



license number: C-0293, C-187

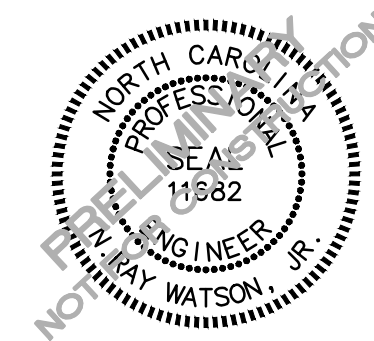
www.mcadamsco.com

CLIENT

N3 REAL ESTATE
1240 N KIMBALL AVE
SOUTHLAKE, TX 76092
PHONE: 817. 348. 8744



STRICKLAND BROTHERS
OIL CHANGE
SITE PLAN SUBMITTAL
3223 BATTLEGROUND AVE.
GREENSBORO, NORTH CAROLINA



REVISIONS

NO.	DATE	DESCRIPTION
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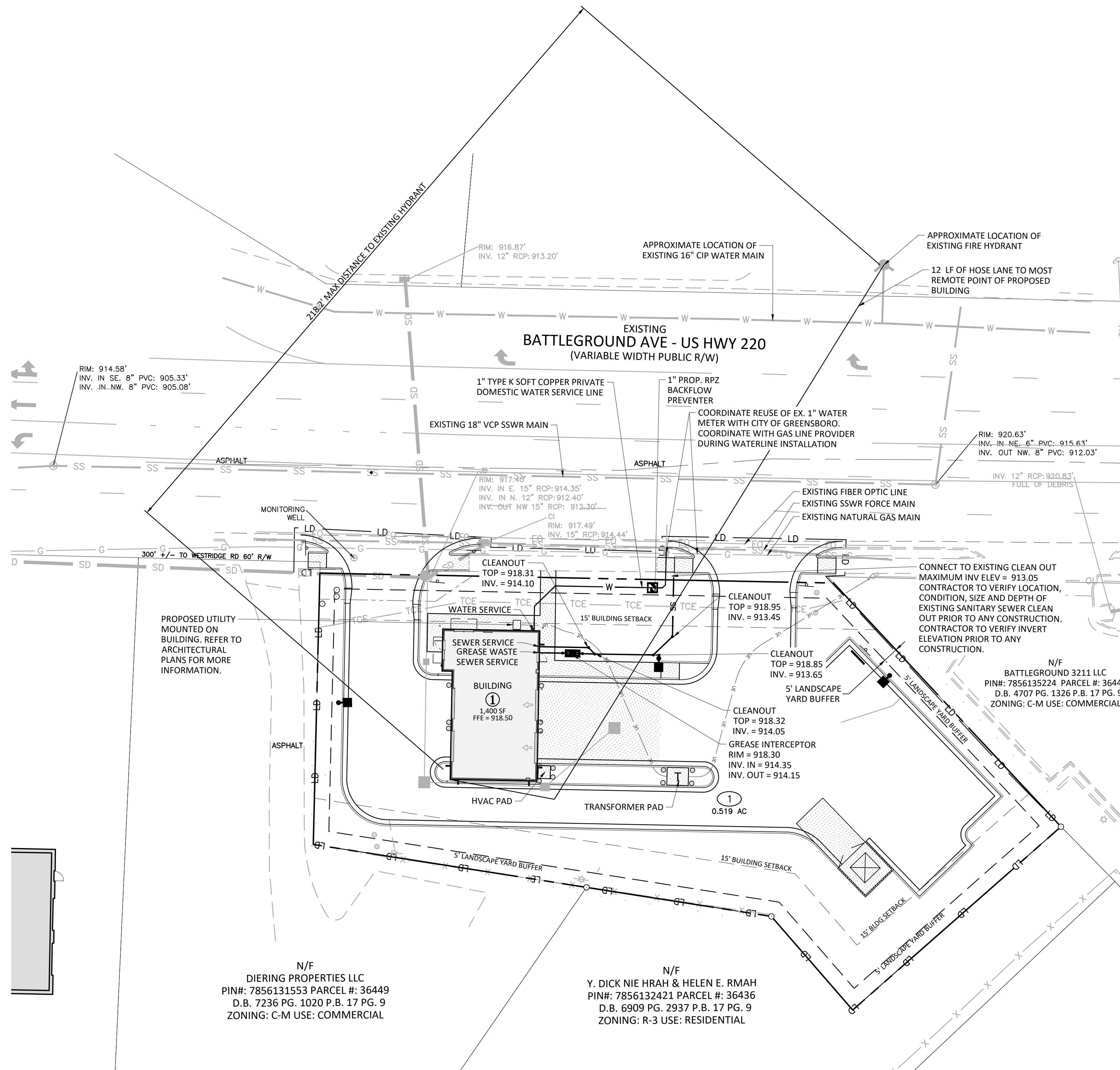
PLAN INFORMATION

PROJECT NO.	2021110459
FILENAME	2021110459-U1
CHECKED BY	NRW
DRAWN BY	KST
SCALE	1" = 20'
DATE	12. 21. 2021

SHEET

UTILITY PLAN

C4.00



GRAPHIC SCALE

0 10 20 40

1 inch = 20 ft.

CITY OF GREENSBORO UTILITY NOTES:

2. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN ACCORDANCE WITH CITY OF GREENSBORO DESIGN STANDARDS, DETAILS AND SPECIFICATIONS.
 3. UTILITY SEPARATION REQUIREMENTS:
 - 2.1. A DISTANCE OF 100' SHALL BE MAINTAINED BETWEEN SANITARY SEWER & ANY PRIVATE OR PUBLIC WATER SUPPLY SOURCE SUCH AS AN IMPOUNDED RESERVOIR USED AS A SOURCE OF DRINKING WATER. IF ADEQUATE LATERAL SEPARATION CANNOT BE ACHIEVED, FERROUS SANITARY SEWER PIPE SHALL BE SPECIFIED AND INSTALLED TO WATERLINE SPECIFICATIONS. HOWEVER, THE MINIMUM SEPARATION SHALL NOT BE LESS THAN 25' FROM A PRIVATE WELL OR 50' FROM A PUBLIC WELL.
 - 2.2. WHEN INSTALLING WATER AND/OR SEWER MAINS, THE HORIZONTAL SEPARATION BETWEEN UTILITIES SHALL BE 10'. IF THIS SEPARATION CANNOT BE MAINTAINED DUE TO EXISTING CONDITIONS, THE VARIATION ALLOWED IS THE WATER MAIN IN A SEPARATE TRENCH WITH THE ELEVATION OF THE WATER MAIN AT LEAST 18" ABOVE THE TOP OF THE SEWER AND MUST BE APPROVED BY THE PUBLIC UTILITIES DIRECTOR. ALL DISTANCES ARE MEASURED FROM OUTSIDE DIAMETER TO OUTSIDE DIAMETER.
 - 2.3. WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER SEPARATION, OR ANYTIME A SANITARY SEWER PASSES OVER A WATER MAIN, DIP MATERIALS OR STEEL ENCASEMENT EXTENDED 10' ON EACH SIDE OF THE CROSSING MUST BE SPECIFIED AND INSTALLED TO WATERLINE SPECIFICATIONS.
 - 2.4. 5.0' MINIMUM HORIZONTAL SEPARATION IS REQUIRED BETWEEN ALL SANITARY SEWER AND STORM SEWER FACILITIES, UNLESS DIP MATERIAL IS SPECIFIED FOR SANITARY SEWER.
 - 2.5. ALL OTHER UNDERGROUND UTILITIES SHALL CROSS WATER AND SEWER FACILITIES WITH 18" MIN. VERTICAL SEPARATION REQUIRED.
 3. ANY NECESSARY FIELD REVISIONS ARE SUBJECT TO REVIEW AND APPROVAL OF AN AMENDED PLAN BY THE CITY OF GREENSBORO PUBLIC UTILITIES DEPARTMENT PRIOR TO CONSTRUCTION.
 4. CONTRACTOR SHALL MAINTAIN CONTINUOUS WATER AND SEWER SERVICE TO EXISTING RESIDENCES AND BUSINESSES THROUGHOUT CONSTRUCTION OF THE PROJECT. ANY NECESSARY SERVICE INTERRUPTIONS SHALL BE PRECEDED BY A 24-HOUR ADVANCE NOTICE TO THE CITY OF GREENSBORO PUBLIC UTILITIES DEPT.
 5. 3.0' MINIMUM COVER IS REQUIRED ON ALL WATER MAINS AND SEWER FORCE MAINS. 4.0' MINIMUM COVER IS REQUIRED ON ALL REUSE MAINS.
 6. IT IS THE DEVELOPER'S RESPONSIBILITY TO REMOVE EXISTING WATER OR SEWER SERVICES NOT BEING USED IN REDEVELOPMENT OF A SITE UNLESS OTHERWISE DIRECTED BY THE CITY OF GREENSBORO PUBLIC UTILITIES DEPARTMENT. THIS INCLUDES ABANDONING TAP AT MAIN AND REMOVAL OF SERVICE FROM ROW OR UTILITY EASEMENT PER COSPD HANDBOOK PROCEDURE.
 7. INSTALL 1" COPPER WATER SERVICES WITH MASTER METER LOCATED AT ROW OR WITHIN A WATERLINE EASEMENT IMMEDIATELY ADJACENT. NOTE: IT IS THE INSTALLER'S RESPONSIBILITY TO PROPERLY SIZE THE WATER SERVICE FOR EACH CONNECTION TO PROVIDE ADEQUATE FLOW AND PRESSURE.
 8. INSTALL 6" @ $\frac{1}{8}$ " INCH PER FOOT SANITARY MAIN @ 0.40% MINIMUM GRADE AND 4" PVC LATERAL SEWER SERVICES @ 1.0% MINIMUM GRADE WITH CLEANOUTS LOCATED AT ROW OR EASEMENT LINE AND SPACED EVERY 75 LINEAR FEET MAXIMUM.
 9. PRESSURE REDUCING VALVES ARE REQUIRED ON ALL WATER SERVICES EXCEEDING 80 PSI; BACKWATER VALVES ARE REQUIRED ON ALL SANITARY SEWER SERVICES HAVING BUILDING DRAINS LOWER THAN 1' ABOVE THE NEXT UPSTREAM MANHOLE.
 10. ALL ENVIRONMENTAL PERMITS APPLICABLE TO THE PROJECT MUST BE OBTAINED FROM NCDOW, USACE, AND/OR FEMA FOR ANY RIPARIAN BUFFER, WETLAND, AND/OR FLOODPLAIN IMPACTS (RESPECTIVELY) PRIOR TO CONSTRUCTION.
 11. TAPS ON WATER AND SEWER MAINS 16" OR GREATER IN DIAMETER MUST BE EXECUTED BY WATER RESOURCES PERSONNEL. CONTACT (336)-373-2033 TO COORDINATE TAB INSTALLATION.
 12. TERMINATE EXISTING AND OR UNUSED WATER/SEWER TO THE MAIN TO COSD STANDARDS.
 13. CONTACT EXISTING PUBLIC WATER/SEWER ENGINEERING RECORDS AT (336)-373-2302.
- ## UTILITY LEGEND

ADDITIONAL UTILITY NOTES:

1. ALL WATER MAINS, SERVICES AND FIRE SERVICES GREATER THAN 2" DIAMETER ARE TO BE DUCTILE IRON PIPE. 2" AND SMALLER DOMESTIC SERVICES MUST BE TYPE K SOFT COPPER (WITHOUT FITTINGS) TO THE WATER METER.
2. ALL SEWER MAINS SHALL BE EITHER PVC OR DUCTILE IRON PIPE AS SHOWN ON THE PLANS. ALL PIPE MATERIAL SHALL MEET CITY OF GREENSBORO STANDARDS AND SPECIFICATIONS AS DEFINED IN THE LATEST ISSUE OF THE PUBLIC UTILITIES HANDBOOK AND/OR UNIFIED DEVELOPMENT ORDINANCE (UDO).
3. ALL FIRE HYDRANTS ALONG PUBLIC ROW LINES SHALL HAVE A 5" x 5" x 1/2" CITY OF GREENSBORO WATERLINE EASEMENT ONTO ADJACENT PROPERTY.
4. ALL SANITARY SEWER INTERCEPTOR LINES (12" & LARGER) AS WELL AS MANHOLES AND FITTING ASSOCIATED WITH THE INTERCEPTOR LINE, SHALL BE LINED WITH PROTECTO 400 OR APPROVED EQUAL TO PREVENT HYDROGEN SULFIDE CORROSION. SEE CURRENT CITY OF GREENSBORO PUBLIC UTILITIES DEPARTMENT HANDBOOK FOR APPROVED COATINGS & APPLICATION METHODS.
5. ALL UNDERGROUND UTILITIES INSTALLED SHALL BE ELECTRONICALLY LOCATABLE. CONTRACTOR SHALL COORDINATE DIRECTLY WITH THE CITY OF GREENSBORO PUBLIC UTILITIES DEPARTMENT FOR DETAILS AND SPECIFICATIONS MEETING THESE REQUIREMENTS.
6. EXISTING UTILITIES RECORDS ARE BASED ON FIELD SURVEYS AND THE BEST AVAILABLE RECORD DRAWINGS. THE CONTRACTOR SHALL VERIFY CONDITIONS PRIOR TO BEGINNING CONSTRUCTION. ANY DISCREPANCIES BETWEEN ACTUAL FIELD CONDITIONS AND THE PLANS SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
7. ALL WATER AND SEWER MAINS WITHIN PUBLIC EASEMENTS OR RIGHT-OF-WAY TO BE OWNED, OPERATED AND MAINTAINED BY THE CITY OF GREENSBORO.
8. ALL WATER AND SEWER MAINS NOT WITHIN PUBLIC EASEMENTS OR RIGHT-OF-WAY TO BE PRIVATELY OWNED, OPERATED AND MAINTAINED BY THE PROPERTY OWNER.
9. CONTRACTOR SHALL NOTIFY "NC811" (811) OR 1-800-533-4040 AT LEAST 3 BUSINESS DAYS PRIOR TO BEGINNING CONSTRUCTION OR EXCAVATION TO HAVE EXISTING UTILITIES LOCATED. CONTRACTOR SHALL CONTACT ANY OF LOCAL UTILITIES THAT PROVIDE THEIR OWN LOCATOR SERVICES INDEPENDENT OF "NC811". REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
10. ALL UTILITY SLEEVES SHALL BE SCHEDULE 40 PVC AND INSTALLED WITH 2" MINIMUM COVER. BOTH ENDS SHALL BE CAPPED AND MARKED.

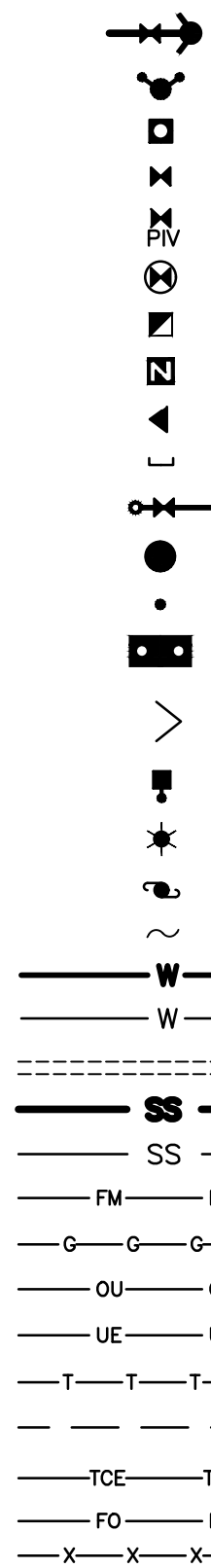
PLUMBING PERMIT NOTICE:

PLUMBING INSPECTION REQUIRED ON 1" WATER SERVICE AND/OR 4" SEWER SERVICE. CALL DEVELOPMENT SERVICES AT (336) 373-2155 FOR PERMIT.

CONSTRUCTION INSPECTION:

CONSTRUCTION INSPECTION REQUIRED FOR 1" WATER LINE AND 4" SANITARY SEWER. CALL (336) 373-2377 TO SCHEDULE INSPECTOR.

UTILITY LEGEND



FIRE HYDRANT ASSEMBLY
FIRE DEPARTMENT CONNECTION (FDC)
WATER METER
WATER VALVE
POST INDICATOR VALVE
VALVE IN MANHOLE
METER & VAULT
BACKFLOW PREVENTER
REDUCER
PLUG
BLOW-OFF ASSEMBLY
SANITARY SEWER MANHOLE
SEWER CLEAN-OUT
GREASE TRAP
SEWER FLOW DIRECTION
ARROW
YARD LIGHTS
LIGHT POLE
POWER POLE
LINE BREAK SYMBOL
WATERLINE
WATER SERVICE LINE
UTILITY SLEEVE
SANITARY SEWER
SEWER SERVICE LINE
SEWER FORCE MAIN
GAS LINE
OVERHEAD UTILITY
UNDERGROUND ELECTRIC
TELEPHONE
EASEMENT LINE
TEMPORARY CONSTRUCTION EASEMENT
FIBER OPTIC
FENCE

ALL CONSTRUCTION SHALL BE IN ACCORDANCE
WITH THE CURRENT CITY OF GREENSBORO
ENGINEERING DESIGN AND CONSTRUCTION
STANDARDS

PRELIMINARY DRAWING - NOT RELEASED FOR CONSTRUCTION

M:\Projects\NTRI\2021110459\04-Production\Engineering\Construction Drawings\2021110459-U1.dwg, 12/21/2021 2:49:22 PM, Angie Pauda