

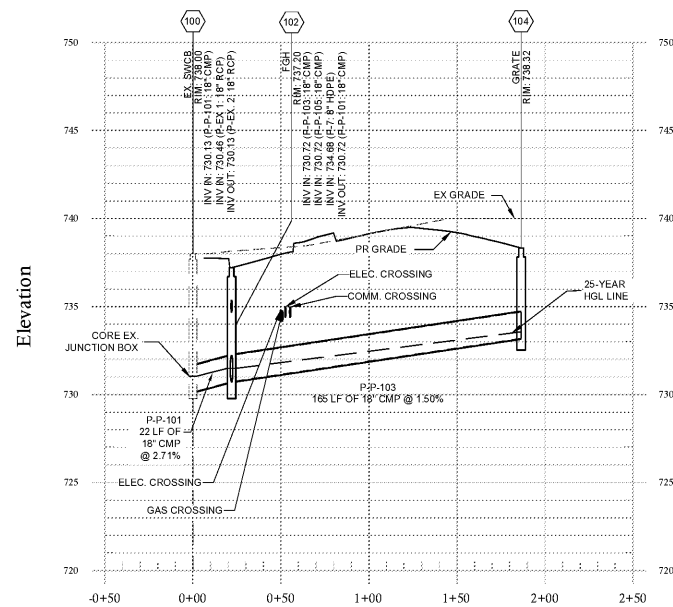
GENERAL NOTES:

- PIPE LENGTHS REFLECT THE PIPES LINEAR LENGTH AND ARE SHOWN FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
- EXISTING UTILITY DEPTHS ARE APPROXIMATED BASED ON 4 FT COVER FROM THE EXISTING GROUND SURFACE. PROPOSED UTILITY DEPTHS ARE BASED ON 4 FT OF COVER FROM THE PROPOSED GROUND SURFACE. CONTRACTOR SHALL FIELD VERIFY ALL UTILITY DEPTHS AT CROSSING AND CONTACT ENGINEER IMMEDIATELY IF CONFLICTS ARE ENCOUNTERED.
- CONTRACTOR TO FIELD VERIFY EXISTING ELEVATIONS OF UTILITIES IN RIGHT OF WAY TO AVOID CONFLICTS. CONTACT ENGINEER IMMEDIATELY IF FIELD ELEVATIONS DIFFER FROM THE DESIGN DRAWINGS.
- MAINTAIN MINIMUM 2' OF COVER OVER METAL AND PLASTIC PIPES DURING CONSTRUCTION ACTIVITIES.
- CORRUGATED METAL PIPE SHALL BE ALUMINIZED TYPE II, MINIMUM 14 GAUGE.
- UTILITY CROSSINGS TO MAINTAIN A MINIMUM OF 18" CLEARANCE.

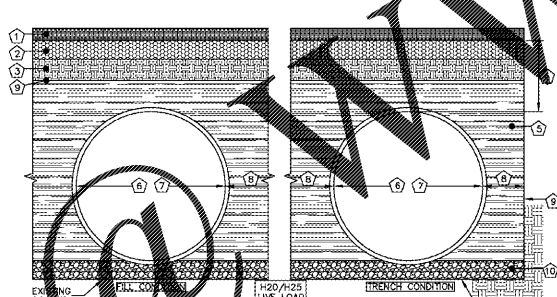
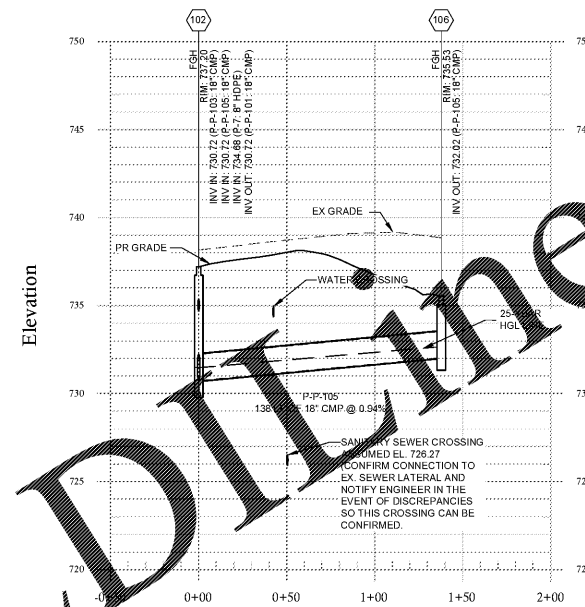
PIPE CHART, 25-YEAR HGL LINE

Line	Size	Q	Downstream								Lat	Upstream							
			Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)		Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)
1	18	5.53	727.77	729.27	1.50	1.12	0.13	0.15	729.42	0.277	113.000	730.13	731.04	0.91	1.12	0.38	731.42	0.602	
2	18	3.06	730.13	731.04	0.91	0.90	3.65	0.30	731.34	0.000	21.938	730.72	731.48	0.76	0.90	0.30	731.78	0.000	
3	18	1.00	730.72	731.48	0.76	0.34	1.11	0.02	731.80	0.117	184.649	733.10	733.68	0.37	0.34	2.02	0.13	733.80	1.688
4	18	2.20	730.72	731.48	0.76	0.90	2.44	0.09	731.57	0.509	137.860	732.03	732.64	0.61	0.68	3.23	0.18	732.81	1.200

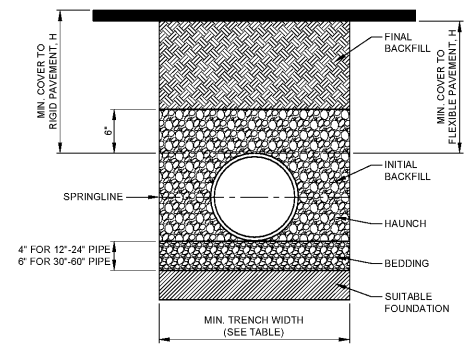
STORM 100-104
1" = 50' H, 1" = 5' V



STORM 102-106
1" = 50' H, 1" = 5' V



C-2.1 CMP BEDDING, TRENCHING, AND BACKFILL
NOT TO SCALE



C-2.1 HDPE BEDDING, TRENCHING, AND BACKFILL
NOT TO SCALE

RECOMMENDED MINIMUM TRENCH WIDTHS

PIPE DIAM.	MIN. TRENCH WIDTH
4"	21"
6"	23"
8"	26"
10"	28"
12"	30"
15"	34"
18"	39"
24"	48"
30"	56"
36"	64"
42"	72"
48"	80"
54"	88"
60"	96"

MINIMUM RECOMMENDED COVER BASED ON VEHICLE LOADING CONDITIONS

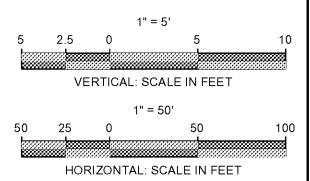
PIPE DIAM.	SURFACE LIVE LOADING CONDITION	
	H-25	HEAVY CONSTRUCTION (75T AXLE LOAD) *
12" - 48"	12"	48"
54" - 60"	24"	60"

MINIMUM RECOMMENDED COVER BASED ON RAILWAY LOADING CONDITIONS

PIPE DIAM.	COOPER E-80**
UP TO 24"	24"
30"-36"	36"
42"-60"	48"

** COVER IS MEASURED FROM TOP OF PIPE TO BOTTOM OF RAILWAY TIE.
*** E-80 COVER REQUIREMENTS, ARE ONLY APPLICABLE TO ASTM F 2306 PIPE.

- NOTES:
- ALL PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321, "STANDARD PRACTICE FOR UNDERGROUND INSTALLATION OF THERMOPLASTIC PIPE FOR SEWERS AND OTHER GRAVITY FLOW APPLICATIONS". LATEST EDITION MEASURES SHOULD BE TAKEN TO PREVENT MIGRATION OF NATIVE FINES INTO BACKFILL MATERIAL, WHEN REQUIRED.
 - FOUNDATION: WHERE THE TRENCH BOTTOM IS UNSTABLE, THE CONTRACTOR SHALL EXCAVATE TO A DEPTH REQUIRED BY THE ENGINEER AND REPLACE WITH SUITABLE MATERIAL AS SPECIFIED BY THE ENGINEER, AS AN ALTERNATIVE AND AT THE DISCRETION OF THE DESIGN ENGINEER, THE TRENCH BOTTOM MAY BE STABILIZED USING A GEOTEXTILE MATERIAL.
 - BEDDING: SUITABLE MATERIAL SHALL BE CLASS I, II OR III. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER, UNLESS OTHERWISE NOTED BY THE ENGINEER. MINIMUM BEDDING THICKNESS SHALL BE 4" (100mm) FOR 4'-24" (100mm-600mm); 6" (150mm) FOR 30'-60" (750mm-900mm).
 - INITIAL BACKFILL: SUITABLE MATERIAL SHALL BE CLASS I, II OR III IN THE PIPE ZONE EXTENDING NOT LESS THAN 6' ABOVE CROWN OF PIPE. THE CONTRACTOR SHALL PROVIDE DOCUMENTATION FOR MATERIAL SPECIFICATION TO ENGINEER. MATERIAL SHALL BE INSTALLED AS REQUIRED IN ASTM D2321, LATEST EDITION.
 - MINIMUM COVER: MINIMUM COVER, H, IN NON-TRAFFIC APPLICATIONS (GRASS OR LANDSCAPE AREAS) IS 12' FROM THE TOP OF PIPE TO GROUND SURFACE. ADDITIONAL COVER MAY BE REQUIRED TO PREVENT FLOATION. FOR TRAFFIC APPLICATIONS, MINIMUM COVER, H, IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR 54"-60" DIAMETER PIPE. MEASURED FROM TOP OF PIPE TO BOTTOM OF FLEXIBLE PAVEMENT OR TO TOP OF RIGID PAVEMENT.



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ATHENS, GA
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PARCEL #154038N

SEAL:
GEORGIA REGISTERED PROFESSIONAL ENGINEER
No. PE037622
DAVID M. STONICKS
03/05/18

REVISIONS	DATE
JURISDICTIONAL COMMENTS	03-05-2018
PROJECT MANAGER:	DMS
DRAWING BY:	JAM
JURISDICTION:	ATHENS-CLARKE COUNTY, GA
DATE:	2017-11-01
SCALE:	AS SHOWN
TITLE:	

STORM DRAINAGE PROFILES
SHEET NUMBER: **C-2.1**
COMMENTS: NOT RELEASED FOR CONSTRUCTION
JOB/FILE NUMBER: 930.007

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