STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

TMSI

PLAN LEGEND

Town, County, State
Property Lines
R/W Lines-Existing
R/W Lines-Proposed
Culvert-Existing
Culvert Proposed
Curbing — Existing — Proposed
Type 1
Type 3
Type 5
Outline of Bodies of Water
Ledge
Buildings
Trees — Conifer — Deciduous
Tree Line
Clearing Limit Line — CLL

Centerline-Existing
Centerline-Proposed — 10+00
Travelway-Existing
Travelway-Proposed
Railroad
Catch Basins — Existing — Proposed
Manholes — Existing — Proposed
Proposed Underdrain
Proposed Ditch
Existing Ditch
Utility Poles — Existing — Proposed
Fire Hydrants — Existing — Proposed
Existing Water Line — W
Existing San. Sewer
Existing San. Sewer Manhole
Guardrail-Existing
Guardrail-Proposed
Guardrail-Cable, Other

SSWL	SINGLE SOLID WHITE LINE
SSYL	SINGLE SOLID YELLOW LINE
SBWL	SINGLE BROKEN WHITE LINE
SBYL	SINGLE BROKEN YELLOW LINE
DYSL	DOUBLE SOLID YELLOW LINE

LEWISTON
ANDROSCOGGIN COUNTY
LISBON STREET
STP-8850(310)X
PROJECT LENGTH : 0.492 MILES

INDEX OF SHEETS

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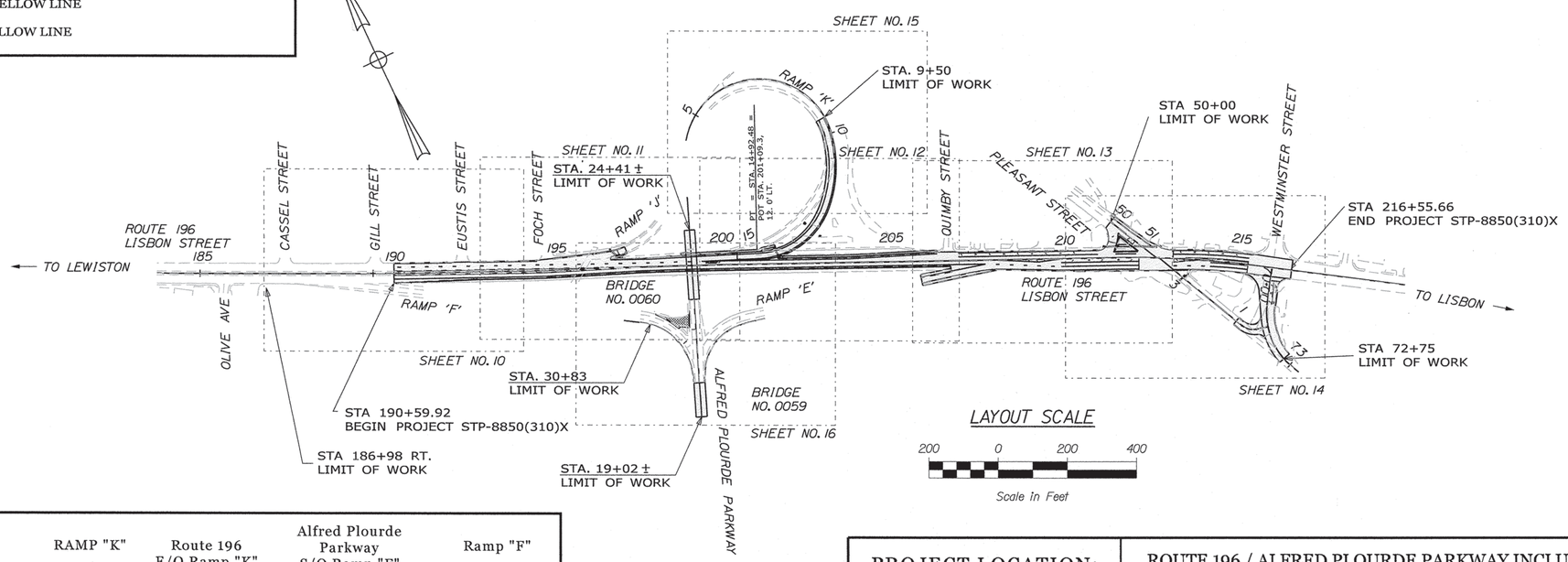
General Notes	6
Signal Plan	7-9
Plan / Profile	10-18
Geometric Curb Layout	19-22
Cross - Sections	23-55



TRAFFIC DATA

	RAMP "K"	Route 196 E/O Ramp "K"	Alfred Plourde Parkway S/O Ramp "F"	Ramp "F"
Current (2015) AADT	2,230	11,700	13,110	2,780
Future (2035) AADT	3,350	12,820	20,950	4,240
DHV - % of AADT	8%	10%	12%	10%
Design Hour Volume	266	1,242	2,468	433
% Heavy Trucks (AADT)	8%	9%	12%	8%
% Heavy Trucks (DHV)	7%	4%	6%	4%
Directional Distribution (DHV)	100%	54%	54%	100%
18 kip Equivalent P 2.0	243	712	1,057	306
18 kip Equivalent P 2.5	231	678	1,007	292
Design Speed (mph)	25	30	30	25
Functional Class:	PRIN. ART.	PRIN. ART.	MINOR ART.	PRIN. ART.
Corridor Priority:	1	1	3	1

PROJECT LOCATION:	ROUTE 196 / ALFRED PLOURDE PARKWAY INCLUDING RAMPS "E", "F", "J", AND K AND ROUTE 196 INTERSECTIONS WITH PLEASANT STREET AND WESTMINSTER STREET.
PROGRAM AREA:	HIGHWAY PROGRAM
SCOPE OF WORK:	SAFETY IMPROVEMENTS

WIN 8850.31 STP-8850(310)X

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

		DATE
APPROVED	COMMISSIONER:	3/17/15
	CHIEF ENGINEER:	3/17/15

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

SIGNATURE	
P.E. NUMBER	7960
DATE	FEBRUARY 18, 2015

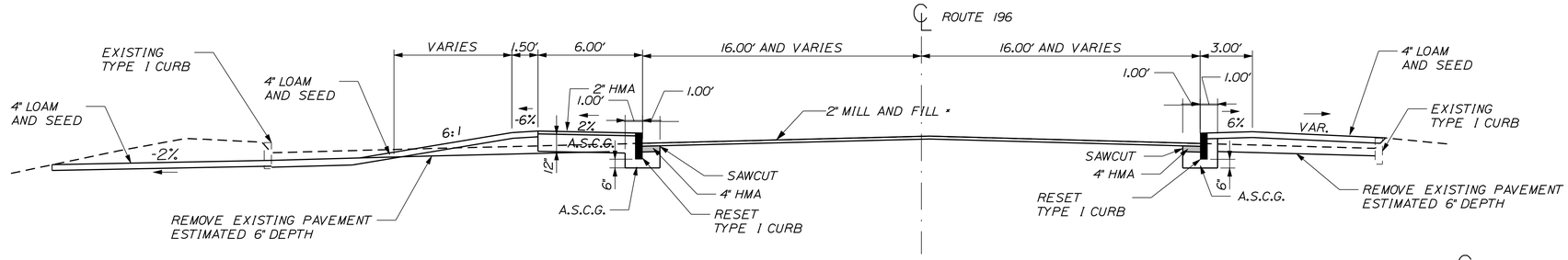
PROJECT INFORMATION

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

LEWISTON
LISBON STREET

TITLE SHEET

SHEET NUMBER
1
OF 55

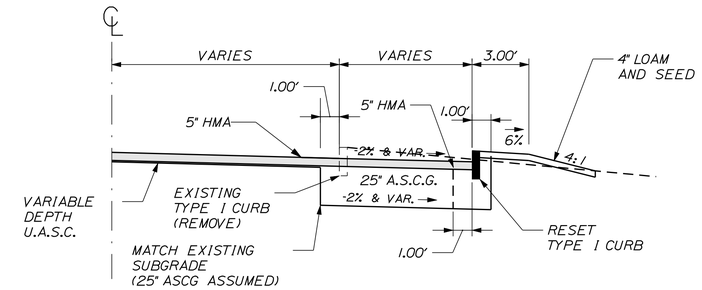


* MILL TO DEPTH, EXCEPT FROM STA. 198+75 TO STA. 202+00 LT.
MILL TO CROSS-SLOPE FROM STA. 198+75 TO STA.202+00 LT.
SEE CROSS SECTIONS.

ROUTE 196 (LISBON STREET) NARROWING

NORMAL

AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)	
6' SIDEWALK AND RESET CURB 26.67 CY/100 LF	RESET CURB RIGHT ONLY 7.78 CY/100 LF
STATION TO STATION	STATION TO STATION
198+90.03 LT. TO 15+50.00 RT. 201+69.71 TO 206+29.68 LT.	190+59.92 TO 206+67.98 RT. 212+58.37 TO 213+70.49 RT.

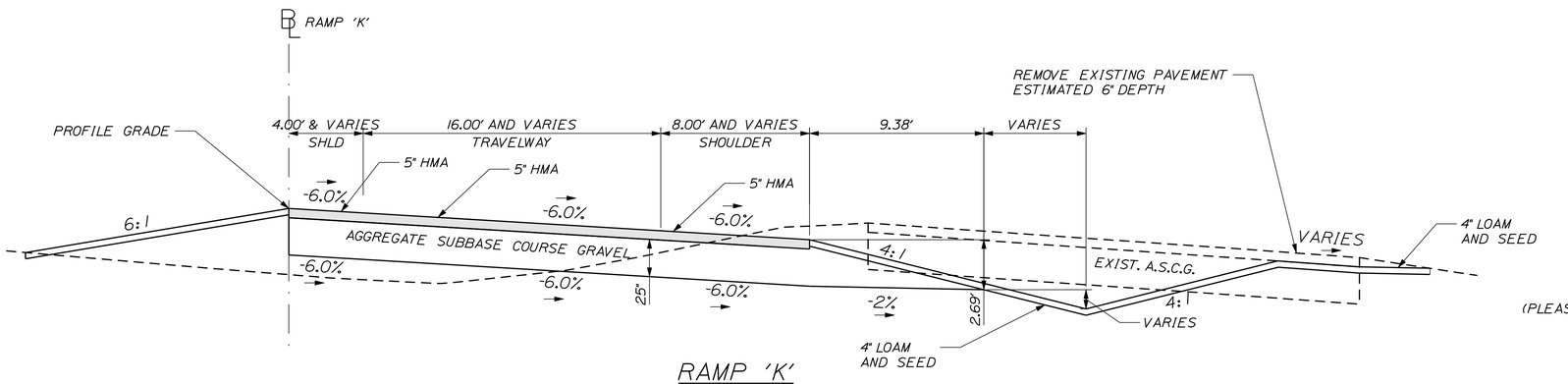


WESTMINSTER STREET (WIDENING)

NORMAL

REMOVE EXISTING PAVEMENT TO ESTIMATED DEPTH OF 6 INCHES. REGRADE EXISTING SUBBASE AND SHIM WITH VARIABLE DEPTH UNTREATED AGGREGATE SURFACE COURSE. REGRADING AND SHIMMING OF EXISTING SUBBASE WILL BE INCIDENTAL TO ITEM 304.10.

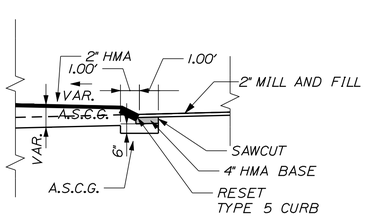
AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)	
VAR. WIDTH TRAVELWAY 7.72 CY/1 LF WIDTH/100 LF	UNDER CURB (FULL DEPTH) 16.69 CY/100 LF
STATION TO STATION	STATION TO STATION
70+25.70 TO 71+02.00 RT.	70+26.10 RT. TO 1+00.00 RT.
(PLEASANT) 0+58.40 TO 0+88.10 RT	70+24.99 LT. TO 72+50.30 LT.



RAMP 'K' FULL DEPTH CONSTRUCTION

SUPERELEVATED

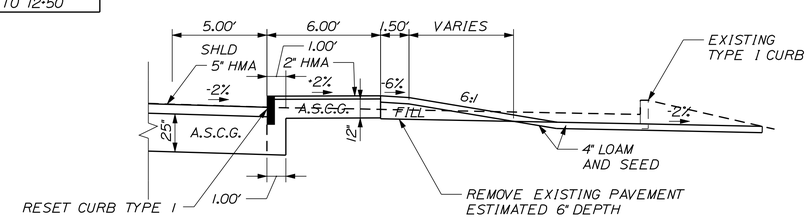
AGGREGATE SUBBASE COURSE - GRAVEL (ITEM 304.10)	
VAR. WIDTH TRAVELWAY & PAVED SHLDS. 7.72 CY/1LF WIDTH/100 LF	RIGHT SHLD. 37.44 CY/100 LF
STATION TO STATION	STATION TO STATION
10+00.00 TO 15+50.00	11+75 TO 12+50



RAISED ISLAND

A.S.C.G.
6' SIDEWALK AND CURB VARIES
STATION TO STATION
211+43 TO 212+07 LT.

REMOVE EXISTING PAVEMENT TO ESTIMATED DEPTH OF 6 INCHES. REGRADE EXISTING SUBBASE AND SHIM WITH VARIABLE DEPTH UNTREATED AGGREGATE SURFACE COURSE. REGRADING AND SHIMMING OF EXISTING SUBBASE WILL BE INCIDENTAL TO ITEM 304.10.



6' SIDEWALK

A.S.C.G.
6' SIDEWALK AND CURB 27.37 CY/100 LF
STATION TO STATION
14+30.56 TO 15+50.00

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
   U.A.S.C. = UNTREATED AGGREGATE SURFACE COURSE
8. PLEASANT STREET 2" MILL AND FILL SHALL BE MILLED TO DEPTH.

NOT TO SCALE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

TYPICAL SECTIONS

SHEET NUMBER
2
OF 55

Filename: ...\MSTA\002_Typical_01.dgn Division: HIGHWAY Username: morin Date:2/27/2015

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	GROUP 1		
202.15	REM EXISTING MANHOLE OR CATCH BASIN	1	EACH
202.202	REMOVING PAVEMENT SURFACE	15,600	SY
203.20	COMMON EXCAVATION	3,200	CY
* 203.25	GRANULAR BORROW	100	CY
* 206.061	STRUCT EARTH EXC-DRAIN & MINOR STRUCT-BELOW GRADE	50	CY
304.10	AGGREGATE SUBBASE COURSE - GRAVEL	1,800	CY
403.2081	12.5 MM POLYMER MODIFIED HMA	2,085	TON
403.209	HOT MIX ASPHALT, 9.5mm (SW,DRIVES,INCIDENTALS)	71	TON
403.211	HOT MIX ASPHALT - SHIM	57	TON
403.213	HOT MIX ASPHALT, 12.5mm BASE	590	TON
409.15	BITUMINOUS TACK COAT - APPLIED	1,100	GAL
461.131	TEMPORARY PAVEMENT	10	TON
603.159	12" CULVERT PIPE OPTION III	345	LF
603.179	18" CULVERT PIPE OPTION III	56	LF
604.072	CATCH BASIN TYPE AI-C	14	EACH
604.076	60" DIAMETER CATCH BASIN, TYPE AI-C	3	EACH
604.092	CATCH BASIN, TYPE BI-C	2	EACH
604.16	ALTER CB TO MH	10	EACH
604.164	REBUILDING CB	1	EACH
604.18	ADJUST MH OR CB TO GRADE	1	EACH
604.247	CATCH BASIN TYPE F5-C	1	EACH
605.09	6" UNDERDRAIN, TYPE 'B'	23	LF
605.11	12" UNDERDRAIN TYPE 'C'	19	LF
605.17	30" UNDERDRAIN TYPE 'C'	34	LF
608.26	CURB RAMP DETECTABLE WARNING FIELD	64	SF
609.12	VERTICAL CURB TYPE 1 - CIRCULAR	190	LF
609.234	TERMINAL CURB TYPE 1-4 FOOT	7	EACH
609.238	TERMINAL CURB TYPE 1-8 FOOT	4	EACH
609.31	CURB TYPE 3	130	LF
609.35	CURB TYPE 5 - CIRCULAR	14	LF
609.38	RESET CURB TYPE 1	2,630	LF
609.40	RESET CURB TYPE 5	150	LF
610.08	PLAIN RIP RAP	5	CY
613.319	EROSION CONTROL BLANKET	270	SY
615.07	LOAM	660	CY
618.13	SEEDING METHOD NUMBER 1	7	UNIT
618.14	SEEDING METHOD NUMBER 2	47	UNIT
619.1201	MULCH	54	UNIT
* 626.11	PRECAST CONCRETE JUNCTION BOX	2	EACH
626.21	METALLIC CONDUIT	20	LF
626.22	NON-METALLIC CONDUIT	320	LF

* UNDETERMINED LOCATIONS

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
626.332	30" DIA., GREATER THAN 8 FT LONG, AND ALL 36" AND 42" DIA. FOUNDATIONS	4	CY
626.35	CONTROLLER CABINET FOUNDATION	1	EACH
627.733	4" WHITE OR YELLOW PAINTED PVMT MARKING LINE	13,000	LF
627.75	WHITE OR YELLOW PVMT AND CURB MARKING	1,800	SF
627.78	TEMP. PVMT. MARK LINE, WHITE OR YELLOW	4,000	LF
* 629.05	HAND LABOR	25	HR
* 631.12	ALL PURPOSE EXCAVATOR (INCLUDING OPERATOR)	25	HR
* 631.172	TRUCK - LARGE (INCLUDING OPERATOR)	25	HR
* 631.18	CHAIN SAW RENTAL (INCLUDING OPERATOR)	10	HR
* 631.20	STUMP CHIPPER (INCLUDING OPERATOR)	10	HR
* 631.22	FRONT END LOADER (INCLUDING OPERATOR)	10	HR
* 631.32	CULVERT CLEANER (INCLUDING OPERATOR)	10	HR
634.160	HIGHWAY LIGHTING	1	LS
634.2041	LUMINAIRES - LED	2	EACH
639.18	FIELD OFFICE, TYPE A	1	EACH
643.71	TRAFFIC SIGNAL MODIFICATION: ROUTE 196 / PLEASANT	1	LS
643.71	TRAFFIC SIGNAL MODIFICATION: ROUTE 196 / WESTMINSTER	1	LS
643.80	TRAFFIC SIGNAL AT RAMP"F"/PLOURDE PARKWAY	1	LS
643.83	VIDEO DETECTION SYSTEM AT RTE 196/WESTMINSTER	1	LS
643.83	VIDEO DETECTION SYSTEM AT RAMP "F"/PLOURDE PARKWAY	1	LS
643.86	TRAFFIC SIGNAL LOOP DETECTOR	5	EACH
643.93	STRAIN POLE	1	EACH
645.106	DEMOUNT REG. WRN. CON. & RTE SIGN	18	EACH
645.116	REINSTALL REG. WRN. CON. & RTE SIGN	14	EACH
645.292	REG WARN CON RTE SIGNS TYPE II	230	SF
645.306	FLEXIBLE REFLECTORIZED DELINEATOR	20	EACH
652.311	TYPE II BARRICADE	5	EACH
652.312	TYPE III BARRICADE	5	EACH
652.33	DRUM	100	EACH
652.34	CONE	100	EACH
652.35	CONSTRUCTION SIGNS	1,200	SF
652.36	MAINTENANCE OF TRAFFIC CONTROL DEVICES	150	CD
652.38	FLAGGERS	4,500	HR
652.381	TRAFFIC OFFICERS	20	HR
652.41	PORTABLE - CHANGEABLE MESSAGE SIGN	4	EACH
656.75	TEMP. SOIL EROSION AND WATER POLLUTION CONTROL	1	LS
658.20	ACRYLIC LATEX COLOR FINISH - GREEN	130	SY
659.10	MOBILIZATION	1	LS
	GROUP 2		
643.83	VIDEO DETECTION SYSTEM AT ROUTE 196/PLEASANT	1	LS

SUMMARY OF EVCAVATION AND BORROW

COMMON EXCAVATION FOR ESTIMATE
- COMMON EXCAVATION (FROM CROSS SECTIONS) ____ 3,110 CY
- GRUBBING IN FILL ____ 59 CY
- PAVEMENT SALVAGE IN FILL ____ 77 CY
- TOTAL COMMON EXCAVATION (for estimate) ____ 3,246 CY

FILL FOR BORROW CALCULATIONS
- COMMON FILL (FROM CROSS SECTIONS) ____ 1,367 CY
- GRUBBING IN FILL ____ 59 CY
- PAVEMENT SALVAGE IN FILL ____ 77 CY
- TOTAL FILL ____ 1,503 CY

ROCK EXCAVATION FOR ESTIMATE
- ROCK EXCAVATION (FROM CROSS SECTIONS) ____ 0 CY
- TOTAL ROCK EXCAVATION ____ 0 CY

AVAILABLE COMMON EXCAVATION FOR BORROW CALCULATIONS
- (1) TOTAL COMMON EXCAVATION ____ 3,246 CY
  - DEDUCTIONS:
    - GRUBBING IN CUT ____ 100 CY
    - GRUBBING IN FILL ____ 59 CY
    - PAVEMENT SALVAGE (CUT & FILL) ____ 814 CY
- (2) TOTAL DEDUCTIONS ____ 973 CY

TOTAL AVAILABLE COMMON EXCAVATION (1) MINUS (2) ____ 2,273 CY
TOTAL AVAILABLE STRUCT. EXCAVATIONS (USUALLY UNDERDRAIN ONLY) ____ 33 CY

RIPRAP EXCAVATION ____ 5 CY
TOTAL AVAILABLE NON-ROCK EXCAVATION ____ 2,311 CY

COMPUTATION OF WASTE MATERIAL
- TOTAL AVAIL. WASTE STORAGE AREA (FROM CROSS SECTIONS) ____ 0 CY
- GRUBBING IN CUT ____ 100 CY
- GRUBBING IN FILL ____ 59 CY

TOTAL WASTE MATERIAL TO BE WASTED (TOTAL WASTE MATERIAL MINUS TOTAL WASTE MATERIAL TO BE UTILIZED) ____ 159 CY

COMPUTATION OF GRANULAR BORROW FOR ESTIMATE
- GRANULAR BORROW TO MAINTAIN TRAFFIC ____ 100 CY
- GRANULAR BORROW = 100 x 1.00 = ____ 100 CY

COMPUTATION FOR COMMON BORROW FOR ESTIMATE
- (3)TOTAL FILL ____ 1,503 CY

TOTAL AVAIL. NON-ROCK EXCAV. 2,311x 0.90 = ____ 2,080 CY
TOTAL AVAIL. ROCK EXCAV. 0 x 1.30 = ____ 0 CY
(4)TOTAL AVAILABLE EXCAVATION = ____ 2,080 CY
BORROW NEEDED = TOTAL FILL MINUS TOTAL AVAILABLE EXCAVATION ____ -577 CY

TOTAL SURPLUS MATERIAL = AVAILABLE EXCAVATION MINUS TOTAL FILL, PLUS TOTAL WASTE MATERIAL TO BE WASTED ____ 736 CY

ESTIMATED QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
	BRIDGE #0059 AND #0060		
202.202	REMOVING PAVEMENT SURFACE	1,120	SY
403.2081	12.5 MM POLYMER MODIFIED HOT MIX ASPHALT	250	TON
409.15	BITUMINOUS TACK COAT	60	GAL
508.14	HIGH PERFORMANCE WATERPROOFING MEMBRANE	1,120	SY
627.733	4 INCH WHITE OR YELLOW PAINTED PVMT MARK LINES	900	LF
627.78	TEMPORARY 4 INCH PAINTED PVMT MARKING LINE	1,790	LF
643.72	TEMPORARY TRAFFIC SIGNAL	1	LS
652.342	42 INCH CONE	70	EA

The above quantities are for estimating purposes only. They are to be used for the bridges specified above.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

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

	BY	DATE
	JLE	2-15
		2-15

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

ESTIMATED QUANTITIES

SHEET NUMBER
3
OF 55

Filename: ...\MSTA\003_Estimate_01.dgn Division: HIGHWAY Username: morin Date:3/2/2015

	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										GAGE OR WALL THICKNESS		TYPE B	OUTLET	SMOOTHLINED		CORRUGATED		DESCRIPTIONS	
		SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A1-C	B1-C		E	F	SPAN	RISE	LENGTH			LENGTH	LENGTH	SIZE	LENGTH	SIZE	LENGTH		
	STA. 193+86.62 RT. TO STA. 193+86.6 RT.								12"	3'																				
	STA. 196+70.57 RT. TO STA. 196+70.6 RT.								12"	5'																				
	STA. 197+00 LT. TO STA. 197+17.7 LT.								12"	18'																				
	STA. 199+02.0 RT. TO STA. 199+10.4 RT.								12"	9'																				
	STA. 199+12.4 RT. TO STA. 199+12.4 RT.								12"	6'																				
	STA. 199+14.4 RT. TO STA. 199+23.0 RT.								12"	9'																				
	STA. 200+25.0 RT. TO STA. 200+24.5 RT.								12"	7'																				
	STA. 201+35.9 LT. TO STA. 201+83.8 LT.								12"	52'																				
	STA. 202+76.3 RT. TO STA. 202+76.3 RT.								12"	7'																				
	STA. 203+86.7 LT. TO STA. 203+86.7 LT.								12"	18'																				
	STA. 204+87.3 RT. TO STA. 204+87.3 RT.								12"	7'																				
	STA. 210+61.0 LT. TO STA. 212+00.8 LT.								12"	141'																				
	STA. 212+96.2 RT. TO STA. 212+98.64 RT.								12"	4'																				
	STA. 212+96.7 RT. TO STA. 213+34.4 RT.								12"	42'																				
	STA. 70+41.7 RT. TO STA. 70+50.0 RT.								12"	17'																				
	STA. 13+00 LT. TO STA. 13+00 RT.								18"	56'																				
1	STA. 191+86.58, 24.32 RT.												1 1/8																	
2	STA. 193+86.62, 20.88 RT.												1																	
3	STA. 193+86.6, 27.9' RT.																													ALTER CB TO MH
4	STA. 196+70.57, 18.95' RT.												1																	
5	STA. 196+70.6, 25.9' RT.																													ALTER CB TO MH
11	196+97.6, 25.8' LT.																													ALTER CB TO MH
6	STA. 199+00.00, 14.88' RT.												1																	
10	STA. 199+00.00, 28.88' LT.												1 1/8																	60" DIAMETER, EXTRA DEPTH
7	STA. 199+12.36, 14.88' RT.												1																	
8	STA. 199+12.4, 24.5' RT.																													ALTER CB TO MH
9	STA. 199+24.95, 14.88' RT.												1																	
12	STA. 199+25.06, 29.57' LT.												1																	60" DIAMETER
13	STA. 200+25.00, 14.88' RT.												1																	
14	STA. 200+24.5, 25.1' RT.																													ALTER CB TO MH
15	STA. 201+34.1, 35.8' LT.																													ADJUST CB TO GRADE
16	STA. 201+85.7, 14.88' LT.												1																	
17	STA. 202+76.3, 14.88' RT.												1																	
18	STA. 202+76.3, 25.1' RT.																													ALTER CB TO MH
19	STA. 203+86.7, 15.16' LT.												1																	
20	STA. 203+86.7, 36.6' LT.																													ALTER CB TO MH
21	STA. 204+87.3, 14.88' RT.												1																	
22	STA. 204+87.3, 25.1' RT.																													ALTER CB TO MH
23	STA. 213+00, 34.02' RT.												1																	
24	STA. 212+84.8, 39.8' RT.																													ALTER CB TO MH
25	STA. 213+36.29, 61.58' RT.													1																
26	STA. 212+02.80, 25.79' LT.													1																
27	STA. 197+18.7, 25.3' LT.																1													TYPE F5-C
28	STA. 216+31.6, 32.7' RT. (70+32.7, 33.2' LT.)																													REBUILD CB W/ SHAPE 5 TOP
29	STA. 70+40.5, 16.9' RT.																													ALTER CB TO MH
30	STA. 70+50.00, 35.48' RT.												1																	FLAT TOP

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON		BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

DRAINAGE SHEET

SHEET NUMBER
4
OF 55

Filename: ...\MSTA\004_Drainage_01.dgn Division: HIGHWAY Username: morin Date:3/2/2015

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										GAGE OR WALL THICKNESS		TYPE B	OUTLET	SMOOTHLINED		CORRUGATED		DESCRIPTIONS	
	SIZE	LENGTH	CLASS	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	SIZE	LENGTH	A1-C	B1-C		E	F	SPAN	RISE	LENGTH			LENGTH	LENGTH	SIZE	LENGTH	SIZE	LENGTH		
STA. 191+65 RT. TO STA. 191+84.55 RT.																						20'						PLUS 1 ELBOW	
STA. 191+88.58 RT. TO STA. 192+04 RT.																								12"	16'			PLUS 1 ELBOW	
STA. 198+89.5 LT. TO STA. 198+97.5 LT.																								30"	8'				
STA. 199+02.5 LT. TO STA. 199+10.4 LT.																								30"	8'				
STA. 199+13.2 LT. TO STA. 199+23.2 LT.																								30"	10'				
STA. 199+27.5 LT. TO STA. 199+35.5 LT.																								30"	8'				

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960

P.E. NUMBER

FEBRUARY 18, 2015

DATE

LEWISTON
LISBON STREET

DRAINAGE SHEET

SHEET NUMBER

5

OF 55

Filename: ...\MSTA\005_Drainage_02.dgn Division: HIGHWAY Username: common Date:2/18/2015

GENERAL NOTES

1. THE UTILITIES INVOLVED IN THIS CONTRACT ARE AS FOLLOWS:
   CENTRAL MAINE POWER COMPANY
   FAIRPOINT COMMUNICATIONS
   TIME WARNER CABLE
   UNITIL CORP.
   BUCKEYE PARTNERS LP
   CITY OF LEWISTON

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

3. CONSTRUCT BUTT JOINTS AT ALL PAVED DRIVES AND ENTRANCES.

4. 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.

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

6. A TEMPORARY RAMP SHALL BE CONSTRUCTED WITH HMA AT THE ENDS OF THE ROADWAY SECTION PAVED OR MILLED EACH DAY. THE USES OF MILLINGS OR RAP WILL NOT ALLOWED, BUT COLD PATCH MAY BE TEMPORARILY UTILIZED UNTIL HMA PLANTS ARE OPEN FOR THE SEASON.

7. 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.

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

9. 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.

10. NO FULL DEPTH ENTRANCE CONSTRUCTION IS ANTICIPATED. CONSTRUCT PAVED APRONS AT COMMERCIAL PAVED ENTRANCES. MILL OR SHIM EXISTING ENTRANCE PAVEMENT TO LIMITS SHOWN ON THE PLANS OR AS DIRECTED BY THE RESIDENT TO DRAIN, THEN PLACE 3" NEW HOT MIX ASPHALT.

11. 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.

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

13. THE FOLLOWING SHALL BE INCIDENTAL TO THE 603 ITEM(S):
   - o ANY CUTTING OF EXISTING CULVERTS AND OR CONNECTORS NECESSARY TO INSTALL NEW CULVERT REPLACEMENTS OR EXTENSIONS
   - o ALL PIPE EXCAVATION INCLUDING ANY CUTTING AND REMOVAL OF PAVEMENT
   - o ALL DITCHING AT PIPE ENDS
   - o 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).
   - o ALL WORK NECESSARY TO CONNECT TO EXISTING PIPES AND DRAINAGE STRUCTURES
   - o ANY NECESSARY CLEARING OF BRUSH AND NON-PAY TREES AT CULVERT ENDS

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

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

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

17. THE CULVERTS AND UNDERDRAINS ON THIS PROJECT SHALL BE SMOOTHLINED PIPES.

18. 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.

19. 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.

20. 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.

21. 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.

22. IN AREAS WHERE CURB TYPE I WILL BE RESET, THE EXISTING CURB SUITABLE FOR USE AS TERMINAL ENDS SHALL BE CUT IF NECESSARY AND UTILIZED AS SUCH AND PAID FOR UNDER ITEM 609.38 (RESET CURB TYPE I).

23. 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.

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

25. 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 REMAINING SLOPES.

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

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

28. 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 627.78.

29. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAINTAINING ALL EXISTING MAILBOXES TO ENSURE THAT THE MAIL WILL BE DELIVERABLE. NO SEPARATE PAYMENT WILL BE MADE FOR THIS WORK; IT SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

30. 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.

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

32. ESTIMATED QUANTITIES FOR REQUIRED STRUCTURAL EARTH EXCAVATION, DRAINAGE AND MINOR STRUCTURES ARE INFORMATIONAL ONLY AND REPRESENT THE APPROXIMATE MINIMUM QUANTITY REQUIRED TO INSTALL DRAINAGE STRUCTURES. ADDITIONAL EXCAVATION FOR THE CONTRACTOR'S CONVENIENCE OR TO COMPLY WITH BACKSLOPING REQUIREMENTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE RELATED DRAINAGE ITEMS.

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

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

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

36. THE CONTRACTOR SHALL COORDINATE WITH THE MAINE TURNPIKE AUTHORITY REGARDING PROJECT CONSTRUCTION APPROACH SIGNAGE AND WORK ON ALFRED PLOURDE PARKWAY ADJACENT TO CURRENT MTA PROJECT NO. 2014.10 AT EXIT 80. THE TURNPIKE EXIT 80 INTERCHANGE PLANS MAY BE FOUND AT THE FOLLOWING WEBSITE: http://www.maineturnpike.com/project-and-planning/Construction-Contracts/Interchange-Improvements-Lewiston-%28Exit-80%29-Phase.aspx.

37. TEMPORARY PAVED LIPS SHALL BE CONSTRUCTED WITH HMA IN MILLED ROADWAY SECTIONS AROUND MANHOLES THAT WILL NOT BE ADJUSTED. PAYMENT WILL BE MADE UNDER ITEM 461.131 TEMPORARY PAVEMENT.

38. FINAL STRIPING WILL NOT COMMENCE UNTIL 10 DAYS HAVE ELAPSED FROM THE COMPLETION OF SURFACE PAVING AND MUST BE COMPLETED WITHIN 20 DAYS OF COMPLETION OF SURFACE PAVING. UNLESS OTHERWISE DIRECTED BY THE RESIDENT. FAILURE TO COMPLY WILL RESULT IN A TRAFFIC CONTROL VIOLATION. ONCE OTHER CONSTRUCTION IS COMPLETE, ITEM 652.36 MAINTENANCE OF TRAFFIC CONTROL DEVICES WILL NOT BE PAID WHILE WAITING FOR FINAL STRIPING. ONCE OTHER CONSTRUCTION IS COMPLETE, LIQUIDATED DAMAGES WILL NOT BE PAID WHILE WAITING FOR FINAL STRIPING.

39. TEMPORARY CENTER LINES SHALL BE PAINTED ON ALL MATCHED PAVEMENT WITHIN ONE WEEK. TEMPORARY EDGE LINES SHALL BE PAINTED ON ALL PAVEMENT LAYERS WITHIN FOUR WEEKS. ALL TEMPORARY LINES SHALL BE PAINTED PRIOR TO FINAL STRIPING. MULTILANE SECTIONS AND MILLED SURFACES MUST BE STRIPED DAILY ON ALL MATCHED PAVEMENT LAYERS. TOMS MUST BE USED ON ALL PAVEMENT LAYERS UNTIL TEMPORARY PAINT IS APPLIED. TOMS SHALL BE REMOVED BEFORE FINAL STRIPING. TOM REMOVAL SHALL BE ADDRESSED IN THE TRAFFIC CONTROL PLAN. ONLY PAINTED TEMPORARY LINES WILL BE PAID UNDER ITEM 627.78. TOMS WILL BE CONSIDERED INCIDENTAL TO THE CONTRACT.

40. WHERE A TRAFFIC SIGNAL LOOP DETECTOR IS TO BE REPLACED BY A NEW TRAFFIC SIGNAL LOOP DETECTOR, THE NEW TRAFFIC SIGNAL LOOP DETECTOR SHALL BE INSTALLED AND OPERATIONAL WITHIN 24 HOURS OF THE PLACEMENT OF NEW HMA.

41. WHERE A VIDEO DETECTION SYSTEM IS TO REPLACE EXISTING TRAFFIC SIGNAL LOOP DETECTORS, THE VIDEO DETECTION SYSTEM SHALL BE INSTALLED AND OPERATIONAL PRIOR TO DISTURBANCE OF THE EXISTING TRAFFIC SIGNAL LOOP DETECTORS BY MILLING.

42. THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION (MDEP) HAS REPORTED SPILLS AND RELEASES INVOLVING PETROLEUM PRODUCTS ADJACENT TO THE PROJECT. IN PARTICULAR BETWEEN ROUGHLY MAINE DEPARTMENT OF TRANSPORTATION (MAINEDOT) STATION 192+00 TO ROUGHLY MAINEDOT STATION 195+00 LEFT OF CENTER. BASED ON THE SCOPE OF WORK PRESENTED, AVAILABLE DATA SUGGESTS THAT THIS CONTAMINATION MAY ONLY BE ADJACENT TO THE IMMEDIATE AREAS OF ANY EXCAVATION PROPOSED BY THE MAINEDOT. HOWEVER, IN LIGHT OF MDEP$^{S}/_{12}$S FINDINGS, 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 ALONG THE PROJECT. 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 MAINEDOT$^{S}/_{12}$S OFFICE OF SAFETY AND COMPLIANCE AT 207-624-3004 AND THE MAINE DEPARTMENT OF ENVIRONMENTAL PROTECTION AT 800-482-0777. WORK MAY ONLY CONTINUE WITH AUTHORIZATION FROM THE RESIDENT.

43. TEMPORARY RAMPS SHALL BE CONSTRUCTED WITH ONE FOOT OF LENGTH FOR EVERY 1/4" OF TRANSITION DEPTH ON THE LEADING AND THE TRAILING END. MATERIALS, PLACEMENT, MAINTENANCE, AND REMOVAL SHALL BE INCIDENTAL TO CONTRACT ITEMS. (NOTE: FOR ALL OTHER ROADWAYS WITH SPEED LIMITS LESS THAN 50 MPH).

44. 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 SIX INCHES.

45. ALL WASTE MATERIAL NOT USED ON THE PROJECT SHALL BE DISPOSED OF OFF THE PROJECT IN ACCEPTABLE WASTE AREAS REVIEWED BY THE RESIDENT. GRADING, SEEDING AND MULCHING OF WASTE AREAS SHALL BE CONSIDERED INCIDENTAL.

46. FOR MILL AND FILL AREAS DESIGNATED TO BE MILLED TO CROSS-SLOPE, PAVEMENT REMOVAL DEPTH MAY BE ADJUSTED IN ORDER TO MAINTAIN THE DESIRED CROSS SECTION SHOWN IN THE PLANS.

47. FOR MILL AND FILL AREAS DESIGNATED TO BE MILLED TO DEPTH, PAVEMENT REMOVAL WILL GENERALLY BE UNIFORM IN DEPTH AND MATCH EXISTING CROSS SECTION. EXISTING AND PROPOSED SLOPES WILL REMAIN THE SAME.

BRIDGE RESURFACING CONSTRUCTION NOTES

1. BRIDGE 0059 AND BRIDGE 0060 (APPROXIMATE STATIONS 19+02 TO 24+41) TO BE RESURFACED. SEE TYPICAL IN SPEC BOOK.

2. 202.202 MILLING DEPTH WILL BE ADJUSTED AS NECESSARY TO REMOVE HMA LAYER FROM CONCRETE DECK OF BRIDGE.

3. 508.14 THIS ITEM WILL BE USED TO REPLACE EXISTING MEMBRANE ON BRIDGE 0059 AND 0060.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
STP-8850(310)X
WIN 8850.31
HIGHWAY PLANS

PROJ. MANAGER RHODE MOULTON	BY	DATE
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

GENERAL NOTES

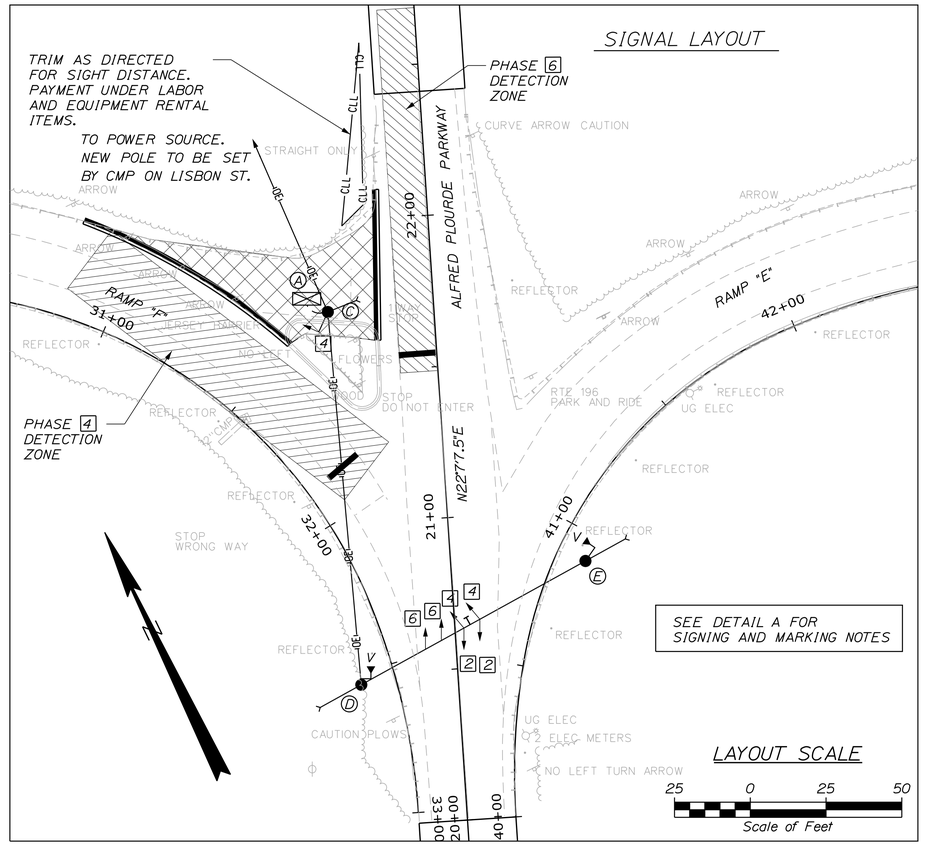
Filename: ...\HIGHWAY\MSTA\006_Notes_01.dgn Division: HIGHWAY Username: common Date:3/9/2015

LEGEND

- GROUND MOUNTED CONTROLLER
- NEW WOOD SIGNAL POLE WITH GUY
- SPAN WIRE MOUNTED TRAFFIC SIGN
- 2 4 6 SIGNAL HEAD ASSEMBLY AND PHASE NUMBERS
- JNCT JUNCTION BOX (EXISTING)
- JB JUNCTION BOX (NEW)
- NON-METALLIC CONDUIT
- VIDEO DETECTION ZONE
- OE AERIAL ELECTRIC CONDUCTOR
- V VIDEO DETECTOR ON BRACKET ARM

NEW TRAFFIC SIGNAL AND LIGHTING NOTES
RAMP "F" AT ALFRED PLOURDE PARKWAY

1. ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE LATEST REVISIONS OF THE NATIONAL ELECTRICAL CODE, STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. ALL PAYMENT SHALL BE INCLUDED WITHIN THE BID ITEMS OF THE CONTRACT. ALL EQUIPMENT AND WORK REQUIRED TO PROVIDE A COMPLETE, SAFE AND OPERABLE TRAFFIC SIGNAL SYSTEM WILL BE CONSIDERED SUBSIDIARY TO THESE ITEMS.
2. LOCATIONS OF ALL PROPOSED POLES AND STRUCTURES SHALL BE VERIFIED BY THE RESIDENT PRIOR TO CONSTRUCTION. POLE PLACEMENT MAY BE ADJUSTED AS NECESSARY TO AVOID CONFLICTS WITH BURIED UTILITIES OR EXISTING HIGHWAY LIGHTING CONDUIT.
3. LOCATIONS OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE PRESENCE OF UNDERGROUND UTILITY FACILITIES PRIOR TO COMMENCING ANY EXCAVATION WORK OR INSTALLATION OF POLES, FOUNDATIONS, JUNCTION BOXES, CONDUIT OR GROUND-MOUNTED SIGNAGE AND SHALL NOTIFY UTILITIES OF PROPOSED WORK IN ACCORDANCE WITH MRSA TITLE 23 SECTION 3360-A, MAINE "DIG SAFE" SYSTEM. CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST THREE WORKING DAYS PRIOR TO THE BEGINNING OF EXCAVATION. ALL UTILITIES SHALL BE LOCATED BEFORE BEGINNING EXCAVATION.
4. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY OPERATIONS ARE CONDUCTED THAT POTENTIALLY COULD CONFLICT WITH AERIAL UTILITIES.
5. THE TRAFFIC SIGNAL AT RAMP "F" IS INTENDED BY MAINEDOT TO OPERATE AS AN ISOLATED SIGNAL AND NOT COORDINATED WITH OTHER TRAFFIC SIGNALS ON ALFRED PLOURDE PARKWAY.
6. ALL SIGNAL SYSTEM COMPONENTS SHALL BE COMPLIANT WITH ANDROSCOGGIN TRANSPORTATION RESOURCE CENTER (ATRC) MINIMUM EQUIPMENT STANDARDS. SEE SPECIAL PROVISION 643.
7. FIBER OPTICS COMMUNICATION IS INTENDED TO BE ESTABLISHED IN THE FUTURE BETWEEN RAMP "F" TRAFFIC SIGNAL AND THE REMOTE COMPUTER SIGNAL CONTROL AND MONITORING SYSTEM AT THE ATRC OFFICE AT 125 MANLEY ROAD IN AUBURN. THE CONTROLLER CABINET TO BE INSTALLED FOR WIN 8850.31 SHALL INCLUDE A FIBER CONNECTION READY ETHERNET FACE PLATE AND OTHER INTERNAL COMPONENTS THAT MAY BE NECESSARY TO ESTABLISH THAT FUTURE COMMUNICATION CONNECTION. NO CONDUIT OR FIBER OPTICS CONDUCTORS ARE REQUIRED TO BE INSTALLED ON RAMP "F" IN THIS PROJECT FOR THAT FUTURE CONNECTION.
8. MINIMUM CLEARANCE FROM THE ROADWAY PROFILE ELEVATION TO THE BOTTOM OF OVERHEAD VEHICULAR SIGNAL HEADS AND OVERHEAD SIGNAGE SHALL BE 17'.
9. ALL SIGNAL DISPLAYS SHALL HAVE 5" RETROREFLECTIVE LOUVERED BACKPLATES AND SHALL BE VISORED.
10. SIGNAL HEADS SHALL BE POLYCARBONATE AND HUNG FROM DOUBLE SPANWIRE WITH BOTTOM TETHER.
11. THE TRAFFIC SIGNAL CONTROLLER CABINET AND ALL TRAFFIC SIGNAL, CONTROLLER, DETECTION, AND ANCILLARY EQUIPMENT INSTALLED IN THIS PROJECT SHALL BE NEW.
12. THE NEW CONTROLLER SHALL BE A NEMA TS-2 TYPE 1 CONTROLLER INSTALLED IN A NEMA CABINET GROUND-MOUNTED ON A FOUNDATION. CABINET SIZE SHALL BE DETERMINED BY THE CONTRACTOR. ALL ANCILLARY EQUIPMENT AND WIRING SHALL BE INCLUDED.
13. CONTROLLER CABINET AND METER DISCONNECT ENCLOSURE SHALL BE LOCKABLE.
14. STOP BAR DETECTION FOR THE RAMP "F" AND SOUTHBOUND ALFRED PLOURDE PARKWAY APPROACHES SHALL BE A VIDEO DETECTION SYSTEM MOUNTED ON WOOD POLES. VIDEO DETECTION CAMERAS SHALL BE INDIVIDUALLY SURGE PROTECTED AND FUSED. IF INSTALLED ON VERTICAL PIPE EXTENSIONS ATTACHED TO THE POLES, PIPE EXTENSIONS SHALL BE OF SUFFICIENT HEIGHT TO DIFFERENTIATE BETWEEN INDIVIDUAL VEHICLES STOPPED BEHIND THE STOP BAR ON EACH APPROACH.
15. CONDUIT SHALL BE 2" MINIMUM, PVC SCHEDULE 40. CONDUIT UNDER PAVEMENT SHALL BE SCHEDULE 80. MINIMUM BURIAL DEPTH FOR CONDUIT SHALL BE 36". TOP 3" OF CONDUIT SHALL BE SEALED TO PREVENT ENTRY BY RODENTS.
16. THERE SHALL BE NO SPLICES OR JUNCTION BOXES EXCEPT AS SHOWN ON THE PROJECT PLANS OR APPROVED BY THE RESIDENT



17. ALL JUNCTION BOX COVERS, IF USED, TO BE FURNISHED AND INSTALLED SHALL BE LABELED "TRAFFIC SIGNAL".
18. THE CONTRACTOR SHALL INSTALL A SELF-CONTAINED METER SOCKET BYPASS (SINGLE PHASE 100 OR 150 AMP) WITH A SINGLE HANDLE LEVER-OPERATED BYPASS FOR POWER SHUTOFF TO THE METER WITHOUT INTERRUPTING THE SIGNAL DISPLAYS. A NEMA 3R METER DISCONNECT ENCLOSURE SHALL BE INSTALLED EXTERNAL TO THE CONTROLLER CABINET BETWEEN THE METER AND THE CABINET.
19. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING POWER SERVICE AS REQUIRED FOR THE NEW TRAFFIC SIGNAL SYSTEM.
20. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT, LEGIBLE, WEATHERPROOF TAGS SECURELY ATTACHED TO EACH CABLE.
21. COSTS OF POLE RISERS WILL BE CONSIDERED INCIDENTAL TO PAYMENT UNDER ITEM 643.80.
22. AT THE TIME OF FINAL PROJECT INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE RESIDENT THREE COMPLETE SETS OF AS-BUILT TRAFFIC SIGNAL PLANS. ONE SET SHALL REMAIN IN THE CABINET.
23. THE MAINTENANCE OF SIGNALS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY MAINEDOT.
24. LIGHTING FIXTURE VOLTAGE SHALL BE 240 VOLTS.
25. LIGHTING CIRCUIT SHALL BE PHOTOCELL ACTIVATED BY PHOTOCELL ON CONTROL CABINET.
26. POLE RISERS SHALL BE METALLIC CONDUIT.
27. INSTALL TWO HOLOPHANE LEDGEND LED ROADWAY LIGHTING IES DISTRIBUTION TYPE 1 LUMINAIRES ON POLE 'C' AT 30' MOUNTING HEIGHT, CATALOG NUMBER: LEDG 084 35 5K AS 2H L3. LUMINAIRES SHALL BE GASKETED. HAVE AN EXTENDED LIFE DRIVER, SURGE PROTECTION, DOUBLE FUSE KIT, AND LED COLOR TEMPERATURE OF 5000K. ORIENT ONE FIXTURE NORMAL TO RAMP 'F' AND ONE NORMAL TO ALFRED PLOURDE PARKWAY.
28. ATTACHMENT OF EACH LUMINAIRE TO THE WOOD POLE SHALL BE BY MINIMUM LENGTH TWO INCH DIAMETER HORIZONTAL ARM AND A MOUNTING PLATE OR BRACKET. SHOP DRAWINGS FOR ARMS AND MOUNTING HARDWARE MUST BE SUBMITTED FOR APPROVAL OF THE RESIDENT BEFORE ATTACHMENT TO THE POLE.
29. PAYMENT UNDER ITEM 634.16, HIGHWAY LIGHTING, WILL INCLUDE ALL MATERIALS, LABOR AND EQUIPMENT NECESSARY TO PROVIDE A FULLY FUNCTIONING HIGHWAY LIGHTING SYSTEM, EXCEPT THOSE ITEMS TO BE PAID UNDER OTHER RELATED BID ITEMS IN THE CONTRACT.

NOTES

(A) CONTROLLER, STA. 21+75, 43' LT. TRAFFIC SIGNAL CABINET SHALL INCLUDE LIGHTING CONTROLS.

(C) 45' CLASS 3 WOOD POLE WITH GUY ANCHOR AND RISER FROM METER POST. STA. 21+70, 35' LT. INSTALL SUPPLEMENTAL PHASE 4 SIGNAL ASSEMBLY ON POLE. INSTALL DOUBLE LUMINAIRE ON POLE. SEE NOTES 24-29. INSTALL METER AND SERVICE DISCONNECT ON POLE C

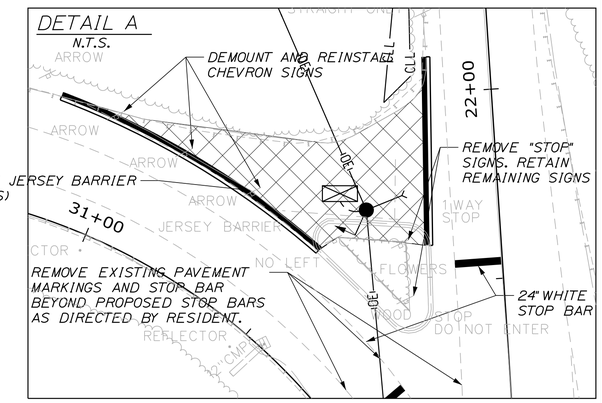
(A) TO (C) NON-METALLIC CONDUIT

(D) 40' CLASS 3 WOOD POLE WITH GUY ANCHOR. INSTALL VIDEO DETECTOR FOR PHASE 6 ON POLE. STA. 20+47, 32' LT.

(C) TO (D) AERIAL POWER AND SIGNAL CONDUCTORS

(E) 40' CLASS 3 WOOD POLE WITH GUY ANCHOR. INSTALL VIDEO DETECTOR FOR PHASE 4 ON POLE. STA. 20+83, 45' RT.

(D) TO (E) SIGNAL SPANWIRE WITH SIGNAL CONDUCTORS.

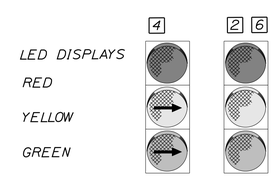


8 PHASE NEMA CONTROLLER

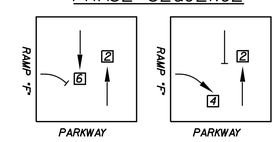
PHASE 1: NOT USED	PHASE 2: ↑
PHASE 5: NOT USED	PHASE 6: ↓

PHASE 3: NOT USED	PHASE 4: ↘
PHASE 7: NOT USED	PHASE 8: NOT USED

SIGNAL HEAD DETAIL



PHASE SEQUENCE



ϕ4 REST ON RED
ϕ2 FREE (NO YELLOW/RED)

INITIAL SIGNAL TIMING (SECONDS)

PHASE	1	2	3	4	5	6	7	8
MIN. INITIAL	---	FREE	---	6.0	---	6.0	---	---
VEH. EXT.	---	---	---	3.0	---	3.0	---	---
MAX. GREEN 1	---	---	---	20.0	---	20.0	---	---
YELLOW	---	---	---	3.2	---	3.2	---	---
ALL RED	---	---	---	2.0	---	2.0	---	---
FLASH	---	Y	---	R	---	Y	---	---
RECALL	---	---	---	---	---	SOFT	---	---

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
4226
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
ALFRED PLOURDE PARKWAY

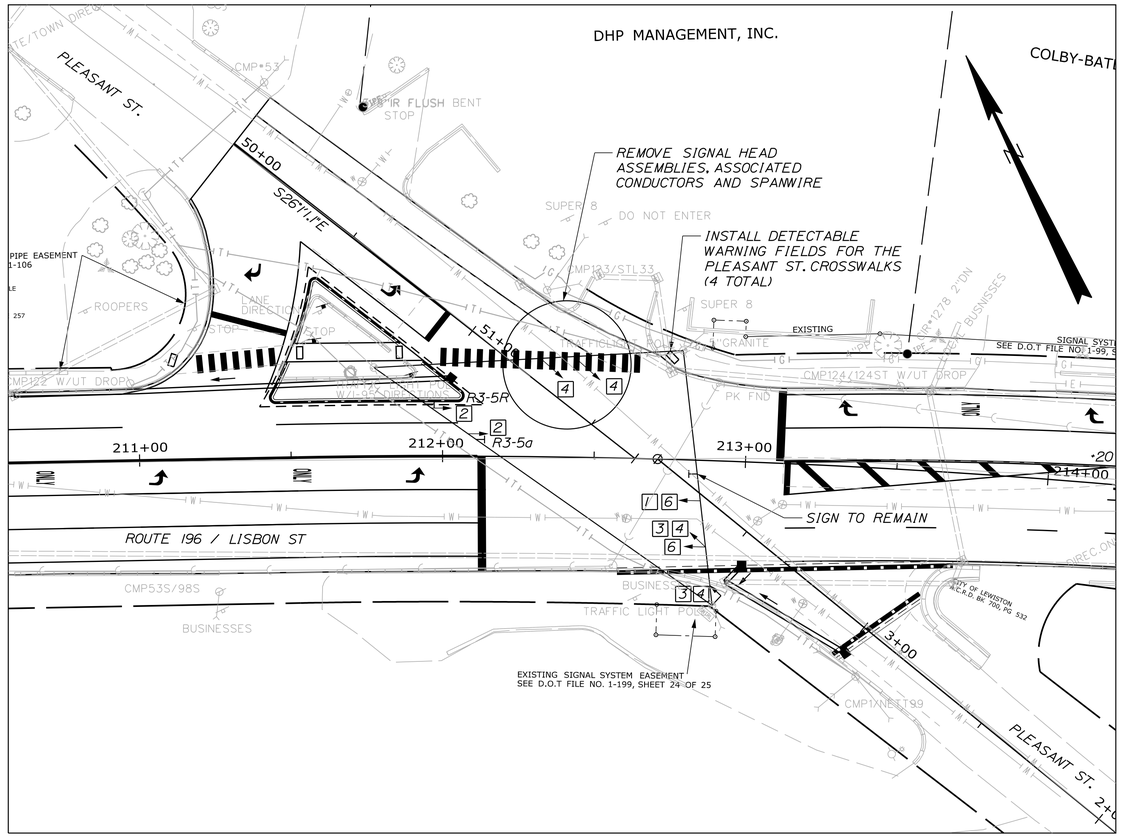
SIGNAL PLAN

SHEET NUMBER
7
OF 55

Filename: ...\MSTA\007_SignalPlan_01.dgn Division: HIGHWAY Username: common Date:2/18/2015

LEGEND

- POLE MOUNTED CONTROLLER
- NEW WOOD SIGNAL POLE WITH GUY
- SPAN WIRE MOUNTED TRAFFIC SIGN
- [2] SIGNAL HEAD ASSEMBLY AND PHASE
- ADVANCE RADAR DETECTION
- JNCT JUNCTION BOX (EXISTING)
- JB JUNCTION BOX (NEW)
- NON-METALLIC CONDUIT
- LOOP DETECTOR
- LUMINAIRE ON BRACKET ARM
- OU AERIAL UTILITIES
- W WATER MAIN
- T TELEPHONE DUCT
- OE AERIAL LIGHTING CONDUCTOR
- CATV AERIAL CATV CONDUCTOR
- SSWL SINGLE SOLID WHITE LINE
- SSYL SINGLE SOLID YELLOW LINE
- SBWL SINGLE BROKEN WHITE LINE
- SBYL SINGLE BROKEN YELLOW LINE
- DYSL DOUBLE SOLID YELLOW LINE



NEW OVERHEAD SIGNAGE RTE. 196 WESTBOUND

R3-5a 30X36

NO. REQUIRED: 1

R3-5R 30X36

NO. REQUIRED: 1

LAYOUT SCALE

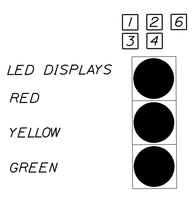
25 0 25 50

Scale of Feet

EXISTING PHASING 8 PHASE NEMA CONTROLLER

PHASE 1	PHASE 2	PHASE 3	PHASE 4
PHASE 5	PHASE 6	PHASE 7	PHASE 8
NOT USED		NOT USED	NOT USED

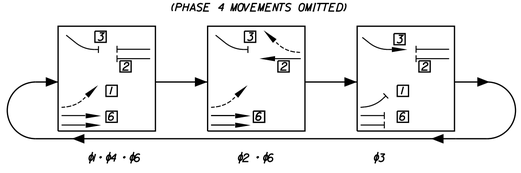
EXISTING SIGNAL HEAD DETAIL



NO.REQUIRED: 0

PHASE SEQUENCE

(PHASE 4 MOVEMENTS OMITTED)



φ3 REST ON RED
φ4 APPLICABLE ONLY TO COORDINATED SIGNAL AT WESTMINSTER ST.

CONTROLLER PROGRAMMING (EXISTING TIMING TO REMAIN, EXCEPT AS NOTED)

INTERVAL	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 6	FLASH
PHASE						R Y Y
TIMING IN SECONDS						
INITIAL INTERVAL	6.0	8.0	* 5.0	5.0	8.0	
VEHICLE EXTENSION	3.0	4.0	4.0	4.0	4.0	
MAX. GREEN 1	10.0	45.0	30.0	30.0	45.0	
MAX. GREEN 2	---	---	---	---	---	
YELLOW	4.2	5.0	4.2	4.2	5.0	
ALL RED	2.5	3.0	2.5	2.5	3.0	
RECALL	---	SOFT	---	---	SOFT	

ROUTE 196 AT PLEASANT STREET
TRAFFIC SIGNAL NOTES

1. THIS PROJECT WILL ELIMINATE THE SOUTHERLY LEG OF PLEASANT STREET AT ROUTE 196. TRAFFIC SIGNAL MODIFICATIONS ARE INTENDED TO ADDRESS ONLY THE ELIMINATION OF ASSOCIATED TRAFFIC MOVEMENTS. THE EXISTING TRAFFIC SIGNAL CONTROLLER, SIGNAL HEAD ASSEMBLIES, VEHICLE DETECTION, PREEMPTION EQUIPMENT, AND RELATED HARDWARE AND SOFTWARE ARE INTENDED TO REMAIN, EXCEPT AS NOTED ON THIS PLAN.
2. ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE LATEST REVISIONS OF THE STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
3. LOCATIONS OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE PRESENCE OF UNDERGROUND UTILITY FACILITIES PRIOR TO COMMENCING ANY EXCAVATION WORK OR INSTALLATION OF CONDUIT AND SHALL NOTIFY UTILITIES OF PROPOSED WORK IN ACCORDANCE WITH MRSA TITLE 23 SECTION 3360-A, MAINE "DIG SAFE" SYSTEM. CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST THREE WORKING DAYS PRIOR TO THE BEGINNING OF EXCAVATION. ALL UTILITIES SHALL BE LOCATED BEFORE BEGINNING EXCAVATION.
4. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY OPERATIONS ARE CONDUCTED THAT POTENTIALLY COULD CONFLICT WITH AERIAL UTILITIES.
5. ANY NEW SIGNAL SYSTEM COMPONENTS SHALL BE COMPLIANT WITH ANDROSCOGGIN TRANSPORTATION RESOURCE CENTER (ATRC) MINIMUM EQUIPMENT STANDARDS. SEE SPECIAL PROVISION 643.
6. REMOVE SIGNAL HEAD ASSEMBLIES AND SIGNAL CONDUCTORS SERVING EXISTING PHASE 4 NORTHBOUND. SIGNAL HEAD ASSEMBLIES REMOVED SHALL REMAIN THE PROPERTY OF THE CITY OF LEWISTON. THE CONTRACTOR SHALL DELIVER REMOVED HARDWARE TO THE CITY OF LEWISTON DEPARTMENT OF PUBLIC WORKS ELECTRICAL SERVICES DIVISION AT 103 ADAMS AVENUE, LEWISTON.
7. CONTROLLER MODIFICATIONS:
   INCREASE PHASE 3 INITIAL INTERVAL TO 5.0 SECONDS FROM EXISTING 4.0 SECONDS.
   DISABLE PLEASANT STREET PHASE 4 VEHICLE DETECTION.
8. PLACE NEW PAVEMENT MARKINGS AS SHOWN ON THE PROJECT PLANS.
9. SEE SHEET 9 NOTES REGARDING CONNECTION OF NEW DETECTION AT WESTMINSTER STREET TO SIGNAL CONTROLLER AT THIS INTERSECTION.
10. INSTALL NEW LANE USE OVERHEAD SIGNAGE FOR ROUTE 196 WESTBOUND. INSTALL NEW BOTTOM TETHER FOR SIGNAGE AND SIGNAL ASSEMBLIES ON THIS SPANWIRE.
11. 'MILL AND FILL' PAVEMENT WORK ON PLEASANT STREET AND ON LISBON STREET COULD DISTURB EXISTING TRAFFIC DETECTOR LOOPS AT THIS INTERSECTION. THE CONTRACTOR SHALL CONFIRM LOCATIONS AND SIZES OF EXISTING DETECTORS PRIOR TO PAVEMENT MILLING. EXISTING DETECTION THAT WILL BE DISTURBED AND IS NOT DESIGNATED TO BE DISCONNECTED SHALL BE REPLACED UNDER THIS CONTRACT.
12. THE CONTRACTOR SHALL PROVIDE A BID PRICE FOR ITEM 643.86 TRAFFIC SIGNAL LOOP DETECTORS FOR REPLACEMENT OF DISTURBED LOOP DETECTORS. A BID PRICE ALSO SHALL BE PROVIDED FOR BID ALTERNATE ITEM 643.83 VIDEO DETECTION SYSTEM AT PLEASANT STREET AND LISBON STREET. MAINEDOT RESERVES THE RIGHT TO DETERMINE WHETHER DISTURBED LOOP DETECTORS WILL BE REPLACED WITH NEW LOOP DETECTORS OR WITH A VIDEO DETECTION SYSTEM. THE DETERMINATION WILL BE MADE AT THE TIME OF CONTRACT AWARD.
13. IF SELECTED, THE VIDEO DETECTION SYSTEM SHALL BE MOUNTED ON EXISTING TRAFFIC SIGNAL POLES. THE SYSTEM SHALL BE TRAFICAM X-STREAM OR APPROVED EQUAL MEETING REQUIREMENTS OF SPECIAL PROVISION 643.00. VIDEO DETECTION CAMERAS SHALL BE INDIVIDUALLY SURGE PROTECTED AND FUSED. IF INSTALLED ON VERTICAL PIPE EXTENSIONS ATTACHED TO THE POLES, PIPE EXTENSIONS SHALL BE OF SUFFICIENT HEIGHT TO DIFFERENTIATE BETWEEN INDIVIDUAL VEHICLES STOPPED BEHIND THE STOP BAR ON EACH APPROACH.
14. NEW CONDUIT SHALL BE 2" MINIMUM, PVC SCHEDULE 40. CONDUIT UNDER PAVEMENT SHALL BE SCHEDULE 80. MINIMUM BURIAL DEPTH FOR CONDUIT SHALL BE 36". TOP 3" OF CONDUIT SHALL BE SEALED TO PREVENT ENTRY BY RODENTS.
15. THERE SHALL BE NO SPLICES OR JUNCTION BOXES EXCEPT AS NOTED ON THE PROJECT PLANS OR APPROVED BY THE RESIDENT.
16. ANY NEW JUNCTION BOX COVERS REQUIRED TO BE FURNISHED AND INSTALLED SHALL BE LABELED "TRAFFIC SIGNAL".
17. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT, LEGIBLE, WEATHERPROOF TAGS SECURELY ATTACHED TO EACH CABLE.
18. COSTS OF POLE RISERS WILL BE CONSIDERED INCIDENTAL TO PAYMENT UNDER ITEM 643.71.
19. AT THE TIME OF FINAL PROJECT INSPECTION, THE CONTRACTOR SHALL FURNISH TO THE RESIDENT THREE COMPLETE SETS OF AS-BUILT TRAFFIC SIGNAL PLANS. ONE SET SHALL REMAIN IN THE CABINET.
20. THE MAINTENANCE OF TRAFFIC SIGNALS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY MAINEDOT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER	RHODE MOULTON		
DESIGN-DETAILED	JLE	BY	DATE
CHECKED-REVIEWED	ALG	JLE	2-15
DESIGN2-DETAILED2			2-15
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
4226
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
RTE 196 / PLEASANT ST.

SIGNAL PLAN

SHEET NUMBER
8
OF 55

Filename: ...\MSTA\008_SignalPlan_02.dgn Division: HIGHWAY Username: common Date:2/18/2015

ROUTE 196 AT WESTMINSTER STREET
TRAFFIC SIGNAL NOTES

1. TRAFFIC SIGNAL MODIFICATIONS AT THIS INTERSECTION WILL CONSIST OF INSTALLATION OF A NEW TRAFFIC SIGNAL STRAIN POLE IN THE SOUTHWEST QUADRANT. INSTALLATION OF NEW SPANWIRES AND BOTTOM TETHER CABLES. REMOVAL OF ONE EXISTING TRAFFIC SIGNAL WOOD POLE AND GUY ANCHOR. REMOVAL AND REATTACHMENT OF TRAFFIC SIGNAL HARDWARE AND OVERHEAD SIGNAGE TO SPANWIRES. INSTALLATION OF NEW TRAFFIC DETECTION. AND RELATED INCIDENTAL WORK AND MATERIALS. THE EXISTING TRAFFIC SIGNAL CONTROLLER. SIGNAL HEAD ASSEMBLIES. VEHICLE DETECTION OTHER THAN NOTED FOR REPLACEMENT. AND RELATED HARDWARE AND SOFTWARE ARE INTENDED TO REMAIN. EXCEPT AS NOTED ON THIS PLAN TO BE MODIFIED OR REMOVED. ALL LABOR. EQUIPMENT AND MATERIALS NECESSARY FOR MODIFICATION OF THE TRAFFIC SIGNAL WILL BE PAID UNDER ITEM 643.71 UNLESS DIRECTLY COVERED BY OTHER PAY ITEMS OF THE CONTRACT.

2. ALL WORK SHALL BE COMPLETED IN CONFORMANCE WITH THE LATEST REVISIONS OF THE STATE OF MAINE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

3. LOCATIONS OF ALL PROPOSED POLES AND STRUCTURES SHALL BE VERIFIED BY THE RESIDENT PRIOR TO CONSTRUCTION. POLE PLACEMENT MAY BE ADJUSTED AS NECESSARY TO AVOID CONFLICTS WITH BURIED UTILITIES.

4. LOCATIONS OF ANY EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE PRESENCE OF UNDERGROUND UTILITY FACILITIES PRIOR TO COMMENCING ANY EXCAVATION WORK OR INSTALLATION OF POLES. FOUNDATIONS. JUNCTION BOXES. CONDUIT OR GROUND-MOUNTED SIGNAGE AND SHALL NOTIFY UTILITIES OF PROPOSED WORK IN ACCORDANCE WITH MRSA TITLE 23 SECTION 3360-A. MAINE "DIG SAFE" SYSTEM. CONTRACTOR SHALL CONTACT DIG SAFE AT LEAST THREE WORKING DAYS PRIOR TO THE BEGINNING OF EXCAVATION. ALL UTILITIES SHALL BE LOCATED BEFORE BEGINNING EXCAVATION.

5. THE CONTRACTOR SHALL NOTIFY UTILITY COMPANIES AT LEAST 48 HOURS BEFORE ANY OPERATIONS ARE CONDUCTED THAT POTENTIALLY COULD CONFLICT WITH AERIAL UTILITIES.

6. ALL SIGNAL SYSTEM COMPONENTS SHALL BE COMPLIANT WITH ANDROSCOGGIN TRANSPORTATION RESOURCE CENTER (ATRC) MINIMUM EQUIPMENT STANDARDS. SEE SPECIAL PROVISION 643.

7. THE EXISTING TRAFFIC SIGNAL CONTROLLER FOR THIS INTERSECTION IS LOCATED AT THE INTERSECTION OF ROUTE 196 AND PLEASANT STREET.

8. MINIMUM CLEARANCE FROM THE ROADWAY PROFILE ELEVATION TO THE BOTTOM OF OVERHEAD VEHICULAR SIGNAL HEADS AND OVERHEAD SIGNAGE SHALL BE 17'.

9. INSTALL NEW BOTTOM TETHER CABLES TO SIGNAL HEAD ASSEMBLIES FOR ALL APPROACHES.

10. INSTALL NEW 28' ALUMINUM OR STEEL STRAIN POLE AND FOUNDATION AT STATION 215+42. 38.0' RT (POLE 'A'). INSTALL NEW SPANWIRES FROM POLE 'A' TO POLE 'B' AND FROM POLE 'A' TO POLE 'D'. REMOVE SIGNAL ASSEMBLIES. SIGNAGE. AND PREEMPTION BEACON FROM EXISTING SPANWIRES AND REINSTALL ON NEW SPANWIRES. REMOVE EXISTING WOOD SIGNAL POLE. SPANWIRES AND GUY ANCHOR FROM SOUTHWEST QUADRANT. DISCONNECT EXISTING LOOP DETECTION AT THIS INTERSECTION FOR ROUTE 196 EASTBOUND AND WESTMINSTER STREET NORTHBOUND TRAFFIC.

11. FOUNDATION FOR STRAIN POLE SHALL BE 36 INCHES MINIMUM DIAMETER. THE CONTRACTOR SHALL PROVIDE A FOUNDATION DESIGN PREPARED BY A PROFESSIONAL ENGINEER LICENSED IN MAINE. MEDIUM INTENSITY SOILS MAPPING INDICATES SUBGRADE SOIL TO BE SILTY CLAY. ASSUMED VALUE OF UNDRAINED SHEAR STRENGTH SHALL BE 600 PSF OR LESS. UNLESS INDEPENDENT TESTING OF ACTUAL SITE SOILS PERFORMED FOR THE CONTRACTOR AND ACCEPTED BY MAINEDOT INDICATES A HIGHER STRENGTH. EMBEDMENT DEPTH REQUIRED MAY BE GREATER THAN THE MINIMUM DEPTH SHOWN ON THE MAINEDOT STANDARD DETAILS. OR A LARGER DIAMETER MAY BE REQUIRED. PAYMENT FOR THE FOUNDATION WILL BE MADE UNDER ITEM 626.332. FOUNDATION DESIGN AND ANY SOILS TESTING THAT THE CONTRACTOR MAY ELECT TO DO WILL BE INCIDENTAL TO PAYMENT UNDER THAT PAY ITEM.

12. NEW STOP BAR DETECTION FOR THE ROUTE 196 EASTBOUND AND WESTMINSTER STREET NORTHBOUND APPROACHES SHALL BE A VIDEO DETECTION SYSTEM MOUNTED ON EXISTING POLES. THE SYSTEM SHALL BE TRAFICAM X-STREAM OR APPROVED EQUAL MEETING REQUIREMENTS OF SPECIAL PROVISION 643.00. INSTALL DETECTION HARDWARE ON EXISTING WOOD SIGNAL POLES 'C' AND 'D' AND IN THE EXISTING CONTROLLER CABINET AT PLEASANT STREET. VIDEO DETECTION CAMERAS SHALL BE INDIVIDUALLY SURGE PROTECTED AND FUSED. IF INSTALLED ON VERTICAL PIPE EXTENSIONS ATTACHED TO THE POLES. PIPE EXTENSIONS SHALL BE OF SUFFICIENT HEIGHT TO DIFFERENTIATE BETWEEN INDIVIDUAL VEHICLES STOPPED BEHIND THE STOP BAR ON EACH APPROACH.

13. INSTALL DETECTION CONDUCTORS AERIALLY FROM POLE 'D' TO POLE 'C' TO POLE 'B'. INSTALL NEW POLE RISER. IF NEEDED. ON POLE 'B' FOR DETECTION CONDUCTORS. INSTALL NEW NON-METALLIC CONDUIT. IF NEEDED. FOR DETECTION CONDUCTORS FROM POLE 'B' TO EXISTING JUNCTION BOX 'E'.

14. IT IS INTENDED THAT EXISTING CONDUIT UNDER THE SIDEWALK SHALL BE USED BETWEEN EXISTING JUNCTION BOX 'E' AND THE POLE RISER ON THE TRAFFIC SIGNAL POLE ON THE NORTHEAST CORNER OF THE INTERSECTION OF ROUTE 196 AND PLEASANT STREET FOR INSTALLATION OF NEW DETECTION CONDUCTORS FROM THE WESTMINSTER STREET INTERSECTION. INSTALL DETECTION CONDUCTORS AERIALLY FROM THE TRAFFIC SIGNAL POLE AT THE NORTHEAST CORNER OF PLEASANT STREET TO THE CONTROLLER CABINET ON THE SOUTH SIDE OF ROUTE 196 AT PLEASANT STREET. INSTALL NEW POLE RISERS. IF NEEDED. ON THE TRAFFIC SIGNAL POLES.

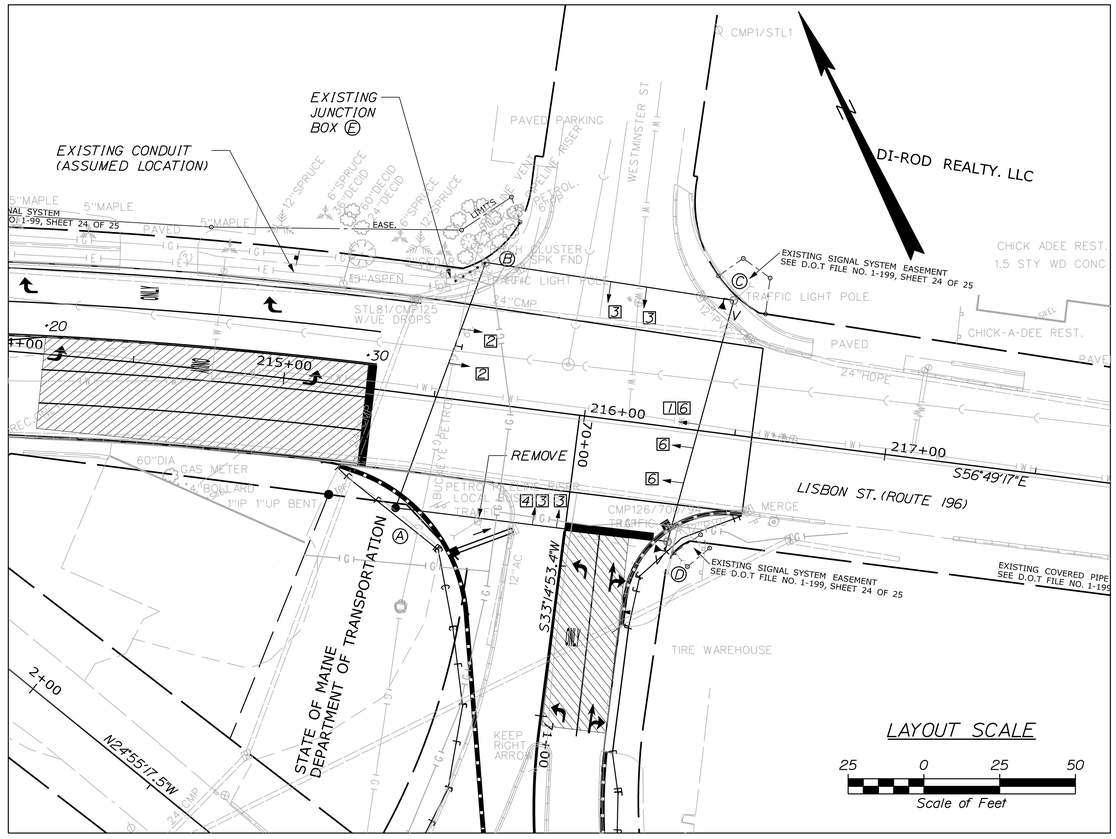
15. IF IT IS DETERMINED BY THE CONTRACTOR THAT EXISTING CONDUIT BETWEEN WESTMINSTER STREET AND PLEASANT STREET CANNOT BE USED FOR NEW DETECTION CONDUCTORS DUE TO EITHER CONDUIT FILL LIMITATIONS OR CONDITION. AND IF APPROVED BY THE RESIDENT. NEW NON-METALLIC CONDUIT MAY BE INSTALLED AT THE BACK OF SIDEWALK BETWEEN EXISTING JUNCTION BOX 'E' AND THE TRAFFIC SIGNAL POLE RISER AT PLEASANT STREET. THE ATTENTION OF THE CONTRACTOR IS DIRECTED TO AN EXISTING 4" DIAMETER GAS MAIN ALSO LOCATED BEHIND THE SIDEWALK AND WHICH IS NOT INTENDED TO BE RELOCATED. PAYMENT FOR APPROVED NEW CONDUIT WILL BE MADE UNDER ITEM 626.22. ANY DAMAGE TO SIDEWALK PAVEMENT FROM CONDUIT TRENCHING SHALL BE REPAIRED TO THE SATISFACTION OF THE RESIDENT AND WILL BE INCIDENTAL TO PAYMENT FOR THE CONDUIT.

16. NEW CONDUIT SHALL BE 2" MINIMUM. PVC SCHEDULE 40. CONDUIT UNDER PAVEMENT SHALL BE SCHEDULE 80. MINIMUM BURIAL DEPTH FOR CONDUIT SHALL BE 36". TOP 3" OF CONDUIT SHALL BE SEALED TO PREVENT ENTRY BY RODENTS.

17. THERE SHALL BE NO SPLICES OR JUNCTION BOXES EXCEPT AS NOTED ON THE PROJECT PLANS OR APPROVED BY THE RESIDENT. SPLICING OF CONDUCTORS. IF REQUIRED. WILL BE ALLOWED IN THIS CONTRACT FOR AERIAL EXTENSION OF CONDUCTORS FOR SIGNAL ASSEMBLIES DUE TO INSTALLATION OF THE NEW STRAIN POLE. ALL SPLICES MUST BE IN A SPLICE BOOT.

18. ANY NEW JUNCTION BOX COVERS REQUIRED TO BE FURNISHED AND INSTALLED SHALL BE LABELED "TRAFFIC SIGNAL".

19. ALL FIELD WIRING SHALL BE NEATLY BUNDLED AND CLEARLY IDENTIFIED WITH PERMANENT. LEGIBLE. WEATHERPROOF TAGS SECURELY ATTACHED TO EACH CABLE.



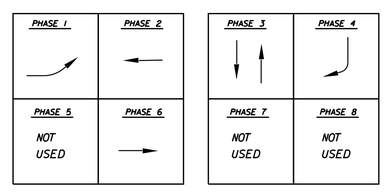
20. COSTS OF POLE RISERS WILL BE CONSIDERED INCIDENTAL TO PAYMENT UNDER ITEM 643.71.

21. AT THE TIME OF FINAL PROJECT INSPECTION. THE CONTRACTOR SHALL FURNISH TO THE RESIDENT THREE COMPLETE SETS OF AS-BUILT TRAFFIC SIGNAL PLANS. ONE SET SHALL REMAIN IN THE CABINET.

22. THE MAINTENANCE OF TRAFFIC SIGNALS SHALL REMAIN THE RESPONSIBILITY OF THE CONTRACTOR UNTIL FINAL ACCEPTANCE BY MAINEDOT.

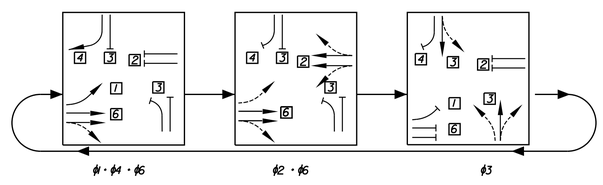
8 PHASE NEMA CONTROLLER

(EXISTING PHASING TO REMAIN)

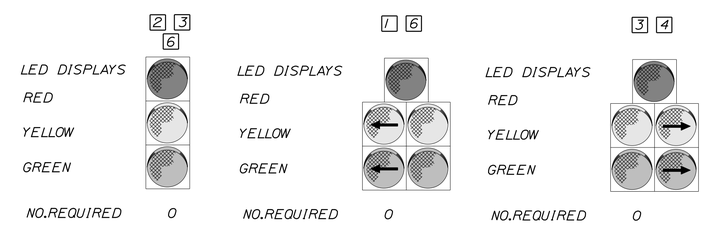


PHASE SEQUENCE

(EXISTING SEQUENCE TO REMAIN)



EXISTING SIGNAL HEAD DETAIL



CONTROLLER PROGRAMMING (EXISTING TIMING TO REMAIN. EXCEPT AS NOTED)

INTERVAL	PHASE 1	PHASE 2	PHASE 3	PHASE 4	PHASE 6	FLASH
PHASE						
TIMING IN SECONDS						
INITIAL INTERVAL	6.0	8.0	*5.0	5.0	8.0	
VEHICLE EXTENSION	3.0	4.0	4.0	4.0	4.0	
MAX. GREEN 1	10.0	45.0	30.0	30.0	45.0	
MAX. GREEN 2	---	---	---	---	---	
YELLOW	4.2	5.0	4.2	4.2	5.0	
ALL RED	2.5	3.0	2.5	2.5	3.0	
RECALL	---	SOFT	---	---	SOFT	

* PHASE 3 INITIAL INTERVAL TO BE INCREASED FROM EXISTING 4.0 SECONDS

LEGEND

- POLE MOUNTED CONTROLLER
- NEW WOOD SIGNAL POLE WITH GUY
- SPAN WIRE MOUNTED TRAFFIC SIGN
- SIGNAL HEAD ASSEMBLY AND PHASE
- ADVANCE RADAR DETECTION
- JNCT JUNCTION BOX (EXISTING)
- JB JUNCTION BOX (NEW)
- EXISTING CONDUIT
- NON-METALLIC CONDUIT - PROPOSED
- VIDEO DETECTOR ON BRACKET ARM
- VIDEO DETECTION ZONE
- LUMINAIRE ON BRACKET ARM
- OU AERIAL UTILITIES
- W WATER MAIN
- T TELEPHONE DUCT
- OE AERIAL LIGHTING CONDUCTOR
- CATV AERIAL CATV CONDUCTOR
- SSWL SINGLE SOLID WHITE LINE
- SSYL SINGLE SOLID YELLOW LINE
- Ⓑ Ⓒ Ⓓ EXISTING WOOD STRAIN POLES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
4226
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
RTE 196 / WESTMINSTER ST

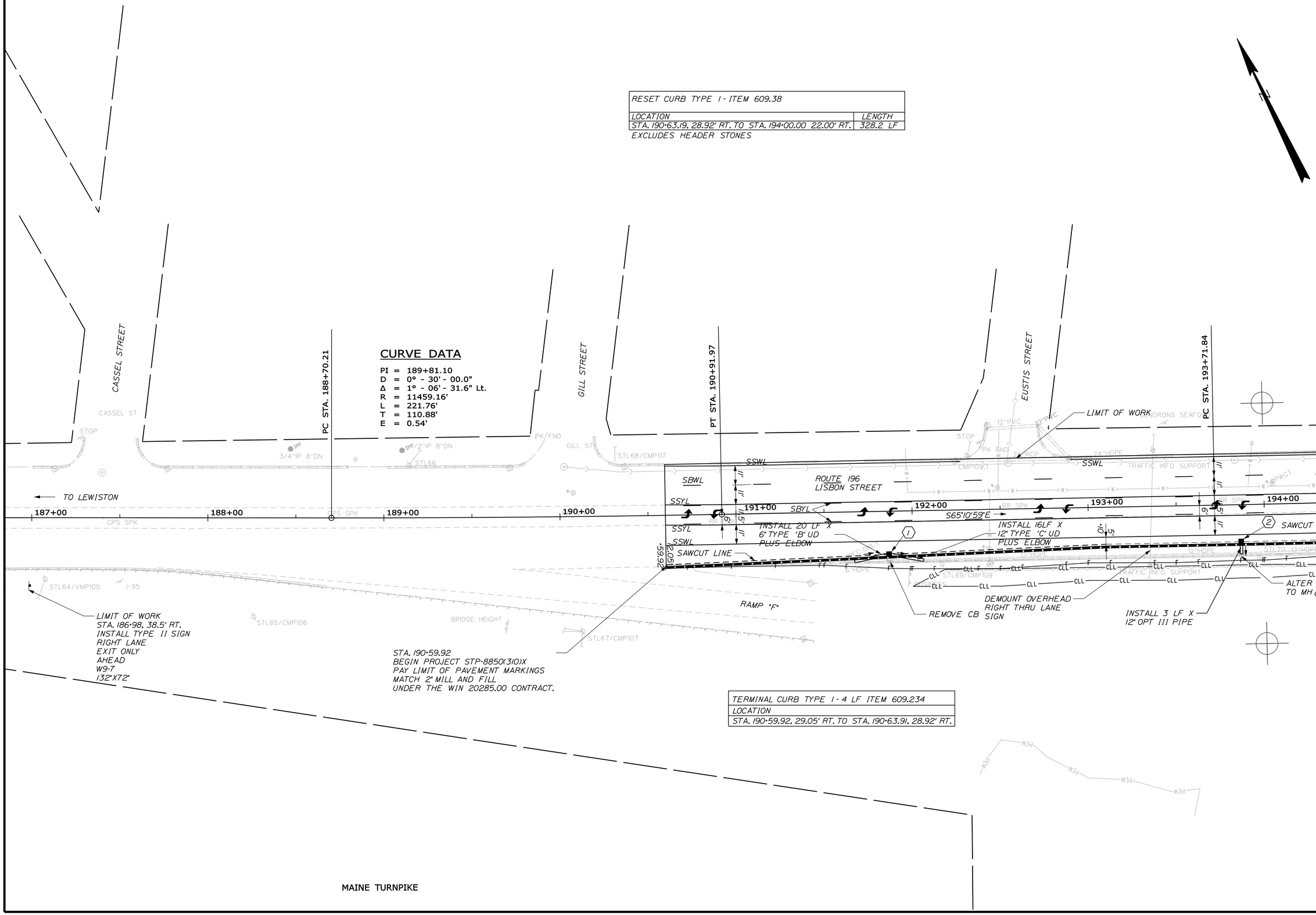
SIGNAL PLAN

SHEET NUMBER
9
OF 55

Filename: ...\MSTA\009_SignalPlan_03.dgn Division: HIGHWAY Username: common Date:2/18/2015

RESET CURB TYPE I - ITEM 609.38	
LOCATION	LENGTH
STA. 190+63.19, 28.92' RT. TO STA. 194+00.00 22.00' RT.	328.2 LF

EXCLUDES HEADER STONES



TERMINAL CURB TYPE I - 4 LF ITEM 609.234
LOCATION
STA. 190+59.92, 29.05' RT. TO STA. 190+63.91, 28.92' RT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960

P.E. NUMBER

FEBRUARY 18, 2015

DATE

LEWISTON
LISBON STREET

PLANS

SHEET NUMBER

10

OF 55

Filename: ...\HIGHWAY\MSTA\010_HDPlan1.dgn Division: HIGHWAY Username: morin Date:3/2/2015

DETECTABLE WARNING FIELD (ITEM 608.26)	
LOCATION	AREA
STA. 196+85.5 LT.	8 SF
STA. 197+08.0 LT.	8 SF

WALKS	
LOCATION	DESCRIPTION
STA. 198+90 LT TO STA. 200+00 LT.	6' WIDE HMA

STA. 4+00±, 28'± RT.
(8' OFF SHOULDER)
INSTALL TYPE II SIGN
RAMP ADVISORY 25 MPH
W13-7
36"X60"

RAMP K
CURVE DATA

PI = 13+76.42
D = 25° - 27' - 53.2"
Δ = 68° - 45' - 13.6" Rt.
R = 225.00'
L = 270.00'
T = 153.93'
E = 47.61'

CLEAR ALL TREES AND SHRUBS BETWEEN RAMP "J" AND ALFRED PLOURDE PARKWAY FOR SIGHT DISTANCE, AS DIRECTED. PAYMENT UNDER ITEM 631.18, CHAIN SAW RENTAL.

CURVE DATA

PI = 194+96.42
D = 0° - 30' - 00.0"
Δ = 1° - 08' - 44.7" Lt.
R = 11459.16'
L = 229.15'
T = 114.58'
E = 0.57'

STA. 197+35.6 LT. (RAMP 'J')
END 2" MILL AND FILL
TO MATCH MAINLINE WORK
LIMIT OF WORK

STA. 24+41±
LIMIT OF WORK

CLEAN AND REGRADE EXISTING DITCH AT 0.5% GRADE

INSTALL 10 LF X 30" TYPE 'C' UD

ADJUST CB TO

24" WHITE STOP BAR

INSTALL 2'X4' DWF

2'X6' WHITE CROSSWALK MARKINGS, 4' OC (TYP)

SAWCUT

INSTALL 2'X4' DWF

INSTALL 8 LF X 30" TYPE 'C' UD

6' SIDEWALK

SAWCUT LINE

STA. 200+01.87

INSTALL 8 LF X 30" TYPE 'C' UD

ALTER CB TO MH
6LF FLUSH TYPE I CURB

8' TE

INSTALL 18 LF X 12" OPT III PIPE

INSTALL 9 LF X 12" OPT III PIPE

INSTALL 8 LF X 30" TYPE 'C' UD

INSTALL 6 LF X 12" OPT III PIPE

ALTER CB TO MH

ALTER CB TO MH

ALTER CB TO MH

SAWCUT LINE

ALTER CB TO MH

INSTALL 3 LF X 12" OPT III PIPE

LIMIT OF CLEARING

INSTALL 3 LF X 12" OPT III PIPE

LIMIT OF WORK

PC STA. 193+71.84

PT STA. 196+00.99

PC STA. 197+71.91

PT STA. 200+01.06, 12.0' LT.

S66°19'43.7"E

N22°7'7.5"E

S57°45'55.4"E

ROUTE 196
LISBON STREET

FOCH STREET

ALFRED PLOURDE PARKWAY

STA. 22+41± TO STA. 24+41±
MILL AND PAVE SURFACE OF
BRIDGE NO. 0060
WIDTH = 30'
SEE RELATED INFORMATION
IN BID DOCUMENTS.

CURVE DATA

PI = 198+86.49
D = 0° - 30' - 00.0"
Δ = 1° - 08' - 44.7" Rt.
R = 11459.16'
L = 229.15'
T = 114.58'
E = 0.57'

TRIM AS DIRECTED
FOR SIGHT DISTANCE.
PAYMENT UNDER LABOR
AND EQUIPMENT RENTAL
ITEMS.

TO POWER SOURCE

INSTALL CURB TYPE 3
MOLD 2

REMOVE APPROXIMATELY 6" HMA, BACKFILL, LOAM AND SEED. GRADE TO DRAIN.

24" WHITE STOP BAR

SAWCUT

REMOVE STOP

STA. 30+83.0
LIMIT OF WORK

RAMP "F"

RAMP "E"

VERTICAL CURB TYPE I - ITEM 609.11 RESET CURB TYPE I - ITEM 609.38	
LOCATION	LENGTH
STA. 194+00.00 22.0' RT. TO STA. 200+00.00, 16.0' RT.	584.1 LF
STA. 197+02.7, 26.7' LT. TO STA. 197+08.7, 26.6' LT.	6.0 LF
STA. 198+90.00 29.6' LT. TO STA. 200+00.00, 32.5' LT.	98.3 LF

EXCLUDES HEADER STONES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALC	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

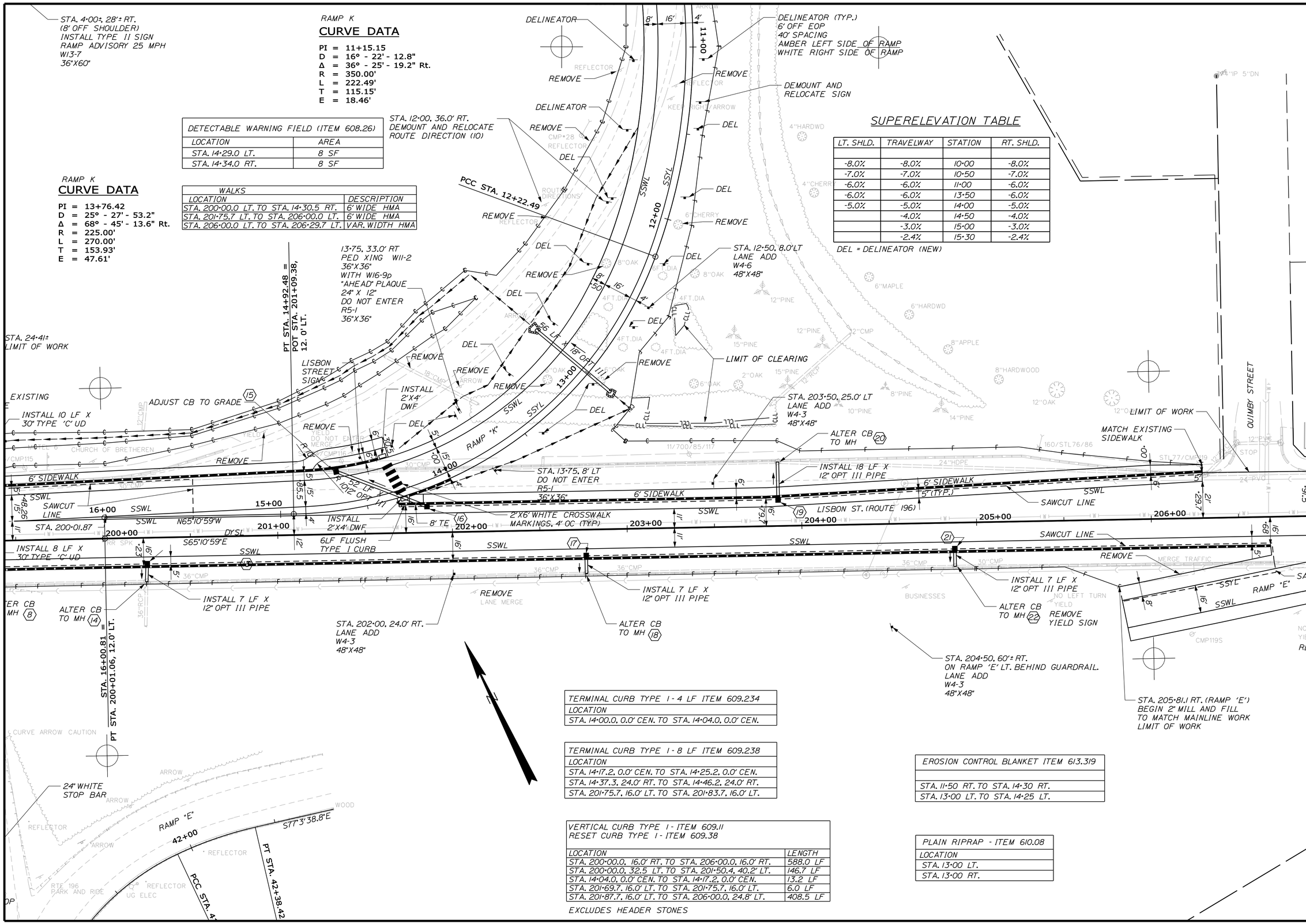
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

PLANS

SHEET NUMBER
11
OF 55

Filename: ...\HIGHWAY\MSTA\011_HDPlan2.dgn Division: HIGHWAY Username: common Date:2/18/2015



DETECTABLE WARNING FIELD (ITEM 608.26)	
LOCATION	AREA
STA. 14+29.0 LT.	8 SF
STA. 14+34.0 RT.	8 SF

WALKS	
LOCATION	DESCRIPTION
STA. 200+00.0 LT. TO STA. 14+30.5 RT.	6' WIDE HMA
STA. 201+75.7 LT. TO STA. 206+00.0 LT.	6' WIDE HMA
STA. 206+00.0 LT. TO STA. 206+29.7 LT.	VAR. WIDTH HMA

SUPERELEVATION TABLE

LT. SHLD.	TRAVELWAY	STATION	RT. SHLD.
-8.0%	-8.0%	10+00	-8.0%
-7.0%	-7.0%	10+50	-7.0%
-6.0%	-6.0%	11+00	-6.0%
-6.0%	-6.0%	13+50	-6.0%
-5.0%	-5.0%	14+00	-5.0%
	-4.0%	14+50	-4.0%
	-3.0%	15+00	-3.0%
	-2.4%	15+30	-2.4%

DEL = DELINEATOR (NEW)

TERMINAL CURB TYPE 1 - 4 LF ITEM 609.234
LOCATION
STA. 14+00.0, 0.0' CEN. TO STA. 14+04.0, 0.0' CEN.

TERMINAL CURB TYPE 1 - 8 LF ITEM 609.238
LOCATION
STA. 14+17.2, 0.0' CEN. TO STA. 14+25.2, 0.0' CEN.
STA. 14+37.3, 24.0' RT. TO STA. 14+46.2, 24.0' RT.
STA. 201+75.7, 16.0' LT. TO STA. 201+83.7, 16.0' LT.

VERTICAL CURB TYPE 1 - ITEM 609.11 RESET CURB TYPE 1 - ITEM 609.38	
LOCATION	LENGTH
STA. 200+00.0, 16.0' RT. TO STA. 206+00.0, 16.0' RT.	588.0 LF
STA. 200+00.0, 32.5 LT. TO STA. 201+50.4, 40.2' LT.	146.7 LF
STA. 14+04.0, 0.0' CEN. TO STA. 14+17.2, 0.0' CEN.	13.2 LF
STA. 201+69.7, 16.0' LT. TO STA. 201+75.7, 16.0' LT.	6.0 LF
STA. 201+87.7, 16.0' LT. TO STA. 206+00.0, 24.8' LT.	408.5 LF

EXCLUDES HEADER STONES

EROSION CONTROL BLANKET ITEM 613.319
STA. 11+50 RT. TO STA. 14+30 RT.
STA. 13+00 LT. TO STA. 14+25 LT.

PLAIN RIPRAP - ITEM 610.08
LOCATION
STA. 13+00 LT.
STA. 13+00 RT.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER RHOBE MOULTON

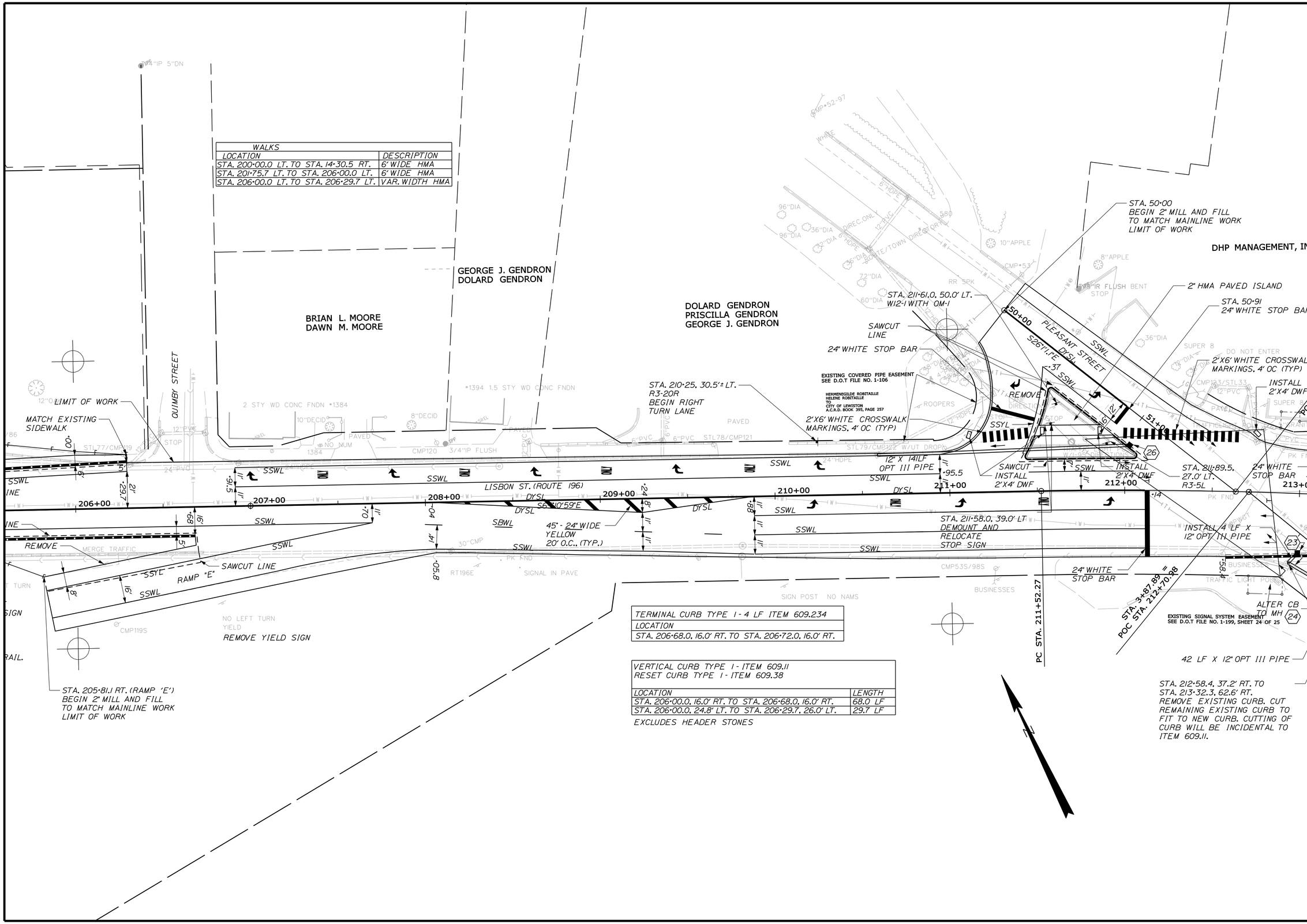
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

PLANS

SHEET NUMBER
12
OF 55

Filename: ...\HIGHWAY\MSTA\012_HDPlan3.dgn Division: HIGHWAY Username: morin Date:3/2/2015



WALKS	
LOCATION	DESCRIPTION
STA. 200+00.0 LT. TO STA. 14+30.5 RT.	6' WIDE HMA
STA. 201+75.7 LT. TO STA. 206+00.0 LT.	6' WIDE HMA
STA. 206+00.0 LT. TO STA. 206+29.7 LT.	VAR. WIDTH HMA

TERMINAL CURB TYPE I - 4 LF ITEM 609.234
LOCATION
STA. 206+68.0. 16.0' RT. TO STA. 206+72.0. 16.0' RT.

VERTICAL CURB TYPE I - ITEM 609.11
RESET CURB TYPE I - ITEM 609.38

LOCATION	LENGTH
STA. 206+00.0. 16.0' RT. TO STA. 206+68.0. 16.0' RT.	68.0 LF
STA. 206+00.0. 24.8' LT. TO STA. 206+29.7. 26.0' LT.	29.7 LF

EXCLUDES HEADER STONES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

PROJ. MANAGER RHOBE MOULTON

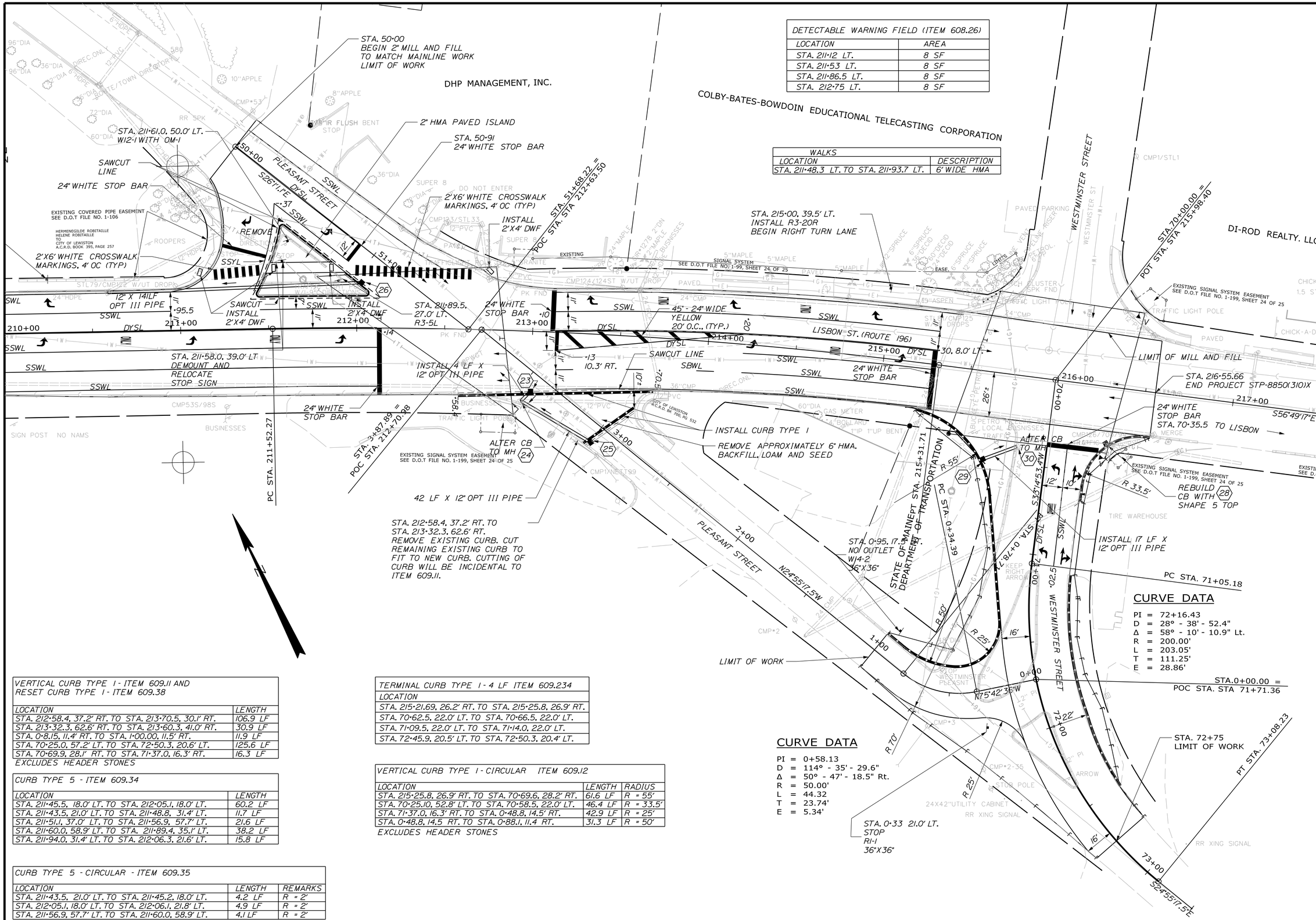
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

PLANS

SHEET NUMBER
13
OF 55

Filename: ...\HIGHWAY\MSTA\013_HDPlan4.dgn Division: HIGHWAY Username: morin Date:3/2/2015



DETECTABLE WARNING FIELD (ITEM 608.26)	
LOCATION	AREA
STA. 211+12 LT.	8 SF
STA. 211+53 LT.	8 SF
STA. 211+86.5 LT.	8 SF
STA. 212+75 LT.	8 SF

WALKS	
LOCATION	DESCRIPTION
STA. 211+48.3 LT. TO STA. 211+93.7 LT.	6' WIDE HMA

CURVE DATA

PI = 72+16.43
D = 28° - 38' - 52.4"
Δ = 58° - 10' - 10.9" Lt.
R = 200.00'
L = 203.05'
T = 111.25'
E = 28.86'

CURVE DATA

PI = 0+58.13
D = 114° - 35' - 29.6"
Δ = 50° - 47' - 18.5" Rt.
R = 50.00'
L = 44.32
T = 23.74'
E = 5.34'

VERTICAL CURB TYPE 1 - ITEM 609.11 AND RESET CURB TYPE 1 - ITEM 609.38	
LOCATION	LENGTH
STA. 212+58.4, 37.2' RT. TO STA. 213+70.5, 30.1' RT.	106.9 LF
STA. 213+32.3, 62.6' RT. TO STA. 213+60.3, 41.0' RT.	30.9 LF
STA. 0+81.5, 11.4' RT. TO STA. 1+00.00, 11.5' RT.	11.9 LF
STA. 70+25.0, 57.2' LT. TO STA. 72+50.3, 20.6' LT.	125.6 LF
STA. 70+69.9, 28.1' RT. TO STA. 71+37.0, 16.3' RT.	16.3 LF

EXCLUDES HEADER STONES

CURB TYPE 5 - ITEM 609.34	
LOCATION	LENGTH
STA. 211+45.5, 18.0' LT. TO STA. 212+05.1, 18.0' LT.	60.2 LF
STA. 211+43.5, 21.0' LT. TO STA. 211+48.8, 31.4' LT.	11.7 LF
STA. 211+51.1, 37.0' LT. TO STA. 211+56.9, 57.7' LT.	21.6 LF
STA. 211+60.0, 58.9' LT. TO STA. 211+89.4, 35.1' LT.	38.2 LF
STA. 211+94.0, 31.4' LT. TO STA. 212+06.3, 21.6' LT.	15.8 LF

CURB TYPE 5 - CIRCULAR - ITEM 609.35		
LOCATION	LENGTH	REMARKS
STA. 211+43.5, 21.0' LT. TO STA. 211+45.2, 18.0' LT.	4.2 LF	R = 2'
STA. 212+05.1, 18.0' LT. TO STA. 212+06.1, 21.8' LT.	4.9 LF	R = 2'
STA. 211+56.9, 57.7' LT. TO STA. 211+60.0, 58.9' LT.	4.1 LF	R = 2'

TERMINAL CURB TYPE 1 - 4 LF ITEM 609.234
LOCATION
STA. 215+21.69, 26.2' RT. TO STA. 215+25.8, 26.9' RT.
STA. 70+62.5, 22.0' LT. TO STA. 70+66.5, 22.0' LT.
STA. 71+09.5, 22.0' LT. TO STA. 71+14.0, 22.0' LT.
STA. 72+45.9, 20.5' LT. TO STA. 72+50.3, 20.4' LT.

VERTICAL CURB TYPE 1 - CIRCULAR ITEM 609.12		
LOCATION	LENGTH	RADIUS
STA. 215+25.8, 26.9' RT. TO STA. 70+69.6, 28.2' RT.	61.6 LF	R = 55'
STA. 70+25.10, 52.8' LT. TO STA. 70+58.5, 22.0' LT.	46.4 LF	R = 33.5'
STA. 71+37.0, 16.3' RT. TO STA. 0+48.8, 14.5' RT.	42.9 LF	R = 25'
STA. 0+48.8, 14.5 RT. TO STA. 0+88.1, 11.4 RT.	31.3 LF	R = 50'

EXCLUDES HEADER STONES

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	JLG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

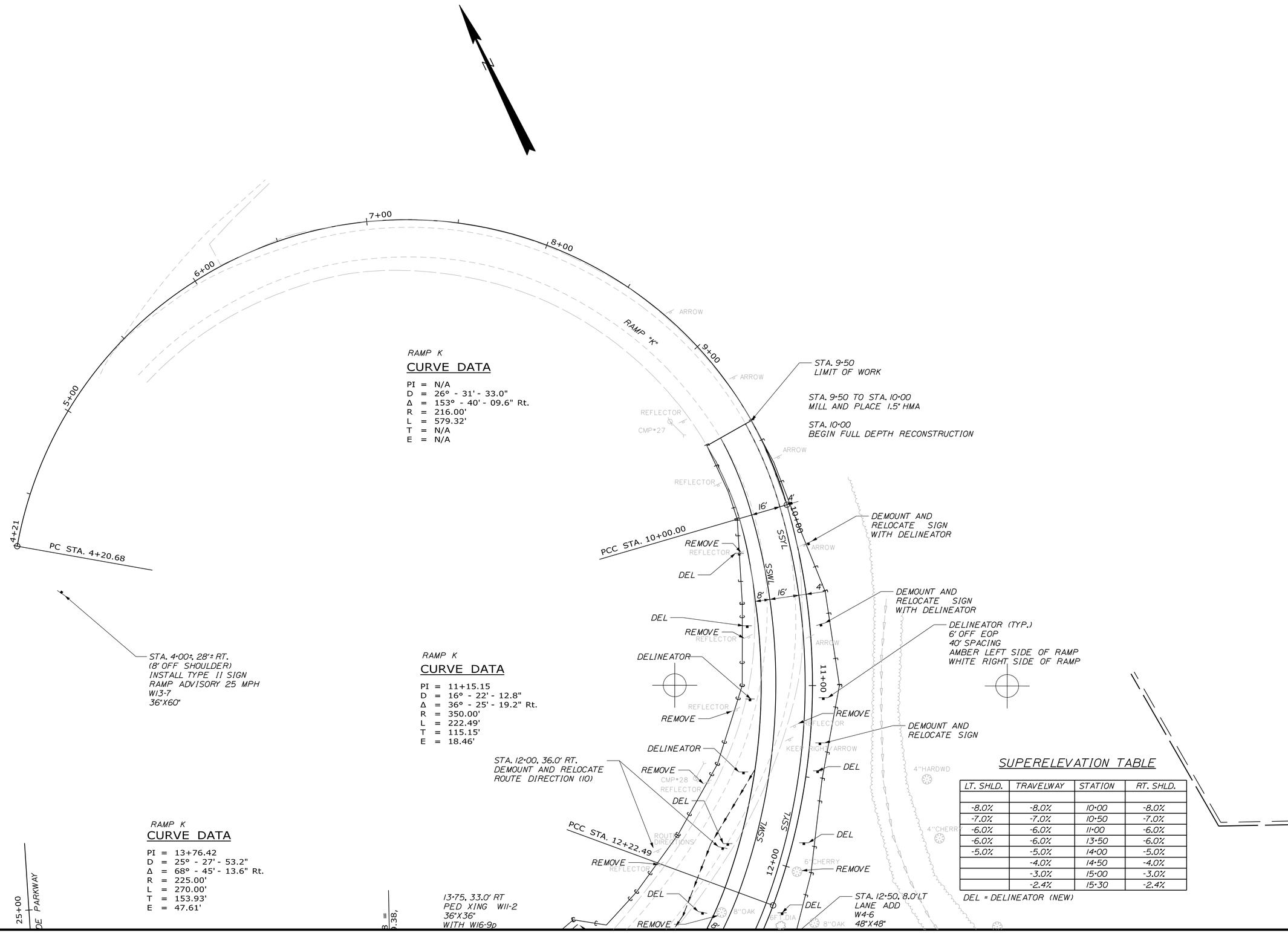
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

PLANS

SHEET NUMBER
14
OF 55

Filename: ...\HIGHWAY\MSTA\014_HDPlan5.dgn Division: HIGHWAY Username: common Date:2/18/2015



RAMP K

CURVE DATA

PI = N/A
D = 26° - 31' - 33.0"
Δ = 153° - 40' - 09.6" Rt.
R = 216.00'
L = 579.32'
T = N/A
E = N/A

RAMP K

CURVE DATA

PI = 11+15.15
D = 16° - 22' - 12.8"
Δ = 36° - 25' - 19.2" Rt.
R = 350.00'
L = 222.49'
T = 115.15'
E = 18.46'

RAMP K

CURVE DATA

PI = 13+76.42
D = 25° - 27' - 53.2"
Δ = 68° - 45' - 13.6" Rt.
R = 225.00'
L = 270.00'
T = 153.93'
E = 47.61'

SUPERELEVATION TABLE

LT. SHLD.	TRAVELWAY	STATION	RT. SHLD.
-8.0%	-8.0%	10•00	-8.0%
-7.0%	-7.0%	10•50	-7.0%
-6.0%	-6.0%	11•00	-6.0%
-6.0%	-6.0%	13•50	-6.0%
-5.0%	-5.0%	14•00	-5.0%
	-4.0%	14•50	-4.0%
	-3.0%	15•00	-3.0%
	-2.4%	15•30	-2.4%

DEL = DELINEATOR (NEW)

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

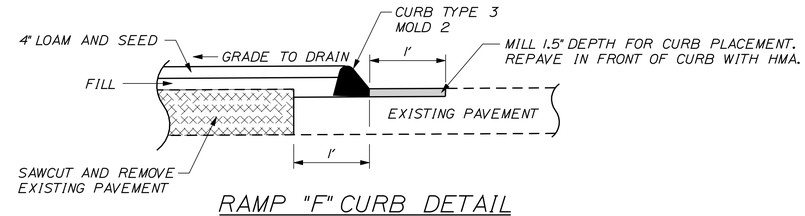
PLANS

SHEET NUMBER
15
OF 55

Filename: ...\HIGHWAY\MSTA\015_HDPlan6.dgn Division: HIGHWAY Username: common Date:2/18/2015

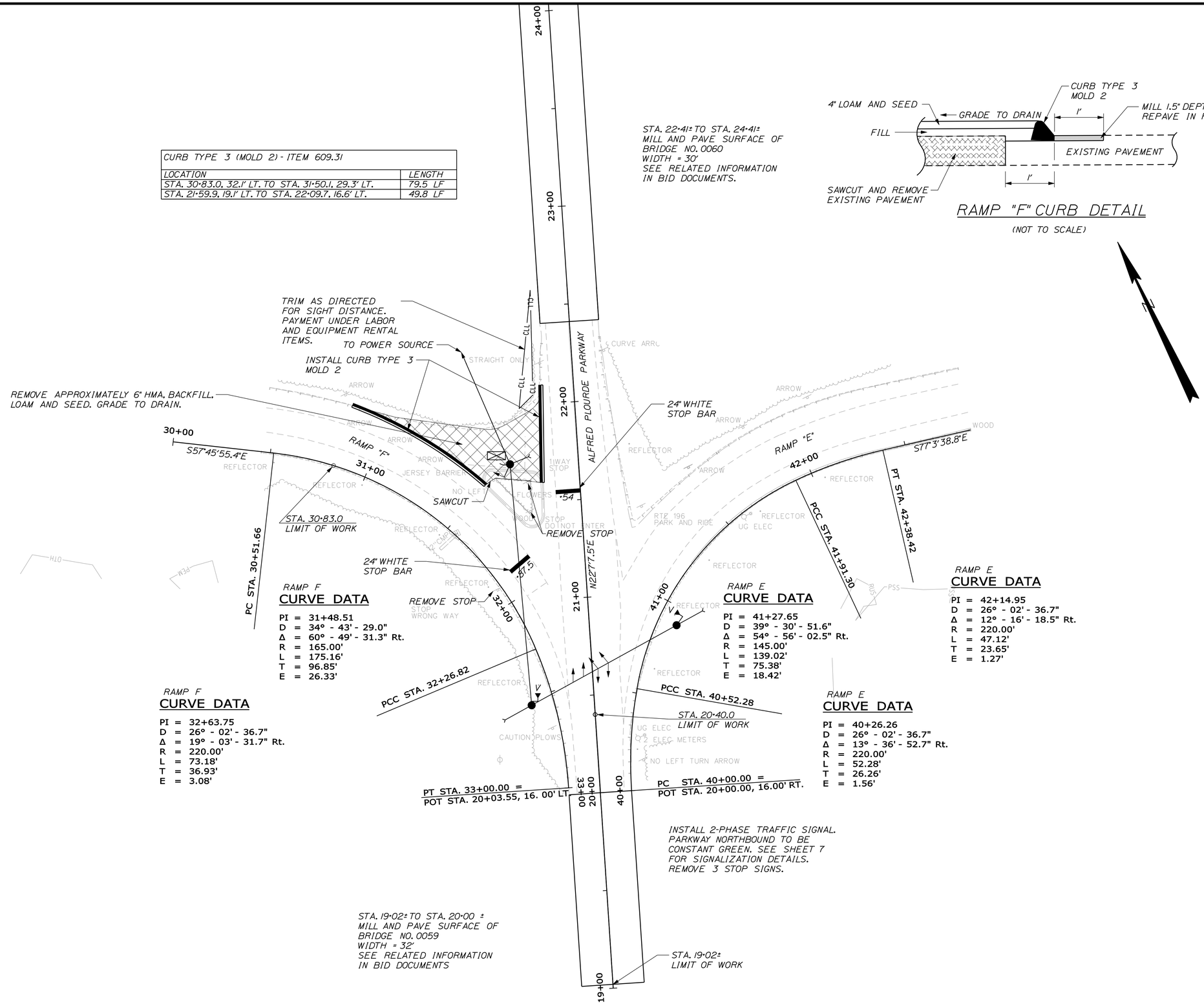
CURB TYPE 3 (MOLD 2) - ITEM 609.31	
LOCATION	LENGTH
STA. 30+83.0, 32.1' LT. TO STA. 31+50.1, 29.3' LT.	79.5 LF
STA. 21+59.9, 19.1' LT. TO STA. 22+09.7, 16.6' LT.	49.8 LF

STA. 22+41± TO STA. 24+41±
MILL AND PAVE SURFACE OF
BRIDGE NO. 0060
WIDTH = 30'
SEE RELATED INFORMATION
IN BID DOCUMENTS.



RAMP "F" CURB DETAIL

(NOT TO SCALE)



RAMP F
CURVE DATA

PI = 31+48.51
D = 34° - 43' - 29.0"
Δ = 60° - 49' - 31.3" Rt.
R = 165.00'
L = 175.16'
T = 96.85'
E = 26.33'

RAMP F
CURVE DATA

PI = 32+63.75
D = 26° - 02' - 36.7"
Δ = 19° - 03' - 31.7" Rt.
R = 220.00'
L = 73.18'
T = 36.93'
E = 3.08'

RAMP E
CURVE DATA

PI = 41+27.65
D = 39° - 30' - 51.6"
Δ = 54° - 56' - 02.5" Rt.
R = 145.00'
L = 139.02'
T = 75.38'
E = 18.42'

RAMP E
CURVE DATA

PI = 40+26.26
D = 26° - 02' - 36.7"
Δ = 13° - 36' - 52.7" Rt.
R = 220.00'
L = 52.28'
T = 26.26'
E = 1.56'

RAMP E
CURVE DATA

PI = 42+14.95
D = 26° - 02' - 36.7"
Δ = 12° - 16' - 18.5" Rt.
R = 220.00'
L = 47.12'
T = 23.65'
E = 1.27'

INSTALL 2-PHASE TRAFFIC SIGNAL.
PARKWAY NORTHBOUND TO BE
CONSTANT GREEN. SEE SHEET 7
FOR SIGNALIZATION DETAILS.
REMOVE 3 STOP SIGNS.

STA. 19+02± TO STA. 20+00 ±
MILL AND PAVE SURFACE OF
BRIDGE NO. 0059
WIDTH = 32'
SEE RELATED INFORMATION
IN BID DOCUMENTS

STA. 19+02±
LIMIT OF WORK

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

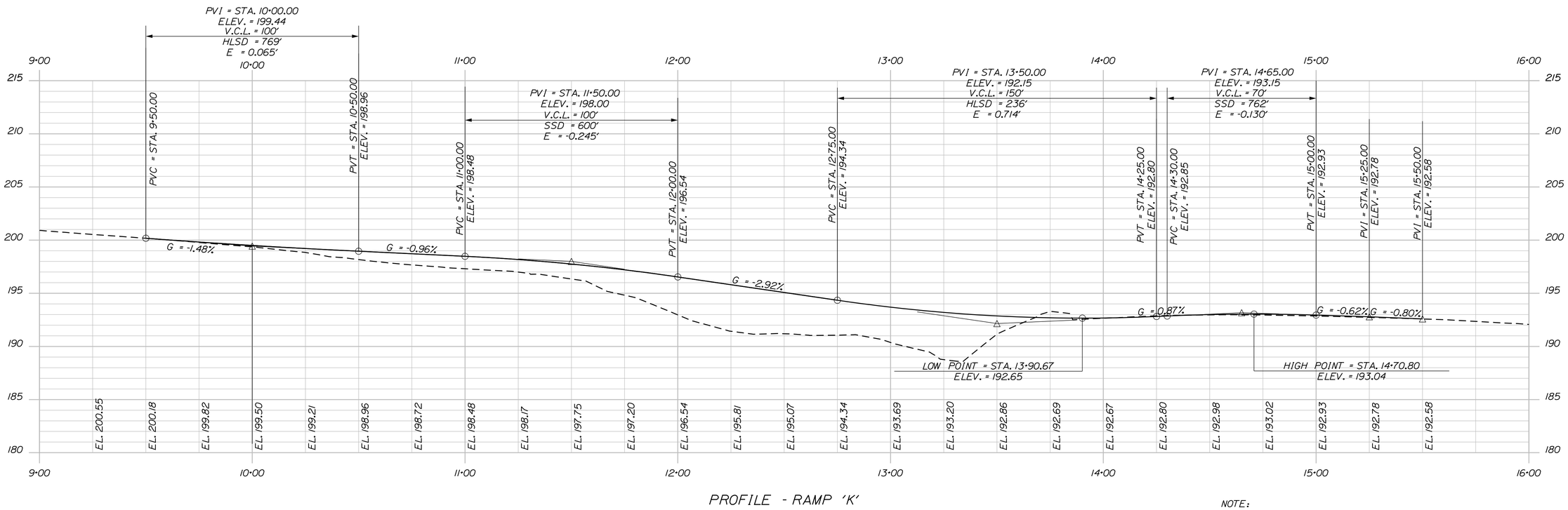
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

PLANS

SHEET NUMBER
16
OF 55

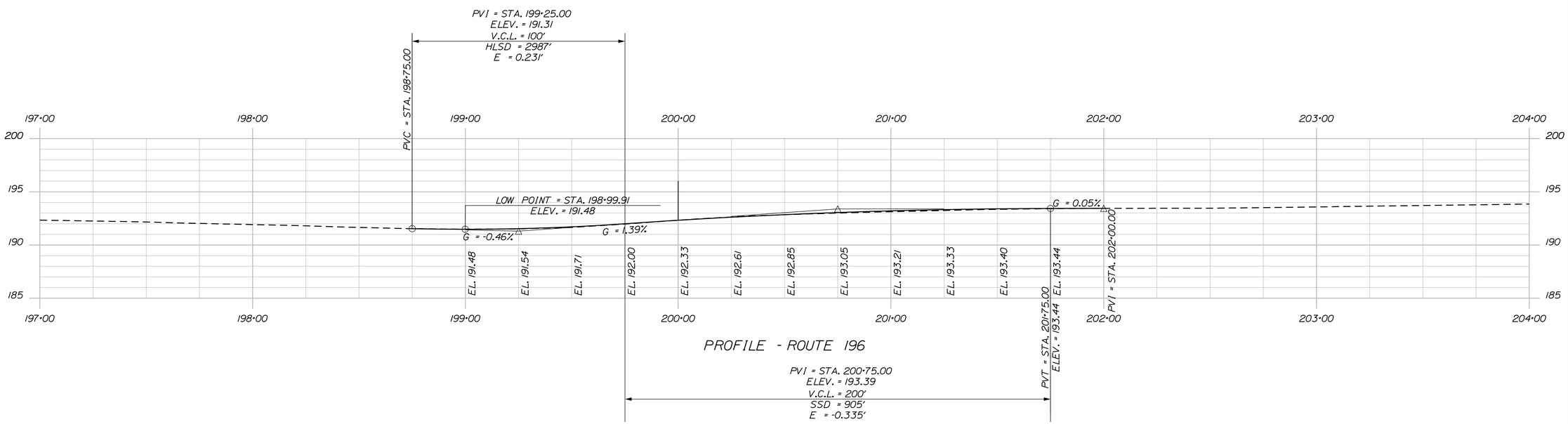
Filename: ...\HIGHWAY\MSTA\016_HDPlan7.dgn Division: HIGHWAY Username: morin Date:2/27/2015



PROFILE - RAMP 'K'

NOTE:

RAMP PROFILE BASED ON ESTIMATED MAINLINE MILL AND FILL PROFILE PROJECTED AT -2.4% FOR 12' TO EDGE OF WESTBOUND TRAVELWAY.



PROFILE - ROUTE 196

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE	
DESIGN-DETAILED JLE	JLE	2-15	SIGNATURE
CHECKED-REVIEWED ALG	ALG	2-15	7960
DESIGN2-DETAILED2			P.E. NUMBER
DESIGN3-DETAILED3			FEBRUARY 18, 2015
REVISIONS 1			DATE
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LEWISTON RAMP "K"

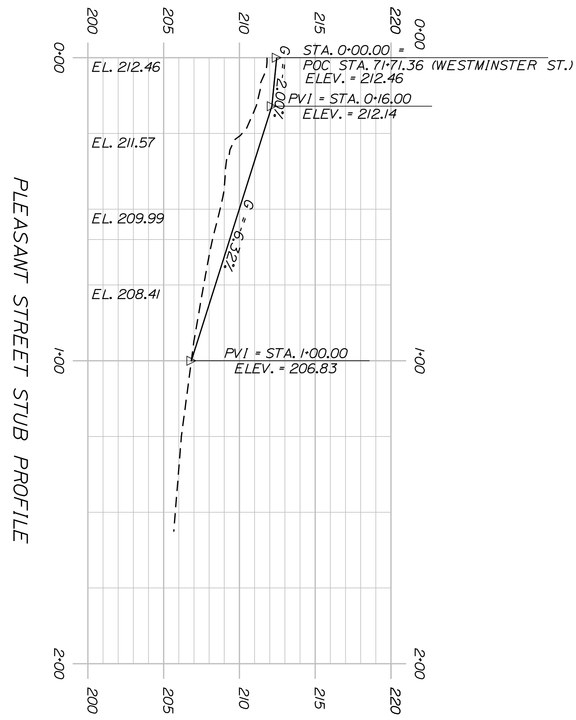
PROFILE

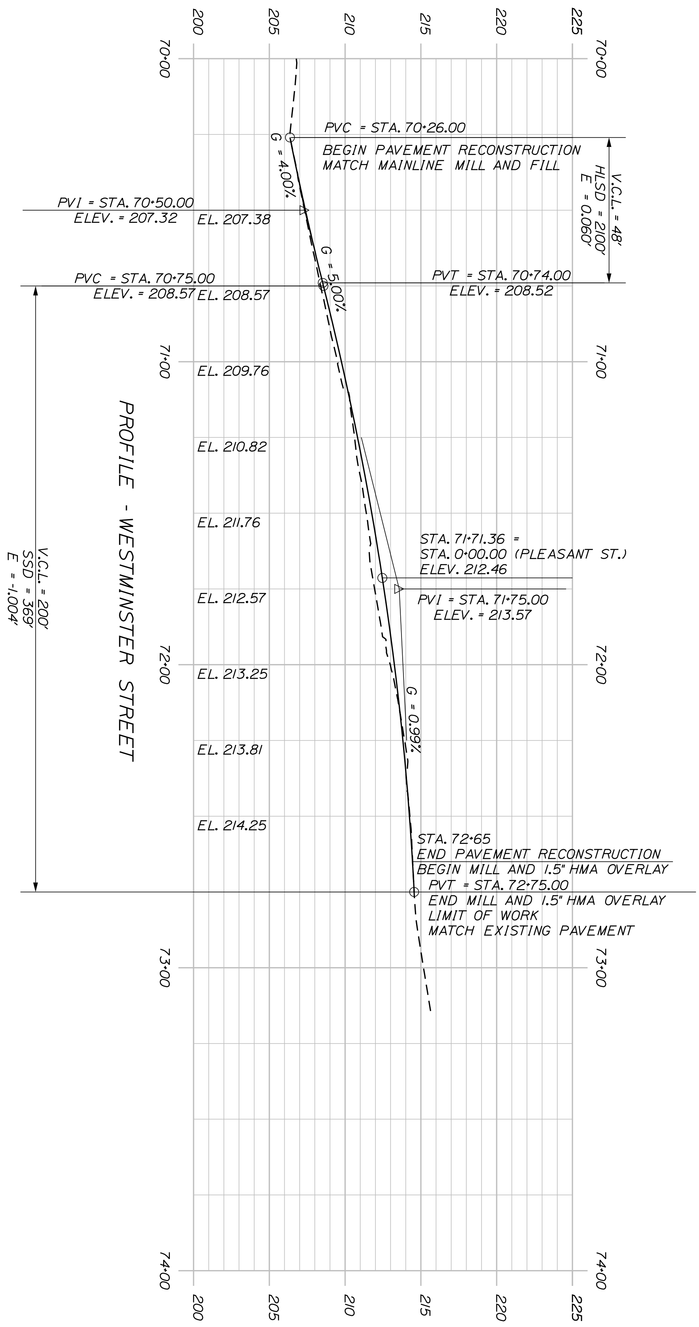
SHEET NUMBER

17

OF 55

Filename: ...\MSTA\017_Profile_01.dgn Division: HIGHWAY Username: common Date:2/18/2015





PROJ. MANAGER RHOBE MOULTON	BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
WESTMINSTER STREET

PROFILE

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

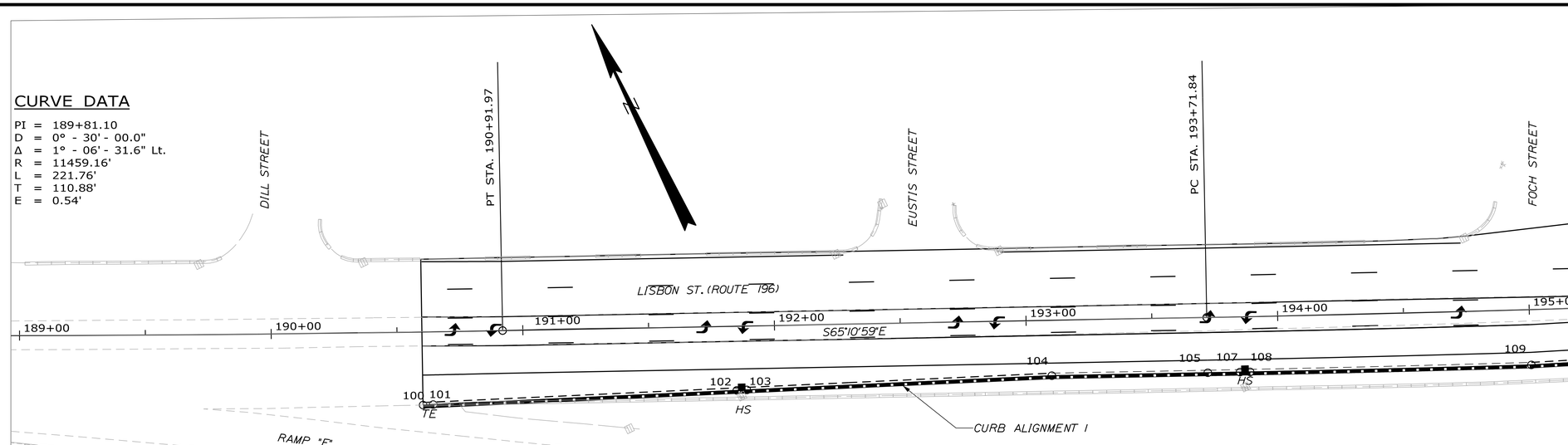
Horizontal Alignment Name: Route 196

STATION NORTHING EASTING

PC 188+70.21 453248.58902 1033828.59960
Tangent Direction: S 64°04'27.4" E
Tangent Length: 437.76
PI 189+81.10 453200.11111 1033928.32197
CC 463554.51731 1038838.60859
PT 190+91.97 453153.57196 1034028.96373
Radius: 11459.16
Delta: 1°06'31.6" Left
Degree of Curvature(Arc): 0°30'00.0"
Length: 221.76
Tangent: 110.88
External: 0.54
PC 193+71.84 453036.10477 1034282.98869
Tangent Direction: S 65°10'59.0" E
Tangent Length: 279.87
PI 194+86.42 452988.01367 1034386.98657
CC 463437.05012 1039092.63355
PT 196+00.99 452942.01170 1034491.92529
Radius: 11459.16
Delta: 1°08'44.7" Left
Degree of Curvature(Arc): 0°30'00.0"
Length: 229.15
Tangent: 114.58
External: 0.57
PC 197+71.91 452873.38948 1034648.46486
Tangent Direction: S 66°19'43.7" E
Tangent Length: 170.92
PI 198+86.49 452827.38751 1034753.40357
CC 442378.35106 1030047.75660
PT 200+01.06 452779.29641 1034857.40146
Radius: 11459.16
Delta: 1°08'44.7" Right
Degree of Curvature(Arc): 0°30'00.0"
Length: 229.15
Tangent: 114.58
External: 0.57
PI 207+00.00 452485.93693 1035491.79672
Tangent Direction: S 65°10'59.0" E
Tangent Length: 698.94
PC 211+52.27 452296.10992 1035902.30112
Tangent Direction: S 65°10'59.0" E
Tangent Length: 452.27
PI 213+42.33 452216.33883 1036074.80758
CC 449936.21112 1034811.02770
PT 215+31.71 452112.32962 1036233.87986
Radius: 2600.00
Delta: 8°21'42.0" Right
Degree of Curvature(Arc): 2°12'13.3"
Length: 379.44
Tangent: 190.06
External: 6.94
POE 229+00.00 451363.53178 1037379.09570
Tangent Direction: S 56°49'17.0" E
Tangent Length: 1368.29

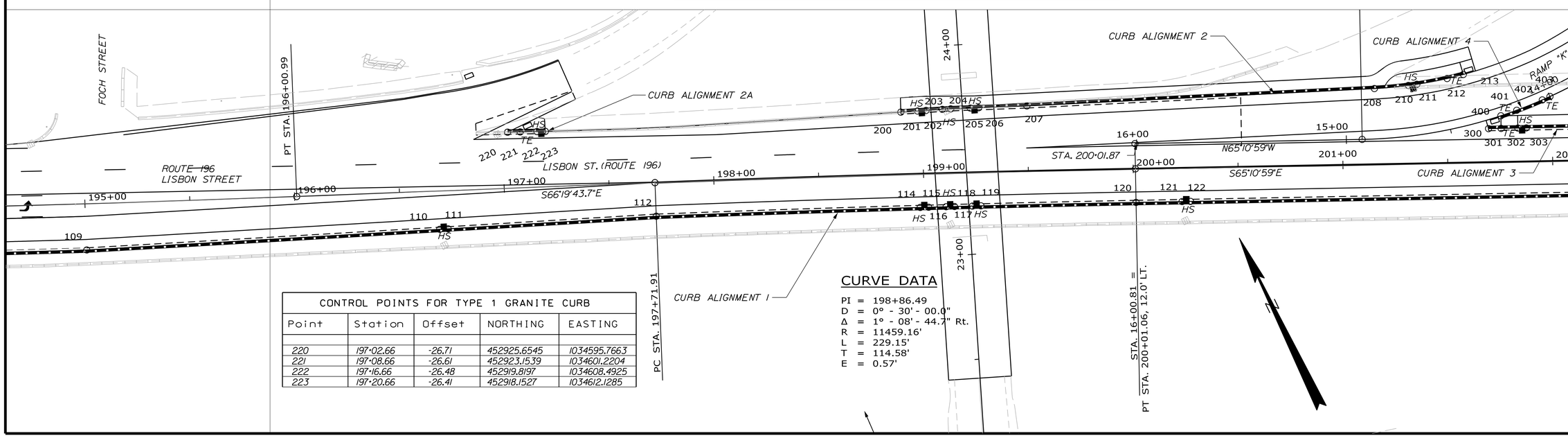
CURVE DATA

PI = 189+81.10
D = 0° - 30' - 00.0"
Δ = 1° - 06' - 31.6" Lt.
R = 11459.16'
L = 221.76'
T = 110.88'
E = 0.54'



CONTROL POINTS FOR TYPE 1 GRANITE CURB				
Point	Station	Offset	NORTHING	EASTING
100	190+59.92	29.05	453140.7348	1033987.6270
101	190+63.91	28.92	453139.1582	1033991.3032
102	191+84.58	25.51	453091.5497	1034102.3137
103	191+88.58	25.40	453089.9732	1034105.9899
104	193+09.85	22.00	453042.1560	1034217.4871
105	193+71.84	22.00	453016.1364	1034273.7548
106	193+71.84	-11459.16	463437.0501	1039092.6336
107	193+84.62	22.00	453010.7696	1034285.3776
108	193+88.61	22.00	453009.0953	1034289.0103
109	195+00.21	22.00	452962.8065	1034390.7977
110	196+68.53	18.24	452898.1913	1034546.4574
111	196+72.53	18.16	452896.6624	1034550.1537
112	197+71.91	16.00	452858.7356	1034642.0411
113	197+71.91	11459.16	442378.3511	1030047.7566
114	198+98.00	16.00	452807.5503	1034757.0786
115	199+02.00	16.00	452805.9037	1034760.7240
116	199+10.36	16.00	452802.4654	1034768.3239
117	199+14.36	16.00	452800.8146	1034771.9674
118	199+22.95	16.00	452797.2691	1034779.7818
119	199+26.96	16.00	452795.6143	1034783.4235
120	200+01.06	16.00	452764.7741	1034850.6860
121	200+23.00	16.00	452755.5645	1034870.6015
122	200+27.00	16.00	452753.8857	1034874.2321

CONTROL POINTS FOR TYPE 1 GRANITE CURB				
Point	Station	Offset	NORTHING	EASTING
200	198+90.03	-29.63	452852.4278	1034768.5741
201	198+98.01	-29.93	452849.4088	1034775.9887
202	199+01.99	-30.09	452847.9024	1034779.6974
203	199+09.82	-30.39	452844.9502	1034786.9684
204	199+13.80	-30.55	452843.4422	1034790.6765
205	199+23.07	-30.66	452839.7042	1034799.1840
206	199+27.06	-30.71	452838.0950	1034802.8465
207	199+50.00	-31.03	452828.8421	1034823.9059
208	201+15.67	-36.10	452763.9582	1034976.5762
209	201+09.38	-237.00	452948.9451	1035055.1945
210	201+31.92	-37.27	452758.1967	1034991.8222
211	201+35.94	-37.76	452756.9588	1034995.6775
212	201+50.41	-40.23	452753.1281	1035009.8438
213	201+58.20	-42.02	452751.4786	1035017.6713
300	201+69.71	-16.00	452723.0309	1035017.1972
301	201+75.71	-16.00	452720.5126	1035022.6431
302	201+83.71	-16.00	452717.1548	1035029.9044
303	201+87.71	-16.00	452715.4760	1035033.5350
400	201+75.71	-22.00	452725.9572	1035025.1609
401	201+83.32	-24.49	452725.0305	1035033.1070
402	201+95.60	-29.17	452724.1226	1035046.2257
403	201+99.28	-30.74	452723.9987	1035050.2237



CONTROL POINTS FOR TYPE 1 GRANITE CURB				
Point	Station	Offset	NORTHING	EASTING
220	197+02.66	-26.71	452925.6545	1034595.7663
221	197+08.66	-26.61	452923.1539	1034601.2204
222	197+16.66	-26.48	452919.8197	1034608.4925
223	197+20.66	-26.41	452918.1527	1034612.1285

CURVE DATA

PI = 198+86.49
D = 0° - 30' - 00.0"
Δ = 1° - 08' - 44.7" Rt.
R = 11459.16'
L = 229.15'
T = 114.58'
E = 0.57'

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHODE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON LISBON STREET

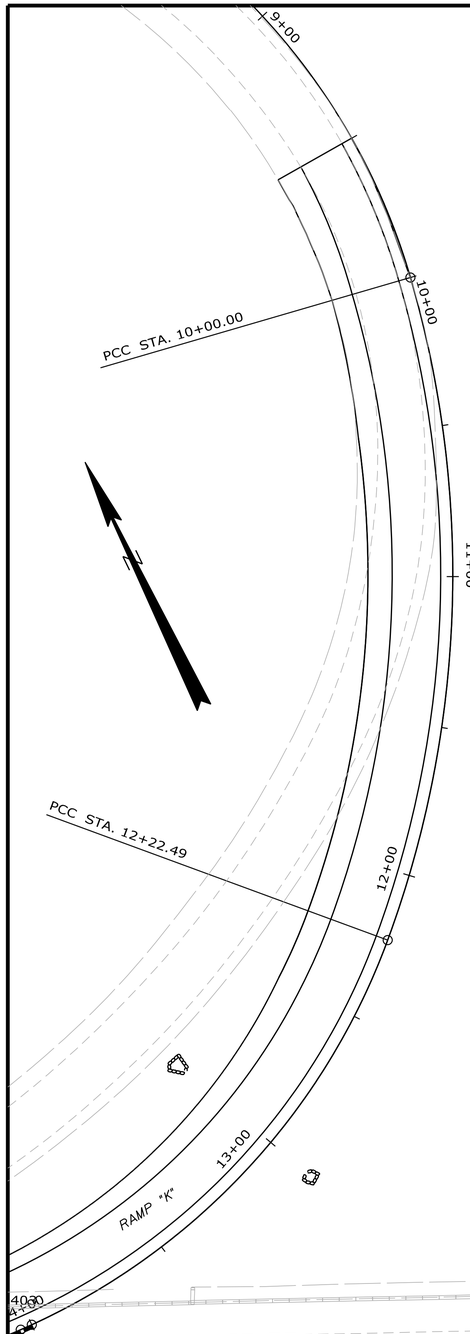
GEOMETRY PLANS

SHEET NUMBER

19

OF 55

Filename: ...\HIGHWAY\MSTA\019_GeoPlan1.dgn Division: HIGHWAY Username: common Date:2/18/2015



Horizontal Alignment Name: Ramp K

STATION	NORTHING	EASTING
PC 4+20.68	453143.39201	1034925.75864
PI 13+44.11	453890.73203	1035468.17175
CC	453016.51633	1035100.56871
PCC 10+00.00	452980.34130	1035313.51792

Radius: 216.00
Delta: 153°40'09.6" Right
Degree of Curvature(Arc): 26°31'33.0"
Length: 579.32
Tangent: 923.43
External: 732.36

PI 11+15.15	452866.81905	1035294.23318
CC	453038.95825	1034968.46133
PCC 12+22.49	452786.92146	1035211.31408

Radius: 350.00
Delta: 36°25'19.2" Right
Degree of Curvature(Arc): 16°22'12.8"
Length: 222.49
Tangent: 115.15
External: 18.46

PI 13+76.42	452680.11658	1035100.47012
CC	452948.94511	1035055.19445
PT 14+92.48	452744.72310	1034960.75733

Radius: 225.00
Delta: 68°45'13.6" Right
Degree of Curvature(Arc): 25°27'53.2"
Length: 270.00
Tangent: 153.93
External: 47.65

PC 16+00.81	452790.18825	1034862.43811

Tangent Direction: N 65°10'59.0" W
Tangent Length: 108.32

PI 17+15.51	452838.32971	1034758.33131
CC	442378.35106	1030047.75660
PT 18+30.20	452884.37985	1034653.28271

Radius: 11471.16
Delta: 1°08'44.7" Left
Degree of Curvature(Arc): 0°29'58.1"
Length: 229.39
Tangent: 114.70
External: 0.57

POE 20+01.12	452953.00208	1034496.74314

Tangent Direction: N 66°19'43.7" W
Tangent Length: 170.92

Horizontal Alignment Name: Ramp F

STATION	NORTHING	EASTING
POB 29+76.28	452767.73216	1034518.40557
PC 30+51.66	452727.52683	1034582.16510

Tangent Direction: S 57°45'55.4" E
Tangent Length: 75.38

PI 31+48.51	452675.86615	1034664.09111
CC	452587.95809	1034494.15621
PCC 32+26.82	452579.15024	1034658.92096

Radius: 165.00
Delta: 60°49'31.3" Right
Degree of Curvature(Arc): 34°43'29.0"
Length: 175.16
Tangent: 96.85
External: 26.33

PI 32+63.75	452542.27148	1034656.94953
CC	452590.89404	1034439.23463
PT 33+00.00	452508.05801	1034643.04384

Radius: 220.00
Delta: 19°03'31.7" Right
Degree of Curvature(Arc): 26°02'36.7"
Length: 73.18
Tangent: 36.93
External: 3.08

POE 33+35.87	452474.82766	1034629.53772

Tangent Direction: S 22°07'07.5" W
Tangent Length: 35.87

Horizontal Alignment Name: Ramp E

STATION	NORTHING	EASTING
POB 39+67.68	452462.77878	1034659.18270
PC 40+00.00	452492.71884	1034671.35151

Tangent Direction: N 22°07'07.5" E
Tangent Length: 32.32

PI 40+26.26	452517.04803	1034681.23984
CC	452409.88281	1034875.16071
PCC 40+52.28	452538.36598	1034696.57719

Radius: 220.00
Delta: 13°36'52.7" Right
Degree of Curvature(Arc): 26°02'36.7"
Length: 52.28
Tangent: 26.26
External: 1.56

PI 41+27.65	452599.55205	1034740.59793
CC	452453.68389	1034814.27997
PCC 41+91.30	452598.67405	1034815.96895

Radius: 145.00
Delta: 54°56'02.5" Right
Degree of Curvature(Arc): 39°30'51.6"
Length: 139.02
Tangent: 75.38
External: 18.42

PI 42+14.95	452598.39857	1034839.61803
CC	452378.68898	1034813.40635
PT 42+38.42	452593.10277	1034862.66818

Radius: 220.00
Delta: 12°16'18.5" Right
Degree of Curvature(Arc): 26°02'36.7"
Length: 47.12
Tangent: 23.65
External: 1.27

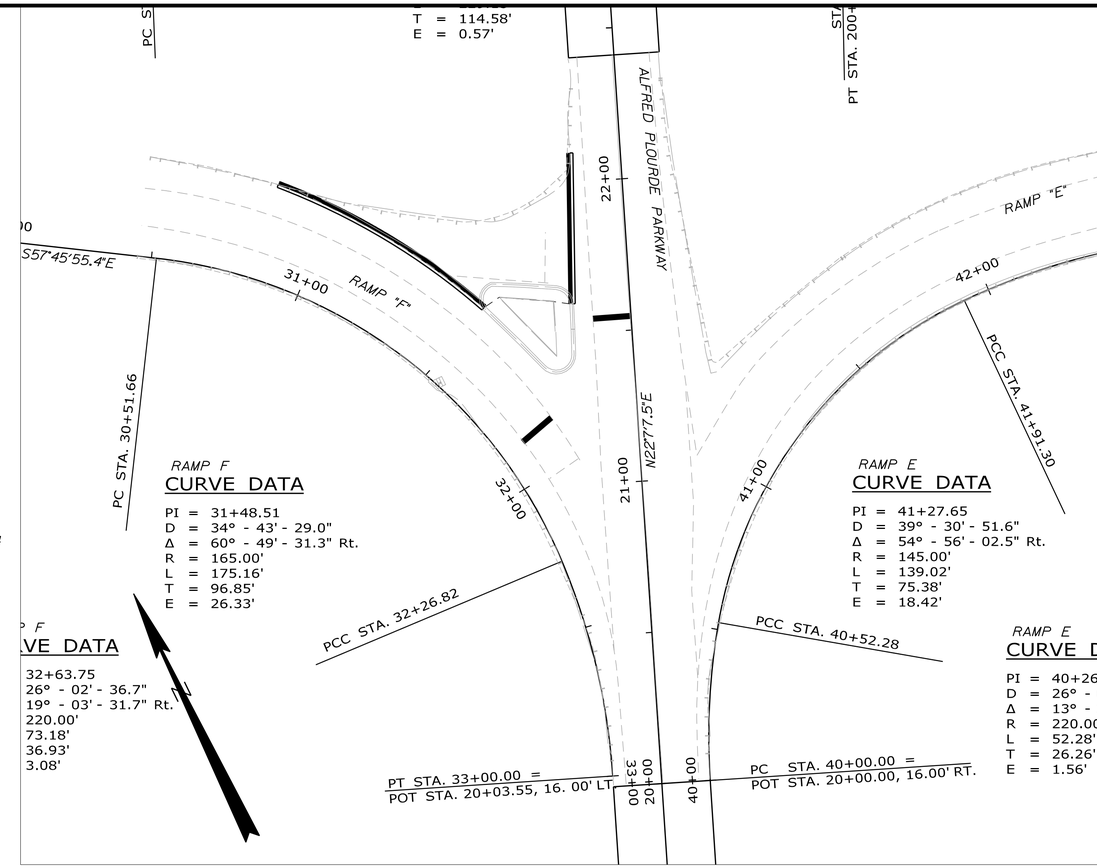
POE 42+84.27	452582.83503	1034907.35884

Tangent Direction: S 77°03'38.8" E
Tangent Length: 45.86

Horizontal Alignment Name: parkway 1

STATION	NORTHING	EASTING
POB 19+67.68	452468.80322	1034644.36021
POE 22+55.69	452735.61963	1034752.80483

Tangent Direction: N 22°07'07.5" E
Tangent Length: 288.02



RAMP F
CURVE DATA

PI = 31+48.51
D = 34° - 43' - 29.0"
Δ = 60° - 49' - 31.3" Rt.
R = 165.00'
L = 175.16'
T = 96.85'
E = 26.33'

RAMP F
VE DATA

32+63.75
26° - 02' - 36.7"
19° - 03' - 31.7" Rt.
220.00'
73.18'
36.93'
3.08'

RAMP E
CURVE DATA

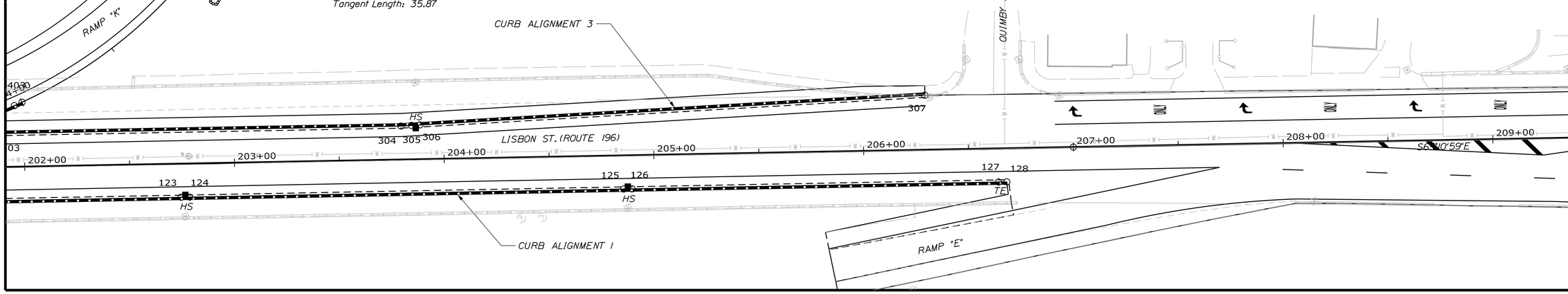
PI = 41+27.65
D = 39° - 30' - 51.6"
Δ = 54° - 56' - 02.5" Rt.
R = 145.00'
L = 139.02'
T = 75.38'
E = 18.42'

RAMP E
CURVE DA

PI = 40+26.2
D = 26° - 02
Δ = 13° - 36
R = 220.00'
L = 52.28'
T = 26.26'
E = 1.56'

CONTROL POINTS FOR TYPE 1 GRANITE CURB

Point	Station	Offset	NORTHING	EASTING
123	202+74.29	16.00	452650.0923	1035098.6870
124	202+78.29	16.00	452648.4135	1035102.3177
125	204+85.29	16.00	452561.5330	1035290.1983
126	204+89.29	16.00	452559.8541	1035293.8289
127	206+63.98	16.00	452486.5324	1035452.3884
128	206+67.98	16.00	452484.8535	1035456.0190
303	201+87.71	-16.00	452715.4760	1035033.5350
304	203+79.68	-16.00	452634.9039	1035207.7734
305	203+84.69	-16.20	452632.9836	1035212.4043
306	203+88.69	-16.36	452631.4502	1035216.1022
307	206+29.68	-26.02	452539.0647	1035438.8906



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

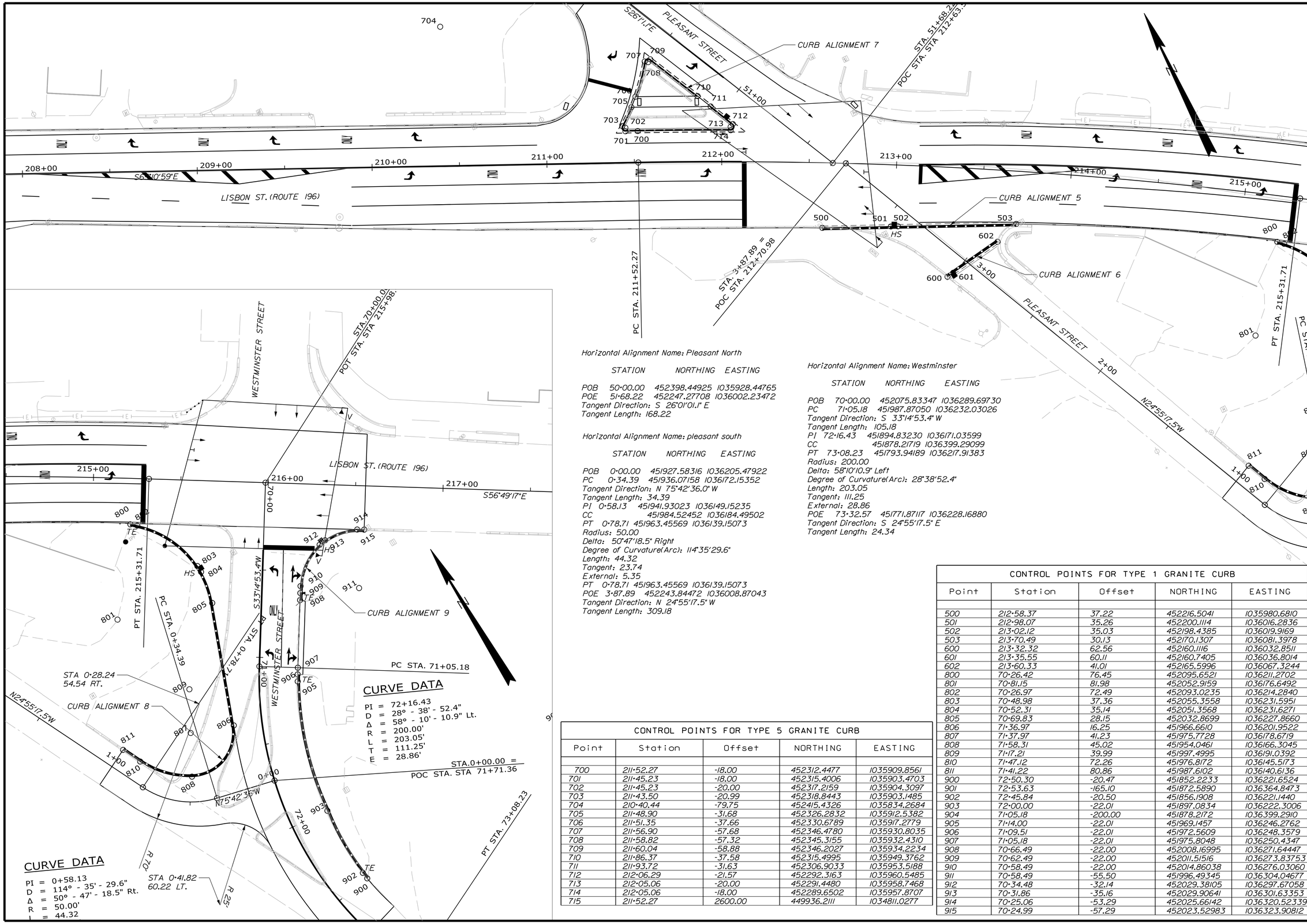
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

GEOMETRY PLANS

SHEET NUMBER
20
OF 55

Filename: ...\MSTA\020_GeoPlan_02.dgn Division: HIGHWAY Username: common Date:2/18/2015



Horizontal Alignment Name: Pleasant North

STATION	NORTHING	EASTING
POB 50+00.00	452398.44925	1035928.44765
POE 51+68.22	452247.27708	1036002.23472

Tangent Direction: S 26°01'01.1" E
Tangent Length: 168.22

Horizontal Alignment Name: pleasant south

STATION	NORTHING	EASTING
POB 0+00.00	451927.58316	1036205.47922
PC 0+34.39	451936.07158	1036172.15352

Tangent Direction: N 75°42'36.0" W
Tangent Length: 34.39

STATION	NORTHING	EASTING
PI 0+58.13	451941.93023	1036149.15235
CC	451984.52452	1036184.49502
PT 0+78.71	451963.45569	1036139.15073

Radius: 50.00
Delta: 50°47'18.5" Right
Degree of Curvature(Arc): 114°35'29.6"
Length: 44.32
Tangent: 23.74
External: 5.35

STATION	NORTHING	EASTING
PT 0+78.71	451963.45569	1036139.15073
POE 3+87.89	452243.84472	1036008.87043

Tangent Direction: N 24°55'17.5" W
Tangent Length: 309.18

Horizontal Alignment Name: Westminster

STATION	NORTHING	EASTING
POB 70+00.00	452075.83347	1036289.69730
PC 71+05.18	451987.87050	1036232.03026

Tangent Direction: S 33°14'53.4" W
Tangent Length: 105.18

STATION	NORTHING	EASTING
PI 72+16.43	451894.83230	1036171.03599
CC	451878.21719	1036399.29099
PT 73+08.23	451793.94189	1036217.91383

Radius: 200.00
Delta: 58°10'10.9" Left
Degree of Curvature(Arc): 28°38'52.4"
Length: 203.05
Tangent: 111.25
External: 28.86

STATION	NORTHING	EASTING
POE 73+32.57	451771.87117	1036228.16880

Tangent Direction: S 24°55'17.5" E
Tangent Length: 24.34

CONTROL POINTS FOR TYPE 5 GRANITE CURB

Point	Station	Offset	NORTHING	EASTING
700	211+52.27	-18.00	452312.4477	1035909.8561
701	211+45.23	-18.00	452315.4006	1035903.4703
702	211+45.23	-20.00	452317.2159	1035904.3097
703	211+43.50	-20.99	452318.8443	1035903.1485
704	210+40.44	-79.75	452415.4326	1035834.2684
705	211+48.90	-31.68	452326.2832	1035912.5382
706	211+51.35	-37.66	452330.6789	1035917.2779
707	211+56.90	-57.68	452346.4780	1035930.8035
708	211+58.82	-57.32	452345.3155	1035932.4310
709	211+60.04	-58.88	452346.2027	1035934.2234
710	211+86.37	-37.58	452315.4995	1035949.3762
711	211+93.72	-31.63	452306.9033	1035953.5188
712	212+06.29	-21.57	452292.3163	1035960.5485
713	212+05.06	-20.00	452291.4480	1035958.7468
714	212+05.06	-18.00	452289.6502	1035957.8707
715	211+52.27	2600.00	449936.2111	1034811.0277

CONTROL POINTS FOR TYPE 1 GRANITE CURB

Point	Station	Offset	NORTHING	EASTING
500	212+58.37	37.22	452216.5041	1035980.6810
501	212+98.07	35.26	452200.1114	1036016.2836
502	213+02.12	35.03	452198.4385	1036019.9169
503	213+70.49	30.13	452170.1307	1036081.3978
600	213+32.32	62.56	452160.1116	1036032.8511
601	213+35.55	60.11	452160.7405	1036036.8014
602	213+60.33	41.01	452165.5996	1036067.3244
800	70+26.42	76.45	452095.6521	1036211.2702
801	70+81.15	81.98	452052.9159	1036176.6492
802	70+26.97	72.49	452093.0235	1036214.2840
803	70+48.98	37.36	452055.3558	1036231.5951
804	70+52.31	35.14	452051.3568	1036231.6271
805	70+69.83	28.15	452032.8699	1036227.8660
806	71+36.97	16.25	451966.6610	1036201.9522
807	71+37.97	41.23	451975.7728	1036178.6719
808	71+58.31	45.02	451954.0461	1036166.3045
809	71+17.21	39.99	451997.4995	1036191.0392
810	71+47.12	72.26	451976.8172	1036145.5173
811	71+41.22	80.86	451987.6102	1036140.6136
900	72+50.30	-20.47	451852.2233	1036221.6524
901	72+53.63	-165.10	451872.5890	1036364.8473
902	72+45.84	-20.50	451856.1908	1036221.1440
903	72+00.00	-22.01	451897.0834	1036222.3006
904	71+05.18	-200.00	451878.2172	1036399.2910
905	71+14.00	-22.01	451969.1457	1036246.2762
906	71+09.51	-22.01	451972.5609	1036248.3579
907	71+05.18	-22.01	451975.8048	1036250.4347
908	70+66.49	-22.00	452008.16995	1036271.64447
909	70+62.49	-22.00	452011.51516	1036273.83753
910	70+58.49	-22.00	452014.86038	1036276.03060
911	70+58.49	-55.50	451996.49345	1036304.04677
912	70+34.48	-32.14	452029.38105	1036297.67058
913	70+31.86	-35.16	452029.90641	1036301.63353
914	70+25.06	-53.29	452025.66142	1036320.52339
915	70+24.99	-57.29	452023.52983	1036323.90812

STATE OF MAINE
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STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

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PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG	ALG	2-15
DESIGN2-DETAILED2		
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SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

GEOMETRY PLANS

SHEET NUMBER
21
OF 55

Filename: ...\MSTA\021_GeoPlan_03.dgn Division: HIGHWAY Username: common Date:2/18/2015

STATION NORTHING EASTING

POB (100) 0+00.00 453140.73479 1033987.62702
PI (101) 0+04.00 453139.15820 1033991.30321
Tangent Direction: S 66°47'14.0" E
Tangent Length: 4.00
PI (102) 1+24.79 453091.54974 1034102.31368
Tangent Direction: S 66°47'14.0" E
Tangent Length: 120.79
PI (103) 1+28.79 453089.97315 1034105.98987
Tangent Direction: S 66°47'14.0" E
Tangent Length: 4.00
PI (104) 2+50.11 453042.15595 1034217.48707
Tangent Direction: S 66°47'14.0" E
Tangent Length: 121.32
PC (105) 3+12.10 453016.13640 1034273.75483
Tangent Direction: S 65°10'59.0" E
Tangent Length: 61.99
PI ( ) 3+18.50 453013.44977 1034279.56470
CC (106) 463437.05012 1039092.63355
PT (107) 3+24.90 453010.76963 1034285.37756
Radius: 11481.16
Delta: 0°03'50.0" Left
Degree of Curvature(Arc): 0°29'56.6"
Length: 12.80
Tangent: 6.40
External: 0.002
PC (108) 3+28.90 453009.09527 1034289.01027
Tangent Direction: S 65°15'15.9" E
Tangent Length: 4.00
PI ( ) 3+84.81 452985.70307 1034339.79127
CC (106) 463437.05012 1039092.63355
PT (109) 4+40.72 452962.80654 1034390.79770
Radius: 11481.16
Delta: 0°33'28.9" Left
Degree of Curvature(Arc): 0°29'56.6"
Length: 111.82
Tangent: 55.91
External: 0.14
PI (110) 6+09.26 452898.19127 1034546.45742
Tangent Direction: S 67°27'22.9" E
Tangent Length: 168.54
PI (111) 6+13.26 452896.66236 1034550.15370
Tangent Direction: S 67°31'42.0" E
Tangent Length: 4.00
PC (112) 7+12.67 452858.73564 1034642.04106
Tangent Direction: S 67°34'17.4" E
Tangent Length: 99.41
PI ( ) 7+75.62 452833.45942 1034699.70064
CC (113) 442378.35106 1030047.75660
PT (114) 8+38.58 452807.55030 1034757.07862
Radius: 11443.16
Delta: 0°37'49.6" Right
Degree of Curvature(Arc): 0°30'02.5"
Length: 125.91
Tangent: 62.96
External: 0.17
PC (115) 8+42.58 452805.90366 1034760.72397
Tangent Direction: S 65°41'27.1" E
Tangent Length: 4.00
PI ( ) 8+46.75 452804.18589 1034764.52458
CC (113) 442378.35106 1030047.75660
PT (116) 8+50.92 452802.46535 1034768.32393
Radius: 11443.16
Delta: 0°02'30.4" Right
Degree of Curvature(Arc): 0°30'02.5"
Length: 8.34
Tangent: 4.17
External: 0.001
PC (117) 8+54.92 452800.81462 1034771.96743
Tangent Direction: S 65°37'35.6" E
Tangent Length: 4.00
PI ( ) 8+59.21 452799.04331 1034775.87526
CC (113) 442378.35106 1030047.75660
PT (118) 8+63.50 452797.26907 1034779.78176
Radius: 11443.16
Delta: 0°02'34.7" Right
Degree of Curvature(Arc): 0°30'02.5"
Length: 8.58
Tangent: 4.29
External: 0.001
PC (119) 8+67.50 452795.61434 1034783.42344
Tangent Direction: S 65°33'48.8" E
Tangent Length: 4.00
PI ( ) 9+04.50 452780.30296 1034817.10458
CC (113) 442378.35106 1030047.75660
PT (120) 9+41.50 452764.77411 1034850.68601
Radius: 11443.16
Delta: 0°22'13.8" Right
Degree of Curvature(Arc): 0°30'02.5"
Length: 74.00
Tangent: 37.00
External: 0.06
PI (121) 9+63.44 452755.56454 1034870.60146
Tangent Direction: S 65°10'57.4" E
Tangent Length: 21.94
PI (122) 9+67.44 452753.88566 1034874.23207
Tangent Direction: S 65°10'59.0" E
Tangent Length: 4.00
PI (123) 12+14.73 452650.09234 1035098.68704
Tangent Direction: S 65°10'59.0" E
Tangent Length: 247.29

STATION NORTHING EASTING

PI (124) 12+18.73 452648.41345 1035102.31765
Tangent Direction: S 65°10'59.0" E
Tangent Length: 4.00
PI (125) 14+25.72 452561.53297 1035290.19830
Tangent Direction: S 65°10'59.0" E
Tangent Length: 207.00
PI (126) 14+29.72 452559.85409 1035293.82891
Tangent Direction: S 65°10'59.0" E
Tangent Length: 4.00
PI (127) 16+04.42 452486.53240 1035452.38840
Tangent Direction: S 65°10'59.0" E
Tangent Length: 174.69
POE (128) 16+08.42 452484.85352 1035456.01901
Tangent Direction: S 65°10'59.0" E
Tangent Length: 4.00

Horizontal Alignment Name: curb 2

STATION NORTHING EASTING

POB (200) 0+00.00 452852.42776 1034768.57407
PI (201) 0+08.01 452849.40880 1034775.98870
Tangent Direction: S 67°50'44.2" E
Tangent Length: 8.01
PI (202) 0+12.01 452847.90238 1034779.69740
Tangent Direction: S 67°53'37.5" E
Tangent Length: 4.00
PI (203) 0+19.86 452844.95023 1034786.96838
Tangent Direction: S 67°54'07.1" E
Tangent Length: 7.85
PI (204) 0+23.86 452843.44215 1034790.67650
Tangent Direction: S 67°52'06.8" E
Tangent Length: 4.00
PI (205) 0+33.15 452839.70418 1034799.18402
Tangent Direction: S 66°16'50.4" E
Tangent Length: 9.29
PI (206) 0+37.15 452838.09498 1034802.84653
Tangent Direction: S 66°16'50.4" E
Tangent Length: 4.00
PI (207) 0+60.15 452828.84208 1034823.90592
Tangent Direction: S 66°16'50.4" E
Tangent Length: 23.00
PC (208) 2+26.04 452763.95818 1034976.57617
Tangent Direction: S 66°58'29.3" E
Tangent Length: 165.89
PI ( ) 2+34.20 452760.76811 1034984.08231
CC (209) 452948.94511 1035055.19445
PCC (210) 2+42.34 452758.19668 1034991.82223
Radius: 201.00
Delta: 4°38'49.9" Left
Degree of Curvature(Arc): 28°30'19.3"
Length: 16.30
Tangent: 8.16
External: 0.17
PI ( ) 2+44.37 452757.55834 1034993.74364
CC (209) 452948.94511 1035055.19445
PCC (211) 2+46.39 452756.95882 1034995.67752
Radius: 201.00
Delta: 1°09'15.3" Left
Degree of Curvature(Arc): 28°30'19.3"
Length: 4.05
Tangent: 2.02
External: 0.01
PI ( ) 2+53.73 452754.78470 1035002.69067
CC (209) 452948.94511 1035055.19445
PCC (212) 2+61.07 452753.12807 1035009.84375
Radius: 201.00
Delta: 4°11'02.8" Left
Degree of Curvature(Arc): 28°30'19.3"
Length: 14.68
Tangent: 7.34
External: 0.13
PI ( ) 2+65.07 452752.22545 1035013.74112
CC (209) 452948.94511 1035055.19445
PT (213) 2+69.07 452751.47862 1035017.67132
Radius: 201.00
Delta: 2°16'49.5" Left
Degree of Curvature(Arc): 28°30'19.3"
Length: 8.00
Tangent: 4.00
External: 0.04

Horizontal Alignment Name: CURB 2A

STATION NORTHING EASTING

POB (220) 0+00.00 452925.65446 1034595.76629
PI (221) 0+06.00 452923.15385 1034601.22037
Tangent Direction: S 65°22'09.6" E
Tangent Length: 6.00
PI (222) 0+14.00 452919.81972 1034608.49248
Tangent Direction: S 65°22'09.6" E
Tangent Length: 8.00
POE (223) 0+18.00 452918.15265 1034612.12853
Tangent Direction: S 65°22'09.6" E
Tangent Length: 4.00

Horizontal Alignment Name: curb 3

STATION NORTHING EASTING

POB (300) 0+00.00 452723.03092 1035017.19721
PI (301) 0+06.00 452720.51260 1035022.64313
Tangent Direction: S 65°10'59.0" E
Tangent Length: 6.00
PI (302) 0+14.00 452717.15484 1035029.90435
Tangent Direction: S 65°10'59.0" E
Tangent Length: 8.00
PI (303) 0+18.00 452715.47595 1035033.53497
Tangent Direction: S 65°10'59.0" E
Tangent Length: 4.00
PI (304) 2+09.97 452634.90394 1035207.77343
Tangent Direction: S 65°10'59.0" E
Tangent Length: 191.97
PI (305) 2+14.98 452632.98362 1035212.40430
Tangent Direction: S 67°28'38.2" E
Tangent Length: 5.01
PI (306) 2+18.98 452631.45019 1035216.10217
Tangent Direction: S 67°28'38.2" E
Tangent Length: 4.00
POE (307) 4+60.17 452539.06465 1035438.89060
Tangent Direction: S 67°28'38.2" E
Tangent Length: 241.18

Horizontal Alignment Name: curb 4

STATION NORTHING EASTING

PC (400) 0+00.00 452725.95722 1035025.16085
PI ( ) 0+04.00 452725.42321 1035029.12571
CC (209) 452948.94511 1035055.19445
PCC (401) 0+08.00 452725.03048 1035033.10704
Radius: 225.00
Delta: 2°02'14.2" Left
Degree of Curvature(Arc): 25°27'52.7"
Length: 8.00
Tangent: 4.00
External: 0.04
PI ( ) 0+14.58 452724.38477 1035039.65309
CC (209) 452948.94511 1035055.19445
PCC (402) 0+21.15 452724.12257 1035046.22569
Radius: 225.00
Delta: 3°20'56.7" Left
Degree of Curvature(Arc): 25°27'52.7"
Length: 13.15
Tangent: 6.58
External: 0.10
PI ( ) 0+23.15 452724.04284 1035048.22416
CC (209) 452948.94511 1035055.19445
PT (403) 0+25.15 452723.99866 1035050.22374
Radius: 225.00
Delta: 1°01'06.9" Left
Degree of Curvature(Arc): 25°27'52.7"
Length: 4.00
Tangent: 2.00
External: 0.01

Horizontal Alignment Name: curb 5

STATION NORTHING EASTING

POB (500) 0+00.00 452216.50405 1035980.68099
PI (501) 0+39.20 452200.11144 1036016.28355
Tangent Direction: S 65°16'37.5" E
Tangent Length: 39.20
PI (502) 0+43.20 452198.43851 1036019.91692
Tangent Direction: S 65°16'37.5" E
Tangent Length: 4.00
POE (503) 1+10.88 452170.13068 1036081.39776
Tangent Direction: S 65°16'37.5" E
Tangent Length: 67.68

Horizontal Alignment Name: curb 6

STATION NORTHING EASTING

POB (600) 0+00.00 452160.11160 1036032.85111
PI (601) 0+04.00 452160.74047 1036036.80136
Tangent Direction: N 80°57'16.5" E
Tangent Length: 4.00
POE (602) 0+34.91 452165.59964 1036067.32435
Tangent Direction: N 80°57'16.5" E
Tangent Length: 30.91

Horizontal Alignment Name: curb 7

STATION NORTHING EASTING

POB (700) 0+00.00 452312.44768 1035909.85609
PC (701) 0+07.04 452315.40064 1035903.47027
Tangent Direction: N 65°10'59.0" W
Tangent Length: 7.04
PI 0+10.48 452316.84553 1035900.34567
CC (702) 452317.21594 1035904.30971
PRC (703) 0+11.21 452318.84430 1035903.14848
Radius: 2.00
Delta: 119°41'21.2" Right
Degree of Curvature(Arc): 2864°47'20.3"
Length: 4.18
Tangent: 3.44
External: 1.98
PI ( ) 0+17.21 452322.32643 1035908.03135
CC (704) 452415.43264 1035834.26836
PCC (705) 0+23.20 452326.28324 1035912.53816
Radius: 118.63
Delta: 5°47'17.1" Left
Degree of Curvature(Arc): 48°17'48.0"
Length: 11.98
Tangent: 6.00
External: 0.15
PI ( ) 0+26.43 452328.41647 1035914.96793
CC (704) 452415.43264 1035834.26836
PCC (706) 0+29.66 452330.67889 1035917.27788
Radius: 118.63
Delta: 3°07'20.7" Left
Degree of Curvature(Arc): 48°17'48.0"
Length: 6.47
Tangent: 3.23
External: 0.04
PI ( ) 0+40.10 452337.98333 1035924.73581
CC (704) 452415.43264 1035834.26836
PRC (707) 0+50.49 452346.47796 1035930.80349
Radius: 118.63
Delta: 10°03'27.4" Left
Degree of Curvature(Arc): 48°17'48.0"
Length: 20.83
Tangent: 10.44
External: 0.46
PI ( ) 0+53.82 452349.19339 1035932.74311
CC (708) 452345.31547 1035932.43095
PT (709) 0+54.61 452346.20267 1035934.22340
Radius: 2.00
Delta: 118°07'42.1" Right
Degree of Curvature(Arc): 2864°47'20.3"
Length: 4.12
Tangent: 3.34
External: 1.89
PI (710) 0+88.85 452315.49949 1035949.37615
Tangent Direction: S 26°16'02.8" E
Tangent Length: 34.24
PI (711) 0+98.39 452306.90333 1035953.51876
Tangent Direction: S 25°43'48.5" E
Tangent Length: 9.54
PC (712) 1+14.58 452292.31630 1035960.54848
Tangent Direction: S 25°43'48.5" E
Tangent Length: 16.19
PI ( ) 1+20.35 452287.12645 1035963.04955
CC (713) 452291.44804 1035958.74678
PRC (714) 1+19.53 452289.65015 1035957.87066
Radius: 2.00
Delta: 141°42'37.2" Right
Degree of Curvature(Arc): 2864°47'20.3"
Length: 4.95
Tangent: 5.76
External: 4.10
PI ( ) 1+46.11 452301.29263 1035933.97909
CC (715) 449936.21112 1034811.02770
PT (700) 1+72.68 452312.44768 1035909.85609
Radius: 2618.00
Delta: 1°09'47.8" Left
Degree of Curvature(Arc): 2°11'18.7"
Length: 53.15
Tangent: 26.58
External: 0.13

Horizontal Alignment Name: curb 8

STATION NORTHING EASTING

PC (800) 0+00.00 452095.65209 1036211.27021
PI ( ) 0+02.00 452094.39259 1036212.82494
CC (801) 452052.91585 1036176.64921
PCC (802) 0+04.00 452093.02345 1036214.28404
Radius: 55.00
Delta: 4°10'01.1" Right
Degree of Curvature(Arc): 104°10'26.9"
Length: 4.00
Tangent: 2.00
External: 0.04
PI ( ) 0+26.38 452077.71121 1036230.60236
CC (801) 452052.91585 1036176.64921
PCC (803) 0+46.50 452055.35576 1036231.59507
Radius: 55.00
Delta: 44°16'45.2" Right
Degree of Curvature(Arc): 104°10'26.9"
Length: 42.51
Tangent: 22.38
External: 4.38
PI ( ) 0+48.51 452053.35684 1036231.68383
CC (801) 452052.91585 1036176.64921
PCC (804) 0+50.50 452051.35677 1036231.62711
Radius: 55.00
Delta: 4°10'01.1" Right
Degree of Curvature(Arc): 104°10'26.9"
Length: 4.00
Tangent: 2.00
External: 0.04
PI ( ) 0+60.08 452041.78594 1036231.35570
CC (801) 452052.91585 1036176.64921
PT (805) 0+69.46 452032.86988 1036227.86600
Radius: 55.00
Delta: 19°45'02.6" Right
Degree of Curvature(Arc): 104°10'26.9"
Length: 18.96
Tangent: 9.58
External: 0.83
PC (806) 1+40.56 451966.66101 1036201.95221
Tangent Direction: S 21°22'30.4" W
Tangent Length: 71.10
PI ( ) 1+69.46 451939.75016 1036191.41945
CC (807) 451975.77282 1036178.67185
PCC (808) 1+83.44 451954.04612 1036166.30454
Radius: 25.00
Delta: 98°16'27.8" Right
Degree of Curvature(Arc): 229°10'59.2"
Length: 42.88
Tangent: 28.90
External: 13.21
PI ( ) 1+99.65 451962.06296 1036152.22069
CC (809) 451997.49952 1036191.03917
PT (810) 2+14.79 451976.81723 1036145.51727
Radius: 50.00
Delta: 35°54'59.2" Right
Degree of Curvature(Arc): 114°35'29.6"
Length: 31.34
Tangent: 16.21
External: 2.56
POE (811) 2+26.64 451987.61018 1036140.61360
Tangent Direction: N 24°26'03.2" W
Tangent Length: 11.85

Horizontal Alignment Name: CURB 9

STATION NORTHING EASTING

PC (900) 0+00.00 451852.22333 1036221.65241
PI ( ) 0+02.00 451854.20353 1036221.37078
CC (901) 451872.58897 1036364.84734
PCC (902) 0+04.00 451856.19076 1036221.14401
Radius: 144.64
Delta: 1°35'04.4" Right
Degree of Curvature(Arc): 39°36'49.7"
Length: 4.00
Tangent: 2.00
External: 0.014
PI ( ) 0+24.66 451876.71968 1036218.80142
CC (901) 451872.58897 1036364.84734
PCC (903) 0+45.05 451897.08337 1036222.30060
Radius: 144.64
Delta: 16°15'36.4" Right
Degree of Curvature(Arc): 39°36'49.7"
Length: 41.05
Tangent: 20.66
External: 1.47
PI ( ) 0+83.91 451935.73228 1036226.42036
CC (904) 451878.21719 1036399.29099
PCC (905) 1+21.58 451969.14571 1036246.27617
Radius: 177.99
Delta: 24°38'10.7" Right
Degree of Curvature(Arc): 32°11'23.6"
Length: 76.53
Tangent: 38.87
External: 4.19
PI ( ) 1+23.58 451970.86500 1036247.29785
CC (904) 451878.21719 1036399.29099
PCC (906) 1+25.58 451972.56091 1036248.35791
Radius: 177.99
Delta: 1°17'15.0" Right
Degree of Curvature(Arc): 32°11'23.6"
Length: 4.00
Tangent: 2.00
External: 0.01
PI ( ) 1+27.51 451974.19411 1036249.37878
CC (904) 451878.21719 1036399.29099
PT (907) 1+29.43 451975.80483 1036250.43474
Radius: 177.99
Delta: 1°14'23.7" Right
Degree of Curvature(Arc): 32°11'23.6"
Length: 3.85
Tangent: 1.93
External: 0.01
PI (908) 1+68.13 452008.16995 1036271.64447
Tangent Direction: N 33°14'16.4" E
Tangent Length: 38.70
PI (908) 1+68.13 452008.16995 1036271.64447
PI (909) 1+72.13 452011.51516 1036273.83753
Tangent Direction: N 33°14'53.4" E
Tangent Length: 4.00
PC (910) 1+76.13 452014.86038 1036276.03060
Tangent Direction: N 33°14'53.4" E
Tangent Length: 4.00
PI ( ) 1+90.27 452026.68898 1036283.78523
CC (911) 451996.49345 1036304.04677
PCC (912) 2+02.89 452029.38105 1036297.67058
Radius: 33.50
Delta: 45°46'46.4" Right
Degree of Curvature(Arc): 171°01'55.8"
Length: 26.77
Tangent: 14.14
External: 2.86
PI ( ) 2+04.90 452029.76217 1036299.63636
CC (911) 451996.49345 1036304.04677
PCC (913) 2+06.89 452029.90641 1036301.63353
Radius: 33.50
Delta: 6°50'28.6" Right
Degree of Curvature(Arc): 171°01'55.8"
Length: 4.00
Tangent: 2.00
External: 0.06
PI ( ) 2+17.01 452030.63484 1036311.71913
CC (911) 451996.49345 1036304.04677
PT (914) 2+26.54 452025.66142 1036320.52339
Radius: 33.50
Delta: 33°35'33.2" Right
Degree of Curvature(Arc): 171°01'55.8"
Length: 19.64
Tangent: 10.11
External: 1.49
POE (915) 2+30.54 452023.52983 1036323.90812
Tangent Direction: S 57°47'54.7" E
Tangent Length: 4.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE

7960

P.E. NUMBER

FEBRUARY 18, 2015

DATE

LEWISTON
LISBON STREET

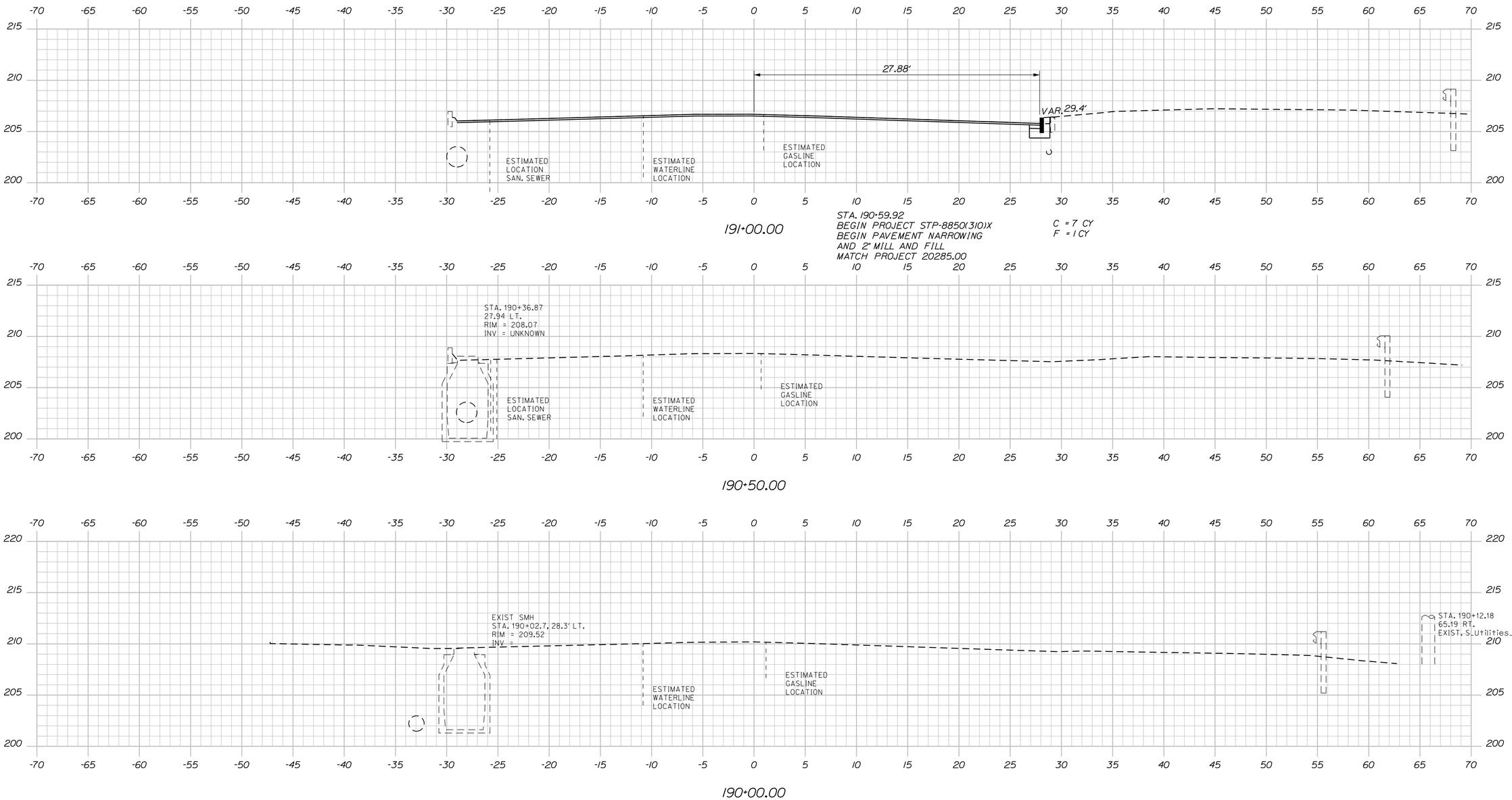
GEOMETRY PLANS

SHEET NUMBER

22

OF 55

Filename: ...\MSTA\022_GeoPlan_04.dgn Division: HIGHWAY Username: common Date:2/18/2015



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON			
DESIGN-DETAILED	JLE	BY	DATE
CHECKED-REVIEWED	ALG	JLE	2-15
DESIGN2-DETAILED2		ALG	2-15
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

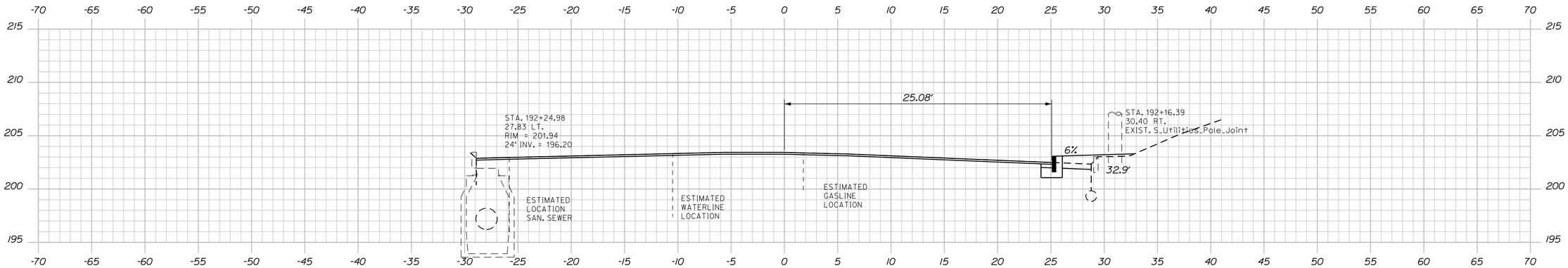
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
23
OF 55

Filename: ...\MSTA\023_XSECT_190+00_001.dgn Division: HIGHWAY Username: common Date:2/18/2015

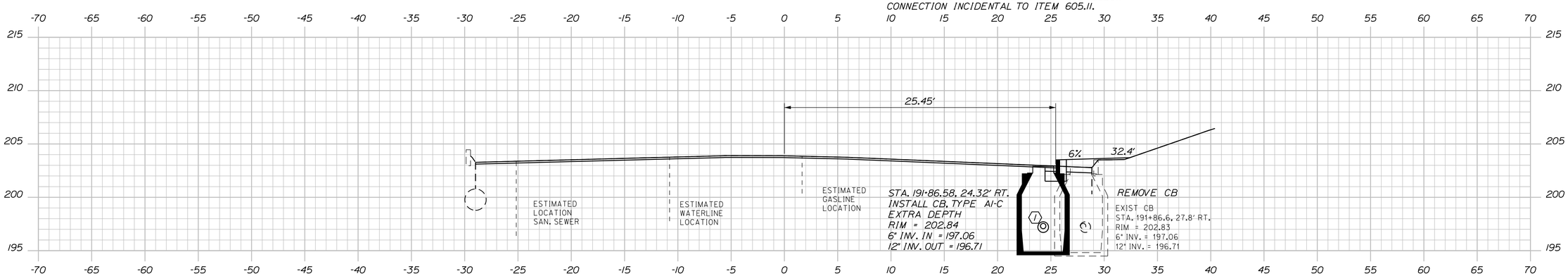
Sta. 190+00.00 to Sta. 191+00.00



192+00.00

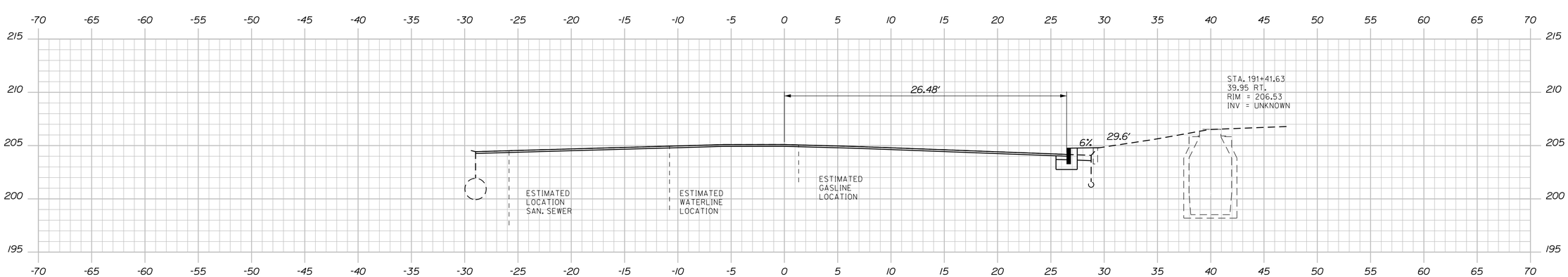
STA. 191+88.58, 24.32' RT. TO STA. 192+04±, 28.75±' RT.
INSTALL 16 LF X 12" TYPE 'C' UD PLUS ELBOW
CONNECTION INCIDENTAL TO ITEM 605.11.

C = 12 CY
F = 7 CY



191+86.55

STA. 191+65, 28.8± RT. TO STA. 191+84.58, 24.32' RT.
INSTALL 20 LF X 6" TYPE 'B' UD PLUS ELBOW
CONNECTION INCIDENTAL TO ITEM 605.09.



191+50.00

C = 10 CY
F = 3 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

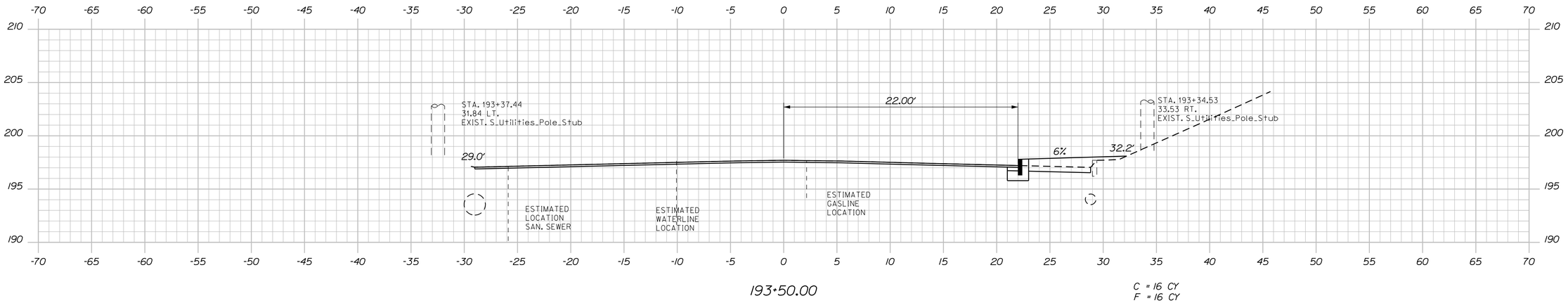
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
24
OF 55

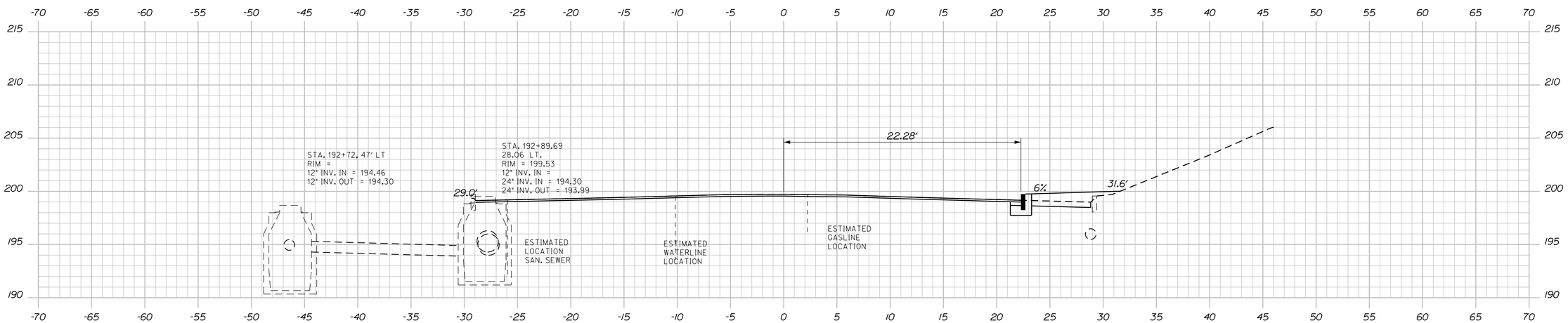
Filename: ...\MSTA\024_XSECT_191+50_002.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 191+50.00 to Sta. 192+00.00



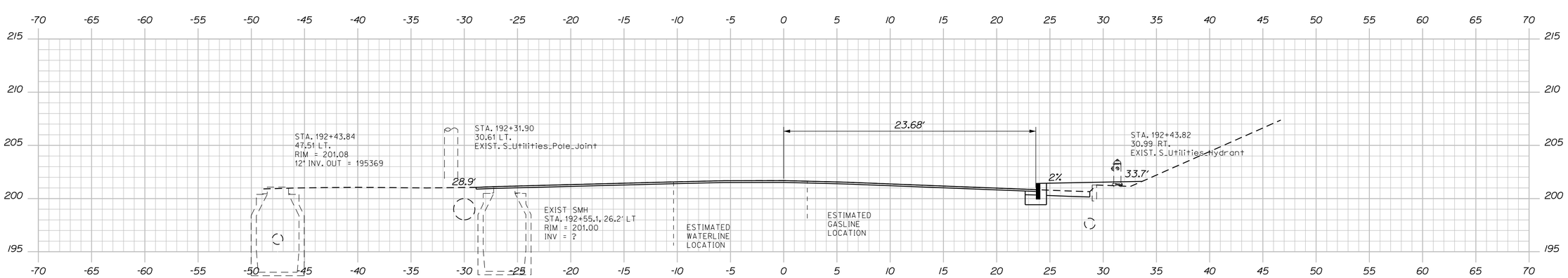
193+50.00

C = 16 CY
F = 16 CY



193+00.00

C = 15 CY
F = 14 CY



192+50.00

C = 14 CY
F = 13 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON			
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
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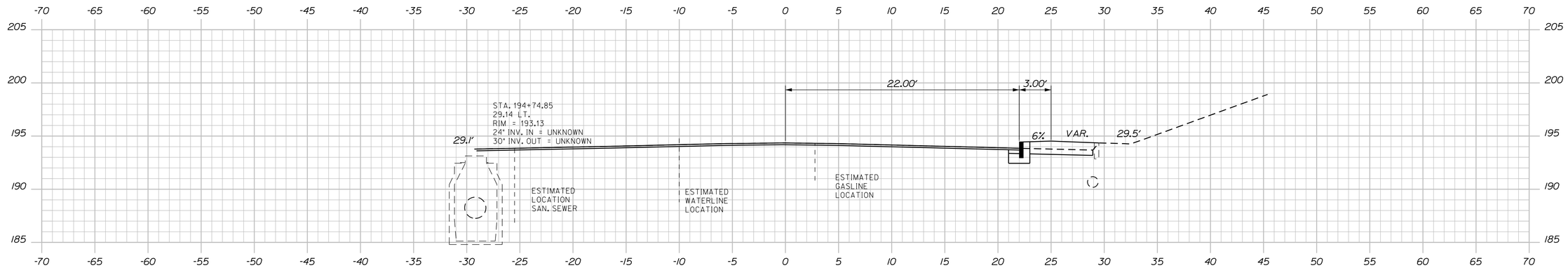
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
25
OF 55

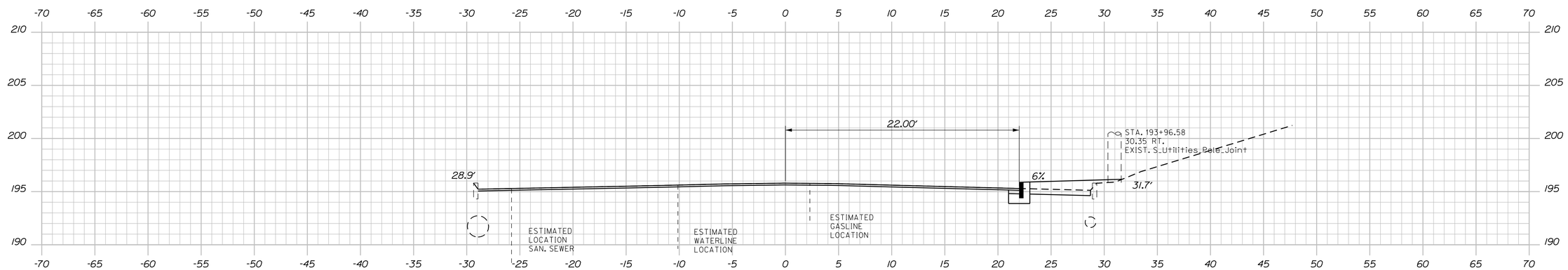
Sta. 192+50.00 to Sta. 193+50.00

Filename: ...\MSTA\025_XSECT_192+50_003.dgn Division: HIGHWAY Username: common Date:2/18/2015



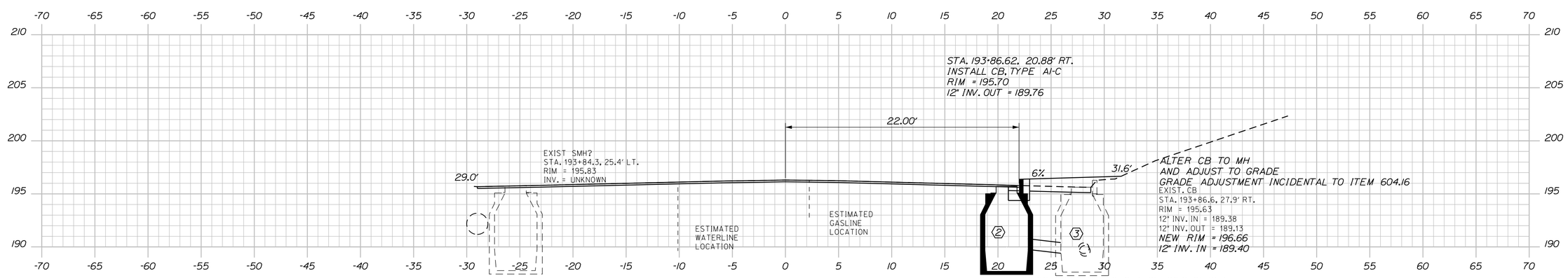
194+50.00

C = 17 CY
F = 16 CY



194+00.00

C = 17 CY
F = 18 CY



193+86.66

STA. 193+86.62, 22.88' RT. TO STA. 193+86.6, 25.9' RT.
INSTALL 3 LF X 12" OPT. III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON		BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
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DATE

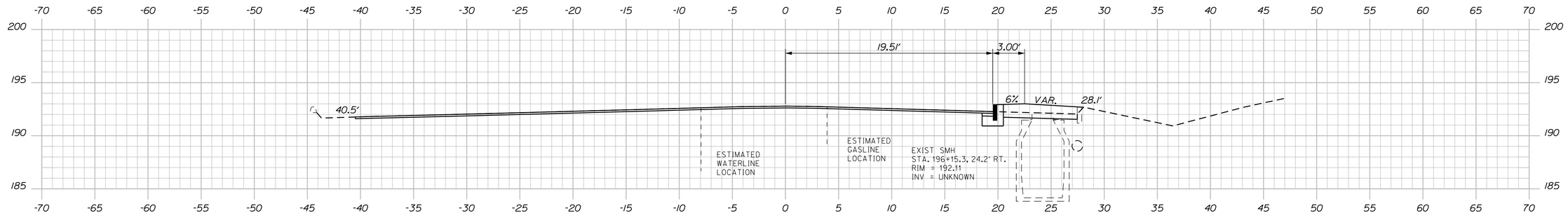
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
26
OF 55

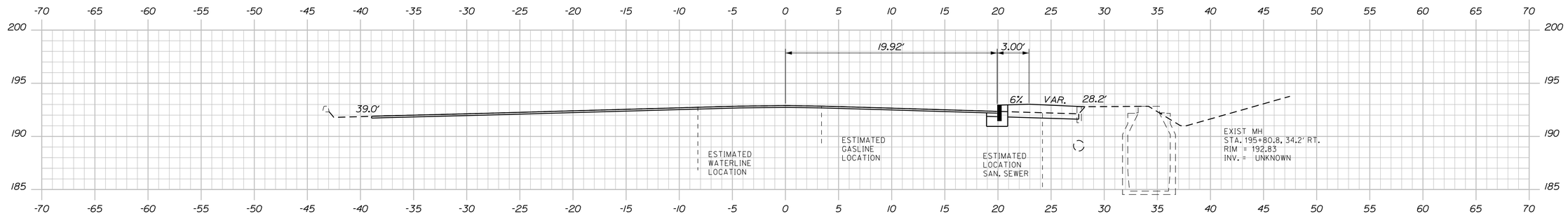
Sta. 193+86.66 to Sta. 194+50.00

Filename: ...\MSTA\026_XSECT_193+86_004.dgn Division: HIGHWAY Username: common Date:2/18/2015

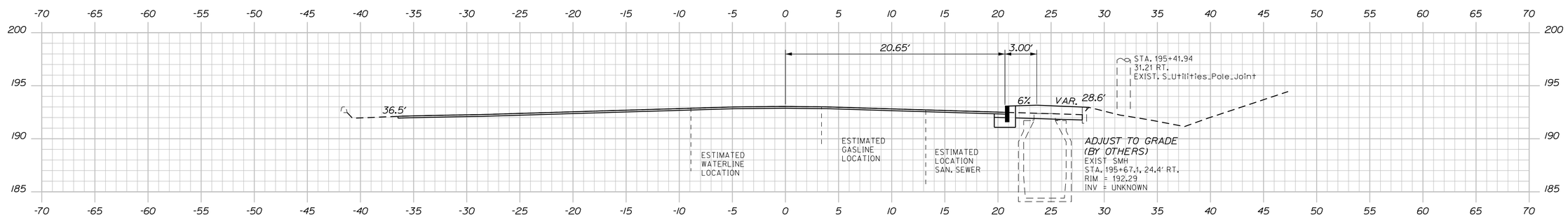


196+00.00

C = 18 CY
F = 17 CY

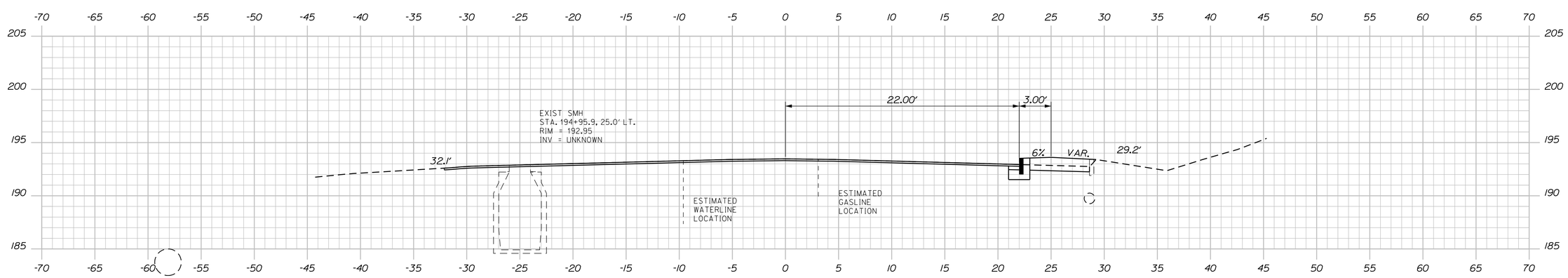


195+80.81



195+50.00

C = 18 CY
F = 16 CY



195+00.00

C = 17 CY
F = 15 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE	
DESIGN-DETAILED JLE	JLE	2-15	
CHECKED-REVIEWED ALG		2-15	SIGNATURE
DESIGN2-DETAILED2			7960
DESIGN3-DETAILED3			P.E. NUMBER
REVISIONS 1			FEBRUARY 18, 2015
REVISIONS 2			DATE
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

LEWISTON
LISBON STREET

CROSS SECTIONS

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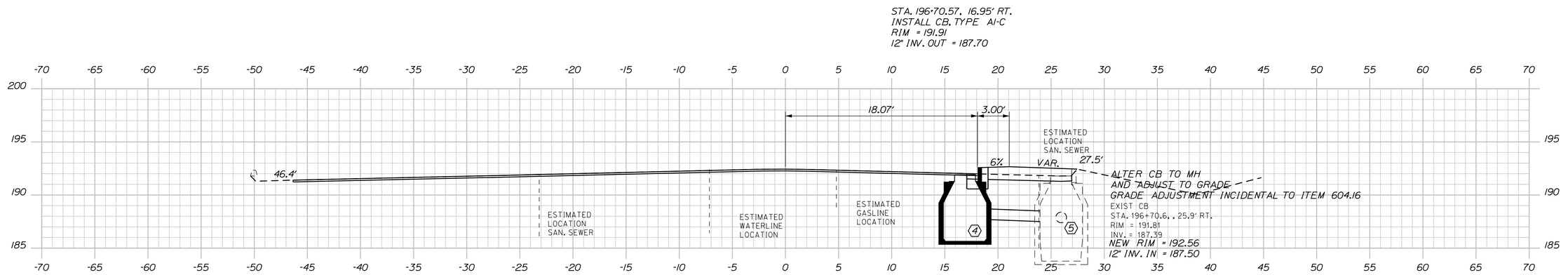
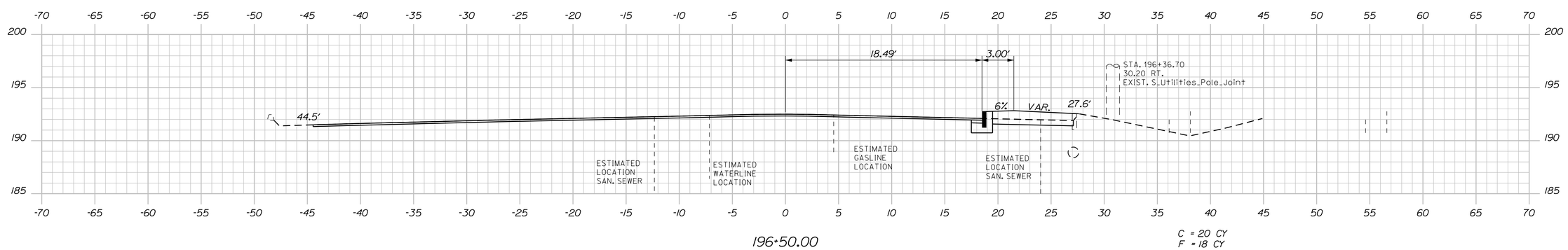
Sta. 195+00.00 to Sta. 196+00.00

Filename: ...\MSTA\027_XSECT_195+00_005.dgn Division: HIGHWAY Username: common Date:2/18/2015



196+70.57

ST.A 196+70.57, 18.95' RT. TO STA. 196+70.6, 23.9' RT.
INSTALL 5 LF X 12" OPT III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.



196+50.00

C = 20 CY
F = 18 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
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LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
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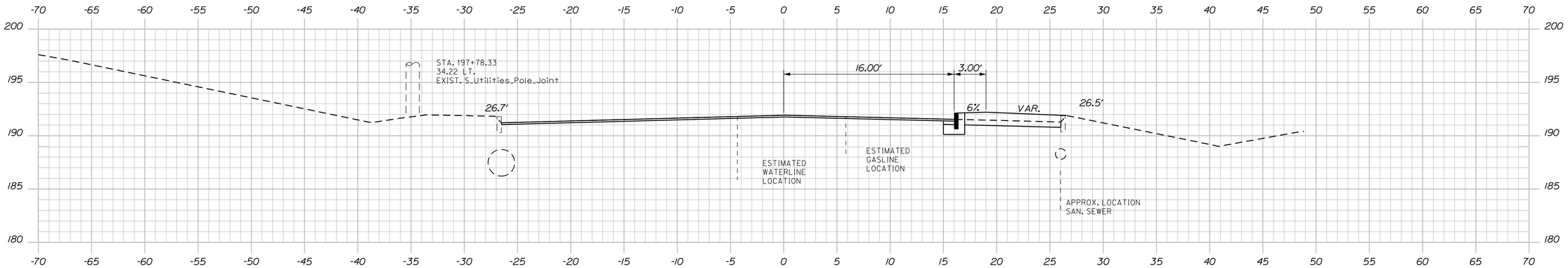
OF 55

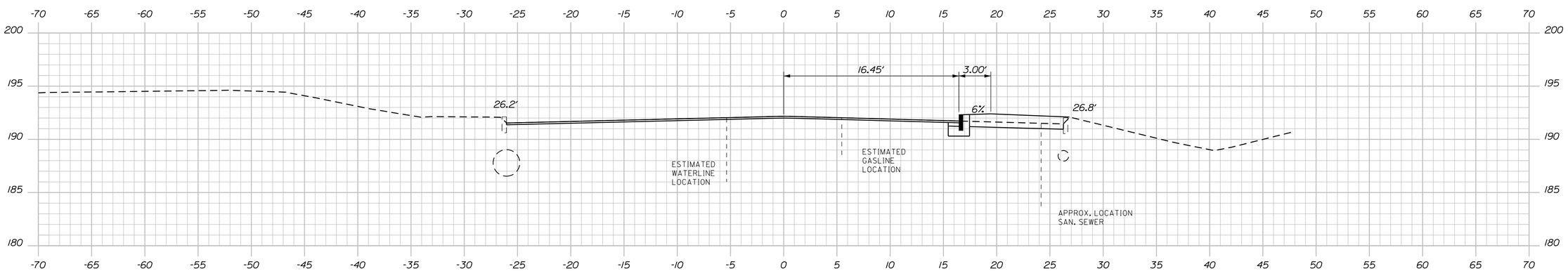
Filename: ...\MSTA\028_XSECT_196+50_006.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 196+50.00 to Sta. 196+70.57



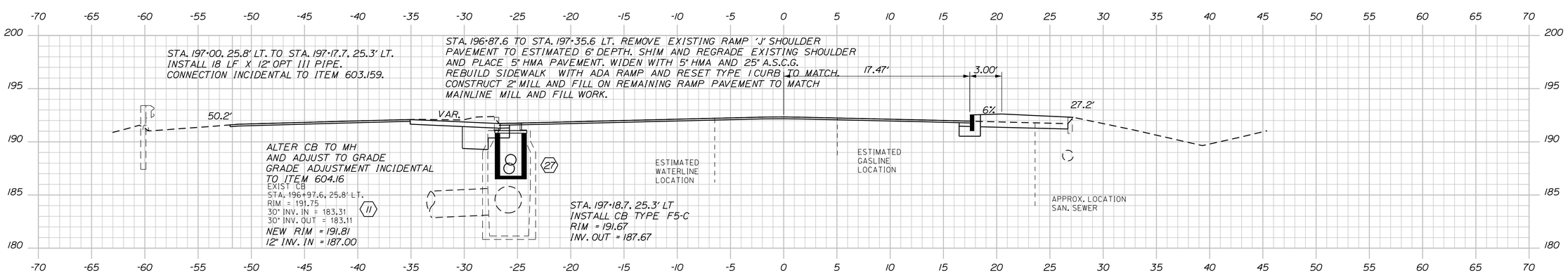
198+00.00

C = 21 CY
F = 22 CY



197+50.00

C = 21 CY
F = 21 CY



197+00.00

C = 19 CY
F = 17 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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LEWISTON
LISBON STREET

CROSS SECTIONS

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29
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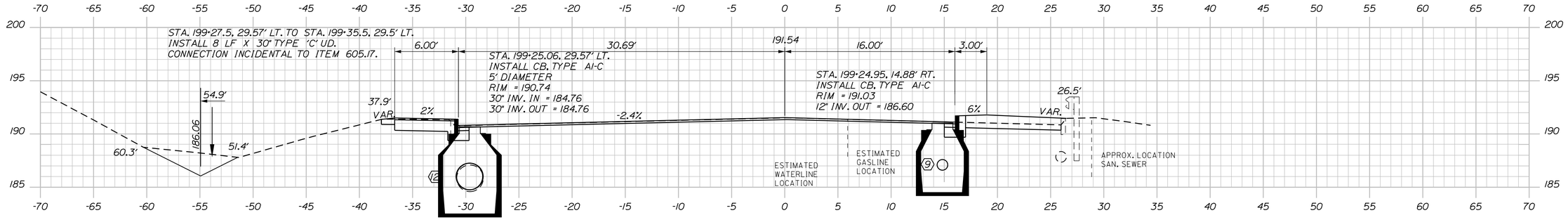
Sta. 197+00.00 to Sta. 198+00.00

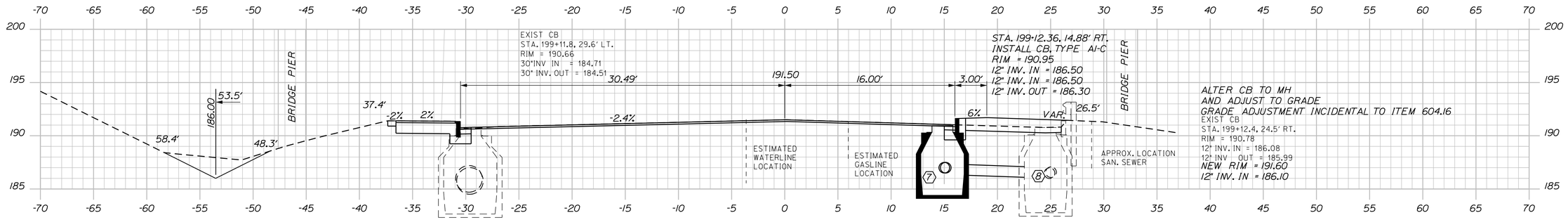
Filename: ...\MSTA\029_XSECT_197+00_001.dgn Division: HIGHWAY Username: common Date:2/18/2015



STA. 199+13.2, 29.58' LT. TO STA. 199+23.2, 29.57' LT.
INSTALL 10 LF X 30" TYPE 'C' UD.
CONNECTION INCIDENTAL TO ITEM 605.17.

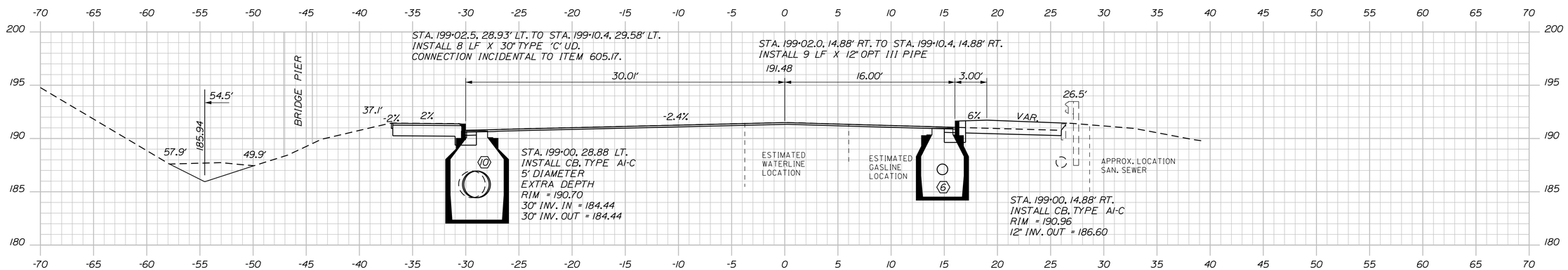
199+25.00

STA. 199+14.4, 14.88' RT. TO STA. 199+23.0, 14.88' RT.
INSTALL 9 LF X 12" OPT III PIPE



199+12.36

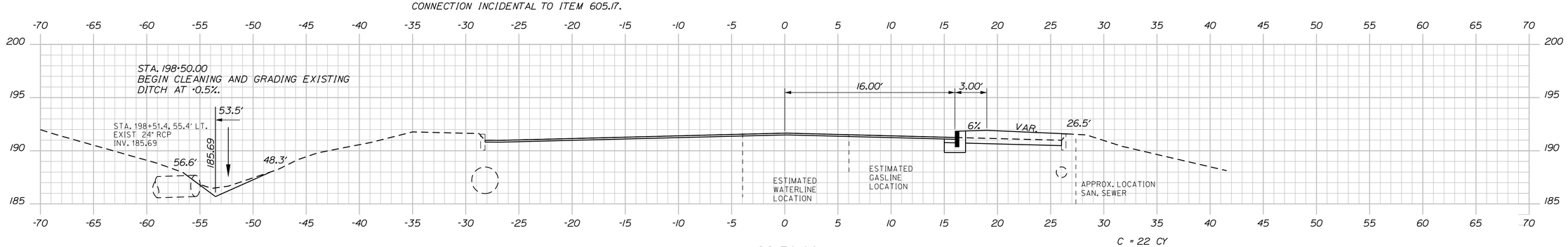
STA. 199+12.4, 16.88' RT. TO STA. 199+12.4, 22.5' RT.
INSTALL 6 LF X 12" OPT III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.



STA. 198+89.5, 28.6' LT. TO STA. 198+97.5, 28.93' LT.
INSTALL 8 LF X 30" TYPE 'C' UD.
CONNECTION INCIDENTAL TO ITEM 605.17.

199+00.00

C = 28 CY
F = 22 CY



198+50.00

C = 22 CY
F = 22 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON		BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
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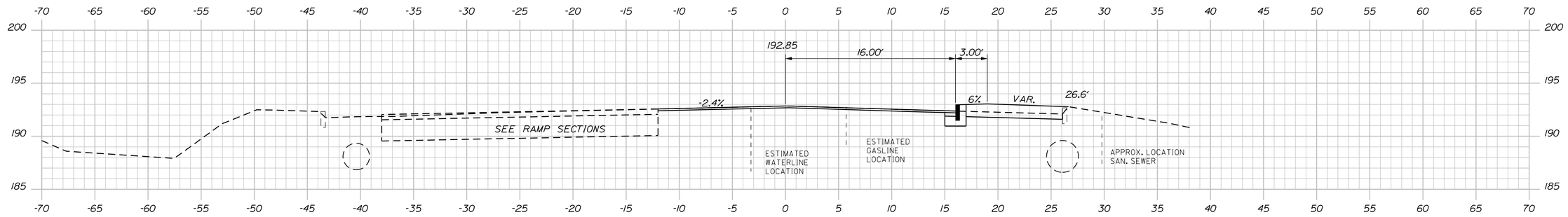
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
30
OF 55

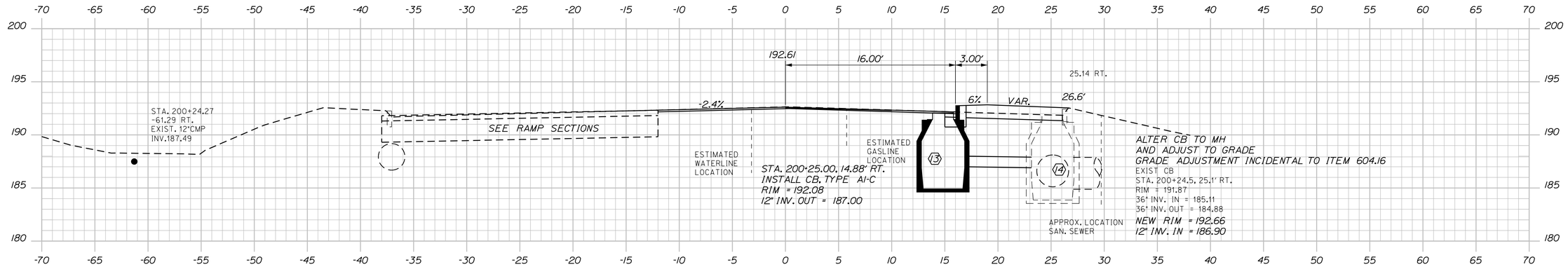
Filename: ...\MSTA\030_XSECT_198+50_002.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 198+50.00 to Sta. 199+12.36



200+50.00

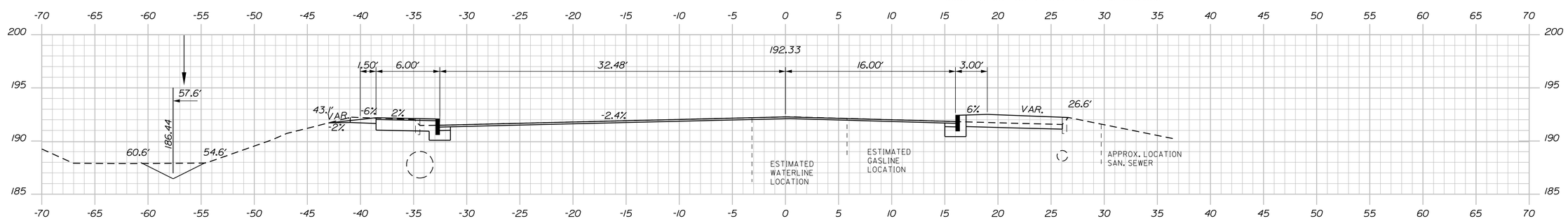
C = 21 CY
F = 23 CY



STA. 16+00.81 =
PT STA. 200+01.06, 12.0' LT.

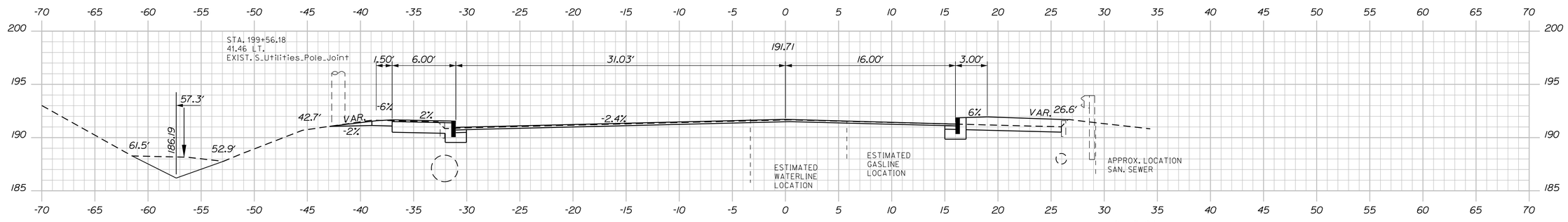
200+25.00

STA. 200+25.00, 16.88' RT. TO STA. 200+24.5, 23.1' RT.
INSTALL 7 LF X 12" OPT III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.



200+00.00

C = 49 CY
F = 25 CY



199+50.00

C = 51 CY
F = 24 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

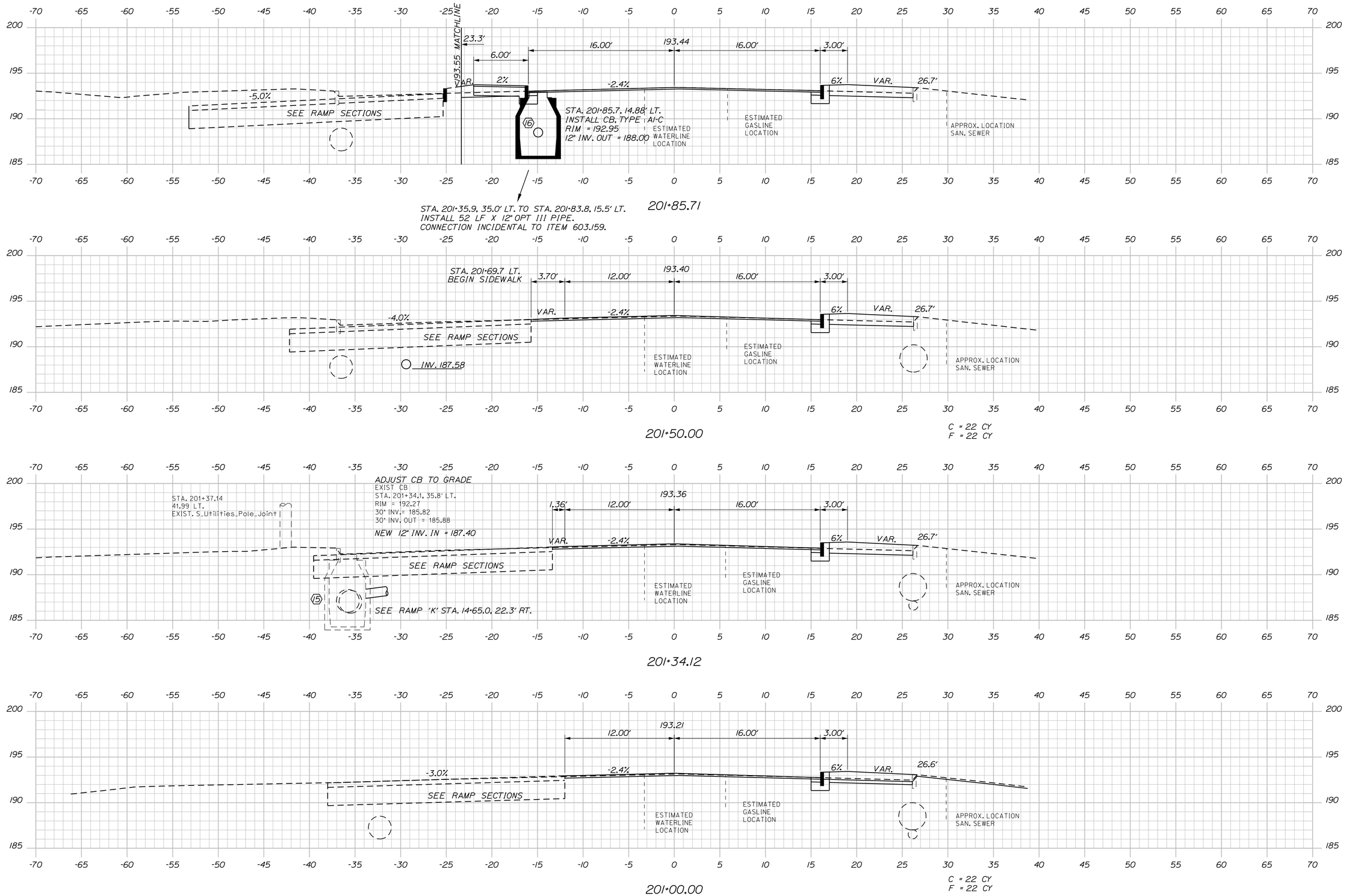
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
31
OF 55

Filename: ...\MSTA\031_XSECT_199+50_003.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 199+50.00 to Sta. 200+50.00



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON			
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
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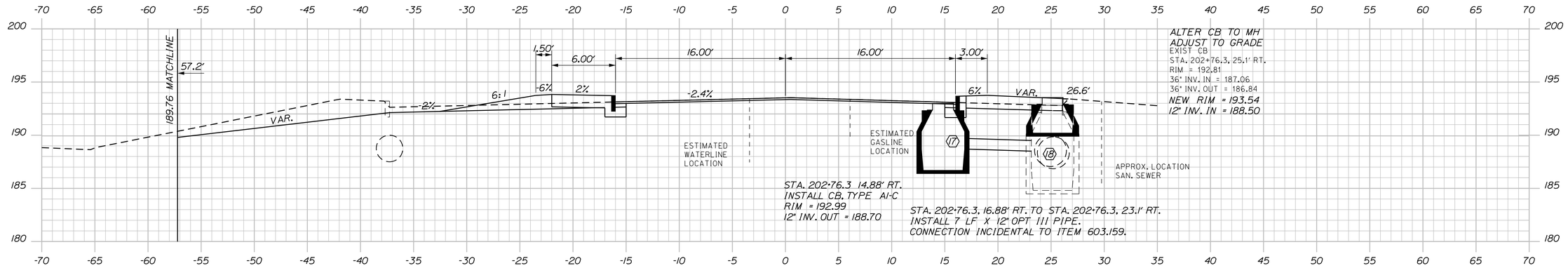
LEWISTON
LISBON STREET

CROSS SECTIONS

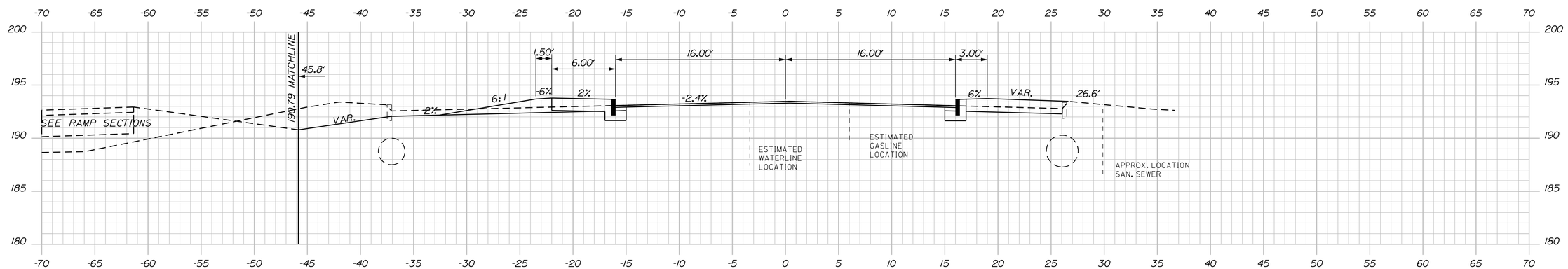
SHEET NUMBER
32
OF 55

Filename: ...\MSTA\032_XSECT_201+00_004.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 201+00.00 to Sta. 201+85.71

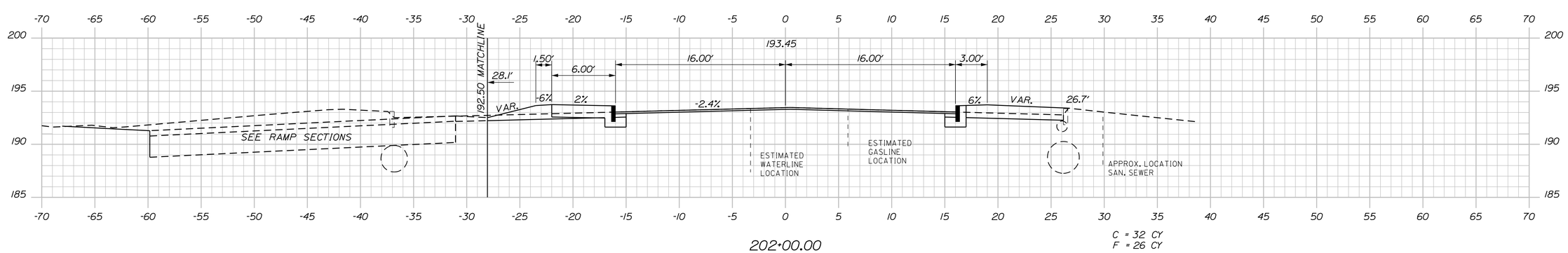


202+76.29



202+50.00

C = 63 CY
F = 37 CY



202+00.00

C = 32 CY
F = 26 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

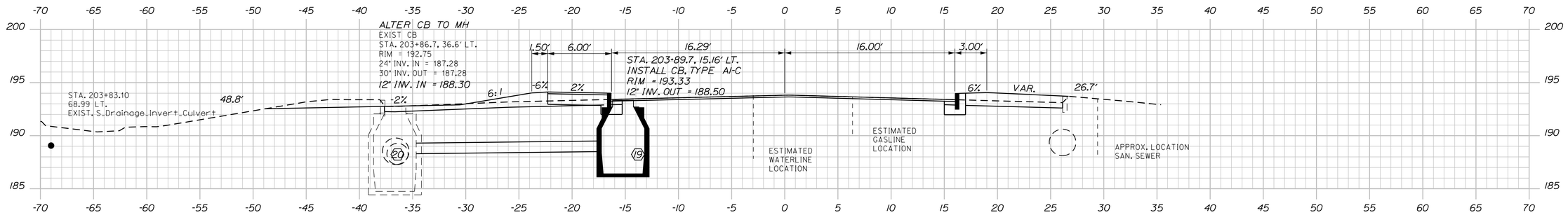
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
33
OF 55

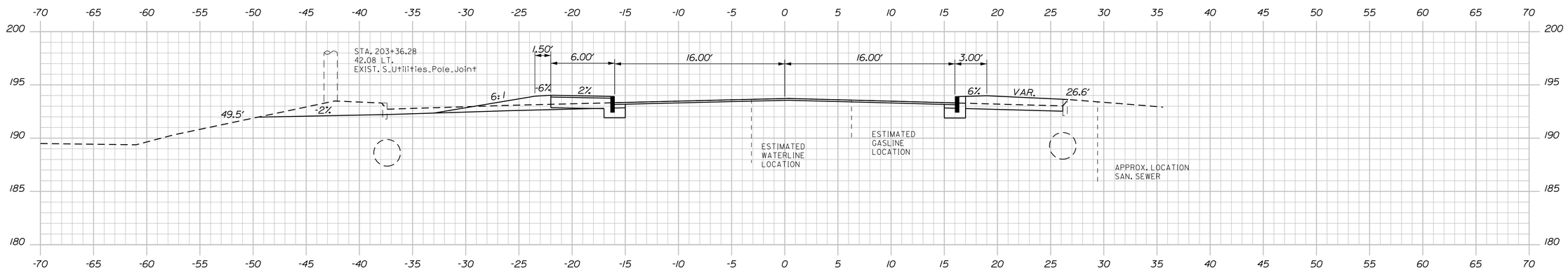
Filename: ...\MSTA\033_XSECT_202+00_005.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 202+00.00 to Sta. 202+76.29



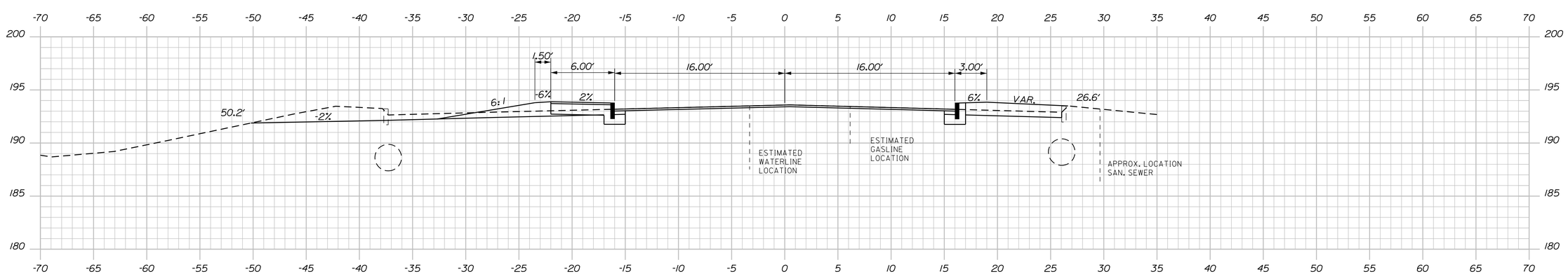
STA. 203+86.7, 17.16' LT. TO STA. 203+86.7, 34.6' LT.
INSTALL 18 LF X 12" OPT III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.

203+86.69



203+50.00

C = 97 CY
F = 39 CY



203+00.00

C = 113 CY
F = 39 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
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LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
34
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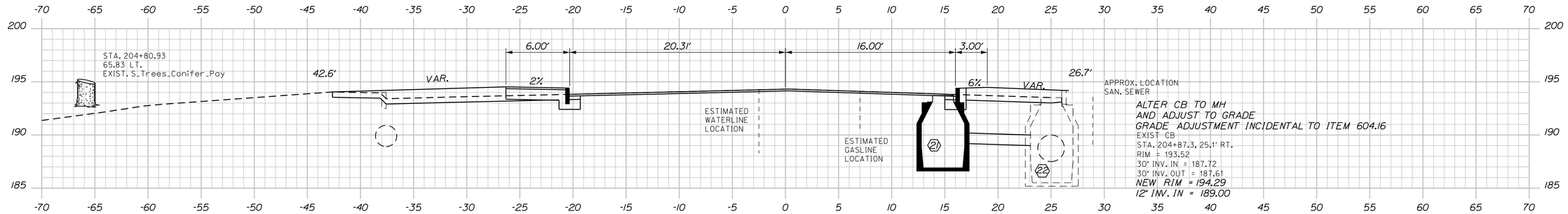
Sta. 203+00.00 to Sta. 203+86.69

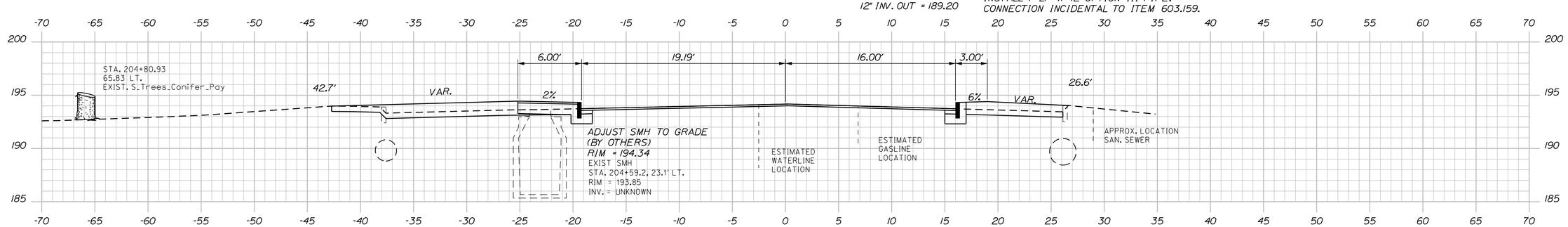
Filename: ...\MSTA\034_XSECT_203+00_006.dgn Division: HIGHWAY Username: common Date:2/18/2015



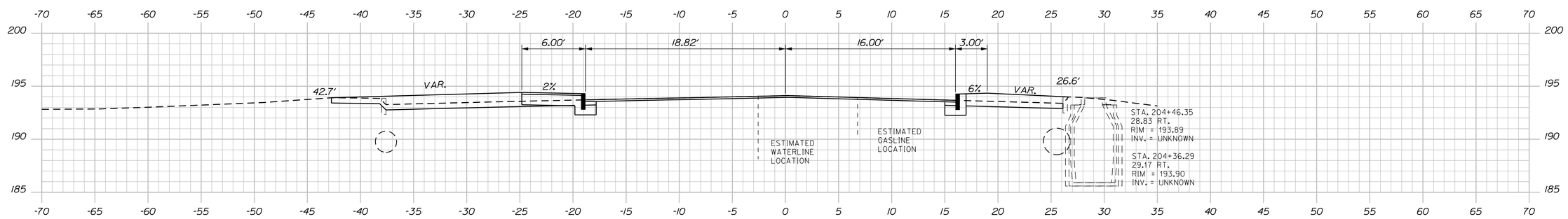
204+87.29

STA. 204+87.30, 14.88' RT.
INSTALL CB, TYPE AI-C
RIM = 193.73
12" INV. OUT = 189.20

STA. 204+87.3, 16.88' RT. TO STA. 204+87.3, 23.1' RT.
INSTALL 7 LF X 12" OPTION III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.

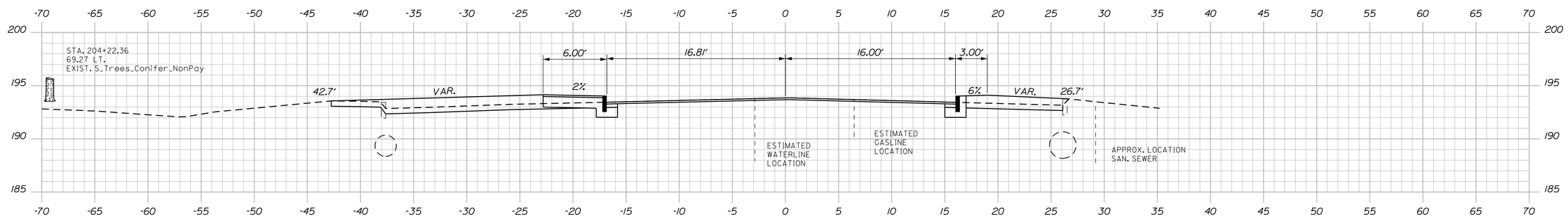


204+59.24



204+50.00

C = 64 CY
F = 65 CY



204+00.00

C = 69 CY
F = 44 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG	ALG	2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

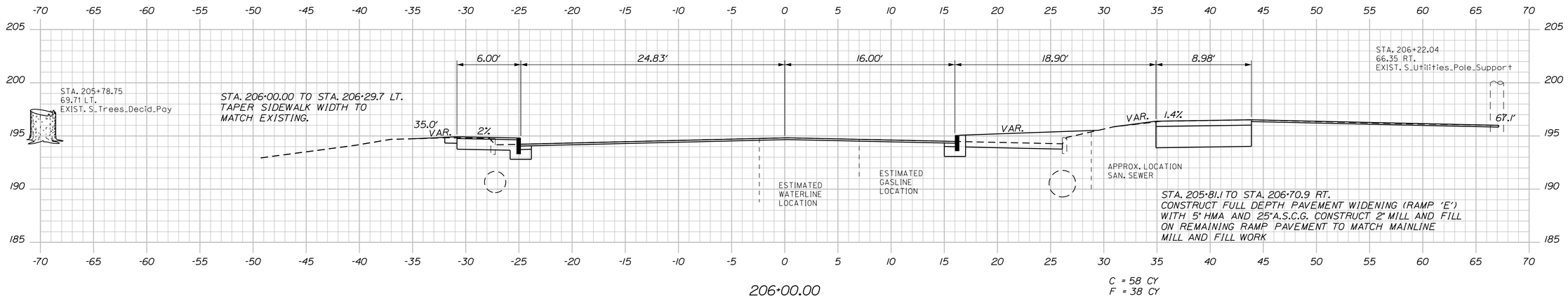
LEWISTON
LISBON STREET

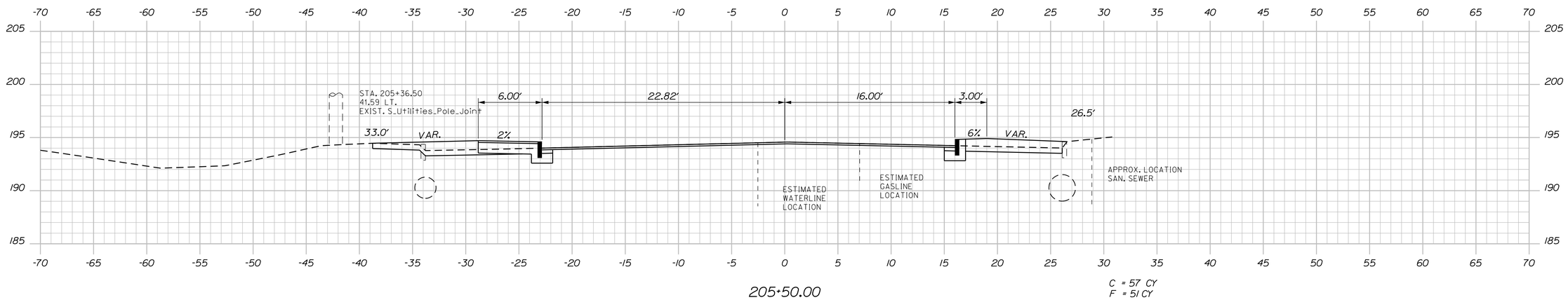
CROSS SECTIONS

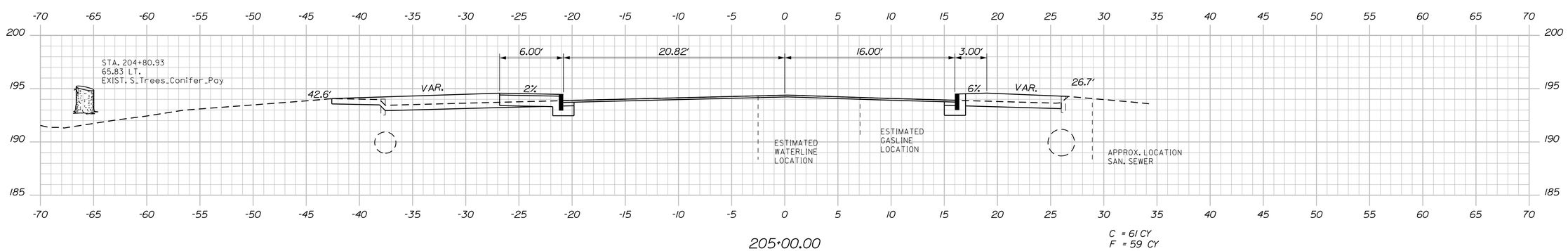
SHEET NUMBER
35
OF 55

Sta. 204+00.00 to Sta. 204+87.29

Filename: ...\MSTA\035_XSECT_204+00_007.dgn Division: HIGHWAY Username: common Date:2/18/2015







STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER RHOBE MOULTON			
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
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DATE

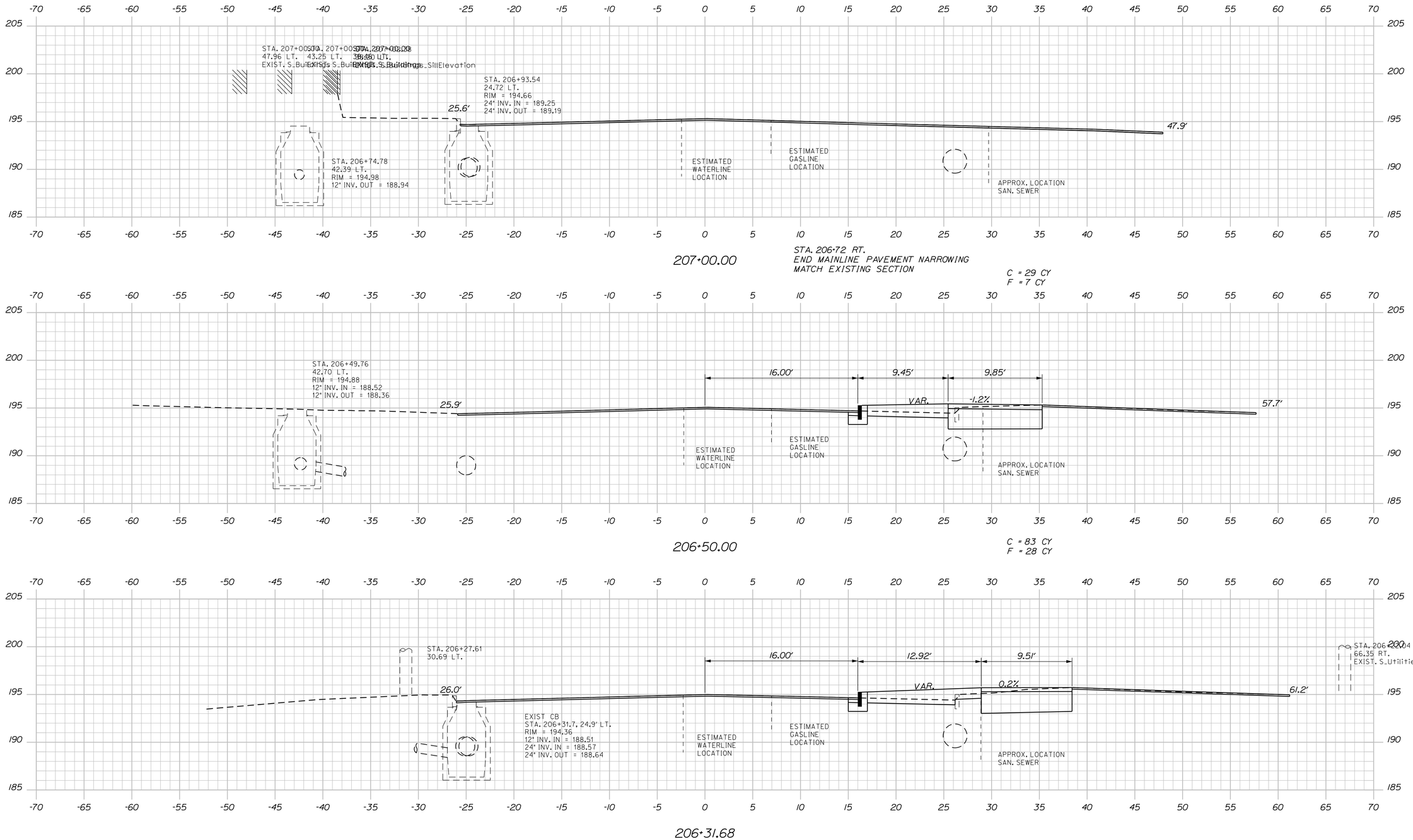
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
36
OF 55

Sta. 205+00.00 to Sta. 206+00.00

Filename: ...\MSTA\036_XSECT_205-00_008.dgn Division: HIGHWAY Username: common Date:2/18/2015



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
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DATE

LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
37
OF 55

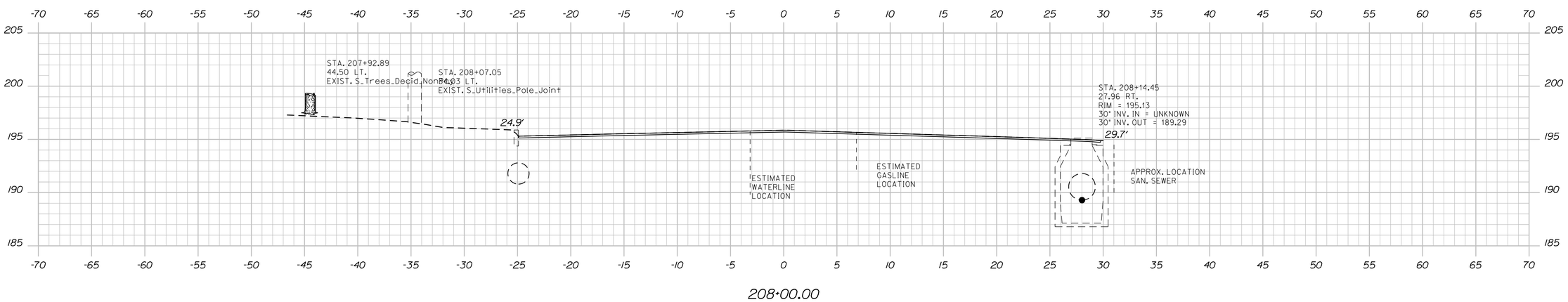
Sta. 206+31.68 to Sta. 207+00.00

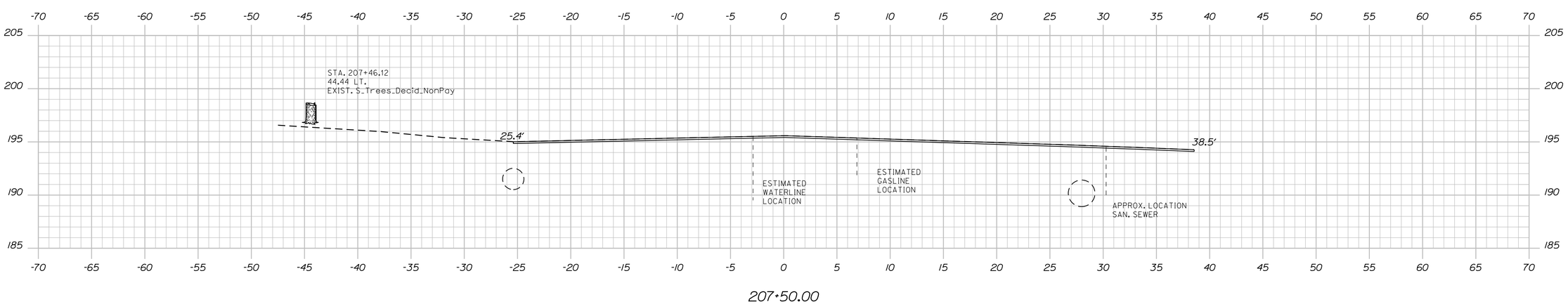
Filename: ...\MSTA\037_XSECT_206+31_009.dgn Division: HIGHWAY Username: common Date:2/18/2015

NOTE:

ONLY MILL AND FILL AND PAVEMENT MARKINGS ARE REQUIRED BETWEEN STA. 208+00 AND STA. 210+59. CROSS-SECTIONS HAVE BEEN OMITTED INTENTIONALLY.

STA. 208+05.8 RT.
END RAMP 2" MILL AND FILL
MATCH MAINLINE





STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER	RHOBE MOULTON	BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
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DATE

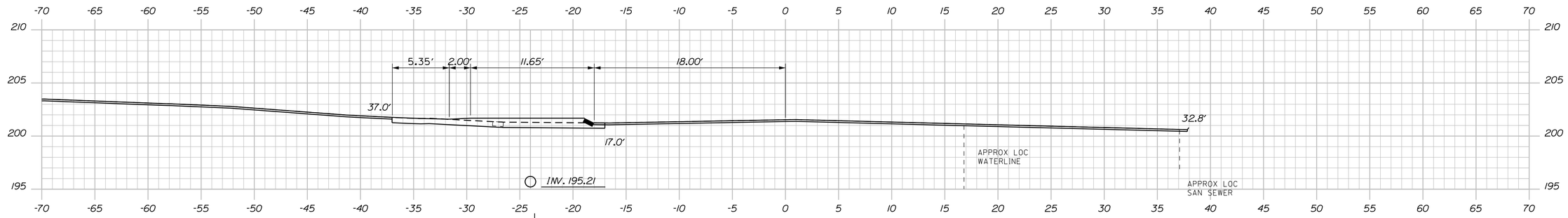
LEWISTON
LISBON STREET

CROSS SECTIONS

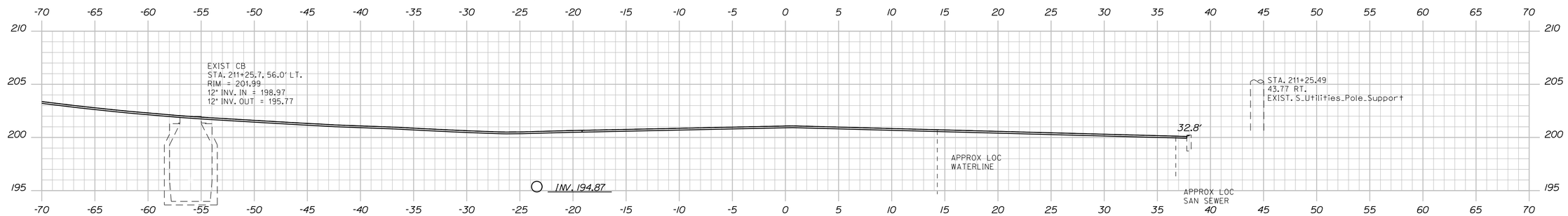
SHEET NUMBER
38
OF 55

Sta. 207+50.00 to Sta. 208+00.00

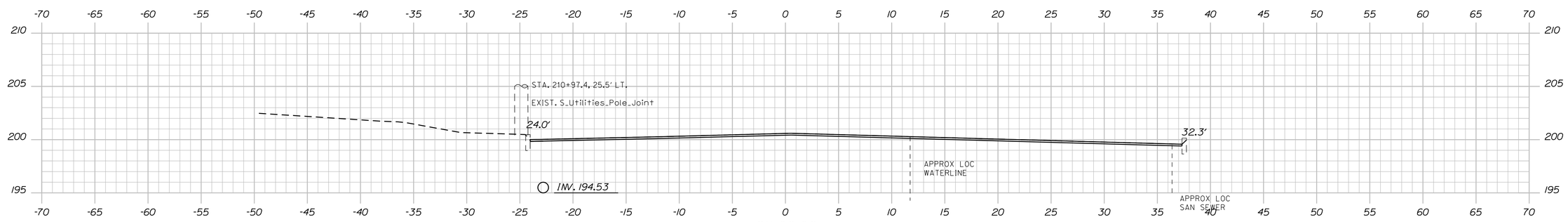
Filename: ...\MSTA\038_XSECT_207+50_010.dgn Division: HIGHWAY Username: common Date:2/18/2015



211+50.00

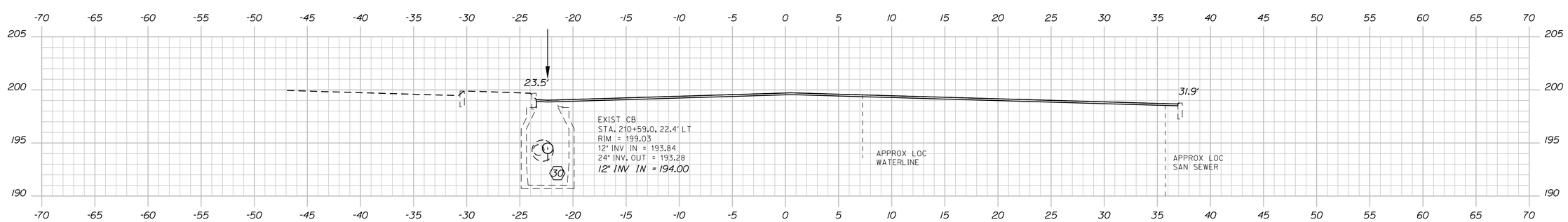


211+25.00



211+00.00

STA. 210+61.0, 22.5' LT. TO STA. 212+00.8, 25.7' LT
INSTALL 141 LF X 12" OPT III PIPE.



210+59.00

Sta. 210+59.00 to Sta. 211+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

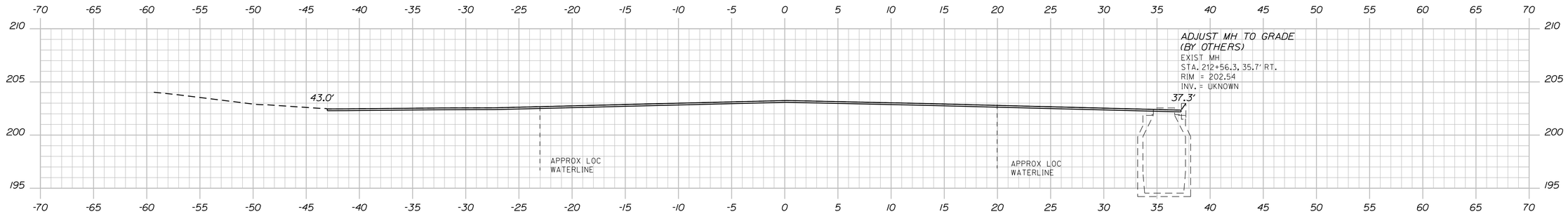
SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

LEWISTON
LISBON STREET

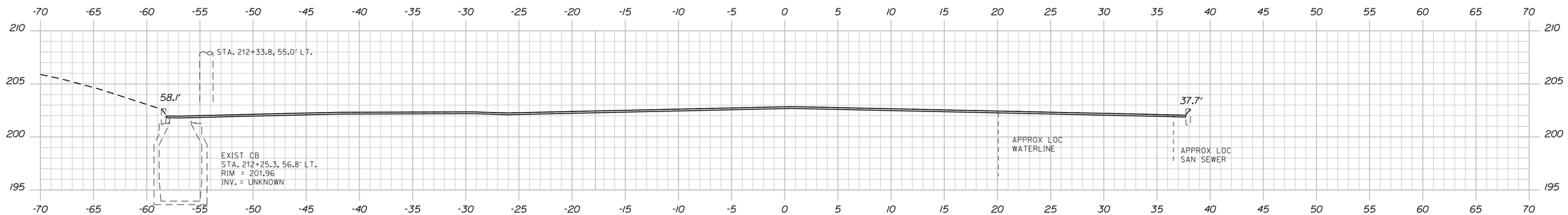
CROSS SECTIONS

SHEET NUMBER
39
OF 55

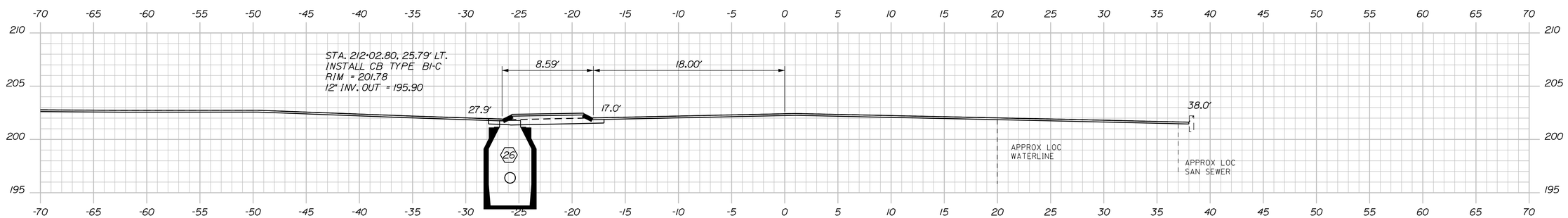
Filename: ...\MSTA\039_XSECT_210+59_001.dgn Division: HIGHWAY Username: common Date:2/18/2015



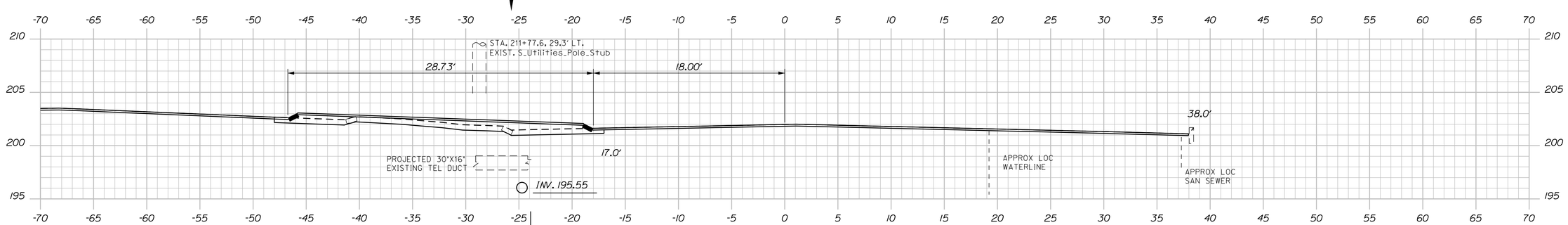
212+50.00



212+25.00



212+00.00



211+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
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DATE

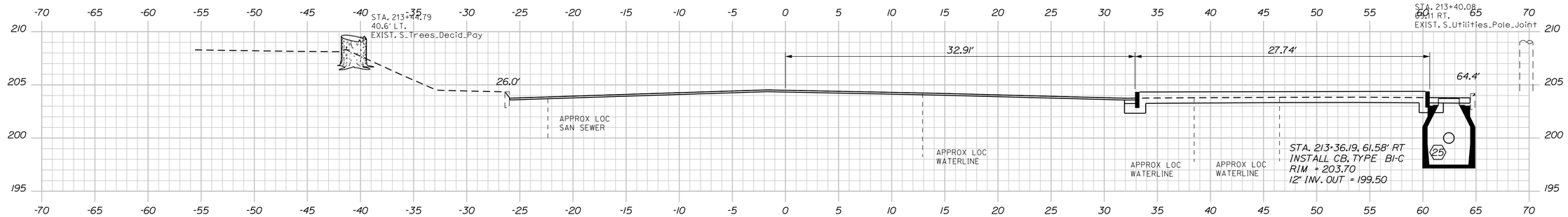
LEWISTON
LISBON STREET

CROSS SECTIONS

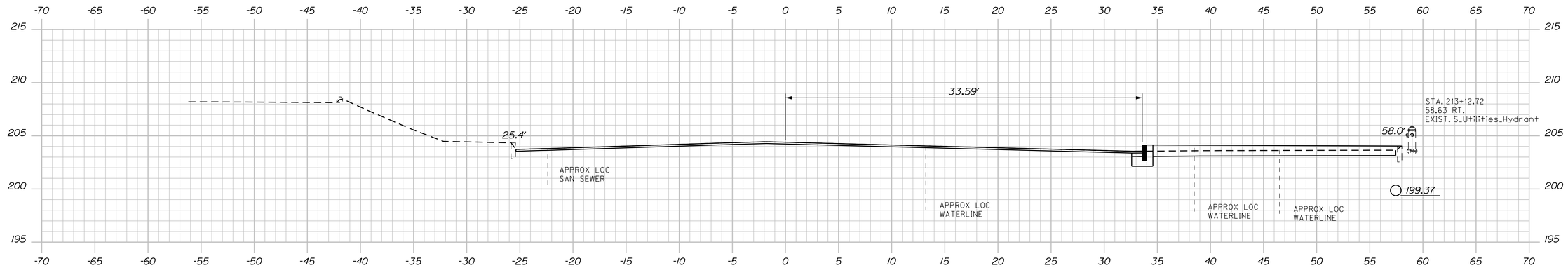
SHEET NUMBER
40
OF 55

Sta. 211+75.00 to Sta. 212+50.00

Filename: ...\MSTA\040_XSECT_211+75_002.dgn Division: HIGHWAY Username: common Date:2/18/2015

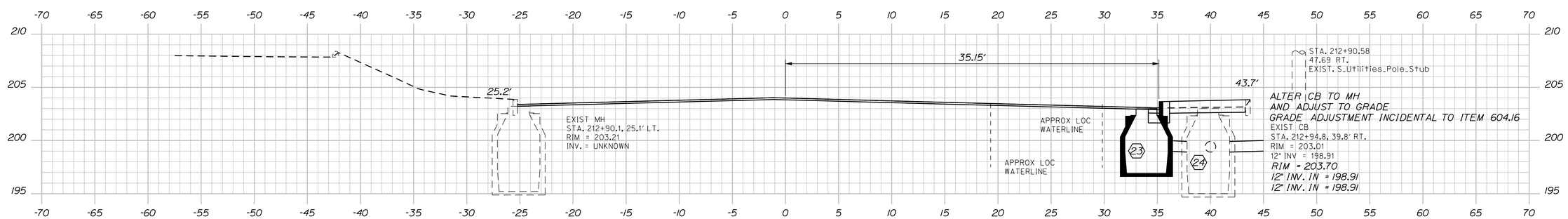


213+35.00



213+25.00

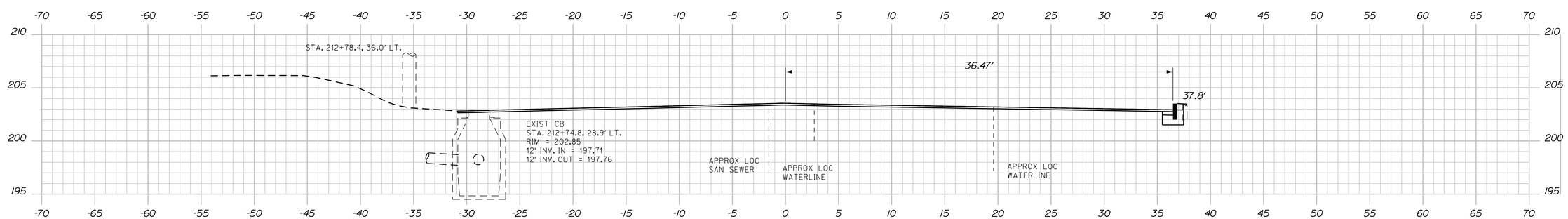
STA. 212+96.7, 40.5' RT. TO STA. 213+34.4, 60.4' RT.
INSTALL 42 LF X 12" OPTION III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.



213+00.00

STA. 213+00.00, 34.02' RT
INSTALL CB, TYPE AI-C
RIM = 202.98
12" INV. OUT = 199.0

STA. 212+96.2, 38.30' RT. TO STA. 212+98.64, 35.73' RT.
INSTALL 4 LF X 12" OPTION III PIPE.
CONNECTION INCIDENTAL TO ITEM 603.159.



212+75.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
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DATE

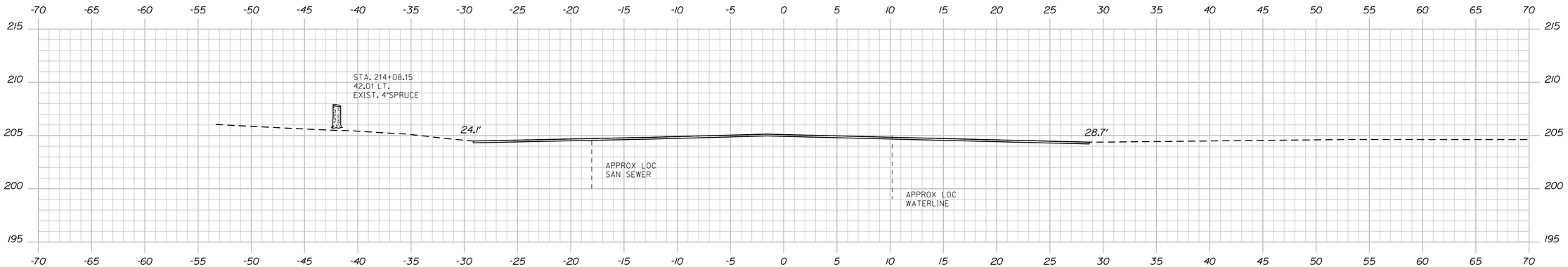
LEWISTON
LISBON STREET

CROSS SECTIONS

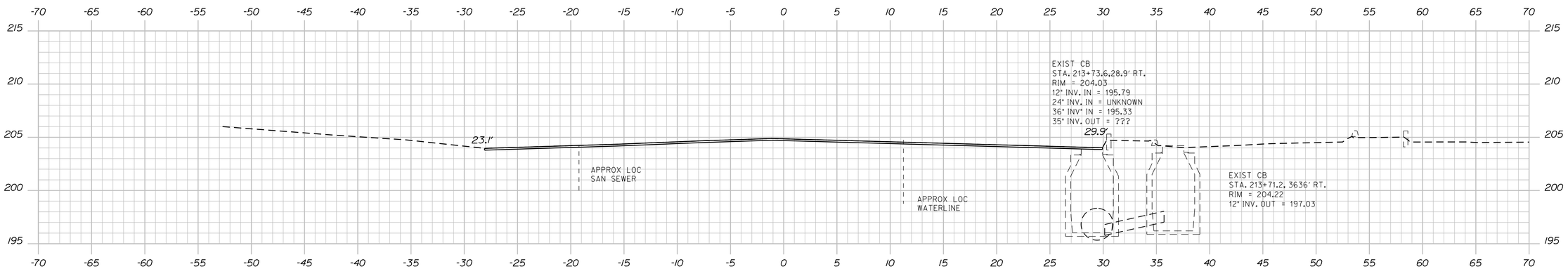
SHEET NUMBER
41
OF 55

Sta. 212+75.00 to Sta. 213+35.00

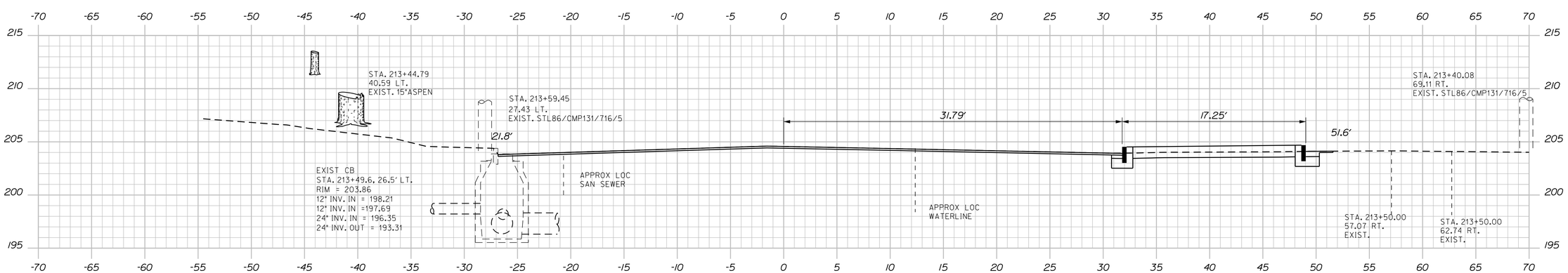
Filename: ...\MSTA\041_XSECT_212-75_003.dgn Division: HIGHWAY Username: common Date:2/18/2015



214+00.00



213+75.00



213+50.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

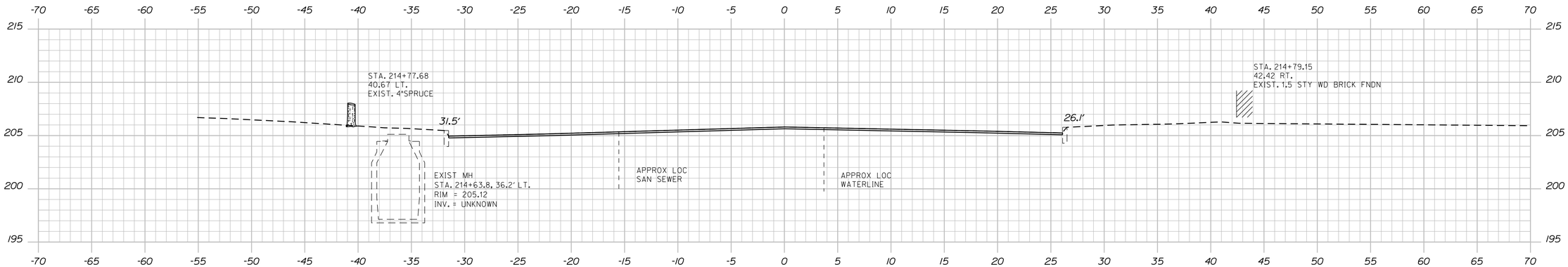
LEWISTON
LISBON STREET

CROSS SECTIONS

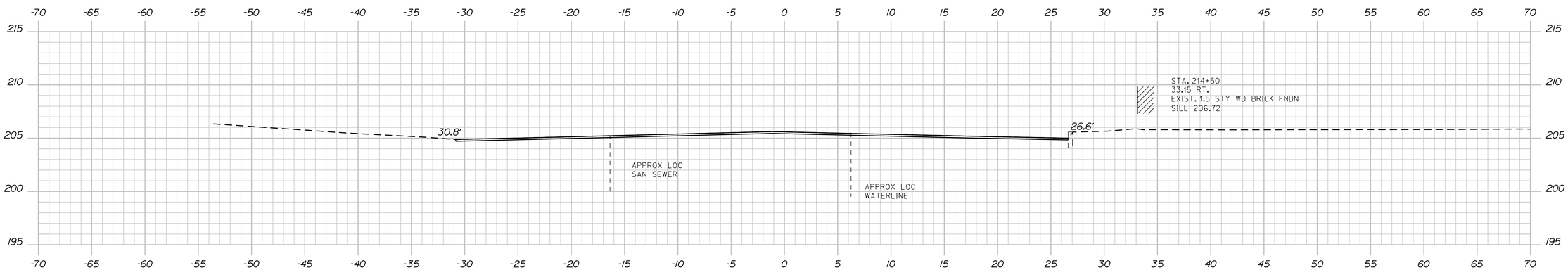
SHEET NUMBER
42
OF 55

Sta. 213+50.00 to Sta. 214+00.00

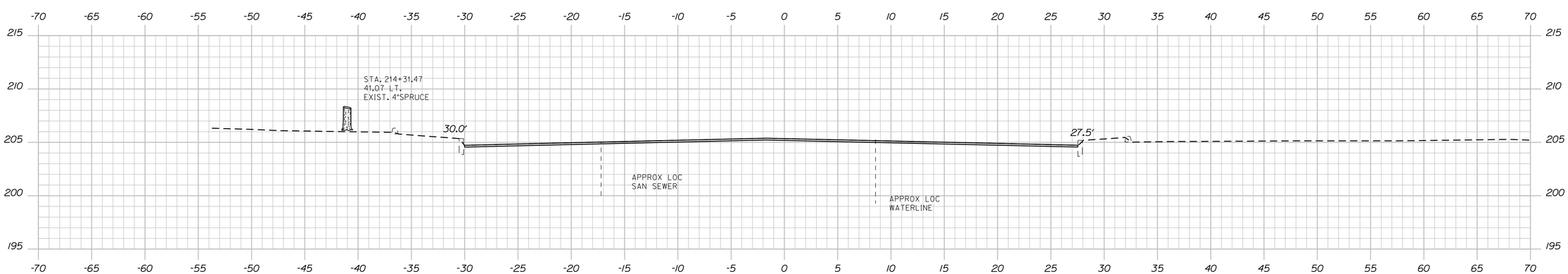
Filename: ...\MSTA\042_XSECT_213+50_004.dgn Division: HIGHWAY Username: common Date:2/18/2015



214+75.00



214+50.00



214+25.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON			
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

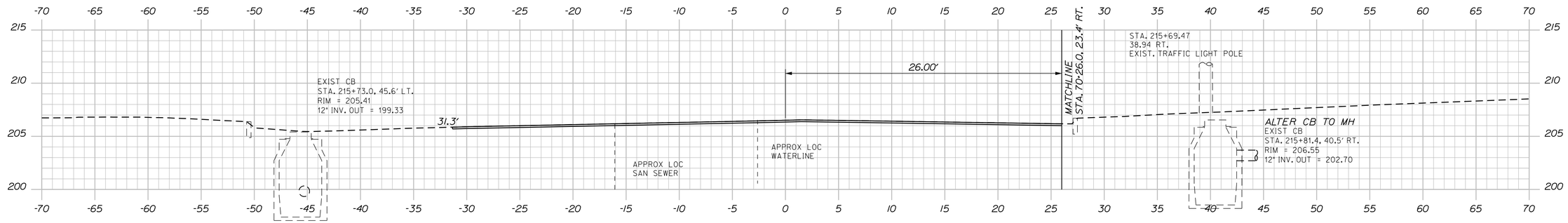
LEWISTON
LISBON STREET

CROSS SECTIONS

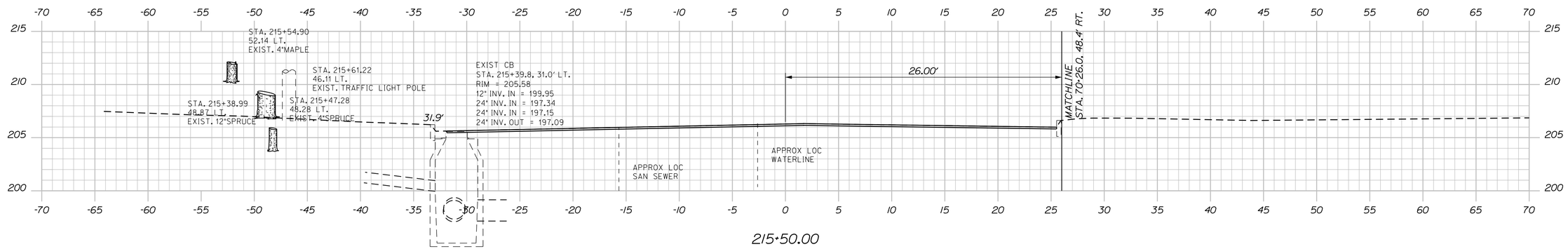
SHEET NUMBER
43
OF 55

Sta. 214+25.00 to Sta. 214+75.00

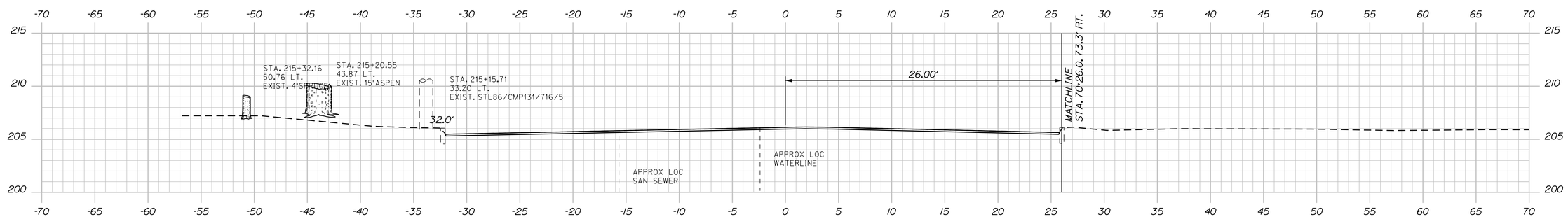
Filename: ...\MSTA\043_XSECT_214+25_005.dgn Division: HIGHWAY Username: common Date:2/18/2015



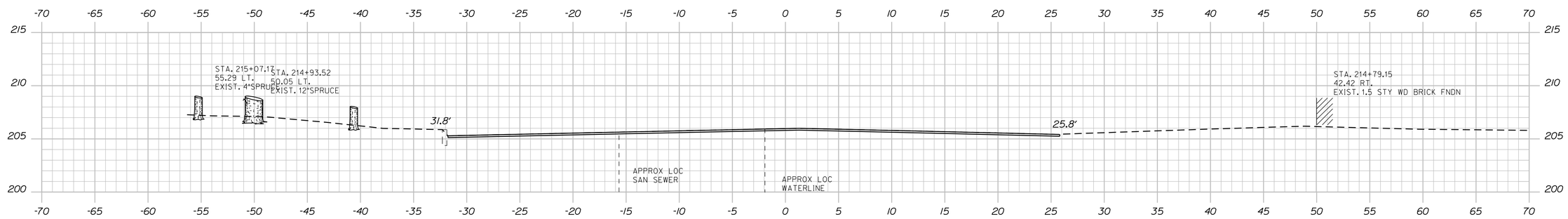
215+75.00



215+50.00



215+25.00



215+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
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DATE

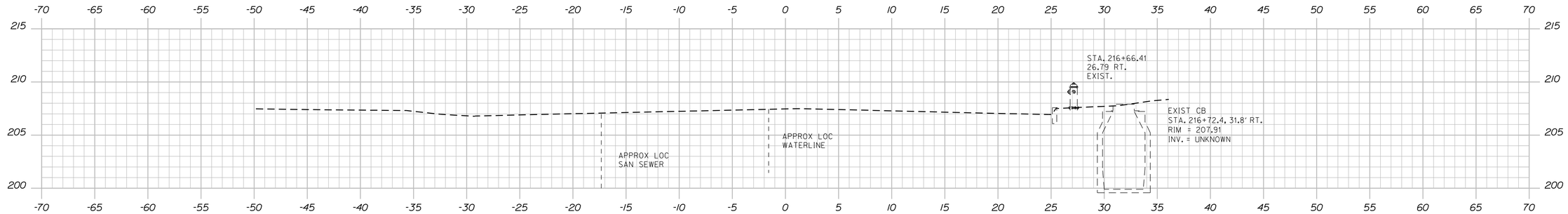
LEWISTON
LISBON STREET

CROSS SECTIONS

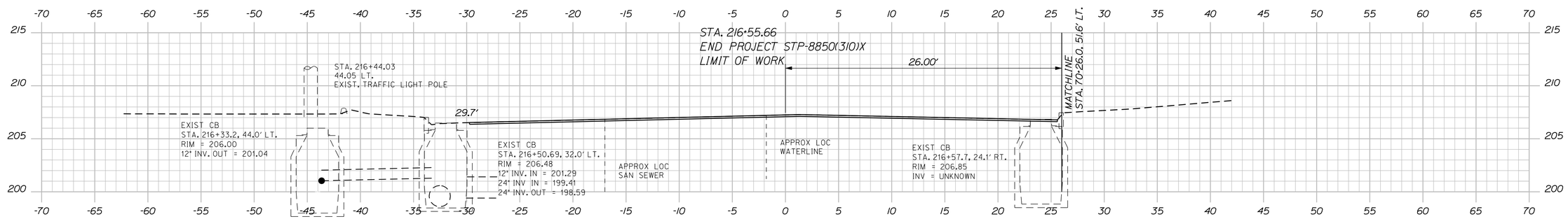
SHEET NUMBER
44
OF 55

Sta. 215+00.00 to Sta. 215+75.00

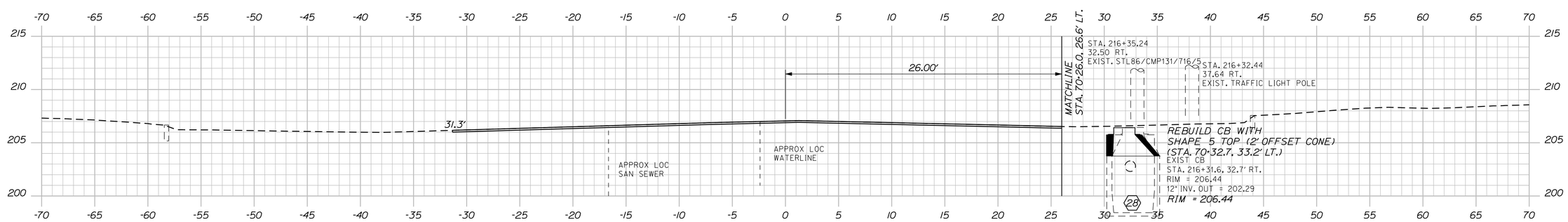
Filename: ...\MSTA\044_XSECT_215+00_006.dgn Division: HIGHWAY Username: common Date:2/18/2015



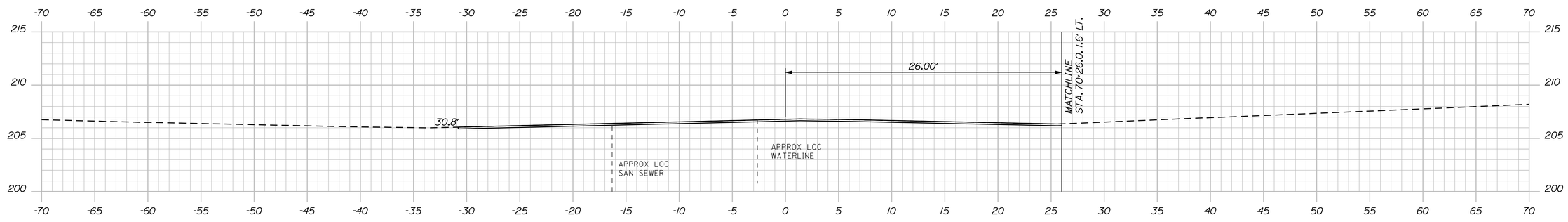
216+75.00



216+50.00



216+25.00



216+00.00

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN
8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON	BY	DATE
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG		2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

SIGNATURE
7960
P.E. NUMBER
FEBRUARY 18, 2015
DATE

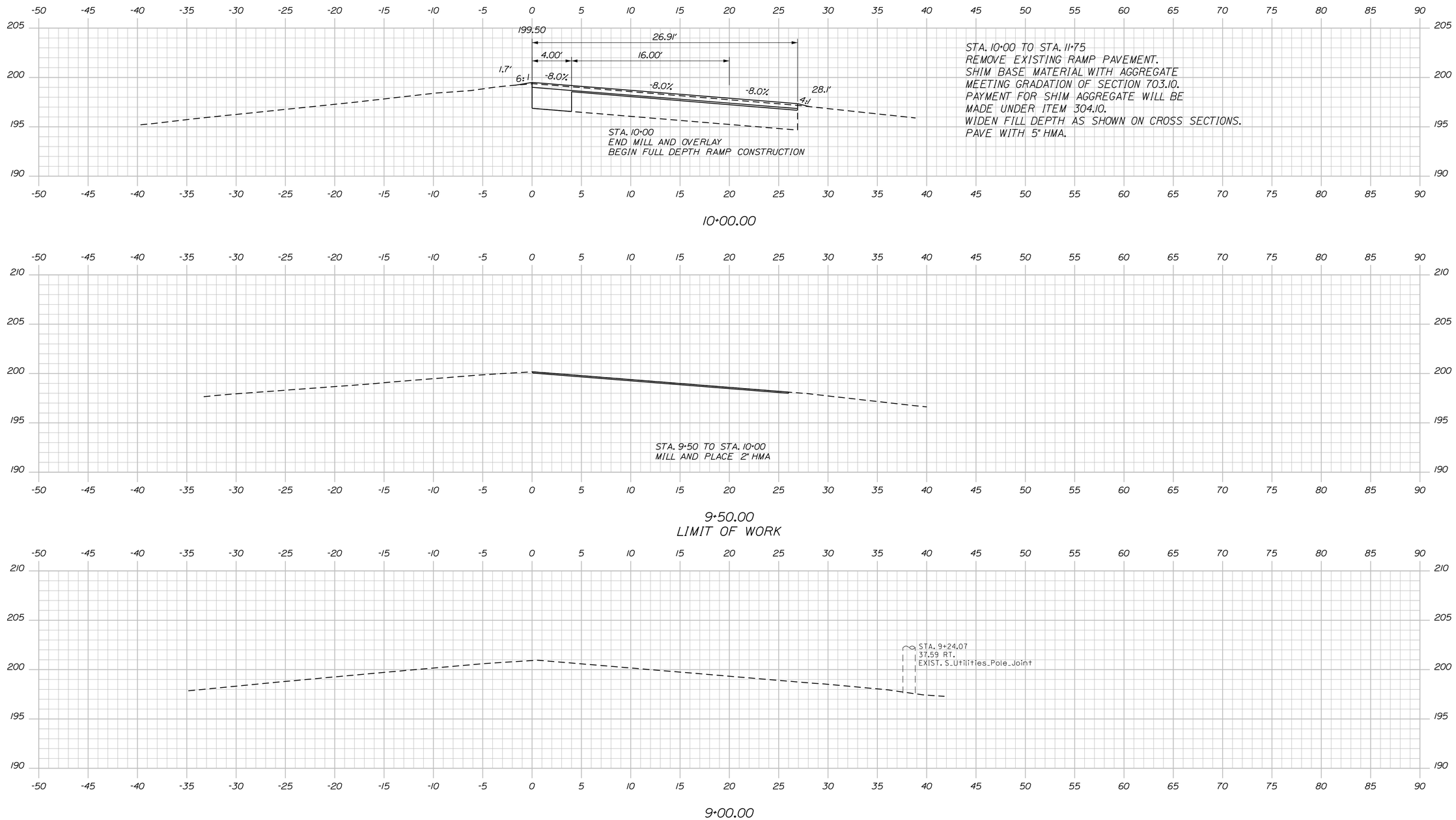
LEWISTON
LISBON STREET

CROSS SECTIONS

SHEET NUMBER
45
OF 55

Sta. 216+00.00 to Sta. 216+75.00

Filename: ...\MSTA\045_XSECT_216+00_007.dgn Division: HIGHWAY Username: morin Date:3/2/2015



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

STP-8850(310)X

WIN 8850.31

HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON		BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE

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LEWISTON
RAMP 'K'

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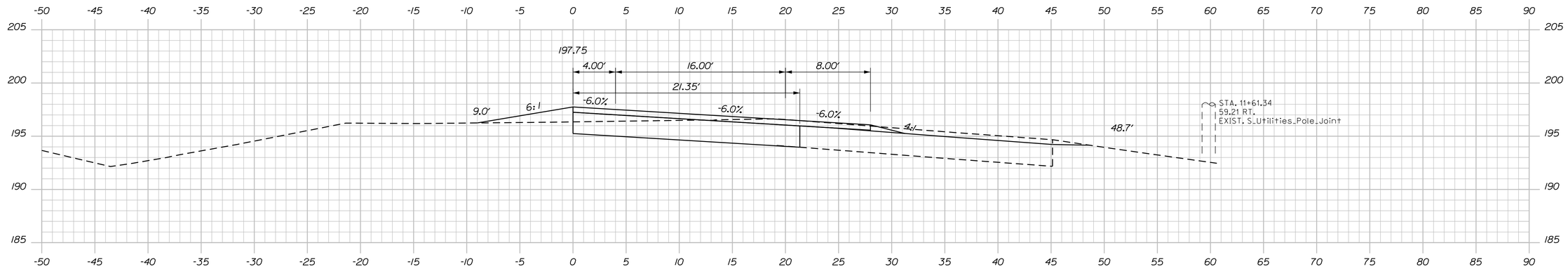
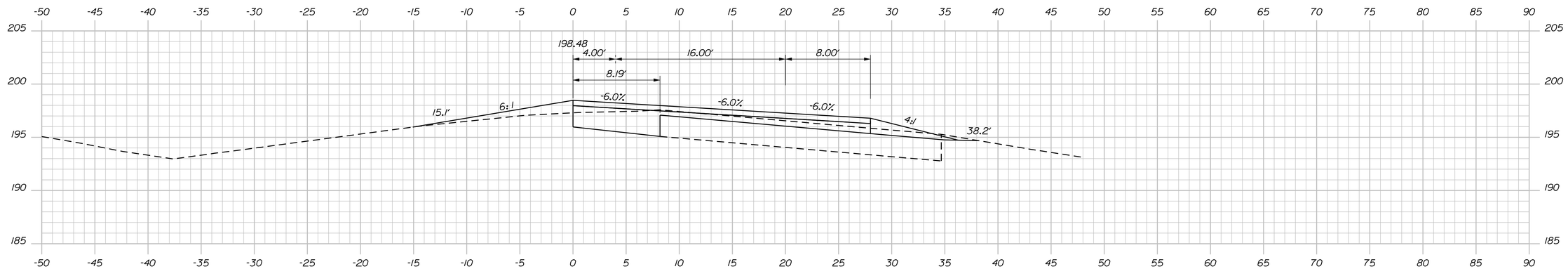
Filename: ...\MSTA\046_XSECT_9+00_001.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 9+00.00 to Sta. 10+00.00



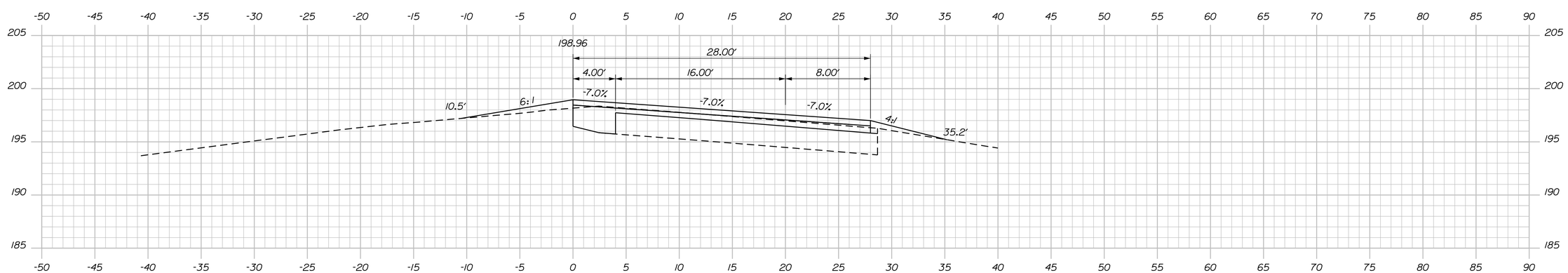
11+50.00

C = 75 CY
F = 19 CY



11+00.00

C = 48 CY
F = 19 CY



10+50.00

C = 40 CY
F = 6 CY

STATE OF MAINE
DEPARTMENT OF TRANSPORTATION

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HIGHWAY PLANS

		BY	DATE
PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

SIGNATURE
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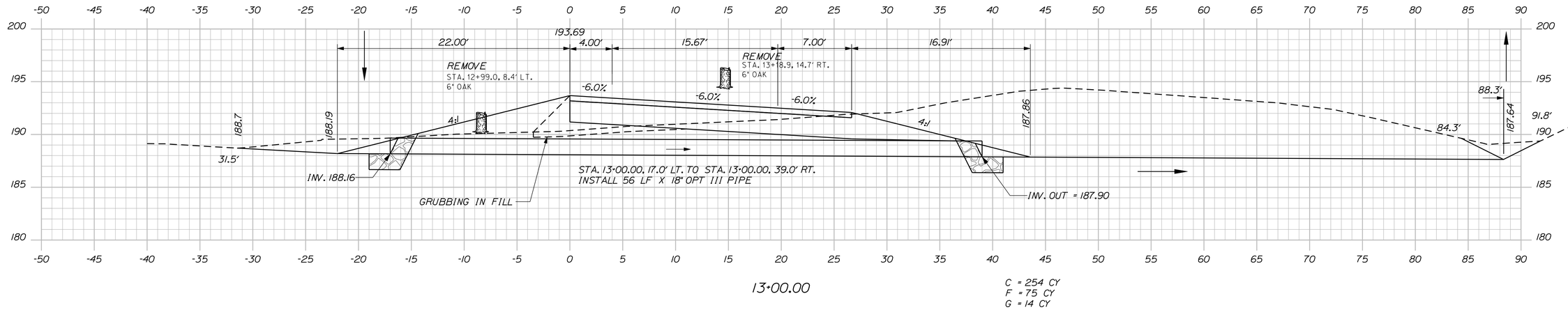
47
OF 55

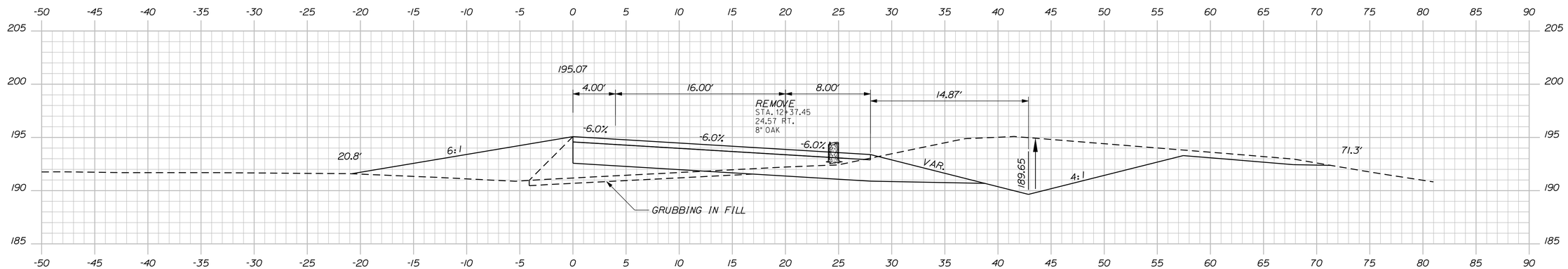
Sta. 10+50.00 to Sta. 11+50.00

Filename: ...\MSTA\047_XSECT_10-50_002.dgn Division: HIGHWAY Username: common Date:2/18/2015



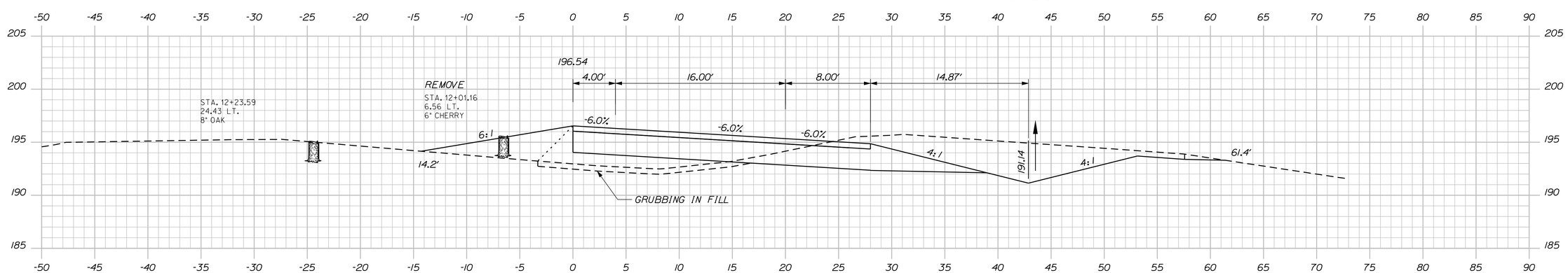
13+00.00

C = 254 CY
F = 75 CY
G = 14 CY



12+50.00

C = 199 CY
F = 139 CY
G = 18 CY



12+00.00

C = 137 CY
F = 97 CY
G = 9 CY

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PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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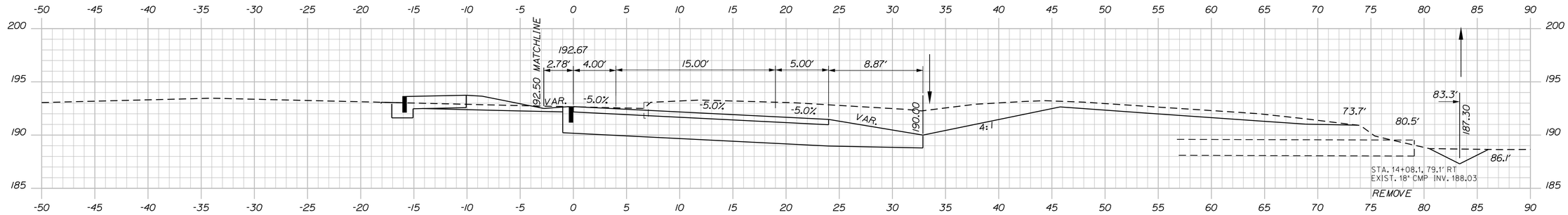
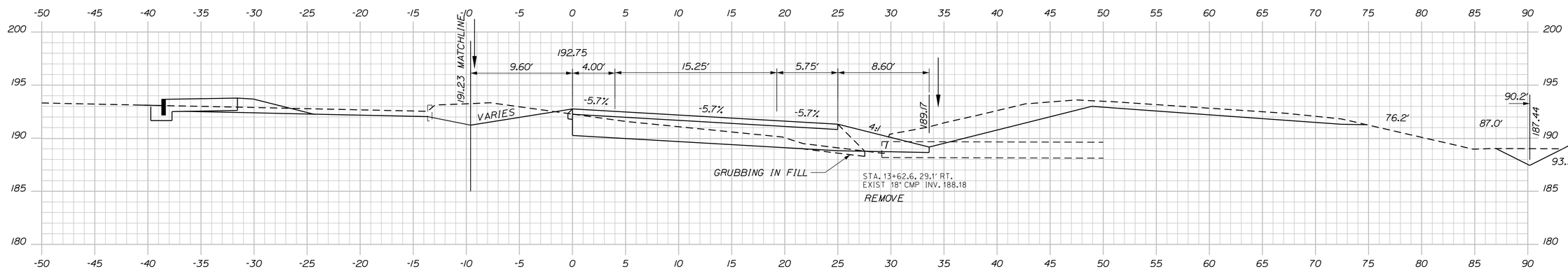
Sta. 12+00.00 to Sta. 13+00.00

Filename: ...\MSTA\048_XSECT_12+00_003.dgn Division: HIGHWAY Username: morin Date:3/2/2015

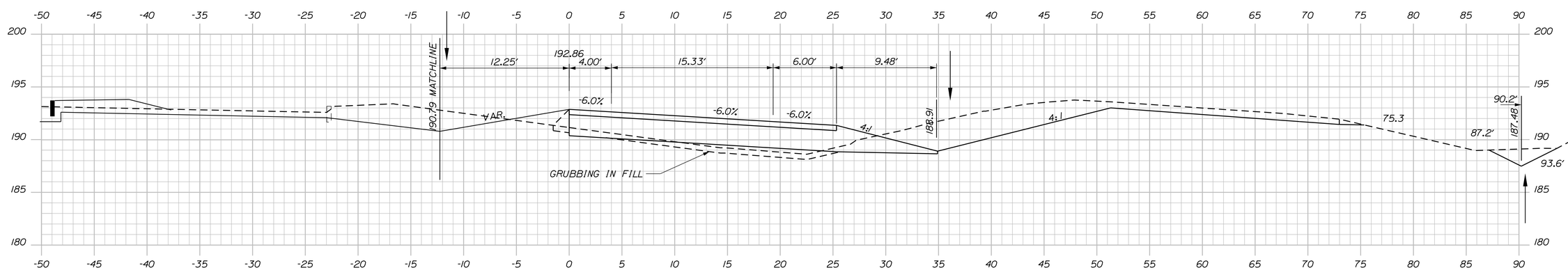


14+00.00

C = 162 CY
F = 2 CY
G = 4 CY



13+62.61



13+50.00

C = 235 CY
F = 34 CY
G = 15 CY

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HIGHWAY PLANS

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DESIGN-DETAILED	JLE	2-15
CHECKED-REVIEWED	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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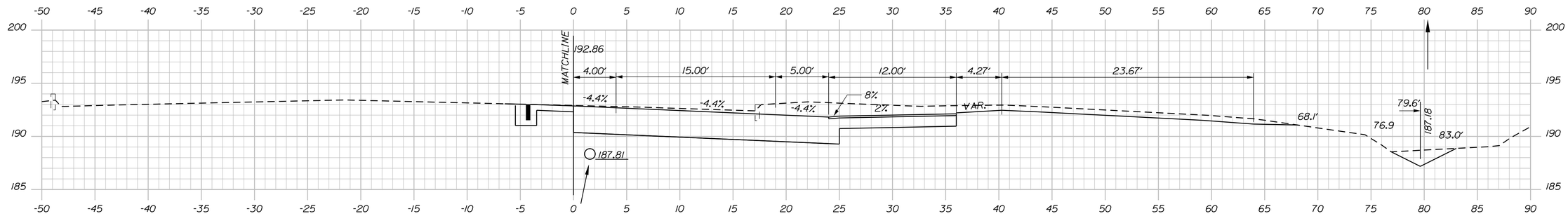
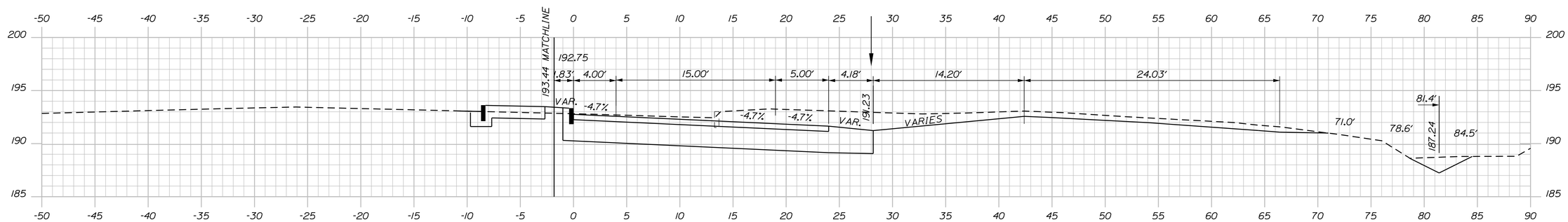
Filename: ...\MSTA\049_XSECT_13+50_004.dgn Division: HIGHWAY Username: common Date:2/18/2015

Sta. 13+50.00 to Sta. 14+00.00



14+31.39



14+18.00

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HIGHWAY PLANS

PROJ. MANAGER RHOBE MOULTON		BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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50
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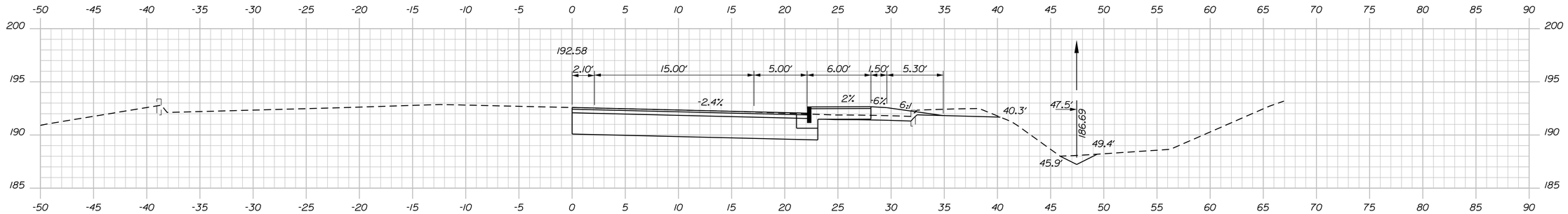
Filename: ...\MSTA\050_XSECT_14+18_005.dgn Division: HIGHWAY Username: common Date:2/18/2015

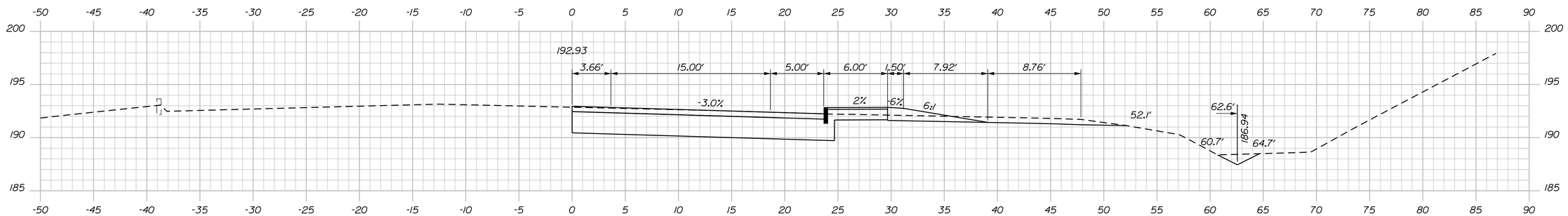
Sta. 14+18.00to Sta. 14+31.39

STA. 15+50
END FULL DEPTH RAMP CONSTRUCTION
MATCH MAINLINE 2" MILL AND FILL



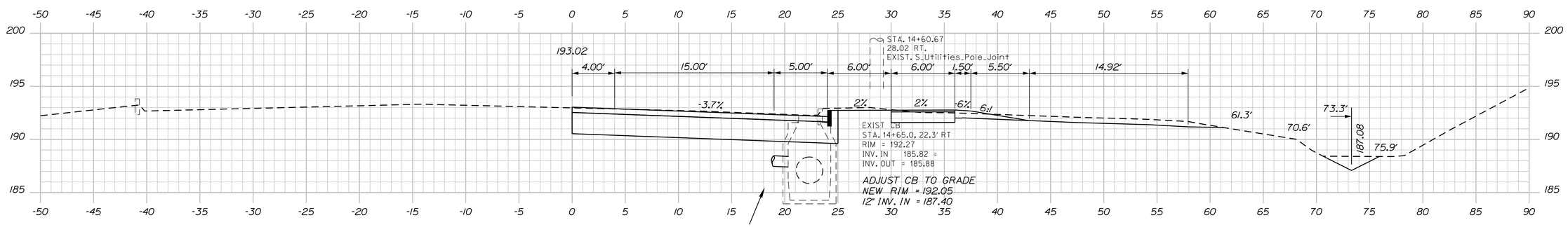
15+50.00

C = 130 CY
F = 12 CY

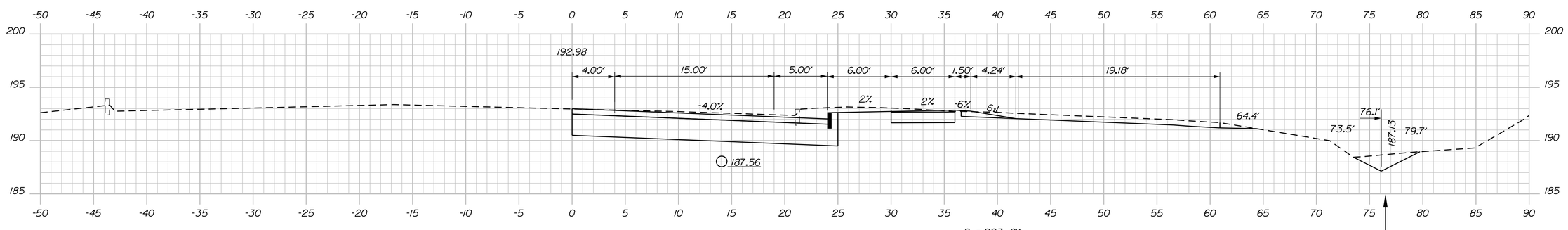


15+00.00

C = 154 CY
F = 8 CY



14+64.96



14+50.00

C = 223 CY
F = 1 CY

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DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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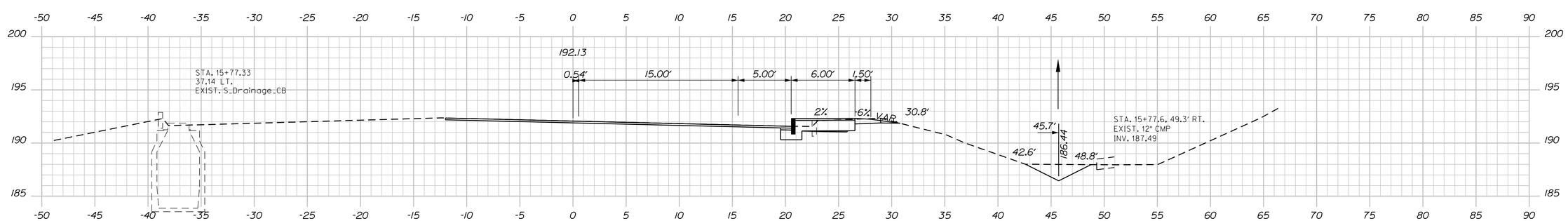
Sta. 14+50.00 to Sta. 15+50.00

Filename: ...\MSTA\051_XSECT_14+50_007.dgn Division: HIGHWAY Username: common Date:2/18/2015

Filename: ...\MSTA\052_XSECT_16+00_006.dgn Division: HIGHWAY Username: common Date:2/18/2015

STA. 16+00.81 =
STA. 200+01.06, 12.00' LT.

C = 1 CY
F = 0 CY



16+00.00

C = 25 CY
F = 8 CY

PROJ. MANAGER RHOBE MOULTON		BY	DATE
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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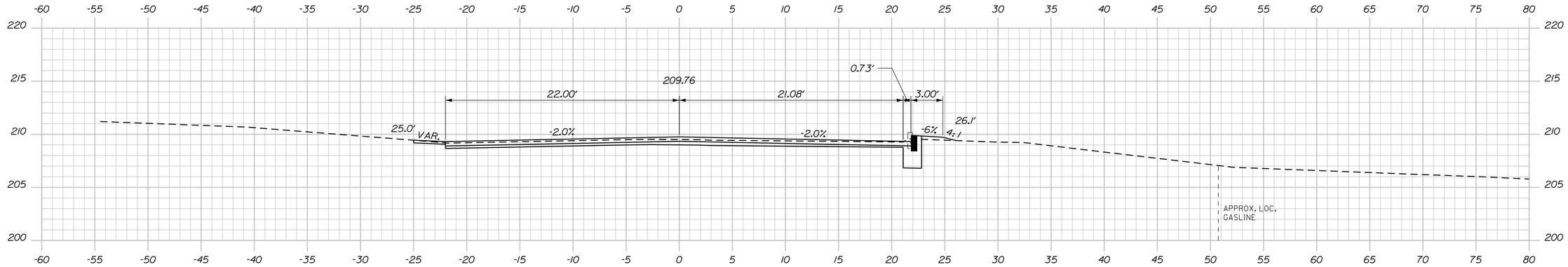
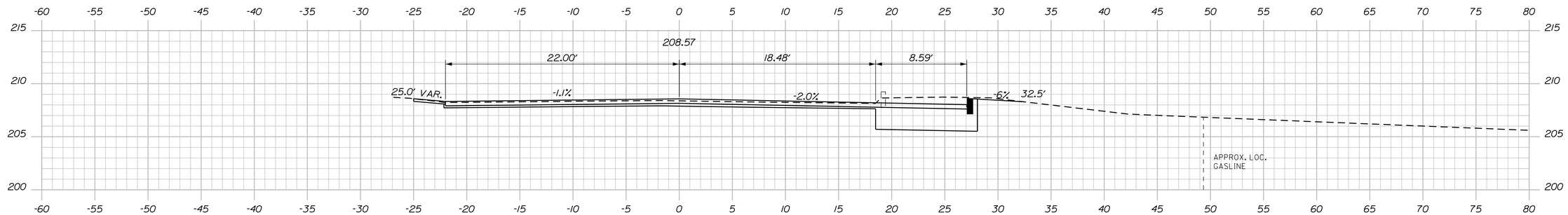
Sta. 16+00.00 to Sta. 16+50.00



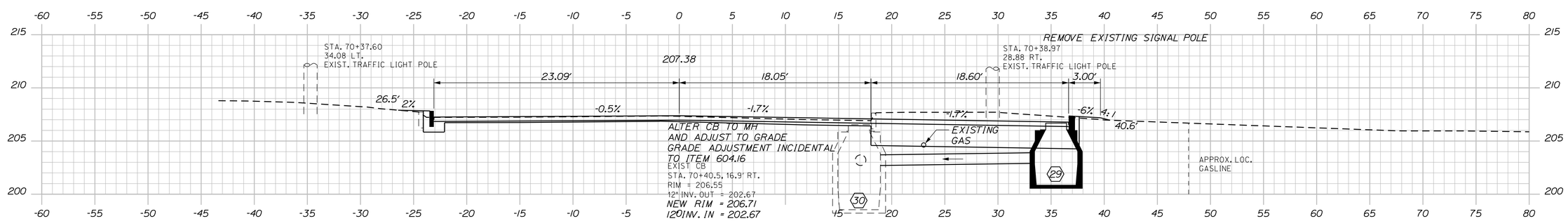
71+00.00

C = 35 CY
F = 0 CY



70+75.00

C = 63 CY
F = 0 CY

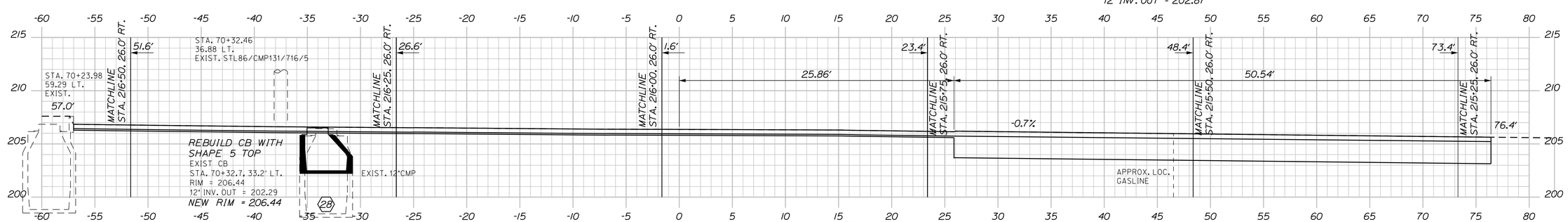


70+50.00

STA. 70+41.7, 18.7' RT. TO STA. 70+49.2, 33.5' RT
INSTALL 17 LF X 12" OPT III PIPE

STA. 70+50.00, 35.48' RT.
INSTALL CB, TYPE AI-C
RIM = 206.68
12" INV. OUT = 202.87

C = 122 CY
F = 0 CY



70+26.00

STA. 70+26.00
BEGIN PAVEMENT RECONSTRUCTION AND WIDENING
MATCH PROPOSED MILL AND FILL MAINLINE WORK

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HIGHWAY PLANS

	BY	DATE
PROJ. MANAGER RHOBE MOULTON		
DESIGN-DETAILED JLE	JLE	2-15
CHECKED-REVIEWED ALG	ALG	2-15
DESIGN2-DETAILED2		
DESIGN3-DETAILED3		
REVISIONS 1		
REVISIONS 2		
REVISIONS 3		
REVISIONS 4		
FIELD CHANGES		

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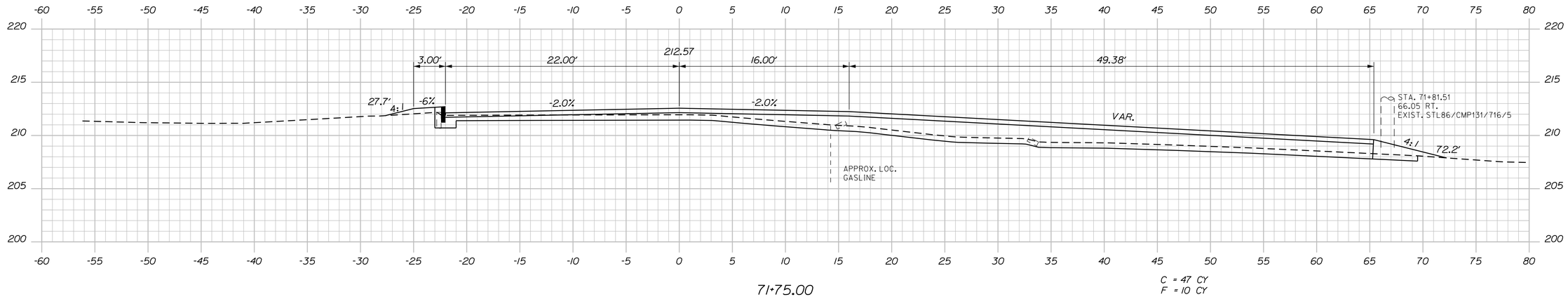
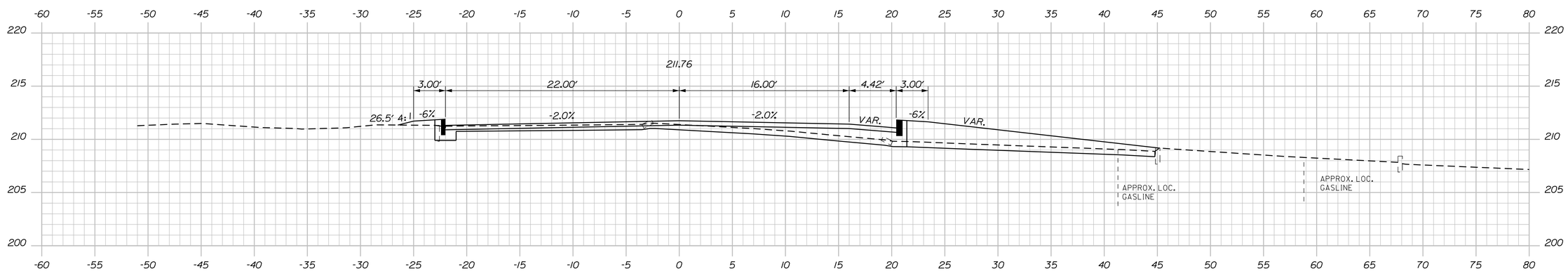
Sta. 70+26.00 to Sta. 71+00.00

Filename: ...\MSTA\053_XSECT_70+26_001.dgn Division: HIGHWAY Username: common Date:2/18/2015



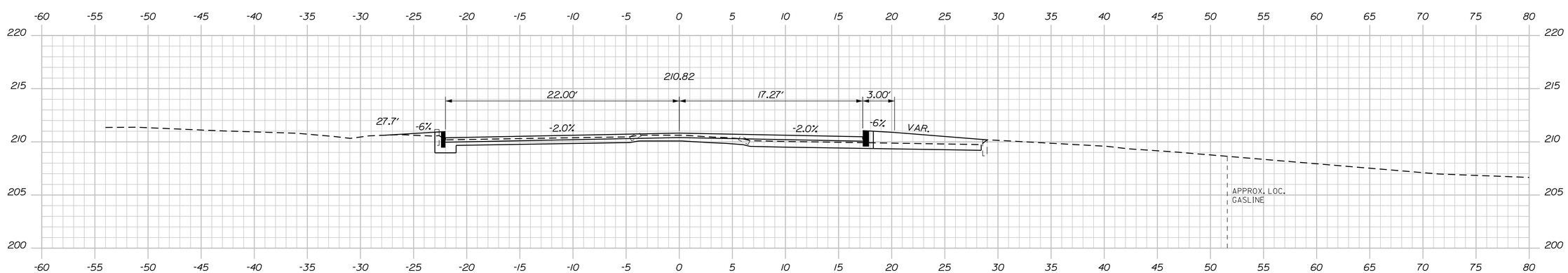
71+75.00

C = 47 CY
F = 10 CY



71+50.00

C = 30 CY
F = 10 CY



71+25.00

C = 26 CY
F = 1 CY

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HIGHWAY PLANS

PROJ. MANAGER	RHOBE MOULTON		
DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
REVISIONS 1			
REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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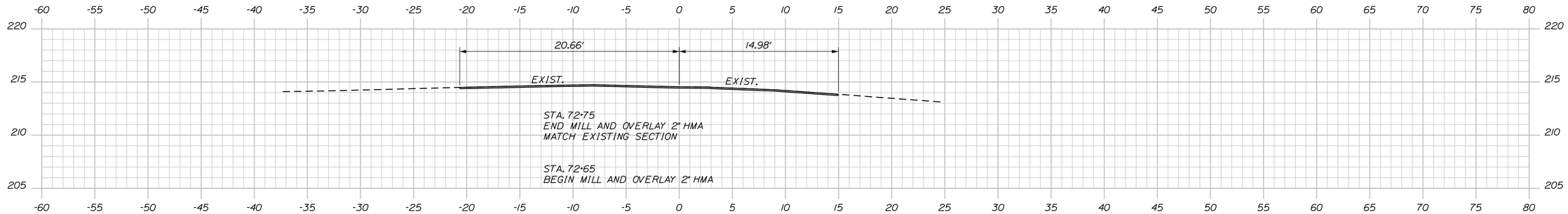
Sta. 71+25.00 to Sta. 71+75.00

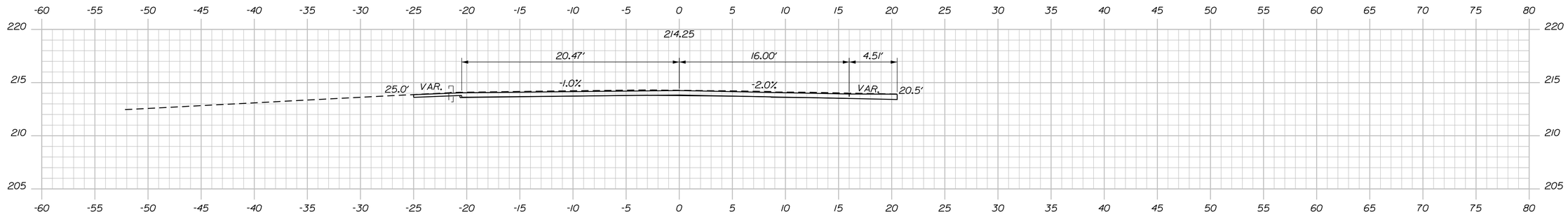
Filename: ...\MSTA\054_XSECT_71+25_002.dgn Division: HIGHWAY Username: common Date:2/18/2015



72+75.00

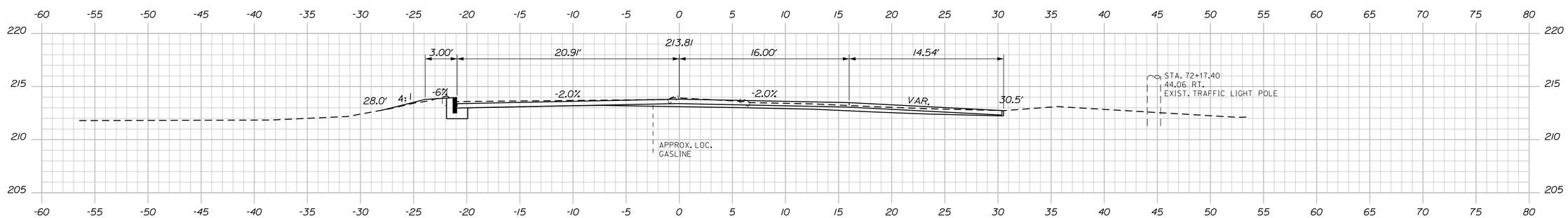
STA. 72+65
END PAVEMENT RECONSTRUCTION AND WIDENING

C = 11 CY
F = 0 CY



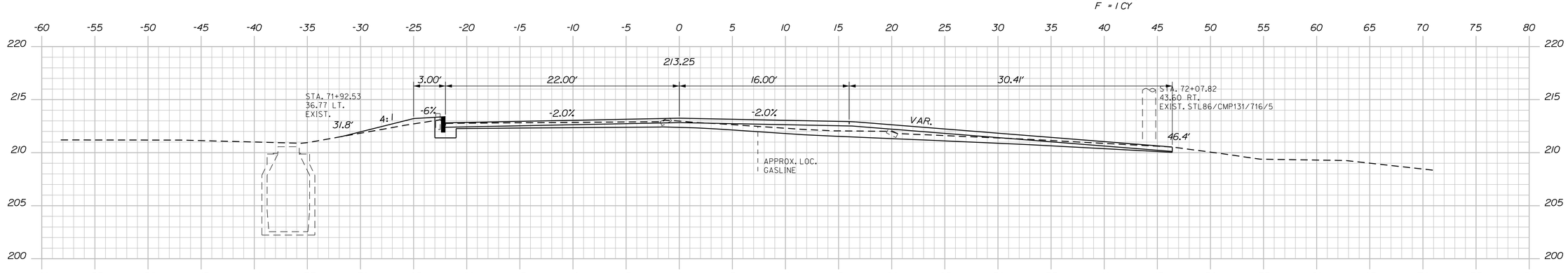
72+50.00

C = 24 CY
F = 0 CY



72+25.00

C = 32 CY
F = 1 CY



72+00.00

C = 41 CY
F = 6 CY

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DESIGN-DETAILED	JLE	JLE	2-15
CHECKED-REVIEWED	ALG		2-15
DESIGN2-DETAILED2			
DESIGN3-DETAILED3			
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REVISIONS 2			
REVISIONS 3			
REVISIONS 4			
FIELD CHANGES			

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Sta. 72+00.00 to Sta. 72+75.00

Filename: ...\MSTA\055_XSECT_72-00_003.dgn Division: HIGHWAY Username: common Date:2/18/2015