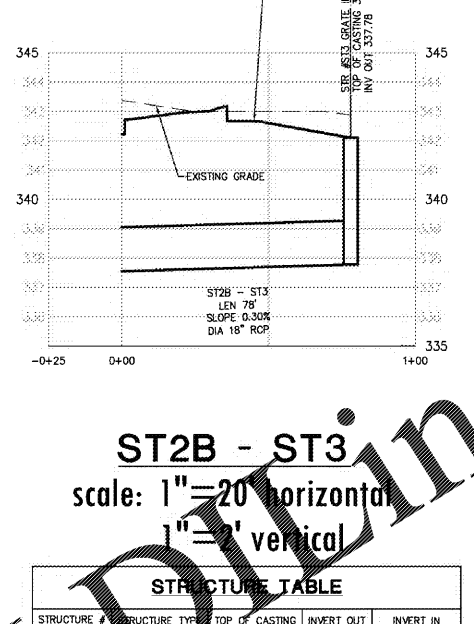
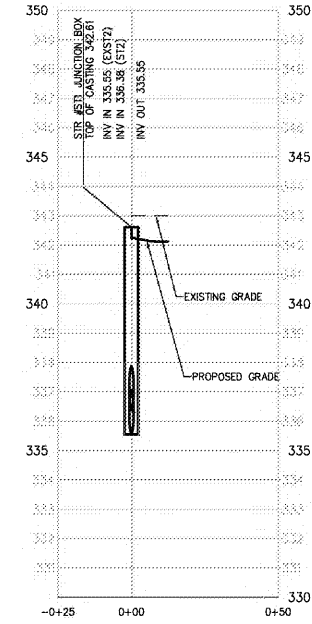
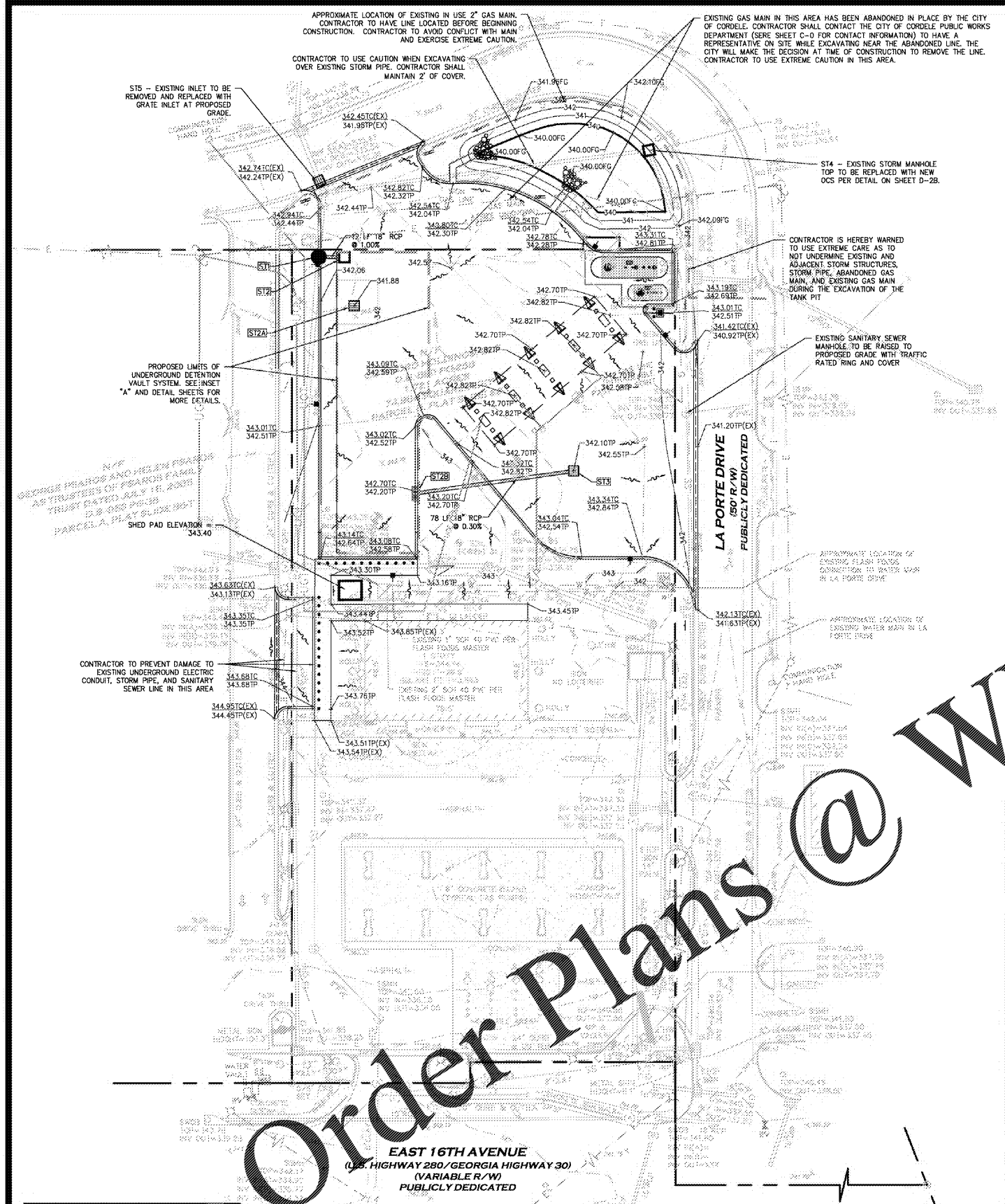


USER: 6675 - Dec 15, 2020 - 3:30pm  
Z:\AI Project Data\Projects\2019\19-LD-090 MANDWG - LAYOUT: C-2 PERSON: WMM



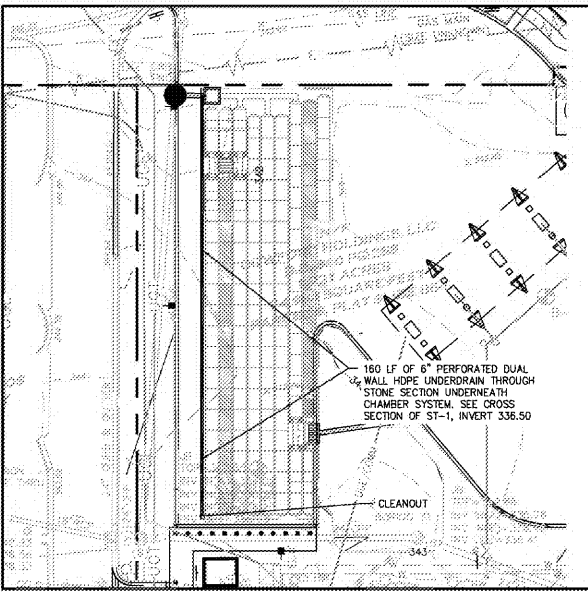
**STRUCTURE TABLE**

STRUCTURE #	STRUCTURE TYPE	TOP OF CASTING	INVERT OUT	INVERT IN
ST1	JUNCTION BOX	342.61	335.55	336.38 (ST2)
ST2	OCS	342.13	336.50	
ST2A	GRATE INLET	341.88		
ST2B	CURB INLET	342.22		337.55 (ST3)
ST3	GRATE INLET	342.10	337.78	
ST4	OCS	341.00	335.94	336.36 (EXST3)
ST5	GRATE INLET	337.19	335.36	335.36 (EXST1)

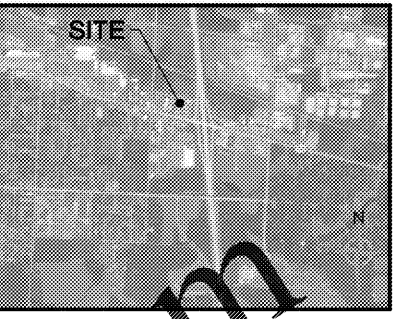
**PIPE TABLE**

NAME	LENGTH	SIZE	SLOPE	MATERIAL
ST1 - ST2	12	18	1.00%	RCP
ST2B - ST3	78	18	0.30%	RCP

CONTRACTOR IS RESPONSIBLE FOR COMPARING THE STORM SEWER SCHEDULES WITH THE PROFILES FOR THE STORM LINES AND INFORMING THE ENGINEER OF ANY CONFLICTS OR DISCREPANCIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.



- UNDERGROUND DETENTION NOTES**
- A PORTION OF THE STORMWATER SYSTEM WILL BE PROVIDED AS AN UNDERGROUND DETENTION SYSTEM A DETENTION CHAMBER SYSTEM DESIGN SUMMARY:
    - DESIGN VOLUME = 14,235 CF
    - WO VOLUME = 3,126 CF (AT ELEVATION 337.63)
    - BOTTOM OF DETENTION SYSTEM = 336.50 (MAXIMUM DEPTH)
    - TOP OF DETENTION SYSTEM = 340.50 (MAXIMUM HEIGHT)
    - STONE VOIDS % = 40%
  - SEE DETAIL SHEETS 1-6, THIS SET, FOR UNDERGROUND DETENTION CHAMBER SYSTEM DESIGN BY ADS STORMTECH.
  - IF CONTRACTOR WOULD LIKE TO PURSUE AN ALTERNATIVE SYSTEM, EQUIVALENT DESIGNS TO BE SUBMITTED TO CIVIL ENGINEER PRIOR TO CONSTRUCTION FOR REVIEW AND APPROVAL.
  - CONTRACTOR TO MAINTAIN A MINIMUM OF 18" OF COVER FROM TOP OF CHAMBER TO FINAL GRADE.
  - PRIOR TO THE INSTALLATION OF THE UNDERGROUND CHAMBER SYSTEM, THE CONTRACTOR SHALL OBTAIN A MINIMUM 2400 PSF BEARING CAPACITY AT THE BOTTOM OF THE EXCAVATION FOR THE UNDERGROUND DETENTION CHAMBER SYSTEM (ELEVATION 336.50).
  - PAVEMENT SUBGRADE ABOVE UNDERGROUND SYSTEM SHALL PASS A PROOF ROLL PRIOR PLACING CONCRETE PAVEMENT. PROOF ROLL SHALL BE CONDUCTED WITH A FULLY LOADED, TANDUM AXLE DUMP TRUCK TRAVELING THE AREA WITH OVERLAPPING PASSES. CONTRACTOR IS TO SCHEDULE AND HAVE A REPRESENTATIVE OF UNIVERSAL ENGINEERING SERVICES, INC. ON SITE (MIKE REED - 708-340-5655) FOR PROOF ROLL.



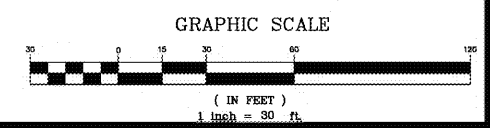
**SITE GRADING NOTES**

- CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES AND REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE. ARE TO BE REMOVED TO THE RIGHT-OF-WAY.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF ALL EXISTING UTILITIES (ABOVE OR BELOW GROUND) AS SHOWN ON THESE PLANS ARE APPROXIMATE AND WERE LOCATED BASED ON EITHER VISUAL OBSERVATIONS AT THE SITE, EXISTING SURVEYS AND/OR FROM UTILITY OWNERS. WOLVERTON AND ASSOCIATES INC. DOES NOT GUARANTEE THAT EXISTING UTILITY LOCATIONS SHOWN ARE EXACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES (ABOVE OR BELOW GROUND) BEFORE BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND THE UTILITIES PROTECTION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY OWNER AND/OR ENGINEER OF ANY UTILITY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
- ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.
- PRECAST STRUCTURES MAY BE USED AT CONTRACTORS OPTION.
- STORM PIPE TYPE AND JOINTS SHALL BE AS FOLLOWS:
  - CONCRETE PIPE (RCP) ASTM C 76.
    - FOR FILLS LESS THAN 15 FEET OVER TOP OF PIPE: CLASS III OR GREATER SHALL BE USED
    - FOR FILLS 15 FEET TO 20 FEET OVER PIPE: CLASS IV OR GREATER SHALL BE USED
    - FOR FILLS GREATER THAN 20 FEET OVER PIPE: CLASS V OR GREATER SHALL BE USED
  - JOINT MATERIAL:
    - RUBBER O-RING GASKET: AASHTO M 198, TYPE B OR ASTM C 443
    - FLARED END SECTIONS: ASTM C 78 OR, FOR SECTIONS WITH TOE WALL, AASHTO M 170.
- EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.
- EXISTING GRADE CONTOUR SHOWN AT 1 FOOT INTERVALS.
- PROPOSED GRADE CONTOUR SHOWN AT 1 FOOT INTERVALS.
- IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.
- ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATER-TIGHT.
- ALL STORM SEWER MANHOLES IN PAVED AREAS SHALL BE FLUSH WITH PAVEMENT, AND SHALL HAVE TRAFFIC BEARING RING & COVERS. MANHOLES IN UNPAVED AREAS SHALL BE 6" ABOVE FINISH GRADE. LIDS SHALL BE LABELED "STORM SEWER".
- CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORMWATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- TOPOGRAPHIC INFORMATION TAKEN FROM A TOPOGRAPHIC SURVEY BY LOWERY & ASSOCIATES LAND SURVEYING. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY AS SHOWN ON THE PLANS, WITHOUT EXCEPTION, HE SHALL HAVE MADE, AT HIS EXPENSE, A TOPOGRAPHIC SURVEY BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO THE OWNER FOR REVIEW.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES AS INDICATED ON THE EROSION CONTROL PLANS. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH CITY/COUNTY SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.
- ALL STORM STRUCTURES SHALL HAVE A SMOOTH UNIFORM POURED MORTAR INVERT FROM INVERT-IN TO INVERT-OUT.
- CONTRACTOR SHALL VERIFY BENCHMARKS PRIOR TO SETTING FINISHED GRADES.

**GRADING/DRAINAGE PLAN LEGEND**

- STORM SEWER PIPING
- JUNCTION BOX/STORM MANHOLE
- SLOPE ARROW
- CONCRETE FLUME
- RIP-RAP APRON
- CURB INLET (W/ NON-MOUNTABLE HOOD & GRATE)
- SINGLE GRATE INLET
- AREA INLET
- OUTLET CONTROL STRUCTURE
- TC = TOP OF CURB
- TP = TOP OF PAVEMENT
- FG = FINISHED GRADE

**GRADING PLAN**



**Order Plans @**

**EAST 16TH AVENUE**  
(I-95 HIGHWAY 280/GEORGIA HIGHWAY 30)  
(VARIABLE R/W)  
PUBLICLY DEDICATED

**DEWATERING NOTE**  
WHEN PERFORMING GRADING OPERATIONS DURING PERIODS OF WET WEATHER, PROVIDE ADEQUATE DEWATERING, DRAINAGE AND GROUND WATER MANAGEMENT TO CONTROL MOISTURE OF SOILS.



**GEOTECHNICAL NOTES**  
BEFORE BEGINNING ANY CONSTRUCTION, THE CONTRACTOR SHALL REVIEW THE GEOTECHNICAL REPORT BY UNIVERSAL ENGINEERING SERVICES, INC. DATED OCTOBER 23, 2020. CONTRACTOR SHALL ADHERE TO ALL RECOMMENDATIONS CONTAINED WITHIN THE REPORT. CONTRACTOR SHALL ALSO REFER TO SHEET DE-1 DEMOLITION PLAN FOR ADDITIONAL NOTES.

THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF ALL EXISTING UTILITIES (ABOVE OR BELOW GROUND) AS SHOWN ON THESE PLANS ARE APPROXIMATE AND WERE LOCATED BASED ON EITHER VISUAL OBSERVATIONS AT THE SITE, EXISTING SURVEYS AND/OR FROM UTILITY OWNERS. WOLVERTON AND ASSOCIATES INC. DOES NOT GUARANTEE THAT EXISTING UTILITY LOCATIONS SHOWN ARE EXACT. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE EXACT LOCATIONS OF EXISTING UTILITIES (ABOVE OR BELOW GROUND) BEFORE BEGINNING ANY CONSTRUCTION. THE CONTRACTOR SHALL CALL THE APPROPRIATE UTILITY COMPANIES AND THE UTILITIES PROTECTION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY OWNER AND/OR ENGINEER OF ANY UTILITY CONFLICTS WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.



**Project Title**  
CIRCLE K DIESEL EXPANSION  
CORDELE, GA (CRISP COUNTY)  
BY: CIRCLE K - SOUTH ATLANTIC DIVISION  
WAYCROSS, GA 31501

REVISIONS	BY

**DRAWN BY** RLP  
**CHECKED BY** JLH  
**DATE** 12/15/2020  
**SCALE** 1" = 30'  
**JOB No.** 19-LD-090  
**SHEET NUMBER** C-2