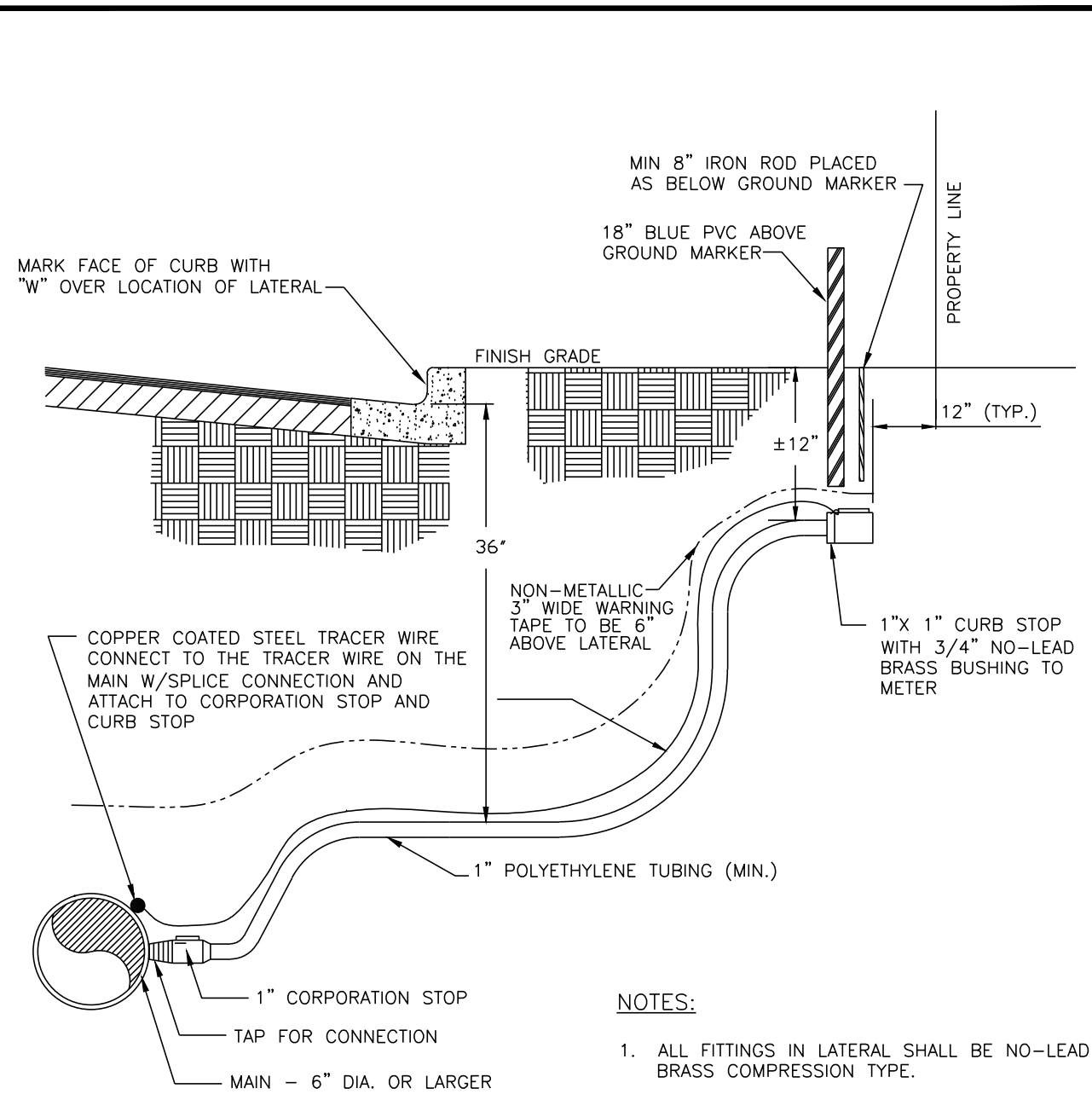
P-20 HEAVY DUTY CONCRETE SECTION NOT TO SCALE



P-26 TYPICAL STOP SIGN NOT TO SCALE



P-2 FEATHERING OF CONCRETE CURB & GUTTER NOT TO SCALE

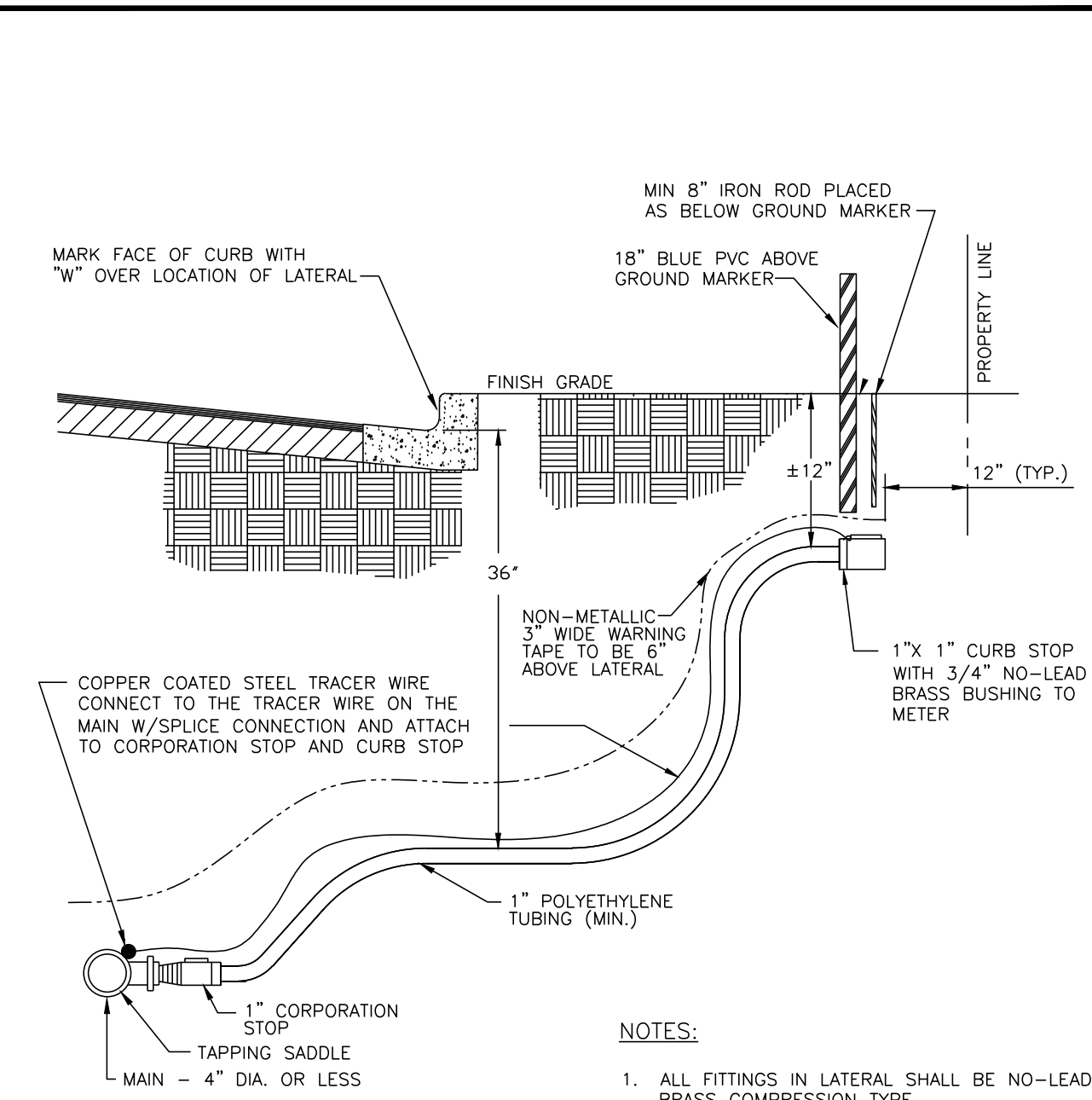


WATER SERVICE LATERAL (6" OR LARGER MAIN)

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH WATER RESOURCES AND PUBLIC WORKS BUREAU Planning & Engineering

SCALE: N.T.S. DATE: JAN 2017 PLATE NUMBER: W1

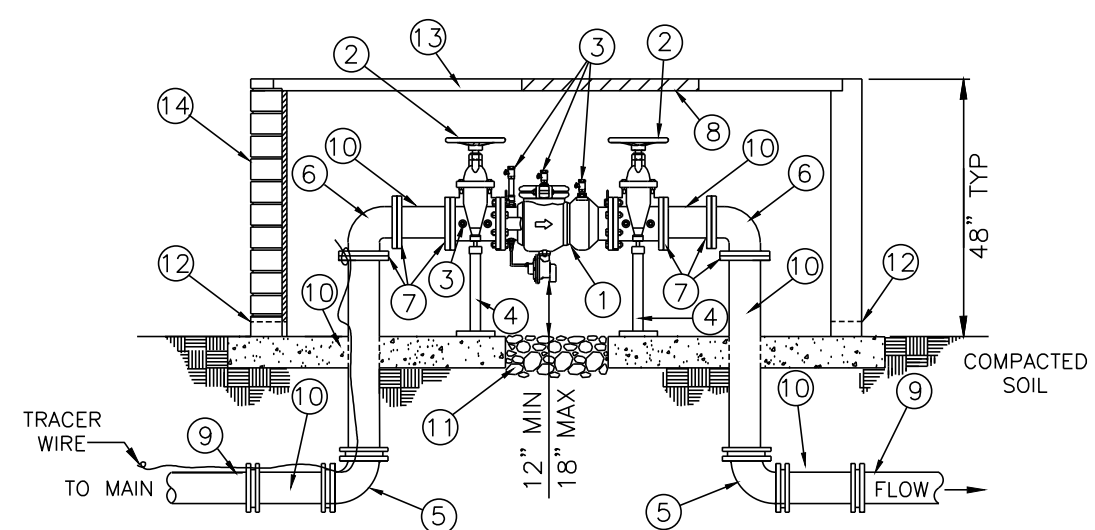


WATER SERVICE LATERAL (4" OR SMALLER MAIN)

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH WATER RESOURCES AND PUBLIC WORKS BUREAU Planning & Engineering

SCALE: N.T.S. DATE: JAN 2017 PLATE NUMBER: W2



ITEM	QUAN	DESCRIPTION
1	1	REDUCED PRESSURE ZONE DEVICE
2	2	O.S. & Y RESILIENT GATE VALVES
3	4	TEST COCKS W/ NO-LEAD BRASS PLUGS
4	2	2" SCH 40 GALV. PIPE STAND & BASE BOLTED TO FLANGE
5	2	MJ 45° OR 90° BENDS
6	2	FLANGED 45° OR 90° BENDS
7	6	RESTRAINED FLANGE ADAPTERS, MEGALUG (OR EQUIVALENT)
8	1	2" X 2" MIN. HATCH W/ LOCKING HASP
9	1	DI OR PVC PIPE, MECHANICAL JOINT W/ MEGALUG (OR EQUIVALENT)
10		DUCTILE IRON PIPE, CUT TO FIT W/ MEGALUGS
11		GRAVEL OR CONCRETE SLAB WITH GRAVEL DRAIN (BELOW GRADE VAULT)
12	2	DRAIN PORTS SIZE ACCORDING TO PIPE SIZE (ABOVE GRADE VAULT)
13	1	3/8" ALUMINUM TREAD PLATE / HATCH COVER W/ SUPPORTS AS NECESSARY
14	1	BOX-CONCRETE BLOCK, POURED CONCRETE OR PREFABRICATED BOX, HOT BOX OR EQUAL, ALL BACKFLOWS SHALL BE ENCLOSED

- NOTES:**
- FOR FINAL APPROVAL, ASSEMBLY MUST BE CENTERED IN ENCLOSURE. UNDER NO CONDITION WILL ANY CONNECTION BE ALLOWED BETWEEN THE SERVICE METER AND BACKFLOW PREVENTER. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED IMMEDIATELY DOWNSTREAM OF METER.
 - IF A PRESSURE MONITOR IS TO BE INSTALLED, ADD A TEE, VALVE, FITTINGS, AND MOUNT ON SUPPLY SIDE PRIOR TO BACKFLOW PREVENTER. UNDER NO CIRCUMSTANCE SHALL TEST PORTS BE MODIFIED OR UTILIZED FOR ANY USE, OTHER THAN BACKFLOW DEVICE TESTING.
 - ALL MECHANICAL JOINTS MUST BE RESTRAINED.
 - PROVIDE A MINIMUM CLEARANCE OF 12 INCHES BETWEEN THE INSIDE FACE OF THE ENCLOSURE AND THE PIPING AND VALVES.

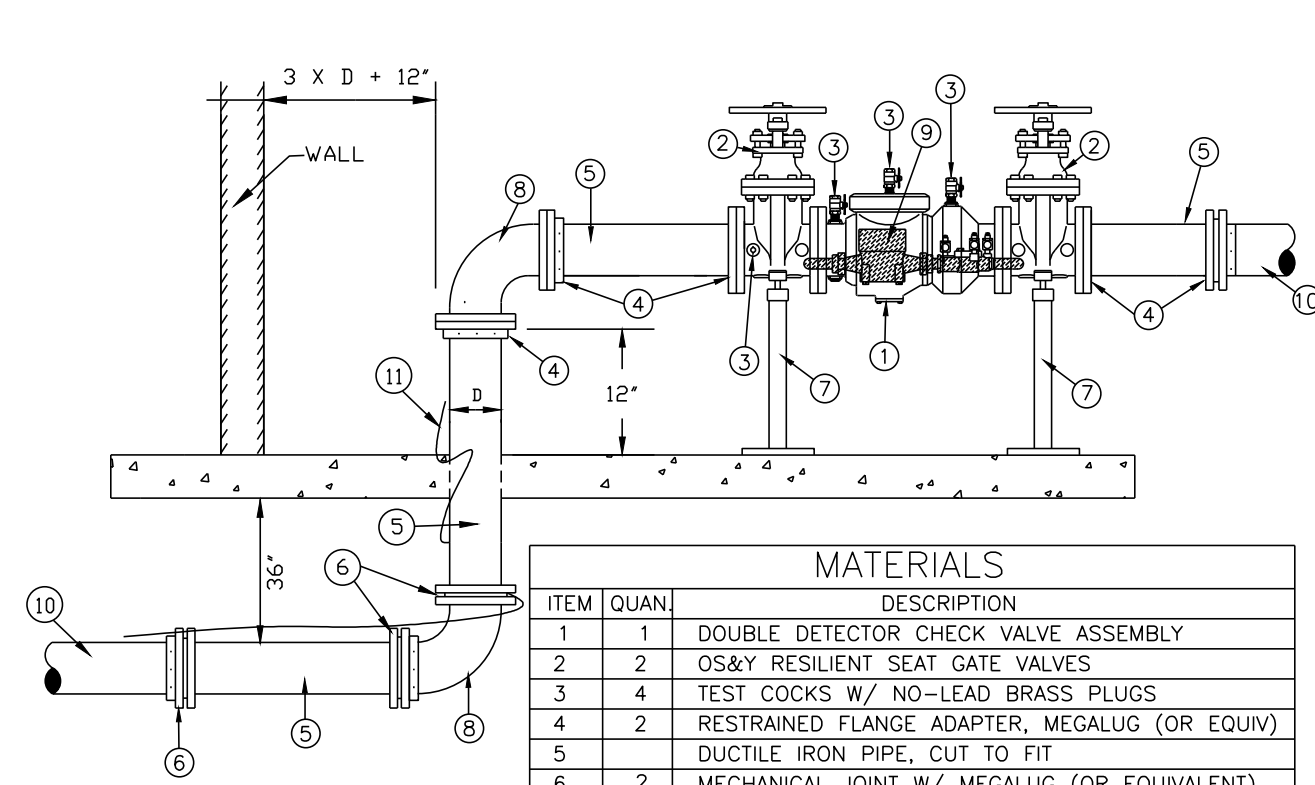
TYPICAL OUTSIDE INSTALLATION (3", 4", 6", 8", 10" & 12" SIZES)

REDUCED PRESSURE ZONE DEVICE FOR DOMESTIC SYSTEM (3" AND LARGER)

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH WATER RESOURCES AND PUBLIC WORKS BUREAU Planning & Engineering

SCALE: N.T.S. DATE: JAN 2017 PLATE NUMBER: W15



ITEM	QUAN	DESCRIPTION
1	1	DOUBLE DETECTOR CHECK VALVE ASSEMBLY
2	2	OS&Y RESILIENT SEAT GATE VALVES
3	4	TEST COCKS W/ NO-LEAD BRASS PLUGS
4	2	RESTRAINED FLANGE ADAPTER, MEGALUG (OR EQUIV)
5		DUCTILE IRON PIPE, CUT TO FIT
6	2	MECHANICAL JOINT W/ MEGALUG (OR EQUIVALENT)
7	2	2" SCH. 40 GALV. PIPE STAND & BASE BOLTED TO FLANGE
8	1	FLANGED DUCTILE IRON BEND (ABOVE GROUND) / MJ DUCTILE IRON BEND (BELOW GROUND)
9	1	3/4 CUBIC FT. BYPASS METER W/ CHECK
10	4	CS90 PVC PIPE OR DUCTILE IRON
11		TRACER WIRE

- NOTES:**
- UNDER NO CONDITION WILL ANY CONNECTION BE ALLOWED BETWEEN THE SERVICE METER AND BACKFLOW PREVENTER USED FOR SYSTEM CONTAINMENT. BACKFLOW PREVENTER SHALL ALWAYS BE INSTALLED DOWNSTREAM OF METER.
 - IF A PRESSURE MONITOR IS TO BE INSTALLED, ADD A TEE, VALVE, FITTINGS, AND MOUNT ON SUPPLY SIDE PRIOR TO BACKFLOW PREVENTER; UNDER NO CIRCUMSTANCE SHALL TEST PORTS BE MODIFIED OR UTILIZED FOR THIS OR OTHER APPLICATION, OTHER THAN BACKFLOW DEVICE TESTING.
 - IF ADDITIONAL SIAMESE CONNECTION IS REQUIRED FOR FIRE SERVICE SEE DETAIL W12.
 - RISER COMING THRU THE FLOOR SHALL BE 12 INCHES PLUS 3 TIMES THE DIAMETER OF THE PIPE AWAY FROM NEAREST WALL. ALL UNDERGROUND PIPING SHALL BE RESTRAINED JOINT. ALLOWANCES SHALL BE MADE FOR THE EXPANSION OF THE CONCRETE AROUND THE RISER.
 - PROTECT BOLTS AND THREADS FROM CONCRETE.

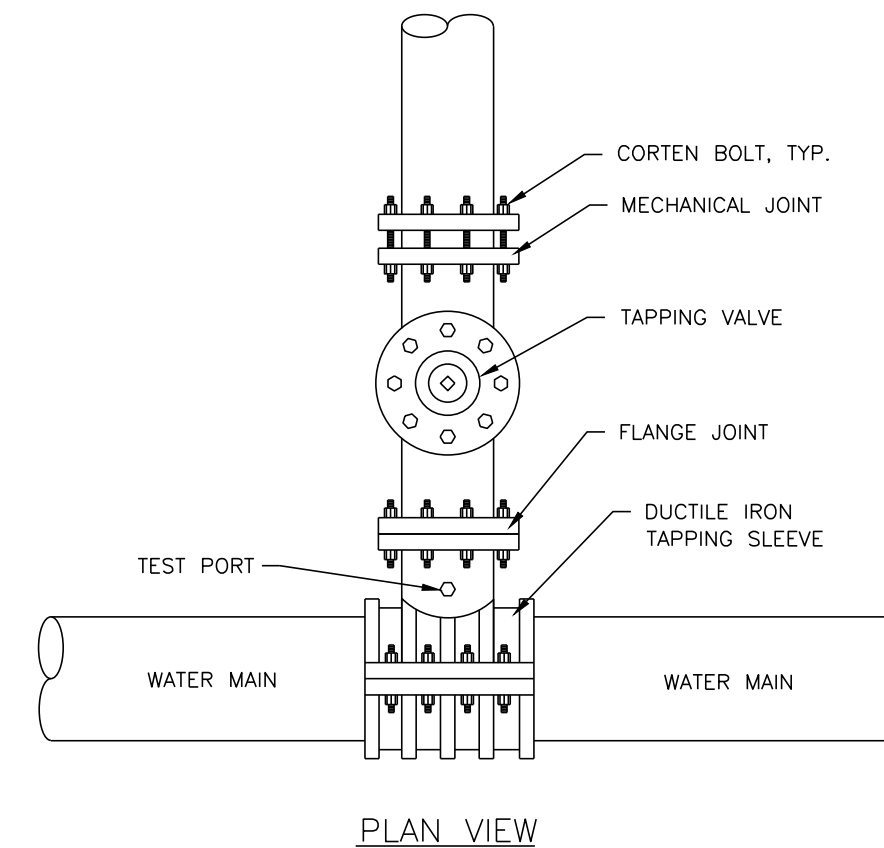
INDOOR DOUBLE DETECTOR CHECK VALVE FOR FIRE SYSTEM (3", 4", 6", 8", 10" & 12" SIZES)

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH WATER RESOURCES AND PUBLIC WORKS BUREAU Planning & Engineering

SCALE: N.T.S. DATE: JAN 2017 PLATE NUMBER: W21B

- NOTE:**
- THE TAPPING SLEEVE AND VALVE MUST BE INSTALLED IN A MANHOLE. (SEE DETAILS W25C & W25D FOR THE MANHOLE DETAILS)



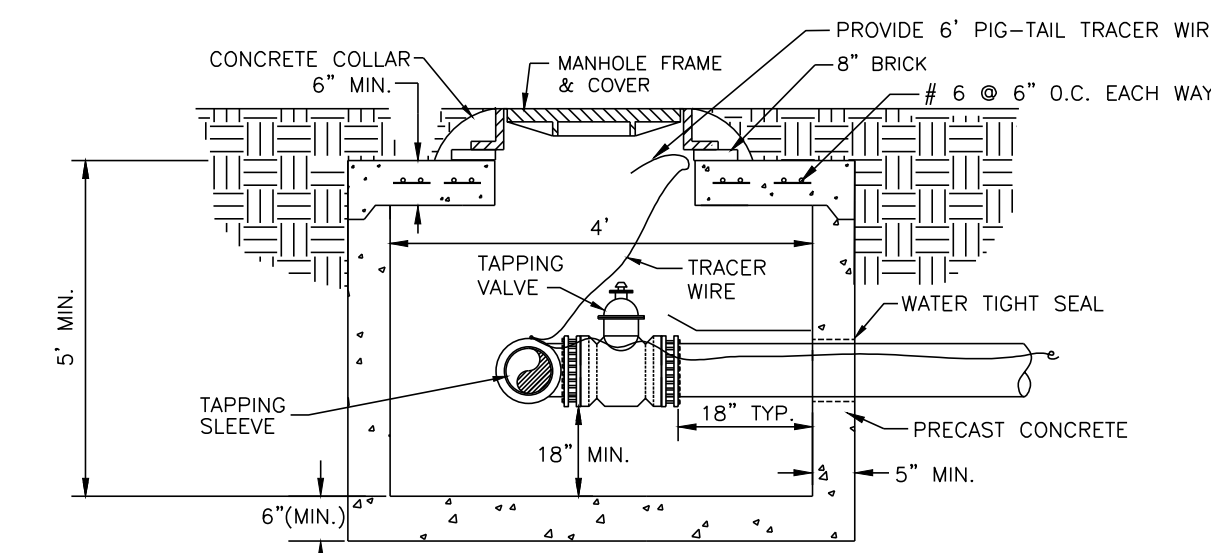
PLAN VIEW

TYPICAL TAPPING SLEEVES & TAPPING VALVE

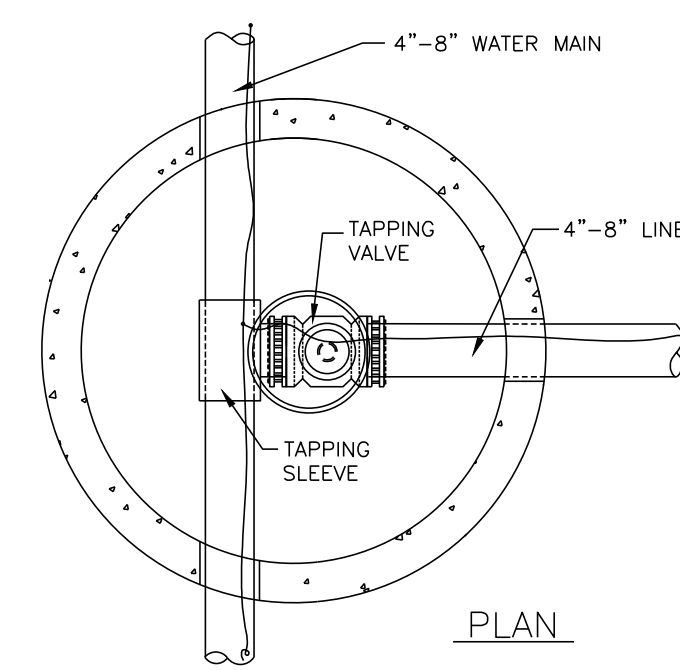
STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH WATER RESOURCES AND PUBLIC WORKS BUREAU Planning & Engineering

SCALE: N.T.S. DATE: JAN 2017 PLATE NUMBER: W24



SECTION



PLAN

VALVE MANHOLE FOR 4"-8" TAPPING SLEEVES & VALVES

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH WATER RESOURCES AND PUBLIC WORKS BUREAU Planning & Engineering

SCALE: N.T.S. DATE: JAN 2017 PLATE NUMBER: W25C

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GEORGIA REGISTERED PROFESSIONAL ENGINEER
DANIELAS L. FAIRCLOTH
6/12/23

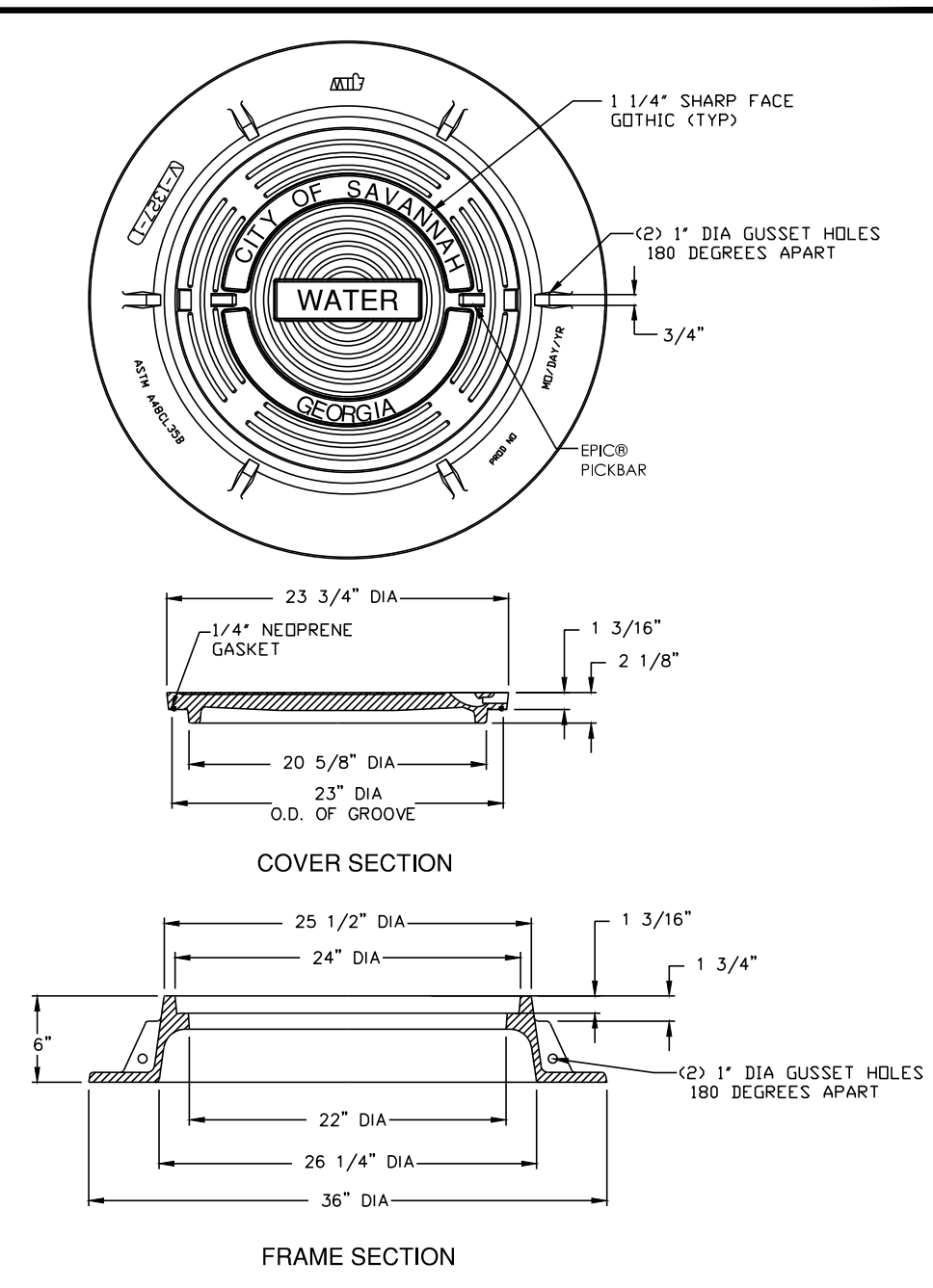
REVISIONS:

CIVIL CONSTRUCTION PLANS FOR
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LOCATED IN SAVANNAH, GEORGIA
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JOB NUMBER: 22-406
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DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

DETAILS

SHEET:
C6.3



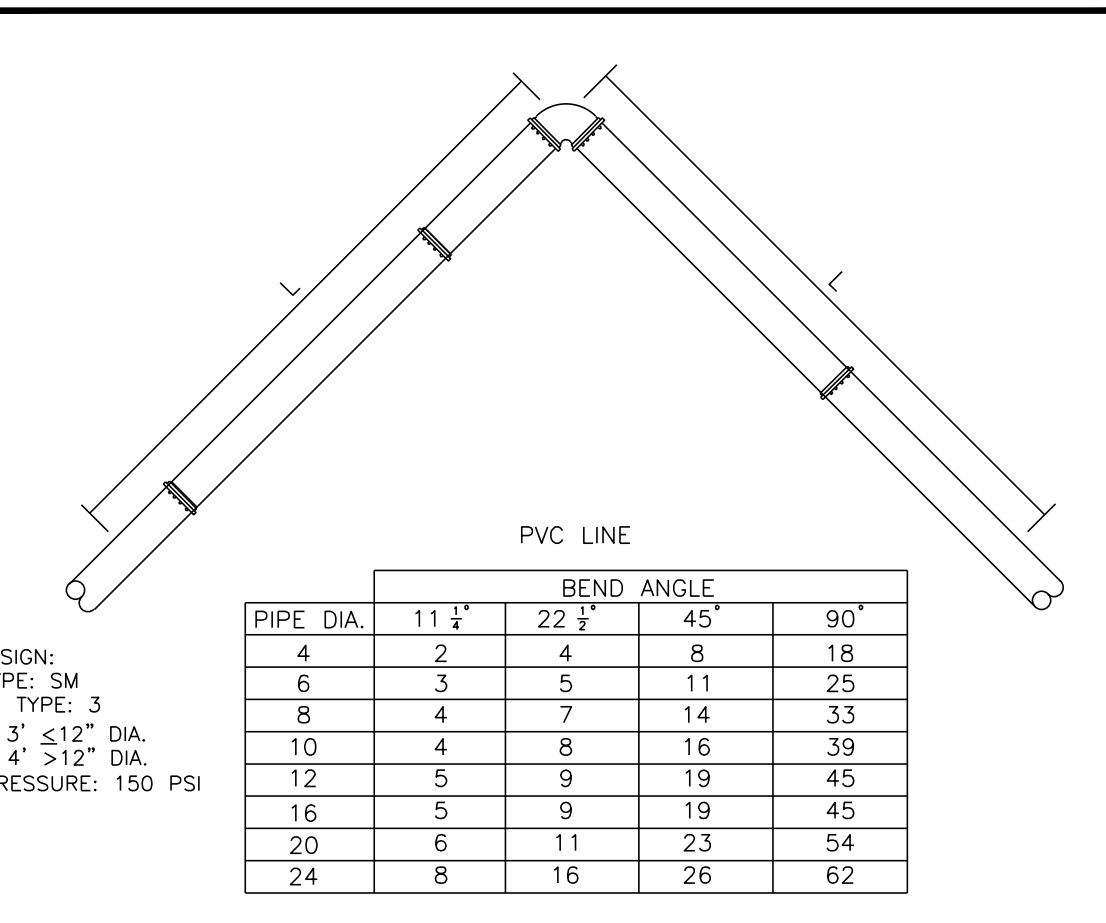
NOTE:
1. MANHOLE RING AND COVER SHALL BE IN COMPLIANCE TO CITY OF SAVANNAH SPECIFICATION 02550

WATER MANHOLE RING & COVER

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: W27



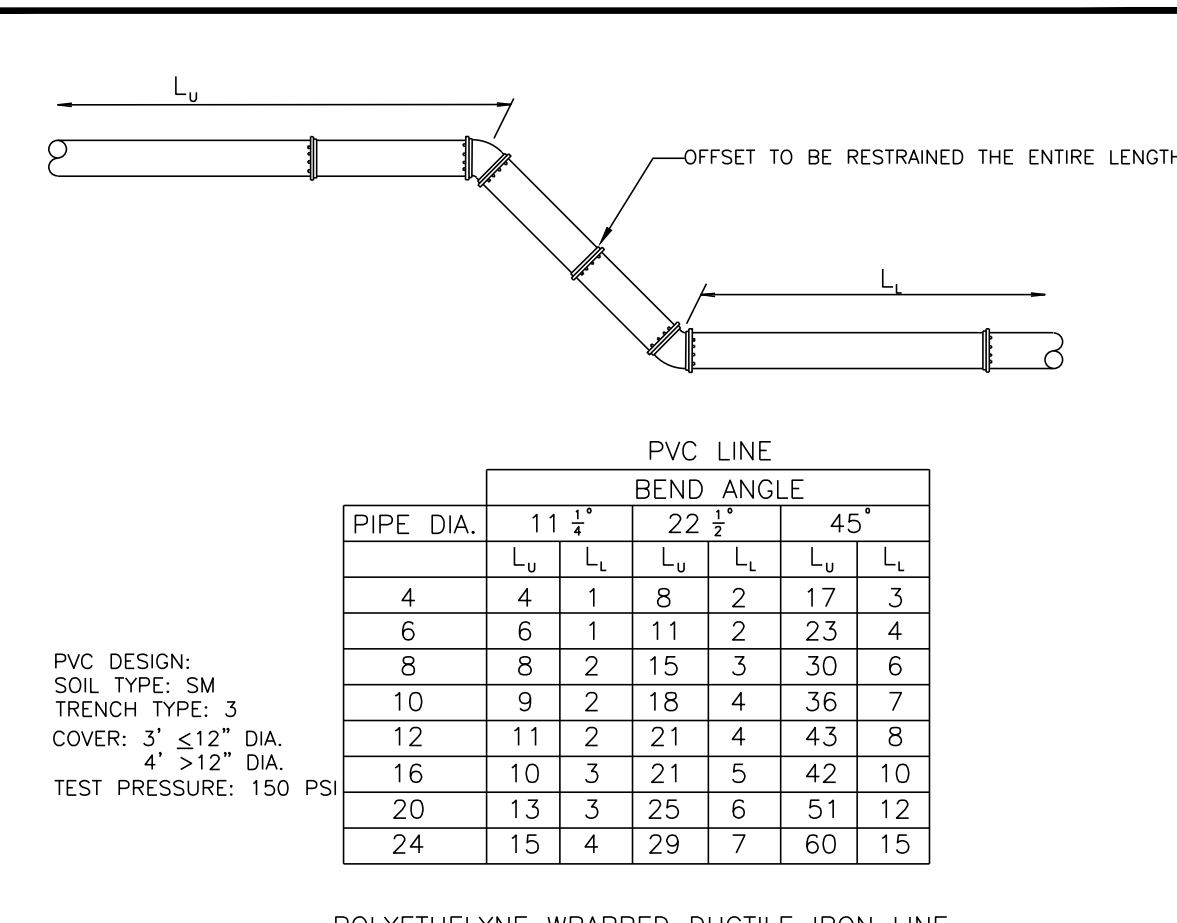
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

HORIZONTAL BEND RESTRAINT

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: W28



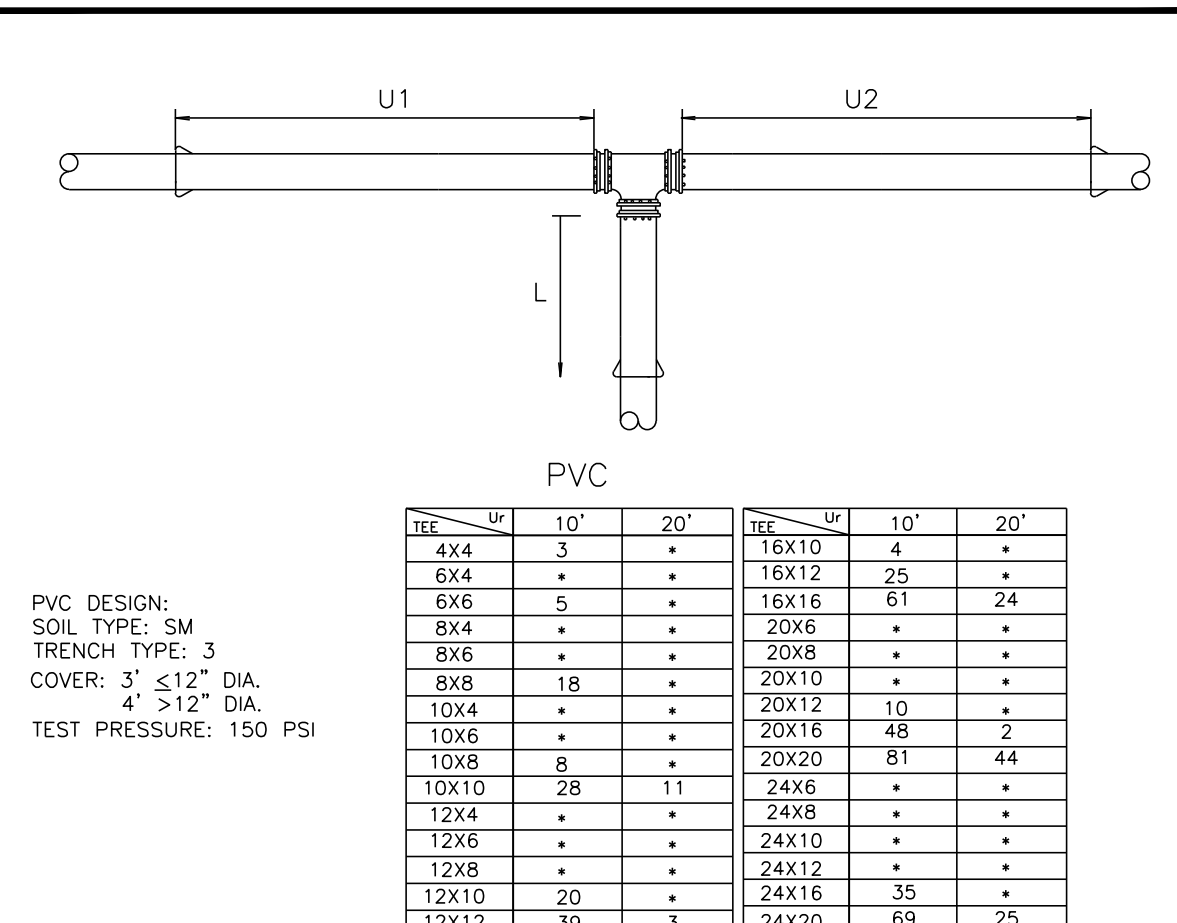
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. PIPE DIA. IS IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER

VERTICAL BEND RESTRAINT

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: W29



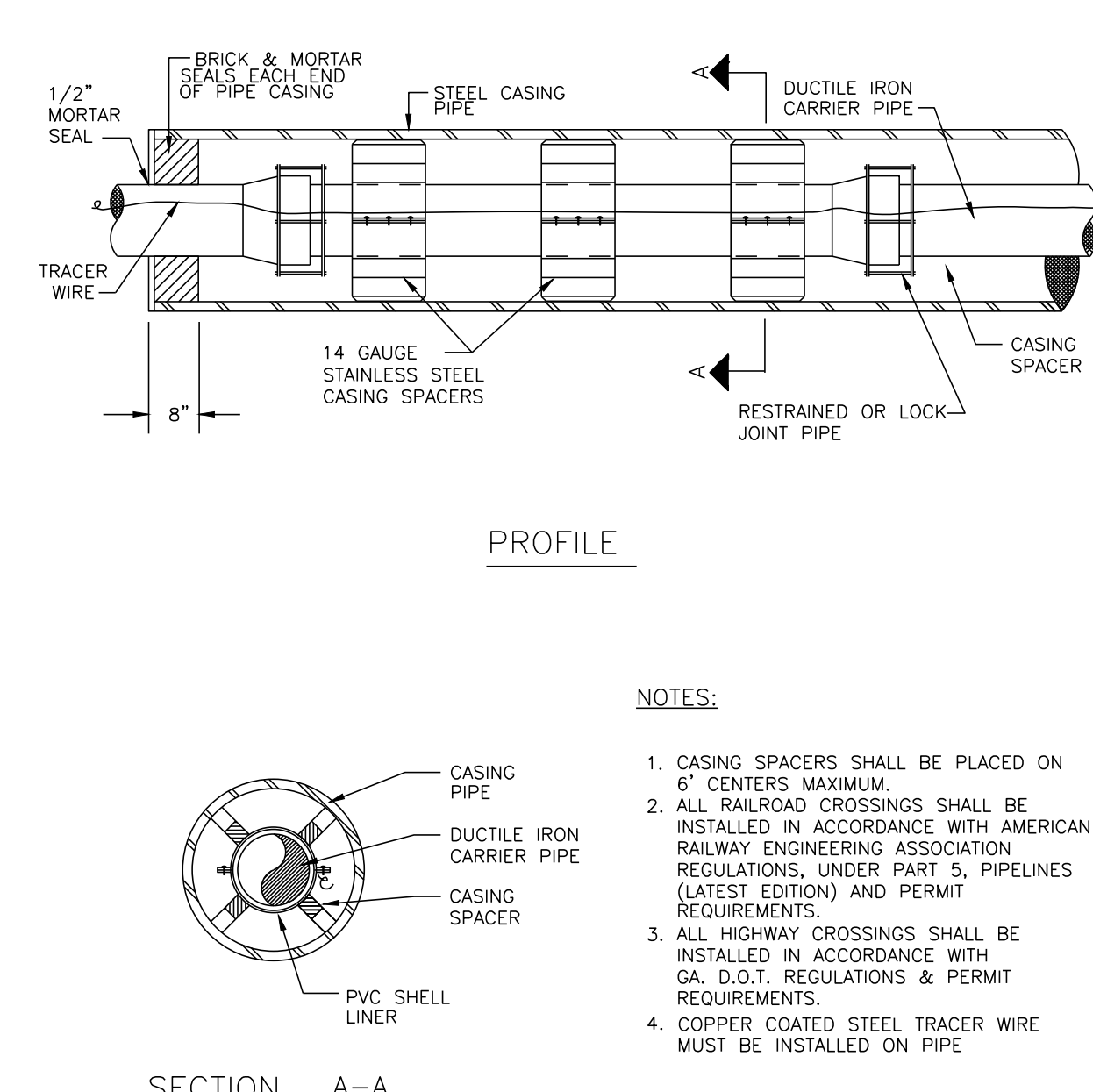
NOTES:
1. LENGTH OF RESTRAINT SHOWN IS IN FEET. FITTING DIAMETERS ARE IN INCHES.
2. WHERE LINES CONSIST OF BOTH DUCTILE IRON AND PVC WITHIN THE LIMITS OF REQUIRED RESTRAINT, LIMITS FOR PVC SHALL APPLY.
3. U1 AND U2 = UNINTERRUPTED STRAIGHT RUNS OF PIPE IN EACH DIRECTION.
4. UR = THE SMALLER OF U1 OR U2.
5. L = MINIMUM RESTRAINED LENGTH ALONG THE BRANCH.
6. WHERE UR IS LESS THAN 5', RESTRAIN TEE AS A 90° HORIZONTAL BEND.
7. INFORMATION IN THE TABLES ABOVE ARE BASED ON THE DESIGN INFORMATION SHOWN. THE ENGINEER SHALL PROVIDE AMENDED RESTRAINT LENGTHS IF SITE CONDITIONS DIFFER.

TEE RESTRAINT (PVC PIPE)

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: W30



NOTES:
1. CASING SPACERS SHALL BE PLACED ON 6" CENTERS MAXIMUM.
2. ALL RAILROAD CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH AMERICAN RAILWAY ENGINEERING ASSOCIATION REGULATIONS, UNDER PART 5, PIPELINES (LATEST EDITION) AND PERMIT REQUIREMENTS.
3. ALL HIGHWAY CROSSINGS SHALL BE INSTALLED IN ACCORDANCE WITH GA. D.O.T. REGULATIONS & PERMIT REQUIREMENTS.
4. COPPER COATED STEEL TRACER WIRE MUST BE INSTALLED ON PIPE

STEEL CASING INSTALLATION

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: W43A

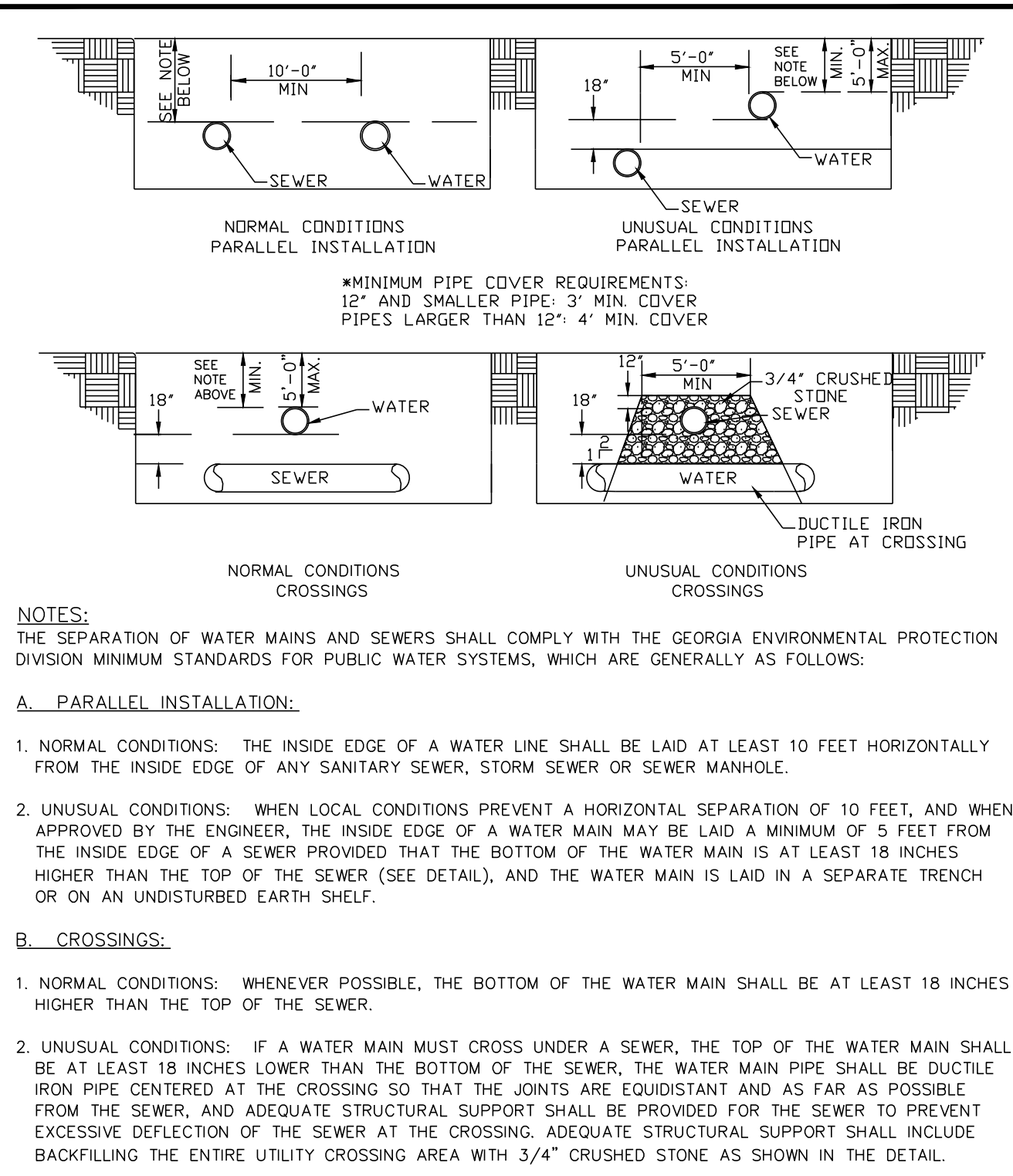
NOTES:
1. ALL CONSTRUCTION MATERIALS AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CITY OF SAVANNAH'S LATEST CONSTRUCTION SPECIFICATIONS AND DETAILS. THE SYSTEM SHALL BE DESIGNED AND TESTED PER THE SPECIFICATIONS AND REQUIREMENTS MAINTAINED BY THE CITY ENGINEER.
2. THE WATER SERVICE LATERAL SERVING THE FACILITY SHALL BE INSTALLED BY THE DEVELOPER/CONTRACTOR FROM THE WATER MAIN TO THE METERS. THE CITY OF SAVANNAH WILL ONLY MAKE THE MET TAP. THE CITY WILL NOT INSTALL THE WATER SERVICE LATERAL.
3. ALL MATERIALS USED AND COMING INTO CONTACT WITH DRINKING WATER DURING ITS DISTRIBUTION SHALL NOT ADVERSELY AFFECT DRINKING WATER QUALITY AND PUBLIC HEALTH AND MUST BE CERTIFIED FOR CONFORMANCE WITH AMERICAN NATIONAL STANDARDS INSTITUTE/NATIONAL SANITATION FOUNDATION STANDARD 61 (ANSI/NSF STANDARD 61).
4. IN ALL WATER LINE PROJECTS, CARE WILL BE TAKEN TO KEEP THE INTERIOR OF THE WATER PIPE CLEAN PRIOR TO CONNECTION TO THE CITY SYSTEM.
A. PIPE, FITTINGS, VALVES AND OTHER ACCESSORIES SHALL, UNLESS OTHERWISE DIRECTED, BE UNLOADED AT THE POINT OF DELIVERY, AND STORED WHERE THEY WILL BE PROTECTED AND WILL NOT BE A HAZARD TO TRAFFIC. THEY SHALL AT ALL TIMES BE HANDLED WITH CARE TO AVOID DAMAGE. THE INTERIOR OF ALL PIPES, FITTINGS AND OTHER ACCESSORIES SHALL BE KEPT FREE FROM DIRT AND FOREIGN MATTER AT ALL TIMES.
B. ANY DEFECTIVE, DAMAGED, OR UNSOUND PIPE SHALL BE REJECTED. ALL FOREIGN WATER OR DIRT SHALL BE REMOVED FROM THE INSIDE OF THE PIPE BEFORE IT IS LOWERED INTO ITS POSITION IN THE TRENCH AND SHALL BE KEPT CLEAN BY APPROVED MEANS DURING AND AFTER LAYING. CARE SHALL BE TAKEN TO PREVENT DIRT FROM ENTERING THE JOINT SPACE. DURING INSTALLATION, WHEN PIPE LAYING IS NOT IN PROGRESS, A MECHANICAL JOINT PLUG OR CAP, OR APPROVED EQUAL, WILL BE USED TO FORM A WATER TIGHT SEAL AT BOTH ENDS OF THE LINE BEING LAID. NO TRENCH WATER SHALL BE PERMITTED TO ENTER THE PIPE.
C. CLEAN THE INTERIORS OF ALL PIPES BY BRUSHING, SWABBING OR WASHING OUT OF ALL DIRT BEFORE LAYING.
D. FLUSH THE NEW PIPE LINES UNTIL THE WATER RUNS CLEAR AT THE END OF ALL MAINS AND LATERALS. THIS SHOULD BE DONE AFTER THE PRESSURE TEST AND BEFORE DISINFECTION. FLUSH NEW LINES WITH SUFFICIENT FLOW TO OBTAIN A FLUSHING VELOCITY OF 2.5 FT/SEC. FLUSH LINES UNTIL WATER RUNS FREE OF DEBRIS. COORDINATE FLUSHING ACTIVITIES WITH CITY PERSONNEL.
5. ANY METER OR HYDRANT REMOVED FROM THE SITE SHALL BE RETURNED TO THE CONVEYANCE AND DISTRIBUTION DEPARTMENT.
6. AN APPROVED WATER SUPPLY FOR FIRE PROTECTION, EITHER TEMPORARY OR PERMANENT, SHALL BE MADE AVAILABLE AS SOON AS COMBUSTIBLE MATERIAL ARRIVES ON THE SITE.
7. ALL WATER USED FOR CONSTRUCTION SHALL BE METERED THROUGH AN APPROVED BACKFLOW PREVENTION DEVICE AND FIRE HYDRANT METER OBTAINED FROM THE CONVEYANCE AND DISTRIBUTION DEPARTMENT.
8. ALL ABANDONED WATER LINES SHALL BE CAPPED AT THE MAIN AND THE PIPES PLUGGED.
9. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE WATER LINES ARE PLACED WITHIN THE EASEMENTS WITH A MINIMUM 7'-6" AVAILABLE FROM PIPE CENTERLINE TO EASEMENT LINE.
10. CONTACT THE UTILITIES PROTECTION CENTER (811 IN GEORGIA OR 1-800-282-7411) FOR LOCATION OF CITY WATER LINES A MINIMUM OF SEVENTY-TWO (72) HOURS PRIOR TO DIGGING.
11. CONTRACTOR SHALL NOTIFY RESIDENTS A MINIMUM OF 24 HOURS IN ADVANCE OF ANY WORK THAT MAY IMPACT THEM, INCLUDING BUT NOT LIMITED TO PARKING STALL IMPACT, LOSS OF SERVICE, DRIVEWAY CUTS, REMOVAL/RELOCATION OF FENCES AND MAIL BOXES, SIDEWALK IMPACTS, ETC.

WATER GENERAL NOTES

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: W44

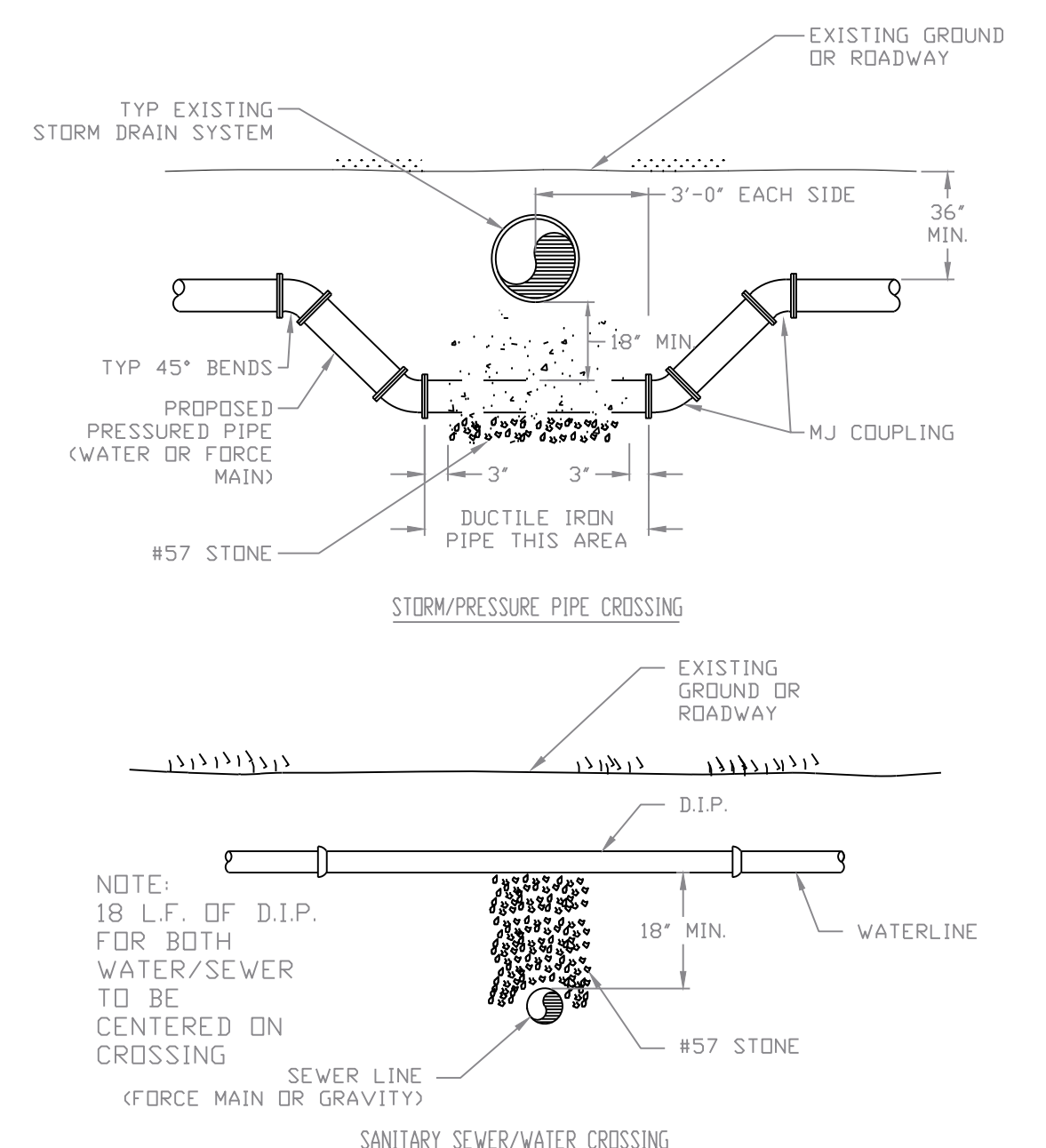


MINIMUM WATER AND SEWER PIPE SEPARATION REQUIREMENTS

STANDARD CONSTRUCTION DETAILS

CITY OF savannah
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: WS1



S-29
N.T.S.
Coleman Company, Inc.

COLEMAN COMPANY
ENGINEERS • SURVEYORS
Savannah, Georgia | (912) 900-0044 | CCL@SNAV.COM

RELEASED FOR CONSTRUCTION

GEORGIA
REGISTERED PROFESSIONAL ENGINEER
DANIELAS L. FAIRCLOTH
61612

REVISIONS:

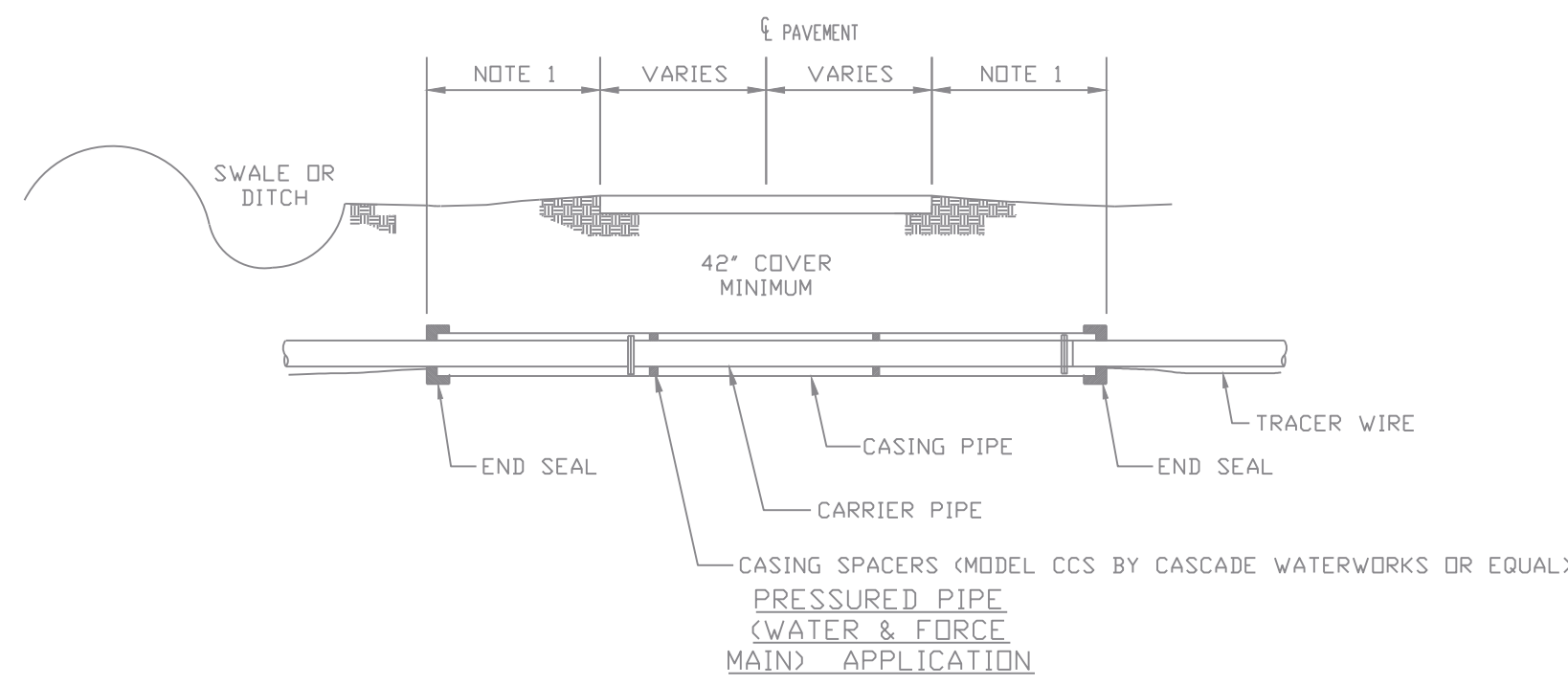
CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
DATE: 06/12/2023
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

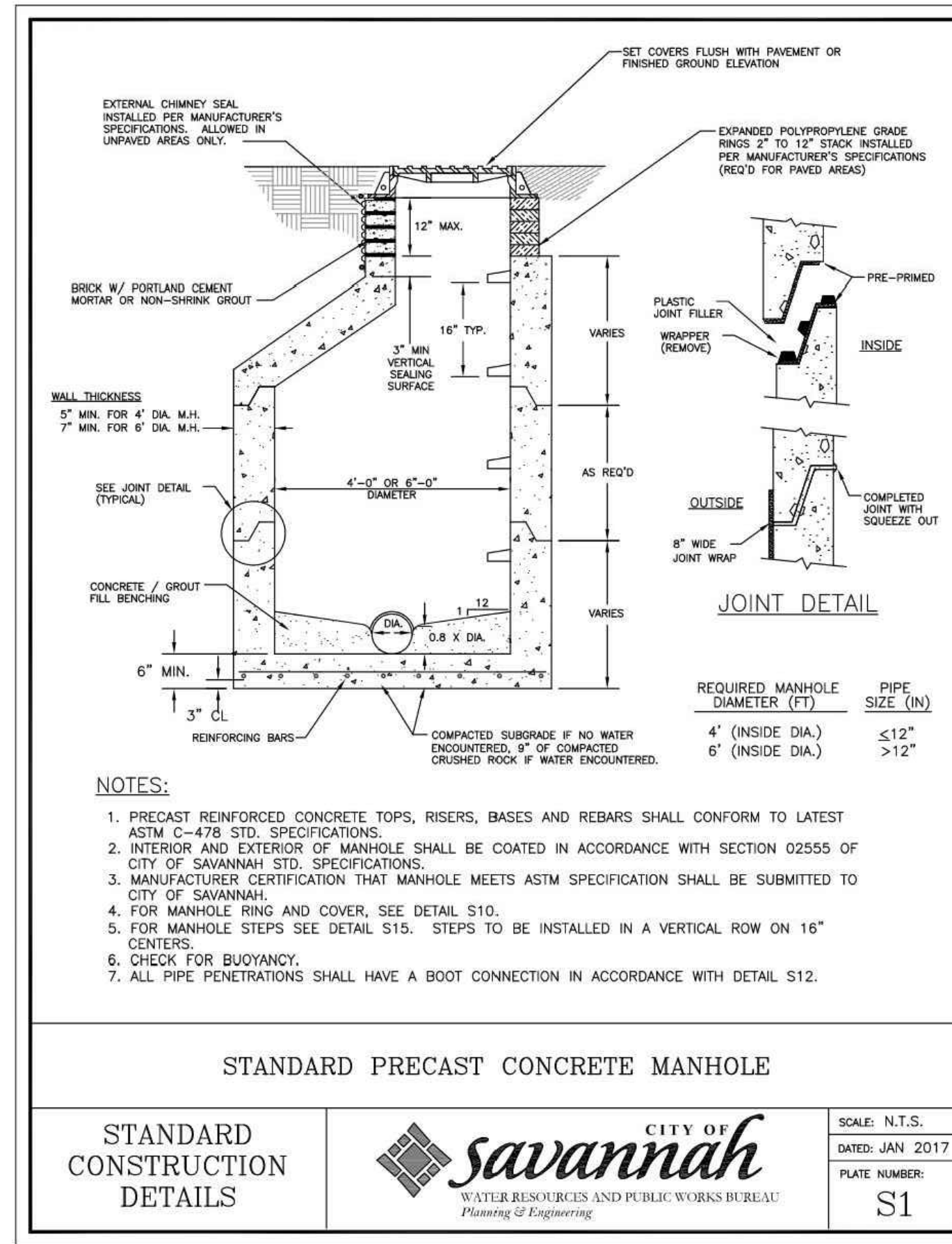
DETAILS

SHEET:
C6.4

- NOTE:
1. CASING PIPE TO EXTEND A MINIMUM OF 5' BEYOND EDGE OF PAVEMENT, 10 FEET ON STATE ROUTES.
 2. ALL CONSTRUCTION TO BE INSPECTED AND APPROVED BY THE MUNICIPALITY, ENGINEER AND/OR STATE HIGHWAY DEPARTMENT.
 3. CONTRACTOR IS RESPONSIBLE FOR NOTIFICATION AND OBTAINING INSPECTION.
 4. SIZE AND WALL THICKNESS OF CASING TO BE APPROVED IN ACCORDANCE WITH THE MUNICIPALITY'S SPECIFICATIONS.
 5. PLUG BOTH ENDS OF CASING.
 6. CASING SPACERS SHALL BE IN ACCORDANCE WITH THE MUNICIPALITY'S SPECIFICATIONS.
 7. SPACING OF CASING SPACERS SHALL BE PER MANUFACTURER'S SPECIFICATIONS BASED UPON CARRIER PIPE MATERIAL.



JACK AND BORE DETAIL
S-12 N.T.S. Coleman Company, Inc.

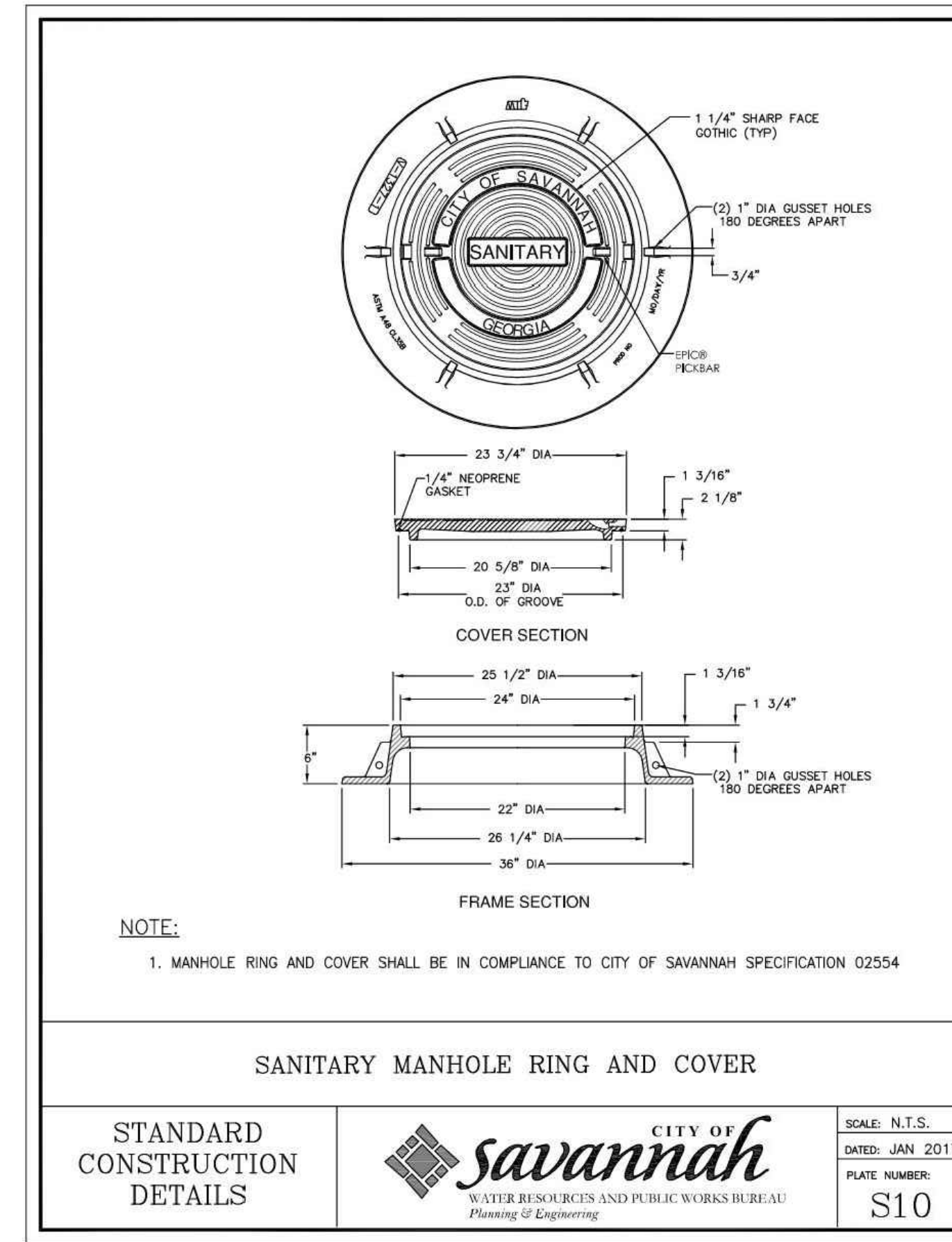


STANDARD PRECAST CONCRETE MANHOLE

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: S1

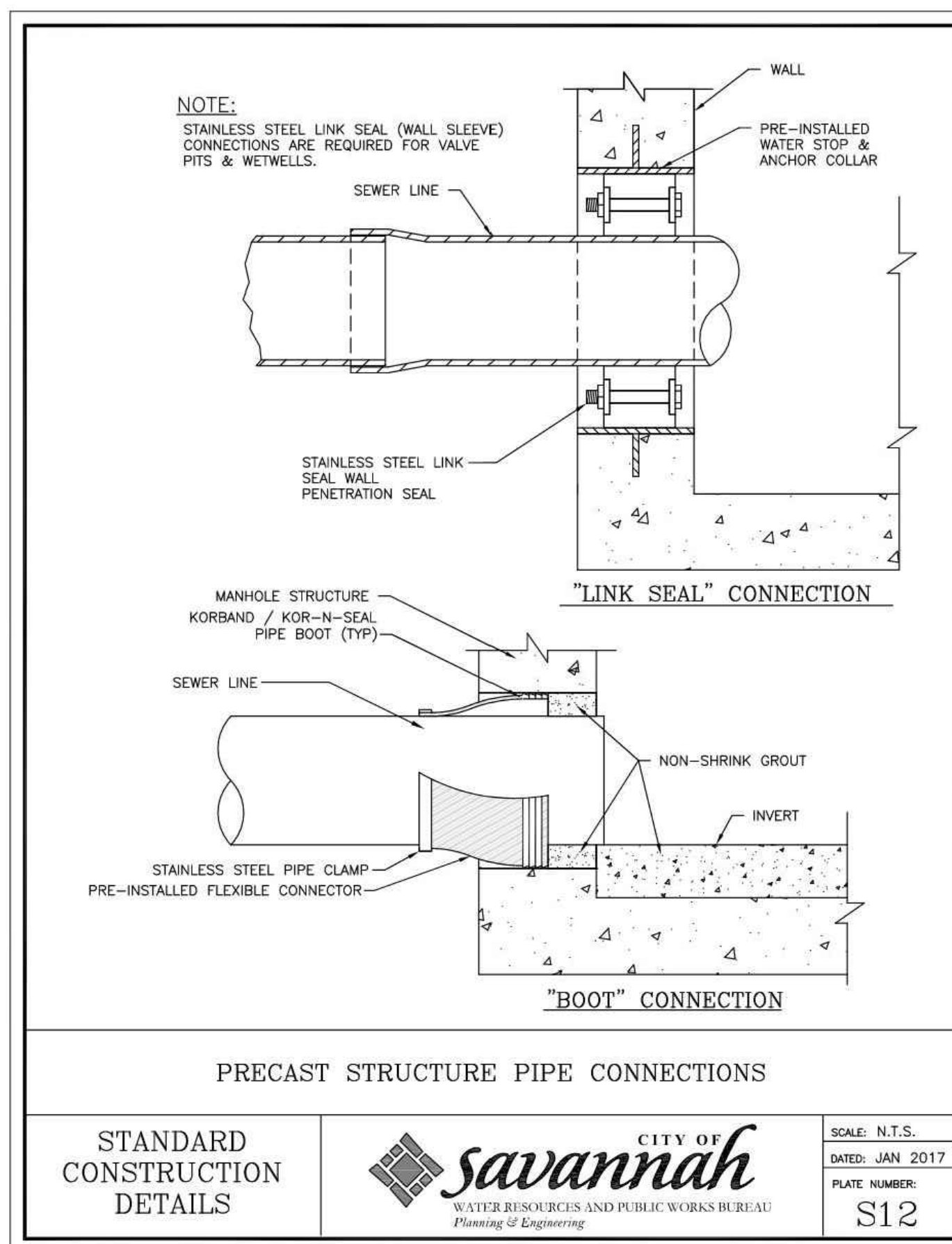


SANITARY MANHOLE RING AND COVER

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: S10

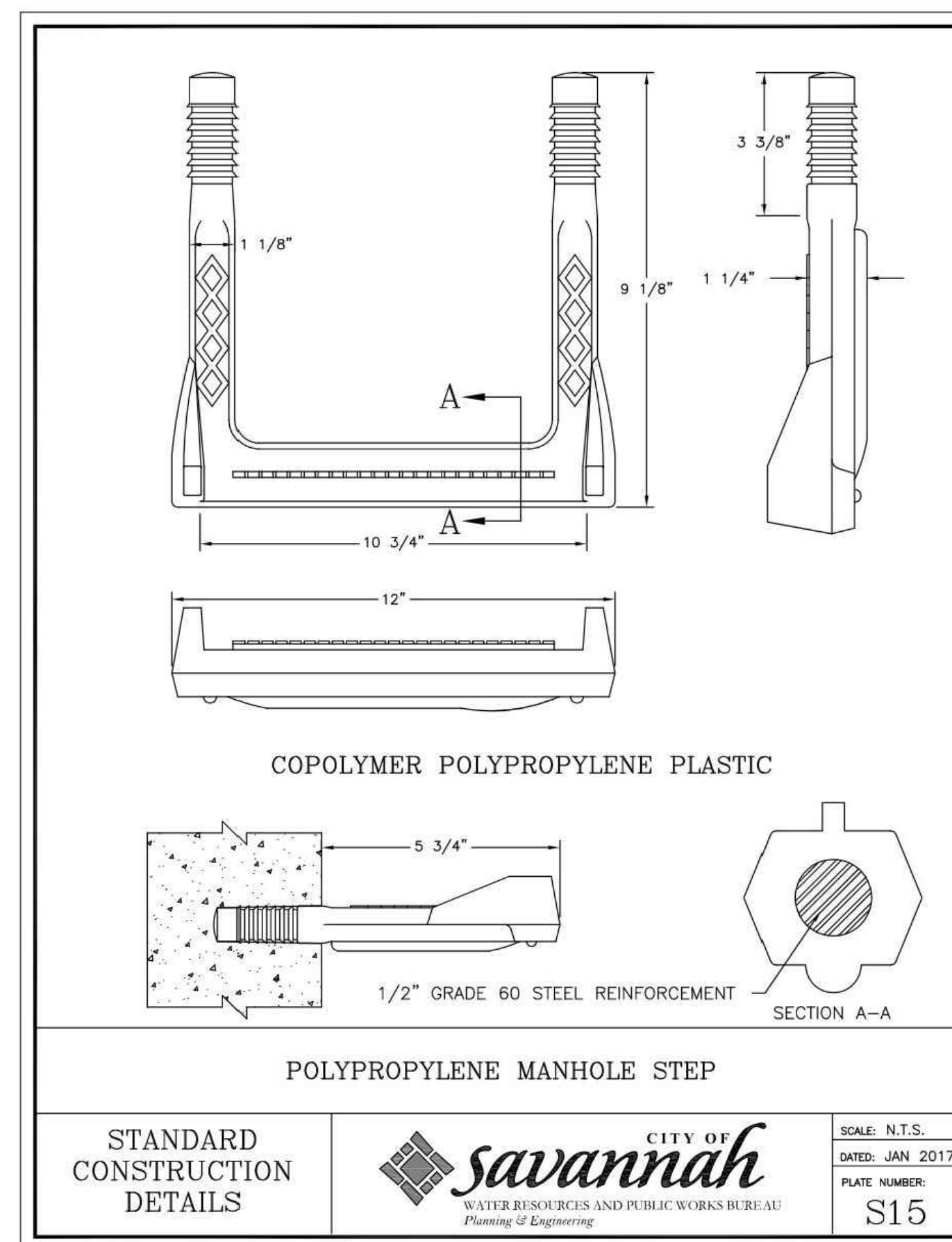


PRECAST STRUCTURE PIPE CONNECTIONS

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: S12

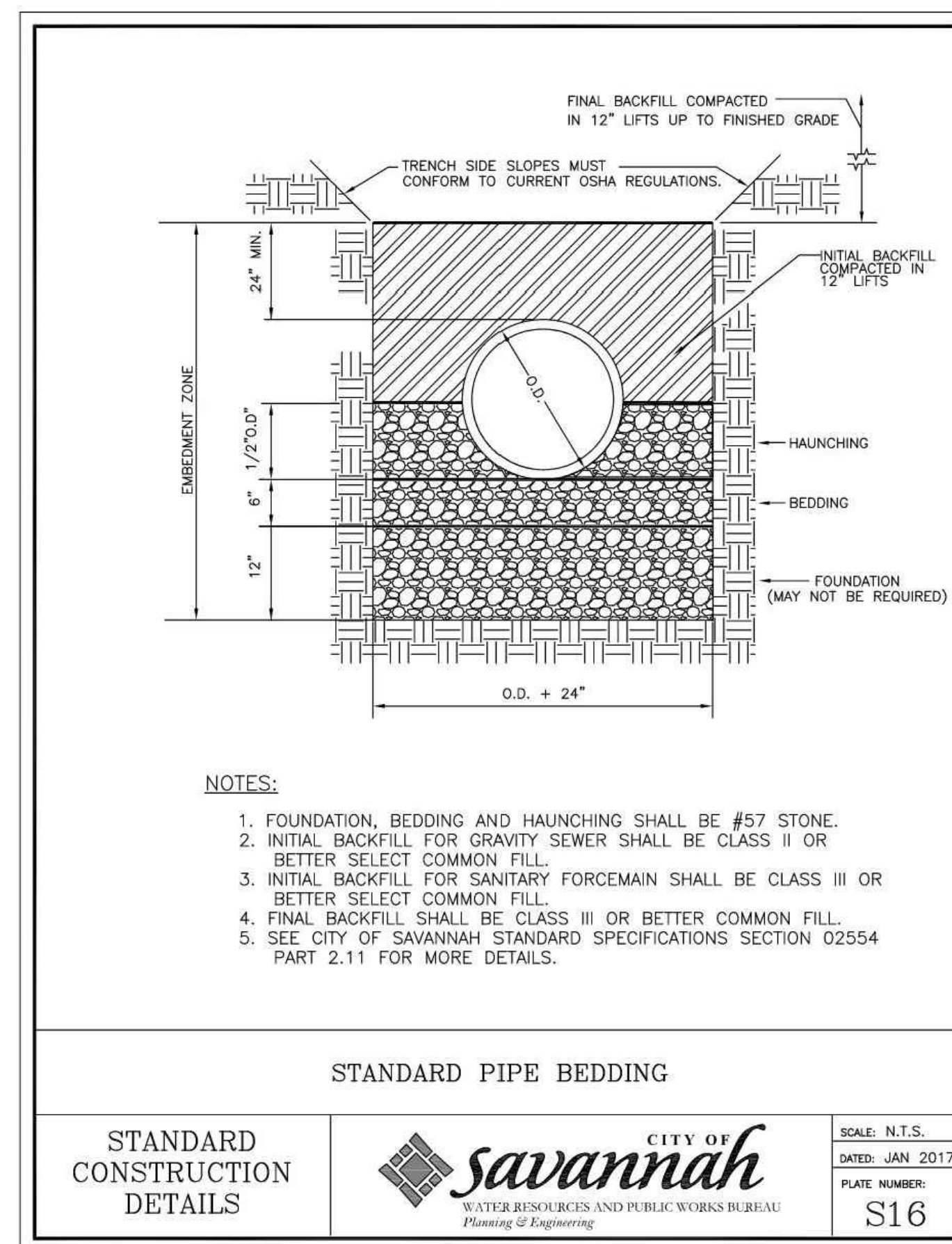


POLYPROPYLENE MANHOLE STEP

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: S15

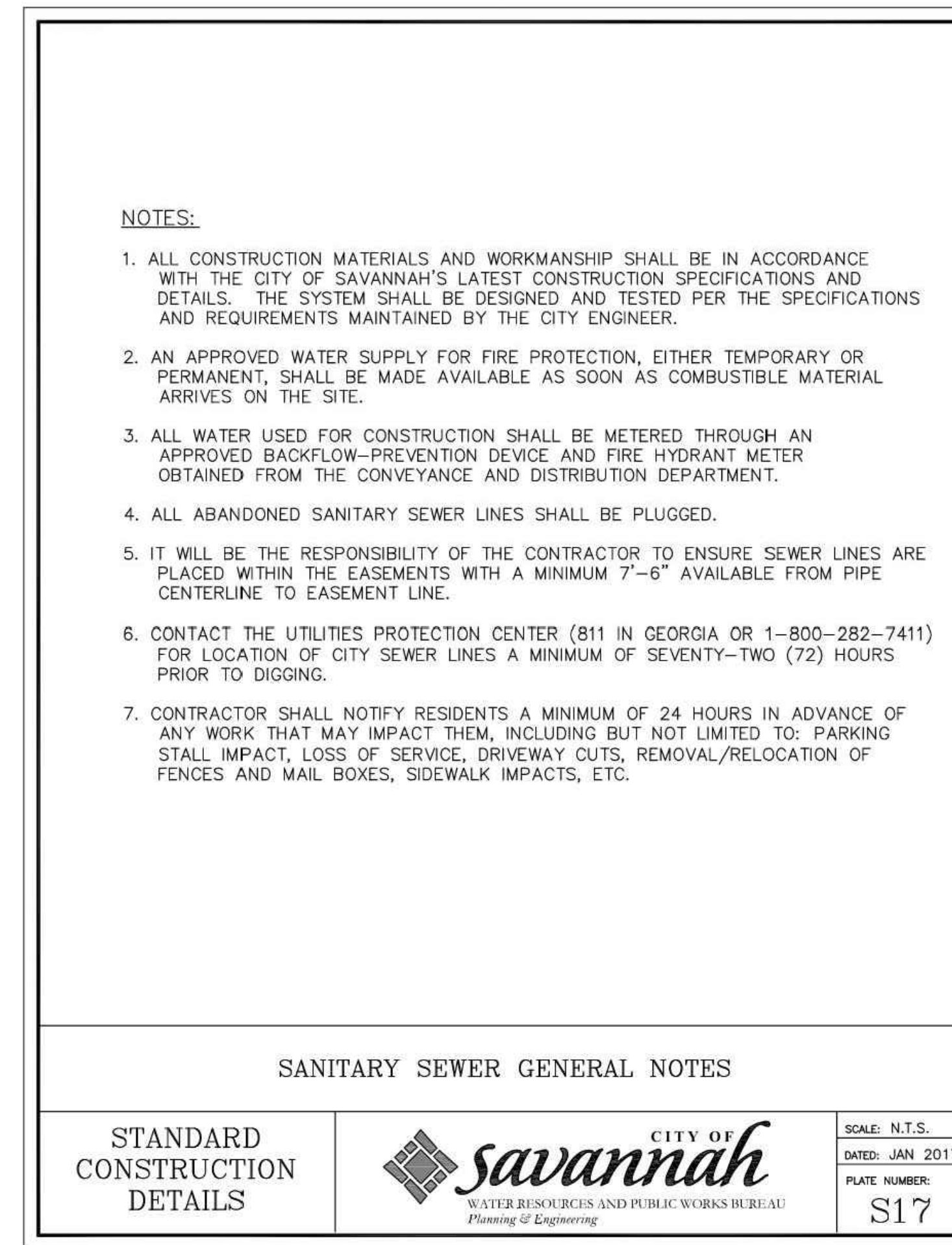


STANDARD PIPE BEDDING

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: S16

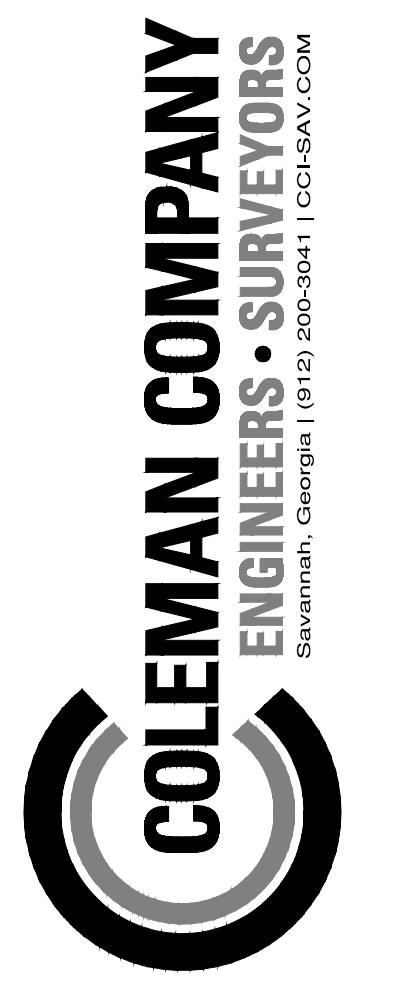


SANITARY SEWER GENERAL NOTES

STANDARD CONSTRUCTION DETAILS

CITY OF SAVANNAH
WATER RESOURCES AND PUBLIC WORKS BUREAU
Planning & Engineering

SCALE: N.T.S.
DATED: JAN 2017
PLATE NUMBER: S17



RELEASED FOR CONSTRUCTION

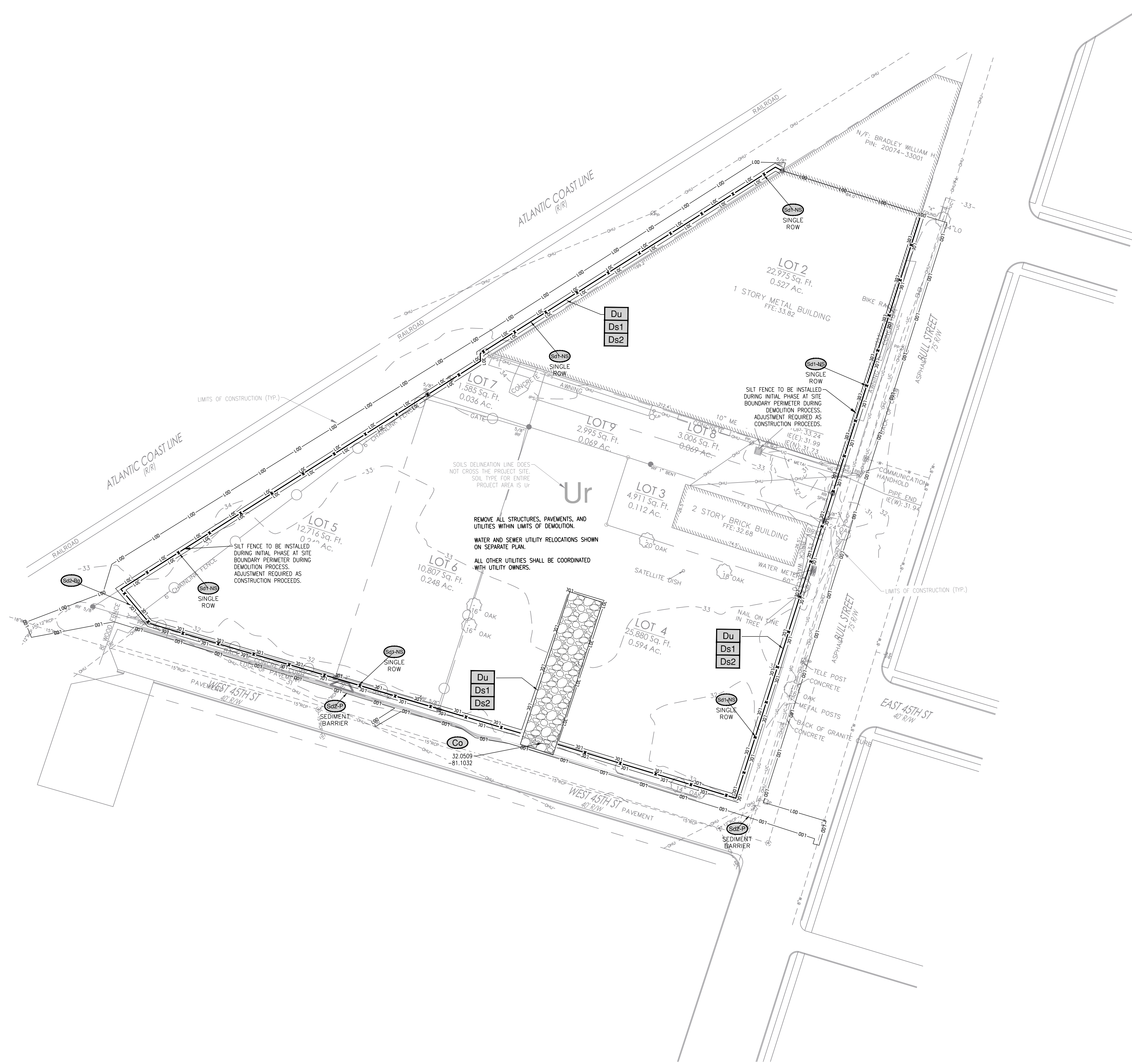
REVISIONS:

CIVIL CONSTRUCTION PLANS FOR
APARTMENTS @ 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
DATE: 06/12/2023
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

DETAILS

SHEET:
C6.5



SEQUENCE OF CONSTRUCTION
INITIAL PHASE:
 1. INSTALL PERIMETER CONTROLS TO INCLUDE SILT FENCING AND CONSTRUCTION EXIT.
 2. LIMIT CLEARING AND GRUBBING TO INSTALLATION OF INITIAL PERIMETER CONTROLS.
INTERMEDIATE PHASE:
 1. REMOVE DESIGNATED TREES AND CLEAR, GRUB AND GRADE SITE.
 2. LIMIT CLEARING AND GRUBBING OF SITE TO ONLY AREAS NECESSARY FOR CONSTRUCTION AS SHOWN.
 3. MASS GRADE SITE TO FINAL ELEVATIONS.
FINAL PHASE:
 1. STABILIZE ALL REMAINING DISTURBED AREAS.
 2. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND STABILIZE DISTURBED AREAS ACCORDINGLY.

RATIONALE FOR SEDIMENT STORAGE IN SILT FENCE IN INITIAL PHASE:
 THE ONLY LAND THAT IS BEING DISTURBED IN THE INITIAL PHASE IS THE SILT FENCE AREA, THUS THE INITIAL PHASE IS A LINEAR PROJECT AS DEFINED BY THE EROSION CONTROL MANUAL. LINEAR PROJECTS CAN UTILIZE SILT FENCE FOR SEDIMENT STORAGE. ALSO, THE DISTURBED AREA IN THE INITIAL PHASE IS LESS THAN 1 ACRE. FINALLY, THE WAY THE EXISTING SITE IS CONFIGURED, MUCH MORE AREA WOULD NEED TO BE DISTURBED IN THE INITIAL PHASE TO INCLUDE SEDIMENT BASINS AND DIVERSION SWALES TO CONVEY WATER AND SEDIMENT TO SLOPE BASINS. THUS, SEDIMENT STORAGE IN SILT FENCE IS THE BEST OPTION FOR SEDIMENT STORAGE IN THE INITIAL PHASE.

SEDIMENT STORAGE REQUIREMENTS:
 DISTURBED AREA (INITIAL): 1,173 LF SILT FENCE X 4 FT WIDE DISTURBANCE = (2,000 SF FOR Co Eff)= 6,692 SF (0.15 AC)
 REQUIRED STORAGE (INITIAL): 0.15 AC X 61 CF/AC = 9,135 CF = 271 CF
 SILT FENCE STORAGE: B₁ X LENGTH
 LENGTH: 1,173; B: 15; H: 1.5; ((1.5)³ / 6) X 1,173 = 1,320 CF
 STORAGE PROVIDED (INITIAL): 1,320 CF > 271 CF, THEREFORE ADEQUATE STORAGE IS PROVIDED IN THE INITIAL PHASE.

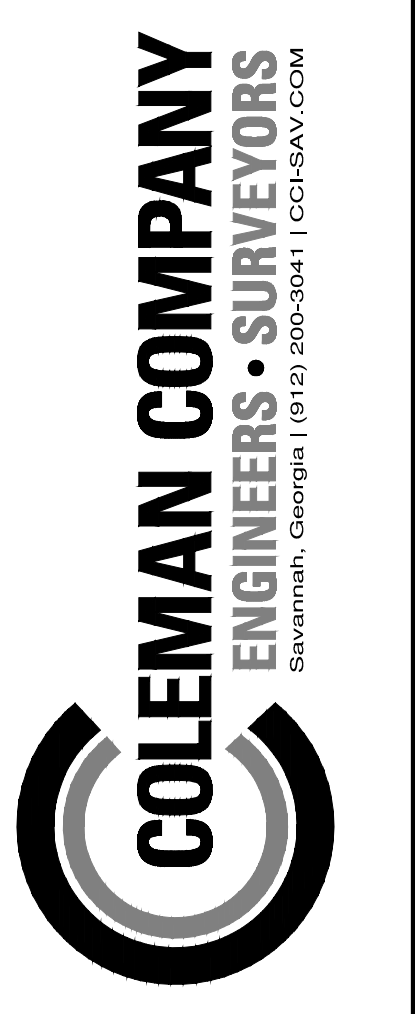
Soils Legend

Ur	Urban land
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EROSION CONTROL NOTE:
 AS THE CONSTRUCTION PROGRESS'S, ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED AND/OR REQUIRED BY CITY INSPECTOR THAT ARE NOT SHOWN ON THIS PLAN.

DESIGN PROFESSIONAL'S CREDENTIALS:
 ENGINEER'S NAME (PRINTED): DOUGLAS FAIRCLOTH, PE
 GEORGIA PE NUMBER: 042072
 GSWCC LEVEL II CERTIFICATION NUMBER: 27405

NCRCS ORIGINAL SUBMITTAL:	6/12/23



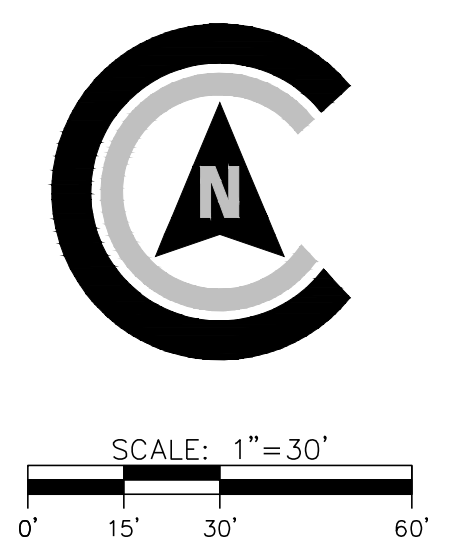
REVISIONS:

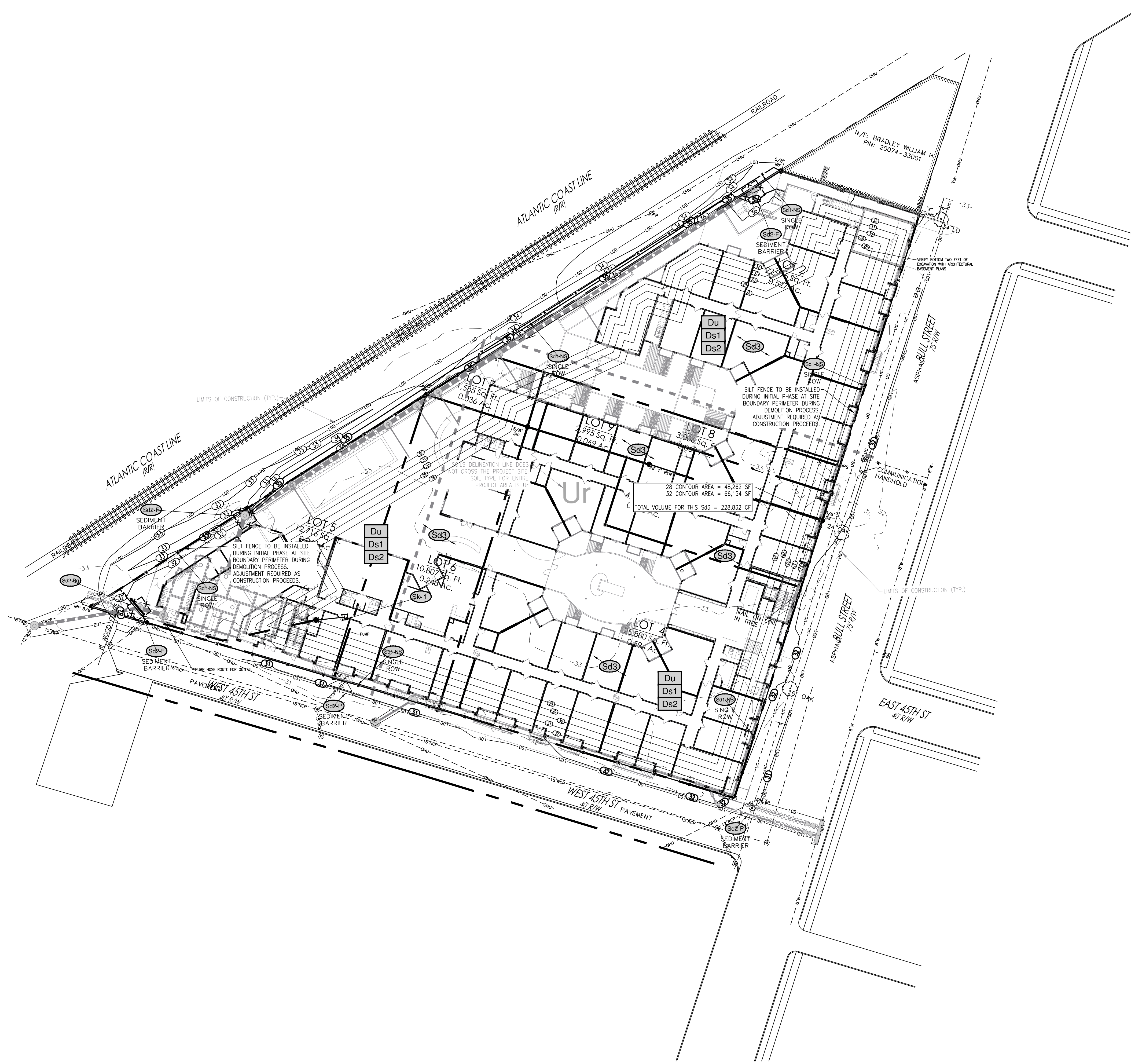
EROSION CONTROL PLANS FOR
APARTMENTS 45TH AND BULL STREET
 LOCATED IN SAVANNAH, GEORGIA
 PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
 DATE: 06/12/23
 DRAWN BY: RAR
 CHECKED BY: DF
 SCALE: AS NOTED

INITIAL EROSION

SHEET:
ES7.0





SEDIMENT STORAGE REQUIREMENTS

DISTURBED AREA (INTERMEDIATE): 2.25 AC
 REQUIRED STORAGE (INTERMEDIATE): (DRAINAGE AREA) 2.25 AC X 67 CY/AC = 151 CY = 4,070 CF (REQUIRED STORAGE)
 4,070 CF (TOTAL REQUIRED STORAGE)

STORAGE PROVIDED:
 STORAGE POND (Sd3) STORAGE PROVIDED (STORAGE PONDS WITH PUMPS) = 134,681 CF
 228,832 CF > 4,070 CF; THEREFORE ADEQUATE STORAGE IS PROVIDED IN THE INTERMEDIATE PHASE.

DEMOLITION WILL REMOVE ALL STRUCTURES FROM COMMERCIAL AND RESIDENTIAL SITES LEAVING AN EXCAVATED DEPRESSION FOR PROPOSED GARAGE STRUCTURES FOR MULTI-FAMILY APARTMENTS. THESE DEPRESSIONS WILL SERVE AS RETENTION BASINS DRAINED BY A FILTERED PUMP SYSTEM. THESE FILTERED PUMPS WILL DRAIN INTO EXISTING STORM INLETS AT SOUTHWEST CORNER OF THE SITE. THIS INLET WILL BE THE LOCATION FOR STORM WATER DISCHARGE POINT NPDES SAMPLING LOCATIONS. STORAGE DEPTH IS BOTTOM 4 FEET OF EXCAVATED DEPRESSIONS MAXIMUM. FILTERED PUMPING WILL REMOVE THIS RETAINED WATER BUILDUP AS IT OCCURS.

EROSION CONTROL NOTE:

AS THE CONSTRUCTION PROGRESS'S, ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED AND/OR REQUIRED BY CITY INSPECTOR THAT ARE NOT SHOWN ON THIS PLAN.

- SEQUENCE OF CONSTRUCTION**
- INITIAL PHASE:**
1. INSTALL PERIMETER CONTROLS TO INCLUDE SILT FENCING AND CONSTRUCTION EXIT.
 2. LIMIT CLEARING AND GRUBBING TO INSTALLATION OF INITIAL PERIMETER CONTROLS.
- INTERMEDIATE PHASE:**
1. REMOVE DESIGNATED TREES AND CLEAR, GRUB AND GRADE SITE.
 2. LIMIT CLEARING AND GRUBBING OF SITE TO ONLY AREAS NECESSARY FOR CONSTRUCTION AS SHOWN.
 3. MASS GRADE SITE TO FINAL ELEVATIONS.
- FINAL PHASE:**
1. STABILIZE ALL REMAINING DISTURBED AREAS.
 2. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND STABILIZE DISTURBED AREAS ACCORDINGLY.

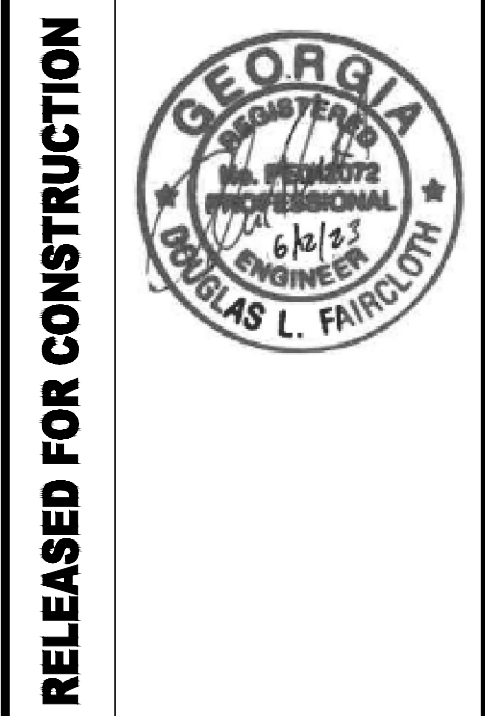
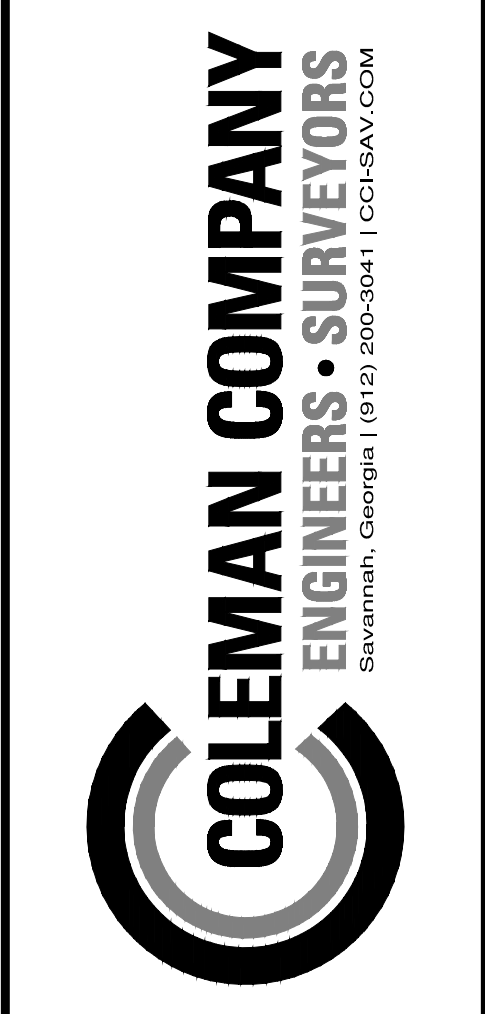
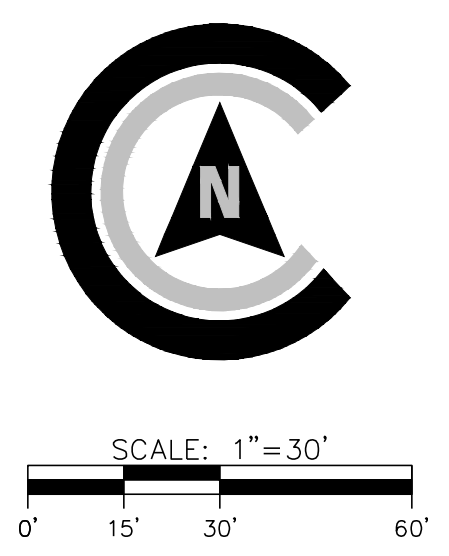
DESIGN PROFESSIONAL'S CREDENTIALS:

ENGINEER'S NAME (PRINTED): DOUGLAS FAIRCLOTH, PE
 GEORGIA PE NUMBER: 042072
 GSWCC LEVEL II CERTIFICATION NUMBER: 27405

NRCS ORIGINAL SUBMITTAL:	6/12/23

Soils Legend

Ur	Urban land
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RELEASED FOR CONSTRUCTION

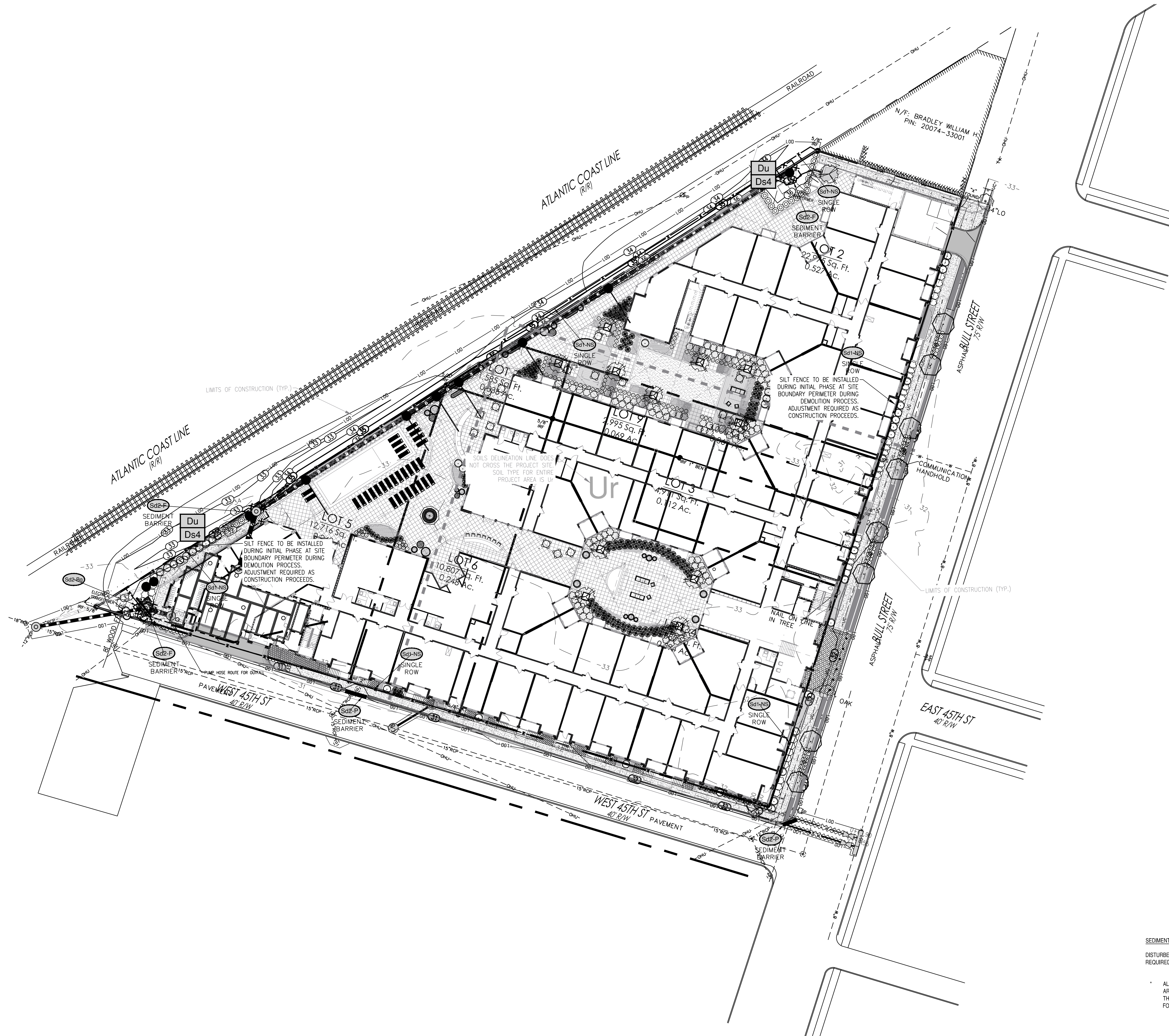
REVISIONS:

EROSION CONTROL PLANS FOR
APARTMENTS 45TH AND BULL STREET
 LOCATED IN SAVANNAH, GEORGIA
 PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
 DATE: 06/12/23
 DRAWN BY: RAR
 CHECKED BY: DF
 SCALE: AS NOTED

INTERMEDIATE
 EROSION

SHEET:
ES7.1



EROSION CONTROL NOTE:
 AS THE CONSTRUCTION PROGRESS'S, ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED AND/OR REQUIRED BY CITY INSPECTOR THAT ARE NOT SHOWN ON THIS PLAN.

- SEQUENCE OF CONSTRUCTION**
- INITIAL PHASE:**
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DESIGN PROFESSIONAL'S CREDENTIALS:
 ENGINEER'S NAME (PRINTED): DOUGLAS FAIRCLOTH, PE
 GEORGIA PE NUMBER: 042072
 GSWCC LEVEL II CERTIFICATION NUMBER: 27465

NRCS ORIGINAL SUBMITTAL:	6/12/23

Soils Legend

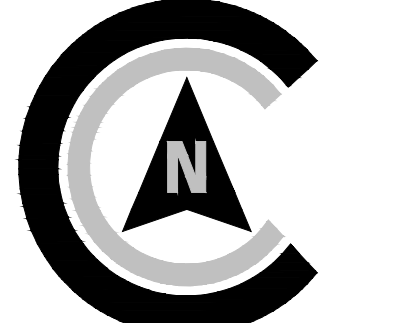
Ur	Urban land
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SEDIMENT STORAGE REQUIREMENTS

DISTURBED AREA (FINAL):	0.0 AC.
REQUIRED STORAGE (FINAL):	0.0 AC.

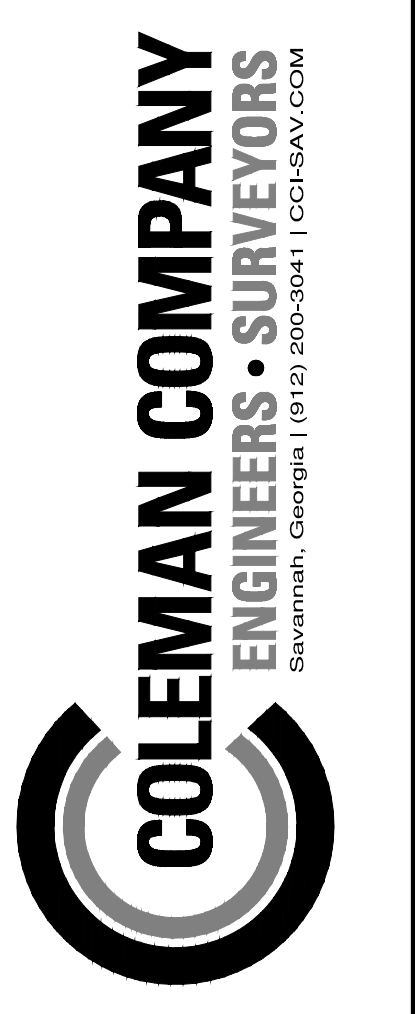
The project area will be stabilized prior to the final ES & PC phase. No storage will be required.

ALL FOUNDATIONS FOR MULTIFAMILY AND HOTEL SITES WILL BE CONSTRUCTED DURING INTERMEDIATE PHASE. THE ONLY UNPAVED AREAS REMAINING WILL BE COVERED WITH SOD (S4), EXISTING STORM INLETS WILL BE PROTECTED BY (S42-F) AT SOUTH ENDS OF THE SITE AND CONSTRUCTED INLET AT NORTHWEST CORNER WILL BE PROTECTED BY (S42-F). THESE INLETS WILL BE THE LOCATION FOR STORM WATER DISCHARGE POINT NPDES SAMPLING LOCATIONS.



SCALE: 1" = 30'

0' 15' 30' 60'



RELEASED FOR CONSTRUCTION

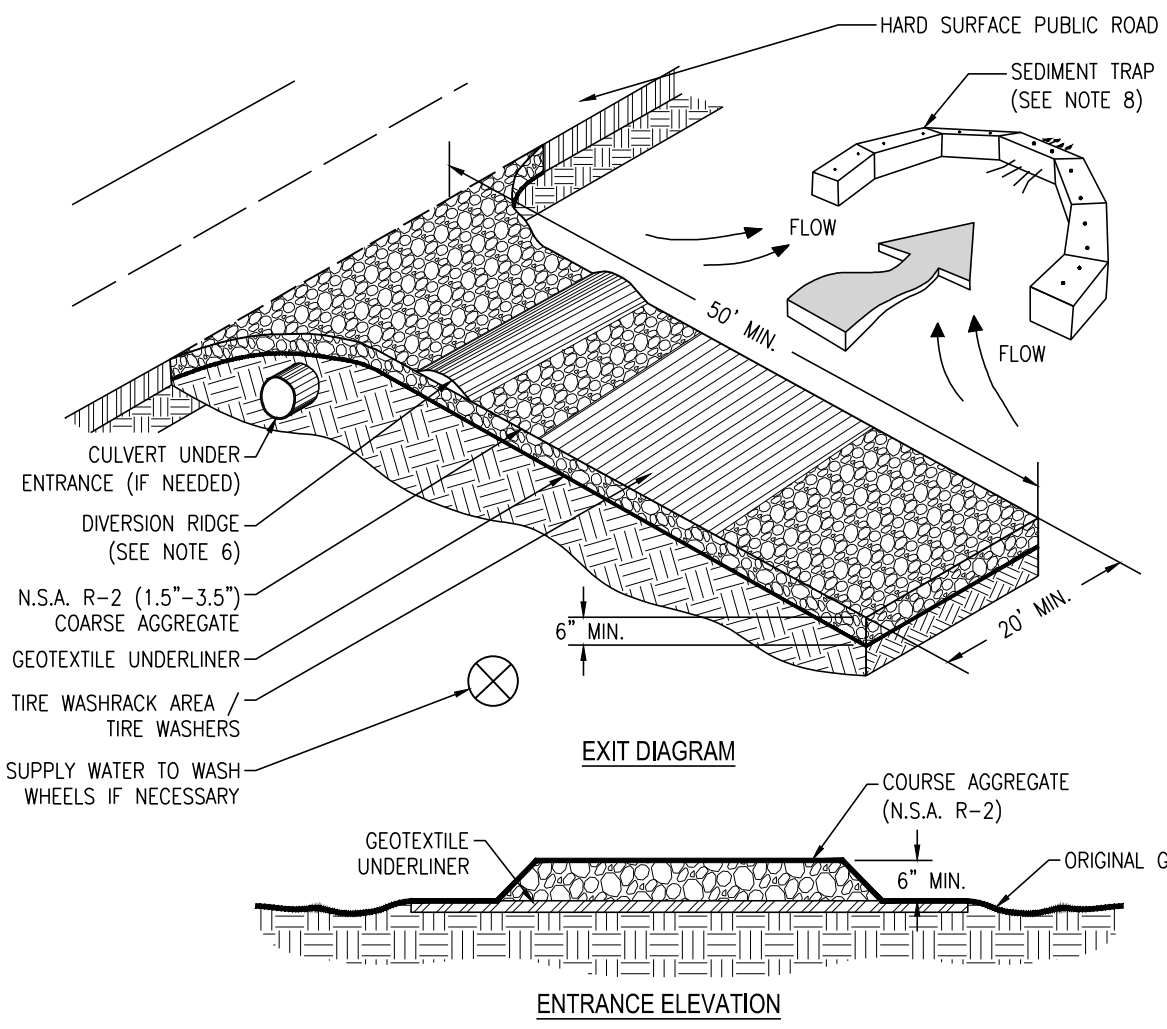
REVISIONS:

EROSION CONTROL PLANS FOR
APARTMENTS 45TH AND BULL STREET
 LOCATED IN SAVANNAH, GEORGIA
 PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER: 22-406
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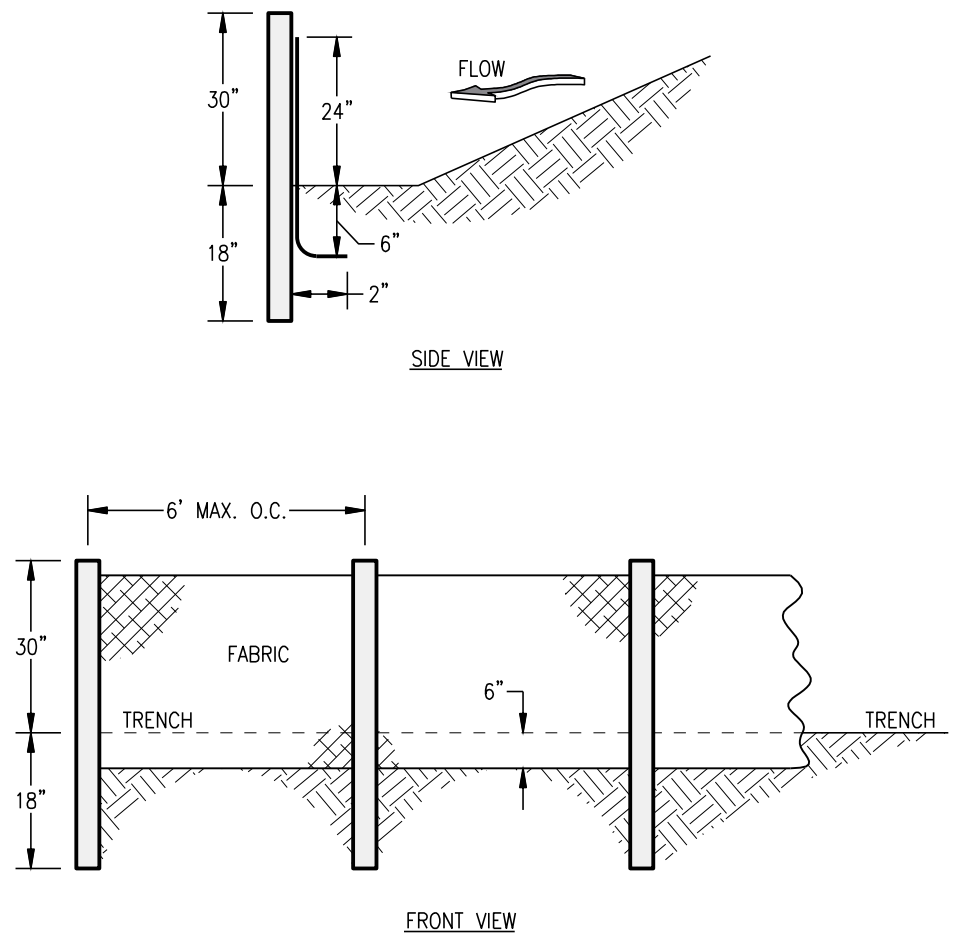
FINAL EROSION

SHEET:
ES7.2



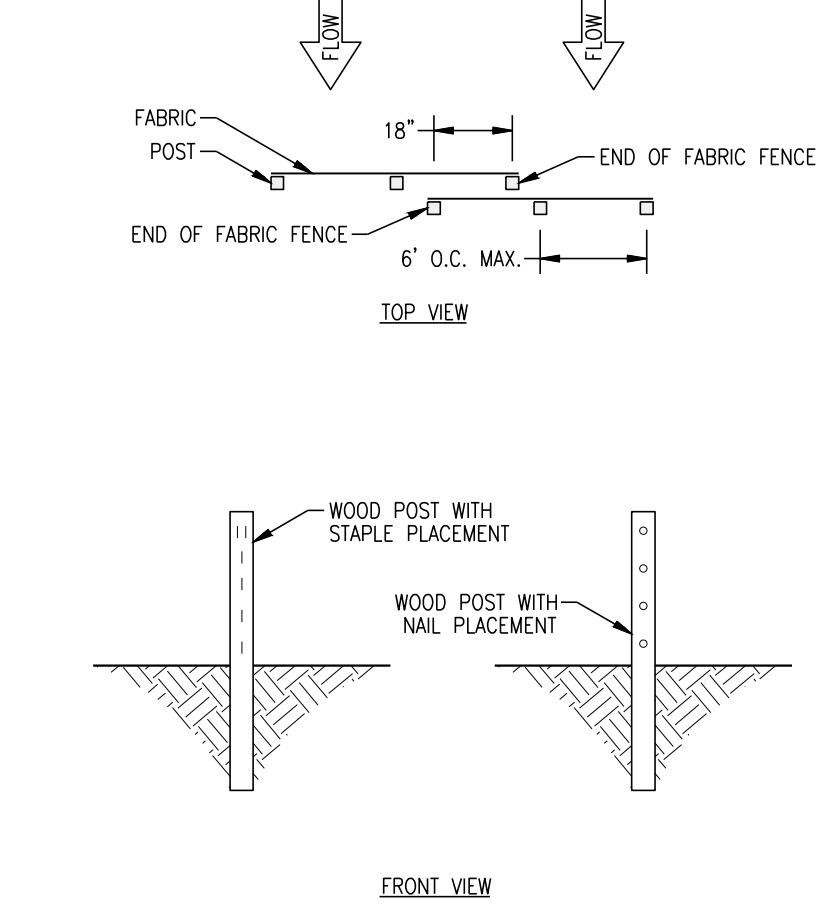
- NOTES:**
1. AVOID LOCATING ON STEEP SLOPES OR AT CURVES ON PUBLIC ROADS.
 2. REMOVE ALL VEGETATION AND OTHER UNSUITABLE MATERIAL FROM THE FOUNDATION AREA, GRADE, AND CROWN FOR POSITIVE DRAINAGE.
 3. AGGREGATE SIZE SHALL BE IN ACCORDANCE WITH NATIONAL STONE ASSOCIATION R-2 (1.5"-3.5" STONE).
 4. GRAVEL PAD SHALL HAVE A MINIMUM THICKNESS OF 6".
 5. PAD WIDTH SHALL BE EQUAL FULL WIDTH AT ALL POINTS OF VEHICULAR EGRESS, BUT NO LESS THAN 20'.
 6. A DIVERSION RIDGE SHOULD BE CONSTRUCTED WHEN GRADE TOWARD PAVED AREA IS GREATER THAN 2%.
 7. INSTALL PIPE UNDER THE ENTRANCE IF NEEDED TO MAINTAIN DRAINAGE DITCHES.
 8. WHEN WASHING IS REQUIRED, IT SHOULD BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN (DIVERSION ALL SURFACE RUNOFF AND DRAINAGE FROM THE ENTRANCE TO A SEDIMENT CONTROL DEVICE).
 9. WASHRACKS AND/OR TIRE WASHERS MAY BE REQUIRED DEPENDING ON SCALE AND CIRCUMSTANCE. IF NECESSARY, WASHRACK DESIGN MAY CONSIST OF ANY MATERIAL SUITABLE FOR TRUCK TRAFFIC THAT REMOVE MUD AND DIRT.
 10. MAINTAIN AREA IN A WAY THAT PREVENTS TRACKING AND/OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.

Co CRUSHED STONE CONSTRUCTION EXIT
NOT TO SCALE

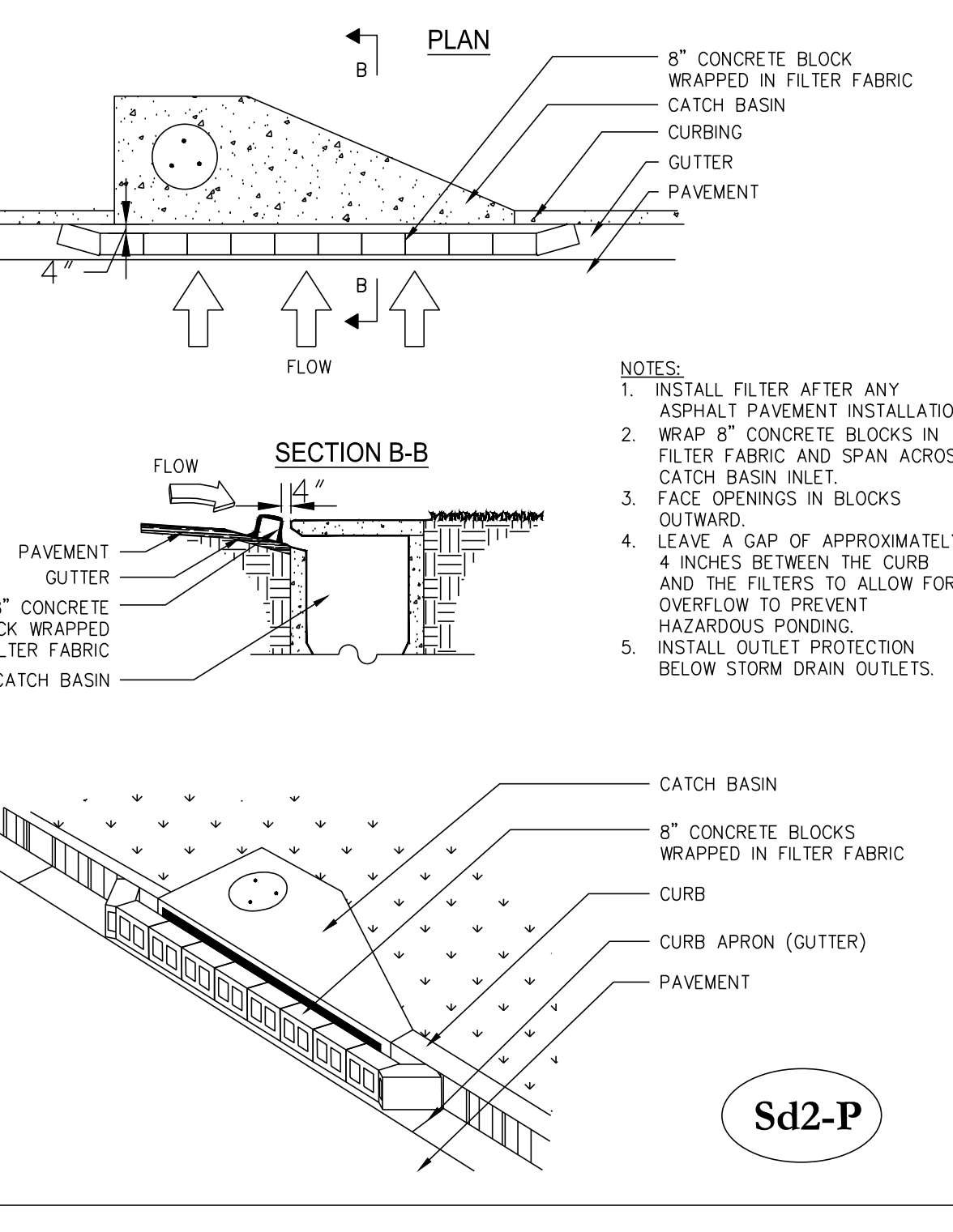


Sd1-NS SILT FENCE - TYPE NON-SENSITIVE
NOT TO SCALE

- NOTE:**
1. USE STEEL OR WOOD POSTS OR AS SPECIFIED BY THE EROSION, SEDIMENTATION, AND POLLUTION CONTROL PLAN.

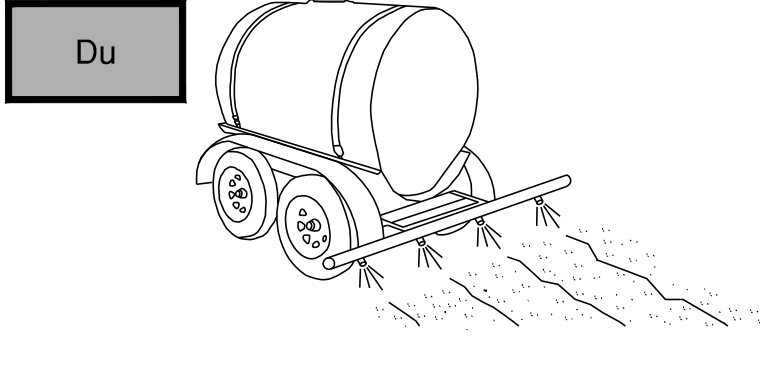


CURB INLET FILTER "PIGS IN BLANKET"



Sd2-P

DUST CONTROL ON DISTURBED AREAS



CONTRACTOR SHALL EMPLOY THE FOLLOWING TEMPORARY METHODS TO LIMIT THE SURFACE AND AIR MOVEMENT OF DUST FROM EXPOSED SOIL SURFACES:

- *TEMPORARY METHODS:**
- MULCHES
 - SPRAY ON ADHESIVES
 - TILLING
 - IRRIGATION
 - BARRIERS
 - CALCIUM CHLORIDE
- *PERMANENT METHODS:**
- PERMANENT VEGETATION
 - TOPSOIL
 - STONE COVER

***CHEMICAL CONTROL**

ADHESIVE	WATER DILUTION	TYPE OF NOZZLE	APPLICATION RATE (GAL/AC)
ANIONIC ASPHALT EMULSION	7:1	SPRAY	1200
LATEX EMULSION	12 1/2:1	FINE SPRAY	235
RESIN-IN-WATER EMULSION	4:1	FINE SPRAY	300

- NOTE:**
1. THE FABRIC AND WIRE SHOULD BE SECURELY FASTENED TO POSTS AND FABRIC ENDS MUST BE OVERLAPPED A MINIMUM OF 18" OR WRAPPED TOGETHER AROUND A POST TO PROVIDE A CONTINUOUS FABRIC BARRIER AROUND THE INLET.

Ds1

MULCHING WITHOUT TEMPORARY GRASSING:
WOOD MULCH SHALL BE PLACED AT A RATE OF 140 TONS PER ACRE AND APPLIED TO A DEPTH OF 2 TO 3 INCHES.

TEMPORARY GRASSING:
AGRICULTURAL LIME: APPLY 1 TON/ACRE
FERTILIZER: FOR SOILS WITH VERY LOW FERTILITY, APPLY 500-700 LBS. 10-10-10 PER ACRE FERTILIZER SHOULD BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

PERMANENT GRASSING:
AGRICULTURAL LIME IS REQUIRED AT THE RATE OF ONE TO TWO TONS PER ACRE UNLESS SOIL TESTS INDICATE OTHERWISE. GRADED AREAS REQUIRE LIME APPLICATION. IF LIME IS APPLIED WITHIN SIX MONTHS OF PLANTING PERMANENT PERENNIAL VEGETATION, ADDITIONAL LIME IS NOT REQUIRED. SOIL TEST ARE REQUIRED PRIOR TO PERMANENT VEGETATION. PERMANENT GRASSING SHALL BE SOO.

HYDRAULIC SEEDING:
MIX THE SEED (INOCULATED IF NEEDED), FERTILIZER, AND WOOD CELLULOSE OR WOOD PULP FIBER MULCH WITH WATER AND APPLY IN A SLURRY UNIFORMLY OVER THE AREA TO BE TREATED. APPLY WITHIN ONE HOUR AFTER THE MIXTURE IS MADE.

MULCHING
MULCH IS REQUIRED FOR ALL PERMANENT VEGETATION APPLICATIONS. MULCH APPLIED TO SEEDED AREAS SHALL ACHIEVE 75% SOIL COVER. SELECT THE MULCHING MATERIAL FROM THE FOLLOWING AND APPLY AS INDICATED.

1. DRY STRAW OR DRY HAY OF GOOD QUALITY AND FREE OF WEED SEEDS CAN BE USED. DRY STRAW SHALL BE APPLIED AT A RATE OF 2 TONS PER ACRE. DRY HAY SHALL BE APPLIED AT A RATE OF 2-1/2 TONS PER ACRE.
2. WOOD CELLULOSE MULCH OR WOOD PULP FIBER WILL BE USED WITH HYDRAULIC SEEDING. IT SHALL BE APPLIED AT THE RATE OF 500 POUNDS PER ACRE. DRY STRAW OR DRY HAY SHALL BE APPLIED (AT THE RATE INDICATED ABOVE) AFTER HYDRAULIC SEEDING.
3. ONE THOUSAND POUNDS OF WOOD CELLULOSE OR WOOD PULP FIBER WHICH INCLUDES A TACKLER, SHALL BE USED WITH HYDRAULIC SEEDING ON SLOPES 3/4:1 OR STEEPER.
4. SERICEA LESPEDEZA HAY CONTAINING MATURE SEED SHALL BE APPLIED AT A RATE OF THREE TONS PER ACRE.
5. ONE STRAW OR PINE BARK SHALL BE APPLIED AT A THICKNESS OF 3 INCHES FOR BEDDING PURPOSES. OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER SUITABLE MATERIALS IN SUFFICIENT QUANTITY MAY BE USED WHERE ORNAMENTALS OR OTHER GROUND COVERS ARE PLANTED. THIS IS NOT APPROPRIATE FOR SEEDED AREAS.
6. WHEN USING TEMPORARY EROSION CONTROL BLANKETS OR BLOCK SOO, MULCH IS NOT REQUIRED.
7. BITUMINOUS TREATED ROVING MAY BE APPLIED ON PLANTED AREAS ON SLOPES, IN DITCHES OR DRY WATERWAYS TO PREVENT EROSION. BITUMINOUS TREATED ROVING SHALL BE APPLIED WITHIN 24 HOURS AFTER AN AREA HAS BEEN PLANTED. APPLICATION RATES AND MATERIALS MUST MEET GEORGIA DEPARTMENT OF TRANSPORTATION SPECIFICATIONS.
8. WOOD CELLULOSE AND WOOD PULP FIBERS SHALL NOT CONTAIN GERMINATION OR GROWTH INHIBITING FACTORS. THEY SHALL BE EVENLY DISPERSED WHEN AGITATED IN WATER. THE FIBERS SHALL CONTAIN A DYE TO ALLOW VISUAL METERING AND AID IN UNIFORM APPLICATION DURING SEEDING.

APPLYING MULCH:
STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY WITHIN 24 HOURS AFTER SEEDING AND/OR PLANTING. THE MULCH MAY BE SPREAD BY BLOWER-TYPE SPREADING EQUIPMENT, OTHER SPREADING EQUIPMENT OR BY HAND. MULCH SHALL BE APPLIED TO COVER 75% OF THE SOIL SURFACE. WOOD CELLULOSE OR WOOD FIBER MULCH SHALL BE APPLIED UNIFORMLY WITH HYDRAULIC SEEDING EQUIPMENT.

Ds2

DEFINITION
THE ESTABLISHMENT OF TEMPORARY VEGETATIVE COVER WITH FAST GROWING SEEDINGS FOR SEASONAL PROTECTION ON DISTURBED OR DENuded AREAS.

CONDITIONS
TEMPORARY GRASSING, INSTEAD OF MULCH, CAN BE APPLIED TO ROUGH GRADED AREAS THAT WILL BE EXPOSED FOR LESS THAN SIX MONTHS. TEMPORARY VEGETATIVE MEASURES SHOULD BE COORDINATED WITH PERMANENT MEASURES TO ASSURE ECONOMIC AND EFFECTIVE STABILIZATION. MOST TYPES OF TEMPORARY VEGETATION ARE IDEAL TO USE AS COMPANION CROPS UNTIL THE PERMANENT VEGETATION IS ESTABLISHED.

SPECIFICATIONS
GRADING AND SHAPING
EXCESSIVE WATER RUN-OFF SHALL BE REDUCED BY PROPERLY DESIGNED AND INSTALLED EROSION CONTROL PRACTICES SUCH AS CLOSED DRAINS, DITCHES, DIKES, DIVERSIONS, SEDIMENT BARRIERS AND OTHERS.

SEEDBED PREPARATION
NO SHAPING OR GRADING IS REQUIRED IF SLOPES CAN BE STABILIZED BY HAND-SEEDING VEGETATION OR IF HYDRAULIC SEEDING EQUIPMENT IS TO BE USED.

LIME AND FERTILIZER
WHEN A HYDRAULIC SEEDER IS USED, SEEDBED PREPARATION IS NOT REQUIRED. WHEN USING CONVENTIONAL OR HANDSEEDING, SEEDBED PREPARATION IS NOT REQUIRED IF THE SOIL MATERIAL IS LOOSE AND NOT SEALED BY RAINFALL.

SEEDING
WHEN SOIL HAS BEEN SEALED BY RAINFALL OR CONSISTS OF SMOOTH CUT SLOPES, THE SOIL SHALL BE PITTED, TRENCHED OR OTHERWISE SCARIFIED TO PROVIDE A PLACE FOR SEED TO LODGE AND GERMINATE.

MULCHING
TEMPORARY VEGETATION CAN, IN MOST CASES, BE ESTABLISHED WITHOUT THE USE OF MULCH WITHOUT SEEDING SHOULD BE CONSIDERED FOR SHORT TERM PROTECTION. REFER TO DS1 - DISTURBED AREA STABILIZATION (WITH MULCHING ONLY).

IRRIGATION
DURING TIMES OF DROUGHT, WATER SHALL BE APPLIED AT A RATE NOT CAUSING RUNOFF AND EROSION. THE SOIL SHALL BE THOROUGHLY WETTED TO A DEPTH THAT WILL INSURE GERMINATION OF THE SEED. SUBSEQUENT APPLICATIONS SHOULD BE MADE WHEN NEEDED.

SEEDING RATES FOR TEMPORARY SEEDING

SPECIES	RATE PER 1,000 SF	RATE PER ACRE*	PLANTING DATES**
RYE	3.9 LBS	3 BU	9/1-3/1
RYEGRASS	0.9 LB	40 LBS	8/15-4/1
ANNUAL LESPEDEZA	0.9 LB	40 LBS	1/15-3/15
WEEPING LOVEGRASS	0.1 LB	4 LBS	2/15-6/15
SUDANGRASS	1.4 LBS	60 LBS	3/1-8-1
BROWNTOP MILLET	0.9 LB	40 LBS	4/1-7/15
WHEAT	4.1 LBS	3 BU	9/15-2/1

LIME AND FERTILIZER
AGRICULTURAL LIME IS REQUIRED UNLESS SOIL TESTS INDICATE OTHERWISE. APPLY AGRICULTURAL LIME AT A RATE OF ONE TON PER ACRE. GRADED AREAS REQUIRE LIME APPLICATION. SOILS CAN BE TESTED TO DETERMINE IF FERTILIZER IS NEEDED. ON REASONABLY FERTILE SOILS, OR SOIL MATERIAL, FERTILIZER IS NOT REQUIRED. FOR SOILS WITH VERY LOW FERTILITY, 500 TO 700 POUNDS OF 10-10-10 FERTILIZER OR THE EQUIVALENT PER ACRE (12-16 LBS./1,000 SQ. FT.) SHALL BE APPLIED BEFORE LAND PREPARATION AND INCORPORATED WITH A DISK, RIPPER OR CHISEL.

TYPE A FABRIC (36")

NOTE: FILTER FABRIC MAY ALSO BE ATTACHED TO THE POST BY WIRE, CORO, AND POCKETS.

POST SIZE	GAUGE	CROWN	LEGS	STAPLES/POST
MIN. LENGTH	17 MIN.	1 1/2" WIDE	1 1/2" LONG	5 MIN.
TYPE OF POST	SOFT WOOD	3" DIA. OR 2 1/2"		
MIN. LENGTH	14 MIN.	1 1/2" WIDE	1 1/2" LONG	5 MIN.
TYPE OF POST	STEEL	1 1/2" DIA. 7/16" MIN.		

FASTENERS FOR WOOD POST (WIRE STAPLES)

GAUGE	LENGTH	BUTTON HEADS	NAIL/POST
17 MIN.	1 1/2" WIDE	1 1/2" LONG	5 MIN.
14 MIN.	1 1/2" WIDE	1 1/2" LONG	5 MIN.

FASTENERS FOR WOOD POST (NAILS)

GAUGE	LENGTH	BUTTON HEADS	NAIL/POST
17 MIN.	1 1/2" WIDE	1 1/2" LONG	5 MIN.
14 MIN.	1 1/2" WIDE	1 1/2" LONG	5 MIN.

TENSILE STRENGTH (LBS. MIN.) (1)

FENCE	TENSILE STRENGTH (LBS. MIN.) (1)	ELONGATION (INCHES) (ASTM D-4632)	ADD. (APPARENT OPENING SIZE) (MAX. SEWE SIZE) (ASTM D-4793)	FLOW RATE (GAL./MIN./50 FT.) (DOT-87)	ULTRAVIOLET STABILITY (2)	BURSTING STRENGTH (PSI MIN.) (ASTM D-3786 (DAPPRAM BURSTING STRENGTH TESTER))	MIN. FABRIC WIDTH (INCHES)
WARP-120 FILL-100	40	#30	25	80	175	36	

(1) MIN. ROLL AVERAGE OF FIVE SPECIMENS.
(2) PERCENT OF REQUIRED INITIAL MIN. TENSILE STRENGTH.

STANDARD CONSTRUCTION DETAILS
SILT FENCE - TYPE A

APPROVED: *John D. ...* SCALE: N.T.S. DATE: DECEMBER 1998

SEEDING RATES FOR TEMPORARY SEEDING

SPECIES	RATE PER 1,000 SF	RATE PER ACRE*	PLANTING DATES**
RYE	3.9 LBS	3 BU	9/1-3/1
RYEGRASS	0.9 LB	40 LBS	8/15-4/1
ANNUAL LESPEDEZA	0.9 LB	40 LBS	1/15-3/15
WEEPING LOVEGRASS	0.1 LB	4 LBS	2/15-6/15
SUDANGRASS	1.4 LBS	60 LBS	3/1-8-1
BROWNTOP MILLET	0.9 LB	40 LBS	4/1-7/15
WHEAT	4.1 LBS	3 BU	9/15-2/1

- * UNUSUAL SITE CONDITIONS MAY REQUIRE HEAVIER SEEDING RATES
- ** SEEDING DATES MAY NEED TO BE ALTERED TO FIT TEMPERATURE VARIATIONS AND CONDITIONS.

SECTION B-B

EXCAVATE INLET SEDIMENT TRAP - Sd2-F
NOT TO SCALE

Sd2-F "Excavated"

NRCS ORIGINAL SUBMITTAL: 6/12/23

DESIGN PROFESSIONAL'S CREDENTIALS:
ENGINEER'S NAME (PRINTED): DOUGLAS FAIRCLOTH, PE
GEORGIA PE NUMBER: 042072
GSWCC LEVEL II CERTIFICATION NUMBER: 27405



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ENGINEERS • SURVEYORS
Savannah, Georgia | (912) 906-0844 | CCL@SAV.COM

RELEASED FOR CONSTRUCTION

REVISIONS:

NO.	DESCRIPTION

EROSION CONTROL PLANS FOR APARTMENTS 45TH AND BULL STREET
LOCATED IN SAVANNAH, GEORGIA
PREPARED FOR MED DEVELOPEERS, LLC

JOB NUMBER: 22-406
DATE: 06/12/23
DRAWN BY: RAR
CHECKED BY: DF
SCALE: AS NOTED

EROSION DETAILS

SHEET:
ES7.3

DEFINITION

A permanent vegetation using sods on highly erodible or critically eroded lands.

CONDITIONS

This application is appropriate for areas which require immediate vegetative covers, drop inlets, grass swales, and waterways with intermittent flow.

CONSTRUCTION SPECIFICATIONS INSTALLATION

Soil Preparation

- Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surfaces only and not frozen surfaces, or gravel type soils.
- Topsoil properly applied will help guarantee stand. Don't use topsoil recently treated with herbicides or soil sterilants.
- Mix fertilizer into soil surface. Fertilize based on soil tests or Table 6-6.1. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the spring.

Table 6-6.1. Fertilizer Requirements for Soil Surface Application

Fertilizer Type (lbs./acre)	Fertilizer Rate (lbs./acre)	Fertilizer Rate	Season
10-10-10	1000	.025	Fall

- Agricultural lime should be applied based on soil tests or at a rate of 1 to 2 tons per acre.

Installation

- Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod.
- On slopes steeper than 3:1, sod should be anchored with wooden or biodegradable pins or other approved methods.
- Installed sod should be rolled or tamped to provide good contact between sod and soil.
- Irrigate sod and soil to a depth of 4" immediately after installation.
- Sod should not be cut or spread in extremely wet or dry weather.
- Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

Ds4 DISTURBED AREA STABILIZATION (WITH SODDING)

MATERIALS

- Sod selected should be certified. Sod grown in the general area of the project is desirable.
- Sod should be machine cut and contain 3/4" ± 1/4" of soil, not including shoots or thatch.
- Sod should be cut to the desired size within ±5%. Torn or uneven pads should be rejected.
- Sod should be cut and installed within 36 hours of digging.
- Avoid planting when subject to frost heave or hot weather if irrigation is not available.
- The sod type should be shown on the plans or installed according to Table 6-6.2. See Figure 6-4.1 for your Resource Area.

Table 6-6.2. Sod Planting Requirements

Grass	Varieties	Resource Area	Growing Season
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L,P,C P,C P,C P,C	Warm Weather
Bahiagrass	Pensacola	P,C	Warm Weather
Centipede	-	P,C	Warm Weather
St. Augustine	Common Bitterblue Raleigh	C	Warm Weather
Zoysia	Emerald Myer	P,C	Warm Weather
Tall Fescue	Kentucky	M-L,P	Cool Weather

MAINTENANCE

- Re-sod areas where an adequate stand of sod is not obtained.
- New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified.
- Apply one ton of agricultural lime as indicated by soil test or every 4-6 years.
- Fertilize grasses in accordance with soil tests or Table 6-6.3.

Table 6-6.3. Fertilizer Requirements for Sod

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
Cool Season Grasses	First	6-12-12	1500	50-100
	Second Maintenance	6-12-12 10-10-10	1000 400	- 30
Warm Season Grasses	First	6-12-12	1500	50-100
	Second Maintenance	6-12-12 10-10-10	800 400	50-100 30

Ds4

DISTURBED AREA STABILIZATION (WITH SODDING)

DEFINITION

A permanent vegetative cover using sods on highly erodible or critically eroded lands.



PURPOSE

- Establish immediate ground cover
- Reduce runoff and erosion
- Improve aesthetics and land value
- Reduce dust and sediments
- Stabilize waterways and critical areas
- Filter sediments, nutrients and bugs
- Reduce downstream complaints
- Reduce likelihood of legal action
- Reduce likelihood of work stoppage due to legal action
- Increase "good neighbor" benefits

INSTALLATION

- Bring soil surface to final grade. Clear surface of trash, woody debris, stones and clods larger than 1". Apply sod to soil surfaces only and not frozen surfaces, or gravel type soils.

Ds4

- Topsoil properly applied will help guarantee a stand. Don't use topsoil recently treated with herbicides or soil sterilants.
- Mix fertilizer into soil surface. Fertilize based on soil tests or Table 1. For fall planting of warm season species, half the fertilizer should be applied at planting and the other half in the spring.
- Agricultural lime should be applied based on soil tests or at a rate of 1-2 tons/acre.
- Lay sod with tight joints and in straight lines. Don't overlap joints. Stagger joints and do not stretch sod.

Table 1. Fertilizer Requirements for Soil Surface Application

Fertilizer Type (lbs./acre)	Fertilizer Rate (lbs./sq.ft.)	Fertilizer Rate	Season
10-10-10	1000	.025	Fall

- On slopes steeper than 3:1, sod should be anchored with pins or other approved methods.
- Installed sod should be rolled or tamped to provide good contact between sod and soil.
- Irrigate sod and soil to a depth of 4" immediately after installation.
- Sod should not be cut or spread in extremely wet or dry weather.
- Irrigation should be used to supplement rainfall for a minimum of 2-3 weeks.

MATERIALS

- Sod selected should be certified. Sod grown in the general area of the project is desirable.
- Sod should be machine cut and contain 3/4" (+ or - 1/4") of soil, not including shoots or thatch.

Ds4

- Sod should be cut to the desired size within ±5%. Torn or uneven pads should be rejected.
- Sod should be cut and installed within 36 hours of digging.
- Avoid planting when subject to frost heave or hot weather, if irrigation is not available.
- The sod type should be shown on the plans or installed according to Table 2. See page 60 for your Resource Area.

Table 2. Sod Planting Requirements

Grass	Varieties	Resource Area	Growing Season
Bermudagrass	Common Tifway Tifgreen Tiflawn	M-L, P,C P,C P,C P,C	Warm weather
Bahiagrass	Pensacola	P,C	Warm weather
Centipede	---	P,C	Warm weather
St. Augustine	Common Bitterblue Raleigh	C	Warm weather
Zoysia	Emerald Myer	P,C	Warm weather
Tall Fescue	Kentucky 31	M-L, P	Cool weather

MAINTENANCE

- Re-sod areas where an adequate stand of sod is not obtained.
- New sod should be mowed sparingly. Grass height should not be cut less than 2"-3" or as specified.
- Apply one ton of agricultural lime as indicated by soil test or every 4-6 years.

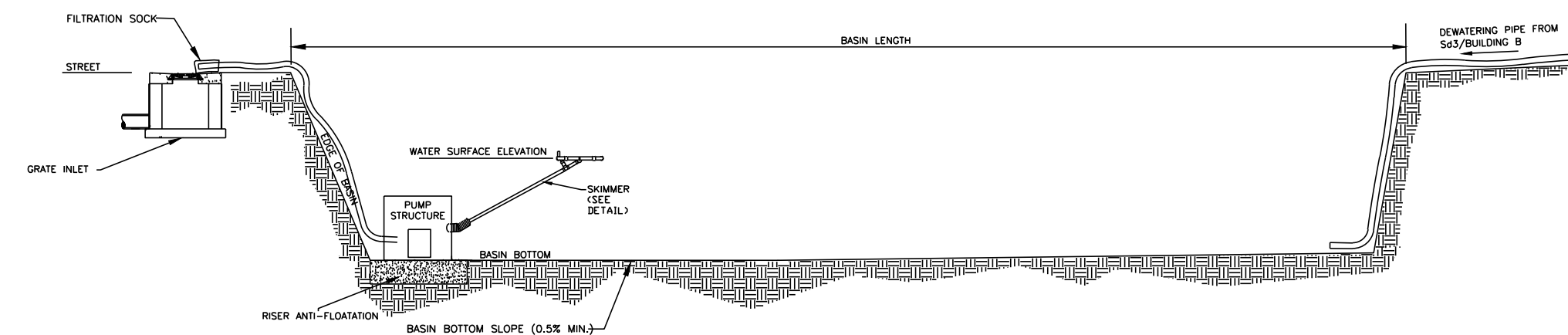
Ds4

- Fertilize grasses in accordance with soil tests or Table 3.

Types of Species	Planting Year	Fertilizer (N-P-K)	Rate (lbs./acre)	Nitrogen Top Dressing Rate (lbs./acre)
Cool season grasses	First	6-12-12	1500	50-100
	Second Maintenance	6-12-12 10-10-10	1000 400	- 30
Warm season grasses	First	6-12-12	1500	50-100
	Second Maintenance	6-12-12 10-10-10	800 400	50-100 30

REFERENCES

- Ds1** Disturbed Area Stabilization (With Mulching Only)
- Ds2** Disturbed Area Stabilization (With Temporary Seeding)
- Ds3** Disturbed Area Stabilization (With Permanent Vegetation)
- Ss** Slope Stabilization



SEDIMENT BASIN DETAIL (Sd3)

SKIMMER AT BLDG.

CALCULATE FAIRCLOTH SKIMMER® SIZE

Required Basin volume in cubic feet

228832

Days to Drain

3

The required basin volume is the actual volume you intend to drain, not the provided or total volume which is often larger. If a pool of water is to be maintained between storms, do not include that volume.

Number of Days to drain is usually determined by local or state regulations. Where there is no requirement 3 days is recommended. Keep in mind the quicker the basin is to drain the larger the skimmer required. In NC, assume 3 days to drain.

SKIMMER SIZE

8.0 inches

ORIFICE RADIUS

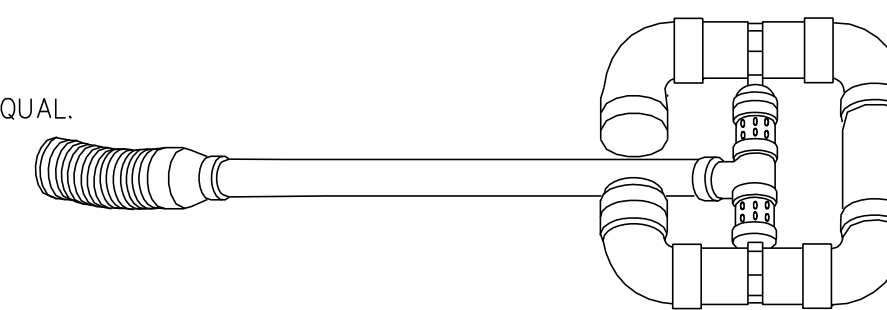
3.5 inches

ORIFICE DIAMETER

7.0 inches

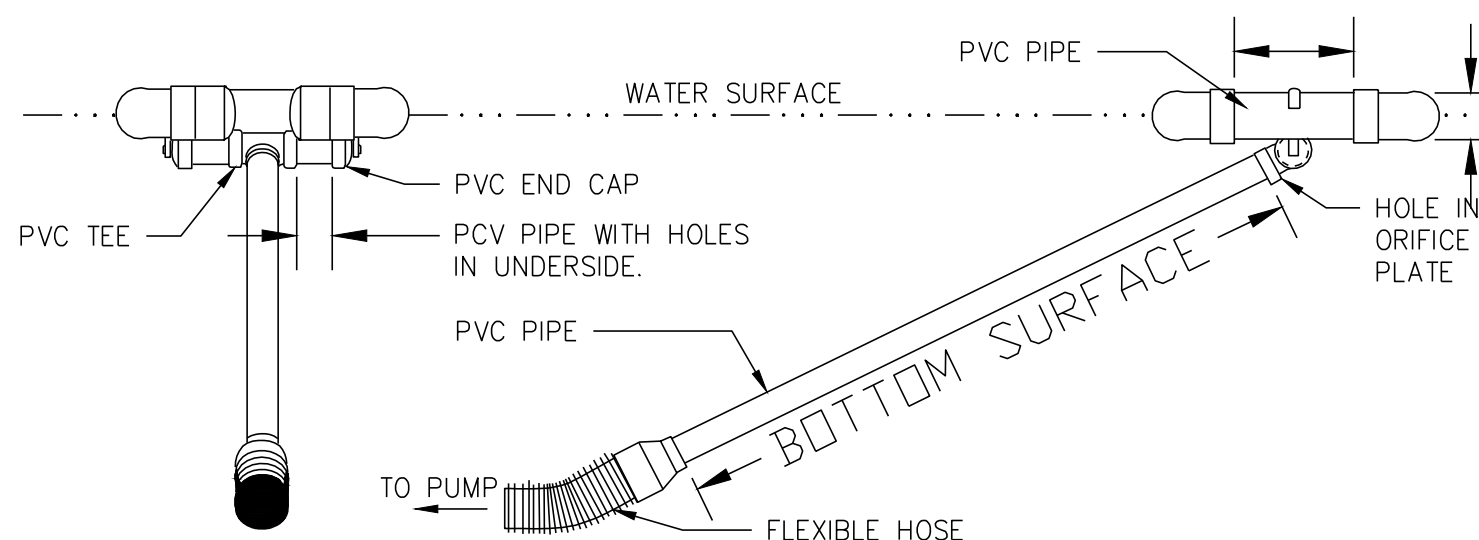
SKIMMER DETAIL

NOTE: SKIMMER CONFIGURATION SHOWN IS TYPICAL. THE DESIGNER/ENGINEER MAY SUBMIT AN ALTERNATE SKIMMER DETAIL FOR REVIEW. FAIRCLOTH SKIMMER OR APPROVED EQUAL.

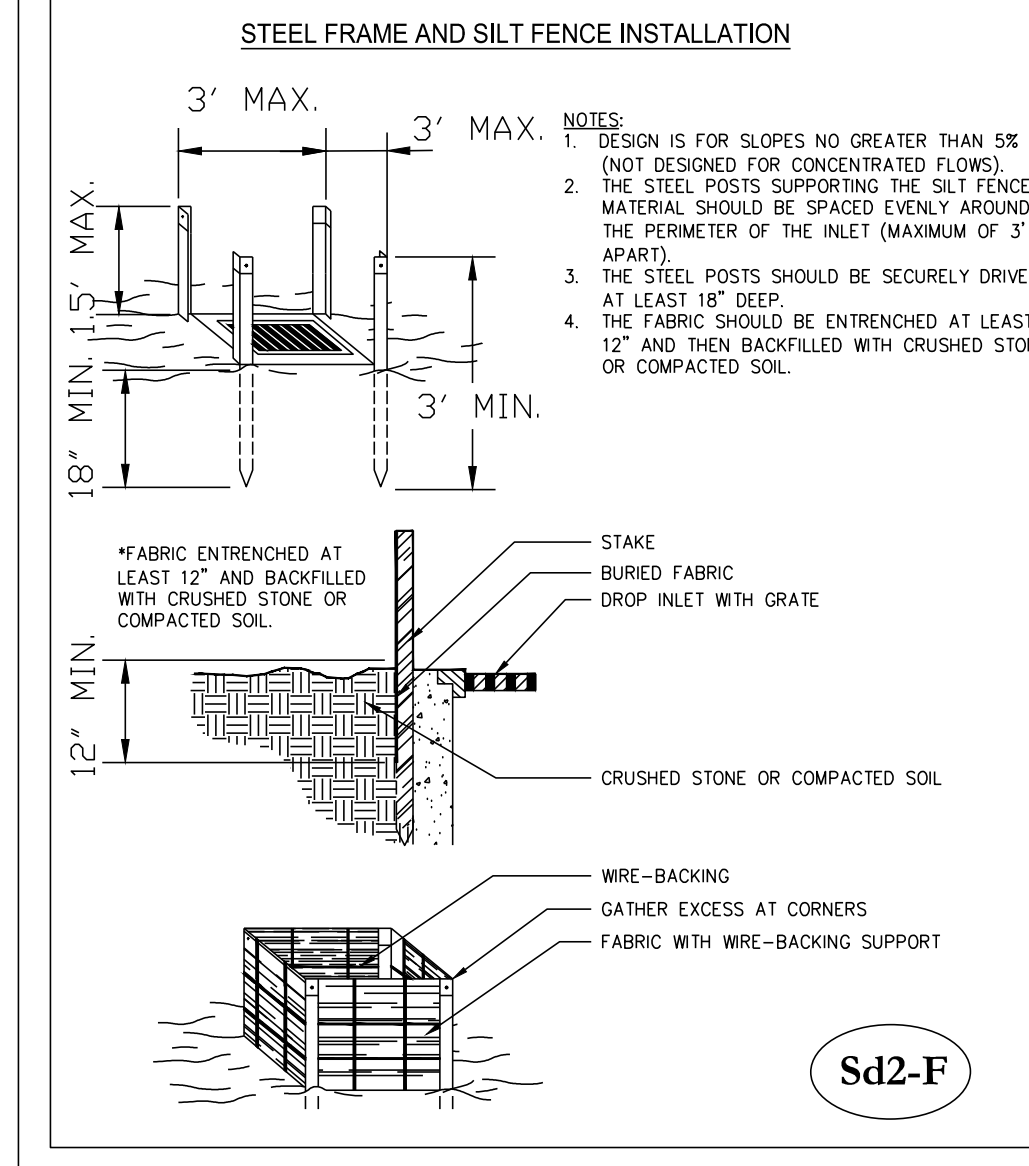


SKIMMER FRONTAL SECTION VIEW

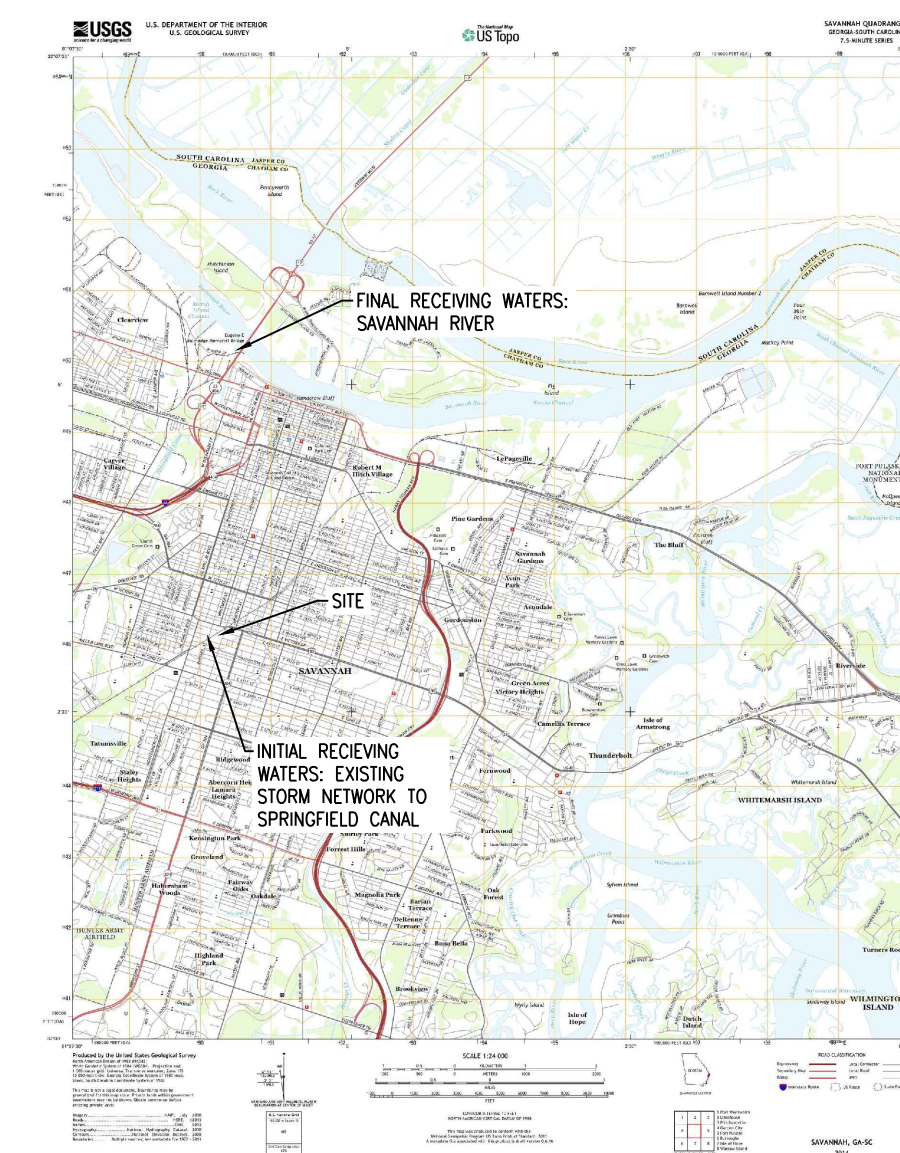
SKIMMER SIDE SECTION VIEW



FABRIC AND SUPPORTING FRAME FOR INLET PROTECTION



Sd2-F



NRCS ORIGINAL SUBMITTAL:	6/12/23
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DESIGN PROFESSIONAL'S CREDENTIALS:
 ENGINEER'S NAME (PRINTED): DOUGLAS FAIRCLOTH, PE
 GEORGIA PE NUMBER: 042072
 GSWCC LEVEL II CERTIFICATION NUMBER: 27405



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RELEASED FOR CONSTRUCTION

REVISIONS:

EROSION CONTROL PLANS FOR
APARTMENTS 45TH AND BULL STREET
 LOCATED IN SAVANNAH, GEORGIA
 PREPARED FOR MED DEVELOPERS, LLC

JOB NUMBER:	22-406
DATE:	06/12/23
DRAWN BY:	RAR
CHECKED BY:	DF
SCALE:	AS NOTED

EROSION DETAILS

SHEET:
ES7.4

INITIAL PHASE
 ALL SMALL LAND DISTURBING CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE AREA SITE DEVELOPMENT INSPECTOR.

THE CONTRACTOR SHALL OBSERVE THE PROJECT SEQUENCE SHOWN ON THE PLANS. THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO INSURE THAT LAND STRIPPING OF ITS NATURAL COVER IS EXPOSED ONLY IN SMALL QUANTITIES.

THE OWNER AGREES TO PROVIDE AND MAINTAIN OFF-STREET PARKING ON THE SUBJECT PROPERTY DURING THE ENTIRE CONSTRUCTION PERIOD.

NO STAGING AREAS, MATERIAL STORAGE, CONCRETE WASH OUT AREAS, OR DEBRIS BURN AND BURIAL HOLES SHALL BE LOCATED WITHIN 500 FEET OF DESIGNATED TREE PROTECTION AREAS.

A COPY OF THE APPROVED LAND DISTURBANCE PLAN AND PERMIT SHALL BE PRESENT ON THE SITE AT ALL TIMES.

THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE AND ALL STREAM BUFFERS SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS OR OTHER APPROPRIATE MEANS. THE LOCATION AND EXTENT OF ALL AUTHORIZED LAND DISTURBANCE ACTIVITY SHALL BE DEMARCATED FOR THE DURATION OF THE CONSTRUCTION ACTIVITY, NO LAND DISTURBANCE SHALL OCCUR OUTSIDE THE APPROVED LIMITS INDICATED ON THE APPROVED PLANS.

PRIOR TO ANY OTHER CONSTRUCTION, A STABILIZED CONSTRUCTION EXIT SHALL BE CONSTRUCTED AT EACH POINT OF ENTRY TO OR EXIT FROM THE SITE OR ONTO ANY PUBLIC ROADWAY.

THE FOLLOWING INITIAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED PRIOR TO ANY OTHER CONSTRUCTION ACTIVITY:

1. THE CONSTRUCTION EXIT, CONSISTING OF A MINIMUM PAD SIZE OF 20 FEET BY 50 FEET WITH A MINIMUM 6" THICK STONE, SHALL BE PLACED AS SHOWN ON THE PLAN. THE STONE SIZE SHOULD CONSIST OF COARSE AGGREGATE BETWEEN 1-1/2" & 3-1/2" IN DIAMETER AND OVERLAP ON A CURB OR CURB UNDERLIER. THE GEOTEXTILE UNDERLIER SHALL MEET THE REQUIREMENTS OF ASHTO M889-96, SECTION 7.3 SEPARATION REQUIREMENTS.

2. IMMEDIATELY AFTER THE ESTABLISHMENT OF CONSTRUCTION EXITS, ALL PERIMETER EROSION CONTROL AND STORM WATER MANAGEMENT DEVICES SHALL BE INSTALLED AS SHOWN ON THE INITIAL PHASE EROSION CONTROL PLAN.

3. TYPE 'NS' SILT FENCE SHALL BE INSTALLED AT THE PERIMETER OF THE DISTURBED AREA AS SHOWN ON THE PLAN. THE SILT FENCE SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6.27.2. THE SILT FENCE SHALL BE KEPT ERECT AT ALL TIMES AND REPAIRED WHEN REQUESTED BY THE INSPECTOR OR THE PROJECT DESIGN PROFESSIONAL OF RECORD. SILT SHALL BE REMOVED WHEN ACCUMULATION REACHED 1/3 THE HEIGHT OF THE BARRIER. THE PERIMETER SILT FENCE SHALL BE INSPECTED DAILY FOR ANY FAILURES. ANY FAILURES OF SAID FENCING SHOULD BE REPAIRED IMMEDIATELY.

4. INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL EXISTING STORM STRUCTURES AS SHOWN ON THE PLAN. SEE SEPARATE DETAILS FOR SPECIFICS ON TYPE OF INLET PROTECTION SPECIFIED.

5. STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS AS SHOWN ON THE PLAN.

6. TREE PROTECTION FENCING SHALL BE INSTALLED PRIOR TO THE START OF ANY LAND DISTURBANCE ACTIVITY AND MAINTAINED UNTIL FINAL LANDSCAPE IS INSTALLED. THE TREE PROTECTION FENCING SHALL BE INSPECTED DAILY. ANY FAILURES OF SAID FENCING SHALL BE REPAIRED IMMEDIATELY.

AFTER INSTALLATION OF INITIAL EROSION CONTROL MEASURES THE SITE CONTRACTOR SHALL SCHEDULE AN INSPECTION BY THE PROJECT DESIGN PROFESSIONAL. NO OTHER CONSTRUCTION ACTIVITIES SHALL OCCUR UNTIL THE PROJECT DESIGN PROFESSIONAL APPROVES THE INSTALLATION OF SAID EROSION CONTROL MEASURES. IF UNFORESEEN CONDITIONS EXIST IN THE FIELD THAT WARRANT ADDITIONAL EROSION CONTROL MEASURE, THE CONTRACTOR MUST CONSTRUCT ANY ADDITIONAL EROSION CONTROL DEVICES DEEMED NECESSARY BY THE SITE INSPECTION.

AFTER APPROVAL OF THE INITIAL EROSION CONTROL INSTALLATION, THE CONTRACTOR MAY PROCEED WITH CLEARING AND GRUBBING ACTIVITIES. AS CLEARING PERMITS THE CONTRACTOR SHALL CONSTRUCT INLET PROTECTION AS SHOWN ON THE INTERMEDIATE PHASE PLAN TO CONTROL EROSION AND STORM WATER RUN OFF.

THE DESIGN PROFESSIONAL WHO PREPARED THE EROSION CONTROL INSTALLATION PLAN WILL INSPECT THE INSTALLATION OF THE BMP'S WITHIN SEVEN DAYS AFTER INITIAL CONSTRUCTION ACTIVITY BEGINS.

INTERMEDIATE PHASE

THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE INTERMEDIATE PHASE OF CONSTRUCTION.

DURING CONSTRUCTION, THE CONTRACTOR SHALL MAINTAIN CAREFUL SCHEDULING AND PERFORMANCE TO ENSURE THAT LAND STRIPPING OF ITS NATURAL GROUND COVER IS EXPOSED ONLY IN SMALL QUANTITIES AND THEREFORE LIMITED DURATIONS, BEFORE PERMANENT EROSION PROTECTION IS ESTABLISHED. NOTE SUB PHASES SHOWN ON PLANS.

EARTHWORK OPERATIONS IN THE VICINITY OF STREAM BUFFERS SHALL BE CAREFULLY CONTROLLED TO AVOID DUMPING OR SLOUGHING INTO THE BUFFER AREAS.

SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.

EROSION CONTROL DEVICES SHALL BE INSTALLED IMMEDIATELY AFTER GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DEVELOP DIFFERENT FROM THE PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE DESIGN PROFESSIONAL IMMEDIATELY.

THE CONTRACTOR SHALL FURNISH AND MAINTAIN NECESSARY BARRICADES WHILE ROADWAY FRONTAGE IMPROVEMENTS ARE BEING MADE.

TYPE 'NS' SILT FENCE SHALL BE INSTALLED AT THE TOE OF ALL FILL SLOPES 10 FEET OR GREATER IN HEIGHT. THE SILT FENCE SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL FOR EROSION CONTROL IN GEORGIA, TABLE 6.27.1. THE SILT FENCE SHALL BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED ON THE SLOPE. SILT FENCE SHALL BE REMOVED WHEN ACCUMULATION REACHES 1/3 THE HEIGHT OF THE BARRIER. ADDITIONALLY, DIVERSION DIKES SHALL BE CONSTRUCTED ALONG THE TOP OF ALL SAID FILL SLOPES WITH THE USE OF TEMPORARY DOWN DRAINS TO CONTROL STORM WATER RUN OFF AS SHOWN ON THE PLANS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING BARRIERS AT THE TOE OF SLOPES UNDER CONSTRUCTION. THESE BARRIERS SHALL BE AS SHOWN IN THE PLANS. THESE BARRIERS MAY BE RELOCATED AND REUSED AFTER PERMANENT SLOPE STABILIZATION BECOMES FULLY ESTABLISHED. AS THEY ARE RELOCATED, ANY DEFECTIVE MATERIALS IN THE BARRIERS SHALL BE REPLACED. IN ADDITION, ALL DEBRIS AND SILT AT THE PREVIOUS LOCATION SHALL BE REMOVED.

CUT AND FILL SLOPES ARE NOT TO EXCEED "3H:1V"

THE CONTRACTOR CAN UTILIZE CLEARED TREES AS BARRIER BRUSH SEDIMENT CONTROL IN AREAS SHOWN ON THE PLAN WHERE INITIAL GRADING ACTIVITIES WILL NOT OCCUR.

NO BURN OR BURY PITS SHALL BE PERMITTED ON THE CONSTRUCTION SITE WITHOUT WRITTEN PERMISSION BY THE OWNER AND/OR THE ENGINEER OF RECORD.

ADDITIONAL SILT BARRIERS MUST BE PLACED AS SHOWN ON THE PLAN AS ACCESS IS OBTAINED DURING CLEARING. NO GRADING SHALL TAKE PLACE UNTIL SILT BARRIER INSTALLATION AND INLET PROTECTION ARE CONSTRUCTED AS SHOWN ON THE INTERMEDIATE PHASE EROSION CONTROL PLAN.

ALL SILT FENCE MUST MEET THE REQUIREMENTS OF SECTION 171- SILT FENCE FOR THE DEPARTMENT OF TRANSPORTATION, STATE OF GEORGIA, STANDARD SPECIFICATIONS, OF TRANSPORTATION SYSTEMS 2013 EDITION.

ALL ITEMS IN THIS SECTION OF THE SPECIFICATIONS SHALL MEET THE REQUIREMENTS AS SET FORTH IN SECTION 161, 162, 163, AND 165 OF THE GEORGIA D.O.T. STANDARD SPECIFICATION, OF TRANSPORTATION SYSTEMS, 2013 EDITION.

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF LAND DISTURBANCE.

ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY VEGETATION.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE ON-SITE INSPECTOR OR THE CIVIL ENGINEER.

FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

TYPE 'NS' SILT FENCE SHALL BE PLACED AT THE TOE OF ALL DIRT STOCK PILE AREAS. SEE SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

INLET SEDIMENT PROTECTION MEASURES SHALL BE INSTALLED ON ALL STORM STRUCTURES AS THEY ARE CONSTRUCTED. SEE PLAN VIEW FOR SPECIFIC TYPE AND SEPARATE DETAILS FOR ADDITIONAL INFORMATION.

STONE CHECK DAMS SHALL BE INSTALLED IN AREAS OF CONCENTRATED FLOWS, AS SHOWN ON THE PLAN. SEE SEPARATE DETAIL FOR ADDITIONAL INFORMATION.

ALL DRAINAGE SWALES SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.

ALL GRADED AREAS SHALL BE APPLIED WITH VEGETATIVE COVER AS SOON AS FINAL GRADE IS ACHIEVED.

FINAL PHASE
 THE FOLLOWING EROSION CONTROL MEASURES SHALL BE IMPLEMENTED DURING THE FINAL EROSION CONTROL PHASE OF CONSTRUCTION.

SEDIMENT SHALL NOT BE WASHED INTO INLETS. IT SHALL BE REMOVED FROM THE SEDIMENT TRAPS AND DISPOSED OF AND STABILIZED SO THAT IT WILL NOT ENTER THE INLETS AGAIN.

MULCH OR TEMPORARY GRASSING SHALL BE APPLIED TO ALL EXPOSED AREAS WITHIN 14 DAYS OF LAND DISTURBANCE.

ALL DISTURBED AREAS LEFT MULCHED AFTER 30 DAYS SHALL BE STABILIZED WITH TEMPORARY GRASSING.

THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT GROUND COVER IS ESTABLISHED. SEDIMENT SHALL BE CLEANED OUT OF THE PONDS WHEN IT REACHES THE HALF WAY POINT ON THE RISER.

AFTER CURBING, GRADED AGGREGATE BASE, AND PAVEMENT HAVE BEEN INSTALLED, ALL INLET SEDIMENT TRAPS ON SINGLE AND DOUBLE WING CATCH BASINS ALONG WITH ANY CURB INLETS SHALL BE REMOVED AND REPLACED WITH CURB FILTER PROTECTION. SEE SEPARATE DETAIL FOR ADDITIONAL INFORMATION.

ALL AREAS ADJACENT TO ROADWAY AND PARKING AREAS SHALL HAVE A VEGETATIVE COVER APPLIED AS SOON AS FINAL GRADE IS ACHIEVED BEHIND CURBS.

SEDIMENT AND EROSION CONTROL MEASURES SHOULD BE CHECKED AFTER EACH RAIN EVENT. EACH DEVICE IS TO BE MAINTAINED OR REPLACED IF SEDIMENT ACCUMULATION HAS REACHED ONE HALF THE CAPACITY OF THE DEVICE. ADDITIONAL DEVICES MUST BE INSTALLED IF NEW CHANNELS HAVE DEVELOPED.

THE CONSTRUCTION EXIT SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH 1"-3" OF STONE, AS CONDITIONS DEMAND. ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED FROM VEHICLE ONTO PUBLIC ROADWAY OR INTO STORM DRAIN MUST BE REMOVED IMMEDIATELY.

CONTRACTOR SHALL INSPECT CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.

EROSION CONTROL MEASURES WILL BE MAINTAINED AT ALL TIMES. IF FULL IMPLEMENTATION OF THE APPROVED PLAN DOES NOT PROVIDE FOR EFFECTIVE EROSION CONTROL, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IMPLEMENTED AS DIRECTED BY THE ON-SITE INSPECTOR OR THE CIVIL ENGINEER.

FAILURE TO INSTALL, OPERATE, OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB UNTIL SUCH MEASURES ARE CORRECTED BACK TO THE APPROVED EROSION CONTROL PLANS.

THE SITE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTENANCE OF ALL EROSION CONTROL MEASURES INCLUDING REPLACING OR REPAIRING ANY DAMAGED DEVICES DUE TO ANY CONSTRUCTION ACTIVITY BY OTHERS.

UPON COMPLETION OF THE PROJECT AND RECEIPT OF A CERTIFICATE OF OCCUPANCY OR FINAL ACCEPTANCE OF THE SITE, THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND DISPOSE OF THEM UNLESS NOTED ON PLANS.

PERMIT COVERAGE

THIS PLAN HAS BEEN PREPARED TO MEET THE REQUIREMENTS UNDER THE STATE OF GEORGIA, DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENTAL PROTECTION DIVISION (EPD) FOR AUTHORIZATION TO DISCHARGE UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY FOR STAND ALONE CONSTRUCTION.

AUTHORIZED DISCHARGES

1. ALL DISCHARGES OF STORM WATER ASSOCIATED WITH COMMON DEVELOPMENT CONSTRUCTION PROJECTS THAT WILL RESULT IN LAND DISTURBANCE EQUAL TO OR GREATER THAN ONE ACRE, PART I.C.1.

2. ALL DISCHARGES COVERED BY THIS PERMIT SHALL BE COVERED ENTIRELY OF STORM WATER EXCEPT AS PROVIDED IN PART I.C.2 AND PART III.A.2 OF THE PERMIT.

3. AUTHORIZED MIXED STORM WATER DISCHARGES: PART I.C.2
 A. THE INDUSTRIAL SOURCE OR ACTIVITY OTHER THAN CONSTRUCTION IS LOCATED ON THE SAME SITE AS THE CONSTRUCTION AND IS AN INTEGRAL PART OF THE CONSTRUCTION ACTIVITY.

B. THE STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES ARE OCCURRING ARE IN COMPLIANCE WITH THE TERMS OF THIS PERMIT.

C. STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY FROM THE AREAS OF THE SITE WHERE INDUSTRIAL ACTIVITY OTHER THAN CONSTRUCTION ARE OCCURRING ARE COVERED BY A DIFFERENT NPDES GENERAL PERMIT OR INDIVIDUAL PERMIT AUTHORIZING SUCH DISCHARGES AND THE DISCHARGES ARE IN COMPLIANCE WITH A DIFFERENT NPDES PERMIT.

4. AUTHORIZED NON-STORMWATER DISCHARGES: PART III.A.2
 A. FIRE FIGHTING ACTIVITIES
 B. FIRE HYDRANT FLUSHING
 C. POTABLE WATER SOURCES INCLUDING WATER LINE FLUSHING
 D. IRRIGATION DRAINAGE
 E. AIR CONDITIONING CONDENSATE
 F. SPRINGS
 G. UNCONTAMINATED GROUND WATER
 H. FOUNDATION OR FOOTING DRAINS WHERE FLOWS ARE NOT CONTAMINATED WITH PROCESS MATERIALS OR POLLUTANTS.

LIMITATIONS ON COVERAGE PART I.C.3

1. THE FOLLOWING STORM WATER DISCHARGES FROM CONSTRUCTION SITES ARE NOT AUTHORIZED BY THIS PERMIT:

- A. STORM WATER DISCHARGES ASSOCIATED WITH AN INDUSTRIAL ACTIVITY THAT ORIGINATE FROM THE SITE AFTER CONSTRUCTION ACTIVITIES HAVE BEEN COMPLETED AND THE SITE HAS UNDERGONE FINAL STABILIZATION.
- B. DISCHARGES THAT ARE MIXED WITH SOURCES OF NON-STORMWATER OTHER THAN DISCHARGES WHICH ARE IDENTIFIED IN PART III.A.2 OF THIS PERMIT AND WHICH ARE IN COMPLIANCE WITH PART IV.D.7 (NON-STORMWATER DISCHARGES) OF THIS PERMIT.
- C. STORM WATER DISCHARGES ASSOCIATED WITH INDUSTRIAL ACTIVITY THAT ARE SUBJECT TO AN EXISTING NPDES INDIVIDUAL OR GENERAL PERMIT. SUCH DISCHARGES MAY BE AUTHORIZED UNDER THIS PERMIT AFTER AN EXISTING PERMIT EXPIRES PROVIDED THE EXISTING PERMIT DID NOT ESTABLISH NUMERIC LIMITATIONS FOR SUCH DISCHARGES.
- D. STORMWATER DISCHARGES FROM CONSTRUCTION SITES THAT THE DIRECTOR (EPD) HAS DETERMINED TO BE OR MAY REASONABLY BE EXPECTED TO BE CONTRIBUTING TO A VIOLATION OF A WATER QUALITY STANDARD.

2. WHERE A RELEASE CONTAINING A HAZARDOUS SUBSTANCE IN AN AMOUNT EQUAL TO OR IN EXCESS OF A REPORTING QUANTITY ESTABLISHED UNDER EITHER GEORGIA'S OIL OR HAZARDOUS MATERIAL SPILLS OR RELEASES ACT (O.C.G.A. 12-4-2, ET SEQ.), 40 CFR 117 OR 40 CFR 302 OCCURS DURING A 24-HOUR PERIOD, THE PERMITTEE IS REQUIRED TO NOTIFY THE FOLLOWING AGENCIES IN ACCORDANCE WITH THE ABOVE-MENTIONED REGULATIONS AS SOON AS HE HAS KNOWLEDGE OF THE DISCHARGE: EPD AT (404) 656-4863 OR (800) 241-4113, AND THE NATIONAL RESPONSE CENTER (NRC) AT (800) 424-8802, PART III.B.1.

3. THIS PERMIT DOES NOT AUTHORIZE THE DISCHARGE OF HAZARDOUS SUBSTANCES OR OIL RESULTING FROM AN ON-SITE SPILL, PART III.B.2

NO DISCHARGES AUTHORIZED BY THIS PERMIT SHALL CAUSE VIOLATIONS OF GEORGIA'S IN-STREAM WATER QUALITY STANDARDS AS PROVIDED BY THE RULES AND REGULATIONS FOR WATER QUALITY CONTROL, CHAPTER 391-3-6-03, WATER QUALITY COMPLIANCE PART I.C.4

TENTATIVE ACTIVITY SCHEDULE						
CONSTRUCTION DATES: AUGUST 15, 2023- AUGUST 15, 2024	MONTH 1	MONTH 2	MONTH 3	MONTH 4	MONTH 5	MONTH 6
CONSTRUCTION EXIT (Co)						
SILT FENCE AND OTHER ES&PC PRACTICES						
RETROFIT (Rt)						
CLEARING AND GRUBBING						
GRADING						
DISTURBED AREA STABILIZATION (WITH TEMPORARY SEEDING) (Ds2)						
DISTURBED AREA STABILIZATION (WITH PERMANENT VEGETATION) (Ds3)						
MAINTENANCE OF ES&PC BMP'S						
THE ESCAPE OF SEDIMENTS FROM THE SITE SHALL BE PREVENTED BY THE INSTELATION OF EROSION AND SEDIMENT CONTROL MEASURES AND PRACTICES PRIOR TO LAND DISTURBING ACTIVITIES.						

SAMPLING REQUIREMENTS PART IV.D.6
 ALL SAMPLES SHALL BE COLLECTED BY "GRAB SAMPLES" AND THE ANALYSIS OF THESE SAMPLES MUST BE CONDUCTED IN ACCORDANCE WITH METHODOLOGY AND TEST PROCEDURES ESTABLISHED BY 40 CFR PART 136 (UNLESS OTHER TEST PROCEDURES HAVE BEEN APPROVED), THE GUIDANCE DOCUMENT TITLED "NPDES STORMWATER SAMPLING GUIDANCE DOCUMENT, EPA 833-B-92-001" AND GUIDANCE DOCUMENTS THAT MAY BE PREPARED BY THE EPD.

1. SAMPLE CONTAINERS SHOULD BE LABELED PRIOR TO COLLECTING THE SAMPLES.
2. LARGE MOUTH, CLEAN AND RINSED GLASS OR PLASTIC JARS SHOULD BE USED FOR COLLECTING SAMPLES. THE JARS SHOULD BE CLEANED THOROUGHLY TO AVOID CONTAMINATIONS.
3. IDEALLY THE SAMPLES SHOULD BE TAKEN FROM THE HORIZONTAL AND VERTICAL CENTER OF THE RECEIVING WATER(S) OR THE STORMWATER OUTFALL CHANNEL(S).
4. SAMPLES SHOULD BE WELL MIXED BEFORE TRANSFERRING TO A SECONDARY CONTAINER.
5. MANUAL, AUTOMATIC OR RISING STAGE SAMPLING MAY BE UTILIZED. SAMPLES REQUIRED BY THIS PERMIT SHOULD BE ANALYZED IMMEDIATELY, BUT IN NO CASE LATER THAN 48 HOURS AFTER COLLECTION. HOWEVER, SAMPLES FROM AUTOMATIC SAMPLERS MUST BE COLLECTED NO LATER THAN THE NEXT BUSINESS DAY AFTER THEIR ACCUMULATION, UNLESS FLOW THROUGH AUTOMATED ANALYSIS IS UTILIZED.
6. IF MANUAL SAMPLING IS EMPLOYED, THE SAMPLING CONTAINER SHOULD BE HELD SO THAT THE OPENING FACES UPSTREAM. THE SAMPLES SHOULD BE KEPT FREE FROM FLOATING DEBRIS, AND CARE SHOULD BE TAKEN TO AVOID STIRRING THE BOTTOM SEDIMENTS IN THE RECEIVING WATER(S) OR IN THE OUTFALL STORMWATER CHANNEL.
7. THE UPSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN IMMEDIATELY UPSTREAM OF THE CONFLUENCE OF THE FIRST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FURTHEST UPSTREAM AT THE SITE) BUT DOWNSTREAM OF ANY OTHER STORMWATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL UPSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE UPSTREAM TURBIDITY VALUE.
8. THE DOWNSTREAM SAMPLE FOR EACH RECEIVING WATER(S) MUST BE TAKEN DOWNSTREAM OF THE CONFLUENCE OF THE LAST STORMWATER DISCHARGE FROM THE PERMITTED ACTIVITY (I.E., THE DISCHARGE FARTHERMOST DOWNSTREAM AT THE SITE) BUT UPSTREAM OF ANY OTHER STORM WATER DISCHARGE NOT ASSOCIATED WITH THE PERMITTED ACTIVITY. WHERE APPROPRIATE, SEVERAL DOWNSTREAM SAMPLES FROM ACROSS THE RECEIVING WATER(S) MAY NEED TO BE TAKEN AND THE ARITHMETIC AVERAGE OF THE TURBIDITY OF THESE SAMPLES USED FOR THE DOWNSTREAM TURBIDITY VALUE.
9. PERMITTEES DO NOT HAVE TO SAMPLE SHEET FLOW THAT FLOWS ONTO UNDISTURBED NATURAL AREAS OR AREAS STABILIZED BY THE PROJECT.
10. DILUTION OF SAMPLES IS NOT REQUIRED.
11. SAMPLES MAY BE ANALYZED DIRECTLY WITH A PROPERLY CALIBRATED TURBIDIMETER.
12. SAMPLES ARE NOT REQUIRED TO BE COOLED.
13. SAMPLES AND ANALYSIS OF ANY STORMWATER DISCHARGE(S) OR THE RECEIVING WATER(S) BEYOND THE MINIMUM FREQUENCY STATED IN THIS PERMIT MUST BE REPORTED IN A SIMILAR MANNER TO EPD AS SPECIFIED IN PART IV.E.
14. TURBIDITY RESULTS WHICH EXCEED 1000 NTU SHALL BE REPORTED AS "EXCEEDS 1000 NTU."

SAMPLING FREQUENCY PART IV.D.6.D

1. SAMPLING FREQUENCY SHALL OCCUR IN ACCORDANCE WITH PART IV.D.6.D (3) OF THE PERMIT.
2. FOR A QUALIFYING EVENT, SAMPLES MUST BE TAKEN WITHIN FORTY-FIVE (45) MINUTES OF OR AS SOON AS POSSIBLE:
 - A. THE ACCUMULATION OF THE MINIMUM AMOUNT OF RAINFALL FOR THE QUALIFYING EVENT, IF THE STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER OR FROM A MONITORED OUTFALL HAS BEGUN PRIOR TO THE ACCUMULATION.
 - B. THE BEGINNING OF ANY STORMWATER DISCHARGE TO A MONITORED RECEIVING WATER OR FROM A MONITORED OUTFALL, IF THE DISCHARGE BEGINS AFTER THE ACCUMULATION OF THE MINIMUM AMOUNT OF RAINFALL FOR THE QUALIFYING EVENT.
 - C. WHERE MANUAL AND AUTOMATIC SAMPLING ARE NOT POSSIBLE (AS DEFINED IN THE PERMIT), OR ARE BEYOND THE PERMITTEE'S CONTROL, THE PERMITTEE SHALL TAKE SAMPLES AS SOON AS POSSIBLE, BUT IN NO CASE MORE THAN TWELVE (12) HOURS AFTER THE BEGINNING OF THE STORMWATER DISCHARGE.
 - D. NORMAL BUSINESS HOURS, AS DEFINED BY THE PERMIT, ARE MONDAY THROUGH FRIDAY, 8:00 AM TO 5:00 PM EXCLUDING ANY NON-WORKING SATURDAY, NON-WORKING SUNDAY & NON-WORKING FEDERAL HOLIDAY.
3. SAMPLING SHALL OCCUR FOR THE FOLLOWING QUALIFYING EVENTS FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL:
 - A. FOR EACH AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT AFTER ALL CLEARING AND GRUBBING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO COMPLETION OF MASS GRADING OPERATIONS. IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION;
 - B. IN ADDITION TO (A) ABOVE, FOR EACH OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL, THE FIRST RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH WITH A STORMWATER DISCHARGE THAT OCCURS DURING NORMAL BUSINESS HOURS AS DEFINED IN THIS PERMIT EITHER 90 DAYS AFTER THE FIRST SAMPLING EVENT OR AFTER ALL MASS GRADING OPERATIONS HAVE BEEN COMPLETED, BUT PRIOR TO SUBMITTAL OF A N.O.T., IN THE DRAINAGE AREA OF THE LOCATION SELECTED AS THE SAMPLING LOCATION, WHICHEVER COMES FIRST.
 4. IF BMP'S IN ANY AREA OF THE SITE THAT DISCHARGES TO A RECEIVING WATER OR FROM AN OUTFALL ARE NOT PROPERLY DESIGNED, INSTALLED AND MAINTAINED, CORRECTIVE ACTION SHALL BE DEFINED AND IMPLEMENTED WITHIN 2 BUSINESS DAYS, AND TURBIDITY SAMPLES SHALL BE TAKEN FROM DISCHARGES FROM THAT AREA OF THE SITE FOR EACH SUBSEQUENT RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH DURING NORMAL BUSINESS HOURS UNTIL THE SELECTED TURBIDITY STANDARD IS ATTAINED, OR UNTIL POST-STORM EVENT INSPECTIONS DETERMINE THAT BMP'S ARE PROPERLY DESIGNED, INSTALLED AND MAINTAINED.
 5. NOTE THAT THE PERMITTEE MAY CHOOSE TO MEET THE REQUIREMENTS OF NO. 3.A AND NO. 3.B BY COLLECTING TURBIDITY SAMPLES FROM ANY RAIN EVENT THAT REACHES OR EXCEEDS 0.5 INCH AND ALLOWS FOR SAMPLING AT ANY TIME OF THE DAY OR WEEK.

GEORGIA UNIFORM CODING SYSTEM FOR SOIL AND SEDIMENT CONTROL PRACTICES				
STRUCTURAL PRACTICES				
CODE	PRACTICE	DETAIL	MAP SYMBOL	DESCRIPTION
Cd	CHECK DAM			A SMALL TEMPORARY BARRIER OR DAM CONSTRUCTED ACROSS A SMALL DRAINAGE DITCH OR AREA OF CONCENTRATED FLOW.
Ch	CHANNEL STABILIZATION			IMPROVING, CONSTRUCTING OR STABILIZING AN OPEN CHANNEL, EXISTING STREAM, OR DITCH.
Co	CONSTRUCTION EXIT			A CRUSHED STONE PAD LOCATED AT THE CONSTRUCTION SITE EXIT TO PROVIDE A PLACE FOR REMOVING MUD FROM TIRES THEREBY PROTECTING PUBLIC STREETS.
Cr	CONSTRUCTION ROAD STABILIZATION			A TRAVELWAY CONSTRUCTED AS PART OF A CONSTRUCTION PLAN INCLUDING ACCESS ROADS, SUBDIVISION ROADS, PARKING AREAS, AND OTHER ON-SITE VEHICLE TRANSPORTATION ROUTES.
Dc	STREAM DIVERSION CHANNEL			A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT STRUCTURE IS BEING CONSTRUCTED.
Di	DIVERSION			AN EARTH CHANNEL OR DIKE LOCATED ABOVE, BELOW, OR ACROSS A SLOPE TO DIVERT RUNOFF. THIS MAY BE A TEMPORARY OR PERMANENT STRUCTURE.
Dn1	TEMPORARY DOWNDRAIN STRUCTURE			A FLEXIBLE CONDUIT OF HEAVY-DUTY FABRIC OR OTHER MATERIAL DESIGNED TO SAFELY CONDUCT SURFACE RUNOFF DOWN A SLOPE. THIS IS TEMPORARY AND INEXPENSIVE.
Dn2	PERMANENT DOWNDRAIN STRUCTURE			A PAVED CHUTE, PIPE, SECTIONAL CONDUIT OR SIMILAR MATERIAL DESIGNED TO SAFELY CONDUIT SURFACE RUNOFF DOWN A SLOPE.
Fr	FILTER RING			A TEMPORARY STONE BARRIER CONSTRUCTED AT STORM DRAIN INLETS AND POND OUTLETS.
Ga	GABIONS			ROCK FILTER BASKETS WHICH ARE HAND-PLACED INTO POSITION FORMING SOIL STABILIZING STRUCTURES.
Gr	GRADE STABILIZATION STRUCTURE			PERMANENT STRUCTURES INSTALLED TO PROTECT NATURAL OR ARTIFICIAL CHANNELS OR WATERWAYS WHERE OTHERWISE THE SLOPE WOULD BE SUFFICIENT FOR THE RUNNING WATER TO FORM GULLIES.
Lv	LEVEL SPREADER			A STRUCTURE TO CONVERT CONCENTRATED FLOW OF WATER INTO LESS ERODIVE SHEET FLOW. THIS SHOULD BE CONSTRUCTED ONLY ON UNDISTURBED SOIL.
Rd	ROCK FILTER DAM			A PERMANENT OR TEMPORARY STONE FILTER DAM INSTALLED ACROSS SMALL STREAMS OR DRAINAGWAYS.
Re	RETAINING WALL			A WALL INSTALLED TO STABILIZE CUT AND FILL SLOPES WHERE MAXIMUM PERMISSIBLE SLOPES ARE NOT OBTAINABLE. EACH SITUATION WILL REQUIRE SPECIAL DESIGN.
Rt	RETROFITTING			A DEVICE OR STRUCTURE PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER.
Sd1	SEDIMENT BARRIER			A BARRIER TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT MAY BE SANDBAGS, BALES OF STRAW OR HAY, BRUSH, LOGS AND POLES, GRAVEL, OR A SEDIMENT FENCE.
Sd2	INLET SEDIMENT TRAP			AN IMPOUNDING AREA CREATED BY EXCAVATING AROUND A STORM DRAIN DROP INLET. THE EXCAVATED AREA WILL BE FILLED AND STABILIZED ON FILLED AND STABILIZED ON COMPLETION OF CONSTRUCTION ACTIVITIES.
Sd3	TEMPORARY SEDIMENT BASIN			A BASIN CREATED BY EXCAVATION OR A DAM ACROSS A WATERWAY. THE SURFACE WATER RUNOFF IS TEMPORARILY STORED ALLOWING THE BULK OF THE SEDIMENT TO DROP OUT.
Sd4	TEMPORARY SEDIMENT TRAP			A SMALL TEMPORARY POND THAT DRAINS A DISTURBED AREA SO THAT SEDIMENT CAN SETTLE OUT. THE PRINCIPLE FEATURE Distinguishing A TEMPORARY SEDIMENT TRAP FROM A TEMPORARY SEDIMENT BASIN IS THE LACK OF A PIPE OR RISER.
Sk	FLOATING SURFACE SKIMMER			A BUOYANT DEVICE THAT RELEASES/DRAINS WATER FROM THE SURFACE OF SEDIMENT PONDS, TRAPS OR BASINS AT A CONTROLLED RATE OF FLOW.
SpB	SEEP BERM			A LINEAR CONTROL DEVICE CONSTRUCTED AS A DIVERSION PERPENDICULAR TO THE DIRECTION OF THE RAINFALL TO ENHANCE SEEPAGE AND MITIGATION OF RUNOFF, WHILE CREATING MULTIPLE SEDIMENTATION CHAMBERS WITH THE EMPLOYMENT OF INTERMEDIATE DAMS.
Sr	TEMPORARY STREAM CROSSING			A TEMPORARY BRIDGE OR CULVERT-TYPE STRUCTURE PROTECTING A STREAM OR WATER COURSE FROM DAMAGE BY CROSSING CONSTRUCTION EQUIPMENT.
St	STORM DRAIN PROTECTION			A PAVED OR SHORT SECTION OF RIPRAP CHANNEL AT THE OUTLET OF A STORM DRAIN SYSTEM PREVENTING EROSION FROM THE CON

