STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TMSI

PLAN LEGEND

Town, County, State	Centerline-Existing
Property Lines	Centerline-Proposed
R/W Lines-Existing	Travelway-Existing
R/W Lines-Proposed	Travelway-Proposed
Culvert-Existing	Railroad
Culvert Proposed	Catch Basins Existing Proposed
Curbing Existing Proposed	Manholes Existing Proposed
Type 1	Proposed Underdrain
Type 3	Proposed Ditch
Type 5	Existing Ditch
Outline of Bodies of Water	Utlity Poles Existing Proposed
Ledge	Fire Hydrants Existing Proposed
Buildings	Existing Water Line
Trees Conifer Deciduous	Existing San. Sewer
Tree Line	Existing San. Sewer Manhole
Clearing Limit Line CLL	Guardrail-Existing
	Guardrail-Proposed
	Guardrail-Cable, Other

AUGUSTA
KENNEBEC
WESTERN AVE, RTE 202
STP-4270(10)X
PROJECT LENGTH : 0.568 MILES

INDEX OF SHEETS

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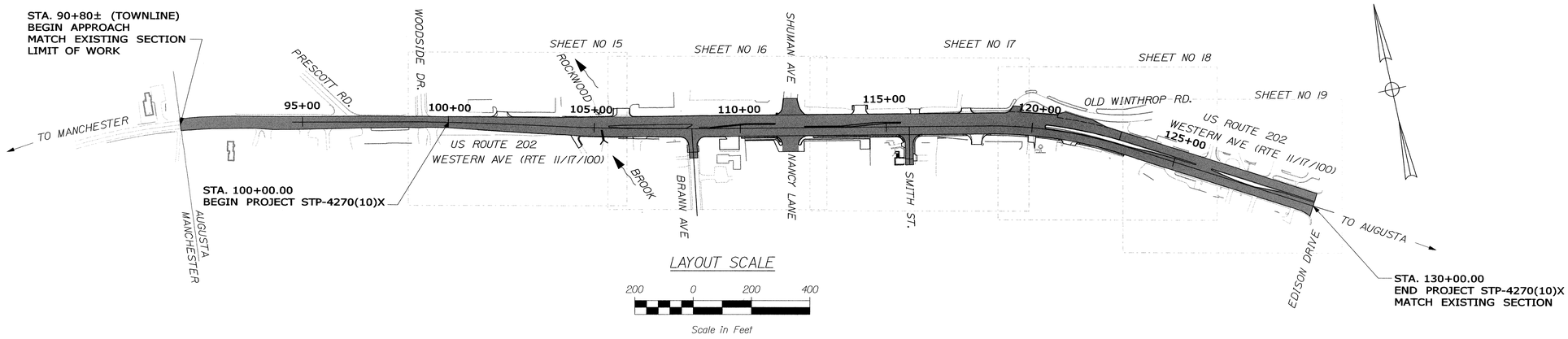


TRAFFIC DATA

	US 202 E/O SHUMAN DR.
Current (2014) AADT	23,320
Future (2034) AADT	27,980
DHV - % of AADT	10%
Design Hour Volume	2,866
% Heavy Trucks (AADT)	5%
% Heavy Trucks (DHV)	5%
Directional Distribution (DHV)	58%
18 kip Equivalent P 2.0	702
18 kip Equivalent P 2.5	669
Design Speed (mph)	35
Functional Class:	Urban Arterial

PROJECT LOCATION:	Beginning 0.04 miles easterly of Prescott Road and extending easterly on route 11/17/100/202 for 0.60 miles to Edison Drive.
PROGRAM AREA:	HIGHWAY
SCOPE OF WORK:	FULL RECONSTRUCTION

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

APPROVED — DATE
COMMISSIONER: — 7/16/13
CHIEF ENGINEER: — 7-15-13

STATE OF MAINE — JAMES L. EASON — No. 7960 — LICENSED PROFESSIONAL ENGINEER

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

PROJECT INFORMATION

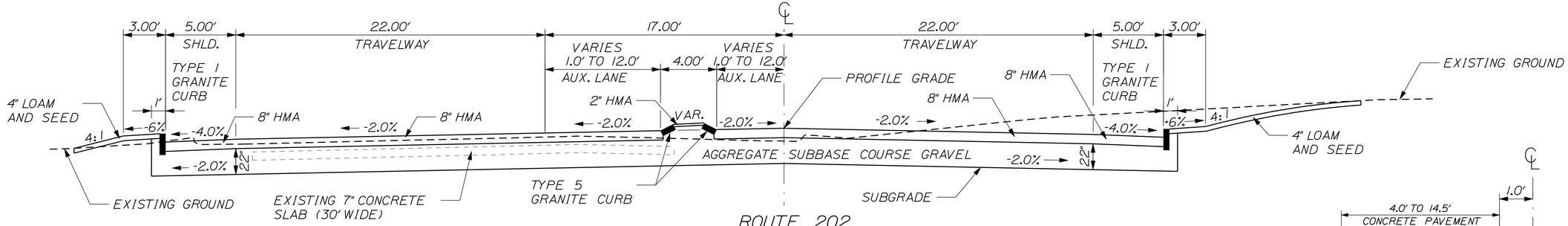
PROGRAM	HIGHWAY
PROJECT MANAGER	ERNIE MARTIN
DESIGNER	A.GODFREY/J.EASON
CONSULTANT	TERRA MAGNA SERVICES, INC.
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

AUGUSTA
WESTERN AVE, RTE 202
TITLE SHEET

WIN 4270.10 STP-4270(10)X

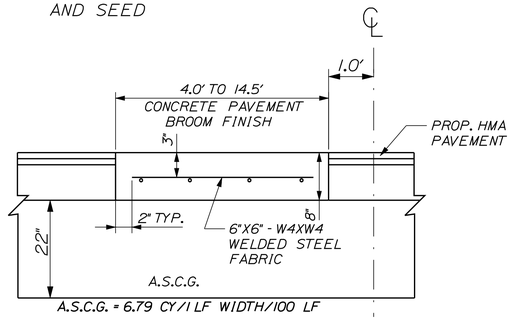
SHEET NUMBER
1
OF 68

Filename: ...\HIGHWAY\MSTA\001_Title_01.dgn Division: HIGHWAY Username: jeason Date:7/3/2013

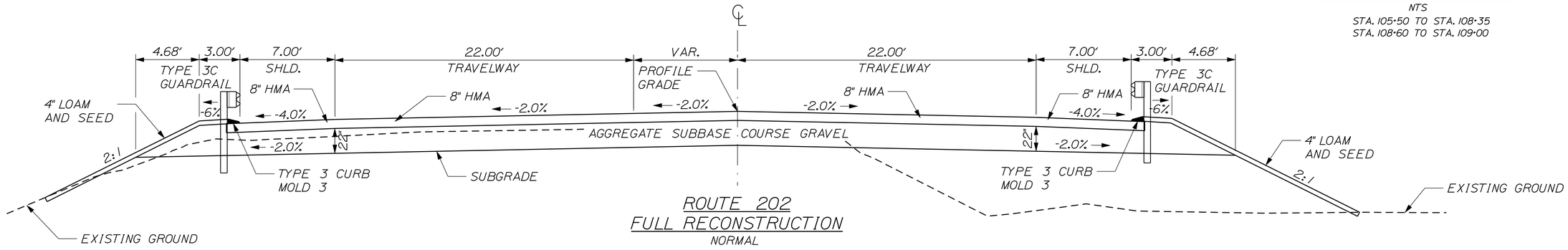


ROUTE 202
FULL RECONSTRUCTION
NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)			
5' LEFT SHLD. (BOX) 41.07 CY/100 LF	22' TRAVELWAY 149.38 CY/100 LF	VAR. WIDTH TRAVELWAY 6.79 CY/1 LF WIDTH/100 LF	5' RIGHT SHLD (BOX) 41.07 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION	STATION TO STATION
106+35 TO 109+50	106+62 TO 110+07	106+62 TO 110+07	106+62.5 TO 110+07

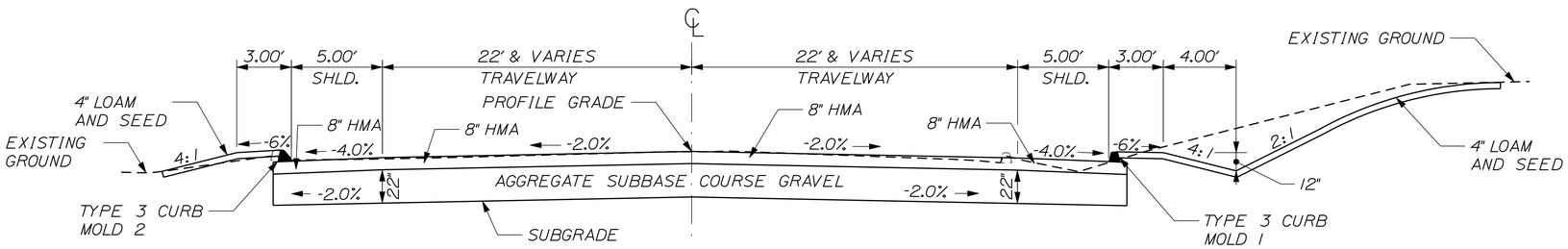


FLUSH CONCRETE MEDIAN
NTS
STA. 105+50 TO STA. 108+35
STA. 108+60 TO STA. 109+00



ROUTE 202
FULL RECONSTRUCTION
NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)			
7' LEFT SHLD. (GUARDARIL) 87.92 CY/100 LF	22' TRAVELWAY 149.38 CY/100 LF	VAR. WIDTH TRAVELWAY 6.79 CY/1 LF WIDTH/100 LF	7' RIGHT SHLD (GUARDRAIL) 87.92 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION	STATION TO STATION
104+50 TO 105+40	104+00 TO 106+62	104+00 TO 106+62	104+50 TO 106+12.5



ROUTE 202
FULL RECONSTRUCTION
NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)		
5' LEFT SHLD. (BOX) 39.41 CY/100 LF	VAR. WIDTH TRAVELWAY 6.79 CY/1 LF WIDTH/100 LF	5' RIGHT SHLD (BOX) 39.41 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
100+00 TO 104+00	100+00 TO 104+00	101+00 TO 104+00

NOTE:

1. THE PAVEMENT, BASE, AND SUBBASE DEPTHS AS SHOWN ON THE PLANS ARE INTENDED TO BE NOMINAL.
2. WHEN SUPERELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE LOW SIDE SHOULDER'S PAVEMENT SHALL HAVE THE SAME CROSS SLOPE AS THE TRAVEL WAY.
3. CROWNS FOR BOTH NORMAL AND SUPERELEVATION SECTIONS FOR ALL COURSES OF SUBBASE AND PAVEMENT SHALL BE STRAIGHT.
4. EXCEPT WHERE NOTED, THE GRAVEL QUANTITY CALCULATION IS BASED ON 4" LOAM. THE ACTUAL DEPTH MAY VARY. SEE THE GENERAL NOTES.
5. THE ALGEBRAIC DIFFERENCE BETWEEN SHOULDER AND TRAVEL LANE CROSS SLOPE'S "ROLLOVER" SHALL NOT EXCEED 8%.
6. THE STATION SHOWN UNDER EACH TYPICAL IS APPROXIMATE.
7. HMA = HOT MIX ASPHALT
   A.S.C.G. = AGGREGATE SUBBASE COURSE - GRAVEL

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
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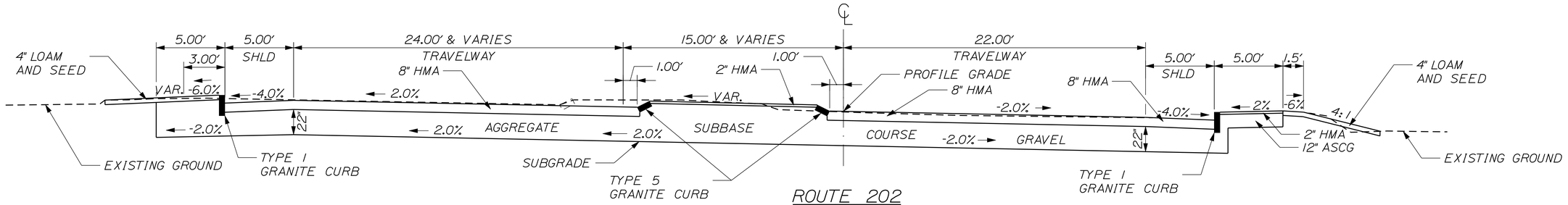
July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

TYPICAL SECTIONS

SHEET NUMBER
2
OF 68

Filename: ...\MSTA\002_Typical_01.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

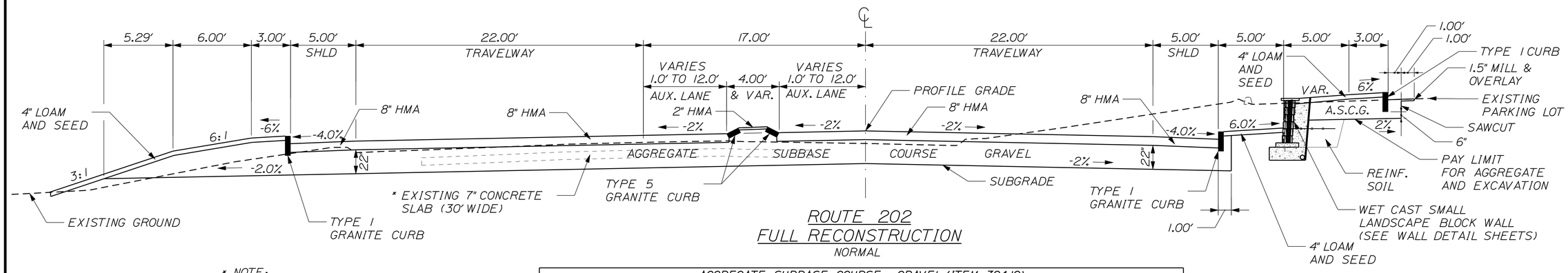


ROUTE 202
FULL RECONSTRUCTION
SUPERELEVATED

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)			
5' LEFT SHLD. 79.53 CY/100 LF	22' TRAVELWAY 149.38 CY/100 LF	VAR. WIDTH TRAVELWAY 6.79 CY/1 LF WIDTH/100 LF	5' RIGHT SHLD W/ 5' SIDEWALK 56.26 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION	STATION TO STATION
109+50 TO 113+50	116+00 TO 123+00.00	116+00 TO 123+30.79	115+50 TO 123+30.79

NOTE:

STA. 123+30.79 TO STA. 130+00.00 EASTBOUND
STA. 123+00.00 TO STA. 130+00.00 WESTBOUND
2" MILL, SHIM, AND 1.5" HMA OVERLAY

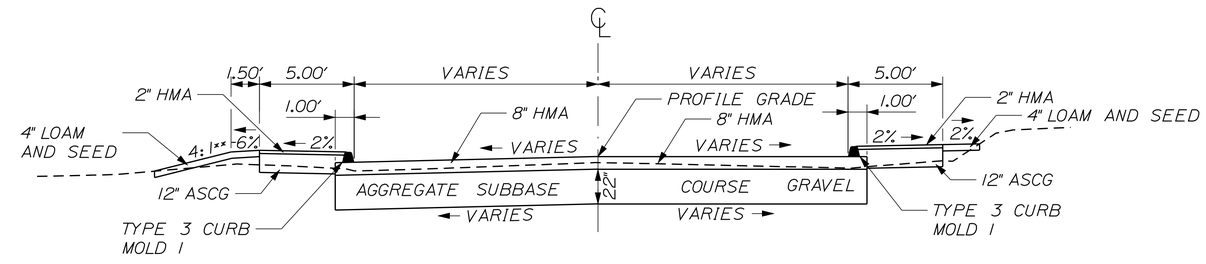


ROUTE 202
FULL RECONSTRUCTION
NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)			
5' LEFT SHLD. 123.39 CY/100 LF	22' TRAVELWAY 149.38 CY/100 LF	VAR. WIDTH TRAVELWAY 6.79 CY/1 LF WIDTH/100 LF	5' RIGHT SHLD (BOX) 41.78 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION	STATION TO STATION
109+50 TO 113+50	110+07 TO 116+00	110+07 TO 116+00	110+07 TO 115+50

* NOTE:

STA. 107+00± TO STA. 114+40±
APPROXIMATE LOCATION OF
EXISTING CONCRETE SLAB



** NOTE:

STA. 20+50± TO STA. 20+98± LT.
ON SMITH STREET, USE 3:1 SLOPE
WITH NO 1.5' BERM
TO RETAIN EXISTING HEDGE.

BRANN AVENUE / SMITH STREET
FULL RECONSTRUCTION
NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)		
5' RIGHT SIDEWALK 15.41 CY/100 LF	VAR. WIDTH TRAVELWAY 6.79 CY/1 LF WIDTH/100 LF	5' RIGHT SIDEWALK 15.41 CY/100 LF
STATION TO STATION	STATION TO STATION	STATION TO STATION
109+50 TO 113+50	STA. 10+50 TO STA. 10+80	110+07 TO 115+50
109+50 TO 113+50	110+07 TO 116+00	110+07 TO 115+50

SUPERELEVATION TABLE

LT. SHLD.	TRAVELWAY	STATION	TRAVELWAY	RT. SHLD.
-4.0%	-2.0%	116+00	-2.0%	-4.0%
-4.0%	-1.5%	116+50	-2.0%	-4.0%
-4.0%	-1.0%	117+00	-2.0%	-4.0%
-4.0%	-0.5%	117+50	-2.0%	-4.0%
-4.0%	0.0%	118+00	-2.0%	-4.0%
-4.0%	+0.5%	118+50	-2.0%	-4.0%
-4.0%	+1.0%	119+00	-2.0%	-4.0%
-1.0%	+1.5%	119+50	-2.0%	-4.0%
+2.0%	+2.0%	120+00	-2.0%	-4.0%
		TO		
+2.0%	+2.0%	122+50	-2.0%	-4.0%
EXIST.	EXIST.	123+00	EXIST.	EXIST.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
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DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

TYPICAL SECTIONS

SHEET NUMBER
3
OF 68

Filename: ...\MSTA\003_Typicol_02.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

Filename: ...\MSTA\004_Estimate_01.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	SECTION 0001 - COMMON ITEMS		
201.23	REMOVING SINGLE TREE TOP ONLY	23	EACH
201.24	REMOVING STUMP	23	EACH
202.11	REMOVING PORTLAND CEMENT CONCRETE PAVEMENT	2,500	SY
202.15	REMOVING EXISTING MANHOLE OR CATCH BASIN	27	EACH
202.17	REMOVING EXISTING STRUCTURAL CONCRETE	1	LS
202.202	REMOVING PAVEMENT SURFACE	9,500	SY
203.20	COMMON EXCAVATION	15,200	CY
* 203.25	GRANULAR BORROW	250	CY
203.26	GRAVEL BORROW	30	CY
206.061	STRUCT. EARTH EXC. - DRNG. & MINOR STRUCT. - BELOW GRADE	86	CY
206.07	STRUCT. ROCK EXC. - DRAINAGE & MINOR STRUCTURES	54	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	13,300	CY
403.2072	19 mm ASPHALT RICH BASE MIXTURE	2,780	TON
403.2081	12.5 mm POLYMER MODIFIED HMA	2,280	TON
403.209	HOT MIX ASPHALT, 9.5mm (INCIDENTALS)	590	TON
403.211	HOT MIX ASPHALT (SHIM)	150	TON
403.213	HOT MIX ASPHALT 12.5mm BASE	3,240	TON
409.15	BITUMINOUS TACK COAT - APPLIED	1,800	GAL
* 461.131	TEMPORARY PAVEMENT	250	TON
502.21	STRUCTURAL CONCRETE, ABUTMENTS AND RETAINING WALLS	5	CY
502.341	STRUCTURAL CONCRETE ROADWAY MEDIAN	84	CY
503.12	REINFORCING STEEL, FABRICATED / DELIVERED	560	LB
503.13	REINFORCING STEEL, PLACING	560	LB
507.0841	STEEL PIPE HAND RAIL (47 LF)	1	LS
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE (83 SY)	1	LS
511.07	COFFERDAM	1	LS
512.081	FRENCH DRAINS	1	LS
515.20	PROTECTIVE COATING FOR CONCRETE SURFACE	62	SY
518.52	REPAIR OF UPWARD FACING SURFACES ≥ 7.9"	0.06	CY
518.61	REPAIR OF VERTICAL SURFACES ≥ 7.9"	0.26	CY
518.71	REPAIR OF OVERHEAD SURFACES ≥ 7.9"	0.06	CY
525.25	REPOINTING GRANITE MASONRY	1	LS
527.303	ENERGY ABSORBING SYSTEM (ET - PLUS)	2	EACH
534.71	PRECAST CONCRETE BOX CULVERT	1	LS
603.149	10" DIAMETER PVC PIPE	8	LF
603.155	12" RCP CLASS III	165	LF
603.159	12" CULVERT PIPE OPTION III	147	LF
603.165	15" RCP CLASS III	80	LF
603.17	18" CULVERT PIPE OPTION I	56	LF
603.175	18" RCP CLASS III	62	LF
603.179	18" CULVERT PIPE OPTION III	80	LF
603.199	24" CULVERT PIPE OPTION III	20	LF
603.205	30" RCP CLASS III	80	LF
603.219	36" CULVERT PIPE OPTION III	4	LF
603.239	48" CULVERT PIPE OPTION III	207	LF
603.78	18" INLET GRATE UNIT	1	EACH
604.072	CATCH BASIN TYPE A1-C	12	EACH
604.077	72" CATCH BASIN TYPE A1-C	4	EACH
604.092	CATCH BASIN TYPE B1-C	6	EACH
604.15	MANHOLE	3	EACH
604.153	60" MANHOLE	8	EACH
604.154	72" MANHOLE	2	EACH
604.156	96" MANHOLE	1	EACH
604.18	ADJUST MANHOLE OR CB TO GRADE	5	EACH
604.2403	SPECIAL BASIN	2	EACH
604.245	CATCH BASIN TYPE F4-C	1	EACH
604.247	CATCH BASIN TYPE F5-C	3	EACH
604.249	CATCH BASIN TYPE F6-C	1	EACH
604.252	CATCH BASIN TYPE A5-C	1	EACH
604.262	CATCH BASIN TYPE B5-C	5	EACH
605.09	6" UNDERDRAIN, TYPE B	980	LF
605.11	12" UNDERDRAIN TYPE C	1,360	LF
605.12	15" UNDERDRAIN TYPE C	21	LF
605.13	18" UNDERDRAIN TYPE C	310	LF
605.15	24" UNDERDRAIN TYPE C	66	LF
605.17	30" UNDERDRAIN TYPE C	680	LF
606.23	GUARDRAIL TYPE 3C - SINGLE RAIL	260	LF
606.258	CABLE RELEASING TERMINAL ANCHORAGE	2	EACH
606.259	ANCHORAGE ASSEMBLY	2	EACH
606.353	REFLECTORIZED FLEXIBLE GUARDRAIL MARKER	8	EACH

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
608.26	CURB RAMP DETECTABLE WARNING FIELD	32	SF
609.11	VERTICAL CURB TYPE 1	2,550	LF
609.12	TERMINAL CURB TYPE 1 - CIRCULAR	370	LF
609.234	TERMINAL CURB TYPE 1 - 4 FOOT	2	EACH
609.2341	TERMINAL CURB TYPE 1 - 4 FOOT - CIRCULAR	2	EACH
609.238	TERMINAL CURB TYPE 1 - 8 FOOT	8	EACH
609.2381	TERMINAL CURB TYPE 1 - 8 FOOT - CIRCULAR	10	EACH
609.31	CURB TYPE 3	1,430	LF
609.34	CURB TYPE 5	1,620	LF
609.35	CURB TYPE 5 - CIRCULAR	50	LF
610.08	PLAIN RIPRAP	77	CY
613.319	EROSION CONTROL BLANKET	240	SY
615.07	LOAM	670	CY
618.1301	SEEDING METHOD NUMBER 1 - PLAN QUANTITY	41	UNIT
618.1401	SEEDING METHOD NUMBER 2 - PLAN QUANTITY	2	UNIT
618.1411	SEEDING METHOD NUMBER 3 - PLAN QUANTITY	12	UNIT
619.1201	MULCH - PLAN QUANTITY	55	UNIT
620.54	STABILIZATION GEOTEXTILE	13	SY
620.58	EROSION CONTROL GEOTEXTILE	40	SY
626.11	PRECAST CONCRETE JUNCTION BOX	4	EACH
626.21	METALLIC CONDUIT	40	LF
626.22	NON - METALLIC CONDUIT	330	LF
626.331	36" FOUNDATION	4	EACH
626.35	CONTROLLER CABINET FOUNDATION	1	EACH
627.733	4" WHITE OR YELLOW PAINTED PVMT MARKING LINE	17,300	LF
627.75	WHITE OR YELLOW PAVEMENT AND CURB MARKING	1,630	SF
627.76	TEMP. PVMT. MARK LINE, WHITE OR YELLOW	1	LS
629.05	HAND LABOR, STRAIGHT TIME	60	HR
631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	50	HR
631.172	TRUCK - LARGE (INCLUDING OPERATOR)	40	HR
631.18	CHAIN SAW RENTAL (INCLUDING OPERATOR)	5	HR
631.20	STUMP CHIPPER (INCLUDING OPERATOR)	5	HR
631.22	FRONT END LOADER (INCLUDING OPERATOR)	40	HR
631.32	CULVERT CLEANER (INCLUDING OPERATOR)	20	HR
635.32	WET CAST SMALL LANDSCAPE BLOCK WALL	2,500	SF
637.08	CALCIUM CHLORIDE	1	TON
639.18	FIELD OFFICE TYPE A	1	EACH
642.17	CAST - IN - PLACE CONCRETE STEPS	3	CY
643.71	TRAFFIC SIGNAL MODIFICATION AT SHUMAN AVENUE	1	LS
643.83	VIDEO DETECTION SYSTEM	1	LS
643.91	MAST ARM POLE	4	EACH
645.106	DEMOUNT REG. WRNG. CONF. & RTE MARKER SIGN	25	EACH
645.116	REINSTALL REG. WRNG. CONF. & RTE MARKER SIGN	25	EACH
645.271	REG. WARN. CONF. RTE. SIGNS TYPE 1	110	SF
652.31	TYPE I BARRICADE	10	EACH
652.311	TYPE II BARRICADE	6	EACH
652.33	DRUM	100	EACH
652.34	CONE	100	EACH
652.35	CONSTRUCTION SIGNS	600	SF
652.361	MAINTENANCE OF TRAFFIC CONTROL DEVICES	1	LS
652.38	FLAGGER	5,000	HR
652.381	TRAFFIC OFFICER	40	HR
652.41	PORTABLE CHANGEABLE MESSAGE SIGN	2	EACH
656.75	TEMP. SOIL EROSION AND WATER POLLUTION CONTROL PLAN	1	LS
658.20	ACRYLIC LATEX FINISH, GREEN	740	SY
659.10	MOBILIZATION	1	LS
	SECTION 0002 - ALTERNATIVE NO. 1 (PREFABRICATED MODULAR WINGWALL)		
635.14	PREFABRICATED CONCRETE MODULAR GRAVITY WALL	335	SF
	SECTION 0003 - ALTERNATIVE NO. 2 (PRECAST BLOCK WINGWALL)		
635.31	PRECAST CONCRETE BLOCK GRAVITY WALL	335	SF

SUMMARY OF EARTHWORK AND BORROW

COMMON EXCAVATION FOR ESTIMATE

COMMON EXCAVATION, MAINLINE (FROM CROSS SECTIONS)	14,848 CY	
COMMON EXCAVATION, SIDEROAD (FROM CROSS SECTIONS)	539 CY	
PORTLAND CEMENT CONCRETE PAVEMENT	-480 CY	
GRUBBING IN FILL	100 CY	
TOTAL COMMON EXCAVATION		15,007 CY

FILL FOR BORROW CALCULATIONS

COMMON FILL, MAINLINE (FROM CROSS SECTIONS)	994 CY	
COMMON FILL, SIDEROAD (FROM CROSS SECTIONS)	10 CY	
GRUBBING IN FILL	100 CY	
TOTAL FILL		1,104 CY

ROCK EXCAVATION FOR ESTIMATE

ROCK EXCAVATION	50 CY	
TOTAL ROCK EXCAVATION		50 CY

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS

(1) TOTAL COMMON EXCAVATION				15,007 CY
DEDUCTIONS:				
GRUBBING IN CUT	250 CY			
GRUBBING IN FILL	100 CY			
PAVEMENT SALVAGE REMOVAL	2,779 CY			
(2) TOTAL DEDUCTIONS				3,129 CY
TOTAL AVAILABLE NON-ROCK EXCAVATION (1) MINUS (2)				11,878 CY
COMPUTATION OF COMMON BORROW FOR ESTIMATE				
(3) TOTAL FILL				1,104 CY
TOTAL AVAILABLE NON-ROCK EXCAV.	11,878	X 0.85 =	10,096 CY	
TOTAL AVAILABLE ROCK EXCAV.	50	X 1.33 =	67 CY	
(4) TOTAL AVAILABLE EXCAVATION				10,163 CY
BORROW NEEDED (3) MINUS (4)				-9,059 CY

SURPLUS MATERIAL = TOTAL AVAILABLE EXCAVATION (4) MINUS TOTAL FILL (3), PLUS TOTAL WASTE MATERIAL TO BE WASTED (2) — 12,188 CY

* UNDETERMINED LOCATIONS

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	JLE	JLE	7-13
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DESIGN3-DETAILED3			
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REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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P.E. NUMBER

July 3rd, 2013
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AUGUSTA
WESTERN AVE, RTE 202

ESTIMATED QUANTITIES

SHEET NUMBER

4

OF 68

STATION	CULVERT PIPE											CATCH BASIN					PIPE ARCH			MH	UNDERDRAIN						ELBOWS, TEES, WYES AND INLET GRATE UNITS	REMARKS
	RCP			CMP		OPTION I		OPTION III													TYPE B		TYPE C					
								SMOOTHLINED		CORRUGATED											TYPE B	OUTLET	SMOOTHLINED		CORRUGATED		DESCRIPTIONS	
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A1-C	B1-C	B5-C	A5-C	F	SPAN	RISE	LENGTH		LENGTH	LENGTH	SIZE	LENGTH	SIZE	LENGTH		
CULVERT PIPES																												
WESTERN AVENUE																												
STA. 104+17.00, 33.17' LT TO STA. 104+17.00, 57.17' LT								18"	24'																			
STA. 104+19.00, 45.50' RT TO STA. 104+75.00, 46.50' RT						18"	56'																					
STA. 104+62.20, 29.65' RT TO STA. 104+75.00, 43.50' RT								18"	20'																			
STA. 105+48.00, 38.77' LT TO STA. 105+36.90, 59.20' LT								18"	24'																			
STA. 105+73.21, 30.06' RT TO STA. 105+60.60, 45.55' RT								24"	20'																			
STA. 107+97.40, 27.10' RT TO STA. 108+20.60, 43.40' RT								12"	29'																			
STA. 107+97.81, 25.94' RT TO STA. 108+73.33, 25.94' RT	15"	80'	III																									
STA. 108+24.00, 45.40' RT TO STA. 10+56.40, 11.20' LT	12"	28'	III																									
STA. 108+80.74, 24.53' RT TO STA. 109+03.56, 1.90' RT	12"	34'	III																									
STA. 110+15.45, 27.67' RT TO STA. 110+20.94, 39.32' RT								12"	13'																			
STA. 110+21.92, 43.12' RT TO STA. 110+22.20, 47.10' RT								12"	4'																			
STA. 112+28.00, 41.13' RT TO STA. 113+12.00, 41.13' RT								48"	84'																			
STA. 113+18.00, 41.13' RT TO STA. 113+97.00, 41.13' RT								48"	79'																			
STA. 114+02.50, 42.80' RT TO STA. 114+37.50, 66.70' RT								48"	44'																			
STA. 114+39.21, 27.86' RT TO STA. 114+41.80, 45.50' RT								12"	18'																			
STA. 114+40.50, 58.50' RT TO STA. 114+40.50, 66.00' RT								12"	9'																			
STA. 114+40.50, 72.00' RT TO STA. 114+40.50, 76.00' RT								36"	4'																			
STA. 115+34.68, 25.88' RT TO STA. 115+95.36, 37.83' RT	18"	62'	III																									
STA. 115+50.00, 47.00' LT TO STA. 115+51.13, 16.00' LT	12"	31'	III																									
STA. 115+96.19, 39.87' RT TO STA. 20+73.54, 10.72' RT	12"	44'	III																									
STA. 116+43.00, 61.00' LT TO STA. 116+48.70, 51.30' LT								12"	12'																			
STA. 116+76.50, 44.90' LT TO STA. 116+82.20, 57.00' LT								12"	8'																			
STA. 116+75.00, 43.88' LT TO STA. 116+75.00, 46.66' LT								12"	3'																			
STA. 116+75.00, 26.88' RT TO STA. 116+67.30, 31.83' RT								12"	10'																			
STA. 116+75.00, 46.66' LT TO STA. 116+67.30, 31.33' RT	30"	80'	III																									
STA. 118+29.60, 51.00' LT TO STA. 118+30.70, 60.30' LT								12"	10'																			
STA. 119+00, 44.09' LT TO STA. 119+00.00, 47.00' LT								12"	3'																			
STA. 120+86.38, 37.00' RT TO STA. 120+85.00, 49.00' RT								18"	12'																		18" INLET GRATE UNIT	
STA. 122+15.60, 17.85' LT TO STA. 122+15.60, 45.50' LT	12"	28'	III																									
STA. 10+58.00, 41.60' LT TO STA. 10+56.90, 14.70' LT								12"	28'																			
CATCH BASINS																												
WESTERN AVENUE																												
1 STA. 101+00.00, 20.14' LT													1															
3 STA. 104+00.00, 31.37' LT													1															
4 STA. 104+17.00, 32.01' LT														1														
5 STA. 104+17.00, 26.54' RT													1															
6 STA. 104+60.00, 27.88' RT														1														
7 STA. 105+50.00, 37.61' LT														1														
8 STA. 105+75.00, 27.88' RT														1														
9 STA. 106+36.75, 38.61' LT												1																
10 STA. 107+95.81, 25.94' RT												1																
11 STA. 108+22.20, 44.71' RT												1																
13 STA. 108+50.00, 42.80' LT															1												F5-C	
14 STA. 108+79.32, 25.94' RT												1																
15 STA. 109+05.00, 0.33' LT														1														
16 STA. 110+14.58, 25.88' RT												1																
17 STA. 110+21.79, 41.13' RT												1 1/4																
18 STA. 111+25.11, 44.85' RT												1																
20 STA. 112+25.00, 41.13' RT												1 1/4															72" DIAMETER	
21 STA. 113+00.00, 25.88' RT												1																
22 STA. 113+15.00, 41.13' RT												1 1/8															72" DIAMETER	
23 STA. 113+73.24, 42.88' LT															1													
24 STA. 114+00.00, 41.13' RT												1															72" DIAMETER	
25 STA. 114+38.90, 25.88' RT												1																
28 STA. 115+32.68, 25.88' RT												1																
29 STA. 115+51.13, 14.00' LT													1															
32 STA. 115+97.33, 38.20' RT												1 1/4																
35 STA. 116+75.00, 42.88' LT															1												F4-C	
36 STA. 116+75.00, 25.88' RT															1												F5-C	
40 STA. 119+00.00, 43.09' LT															1												F5-C	
41A STA. 119+00.00, 25.88' RT																											SPECIAL BASIN R-3165	
44A STA. 121+72.06, 25.88' RT																											SPECIAL BASIN R-3165	
47 STA. 122+15.60, 16.85' LT															1												F6-C	
12 STA. 10+57.10, 12.94' LT													1															
31 STA. 20+75.00, 12.09' RT													1															

NOTE: ALL PROPOSED OPTION III CULVERT PIPE AND TYPE C UNDERDRAIN PIPE SHALL BE SMOOTHLINED ONLY.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

DRAINAGE SHEET

SHEET NUMBER

5

OF 68

Filename: ...\MSTA\005_Drainage_01.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

STATION

CULVERT PIPE

	RCP			CMP		OPTION I		OPTION III SMOOTHLINED		OPTION III CORRUGATED	
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH
MANHOLES											
WESTERN AVENUE											
(27) STA. 114+40.50, 69.00' RT											
(30) STA. 115+50.00, 49.00' LT											
(33) STA. 116+50.00, 49.00' LT											
(34) STA. 116+75.00, 49.00' LT											
(37) STA. 116+67.30, 33.00' RT											
(38) STA. 118+29.60, 49.00' LT											
(39) STA. 119+00.00, 49.00' LT											
(41) STA. 119+00.00, 30.88' RT.											
(42) STA. 120+86.38, 35.00' RT											
(44) STA. 121+72.06, 30.88' RT.											
UNDERDRAIN											
WESTERN AVENUE											
STA. 100+00.00, 17.40' LT TO 100+98.00.00, 20.14' LT											
STA. 100+50.00, 20.62' RT TO 104+15.00.00, 26.54' RT											
STA. 101+02.00, 20.14' LT TO 103+98.00.00, 31.70' LT											
STA. 104+02.00, 31.37' LT TO 104+15.00.00, 32.01' LT											
STA. 104+19.00, 26.54' RT TO 104+58.00, 27.05' RT											
STA. 105+77.00, 27.04' RT TO STA. 107+93.81, 25.94' RT											
STA. 105+52.00, 36.77' LT TO 106+34.75, 38.71 LT											
STA. 106+38.75, 38.61' LT TO 108+48.00, 42.80 LT											
STA. 108+52.00, 42.80' LT TO 109+50.00, 40.83' LT											
STA. 108+81.31, 25.88' RT TO 110+12.50, 25.88' RT											
STA. 110+16.58, 25.88 RT TO 111+00.00, 26.83 RT											
STA. 112+33.00, 26.83' RT TO 112+98.00.00, 25.88' RT											
STA. 113+02.00, 25.88' RT TO 114+36.90, 25.88' RT											
STA. 113+75.24, 43.71' LT TO 115+48.00, 49.00' LT											
STA. 114+40.90, 25.88' RT TO 115+30.68, 25.88' RT											
STA. 115+52.00, 49.00' LT TO 116+48.00, 49.83' LT											
STA. 115+99.25, 37.64' RT TO STA. 116+64.80, 33.83' RT											
STA. 116+52.00, 49.83' LT TO 116+72.50, 49.83' LT											
STA. 116+77.50, 49.83' LT TO 118+27.60, 49.00' LT											
STA. 116+85.00, 26.83' RT TO 118+98.00.00, 30.88' RT											
STA. 118+31.60, 49.00' LT TO 118+98.00.00, 49.00' LT											
STA. 119+02, 30.88' RT TO 120+84.38, 35.00' RT											
STA. 119+02.00, 49.00' LT TO 120+76.60, 52.50' LT											
STA. 120+88.38, 35.00' RT TO 121+70.06, 30.88' RT											
STA. 121+74.06, 30.88' RT TO 123+75.40, 27.10' RT											
STA. 20+77.00, 12.09' RT TO 21+30.00.00, 18.00' RT											
PVC PIPE											
STA. 111+23.78, 46.34' RT TO 111+18.38, 52.24' RT											
INLET GRATE UNIT											
STA. 120+85.00, 49.00' RT											

CATCH BASIN

	A1-C	B1-C		E	F
(27) STA. 114+40.50, 69.00' RT					
(30) STA. 115+50.00, 49.00' LT					
(33) STA. 116+50.00, 49.00' LT					
(34) STA. 116+75.00, 49.00' LT					
(37) STA. 116+67.30, 33.00' RT					
(38) STA. 118+29.60, 49.00' LT					
(39) STA. 119+00.00, 49.00' LT					
(41) STA. 119+00.00, 30.88' RT.					
(42) STA. 120+86.38, 35.00' RT					
(44) STA. 121+72.06, 30.88' RT.					

PIPE ARCH

	SPAN	RISE	LENGTH	
(27) STA. 114+40.50, 69.00' RT				
(30) STA. 115+50.00, 49.00' LT				
(33) STA. 116+50.00, 49.00' LT				
(34) STA. 116+75.00, 49.00' LT				
(37) STA. 116+67.30, 33.00' RT				
(38) STA. 118+29.60, 49.00' LT				
(39) STA. 119+00.00, 49.00' LT				
(41) STA. 119+00.00, 30.88' RT.				
(42) STA. 120+86.38, 35.00' RT				
(44) STA. 121+72.06, 30.88' RT.				

MH

(27) STA. 114+40.50, 69.00' RT — 1
(30) STA. 115+50.00, 49.00' LT — 1
(33) STA. 116+50.00, 49.00' LT — 1
(34) STA. 116+75.00, 49.00' LT — 1¾
(37) STA. 116+67.30, 33.00' RT — 1¾
(38) STA. 118+29.60, 49.00' LT — 1⅜
(39) STA. 119+00.00, 49.00' LT — 1¼
(41) STA. 119+00.00, 30.88' RT. — 1
(42) STA. 120+86.38, 35.00' RT — 1½
(44) STA. 121+72.06, 30.88' RT. — 1½

UNDERDRAIN

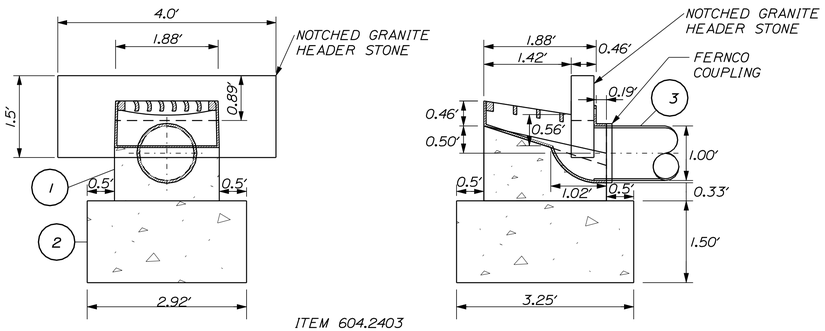
	TYPE B		TYPE C SMOOTHLINED		TYPE C CORRUGATED	
	TYPE B LENGTH	OUTLET LENGTH	SIZE	LENGTH	SIZE	LENGTH
WESTERN AVENUE						
STA. 100+00.00, 17.40' LT TO 100+98.00.00, 20.14' LT	98'					
STA. 100+50.00, 20.62' RT TO 104+15.00.00, 26.54' RT	365'					
STA. 101+02.00, 20.14' LT TO 103+98.00.00, 31.70' LT			12"	296'		
STA. 104+02.00, 31.37' LT TO 104+15.00.00, 32.01' LT			12"	13'		
STA. 104+19.00, 26.54' RT TO 104+58.00, 27.05' RT			12"	39'		
STA. 105+77.00, 27.04' RT TO STA. 107+93.81, 25.94' RT			18"	217'		
STA. 105+52.00, 36.77' LT TO 106+34.75, 38.71 LT			12"	83'		
STA. 106+38.75, 38.61' LT TO 108+48.00, 42.80 LT			12"	210'		
STA. 108+52.00, 42.80' LT TO 109+50.00, 40.83' LT	98'					
STA. 108+81.31, 25.88' RT TO 110+12.50, 25.88' RT			12"	132'		
STA. 110+16.58, 25.88 RT TO 111+00.00, 26.83 RT	84'					
STA. 112+33.00, 26.83' RT TO 112+98.00.00, 25.88' RT	65'					
STA. 113+02.00, 25.88' RT TO 114+36.90, 25.88' RT			12"	135'		
STA. 113+75.24, 43.71' LT TO 115+48.00, 49.00' LT			12"	173'		
STA. 114+40.90, 25.88' RT TO 115+30.68, 25.88' RT			18"	90'		
STA. 115+52.00, 49.00' LT TO 116+48.00, 49.83' LT			12"	96'		
STA. 115+99.25, 37.64' RT TO STA. 116+64.80, 33.83' RT			24"	66'		
STA. 116+52.00, 49.83' LT TO 116+72.50, 49.83' LT			15"	21'		
STA. 116+77.50, 49.83' LT TO 118+27.60, 49.00' LT			30"	151'		
STA. 116+85.00, 26.83' RT TO 118+98.00.00, 30.88' RT	213'					
STA. 118+31.60, 49.00' LT TO 118+98.00.00, 49.00' LT			30"	67'		
STA. 119+02, 30.88' RT TO 120+84.38, 35.00' RT			12"	183'		
STA. 119+02.00, 49.00' LT TO 120+76.60, 52.50' LT			30"	175'		
STA. 120+88.38, 35.00' RT TO 121+70.06, 30.88' RT			30"	82'		
STA. 121+74.06, 30.88' RT TO 123+75.40, 27.10' RT			30"	202'		
STA. 20+77.00, 12.09' RT TO 21+30.00.00, 18.00' RT	53'					
PVC PIPE						
STA. 111+23.78, 46.34' RT TO 111+18.38, 52.24' RT						
INLET GRATE UNIT						
STA. 120+85.00, 49.00' RT						

ELBOWS, TEES, WYES AND INLET GRATE UNITS

DESCRIPTIONS

REMARKS

(27) STA. 114+40.50, 69.00' RT — 96" DIAMETER
(30) STA. 115+50.00, 49.00' LT
(33) STA. 116+50.00, 49.00' LT — SHAPE 5
(34) STA. 116+75.00, 49.00' LT — 72" DIAMETER. EXTRA DEPTH. SHAPE 5
(37) STA. 116+67.30, 33.00' RT — 60" DIAMETER. EXTRA DEPTH. SHAPE 5
(38) STA. 118+29.60, 49.00' LT — 60" DIAMETER. EXTRA DEPTH
(39) STA. 119+00.00, 49.00' LT — 60" DIAMETER. EXTRA DEPTH
(41) STA. 119+00.00, 30.88' RT. — FLAT TOP. SHAPE 5 WITH 4" FRAME
(42) STA. 120+86.38, 35.00' RT — 60" DIAMETER. EXTRA DEPTH
(44) STA. 121+72.06, 30.88' RT. — 60" DIAMETER. EXTRA DEPTH. FLAT TOP. SH.5 W/ 4" FRAME
STA. 100+00.00, 17.40' LT TO 100+98.00.00, 20.14' LT
STA. 100+50.00, 20.62' RT TO 104+15.00.00, 26.54' RT
STA. 101+02.00, 20.14' LT TO 103+98.00.00, 31.70' LT
STA. 104+02.00, 31.37' LT TO 104+15.00.00, 32.01' LT
STA. 104+19.00, 26.54' RT TO 104+58.00, 27.05' RT
STA. 105+77.00, 27.04' RT TO STA. 107+93.81, 25.94' RT
STA. 105+52.00, 36.77' LT TO 106+34.75, 38.71 LT
STA. 106+38.75, 38.61' LT TO 108+48.00, 42.80 LT
STA. 108+52.00, 42.80' LT TO 109+50.00, 40.83' LT
STA. 108+81.31, 25.88' RT TO 110+12.50, 25.88' RT
STA. 110+16.58, 25.88 RT TO 111+00.00, 26.83 RT
STA. 112+33.00, 26.83' RT TO 112+98.00.00, 25.88' RT
STA. 113+02.00, 25.88' RT TO 114+36.90, 25.88' RT
STA. 113+75.24, 43.71' LT TO 115+48.00, 49.00' LT
STA. 114+40.90, 25.88' RT TO 115+30.68, 25.88' RT
STA. 115+52.00, 49.00' LT TO 116+48.00, 49.83' LT
STA. 115+99.25, 37.64' RT TO STA. 116+64.80, 33.83' RT
STA. 116+52.00, 49.83' LT TO 116+72.50, 49.83' LT
STA. 116+77.50, 49.83' LT TO 118+27.60, 49.00' LT
STA. 116+85.00, 26.83' RT TO 118+98.00.00, 30.88' RT
STA. 118+31.60, 49.00' LT TO 118+98.00.00, 49.00' LT
STA. 119+02, 30.88' RT TO 120+84.38, 35.00' RT
STA. 119+02.00, 49.00' LT TO 120+76.60, 52.50' LT
STA. 120+88.38, 35.00' RT TO 121+70.06, 30.88' RT
STA. 121+74.06, 30.88' RT TO 123+75.40, 27.10' RT
STA. 20+77.00, 12.09' RT TO 21+30.00.00, 18.00' RT
STA. 111+23.78, 46.34' RT TO 111+18.38, 52.24' RT — 10" X 8'. ATTACH TO EXISTING
STA. 120+85.00, 49.00' RT — 18". FOR 18" CULVERT PIPE. OPTION III



ITEM 604.2403

SPECIAL CATCH BASIN R-3165

NTS

NOTES:

1. PRE-CAST BASE. CARE SHALL BE TAKEN TO ELIMINATE ALL AIR VOIDS BETWEEN CONCRETE AND FRAME.
2. CAST-IN-PLACE FOOTINGS. EXTEND APPROXIMATELY 6 INCHES BEYOND THE PRE-CAST BASE ON ALL SIDES. EXACT DIMENSIONS AS CONDITIONS ALLOW.
3. 12" PVC OUTLET PIPE. CONCRETE BASE AND FOOTING WILL BE CONSIDERED INCIDENTAL TO PAYMENT UNDER ITEM 604.2403. CONNECT PIPE TO FRAME WITH FERNCO COUPLING. INCIDENTAL TO ITEM 604.2403.
4. CONCRETE SHALL MEET REQUIREMENTS OF SECTION 502 FOR CONCRETE FILL.
5. NOTCHED GRANITE HEADER STONE SHALL BE INCIDENTAL TO ITEM 604.2403.
6. THE CATCH BASIN UNIT SHALL BE DOWELED TO THE ADJACENT CURB. PAYMENT FOR DOWELING SHALL BE INCIDENTAL TO ITEM 604.2403.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	JLE	7-13
DESIGN2-DETAILED2	ALG	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960

P.E. NUMBER

July 3rd, 2013

DATE

AUGUSTA
WESTERN AVE, RTE 202

DRAINAGE SHEET

SHEET NUMBER

6

OF 68

Filename: ...\MSTA\006_Drainage_02.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

GENERAL NOTES

1. THE UTILITIES INVOLVED IN THIS CONTRACT ARE AS FOLLOWS:

   CENTRAL MAINE POWER
   GREATER AUGUSTA UTILITY DISTRICT
   NORTHERN NEW ENGLAND TELEPHONE OPERATIONS
   TIME WARNER CABLE

2. ALL UTILITY FACILITIES SHALL BE ADJUSTED BY THE RESPECTIVE UTILITIES UNLESS OTHERWISE NOTED.

3. ALL JOINTS BETWEEN EXISTING AND PROPOSED HOT BITUMINOUS PAVEMENT SHALL BE BUTTED. PAYMENT SHALL BE MADE UNDER ITEM 202.202 REMOVING PAVEMENT SURFACE.

4. CONSTRUCT BUTTED JOINTS AT ALL PAVED DRIVES AND ENTRANCES.

5. GRIND TRANSITION TAPERS AT CATCH BASINS UNDER ITEM 202.202 REMOVING PAVEMENT SURFACE, AS DIRECTED BY THE RESIDENT.

6. CLEARING LIMITS SHALL BE 10' BEYOND AND PARALLEL TO THE CONSTRUCTION SLOPE LINES OR AS SHOWN ON THE PLANS UNLESS OTHERWISE AUTHORIZED BY THE RESIDENT.

7. ALL CLEARING SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO SEPARATE PAYMENT WILL BE MADE. THE ACTUAL LINES FOR CLEARING SHALL BE ESTABLISHED IN THE FIELD BY THE CONTRACTOR AS INDICATED ON THE PLANS AND APPROVED BY THE RESIDENT.

8. STUMPS HAVE BEEN ESTIMATED TO BE REMOVED UNDER ITEM 201.24 REMOVE STUMP. HOWEVER, WHERE DIRECTED BY THE RESIDENT. ITEM 631.20 STUMP CHIPPER RENTAL, MAY BE USED TO REMOVE STUMPS.

9. GRUBBING IN FILL AREAS HAS BEEN SHOWN ON THE CROSS SECTIONS AND THE QUANTITIES NOTED. THESE LIMITS ARE APPROXIMATE AND HAVE BEEN USED FOR ESTIMATING PURPOSES ONLY. ACTUAL GRUBBING LIMITS MAY VARY BASED ON FIELD CONDITIONS AS DIRECTED BY THE RESIDENT. ESTIMATED GRUBBING DEPTH IS 6" INCHES..

10. ALL INSLOPE AND DITCHES IN CUT AREAS SHALL BE GRADED AS SHOWN ON THE TYPICALS OR FLATTER, OR AS DIRECTED BY THE RESIDENT.

11. THE CONTRACTOR SHALL PLAN AND CONDUCT THEIR WORK ACCORDINGLY SO THAT UPON FINAL COMPLETION OF THE PROJECT THERE IS NO DROP-OFF FROM THE EDGE OF SHOULDER PAVEMENT. ALL REMAINING OR DISTURBED MATERIAL ON SLOPES OR IN DITCHES ON THE PROJECT SHALL BE CAPABLE OF ATTAINING A GROWTH OF GRASS THAT IS ACCEPTABLE ACCORDING TO STANDARD SPECIFICATION 618.10. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK.

12. DRIVEWAY FILL SIDE SLOPES SHALL BE THE SAME AS THE NON-GUARDRAIL FILL SLOPES UNLESS OTHERWISE NOTED ON THE PLANS.

13. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT.

14. REQUIRED DITCH PROTECTION SHOWN ON THE PLANS OR IN THE CONSTRUCTION NOTES IS FOR ESTIMATING PURPOSES ONLY. THE ACTUAL TYPE AND LOCATION OF DITCH PROTECTION MAY BE ALTERED BY THE RESIDENT.

15. IF FOUNDATION MATERIAL IS REQUIRED UNDER CULVERTS, IT SHALL MEET THE REQUIREMENTS FOR GRANULAR BORROW - UNDERWATER BACKFILL AND WILL PAID FOR AS GRANULAR BORROW.

16. GRANULAR BORROW USED TO BACKFILL MUCK EXCAVATION OR IN LOW WET AREAS TO 1' ABOVE WATER LEVEL OR OLD GROUND SHALL MEET REQUIREMENTS FOR GRANULAR BORROW UNDERWATER BACKFILL.

17. RESIDENTIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 2" HOT MIX ASPHALT AND 12" AGGREGATE SUBBASE COURSE GRAVEL.

18. COMMERICIAL PAVED ENTRANCES SHALL BE CONSTRUCTED WITH: 3" HOT MIX ASPHALT AND 11" AGGREGATE SUBBASE COURSE GRAVEL.

19. ALL PAVED WALKS TO BE CONSTRUCTED WITH 12" AGGREGATE SUBBASE COURSE-GRAVEL AND 2" HOT MIX ASPHALT UNLESS OTHERWISE NOTED IN THE PLANS OR DIRECTED BY THE RESIDENT.

20. ANY NECESSARY CLEANING OF EXISTING PAVEMENT PRIOR TO PAVING SHALL BE INCIDENTAL TO THE RELATED PAVING ITEMS.

21. WHEN SUPER ELEVATION EXCEEDS THE SLOPE OF THE LOW SIDE SHOULDER, THE SHOULDER PAVEMENT WILL HAVE SAME SLOPE AS TRAVELED WAY.

22. THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 ITEM(S):
   - ANY CUTTING OF EXISTING CULVERTS AND OR CONNECTORS NECESSARY TO INSTALL NEW CULVERT REPLACEMENTS OR EXTENSIONS
   - ALL PIPE EXCAVATION INCLUDING ANY CUTTING AND REMOVAL OF PAVEMENT
   - ALL DITCHING AT PIPE ENDS
   - FURNISHING, PLACING, GRADING, AND COMPACTING OF ANY NEW GRAVEL AND/OR FILL MATERIAL INCLUDING GRANULAR BORROW USED UNDER PIPES AND FOR TEMPORARY DETOURS TO MAINTAIN TRAFFIC DURING PIPE INSTALLATION (EXCAVATION IS ALSO INCIDENTAL).
   - ANY NECESSARY CLEARING OF BRUSH AND NON-PAY TREES AT CULVERT ENDS

23. EXISTING CULVERTS TO REMAIN SHALL BE CLEANED AS DIRECTED BY THE RESIDENT. PAYMENT WILL BE MADE UNDER ITEM 631.32 CULVERT CLEANER (INCLUDING OPERATOR).

24. NO EXISTING DRAINAGE SHALL BE ABANDONED, REMOVED OR PLUGGED WITHOUT PRIOR APPROVAL OF THE RESIDENT.

25. INLETS AND OUTLETS OF ALL CULVERTS SHALL BE RIPRAPPED UNLESS OTHERWISE NOTED ON THE PLANS OR DIRECTED BY THE RESIDENT.

26. ALL PROPOSED OPTION III CULVERT PIPE AND TYPE C UNDERDRAIN SHALL BE SMOOTHLINED ONLY.

27. ANY NECESSARY CUTTING OF EXISTING PIPES TO FIT IN AREAS OF PROPOSED CATCH BASINS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO ITEM 604.

28. ANY NECESSARY CUTTING OF EXISTING CATCH BASINS TO ALLOW FOR PROPOSED PIPE CONNECTIONS WILL NOT BE PAID FOR SEPARATELY AND WILL BE CONSIDERED INCIDENTAL TO ITEM 603 OR 605.

29. EXISTING ABANDONED WATER MAINS BROKEN BY THE CONTRACTOR DURING CONSTRUCTION SHALL HAVE THE ENDS PLUGGED WITH BRICK AND MORTAR. COST FOR ALL LABOR AND MATERIAL WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT AND NO DIRECT PAYMENT WILL BE MADE.

30. GUARDRAIL END TREATMENTS SHALL BE INSTALLED CONCURRENTLY WITH THE PLACEMENT OF EACH SECTION OF BEAM GUARDRAIL.

31. ALL EXISTING GUARDRAIL SHALL BE REMOVED AND BECOME THE PROPERTY OF THE CONTRACTOR. REMOVAL AND DISPOSAL SHALL BE CONSIDERED INCIDENTAL TO THE GUARDRAIL ITEMS.

32. TWO REFLECTORIZED FLEXIBLE G.R. MARKERS (ITEM 606.353) WILL BE INSTALLED AT EACH GUARDRAIL END.

33. ALL CATCH BASINS TYPE A PLACED ON CIRCULAR CURB TYPE I SHALL HAVE THE CURB INLET CUT THE SAME RADIUS AS ADJACENT CIRCULAR CURB. PAYMENT SHALL BE INCIDENTAL TO ITEM 604

34. BACKING UP BITUMINOUS CURB IS INCIDENTAL TO THE CURB ITEMS. IN AREAS WHERE NEW BITUMINOUS CURB IS DESIGNATED TO REPLACE EXISTING, THE REMOVAL OF THE OLD BITUMINOUS CURB SHALL BE INCIDENTAL TO THE NEW CURB.

35. LOAM HAS BEEN ESTIMATED FOR DISTURBED LAWN AREAS. ACTUAL PLACEMENT OF THE LOAM SHALL BE AS NOTED ON THE PLANS OR DESIGNATED BY THE RESIDENT.

36. UNLESS OTHERWISE NOTED SEEDING METHOD NO. 1 SHALL BE UTILIZED ON ALL LAWNS AND DEVELOPED AREAS; SEEDING METHOD NO. 2 SHALL BE UTILIZED ON ALL NON-GUARDRAIL SLOPES. SEEDING METHOD NO. 3 SHALL BE UTILIZED ON ALL GUARDRAIL FILL SLOPES. ON LONG NON-GUARDRAIL BACKSLOPES, SEEDING METHOD NO. 3 MAY BE USED INSTEAD OF METHOD NO. 2 IF NOTED OR DIRECTED BY THE RESIDENT.

37. LOAM SHALL BE PLACED TO A NOMINAL DEPTH OF 4 INCHES IN ALL AREAS UNLESS OTHERWISE NOTED OR DIRECTED.

38. ACRYLIC LATEX COLOR FINISH GREEN (ITEM 658.20) SHALL BE PLACED ON ALL PAVED ISLANDS.

39. ANY BASE PAVEMENT NOT SURFACED BEFORE WINTER WILL REQUIRE TEMPORARY PAVEMENT MARKINGS OF PAINT, BOTH YELLOW CENTERLINE AND WHITE EDGE LINES AND WILL BE CONSIDERED PART OF ITEM 627.76

40. ANY DAMAGE TO THE SLOPES CAUSED BY THE CONTRACTOR'S EQUIPMENT, PERSONNEL, OR OPERATION SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT. ALL WORK, EQUIPMENT, AND MATERIALS REQUIRED TO MAKE REPAIRS SHALL BE AT THE CONTRACTOR'S EXPENSE.

41. AREAS REQUIRING FILL ON THE PROJECT WILL COME FROM SUITABLE EXCAVATION FROM EXCAVATION AREAS.

42. NO SEPARATE PAYMENT FOR SUPERINTENDENT OR FOREMAN WILL BE MADE FOR THE SUPERVISION OF EQUIPMENT BEING PAID FOR UNDER THE EQUIPMENT RENTAL ITEMS.

43. "UNDETERMINED LOCATIONS" SHALL BE DETERMINED BY THE RESIDENT.

44. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE MAINE DEPARTMENT OF TRANSPORTATION'S BEST MANAGEMENT PRACTICES FOR EROSION CONTROL & SEDIMENT CONTROL, FEBRUARY, 2008.

45. WATERLINE DETAILS SHOWN ON THE HIGHWAY PLANS AND CROSS SECTIONS ARE INFORMATIONAL ONLY. REFER TO UTILITY PLANS FOR SPECIFIC DETAILS.

46. PAYMENT FOR THE 6" COMPACTED GRAVEL PAD NECESSARY FOR THE RELOCATION OF THE VORTECHS UNIT AT STA. 114+39 RT. WILL BE UNDER ITEM 304.10. ANY CLEANING OF THE UNIT WILL BE MADE UNDER ITEM 631.32 CULVERT CLEANER. PAYMENT FOR THE REMAINDER OF THE WORK NECESSARY TO MOVE THE VORTECHS UNIT SHALL BE MADE UNDER THE APPROPRIATE EQUIPMENT RENTAL ITEMS.

47. ABANDONED PIPES CONNECTED TO CATCH BASINS AND MANHOLES DESIGNATED ON THE PLANS FOR REMOVAL SHALL BE REMOVED. ABANDONED CULVERTS WITHIN THE LIMITS OF WORK SHALL BE REMOVED. PAYMENT WILL BE INCIDENTAL TO SECTION 603 AND SECTION 604 PAY ITEMS OF THE CONTRACT.

48. DUE TO THE COMMERCIAL NATURE OF THE PROJECT AREA, THE CONTRACTOR WILL BE REQUIRED TO USE SPECIAL CARE IN CONSTRUCTION DUST CONTROL. AS REQUIRED BY SPECIFICATIONS SECTION 656, THE SEWPCP SHALL INCLUDE PROCEDURES FOR ROUTINE DUST CONTROL. SUCH ROUTINE DUST CONTROL WILL BE CONSIDERED INCIDENTAL TO PAYMENT UNDER ITEM 656.75. PAY ITEM 637.08 CALCIUM CHLORIDE HAS BEEN INCLUDED IN THE CONTRACT FOR SUPPLEMENTAL APPLICATION WHEN DIRECTED BY THE RESIDENT. IT IS NOT INTENDED TO PAY FOR USE IN ROUTINE DUST CONTROL REQUIRED BY THE SEWPCP. DETERMINATION OF WHICH APPLICATIONS WILL BE CONSIDERED SUPPLEMENTAL AND PAYABLE UNDER ITEM 637.08 WILL BE AT THE SOLE DISCRETION OF THE RESIDENT.

49. TEMPORARY TRAFFIC SIGNAGE BEARING THE LEGEND "LOCAL TRAFFIC ONLY" SHALL BE INSTALLED AT EACH END OF BALSAM DRIVE AT ITS INTERSECTIONS WITH WINTHROP STREET IN HALLOWELL AND EDISON DRIVE IN AUGUSTA. PAYMENT WILL BE MADE UNDER ITEM 652.35.

50. LUMINAIRES TO BE INSTALLED ON TRAFFIC SIGNAL POLES AT THE SHUMAN AVENUE/ NANCY LANE INTERSECTION SHALL BE INCIDENTAL TO PAYMENT UNDER ITEM 643.71. PAYMENT WILL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONING INTERSECTION LIGHTING SYSTEM. LUMINAIRES SHALL BE GROUNDED SEPARATELY FROM THE TRAFFIC SIGNAL SYSTEM.

51. LIGHTING FIXTURES SHALL BE IES FULL CUTOFF, INDIRECT VIEW LIGHT EMITTING DIODE (LED) FIXTURES, IES DISTRIBUTION TYPE 3. ALL FIXTURES SHALL BE GASKETED AND HAVE AN EXTENDED LIFE DRIVER, SURGE PROTECTION, AND DOUBLE FUSE KIT. A TWIST-OFF PHOTO CONTROL AND NEMA TWIST OFF PHOTO CONTROL RECEPTACLE SHALL BE INSTALLED ON THE TRAFFIC SIGNAL CABINET TO CONTROL ALL LUMINAIRES. ALL FIXTURES SHALL BE GRAY.

52. THE LIGHTING LAYOUT WAS DONE USING HOLOPHANE LEDGEND LED ROADWAY LIGHTING LUMINAIRES. CATALOG NUMBER: LEDG 084 35 5K AS 2H L3 (4 - TYPE 3 FIXTURES)

   IF DIFFERENT FIXTURES ARE PROPOSED, THEY SHALL BE IES FULL CUTOFF, TYPE 3 IES DISTRIBUTION, INDIRECT VIEW LED LUMINAIRES. THE CONTRACTOR MUST DEMONSTRATE THAT THE PROPOSED FIXTURES WILL REASONABLY EQUAL THE LIGHT LEVELS AND DISTRIBUTIONS PROVIDED BY THE DESIGNED SYSTEM, IN THE OPINION OF MAINEDOT.

53. EVALUATION BY MAINEDOT OF ALTERNATIVE LED LUMINAIRES THAT MAY BE PROPOSED BY THE CONTRACTOR FOR SUBSTITUTION WILL REQUIRE SUBMITTAL OF THE FOLLOWING, AT MINIMUM:

   - IES LM-79-08 ABSOLUTE TESTING REPORT FOR THE PROPOSED ALTERNATIVE LUMINAIRE;
   - IES LM-80-08 TESTING REPORT FOR LED CHIPS TO BE USED IN THE ALTERNATIVE LUMINAIRE, DOCUMENTING TESTING FOR A MINIMUM OF 8500 HOURS;
   - IES TM-21-11 REPORT FOR PROJECTED LONG TERM LUMEN MAINTENANCE, INCLUDING INCREMENTAL LUMEN DEPRECIATION TABLE AT 25 DEGREES CELSIUS TO A MINIMUM OF 50,000 HOURS;
   - IES PHOTOMETRIC FILE FROM THE MANUFACTURER FOR THE PROPOSED ALTERNATIVE LUMINAIRE;
   - PHOTOMETRIC PLOT, OVERLAID ON THE LAYOUT OF THE LUMINAIRE LOCATIONS FOR THIS SPECIFIC PROJECT, SHOWING LIGHT CONTOURS, ILLUMINATION STATISTICS FOR EACH OF THE LIGHTING GROUPS, AND VALUE OF LIGHT LOSS FACTOR USED IN THE ANALYSIS;
   - VALUES OF LLD, LDD, BALLAST FACTOR AND OTHER FACTORS USED FOR CALCULATION OF THE ASSUMED LIGHT LOSS FACTOR;
   - SPECIFICATION DATA REGARDING OPTICS, CHROMATIC COLOR TEMPERATURE, DRIVER, PHOTOCONTROL, SURGE PROTECTION, HOUSING AND GASKETING.

54. A MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) ENVIRONMENTAL OFFICE INVESTIGATION SPECIFIC TO THIS PROJECT ENCOUNTERED DATA SUGGESTING PETROLEUM RELATED CONTAMINATION WAS PRESENT APPROXIMATELY AT MAINEDOT STATION 104+00 TO STATION 107+00 AND MAINEDOT STATION 117+00 TO STATION 121+00. SUBSEQUENT ON-SITE WORK FAILED TO UNEARTH ANY ISSUES WITHIN THESE AREAS. HOWEVER, IN LIGHT OF THE AVAILABLE ENVIRONMENTAL DATA, THE CONTRACTOR SHALL EMPLOY APPROPRIATE HEALTH AND SAFETY MEASURES TO PROTECT ITS WORKERS AGAINST HAZARDS ASSOCIATED WITH WORKING NEAR PETROLEUM-IMPACTED SOILS. FURTHERMORE, THE CONTRACTOR SHALL REMAIN ALERT FOR ANY ADDITIONAL EVIDENCE OF CONTAMINATION. IF THE CONTRACTOR ENCOUNTERS EVIDENCE OF SOIL OR GROUNDWATER CONTAMINATION, THE CONTRACTOR SHALL SECURE THE EXCAVATION, STOP WORK IN THE CONTAMINATED AREA, AND IMMEDIATELY NOTIFY THE RESIDENT. THE RESIDENT SHALL CONTACT THE HYDROGEOLOGIST IN MDOT'S ENVIRONMENTAL OFFICE AT 207-624-3100 AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION AT 800-482-0777. WORK MAY ONLY CONTINUE WITH AUTHORIZATION FROM THE RESIDENT.

55. PAY ITEM 461.131 TEMPORARY PAVEMENT HAS BEEN INCLUDED IN THIS CONTRACT FOR USE IN MAINTAINING CONTINUOUS TRAFFIC FLOW THROUGH WORK AREAS BY PLACEMENT IN WIDENED AREAS AND AREAS OF PROPOSED MEDIAN ISLANDS. THE AREA AND DEPTH OF APPLICATION OF PAY ITEM 461.131 TEMPORARY PAVEMENT SHALL BE SUBJECT TO PRIOR APPROVAL OF THE RESIDENT. UNAUTHORIZED USE WILL NOT BE MEASURED FOR PAYMENT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

GENERAL NOTES

SHEET NUMBER

7

OF 68

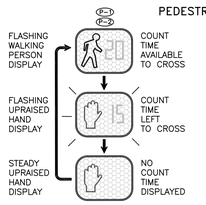
Filename: ...\MSTA\007_GeneralNotes_01.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

SIGNAL HEAD DETAIL

	A1, A2 B1, B2 C1, D1, D2	A3 B3	C2R
LED DISPLAYS			
RED			
YELLOW			
GREEN			
NUMBER EXISTING	9	0	0
NUMBER RELOCATED	7	0	0
NUMBER REQUIRED	0	2	1

ALL SIGNAL FACE DISPLAYS SHALL BE 12" LED.
ALL SIGNAL FACE DISPLAYS SHALL HAVE TUNNEL VISORS. ALL SIGNAL HEADS SHALL HAVE 5-INCH LOUVERED BACKPLATES.

PEDESTRIAN SIGNAL DETAIL

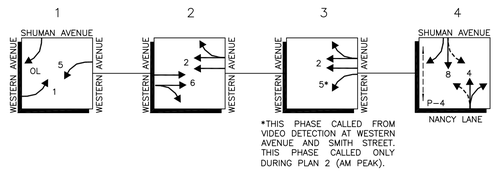


NO.REQUIRED 2

R10-3e (Right Arrow)
1 REQUIRED

R10-3e (Left Arrow)
1 REQUIRED

PHASE DIAGRAM



*THIS PHASE CALLED FROM VIDEO DETECTION AT WESTERN AVENUE AND SMITH STREET. THIS PHASE CALLED ONLY DURING PLAN 2 (AM PEAK).

ALL TIME OF DAY PLANS AND ASSOCIATED TIMINGS TO REMAIN AS IS WITH THE FOLLOWING EXCEPTION: 6 SECONDS OF GREEN SHALL BE PROVIDED FOR THE DEDICATED WESTERN AVENUE LEFT TURN PHASE (1) WHEN CALLED, SUBTRACTED FROM THE EASTBOUND/WESTBOUND WESTERN AVENEUE PHASE (2).

SCOPE OF SIGNAL WORK

THIS IS A TRAFFIC SIGNAL MODIFICATION DUE TO WIDENING OF WESTERN AVENUE. THE INTENT OF THESE PLANS IS TO PROVIDE FOR MAST ARM INSTALLATION w/ VIDEO DETECTION FOR ALL APPROACHES AND ADVANCE DETECTION ON WESTERN AVENUE.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE PRESENCE OF UNDERGROUND UTILITY FACILITIES PRIOR TO COMMENCING ANY EXCAVATION WORK AND SHALL NOTIFY UTILITIES OF PROPOSED EXCAVATION IN ACCORDANCE WITH M.R.S.A. TITLE 23 §3360-A, MAINE "DIG SAFE" SYSTEM.

OVERHEAD SIGNS DETAIL

R3-5 (LEFT)
2 REQUIRED (OVERHEAD)

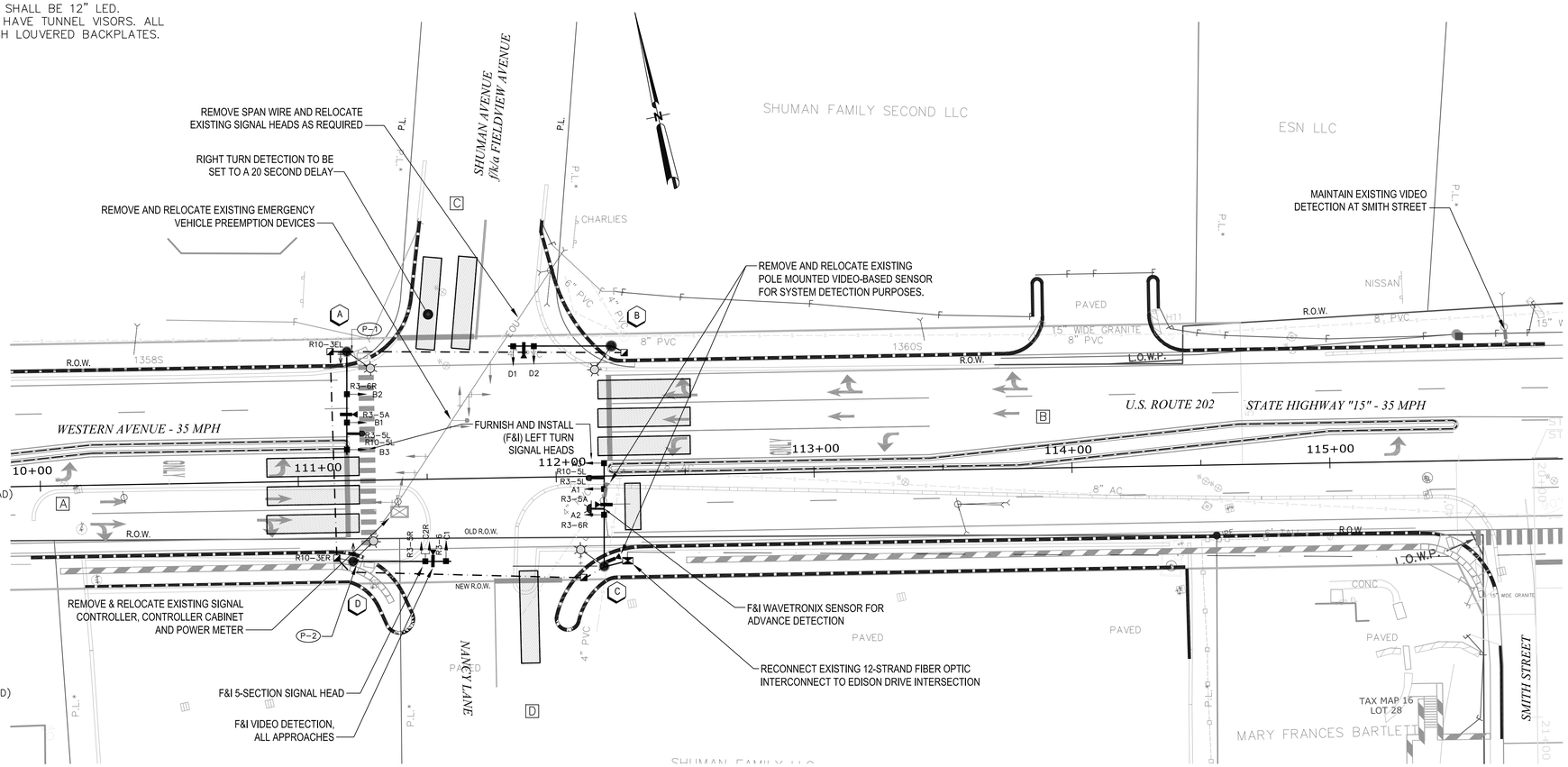
R10-5 (LEFT)
2 REQUIRED (OVERHEAD)

R3-5A (THRU)
2 REQUIRED (OVERHEAD)

R3-6 (THRU/RIGHT)
2 REQUIRED (OVERHEAD)

R3-5 (RIGHT)
1 REQUIRED (OVERHEAD)

R3-6 (LEFT/THRU)
1 REQUIRED (OVERHEAD)



MAST ARM POLES

A — POLE W/ 40' MAST ARM & LUMINAIRE
STA. 111+19.7
50.0' LEFT OF WESTERN AVE. ℄

B — POLE W/ 40' MAST ARM
STA.112+22.3
50.4' LEFT OF WESTERN AVE. ℄

C — POLE W/ 40' MAST ARM
STA. 112+18.0
35.0' RIGHT OF WESTERN AVE. ℄

D — POLE W/ 38' MAST ARM & LUMINAIRE
STA. 111+21.7
31.4 RIGHT OF WESTERN AVE. ℄

EXISTING 3'-2" X 2'-2" CABINET TO BE RELOCATED. CABINET FOUNDATION DIMENSIONS APPROXIMATELY 4' X 3'.

EXISTING NAZTEC, INC., SERIES 900, TS2 CONTROLLER AND ASSOCIATED EQUIPMENT TO BE RELOCATED.

EXISTING EMERGENCY VEHICLE PREEMPTION OPERATION TO BE MAINTAINED			
I.D.	PREEMPT ASSIGNMENT	RECEIVER PRIORITY	ø MOVING
1			ø6
2			ø2(ø5)

LEGEND

- PROPOSED SIGNAL HEAD
- PROPOSED MAST ARM POLE ASSEMBLY
- PROPOSED MAST ARM POLE ASSEMBLY W/ LUMINAIRE
- EMERGENCY VEHICLE PREEMPTION DEVICE
- PROPOSED PEDESTRIAN SIGNAL DEVICE
- PROPOSED WAVETRONIX SENSOR
- PROPOSED MAST ARM MOUNTED VIDEO CAMERA
- EXISTING CONTROLLER CABINET
- PROPOSED CONTROLLER CABINET
- PROPOSED PULL BOX
- PROPOSED MAST ARM POLE DESIGNATION
- PROPOSED VIDEO DETECTION AREA
- PROPOSED UNDERGROUND CONDUIT
- OVERHEAD FIBER OPTIC CABLE

GRAPHIC SCALE
50 0 25 50
1" = 25'

NOTE: *EXISTING CONDITIONS OBTAINED FROM "WESTERN AVENUE AND SHUMAN AVENUE TRAFFIC SIGNAL PLAN, AS-BUILT PLAN", BY VANASSE HANGEN BRUSTLIN, INC, DATED FEBRUARY, 2008.*

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 4270.10

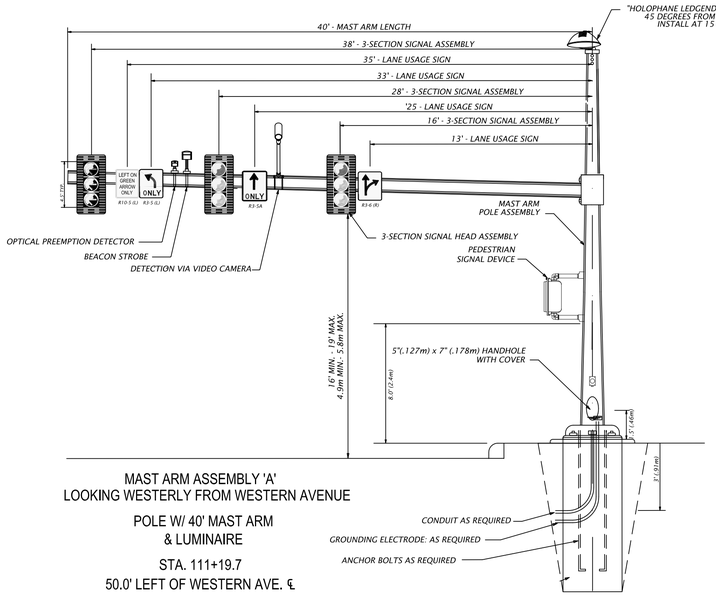
STATE OF MAINE · DIANE W. MORABITO · No. 5077 · LICENSED PROFESSIONAL ENGINEER

PROJECT INFORMATION			
PROGRAM		SIGNATURE	
PROJECT MANAGER		P.E. NUMBER	5077
DESIGNER	MAINE TRAFFIC RESOURCES		
CONSULTANT		DATE	MARCH 15, 2013
PROJECT RESIDENT			
CONTRACTOR			
PROJECT COMPLETION DATE			

AUGUSTA
WESTERN AVENUE AND SHUMAN AVENUE

TRAFFIC SIGNAL PLAN

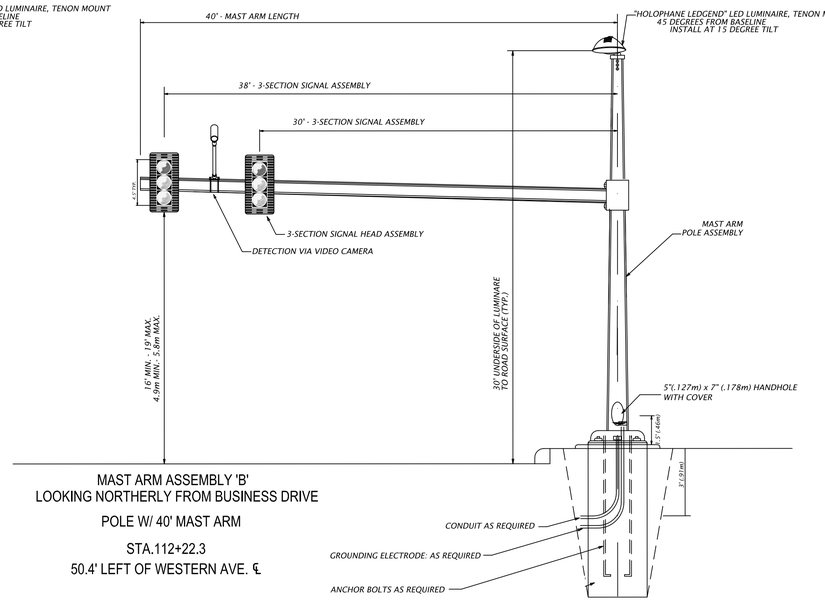
SHEET NUMBER
8
OF 68



MAST ARM ASSEMBLY 'A'
LOOKING WESTERLY FROM WESTERN AVENUE

POLE W/ 40' MAST ARM
& LUMINAIRE

STA. 111+19.7
50.0' LEFT OF WESTERN AVE. ℄



MAST ARM ASSEMBLY 'B'
LOOKING NORTHERLY FROM BUSINESS DRIVE

POLE W/ 40' MAST ARM

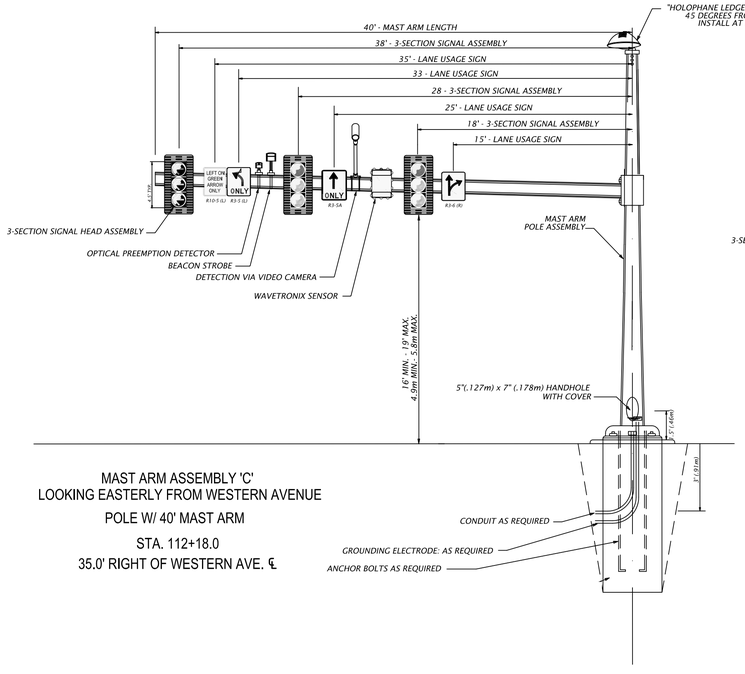
STA.112+22.3
50.4' LEFT OF WESTERN AVE. ℄

ALL MEASUREMENTS ARE TO THE CENTER OF THE MAST ARM POLE.

MONOTUBE MAST ARM DESIGN DETAILS MUST BE APPROVED BY MAINEDOT.

ALL MAST ARM ASSEMBLY & LUMINAIRE SUBMITTAL DATA REQUIRES APPROVAL FROM MAINEDOT.

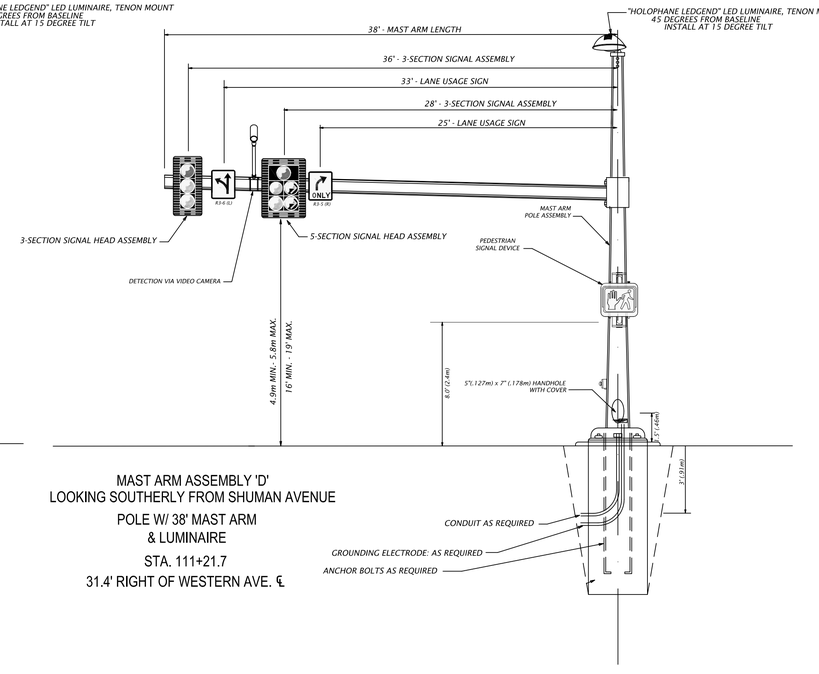
MAST ARM ASSEMBLIES SHOWN ARE CONCEPTUAL AND FOR INFORMATIONAL PURPOSES ONLY.



MAST ARM ASSEMBLY 'C'
LOOKING EASTERLY FROM WESTERN AVENUE

POLE W/ 40' MAST ARM

STA. 112+18.0
35.0' RIGHT OF WESTERN AVE. ℄



MAST ARM ASSEMBLY 'D'
LOOKING SOUTHERLY FROM SHUMAN AVENUE

POLE W/ 38' MAST ARM
& LUMINAIRE

STA. 111+21.7
31.4' RIGHT OF WESTERN AVE. ℄

NOT TO SCALE

GENERAL NOTES

1. LOCATION OF SIGNAL HEADS, PULL BOXES, CONTROLLER CABINET, ETC. ARE APPROXIMATE. ANY SIGNIFICANT DEVIATION FROM THE LOCATIONS IDENTIFIED ON THE PLAN SHALL BE APPROVED BY THE ENGINEER.
2. THE TRAFFIC SIGNAL CONTRACTOR SHALL ENSURE THAT THE EXISTING CONTROLLER AND CABINET ARE CAPABLE OF INCORPORATING THE DETECTION AND PHASING SHOWN ON THESE PLANS.
3. THE TRAFFIC SIGNAL CONTRACTOR SHALL PROVIDE THE ENGINEER, MAINEDOT AND THE CITY OF AUGUSTA WITH A SCHEDULE OF WORK FOR CONSTRUCTING THE TRAFFIC IMPROVEMENTS AT LEAST TWO WEEKS PRIOR TO THE COMMENCEMENT OF WORK.
4. VEHICULAR DETECTION SHALL CONSIST OF A VIDEO TRAFFIC DETECTOR PROCESSOR, APPROVED CAMERA ASSEMBLY FOR EACH DIRECTION, MONITOR, BRACKETS AND CABLES, INSTALLED AND SATISFACTORILY DETECTING VEHICLES IN THE INDICATED ZONES OF DETECTION. ADVANCE DETECTION (WESTERN AVENUE) SHALL BE WAVETRONIX SMART SENSOR ADVANCE WITH SAFE ARRIVAL TECHNOLOGY.
5. VIDEO DETECTION EQUIPMENT TO INCLUDE THE DETECTION COMMUNICATION HUB, THE DETECTION UNITS, THE DETECTION CAMERAS (INDIVIDUALLY SURGED PROTECTED AND FUSED), THE VIDEO MONITOR, AND ALL INCIDENTAL HARDWARE AND EQUIPMENT NECESSARY FOR OPERATION OF THE VIDEO DETECTION EQUIPMENT.
6. VIDEO DETECTION INSTALLATION – AT LOCATIONS WHERE VIDEO DETECTION CAMERAS ARE PROPOSED TO BE INSTALLED ON MAST ARMS, AN INITIAL SIX–FOOT VERTICAL PIPE EXTENSION SHALL BE INSTALLED ON THE MAST ARM WITH THE VIDEO DETECTOR MOUNTED ON THE TOP OF THE EXTENSION PIPE. THE ENGINEER RESERVES THE RIGHT TO DIRECT THE CONTRACTOR TO FIELD ADJUST THE VIDEO DETECTOR MOUNTING HEIGHT FOR LOCAL CONDITIONS IDENTIFIED DURING OR AFTER INSTALLATION. NO ADDITIONAL COST WILL BE ALLOWED FOR FIELD ADJUSTING THE PIPE EXTENSIONS OR REWIRING AS NECESSARY. THIS WORK WILL BE INCIDENTAL TO THE VIDEO DETECTION SYSTEM ITEMS.
7. UNDERGROUND CONDUIT SHALL BE TWO INCH SCHEDULE 80 PVC. ALL CONDUIT UNDER ROADWAYS SHALL BE THREE INCH SCHEDULE 80 PVC.
8. LUMINAIRES SHALL BE WIRED AND METERED SEPARATELY FROM THE SIGNAL.
9. IT SHALL BE THE TRAFFIC SIGNAL CONTRACTOR'S RESPONSIBILITY TO EXAMINE JOB SITE CONDITIONS AND TO CONFIRM THE EXACT LOCATIONS OF EXISTING UTILITIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL CONTACT DIG SAFE AT 1–888–DIG–SAFE PRIOR TO ANY SUBSURFACE ACTIVITIES.
10. THE TRAFFIC SIGNAL CONTRACTOR SHALL CONTACT AND COORDINATE WITH UTILITIES UPON AWARD OF THE CONTRACT. THE TRAFFIC SIGNAL CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANIES SO THAT THE TRAFFIC SIGNAL INSTALLATION IS DONE AFTER THE UTILITIES HAVE BEEN RELOCATED BY THE RESPECTIVE UTILITY COMPANIES.
11. PULL BOXES SHALL BE PLACED OFF OF THE ROADWAY AS SHOWN ON PLANS. ALL PULL BOX COVERS TO BE FURNISHED AND INSTALLED SHALL BE LABELED "TRAFFIC SIGNAL".
12. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT LEGIBLE, WEATHERPROOF TAGS THAT ARE SECURELY ATTACHED TO EACH CABLE.
13. ALL SPLICES IN THE CABINET SHALL MEET MAINEDOT SPECIFICATIONS.
14. ALL EXISTING DRIVEWAY ACCESSES SHALL BE MAINTAINED AT ALL TIMES.
15. TWO COPIES OF AS–BUILT PLANS, WIRING DIAGRAMS, BOX PRINTS, AND EQUIPMENT MANUALS SHALL BE LEFT IN THE CONTROLLER CABINET.
16. THE ENGINEER AND MAINEDOT SHALL HAVE THE RIGHT AND AUTHORITY TO DETERMINE THE ACCEPTABILITY OF WORK AND MATERIALS IN PROGRESS OR COMPLETED AND SHALL THE THE RIGHT TO REJECT ANY WORK OR MATERIALS WHICH DO NOT CONFORM, IN ITS SOLE OPINION, TO THE PLANS OR SPECIFICATIONS.
17. ALL SIGNING, SIGNAL AND STRIPING MATERIALS AND PLACEMENT SHALL CONFORM TO THE MAINEDOT STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND STANDARD DETAILS AND WITH THE FEDERAL HIGHWAY ADMINISTRATION "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) DATED 2009, AS AMMENDED.
18. THE TRAFFIC SIGNAL CONTRACTOR WILL BE RESPONSIBLE FOR THE RELOCATION OF THE POWER METER. THIS WORK WILL BE INCIDENTAL TO ITEM 643.71.
19. THE TRAFFIC SIGNAL CONTRACTOR SHALL PERFORM THE WORK IN A MANNER AND ORDER THAT WILL CAUSE THE MINIMUM DISRUPTION TO TRAFFIC SIGNAL OPERATIONS.
20. ALL TRAFFIC SIGNAL EQUIPMENT NOT NOTED AS RELOCATED SHALL BE NEW.
21. ADVANCE DETECTION WILL BE INCIDENTAL TO PAYMENT UNDER ITEM 643.71.
22. COUNTDOWN PEDESTRIAN HEADS AND PEDESTRIAN PUSHBUTTON ASSEMBLIES SHALL HAVE AUDIBLE/TACTILE FEATURES AND WILL BE INCIDENTAL TO ITEM 643.71.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

WIN 4270.10

STATE OF MAINE ★ DIANE W. MORABITO No. 5077 LICENSED PROFESSIONAL ENGINEER ★

PROJECT INFORMATION

PROGRAM	
PROJECT MANAGER	
DESIGNER	
CONSULTANT	MAINE TRAFFIC RESOURCES
PROJECT RESIDENT	
CONTRACTOR	
PROJECT COMPLETION DATE	

SIGNATURE

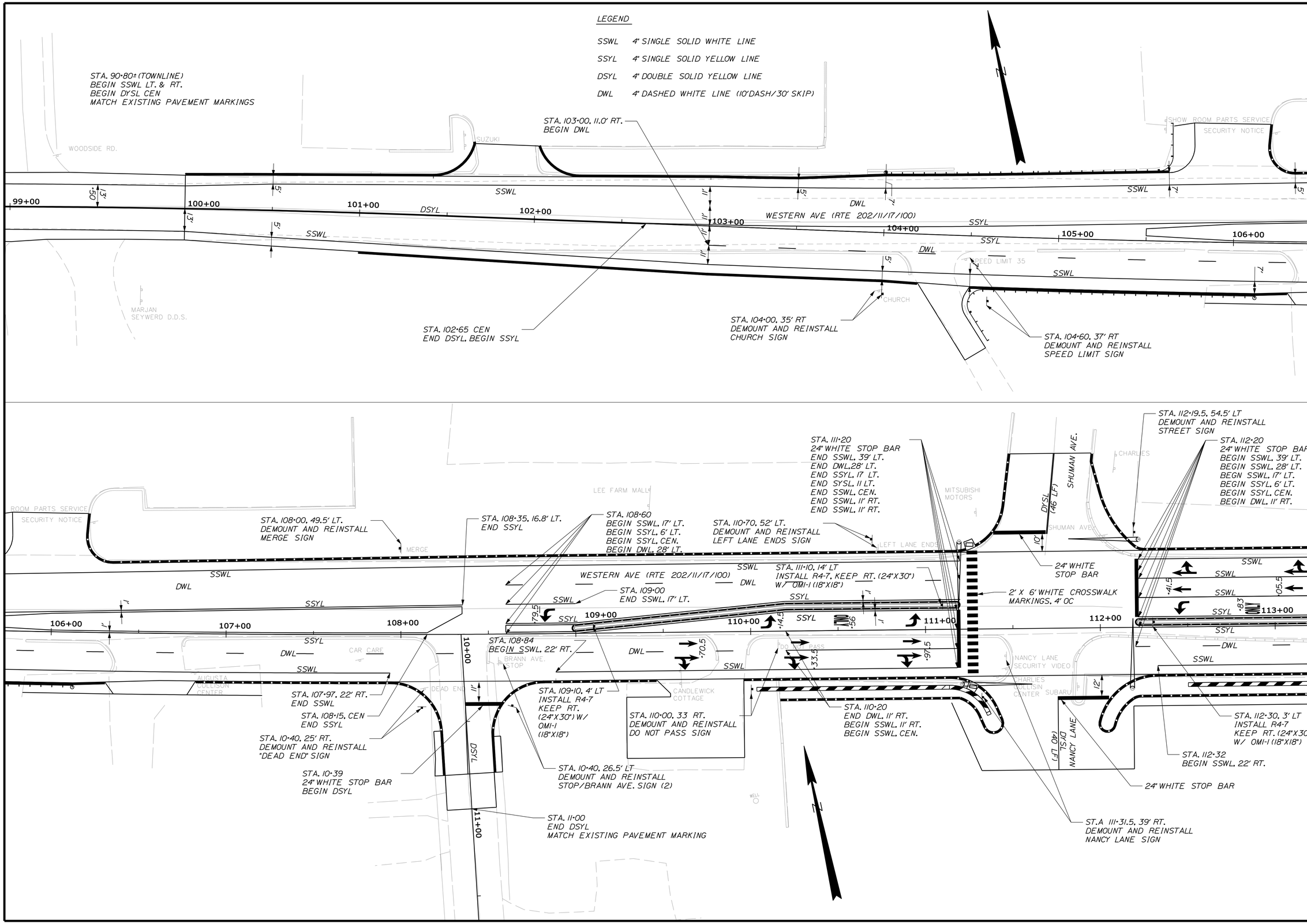
P.E. NUMBER 5077

DATE MARCH 15, 2013

AUGUSTA
WESTERN AVENUE AND SHUMAN AVENUE

SIGNAL DETAILS & NOTES

SHEET NUMBER
9
OF 68



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	JLE	7-13
DESIGN2-DETAILED2	ALG	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

SIGNING/STRIPING PLAN

SHEET NUMBER
10
OF 68

Filename: ...\MSTA\010_signplan_01.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

STA. 113+45
END SSWL, 28' LT.
END SSWL, 17' LT.
BEGIN DWL 28' LT.

STA. 115+00, 52' LT.
DEMOUNT AND REINSTALL
SPEED LIMIT SIGN

STA. 115+48
END SSYL, 17' LT
END SSYL, 11' LT.
END SSWL, CEN
BEGIN CTWLTL, CEN & 17' LT.

STA. 118+95, 52.5' LT.
DEMOUNT AND REINSTALL
CENTER LANE ONLY SIGN

SSWL (10 LF)
MATCH EXISTING
PAVEMENT MARKINGS

STA. 119+25, 66 LT
DEMOUNT AND
REINSTALL
STOP SIGN

STA. 119+02
END SSWL, 39.2' LT.

STA. 115+40, 14' LT
INSTALL R4-7, KEEP RT., (24"X30")
W/ OM1-1 (18"X18")

STA. 115+00
BEGIN SSWL, CEN

2' X 6' WHITE CROSSWALK
MARKINGS, 4' OC

STA. 116+22
BEGIN SSWL, 22' RT.

STA. 116+05, 39' RT.
DEMOUNT AND REINSTALL
STOP AND SMITH ST. SIGNS (2)

STA. 20+39
24" WHITE STOP BAR
BEGIN DYSL

STA. 115+32.5, 31' RT.
DEMOUNT AND REINSTALL
CENTER TURN LANE SIGN

STA. 115+34.5
END SSWL, 22' RT.

STA. 21+80, 19.5' RT
DEMOUNT AND REINSTALL
SPEED LIMIT SIGN

STA. 21+30, 20.5' RT
DEMOUNT AND REINSTALL
NEIGHBORHOOD WATCH SIGN

STA. 21+30
END DYSL
MATCH EXISTING PAVEMENT MARKINGS

STA. 120+35, 59' LT
DEMOUNT AND REINSTALL
DO NOT ENTER

STA. 120+69.5, 59' LT
DEMOUNT AND
REINSTALL
ONE WAY SIGN

STA. 120+82
BEGIN SSYL, 57.7' LT.
STA. 121+00.5
BEGIN SSWL, 66' LT.

SSWL (10 LF)
MATCH EXISTING
PAVEMENT MARKINGS

STA. 119+65, 58' LT
DEMOUNT AND
REINSTALL
STOP SIGN

STA. 119+25, 66 LT
DEMOUNT AND
REINSTALL
STOP SIGN

STA. 121+29
END SSWL, 40.3' LT
END SSYL, 40.3' LT.
BEGIN MDWL, 40.3' LT

STA. 122+63
END MDWL, 40.8' LT.

STA. 119+63
BEGIN SSWL, 39.5' LT.

STA. 120+55, 8' LT.
DEMOUNT AND REINSTALL
NO U TURN SIGN

STA. 121+00, 34' RT.
DEMOUNT AND REINSTALL
OBDS SIGN (3)

STA. 124+63
BEGIN SSWL, CEN.

STA. 125+89
END SSWL, 41.5' LT.

STA. 125+74
END SSYL, 17.5' LT.
END SSYL, 11.5' LT.
END SSWL, CEN.

RESERVED LIMIT LINE
STA. 120+50
END CTWLTL CEN & 15.9' LT
BEGIN SSYL, CEN.
BEGIN SSYL, 15.9' LT.

LEGEND

SSWL	4" SINGLE SOLID WHITE LINE
SSYL	4" SINGLE SOLID YELLOW LINE
DSYL	4" DOUBLE SOLID YELLOW LINE
DWL	4" DASHED WHITE LINE (10'DASH/30' SKIP)
MDWL	6" MINI DASHED WHITE LINE (3' DASH/6' SKIP)
CTWLTL	CONTINUOUS TWO WAY LEFT TURNLANE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

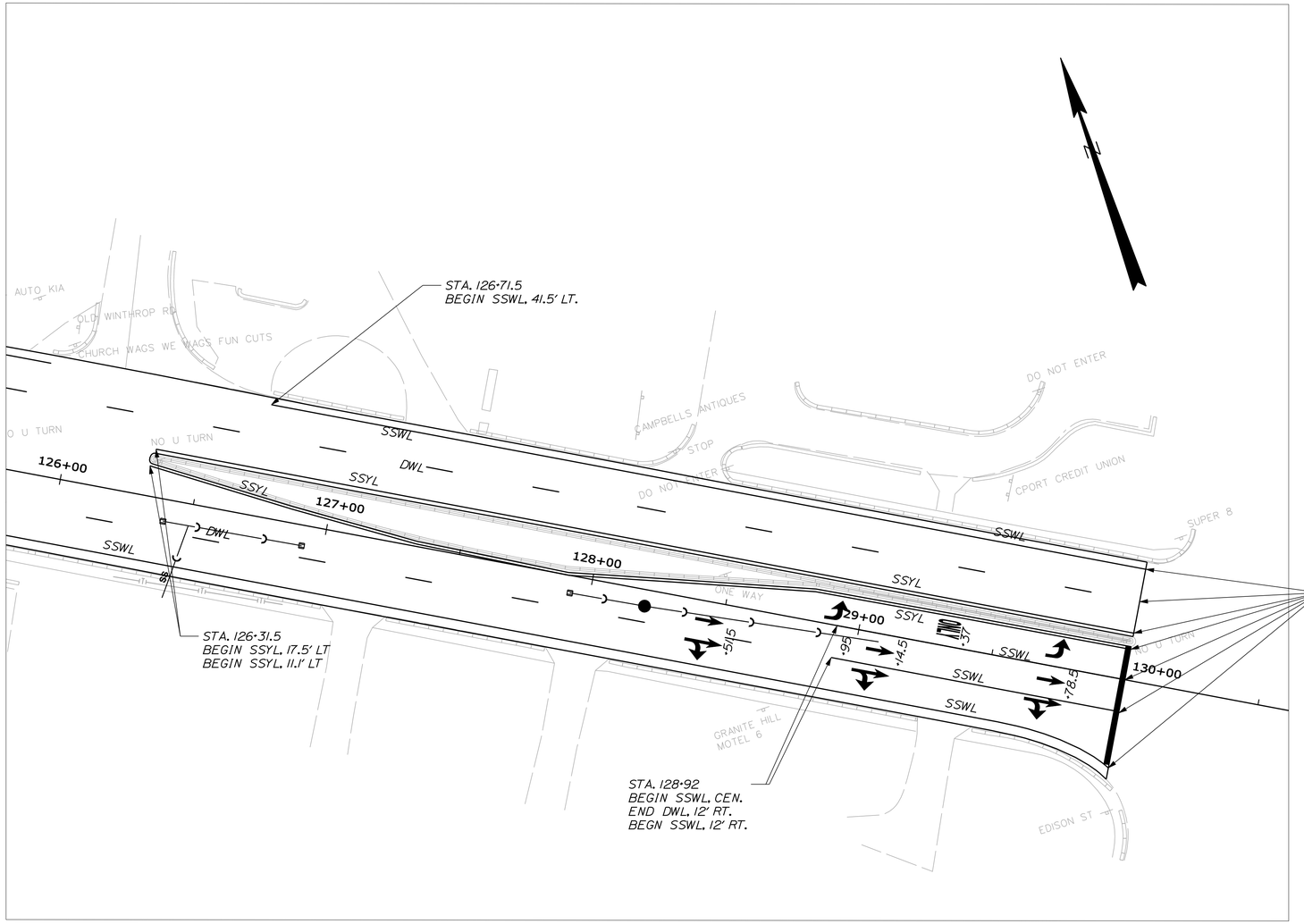
	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

AUGUSTA
WESTERN AVE, RTE 202

SIGNING/STRIPING PLAN

SHEET NUMBER
11
OF 68

Filename: ...\MSTA\011_signplan_02.dgn Division: HIGHWAY Username: jeason Date:7/10/2013



LEGEND

SSWL	4" SINGLE SOLID WHITE LINE
SSYL	4" SINGLE SOLID YELLOW LINE
DSYL	4" DOUBLE SOLID YELLOW LINE
DWL	4" DASHED WHITE LINE (10'DASH/30' SKIP)
MDWL	6" MINI DASHED WHITE LINE (3' DASH/6' SKIP)
CTWLTL	CONTINUOUS TWO WAY LEFT TURNLANE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

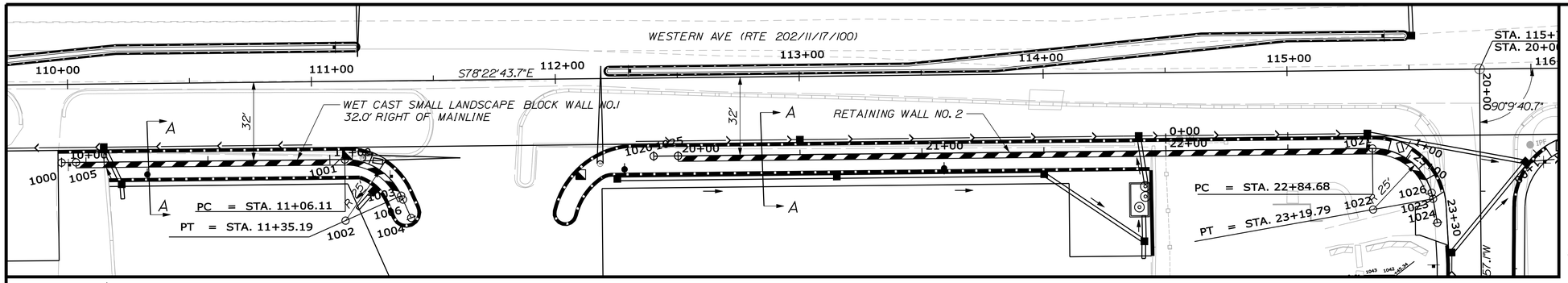
SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

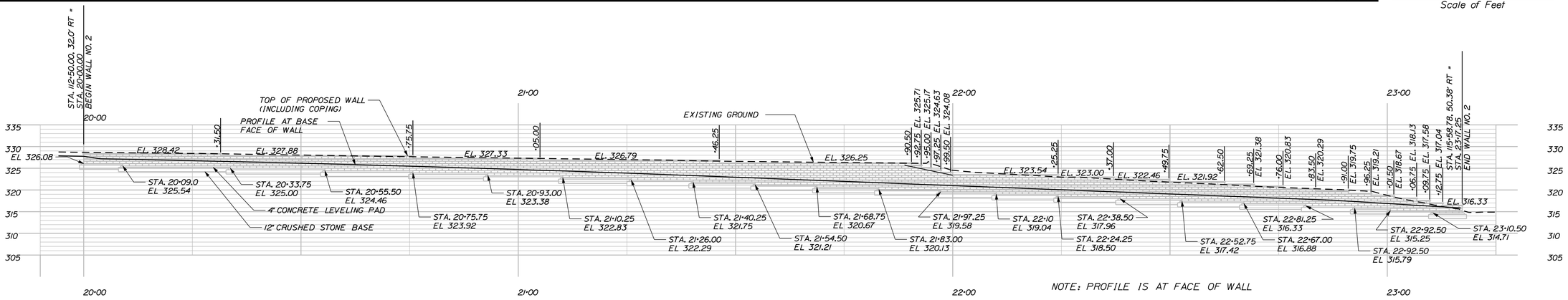
AUGUSTA
WESTERN AVE, RTE 202

SIGNING/STRIPING PLAN

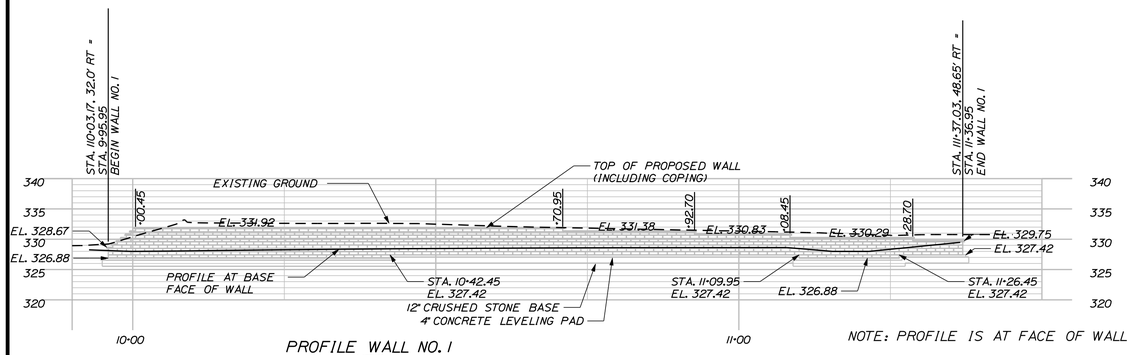
SHEET NUMBER
12
OF 68

Filename: ...\MSTA\012_signplan_03.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

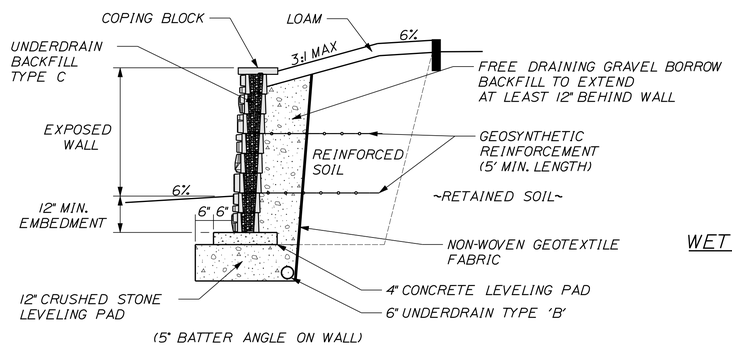




PROFILE WALL NO. 2
NTS



PROFILE WALL NO. 1
NTS



TYPICAL SECTION
WET CAST SMALL LANDSCAPE
BLOCK WALL
A-A
NTS

1. THE CONTRACTOR SHALL PROVIDE A WET CAST SMALL LANDSCAPE BLOCK WALL INCLUDING GEOTECHNICAL DESIGN IN ACCORDANCE WITH SPECIAL PROVISION SECTION 635. THE WET CAST SMALL LANDSCAPE BLOCK WALL SHALL BE DESIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY.

2. THE WET CAST SMALL LANDSCAPE BLOCK WALL SHALL BE AN APPROVED SYSTEM FROM THE MAINEDOT QUALIFIED PRODUCTS LIST THAT MEETS THE REQUIREMENTS OF SPECIAL PROVISION 635.

3. BACKFILL AND FOUNDATION SOIL PARAMETERS FOR USE IN THE SUBMITTED DESIGN SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION SECTION 635.

4. THE APPLIED FACTORED BEARING PRESSURE FOR WET CAST SMALL LANDSCAPE BLOCK WALL SHALL NOT EXCEED 3 KSF FOR THE STRENGTH LIMIT STATE. THE FACTORED BEARING PRESSURE SHALL NOT EXCEED THE FACTORED BEARING RESISTANCE OF 5 KSF FOR THE SERVICE LIMIT STATE.

5. ALL EXPOSED BLOCK FACES SHALL BE FINISHED TO MATCH THE WALL FACE.

6. SMALL STONE/COBBLE FACE PATTERN OR COMPARABLE PATTERN (COLOR GRAY) APPROVED BY THE PROJECT MANAGER IS REQUIRED FOR PREFABRICATED RETAINING WALL BLOCKS.

7. PIPED DRAINAGE SHALL BE INCLUDED IN THE DESIGN OF THE WALLS. WALL DRAINAGE WILL BE INCIDENTAL TO CONSTRUCTION OF THE WALL.

8. A MINIMUM EMBEDMENT DEPTH OF 12" IS REQUIRED IN THE DESIGN AND CONSTRUCTION OF THE WET CAST SMALL LANDSCAPE BLOCK WALL.

9. THE FACE QUANTITY OF WET CAST SMALL LANDSCAPE BLOCK WALL WILL BE APPROVED BY APPROVAL OF THE SHOP DRAWINGS.

Horizontal Alignment Name: WALL 1

	STATION	NORTHING	EASTING
POB (1000)	9+90.00	542365.15450	1128496.22757
POT (1005)	9+95.95	542363.95593	1128502.05560
PC (1001)	11+06.11	542341.76427	1128609.96219
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 116.11			
PI ( )	11+22.55	542338.49292	1128626.06872
CC (1002)		542317.26442	1128604.98610
PT (1003)	11+35.19	542322.40934	1128629.45105
Radius: 25.00			
Delta: 66°38'34.5" Right			
Length: 29.08			
Tangent: 16.44			
External: 4.92			
POT (1006)	11+36.95	542320.68701	1128629.81325
POE (1004)	11+45.19	542312.62330	1128631.50903
Tangent Direction: S 11°52'33.9" E			
Tangent Length: 10.00			

Horizontal Alignment Name: WALL 2

	STATION	NORTHING	EASTING
POB (1020)	19+90.00	542316.25050	1128734.02243
POT (1025)	20+00.00	542314.23610	1128743.81744
PC (1021)	22+84.68	542256.89053	1129022.65925
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 294.68			
PI ( )	23+05.83	542252.62923	1129043.37974
CC (1022)		542232.40302	1129017.62323
POC (1026)	23+17.25	542234.02788	1129042.57037
PT (1023)	23+19.79	542231.48923	1129042.60653
Radius: 25.00			
Delta: 80°28'24.6" Right			
Length: 35.1132			
Tangent: 21.15			
External: 7.75			
POE (1024)	23+29.79	542221.49586	1129042.24101
Tangent Direction: S 2°05'41.0" W			
Tangent Length: 10.00			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

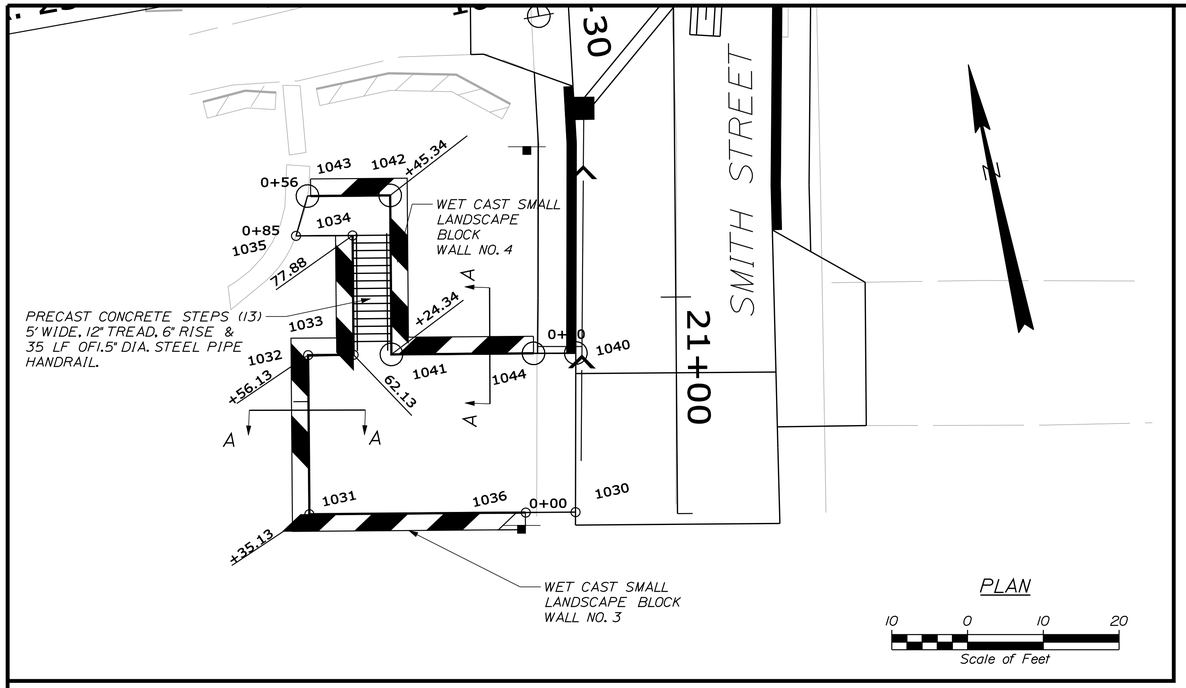
WALL ELEVATIONS

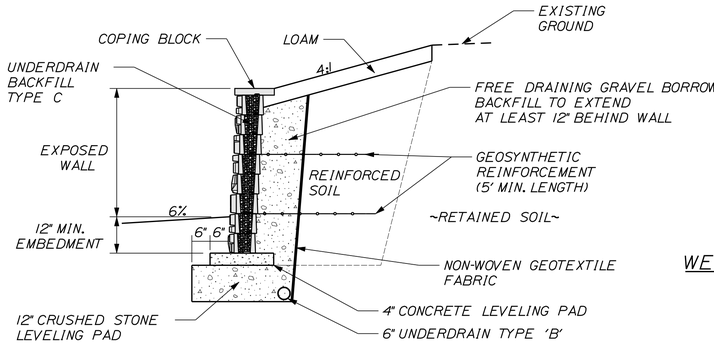
SHEET NUMBER

13

OF 68

Filename: ...\HIGHWAY\MSTA\013_Woll_01.dgn Division: HIGHWAY Username: jeason Date:7/10/2013

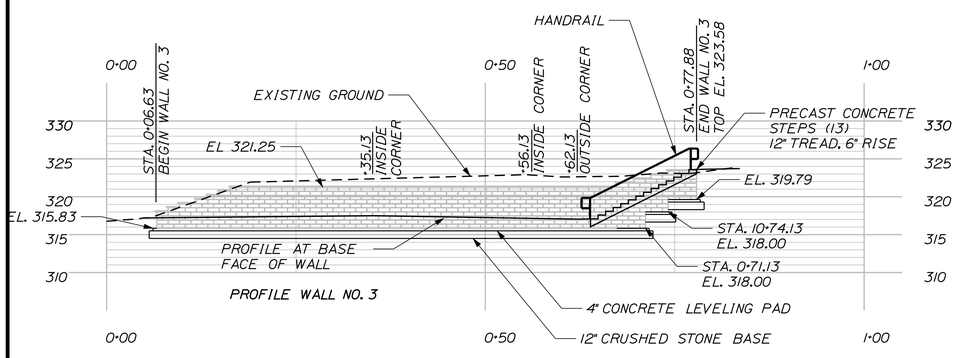




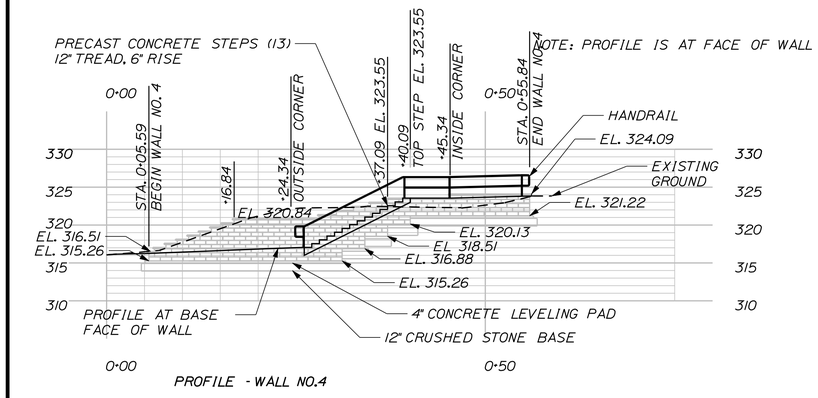
TYPICAL SECTION WET CAST SMALL LANDSCAPE BLOCK WALL A-A

NTS

1. THE CONTRACTOR SHALL PROVIDE A WET CAST SMALL LANDSCAPE BLOCK WALL INCLUDING GEOTECHNICAL DESIGN IN ACCORDANCE WITH SPECIAL PROVISION SECTION 635. THE WET CAST SMALL LANDSCAPE BLOCK WALL SHALL BE DESIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY.
2. THE WET CAST SMALL LANDSCAPE BLOCK WALL SHALL BE AN APPROVED SYSTEM FROM THE MAINEDOT QUALIFIED PRODUCTS LIST THAT MEETS THE REQUIREMENTS OF SPECIAL PROVISION 635.
3. BACKFILL AND FOUNDATION SOIL PARAMETERS FOR USE IN THE SUBMITTED DESIGN SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION SECTION 635.
4. THE APPLIED FACTORED BEARING PRESSURE FOR WET CAST SMALL LANDSCAPE BLOCK WALL SHALL NOT EXCEED 3 KSF FOR THE STRENGTH LIMIT STATE. THE FACTORED BEARING PRESSURE SHALL NOT EXCEED THE FACTORED BEARING RESISTANCE OF 5 KSF FOR THE SERVICE LIMIT STATE.
5. ALL EXPOSED BLOCK FACES SHALL BE FINISHED TO MATCH THE WALL FACE.
6. SMALL STONE/COBBLE FACE PATTERN OR COMPARABLE PATTERN (COLOR GRAY) APPROVED BY THE PROJECT MANAGER IS REQUIRED FOR PREFABRICATED RETAINING WALL BLOCKS.
7. PIPED DRAINAGE SHALL BE INCLUDED IN THE DESIGN OF THE WALLS. WALL DRAINAGE WILL BE INCIDENTAL TO CONSTRUCTION OF THE WALL.
8. A MINIMUM EMBEDMENT DEPTH OF 12" IS REQUIRED IN THE DESIGN AND CONSTRUCTION OF THE WET CAST SMALL LANDSCAPE BLOCK WALL.
9. THE FACE QUANTITY OF WET CAST SMALL LANDSCAPE BLOCK WALL WILL BE APPROVED BY APPROVAL OF THE SHOP DRAWINGS.



PROFILE WALL NO. 3



PROFILE - WALL NO.4

Horizontal Alignment Name: WALL 3

STATION	NORTHING	EASTING
POB (1030) 0+00.00	542156.4856 3	1129033.10397
POT (1036) 0+6.63	542157.83971	1129026.61246
PI (1031) 0+35.13	542163.65981	1128998.71070
Tangent Direction: N 78°13'02.9" W		
Tangent Length: 35.13		
PI (1032) 0+56.13	542184.21733	1129002.99884
Tangent Direction: N 11°46'57.1" E		
Tangent Length: 21.00		
PI (1033) 0+62.13	542182.99215	1129008.87242
Tangent Direction: S 78°13'02.9" E		
Tangent Length: 6.00		
PI (1034) 0+77.88	542198.41029	1129012.08853
Tangent Direction: N 11°46'57.1" E		
Tangent Length: 15.75		
POE (1035) 0+85.35	542199.93527	1129004.77774
Tangent Direction: N 78°13'02.9" W		
Tangent Length: 7.47		

Horizontal Alignment Name: WALL 4

STATION	NORTHING	EASTING
POB (1040) 0+00.00	542177.00084	1129037.59497
POT (1044) 0+05.59	542202.52869	1129018.05522
PI (1041) 0+24.34	542181.98621	1129013.77021
Tangent Direction: N 78°10'52.7" W		
Tangent Length: 24.34		
PI (1042) 0+45.34	542202.52869	1129018.05522
Tangent Direction: N 11°46'57.1" E		
Tangent Length: 21.00		
POE (1043) 0+56.24	542204.75778	1129007.36889
Tangent Direction: N 78°13'02.9" W		
Tangent Length: 10.90		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	JLE	7-13
DESIGN2-DETAILED2	ALG	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

WALL ELEVATIONS

SHEET NUMBER
14
OF 68

Filename: ...\HIGHWAY\MSTA\014_Wall_02.dgn Username: jeason Division: HIGHWAY Date:7/10/2013

ITEM 609.31 CURB TYPE 3, MOLD 1	
LOCATION	LENGTH
STA. 101+00.0, 22.1' RT. TO STA. 104+20.0, 27.8' RT.	320.0'

ITEM 609.31 CURB TYPE 3, MOLD 2	
LOCATION	LENGTH
STA. 101+00.0, 19.1' LT. TO STA. 101+64.6, 43.1' LT.	176.0'
STA. 102+00.8, 42.0' LT. TO STA. 104+00.0, 32.5' LT.	206.6

ITEM 609.31 CURB TYPE 3, MOLD 3	
LOCATION	LENGTH
STA. 104+50.0, 29.0' RT. TO STA. 106+31.0, 28.2' RT.	181.6'
STA. 104+00, 32.5' LT. TO STA. 105+62.4, 39.2' LT.	162.0'

ITEM 606.23 GUARDRAIL, TYPE 3C	
LOCATION	LENGTH
STA. 104+25.0, 33.4' LT. TO STA. 105+50.0, 38.7' LT.	125.0'
STA. 104+56.25, 29.0' RT. TO ST.A 105+87.5, 29.0' RT.	131.25'

ITEM 527.303, ENERGY ABSORBING SYSTEM - ET PLUS
LOCATION
STA. 105+50.0, 38.7' LT. TO STA. 105+64.1, 67.7' LT.
STA. 104+00.0, 33.1' LT TO ST.A 104+25.0, 33.4' LT.

ITEM 606.258 CABLE RELEASING TERMINAL ANCHORAGE
LOCATION
STA. 104+56.25, 29.0' RT. TO STA. 104+56.55, 52.9' RT.
STA. 105+50.0, 38.7' LT. TO STA. 105+64.1, 59.5' LT.

ITEM 606.259 ANCHORAGE ASSEMBLY
LOCATION
STA. 104+56.55, 52.9' RT. TO STA. 104+61.1, 59.8' RT.
STA. 105+64.1, 59.5' LT. TO STA. 15+64.1, 67.8' LT.

DRIVEWAYS AND ENTRANCES		
LOCATION	DESCRIPTION	CURB OPENING
STA. 101+82.8 LT.	36.1' PAVED ENTR.	36.1'
STA. 104+11.6 RT.	13.7' PAVED DRIVE	30.0'

CURVE DATA

PI = 106+42.05
D = 0° - 34' - 22.6"
Δ = 2° - 49' - 21.9" Lt.
R = 10000.00'
L = 492.66'
T = 246.38'
E = 3.03'

CURVE DATA

PI = 99+99.78
D = 0° - 45' - 50.2"
Δ = 2° - 21' - 01.7" Rt.
R = 7500.00'
L = 307.68'
T = 153.86'
E = 1.58'

ITEM 201.23 REMOVING TREE AND ITEM 201.24 REMOVING STUMP		
LOCATION	TREE DESC.	STUMP SIZE
STA. 100+82.1, 44.2' RT.	44" ELM	44"
STA. 101+08.1, 43.2' RT.	38" ELM	38"
STA. 103+53.4, 35.7' RT.	30" ELM	30"
STA. 103+77.5, 48.6' RT.	14" MAPLE	14"
STA. 103+93.0, 41.8' RT.	14" MAPLE	14"

PLAIN RIPRAP - ITEM 610.08
LOCATION
104+17 LT.
104+19 RT.
104+75 LT.
104+75 RT.
105+37 LT.
105+61 RT.

EROSION CONTROL BLANKET ITEM 613.319
STA. 100+00 RT. TO STA. 102+78 RT.
STA. 103+50 RT. TO 104+69 RT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-4270(10)X
WIN 4270.10
HIGHWAY PLANS

	DATE	BY
SIGNATURE		
7960	7-13	JLE
P.E. NUMBER	7-13	
July 3rd, 2013		
DATE		

PROJ. MANAGER	ERNIE MARTIN
DESIGN-DETAILED	JLE
CHECKED-REVIEWED	ALG
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

AUGUSTA
WESTERN AVE, RTE 202
PLANS

SHEET NUMBER
15
OF 68

Filename: ...\HIGHWAY\MSTA\015_HDPlan1.dgn Division: HIGHWAY Username: jeason Date:7/15/2013

SHUMAN FAMILY LLC
POR 9
TA = 6.33± AC.(SURVEY)

CURVE DATA

PI = 106+42.05
D = 0° - 34' - 22.6"
Δ = 2° - 49' - 21.9" Lt.
R = 10000.00'
L = 492.66'
T = 246.38'
E = 3.03'

DRIVEWAYS AND ENTRANCES		
LOCATION	DESCRIPTION	CURB OPENING
STA. 105+97.4 LT.	42.0' PAVED ENTR.	59.0'
STA. 106+59.9 RT.	42.0' PAVED ENTR.	52.0'
STA. 109+70.8 RT.	42.0' PAVED ENTR.	50.0'
STA. 111+72.6 LT.	46.3' PAVED DRIVE	108.8'
STA. 111+75.3. RT.	44.7' PAVED DRIVE	119.3'

LEE FARM MALL CONDOMINIUM ASSOCIATION, INC.

SHUMAN FAMILY LLC

SHUMAN FAMILY LLC
POR 14

SHUMAN AVE.

PT = STA. 108+88.32

LEVEL SPREADER
24 LF X 18" OPT III
MAINT.
TEMP. CONST. LIMITS
CONST. & EASE LTS.
CRT ANCHORAGE
R 15'
12" TYPE 'C' UD
18" TYPE 'C' UD
6' TYPE 'B' UD
REMOVE
REMOVE CB
FLUSH CONCRETE ISLAND
15" OPT III PIPE (BY OTHERS)
POC STA. 108+34.35 = STA. 10+00.00
WESTERN AVE (RTE 202/11/17/100)
RAISED ISLAND
HMA RAMP WITH DETECTABLE WARNING FIELD (DWF)
HB-AUG-102 (C)
HB-AUG-103 (C)
HB-AUG-104 (C)
HB-AUG-105 (C)
HB-AUG-106 (C)
HB-AUG-111(C)
106+00
107+00
108+00
109+00
110+00
111+00
112+00
S78°22'43.7"E
86°44'52.0"
S8°40'41.6"W
14 LF X 12" RCP
80 LF X 15" RCP
REM MH
REM CB
ET-PLUS ENERGY ABSORBING UNIT
GUARDRAIL, TYPE 3C
20 LF X 24" OPT III PIPE
LEVEL SPREADER
3' X 4' BOX CULVERT EXTENSION
LIMIT OF CLEARING
DRAIN. EASE. LTS.
TEMP. CONST. LTS.
RESERVED LIMIT LINE
DAVID A. GOVE
NOTE: RESERVED LIMITS SIGN AND USE THEREOF WITHIN AREA INDICATED RESERVED TO OWNER UNTIL 9/4/13.
STA. 10+80 END FULL RECONSTRUCTION
STA. 10+80 TO STA. 10+90 2" MILL, SHIM AND 1.5" HMA OVERLAY
STA. 11+00 LIMIT OF WORK MATCH EXISTING SECTION
29 LF X 12" OPT III
28 LF X 12" RCP
13 LF X 12" OPT III
2 LF X 12" OPT III
ARTELISSA A. BISSON
JEFFREY C. BISSON
BRANN AVE.
SHUMAN FAMILY SECOND LLC
2 STORY TAN
PROPOSED RETAINING WALL NO. 1
4 LF X 12" OPT III
8 LF X 10" PVC
84 LF X 48" CP OPT III
NANCY LANE
DWF
NOTE: RESERVED LIMITS USE OF AREA INDICATED RESERVED TO OWNER UNTIL 9/30/13.
NOTE: RESERVED LIMITS USE OF AREA INDICATED RESERVED TO OWNER UNTIL 9/4/13.
CENTER OF ROCKWOOD BROOK
P.L.
CONST. LIMITS
TEMP.
R 62.5'
R 30'
R 10'
R 6'
R 5'
LEE FARM MALL
CHARLIES
MITSUBISHI MOTORS
CANDLEWICK COTTAGE
SECURITY NOTICE
PAVED
DEAD END
MERGE
DO NOT PASS
METER BOX
NANCY LANE
SHUMAN AVE.
8 IN MAIN
12" PCP
24" PCP
6" CHERRY
2" MAPLE
4" MAPLE
6" MAPLE
8" MAPLE
16" MAPLE
18" MAPLE
20" MAPLE
26" MAPLE
36" ASH
12" PINE
16" PINE
18" PINE
24" PINE
14" SPRUCE
488 BLUE
WOOD 5
2" CHERRY
8" PVC
10" PVC
12" PVC
12" X 24"
209/1355/100
209/1358/98
99S/1356
1354/101
903/1359
97/1358
1358S

ITEM 609.31 CURB TYPE 3, MOLD 1

LOCATION	LENGTH
STA. 10+54.4, 14.0' RT. TO STA. 10+80.0, 14.0' RT.	25.5'
STA. 10+59.5, 14.0' LT. TO STA. 10+80.0, 14.0' LT.	20.5'

WALKS

LOCATION	DESCRIPTION
STA. 10+54.4 RT. TO STA. 10+80.0 RT.	5' PAVED
STA. 10+59.5 LT. TO STA. 10+80.0 LT.	5' PAVED
STA. 111+25.6' LT.	6' PAVED LANDING
STA. 111+27.1 RT.	6' PAVED LANDING

DETECTABLE WARNING FIELD (ITEM 608.26)

LOCATION	AREA
STA. 111+25.6' LT.	8 SF
STA. 111+27.1 RT.	8 SF

ITEM 201.23 REMOVING TREE AND ITEM 201.24 REMOVING STUMP

LOCATION	TREE DESC.	STUMP SIZE
STA. 107+43.6, 20.8' RT.	12" MAPLE	12"
STA. 107+61.0, 20.9' RT.	12" MAPLE	12"
STA. 107+94.3, 19.3' RT.	14" MAPLE	14"
STA. 108+00.5, 16.8' RT.	16" MAPLE	16"
STA. 108+82.0, 32.2' RT.	16" MAPLE	16"
STA. 109+19.92 32.0' RT.	16" MAPLE	16"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	DATE	BY
SIGNATURE		
7960	7-13	JLE
P.E. NUMBER	7-13	
July 3rd, 2013		
DATE		

PROJ. MANAGER: ERNIE MARTIN
DESIGN-DETAILED: JLE
CHECKED-REVIEWED: ALG
DESIGN2-DETAILED2:
DESIGN3-DETAILED3:
REVISIONS 1
REVISIONS 2
REVISIONS 3
REVISIONS 4
FIELD CHANGES

AUGUSTA
WESTERN AVE, RTE 202

PLANS

SHEET NUMBER
16
OF 68

Filename: ...\HIGHWAY\MSTA\016_HDPlan2.dgn Division: HIGHWAY Username: jeason Date:7/15/2013

Date:7/15/2013 Username: jeason Division: HIGHWAY Filename: ...\HIGHWAY\MSTA\017_HDPlan3.dgn

RELOCATE EXISTING VORTECHS UNIT
REGRADE PARKING LOT TO NEW CATCH BASINS.
PAYMENT FOR RELOCATION TO BE MADE UNDER
LABOR AND EQUIPMENT RENTAL ITEMS.
FIELD VERIFY CONNECTION SIZE AND
PIPE TYPE TO EXISTING VORTECHS UNIT.
REPLACE IN KIND. PAYMENT FOR CONNECTIING
PIPE TO BE PAID UNDER ITEM NO. 603.159.

NOTE: RESERVED LIMITS
USE OF AREA INDICATED
RESERVED TO OWNER
UNTIL 9/30/13.

NOTE: RESERVED LIMITS
USE OF AREA INDICATED
RESERVED TO OWNER
UNTIL 9/4/13.

DRIVEWAYS AND ENTRANCES

LOCATION	DESCRIPTION	CURB OPENING
STA. 114+10.2 LT.	40' PAVED ENTR.	40.0'
STA. 115+95.9 LT.	29.5' PAVED ENTR.	29.5'
STA. 117+74.5 LT.	30.4' PAVED ENTR.	30.4
STA. 118+08.7 RT.	33.8' PAVED DRIVE	78.4'
STA. 20+61.0 RT.	11.5' PAVED DRIVE	22.1'
STA. 21+04.9 LT.	18.9' PAVED DRIVE	26.0'
STA. 21+18.0 RT.	20.0' PARKING AREA	---

ITEM 609.31 CURB TYPE 3, MOLD 1

LOCATION	LENGTH
STA. 20+72.1, 13.4' RT. TO STA. 21+08.3, 13.3' RT.	36.3'
STA. 20+56.3, 13.2' LT. TO STA. 20+91.2, 12.8' LT.	34.9

ITEM 609.31 CURB TYPE 3, MOLD 2

LOCATION	LENGTH
STA. 113+75.2, 44.0' LT. TO STA. 113+90.2, 58.4' LT.	56.8'
STA. 114+30.2, 29.0' LT. TO STA. 114+35.2, 44.0' LT.	54.5'
STA. 116+74.6, 40.0' RT. TO STA. 117+03.9, 40.0' RT.	29.3'
STA. 117+79.0, 32.0' RT. TO STA. 117+91.8, 63.0' RT.	35.6'
STA. 118+25.6, 63.0' RT. TO STA. 118+39.9, 32.0' RT.	35.6'

ITEM 201.23 REMOVING TREE AND ITEM 201.24 REMOVING STUMP

LOCATION	TREE DESC.	STUMP SIZE
STA. 112+56.6, 56.5' LT.	12" MAPLE	12"
STA. 113+25.9, 54.3' LT.	12" MAPLE	12"
STA. 115+45.6, 31.5' RT.	14" OAK	14"
STA. 116+38.0, 27.9' RT.	24" MAPLE	24"
STA. 117+07.4, 30.0' RT.	22" MAPLE	22"
STA. 118+84.6, 34.9' RT.	22" OAK	22"
STA. 119+32.9, 36.1' RT.	16" MAPLE	16"

DETECTABLE WARNING FIELD (ITEM 608.26)

LOCATION	AREA
STA. 115+R7.0 RT.	8 SF
STA. 116+10.0 RT.	8 SF

WALKS

LOCATION	DESCRIPTION
STA. 115+41.3 RT. TO STA. 21+07.3 RT.	5' PAVED
STA. 20+94.1 LT. TO STA. 117+79.0 RT.	5' PAVED
STA. 118+40.0 RT. TO STA. 119+88.3 RT.	5' PAVED
STA 20+89 RT.	5' PAVED LANDING

ITEM 642.17 CAST-IN-PLACE CONCRETE STEPS

LOCATION	DESCRIPTION
STA. 20+91.3 RT. TO STA. 21+04.3 RT.	13 STEPS

ITEM 507.0841 STEEL PIPE HAND RAIL

LOCATION	DESCRIPTION
STA. 20+91.3 RT. TO STA. 21+04.3 RT.	13 STEPS

CURVE DATA

PI = 120+89.12
D = 3° - 49' - 11.0"
Δ = 18° - 00' - 00.3" Rt.
R = 1500.00'
L = 471.26'
T = 237.59'
E = 18.70'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	JLE ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE 7960
P.E. NUMBER
July 3rd, 2013
DATE

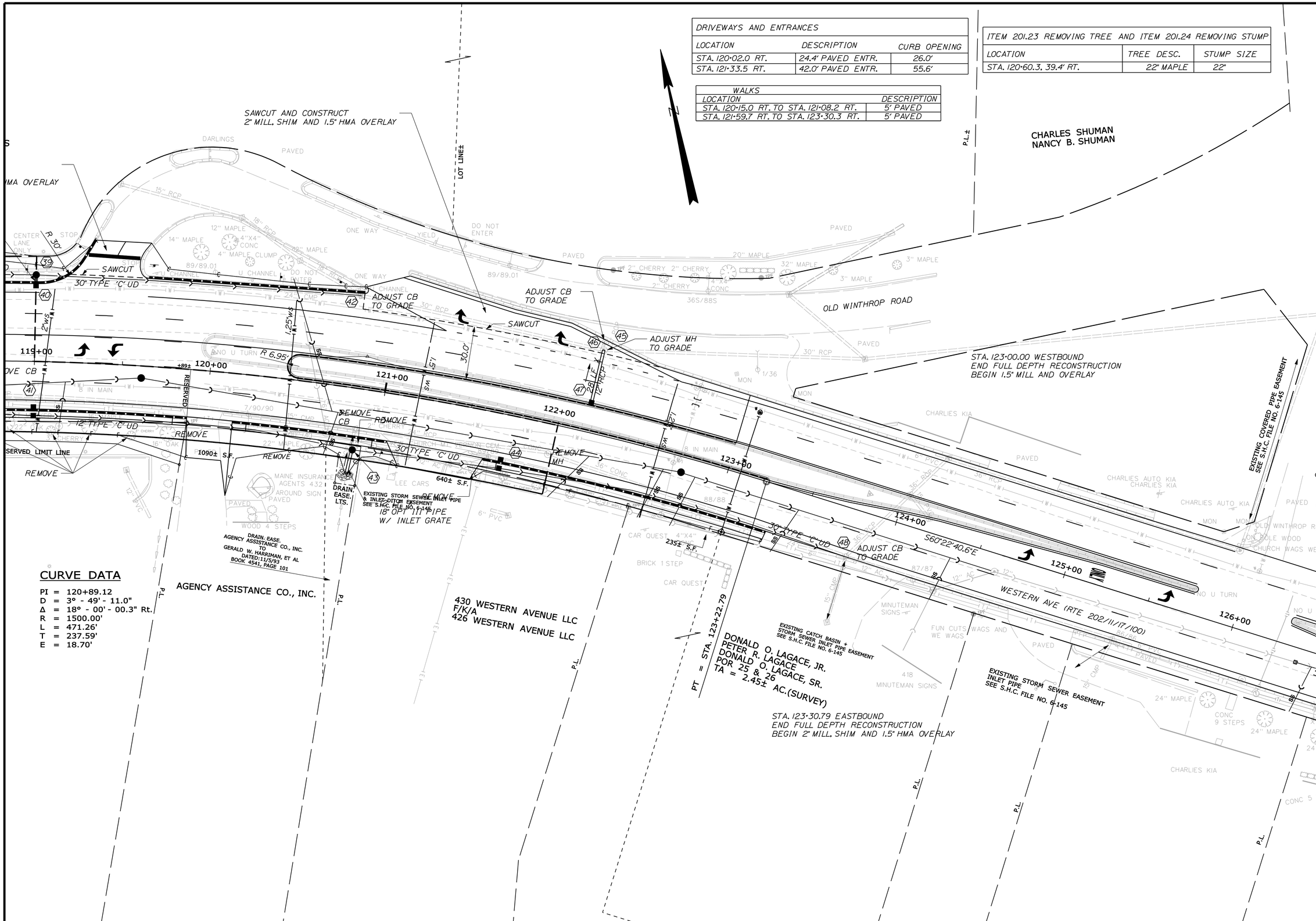
AUGUSTA
WESTERN AVE, RTE 202

PLANS

DRIVEWAYS AND ENTRANCES		
LOCATION	DESCRIPTION	CURB OPENING
STA. 120+02.0 RT.	24.4' PAVED ENTR.	26.0'
STA. 121+33.5 RT.	42.0' PAVED ENTR.	55.6'

WALKS	
LOCATION	DESCRIPTION
STA. 120+15.0 RT. TO STA. 121+08.2 RT.	5' PAVED
STA. 121+59.7 RT. TO STA. 123+30.3 RT.	5' PAVED

ITEM 201.23 REMOVING TREE AND ITEM 201.24 REMOVING STUMP		
LOCATION	TREE DESC.	STUMP SIZE
STA. 120+60.3, 39.4' RT.	22" MAPLE	22"



CURVE DATA

PI = 120+89.12
D = 3° - 49' - 11.0"
Δ = 18° - 00' - 00.3" Rt.
R = 1500.00'
L = 471.26'
T = 237.59'
E = 18.70'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

PLANS

SHEET NUMBER
18
OF 68

Filename: ...\HIGHWAY\MSTA\018_HDPlan4.dgn Division: HIGHWAY Username: jeason Date:7/15/2013

Filename: ...\HIGHWAY\MSTA\019_HDPlan_05.dgn Username: jeoson Division: HIGHWAY Date:7/15/2013

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

PLANS

SHEET NUMBER

19

OF 68

OLD WINTHROP ROAD

STA. 123+00.00 WESTBOUND
END FULL DEPTH RECONSTRUCTION
BEGIN 1.5" MILL AND OVERLAY

EXISTING COVERED PIPE EASEMENT
SEE S.H.C. FILE NO. 6-145

CHARLIES KIA
CHARLIES AUTO KIA
PAVED
ANTIQUE SHOP
CONC 3 STEPS
24" MAPLE
12" MAPLE TWIN
9" MAPLE
CAMPBELLS ANTIQUES
405 YELLOW
CONC 5 STEPS
408
CONC 9 STEPS
16" MAPLE
22" MAPLE CONC
18" MAPLE
8" MAPLE CLUMP
HARD WOOD
WOOD 1 STEP
400 BLUE
CONC 8 STEPS
GRANITE HILL MOTEL
HARD WOOD EDISON ST.
5/.5
84.1
65.01
85/85
87/87
83/83
1PF
12" MAPLE
3" MAPLE
32" MAPLE
30" RCP
36" RCP
15" CMP
12" AC
12" PVC
12 IN MAIN
1" POLAR
CONC
CPORT CREDIT UNION
2" CHERRY
SUPER 8
2X3 ROCK
PAVED
ELECTRIC
DO NOT ENTER
STOP
ONE WAY
NO U TURN
DO NOT ENTER
PAVED C PORT BANK NEW
MON
MON OLD WINTHROP ROAD
JOHN COLE WOOD
CHURCH WAGS WE WAGS FUN CUTS
MAPLE CLUMP
MINUTEMAN SIGNS
418
FUN CUTS WAGS AND WE WAGS
P.L.±
P.L.

124+00
125+00
126+00
127+00
128+00
129+00
130+00

30" TYPE C.U.D.
ADJUST CB TO GRADE
S60°22'40.6"E

WESTERN AVE (RTE 202/11/17/100)

EXISTING CATCH BASIN + STORM SEWER INLET PIPE EASEMENT
SEE S.H.C. FILE NO. 6-145

EXISTING STORM SEWER EASEMENT
INLET PIPE
SEE S.H.C. FILE NO. 6-145

O. LAGACE, JR.
LAGACE
O. LAGACE, SR.
± 26 AC.(SURVEY)

STA. 123+30.79 EASTBOUND
END FULL DEPTH RECONSTRUCTION
BEGIN 2" MILL, SHIM AND 1.5" HMA OVERLAY

CHILDRENS FUTURE ENTERPRISES

STA. 123+00 TO STA. 130+00
MILL AND OVERLAY 1.5" HMA

STANLEY C. KOSKI

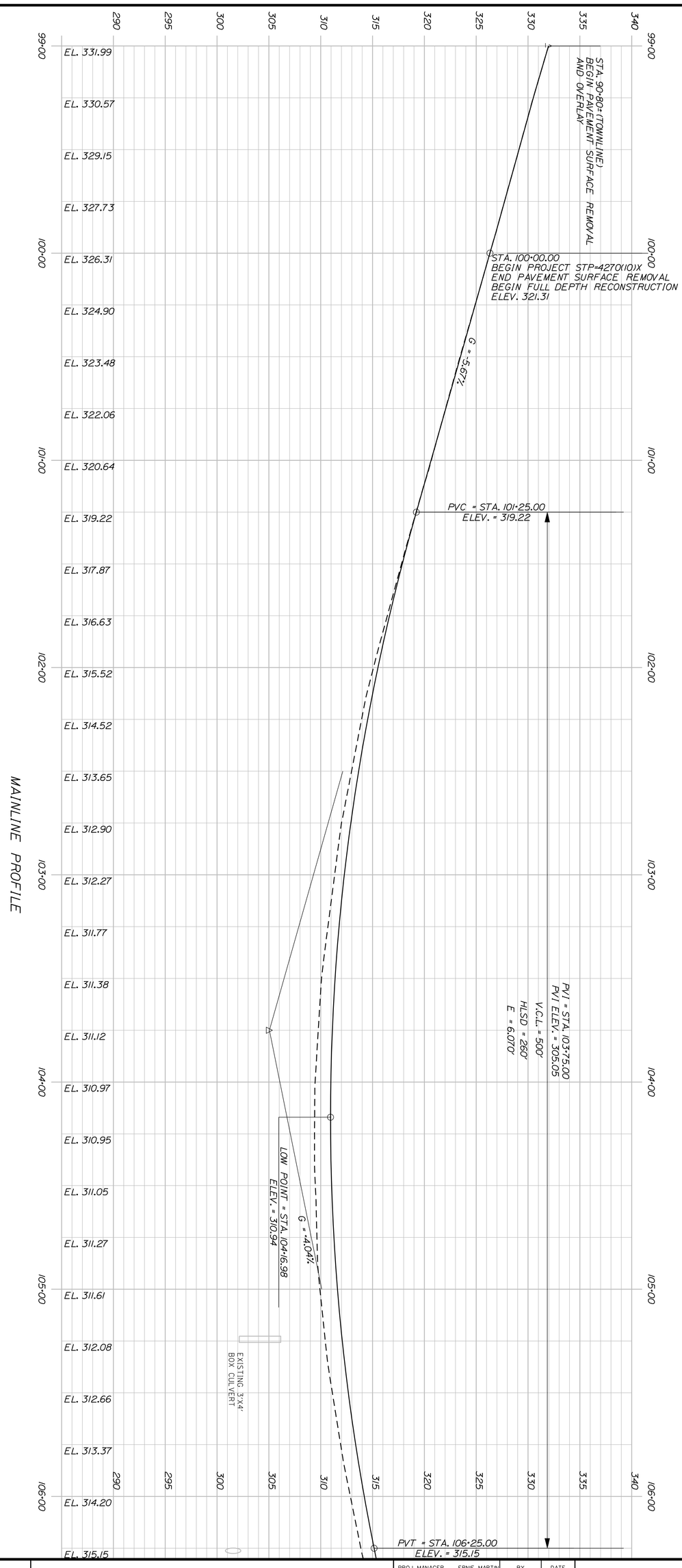
STA. 123+30.79 TO STA. 130+00.00 EASTBOUND
MILL AND OVERLAY 1.5" HMA

TO AUGUSTA

EDISON DRIVE

STA. 130+00.00
END 1.5" MILL AND HMA OVERLAY
END PROJECT STP-4270(10)X
MATCH EXISTING SECTION

N



PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

SHEET NUMBER 20 OF 68

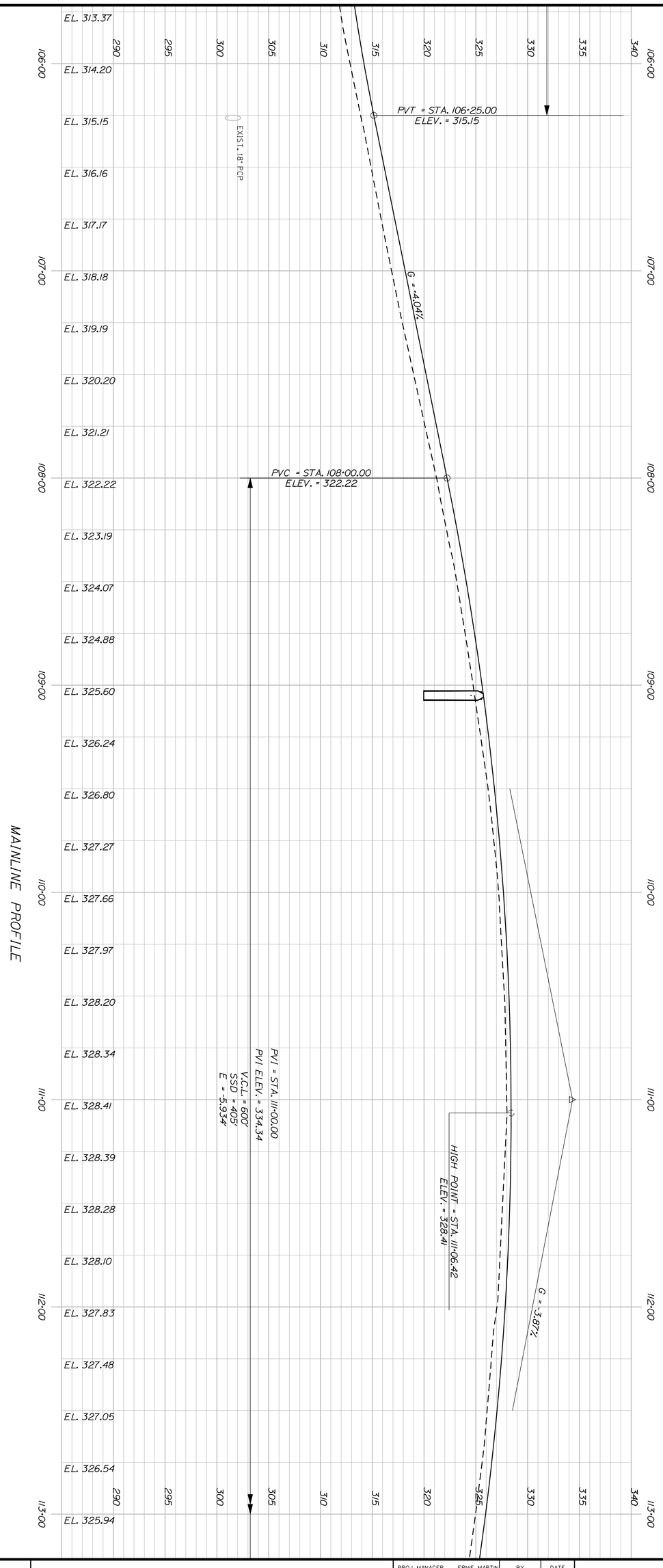
AUGUSTA
WESTERN AVE, RTE 202

PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10 HIGHWAY PLANS



PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

SHEET NUMBER 21 OF 68

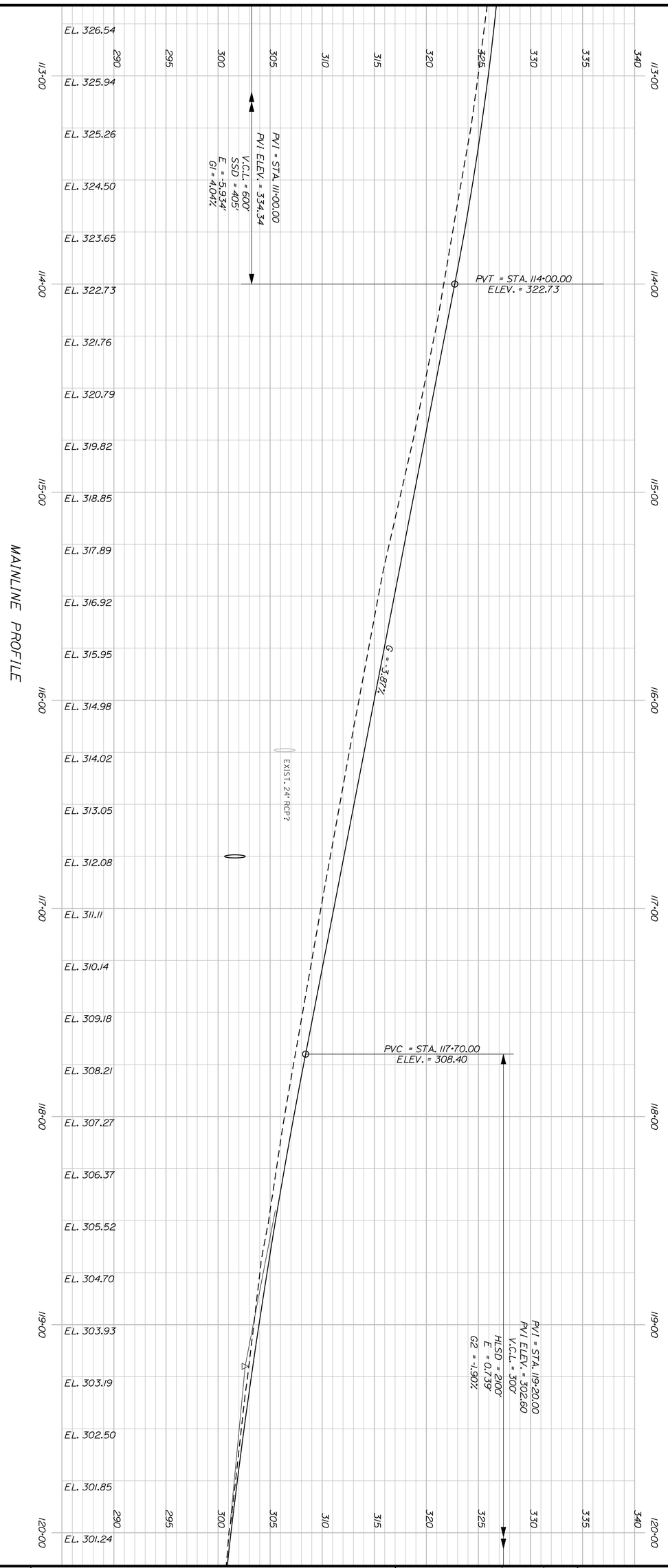
AUGUSTA
WESTERN AVE, RTE 202

PROFILE

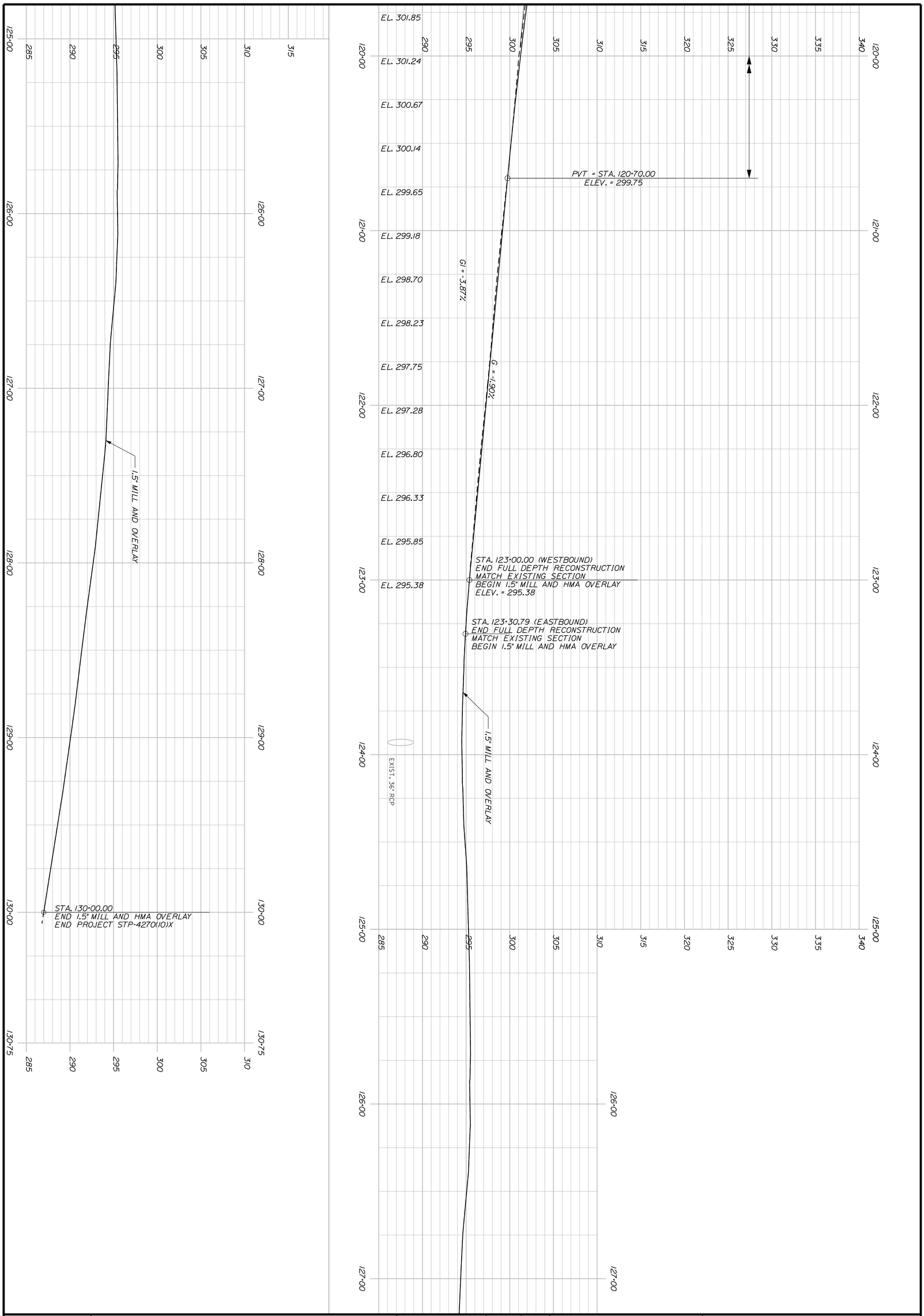
STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10 HIGHWAY PLANS



SHEET NUMBER 22 OF 68	AUGUSTA WESTERN AVE, RTE 202 PROFILE	PROJ. MANAGER ERNIE MARTIN / BY / DATE DESIGN-DETAILED JLE JLE 7-13 CHECKED-REVIEWED ALG 7-13 DESIGN2-DETAILED2 DESIGN3-DETAILED3 REVISIONS 1 REVISIONS 2 REVISIONS 3 REVISIONS 4 FIELD CHANGES	SIGNATURE 7960 P.E. NUMBER July 3rd, 2013 DATE	STATE OF MAINE DEPARTMENT OF TRANSPORTATION STP-4270(10)X WIN 4270.10 HIGHWAY PLANS



SHEET NUMBER 23 OF 68

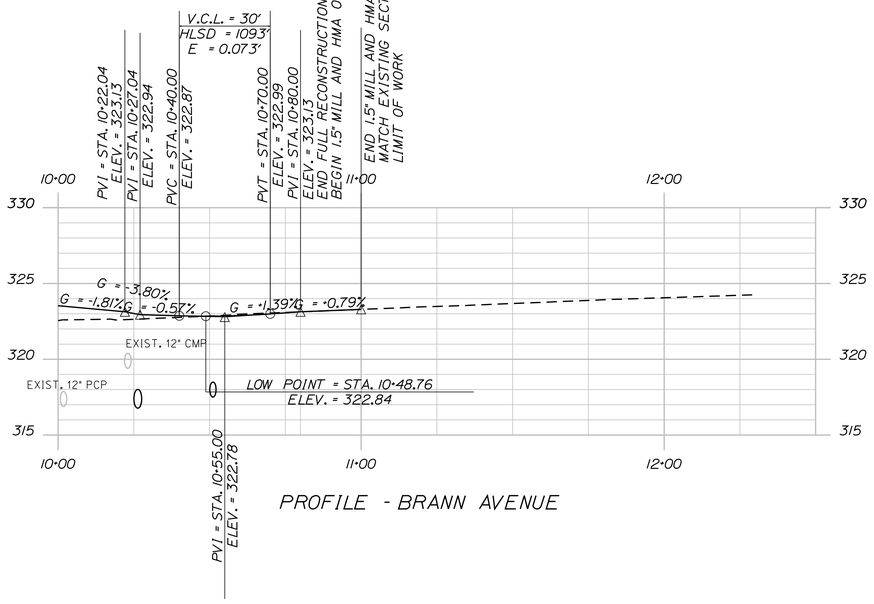
AUGUSTA
WESTERN AVE, RTE 202

PROFILE

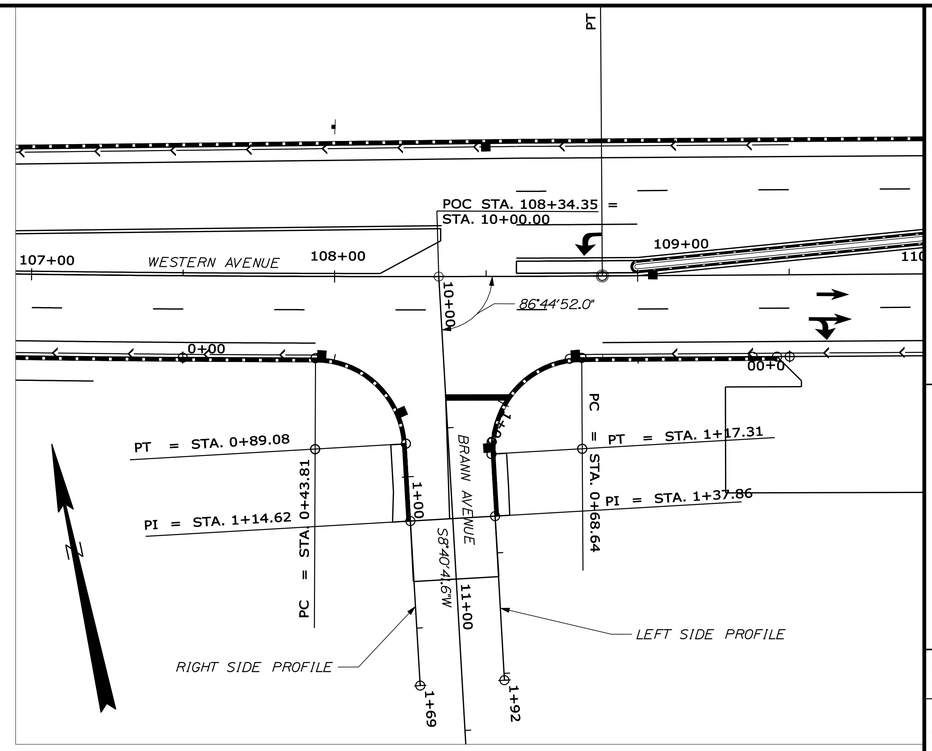
	PROJ. MANAGER ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

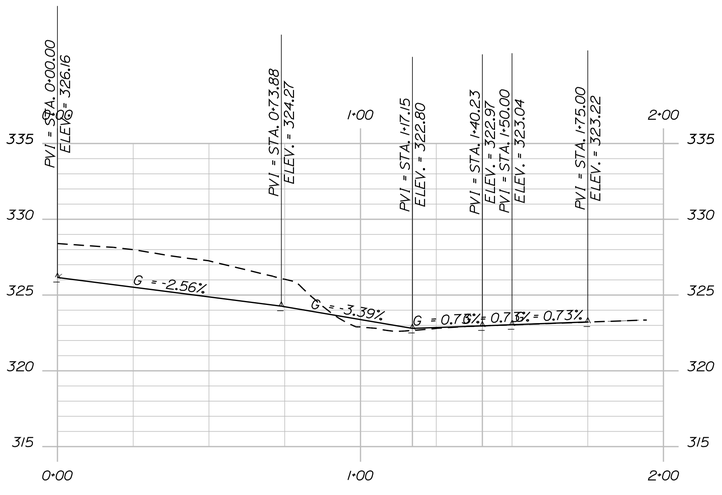
SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-4270(10)X
WIN 4270.10
HIGHWAY PLANS

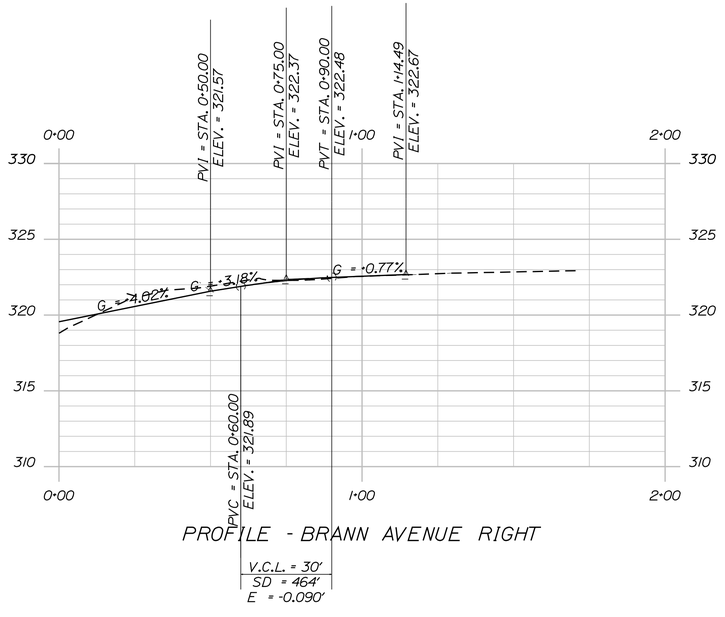


PROFILE - BRANN AVENUE





PROFILE - BRANN AVENUE LEFT



PROFILE - BRANN AVENUE RIGHT

Horizontal Alignment Name: brann left

	STATION	NORTHING	EASTING
POB	0+00.00	542379.56574	1128450.97442
PC	0+68.64	542393.41844	1128383.75022

Tangent Direction: N 78°21'22.3" W
Tangent Length: 68.64

PI	1+00.23	542399.79503	1128352.80601
CC		542364.03581	1128377.69542
PT	1+17.31	542368.56237	1128348.03888

Radius: 30.00
Delta: 92°57'56.0" Left
Length: 48.68
Tangent: 31.59
External: 13.57

PI	1+37.86	542348.25360	1128344.93909

Tangent Direction: S 8°40'41.7" W
Tangent Length: 20.54

POE	1+92.08	542294.66327	1128336.70039

Tangent Direction: S 8°44'23.7" W
Tangent Length: 54.22

Horizontal Alignment Name: brann right

	STATION	NORTHING	EASTING
POB	0+00.00	542420.84922	1128254.99048
PC	0+43.81	542411.56801	1128297.81101

Tangent Direction: S 77°46'13.8" E
Tangent Length: 43.81

PI	0+72.01	542405.59532	1128325.36705
CC		542382.24880	1128291.45616
PT	0+89.08	542377.72223	1128321.11270

Radius: 30.00
Delta: 86°26'55.4" Right
Length: 45.26
Tangent: 28.20
External: 11.17

PI	1+14.62	542352.47840	1128317.25966

Tangent Direction: S 8°40'41.7" W
Tangent Length: 25.54

POE	1+69.00	542298.69939	1128309.14552

Tangent Direction: S 8°34'48.1" W
Tangent Length: 54.39

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	SIGNATURE
	7960
	P.E. NUMBER
	July 3rd, 2013
	DATE

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	JLE	7-13
DESIGN2-DETAILED2	ALG	
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

AUGUSTA
BRANN AVENUE

PROFILE

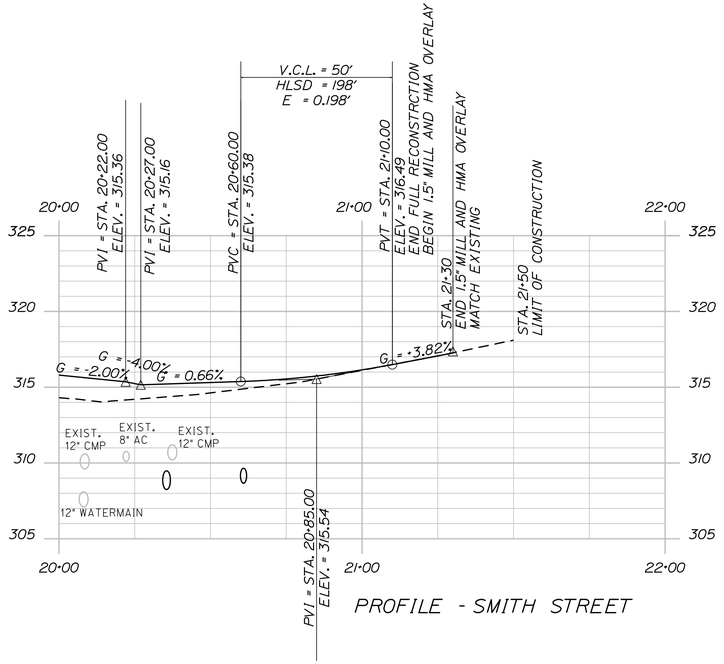
SHEET NUMBER

24

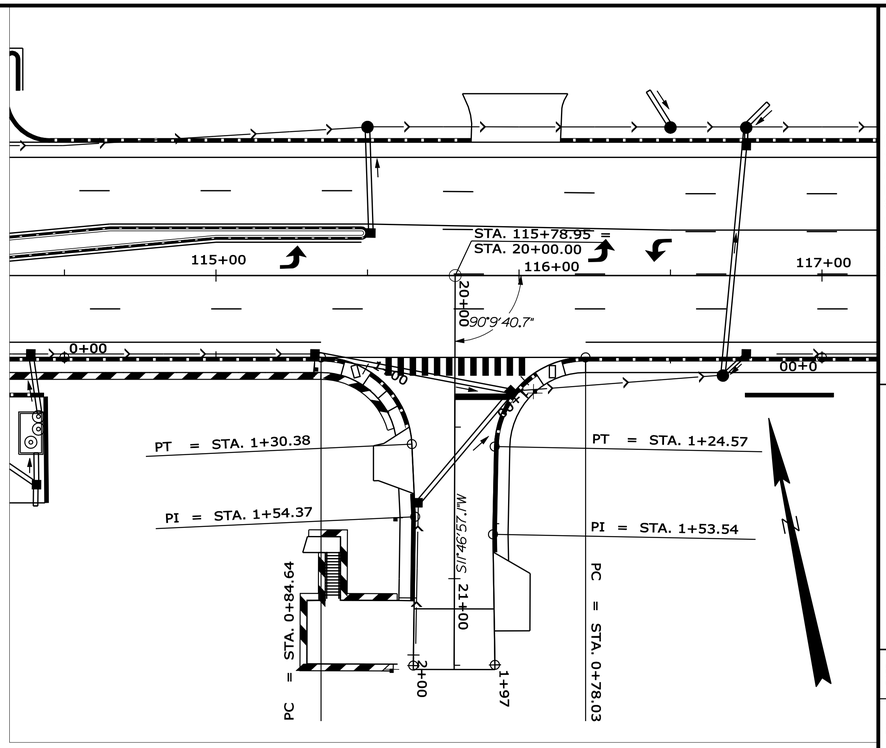
OF 68

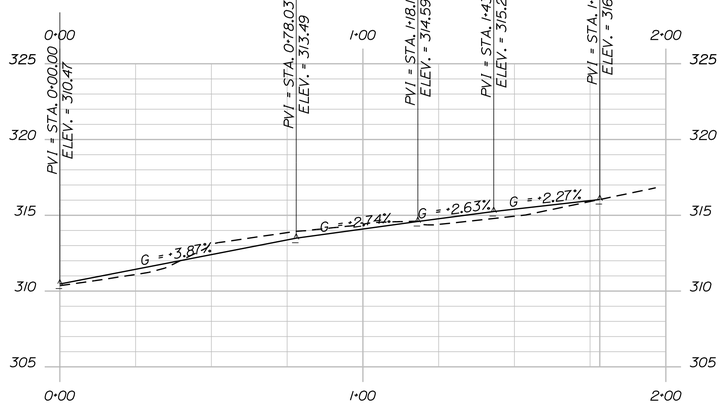
Filename: ...\MSTA\024_Profile_05.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

Filename: ...\MSTA\025_Profile_06.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

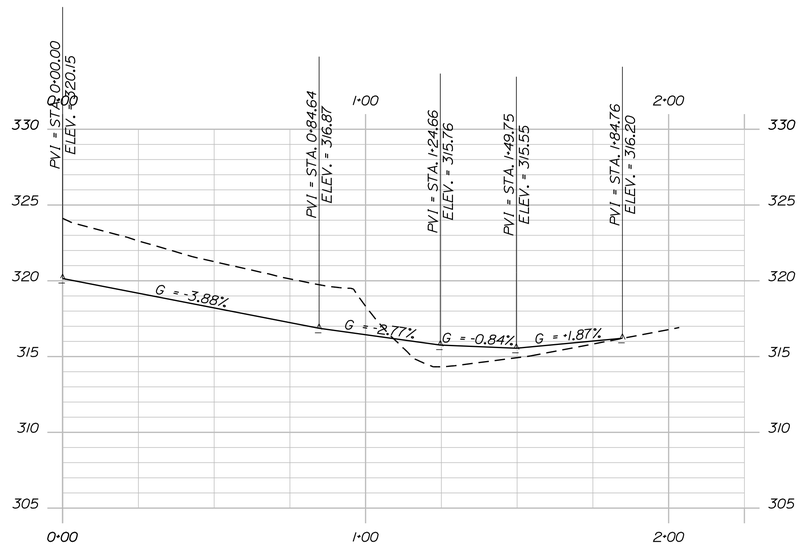


PROFILE - SMITH STREET





PROFILE SMITH STREET LEFT



PROFILE - SMITH STREET RIGHT

Horizontal Alignment Name: smith left

STATION	NORTHING	EASTING
POB 0+00.00	542228.48539	1129185.59999
PC 0+78.03	542244.20317	1129109.17255

Tangent Direction: N 78°22'43.7" W
Tangent Length: 78.03

PI 1+07.45	542250.13083	1129080.34942
CC	542214.81815	1129103.12934
PT 1+24.57	542221.42750	1129073.86645

Radius: 30.00
Delta: 88°53'37.9" Left
Length: 46.55
Tangent: 29.43
External: 12.02

PI 1+53.54	542193.16819	1129067.48377

Tangent Direction: S 12°43'38.4" W
Tangent Length: 28.97

POE 1+96.63	542150.83802	1129059.43335

Tangent Direction: S 10°46'04.9" W
Tangent Length: 43.09

Horizontal Alignment Name: smith rightt

STATION	NORTHING	EASTING
POB 0+00.00	542278.84551	1128940.72480
PC 0+84.64	542261.78804	1129023.66645

Tangent Direction: S 78°22'43.7" E
Tangent Length: 84.68

PI 1+13.29	542256.01762	1129051.72498
CC	542232.40302	1129017.62323
PT 1+30.38	542227.72264	1129047.25589

Radius: 30.00
Delta: 87°21'15.6" Right
Length: 45.74
Tangent: 28.65
External: 11.48

PI 1+54.37	542204.03172	1129043.51399

Tangent Direction: S 8°58'31.9" W
Tangent Length: 23.98

POE 2+03.49	542156.04213	1129033.00559

Tangent Direction: S 12°21'04.5" W
Tangent Length: 49.13

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

AUGUSTA
SMITH STREET

PROFILE

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Horizontal Alignment Name: granite curb 1

	STATION	NORTHING	EASTING
PC	(100)	0+00.00	542435.55803	1128189.21851
PI	( )	0+04.00	542434.67195	1128193.11913
CC	(101)		552213.44302	1130410.41056
PCC	(102)	0+08.00	542433.78897	1128197.02046

Radius: 10027.00
Delta: 0°02'44.6" Left
Degree of Curvature(Arc): 0°34'17.1"
Length: 8.00
Tangent: 4.00
External: 0.0008

PI	( )	0+59.59	542422.40078	1128247.33810
CC	(101)		552213.44302	1130410.41056
PRC	(103)	1+11.18	542411.53096	1128297.77025

Radius: 10027.00
Delta: 0°35'22.5" Left
Degree of Curvature(Arc): 0°34'17.1"
Length: 103.18
Tangent: 51.59
External: 0.13

PI	( )	1+13.18	542411.10895	1128299.72826
CC	(104)		542382.20441	1128291.44940
PCC	(105)	1+15.18	542410.43038	1128301.61278

Radius: 30.00
Delta: 7°38'22.0" Right
Length: 4.00
Tangent: 2.00
External: 0.07

PI	( )	1+30.86	542405.11805	1128316.36632
CC	(104)		542382.20441	1128291.44940
PCC	(106)	1+44.08	542389.97197	1128320.42637

Radius: 30.00
Delta: 55°11'29.6" Right
Length: 28.90
Tangent: 15.68
External: 3.85

PI	( )	1+46.08	542388.03587	1128320.94536
CC	(104)		542382.20441	1128291.44940
PCC	(107)	1+48.08	542386.04793	1128321.20217

Radius: 30.00
Delta: 7°38'42.4" Right
Length: 4.00
Tangent: 2.00
External: 0.07

PI	( )	1+52.26	542381.90807	1128321.73696
CC	(104)		542382.20441	1128291.44940
PT	(108)	1+56.38	542377.77947	1128321.12127

Radius: 30.00
Delta: 15°50'34.0" Right
Length: 8.30
Tangent: 4.17
External: 0.29

PC	(109)	1+84.83	542368.53757	1128348.03508

Tangent Direction: S 71°02'53.2" E
Tangent Length: 28.46

PI	( )	1+86.84	542370.51779	1128348.33730
CC	(110)		542364.01141	1128377.69171
PCC	(111)	1+88.83	542372.44025	1128348.90011

Radius: 30.00
Delta: 7°38'24.4" Right
Length: 4.00
Tangent: 2.00
External: 0.07

Horizontal Alignment Name: granite curb 1

	STATION	NORTHING	EASTING
PI	( )	2+13.00	542395.63232	1128355.68966
CC	(110)		542364.01141	1128377.69171
PCC	(112)	2+29.52	542393.93757	1128379.79564

Radius: 30.00
Delta: 77°42'14.2" Right
Length: 40.69
Tangent: 24.17
External: 8.52

PI	( )	2+31.52	542393.79710	1128381.79368
CC	(110)		542364.01141	1128377.69171
PT	(113)	2+33.52	542393.39226	1128383.75531

Radius: 30.00
Delta: 7°38'22.0" Right
Length: 4.00
Tangent: 2.00
External: 0.07

PI	(114)	2+89.97	542382.01844	1128439.04820

Tangent Direction: S 78°22'34.8" E
Tangent Length: 56.45

PI	(115)	2+97.97	542380.40692	1128446.88420

Tangent Direction: S 78°22'43.7" E
Tangent Length: 8.00

PI	(116)	3+47.97	542370.33489	1128495.85924

Tangent Direction: S 78°22'43.7" E
Tangent Length: 50.00

PI	(117)	3+55.97	542368.72337	1128503.69525

Tangent Direction: S 78°22'43.7" E
Tangent Length: 8.00

PI	(118)	3+64.72	542366.95989	1128512.27014

Tangent Direction: S 78°22'43.7" E
Tangent Length: 8.75

PI	(119)	3+68.72	542366.15413	1128516.18815

Tangent Direction: S 78°22'43.7" E
Tangent Length: 4.00

PC	(120)	4+65.55	542346.64945	1128611.02932

Tangent Direction: S 78°22'43.7" E
Tangent Length: 96.83

PI	( )	4+67.55	542346.24597	1128612.99123
CC	(1002)		542317.26442	1128604.98610
PCC	(121)	4+69.55	542345.58526	1128614.88208

Radius: 30.00
Delta: 7°38'22.0" Right
Length: 4.00
Tangent: 2.00
External: 0.07

PI	( )	4+73.57	542344.25792	1128618.68073
CC	(1002)		542317.26442	1128604.98610
PCC	(122)	4+77.55	542341.97648	1128621.99534

Radius: 30.00
Delta: 15°16'43.9" Right
Length: 8.00
Tangent: 4.02
External: 0.27

PI	( )	4+80.56	542340.26987	1128624.47481
CC	(1002)		542317.26442	1128604.98610
PCC	(123)	4+83.55	542338.10467	1128626.56581

Radius: 30.00
Delta: 11°27'33.0" Right
Length: 6.00
Tangent: 3.01
External: 0.15

Horizontal Alignment Name: granite curb 1

	STATION	NORTHING	EASTING
PI	( )	4+87.57	542335.20946	1128629.36182
CC	(1002)		542317.26442	1128604.98610
PCC	(124)	4+91.55	542331.67965	1128631.29582

Radius: 30.00
Delta: 15°16'58.0" Right
Length: 8.00
Tangent: 4.02
External: 0.27

PI	( )	4+95.99	542327.78460	1128633.42993
CC	(1002)		542317.26442	1128604.98610
PT	(125)	5+00.37	542323.43830	1128634.34395

Radius: 30.00
Delta: 16°50'32.8" Right
Length: 8.82
Tangent: 4.44
External: 0.33

PC	(126)	5+07.53	542316.42866	1128635.81806

Tangent Direction: S 11°52'33.9" E
Tangent Length: 7.16

CC	(127)		542315.19389	1128629.94649
PT	(128)	5+26.38	542313.95911	1128624.07492

Radius: 6.00
Delta: 180°00'00.0" Left
Length: 18.85

PC	(129)	5+33.55	542320.96892	1128622.60077

Tangent Direction: N 11°52'33.9" W
Tangent Length: 7.16

PI	( )	5+36.11	542323.47661	1128622.07339
CC	(1002)		542317.26442	1128604.98610
PCC	(130)	5+38.64	542325.73750	1128620.86713

Radius: 18.00
Delta: 16°12'17.2" Left
Length: 5.09
Tangent: 2.56
External: 0.18

PI	( )	5+40.65	542327.50966	1128619.92162
CC	(1002)		542317.26442	1128604.98610
PCC	(131)	5+42.64	542329.02981	1128618.60872

Radius: 18.00
Delta: 12°44'04.5" Left
Length: 4.00
Tangent: 2.01
External: 0.11

PI	( )	5+45.55	542331.23309	1128616.70582
CC	(1002)		542317.26442	1128604.98610
PT	(132)	5+48.41	542332.72420	1128614.20540

Radius: 18.00
Delta: 18°22'28.7" Left
Length: 5.77
Tangent: 2.91
External: 0.23

PI	(133)	6+43.93	542351.96630	1128520.64101

Tangent Direction: N 78°22'43.7" W
Tangent Length: 95.52

PI	(133)	6+43.93	542351.96630	1128520.64101
PI	(134)	6+47.93	542352.77206	1128516.72301

Tangent Direction: N 78°22'43.7" W
Tangent Length: 4.00

POE	(135)	6+51.09	542353.40827	1128513.62944

Tangent Direction: N 78°22'43.7" W
Tangent Length: 3.16

Horizontal Alignment Name: granite curb 3

	STATION	NORTHING	EASTING
PC	(191)	0+00.00	542530.53483	1128145.88371
PI	( )	0+16.72	542514.59150	1128140.84807
CC	(192)		542526.01712	1128160.18722
PT	(193)	0+25.19	542511.30903	1128157.24236

Radius: 15.00
Delta: 96°12'23.3" Left
Length: 25.19
Tangent: 16.72
External: 7.46

PI	(194)	0+29.22	542510.51534	1128161.19864

Tangent Direction: S 78°39'22.5" E
Tangent Length: 4.04

PI	(195)	2+37.61	542469.60227	1128365.52819

Tangent Direction: S 78°40'38.5" E
Tangent Length: 208.3853

PI	(196)	2+41.61	542468.81690	1128369.45050

Tangent Direction: S 78°40'38.5" E
Tangent Length: 4.00

PC	(197)	5+05.29	542415.70690	1128627.72723

Tangent Direction: S 78°22'48.4" E
Tangent Length: 263.68

PI	( )	5+07.28	542415.30852	1128629.67445
CC	(198)		542445.09810	1128633.74039
PCC	(199)	5+09.26	542415.17050	1128631.65722

Radius: 30.00
Delta: 7°34'51.0" Left
Length: 3.97
Tangent: 1.99
External: 0.07

PI	( )	5+11.26	542415.03142	1128633.65535
CC	(198)		542445.09810	1128633.74039
PCC	(200)	5+13.26	542415.15920	1128635.65424

Radius: 30.00
Delta: 7°38'22.0" Left
Length: 4.00
Tangent: 2.00
External: 0.07

PI	( )	5+16.27	542415.35122	1128638.65815
CC	(198)		542445.09810	1128633.74039
PCC	(201)	5+19.26	542416.13621	1128641.56403

Radius: 30.00
Delta: 11°27'33.0" Left
Length: 6.00
Tangent: 3.01
External: 0.15

PI	( )	5+23.28	542417.18558	1128645.44867
CC	(198)		542445.09810	1128633.74039
PCC	(202)	5+27.26	542419.22154	1128648.91947

Radius: 30.00
Delta: 15°16'43.9" Left
Length: 8.00
Tangent: 4.0239
External: 0.2687

PI	( )	5+38.37	542424.84204	1128658.50102
CC	(198)		542445.09810	1128633.74039
PT	(203)	5+48.54	542435.34728	1128662.11155

Radius: 30.00
Delta: 40°38'13.5" Left
Length: 21.28
Tangent: 11.11
External: 1.99

PI	(204)	5+78.62	542463.79669	1128671.88924

Tangent Direction: N 18°58'01.9" E
Tangent Length: 30.08

Horizontal Alignment Name: RAISED ISLAND 1

	STATION	NORTHING	EASTING
POB	(308)	0+00.00	542421.02184	1128408.08746
PI	(400)	1+20.86	542407.58356	1128528.20031

Tangent Direction: S 83°36'58.6" E
Tangent Length: 120.86

PC	(401)	2+18.87	542387.84020	1128624.20256

Tangent Direction: S 78°22'43.9" E
Tangent Length: 98.01

CC	(402)		542385.88327	1128623.78960
PT	(403)	2+25.15	542383.92425	1128623.38669

Radius: 2.00
Delta: 179°42'21.7" Right
Length: 6.27
Tangent Direction: N 78°22'43.6" W
Tangent Length: 98.00

PC	(311)	4+43.65	542417.06386	1128407.63898

Tangent Direction: N 83°36'58.6" W
Tangent Length: 120.50

CC	(405)		542419.04285	1128407.86322
PT	(308)	4+49.91	542421.02184	1128408.08746

Radius: 2.00
Length: 6.26

Horizontal Alignment Name: FLUSH ISLAND 1

	STATION	NORTHING	EASTING
POB	(300)	0+00.00	542498.84447	1128067.43614
PI	(301)	0+50.09	542490.83289	1128116.88316

Tangent Direction: S 80°47'48.2" E
Tangent Length: 50.09

PI	(302)	2+84.84	542444.74474	1128347.05824

Tangent Direction: S 78°40'38.5" E
Tangent Length: 234.74

PI	(303)	2+88.84	542440.83087	1128346.23155

Tangent Direction: S 11°55'36.3" W
Tangent Length: 4.00

PC	(304)	3+11.54	542434.44793	1128324.44412

Tangent Direction: S 73°40'16.6" W
Tangent Length: 22.70

PI	( )	4+19.03	542456.87078	1128219.31539
CC	(305)		552194.24456	1130406.10614
PT	(306)	5+26.52	542481.55298	1128114.69406

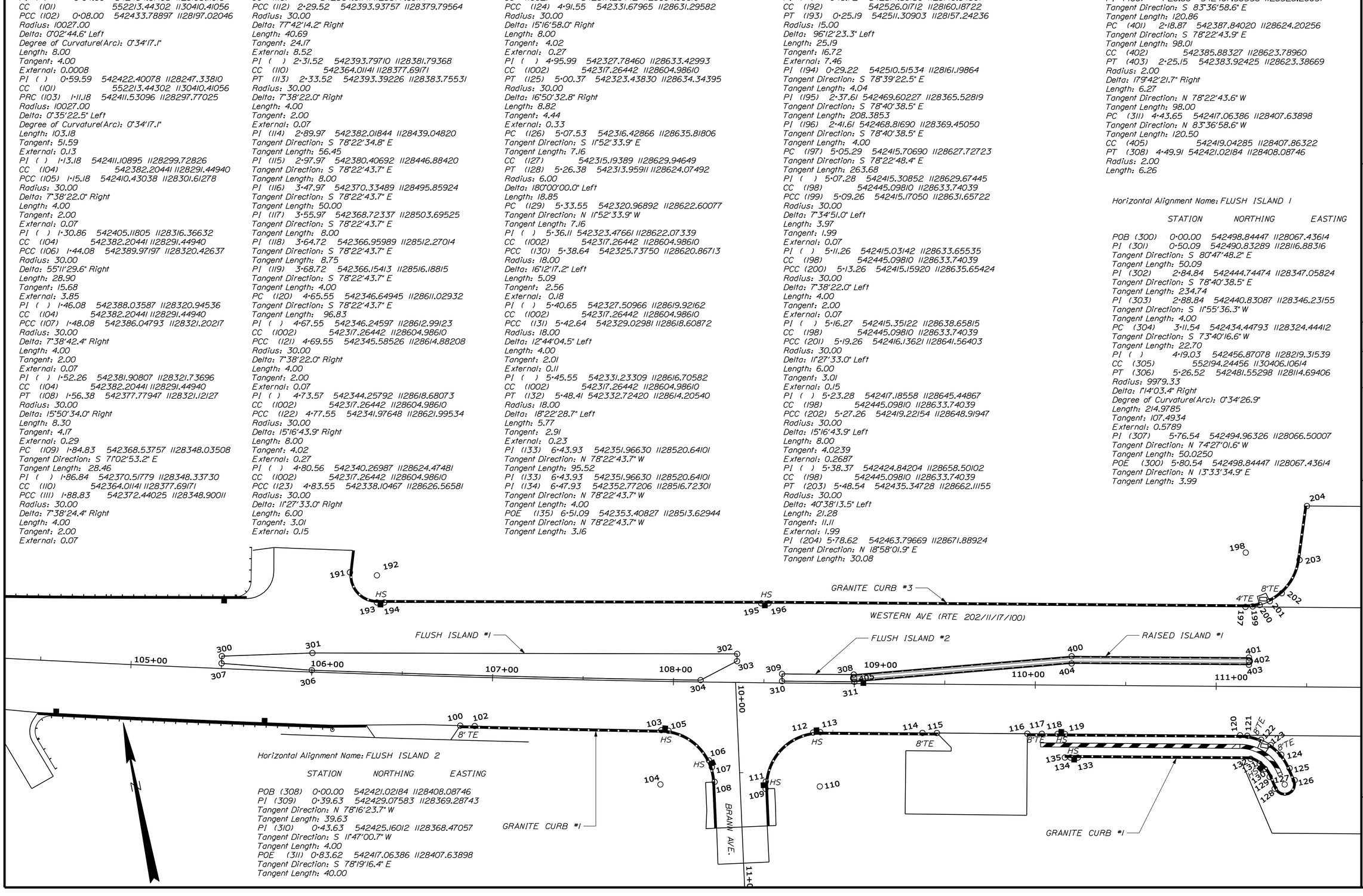
Radius: 9979.33
Delta: 1°14'03.4" Right
Degree of Curvature(Arc): 0°34'26.9"
Length: 214.9785
Tangent: 107.4934
External: 0.5789

PI	(307)	5+76.54	542494.96326	1128066.50007

Tangent Direction: N 74°27'01.6" W
Tangent Length: 50.0250

POE	(300)	5+80.54	542498.84447	1128067.43614

Tangent Direction: N 13°33'34.9" E
Tangent Length: 3.99



Horizontal Alignment Name: FLUSH ISLAND 2

	STATION	NORTHING	EASTING
POB	(308)	0+00.00	542421.02184	1128408.08746
PI	(309)	0+39.63	542429.07583	1128369.28743

Tangent Direction: N 78°16'23.7" W
Tangent Length: 39.63

PI	(310)	0+43.63	542425.16012	1128368.47057

Tangent Direction: S 11°47'00.7" W
Tangent Length: 4.00

POE	(311)	0+83.62	542417.06386	1128407.63898

Tangent Direction: S 78°19'16.4" E
Tangent Length: 40.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
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AUGUSTA
WESTERN AVE, RTE 202

GEOMETRIC LAYOUT PLAN

SHEET NUMBER
26
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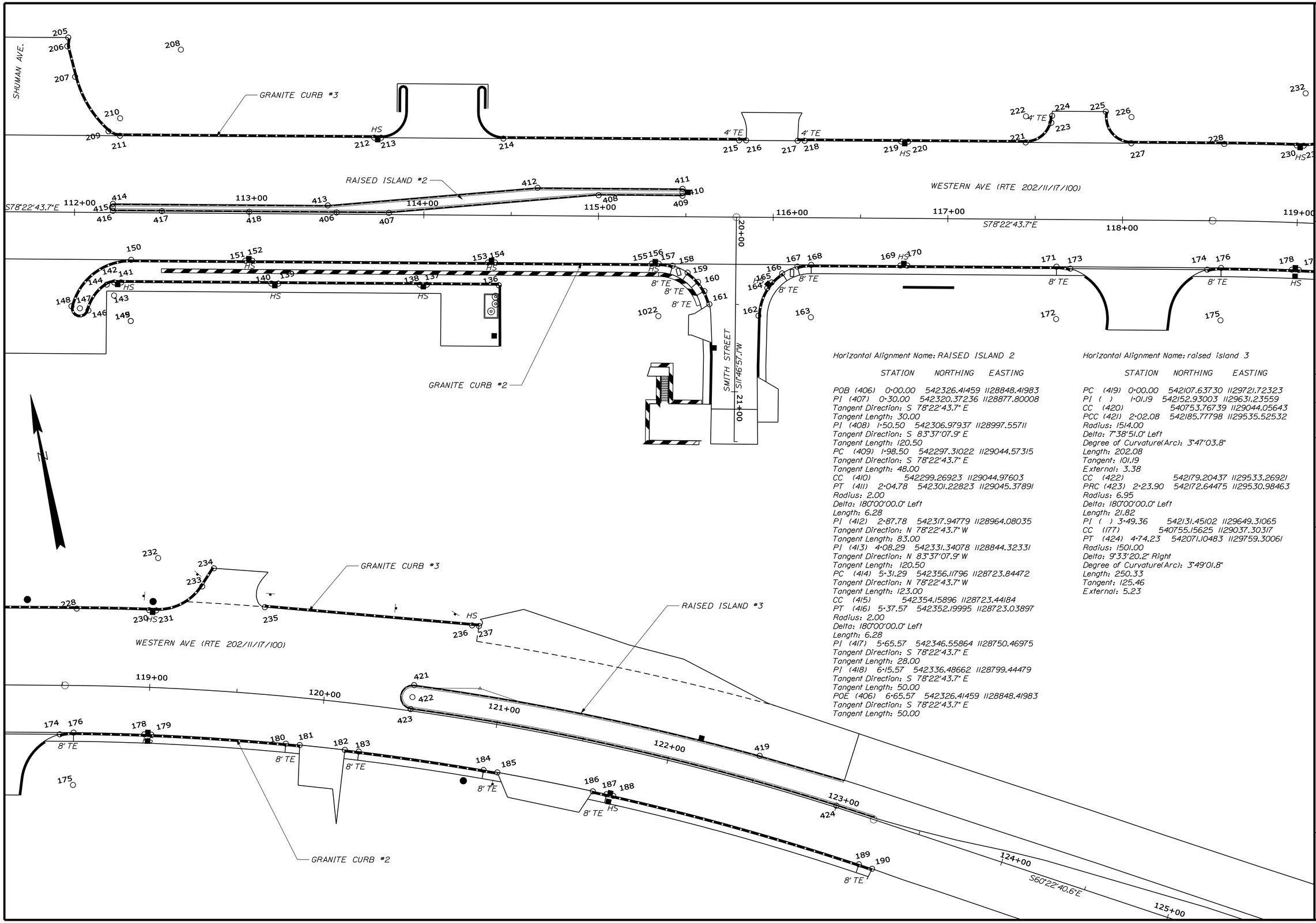
Date:7/5/2013
Usename: jeason
Division: HIGHWAY
Filename: ...\MSTA\026_Geometry_01.dgn

Filename: ...\MSTA\027_Geometry_02.dgn Username: jeason Division: HIGHWAY Date:7/5/2013



Horizontal Alignment Name: RAISED ISLAND 2

	STATION	NORTHING	EASTING
POB (406)	0+00.00	542326.41459	1128848.41983
PI (407)	0+30.00	542320.37236	1128877.80008
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 30.00			
PI (408)	1+50.50	542306.97937	1128997.55711
Tangent Direction: S 83°37'07.9" E			
Tangent Length: 120.50			
PC (409)	1+98.50	542297.31022	1129044.57315
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 48.00			
CC (410)		542299.26923	1129044.97603
PT (411)	2+04.78	542301.22823	1129045.37891
Radius: 2.00			
Delta: 180°00'00.0" Left			
Length: 6.28			
PI (412)	2+87.78	542317.94779	1128964.08035
Tangent Direction: N 78°22'43.7" W			
Tangent Length: 83.00			
PI (413)	4+08.29	542331.34078	1128844.32331
Tangent Direction: N 83°37'07.9" W			
Tangent Length: 120.50			
PC (414)	5+31.29	542356.11796	1128723.84472
Tangent Direction: N 78°22'43.7" W			
Tangent Length: 123.00			
CC (415)		542354.15896	1128723.44184
PT (416)	5+37.57	542352.19995	1128723.03897
Radius: 2.00			
Delta: 180°00'00.0" Left			
Length: 6.28			
PI (417)	5+65.57	542346.55864	1128750.46975
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 28.00			
PI (418)	6+15.57	542336.48662	1128799.44479
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 50.00			
POE (406)	6+65.57	542326.41459	1128848.41983
Tangent Direction: S 78°22'43.7" E			
Tangent Length: 50.00			

Horizontal Alignment Name: raised island 3

	STATION	NORTHING	EASTING
PC (419)	0+00.00	542107.63730	1129721.72323
PI ( )	1+01.19	542152.93003	1129631.23559
CC (420)		540753.76739	1129044.05643
PCC (421)	2+02.08	542185.77798	1129535.52532
Radius: 1514.00			
Delta: 7°38'51.0" Left			
Degree of Curvature(Arc): 3°47'03.8"			
Length: 202.08			
Tangent: 101.19			
External: 3.38			
CC (422)		542179.20437	1129533.26921
PRC (423)	2+23.90	542172.64475	1129530.98463
Radius: 6.95			
Delta: 180°00'00.0" Left			
Length: 21.82			
PI ( )	3+49.36	542131.45102	1129649.31065
CC (177)		540755.15625	1129037.30317
PT (424)	4+74.23	542071.10483	1129759.30061
Radius: 1501.00			
Delta: 9°33'20.2" Right			
Degree of Curvature(Arc): 3°49'01.8"			
Length: 250.33			
Tangent: 125.46			
External: 5.23			

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
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CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
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FIELD CHANGES		

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

PLANS

SHEET NUMBER

27

OF 68

Horizontal Alignment Name: granite curb 3

STATION	NORTHING	EASTING
PI (204)	5+78.62	542463.79669	1128671.88924
PI (205)	6+24.88	542454.47793	1128717.20155
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 46.26		
PI (206)	6+29.86	542449.72670	1128715.69766
Tangent Direction: S 17°33'50.1" W		
Tangent Length: 4.98		
PC (207)	6+47.92	542431.69443	1128716.70985
Tangent Direction: S 3°12'45.9" E		
Tangent Length: 18.06		
PI ( )	6+67.09	542412.55363	1128717.78425
CC (208)	542435.19715	1128779.11162
PCC (209)	6+85.13	542397.30730	1128729.40639
Radius: 62.50		
Delta: 34°06'18.7" Left		
Length: 37.20		
Tangent: 19.17		
External: 2.87		
PI ( )	6+88.87	542394.32904	1128731.67669
CC (210)	542403.36968	1128737.35923
PT (211)	6+92.29	542393.57467	1128735.34482
Radius: 10.00		
Delta: 41°03'39.0" Left		
Length: 7.17		
Tangent: 3.74		
External: 0.68		
PI (212)	8+37.82	542364.26008	1128877.88652
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 145.52		
PI (213)	8+41.82	542363.45431	1128881.80452
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PI (214)	9+11.82	542349.35348	1128950.36958
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 70.00		
PI (215)	10+46.75	542322.17285	1129082.53493
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 134.93		
PI (216)	10+50.75	542321.36709	1129086.45293
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PI (217)	10+80.25	542315.42483	1129115.34708
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 29.50		
PI (218)	10+84.25	542314.61906	1129119.26508
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PI (219)	11+39.57	542303.47419	1129173.45684
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 55.33		
PI (220)	11+43.57	542302.66843	1129177.37484
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PC (221)	12+10.83	542289.12020	1129243.25289
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 67.26		
PI ( )	12+22.58	542286.75380	1129254.75943
CC (222)	542303.81271	1129246.27450
PCC (223)	12+30.76	542297.35783	1129259.81461
Radius: 15.00		
Delta: 76°07'58.9" Left		
Length: 19.93		
Tangent: 11.75		
External: 4.05		
PI ( )	12+32.77	542299.17376	1129260.68030
CC (222)	542303.81271	1129246.27450
PT (224)	12+34.76	542301.15361	1129261.03692
Radius: 15.00		
Delta: 15°16'37.9" Left		
Length: 4.00		
Tangent: 2.01		
External: 0.13		
PC (225)	12+65.59	542297.51679	1129291.65222
Tangent Direction: S 83°13'32.0" E		
Tangent Length: 30.83		
PI ( )	12+83.93	542280.64361	1129284.47014
CC (226)	542291.64208	1129305.45395
PT (227)	12+92.15	542276.94957	1129302.43235
Radius: 15.00		
Delta: 101°26'09.0" Left		
Length: 26.56		
Tangent: 18.34		
External: 8.69		
PC (228)	13+45.39	542266.22406	1129354.58494
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 53.24		
PI ( )	13+66.15	542262.04328	1129374.91392
CC (229)	540753.87489	1129043.56086
PCC (230)	13+86.90	542257.31759	1129395.12318
Radius: 1544.00		
Delta: 1°32'24.9" Right		
Degree of Curvature(Arc): 3°42'39.1"		
Length: 41.51		
Tangent: 20.75		
External: 0.14		

Horizontal Alignment Name: granite curb 3

STATION	NORTHING	EASTING
PI ( )	13+88.90	542256.86218	1129397.07068
CC (229)	540753.87489	1129043.56086
PRC (231)	13+90.90	542256.40174	1129399.01700
Radius: 1544.00		
Delta: 0°08'54.4" Right		
Degree of Curvature(Arc): 3°42'39.1"		
Length: 4.00		
Tangent: 2.00		
External: 0.001		
PI ( )	14+07.98	542252.46910	1129415.64042
CC (232)	542285.59591	1129405.92353
PT (233)	14+21.96	542264.75814	1129427.50563
Radius: 30.00		
Delta: 59°18'54.5" Left		
Degree of Curvature(Arc): 190°59'09.4"		
Length: 31.06		
Tangent: 17.08		
External: 4.52		
PI (234)	14+34.30	542273.63973	1129436.08100
Tangent Direction: N 43°59'42.1" E		
Tangent Length: 12.35		
PI (235)	14+71.03	542246.12294	1129460.40255
Tangent Direction: S 41°28'22.2" E		
Tangent Length: 36.72		
PI (236)	15+90.09	542212.85360	1129574.72070
Tangent Direction: S 73°46'25.4" E		
Tangent Length: 119.0609		
POE (237)	15+94.09	542211.73588	1129578.56137
Tangent Direction: S 73°46'25.4" E		
Tangent Length: 4.00		

Horizontal Alignment Name: granite curb 2

STATION	NORTHING	EASTING
POB (136)	0+00.00	542267.48587	1128931.45276
PI (137)	0+41.21	542275.78649	1128891.09113
Tangent Direction: N 78°22'43.7" W		
Tangent Length: 41.21		
PI (138)	0+45.21	542276.59225	1128887.17313
Tangent Direction: N 78°22'43.7" W		
Tangent Length: 4.00		
PI (139)	1+26.21	542292.90893	1128807.83357
Tangent Direction: N 78°22'43.7" W		
Tangent Length: 81.00		
PI (140)	1+30.21	542293.71469	1128803.91557
Tangent Direction: N 78°22'43.7" W		
Tangent Length: 4.00		
PI (141)	2+16.21	542311.03857	1128719.67850
Tangent Direction: N 78°22'43.7" W		
Tangent Length: 86.00		
PC (142)	2+20.21	542311.84433	1128715.76050
Tangent Direction: N 78°22'43.7" W		
Tangent Length: 4.00		
PI ( )	2+22.51	542312.31200	1128713.50703
CC (143)	542304.50080	1128714.23649
PCC (144)	2+24.67	542311.43517	1128711.37911
Radius: 7.50		
Delta: 34°07'07.6" Left		
Length: 4.47		
Tangent: 2.30		
External: 0.35		
PI ( )	2+34.42	542307.76770	1128702.34245
CC (145)	542288.27105	1128720.78013
PCC (146)	2+43.27	542298.94971	1128698.17655
Radius: 25.00		
Delta: 42°37'22.7" Left		
Length: 18.60		
Tangent: 9.75		
External: 1.84		
CC (147)	542301.07231	1128693.64847
PRC (148)	2+58.98	542303.19484	1128689.12036
Radius: 5.00		
Delta: 180°00'03.1" Left		
Length: 15.71		
PI ( )	2+86.58	542328.18171	1128700.83283
CC (149)	542288.33940	1128720.81229
PT (150)	3+05.72	542322.62281	1128727.86288
Radius: 35.00		
Delta: 76°30'23.8" Right		
Length: 46.74		
Tangent: 27.60		
External: 9.57		
PI (151)	3+71.03	542309.46446	1128791.84068
Tangent Direction: S 78°22'40.8" E		
Tangent Length: 65.32		
PI (152)	3+75.03	542308.65870	1128795.75868
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PI (153)	5+09.95	542281.48106	1128927.90949
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 134.92		
PI (154)	5+13.95	542280.67529	1128931.82749
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		

Horizontal Alignment Name: granite curb 2

STATION	NORTHING	EASTING
PI (155)	6+03.71	542262.59380	1129019.74844
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 89.76		
PC (156)	6+07.71	542261.78804	1129023.66645
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PI ( )	6+11.74	542260.97747	1129027.60783
CC (1022)	542232.40302	1129017.62323
PCC (157)	6+15.71	542259.15692	1129031.19631
Radius: 30.00		
Delta: 15°16'43.9" Right		
Length: 8.00		
Tangent: 4.02		
External: 0.27		
Tangent Direction: S 78°22'43.7" E		
PI ( )	6+20.54	542256.97334	1129035.50038
CC (1022)	542232.40302	1129017.62323
PCC (158)	6+25.28	542253.55002	1129038.90243
Radius: 30.00		
Delta: 18°16'42.4" Right		
Length: 9.57		
Tangent: 4.83		
External: 0.39		
PI ( )	6+29.31	542250.69586	1129041.73886
CC (1022)	542232.40302	1129017.62323
PCC (159)	6+33.28	542247.19514	1129043.72291
Radius: 30.0		
Delta: 15°16'43.9" Right		
Length: 8.00		
Tangent: 4.02		
External: 0.27		
PI ( )	6+36.52	542244.38093	1129045.31788
CC (1022)	542232.40302	1129017.62323
PCC (160)	6+39.73	542241.29140	1129046.27627
Radius: 30.00		
Delta: 12°18'30.0" Right		
Length: 6.44		
Tangent: 3.23		
External: 0.17		
PI ( )	6+43.75	542237.44820	1129047.46846
CC (1022)	542232.40302	1129017.62323
PT (161)	6+47.73	542233.42667	1129047.60576
Radius: 30.00		
Delta: 15°16'43.9" Right		
Length: 8.00		
Tangent: 4.02		
External: 0.2687		
PC (162)	6+76.58	542221.52000	1129073.88750
Tangent Direction: S 65°37'39.4" E		
Tangent Length: 28.85		
PI ( )	6+85.25	542229.97047	1129075.82424
CC (163)	542214.81815	1129103.12934
PCC (164)	6+93.46	542236.08519	1129081.97011
Radius: 30.00		
Delta: 32°14'13.4" Right		
Length: 16.88		
Tangent: 8.67		
External: 1.23		
PI ( )	6+95.46	542237.49789	1129083.39001
CC (163)	542214.81815	1129103.12934
PCC (165)	6+97.46	542238.70930	1129084.98512
Radius: 30.0000		
Delta: 7°38'22.0" Right		
Length: 4.00		
Tangent: 2.00		
External: 0.067		
PI ( )	7+01.48	542241.14297	1129088.18962
CC (163)	542214.81815	1129103.12934
PCC (166)	7+05.46	542242.64618	1129091.92217
Radius: 30.00		
Delta: 15°16'43.9" Right		
Length: 8.00		
Tangent: 4.02		
External: 0.27		
PI ( )	7+10.29	542244.44915	1129096.39903
CC (163)	542214.81815	1129103.12934
PCC (167)	7+15.03	542244.75704	1129101.21549
Radius: 30.00		
Delta: 18°16'42.4" Right		
Length: 9.57		
Tangent: 4.83		
External: 0.39		
PI ( )	7+19.05	542245.01374	1129105.23117
CC (163)	542214.81815	1129103.12934
PT (168)	7+23.03	542244.20317	1129109.17255
Radius: 30.00		
Delta: 15°16'43.9" Right		
Length: 8.00		
Tangent: 4.02		
External: 0.27		
PI (169)	7+74.06	542233.92428	1129159.15347
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 51.03		

Horizontal Alignment Name: granite curb 2

STATION	NORTHING	EASTING
PI (170)	7+78.06	542233.11852	1129163.07147
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 4.00		
PC (171)	8+63.45	542215.91684	1129246.71435
Tangent Direction: S 78°22'43.7" E		
Tangent Length: 85.39		
PI ( )	8+67.47	542215.10627	1129250.65574
CC (172)	542186.53182	1129240.67113
PT (173)	8+71.45	542213.28573	1129254.24421
Radius: 30.00		
Delta: 15°16'43.9" Right		
Length: 8.00		
Tangent: 4.02		
External: 0.27		
PC (174)	9+49.84	542197.51096	1129331.03451
Tangent Direction: S 78°23'29.1" E		
Tangent Length: 78.39		
PI ( )	9+53.88	542197.75526	1129335.06435
CC (175)	542167.56593	1129332.84990
PCC (176)	9+57.87	542196.92554	1129339.01540
Radius: 30.0000		
Delta: 15°19'44.5" Right		
Length: 8.03		
Tangent: 4.04		
External: 0.27		
PI ( )	9+78.12	542192.77755	1129358.83711
CC (177)	540755.15625	1129037.30317
PCC (178)	9+98.37	542188.08620	1129378.53730
Radius: 1473.00		
Delta: 1°34'31.2" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 40.50		
Tangent: 20.25		
External: 0.14		
PI ( )	10+00.37	542187.62288	1129380.48290
CC (177)	540755.15625	1129037.30317
PCC (179)	10+02.37	542187.15428	1129382.42723
Radius: 1473.00		
Delta: 0°09'20.1" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 4.00		
Tangent: 2.00		
External: 0.001		
PI ( )	10+40.98	542178.10822	1129419.96136
CC (177)	540755.15625	1129037.30317
PCC (180)	10+79.57	542167.10832	1129456.97007
Radius: 1473.00		
Delta: 3°00'10.3" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 77.20		
Tangent: 38.61		
External: 0.51		
PI ( )	10+83.57	542165.96869	1129460.80430
CC (177)	540755.15625	1129037.30317
PCC (181)	10+87.57	542164.80826	1129464.63229
Radius: 1473.0000		
Delta: 0°18'40.2" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 8.00		
Tangent: 4.00		
External: 0.01		
PI ( )	11+00.57	542161.03671	1129477.07369
CC (177)	540755.15625	1129037.30317
PCC (182)	11+13.57	542157.04615	1129489.44659
Radius: 1473.00		
Delta: 1°00'40.8" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 26.00		
Tangent: 13.00		
External: 0.06		
PI ( )	11+17.57	542155.81833	1129493.25350
CC (177)	540755.15625	1129037.30317
PCC (183)	11+21.57	542154.56985	1129497.05368
Radius: 1473.0000		
Delta: 0°18'40.2" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 8.00		
Tangent: 4.00		
External: 0.01		
PI ( )	11+57.70	542143.29367	1129531.37673
CC (177)	540755.15625	1129037.30317
PCC (184)	11+93.81	542130.34840	1129565.10570
Radius: 1473.00		
Delta: 2°48'36.0" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 72.24		
Tangent: 36.13		
External: 0.44		
PI ( )	11+97.81	542128.91512	1129568.84011
CC (177)	540755.15625	1129037.30317
PCC (185)	12+01.81	542127.46159	1129572.56667
Radius: 1473.00		
Delta: 0°18'40.2" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 8.00		
Tangent: 4.00		
External: 0.01		

Horizontal Alignment Name: granite curb 2

STATION	NORTHING	EASTING
PI ( )	12+29.68	542117.33576	1129598.52722
CC (177)	540755.15625	1129037.30317
PCC (186)	12+57.54	542106.23531	1129624.08622
Radius: 1473.00		
Delta: 2°10'03.1" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 55.72		
Tangent: 27.87		
External: 0.26		
PI ( )	12+61.54	542104.64187	1129627.75514
CC (177)	540755.15625	1129037.30317
PCC (187)	12+65.54	542103.02852	1129631.41536
Radius: 1473.00		
Delta: 0°18'40.2" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 8.00		
Tangent: 4.00		
External: 0.01		
PI ( )	12+67.54	542102.22185	1129633.24547
CC (177)	540755.15625	1129037.30317
PCC (188)	12+69.54	542101.41022	1129635.07338
Radius: 1473.00		
Delta: 0°09'20.1" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 4.00		
Tangent: 2.00		
External: 0.001		
PI ( )	13+42.60	542071.75792	1129701.85408
CC (177)	540755.15625	1129037.30317
PCC (189)	14+15.55	542035.64217	1129765.37237
Radius: 1473.00		
Delta: 5°40'46.7" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 146.02		
Tangent: 73.07		
External: 1.81		
PI ( )	14+19.55	542033.66506	1129768.84960
CC (177)	540755.15625	1129037.30317
PT (190)	14+23.55	542031.66909	1129772.31604
Radius: 1473.00		
Delta: 0°18'40.2" Right		
Degree of Curvature(Arc): 3°53'23.0"		
Length: 8.00		
Tangent: 4.00		
External: 0.01		

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
ERNIE MARTIN		
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		
PROJ. MANAGER		

SIGNATURE

7960

P.E. NUMBER

July 3rd, 2013

DATE

AUGUSTA
WESTERN AVE, RTE 202

GEOMETRIC LAYOUT PLAN

SHEET NUMBER

28

OF 68

Filename: ...\MSTA\028_Geometry_03.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

CONTROL POINTS FOR FLUSH ISLANDS				
Point	Station	Offset	NORTHING	EASTING
300	105+50.00	-6.85	542498.84447	1128067.43614
301	106+00.00	-10.53	542490.83289	1128116.88316
302	108+35.00	-15.77	542444.74474	1128347.05824
303	108+35.00	-11.77	542440.83087	1128346.23155
304	108+15.00	-1.00	542434.44793	1128324.44412
305	107+11.02	-9980.32	552194.24456	1130406.10614
306	106+00.00	-1.00	542481.55298	1128114.69406
307	105+50.00	-2.86	542494.96325	1128066.50007
308	108+99.64	-4.97	542421.02184	1128408.08746
309	108+60.00	-5.00	542429.07583	1128369.28743
310	108+60.00	-1.00	542425.16012	1128368.47057
311	108+99.99	-1.00	542417.06387	1128407.63899

CONTROL POINTS FOR TYPE 5 GRANITE CURB				
Point	Station	Offset	NORTHING	EASTING
400	110+19.99	-16.00	542407.58356	1128528.20031
401	111+18.01	-16.00	542387.84020	1128624.20256
402	111+18.00	-14.00	542385.88327	1128623.78960
403	111+18.00	-12.00	542383.92425	1128623.38669
404	110+20.00	-12.00	542403.66544	1128527.39565
405	108+99.82	-2.98	542419.04285	1128407.86322
406	113+50.00	-1.00	542326.41459	1128848.41983
407	113+80.00	-1.00	542320.37236	1128877.80007
408	115+00.00	-12.01	542306.97937	1128997.55711
409	115+48.00	-12.01	542297.31022	1129044.57315
410	115+48.00	-14.01	542299.26923	1129044.97603
411	115+48.00	-16.01	542301.22823	1129045.37891
412	114+65.00	-16.01	542317.94779	1128964.08035
413	113+45.00	-5.00	542331.34078	1128844.32331
414	112+22.00	-5.00	542356.11796	1128723.84472
415	112+22.00	-3.00	542354.15896	1128723.44184
416	112+22.00	-1.00	542352.19995	1128723.03897
417	112+50.00	-1.00	542346.55864	1128750.46975
418	113+00.00	-1.00	542336.48662	1128799.44479
419	122+50.00	-15.80	542107.63730	1129721.72323
420	123+29.34	1497.87	540753.76740	1129044.05643
421	120+49.96	-14.89	542185.77799	1129535.52532
422	120+50.00	-7.94	542179.20437	1129533.26921
423	120+50.00	-1.00	542172.64475	1129530.98463
424	123+00.00	-1.00	542071.10483	1129759.30062

CONTROL POINTS FOR TYPE 1 GRANITE CURB				
Point	Station	Offset	NORTHING	EASTING
100	106+82.87	27.00	542435.55803	1128189.21851
101	108+88.32	-10000.00	552213.44302	1130410.41056
102	106+90.84	27.00	542433.78897	1128197.02046
103	107+93.75	27.00	542411.53097	1128297.77025
104	107+93.75	57.00	542382.20441	1128291.44940
105	107+97.72	27.27	542410.43038	1128301.61278
106	108+20.32	43.34	542389.97197	1128320.42637
107	108+21.89	47.01	542386.04793	1128321.20217
108	108+23.52	55.12	542377.77947	1128321.12127
109	108+51.60	58.61	542368.53757	1128348.03508
110	108+81.39	57.00	542364.01141	1128377.69171
111	108+51.65	54.61	542372.44024	1128348.90011
112	108+77.41	27.27	542393.93757	1128379.79564
113	108+81.39	27.00	542393.39226	1128383.75531
114	109+37.82	27.00	542382.01844	1128439.04820
115	109+45.82	27.00	542380.40692	1128446.88420
116	109+95.82	27.00	542370.33489	1128495.85924
117	110+03.82	27.00	542368.72337	1128503.69525
118	110+12.57	27.00	542366.95989	1128512.27014
119	110+16.57	27.00	542366.15413	1128516.18815
120	111+13.40	27.00	542346.64945	1128611.02932
121	111+17.39	27.27	542345.58526	1128614.88208
122	111+25.08	29.37	542341.97648	1128621.99534
123	111+30.34	32.24	542338.10467	1128626.56581
124	111+36.27	37.58	542331.67965	1128631.29582
125	111+40.91	45.04	542323.43830	1128634.34395
126	111+43.77	51.61	542316.42866	1128635.81806
127	111+38.27	54.00	542315.19389	1128629.94649
128	111+32.76	56.39	542313.95911	1128624.07492
129	111+29.91	49.82	542320.96892	1128622.60078
130	111+27.25	45.50	542325.73750	1128620.86713
131	111+24.37	42.73	542329.02981	1128618.60872
132	111+19.32	40.00	542332.72420	1128614.20540
133	110+23.79	40.00	542351.96630	1128520.64101
134	110+19.79	40.00	542352.77206	1128516.72301
135	110+16.63	40.00	542353.40827	1128513.62944
136	114+43.20	39.99	542267.48587	1128931.45276
137	114+02.00	39.99	542275.78649	1128891.09113
138	113+98.00	39.99	542276.59225	1128887.17313
139	113+17.00	39.99	542292.90893	1128807.83357
140	113+13.00	39.99	542293.71469	1128803.91557
141	112+27.00	39.99	542311.03857	1128719.67850
142	112+23.00	39.99	542311.84434	1128715.76050
143	112+22.98	47.49	542304.50080	1128714.23649
144	112+18.79	41.28	542311.43517	1128711.37911
145	112+32.66	62.07	542288.27105	1128720.78013
146	112+08.37	56.17	542298.94971	1128698.17655
147	112+03.51	55.00	542301.07231	1128693.64847
148	111+98.64	53.83	542303.19484	1128689.12036
149	112+32.68	62.00	542288.33940	1128720.81229
150	112+32.68	27.00	542322.62281	1128727.86288
151	112+98.00	27.00	542309.46446	1128791.84068
152	113+02.00	27.00	542308.65870	1128795.75868
153	114+36.91	27.00	542281.48106	1128927.90949
154	114+40.91	27.00	542280.67530	1128931.82749
155	115+30.67	27.00	542262.59380	1129019.74845
156	115+34.67	27.00	542261.78804	1129023.66645
157	115+42.58	28.06	542259.15692	1129031.19631
158	115+51.26	32.00	542253.55002	1129038.90243
159	115+57.26	37.25	542247.19514	1129043.72291
160	115+60.95	42.52	542241.29140	1129046.27627
161	115+63.83	49.96	542233.42667	1129047.60576
162	115+91.98	56.33	542221.52001	1129073.88750
163	116+21.97	57.00	542214.81815	1129103.12934
164	115+96.96	40.43	542236.08519	1129081.97011
165	115+99.38	37.25	542238.70930	1129084.98512
166	116+05.39	32.00	542242.64618	1129091.92217
167	116+14.06	28.06	542244.75704	1129101.21549
168	116+21.97	27.00	542244.20317	1129109.17255
169	116+73.00	27.00	542233.92428	1129159.15347
170	116+77.00	27.00	542233.11852	1129163.07147
171	117+62.39	27.00	542215.91684	1129246.71435
172	117+62.39	57.00	542186.53182	1129240.67114
173	117+70.29	28.06	542213.28573	1129254.24421
174	118+48.69	28.04	542197.51096	1129331.03451
175	118+56.69	57.00	542167.56593	1129332.84990
176	118+56.72	27.00	542196.92554	1129339.01540
177	118+51.53	1500.00	540755.15625	1129037.30317
178	118+97.96	27.00	542188.08620	1129378.53730
179	119+02.03	27.00	542187.15428	1129382.42723
180	119+80.65	27.00	542167.10832	1129456.97007
181	119+88.79	27.00	542164.80826	1129464.63229
182	120+15.27	27.00	542157.04615	1129489.44659
183	120+23.42	27.00	542154.56985	1129497.05368
184	120+96.98	27.00	542130.34840	1129565.10570
185	121+05.13	27.00	542127.46159	1129572.56667
186	121+61.87	27.00	542106.23531	1129624.08622
187	121+70.02	27.00	542103.02852	1129631.41536
188	121+74.09	27.00	542101.41022	1129635.07338
189	123+22.79	27.00	542035.64217	1129765.37237
190	123+30.79	27.02	542031.66909	1129772.31604

CONTROL POINTS FOR TYPE 1 GRANITE CURB				
Point	Station	Offset	NORTHING	EASTING
191	106+19.21	-55.82	542530.53483	1128145.88371
192	106+34.25	-54.66	542526.01712	1128160.18722
193	106+34.71	-39.67	542511.30903	1128157.24236
194	106+38.76	-39.79	542510.51534	1128161.19864
195	108+47.99	-43.90	542469.60227	1128365.52819
196	108+52.00	-43.93	542468.81690	1128369.45050
197	111+15.84	-44.01	542415.70690	1128627.72723
198	111+15.81	-74.01	542445.09810	1128633.74039
199	111+19.80	-44.27	542415.17050	1128631.65722
200	111+23.72	-45.07	542415.15920	1128635.65424
201	111+29.31	-47.21	542416.13621	1128641.56403
202	111+35.89	-51.72	542419.22154	1128648.91947
203	111+45.57	-70.17	542435.34729	1128662.11155
204	111+49.41	-100.01	542463.79669	1128671.88924
205	111+95.67	-100.01	542454.47793	1128717.20155
206	111+95.16	-95.05	542449.72670	1128715.69766
207	111+99.78	-77.59	542431.69443	1128716.70985
208	112+60.20	-93.59	542435.19715	1128779.11162
209	112+19.15	-46.47	542397.30730	1128729.40639
210	112+25.71	-54.01	542403.36968	1128737.35923
211	112+25.71	-44.01	542393.57467	1128735.34482
212	113+71.24	-44.01	542364.26008	1128877.88652
213	113+75.24	-44.01	542363.45432	1128881.80452
214	114+45.24	-44.01	542349.35348	1128950.36958
215	115+80.17	-44.01	542322.17285	1129082.53493
216	115+84.17	-44.01	542321.36709	1129086.45293
217	116+13.67	-44.01	542315.42483	1129115.34708
218	116+17.67	-44.01	542314.61907	1129119.26508
219	116+73.00	-44.01	542303.47419	1129173.45684
220	116+77.00	-44.01	542302.66843	1129177.37484
221	117+44.25	-44.01	542289.12020	1129243.25289
222	117+44.25	-59.01	542303.81271	1129246.27450
223	117+58.81	-55.41	542297.35783	1129259.81461
224	117+59.25	-59.37	542301.15361	1129261.03692
225	117+89.97	-61.98	542297.51679	1129291.65222
226	118+04.67	-59.01	542291.64208	1129305.45395
227	118+04.67	-44.01	542276.94957	1129302.43235
228	118+57.73	-44.02	542266.22406	1129354.58494
229	123+28.86	1498.02	540753.87489	1129043.56086
230	118+98.05	-44.19	542257.31758	1129395.12318
231	119+01.94	-44.21	542256.40174	1129399.01700
232	119+01.82	-74.21	542285.59591	1129405.92353
233	119+26.70	-59.22	542264.75814	1129427.50563
234	119+32.51	-69.97	542273.63973	1129436.08100
235	119+62.04	-49.84	542246.12294	1129460.40255
236	120+77.11	-53.61	542212.85360	1129574.72070
237	120+80.96	-53.89	542211.73588	1129578.56137

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Division: HIGHWAY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

7960

P.E. NUMBER

July 3rd, 2013

DATE

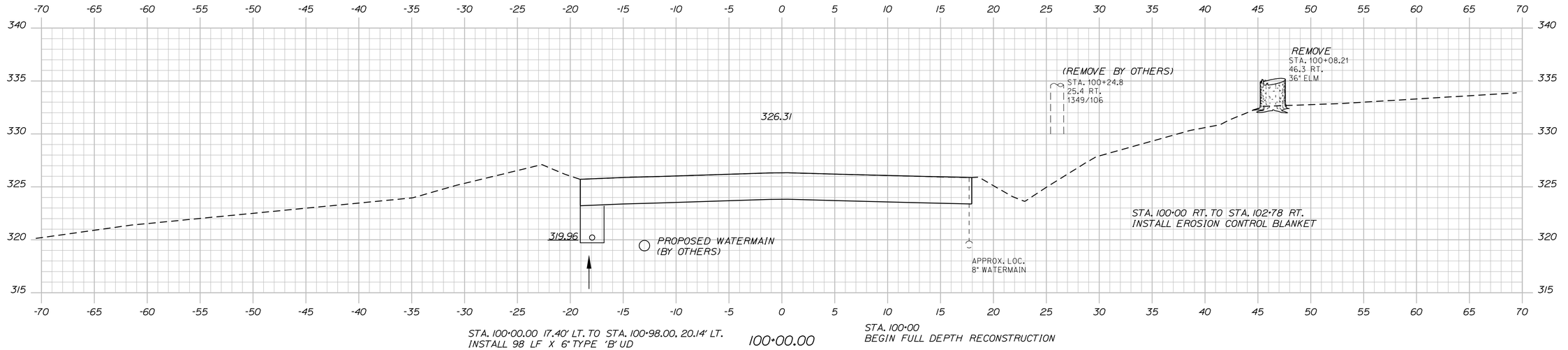
AUGUSTA
WESTERN AVE, RTE 202

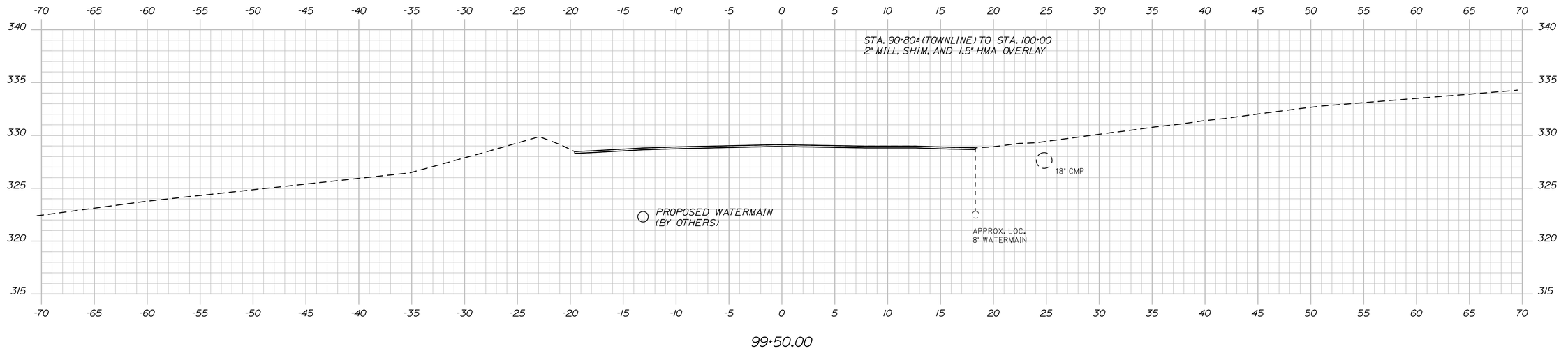
GEOMETRIC LAYOUT PLAN

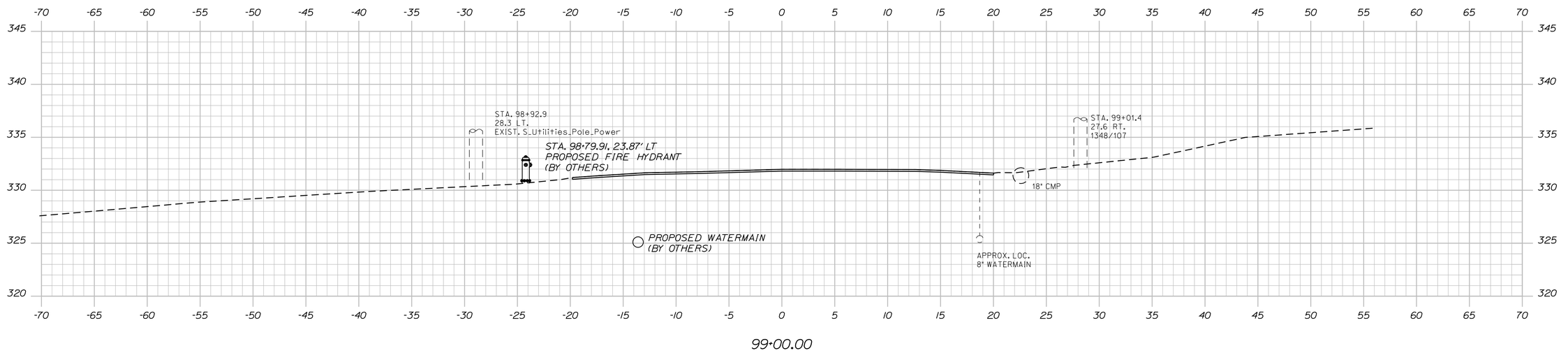
SHEET NUMBER

29

OF 68







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

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July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

30

OF 68

Sta. 99+00.00 to Sta. 100+00.00

Filename: ...\MSTA\030_XSECT_99+00_001.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

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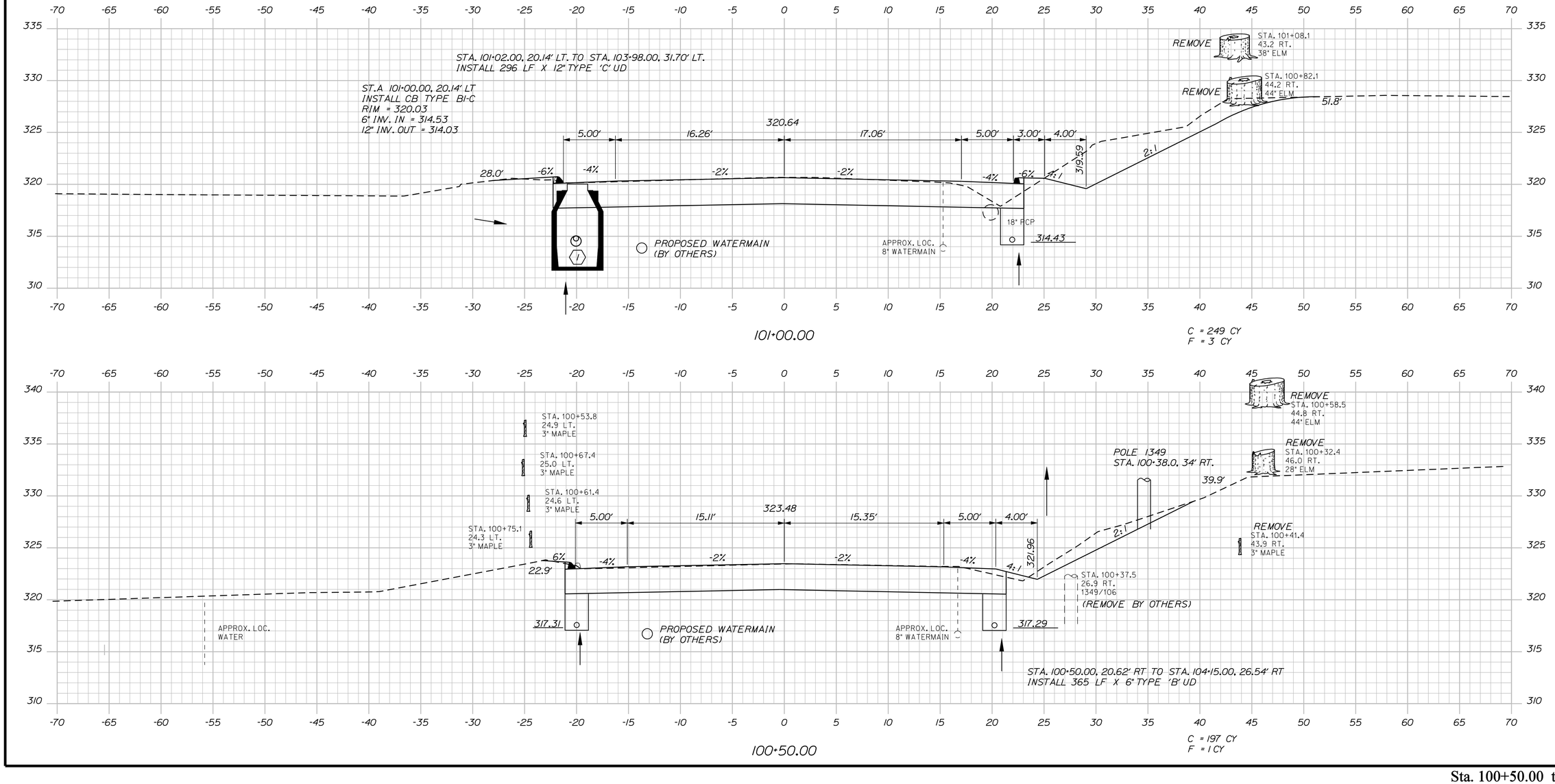

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
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P.E. NUMBER
July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
31
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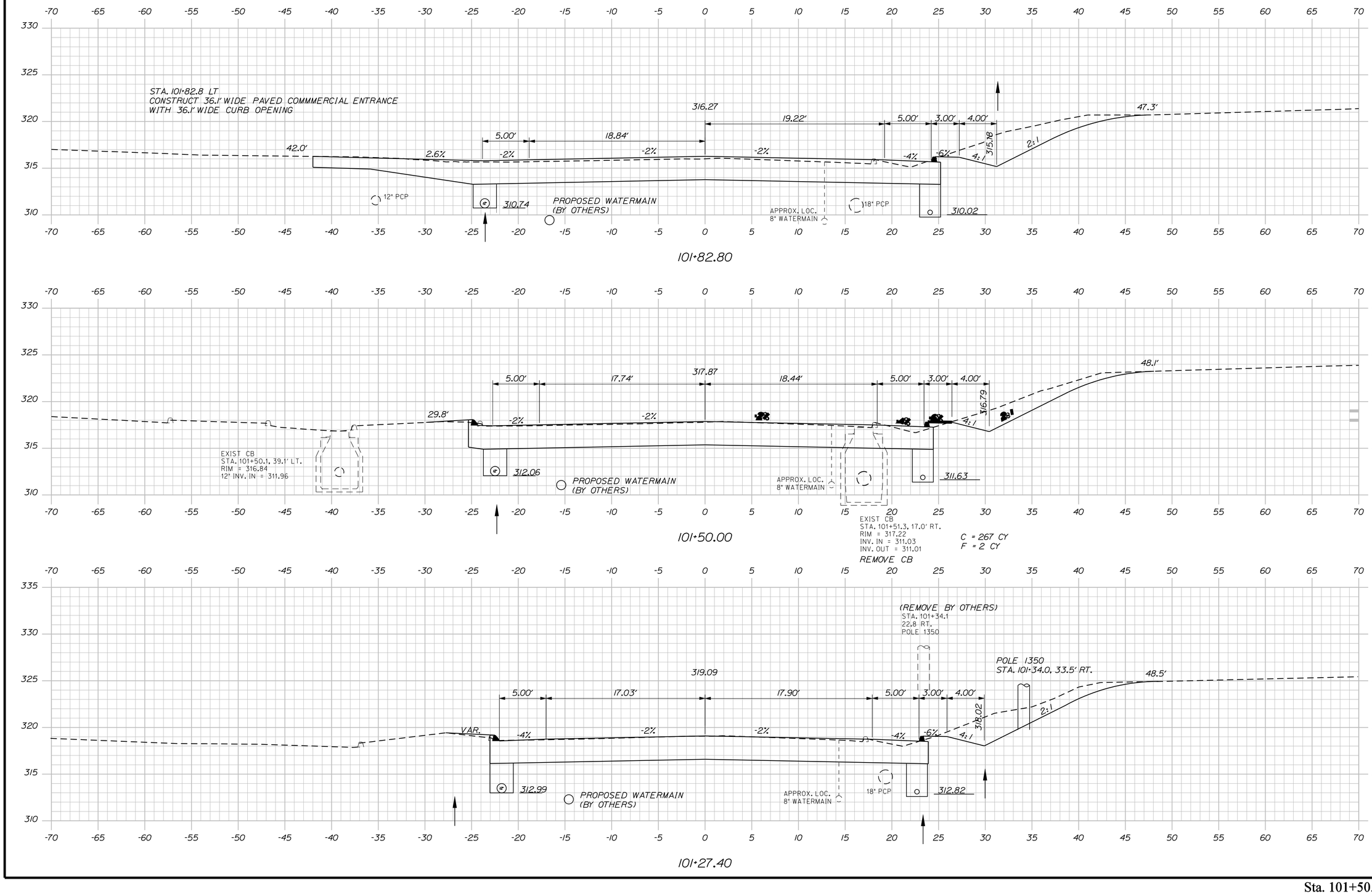
Sta. 100+50.00 to Sta. 101+00.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
DESIGNED	ERNIE MARTIN	7-13
DETAILED	JLE	7-13
CHECKED		
REVIEWED		
PROJ. MANAGER	JLE	
DESIGN-DETAILED	ALG	
CHECKED-REVIEWED		
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
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DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
32
OF 68

Sta. 101+50.00 to Sta. 101+82.80

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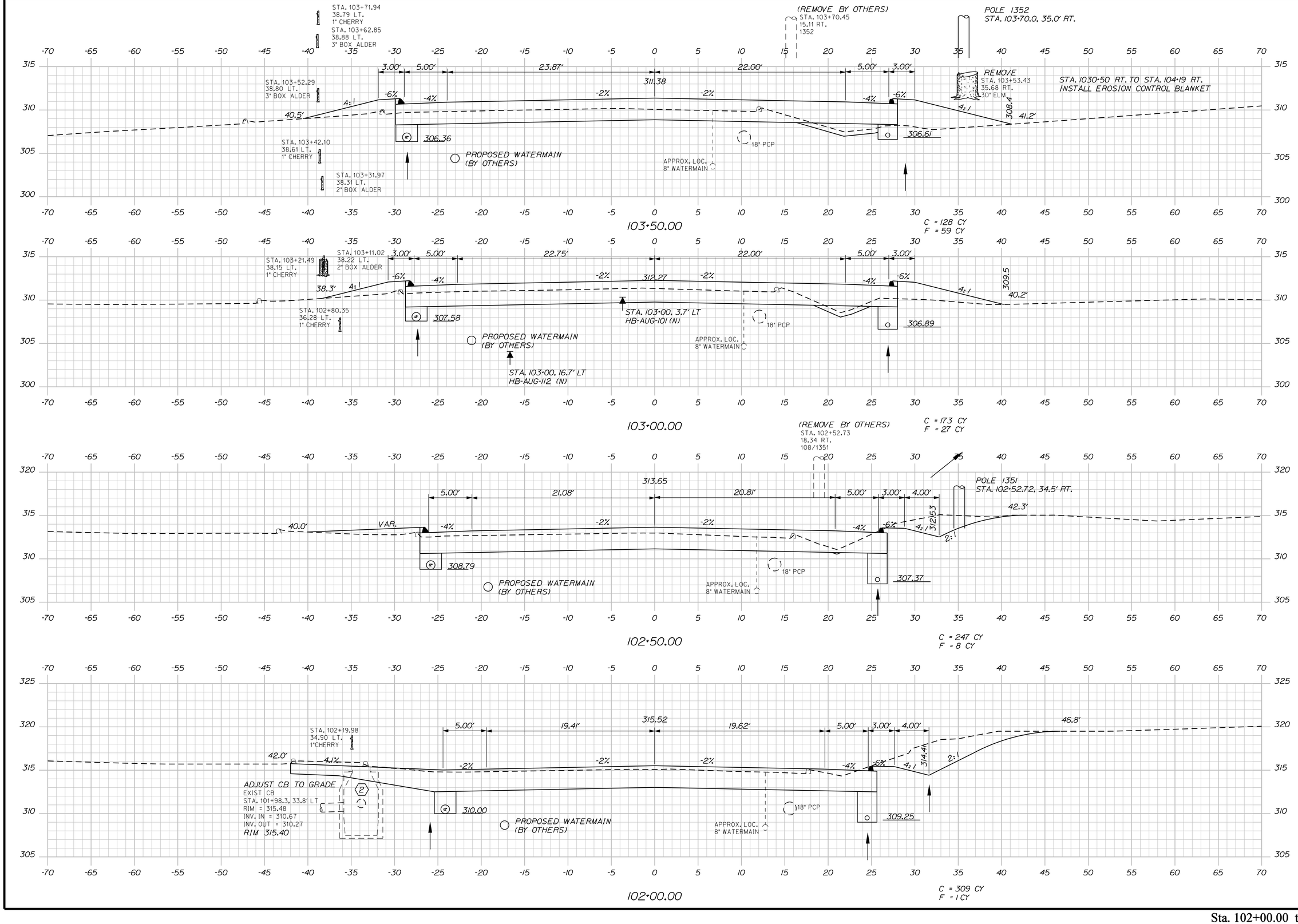

Sta. 102+00.00 to Sta. 103+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
33
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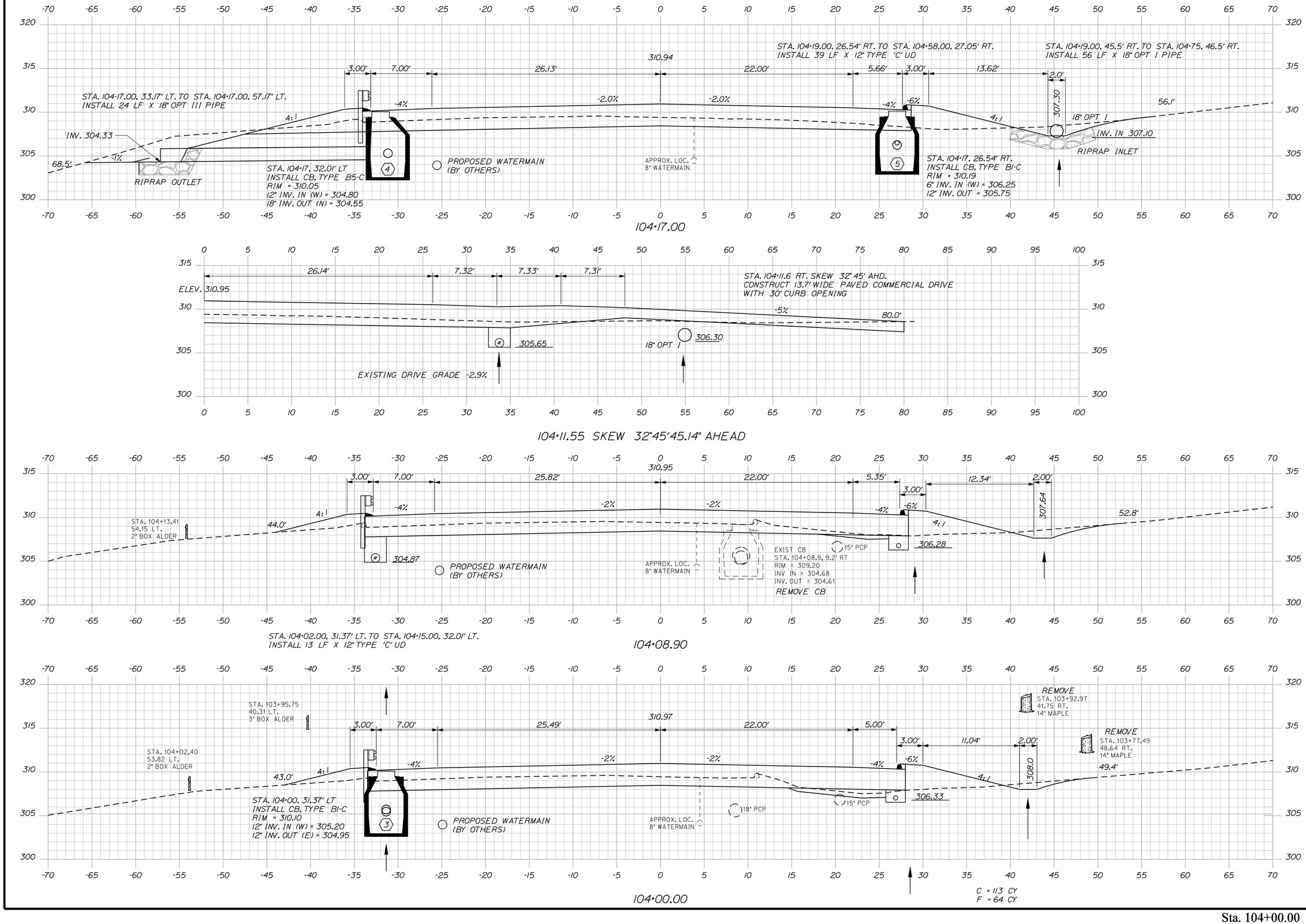

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
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DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
34
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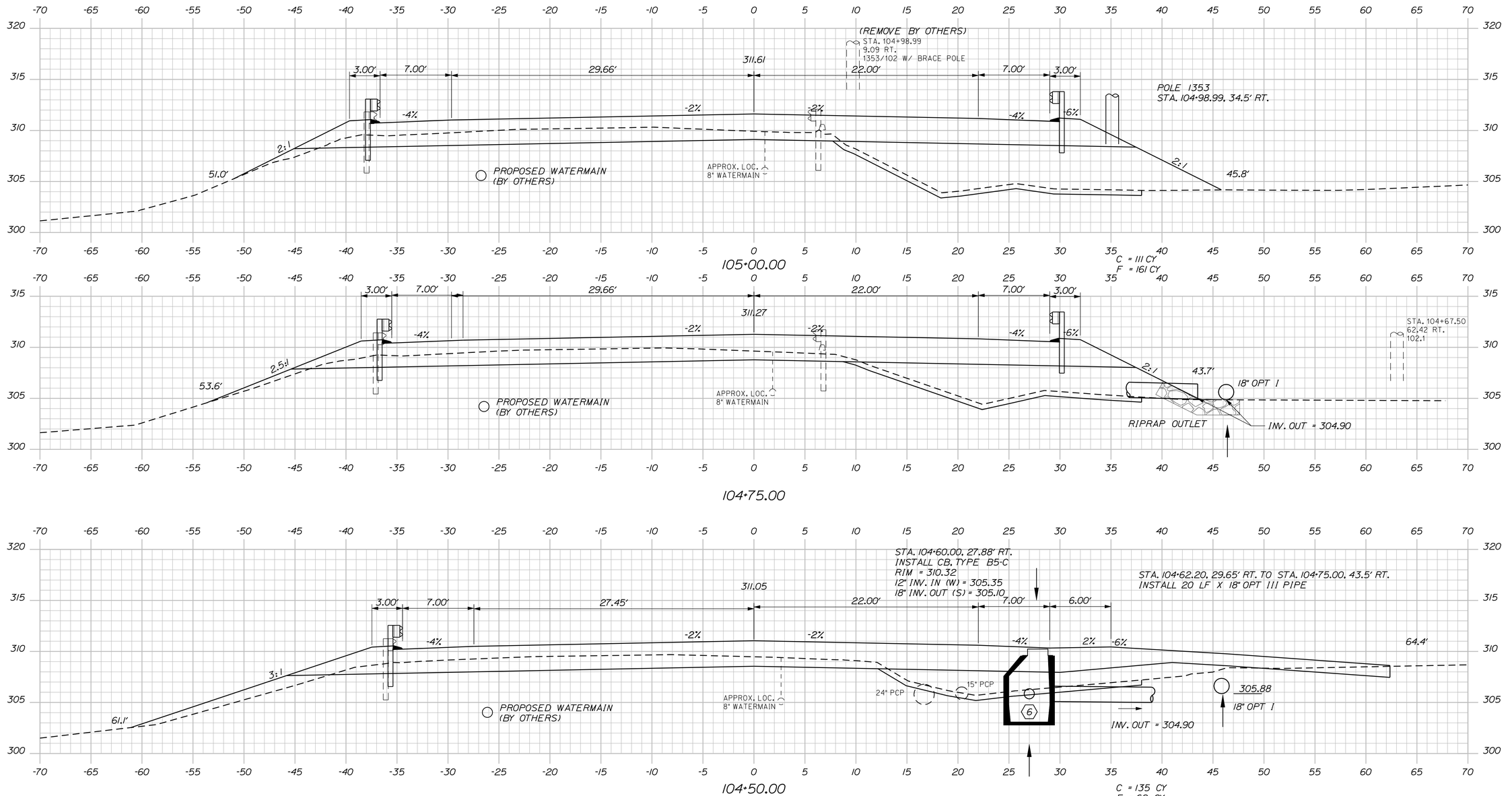
Sta. 104+00.00 to Sta. 104+17.00

Filename: ...\MSTA\034_XSECT_104+00_005.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



Sta. 104+29.00 to Sta. 105+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

			DATE
PROJ. MANAGER	ERNIE MARTIN	BY	
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

35

OF 68

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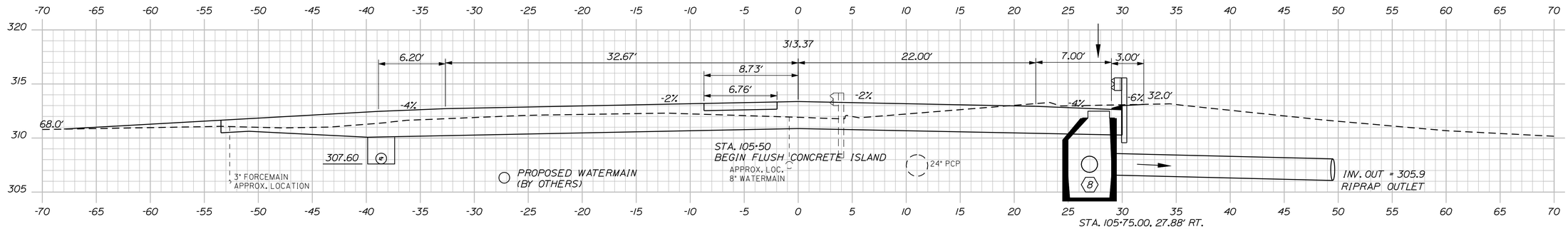
Filename: ...\MSTA\036_XSECT_105+10_007.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

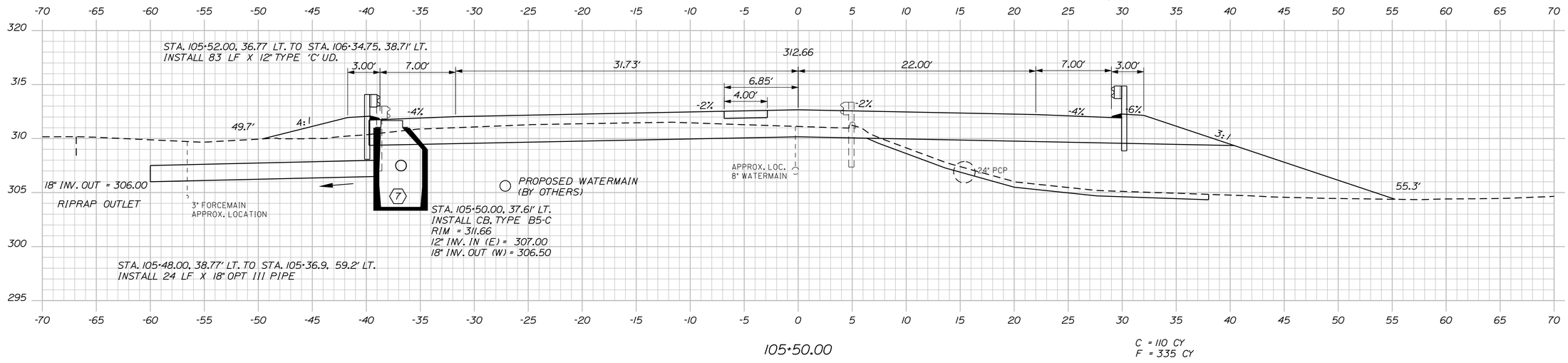
STA. 105+77.00, 27.04' RT. TO STA. 107+93.81, 25.94' RT.
INSTALL 217 LF X 18" TYPE 'C' UD



105+75.00

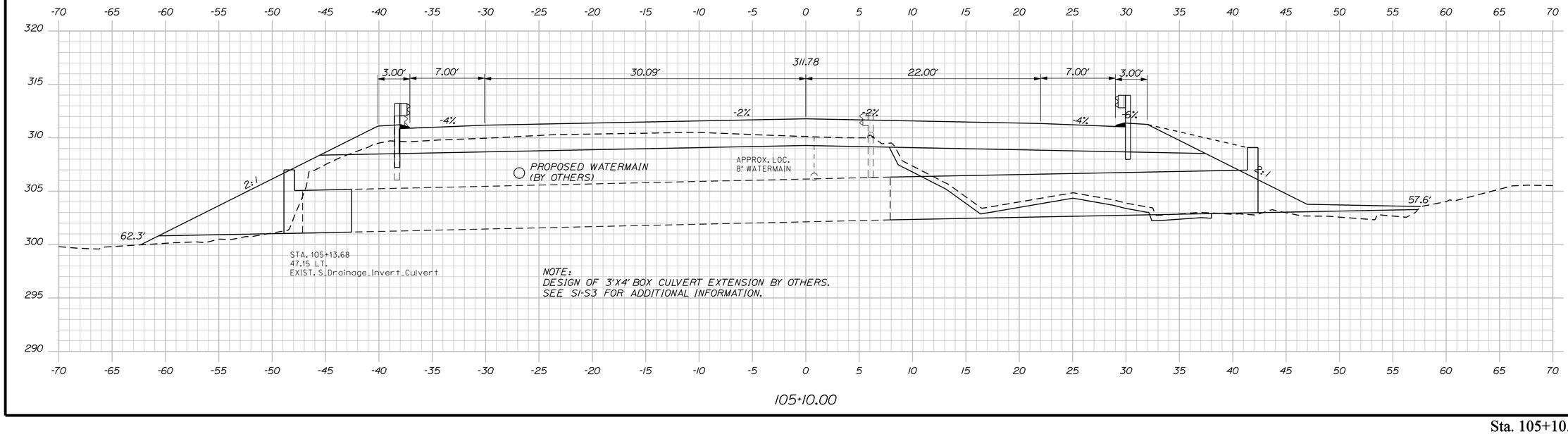
STA. 105+75.00, 27.88' RT.
INSTALL CB, TYPE B5-C
RIM = 312.57
18" INV. IN (E) = 306.82
24" INV. OUT (SW) = 306.57

STA. 105+73.21, 30.06' RT. TO STA. 105+60.60, 45.55' RT.
INSTALL 20 LF X 24" OPT III PIPE



105+50.00

C = 110 CY
F = 335 CY



105+10.00

Sta. 105+10.00 to Sta. 105+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
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P.E. NUMBER
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WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
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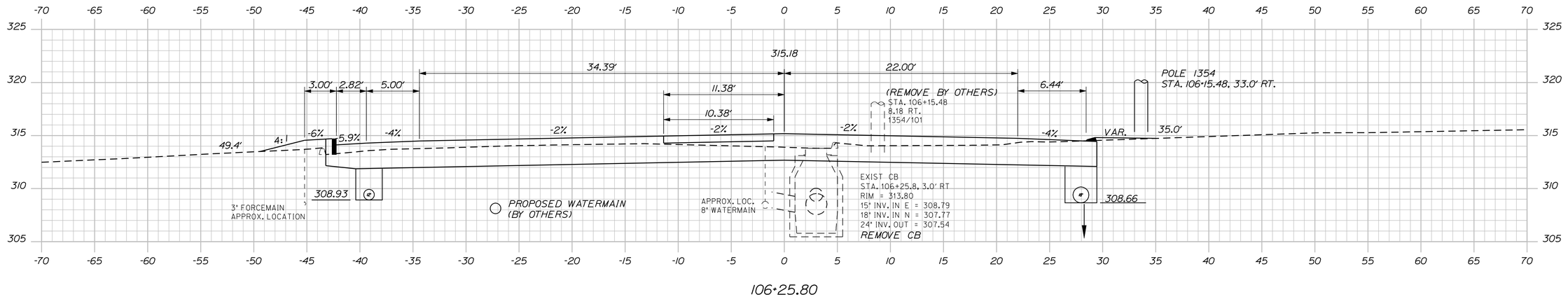
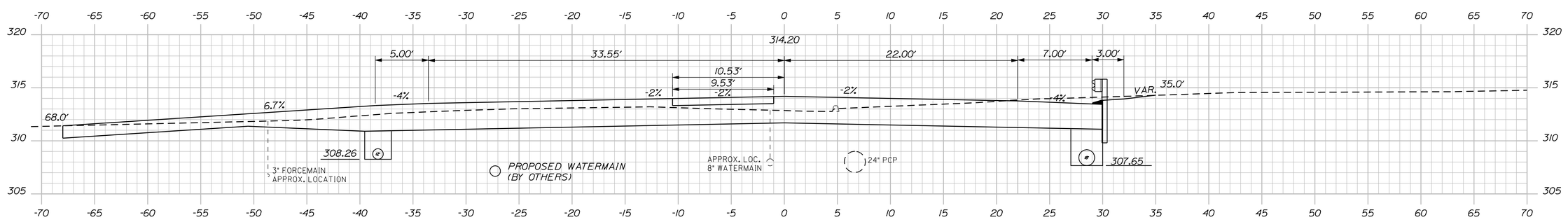
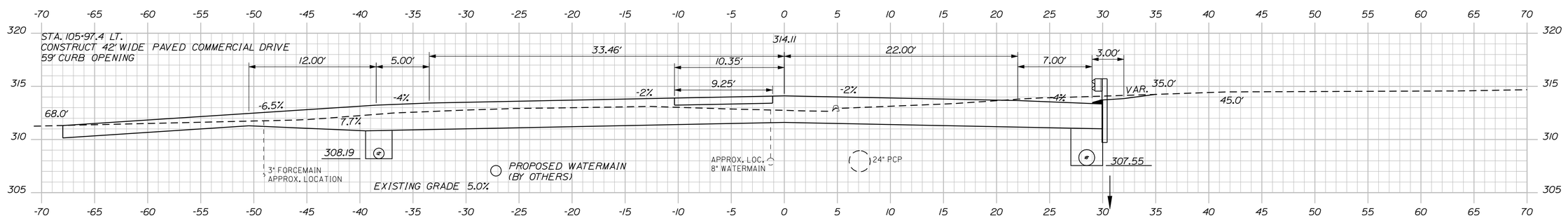


106+25.80



106+00.00

C = 226 CY
F = 77 CY



105+97.40

Sta. 105+97.40 to Sta. 106+25.80

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

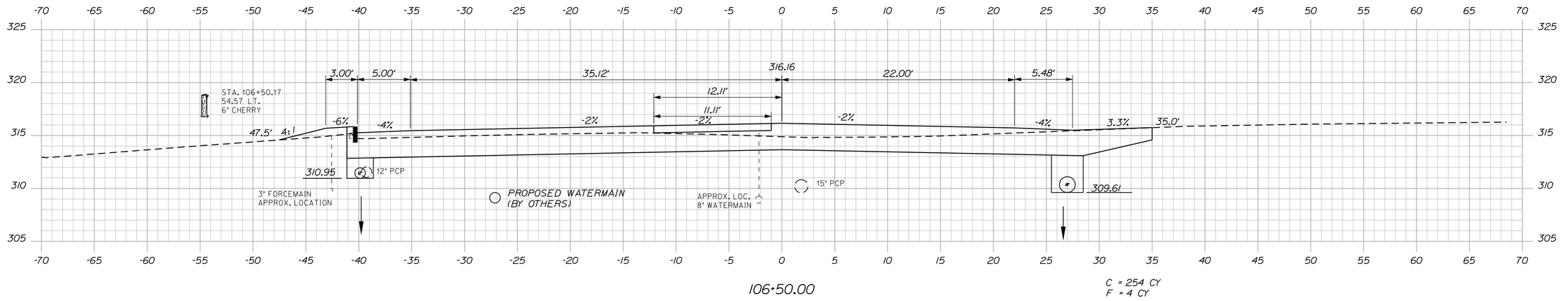
CROSS SECTIONS

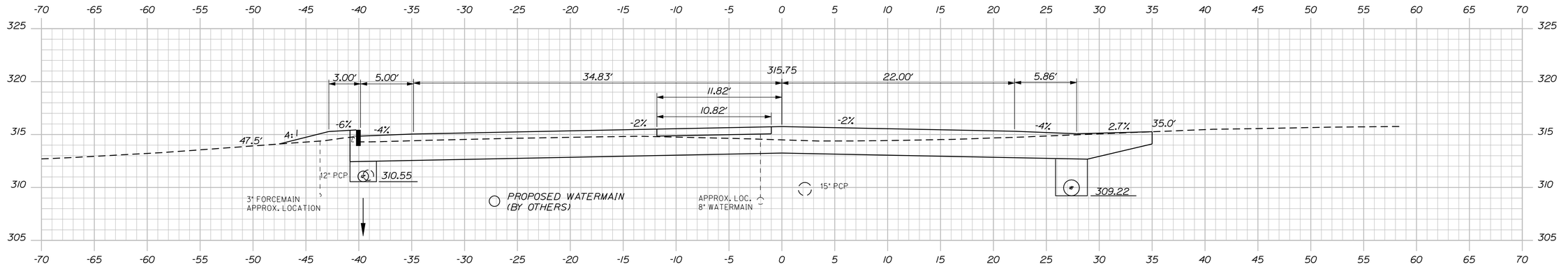
SHEET NUMBER

37

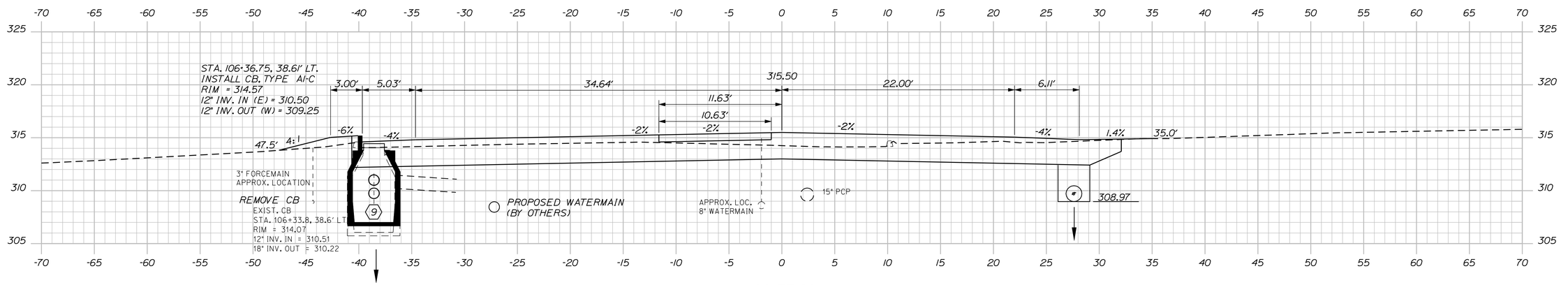
OF 68

Filename: ...\MSTA\037_XSECT_105+97_008.dgn Division: HIGHWAY Username: jeason Date:7/5/2013





STA. 106+38.75, 38.61' LT. TO STA. 108+48.00, 42.80' LT.
INSTALL 210 LF X 12" TYPE 'C' UD.



Sta. 106+33.80 to Sta. 106+50.00

STATE OF MAINE
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STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE

7960
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July 3rd, 2013
DATE

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

38

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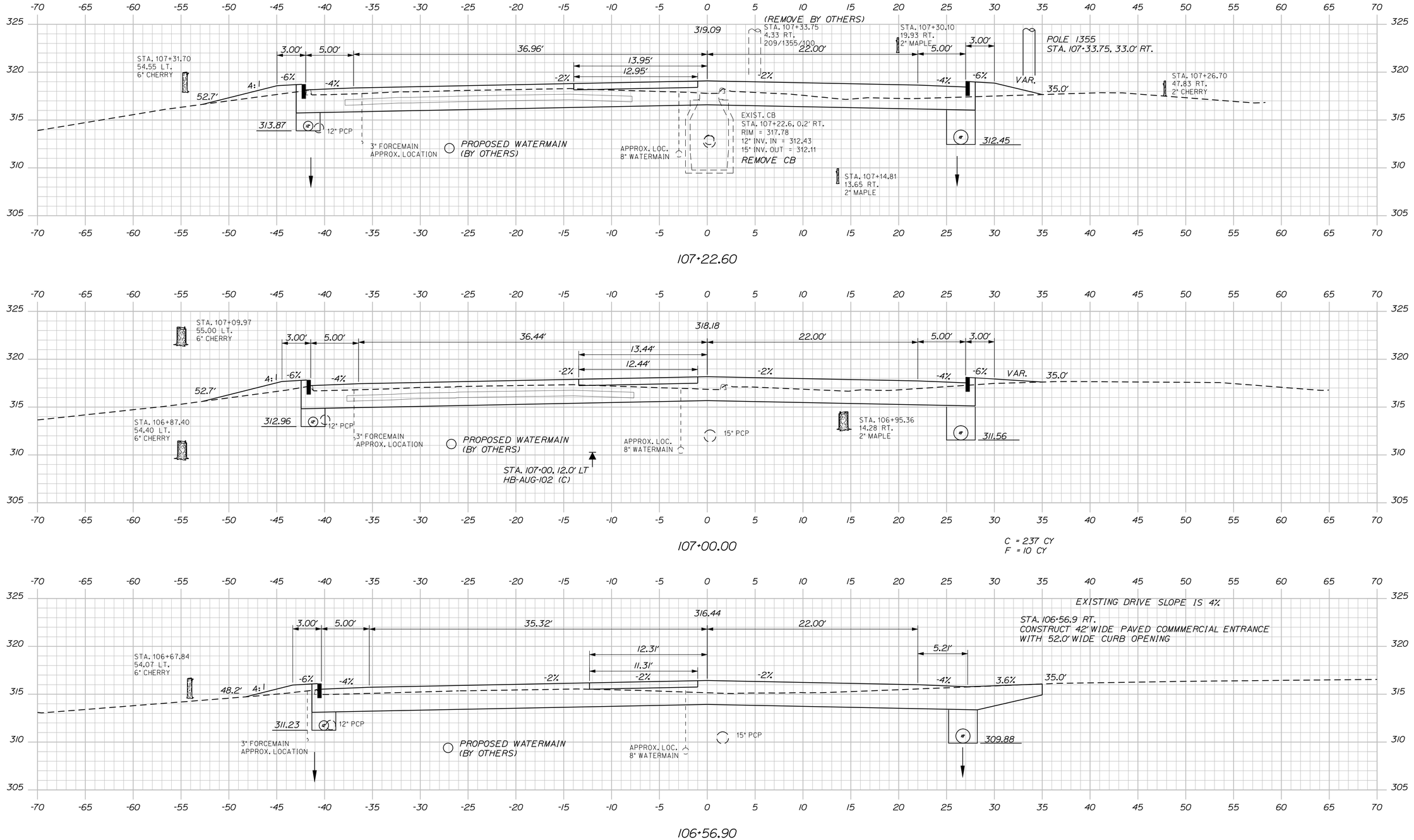
Filename: ...\MSTA\038_XSECT_106-33_009.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY
DESIGN-DETAILED	JLE	JLE
CHECKED-REVIEWED	ALG	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

39

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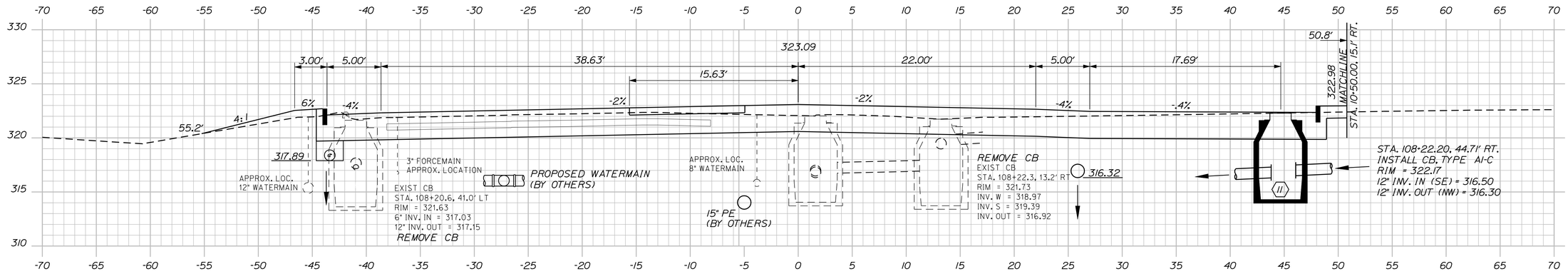
Sta. 106+56.90 to Sta. 107+22.60

Filename: ...\MSTA\039_XSECT_106+56_010.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

Filename: ...\MSTA\040_XSECT_107+50_011.dgn Username: jeason Division: HIGHWAY Date:7/5/2013

REMOVE MH
EXIST MH
STA. 108+22.3, 19.1' RT
RIM = 322.03
12" INV. E= 316.47
12" INV. S = 316.74
12" INV. OUT = 316.31

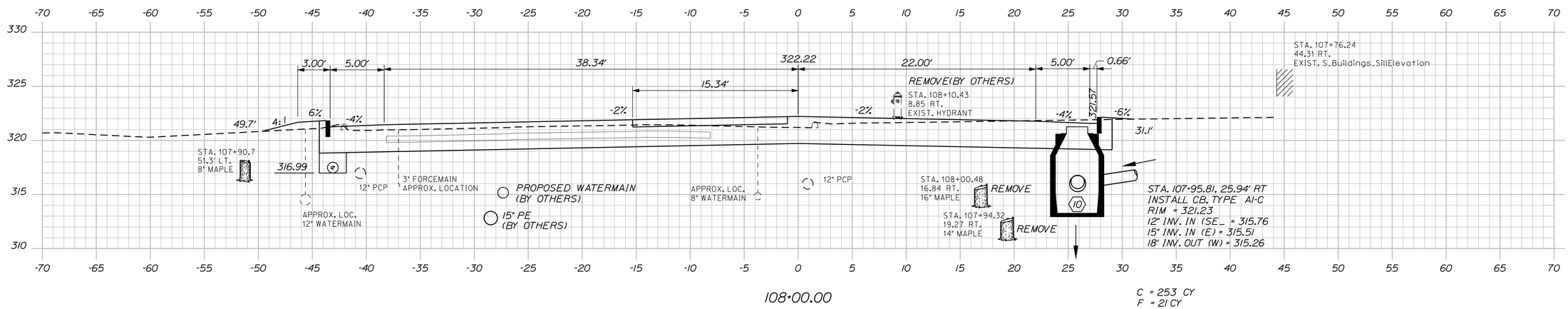
STA. 108+24.0, 45.4' RT. TO STA. 10+56.4, 11.2' LT.
INSTALL 28 LF X 12" RCP



108+22.30

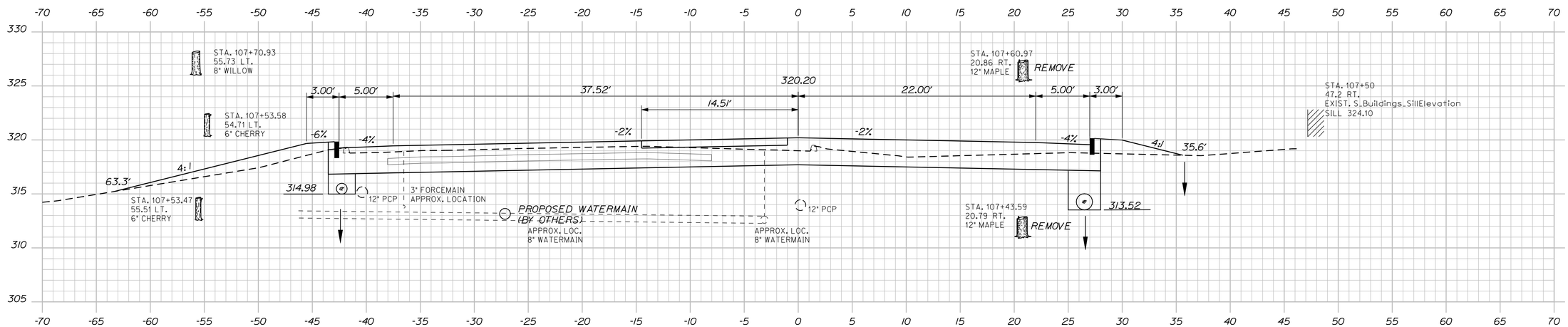
STA. 107+97.81, 25.94' RT. TO STA. 108+77.33, 25.94' RT.
INSTALL 80 LF X 15" RCP

STA. 107+97.4, 27.1' RT. TO STA. 108+20.6, 43.4' RT.
INSTALL 29 LF X 12" OPT III PIPE



108+00.00

C = 253 CY
F = 21 CY



107+50.00

C = 216 CY
F = 24 CY

STATE OF MAINE
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WIN
4270.10

HIGHWAY PLANS

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DESIGN3-DETAILED3		
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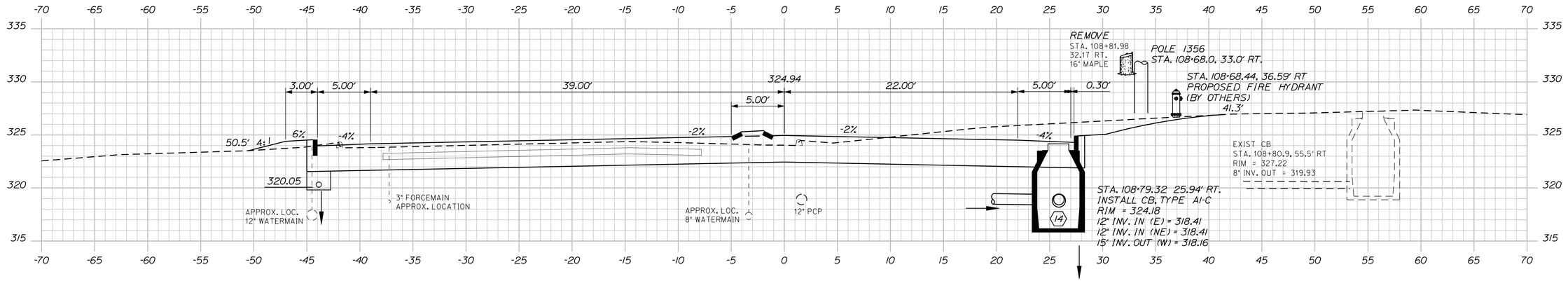
Sta. 107+50.00 to Sta. 108+22.30

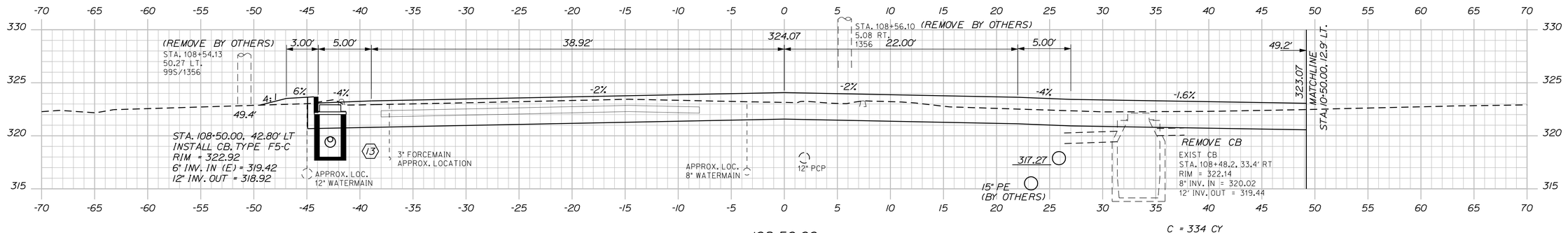
STA. 108+80.74, 24.53' RT. TO STA. 109+03.56, 1.90' RT.
INSTALL 34 LF X 12" RCP

STA. 108+81.31, 25.88' RT. TO STA. 110+12.58, 25.88' RT.
INSTALL 132 LF X 12" TYPE 'C' UD.



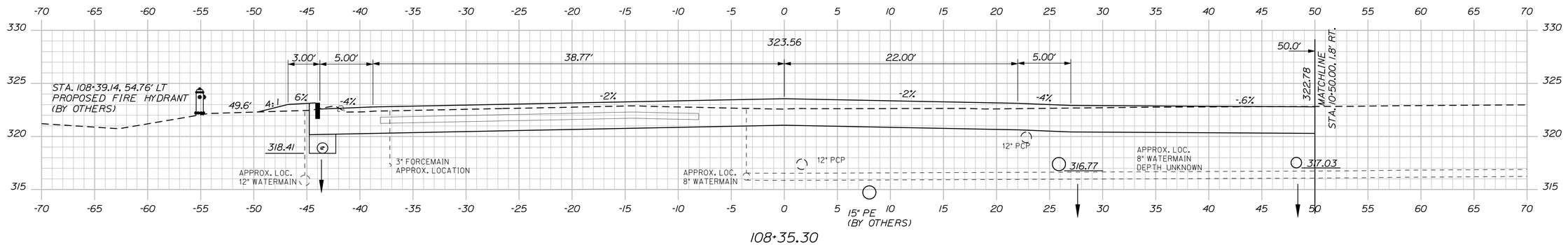
108+77.20

STA. 108+52.00, 42.80' LT. TO STA. 109+50.00, 40.83' LT.
INSTALL 98 LF X 6" TYPE 'B' UD.



108+50.00

C = 334 CY
F = 6 CY



108+35.30

Sta. 108+35.30 to Sta. 108+77.20

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE

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	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
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CHECKED-REVIEWED	ALG	7-13
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DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

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41

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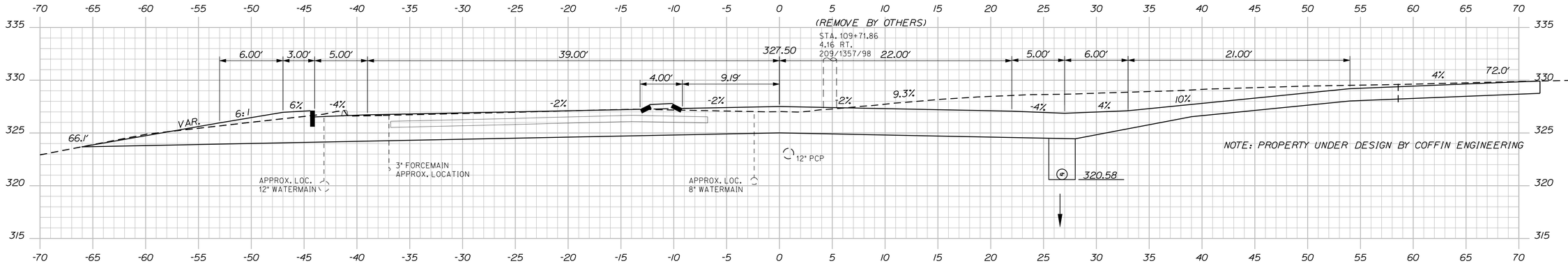
Filename: ...\MSTA\041_XSECT_108+35_012.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

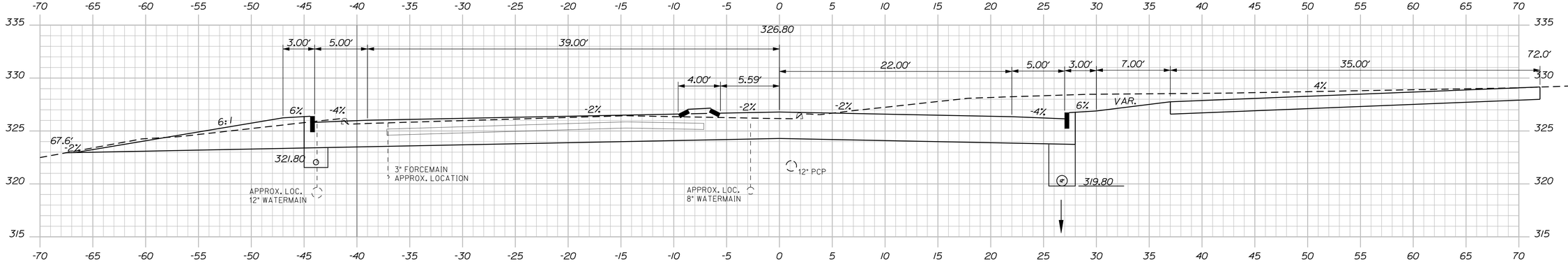
Filename: ...\MSTA\042_XSECT_109-00_013.dgn Username: jeason Division: HIGHWAY Date:7/5/2013

STA. 109+70.8 RT
CONSTRUCT 42' WIDE PAVED COMMERCIAL ENTRANCE
WITH 50' WIDE CURB OPENING



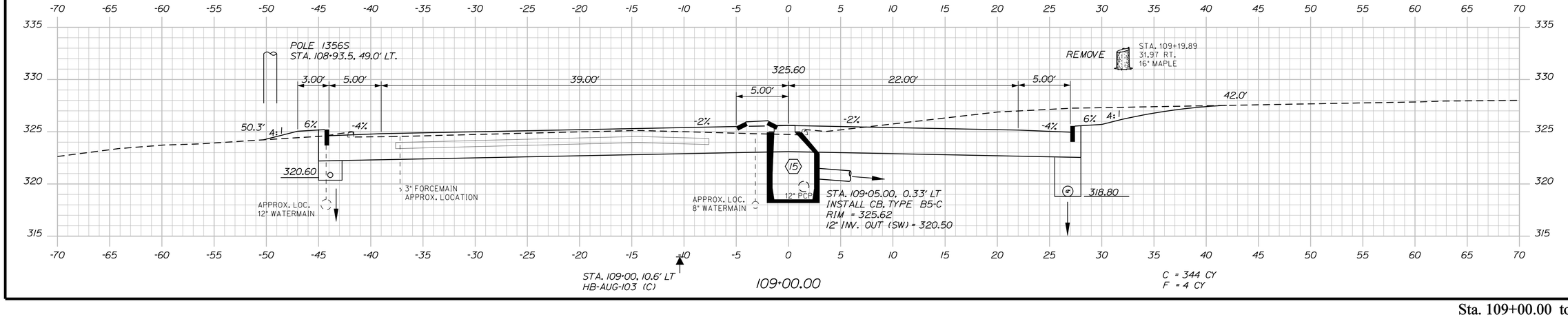
109+89.30

POLE 1356S
STA. 109+16.0, 50.0' LT.



109+50.00

C = 423 CY
F = 7 CY



109+00.00

C = 344 CY
F = 4 CY

STATE OF MAINE
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STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

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DATE

PROJ. MANAGER	ERNIE MARTIN
DESIGN-DETAILED	JLE
CHECKED-REVIEWED	ALG
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	

	BY	DATE
REVISIONS 1	JLE	7-13
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REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

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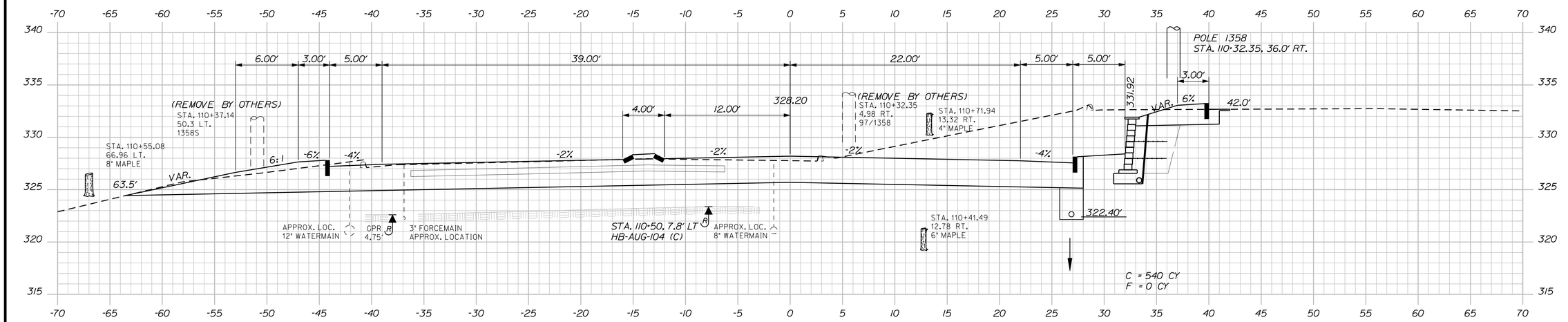
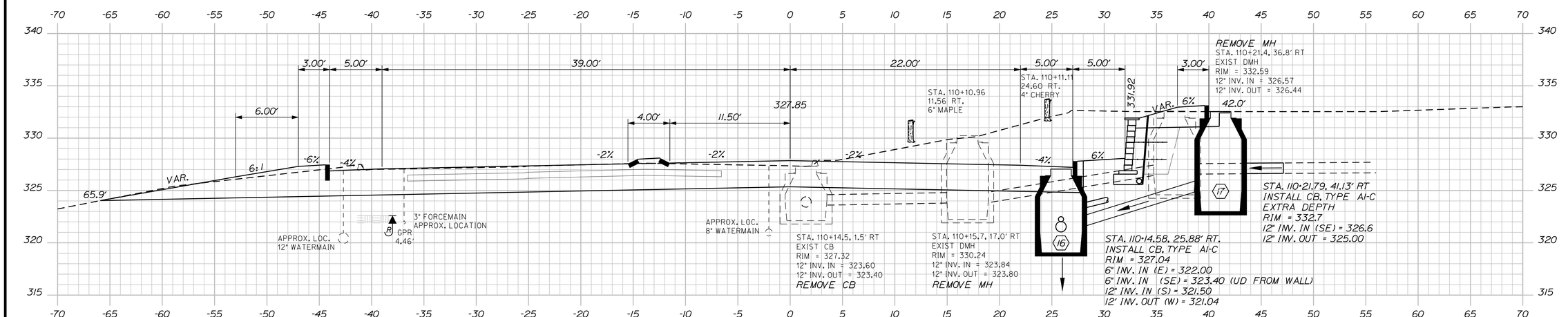
Sta. 109+00.00 to Sta. 109+89.30



110+50.00

STA. 110+16.58, 25.88' RT. TO STA. 111+00.00, 26.83' RT.
INSTALL 84 LF X 6" TYPE 'B' UD

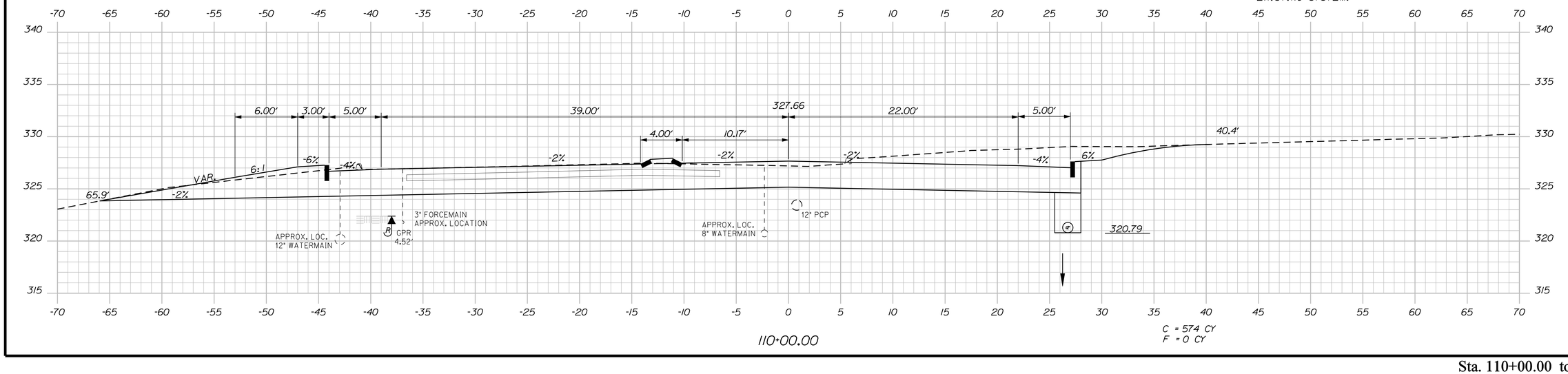


110+14.50

STA. 110+15.45, 27.67' RT. TO STA. 110+20.94, 39.32' RT.
INSTALL 13 LF X 12" OPT III PIPE

STA. 110+11.92
37.10 RT.
6" MAPLE

STA. 110+21.92, 43.12' RT. TO STA. 110+22.2, 47.1' RT.
INSTALL 4 LF X 12" OPT III PIPE TO RECONNECT TO EXISTING SYSTEM.



110+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN			
DESIGN-DETAILED	JLE	7-13	SIGNATURE	
CHECKED-REVIEWED	ALG	7-13	7960	P.E. NUMBER
DESIGN2-DETAILED2			July 3rd, 2013	DATE
DESIGN3-DETAILED3				
REVISIONS 1				
REVISIONS 2				
REVISIONS 3				
REVISIONS 4				
FIELD CHANGES				

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

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43

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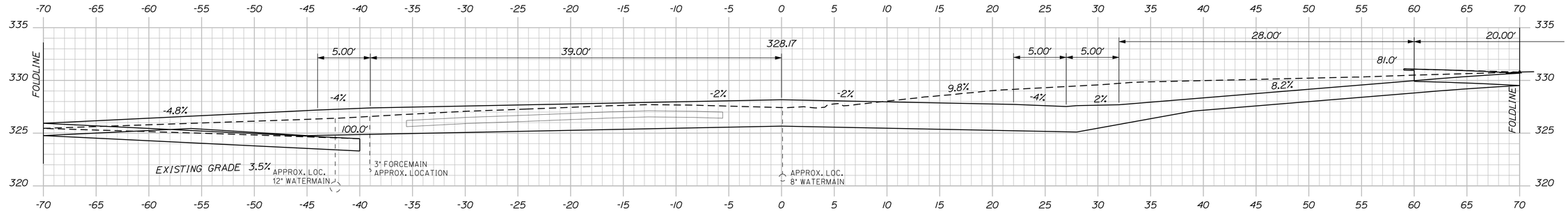
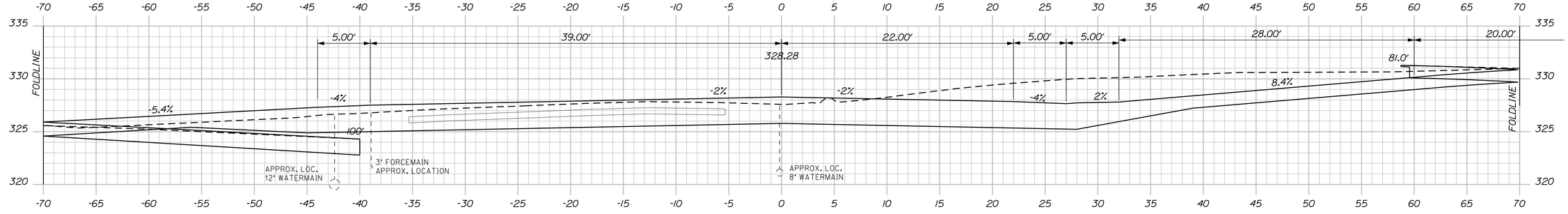
Sta. 110+00.00 to Sta. 110+50.00

Filename: ...\MSTA\043_XSECT_110+00_014.dgn Username: jeason Division: HIGHWAY Date:7/5/2013



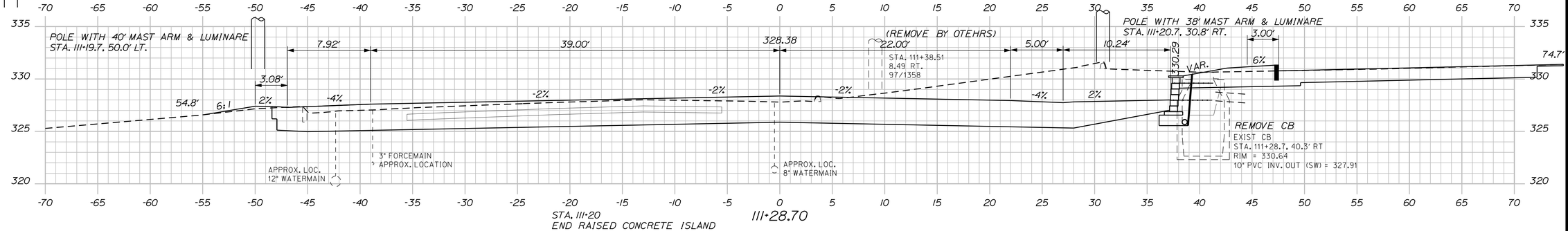
111+66.90



POLE 1358S
STA. 111+43.0, 92.0' LT.

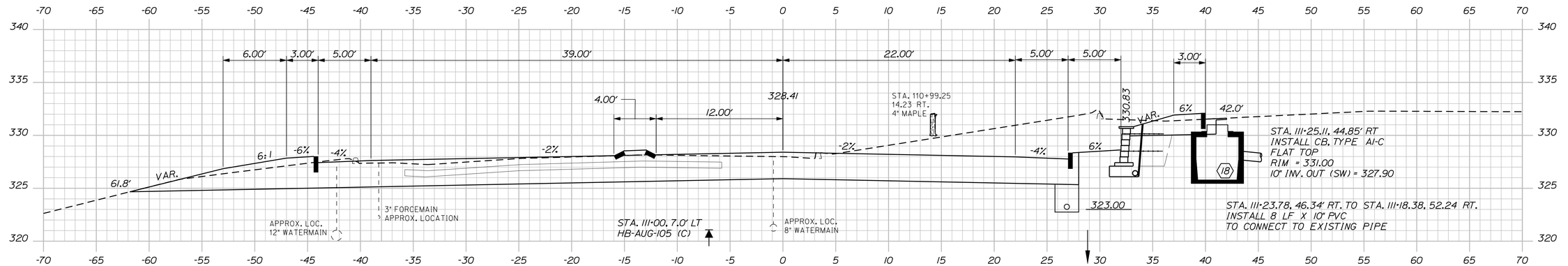
111+50.00

C = 552 CY
F = 7 CY



STA. 111+20
END RAISED CONCRETE ISLAND

111+28.70



111+00.00

C = 523 CY
F = 0 CY

Sta. 111+00.00 to Sta. 111+66.90

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE

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P.E. NUMBER

July 3rd, 2013
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	ERNIE MARTIN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG	ALG	7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

44

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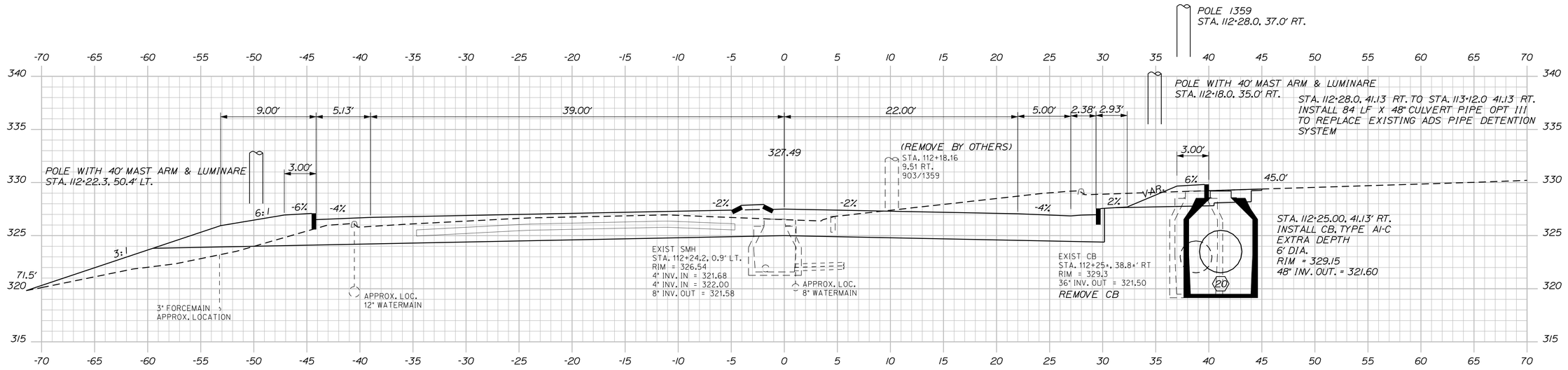
Filename: ...\MSTA\044_XSECT_111+00_015.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE
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	ERNIE MARTIN	BY	DATE
PROJ. MANAGER			
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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REVISIONS 4			
FIELD CHANGES			

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CROSS SECTIONS

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45
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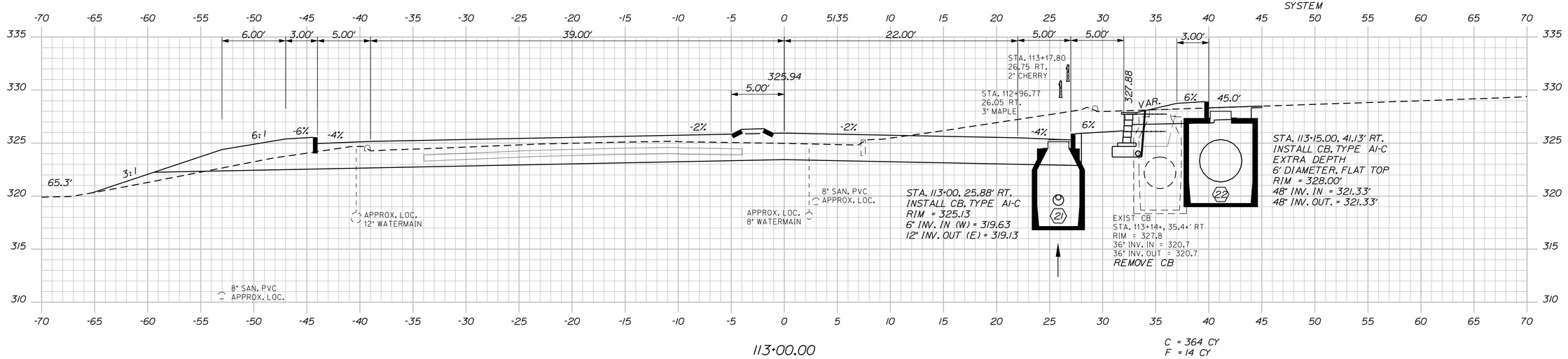
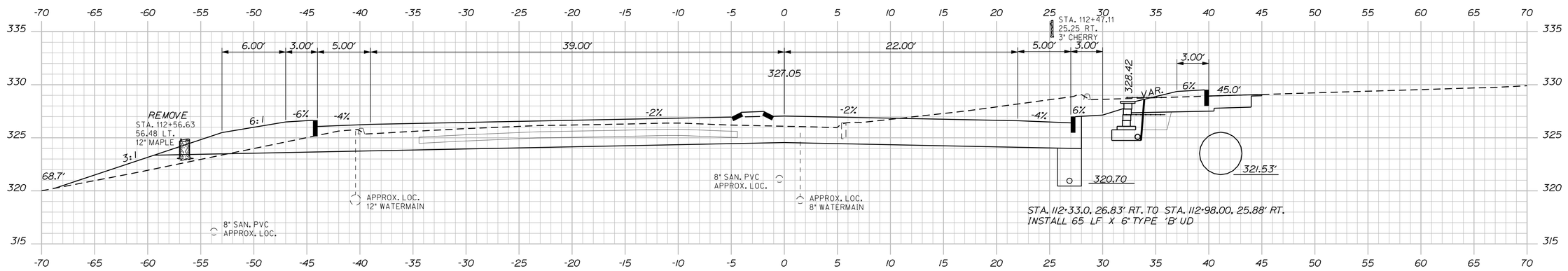
Sta. 111+71.60 to Sta. 112+24.20

Filename: ...\MSTA\045_XSECT_111+71_016.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



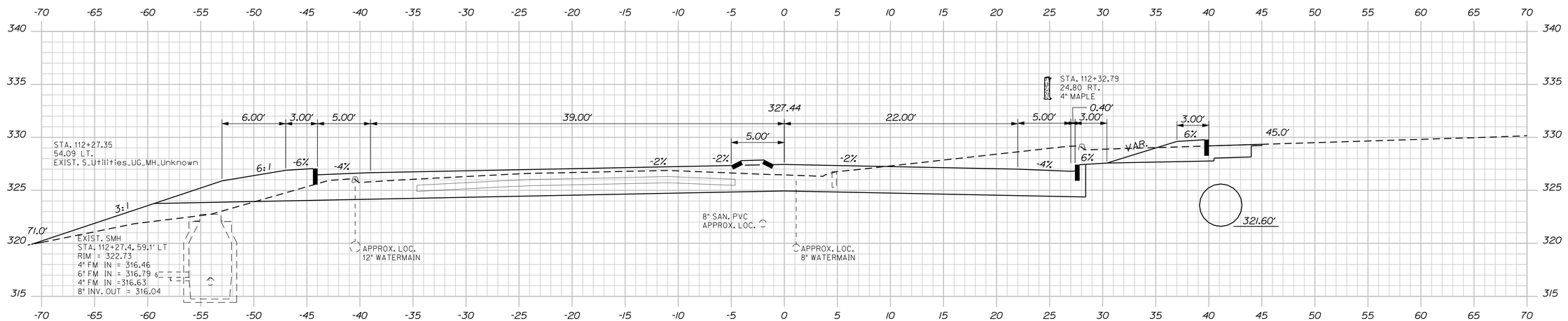
113+00.00

C = 364 CY
F = 14 CY



112+50.00

C = 416 CY
F = 29 CY



112+27.40

Sta. 112+27.40 to Sta. 113+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
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46

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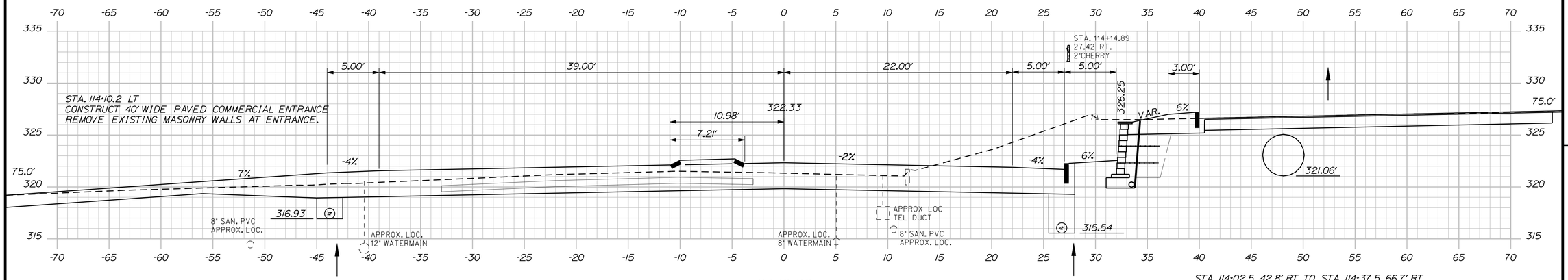
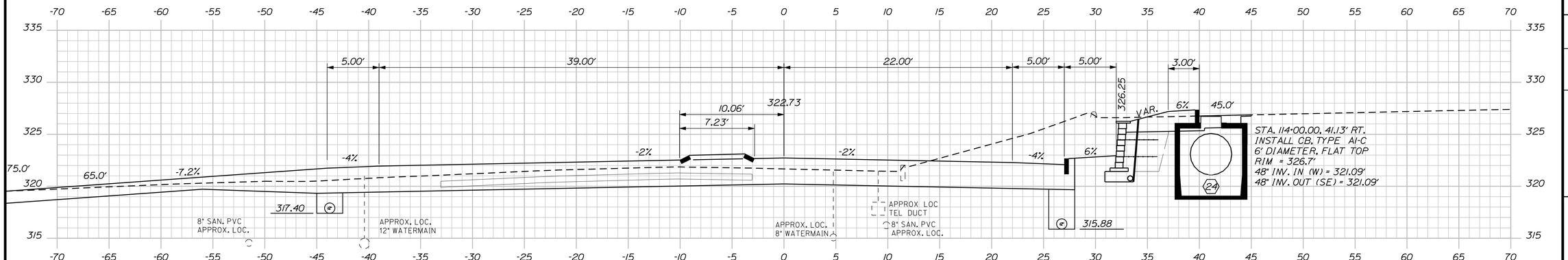
Filename: ...\MSTA\046_XSECT_112+27_017.dgn Username: jeason Division: HIGHWAY Date:7/5/2013



114+10.20

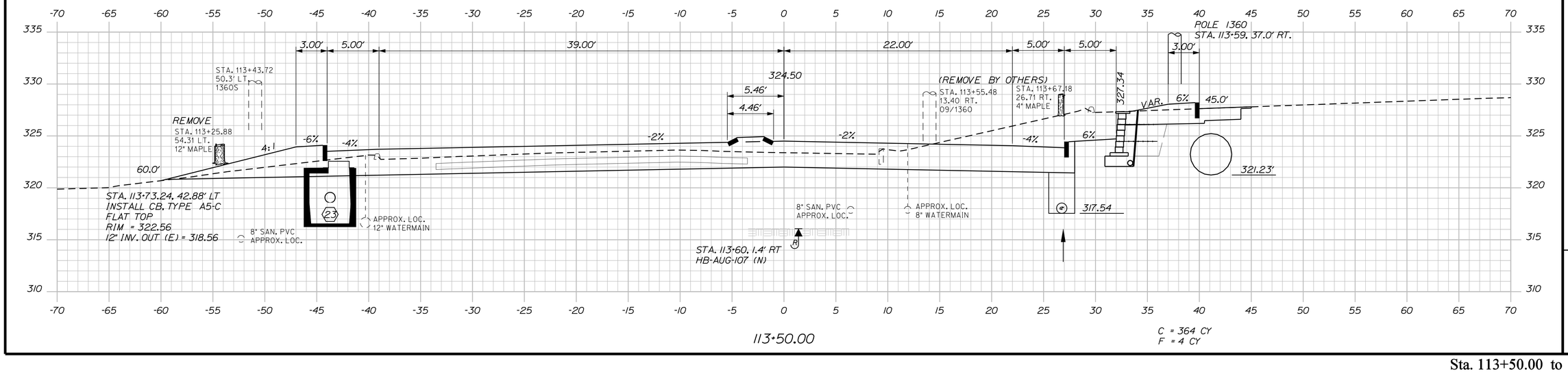
STA. 114+02.5, 42.8' RT. TO STA. 114+37.5, 66.7' RT.
INSTALL 44 LF X 48" OPT III PIPE



STA. 113+75.24, 43.71 LT. TO STA. 115+48.00, 49.00' LT.
INSTALL 173 LF X 12" TYPE 'C' UD.

114+00.00

C = 379 CY
F = 0 CY



113+50.00

C = 364 CY
F = 4 CY

STATE OF MAINE
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STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
ENGINEER	JLE	7-13
ERNIE MARTIN	JLE	7-13

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PROJ. MANAGER	
DESIGN-DETAILED	JLE
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DESIGN3-DETAILED3	
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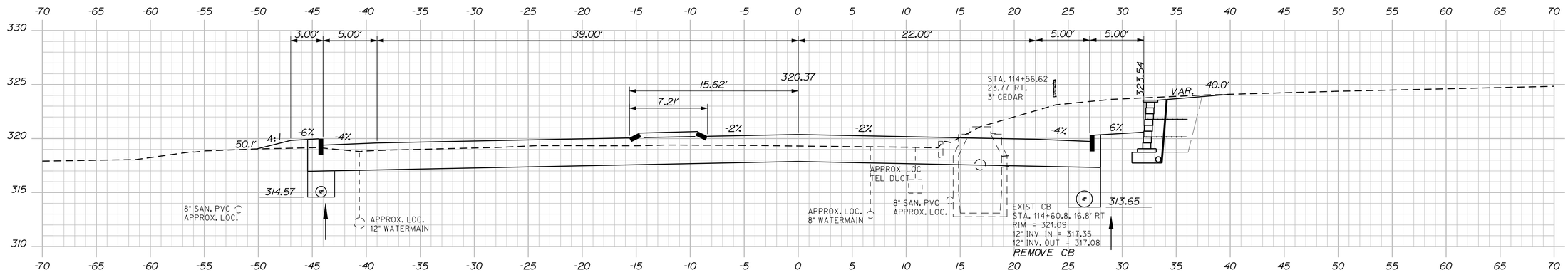
Sta. 113+50.00 to Sta. 114+10.20

Filename: ...\MSTA\047_XSECT_113+50_018.dgn Username: jeason Division: HIGHWAY Date:7/5/2013

Filename: ...\MSTA\048_XSECT_114+38_019.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

STA. 114+77.29
23.37 RT.
3" PINE

STA. 114+67.86
23.10 RT.
4" PINE

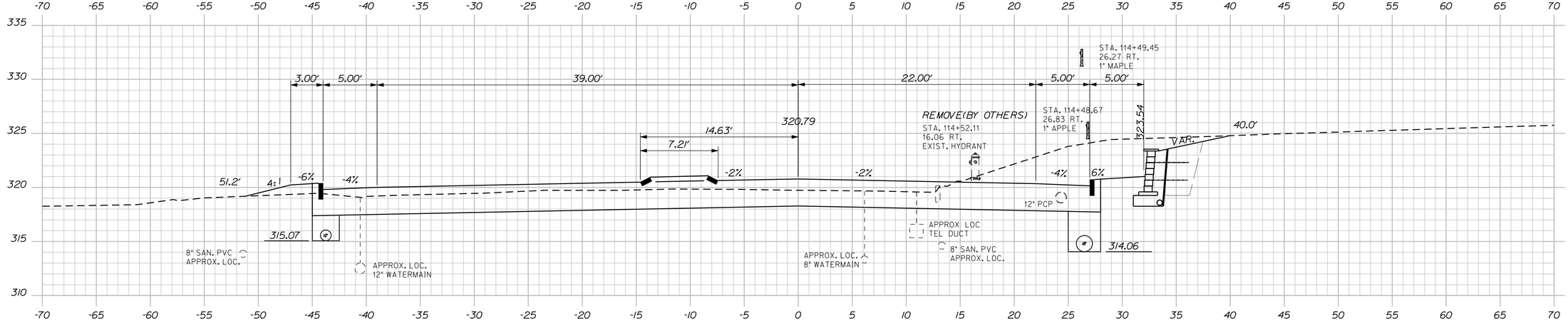


114+60.80

STA. 114+49.45
26.27 RT.
1" MAPLE

STA. 114+48.67
26.83 RT.
1" APPLE

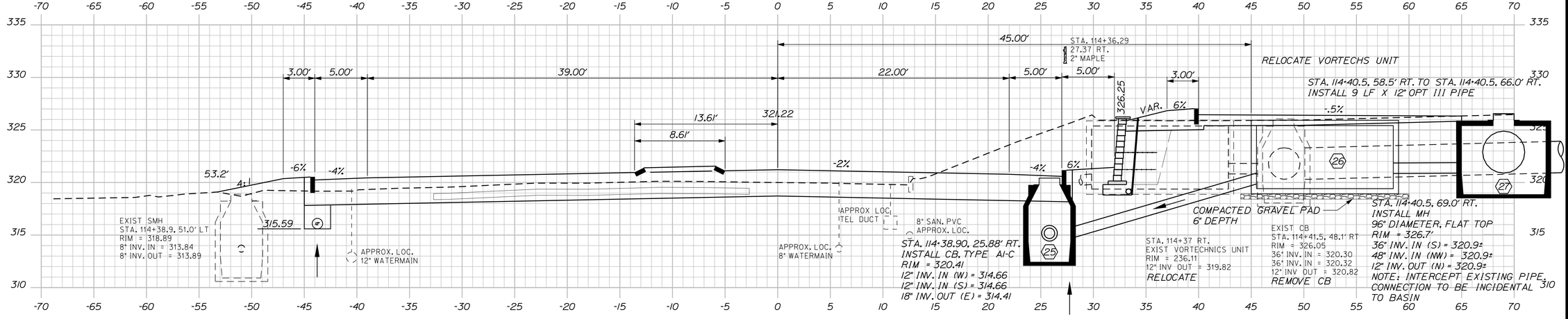
REMOVE(BY OTHERS)
STA. 114+52.11
16.06 RT.
EXIST. HYDRANT



114+50.00

STA. 114+40.90, 25.88' RT. TO STA. 115+30.68, 25.88' RT.
INSTALL 90 LF X 18" TYPE 'C' UD

C = 411 CY
F = 3 CY



114+38.90

STA. 114+39.21, 27.86' RT. TO STA. 114+41.80, 45.50' RT.
INSTALL 18 LF X 12" OPT III PIPE

STA. 114+40.50, 72.0' RT. TO STA. 114+40.50, 76.0' RT.
INSTALL 4 LF X 36" OPT III PIPE
TO RECONNECT TO EXISTING PIPE

STATE OF MAINE
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STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
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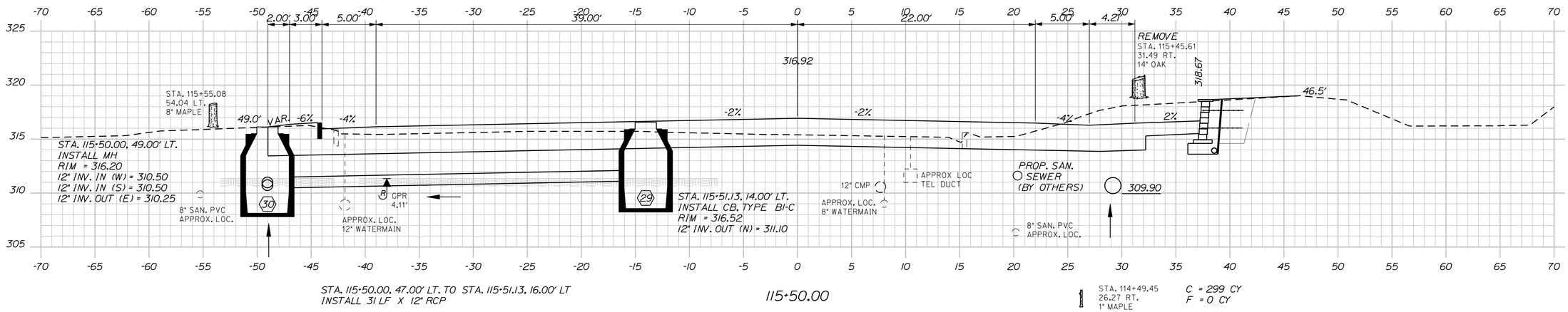
Sta. 114+38.90 to Sta. 114+60.80

STA. 115+52.00, 49.00' LT. TO STA. 116+48, 49.83' LT.
INSTALL 96 LF X 12" TYPE 'C' UD.



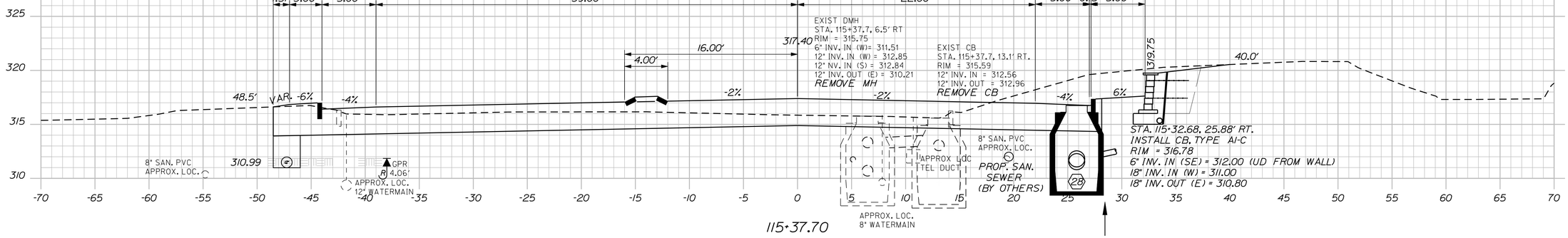
STA. 115+50.00, 47.00' LT. TO STA. 115+51.13, 16.00' LT
INSTALL 31 LF X 12" RCP

115+50.00

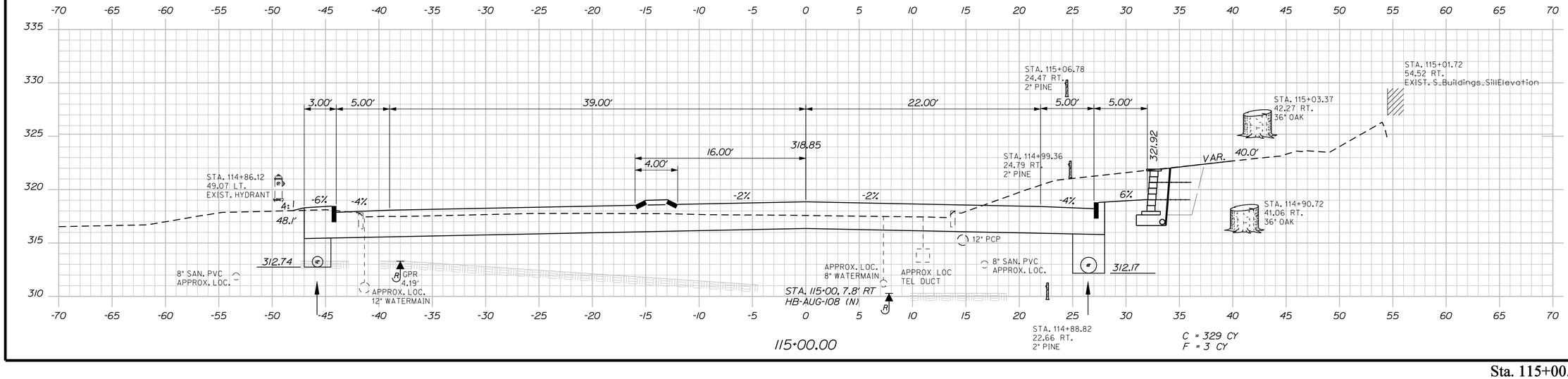
STA. 114+49.45
26.27 RT.
1" MAPLE

C = 299 CY
F = 0 CY

STA. 115+34.68, 25.88' RT. TO STA. 115+95.36, 37.83' RT.
INSTALL 62 LF X 18" RCP CLASS III



115+37.70



115+00.00

STA. 114+88.82
22.66 RT.
2" PINE

C = 329 CY
F = 3 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

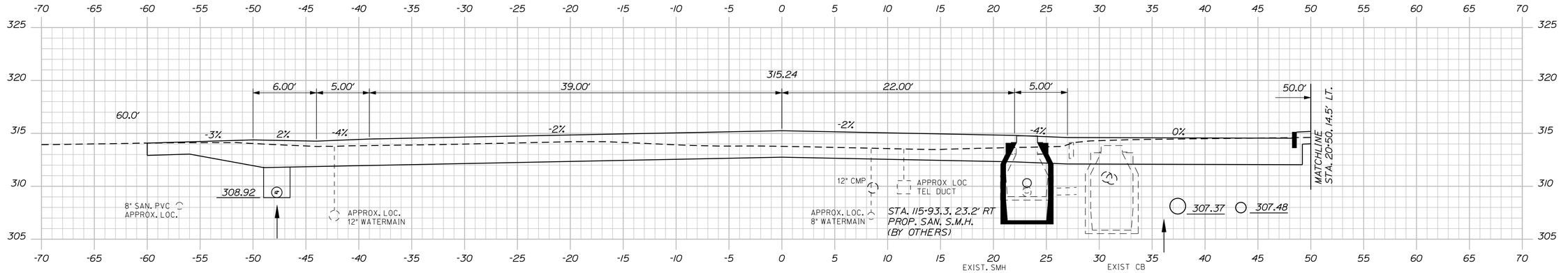
49

OF 68

Sta. 115+00.00 to Sta. 115+50.00

Filename: ...\MSTA\049_XSECT_115+00_020.dgn Username: jeason Division: HIGHWAY Date:7/5/2013

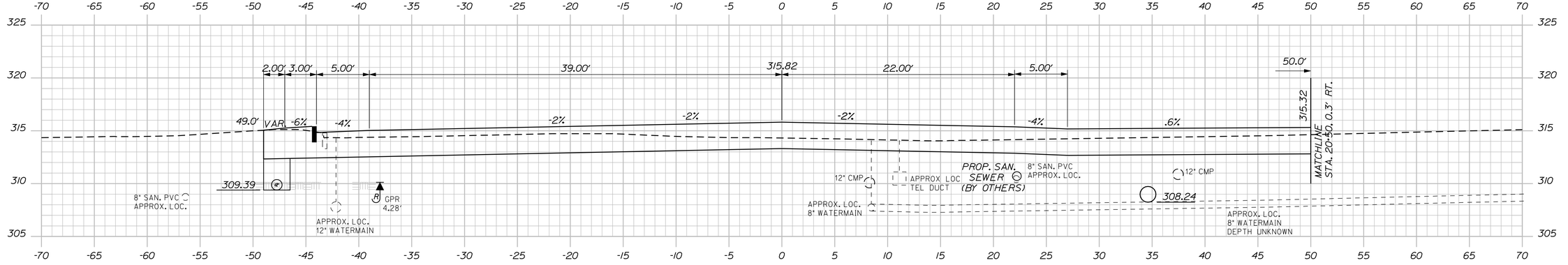
STA. 115+98.9 LT.
CONSTRUCT 29.5' WIDE COMMERCIAL ENTRANCE
WITH 29.5' WIDE CURB OPENING.
RETAIN EXISTING MASONRY WALLS EITHER
SIDE OF ENTRANCE



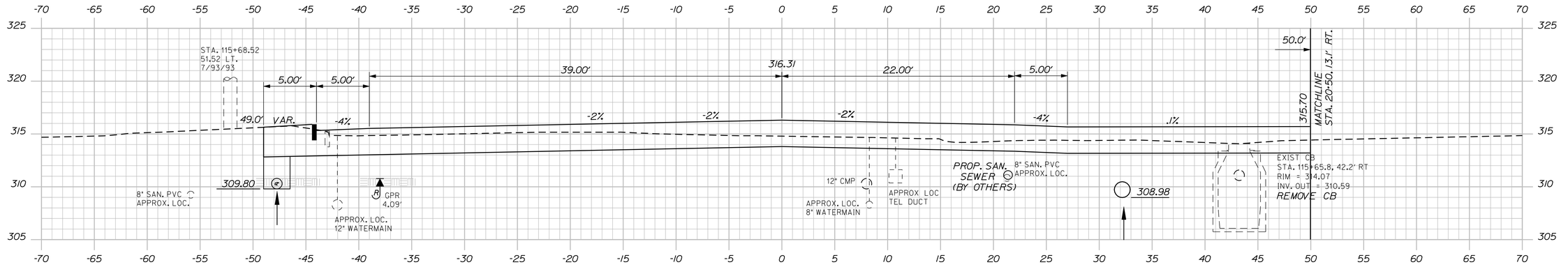
115+93.30

EXIST. SMH
STA 115+93.3, 23.2' RT.
RIM = 313.69
8" INV. IN S = 309.14
8" INV. IN = 309.68
10" INV. OUT = 309.02

EXIST CB
STA. 115+91.6, 31.2' RT.
RIM = 313.85
INV. IN = 310.18
INV OUT = 310.37
REMOVE CB



115+78.50



115+65.80

Sta. 115+65.80 to Sta. 115+93.30

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

50

OF 68

Filename: ...\MSTA\050_XSECT_115+65_021.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

STA. 116+52.00, 49.83' LT. TO STA. 116+72.50, 49.83' LT.
INSTALL 21 LF X 15" TYPE 'C' UD.

STA. 116+50.00, 49.00' LT
INSTALL MH, SHAPE 5
RIM = 312.90
12" INV. IN (W) = 307.15
12" INV. IN (N) = 308.15
15" INV. OUT (E) = 306.90

5.00' | 5.00' | 39.00' | 313.05 | 22.00' | 5.00' | 5.00'

49.0' VAR. | -4% | -1.5% | -2% | -4% | 2% VAR. | 36.0'

APPROX. LOC. 12" WATERMAIN
APPROX. LOC. 8" WATERMAIN
APPROX LOC TEL DUCT
10" SAN. TILE APPROX. LOC.
305.64

116+50.00

STA. 116+43.61' LT. TO STA. 116+48.71.3' LT.
REMOVE EXISTING PIPE AND
INSTALL 12 LF X 12" OPT III PIPE

REMOVE STA. 116+37.96, 27.91 RT., 24" MAPLE

C = 278 CY
F = 2 CY

5.00' | 5.00' | 39.00' | 313.78 | 22.00' | 5.00' | 5.00'

49.0' VAR. | -4% | -1.7% | -2% | -4% | 2% VAR. | 37.4'

EXIST. SMH
STA. 116+31.1, 58.5' LT.
RIM = 313.39
8" INV. IN = 306.40
6" INV. IN = 306.2
8" INV. OUT = 306.0

307.70

APPROX. LOC. 12" WATERMAIN
APPROX. LOC. 8" WATERMAIN
APPROX LOC TEL DUCT
10" SAN. TILE APPROX. LOC.
306.15

116+31.10

5.00' | 5.00' | 39.00' | 314.39 | 22.00' | 5.00'

0.72' | 5.14' | 313.64

60.0' | VAR. | -4% | -1.8% | -2% | -4% | 2% VAR. | 38.6'

STA. 116+18.95, 36.07' RT
PROPOSED FIRE HYDRANT
(BY OTHERS)

8" SAN. PVC APPROX. LOC.
308.20
APPROX. LOC. 12" WATERMAIN
APPROX. LOC. 8" WATERMAIN
APPROX LOC TEL DUCT
10" SAN. TILE APPROX. LOC.
306.57

116+15.40

EXIST. DMH
STA. 116+15.4, 9.2' RT
RIM = 312.77
12" INV. IN = 309.03
15" INV. IN = 310.15
24" INV. OUT = 305.39
REMOVE MH

STA. 115+99.25, 37.64' RT. TO STA. 116+64.80, 33.83' RT.
INSTALL 66 LF X 24" TYPE 'C' UD

STA. 116+04.73
26.84 RT.
7/93/93

6.00' | 5.00' | 39.00' | 314.98 | 22.00' | 5.00' | 9.53' | 8.54' | 50.0'

MATCHLINE STA. 20+50. 21.2' LT.

60.0' | -2.3% | 2% | -4% | -2% | -2% | -4% | -1.4% | (REMOVE BY OTHERS)

8" SAN. PVC APPROX. LOC.
308.70
APPROX. LOC. 12" WATERMAIN
STA. 116+00. 25.5' LT
HB-AUG-110 (N)
12" CMP
APPROX. LOC. 8" WATERMAIN
APPROX LOC TEL DUCT
10" SAN. TILE APPROX. LOC.
15" RCP

STA. 115+97.33 38.20' RT.
INSTALL CB, TYPE AI-C
EXTRA DEPTH
RIM = 314.08
12" INV. IN (SW) = 307.25
18" INV. IN (W) = 307.25
24" INV. OUT (E) = 307.00

C = 289 CY
F = 1 CY

STA. 115+96.19, 39.87' RT. TO STA. STA. 20+73.54, 10.72' RT.
INSTALL 44 LF X 12" RCP

116+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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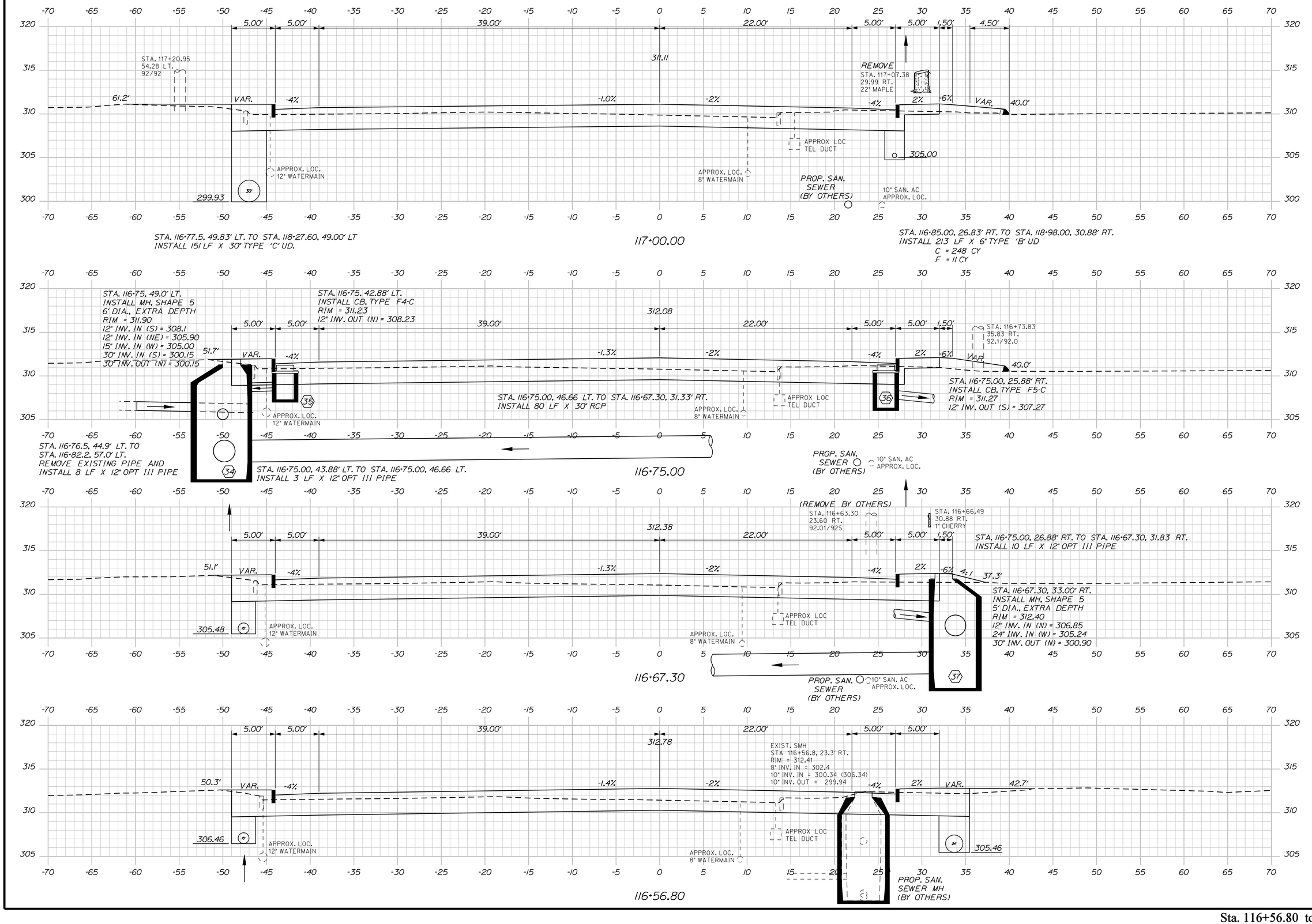
AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
51
OF 68

Sta. 116+00.00 to Sta. 116+50.00

Filename: ...\MSTA\051_XSECT_116-00_022.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



Filename: ...\MSTA\052_XSECT_116+56_023.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

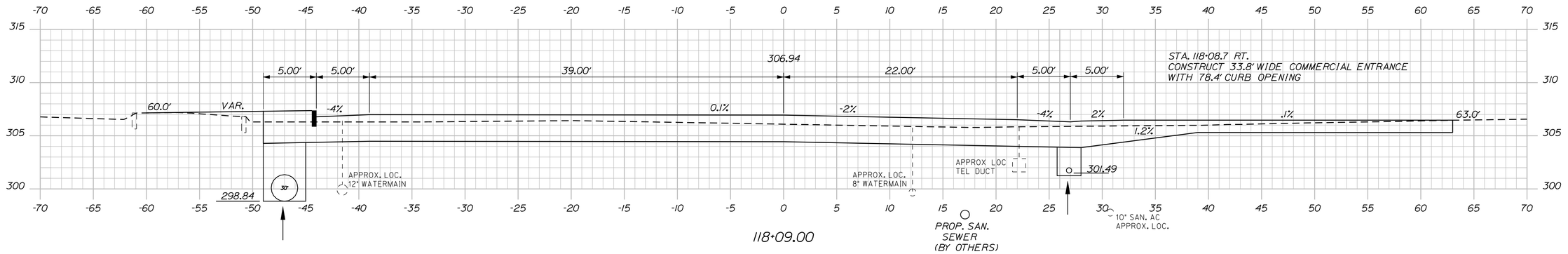
CROSS SECTIONS

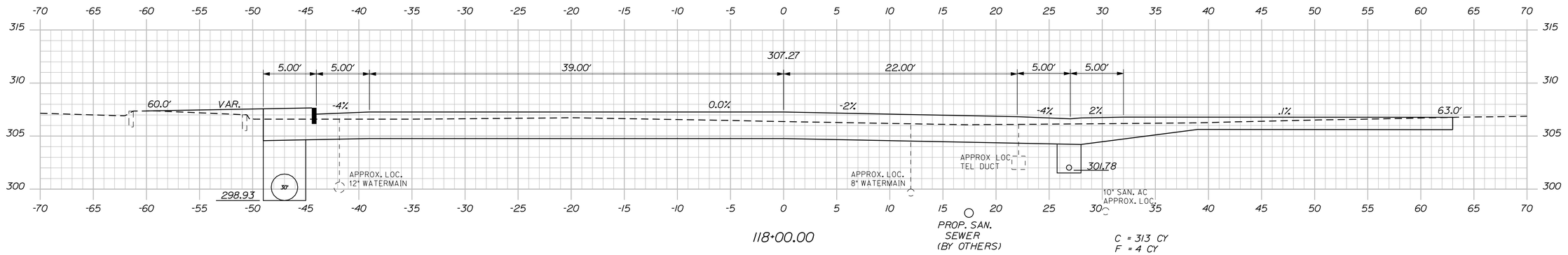
SHEET NUMBER

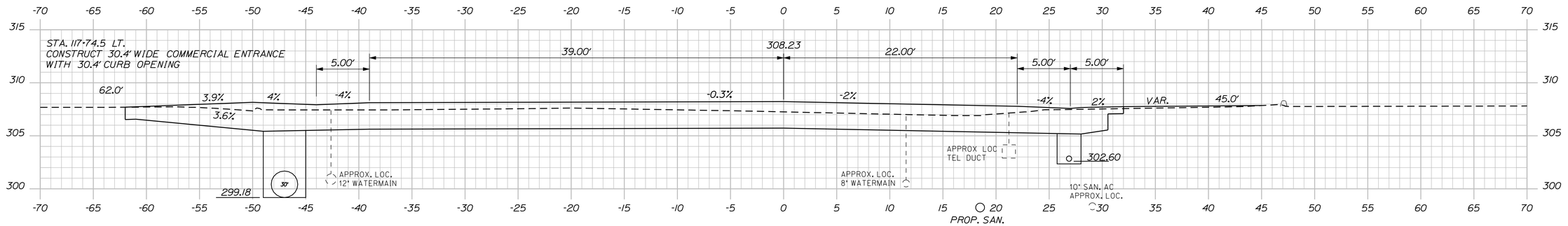
52

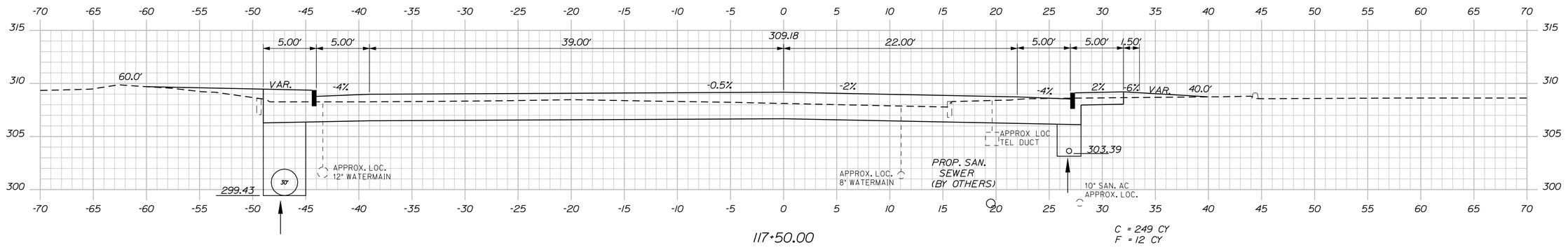
OF 68

Sta. 116+56.80 to Sta. 117+00.00









STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
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DESIGN3-DETAILED3		
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REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
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AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

53

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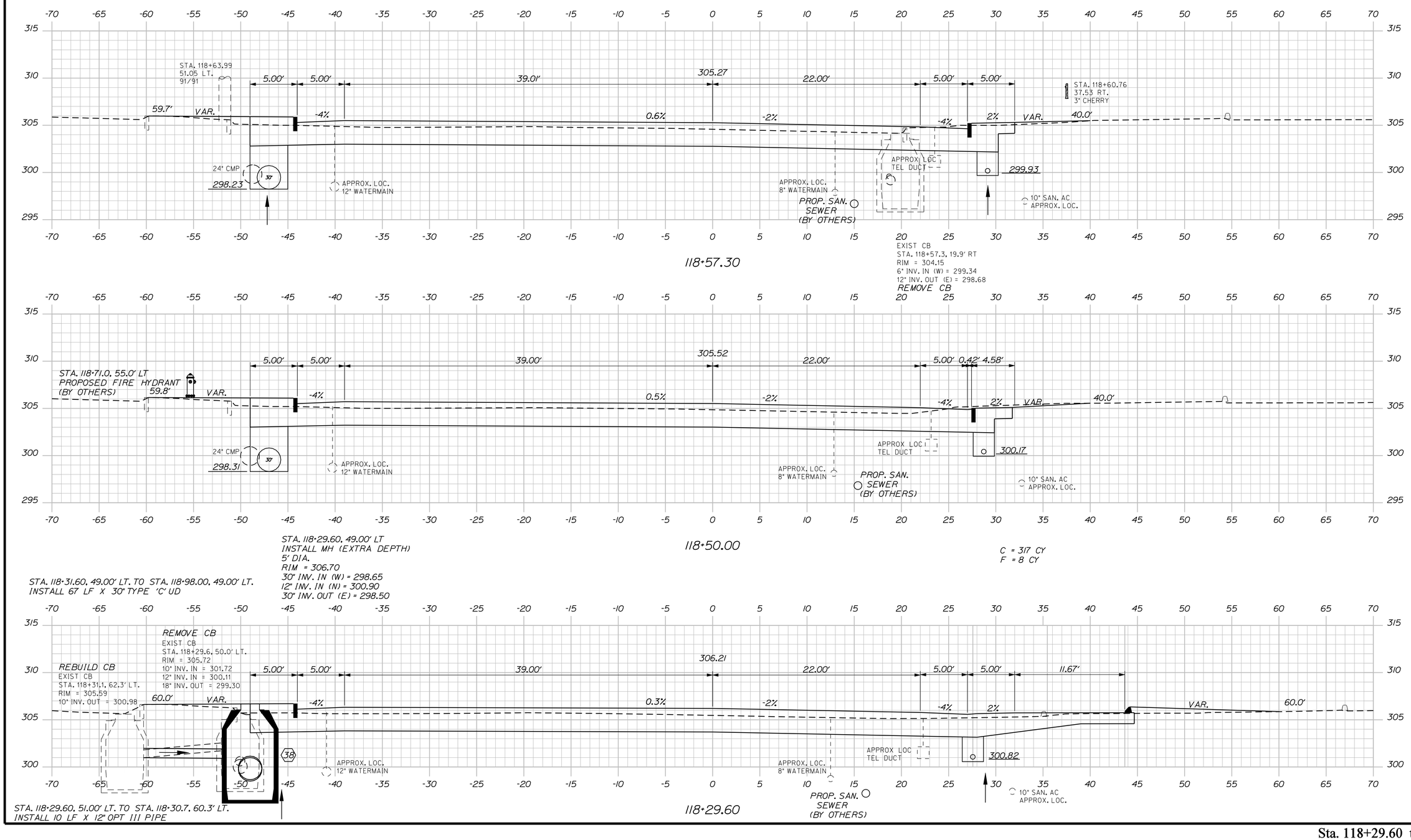
Sta. 117+50.00 to Sta. 118+09.00

Filename: ...\MSTA\053_XSECT_117+50_024.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



Sta. 118+29.60 to Sta. 118+57.30

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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AUGUSTA
WESTERN AVE, RTE 202

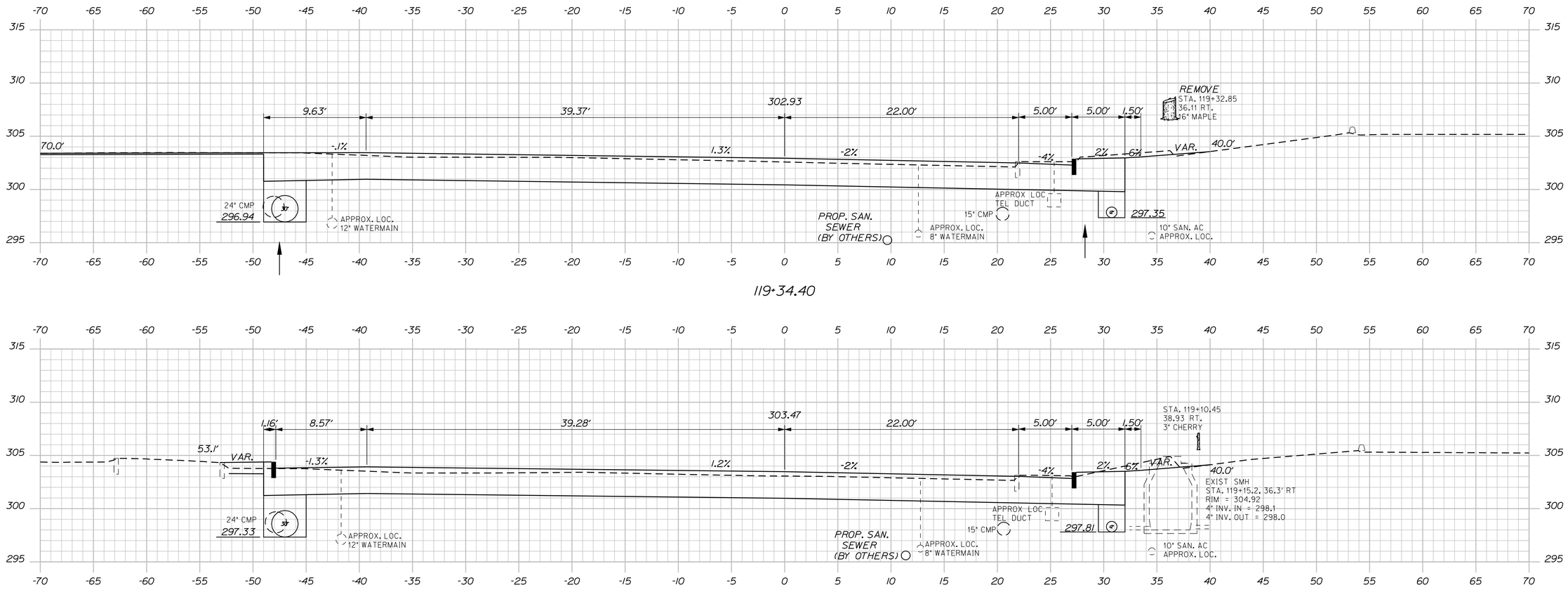
CROSS SECTIONS

SHEET NUMBER

54

OF 68

Filename: ...\MSTA\054_XSECT_118+29_025.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

	SIGNATURE
	7960
P.E. NUMBER	
July 3rd, 2013	
DATE	

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

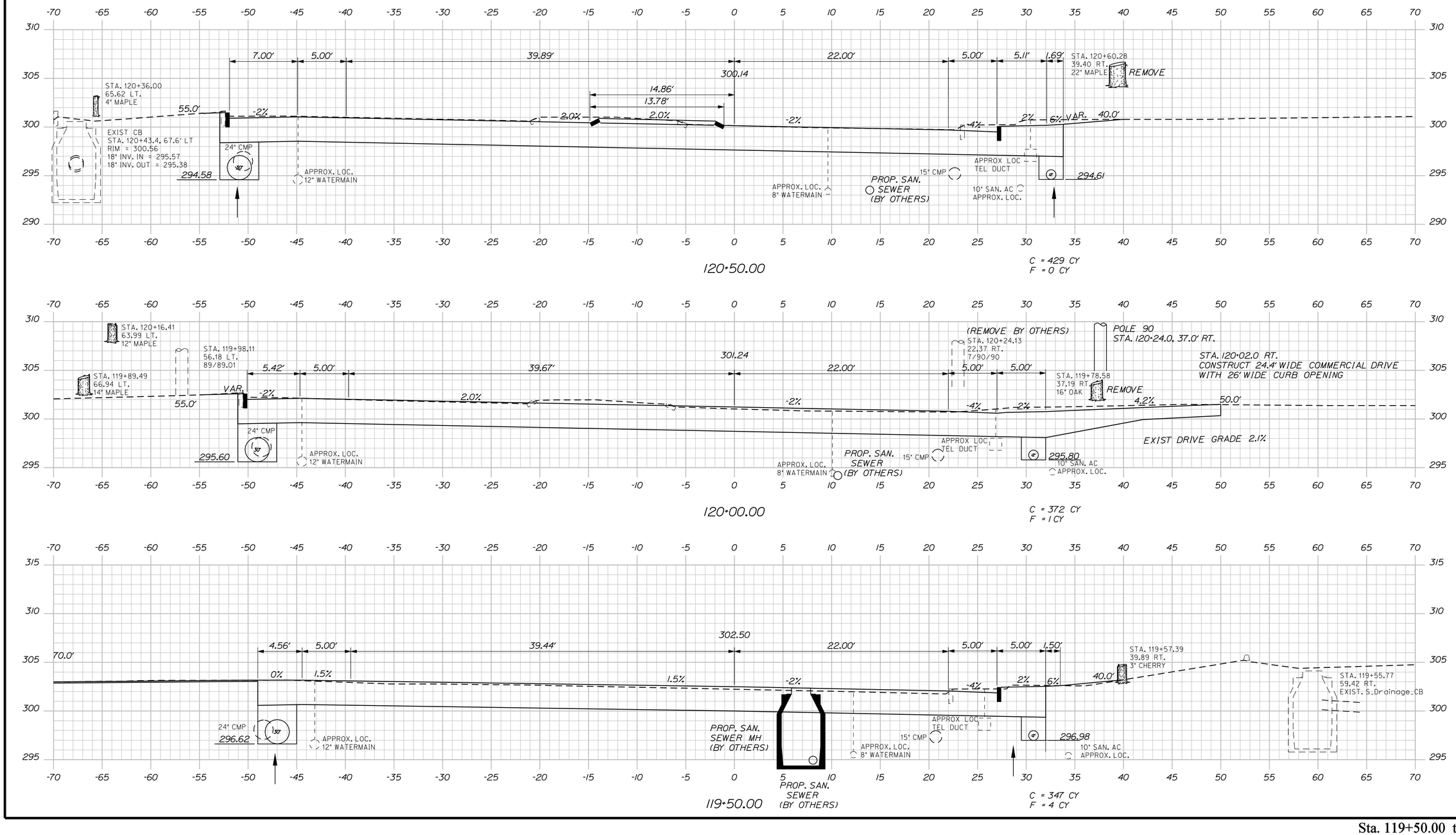
SHEET NUMBER

55

OF 68

Sta. 119+00.00 to Sta. 119+34.40

Filename: ...\MSTA\055_XSECT_119+00_026.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



Sta. 119+50.00 to Sta. 120+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960
P.E. NUMBER

July 3rd, 2013
DATE

AUGUSTA
WESTERN AVE, RTE 202

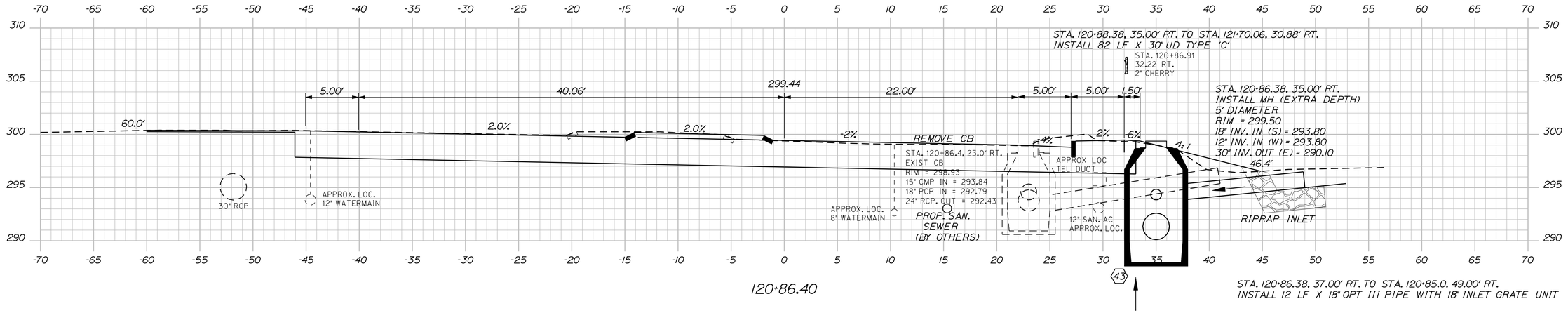
CROSS SECTIONS

SHEET NUMBER

56

OF 68

Filename: ...\MSTA\056_XSECT_119+50_027.dgn Division: HIGHWAY Username: jeason Date:7/5/2013



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	JLE	BY	DATE
CHECKED-REVIEWED	ALC	JLE	7/13
DESIGNS-DETAILED2		ALC	7/13
DESIGNS-DETAILED3			
REVISIONS 1			
REVISIONS 2			
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AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER
57
OF 68

Sta. 120+70.00 to Sta. 120+86.40

Filename: ...\MSTA\057_XSECT_120+70_028.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

Filename: ...\MSTA\058_XSECT_121+00_029.dgn Username: jeason Division: HIGHWAY Date:7/5/2013

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	JLE	7-13	
CHECKED-REVIEWED	ALG	7-13	
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DESIGN3-DETAILED3			
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REVISIONS 3			
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AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

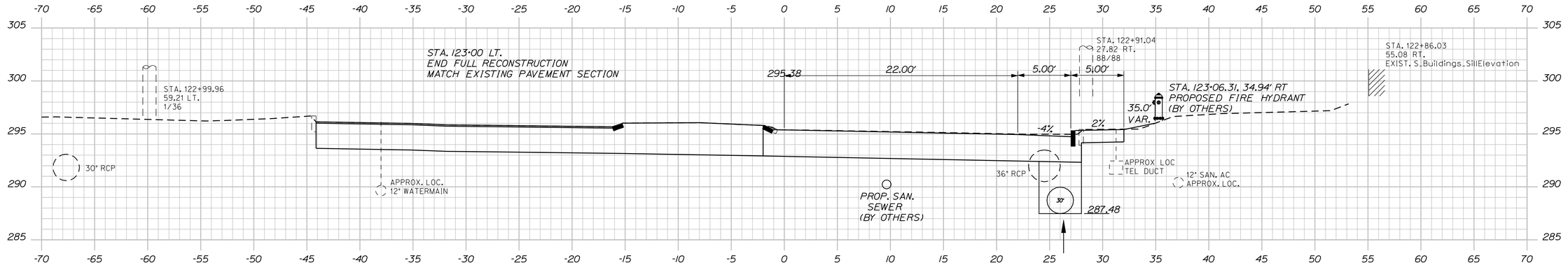
58

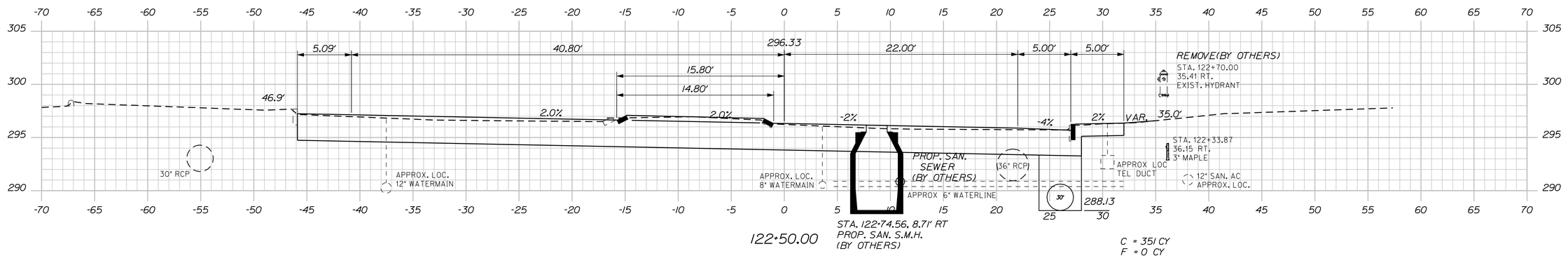
OF 68

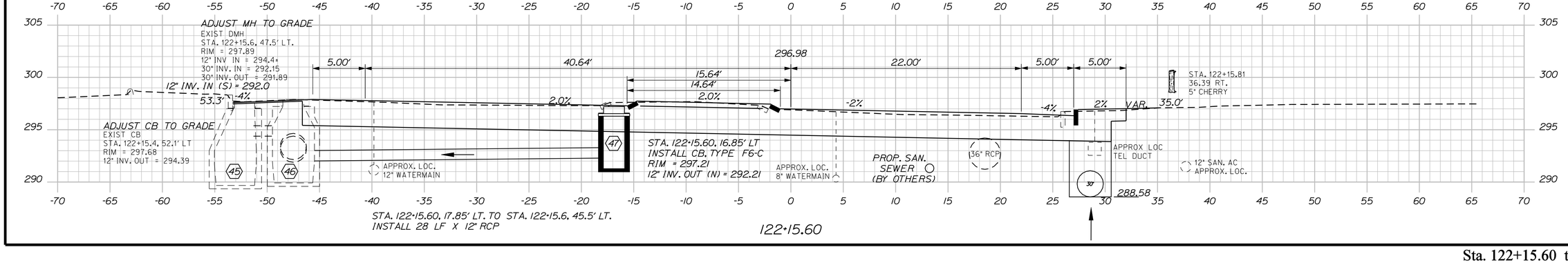
Sta. 121+00.00 to Sta. 122+00.00

Filename: ...\MSTA\059_XSECT_122+15_030.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

STA. 123+30.79 EASTBOUND
END FULL RECONSTRUCTION
MATCH EXISTING PAVEMENT SECTION







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN 4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
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DESIGN3-DETAILED3		
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AUGUSTA
WESTERN AVE, RTE 202

CROSS SECTIONS

SHEET NUMBER

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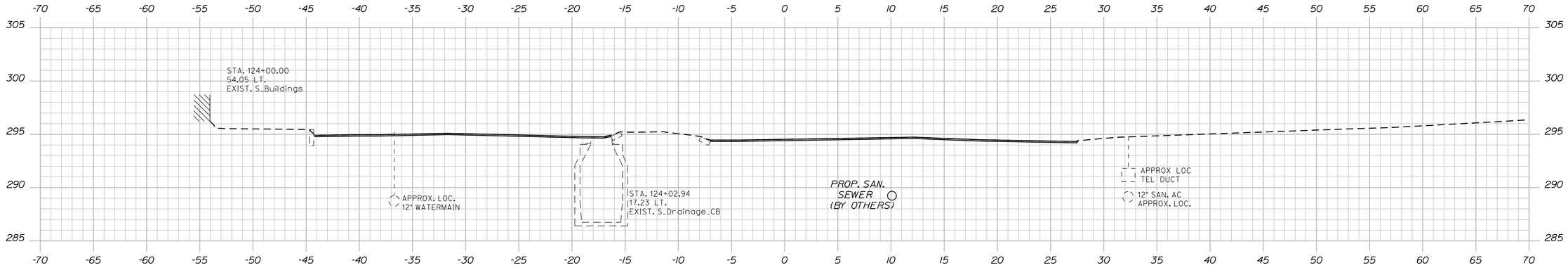
OF 68

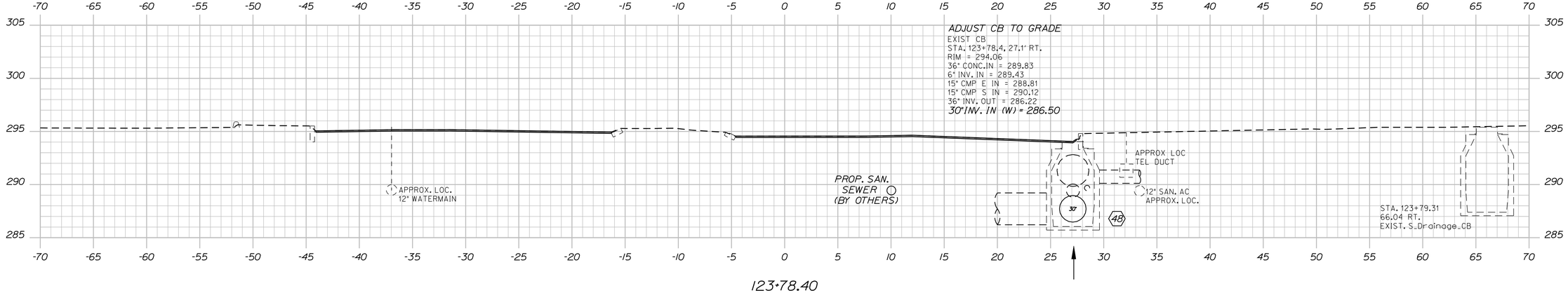
Sta. 122+15.60 to Sta. 123+00.00

Filename: ...\MSTA\060_XSECT_123+50_031.dgn Username: jeason Division: HIGHWAY Date:7/5/2013

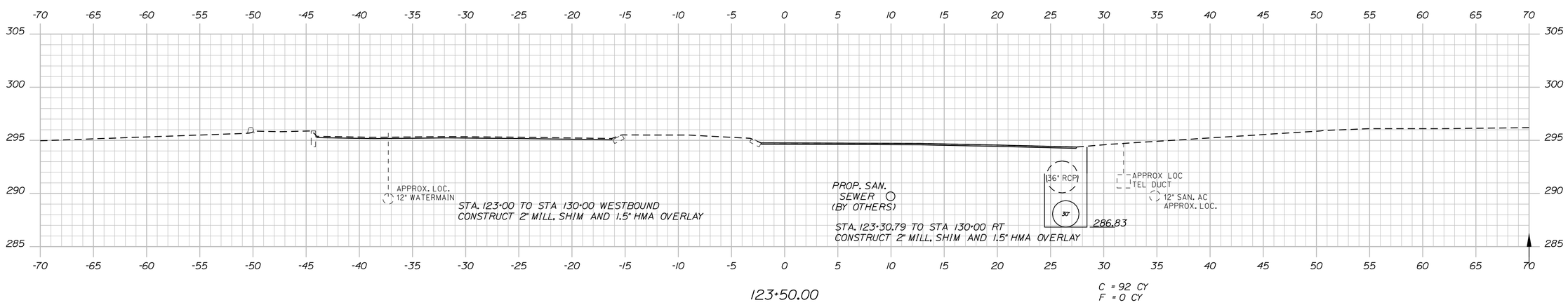
STA. 130+00.00
END PROJECT STP-4270(10)X



124+00.00



123+78.40



123+50.00

C = 92 CY
F = 0 CY

Sta. 123+50.00 to Sta. 124+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

WIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
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DESIGN3-DETAILED3		
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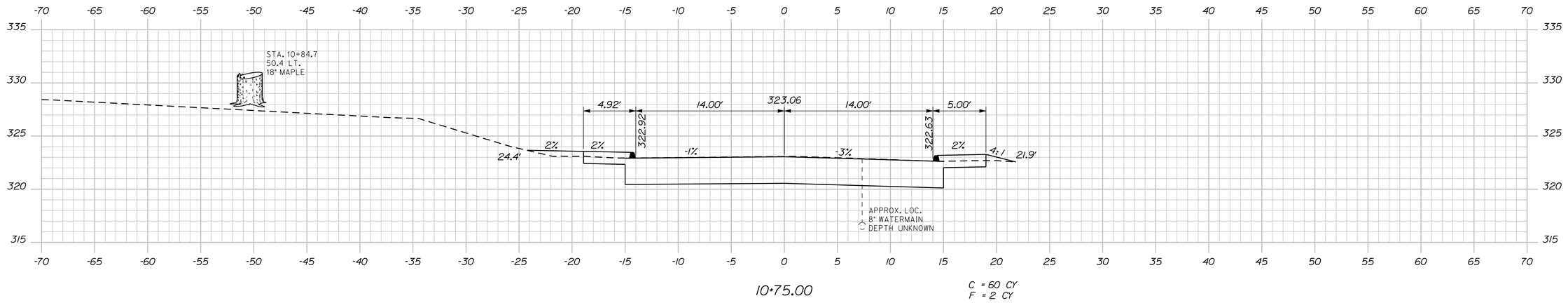

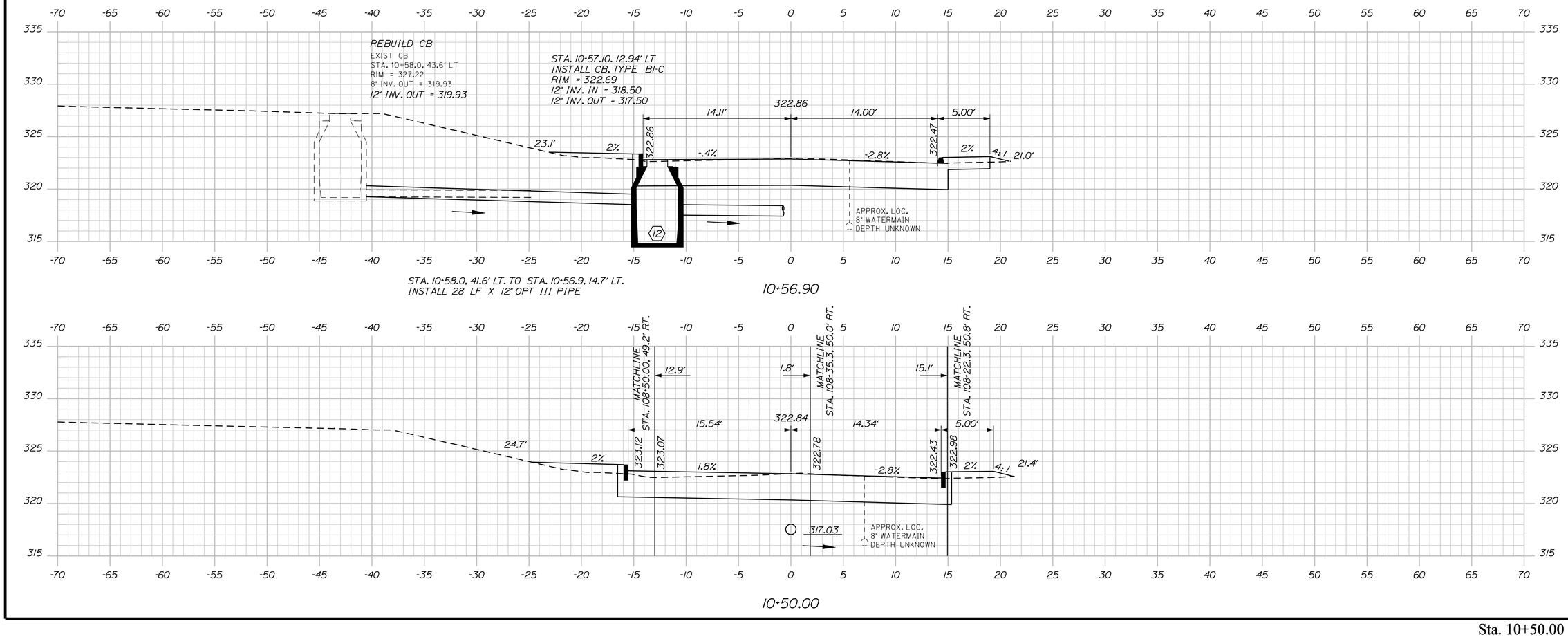

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

PIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY
DESIGN-DETAILED	JLE	
CHECKED-REVIEWED	ALG	
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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JLE		7-13
		7-13

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AUGUSTA
BRANN AVENUE

CROSS SECTIONS

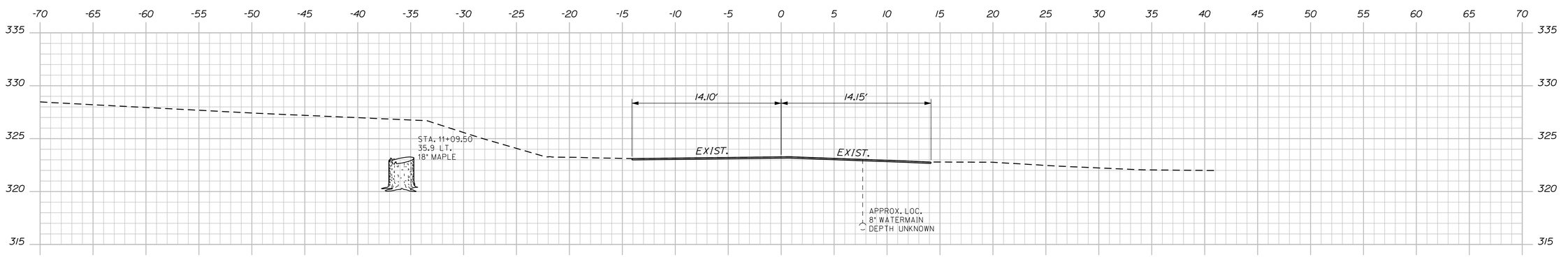
SHEET NUMBER
61
OF 68

Sta. 10+50.00 to Sta. 10+75.00

Filename: ...\MSTA\061_XSECT_10+50_001.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

Filename: ...\MSTA\062_XSECT_10+80_002.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

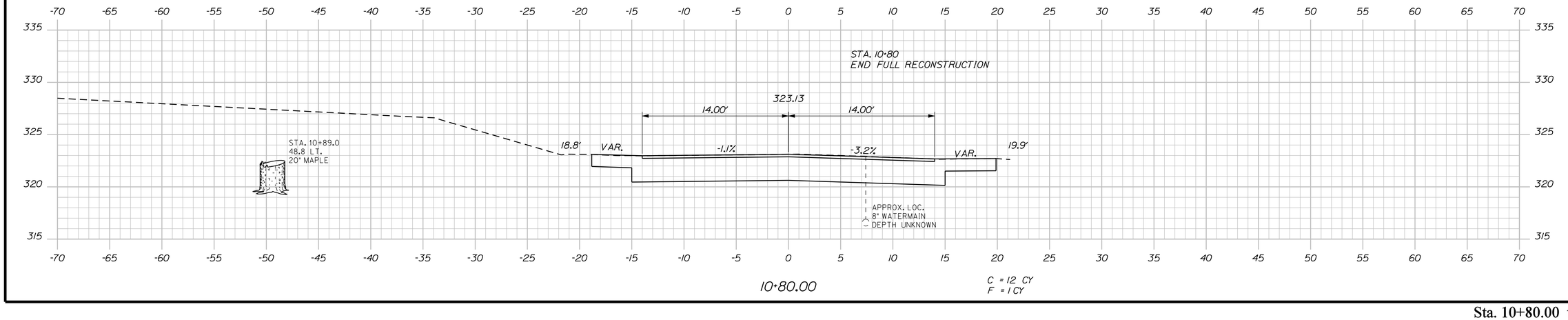
STA. 11+00
LIMIT OF WORK
MATCH EXISTING SECTION



11+00.00

STA. 10+80 TO STA. 11+00
CONSTRUCT 2" MILL, SHIM, AND 1.5" HMA OVERLAY

STA. 10+80
END FULL RECONSTRUCTION



10+80.00

C = 12 CY
F = 1 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

PIN
4270.10

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	7-13
CHECKED-REVIEWED	ALG	7-13
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960

P.E. NUMBER

July 3rd, 2013

DATE

AUGUSTA
BRANN AVENUE

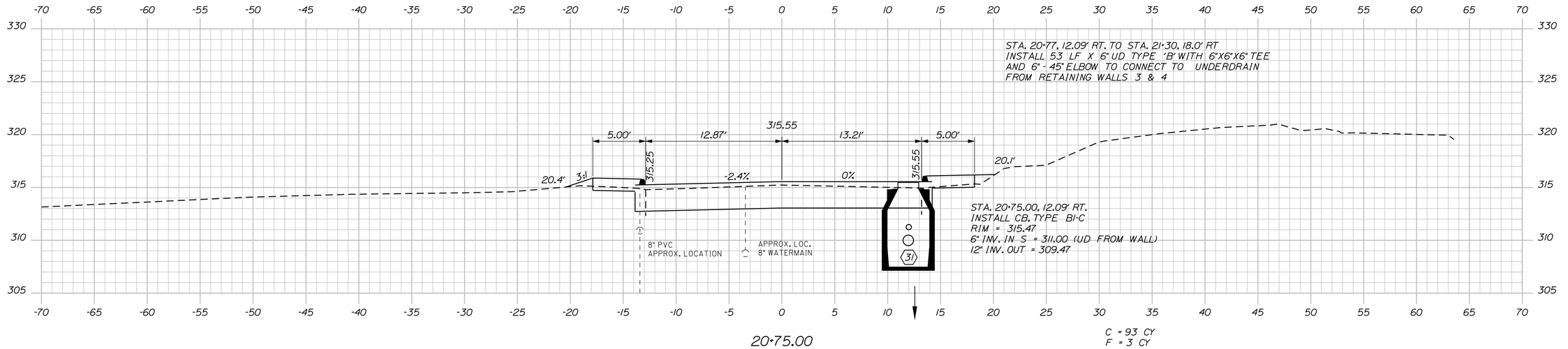
CROSS SECTIONS

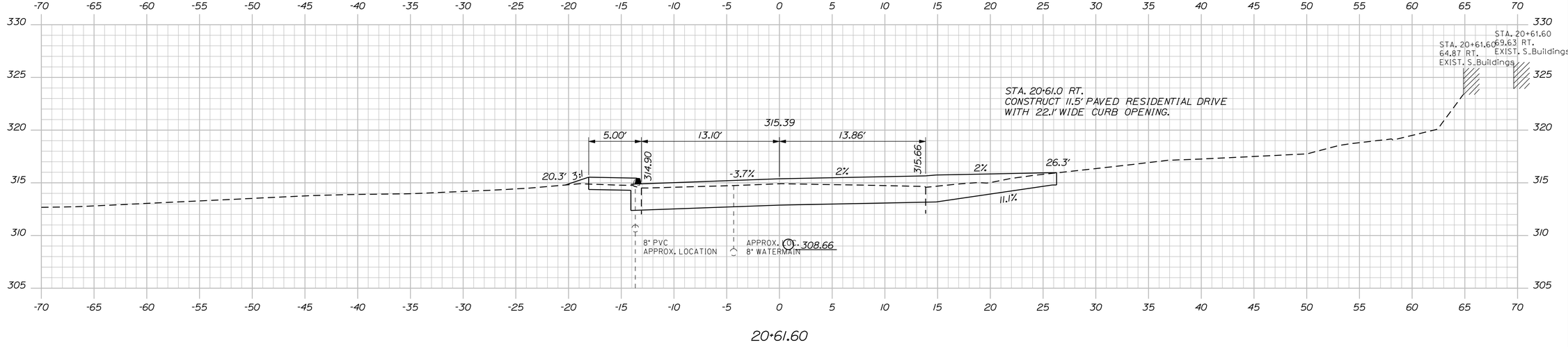
SHEET NUMBER

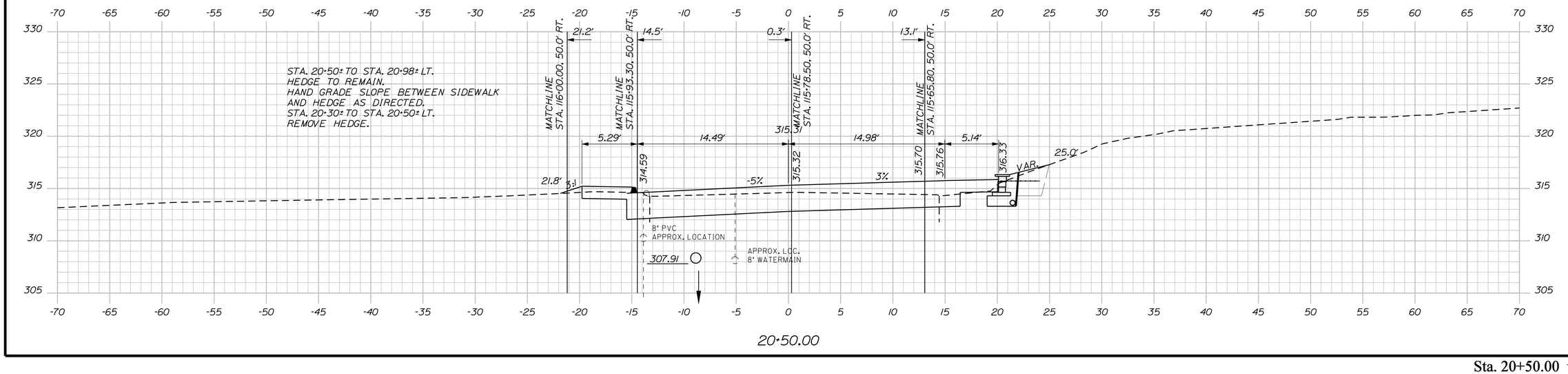
62

OF 68

Sta. 10+80.00 to Sta. 11+00.00







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

PIN
4270.10

HIGHWAY PLANS

PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	7-13
CHECKED-REVIEWED	ALG		7-13
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960

P.E. NUMBER
July 3rd, 2013

DATE

AUGUSTA
SMITH STREET

CROSS SECTIONS

SHEET NUMBER
63
OF 68

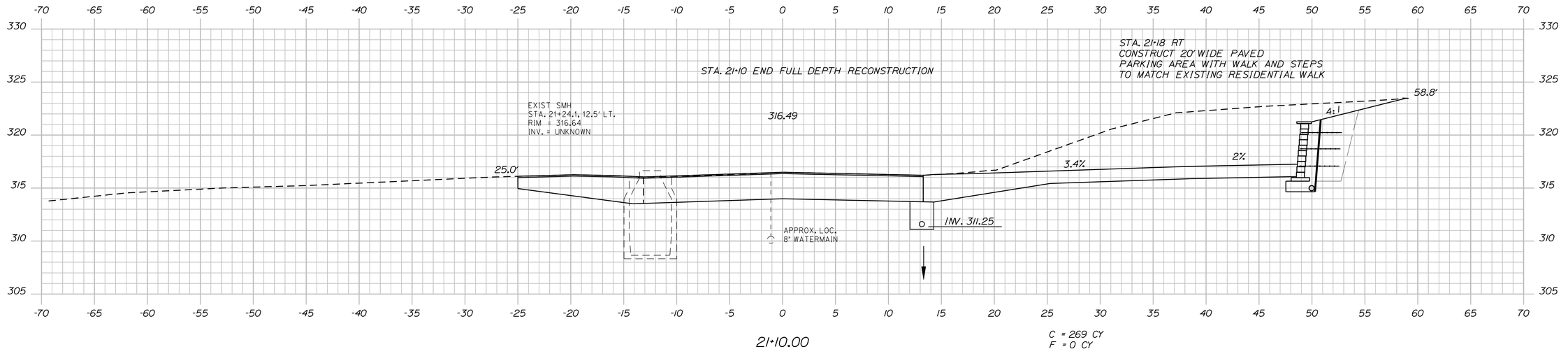
Sta. 20+50.00 to Sta. 20+75.00

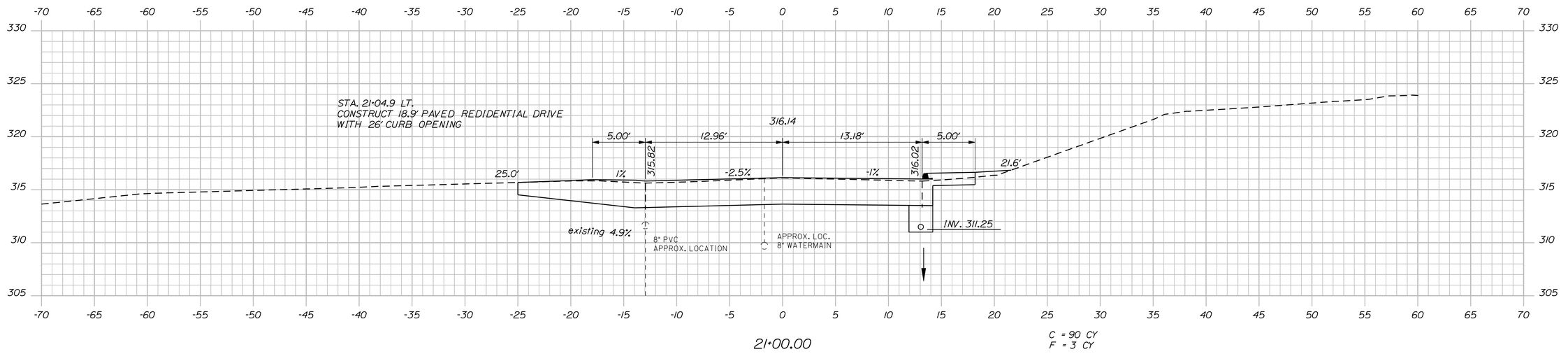
Filename: ...\MSTA\063_XSECT_20+50_001.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

Filename: ...\MSTA\064_XSECT_21+00_002.dgn Division: HIGHWAY Username: jeason Date:7/5/2013

STA. 21+50
LIMIT OF WORK

STA. 21+10 TO STA. 21+30
MILL AND OVER LAY 1.5" HMA PAVEMENT





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

PIN
4270.10

HIGHWAY PLANS

	BY	DATE
ERNIE MARTIN	JLE	7-13
		7-13

SIGNATURE
7960
P.E. NUMBER
July 3rd, 2013
DATE

PROJ. MANAGER	ERNIE MARTIN
DESIGN-DETAILED	JLE
CHECKED-REVIEWED	ALC
DESIGN2-DETAILED2	
DESIGN3-DETAILED3	
REVISIONS 1	
REVISIONS 2	
REVISIONS 3	
REVISIONS 4	
FIELD CHANGES	

AUGUSTA
SMITH STREET

CROSS SECTIONS

SHEET NUMBER
64
OF 68

Sta. 21+00.00 to Sta. 21+10.00

SITE PLAN
TODD C. & KATHY A. LAPLANTE
BY THAYER ENGINEERING CO.
1993
TA = 19,194± S.F.(SURVEY)

ROCKWOOD PARK
PLAN OF LOTS OF JAMES F. BUTLER AND HAZEL R. BUTLER
BY HENRY F. HILL, JR., CE
1955
RECORDED KENNEBEC COUNTY REGISTRY OF DEEDS
BOOK 17B PAGE 210

PRECISION MOTORS, INC.
PARCEL NO. (2)
LAND TAKEN = 714± S.F.
TOTAL AREA = 19,194± S.F.(SURVEY)
REM. AREA = 18,480± S.F.

ROCKWOOD PARK
PLAN OF LOTS OF JAMES F. BUTLER AND HAZEL R. BUTLER
BY HENRY F. HILL, JR., CE
1955
RECORDED KENNEBEC COUNTY REGISTRY OF DEEDS
BOOK 17B PAGE 210

P.I. STA. 106+42.05
D = 0°-34'-22.6"
Δ = 2°-49'-21.9" LT.
T = 246.38'
L = 492.67'
E = 3.03'
R = 10,000.00'

PAUL BLOUIN
PARCEL NO. (3)
LAND TAKEN = 131± S.F.(PRESC. EASE.)
LAND TAKEN = 2608± S.F.(OTHER)
TOTAL LAND TAKEN = 2739± S.F.
CONST. & MAINT. EASEMENT = 210± S.F.(1)
DRAINAGE EASEMENT = 775± S.F.(1)
TEMP. CONST. RIGHTS = 3350± S.F.(2)
TOTAL AREA = 2.06± AC.(CITY)
REM. AREA = 2.00± AC.

AMENDED SUBDIVISION PLAN
OF LEE FARM ACRES
FOR LEE FARM MALL ASSOCIATES
BY MESQUIER HILL DEVELOPMENT ASSOCIATES
1993
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
FILE NO. E-93112

SITE PLAN AND STANDARD BOUNDARY SURVEY
LEE FARM MALL
BY MESQUIER HILL DEVELOPMENT ASSOCIATES
1993
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
FILE NO. E-93113

SHUMAN FAMILY, LLC
PARCEL NO. (6)
LAND TAKEN = 177± S.F.(PRESC. EASE.)
LAND TAKEN = 1080± S.F.(OTHER)
TOTAL LAND TAKEN = 1257± S.F.
CONST. & MAINT. EASE. = 770± S.F.(2)
DRAINAGE EASEMENT = 1000± S.F.(1)
TEMP. CONST. RIGHTS = 3450± S.F.(2)
TOTAL AREA = 6.09± AC.(CITY)
REM. AREA = 6.06± AC.

SEWER LINE EASEMENT AGREEMENT
DATED 5/7/06
BOOK 9068, PAGE 218
20' SEWER EASE

GRID 19XW ZONE

WOODSIDE ROAD
WOODSIDE RD.
PAVED
SEE S.H.C. FILE NO. 6-25
SUZUKI DEALER
SUZUKI
TEMP. 1535± S.F.
CONST. LIMITS
108'±
11'±
714± S.F.
70'±
70'± C
38'±
46.41'
S.78°-28'-54.3"E.
195.92'
2608± S.F.
396'±
P.C. STA. 103+95.66
OUTLET DRAINAGE STRUCTURE
P.C. STA. 103+95.66 TO STA. 104+22 LT.
EASE.
TEMP.
DRAIN.
775± S.F.
2" BOX ALDER
SUZUKI
LIMITS
CLL
OTH
ROCKWOOD BROOK
1060± S.F.
CONST. & MAINT. EASE. LIMITS
1000± S.F.
1815± S.F.
CONST.
460± S.F.
210± S.F.
115±
131± S.F.
177± S.F.
OUTLET DRAINAGE STRUCTURE
STA. 105+25 TO STA. 105+58 LT.
MAINT.
310± S.F.
CONST. & MAINT. EASE. LIMITS
ROCKWOOD PARTS SERVICE
TEMP. CONST.
2390± S.F.
253.17'
S.77°-24'-58.3"E.
138±
SECURITY
U.S. ROUTE 202
WESTERN AVE.
STATE HIGHWAY "15"
99
100
101
102
103
104
105
106
(118'±)
253.59'
242.07'
492.67'
BEGIN B.L.
+28±
+29±
+46±
+47±
+16±
+75
+65
+70
+95±
+98±
+99±
+15
+73±
+22
+48
+60
+68
+75
+85
+95
+10±
+11±
+25
+27±
+35
+50
+66
+48
+58
+70
+97±
+04±
18" CMP
1348/102
18" PCP
1349/106
15" PCP
20"/35"/30"/105
108/1351
1352
500
24" PCP
1355/1048
1354/101
207
SPEED LIMIT 30
50'
85'
65'
60'
100'
40'
44'±
6'±
PAVED
MARJAN SEYWERD BLVD
28" ELM
42" ELM
36" ELM
30" ELM
14" MAPLE
4818± S.F.
CHURCH
3799± S.F.
371'±
224'±
145'±
1150± S.F.
TEMP.
CONST.
LIMITS
90± S.F.
TEMP. CONST. LTS.
1025± S.F.
EASE. LTS.
DRAIN. LIMITS
DR. REBAR GAITHER270
228'±
97'±
1005± S.F.
115'±
320± S.F.
1185± S.F.
CHANNEL
870± S.F.
265± S.F.
TEMP. CONST. RTS.
DIVERSION
6565± S.F.
228'±
240± S.F.
343'±
LOT 23
PAVED
STA. 100+00.00
BEGIN PROJECT STP-4270(10)X
P.T. STA. 101+53.59
OUTLET DRAINAGE STRUCTURE
STA. 102+65 TO STA. 102+99 RT.
OUTLET DRAINAGE STRUCTURE
STA. 105+50 TO STA. 105+66 RT.
TEMP. CONST. LTS. 255± S.F.
CONST. & MAINT. EASE. LTS.
DRAIN. EASE. LTS.
DAVID A. GOVE
PARCEL NO. (5)
LAND TAKEN = 6565± S.F.
CONST. & MAINT. EASE. = 320± S.F.(1)
CHANNEL DIVERSION EASE. = 1185± S.F.(1)
DRAINAGE EASEMENT = 240± S.F.(1)
TEMP. CONST. RIGHTS = 255± S.F.(1)
TOTAL AREA = 33,043± S.F.(CALC.)
REM. AREA = 26,478± S.F.
BRANN DEVELOPMENT
1947
KENNEBEC COUNTY REGISTRY OF DEEDS
BOOK 16 PAGE 1

MARJAN S. SEYWERD
PARCEL NO. (1)
LAND TAKEN = 3799± S.F.
DRAINAGE EASEMENT = 1025± S.F.(1)
TEMP. CONST. RIGHTS = 1150± S.F.(1)
TOTAL AREA = 1.97± AC.(OWNER)
REM. AREA = 1.88± AC.

THE APOSTOLIC CHURCH
PARCEL NO. (4)
LAND TAKEN = 4818± S.F.
CONST. & MAINT. EASE. = 150± S.F.(1)
DRAINAGE EASEMENT = 265± S.F.(1)
CHANNEL DIVERSION EASEMENT = 870± S.F.(1)
TEMP. CONST. RIGHTS = 1435± S.F.(3)
TOTAL AREA = 2.48± AC.(OWNER)
REM. AREA = 2.37± AC.

STANDARD BOUNDARY SURVEY FOR
JOSEPH M. O'DONNELL
BY YORK HILL SURVEYING
1998
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
BOOK D-98 PAGE 63

P.I. STA. 99+99.77
D = 0°-45'-50.2"
Δ = 2°-21'-01.7" RT.
T = 153.85
L = 307.68'
E = 1.58'
R = 7500.00'

KENNEBEC COUNTY RECORDS
VOL. 1 PAGE 110
1801
4 RODS
ALSO SEE S.H.C. FILE NO. 6-145
ALSO SEE S.H.C. FILE NO. 6-25

P.L. IS CENTER OF ROCKWOOD BROOK

WIN 4270.10

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

SYMBOLS
- ○WELL (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE P.L.
- LIMITS OF RIGHT-OF-WAY (LOW.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- ● I.P. or ■ I.P.F. (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- ⊕R.M. (TRAVERSE POINT)
- W WATER LINE
- G GAS LINE
- E ELECTRIC LINE
- T TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP	T.L.B.	
EXIST. R/W	D.W.B.	T.L.B.
PROP. LINES	D.W.B.	D.S.G.
AREAS	T.L.B.	

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
AUGUSTA
RIGHT OF WAY MAP

REVISIONS

NO.	DATE	DESCRIPTION	BY

PLAN NO.	FILED IN PLAN BOOK	PAGE	COUNTY RECORD GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
				COND.	7/2/13	11434	108

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE · PETER A. BELANGER 1341 · PROFESSIONAL LAND SURVEYOR

STATE HIGHWAY "15"
U.S. ROUTE 202\WESTERN AVENUE
AUGUSTA KENNEBEC COUNTY
FEDERAL AID PROJECT NO. STP-4270(10)X

2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 6-378A
SCALE 1" = 25'	SHEET 1 OF 4	

SHEET NUMBER
65
OF 68

Filename: ...\10\ROW\MSTA\101_RWPLAN1.dgn Division: ROW Username: Terry.BlairSr Date:7/3/2013

Filename: ...\10\row\ms1o\102_RWPLAN2.dgn Division: ROW Username: Terry.BlairSr Date:7/3/2013

AMENDED SUBDIVISION PLAN
OF LEE FARM ACRES
FOR LEE FARM MALL ASSOCIATES
BY MEGQUIER HILL DEVELOPMENT ASSOCIATES
1993
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
FILE NO. E-93112

SITE PLAN AND STANDARD BOUNDARY SURVEY
LEE FARM MALL
BY MEGQUIER HILL DEVELOPMENT ASSOCIATES
1993
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
FILE NO. E-93113

P.I. STA. 106+42.05
D = 0°-34'-22.6"
Δ = 2°-49'-21.9" LT.
T = 246.38'
L = 492.67'
E = 3.03'
R = 10,000.00'

SUBDIVISION PLAN
LEE FARM ESTATES
BY ALIBERTI, LaROCHELLE & HODSON ENGINEERING CORPORATION, INC.
1987
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
FILE NO. E-88160

SITE PLAN AND STANDARD BOUNDARY SURVEY
LEE FARM MALL
BY MEGQUIER HIALL DEVELOPMENT ASSOCIATES
1993
RECORDED
KENNEBEC COUNTY REGISTRY OF DEEDS
FILE NO. E-93113

SHUMAN AVENUE
f/k/a FIELDVIEW AVENUE
R/W TO OTHERS

SHUMAN FAMILY, LLC
PARCEL NO. (6)
LAND TAKEN = 177± S.F.(PRESC. EASE.)
LAND TAKEN = 1080± S.F.(OTHER)
TOTAL LAND TAKEN = 1257± S.F.
CONST. & MAINT. EASE. = 770± S.F.(2)
DRAINAGE EASEMENT = 1000± S.F.(1)
TEMP. CONST. RIGHTS = 3450± S.F.(2)
TOTAL AREA = 6.09± AC.(CITY)
REM. AREA = 6.06± AC.

LEE FARM MALL CONDOMINIUM ASSOCIATION, INC.
PARCEL NO. (9)
LAND TAKEN = 3200± S.F.
TEMP. CONST. RIGHTS = 3470± S.F.(2)
TOTAL AREA = 5.48± AC.(SURVEY)
REM. AREA = 5.41± AC.

SHUMAN FAMILY LLC
PARCEL NO. (11)
LAND TAKEN = 1054± S.F.
TEMP. CONST. RIGHTS = 3120± S.F.(1)
TOTAL AREA = 22.43± AC.(DEED)
REM. AREA = 22.41± AC.

CHARLIE'S MOTOR
MALL, INC.
(LESSEE)

SHUMAN FAMILY SECOND LLC
PARCEL NO. (13)
LAND TAKEN = 2824± S.F.
TEMP. CONST. RIGHTS =
4005± S.F.(1)
TOTAL AREA = 9.99± AC.(CITY)
REM. AREA = 9.93± AC.

CHARLES & NANCY SHUMAN
(LESSEE)

OUTLET DRAINAGE
STRUCTURE
STA. 105+25 TO
STA. 105+58 LT.

NOTE:
RIGHTS TO INSTALL AND MAINTAIN
THIS PIPE TO BE ACQUIRED BY OTHERS

P.T. STA. 108+88.33

S.78°-54'-15.0"E.
237.12'

S.77°-24'-58.3"E.
253.17'

S.78°-22'-43.7"E.
963.20'

492.67'

660.67'

JEFFREY C. BISSON
ARTELISSA A. BISSON
PARCEL NO. (7)
LAND TAKEN =
1413± S.F.
TEMP. CONST. RIGHTS =
545± S.F.(1)
TOTAL AREA =
12,962± S.F.(CALC.)
REM. AREA =
11,549± S.F.

INLET DRAINAGE STRUCTURE
STA. 10+50 TO 10+65 LT.

DAVID A. GOVE
PARCEL NO. (5)
LAND TAKEN = 6565± S.F.
CONST. & MAINT. EASE. = 320± S.F.(1)
CHANNEL DIVERSION EASE. = 1185± S.F.(1)
DRAINAGE EASEMENT = 240± S.F.(1)
TEMP. CONST. RIGHTS = 255± S.F.(1)
TOTAL AREA = 33,043± S.F.(CALC.)
REM. AREA = 26,478± S.F.

BRANN DEVELOPMENT
1947
KENNEBEC COUNTY REGISTRY OF DEEDS
BOOK 16 PAGE 1

P.L. IS CENTER OF ROCKWOOD BROOK

KENNEBEC COUNTY RECORDS
VOL. 1 PAGE 110
1801
4 RODS
ALSO SEE S.H.C. FILE NO. 6-145
ALSO SEE S.H.C. FILE NO. 6-25

BRANN AVENUE
CITY OF AUGUSTA RECORDS
ACCEPTED 1948
BOOK 3 PAGE 74

SHUMAN FAMILY SECOND LLC
PARCEL NO. (8)
LAND TAKEN = 3094± S.F.
DRAINAGE EASEMENT = 405± S.F.(1)
TEMP. CONST. RIGHTS = 4550± S.F.(2)
TOTAL AREA = 1.14± AC.(CITY)
REM. AREA = 1.07± AC.

BRANN DEVELOPMENT
1947
KENNEBEC COUNTY REGISTRY OF DEEDS
BOOK 16 PAGE 1
BOUNDARY SURVEY FOX RIDGE PROPERTIES
FILE NO. D-89 316

SHUMAN FAMILY SECOND LLC
PARCEL NO. (10)
LAND TAKEN = 2404± S.F.
TEMP. CONST. RIGHTS = 1710± S.F.(1)
TOTAL AREA = 1.18± AC.(CITY)
REM. AREA = 1.12± AC.

PLAN OF TOPO & STANDARD BOUNDARY SURVEY
FOR CHARLES SHUMAN & NANCY BETH SHUMAN
BY THAYER ENGINEERING CO.
1997

SHUMAN FAMILY LLC
PARCEL NO. (12)
LAND TAKEN = 4815± S.F.
TEMP. CONST. RIGHTS = 7580± S.F.(1)
TOTAL AREA = 5.91± AC.(CITY)
REM. AREA = 5.80± AC.

WIN 4270.10

SEE S.H.C. FILE NO

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

SYMBOLS

- IP or ⊕/PF (IRON PIPE or PIN FOUND)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- ⊕/M (TRAVERSE POINT)
- (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- LIMITS OF RIGHT-OF-WAY (LOW-P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE

ITEM	TECH	CHECKED
BASE MAP	T.L.B.	T.L.B.
EXIST. R/W	D.W.B.	
PROP. LINES	D.W.B.	T.L.B.
AREAS	T.L.B.	D.S.G.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
AUGUSTA
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK				PAGE	COUNTY RECORD		
NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE		
		COND.	7/2/13	11434	108		

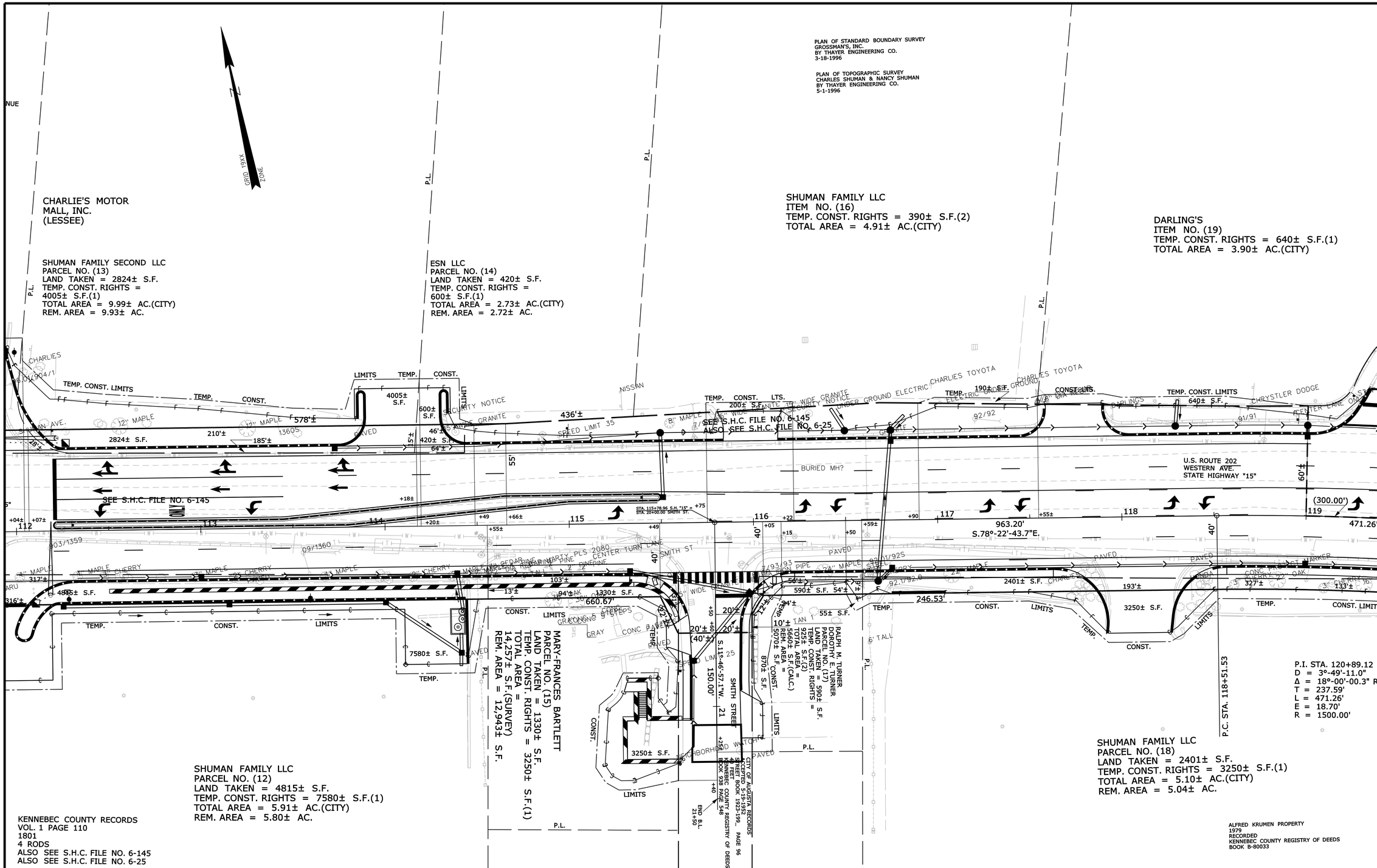
DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1941
PROFESSIONAL
LAND SURVEYOR

STATE HIGHWAY "15"
U.S. ROUTE 202\WESTERN AVENUE
AUGUSTA KENNEBEC COUNTY
FEDERAL AID PROJECT NO. STP-4270(10)X

2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 6-378A
SCALE 1" = 25'	SHEET 2 OF 4	

SHEET NUMBER
66
OF 68



THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

SYMBOLS

- IP or IPF (IRON PIPE or PIN FOUND)
- ST. (SEPTIC TANK)
- (ROW MONUMENT)
- BM (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE
- WELL (WELL)
- GROUND LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE
- LIMITS OF WROUGHT PORTION (L.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP	T.L.B.	
EXIST. R/W	D.W.B.	
PROP. LINES	D.W.B.	T.L.B.
AREAS	T.L.B.	D.S.G.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
AUGUSTA
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	7/2/13	11434	108

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

STATE OF MAINE
PETER A. BELANGER
1341
PROFESSIONAL LAND SURVEYOR

STATE HIGHWAY "15"
U.S. ROUTE 202\WESTERN AVENUE
AUGUSTA KENNEBEC COUNTY
FEDERAL AID PROJECT NO. STP-4270(10)X

2012 | RIGHT-OF-WAY MAP | D.O.T. FILE NO. 6-378A
SCALE 1" = 25' | SHEET 3 OF 4

SHEET NUMBER
67
OF 68

Filename: ...\10\row\msta\103_RWPLAN3.dgn Division: ROW Username: Terry.BlairSr Date:7/3/2013

THIS PLAN WAS PREPARED IN CONNECTION WITH THE DEPARTMENT'S ACQUISITION OF REAL PROPERTY FOR TRANSPORTATION PURPOSES. IT CANNOT BE USED TO ESTABLISH LEGAL BOUNDARIES BETWEEN ABUTTING PROPERTY OWNERS.

SYMBOLS

- IP or IPF (IRON PIPE or PIN FOUND)
- S.T. (SEPTIC TANK)
- (ROW MONUMENT)
- BM (TRAVERSE POINT)
- WATER LINE
- GAS LINE
- ELECTRIC LINE
- TELEPHONE LINE
- SEWER LINE
- WELL (WELL)
- GRADING LIMIT LINE
- CONSTRUCTION LIMIT LINE
- PROPERTY LINE PL
- LIMITS OF WROUGHT PORTION (L.O.W.P.)
- EXISTING RIGHT OF WAY
- NEW RIGHT OF WAY
- NEW ROW WITHIN EXIST. ROW
- CONTROL OF ACCESS

ITEM	TECH	CHECKED
BASE MAP	T.L.B.	
EXIST. R/W	D.W.B.	
PROP. LINES	D.W.B.	T.L.B.
AREAS	T.L.B.	D.S.G.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION - AUGUSTA, ME 04333-0016
AUGUSTA
RIGHT OF WAY MAP

REVISIONS			
NO.	DATE	DESCRIPTION	BY

PLAN FILED IN PLAN BOOK PAGE COUNTY RECORD

NO.	GRANTOR	INSTRUMENT	DATE	BOOK	PAGE
		COND.	7/2/13	11434	108

DAVID BERNHARDT
COMMISSIONER
KENNETH L. SWEENEY
CHIEF ENGINEER
DATE

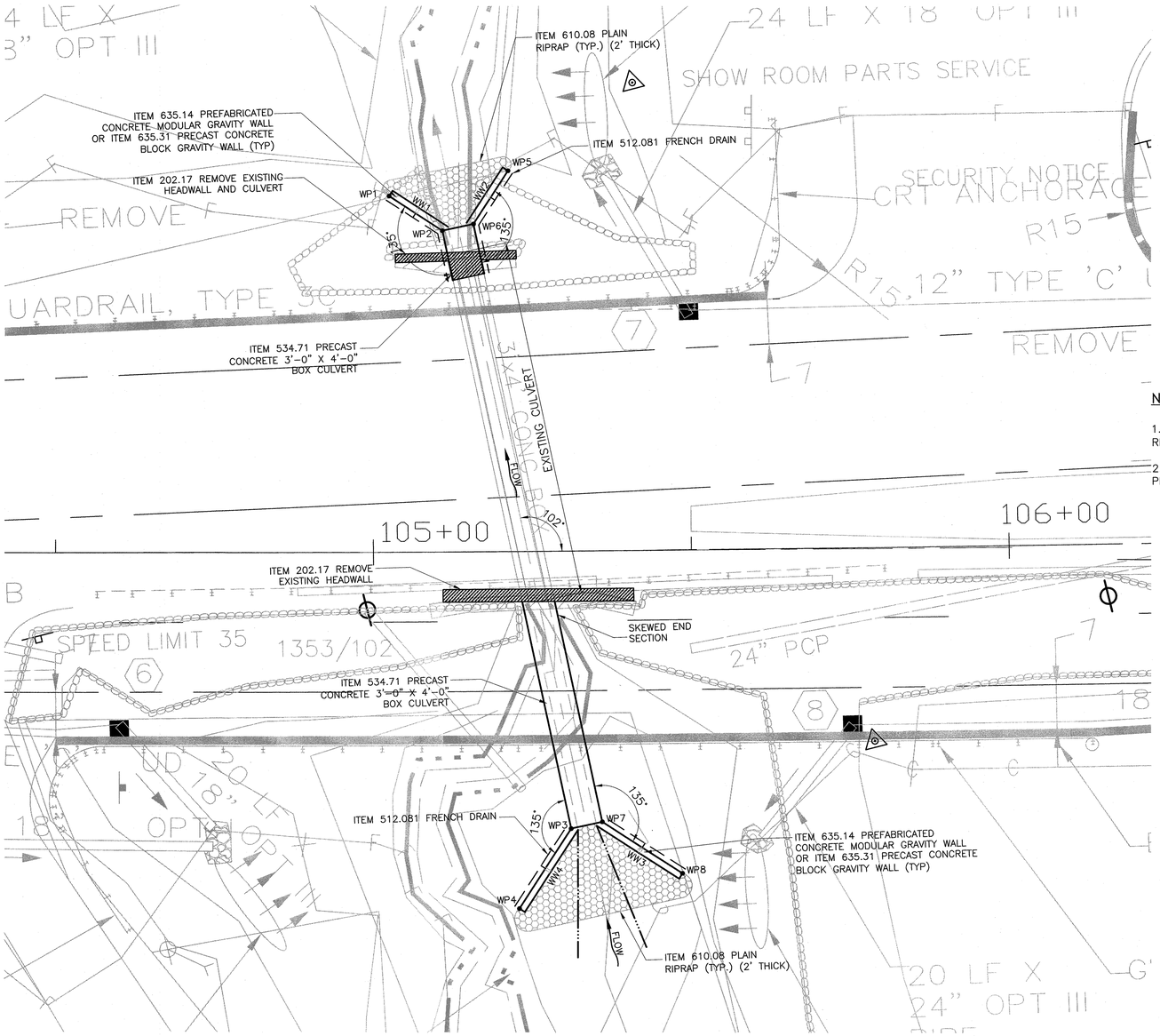
STATE OF MAINE PETER A. BELANGER 1341 PROFESSIONAL LAND SURVEYOR

STATE HIGHWAY "15"
U.S. ROUTE 202\WESTERN AVENUE
AUGUSTA KENNEBEC COUNTY
FEDERAL AID PROJECT NO. STP-4270(10)X

2012	RIGHT-OF-WAY MAP	D.O.T. FILE NO. 6-378A
SCALE 1" = 25'	SHEET 4 OF 4	

SHEET NUMBER
68
OF 68

Filename: ...\10\row\msta\104_RWPLAN4.dgn Division: ROW Username: Terry.BlairSr Date:7/3/2013



GENERAL PLAN
SCALE: 1"=10'

NOTES

1. THIS PLAN IS DEVELOPED FROM A CAD FILE PREPARED BY TERRA MAGNA SERVICES, INC, RECEIVED 06/10/2013.

2. CONTRACTOR TO VERIFY SKEW ANGLE OF EXISTING BOX CULVERT PRIOR TO FABRICATION OF PRECAST CONCRETE CULVERT COMPONENTS.

WORKING POINT COORDINATES		
WORKING POINT	NORTH	EAST
WP1	542557.7823	1128033.4088
WP2	542550.4419	1128040.1999
WP3	542454.2798	1128036.6570
WP4	542444.0709	1128025.6671
WP5	542557.0489	1128052.5369
WP6	542550.2578	1128045.1965
WP7	542454.0957	1128041.6536
WP8	542443.1057	1128051.8625

*COORDINATES PROVIDED BY TMSI ON 6/10/13

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

PIN 16350.00

HIGHWAY PLANS

STATE OF MAINE
LICENSED PROFESSIONAL ENGINEER

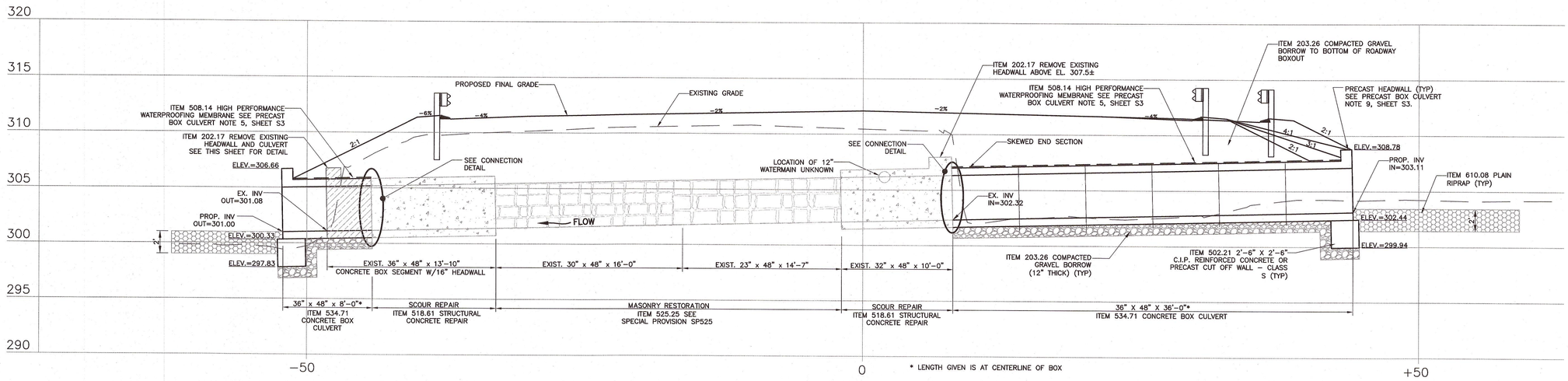
PROJ. MANAGER	ERNIE MARTIN	BY	DATE
DESIGN-DETAILED	JLE	JLE	
CHECKED-REVIEWED	ALG		X-12
DESIGN2-DETAILED2	ALG		
DESIGN3-DETAILED3			
REVISIONS 1	ADD WKG PTS, UPD. CAD		06/12/13
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

AUGUSTA
WESTERN AVE, RTE 202

BOX CULVERT PLAN

S1

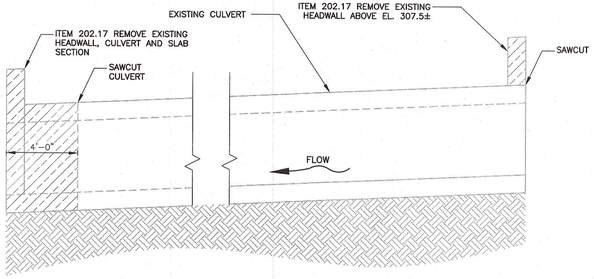
Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$



* LENGTH GIVEN IS AT CENTERLINE OF BOX

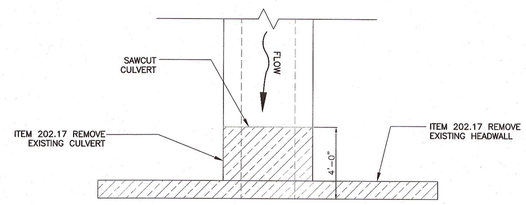
CULVERT PROFILE STA 105+24 (ALONG ℄ OF CULVERT)

SCALE: 1"=5'-0"



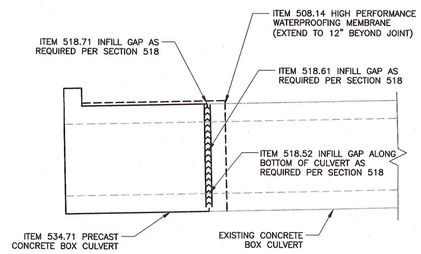
DEMOLITION PROFILE

SCALE: 1/4"=1'-0"



DEMOLITION PLAN – OUTLET

SCALE: 1/4"=1'-0"



CONNECTION DETAIL

SCALE: 1/4"=1-0"

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-4270(10)X
PIN 16350.00
HIGHWAY PLANS

STATE OF MAINE ERNEST L. MARTIN No. 9685 LICENSED PROFESSIONAL ENGINEER

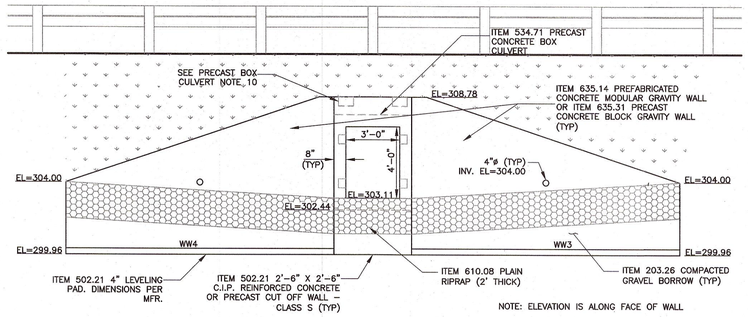
PROJ. MANAGER	ERNIE MARTIN		
DESIGN-DETAILED	J.E	BY	J.E
CHECKED-REVIEWED	ALG	DATE	X-12
DESIGN2-DETAILED2	ALG		
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

AUGUSTA
WESTERN AVE, RTE 202

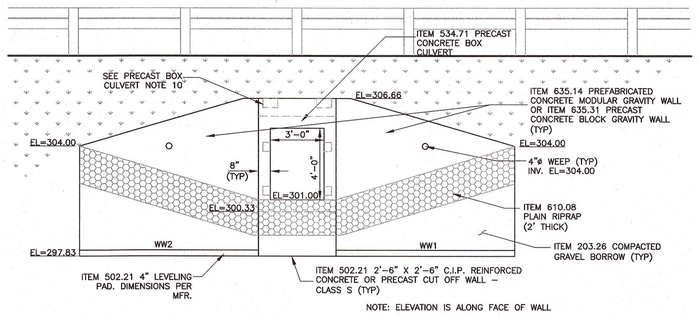
CULVERT PROFILE & DETAILS

S 2

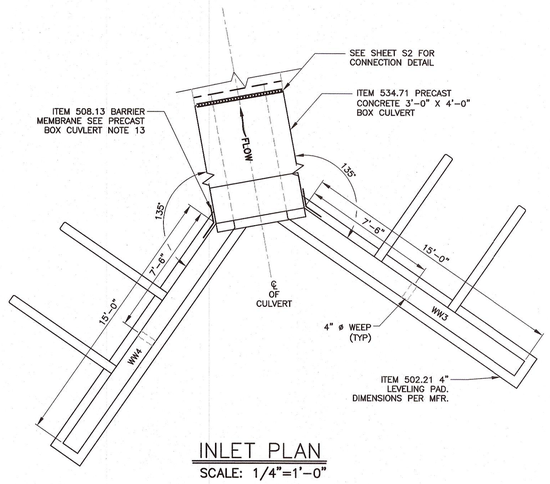
Filename: $file$ Division: $wkgroup$ Username: $user$ Date:$date$



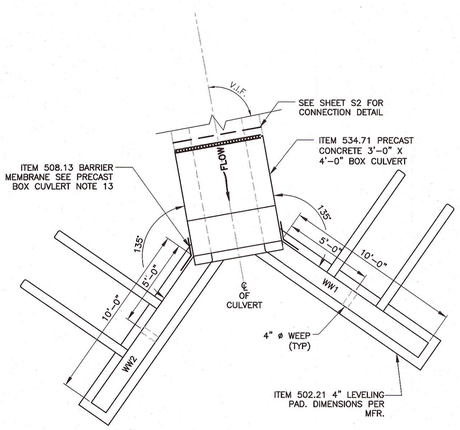
PROPOSED INLET ELEVATION
SCALE: 1/4"=1'-0"



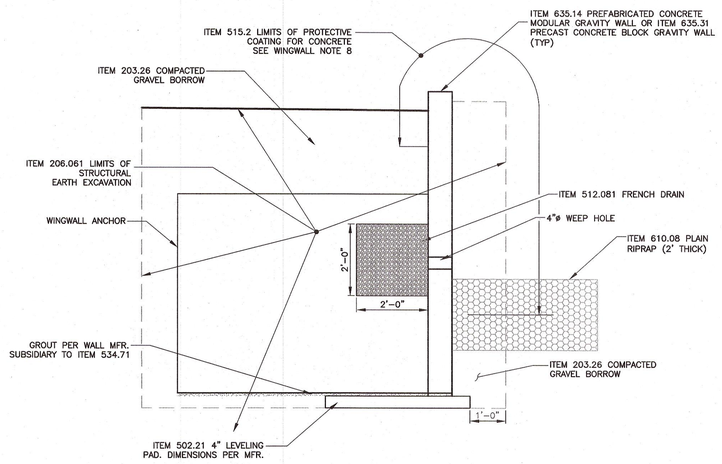
PROPOSED OUTLET ELEVATION
SCALE: 1/4"=1'-0"



INLET PLAN
SCALE: 1/4"=1'-0"



OUTLET PLAN
SCALE: 1/4"=1'-0"



TYPICAL WINGWALL SECTION
SCALE: 1/2"=1'-0"

FOUNDATION NOTES

1. CONCRETE COVER IS 3" (TYPICAL) UNLESS OTHERWISE NOTED.

2. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED ¾".

3. CONTRACTOR SHALL DEWATER AS NECESSARY TO MAINTAIN GROUNDWATER LEVEL AND PIEZOMETRIC HEAD TO AT LEAST TWO FEET BELOW THE BOTTOM OF EXCAVATION.

4. THE FINAL TWO FEET ABOVE EXCAVATION FOR STRUCTURES SHALL BE EXCAVATED USING A SMOOTH EDGE BUCKET. EXCAVATION SUBGRADES SHALL BE FREE OF STANDING WATER, FROST AND LOOSE SOIL BEFORE PLACEMENT OF STRUCTURAL FILL OR CONCRETE.

5. SUBGRADE SHALL BE COMPACTED BY AT LEAST 2 COVERAGES OF A LARGE VIBRATORY PLATE OR ROLLER COMPACTOR PRIOR TO PLACEMENT OF THE STRUCTURAL FILL OR CONCRETE. VIBRATORY COMPACTION WILL BE CEASED IMMEDIATELY IF IT CAUSES DISTURBANCE AND "PUMPING" OF THE SUBGRADE.

6. NON-SHRINK, NON-METALLIC GROUT FOR WINGWALL PLACEMENT SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5000 PSI AT 28 DAYS, PER ASTM C109.

PRECAST BOX CULVERT NOTES

1. PRECAST CONCRETE CULVERT SHALL BE A PRECAST BOX STRUCTURE WITH PRECAST WINGWALLS, DESIGNED FOR HL-93 LOADING, IN ACCORDANCE WITH AASHTO LRFD BRIDGE DESIGN SPECIFICATION AND MAINEDOT BRIDGE DESIGN MANUAL. SEE SPECIAL PROVISION 534.

2. ALL STRUCTURES SHALL BE DESIGNED FOR EARTH PRESSURES AS SPECIFIED IN THE GEOTECHNICAL REPORT.

3. STAMPED SHOP DRAWINGS AND DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO FABRICATION.

4. REINFORCING STEEL: AASHTO M31 (ASTM A615) GRADE 60. REINFORCING STEEL FOR HEADWALLS AND WINGWALLS TO BE EPOXY COATED.

5. HIGH PERFORMANCE WATERPROOFING MEMBRANE SHALL BE ON THE MAINEDOT QUALIFIED PRODUCTS LIST AND PER MAINEDOT SPECIFICATION. INSTALL COMPLETELY OVER THE TOP AND DOWN THE EXTERIOR SIDES OF THE PRECAST BOX CULVERT, EXTENDING TO 12" BEYOND CONNECTION ON TO EXISTING BOX CULVERT

6. PRECAST CONCRETE MANUFACTURER SHALL HAVE AN ESTABLISHED QUALITY CONTROL PROGRAM AND CONDUCT CONCRETE TESTING AT THE PLANT IN ACCORDANCE WITH ASTM STANDARDS. FRESH CONCRETE SAMPLING AND TESTING FOR TEMPERATURE, AIR ENTRAINMENT AND SLUMP SHALL BE PERFORMED. A MINIMUM OF 8 CYLINDERS FOR COMPRESSIVE STRENGTH TESTING SHALL BE MADE FOR EACH DAY'S CASTING ON THIS CONCRETE BOX CULVERT. TEST RESULTS SHALL BE FAXED TO ENGINEER PRIOR TO SHIPMENT OF PRECAST UNITS.

7. A LOAD RATING OF THE PRECAST CONCRETE BOX USING THE LOAD AND RESISTANCE FACTOR DESIGN METHOD SHALL BE PERFORMED. A COMPLETE BRIDGE CAPACITY SUMMARY, COMPLETED AND STAMPED BY A LICENSED PROFESSIONAL STRUCTURAL ENGINEER REGISTERED IN THE STATE OF MAINE, SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.

8. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO 1'-0" BELOW FINISHED GRADE ON BACK FACE AND ENTIRE FRONT FACE OF HEADWALLS PRIOR TO BACKFILLING. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO ALL EXPOSED SURFACES ON THE PRECAST BOX CULVERT TO 1'-0" BELOW FILL LINE.

9. HEADWALL SHALL BE CAST MONOLITHICALLY WITH PRECAST BOX CULVERT AND BE PAID SUBSIDIARY TO ITEM 534.71.

10. PRECAST BOX SECTIONS SHALL BE PERMANENTLY ANCHORED TOGETHER. WINGWALLS SHALL BE PERMANENTLY ANCHORED TO PRECAST BOX. THE SECTIONS SHALL BE PERMANENTLY CONNECTED WITH STAINLESS STEEL CONNECTORS.

11. THE CONSTRUCTION, HANDLING AND ASSEMBLY OF THE PRECAST UNITS SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION SECTION 534 PRECAST STRUCTURAL CONCRETE AND WITH THE MANUFACTURER'S SPECIFICATIONS AS APPLICABLE.

12. IF THE PRECAST CONCRETE BOX CULVERT IS CAST IN MULTIPLE SECTIONS, A RUBBER GASKET SHALL BE PROVIDED BETWEEN THE SECTIONS.

13. ALL VERTICAL JOINTS BETWEEN BOX CULVERT AND WINGWALLS SHALL HAVE A 24-INCH STRIP OF BARRIER MEMBRANE PLACED AGAINST JOINT PRIOR TO BACK FILL. BARRIER MEMBRANE SHALL BE 2' WIDE, CENTERED ON THE JOINT TO EXTEND FROM 6" BELOW TOP OF WING TO TOP OF FOOTING.

14. GRANULAR BORROW SHALL MEET THE REQUIREMENTS OF SUBSECTION 703.20, MATERIAL FOR UNDERWATER BACKFILL.

WINGWALL NOTES

1. THE CONTRACTOR SHALL PROVIDE A PREFABRICATED CONCRETE MODULAR BLOCK GRAVITY WALL OR PRECAST CONCRETE BLOCK INCLUDING GEOTECHNICAL DESIGN IN ACCORDANCE WITH SPECIAL PROVISION SECTION 635. THE WINGWALL SHALL BE DESIGNED AND STAMPED BY A LICENSED PROFESSIONAL ENGINEER AND THE DESIGN SHALL BE SUBMITTED TO THE RESIDENT FOR REVIEW. PLAN DETAILS ARE SHOWN FOR ESTIMATING PURPOSES ONLY.

2. THE WINGWALL SHALL BE AN APPROVED SYSTEM FROM THE MAINEDOT QUALIFIED PRODUCTS LIST THAT MEETS THE REQUIREMENTS OF SPECIAL PROVISION 635.

3. BACKFILL AND FOUNDATION SOIL PARAMETERS FOR USE IN THE SUBMITTED DESIGN SHALL BE IN ACCORDANCE WITH SPECIAL PROVISION SECTION 635.

4. THE APPLIED FACTORED BEARING PRESSURE FOR THE WINGWALLS SHALL NOT EXCEED 3 KSF FOR THE STRENGTH LIMIT STATE.

5. PIPED DRAINAGE SHALL BE INCLUDED IN THE DESIGN OF THE WALLS. WALL DRAINAGE WILL BE INCIDENTAL TO CONSTRUCTION OF THE WALL.

6. THE MINIMUM EMBEDMENT DEPTH OF 1'-6" BELOW STREAM BED IS REQUIRED IN THE DESIGN AND CONSTRUCTION OF THE WINGWALL.

7. THE FACE QUANTITY OF WINGWALL WILL BE APPROVED BY APPROVAL OF THE SHOP DRAWINGS.

8. PROTECTIVE COATING FOR CONCRETE SURFACES SHALL BE APPLIED TO 1'-0" BELOW FINISHED GRADE ON BACK FACE AND ENTIRE FRONT FACE OF WINGWALLS PRIOR TO BACKFILLING.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-4270(10)X

PIN 16350.00

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER	ERNIE MARTIN	
DESIGN-DETAILED	JLE	X-12
CHECKED-REVIEWED	JLE	
DESIGN2-DETAILED2	ALG	
DESIGN3-DETAILED3	ALG	
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

STATE OF MAINE
JOSEPH L. ELWELL
No. 9585
REGISTERED PROFESSIONAL ENGINEER

AUGUSTA
WESTERN AVE, RTE 202

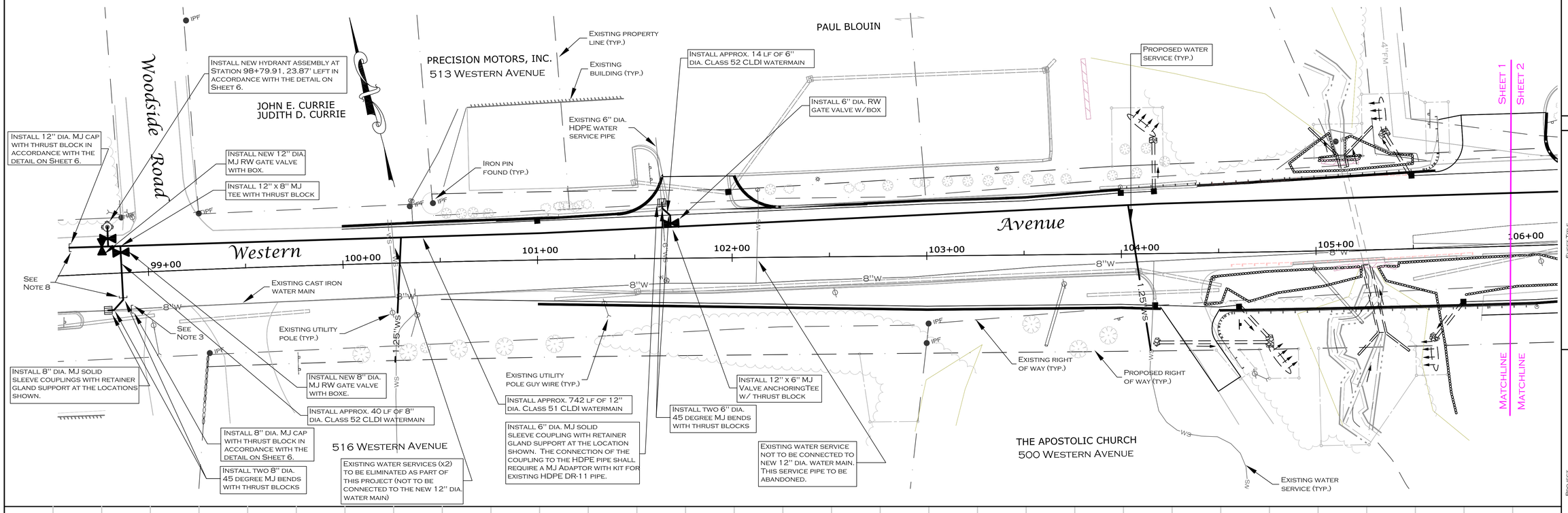
SECTIONS & DETAILS

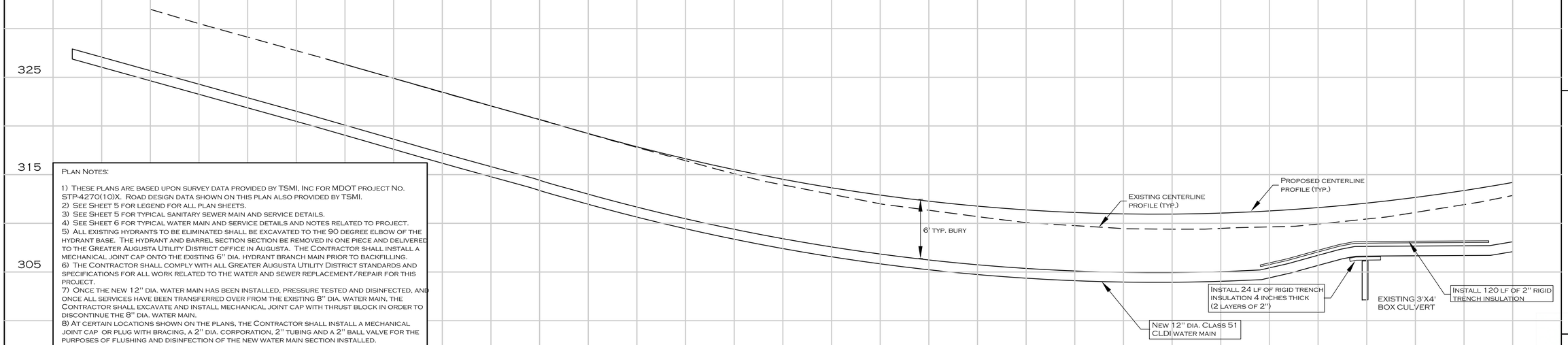
S3

Division: $wkgroup$ Username: $user$ Date:$date$
Filename: $file$

TBM No.	Description	Elev.
.	.	.
.	.	.

Benchmark provided under MDOT plan set





Plan Notes:

1) These plans are based upon survey data provided by TSMI, Inc for MDOT project No. STP-4270(10)X. Road design data shown on this plan also provided by TSMI.
2) See Sheet 5 for legend for all plan sheets.
3) See Sheet 5 for typical sanitary sewer main and service details.
4) See Sheet 6 for typical water main and service details and notes related to project.
5) All existing hydrants to be eliminated shall be excavated to the 90 degree elbow of the hydrant base. The hydrant and barrel section section be removed in one piece and delivered to the Greater Augusta Utility District office in Augusta. The Contractor shall install a mechanical joint cap onto the existing 6" dia. hydrant branch main prior to backfilling.
6) The Contractor shall comply with all Greater Augusta Utility District standards and specifications for all work related to the water and sewer replacement/repair for this project.
7) Once the new 12" dia. water main has been installed, pressure tested and disinfected, and once all services have been transferred over from the existing 8" dia. water main, the Contractor shall excavate and install mechanical joint cap with thrust block in order to discontinue the 8" dia. water main.
8) At certain locations shown on the plans, the Contractor shall install a mechanical joint cap or plug with bracing, a 2" dia. corporation, 2" tubing and a 2" ball valve for the purposes of flushing and disinfection of the new water main section installed.
9) The Contractor shall install a ¾" corporation, tubing and ball valve (tubing to be run to the ground surface with the ball valve above ground) to provide a means to pressure test and disinfect the new water main pipe. Upon completion of the testing and disinfection the Contractor shall excavate and remove the ball valve and tubing, and close the corporation, remove the corporation, install a solid brass plug, then backfill.
10) Sections of the sanitary sewer replacement are to be installed along the same flowline as the existing sanitary sewer pipe. At these locations, the Contractor is required to maintain the sewer flow at all times during replacement of these existing sewer mains.
11) Contractor shall supply and install all fittings and appurtenances required to connect all new water service piping to existing water service piping at the locations shown. This shall include new curb stop and curb box at the right of way or connection.

No.	Revision	Date
1	Revisions per GAUD comments	06/05/13

Sheet Title
Plan and Profile
Sta. 98+50 to 106+00

Project Scale: Horizontal: 1" = 25'
Vertical: 1" = 5'

Plan Date: May 23, 2013

Project
Western Ave. Utility Replacement

Project Owner: Greater Augusta Utility District
Owner Address: Augusta, Maine 04330
Project Address: Western Avenue
Augusta, Maine 04330

Snowden Consulting Engineers, Inc.
34 Libby Hill Professional Building, Suite 2
Oakland, Maine 04963
Phone: 207.465.4400 Fax: 207.465.4441
Email: bsnowden@snowdenengineers.com

State of Maine
Boyd Snowden
No. 9565
Registered Professional Engineer

Final Plan

File Name: Final plan_05_23_13_rev 1_06_05_13
Project No. : SWR-13-006
Sheet No.
1

BENCHMARK PROVIDED UNDER MDOT PLAN SET

INSTALL 230 LF OF 12" DIA. CLASS 51 CLDI WATERMAIN

495 WESTERN AVENUE

INSTALL NEW 12" DIA. MJ RW GATE VALVES WITH BOXES.

INSTALL TWO 8" DIA. MJ CAPS WITH THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL APPROX. 33 LF OF 12" DIA. CLASS 51 CLDI WATERMAIN

DRAINAGE SYSTEM INSTALLED BY OTHERS

EXISTING PROPERTY LINE (TYP.)

INSTALL 12" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

INSTALL NEW HYDRANT ASSEMBLY AT STATION 108+39.14, 54.76' LEFT IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL 12" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

INSTALL 12" x 6" TAPPING SLEEVE

EXISTING UTILITY POLE GUY WIRE (TYP.)

INSTALL 6" DIA. MJ RW TAPPING GATE VALVE W/BOX

CONTRACTOR SHALL INSTALL 8 LF OF RIGID TRENCH INSULATION OVER EACH WATER MAIN OR WATER SERVICE CROSSINGS OF STORM DRAIN OR UNDER DRAIN PIPING. (TYP.)

475 WESTERN AVENUE

EXISTING BUILDING (TYP.)

EXISTING MANHOLE TO BE ADJUSTED TO NEW GRADE

INSTALL 12" x 6" TAPPING SLEEVE

INSTALL 6" DIA. RW MJ TAPPING GATE VALVE W/BOX

INSTALL APPROX. 86 LF OF 6" DIA. CLASS 52 CLDI WATER MAIN

465 WESTERN AVENUE

SHEET 2

SHEET 3

SHEET 1

SHEET 2

MATCHLINE

MATCHLINE

SEE NOTE 7

DRAINAGE SYSTEM INSTALLED BY OTHERS

EXISTING CAST IRON WATER MAIN

CATCH BASIN INSTALLED BY OTHERS. 15" DIA. INV. IN 310.50

15" DIA. INVERT IN AT ROW 310.89

INSTALL 12" x 8" MJ CONCENTRIC REDUCER

NEW WATER SERVICE (TYP.)

DAVID A. GOVE

492 WESTERN AVENUE

REMOVE EXISTING HYDRANT ASSEMBLY AND CAP EXISTING 6" DIA. WATER MAIN.

INSTALL APPROX. 130 LF OF 15" DIA. PE STORM DRAIN PIPE AT A SLOPE OF 0.0373'/FT.

INSTALL 12" x 12" MJ TEE WITH THRUST BLOCK

SEE NOTE 9

INSTALL 12" x 12" MJ TEE WITH THRUST BLOCK

INSTALL APPROX. 87 LF OF 6" DIA. CLASS 52 CLDI WATER MAIN

EXISTING ABANDONED WATER SERVICE

EXISTING ABANDONED WATER SERVICE

INSTALL 11 L.F. OF 4" SDR 35 PVC PIPE AT SLOPE OF 0.0105'/FT

INSTALL 6" DIA. MJ CAP WITH THRUST BLOCK (TYP.) SEE NOTE 7.

INSTALL 6" DIA. MJ CAP WITH THRUST BLOCK (TYP.) SEE NOTE 8.

15" DIA. INVERT IN AT ROW 315.75

INSTALL 6" DIA. MJ CAP WITH THRUST BLOCK (TYP.) (SEE NOTE 8)

INSTALL TWO 6" DIA. MJ 45 DEGREE ELBOWS WITH THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL 6" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

INSTALL 6" DIA. MJ CAP WITH THRUST BLOCK (TYP.) (SEE NOTE 7)

INSTALL NEW 6" DIA. MJ RW GATE VALVE WITH BOX.

SHUMAN FAMILY SECOND LLC

478 WESTERN AVENUE

DRAINAGE SYSTEM INSTALLED BY OTHERS

CATCH BASIN INSTALLED BY OTHERS. 15" DIA. INV. OUT 322.50

EXISTING WATER SERVICE (TYP.)

EXISTING RIGHT OF WAY (TYP.)

PROPOSED RIGHT OF WAY (TYP.)

EXISTING UTILITY POLE (TYP.)

EXISTING MANHOLE TO BE ADJUSTED TO NEW GRADE. CORE HOLE FOR NEW 4" SEWER SERVICE PIPE, NEW INV. IN 322.72

INSTALL PRECAST CONCRETE OFFSET RISER FOR THIS MANHOLE AND ADJUST TO NEW GRADE.

CONTRACTOR SHALL INSTALL ALL REQUIRED FITTINGS AND PIPING TO ELEVATE THE 1" DIA. RIGID AIR RELEASE PIPE TO ADJUST FOR NEW FINISH GRADE. THE WORK ON THIS AIR RELEASE PIPING ALSO INCLUDES ADJUSTMENT OF THE GATE VALVE BOX THAT HOUSES THE PIPE.

INSTALL NEW 6" DIA. MJ RW GATE VALVES WITH BOXES.

INSTALL TWO 6" DIA. MJ 45 DEGREE ELBOWS WITH THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

SHUMAN FAMILY LLC

466 WESTERN AVENUE

INSTALL 6" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

EXISTING ABANDONED WATER SERVICE

INSTALL NEW HYDRANT ASSEMBLY AT STATION 108+68.44, 36.59' RIGHT IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

CATCH BASIN INSTALLED BY OTHERS. 15" DIA. INV. OUT 316.00

480 WESTERN AVENUE

INSTALL APPROX. 78 LF OF 8" DIA. CLASS 52 CLDI WATERMAIN

EXISTING CAST IRON WATER MAIN

Western Avenue

Brann Street

106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00

8"W 12"W 6"WS 6"FM 4"FM 4"PVC 6"PVC 10"PVC 15"SD SW-9 SW-6

EXISTING 6" DIA. WATER MAIN

NEW 8" DIA. WATER MAIN

NEW HYDRANT BRANCH TEE & VALVE.

NEW 8" DIA. MJ RW GATE VALVE W/BOX

INSTALL TWO 8" DIA. MJ 45 DEGREE ELBOWS WITH THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL 6" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

INSTALL 6" DIA. MJ CAP WITH THRUST BLOCK (TYP.)

SEE NOTE 7

INSTALL NEW 8" x 6" MJ CONCENTRIC REDUCER

INSTALL 3 LF OF 6" DIA. CLASS 52 CLDI WATER MAIN

PROPOSED CENTERLINE PROFILE (TYP.)

EXISTING CENTERLINE PROFILE (TYP.)

6' TYP. BURY

PROPOSED 15" STORM DRAIN INV. AT WATER MAIN CROSSING 312.23

NEW 12" DIA. CLASS 51 CLDI WATER MAIN

EXIST. 18" PCP

EXISTING SMH 2072, RIM ELEV. 326.54
STA. 112+24.22, 0.88' LEFT
FINAL RIM ELEV. 327.45

INV. IN 4" PVC. 321.64
INV. OUT 10" AC. 321.54

CONTRACTOR SHALL INSTALL AN OFFSET COVER TO LOCATE RIM OFFSET FROM CURBING. ADJUST SEWER MANHOLE COVER TO FINAL RIM ELEVATION.

325 315 305 295 335

EL. 312.86 EL. 314.20
EL. 316.87 EL. 318.18
EL. 321.21 EL. 322.22
EL. 324.74 EL. 325.60
EL. 327.20 EL. 327.66
EL. 327.99 EL. 328.41
EL. 327.04 EL. 327.83
EL. 324.98 EL. 325.94

106+00 107+00 108+00 109+00 110+00 111+00 112+00 113+00

PLAN NOTES:

1) THESE PLANS ARE BASED UPON SURVEY DATA PROVIDED BY TSMI, INC FOR MDOT PROJECT NO. STP-4270(10)X. ROAD DESIGN DATA SHOWN ON THIS PLAN ALSO PROVIDED BY TSMI.
2) SEE SHEET 5 FOR LEGEND FOR ALL PLAN SHEETS.
3) SEE SHEET 5 FOR TYPICAL SANITARY SEWER MAIN AND SERVICE DETAILS.
4) SEE SHEET 6 FOR TYPICAL WATER MAIN AND SERVICE DETAILS AND NOTES RELATED TO PROJECT.
5) ALL EXISTING HYDRANTS TO BE ELIMINATED SHALL BE EXCAVATED TO THE 90 DEGREE ELBOW OF THE HYDRANT BASE. THE HYDRANT AND BARREL SECTION SECTION BE REMOVED IN ONE PIECE AND DELIVERED TO THE GREATER AUGUSTA UTILITY DISTRICT OFFICE IN AUGUSTA. THE CONTRACTOR SHALL INSTALL A MECHANICAL JOINT CAP ONTO THE EXISTING 6" DIA. HYDRANT BRANCH MAIN PRIOR TO BACKFILLING.
6) THE CONTRACTOR SHALL COMPLY WITH ALL GREATER AUGUSTA UTILITY DISTRICT STANDARDS AND SPECIFICATIONS FOR ALL WORK RELATED TO THE WATER AND SEWER REPLACEMENT/REPAIR FOR THIS PROJECT.
7) ONCE THE NEW 12" DIA. WATER MAIN HAS BEEN INSTALLED, PRESSURE TESTED AND DISINFECTED, AND ONCE ALL SERVICES HAVE BEEN TRANSFERRED OVER FROM THE EXISTING 8" DIA. WATER MAIN, THE CONTRACTOR SHALL EXCAVATE AND INSTALL MECHANICAL JOINT CAP WITH THRUST BLOCK IN ORDER TO DISCONTINUE THE 8" DIA. WATER MAIN.
8) AT CERTAIN LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL INSTALL A MECHANICAL JOINT CAP OR PLUG WITH BRACING, A 2" DIA. CORPORATION, 2" TUBING AND A 2" BALL VALVE FOR THE PURPOSES OF FLUSHING AND DISINFECTION OF THE NEW WATER MAIN SECTION INSTALLED.
9) THE CONTRACTOR SHALL INSTALL A ¾" CORPORATION, TUBING AND BALL VALVE (TUBING TO BE RUN TO THE GROUND SURFACE WITH THE BALL VALVE ABOVE GROUND) TO PROVIDE A MEANS TO PRESSURE TEST AND DISINFECT THE NEW WATER MAIN PIPE. UPON COMPLETION OF THE TESTING AND DISINFECTION, THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE BALL VALVE AND TUBING, AND CLOSE THE CORPORATION, REMOVE THE CORPORATION, INSTALL A SOLID BRASS PLUG, THEN BACKFILL.
10) SECTIONS OF THE SANITARY SEWER REPLACEMENT ARE TO BE INSTALLED ALONG THE SAME FLOWLINE AS THE EXISTING SANITARY SEWER PIPE. AT THESE LOCATIONS, THE CONTRACTOR IS REQUIRED TO MAINTAIN THE SEWER FLOW AT ALL TIMES DURING REPLACEMENT OF THESE EXISTING SEWER MAINS.
11) CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND APPURTENANCES REQUIRED TO CONNECT ALL NEW WATER SERVICE PIPING TO EXISTING WATER SERVICE PIPING AT THE LOCATIONS SHOWN. THIS SHALL INCLUDE NEW CURB STOP AND CURB BOX AT THE RIGHT OF WAY OR CONNECTION.

NO	REVISION	DATE
1	REVISIONS PER GAUD COMMENTS	06/05/13
2	ADD PRIVATE SD PIPE, SEWER SERVICE	06/23/13

SHEET TITLE
PLAN AND PROFILE
STA. 106+00 TO 113+50

PROJECT SCALE: HORIZONTAL: 1" = 25'
VERTICAL: 1" = 5'

PLAN DATE: MAY 23, 2013

PROJECT
WESTERN AVE. UTILITY REPLACEMENT

PROJECT OWNER: GREATER AUGUSTA UTILITY DISTRICT
AUGUSTA, MAINE 04330

OWNER ADDRESS:
AUGUSTA, MAINE 04330

PROJECT ADDRESS:
WESTERN AVENUE
AUGUSTA, MAINE 04330

SNOWDEN CONSULTING ENGINEERS, INC.
34 LIBBY HILL PROFESSIONAL BUILDING, SUITE 2
OAKLAND, MAINE 04963
PHONE: 207.465.4400 FAX: 207.465.4441
EMAIL: BSNOWDEN@SNOWDENENGINEERS.COM

STATE OF MAINE
BOYD SNOWDEN
No. 10055
REGISTERED PROFESSIONAL ENGINEER

FINAL PLAN

FILE NAME: FINAL PLAN_05_23_13 REV 2_06_22_13

PROJECT NO. : SWR-13-006

SHEET NO.
2

BENCHMARK PROVIDED UNDER MDOT PLAN SET

EXISTING WATER SERVICE NOT TO BE CONNECTED TO NEW 12" DIA. WATER MAIN. THIS SERVICE PIPE TO BE ABANDONED.

EXISTING PROPERTY LINE (TYP.)

INSTALL PRECAST CONCRETE RINGS OR BRICK TO ADJUST EXISTING MANHOLE RIM TO NEW GRADE.

EXISTING HYDRANT TO REMAIN

INSTALL 12" x 8" TAPPING SLEEVE

INSTALL NEW 8" DIA. MJ RW TAPPING GATE VALVE WITH BOX.

INSTALL APPROX. 104 LF OF 8" DIA. CLASS 52 CLDI WATER MAIN.

INSTALL 6" DIA. MJ CAP WITH RETAINER GLANDS AND THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL 6" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

INSTALL TWO 6" DIA. MJ 45 DEGREE ELBOWS WITH THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL NEW 6" DIA. MJ RW TAPPING GATE VALVE WITH BOX.

INSTALL NEW HYDRANT ASSEMBLY AT STATION 118+71, 55' LEFT IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

PROPOSED WATER SERVICE (TYP.)

EXISTING UTILITY POLE (TYP.)

IRON PIN FOUND (TYP.)

EXISTING UTILITY POLE GUY WIRE (TYP.)

INSTALL 12" x 6" TAPPING SLEEVE

INSTALL NEW 5' DIA. PRECAST CONCRETE SEWER MANHOLE NO. 2070

EXISTING WATER SERVICE NOT TO BE CONNECTED TO NEW 12" DIA. WATER MAIN. THIS SERVICE PIPE TO BE ABANDONED.

INSTALL NEW 6" DIA. MJ RW TAPPING GATE VALVE WITH BOX.

INSTALL 12" x 6" TAPPING SLEEVE

INSTALL NEW 4' DIA. PRECAST CONCRETE SEWER MANHOLE

INSTALL 10" DIA. TRANSITION FURNCO COUPLING

INSTALL NEW HYDRANT ASSEMBLY AT STATION 116+18.95, 36.07' RIGHT IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL NEW 4' DIA. PRECAST CONCRETE SEWER MANHOLE NO. 2075

INSTALL APPROX. 3 L.F. OF 8" DIA. SDR 35 PVC PIPE

INSTALL 8" DIA. TRANSITION FURNCO COUPLING

INSTALL APPROX. 300 L.F. OF 10" DIA. SDR 35 PVC PIPE

INSTALL APPROX. 307 L.F. OF 10" DIA. SDR 35 PVC PIPE

INSTALL 10" DIA. TRANSITION FURNCO COUPLING

INSTALL APPROX. 64 L.F. OF 10" DIA. SDR 35 PVC PIPE

REMOVE EXISTING HYDRANT ASSEMBLY AND CAP EXISTING 6" DIA. WATER MAIN.

CONTRACTOR SHALL INSTALL 8 LF OF RIGID TRENCH INSULATION OVER EACH WATER MAIN OR WATER SERVICE CROSSINGS OF STORM DRAIN OR UNDER DRAIN PIPING. (TYP.)

EXISTING BUILDING (TYP.)

EXISTING EXTERIOR LIGHTING (TYP.)

EXISTING WATER SERVICE (TYP.)

EXISTING SANITARY SEWER MANHOLE TO BE REMOVED

EXISTING RIGHT OF WAY (TYP.)

PROPOSED RIGHT OF WAY (TYP.)

SEE NOTE 7

SEE NOTE 9

BURIED MH

451 WESTERN AVENUE

439 WESTERN AVENUE

454 WESTERN AVENUE

466 WESTERN AVENUE

1 SMITH STREET

448 WESTERN AVENUE
SHUMAN FAMILY LLC

AGENCY ASSISTANCE CO., INC.
432 WESTERN AVENUE

DOROTHY E. TURNER
RALPH M. TURNER

Western Avenue

Smith Street

SHEET 2 | SHEET 3 | SHEET 3 | SHEET 4

MATCHLINE | MATCHLINE

114+00 | 115+00 | 116+00 | 117+00 | 118+00 | 119+00 | 120+00 | 121+00

NEW 8" DIA. MJ RW GATE VALVE W/BOX

INSTALL 8" DIA. MJ CAP WITH THRUST BLOCK (TYP.)

EXISTING 6" DIA. WATER MAIN

INSTALL TWO 8" DIA. MJ 45 DEGREE ELBOWS WITH THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

NEW 8" DIA. WATER MAIN

INSTALL NEW 8" x 6" MJ CONCENTRIC REDUCER

INSTALL 3 LF OF 6" DIA. CLASS 52 CLDI WATER MAIN

INSTALL 6" DIA. MJ CAP WITH THRUST BLOCK (TYP.)

INSTALL 6" DIA. MJ SOLID SLEEVE COUPLING WITH RETAINER GLAND SUPPORT AT THE LOCATION SHOWN.

SEE NOTE 7

EXISTING CENTERLINE PROFILE (TYP.)

PROPOSED CENTERLINE PROFILE (TYP.)

NEW 4' DIA. SMH 2075, RIM ELEV. 313.69
STA. 115+93.27, 23.17' RIGHT
NEW RIM ELEV. 314.70

NEW 5' DIA. SMH 2070, RIM ELEV. 312.41
STA. 118+86.78, 23.35' RIGHT
NEW RIM ELEV. 312.25

NEW 4' DIA., RIM ELEV. 312.09
STA. 119+61.11, 6.86' RIGHT

EXISTING SMH 2068, RIM ELEV. 300.82
STA. 121+70.13, 27.64' RIGHT

L = 64 FEET
SL = 0.0318'/FT

L = 3' MATCH SLOPE

L = 3' MATCH SLOPE

EXIST. 24" RCP??

PROP. 24" RCP

INVERT OF PROPOSED 24" RCP DRAIN PIPE AT SEWER CROSSING 300.90

L = 300 FEET
SL = 0.0188'/FT

L = 307 FEET
SL = 0.0134'/FT

INV. IN 8" AC 309.99
INV. OUT 8" AC 309.89
INV. OUT 10" AC 309.09

INV. IN 8" AC 302.41
INV. OUT 8" AC 302.51
INV. IN 10" AC 306.51
INV. OUT 10" AC 300.41
(TO BE ELIMINATED)
INV. OUT 10" PVC 300.00

INV. IN 10" PVC 294.36
INV. OUT 10" PVC 294.26

INV. IN 10" AC 293.02
INV. OUT 10" AC 292.82

EXISTING SANITARY SEWER MANHOLE TO BE ABANDONED BY CONTRACTOR.

EL. 321.67 EL. 322.73 | EL. 317.58 EL. 318.85 | EL. 313.52 EL. 314.98 | EL. 309.87 EL. 311.11 | EL. 306.38 EL. 307.27 | EL. 303.43 EL. 303.93 | EL. 301.04 EL. 301.24 | EL. 299.09 EL. 299.18

320 | 310 | 300 | 290

PLAN NOTES:

1) THESE PLANS ARE BASED UPON SURVEY DATA PROVIDED BY TSMI, INC FOR MDOT PROJECT NO. STP-4270(10)X. ROAD DESIGN DATA SHOWN ON THIS PLAN ALSO PROVIDED BY TSMI.
2) SEE SHEET 5 FOR LEGEND FOR ALL PLAN SHEETS.
3) SEE SHEET 5 FOR TYPICAL SANITARY SEWER MAIN AND SERVICE DETAILS.
4) SEE SHEET 6 FOR TYPICAL WATER MAIN AND SERVICE DETAILS AND NOTES RELATED TO PROJECT.
5) ALL EXISTING HYDRANTS TO BE ELIMINATED SHALL BE EXCAVATED TO THE 90 DEGREE ELBOW OF THE HYDRANT BASE. THE HYDRANT AND BARREL SECTION SECTION BE REMOVED IN ONE PIECE AND DELIVERED TO THE GREATER AUGUSTA UTILITY DISTRICT OFFICE IN AUGUSTA. THE CONTRACTOR SHALL INSTALL A MECHANICAL JOINT CAP ONTO THE EXISTING 6" DIA. HYDRANT BRANCH MAIN PRIOR TO BACKFILLING.
6) THE CONTRACTOR SHALL COMPLY WITH ALL GREATER AUGUSTA UTILITY DISTRICT STANDARDS AND SPECIFICATIONS FOR ALL WORK RELATED TO THE WATER AND SEWER REPLACEMENT/REPAIR FOR THIS PROJECT.
7) ONCE THE NEW 12" DIA. WATER MAIN HAS BEEN INSTALLED, PRESSURE TESTED AND DISINFECTED, AND ONCE ALL SERVICES HAVE BEEN TRANSFERRED OVER FROM THE EXISTING 8" DIA. WATER MAIN, THE CONTRACTOR SHALL EXCAVATE AND INSTALL MECHANICAL JOINT CAP WITH THRUST BLOCK IN ORDER TO DISCONTINUE THE 8" DIA. WATER MAIN.
8) AT CERTAIN LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL INSTALL A MECHANICAL JOINT CAP OR PLUG WITH BRACING, A 2" DIA. CORPORATION, 2" TUBING AND A 2" BALL VALVE FOR THE PURPOSES OF FLUSHING AND DISINFECTION OF THE NEW WATER MAIN SECTION INSTALLED.
9) THE CONTRACTOR SHALL INSTALL A ¾" CORPORATION, TUBING AND BALL VALVE (TUBING TO BE RUN TO THE GROUND SURFACE WITH THE BALL VALVE ABOVE GROUND) TO PROVIDE A MEANS TO PRESSURE TEST AND DISINFECT THE NEW WATER MAIN PIPE. UPON COMPLETION OF THE TESTING AND DISINFECTION, THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE BALL VALVE AND TUBING, AND CLOSE THE CORPORATION, REMOVE THE CORPORATION, INSTALL A SOLID BRASS PLUG, THEN BACKFILL.
10) SECTIONS OF THE SANITARY SEWER REPLACEMENT ARE TO BE INSTALLED ALONG THE SAME FLOWLINE AS THE EXISTING SANITARY SEWER PIPE. AT THESE LOCATIONS, THE CONTRACTOR IS REQUIRED TO MAINTAIN THE SEWER FLOW AT ALL TIMES DURING REPLACEMENT OF THESE EXISTING SEWER MAINS.
11) CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND APPURTENANCES REQUIRED TO CONNECT ALL NEW WATER SERVICE PIPING TO EXISTING WATER SERVICE PIPING AT THE LOCATIONS SHOWN. THIS SHALL INCLUDE NEW CURB STOP AND CURB BOX AT THE RIGHT OF WAY OR CONNECTION.

NO	REVISION	DATE
1	REVISIONS PER GAUD COMMENTS	06/05/13

SHEET TITLE
PLAN AND PROFILE
STA. 113+50 TO 121+00

PROJECT SCALE: HORIZONTAL: 1" = 25'
VERTICAL: 1" = 5'

PLAN DATE: MAY 23, 2013

PROJECT
WESTERN AVE. UTILITY REPLACEMENT

PROJECT OWNER: GREATER AUGUSTA UTILITY DISTRICT

OWNER ADDRESS: AUGUSTA, MAINE 04330

PROJECT ADDRESS: WESTERN AVENUE
AUGUSTA, MAINE 04330

SNOWDEN CONSULTING ENGINEERS, INC.
34 LIBBY HILL PROFESSIONAL BUILDING, SUITE 2
OAKLAND, MAINE 04963
PHONE: 207.465.4400 FAX: 207.465.4441
EMAIL: BSNOWDEN@SNOWDENENGINEERS.COM

STATE OF MAINE
BOYD A. SNOWDEN
No. 10925
REGISTERED PROFESSIONAL ENGINEER

FINAL PLAN

FILE NAME: FINAL PLAN_05_23_13 REV 1_06_05_13

PROJECT NO. : SWR-13-006

SHEET NO.
3

BENCHMARK PROVIDED UNDER MDOT PLAN SET

IRON PIN FOUND (TYP.)

EXISTING UTILITY POLE GUY WIRE (TYP.)

EXISTING UTILITY POLE (TYP.)

PROPOSED WATER SERVICE (TYP.)

419 WESTERN AVENUE

EXISTING BUILDING (TYP.)

EXISTING RIGHT OF WAY (TYP.)

INSTALL 12" x 6" TAPPING SLEEVE

INSTALL 6" DIA. MJ RW TAPPING GATE VALVE W/BOX

SEE NOTE 7

SEE NOTE 9

INSTALL APPROX. 183 L.F. OF 10" DIA. SDR 35 PVC PIPE

INSTALL NEW 4' DIA. PRECAST CONCRETE SEWER MANHOLE

INSTALL APPROX. 72 LF OF 6" DIA. CLASS 52 CLDI WATER MAIN.

INSTALL NEW HYDRANT ASSEMBLY AT STATION 123+06.31, 34.94' RIGHT IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

REMOVE EXISTING HYDRANT ASSEMBLY AND CAP EXISTING 6" DIA. WATER MAIN.

INSTALL TWO 8" DIA. MJ CAPS WITH RETAINER GLANDS AND THRUST BLOCK IN ACCORDANCE WITH THE DETAIL ON SHEET 6.

INSTALL APPROX. 307 L.F. OF 10" DIA. SDR 35 PVC PIPE

PROPOSED RIGHT OF WAY (TYP.)

428 WESTERN AVENUE

EXISTING WATER SERVICE (TYP.)

426 WESTERN AVENUE

418 WESTERN AVENUE

CONTRACTOR SHALL REMOVE THE EXISTING SEWER MANHOLE AND PLUG END OF EXISTING TRANSITE SEWER MAIN WITH CONCRETE PRIOR TO BACKFILL TO PREVENT SOIL INFILTRATION. REMOVAL SHALL OCCUR UPON COMPLETION OF NEW SEWER MAIN INSTALLATION.

412 WESTERN AVENUE

CONTRACTOR SHALL CORE THE EXISTING SANITARY SEWER MANHOLE TO ACCOMODATE THE NEW SEWER GRAVITY MAIN. CONTRACTOR SHALL ALSO PLUG EXISTING PIPE INLET ENTRANCE WITH NON-SHRINK GROUT. FINALLY, CONTRACTOR SHALL REMOVE EXISTING MANHOLE INVERT AS REQUIRED TO ACCOMODATE NEW PIPE AND SHALL REPAIR INVERT AS REQUIRED TO ENSURE SMOOTH FLOW TRANSITION.

EXISTING PROPERTY LINE (TYP.)

INSTALL APPROX. 52 L.F. OF 10" DIA. SDR 35 PVC PIPE

405 WESTERN AVENUE

INSTALL 10" DIA. TRANSITION FURNCO COUPLINGS

408 WESTERN AVENUE

INSTALL 10" DIA. TRANSITION FURNCO COUPLING

INSTALL APPROX. 26 L.F. OF 10" DIA. SDR 35 PVC PIPE

INSTALL NEW 4' DIA. PRECAST CONCRETE SEWER MANHOLE No. 2026

INSTALL APPROX. 85 L.F. OF 10" DIA. SDR 35 PVC PIPE

404 WESTERN AVENUE

MATCHLINE SHEET 3 / SHEET 4

MATCHLINE SHEET 4 / SHEET 5

Western Avenue

121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00

12"W 8"W 2"W 10"AC 10"W UT SS WS

PLAN NOTES:

1) THESE PLANS ARE BASED UPON SURVEY DATA PROVIDED BY TSMI, INC FOR MDOT PROJECT NO. STP-4270(10)X. ROAD DESIGN DATA SHOWN ON THIS PLAN ALSO PROVIDED BY TSMI.
2) SEE SHEET 5 FOR LEGEND FOR ALL PLAN SHEETS.
3) SEE SHEET 5 FOR TYPICAL SANITARY SEWER MAIN AND SERVICE DETAILS.
4) SEE SHEET 6 FOR TYPICAL WATER MAIN AND SERVICE DETAILS AND NOTES RELATED TO PROJECT.
5) ALL EXISTING HYDRANTS TO BE ELIMINATED SHALL BE EXCAVATED TO THE 90 DEGREE ELBOW OF THE HYDRANT BASE. THE HYDRANT AND BARREL SECTION SECTION BE REMOVED IN ONE PIECE AND DELIVERED TO THE GREATER AUGUSTA UTILITY DISTRICT OFFICE IN AUGUSTA. THE CONTRACTOR SHALL INSTALL A MECHANICAL JOINT CAP ONTO THE EXISTING 6" DIA. HYDRANT BRANCH MAIN PRIOR TO BACKFILLING.
6) THE CONTRACTOR SHALL COMPLY WITH ALL GREATER AUGUSTA UTILITY DISTRICT STANDARDS AND SPECIFICATIONS FOR ALL WORK RELATED TO THE WATER AND SEWER REPLACEMENT/REPAIR FOR THIS PROJECT.
7) ONCE THE NEW 12" DIA. WATER MAIN HAS BEEN INSTALLED, PRESSURE TESTED AND DISINFECTED, AND ONCE ALL SERVICES HAVE BEEN TRANSFERRED OVER FROM THE EXISTING 8" DIA. WATER MAIN, THE CONTRACTOR SHALL EXCAVATE AND INSTALL MECHANICAL JOINT CAP WITH THRUST BLOCK IN ORDER TO DISCONTINUE THE 8" DIA. WATER MAIN.
8) AT CERTAIN LOCATIONS SHOWN ON THE PLANS, THE CONTRACTOR SHALL INSTALL A MECHANICAL JOINT CAP OR PLUG WITH BRACING, A 2" DIA. CORPORATION, 2" TUBING AND A 2" BALL VALVE FOR THE PURPOSES OF FLUSHING AND DISINFECTION OF THE NEW WATER MAIN SECTION INSTALLED.
9) THE CONTRACTOR SHALL INSTALL A ¾" CORPORATION, TUBING AND BALL VALVE (TUBING TO BE RUN TO THE GROUND SURFACE WITH THE BALL VALVE ABOVE GROUND) TO PROVIDE A MEANS TO PRESSURE TEST AND DISINFECT THE NEW WATER MAIN PIPE. UPON COMPLETION OF THE TESTING AND DISINFECTION, THE CONTRACTOR SHALL EXCAVATE AND REMOVE THE BALL VALVE AND TUBING, AND CLOSE THE CORPORATION, REMOVE THE CORPORATION, INSTALL A SOLID BRASS PLUG, THEN BACKFILL.
10) SECTIONS OF THE SANITARY SEWER REPLACEMENT ARE TO BE INSTALLED ALONG THE SAME FLOWLINE AS THE EXISTING SANITARY SEWER PIPE. AT THESE LOCATIONS, THE CONTRACTOR IS REQUIRED TO MAINTAIN THE SEWER FLOW AT ALL TIMES DURING REPLACEMENT OF THESE EXISTING SEWER MAINS.
11) CONTRACTOR SHALL SUPPLY AND INSTALL ALL FITTINGS AND APPURTENANCES REQUIRED TO CONNECT ALL NEW WATER SERVICE PIPING TO EXISTING WATER SERVICE PIPING AT THE LOCATIONS SHOWN. THIS SHALL INCLUDE NEW CURB STOP AND CURB BOX AT THE RIGHT OF WAY OR CONNECTION.

315
305
295
285
275

EXISTING CENTERLINE PROFILE (TYP.)

PROPOSED CENTERLINE PROFILE (TYP.)

NEW 4' DIA. RIM ELEV. 295.69
STA. 122+74.63, 8.71' RIGHT

EXISTING SMH 2065, RIM ELEV. 295.27
STA. 121+31.50, 30.70' RIGHT

EXISTING SMH 2060, RIM ELEV. 295.02
STA. 124+62, 10.26' RIGHT

NEW 4' DIA. SMH 2026 RIM ELEV. 292.18
STA. 128+20.64, 6.11' RIGHT

L = 307 FEET
SL = 0.0134'/FT

L = 183 FEET
SL = 0.0101'/FT

L = 52 FEET
SL = 0.0052'/FT

L = 85 FEET
SL = 0.0225'/FT

INV. IN 10" PVC 290.16
INV. OUT 10" PVC 290.06

INV. IN 10" AC 288.47
INV. OUT 10" AC 286.37

INV. IN 10" AC 288.22
(TO BE ELIMINATED)
INV. IN 10" PVC 288.22
INV. OUT 10" AC 288.12

INV. IN 10" AC 286.28
(TO BE REMOVED)
INV. IN 10" PVC 286.28
INV. OUT 10" AC 285.18
(TO BE REMOVED)
INV. OUT 10" PVC 285.18

APPROXIMATE INVERT OF EXISTING 36" RCP PIPE ELEV. 286.01. CONTRACTOR SHALL EXCAVATE A TEST PIT AT THIS LOCATION TO VERIFY THE NEW PIPE CAN BE INSTALLED WITHOUT CONFLICT. IF CONFLICT IS FOUND, CONTRACTOR SHOULD ELEVATE THE INVERT INTO SMH 2060 TO AVOID THE CONFLICT.

EXIST. 36" RCP

INSTALL 10" DIA. FURNCO TRANSITION COUPLING

INSTALL 10" DIA. FURNCO TRANSITION COUPLING

INSTALL 10" DIA. FURNCO TRANSITION COUPLING

L = 26' AT SLOPE = 0.0052'/FT

EL. 299.09 EL. 299.18 | EL. 297.23 EL. 297.28 | EL. 295.38 EL. 295.38 | EL. 294.53 | EL. 295.28 | EL. 295.43

121+00 122+00 123+00 124+00 125+00 126+00 127+00 128+00

No.	Revision	Date
1	Revisions per GAUD comments	06/05/13

Sheet Title
PLAN AND PROFILE
STA. 121+00 TO 128+50

Project Scale: HORIZONTAL: 1" = 25'
VERTICAL: 1" = 5'

Plan Date: MAY 23, 2013

Project
WESTERN AVE. UTILITY REPLACEMENT

Project Owner: GREATER AUGUSTA UTILITY DISTRICT
AUGUSTA, MAINE 04330

Owner Address:

Project Address: WESTERN AVENUE
AUGUSTA, MAINE 04330

SNOWDEN CONSULTING ENGINEERS, INC.
34 LIBBY HILL PROFESSIONAL BUILDING, SUITE 2
OAKLAND, MAINE 04963
PHONE: 207.465.4400 FAX: 207.465.4441
EMAIL: BSNOWDEN@SNOWDENENGINEERS.COM

STATE OF MAINE BOYD SNOWDEN No. 6955 REGISTERED PROFESSIONAL ENGINEER

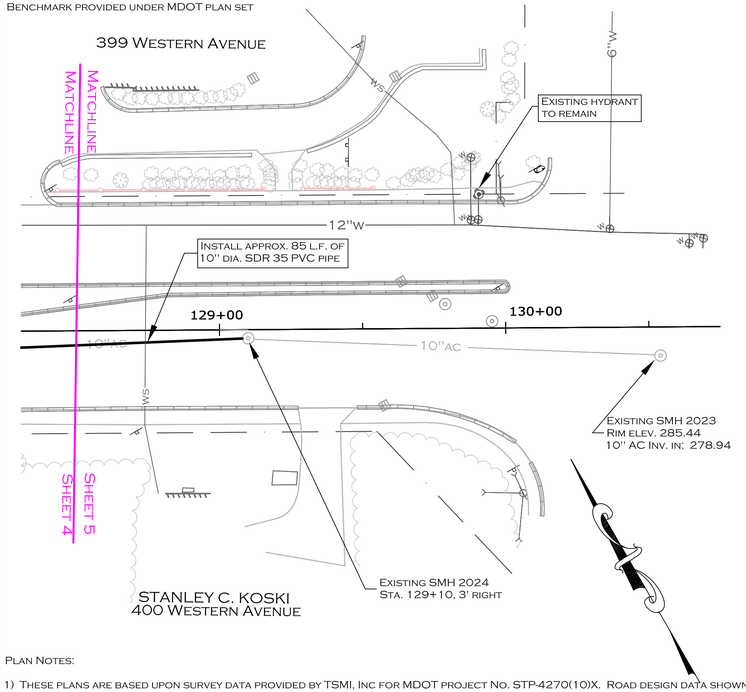
FINAL PLAN

File Name: Final Plan_05_23_13 rev 1_06_05_13

Project No. : SWR-13-006

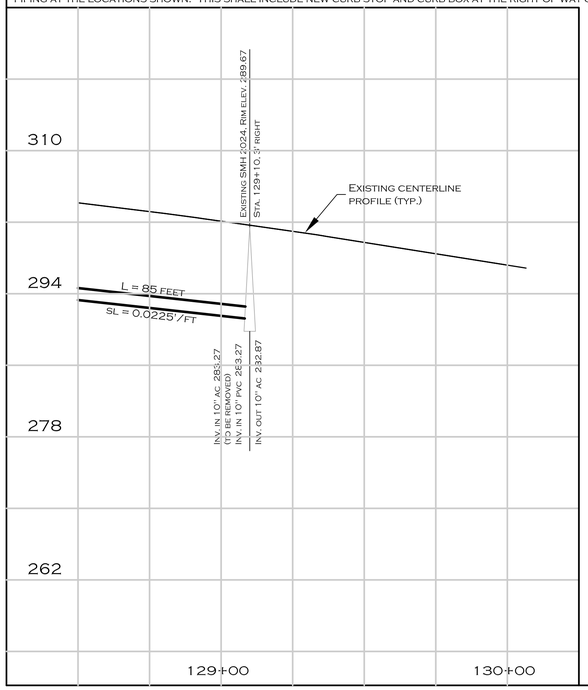
Sheet No.
4

Benchmark provided under MDOT plan set



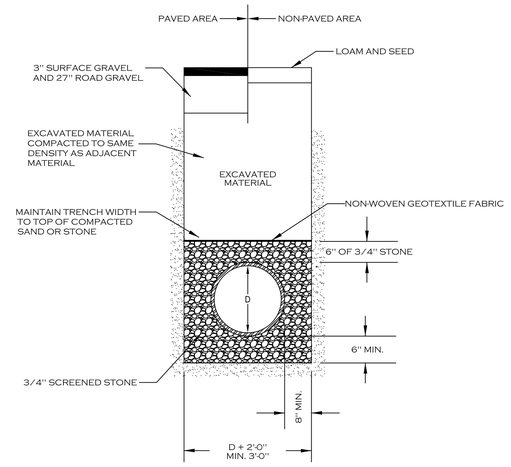
Plan Notes:

1) These plans are based upon survey data provided by TSMI, Inc for MDOT project No. STP-4270(10)X. Road design data shown on this plan also provided by TSMI.
2) See Sheet 5 for legend for all plan sheets.
3) See Sheet 5 for typical sanitary sewer main and service details.
4) See Sheet 6 for typical water main and service details and notes related to project.
5) All existing hydrants to be eliminated shall be excavated to the 90 degree elbow of the hydrant base. The hydrant and barrel section section be removed in one piece and delivered to the Greater Augusta Utility District office in Augusta. The Contractor shall install a mechanical joint cap onto the existing 6" dia. hydrant branch main prior to backfilling.
6) The Contractor shall comply with all Greater Augusta Utility District standards and specifications for all work related to the water and sewer replacement/repair for this project.
7) Once the new 12" dia. water main has been installed, pressure tested and disinfected, and once all services have been transferred over from the existing 8" dia. water main, the Contractor shall excavate and install mechanical joint cap with thrust block in order to discontinue the 8" dia. water main.
8) At certain locations shown on the plans, the Contractor shall install a mechanical joint cap or plug with bracing, a 2" dia. corporation, 2" tubing and a 2" ball valve for the purposes of flushing and disinfection of the new water main section installed.
9) The Contractor shall install a ¾" corporation, tubing and ball valve (tubing to be run to the ground surface with the ball valve above ground) to provide a means to pressure test and disinfect the new water main pipe. Upon completion of the testing and disinfection, the Contractor shall excavate and remove the ball valve and tubing, and close the corporation, remove the corporation, install a solid brass plug, then backfill.
10) Sections of the sanitary sewer replacement are to be installed along the same flowline as the existing sanitary sewer pipe. At these locations, the Contractor is required to maintain the sewer flow at all times during replacement of these existing sewer mains.
11) Contractor shall supply and install all fittings and appurtenances required to connect all new water service piping to existing water service piping at the locations shown. This shall include new curb stop and curb box at the right of way or connection.



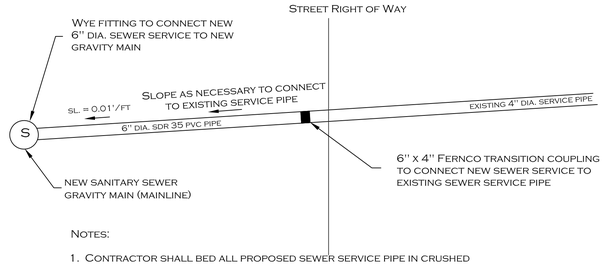
Legend

	Existing	Proposed
Paved Road		
Contours	120	(120)
Iron Pin		
Building		
Brook/Stream		
Gravel Road		
Tree Line		
Property Line		
Right of Way		
Tree		
Silt Fence		SF
Centerline		
Sewer Main	S	S
Water Main	10"W	10"W
Storm Sewer	SW	PSW
Sewer Service	SS	PSS
Water Service	WS	PWS
Underground Electric	UE	PUE
Underground Telephone	UT	PUT
Utility Pole		
Bench Mark		
Granite Monument		
Traverse Point		
Water Valve		
Sewer Manhole		
Catch Basin		
Curb Stop		
Test Borings		
Overhead Power	OE	P–OE
Overhead Guy Wire	GW	P–GW
Guy Wire Support		
Temporary Overhead Power		T–OE
Spot Elevation		⊗ 100.14



TYPICAL SANITARY SEWER TRENCH DETAIL

SCALE = NONE

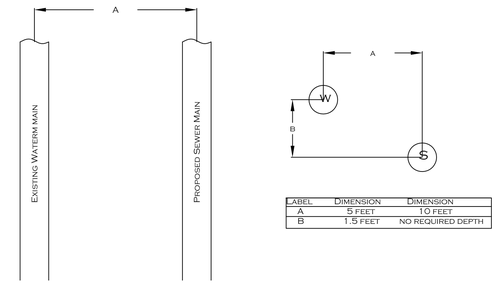


Notes:

1. Contractor shall bed all proposed sewer service pipe in crushed stone in accordance with the specifications.
2. Contractor shall install any fittings and appurtenances necessary to connect the new sewer service pipe to the existing service pipe. All grade adjustments shall be completed outside right of way and in the 4 inch diameter service pipe. Minimum slope of 6-inch diameter sewer service pipe to be 0.01'/ft.
3. Contractor shall expose existing sewer service pipe five feet of right of way to determine grade changes required in 6-inch diameter SDR 35 pvc pipe prior to installing any 6-inch pvc sewer service pipe.
4. All 6-inch sewer service pipe under roadway or driveway areas shall be a minimum depth of 4 feet below finished grade unless specifically detailed on the plans or approved on site by the engineer prior to installation.
5. Any lawn or other areas disturbed within the right of way for connection of sewer service shall be repaired to the same condition as that prior to construction. The resident engineer shall approve the surface repairs prior to acceptance of the sewer service installation.

TYPICAL SANITARY SEWER SERVICE DETAIL

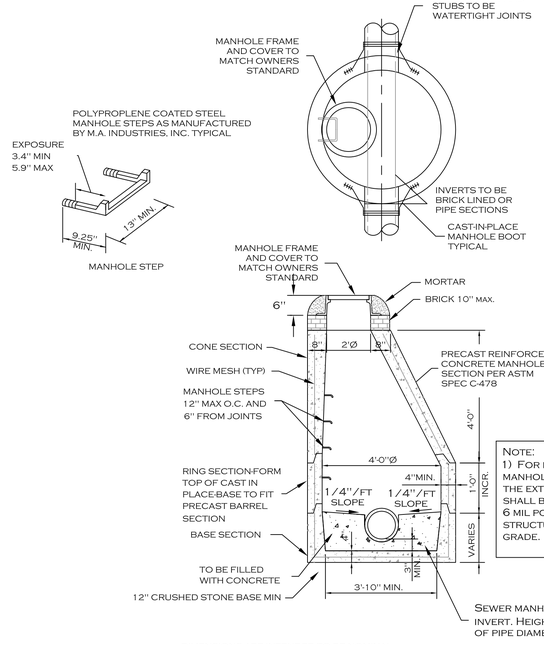
NTS



Label	Dimension	Dimension
A	5 feet	10 feet
B	1.5 feet	no required depth

TYPICAL SANITARY SEWER SEPERATION

NTS

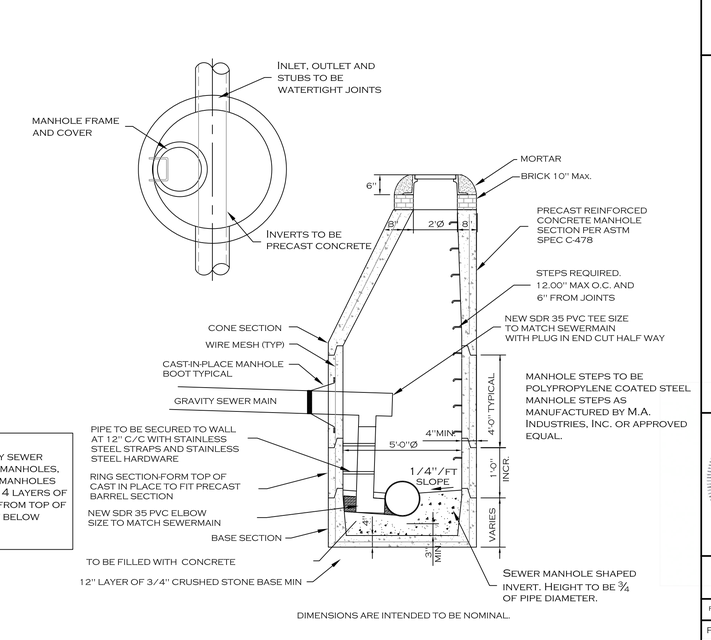


Note:
1) For both sanitary sewer manholes and drop manholes, the exterior of the manholes shall be wrapped in 4 layers of 6 mil poly sheeting from top of structure to 6 feet below grade.

Dimensions are intended to be nominal.

SANITARY SEWER MANHOLE

NTS



Dimensions are intended to be nominal.

DROP MANHOLE DETAIL

NTS

No.	Revision	Date
1.	Revisions per GAUD comments	06/05/13

Sheet Title: Plan and Profile
Sta. 128+50 to 130+00

Project Scale: Horizontal: 1" = 25'
Vertical: 1" = 5'

Plan Date: May 23, 2013

Project: Western Ave. Utility Replacement

Project Owner: Greater Augusta Utility District

Owner Address: Augusta, Maine 04330

Project Address: Western Avenue
Augusta, Maine 04330

Snowden Consulting Engineers, Inc.
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State of Maine — Boyd A. Snowden — No. 10253

Final Plan

File Name: Final plan_05_23_13 rev 1_06_05_13

Project No. : SWR-13-006

Sheet No. 5

TYPICAL WATER SERVICE CONNECTION DETAIL

NOTE: ALL CTS PE TUBING SHALL BE PROVIDED WITH NO. 8 GAUGE COATED WIRE ATTACHED TO THE TUBING FOR LOCATING PURPOSES. WIRE SHALL BE BROUGHT TO SURFACE AND TIED TO TOP OF CURB STOP FOR DIRECT CONNECTION ACCESS.

TYPICAL WATER SERVICE CONNECTION DETAIL

NTS

TYPICAL 2" SERVICE CONNECTION DETAIL

TYPICAL 2" SERVICE CONNECTION DETAIL

NTS

WATER MAIN NOTES

1. The greater augusta utility district (gaud) will perform all filling and flushing required for the new water main and water services testing and disinfection procdures. The Contractor shall not at any time operate District valves. The Contractor shall be responsible for all labor, equipment and materials required to provide all testing. District personnel shall only be required to operate valves to fill and flush the mains.

2. The Contractor shall hire a company certified for and experienced with AWWA procedures for all pressure testing and disinfection required to place the new water main and services into service. The District shall approve the company providing the pressure testing and disinfection services prior to any work being peformed. The pressure testing and disinfection testing shall be performed in the presence of District personnel or their designated representative. The company providing the disinfection shall take a water sample and submit the sample to a State of Maine certified laboratory to determine the presence of total coliform bacteria. All testing shall be accomplished in full compliance with AWWA standards. The District shall recieve a report from the certified company on the testing results, including the bacteria sample, prior to placing the new main or service pipe on line. The District reserves the right to reject subcontracting companies that are not certified or experienced in this type of work.

3. All tapping sleeves and tapping valves indicated on these design plans shall be performed by a company certified in the installation of these components on live water main. The company to perform the tapping sleeves shall be approved by the District prior to any work being peformed. The District reserves the right to reject subcontracting companies that are not certified or experienced in this type of work.

4. The water main replacement must be installed in the following sequence.

A. New water main installed as shown on plans. design will accommodate beginning the installation at station 98+60, heading in an easterly direction up station. The Contractor may elect to install tapping sleeve and valves for larger size service pipes and new hydrant brances in areas not between Station 98+60 and Station 108+32.97 prior to beginning the new water main section.

B. Install new 12" dicl pipe main as shown on plans and in accordance with the details designated on this sheet.

C. Gaud to fill and flush the new water main piping and service pipe. See notes above for requirements on pressure test ing and disinfect of new water main and services.

D. Contractor to remove disinfecting tap and perform all service connections and installations onto new 12" di main.

E. Install new service connections to connect to existing service piping per plan.

F. Install new branch main connections from 12" di to existing piping per plan.

G. Disconnect piping and cap or plug existing water mains as indicated on the plan.

5. All connections will be performed by the contractor with assistance from the district in operating the necessary gate valves to isolate the particular section of existing water main to perform the connection. all pipe, valves and fittings used to perform any connection must be pre-disinfected in a method approved by the district prior to their use in the connection.

6. The district will require the installation of 2" thick rigid insulation between the water main, services and hydrant branches and all storm drain piping where there is less than 24" of vertical separation or 36" of horizontal separation from any catch basin or storm drain manhole.

7. The contractor shall install solid mj di caps on all abandoned water main piping where they are cut for connections or any other purpose.

8. The District must provide a minimum of 24 hours notice as required under MPUC regulations to all customers prior to turning off water service to the respective properties for connection purposes. Some service connections may have to be performed at night or on a weekend due to individual customer operations.

9. All thrust restraint to be accomplished using a combination of wedge-action retainer glands and concrete thrust blocks per size requirements as indicated in the thrust block schedule.

10. A calibrated torque wrench must be used to tighten bolts on all mechanical joint connections.

11. All valves required to be operated in any shutdown must be operated by District personnel only.

12. The district will require the installation of two bronze wedges, located at 3 and 9 o'clock, on all push-on joints for all 12" and 8" diameter dicl pipe.

13. Contractor shall remove top section of all gate valve boxes on abandoned gate valves once main has been discontinued by the district and filled with crushed stone or other material approved by District or the Maine Department of Transportation. This item is incidental to installing the new water main.

14. All brass materials that come in contact with potable water used on this project must meet the low-lead requirements of nsf / ansi standard 61 annex f.

TYPICAL HYDRANT INSTALLATION

NOTE:
HYDRANT BRANCH WATER MAIN CONNECTING INTO THE EXISTING 12" DIA. WATER MAIN SHALL INCLUDE A 12" X 6" DI TAPPING SLEEVE AND A 6" MJ DI RESILIENT WEDGE TAPPING GATE VALVE BOLTED TO THE TAPPING SLEEVE, IN ORDER TO AVOID SHUTDOWN OF THE EXISTING 12" DIA. WATER MAIN DURING INSTALLATION.

TYPICAL HYDRANT INSTALLATION

NTS

PAVEMENT REPAIR TABLE

Concrete Fill Area:	
1. Station 98+60 to 100+00	24 c.y.
Hot Bituminous Asphalt Area:	
1. Station 98+60 to 100+00	57 ton
2. Station 123+30.70 to 128+50	102 ton
3. Station 128+50 to Project End	20 ton

WATER AND SEWER ON WESTERN AVENUE WIN 4270.10
JULY 2, 2013

MDOT Bid Numbers	Bid Items	Units	Totals
202.15	Removing Manhole or Catch Basin	EA	2
403.213	Hot Mix Asphalt 12.5 mm Base	TON	179
502.56	Concrete Fill	CY	24
603.169	15" CULV PIPE Option III	LF	130
652.38	Flagger	HR	742
659.1	Mobilization (10% bid Estimate)	LS	1
801.16	6" PVC Sanitary Sewer (SDR 35)	LF	420
801.17	8" PVC Sanitary Sewer (SDR 35)	LF	3
801.175	10" PVC Sanitary Sewer (SDR 35)	LF	1024
812.16	Sewer Manhole	EA	4
812.162	Adjusting Sewer Manhole to Grade	EA	4
812.17	Sewer Drop Manhole	EA	1
822.315	Tapping Sleeve	EA	4
822.3302	6" Class 52 CLDI Water main	LF	213
822.3402	8" Class 52 CLDI Water main	LF	222
822.3603	12" Class 51 CLDI Water main	LF	1005
823.311	12" Gate Valve With Box	EA	3
823.3251	8" Gate Valve With Box	EA	3
823.33	6" Gate Valve With Box	EA	3
823.332	Gate Valve Box, Adjust to Grade	EA	9
824.30	Fire Hydrant (includes remove existing hydrant assembly)	EA	6
825.349	Disconnect Water main	EA	8
825.4305	1 ¼" Plastic Service (includes all brass)	LF	608
825.422	2" Plastic Service (includes all brass)	LF	167
827.33	Trench Insulation	LF	304

TYPICAL WATER SERVICE TRENCH DETAIL

TYPICAL WATER SERVICE TRENCH DETAIL

NTS

TYPICAL WATER TRENCH DETAIL

IF LESS THAN 2.0' EITHER ABOVE OR BELOW THEN INSULATE WITH 2" BLUEDOW RIGID STYROFOAM.

** SEE SPECIAL CONDITIONS FOR SEPERATION OF WATER MAINS AND SEWERS

NOTE 1
MATERIAL TYPE AND PLACEMENT REQUIREMENTS TO BE IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION IN PAVED AREAS. GRAVEL, LOAM & OR SEED IN ACCORDANCE WITH AUTHORITY HAVING JURISDICTION IN NON-PAVED AREAS.

* 6" OF STONE REQUIRED IN LEDGE OR BOULDER EXCAVATION AREA.

NOTE:
CONTRACTOR SHALL REFER TO GAUD WATER MAIN INSTALLATION DETAIL REGARDING REQUIREMENTS FOR PIPE INSTALLATION. FOR INSTANCE, GAUD REQUIRES BLOCKING TO BE INSTALLED UNDER PIPE, AS THEY DO NOT WANT PIPING INSTALLED DIRECTLY ONTO ORIGIONAL SOIL. CONTRACTOR SHALL CONFORM TO ALL GAUD STANDARDS AND DETAILS FOR CONSTRUCTION OF THE PIPE LINE AND SERVICES.

TYPICAL WATER TRENCH DETAIL

NTS

THRUST BLOCK SCHEDULE

FITTING

DIMENSION	12" 45°	12" 90°	12" D.E.	16" D.E.	16" 45°	16" 22 1/2°	16" 11.1/4°	ALL 6"	ALL 8" EXCEPT —	8" 90°
A	42"	60"	48"	72"	54"					
B	42"	48"	42"	48"	48"					
C	12"	12"	12"	15"	12"					
D	24"	18"	12"	24"	24"					
E	36"	36"	36"	48"	36"					
VOLUME C.Y.	0.6	0.95	0.7	1.65	0.95	3 PRECAST	PRE-CAST	PRE-CAST	PRE-CAST	3 PRECAST
SQ. FT. BEARING AREA A x B	12.0 S.F.	20.0 S.F.	14.0 S.F.	24.0 S.F.	18.0 S.F.	9.5 S.F.	5.0 S.F.	5.0 S.F.	5.0 S.F.	9.0 S.F.

D.E. = DEAD END, ALSO SAME AS A TEE

ALL CAST-IN-PLACE CONCRETE THRUST BLOCKS MUST BE FORMED WITH PLYWOOD TO THE DESIGNATED DIMENSIONS AND SHAPE. CONCRETE WILL NOT BE ALLOWED TO BE CAST AROUND ANY FITTING. CONCRETE SHALL BE MIN. 3000 PSI EARLY SET WITH FIBER.

THRUST BLOCK SCHEDULE

No	Revision	Date
1	Revisions per GAUD Comments	06/05/13
2	Added bid item quantity table	07/03/13

Sheet Title
WATER MAIN DETAILS

Project Scale: Horizontal: NTS Vertical: NTS

Plan Date: May 23, 2013

Project
WESTERN AVE. UTILITY REPLACEMENT

Project Owner: Greater Augusta Utility District

Owner Address: Augusta, Maine 04330

Project Address: Western Avenue Augusta, Maine 04330

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Final Plan

File Name: Final plan_05_23_13 rev 3_07_03_13

Project No.: SWR-13-006

Sheet No.
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