STATE OF VERMONT
AGENCY OF TRANSPORTATION

INDEX OF SHEETS
SEE SHEET 2

RECORD PLANS

CONTRACTOR: PIKE INDUSTRIES, INC. – BERLIN, VT

RESIDENT ENGINEER: JEFF COTA

CONSTRUCTION BEGAN: MAY 27, 2014

CONSTRUCTION COMPLETE: OCTOBER 8, 2014

RECORD PLANS BY: JEFF COTA & AARON JAMES

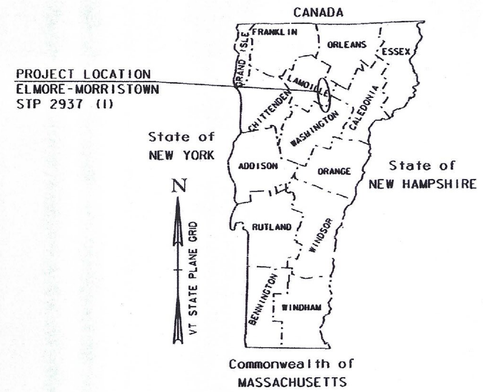
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY _____ RESIDENT ENGINEER

DATE 9/2/16

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found by contacting Vtrans Records Management.

PROPOSED IMPROVEMENT
TOWNS OF ELMORE AND MORRISTOWN
COUNTY OF LAMOILLE
VT ROUTE 12 (MAJOR COLLECTOR)



PROJECT LOCATION
ELMORE-MORRISTOWN
STP 2937 (1)

PROJECT LOCATION: BEGINNING ON VT ROUTE 12 IN THE TOWN OF ELMORE AT MILE MARKER 3.504 = STA. 185+00 AND EXTENDING NORTH ALONG VT ROUTE 12 FOR A DISTANCE OF 34915.00 FT (6.613 MILES) TO AN ENDING POINT AT MILE MARKER 2.189 = STA. A 115+57 IN THE TOWN OF MORRISTOWN.

TRAFFIC DATA

HIGHWAY SECTION	AADT		DHV		CUM. ESALS	CUM. ESALS
	2014	2024	2014	2024	(2014-2024)	(2014-2034)
BEGIN PROJECT TO LACASSE ROAD	980	1000	150	150	118000	292000
LACASSE ROAD TO ELMORE POND ROAD	1700	1800	260	270	194000	489000
ELMORE POND ROAD TO END PROJECT	2500	2600	380	390	284000	672000

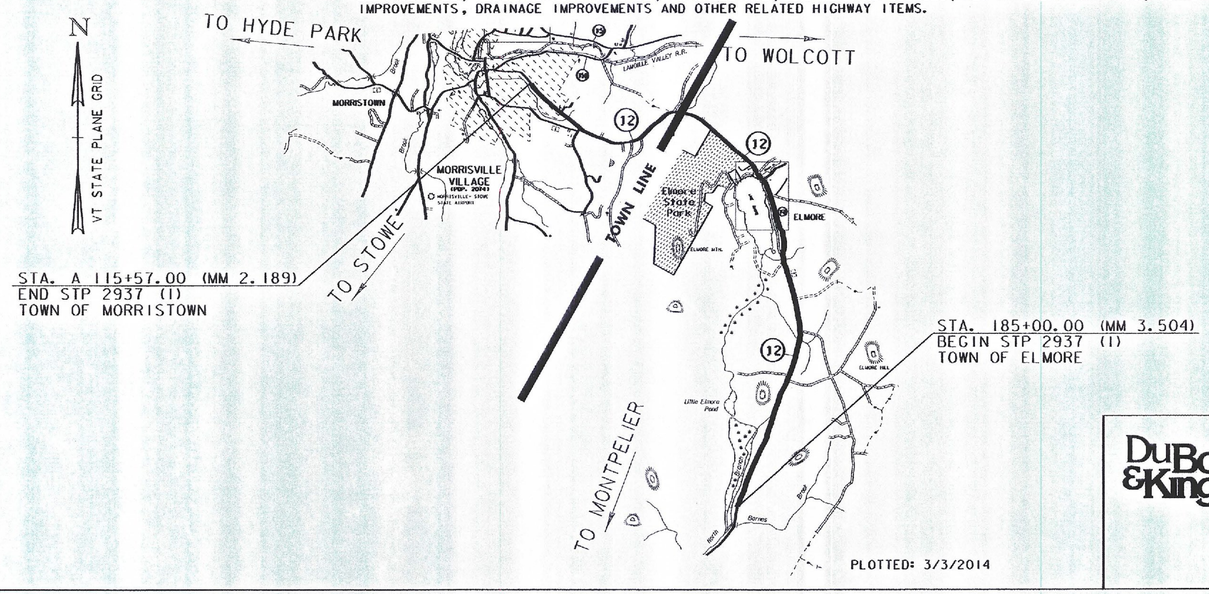
STATION TO STATION DATA

	LENGTH (FEET)	(MILES)
TOWN OF ELMORE STA. 185+05.00 TO STA. 418+58.00 (MM 3.504 TO MM 7.928)	23358.00	4.424
TOWN OF MORRISTOWN STA. A 0+00.00 TO STA. A 115+57.00 (MM 0.000 TO MM 2.189)	11557.00	2.189
TOTAL ROADWAY LENGTH =	34915.00	6.613
TOTAL PROJECT LENGTH =	34915.00	6.613

SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESALS	672,000
DESIGN NUMBER OF GYRATIONS	65
PERFORMANCE GRADE ASPHALT BINDER:	SEE SUBSECTION 490.03 (b)

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, RECLAIMING, CORRECTING SUPERELEVATION DEFICIENCIES, RESURFACING WITH BASE, INTERMEDIATE, AND WEARING COURSES, NEW PAVEMENT MARKINGS, GUARDRAIL IMPROVEMENTS, DRAINAGE IMPROVEMENTS AND OTHER RELATED HIGHWAY ITEMS.

STATIONING PREFACE DESIGNATION:
NO DESIGNATION = ELMORE
A = MORRISTOWN



STA. A 115+57.00 (MM 2.189)
END STP 2937 (1)
TOWN OF MORRISTOWN

STA. 185+00.00 (MM 3.504)
BEGIN STP 2937 (1)
TOWN OF ELMORE

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

QUALITY ASSURANCE PROGRAM : LEVEL 3

SURVEYED BY : VAOT

SURVEYED DATE : SEPT 2012

DATUM

VERTICAL NAVD 88

HORIZONTAL NAD 83 (2011)

PLOTTED: 3/3/2014

DuBois & King inc.

STATE OF VERMONT
CHRISTOPHER D. LATHROP
No. 8769
Civil
LICENSED PROFESSIONAL ENGINEER

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED _____ DATE 3/5/14

PROJECT MANAGER : MIKE FOWLER, P.E.

PROJECT NAME : ELMORE-MORRISTOWN

PROJECT NUMBER : STP 2937 (1)

SHEET 1 OF 194 SHEETS

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STRUCTURES DETAIL SHEET

SD-516.10 BRIDGE JOINT ASPHALTIC PLUG

VAOT STANDARDS

B-71	07/08/05
D-15	06/01/94
D-30	08/13/07
E-121	08/08/95
E-124	08/08/95
E-134	08/08/95
E-136B	08/08/95
E-136C	08/08/95
E-138	05/30/03
E-141	09/20/95
E-146	09/20/95
E-150	05/01/04
E-154	05/01/04
E-193	08/18/95
G-1	01/03/00
G-1D	01/03/00
T-1	08/06/12
T-10	08/06/12
T-17	08/06/12
T-28	08/06/12
T-29	08/06/12
T-30	08/06/12
T-31	08/06/12
T-35	08/06/12
T-36	08/06/12
T-45	01/02/13
J-3	08/07/95

INDEX OF SHEETS

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_2.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 2 OF 194

GENERAL INFORMATION

SYMBOLOGY LEGEND NOTE

THE SYMBOLOGY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLOGY. THE SYMBOLOGY IS USED FOR EXISTING & PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROJECT ANNOTATION, AS NOTED ON PROJECT PLAN SHEETS. THIS LEGEND SHEET COVERS THE BASICS. SYMBOLOGY ON PLANS MAY VARY, PLAN ANNOTATIONS AND NOTES SHOULD BE USED TO CLARIFY AS NEEDED.

R.O.W. ABBREVIATIONS (CODES) & SYMBOLS

POINT	CODE	DESCRIPTION
	CH	CHANNEL EASEMENT
	CONST	CONSTRUCTION EASEMENT
	CUL	CULVERT EASEMENT
	D&C	DISCONNECT & CONNECT
	DIT	DITCH EASEMENT
	DR	DRAINAGE EASEMENT
	DRIVE	DRIVEWAY EASEMENT
	EC	EROSION CONTROL
	I&M	INSTALL & MAINTAIN EASEMENT
	LAND	LANDSCAPE EASEMENT
	R&RES	REMOVE & RESET
	R&REP	REMOVE & REPLACE
	SR	SLOPE RIGHT
	UE	UTILITY EASEMENT
	(P)	PERMANENT EASEMENT
	(T)	TEMPORARY EASEMENT
■	BNDNS	BOUND SET
⊡	BNDNS	BOUND TO BE SET
●	IPNS	IRON PIN SET
◎	IPNS	IRON PIN TO BE SET
⊠	CALC	EXISTING ROW POINT
○	PROW	PROPOSED ROW POINT
[LENGTH]		LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT	CODE	DESCRIPTION
	APL	BOUND APPARENT LOCATION
	BM	BENCH MARK
	BND	BOUND
	CB	CATCH BASIN
	COMB	COMBINATION POLE
	DITHR	DROP INLET THROATED DNC
	EL	ELECTRIC POWER POLE
	FPOLE	FLAGPOLE
	GASFIL	GAS FILLER
	GP	GUIDE POST
	GSO	GAS SHUT OFF
	GUY	GUY POLE
	GUYW	GUY WIRE
	GV	GATE VALUE
	H	TREE HARDWOOD
	HCTRL	CONTROL HORIZONTAL
	HVCTRL	CONTROL HORIZ. & VERTICAL
	HYD	HYDRANT
	IP	IRON PIN
	IPIPE	IRON PIPE
	LI	LIGHT - STREET OR YARD
	MB	MAILBOX
	MH	MANHOLE (MH)
	MM	MILE MARKER
	PM	PARKING METER
	PMK	PROJECT MARKER
	POST	POST STONE/WOOD
	RRSIG	RAILROAD SIGNAL
	RRSL	RAILROAD SWITCH LEVER
	S	TREE SOFTWOOD
	SAT	SATELLITE DISH
	SHRUB	SHRUB
	SIGN	SIGN
	STUMP	STUMP
	TEL	TELEPHONE POLE
	TIE	TIE
	TSIGN	SIGN W/DOUBLE POST
	VCTRL	CONTROL VERTICAL
	WELL	WELL
	WSO	WATER SHUT OFF

THESE ARE COMMON VAOT SURVEY POINT SYMBOLS FOR EXISTING FEATURES, ALSO USED FOR PROPOSED FEATURES WITH HEAVIER LINEWEIGHT, IN COMBINATION WITH PROPOSED ANNOTATION.

PROPOSED GEOMETRY CODES

CODE	DESCRIPTION
PC	POINT OF CURVATURE
PI	POINT OF INTERSECTION
CC	CENTER OF CURVE
PT	POINT OF TANGENCY
PCC	POINT OF COMPOUND CURVE
PRC	POINT OF REVERSE CURVE
POB	POINT OF BEGINNING
POE	POINT OF ENDING
STA	STATION PREFIX
AH	AHEAD STATION SUFFIX
BK	BACK STATION SUFFIX
D	CURVE DEGREE OF (100FT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UTILITY SYMBOLOGY

UNDERGROUND UTILITIES

- UT — TELEPHONE
- UE — ELECTRIC
- UC — CABLE (TV)
- UEC — ELECTRIC+CABLE
- UET — ELECTRIC+TELEPHONE
- UCT — CABLE+TELEPHONE
- UECT — ELECTRIC+CABLE+TELEP.
- G — GAS LINE
- W — WATER LINE
- S — SANITARY SEWER (SEPTIC)

ABOVE GROUND UTILITIES (AERIAL)

- T — TELEPHONE
- E — ELECTRIC
- C — CABLE (TV)
- EC — ELECTRIC+CABLE
- ET — ELECTRIC+TELEPHONE
- AER E&T — ELECTRIC+TELEPHONE
- CT — CABLE+TELEPHONE
- ECT — ELECTRIC+CABLE+TELEP.
- UTILITY POLE GUY WIRE

PROJECT CONSTRUCTION SYMBOLOGY

PROJECT DESIGN & LAYOUT SYMBOLOGY

- CLEAR ZONE
- PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

- TOP OF CUT SLOPE
- TOE OF FILL SLOPE
- STONE FILL
- BOTTOM OF DITCH 'L'
- CULVERT PROPOSED
- STRUCTURE SUBSURFACE
- PDF — PDF — PROJECT DEMARCATION FENCE
- BF — BF — BARRIER FENCE
- TREE PROTECTION ZONE (TPZ)
- STRIPING LINE REMOVAL
- SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLOGY

BOUNDARY LINES

- TOWN LINE — TOWN BOUNDARY LINE
- COUNTY LINE — COUNTY BOUNDARY LINE
- STATE LINE — STATE BOUNDARY LINE
- PROPOSED STATE R.O.W. (LIMITED ACCESS)
- PROPOSED STATE R.O.W.
- STATE ROW (LIMITED ACCESS)
- STATE ROW
- TOWN ROW
- PERMANENT EASEMENT LINE (P)
- TEMPORARY EASEMENT LINE (T)
- SURVEY LINE
- PROPERTY LINE (P/L)
- SR SR SR — SLOPE RIGHTS
- 6F — 6F — 6F PROPERTY BOUNDARY
- 4F — 4F — 4F PROPERTY BOUNDARY
- HAZ — HAZ — HAZARDOUS WASTE

EPSC LAYOUT PLAN SYMBOLOGY

EPSC MEASURES

- FILTER CURTAIN
- SILT FENCE
- SILT FENCE WOVEN WIRE
- CHECK DAM
- DISTURBED AREAS REQUIRING RE-VEGETATION
- EROSION MATTING

ENVIRONMENTAL RESOURCES

- WETLAND BOUNDARY
- RIPARIAN BUFFER ZONE
- WETLAND BUFFER ZONE
- SOIL TYPE BOUNDARY
- THREATENED & ENDANGERED SPECIES
- HAZ — HAZ — HAZARDOUS WASTE AREA
- AGRICULTURAL LAND
- FISH & WILDLIFE HABITAT
- FLOOD PLAIN
- ORDINARY HIGH WATER (OHW)
- STORM WATER
- USDA FOREST SERVICE LANDS
- WILDLIFE HABITAT SUIT/CONN

ARCHEOLOGICAL & HISTORIC

- ARCHEOLOGICAL BOUNDARY
- HISTORIC DISTRICT BOUNDARY
- HISTORIC AREA
- (H) HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLOGY

EXISTING FEATURES

- ROAD EDGE PAVEMENT
- ROAD EDGE GRAVEL
- DRIVEWAY EDGE
- DITCH
- FOUNDATION
- FENCE (EXISTING)
- FENCE WOOD POST
- FENCE STEEL POST
- GARDEN
- ROAD GUARDRAIL
- RAILROAD TRACKS
- CULVERT (EXISTING)
- STONE WALL
- WALL
- WOOD LINE
- BRUSH LINE
- HEDGE
- BODY OF WATER EDGE
- LEDGE EXPOSED

LEGEND SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_2A.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 2A OF 194

GPS CONTROL POINTS

_ _ _ _ LVT _ _ _ _

NORTH = 718091.400
EAST = 1631814.670
ELEV. = 1219.000

STATION RECOVERY (2012)
RECOVERY NOTE BY VERMONT GEODETIC SURVEY 2012 (MJA)

GENERAL LOCATION, ELMORE, VT

TO REACH FROM THE INTERSECTION OF VT ROUTE 15A (UPPER MAIN STREET) AND VT ROUTE 12 IN MORRISVILLE GO SOUTH ALONG VT ROUTE 12 FOR 4.3 MI (6.9KM) TO THE ELMORE STATE PARK ENTRANCE ON THE RIGHT. CONTINUE STRAIGHT AHEAD AND GO SOUTH ALONG VT ROUTE 12 FOR 5.6 MI (9.0 KM) TO THE SITE OF THE MARK ON THE RIGHT. TO REACH FROM THE INTERSECTION OF VT ROUTE 12 AND CALAIS ROAD IN WORCESTER GO NORTH ALONG VT ROUTE 12 FOR 7.9 MI (12.7 KM) TO THE SITE OF THE MARK. THE MARK IS A BLANK DISK SET 30 CM (12 INCHES) BELOW GROUND SURFACE IN THE TOP OF A DRIVEN STEEL PIPE. IT IS BEHIND A STEEL BEAM GUARD RAIL AND ABOUT 0.3 M (1.0 FT) SOUTHWEST OF THE CENTERLINE OF A 30 CM (12 INCH) DIAMETER STEEL CULVERT WITH A MARKER POST, 5.5 M (18.0 FT) NORTHWEST OF AND 0.4 M (1.3 FT) LOWER THAN THE CENTERLINE OF VT ROUTE 12, 5.4 M (17.7 FT) EAST OF A PAIR OF 12 CM (5 INCHES) PINES, 37.8 M (124.0FT) SOUTHWEST OF THE POST AT THE NORTHEAST END OF THE GUARD RAIL AND 38.4 M (126.0FT) WEST OF AND ACROSS THE ROAD FROM MILE MARKER 0120/0804/0160.

_ _ _ _ 17_HBC_ _ _ _

NORTH = 719093.556
EAST = 1632341.29
ELEV. = 1226.870

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1996 (DJM)

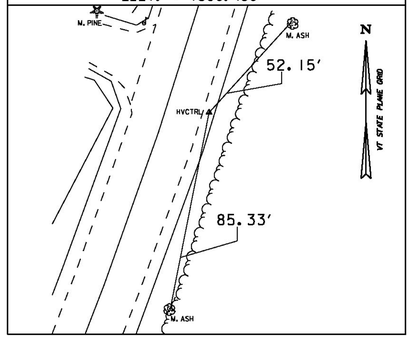
GENERAL LOCATION - THE STATION IS LOCATED IN THE TOWN OF ELMORE, 4.6 MI (7.4KM) SOUTH OF ELMORE VILLAGE, 7.1 MI (11.4 KM) SOUTH SOUTHEAST OF MORRISVILLE, AND 14.0 MI (22.5 KM) NORTH OF MONTPELIER. TO REACH FROM THE JUNCTION OF VERMONT ROUTE 12 AND THE ENTRANCE TO THE STATE PARK IN ELMORE, PROCEED SOUTH ON VERMONT ROUTE 12 FOR 5.4 MI (8.7 KM) TO THE BRIDGE OVER BARNES BROOK AND THE SITE OF THE MARK ON THE LEFT. TO REACH FROM THE JUNCTION OF VERMONT ROUTE 12 AND THE ROAD LEADING TO MAPLE CORNERS IN WORCESTER, PROCEED NORTH ON ROUTE 12 FOR 8.1 MI (13.0 KM) TO THE BRIDGE OVER BARNES BROOK AND THE SITE OF THE MARK ON THE RIGHT. THE MARK IS A USGS BENCHMARK DISK SET FLUSH IN THE CONCRETE BASE OF THE NORTH EAST RAIL OF THE BRIDGE. IT IS LOCATED 16 FT (4.9 M) SOUTHEAST OF THE CENTERLINE OF VERMONT ROUTE 12, 5 FT (1.5 M) NORTH OF A CONCRETE BRIDGE POST, 1FT (0.3 M) SOUTHWEST OF A FIBERGLASS WITNESS POST, AND 0.5 FT (15.2 CM) EASTERLY FROM THE STEEL GUARD RAIL. OWNERSHIP IS THE STATE OF VERMONT.

STATION RECOVERY (2012)
RECOVERY NOTE BY VERMONT GEODETIC SURVEY 2012 (BJH)
RECOVERED AS DESCRIBED.

TRAVERSE TIES

HVCTRL #9

NORTH = 728088.749
EAST = 1635762.704
ELEV. = 1380.496



HVCTRL #10

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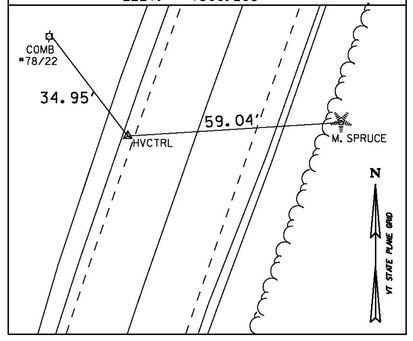
EAST = 1636114.389
ELEV. = 1360.288



HVCTRL #11

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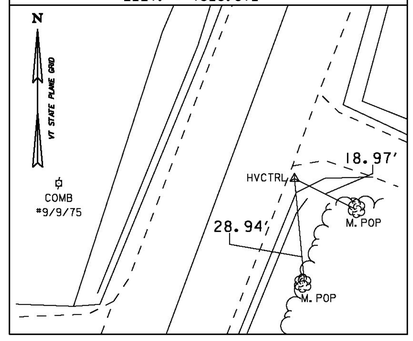
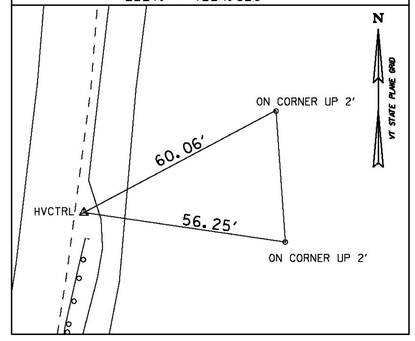
EAST = 1636433.440
ELEV. = 1329.972



HVCTRL #12

NORTH = 732928.572
EAST = 1637112.686
ELEV. = 1224.826



HVCTRL #13

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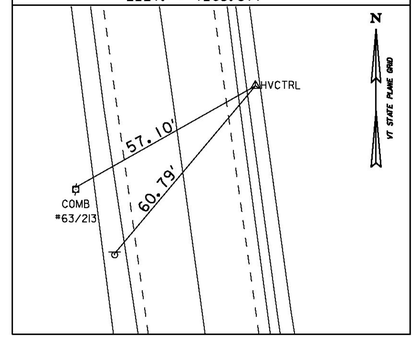
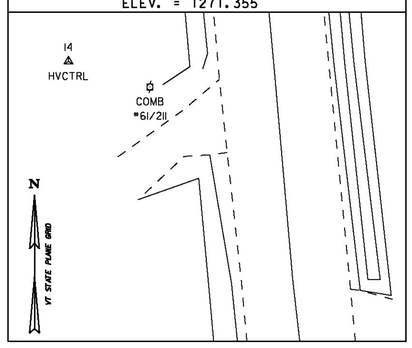
EAST = 1637036.955
ELEV. = 1265.877



TRAVERSE TIES

HVCTRL #14

NORTH = 734294.674
EAST = 1636901.515
ELEV. = 1271.355



HVCTRL #15

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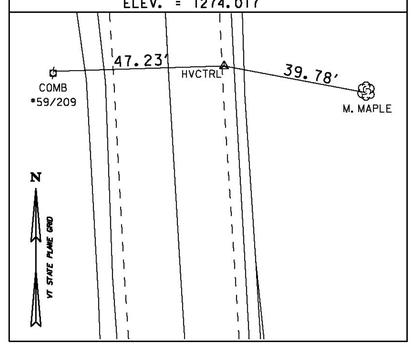
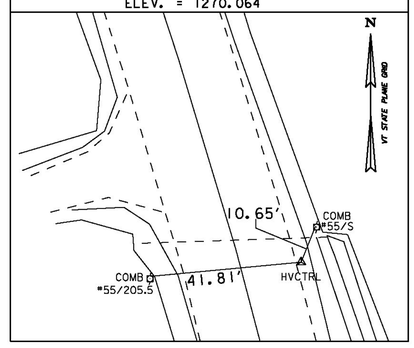
EAST = 1636938.559
ELEV. = 1274.017



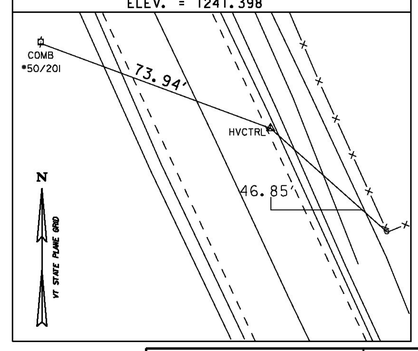
HVCTRL #16

NORTH = 735634.854
EAST = 1636836.288
ELEV. = 1270.064



HVCTRL #17

NORTH = 736526.517
EAST = 1636448.337
ELEV. = 1241.398



HVCTRL #18

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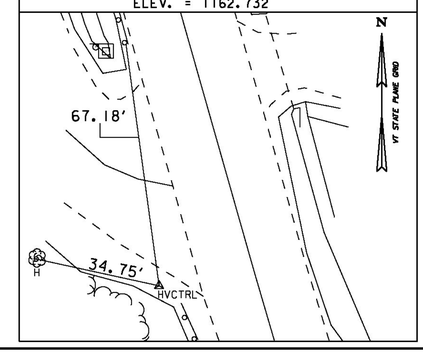
EAST = 1635654.024
ELEV. = 1162.732



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (2011)
ADJUSTMENT COMPASS

TIE SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_3.i

PLOT DATE: 3/3/14
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP

GPS CONTROL POINTS

_ _ _ _14_HBC_ _ _ _

NORTH = 734294.674
EAST = 1636901.515
ELEV. = 1271.355

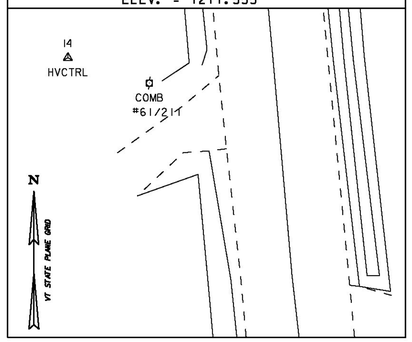
GENERAL LOCATION, ELMORE, VT.

TO REACH FROM THE INTERSECTION OF VT ROUTE 15C AND VT ROUTE 12 IN MORRISVILLE, GO SOUTH ALONG VT ROUTE 12 FOR 4.2 MI (6.8 KM) TO THE INTERSECTION OF BEACH ROAD RIGHT AT THE NORTH END OF LAKE ELMORE. CONTINUE SOUTH ALONG VT ROUTE 12 FOR 2.0 MI (3.2 KM) TO THE SITE OF THE MARK ON THE RIGHT ON THE EAST EDGE OF A LARGE FIELD. THE MARK IS SET IN THE SOUTH END OF A MASSIVE ROCK OUTCROP PROJECTING 2.0 M (6.6 FT) ABOVE GROUND SURFACE ON THE WEST SIDE. IT IS 17.4 M (57.1 FT) WEST OF AND ABOUT 0.5 M (1.6 FT) LOWER THAN THE CENTERLINE OF VT ROUTE 12, 6.9 M (22.6 FT) NORTH-NORTHWEST OF POLE NO 61/211, 3.2 M (10.5 FT) NORTHEAST OF A GUY ANCHOR AND 72.8 M (238.8 FT) SOUTH-SOUTHWEST OF POLE NO 60.

TRAVERSE TIES

HVCTRL #14

NORTH = 734294.674
EAST = 1636901.515
ELEV. = 1271.355



HVCTRL #15

NORTH = 734774.561
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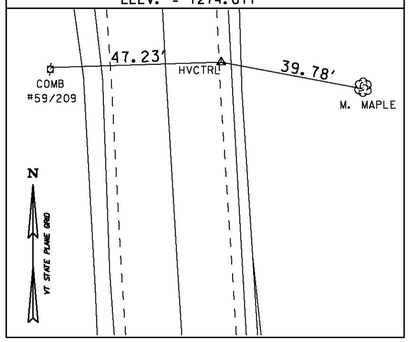

HVCTRL #16

NORTH = 735634.854
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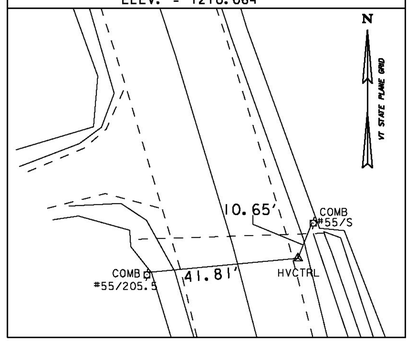
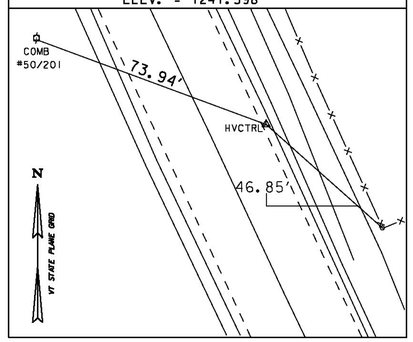
ELEV. = 1270.064



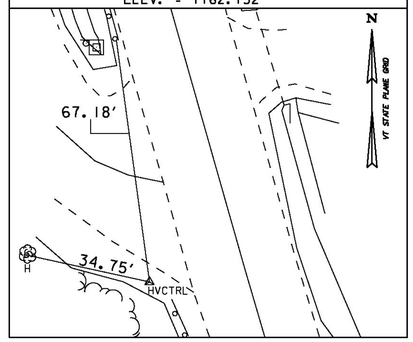
HVCTRL #17

NORTH = 736526.517
EAST = 1636448.337
ELEV. = 1241.398



HVCTRL #18

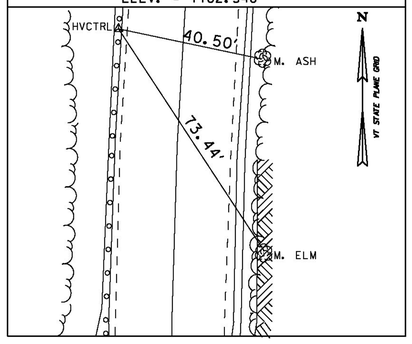
NORTH = 738304.336
EAST = 1635654.024
ELEV. = 1162.732



TRAVERSE TIES

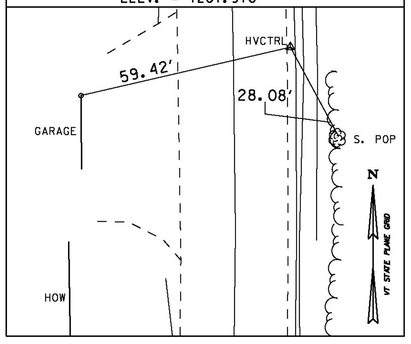
HVCTRL #19

NORTH = 739038.078
EAST = 1635552.312
ELEV. = 1182.548



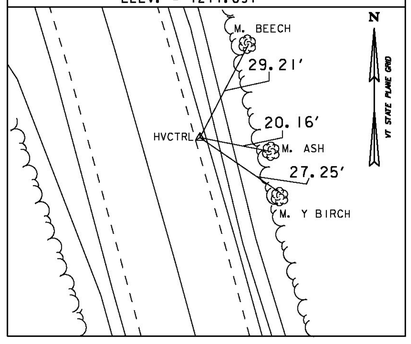
HVCTRL #20

NORTH = 739880.803
EAST = 1635659.185
ELEV. = 1201.970



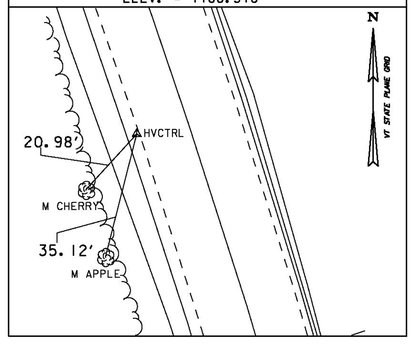
HVCTRL #21

NORTH = 741062.941
EAST = 1635478.626
ELEV. = 1211.891



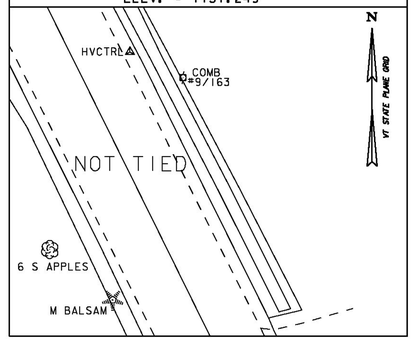
HVCTRL #22

NORTH = 742589.916
EAST = 1634915.777
ELEV. = 1188.518



HVCTRL #23

NORTH = 743294.015
EAST = 1634654.694
ELEV. = 1157.249



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (2011)
ADJUSTMENT COMPASS

TIE SHEET 2

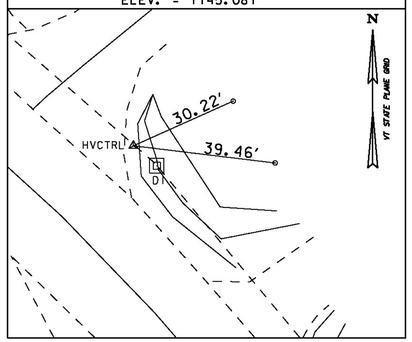
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_4.i

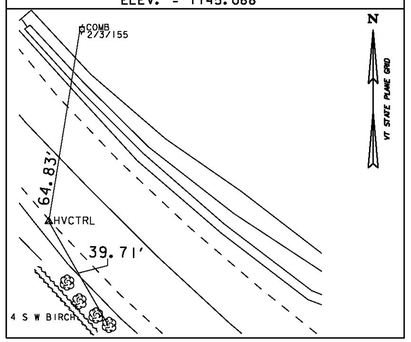
PLOT DATE: 3/3/14
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP
SHEET 4 OF 194

TRAVERSE TIES

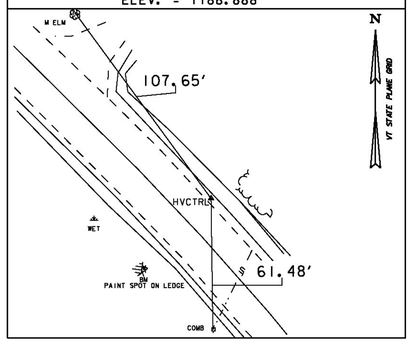
HVCTRL #24
NORTH = 743966.189
EAST = 1634262.238
ELEV. = 1145.081



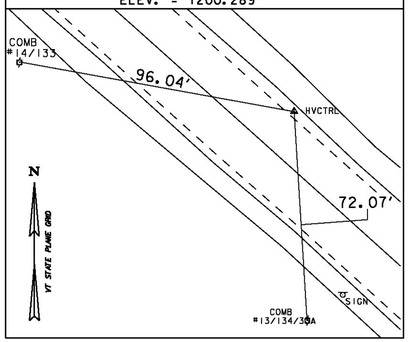
HVCTRL #25
NORTH = 744165.265
EAST = 1633959.231
ELEV. = 1145.088



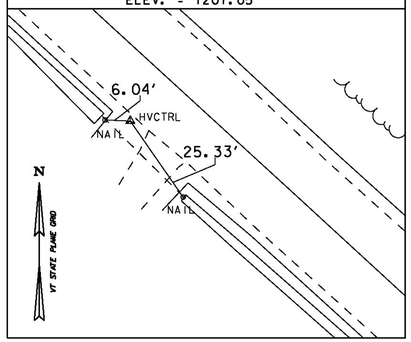
HVCTRL #26
NORTH = 745392.754
EAST = 1633131.206
ELEV. = 1188.888



HVCTRL #27
NORTH = 745807.482
EAST = 1632681.377
ELEV. = 1200.289

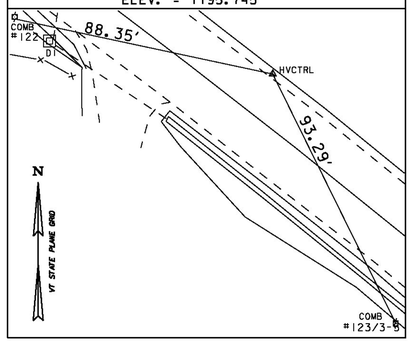


HVCTRL #28
NORTH = 747313.312
EAST = 1630957.212
ELEV. = 1207.05

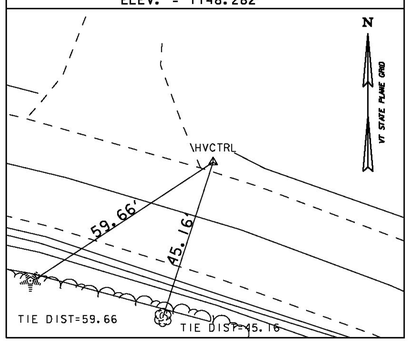


TRAVERSE TIES

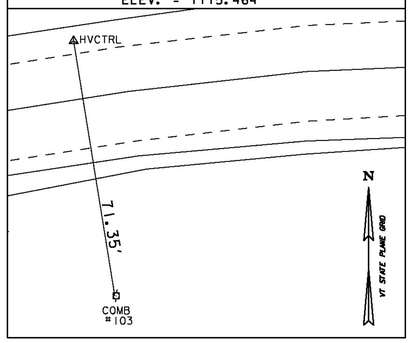
HVCTRL #29
NORTH = 747821.121
EAST = 1630428.896
ELEV. = 1195.745



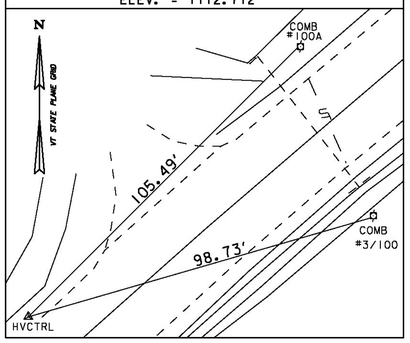
HVCTRL #30
NORTH = 748461.846
EAST = 1629486.381
ELEV. = 1148.282



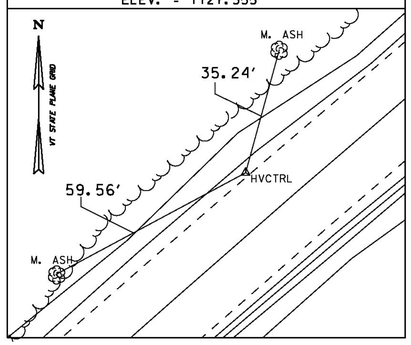
HVCTRL #31
NORTH = 748647.916
EAST = 1627847.361
ELEV. = 1115.464



HVCTRL #32
NORTH = 748332.052
EAST = 1627254.443
ELEV. = 1112.712

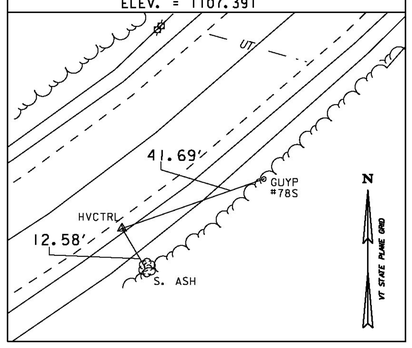


HVCTRL #33
NORTH = 747868.332
EAST = 1626731.714
ELEV. = 1127.355

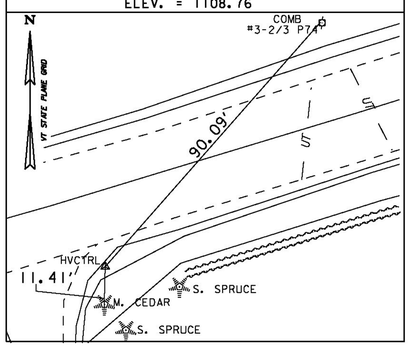


ALIGNMENT COORD

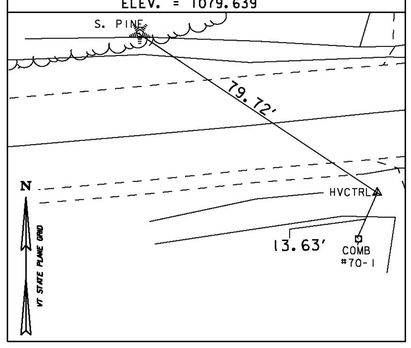
HVCTRL #34
NORTH = 746694.055
EAST = 1625649.896
ELEV. = 1107.391



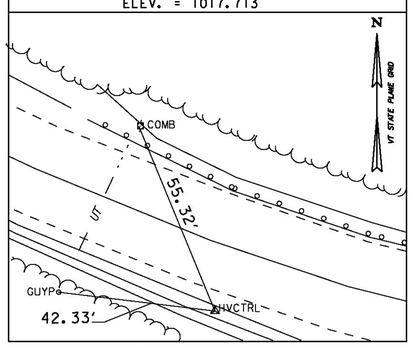
HVCTRL #35
NORTH = 746462.062
EAST = 1625060.840
ELEV. = 1108.76



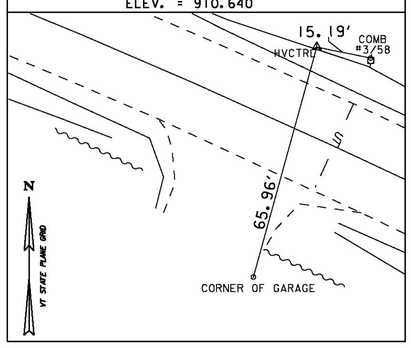
HVCTRL #36
NORTH = 746348.586
EAST = 1624423.345
ELEV. = 1079.639



HVCTRL #37
NORTH = 746348.956
EAST = 1623670.460
ELEV. = 1017.713



HVCTRL #38
NORTH = 747049.875
EAST = 1622493.099
ELEV. = 910.640



DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (2011)
ADJUSTMENT COMPASS

TIE SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

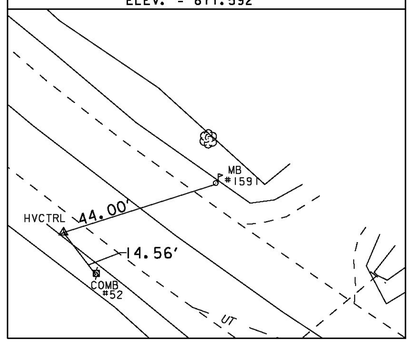
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_5.i

PLOT DATE: 3/3/14
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP
SHEET 5 OF 194

TRAVERSE TIES

HVCTRL #39

NORTH = 747415.893
EAST = 1621487.692
ELEV. = 877.592



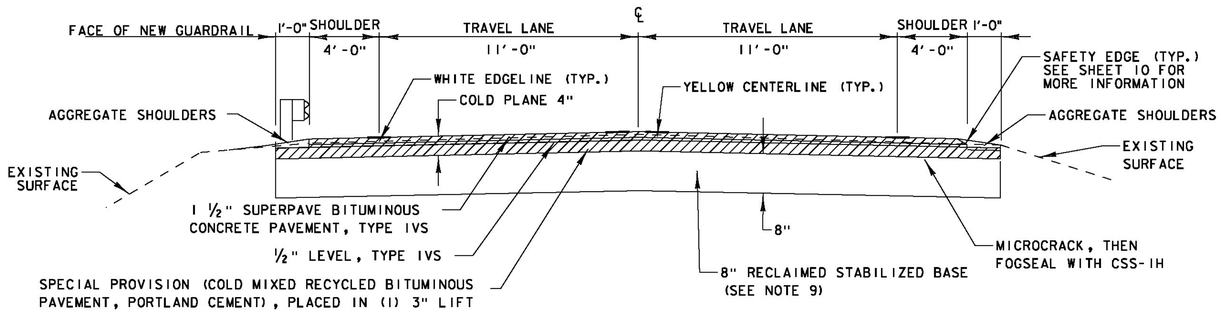
DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83 (2011)
ADJUSTMENT COMPASS

TIE SHEET 4

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_6.i

PLOT DATE: 3/3/14
DRAWN BY: R. BULLOCK
CHECKED BY: C. LATHROP
SHEET 6 OF 194



RECLAIMED STABILIZED BASE TYPICAL SECTION

ELMORE
STA. 185+00.00 TO STA. 415+58.00
MORRISTOWN
STA. A 0+00.00 TO STA. A 115+57.00

NOTES:

1. APPROXIMATE WETLAND AND OTHER RESOURCE LOCATIONS HAVE BEEN IDENTIFIED. SEE PROJECT LAYOUT SHEETS FOR LOCATIONS. THE PROJECT SHALL BE CONSTRUCTED AS DESIGNED AND WITHIN THE LIMITS ESTABLISHED BY THE CROSS SECTIONS. IF IT IS DEEMED NECESSARY BY THE CONTRACTOR TO WORK BEYOND THOSE LIMITS IT WILL BE THE RESPONSIBLITY OF THE CONTRACTOR TO ACQUIRE ANY NECESSARY STATE AND FEDERAL PERMIT.

2. ITEM 201.10 "CLEARING AND GRUBBING" HAS BEEN INCLUDED TO REMOVE ANY VEGETATION, PARTIAL AND FULL TREE REMOVAL, THINNING AND TRIMMING FOR SIGNS, AND ANY ASSOCIATED GRUBBING WITHIN THE ASSUMED 3 ROD R.O.W. THE ENGINEER MAY EXCLUDE REMOVAL IN SOME AREAS WHERE DEEMED NECESSARY AND APPROPRIATE OR NECESSITATED BY PERMIT REQUIREMENTS PER THE CONSTRUCTION ENVIRONMENTAL ENGINEER'S RECOMMENDATIONS.

3. ALL BORINGS WERE TAKEN IN THE CENTER OF THE TRAVEL LANE AND THEREFORE MAY NOT BE REPRESENTATIVE OF FOOTPRINT.

4. ADDITIONAL QUANTITIES FOR ITEMS 203.15 "COMMON EXCAVATION", 301.28 "SUBBASE OF CRUSHED GRAVEL, FINE GRADED", 301.35 "SUBBASE OF DENSE GRADED CRUSHED STONE", AND 649.11 "GEOTEXTILE FOR ROADBED SEPARATOR" HAVE BEEN ESTIMATED TO ADDRESS POSSIBLE UNSUITABLE SUBBASE MATERIAL ENCOUNTERED WITHIN THE PROJECT. REFER TO DETAIL ON PROJECT TYPICAL SHEET 4.

5. A QUANTITY OF ITEM 204.21 "TRENCH EXCAVATION OF ROCK" HAS BEEN INCLUDED IN CASE LEDGE IS ENCOUNTERED DURING THE INSTALLATION OF UNDERDRAIN.

6. COLD PLANING SHALL BE COMPLETED ACCORDING TO THE TYPICAL OR AS OTHERWISE NOTED ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE BEGINNING AND END OF THE PROJECT AND ALL PAVED SIDE ROAD APPROACHES AS DENOTED ON THE PROJECT PLANS OR AS OTHERWISE DIRECTED BY THE ENGINEER. SAWCUTTING WILL NOT BE PAID FOR SEPARATELY. BUT WILL BE PAID INCIDENTAL TO ITEM 210.10 "COLD PLANING, BITUMINOUS PAVEMENT". PRIOR TO RECLAIMING, ANY EXISTING SHOULDER MATERIAL DEEMED UNSUITABLE BY THE ENGINEER WILL BE EXCAVATED TO THE DEPTH OF RECLAIMING OR AS DIRECTED BY THE ENGINEER. EXCAVATED MATERIAL WILL BE SPREAD ON THE ADJACENT SLOPES OR REMOVED FROM THE PROJECT AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR USING THE APPROPRIATE RENTAL ITEMS. THE METHOD OF REMOVAL AND THE USE OF RENTAL ITEMS SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY WORK BEING DONE. MATERIAL REMOVED SHALL BE REPLACED WITH ITEM 301.28 "SUBBASE OF CRUSHED GRAVEL, FINE GRADED".

7. AN ADDITIONAL QUANTITY OF 301.28 "SUBBASE OF CRUSHED GRAVEL, FINE GRADED" HAS BEEN INCLUDED TO CORRECT SUPERELEVATION AND GRADATION DEFICIENCIES WITHIN THE RECLAIMED SECTION. FOR EXISTING SHOULDER RECONSTRUCTION DETAIL SEE SHEET 9.

8. ITEM 900.683 "SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT)" SHALL BE APPLIED ON THE SURFACE OF THE RECLAIMED STABILIZED BASE, PORTLAND CEMENT AT THE RATE OF 0.15 GAL/SY OR AS DIRECTED BY THE ENGINEER.

9. THE FIRST RECLAIM PASS SHALL BE PERFORMED FROM TOP OF BANK TO TOP OF BANK WHERE FULL WIDTH IS NOT ACHIEVABLE. THE FIRST RECLAIM PASS SHALL BE PAID UNDER ITEM 310.20 "RECLAIMED STABILIZED BASE". THE SECOND RECLAIM PASS SHALL BE PERFORMED FULL WIDTH PER THE TYPICAL SECTION. THE SECOND RECLAIM PASS SHALL BE PAID UNDER ITEM 900.675 "SPECIAL PROVISION (RECLAIMED STABILIZED BASE, PORTLAND CEMENT)".

10. ALL EDGES OF PAVEMENT SHALL BE BACKED UP TO FULL HEIGHT WITH AGGREGATE SHOULDER MATERIAL AS DIRECTED BY THE ENGINEER AND WILL BE PAID UNDER ITEM 402.12 "AGGREGATE SHOULDERS".

11. FOR THE PURPOSES OF QUANTITY CALCULATION IT HAS BEEN ASSUMED ITEM 900.675 "SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT,PORTLAND CEMENT)" WILL REQUIRE 3% BY WEIGHT OF ITEM 900.683 "SPECIAL PROVISION (EMULSIFIED ASPHALT, COLD MIX WITH CEMENT)". FOR THE SAME PURPOSE IT HAS ALSO BEEN ASSUMED 1% BY WEIGHT OF PORTLAND CEMENT WILL BE REQUIRED BY MIX DESIGN. ITEM 900.680 "SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE, COLD MIX)" HAS BEEN ESTIMATED USING A UNIT WEIGHT OF 2 TONS/CY. THE AVERAGE BULK SPECIFIC GRAVITY DETERMINED IN THE MIX DESIGN SHALL BE USED FOR ACTUAL PAYMENT QUANTITY.

12. EMULSIFIED ASPHALT TYPE CRS-1H OR RS-1H SHALL BE APPLIED AS A TACK COAT ON ALL EXISTING OR COLD PLANED PAVEMENT SURFACES AT THE RATE OF 0.080 GAL/SY, 0.040 TO 0.060 GAL/SY ON ALL COLD MIX PAVEMENT SURFACES, AND BETWEEN ALL COURSES OF BITUMINOUS CONCRETE PAVEMENT AT THE RATE OF 0.025 TO 0.040 GAL/SY. PAYMENT WILL BE UNDER ITEM 900.683 "SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H)".

13. THE WEARING AND LEVELING COURSES SHALL BE TYPE IVS SUPERPAVE BITUMINOUS CONCRETE PAVEMENT, AND THE BASE COURSE SHALL BE SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT). ALL ASPHALT CEMENT USED IN THE SUPERPAVE BITUMINOUS CONCRETE PAVEMENT SHALL BE AS SPECIFIED IN SUBSECTION 490.03(b).

NOTES (CONTINUED):

14. ALL PAVED AND GRAVEL RESIDENTIAL AND COMMERCIAL DRIVES SHALL RECEIVE A PAVED APRON OF 4' AND ALL FIELD AND WOODS DRIVES SHALL RECEIVE A 2' PAVED APRON UNLESS OTHERWISE SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER. ANY AND ALL REQUIRED EXCAVATION AND ASSOCIATED DRIVE GRADING IN DRIVE AREAS SHALL BE AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER. THE NEW BITUMINOUS SURFACE SHALL BE CONSTRUCTED AS DIRECTED AND WILL BE PAID FOR UNDER ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)". ALL OTHER BITUMINOUS MATERIAL PLACED WITHIN THE PROJECT LIMITS WHETHER BY HAND OR MECHANICAL METHODS SHALL BE PAID AS ITEM 490.30 "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT".

15. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/-¼ INCH (TOTAL THICKNESS, EXCLUDING LEVELING). COLD MIXED RECYCLED BITUMINOUS BASE COURSE TOLERANCE = +/-¼ INCH SUBBASE OF CRUSHED GRAVEL, FINE GRADED TOLERANCE = +/- 1 INCH (TOTAL SUBBASE THICKNESS).

16. EDGES OF PAVEMENT SHALL INCLUDE A SAFETY EDGE AS SHOWN ON SHEET 10.

17. A QUANTITY FOR ITEM 604.412 "REHAB DI, CB OR MH CLASS I" HAS BEEN INCLUDED IN THE QUANTITIES TO BE USED AS DIRECTED BY THE ENGINEER. ALL DI'S SHALL BE RAISED OR REHABILITATED SUCH THAT THE NEW GRATE ELEVATION IS LEVEL WITH THE SURROUNDING TERRAIN.

18. DAMAGE TO ANY DI'S, CROSS CULVERTS OR OTHER DRAINAGE FEATURES SHALL BE REPAIRED OR REPLACED AS DIRECTED BY THE ENGINEER AT NO ADDITIONAL COST TO THE STATE.

19. ITEM 613.10 "STONE FILL, TYPE I"; ITEM 651.40 "GRUBBING MATERIAL"; ITEM 649.31 "GEOTEXTILE UNDER STONE FILL"; ITEM 653.20 "TEMPORARY EROSION MATTING" AND ITEM 608.25 "ALL PURPOSE EXCAVATOR RENTAL, TYPE I" HAVE BEEN INCLUDED FOR AREAS WITH PROPOSED SIDE SLOPES STEEPER THAN 1:1.5 AND TO PROVIDE FOR REPAIR OF EXISTING STONE LINED DRAINAGE OUTLETS OR WASHOUTS LOCATED ALONG THE ROADWAY SIDE SLOPES AS DIRECTED BY THE ENGINEER.

20. A QUANTITY HAS BEEN ESTIMATED FOR ITEM 617.10 "RELOCATE MAILBOX, SINGLE SUPPORT", TO BE USED AS DETERMINED BY THE ENGINEER.

21. AN ESTIMATED QUANTITY FOR ITEM 619.17 "YIELDING MARKER POSTS" HAS BEEN INCLUDED TO DELINEATE PIPE INLETS, PIPE OUTLETS AND DROP INLETS LOCATED OUTSIDE THE PAVEMENT SURFACES OR AS DIRECTED BY THE ENGINEER. ESTIMATED QUANTITIES OF ITEMS 608.25, "ALL PURPOSE EXCAVATOR RENTAL, TYPE I", 608.37, "TRUCK RENTAL", AND 608.40, "LOADER RENTAL, TYPE I" HAVE BEEN INCLUDED FOR THE PROVISION OF CONSTRUCTING GUARDRAIL END SECTIONS WITH EXCAVATED DITCHING MATERIAL AND THE REMOVAL OF BUILT UP EXCESS SHOULDER MATERIAL IN NON-GUARDRAIL LOCATIONS. AN ESTIMATED QUANTITY OF ITEM 203.30, "EARTH BORROW" HAS BEEN INCLUDED FOR USE WITH THE GUARDRAIL END SECTIONS. 25 CY OF ITEM 203.30, "EARTH BORROW" HAS BEEN ESTIMATED FOR EACH NEW END SECTION. GUARDRAIL END SECTIONS SHALL BE CAPPED WITH AN ESTIMATED 3 INCH DEPTH OF ITEM 651.35, "TOPSOIL" UNLESS OTHERWISE DIRECTED BY THE ENGINEER. THE QUANTITIES INCLUDED REFLECT 5 CY OF ITEM 651.35, "TOPSOIL" FOR EACH NEW GUARDRAIL END SECTION. ITEM 653.20, "TEMPORARY EROSION MATTING" SHALL BE PLACED ON SLOPES GREATER THAN 1:6 CREATED BY THE GUARDRAIL END SECTIONS. THE QUANTITIES INCLUDED REFLECT 25 SY OF ITEM 653.20, "TEMPORARY EROSION MATTING" FOR EACH NEW GUARDRAIL END SECTION. PRIOR TO THE PLACEMENT OF TEMPORARY EROSION MATTING, THE AREA SHALL BE TOPSOILED AND SEEDED USING ITEM 651.35, "TOPSOIL" AND ITEM 651.15 "SEED".

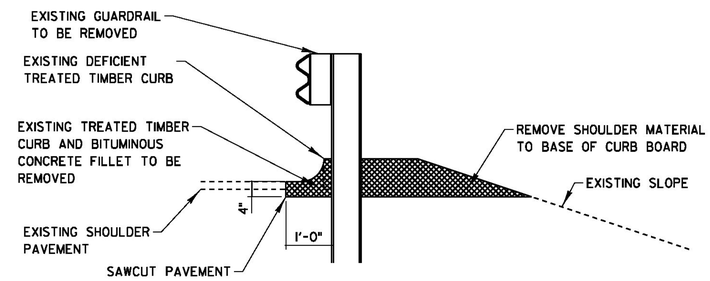
24. STEEL BEAM GUARDRAIL WITH STEEL POSTS SHALL BE USED ON THIS PROJECT.

25. ADDITIONAL QUANTITIES FOR PAY ITEMS 649.51 "GEOTEXTILE FOR SILT FENCE", 651.15 "SEED", 651.18 "FERTILIZER", 651.20 "AGRICULTURAL LIMESTONE", 653.20 "TEMPORARY EROSION MATTING" AND 651.25 "HAY MULCH" HAVE BEEN INCLUDED FOR STONE FILL SLOPE STABILIZATION AREAS TO BE PLACED ON GRUBBING MATERIAL.

26. ITEM 653.20 "TEMPORARY EROSION MATTING" HAS BEEN INCLUDED FOR AREAS WITH PROPOSED SLOPES BETWEEN 1:2 AND 1:1.5 AS DIRECTED BY THE ENGINEER.

27. QUANTITIES FOR ITEM 653.50 "BARRIER FENCE" AND ITEM 653.60 "EROSION LOG" HAVE BEEN INCLUDED FOR USE ADJACENT THE EVIRONMENTALLY SENSITIVE AREAS IDENTIFIED IN THE PLANS AND AS DIRECTED BY THE ENGINEER. INSTALLATION SHALL BE PER MANUFACTURERS RECOMMENDATIONS.

28. WHEN FINISHED GRADE HAS BEEN MET, THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ALL SIGNS BEING RETAINED ARE IN CONFORMANCE WITH VAOT STANDARD E-121 AS DIRECTED BY THE ENGINEER.



TREATED TIMBER CURB REMOVAL

NOT TO SCALE

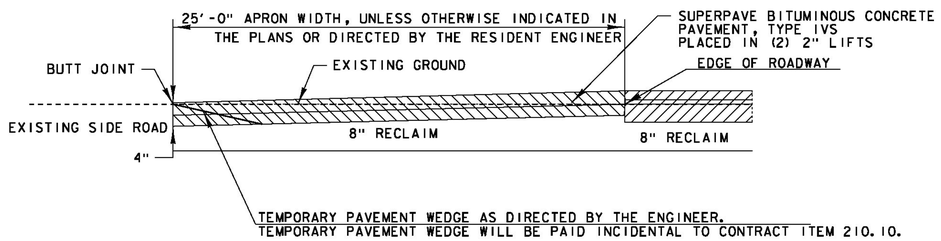
NOTE: THE REMOVAL OF TREATED TIMBER CURBING, INCLUDING THE BITUMINOUS CONCRETE FILLET, AND ANY SAWCUTTING, FROM INSTALLATIONS WHERE EXISTING GUARDRAIL IS REMOVED WILL NOT BE PAID FOR DIRECTLY, BUT WILL BE CONSIDERED INCIDENTAL TO REMOVAL AND DISPOSAL OF GUARDRAIL.

DETAILS ARE NOT TO SCALE

PROJECT TYPICAL SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

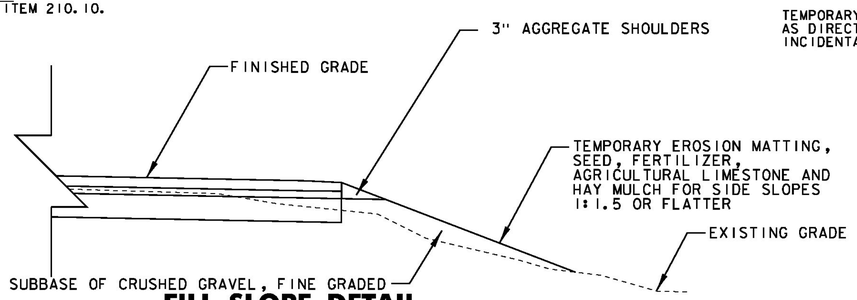
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_7.i
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 7 OF 194



TRANSITION AREA FOR SIDE ROADS

FULL WIDTH OF TOWN HIGHWAY
SEE LAYOUT SHEETS FOR LOCATIONS OF ALL SIDE ROADS

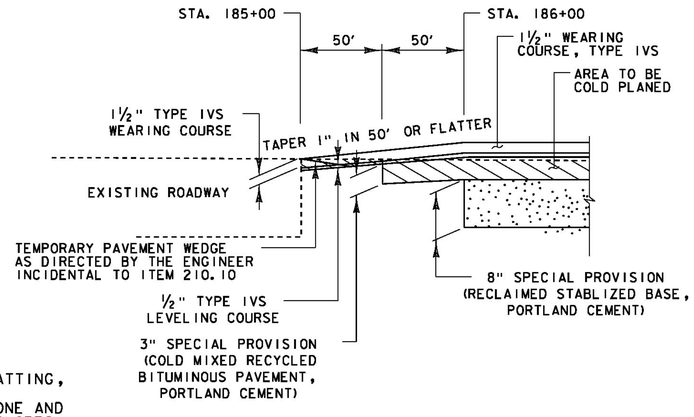
ELMORE		MORRISTOWN	
TH#23	STA. 209+00 RT	TH#21	STA. A 19+99 RT
TH#22	STA. 212+50 LT	TH#80	STA. A 49+51 LT
TH#1	STA. 245+90 RT	TH#39	STA. A 57+91 LT
TH#11	STA. 268+00 RT	TH#79	STA. A 63+73 LT
TH#8	STA. 298+65 LT	TH#78	STA. A 80+51 RT
TH#9	STA. 346+79 RT	TH#37	STA. A 97+52 LT
TH#8	STA. 347+33 LT	TH#88	STA. A 114+93 RT
TH#2	STA. 357+95 RT		
TH#5	STA. 363+79 RT		
TH#7	STA. 364+90 LT		
TH#4	STA. 418+10 RT		



FILL SLOPE DETAIL

NOT TO SCALE

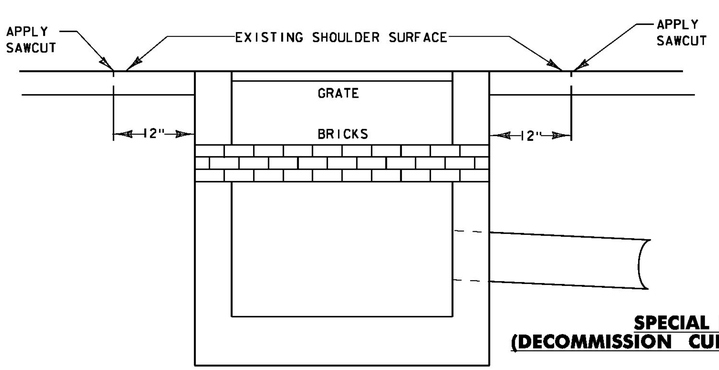
(FOR SLOPES 1:1.5 OR FLATTER)



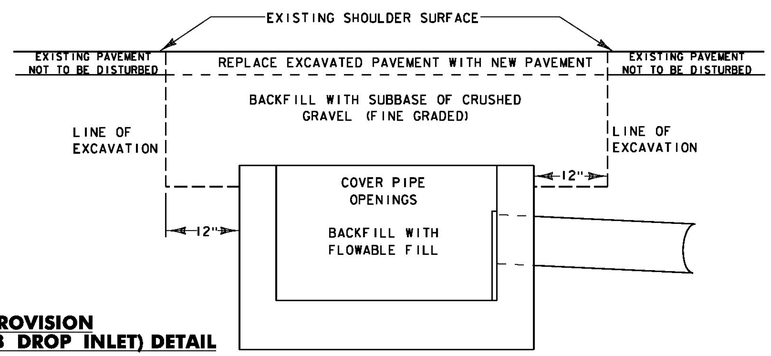
APPROACH AREA DETAIL (BEGIN PROJECT)

ELMORE
STA. 185+00.00

NOTE: IF DUE TO GROWING SEASON TIME CONSTRAINTS IT IS DEEMED NECESSARY BY THE CONSTRUCTION ENVIRONMENTAL ENGINEER THAT A MORE RAPID VEGETATION ESTABLISHMENT IS REQUIRED, PLACEMENT OF 2" OF GRUBBING MATERIAL SHALL BE PLACED ON THE SLOPE PRIOR TO PLACEMENT OF SEED, FERTILIZER, TEMPORARY EROSION MATTING, AND AGRICULTURAL LIMESTONE. PLACEMENT OF THE GRUBBING MATERIAL WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD OF ITEM 651.40 GRUBBING MATERIAL (2").



EXISTING CURB DROP INLET

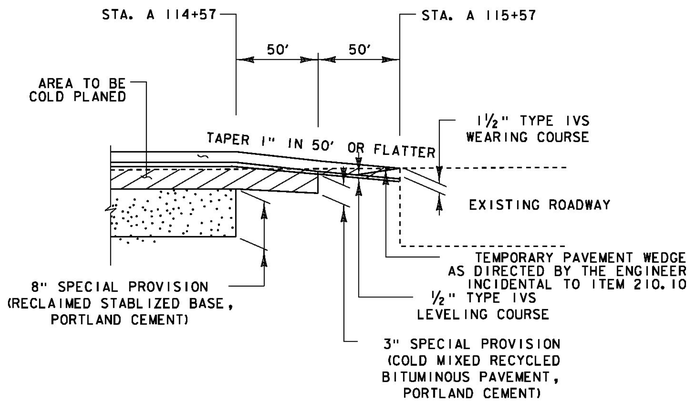


PROPOSED TREATMENT OF DROP INLET

SPECIAL PROVISION (DECOMMISSION CURB DROP INLET) DETAIL

ELMORE
STA. 239+94 LT

NOTES:
1. SAWCUT EXISTING SHOULDER TO MINIMIZE DAMAGE TO ADJACENT PAVEMENT. EXCAVATE TO DEPTH REQUIRED AND REMOVE TOP AND BRICKS FROM DI.
2. FOR CAPPED CURB DROP INLETS PLACE STEEL PLATE ON DI.
3. BACKFILL WITH ITEM 301.28 "SUBBASE OF CRUSHED GRAVEL, FINE GRADED".
4. EXCAVATED BITUMINOUS PAVEMENT SHALL BE REPLACED WITH NEW BITUMINOUS CONCRETE PAVEMENT. SEE RECLAIMED STABILIZED BASE TYPICAL SECTION ON SHEET 7.
5. APPLICATION OF SAWCUT, REMOVAL AND DISPOSAL OF TOP AND BRICKS, AND REQUIRED EXCAVATION SHALL BE PAID AS ONE EACH OF ITEM 900.620 "SPECIAL PROVISION (DECOMMISSION CURB DROP INLET)".



APPROACH AREA DETAIL (END PROJECT)

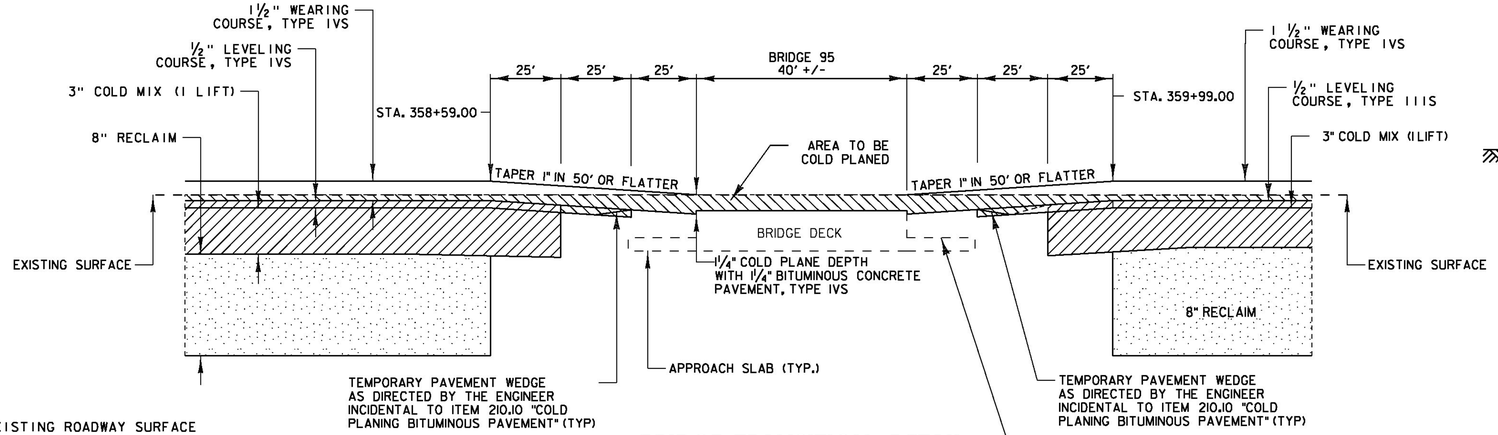
MORRISTOWN
STA. A 115+57.00

DETAILS ARE NOT TO SCALE

PROJECT TYPICAL SHEET 2

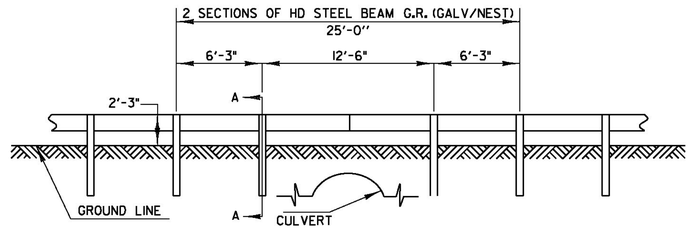
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_8.i
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 8 OF 194



BRIDGE TRANSITION DETAIL

ELMORE
STA. 359+29.00



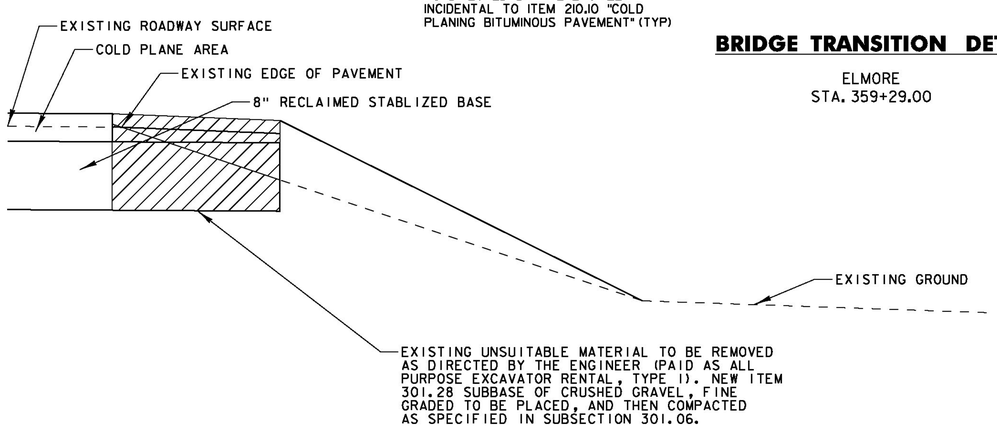
DETAIL OF STEEL BEAM GUARDRAIL AT SMALL CULVERTS

ELMORE
STA. 297+35 RT&LT

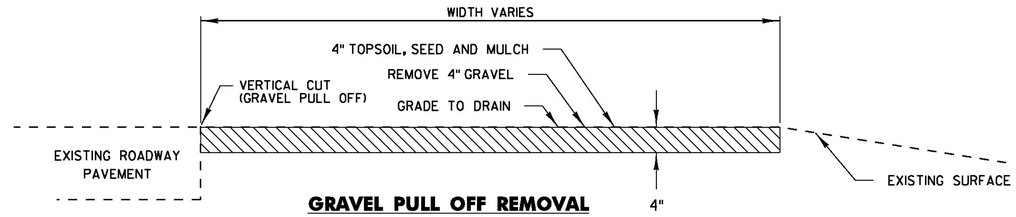
MORRISTOWN
STA. A 110+12 LT

NOTES:

1. SEE STANDARDS G-1 AND G-1d FOR STEEL BEAM GUARDRAIL DETAILS.
2. THIS WORK WILL BE PAID UNDER ITEM 621.216 "HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED" OR ITEM 621.217 "HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS" AT A PAY FACTOR OF 1.0.
3. THIS DETAIL TO BE USED AS INDICATED ON THE ITEM DETAIL SUMMARY SHEET OR AS DIRECTED BY THE ENGINEER.



EXISTING SHOULDER RECONSTRUCTION DETAIL

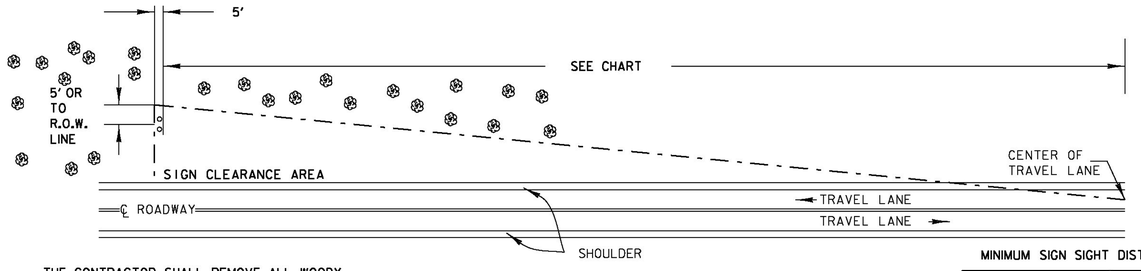


GRAVEL PULL OFF REMOVAL

ELMORE
STA. 417+50 RT

NOTE:

1. ALL EXCAVATION AND GRADING ASSOCIATED WITH PERFORMING THIS WORK WILL BE PAID UNDER THE APPLICABLE RENTAL ITEMS.



THE CONTRACTOR SHALL REMOVE ALL WOODY STEMMED GROWTH INCLUDING BRUSH, SAPLINGS AND TREE LIMBS GROWING WITHIN OR PROJECTING INTO THE CLEARANCE AREA AND DOWN TO GROUND LEVEL OR AT LEAST 10 FT BELOW THE BOTTOM OF THE SIGN. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 201.10 CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS. NO CHEMICALS (POISONS OR DEFOLIANTS) ALLOWED.

THINNING AND TRIMMING FOR SIGNS DETAIL

MINIMUM SIGN SIGHT DISTANCE CHART

APPROACH SPEED (mph)	SIGHT DISTANCE (feet)
30 OR LESS	300
35	350
40	400
45	450
50	500
55	550

SEEDING FORMULA

RATE: DOUBLE IF HYDROSEEDING

% WT.	LBS./A.	NAME	PUR %	GERM %
38	32	CREEPING RED FESCUE	98	90
29	24	SPARTAN HARD FESCUE	95	85
15	12	AZAY SHEEP'S FESCUE	95	87
15	12	ANNUAL RYE GRASS	95	90
3	--	INERTS	--	--
100.0	80 LB/A			

GENERAL NOTES

SEED MIXTURE: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.

SEED ITEM 651.15: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE RESIDENT ENGINEER.

FERTILIZER ITEM 651.18: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 500 LBS./ACRE. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA)

AGRICULTURAL LIMESTONE ITEM 651.20: TO BE APPLIED AT THE RATE OF 2 TONS/ACRE, OR AS DIRECTED BY THE RESIDENT ENGINEER.

TOPSOIL ITEM 651.35: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE RESIDENT ENGINEER.

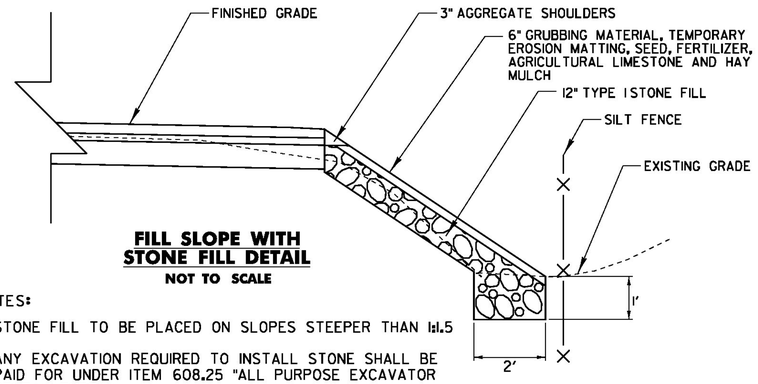
DETAILS ARE NOT TO SCALE

PROJECT TYPICAL SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_9.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 9 OF 194



FILL SLOPE WITH STONE FILL DETAIL

NOT TO SCALE

NOTES:

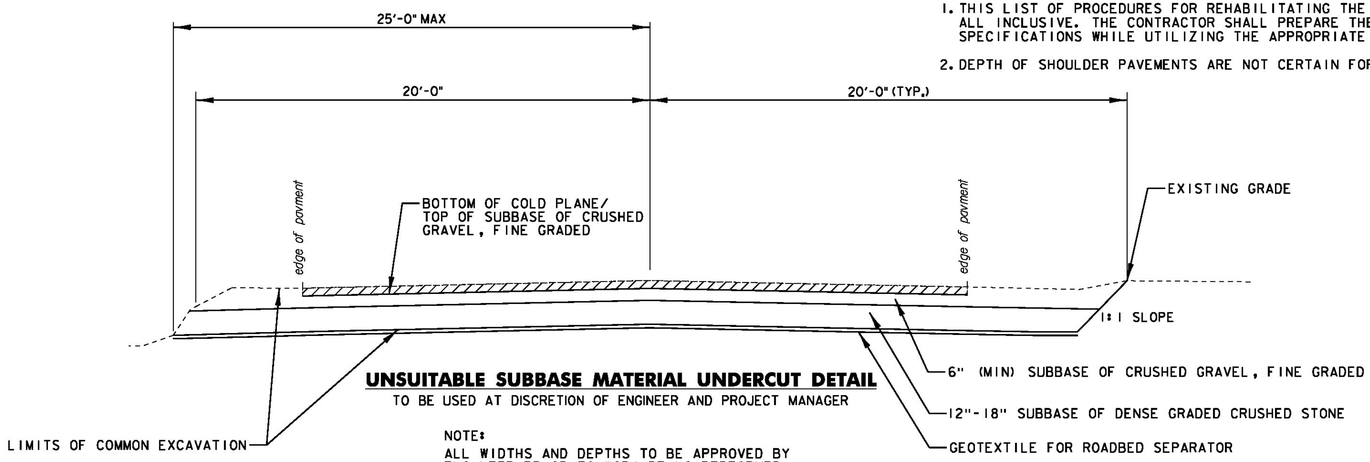
1. STONE FILL TO BE PLACED ON SLOPES STEEPER THAN 1:1.5
2. ANY EXCAVATION REQUIRED TO INSTALL STONE SHALL BE PAID FOR UNDER ITEM 608.25 "ALL PURPOSE EXCAVATOR RENTAL, TYPE I".

TYPICAL ORDER OF OPERATIONS FOR RECLAIMED STABILIZED BASE WITH PORTLAND CEMENT PAVEMENT REHABILITATION

STEP	DESCRIPTION	PAYMENT ITEM(S)
1	INSTALL 6" UNDERDRAIN PIPE	ITEM 605.10 "6" UNDERDRAIN PIPE"
2	COLD PLANE EXISTING ROADBED 4 INCHES	ITEM 210.10 "COLD PLANING, BITUMINOUS PAVEMENT"
3	REPAIR EXISTING SHOULDERS AS DIRECTED BY THE ENGINEER	ITEM 301.28 "SUBBASE OF CRUSHED GRAVEL, FINE GRADED"
4	RECLAIM EXISTING ROADBED 8" FROM TOP OF SLOPE TO TOP OF SLOPE USING WATER FOR STABILIZATION AND COMPACTION	ITEM 310.20 "RECLAIMED STABILIZED BASE"
5	CORRECT SUPERELEVATION DEFICIENCIES	ITEM 301.28 "SUBBASE OF CRUSHED GRAVEL, FINE GRADED" SEE NOTE 7 ON SHEET 7
6	RECLAIM AREAS OF SUPERELEVATION CORRECTION 8" AS DIRECTED BY THE ENGINEER.	INCIDENTAL TO ITEM 310.20 RECLAIMD STABILIZED BASE.
7	PLACE PORTLAND CEMENT ON ROADBED SURFACE AND RECLAIM ROADBED 8", CURE, MICROCRACK, AND APPLY FOG SEAL SURFACE TREATMENT	ITEM 900.675 "SPECIAL PROVISION (RECLAIMED STABILIZED BASE, PORTLAND CEMENT)", ITEM 900.680 "SPECIAL PROVISION (PORTLAND CEMENT FOR BASE STABILIZATION)" AND ITEM 900.683 "SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT)"
8	PLACE 3" COLD MIX IN (1) 3" LIFT	ITEM 900.675 "SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT)" ITEM 900.680 "SPECIAL PROVISION (PORTLAND CEMENT FOR COLD MIXED RECYCLING)" ITEM 900.683 "SPECIAL PROVISION (EMULSIFIED ASPHALT, COLD MIX WITH CEMENT)"
9	PLACE ½" TYPE IVS LEVELING COURSE	ITEM 490.30 "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT"
10	PLACE 1 ½" TYPE IVS WEARING COURSE	ITEM 490.30 "SUPERPAVE BITUMINOUS CONCRETE PAVEMENT"

NOTES:

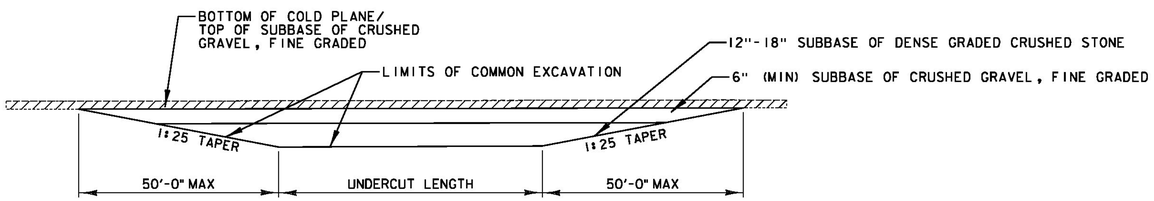
1. THIS LIST OF PROCEDURES FOR REHABILITATING THE EXISTING ROADBED IS PRESENTED FOR INFORMATIONAL PURPOSES ONLY AND SHALL NOT BE CONSIDERED ALL INCLUSIVE. THE CONTRACTOR SHALL PREPARE THEIR OWN SCHEDULE OF OPERATIONS TO COMPLETE THE PROPOSED WORK IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS WHILE UTILIZING THE APPROPRIATE PAY ITEMS AS SHOWN IN THE PLANS AS DIRECTED BY THE RESIDENT ENGINEER.
2. DEPTH OF SHOULDER PAVEMENTS ARE NOT CERTAIN FOR THE LENGTH OF THE PROJECT, AS THE BORINGS ARE TAKEN IN THE CENTER OF THE TRAVEL LANES



UNSUITABLE SUBBASE MATERIAL UNDERCUT DETAIL

TO BE USED AT DISCRETION OF ENGINEER AND PROJECT MANAGER

NOTE:
ALL WIDTHS AND DEPTHS TO BE APPROVED BY ENGINEER PRIOR TO WORK BEING PERFORMED.
LONGITUDINAL TRANSITION SHALL BE 1:25.

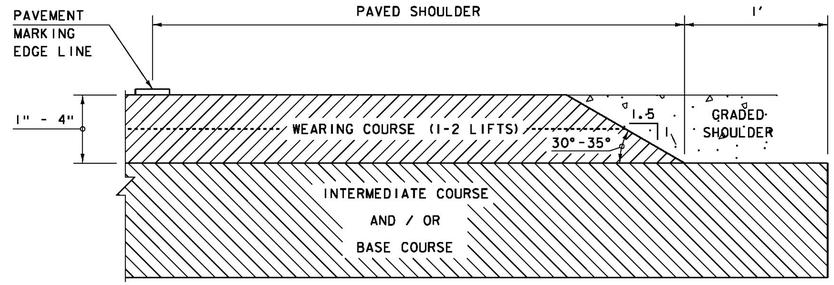


UNSUITABLE SUBBASE MATERIAL TRANSITION DETAIL

NOT TO SCALE

NOTES:

1. UNDERCUT CANDIDATE AREAS ENCOUNTERED DURING CONSTRUCTION SHALL BE REVIEWED AND APPROVED BY THE VTRANS CONSTRUCTION PAVING ENGINEER PRIOR TO THE TREATMENT.
2. ALL UNDERCUTS SHALL BE FULL WIDTH.



SAFETY EDGE DETAIL

NOT TO SCALE

NOTE:

1. LEVELING COURSE MAY INCLUDE THE "SAFETY EDGE" AT THE CONTRACTOR'S CHOICE.
2. THE EDGE OF PAVEMENT SHALL BE FORMED IN SUCH A WAY THAT THE BITUMINOUS CONCRETE PAVEMENT IS EXTRUDED OR COMPRESSED TO FORM THE 30 TO 35 DEGREE ANGLE. DEVICES THAT SIMPLY STRIKE-OFF THE MIX WITHOUT PROVIDING ANY COMPACTIVE EFFORT WILL NOT BE ALLOWED.

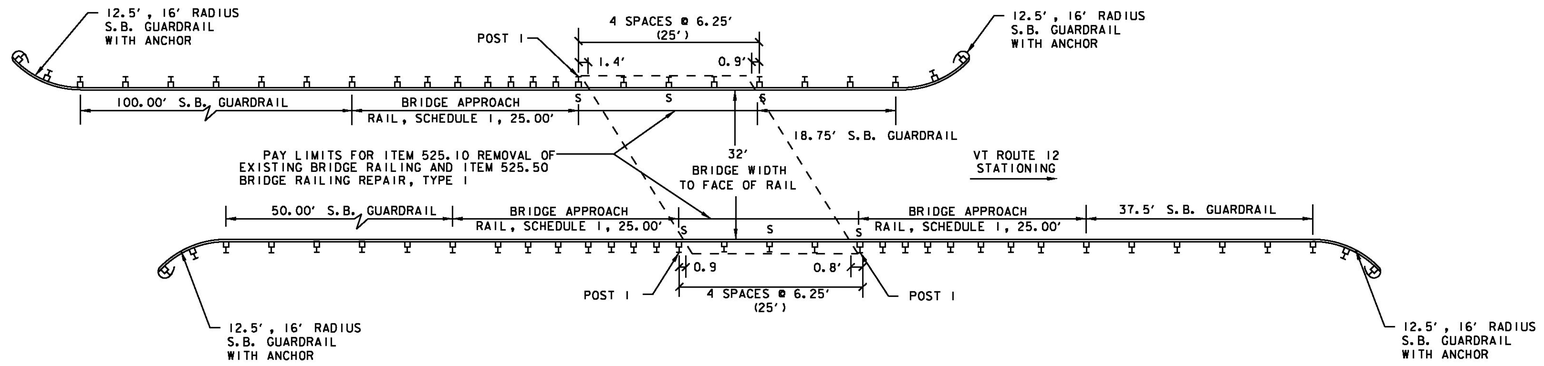
DETAILS ARE NOT TO SCALE

PROJECT TYPICAL SHEET 4

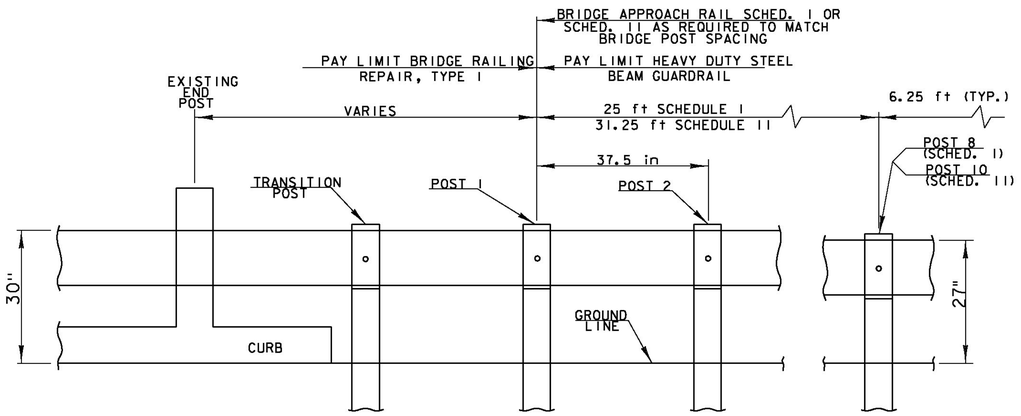
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_10.i

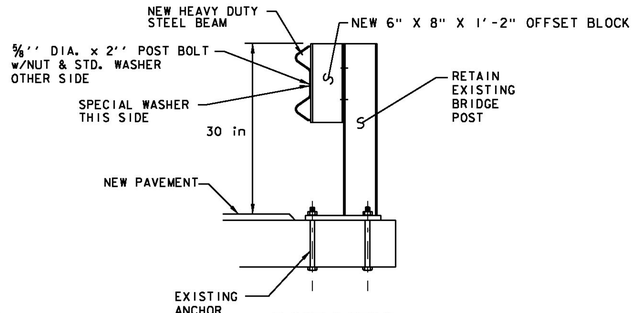
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 10 OF 194



ELMORE BRIDGE #95
STA. 359+29 - MM 6.805



BRIDGE APPROACH RAILING



POST DETAIL

BRIDGE APPROACH RAILING

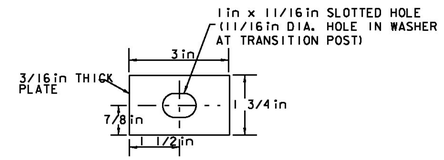
WHEN A RAIL PANEL SPLICE OCCURS AT POST NO. 1 USE SCHEDULE I FOR APPROACH RAILING. WHEN A RAIL PANEL SPLICE OCCURS AT BRIDGE END POST USE SCHEDULE II FOR APPROACH RAILING.

SCHEDULE I		
POST NO.	SPACING	PAYMENT FACTOR
1	3'-1½''	1.4 x 12.5 ft
2	3'-1½''	
3	3'-1½''	
4	3'-1½''	
5	4'-2''	1.2 x 12.5 ft
6	4'-2''	
7	4'-2''	
8	6'-3'' (TYP.)	1.0 (TYP.)
9		

SCHEDULE II		
POST NO.	SPACING	PAYMENT FACTOR
1	3'-1½''	1.4 X 18.75 ft
2	3'-1½''	
3	3'-1½''	
4	3'-1½''	
5	3'-1½''	
6	3'-1½''	
7	4'-2''	1.2 x 12.5 ft
8	4'-2''	
9	4'-2''	
10	6'-3'' (TYP.)	1.0 (TYP.)
11		

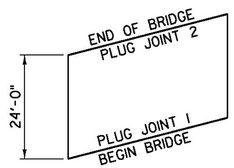
NOTES:

1. BRIDGE RAIL SHALL BE HEAVY DUTY STEEL BEAM RAIL, ITEM 525.50 "BRIDGE RAILING REPAIR, TYPE I".
2. BRIDGE APPROACH RAIL HEIGHT SHALL BE TRANSITIONED TO NORMAL ROADWAY RAIL HEIGHT IN 25 FEET.
3. APPROACH RAILING SHALL BE HEAVY DUTY STEEL BEAM FOR LENGTHS OF 25 FEET OR 31.25 FEET DETERMINED BY THE SCHEDULE. SEE BRIDGE DETAILS.
4. FOR BRIDGE RAILING, THE TRANSITION POST SHALL HAVE AN OFFSET BLOCK AND BE LOCATED AS CLOSE AS PRACTICAL TO THE MID-POINT BETWEEN THE BRIDGE END POST AND APPROACH RAIL POST 1.
5. SPLICES SHALL LAP IN DIRECTION OF TRAFFIC FLOW.



SPECIAL WASHER DETAIL

(MATERIAL SHALL MEET AASHTO M270M/M270 GRADE 345)



JOINT	STATION	LENGTH
1	359+15	40' - 0"
2	359+39	40' - 0"
	BRIDGE #95	80' - 0"

TOTAL LENGTH OF JOINT

ELMORE BRIDGE #95
STA. 359+29 (MM 6.805)
COLD PLANE AND PAVE

BRIDGE #	516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE
	LF	CF
ELMORE #95	80	100
SUBTOTAL	80	100
ROUNDING	-	-
TOTAL	80	100

NOTE: REFER TO BRIDGE JOINT ASPHALTIC PLUG - STRUCTURES DETAIL SD-516.10

NOT TO SCALE

BRIDGE DETAIL SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_11.i

PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 11 OF 194

QUANTITY SHEET 1

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES

	BRIDGE	TRAINING	FULL CE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
				1	1	LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-
				10500	10500	CY	COMMON EXCAVATION	203.15	EST.
				550	550	CY	EARTH BORROW	203.30	EST.
				3400	3400	CY	TRENCH EXCAVATION OF EARTH	204.20	14.10
				600	600	CY	TRENCH EXCAVATION OF ROCK	204.21	EST.
				1	1	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-
				113000	113000	SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	1456.4
				15300	15300	LF	MILLED RUMBLE STRIPS	213.10	4
				31500	31500	TON	SUBBASE OF CRUSHED GRAVEL, FINE GRADED	301.28	282.7
				8000	8000	CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	240.7
				119000	119000	SY	RECLAIMED STABILIZED BASE	310.20	1751
				1725	1725	TON	AGGREGATE SHOULDERS	402.12	23
				1	1	LU	PRICE ADJUSTMENT ASPHALT CEMENT (N.A.B.I.)	406.50	-
				14000	14000	TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	490.30	105.0
				1	1	LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)	490.31	-
				1	1	LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	490.32	-
				1	1	LU	SURFACE TOLERANCE PAY ADJUSTMENT (N.A.B.I.)	490.33	-
				1	1	LU	LONGITUDINAL JOINT COMPACTION PAY ADJUSTMENT (N.A.B.I.)	490.34	-
	380				380	LBS	REINFORCING STEEL, LEVEL II	507.12	4
	80				80	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	-
	50				50	LF	REMOVAL OF EXISTING BRIDGE RAILING	525.10	-
	50				50	LF	BRIDGE RAILING REPAIR, TYPE I	525.50	-
	3				3	CY	CONCRETE, CLASS B	541.25	0.95
	100				100	CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	-
				3	3	LF	18" RCP CLASS III	601.0815	-
				1	1	EA	PRECAST REINFORCED CONCRETE CATCH BASIN WITH CAST IRON GRATE	604.20	-
				5	5	EA	REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I	604.412	-
				10900	10900	LF	6 INCH UNDERDRAIN PIPE	605.10	145
				50	50	HR	POWER GRADER RENTAL	608.15	EST.
				700	700	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.
				35	35	HR	POWER BROOM RENTAL, TYPE I	608.30	EST.
				1400	1400	HR	TRUCK RENTAL	608.37	EST.
				30	30	HR	LOADER RENTAL, TYPE I	608.40	EST.
				1500	1500	CY	STONE FILL, TYPE I	613.10	46.8
				4	4	EA	RELOCATE MAILBOX, SINGLE SUPPORT	617.10	EST.

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COLD PLANING - BITUMINOUS PAVEMENT
109618.7	SY	MAINLINE
1924.9	SY	SIDEROAD APRONS
1456.4	SY	ROUNDING
113000	SY	TOTAL
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE IVS)
		WEARING COURSE
10179.0	TON	TYPE IVS
		LEVELING COURSE
3502.6	TON	TYPE IVS
		SIDE ROADS
213.4	TON	TYPE IVS
105.0	TON	ROUNDING
14000	TON	TOTAL
		STONE FILL, TYPE I
11.2	CY	ITEM DETAIL SUMMARY SHEET
1442	CY	DITCH CLEANING DETAIL SHEET
46.8	CY	ROUNDING
1500	CY	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		TRENCH EXCAVATION OF EARTH
3385.9	CY	UNDERDRAIN DETAIL SHEET
14.1	CY	ROUNDING
3400	CY	TOTAL
		SUBBASE OF CRUSHED GRAVEL, FINE GRADED
12894.3	TON	RESHAPE ROADWAY
3657.9	TON	UNSUITABLE SHOULDER MATERIAL
14665.1	TON	UNSUITABLE SUBBASE MATERIAL
282.7	TON	ROUNDING
31500	TON	TOTAL

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_14.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 14 OF 194

QUANTITY SHEET 2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES

		TRAINING	FULL CE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
				181	181	EA	YIELDING MARKER POSTS	619.17	EST.
				1400	1400	LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	15.5
				3400	3400	LF	STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS	621.205	3
				100	100	LF	HD STEEL BEAM GUARDRAIL, GALVANIZED	621.21	2.5
				25	25	LF	HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED	621.216	-
				50	50	LF	HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS	621.217	-
				22	22	EA	ANCHOR FOR STEEL BEAM RAIL	621.60	-
				4778	4778	LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	-
				1300	1300	HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.
				10000	10000	HR	FLAGGERS	630.15	EST.
			1		1	LS	FIELD OFFICE, ENGINEERS	631.10	-
			1		1	LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-
			3000		3000	DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	-
		520			520	HR	EMPLOYEE TRAINEESHIP	634.10	-
				1	1	LS	MOBILIZATION/DEMOBILIZATION	635.11	-
				1	1	LS	TRAFFIC CONTROL	641.10	-
				2	2	LS	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
				72000	72000	LF	DURABLE 4 INCH WHITE LINE, POLYUREA	646.404	1126
				60000	60000	LF	DURABLE 4 INCH YELLOW LINE, POLYUREA	646.414	895
							BEGIN OPTION AA		
				230	230	LF	DURABLE 24 INCH STOP BAR, THERMOPLASTIC	646.482	3
				230	230	LF	DURABLE 24 INCH STOP BAR, POLYUREA	646.484	3
							END OPTION AA		
							BEGIN OPTION BB		
				70	70	EA	DURABLE LETTER OR SYMBOL, THERMOPLASTIC	646.492	-
				70	70	EA	DURABLE LETTER OR SYMBOL, POLYUREA	646.494	-
							END OPTION BB		
				213000	213000	LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	378
				178000	178000	LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	685
				700	700	LF	TEMPORARY 24 INCH STOP BAR, PAINT	646.682	19
				225	225	EA	TEMPORARY LETTER OR SYMBOL, PAINT	646.692	15
				3500	3500	EA	LINE STRIPING TARGETS	646.76	EST.
				15800	15800	SY	GEOTEXTILE FOR ROADBED SEPARATOR	649.11	281
				6600	6600	SY	GEOTEXTILE UNDER STONE FILL	649.31	82.9
				40	40	SY	GEOTEXTILE FOR SILT FENCE	649.51	6.67
				330	330	LB	SEED	651.15	EST.
				1460	1460	LB	FERTILIZER	651.18	EST.

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		GEOTEXTILE UNDER STONE FILL
50.1	SY	ITEM DETAIL SUMMARY SHEET
6467	SY	DITCH CLEANING DETAIL SHEET
82.9	SY	ROUNDING
6600	SY	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		YIELDING MARKER POSTS
113	EA	ITEM DETAIL SUMMARY SHEET
68	EA	UNDERDRAIN DETAIL SHEET
181	EA	TOTAL

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_15.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 15 OF 194

QUANTITY SHEET 3

STATE OF VERMONT
AGENCY OF TRANSPORTATION

SUMMARY OF ESTIMATED QUANTITIES

		TRAINING	FULL CE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NO.	ROUNDING
				6	6	TON	AGRICULTURAL LIMESTONE	651.20	EST.
				5	5	TON	HAY MULCH	651.25	EST.
				250	250	CY	TOPSOIL	651.35	21.2
				23500	23500	SY	GRUBBING MATERIAL (2")	651.40	223
				25	25	SY	GRUBBING MATERIAL (6")	651.40	4.1
				7900	7900	SY	TEMPORARY EROSION MATTING	653.20	101.9
				3100	3100	LF	BARRIER FENCE	653.50	4
				3100	3100	LF	EROSION LOG	653.60	4
				510	510	SF	TRAFFIC SIGNS, TYPE A	675.20	12.72
				1704	1704	LF	SQUARE TUBE SIGN POST AND ANCHOR	675.341	-
				135	135	EA	REMOVING SIGNS	675.50	-
				6	6	EA	ERECTING SALVAGED SIGNS	675.60	-
				22	22	EA	DELINEATOR WITH STEEL POST	676.10	-
				25	25	EA	REMOVAL OF EXISTING DELINEATOR	676.12	-
				1	1	LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-
				4	4	EA	SPECIAL PROVISION (CORING CONCRETE)	900.620	-
				5	5	EA	SPECIAL PROVISION (CPM SCHEDULE)	900.620	-
				1	1	EA	SPECIAL PROVISION (DECOMMISSION CURB DROP INLET)	900.620	-
				1	1	EA	SPECIAL PROVISION (GNSS CONSTRUCTION INSPECTION EQUIPMENT)	900.620	-
				528	528	LF	SPECIAL PROVISION (BARRIER FOR TEMPORARY TRAFFIC PROTECTION)	900.640	-
				1	1	LS	SPECIAL PROVISION (GPS MACHINE CONTROL GRADING)	900.645	-
				125000	125000	SY	SPECIAL PROVISION (COLD MIXED RECYCLED BITUMINOUS PAVEMENT, PORTLAND CEMENT)	900.675	1580
				1650	1650	SY	SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)	900.675	77.4
				125000	125000	SY	SPECIAL PROVISION (RECLAIMED STABILIZED BASE, PORTLAND CEMENT)	900.675	1580
				4500	4500	TON	SPECIAL PROVISION (AGGREGATE TO MEET COLD MIXED GRADATION)	900.680	170
				14000	14000	TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)	900.680	105.0
				29000	29000	TON	SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE, COLD MIX)	900.680	135
				1900	1900	TON	SPECIAL PROVISION (PORTLAND CEMENT FOR BASE STABILIZATION)	900.680	38
				290	290	TON	SPECIAL PROVISION (PORTLAND CEMENT FOR COLD MIXED RECYCLING)	900.680	82
				800	800	CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT) (RS-1H OR CRS-1H)	900.683	EST.
				1600	1600	CWT	SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT)	900.683	44.9
				12500	12500	CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT, COLD MIX WITH CEMENT)	900.683	EST.

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		TEMPORARY EROSION MATTING
50.1	SY	ITEM DETAIL SUMMARY SHEET
7748	SY	DITCH CLEANING DETAIL SHEET
101.9	SY	ROUNDING
7900	SY	TOTAL
		SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE)
10179	TON	MAINLINE
213.4	TON	SIDE ROADS
3502.6	TON	LEVELING
105.0	TON	ROUNDING
14000	TON	TOTAL
		SPECIAL PROVISION (MATERIAL TRANSFER VEHICLE, COLD MIX)
28865	TON	COLD MIX
135	TON	ROUNDING
29000	TON	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_16.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 16 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SUMMARY SHEET

BEGIN STATION	END STATION	POS.	203.30 EARTH BORROW CY	402.12 AGG. SHOULD. TON	507.12 RE-INFORCING STEEL, LEVEL II LBS	525.10 REMOVAL OF EXIST. BRIDGE RAILING LF	525.50 BRIDGE RAILING REPAIR TYPE I LF	541.25 CONC. CLASS B CY	604.20 PRECAST CONC. CB W/CAST IRON GRATE EA	604.412 REHAB. D. I. CLASS I EACH	613.10 STONE FILL, TYPE I CY	619.17 YIELD MARKER POSTS EACH	621.20 STEEL BEAM G.R. GALV LF	621.205 STEEL BEAM G.R. GALV W/8' POSTS LF	621.21 HD STEEL BEAM G.R., GALV. LF	621.216 HD STEEL BEAM G.R., GALV./ NESTED LF	621.217 HD S.B. G.R., GALV./ NESTED W/8' POSTS LF	621.60 ANCHOR FOR S.B. G.R. EACH	621.80 REMOVE & DISP. OF G.R. LF	649.31 GEOT. UNDER STONE FILL SY	651.35 TOPSOIL CY	651.40 GRUBBING MATERIAL SY	653.20 TEMP. EROSION MATTING SY	676.10 DELINE. WITH STEEL POSTS EACH	676.12 REMOVAL OF EXIST. DELINE. EACH	REMARKS
ELMORE																										
185+00	418+58	LT&RT		1135						4		80									79.4						
229+75	242+00	RT	50										329	900				2	1212.5		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 229+75
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 242+00
239+25	243+75	LT	50										454					2	437.5		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 239+25
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 243+75
295+72.5	298+10	RT	50											216.5			25	2	216		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 295+72.5
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 298+10
295+97.5	298+35	LT	50										216.5			25		2	315		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 295+97.5
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 298+35
299+00	309+00	LT	50											1004				2	950		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 299+00
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 309+00
304+79.53	304+85.61	RT			376			2.05																		CONSTRUCT CONCRETE REINFORCED HEADWALL PER STD. D-33
324+50	324+75	LT									4.0									17.5		7.8	17.5			PLACE STONE FILL ON SLOPES GREATER THAN 1:1.5
																										FOR SLOPE STABILIZATION
357+69.5	359+69.5	LT	50			25	25						154		32.5			2	169		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 357+69.5
																										AND AT STA. 359+69.5
358+40.5	360+15.5	RT	50			25	25						104		65			2	150		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. 358+40.5
																										AND AT STA. 360+15.5
363+40	363+65	RT									4.5									19.0		9.3	19.0			PLACE STONE FILL ON SLOPES GREATER THAN 1:1.5
																										FOR SLOPE STABILIZATION
MORRISTOWN																										
A 0+00	A 115+31.5	LT&RT		562						1		33									39.4				3	
A 38+50		LT							1																	INSTALL NEW CB AT STA. A 38+71 LT AND EXTEND 18" RCP 3' LT
A 52+40	A 52+50	LT									1.1									5.4		1.5	5.4			PLACE STONE FILL ON SLOPES GREATER THAN 1:1.5
																										FOR SLOPE STABILIZATION
A 67+00	A 69+00	LT	50											204				2	191		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 67+00
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 69+00
A 69+25	A 72+25	RT	50										127	177				2	234		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 69+25
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 72+25
A 73+96	A 80+33.5	RT	50											641.5				2	628		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 73+96
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 80+33.5
A 88+85	A 89+00	RT									1.6									8.2		2.3	8.2			PLACE STONE FILL ON SLOPES GREATER THAN 1:1.5
																										FOR SLOPE STABILIZATION
A 109+00	A 111+75	LT	50											254			25	2	275		10			2	2	INSTALL 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 109+00
																										AND 12'-6" LONG, 16' RADIUS WITH ANCHOR AT STA. A 111+75
SUBTOTAL			550	1697	376	50	50	2.05	1	5	11.2	113	1384.5	3397	97.5	25	50	22	4778	50.1	228.8	20.9	50.1	22	25	
ROUNDING			-	28	4	-	-	0.95	-	-	-	-	15.5	3	2.5	-	-	-	-	-	21.2	4.1	-	-	-	
TOTAL			550	1725	380	50	50	3	1	5	11.2	113	1400	3400	100	25	50	22	4778	50.1	250	25	50.1	22	25	

ITEM DETAIL SUMMARY SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_17.i

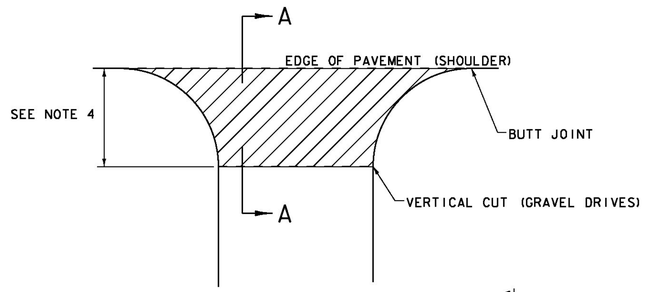
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 17 OF 194

STATION	POSITION	TYPE	QUANTITY (SY)
ELMORE			
191+60	LT	GRAVEL	13.5
193+22	LT	FIELD	3.4
196+43	LT	GRAVEL	13.1
200+89	LT	GRAVEL	10.7
210+71	LT	GRAVEL	8.4
216+72	LT	GRAVEL	21.2
221+88	LT	GRAVEL	15.2
222+68	RT	WOODS	4.9
225+26	LT	GRAVEL	12.2
235+26	LT	GRAVEL	12.1
239+14	LT	FIELD	5.5
243+84	LT	FIELD	3.5
244+31	RT	GRAVEL	60.9
254+97	RT	FIELD	6.3
255+63	LT	FIELD	4.5
258+63	RT	GRAVEL	12.5
263+29	RT	FIELD	4.5
268+11	LT	GRAVEL	32.0
269+63	LT	GRAVEL	14.5
273+07	LT	GRAVEL	13.2
275+28	LT	GRAVEL	12.3
276+10	RT	FIELD	6.8
280+26	RT	GRAVEL	6.4
281+61	RT	FIELD	4.6
285+96	LT	GRAVEL	7.9
286+61	RT	GRAVEL	10.6
294+80	LT	GRAVEL	20.3
295+41	RT	GRAVEL	9.0
298+90	RT	GRAVEL	10.4
301+41	RT	GRAVEL	11.4

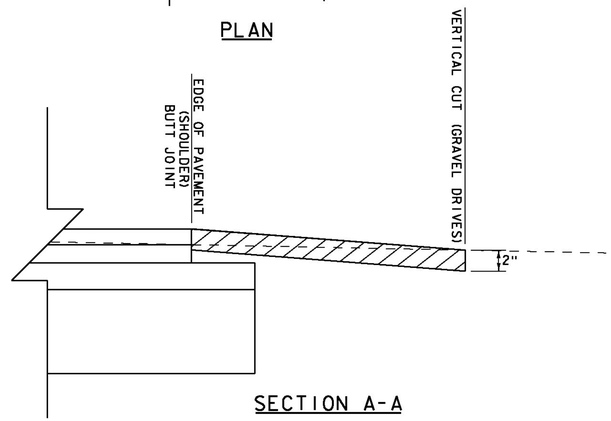
STATION	POSITION	TYPE	QUANTITY (SY)
307+11	RT	GRAVEL	7.2
308+43	RT	PAVED	7.9
312+80	RT	GRAVEL	6.6
314+00	LT	GRAVEL	28.9
319+07	RT	GRAVEL	35.6
321+94	LT	WOODS	3.8
326+84	LT	GRAVEL	7.8
329+72	RT	FIELD	4.5
331+80	LT	PAVED	12.3
333+51	LT	GRAVEL	10.4
336+09	LT	PAVED	10.8
340+22	RT	GRAVEL	6.9
345+52	RT	PAVED	7.4
347+38	RT	PAVED	11.4
349+05	RT	FIELD	2.9
353+26	LT	GRAVEL	11.4
355+82	RT	PAVED	59.1
355+82	LT	PAVED	171.7
357+13	RT	PAVED	14.5
359+83	LT	GRAVEL	15.6
360+50	LT	GRAVEL	9.2
362+01	RT	GRAVEL	14.5
362+19	LT	PAVED	9.7
365+14	RT	GRAVEL	5.3
369+22	RT	GRAVEL	8.6
372+44	RT	FIELD	2.9
372+95	RT	GRAVEL	11.1
373+90	LT	PAVED	22.0
374+84	RT	GRAVEL	9.6
376+92	RT	GRAVEL	15.5

STATION	POSITION	TYPE	QUANTITY (SY)
379+37	RT	FIELD	3.6
390+03	RT	FIELD	4.4
391+75	RT	FIELD	3.4
393+13	RT	GRAVEL	12.9
393+99	LT	WOODS	2.6
395+20	RT	GRAVEL	14.5
404+89	LT	WOODS	2.8
412+72	LT	PAVED	13.5
416+53	LT	GRAVEL	15.5
MORRISTOWN			
A +86	LT	GRAVEL	10.9
A 5+41	RT	GRAVEL	20.0
A 8+14	LT	FIELD	2.5
A 9+74	LT	GRAVEL	11.4
A 17+06	LT	GRAVEL	51.7
A 17+32	RT	GRAVEL	12.9
A 25+85	LT	WOODS	2.0
A 26+26	RT	GRAVEL	20.3
A 27+85	RT	GRAVEL	15.9
A 37+47	RT	PAVED	22.9
A 38+41	RT	GRAVEL	7.0
A 40+92	RT	GRAVEL	11.4
A 41+96	LT	GRAVEL	6.6
A 43+69	LT	FIELD	2.3
A 46+40	RT	GRAVEL	19.4
A 47+29	RT	GRAVEL	15.2
A 48+29	RT	GRAVEL	13.7
A 57+90	RT	GRAVEL	8.2
A 58+33	RT	GRAVEL	6.1
A 59+60	RT	PAVED	11.1
A 60+61	RT	PAVED	11.9

STATION	POSITION	TYPE	QUANTITY (SY)
A 62+45	RT	PAVED	11.4
A 63+70	RT	GRAVEL	23.0
A 66+21	RT	GRAVEL	17.9
A 69+17	LT	GRAVEL	17.6
A 76+18	LT	PAVED	16.7
A 77+53	LT	GRAVEL	10.3
A 81+54	RT	PAVED	6.6
A 81+92	LT	PAVED	31.5
A 82+41	RT	PAVED	8.9
A 85+21	LT	PAVED	19.6
A 89+38	RT	GRAVEL	8.0
A 90+32	RT	GRAVEL	10.3
A 91+57	RT	FIELD	3.8
A 92+58	LT	FIELD	3.6
A 93+87	LT	PAVED	30.4
A 94+15	RT	FIELD	3.9
A 95+32	RT	GRAVEL	13.6
A 101+09	RT	FIELD	2.6
A 102+61	RT	GRAVEL	8.4
A 106+71	LT	GRAVEL	8.8
111+71	RT	PAVED	7.4
113+08	RT	PAVED	15.7
113+42	LT	GRAVEL	7.1
A 114+34	LT	PAVED	12.0
		SUBTOTAL	1572.6
		ROUNDING	77.4
		TOTAL	1650.0



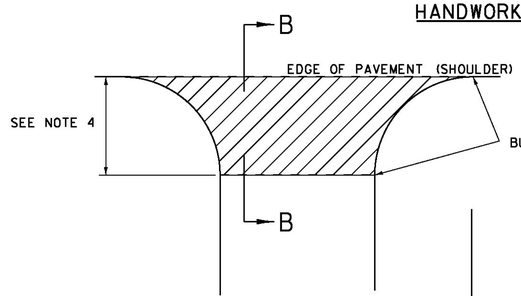
PLAN



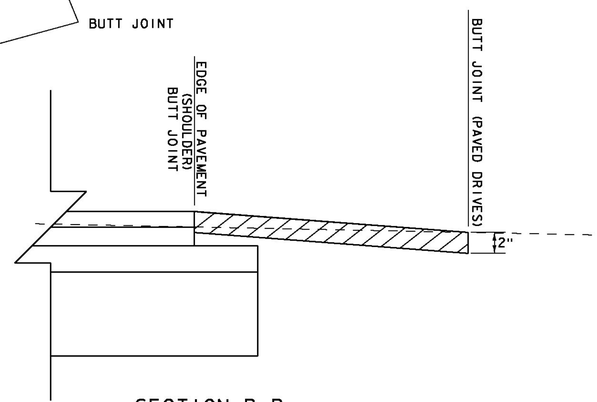
SECTION A-A

HANDWORK DETAILS FOR DRIVES - GRAVEL DRIVES

VT ROUTE 12



PLAN



SECTION B-B

HANDWORK DETAILS FOR DRIVES - PAVED DRIVES

VT ROUTE 12

NOTES:

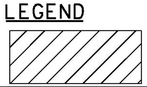
1. PAVING LIFT NOT TO EXCEED 2" (50mm)

2. THE COST OF PLACING SUBBASE MATERIAL, CLEANING EXISTING PAVED SURFACES, INCLUDING POWER EQUIPMENT, AND FOR FILLING JOINTS, CRACKS AND HOLES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)".

3. EXCAVATION OR FILL NEEDED TO ACHIEVE PROPER DRIVE SLOPES WILL NOT BE PAID DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)".

4. FIELD DRIVES 2'-0"; RESIDENTIAL AND COMMERCIAL DRIVES 4'-0"; OR AS DIRECTED BY THE ENGINEER.

LEGEND



DETAILS ARE NOT TO SCALE

ITEM 900.675 "SPECIAL PROVISION (HAND-PLACED BITUMINOUS CONCRETE MATERIAL, DRIVES)"

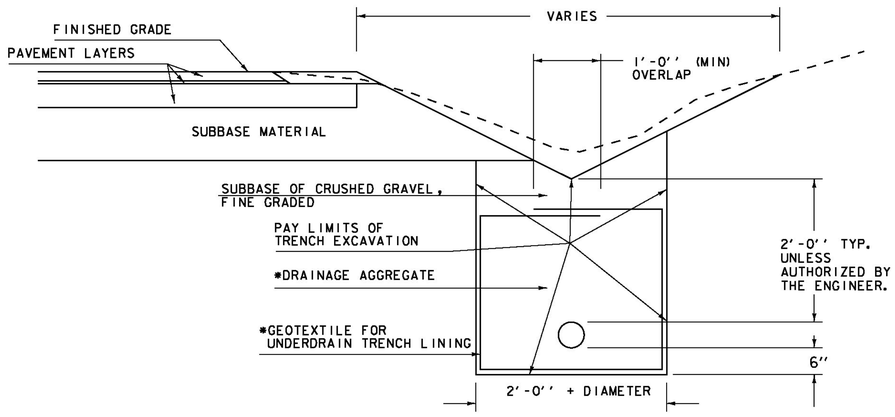
HANDWORK DETAILS FOR DRIVES

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_21.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 21 OF 194

LOCATION						MISC. ITEMS					REMARKS
SITE	STATION		STATION		POS.	605.10	*	*	204.20	204.21	619.17	* ITEMS TO BE PAID AS PART OF ITEM
						6 INCH	DRAINAGE	GEOTEXTILE	TRENCH EXC.	TRENCH EXC.	YIELDING	605.10 "6 INCH UNDERDRAIN PIPE"
						UNDERDRAIN PIPE	AGGREGATE	FOR TRENCH	OF EARTH	OF ROCK	MARKER POSTS	
						LF	CY	SY	CY	CY	EA	
1		197+00		200+50	LT	350.0	129.6	544.4	110.2	19.4	2	OUTLET UNDERDRAIN TO CROSS PIPE
2		225+50		230+50	LT	500.0	185.2	777.8	157.4	27.8	2	OUTLET UNDERDRAIN TO CROSS PIPE
3		246+75		250+50	RT	375.0	138.9	583.3	118.1	20.8	1	CONNECT UNDERDRAIN TO CATCH BASIN
												PAID AS ITEM 900.620 SP. PROV. (CORING CONCRETE)
4		250+75		254+75	RT	400.0	148.1	622.2	125.9	22.2	2	
5		273+00		275+85	RT	285.0	105.6	443.3	89.7	15.8	2	OUTLET UNDERDRAIN TO CROSS PIPE
6		276+50		277+75	RT	125.0	46.3	194.4	39.4	6.9	2	
7		283+50		286+35	RT	285.0	105.6	443.3	89.7	15.8	2	OUTLET UNDERDRAIN TO CROSS PIPE
8		287+00		289+60	RT	260.0	96.3	404.4	81.9	14.4	2	OUTLET UNDERDRAIN TO CROSS PIPE
9		292+00		295+25	RT	325.0	120.4	505.6	102.3	18.1	2	OUTLET UNDERDRAIN TO DRIVE PIPE
10		299+15		301+00	RT	185.0	68.5	287.8	58.2	10.3	2	OUTLET UNDERDRAIN TO DRIVE PIPE
11		301+65		304+50	RT	285.0	105.6	443.3	89.7	15.8	2	OUTLET UNDERDRAIN TO DRIVE PIPE
12		304+85		307+00	RT	215.0	79.6	334.4	67.7	11.9	2	OUTLET UNDERDRAIN TO CROSS PIPE
13		309+25		312+50	RT	325.0	120.4	505.6	102.3	18.1	2	OUTLET UNDERDRAIN TO CROSS PIPE
14		313+15		315+50	RT	235.0	87.0	365.6	74.0	13.1	2	OUTLET UNDERDRAIN TO CROSS PIPE
15		315+80		318+50	RT	270.0	100.0	420.0	85.0	15.0	2	OUTLET UNDERDRAIN TO CROSS PIPE
16		330+00		332+95	RT	295.0	109.3	458.9	92.9	16.4	1	CONNECT UNDERDRAIN TO CATCH BASIN
												PAID AS ITEM 900.620 SP. PROV. (CORING CONCRETE)
17		333+25		336+50	RT	325.0	120.4	505.6	102.3	18.1	2	
18		378+00		380+50	LT	250.0	92.6	388.9	78.7	13.9	2	
19		384+50		388+00	LT	350.0	129.6	544.4	110.2	19.4	2	
20		391+75		393+50	LT	175.0	64.8	272.2	55.1	9.7	2	OUTLET UNDERDRAIN OVER THE BANK
21		394+25		397+00	LT	275.0	101.9	427.8	86.6	15.3	2	
22		397+10		400+50	LT	340.0	125.9	528.9	107.0	18.9	1	CONNECT UNDERDRAIN TO CATCH BASIN
												PAID AS ITEM 900.620 SP. PROV. (CORING CONCRETE)
23		405+50		408+80	LT	330.0	122.2	513.3	103.9	18.3	2	OUTLET UNDERDRAIN TO CROSS PIPE
24		409+25		412+50	LT	325.0	120.4	505.6	102.3	18.1	2	OUTLET UNDERDRAIN TO CROSS PIPE
25		413+25		416+25	LT	300.0	111.1	466.7	94.4	16.7	2	OUTLET UNDERDRAIN TO DRIVE PIPE
26		417+00		418+40	LT	140.0	51.9	217.8	44.1	7.8	2	OUTLET UNDERDRAIN TO CROSS PIPE
27	A	1+25	A	2+50	LT	125.0	46.3	194.4	39.4	6.9	2	
28	A	4+50	A	8+00	LT	350.0	129.6	544.4	110.2	19.4	2	OUTLET UNDERDRAIN TO CROSS PIPE
29	A	10+00	A	11+50	LT	150.0	55.6	233.3	47.2	8.3	2	OUTLET UNDERDRAIN TO CROSS PIPE
30	A	27+50	A	33+00	LT	550.0	203.7	855.6	173.1	30.6	2	
31	A	33+50	A	35+50	LT	200.0	74.1	311.1	63.0	11.1	2	OUTLET UNDERDRAIN TO CROSS PIPE
32	A	36+00	A	38+75	LT	275.0	101.9	427.8	86.6	15.3	1	CONNECT UNDERDRAIN TO CATCH BASIN
												PAID AS ITEM 900.620 SP. PROV. (CORING CONCRETE)
33	A	44+00	A	49+15	LT	515.0	190.7	801.1	162.1	28.6	2	OUTLET UNDERDRAIN TO CROSS PIPE
34	A	58+50	A	63+00	LT	450.0	166.7	700.0	141.7	25.0	2	
35	A	69+50	A	73+00	LT	350.0	129.6	544.4	110.2	19.4	2	
36	A	105+50	A	108+15	RT	265.0	98.1	412.2	83.4	14.7	2	OUTLET UNDERDRAIN TO DRIVE PIPE
		SUBTOTAL				**10755.0**	**3983.5**	**16729.8**	**3385.9**	**597.3**	**68.0**	
		ROUNDING				**145.0**	-	-	**14.1**	**2.7**	-	
		TOTAL				**10900.0**	**3983.5**	**16729.8**	**3400.0**	**600.0**	**	** SEE QUANTITY SHEETS FOR TOTAL QUANTITIES.



DRAINAGE AGGREGATE SHALL MEET THE REQUIREMENTS OF SUBSECTION 704.16.

* ITEMS ARE PAID AS PART OF THE UNIT PRICE BID FOR PAY ITEM 605.10 "6 INCH UNDERDRAIN PIPE"

UNDERDRAIN DETAIL

NOTES:

1. GEOTEXTILE FOR UNDERDRAIN TRENCH LINING SHALL NOT BE PLACED AROUND UNDERDRAIN WHEN COVER ABOVE UNDERDRAIN IS LESS THAN 1 FOOT.
2. THE END OF THE UNDERDRAIN PIPE AT THE BEGINNING OF ALL UNDERDRAIN RUNS SHALL BE WRAPPED IN GEOXTEXTILE FABRIC. PAYMENT FOR THE WORK IS INCLUDED IN THE UNIT PRICE BID FOR ITEM 605.10 "6 INCH UNDERDRAIN PIPE".

UNDERDRAIN DETAIL SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

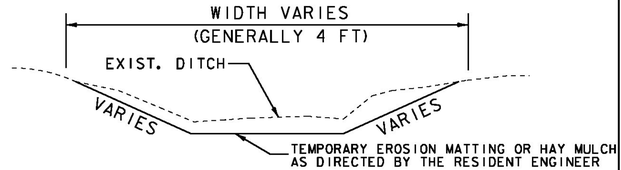
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_22.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP

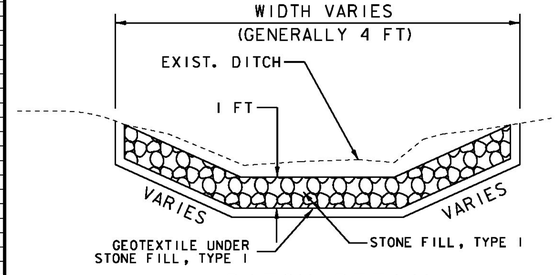
LOCATION				FEET OF DITCHING		MISC. ITEMS 653.20	613.10	649.31	REMARKS
SITE	STA.	STA.	POS.	PERCENT GRADE 0-2.5	2.5-10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
	VT 12					SY	CY	SY	
ELMORE									
1	190+08	210+14	LT	2006		892			
2	221+76	231+79	LT		1003		149	669	
3	244+99	249+75	RT		476		71	318	
4	249+75	266+64	RT		1689		250	1126	
5	266+64	277+20	RT	1056		470			
6	281+95	295+15	RT		1320		196	880	
7	296+74	311+52	RT	1478		657			
8	312+05	345+84	RT	3379		1502			
9	346+90	352+70	RT	580		258			
10	347+42		LT				5	23	DITCH EACH SIDE OF TOWN HIGHWAY
11	359+57	363+26	RT	369		164			
12	363+26	364+85	RT	159		71			
13	364+85	365+90	LT		105		16	70	
14	364+85	374+35	RT		950		141	634	
15	376+46	390+72	LT	1426		634			
16	390+72	398+64	LT		792		118	528	
17	398+64	412+37	LT	1373		610			
18	412+37	418+70	LT		633		94	422	
MORRISTOWN									
19	A 0+00	A 16+37	LT	1637		728			
20	A 20+06	A 49+63	LT	2957		1315			
21	A 58+61	A 61+78	LT	317		141			
22	A 63+89	A 66+53	LT		264		40	176	
23	A 67+06	A 70+22	RT		316		47	211	
24	A 71+28	A 73+92	LT		264		40	176	
25	A 84+48	A 87+65	RT	317		141			
26	A 91+34	A 95+04	RT	370		165			
27	A 96+10	A 102+96	RT		686		102	458	
28	A 98+74	A 102+96	LT		422		63	282	
29	A 104+54	A 111+94	RT		740		110	494	
ELMORE				11826	6968	5258	1040	4670	
MORRISTOWN				5598	2692	2490	402	1797	
		SUBTOTAL		17424	9660	7748	1442	6467	
		ROUNDING		-	-	-	-	-	
		TOTAL		-	-	**	**	**	** SEE QUANTITY SHEETS FOR TOTAL QUANTITIES

LOCATION				FEET OF DITCHING		MISC. ITEMS 653.20	613.10	649.31	REMARKS
SITE	STA.	STA.	POS.	PERCENT GRADE 0-2.5	2.5-10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
						SY	CY	SY	

LOCATION				FEET OF DITCHING		MISC. ITEMS 653.20	613.10	649.31	REMARKS
SITE	STA.	STA.	POS.	PERCENT GRADE 0-2.5	2.5-10	TEMP. EROS. MATT.	STONE FILL TYP. I	GEOT. UNDER STONE FILL	
						SY	CY	SY	



DITCH DETAIL 0 - 2.5 PERCENT
NOT TO SCALE



DITCH DETAIL
2.5 PERCENT TO 10 PERCENT
NOT TO SCALE

NOTES:

1. GRADES BETWEEN 0 AND 2.5 PERCENT SHALL USE ITEM 651.25. HAY MULCH OR ITEM 653.20. TEMPORARY EROSION MATTING AS DIRECTED BY THE ENGINEER.
2. GRADES BETWEEN 2.5 PERCENT TO 10 PERCENT SHALL USE ITEM 649.31. GEOTEXTILE UNDER STONE FILL AND ITEM 613.10 STONE FILL, TYPE II AS DIRECTED BY THE ENGINEER.
3. ANY GRADE GREATER THAN 10 PERCENT SHALL USE ITEM 649.31. GEOTEXTILE UNDER STONE FILL AND ITEM 613.10. STONE FILL, TYPE II AS DIRECTED BY THE ENGINEER.
4. PIPE INLET AND OUTLET AEREAS, AND DITCH CLEANING THROUGHOUT THE PROJECT, SHALLBE PERFORMED AT LOCATIONS IDENTIFIED ON THE ON THIS SHEET AND AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE UNDER THE APPLICABLE RENTAL ITEM(S).

NOT TO SCALE

DITCH CLEANING DETAIL SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_23.i

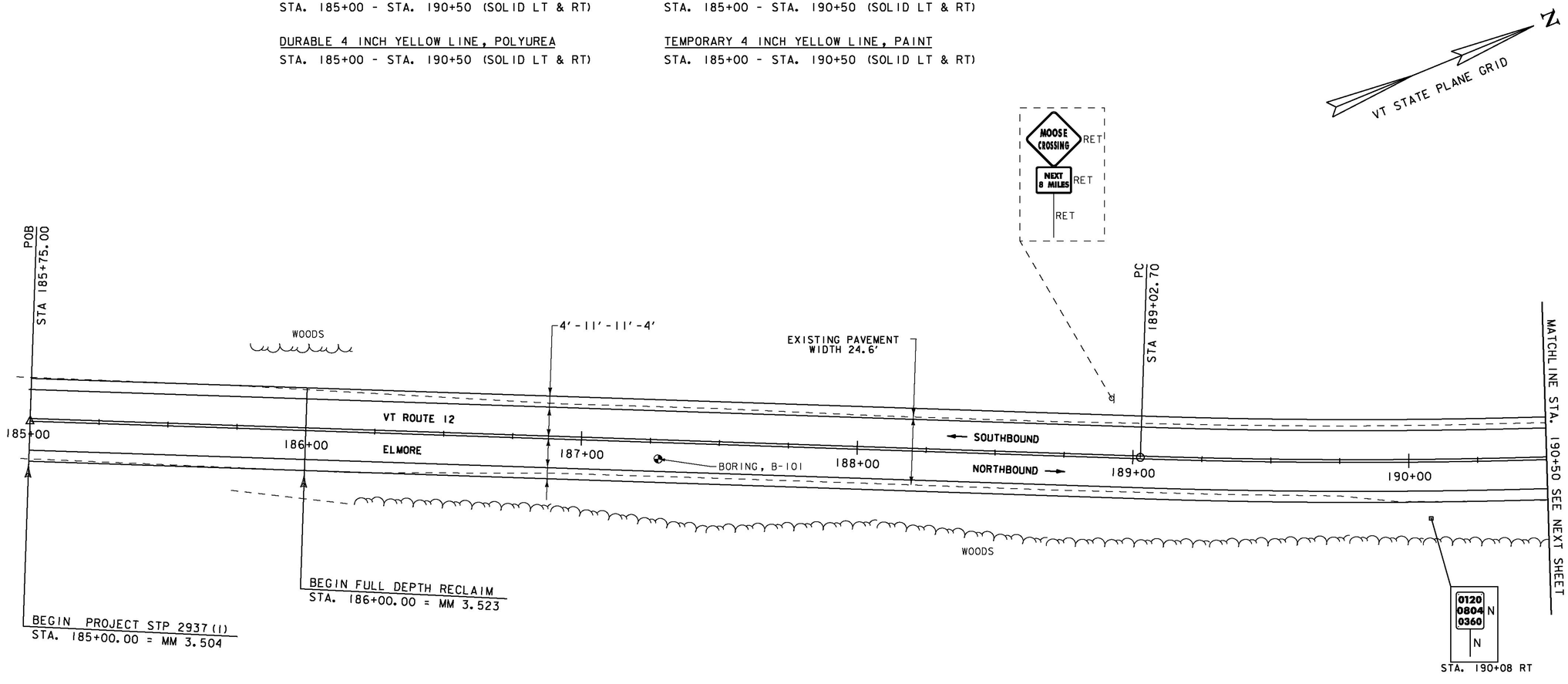
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 23 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 185+00 - STA. 190+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 185+00 - STA. 190+50 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 185+00 - STA. 190+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 185+00 - STA. 190+50 (SOLID LT & RT)



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_24.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 24 OF 194

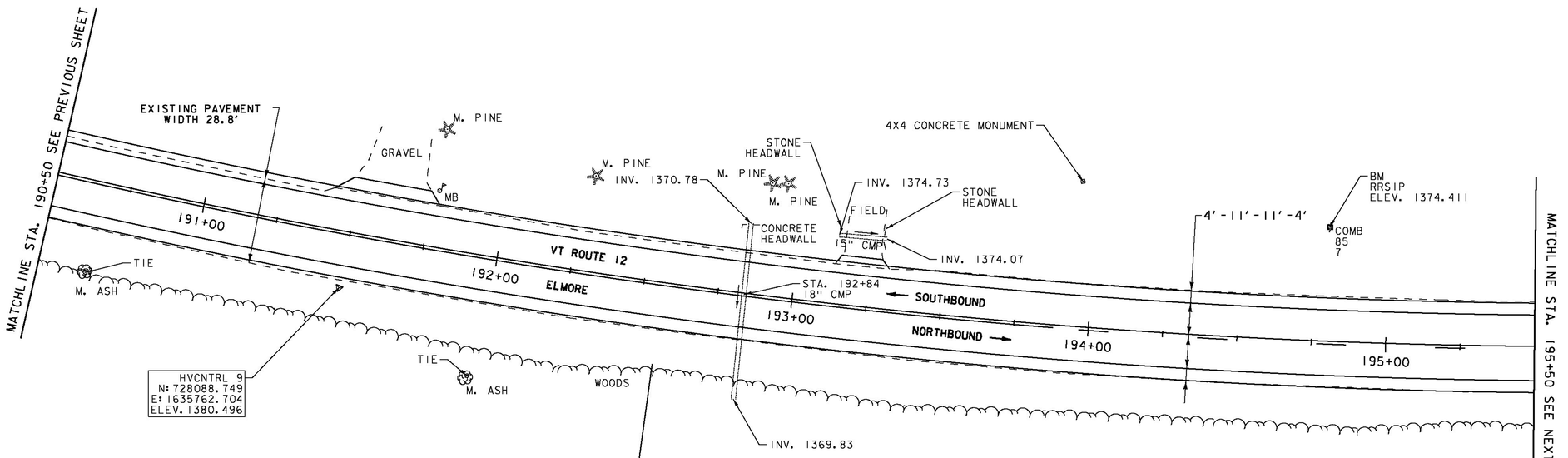
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 190+50 - STA. 195+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 190+50 - STA. 193+88 (SOLID LT & RT)
STA. 193+88 - STA. 195+50 (SOLID LT, DASHED RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 190+50 - STA. 195+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 190+50 - STA. 193+88 (SOLID LT & RT)
STA. 193+88 - STA. 195+50 (SOLID LT, DASHED RT)

N
VT STATE PLANE GRID



CURVE #1
DELTA = 17°26'05"
D = 2°27'52"
R = 2325.00'
T = 356.49'
L = 707.48'
E = 27.17'
BANKING 0.045 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 2

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_25.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 25 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA

STA. 195+50 - STA. 201+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA

STA. 195+50 - STA. 200+64 (SOLID LT, DASHED RT)
STA. 200+64 - STA. 201+25 (DASHED CL)

TEMPORARY 4 INCH WHITE LINE, PAINT

STA. 195+50 - STA. 201+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT

STA. 195+50 - STA. 200+64 (SOLID LT, DASHED RT)
STA. 200+64 - STA. 201+25 (DASHED CL)

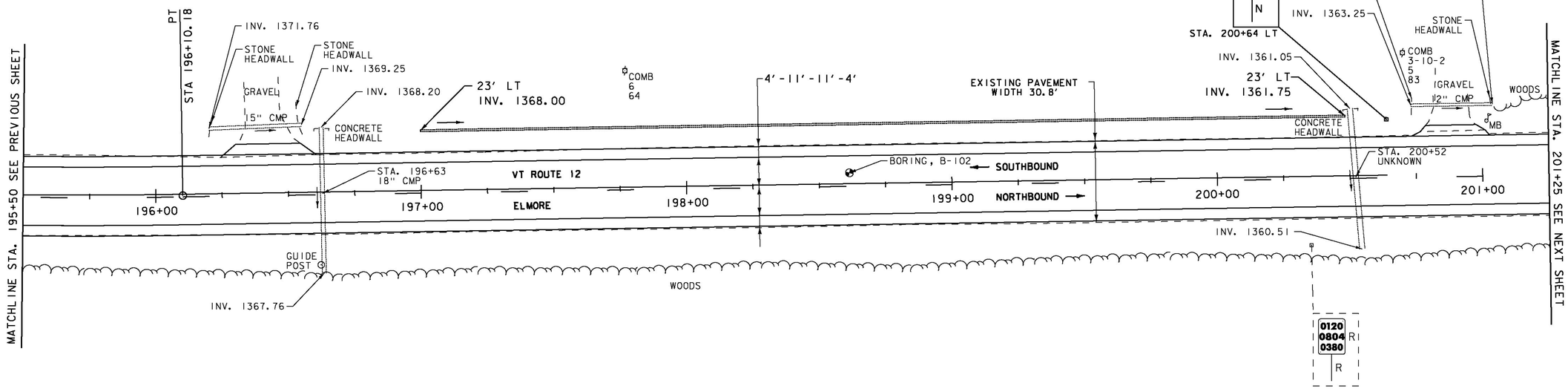
6 INCH UNDERDRAIN PIPE

STA. 197+00 - STA. 200+50 LT

REMOVING SIGNS

AS SHOWN - 1

VT STATE PLANE GRID



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_26.i

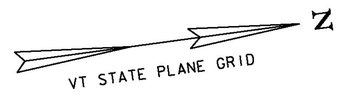
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 26 OF 194

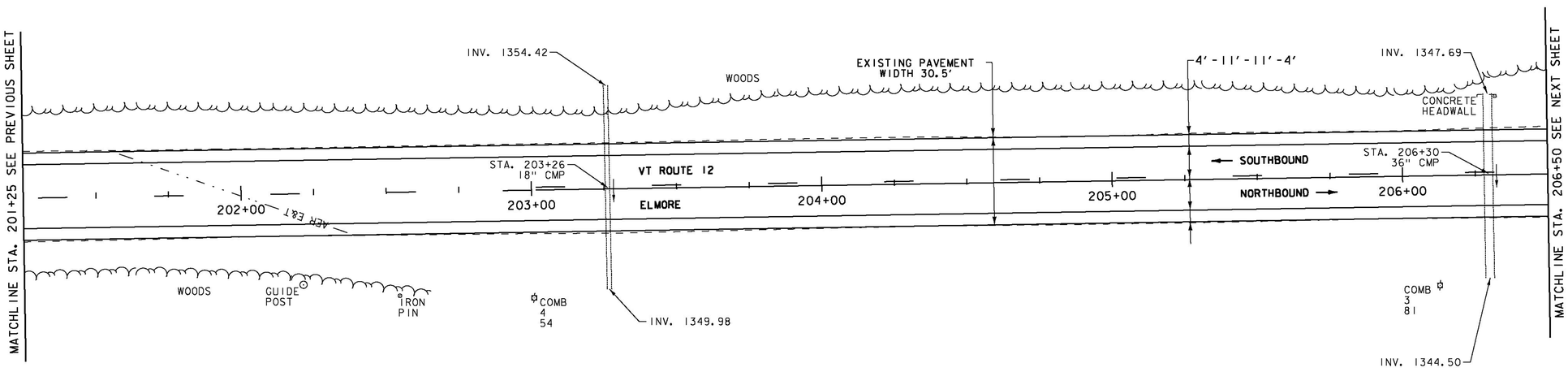
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 201+25 - STA. 206+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 201+25 - STA. 203+02 (DASHED CL)
STA. 203+02 - STA. 206+50 (DASHED LT, SOLID RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 201+25 - STA. 206+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 201+25 - STA. 203+02 (DASHED CL)
STA. 203+02 - STA. 206+50 (DASHED LT, SOLID RT)





SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 4

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_27.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 27 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA

STA. 206+50 - STA. 211+50 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#23)

DURABLE 4 INCH YELLOW LINE, POLYUREA

STA. 206+50 - STA. 209+00 (DASHED LT, SOLID RT)
STA. 209+00 - STA. 211+50 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#23)

TEMPORARY 4 INCH WHITE LINE, PAINT

STA. 206+50 - STA. 211+50 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#23)

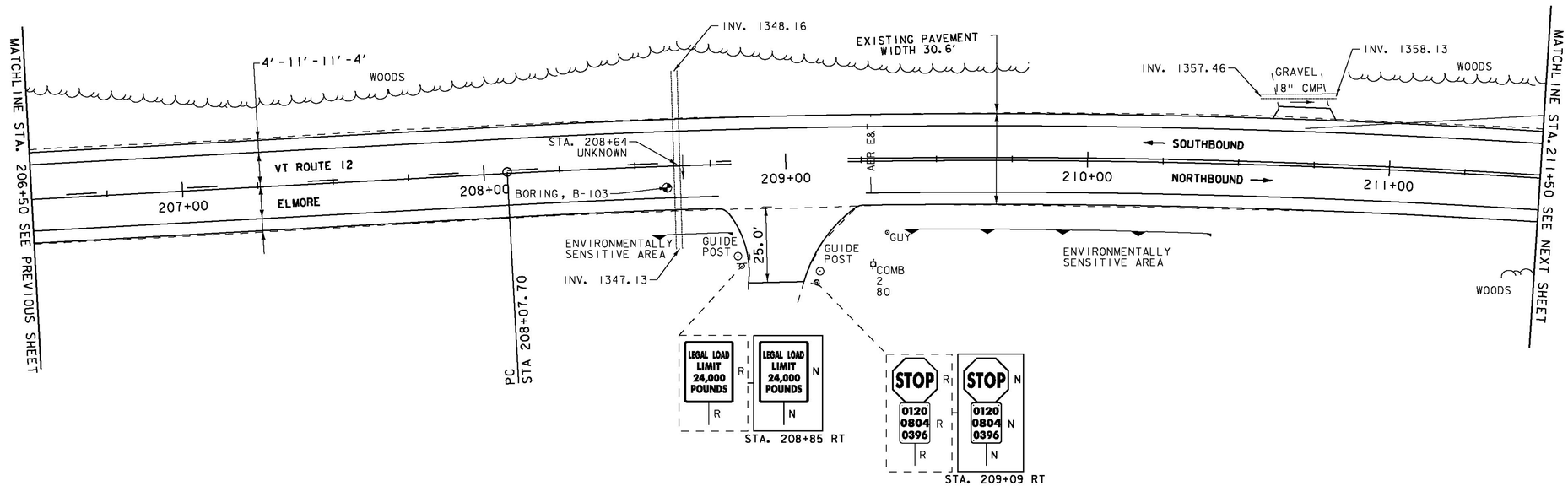
TEMPORARY 4 INCH YELLOW LINE, PAINT

STA. 206+50 - STA. 209+00 (DASHED LT, SOLID RT)
STA. 209+00 - STA. 211+50 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#23)

REMOVING SIGNS

AS SHOWN - 3

N
VT STATE PLANE GRID



CROSS ROAD
TH#23
MM 3.958
STA. 209+00 RT

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
1.	STA. 208+55 - STA. 208+82	RT	-
2.	STA. 209+39 - STA. 210+41	RT	-

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

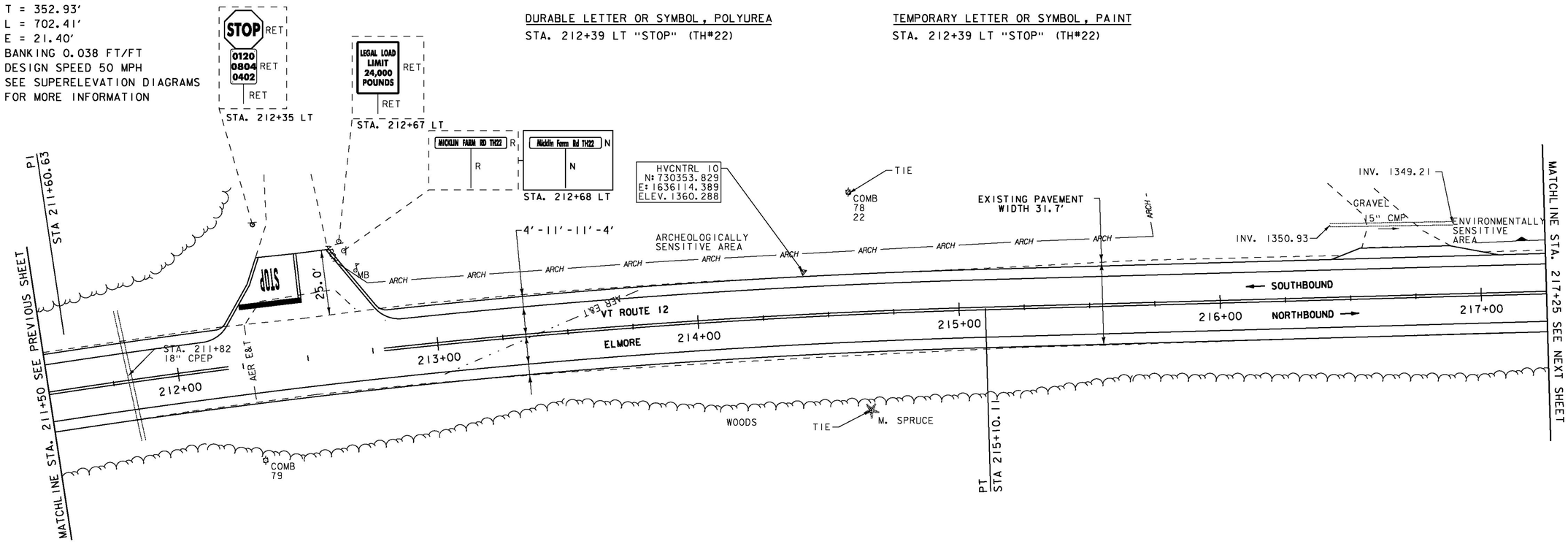
PROJECT LAYOUT SHEET 5

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_28.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 28 OF 194

CURVE #2
DELTA = 13°52'39"
D = 1°58'33"
R = 2900.00'
T = 352.93'
L = 702.41'
E = 21.40'
BANKING 0.038 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

MICKLIN FARM ROAD
TH#22
MM 4.025
STA. 212+50 LT



DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 211+50 - STA. 217+25 (SOLID LT & RT)
(WITH EDGE LINE BREAK LT AT TH#22)
STA. 212+50 LT (EDGE LINES AT TH#22)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 211+50 - STA. 217+25 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#22)
STA. 212+50 LT (CENTERLINE AT TH#22)

DURABLE 24 INCH STOP BAR, POLYUREA
STA. 212+25 - STA. 212+50 LT (TH#22)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 212+39 LT "STOP" (TH#22)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 211+50 - STA. 217+25 (SOLID LT & RT)
(WITH EDGE LINE BREAK LT AT TH#22)
STA. 212+50 LT (EDGE LINES AT TH#22)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 211+50 - STA. 217+25 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#22)
STA. 212+50 LT (CENTERLINE AT TH#22)

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 212+25 - STA. 212+50 LT (TH#22)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 212+39 LT "STOP" (TH#22)

REMOVING SIGNS
AS SHOWN - 1

N
VT STATE PLANE GRID

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
3.	STA. 216+98 - STA. 217+25	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 6

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_29.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 29 OF 194

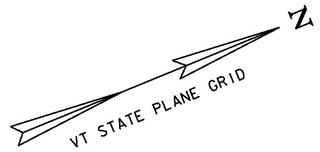
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 217+25 - STA. 222+50 (SOLID LT & RT)

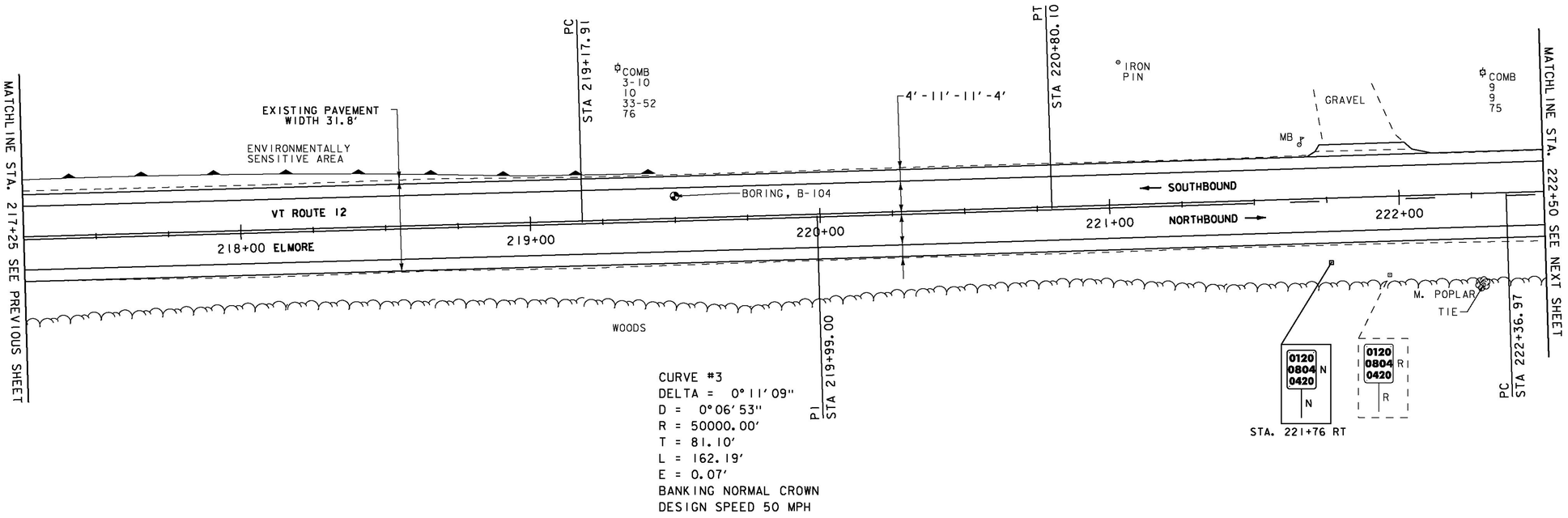
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 217+25 - STA. 221+50 (SOLID LT & RT)
STA. 221+50 - STA. 222+50 (SOLID LT, DASHED RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 217+25 - STA. 222+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 217+25 - STA. 221+50 (SOLID LT & RT)
STA. 221+50 - STA. 222+50 (SOLID LT, DASHED RT)

REMOVING SIGNS
AS SHOWN - 1





CURVE #3
DELTA = 0°11'09"
D = 0°06'53"
R = 50000.00'
T = 81.10'
L = 162.19'
E = 0.07'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
3.	STA. 217+25 - STA. 219+44	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 7

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_30.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 30 OF 194

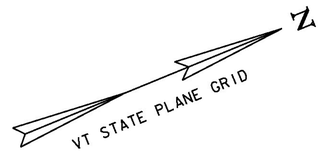
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 222+50 - STA. 227+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 222+50 - STA. 227+50 (DASHED RT, SOLID LT)

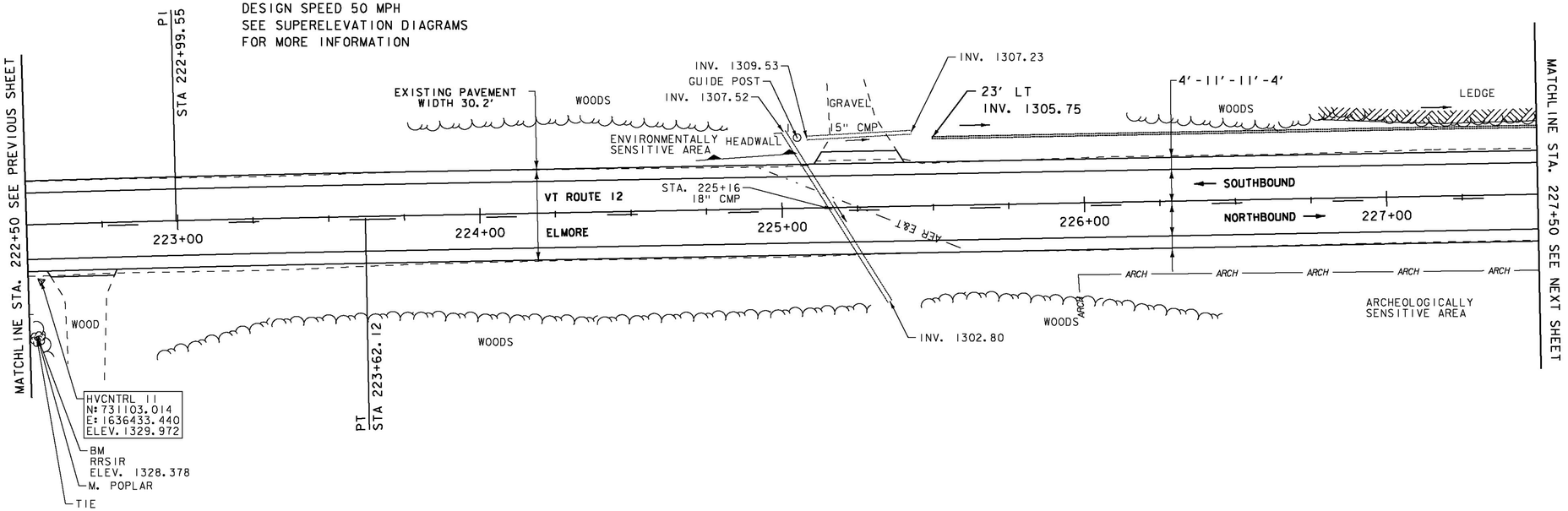
6 INCH UNDERDRAIN PIPE
STA. 225+50 - STA. 227+50 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 222+50 - STA. 227+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 222+50 - STA. 227+50 (DASHED RT, SOLID LT)



CURVE #4
DELTA = 0°43'02"
D = 0°34'23"
R = 10000.00'
T = 62.58'
L = 125.16'
E = 0.20'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
4.	STA. 224+72 - STA. 225+05	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 8

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_31.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 31 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 229+87.5 - STA. 232+75 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 229+75 - STA. 231+50 RT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 231+50 - STA. 232+75 RT

ANCHOR FOR STEEL BEAM RAIL
STA. 229+75 RT

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 227+50 - STA. 232+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 227+50 - STA. 229+68 (SOLID LT, DASHED RT)
STA. 229+68 - STA. 232+75 (DASHED CL)

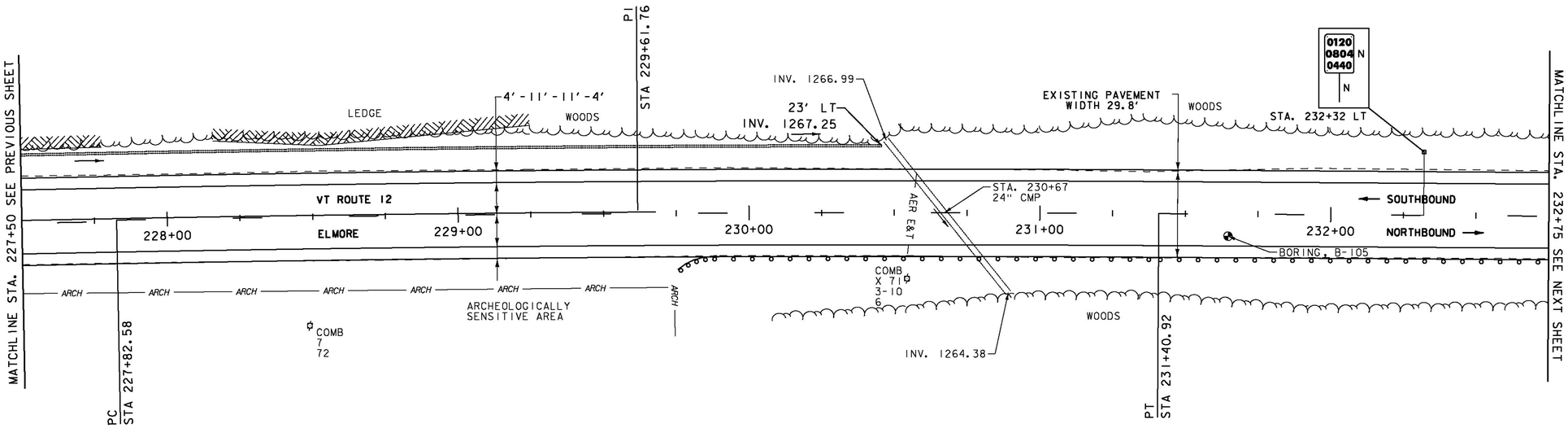
6 INCH UNDERDRAIN PIPE
STA. 227+50 - STA. 230+50 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 227+50 - STA. 232+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 227+50 - STA. 229+68 (SOLID LT, DASHED RT)
STA. 229+68 - STA. 232+75 (DASHED CL)

N
VT STATE PLANE GRID

CURVE #5
DELTA = 1°27'59"
D = 0°24'33"
R = 14000.00'
T = 179.18'
L = 358.33'
E = 1.15'
BANKING NORMAL CROSS
DESIGN SPEED 50 MPH



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 9

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_32.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 32 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 232+75 - STA. 238+25 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 238+00 - STA. 238+25 RT

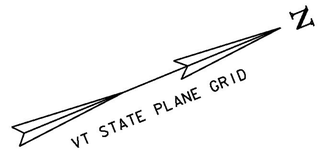
STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 232+75 - STA. 238+00 RT

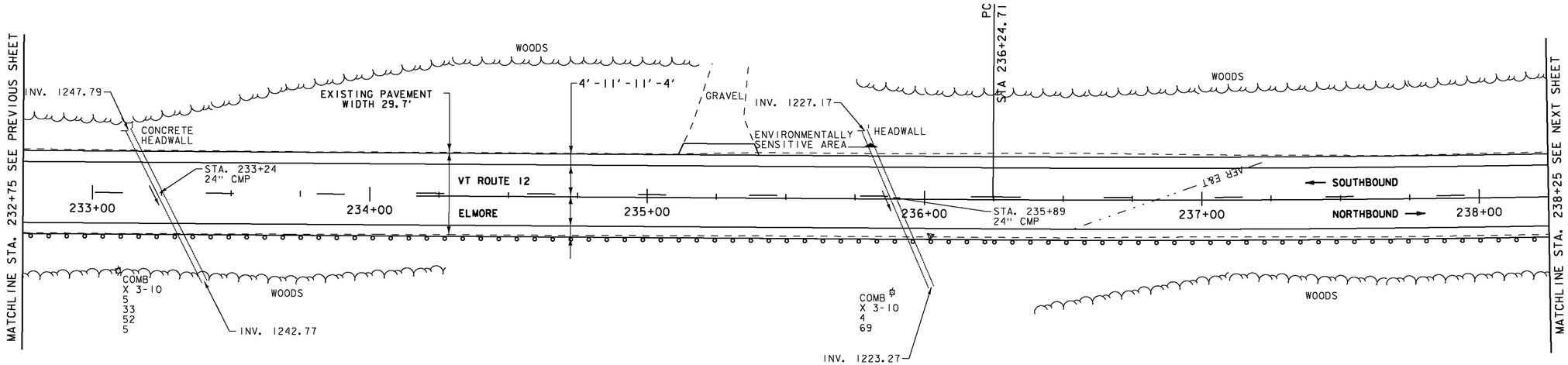
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 232+75 - STA. 238+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 232+75 - STA. 234+15 (DASHED CL)
STA. 234+15 - STA. 238+25 (DASHED LT, SOLID RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 232+75 - STA. 238+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 232+75 - STA. 234+15 (DASHED CL)
STA. 234+15 - STA. 238+25 (DASHED LT, SOLID RT)





ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
5.	STA. 235+72 - STA. 235+83	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 10

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_33.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 33 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 238+25 - STA. 242+00 RT
STA. 239+25 - STA. 243+50 LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 238+25 - STA. 239+50 RT
STA. 239+25 - STA. 243+50 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 239+50 - STA. 242+00 RT

ANCHOR FOR STEEL BEAM RAIL
STA. 239+25 LT
STA. 242+00 RT

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 238+25 - STA. 243+50 (SOLID LT & RT)

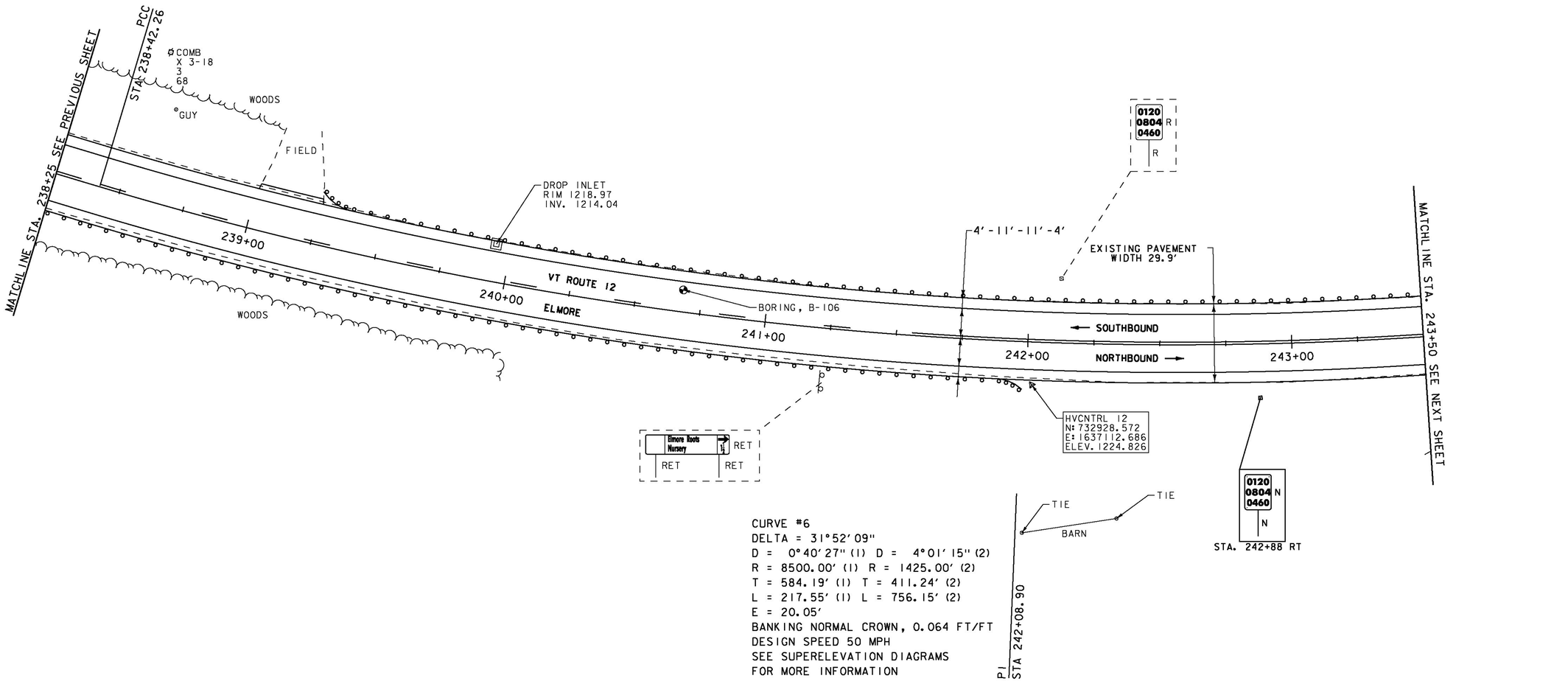
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 238+25 - STA. 241+56 (DASHED LT, SOLID RT)
STA. 241+56 - STA. 243+50 (SOLID LT & RT)

SPECIAL PROVISION (DECOMMISSION CURB DROP INLET)
STA. 239+94 LT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 238+25 - STA. 243+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 238+25 - STA. 241+56 (DASHED LT, SOLID RT)
STA. 241+56 - STA. 243+50 (SOLID LT & RT)

REMOVING SIGNS
AS SHOWN - 1



CURVE #6
DELTA = 31°52'09"
D = 0°40'27" (1) D = 4°01'15" (2)
R = 8500.00' (1) R = 1425.00' (2)
T = 584.19' (1) T = 411.24' (2)
L = 217.55' (1) L = 756.15' (2)
E = 20.05'
BANKING NORMAL CROWN, 0.064 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 11

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_34.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 34 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 243+50 - STA. 243+62.5 LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 243+50 - STA. 243+75 LT

ANCHOR FOR STEEL BEAM RAIL
STA. 243+75 LT

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 243+50 - STA. 249+25 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#1)
STA. 245+90 RT (EDGE LINES AT TH#1)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 243+50 - STA. 249+25 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#1)
STA. 245+90 RT (CENTERLINE AT TH#1)

DURABLE 24 INCH STOP BAR, POLYUREA
STA. 245+94 - STA. 246+24 RT (TH#1)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 246+03 RT "STOP" (TH#1)

6 INCH UNDERDRAIN PIPE
STA. 246+75 - STA. 249+25 RT

SPECIAL PROVISION (CORING CONCRETE)
STA. 246+75 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 243+50 - STA. 249+25 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#1)
STA. 245+90 RT (EDGE LINES AT TH#1)

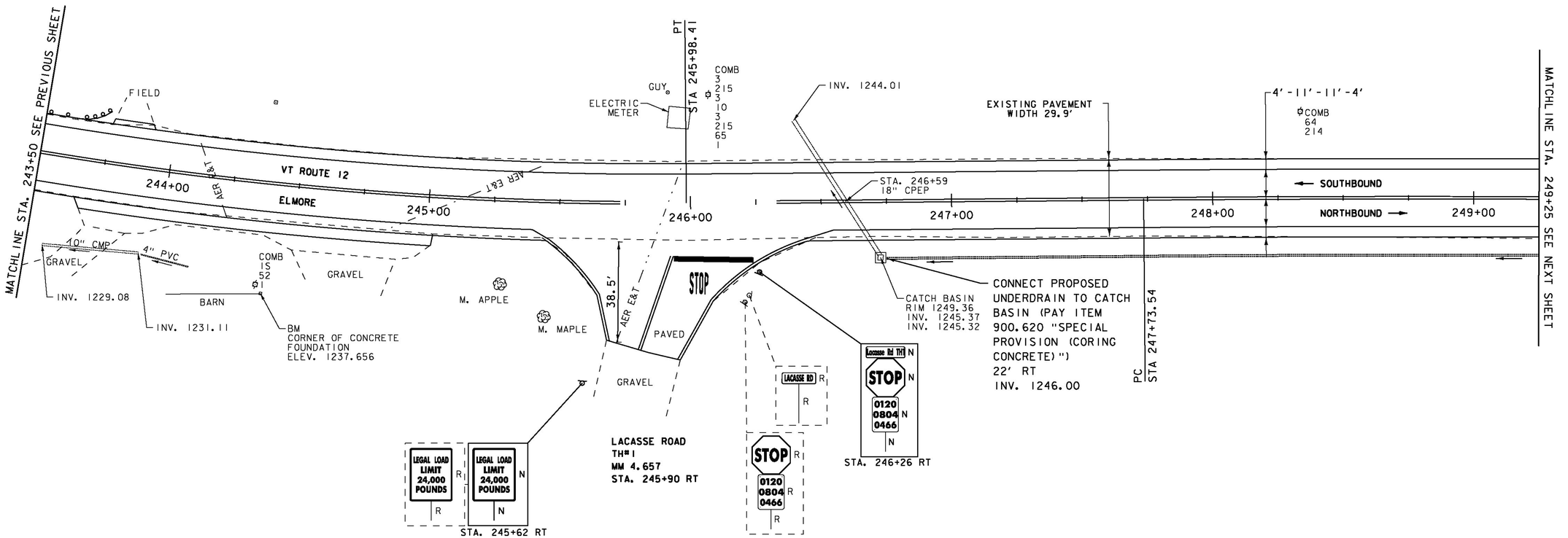
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 243+50 - STA. 249+25 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#1)
STA. 245+90 RT (CENTERLINE AT TH#1)

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 245+94 - STA. 246+24 RT (TH#1)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 246+03 RT "STOP" (TH#1)

REMOVING SIGNS
AS SHOWN - 4

VT STATE PLANE GRID N



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 12

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_35.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 35 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 249+25 - STA. 254+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 249+25 - STA. 253+76 (SOLID LT & RT)
STA. 253+76 - STA. 254+50 (SOLID LT, DASHED RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 249+25 - STA. 254+50 (SOLID LT & RT)

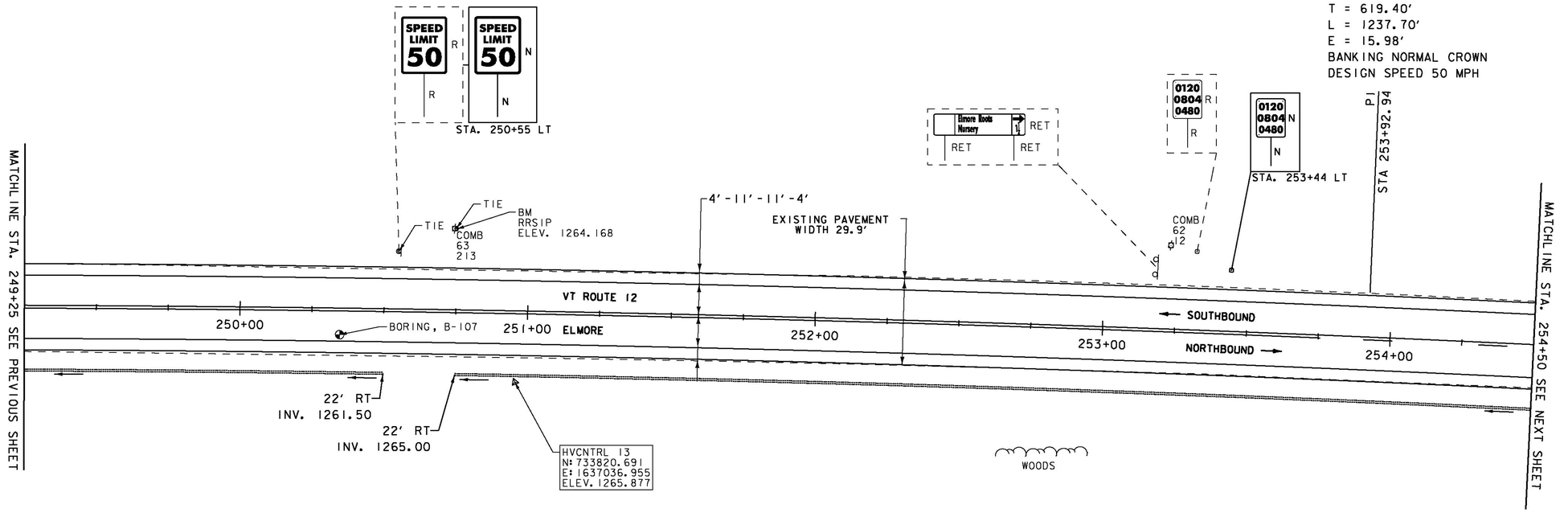
TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 249+25 - STA. 253+76 (SOLID LT & RT)
STA. 253+76 - STA. 254+50 (SOLID LT, DASHED RT)

VT STATE PLANE GRID N

6 INCH UNDERDRAIN PIPE
STA. 249+25 - STA. 250+50 RT
STA. 250+75 - STA. 254+50 RT

REMOVING SIGNS
AS SHOWN - 2

CURVE #7
DELTA = 5°54'35"
D = 0°28'39"
R = 12000.00'
T = 619.40'
L = 1237.70'
E = 15.98'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 13

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_36.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 36 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 254+50 - STA. 259+75 (SOLID LT & RT)

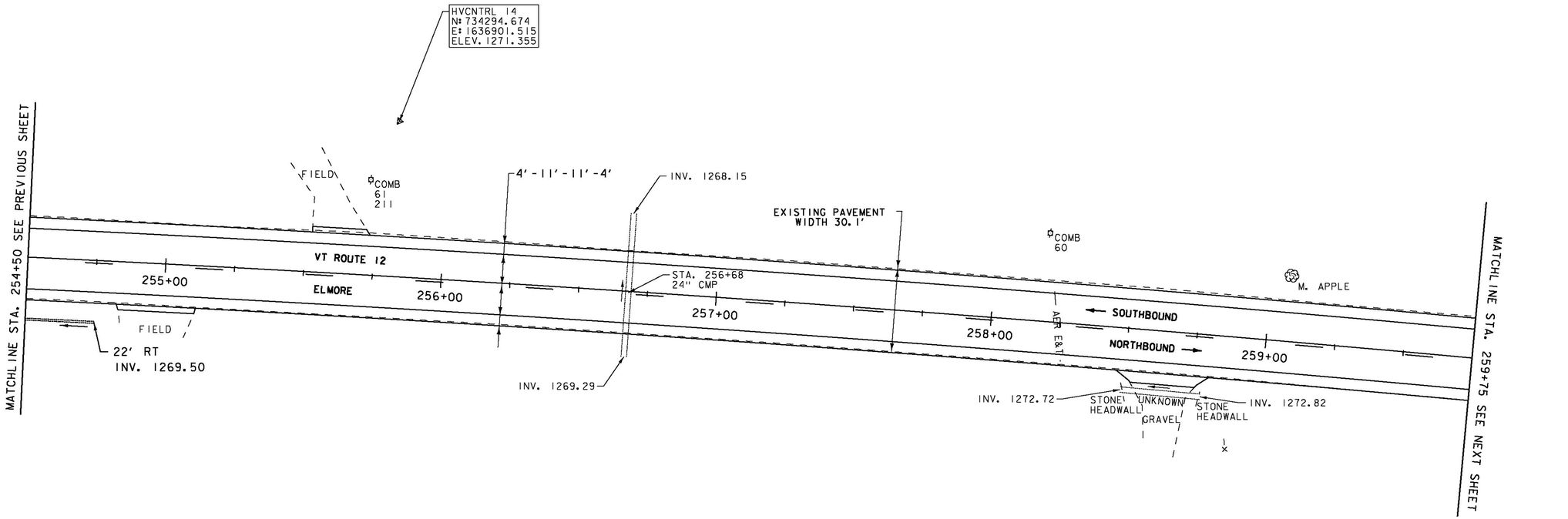
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 254+50 - STA. 259+75 (SOLID LT, DASHED RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 254+50 - STA. 259+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 254+50 - STA. 259+75 (SOLID LT, DASHED RT)

6 INCH UNDERDRAIN PIPE
STA. 254+50 - STA. 254+75 RT

VT STATE PLANE GRID
N



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 14

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_37.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 37 OF 194

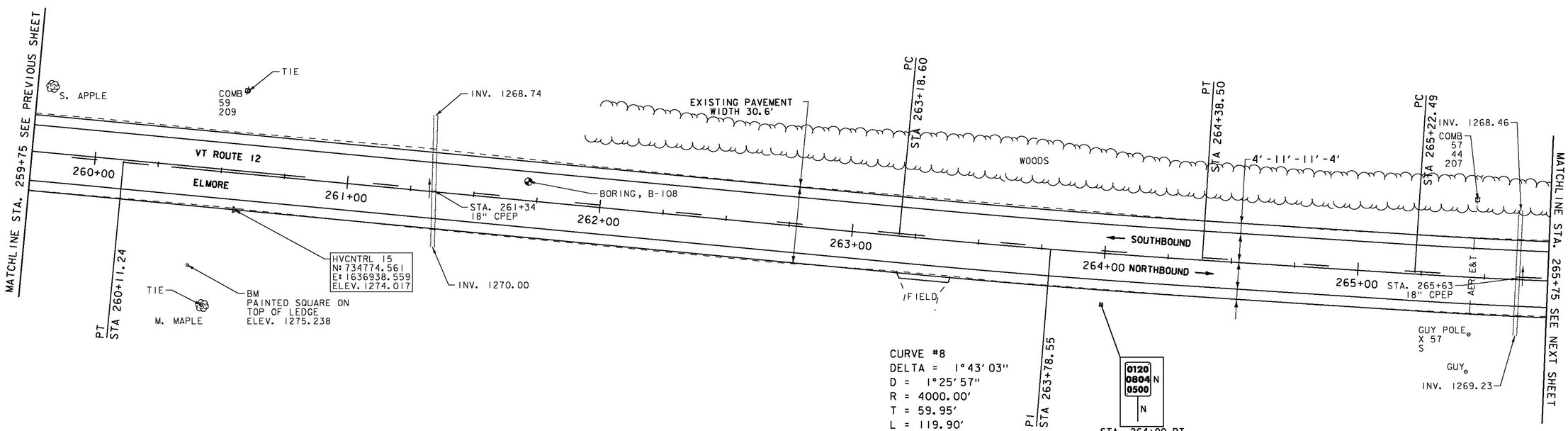
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 259+75 - STA. 265+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 259+75 - STA. 260+30 (SOLID LT, DASHED RT)
STA. 260+30 - STA. 260+83 (SOLID LT & RT)
STA. 260+83 - STA. 265+75 (DASHED LT, SOLID RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 259+75 - STA. 265+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 259+75 - STA. 260+30 (SOLID LT, DASHED RT)
STA. 260+30 - STA. 260+83 (SOLID LT & RT)
STA. 260+83 - STA. 265+75 (DASHED LT, SOLID RT)

VT STATE PLANE GRID N



CURVE #8
DELTA = 1°43'03"
D = 1°25'57"
R = 4000.00'
T = 59.95'
L = 119.90'
E = 0.45'
BANKING 0.029 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 15

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_38.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 38 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 265+75 - STA. 270+50 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#11)

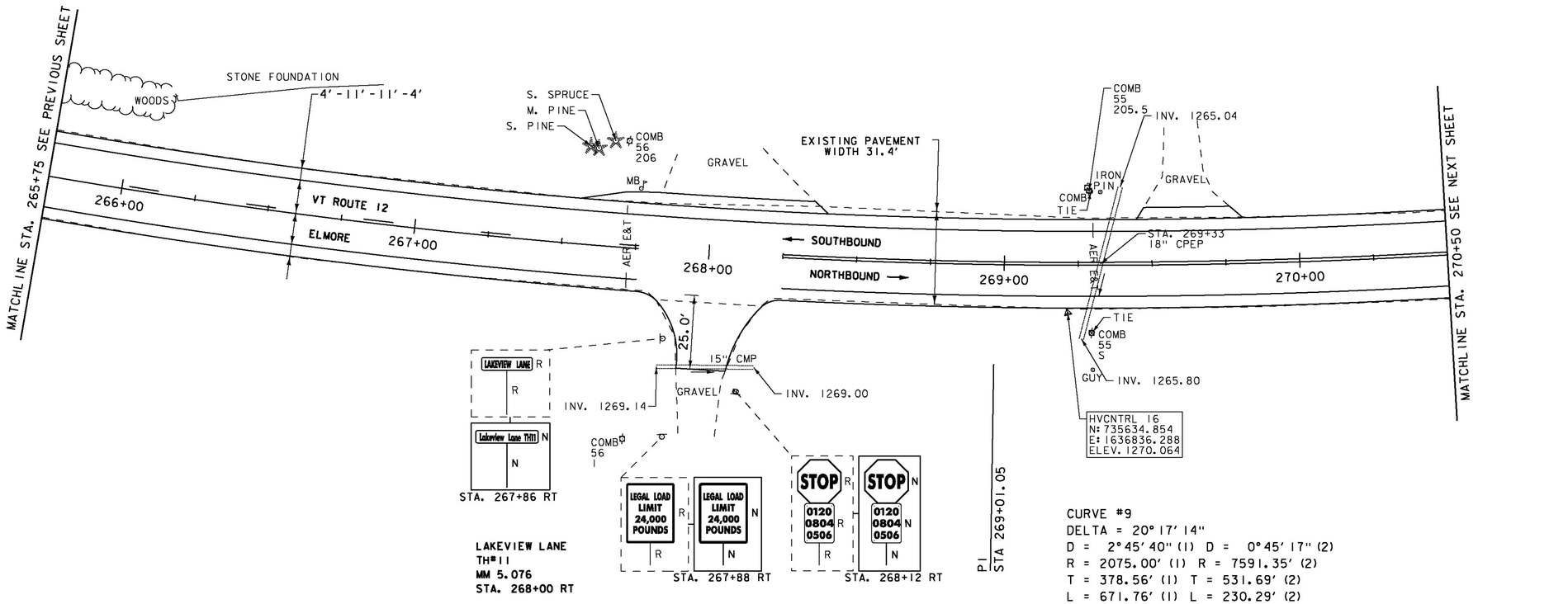
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 265+75 - STA. 267+70 (DASHED LT, SOLID RT)
STA. 267+70 - STA. 270+50 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#11)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 265+75 - STA. 270+50 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#11)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 265+75 - STA. 267+70 (DASHED LT, SOLID RT)
STA. 267+70 - STA. 270+50 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#11)

REMOVING SIGNS
AS SHOWN - 4

VT STATE PLANE GRID N



LAKEVIEW LANE
TH#11
MM 5.076
STA. 268+00 RT

CURVE #9
DELTA = 20°17'14"
D = 2°45'40" (1) D = 0°45'17" (2)
R = 2075.00' (1) R = 7591.35' (2)
T = 378.56' (1) T = 531.69' (2)
L = 671.76' (1) L = 230.29' (2)
E = 34.25'
BANKING 0.05 FT/FT, REVERSE CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 16

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_39.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 39 OF 194

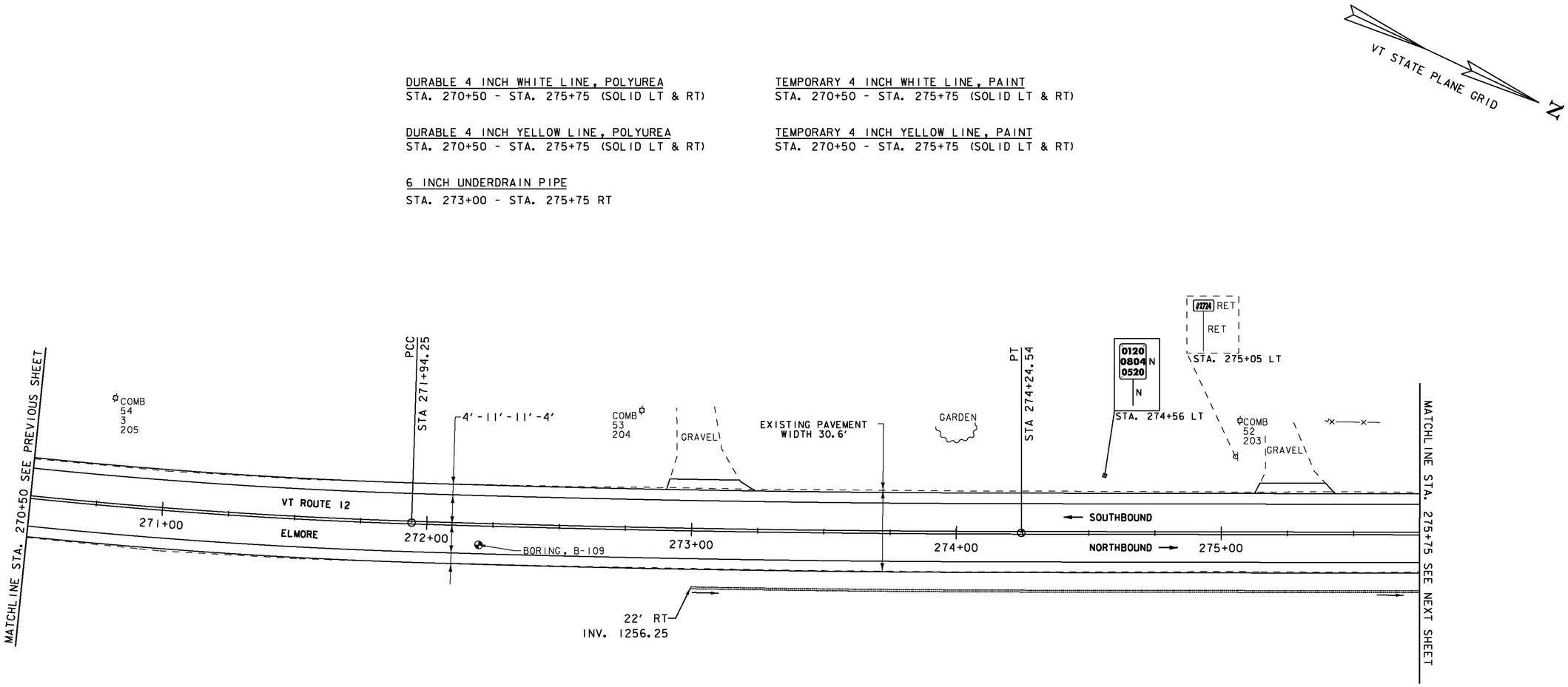
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 270+50 - STA. 275+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 270+50 - STA. 275+75 (SOLID LT & RT)

6 INCH UNDERDRAIN PIPE
STA. 273+00 - STA. 275+75 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 270+50 - STA. 275+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 270+50 - STA. 275+75 (SOLID LT & RT)



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 17

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_40.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 40 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 281+50 - STA. 287+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 281+50 - STA. 287+25 (SOLID LT, DASHED RT)

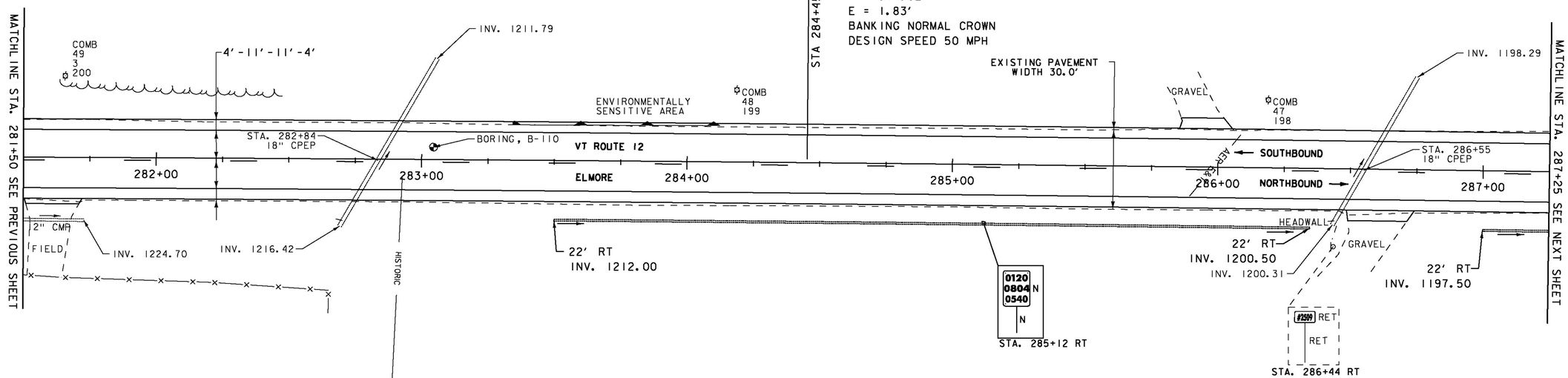
6 INCH UNDERDRAIN PIPE
STA. 283+50 - STA. 286+35 RT
STA. 287+00 - STA. 287+25 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 281+50 - STA. 287+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 281+50 - STA. 287+25 (SOLID LT, DASHED RT)

VT STATE PLANE GRID N

CURVE #10
DELTA = 0°55'10"
D = 0°06'02"
R = 57000.00'
T = 457.32'
L = 914.62'
E = 1.83'
BANKING NORMAL CROWN
DESIGN SPEED 50 MPH



ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
6.	STA. 283+34 - STA. 284+12	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 19

PROJECT NAME:
PROJECT NUMBER:

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_42.i

PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 42 OF 194

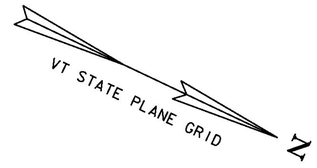
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 287+25 - STA. 292+50 (SOLID LT & RT)

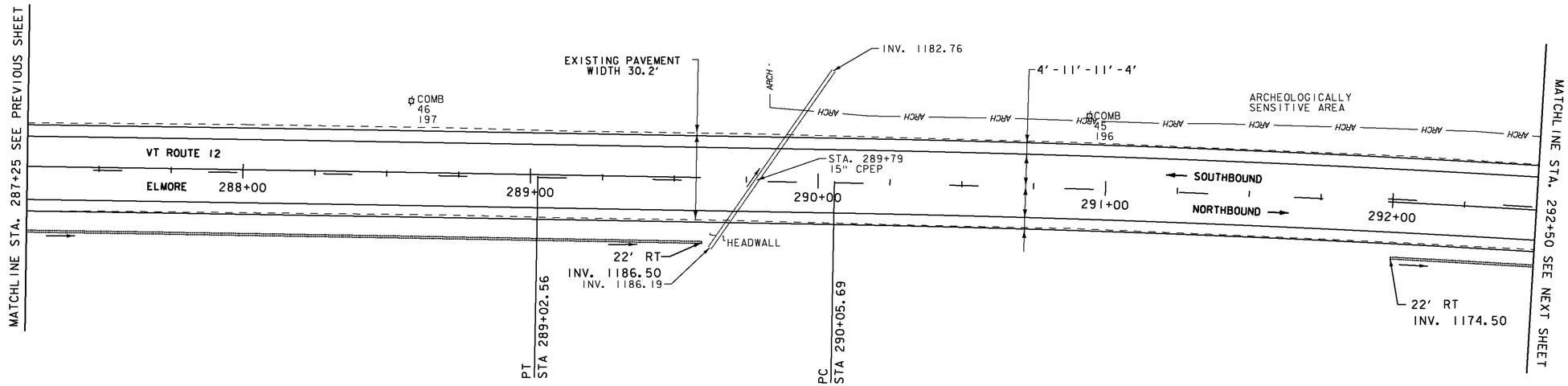
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 287+25 - STA. 292+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 287+25 - STA. 289+59 (SOLID LT, DASHED RT)
STA. 289+59 - STA. 291+98 (DASHED CL)
STA. 291+98 - STA. 292+50 (DASHED LT, SOLID RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 287+25 - STA. 289+59 (SOLID LT, DASHED RT)
STA. 289+59 - STA. 291+98 (DASHED CL)
STA. 291+98 - STA. 292+50 (DASHED LT, SOLID RT)

6 INCH UNDERDRAIN PIPE
STA. 287+25 - STA. 289+60 RT
STA. 292+00 - STA. 292+50 RT





SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 20

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_43.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 43 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 295+22.5 - STA. 297+50 LT
STA. 295+84 - STA. 297+50 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 295+97.5 - STA. 297+22.5 LT
STA. 297+47.5 - STA. 297+50 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 295+72.5 - STA. 297+22.5 RT
STA. 297+47.5 - STA. 297+50 RT

HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED
STA. 297+22.5 - STA. 297+47.5 LT

HD STEEL BEAM GUARDRAIL, GALVANIZED/NESTED W/8 FEET POSTS
STA. 297+22.5 - STA. 297+47.5 RT

ANCHOR FOR STEEL BEAM RAIL
STA. 296+05.0 LT
STA. 295+67.5 RT

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 292+50 - STA. 297+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 292+50 - STA. 297+50 (DASHED LT, SOLID RT)

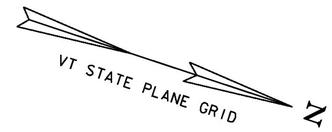
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 292+50 - STA. 297+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 292+50 - STA. 297+50 (DASHED LT, SOLID RT)

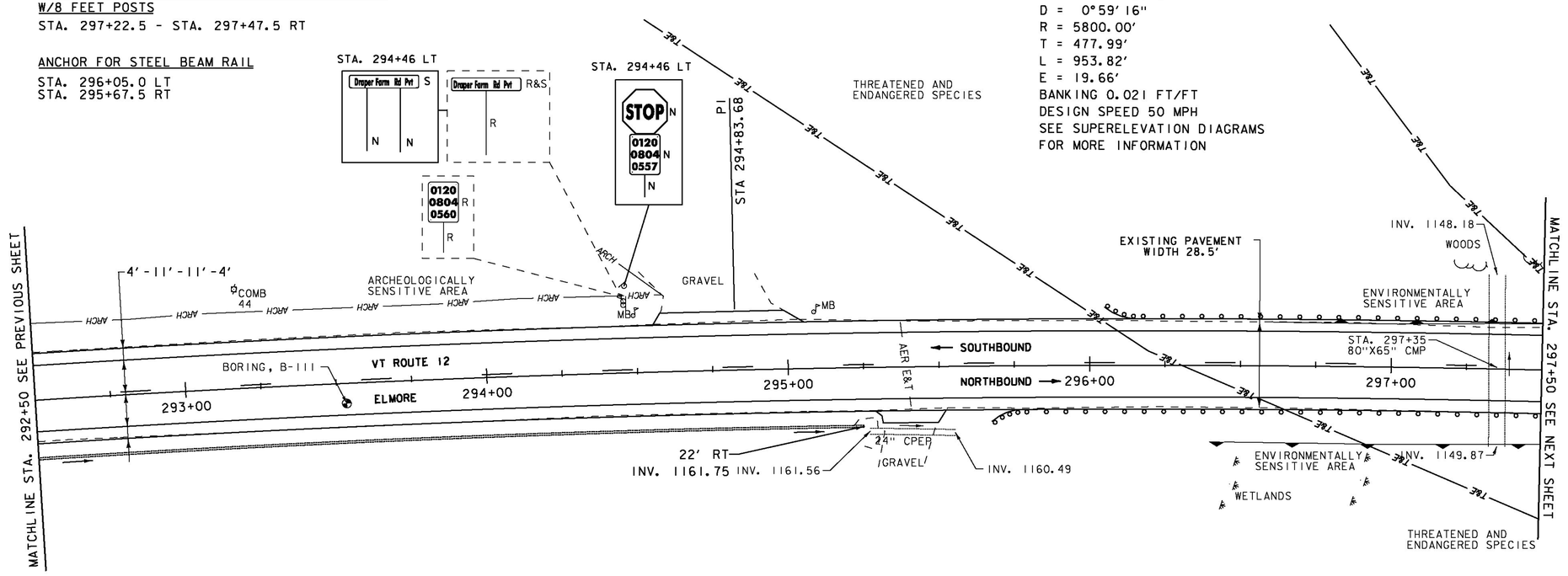
6 INCH UNDERDRAIN PIPE
STA. 292+50 - STA. 295+25 RT

ERECTING SALVAGED SIGNS
AS SHOWN - 1

REMOVING SIGNS
AS SHOWN - 2



CURVE #11
DELTA = 9°25'21"
D = 0°59'16"
R = 5800.00'
T = 477.99'
L = 953.82'
E = 19.66'
BANKING 0.021 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS FOR MORE INFORMATION



ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
7.	STA. 296+40 - STA. 297+50	RT	-
8.	STA. 296+60 - STA. 297+50	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 21

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_44.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 44 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 297+50 - STA. 298+00 RT
STA. 297+50 - STA. 298+37.5 LT
STA. 299+00 - STA. 302+50 LT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 297+50 - STA. 298+35 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 297+50 - STA. 298+05 RT
STA. 299+00 - STA. 302+50 LT

ANCHOR FOR STEEL BEAM RAIL
STA. 298+10 RT
STA. 298+35 LT
STA. 299+00 LT

6 INCH UNDERDRAIN PIPE
STA. 299+15 - STA. 301+00 RT
STA. 301+65 - STA. 302+50 RT

REMOVING SIGNS
AS SHOWN - 2

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 297+50 - STA. 302+50 (SOLID LT & RT)
(WITH EDGE LINE BREAK LT AT TH#8)
STA. 298+65 LT (EDGE LINES AT TH#8)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 297+50 - STA. 298+65 (DASHED LT, SOLID RT)
STA. 298+65 - STA. 302+50 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#8)
STA. 298+65 LT (CENTERLINE AT TH#8)

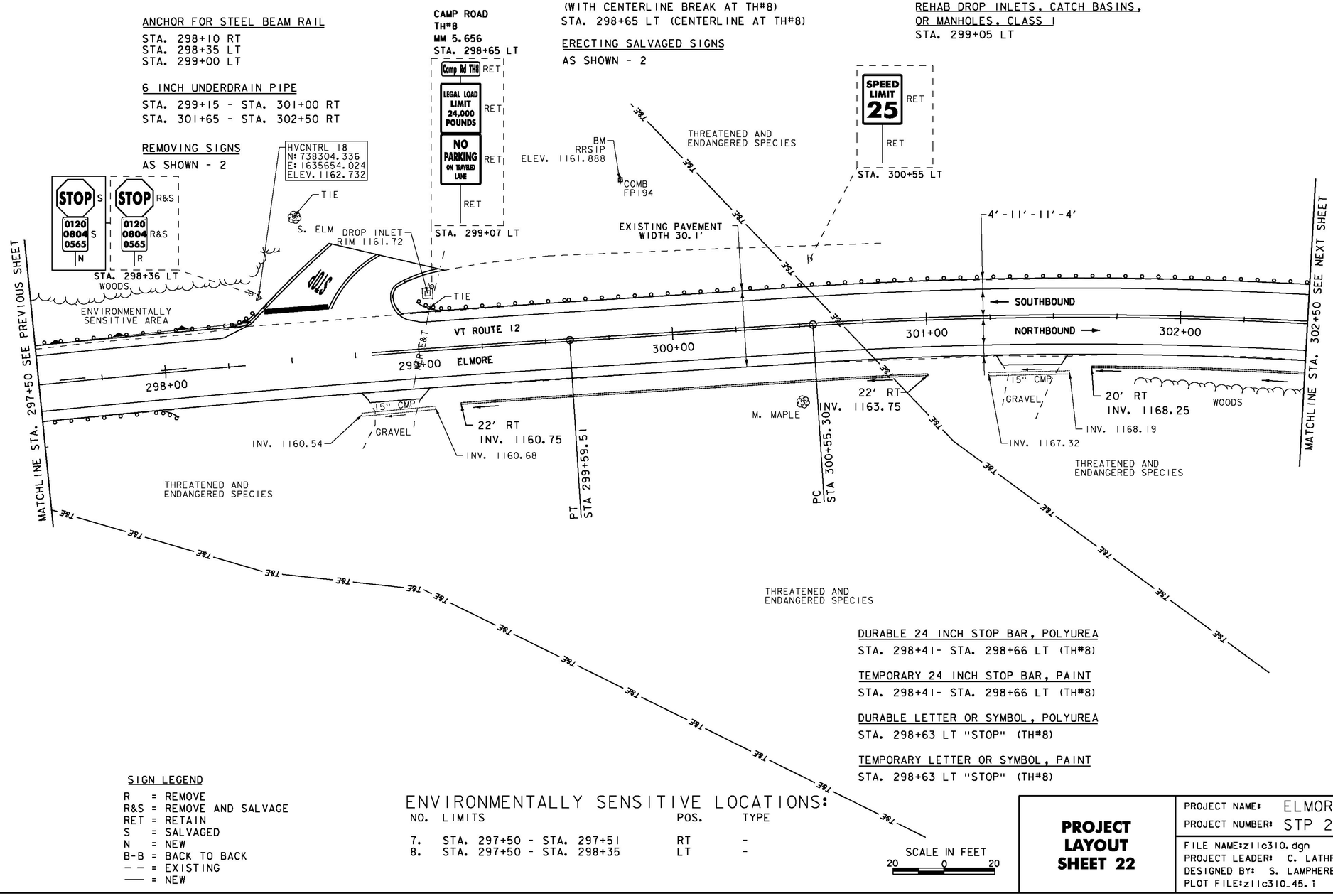
ERECTING SALVAGED SIGNS
AS SHOWN - 2

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 297+50 - STA. 302+50 (SOLID LT & RT)
(WITH EDGE LINE BREAK LT AT TH#8)
STA. 298+65 LT (EDGE LINES AT TH#8)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 297+50 - STA. 298+65 (DASHED LT, SOLID RT)
STA. 298+65 - STA. 302+50 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#8)
STA. 298+65 LT (CENTERLINE AT TH#8)

REHAB DROP INLETS, CATCH BASINS, OR MANHOLES, CLASS I
STA. 299+05 LT

VT STATE PLANE GRID N



DURABLE 24 INCH STOP BAR, POLYUREA
STA. 298+41- STA. 298+66 LT (TH#8)

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 298+41- STA. 298+66 LT (TH#8)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 298+63 LT "STOP" (TH#8)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 298+63 LT "STOP" (TH#8)

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
7.	STA. 297+50 - STA. 297+51	RT	-
8.	STA. 297+50 - STA. 298+35	LT	-

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 22

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_45.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 45 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 302+50 - STA. 307+75 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 302+50 - STA. 307+75 LT

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 302+50 - STA. 307+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 302+50 - STA. 307+75 (SOLID LT & RT)

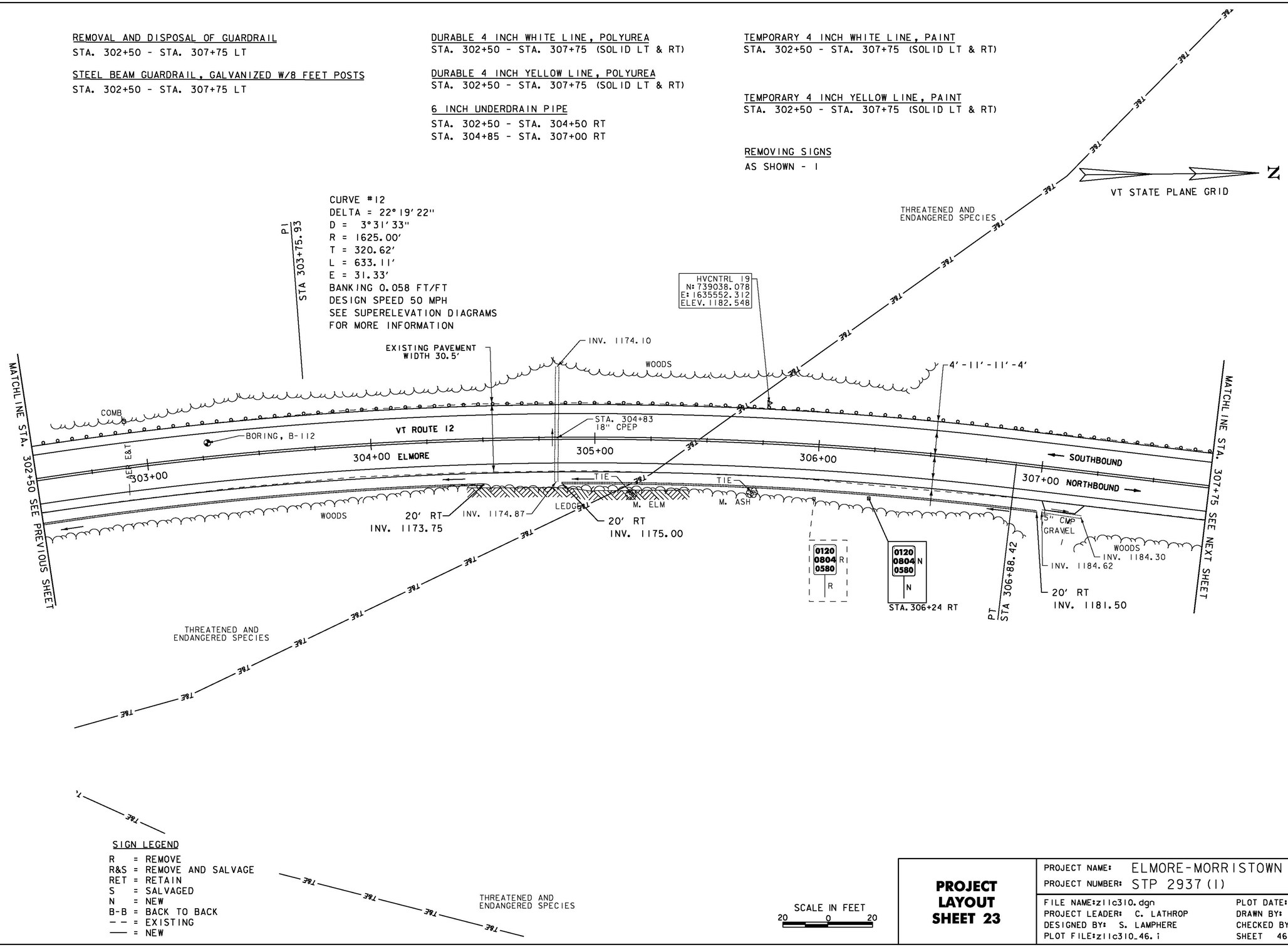
6 INCH UNDERDRAIN PIPE
STA. 302+50 - STA. 304+50 RT
STA. 304+85 - STA. 307+00 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 302+50 - STA. 307+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 302+50 - STA. 307+75 (SOLID LT & RT)

REMOVING SIGNS
AS SHOWN - 1

CURVE #12
DELTA = 22°19'22"
D = 3°31'33"
R = 1625.00'
T = 320.62'
L = 633.11'
E = 31.33'
BANKING 0.058 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 23

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_46.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 46 OF 194

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 307+75 - STA. 308+50 LT

STEEL BEAM GUARDRAIL, GALVANIZED W/8 FEET POSTS
STA. 307+75 - STA. 309+00 LT

ANCHOR FOR STEEL BEAM RAIL
STA. 309+00 LT

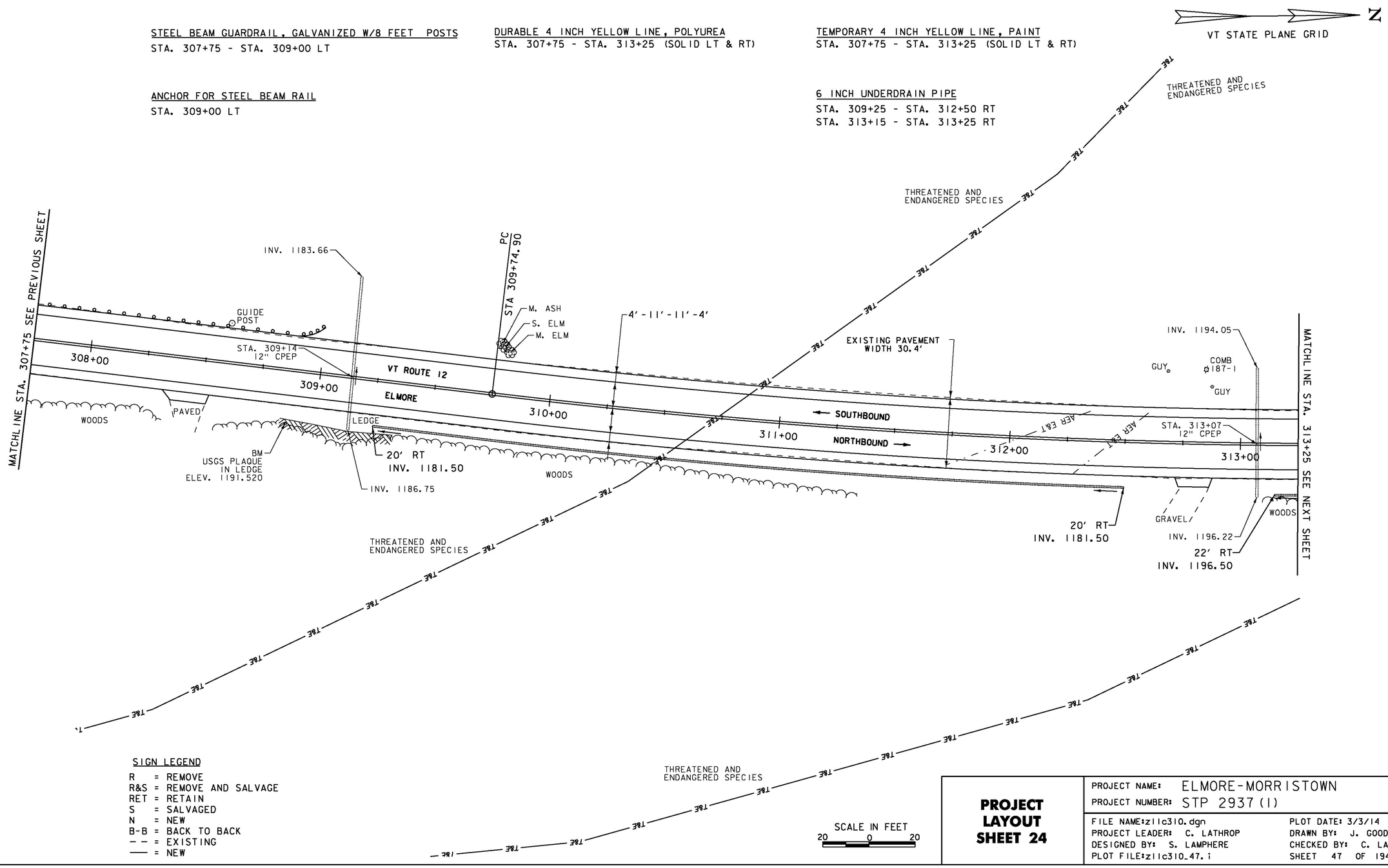
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 307+75 - STA. 313+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 307+75 - STA. 313+25 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 307+75 - STA. 313+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 307+75 - STA. 313+25 (SOLID LT & RT)

6 INCH UNDERDRAIN PIPE
STA. 309+25 - STA. 312+50 RT
STA. 313+15 - STA. 313+25 RT



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 24

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_47.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 47 OF 194

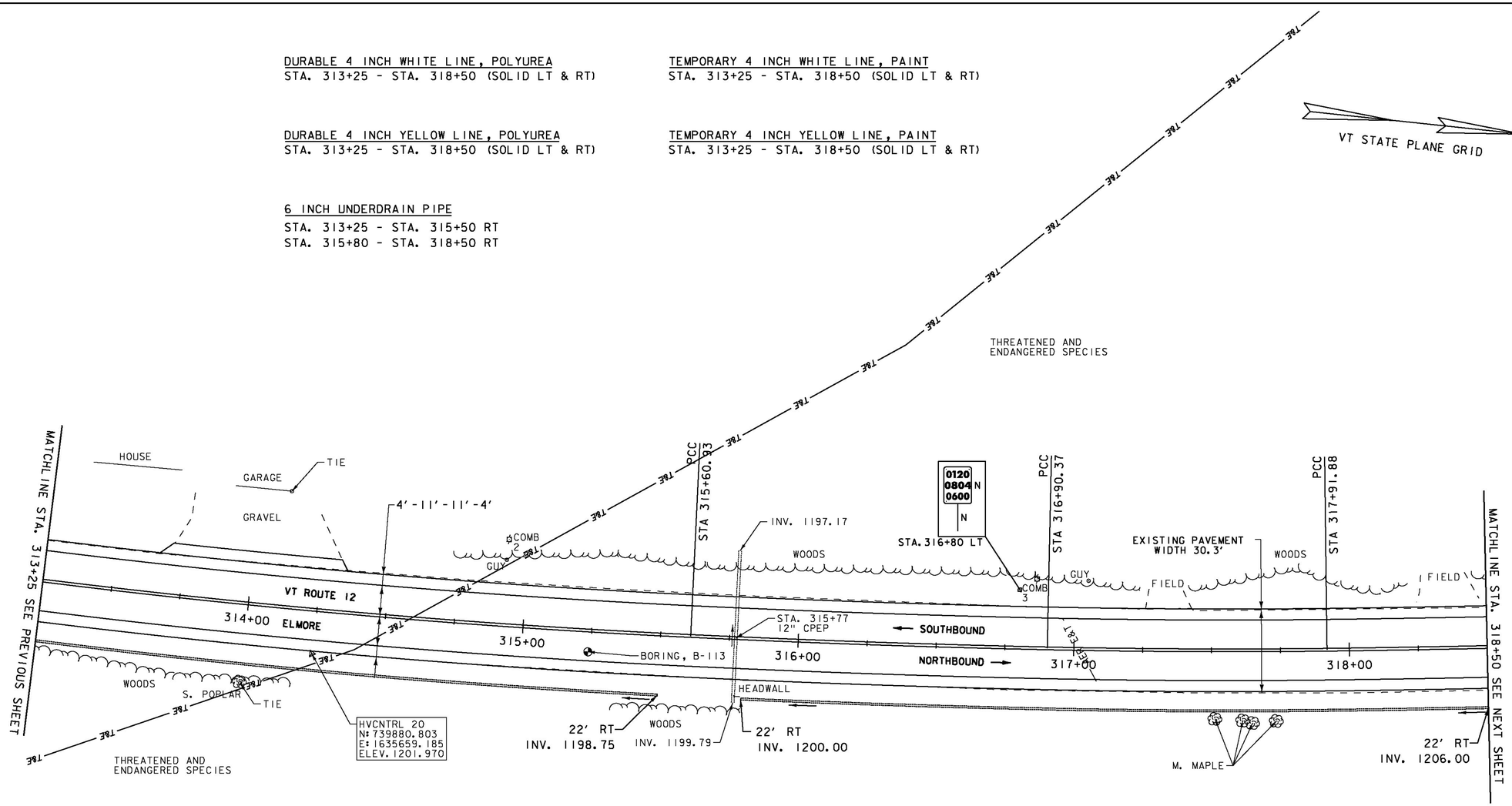
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 313+25 - STA. 318+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 313+25 - STA. 318+50 (SOLID LT & RT)

6 INCH UNDERDRAIN PIPE
STA. 313+25 - STA. 315+50 RT
STA. 315+80 - STA. 318+50 RT

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 313+25 - STA. 318+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 313+25 - STA. 318+50 (SOLID LT & RT)



CURVE #13
DELTA = 28°03'07"
D = 1°50'00" (1) D = 1°08'45" (2) D = 1°54'35" (3) D = 0°55'00" (4) D = 1°35'30" (5)
R = 3125.00' (1) R = 5000.00' (2) R = 3000.00' (3) R = 6250.00' (4) R = 3600.00' (5)
T = 937.67' (1) T = 1035.30' (2)
L = 586.03' (1) L = 129.44' (2) L = 101.51' (3) L = 569.67' (4) L = 544.31' (5)
E = 137.64'
BANKING 0.036 FT/FT, 0.024 FT/FT, 0.037 FT/FT, REVERSE CROWN, 0.032 FT/FT
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 25

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

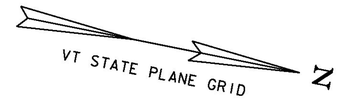
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_48.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 48 OF 194

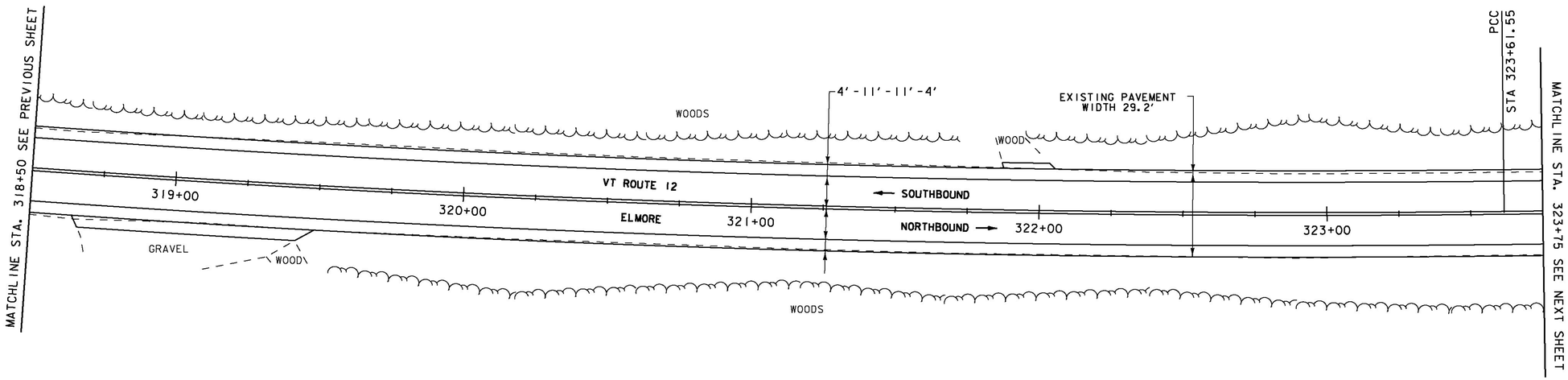
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 318+50 - STA. 323+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 318+50 - STA. 323+75 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 318+50 - STA. 323+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 318+50 - STA. 323+75 (SOLID LT & RT)





PI
STA 319+12.57

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 26

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_49.i

PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 49 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 334+75 - STA. 340+50 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 334+75 - STA. 340+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 334+75 - STA. 340+50 (DASHED LT, SOLID RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 334+75 - STA. 340+50 (DASHED LT, SOLID RT)

6 INCH UNDERDRAIN PIPE
STA. 334+75 - STA. 336+50 RT

REMOVING SIGNS
AS SHOWN - 2

HISTORIC DIST — HISTORIC DIST

VT STATE PLANE GRID N

HISTORIC AREA

CURVE #15
DELTA = 3°56'27"
D = 0°57'18"
R = 6000.00'
T = 206.42'
L = 412.68'
E = 3.55'
BANKING REVERSE CROWN
DESIGN SPEED 50 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

EXISTING PAVEMENT
WIDTH 28.2'

MATCHLINE STA. 334+75 SEE PREVIOUS SHEET

MATCHLINE STA. 340+50 SEE NEXT SHEET

WOODS
IRON PIPE
PAVED
MB
STONE WALL
ARCH
4'-11'-11'-4'
ARCHEOLOGICALLY SENSITIVE AREA
IRON PIPE
VT ROUTE 12
SOUTHBOUND
NORTHBOUND
335+00
336+00 ELMORE
337+00
338+00
339+00
340+00
BORING, B-115
WOODS
20' RT
INV. 1196.00
PC
STA 336+78.65
0120 0804 0640 R
0120 0804 0640 N
STA. 337+92 LT
PI
STA 338+85.07
151 CPEP
GRAVEL
INV. 1190.02
DROP INLET
RIM 1191.07
INV. 1188.07
SPEED LIMIT 35
STA. 336+62 RT

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 29

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_52.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 52 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 340+50 - STA. 345+75 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 340+50 - STA. 342+15 (DASHED LT, SOLID RT)
STA. 342+15 - STA. 345+75 (SOLID LT & RT)

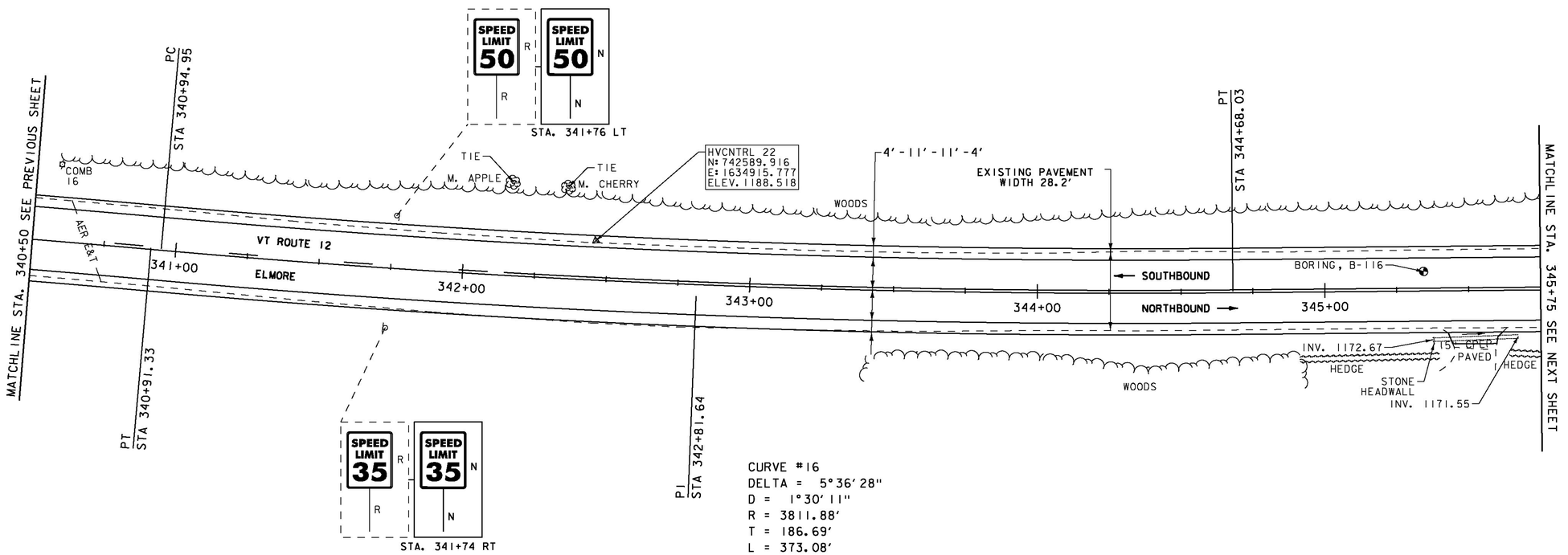
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 340+50 - STA. 345+75 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 340+50 - STA. 342+15 (DASHED LT, SOLID RT)
STA. 342+15 - STA. 345+75 (SOLID LT & RT)

REMOVING SIGNS
AS SHOWN - 2

VT STATE PLANE GRID
N

HISTORIC DIST
HISTORIC AREA



CURVE #16
DELTA = 5°36'28"
D = 1°30'11"
R = 3811.88'
T = 186.69'
L = 373.08'
E = 4.57'
BANKING REVERSE CROWN
DESIGN SPEED 35 MPH

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 30

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_53.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 53 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 345+75 - STA. 351+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS RT AT TH#9 & LT AT TH#8)
STA. 347+33 LT (EDGE LINES AT TH#8)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 345+75 - STA. 351+25 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#8 & TH#9)
STA. 347+33 LT (CENTERLINE AT TH#8)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 345+75 - STA. 351+25 (SOLID LT & RT)
(WITH EDGE LINE BREAKS RT AT TH#9 & LT AT TH#8)
STA. 347+33 LT (EDGE LINES AT TH#8)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 345+75 - STA. 351+25 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#8 & TH#9)
STA. 347+33 LT (CENTERLINE AT TH#8)

DURABLE 24 INCH STOP BAR, POLYUREA
STA. 347+11 - STA. 347+27 LT (TH#8)

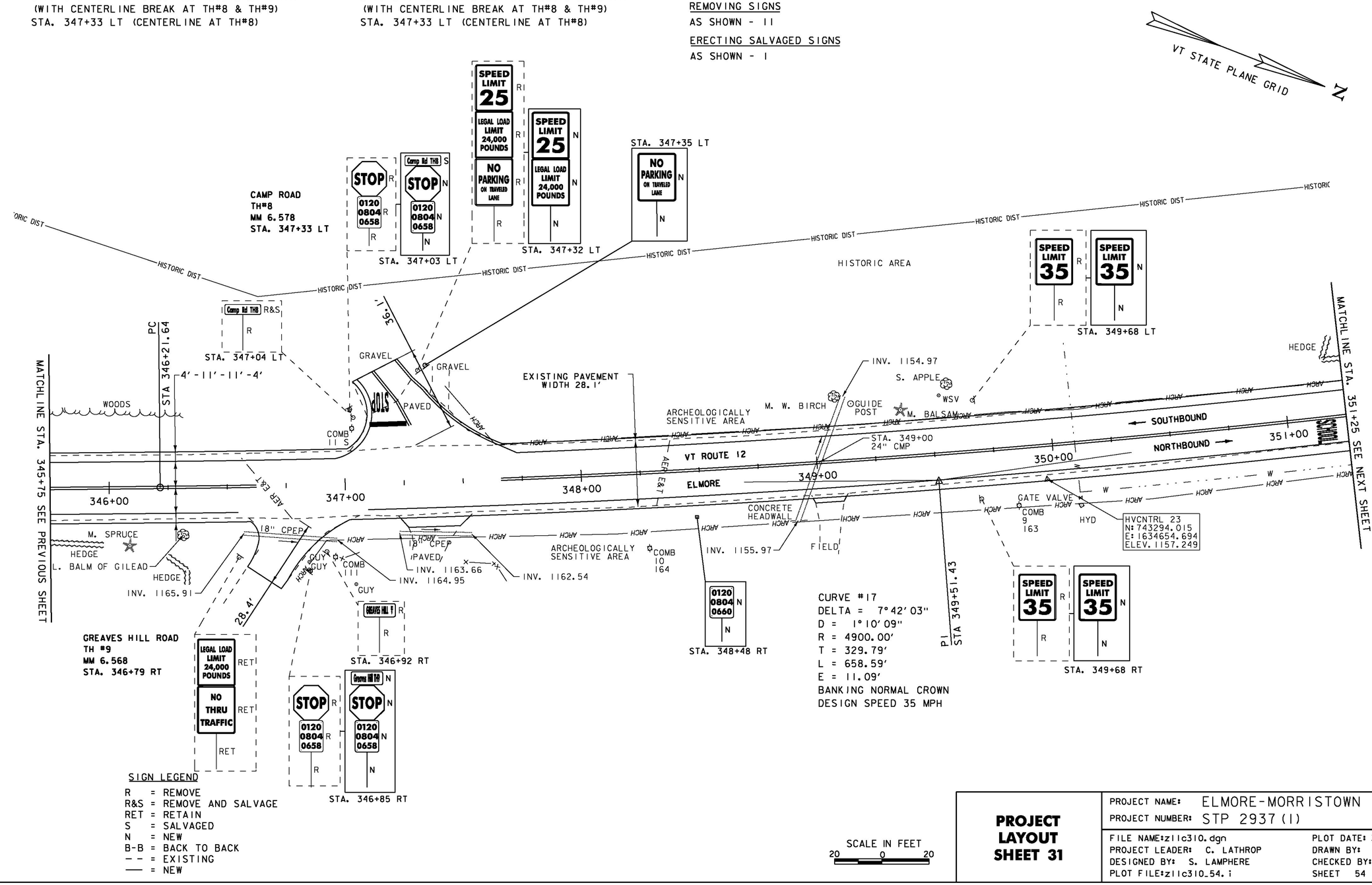
DURABLE LETTER OR SYMBOL, POLYUREA
STA. 351+17 LT "SCHOOL"
STA. 347+16 LT "STOP" (TH#8)

REMOVING SIGNS
AS SHOWN - 11

ERECTING SALVAGED SIGNS
AS SHOWN - 1

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 347+11 - STA. 347+27 LT (TH#8)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 351+17 LT "SCHOOL"
STA. 347+16 LT "STOP" (TH#8)



SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

PROJECT LAYOUT SHEET 31

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_54.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 54 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 351+25 - STA. 356+25 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 351+25 - STA. 356+25 (SOLID LT & RT)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 351+57 RT "AHEAD"

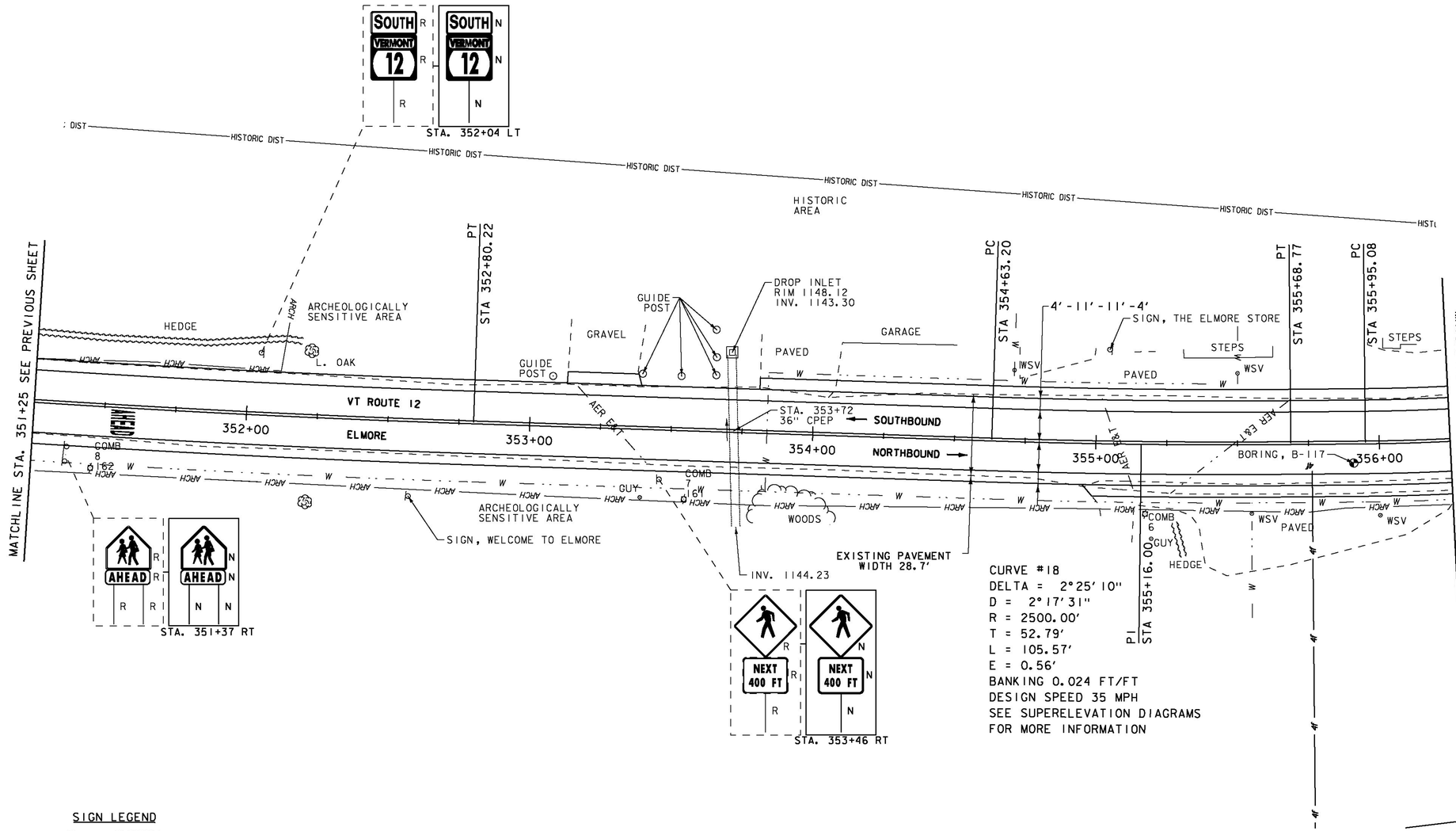
TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 351+25 - STA. 356+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 351+25 - STA. 356+25 (SOLID LT & RT)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 351+57 RT "AHEAD"

REMOVING SIGNS
AS SHOWN - 6

VT STATE PLANE GRID N



CURVE #18
DELTA = 2°25'10"
D = 2°17'31"
R = 2500.00'
T = 52.79'
L = 105.57'
E = 0.56'
BANKING 0.024 FT/FT
DESIGN SPEED 35 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 32

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_55.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 55 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 356+25 - STA. 361+75 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#2)
STA. 357+95 RT (EDGE LINES AT TH#2)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 356+25 - STA. 361+75 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#2)
STA. 357+95 RT (CENTERLINE AT TH#2)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 356+25 - STA. 361+75 (SOLID LT & RT)
(WITH EDGE LINE BREAK RT AT TH#2)
STA. 357+95 RT (EDGE LINES AT TH#2)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 356+25 - STA. 361+75 (SOLID LT & RT)
(WITH CENTERLINE BREAK AT TH#2)
STA. 357+95 RT (CENTERLINE AT TH#2)

DURABLE 24 INCH STOP BAR, POLYUREA
STA. 357+95 - STA. 358+10 RT (TH#2)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 357+99 RT "STOP" (TH#2)
STA. 359+89 LT "AHEAD"
STA. 360+29 LT "SCHOOL"

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 357+95 - STA. 358+10 RT (TH#2)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 357+99 RT "STOP" (TH#2)
STA. 359+89 LT "AHEAD"
STA. 360+29 LT "SCHOOL"

REMOVAL AND DISPOSAL OF GUARDRAIL
STA. 357+70.5 - STA. 359+07 LT
STA. 358+39.5 - STA. 359+28 RT
STA. 359+32 - STA. 359+62.5 LT
STA. 359+53 - STA. 360+14.5 RT

REMOVAL OF EXISTING BRIDGE RAILING
STA. 359+07 - STA. 359+32 LT
STA. 359+28 - STA. 359+53 RT

HD STEEL BEAM GUARDRAIL, GALVANIZED
STA. 358+82 - STA. 359+07 LT
STA. 359+03 - STA. 359+28 RT
STA. 359+53 - STA. 359+78 RT

STEEL BEAM GUARDRAIL, GALVANIZED
STA. 357+69.5 - STA. 358+82 LT
STA. 358+40.5 - STA. 359+03 RT
STA. 359+32 - STA. 359+69.5 LT
STA. 359+78 - STA. 360+15.5 RT

BRIDGE RAILING REPAIR, TYPE I
STA. 359+07 - STA. 359+32 LT
STA. 359+28 - STA. 359+53 RT

ANCHOR FOR STEEL BEAM RAIL
STA. 357+69.5 LT
STA. 358+40.5 RT
STA. 359+69.5 LT
STA. 360+15.5 RT

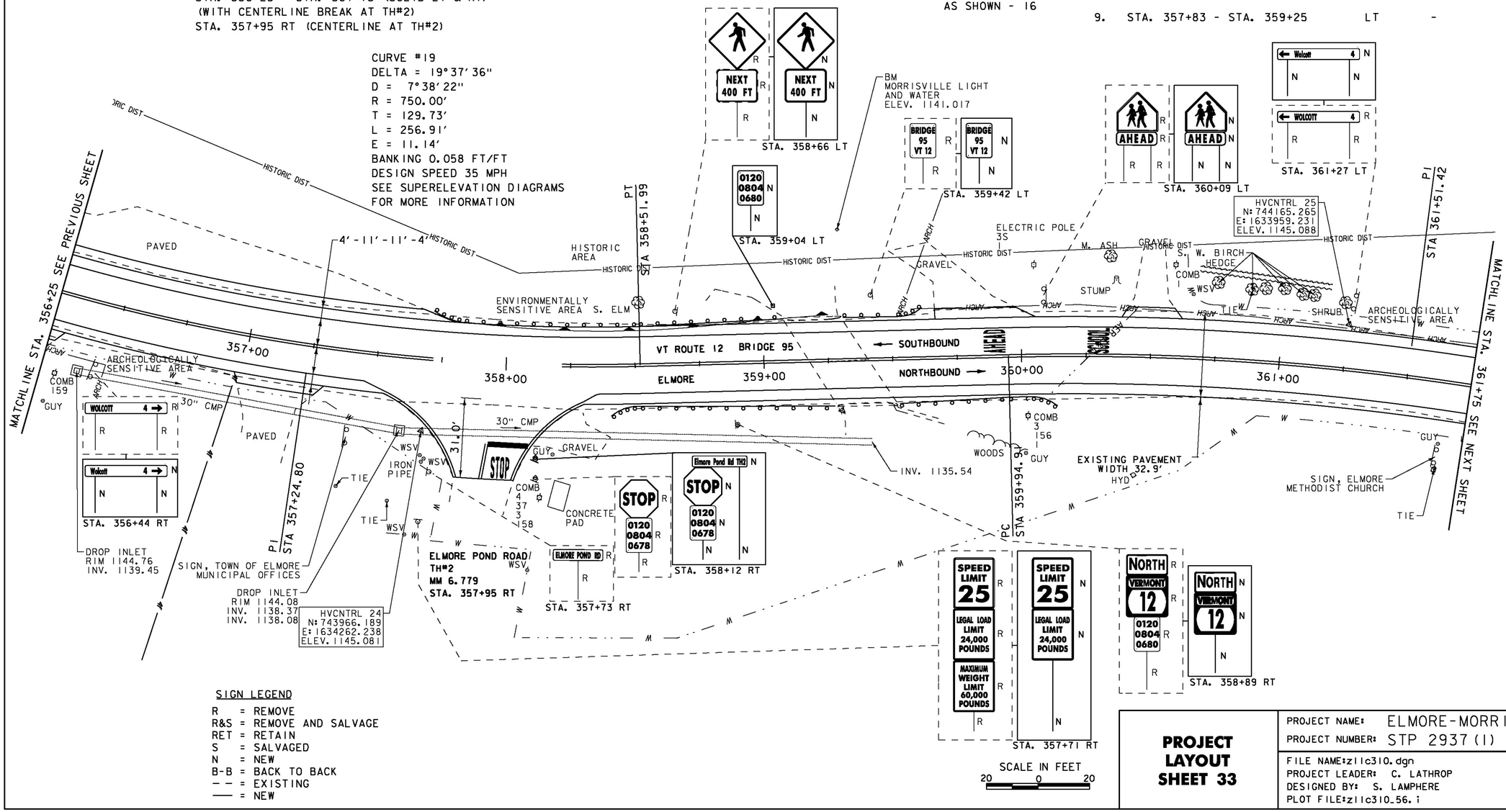
VT STATE PLANE GRID N

REMOVING SIGNS
AS SHOWN - 16

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
9.	STA. 357+83 - STA. 359+25	LT	-

CURVE #19
DELTA = 19°37'36"
D = 7°38'22"
R = 750.00'
T = 129.73'
L = 256.91'
E = 11.14'
BANKING 0.058 FT/FT
DESIGN SPEED 35 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION



SCALE IN FEET
20 0 20

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

PROJECT LAYOUT SHEET 33

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_56.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 56 OF 194

STONE FILL, TYPE I
STA. 363+40 - STA. 363+65 RT

GEOTEXTILE UNDER STONE FILL
STA. 363+40 - STA. 363+65 RT

GEOTEXTILE FOR SILT FENCE
STA. 363+40 - STA. 363+65 RT

GRUBBING MATERIAL
STA. 363+40 - STA. 363+65 RT

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 361+75 - STA. 366+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS RT AT TH#5 & LT AT TH#7)
STA. 364+90 LT (EDGE LINES AT TH#7)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 361+75 - STA. 366+75 (SOLID LT & RT)
(WITH CENTERLINE BREAKS AT TH#5 & TH#7)
STA. 364+90 LT (CENTERLINE AT TH#7)

DURABLE 24 INCH STOP BAR, POLYUREA
STA. 364+69 - STA. 364+89 LT (TH#7)

DURABLE LETTER OR SYMBOL, POLYUREA
STA. 364+81 LT "STOP" (TH#7)

REMOVING SIGNS
AS SHOWN - 11

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 361+75 - STA. 366+75 (SOLID LT & RT)
(WITH EDGE LINE BREAKS RT AT TH#5 & LT AT TH#7)
STA. 364+90 LT (EDGE LINES AT TH#7)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 361+75 - STA. 366+75 (SOLID LT & RT)
(WITH CENTERLINE BREAKS AT TH#5 & TH#7)
STA. 364+90 LT (CENTERLINE AT TH#7)

TEMPORARY 24 INCH STOP BAR, PAINT
STA. 364+69 - STA. 364+89 LT (TH#7)

TEMPORARY LETTER OR SYMBOL, PAINT
STA. 364+81 LT "STOP" (TH#7)

VT STATE PLANE GRID
N

CURVE #20
DELTA = 17°37'03"
D = 5°40'22"
R = 1010.00'
T = 156.51'
L = 310.56'
E = 12.06'
BANKING 0.049 FT/FT
DESIGN SPEED 35 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

HISTORIC DIST
HISTORIC AREA

SPEED LIMIT 35 R — STA. 363+30 LT
SPEED LIMIT 35 N — STA. 363+30 LT

Beach Rd TH7 N
STOP N
0120 0804 0691 N
STA. 364+65 LT

STOP R
0120 0804 R
STA. 364+65 LT

LEGAL LOAD LIMIT 24,000 POUNDS R
NO THRU TRAFFIC R
STA. 365+09 LT

LEGAL LOAD LIMIT 24,000 POUNDS N
NO THRU TRAFFIC N
STA. 365+09 LT

BEACH RD R
STA. 365+34 LT

BEACH ROAD
TH#7
MM 6.911
STA. 364+90 LT

EXISTING PAVEMENT WIDTH 27.3'

DROP INLET
RIM 1146.74
INV. 1144.58

STUMP

PAVED

WSV

ARCHEOLOGICALLY SENSITIVE AREA

INV. 1152.03

25.0'

18" CMP

INV. 1152.47

4'-11'-11'-4'

VT ROUTE 12

STA. 362+92
18" CPEP

BORING, B-118

SOUTHBOUND

NORTHBOUND

362+00 ELMORE

363+00

364+00

365+00

366+00

18" CPEP

INV. 1141.51

INV. 1143.40

INV. 1142.06

GRAVEL

WSV

INV. 1147.32

COMB
154

GUY

25.0'

GRAVEL

18" CPEP

INV. 1148.17

HEDGE WSV

M. MAPLE

INV. 1152.62

HEDGE

COMB

WSV

GRAVEL

SHRUB

HYD
GATE VALVE

INV. 1153.06

CEDAR

HEDGE

WSV

CEDAR

HYD

COMB
33A
3

WOODS

MATCHLINE STA. 361+75 SEE PREVIOUS SHEET

MATCHLINE STA. 366+75 SEE NEXT SHEET

WESTPHAL ROAD
TH#5
MM 6.890
STA. 363+79 RT

PT STA 363+05.46

WESTPHAL RD TH5 R — STA. 363+62 RT

Westphal Rd TH5 N
N N — STA. 363+97 RT

SPEED LIMIT 35 R
SPEED LIMIT 35 N — STA. 362+76 RT

LEGAL LOAD LIMIT 24,000 POUNDS R
LEGAL LOAD LIMIT 24,000 POUNDS N — STA. 363+67 RT

STOP R
0120 0804 R 0689 R — STA. 363+95 RT

STOP N
0120 0804 N 0689 N — STA. 363+95 RT

HISTORIC AREA

SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 34

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_57.i

PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 57 OF 194

DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 366+75 - STA. 372+25 (SOLID LT & RT)

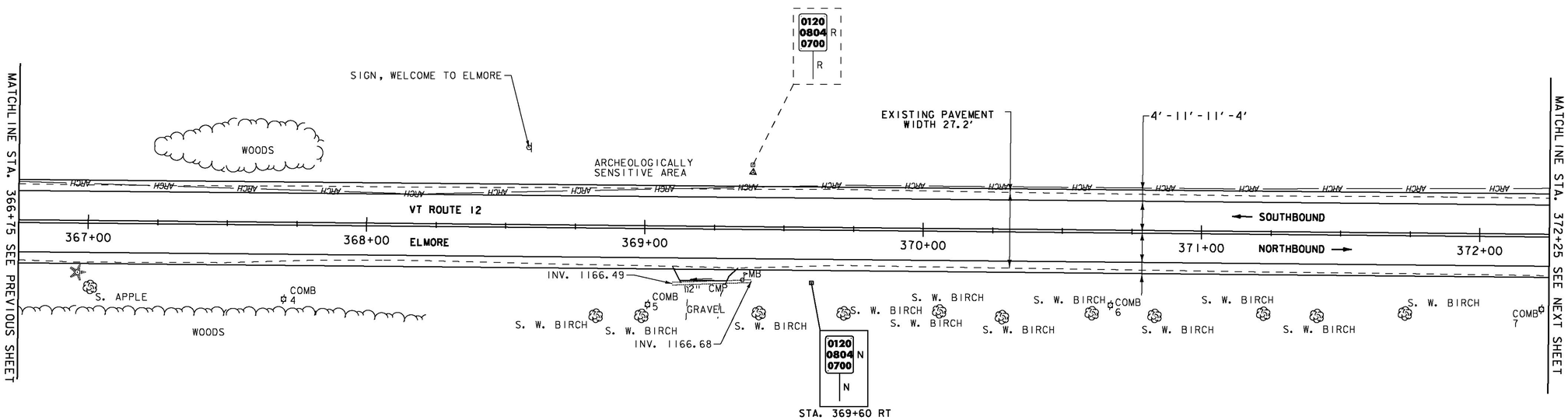
DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 366+75 - STA. 372+25 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 366+75 - STA. 372+25 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 366+75 - STA. 372+25 (SOLID LT & RT)

REMOVING SIGNS
AS SHOWN - 1

VT STATE PLANE GRID
N



SIGN LEGEND

R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 35

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

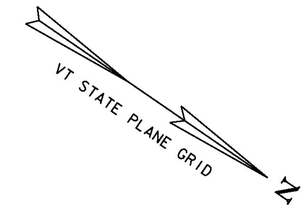
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_58.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 58 OF 194

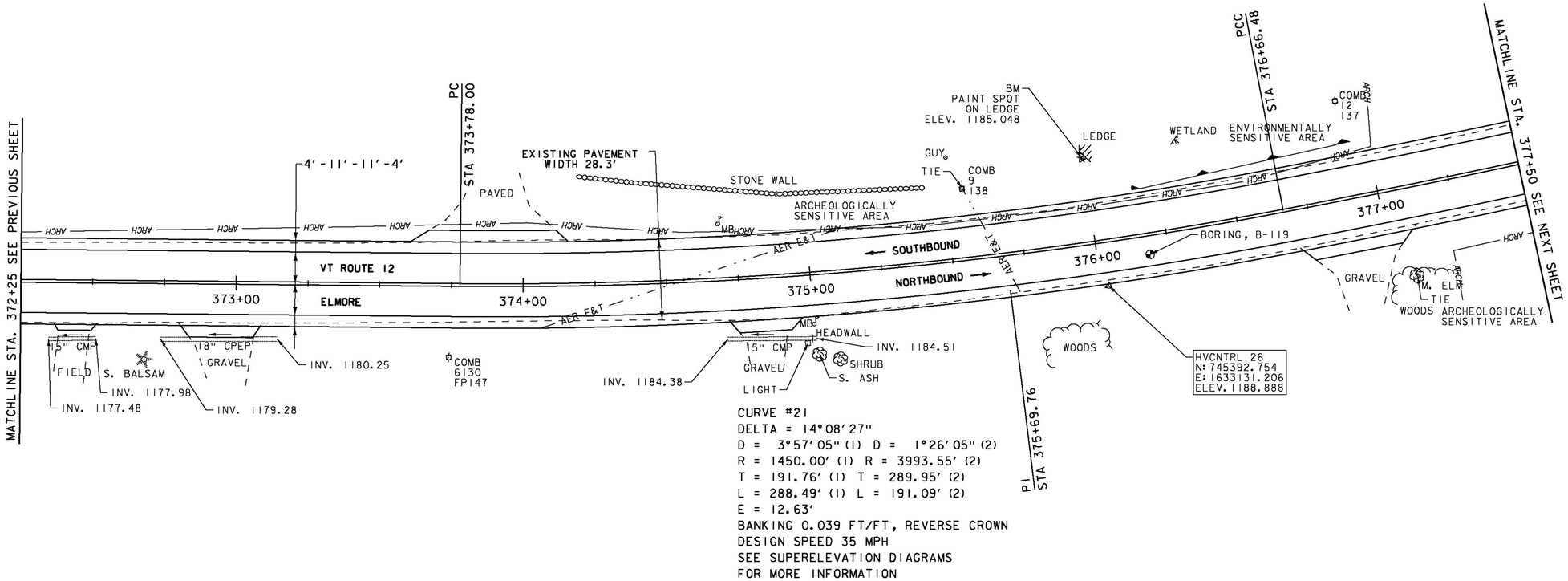
DURABLE 4 INCH WHITE LINE, POLYUREA
STA. 372+25 - STA. 377+50 (SOLID LT & RT)

DURABLE 4 INCH YELLOW LINE, POLYUREA
STA. 372+25 - STA. 377+50 (SOLID LT & RT)

TEMPORARY 4 INCH WHITE LINE, PAINT
STA. 372+25 - STA. 377+50 (SOLID LT & RT)

TEMPORARY 4 INCH YELLOW LINE, PAINT
STA. 372+25 - STA. 377+50 (SOLID LT & RT)





CURVE #21
DELTA = 14°08'27"
D = 3°57'05" (1) D = 1°26'05" (2)
R = 1450.00' (1) R = 3993.55' (2)
T = 191.76' (1) T = 289.95' (2)
L = 288.49' (1) L = 191.09' (2)
E = 12.63'
BANKING 0.039 FT/FT, REVERSE CROWN
DESIGN SPEED 35 MPH
SEE SUPERELEVATION DIAGRAMS
FOR MORE INFORMATION

ENVIRONMENTALLY SENSITIVE LOCATIONS:

NO.	LIMITS	POS.	TYPE
10.	STA. 376+15 - STA. 376+94	LT	-

SIGN LEGEND
R = REMOVE
R&S = REMOVE AND SALVAGE
RET = RETAIN
S = SALVAGED
N = NEW
B-B = BACK TO BACK
– – = EXISTING
—— = NEW

SCALE IN FEET
20 0 20

PROJECT LAYOUT SHEET 36

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937(1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_59.i
PLOT DATE: 3/3/14
DRAWN BY: J. GOODALL
CHECKED BY: C. LATHROP
SHEET 59 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 1

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)				W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 190+08 RT ELMORE	0120 0804 0360	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 200+64 LT ELMORE	0120 0804 0380	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 208+85 RT ELMORE	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
STA. 209+09 RT ELMORE	STOP	1	30	30	6.25						1					15		X															R1-1		SHSM
	0120 0804 0396	1	6	10	0.42																												VD-700		E-138
STA. 212+68 LT ELMORE	Micklin Farm Rd TH22	1	72	12	6.00						2					30		X															D3-1	111	
STA. 221+76 RT ELMORE	0120 0804 0420	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 232+32 LT ELMORE	0120 0804 0440	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 242+88 RT ELMORE	0120 0804 0460	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 245+62 RT ELMORE	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
												FT	FT	FT	FT 40	FT 75	FT		EA	LB	LB	LB		LB	LB	LB	LB							
	TOTALS				SF 24.77	SF	EA.	SF				FT			FT 115					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_90.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 90 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 2

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)				W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED		DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 246+26 RT ELMORE		1	54	12	4.50						2					30		X															D3-1	111	
		1	30	30	6.25																												R1-1		SHSM
		1	6	10	0.42																												VD-700		E-138
STA. 250+55 LT ELMORE		1	24	30	5.00						1					15		X															R2-1		SHSM
STA. 253+44 LT ELMORE		1	6	10	0.42						1				8			X															VD-700		E-138
STA. 264+00 RT ELMORE		1	6	10	0.42						1				8			X															VD-700		E-138
STA. 267+86 RT ELMORE		1	72	12	6.00						2					30		X															D3-1	111	
STA. 267+88 RT ELMORE		1	24	30	5.00						2					30		X															VR-017		E-141
STA. 268+12 RT ELMORE		1	30	30	6.25						1					15		X															R1-1		SHSM
		1	6	10	0.42																												VD-700		E-138
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB							
															16	120																		
	TOTALS				SF 34.68	SF	EA.	SF				FT			FT 136					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 2

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_91.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 91 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 3

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POST	FLANGED CHANNEL (LB / FT)			SQUARE STEEL (in) (LB / FT)			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (IN) (LB / FT)			FOUND-ATION	TUBULAR STEEL Ø (IN) (LB / FT)				W-SHAPE STEEL					SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60	FTG. SIZE 24"	FTG. SIZE 30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED			
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00								
OPTION ITEMS																																			
STA. 274+56 LT ELMORE	0120 0804 0520	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 285+12 LT ELMORE	0120 0804 0540	1	6	10	0.42						1				8																	VD-700		E-138
STA. 294+46 LT ELMORE	Draper Farm Rd Pvt	1					1				2					30		X														MOUNT SALVAGED SIGN ON NEW POST		
STA. 294+46 LT ELMORE	STOP	1	30	30	6.25						1					15																R1-1		SHSM
	0120 0804 0558	1	6	10	0.42													X														VD-700		E-138
STA. 298+36 LT ELMORE	STOP	1					1																									MOUNT SALVAGED SIGN ON NEW POST		
	0120 0804 0565	1					1				1					15		X														MOUNT SALVAGED SIGN ON NEW POST		
STA. 306+24 RT ELMORE	0120 0804 0580	1	6	10	0.42						1				8			X														VD-700		E-138
												FT	FT	FT	FT 24	FT 60	FT		EA	LB	LB	LB		LB	LB	LB	LB							
	TOTALS				SF 7.93	SF	EA. 3.	SF				FT			FT 84					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_92.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 92 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 4

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																							REMARKS	SIGN DETAIL	
												FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)					W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 316+80 LT ELMORE	0120 0804 0600	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 327+36 RT ELMORE	0120 0804 0620	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 336+62 RT ELMORE	SPEED LIMIT 35	1	36	36	9.00						2					30		X															W3-5		SHSM
STA. 337+92 LT ELMORE	0120 0804 0640	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 341+74 RT ELMORE	SPEED LIMIT 35	1	24	30	5.00						1					15		X															R2-1		SHSM
STA. 341+76 LT ELMORE	SPEED LIMIT 50	1	24	30	5.00						1					15		X															R2-1		SHSM
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB								
															24	60																			
	TOTALS				SF	SF	EA.	SF				FT			FT					LB			EA.	LB				EA.	EA.	LB					
					20.26										84																				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 4

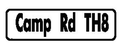
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_93.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 93 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 5

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)					W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60							
OPTION ITEMS																																		
STA. 346+92 RT ELMORE		1	72	12	6.00						2					30		X														D3-1	111	
		1	30	30	6.25																											R1-1		SHSM
		1	6	10	0.42																											VD-700		E-138
STA. 347+03 LT ELMORE							1				1					15		X														MOUNT SALVAGED SIGN ON NEW POST		
		1	30	30	6.25																											R1-1		SHSM
		1	6	10	0.42																											VD-700		E-138
STA. 347+32 LT ELMORE		1	24	30	5.00						1					15		X														R2-1		SHSM
		1	24	30	5.00																											VR-017		E-141
STA. 347+35 LT ELMORE		1	24	30	5.00						1					15		X														VR-020		E-146
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB							
															0	75																		
	TOTALS				SF 34.34	SF	EA. 1.	SF				FT			FT 75					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 5

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_94.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 94 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 6

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)				W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 348+48 RT ELMORE	0120 0804 0660	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 349+68 RT ELMORE	SPEED LIMIT 35	1	24	30	5.00						1					15		X															R2-1		SHSM
STA. 349+68 LT ELMORE	SPEED LIMIT 35	1	24	30	5.00						1					15		X															R2-1		SHSM
STA. 351+37 RT ELMORE		1	30	30	6.25						2					30		X															S1-1 --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
	AHEAD	1	24	12	2.00																												W16-9P --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
STA. 352+04 LT ELMORE	SOUTH	1	24	12	2.00						1					15		X															M3-1 --- GREEN ON WHITE		SHSM
	VERMONT 12	1	24	24	4.00																												M1-5 --- GREEN ON WHITE		SHSM
STA. 353+46 RT ELMORE		1	30	30	6.25						1					15		X															W11-2 --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
	NEXT 400 FT	1	24	18	2.50																												W16-2P --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB								
															8	90																			
	TOTALS				SF 33.42	SF	EA.	SF				FT			FT 98					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 6

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_95.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 95 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 7

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																						REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)				W-SHAPE STEEL									
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 356+44 RT ELMORE	Wolcott 4 ➔	1	72	12	6.00						2					30		X															VD1-1A	112	
STA. 357+71 RT ELMORE	SPEED LIMIT 35	1	24	30	5.00						1					15		X															R2-1		SHSM
	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00																												VR-017		E-141
STA. 358+12 RT ELMORE	Elmore Pond Rd TH2	1	66	12	5.50						2					30		X															D3-1	111	
	STOP	1	30	30	6.25																												R1-1		SHSM
	0120 0804 0678	1	6	10	0.42																												VD-700		E-138
STA. 358+66 LT ELMORE		1	30	30	6.25						1					15		X															W11-2 --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
	NEXT 400 FT	1	24	18	2.50																												W16-2P --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
												FT	FT	FT	FT	FT 90	FT		EA	LB	LB	LB		LB	LB	LB	LB								
	TOTALS				SF 36.92	SF	EA.	SF				FT			FT 90					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 7

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_96.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 96 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 8

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																						REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)				W-SHAPE STEEL								
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
												(LB / FT)			(LB / FT)					(LB / FT)				(LB / FT)											
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	1.12	2.00	3.00	1.88	2.42	3.35	ANCHOR	SLEEVE	1.30	1.70	1.70	FOUND-ATION	7.60	9.00	10.80	14.60	24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
OPTION ITEMS																																		
STA. 358+89 RT ELMORE	NORTH	1	24	12	2.00						1					15		X															M3-1 --- GREEN ON WHITE		SHSM
	VERMONT 12	1	24	24	4.00																												M1-5 --- GREEN ON WHITE		SHSM
STA. 359+04 LT ELMORE	0120 0804 0680	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 359+42 LT ELMORE	BRIDGE 95 VT 12	1	6	8	0.33						1				8			X															VD-701		E-134
STA. 360+09 LT ELMORE		1	30	30	6.25						2					30		X															S1-1 --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
	AHEAD	1	24	12	2.00																												W16-9P --- FLUORESCENT YELLOW-GREEN, TYPE IX SHEETING		SHSM
STA. 361+27 LT ELMORE	Wolcott 4	1	72	12	6.00						2					30		X															VD1-1A	112	
STA. 362+76 RT ELMORE	SPEED LIMIT 35	1	24	30	5.00						1					15		X															R2-1		SHSM
STA. 363+30 LT ELMORE	SPEED LIMIT 35	1	24	30	5.00						1					15		X															R2-1		SHSM
STA. 363+67 RT ELMORE	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB							
															16	120																			
	TOTALS				SF 36.00	SF	EA.	SF				FT			FT 136					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 8

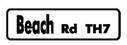
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_97.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 97 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 9

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)					W-SHAPE STEEL						
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE						
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED		DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 363+95 RT ELMORE		1	30	30	6.25						1					15																	R1-1		SHSM
		1	6	10	0.42																												VD-700		E-138
STA. 363+97 RT ELMORE		1	60	12	5.00						2					30		X															D3-1	111	
STA. 364+65 LT ELMORE		1	54	12	4.50						1					15		X															D3-1	111	
		1	30	30	6.25																												R1-1		SHSM
		1	6	10	0.42																												VD-700		E-138
STA. 365+09 LT ELMORE		1	24	30	5.00						1					15		X															VR-017		E-141
		1	24	30	5.00																												VR-639	111	
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB								
																75																			
	TOTALS				SF 32.84	SF	EA.	SF				FT			FT 75					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 9

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_98.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 98 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 10

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)				W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT) 1.12	2.00	3.00	(LB / FT) 1.88	2.42	3.35	ANCHOR	SLEEVE	(LB / FT) 1.30	1.70	1.70	FOUND-ATION	(LB / FT) 7.60	9.00	10.80	14.60	24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
OPTION ITEMS																																		
STA. 369+60 RT ELMORE	0120 0804 0700	1	6	10	0.42						1				8			X														VD-700		E-138
STA. 378+90 RT ELMORE	SPEED LIMIT 50	1	24	30	5.00						1					15		X														R2-1		SHSM
STA. 378+92 LT ELMORE	SPEED LIMIT 35	1	30	36	7.50						1					15		X														R2-1		SHSM
STA. 380+16 LT ELMORE	0120 0804 0720	1	6	10	0.42						1				8			X														VD-700		E-138
STA. 383+00 LT ELMORE	Elmore Worcester 11	1	30	18	3.75						1					15																VD-018	111	
STA. 385+29 LT ELMORE	SPEED LIMIT 35	1	36	36	9.00						2					30		X														W3-5		SHSM
												FT	FT	FT	FT 16	FT 75	FT		EA	LB	LB	LB		LB	LB	LB	LB							
	TOTALS				SF 26.09	SF	EA.	SF				FT			FT 91					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 10

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_99.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 99 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 11

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)				W-SHAPE STEEL					SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			1.75 (LB / FT)	2.00 (LB / FT)	2.50 (LB / FT)	ANCHOR	SLEEVE	3.00 (LB / FT)	4.00 (LB / FT)	4.0 MOD (LB / FT)	FOUND-ATION	3.00 (LB / FT)	3.50 (LB / FT)	4.00 (LB / FT)	5.00 (LB / FT)	FTG. SIZE 24"	FTG. SIZE 30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED			
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. 390+72 RT ELMORE	0120 0804 0740	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 401+28 LT ELMORE	0120 0804 0760	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 411+84 RT ELMORE	0120 0804 0780	1	6	10	0.42						1				8			X															VD-700		E-138
STA. 417+26 LT ELMORE		1	36	36	9.00						2					30		X															S3-1 --- FLUORESCENT YELLOW-GREEN WITH TYPE IX SHEETING		SHSM
STA. 417+93 RT ELMORE		1	24	30	5.00						1					15		X															VR-017		E-141
STA. 418+32 RT ELMORE		1	42	12	3.50						1					15		X															D3-1	111	
		1	30	30	6.25																												R1-1		SHSM
	0120 0804 0792	1	6	10	0.42																												VD-700		E-138
												FT	FT	FT	FT 24	FT 60	FT		EA	LB	LB	LB		LB	LB	LB	LB								
	TOTALS				SF 25.43	SF	EA.	SF				FT			FT 84					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 11

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_100.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 100 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 12

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)				W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE						
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60							
OPTION ITEMS																																		
STA. 418+55 LT ELMORE STA. A 0+00 LT MORRISTOWN	Elmore / Morristown	1	72	10	5.00						2					30		X														VD-024		E-124
	0120 0804 0793	1	6	10	0.42																											VD-700		E-138
	0120 0807 0000	1	6	10	0.42																											VD-700		E-138
STA. A 10+56 RT MORRISTOWN	0120 0807 0020	1	6	10	0.42						1				8			X														VD-700		E-138
STA. A 19+75 RT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X														VR-017		E-141
STA. A 20+10 RT MORRISTOWN	LAZY Ln TH21	1	42	12	3.50						1					15		X														D3-1	111	
	STOP	1	30	30	6.25																											R1-1		SHSM
	0120 0807 0038	1	6	10	0.42																											VD-700		E-138
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB							
															8	60																		
	TOTALS				SF 21.43	SF	EA.	SF				FT			FT 68					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 12

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_101.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 101 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 13

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)					W-SHAPE STEEL						
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE					SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK		
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED		DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. A 21+12 LT MORRISTOWN	0120 0807 0040	1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 31+68 RT MORRISTOWN	0120 0807 0060	1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 42+24 LT MORRISTOWN	0120 0807 0080	1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 46+60 RT MORRISTOWN	Sandhill Hts Pvt	1	60	12	5.00						2					30		X															D3-1	111	
STA. A 49+26 LT MORRISTOWN	Goddard Nesbit Rd TH80	1	66	12	5.50						2					30		X															D3-1	111	
STA. A 49+31 LT MORRISTOWN	STOP	1	30	30	6.25						1					15																	R1-1		SHSM
	0120 0807 0093	1	6	10	0.42																												VD-700		E-138
STA. A 49+69 LT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
												FT	FT	FT	FT 24	FT 90	FT		EA	LB	LB	LB		LB	LB	LB	LB								
	TOTALS				SF 23.43	SF	EA.	SF				FT			FT 114					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 13

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_102.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 102 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 14

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																				REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			FOUND-ATION	TUBULAR STEEL Ø (IN)				W-SHAPE STEEL						
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE					SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)				(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED			
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60								
OPTION ITEMS																																			
STA. A 52+80 RT MORRISTOWN	0120 0807 0100	1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 55+70 RT MORRISTOWN		1	30	30	6.25						1					15		X															W7-1b		SHSM
	NEXT 2000 FT	1	24	18	3.00																												W7-3a		SHSM
	9% GRADE	1	24	18	3.00																												W7-3		SHSM
STA. A 57+62 LT MORRISTOWN	Elmore Mountain Rd TH39	1	66	12	5.50						1					15		X															D3-1	111	
STA. A 57+68 LT MORRISTOWN	STOP	1	30	30	6.25						1					15		X															R1-1		SHSM
	0120 0807 0109	1	6	10	0.42																												VD-700		E-138
STA. A 58+08 LT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
												FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB								
															8	60																			
	TOTALS				SF 29.84	SF	EA.	SF				FT			FT 68					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 14

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_103.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 103 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 15

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																				REMARKS	SIGN DETAIL	
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POST	FLANGED CHANNEL (LB / FT)			SQUARE STEEL (in) (LB / FT)			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (IN) (LB / FT)			FOUND-ATION	TUBULAR STEEL Ø (IN) (LB / FT)				W-SHAPE STEEL					SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60	24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED			
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE							
OPTION ITEMS																																			
STA. A 63+36 LT MORRISTOWN	0120 0807 0120	1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 63+69 LT MORRISTOWN	Davison Rd TH79	1	60	12	5.00						1					15		X															D3-1	111	
	STOP	1	30	30	6.25																												R1-1		SHSM
STA. A 64+07 LT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
STA. A 73+92 RT MORRISTOWN	0120 0807 0140	1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 80+24 RT MORRISTOWN	Sand Ridge Rd TH78	1	72	12	6.00						1					15		X															D3-1	111	
STA. A 80+30 RT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						2					30		X															VR-017		E-141
STA. A 80+70 RT MORRISTOWN	STOP	1	30	30	6.25						1					15		X															R1-1		SHSM
	0120 0807 0153	1	6	10	0.42																												VD-700		E-138
												FT	FT	FT	FT 16	FT 90	FT		EA	LB	LB	LB		LB	LB	LB	LB								
	TOTALS				SF 34.76	SF	EA.	SF				FT			FT 106					LB			EA.	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 15

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_104.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 104 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 16

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
												FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)				W-SHAPE STEEL						
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE						
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60							
OPTION ITEMS																																		
STA. A 84+48 LT MORRISTOWN	0120 0807 0160	1	6	10	0.42						1				8			X														VD-700		E-138
STA. A 94+89 RT MORRISTOWN	H	1	24	24	4.00						1					15		X														D9-2 --- WHITE ON BLUE		SHSM
	←	1	21	15	2.19																											M6-1L --- WHITE ON BLUE		SHSM
STA. A 95+04 RT MORRISTOWN	0120 0807 0180	1	6	10	0.42						1				8			X														VD-700		E-138
STA. A 97+24 LT MORRISTOWN	Lower Elmore Mtn Rd TH37	1	66	12	5.50						2					30		X														D3-1	111	
	STOP	1	30	30	6.25																											R1-1		SHSM
	0120 0807 0184	1	6	10	0.42																											VD-700		E-138
STA. A 97+77 LT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X														VR-017		E-141
												FT	FT	FT	FT 16	FT 60	FT		EA	LB	LB	LB		LB	LB	LB	LB							
	TOTALS				SF 24.2	SF	EA.	SF				FT			FT 76					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 16

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_105.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 105 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 17

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																				REMARKS	SIGN DETAIL	
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	NO. OF POST	FLANGED CHANNEL (LB / FT)			SQUARE STEEL (in) (LB / FT)			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (IN) (LB / FT)			FOUND-ATION	TUBULAR STEEL Ø (IN) (LB / FT)				W-SHAPE STEEL FTG. SIZE		WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60	24"	30"					
OPTION ITEMS																																		
STA. A 99+65 LT MORRISTOWN		1	24	24	4.00						1					15		X														D9-2 --- WHITE ON BLUE		SHSM
		1	21	15	2.19																											M6-1R --- WHITE ON BLUE		SHSM
STA. A 105+60 RT MORRISTOWN		1	6	10	0.42						1				8			X															VD-700		E-138
STA. A 106+03 RT MORRISTOWN		1					1				1					15		X															W11-9		SHSM
		1					1																										W16-4P		SHSM
STA. A 109+08 RT MORRISTOWN		1	36	36	9.00						2					30		X															W3-5		SHSM
STA. A 110+02 RT MORRISTOWN		1	6	8	0.33						1				8			X															VD-701		E-134
STA. A 110+35 LT MORRISTOWN		1	6	8	0.33						1				8			X															VD-701		E-134
												FT	FT	FT	FT 24	FT 60	FT		EA	LB	LB	LB		LB	LB	LB	LB							
	TOTALS				SF 16.27	SF	EA. 2.	SF				FT			FT 84					LB			EA.	LB				EA.	EA.	LB				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

TRAFFIC SIGN SUMMARY SHEET 17

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_106.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 106 OF 194

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 18

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)			TUBULAR STEEL Ø (IN)				W-SHAPE STEEL							
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE						
												(LB / FT)			(LB / FT)					(LB / FT)				(LB / FT)										
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	1.12	2.00	3.00	1.88	2.42	3.35	ANCHOR	SLEEVE	1.30	1.70	1.70	FOUND-ATION	7.60	9.00	10.80	14.60	24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
OPTION ITEMS																																			
STA. A 114+70 RT MORRISTOWN	LEGAL LOAD LIMIT 24,000 POUNDS	1	24	30	5.00						1					15		X															VR-017		E-141
STA. A 115+00 LT MORRISTOWN	STATE HIGHWAY BEGINS	1	24	18	3.00						1					15		X															VR-039		E-141
	SPEED LIMIT 50	1	24	30	5.00																												R2-1		SHSM

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET 19

MILE MARKER, STATION OR SIGN NUMBER		SIGN DIMENSIONS			NEW & SALVAGED SIGNS				EXIST POST		NEW SIGN POSTS																					REMARKS	SIGN DETAIL	
											NO. OF	FLANGED CHANNEL			SQUARE STEEL (in)					TUBULAR ALUMINUM Ø (IN)				TUBULAR STEEL Ø (IN)					W-SHAPE STEEL						
															1.75	2.00	2.50			3.00	4.00	4.0 MOD		3.00	3.50	4.00	5.00	FTG. SIZE						
		EACH	WIDTH (in)	HEIGHT (in)	"A"	"B"	SALV SIGN	SALV TIS	RETAIN	SALVAGE	POST	(LB / FT)			(LB / FT)			ANCHOR	SLEEVE	(LB / FT)			FOUND-ATION	(LB / FT)				24"	30"	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	SHSM = FHWA STANDARD HIGHWAY SIGNS AND MARKINGS BOOK	DETAIL ON SHEET NUMBER	STANDARD SHEET NUMBER
												1.12	2.00	3.00	1.88	2.42	3.35			1.30	1.70	1.70		7.60	9.00	10.80	14.60							
OPTION ITEMS																																		
STA. A 115+18 RT MORRISTOWN	STOP	1	30	30	6.25						1					15		x														R1-1		SHSM
	0120 0807 0218	1	6	10	0.42																											VD-700		E-138
STA. A 115+27 RT MORRISTOWN	Demars Rd TH88	1	54	12	4.50						2					30		X														D3-1	111	
STA. A 115+48 RT MORRISTOWN	STATE HIGHWAY ENDS	1	24	18	3.00						1					15		X														VR-038		E-141
	SPEED LIMIT 25	1	30	36	7.50																											R2-1		SHSM
	TSSS 1 TOTAL				24.77		-								40	75							-	-										
	TSSS 2 TOTAL				34.68		-								16	120							-	-										
	TSSS 3 TOTAL				7.93		3								24	60							-	-										
	TSSS 4 TOTAL				20.26		-								24	60							-	-										
	TSSS 5 TOTAL				34.34		1								-	75							-	-										
	TSSS 6 TOTAL				33.42		-								8	90							-	-										
	TSSS 7 TOTAL				36.92		-								-	90							-	-										
	TSSS 8 TOTAL				36.00		-								16	120							-	-										
	TSSS 9 TOTAL				32.84		-								-	75							-	-										
	TSSS 10 TOTAL				26.09		-								16	75							-	-										
	TSSS 11 TOTAL				25.43		-								24	60							-	-										
	TSSS 12 TOTAL				21.43		-								8	60							-	-										
	TSSS 13 TOTAL				23.43		-								24	90							-	-										
	TSSS 14 TOTAL				29.84		-								8	60							-	-										
	TSSS 15 TOTAL				34.76		-								16	90							-	-										
	TSSS 16 TOTAL				24.20		-								16	60							-	-										
	TSSS 17 TOTAL				16.27		2								24	60							-	-										
	TSSS 18 TOTAL				13.00		-								-	30							-	-										
	TSSS 19 TOTAL				21.67		-								-	60							-	-										
	SUBTOTAL				497.28							FT	FT	FT	FT	FT	FT		EA	LB	LB	LB		LB	LB	LB	LB							
															264	1410																		
	ROUNDING				12.72																													
	TOTALS				SF 510.00	SF	EA. 6.	SF				FT			FT 1674					LB			EA. -	LB				EA.	EA.	LB					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."

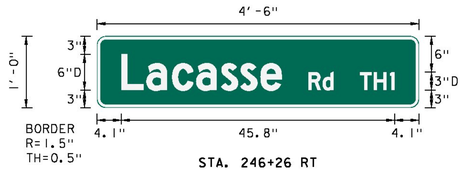
TRAFFIC SIGN SUMMARY SHEET 19

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_108.i

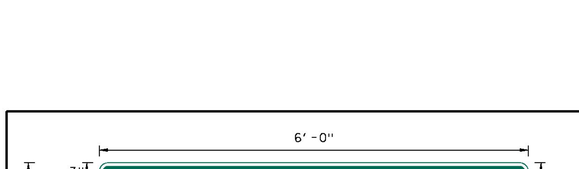
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 108 OF 194

STA. 212+68 LT
WHITE ON GREEN
D3-1

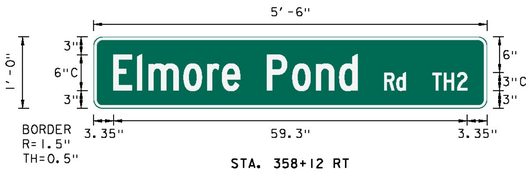


STA. 246+26 RT
WHITE ON GREEN
D3-1

STA. 267+86 RT
WHITE ON GREEN
D3-1



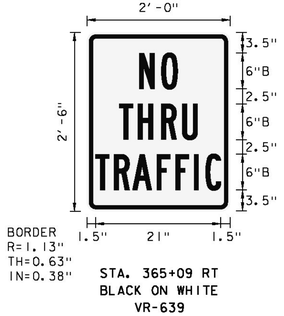
STA. 346+92 RT
WHITE ON GREEN
D3-1



STA. 358+12 RT
WHITE ON GREEN
D3-1

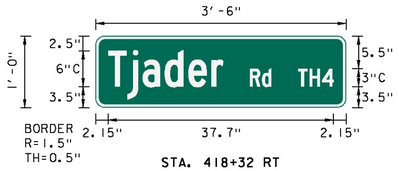
STA. 363+97 RT
WHITE ON GREEN
D3-1

STA. 364+65 LT
WHITE ON GREEN
D3-1



STA. 365+09 RT
BLACK ON WHITE
VR-639

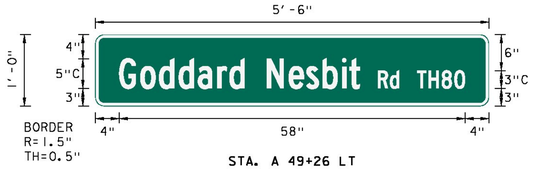
STA. 383+00 LT
WHITE ON GREEN
VD-018



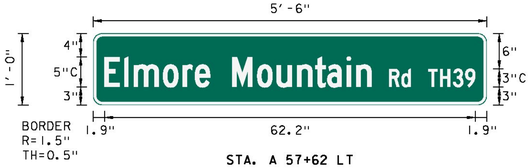
STA. 418+32 RT
WHITE ON GREEN
D3-1

STA. A 20+10 RT
WHITE ON GREEN
D3-1

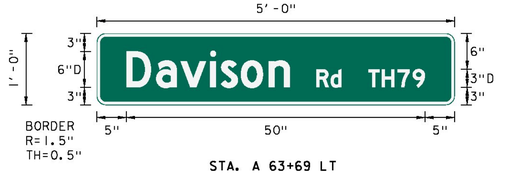
STA. A 46+60 RT
WHITE ON GREEN
D3-1



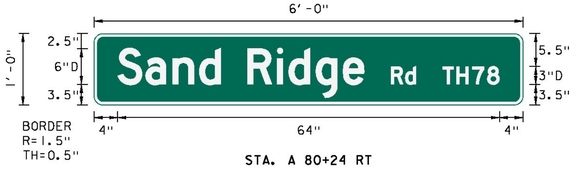
STA. A 49+26 LT
WHITE ON GREEN
D3-1



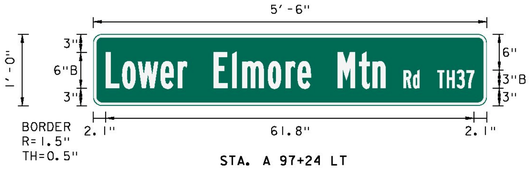
STA. A 57+62 LT
WHITE ON GREEN
D3-1



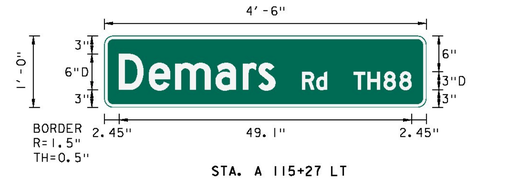
STA. A 63+69 LT
WHITE ON GREEN
D3-1



STA. A 80+24 RT
WHITE ON GREEN
D3-1



STA. A 97+24 LT
WHITE ON GREEN
D3-1



STA. A 115+27 LT
WHITE ON GREEN
D3-1

NOTE:
ALL STREET NAME SIGNS
ARE DOUBLE SIDED

KEY
R = RADIUS
TH = THICKNESS
IND = INDENT

DETAILS ARE NOT TO SCALE

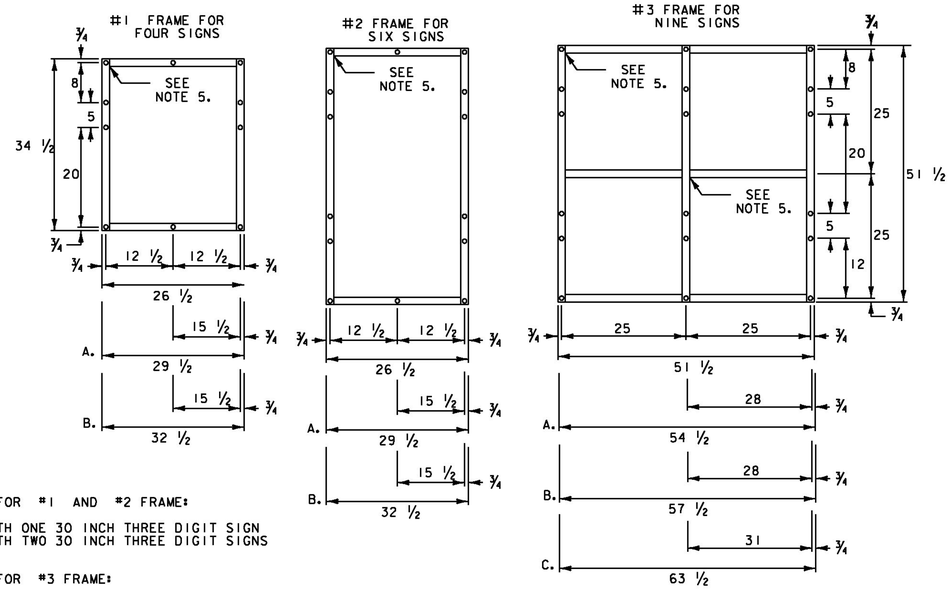
SIGN DETAIL SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_111.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 111 OF 194

ROUTE MARKER ASSEMBLY FRAMES



NOTES:

1. NOTES FOR #1 AND #2 FRAME:

   A. WITH ONE 30 INCH THREE DIGIT SIGN
   B. WITH TWO 30 INCH THREE DIGIT SIGNS

2. NOTES FOR #3 FRAME:

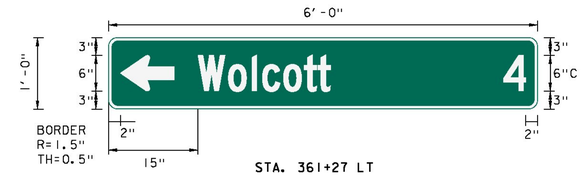
   A. WITH ONE 30 INCH THREE DIGIT SIGN IN AN OUTSIDE POSITION.
   B. WITH ONE 30 INCH THREE DIGIT SIGN IN THE CENTER POSITION OR TWO SUCH SIGNS IN THE OUTSIDE POSITIONS.
   C. WITH THREE 30 INCH THREE DIGIT SIGNS.

3. ALL HOLES SHALL BE 7/16 INCH DIAMETER. FOR OTHER SIGN COMBINATIONS THAN ABOVE, THE FRAME DIMENSIONS AND HOLE SPACING SHALL BE MODIFIED AS NECESSARY. THE FRAME SHALL BE PAINTED WITH ONE COAT OF PRIMER AND A SECOND COAT OF BLACK PAINT. THE PAINT SHALL BE OF THE TYPE USED ON EXTERIOR METAL SURFACES TO PREVENT METAL CORROSION.

4. STANDARD FRAMES SHALL BE 5/16 INCH x 1 1/2 INCH WELDED ASTM A-36 STEEL.

5. ALL OVERLAPPED CONNECTIONS SHALL BE WELDED WITH TWO, 1/4 INCH WIDE FILLET WELDS, 1 1/2 INCHES LONG.

STA. 356+44 RT
WHITE ON GREEN
VD1-1A



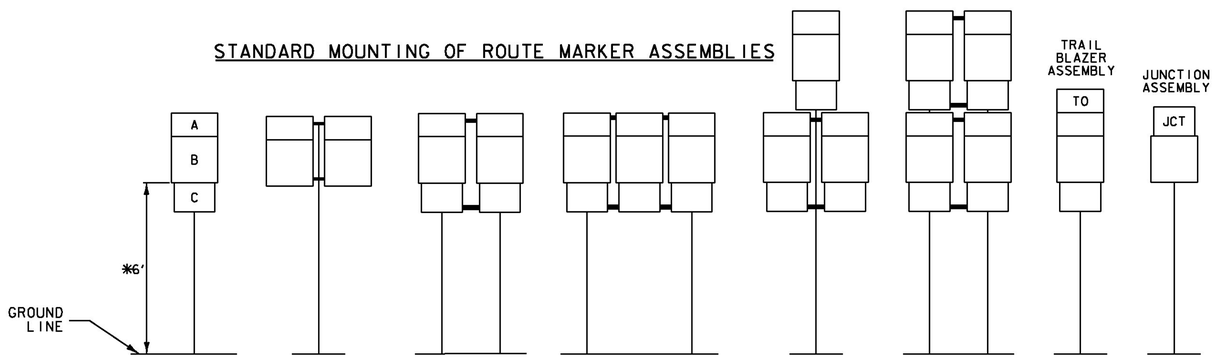
STA. 361+27 LT
WHITE ON GREEN
VD1-1A

STANDARD DESTINATION SIGN NOTES VD1-1A, VD2-1

1.) THE DESTINATION SIGN SHOWN ON THIS SHEET SHALL HAVE WHITE RETROREFLECTIVE ASTM TYPE III OR IV TEXT, ARROWS AND BORDERS ON A GREEN ASTM D 4956 TYPE III OR IV BACKGROUND.

2.) USE THE LARGEST LETTER / THICKEST FONT AVAILABLE THAT WILL SATISFY THE MINIMUM SPACING REQUIREMENTS, AS SHOWN IN THE DETAILS ABOVE; I.E. IF A 6" SERIES C LETTER DOES NOT WORK, DUE TO THE LENGTH OF THE WORD, USE A 6" SERIES B LETTER. IF A 6" SERIES B LETTER DOES NOT WORK, USE A 5" SERIES C. IF A 5" SERIES C LETTER DOES NOT WORK, USE A 5" SERIES B. USE NO LESS THAN 80% KERNING.

STANDARD MOUNTING OF ROUTE MARKER ASSEMBLIES



A - CARDINAL DIRECTION MARKER
B - ROUTE NUMBER
C - ADVANCE TURN ARROW OR DIRECTIONAL ARROW

*WHERE PARKING OR PEDESTRIAN TRAFFIC WILL OCCUR IN THE IMMEDIATE VICINITY OF THESE SIGNS MINIMUM VERTICAL CLEARANCE SHALL BE INCREASED TO SEVEN FEET

INSTALLATION SEQUENCE:

IN MULTIPLE HORIZONTAL MOUNTINGS PLACE A ROUTE MARKER ASSEMBLY INDICATING A LEFT TURN ON THE LEFT SIDE OF THE ASSEMBLY; RIGHT TURN ON THE RIGHT SIDE. FOR VERTICALLY STACKED MOUNTINGS PLACE THE STRAIGHT THROUGH MOVE INDICATION ON TOP, THE LEFT OR RIGHT TURNS AS APPROPRIATE BENEATH.

NOTES:

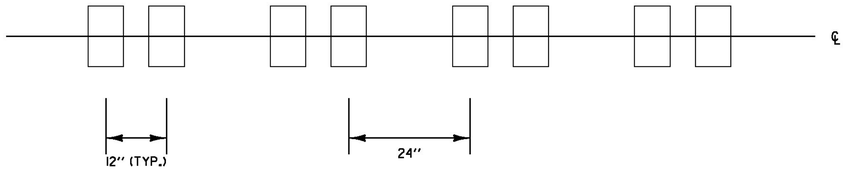
1. ALL DIMENSIONS SHOWN IN INCHES EXCEPT WHERE NOTED.
2. VERTICAL FRAME MEMBERS SHALL LINE UP WITH SIGN POST ON WHICH THEY ARE MOUNTED.

DETAILS ARE NOT TO SCALE

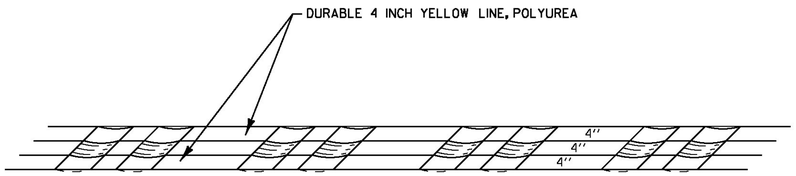
SIGN DETAIL SHEET 2

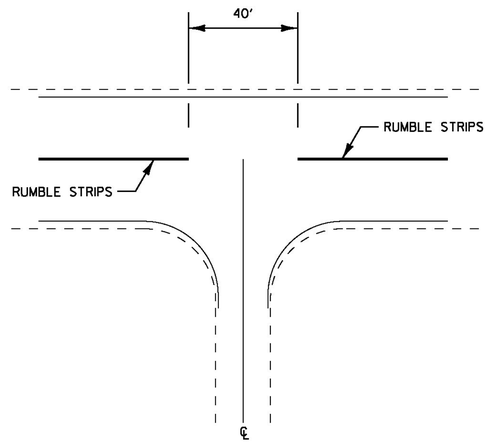
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_113.i
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 112 OF 194



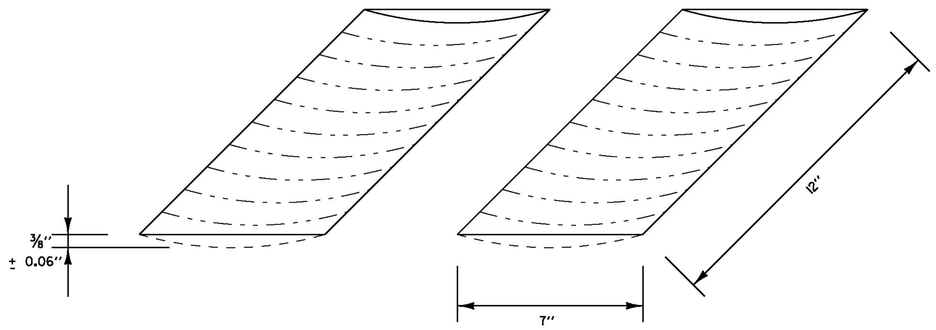
RUMBLE STRIP LAYOUT





INTERSECTION DETAIL

PAVEMENT MARKINGS DETAIL



RUMBLE STRIP DETAIL

NOTES

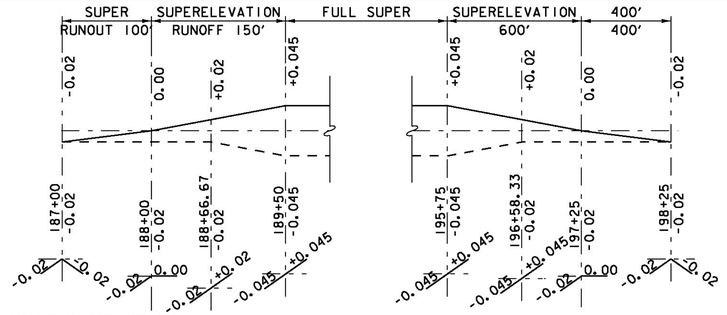
1. CENTERLINE RUMBLE STRIPS NOT TO EXTEND BEYOND CENTERLINE WHEN CENTERLINE IS A DOUBLE YELLOW LINE, WITH OR WITHOUT A PASSING ZONE.
2. CENTERLINE RUMBLE STRIP TO BE PLACED ALONG CENTERLINE OF ROADWAY.
3. CENTERLINE RUMBLE STRIP TO STOP 20 FEET PRIOR TO THE CENTERLINE OF AN INTERSECTION.

CENTERLINE RUMBLE STRIP DETAIL SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_113.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 113 OF 194

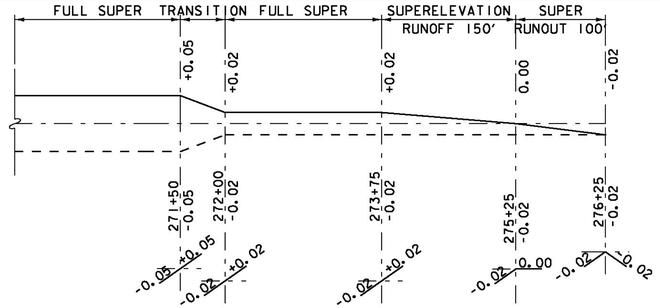


ELMORE CURVE #1

PC = 189+02.70 R = 2325 FT - LT
PT = 196+10.18 V = 50 MPH

SUPERELEVATION DIAGRAM

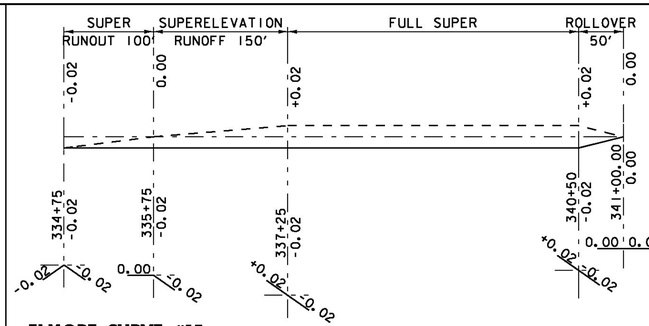
NTS



ELMORE CURVE #9 (CONT.)

SUPERELEVATION DIAGRAM

NTS

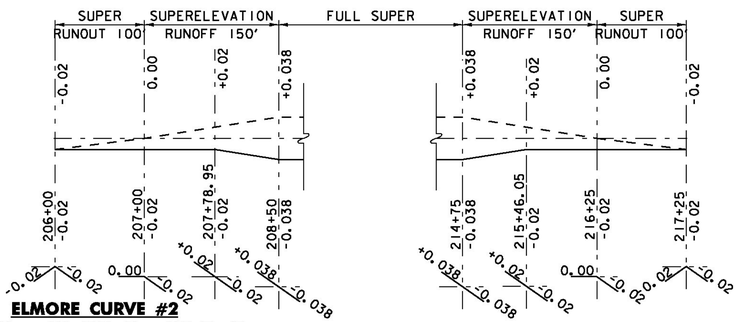


ELMORE CURVE #15

PC = 336+78.65 R = 6000 FT - RT
PT = 340+91.33 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

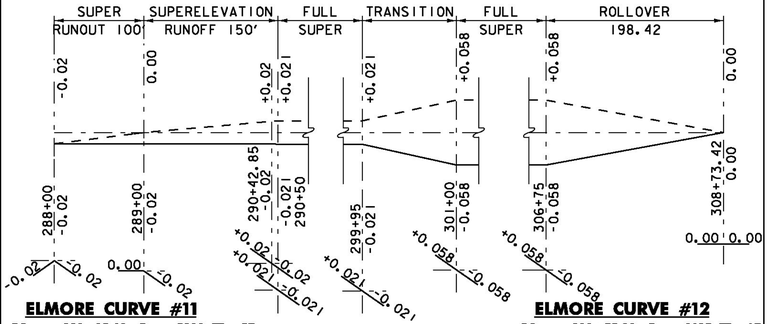


ELMORE CURVE #2

PC = 208+07.70 R1 = 2900 FT - RT
PT = 215+10.11 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS



ELMORE CURVE #11

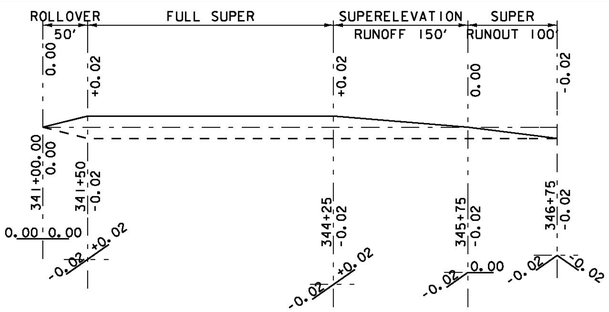
PC = 290+05.69 R = 5800 FT - RT
PT = 299+59.51 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

ELMORE CURVE #12

PC = 300+55.30 R = 1625 FT - LT
PT = 306+88.42 V = 50 MPH

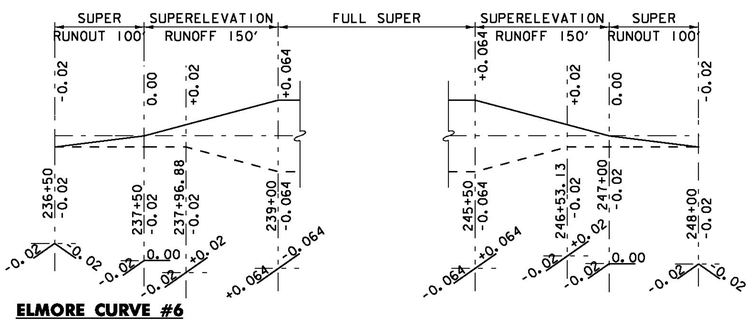


ELMORE CURVE #16

PC = 340+94.95 R = 3811.88 FT - LT
PT = 344+68.03 V = 35 MPH

SUPERELEVATION DIAGRAM

NTS

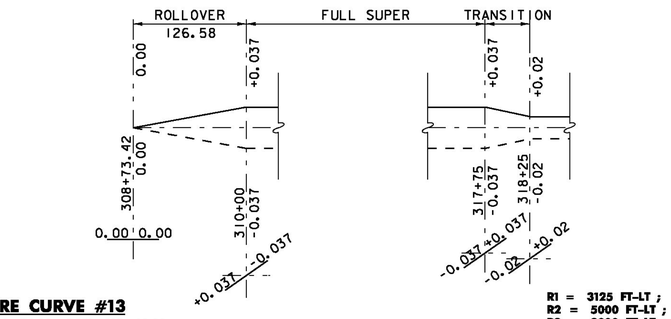


ELMORE CURVE #6

PC = 236+24.71 R1 = 8500 FT - LT
PCC = 238+42.26 R2 = 1425 FT- LT
PT = 245+98.41 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS



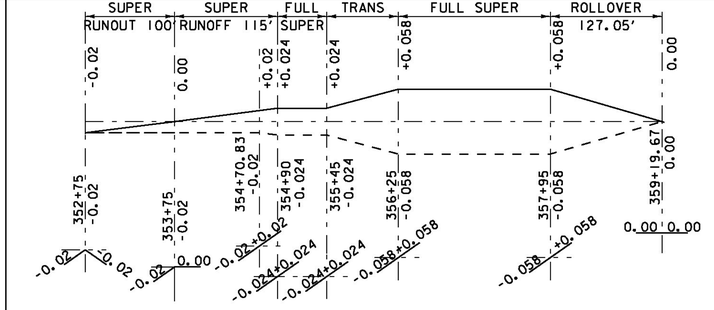
ELMORE CURVE #13

PC = 309+74.90 ; PCC1=315+60.93 ;
PCC2 = 316+90.37 ; PCC3=317+91.88 ;
PCC4 = 323+61.55 ; PT = 329+05.85

SUPERELEVATION DIAGRAM

NTS

R1 = 3125 FT-LT ;
R2 = 5000 FT-LT ;
R3 = 3000 FT-LT ;
R4 = 6250 FT-LT ;
R5 = 3600 FT-LT
V = 50 MPH



ELMORE CURVE #18

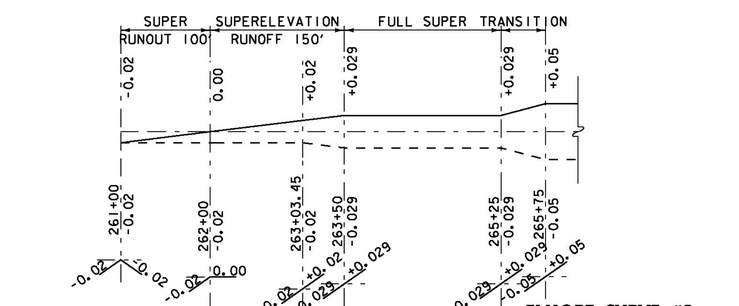
PC = 354+63.20 R = 2500 FT - LT
PT = 355+68.77 V = 35 MPH

SUPERELEVATION DIAGRAM

NTS

ELMORE CURVE #19

PC = 355+95.08 R = 750 FT-LT
PT = 358+51.98 V = 35 MPH



ELMORE CURVE #8

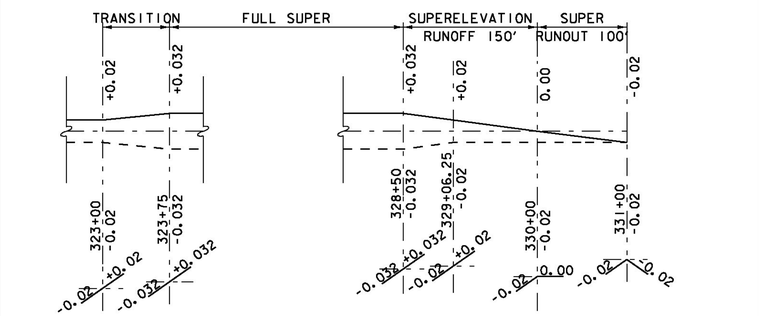
PC = 263+18.60 R = 4000 FT-LT
PT = 264+38.50 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

ELMORE CURVE #9

PC = 265+22.49 R1 = 2075 FT-LT
PCC = 271+94.25 R2 = 7591 FT-LT
PT = 274+24.54 V = 50 MPH



ELMORE CURVE #13 (CONT.)

SUPERELEVATION DIAGRAM

NTS

NOTES:

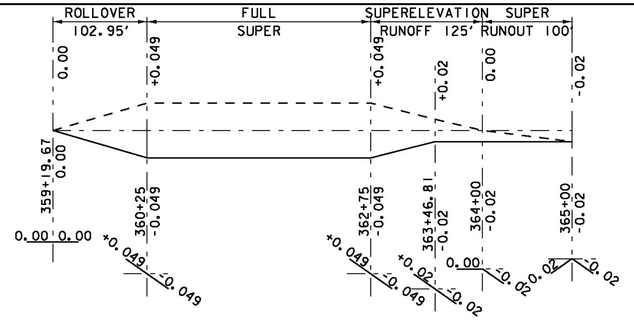
1. CURVES NOT SHOWN ON SUPERELEVATION BANKING DIAGRAM SHEETS DO NOT NEED TO BE SUPERELEVATED.

SUPERELEVATION BANKING DIAGRAM SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: plic310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: plic310_115.1

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 115 OF 194

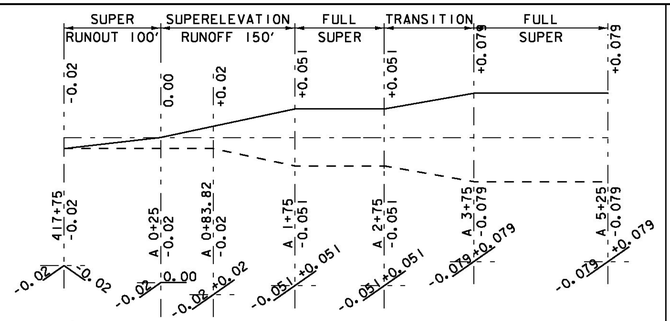


ELMORE CURVE #20

PC = 359+94.91 R = 1010 FT - RT
PT = 363+05.46 V = 35 MPH

SUPERELEVATION DIAGRAM

NTS

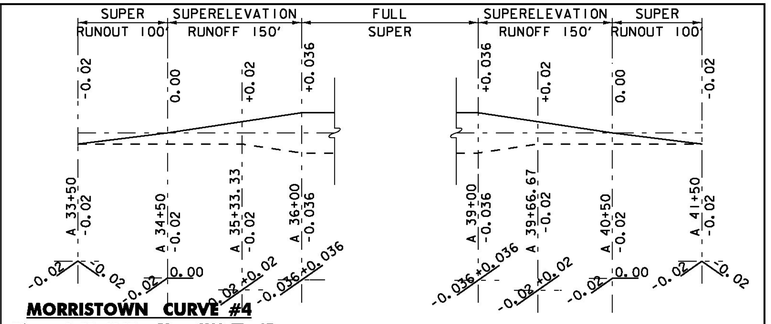


ELMORE CURVE #26
MORRISTOWN CURVE #1

SUPERELEVATION DIAGRAM

NTS

PC = A 1+33.32 R1 = 2000 FT - LT
PCC1 = A 3+21.73 R2 = 825 FT - LT
PCC2 = A 6+14.04 R3 = 4000 FT - LT
PT = A 8+86.11 V = 50 MPH

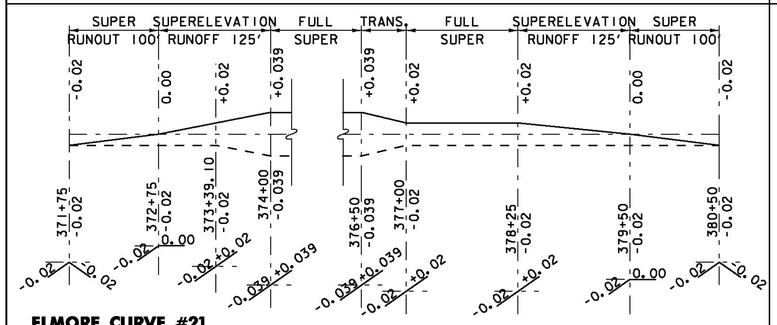


MORRISTOWN CURVE #4

PC = A 35+66.17 R1 = 3100 FT - LT
PT = A 39+51.92 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

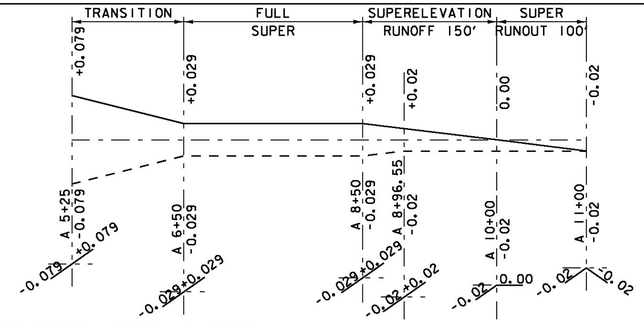


ELMORE CURVE #21

PC = 373+78.00 R1 = 1450 FT - LT
PCC = 376+66.48 R2 = 3993.55 FT- LT
PT = 378+57.57 V = 35 MPH

SUPERELEVATION DIAGRAM

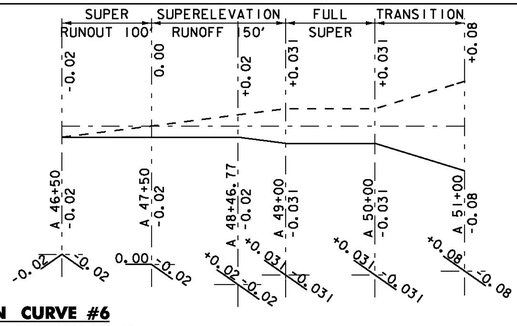
NTS



MORRISTOWN CURVE #1 (CONT.)

SUPERELEVATION DIAGRAM

NTS

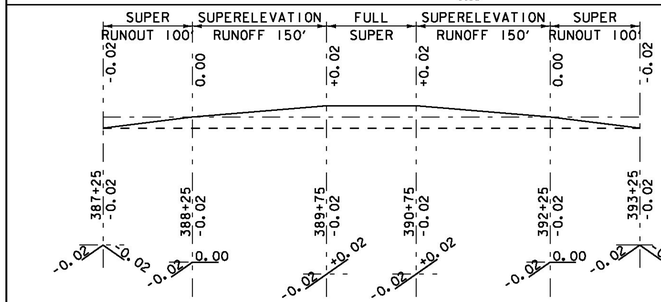


MORRISTOWN CURVE #6

PC = A 48+20.57 R1 = 3750 FT - RT
PCC1 = A 50+31.22 R2 = 675 FT - RT
PCC2 = A 53+10.86 R3 = 2000 FT - RT
PT = A 54+55.38 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

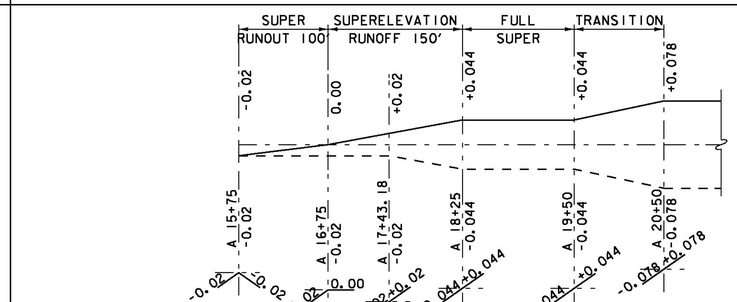


ELMORE CURVE #22

PC = 389+42.06 R1 = 6000 FT - LT
PT = 390+85.56 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS

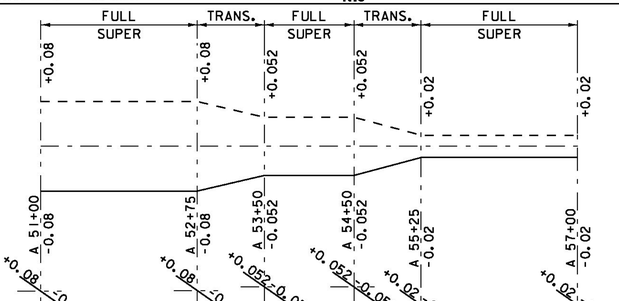


MORRISTOWN CURVE #2

PC = A 17+88.32 R1 = 2400 FT - LT
PCC1 = A 19+95.18 R2 = 925 FT - LT
PCC2 = A 26+03.64 R3 = 1500 FT - LT
PT = A 27+75.73 V = 50 MPH

SUPERELEVATION DIAGRAM

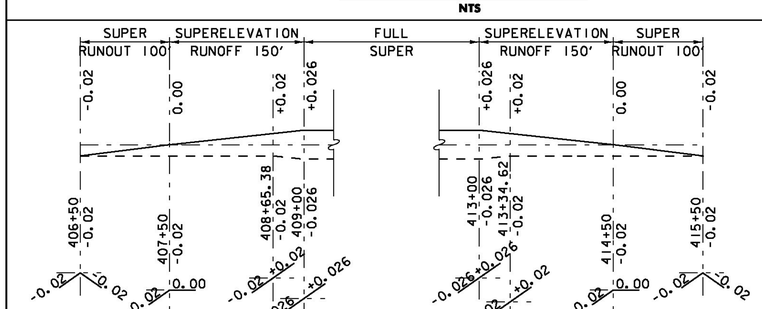
NTS



MORRISTOWN CURVE #6 (CONT.)

SUPERELEVATION DIAGRAM

NTS

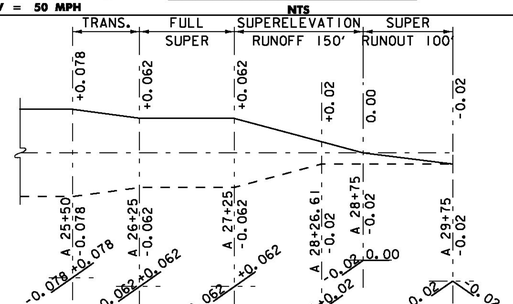


ELMORE CURVE #25

PC = 408+63.46 R = 4600 FT - LT
PT = 413+34.44 V = 50 MPH

SUPERELEVATION DIAGRAM

NTS



MORRISTOWN CURVE #2 (CONT.)

SUPERELEVATION DIAGRAM

NTS

NOTES:

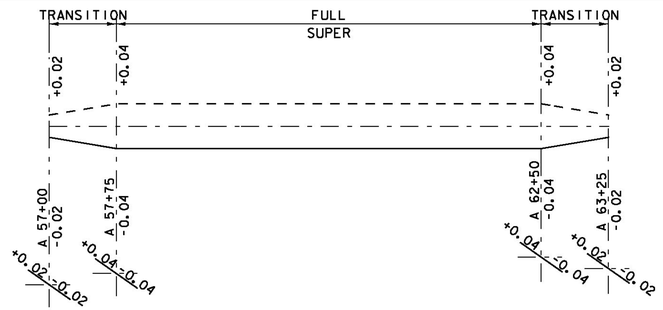
1. CURVES NOT SHOWN ON SUPERELEVATION BANKING DIAGRAM SHEETS DO NOT NEED TO BE SUPERELEVATED.

SUPERELEVATION BANKING DIAGRAM SHEET 2

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

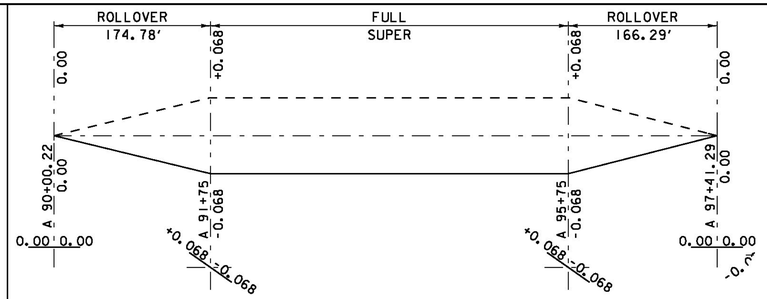
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_116.1

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 116 OF 194



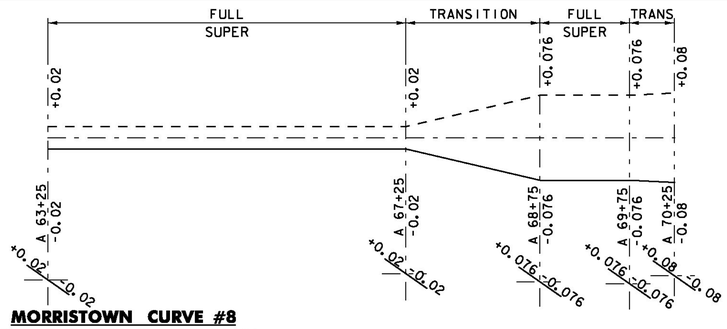
MORRISTOWN CURVE #7
PC = 57+33.00 R = 2700 FT - RT
PT = 62+97.26 V = 50 MPH

SUPERELEVATION DIAGRAM
NTS



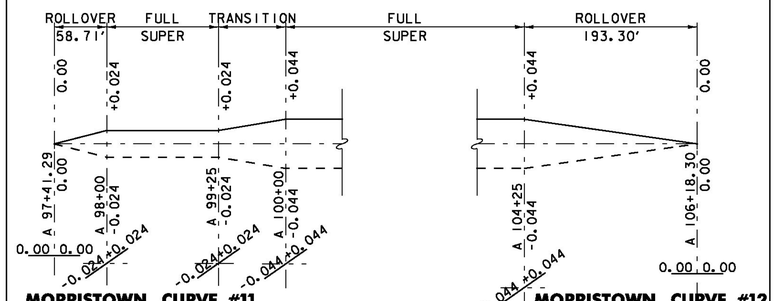
MORRISTOWN CURVE #10
PC = A 91+33.60 R = 1250 FT - RT
PT = A 97+57.61 V = 50 MPH

SUPERELEVATION DIAGRAM
NTS



MORRISTOWN CURVE #8
PC = A 68+23.20 R1 = 1000 FT - RT
PCC = A 70+01.10 V = 50 MPH

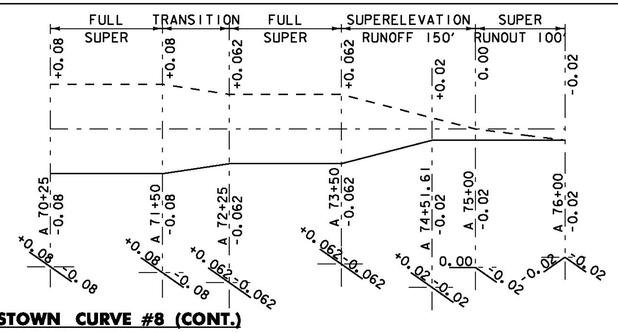
SUPERELEVATION DIAGRAM
NTS



MORRISTOWN CURVE #11
PC = A 97+68.91 R = 5000 FT - LT
PT = A 98+42.10 V = 50 MPH

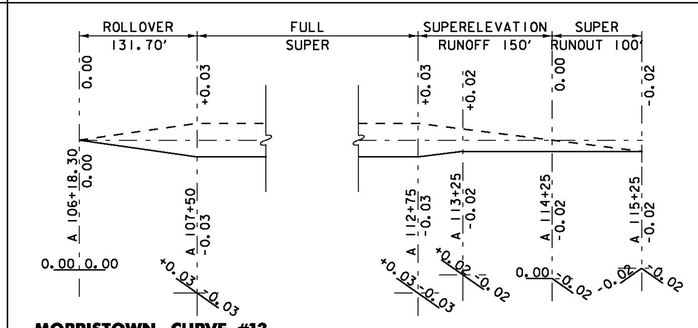
SUPERELEVATION DIAGRAM
NTS

MORRISTOWN CURVE #12
PC = A 99+56.43 R = 2400 FT-LT
PT = A 104+30.49 V = 50 MPH



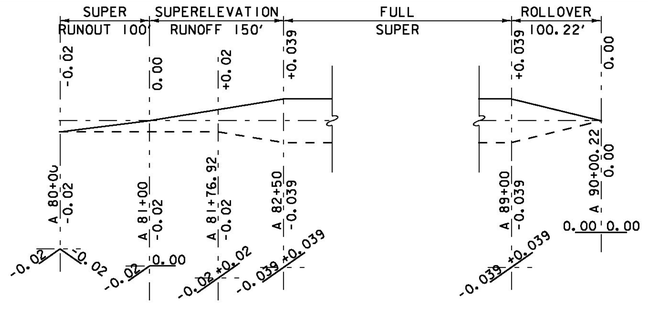
MORRISTOWN CURVE #8 (CONT.)
PCC = A 71+91.51 R2 = 600 FT - RT
PT = A 73+81.55 R3 = 1500 FT- RT
V = 50 MPH

SUPERELEVATION DIAGRAM
NTS



MORRISTOWN CURVE #13
PC = A 107+27.89 R = 3800 FT - RT
PT = A 113+06.35 V = 50 MPH

SUPERELEVATION DIAGRAM
NTS



MORRISTOWN CURVE #9
PC = A 82+18.37 R = 2800 FT - LT
PT = A 89+16.49 V = 50 MPH

SUPERELEVATION DIAGRAM
NTS

NOTES:

1. CURVES NOT SHOWN ON SUPERELEVATION BANKING DIAGRAM SHEETS DO NOT NEED TO BE SUPERELEVATED.

SUPERELEVATION BANKING DIAGRAM SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_117.1
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 117 OF 194

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Direction	Maximum Banking	Design Speed
Tangent	POB	185+00.00	727497.3899	1635490.342						
	PC	189+02.70	727864.5168	1635655.827						
Elmore Curve #1	PC	189+02.70	727864.5168	1635655.827	2325	707.48	17°26'04.63"	Left	0.045	50
	PI	192+59.19	728189.5191	1635802.324						
	CC		728819.9483	1633536.21						
	PT	196+10.18	728543.4837	1635844.715						
Tangent	PT	196+10.18	728543.4837	1635844.715						
	PC	208+07.70	729732.5078	1635987.111						
Elmore Curve #2	PC	208+07.70	729732.5078	1635987.111	2900	702.41	13°52'39.47"	Right	0.038	50
	PI	211+60.63	730082.9359	1636029.078						
	CC		729387.6703	1638866.536						
	PT	215+10.11	730413.0693	1636153.87						
Tangent	PT	215+10.11	730413.0693	1636153.87						
	PC	219+17.91	730794.5252	1636298.062						
Elmore Curve #3	PC	219+17.91	730794.5252	1636298.062	50000	162.19	0°11'09.09"	Left	NC	50
	PI	219+99.00	730870.3825	1636326.736						
	CC		748473.8188	1589527.958						
	PT	220+80.10	730946.3324	1636355.164						
Tangent	PT	220+80.10	730946.3324	1636355.164						
	PC	222+36.97	731093.2465	1636410.154						
Elmore Curve #4	PC	222+36.97	731093.2465	1636410.154	10000	125.16	0°43'01.53"	Right	NC	50
	PI	222+99.55	731151.8544	1636432.091						
	CC		727587.7492	1645775.596						
	PT	223+62.12	731210.1832	1636454.76						
Tangent	PT	223+62.12	731210.1832	1636454.76						
	PC	227+82.58	731602.0885	1636607.07						
Elmore Curve #5	PC	227+82.58	731602.0885	1636607.07	14000	358.33	1°27'59.37"	Right	NC	50
	PI	229+61.76	731769.0951	1636671.975						
	CC		726530.681	1649656.239						
	PT	231+40.92	731934.3858	1636741.133						
Tangent	PT	231+40.92	731934.3858	1636741.133						
	PC	236+24.71	732380.6892	1636927.867						
Elmore Curve #6	PC	236+24.71	732380.6892	1636927.867	8500	217.55	1°27'59.24"	Left	NC	50
	PI	237+33.49	732481.0419	1636969.855						
	CC		735661.51	1629086.552						
	PCC	238+42.26	732582.4362	1637009.261						
Elmore Curve #6	PCC	238+42.26	732582.4362	1637009.261	1425	756.15	30°24'10.06"	Left	0.064	50
	PI	242+29.46	732943.34	1637149.522						
	CC		733098.6339	1635681.042						
	PT	245+98.41	733325.5985	1637087.851						
Tangent	PT	245+98.41	733325.5985	1637087.851						
	PC	247+73.54	733498.4935	1637059.957						
Elmore Curve #7	PC	247+73.54	733498.4935	1637059.957	12000	1237.7	5°54'34.53"	Right	NC	50
	PI	253+92.94	734109.9869	1636961.303						
	CC		735409.7744	1648906.771						
	PT	260+11.24	734728.3879	1636926.132						
Tangent	PT	260+11.24	734728.3879	1636926.132						
	PC	263+18.60	735035.252	1636908.68						
Elmore Curve #8	PC	263+18.60	735035.252	1636908.68	4000	119.9	1°43'02.60"	Left	0.029	50
	PI	263+78.55	735095.1079	1636905.276						
	CC		734808.1231	1632915.133						
	PT	264+38.50	735154.835	1636900.079						
Tangent	PT	264+38.50	735154.835	1636900.079						
	PC	265+22.49	735238.5064	1636892.799						
Elmore Curve #9	PC	265+22.49	735238.5064	1636892.799	2075	671.76	18°32'56.40"	Left	0.042	50
	PI	268+61.33	735576.0772	1636863.429						
	CC		735058.6496	1634825.609						
	PCC	271+94.25	735886.7686	1636728.197						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Direction	Maximum Banking	Design Speed
Elmore Curve #9	PCC	271+94.25	735886.7686	1636728.197	7591.35	230.29	1°44'17.13"	Left	RC / NC	50
	PI	273+09.40	735992.3529	1636682.241						
	CC		732857.11	1629767.611						
	PT	274+24.54	736096.4946	1636633.103						
Tangent	PT	274+24.54	736096.4946	1636633.103						
	PC	279+87.94	736606.0302	1636392.686						
Elmore Curve #10	PC	279+87.94	736606.0302	1636392.686	57000	914.62	0°55'09.71"	Right	NC	50
	PI	284+45.26	737019.6216	1636197.539						
	CC		760929.0978	1687942.549						
	PT	289+02.56	737436.2909	1636009.053						
Tangent	PT	289+02.56	737436.2909	1636009.053						
	PC	290+05.69	737530.2586	1635966.545						
Elmore Curve #11	PC	290+05.69	737530.2586	1635966.545	5800	953.82	9°25'20.55"	Right	0.02	50
	PI	294+83.68	737965.7592	1635769.541						
	CC		739920.7547	1641251.006						
	PT	299+59.51	738427.636	1635646.491						
Tangent	PT	299+59.51	738427.636	1635646.491						
	PC	300+55.30	738520.198	1635621.831						
Elmore Curve #12	PC	300+55.30	738520.198	1635621.831	1625	633.11	22°19'22.41"	Right	0.058	50
	PI	303+75.93	738830.0141	1635539.292						
	CC		738938.5286	1637192.062						
	PT	306+88.42	739147.9626	1635580.614						
Tangent	PT	306+88.42	739147.9626	1635580.614						
	PC	309+74.90	739432.0549	1635617.537						
Elmore Curve #13	PC	309+74.90	739432.0549	1635617.537	3125	586.03	10°44'41.02"	Left	0.037	50
	PI	312+68.78	739723.4827	1635655.412						
	CC		739834.8124	1632518.6						
	PCC	315+60.93	740016.8624	1635638.292						
Elmore Curve #13	PCC	315+60.93	740016.8624	1635638.292	5000	129.44	1°28'59.80"	Left	0.037	50
	PI	316+25.66	740081.4762	1635634.522						
	CC		739725.5825	1630646.784						
	PCC	316+90.37	740145.9708	1635629.08						
Elmore Curve #13	PCC	316+90.37	740145.9708	1635629.08	3000	101.51	1°56'19.08"	Left	0.037	50
	PI	317+41.13	740196.5492	1635624.812						
	CC		739893.7378	1632639.702						
	PCC	317+91.88	740246.9543	1635618.836						
Elmore Curve #13	PCC	317+91.88	740246.9543	1635618.836	6250	569.67	5°13'20.37"	Left	0.02	50
	PI	320+76.91	740530.0028	1635585.277						
	CC		739511.0865	1629412.307						
	PCC	323+61.55	740808.8218	1635526.094						
Elmore Curve #13	PCC	323+61.55	740808.8218	1635526.094	3600	544.31	8°39'46.43"	Left	0.032	50
	PI	326+34.22	741075.5517	1635469.477						
	CC		740061.3263	1632004.553						
	PT	329+05.85	741330.711	1635373.33						
Tangent	PT	329+05.85	741330.711	1635373.33						
	PC	331+35.78	741545.6965	1635291.807						
Elmore Curve #14	PC	331+35.78	741545.6965	1635291.807	25000	255.4	0°35'07.18"	Right	NC	50
	PI	332+63.48	741665.0999	1635246.528						
	CC		750409.9103	1658667.557						
	PT	333+91.17	741784.9596	1635202.472						
Tangent	PT	333+91.17	741784.9596	1635202.472						
	PC	336+78.65	742054.7886	1635103.292						
Elmore Curve #15	PC	336+78.65	742054.7886	1635103.292	6000	412.68	3°56'26.75"	Right	0.02	50
	PI	338+85.07	742248.5344	1635032.078						
	CC		744124.7768	1640734.913						
	PT	340+91.33	742446.7163	1634974.347						
Tangent	PT	340+91.33	742446.7163	1634974.347						
	PC	340+94.95	742450.1957	1634973.334						
Elmore Curve #16	PC	340+94.95	742450.1957	1634973.334	3811.88	373.08	5°36'27.75"	Left	0.02	35
	PI	342+81.64	742629.4346	1634921.121						
	CC		741384.103	1631313.575						
	PT	344+68.03	742802.7137	1634851.644						
Tangent	PT	344+68.03	742802.7137	1634851.644						
	PC	346+21.64	742945.2854	1634794.479						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Direction	Maximum Banking	Design Speed
Elmore Curve #17	PC	346+21.64	742945.2854	1634794.479	4900	658.59	7°42'03.05"	Left	NC	35
	PI	349+51.43	743251.386	1634671.746						
	CC		741121.723	1630246.444						
	PT	352+80.22	743538.2795	1634509.102						
Tangent	PT	352+80.22	743538.2795	1634509.102						
	PC	354+63.20	743697.4592	1634418.861						
Elmore Curve #18	PC	354+63.20	743697.4592	1634418.861	2500	105.57	2°25'10.18"	Left	0.024	35
	PI	355+16.00	743743.3854	1634392.825						
	CC		742464.5221	1632244.036						
	PT	355+68.77	743788.1715	1634364.873						
Tangent	PT	355+68.77	743788.1715	1634364.873						
	PC	355+95.08	743810.4867	1634350.946						
Elmore Curve #19	PC	355+95.08	743810.4867	1634350.946	750	256.91	19°37'35.96"	Left	0.058	35
	PI	357+24.80	743920.5388	1634282.261						
	CC		743413.3919	1633714.695						
	PT	358+51.99	744001.1264	1634180.601						
Tangent	PT	358+51.99	744001.1264	1634180.601						
	PC	359+94.91	744089.9067	1634068.605						
Elmore Curve #20	PC	359+94.91	744089.9067	1634068.605	1010	310.56	17°37'03.11"	Right	0.047	35
	PI	361+51.42	744187.1347	1633945.953						
	CC		744881.3891	1634696.025						
	PT	363+05.46	744316.9246	1633858.481						
Tangent	PT	363+05.46	744316.9246	1633858.481						
	PC	373+78.00	745206.3249	1633259.068						
Elmore Curve #21	PC	373+78.00	745206.3249	1633259.068	1450	288.49	11°23'57.66"	Left	0.031	35
	PI	375+22.72	745326.3349	1633178.187						
	CC		744395.955	1632056.653						
	PCC	376+66.48	745427.9917	1633075.182						
Elmore Curve #21	PCC	376+66.48	745427.9917	1633075.182	3993.55	191.09	2°44'29.48"	Left	0.02	35
	PI	377+62.05	745495.117	1633007.166						
	CC		742585.5847	1630269.979						
	PT	378+57.57	745558.9123	1632936.018						
Tangent	PT	378+57.57	745558.9123	1632936.018						
	PC	389+42.06	746282.9047	1632128.578						
Elmore Curve #22	PC	389+42.06	746282.9047	1632128.578	6000	143.5	1°22'13.09"	Left	NC	50
	PI	390+13.82	746330.8056	1632075.156						
	CC		741815.71	1628123.06						
	PT	390+85.56	746377.4152	1632020.604						
Tangent	PT	390+85.56	746377.4152	1632020.604						
	PC	391+75.87	746436.0797	1631951.943						
Elmore Curve #23	PC	391+75.87	746436.0797	1631951.943	16000	634.41	2°16'18.47"	Right	NC	50
	PI	394+93.12	746642.1587	1631710.747						
	CC		758600.6268	1642345.392						
	PT	398+10.28	746857.6367	1631477.909						
Tangent	PT	398+10.28	746857.6367	1631477.909						
	PC	400+72.68	747035.8681	1631285.319						
Elmore Curve #24	PC	400+72.68	747035.8681	1631285.319	30000	151.79	0°17'23.63"	Left	NC	50
	PI	401+48.58	747087.4173	1631229.617						
	CC		725017.7616	1610908.789						
	PT	402+24.47	747138.684	1631173.655						
Tangent	PT	402+24.47	747138.684	1631173.655						
	PC	408+63.46	747570.3194	1630702.486						
Elmore Curve #25	PC	408+63.46	747570.3194	1630702.486	4600	470.97	5°51'58.47"	Left	0.026	50
	PI	410+99.16	747729.5282	1630528.695						
	CC		744178.4446	1627595.207						
	PT	413+34.44	747870.1408	1630339.543						
Tangent	PT	413+34.44	747870.1408	1630339.543						
Back Station		418+58.01	748182.5046	1629919.349						
Ahead Station		A 0+00.00								
Tangent	PC	A 1+33.32	748262.043	1629812.354						

PC - POINT OF CURVATURE
PCC - POINT OF COMPOUND CURVE
PT - POINT OF TANGENCY
PI - POINT OF INTERSECTION
CC - RADIUS POINT

HORIZONTAL ALIGNMENT TABLE SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_118.;

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 118 OF 194

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Direction	Maximum Banking	Design Speed
Morristown Curve #1	PC	A 1+33.32	748262.043	1629812.354	2000	188.41	5°23'51.27"	Left	0.036	50
	PI	A 2+27.60	748318.2871	1629736.694						
	CC		746656.9577	1628619.164						
	PCC	A 3+21.73	748367.1647	1629656.079						
Morristown Curve #1	PCC	A 3+21.73	748367.1647	1629656.079	825	292.31	20°18'01.63"	Left	0.079	50
	PI	A 4+69.43	748443.7415	1629529.779						
	CC		747661.7043	1629228.351						
	PCC	A 6+14.04	748471.7429	1629384.756						
Morristown Curve #1	PCC	A 6+14.04	748471.7429	1629384.756	4000	272.07	3°53'49.86"	Left	0.029	50
	PI	A 7+50.13	748497.543	1629251.134						
	CC		744544.2831	1628626.43						
	PT	A 8+86.11	748514.2018	1629116.068						
Tangent	PT	A 8+86.11	748514.2018	1629116.068						
	PC	A 17+88.32	748624.6413	1628220.64						
Morristown Curve #2	PC	A 17+88.32	748624.6413	1628220.64	2400	206.85	4°56'17.49"	Left	0.044	50
	PI	A 18+91.81	748637.3094	1628117.929						
	CC		746242.6901	1627926.857						
	PCC	A 19+95.18	748641.089	1628014.508						
Morristown Curve #2	PCC	A 19+95.18	748641.089	1628014.508	925	608.46	37°41'19.81"	Left	0.078	50
	PI	A 23+10.87	748652.6187	1627699.023						
	CC		747716.7061	1627980.726						
	PCC	A 26+03.64	748468.8634	1627442.317						
Morristown Curve #2	PCC	A 26+03.64	748468.8634	1627442.317	1500	172.1	6°34'25.38"	Left	0.062	50
	PI	A 26+89.78	748418.7219	1627372.269						
	CC		747249.1489	1628315.413						
	PT	A 27+75.73	748360.891	1627308.422						
Tangent	PT	A 27+75.73	748360.891	1627308.422						
	PC	A 30+75.29	748159.7924	1627086.405						
Morristown Curve #3	PC	A 30+75.29	748159.7924	1627086.405	10000	264.46	1°30'54.87"	Right	NC	50
	PI	A 32+07.53	748071.0179	1626988.395						
	CC		755571.4063	1620373.136						
	PT	A 33+39.75	747984.866	1626888.073						
Tangent	PT	A 33+39.75	747984.866	1626888.073						
	PC	A 35+66.17	747837.3506	1626716.294						
Morristown Curve #4	PC	A 35+66.17	747837.3506	1626716.294	3100	385.75	7°07'46.43"	Left	0.036	50
	PI	A 37+59.30	747711.5325	1626569.78						
	CC		745485.5231	1628735.924						
	PT	A 39+51.92	747568.5029	1626440.016						
Tangent	PT	A 39+51.92	747568.5029	1626440.016						
	PC	A 43+89.21	747244.6366	1626146.186						
Morristown Curve #5	PC	A 43+89.21	747244.6366	1626146.186	25000	271.07	0°37'16.51"	Left	NC	50
	PI	A 45+24.75	747144.2554	1626055.114						
	CC		730446.4119	1644661.575						
	PT	A 46+60.29	747042.8927	1625965.136						
Tangent	PT	A 46+60.29	747042.8927	1625965.136						
	PC	A 48+20.57	746923.0231	1625858.73						
Morristown Curve #6	PC	A 48+20.57	746923.0231	1625858.73	3750	210.65	3°13'06.50"	Right	0.037	50
	PI	A 49+25.92	746844.4717	1625788.525						
	CC		749421.9612	1623062.696						
	PCC	A 50+31.22	746769.9858	1625714.021						
Morristown Curve #6	PCC	A 50+31.22	746769.9858	1625714.021	675	279.64	23°44'12.73"	Right	0.08	50
	PI	A 51+73.08	746669.6904	1625613.701						
	CC		747247.3413	1625236.783						
	PCC	A 53+10.86	746618.2621	1625481.495						
Morristown Curve #6	PCC	A 53+10.86	746618.2621	1625481.495	2000	144.51	4°08'23.99"	Right	0.052	50
	PI	A 53+83.15	746592.055	1625414.125						
	CC		748482.2006	1624756.421						
	PT	A 54+55.38	746570.7799	1625345.039						
Tangent	PT	A 54+55.38	746570.7799	1625345.039						
	PC	A 57+33.00	746489.0739	1625079.715						
Morristown Curve #7	PC	A 57+33.00	746489.0739	1625079.715	2700	564.27	11°58'26.86"	Right	0.04	50
	PI	A 60+16.16	746405.7358	1624809.091						
	CC		749069.4917	1624285.08						
	PT	A 62+97.26	746380.3574	1624527.065						

Element	Point Type	Station	Northing	Easting	Radius	Length	Delta / Theta	Direction	Maximum Banking	Design Speed
Tangent	PT	A 62+97.26	746380.3574	1624527.065						
	PC	A 68+23.20	746333.2205	1624003.241						
Morristown Curve #8	PC	A 68+23.20	746333.2205	1624003.241	1000	177.89	10°11'32.74"	Right	0.076	50
	PI	A 69+12.38	746325.2277	1623914.419						
	CC		747329.1962	1623913.617						
	PCC	A 70+01.10	746333.0786	1623825.585						
Morristown Curve #8	PCC	A 70+01.10	746333.0786	1623825.585	600	190.42	18°11'01.29"	Right	0.08	50
	PI	A 70+97.11	746341.5312	1623729.94						
	CC		746930.7491	1623878.404						
	PCC	A 71+91.51	746379.4088	1623641.711						
Morristown Curve #8	PCC	A 71+91.51	746379.4088	1623641.711	1500	190.04	7°15'31.98"	Right	0.062	50
	PI	A 72+86.66	746416.9429	1623554.281						
	CC		747757.7595	1624233.445						
	PT	A 73+81.55	746465.2231	1623472.295						
Tangent	PT	A 73+81.55	746465.2231	1623472.295						
	PC	A 82+18.37	746889.8523	1622751.216						
Morristown Curve #9	PC	A 82+18.37	746889.8523	1622751.216	2800	698.12	14°17'07.63"	Left	0.039	50
	PI	A 85+69.25	747067.9	1622448.867						
	CC		744477.1175	1621330.403						
	PT	A 89+16.49	747165.8366	1622111.933						
Tangent	PT	A 89+16.49	747165.8366	1622111.933						
	PC	A 91+33.60	747226.4359	1621903.452						
Morristown Curve #10	PC	A 91+33.60	747226.4359	1621903.452	1250	624.02	28°36'09.92"	Right	0.068	50
	PI	A 94+52.25	747315.3777	1621597.463						
	CC		748426.7569	1622252.349						
	PT	A 97+57.61	747539.9522	1621371.397						
Tangent	PT	A 97+57.61	747539.9522	1621371.397						
	PC	A 97+68.91	747547.9166	1621363.38						
Morristown Curve #11	PC	A 97+68.91	747547.9166	1621363.38	5000	73.18	0°50'19.06"	Left	0.024	50
	PI	A 98+05.51	747573.7057	1621337.419						
	CC		744000.6978	1617839.569						
	PT	A 98+42.10	747599.1121	1621311.084						
Tangent	PT	A 98+42.10	747599.1121	1621311.084						
	PC	A 99+56.43	747678.4901	1621228.804						
Morristown Curve #12	PC	A 99+56.43	747678.4901	1621228.804	2400	474.06	11°19'02.56"	Left	0.044	50
	PI	A 101+94.23	747843.5983	1621057.661						
	CC		745951.2512	1619562.477						
	PT	A 104+30.49	747971.9102	1620857.443						
Tangent	PT	A 104+30.49	747971.9102	1620857.443						
	PC	A 107+27.89	748132.3788	1620607.049						
Morristown Curve #13	PC	A 107+27.89	748132.3788	1620607.049	3800	578.46	8°43'18.86"	Right	0.03	50
	PI	A 110+17.68	748288.7401	1620363.064						
	CC		751331.7555	1622657.412						
	PT	A 113+06.35	748480.2909	1620145.61						
Tangent	PT	A 113+06.35	748480.2909	1620145.61						
	POE	A 115+31.52	748629.1279	1619976.646						

PC - POINT OF CURVATURE
PCC - POINT OF COMPOUND CURVE
PT - POINT OF TANGENCY

PI - POINT OF INTERSECTION
CC - RADIUS POINT

HORIZONTAL ALIGNMENT TABLE SHEET 2

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_119.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 119 OF 194

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	POB	185+00.00	1389.4	145	-1.57%				
	POVT	186+00.00	1387.83						
	PVC	186+45.00	1387.13						
Symmetrical Parabola	PVC	186+45.00	1387.13	100	-1.57%	-1.27%	333.63	0.04	
	POVC	186+50.00	1387.05						
	PVI	186+95.00	1386.34						
	POVC	187+00.00	1386.31						
	PVT	187+45.00	1385.7						
Linear	PVT	187+45.00	1385.7	160	-1.27%				
	POVT	187+50.00	1385.64						
	POVT	188+00.00	1385						
	POVT	188+50.00	1384.37						
	POVT	189+00.00	1383.73						
	PVC	189+05.00	1383.67						
Symmetrical Parabola	PVC	189+05.00	1383.67	240	-1.27%	-1.48%	1183.3	-0.06	5440.67
	POVC	189+50.00	1383.09						
	POVC	190+00.00	1382.42						
	PVI	190+25.00	1382.14						
	POVC	190+50.00	1381.73						
	POVC	191+00.00	1381.02						
	PVT	191+45.00	1380.37						
Linear	PVT	191+45.00	1380.37	130	-1.48%				
	POVT	191+50.00	1380.3						
	POVT	192+00.00	1379.56						
	POVT	192+50.00	1378.82						
	PVC	192+75.00	1378.45						
Symmetrical Parabola	PVC	192+75.00	1378.45	400	-1.48%	-1.26%	1877.49	0.11	
	POVC	193+00.00	1378.08						
	POVC	193+50.00	1377.36						
	POVC	194+00.00	1376.65						
	POVC	194+50.00	1375.95						
	PVI	194+75.00	1375.5						
	POVC	195+50.00	1374.59						
	POVC	196+00.00	1373.94						
	POVC	196+50.00	1373.29						
	PVRC	196+75.00	1372.97						
Symmetrical Parabola	PVRC	196+75.00	1372.97	240	-1.26%	-2.00%	323.99	-0.22	1576.8
	POVC	197+00.00	1372.65						
	POVC	197+50.00	1371.94						
	PVI	197+95.00	1371.46						
	POVC	198+00.00	1371.16						
	POVC	198+50.00	1370.29						
	POVC	199+00.00	1369.35						
	PVT	199+15.00	1368.06						
Linear	PVT	199+15.00	1368.06	110	-2.00%				
	POVT	199+50.00	1368.35						
	POVT	200+00.00	1367.35						
	PVC	200+25.00	1365.85						
Symmetrical Parabola	PVC	200+25.00	1365.85	150	-2.00%	-3.23%	121.83	-0.23	951.49
	POVC	200+50.00	1366.33						
	PVI	201+00.00	1365.35						
	POVC	201+50.00	1363.71						
	PVRC	201+75.00	1361.92						
Symmetrical Parabola	PVRC	201+75.00	1361.92	430	-3.23%	-0.23%	143.11	1.61	
	POVC	202+00.00	1362.14						
	POVC	202+50.00	1360.69						
	POVC	203+00.00	1359.43						
	POVC	203+50.00	1358.33						
	PVI	203+90.00	1355.97						
	POVC	204+00.00	1357.42						
	POVC	204+50.00	1356.67						
	POVC	205+00.00	1356.1						
	POVC	205+50.00	1355.71						
	POVC	206+00.00	1355.49						
	PVT	206+05.00	1354.48						
Linear	PVT	206+05.00	1354.48	75	-0.23%				
	POVT	206+50.00	1355.37						
	PVC	206+80.00	1354.3						
Symmetrical Parabola	PVC	206+80.00	1354.3	300	-0.23%	1.77%	149.76	0.75	
	POVC	207+00.00	1355.27						
	VLOW	207+14.43	1355.26						
	POVC	207+50.00	1355.31						
	POVC	208+00.00	1355.51						
	PVI	208+30.00	1354.96						
	POVC	208+50.00	1355.88						
	POVC	209+00.00	1356.41						
	POVC	209+50.00	1357.12						
	PVT	209+80.00	1356.62						
Linear	PVT	209+80.00	1356.62	70	1.77%				
	POVT	210+00.00	1357.97						
	PVC	210+50.00	1357.86						
Symmetrical Parabola	PVC	210+50.00	1357.86	600	1.77%	-2.58%	137.73	-3.27	545.23
	POVC	211+00.00	1359.66						
	POVC	211+50.00	1360.27						
	POVC	212+00.00	1360.7						
	POVC	212+50.00	1360.95						
	VHIGH	212+94.25	1361.03						
	POVC	213+00.00	1361.02						
	PVI	213+50.00	1364.18						
	POVC	213+50.00	1360.91						
	POVC	214+00.00	1360.62						
	POVC	214+50.00	1360.15						
	POVC	215+00.00	1359.49						
	POVC	215+50.00	1358.65						
	POVC	216+00.00	1357.63						
	PVT	216+50.00	1355.43						

POVT - POINT ON VERTICAL TANGENT
POVC - POINT ON VERTICAL CURVE

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	216+50.00	1355.43	100	-2.58%				
	POVT	217+00.00	1355.14						
	PVC	217+50.00	1353.85						
	PVC	217+50.00	1352.85						
Symmetrical Parabola	PVC	217+50.00	1352.85	600	-2.58%	-7.37%	125.42	-3.59	520.28
	POVC	218+00.00	1352.46						
	POVC	218+50.00	1350.87						
	POVC	219+00.00	1349.08						
	POVC	219+50.00	1347.09						
	POVC	220+00.00	1344.9						
	POVC	220+50.00	1342.51						
	PVI	220+50.00	1346.1						
	POVC	221+00.00	1339.93						
	POVC	221+50.00	1337.14						
	POVC	222+00.00	1334.15						
	POVC	222+50.00	1330.97						
	POVC	223+00.00	1327.58						
	PVT	223+50.00	1324						
Linear	PVT	223+50.00	1324	1185	-7.37%				
	POVT	224+00.00	1320.32						
	POVT	224+50.00	1316.63						
	POVT	225+00.00	1312.95						
	POVT	225+50.00	1309.27						
	POVT	226+00.00	1305.58						
	POVT	226+50.00	1301.9						
	POVT	227+00.00	1298.22						
	POVT	227+50.00	1294.53						
	POVT	228+00.00	1290.85						
	POVT	228+50.00	1287.17						
	POVT	229+00.00	1283.48						
	POVT	229+50.00	1279.8						
	POVT	230+00.00	1276.12						
	POVT	230+50.00	1272.43						
	POVT	231+00.00	1268.75						
	POVT	231+50.00	1265.07						
	POVT	232+00.00	1261.38						
	POVT	232+50.00	1257.7						
	POVT	233+00.00	1254.02						
	POVT	233+50.00	1250.33						
	POVT	234+00.00	1246.65						
	POVT	234+50.00	1242.97						
	POVT	235+00.00	1239.28						
	PVC	235+35.00	1236.7						
Symmetrical Parabola	PVC	235+35.00	1236.7	820	-7.37%	6.23%	60.33	13.93	
	POVC	235+50.00	1235.62						
	POVC	236+00.00	1232.27						
	POVC	236+50.00	1229.33						
	POVC	237+00.00	1226.8						
	POVC	237+50.00	1224.7						
	POVC	238+00.00	1223						
	POVC	238+50.00	1221.72						
	POVC	239+00.00	1220.86						
	PVI	239+45.00	1206.5						
	POVC	239+50.00	1220.41						
	VLOW	239+79.44	1220.33						
	POVC	240+00.00	1220.37						
	POVC	240+50.00	1220.75						
	POVC	241+00.00	1221.54						
	POVC	241+50.00	1222.74						
	POVC	242+00.00	1224.37						
	POVC	242+50.00	1226.4						
	POVC	243+00.00	1228.85						
	POVC	243+50.00	1231.71						
	PVT	243+55.00	1232.02						
Linear	PVT	243+55.00	1232.02	120	6.23%				
	POVT	244+00.00	1234.82						
	POVT	244+50.00	1237.94						
	PVC	244+75.00	1239.49						
Symmetrical Parabola	PVC	244+75.00	1239.49	450	6.23%	3.48%	164.05	-1.54	618.4
	POVC	245+00.00	1241.03						
	POVC	245+50.00	1243.99						
	POVC	246+00.00	1246.8						
	POVC	246+50.00	1249.45						
	PVI	247+00.00	1253.5						
	POVC	247+00.00	1251.96						
	POVC	247+50.00	1254.31						
	POVC	248+00.00	1256.51						
	POVC	248+50.00	1258.55						
	POVC	249+00.00	1260.44						
	PVT	249+25.00	1261.33						
Linear	PVT	249+25.00	1261.33	103.15	3.48%				
	POVT	249+50.00	1262.21						
	POVT	250+00.00	1263.95						
	PVC	250+28.15	1263.93						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	250+28.15	1263.93	570	3.48%	-0.06%	160.76	-2.53	589.36
	POVC	250+50.00	1265.67						
	POVC	251+00.00	1267.27						
	POVC	251+50.00	1268.71						
	POVC	252+00.00	1269.99						
	POVC	252+50.00	1271.12						
	POVC	253+00.00	1272.09						
	PVI	253+13.15	1274.85						
	POVC	253+50.00	1272.91						
	POVC	254+00.00	1273.57						
	POVC	254+50.00	1274.08						
	POVC	255+00.00	1274.43						
	POVC	255+50.00	1274.63						
	VHIGH	255+87.93	1274.67						
	PVT	255+98.15	1274.67						
Linear	PVT	255+98.15	1274.67	686.85	-0.06%				
	POVT	256+00.00	1274.67						
	POVT	256+50.00	1274.64						
	POVT	257+00.00	1274.6						
	POVT	257+50.00	1274.57						
	POVT	258+00.00	1274.54						
	POVT	258+50.00	1274.51						
	POVT	259+00.00	1274.48						
	POVT	259+50.00	1274.44						
	POVT	260+00.00	1274.41						
	POVT	260+50.00	1274.38						
	POVT	261+00.00	1274.35						
	POVT	261+50.00	1274.32						
	POVT	262+00.00	1274.29						
	POVT	262+50.00	1274.25						
	PVC	262+85.00	1274.23						
Symmetrical Parabola	PVC	262+85.00	1274.23	100	-0.06%	0.21%	369.66	0.03	
	POVC	263+00.00	1274.23						
	VLOW	263+08.52	1274.22						
	PVI	263+35.00	1274.2						
	POVC	263+50.00	1274.25						
	PVRC	263+85.00	1274.3						
Symmetrical Parabola	PVRC	263+85.00	1274.3	190	0.21%	-0.74%		-0.23	1229.34
	POVC	264+00.00	1274.33						
	VHIGH	264+26.32	1274.35						
	POVC	264+50.00	1274.33						
	PVI	264+80.00	1274.5						
	POVC	265+00.00	1274.21						
	POVC	265+50.00	1273.96						
	PVT	265+75.00	1273.79						
Linear	PVT	265+75.00	1273.79	100	-0.74%				
	POVT	266+00.00	1273.61						
	POVT	266+50.00	1273.23						
	PVC	266+75.00	1273.05						
Symmetrical Parabola	PVC	266+75.00	1273.05	330	-0.74%	-2.20%	227.23	-0.6	908.07
	POVC	267+00.00	1272.85						
	POVC	267+50.00	1272.37						
	POVC	268+00.00	1271.77						
	PVI	268+40.00	1271.82						
	POVC	268+50.00	1271.07						
	POVC	269+00.00	1270.26						
	POVC	269+50.00	1269.34						
	POVC	270+00.00	1268.3						
	PVT	270+05.00	1268.2						
Linear	PVT	270+05.00	1268.2	340	-2.20%				
	POVT	270+50.00	1267.21						
	POVT	271+00.00	1266.11						
	POVT	271+50.00	1265.01						
	POVT	272+00.00	1263.91						
	POVT	272+50.00	1262.81						
	POVT	273+00.00	1261.72						
	PVC	273+45.00	1260.73						
Symmetrical Parabola	PVC	273+45.00	1260.73	800	-2.20%	-5.77%	224.06	-3.57	695.4
	POVC	273+50.00	1260.62						
	POVC	274+00.00	1259.45						
	POVC	274+50.00	1258.17						
	POVC	275+00.00	1256.79						
	POVC	275+50.00	1255.29						
	POVC	276+00.00	1253.67						
	POVC	276+50.00	1251.95						
	POVC	277+00.00	1250.12						
	PVI	277+45.00	1251.94						
	POVC	277+50.00	1248.17						
	POVC	278+00.00	1246.11						
	POVC	278+50.00	1243.94						
	POVC	279+00.00	1241.66						
	POVC	279+50.00	1239.27						
	POVC	280+00.00	1236.76						
	POVC	280+50.00	1234.15						
	POVC	281+00.00	1231.42						
	PVT	281+45.00	1228.87						

VERTICAL ALIGNMENT TABLE SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_120.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 120 OF 194

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	281+45.00	1228.87	132.5	-5.77%				
	POVT	281+50.00	1228.58						
	POVT	282+00.00	1225.7						
	POVT	282+50.00	1222.82						
	PVC	282+77.50	1221.23						
Symmetrical Parabola	PVC	282+77.50	1221.23	275	-5.77%	-3.78%	138.7	0.68	
	POVC	283+00.00	1219.95						
	POVC	283+50.00	1217.24						
	POVC	284+00.00	1214.71						
	PVI	284+15.00	1213.3						
	POVC	284+50.00	1212.35						
	POVC	285+00.00	1210.18						
	POVC	285+50.00	1208.19						
	PVT	285+52.50	1208.1						
Linear	PVT	285+52.50	1208.1	202.5	-3.78%				
	POVT	286+00.00	1206.3						
	POVT	286+50.00	1204.41						
	POVT	287+00.00	1202.51						
	POVT	287+50.00	1200.62						
	PVC	287+55.00	1200.43						
Symmetrical Parabola	PVC	287+55.00	1200.43	400	-3.78%	-5.14%	294.23	-0.68	993.81
	POVC	288+00.00	1198.69						
	POVC	288+50.00	1196.68						
	POVC	289+00.00	1194.59						
	POVC	289+50.00	1192.41						
	PVI	289+55.00	1192.86						
	POVC	290+00.00	1190.14						
	POVC	290+50.00	1187.79						
	POVC	291+00.00	1185.35						
	POVC	291+50.00	1182.83						
	PVT	291+55.00	1182.57						
Linear	PVT	291+55.00	1182.57	190	-5.14%				
	POVT	292+00.00	1180.26						
	POVT	292+50.00	1177.69						
	POVT	293+00.00	1175.12						
	PVC	293+45.00	1172.8						
Symmetrical Parabola	PVC	293+45.00	1172.8	640	-5.14%	2.89%	79.64	6.43	
	POVC	293+50.00	1172.55						
	POVC	294+00.00	1170.16						
	POVC	294+50.00	1168.09						
	POVC	295+00.00	1166.34						
	POVC	295+50.00	1164.89						
	POVC	296+00.00	1163.77						
	POVC	296+50.00	1162.95						
	PVI	296+65.00	1156.34						
	POVC	297+00.00	1162.45						
	POVC	297+50.00	1162.26						
	VLOW	297+54.69	1162.26						
	POVC	298+00.00	1162.39						
	POVC	298+50.00	1162.83						
	POVC	299+00.00	1163.59						
	POVC	299+50.00	1164.66						
	PVT	299+85.00	1165.59						
Linear	PVT	299+85.00	1165.59	190	2.89%				
	POVT	300+00.00	1166.03						
	POVT	300+50.00	1167.47						
	POVT	301+00.00	1168.92						
	POVT	301+50.00	1170.36						
	PVC	301+75.00	1171.09						
Symmetrical Parabola	PVC	301+75.00	1171.09	900	2.89%	2.56%	2751.75	-0.37	3749.5
	POVC	302+00.00	1171.81						
	POVC	302+50.00	1173.25						
	POVC	303+00.00	1174.67						
	POVC	303+50.00	1176.09						
	POVC	304+00.00	1177.5						
	POVC	304+50.00	1178.9						
	POVC	305+00.00	1180.29						
	POVC	305+50.00	1181.68						
	POVC	306+00.00	1183.05						
	PVI	306+25.00	1184.1						
	POVC	306+50.00	1184.41						
	POVC	307+00.00	1185.77						
	POVC	307+50.00	1187.11						
	POVC	308+00.00	1188.45						
	POVC	308+50.00	1189.78						
	POVC	309+00.00	1191.1						
	POVC	309+50.00	1192.41						
	POVC	310+00.00	1193.71						
	POVC	310+50.00	1195						
	PVCC	310+75.00	1195.64						
Symmetrical Parabola	PVCC	310+75.00	1195.64	230	2.56%	1.39%	196.64	-0.34	1037.61
	POVC	311+00.00	1196.27						
	POVC	311+50.00	1197.42						
	PVI	311+90.00	1198.59						
	POVC	312+00.00	1198.45						
	POVC	312+50.00	1199.35						
	POVC	313+00.00	1200.12						
	PVT	313+05.00	1200.19						
Linear	PVT	313+05.00	1200.19	105	1.39%				
	POVT	313+50.00	1200.82						
	POVT	314+00.00	1201.52						
	PVC	314+10.00	1201.66						

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	314+10.00	1201.66	350	1.39%	2.03%	554.03	0.28	
	POVC	314+50.00	1202.23						
	POVC	315+00.00	1202.99						
	POVC	315+50.00	1203.79						
	PVI	315+85.00	1204.1						
	POVC	316+00.00	1204.64						
	POVC	316+50.00	1205.53						
	POVC	317+00.00	1206.46						
	POVC	317+50.00	1207.44						
	PVRC	317+60.00	1207.65						
Symmetrical Parabola	PVRC	317+60.00	1207.65	400	2.03%	-0.01%	196.28	-1.02	729.54
	POVC	318+00.00	1208.42						
	POVC	318+50.00	1209.26						
	POVC	319+00.00	1209.98						
	POVC	319+50.00	1210.58						
	PVI	319+60.00	1211.7						
	POVC	320+00.00	1211.04						
	POVC	320+50.00	1211.38						
	POVC	321+00.00	1211.59						
	POVC	321+50.00	1211.68						
	VHIGH	321+57.79	1211.68						
	PVT	321+60.00	1211.68						
Linear	PVT	321+60.00	1211.68	490	-0.01%				
	POVT	322+00.00	1211.67						
	POVT	322+50.00	1211.67						
	POVT	323+00.00	1211.66						
	POVT	323+50.00	1211.66						
	POVT	324+00.00	1211.65						
	POVT	324+50.00	1211.64						
	POVT	325+00.00	1211.64						
	POVT	325+50.00	1211.63						
	POVT	326+00.00	1211.63						
	PVC	326+50.00	1211.62						
Symmetrical Parabola	PVC	326+50.00	1211.62	400	-0.01%	-1.86%	216.46	-0.92	783.98
	POVC	327+00.00	1211.56						
	POVC	327+50.00	1211.38						
	POVC	328+00.00	1211.09						
	POVC	328+50.00	1210.68						
	PVI	328+50.00	1211.6						
	POVC	329+00.00	1210.15						
	POVC	329+50.00	1209.51						
	POVC	330+00.00	1208.75						
	PVT	330+50.00	1207.88						
Linear	PVT	330+50.00	1207.88	105	-1.86%				
	POVT	331+00.00	1206.95						
	POVT	331+50.00	1206.02						
	PVC	331+55.00	1205.93						
Symmetrical Parabola	PVC	331+55.00	1205.93	100	-1.86%	-1.29%	174.39	0.07	
	POVC	332+00.00	1205.15						
	PVI	332+05.00	1205						
	POVC	332+50.00	1204.42						
	PVT	332+55.01	1203.36						
Linear	PVT	332+55.00	1204.36	100	-1.29%				
	POVT	333+00.00	1203.78						
	POVT	333+50.00	1203.14						
	PVC	333+55.00	1203.07						
Symmetrical Parabola	PVC	333+55.00	1203.07	120	-1.29%	-1.79%	236.06	-0.08	2182.87
	POVC	334+00.00	1202.45						
	PVI	334+15.00	1202.3						
	POVC	334+50.00	1201.66						
	PVRC	334+75.00	1201.22						
Symmetrical Parabola	PVRC	334+75.00	1201.22	110	-1.79%	-0.95%	129.57	0.12	
	POVC	335+00.00	1200.8						
	PVI	335+30.00	1200.24						
	POVC	335+50.00	1200.1						
	PVRC	335+85.00	1199.72						
Symmetrical Parabola	PVRC	335+85.00	1199.72	120	-0.95%	-2.51%	76.88	-0.23	751.4
	POVC	336+00.00	1199.56						
	PVI	336+45.00	1199.15						
	POVC	336+50.00	1198.83						
	POVC	337+00.00	1197.77						
	PVRC	337+05.00	1197.65						
Symmetrical Parabola	PVRC	337+05.00	1197.65	390	-2.51%	0.50%	129.92	1.46	
	POVC	337+50.00	1196.6						
	POVC	338+00.00	1195.61						
	POVC	338+50.00	1194.82						
	PVI	339+00.00	1192.76						
	POVC	339+00.00	1194.22						
	POVC	339+50.00	1193.82						
	POVC	340+00.00	1193.6						
	VLOW	340+30.56	1193.57						
	POVC	340+50.00	1193.58						
	PVRC	340+95.00	1193.73						
Symmetrical Parabola	PVRC	340+95.00	1193.73	110	0.50%	-5.16%	19.46	-0.78	245.91
	POVC	341+00.00	1193.75						
	VHIGH	341+04.65	1193.75						
	PVI	341+50.00	1194						
	POVC	341+50.00	1193.22						
	POVC	342+00.00	1191.42						
	PVT	342+05.00	1191.16						

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Linear	PVT	342+05.00	1191.16	195	-5.16%				
	POVT	342+50.00	1188.84						
	POVT	343+00.00	1186.27						
	POVT	343+50.00	1183.69						
	PVC	344+00.00	1181.11						
Symmetrical Parabola	PVC	344+00.00	1181.11	330	-5.16%	-3.87%	255.51	0.53	
	POVC	344+50.00	1178.58						
	POVC	345+00.00	1176.15						
	POVC	345+50.00	1173.81						
	POVC	346+00.00	1171.58						
	POVC	346+50.00	1169.44						
	PVI	345+65.00	1172.6						
	POVC	347+00.00	1167.4						
	PVCC	347+30.00	1166.22						
Symmetrical Parabola	PVCC	347+30.00	1166.22	100	-3.87%	-2.82%	95.49	0.13	
	POVC	347+50.00	1165.47						
	PVI	347+80.00	1164.29						
	POVC	348+00.00	1163.77						
	PVRC	348+30.00	1162.88						
Symmetrical Parabola	PVRC	348+30.00	1162.88	180	-2.82%	-3.41%	304.46	-0.13	1915.35
	POVC	348+50.00	1162.31						
	POVC	349+00.00	1160.83						
	PVI	349+20.00	1160.34						
	POVC	349+50.00	1159.26						
	POVC	350+00.00	1157.62						
	PVRC	350+10.00	1157.28						
Symmetrical Parabola	PVRC	350+10.00	1157.28	150	-3.41%	-1.48%	77.68	0.36	
	POVC	350+50.00	1156.02						
	PVI	350+85.00	1154.72						
	POVC	351+00.00	1154.73						
	POVC	351+50.00	1153.77						
	PVT	351+60.00	1153.61						
Linear	PVT	351+60.00	1153.61	660	-1.48%				
	POVT	352+00.00	1153.02						
	POVT	352+50.00	1152.28						
	POVT	353+00.00	1151.54						
	POVT	353+50.00	1150.8						
	POVT	354+00.00	1150.06						
	POVT	354+50.00	1149.33						
	POVT	355+00.00	1148.59						
	POVT	355+50.00	1147.85						
	POVT	356+00.00	1147.11						
	POVT	356+50.00	1146.37						
	POVT	357+00.00	1145.63						
	POVT	357+50.00	1144.89						
	POVT	358+00.00	1144.15						
	PVC	358+20.00	1143.86						
Symmetrical Parabola	PVC	358+20.00	1143.86	400	-1.48%	2.92%	90.93	2.2	
	POVC	358+50.00	1143.46						
	POVC	359+00.00	1143.03						
	POVC	359+50.00	1142.86						
	VLOW	359+54.40	1142.86						
	POVC	360+00.00	1142.98						
	PVI	360+20.00	1140.9						
	POVC	360+50.00	1143.37						
	POVC	361+00.00	1144.03						
	POVC	361+50.00	1144.97						
	POVC	362+00.00	1146.18						
	PVT	362+20.00	1146.74						
Linear	PVT	362+20.00	1146.74	80	2.92%				
	POVT	362+50.00	1147.62						
	PVC	363+00.00	1149.08						
Symmetrical Parabola	PVC	363+00.00	1149.08	200	2.92%	2.92%	69681.1	0	376082
	POVC	363+50.00	1150.54						
	PVI	364+00.00	1152						
	POVC	364+00.00	1152						
	POVC	364+50.00	1153.46						
	PVRC	365+00.00	1154.92						
Symmetrical Parabola	PVRC	365+00.00	1154.92	240	2.92%	3.87%	251.27	0.29	
	POVC	365+50.00	1156.43						
	POVC	366+00.00	1158.04						
	PVI	366+20.00	1158.42						
	POVC	366+50.00	1159.74						
	POVC	367+00.00	1161.55						
	PVRC	367+40.00	1163.07						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION

POVT - POINT ON VERTICAL TANGENT
POVC - POINT ON VERTICAL CURVE

VERTICAL ALIGNMENT TABLE SHEET 2

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_121.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 121 OF 194

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVRC	367+40.00	1163.07	660	3.87%	2.88%	663.89	-0.82	1415.5
	POVC	367+50.00	1163.45						
	POVC	368+00.00	1165.36						
	POVC	368+50.00	1167.24						
	POVC	369+00.00	1169.07						
	POVC	369+50.00	1170.87						
	POVC	370+00.00	1172.63						
	POVC	370+50.00	1174.35						
	PVI	370+70.00	1175.85						
	POVC	371+00.00	1176.04						
	POVC	371+50.00	1177.68						
	POVC	372+00.00	1179.29						
	POVC	372+50.00	1180.86						
	POVC	373+00.00	1182.4						
	POVC	373+50.00	1183.89						
	PVT	374+00.00	1185.35						
	PVT	374+00.00	1185.35						
	PVRC	374+00.00	1185.35						
Symmetrical Parabola	PVRC	374+00.00	1185.35	150	2.88%	0.94%	77.2	-0.36	630.41
	POVC	374+50.00	1186.63						
	PVI	374+75.00	1187.51						
	POVC	375+00.00	1187.58						
	PVT	375+50.00	1188.21						
Linear	PVT	375+50.00	1188.21	65	0.94%				
	POVT	375+50.00	1188.21						
	POVT	376+00.00	1188.68						
	PVC	376+15.00	1188.82						
Symmetrical Parabola	PVC	376+15.00	1188.82	150	0.94%	3.51%	58.17	0.48	
	POVC	376+50.00	1189.25						
	PVI	376+90.00	1189.52						
	POVC	377+00.00	1190.24						
	POVC	377+50.00	1191.65						
	PVT	377+65.00	1192.16						
Linear	PVT	377+65.00	1192.16	142.5	3.51%				
	POVT	378+00.00	1193.39						
	POVT	378+50.00	1195.15						
	POVT	379+00.00	1196.9						
	PVC	379+07.50	1197.17						
Symmetrical Parabola	PVC	379+07.50	1197.17	385	3.51%	-2.38%	65.34	-2.84	375.53
	POVC	379+50.00	1198.52						
	POVC	380+00.00	1199.76						
	POVC	380+50.00	1200.62						
	PVI	381+00.00	1203.93						
	VHIGH	381+37.16	1201.2						
	POVC	381+00.00	1201.1						
	POVC	381+50.00	1201.19						
	POVC	382+00.00	1200.9						
	POVC	382+50.00	1200.23						
	PVT	382+92.50	1199.36						
Linear	PVT	382+92.50	1199.36	87.5	-2.38%				
	POVT	383+00.00	1199.18						
	POVT	383+50.00	1197.99						
	PVC	383+80.00	1197.28						
Symmetrical Parabola	PVC	383+80.00	1197.28	200	-2.38%	-2.66%	717.88	-0.07	3973.5
	POVC	384+00.00	1196.8						
	POVC	384+50.00	1195.58						
	PVI	384+80.00	1194.9						
	POVC	385+00.00	1194.32						
	POVC	385+50.00	1193.03						
	PVT	385+80.00	1192.24						
Linear	PVT	385+80.00	1192.24	282.5	-2.66%				
	POVT	386+00.00	1191.71						
	POVT	386+50.00	1190.38						
	POVT	387+00.00	1189.06						
	POVT	387+50.00	1187.73						
	POVT	388+00.00	1186.4						
	POVT	388+50.00	1185.07						
	PVC	388+62.50	1184.74						
Symmetrical Parabola	PVC	388+62.50	1184.74	715	-2.66%	4.13%	105.34	6.07	
	POVC	389+00.00	1183.81						
	POVC	389+50.00	1182.78						
	POVC	390+00.00	1181.99						
	POVC	390+50.00	1181.43						
	POVC	391+00.00	1181.11						
	VLOW	391+42.27	1181.03						
	POVC	391+50.00	1181.03						
	POVC	392+00.00	1181.18						
	PVI	392+20.00	1175.25						
	POVC	392+50.00	1181.58						
	POVC	393+00.00	1182.21						
	POVC	393+50.00	1183.07						
	POVC	394+00.00	1184.18						
	POVC	394+50.00	1185.52						
	POVC	395+00.00	1187.1						
	POVC	395+50.00	1188.92						
	PVT	395+77.50	1190.02						
Linear	PVT	395+77.50	1190.02	260	4.13%				
	POVT	396+00.00	1190.95						
	POVT	396+50.00	1193.01						
	POVT	397+00.00	1195.08						
	POVT	397+50.00	1197.14						
	POVT	398+00.00	1199.21						
	PVC	398+37.50	1200.76						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	398+37.50	1200.76	425	4.13%	-0.53%	91.1	-2.48	443.82
	POVC	398+50.00	1201.27						
	POVC	399+00.00	1203.13						
	POVC	399+50.00	1204.71						
	POVC	400+00.00	1206.02						
	PVI	400+50.00	1209.54						
	POVC	400+50.00	1207.06						
	POVC	401+00.00	1207.82						
	POVC	401+50.00	1208.31						
	VHIGH	402+13.91	1208.54						
	POVC	402+00.00	1208.53						
	POVC	402+50.00	1208.46						
	PVT	402+62.50	1208.41						
Linear	PVT	402+62.50	1208.41	337.5	-0.53%				
	POVT	403+00.00	1208.21						
	POVT	403+50.00	1207.94						
	POVT	404+00.00	1207.67						
	POVT	404+50.00	1207.41						
	POVT	405+00.00	1207.14						
	POVT	405+50.00	1206.87						
	PVC	406+00.00	1206.61						
Symmetrical Parabola	PVC	406+00.00	1206.61	300	-0.53%	-1.86%	226.86	-0.5	966.05
	POVC	406+50.00	1206.28						
	POVC	407+00.00	1205.85						
	PVI	407+50.00	1205.81						
	POVC	407+50.00	1205.31						
	POVC	408+00.00	1204.66						
	POVC	408+50.00	1203.9						
	PVT	409+00.00	1203.02						
Linear	PVT	409+00.00	1203.02	250	-1.86%				
	POVT	409+50.00	1202.1						
	POVT	410+00.00	1201.17						
	POVT	410+50.00	1200.24						
	POVT	411+00.00	1199.31						
	PVC	411+50.00	1198.38						
Symmetrical Parabola	PVC	411+50.00	1198.38	300	-1.86%	-6.04%	71.62	-1.57	407.63
	POVC	412+00.00	1197.28						
	POVC	412+50.00	1195.83						
	PVI	413+00.00	1195.6						
	POVC	413+00.00	1194.03						
	POVC	413+50.00	1191.88						
	POVC	414+00.00	1189.38						
	PVRC	414+50.00	1186.53						
Symmetrical Parabola / EQNBK / EQNAHD	PVRC	414+50.00	1186.53	600	-6.04%	-3.28%	217.35	2.07	
	POVC	415+00.00	1183.57						
	POVC	415+50.00	1180.72						
	POVC	416+00.00	1177.98						
	POVC	416+50.00	1175.36						
	POVC	417+00.00	1172.86						
	PVI	417+50.00	1168.4						
	POVC	417+50.00	1170.47						
	POVC	418+00.00	1168.2						
	POVC	418+50.00	1166.04						
		418+58.01							
		A 0+00.00							
	POVC	A 0+00.00	1165.7						
	POVC	A 0+50.00	1163.67						
	POVC	A 1+00.00	1161.76						
	POVC	A 1+50.00	1159.97						
	PVCC	A 1+91.99	1158.55						
Symmetrical Parabola	PVCC	A 1+91.99	1158.55	210	-3.28%	-3.23%	3611.4	0.02	
	POVC	A 2+00.00	1158.29						
	POVC	A 2+50.00	1156.65						
	PVI	A 2+96.99	1155.1						
	POVC	A 3+00.00	1155.02						
	POVC	A 3+50.00	1153.39						
	POVC	A 4+00.00	1151.78						
	PVCC	A 4+01.99	1151.71						
Symmetrical Parabola	PVCC	A 4+01.99	1151.71	100	-3.23%	-3.04%	533.72	0.02	
	POVC	A 4+50.00	1150.19						
	PVI	A 4+51.99	1150.1						
	POVC	A 5+00.00	1148.64						
	PVT	A 5+01.99	1148.58						
Linear	PVT	A 5+01.99	1148.58	198	-3.04%				
	POVT	A 5+50.00	1147.12						
	POVT	A 6+00.00	1145.6						
	POVT	A 6+50.00	1144.08						
	PVC	A 6+99.99	1142.56						
Symmetrical Parabola	PVC	A 6+99.99	1142.56	200	-3.04%	-3.68%	311.03	-0.16	1778.24
	POVC	A 7+00.00	1142.56						
	POVC	A 7+50.00	1141						
	PVI	A 7+99.99	1139.53						
	POVC	A 8+00.00	1139.37						
	POVC	A 8+50.00	1137.64						
	PVRC	A 8+99.99	1135.84						
Symmetrical Parabola	PVRC	A 8+99.99	1135.84	380	-3.68%	-1.96%	220.37	0.82	
	POVC	A 9+00.00	1135.84						
	POVC	A 9+50.00	1134.06						
	POVC	A 10+00.00	1132.39						
	POVC	A 10+50.00	1130.83						
	PVI	A 10+89.99	1128.85						
	POVC	A 11+00.00	1129.39						
	POVC	A 11+50.00	1128.06						
	POVC	A 12+00.00	1126.84						
	POVC	A 12+50.00	1125.74						
	PVCC	A 12+79.98	1125.13						

POVT - POINT ON VERTICAL TANGENT
POVC - POINT ON VERTICAL CURVE

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVCC	A 12+79.99	1125.13	330	-1.96%	-0.15%	183.02	0.74	
	POVC	A 13+00.00	1124.75						
	POVC	A 13+50.00	1123.9						
	POVC	A 14+00.00	1123.18						
	PVI	A 14+44.99	1121.9						
	POVC	A 14+50.00	1122.59						
	POVC	A 15+00.00	1122.15						
	POVC	A 15+50.00	1121.84						
	POVC	A 16+00.00	1121.67						
	PVT	A 16+09.99	1121.65						
Linear	PVT	A 16+09.99	1121.65	85	-0.15%				
	POVT	A 16+50.00	1121.59						
	PVC	A 16+94.99	1121.52						
Symmetrical Parabola	PVC	A 16+94.99	1121.52	220	-0.15%	-2.08%	114.48	-0.53	671.54
	POVC	A 17+00.00	1121.51						
	POVC	A 17+50.00	1121.3						
	POVC	A 18+00.00	1120.87						
	PVI	A 18+04.99	1121.35						
	POVC	A 18+50.00	1120.23						
	POVC	A 19+00.00	1119.37						
	PVRC	A 19+14.99	1119.06						
Symmetrical Parabola	PVRC	A 19+14.99	1119.06	500	-2.08%	-0.32%	284.4	1.1	
	POVC	A 19+50.00	1118.36						
	POVC	A 20+00.00	1117.43						
	POVC	A 20+50.00	1116.58						
	POVC	A 21+00.00	1115.83						
	POVC	A 21+50.00	1115.16						
	PVI	A 21+64.99	1113.87						
	POVC	A 22+00.00	1114.58						
	POVC	A 22+50.00	1114.08						
	POVC	A 23+00.00	1113.68						
	POVC	A 23+50.00	1113.36						
	POVC	A 24+00.00	1113.13						
	PVT	A 24+14.99	1113.08						
Linear	PVT	A 24+14.99	1113.08	285	-0.32%				
	POVT	A 24+50.00	1112.97						
	POVT	A 25+00.00	1112.81						
	POVT	A 25+50.00	1112.65						
	POVT	A 26+00.00	1112.49						
	POVT	A 26+50.00	1112.33						
	PVC	A 26+99.99	1112.17						
Symmetrical Parabola	PVC	A 26+99.99	1112.17	380	-0.32%	4.17%	84.74	2.13	
	POVC	A 27+00.00	1112.17						
	VLOW	A 27+26.91	1112.13						
	POVC	A 27+50.00	1112.16						
	POVC	A 28+00.00	1112.45						
	POVC	A 28+50.00	1113.03						
	PVI	A 28+89.99	1111.57						
	POVC	A 29+00.00	1113.9						
	POVC	A 29+50.00	1115.07						
	POVC	A 30+00.00	1116.53						
	POVC	A 30+50.00	1118.29						
	PVRC	A 30+79.99	1119.49						
Symmetrical Parabola	PVRC	A 30+79.99	1119.49	650	4.17%	-2.12%	103.45	-5.11	472.52
	POVC	A 31+00.00	1120.3						
	POVC	A 31+50.00	1122.17						
	POVC	A 32+00.00	1123.79						
	POVC	A 32+50.00	1125.18						
	POVC	A 33+00.00	1126.32						
	POVC	A 33+50.00	1127.22						
	POVC	A 34+00.00	1127.87						
	PVI	A 34+04.99	1133.03						
	POVC	A 34+50.00	1128.29						
	POVC	A 35+00.00	1128.46						
	VHIGH	A 35+11.04	1128.47						
	POVC	A 35+50.00	1128.4						
	POVC	A 36+00.00	1128.09						
	POVC	A 36+50.00	1127.54						
	POVC	A 37+00.00	1126.74						
	PVT	A 37+29.99	1126.15						
Linear	PVT	A 37+29.99	1126.15	220	-2.12%				
	POVT	A 37+50.00	1125.73						
	POVT	A 38+00.00	1124.67						
	POVT	A 38+50.00	1123.61						
	POVT	A 39+00.00	1122.55						
	PVC	A 39+49.99	1121.5						
Symmetrical Parabola	PVC	A 39+49.99	1121.5	390	-2.12%	-0.49%	239.13	0.8	
	POVC	A 39+50.00	1121.49						
	POVC	A 40+00.00	1120.49						
	POVC	A 40+50.00	1119.59						
	POVC	A 41+00.00	1118.79						
	PVI	A 41+44.99	1117.37						
	POVC	A 41+50.00	1118.1						
	POVC	A 42+00.00	1117.51						
	POVC	A 42+50.00	1117.03						
	POVC	A 43+00.00	1116.65						
	PVRC	A 43+39.99	1116.42						

VERTICAL ALIGNMENT TABLE SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_122.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVRC	A 43+39.99	1116.42	400	-0.49%	-2.32%	218.1	-0.92	788.4
	POVC	A 43+50.00	1116.37						
	POVC	A 44+00.00	1116.05						
	POVC	A 44+50.00	1115.61						
	POVC	A 45+00.00	1115.06						
	PVI	A 45+39.99	1115.45						
	POVC	A 45+50.00	1114.39						
	POVC	A 46+00.00	1113.61						
	POVC	A 46+50.00	1112.71						
	POVC	A 47+00.00	1111.7						
	PVRC	A 47+39.99	1110.81						
Symmetrical Parabola	PVRC	A 47+39.99	1110.81	570	-2.32%	1.36%	154.82	2.62	
	POVC	A 47+50.00	1110.58						
	POVC	A 48+00.00	1109.54						
	POVC	A 48+50.00	1108.65						
	POVC	A 49+00.00	1107.93						
	POVC	A 49+50.00	1107.36						
	POVC	A 50+00.00	1106.96						
	PVI	A 50+24.99	1104.2						
	POVC	A 50+50.00	1106.72						
	VLOW	A 50+99.10	1106.65						
	POVC	A 51+00.00	1106.65						
	POVC	A 51+50.00	1106.73						
	POVC	A 52+00.00	1106.97						
	POVC	A 52+50.00	1107.38						
	POVC	A 53+00.00	1107.95						
	PVT	A 53+09.99	1108.08						
Linear	PVT	A 53+09.99	1108.08	175	1.36%				
	POVT	A 53+50.00	1108.63						
	POVT	A 54+00.00	1109.31						
	POVT	A 54+50.00	1109.99						
	PVC	A 54+84.99	1110.47						
Symmetrical Parabola	PVC	A 54+84.99	1110.47	350	1.36%	-3.29%	75.17	-2.04	406.78
	POVC	A 55+00.00	1110.66						
	POVC	A 55+50.00	1111.07						
	VHIGH	A 55+87.39	1111.16						
	POVC	A 56+00.00	1111.15						
	POVC	A 56+50.00	1110.9						
	PVI	A 56+59.99	1112.85						
	POVC	A 57+00.00	1110.32						
	POVC	A 57+50.00	1109.4						
	POVC	A 58+00.00	1108.16						
	PVT	A 58+34.99	1107.09						
Linear	PVT	A 58+34.99	1107.09	145	-3.29%				
	POVT	A 58+50.00	1106.59						
	POVT	A 59+00.00	1104.94						
	POVT	A 59+50.00	1103.3						
	PVC	A 59+79.99	1102.31						
Symmetrical Parabola	PVC	A 59+79.99	1102.31	620	-3.29%	-8.91%	110.41	-4.35	488.16
	POVC	A 60+00.00	1101.63						
	POVC	A 60+50.00	1099.78						
	POVC	A 61+00.00	1097.71						
	POVC	A 61+50.00	1095.4						
	POVC	A 62+00.00	1092.87						
	POVC	A 62+50.00	1090.12						
	PVI	A 62+89.99	1092.1						
	POVC	A 63+00.00	1087.13						
	POVC	A 63+50.00	1083.92						
	POVC	A 64+00.00	1080.49						
	POVC	A 64+50.00	1076.83						
	POVC	A 65+00.00	1072.94						
	POVC	A 65+50.00	1068.82						
	PVRC	A 65+99.99	1064.48						
Symmetrical Parabola	PVRC	A 65+99.99	1064.48	100	-8.91%	-8.41%	199.09	0.06	
	POVC	A 66+00.00	1064.48						
	PVI	A 66+49.99	1060.03						
	POVC	A 66+50.00	1060.09						
	PVT	A 66+99.99	1055.82						
Linear	PVT	A 66+99.99	1055.82	200	-8.41%				
	POVT	A 67+00.00	1055.82						
	POVT	A 67+50.00	1051.62						
	POVT	A 68+00.00	1047.42						
	POVT	A 68+50.00	1043.21						
	PVC	A 68+99.98	1039.01						
Symmetrical Parabola	PVC	A 68+99.98	1039.01	300	-8.41%	-8.58%	1694.08	-0.07	6243.9
	POVC	A 69+00.00	1039.01						
	POVC	A 69+50.00	1034.8						
	POVC	A 70+00.00	1030.57						
	PVI	A 70+49.98	1026.4						
	POVC	A 70+50.00	1026.33						
	POVC	A 71+00.00	1022.08						
	POVC	A 71+50.00	1017.81						
	PVT	A 71+99.98	1013.52						
Linear	PVT	A 71+99.98	1013.52	175	-8.58%				
	POVT	A 72+00.00	1013.52						
	POVT	A 72+50.00	1009.23						
	POVT	A 73+00.00	1004.94						
	POVT	A 73+50.00	1000.65						
	PVC	A 73+74.99	998.5						

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVC	A 73+74.99	998.5	100	-8.58%	-9.65%	93.81	-0.13	1062.33
	POVC	A 74+00.00	996.32						
	PVI	A 74+24.99	994.21						
	POVC	A 74+50.00	991.76						
	PVT	A 74+74.99	989.39						
Linear	PVT	A 74+74.99	989.39	330	-9.65%				
	POVT	A 75+00.00	986.97						
	POVT	A 75+50.00	982.15						
	POVT	A 76+00.00	977.32						
	POVT	A 76+50.00	972.5						
	POVT	A 77+00.00	967.67						
	POVT	A 77+50.00	962.85						
	POVT	A 78+00.00	958.02						
	PVC	A 78+04.99	957.54						
Symmetrical Parabola	PVC	A 78+04.99	957.54	360	-9.65%	-4.54%	70.49	2.3	
	POVC	A 78+50.00	953.34						
	POVC	A 79+00.00	949.01						
	POVC	A 79+50.00	945.04						
	PVI	A 79+84.99	940.17						
	POVC	A 80+00.00	941.42						
	POVC	A 80+50.00	938.15						
	POVC	A 81+00.00	935.24						
	POVC	A 81+50.00	932.69						
	PVT	A 81+64.99	931.99						
Linear	PVT	A 81+64.99	931.99	55	-4.54%				
	POVT	A 82+00.00	930.4						
	PVC	A 82+19.99	929.49						
Symmetrical Parabola	PVC	A 82+19.99	929.49	120	-4.54%	-7.49%	40.68	-0.44	425.81
	POVC	A 82+50.00	928.02						
	PVI	A 82+79.99	926.77						
	POVC	A 83+00.00	925.07						
	PVT	A 83+39.99	922.27						
Linear	PVT	A 83+39.99	922.27	240	-7.49%				
	POVT	A 83+50.00	921.52						
	POVT	A 84+00.00	917.78						
	POVT	A 84+50.00	914.03						
	POVT	A 85+00.00	910.28						
	POVT	A 85+50.00	906.54						
	PVC	A 85+79.99	904.29						
Symmetrical Parabola	PVC	A 85+79.99	904.29	320	-7.49%	-0.47%	45.54	2.81	
	POVC	A 86+00.00	902.83						
	POVC	A 86+50.00	899.58						
	POVC	A 87+00.00	896.88						
	PVI	A 87+39.99	892.3						
	POVC	A 87+50.00	894.72						
	POVC	A 88+00.00	893.12						
	POVC	A 88+50.00	892.06						
	PVT	A 88+99.99	891.55						
Linear	PVT	A 88+99.99	891.55	220	-0.47%				
	POVT	A 89+00.00	891.55						
	POVT	A 89+50.00	891.32						
	POVT	A 90+00.00	891.09						
	POVT	A 90+50.00	890.85						
	POVT	A 91+00.00	890.62						
	PVC	A 91+19.99	890.53						
Symmetrical Parabola	PVC	A 91+19.99	890.53	440	-0.47%	-4.74%	102.89	-2.35	472.35
	POVC	A 91+50.00	890.34						
	POVC	A 92+00.00	889.84						
	POVC	A 92+50.00	889.1						
	POVC	A 93+00.00	888.11						
	PVI	A 93+39.99	889.5						
	POVC	A 93+50.00	886.88						
	POVC	A 94+00.00	885.41						
	POVC	A 94+50.00	883.69						
	POVC	A 95+00.00	881.74						
	POVC	A 95+50.00	879.53						
	PVT	A 95+59.99	879.07						
Linear	PVT	A 95+59.99	879.07	565	-4.74%				
	POVT	A 96+00.00	877.17						
	POVT	A 96+50.00	874.8						
	POVT	A 97+00.00	872.42						
	POVT	A 97+50.00	870.05						
	POVT	A 98+00.00	867.68						
	POVT	A 98+50.00	865.31						
	POVT	A 99+00.00	862.94						
	POVT	A 99+50.00	860.57						
	POVT	A 100+00.00	858.2						
	POVT	A 100+50.00	855.82						
	POVT	A 101+00.00	853.45						
	PVC	A 101+24.98	852.27						
Symmetrical Parabola	PVC	A 101+24.98	852.27	250	-4.74%	-4.68%	4078.39	0.02	
	POVC	A 101+50.00	851.08						
	POVC	A 102+00.00	848.72						
	PVI	A 102+49.98	846.34						
	POVC	A 102+50.00	846.36						
	POVC	A 103+00.00	844						
	POVC	A 103+50.00	841.66						
	PVRC	A 103+74.98	840.49						

Element	Type	Station	Elevation	Length	Entrance Grade	Exit Grade	K	Middle Ordinate	SSD/HSD
Symmetrical Parabola	PVRC	A 103+74.98	840.49	300	-4.68%	-5.82%	264.21	-0.43	1100.39
	POVC	A 104+00.00	839.3						
	POVC	A 104+50.00	836.87						
	POVC	A 105+00.00	834.34						
	PVI	A 105+24.98	833.46						
	POVC	A 105+50.00	831.71						
	POVC	A 106+00.00	828.99						
	POVC	A 106+50.00	826.18						
	PVT	A 106+74.98	824.74						
Linear	PVT	A 106+74.98	824.74	105	-5.82%				
	POVT	A 107+00.00	823.28						
	POVT	A 107+50.00	820.37						
	PVC	A 107+79.99	818.63						
Symmetrical Parabola	PVC	A 107+79.99	818.63	450	-5.82%	2.29%	55.54	4.56	
	POVC	A 108+00.00	817.5						
	POVC	A 108+50.00	815						
	POVC	A 109+00.00	812.95						
	POVC	A 109+50.00	811.34						
	POVC	A 110+00.00	810.19						
	PVI	A 110+04.99	805.54						
	POVC	A 110+50.00	809.49						
	POVC	A 111+00.00	809.23						
	VLOW	A 111+03.07	809.23						
	POVC	A 111+50.00	809.43						
	POVC	A 112+00.00	810.08						
	PVT	A 112+29.99	810.68						
Linear	PVT	A 112+29.99	810.68	40	2.29%				
	POVT	A 112+50.00	811.14						
	PVC	A 112+69.99	811.6						
Symmetrical Parabola	PVC	A 112+69.99	811.6	180	2.29%	0.32%	91.7	-0.44	639.79
	POVC	A 113+00.00	812.23						
	POVC	A 113+50.00	813.08						
	PVI	A 113+59.99	813.65						
	POVC	A 114+00.00	813.65						
	PVT	A 114+49.99	813.94						
Linear	PVT	A 114+49.99	813.94	107.01	0.32%				
	POVT	A 114+50.00	813.94						
	POVT	A 115+00.00	814.1						
	POE	A 115+57.00	814.3						

PVC - POINT OF VERTICAL CURVATURE
PVT - POINT OF VERTICAL TANGENCY
PVI - POINT OF VERTICAL INTERSECTION

POVT - POINT ON VERTICAL TANGENT
POVC - POINT ON VERTICAL CURVE

VERTICAL ALIGNMENT TABLE SHEET 4

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_123.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 123 OF 194

SOIL CLASSIFICATION

AASHTO	
A1	Gravel and Sand
A3	Fine Sand
A2	Silty or Clayey Gravel and Sand
A4	Silty Soil - Low Compressibility
A5	Silty Soil - Highly Compressible
A6	Clayey Soil - Low Compressibility
A7	Clayey Soil - Highly Compressible

ROCK QUALITY DESIGNATION

R.Q.D. (%)	ROCK DESCRIPTION
<25	Very Poor
25 to 50	Poor
51 to 75	Fair
76 to 90	Good
>90	Excellent

SHEAR STRENGTH

UNDRAINED SHEAR STRENGTH IN kPa	CONSISTENCY
<12	Very Soft
12-24	Soft
24-48	Med. Stiff
48-96	Stiff
96-192	Very Stiff
>192	Hard

CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

DENSITY (GRANULAR SOILS)		CONSISTENCY (COHESIVE SOILS)	
N	DESCRIPTIVE TERM	N	DESCRIPTIVE TERM
<5	Very Loose	<2	Very Soft
5-10	Loose	2-4	Soft
11-24	Med. Dense	5-8	Med. Stiff
25-50	Dense	9-15	Stiff
>50	Very Dense	16-30	Very Stiff
		31-60	Hard
		>60	Very Hard

COMMONLY USED SYMBOLS

▼	Water Elevation
⊗	Standard Penetration Boring
⊕	Auger Boring
⊙	Rod Sounding
S	Sample
N	Standard Penetration Test Blow Count Per 300 mm For: 50.8 mm O. D. Sampler 35.0 mm I. D. Sampler Hammer Weight Of 63.5 kg. Hammer Fall Of 762 mm
VS	Field Vane Shear Test
US	Undisturbed Soil Sample
B	Blast
DC	Diamond Core
MD	Mud Drill
WA	Wash Ahead
HSA	Hollow Stem Auger
AX	Core Size 30.1 mm
BX	Core Size 42.0 mm
NX	Core Size 54.7 mm
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	To Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N > 100)
OW	Indicates a temporary observation well installed

COLOR

blk	Black	pnk	Pink
bl	Blue	pu	Purple
brn	Brown	rd	Red
dk	Dark	tn	Tan
gry	Gray	wh	White
gn	Green	yel	Yellow
lt	Light	mltc	Multicolored
or	Orange		

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 304.8 mm.

COBBLE - Rock fragments with an average dimension between 76.2 and 304.8 mm.

GRAVEL - Rounded particles of rock < 76.2 mm and > 2 mm (#10 sieve).

SAND - Particles of rock < 2 mm (#10 sieve) and >M75 m (#200 sieve).

SILT- Soil < M5 m (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

MUCK - Soft organic soil (containing > 10% organic material.

MOISTURE CONTENT- Weight of water divided by dry weight of soil.

FLOWING SAND- Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE- Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP- Inclination of bed with a horizontal plane.

GENERAL NOTES

1. The test borings shown herein were drilled by the Agency between the period from 05/08/12 through 05/10/12.

2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.

3. Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.

4. Engineering Judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.

6. Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.

SEE PROJECT LAYOUT SHEETS FOR BORING LOCATIONS

SEE PROJECT LAYOUT SHEETS FOR BORING LOCATIONS

NOTE: SEE PROJECT LAYOUT SHEETS FOR THE LOCATION OF BORE HOLES

BORING AND CORING SHEET 1

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_124.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 124 OF 194

CHA
11 Warren Drive, PO Box 4005 • Albany, NY 12204-0005
Main (518) 453-4500 • www.chacompanies.com

Elmore-Morristown STP 2937(1)
Client: Vermont Agency of Transportation
Contractor: Platform Drilling
Driller: C. Aldrich/ Inspector: K. Owens

VT Route 12
Pavement Rehabilitation
CHA No. 24608
Auger Probe Log

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LABORATORY RESULTS: % MOISTURE	AASHTO CLASS. [x]	% GRAVEL	% SAND	% FINES	LIQUID LIMIT	PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-101	10/8/2012	3.5	5.9	0.0	0.4		Asphalt Pavement								Auger grinding 0.5'-1.5'
		NB		0.4	1.0		Subbase - f.c. GRAVEL, S. f.c. Sand, brn, moist		A-1-a						Subbase visible from sidewall,
				1.0	2.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist	3.7	A-1-a	61.0	27.5	11.5	NP		unable to obtain sample.
															No visible rock outcrops/boulders.
							Auger Refusal @ 2.0'								(44.49643944674,-72.5184494666)
B-102	10/8/2012	3.7	7.0	0.0	0.3		Asphalt Pavement								Auger grinding 3.5'-4'
		SB		0.3	3.5	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				3.5	5.0	G-2	f.c. SAND, l. silt, l. f.c. gravel, l. brn, micaceous, moist		A-2-4						
							End of Boring @ 5.0'								(44.49945160183,-72.5174381100)
B-103	10/8/2012	3.9	5.5	0.0	0.4		Asphalt Pavement								Easy drilling at 3'
		NB		0.4	3.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				3.0	5.0	G-2	SILT, S. f.c. Sand, t. f. gravel, d. brn, moist		A-4						
							End of Boring @ 5.0'								(44.50217997759,-72.5168837452)
B-104	10/8/2012	4.1	7.5	0.0	0.4		Asphalt Pavement								Easy drilling at 3'
		SB		0.4	3.0	G-1	f.c. GRAVEL and f.c. SAND, S. Silt, brn, moist	5.0	A-1-b	43.1	35.3	21.6	NP		
				3.0	5.0	G-2	f.c. SAND, l. silt, l. f. gravel, brn, moist		A-2-4						
							End of Boring @ 5.0'								(44.50502650011,-72.5157916100)
B-105	10/8/2012	4.3	5.7	0.0	0.4		Asphalt Pavement								Easy drilling @ 2.5'
		NB		0.4	5.0	G-1/2	f.c. GRAVEL and f.c. SAND, S. Silt, brn, moist		A-1-b						
							End of Boring @ 5.0'								(44.50811068126,-72.5140076651)
B-106	10/8/2012	4.5	4.5	0.0	0.4		Asphalt Pavement - 3" Top Coat, 2" Decomposed Base								Easy drilling @ 3.5'
		SB		0.4	3.5	G-1	f.c. GRAVEL and f.c. SAND, S. Silt, brn, moist		A-1-b						
				3.5	5.0	G-2	SILT, l. f.c. sand, l. brn, moist		A-4						
							End of Boring @ 5.0'								(44.51044173204,-72.5128555762)
B-107	10/8/2012	4.7	7.2	0.0	0.4		Asphalt Pavement								Organics in G-1 consisted of
		NB		0.4	0.9		Subbase								root hairs and small sticks.
				0.9	2.0	G-1	f.c. SAND, S. Silt, S. f.c. Gravel, t. organics, d. brn, wet	18.2	A-2-4	30.1	37.6	32.3	NP		
				2.0	5.0	G-2	f.c. SAND, S. Silt, S. f.c. Gravel, t. organics, d. brn, wet	19.2	A-2-4	24.2	41.4	34.4	NP		
							End of Boring @ 5.0'								(44.51307421437,-72.5129536170)
B-108	10/8/2012	4.9	7.6	0.0	0.4		Asphalt Pavement								Very easy drilling at 3.5'
		SB		0.4	1.0		Subbase								
				1.0	3.5	G-1	f.c. SAND, l. silt, brn, moist		A-2-4						
				3.5	5.0	G-2	Cl. SILT, l. f.c. sand, t. organics, d. brn, wet		A-4						
							End of Boring @ 5.0'								(44.51616826892,-72.5134560802)

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LABORATORY RESULTS: % MOISTURE	AASHTO CLASS. [x]	% GRAVEL	% SAND	% FINES	LIQUID LIMIT	PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-109	10/8/2012	5.1	5.2	0.0	0.5		Asphalt Pavement - 3" Top Coat, 3" Decomposed Base								Auger grinding, hard drilling 0.5-2.5'
		NB		0.5	2.5	G-1	f.c. GRAVEL and f.c. SAND, S. Silt, brn, moist		A-1-b						Very easy drilling at 3'
				2.5	5.0	G-2	f.c. SAND, l. silt, t. f.c. gravel, brn, moist		A-2-4						
							End of Boring @ 5.0'								(44.518996036405,-72.5141211167)
B-110	10/8/2012	5.3	7.0	0.0	0.5		Asphalt Pavement								Difficult drilling to 2'
		SB		0.5	0.7		Subbase								
				0.7	2.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				2.0	5.0	G-2	f.c. SAND, l. silt, gry/brn, moist		A-2-4						
							End of Boring @ 5.0'								(44.52166203606,-72.5159736658)
B-111	10/8/2012	5.5	5.8	0.0	0.5		Asphalt Pavement								Difficult drilling to 3.5'
		NB		0.5	3.5	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist	4.9	A-1-a	52.6	33.1	14.3	NP		
				3.5	5.0	G-2	f.c. SAND, l. silt, gry, moist	15.6	A-2-4	21.4	45.6	33.0	NP		
							End of Boring @ 5.0'								(44.52431705415,-72.5175129861)
B-112	10/8/2012	5.7	6.0	0.0	0.4		Asphalt Pavement								Hard drilling to 2.3'
		SB		0.4	2.3	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				2.3	5.0	G-2	f.c. SAND, l. silt, gry, moist		A-1-b						
							End of Boring @ 5.0'								(44.52686442868,-72.5186065123)
B-113	10/8/2012	5.9	6.0	0.0	0.4		Asphalt Pavement								Very difficult drilling 2.5'-3'
		NB		0.4	1.0		Subbase - f.c. GRAVEL visible from sidewall								
				1.0	2.5	G-1	f.c. SAND, S. Silt, t. f. gravel, d. brn, moist	13.8	A-2-4	15.3	52.5	32.2	NP		
				2.5	5.0	G-2	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
							End of Boring @ 5.0'								(44.53013931629,-72.5182593686)
B-114	10/8/2012	6.1	7.1	0.0	0.6		Asphalt Pavement								Very easy drilling @ 3'
		NB		0.6	3.0	G-1	f.c. GRAVEL and f.c. SAND, S. Silt, brn, moist		A-1-b						Organics in G-2 consisted of roothairs
				3.0	5.0	G-2	Cl. SILT, l. f.c. sand, t. organics, d. brn, moist		A-2-4						
							End of Boring @ 5.0'								(44.53282922163,-72.5189356838)
B-115	10/8/2012	6.3	6.0	0.0	0.8		Asphalt Pavement								Zones of very difficult drilling to 3.5'
		SB		0.8	3.5	G-1	f.c. SAND and f.c. GRAVEL, S. Silt, brn, moist	6.6	A-1-b	38.4	39.3	22.3	NP		Organics in G-2 consisted of roothairs.
				3.5	5.0	G-2	Cl. SILT and f.c. SAND, t. f.c. gravel, d. brn, moist	16.2	A-4	8.2	36.6	55.1	NP		
							End of Boring @ 5.0'								(44.53561519478,-72.5202136297)
B-116	10/8/2012	6.5	8.9	0.0	0.8		Asphalt Pavement								Auger grinding to 2'
		NB		0.8	2.0	G-1	f.c. SAND, S. Silt, S. f.c. Gravel, brn, moist		A-1-b						Very easy drilling 4'-5'
				2.0	5.0	G-2	Cl. SILT, S. f.c. Sand, d. gry, moist		A-4						
							End of Boring @ 5.0'								(44.53804101656,-72.5214725672)

NOTE: SEE PROJECT LAYOUT SHEETS FOR THE LOCATION OF BORE HOLES

BORING AND CORING SHEET 2

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_125.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 125 OF 194

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LABORATORY RESULTS: % MOISTURE	AASHTO CLASS. [a]	% GRAVEL	% SAND	% FINES	LIQUID LIMIT	PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-117	10/8/2012	6.7	6.0	0.0	0.6		Asphalt Pavement								Very difficult drilling 1.5'-3'
		SB		0.6	3.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				3.0	5.0	G-2	f.c. SAND, S. Silt, gry/brn, moist		A-2-4						
							End of Boring @ 5.0'								(44.54066650592,-72.5231958507)
B-118	10/8/2012	6.9	6.9	0.0	0.7		Asphalt Pavement								Easy drilling 3.5'-5'
		NB		0.7	3.5	G-1	f.c. GRAVEL and f.c. SAND, S. Silt, brn, moist		A-1-b						
				3.5	5.0	G-2	Cl. SILT and f.c. SAND, t. f.c. gravel, gry, moist to wet		A-4						
							End of Boring @ 5.0'								(44.54232175829,-72.5254631498)
B-119	10/8/2012	7.1	4.5	0.0	0.6		Asphalt Pavement								Very easy drilling at 3'
		SB		0.6	1.5		Subbase - C. Gravel visible in sidewalls								
				1.5	3.0	G-1	f.c. SAND and f.c. GRAVEL, S. Silt, brn, mst	4.7	A-1-b	36.9	38.9	24.2	NP		
				3.0	5.0	G-2	Cl. SILT and f.c. SAND, t. f.c. gravel, gry, moist to wet	19.1	A-4	5.3	35.1	59.6	NP		
							End of Boring @ 5.0'								(44.54502612142,-72.5279789740)
B-120	10/8/2012	7.3	8.7	0.0	0.6		Asphalt Pavement								Auger grinding full boring depth
		NB		0.6	5.0	G-1/2	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
							End of Boring @ 5.0'								(44.54688598768,-72.5310053767)
B-121	10/8/2012	7.5	5.3	0.0	0.7		Asphalt Pavement								Auger grinding to 5'
		SB		0.7	1.5		Subbase - C. Gravel visible in sidewalls								Very easy drilling at 3'
				1.5	3.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				3.0	5.0	G-2	Cl. SILT and f.c. SAND, t. f.c. gravel, gry, moist to wet		A-4						
							End of Boring @ 5.0'								(44.54885454156,-72.5339559602)
B-122	10/8/2012	7.7	6.8	0.0	0.6		Asphalt Pavement								Augers grinding to 3'
		NB		0.6	1.5		f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				1.5	3.0	G-1	SILT, S. f.c. Sand, S. f.c. Gravel, gry, moist to wet	10.9	A-4	24.1	31.7	44.3	NP		
				3.0	5.0	G-2	f.c. SAND, S. Silt, S. f.c. Gravel, brn, wet	14.8	A-2-4	24.7	46.9	28.4	NP		
							End of Boring @ 5.0'								(44.55073197092,-72.5369572889)
B-123	10/8/2012	7.9	5.0	0.0	0.6		Asphalt Pavement								
		SB		0.6	0.8		Subbase - Gravel visible in sidewall								
				0.8	5.0	G-1/2	f.c. SAND, S. Silt, t. f.c. gravel, brn, moist		A-2-4						
							End of Boring @ 5.0'								(44.55253069096,-72.5399532656)
B-124	10/15/2012	0.2	9.0	0.0	0.8		Asphalt Pavement - 6" Top Course, 4" Decomposed Base								Auger grinding to 3'
		NB		0.8	3.0	G-1	f.c. SAND and f.c. GRAVEL, S. Silt, brn, mst		A-1-b						
				3.0	5.0	G-2	f.c. SAND and SILT, S. f.c. Gravel, gry, moist	14.9	A-4	21.4	43.0	35.6	NP		
							End of Boring @ 5.0'								(44.55356880514,-72.5438848847)

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LABORATORY RESULTS: % MOISTURE	AASHTO CLASS. [a]	% GRAVEL	% SAND	% FINES	LIQUID LIMIT	PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-125	10/15/2012	0.4	5.5	0.0	0.7		Asphalt Pavement								Auger grinding to 3.5'
		SB		0.7	3.5	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				3.5	5.0	G-2	Clayey SILT, S. f.c. Sand, t. f. gravel, d. gry/l.brn, moist		A-4						
							End of Boring @ 5.0'								(44.55393646614,-72.5478484452)
B-126	10/15/2012	0.6	6.5	0.0	0.7		Asphalt Pavement								Auger grinding full boring depth
		NB		0.7	5.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
							End of Boring @ 5.0'								(44.55262389571,-72.5509856123)
B-127	10/15/2012	0.8	5.2	0.0	0.6		Asphalt Pavement								
		SB		0.6	1.2		Subbase - Gravel visible in sidewalls								
				1.2	3.5	G-1	f.c. GRAVEL and f.c. SAND, l. silt, brn, moist	5.9	A-1-b	42.1	41.0	16.9	NP		
				3.5	5.0	G-2	f.m. SAND, l. silt, r. brn, moist to wet		A-2-4						
							End of Boring @ 5.0'								(44.55048049393 8,-72.5542673839)
B-128	10/15/2012	1	5.9	0.0	0.7		Asphalt Pavement								Auger grinding to 2.5'
		NB		0.7	2.5	G-1	f.c. GRAVEL, S. Silt, S. f.c. Sand, brn, moist	10.5	A-2-4	41.0	26.8	32.2	NP		
				2.5	5.0	G-2	f.c. SAND, S. Silt, l. f.c. gravel, r. brn, moist to wet	12.1	A-2-4	14.7	51.5	33.9	NP		
							End of Boring @ 5.0'								(44.54839029622,-72.5570403344)
B-129	10/15/2012	1.2	5.2	0.0	0.9		Asphalt Pavement - 8" Top Course, 3" Decomposed Base								Auger grinding to 4'
		SB		0.9	4.0	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						Easy drilling at 4'
				4.0	5.0	G-2	f.c. SAND, S. Silt, l. f.c. gravel, r. brn, moist to wet		A-2-4						
							End of Boring @ 5.0'								(44.54769337892,-72.5614032541)
B-130	10/15/2012	1.4	6.5	0.0	0.4		Asphalt Pavement								
		NB		0.4	1.5		f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				1.5	3.0	G-1	f.c. SAND, S. Silt, l. f.c. gravel, gry, moist to wet		A-2-4						
				3.0	5.0	G-2	SILT, S. f. sand, orange, moist		A-4						
							End of Boring @ 5.0'								(44.54790721438,-72.5650131127)
B-131	10/15/2012	1.6	5.0	0.0	0.7		Asphalt Pavement - 3" Top Course, 5" Decomposed Base								
		SB		0.7	3.5	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist	3.0	A-1-a	64.8	26.1	9.1	NP		
				3.5	5.0	G-2	SILT, l. f.c. sand, l. f.c. gravel, gry, moist	18.4	A-4	11.1	18.1	70.8	NP		
							End of Boring @ 5.0'								(44.54937736768,-72.5684271337)
B-132	10/15/2012	1.8	6.1	0.0	0.7		Asphalt Pavement								Very difficult drilling to 3.5'
		NB		0.7	3.5	G-1	f.c. GRAVEL, S. f.c. Sand, l. silt, brn, moist		A-1-a						
				3.5	5.0	G-2	SILT, l. f.c. sand, l. f.c. gravel, gry, moist		A-4						
							End of Boring @ 5.0'								(44.55037106757,-72.5722395913)

BORING NO.	DATE DRILLED	MILE MARKER	OFFSET (FT)	DEPTH (FT) T	DEPTH (FT) B	SAMPLE TYPE	FIELD DESCRIPTION: SOIL TYPE, COLOR, MOISTURE	LABORATORY RESULTS: % MOISTURE	AASHTO CLASS. [a]	% GRAVEL	% SAND	% FINES	LIQUID LIMIT	PLASTIC LIMIT	DRILLING NOTES: (LAT, LONG - Decimal Degrees)
B-133	10/15/2012	2	4.8	0.0	0.9		Asphalt Pavement - 8" Top Course, 3" Decomposed Base								
		NB		0.9	2.5	G-1	f.c. GRAVEL and f.c. SAND, l. silt, brn, moist	4.5	A-1-b	45.6	38.1	16.2	NP		
				2.5	4.0	G-2	f.c. SAND and SILT, t. f.c. gravel, brn, moist	14.0	A-4	2.4	59.2	38.4	NP		
				4.0	5.0		Clayey SILT, l. f.c. sand, gry, moist		A-4						
							End of Boring @ 5.0'								(44.55220565799,-72.5752938863)
B-134		2.2													
		SB					OMIT								
							DRAINAGE SYSTEM/CONSTRUCTION INSTALLATION ADJACENT TO BORING LOCATION								
															(44.55371550436,-72.5782372474)

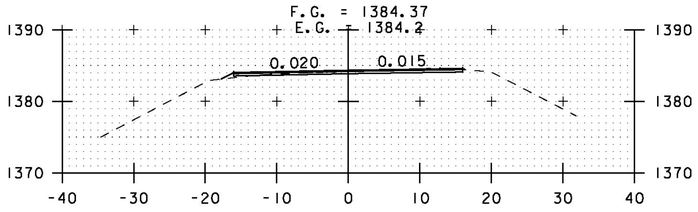
NOTE: SEE PROJECT LAYOUT SHEETS FOR THE LOCATION OF BORE HOLES

BORING AND CORING SHEET 3

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_126.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 126 OF 194



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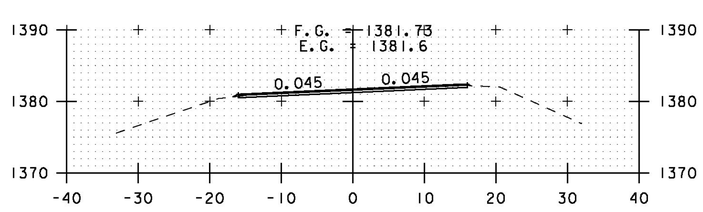

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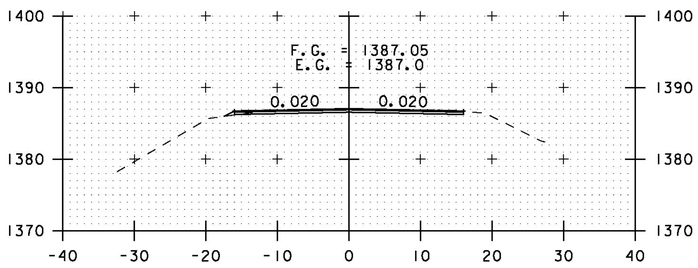

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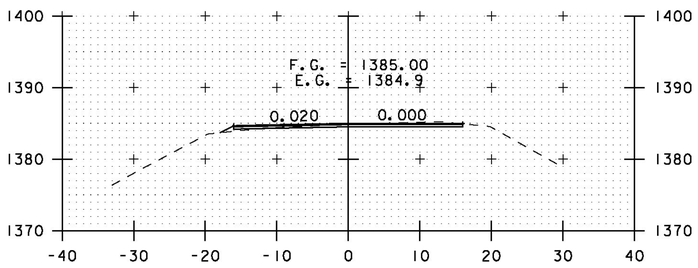

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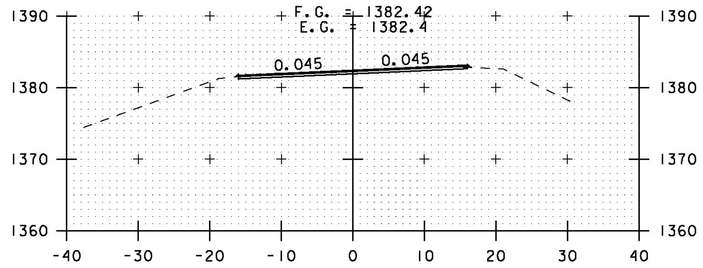

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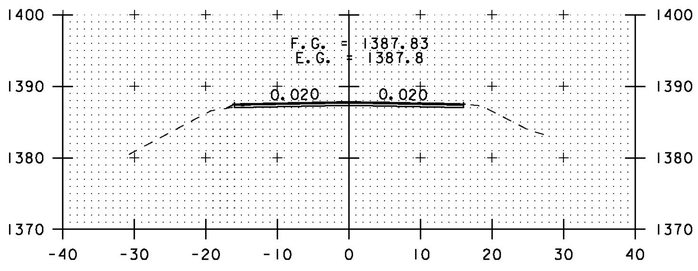

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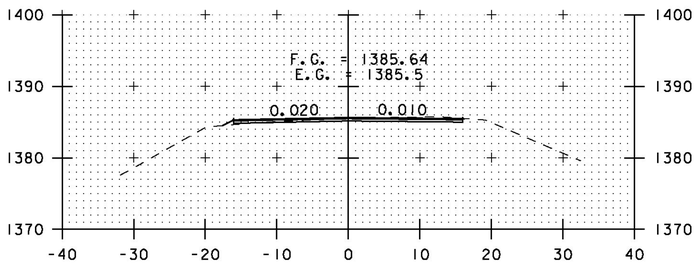

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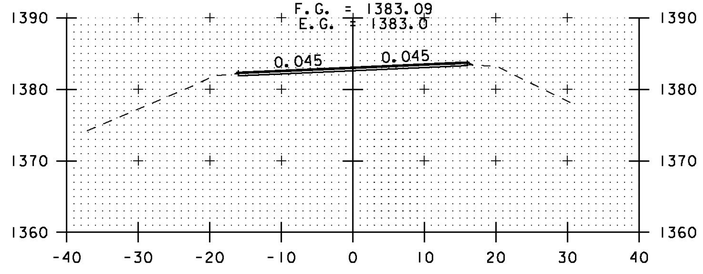

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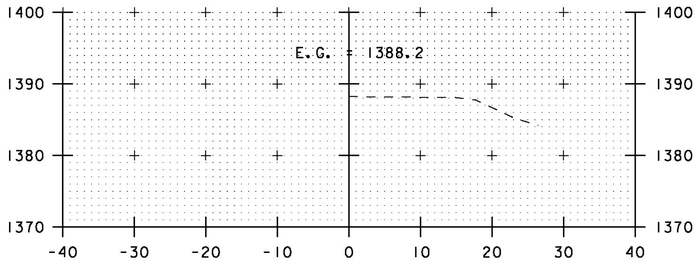

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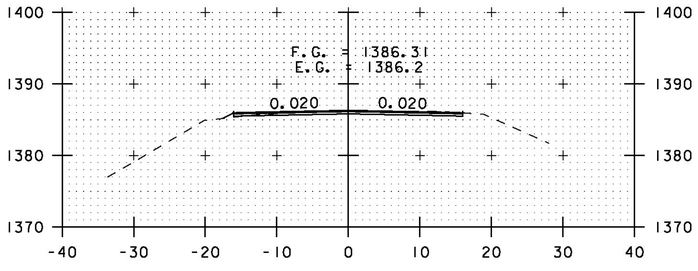

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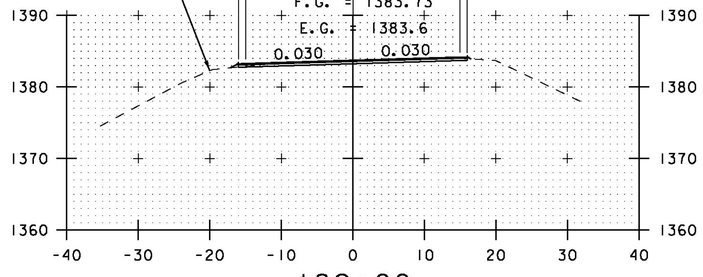


189+00

STA. 185+75 TO STA. 190+50

SCALE 1" = 10'-0

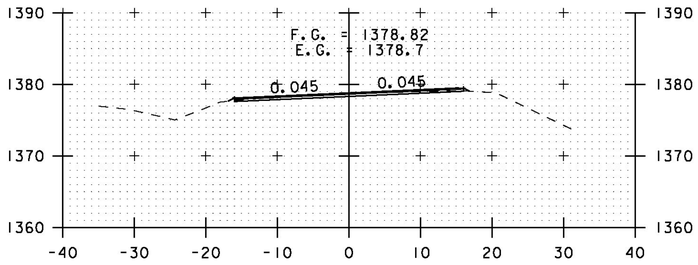
10 0 10

CROSS SECTION SHEET 1

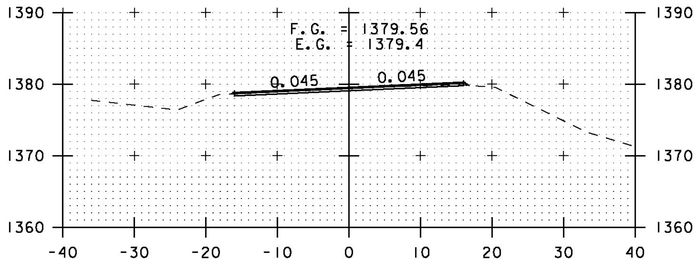
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_129.i

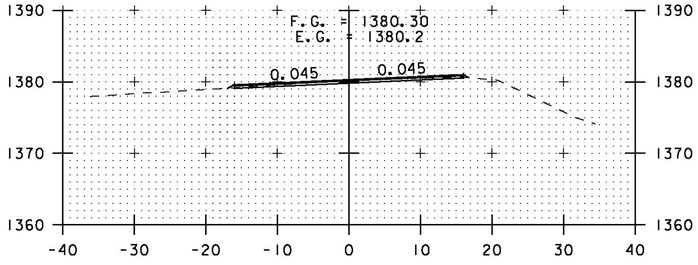
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 129 OF 194



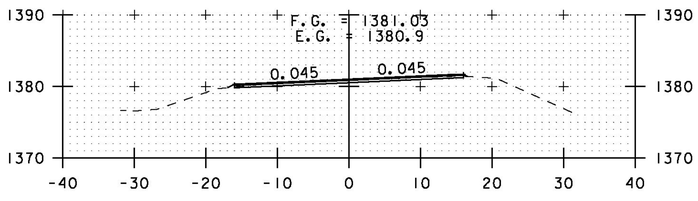
192+50



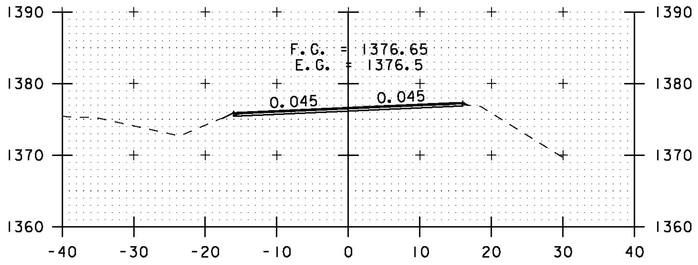
192+00



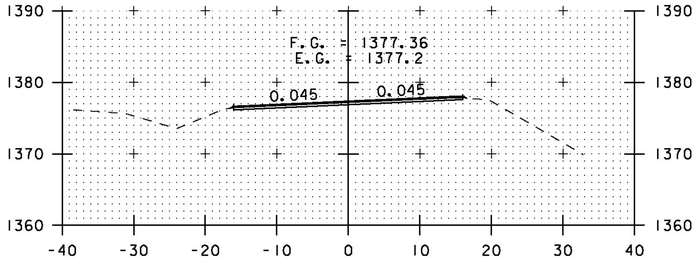
191+50



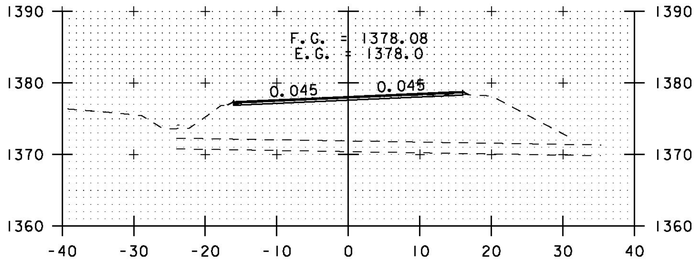
191+00



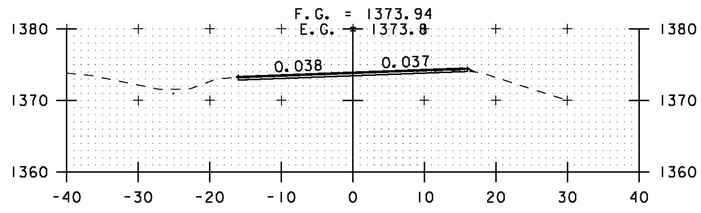
194+00



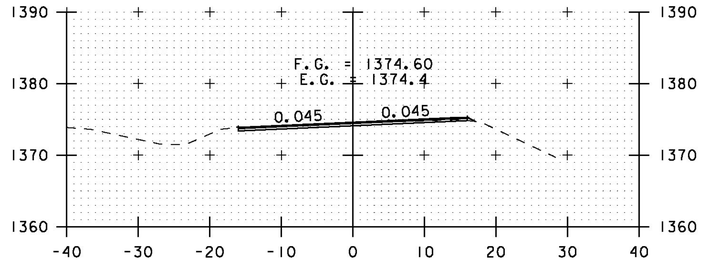
193+50



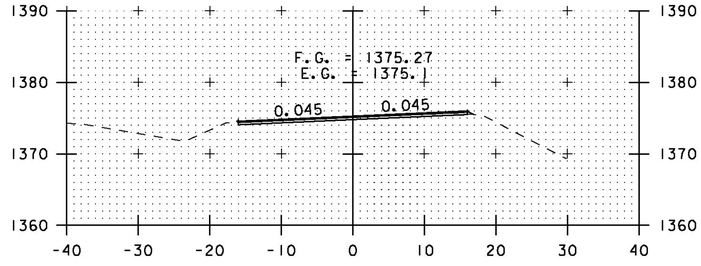
193+00

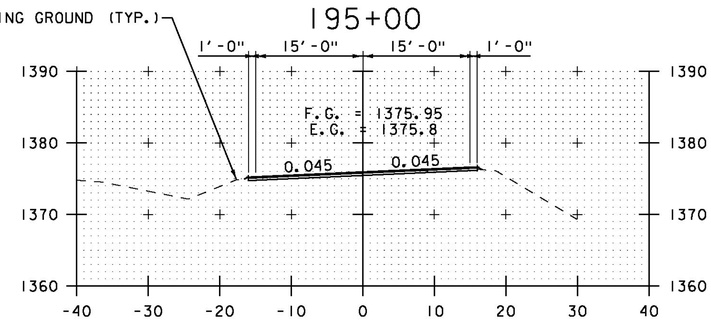


196+00



195+50





195+00

194+50

SCALE 1" = 10'-0
10 0 10

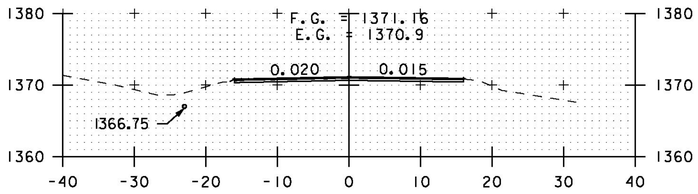
STA. 191+00 TO STA. 196+00

CROSS SECTION SHEET 2

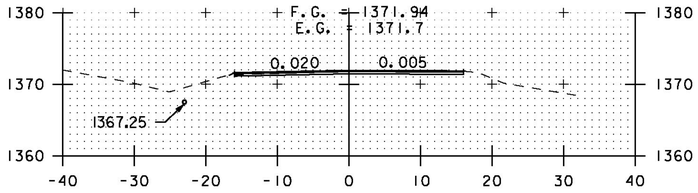
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_130.i

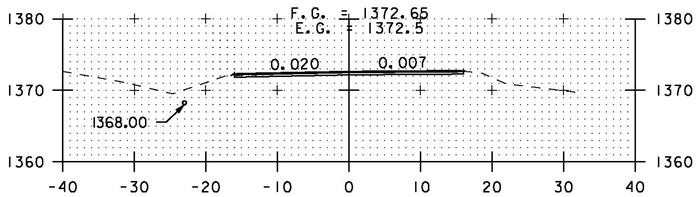
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 130 OF 194



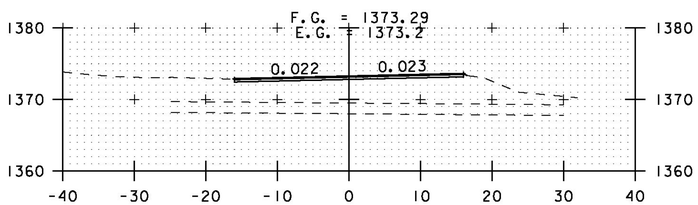
198+00



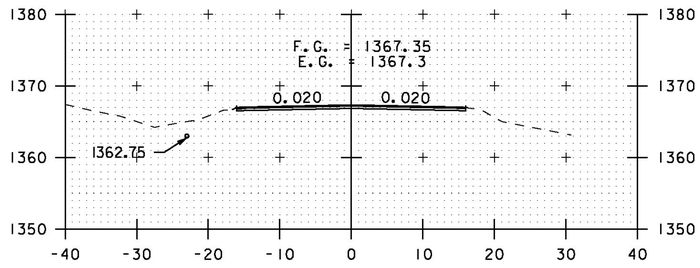
197+50



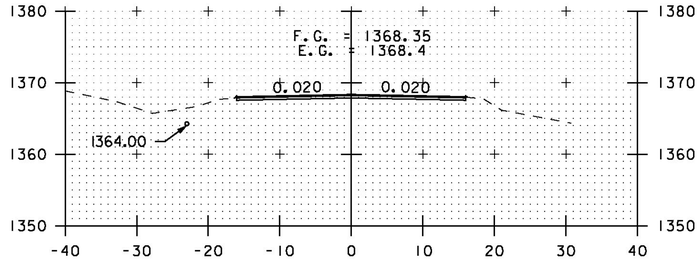
197+00



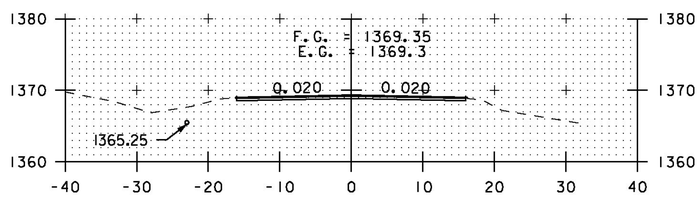
196+50



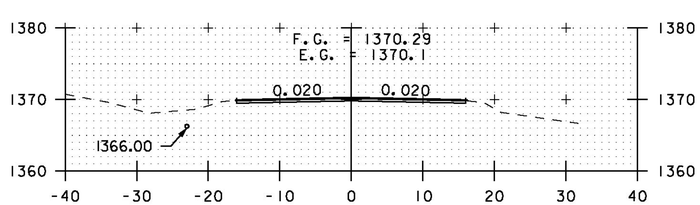
200+00



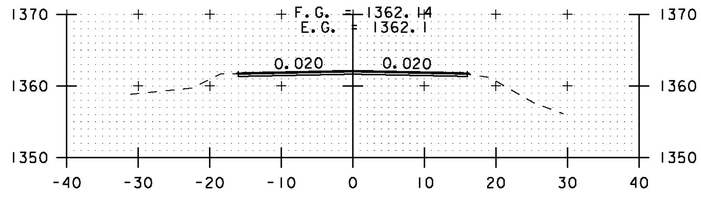
199+50



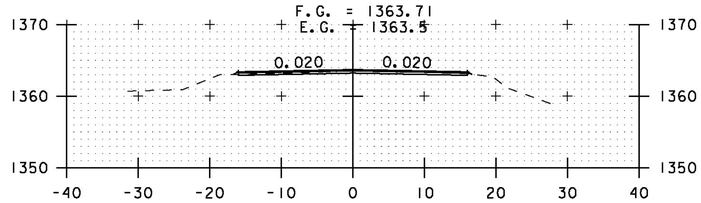
199+00



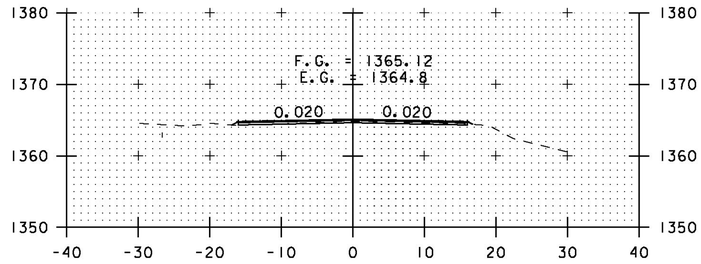
198+50



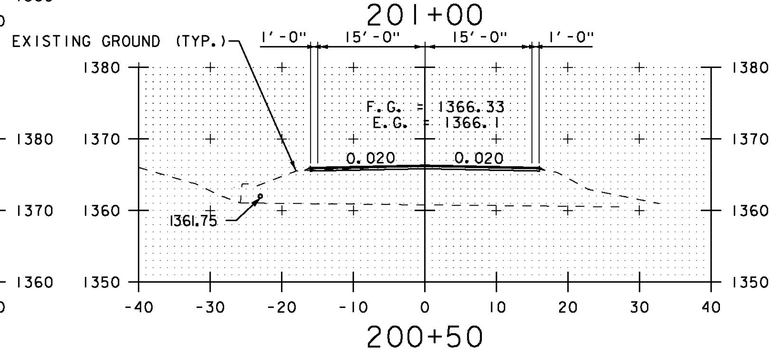
202+00



201+50



201+00



200+50

SCALE 1" = 10'-0

10 0 10

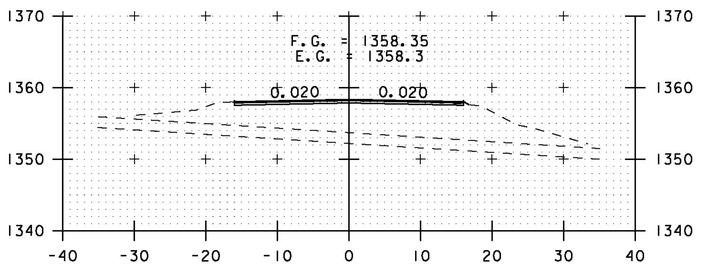
STA. 196+50 TO STA. 202+00

CROSS SECTION SHEET 3

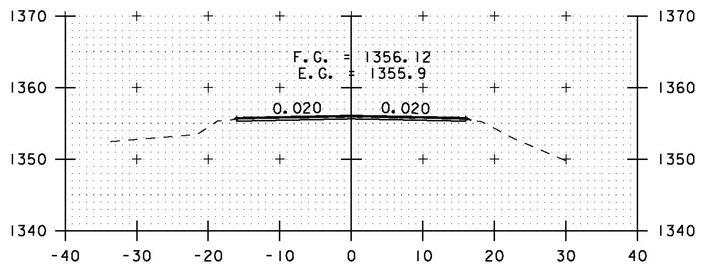
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_131.i

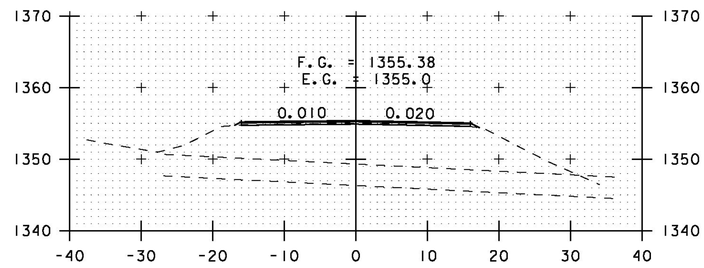
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 131 OF 194



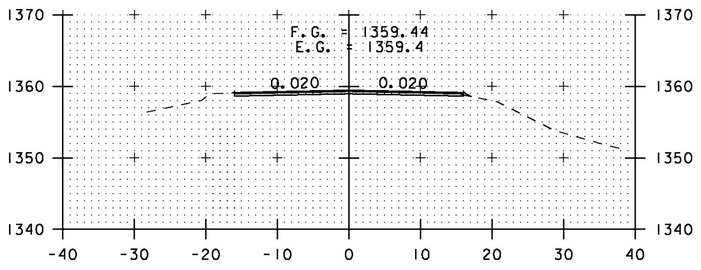
203+50



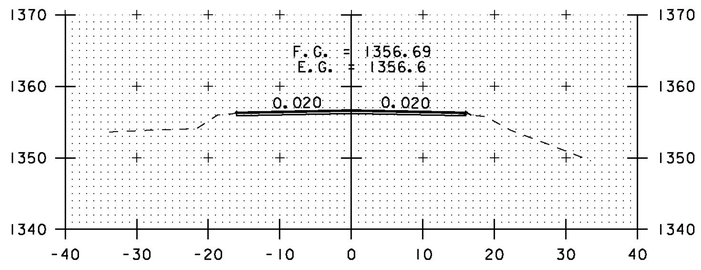
205+00



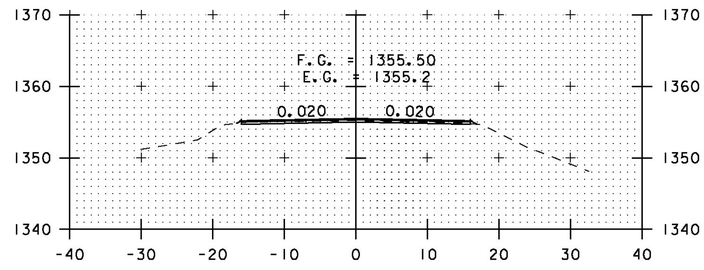
206+50



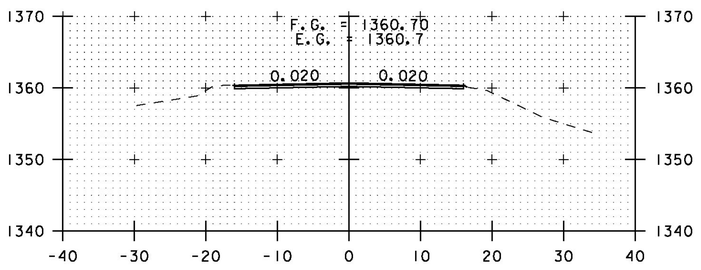
203+00



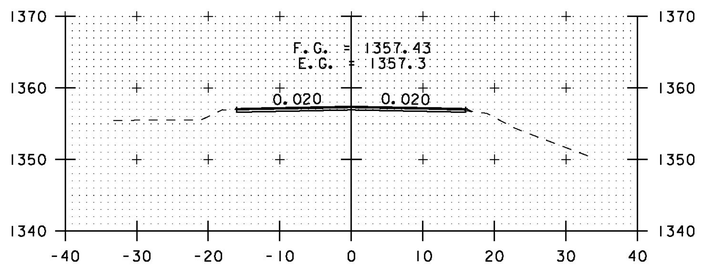
204+50



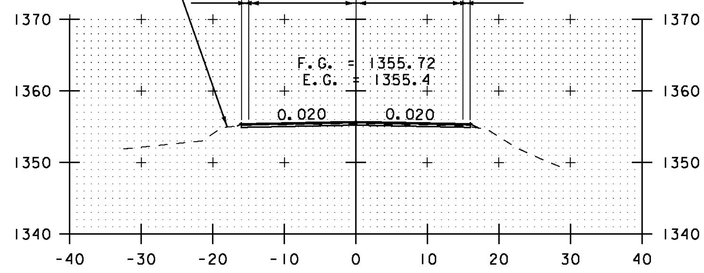
206+00



202+50



204+00



205+50

SCALE 1" = 10'-0

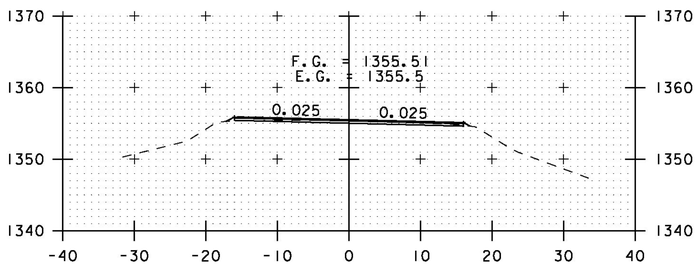
STA. 202+50 TO STA. 206+50

CROSS SECTION SHEET 4

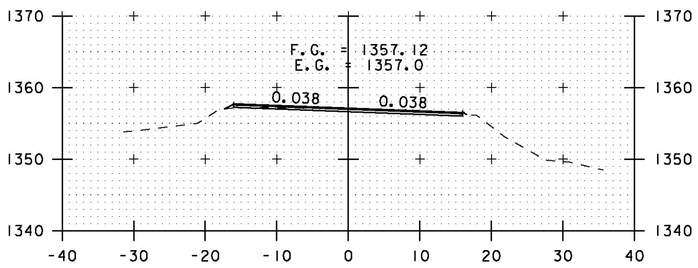
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_132.i

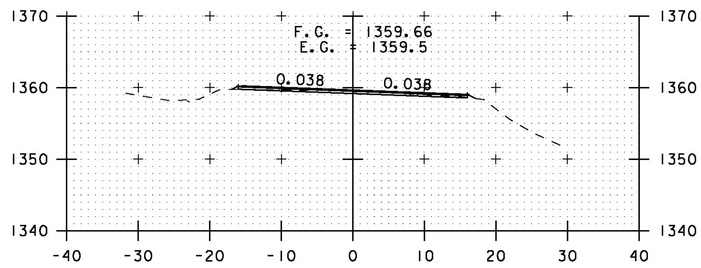
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 132 OF 194



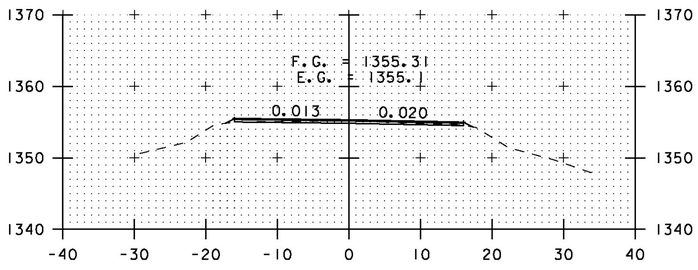
208+00



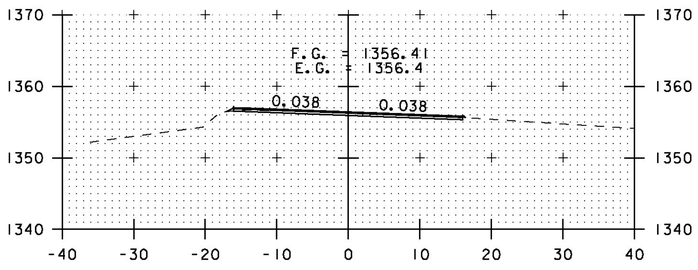
209+50



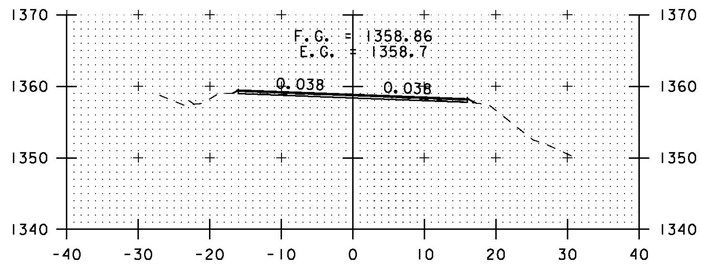
211+00



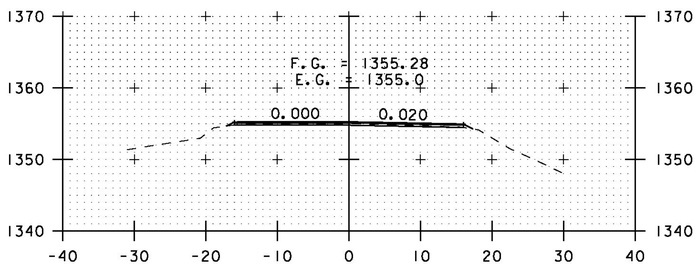
207+50



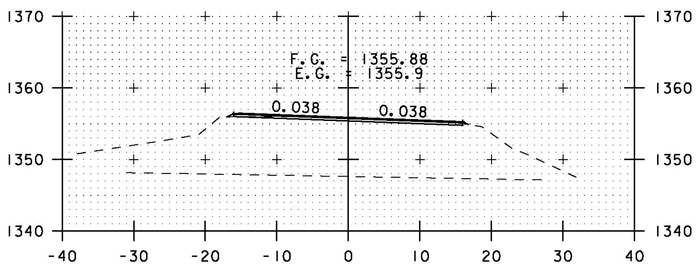
209+00



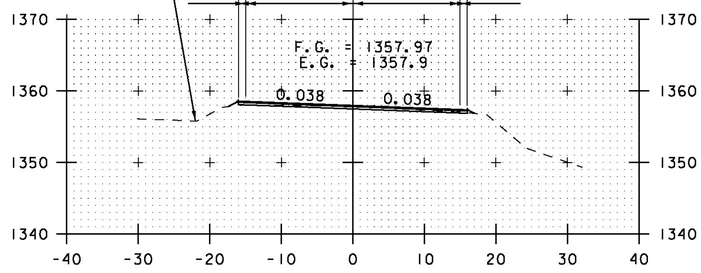
210+50



207+00



208+50



210+00

STA. 207+00 TO STA. 211+00

SCALE 1" = 10'-0

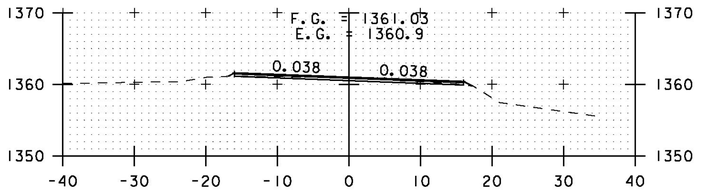
10 0 10

CROSS SECTION SHEET 5

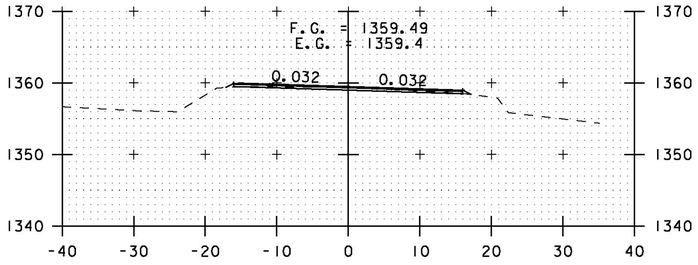
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_133.i

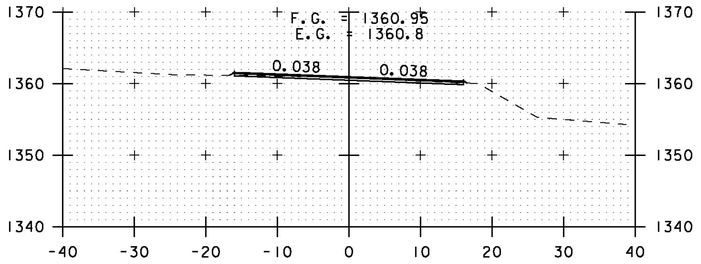
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 133 OF 194



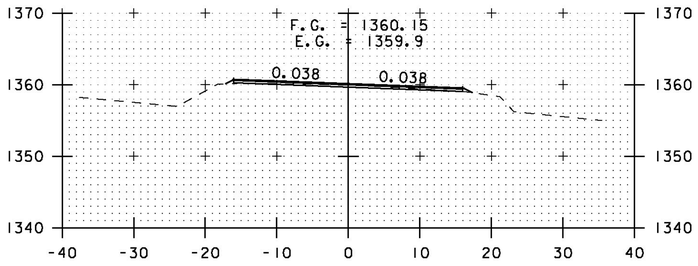
213+00



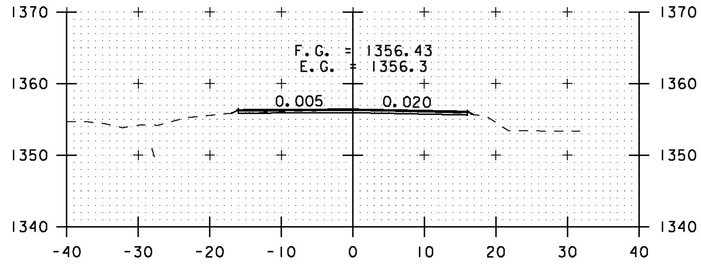
215+00



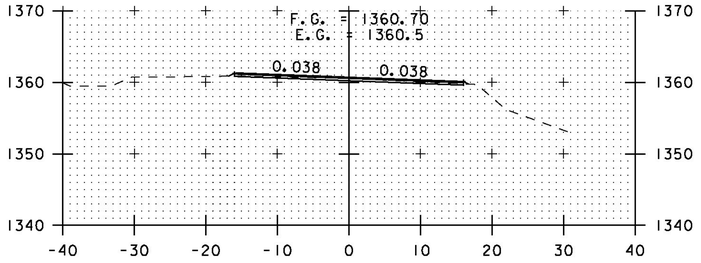
212+50



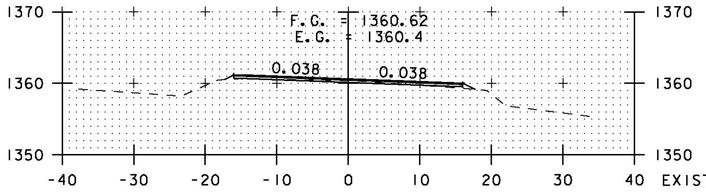
214+50



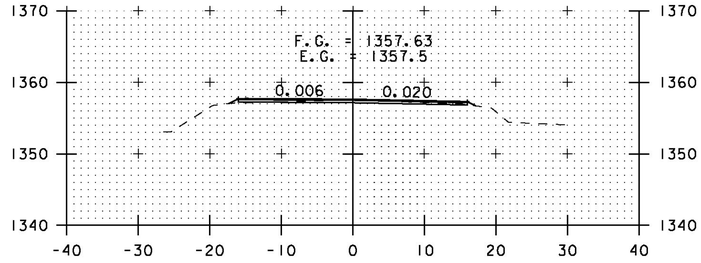
216+50



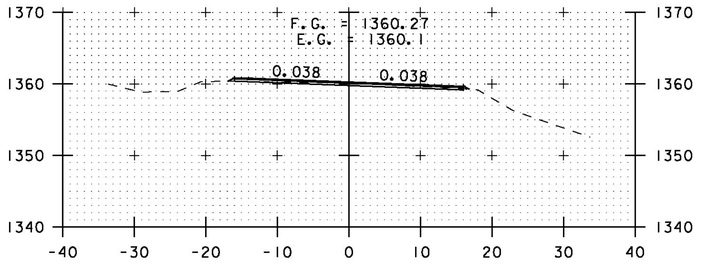
212+00



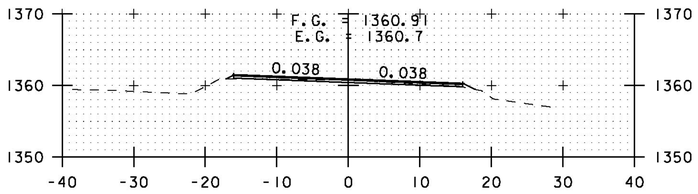
214+00



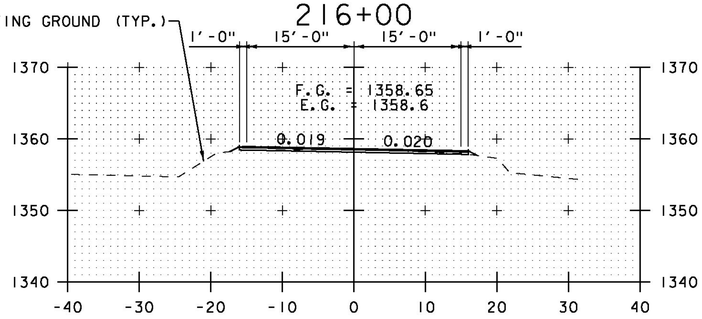
216+00



211+50



213+50



215+50

STA. 211+50 TO STA. 216+50

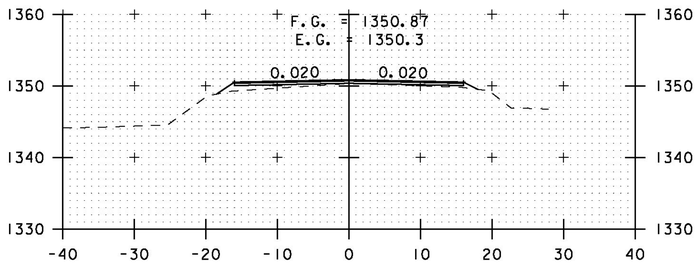
SCALE 1" = 10'-0

CROSS SECTION SHEET 6

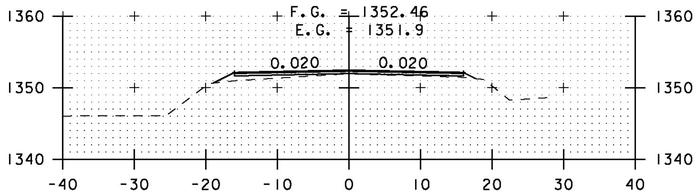
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_134.i

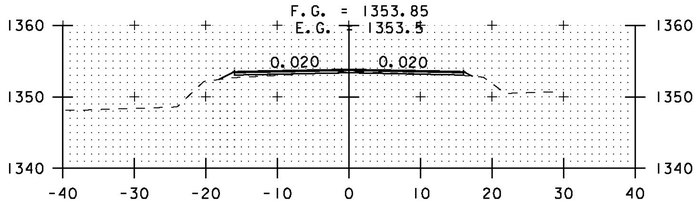
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 134 OF 194



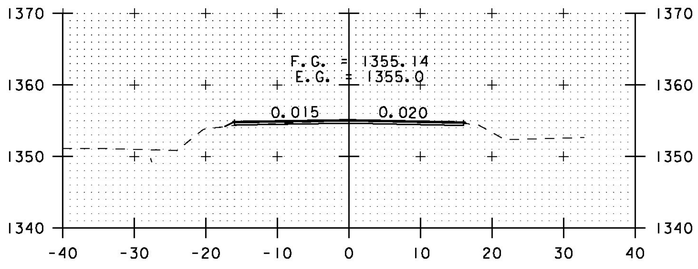
218+50



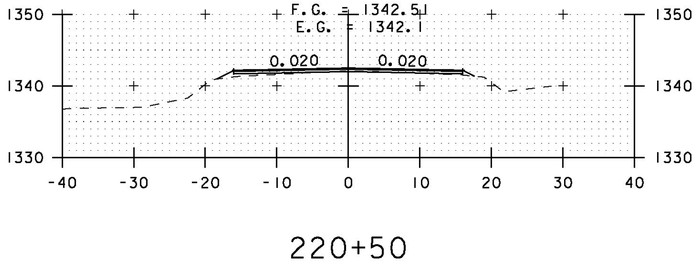
218+00



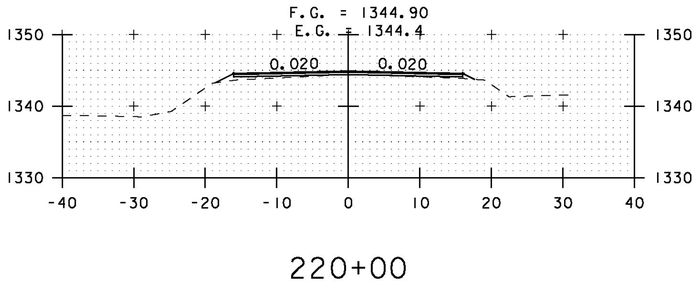
217+50



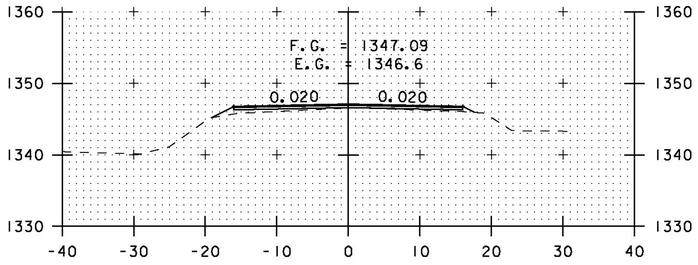
217+00



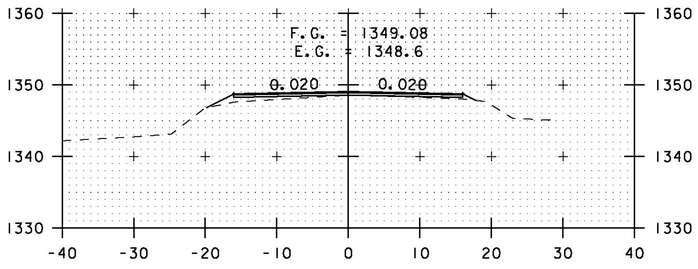
220+50



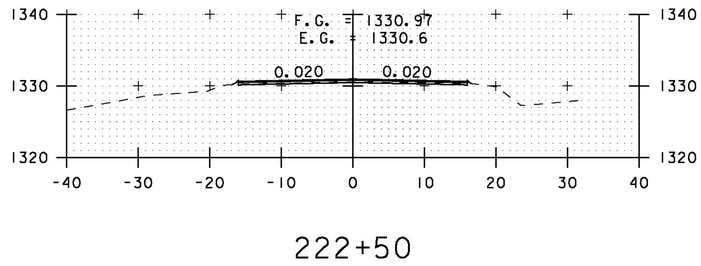
220+00



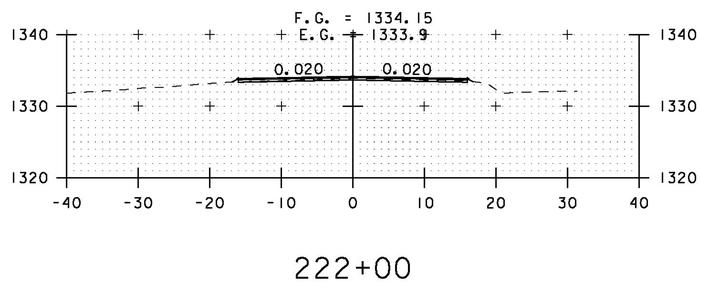
219+50



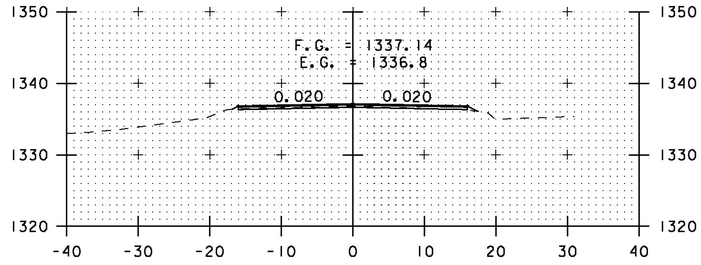
219+00



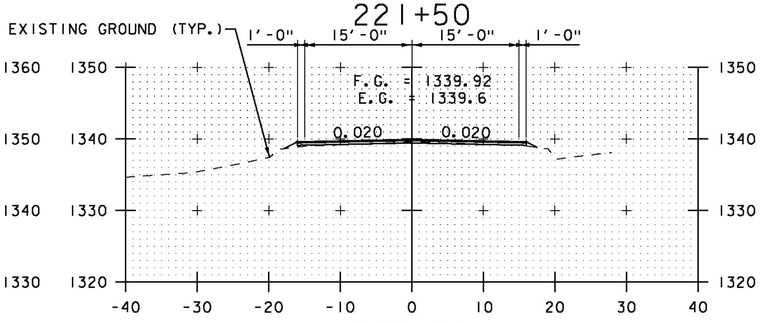
222+50



222+00



221+50



221+00

STA. 217+00 TO STA. 222+50

SCALE 1" = 10'-0

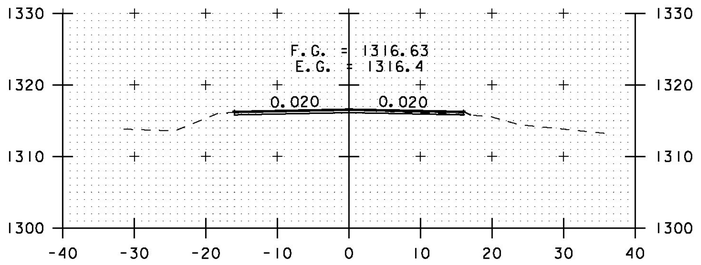
10 0 10

CROSS SECTION SHEET 7

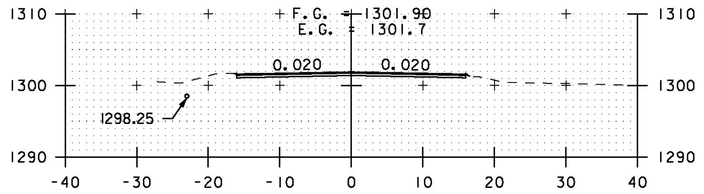
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_135.i

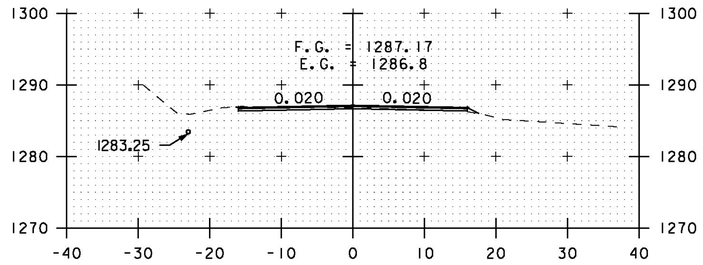
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 135 OF 194



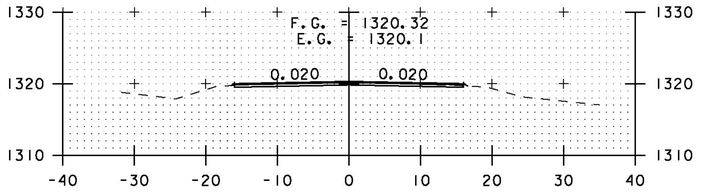
224+50



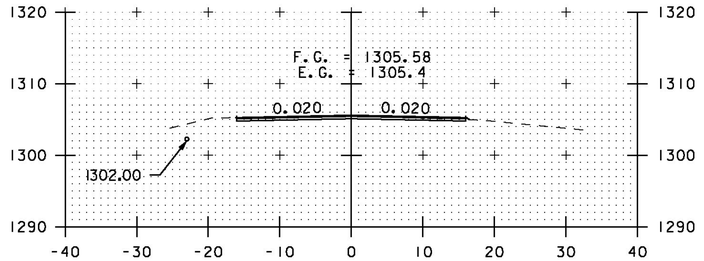
226+50



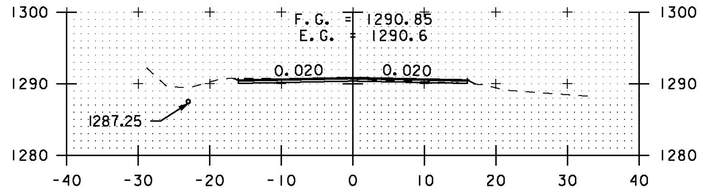
228+50



224+00

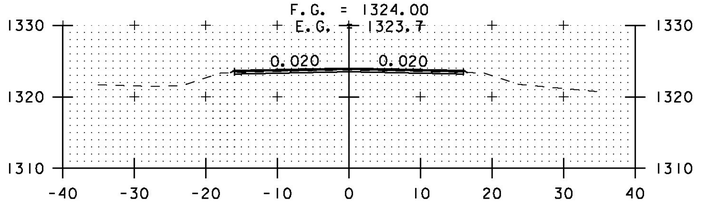


226+00

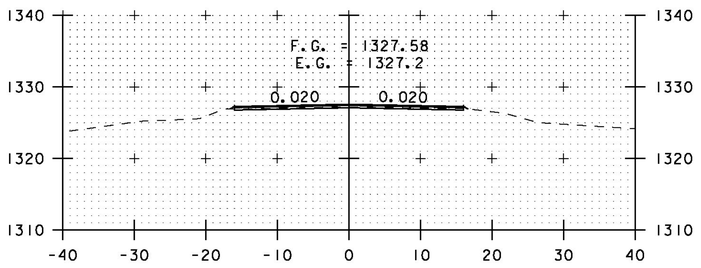


228+00

F.G. = 1324.00
E.G. = 1323.7

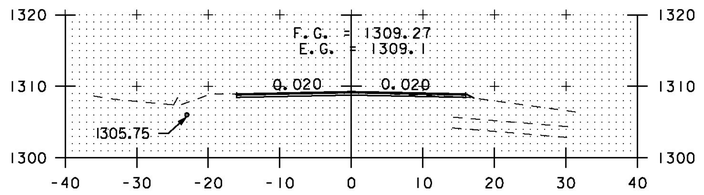


223+50

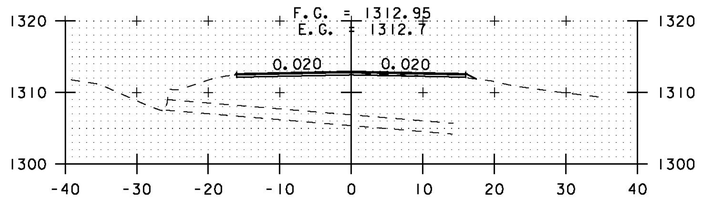


223+00

F.G. = 1309.27
E.G. = 1309.1

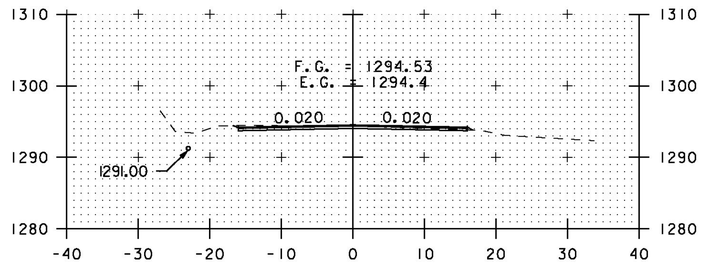


225+50

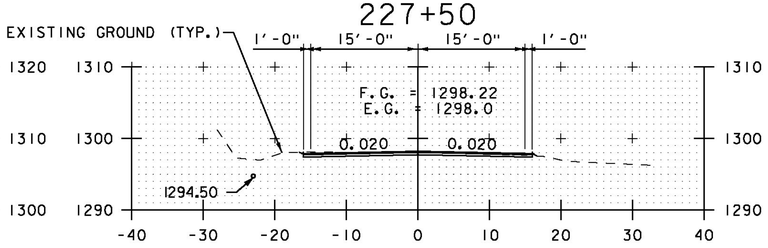


225+00

F.G. = 1294.53
E.G. = 1294.4



227+50



227+00

SCALE 1" = 10'-0

10 0 10

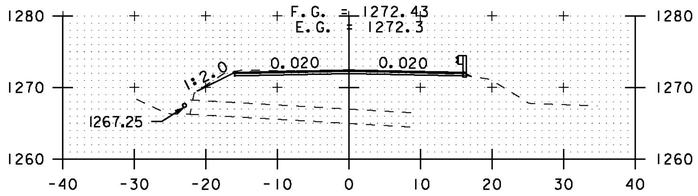
STA. 223+00 TO STA. 228+50

CROSS SECTION SHEET 8

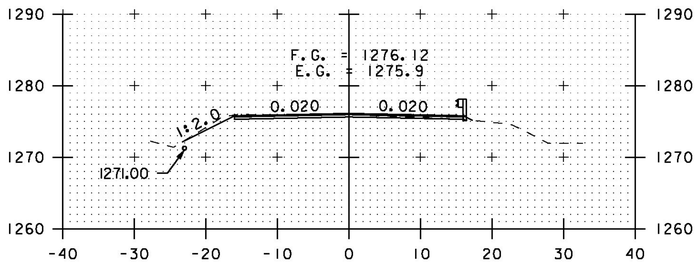
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_136.i

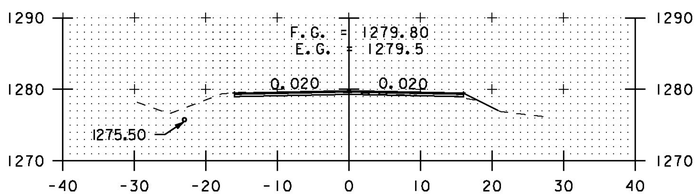
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 136 OF 194



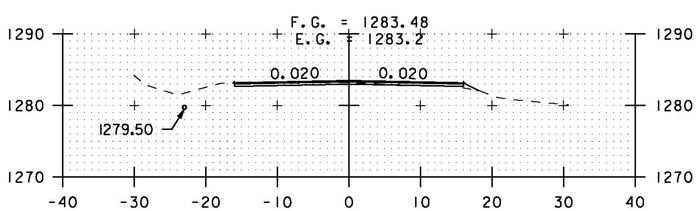
230+50



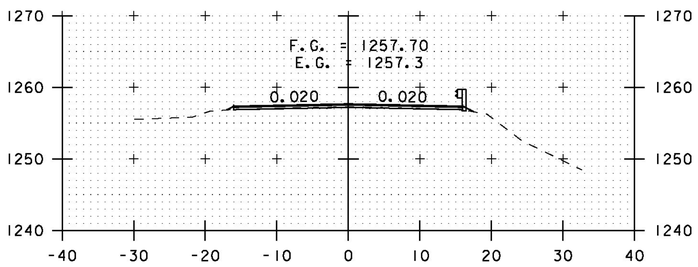
230+00



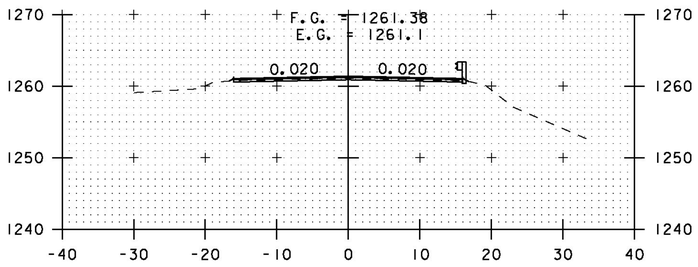
229+50



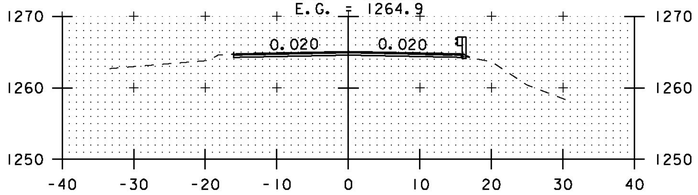
229+00



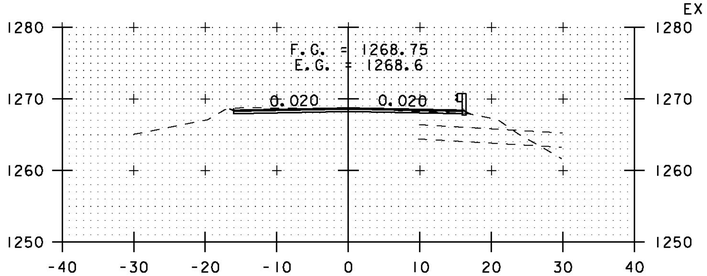
232+50



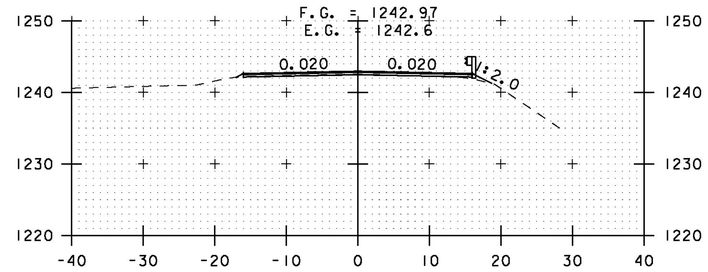
232+00



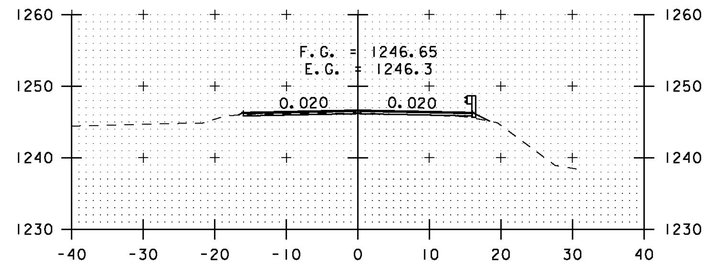
231+50



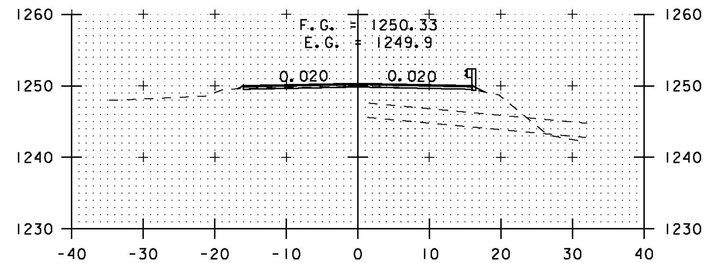
231+00

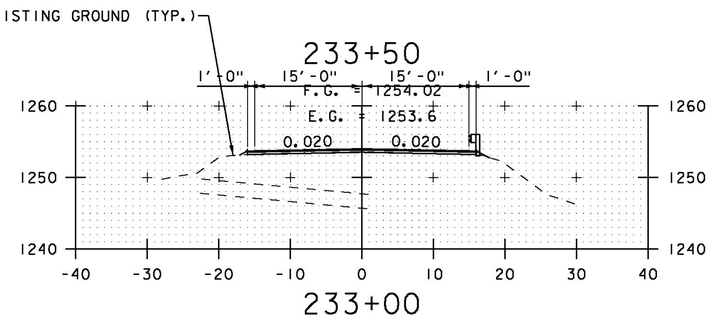


234+50



234+00





233+50

233+00

STA. 229+00 TO STA. 234+50

SCALE 1" = 10'-0

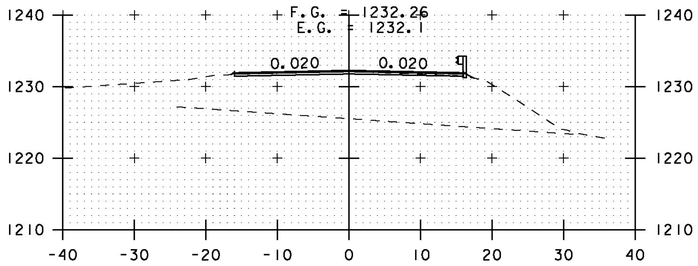
10 0 10

CROSS SECTION SHEET 9

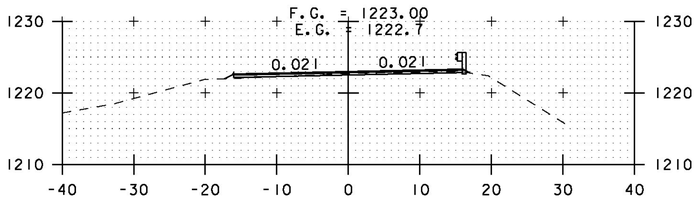
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_137.i

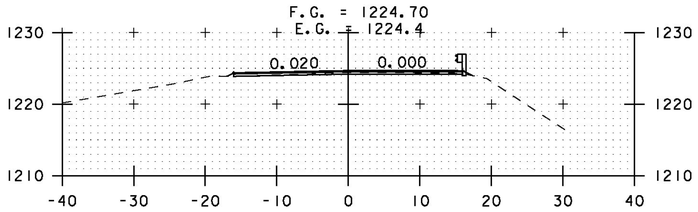
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 137 OF 194



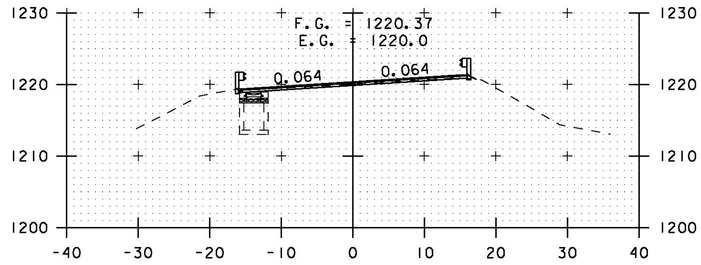
236+00



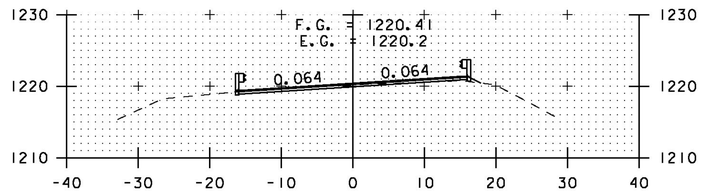
238+00



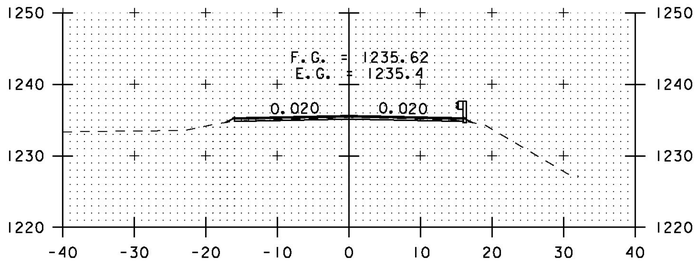
237+50



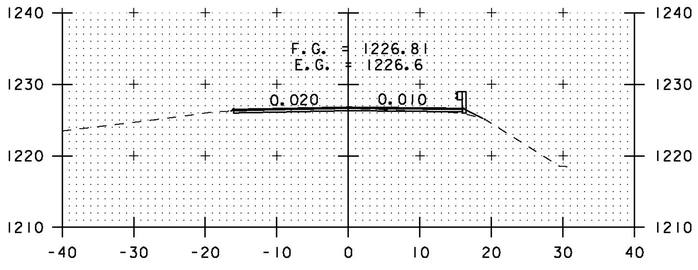
240+00



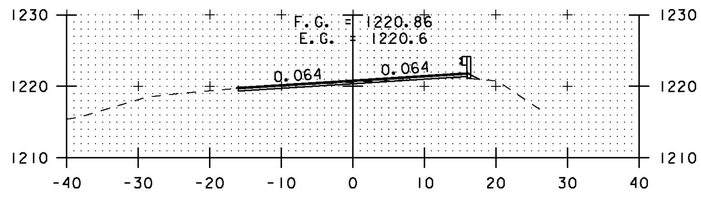
239+50



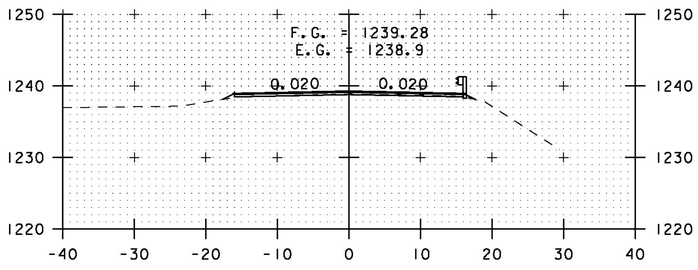
235+50



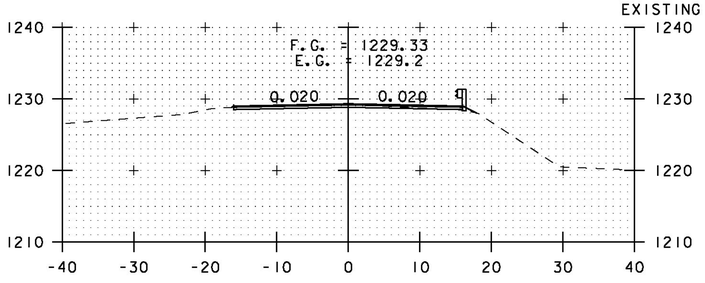
237+00



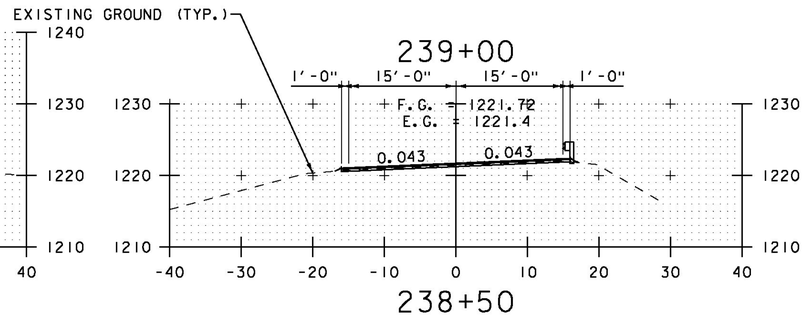
239+00



235+00



236+50



238+50

SCALE 1" = 10'-0
10 0 10

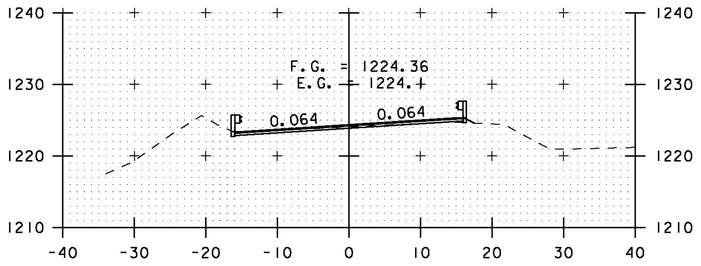
STA. 235+00 TO STA. 240+00

CROSS SECTION SHEET 10

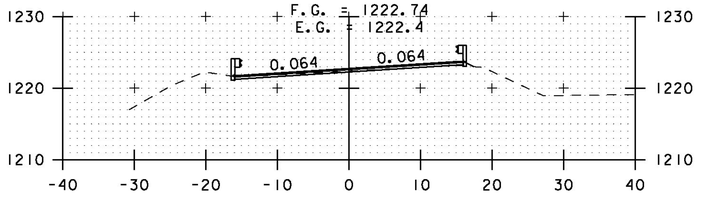
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_138.i

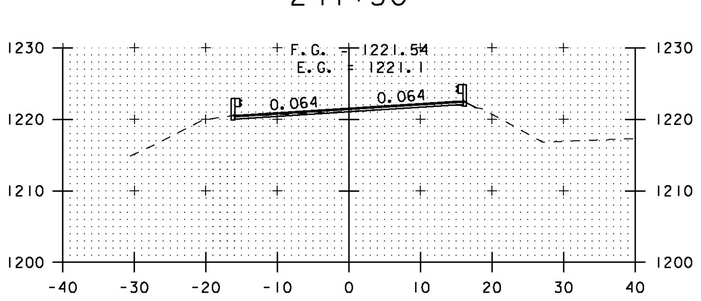
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 138 OF 194



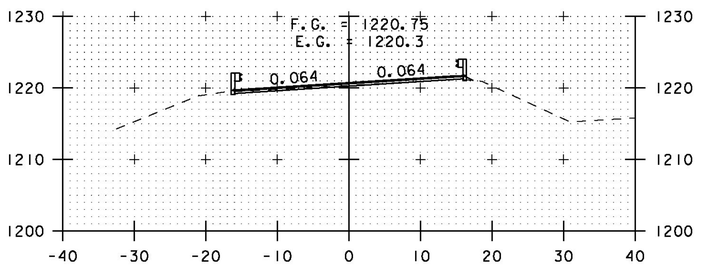
242+00



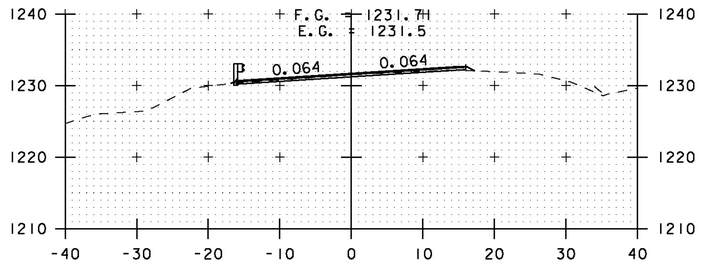
241+50



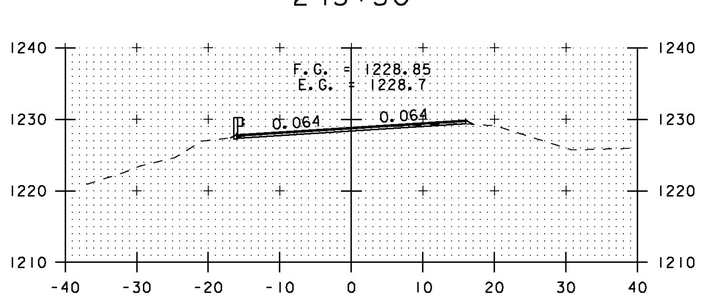
241+00



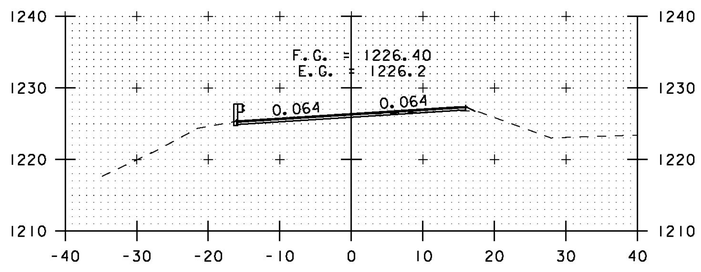
240+50



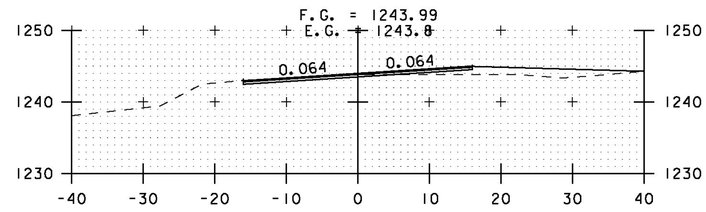
243+50



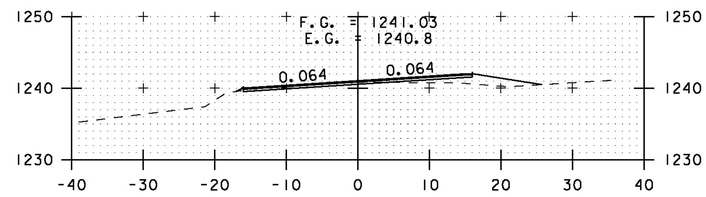
243+00



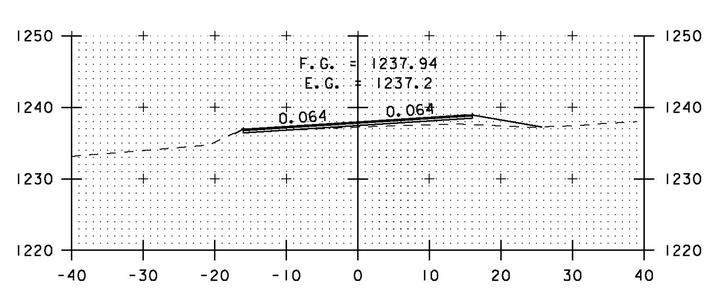
242+50



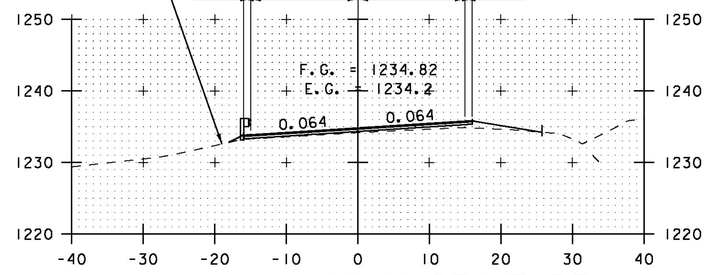
TH#1 RT
245+50



DRIVE RT
245+00



DRIVE RT
244+50



244+00 DRIVE RT

STA. 240+50 TO STA. 245+50

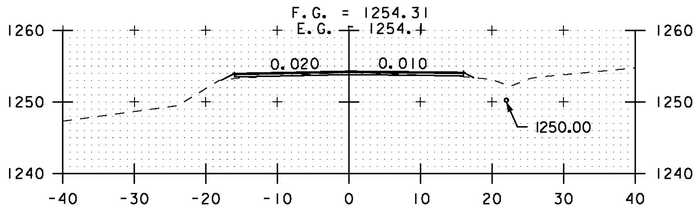
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 11

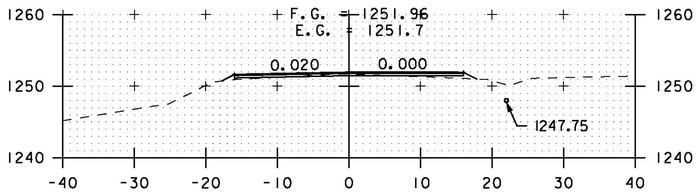
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_139.i

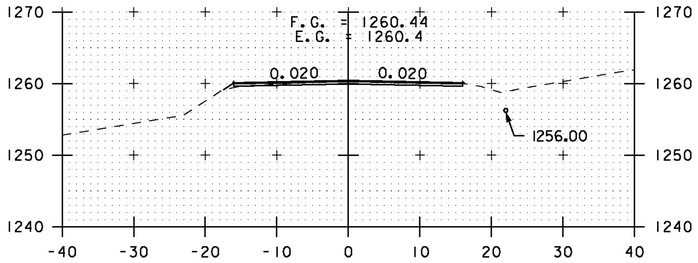
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 139 OF 194



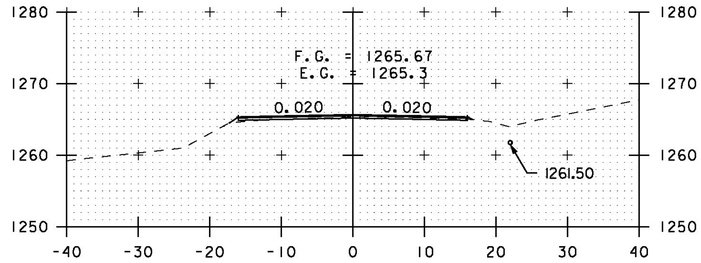
247+50



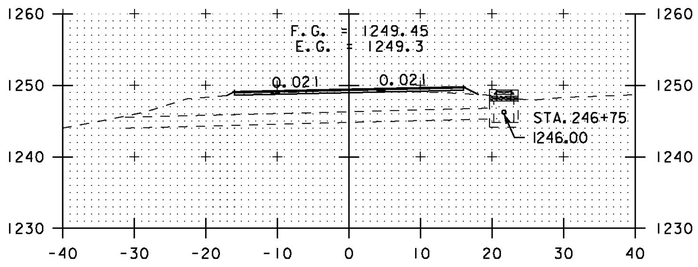
247+00



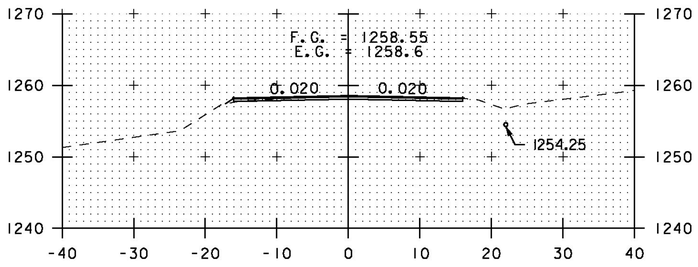
249+00



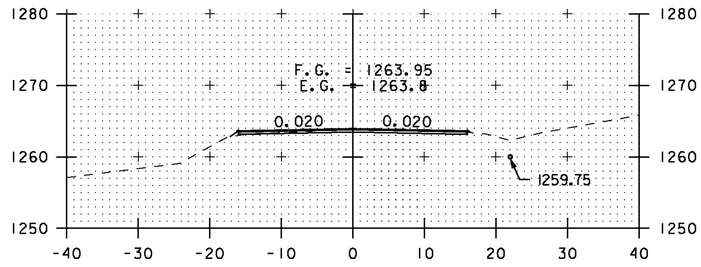
250+50



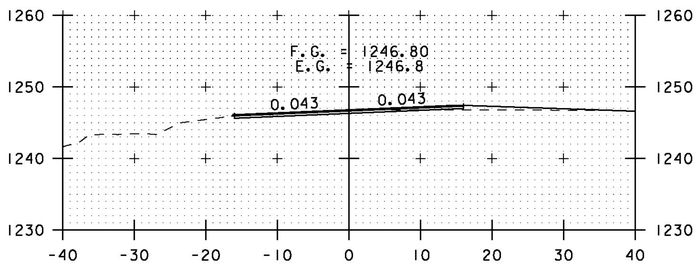
246+50



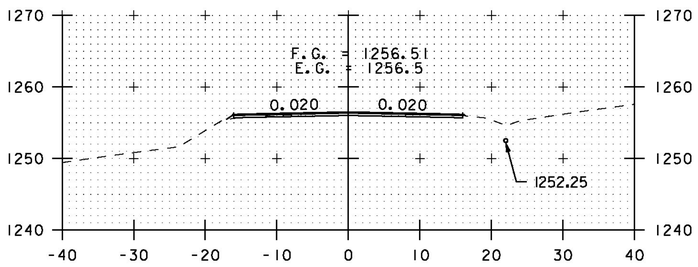
248+50



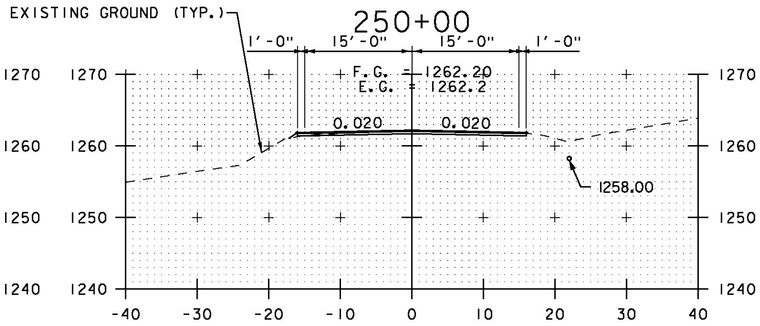
250+00



TH#1 RT
246+00



248+00



249+50

STA. 246+00 TO STA. 250+50

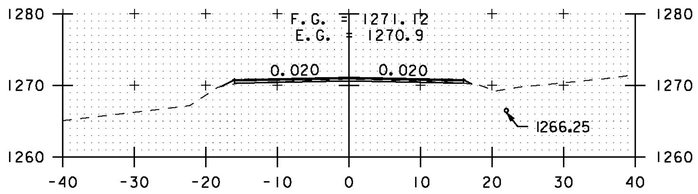
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 12

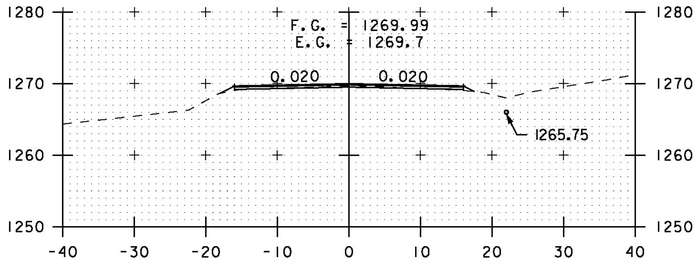
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_140.i

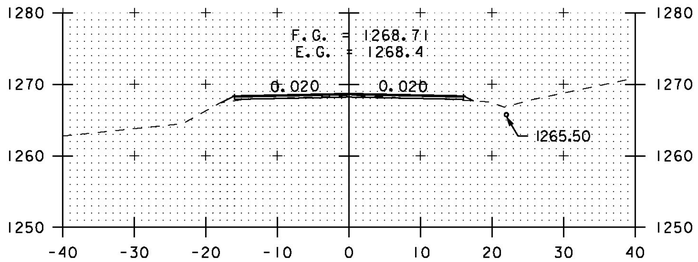
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 140 OF 194



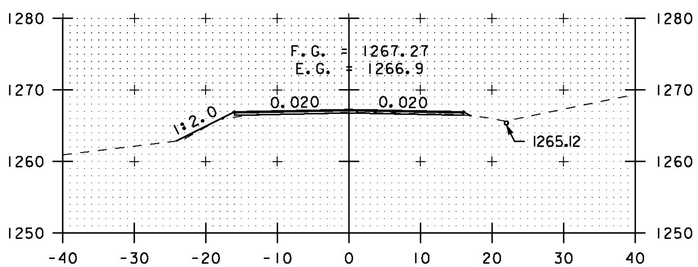
252+50



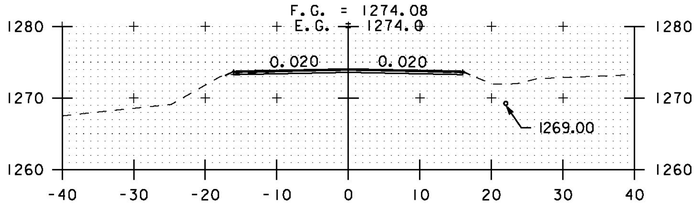
252+00



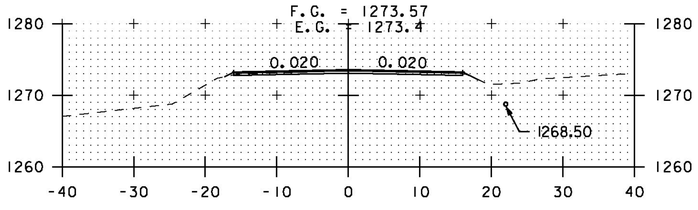
251+50



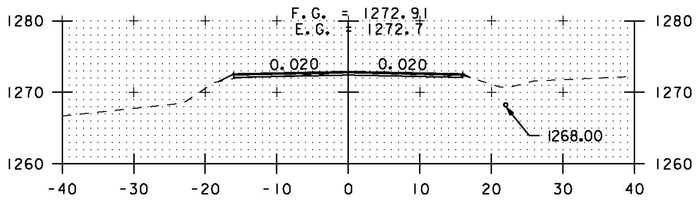
251+00



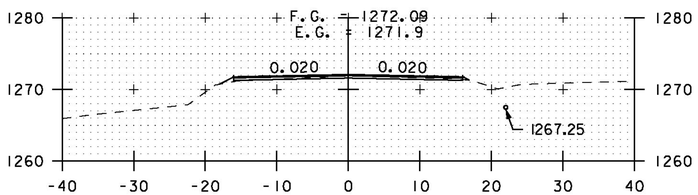
254+50



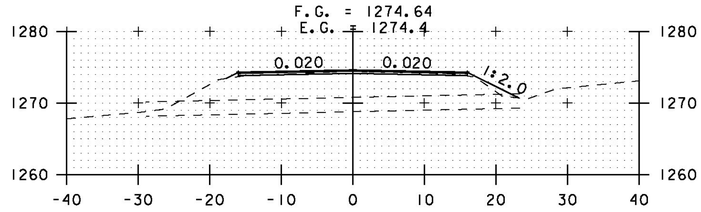
254+00



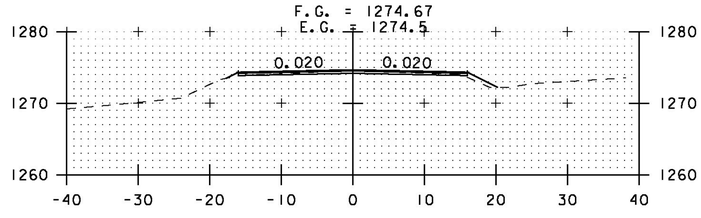
253+50



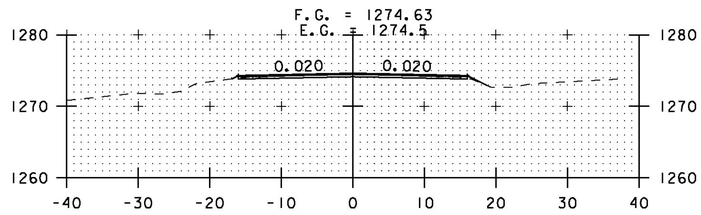
253+00

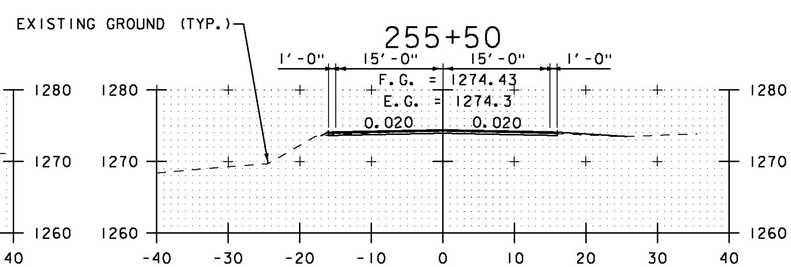


256+50



256+00





255+50

255+00 DRIVE RT

SCALE 1" = 10'-0

10 0 10

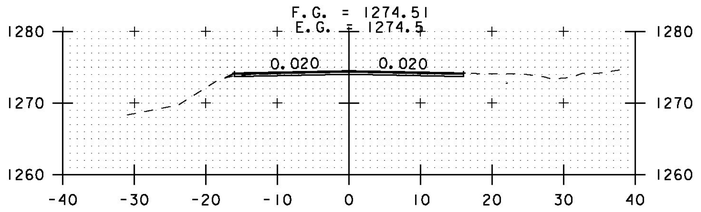
STA. 251+00 TO STA. 256+50

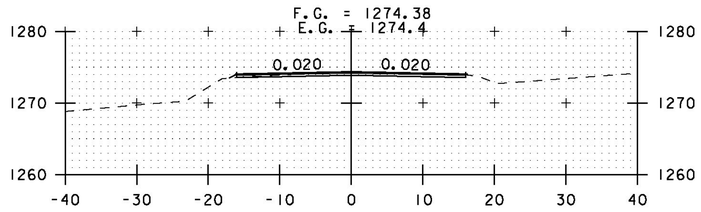
CROSS SECTION SHEET 13

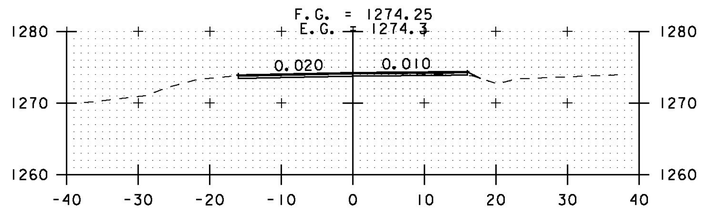
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_141.i

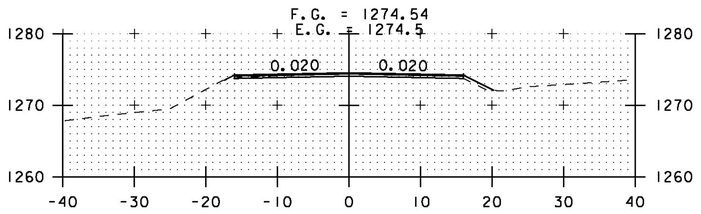
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 141 OF 194



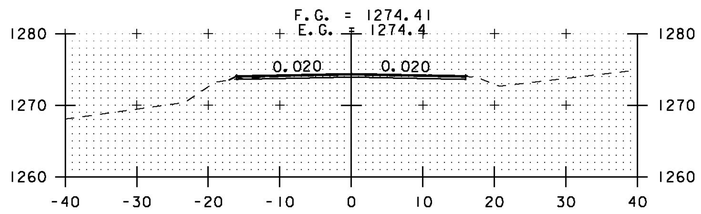




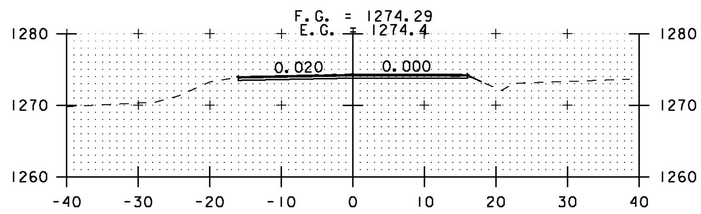
258+50



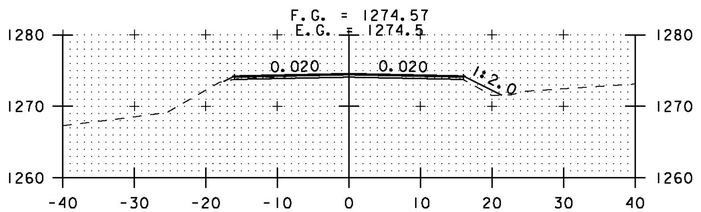
260+50



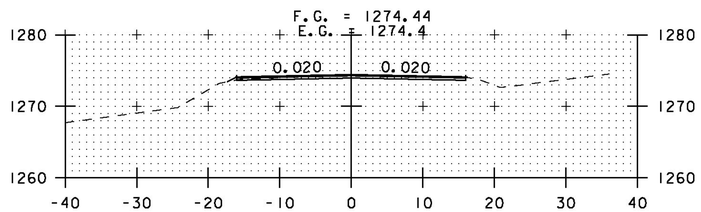
262+50



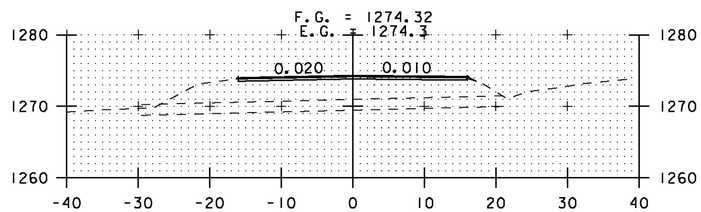
258+00



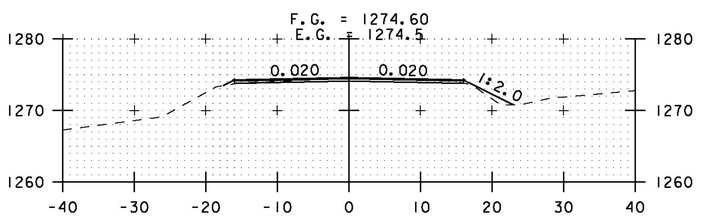
260+00



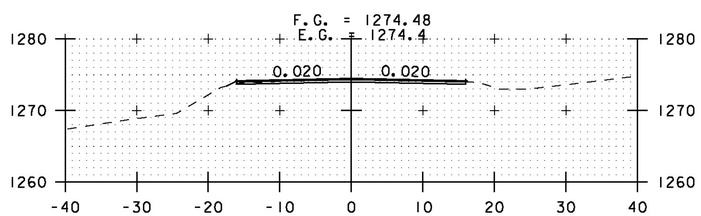
262+00



257+50

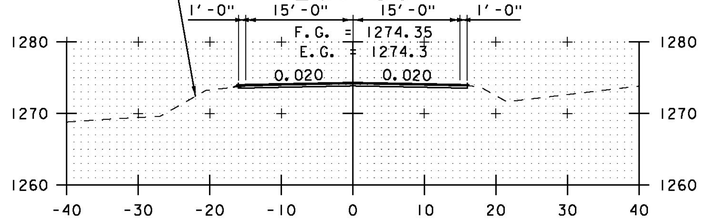


259+50



EXISTING GROUND (TYP.)

261+50



257+00

259+00

261+00

SCALE 1" = 10'-0
10 0 10

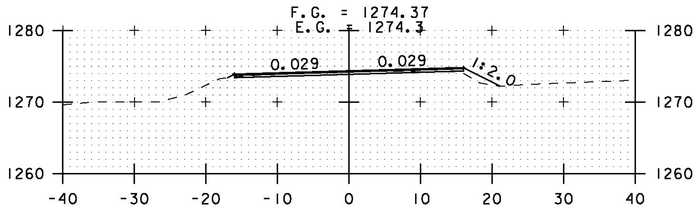
STA. 257+00 TO STA. 262+50

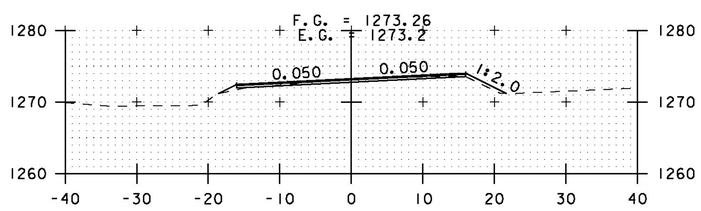
CROSS SECTION SHEET 14

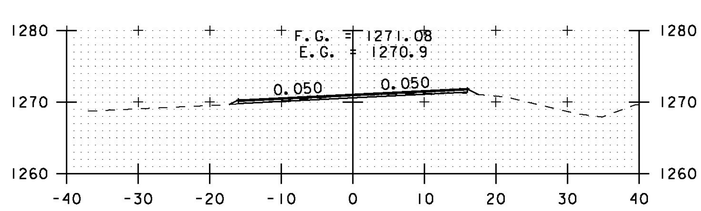
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_142.i

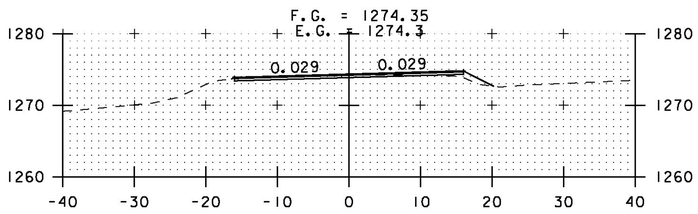
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 142 OF 194



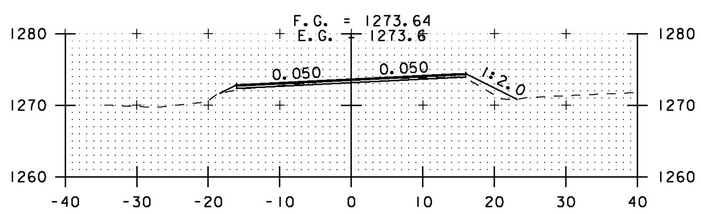




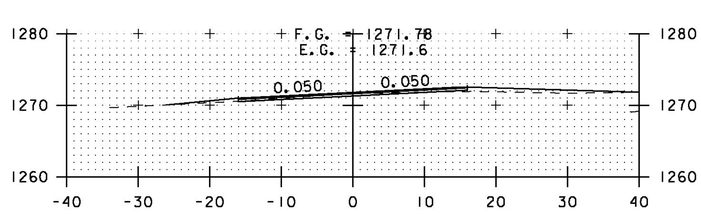
264+50



266+50

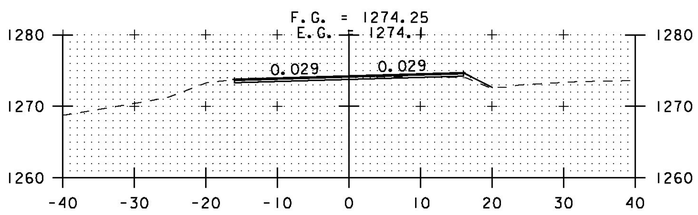


268+50

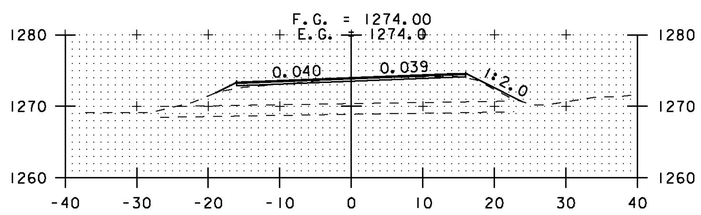


DRIVE LT, TH#11 RT

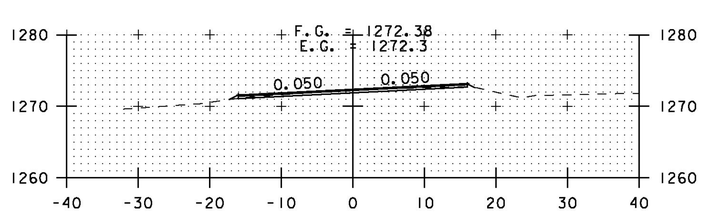
264+00



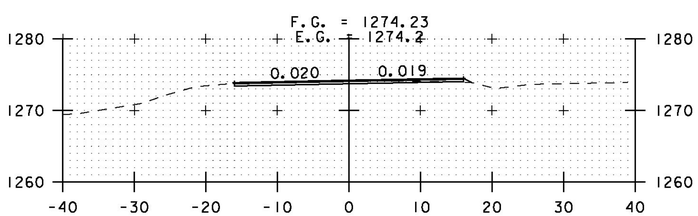
266+00



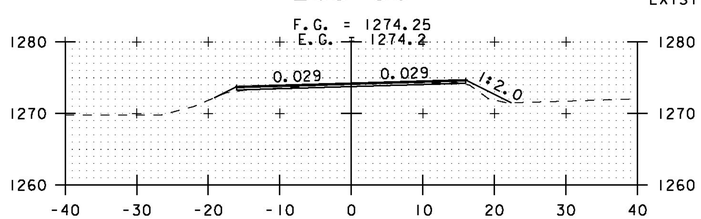
268+00



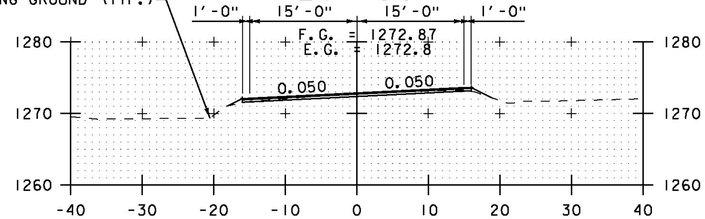
263+50



265+50



267+50



263+00

265+00

267+00

SCALE 1" = 10'-0

10 0 10

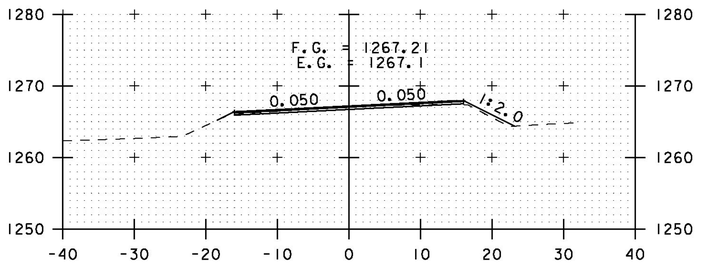
STA. 263+00 TO STA. 268+50

CROSS SECTION SHEET 15

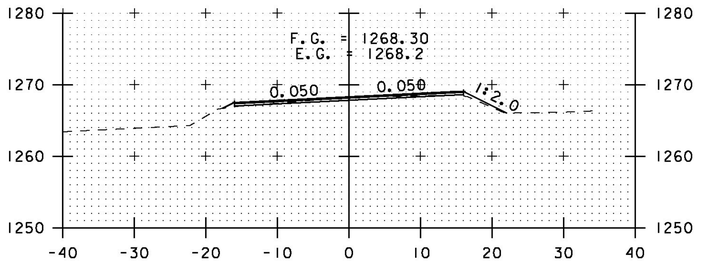
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_143.i

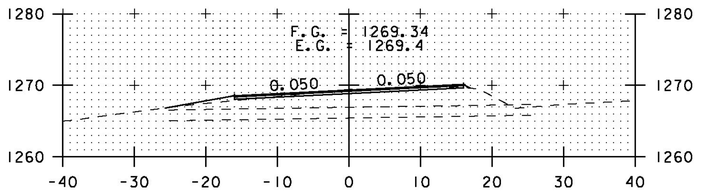
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 143 OF 194



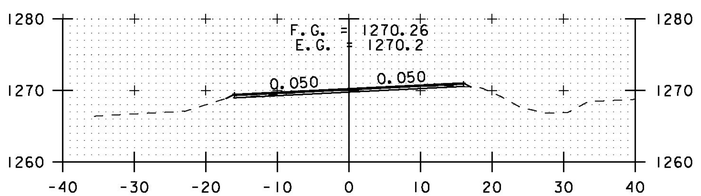
270+50



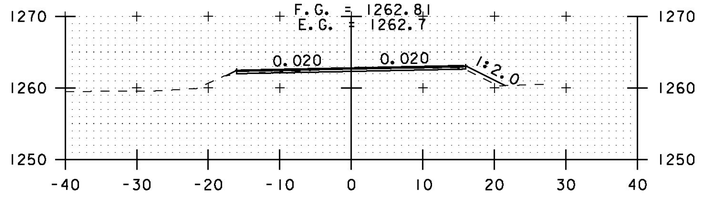
270+00



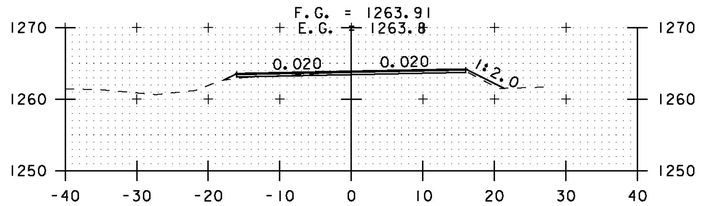
DRIVE LT
269+50



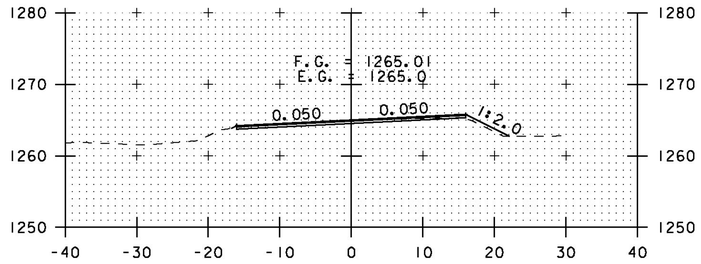
269+00



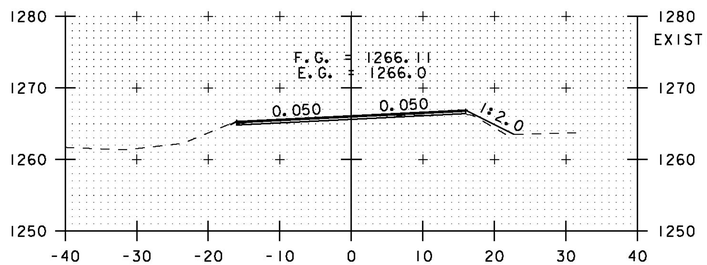
272+50



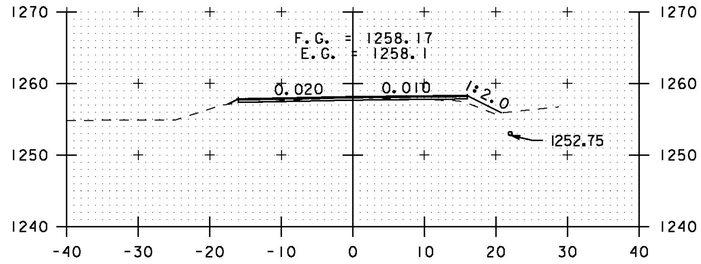
272+00



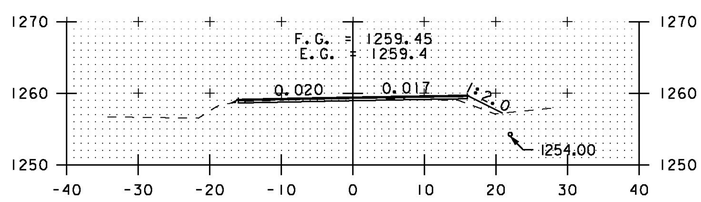
271+50



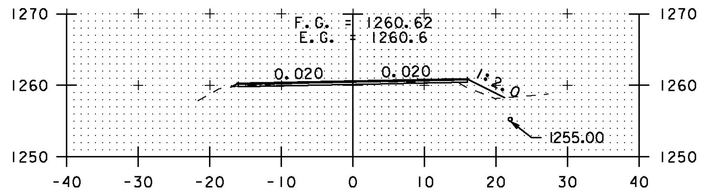
271+00



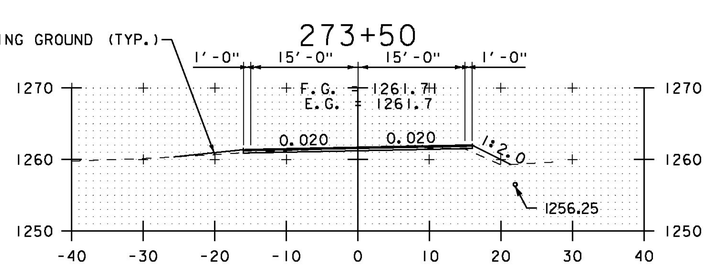
274+50



274+00



273+50



273+00 DRIVE LT

STA. 269+00 TO STA. 274+50

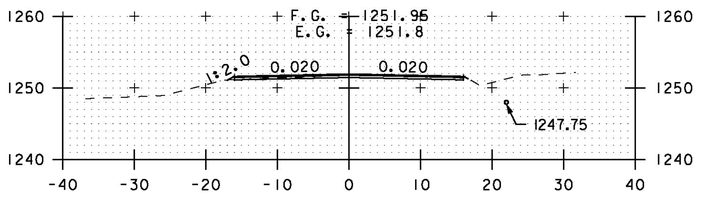
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 16

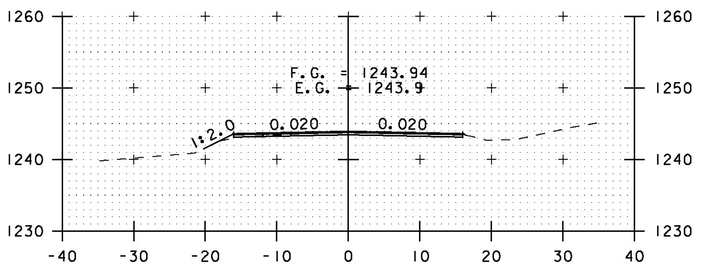
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_144.i

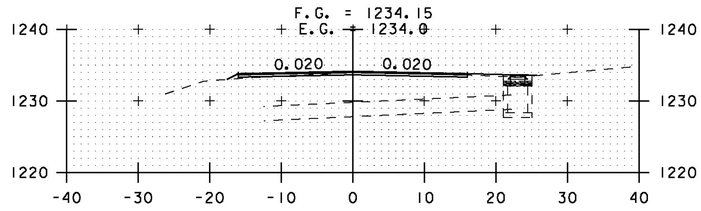
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 144 OF 194



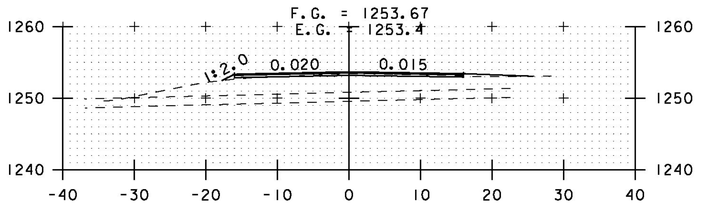
276+50



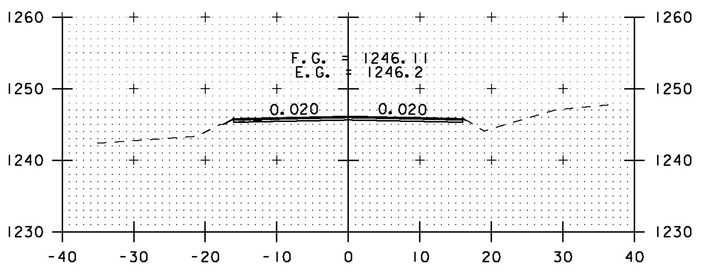
278+50

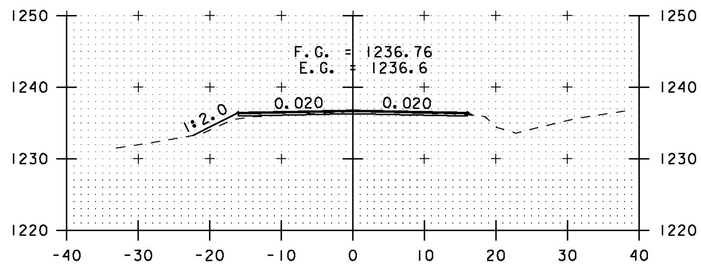


DRIVE RT
280+50

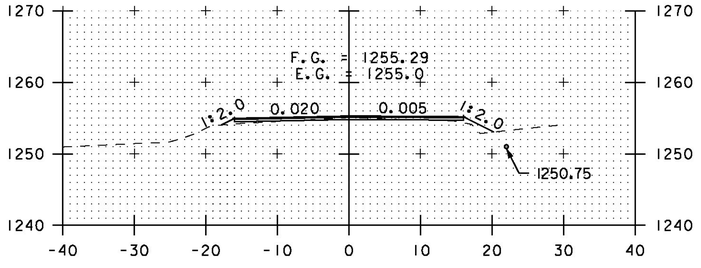


DRIVE RT
276+00

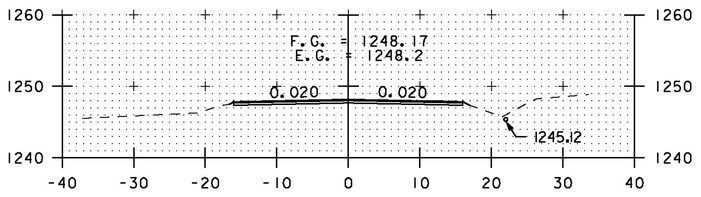


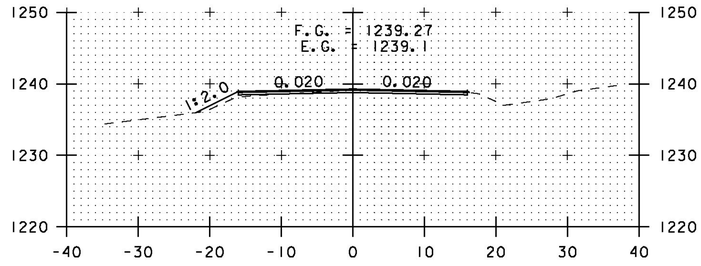


280+00

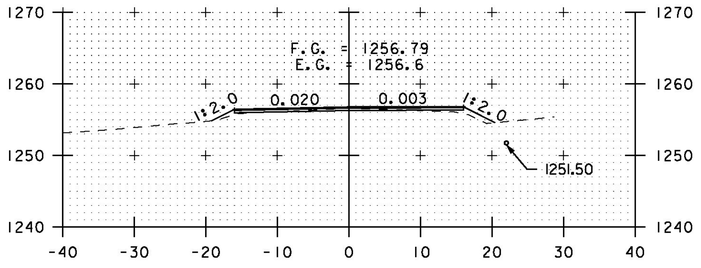


278+00

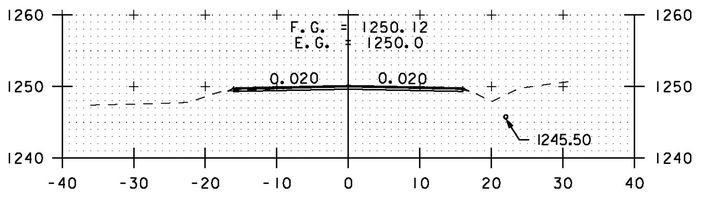




275+50

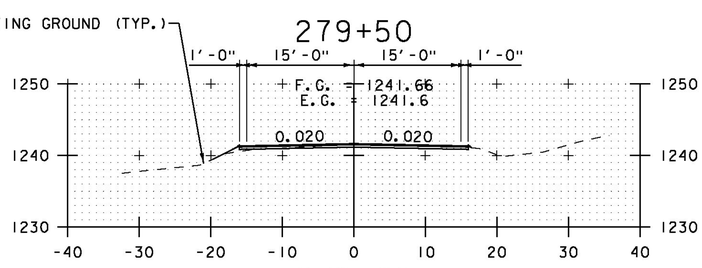


277+50



EXISTING GROUND (TYP.)

279+50



279+00

275+00

277+00

SCALE 1" = 10'-0
10 0 10

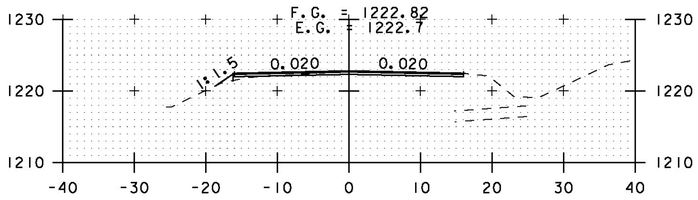
STA. 275+00 TO STA. 280+50

CROSS SECTION SHEET 17

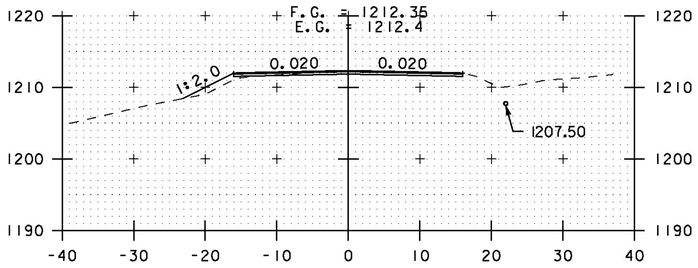
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_145.i

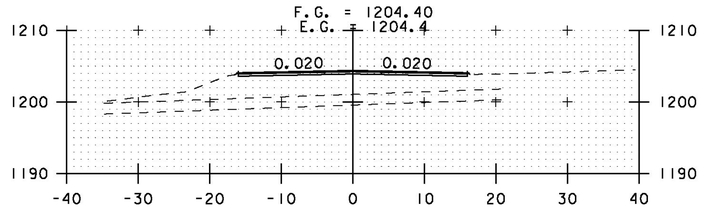
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 145 OF 194



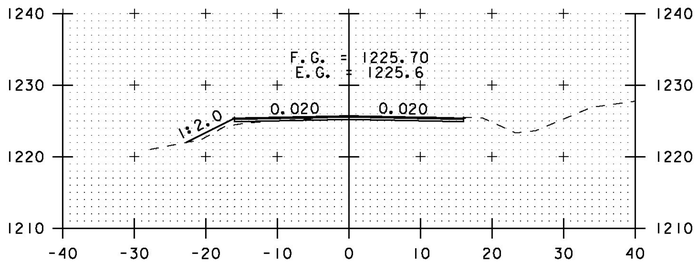
282+50



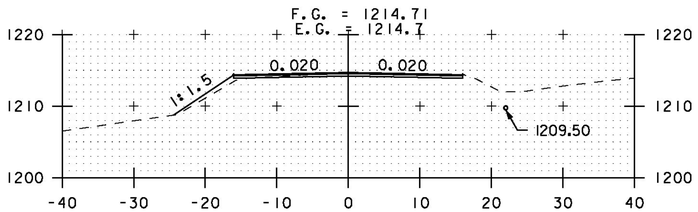
284+50



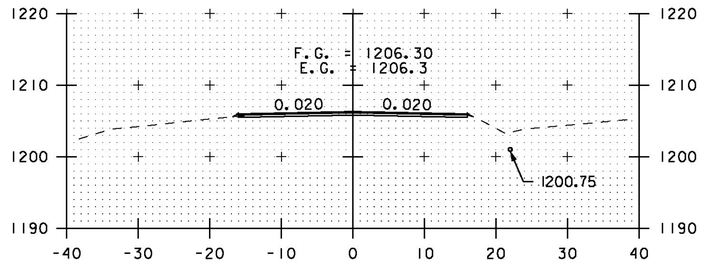
286+50



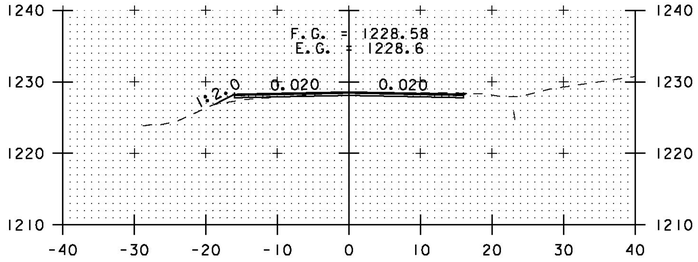
284+00



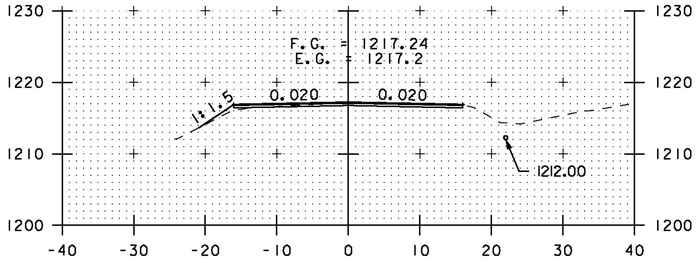
286+00



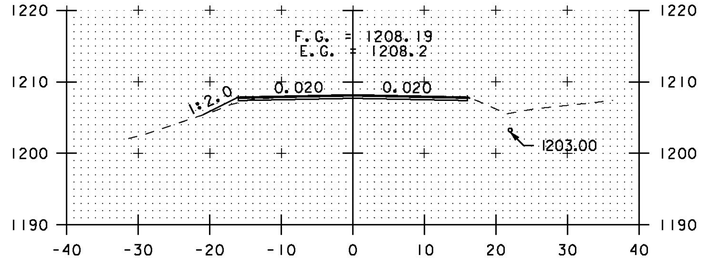
282+00



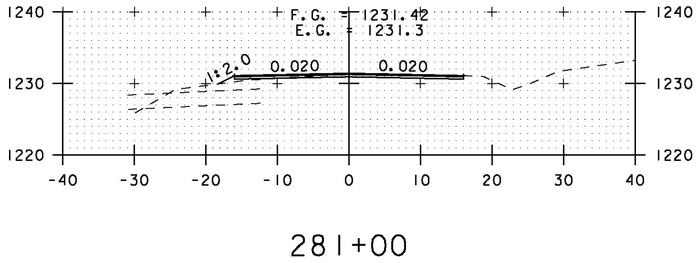
283+50



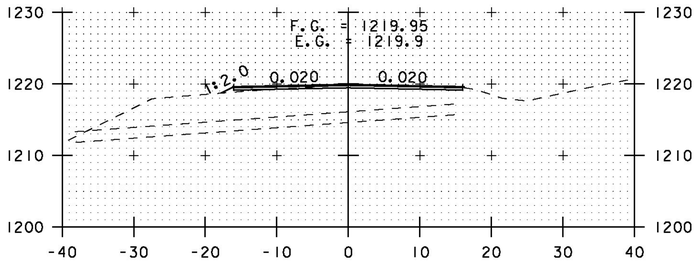
286+00



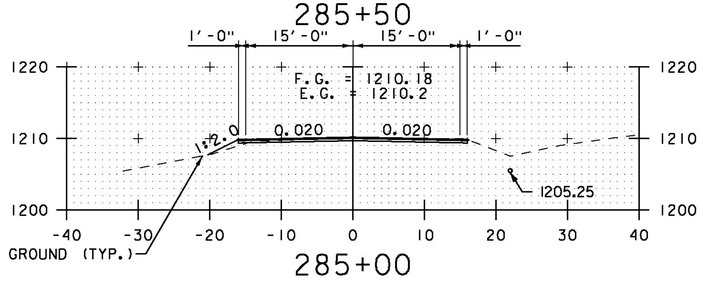
281+50



283+50



285+50



281+00

283+00

285+00

SCALE 1" = 10'-0
10 0 10

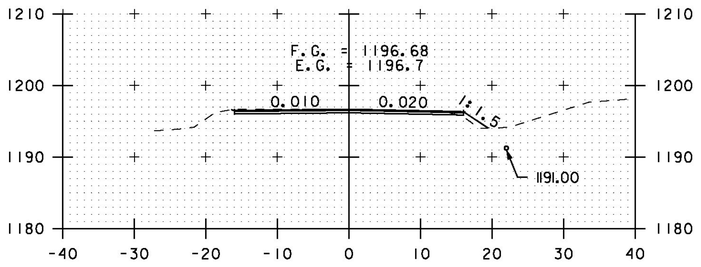
STA. 281+00 TO STA. 286+50

CROSS SECTION SHEET 18

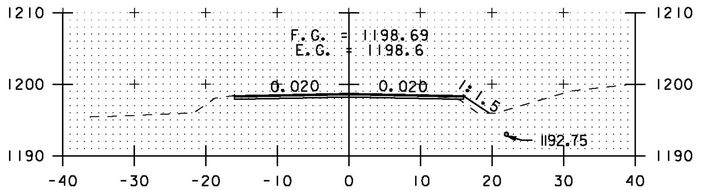
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_146.j

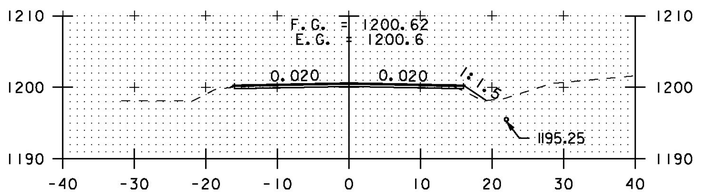
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 146 OF 194



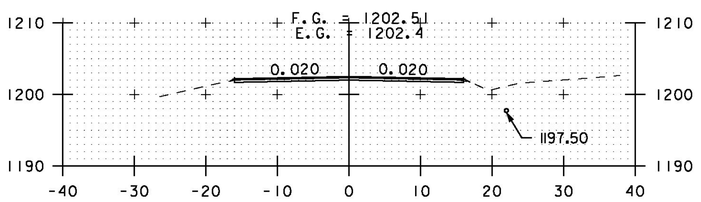
288+50



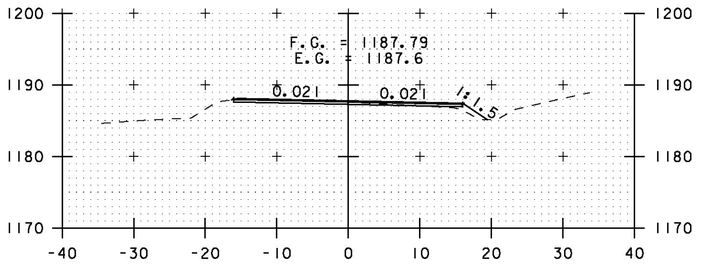
288+00



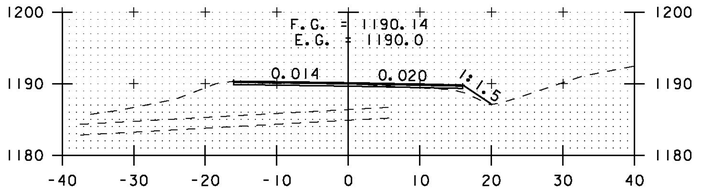
287+50



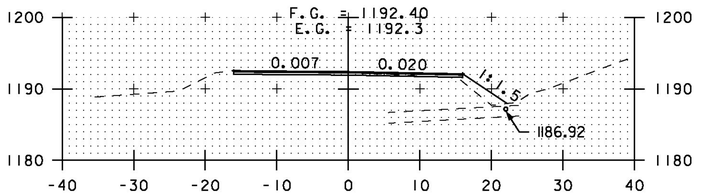
287+00



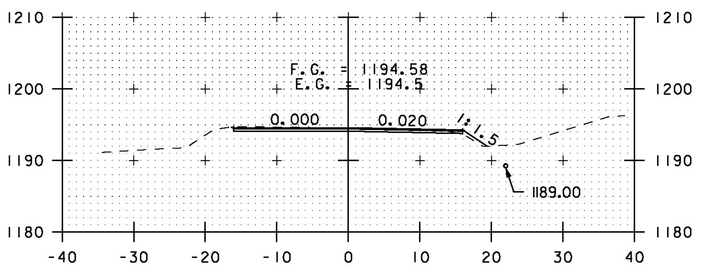
290+50



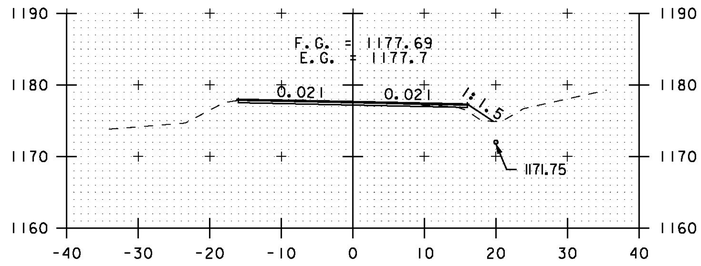
290+00



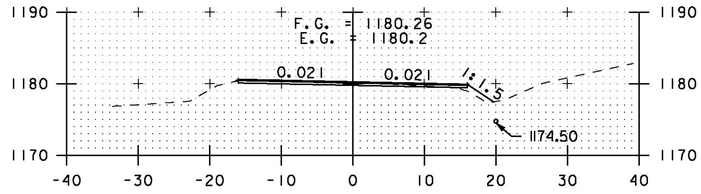
289+50



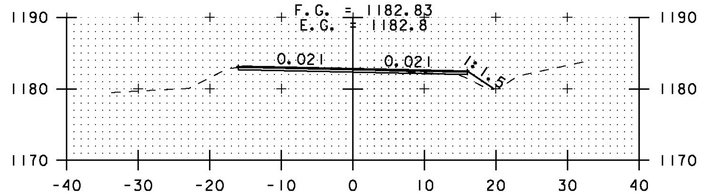
289+00

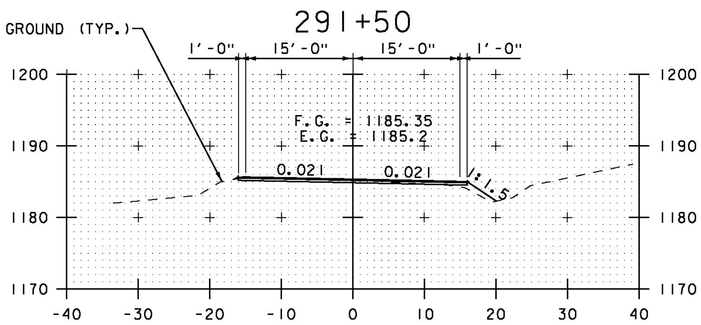


292+50



292+00





291+00

STA. 287+00 TO STA. 292+50

SCALE 1" = 10'-0

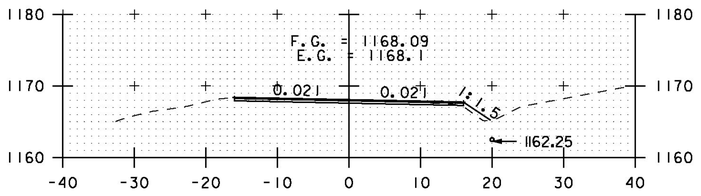
10 0 10

CROSS SECTION SHEET 19

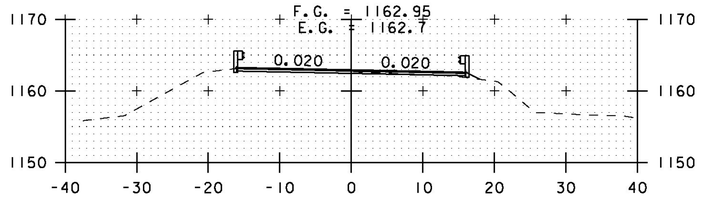
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_147.i

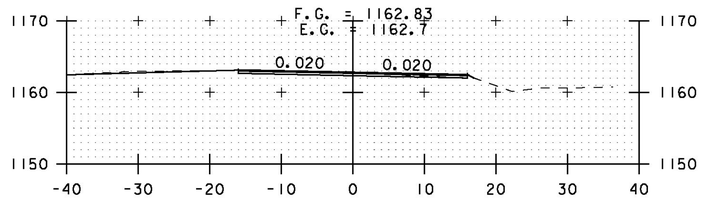
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 147 OF 194



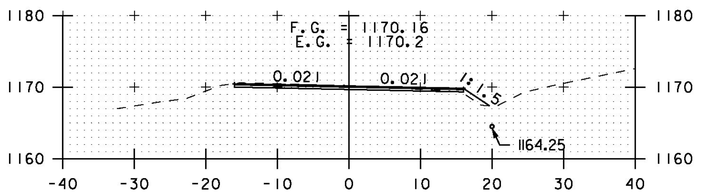
294+50



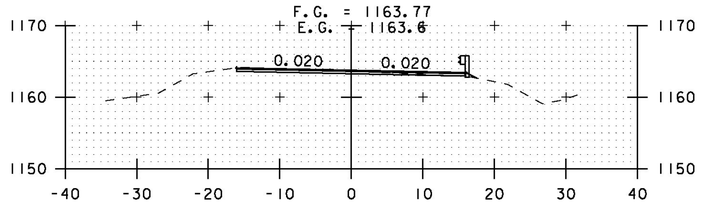
296+50



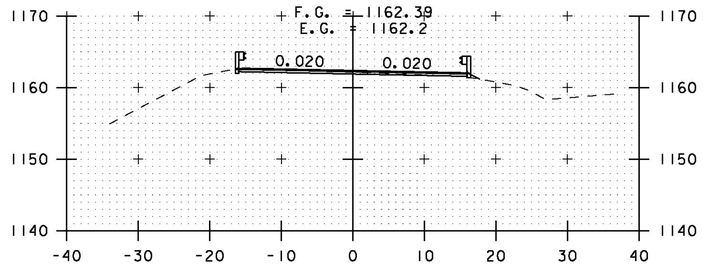
TH#8 LT
298+50



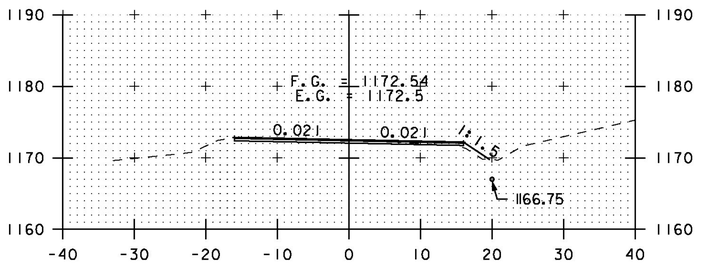
294+00



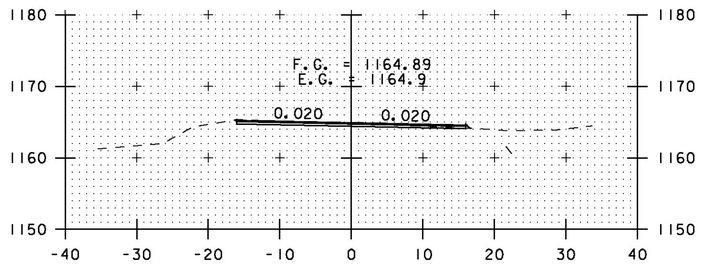
296+00



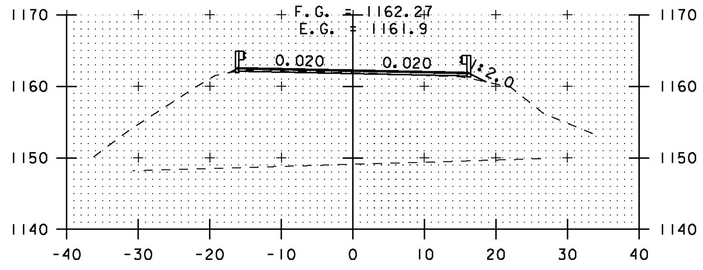
298+00



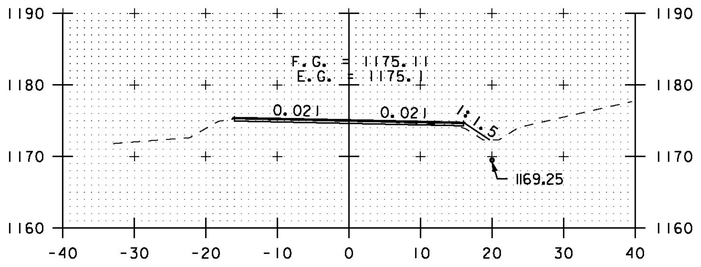
293+50



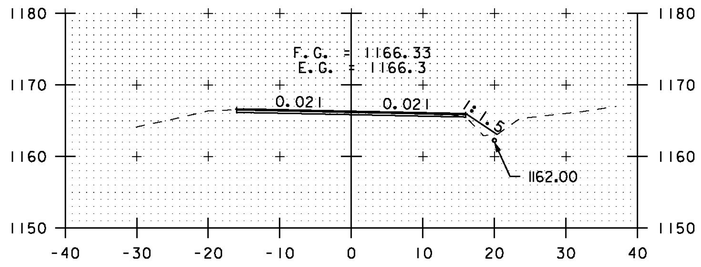
DRIVE RT
295+50



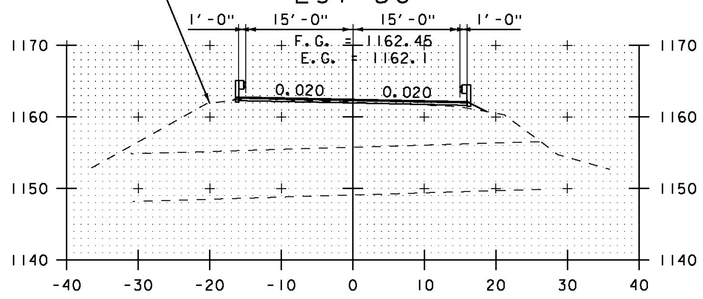
297+50



293+00



DRIVE LT
295+00



297+00

SCALE 1" = 10'-0
10 0 10

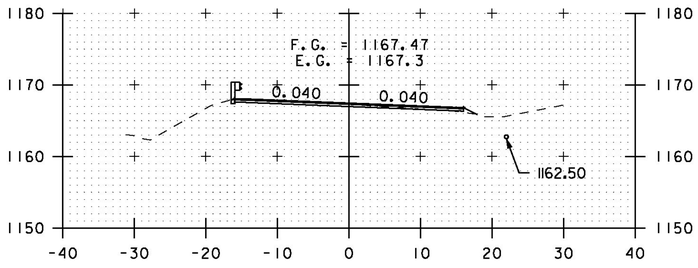
STA. 293+00 TO STA. 298+50

CROSS SECTION SHEET 20

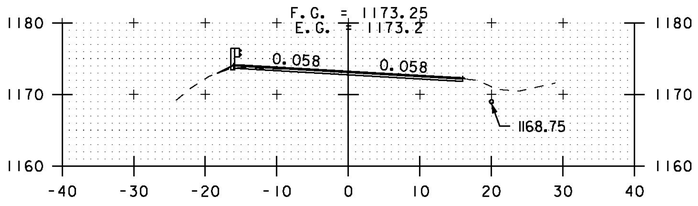
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_148.i

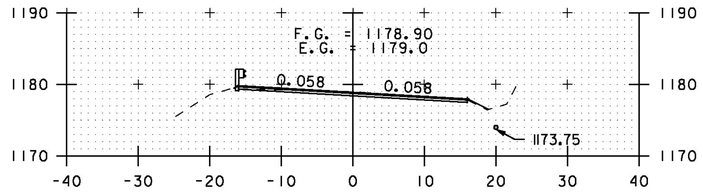
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 148 OF 194



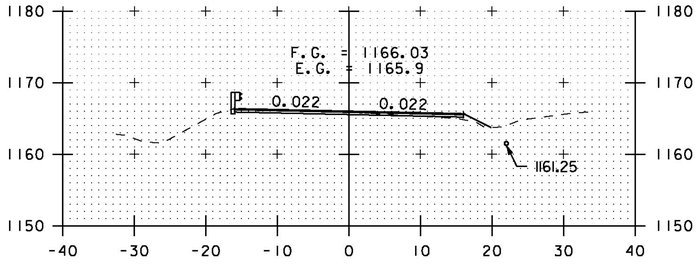
300+50

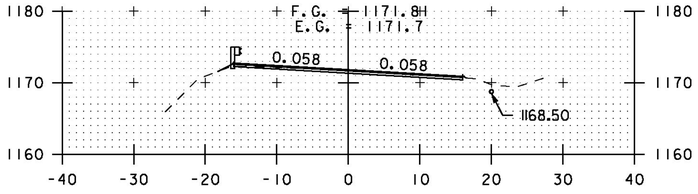


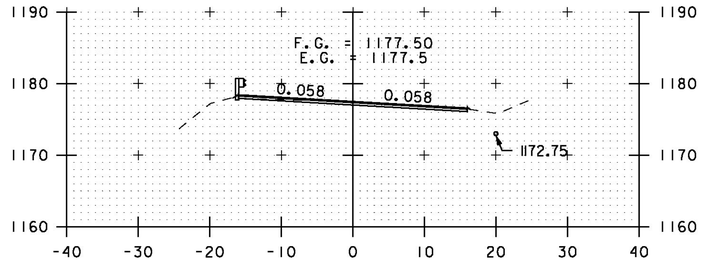
302+50



304+50

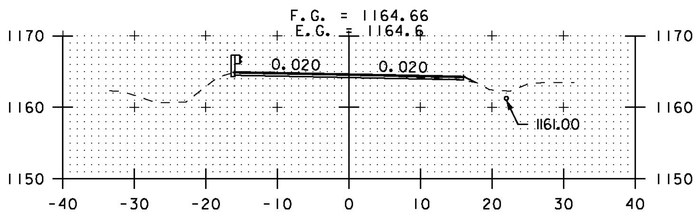




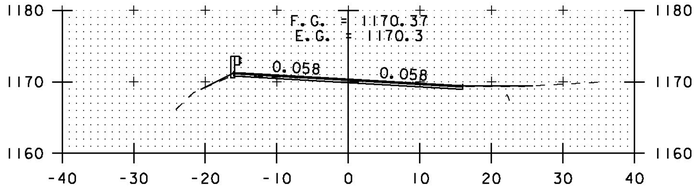


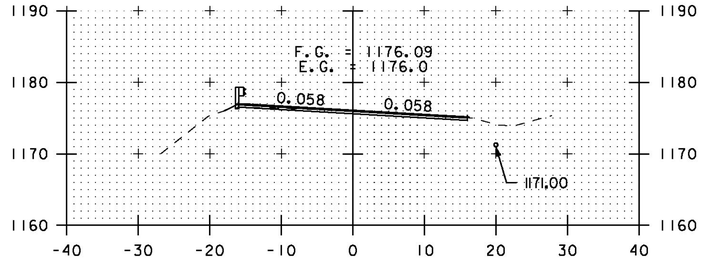
304+00

300+00



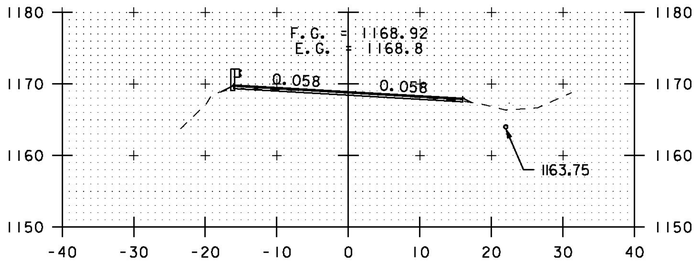
302+00



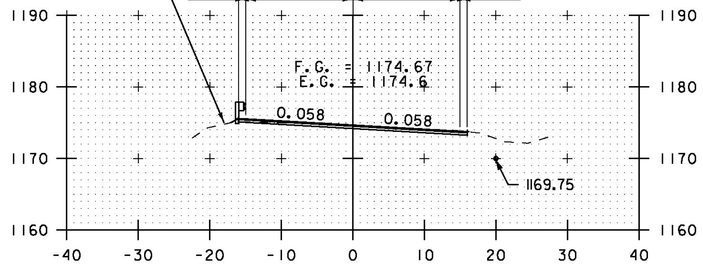


DRIVE RT

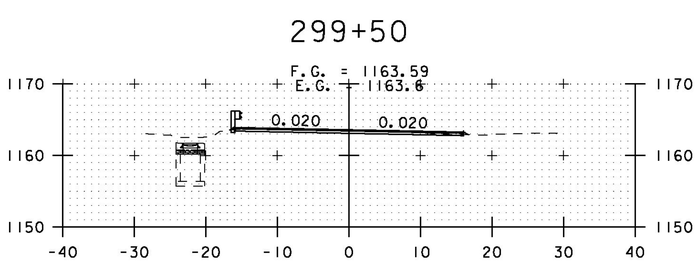
301+50



303+50



303+00



299+50

299+00

301+00

SCALE 1" = 10'-0
10 0 10

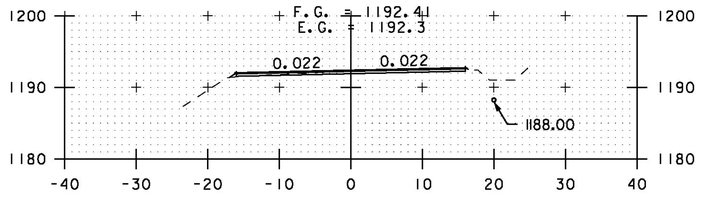
STA. 299+00 TO STA. 304+50

CROSS SECTION SHEET 21

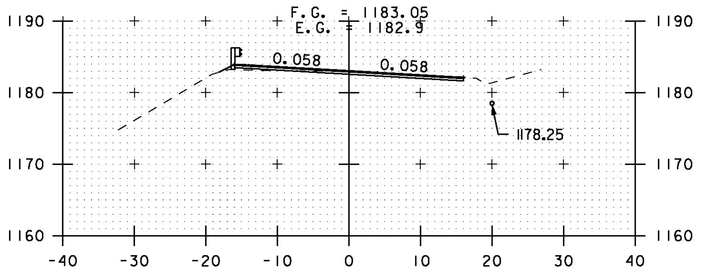
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_149.i

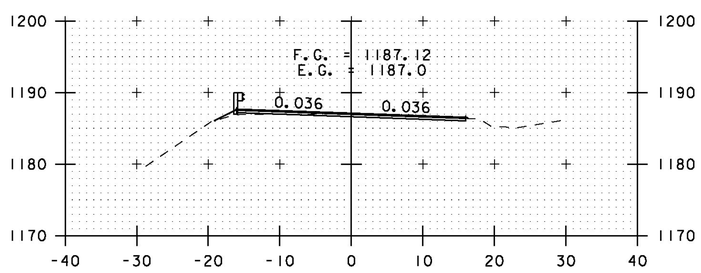
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 149 OF 194



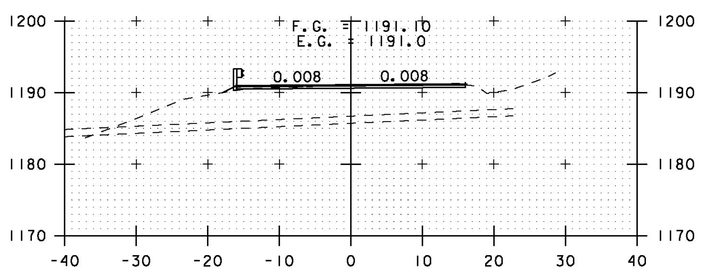
309+50



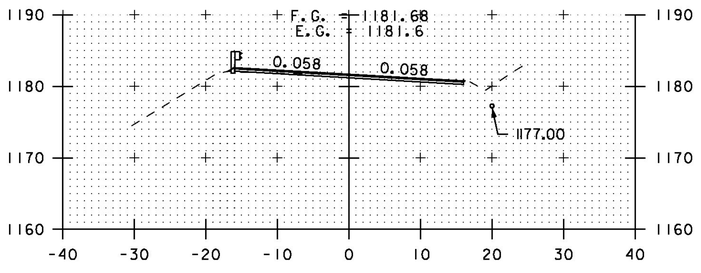
306+00



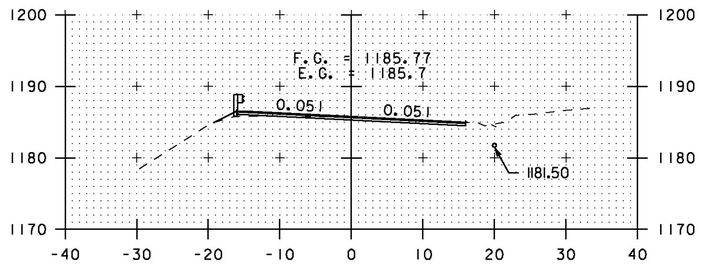
307+50



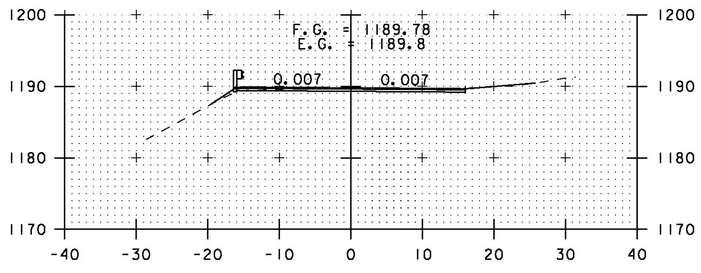
309+00



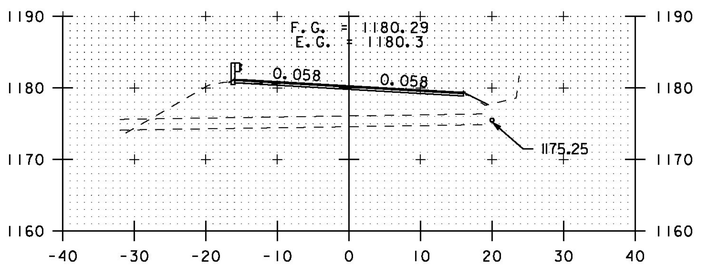
305+50



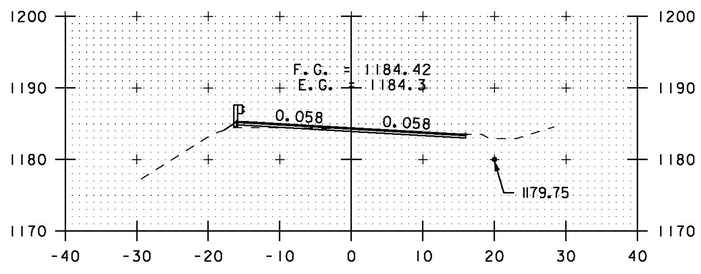
307+00



308+00

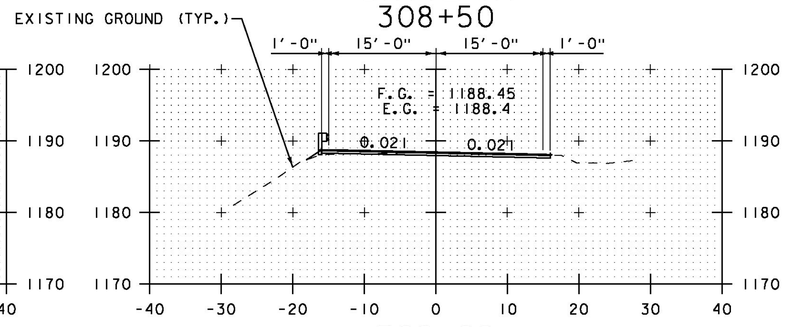


305+00



306+50

DRIVE RT
308+50



SCALE 1" = 10'-0
10 0 10

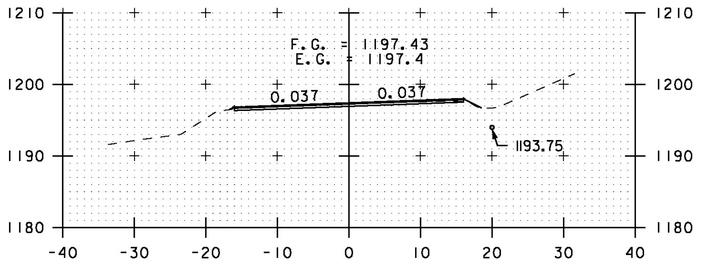
STA. 305+00 TO STA. 309+50

CROSS SECTION SHEET 22

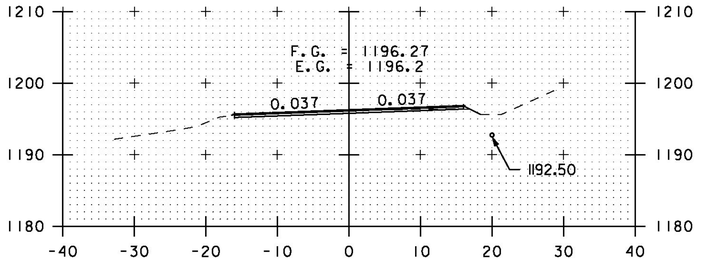
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_150.i

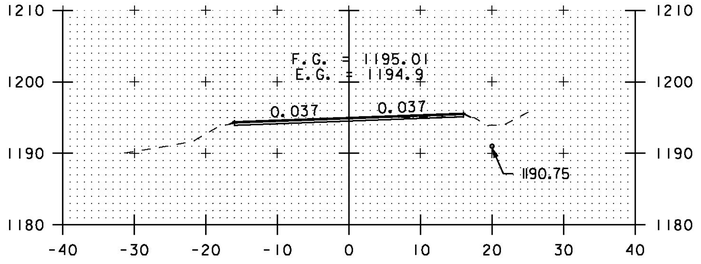
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 150 OF 194



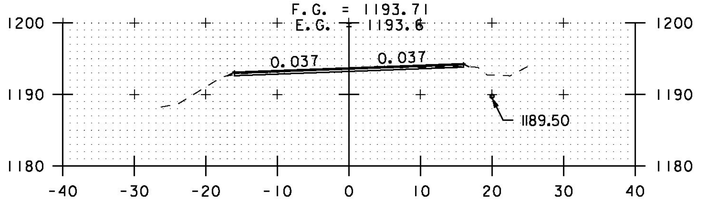
311+50



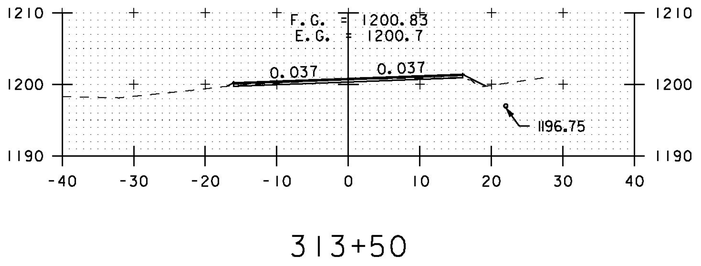
311+00



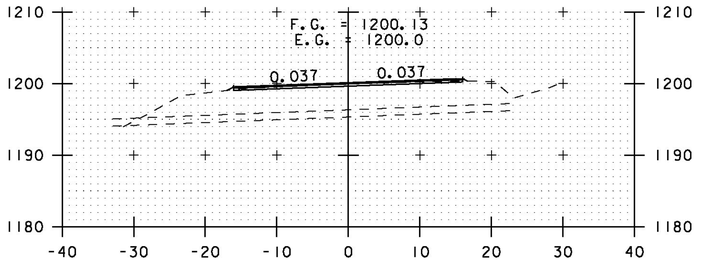
310+50



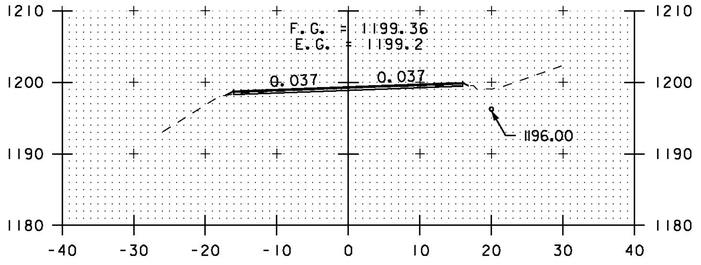
310+00



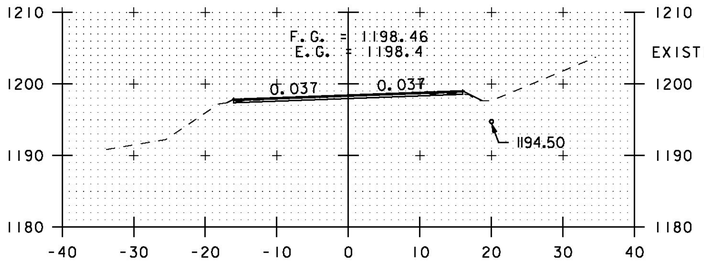
313+50



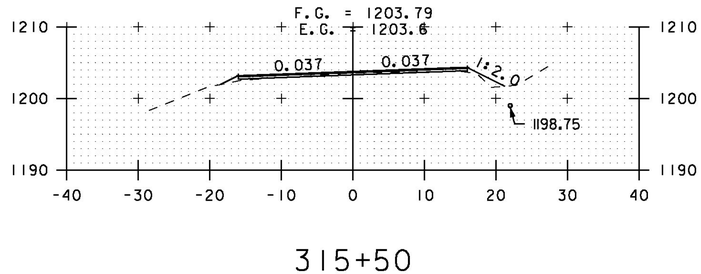
313+00



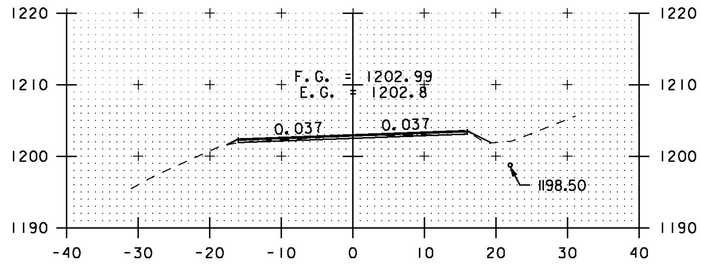
312+50



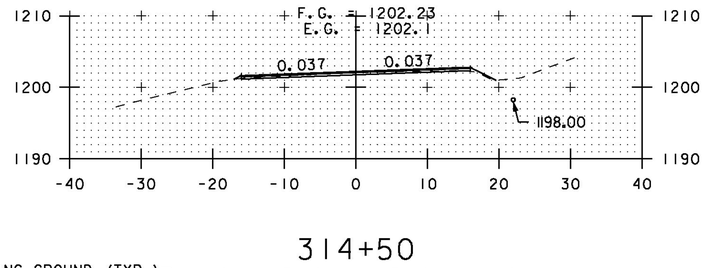
312+00



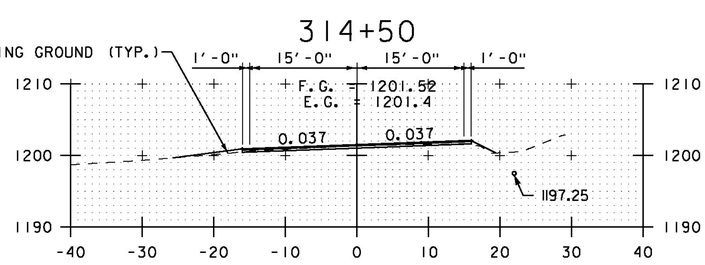
315+50



315+00



314+50



314+00 DRIVE LT

SCALE 1" = 10'-0
10 0 10

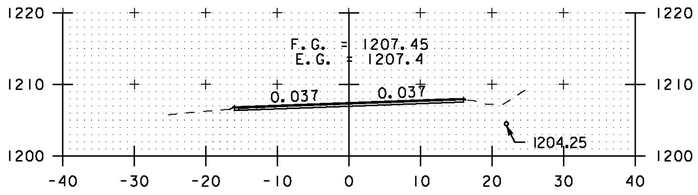
STA. 310+00 TO STA. 315+50

CROSS SECTION SHEET 23

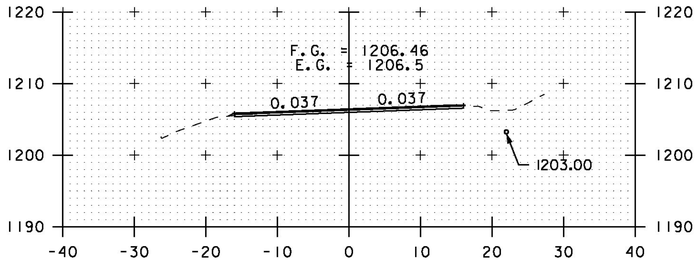
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_151.i

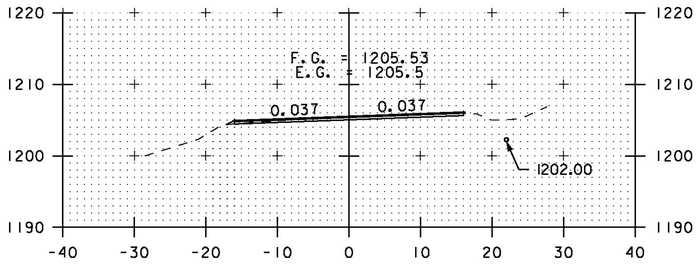
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 151 OF 194



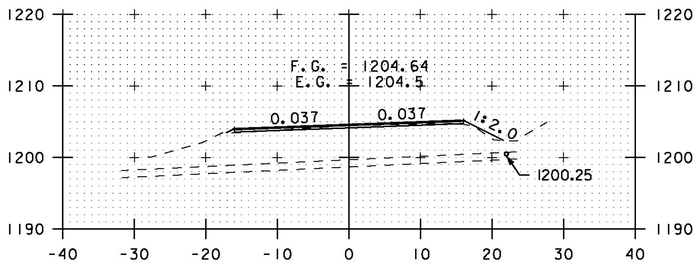
317+50



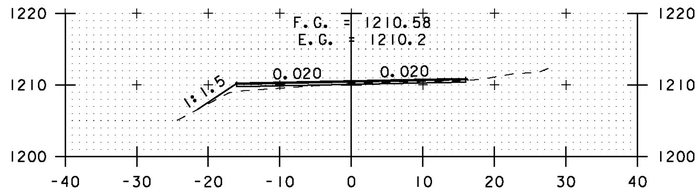
317+00



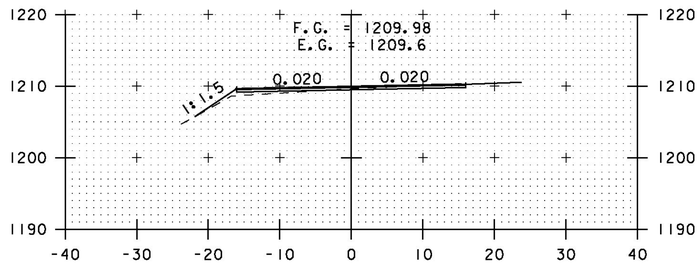
316+50



316+00

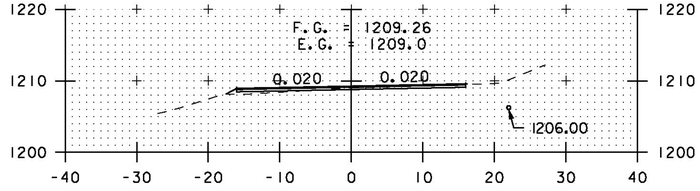


319+50

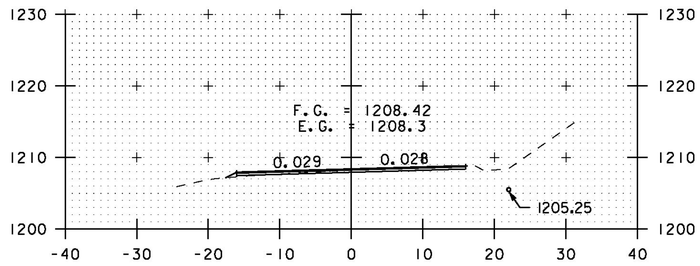


DRIVE RT

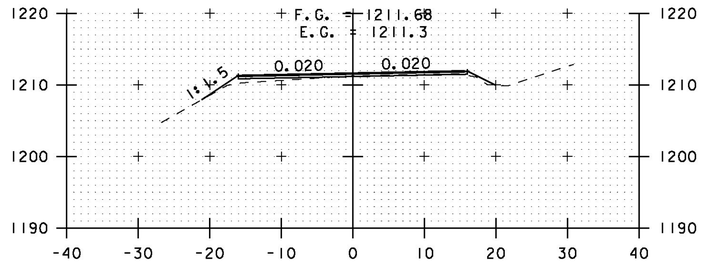
319+00



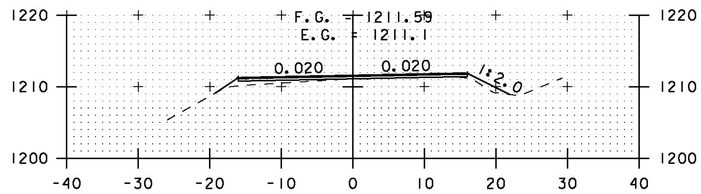
318+50



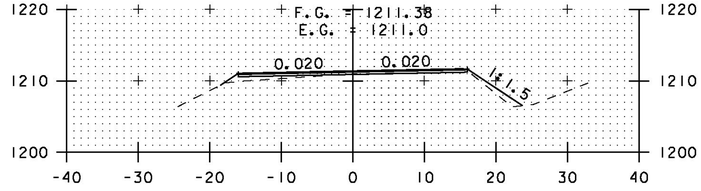
318+00



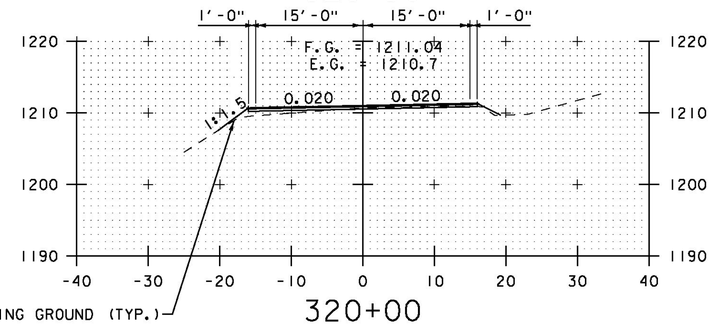
321+50



321+00



320+50



320+00

STA. 316+00 TO STA. 321+50

SCALE 1" = 10'-0

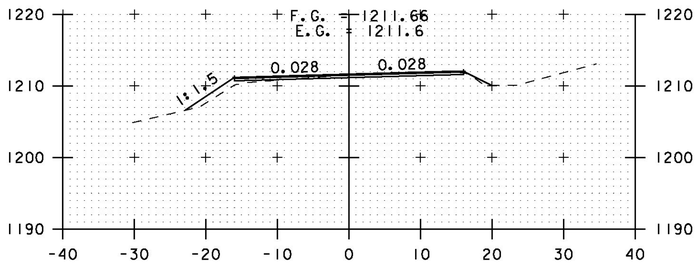
10 0 10

CROSS SECTION SHEET 24

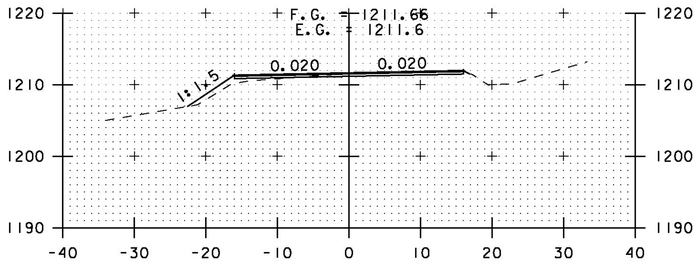
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_152.i

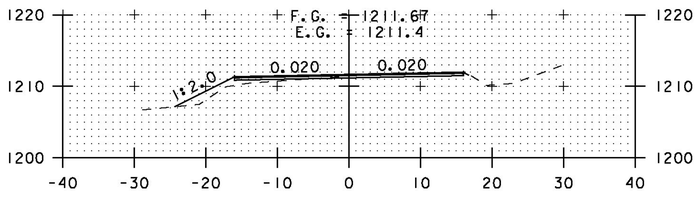
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 152 OF 194



323+50

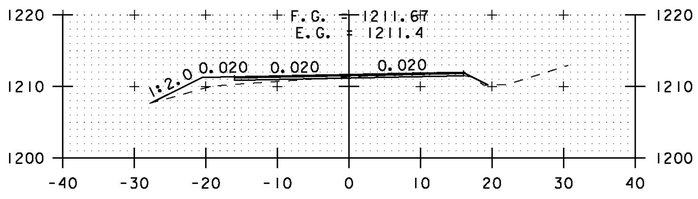


323+00

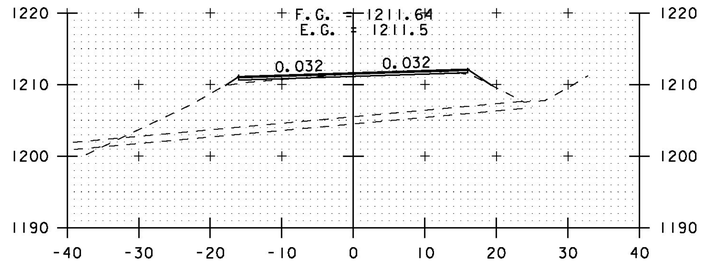


322+50

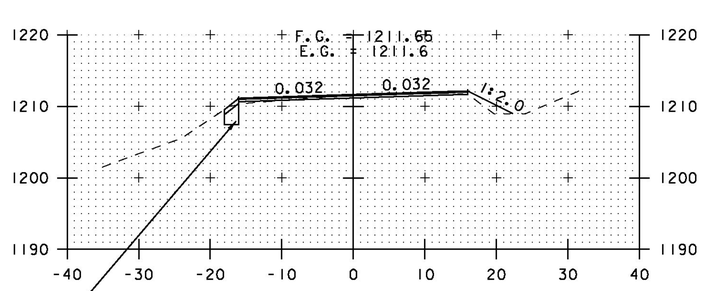
12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)



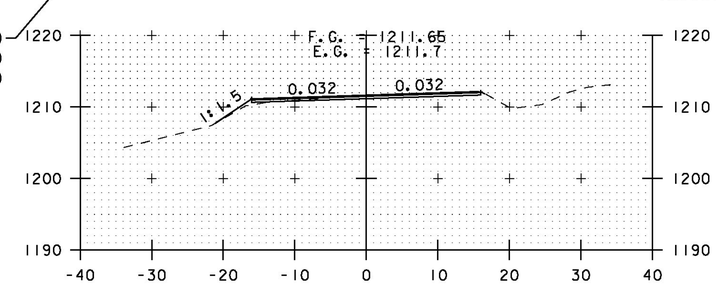
DRIVE LT
322+00



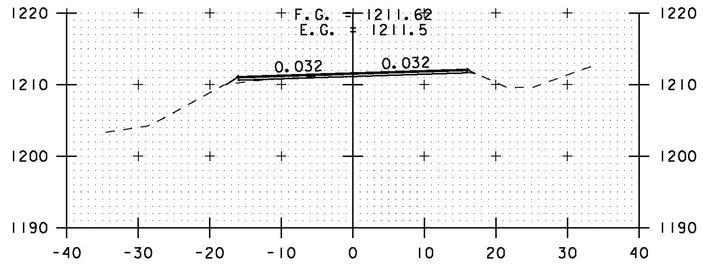
325+00



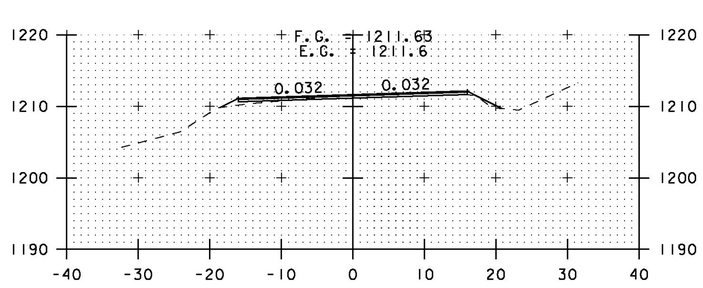
324+50



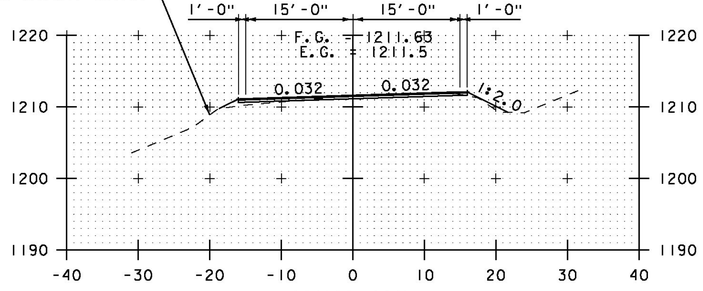
324+00



326+50



326+00



325+50

SCALE 1" = 10'-0
10 0 10

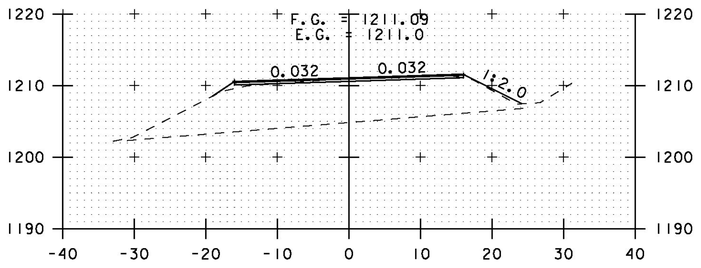
STA. 322+00 TO STA. 326+50

CROSS SECTION SHEET 25

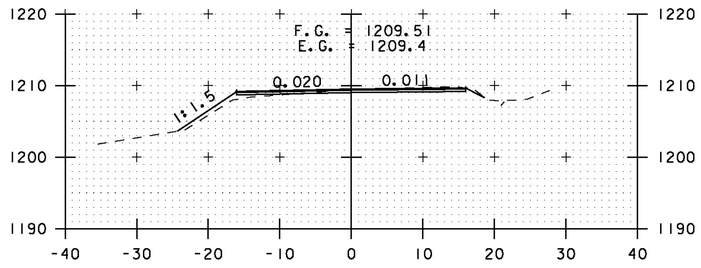
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_153.i

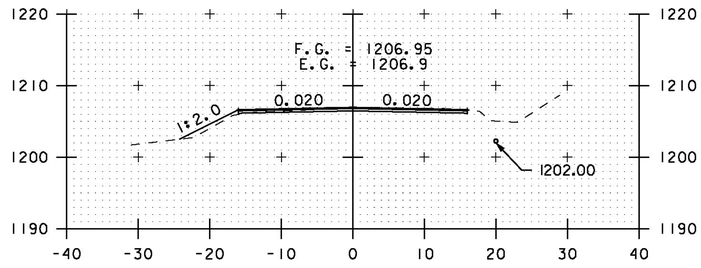
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 153 OF 194



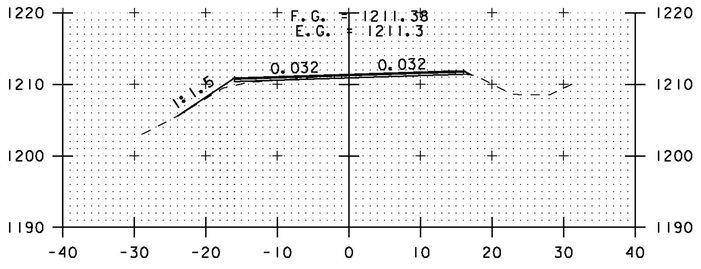
328+00



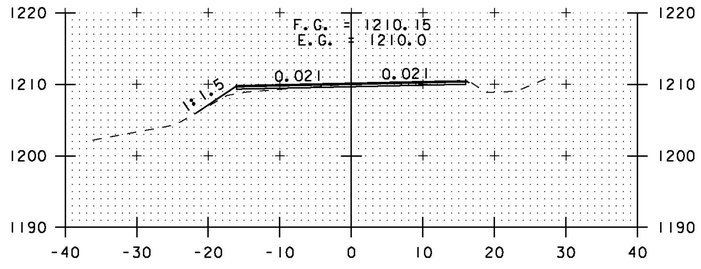
329+50



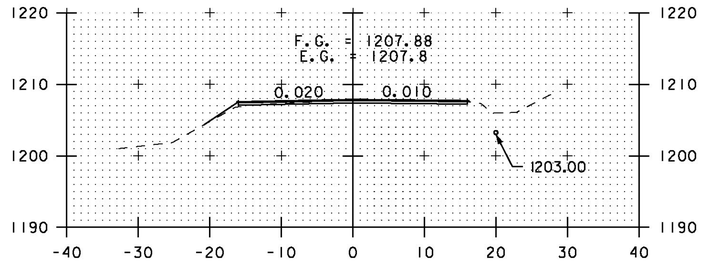
331+00



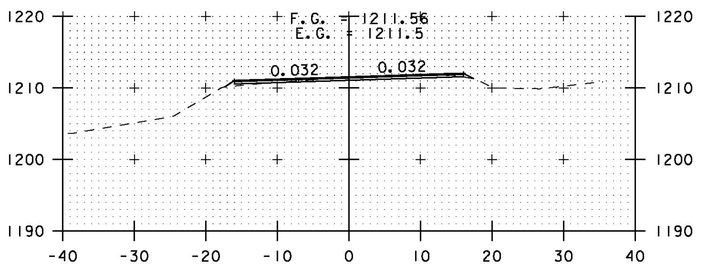
327+50



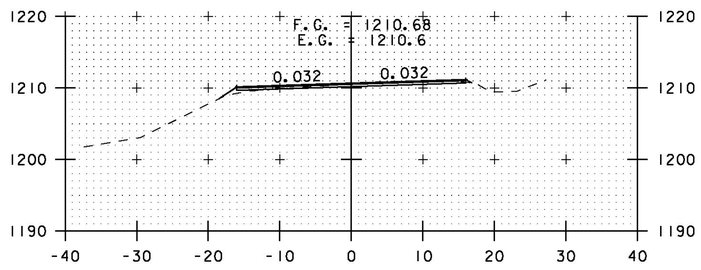
329+00



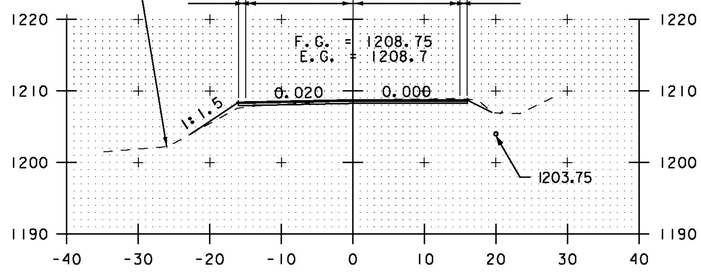
330+50



327+00



328+50



330+00

STA. 327+00 TO STA. 331+00

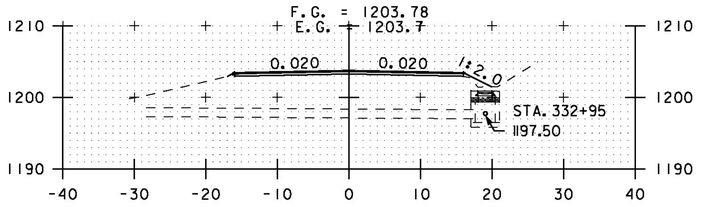
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 26

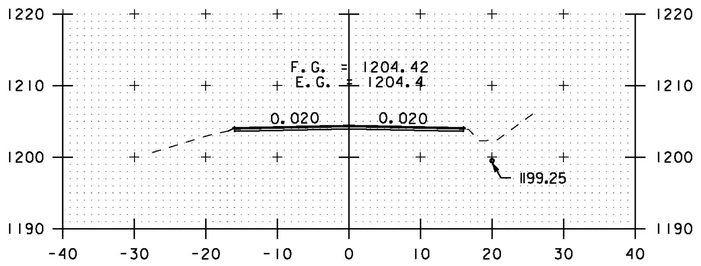
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_154.i

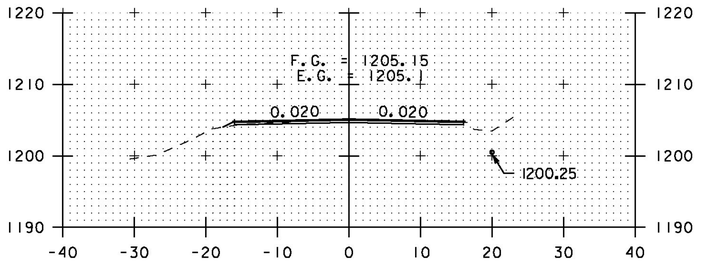
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 154 OF 194



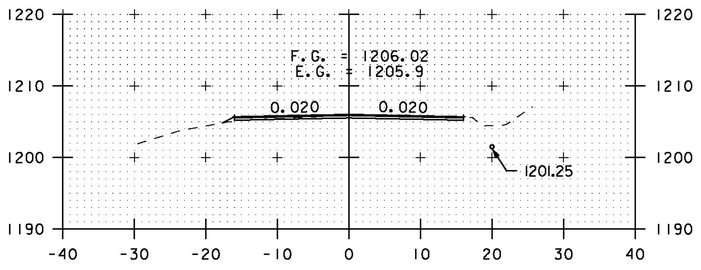
333+00



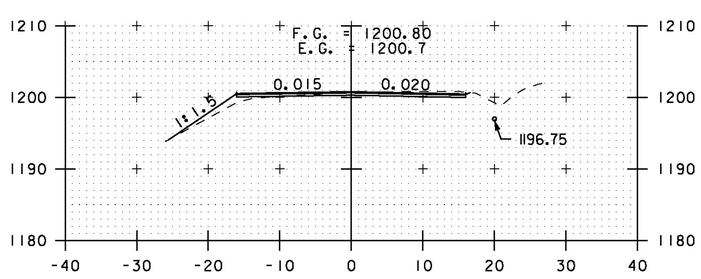
332+50



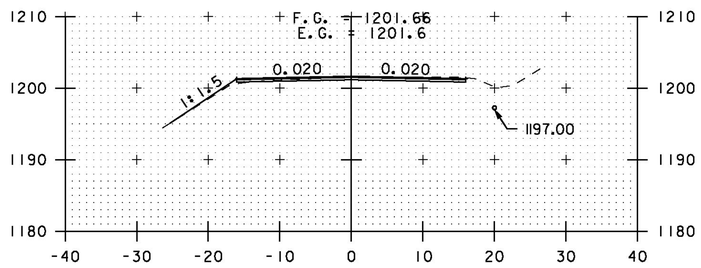
332+00



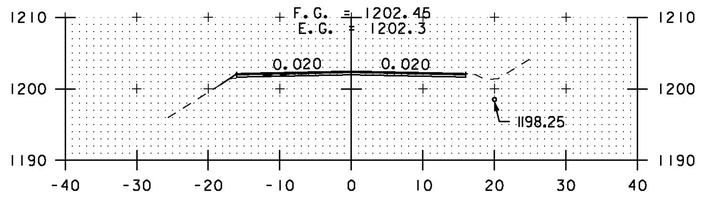
331+50



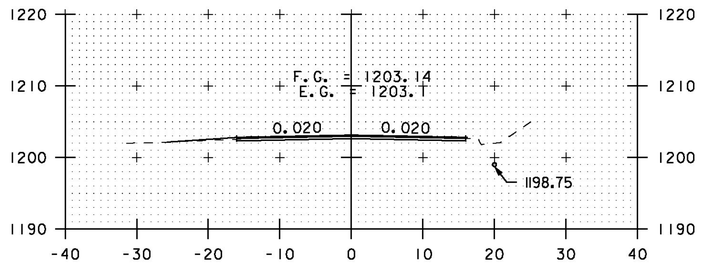
335+00



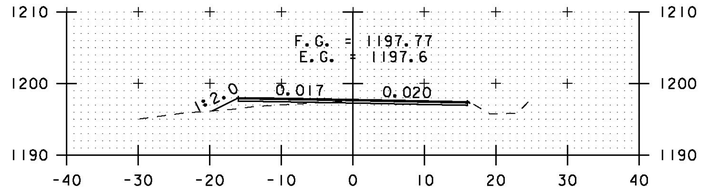
334+50



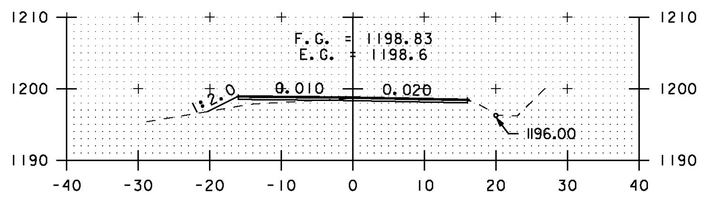
334+00



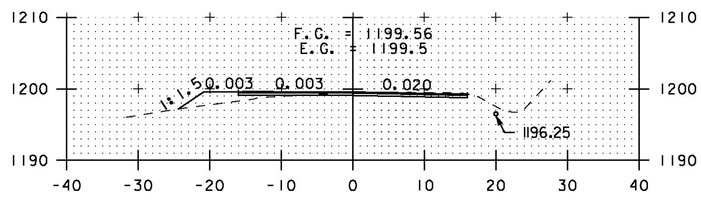
DRIVE LT
333+50



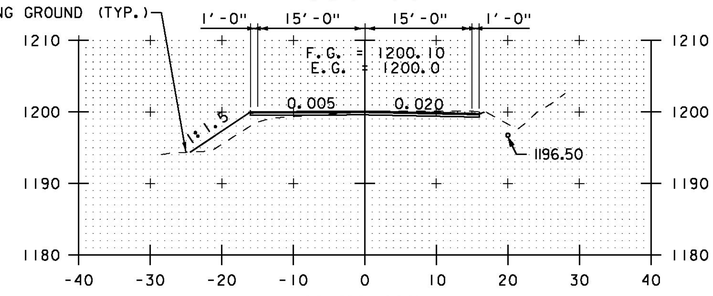
337+00



336+50



DRIVE LT
336+00



335+50

STA. 331+50 TO STA. 337+00

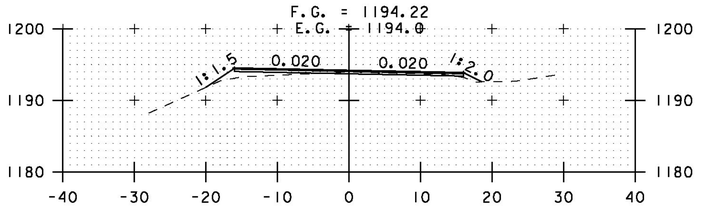
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 27

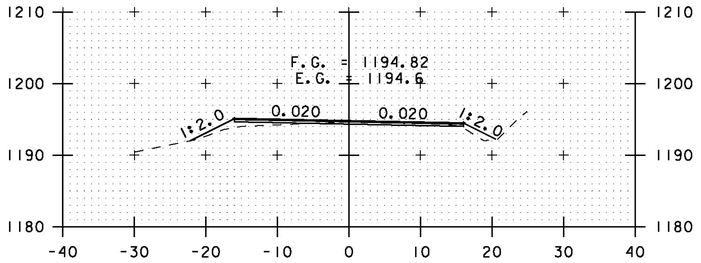
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_155.i

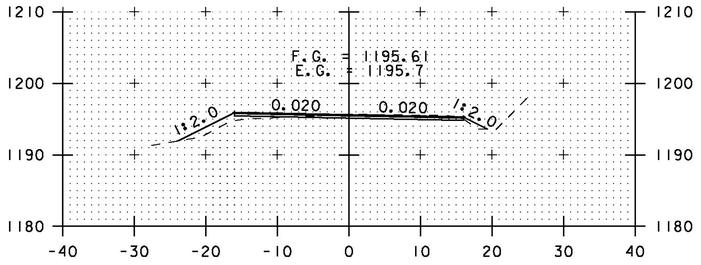
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP



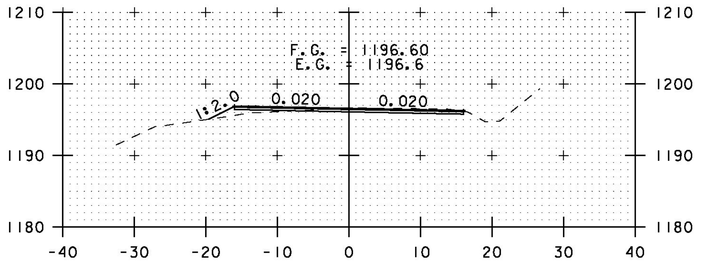
339+00



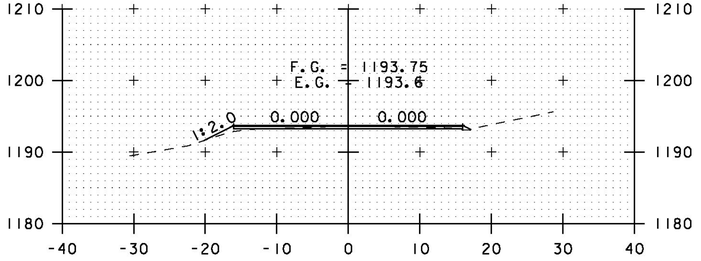
338+50



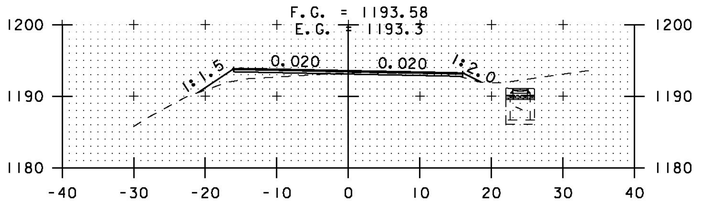
338+00



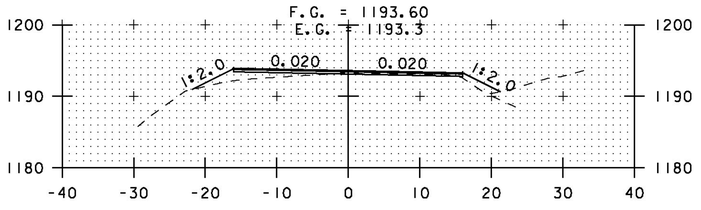
337+50



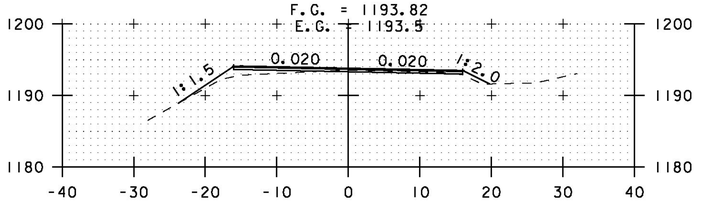
341+00



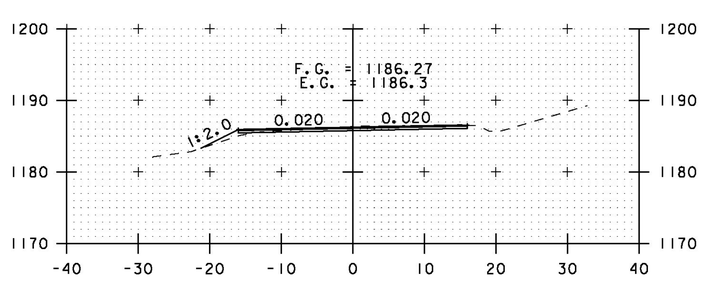
340+50



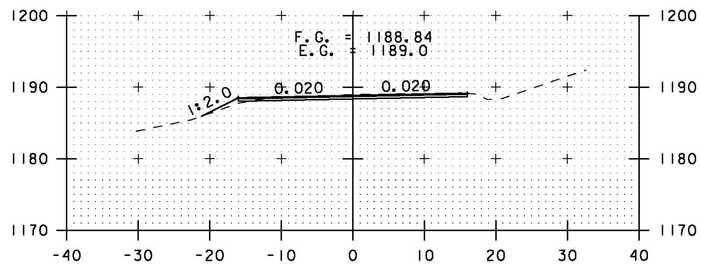
340+00



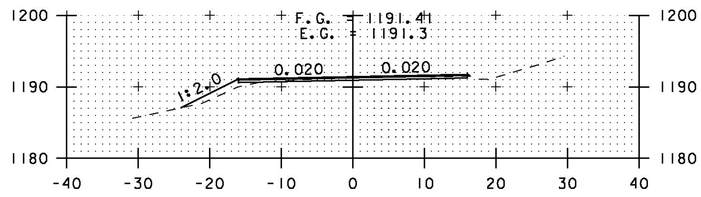
339+50



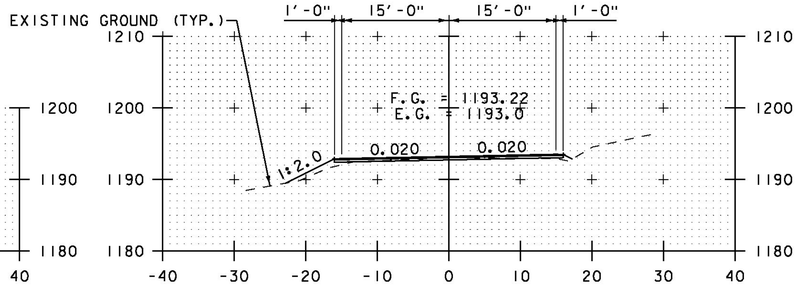
343+00



342+50



342+00



341+50

SCALE 1" = 10'-0
10 0 10

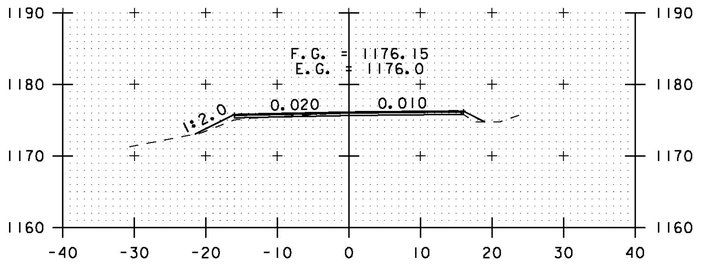
STA. 337+50 TO STA. 343+00

CROSS SECTION SHEET 28

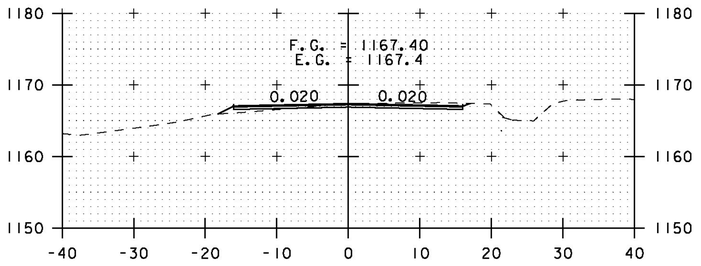
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_156.i

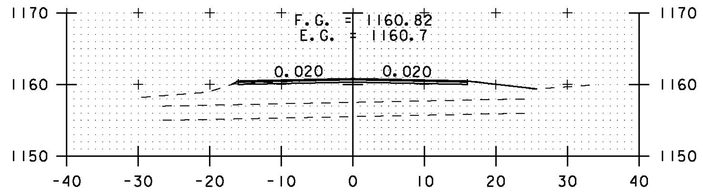
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 156 OF 194



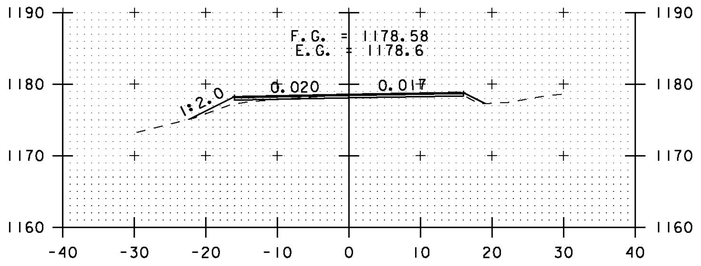
345+00



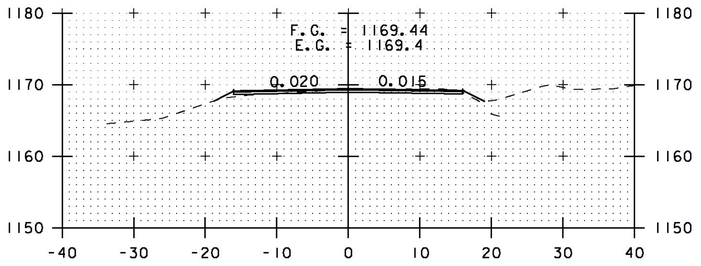
347+00

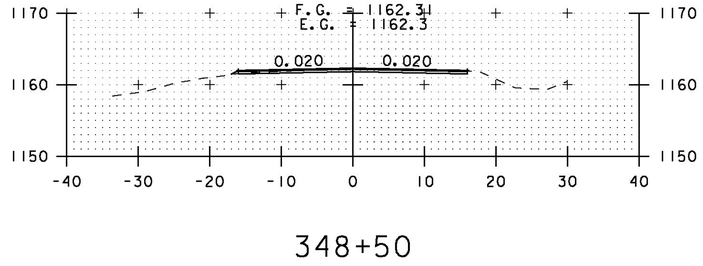


DRIVE RT
349+00

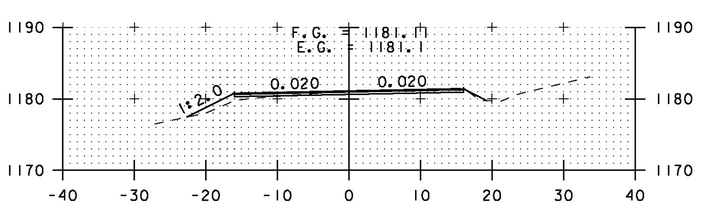


344+50

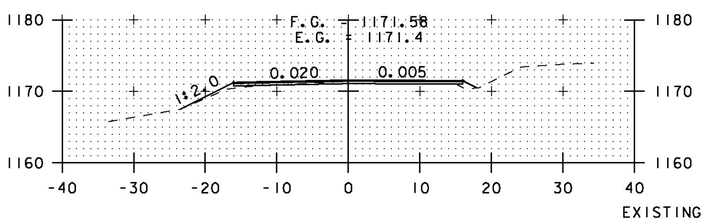




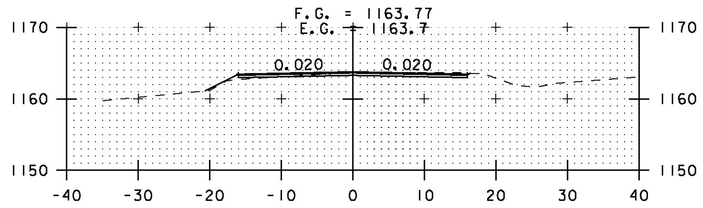
348+50



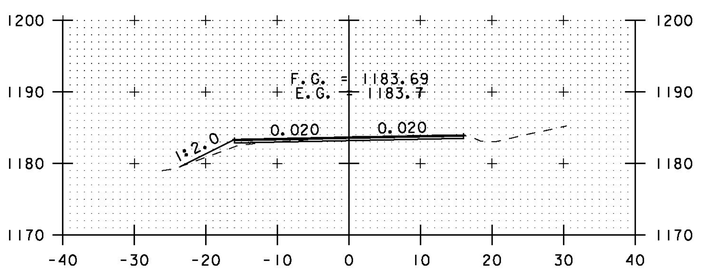
344+00



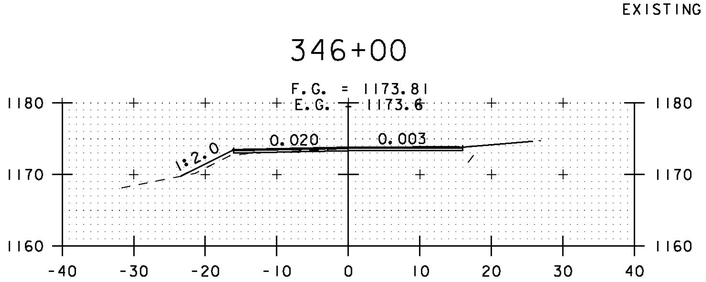
346+50



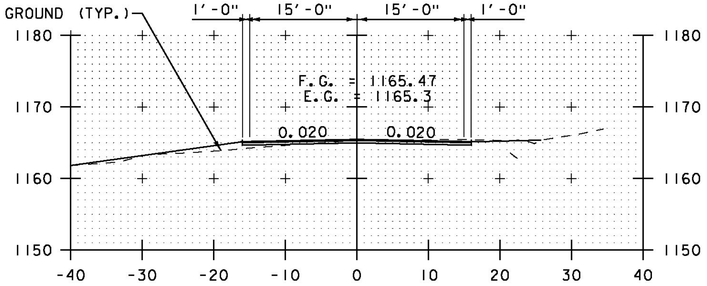
348+50



343+50



DRIVE RT
345+50



347+50 DRIVE RT, TH#8 LT

STA. 343+50 TO STA. 349+00

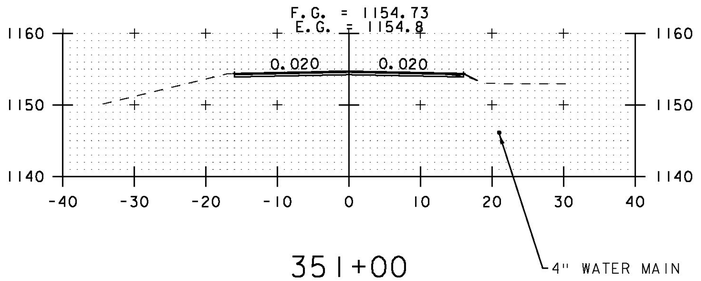
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 29

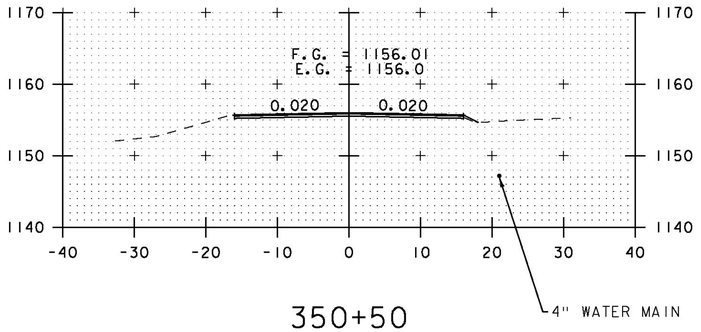
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_157.i

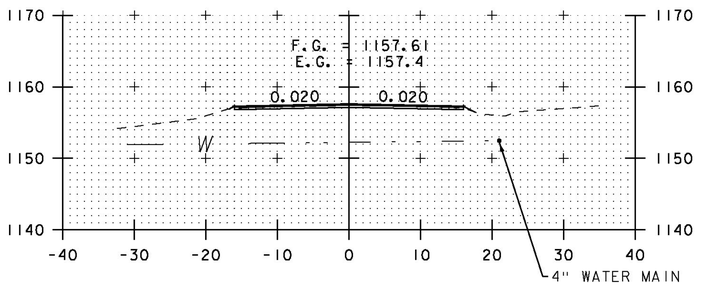
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 157 OF 194



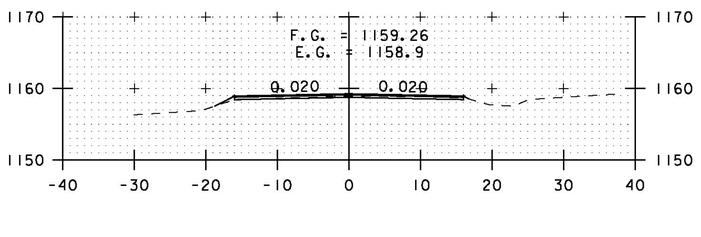
351+00



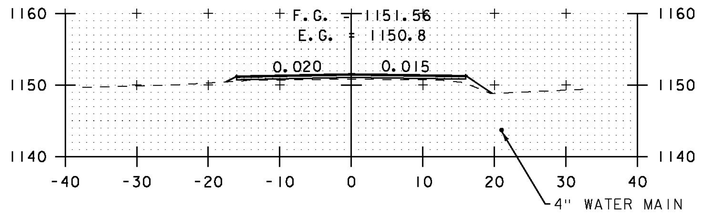
350+50



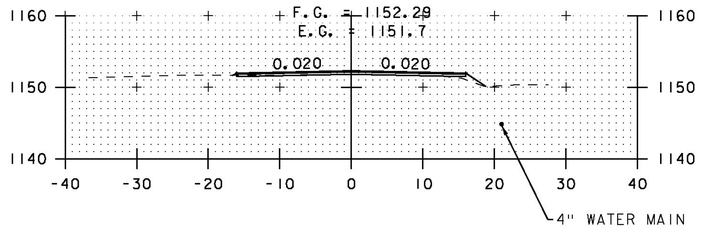
350+00



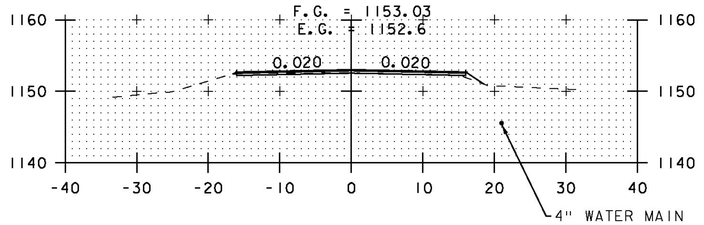
349+50



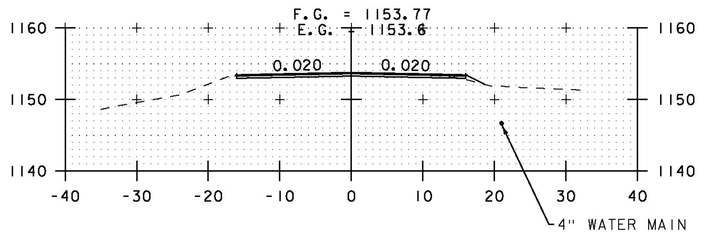
353+00



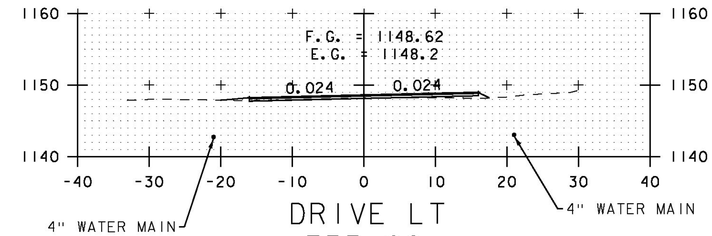
352+50



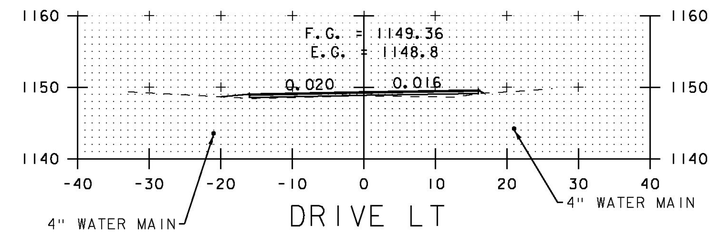
352+00



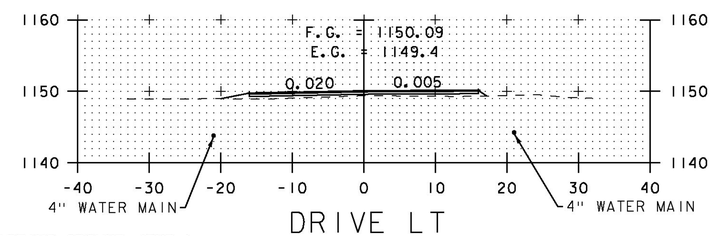
351+50



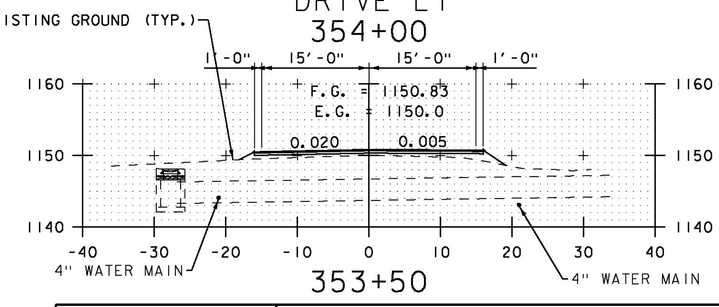
DRIVE LT
355+00



DRIVE LT
354+50



DRIVE LT
354+00



353+50

SCALE 1" = 10'-0
10 0 10

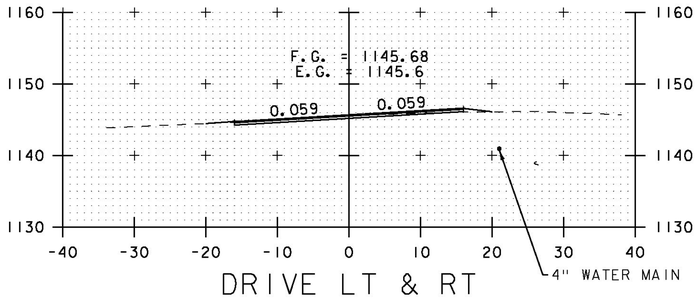
STA. 349+50 TO STA. 355+00

CROSS SECTION SHEET 30

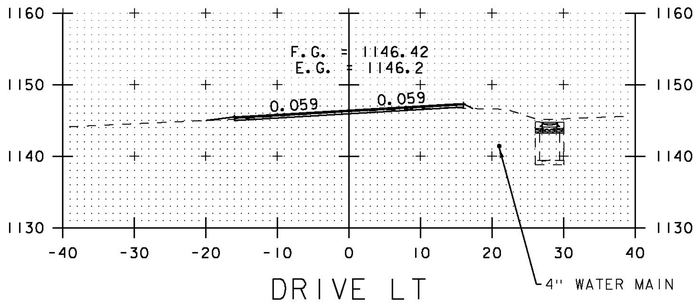
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_158.i

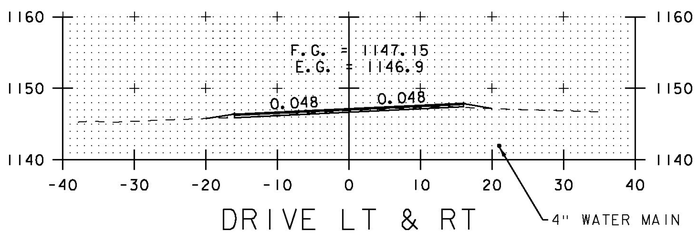
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 158 OF 194



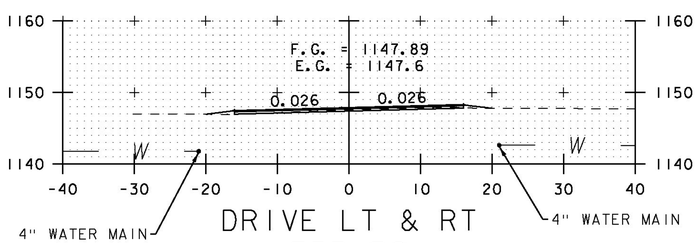
DRIVE LT & RT
357+00



DRIVE LT
356+50

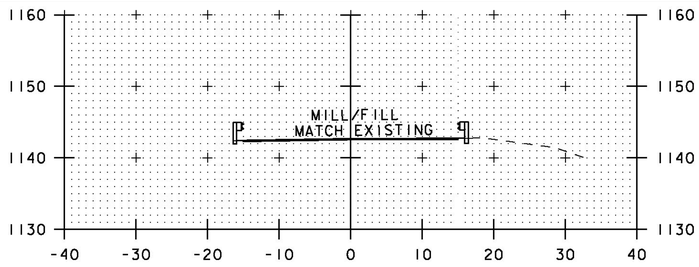


DRIVE LT & RT
356+00

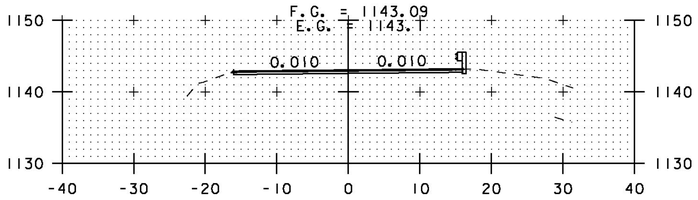


DRIVE LT & RT
355+50

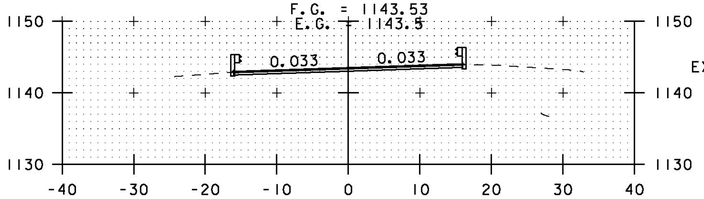
SCALE 1" = 10'-0



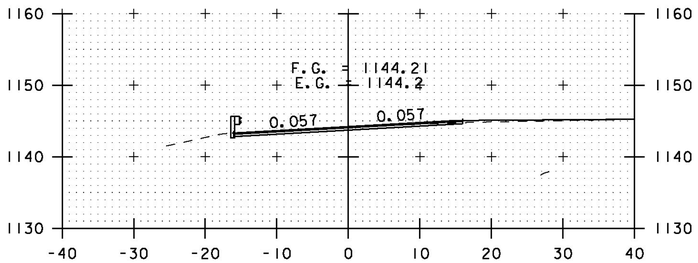
BRIDGE #95
359+18



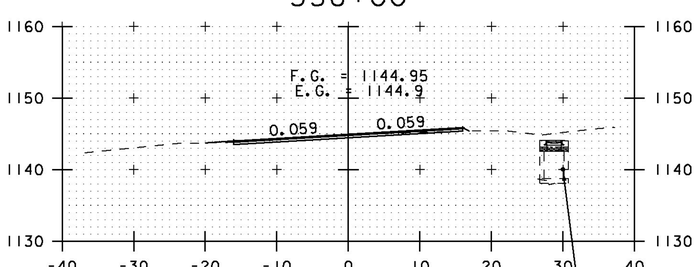
359+00



358+50

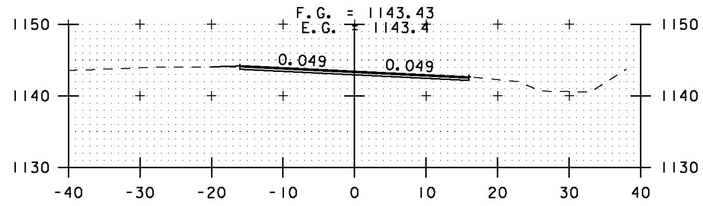


TH#2 RT
358+00

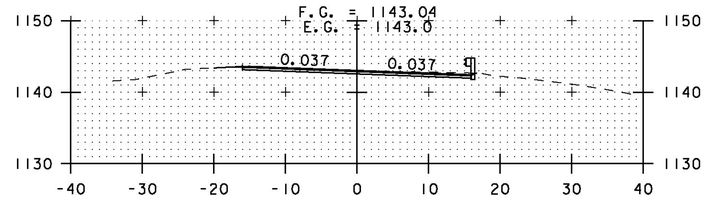


DRIVE LT
357+50

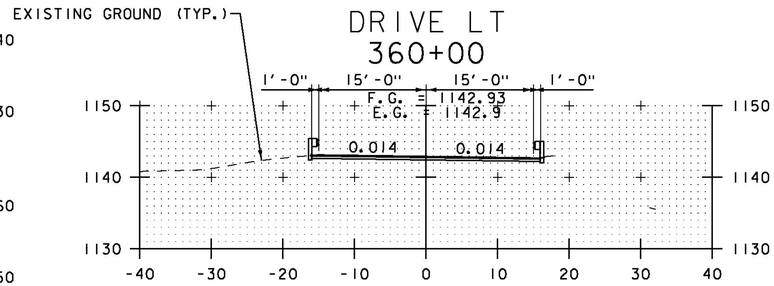
STA. 355+50 TO STA. 360+50



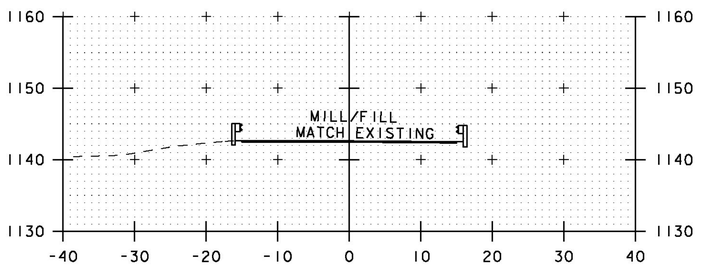
DRIVE LT
360+50



DRIVE LT
360+00



359+50



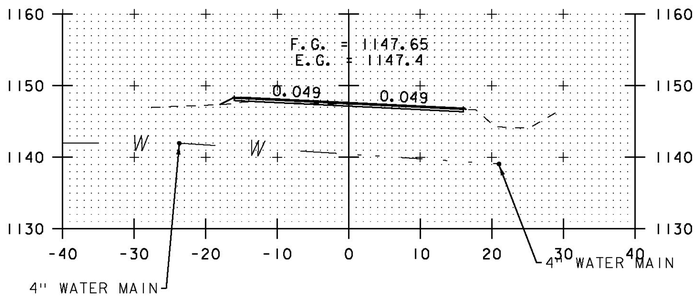
BRIDGE #95
359+40

CROSS SECTION SHEET 31

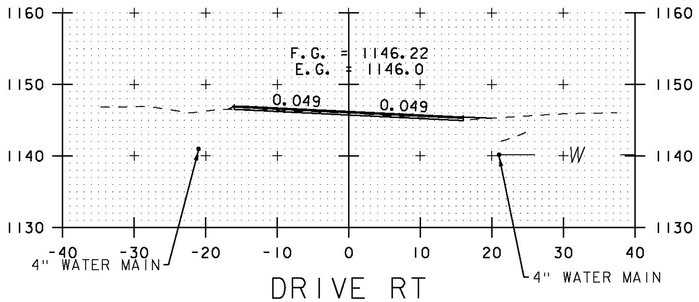
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_159.i

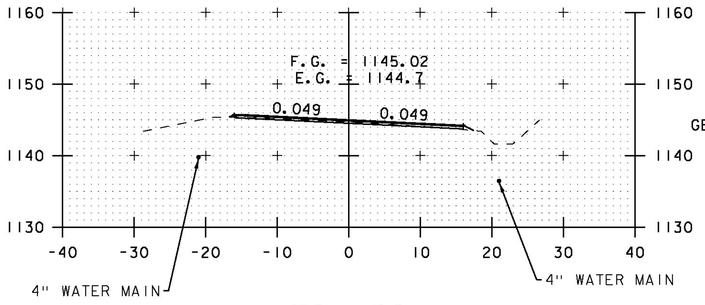
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 159 OF 194



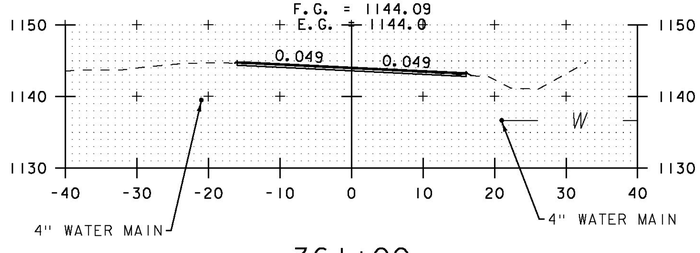
362+50



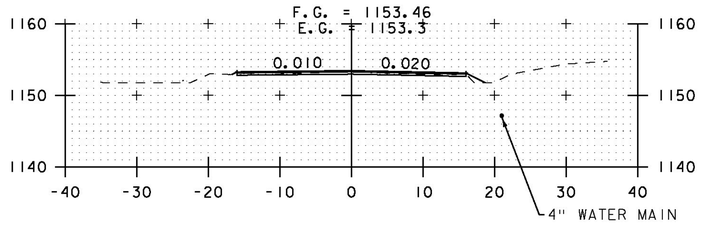
DRIVE RT
362+00



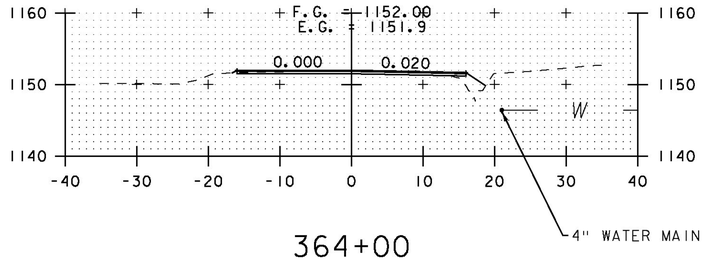
361+50



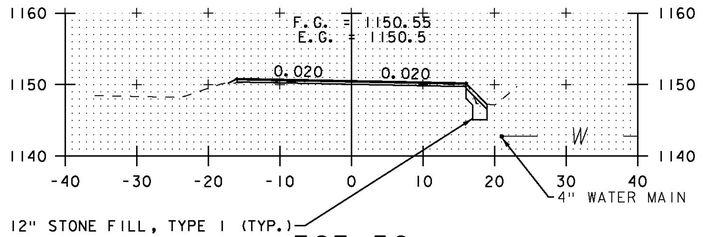
361+00



364+50

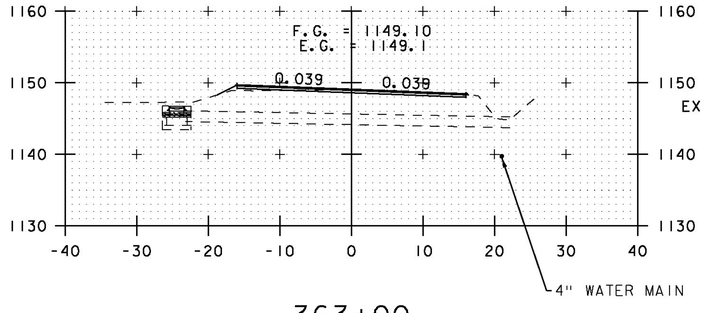


364+00

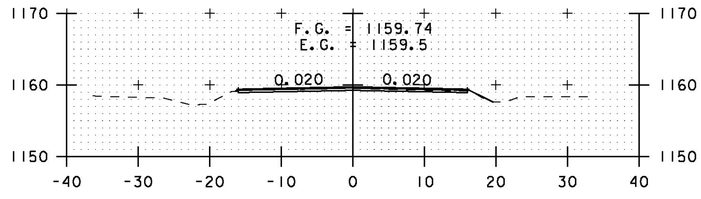


12" STONE FILL, TYPE I (TYP.)
6" GRUBBING MATERIAL (TYP.)
GEOTEXTILE UNDER STONE FILL (TYP.)

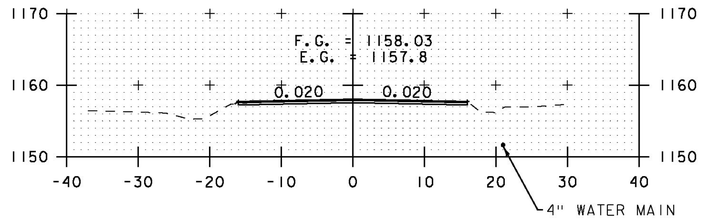
363+50



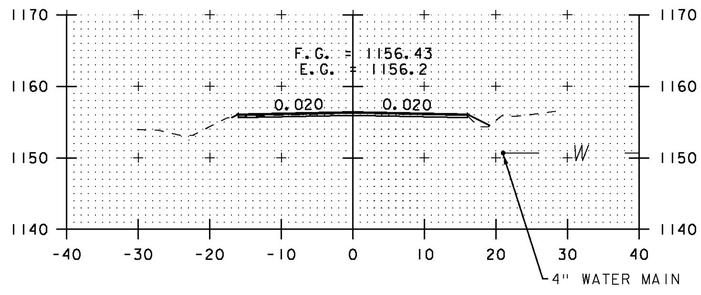
363+00



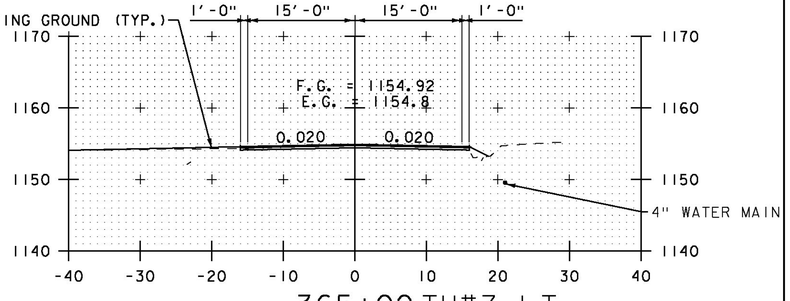
366+50



366+00



365+50



365+00 TH#7 LT

STA. 361+00 TO STA. 366+50

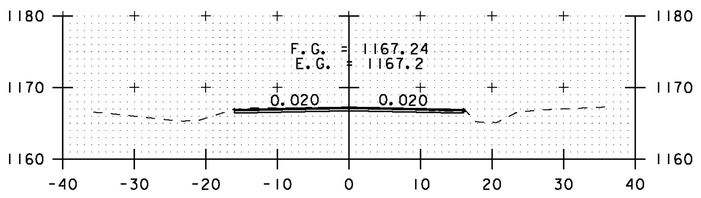
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 32

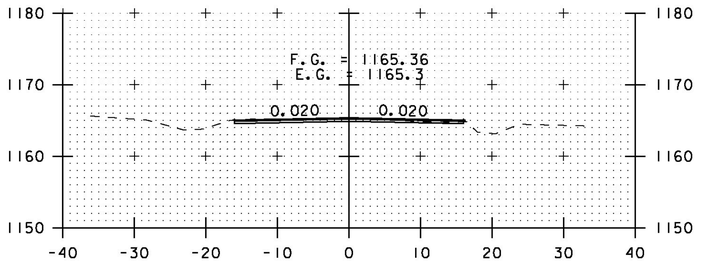
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_160.i

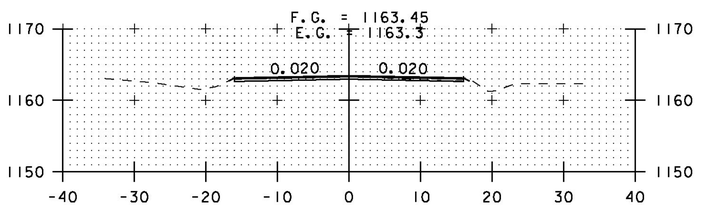
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 160 OF 194



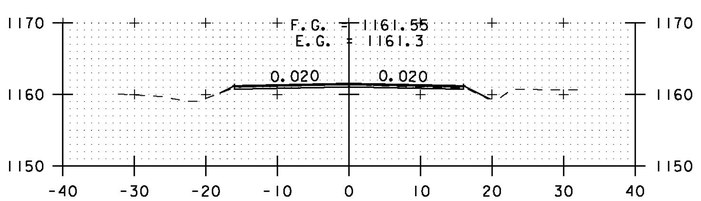
368+50



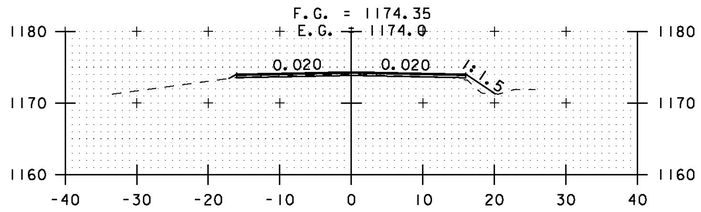
368+00



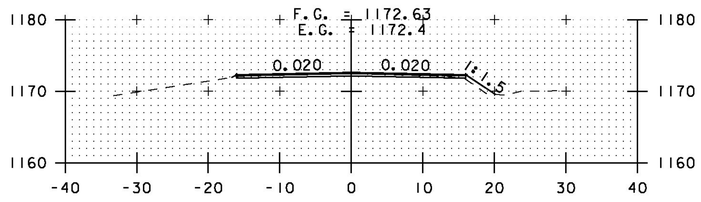
367+50



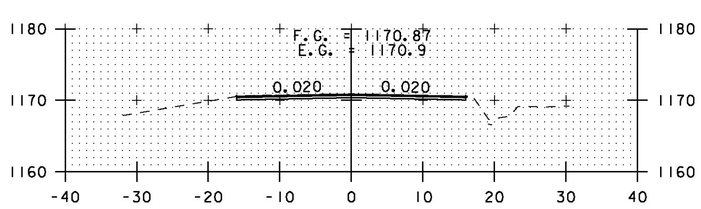
367+00



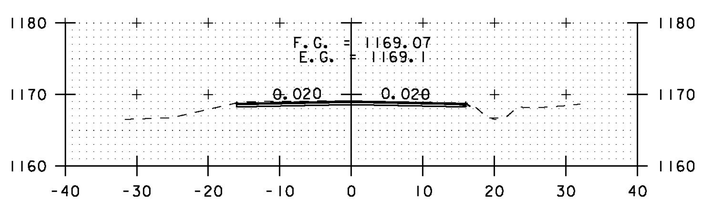
370+50



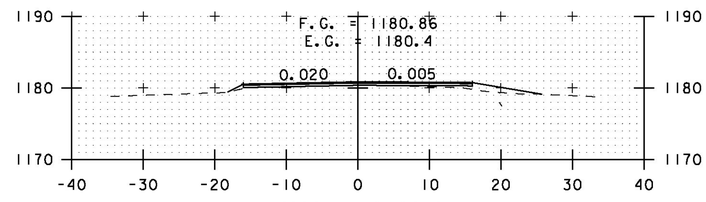
370+00



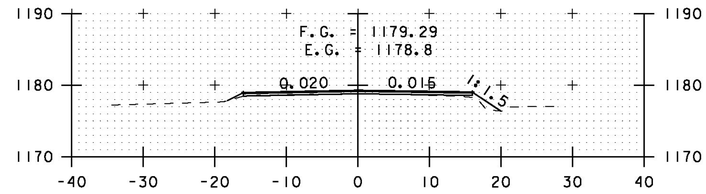
369+50



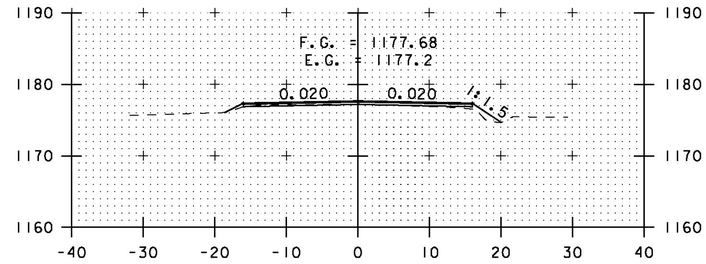
369+00



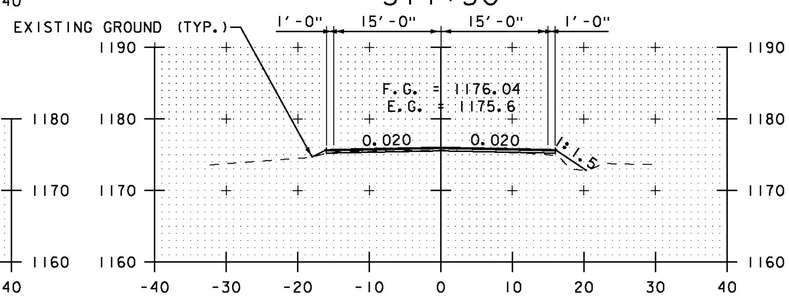
DRIVE RT
372+50



372+00



371+50



371+00

SCALE 1" = 10'-0
10 0 10

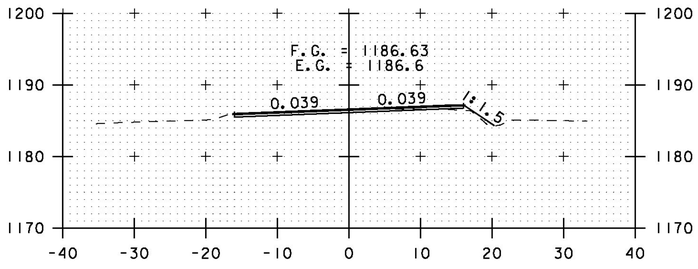
STA. 367+00 TO STA. 372+50

CROSS SECTION SHEET 33

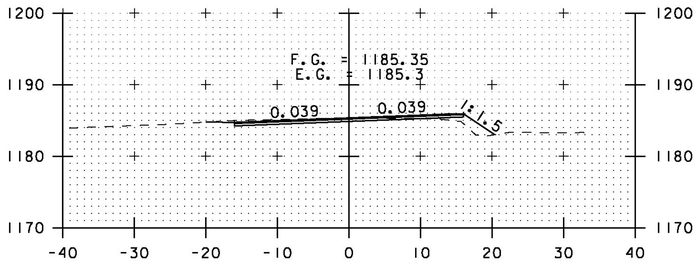
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_161.i

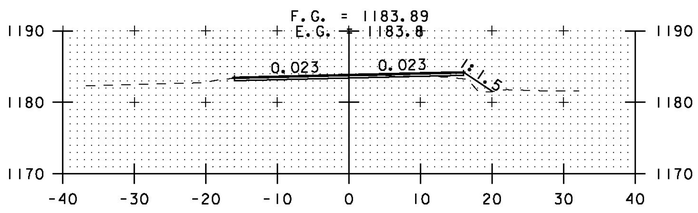
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 161 OF 194



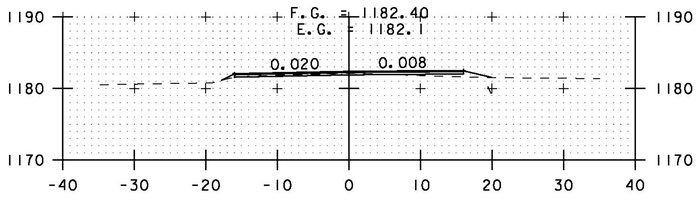
374+50



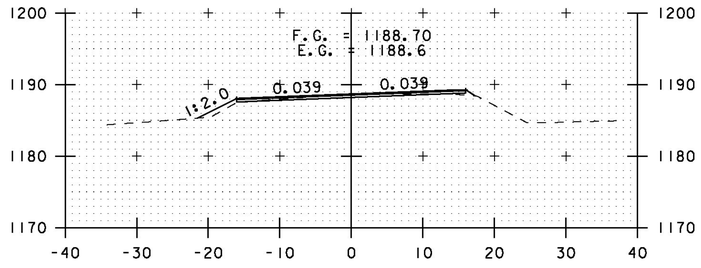
DRIVE LT
374+00



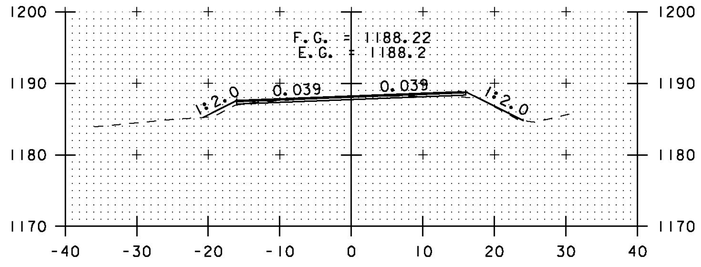
373+50



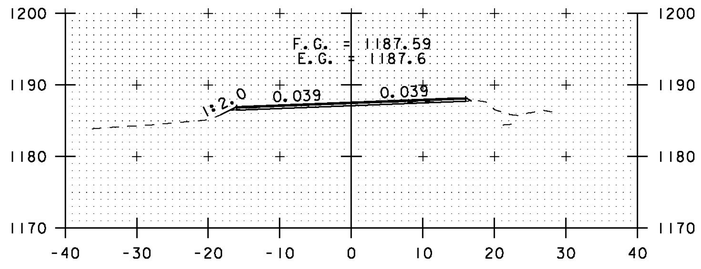
DRIVE RT
373+00



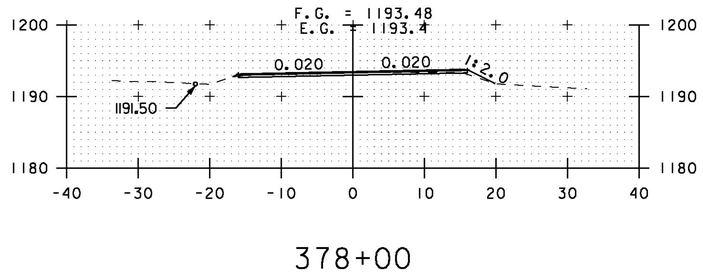
376+00



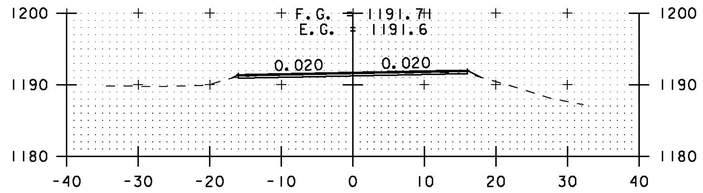
375+50



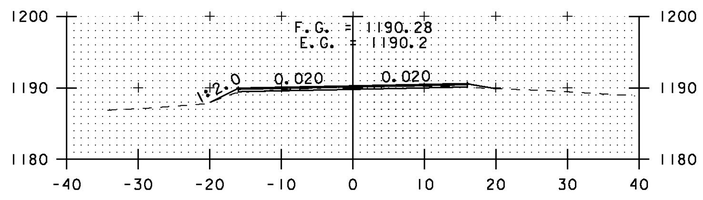
375+00



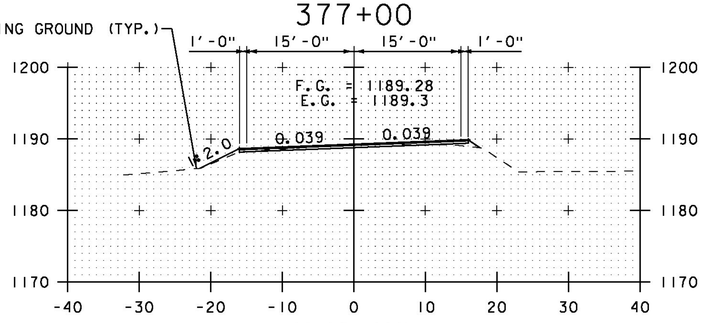
378+00



377+50



DRIVE RT
377+00



376+50

SCALE 1" = 10'-0
10 0 10

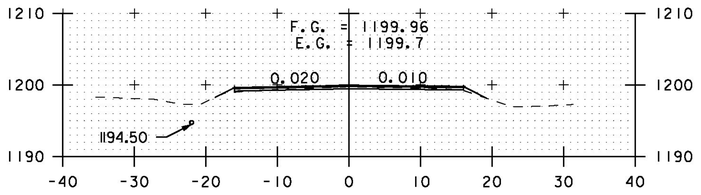
STA. 373+00 TO STA. 378+00

CROSS SECTION SHEET 34

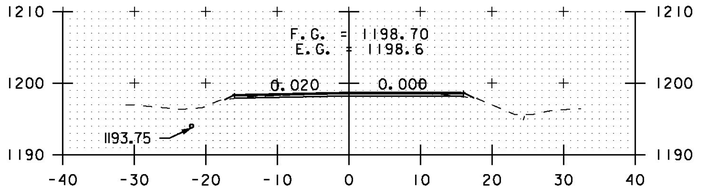
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_162.i

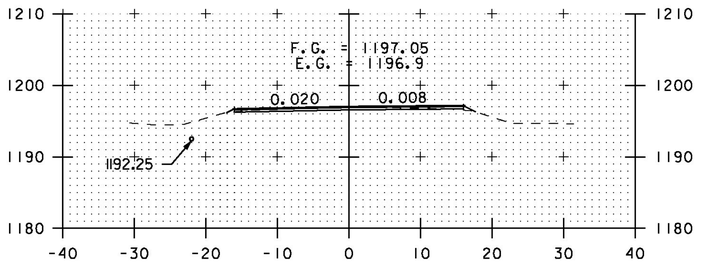
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 162 OF 194



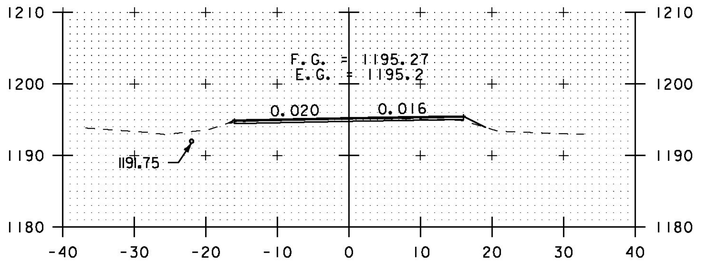
380+00



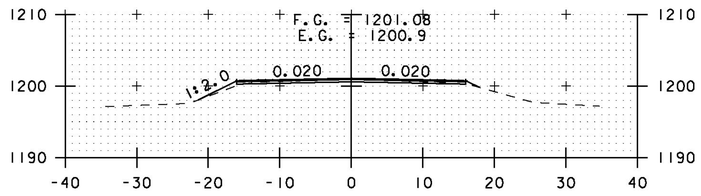
379+50



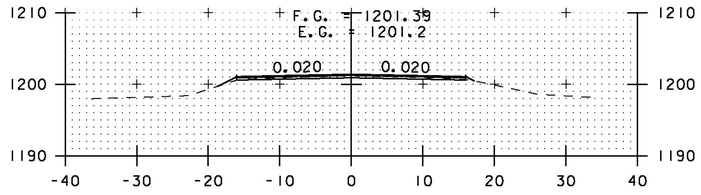
379+00



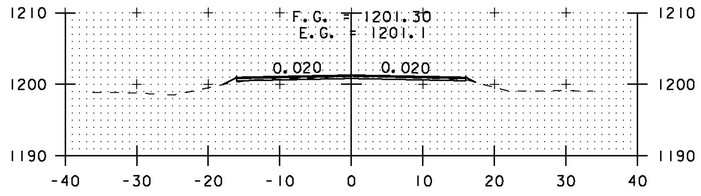
378+50



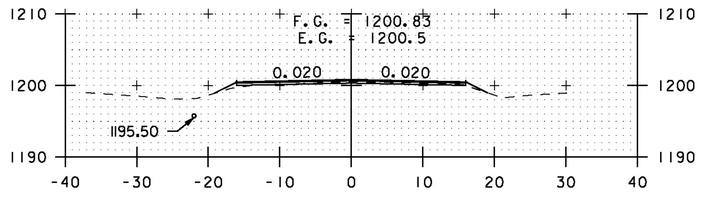
382+00



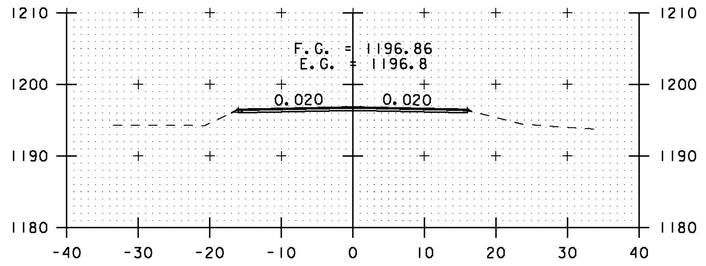
381+50



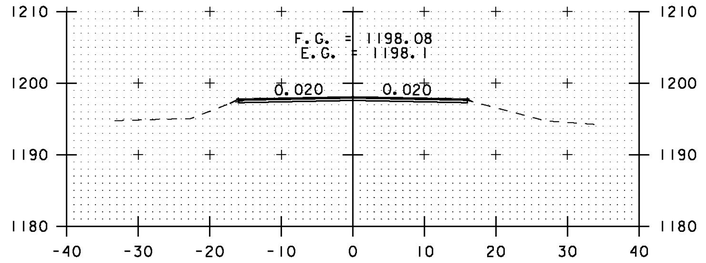
381+00



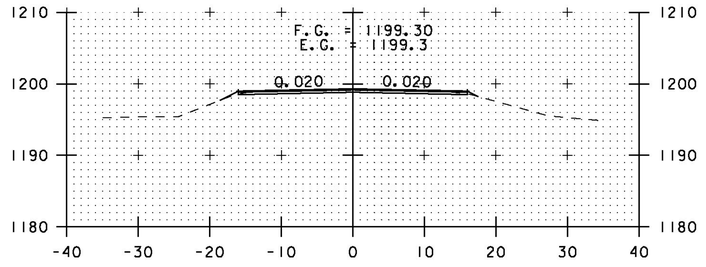
380+50



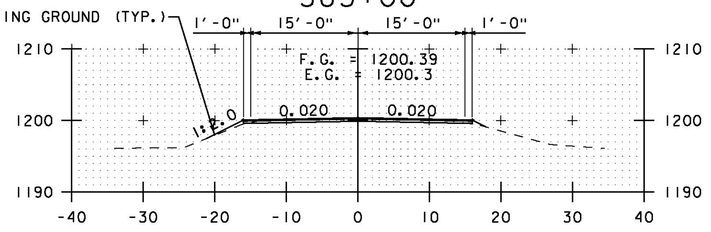
384+00



383+50



383+00



382+50

STA. 378+50 TO STA. 384+00

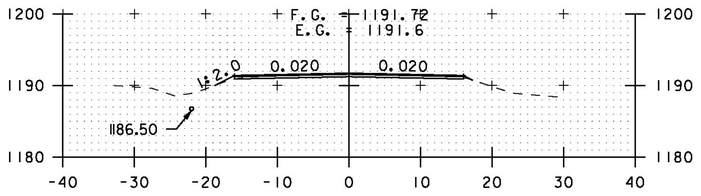
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 35

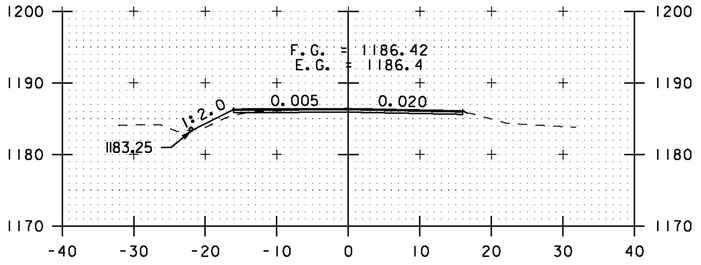
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_163.i

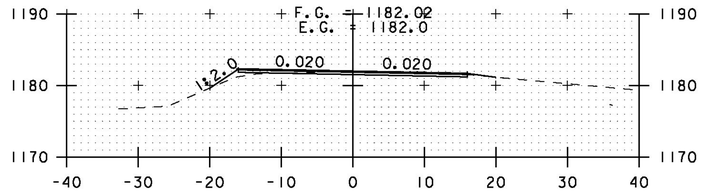
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 163 OF 194



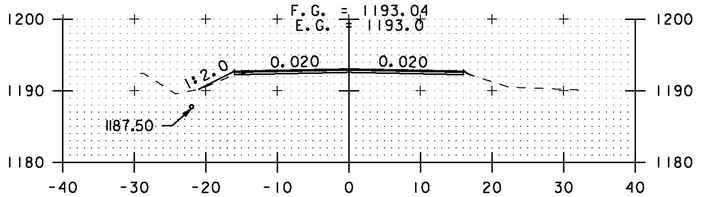
386+00



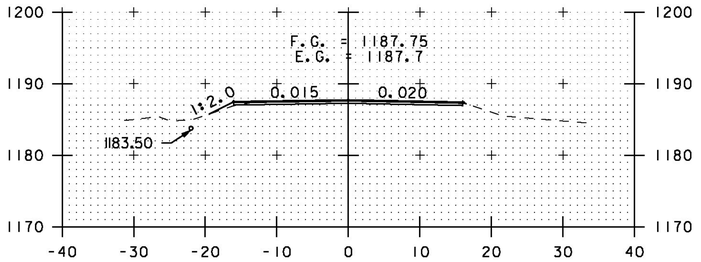
388+00

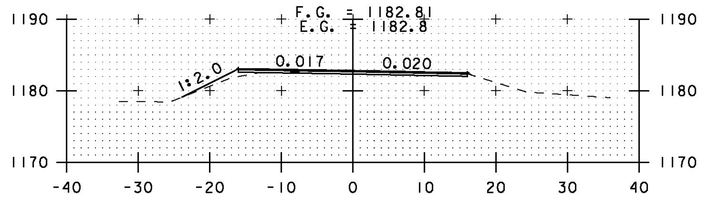


DRIVE RT
390+00

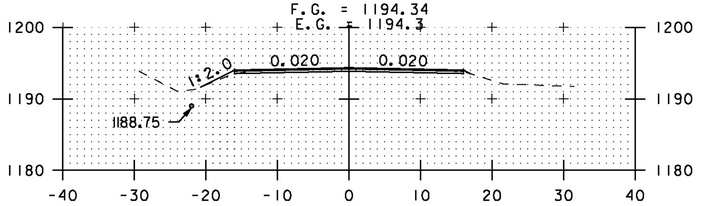


385+50

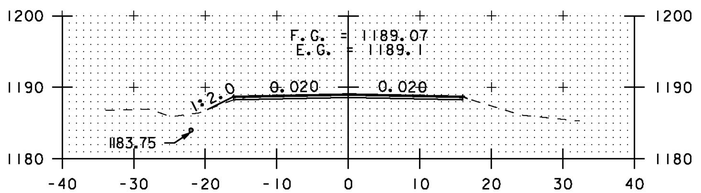




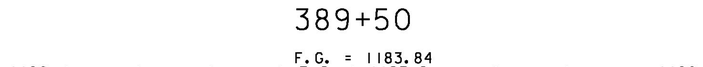
389+50



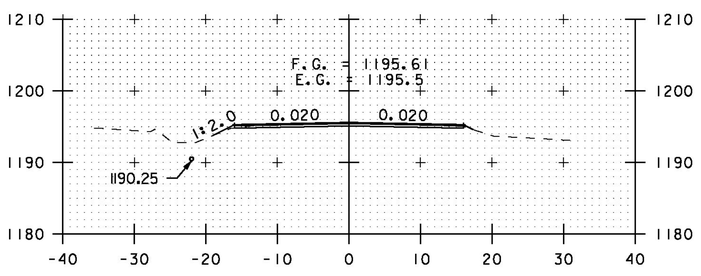
385+00



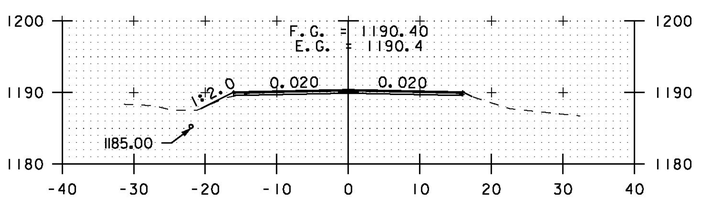
387+50



389+00

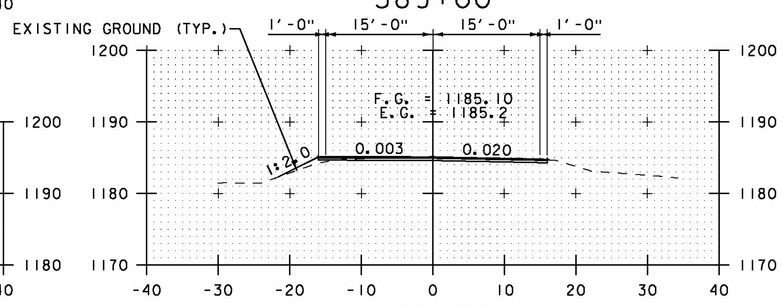


384+50



387+00

386+50



388+50

SCALE 1" = 10'-0
10 0 10

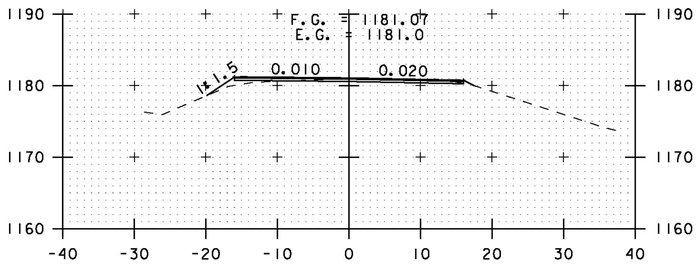
STA. 384+50 TO STA. 390+00

CROSS SECTION SHEET 36

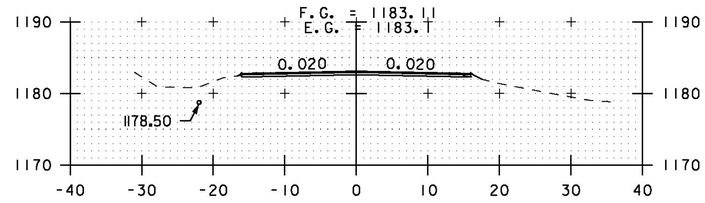
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_164.i

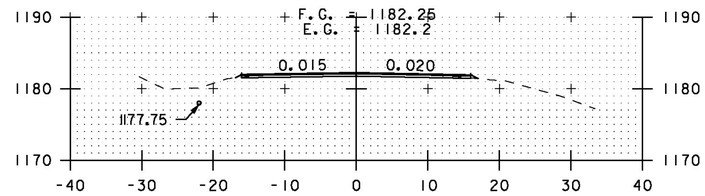
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 164 OF 194

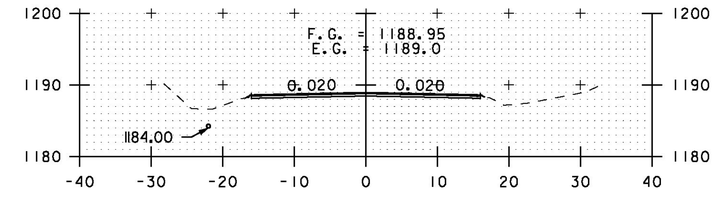


391+50

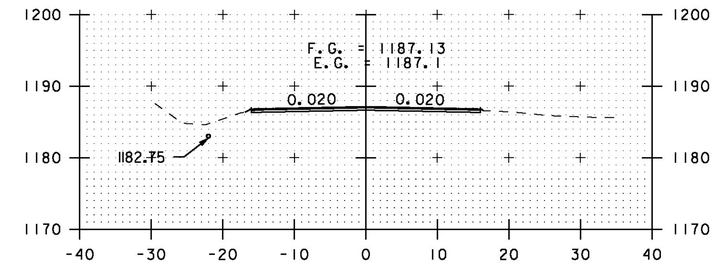


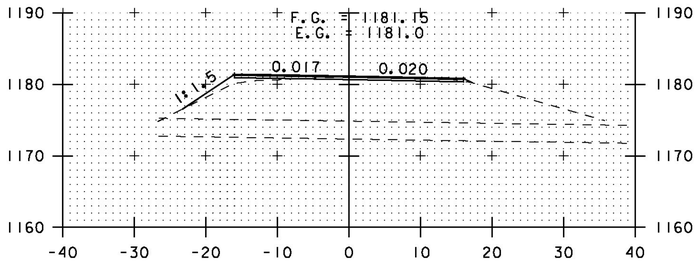
393+50



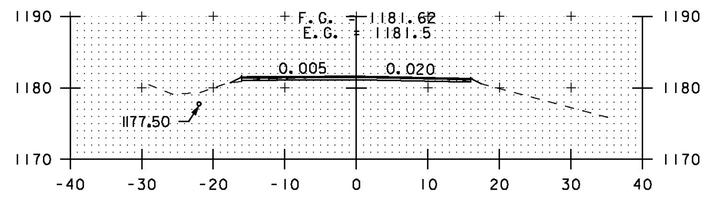


395+50

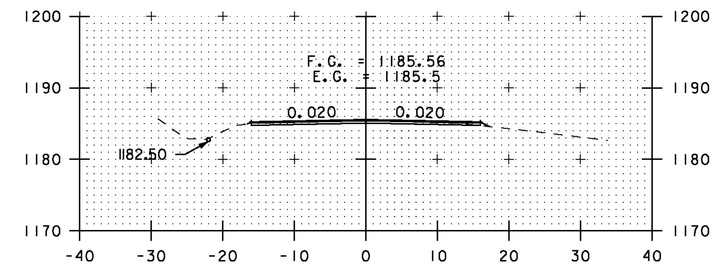




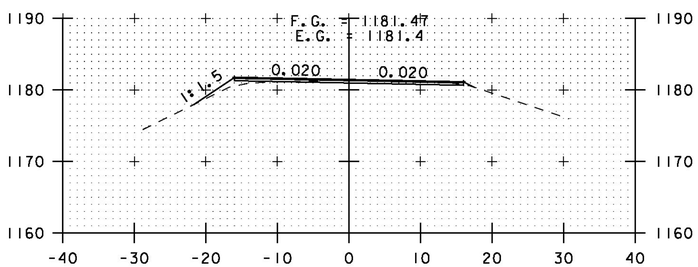
391+00



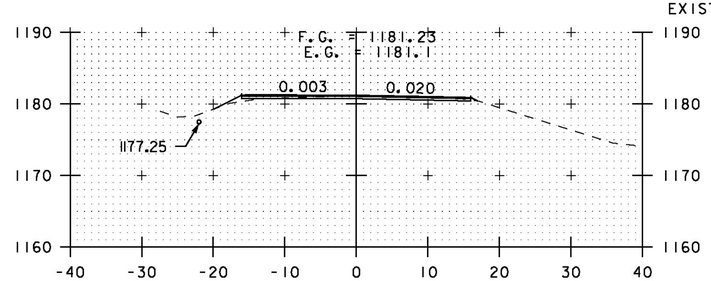
393+00



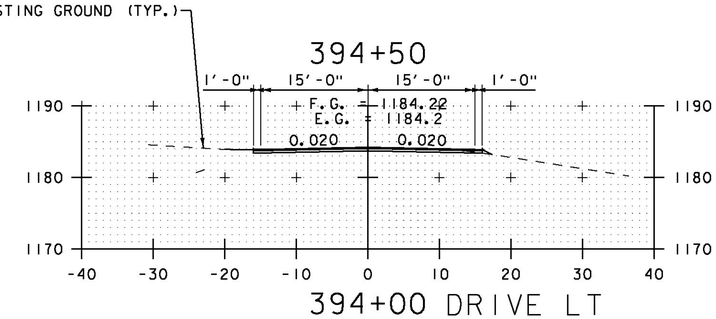
395+00



390+50



392+50



394+50

394+00 DRIVE LT

392+00

STA. 390+50 TO STA. 395+50

SCALE 1" = 10'-0

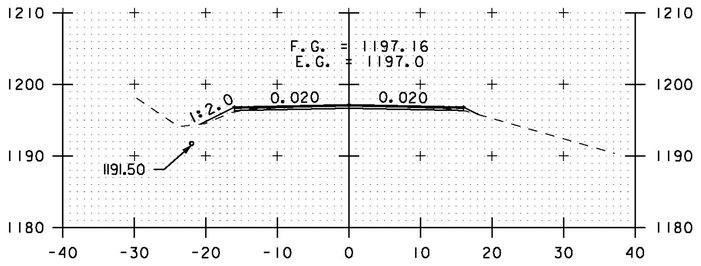
10 0 10

CROSS SECTION SHEET 37

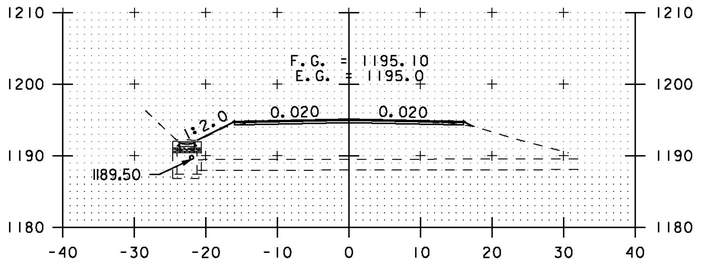
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_165.i

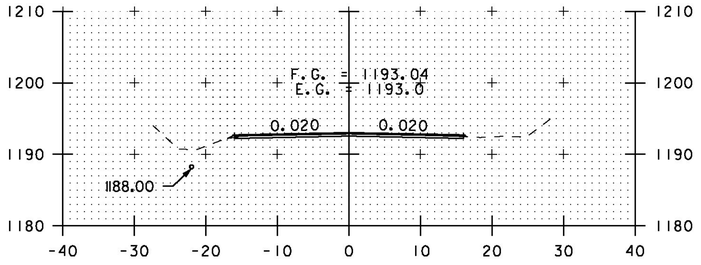
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 165 OF 194



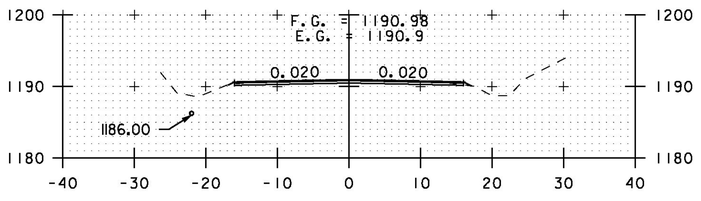
397+50



397+00

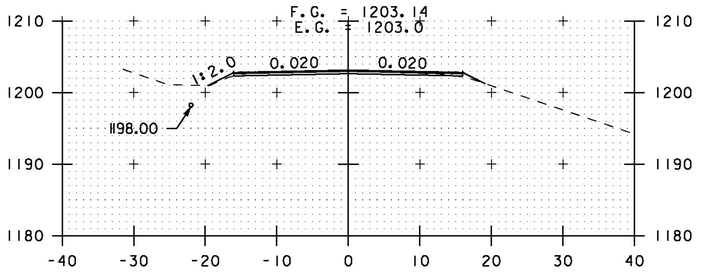


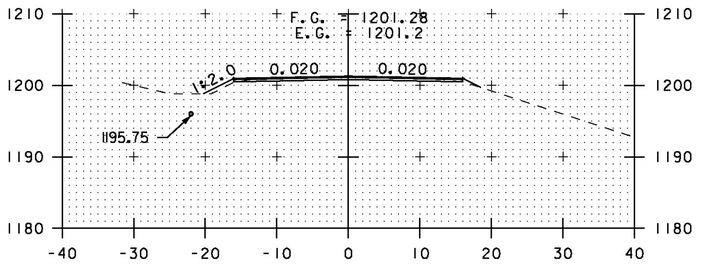
396+50



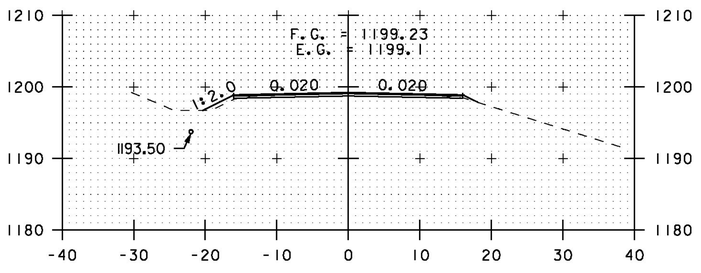
396+00

399+00



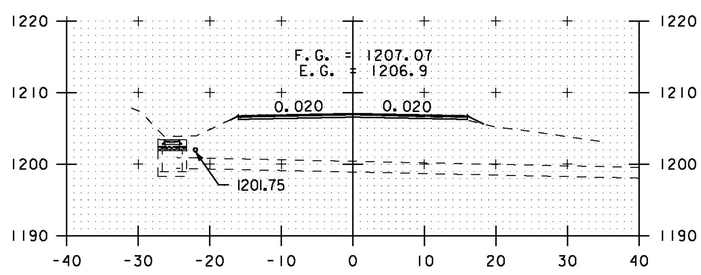


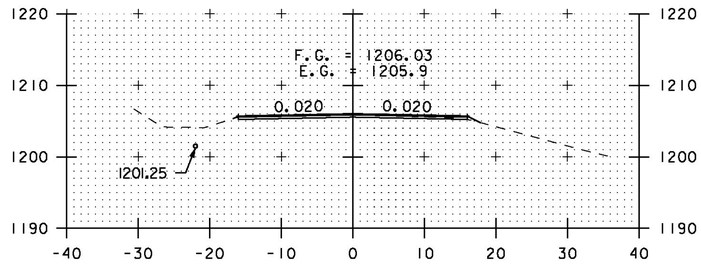
398+50



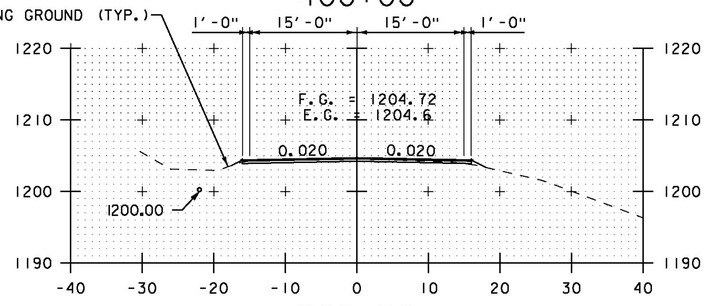
398+00

400+50





400+00



399+50

SCALE 1" = 10'-0
10 0 10

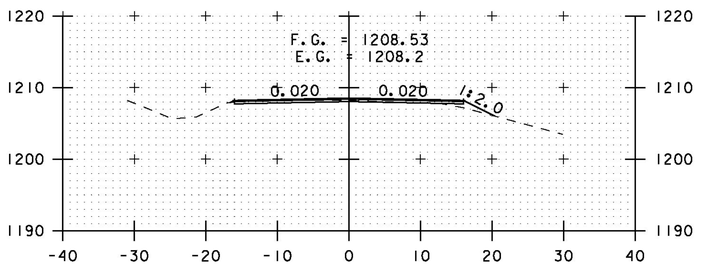
STA. 396+00 TO STA. 400+50

CROSS SECTION SHEET 38

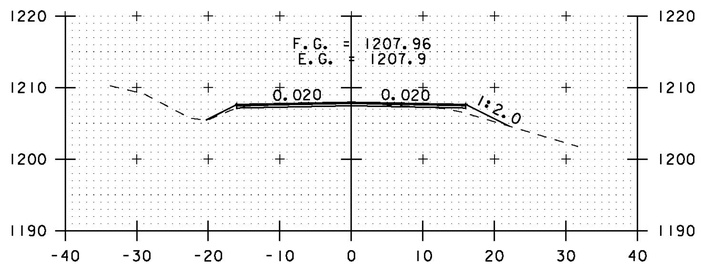
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_166.i

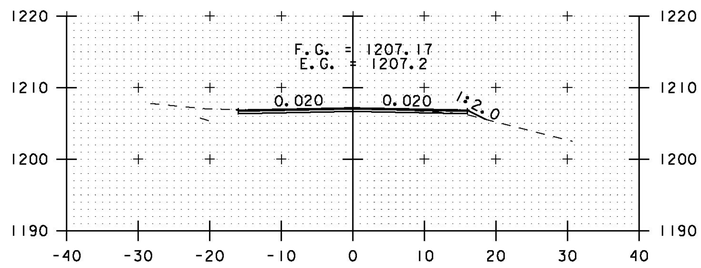
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 166 OF 194



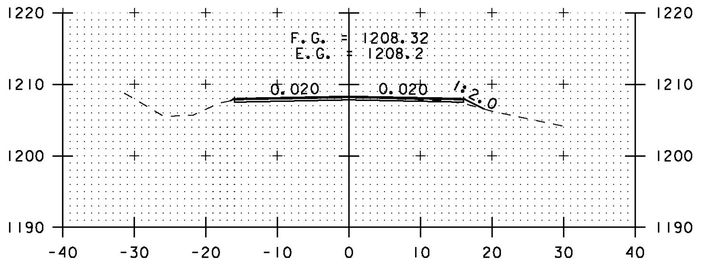
402+00



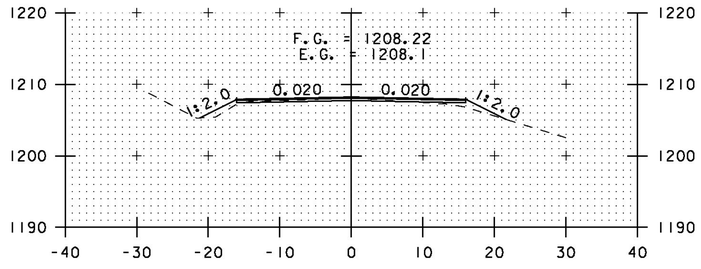
403+50



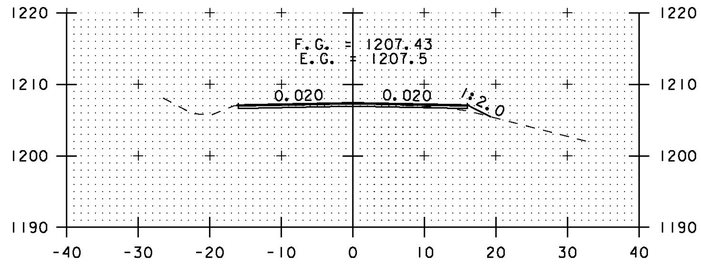
405+00



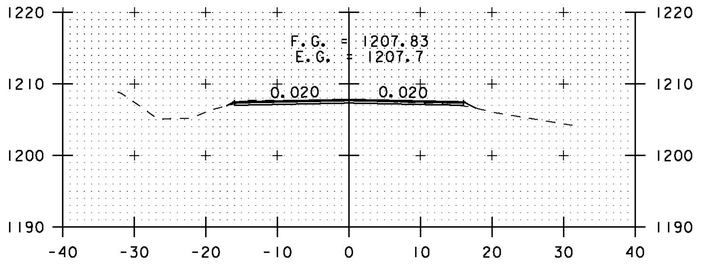
401+50



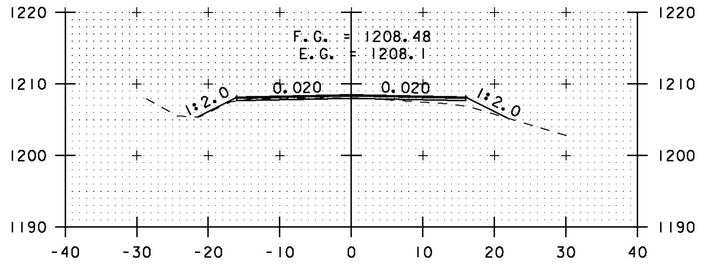
403+00



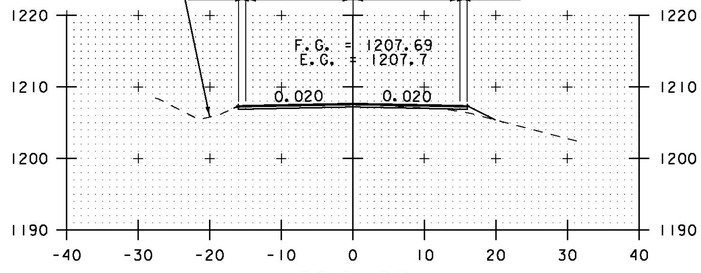
404+50



401+00



402+50



404+00

STA. 401+00 TO STA. 405+00

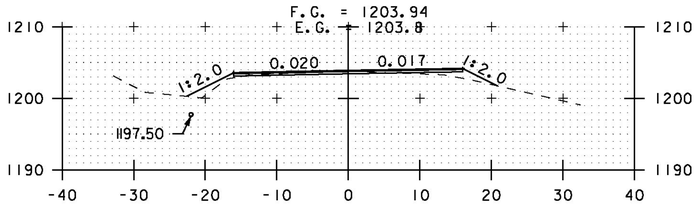
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 39

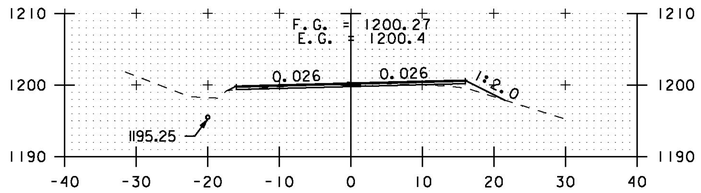
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_167.i

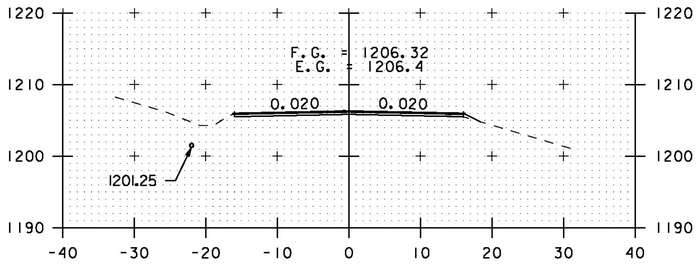
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 167 OF 194



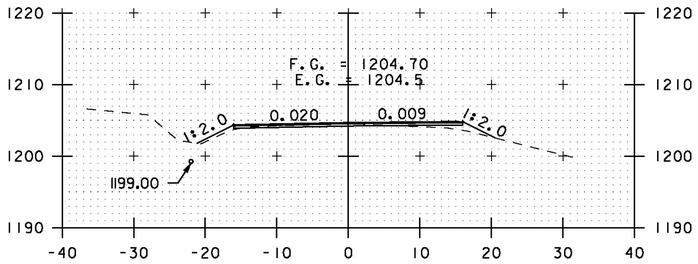
408+50



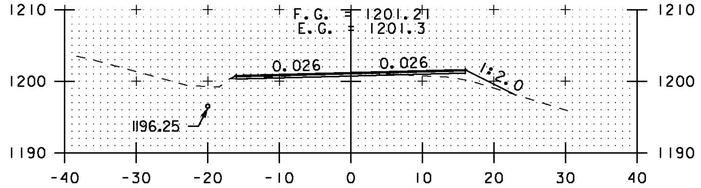
410+50

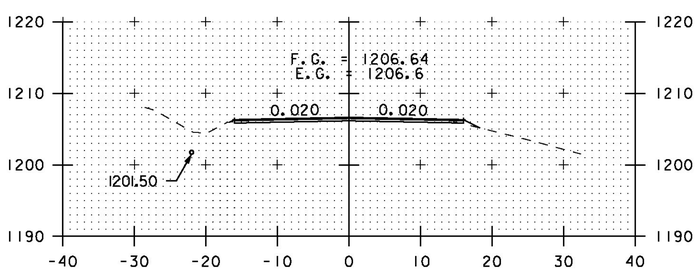


406+50

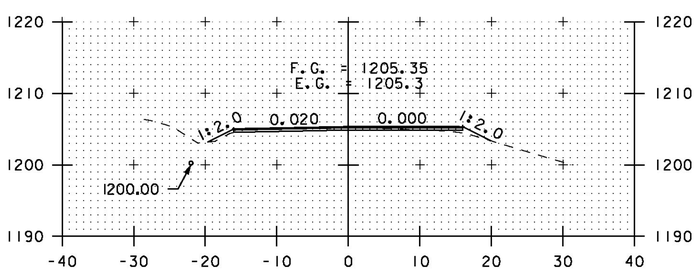


408+00



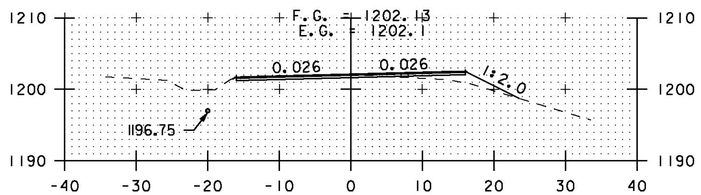


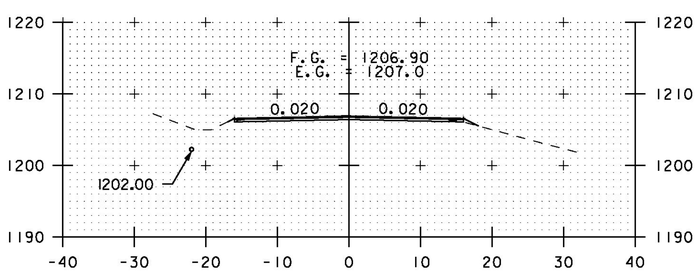
406+00



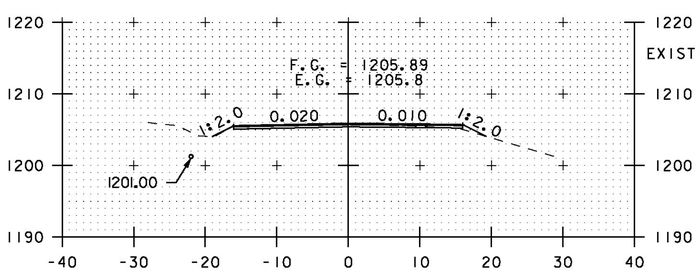
407+50

410+00



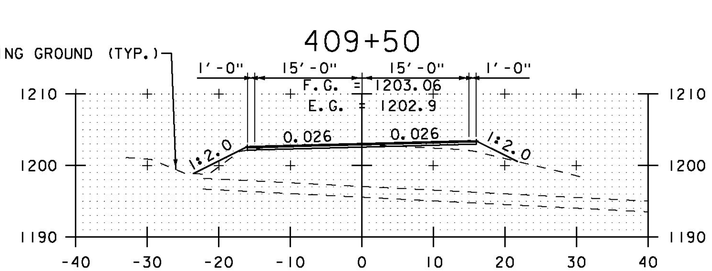


405+50



407+00

409+50



409+00

SCALE 1" = 10'-0
10 0 10

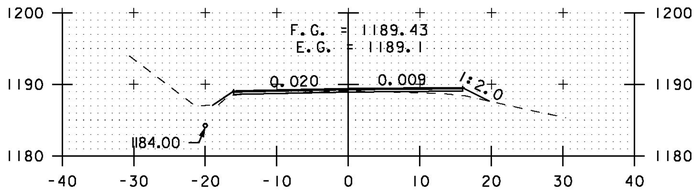
STA. 405+50 TO STA. 410+50

CROSS SECTION SHEET 40

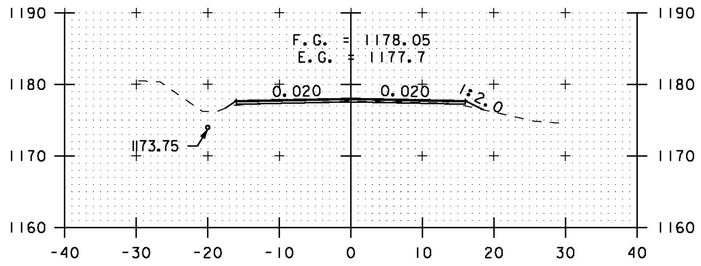
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_168.i

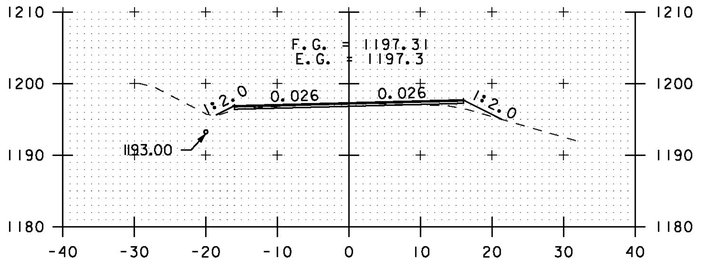
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 168 OF 194



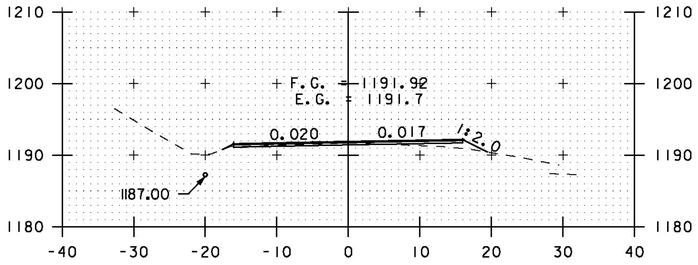
414+00



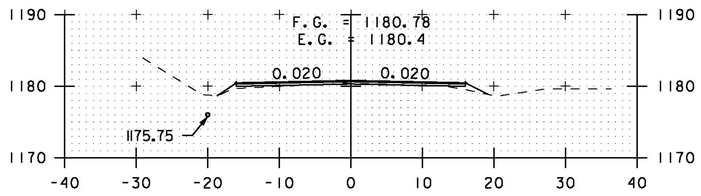
416+00



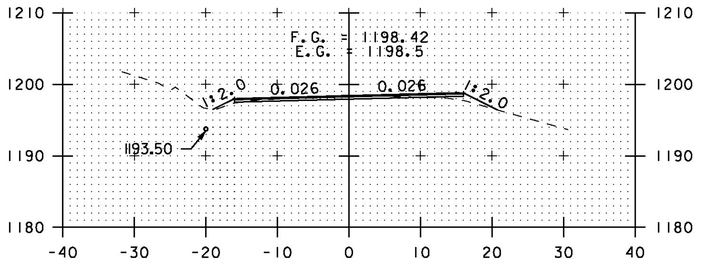
412+00



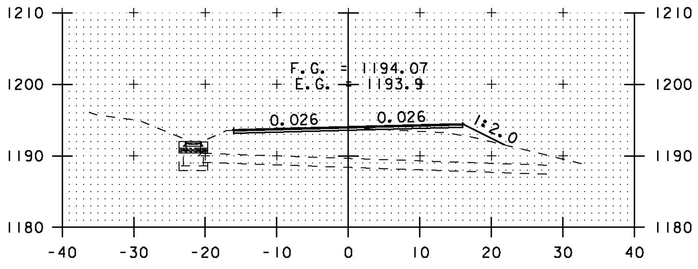
413+50



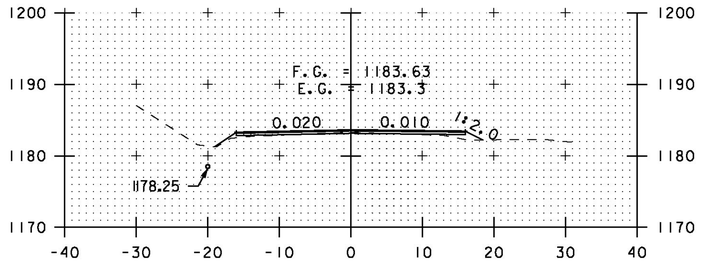
415+50



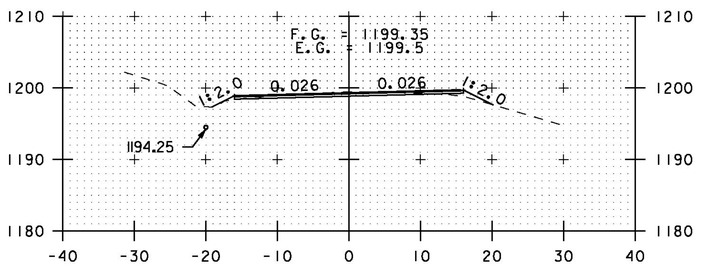
411+50



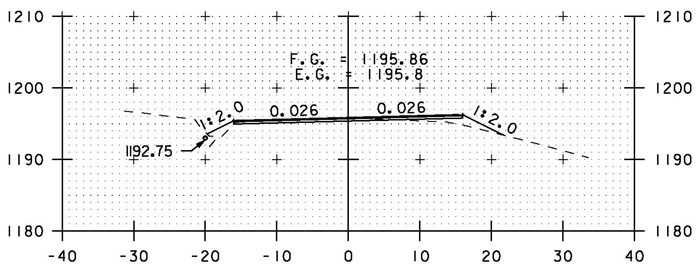
413+00



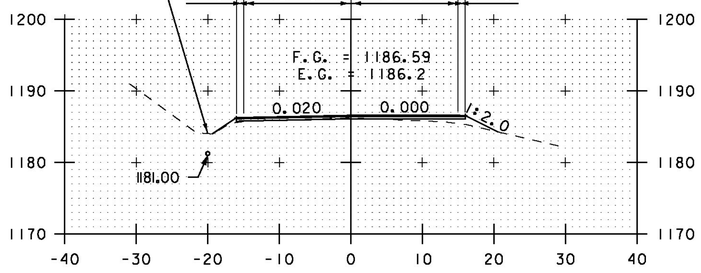
415+00



411+00



412+50



414+50

STA. 411+00 TO STA. 416+00

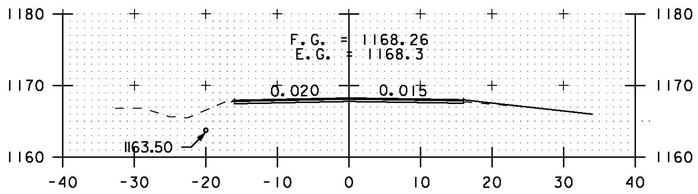
SCALE 1" = 10'-0

CROSS SECTION SHEET 41

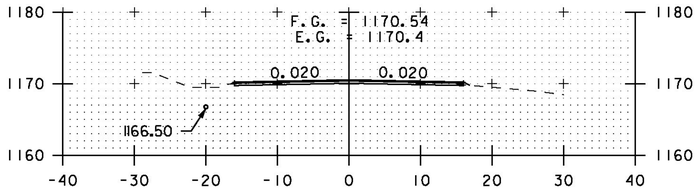
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_169.i

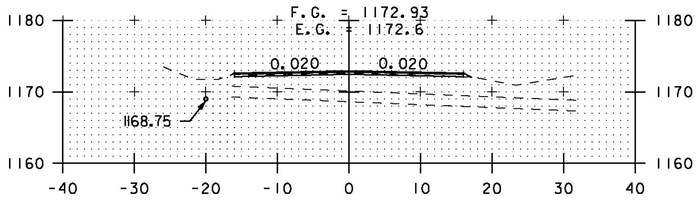
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 169 OF 194



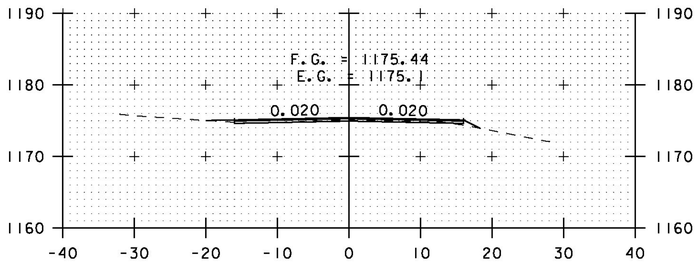
TH#4 RT
418+00



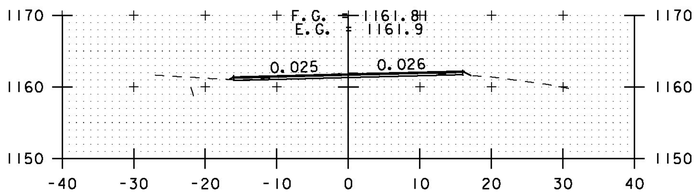
417+50



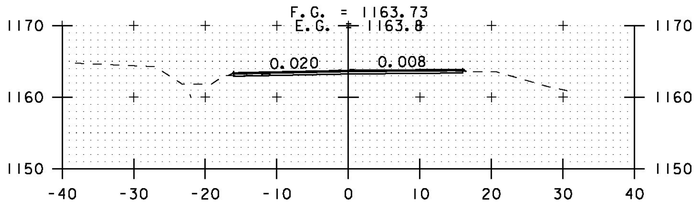
417+00



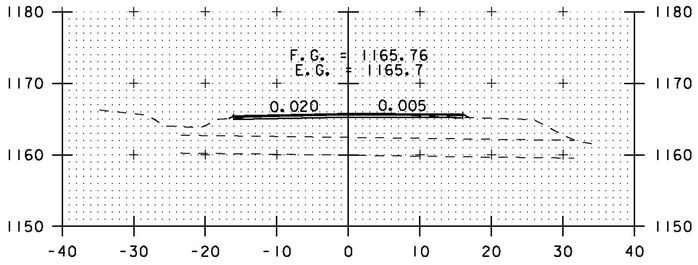
DRIVE LT
416+50



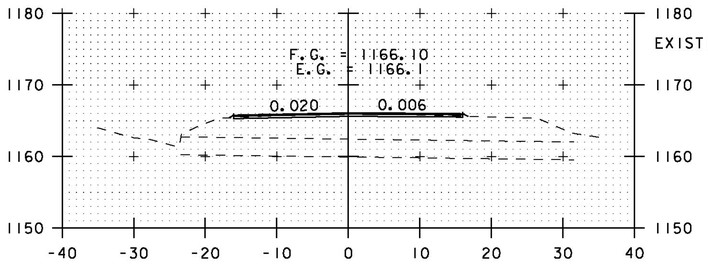
A 1+00



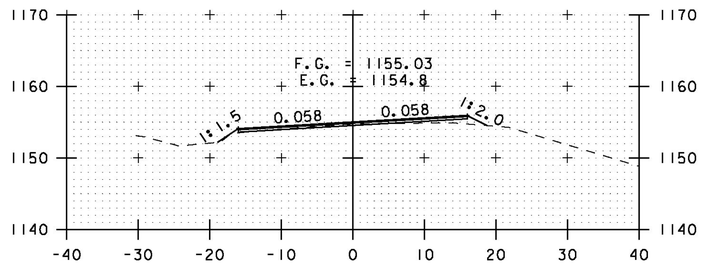
A 0+50



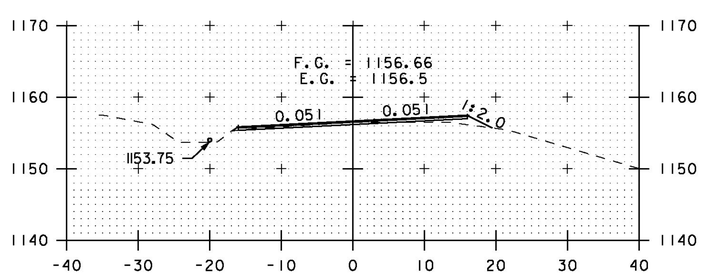
A 0+00



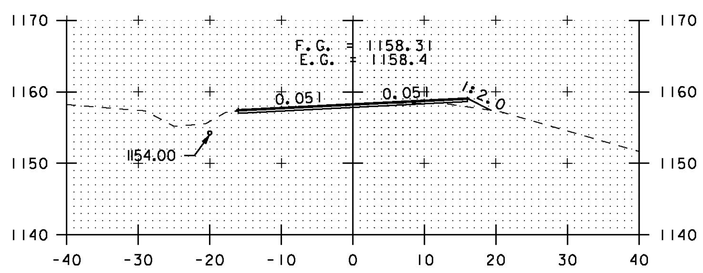
418+50



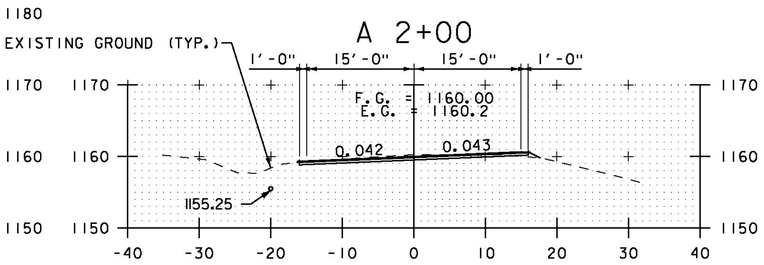
A 3+00



A 2+50



A 2+00



A 1+50

STA. 416+50 TO STA. A 3+00

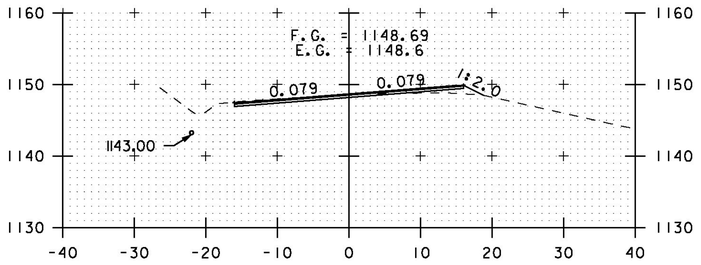
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 42

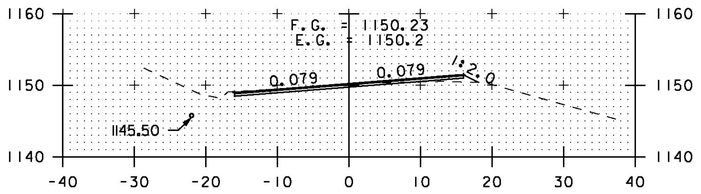
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_170.i

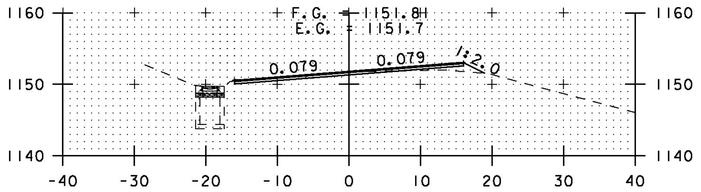
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 170 OF 194



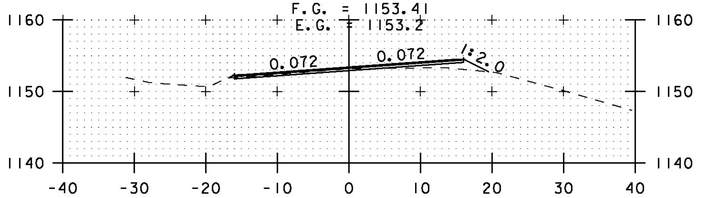
A 5+00



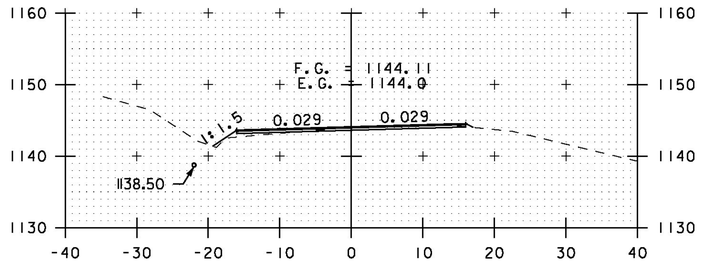
A 4+50



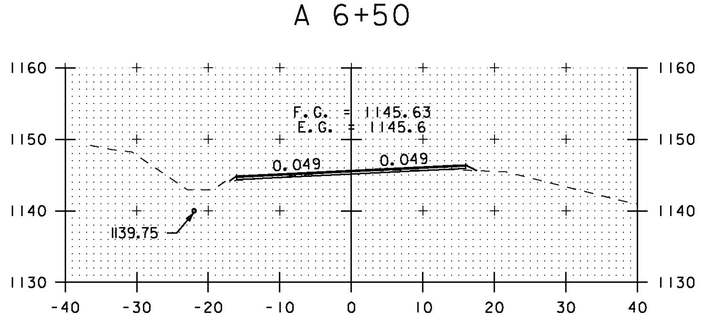
A 4+00



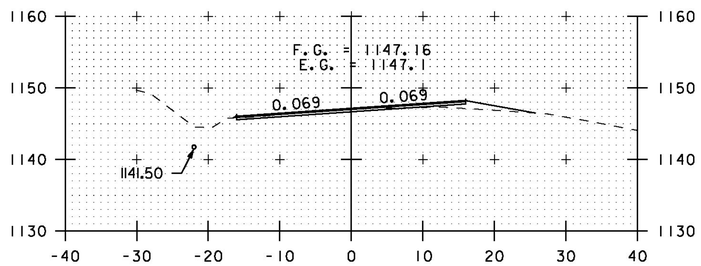
A 3+50



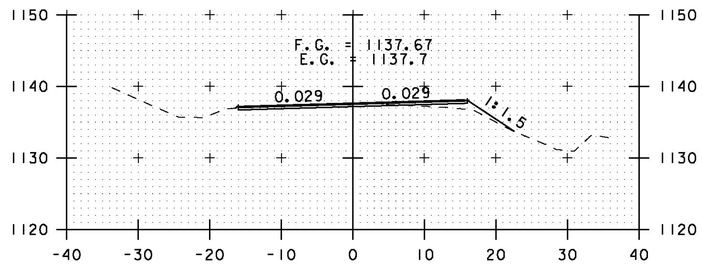
A 6+50



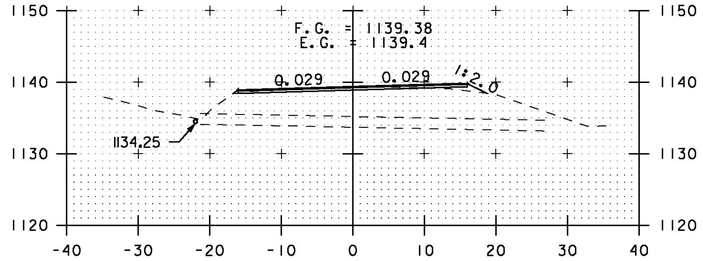
A 6+00



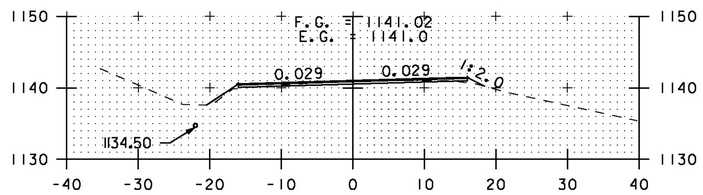
DRIVE RT
A 5+50



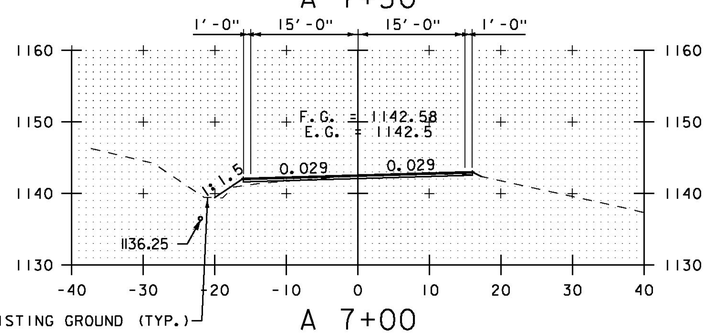
A 8+50



A 8+00



A 7+50



A 7+00

STA. A 3+50 TO STA. A 8+50

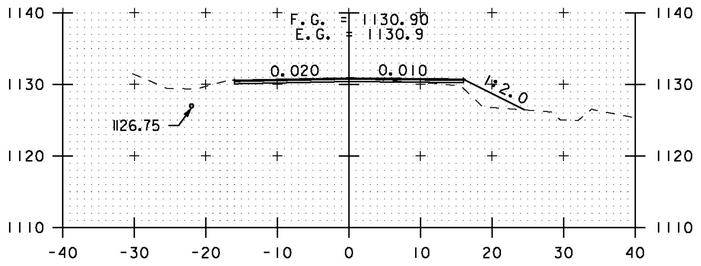
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 43

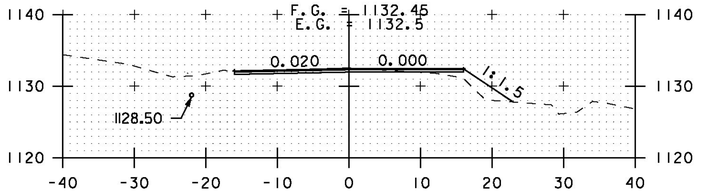
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_171.i

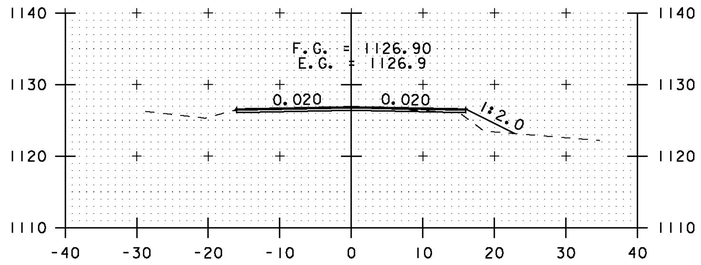
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 171 OF 194



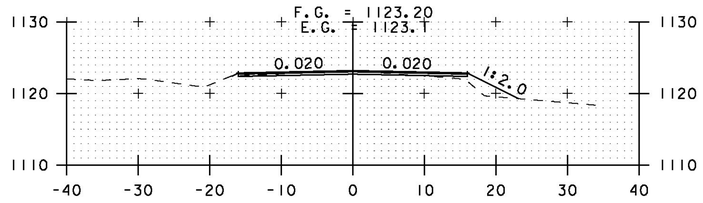
A 10+50



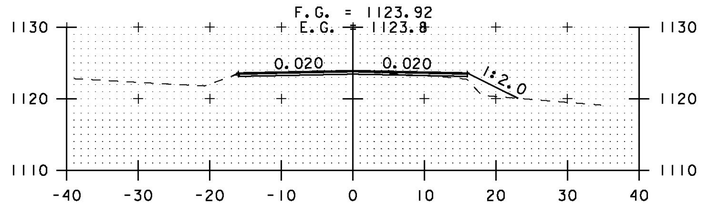
A 10+00

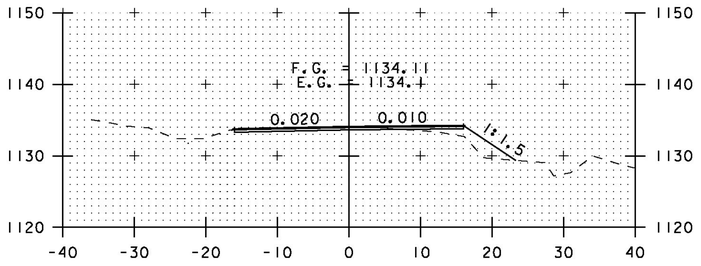


A 12+00

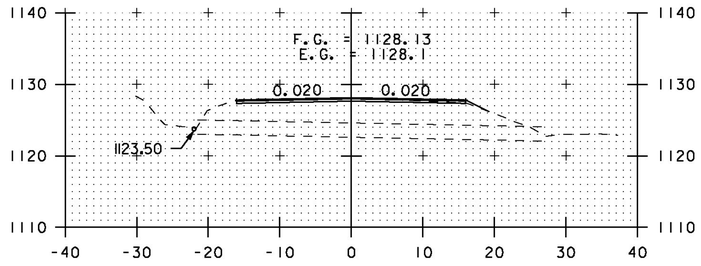


A 14+00

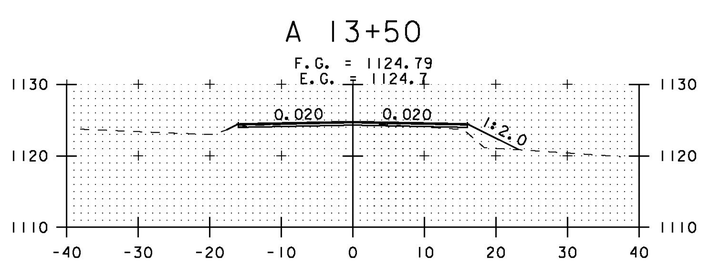




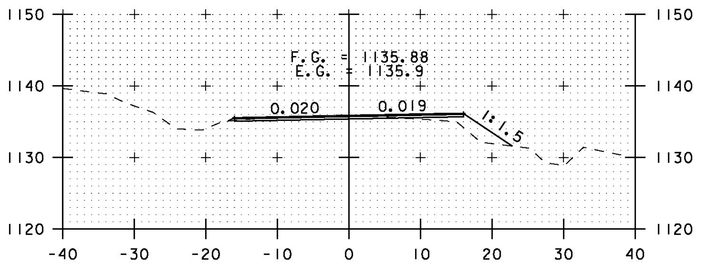
A 9+50



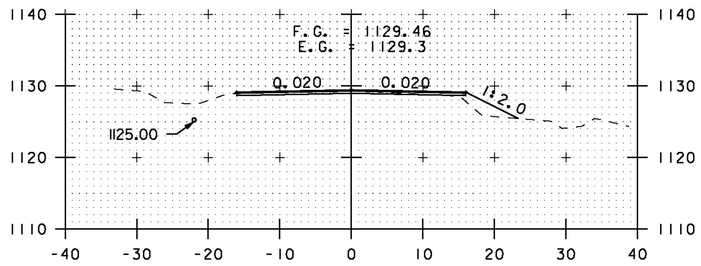
A 11+50



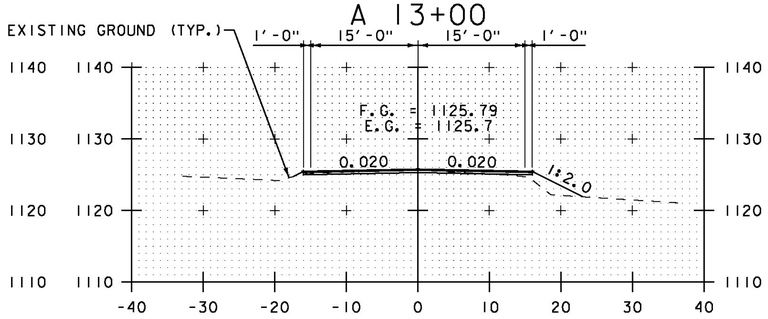
A 13+50



A 9+00



A 11+00



A 13+00

A 12+50

STA. A 9+00 TO STA. A 14+00

SCALE 1" = 10'-0

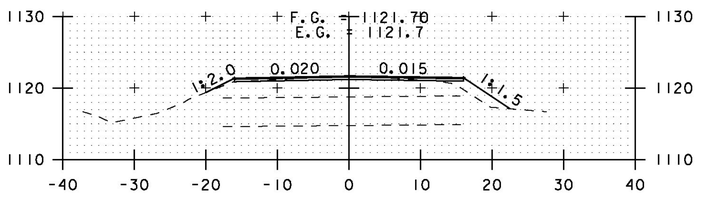
10 0 10

CROSS SECTION SHEET 44

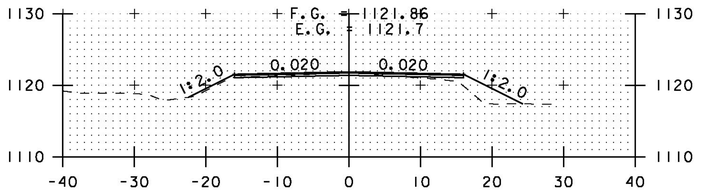
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_172.i

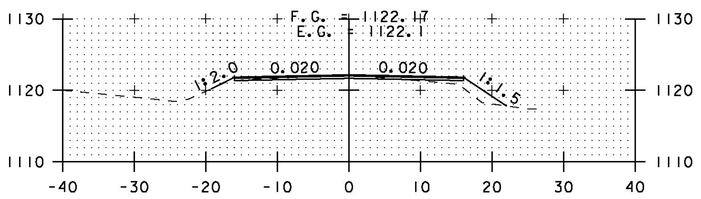
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 172 OF 194



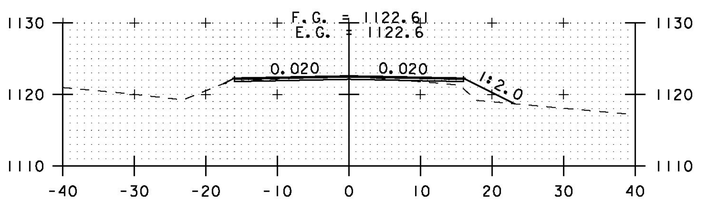
A 16+00



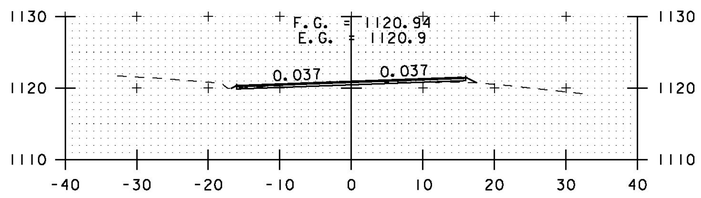
A 15+50



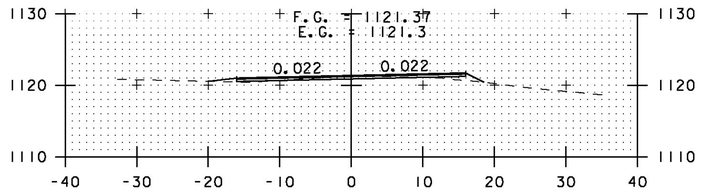
A 15+00



A 14+50

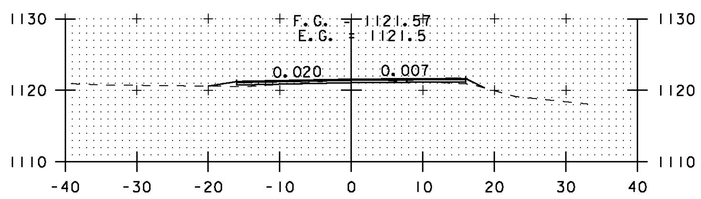


A 18+00



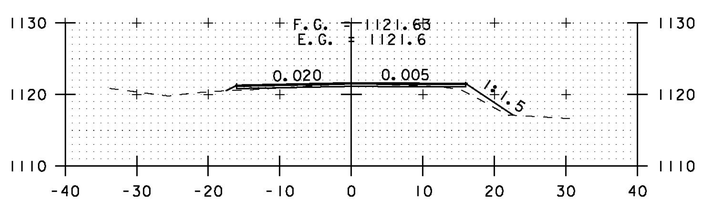
DRIVE LT

A 17+50

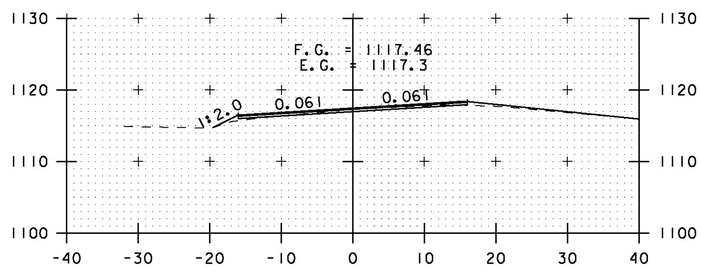


DRIVE LT

A 17+00

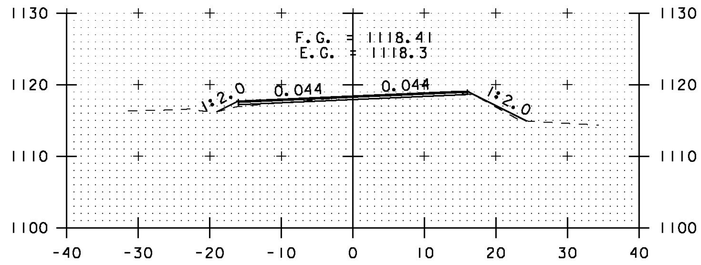


A 16+50

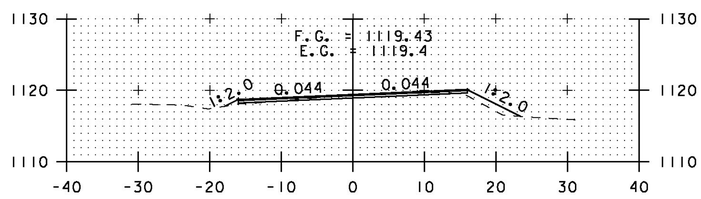


TH#21 RT

A 20+00

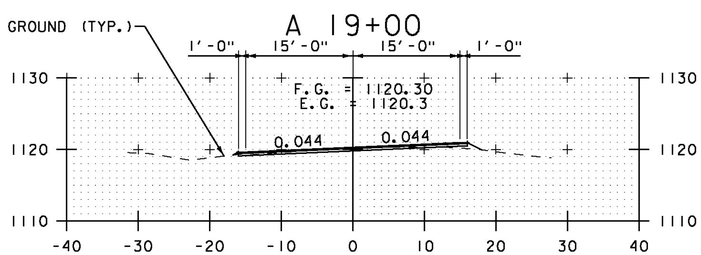


A 19+50



EXISTING GROUND (TYP.)

A 19+00



A 18+50

STA. A 14+50 TO STA. A 20+00

SCALE 1" = 10'-0

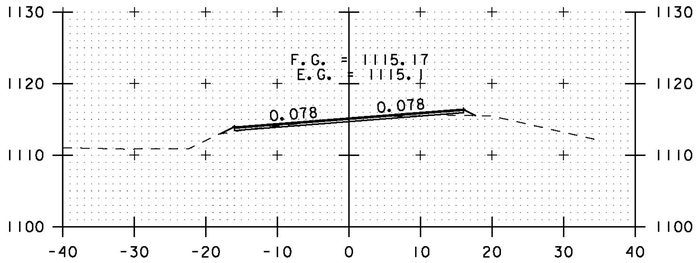
10 0 10

CROSS SECTION SHEET 45

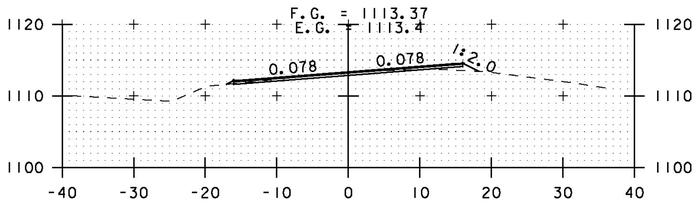
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_173.i

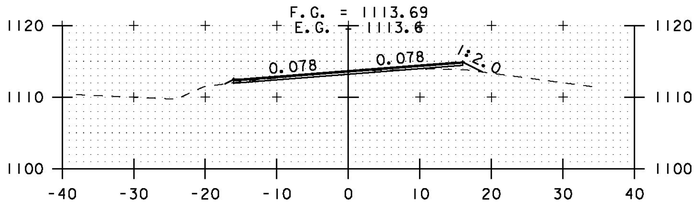
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 173 OF 194



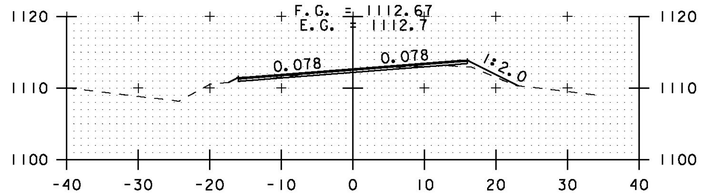
A 21+50



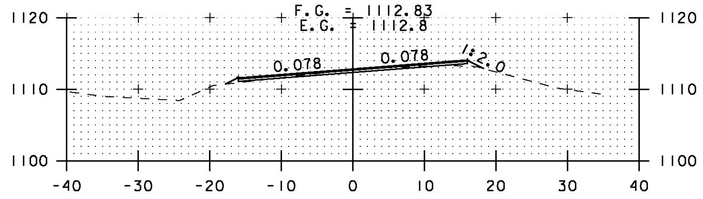
A 23+50



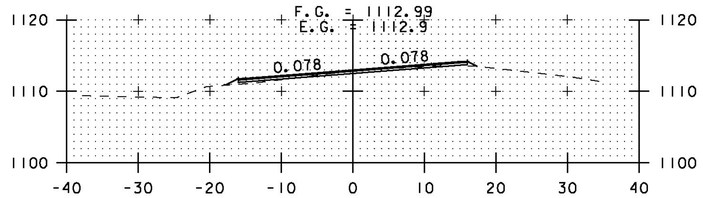
A 23+00



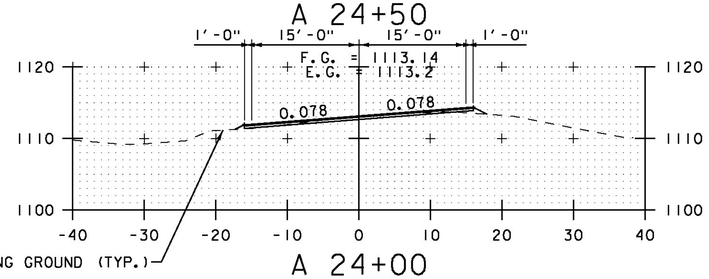
A 25+50



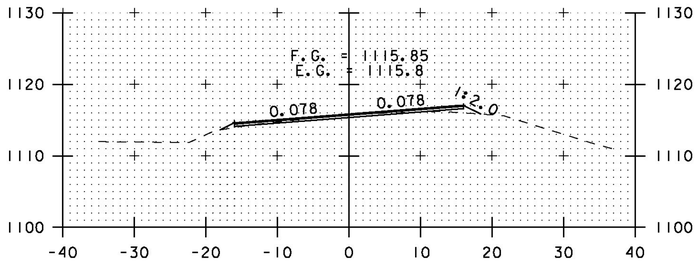
A 25+00



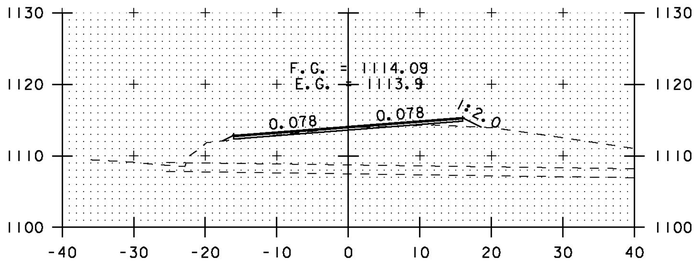
A 24+50



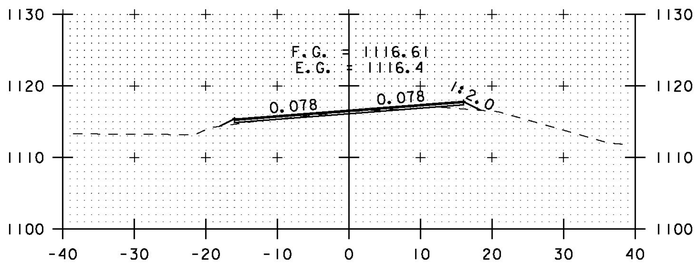
A 24+00



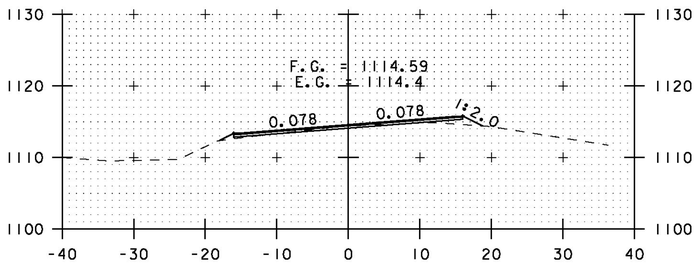
A 21+00



A 22+50



A 20+50



A 22+00

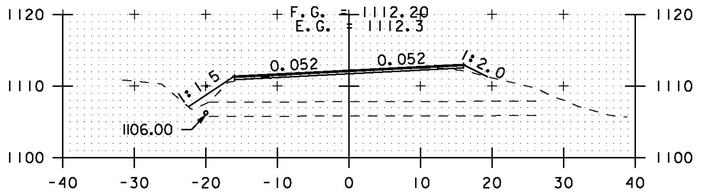
STA. A 20+50 TO STA. A 25+50

SCALE 1" = 10'-0
10 0 10

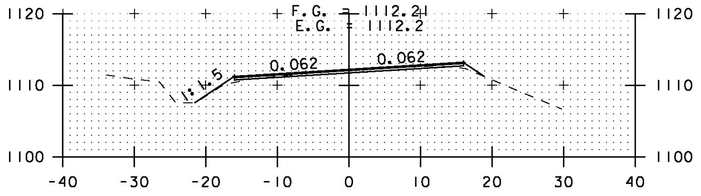
CROSS SECTION SHEET 46

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

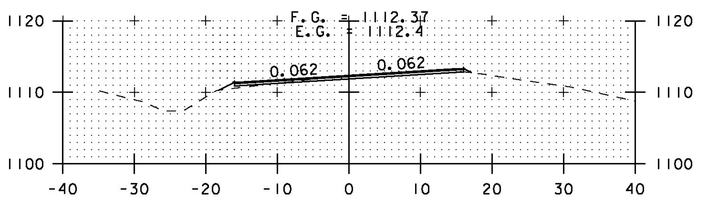
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_174.;
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 174 OF 194



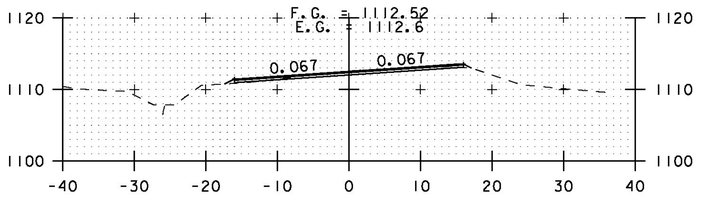
A 27+50



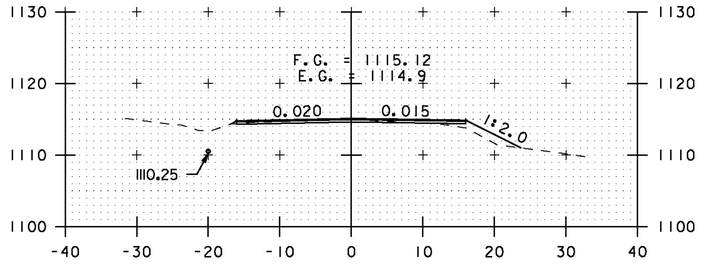
A 27+00



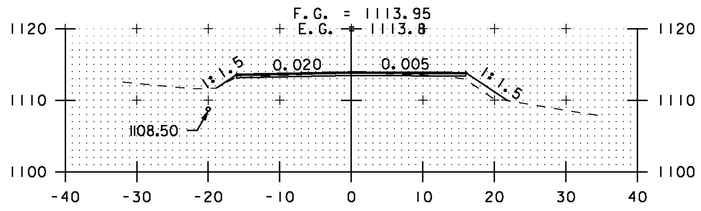
A 26+50



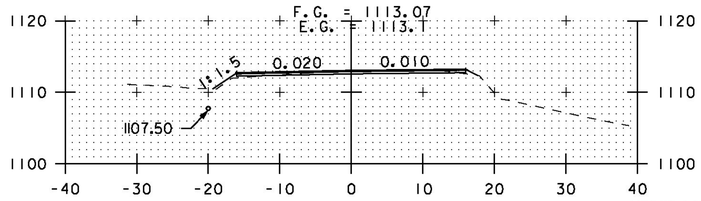
A 26+00



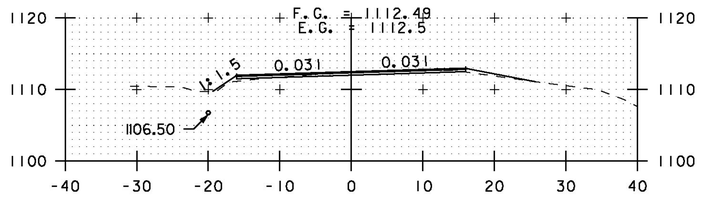
A 29+50



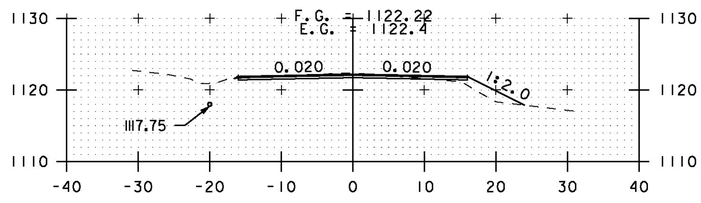
A 29+00



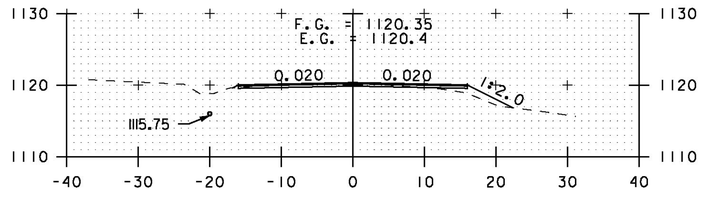
A 28+50



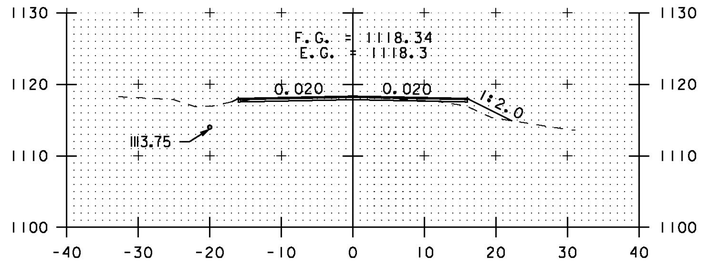
DRIVE RT
A 28+00



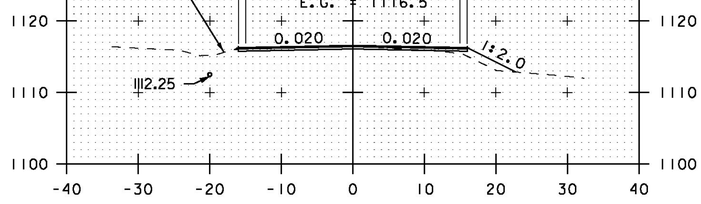
A 31+50



A 31+00



A 30+50



A 30+00

SCALE 1" = 10'-0
10 0 10

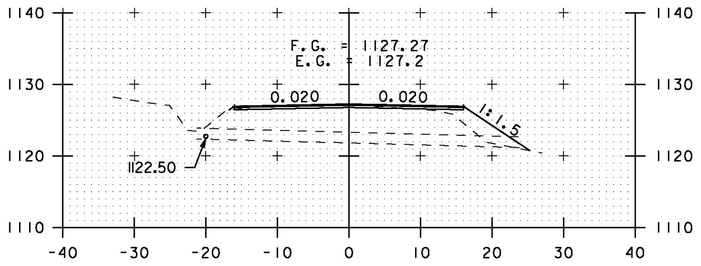
STA. A 26+00 TO STA. A 31+50

CROSS SECTION SHEET 47

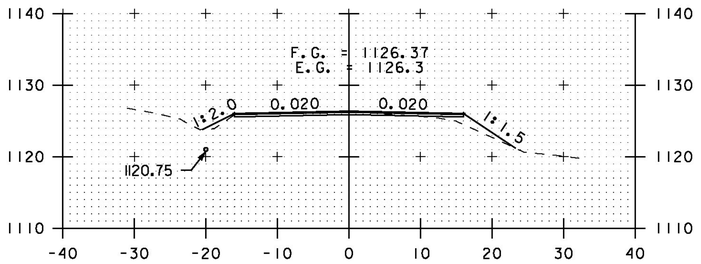
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_175.i

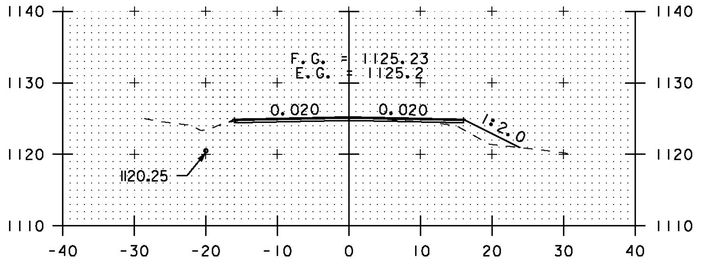
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 175 OF 194



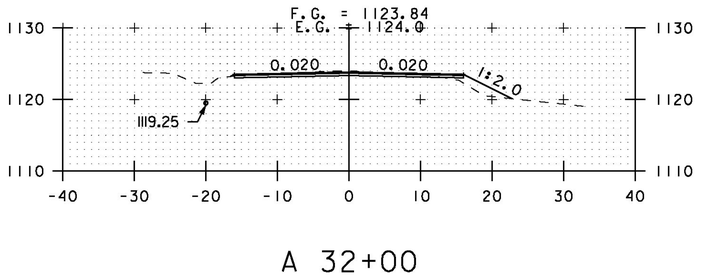
A 33+50



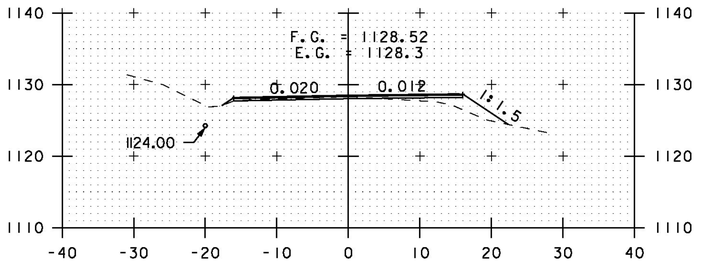
A 33+00



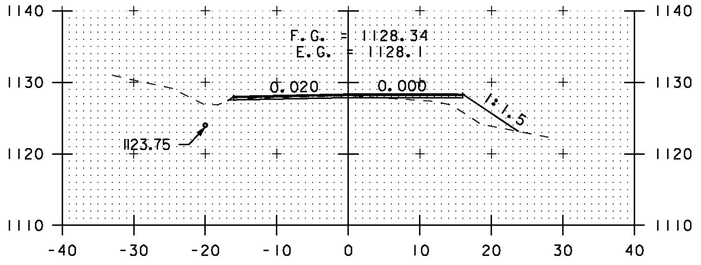
A 32+50



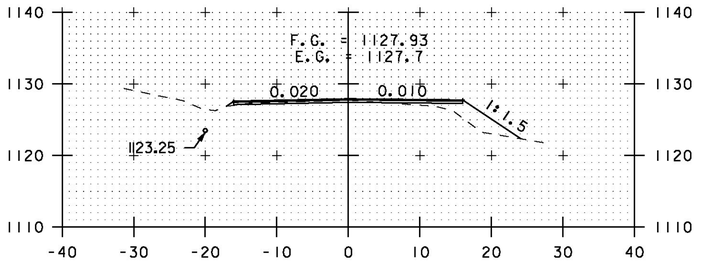
A 32+00



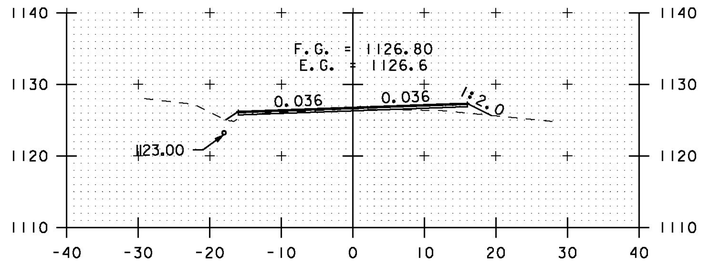
A 35+00



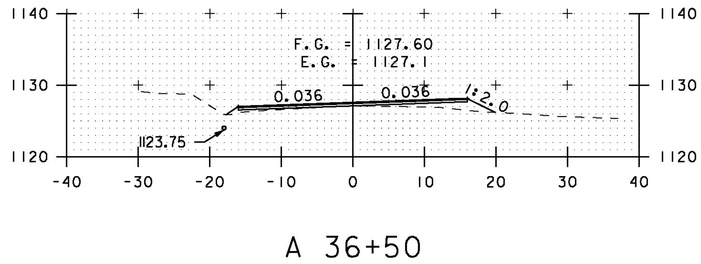
A 34+50



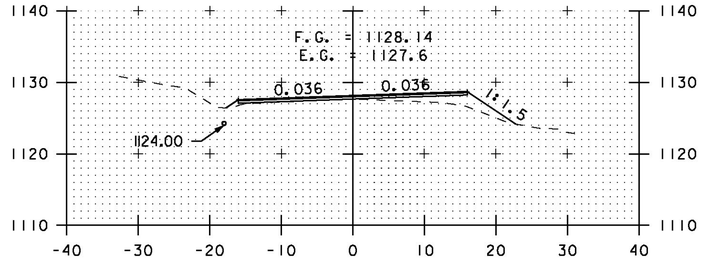
A 34+00



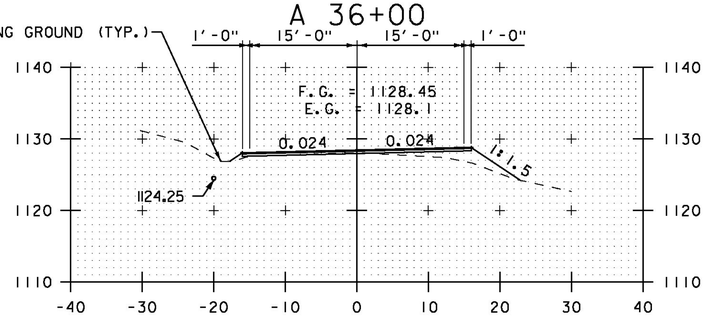
A 37+00



A 36+50



A 36+00



A 35+50

SCALE 1" = 10'-0
10 0 10

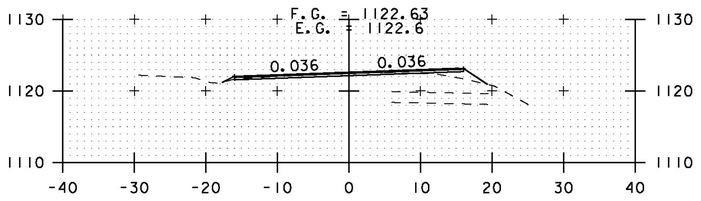
STA. A 32+00 TO STA. A 37+00

CROSS SECTION SHEET 48

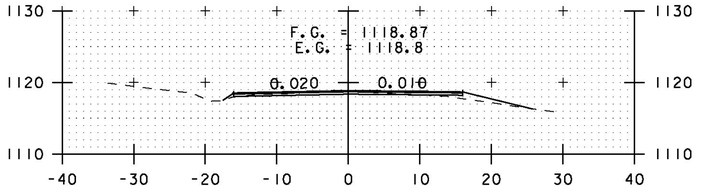
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_176.i

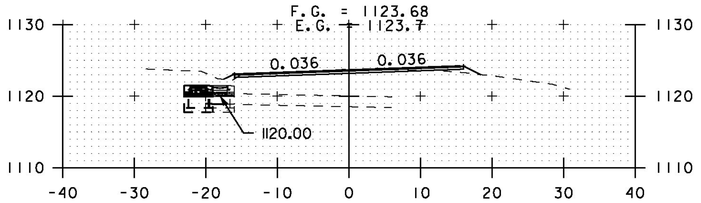
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 176 OF 194



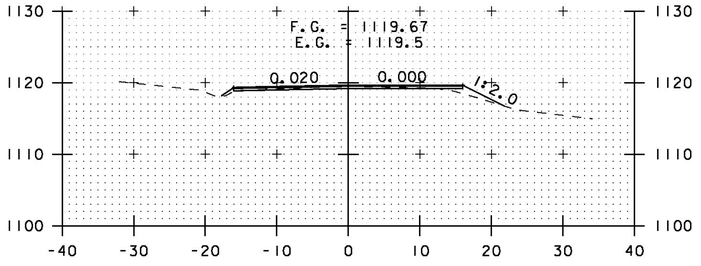
A 39+00

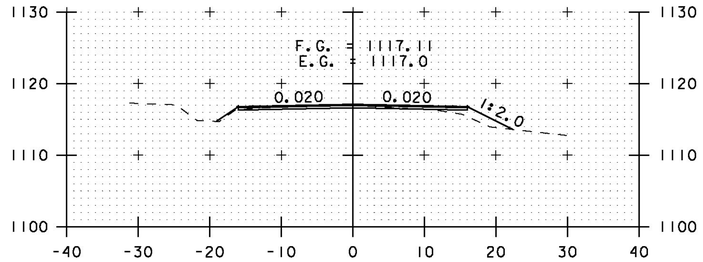


DRIVE RT
A 41+00

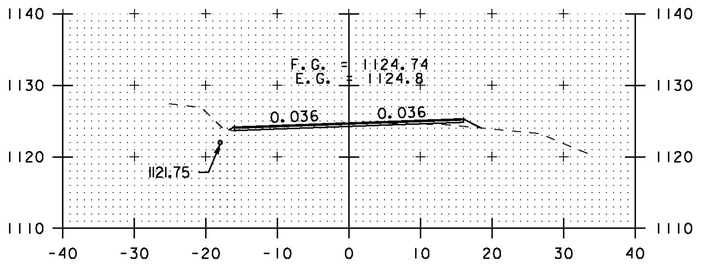


A 38+50



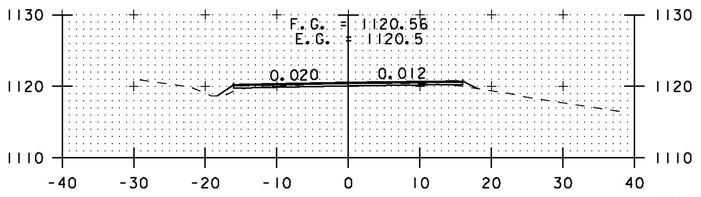


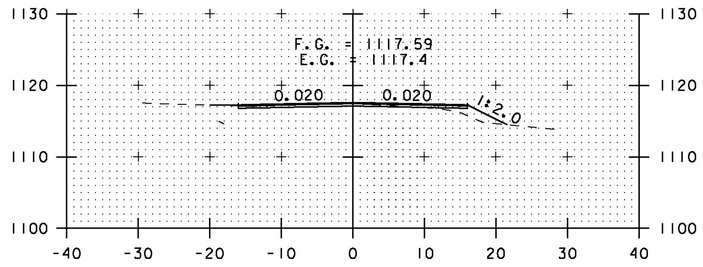
A 42+50



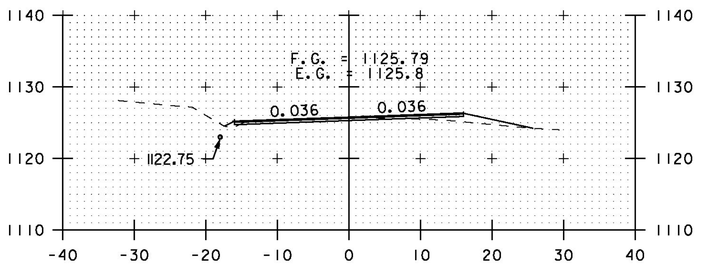
A 38+00

A 40+50



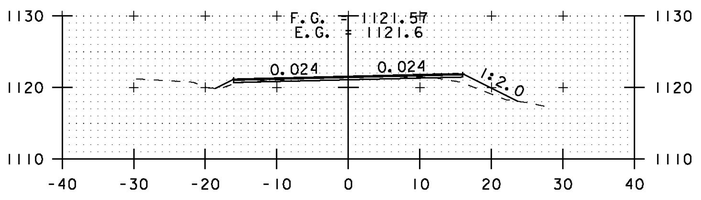


DRIVE LT
A 42+00

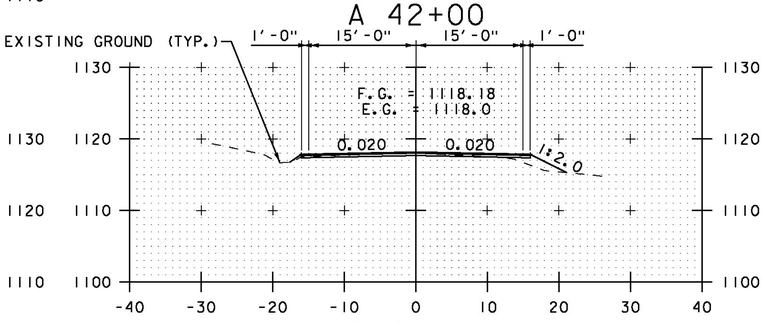


DRIVE RT
A 37+50

A 40+00



A 39+50



A 41+50

STA. A 37+50 TO STA. A 42+50

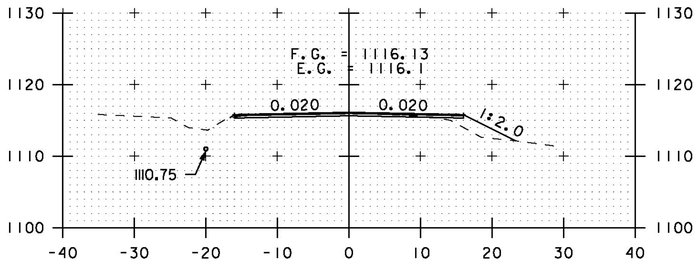
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 49

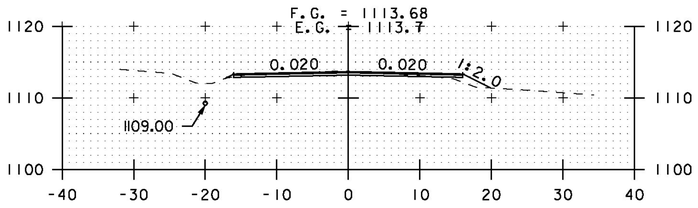
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_177.i

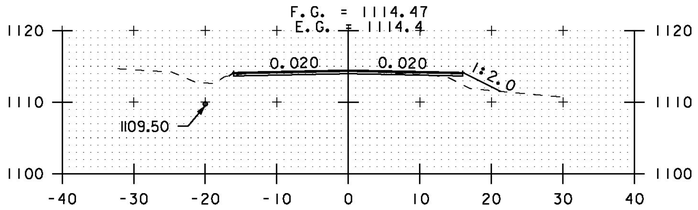
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 177 OF 194



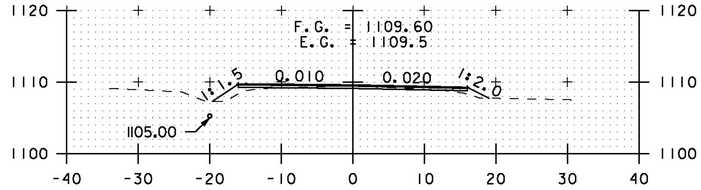
A 44+00



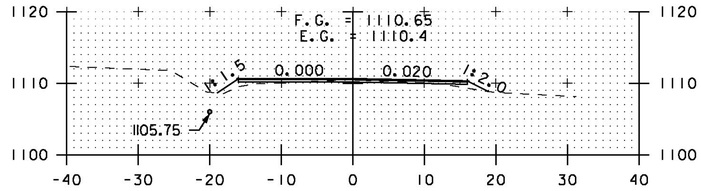
A 46+00



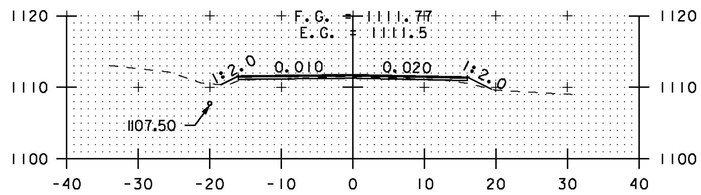
A 45+50



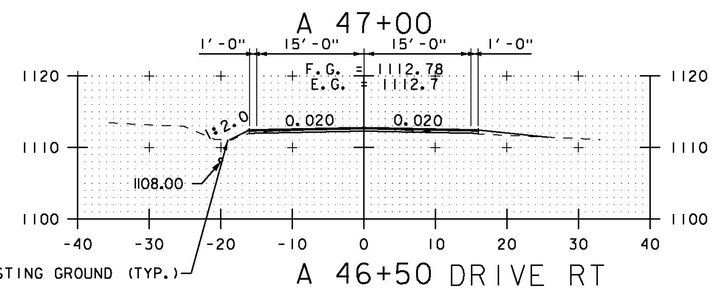
A 48+00



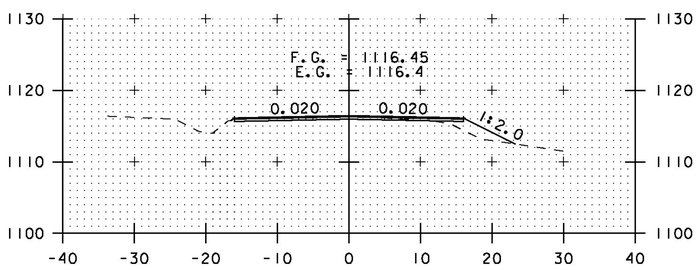
A 47+50



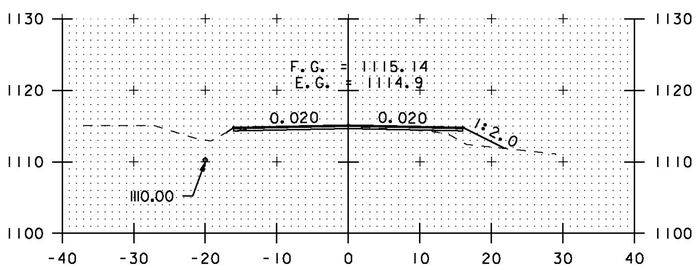
A 47+00



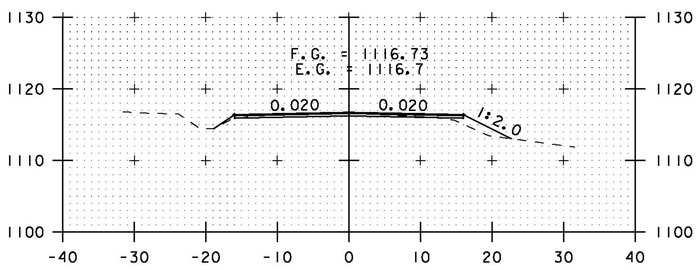
A 46+50 DRIVE RT



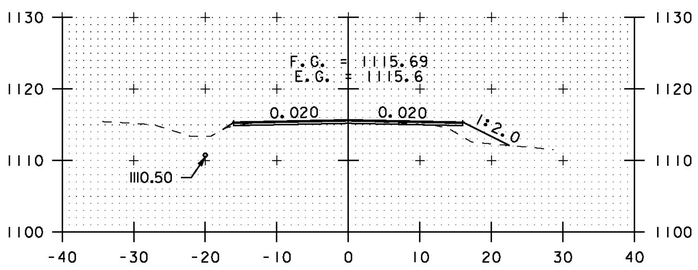
A 43+50



A 45+00



A 43+00



A 44+50

STA. A 43+00 TO STA. A 48+00

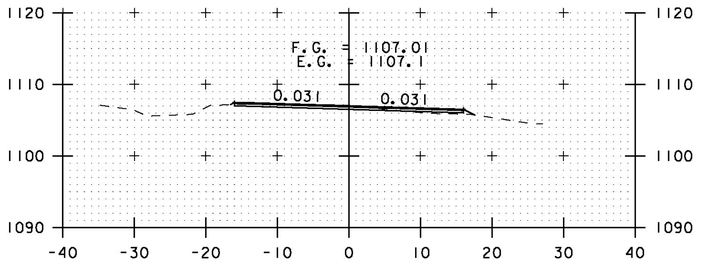
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 50

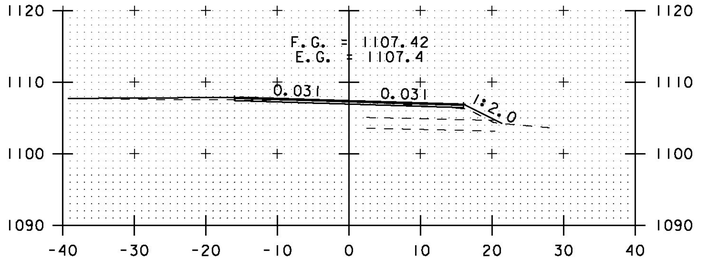
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_178.i

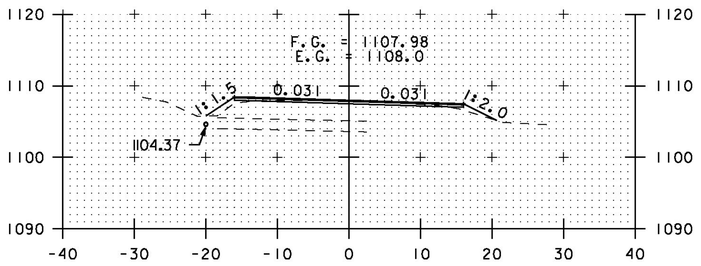
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 178 OF 194



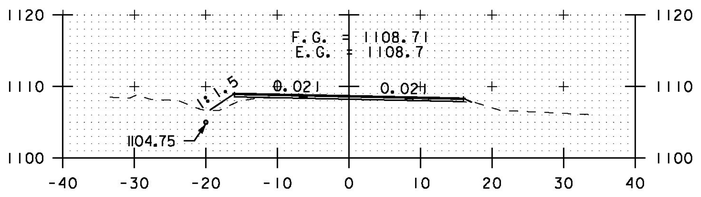
A 50+00



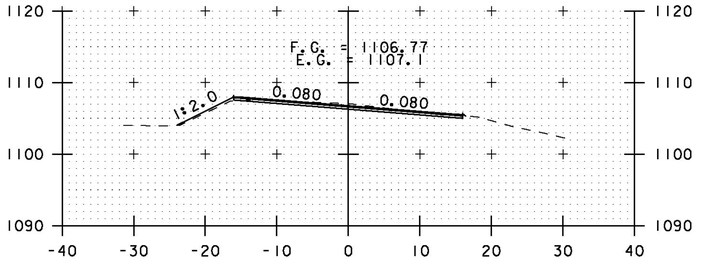
TH#80 LT
A 49+50



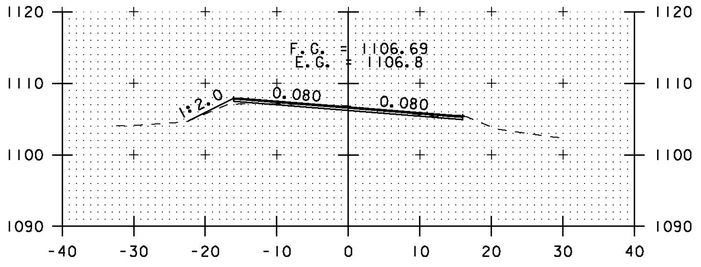
A 49+00



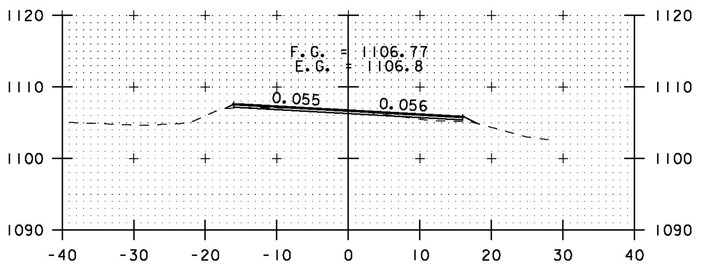
A 48+50



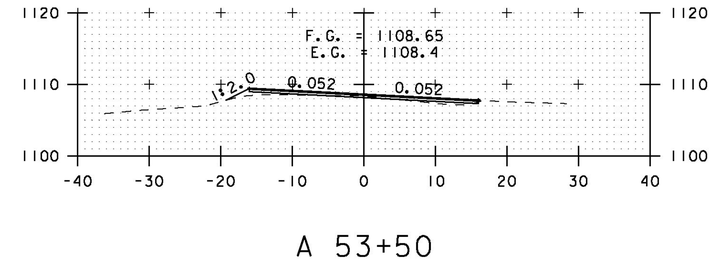
A 51+50



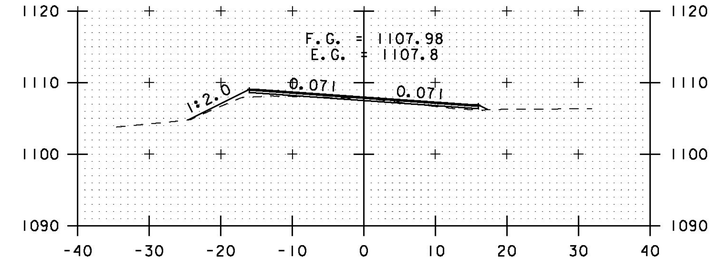
A 51+00



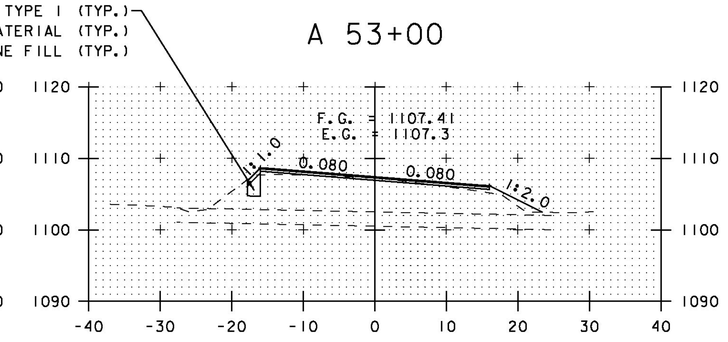
A 50+50



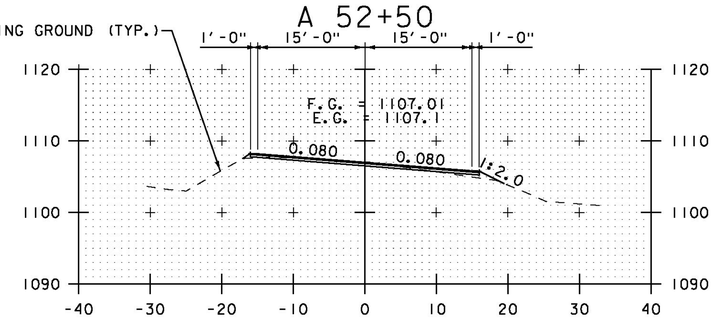
A 53+50



A 53+00



A 52+50



A 52+00

STA. A 48+50 TO STA. A 53+50

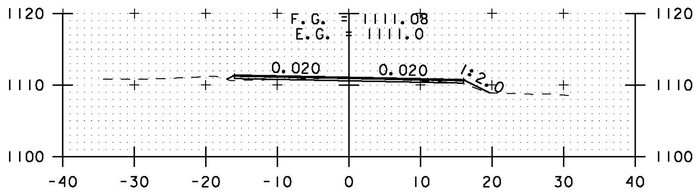
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 51

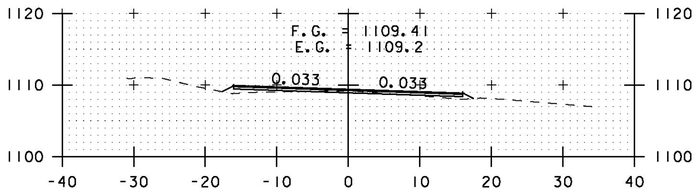
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_179.i

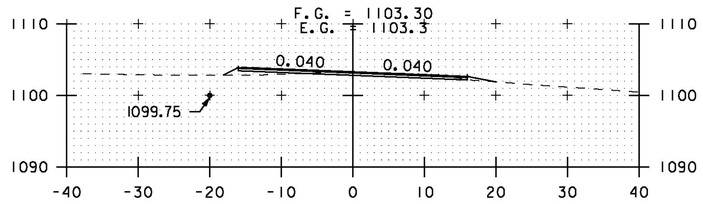
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 179 OF 194



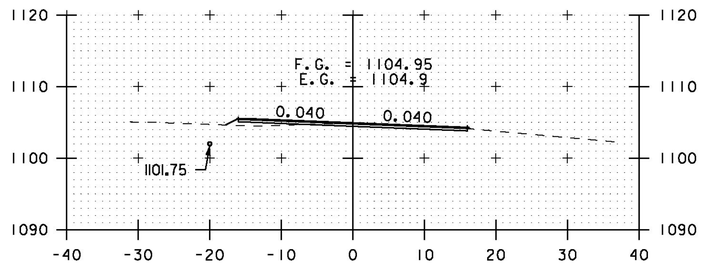
A 55+50



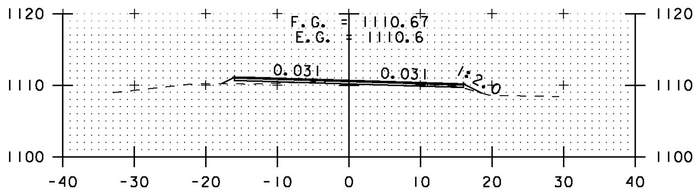
A 57+50



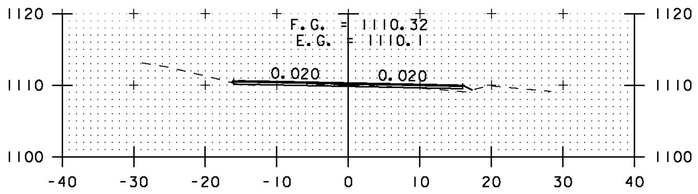
DRIVE RT
A 59+50



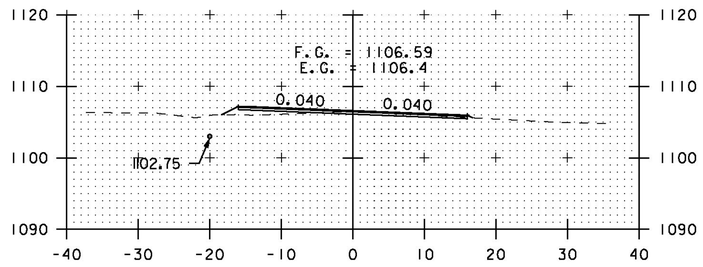
A 59+00

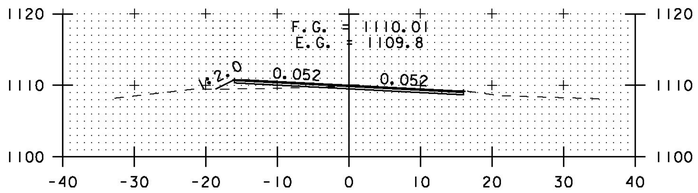


A 55+00

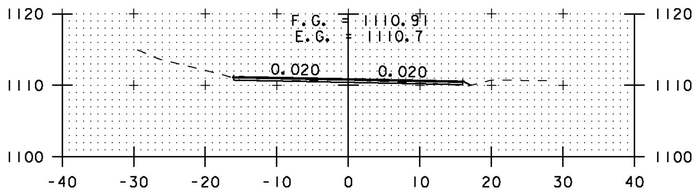


A 57+00



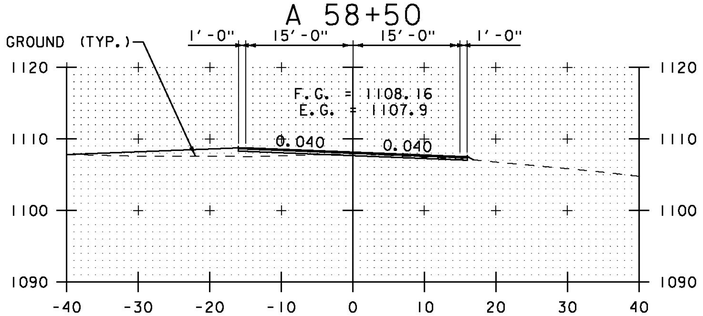


A 54+50

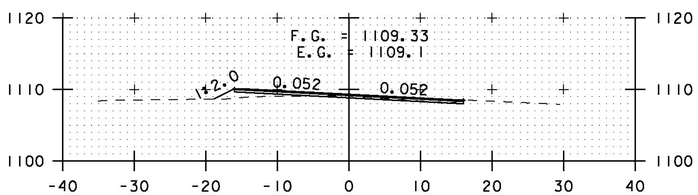


A 56+50

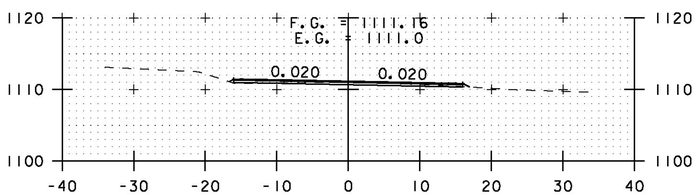
EXISTING GROUND (TYP.)



A 58+00 TH#39 LT



A 54+00



A 56+00

STA. A 54+00 TO STA. A 59+50

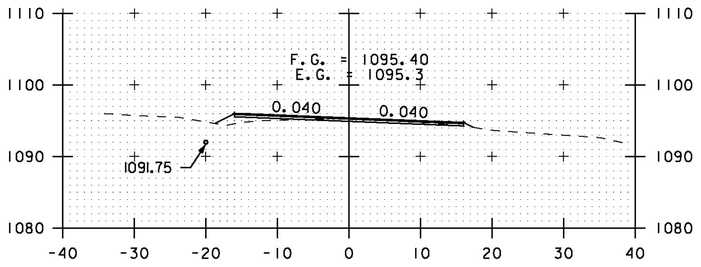
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 52

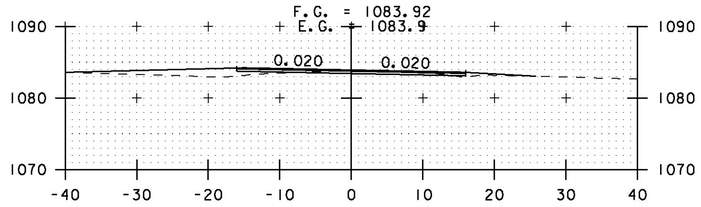
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_180.i

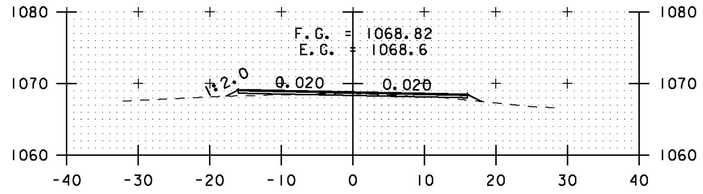
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 180 OF 194



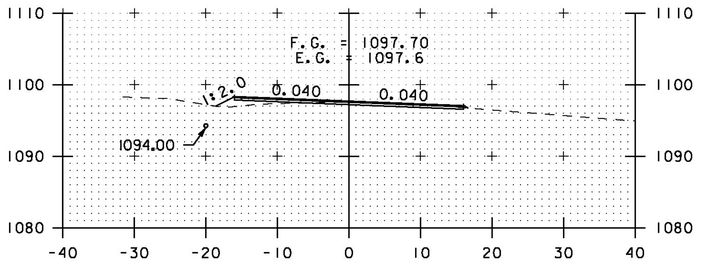
A 61+50



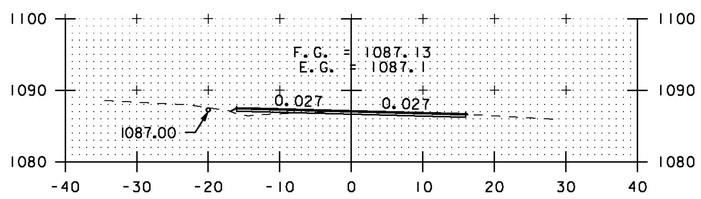
TH#79 LT, DRIVE RT
A 63+50



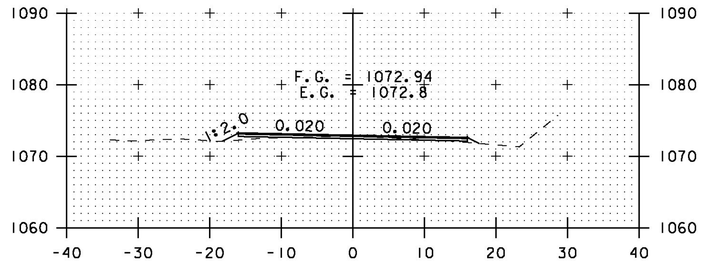
A 65+50



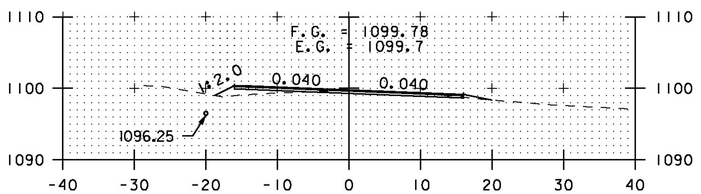
A 61+00



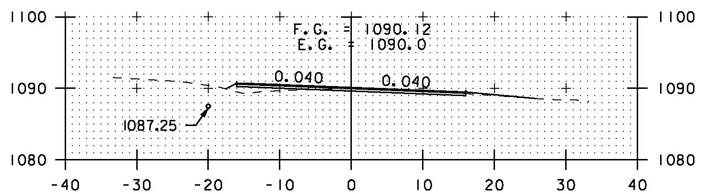
A 63+00



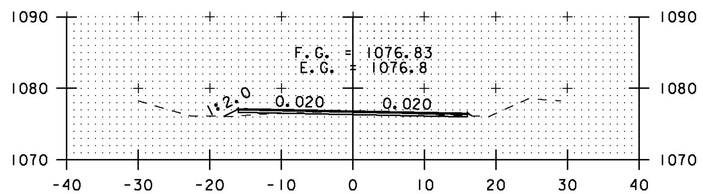
A 65+00

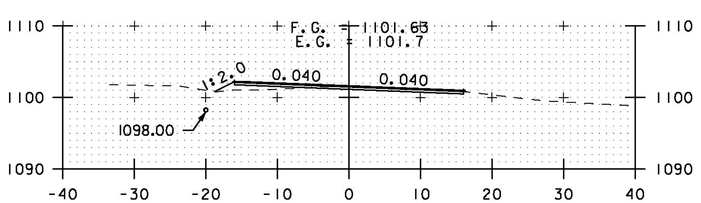


DRIVE RT
A 60+50

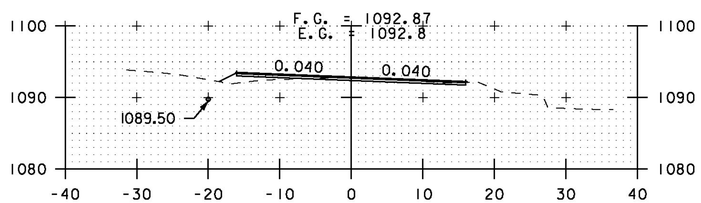


DRIVE RT
A 62+50



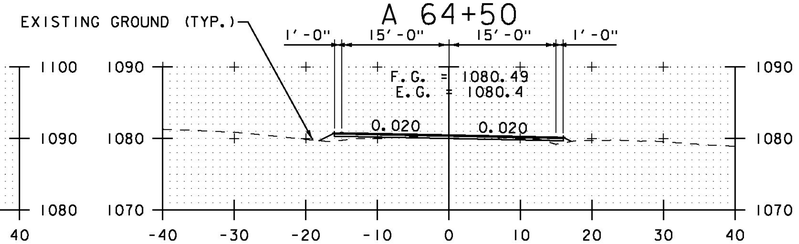


A 60+00



A 62+00

A 64+50



A 64+00

SCALE 1" = 10'-0
10 0 10

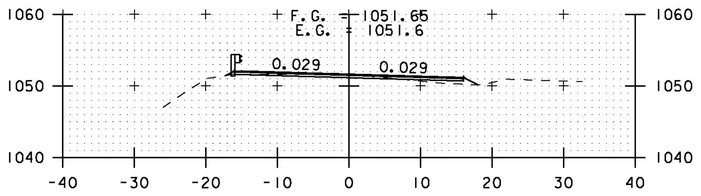
STA. A 60+00 TO STA. A 65+50

CROSS SECTION SHEET 53

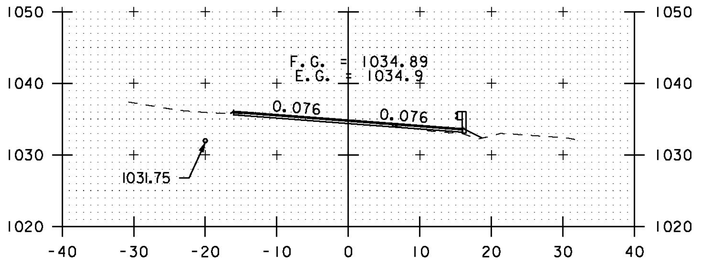
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_181.i

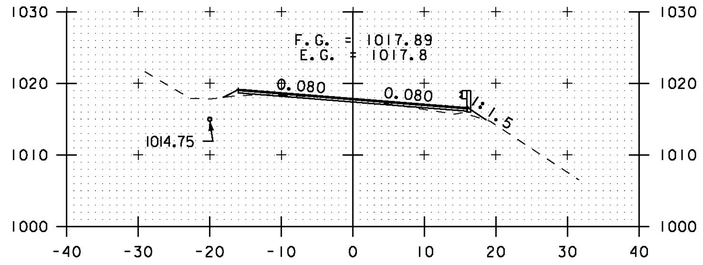
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 181 OF 194



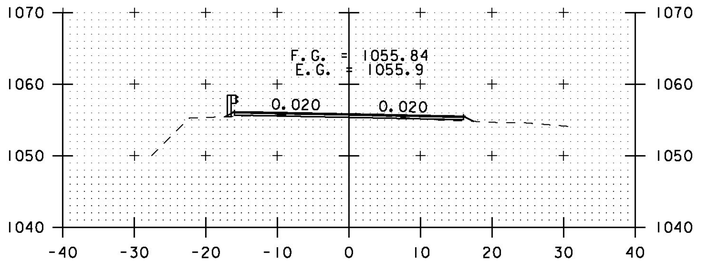
A 67+50



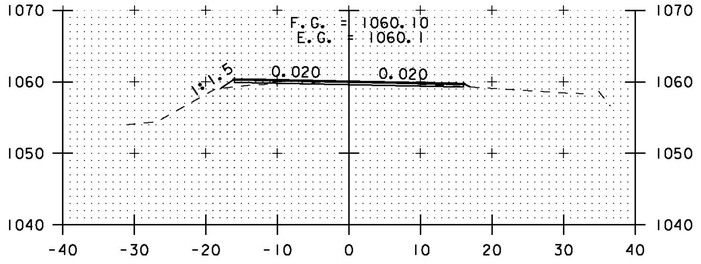
A 69+50



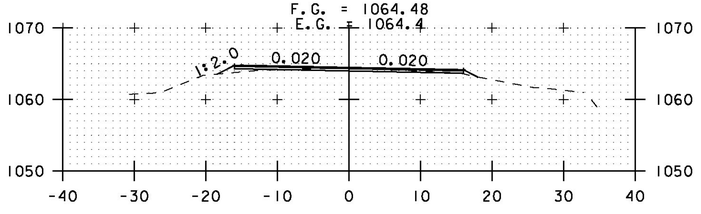
A 71+50



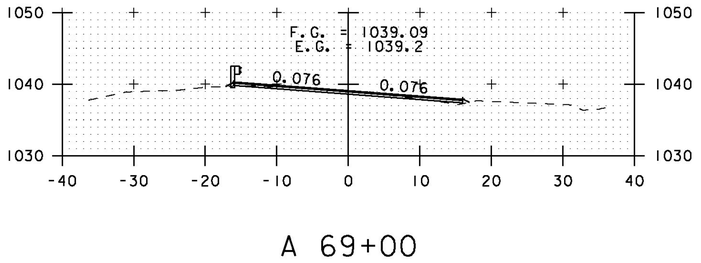
A 67+00



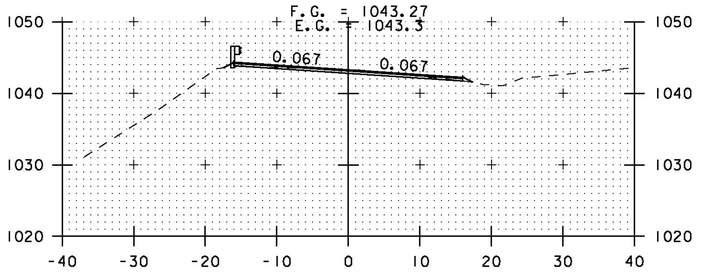
A 66+50



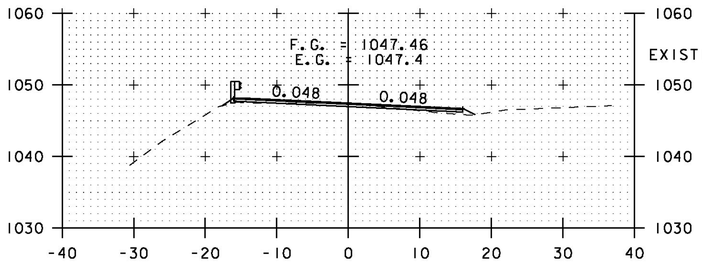
A 66+00



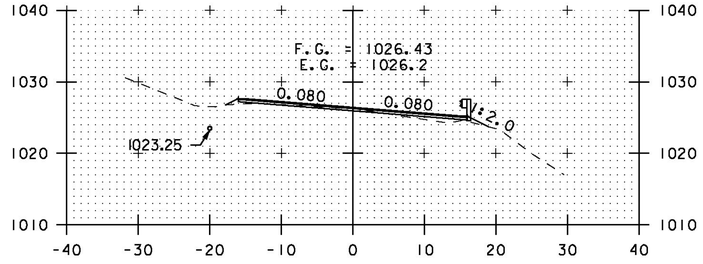
A 69+00



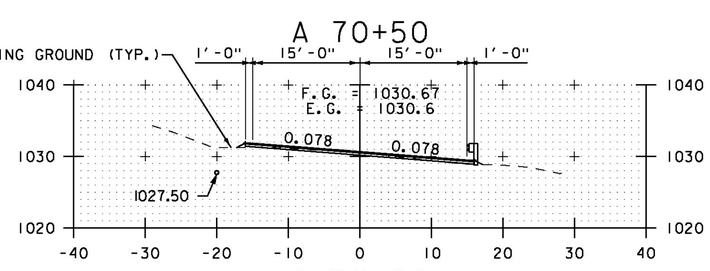
A 68+50



A 68+00



A 70+00



A 70+50

STA. A 66+00 TO STA. A 71+50

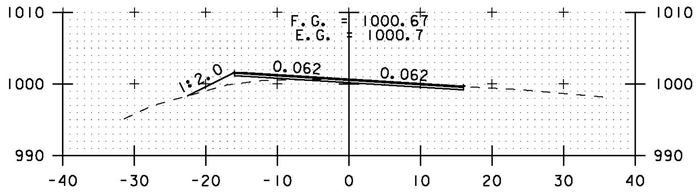
SCALE 1" = 10'-0

CROSS SECTION SHEET 54

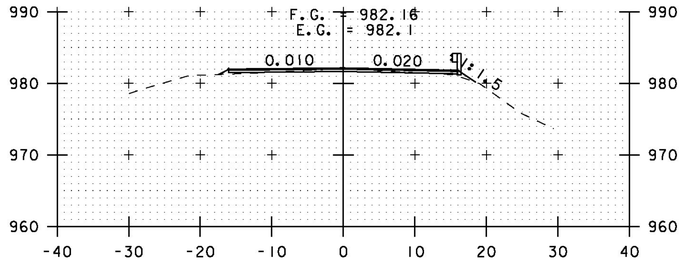
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_182.i

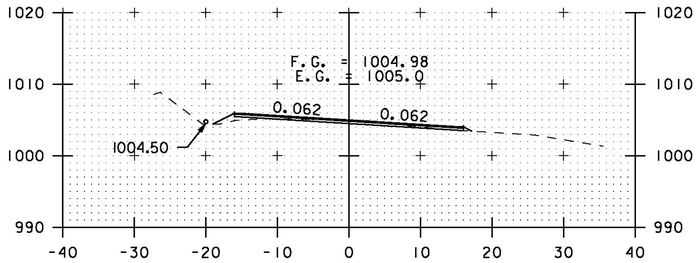
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 182 OF 194



A 73+50

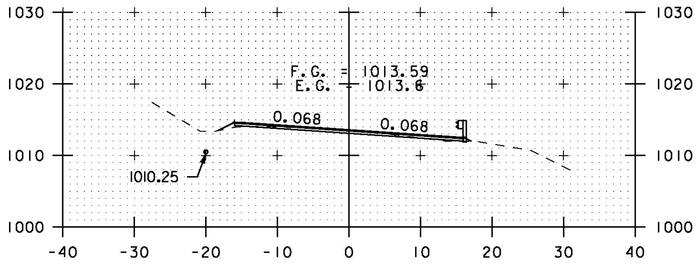


A 75+50

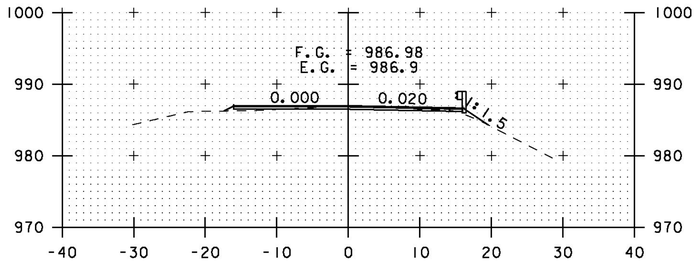


A 73+00

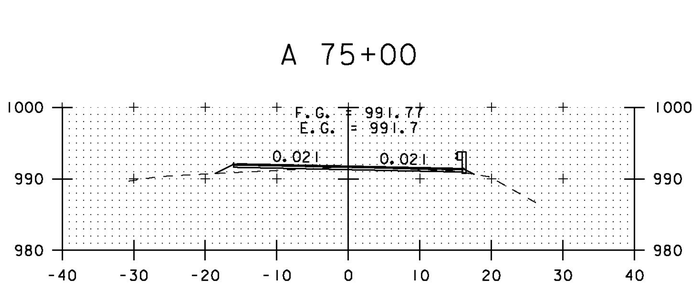
A 72+50



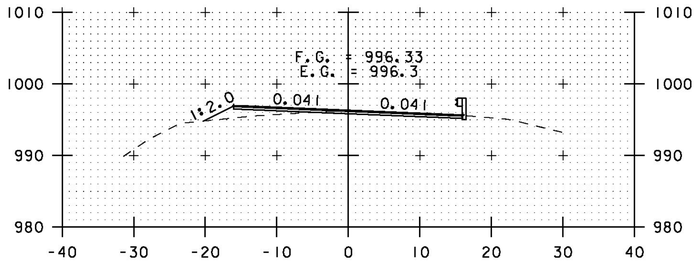
A 72+00



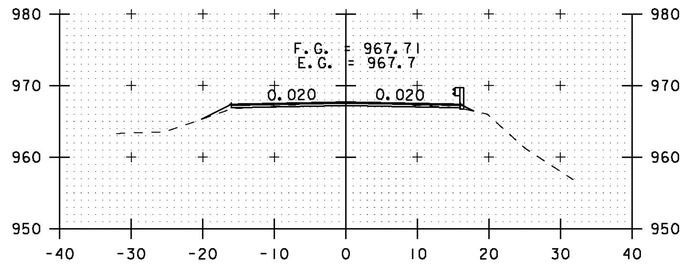
A 75+00



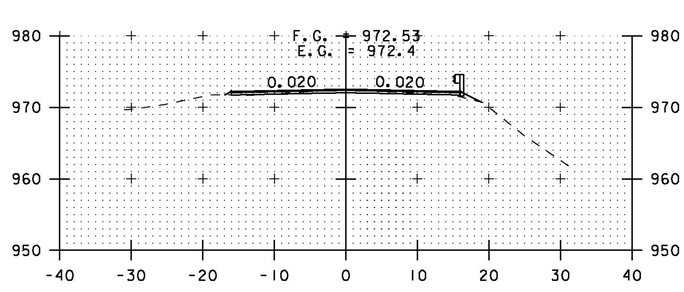
A 74+50



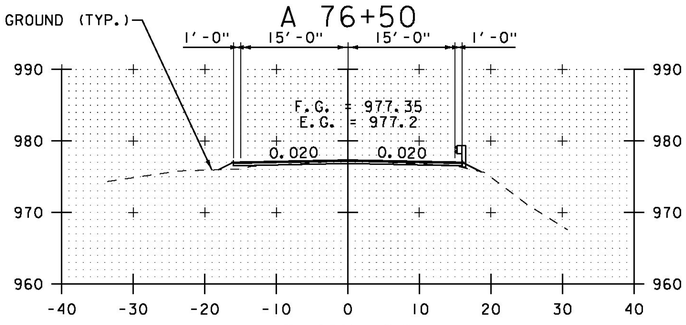
A 74+00



A 77+00



A 76+00



SCALE 1" = 10'-0

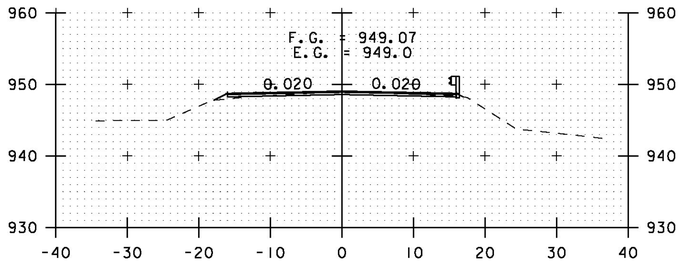
STA. A 72+00 TO STA. A 77+00

CROSS SECTION SHEET 55

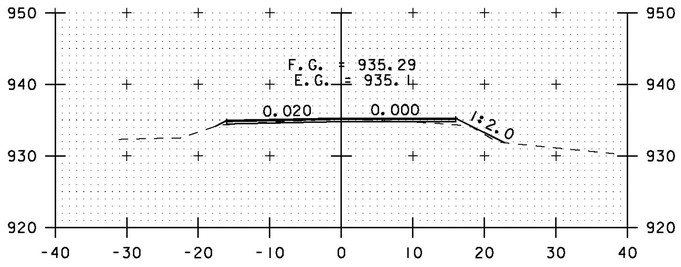
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_183.i

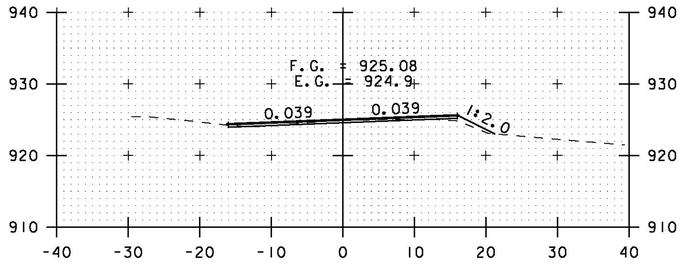
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 183 OF 194



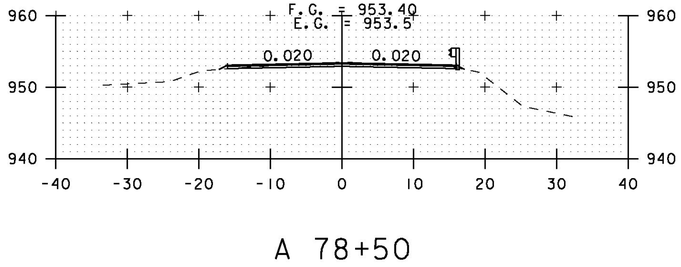
A 79+00



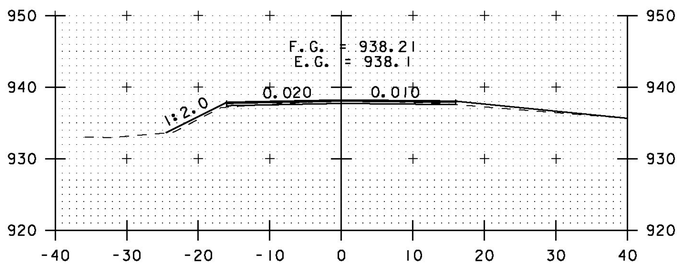
A 81+00



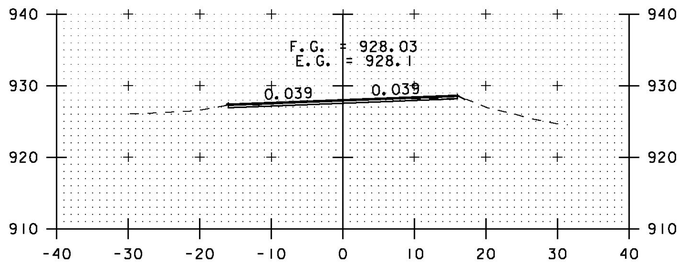
A 83+00



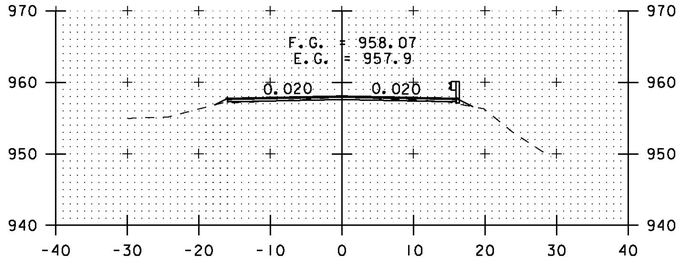
A 78+50



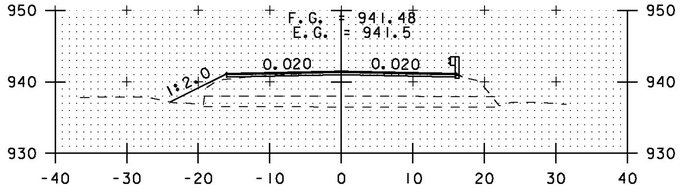
TH#78 RT
A 80+50



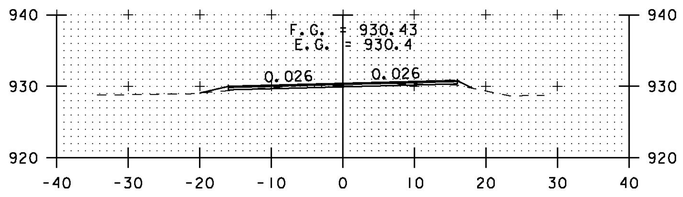
A 82+50



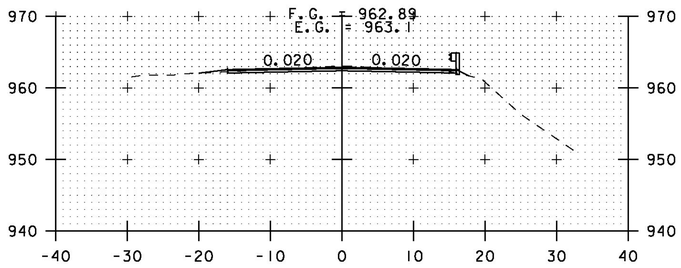
A 78+00



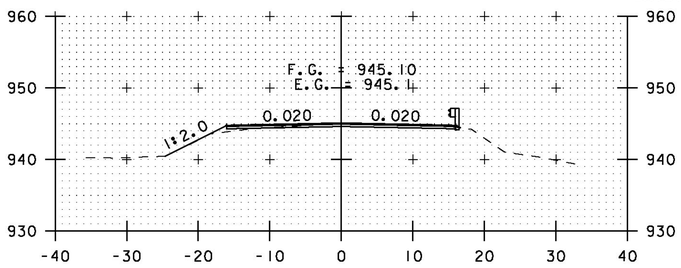
A 80+00



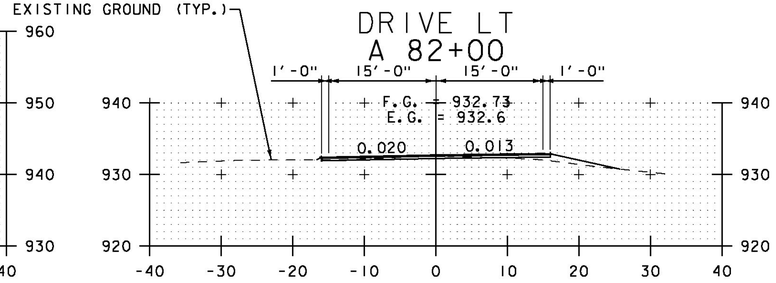
A 82+00



DRIVE LT
A 77+50



A 79+50



A 81+50 DRIVE RT

SCALE 1" = 10'-0
10 0 10

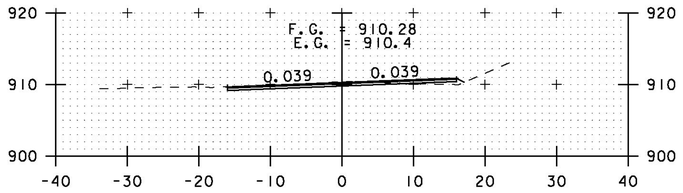
STA. A 77+50 TO STA. A 83+00

CROSS SECTION SHEET 56

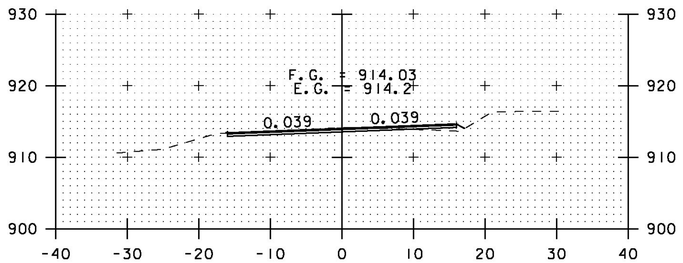
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_184.i

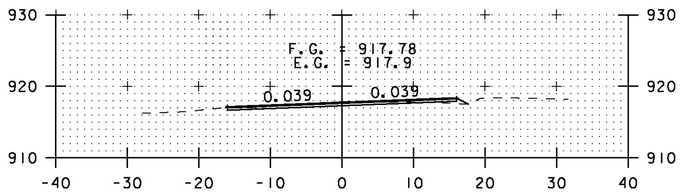
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 184 OF 194



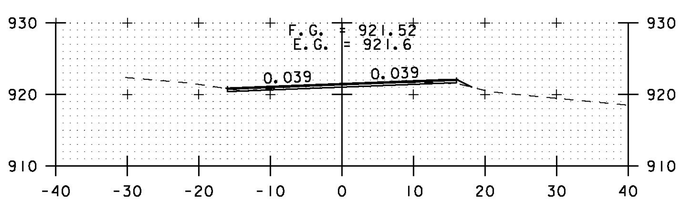
A 85+00



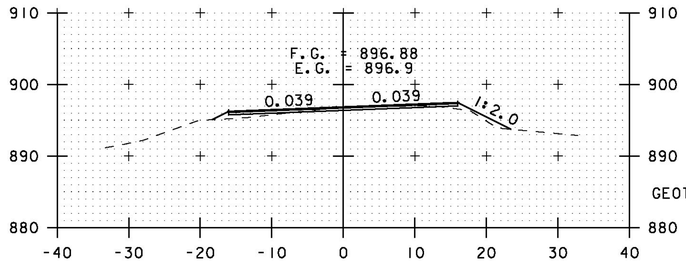
A 84+50



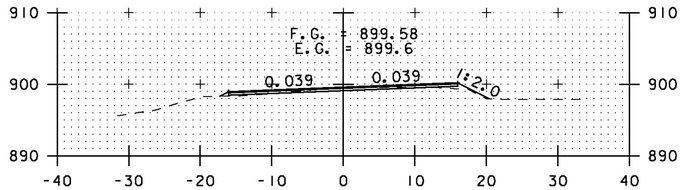
A 84+00



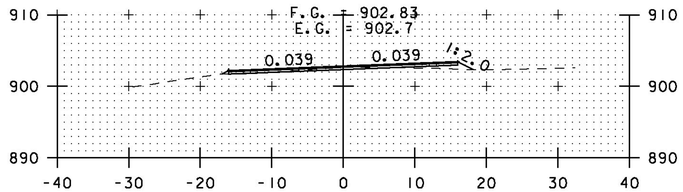
A 83+50



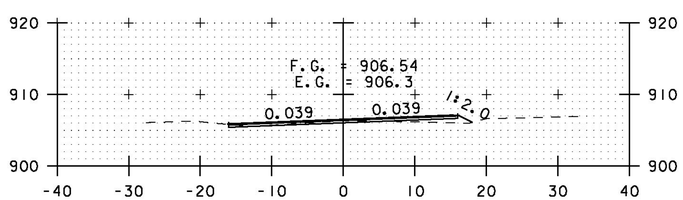
A 87+00



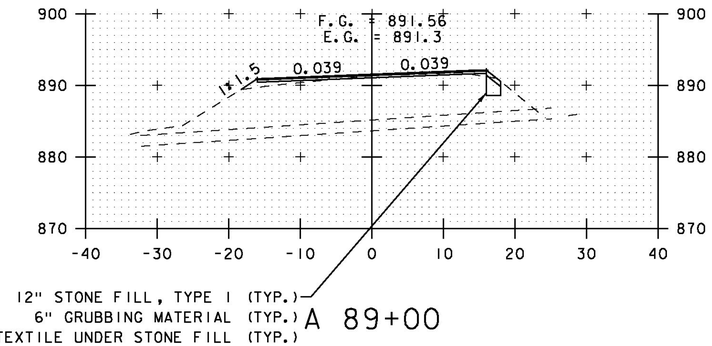
A 86+50



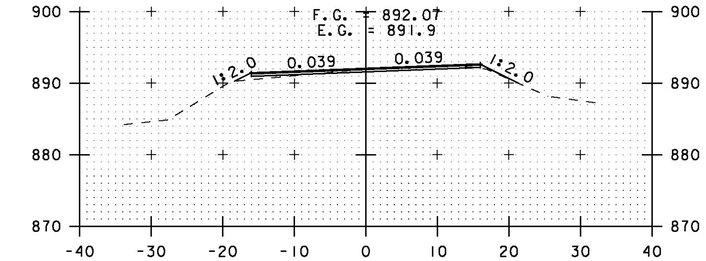
A 86+00



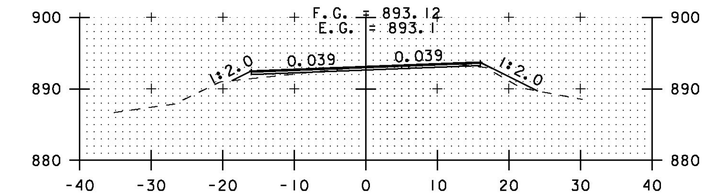
A 85+50



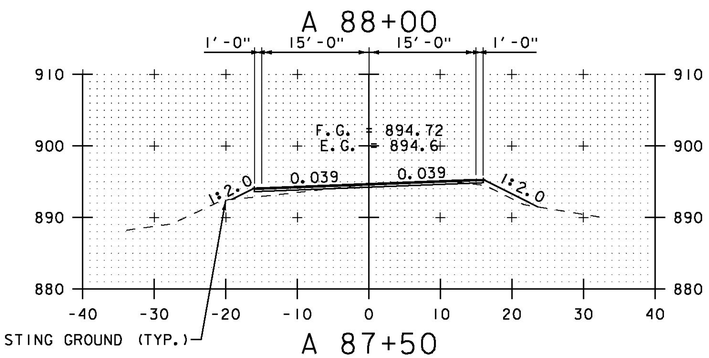
A 89+00



A 88+50



A 88+00



A 87+50

STA. A 83+50 TO STA. A 89+00

SCALE 1" = 10'-0

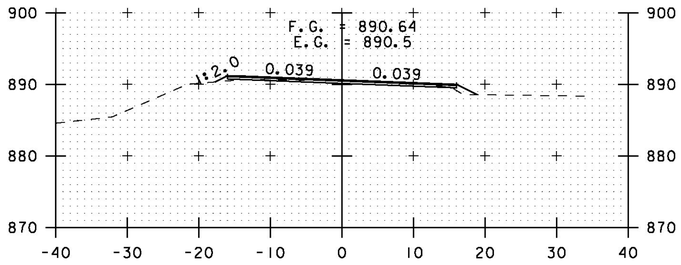
10 0 10

CROSS SECTION SHEET 57

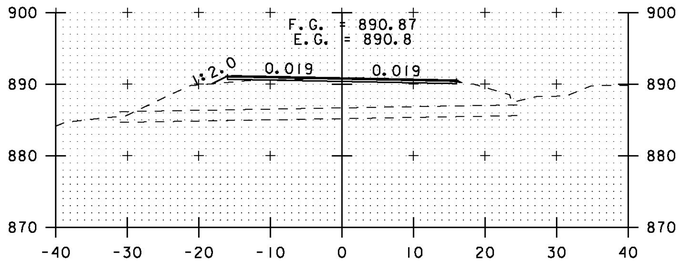
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_185.i

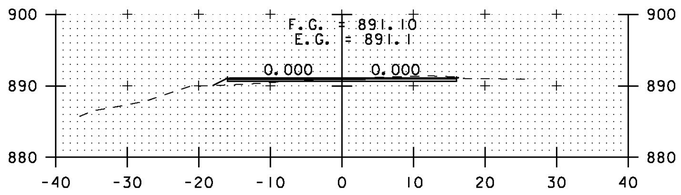
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 185 OF 194



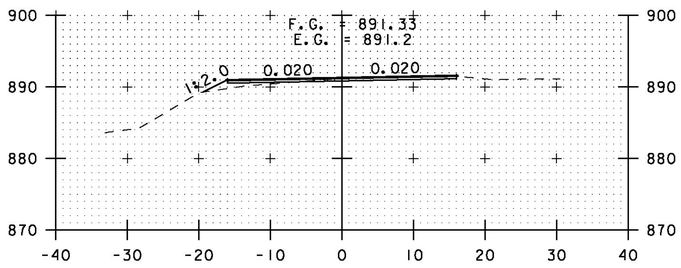
A 91+00



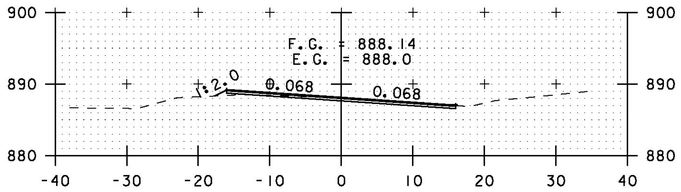
A 90+50



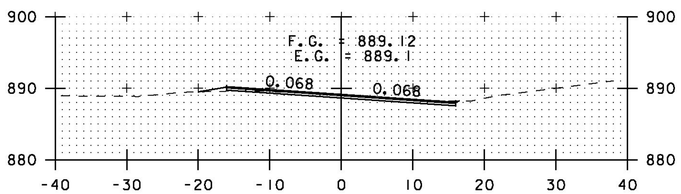
A 90+00



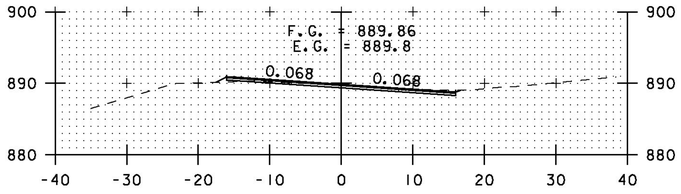
A 89+50



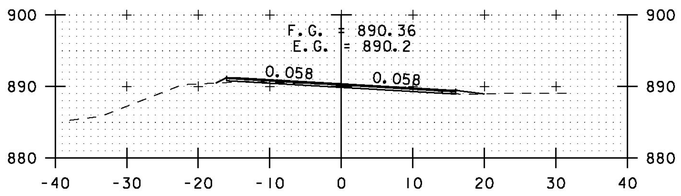
A 93+00



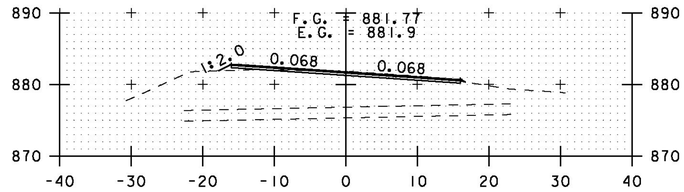
DRIVE LT
A 92+50



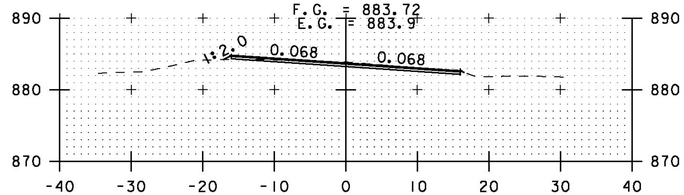
A 92+00



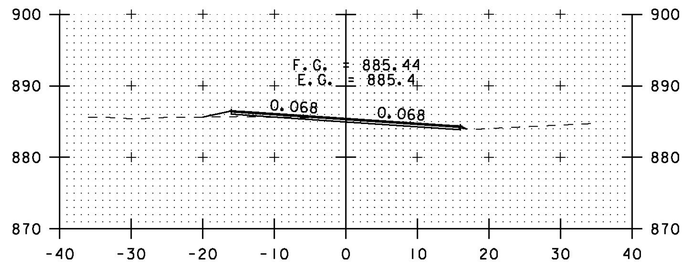
DRIVE RT
A 91+50



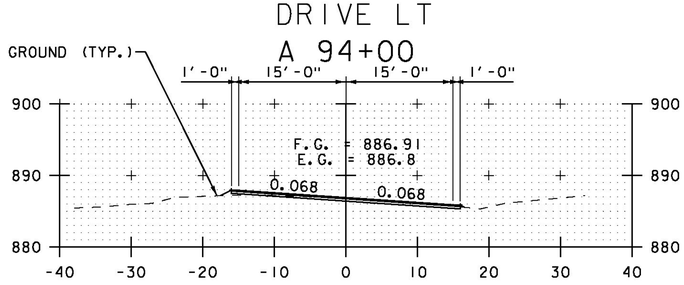
A 95+00



A 94+50



DRIVE LT
A 94+00



A 93+50

STA. A 89+50 TO STA. A 95+00

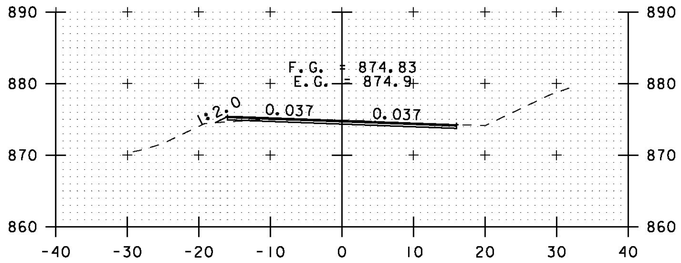
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 58

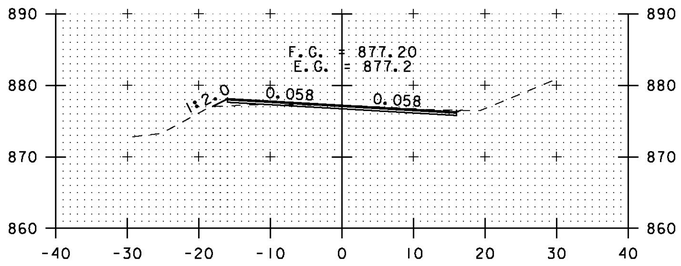
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_186.i

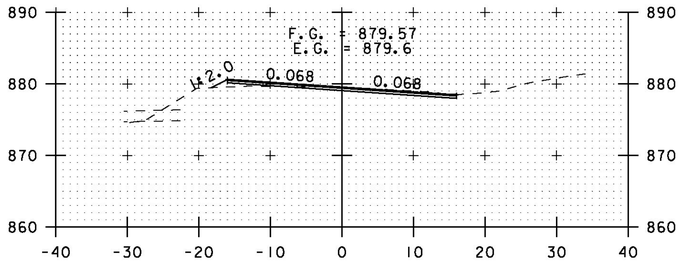
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 186 OF 194



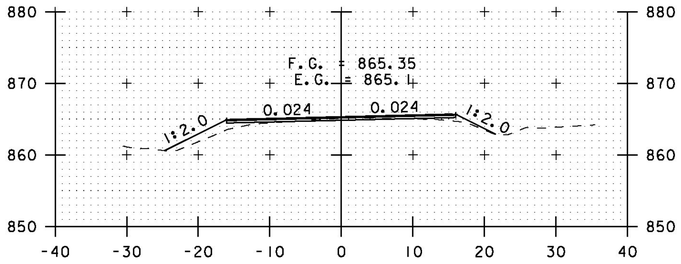
A 96+50



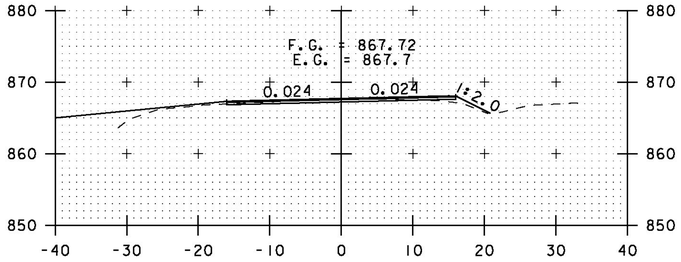
A 96+00



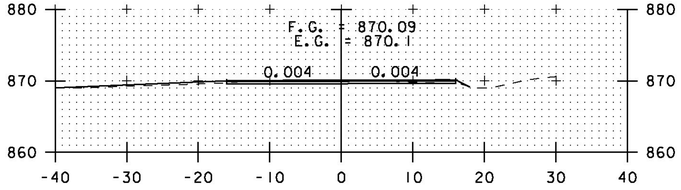
A 95+50



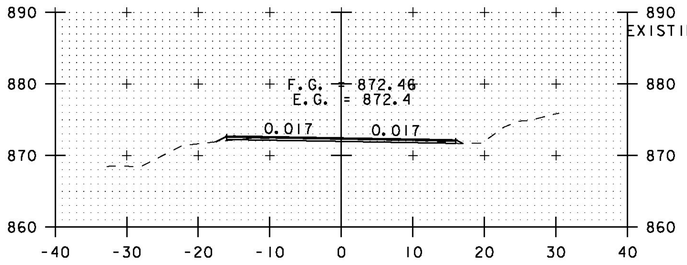
A 98+50



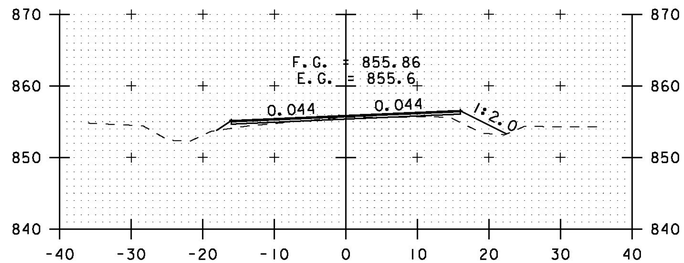
TH#37 LT
A 98+00



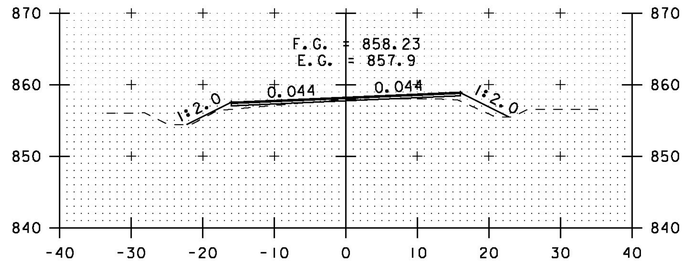
TH#37 LT
A 97+50



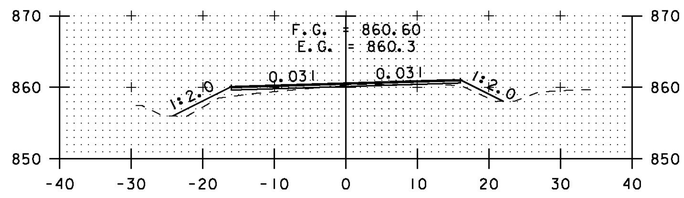
A 97+00



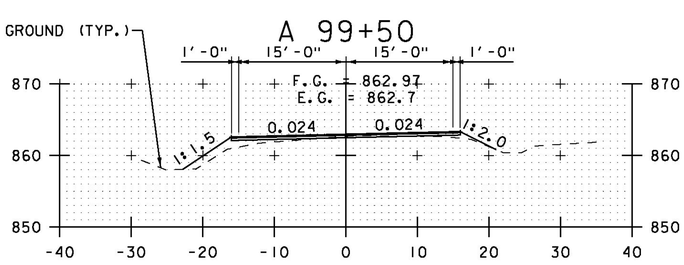
A 100+50



A 100+00



A 99+50



A 99+00

STA. A 95+50 TO STA. A 100+50

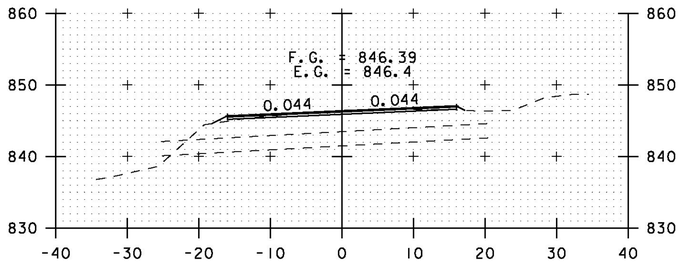
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 59

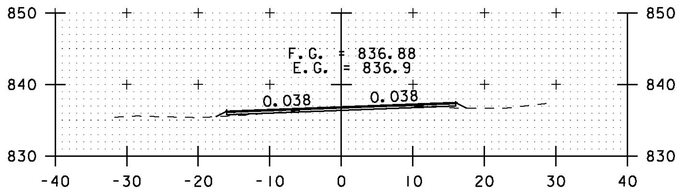
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_187.i

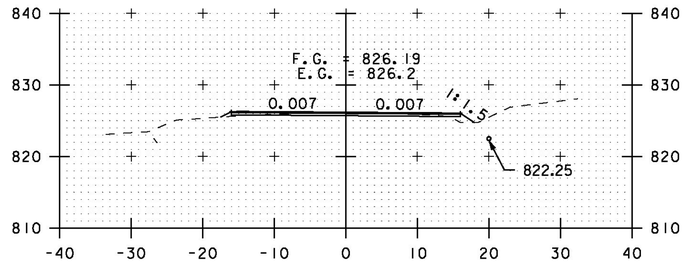
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 187 OF 194



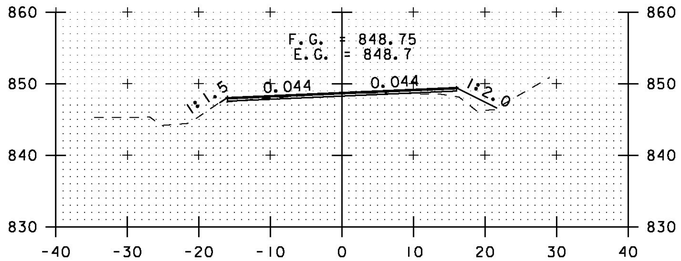
A 102+50



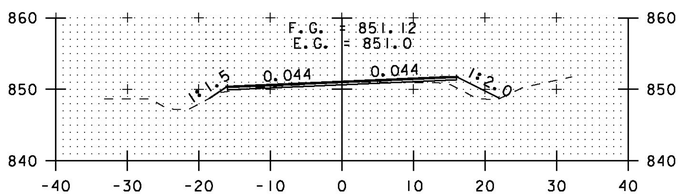
A 104+50



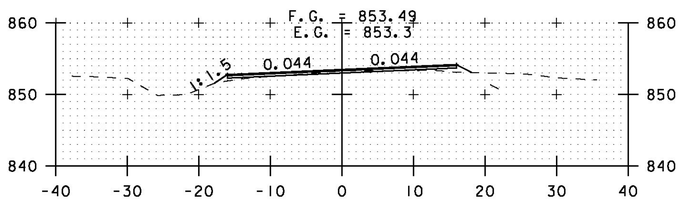
A 106+50



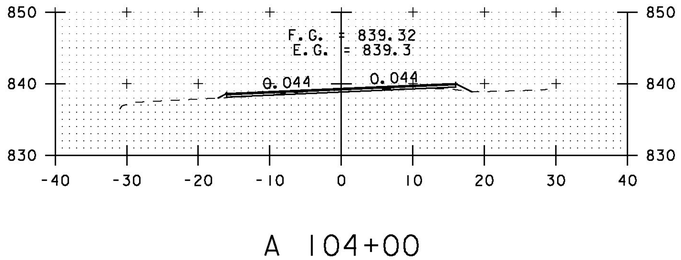
A 102+00



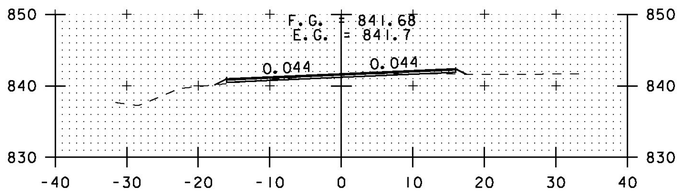
A 101+50



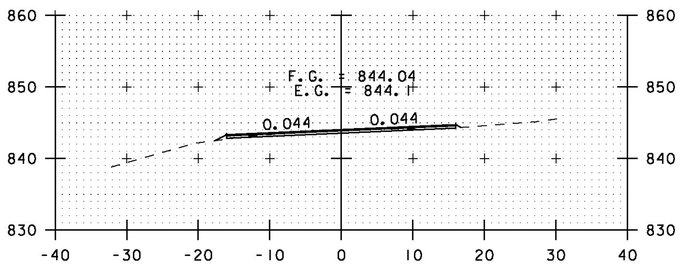
A 101+00



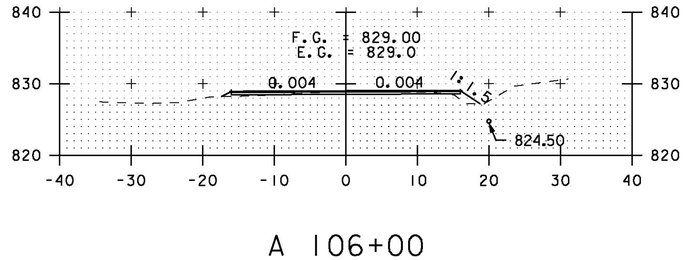
A 104+00



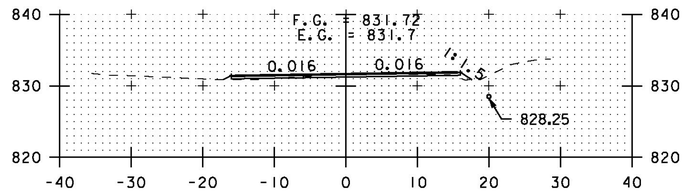
A 103+50



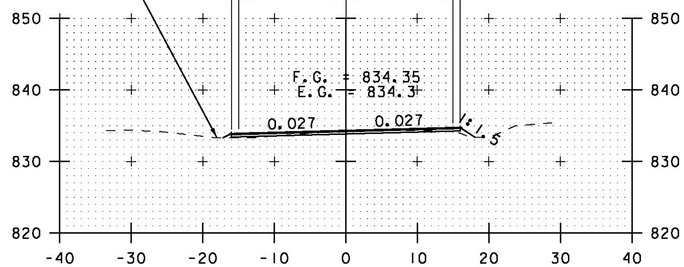
A 103+00



A 106+00



A 105+50



A 105+00

STA. A 101+00 TO STA. A 106+50

SCALE 1" = 10'-0

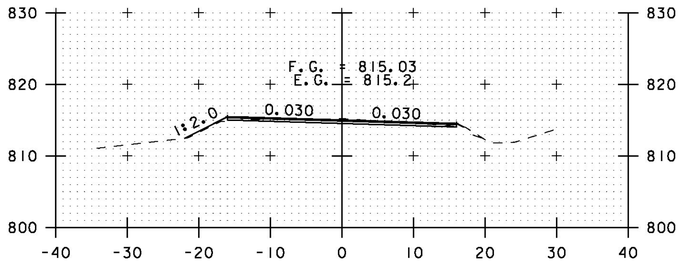
10 0 10

CROSS SECTION SHEET 60

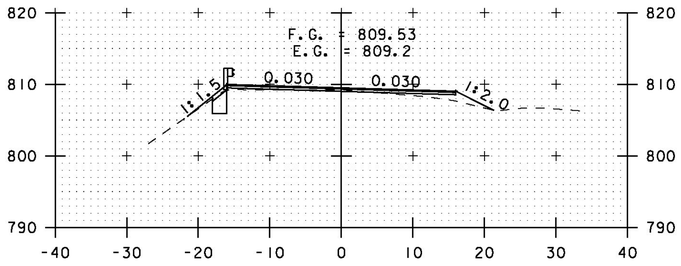
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_188.i

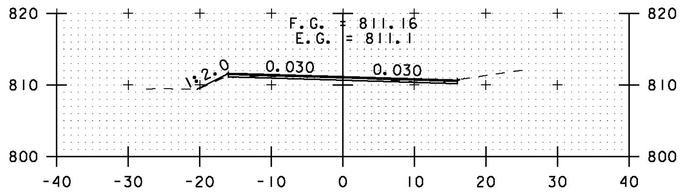
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 188 OF 194



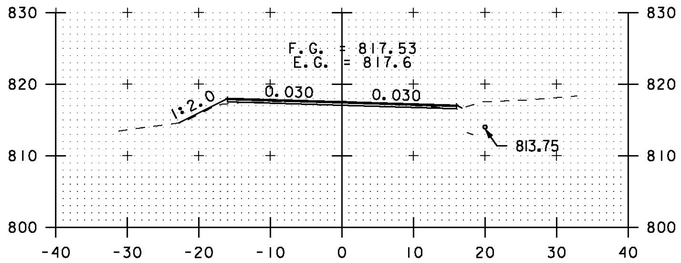
A 108+50



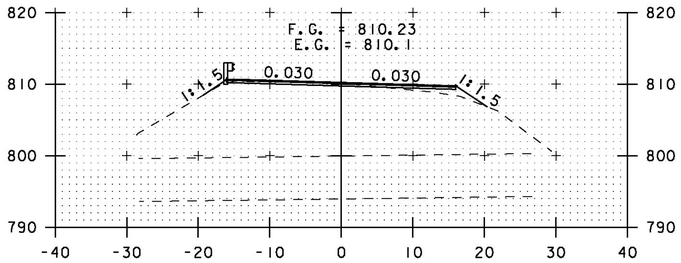
A 110+50



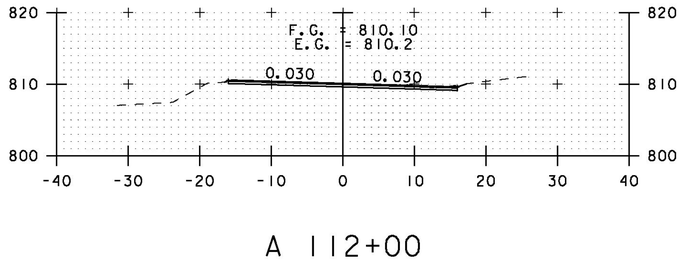
A 112+50



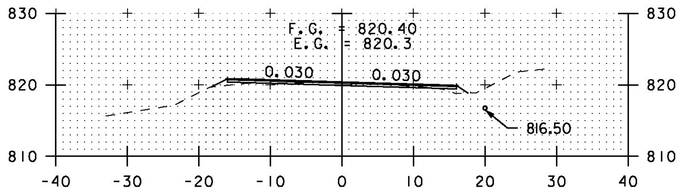
A 108+00



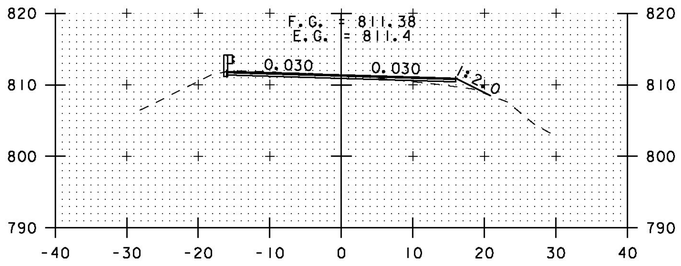
A 110+00



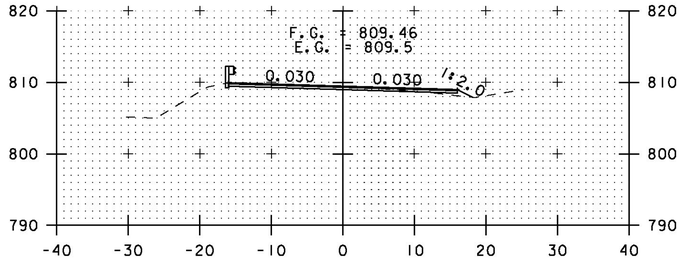
A 112+00



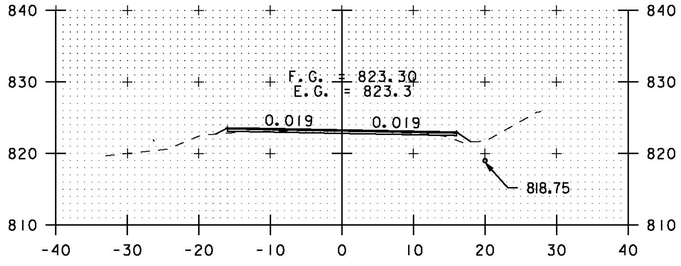
A 107+50



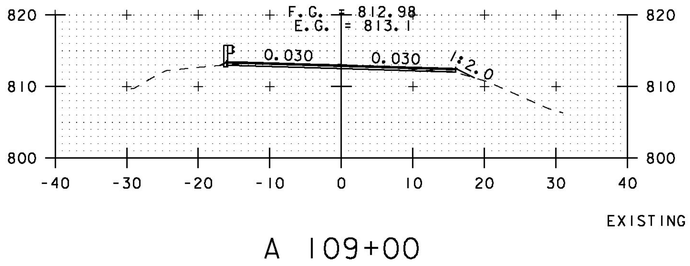
A 109+50



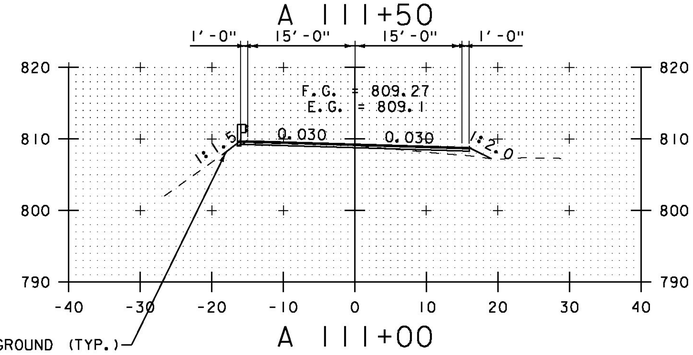
A 111+50



A 107+00



A 109+00



A 111+00

STA. A 107+00 TO STA. A 112+50

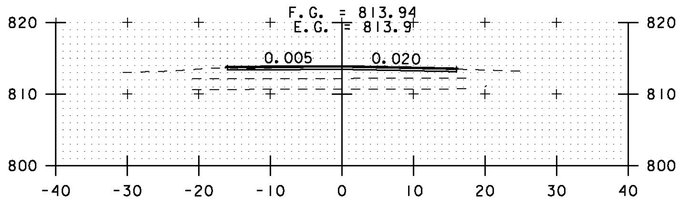
SCALE 1" = 10'-0
10 0 10

CROSS SECTION SHEET 61

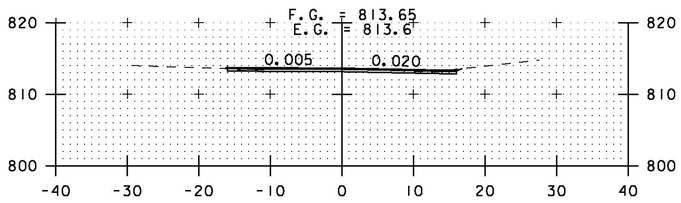
PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_189.i

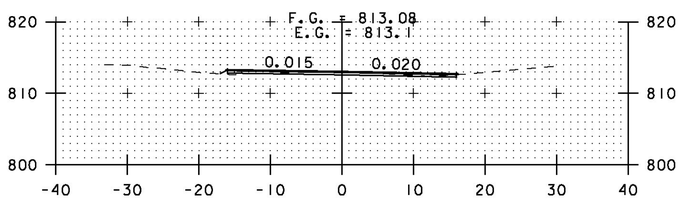
PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 189 OF 194

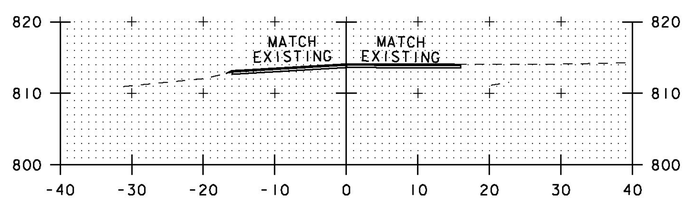


A 114+50

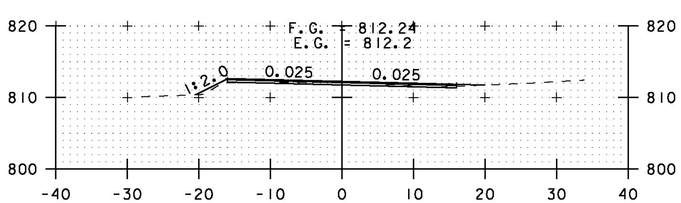


A 114+00



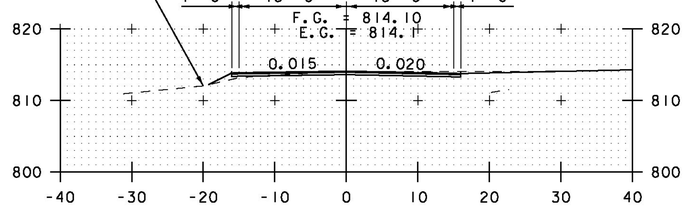


A 113+50



DRIVE RT
A 113+00

A 115+32



TH#88 RT
A 115+00

SCALE 1" = 10'-0
10 0 10

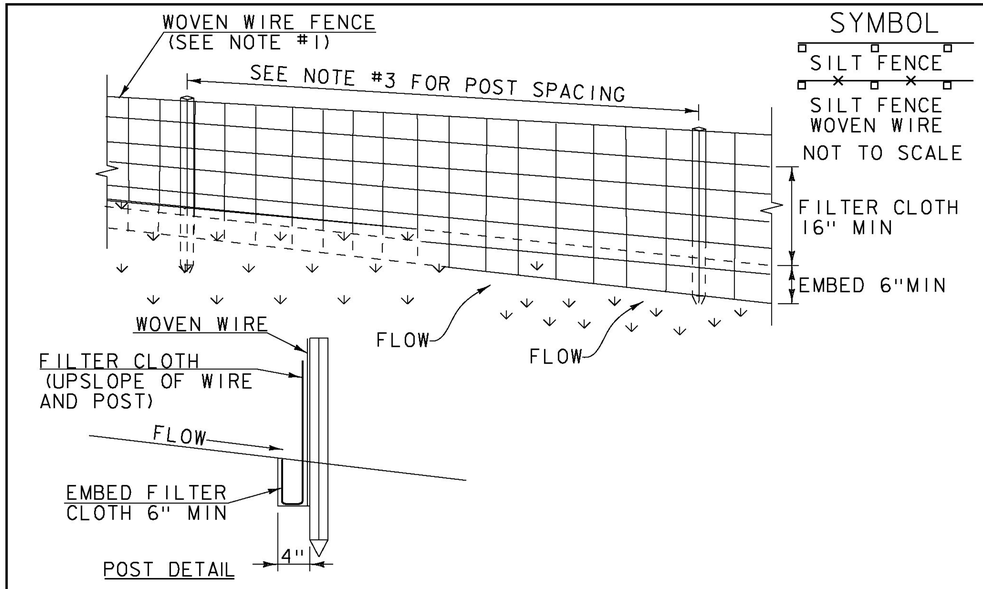
STA. A 113+00 TO STA. A 115+32

CROSS SECTION SHEET 62

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_190.i

PLOT DATE: 3/3/14
DRAWN BY: B. MARTIN
CHECKED BY: C. LATHROP
SHEET 190 OF 194



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.

2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI100X, STABILINKA T140N OR APPROVED EQUIVALENT.

3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.

4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.

6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE FOR SILT FENCE (PAY ITEM 649.51) ~~OR GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515)~~.

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

DETAILS ARE NOT TO SCALE

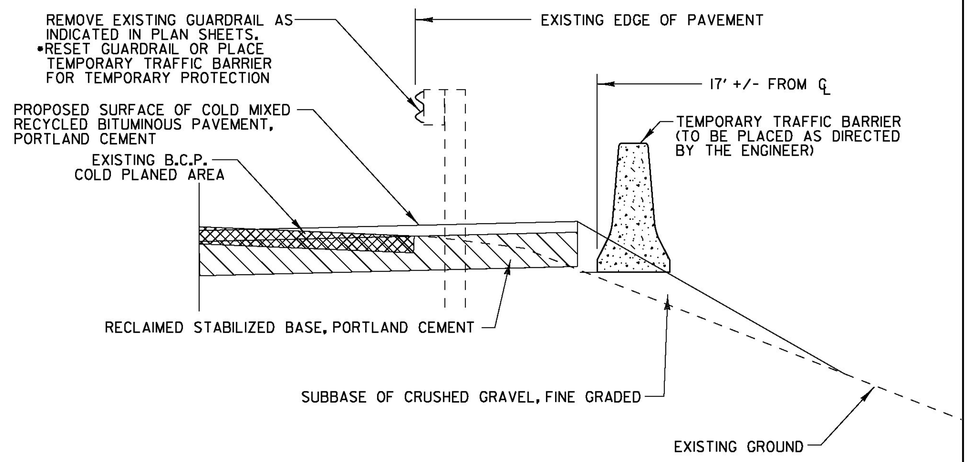
SILT FENCE DETAIL SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

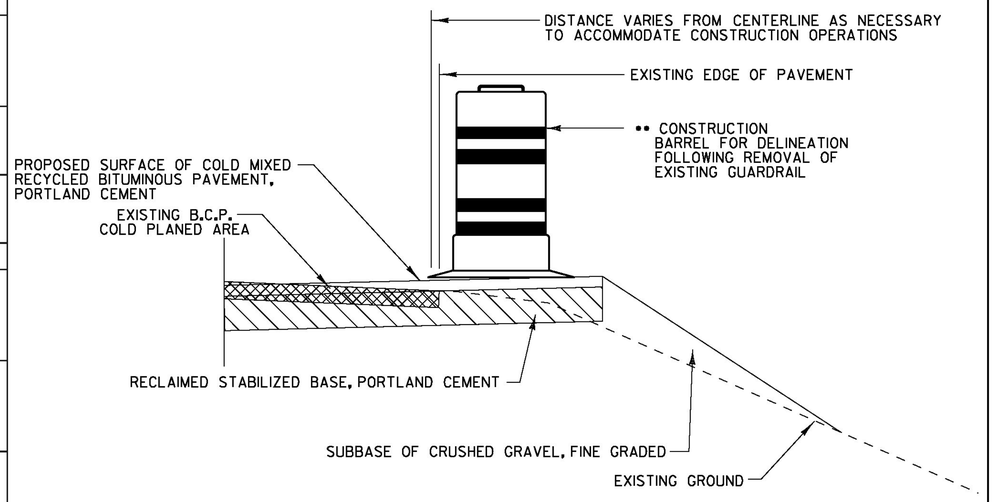
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_192.i
PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 192 OF 194

CONSTRUCTION OPERATIONS TRAFFIC PROTECTION PLAN

EXISTING GUARDRAIL INVENTORY							PROTECTION PLAN	
BEGIN STA.	END STA.	OFFSET	LENGTH (LF)	APPROX. OFFSET DISTANCE FROM PROPOSED CENTERLINE TO FACE OF EXISTING RAIL (LF)	EXISTING RAIL TYPE (POST AND BARRIER)	ASSESSED CONDITION (GOOD/FAIR/POOR)	CONSTRUCTION CONDITION	900.640 BARRIER FOR TEMPORARY TRAFFIC PROTECTION (LF)
ELMORE VT 12								
229+88	241+95	RT	1207	16	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
239+29	243+61	LT	432	16	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
295+23	298+37	RT	314	15	STEEL W-BEAM	FAIR	REMOVE AND RESET TO FACE OF RAIL 17 FEET OFF PROPOSED CENTERLINE BEFORE SHOULDER RECONSTRUCTION AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	314
295+84	297+98	LT	214	16	STEEL W-BEAM	FAIR	REMOVE AND RESET TO FACE OF RAIL 17 FEET OFF PROPOSED CENTERLINE BEFORE SHOULDER RECONSTRUCTION AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	214
299+05	308+50	LT	945	16	2 CABLE	POOR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
357+73	359+63	LT	190	17	STEEL W-BEAM	FAIR	LEAVE IN PLACE FOR ALL OPERATIONS AND REMOVE AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
358+40	360+16	RT	176	16	STEEL W-BEAM	FAIR	LEAVE IN PLACE FOR ALL OPERATIONS AND REMOVE AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
MORRISVILLE VT 12								
A 67+09	A 68+98	LT	189	16	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
A 69+74	A 72+06	RT	232	15	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
A 74+05	A 80+32	RT	627	15	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
A 109+03	A 111+78	LT	275	15	STEEL W-BEAM	FAIR	REMOVE BEFORE SHOULDER RECONSTRUCTION AND DELINEATE WITH BARRELS AND INSTALL NEW AFTER COLD MIX LIFT OR TYPE IVS LEVELING COURSE IS COMPLETE.	-
							TOTAL =	**528**



• PAYMENT FOR THIS WORK WILL BE MADE UNDER ITEM #900.640 SPECIAL PROVISION (BARRIER FOR TEMPORARY TRAFFIC PROTECTION)



TEMPORARY TRAFFIC PROTECTION AND DELINEATION DETAILS DURING CONSTRUCTION

NOT TO SCALE

• PAYMENT FOR THIS WORK WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.

DETAILS ARE NOT TO SCALE

CONSTRUCTION OPERATIONS TRAFFIC PROTECTION PLAN

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

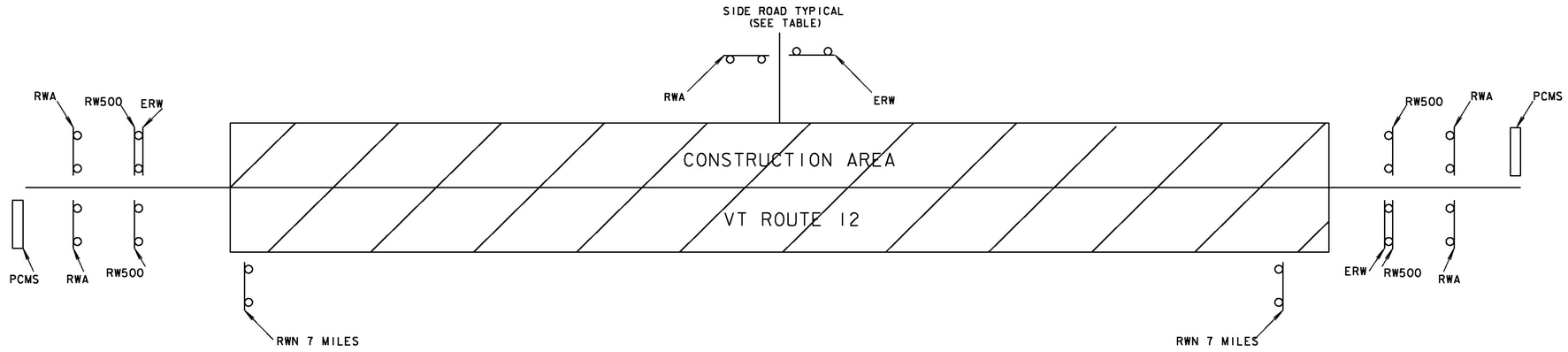
FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
DESIGNED BY: S. LAMPHERE
PLOT FILE: z11c310_192.i

PLOT DATE: 3/3/14
DRAWN BY: S. LAMPHERE
CHECKED BY: C. LATHROP
SHEET 193 OF 194

CONSTRUCTION APPROACH SIGNING

NOT TO SCALE

SEE STD T-10 FOR SIGN PLACEMENT



NOTES:

1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR THEIR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT SHALL BE PAID AS PART OF ITEM 641.10, "TRAFFIC CONTROL". THE TRAFFIC CONTROL PLAN SHALL BE IN COMPLIANCE WITH VAOT STANDARDS AND 2009 MUTCD. WHERE CONFLICTS EXIST, THE 2009 MUTCD SHALL GOVERN.
2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH THE TRAFFIC CONTROL NOTES AND PART 6 OF THE 2009 MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, "TRAFFIC CONTROL".
3. THE BID PRICE FOR "TRAFFIC CONTROL", ITEM 641.10, SHALL INCLUDE ALL OF THE FOLLOWING, AS NEEDED: APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VAOT STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY: 646.602, 646.612, 646.682, 646.692 - TEMPORARY PAVEMENT MARKINGS 630.10 UNIFORMED TRAFFIC OFFICER, 630.15 - FLAGGERS.
4. THE MUTCD 2009 AND ITS LATEST REVISIONS SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE ERECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.
5. CONES SHALL BE USED TO CLEARLY DEFINE THE TRAVEL SPACE AND PROVIDE SEPARATION FROM THE WORK
6. AS THE PAVING OPERATION MOVES, THE FLAGGER SIGNS SHALL BE MOVED ACCORDINGLY. AT NO TIME SHOULD THE FLAGGER SYMBOL SIGN BE MORE THAN 1000 FT FROM THE FLAGGER STATION. FLAGGER SIGNS SHALL BE COVERED OR TURNED AWAY IF FLAGGING OPERATIONS CEASE FOR MORE THAN 15 MINUTES.
7. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.
8. ALL PERMANENT SIGNS THAT CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED, THE PAYMENT FOR WHICH SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10 TRAFFIC CONTROL.
9. CONSTRUCTION SIGNS SHALL BE IN NEW OR LIKE NEW CONDITION PER VAOT STANDARDS.
10. DIAMOND SHAPED SIGNS SHALL BE 4'X4' WITH BLACK TEXT AND BORDER ON A RETROREFLECTIVE FLUORESCENT ORANGE BACKGROUND.
11. CONSTRUCTION ZONE SIGNS SHALL BE INSTALLED AS OUTLINED IN THE SPECIAL PROVISIONS.
12. WHERE TEMPORARY SIGNS ARE PLACED BEHIND GUARDRAIL, THEY SHALL BE ADJUSTED SUCH THAT THE BOTTOM OF THE SIGNS ARE ABOVE THE TOP OF GUARDRAIL.

TRAFFIC CONTROL NOTES

1. THE CONTRACTOR SHALL PROVIDE ACCESS THROUGH THE WORK ZONE FOR EMERGENCY VEHICLES AT ALL TIMES.
2. A MINIMUM LANE WIDTH OF 10 FT. SHALL BE MAINTAINED.
3. WHEN COLD PLANED BITUMINOUS PAVEMENT IS OPEN TO TRAFFIC, A "MOTORCYCLES USE CAUTION" SIGN, AS PER VAOT STANDARD T-17, SHALL BE PROVIDED.
4. THE CONTRACTOR SHOULD LEAVE NO LONGITUDINAL DROP-OFFS DURING THE OVERNIGHT HOURS. THEREFORE, THE FULL ROADWAY WIDTH SHOULD BE COLD PLANED OR PAVED DURING THE DAILY WORK PERIOD. WHEN NECESSARY, DROP-OFF PROTECTION IN THESE AREAS SHALL CONFORM TO VAOT STANDARD T-36.
5. MAINTAIN ACCESS TO ALL PROPERTIES AT ALL TIMES FOR EMERGENCY VEHICLES. MAINTAIN ACCESS TO ALL COMMERCIAL AND MUNICIPAL PROPERTIES DURING BUSINESS HOURS. ACCESS TO RESIDENTIAL PROPERTIES MAY BE RESTRICTED FOR A SHORT DURATION (A FEW HOURS). THIS WORK SHALL BE COORDINATED WITH THE OWNER. COORDINATE MAJOR WORK ON COMMERCIAL OR MUNICIPAL ACCESSES WITH THE OWNER AT LEAST ONE WEEK PRIOR TO STARTING THE WORK. ALL ACCESSES SHALL ALSO BE KEPT FREE OF WORK AND TRAFFIC CONTROLLED BY UNIFORMED TRAFFIC OFFICERS OR FLAGGERS AS REQUIRED BY THE ENGINEER.
6. TRAFFIC SHALL NOT BE CHANGED FROM ONE TRAFFIC PATTERN TO THE NEXT TRAFFIC PATTERN UNTIL ALL TEMPORARY MARKINGS, SIGNING AND SIGNAL WORK ARE COMPLETED. ANY CONFLICTING MARKINGS SHALL BE REMOVED.
7. ALL PERMANENT SIGNS WHICH CONFLICT WITH TEMPORARY TRAFFIC CONTROL SHALL BE COMPLETELY COVERED.
8. ALL REASONABLE EFFORTS SHALL BE MADE TO ACCOMODATE PEDESTRIAN TRAVEL AT ALL TIMES. THIS CAN INCLUDE, BUT IS NOT LIMITED TO A DEDICATED PEDESTRIAN ESCORT, SIGNAGE AND CONED OFF WALKING AREAS WITHIN CLOSED LANES. FLAGGERS SHALL NOT BE USED AS PEDESTRIAN ESCORTS. WHEN EXISTING PEDESTRIAN FACILITIES ARE DISRUPTED, CLOSED, OR RELOCATED IN A TEMPORARY TRAFFIC CONTROL ZONE, THE TEMPORARY FACILITIES SHALL BE DETECTABLE AND SHALL INCLUDE ACCESSIBILITY FEATURES CONSISTENT WITH THE FEATURES PRESENT IN THE EXISTING PEDESTRIAN FACILITY. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10 TRAFFIC CONTROL.
9. PLEASE NOTE THAT THE UTO (UNIFORMED TRAFFIC OFFICER), UNDER AUTHORITY GRANTED BY LAW (TITLE 23 VSA) MAY DIRECT AND CONTROL TRAFFIC. SUITABLE EXAMPLES IN WORK MIGHT INCLUDE THE DIRECTION AND CONTROLS OF TRAFFIC AT INTERSECTIONS WHERE SIGNALS ARE NOT FUNCTIONING OR ARE MALFUNCTIONING. IN THESE CASES, THE PRESENCE OF THE BLUE LIGHT MAY NOT BE SUITABLE OR NECESSARY. THE WEARING OF DEPARTMENTALLY REQUIRED AND APPROVED REFLECTIVE GARMENTS IS REQUIRED.

LEGEND

RWA = ROAD WORK AHEAD
RW500 = ROAD WORK 500 FT
ERW = END ROAD WORK
RWN = ROAD WORK NEXT 7 MILES
PCMS = PORTABLE CHANGEABLE MESSAGE SIGN

DETAILS ARE NOT TO SCALE

	ROAD WORK AHEAD	END ROAD WORK	ROAD WORK 500 FT	ROAD WORK NEXT 7 MILES	PCMS
ELMORE					
BEGIN PROJECT (VT 12)	2	1	2	1	1
CROSS RD	1	1			
MICKLIN FARM RD	1	1			
LACASSE RD	1	1			
GREAVES HILL RD	1	1			
ELMORE POND RD	1	1			
WESTPHAL RD	1	1			
BEACH RD	1	1			
TJADER RD	1	1			
MORRISTOWN					
GODDARD NISBET RD	1	1			
ELMORE MOUNTAIN RD	1	1			
LOWER ELMORE MOUNTAIN RD	1	1			
LOWER ELMORE MOUNTAIN RD	1	1			
END PROJECT (VT 12)	2	1	2	1	1
TOTALS	16	14	4	2	2

CONSTRUCTION APPROACH SIGNING SHEET

PROJECT NAME: ELMORE-MORRISTOWN
PROJECT NUMBER: STP 2937 (1)

FILE NAME: z11c310.dgn
PROJECT LEADER: C. LATHROP
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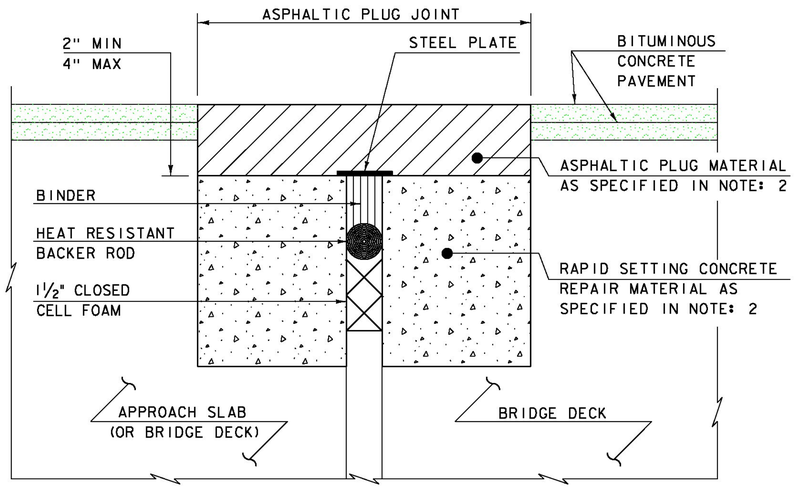
SHEET 194 OF 194



ASPHALTIC PLUG-TYPE JOINT DETAIL - REHAB

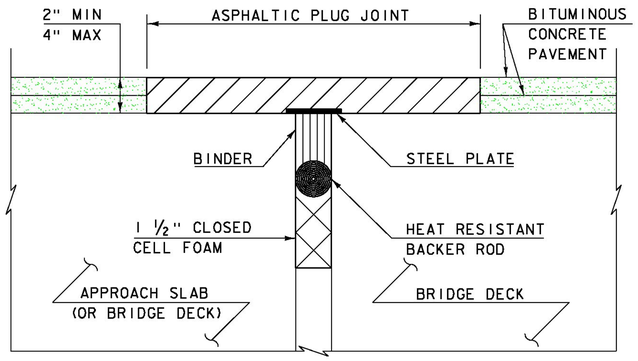
(NOT TO SCALE)

NOTES:

1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL BE INCLUDED IN THE BID PRICE OF ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.

2. THE CONTRACTOR SHALL REPLACE REMOVED MATERIAL THAT IS LESS THAN 4" FROM FINISHED GRADE WITH ASPHALTIC PLUG JOINT MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 707.15. ALL REMOVED MATERIAL THAT IS GREATER THAN 4 INCHES FROM FINISHED GRADE SHALL BE REPLACED WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.

3. REINFORCING STEEL NOT SHOWN FOR CLARITY.



ASPHALTIC PLUG-TYPE JOINT DETAIL - NEW

(NOT TO SCALE)

ASPHALTIC PLUG JOINT NOTES

INSTALLATION:

1. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT, MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.

2. REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNEUMATIC HAMMER AND CHISEL MAY BE USED ADJACENT TO THE CURB ONLY WHEN SAW CUTTING IS NOT POSSIBLE.

3. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.

4. REPAIR MATERIAL GREATER THAN 4 INCHES FROM FINISHED GRADE WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.

5. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.

6. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.

7. PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRE-STAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER. THE STEEL PLATES MAY BE OMITTED WHERE THE ENGINEER DETERMINES THAT THE APPROACH SLAB OR BRIDGE DECK WILL PROVIDE INADEQUATE SUPPORT AND WHERE VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.

8. HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.

9. INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

10. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.

11. ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAY BE USED TO EXPEDITE THE COOLING PROCESS.

12. PROTECT JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

WEATHER LIMITATIONS

APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

1. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.

2. THE ROAD SURFACE IS DRY.

3. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION

BRIDGE JOINT
ASPHALTIC PLUG

STRUCTURES DETAIL
SD-516.10