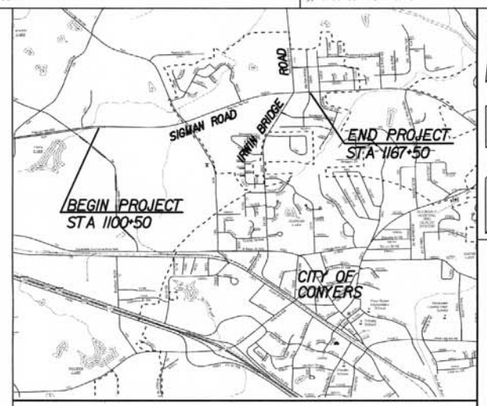
ROCKDALE COUNTY

PLAN AND PROFILE OF PROPOSED

SIGMAN ROAD
PHASE 2 WIDENING
FROM EAST OF CR 79/LESTER ROAD
TO CR 442/IRWIN BRIDGE ROAD

FEDERAL AID PROJECT

COUNTY: ROCKDALE
FEDERAL ROUTE * NONE
STATE ROUTE * NONE
P.I.* 0013163,0012886



LOCATION SKETCH (N.T.S.)

DESIGN DATA:

TRAFFIC A.D.T.:	18360 (2025)
TRAFFIC A.D.T.:	28780 (2045)
TRAFFIC D.H.V.:	2878
DIRECTIONAL DIST:	60%
% TRUCKS:	7%
24 HR.TRUCKS %:	7%
SPEED DESIGN:	45 MPH

LOCATION & DESIGN APPROVAL DATE: 12/29/2015

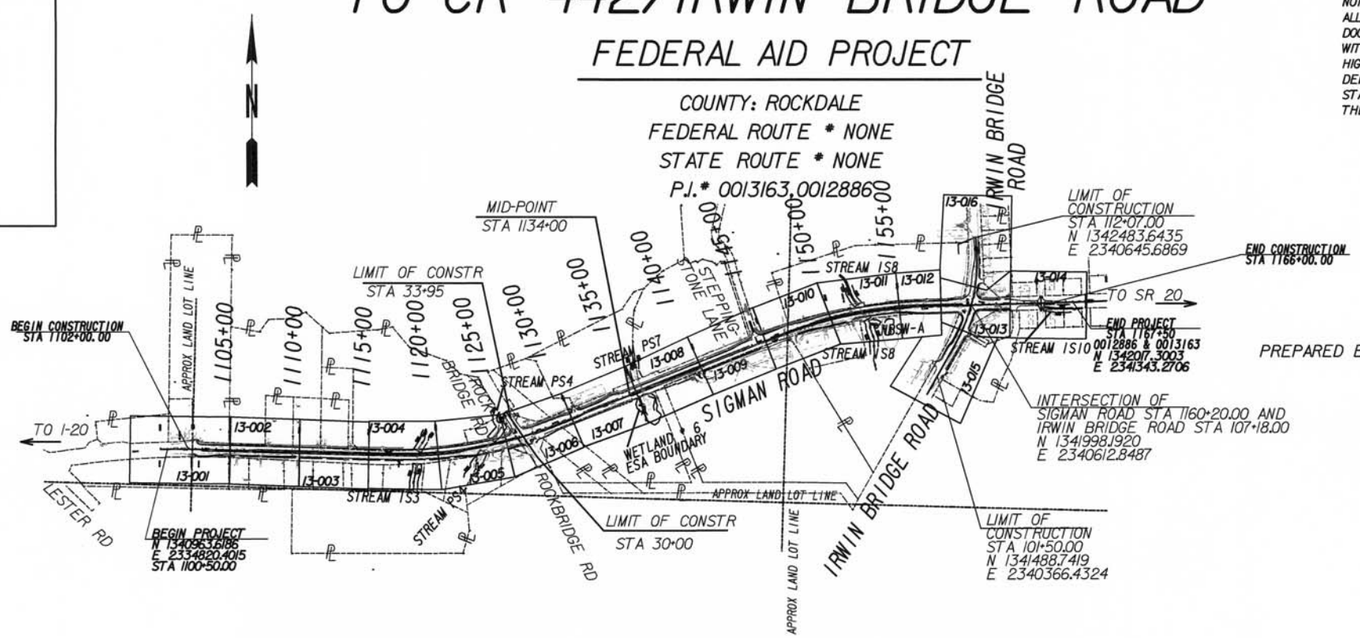
FUNCTIONAL CLASS:
URBAN PRINCIPAL ARTERIAL

THIS PROJECT IS 100% IN ROCKDALE COUNTY AND IS 100% IN CONG.DIST.NO.4.

PROJECT DESIGNATION: EXEMPT

THIS PROJECT CONTAINS POST CONSTRUCTION BMP's. REFER TO SECTION 38 FOR SPECIFIC INFORMATION.

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983)/94 WEST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.



NOTE :
ALL REFERENCES IN THIS DOCUMENT, WHICH INCLUDES ALL PAPERS, WRITINGS, DOCUMENTS, DRAWINGS, OR PHOTOGRAPHS USED, OR TO BE USED IN CONNECTION WITH THIS DOCUMENT, TO "STATE HIGHWAY DEPARTMENT OF GEORGIA", "STATE HIGHWAY DEPARTMENT", GEORGIA STATE HIGHWAY DEPARTMENT", "HIGHWAY DEPARTMENT", OR "DEPARTMENT" WHEN THE CONTEXT THEREOF MEANS THE STATE HIGHWAY DEPARTMENT OF GEORGIA, AND SHALL BE DEEMED TO MEAN THE DEPARTMENT OF TRANSPORTATION.

MID-POINT COORDINATES
N 334114.9500
E 840147.8600

PREPARED BY:
MORELAND ALTOBELLI ASSOCIATES, LLC.
2450 Commerce Avenue, Suite 100
Duluth, Georgia 30096-8910
(770) 263-5945

GEORGIA REGISTERED 4-13-18 NO. PE028860 PROFESSIONAL ENGINEER MAURICE J. SHEEHAN

THE DATA, TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

LENGTH OF PROJECT	ROCKDALE COUNTY COUNTY* 247 Project No. 0013163	ROCKDALE COUNTY COUNTY* 247 Project No. 0012886
	MILES	MILES
NET LENGTH OF ROADWAY	1.268	1.157
NET LENGTH OF BRIDGES	0.000	0.000
NET LENGTH OF PROJECT	1.268	1.157
NET LENGTH OF EXCEPTIONS	0.000	0.000
GROSS LENGTH OF PROJECT	1.268	1.157

SCALE IN FEET
0 500 1000 2000

PLANS COMPLETED 4-13-18	
REVISIONS	
Rev 05-08-18	
Rev 06-19-18	
Rev 08-10-18	
Rev 09-18-18	
Rev 02-25-19	
Rev 02-25-2020	
Rev 02-28-2020	

DRAWING No.
01-0001

DRAWING NO.	DESCRIPTION
01-0001	COVER
02-0001 TO 02-0002	INDEX
03-0001	REVISION SUMMARY
04-0001 TO 04-0004	GENERAL/PROJECT NOTES
05-0001 TO 05-0008	TYPICAL SECTION SHEET
06-0001 TO 06-0011	SUMMARY OF QUANTITIES
07-0001	QUANTITIES REQUIRED BY AMENDMENT
08-0001	
10-0001 TO 10-0009	TRAFFIC DIAGRAMS
11-0001	CONSTRUCTION LAYOUTS
13-0001 TO 13-0016	MAINLINE PLANS & CROSSROAD PLANS
15-0001 TO 15-0006	MAINLINE PROFILES
16-0001 TO 16-0002	CROSSROAD PROFILES
17-0001 TO 17-0006	DRIVEWAY PROFILES
19-0001 TO 19-0016	STAGING PLANS
19-0017 TO 19-0052	STAGING CROSS SECTIONS
19-0053 TO 19-0068	STAGING PLANS
19-0069 TO 19-0104	STAGING CROSS SECTIONS
19-0105 TO 19-0120	STAGING PLANS
19-0121 TO 19-0156	STAGING CROSS SECTIONS
21-0001	DRAINAGE AREA MAP
22-0001 TO 22-0013	DRAINAGE PROFILES
23-0001 TO 23-0038	CROSS SECTIONS
24-0000 TO 24-0016	UTILITY PLANS
25-0001 TO 25-0019	LIGHTING PLANS
26-0001 TO 26-0016	SIGNING AND MARKING PLANS
27-0001 TO 27-0006	SIGNAL PLANS
31-0001	RETAINING WALL ENVELOPES
32-0001 TO 32-0014	RETAINING WALL PLANS
38-0001 TO 38-0015	SPECIAL CONSTRUCTION DETAILS
	CONSTRUCTION DETAILS
40-0001	A-1 DRIVEWAYS WITH TAPERED ENTRANCES CONCRETE VALLEY GUTTERS (7/11)
40-0002	A-2 CONCRETE VALLEY GUTTER AT STREET INTERSECTION (7/11)
40-0003	A-3 SPECIAL DETAILS - CONCRETE SIDEWALK DETAILS CURB CUT (WHEELCHAIR) RAMPS (09/16)
40-0004	A-4 DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS (6/09)
40-0005	D-7 BERM DITCHES, SIDE DITCHES, SURFACE DITCHES (7/80)
40-0006	D-9 CONCRETE FLUMES TYPES "A" AND "B" (10/83)
40-0006A	D-44 RETROFITTING STRUCTURE FOR TEMPORARY SEDIMENT FILTER (07-18)
40-0007	F-1 WOVEN WIRE FENCE (03/1988)
40-0008	F-2 GATE DETAILS FOR CHAIN LINK AND WOVEN WIRE FENCE (01/1988)
40-0009	F-4 TYPICAL DETAILS FOR FIELD FENCING (02/1988)
40-0010	F-5 DETAIL OF GATE TO BE USED WITH FIELD FENCING (3/88)
40-0011	M-3A MEDIAN CROSSOVERS (04/10)
40-0012	PRW-1 PARAPET RETAINING WALL, TYPE P1, P2 AND P3 (12/17)
40-0013	P-7 PAVEMENT EDGE TREATMENT ASPHALT AND CONCRETE PAVEMENT (11/11)
40-0014	T-01 SIGN PLATES (01/00)
40-0015	T-03A TYPE 7, 8, AND 9 SQUARE TUBE INSTALLATION DETAIL (07/02)
40-0016	T-03B DETAILS OF SQUARE TUBE POST (BREAKAWAY SUPPORT) (07/02)
40-0017	T-05A DETAILS OF REGULATORY SIGNS (SHEET 1 OF 2) (01/03)
40-0018	T-05B DETAILS OF REGULATORY SIGNS (SHEET 2 OF 2) (1/00)
40-0019	T-11A DETAILS OF PAVEMENT MARKING PLACEMENT ON NON-LIMITED ACCESS ROADWAY (9/16)
40-0020	T-14 DETAILS OF PAVEMENT MARKING HATCHING (11/08)
40-0021	T-15A DETAILS OF RAISED PAVEMENT MARKER LOCATION NON-LIMITED ACCESS ROADWAY (9/16)
40-0022	T-15C DETAILS OF RAISED PAVEMENT MARKERS (9/11)
40-0023	SPECIAL DESIGN SPILLWAY UNDER SIDEWALK (02/05)
40-0024	DRY ENHANCED SWALE OUTLET STRUCTURE
40-0025	DRY DETENTION BASIN OUTLET STRUCTURE
40-0026	EARTH CHECK DAMS

DRAWING NO.	DESCRIPTION
	GEORGIA STANDARDS
40-0027	RIP RAP FOREBAY
40-0028	UNDERDRAIN DETAILS
41-0001	1011AP PRECAST REINFORCED CONC. MANHOLE (06/75)
41-0002	1019A DROP INLET (08/1999)
41-0003	1030D CONCRETE AND METAL PIPE CULVERTS (SHEET 1 OF 3) (09/2001)
41-0004	1030D CONCRETE AND METAL PIPE CULVERTS (SHEET 2 OF 3) (09/2001)
41-0005	1030D CONCRETE AND METAL PIPE CULVERTS (SHEET 3 OF 3) (09/2001)
41-0006	1030P THERMOPLASTIC PIPE (9/16)
41-0007	1033D CATCH BASIN (FOR USE WITH 6" OR 8" HT CURB AND GUTTER) (08/1982)
41-0008	1033G CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB AND GUTTER) (12/1985)
41-0009	1034D CATCH BASIN (FOR USE WITH 6" OR 8" HT CURB AND GUTTER IN SAGS OR LOW POINTS) (08/1982)
41-0010	1034G CATCH BASIN (FOR USE WITH 6" MOUNTABLE CURB AND GUTTER IN SAGS OR LOW POINTS) (12/1985)
41-0011	1120 FLARED END SECTIONS FOR PIPES (06/2006)
41-0012	1122 SAFETY END SECTION (METAL) (FOR SIDE DRAINS OR STORM PIPE PARALLEL TO MAINLINE) (SHEET 1 OF 3) (01/2005)
41-0013	1122 SAFETY END SECTION (METAL) (FOR SIDE DRAINS OR STORM PIPE PARALLEL TO MAINLINE) (SHEET 2 OF 3) (01/2005)
41-0014	1122 SAFETY END SECTION (METAL) (FOR SIDE DRAINS OR STORM PIPE PARALLEL TO MAINLINE) (SHEET 3 OF 3) (01/2005)
41-0015	1125 INLET HEADWALL - OUTLET HEADWALL (10/1999)
41-0016	1401 PAVEMENT PATCHING DETAILS (STORM DRAIN OR UTILITY INSTALLATIONS BY OPEN CUT ACCROSS EXIST PVMT. (08/99)
41-0017	2317 DETAILS FOR EXTENDING CONCRETE BOX CULVERTS (01/66)
41-0018	2318 DETAILS FOR EXTENDING CONCRETE BOX CULVERTS WITH SKEW BELOW 75 (07/78)
41-0019	2322 REINFORCED CONCRETE BOX CULVERT SINGLE 4'X6', SINGLE 5'X6' OF DEPTHS OF FILL UP TO 20 FT (11/01)
41-0020	2332A CONCRETE BOX CULVERT APRON, BAFFLES & INLET BEVELING DETAILS & ADJACENT BOX CULVT JOINT DETAIL (1 OF 2)
41-0021	2332B CONCRETE BOX CULVERT APRON, BAFFLES & INLET BEVELING DETAILS & ADJACENT BOX CULVT JOINT DETAIL (2 OF 2)
41-0022	2401-2c REINFORCED CONCRETE SINGLE BOX CULVERT 5'X5', 5'X6', 5'X7' AND 5'X8' (SHEET 2-C OF 3) (09/17)
41-0023	2404-1 REINFORCED CONCRETE WINGWALLS, TOEWALLS AND PARAPETS FOR CONCRETE BOX CULVERTS (SHEET 1 OF 1) (09/17)
41-0024	3054 END POST AND END GUARDRAIL ATTACHMENT DETAIL (09/2002)
41-0025	4000W GUARDRAIL WARRANT GUIDES (01/16)
41-0026	4360 REFLECTORIZED GUARDRAIL WASHERS AND ANCHORAGE NOSE STRIPING (10/2014)
41-0027	4380 "W" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT (01/16)
41-0028	4381 POSTS AND OFFSET BLOCKS FOR "W" & "T" BEAM GUARDRAIL 31 INCH GUARDRAIL HEIGHT (01/16)
41-0029	4382 GUARDRAIL CONNECTION AT BRIDGE END OR AT CONC. BARRIER END FOR 31" HIGH GUARDRAIL (01/16)
41-0030	4383 GUARDRAIL ANCHORAGE TYPE 1 31 INCH GUARDRAIL HEIGHT (08/11)
41-0031	4384 TYPE 12A, B, C 31 INCH GUARDRAIL HEIGHT (01/2016)
41-0032	4385 "T" BEAM GUARDRAIL CONNECTION TO 31 INCH HEIGHT "W" BEAM (08/11)
41-0033	4388 GUARDRAIL LOCATION DETAILS FOR UNDIVIDED HIGHWAYS AND ROADS
	(WITH SHOULDERS ADJACENT TO THE ROADWAY) 31 INCH GUARDRAIL HEIGHT (01/16)
41-0034	4391 GUARDRAIL LOCATION (ON ROADS WITH CURB) (01/2016)
41-0035	4960 CONCRETE BARRIER - TEMPORARY (END TREATMENT OPTIONAL) (05/2007)
41-0036	4961 DETAILS OF PRECAST TEMPORARY BARRIER (09/2006)
41-0037	9003 FEDERAL AID AND STATE PROJECT MARKERS; RIGHT OF WAY MARKERS; COUNTY LINE MARKER (04/06)
41-037A	9013 CONCRETE SPILLWAY (02/1981)
41-0038	9029B PERFORATED UNDERDRAIN (08/1983)
41-0039	9031L GRAVITY WALL TYPICAL SECTIONS, RAISING HEADWALL, AND TYPICAL PIPE PLUG (09/16)
41-0040	9031N CHAIN LINK WIRE FENCE (08/1985)
41-0041	9031R PLACING ROOF DRAIN PIPE UNDER SIDEWALK-RAMP TYPE BARRICADE-PIPE HANDRAIL FOR RETAINING WALL-PIPE
	HANDRAIL FOR CONCRETE STEPS(10/1988)
41-0042	9031S MEDIAN DROP INLET (PRECAST OR BUILT IN PLACE) AND CONCRETE APRON (04/1996)
41-0043	9032B CONCRETE CURB AND GUTTER, CONCRETE CURBS, CONCRETE MEDIANS (11/2011)
41-0044	9033 MILEPOSTS (3/06)
41-0045	9100 TRAFFIC CONTROL GENERAL NOTES, STANDARD LEGEND AND MISCELLANEOUS DETAILS (03/06)
41-0046	9102 TRAFFIC CONTROL DETAIL FOR LANE CLOSURE FOR TWO LANE HIGHWAY (03/06)
44-0000 TO 44-0019	WATER AND SEWER PLANS
	EROSION CONTROL PLANS
50-0001	EROSION, SEDIMENT AND POLLUTION CONTROL PLAN COVER SHEET
51-0001 TO 51-0004	EROSION, SEDIMENT AND POLLUTION CONTROL PLAN GENERAL NOTES
52-0001	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 1 OF 7) (3/17)
52-0002	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 2 OF 7) (3/17)

INDEX CONTINUES ON SHEET 02-0002

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

REVISION DATES		
06-19-18		
02-25-20		
02-28-20		

SIGMAN ROAD - PHASE 2
INDEX

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
02-0001

DRAWING NO.	DESCRIPTION
52-0003	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 3 OF 7) (3/17)
52-0004	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 4 OF 7) (3/17)
52-0005	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 5 OF 7) (3/17)
52-0006	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 6 OF 7) (3/17)
52-0007	EROSION CONTROL LEGEND AND UNIFORM CODE SHEETS (SHEET 7 OF 7) (3/17)
53-0001	EROSION CONTROL DRAINAGE AREA MAP
54-0001 TO 54-0048	BMP LOCATIONS DETAILS
55-0001	EROSION CONTROL WATERSHED MAP & SITE MONITORY LOCATION
56-0001	D-19 TEMPORARY SLOPE DRAIN PIPE WITH DRAIN INLET (02/00)
56-0002	D-20 SILT CONTROL GATES FOR STRUCTURES TYPES 1,2, AND 3 (04/16)
56-0003	D-24A TEMPORARY SILT FENCE (SHEET 1 OF 4) (1/11)
56-0004	D-24B TEMP. SILT FENCE BERM DITCH, INSTALLATION, BRUSH BARRIER (SHEET 2 OF 4) (1/11)
56-0005	D-24C TEMPORARY SILT FENCE J-HOOKS INLET SEDIMENT TRAPS (SHEET 3 OF 4) (1/11)
56-0006	D-24D TEMPORARY SILT FENCE FABRIC CHECK DAM (SHEET 4 OF 4) (7/15)
56-0007	D-34 PIPE/CULVERT COLLAR CONNECTION DETAIL (03/1988)
56-0008	D-35 PERMANENT SOIL REINFORCING MAT (TURF REINFORCING MAT) INSTALLATION ON DITCHES (01/11)
56-0009	D-41 CONSTRUCTION EXIT (4/18)
56-0010	D-42 INLET SEDIMENT TRAPS (5/08)
56-0011	STD 1031 SAND CEMENT BAG DITCH CHECKS (7/97)
	RIGHT OF WAY PLANS
0012886 - 60-0001	COVER SHEET
60-0002 TO 60-0026	RIGHT OF WAY PLAN SHEETS
0013163 - 60-0001	COVER SHEET
60-0002 TO 60-0029	RIGHT OF WAY PLAN SHEETS

DRAWING NO.	DESCRIPTION

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

REVISION DATES		
05-08-18		
02-28-20		

SIGMAN ROAD - PHASE 2
INDEX

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		02-0002
CORRECTED:		DATE:		
VERIFIED:		DATE:		

ROCKDALE COUNTY

P.I. No.'s	
0012886	0013163

DATE	DRAWING NO.	REVISION
05-08-18	01-0001	ADDED REVISION DATE
	02-0002	REVISED DETAIL D-41 DATE
	03-0001	ADDED REVISIONS
	04-0004	REVISED NOTE NO 8
	24-0001 TO 24-0016	REVISED UTILITIES
	32-0001 TO 0003, 32-0005 32-0011, 0012, 0013, 0014	REVISED WALL PLANS
	38-0010	REVISED SPECIAL CONSTRUCTION DETAIL
	56-0009	ADDED REVISED DETAIL D-41
06-19-18	01-0001	ADDED REVISION DATE
	02-0001	ADDED GA STD 9013
	03-0001	ADDED REVISIONS
	06-0006	ADDED DRAINAGE QUANTITIES
	13-0005 TO 13-0006	ADDED DRAINAGE
	19-0009 TO 19-0010	ADDED DRAINAGE
	22-0003	ADDED DRAINAGE
	41-037A	ADDED GA STD 9013
	54-0037 TO 54-0038	ADDED DRAINAGE
08-10-18	01-0001	ADDED REVISION DATE
	03-0001	ADDED REVISIONS
	13-0006 TO 13-0007	REVISED EASEMENT PAR 10 & 11
	19-0110 TO 19-0111	REVISED EASEMENT PAR 10 & 11
	54-0022 TO 54-0023	REVISED EASEMENT PAR 10 & 11
	54-0038 TO 54-0039	REVISED EASEMENT PAR 10 & 11
09-18-18	01-0001	ADDED REVISION DATE
	03-0001	ADDED REVISIONS
	13-0005	ADDED RIP-RAP
	19-0109	ADDED RIP-RAP
	24-0005	ADDED RIP-RAP
	24-0006	UPDATED SHEET
	54-0021	ADDED RIP-RAP
	54-0037	ADDED RIP-RAP
02-25-19	01-0001	ADDED REVISION DATE
	03-0001	ADDED REVISIONS
	04-0001	ADDED UTILITY OWNER
	23-0011, 23-0014	ADDED FIBER OPTIC CABLE
	23-0018 TO 23-0020	ADDED FIBER OPTIC CABLE
	24-0006 TO 24-0014	ADDED FIBER OPTIC CABLE
02-25-20	01-0001	ADDED REVISION DATE
	02-0001	ADDED DETAILS D44 AND PRW-1
	03-0001	ADDED REVISIONS
	05-0002 TO 05-0005	REVISED MEDIAN NOTE
	06-0001, 06-0002, 06-0004 TO 06-0006	ADDED NOTE TO DRAINAGE SUMMARIES, REV TEMP BARRIER NOTE AND DELETED GRANULAR EMBANKMENT
	31-0001	REVISED WALL TYPE, WALLS 2, 7, AND 8
02-28-20	01-0001	ADDED REVISION DATE
	02-0001 AND 02-0002	ADDED DETAILS 40-0024 AND 40-0025 FOR POST-CONSTR BMPS
	03-0001	ADDED REVISIONS
	06-0001, 06-0004 TO 06-0006	REVISED ASPHALT QUANTITIES AND DRAINAGE QUANTITIES
	22-0002 TO 22-0011	VERIFIED ALL PIPE LENGTHS & STRUCTURE TYPES

DATE	DRAWING NO.	REVISION

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
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REVISION DATES		
05-08-18		
06-19-18		
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09-18-18		
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02-25-20		
02-28-20		

SIGMAN ROAD
REVISION SUMMARY

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
03-0001

SUMMARY OF QUANTITIES

ASPHALT QUANTITIES

ALIGNMENT/STATION TO STATION	402-3130 12.5 mm RECYCL ASPH	402-3190 19mm RECYCL ASPH	402-3121 25mm RECYCL ASPH	413-0750 BITUM TACK COAT	402-1812 RECYCL ASPH CONC LEVELING	446-1100 PVMT REINF FABRIC STRIPS 18 IN WIDE	500-9999 CL B CONC BASE OR PAVING WIDENING	310-1101 GRADED AGGR BASE CRS	444-1000 SAWED JTS IN EXIST PCC PVMT	432-5010 MILLING VARI. DEPTH AS DIRECTED
	TON	TON	TON	GAL	TON	LF	YD3	TON	LF	SQ YDS
SIGMAN ROAD - STA 1100+50 TO STA 1167+50	3465	4353	13059	3008	5632	1600	7	23736	95	480
ROCK BRIDGE ROAD - STA 30+00 TO 33+35.67	100			48	264	300	4		122	225
IRWIN BRIDGE ROAD - STA 101+50 TO STA 112+07	404	132	1077	192	352	700	7	970	91	630
TEMPORARY PAVING FOR STAGING	94	125	250	91						
TOTALS	4063	4610	14386	3339	6248	2600	18	24706	308	1335

156-0100
GPS DATA COLLECTION AND SUBMITTAL

0013163	LUMP SUM

441-4020
6 INCH, CONCRETE VALLEY GUTTER DETAIL A1

ALIGNMENT	SQ.YDS.
SIGMAN ROAD	630
IRWIN BRIDGE ROAD	109
TOTAL	739

441-0748
CONCRETE MEDIAN, 6"
STD.9032-B

ALIGNMENT/STATION TO STATION	SQ. YDS.
SIGMAN ROAD	
STA 1103+21 TO STA 1107+00	304
STA 1121+50 TO STA 1126+18	293
STA 1126+96 TO STA 1133+62	222
STA 1139+75 TO STA 1143+79	317
STA 1144+96 TO STA 1149+00	314
STA 1155+50 TO STA 1159+56	318
STA 1126+18 TO STA 1126+90 (ISLANDS)	54
STA 1130+50 TO STA 1130+75 (ISLANDS)	60
STA 1159+55 TO STA 1159+75 (ISLANDS)	17
TOTAL	1899

5 FT CONCRETE SIDEWALK

ALIGNMENT/STATION TO STATION	SIDE	441-0104 CONCRETE 4 INCH THK	441-0108 CONCRETE 8 INCH THK IN RADII
		SQ YD	SQ YD
SIGMAN ROAD			
STA 1102+58 TO STA 1163+13	RT	2894	150
IRWIN BRIDGE ROAD			
STA 101+50 TO STA 112+07	RT	350	40
STA 102+40 TO STA 106+33	LT	174	40
TOTAL		3418	230

441-6222-TP II
441-6740-TP VII
CONCRETE CURB & GUTTER
8"X 30"TYPE II, STD. 9032-B
8"X 30"TYPE VII, STD.9032-B (FOR MEDIAN)

ALIGNMENT/STATION TO STATION	SIDE	TP II LIN. FT.	TP VII LIN. FT.
SIGMAN ROAD - STA 1102+58 TO STA 1163+13	RT	7228	
STA 1102+58 TO STA 1163+00	LT	6128	
SIGMAN ROAD (MEDIAN) STA 1102+98 TO STA 1159+56	CENTER		12000
IRWIN BRIDGE ROAD - STA 101+50 TO STA 112+07	RT	930	
	LT	914	
TOTAL		15200	12000

150-1000
TRAFFIC CONTROL

0013163	LUMP SUM

153-1300
FIELD ENGINEERS OFFICE TP III

1	EACH

643-8200
ORANGE BARRIER FENCE

1300 LINEAR FEET

441-3999
CONCRETE V GUTTER

857 LINEAR FEET

210-0100
GRADING COMPLETE

0013163	LUMP SUM

441-0303
CONCRETE SPILLWAYS TP 3, STD 9013

QUANTITY	1 EA

DRIVEWAY QUANTITIES

ALIGNMENT/STATION	SIDE	402-3130 12.5 mm RECYCL ASPH	402-3190 19mm RECYCL ASPH	413-0750 BITUM TACK COAT	310-1101 GRADED AGGR BASE CRS	441-0016 DRIVEWAY CONC 6" THICK	441-0018 DRIVEWAY CONC 8" THICK	318-3000 AGGR SURFACE CRS
SIGMAN ROAD		TON	TON	GAL	TON	YD2	YD2	TON
STA 1102+44	LT	4	5	2	27			
STA 1105+51	RT					52		
STA 1107+22	RT					113		
STA 1107+72	LT					46		
STA 1109+88	RT					43		
STA 1111+30	LT					42		
STA 1111+80	LT					46		
STA 1111+80	RT	5	7	3	36			
STA 1113+67	LT					30		
STA 1113+67	RT					70		
STA 1116+00	RT	4	5	2	27			
STA 1116+00	LT	7	9	4	49			
STA 1119+22	RT					59		
STA 1120+98	RT					87		
STA 1122+00	LT					117		
STA 1123+74	RT	8	10	4	53			
STA 1124+80	RT						188	
STA 1130+40	LT	5	7	3	39			
STA 1131+75	LT	16	21	7	106			
STA 1138+50	LT	15	21	7	105			
STA 1139+73	RT	31	41	15	208			
STA 1140+50	LT	6	8	3	40			
STA 1144+50	LT	11	15	6	78			
STA 1146+93	RT					45		
STA 1151+33	RT	4	5	2	29			
STA 1155+70	RT	1	1	2	4			
STA 1157+00	LT	4	6	3	31			
STA 1162+41	LT	15	20	7	101			
STA 1163+30	RT	6	8	3	41			
STA 1163+75	LT					30		
STA 1164+37	LT					30		
WESLEY WAY	LT	9	12	5	61			
WESLEY WAY	RT	3	4	2	20			500
IRWIN BRIDGE ROAD								
STA 101+95	RT	7	9	4	49			325
STA 102+22	LT	14	19	7	98			
STA 105+23	RT	7	10	4	52			
STA 108+95	RT	11	14	6	74			
STA 109+98	RT					24		
STA 110+75	RT					58		
STA 111+89	RT					22		
ROCKBRIDGE ROAD STA 33+38	RT	5	7	3	39			
TOTALS		198	264	104	1367	914	188	825

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

REVISION DATES		
02-25-20		
02.28.20		

SIGMAN ROAD
SUMMARY OF QUANTITIES

CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		06-0001
CORRECTED:		DATE:		
VERIFIED:		DATE:		

DATE$$$ TIME$$$ $PRF8$ DGN

$USER$ $$PENTABLE$$

ROCKDALE COUNTY | P. I. No. 0012886 0013163

DRAINAGE SUMMARY OF QUANTITIES

Drainage Structure Number	SPILLWAY SPECIAL DESIGN 441-0300 EACH	CATCH BASINS - STD 1033-D EACH GP 1 668-1100	CATCH BASINS - STD 1033-D EACH GP 2 668-1200	CATCH BASINS - STD 1034-D EACH GP 1 668-1100	CATCH BASINS - STD 1034-D EACH GP 2 668-1200	DROP INLETS - STD 1019-A, TP E - EACH GP 1 668-2100	DROP INLETS - STD 1019-A, TP E - EACH GP 2 668-2200	DROP INLETS - STD 9031-S EACH GP 1 668-2100	DROP INLETS - STD 9031-S EACH GP 2 668-2200	MANHOLES - STD 1011-A EACH TP 1 668-4300	MANHOLES - STD 1011-A EACH TP 2 668-4400	ADDT'L DEPTH DROP INLET LF GP 1 668-2110	ADDT'L DEPTH DROP INLET LF GP 2 668-2210	STORM DRAIN PIPE - LIN FT 18" 550-1180	STORM DRAIN PIPE - LIN FT 24" 550-1240	STORM DRAIN PIPE - LIN FT 30" 550-1300	STORM DRAIN PIPE - LIN FT 36" 550-1360	STORM DRAIN PIPE - LIN FT 54" 550-1540	FOUNDATION BACKFILL MATL TP 2 CY 207-0203	FLARED END SECTIONS - STD 1120 EACH 18" 550-4218	FLARED END SECTIONS - STD 1120 EACH 24" 550-4224	FLARED END SECTIONS - STD 1120 EACH 30" 550-4230	FLARED END SECTIONS - STD 1120 EACH 36" 550-4236	JUNCTION BOX STD 9031-U EA 668-5000	CLASS A CONC INCL REINF STEEL CY 500-3800
A1	1																									
A2	1																									
A3	1																									
A4	1																									
A5	1																									
A6	1																									
A7																										
W2 TO A7														127							1					
B1	1																									
B2	1																									
B3	1																									
B4	1																									
B5	1																									
B6	1																									
B7	1																									
B8		1												145												
B8 - B9																										
B9		1												40												
B9 - B9.1																										
B9.1		1												28												
B9.1 - B10																										
B10																										
*B11 - B12																		105	26	1						11.46
C1.A	1																									
C2.A	1																									
C1.B		1												130												
C1.B - C1																										
C1		1												142												
C1 - C2																										
C2		1												158												
C2 - C3																										
C3				1										33												
C3 - C4																										
C4		1															40									
C4 - C4.A																										
C4.A																						1				
C9				1											76											
C9 - C8																										
C8				1											53											
C8 - C6																										
C6		1														130										
*C6 - C5																										
C5		1															64									
*C5 - C4																										
C7						1																				
C7 - C6															36											
C5.1						1																				
C5.1 - C5															36											
D1				1																1						
D1 - D2															100											
D2						1								201												
D2 - D2.A																										
D2.A						1									60											
D2 - D3																										
D3		1												138												
D6		1																								
D6 - D4																										
D4		1												68												
D4 - D3															84											
D3 - C9												1.19														
R1								1							32											
R1 - R2												1.85														
R2				1											96											
R2 - R3												0.85														
R3				1											54											
R3 - R4												0.65														
R4								1							53											
R4 - R5																										
R5				1											28											
R5 - R6																										
R6				1											15											
R6 - OUTLET																										
D5	1																									
D8	1																									
F1	1													190												
F2	1																									
E2		1																								
*E2 - E3																										
E3		1												122												
E3 - E3.1										1																
E3.1														21						1						
E3.1 TO OUTLET																										
E4.2					1									30												
E4.2 - E4.1																										
E4.1				1										22												
E4.1 - E4																										
E4				1										30												
E4 - E5																										
E5				1										137												
*E5 - E6																										
E6		1																								
E4.3 - E6														88												
*E6 - OUTLET														32												
E7	1																									
E8	1																									
E9	1																									
E10 - SWALE						1								68												11.46
SUB-TOTAL	22	15	0	4	0	12	0	2	0	1	0	4.54	0	1950	723	194	40	105	26	4	1	0	1	0		11.46

• ALL PIPES UNDERNEATH WALLS WILL BE CLASS "V" PIPES.

SUMMARY OF QUANTITIES

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

REVISION DATES
02-25-20
02.28.20

SIGMAN ROAD
SUMMARY OF QUANTITIES

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 06-0004

7/31/2015 GPLN

Drainage Structure Number	SPILLWAY SPECIAL DESIGN 441-0300 EACH	CATCH BASINS - STD 1033-D EACH 668-1100 GP 1	CATCH BASINS - STD 1033-D EACH 668-1200 GP 2	CATCH BASINS - STD 1034-D EACH 668-1100 GP 1	CATCH BASINS - STD 1034-D EACH 668-1200 GP 2	DROP INLETS - STD 1019-A, TP E - EACH 668-2100 GP 1	DROP INLETS - STD 1019-A, TP E - EACH 668-2200 GP 2	DROP INLETS - STD 9031-S EACH 668-2100 GP 1	DROP INLETS - STD 9031-S EACH 668-2200 GP 2	MANHOLES - STD 1011-A EACH 668-4300 TP 1	MANHOLES - STD 1011-A EACH 668-4400 TP 2	ADDT'L DEPTH DROP INLET LF 668-2110 GP 1	ADDT'L DEPTH DROP INLET LF 668-2210 GP 2	STORM DRAIN PIPE - LIN FT 550-1180 18"	STORM DRAIN PIPE - LIN FT 550-1240 24"	STORM DRAIN PIPE - LIN FT 550-1300 30"	STORM DRAIN PIPE - LIN FT 550-1360 36"	STORM DRAIN PIPE - LIN FT 550-1540 54"	FOUNDATION BACKFILL MATL TP 2 207-0203 CY	FLARED END SECTIONS - STD 1120 EACH 550-4218 18"	FLARED END SECTIONS - STD 1120 EACH 550-4224 24"	FLARED END SECTIONS - STD 1120 EACH 550-4230 30"	FLARED END SECTIONS - STD 1120 EACH 550-4236 36"	JUNCTION BOX STD 9031-U 668-5000 EA	CLASS A CONC INCL REINF STEEL 500-3800 CY
F23		1												44											
F23 - F22																									
F22			1											188											
F22 - F20																									
F20			1											129											
F20 - F18																									
F18		1																							
F21		1												130											
F21 - F19																									
F19		1												56											
F19 - F18														100											
*F18 - F17A																									
F17A		1												138											
F17A - F17																									
F17		1												93											
*F17 - F 15																									
F15		1												24											
F15 _ F14																									
F14						1								46											
F14 - F13																									
F13						1								18											
F13 - F12A																									
F12A						1								26											
F12A - F12																									
F12		1												108											
*F12 - F10																									
F16A		1												146											
F16A - F16																									
F16						1								128											
F16 - F11A																									
F11A						1								122											
F11A - F11																									
F11						1								48											
F11 - F10																									
F10		1												90											
*F10 - F10A																									
F10A		1												90											
*F10A - F8																									
F8		1												48											
F9 - F8						1								96											
*F8 - F7A																									
F7A		1												155											
*F7A - F7														88											
*F7 - F6																									
F6						1								75											
F6 - F5																									
F5						1								72											
F5 - F4																									
F4		1												38											
F4 - OUTLET																									
*F24 - F25																									
G10		1																			2				
G10 - G8																									
G8		1												175											
G8 - G7																									
G7		1												58											
G7 - OUTLET																									
G9	1													36											
G11	1																								
G12	1																								
G13	1																								
H1		1																							
H1 - H2														76											
H2		1																							
H2 - H3.2														130											
H3.2																						1			
H3.1								1																	
H3.1 - H3.2														6											
H3.2 - H3														82											
H3								1																	
H3 - H4														78											
H4								1																	
H4 - H5														104											
H5																									
I1	1																		1						
I2																									
SUB-TOTAL	5	18	0	0	0	9	0	3	0	0	0	0	0	2809	0	106	0	0	0	0	2	0	1	1	0
TOTALS	27	33	0	4	0	21	0	5	0	1	0	4.54	0	4759	723	300	40	105	26	5	1	1	1	1	11.46

SIDE DRAIN QUANTITIES

Drainage Structure Number	SIDE DRAIN PIPE - LIN FT			SAFETY END SECTIONS - 6:1 SLOPE EACH		
	550-2180	550-2240	550-2300	550-4118	550-4240	550-4300
	18"	24"	30"	18"	24"	30"
1105+51	29			2		
1107+22	23			2		
1107+72	21			2		
1111+30	20			2		
1111+80	29			2		
1111+80	20			2		
1113+67	29			2		
1113+67	20			2		
1116+00	29			2		
1116+00	29			2		
1120+98	29			2		
1122+00	29			2		
1131+75	29			2		
1138+50	29			2		
1140+50	29			2		
33+38	70			2		
SUB-TOTAL	464	0	0	32	0	0
TOTALS	464	0	0	32	0	0

• ALL PIPES UNDERNEATH WALLS WILL BE CLASS "V" PIPES.

SUMMARY OF QUANTITIES

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

REVISION DATES
02-25-20
02.28.20

SIGMAN ROAD
SUMMARY OF QUANTITIES

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 06-0005

DETENTION POND - B-LT		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Forebay	SY	56
Emergency Spillway	SY	35
Outlet Pipe	SY	30
Woven Plastic Filter Fabric		
Forebay	SY	56
Emergency Spillway	SY	35
Outlet Pipe	SY	30
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	38
Flared End Section, 6:1	EA	1

DETENTION POND - B-RT		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Forebay	SY	92
Emergency Spillway	SY	28
Outlet Pipe	SY	30
Woven Plastic Filter Fabric		
Forebay	SY	92
Emergency Spillway	SY	28
Outlet Pipe	SY	30
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	32
Flared End Section, 6:1	EA	1

DETENTION POND - C-LT		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Forebay	SY	68
Emergency Spillway	SY	63
Outlet Pipe	SY	63
Woven Plastic Filter Fabric		
Forebay	SY	68
Emergency Spillway	SY	63
Outlet Pipe	SY	63
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 36", H 1 to 10	LF	44
Flared End Section, 36", 6:1	EA	1

DETENTION POND - F-RT-1		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Pond Floor	SY	17
Emergency Spillway	SY	45
Outlet Pipe	SY	39
Woven Plastic Filter Fabric		
Forebay	SY	17
Emergency Spillway	SY	45
Outlet Pipe	SY	39
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 24", H 1 to 10	LF	44
Flared End Section, 24", H 1-10	EA	1

DETENTION POND - E-LT-2		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Pond Floor	SY	36
Emergency Spillway	SY	76
Outlet Pipe	SY	35
Woven Plastic Filter Fabric		
Forebay	SY	36
Emergency Spillway	SY	76
Outlet Pipe	SY	35
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	62
Flared End Section, 18", H 1-10	EA	1

DETENTION POND - F-RT-2		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Pond Floor	SY	34
Emergency Spillway	SY	32
Outlet Pipe	SY	38
Woven Plastic Filter Fabric		
Forebay	SY	34
Emergency Spillway	SY	32
Outlet Pipe	SY	38
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 24", H 1 to 10	LF	48
Flared End Section, 24", H 1-10	EA	1

DETENTION POND - G-RT		
Description	**Unit**	**Quantity**
Rip Rap, 12",Tp 3		
Forebay	SY	34
Emergency Spillway	SY	31
Outlet Pipe	SY	30
Woven Plastic Filter Fabric		
Forebay	SY	34
Emergency Spillway	SY	31
Outlet Pipe	SY	30
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 24", H 1 to 10	LF	36
Flared End Section, 24", H 1-10	CY	1

ENHANCED SWALE - B-RT		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	525
Aggregate 57 Stone	TN	230
Clean Outs (PVC)	EA	6
Class B Concrete	CY	0.22
Rip Rap, 12",Tp 3		
Earth Check Dams	SY	90
Outlet Pipe	SY	0
Woven Plastic Filter Fabric		
Earth Check Dams	SY	90
Outlet Pipe	SY	0
Outlet Structure - Type		
Concrete Weir Structure	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, H 18", 1 to 10	LF	92
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

ENHANCED SWALE - A-LT		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	500
Aggregate 57 Stone	TN	146
Clean Outs (PVC)	EA	5
Class B Concrete	CY	0.19
Rip Rap, 12",Tp 3		
Earth Check Dams	SY	0
Outlet Pipe	SY	66
Woven Plastic Filter Fabric		
Earth Check Dams		0
Outlet Pipe		66
Outlet Structure - Drop Inlet		
Concrete Weir Structure - Drop Inlet	EA	1
Foundation Backfill Matl, Tp 2	CY	0.4
Storm Drain Pipe, 18", H 1 to 10	LF	8
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

ENHANCED SWALE - A-RT		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	513
Aggregate 57 Stone	TN	225
Clean Outs (PVC)	EA	5
Class B Concrete	CY	0.19
Rip Rap, 12",Tp 3		
Earth Check Dams	SY	0
Outlet Pipe	SY	33
Woven Plastic Filter Fabric		
Earth Check Dams		0
Outlet Pipe		33
Outlet Structure - Drop Inlet		
Concrete Weir Structure	EA	1
Foundation Backfill Matl, Tp 2	CY	0.04
Storm Drain Pipe, 18", H 1 to 10	LF	24
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

ENHANCED SWALE - G-RT		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	450
Aggregate 57 Stone	TN	131
Clean Outs (PVC)	EA	5
Class B Concrete	CY	0.19
Rip Rap, 12",Tp 3		
Forebay	SY	0
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Woven Plastic Filter Fabric		
Forebay	SY	0
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Outlet Structure - Type		
Concrete Weir Structure	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	38
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

ENHANCED SWALE - C-LT		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	186
Aggregate 57 Stone	TN	95
Clean Outs (PVC)	EA	2
Class B Concrete	CY	0.08
Rip Rap, 12",Tp 3		
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Woven Plastic Filter Fabric		
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Outlet Structure - Type		
Concrete Weir Structure	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	40
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

ENHANCED SWALE - F-RT-1		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	496
Aggregate 57 Stone	TN	145
Clean Outs (PVC)	EA	5
Class B Concrete	CY	0.19
Rip Rap, 12",Tp 3		
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Woven Plastic Filter Fabric		
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Outlet Structure - Type		
Concrete Weir Structure	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	24
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

ENHANCED SWALE - E-LT-2		
Description	**Unit**	**Quantity**
Underdrain Pipe, 8"	LF	414
Aggregate 57 Stone	TN	91
Clean Outs (PVC)	EA	4
Class B Concrete	CY	0.15
Rip Rap, 12",Tp 3		
Forebay	SY	68
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Woven Plastic Filter Fabric		
Forebay	SY	68
Earth Check Dams	SY	0
Outlet Pipe	SY	0
Outlet Structure - Type		
Concrete Weir Structure	EA	1
Foundation Backfill Matl, Tp 2	CY	0.18
Storm Drain Pipe, 18", H 1 to 10	LF	30
Flared End Section, 18", Storm Drain, 4:1 Slope	EA	1

SUMMARY OF QUANTITIES

MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

THESE QUANTITIES ARE SHOWN FOR ESTIMATING PURPOSES ONLY AND ARE INCLUDED IN THE PRICE BID FOR ENHANCED DRY SWALES AND ENHANCED DRY DETENTION PONDS

REVISION DATES
06-19-18
02-25-20
02.28.20

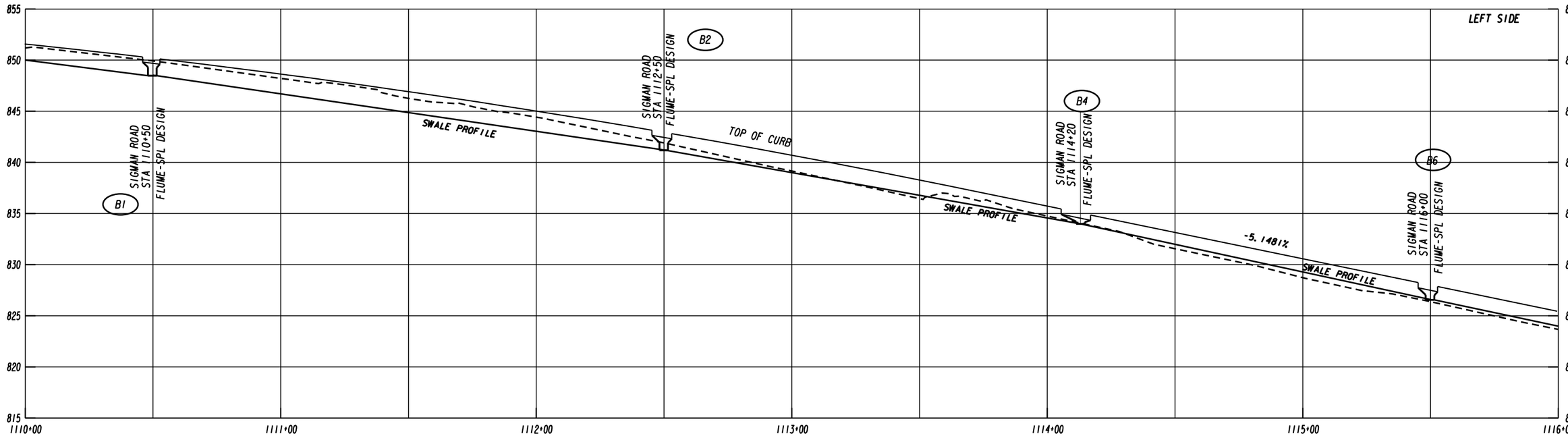
SIGMAN ROAD
SUMMARY OF QUANTITIES

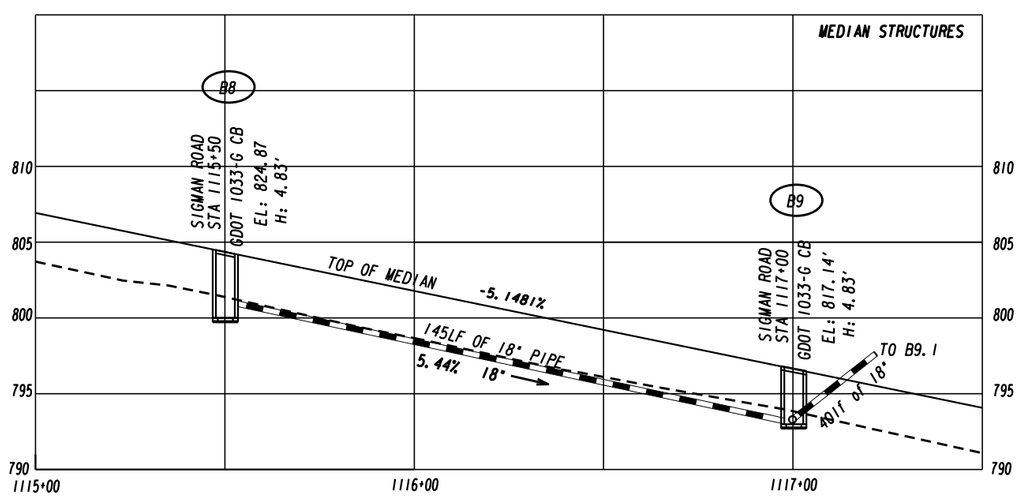
CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

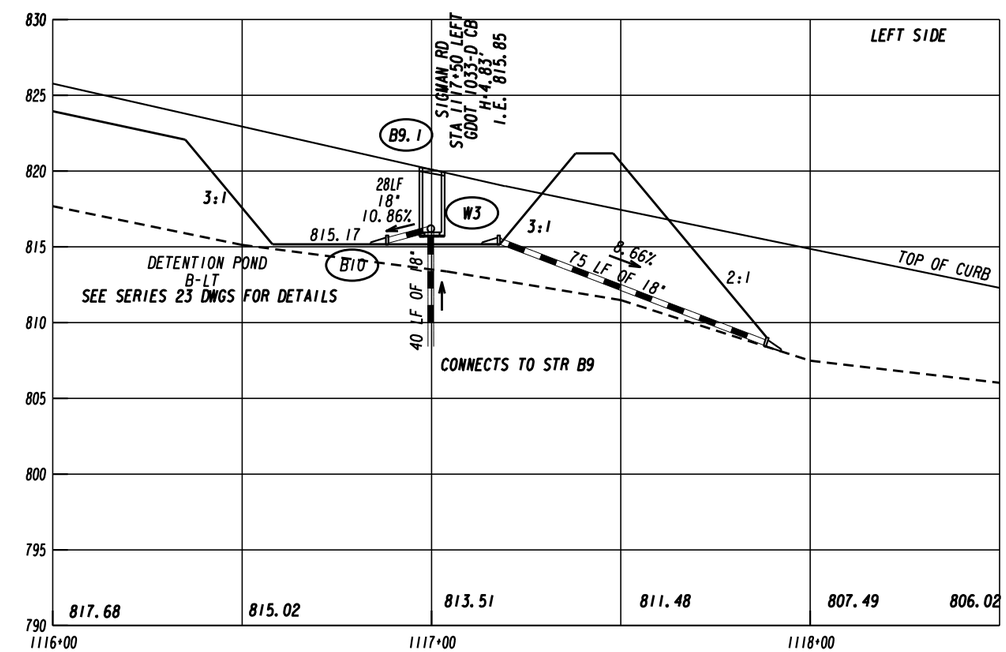
DRAWING No. 06-0006

DATE$$$ TIME$$$ $PRF8$ DGN
$USER$ $$PENTABLE$$

GDOT P. I. No. 0013163







MORELAND ALTOBELLI
— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
Duluth, Georgia 30096
770.263.5945

SCALE

1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

DRAINAGE PROFILE LEFT SIDE SYSTEM B

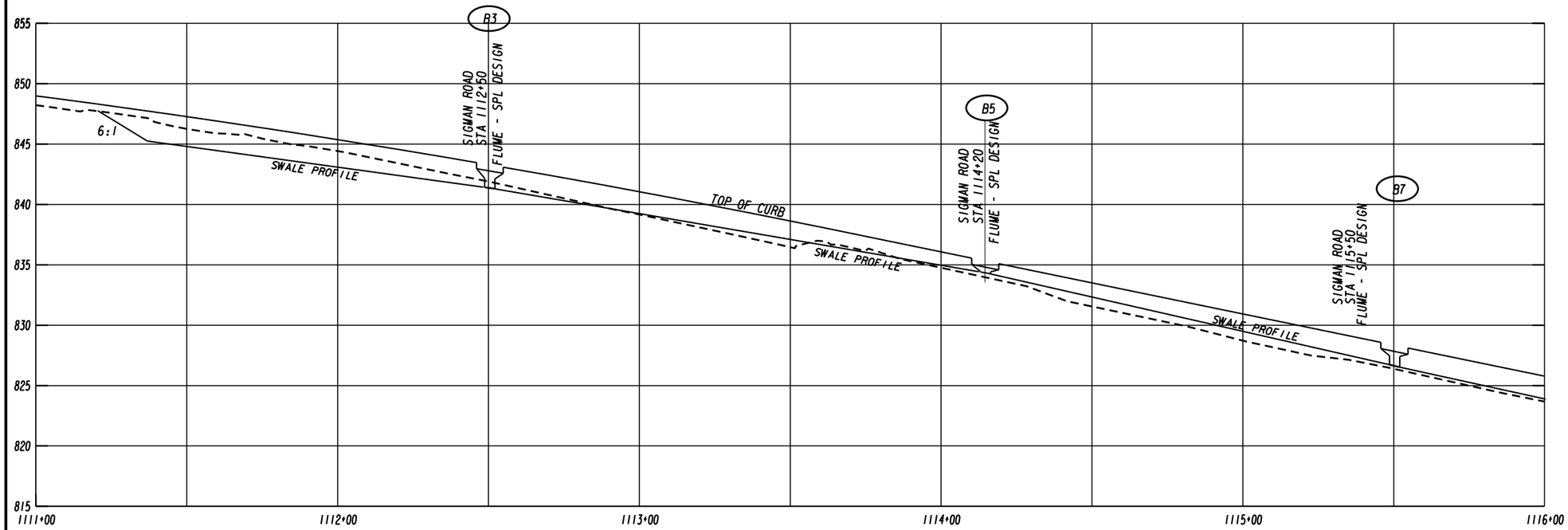
SIGMAN ROAD

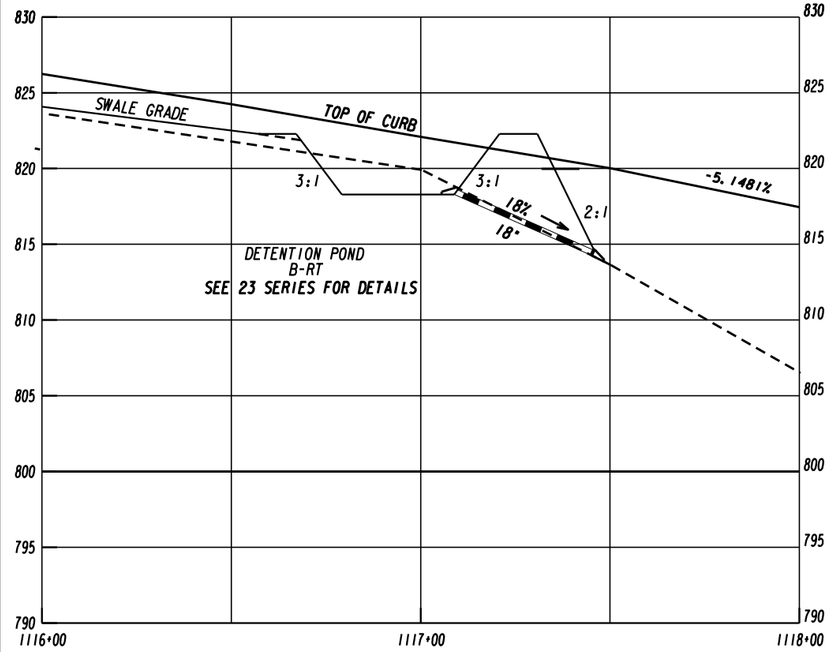
CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		22-0002
CORRECTED:		DATE:		
VERIFIED:		DATE:		

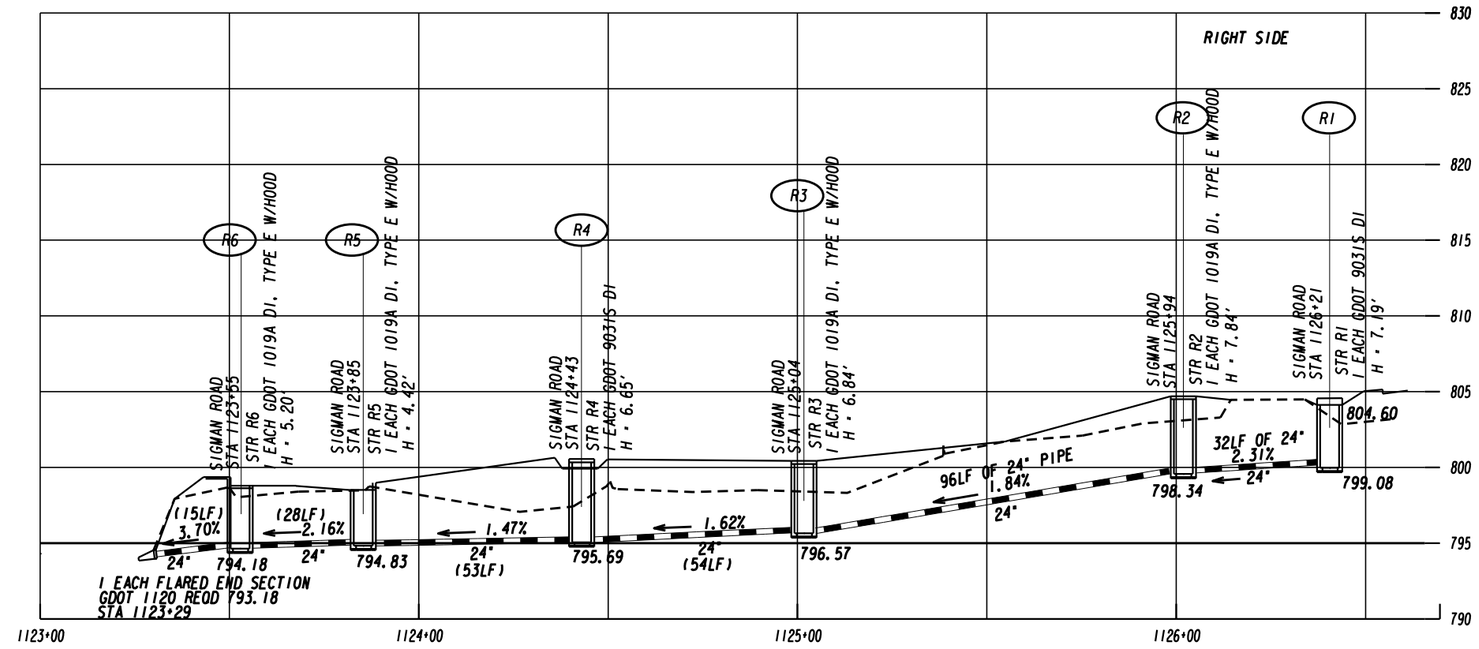
7/31/2015 GR220E

DATE$$$ TIME$$$ $PRF8$ DGN
$USER$ $$PENTABLE$$

GDOT P. I. No. 0013163







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— AN ATLAS COMPANY —
2450 Commerce Avenue
Suite 100
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770.263.5945

SCALE

1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
06-19-18		
02.28.20		

DRAINAGE PROFILES
SYSTEM B
SIGMAN ROAD

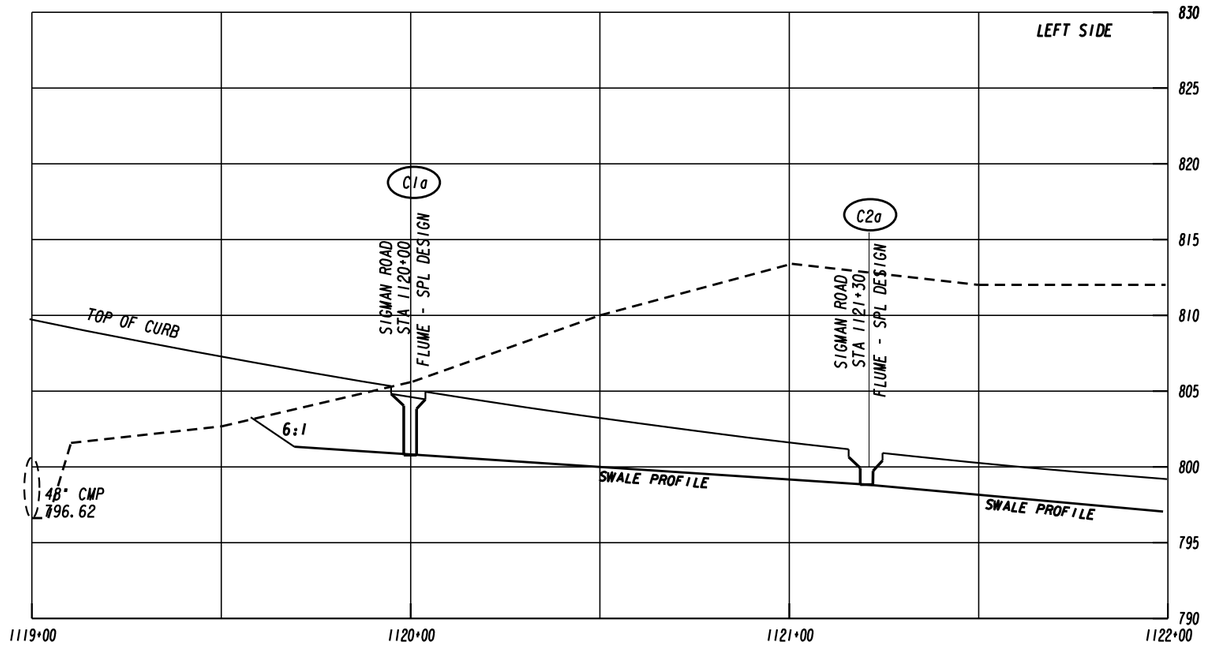
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

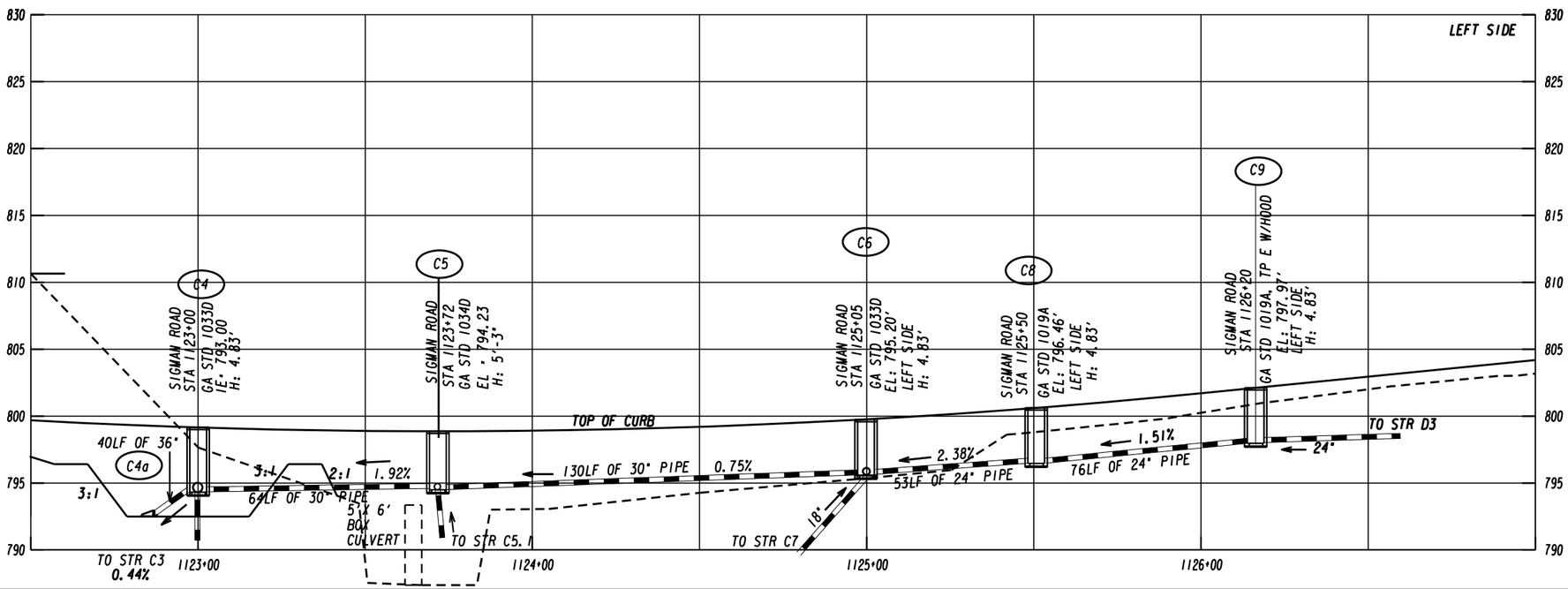
DRAWING No.
22-0003

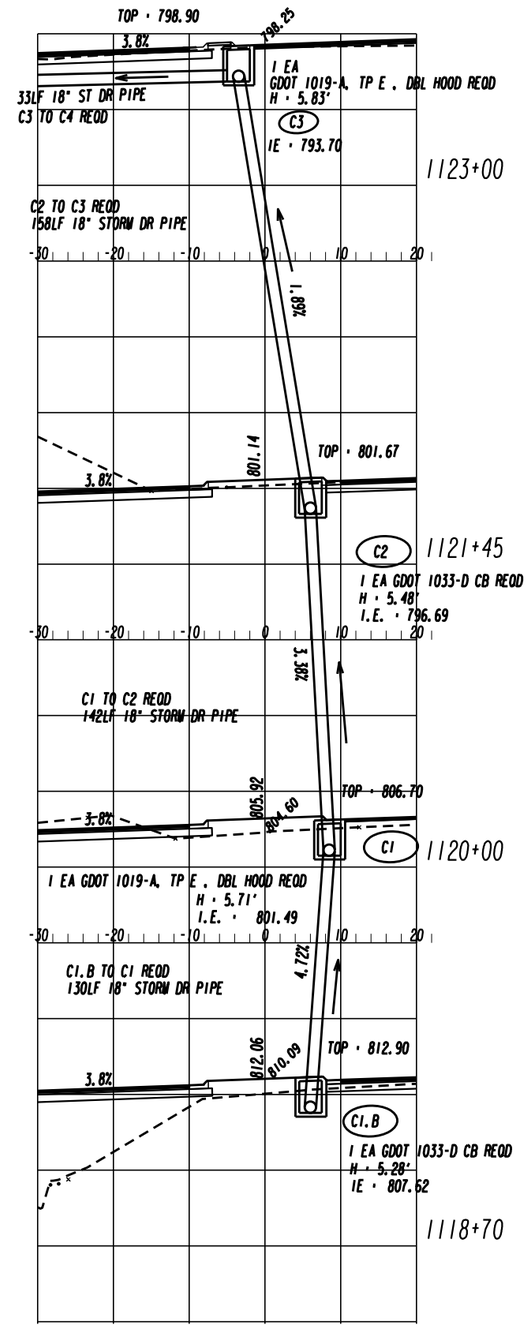
7/31/2015 GR220E

DATE$$$ TIME$$$ $PRF8$ DGN
$USER$ $$PENTABLE$$

P. I. No. 0013163







SEE 23 SERIES FOR DETAILS
792.50
TO
DETENTION POND
C-LT

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SCALE

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1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

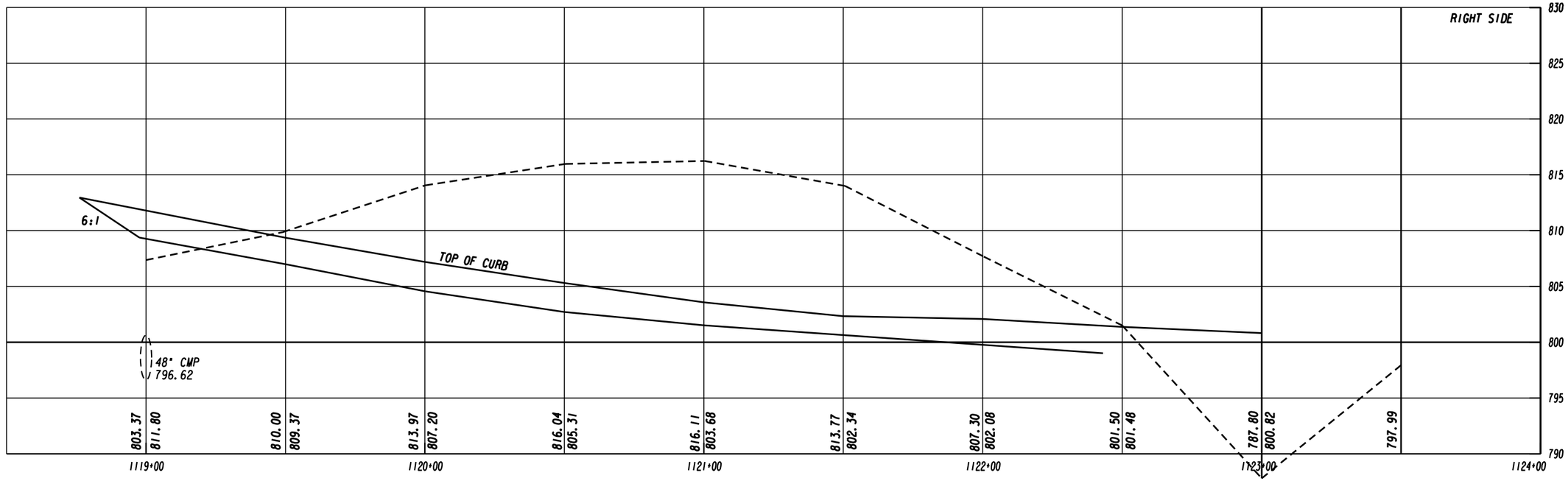
DRAINAGE PROFILES
SYSTEM C
SIGMAN ROAD

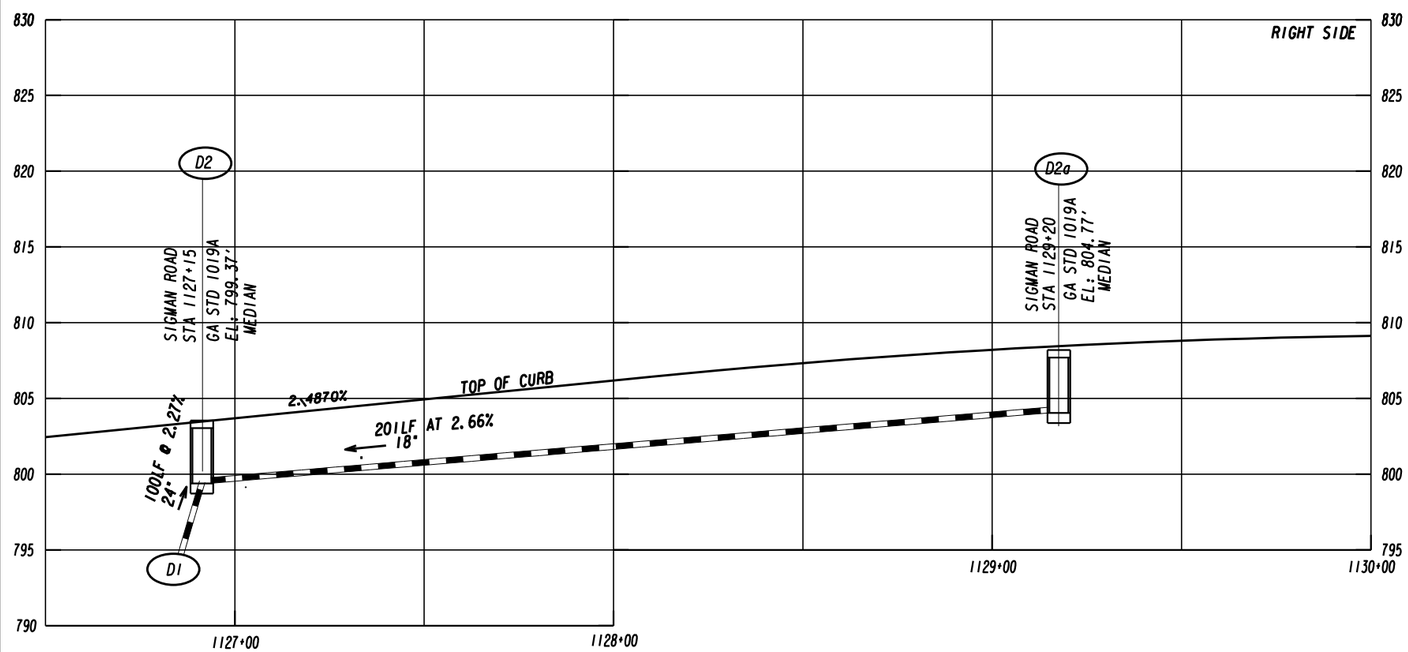
CHECKED:		DATE:		DRAWING No.
BACKCHECKED:		DATE:		22-0004
CORRECTED:		DATE:		
VERIFIED:		DATE:		

7/31/2015 GR220E

DATE$$$ TIME$$$ $PRF8$ DGN
$USER$ $$PENTABLE$$

P.I. No. 0013163





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SCALE

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1 INCH = 5 FEET VERTICAL

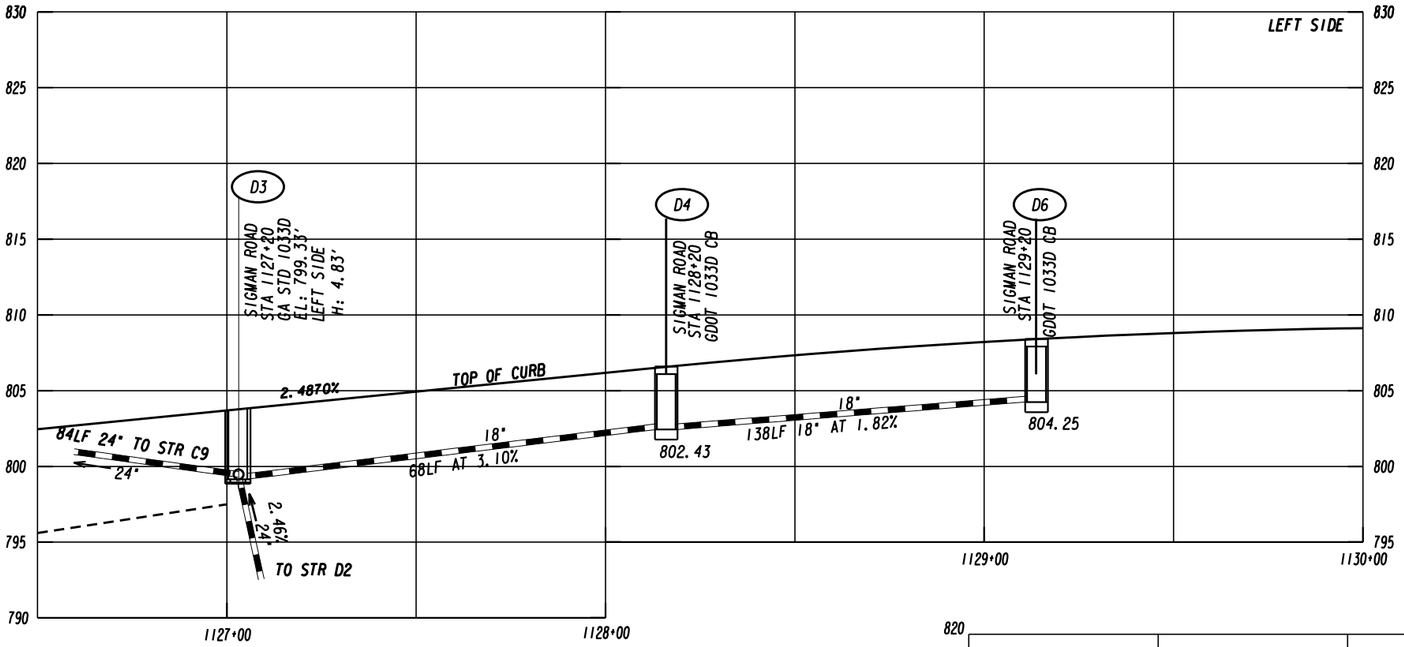
REVISION DATES		
02.28.20		

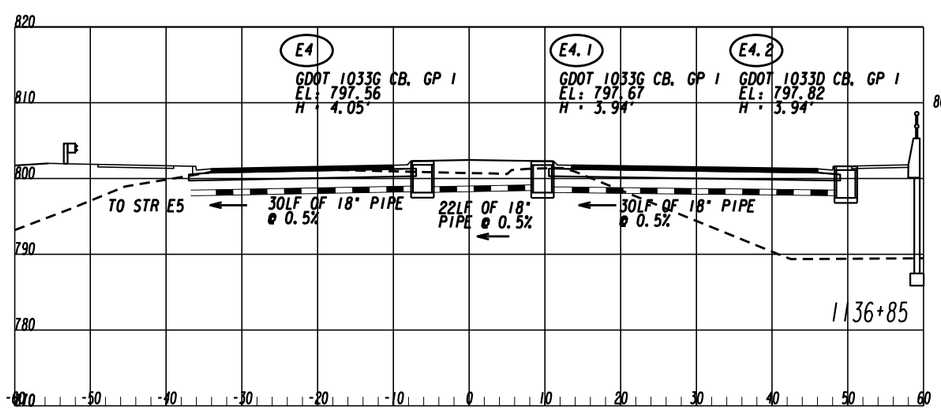
DRAINAGE PROFILES
SYSTEM C
SIGMAN ROAD

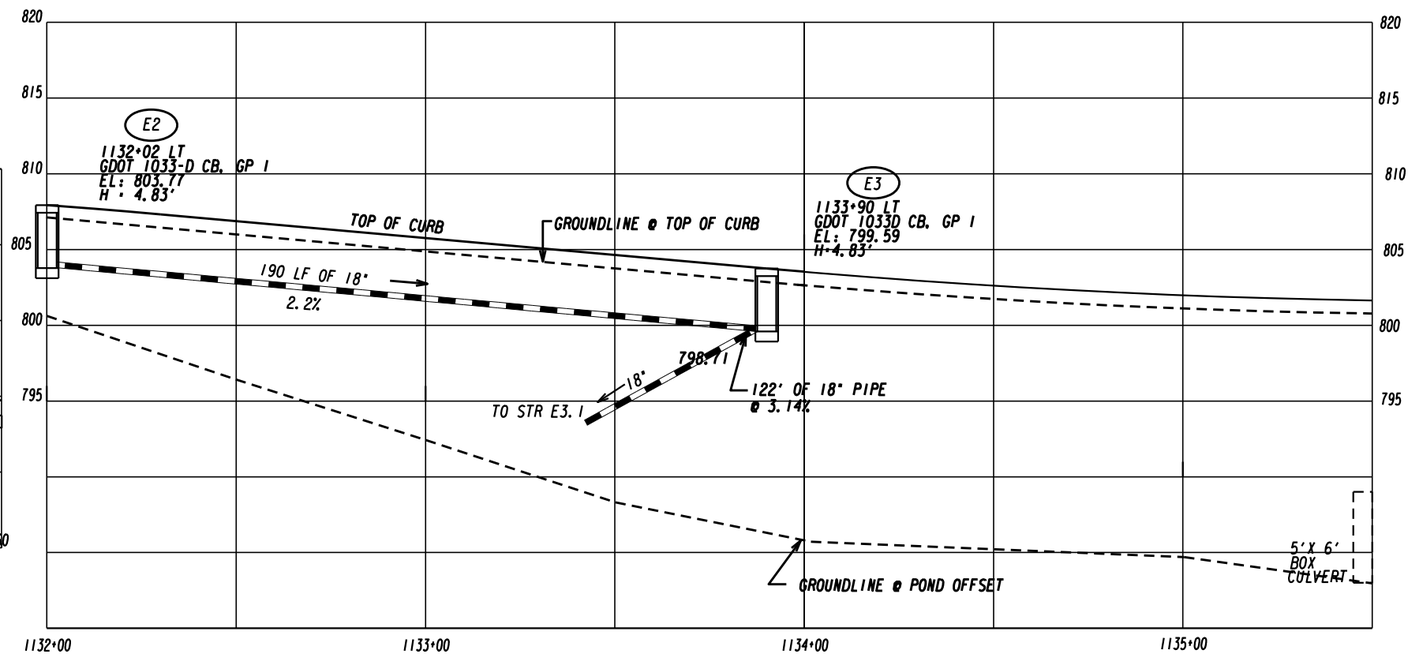
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
22-0005

7/31/2015 GR220E







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SCALE

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1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

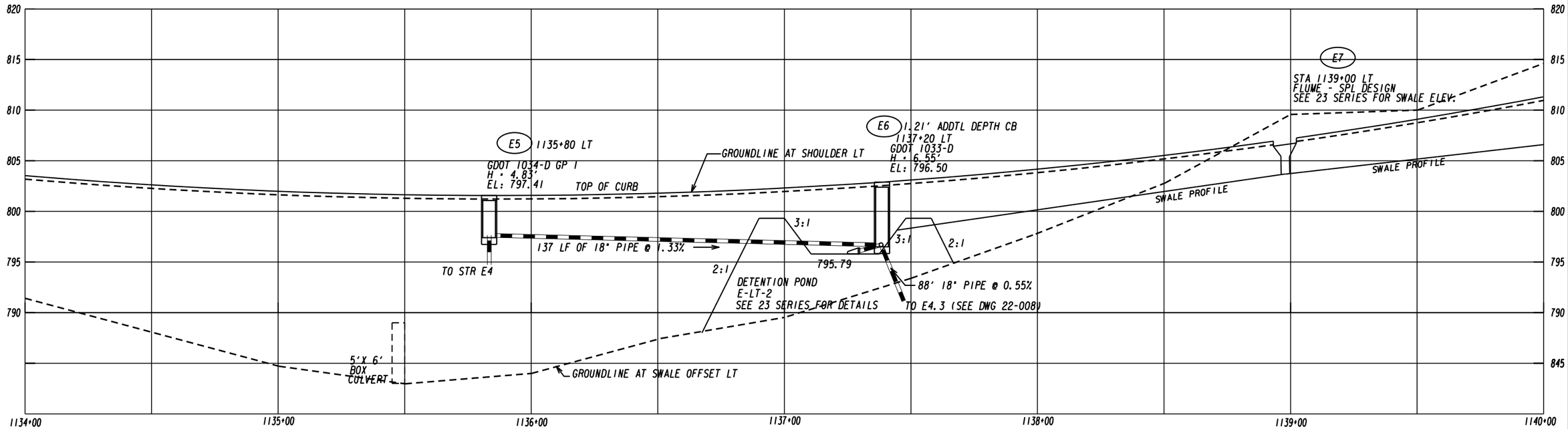
DRAINAGE PROFILES SYSTEMS D AND E SIGMAN ROAD

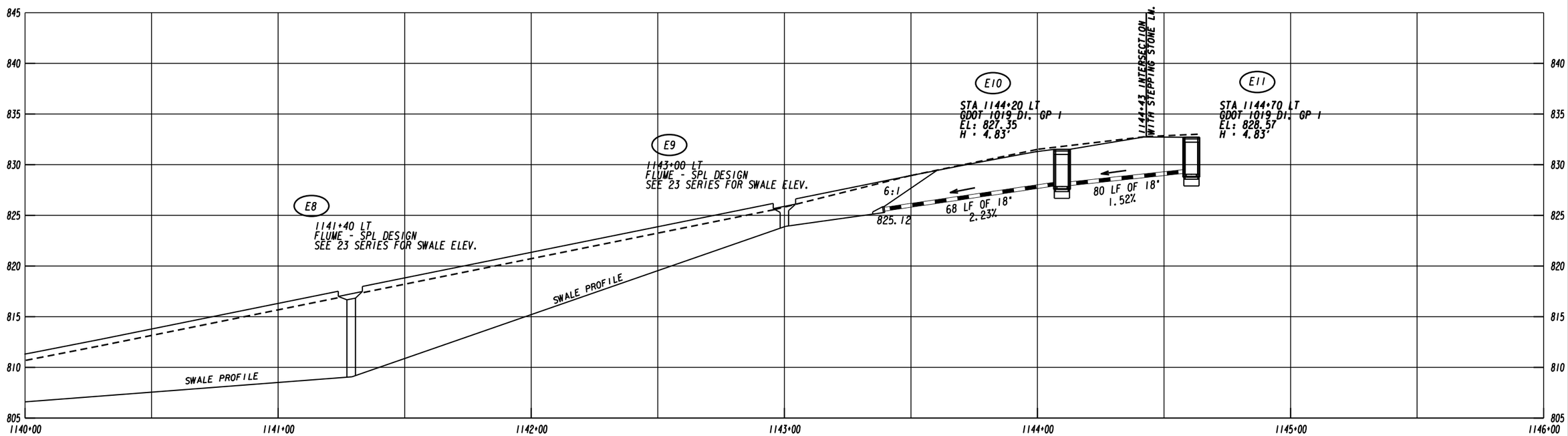
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 22-0006

DATE$$$ TIME$$$ $PRF8$ DGN
$USER$ $$PENTABLE$$

P. I. No. 0013163





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SCALE

1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

DRAINAGE PROFILE LEFT SIDE SYSTEM E
SIGMAN ROAD

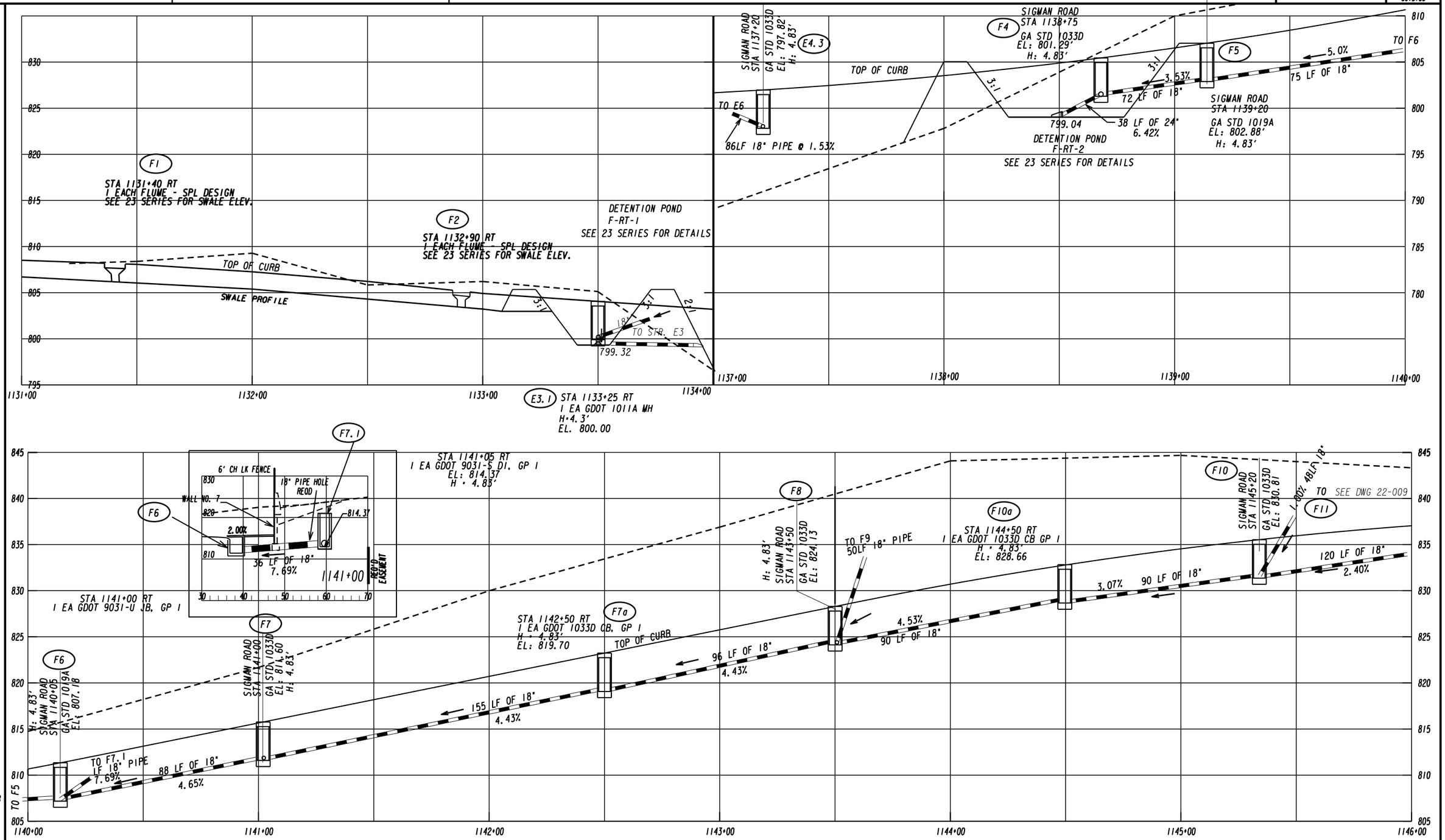
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
22-0007

7/31/2015 GR220E

DATE$$$ TIME$$$ $PRF8$ DGN
$USER$ $$PENTABLE$$

GDOT P. I. No. 0013163



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SCALE

1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

DRAINAGE PROFILE RIGHT SIDE SYSTEMS E & F
SIGMAN ROAD

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 22-0008

7/31/2015 GR220E

DATE$$$ TIME$$$ $PRF8$ DGN P.I. No. 0013163
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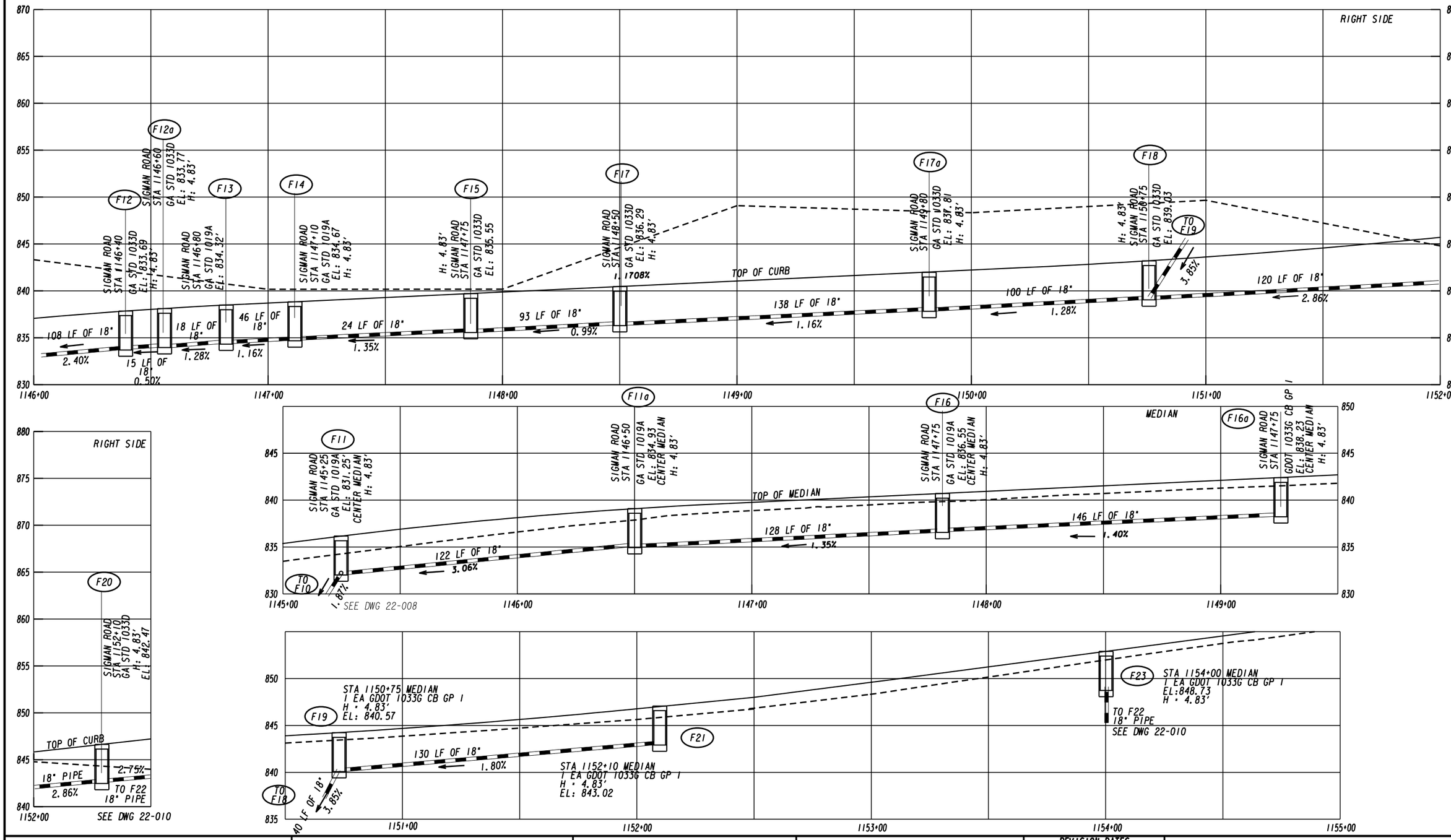

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SCALE

1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

DRAINAGE PROFILE SYSTEMS F & G SIGMAN ROAD

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 22-0009

7/31/2015 GR220E

DATE$$$ TIME$$$ $PRF8$ DGN
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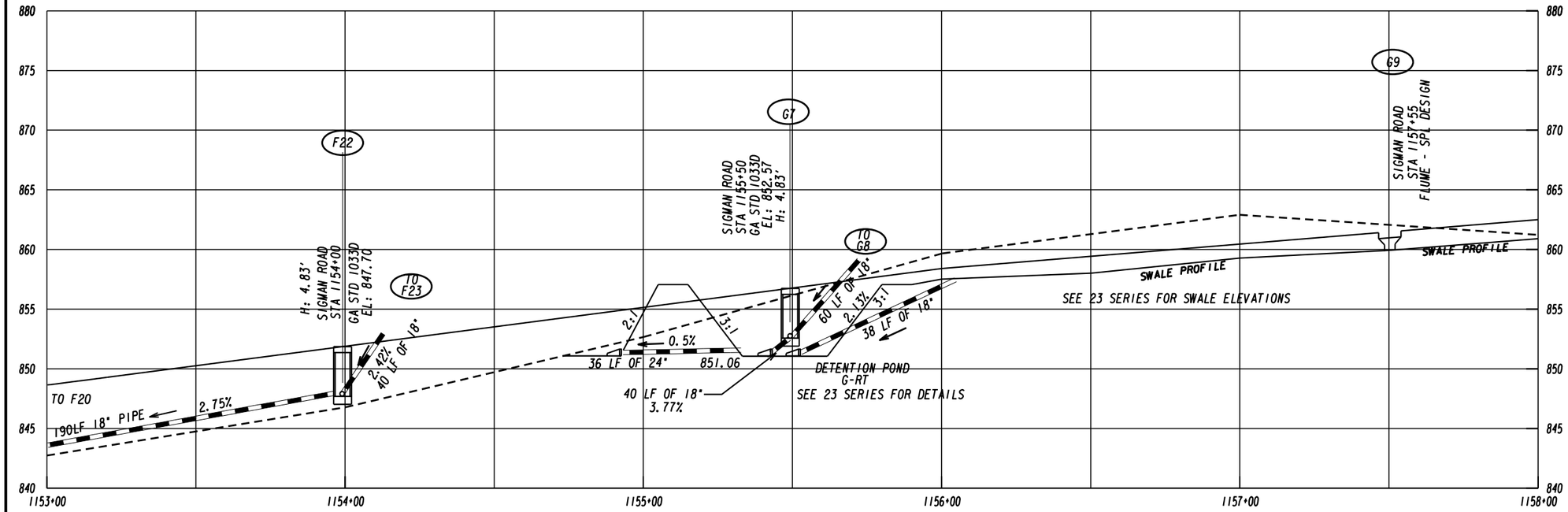
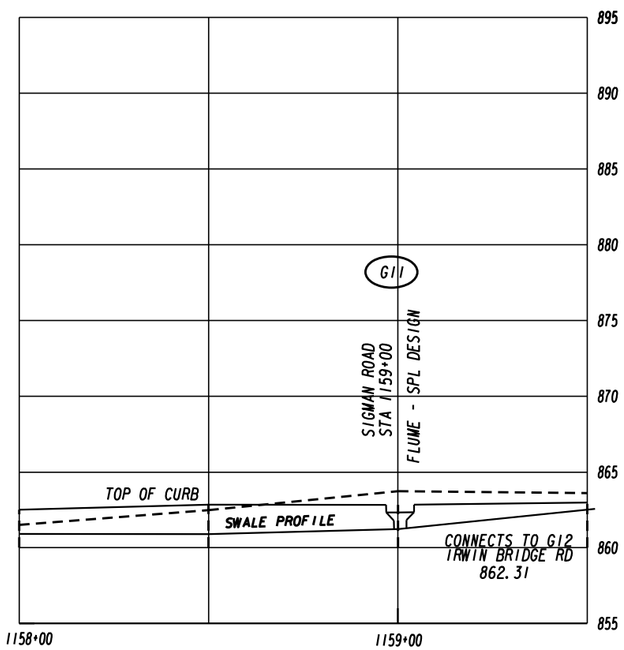
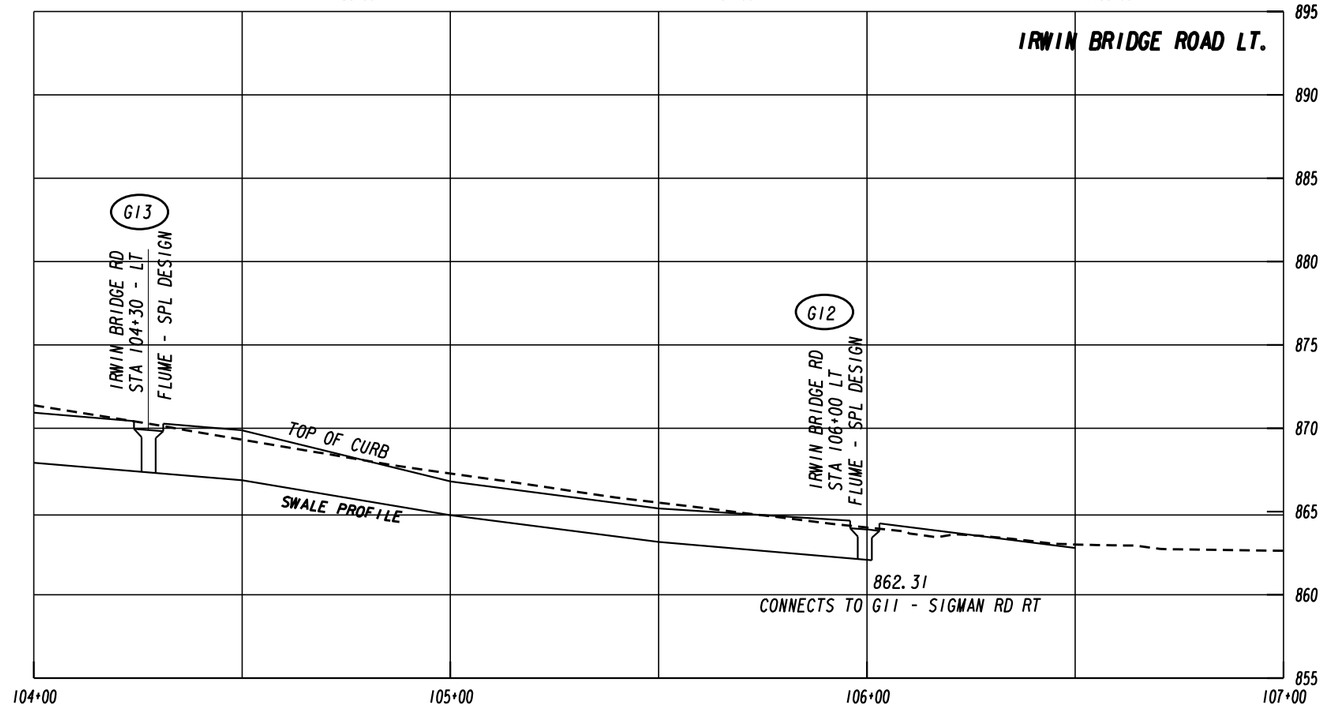
P. I. No. 0013163







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1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

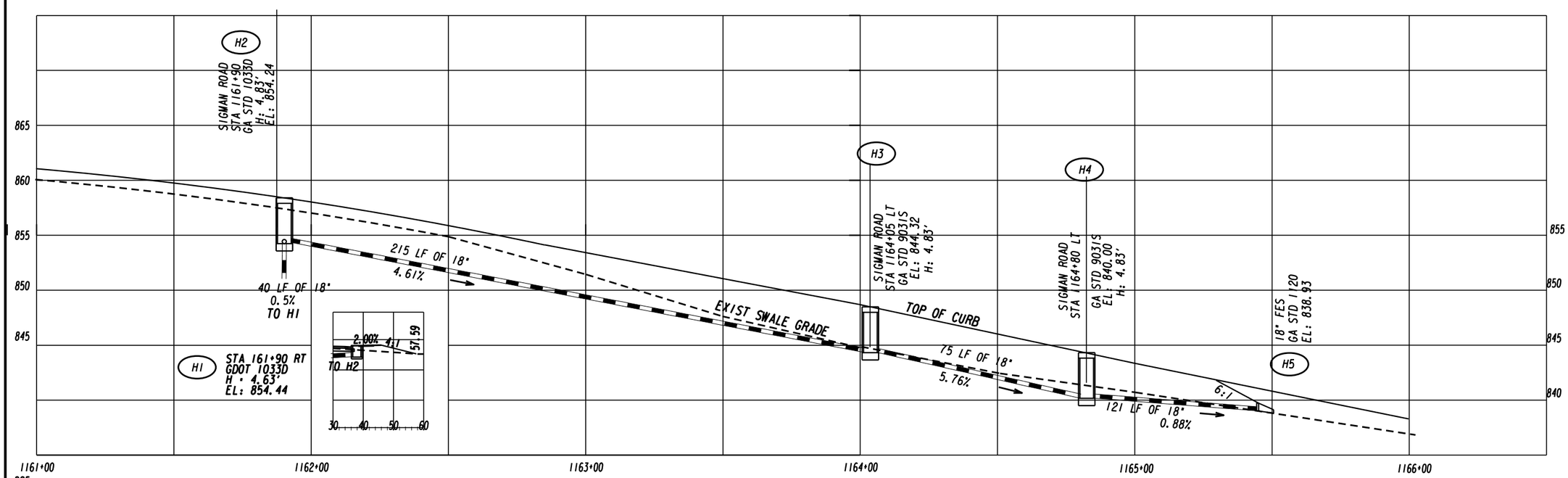
DRAINAGE PROFILES SYSTEMS F & G SIGMAN ROAD

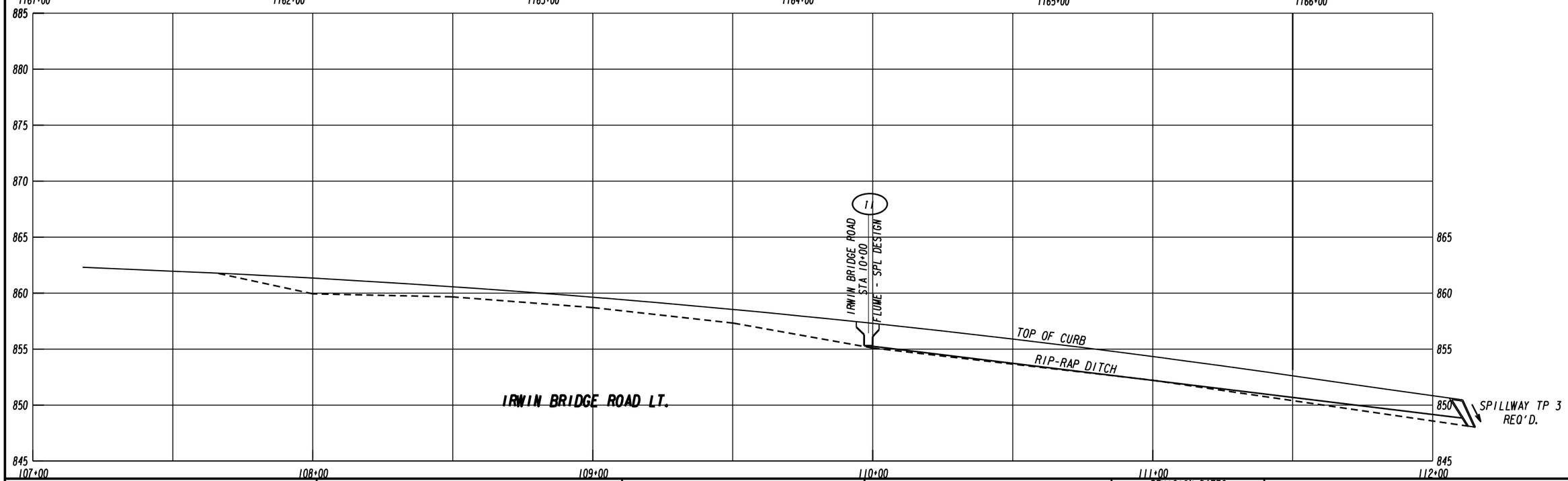
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
22-0010

7/31/2015 GR220E

DATE$$$ TIME$$$ $PRFB$ DGN P.I.-No.
$USER$ $$PENTABLE$$





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SCALE

1 INCH = 50 FEET HORIZONTAL
1 INCH = 5 FEET VERTICAL

REVISION DATES		
02.28.20		

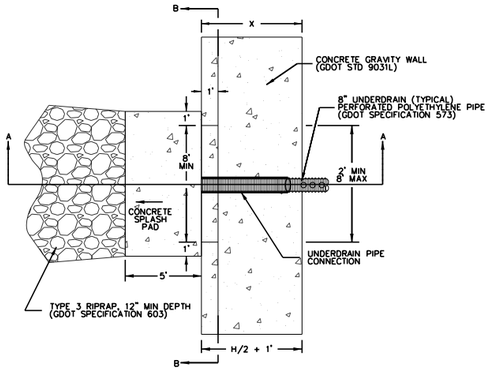
DRAINAGE PROFILE
SYSTEM H & I
SIGMAN ROAD

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

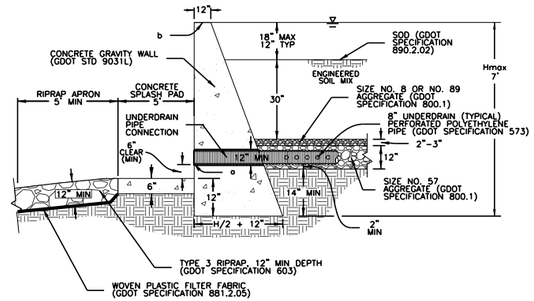
DRAWING No.
22-0011

7/31/2015 GR220E

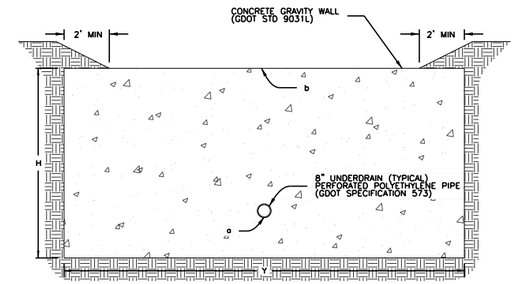
OPTION A



RETAINING WALL OUTLET
PLAN VIEW



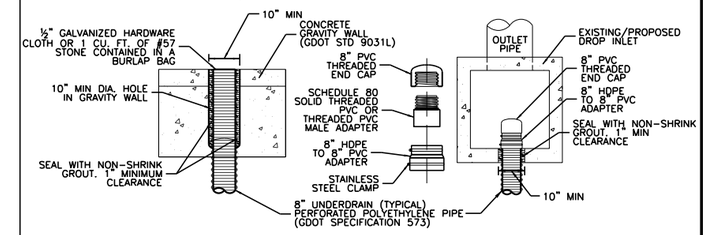
RETAINING WALL OUTLET
SECTION A–A



RETAINING WALL OUTLET
SECTION B–B

NOTE:

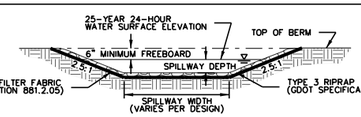
ALL JOINTS AND CONNECTIONS SHALL BE WATERTIGHT AND HAVE ELASTOMERIC SEALS THAT MEET THE REQUIREMENTS OF ASTM F 477.



UNDERDRAIN PIPE
CONNECTION DETAIL

SYMBOL	DEFINITION
a	Underdrain Pipe Invert Elevation
b	Overbank Flood Protection Invert Elevation
c	100–Year, 24–Hour Storm Invert Elevation
X	Outlet Structure Width
Y	Outlet Structure Length
H	Outlet Structure Height

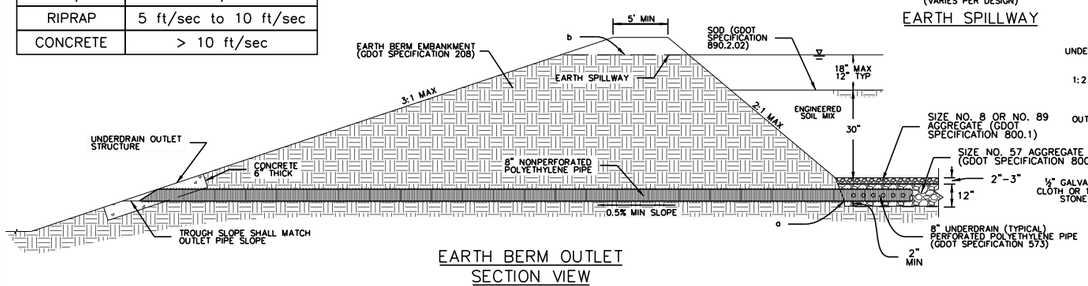
EARTH SPILLWAY CHANNEL LININGS	
LINING MATERIAL	ACCEPTABLE VELOCITY RANGE
GRASS/SOD	< 5 ft/sec
RIPRAP	5 ft/sec to 10 ft/sec
CONCRETE	> 10 ft/sec



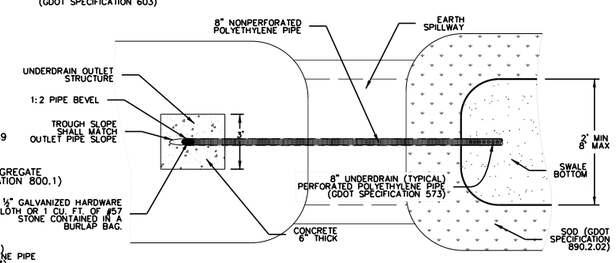
EARTH SPILLWAY

NOTE:
RIPRAP LINING SHOWN. SEE CHART FOR APPROPRIATE SPILLWAY LINING.

OPTION B



EARTH BERM OUTLET
SECTION VIEW



EARTH BERM OUTLET
PLAN VIEW

GENERAL NOTES:

1) OUTLET STRUCTURE SHALL BE DESIGNED TO SAFELY CONVEY THE 25–YEAR, 24–HOUR STORM EVENT.

2) OUTLET STRUCTURES SHALL BE PROTECTED OR HAVE A MAXIMUM SLOPE OF 4:1 IF CONSTRUCTED WITHIN THE CLEAR ZONE.

3) ALL ITEMS SHOWN AND INCIDENTAL ITEMS NECESSARY FOR THE OUTLET STRUCTURE ARE TO BE INCLUDED IN THE OVERALL BID PRICE FOR THE ENHANCED DRY SWALE.

4) IF POST–CONSTRUCTION STORMWATER BMP CANNOT BE BUILT WITHIN THE TOLERANCES ALLOWED, THE CONSTRUCTION PROJECT MANAGER SHALL NOTIFY THE OFFICE OF PROGRAM DELIVERY PROJECT MANAGER AND AREA ENGINEER. MODIFICATIONS MUST BE APPROVED BY THE GDOT OFFICE OF DESIGN POLICY AND SUPPORT PRIOR TO INSTALLATION.

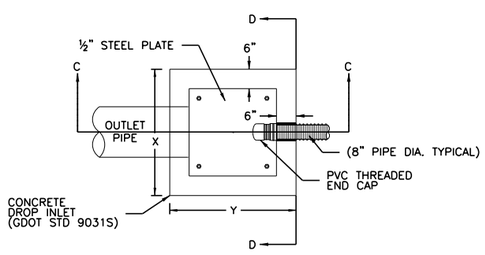
5) TABLE SHOWN BELOW SHALL BE FILLED OUT AND SHOWN ON THE SPECIAL GRADING PLANS.

6) CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE AS–BUILT DATA TO THE CONSTRUCTION PROJECT ENGINEER/INSPECTOR.

OUTLET STRUCTURE DESIGN DATA						
X	Y	H	Event	INVERT ELEV.	UNDERDRAIN DIA. (IN)	WEIR LEN. (FT)
			a			N/A
			b		N/A	
SPLASH PAD ELEV. =				TOP OF BERM / WALL ELEV. =		
BOTTOM OF WALL ELEV. =				TOP OF BERM WIDTH =		
25-YR, 24-HR WSE =						

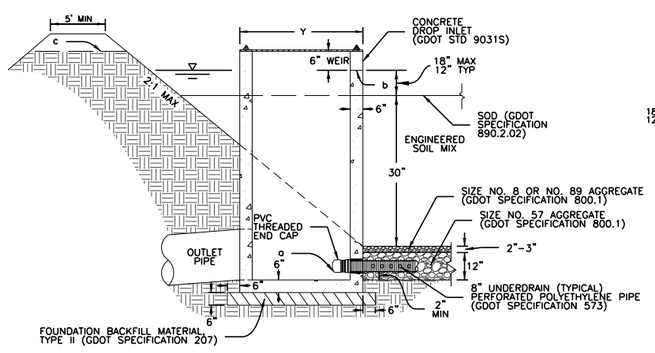
OUTLET STRUCTURE AS-BUILT DATA						
X	Y	H	Event	INVERT ELEV.	UNDERDRAIN DIA. (IN)	WEIR LEN. (FT)
			a			N/A
			b		N/A	
SPLASH PAD ELEV. =				TOP OF BERM / WALL ELEV. =		
BOTTOM OF WALL ELEV. =				TOP OF BERM WIDTH =		

NOTES:
1) 9031S DROP INLET SHALL BE PRECAST.
2) 9031S DROP INLET SHALL BE CONSTRUCTED WITHOUT A CONCRETE APRON.

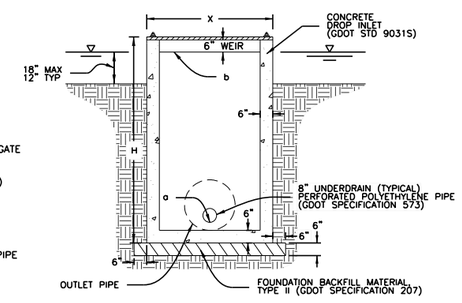


CONCRETE DROP INLET
PLAN VIEW

OPTION C



CONCRETE DROP INLET
SECTION C–C



CONCRETE DROP INLET
SECTION D–D

THIS DETAIL SUPERCEDES THE GDOT MANUAL ON DRAINAGE DESIGN FOR HIGHWAYS

REVISION DATES

SPECIAL CONSTRUCTION DETAIL
ENHANCED DRY SWALE
OUTLET STRUCTURE

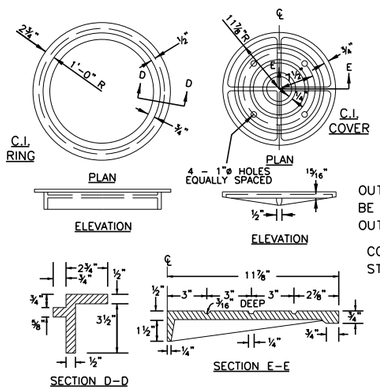
CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 40 – 0024

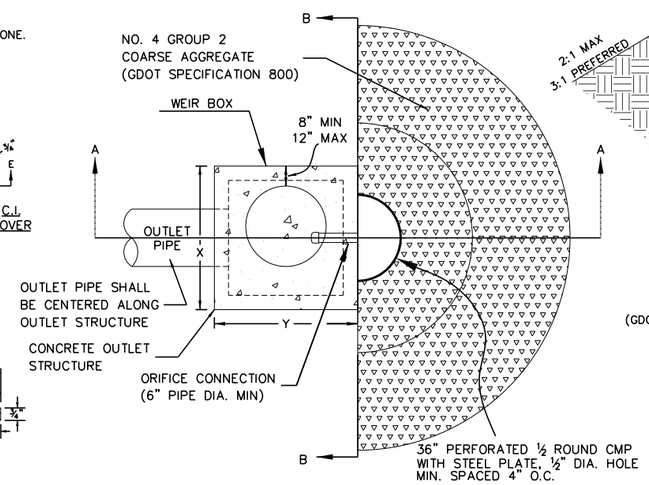
NOTES:

1) MANHOLE COVER SHOULD BE CENTERED WITH STEPS.

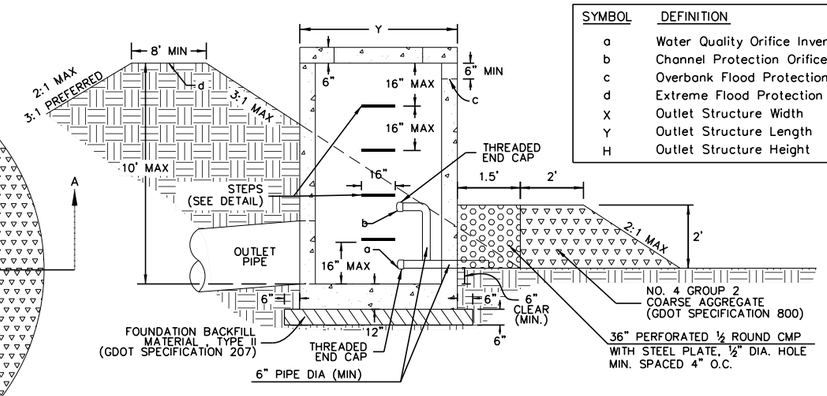
2) STONE FILTER SHALL BE #4, GROUP 2 STONE. (GDOT SPECIFICATION 800)



CASTING DETAILS



OUTLET STRUCTURE PLAN VIEW



SECTION A–A

NOTE: SEE SECTION B–B FOR REINFORCING

SYMBOL	DEFINITION
a	Water Quality Orifice Invert Elevation
b	Channel Protection Orifice Invert Elevation
c	Overbank Flood Protection Invert Elevation
d	Extreme Flood Protection Invert Elevation
X	Outlet Structure Width
Y	Outlet Structure Length
H	Outlet Structure Height

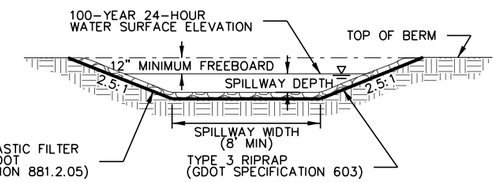
Outlet Structure Dimensions					
Pipe Diameter	Min X	Min Y	Max X or Y	Min H	Max H
18"	4'	4'	8'	5' – 6"	11' – 6"
24"	4'	4'	8'	5' – 6"	11' – 6"
30"	5'	4'	8'	6' – 6"	11' – 6"
36"	5'	4'	8'	6' – 6"	11' – 6"
42"	6'	4'	8'	7' – 6"	11' – 6"
48"	6'	4'	8'	7' – 6"	11' – 6"

NOTES:

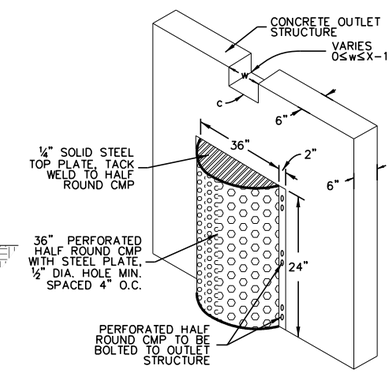
1) DIMENSIONS THAT EXCEED MAXIMUM X OR MAXIMUM Y WILL REQUIRE INDIVIDUAL STRUCTURAL DESIGN.

2) MAXIMUM OUTLET STRUCTURE SIZE SHALL HAVE AN INSIDE AREA NO GREATER THAN 49 SQUARE FEET.

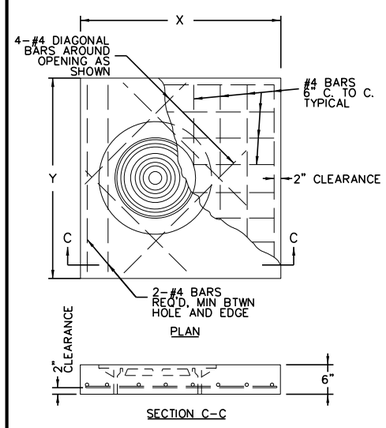
3) OUTLET STRUCTURE SHALL BE CONSTRUCTED AT EVEN 1' INCREMENTS.



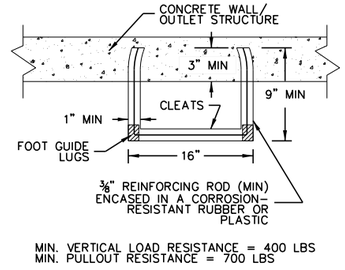
EARTH SPILLWAY



36" PERFORATED HALF ROUND CMP WITH STEEL PLATE



REINFORCED CONCRETE COVER

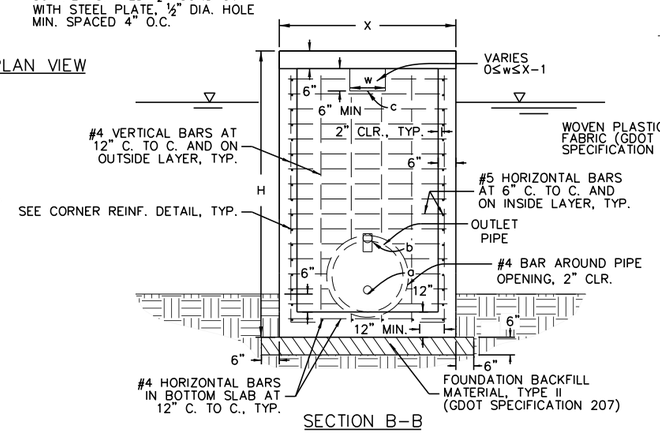


MIN. VERTICAL LOAD RESISTANCE = 400 LBS
MIN. PULLOUT RESISTANCE = 700 LBS

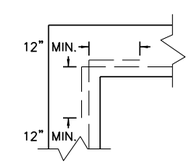
STEP DETAIL

NOTE:

NUMBER AND LOCATION OF STEPS TO BE AS DIRECTED BY THE ENGINEER. PLASTIC OR RUBBER COATED STEPS LISTED IN THE GA D.O.T. QUALIFIED PRODUCTS LIST MAY BE SUBSTITUTED.



SECTION B–B



CORNER REINFORCING DETAIL

GENERAL NOTES:

1) CONCRETE OUTLET STRUCTURES SHALL BE PRECAST.

2) ALL ITEMS SHOWN AND INCIDENTAL ITEMS NECESSARY FOR THE OUTLET STRUCTURE ARE TO BE INCLUDED IN THE OVERALL BID PRICE FOR THE DRY DETENTION BASIN.

3) IF POST–CONSTRUCTION STORMWATER BMP CANNOT BE BUILT WITHIN THE TOLERANCES ALLOWED, THE CONSTRUCTION PROJECT MANAGER SHALL NOTIFY THE OFFICE OF PROGRAM DELIVERY PROJECT MANAGER AND AREA ENGINEER. MODIFICATIONS MUST BE APPROVED BY THE GDOT OFFICE OF DESIGN POLICY AND SUPPORT PRIOR TO INSTALLATION.

4) DATA TABLE BELOW SHALL BE FILLED OUT AND SHOWN ON THE SPECIAL GRADING PLANS.

5) CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE AS–BUILT DATA TO THE CONSTRUCTION PROJECT ENGINEER/INSPECTOR.

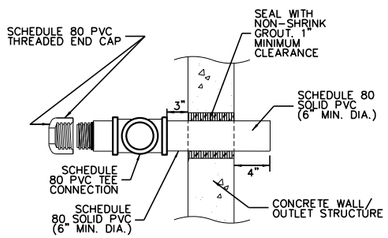
NOTES (ORIFICE CONNECTION):

1) FILL GAP BETWEEN STRUCTURE & PVC WITH NON–SHRINK GROUT.

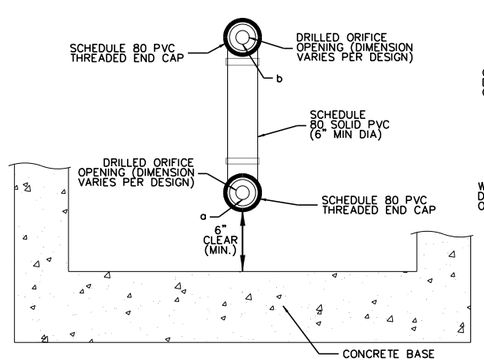
2) ALL PVC JOINTS SHALL BE WATERTIGHT AND HAVE ELASTOMERIC SEALS THAT MEET THE REQUIREMENTS OF ASTM F 477.

3) PIPE SIZE SHALL BE SPECIFIED PER TABLE BELOW.

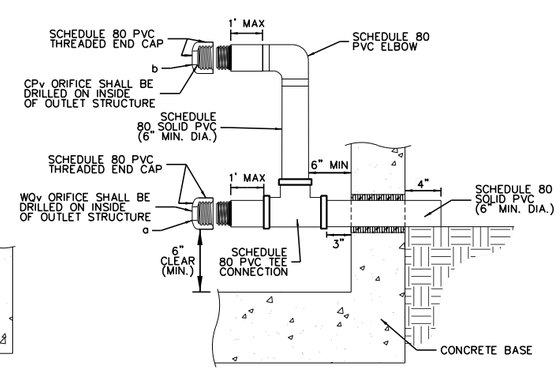
OUTLET ORIFICE DIAMETER	PVC PIPE SIZE	PRECAST HOLE SIZE
<3"	6"	8"
3" TO <5"	8"	10"



ORIFICE CONNECTION DETAIL PLAN VIEW



ORIFICE CONNECTION DETAIL FRONT VIEW



ORIFICE CONNECTION DETAIL SECTION VIEW

OUTLET STRUCTURE DESIGN DATA							
X	Y	H	Event	INVERT ELEV.	ORIFICE DIA. (IN)	WEIR LEN. w (FT)	ORIFICE PIPE DIA. (IN)
			a			N/A	
			b			N/A	
			c		N/A		N/A
			d		N/A		N/A

STRUCTURE INVERT ELEV. = STRUCTURE TOP ELEV. =
OUTLET PIPE DIA. = OUTLET PIPE SLOPE =
OUTLET PIPE LENGTH = OUTLET PIPE INVERT =
OUTLET PIPE HEADWALL = 100-YR, 24-HR WSE=

OUTLET STRUCTURE AS-BUILT DATA							
X	Y	H	Event	INVERT ELEV.	ORIFICE DIA. (IN)	WEIR LEN. w (FT)	ORIFICE PIPE DIA. (IN)
			a			N/A	
			b			N/A	
			c		N/A		N/A
			d		N/A		N/A

STRUCTURE INVERT ELEV. = STRUCTURE TOP ELEV. =
OUTLET PIPE DIA. = OUTLET PIPE SLOPE =
OUTLET PIPE LENGTH = OUTLET PIPE INVERT =
OUTLET PIPE HEADWALL =

THIS DETAIL SUPERCEDES THE GDOT MANUAL ON DRAINAGE DESIGN FOR HIGHWAYS

REVISION DATES

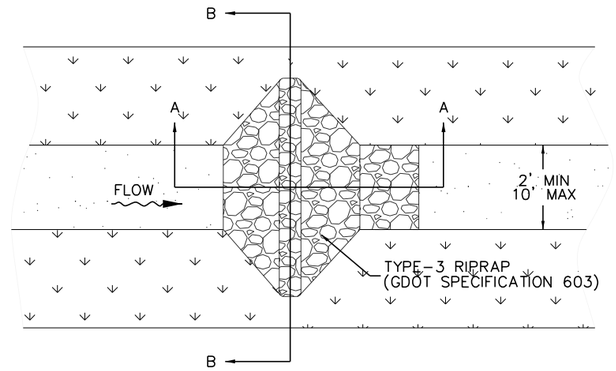
SPECIAL CONSTRUCTION DETAIL

DRY DETENTION BASIN

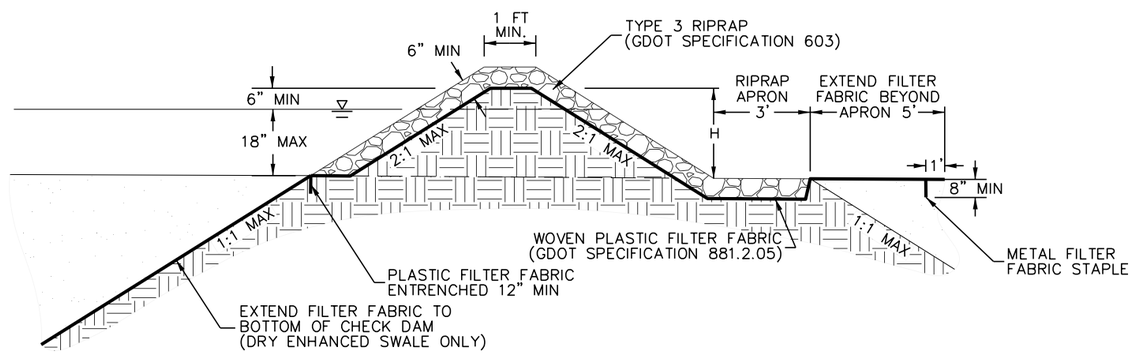
OUTLET STRUCTURE

CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No. 40-0025



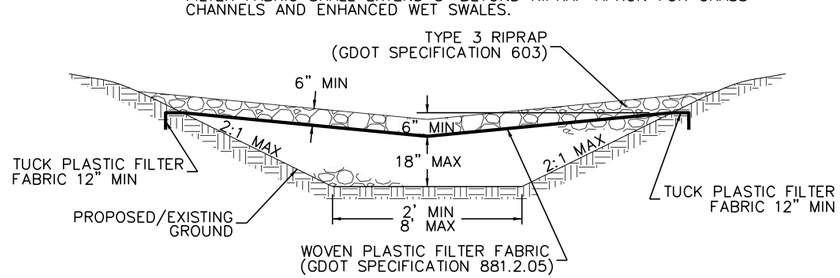
EARTH CHECK DAM
PLAN VIEW



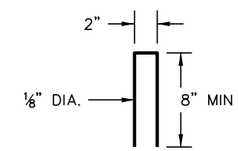
EARTH CHECK DAM
SECTION A–A

NOTE:

EARTH CHECK DAM AND PLASTIC FILTER FABRIC SHALL EXTEND TO THE BOTTOM OF THE AGGREGATE LAYER FOR ENHANCED DRY SWALES. FILTER FABRIC SHALL EXTEND 5' BEYOND RIPRAP APRON FOR GRASS CHANNELS AND ENHANCED WET SWALES.



EARTH CHECK DAM
SECTION B–B



METAL FILTER FABRIC STAPLE

GENERAL NOTES:

1) THE CHECK DAMS SHOWN ARE FOR POST–CONSTRUCTION STORMWATER BMP'S AND MAY BE USED FOR ENHANCED DRY SWALES, ENHANCED WET SWALES, AND GRASS CHANNELS.

2) EARTH CHECK DAMS SHALL BE PROTECTED OF HAVE A MAXIMUM SLOPE OF 4:1 IF CONSTRUCTED WITHIN THE CLEAR ZONE.

3) WOVEN PLASTIC FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP.

4) ANCHOR THE WOVEN PLASTIC FILTER FABRIC TO THE GROUND SURFACE WITH METAL FILTER FABRIC STAPLES 12–INCHES FROM THE EDGE AND NO GREATER THAN 12–INCHES APART.

5) ALL ITEMS SHOWN AND INCIDENTAL ITEMS NECESSARY FOR THE CHECK DAMS ARE TO BE INCLUDED IN THE OVERALL BID PRICE FOR THE POST–CONSTRUCTION STORMWATER BMP.

6) IF POST–CONSTRUCTION STORMWATER BMP CANNOT BE BUILT WITHIN THE TOLERANCES ALLOWED, THE CONSTRUCTION PROJECT MANAGER SHALL NOTIFY THE OFFICE OF PROGRAM DELIVERY PROJECT MANAGER AND AREA ENGINEER. MODIFICATIONS MUST BE APPROVED BY THE GDOT OFFICE OF DESIGN POLICY AND SUPPORT PRIOR TO INSTALLATION.

7) TABLE SHOWN BELOW SHALL BE FILLED OUT AND SHOWN ON THE SPECIAL GRADING PLANS.

8) CONTRACTOR IS RESPONSIBLE FOR SUPPLYING THE AS–BUILT DATA TO THE CONSTRUCTION PROJECT ENGINEER/INSPECTOR.

Design Data						
Begin Station	End Station	Longitudinal Slope	Bottom Width	H	Check Dam Spacing	# of Check Dams

As-Built Data						
Begin Station	End Station	Longitudinal Slope	Bottom Width	H	Check Dam Spacing	# of Check Dams

THIS DETAIL SUPERCEDES THE GDOT MANUAL ON DRAINAGE DESIGN FOR HIGHWAYS

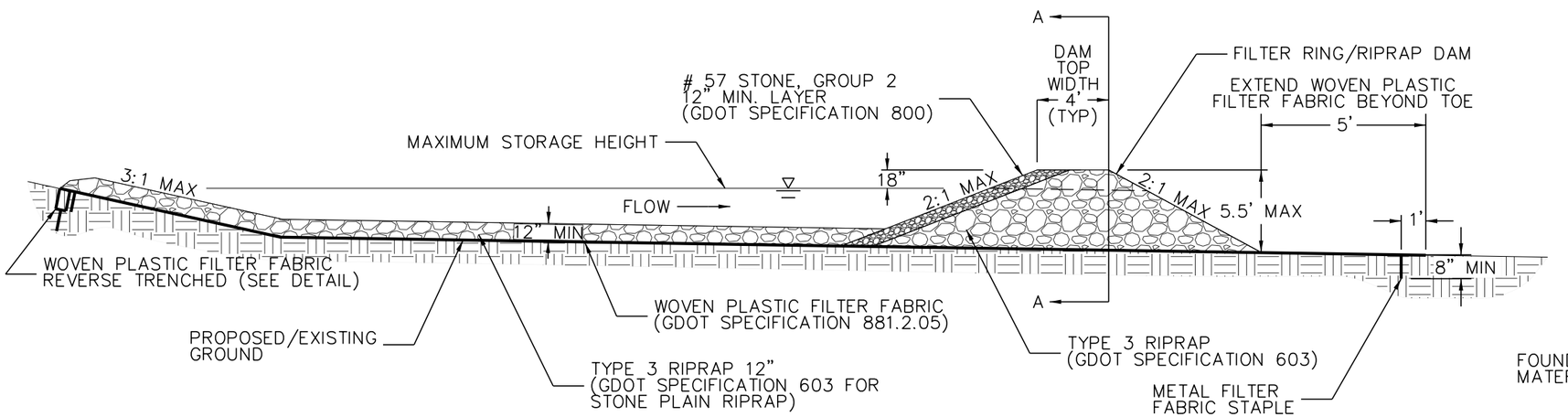
REVISION DATES

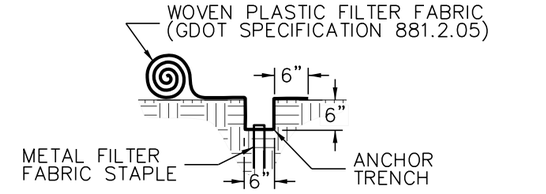
SPECIAL CONSTRUCTION DETAIL

EARTH CHECK DAMS

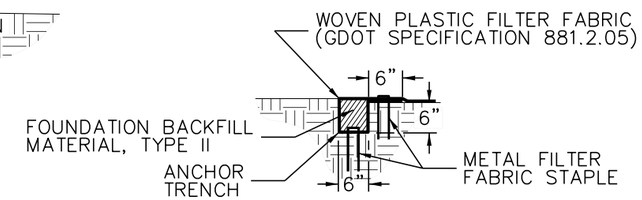
CHECKED: DATE:
BACKCHECKED: DATE:
CORRECTED: DATE:
VERIFIED: DATE:

DRAWING No.
40- 0026

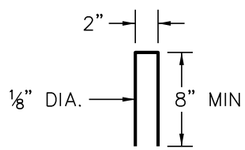




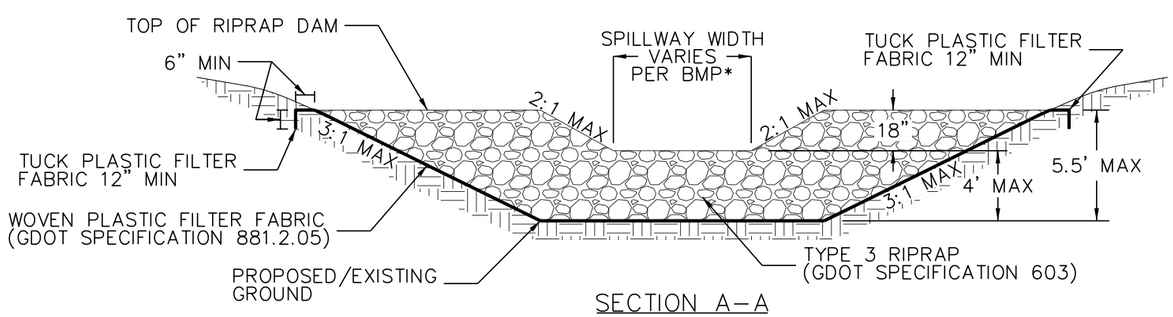
REVERSE TRENCH DETAIL 1



REVERSE TRENCH DETAIL 2



METAL FILTER FABRIC STAPLE



SECTION A–A

GENERAL NOTES:

1) FOREBAYS SHALL BE SIZED FOR 0.1 INCHES OF RUNOFF PER IMPERVIOUS ACRE OF CONTRIBUTING DRAINAGE AREA.

2) RIPRAP FOREBAYS SHALL HAVE A MAXIMUM STORAGE HEIGHT OF 4 FEET.

3) SPILLWAY SHALL BE DESIGNED TO SAFELY CONVEY THE 10–YEAR STORM EVENT.

4) WOVEN PLASTIC FILTER FABRIC IS REQUIRED UNDER ALL RIPRAP.

5) ANCHOR THE WOVEN PLASTIC FILTER FABRIC TO THE GROUND SURFACE WITH METAL FILTER FABRIC STAPLES 12–INCHES FROM THE EDGE AND NO GREATER THAN 12–INCHES APART.

6) THE CLEAN OUT VOLUME IS ONE–THIRD THE TOTAL STORAGE VOLUME. THE CLEAN OUT VOLUME SHALL BE CALCULATED AND MARKED WITH A STAKE AT THE OUTLET.

7) RIPRAP FOREBAY SHALL BE PLACED ON THE SAME GRADE AS THE MULCH LAYER FOR BIORETENTION BASINS.

8) BIORETENTION BASIN SHALL HAVE A RIPRAP FOREBAY FOR EACH INLET RECEIVING MORE THAN 1 ACRE OF DRAINAGE.

9) RIPRAP FOREBAYS ARE REQUIRED FOR ALL SURFACE SAND FILTERS AND THE FOREBAY SHALL BE SIZED TO HOLD A MINIMUM OF 25% OF THE WATER QUALITY VOLUME.

10) RIPRAP FOREBAYS SHALL BE PROVIDED AT ANY INLET THAT CONTRIBUTES CONCENTRATED FLOW THAT IS OVER 10% OF THE TOTAL FLOW TO THE STORMWATER BMP.

11) ALL ITEMS SHOWN AND INCIDENTAL ITEMS NECESSARY FOR THE RIPRAP FOREBAY ARE TO BE INCLUDED IN THE OVERALL BID PRICE FOR THE POST–CONSTRUCTION STORMWATER BMP.

12) IF POST–CONSTRUCTION STORMWATER BMP CANNOT BE BUILT WITHIN THE TOLERANCES ALLOWED, THE CONSTRUCTION PROJECT MANAGER SHALL NOTIFY THE OFFICE OF PROGRAM DELIVERY PROJECT MANAGER AND AREA ENGINEER. MODIFICATIONS MUST BE APPROVED BY THE GDOT OFFICE OF DESIGN POLICY AND SUPPORT PRIOR TO INSTALLATION.

*NOTES:

1) RIPRAP FOREBAYS SHALL HAVE A MINIMUM SPILLWAY WIDTH OF 8 FEET FOR DRY DETENTION BASINS AND WET DETENTION PONDS.

2) THE MINIMUM SPILLWAY WIDTH SHALL MATCH THE MEDIA WIDTH FOR ENHANCED DRY/WET SWALES.

3) RIPRAP FOREBAYS SHALL BE CONSTRUCTED WITHOUT SPILLWAYS FOR BIORETENTION BASINS AND SAND FILTERS.

THIS DETAIL SUPERCEDES THE GDOT MANUAL ON DRAINAGE DESIGN FOR HIGHWAYS

REVISION DATES

SPECIAL CONSTRUCTION DETAIL

RIPRAP FOREBAY

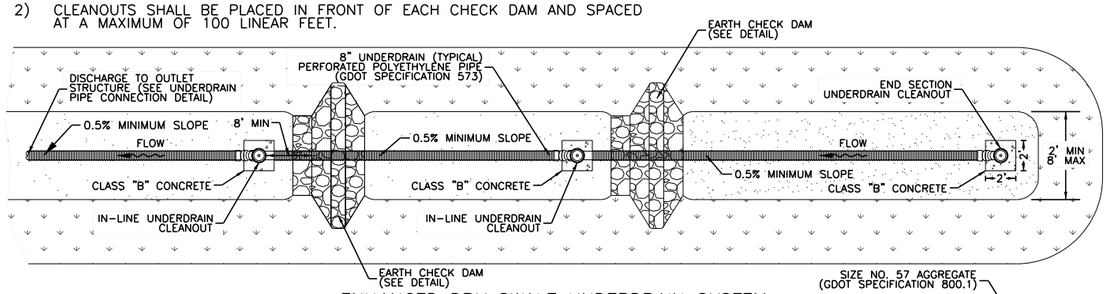
CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No. 40–0027

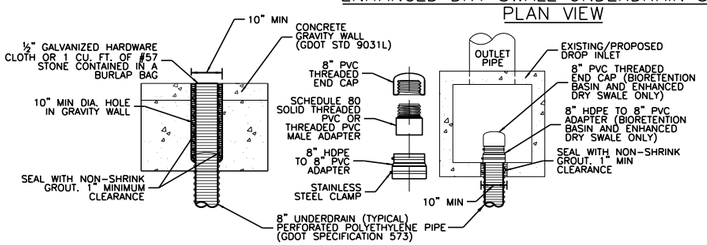
NOTES:

1) A MINIMUM OF 8' SHALL BE PROVIDED BETWEEN THE UNDERDRAIN CLEANOUT AND THE TOE OF EACH CHECK DAM.

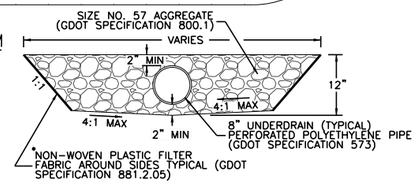
2) CLEANOUTS SHALL BE PLACED IN FRONT OF EACH CHECK DAM AND SPACED AT A MAXIMUM OF 100 LINEAR FEET.



ENHANCED DRY SWALE UNDERDRAIN SYSTEM
PLAN VIEW

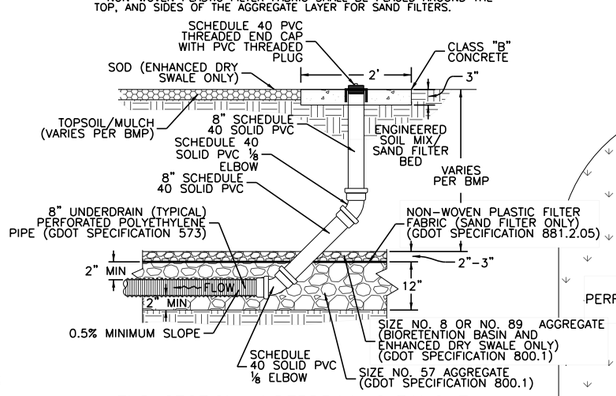


UNDERDRAIN PIPE
CONNECTION TO EXISTING
STRUCTURES DETAIL

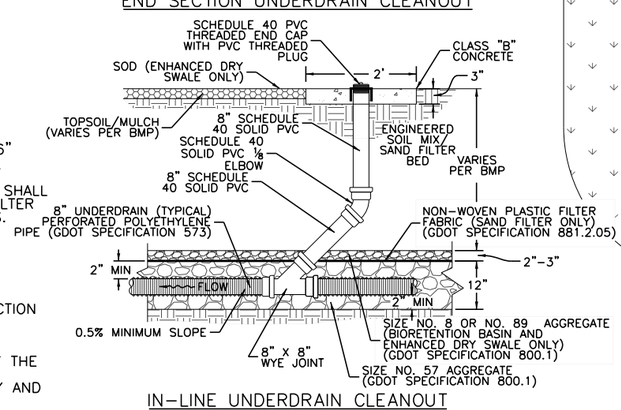


AGGREGATE LAYER DETAIL

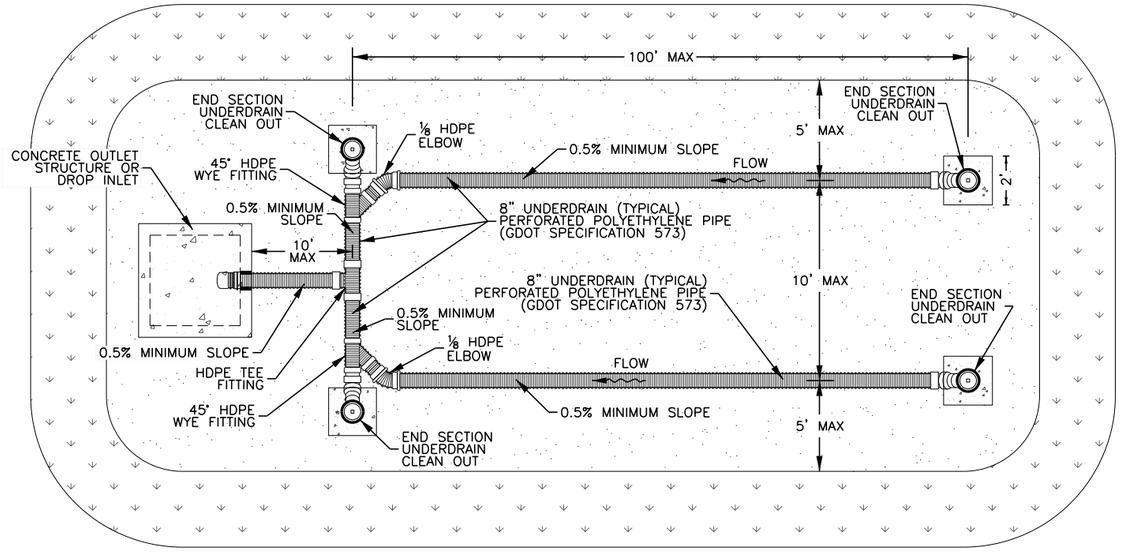
* NON-WOVEN PLASTIC FILTER FABRIC SHALL BE PLACED AROUND THE TOP, AND SIDES OF THE AGGREGATE LAYER FOR SAND FILTERS.



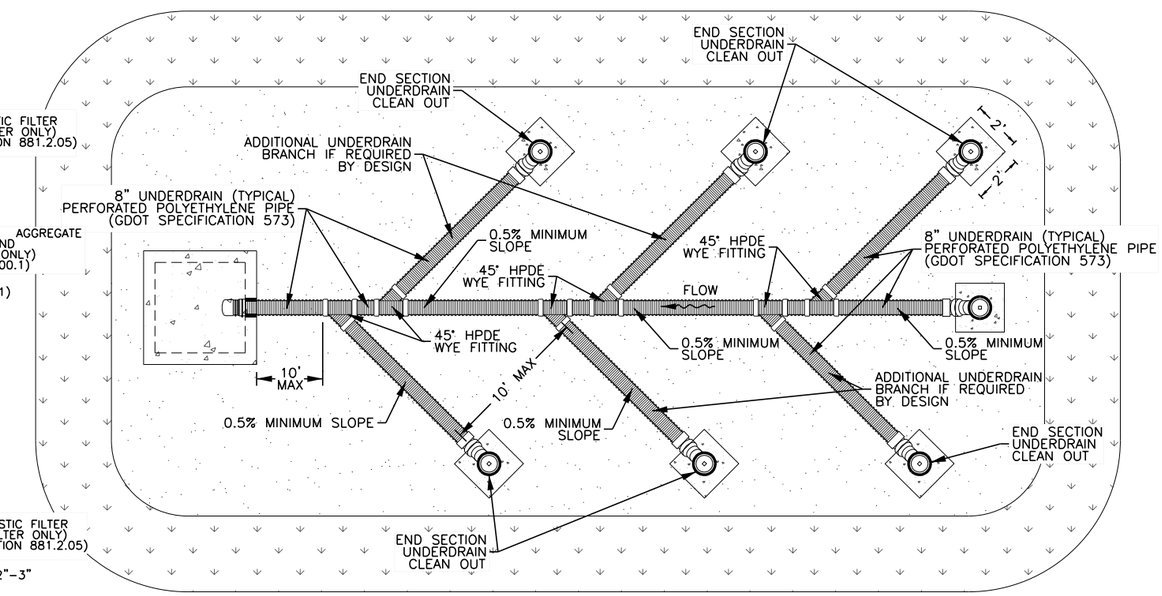
END SECTION UNDERDRAIN CLEANOUT



IN-LINE UNDERDRAIN CLEANOUT



BIORETENTION/SAND FILTER
UNDERDRAIN SYSTEM (OPTION 1)
PLAN VIEW



BIORETENTION/SAND FILTER
UNDERDRAIN SYSTEM (OPTION 2)
PLAN VIEW

NOTE:

1) A CLEANOUT SHALL BE PLACED AT A MAXIMUM SPACING OF 100 LINEAR FEET.
2) ADDITIONAL UNDERDRAIN BRANCHES CAN BE ADDED TO BOTH OPTIONS IF REQUIRED BY DESIGN.

POST-CONSTRUCTION STORMWATER BMP	MATERIAL THICKNESS			
	ENGINEERED SOIL MIX	SAND FILTER BED	MULCH	TOPSOIL
BIORETENTION BASIN	24"-48"	N/A	3"-4"	N/A
ENHANCED DRY SWALE	30" (TYPICAL)	N/A	N/A	N/A
SAND FILTER	N/A	18"-48"	N/A	3"

GENERAL NOTES:

1) CLEANOUTS SHALL BE PVC STRUCTURES IN ALL VERTICAL SECTIONS WITH ADAPTERS TO CONNECT TO DISTRIBUTION AND UNDERDRAIN PIPING MATERIALS AS REQUIRED.

2) CLEANOUTS SHALL BE PROVIDED AT ALL BENDS AND AT THE END OF EACH UNDERDRAIN BRANCH.

3) IF MULTIPLE UNDERDRAIN BRANCHES ARE UTILIZED, THE BRANCHES SHALL CONNECT WITHIN THE BMP SO THAT ONLY ONE PIPE ENTERS THE OUTLET STRUCTURE.

4) ALL JOINTS AND FITTINGS SHALL BE WATERTIGHT AND HAVE ELASTOMERIC SEALS THAT MEET THE REQUIREMENTS OF ASTM F 477.

5) PERFORATIONS SHALL BE PER AASHTO M252 OR BE ⅜" DIAMETER SPACED 6" ON CENTER ALONG FOUR LONGITUDINAL ROWS THAT ARE SPACED 90° APART.

6) NON-WOVEN PLASTIC FILTER FABRIC MEETING GDOT SPECIFICATION 881.2.05 SHALL BE PLACED AROUND THE SIDES OF THE ENGINEERED SOIL MIX AND SAND FILTER BED FOR BIORETENTION BASINS, ENHANCED DRY SWALES, AND SAND FILTERS.

7) TRIPLE SHREDDED HARDWOOD MULCH MEETING GDOT SPECIFICATION 893.2.09.A.4 SHALL BE USED IN BIORETENTION BASINS. MULCH SHALL BE RESISTANT TO FLOATING.

8) ALL ITEMS SHOWN AND INCIDENTAL ITEMS NECESSARY FOR THE UNDERDRAIN ARE TO BE INCLUDED IN THE OVERALL BID PRICE FOR THE POST-CONSTRUCTION STORMWATER BMP.

9) IF POST-CONSTRUCTION STORMWATER BMP CANNOT BE BUILT WITHIN THE TOLERANCES ALLOWED, THE CONSTRUCTION PROJECT MANAGER SHALL NOTIFY THE OFFICE OF PROGRAM DELIVERY PROJECT MANAGER AND AREA ENGINEER. MODIFICATIONS MUST BE APPROVED BY THE GDOT OFFICE OF DESIGN POLICY AND SUPPORT PRIOR TO INSTALLATION.

THIS DETAIL SUPERCEDES THE GDOT MANUAL ON DRAINAGE DESIGN FOR HIGHWAYS

REVISION DATES

SPECIAL CONSTRUCTION DETAIL

UNDERDRAIN

CHECKED:		DATE:	
BACKCHECKED:		DATE:	
CORRECTED:		DATE:	
VERIFIED:		DATE:	

DRAWING No.
40 - 0028