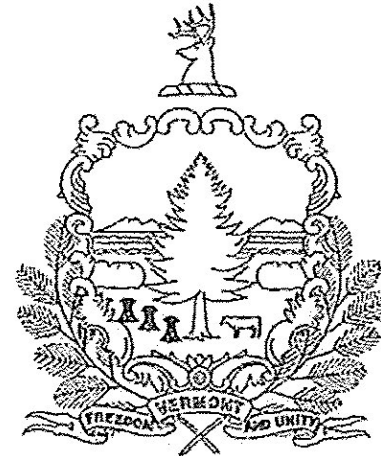


STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
TOWN OF EAST MONTPELIER
COUNTY OF WASHINGTON
US ROUTE 2
(PRINCIPAL ARTERIAL)

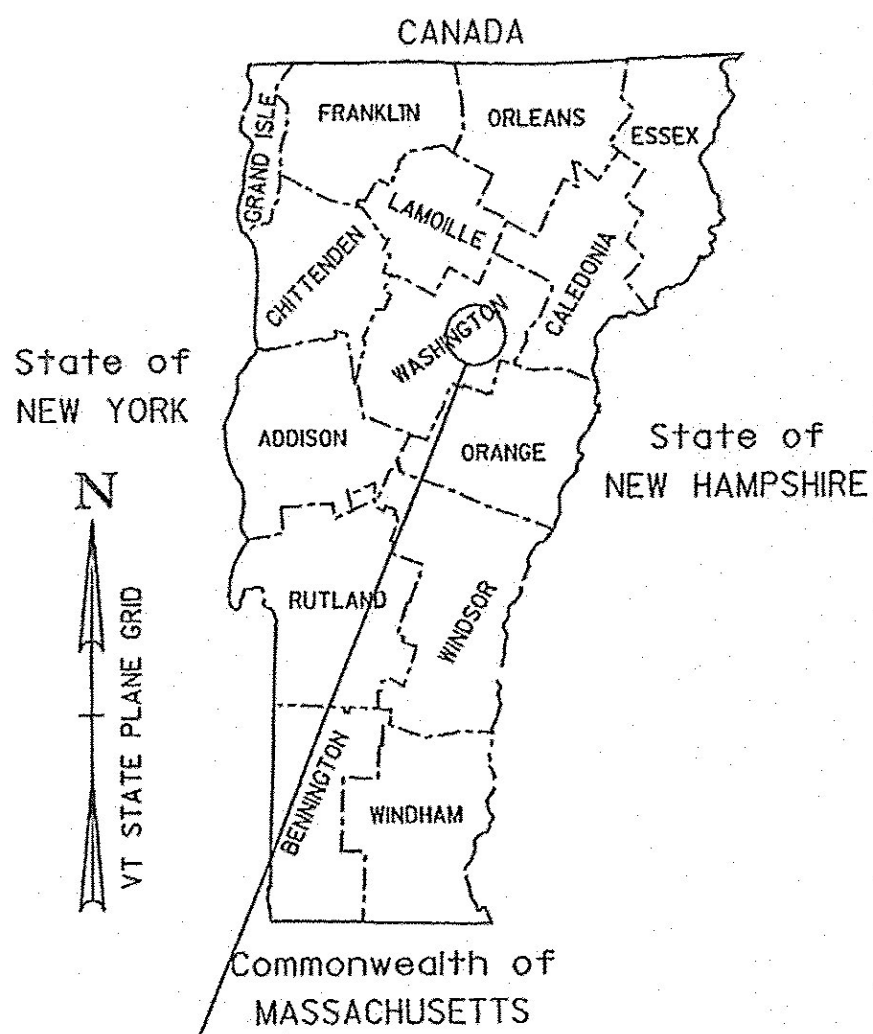
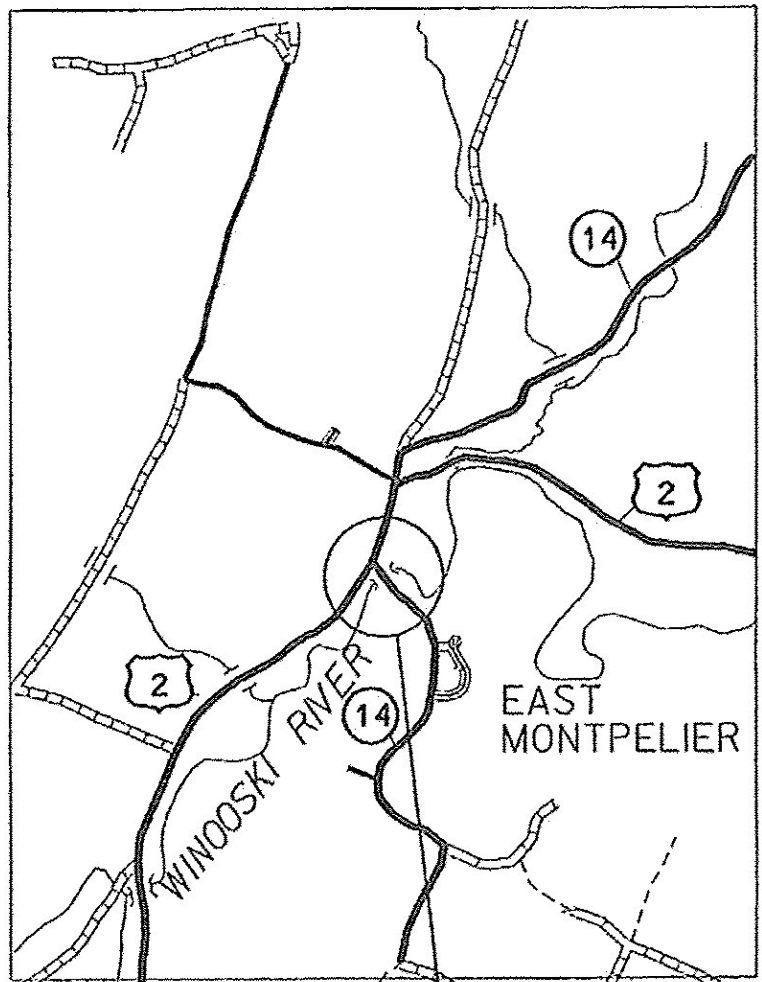
RECORD PLANS

CONTRACTOR: ENGINEERS CONSTR., INC. - SO. BURLINGTON, VT
RESIDENT ENGINEER: CHRIS BARKER
CONSTRUCTION BEGAN: SEPTEMBER 19, 2016
CONSTRUCTION COMPLETE: MAY 5, 2017
RECORD PLANS BY: CHRIS BARKER & AARON WEAVER

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

BY  RESIDENT ENGINEER
DATE 05/20/18

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.

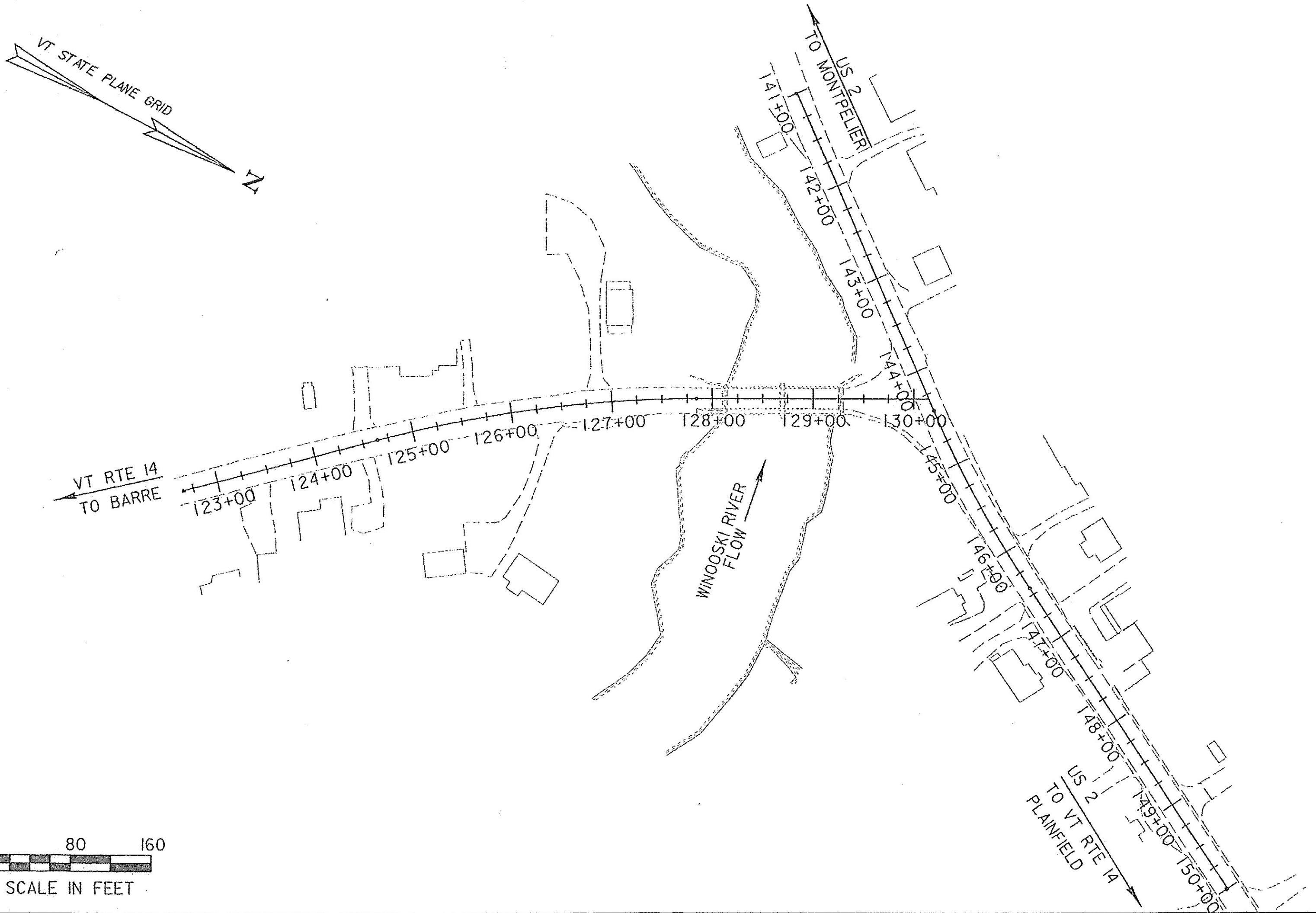


PROJECT
EAST MONTPELIER BR# 037-1 (7)
LOCATION MAP NOT TO SCALE

PROJECT LOCATION : LOCATED IN THE COUNTY OF WASHINGTON, TOWN OF EAST MONTPELIER, ON US ROUTE 2, NEAR THE INTERSECTION WITH VERMONT ROUTE 14 SOUTH.

PROJECT DESCRIPTION : CONSTRUCTION OF NEW DRAINAGE, RETAINING WALL AND CONDUIT FOR UNDERGROUND UTILITIES.

LENGTH OF STRUCTURE: 0 FEET
LENGTH OF ROADWAY: 584.0 FEET
LENGTH OF PROJECT: 584.0 FEET



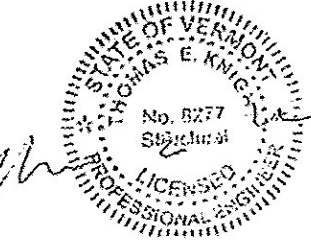
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS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

QUALITY ASSURANCE PROGRAM : LEVEL I

SURVEYED BY : R. GILMAN
SURVEYED DATE : OCTOBER 1999

DATUM
VERTICAL DATUM NAVD 88
HORIZONTAL ASSUMED

0 80 160
SCALE IN FEET

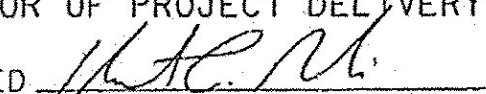


5/12/2016



Stantec Consulting Services Inc.
55 Green Mountain Drive
South Burlington VT U.S.A. 05403
Phone: (802) 864-0223
Fax: (802) 864-0165
www.stantec.com

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATOR
APPROVED  DATE 06/14/16

DIRECTOR OF PROJECT DELIVERY
APPROVED  DATE 5/12/2016

PROJECT MANAGER : MARK SARGENT

PROJECT NAME : EAST MONTPELIER
PROJECT NUMBER : BF EWP2 (1)

SHEET 1 OF 42 SHEETS

INDEX OF SHEETS		
DESIGNATION	DESCRIPTION	PAGE #
-	TITLE	1
-	INDEX AND STANDARDS & PROJECT NOTES	2
-	CONVENTIONAL SYMBOLLOGY LEGEND	3
TIE 1-2	SURVEY TIE SHEETS	4-5
QS 1-2	QUANTITY SHEET	6-7
GP 1-2	GENERAL PLANS	8-9
DP 1-3	DRAINAGE PROFILES	10-12
TSP 1	TRAFFIC SIGNAL AND PHASING PLAN	13
UTL 1-4	UTILITIES PLANS	14-17
UD 1	UTILITY DETAILS	18
WP 1-2	WALL PLAN & PROFILE	19-20
BOR 1	BORING LAYOUT PLAN	21
BOR 2-4	BORING LOGS	22-26
TP 1-2	TRAFFIC CONTROL PLANS	27-28
ECD 1-4	EROSION CONTROL DETAILS	29-32
XS 1	CROSS SECTIONS	33
	SITE SPECIFIC TRAFFIC CONTROL PLANS	34-42

PROJECT NOTES:

1. THE PROPOSED PROJECT IS A PREPARATION FOR THE PLANNED REPLACEMENT OF BRIDGE 68 AND THE RECONSTRUCTION OF THE INTERSECTION OF VT 14S AND US ROUTE 2. THE WORK COVERS ONLY A PORTION OF THE WORK TO BE DONE IN THE ULTIMATE BRIDGE REPLACEMENT AND INTERSECTION RECONSTRUCTION PROJECT. THE PLANS IDENTIFY WORK INCLUDED IN THIS CONTRACT AND REFERENCE WORK TO BE INCLUDED IN A LATER CONTRACT OR CONTRACTS. THE SCOPE OF WORK FOR THIS EARLY PROJECT INCLUDES:
- A. FURNISHING AND INSTALLING 4 DRAINAGE CROSS PIPES UNDER US ROUTE 2 AND ASSOCIATED DRAINAGE STRUCTURES.
 - B. FURNISHING AND INSTALLING OF CONDUIT FOR UTILITIES (RELOCATION BY UTILITY COMPANIES).
 - C. FURNISHING AND INSTALLING CONDUIT FOR PEDESTRIAN SIGNAL AT THE INTERSECTION.
 - D. FURNISHING AND INSTALLING A GRAVITY RETAINING WALL FROM STATION 144+80 LT - 145+83 LT.
2. THE NORTHERN LONG-EARED BAT (NLEB) IS FEDERALLY LISTED AS A THREATENED SPECIES UNDER THE ENDANGERED SPECIES ACT EFFECTIVE APRIL 2015. THIS PROJECT IS SUBJECT TO AVOIDANCE AND MINIMIZATION MEASURES TO PROTECT THE HABITAT AND HIBERNACULA OF THIS SPECIES. HABITAT TREES HAVE BEEN IDENTIFIED INSIDE OF THE PROJECT LIMITS, THEREFORE, CLEARING AND GRUBBING IS SUBJECT TO TIME OF YEAR RESTRICTIONS. CONTRACTOR SHALL NOT CUT TREES GREATER THAN 3" IN DIAMETER FROM APRIL 15 THROUGH AUGUST 31. PLEASE REFER TO SPECIAL PROVISION FOR MORE INFORMATION.

STANDARDS		
STANDARD	NAME	REVISED DATE
D-1	PRECAST REINFORCED CONCRETE DROP INLET	6/1/1994
D-8	REINFORCED CONCRETE DROP INLET WITH PRECAST COVER & GRATE	1/3/2000
D-9	REINFORCED CONCRETE DROP INLET WITH VERTICAL CURB & THROAT ADAPTER	6/1/1994
D-11	STEEL OR IRON GRATES& COVERS (TYPE A)	6/1/1994
D-20	HIGHWAY CROSSING FOR UNDERGROUND UTILITIES	3/3/2003
D-30	UNDERDRAIN CONSTRUCTION DETAILS	8/13/2007
D-33	REINFORCED CONCRETE STRAIGHT HEADWALL	3/12/2007
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/1995
T-1	TRAFFIC CONTROL GENERAL NOTES	4/25/2016
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	8/6/2012
T-17	TRAFFIC CONTROL MISCELLANEOUS DETAILS	8/6/2012
T-24	TRAFFIC CONTROL FOR MAINTENANCE PAVEMENT MARKING OPERATION	8/6/2012
T-25	TRAFFIC CONTROL FOR MAINTENANCE MOWING OPERATIONS	8/6/2012
T-28	CONSTRUCTION SIGN DETAILS	8/6/2012
T-29	CONSTRUCTION SIGN DETAILS	8/6/2012
T-30	CONSTRUCTION SIGN DETAILS	8/6/2012
T-31	CONSTRUCTION SIGN DETAILS	8/6/2012
T-35	CONSTRUCTION ZONE LONGITUDNAL DROP-OFFS	8/6/2012
T-36	CONSTRUCTION ZONE LONGITUDNAL DROP-OFFS FOR PAVING	8/6/2012
T-45	SQUARE TUBE SIGN POST AND ANCHOR	1/2/2013



PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(1)	
FILE NAME: 02_Index & Standards - ER.dgn	PLOT DATE: 6/1/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: C. GENDRON
DESIGNED BY: K. RICHARDSON	CHECKED BY: T. KNIGHT
INDEX AND STANDARDS & PROJECT NOTES	SHEET 2 OF 42

SYMBOL OGY LEGEND NOTE

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

■	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

POINT	CODE	DESCRIPTION
-------	------	-------------

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

CODE	DESCRIPTION
------	-------------

D	CURVE DEGREE OF (100FT)
R	CURVE RADUIS OF
T	CURVE TANGENT LENGTH
L	CURVE LENGTH OF
E	CURVE EXTERNAL DISTANCE

UNDERGROUND UTILITIES

ABOVE GROUND UTILITIES (AERIAL)

PROJECT CONSTRUCTION SYMBOLOGY

— · — · — · — · — · — CLEAR ZONE
 ————— PLAN LAYOUT MATCHLINE

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

BOUNDARY LINES

SR SR SR SLOPE RIGHTS

6f 6f 6F PROPERTY BOUNDARY

4f 4f 4F PROPERTY BOUNDARY

HAZ HAZ HAZARDOUS WASTE

EPSC MEASURES

ENVIRONMENTAL RESOURCES

ARCHEOLOGICAL & HISTORIC

CONVENTIONAL TOPOGRAPHIC SYMBOLOLOGY

	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

FILE NAME: 07_Legend - ER.dgn PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT DRAWN BY: VTRANS
DESIGNED BY: VTRANS CHECKED BY: VTRANS
CONVENTIONAL SYMBOLLOGY LEGEND SHEET 3 OF 42

GPS CONTROL POINTS

HVCTRL
Standard Disk Stamped

Donnelly
NORTH = 649672.03
EAST = 1649052.82
ELEV. =

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1996 (DJM)

TO REACH FROM THE NORTH INTERSECTION OF U.S.ROUTE 2 AND VT ROUTE 14 PROCEED NORTHERLY ALONG ROUTE 14 FOR 1.2 MI(1.9 KM) TO A GRAVEL DRIVE ON THE RIGHT. PROCEED UP THE GRAVEL DRIVE FOR 0.15 MI (0.24 KM) TO A PAVED DRIVE ON THE LEFT AND A YELLOW RANCH WITH A ONE CAR GARAGE. PROCEED UP THE PAVED DRIVE TO THE YELLOW RANCH. THE MARK IS 28.8 M (94.5 FT) NORTH NORTHEAST OF AN IRON PIPE SEPERATING THE TWO ADJACENT PROPERTIES, 26.5 M (86.9 FT) NORTHWEST OF THE SOUTHWEST CORNER OF THE ADJACENT WHITE RANCH, 24.7 M (81.0 FT) WEST OF THE NORTHWEST CORNER OF THE ADJACENT WHITE RANCH, 20.2 M (66.3 FT) EAST NORTHEAST OF THE SOUTHEAST CORNER OF THE YELLOW GARAGE, AND 13.0 M (42.7 FT) EAST OF THE NORTHEAST CORNER OF THE YELLOW GARAGE.

HVCTRL
Standard Disk Stamped

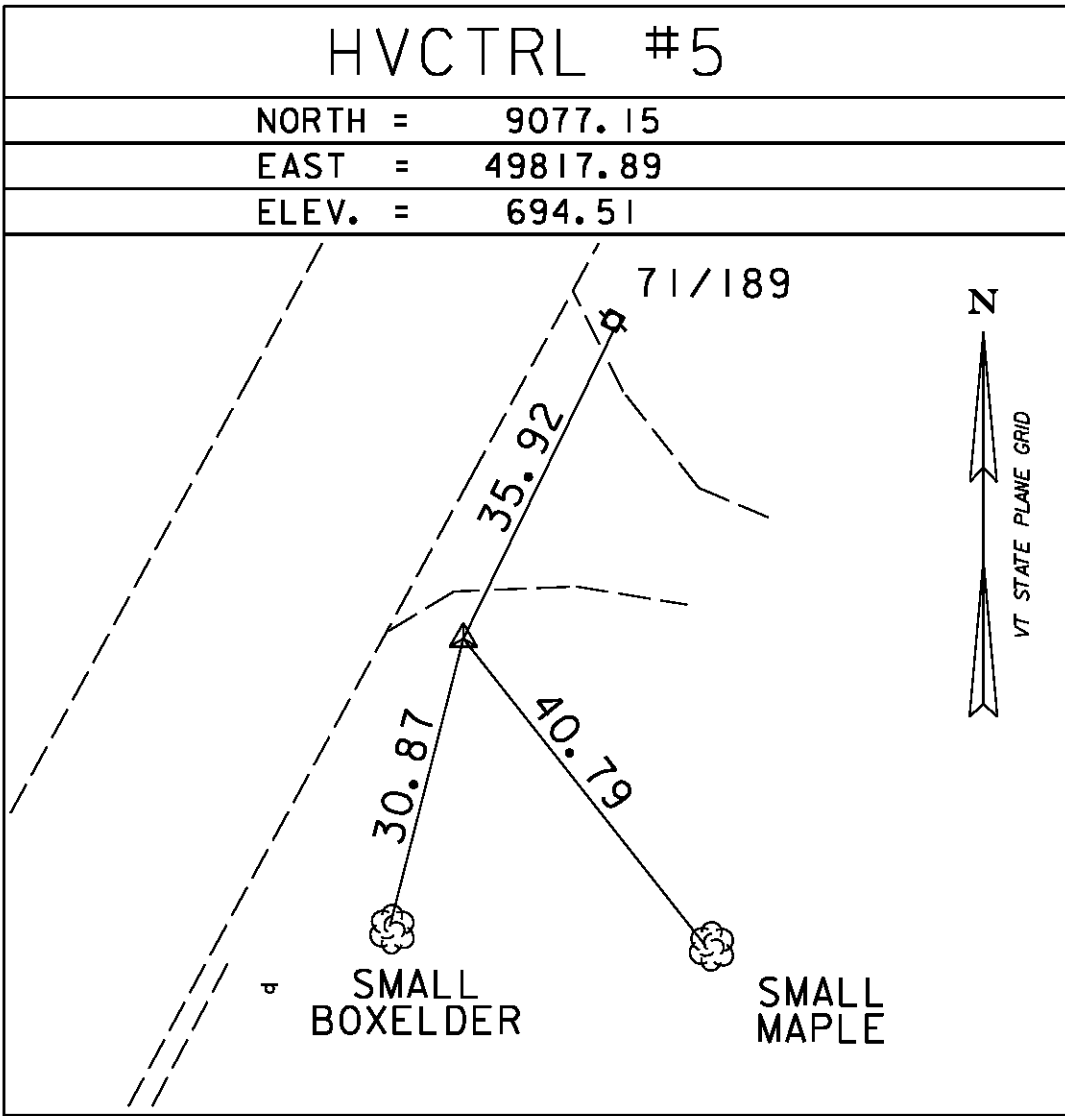
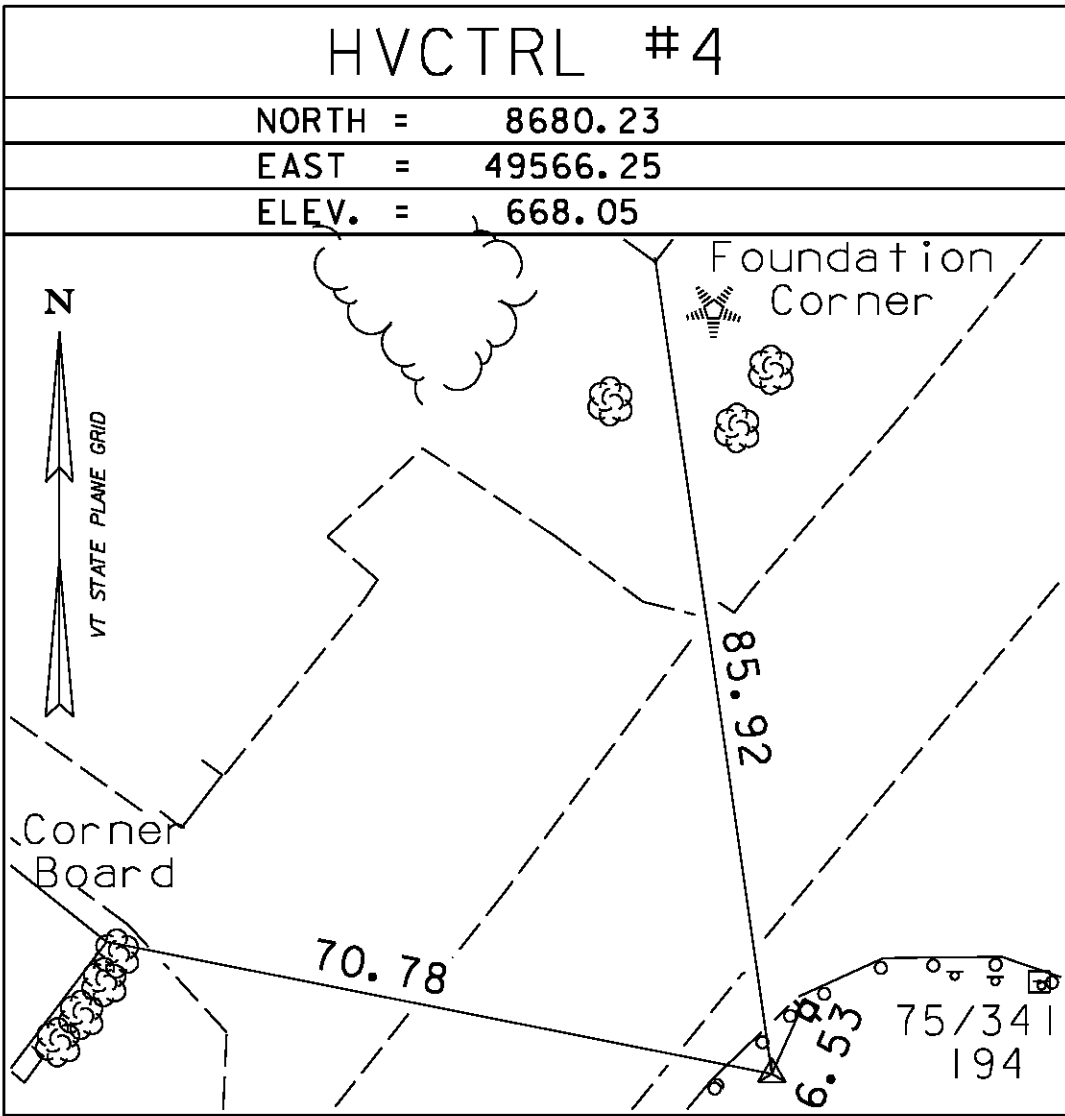
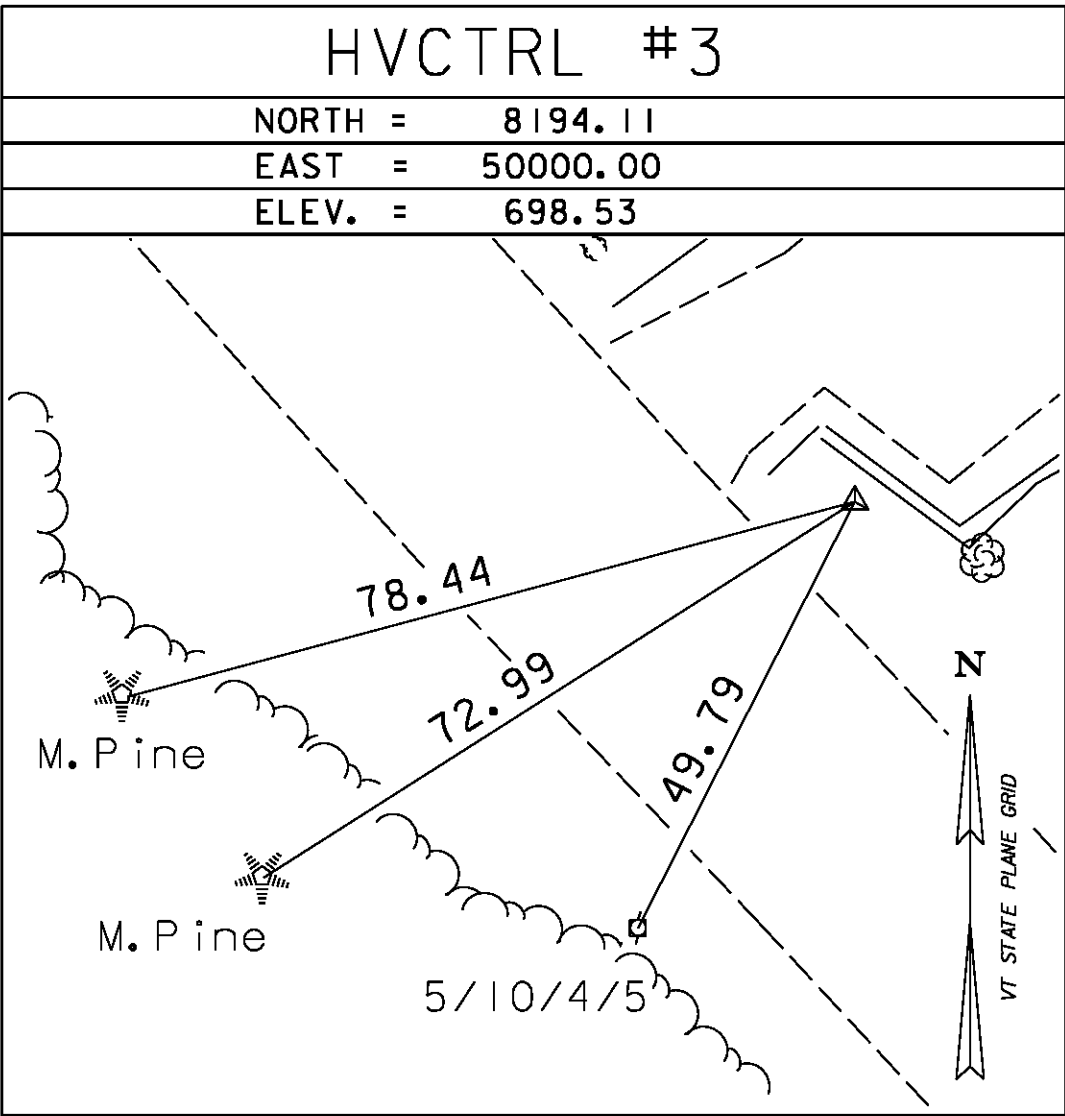
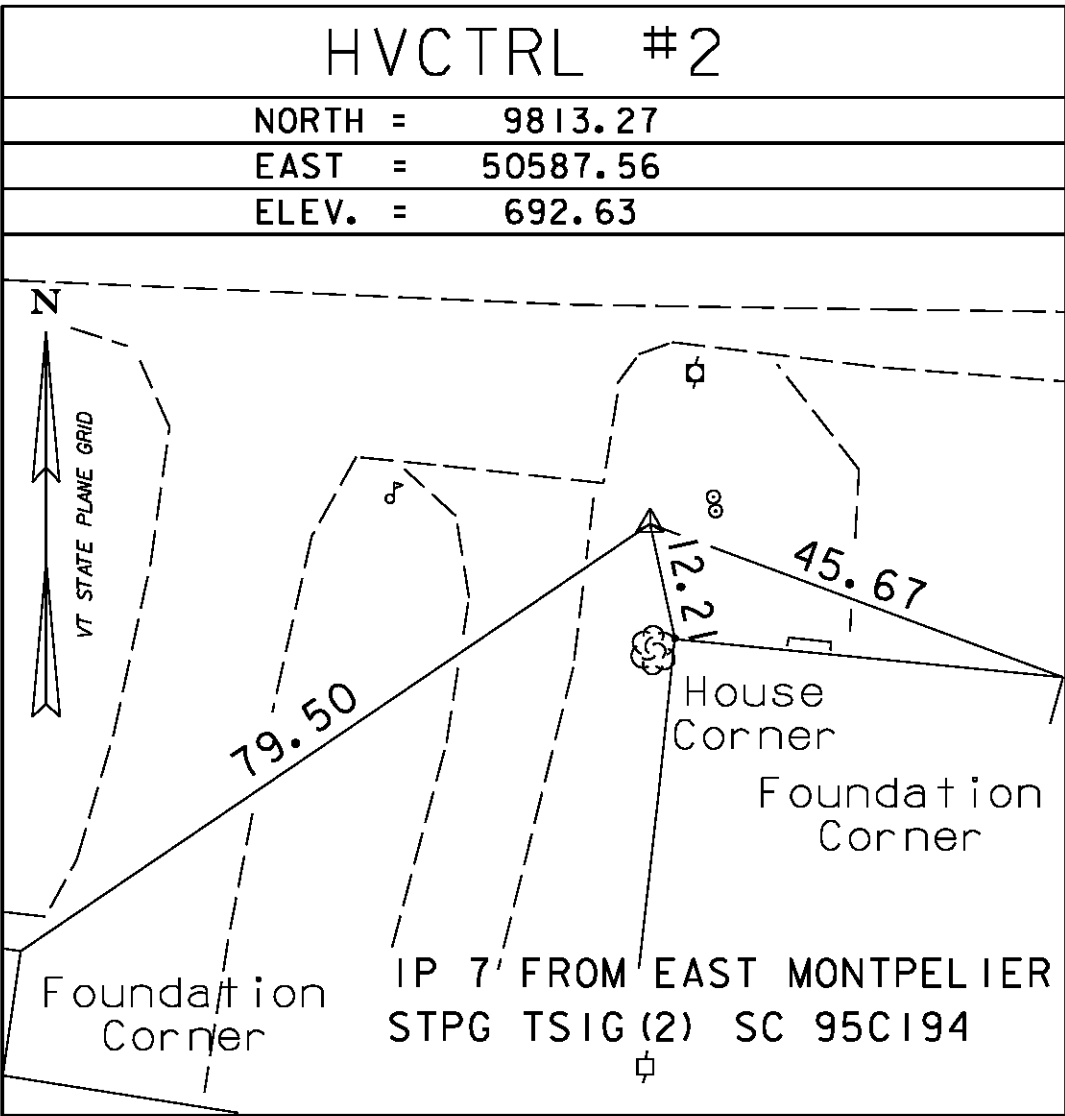
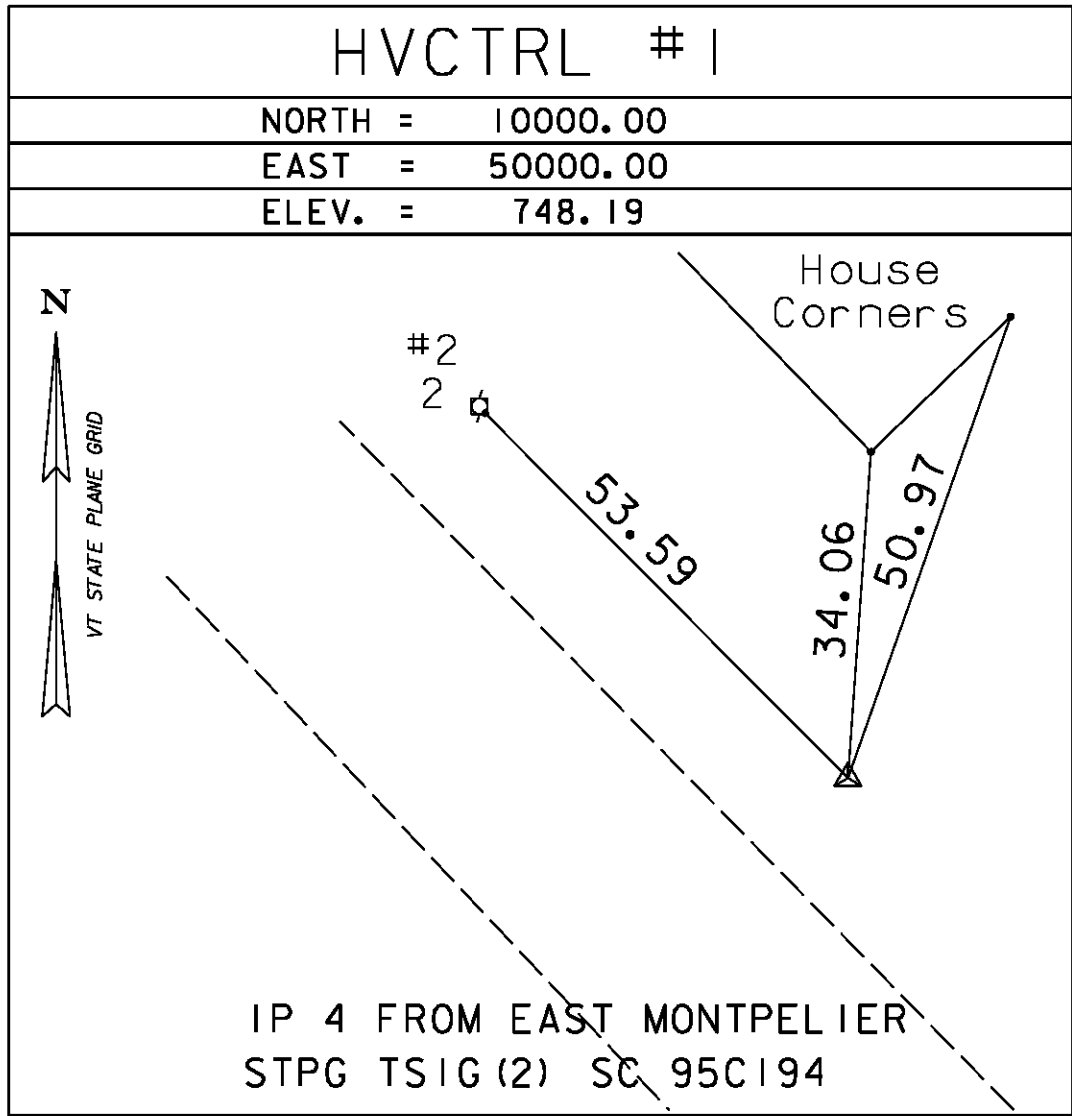
Banfield
NORTH = 639661.19
EAST = 1646682.28
ELEV. =

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1996 (DJM)

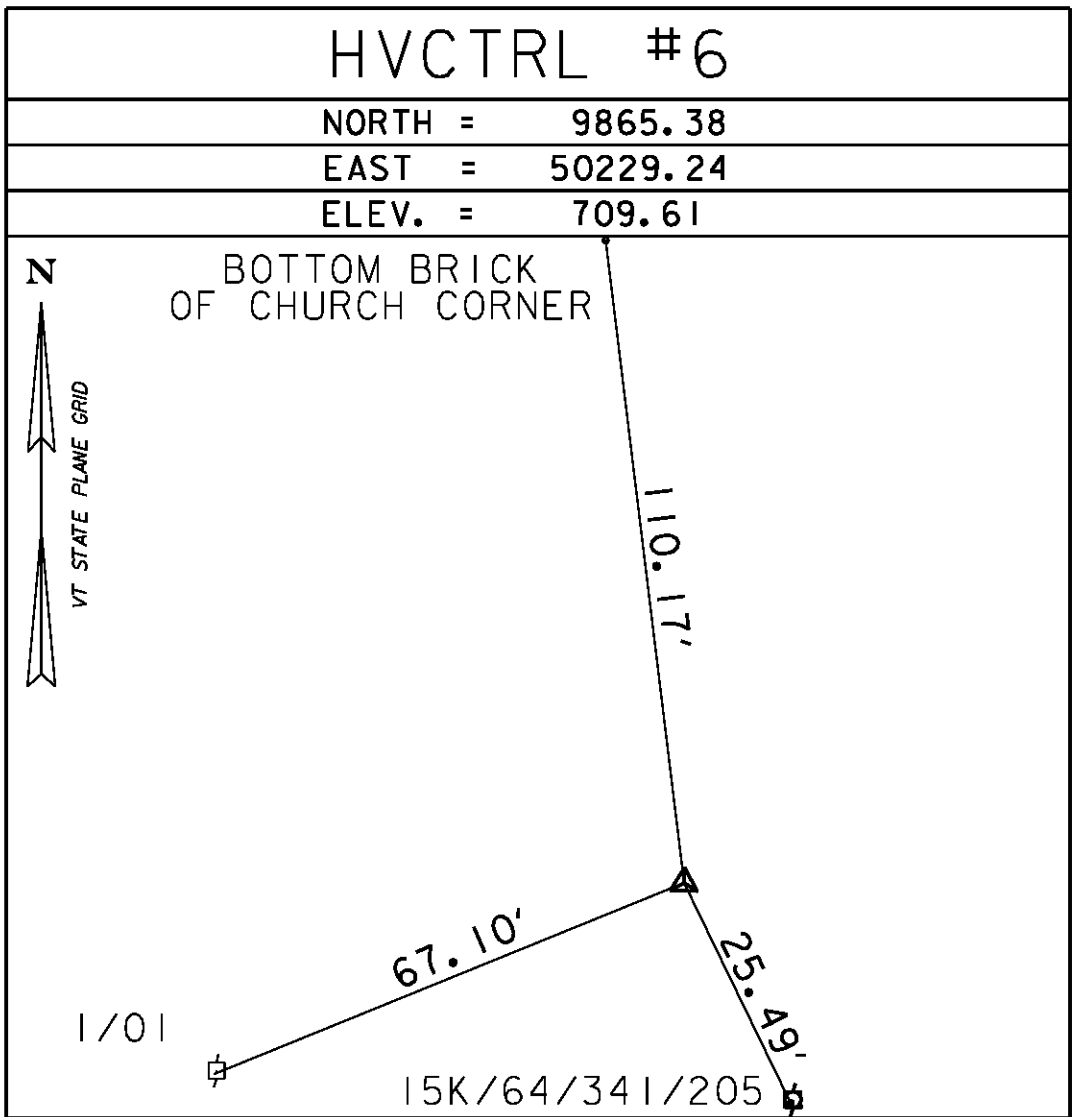
TO REACH FROM THE JUNCTION OF U.S.ROUTE 2 AND VERMONT ROUTE 14 SOUTH IN THE VILLAGE OF EAST MONTPELIER, PROCEED SOUTH ON ROUTE 14 FOR 1.2 MI(1.9 KM) TO A DIRT ROAD ON THE LEFT. TURN LEFT ONTO DIRT ROAD AND CONTINUE FOR 0.55 MI(0.89 KM) TO A T-INTERSECTION WITH THE ROAD, TURN LEFT AT INTERSECTION (COUNTRY CLUB ROAD) AND CONTINUE FOR 0.35 MI(0.56 KM) TO A POINT WHERE THE MAIN DIRT ROAD TURNS SHARPLY RIGHT, FROM THIS POINT TURN SHARPLY LEFT ON A LESSER DIRT ROAD FOR 0.05 MI(0.08 KM) TO A DIRT DRIVE RIGHT, TURN RIGHT ONTO DRIVE, TO A TWO STORY HOUSE, AND THE SITE OF THE MARK. THE MARK IS LOCATED ON THE NORTHEAST SIDE OF THE HOUSE. THE MARK IS A STATE OF VERMONT SURVEY DISK SET IN THE TOP OF A 6X6 INCH SQUARE CONCRETE MONUMENT, FLUSH WITH THE GROUND SURFACE. IT IS LOCATED 62.5 FT (19.1M) NORTH OF THE NORTHEAST CORNER OF HOUSE / ATTACHED GARAGE, 54 FT (16.5 M) NORTHEAST OF A QUADRUPLE WHITE BIRCH, 45.5 FT (13.9 M) NORTHWEST OF A 36 INCH OAK TREE, 17.5 FT (5.3 M) EAST OF THE SOUTHEAST CORNER OF A LARGE EXPOSED BOULDER, 10 FT (3.0 M) NORTHEAST OF THE SOUTHEAST CORNER OF A FLOWER BED, AND 0.8 FT (24.4 CM) SOUTH OF A FIBERGLASS WITNESS POST. OWNERSHIP IS MR. AND MRS. EDWARD BANFIELD.

**To bring the project back to Vermont State Plane Grid Coordinates add 635,781.30 to the Northings and 1,593,715.26 to the Eastings

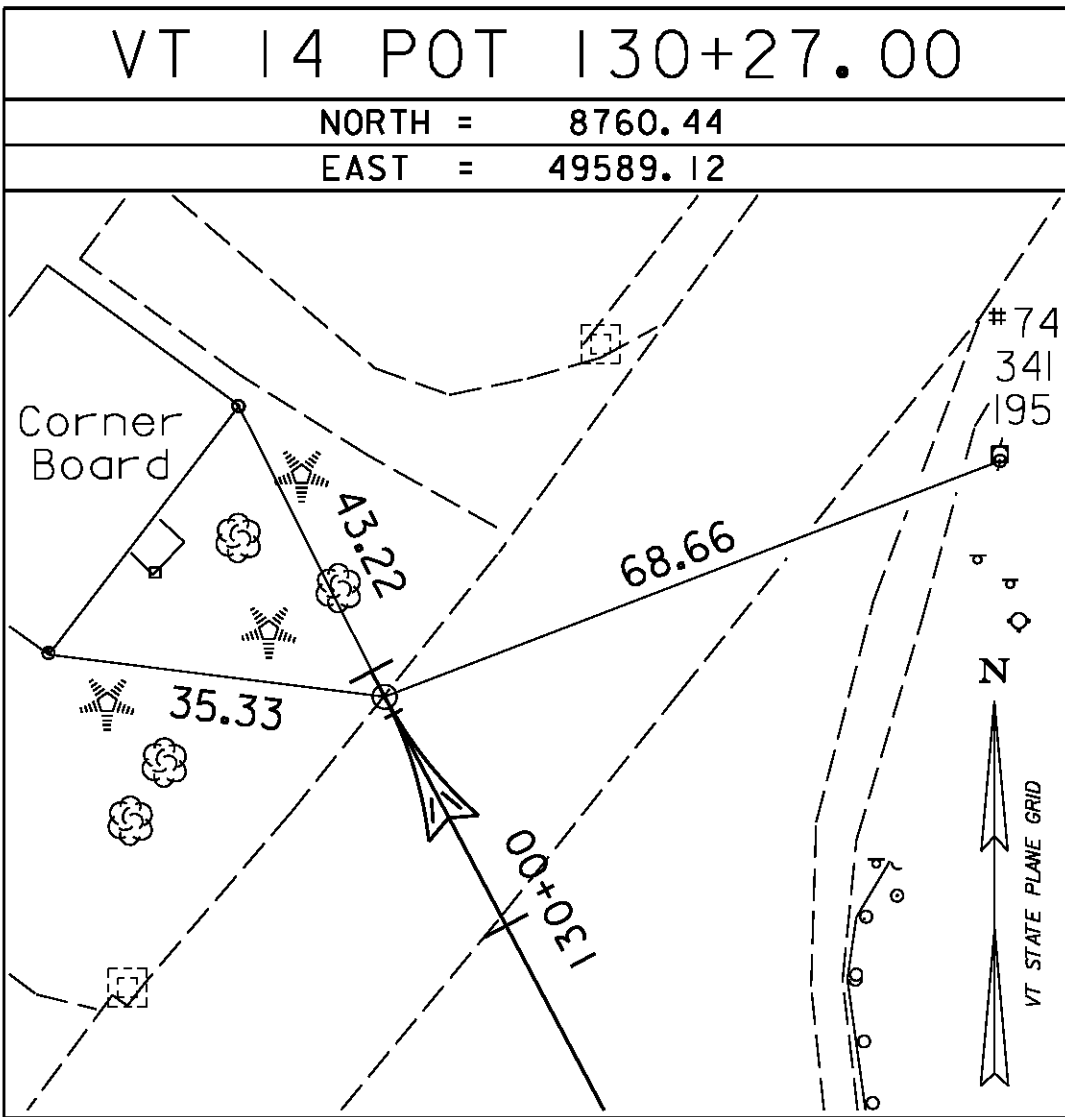
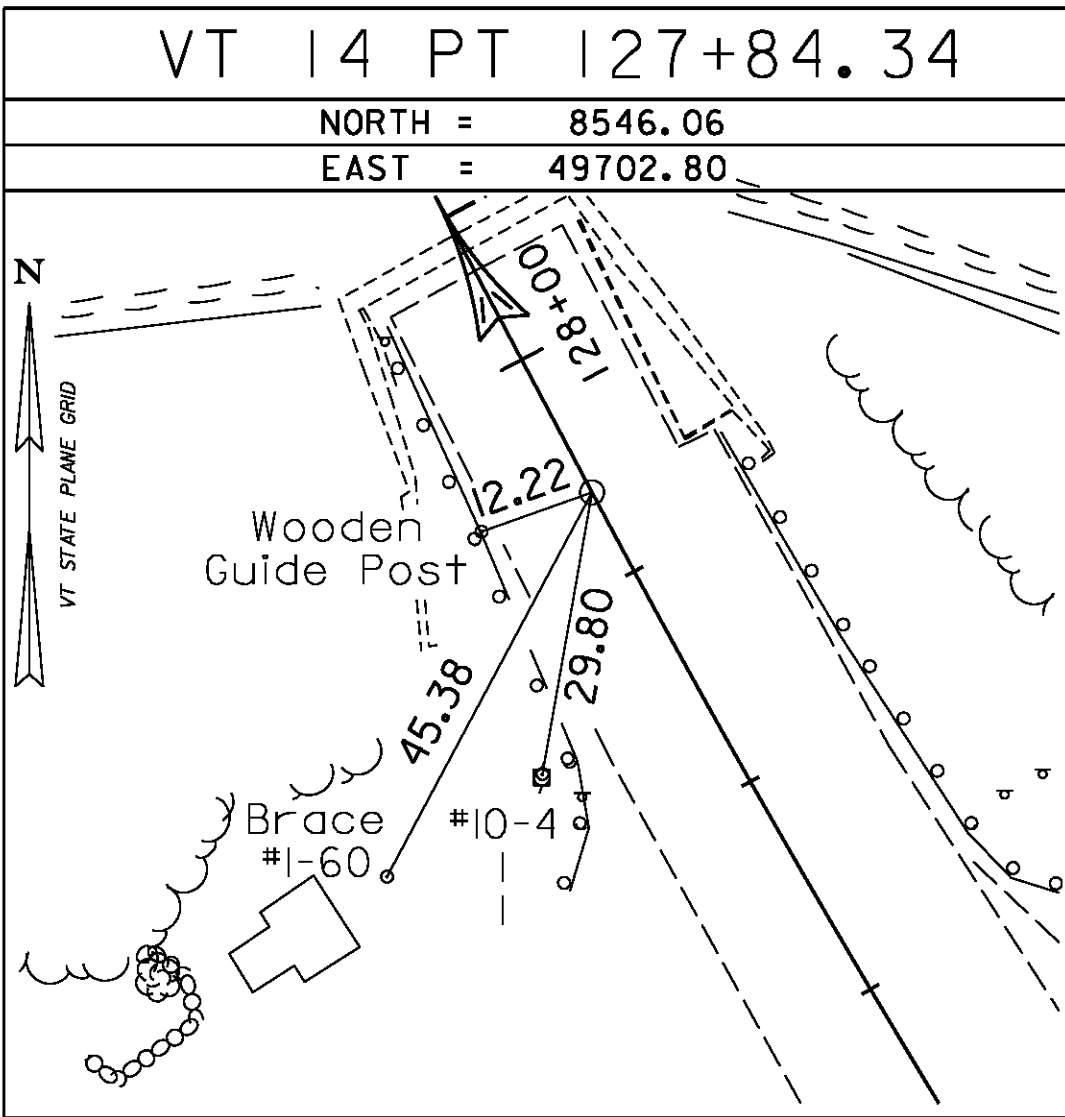
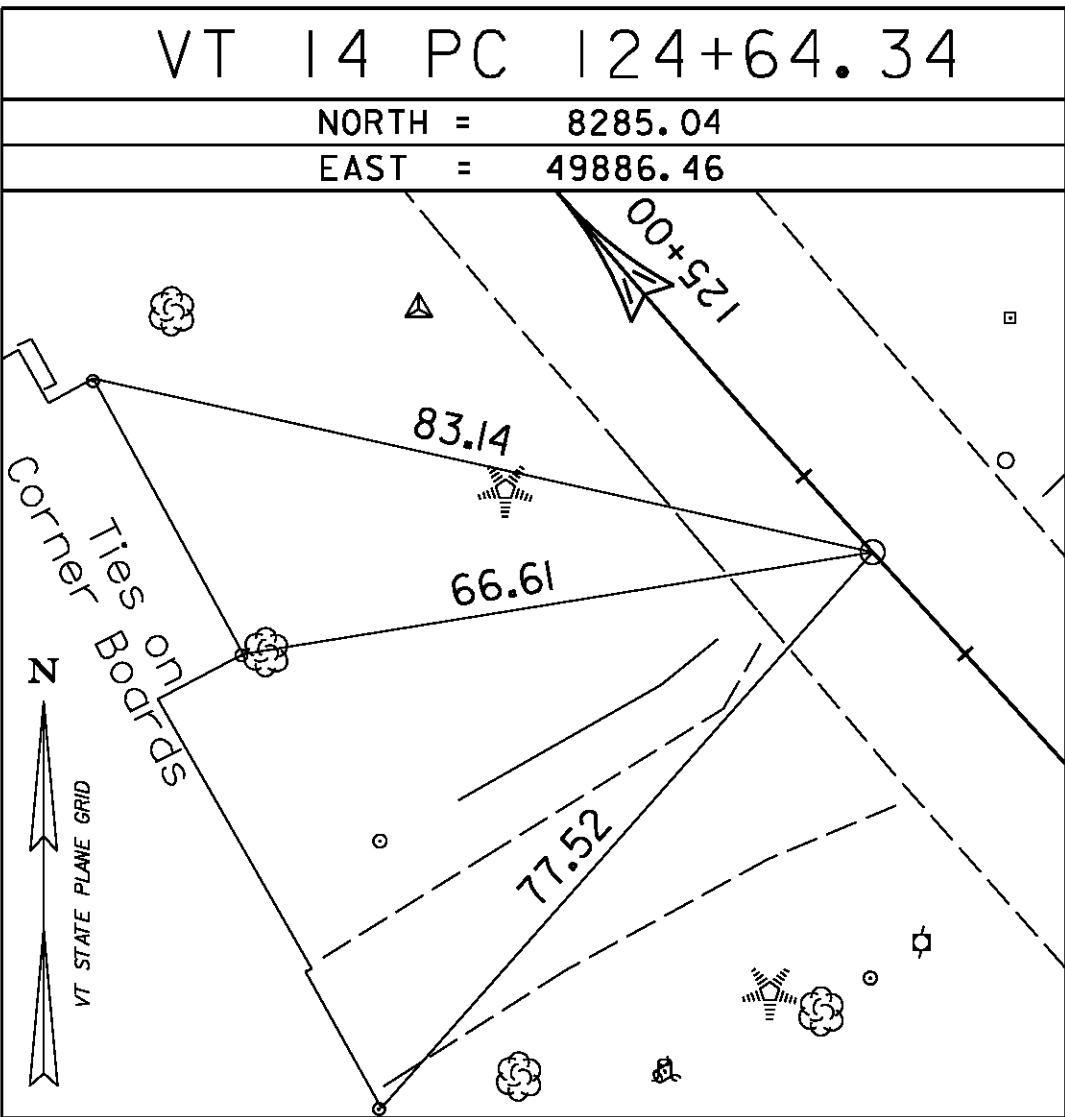
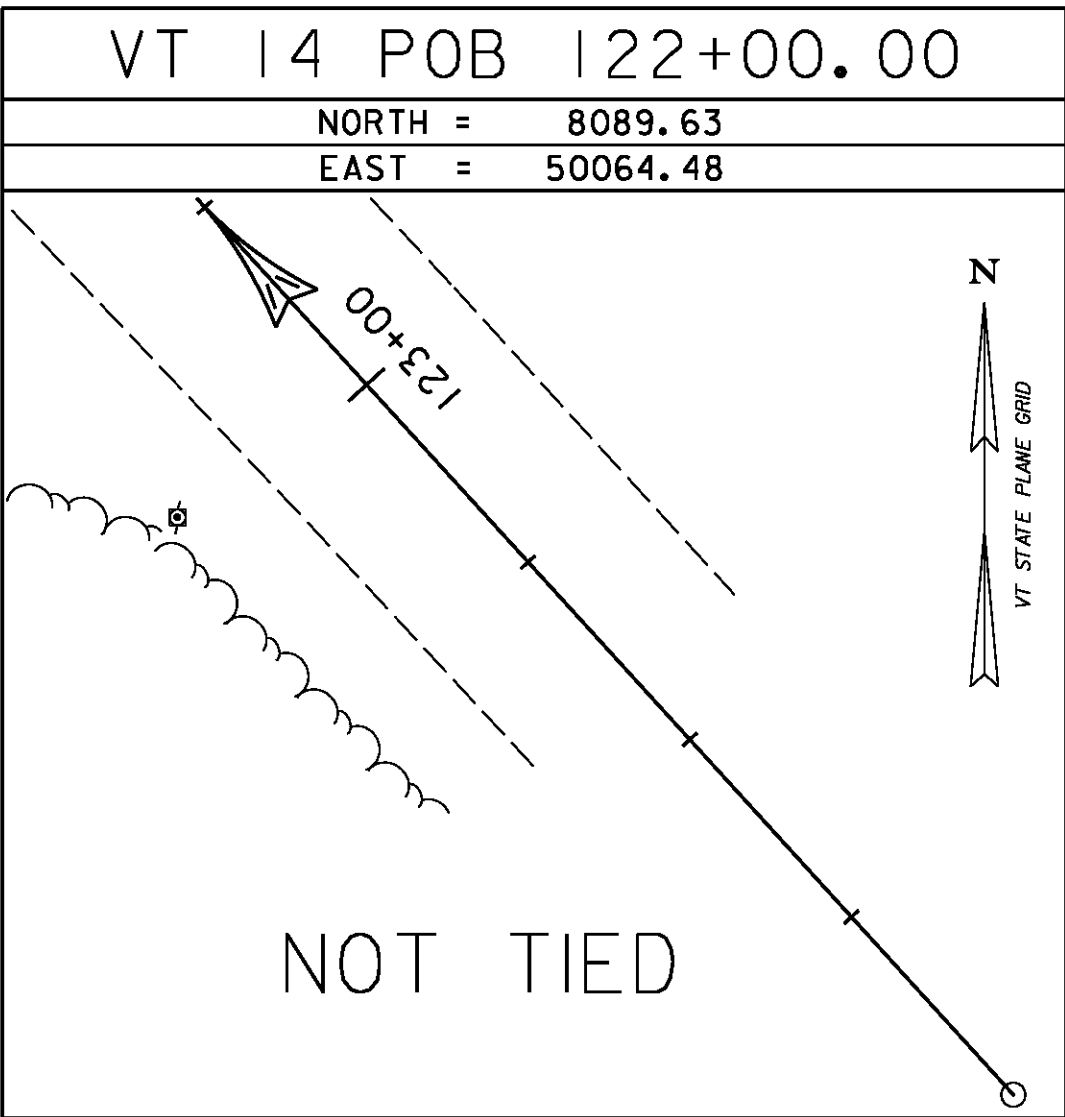
TRAVERSE TIES



TRAVERSE TIES



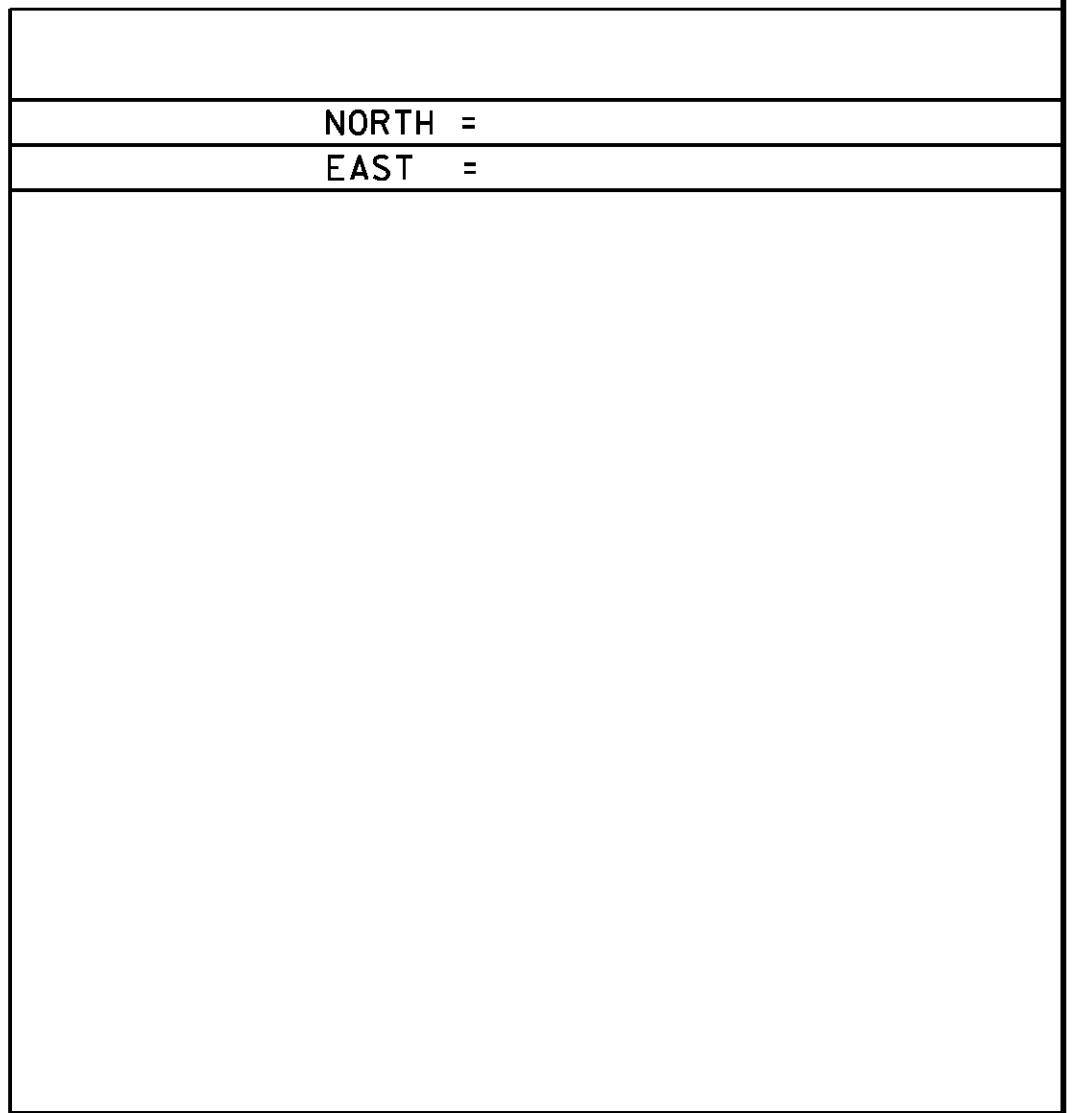
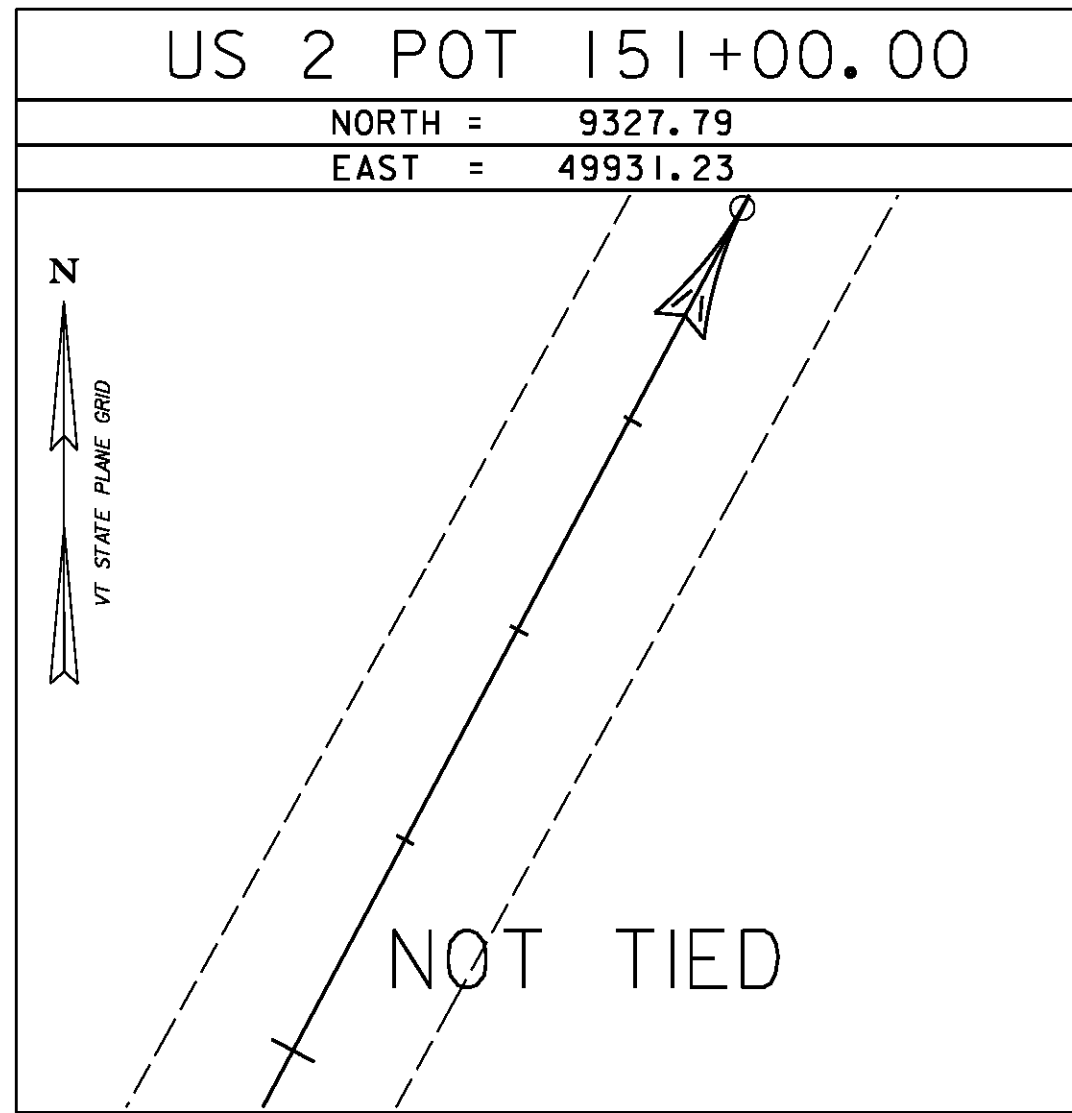
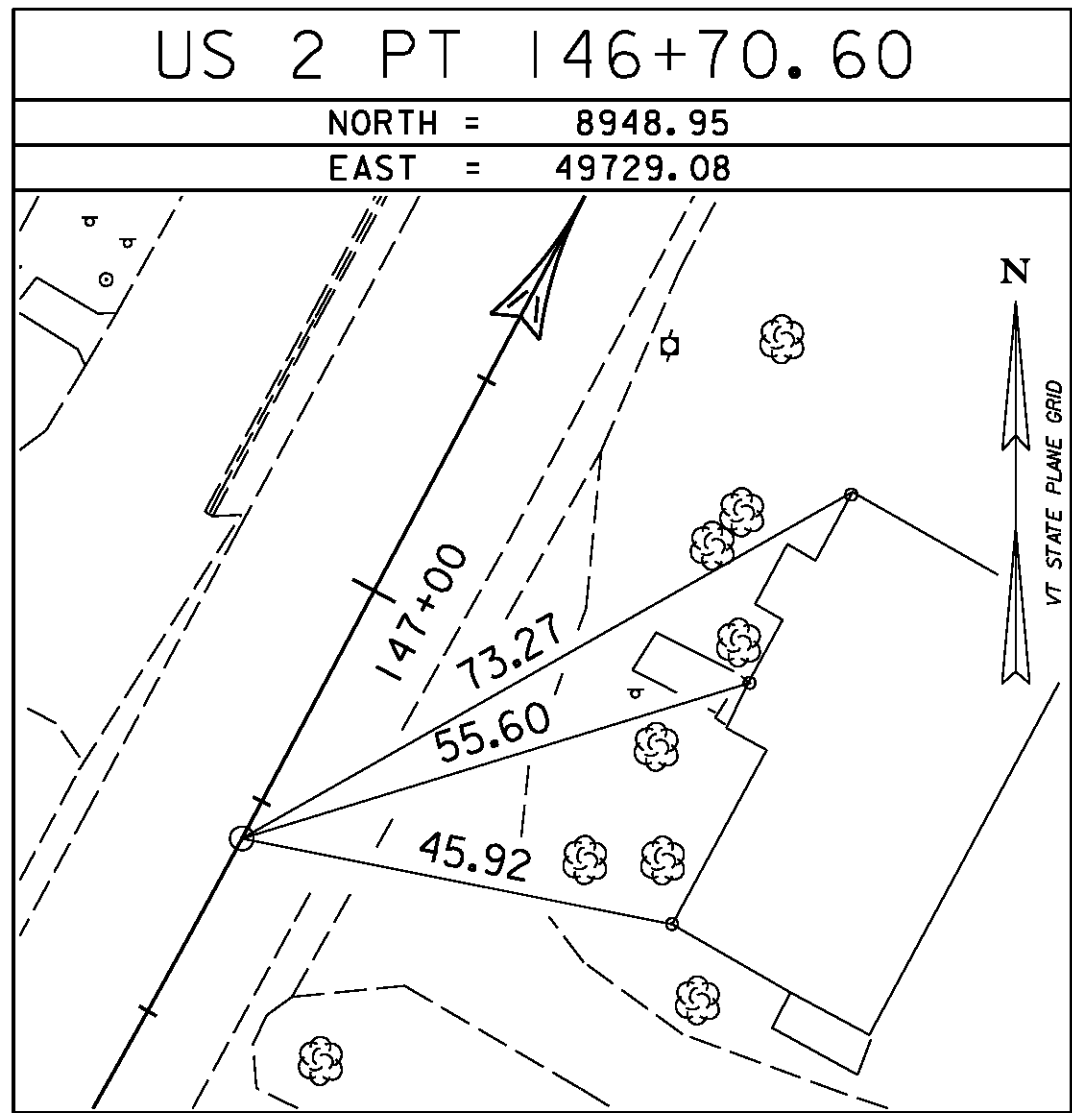
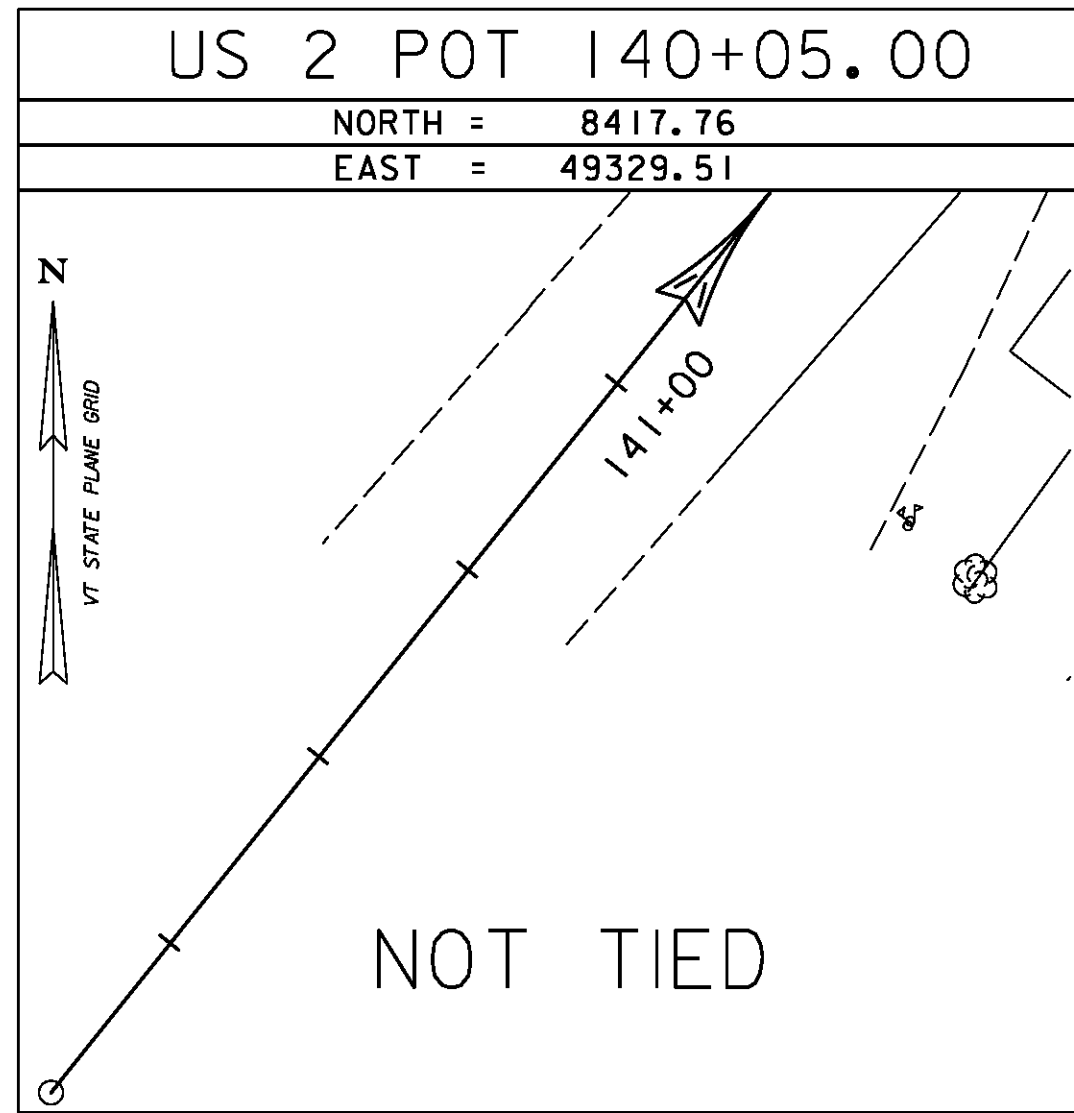
ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (92)
ADJUSTMENT	Compass

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	05_Survey Tie - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	VTRANS
SURVEY TIE SHEET - TIE 1	
PLOT DATE:	5/26/2016
DRAWN BY:	VTRANS
CHECKED BY:	VTRANS
SHEET	4 OF 42

ALIGNMENT TIES



DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83 (92)
ADJUSTMENT	Compass

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	05_Survey Tie - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	VTRANS
SURVEY TIE SHEET 2 - TIE 2	
PLOT DATE:	5/26/2016
DRAWN BY:	VTRANS
CHECKED BY:	VTRANS
SHEET	5 OF 42

STATE OF VERMONT AGENCY OF TRANSPORTATION										QUANTITY SHEET 1																	
SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES											
										ROADWAY	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS						
										1			1		LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10	-									
										175			175		CY	TRENCH EXCAVATION OF EARTH	204.20	-									
										12			12		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-									
										990			990		LB	REINFORCING STEEL, LEVEL I	507.11	-									
										9			9		CY	CONCRETE, CLASS B	541.25	-									
										37			37		LF	18" RCP CLASS V	601.0817	-									
										45			45		LF	18" CPEP(SL)	601.2615	-									
										1			1		EACH	18" CPEPES	601.7015	-									
										2			2		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE (4' X 4')	604.18	-									
										3			3		EACH	PRECAST REINFORCED CONCRETE DROP INLET WITH CAST IRON GRATE (4' X 6')	604.18	-									
										2			2		MGAL	DUST CONTROL WITH WATER	609.10	-									
										1			1		TON	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	-									
										4			4		CY	STONE FILL, TYPE I	613.10	-									
										25			25		LF	REMOVE AND RESET GUARDRAIL	621.75	-									
										300			300		HR	UNIFORMED TRAFFIC OFFICERS	630.10	-									
										1100			1100		HR	FLAGGERS	630.15	-									
												1	1		LS	TESTING EQUIPMENT, CONCRETE	631.16	-									
										1			1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-									
										3			3		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-									
										9			9		SY	GEOTEXTILE UNDER STONE FILL	649.31	-									
											135		135		SY	GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED	649.515	-									
											20		20		LB	SEED	651.15	-									
											110		110		LB	FERTILIZER	651.18	-									
											0.5		0.5		TON	AGRICULTURAL LIMESTONE	651.20	-									
											0.5		0.5		TON	HAY MULCH	651.25	-									
											100		100		CY	TOPSOIL	651.35	-									
											1		1		LS	EPSC PLAN	652.10	-									
											40		40		HR	MONITORING EPSC PLAN	652.20	-									
											1		1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	-									
											115		115		SY	TEMPORARY EROSION MATTING	653.20	-									
											30		30		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25	-									
											20		20		CY	VEHICLE TRACKING PAD	653.35	-									
											1		1		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-									
											2		2		EACH	FILTER BAG	653.45	-									
											280		280		LF	BARRIER FENCE	653.50	-									
											240		240		LF	PROJECT DEMARCATION FENCE	653.55	-									
											3		3		EACH	SPECIAL PROVISION (INLET PROTECTION DEVICE, FILTER FIBER)	900.620	-									
										100			100		HR	SPECIAL PROVISION (HORIZONTAL DIRECTION DRILLING OBSTRUCTION REMOVAL)	900.630	-									
										40			40		HR	SPECIAL PROVISION (TRENCHLESS PIPE OBSTRUCTION REMOVAL)	900.630	-									
										54			54		LF	SPECIAL PROVISION (HORIZONTAL DIRECTIONAL DRILLING)(10'')(HDPE)	900.640	-									
																PROJECT NAME: EAST MONTPELIER PROJECT NUMBER: BF EWP2(I) FILE NAME: 06_Quantities - ER.dgn PROJECT LEADER: T. KNIGHT DESIGNED BY: K. RICHARDSON QUANTITY SHEET QS 1						PLOT DATE: 6/14/2016 DRAWN BY: C. GENDRON CHECKED BY: E. ALLING SHEET 6 OF 42					
																											

QUANTITY SHEET 2

[illegible]

PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(I)	
FILE NAME: 06_Quantities - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: C. GENDRON
DESIGNED BY: K. RICHARDSON	CHECKED BY: E. ALLING
QUANTITY SHEET 05 2	SHEET 7 OF 42

604.18 - NEW 4' X 4' REINFORCED CONCRETE DROP INLET

15 STA 147+18 LT

FUTURE 4' X 4' REINFORCED CONCRETE DROP INLET

13 STA 146+03 LT

17 STA 147+55 LT

17A STA 147+70 LT

FUTURE UNDERDRAIN FLUSHING BASIN (SEE STANDARD D-30)

U20A STA 147+70 LT

U22 STA 147+90 RT

604.18 - NEW 6' X 4' REINFORCED CONCRETE DROP INLET

15A STA 147+18 RT

601.0817 - NEW 18" RCP CLASS V PIPE

15A STA 147+18 LT - RT

FUTURE 18" DIA - OPTION PIPE PCCSP, CAAP, CPEP, RCP, CPEP (SL)

13 STA 145+00 LT - 146+03 LT

15 STA 146+03 LT - 147+18 LT

17 STA 147+18 LT - 147+70 LT

17A STA 147+54 LT - 147+70 LT

EXISTING DROP INLET TO BE REMOVED IN FUTURE

14 STA 146+22 LT

16 STA 147+42 LT

18 STA 147+55 LT

EXISTING PIPE TO BE REMOVED IN FUTURE

14 STA 144+78 LT - 146+22 LT

16 STA 146+22 LT - 147+42 LT

18 STA 147+42 LT - 147+55 LT

FUTURE 6" UNDERDRAIN PIPE

U20A STA 145+75 LT - 147+70 LT

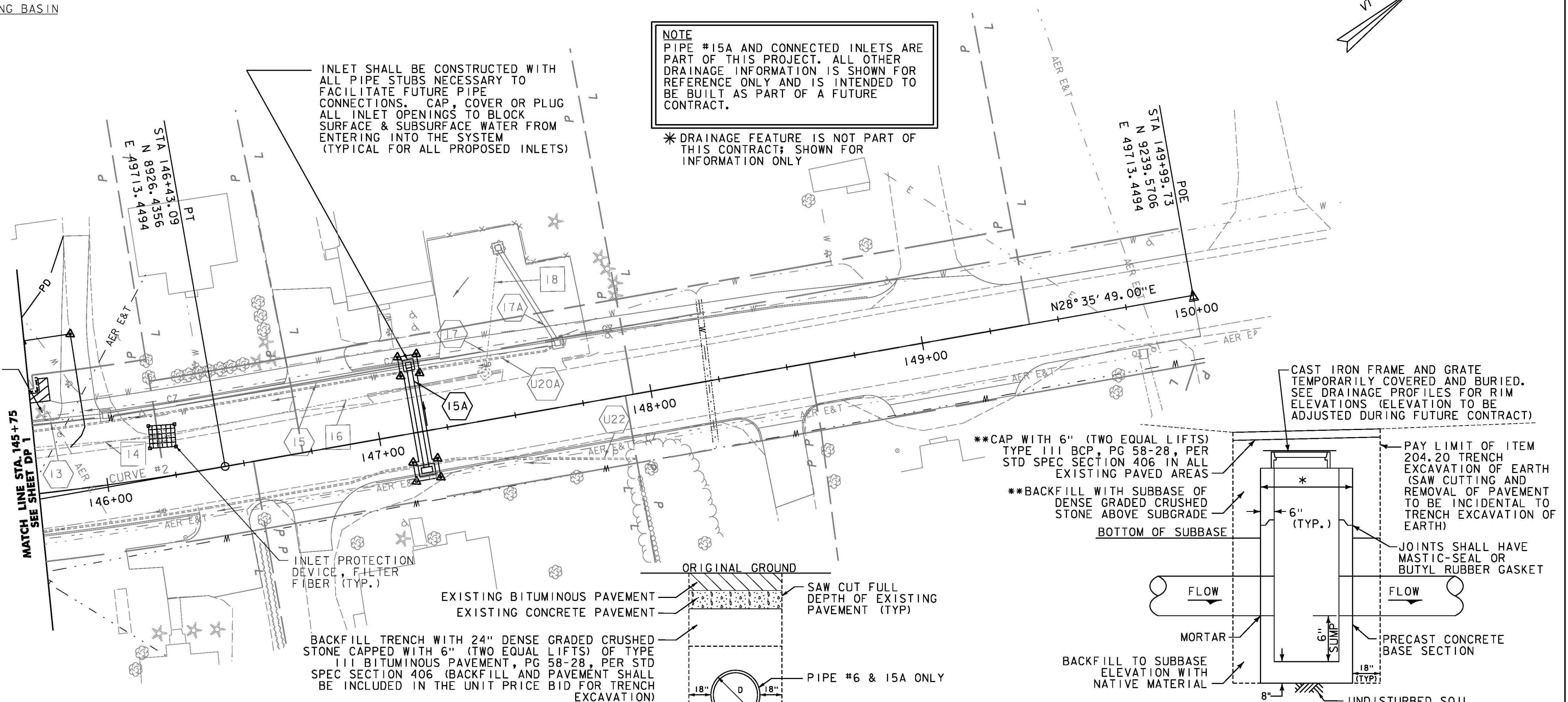
U22 STA 145+75 RT - 147+90 RT

NOTE
PIPE #15A AND CONNECTED INLETS ARE PART OF THIS PROJECT. ALL OTHER DRAINAGE INFORMATION IS SHOWN FOR REFERENCE ONLY AND IS INTENDED TO BE BUILT AS PART OF A FUTURE CONTRACT.

* DRAINAGE FEATURE IS NOT PART OF THIS CONTRACT; SHOWN FOR INFORMATION ONLY

INLET SHALL BE CONSTRUCTED WITH ALL PIPE STUBS NECESSARY TO FACILITATE FUTURE PIPE CONNECTIONS. CAP, COVER OR PLUG ALL INLET OPENINGS TO BLOCK SURFACE & SUBSURFACE WATER FROM ENTERING INTO THE SYSTEM (TYPICAL FOR ALL PROPOSED INLETS)

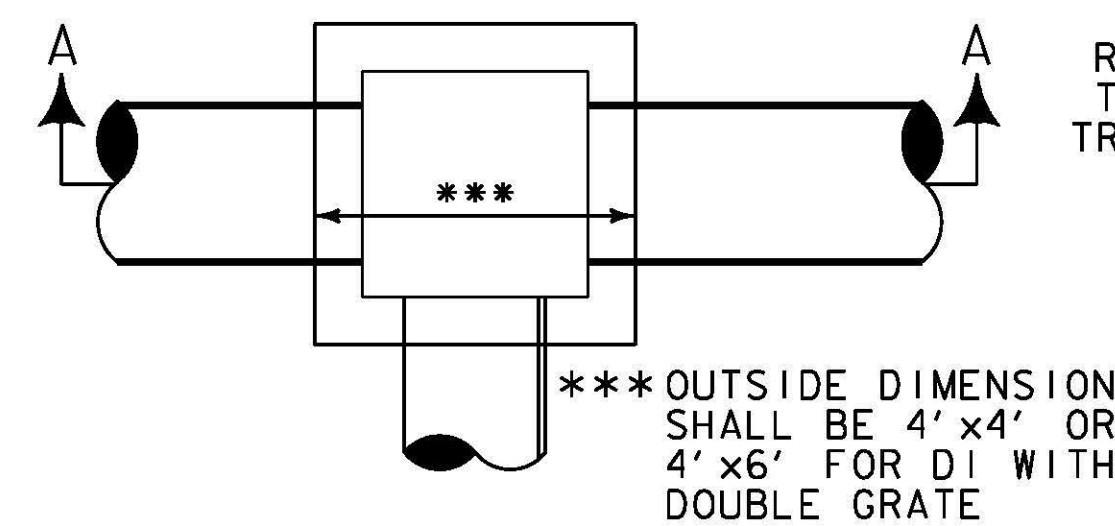
TREE TO BE REMOVED (THIS TREE IS NOT CONSIDERED HABITAT FOR THE NORTHERN LONG EARED BAT AND IS NOT SUBJECT TO TIME OF YEAR RESTRICTIONS ON CLEARING)



NOTES:

1. FINAL LOCATION AND ELEVATIONS OF DRAINAGE ITEMS MAY BE ADJUSTED IN THE FIELD AS DEEMED NECESSARY BY THE RESIDENT ENGINEER.
2. SEE DRAINAGE PROFILES FOR RIM AND INVERT ELEVATIONS OF DRAINAGE PIPES AND STRUCTURES.

PLAN VIEW FOR PRECAST REINFORCED CONCRETE DROP INLET IN DITCHES & ROADWAY
NOT TO SCALE



*** OUTSIDE DIMENSION SHALL BE 4' x 4' OR 4' x 6' FOR DI WITH DOUBLE GRATE

STORM DRAIN OPEN CUT TRENCH DETAIL
NOT TO SCALE

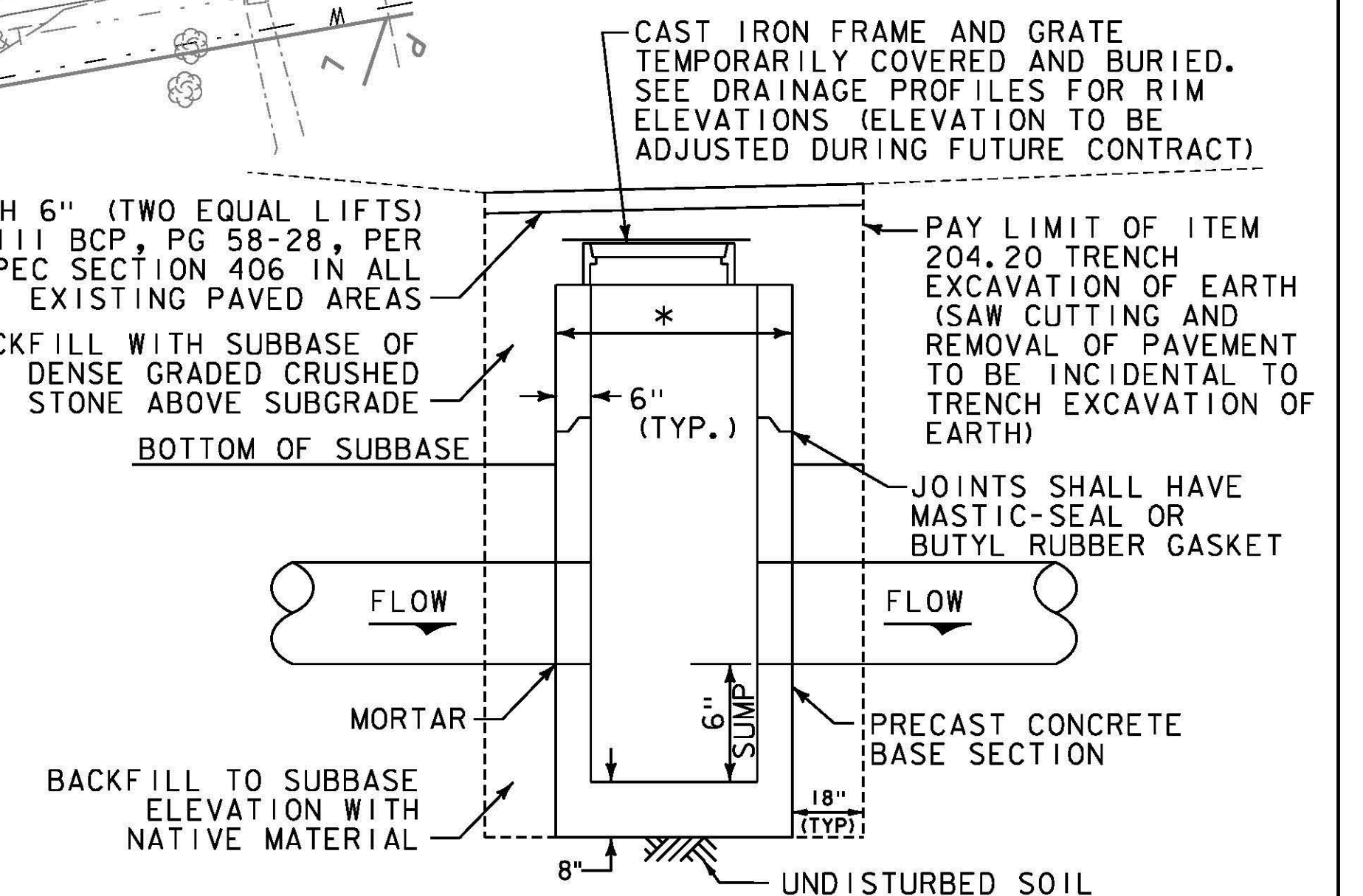
** BACKFILL, PAVEMENT AND REMOVAL OF EXISTING CONCRETE AND BITUMINOUS PAVEMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 204.20 TRENCH EXCAVATION OF EARTH

0 20 40
SCALE



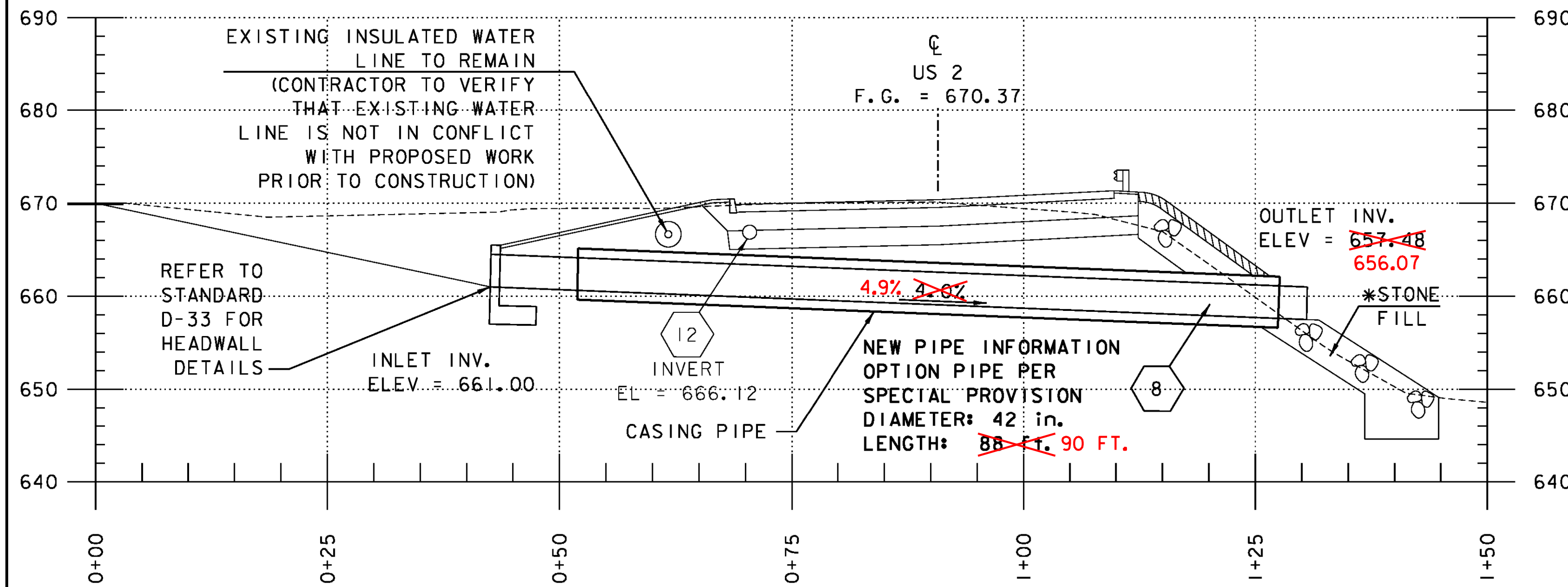
NOTE:
1. REFERENCE VTRANS STANDARDS D-6, D-8, AND D-9 FOR ADDITIONAL DETAILS AND SPECIFICATIONS.

TYPICAL PRECAST DROP INLET IN ROADWAY (SECTION A-A)
NOT TO SCALE

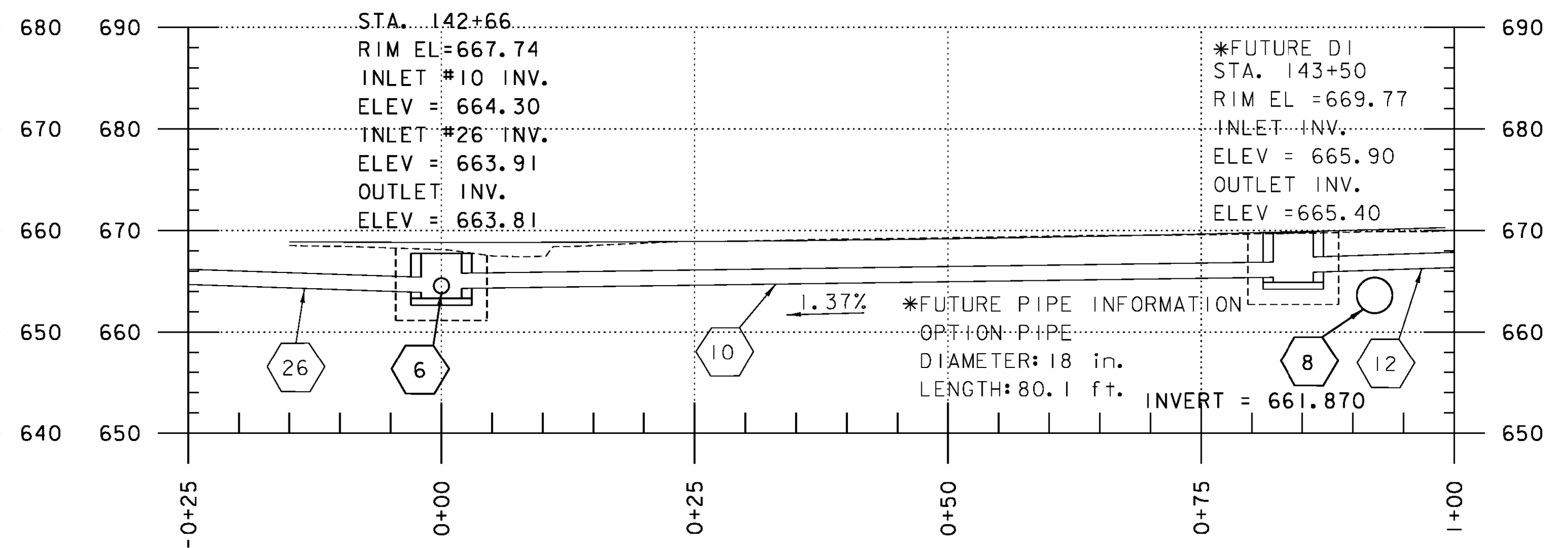


PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(1)

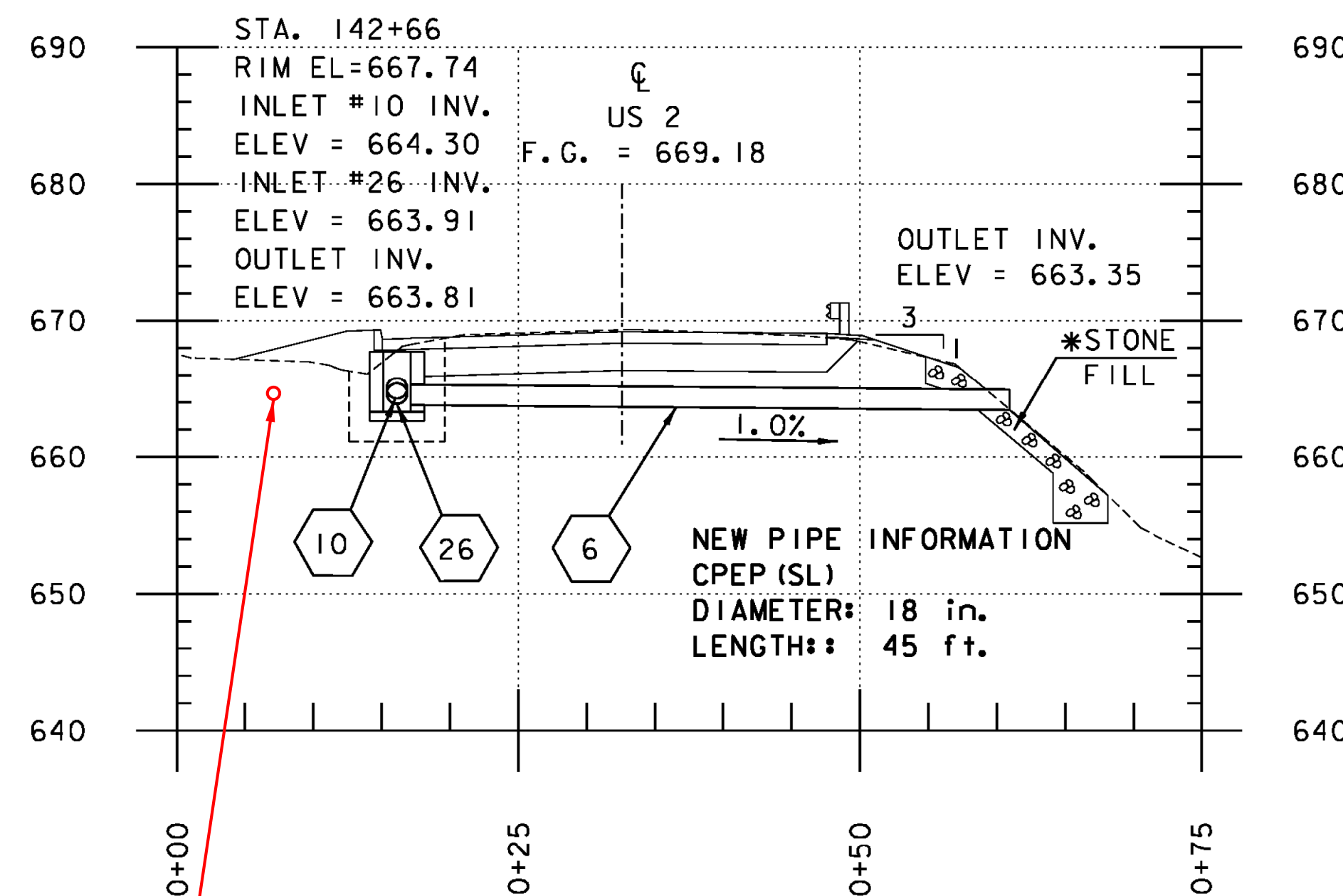
FILE NAME: ...18_Drainage plans - ER.dgn PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT DRAWN BY: E. ALLING
DESIGNED BY: K. RICHARDSON CHECKED BY: G. GOYETTE
GENERAL PLAN - GP 2 SHEET 9 OF 42



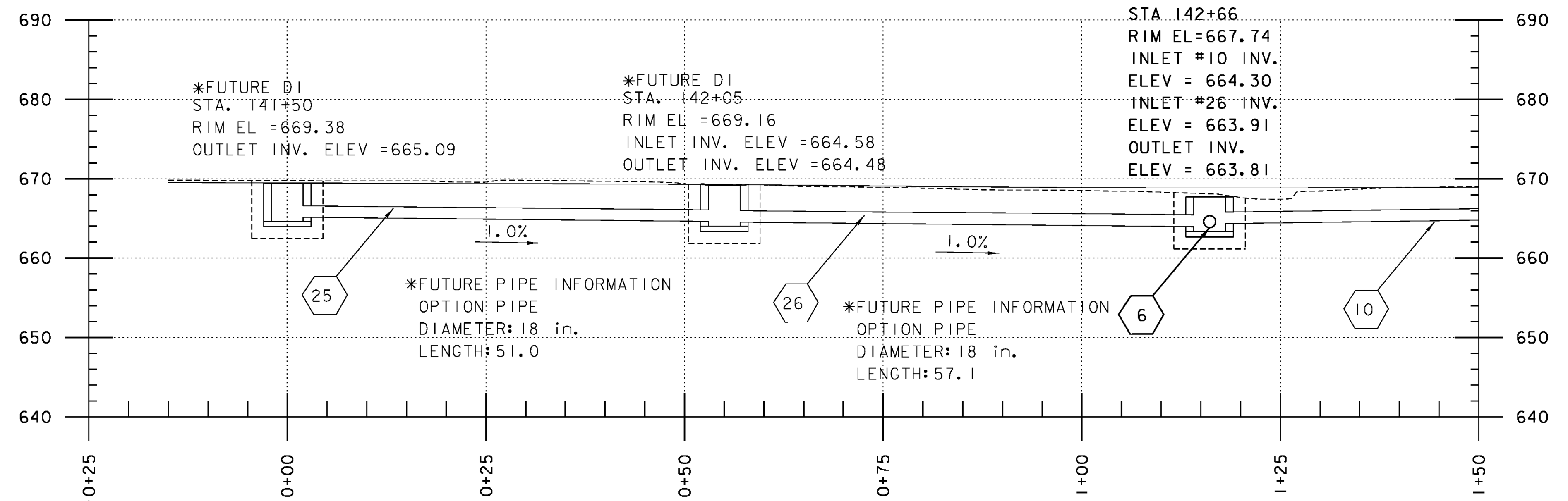
PIPE #8 PROFILE
(SEE SHEET GP 1 FOR PLAN)



PIPE #10 PROFILE
(SEE SHEET GP 1 FOR PLAN)



PIPE #6 PROFILE
(SEE SHEET GP 1 FOR PLAN)



PIPES #25 & 26 PROFILE
(SEE SHEET GP 1 FOR PLAN)

NOTE
PIPE #6, #8, AND CONNECTED INLETS ARE PART OF THIS PROJECT. ALL OTHER DRAINAGE INFORMATION IS SHOWN FOR REFERENCE ONLY AND IS INTENDED TO BE BUILT AS PART OF A FUTURE CONTRACT.

* DRAINAGE FEATURE IS NOT PART OF THIS CONTRACT; SHOWN FOR INFORMATION ONLY

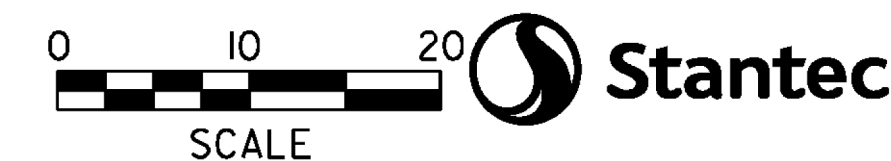
NOTE:

FOR CLARITY UNDERDRAIN IS NOT SHOWN IN PROFILES
ADJUST UNDERDRAIN AS REQUIRED TO AVOID CULVERTS
DRAINAGE STRUCTURES.

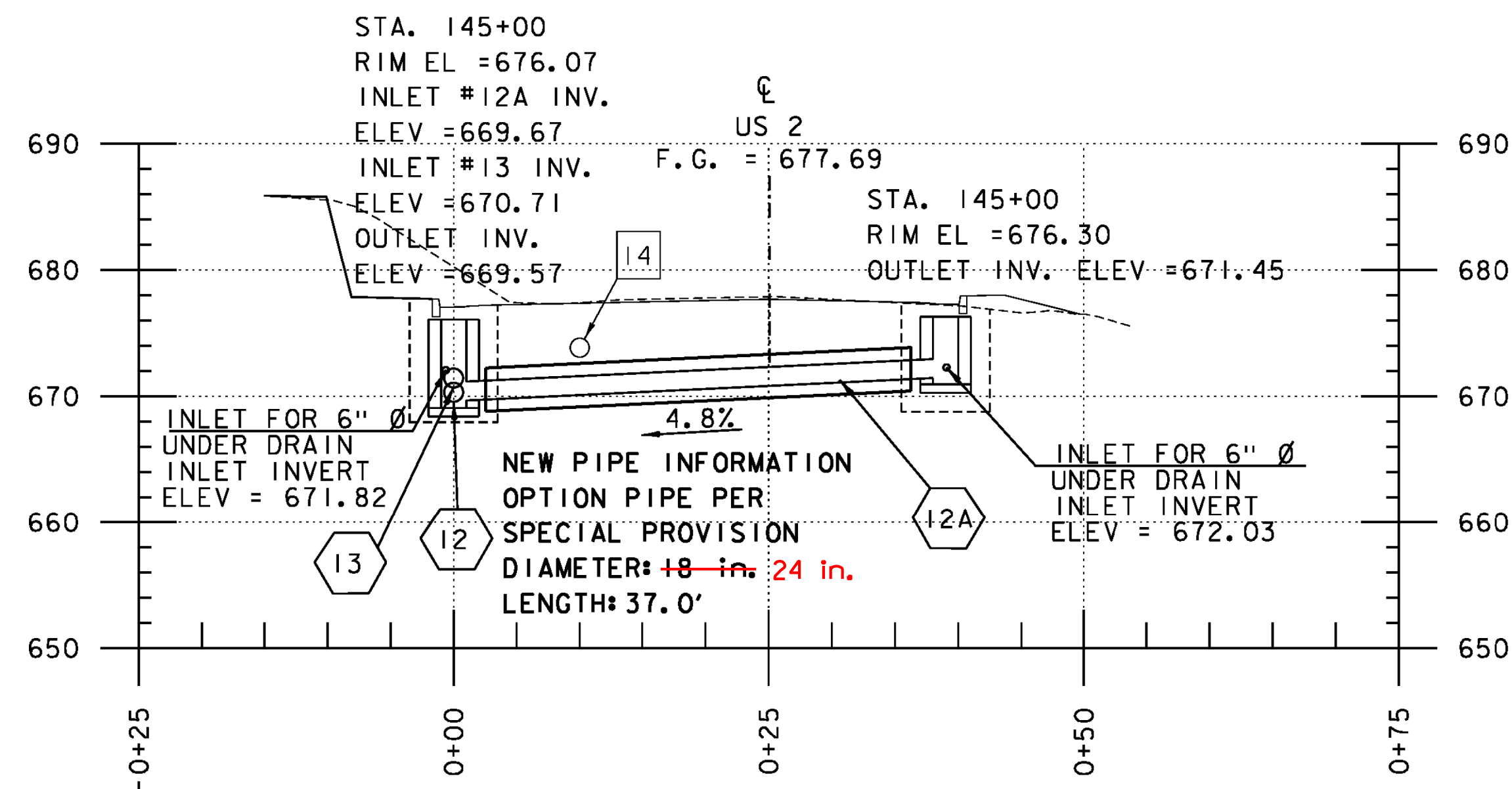
PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(I)

FILE NAME: I9.Drainage profiles - ER.dgn
PROJECT LEADER: T. KNIGHT
DESIGNED BY: K. RICHARDSON
DRAINAGE PROFILES DP 1

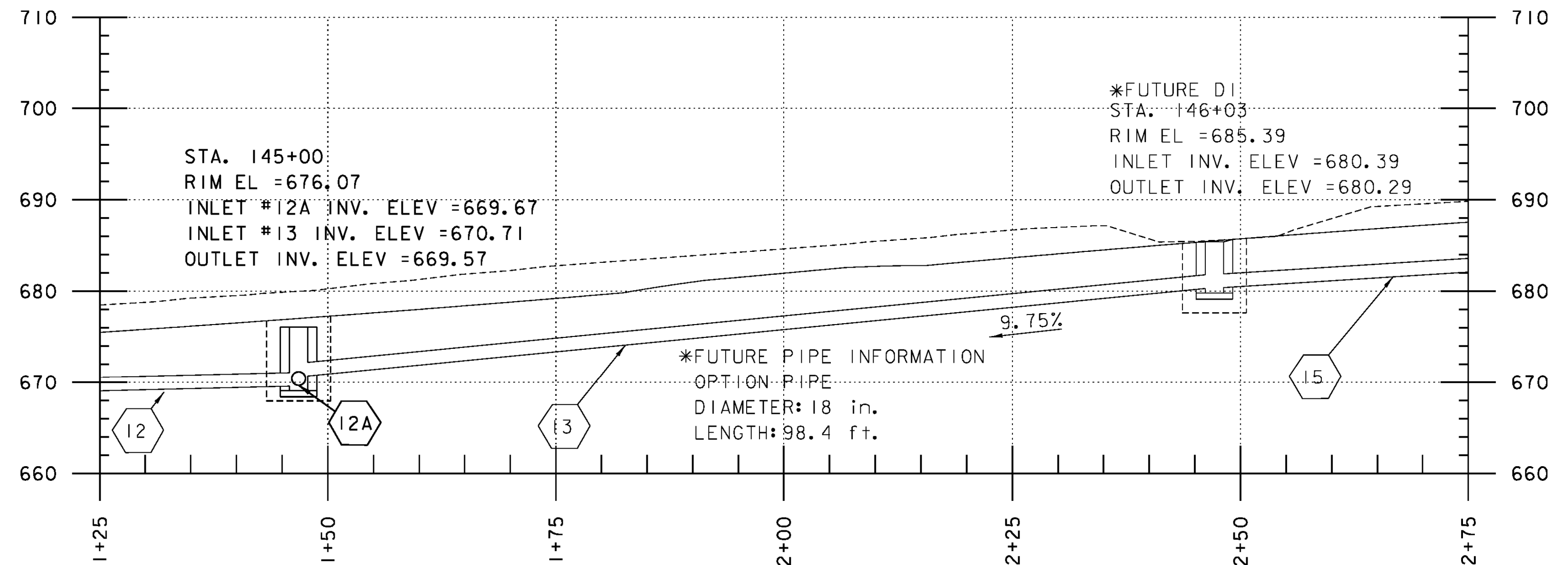
PLOT DATE: 5/26/2016
DRAWN BY: C. GENDRON
CHECKED BY: T. KNIGHT
SHEET 10 OF 42



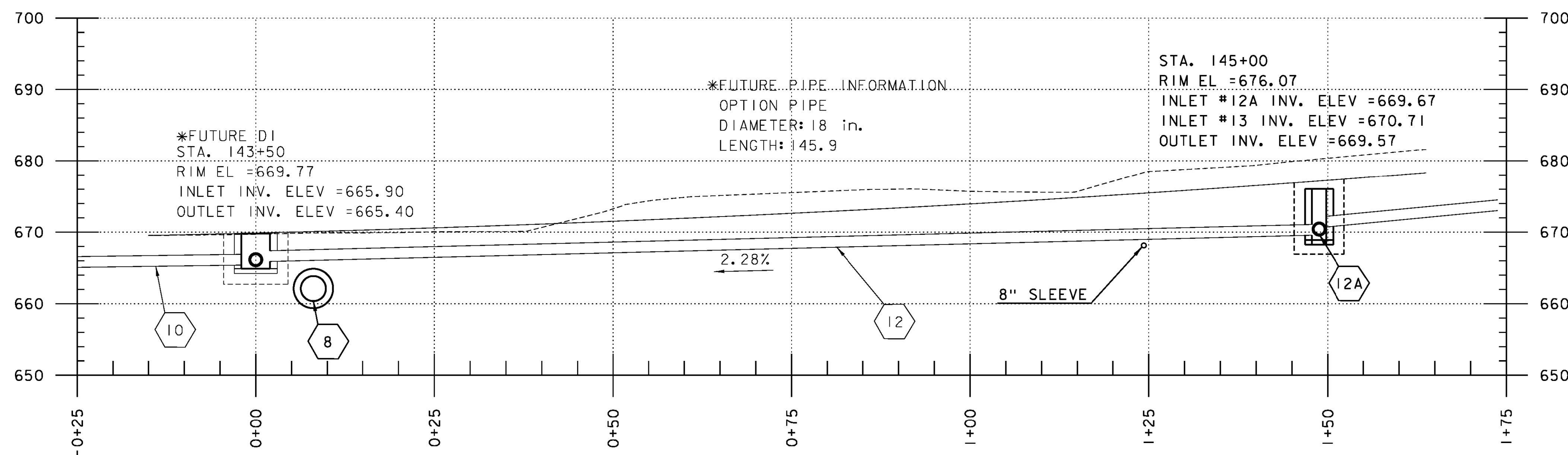
EXISTING WATERLINE:
STA 142+64, 23.9' LT
ELEV TOP OF PIPE= 665.7



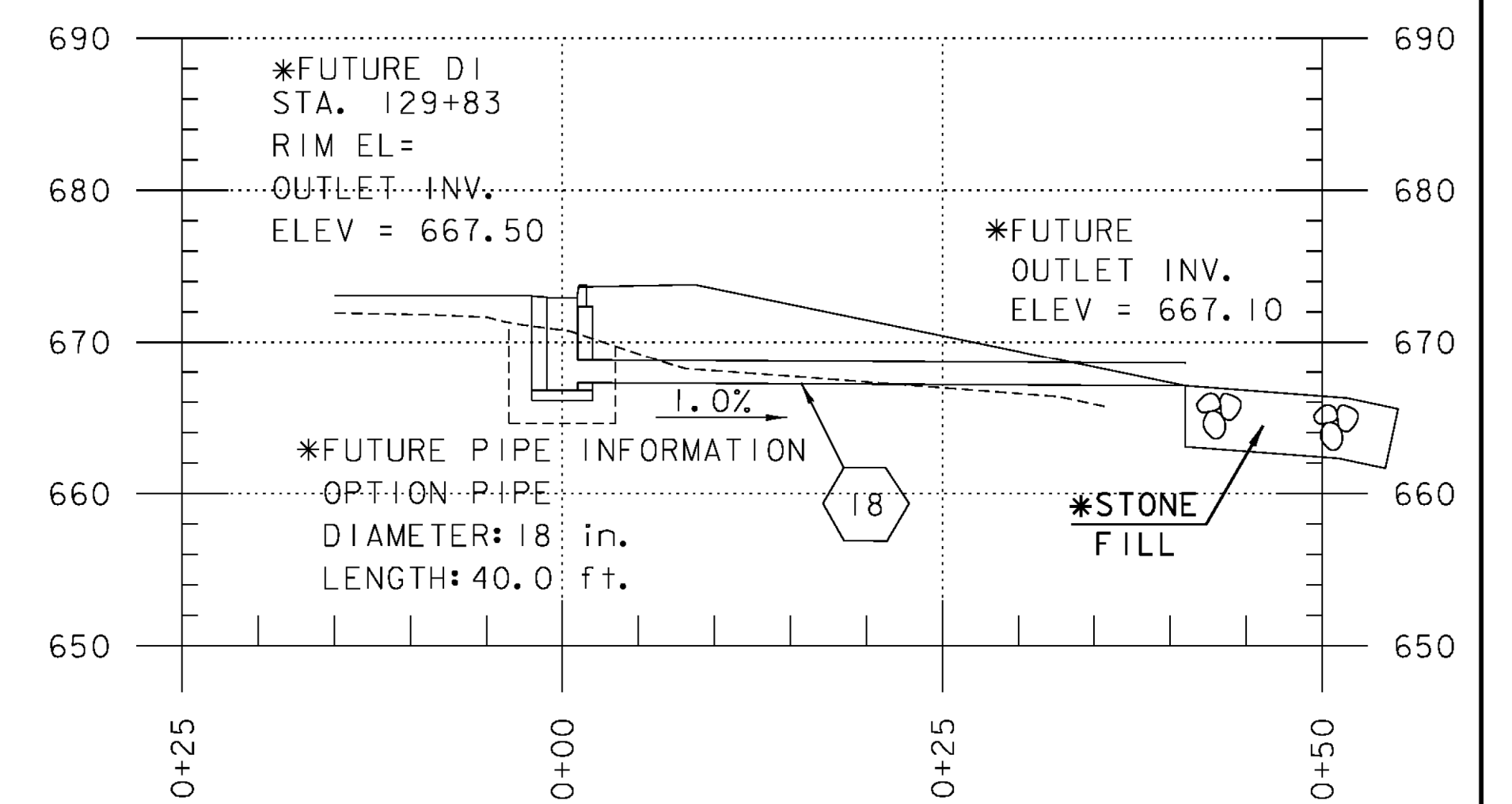
PIPE #12A PROFILE
(SEE SHEET GP 1 FOR PLAN)



PIPE #13 PROFILE
(SEE SHEET GP 1 FOR PLAN)



PIPE #12 PROFILE
(SEE SHEET GP 1 FOR PLAN)



PIPE #18 PROFILE
(NOT IN CONTRACT)

NOTE
PIPE #8, 12A AND CONNECTED INLETS ARE PART OF THIS PROJECT. ALL OTHER DRAINAGE INFORMATION IS SHOWN FOR REFERENCE ONLY AND IS INTENDED TO BE BUILT AS PART OF A FUTURE CONTRACT.

* DRAINAGE FEATURE IS NOT PART OF THIS CONTRACT; SHOWN FOR INFORMATION ONLY

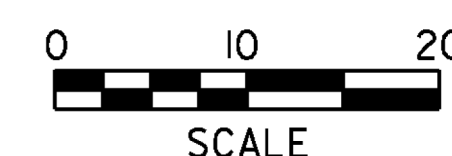
NOTE:

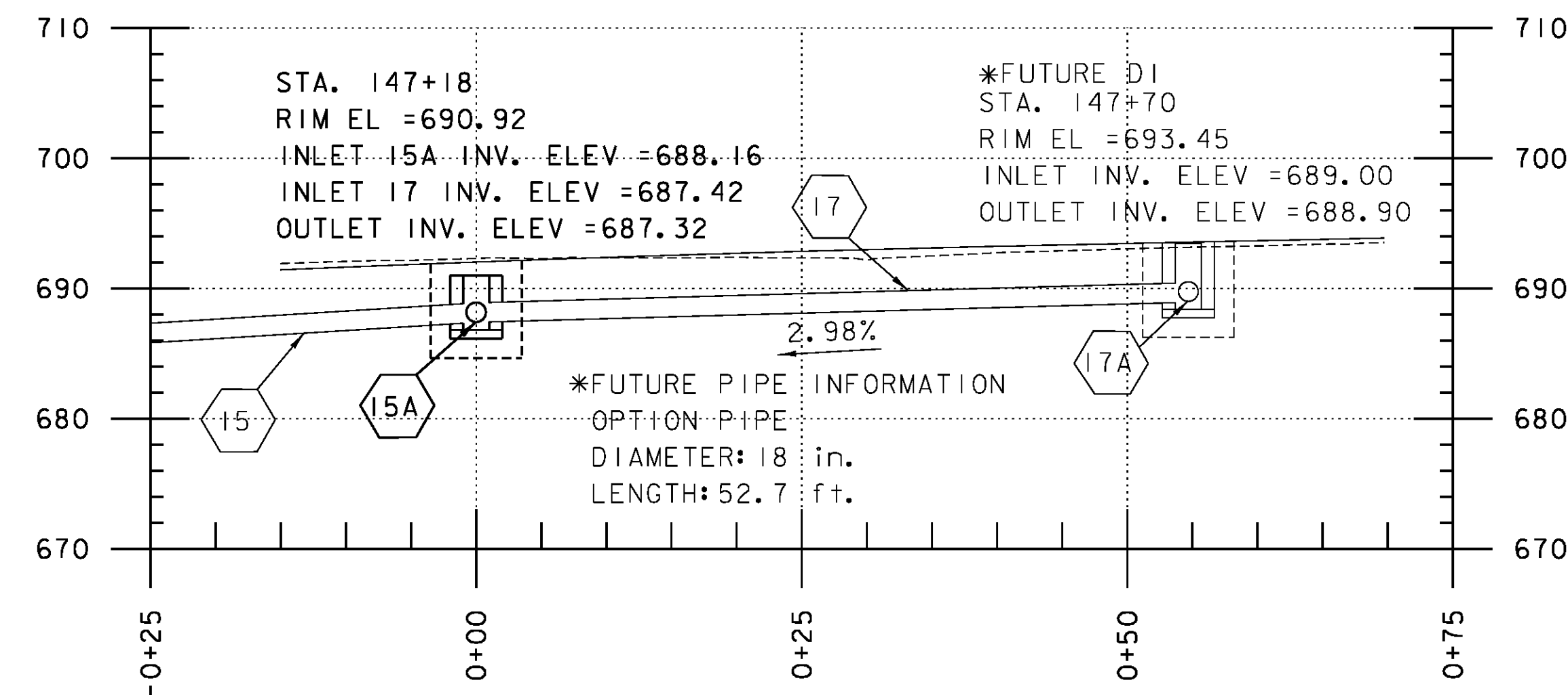
FOR CLARITY UNDERDRAIN IS NOT SHOWN IN PROFILES
ADJUST UNDERDRAIN AS REQUIRED TO AVOID CULVERTS
DRAINAGE STRUCTURES.

PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(I)

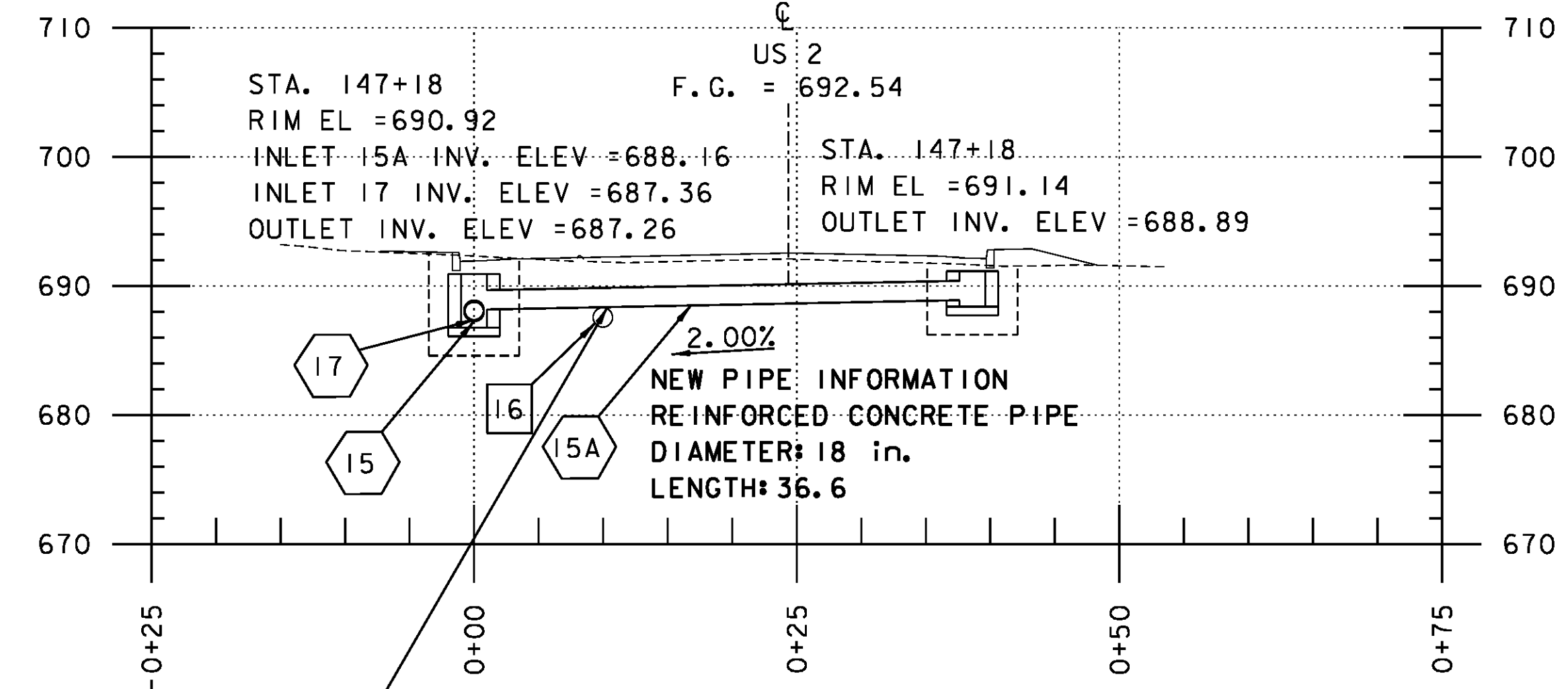
FILE NAME: I9_Drainage profiles - ER.dgn
PROJECT LEADER: T. KNIGHT
DESIGNED BY: K. RICHARDSON
DRAINAGE PROFILES DP 2

PLOT DATE: 5/26/2016
DRAWN BY: C. GENDRON
CHECKED BY: T. KNIGHT
SHEET II OF 42



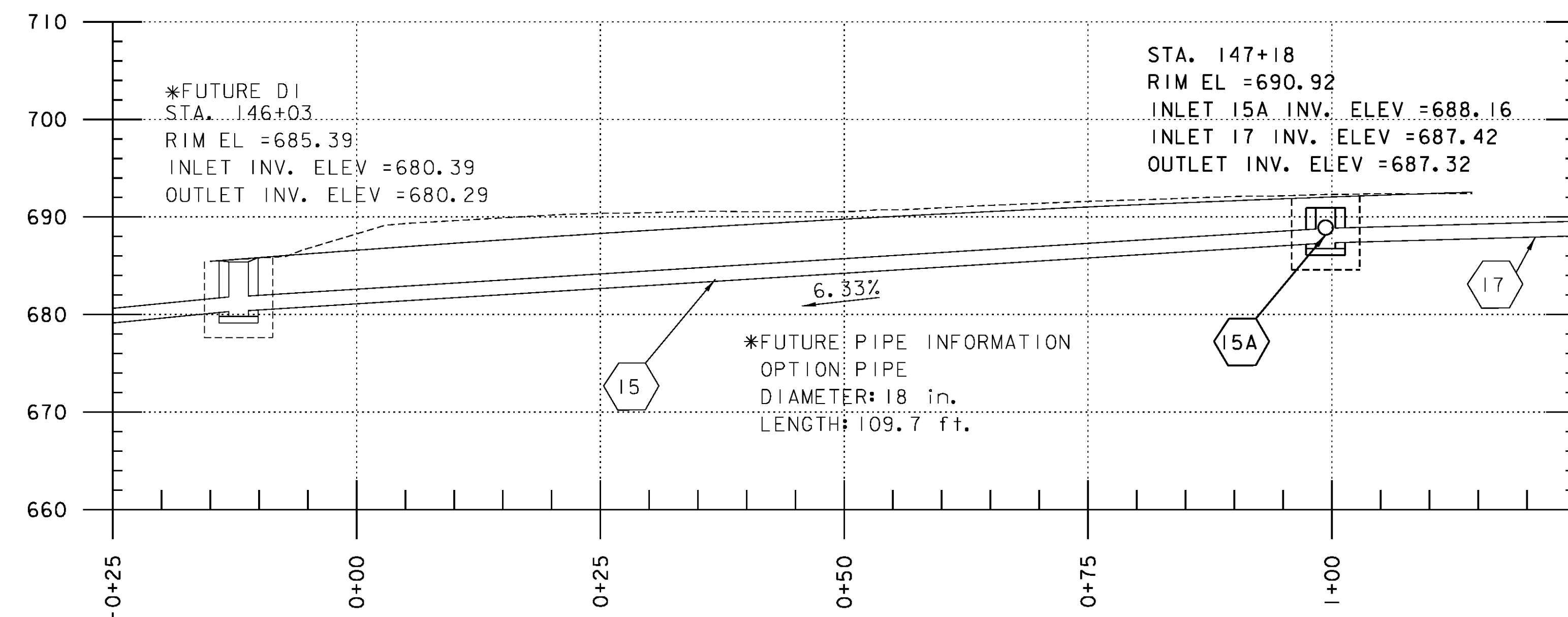


PIPE #17 PROFILE
(SEE SHEET GP 2 FOR PLAN)

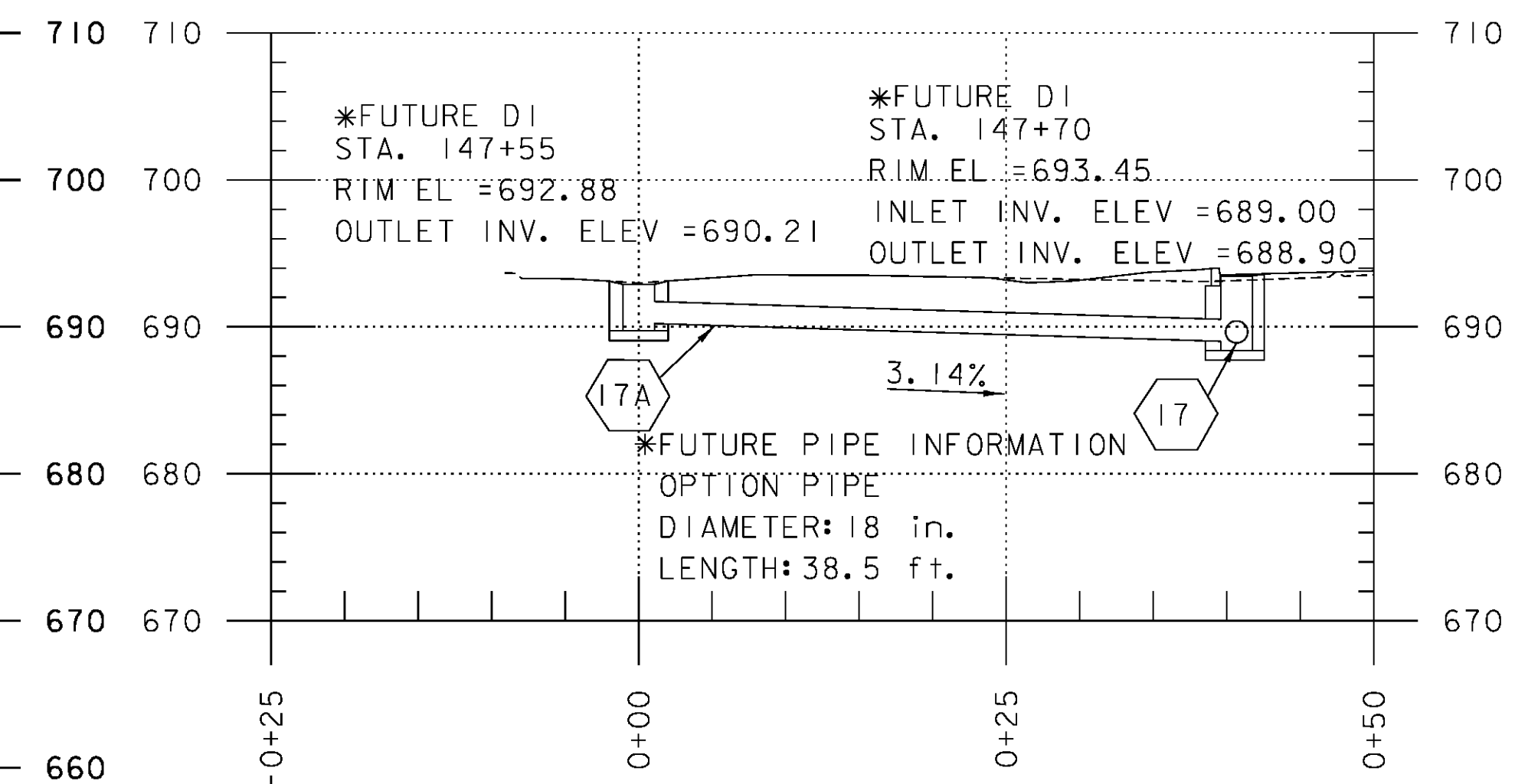


PIPE #15A PROFILE
(SEE SHEET GP 2 FOR PLAN)

EXPLORATORY EXCAVATION
REQUIRED TO VERIFY ELEVATION
OF THE TOP OF PIPE #16
(VTRANS MAY ELECT TO ELIMINATE
PIPE #15A FROM THE WORK, IF
PROFILE IS NOT FEASIBLE)



PIPE #15 PROFILE
(SEE SHEET GP 2 FOR PLAN)



PIPE #17A PROFILE
(NOT IN CONTRACT)

NOTE
PIPE #15A AND CONNECTED INLETS ARE
PART OF THIS CONTRACT. ALL OTHER
DRAINAGE INFORMATION IS SHOWN FOR
REFERENCE ONLY AND IS INTENDED TO
BE BUILT AS PART OF A FUTURE
CONTRACT.

* DRAINAGE FEATURE IS NOT PART OF
THIS CONTRACT; SHOWN FOR
INFORMATION ONLY

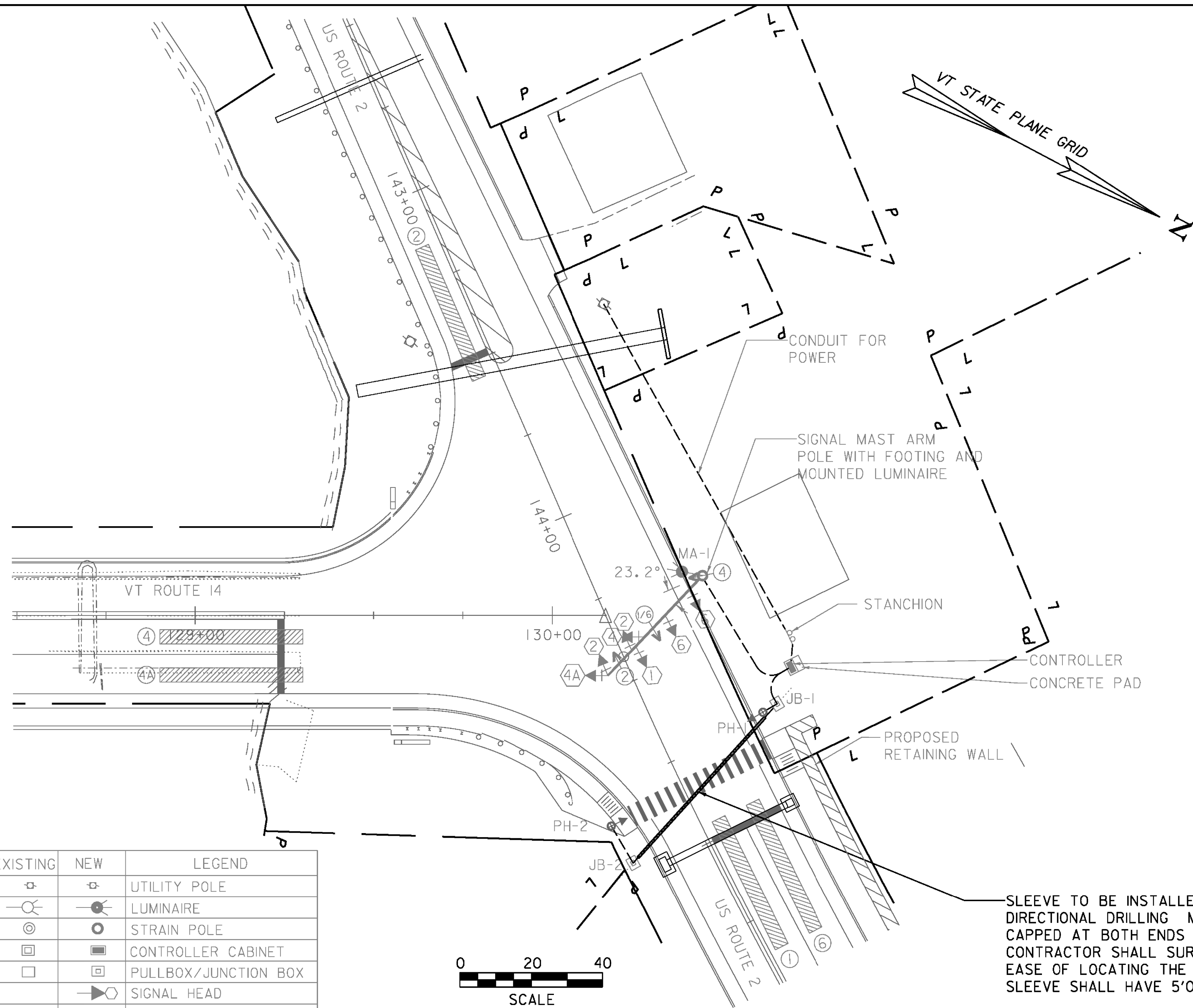
NOTE:

FOR CLARITY UNDERDRAIN IS NOT SHOWN IN PROFILES
ADJUST UNDERDRAIN AS REQUIRED TO AVOID CULVERTS
DRAINAGE STRUCTURES.

PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(1)

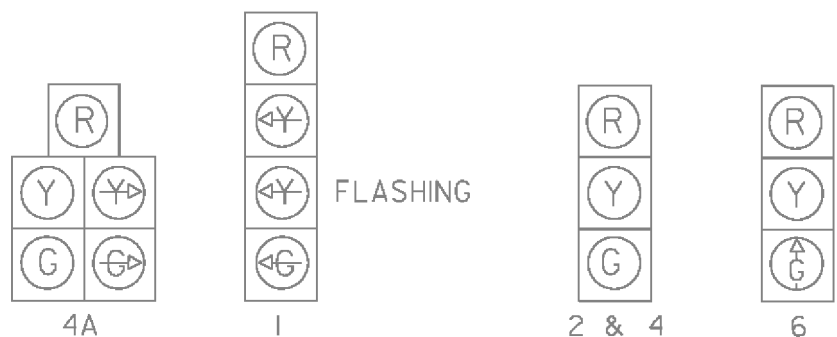
FILE NAME: 19_Drainage profiles - ER.dgn PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT DRAWN BY: C. GENDRON
DESIGNED BY: K. RICHARDSON CHECKED BY: T. KNIGHT
DRAINAGE PROFILES DP 3 SHEET 12 OF 42



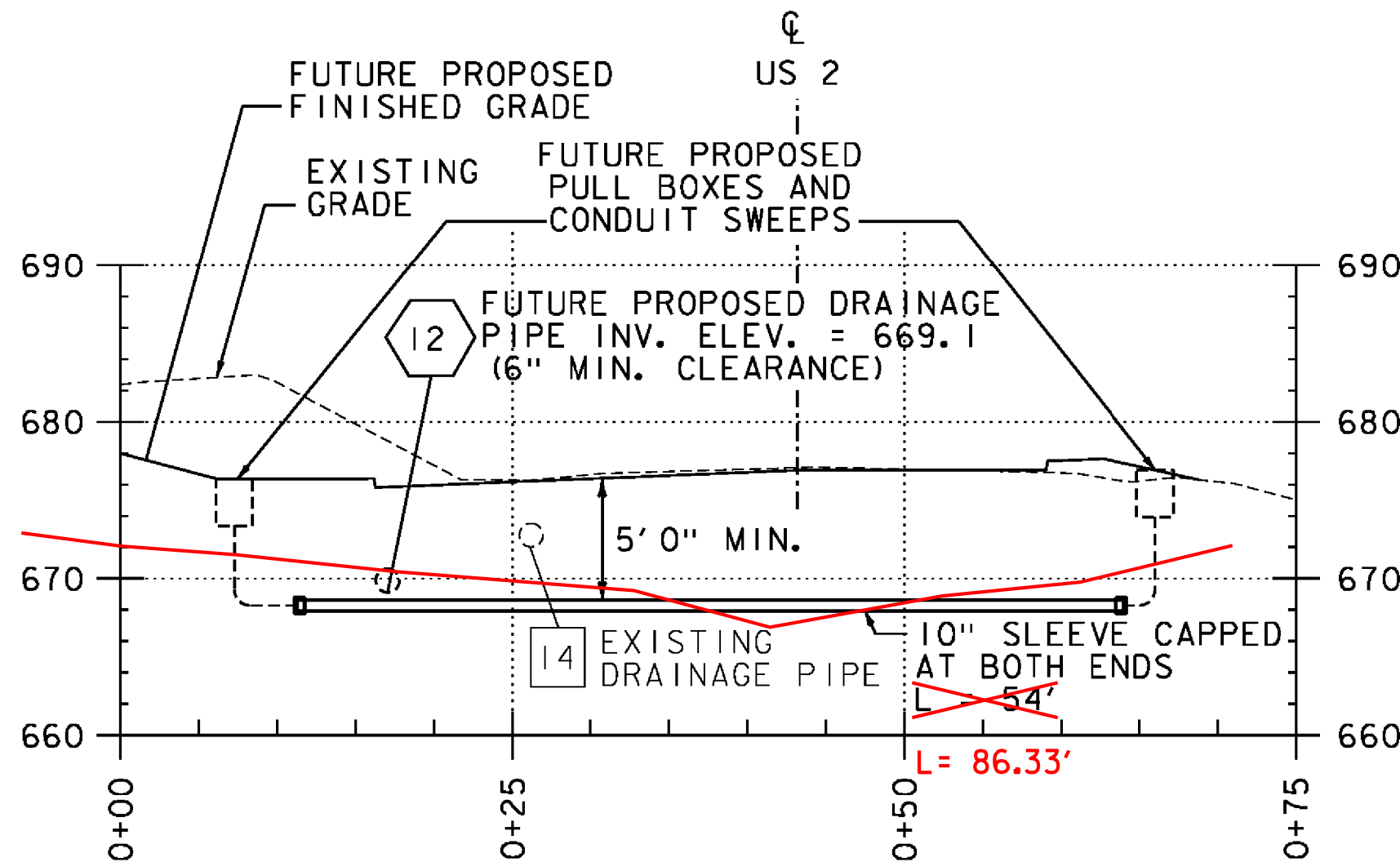


EXISTING	NEW	LEGEND
		UTILITY POLE
		LUMINAIRE
		STRAIN POLE
		CONTROLLER CABINET
		PULLBOX/JUNCTION BOX
		SIGNAL HEAD
		CONDUIT
		VEHICLE DETECTION AREA
		VEHICLE DETECTOR
		SIGNS
		SLEEVE
		PEDESTRIAN POLE AND PUSH BUTTON

AVERAGE WEEKDAY PEAK HOUR TRAFFIC		
AM	OFF	PM
80	50	70
100	240	160
PM 640		
AM 210		
OFF 210		
PM 340		
AM 600		



SLEEVE TO BE INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING METHODS. SLEEVE TO BE CAPPED AT BOTH ENDS FOR FUTURE USE. CONTRACTOR SHALL SURVEY INSTALLED SLEEVE FOR EASE OF LOCATING THE SLEEVE AT A LATER DATE. SLEEVE SHALL HAVE 5'0" MINIMUM COVER.



SLEEVE PROFILE
LOOKING NORTH

ITEM 900.640 SPECIAL PROVISION
(HORIZONTAL DIRECTIONAL DRILLING)(10")(HDPE)

LOCATION
~~144+73.34' LT. TO 144+98.22' RT. (US 2/VT 14)~~
144+64.3, 50' LT TO 145+00.7, 27.5' RT

NOTE:

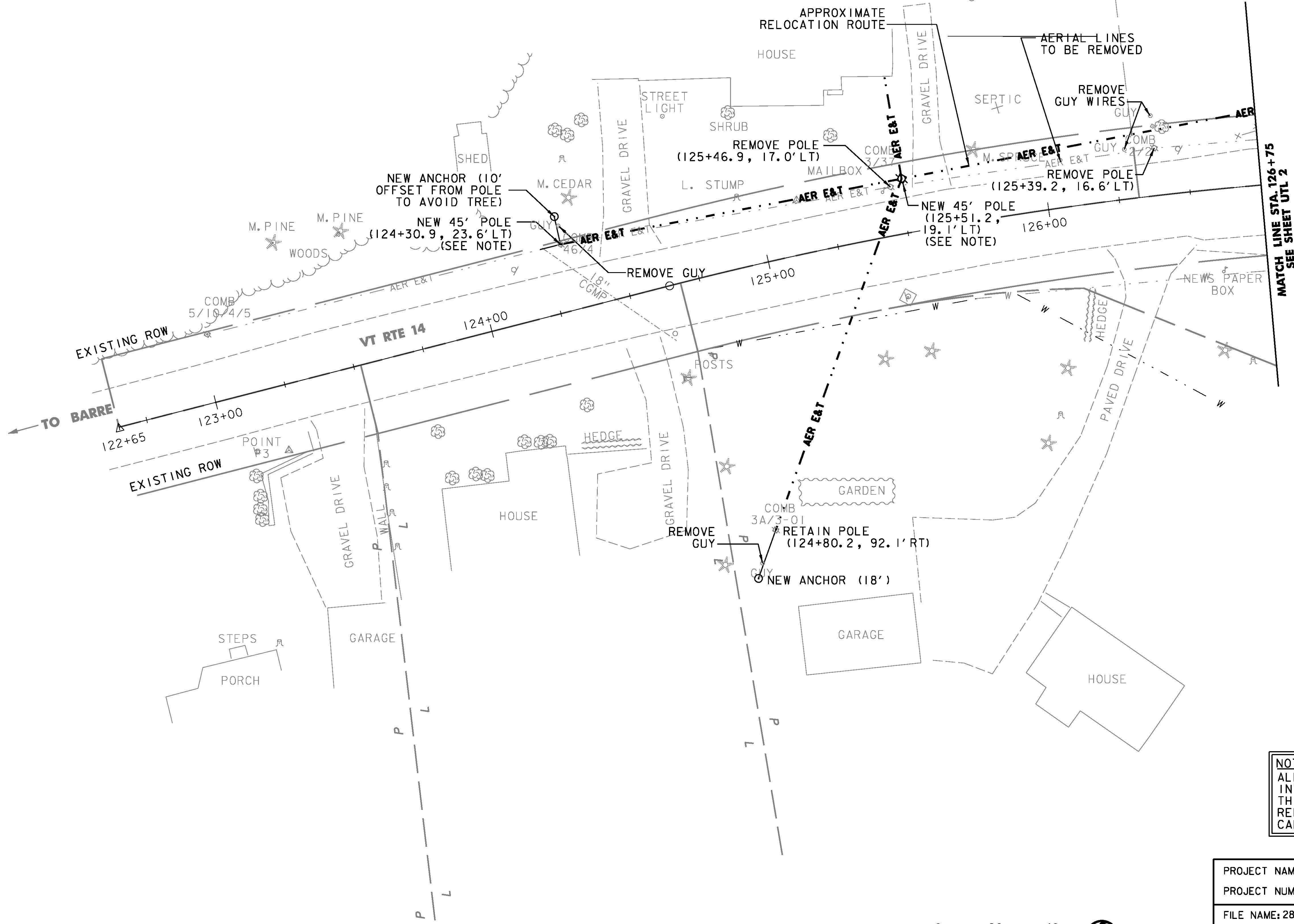
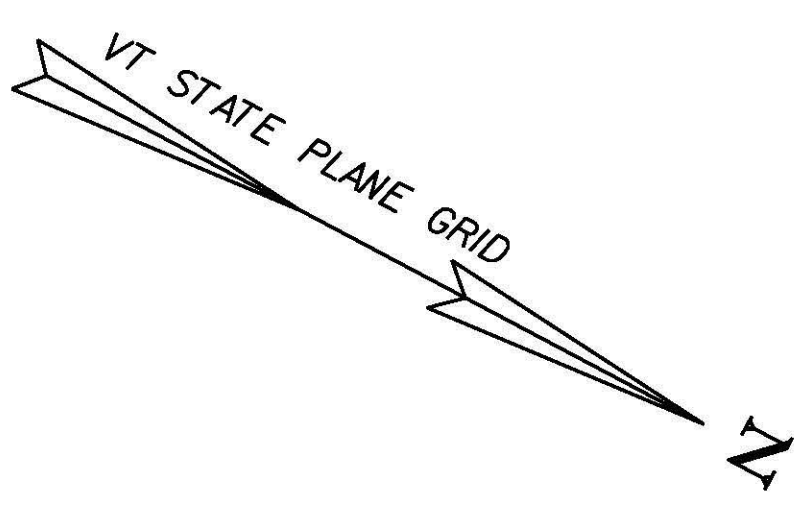
THE 10" HDPE SLEEVE CROSSING US-ROUTE 2 BETWEEN JB-1 & JB-2 IS PART OF THIS PROJECT. ALL OTHER INFORMATION, INCLUDING FUTURE CONDUIT(S) TO BE INSTALLED WITHIN THE SLEEVE AND JUNCTION BOXES, IS SHOWN FOR REFERENCE ONLY AND IS INTENDED TO BE BUILT AS PART OF A FUTURE CONTRACT.

PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(I)

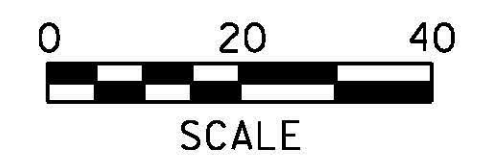
FILE NAME: 26al-Traff Sig & PHI- ER.dgn PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT DRAWN BY: C. GENDRON
DESIGNED BY: D. DEBAIE CHECKED BY: T. KNIGHT
TRAFFIC SIGNAL & PHASING TSP I SHEET 13 OF 42



VT 14 CURVE #1 DATA
Delta = 14°24'00.00"
D = 4°30'00.00"
R = 1273.24'
T = 160.85'
L = 320.00'
E = 10.12'
BANKING = -0.021

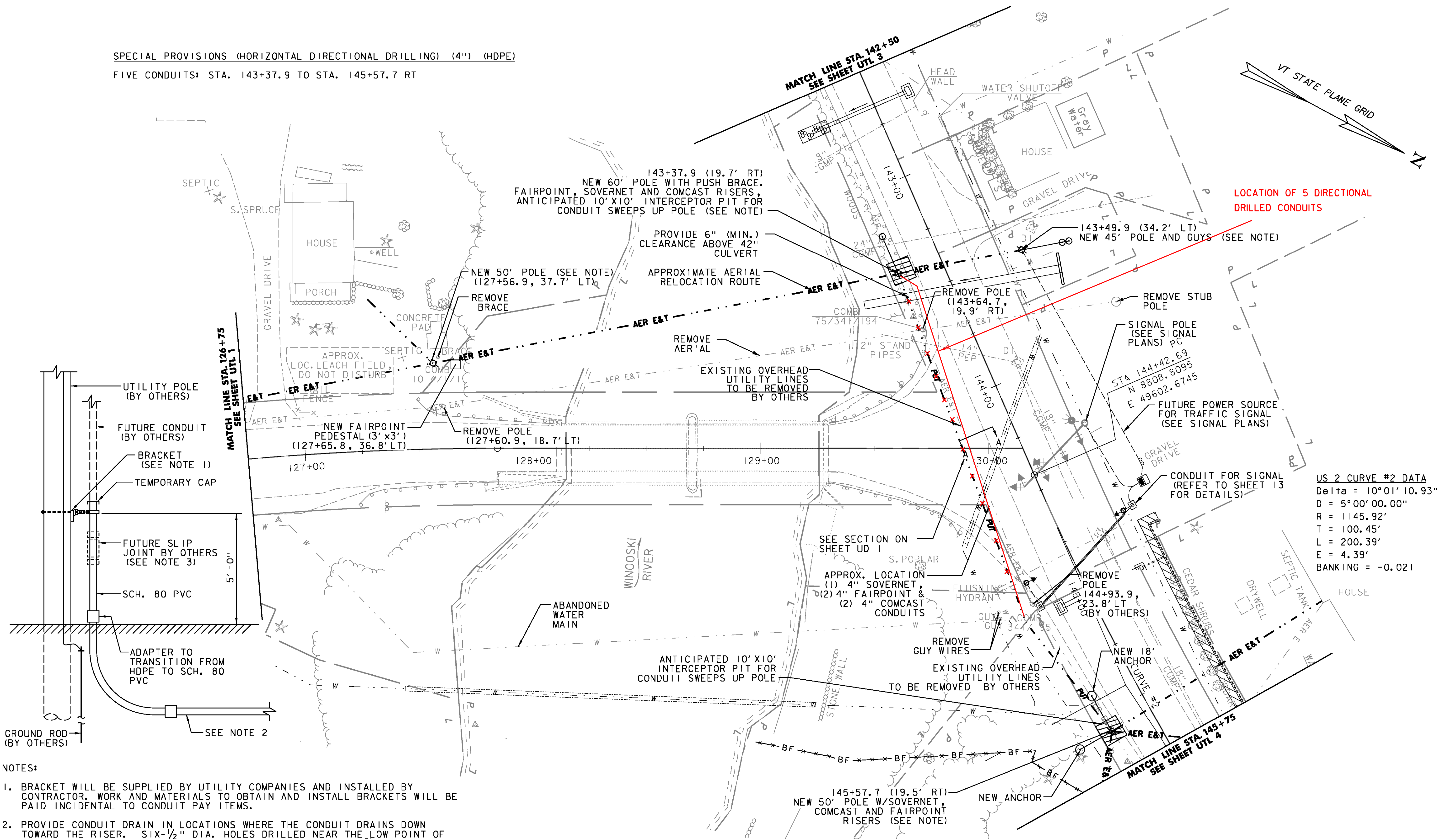


NOTE
ALL WORK THAT IS SHOWN ON THIS SHEET IS INTENDED TO BE COMPLETED BY OTHERS. THIS SHEET IS BEING PROVIDED FOR REFERENCE ONLY. POLE HEIGHTS SHOWN WERE CALCULATED AND PROVIDED BY FAIRPOINT.



PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(1)	
FILE NAME: 28_Utility plans - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: E. ALLING
DESIGNED BY: K. RICHARDSON	CHECKED BY: G. GOYETTE
UTILITIES PLAN UTL 1	SHEET 14 OF 42

SPECIAL PROVISIONS (HORIZONTAL DIRECTIONAL DRILLING) (4") (HDPE)
FIVE CONDUITS: STA. 143+37.9 TO STA. 145+57.7 RT

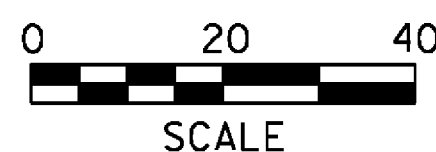


- NOTES:
- BRACKET WILL BE SUPPLIED BY UTILITY COMPANIES AND INSTALLED BY CONTRACTOR. WORK AND MATERIALS TO OBTAIN AND INSTALL BRACKETS WILL BE PAID INCIDENTAL TO CONDUIT PAY ITEMS.
 - PROVIDE CONDUIT DRAIN IN LOCATIONS WHERE THE CONDUIT DRAINS DOWN TOWARD THE RISER. SIX-1/2" DIA. HOLES DRILLED NEAR THE LOW POINT OF THE CONDUIT, WRAP WITH GEOTEXTILE, AND BACK FILL WITH 3/4" CRUSHED STONE TO THE SATISFACTION OF THE UTILITY COMPANY INSPECTOR. WORK AND MATERIALS TO COMPLETE CONDUIT DRAIN WILL BE PAID INCIDENTAL TO CONDUIT PAY ITEMS.
 - CONTRACTOR TO INSTALL SCH. 80 PVC UP TO THE FIRST BRACKET AND CAP FOR FUTURE CONNECTION. THIS WILL STABILIZE THE CONDUIT FOR BACK FILLING. SLIP JOINT (IF REQUIRED) WILL BE PROVIDED AND INSTALLED BY OTHERS.

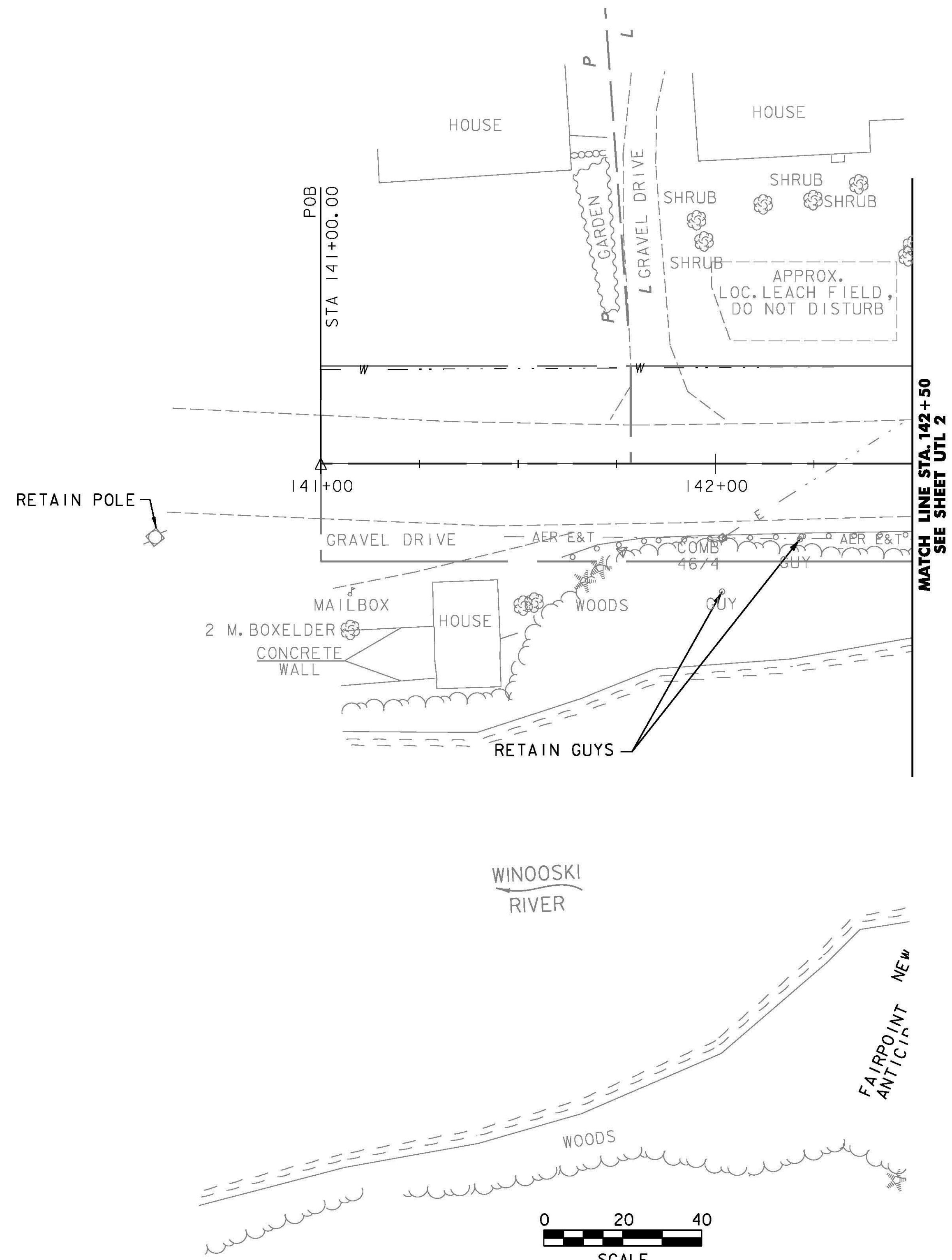
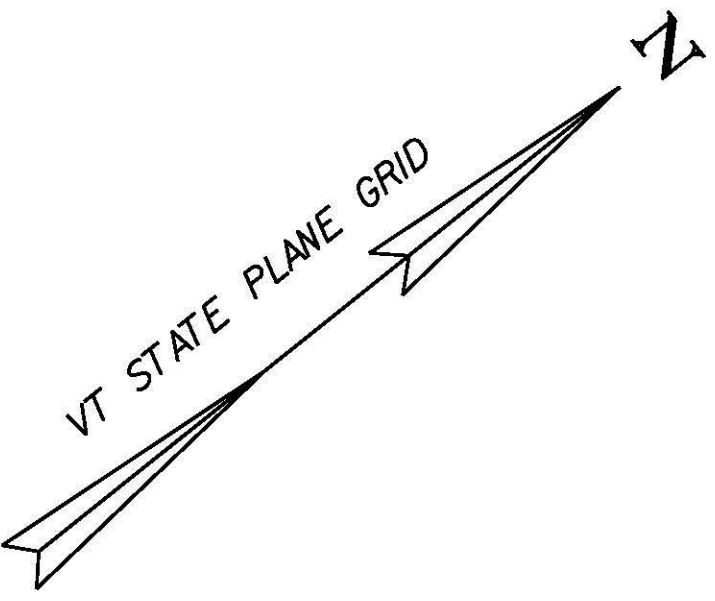
CABLE RISER INSTALLATION DETAIL
NOT TO SCALE

NOTE
WORK TO BE DONE WITH THIS PROJECT IS LIMITED TO THE INSTALLATION OF UNDERGROUND CONDUIT. ALL OTHER WORK REGARDING UTILITY POLES, TRAFFIC SIGNAL SYSTEM, AERIAL LINES, GUY WIRES, PULLING CONDUCTOR WIRES, ETC. IS TO BE DONE BY OTHERS. CONTRACTOR SHALL COORDINATE CLOSELY WITH THE UTILITY COMPANIES TO INSTALL THE CONDUITS PER UTILITY COMPANY SPECIFICATIONS & INSPECTION REQUIREMENTS. POLE HEIGHTS SHOWN WERE CALCULATED AND PROVIDED BY FAIRPOINT.

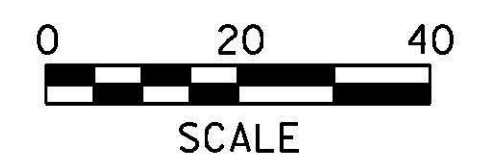
US 2 CURVE #2 DATA
Delta = 10°01'10.93"
D = 5°00'00.00"
R = 1145.92'
T = 100.45'
L = 200.39'
E = 4.39'
BANKING = -0.021



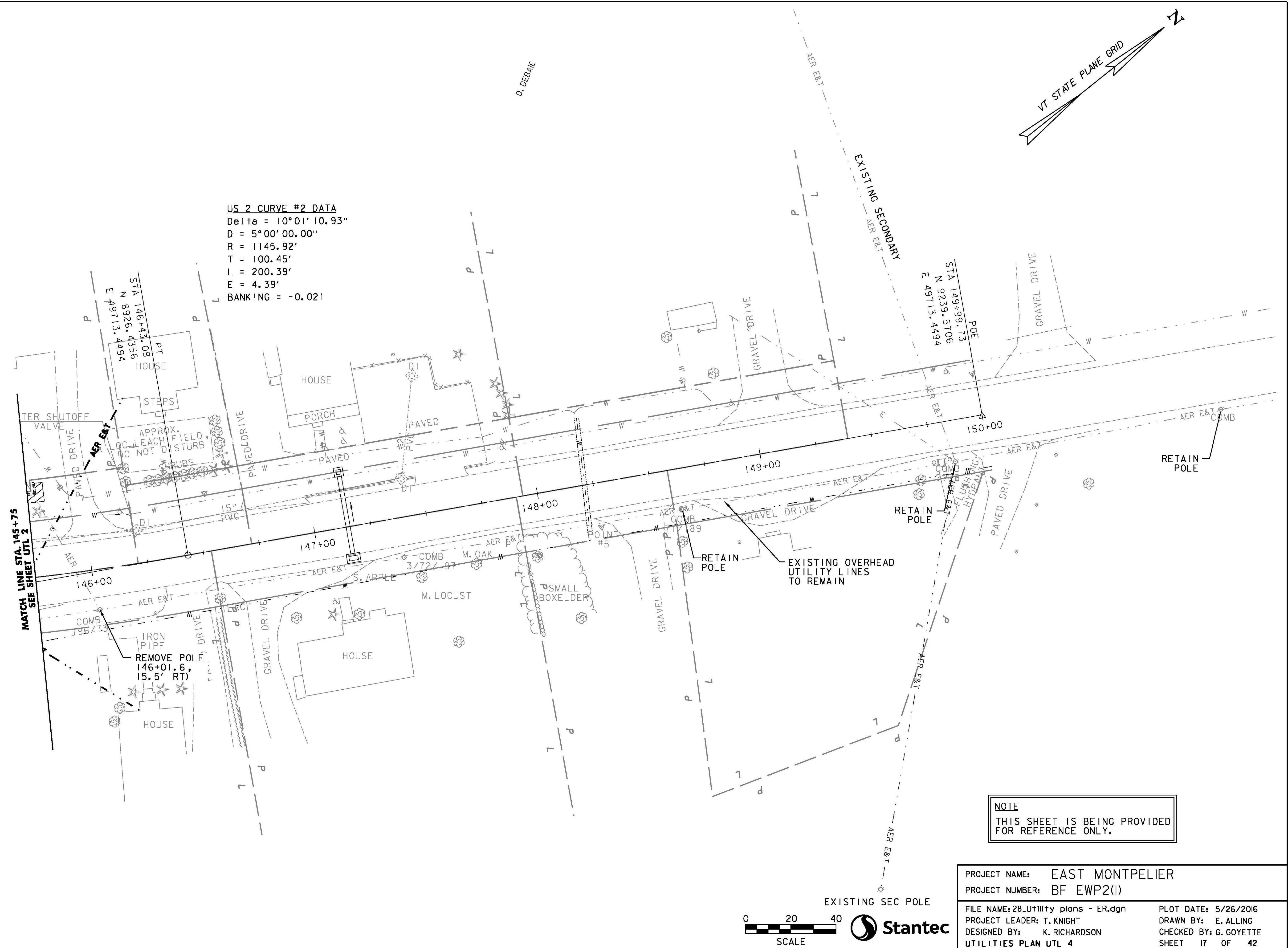
PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(I)
FILE NAME:	28-Utility plans - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	K. RICHARDSON
UTILITIES PLAN UTL 2	
PLOT DATE:	6/14/2016
DRAWN BY:	E. ALLING
CHECKED BY:	G. GOYETTE
SHEET	15 OF 42



NOTE
THIS SHEET IS BEING PROVIDED
FOR REFERENCE ONLY.



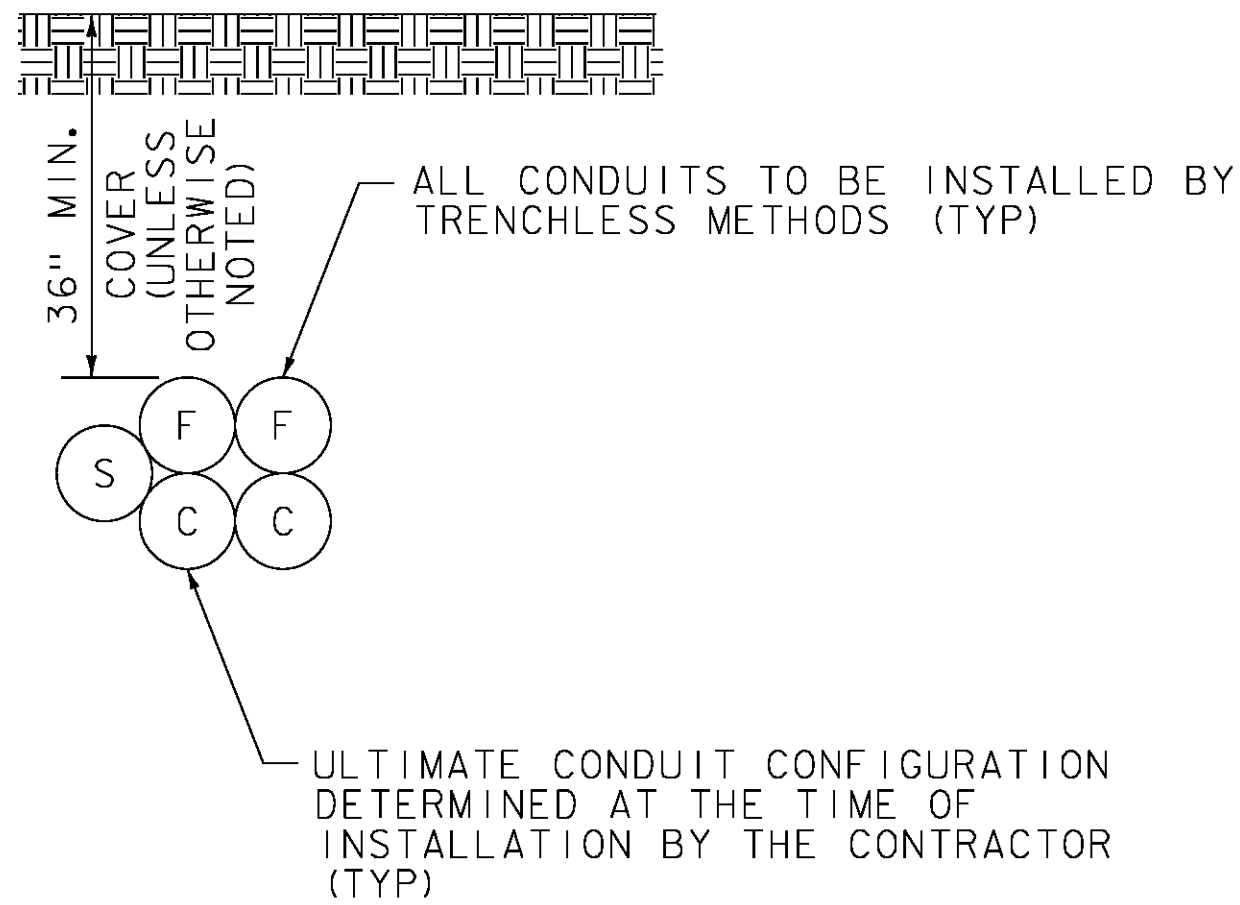
PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(I)	
FILE NAME: 28_Utility plans - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: E. ALLING
DESIGNED BY: K. RICHARDSON	CHECKED BY: G. GOYETTE
UTILITIES PLAN UTL 3	SHEET 16 OF 42



THIS SHEET IS BEING PROVIDED
FOR REFERENCE ONLY.

FILE NAME: 28-Utility plans - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: E. ALLING
DESIGNED BY: K. RICHARDSON	CHECKED BY: G. GOYETTE
UTILITIES PLAN UTL 4	SHEET 17 OF 42

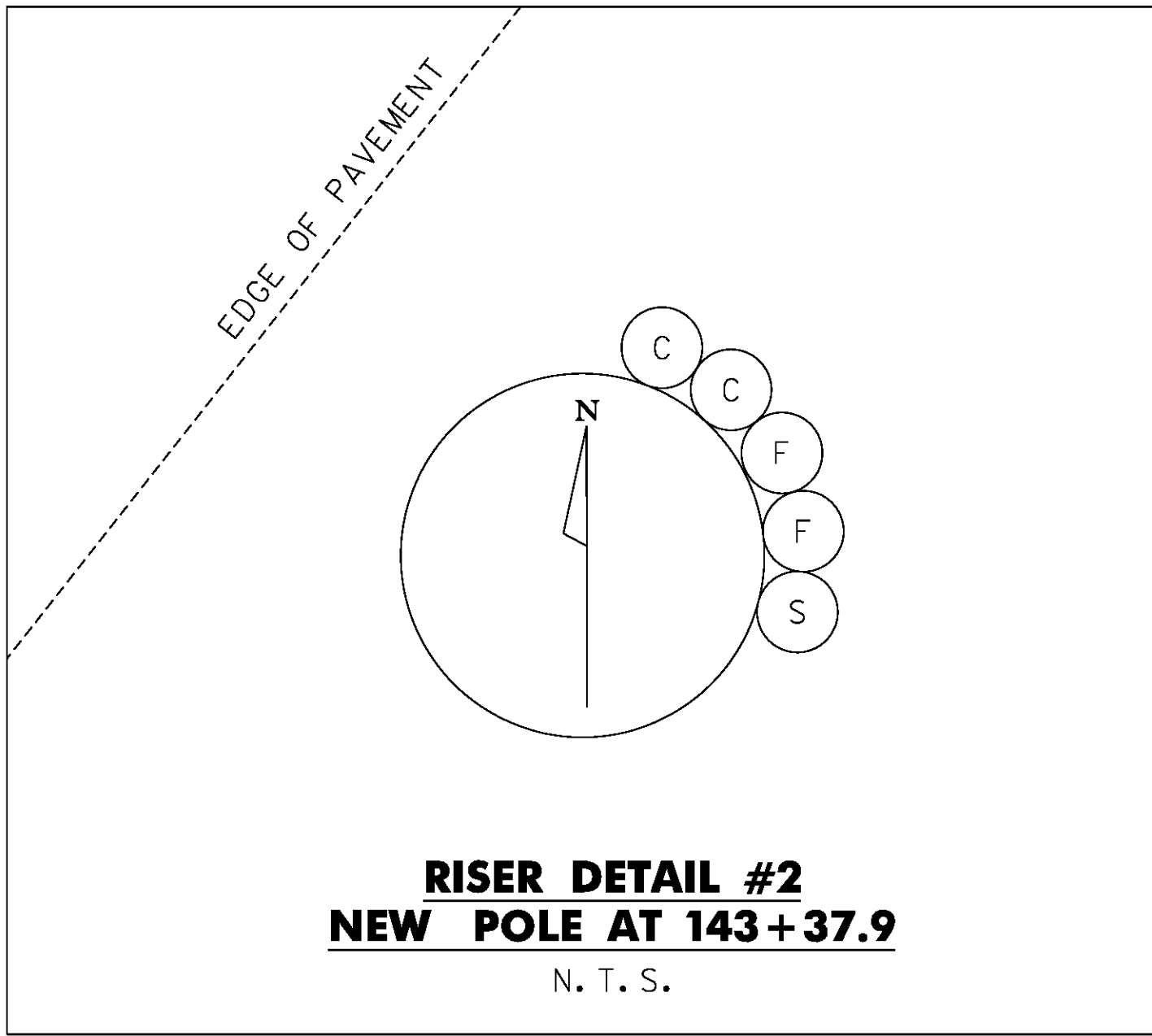
LEGEND	REQUIRED CONDUITS PER UTILITY COMPANY	PAID AS:
S	SOVERNET - (1) HDPE (DR-11) @ 4"	ITEM 900.640 S.P. (HORIZONTAL DIRECTIONAL DRILLING) (4") (HDPE)
C	COMCAST - (2) HDPE (DR-11) @ 4"	ITEM 900.640 S.P. (HORIZONTAL DIRECTIONAL DRILLING) (4") (HDPE)
F	FAIRPOINT - (2) HDPE (DR-11) @ 4"	ITEM 900.640 S.P. (HORIZONTAL DIRECTIONAL DRILLING) (4") (HDPE)



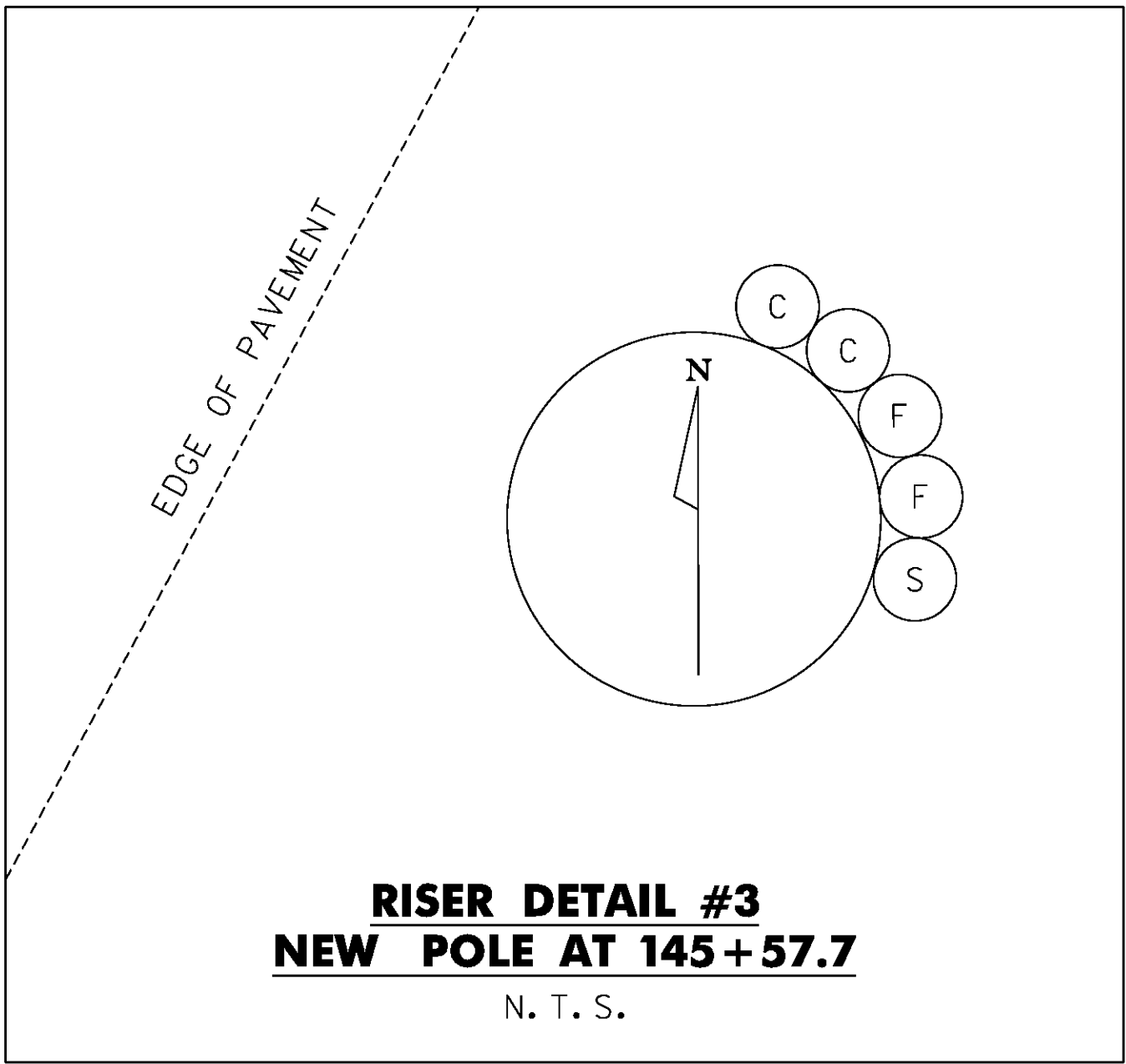
**UTILITY DUCT LAYOUT
TYPICAL SECTION A-A**

N. T. S.
143+37.9, RT - 145+57.7, RT

- NOTES:
1. CONDUIT SWEEPS SHALL NOT BE CONSTRUCTED PRIOR TO THE UTILITY POLE INSTALLATIONS.
 2. ALL BRACKETS OR OTHER MATERIALS NECESSARY TO SECURE THE CONDUITS TO THE POLES SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE DIRECTIONAL DRILLING PAY ITEMS.
 3. CONDUIT CONNECTIONS SHOWN ON THIS SHEET MAY NOT ADHERE TO ALL UTILITY COMPANY SPECIFICATIONS. THE CONTRACTOR SHALL WORK CLOSELY WITH THE UTILITY COMPANIES TO OBTAIN ALL CURRENT SPECIFICATIONS AND INSPECTION REQUIREMENTS.



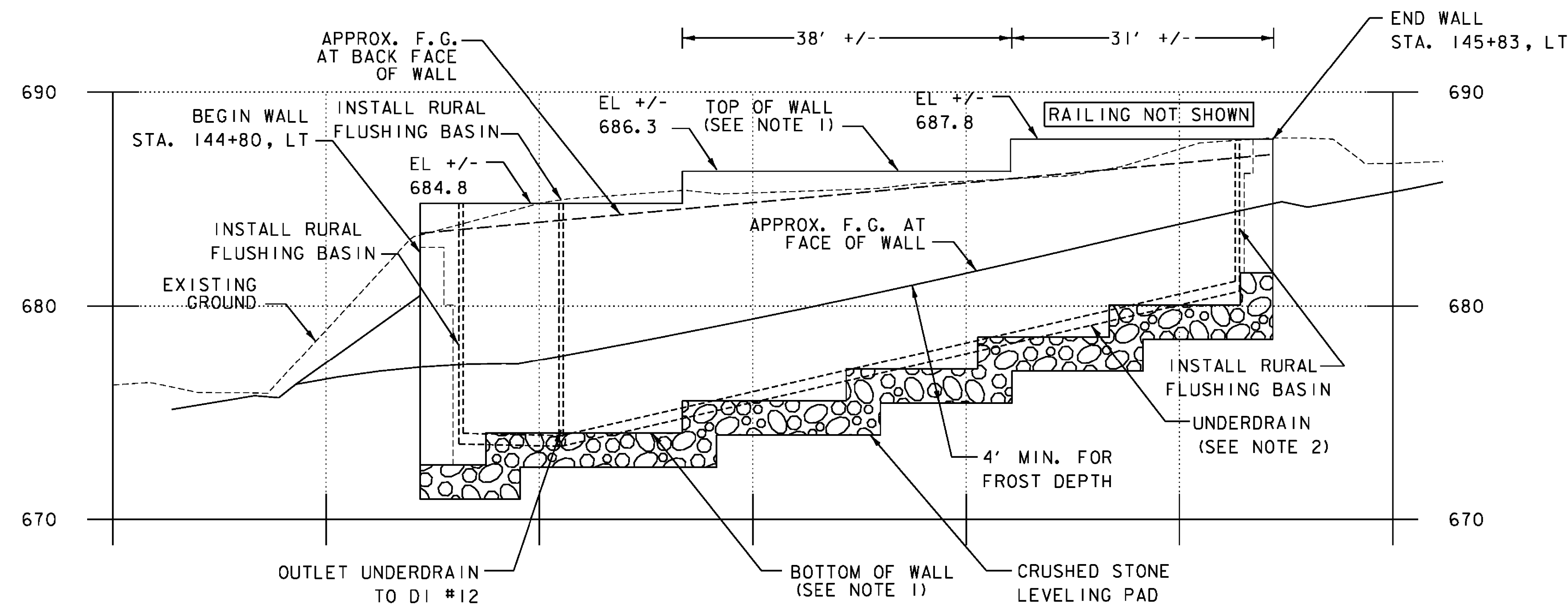
**RISER DETAIL #2
NEW POLE AT 143+37.9**
N. T. S.



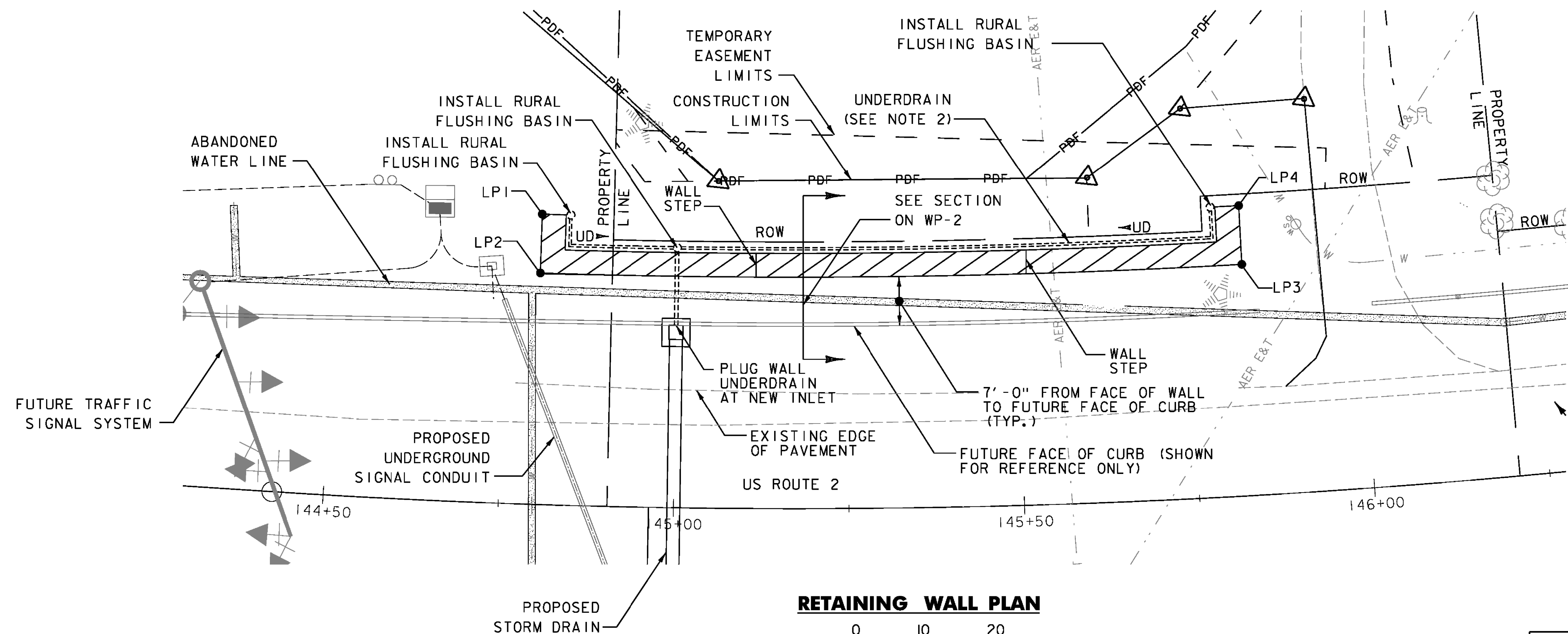
**RISER DETAIL #3
NEW POLE AT 145+57.7**
N. T. S.



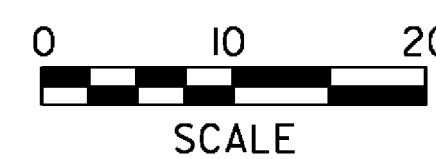
PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(I)
FILE NAME: 28a.Utility Details - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: C. GENDRON
DESIGNED BY: K. RICHARDSON	CHECKED BY: T. KNIGHT
UTILITY DETAILS UD 1	SHEET 18 OF 42



RETAINING WALL ELEVATION
STA 144+80, LT - 145+83, LT



RETAINING WALL PLAN



NOTES:

1. ACTUAL BOTTOM OF WALL ELEVATION AND STEPPING LOCATIONS TO BE DETERMINED BY THE WALL MANUFACTURER.
2. UNDERDRAIN LOCATION AND DEPTH TO BE SPECIFIED BY THE WALL MANUFACTURER. PAYMENT SHALL BE INCIDENTAL TO 900.675 SPECIAL PROVISION (PRECAST CONCRETE GRAVITY RETAINING WALL WITH PEDESTRIAN RAILING)

RETAINING WALL LAYOUT TABLE		
LAYOUT POINT	US 2 STATION	US 2 OFFSET (FT)
1	144+80	41.4
2	144+80	33.0
3	145+83	33.0
4	145+83	41.4

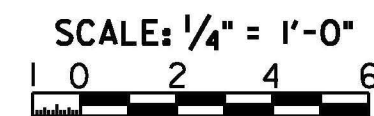
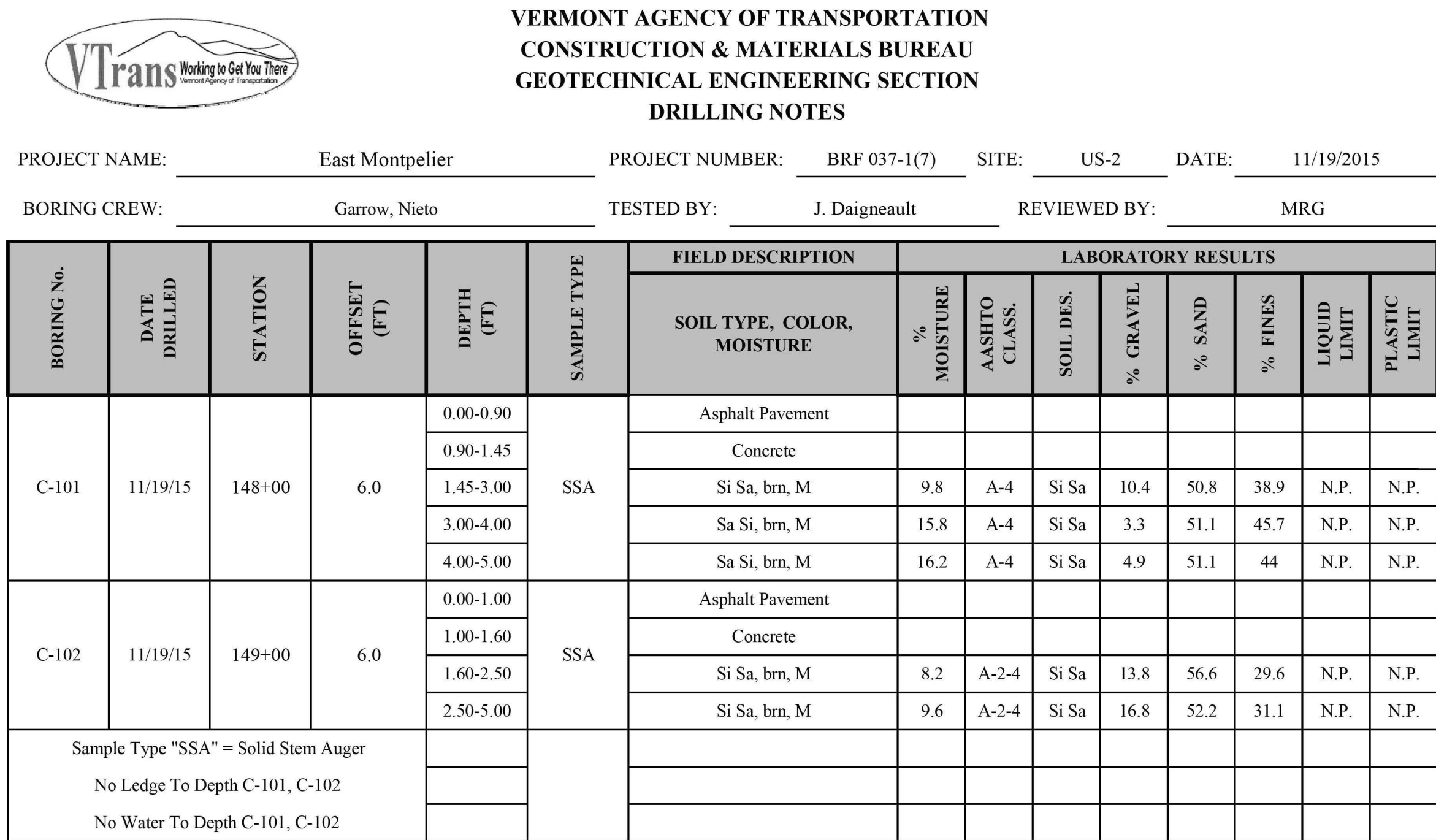
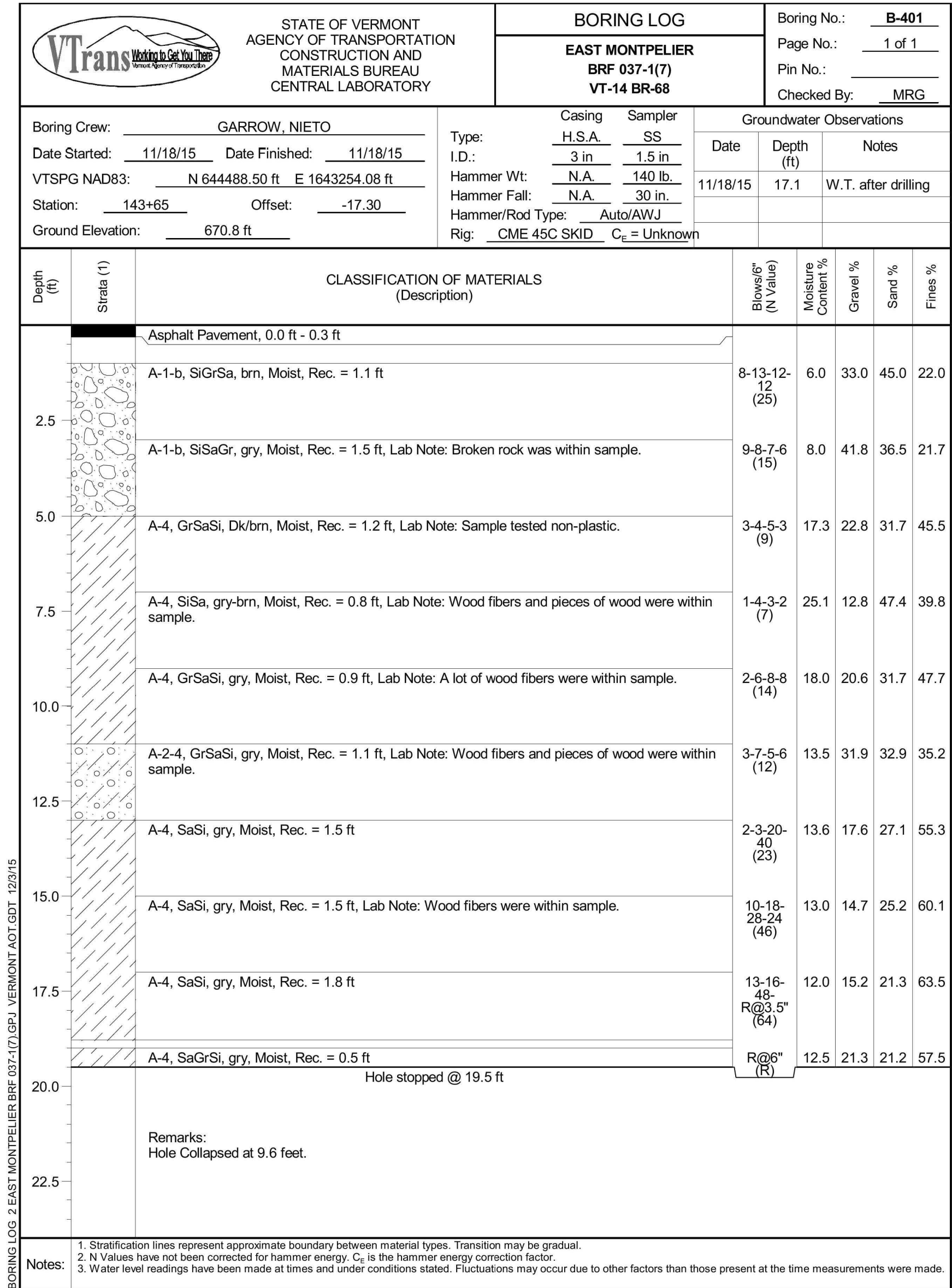
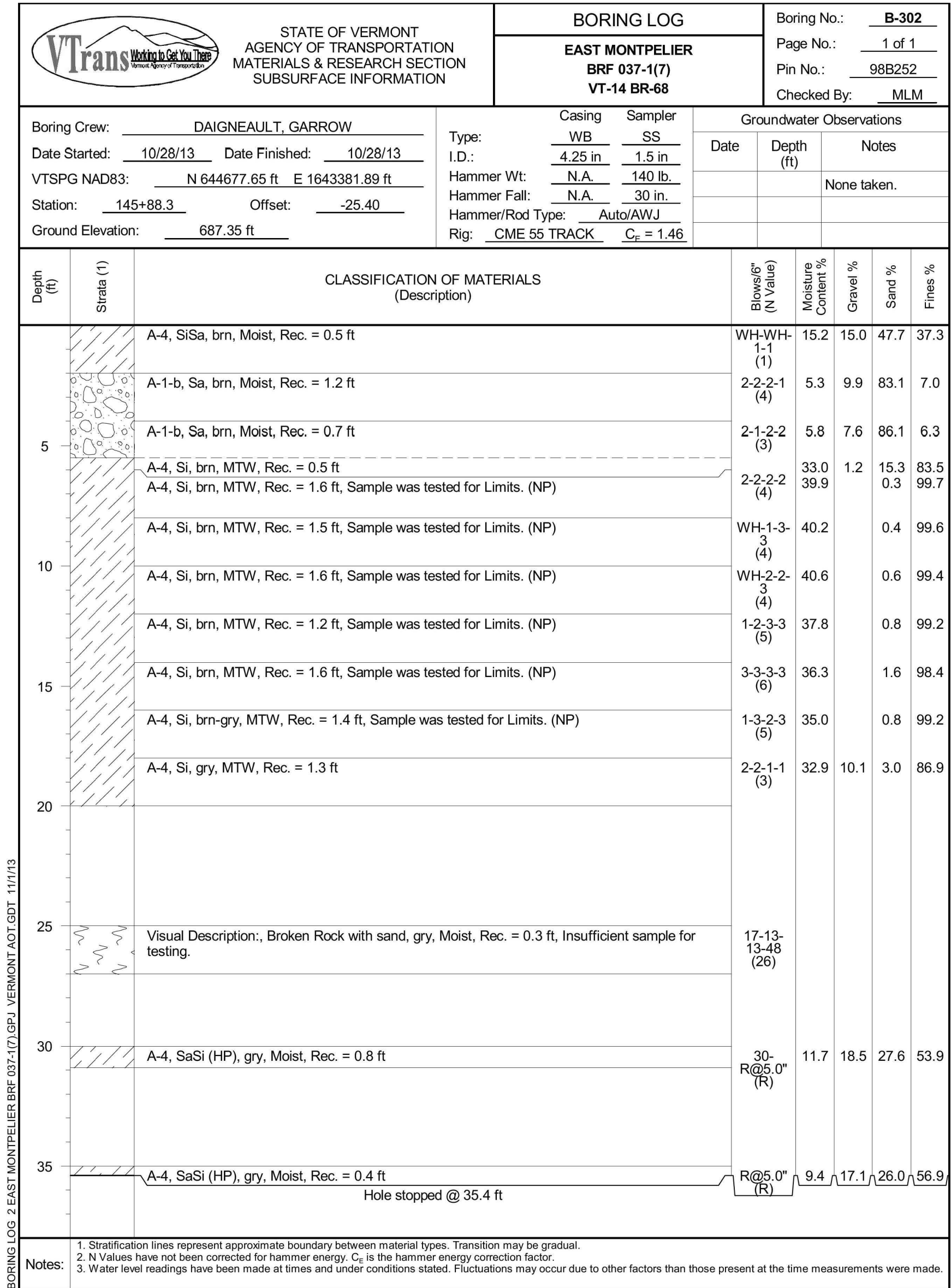
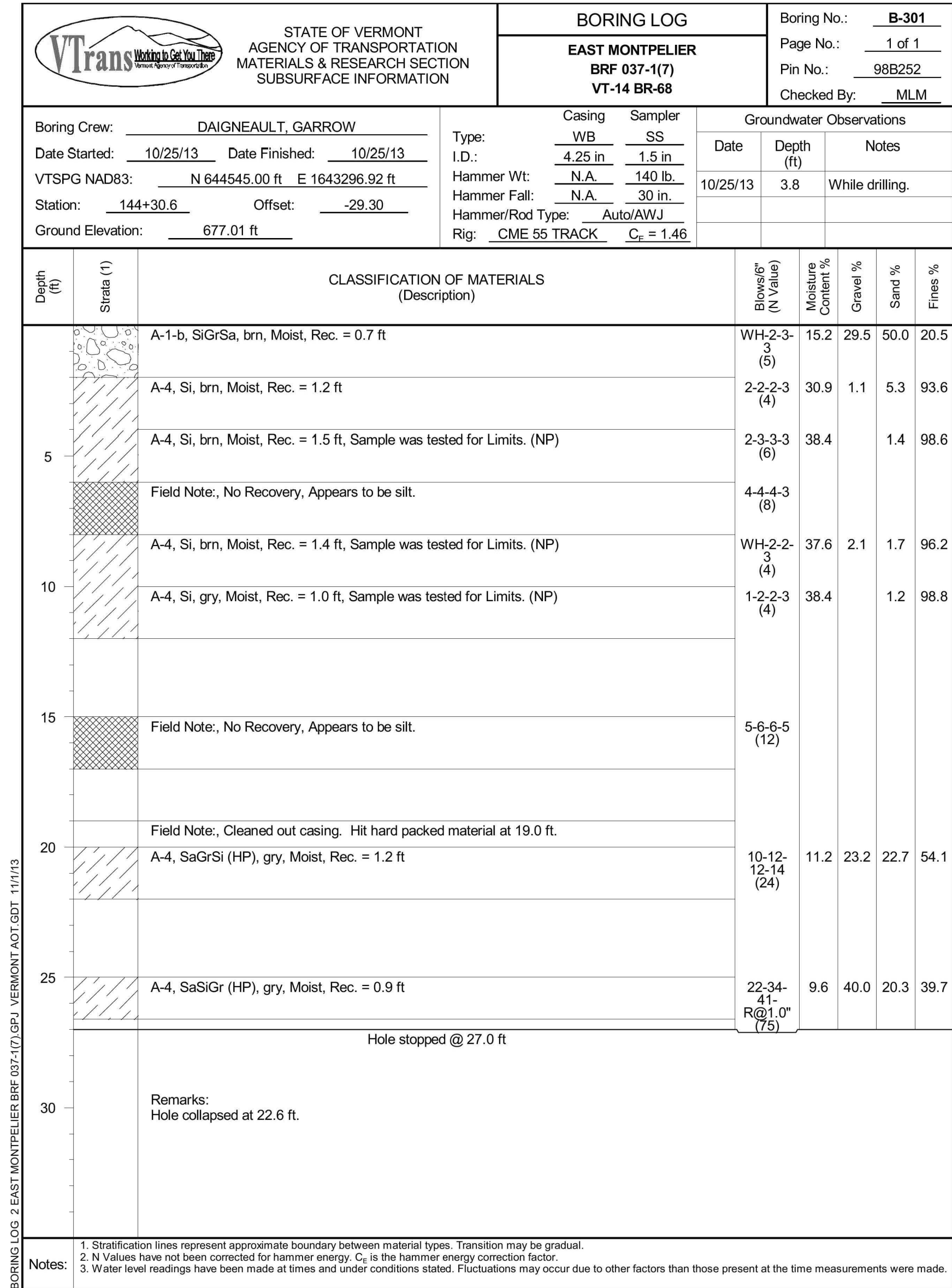
144+81.5

145+84.7

PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(I)

FILE NAME: ...XX_Retaining_Wall - ER.dgn PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT DRAWN BY: J. SOTER
DESIGNED BY: K. RICHARDSON CHECKED BY: T. KNIGHT
WALL PLAN & PROFILE WP 1 SHEET 19 OF 42



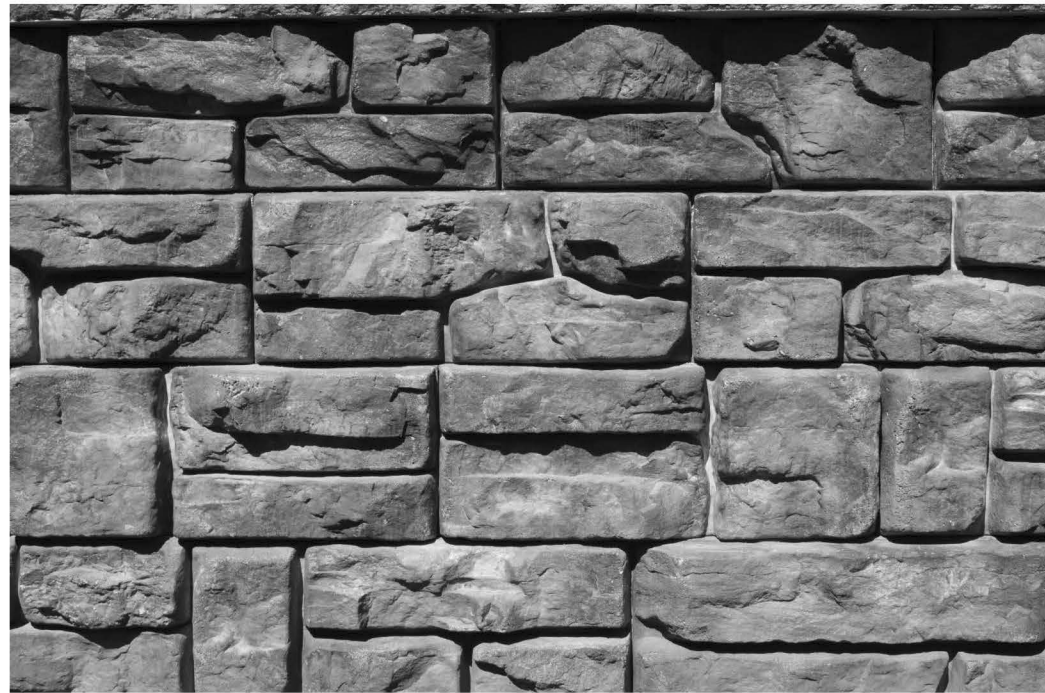


PROJECT NAME:	EAST MONTEPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	z98b252bor_logs-ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	VTTRANS
BORING LOG BOR 7	
PLOT DATE:	5/26/2016
DRAWN BY:	J. SOTER
CHECKED BY:	T. KNIGHT
SHEET	26 OF 42

RETAINING WALL NOTES

GENERAL:

1. THE AGENCY OF TRANSPORTATION CONDUCTED A FIELD INVESTIGATION INCLUDING SOIL BORINGS, TESTING, ANALYSIS AND RECOMMENDATIONS FOR THE IN-SITU SOIL PARAMETERS FOR THE WALL. THE INVESTIGATION IS SUMMARIZED IN A MEMORANDUM DATED 11/22/2013 THAT IS AVAILABLE FOR THE CONTRACTOR'S USE IN DESIGN OF THE WALL.
2. THE PRECAST CONCRETE GRAVITY RETAINING WALLS SHALL BE DESIGNED IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS AND SHALL BE FROM THE VAOT'S LIST OF APPROVED RETAINING WALLS.
3. AFTER THE WALL IS ERECTED, ALL EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH WATER REPELLENT, SILANE MEETING THE REQUIREMENTS OF SECTION 514. CONTRACTOR SHALL PROVIDE WRITTEN VERIFICATION THAT THE WATER REPELLENT IS COMPATIBLE WITH THE STAIN USED TO COLOR THE WALL. THE COST OF THE WATER REPELLENT SHALL BE INCIDENTAL TO THE PRECAST GRAVITY RETAINING WALL.
4. EXPOSED FACE OF WALL SHALL HAVE A TEXTURE AND TWO TONE COLOR REPLICATING DRY LAID NATURAL STONE. AN IMAGE DEPICTING THE DESIRED TEXTURE AND COLORING IS INCLUDED BELOW:



5. TOP BLOCK OF RETAINING WALL SHALL BE RECESSED TO ACCEPT LAWN OR LANDSCAPING AS CLOSE AS POSSIBLE TO THE FRONT EDGE OF THE WALL.
6. TOPSOIL, SEED, AND EROSION CONTROL MATTING SHALL BE PAID PER THEIR RESPECTIVE PAY ITEMS. ANY OTHER WORK OR MATERIALS NECESSARY TO ESTABLISH TURF SHALL BE INCIDENTAL TO ALL OTHER CONTRACT ITEMS. SEE SHEET ECD-3 AND SECTION 651 OF THE VAOT STANDARD SPECIFICATIONS FOR TURF ESTABLISHMENT DETAILS.

PEDESTRIAN RAILING:

7. THE WALL SHALL INCLUDE A FABRICATOR DESIGNED GALVANIZED & PAINTED STEEL PEDESTRIAN RAILING AND CONNECTION TO THE RETAINING WALL WHERE THE HEIGHT OF THE DROP FROM THE TOP OF WALL EXCEEDS 30 INCHES. THE RAILING SHALL BE DESIGNED TO MEET OR EXCEED THE FOLLOWING CRITERIA:

MATERIALS:

MATERIALS FOR RAILING SHALL MEET THE REQUIREMENTS OF SECTION 506 AND BE GALVANIZED IN ACCORDANCE WITH SECTION 726.08.

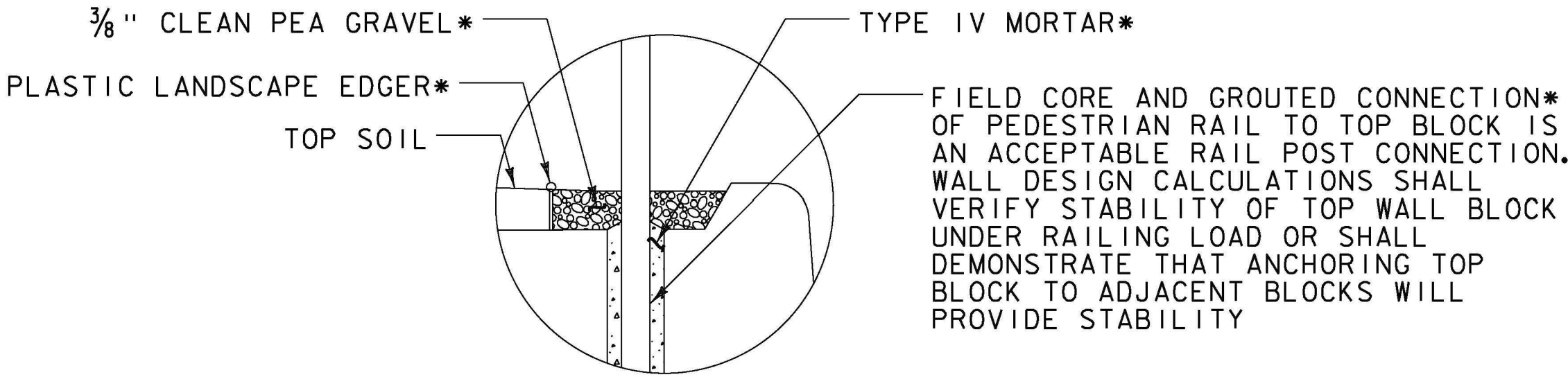
THE GALVANIZED RAILING SHALL BE AIR COOLED, AND NOT WATER QUENCHED OR TREATED WITH A CHROMATE CONVERSION COATING. AFTER THE COMPONENTS ARE GALVANIZED AND ALL CONTAMINATION, ASH RESIDUE, ETC. IS CLEANED OFF, THEIR EXTERIOR SURFACES SHALL BE SWEEP / BRUSH-OFF BLAST CLEANED IN ACCORDANCE WITH PER SSPC-SP 16. THE RAILING SHALL BE PAINTED BLACK IN ACCORDANCE WITH 708.01 WITH A COATING SYSTEM LISTED ON THE QUALIFIED PRODUCTS LIST ON FILE WITH THE AGENCY'S RESEARCH AND DEVELOPMENT SECTION.

DESIGN LOAD:

- POST AND BASE PLATE: EQUIVALENT POINT LOAD EQUAL TO THE MAXIMUM OF 200 LB. LOAD OR 50 LB./FT. X POST SPACING (FT.) APPLIED TRANSVERSELY AT TOP RAIL CONNECTION.
- TOP & BOTTOM RAILS: THE MAXIMUM OF EITHER A 50 LB./FT. UNIFORM LOAD OR A 200 LB. CONCENTRATED POINT LOAD APPLIED IN ANY DIRECTION TO THE RAIL.
- HANDRAILS: NOT REQUIRED.
- PICKETS: CONCENTRATED 200 LB. LOAD APPLIED TRANSVERSELY OVER AN AREA OF 1.0 SQUARE FOOT.

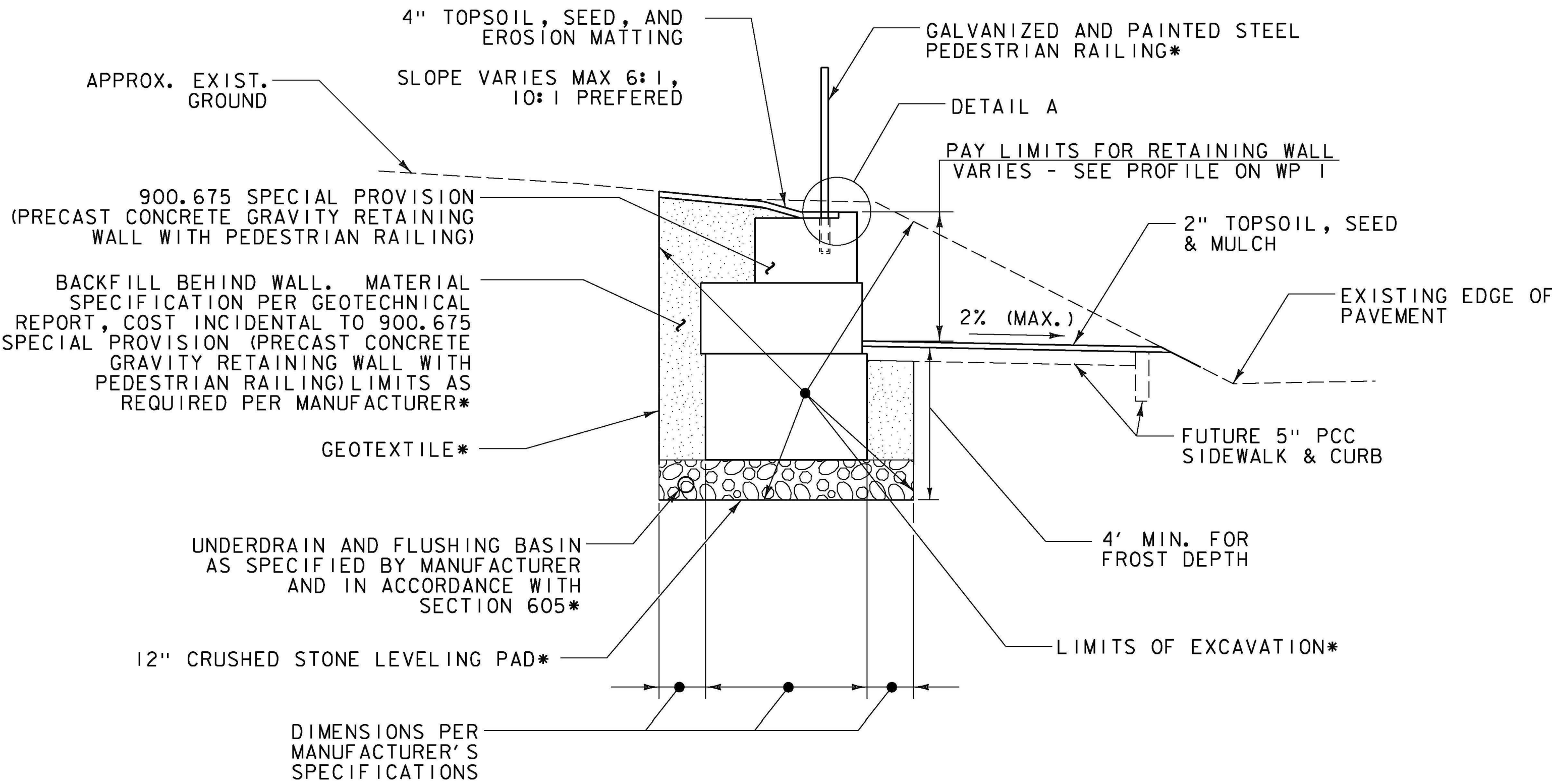
GEOMETRY:

- RAILING HEIGHT: 42" MINIMUM.
- CLEAR OPENING BETWEEN PICKETS: SHALL REJECT THE PASSAGE OF A 4" DIAMETER SPHERE BELOW 42" HEIGHT.
- CLEAR OPENING UNDER BOTTOM RAIL: SHALL REJECT THE PASSAGE OF A 2" DIAMETER SPHERE.



DETAIL A

(ALTERNATE CONNECTION DETAILS MAY BE DETAILED BY THE CONTRACTOR AND SUBMITTED FOR APPROVAL)



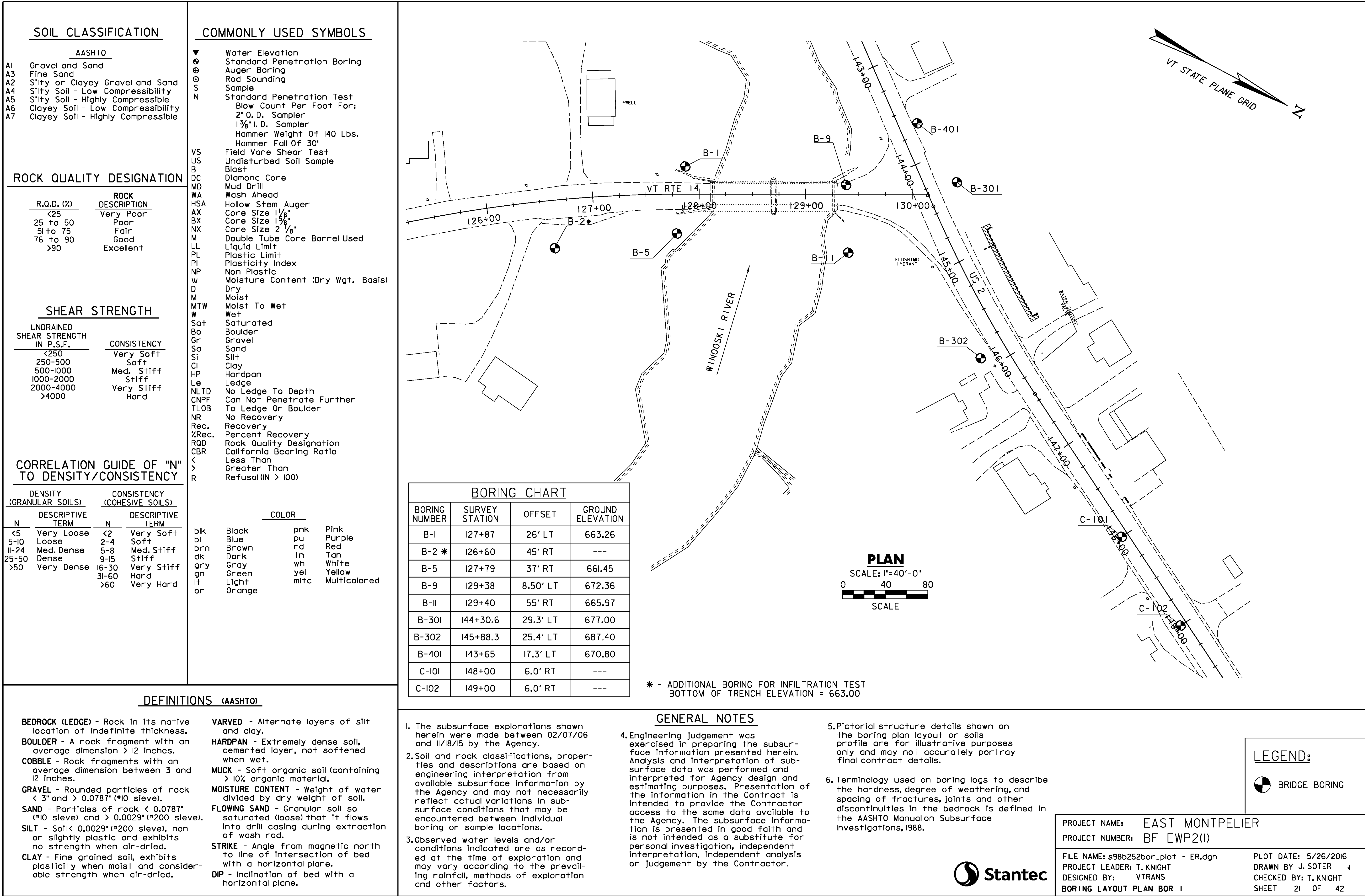
RETAINING WALL CROSS SECTION

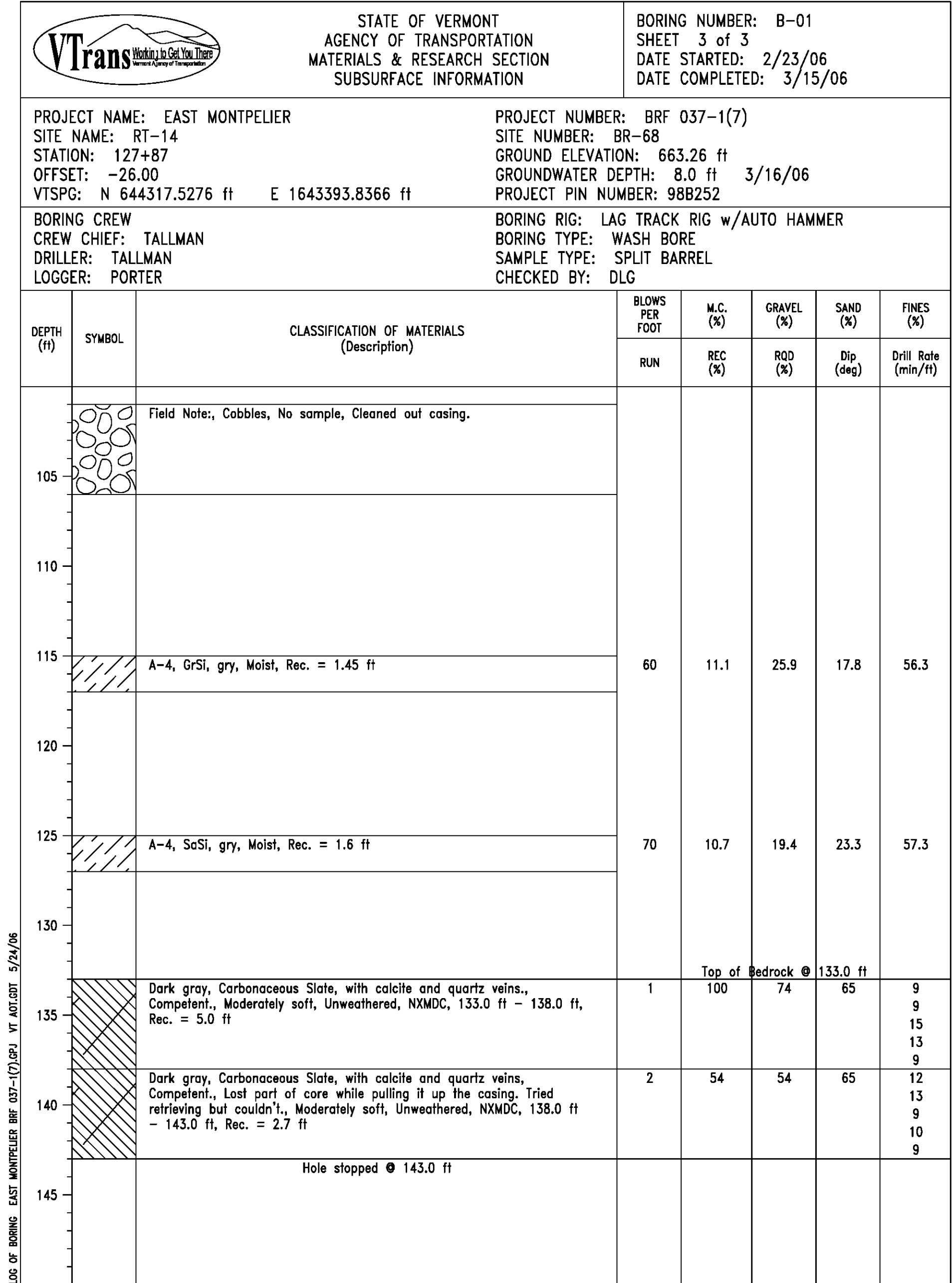
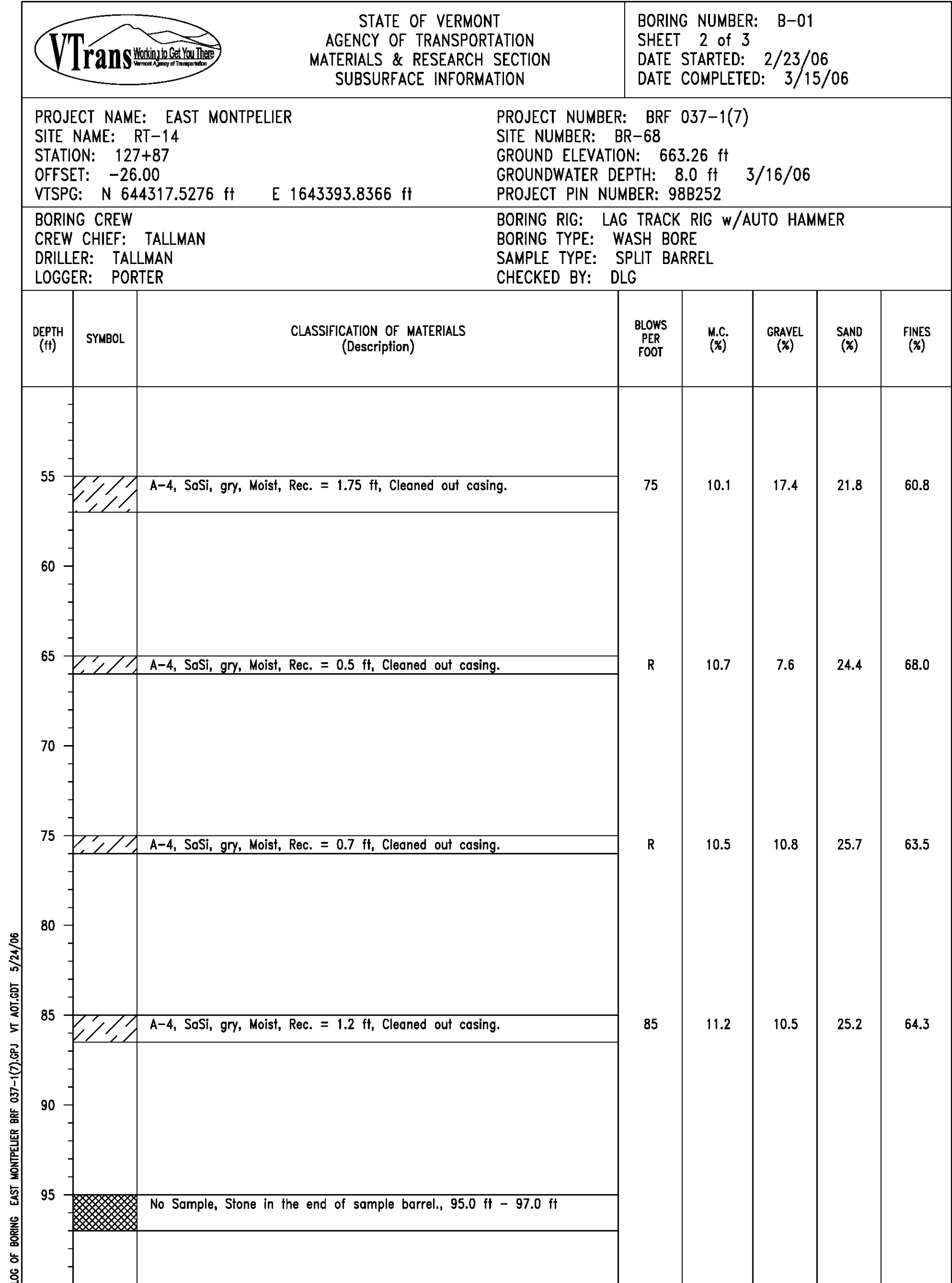
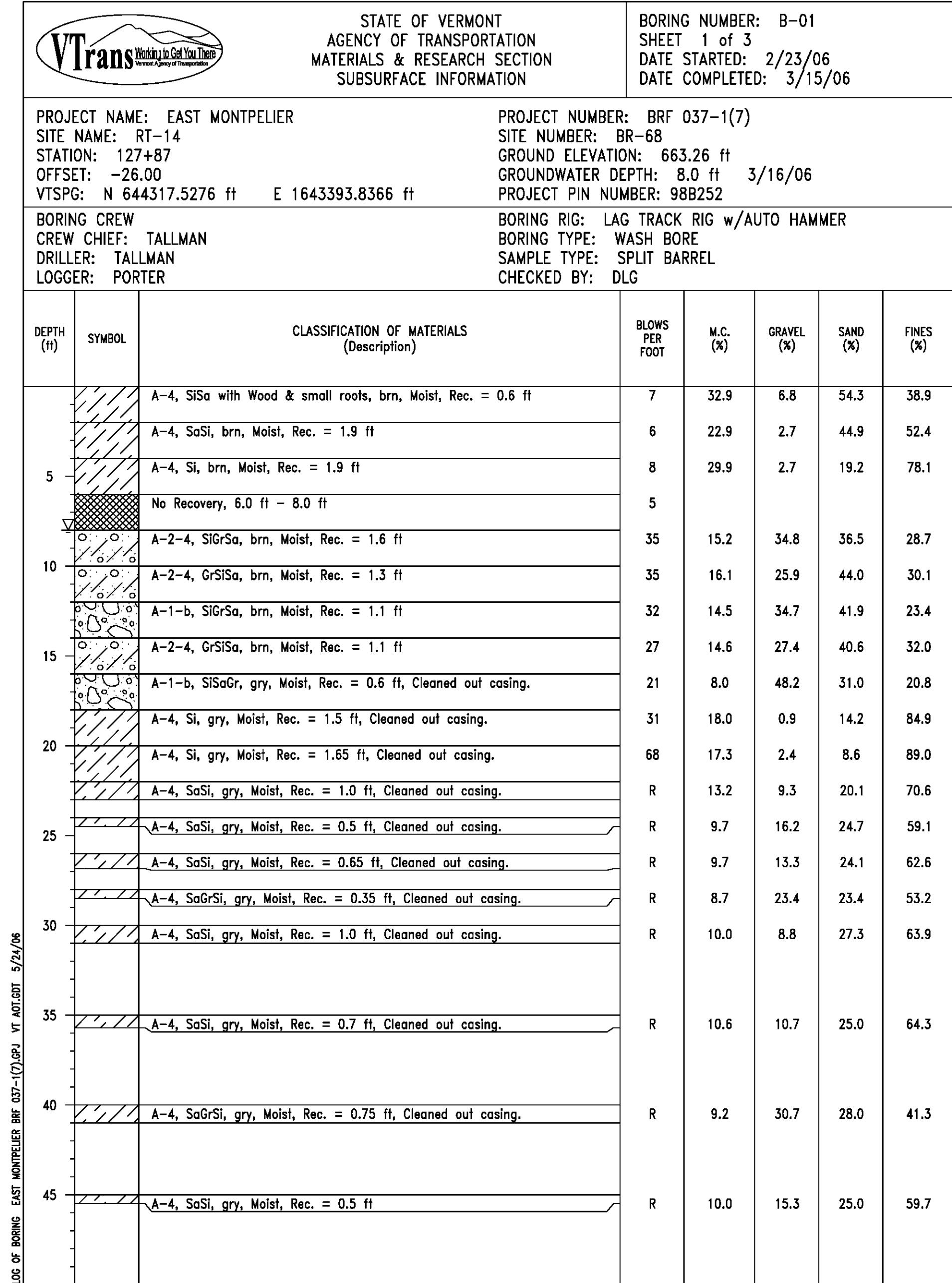
NOT TO SCALE

*INCIDENTAL TO ITEM 900.675 - SPECIAL PROVISION (PRECAST CONCRETE GRAVITY RETAINING WALL WITH PEDESTRIAN RAILING)



PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(I)
FILE NAME: ...XX_Retaining_Wall_det - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: J. SOTER
DESIGNED BY: K. RICHARDSON	CHECKED BY: T. KNIGHT
WALL PLAN & PROFILE WP 2	SHEET 20 OF 42

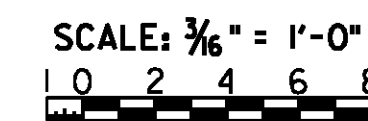
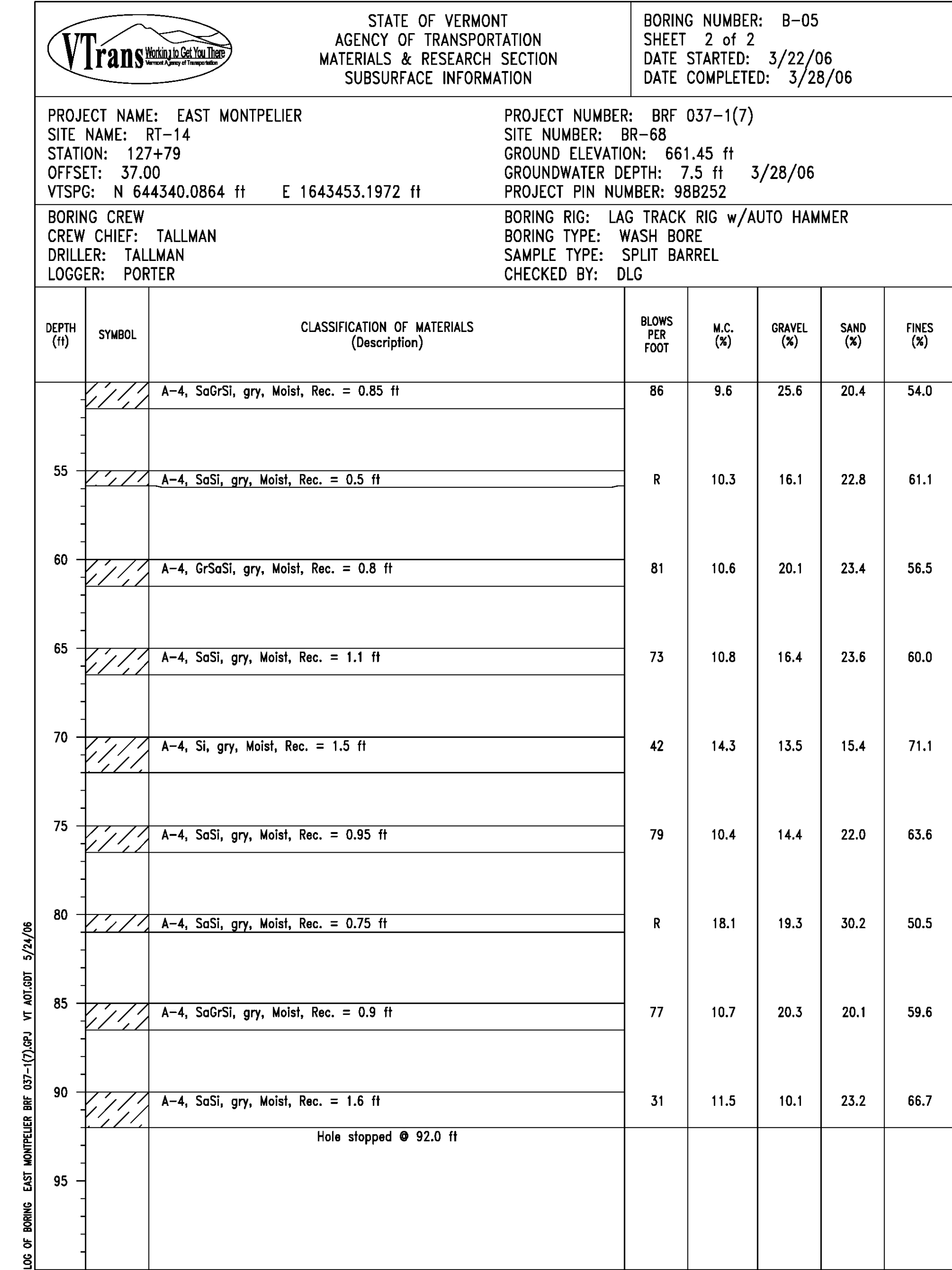
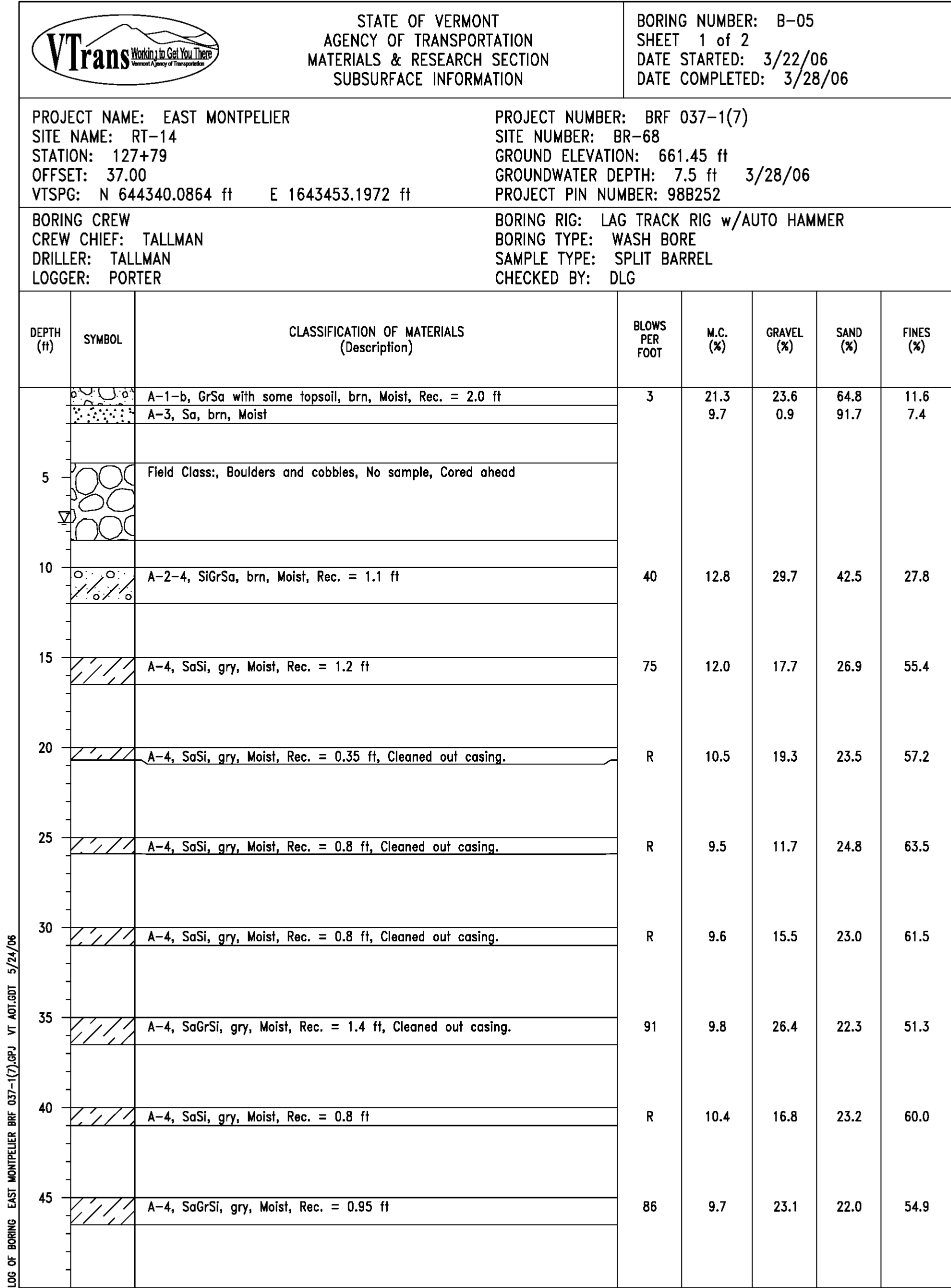




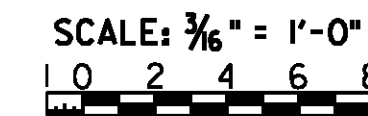
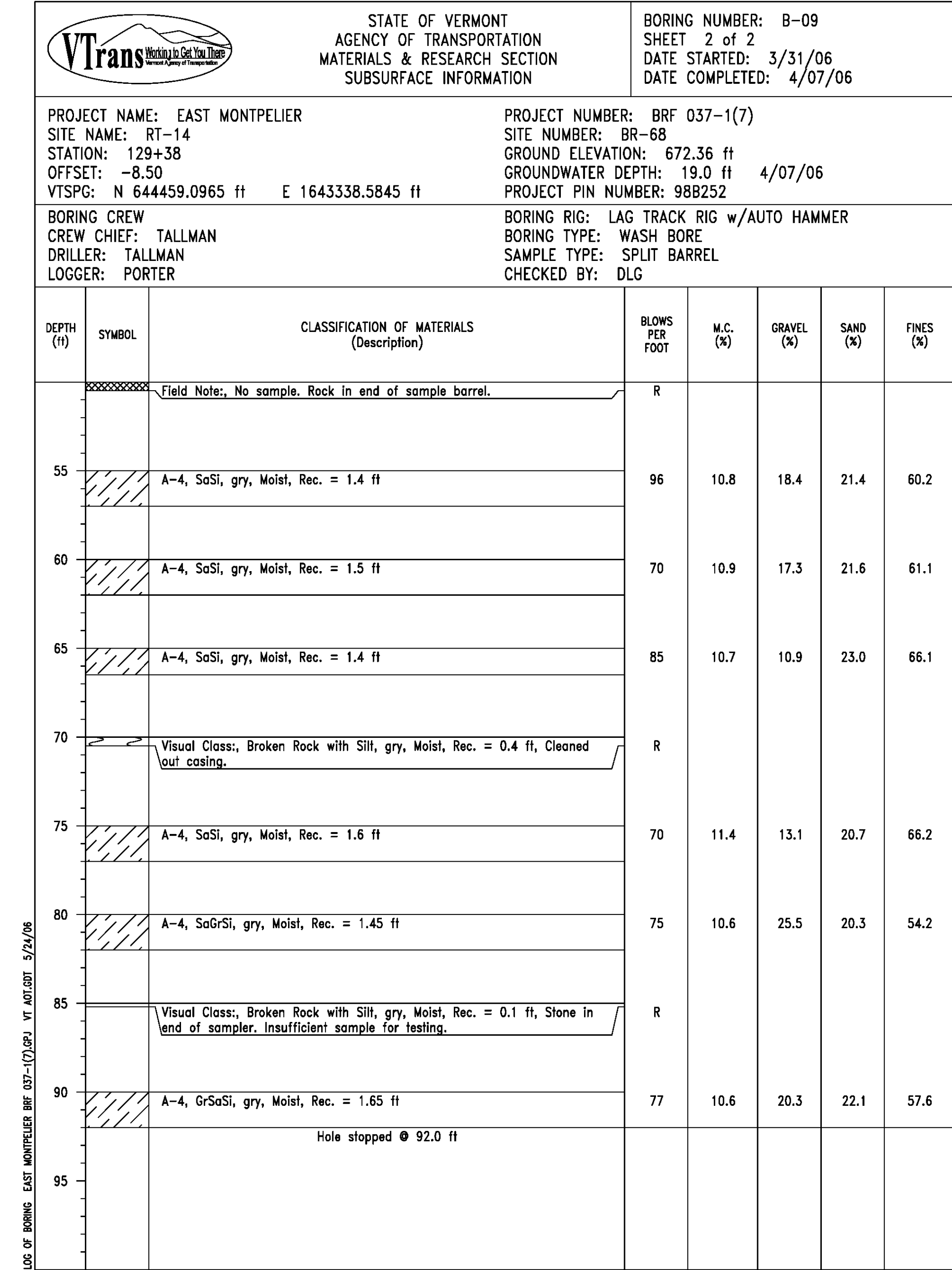
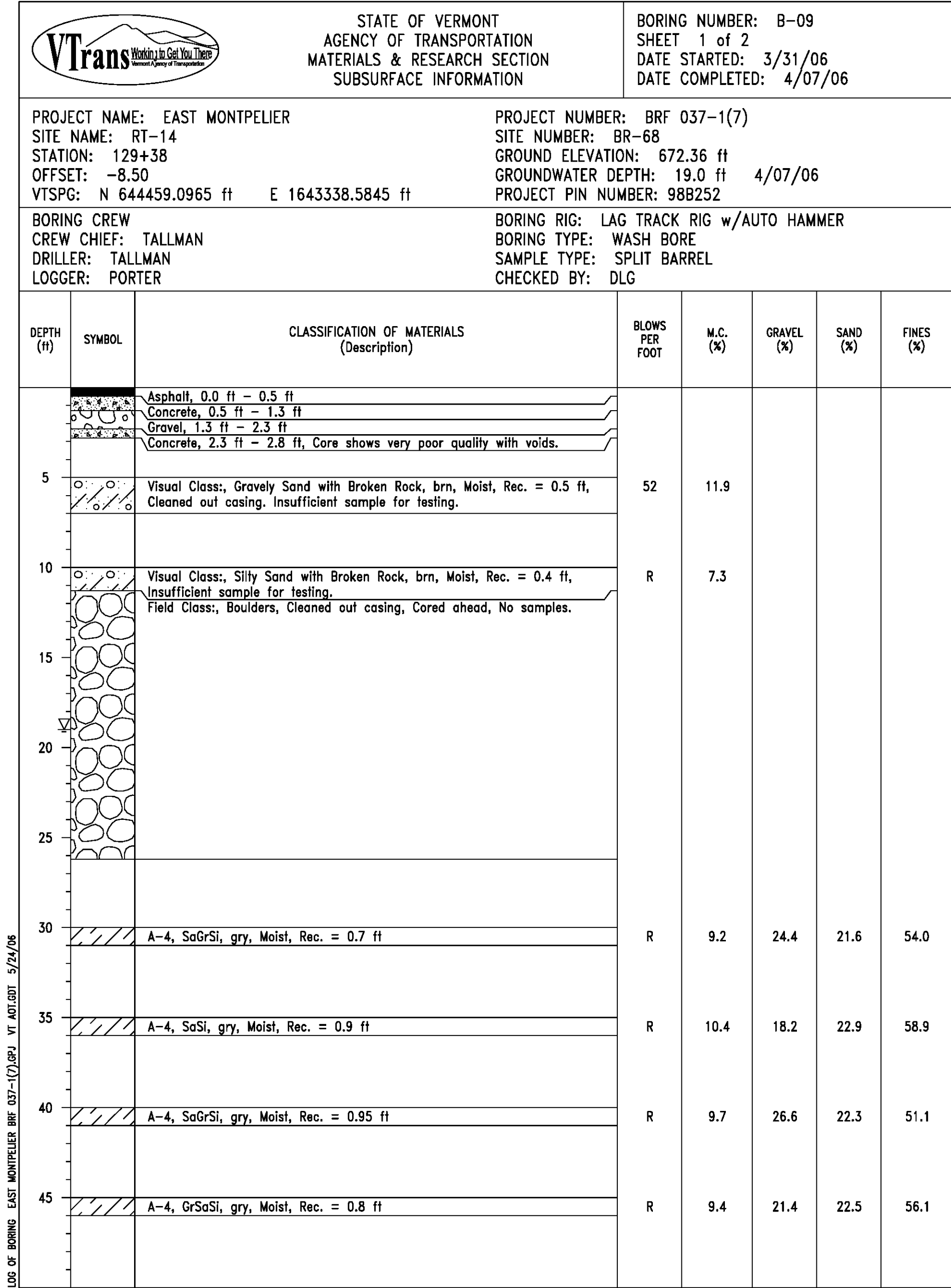
SCALE: 3/16" = 1'-0"
0 2 4 6 8



PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	z98b252bor_logs-ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	VTRANS
BORING LOG BOR 2	
PLOT DATE:	5/26/2016
DRAWN BY:	J. SOTER
CHECKED BY:	T. KNIGHT
SHEET	22 OF 42



PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	z98b252bor_logs-ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	VTRANS
BORING LOG BOR 3	
PLOT DATE:	5/26/2016
DRAWN BY:	J. SOTER
CHECKED BY:	T. KNIGHT
SHEET	23 OF 42



PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	z98b252bor_logs-ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	VTRANS
BORING LOG BOR 4	
PLOT DATE:	5/26/2016
DRAWN BY:	J. SOTER
CHECKED BY:	T. KNIGHT
SHEET	24 OF 42

OG OF BORING EAST MONTPELLIER BR# 037-1(7).GPJ VT AOT.GDT 5/24/06OG OF BORING EAST MONTELLER BRF 037-1(7).GPJ VT AOT.GDT 5/24/06

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FILE NAME: z98b252bor_logs-ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: J. SOTER
DESIGNED BY: VTRANS	CHECKED BY: T. KNIGHT
BORING LOG BOR 5	SHEET 25 OF 42

INTRODUCTION

- 1. THE FOLLOWING TRAFFIC CONTROL PLAN IS INTENDED TO BE A GENERAL CONCEPT FOR STAGING THE WORK WHILE MAINTAINING TRAFFIC. SPECIFIC DETAILS TO ADDRESS SPECIFIC SITUATIONS ARE PROVIDED SEPARATELY IN THE CONTRACT DOCUMENTS. IF THE CONTRACTOR REQUIRES MINOR REVISIONS TO THE SPECIFIC TRAFFIC CONTROL PLAN SHEETS, THE CONTRACTOR SHALL ALLOW THE ENGINEER 2 WEEKS FOR THE REVIEW AND APPROVAL OF THE CHANGES.
- 2. ALL TRAFFIC CONTROL DETAILS MUST BE DESIGNED AND IMPLEMENTED IN ACCORDANCE WITH THE 2009 FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND VTRANS STANDARDS T-1, T-10, T-17, T-24, T-25 AND T-45.
- 3. NOT USED

GENERAL

- 4. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE 2009 EDITION OF THE MUTCD AND PAID FOR AS ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN.
- 5. ALL ITEMS REQUIRED FOR TRAFFIC CONTROL MEASURES SHALL BE PAID UNDER ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE. THESE ITEMS WILL INCLUDE BUT ARE NOT LIMITED TO: FURNISHING, INSTALLING, RELOCATING AND REMOVING REFLECTORIZED DRUMS, TEMPORARY TRAFFIC BARRIER, REMOVE AND RESET TRAFFIC BARRIER, ENERGY ABSORPTION ATTENUATOR, PORTABLE ARROW BOARDS, ANY NECESSARY CONSTRUCTION SIGNAGE, RELOCATING EXISTING SIGNS, REMOVAL OF EXISTING PAVEMENT MARKINGS, TEMPORARY PAVEMENT LINES AND MARKINGS, RESTORATION OF EXISTING PAVEMENT MARKINGS, TEMPORARILY RELOCATING MAILBOXES, LIGHTING PLAN, TEMPORARY WORK ZONE LIGHTING, AND ALL OTHER INCIDENTALS REQUIRED TO CONTROL TRAFFIC DURING THE ENTIRE DURATION OF CONSTRUCTION, FOR BOTH DAYTIME AND NIGHTTIME CONSTRUCTION ACTIVITIES.
- 6. MAINTENANCE AND PROTECTION OF TRAFFIC SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 641 TRAFFIC CONTROL OF THE VTRANS STANDARD SPECIFICATIONS FOR CONSTRUCTION 2011, THE FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), AND ANY PROVISIONS IN THE PLANS AND/OR CONTRACT, OR AS DIRECTED BY THE ENGINEER.
- 7. THE TRAFFIC CONTROL PLANS SHOWN ARE CONSIDERED TO BE MINIMUM REQUIREMENTS. ADDITIONAL SIGNS AND/OR CONTROL DEVICES MAY RE REQUIRED BY THE MUTCD OR AS DIRECTED BY THE ENGINEER. THESE WILL BE PAID INCIDENTAL TO ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE.
- 8. THE SIGN LOCATIONS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
- 9. VEHICLES BELONGING TO THE CONTRACTOR OR WORKERS SHALL NOT BE PARKED ON THE PAVEMENT OR SHOULDERS ALONG A ROADWAY BEING USED BY THE GENERAL PUBLIC. VEHICLES SHALL NOT BE PARKED IN A MANNER WHICH OBSTRUCTS ANY SIGNS, BANNERS, BARRICADES, OR ANY OTHER TRAFFIC CONTROL DEVICES.
- 10. THE CONTRACTOR SHALL NOT PARK EQUIPMENT OR STORE MATERIAL WHERE IT IS DEEMED BY THE ENGINEER TO BE A SAFETY HAZARD.
- 11. ANY EXISTING PAVEMENT MARKINGS WHICH CONFLICT WITH THE TRAFFIC CONTROL PLAN SHALL BE MASKED OR REMOVED AS DIRECTED BY THE ENGINEER. UPON COMPLETION OF WORK, THE EXISTING PAVEMENT MARKINGS SHALL BE RE-INSTALLED IN-KIND. THIS WORK SHALL PAID UNDER ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE.
- 12. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION OPERATIONS IN A MANNER SO AS TO MINIMIZE THE LENGTH OF TIME THAT NORMAL TRAFFIC FLOWS ARE DISTURBED.
- 13. TEMPORARY PAVEMENT MARKINGS AND/OR DELINEATION DEVICES SHALL BE PROVIDED AS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- 14. THE CONTRACTOR SHALL SUBMIT A DETAILED CONSTRUCTION SCHEDULE FOR EACH CONSTRUCTION STAGE.
- 15. THE CONTRACTOR SHALL MAINTAIN TWO LANES OF TRAFFIC (ONE EASTBOUND, ONE WESTBOUND) THROUGH THE PROJECT AREA DURING PEAK HOURS AS DEFINED IN THE PROJECT SPECIAL PROVISIONS, UNLESS APPROVED IN WRITING BY THE ENGINEER .
- 16. NOT USED
- 17. WHEN TYPE III BARRICADES ARE USED NEAR DRIVEWAYS OR INTERSECTIONS, THEY SHALL BE PLACED IN SUCH A WAY AS TO NOT OBSCURE SIGHT DISTANCE.
- 18. THE CONTRACTOR SHALL NOT MIX DELINEATION DEVICES IN A LINEAR CLOSURE OR TAPER (I.E. CONES, VERTICAL PANELS, OR DRUMS SHALL NOT BE USED IN THE SAME TAPER OR CLOSURE). HOWEVER, DIFFERENT DELINEATION DEVICES MAY BE USED IN DIFFERENT AREAS OF THE PROJECT.
- 19. THE MAXIMUM SPACING OF DELINEATORS, IN FEET, IS 1.0 TIMES THE CONSTRUCTION ZONE SPEED LIMIT FOR TAPERS AND 2.0 TIMES THE SPEED LIMIT FOR TANGENTS UNLESS OTHERWISE INDICATED BY THE PLANS OR ENGINEER.

TRAFFIC CONTROL GENERAL NOTES

GENERAL (CONT.)

- 20. THE ENGINEER SHALL COORDINATE ANY UTILITY WORK, SUBCONTRACTOR WORK, PUBLIC MAINTENANCE, OR OTHER CONSTRUCTION OPERATIONS IN THE AREA. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT PROPER TRAFFIC CONTROL IS OBTAINED FOR ALL CONDITIONS.
 - 21. ALL ROADWAY AREAS TEMPORARILY CLOSED FOR TRENCH, CULVERT, OR CONDUIT EXCAVATION SHALL BE REOPENED AT THE END OF THE WORKDAY. AT ALL TIMES WHEN WORK IS NOT IN PROGRESS, ALL OPENINGS IN THE ROADWAY SHALL BE COVERED WITH ANCHORED STEEL PLATES OR SHALL BE BACKFILLED.
 - 22. WHEN TWO OR MORE WORK AREAS ARE ADJACENT, OVERLAP, OR ARE IN CLOSE PROXIMITY AS DETERMINED BY THE ENGINEER, THE CONTRACTOR SHALL ENSURE THERE IS NO CONFLICTING SIGNAGE AND THAT LANE CONTINUITY IS MAINTAINED THROUGHOUT ALL WORK AREAS.
 - 23. DROP OFF PROTECTION IN CONSTRUCTION AREAS SHALL CONFORM TO VTRANS STANDARD SHEET T-1, T-35 AND T-36.
 - 24. TERMINALS OF TEMPORARY TRAFFIC BARRIERS SHALL BE EXTENDED BEYOND THE CLEAR ZONE WHEN POSSIBLE. IF TERMINALS CAN NOT BE EXTENDED BEYOND THE CLEAR ZONE, THEN ENERGY ABSORPTION ATTENUATORS SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER AND SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE.
 - 25. IN ACCORDANCE WITH SECTION 641, THE CONTRACTOR SHALL MAINTAIN DRAINAGE FACILITIES AND OTHER HIGHWAY ELEMENTS. THE CONTRACTOR SHALL DEVOTE PARTICULAR ATTENTION TO ALL DRAINAGE FACILITIES TO KEEP THEM FULLY OPERATIVE AT ALL TIMES (INCLUDING WORK AREAS). ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE.
- EMERGENCY ACCESS
- 26. AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR MUST PROVIDE SAFE AND CONVENIENT EMERGENCY ACCESS. LOCAL FIRE, POLICE AND AMBULANCE AGENCIES SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK IN ORDER TO COORDINATE AND MAINTAIN SUFFICIENT EMERGENCY ROUTES.
 - 27. THE CONTRACTOR SHALL SUBMIT TO THE APPROPRIATE LAW ENFORCEMENT AND EMERGENCY AGENCIES IN WRITING THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE PERSON OR PERSONS AUTHORIZED TO SECURE LABOR, MATERIALS AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE THE NORMAL WORKING HOURS. DUPLICATE COPIES OF THE ABOVE SHALL BE FILED WITH THE ENGINEER.
- PUBLIC INGRESS AND EGRESS
- 28. THE CONTRACTOR SHALL PROVIDE PROPERTY OWNERS WITH PROPER ACCESS TO THEIR DRIVEWAYS AND SHALL MAINTAIN THEM THROUGH ALL TEMPORARY TRAFFIC CONTROL ZONES AND SHALL DELINEATE THEM BY MEANS OF SIGNS, CONES AND/OR DRUMS AND POST FLAGGERS AS DIRECTED BY THE ENGINEER.
 - 29. WHERE DIRECT ACCESS TO DRIVEWAYS IS NOT POSSIBLE DUE TO NECESSARY CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL PLAN ALTERNATE MEANS OF ACCESS AND SUBMIT SUCH PLANS FOR APPROVAL BEFORE OPERATIONS COMMENCE. THE COST OF THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 - SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).
 - 30. LEFT TURNS IN AND OUT OF DRIVEWAYS DO NOT NEED TO BE MAINTAINED IN AREAS WHERE EXCAVATION OR PAVING OPERATIONS ARE ON-GOING. AT THE END OF THE CONSTRUCTION DAY, ACCESS ACROSS THE WORK ZONE WILL BE RESTORED.
 - 31. THE CONTRACTOR SHALL NOTIFY THE OWNERS/USERS OF DRIVEWAYS AT LEAST 24 HOURS IN ADVANCE OF ANY WORK TO BE DONE AT THAT LOCATION. COMMERCIAL ESTABLISHMENTS SHALL HAVE A MINIMUM OF ONE DRIVEWAY OPEN AT ALL TIMES DURING NORMAL BUSINESS HOURS. THE CONTRACTOR HAS THE RESPONSIBILITY OF MAINTAINING SAFE AND PROPER ACCESS TO BUILDINGS IN THE VICINITY OF CONSTRUCTION.
 - 32. NO DESIGNATED PEDESTRIAN ROUTES EXIST ON USE ROUTE 2 THROUGH THE PROJECT LIMITS, HOWEVER OCCASIONAL PEDESTRIAN TRAFFIC SHOULD BE EXPECTED. DURING LANE AND SHOULDER CLOSURES, TRAFFIC CONTROL PLANS SHALL PROVIDE FOR A MINIMUM 3 FOOT WIDE SHOULDER FOR PEDESTRIAN TRAFFIC WHEN POSSIBLE. DURING NIGHTTIME LANE CLOSURES WHEN SPACE DOES NOT ALLOW FOR A PEDESTRIAN CORRIDOR, THE CONTRACTOR SHALL PROVIDE DESIGNATED STAFF TO ESCORT THE OCCASIONAL PEDESTRIANS THROUGH THE WORK AREA. THIS WORK WILL BE CONSIDERED INCIDENTAL TO SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE). IF PEDESTRIAN TRAFFIC EXCEEDS AN AVERAGE OF 2 PEDESTRIANS CROSSING THE WORK AREA PER NIGHT SHIFT, THE ENGINEER WILL ORDER THE CONTRACTOR TO MAKE AN ADDITIONAL FLAGGER AVAILABLE FOR ESCORTING PEDESTRIANS, AND THAT WORK WILL BE PAID FOR UNDER ITEM 630.15 "FLAGGER".

- 33. THE COVERING AND/OR REMOVING, RELOCATING, AND REPLACING OF EXISTING SIGN PANELS AND ASSEMBLIES SHALL BE AS DIRECTED BY THE ENGINEER. PAYMENT SHALL BE INCIDENTAL TO ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE. SIGNS WHICH ARE NOT APPLICABLE DURING NON-WORKING HOURS SHALL BE COVERED OR REMOVED FROM VIEW AS DIRECTED BY THE ENGINEER.
- 34. CARE SHOULD BE TAKEN NOT TO DAMAGE THE PERMANENT SIGNS IF THEY ARE COVERED. ANY SIGN SO DAMAGED SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE STATE.
- 35. ADVANCE POSTING DISTANCE FOR SIGNS SHALL BE PER VTRANS STANDARD SHEETS T-1, T-10, T-17, T-28, T-29, T-30 AND T-31.
- 36. ALL CONSTRUCTION SIGNS SHALL BE BLACK LETTERS ON REFLECTORIZED FLUORESCENT ORANGE BACKGROUND, AS IN SPECIFIED VTRANS STANDARDS.
- 37. SIGN MOUNTING HEIGHT SHALL BE 7 FEET IN ALL AREAS WHERE PEDESTRIANS AND PARKED CARS ARE ENCOUNTERED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 38. EXISTING SIGNING SHALL REMAIN, WITH RELOCATION AS NECESSARY, UNTIL IT IS NO LONGER NEEDED. TEMPORARY SIGNING SHALL BE ADDED, AS NEEDED AND AS REQUIRED BY THE M.U.T.C.D. NEW SIGNING SHALL BE INSTALLED AS IT BECOMES APPLICABLE AND AS CONSTRUCTION NEARS COMPLETION IN EACH STAGE.
- 39. THE CONTRACTOR SHALL PROVIDE TEMPORARY SIGNS FOR DIRECTING MOTORISTS TO THE ENTRANCES TO BUSINESSES ALONG THE CORRIDOR. SIGNS SHALL BE RECTANGULAR WITH WHITE TEXT ON BLUE BACKGROUND. SIGNS SHALL INCLUDE THE NAME OF THE BUSINESS WITH ARROW POINTING IN THE DIRECTION OF THE BUSINESS. LETTER HEIGHTS SHALL NOT EXCEED 4". SIGNS SHALL BE INSTALLED ON AN NCHRP 350 COMPLIANT SIGN STAND. THESE SIGNS SHALL BE MOVED AND/OR ALTERED AS APPROPRIATE FOR EACH STAGE OF CONSTRUCTION. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE.

FLAGGING AND UNIFORMED TRAFFIC OFFICERS

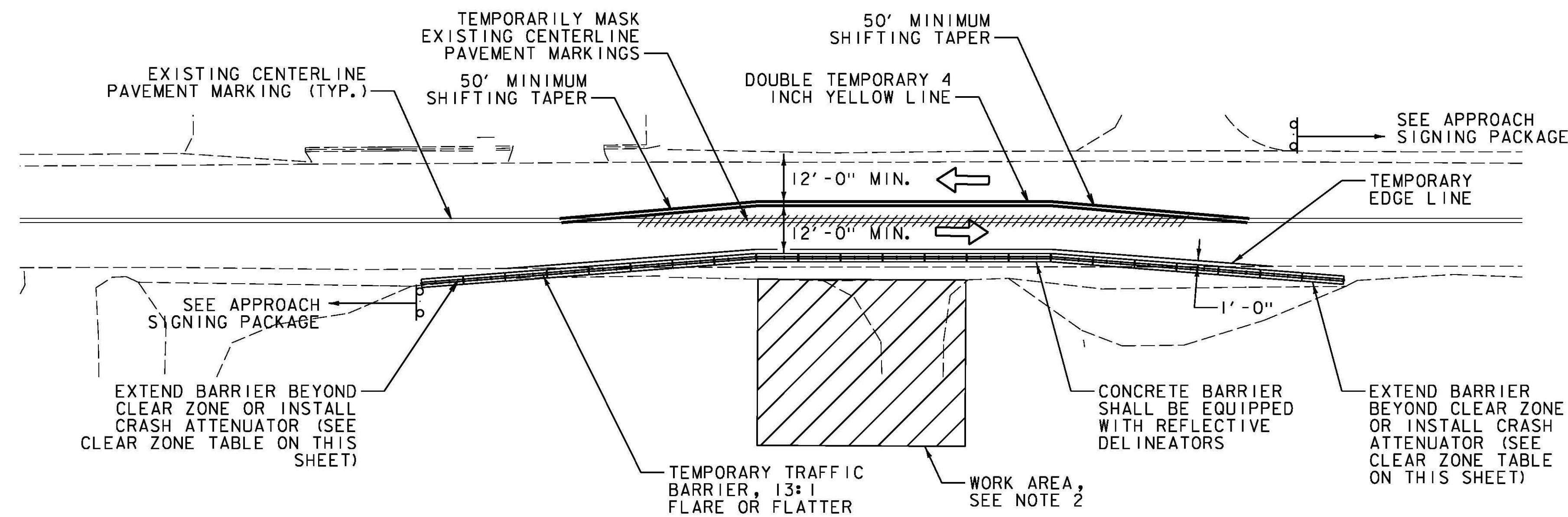
- 40. THE CONTRACTOR SHALL PROVIDE FLAGGERS FOR ONE LANE TRAFFIC CONTROL, AND AT LOCATIONS WHERE SIGHT DISTANCES ARE IMPAIRED BY CONSTRUCTION OPERATIONS OR OTHER SITUATIONS PAID AS ITEM 630.15 FLAGGERS. UNIFORMED TRAFFIC OFFICER SHALL BE PROVIDED DURING LANE CLOSURES PAID AS ITEM 630.10 UNIFORMED TRAFFIC OFFICERS.
- 41. FLAGGING STATIONS SHALL BE ADJACENT TO THE TRAFFIC LANES BEING CONTROLLED AND SHALL BE POSITIONED SO THAT FLAGGER VISIBILITY TO APPROACHING TRAFFIC IS OPTIMIZED. THE FLAGGER SHALL BE READILY VISIBLE TO APPROACHING TRAFFIC BETWEEN 250 FEET AND 300 FEET IN ADVANCE OF THE FLAGGER LOCATION. ACCORDINGLY, THE TANGENT DIMENSIONS ON EACH END OF THE WORK AREA SHALL BE ESTABLISHED TO ACHIEVE THE APPROPRIATE FLAGGING STATION LOCATION, AS DIRECTED BY THE ENGINEER.
- 42. FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS, WALKIE-TALKIES OR OTHER FORMS OF ENHANCED COMMUNICATION WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER, OR IF THE ENGINEER DEEMS IT NECESSARY.
- 43. STOP/SLOW PADDLES SHALL BE USED FOR ALL FLAGGING, AND SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE M.U.T.C.D. AND STATE STANDARD T-30.
- 44. FLAGGER STATIONS FOR NIGHT WORK SHALL BE ILLUMINATED TO A MINIMUM CATEGORY ONE (5 FOOTCANDLES) ILLUMINANCE LEVEL PER NCHRP REPORT 476.

NIGHT WORK

- 45. NIGHT WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 476 - "GUIDELINES FOR DESIGN AND OPERATION OF NIGHTTIME TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE AND CONSTRUCTION". REFER TO THE CONTRACT SPECIAL PROVISION FOR COMPLETE LIST OF REQUIREMENTS FOR WORKING AT NIGHT. ALL COSTS ASSOCIATED WITH THE DESIGN, APPROVAL AND IMPLEMENTAION OF THE LIGHTING SYSTEM WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).

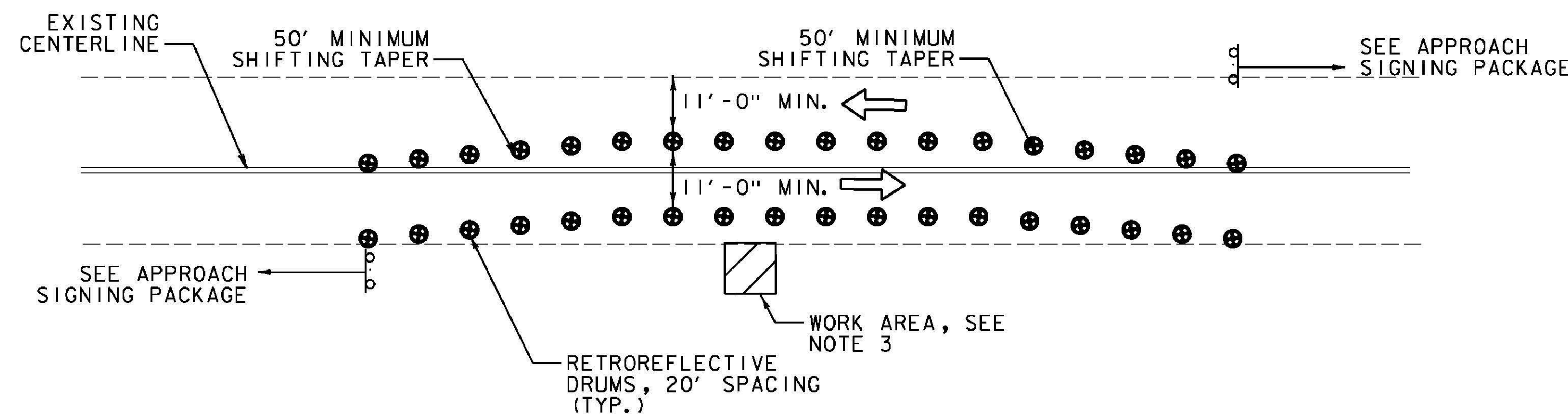


PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(1)	
FILE NAME: z98b252tmp_det - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: C.GENDRON
DESIGNED BY: C. GENDRON	CHECKED BY: K. RICHARDSON
TRAFFIC CONTROL PLAN - TC 1	SHEET 27 OF 42



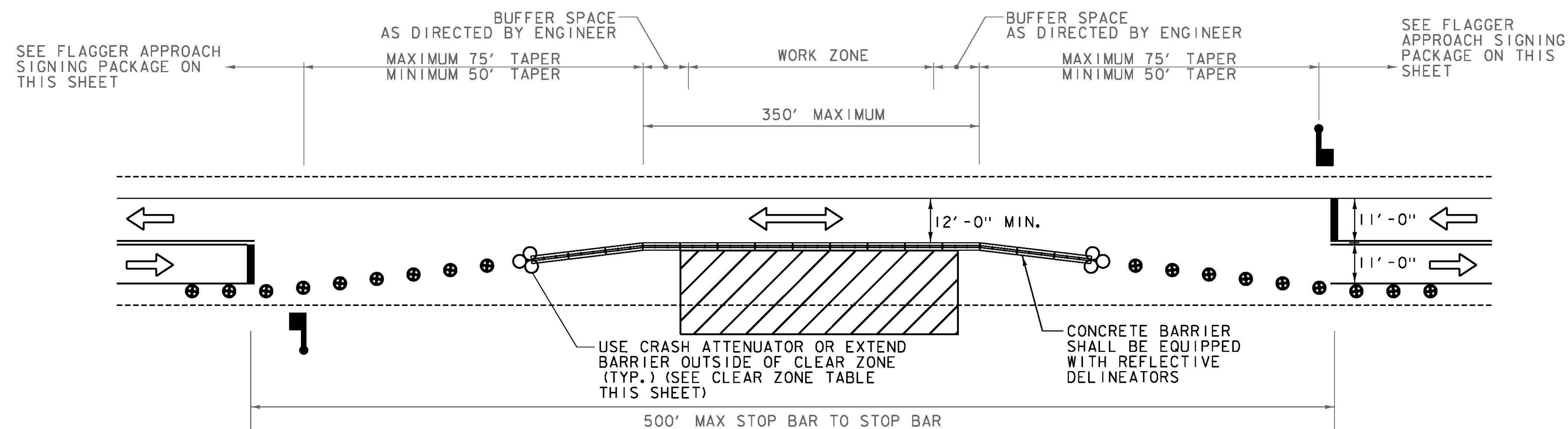
LONG DURATION LANE SHIFT

NOT TO SCALE



SHORT DURATION LANE SHIFT

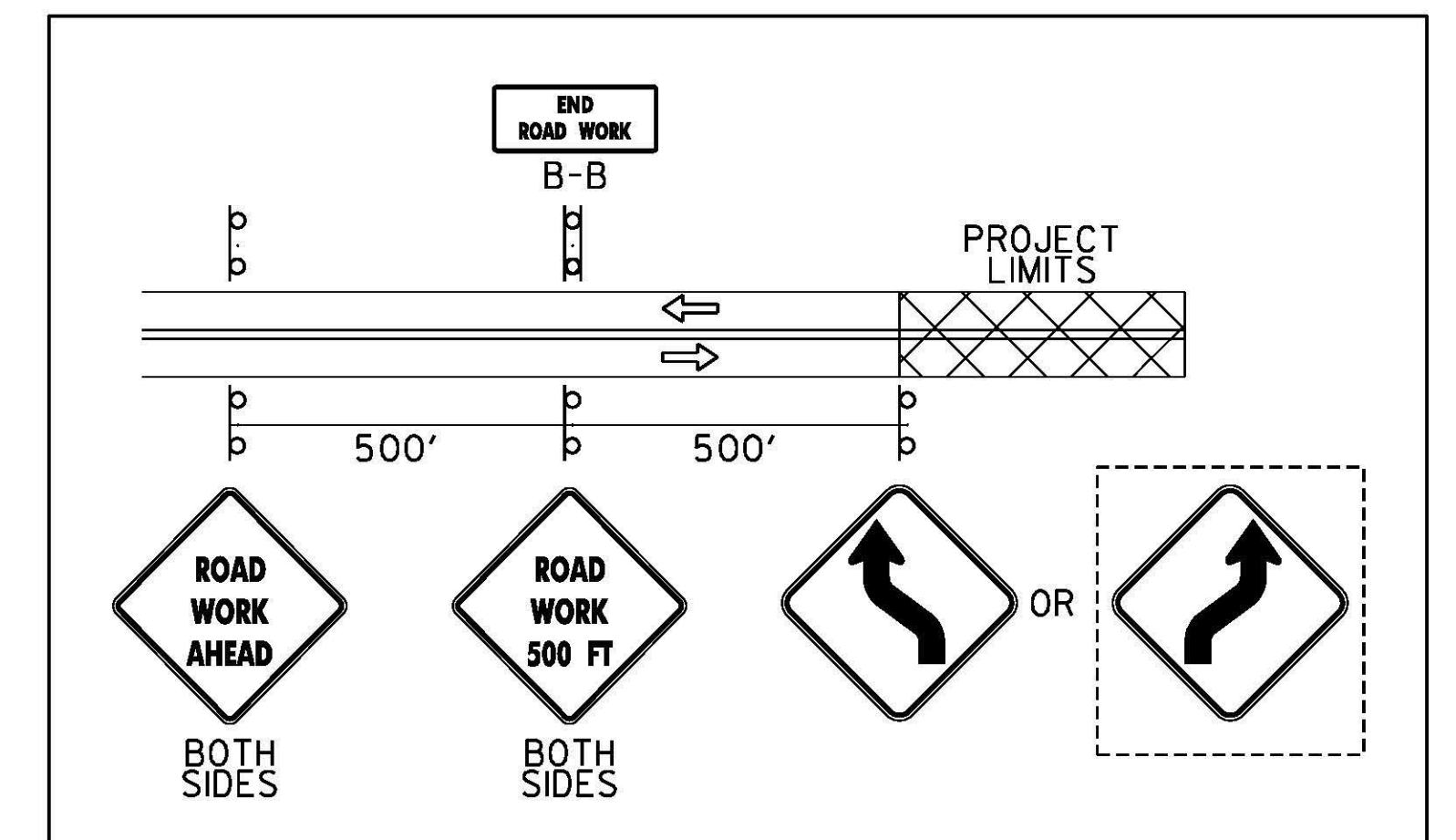
NOT TO SCALE



ALTERNATING ONE-WAY TRAFFIC CONTROL PACKAGE (FLAGGER)

NOT TO SCALE

- NOTES:
1. ANTICIPATED FOR TRENCH WORK IN ROADWAY
 2. SEE NOTE 4



APPROACH SIGNING PACKAGE

TRAFFIC CONTROL NOTES:

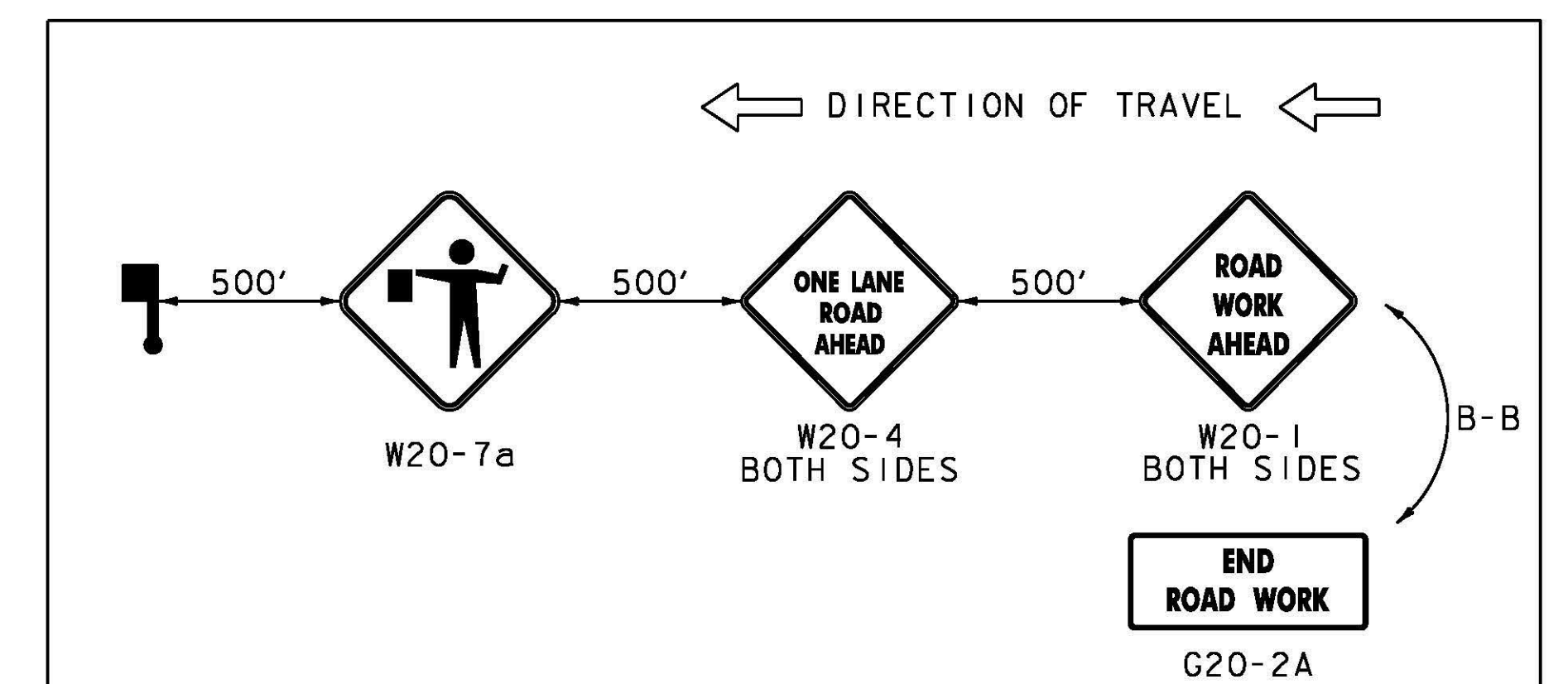
1. SEE SHEET TC 1 FOR GENERAL TRAFFIC CONTROL NOTES.
2. IF HAZARDS ARE REMOVED FROM THE CLEAR ZONE DURING NON-WORK HOURS, THE DETAIL FOR "SHORT DURATION LANE SHIFT" IS PERMISSIBLE AS APPROVED BY THE ENGINEER.
3. TRAFFIC CONTROL FOR HAZARDS WITHIN THE CLEAR ZONE ONLY DURING WORK HOURS. IF IT IS NECESSARY FOR A HAZARD TO BE LEFT WITHIN THE CLEAR ZONE DURING NON-WORK HOURS, THE DETAIL FOR "LONG DURATION LANE SHIFT" IS REQUIRED.

CLEAR ZONE TABLE

DESIGN SPEED: 25 MPH
ADT: 10,800 VPD (US 2 EB)
CLEAR ZONE: 10'

LEGEND

- RETROREFLECTIVE DRUM
- TEMPORARY TRAFFIC BARRIER WITH REFLECTIVE DELINEATORS
- ENERGY ABSORPTION ATTENUATOR
- WORK ZONE
- DIRECTION OF TRAVEL



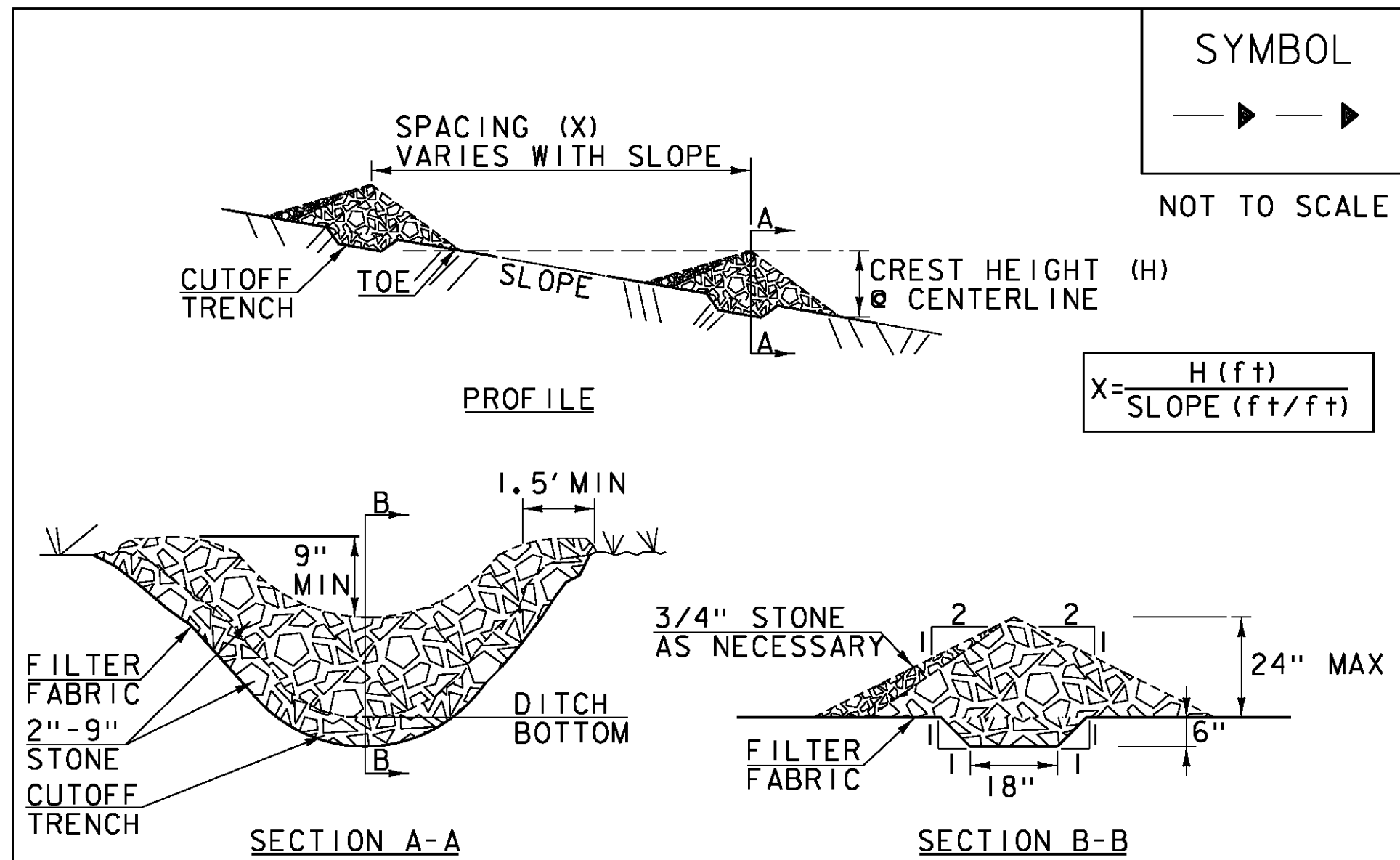
FLAGGER APPROACH SIGNING PACKAGE

PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(1)

FILE NAME: z98b252tmp_det - ER.dgn
PROJECT LEADER: T. KNIGHT
DESIGNED BY: C. GENDRON
TRAFFIC CONTROL PLAN - TC 2

PLOT DATE: 5/26/2016
DRAWN BY: C. GENDRON
CHECKED BY: K. RICHARDSON
SHEET 28 OF 42





CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.

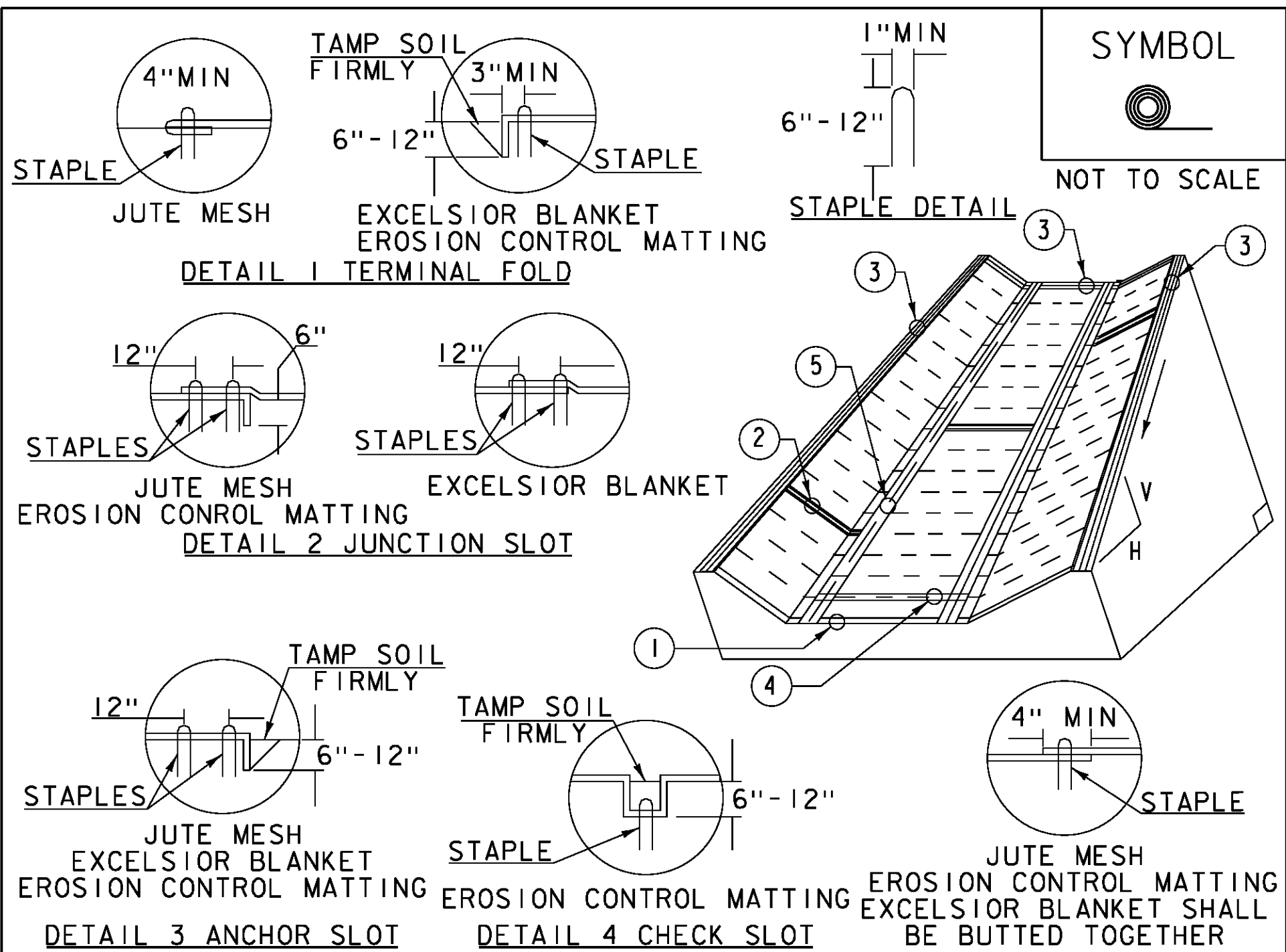
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

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 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY ITEM 653.25)

REVISIONS		
MARCH 21, 2008	WHF	
JANUARY 8, 2009	WHF	



CONSTRUCTION SPECIFICATIONS

1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

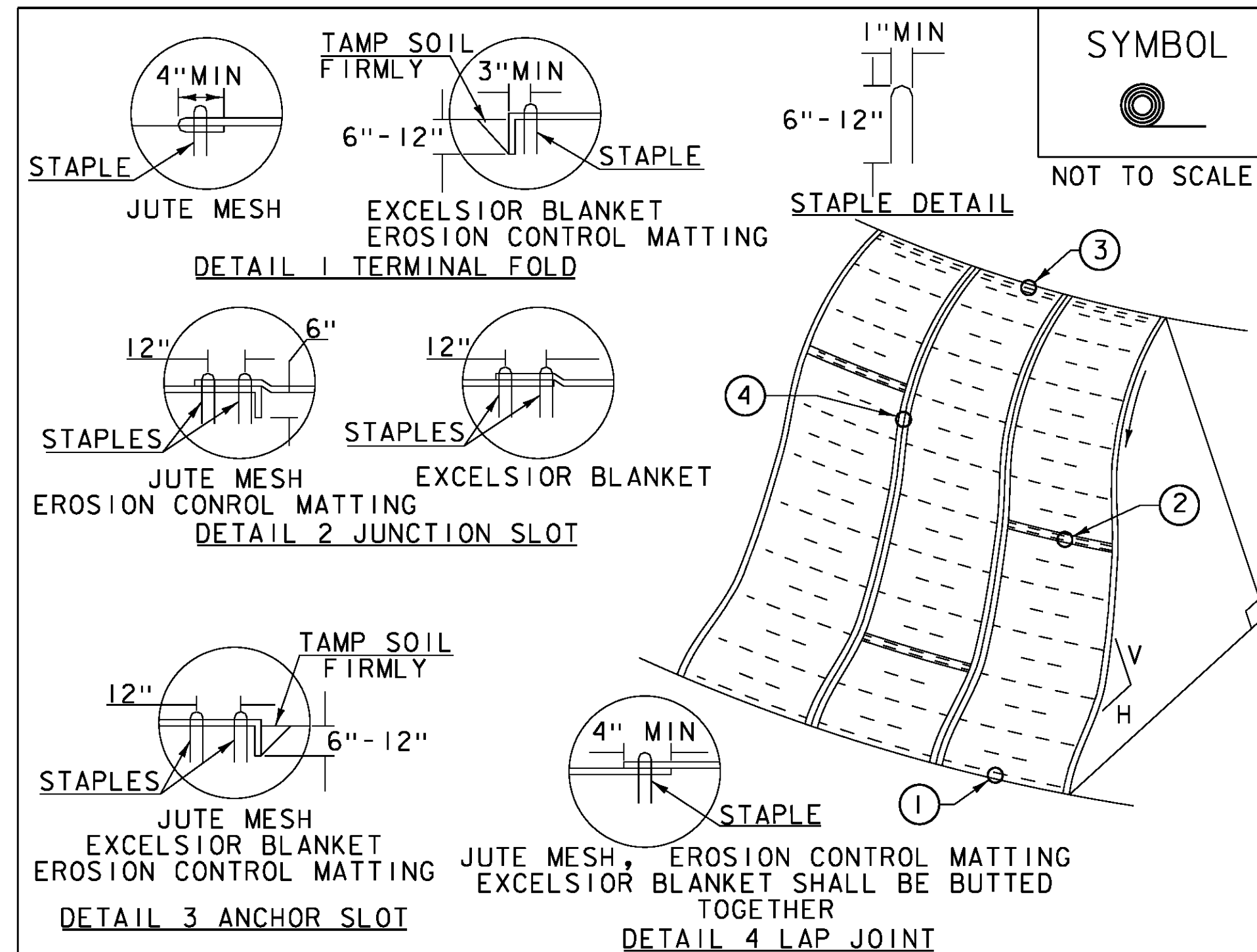
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) DITCH

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 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS		
MARCH 8, 2007	JMF	
APRIL 16, 2007	WHF	
JANUARY 13, 2009	WHF	



CONSTRUCTION SPECIFICATIONS

1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4'X225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4'X150' ROLL OF MATERIAL.
4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION CONTROL PRODUCT (RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

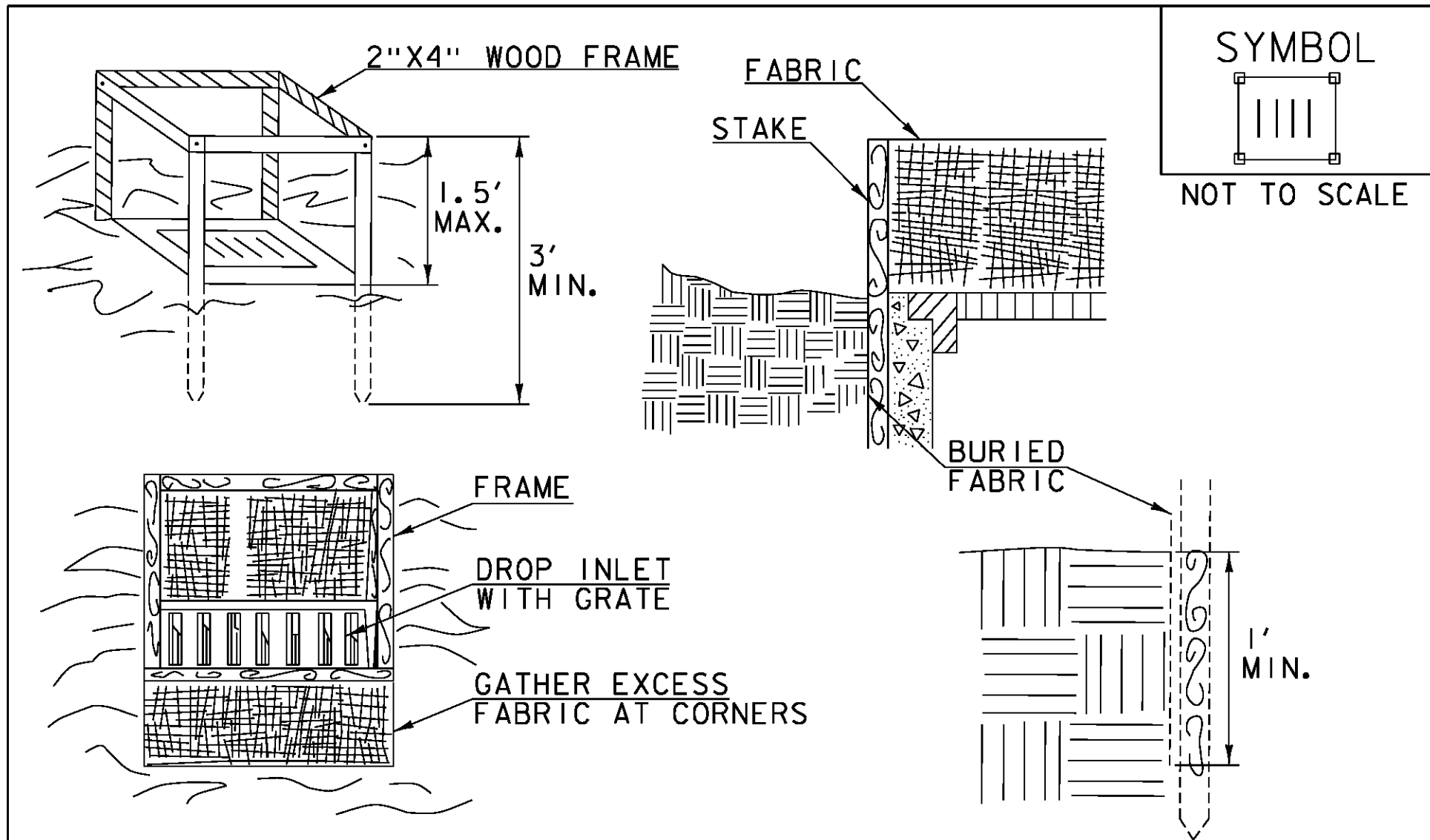
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.21).

REVISIONS		
APRIL 16, 2007	JMF	
JANUARY 13, 2009	WHF	

PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(1)

FILE NAME: 15_EPSC Det - ER.dgn
PROJECT LEADER: VTRANS
DESIGNED BY: VTRANS
EROSION CONTROL DETAILS ECD 1

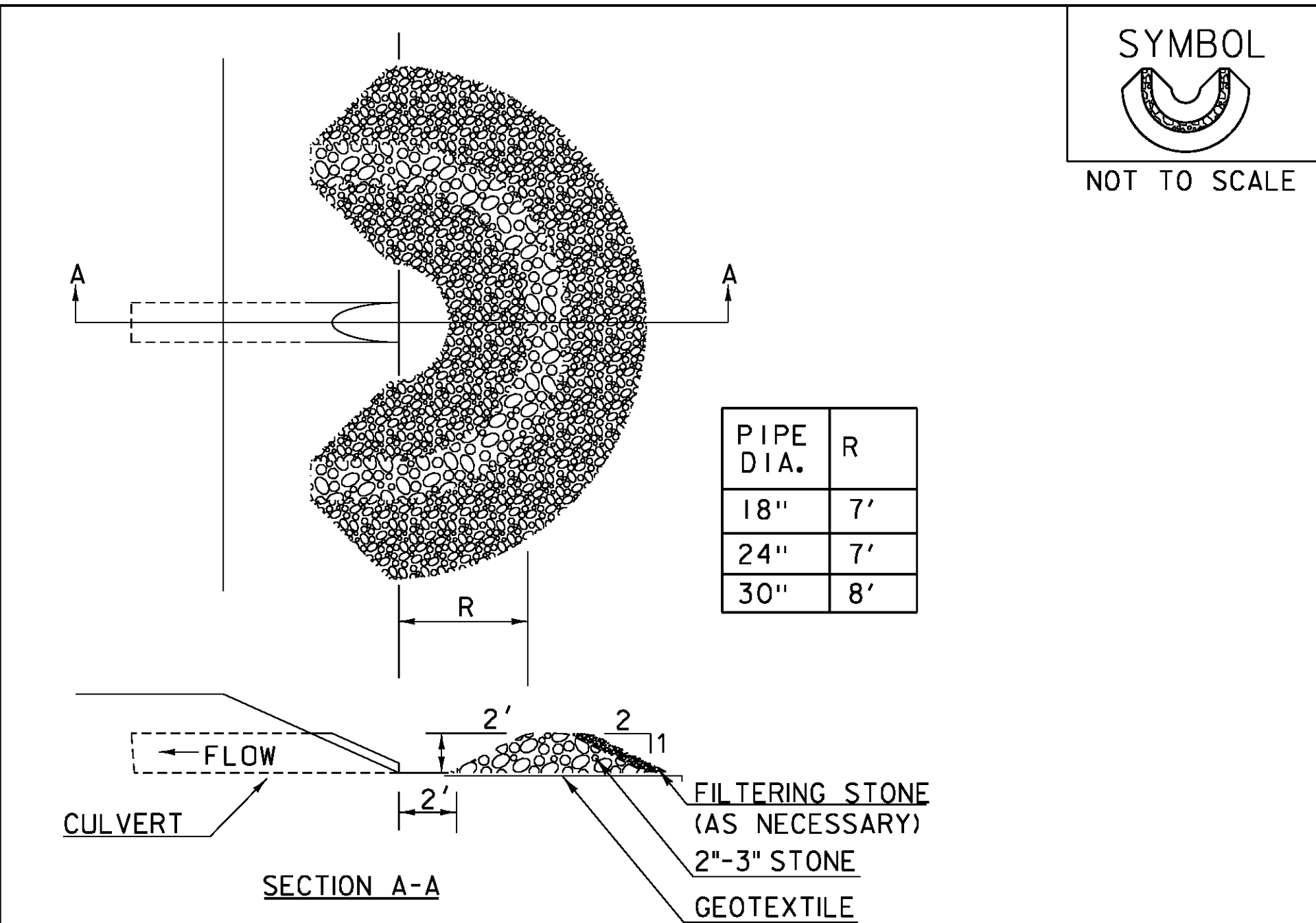
PLOT DATE: 5/26/2016
DRAWN BY: VTRANS
CHECKED BY: VTRANS
SHEET 29 OF 42



CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN APPARENT OPENING SIZE OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2" x 4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3'.
4. SPACE STAKES EVENLY AROUND INLET 3' APART AND DRIVE A MINIMUM 18" DEEP. SPANS GREATER THAN 3' MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT.
5. FABRIC SHALL BE EMBEDDED 1' MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
7. MAXIMUM DRAINAGE AREA 1 ACRE

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION	FILTER FABRIC DROP INLET PROTECTION
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 653 FOR INLET PROTECTION DEVICE, TYPE 1(PAY ITEM 653.40).	
REVISIONS	
MARCH 7, 2008 WHF	
JANUARY 13, 2009 WHF	

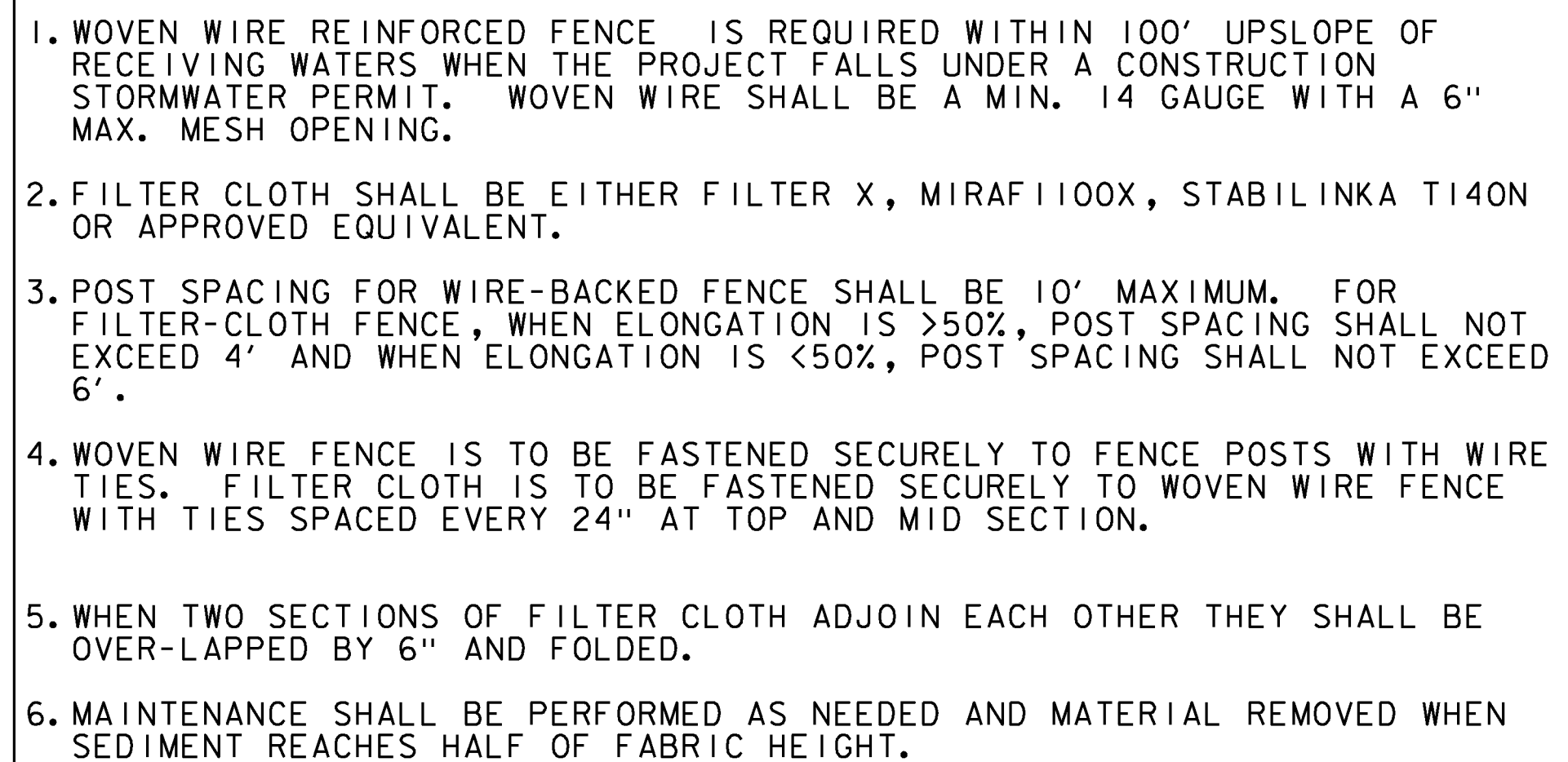


CONSTRUCTION SPECIFICATIONS

1. USE 2" TO 3" STONE. FILTERING STONE SHALL BE 3/4".
2. PLACE STONE OVER GEOTEXTILE.
3. ONCE THE AREAS UPSTREAM FROM THE CHECK DAM ARE STABILIZED WITH VEGETATION, THE SEDIMENT TRAPPED BEHIND THE DAM SHAL BE DISPOSED OF IN AN APPROVED WASTE AREA.
4. THE CHECK DAM(S) SHALL BE FLATTENED AND GRADED IN A MANNER WHICH PROTECTS THE AREA FROM EROSION AND CHANNEL BLOCKAGE . (GEOTEXTILE MUST BE REMOVED).
5. THE GEOTEXTILE MUST BE DISPOSED OF APPROPRIATELY.
6. THE AREA CONTRIBUTING TO THE CHECK DAM SHALL NOT EXCEED 4 ACRES.

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS ORIGINALLY DEVELOPED BY USDA-NRCS	PIPE INLET PROTECTION
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR INLET PROTECTION DEVICE, TYPE 1(PAY ITEM 653.40).	
REVISIONS	
MARCH 6, 2008 WHF	
JANUARY 13, 2009 WHF	

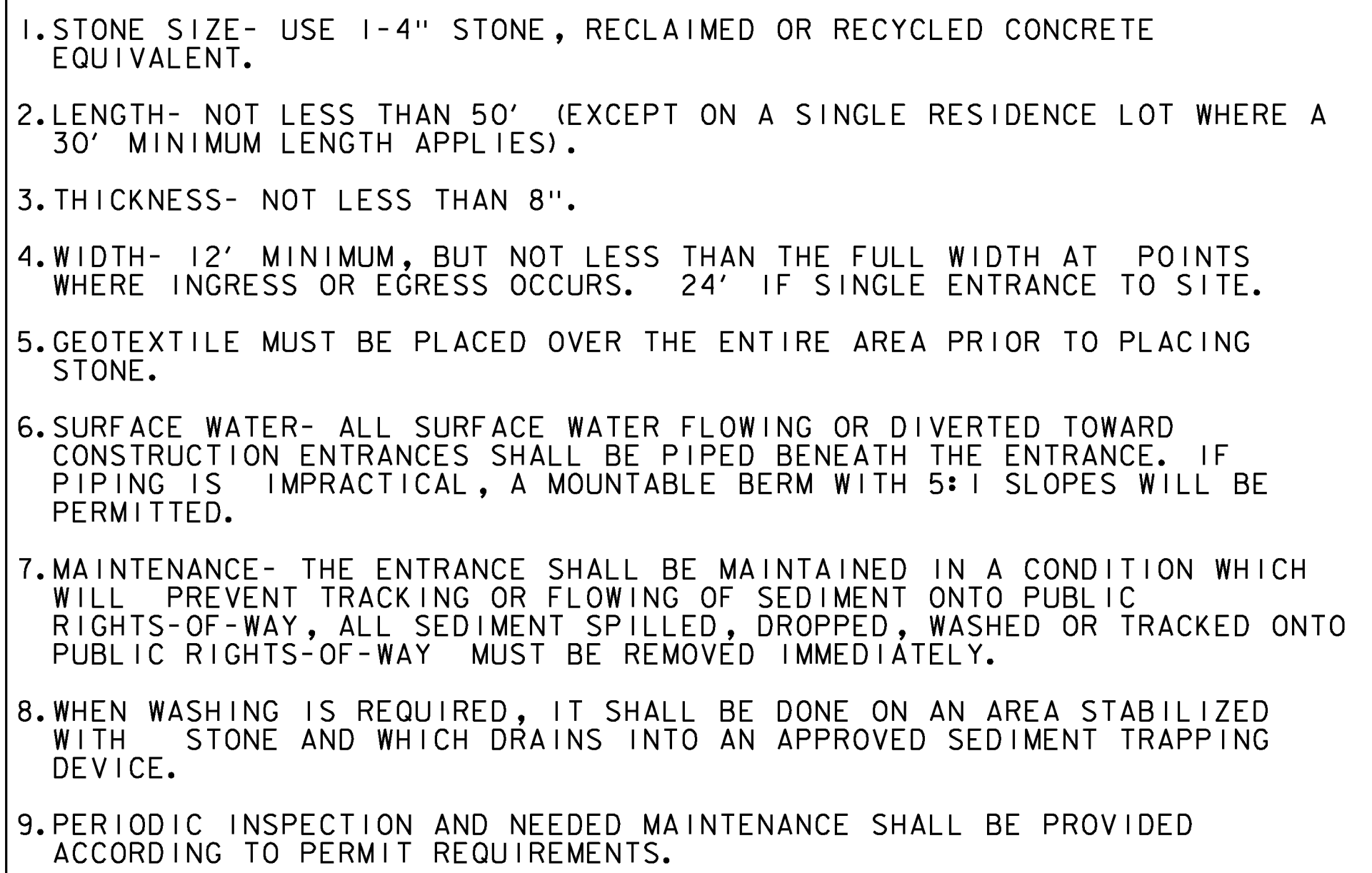
PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME: I5_EPSC Det - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: VTRANS	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
EROSION CONTROL DETAILS ECD 2	SHEET 30 OF 42



SILT FENCE

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



STABILIZED
CONSTRUCTION
ENTRANCE

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH
SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35)
OR AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF

VAOT URBAN AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
42.5%	34	68	CREEPING RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

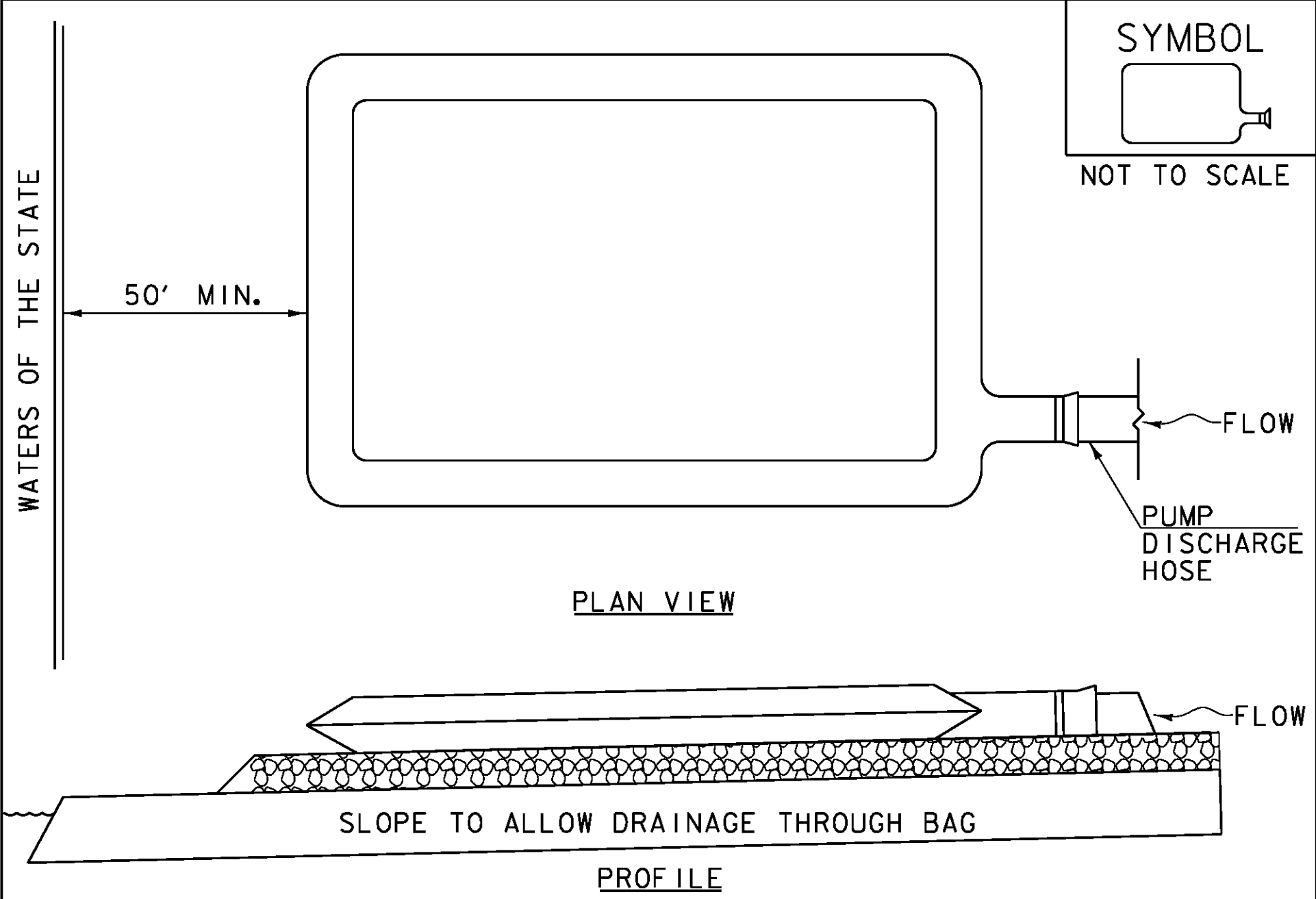
GENERAL GUIDANCE			
FERTILIZER		LIME	
BROADCAST 10-20-10	HYDROSEED 19-19-19	BROADCAST PELLETIZED	HYDROSEED LIQUID
500 LBS/AC		2 TONS/AC	4.4 GAL/AC

1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
4. FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
5. HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE, ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
6. TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.
7. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
8. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

TURF ESTABLISHMENT

REVISIONS	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF

PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(I)	
FILE NAME: I5_EPSC Det - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: VTRANS	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
EROSION CONTROL DETAILS ECD 3	SHEET 31 OF 42



CONSTRUCTION SPECIFICATIONS

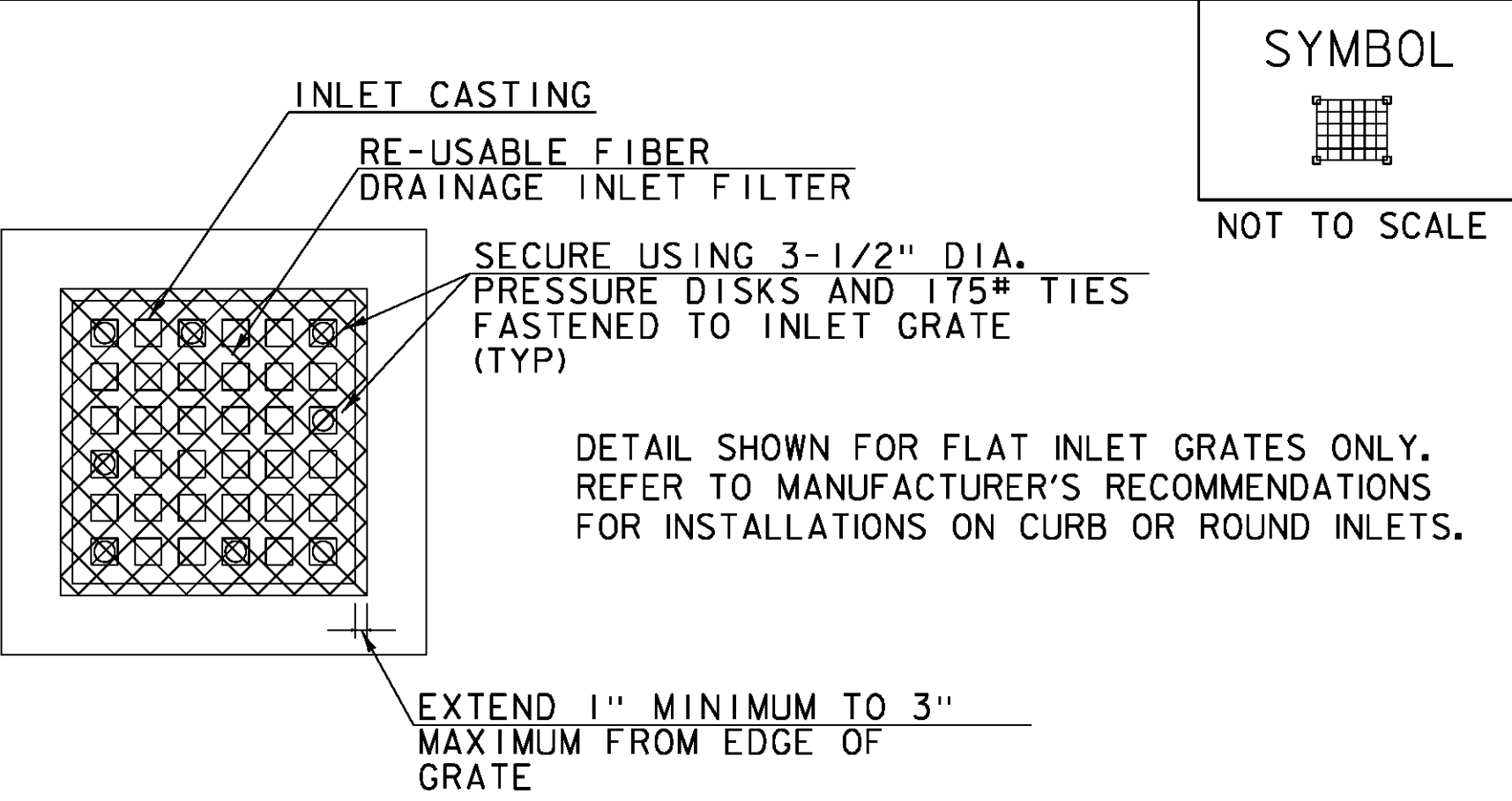
1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.
2. FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
3. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
6. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
7. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

FILTER BAG

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 653 FOR FILTER BAG (PAY ITEM 653.45) AND AS SPECIFIED IN THE CONTRACT.

REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF



CONSTRUCTION SPECIFICATIONS

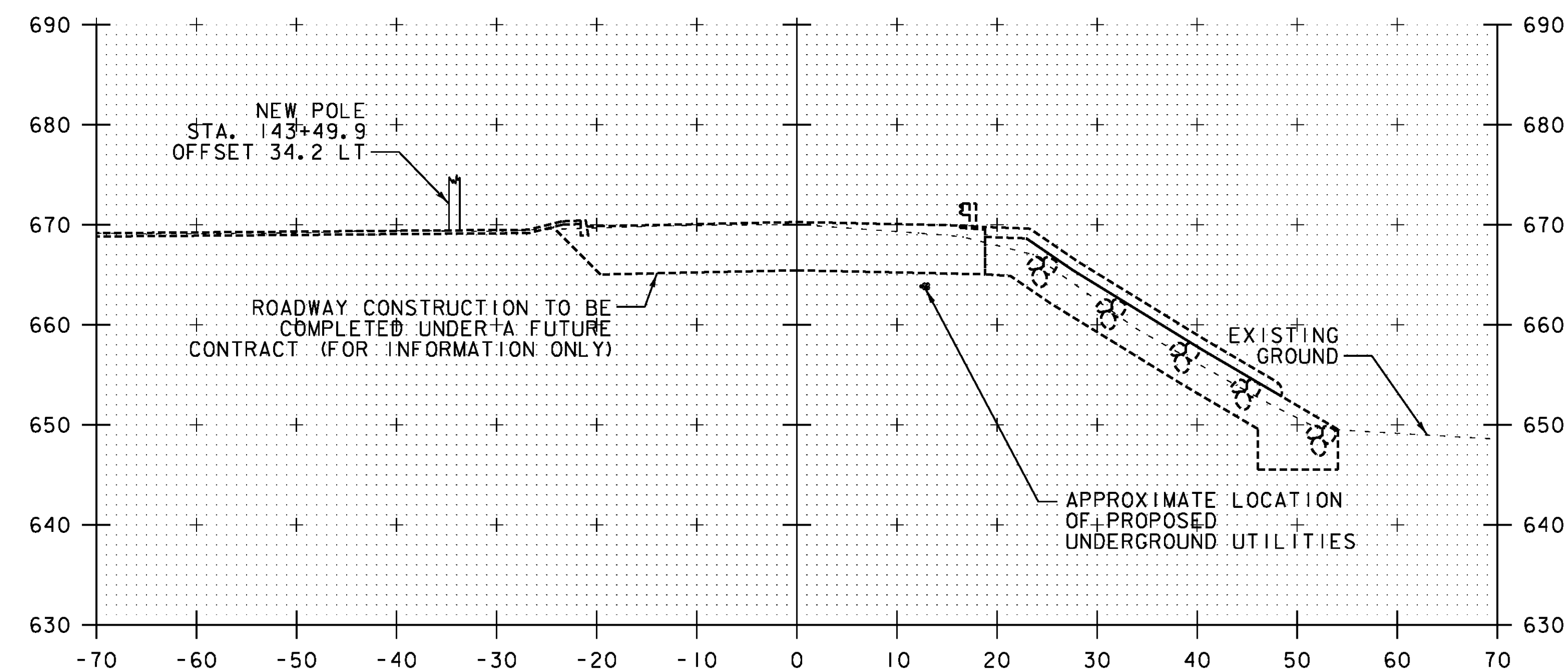
1. FILTERS SHALL RETAIN ALL CONSTRUCTION DEBRIS AND SHALL RETAIN OR OTHERWISE CONTROL MOST OF THE SEDIMENT PRODUCED BY CONSTRUCTION OPERATIONS.
2. IF CLOGGING OCCURS, INLETS SHALL BE ABLE TO BE EASILY UNCLOGGED BY BROOMING THE SIDES AND TOP OF THE FILTER.
3. INSTALLED FILTERS SHALL BE RESISTANT TO TRAFFIC DAMAGE, INCLUDING TRAFFIC BY STREET CLEANING MACHINES.
4. FILTER UNITS SHALL BE BIODEGRADABLE AND MAY OFTEN BE RE-USED.
5. INSTALL FILTER UNIT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. MINIMUM NUMBER OF ANCHORS PER FILTER UNIT: 7 FOR CURB INLETS, 8 FOR FLAT GRATES.
7. INSPECT ALL INSTALLED FILTER UNITS AFTER EVERY RAIN.
8. INSPECT ALL INSTALLED FILTER UNITS PRIOR TO INITIATING CONSTRUCTION ACTIVITIES FOR THE DAY IF RAIN PERSISTS OVERNIGHT.
9. IF, UPON VISUAL INSPECTION, 50% OR MORE OF FILTER FABRIC SURFACE AREA IS INUNDATED WITH SEDIMENT OR FILTER FABRIC IS CLOGGED, CONTRACTOR SHALL BROOM COLLECTED MATERIAL OFF FILTER UNIT SURFACES AND AWAY FROM EDGES.
10. REMOVE SEDIMENT AND DEBRIS COLLECTED AROUND FILTER UNITS. DISPOSE OF COLLECTED SEDIMENT AND DEBRIS AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

INLET PROTECTION
DEVICE, FILTER
FIBER

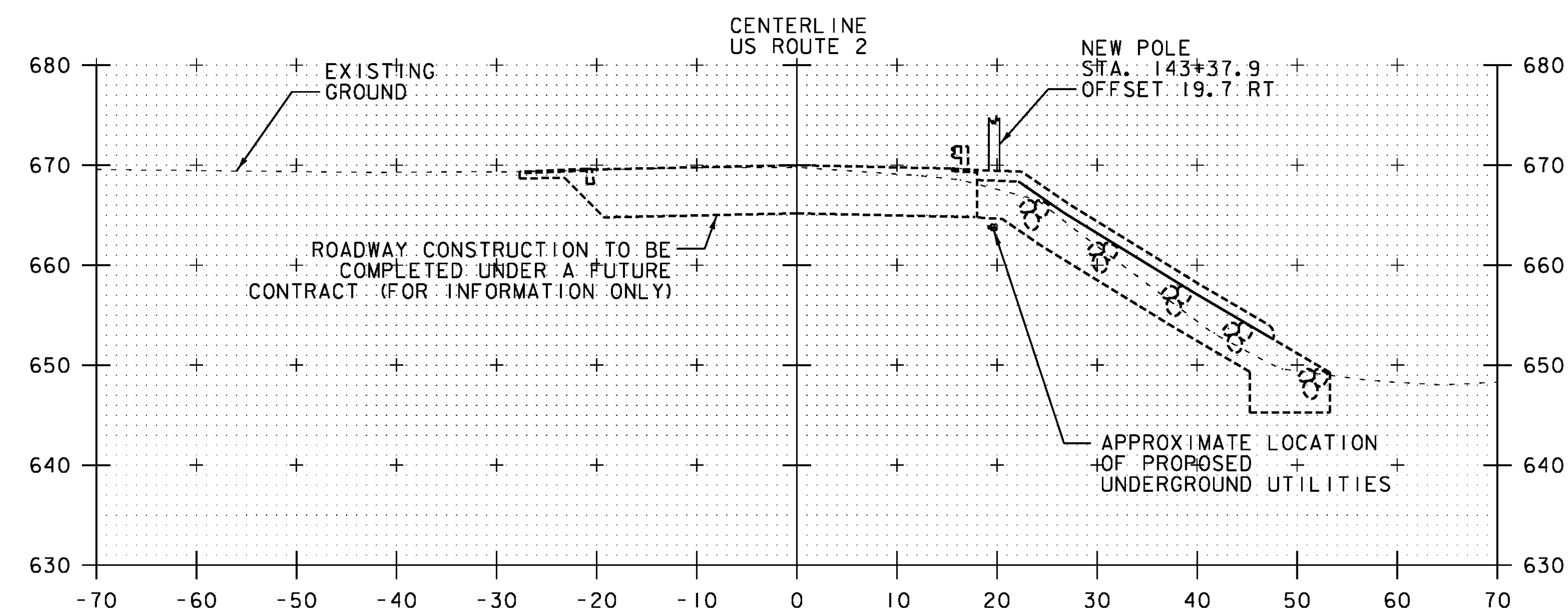
NOTES:
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 900 FOR PAY ITEM 900.620 SPECIAL PROVISION (INLET PROTECTION DEVICE, FILTER FIBER).



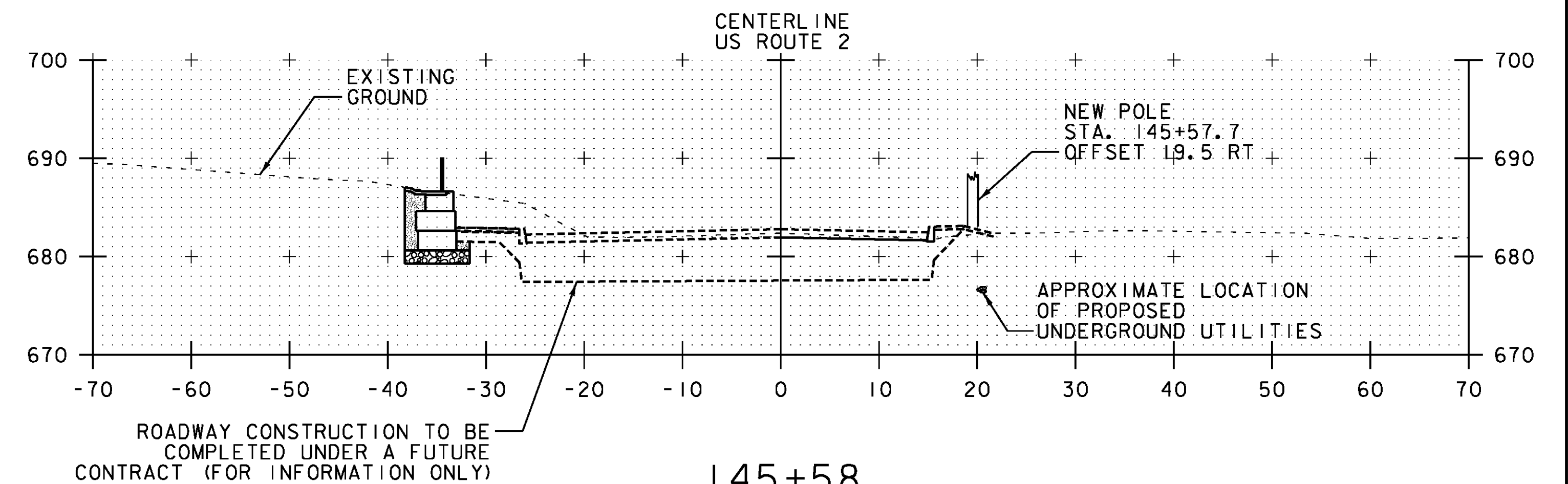
PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(1)	
FILE NAME: I5_EPSC Det - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: VTRANS	DRAWN BY: VTRANS
DESIGNED BY: VTRANS	CHECKED BY: VTRANS
EROSION CONTROL DETAILS ECD 4	SHEET 32 OF 42



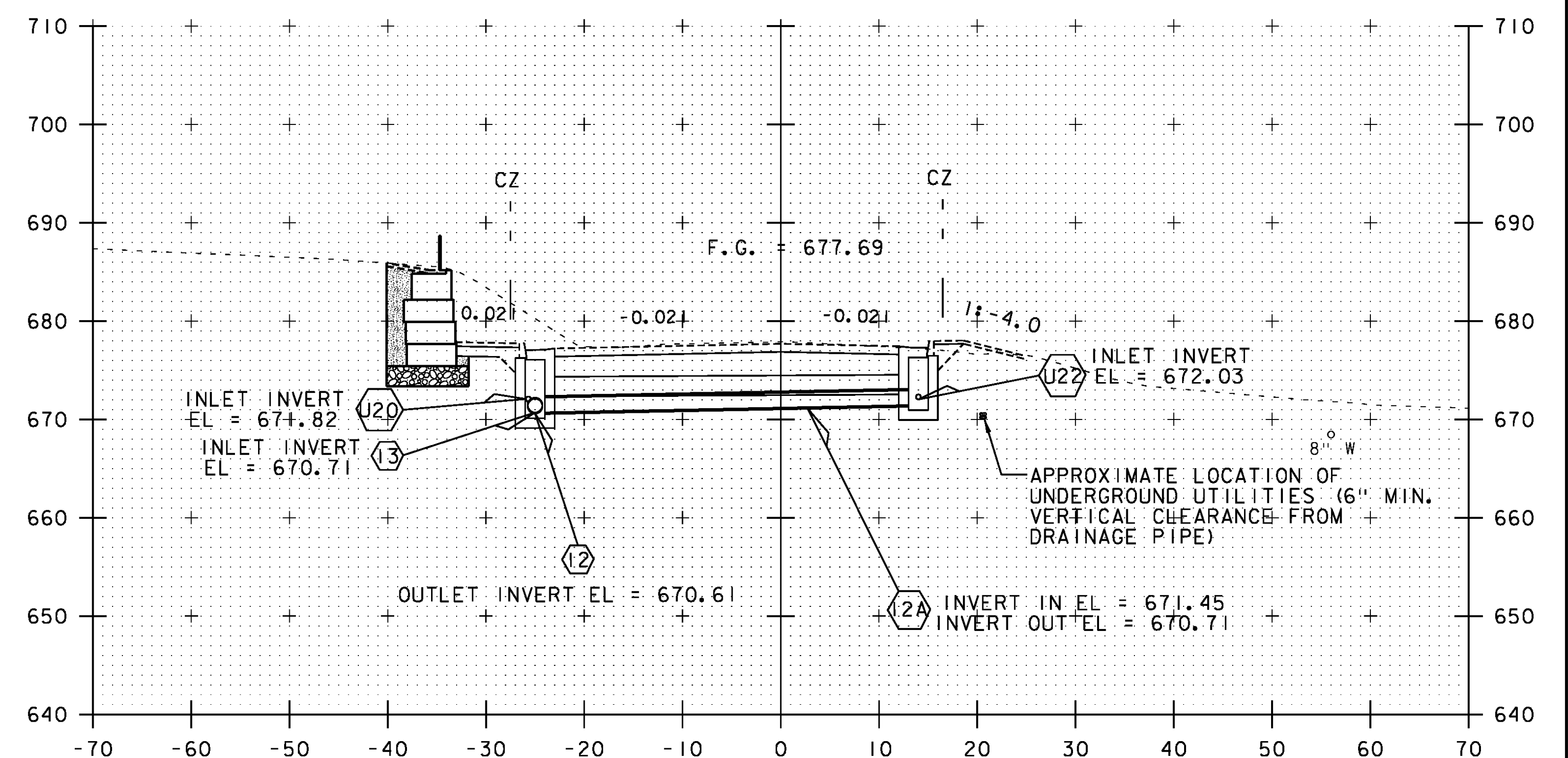
143+50



143+38
CENTERLINE
US ROUTE 2



145+58
CENTERLINE
US ROUTE 2



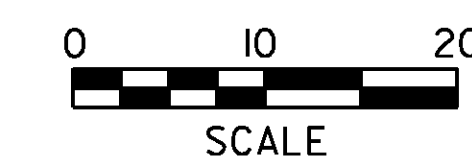
145+00

LEGEND

EXISTING GROUND -----

FUTURE CONSTRUCTION -----

PROPOSED UTILITY POLE
(BY OTHERS)



PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	XS - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	K. RICHARDSON
UTILITY CROSS SECTIONS - UXS 1	
PLOT DATE:	5/26/2016
DRAWN BY:	C. GENDRON
CHECKED BY:	G. GOYETTE
SHEET	33 OF 42

CONSTRUCTION PHASING

PHASE 1 DIRECTIONAL DRILLING FOR UNDERGROUND COMMUNICATIONS:

IT IS ANTICIPATED THAT THE DRILLING AND CONDUIT INSTALLATION WILL TAKE APPROXIMATELY ONE WEEK TO COMPLETE, BUT COULD TAKE LONGER IF UNKNOWN OBSTRUCTIONS ARE ENCOUNTERED. A DRILLING EQUIPMENT STAGING AREA WILL BE IN PLACE FOR THE ENTIRETY OF THIS WORK AND WILL REQUIRE A SHOULDER CLOSURE PACKAGE TO BE IMPLEMENTED TO PROTECT THE TRAVELING PUBLIC FROM HAZARDS THAT WILL BE WITHIN THE ROADWAY CLEAR ZONE. TWO-WAY TRAFFIC WILL BE MAINTAINED THROUGH THE AREA OF THE SHOULDER CLOSURE. TRAFFIC CONTROL FOR THIS WORK IS SHOWN ON THE "WORK ZONE #1" DETAIL SHEET.

AN AREA FOR CONDUIT STAGING AND PULL-BACK WILL BE NECESSARY AT THE EXITING END OF THE DRILLING OPERATION. THIS AREA WILL REQUIRE ALTERNATING ONE-LANE TRAFFIC OPERATIONS AS SHOWN ON THE "WORK ZONE #2" DETAIL SHEET. THE LANE CLOSURE TRAFFIC CONTROL WILL BE IMPLEMENTED DURING NON-PEAK TRAFFIC HOURS AND WILL BE REMOVED AND TWO-LANE TRAFFIC WILL BE RESTORED PRIOR TO PEAK TRAFFIC HOURS.

PHASE 2 DRAINAGE SYSTEMS & UNDERGROUND CONDUIT CONNECTIONS:

DRAINAGE PIPE CROSSINGS OF US-ROUTE 2 WILL BE DONE UTILIZING BOTH OPEN-CUT AND TRENCHLESS METHODS AS SPECIFIED IN THE PLANS. THE OPEN-CUT PIPES WILL REQUIRE ALTERNATING ONE-LANE TRAFFIC CONTROL TO BE IMPLEMENTED DURING NON-PEAK TRAFFIC HOURS AND WILL BE REMOVED AND TWO-LANE TRAFFIC WILL BE RESTORED PRIOR TO PEAK TRAFFIC HOURS. IT IS ANTICIPATED THAT EACH OPEN-CUT PIPE CROSSING WILL TAKE TWO NIGHTS TO COMPLETE.

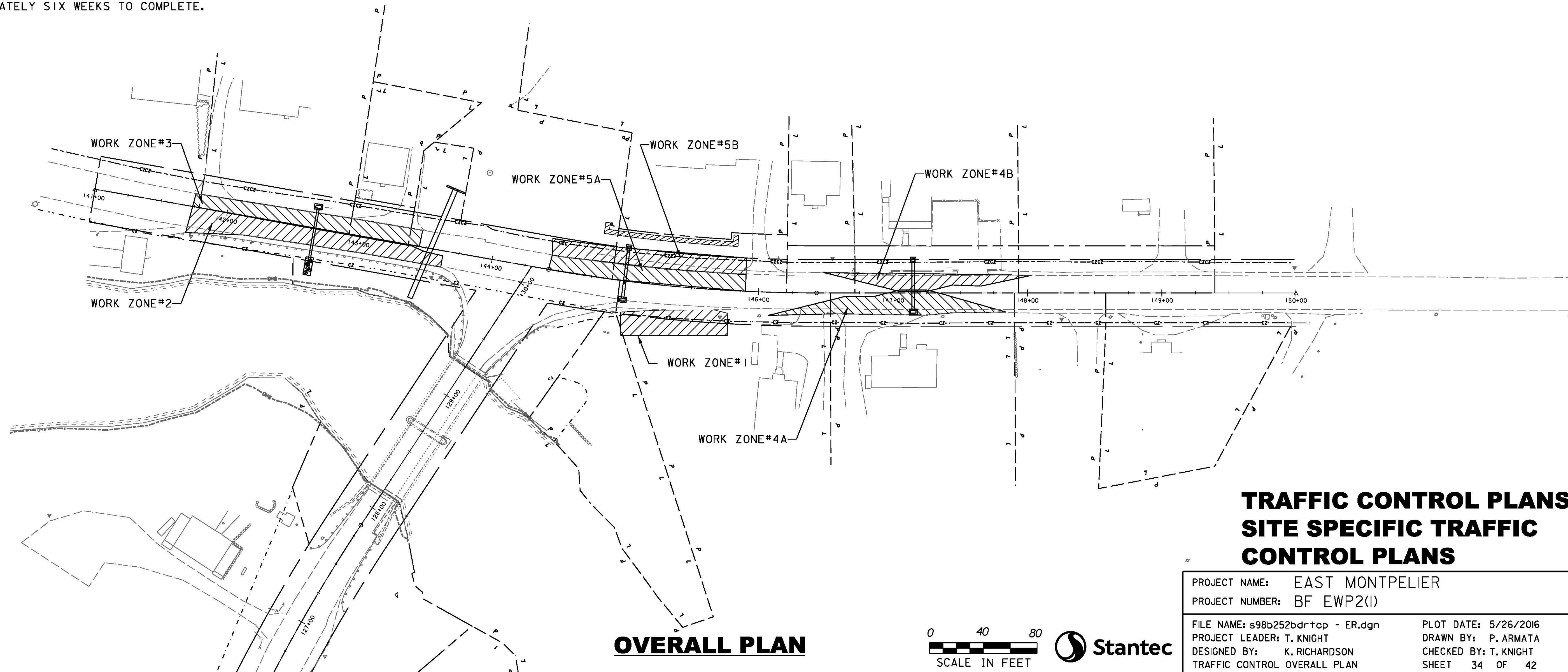
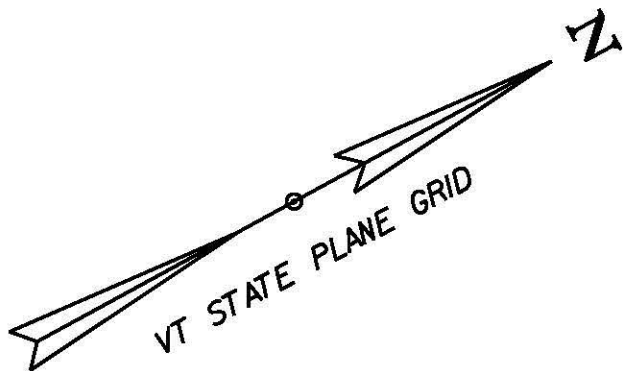
TRAFFIC CONTROL IS NOT NEEDED FOR THE INSTALLATION OF THE TRENCHLESS DRAINAGE PIPES OR THE TRENCHLESS TRAFFIC SIGNAL CONDUIT AS HAZARDS WILL BE LOCATED OUTSIDE OF THE ROADWAY CLEAR ZONE.

DURING THE TIME THAT TRAFFIC CONTROL IS IN PLACE FOR THE OPEN-CUT DRAINAGE INSTALLATION, INTERCEPT PITS WILL BE DUG ADJACENT TO THE UTILITY POLES AND CONDUIT SWEEPS INSTALLED AND SECURED TO THE UTILITY POLES. THE DURATION OF THIS WORK IS EXPECTED TO BE BETWEEN 2-4 HOURS PER PIT LOCATION.

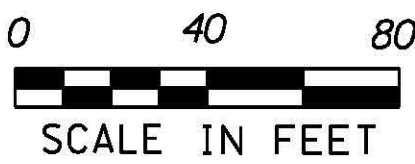
PHASE 3 GRAVITY RETAINING WALL:

THE RETAINING WALL EXCAVATION ADJACENT TO US-2 NECESSARY FOR THE RETAINING WALL WILL REQUIRE ONE-LANE ALTERNATING TRAFFIC AS SHOWN ON THE "WORK ZONE #5A" DETAIL SHEET. TRAFFIC CONTROL FOR THIS WORK WILL BE IMPLEMENTED DURING NON-PEAK TRAFFIC HOURS AND TRAFFIC WILL BE RESTORED TO TWO LANES PRIOR TO PEAK TRAFFIC HOURS. THE DURATION OF THIS WORK IS EXPECTED TO BE APPROXIMATELY TWO NIGHTS.

ONCE THE EXCAVATION IS COMPLETE, TRAFFIC CONTROL FOR THE INSTALLATION OF THE RETAINING WALL WILL BE ADJUSTED TO A SHOULDER CLOSURE AS SHOWN ON THE "WORK ZONE #5B" DETAIL SHEET. THIS WORK IS ANTICIPATED TO TAKE APPROXIMATELY SIX WEEKS TO COMPLETE.



OVERALL PLAN



SITE SPECIFIC TRAFFIC CONTROL GENERAL NOTES

INTRODUCTION

1. THE FOLLOWING SITE SPECIFIC TRAFFIC CONTROL PLAN PROVIDES CONSTRUCTION PHASING AND DETAILED TRAFFIC CONTROL DEVICES TO BE USED TO FACILITATE THE SAFE PASSAGE OF MOTOR VEHICLES WHILE PROTECTING CONSTRUCTION PERSONAL FROM MOTOR VEHICLES.
2. ALL TRAFFIC CONTROL WILL BE IMPLEMENTED IN ACCORDANCE WITH THE 2009 FHWA MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND VTRANS STANDARDS T-1, T-10, T-17, T-24, T-25 AND T-45.
3. ALTERNATING ONE WAY TRAFFIC WILL BE UTILIZED TO COMPLETE THE WORK. ALTERNATING ONE-WAY TRAFFIC WILL NOT BE IN PLACE DURING PEAK TRAFFIC HOURS AS DEFINED IN THE CONTRACT DOCUMENTS (7-9:00 AM AND 3-6:00PM).

GENERAL

4. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE 2009 EDITION OF THE MUTCD AND PAID FOR AS ITEM 641.15 PORTABLE CHANGEABLE MESSAGE SIGN.
5. THE SIGN LOCATIONS ARE APPROXIMATE. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE ENGINEER.
6. DROP OFF PROTECTION IN CONSTRUCTION AREAS SHALL CONFORM TO VTRANS STANDARD SHEET T-1, T-35 AND T-36.
7. TERMINALS OF TEMPORARY TRAFFIC BARRIERS SHALL BE EXTENDED BEYOND THE CLEAR ZONE WHEN POSSIBLE. IF TERMINALS CAN NOT BE EXTENDED BEYOND THE CLEAR ZONE, THEN ENERGY ABSORPTION ATTENUATORS SHALL BE PROVIDED AS DIRECTED BY THE ENGINEER AND SHALL BE CONSIDERED INCIDENTAL TO ITEM 900.645 TRAFFIC CONTROL, ALL-INCLUSIVE.

EMERGENCY ACCESS

8. AT ALL TIMES DURING CONSTRUCTION, THE CONTRACTOR MUST PROVIDE SAFE AND CONVENIENT EMERGENCY ACCESS. LOCAL FIRE, POLICE AND AMBULANCE AGENCIES SHALL BE NOTIFIED BY THE CONTRACTOR PRIOR TO THE START OF WORK IN ORDER TO COORDINATE AND MAINTAIN SUFFICIENT EMERGENCY ROUTES.
9. THE CONTRACTOR SHALL SUBMIT TO THE APPROPRIATE LAW ENFORCEMENT AND EMERGENCY AGENCIES IN WRITING THE NAME, ADDRESS, AND TELEPHONE NUMBER OF THE PERSON OR PERSONS AUTHORIZED TO SECURE LABOR, MATERIALS AND EQUIPMENT FOR EMERGENCY REPAIRS OUTSIDE THE NORMAL WORKING HOURS. DUPLICATE COPIES OF THE ABOVE SHALL BE FILED WITH THE ENGINEER.

PUBLIC INGRESS AND EGRESS

- 10.THE CONTRACTOR SHALL PROVIDE PROPERTY OWNERS WITH PROPER ACCESS TO THEIR DRIVEWAYS AND SHALL MAINTAIN THEM THROUGH ALL TEMPORARY TRAFFIC CONTROL ZONES AND SHALL DELINEATE THEM BY MEANS OF SIGNS, CONES AND/OR DRUMS AND POST FLAGGERS AS DIRECTED BY THE ENGINEER.
- 11.THE CONTRACTOR SHALL NOTIFY THE OWNERS/USERS OF DRIVEWAYS AT LEAST 24 HOURS IN ADVANCE OF ANY WORK TO BE DONE AT THAT LOCATION. COMMERCIAL ESTABLISHMENTS SHALL HAVE A MINIMUM OF ONE DRIVEWAY OPEN AT ALL TIMES DURING NORMAL BUSINESS HOURS. THE CONTRACTOR HAS THE RESPONSIBILITY OF MAINTAINING SAFE AND PROPER ACCESS TO BUILDINGS IN THE VICINITY OF CONSTRUCTION.
- 12.ADVANCE POSTING DISTANCE FOR SIGNS SHALL BE PER VTRANS STANDARD SHEETS T-1, T-10, T-17, T-28, T-29, T-30 AND T-31.
- 13.ALL CONSTRUCTION SIGNS SHALL BE BLACK LETTERS ON REFLECTORIZED FLUORESCENT ORANGE BACKGROUND, AS IN SPECIFIED VTRANS STANDARDS.
- 14.SIGN MOUNTING HEIGHT SHALL BE 7 FEET IN ALL AREAS WHERE PEDESTRIANS AND PARKED CARS ARE ENCOUNTERED, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 15.NO DESIGNATED PEDESTRIAN ROUTES EXIST ON USE ROUTE 2 THROUGH THE PROJECT LIMITS, OCCASIONAL PEDESTRIAN TRAFFIC IS STILL EXPECTED. WHEN POSSIBLE, TRAFFIC CONTROL PLANS PROVIDE FOR A MINIMUM 3 FOOT WIDE SHOULDER FOR PEDESTRIAN TRAFFIC. DURING NIGHTTIME LANE CLOSURES WHEN SPACE DOES NOT ALLOW FOR A PEDESTRIAN CORRIDOR, THE CONTRACTOR WILL PROVIDE DESIGNATED STAFF TO ESCORT THE OCCASIONAL PEDESTRIANS THROUGH THE WORK AREA. THIS STAFF WILL BE IN COMMUNICATION WITH THE ROADWAY FLAGGERS BY TWO WAY RADIO.

FLAGGING AND UNIFORMED TRAFFIC OFFICERS

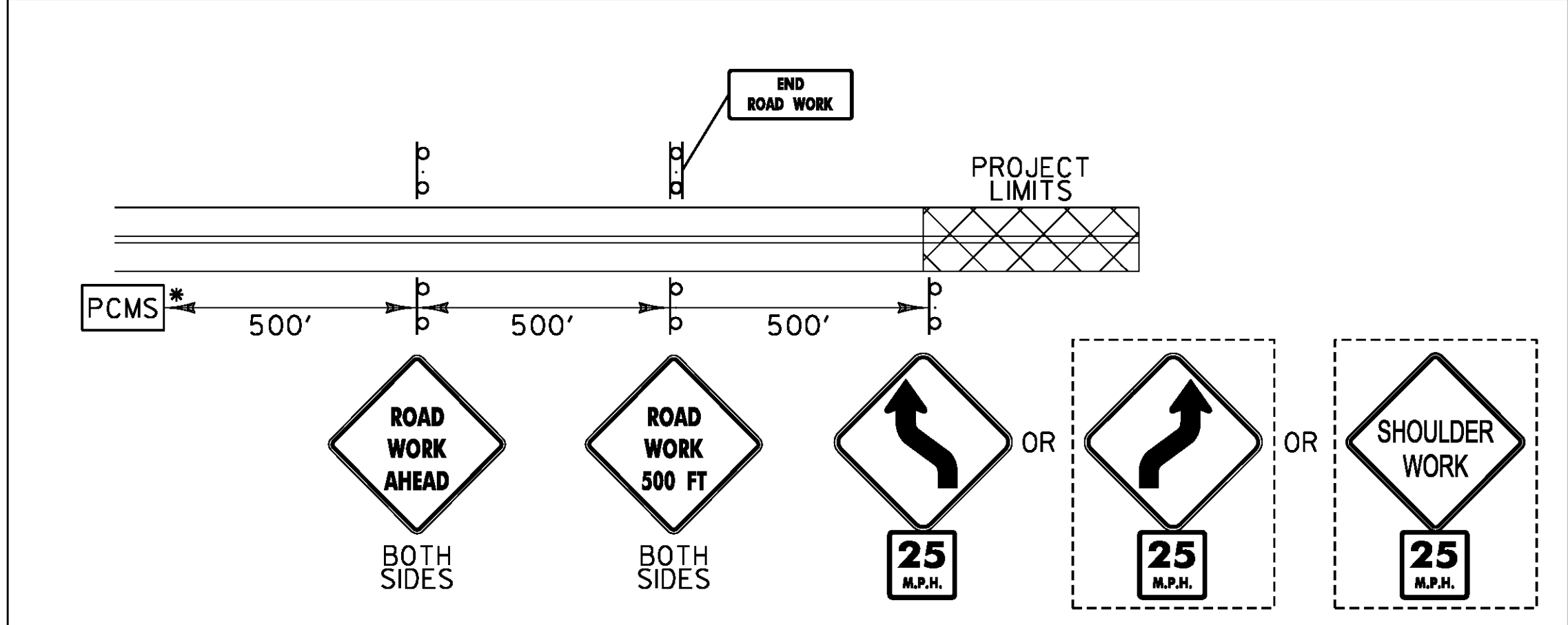
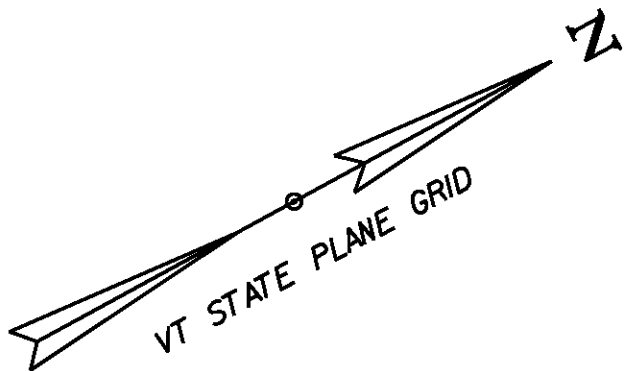
- 16.THE CONTRACTOR SHALL PROVIDE FLAGGERS FOR ONE LANE TRAFFIC CONTROL , AND AT LOCATIONS WHERE SIGHT DISTANCES ARE IMPAIRED BY CONSTRUCTION OPERATIONS OR OTHER SITUATIONS AS DIRECTED BY THE ENGINEER. FLAGGERS SHALL HAVE THE AUTHORITY TO STOP AND RELEASE TRAFFIC ONLY. UNIFORMED TRAFFIC OFFICERS (UTO'S) SHALL BE PROVIDED TO DIRECT OR CONTROL TRAFFIC, AND SHALL BE PROVIDED DURING ALL WORK ACTIVITIES THAT AFFECT OPERATIONS AT INTERSECTIONS AND OTHER SITUATIONS AS DIRECTED BY ENGINEER. SEE SECTION 630 OF THE 2011 STANDARD SPECIFICATIONS FOR CONSTRUCTION FOR ADDITIONAL REQUIREMENTS FOR UTO'S AND FLAGGERS.
- 17.FLAGGING STATIONS SHALL BE ADJACENT TO THE TRAFFIC LANES BEING CONTROLLED AND SHALL BE POSITIONED SO THAT FLAGGER VISIBILITY TO APPROACHING TRAFFIC IS OPTIMIZED. THE FLAGGER SHALL BE READILY VISIBLE TO APPROACHING TRAFFIC
- 18.BETWEEN 250 FEET AND 300 FEET IN ADVANCE OF THE FLAGGER LOCATION. ACCORDINGLY, THE TANGENT DIMENSIONS ON EACH END OF THE WORK AREA SHALL BE ESTABLISHED TO ACHIEVE THE APPROPRIATE FLAGGING STATION LOCATION, AS DIRECTED BY THE ENGINEER.
- 19.FLAGGERS SHALL BE REQUIRED TO USE TWO-WAY RADIOS, WALKIE-TALKIES OR OTHER FORMS OF ENHANCED COMMUNICATION WHEN ONE FLAGGER IS NOT VISIBLE TO THE OTHER, OR IF THE ENGINEER DEEMS IT NECESSARY.
- 20.STOP/SLOW PADDLES SHALL BE USED FOR ALL FLAGGING, AND SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE M.U.T.C.D. AND STATE STANDARD T-30.
21. FLAGGER STATIONS FOR NIGHT WORK SHALL BE ILLUMINATED TO A MINIMUM CATEGORY ONE (5 FOOT CANDLES) ILLUMINANCE LEVEL PER NCHRP REPORT 476.

NIGHT WORK

22. NIGHT WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM (NCHRP) REPORT 476 - "GUIDELINES FOR DESIGN AND OPERATION OF NIGHTTIME TRAFFIC CONTROL FOR HIGHWAY MAINTENANCE AND CONSTRUCTION". REFER TO THE CONTRACT SPECIAL PROVISION FOR COMPLETE LIST OF REQUIREMENTS FOR WORKING AT NIGHT. CONTRACTOR SHALL SUBMIT A SITE SPECIFIC LIGHTING PLAN FOR APPROVAL. ALL COSTS ASSOCIATED WITH THE DESIGN AND IMPLEMENTATION OF THE LIGHTING SYSTEM WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 900.645 SPECIAL PROVISION (TRAFFIC CONTROL, ALL-INCLUSIVE).

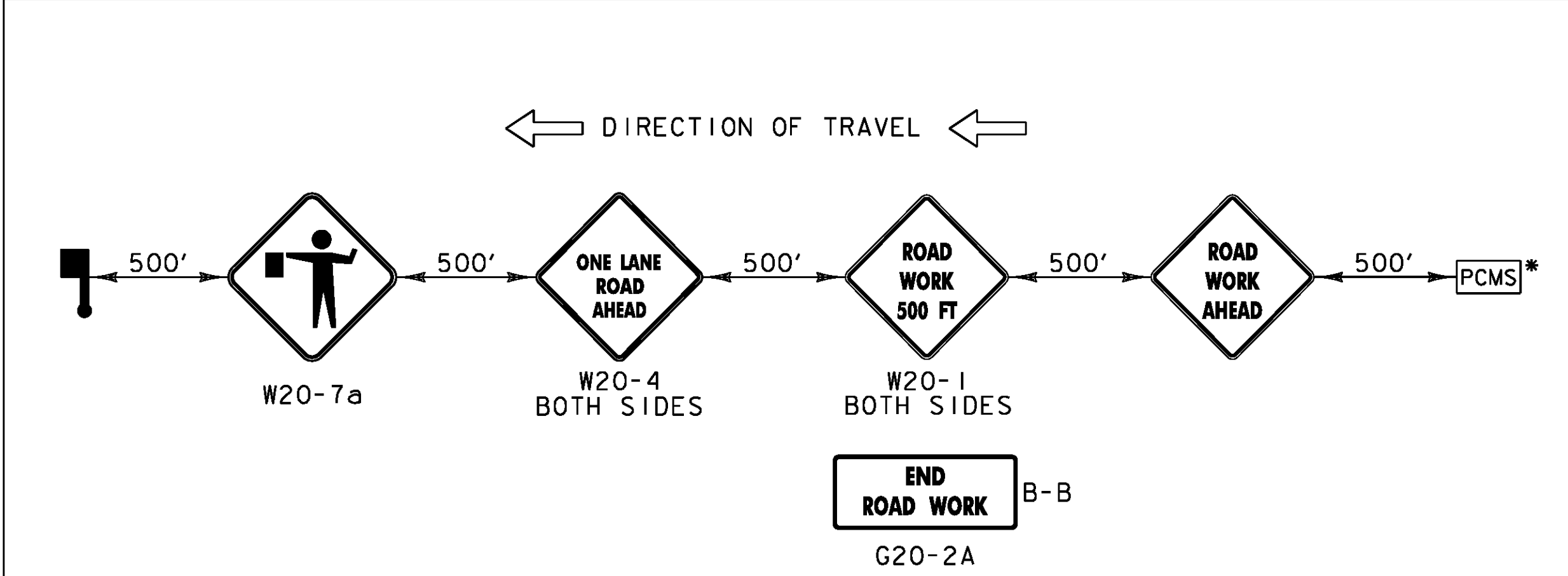


PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(1)	
FILE NAME: s98b252bdrtcp - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: C.GENDRON
DESIGNED BY: C. GENDRON	CHECKED BY: K. RICHARDSON
TRAFFIC CONTROL NOTES	SHEET 35 OF 42



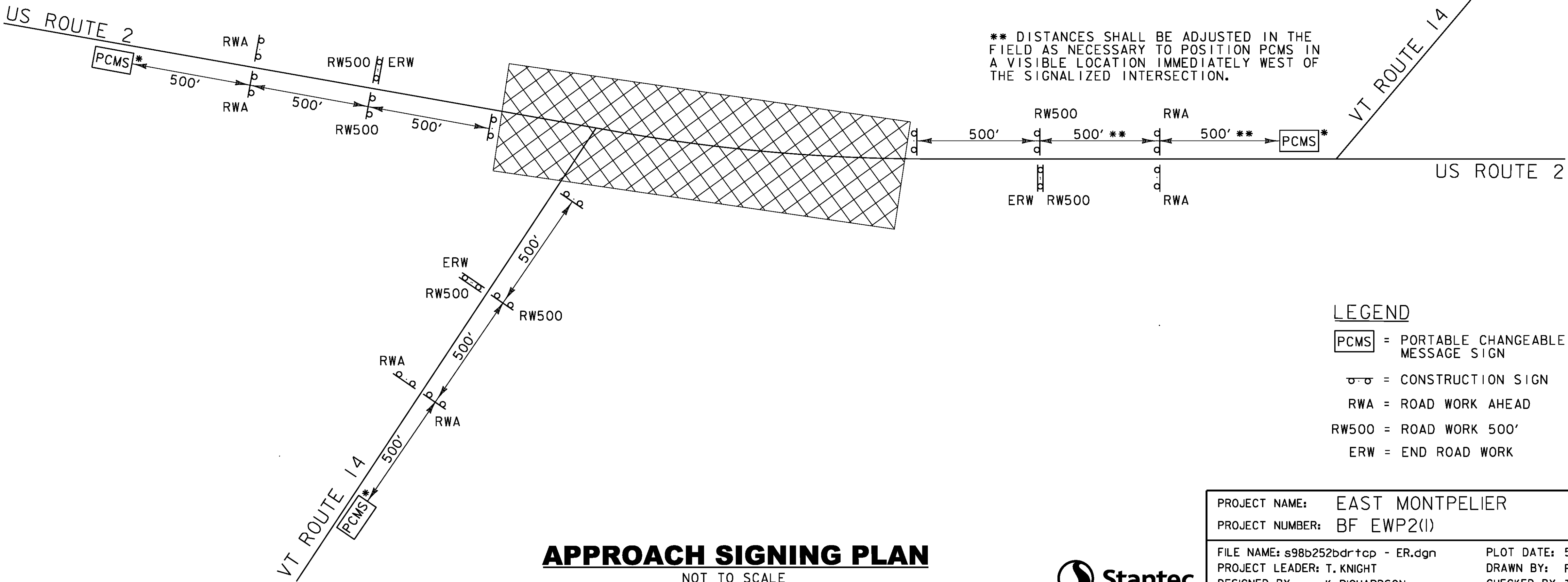
APPROACH SIGNING PACKAGE

*THE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE MUTCD.



FLAGGER APPROACH SIGNING PACKAGE

*THE PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.60 OF THE MUTCD.



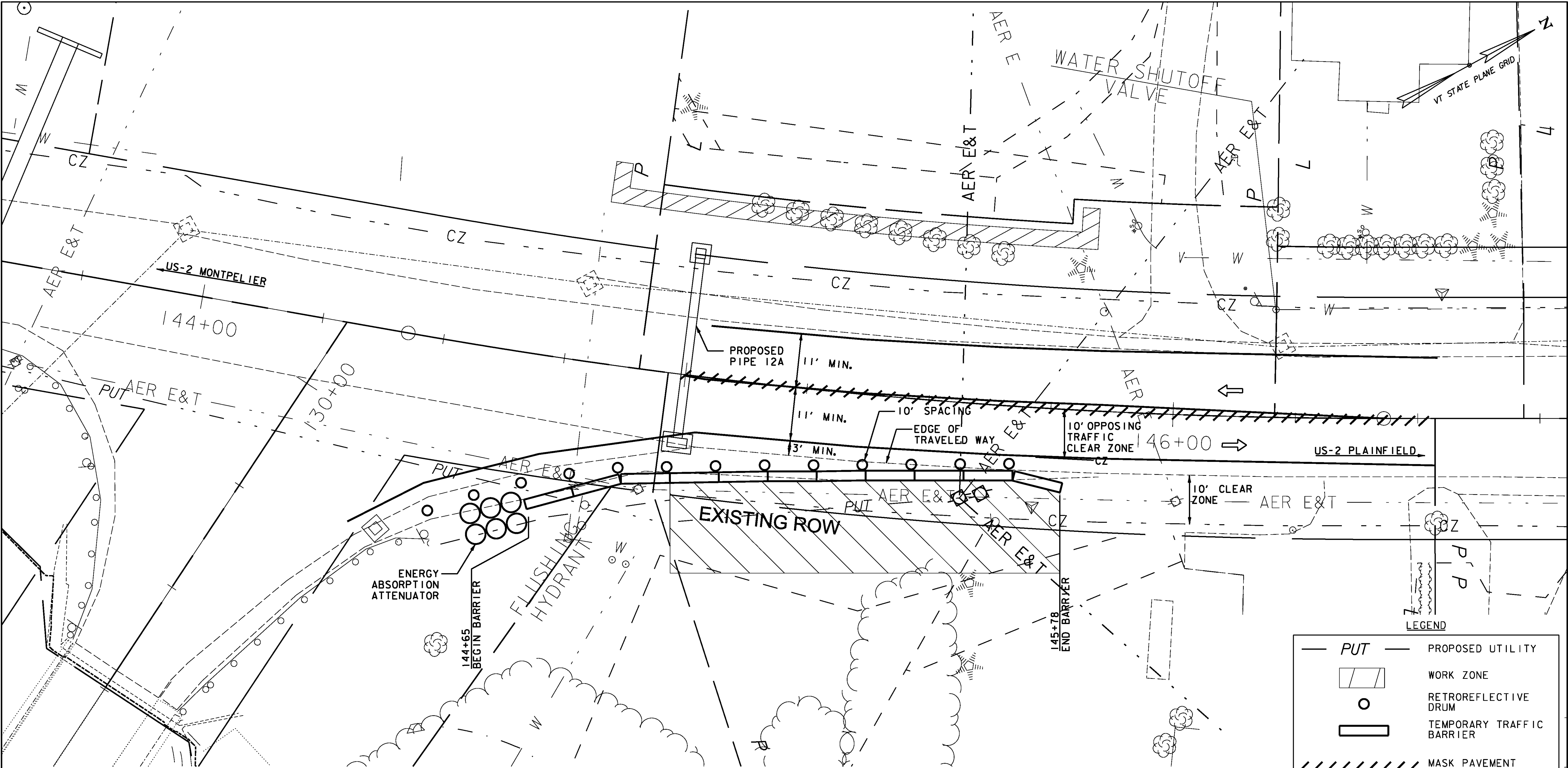
APPROACH SIGNING PLAN
NOT TO SCALE

LEGEND

- PCMS = PORTABLE CHANGEABLE MESSAGE SIGN
- ⏏ = CONSTRUCTION SIGN
- RWA = ROAD WORK AHEAD
- RW500 = ROAD WORK 500'
- ERW = END ROAD WORK

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME: s98b252bdrtcp - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: P. ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: T. KNIGHT
APPROACH SIGNING PLAN	SHEET 36 OF 42





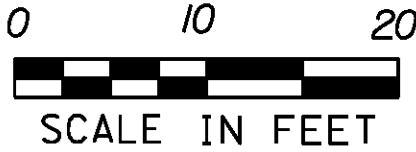
WORK ZONE #1 NOTES

OBJECTIVE: THE PURPOSE OF WORK ZONE #1 IS TO PROTECT THE TRAVELING PUBLIC FROM CONSTRUCTION HAZARDS STAGED WITHIN THE ROADWAY CLEAR ZONE THAT ARE NECESSARY TO COMPLETE THE DIRECTIONAL DRILLING FOR THE INSTALLATION OF POWER AND COMMUNICATION CONDUITS. THE ROADWAY SHOULDER WILL BE CLOSED AND TWO-WAY TRAFFIC MAINTAINED ALONG US-2 AT ALL TIMES.

THIS TRAFFIC CONTROL PACKAGE WILL BE IMPLEMENTED AND LEFT IN PLACE FOR THE DURATION OF THE DRILLING OPERATIONS (APPROXIMATELY ONE WEEK) AND WILL BE COMPLETELY REMOVED AFTER DRILLING WORK IS COMPLETE. FLAGGERS/UTO'S WILL NOT BE NEEDED FOR THIS WORK ZONE.

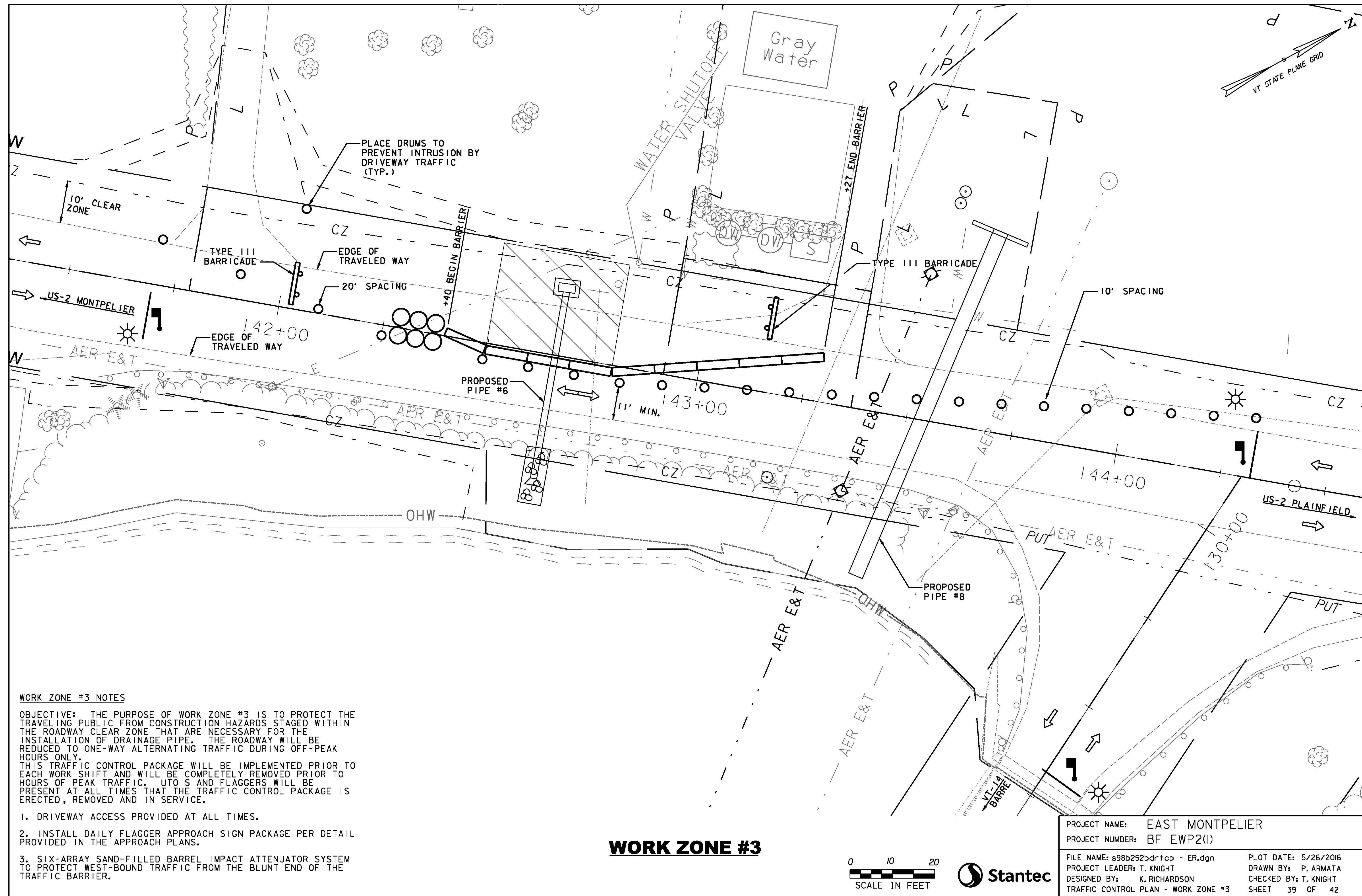
1. IF EXISTING PAVEMENT MARKINGS ARE COVERED BY TEMPORARY TRAFFIC BARRIER, TEMPORARY TAPE OR TEMPORARY RAISED PAVEMENT MARKERS SHALL BE USED TO DELINEATE THE TRAVEL LANES AT ALL TIMES THAT THE EXISTING MARKINGS ARE OBSTRUCTED. PAYMENT FOR TEMPORARY MARKINGS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR TRAFFIC CONTROL, ALL-INCLUSIVE.

WORK ZONE #1



	PUT	PROPOSED UTILITY
	WORK ZONE	
	RETROREFLECTIVE DRUM	
	TEMPORARY TRAFFIC BARRIER	
	MASK PAVEMENT MARKING	
	ENERGY ABSORPTION ATTENUATOR	
	DIRECTION OF TRAVEL	
	FLAGGER	
	FLAGGER STATION ILLUMINATION	

PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	s98b252bdrtcp - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	K. RICHARDSON
TRAFFIC CONTROL PLAN - WORK ZONE #1	
PLOT DATE:	5/26/2016
DRAWN BY:	P. ARMATA
CHECKED BY:	T. KNIGHT
SHEET	37 OF 42



WORK ZONE #3 NOTES

OBJECTIVE: THE PURPOSE OF WORK ZONE #3 IS TO PROTECT THE TRAVELING PUBLIC FROM CONSTRUCTION HAZARDS STAGED WITHIN THE ROADWAY CLEAR ZONE THAT ARE NECESSARY FOR THE INSTALLATION OF DRAINAGE PIPE. THE ROADWAY WILL BE REDUCED TO ONE-WAY ALTERNATING TRAFFIC DURING OFF-PEAK HOURS ONLY. THIS TRAFFIC CONTROL PACKAGE WILL BE IMPLEMENTED PRIOR TO EACH WORK SHIFT AND WILL BE COMPLETELY REMOVED PRIOR TO HOURS OF PEAK TRAFFIC. UTO S AND FLAGGERS WILL BE PRESENT AT ALL TIMES THAT THE TRAFFIC CONTROL PACKAGE IS ERECTED, REMOVED AND IN SERVICE.

1. DRIVEWAY ACCESS PROVIDED AT ALL TIMES.
2. INSTALL DAILY FLAGGER APPROACH SIGN PACKAGE PER DETAIL PROVIDED IN THE APPROACH PLANS.
3. SIX-ARRAY SAND-FILLED BARREL IMPACT ATTENUATOR SYSTEM TO PROTECT WEST-BOUND TRAFFIC FROM THE BLUNT END OF THE TRAFFIC BARRIER.

WORK ZONE #3

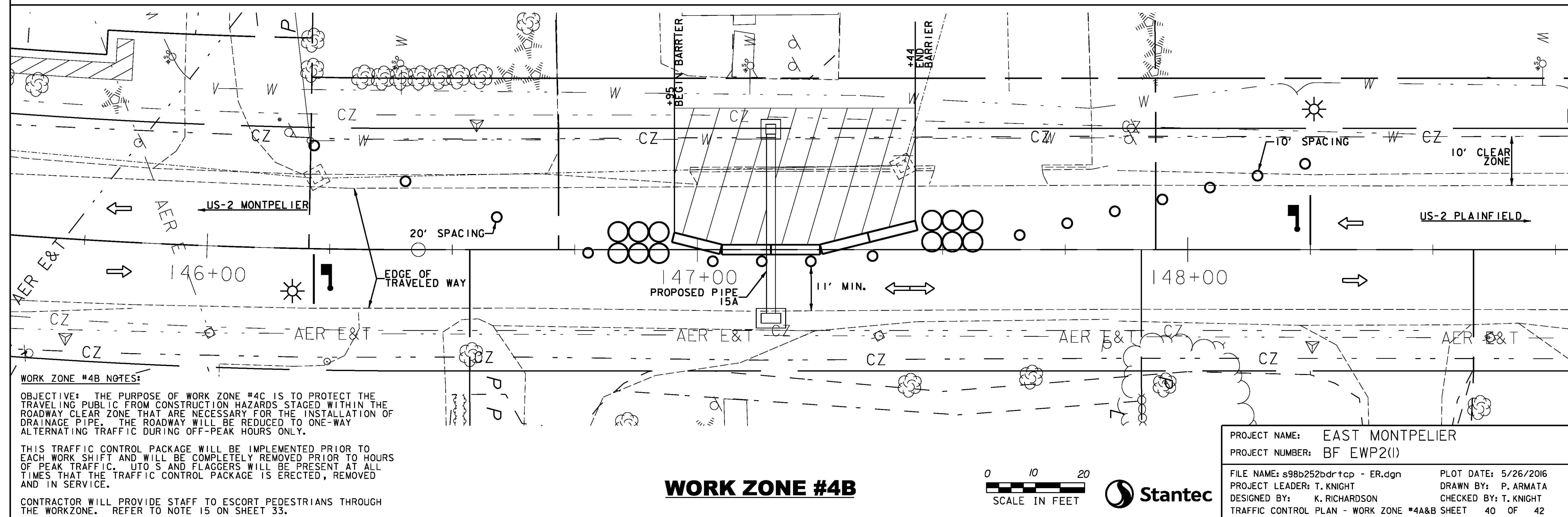
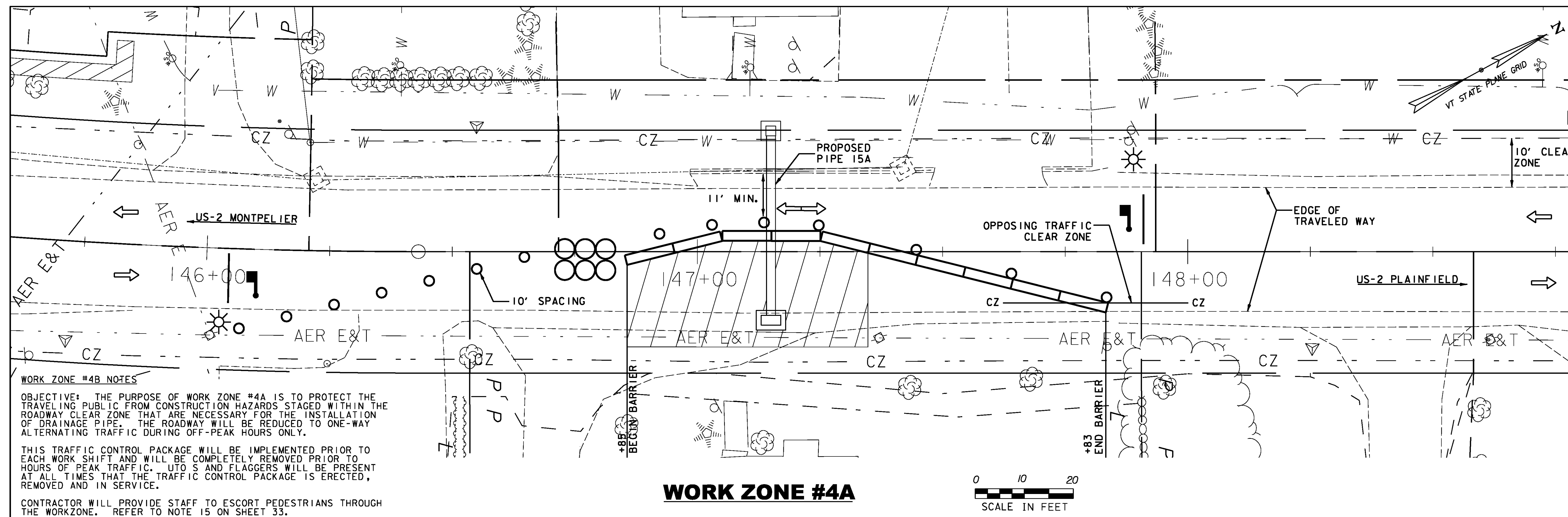
0 10 20
SCALE IN FEET



PROJECT NAME: EAST MONTPELIER
PROJECT NUMBER: BF EWP2(1)

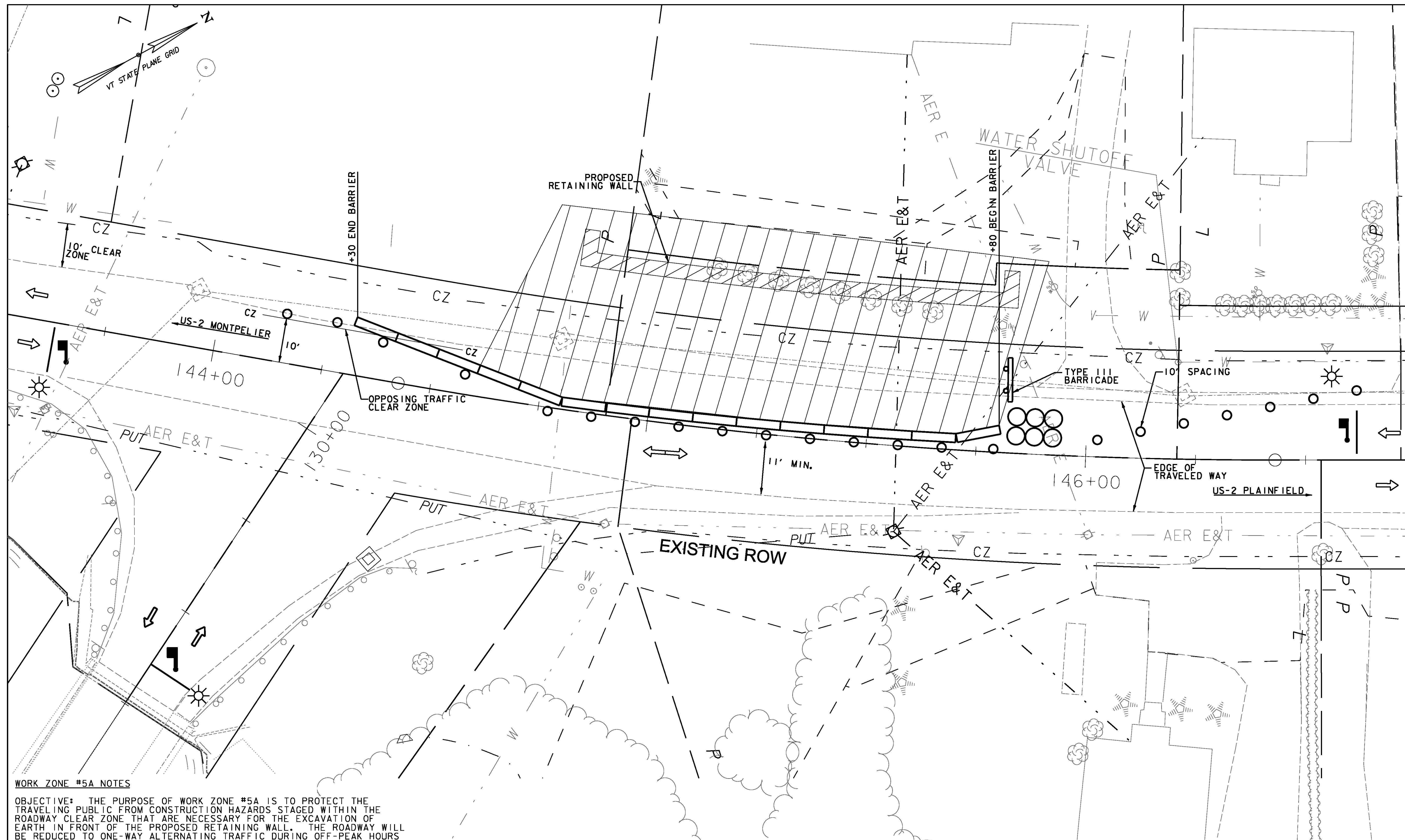
FILE NAME: s98b252bdrtcp - ER.dgn
PROJECT LEADER: T. KNIGHT
DESIGNED BY: K. RICHARDSON
TRAFFIC CONTROL PLAN - WORK ZONE #3

PLOT DATE: 5/26/2016
DRAWN BY: P. ARMATA
CHECKED BY: T. KNIGHT
SHEET 39 OF 42



PROJECT NAME:	EAST MONTPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	s98b252bdrtcp - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	K. RICHARDSON
TRAFFIC CONTROL PLAN - WORK ZONE #4A&B SHEET	40 OF 42
PLOT DATE:	5/26/2016
DRAWN BY:	P. ARMATA
CHECKED BY:	T. KNIGHT





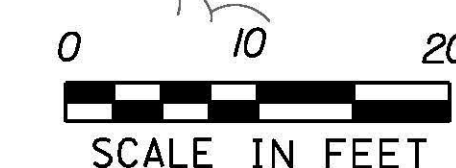
WORK ZONE #5A NOTES

OBJECTIVE: THE PURPOSE OF WORK ZONE #5A IS TO PROTECT THE TRAVELING PUBLIC FROM CONSTRUCTION HAZARDS STAGED WITHIN THE ROADWAY CLEAR ZONE THAT ARE NECESSARY FOR THE EXCAVATION OF EARTH IN FRONT OF THE PROPOSED RETAINING WALL. THE ROADWAY WILL BE REDUCED TO ONE-WAY ALTERNATING TRAFFIC DURING OFF-PEAK HOURS ONLY.

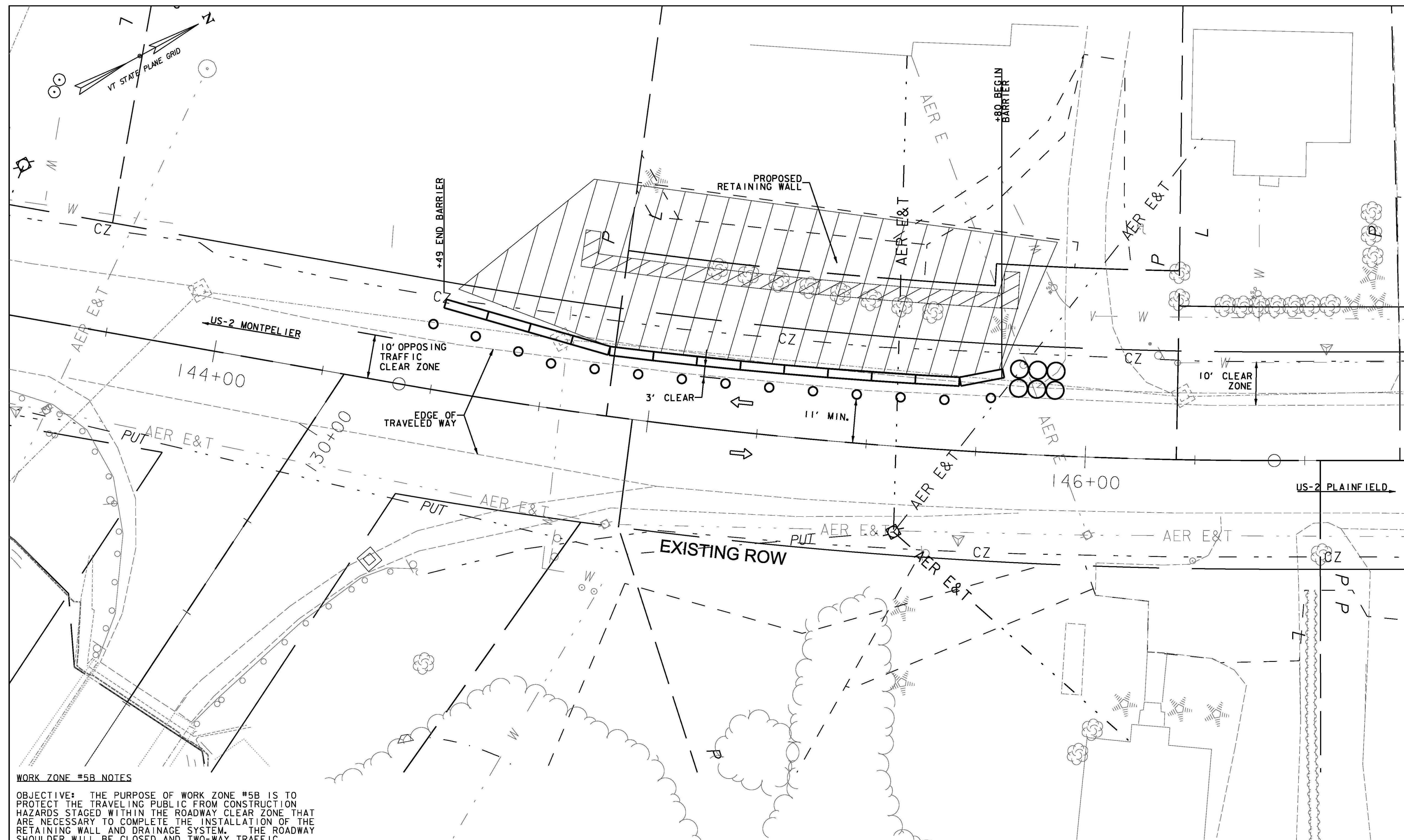
THIS TRAFFIC CONTROL PACKAGE WILL BE IMPLEMENTED PRIOR TO EACH WORK SHIFT AND WILL BE COMPLETELY REMOVED PRIOR TO HOURS OF PEAK TRAFFIC. UTO S AND FLAGGERS WILL BE PRESENT AT ALL TIMES THAT THE TRAFFIC CONTROL PACKAGE IS ERECTED, REMOVED AND IN SERVICE.

CONTRACTOR WILL PROVIDE STAFF TO ESCORT PEDESTRIANS THROUGH THE WORKZONE. REFER TO NOTE 15 ON SHEET 33.

WORK ZONE #5A



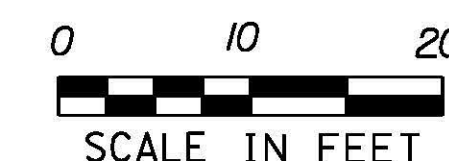
PROJECT NAME:	EAST MONTEPELIER
PROJECT NUMBER:	BF EWP2(1)
FILE NAME:	s98b252bdrtcp - ER.dgn
PROJECT LEADER:	T. KNIGHT
DESIGNED BY:	K. RICHARDSON
TRAFFIC CONTROL PLAN - WORK ZONE #5A	
PLOT DATE:	5/26/2016
DRAWN BY:	P. ARMATA
CHECKED BY:	T. KNIGHT
SHEET	41 OF 42



WORK ZONE #5B NOTES

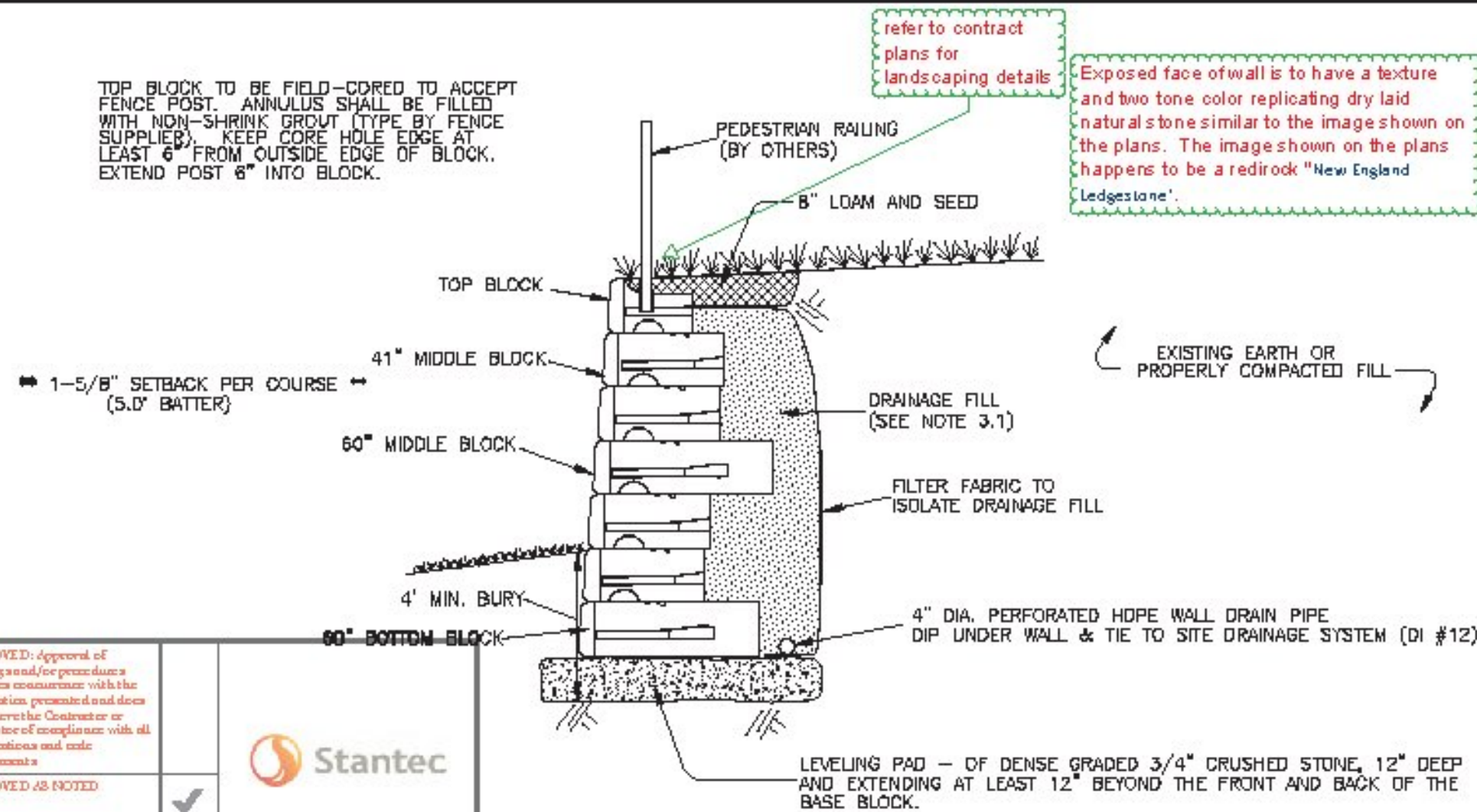
OBJECTIVE: THE PURPOSE OF WORK ZONE #5B IS TO PROTECT THE TRAVELING PUBLIC FROM CONSTRUCTION HAZARDS STAGED WITHIN THE ROADWAY CLEAR ZONE THAT ARE NECESSARY TO COMPLETE THE INSTALLATION OF THE RETAINING WALL AND DRAINAGE SYSTEM. THE ROADWAY SHOULDER WILL BE CLOSED AND TWO-WAY TRAFFIC MAINTAINED ALONG US-2 AT ALL TIMES. THIS TRAFFIC CONTROL PACKAGE WILL BE IMPLEMENTED AND LEFT IN PLACE FOR THE DURATION OF THE RETAINING WALL CONSTRUCTION (APPROXIMATELY SIX WEEKS) AND WILL BE COMPLETELY REMOVED AFTER WORK IS COMPLETE. FLAGGERS/UTOS WILL NOT BE NEEDED FOR THIS WORK ZONE, WITH THE EXCEPTION OF FLAGGERS USED OCCASIONALLY TO FACILITATE MATERIAL DELIVERIES.

WORK ZONE #5B



PROJECT NAME: EAST MONTPELIER	
PROJECT NUMBER: BF EWP2(1)	
FILE NAME: s98b252bdrtcp - ER.dgn	PLOT DATE: 5/26/2016
PROJECT LEADER: T. KNIGHT	DRAWN BY: P. ARMATA
DESIGNED BY: K. RICHARDSON	CHECKED BY: T. KNIGHT
TRAFFIC CONTROL PLAN - WORK ZONE #5B	SHEET 42 OF 42

TOP BLOCK TO BE FIELD-CORED TO ACCEPT FENCE POST. ANNUUS SHALL BE FILLED WITH NON-SHRINK GROUT (TYPE BY FENCE SUPPLIER). KEEP CORE HOLE EDGE AT LEAST 6" FROM OUTSIDE EDGE OF BLOCK. EXTEND POST 6" INTO BLOCK.



APPROVED: Approval of drawings and/or presentation information, presented and does not reflect the Contractor or Permittee of compliance with all specifications and code requirements.

APPROVED AS NOTED: [checkmark]

REVIEW AND REVISIONS: [checkmark]

NOT REVIEWED: [checkmark]

Date: 9/9/16

Signature: TEK

This review by Stantec Consulting Services, Inc. is for the purpose of ensuring compliance with the general design intent. This review shall not constitute a warranty or representation of the Contractor or Permittee of compliance with all specifications and code requirements. The Contractor is responsible for ensuring that the design is in accordance with the project requirements and for obtaining all necessary permits and approvals. The Contractor is responsible for ensuring that the design is in accordance with the project requirements and for obtaining all necessary permits and approvals.

TYPICAL SECTION - GRAVITY WALL
(TYPICAL DETAIL ONLY - SEE WALL FACE DRAWING FOR SPECIFIC BLOCK CONFIGURATIONS)

"REDI-ROCK" SEGMENTAL RETAINING WALL

COMPACTION NOTE: WHERE THE RETAINING WALL PASSES OVER ANY UTILITY LINES, COMPACTION OF THE SOIL WITHIN THE UTILITY TRENCH IS CRITICAL IN ORDER TO PREVENT SETTLEMENT OF THE WALL. COMPACTION OF ALL FILL MATERIAL IN UTILITY TRENCHES WHICH PASS UNDER THIS RETAINING WALL MUST BE AT LEAST 95% OF THE MAXIMUM DENSITY OF THE FILL MATERIAL.

COMPACTED FILL/BACKFILL GENERAL REQUIREMENTS	
SIEVE SIZE	% PASSING
3"	100%
#4	45-75%
#100	0-15%
#200	0-6%

VT ADT 704.02B
GRANULAR BACKFILL FOR STRUCTURES

DENSE GRADED 3/4" CRUSHED STONE GRADATION REQUIREMENTS	
SIEVE SIZE	% PASSING
1"	100%
3/4"	90-100%
#4	60-85%
#8	25-60%
#20	8-20%

NOTE: ALTERNATE MATERIALS SHALL ONLY BE USED WITH THE APPROVAL OF THE WALL DESIGN ENGINEER.

DESIGN ASSUMPTIONS	
SOIL	SOIL UNIT WEIGHT (lb)
COMPACTED FILL/BACKFILL	130
RETAINED EARTH	105
FOUNDATION SOIL	105
APPLIED SURCHARGE LOADING: NONE	
SEISMIC ACCELERATION = 0.08	
MAX. SLOPE ABOVE WALL = 10H:1V	

DRAINAGE FILL - VT ADT 704.02B GRADATION REQUIREMENTS	
SIEVE SIZE	% PASSING
1"	100
3/4"	80 - 100
3/8"	20 - 55
#4	0 - 10
#8	0 - 5

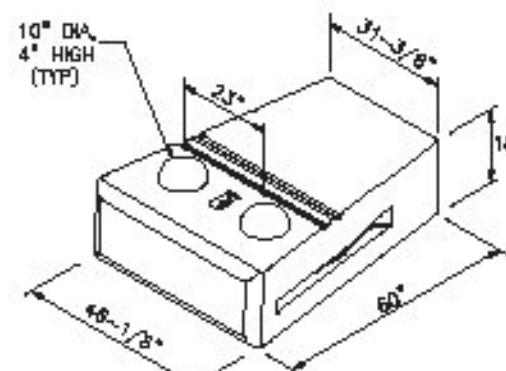
AASHTO LRFD LOAD/RESISTANCE FACTORS

INTERNAL STABILITY:	
VERTICAL EARTH PRESSURE - EV	1.35
EARTHQUAKE LOADS - EQ	1.00
LIVE LOAD SURCHARGE - LS	1.75
DEAD LOAD SURCHARGE - ES	1.50
GEOGRID STRENGTH/CONNECTION/PULLOUT	0.90 (STATIC)
	1.20 (COMBINED STATIC/SEISMIC)
EXTERNAL STABILITY:	
VERTICAL EARTH PRESSURE - EV	1.00 (STATIC)
SLIDING & ECCENTRICITY:	1.00 (COMBINED STATIC/SEISMIC)
BEARING CAPACITY:	1.35 (STATIC)
	1.35 (COMBINED STATIC/SEISMIC)
ACTIVE EARTH PRESSURE - EH	1.50
ACTIVE EARTH PRESSURE (EARTHQUAKE)	1.50
EARTHQUAKE LOADS - EQ	1.00
BEARING CAPACITY	0.45 (STATIC)
	0.45 (COMBINED STATIC/SEISMIC)

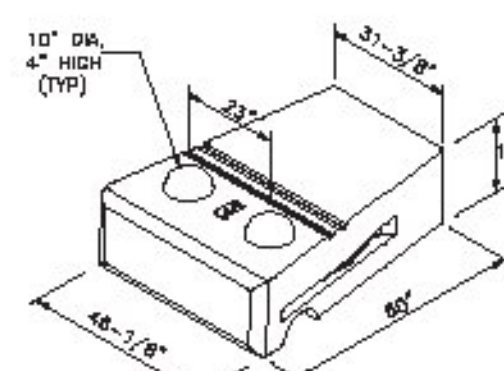
BLOCK SPECIFICATION NOTES:

1. ALL BLOCKS SHALL BE MANUFACTURED BY A LICENSED REDI-ROCK (TM) MANUFACTURER.
2. BLOCKS SHALL MEET THE MINIMUM REDI-ROCK SPECIFICATIONS OF 4000 psl WITH AN AIR CONTENT OF 4%-8%.
3. THE REDI-ROCK UNITS MAY UTILIZE EITHER THE SPLIT LIMESTONE OR COBBLESTONE FACE CONFIGURATION AS CHOSEN BY THE OWNER OR OWNER'S REPRESENTATIVE.

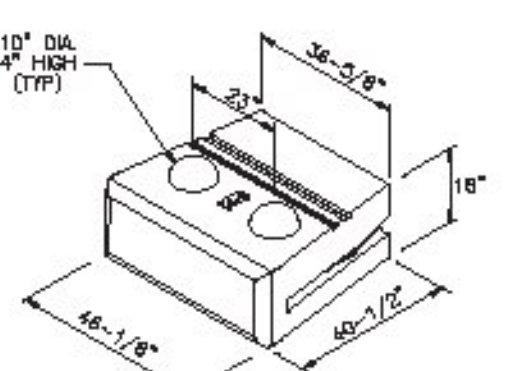
NOTE: HALF-BLOCKS HAVE THE SAME FEATURES AS SHOWN HERE FOR FULL BLOCKS BUT THEY ARE 23-1/8" WIDE, NOT THE FULL 46-1/8" WIDE.



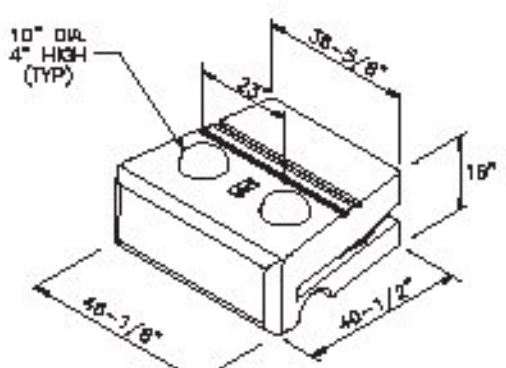
60" BOTTOM BLOCK



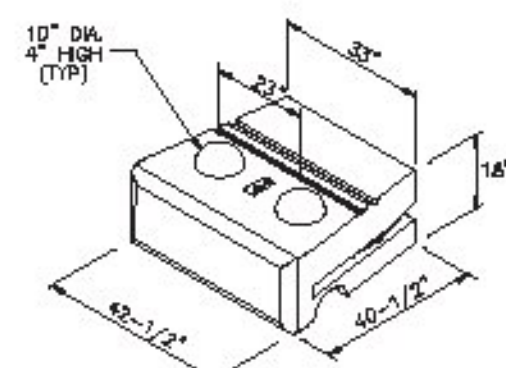
60" MIDDLE BLOCK



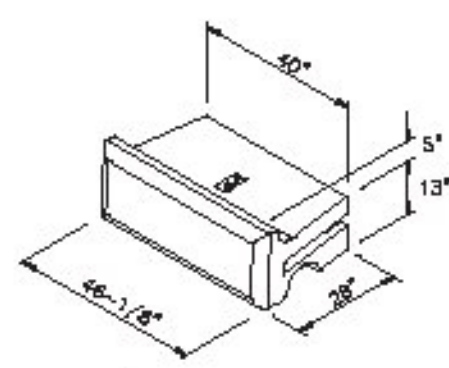
41" BOTTOM BLOCK



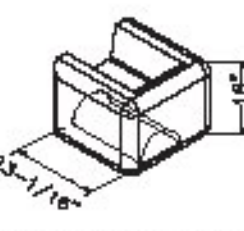
41" MIDDLE BLOCK



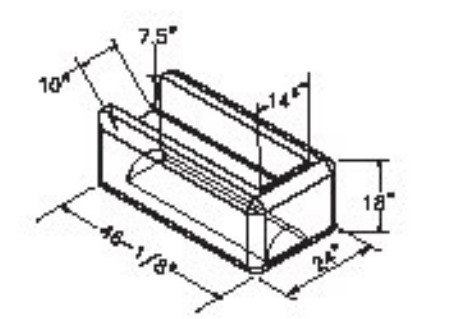
41" "NARROW" MIDDLE BLOCK



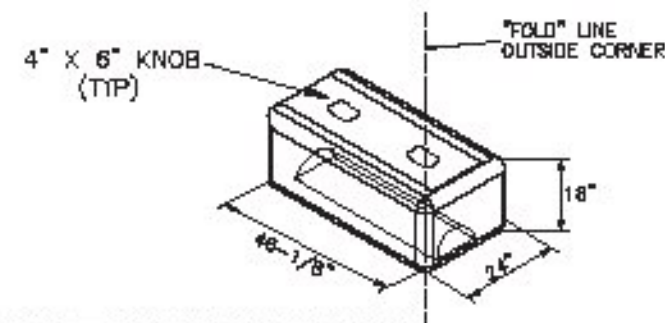
28" TOP BLOCK



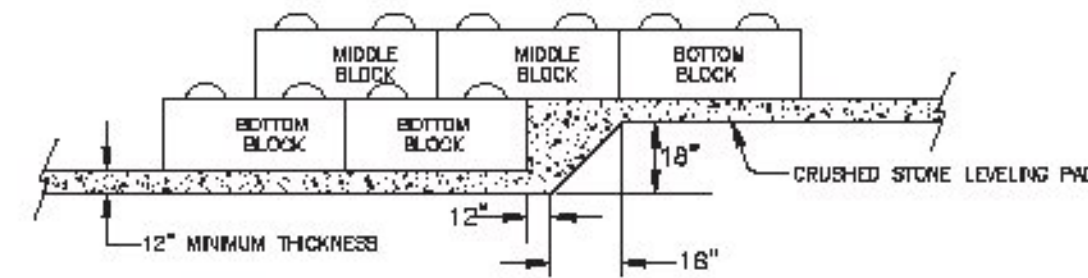
HALF GARDEN CORNER BLOCK



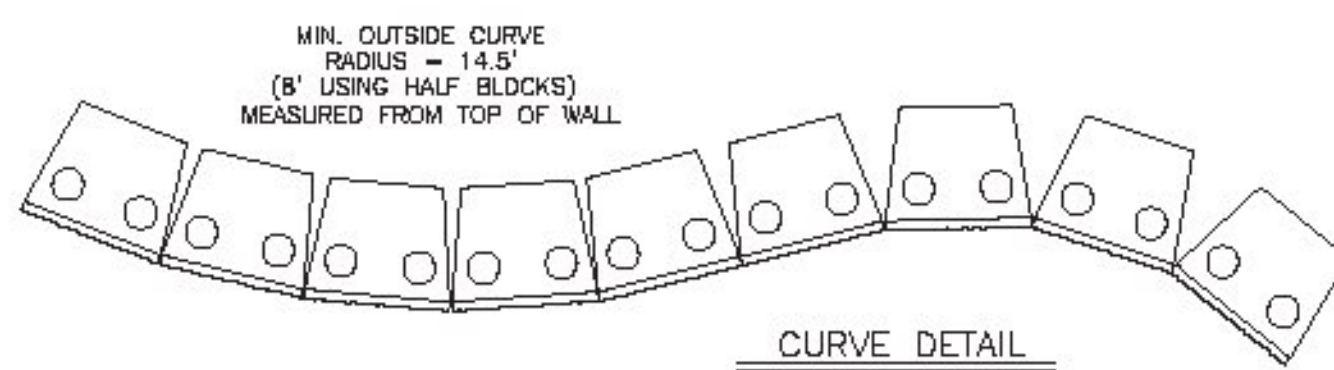
GARDEN CORNER BLOCK



MIDDLE CORNER BLOCK



BASE STEP DETAIL



CURVE DETAIL
TYPICAL CURVES
(NOT TO SCALE)

PEDESTRIAN RAILING CALCS:

POST SPACING: 4' (±)
POST LOAD: 200 LB @ 48" HEIGHT
RESISTING MOMENT: 1225 LB BLOCK X 13" C.O.G. = 1325 FT-LB
OVERTURNING MOMENT: 200 LB X (3.5+1.5) = 1000 FT-LB
** CORE INTO TOP BLOCK ONLY **

GENERAL NOTES:

1. SITE PREPARATION:

- 1.1. STRIP ALL VEGETATION, ORGANIC SOILS AND UNSUITABLE FILL SOILS FROM THE WALL ALIGNMENT AREA.
- 1.2. BENCH CUT ALL EXCAVATED SLOPES.
- 1.3. DO NOT OVER EXCAVATE UNLESS DIRECTED TO DO SO BY THE OWNER'S SITE REPRESENTATIVE IN ORDER TO REMOVE UNSUITABLE SOIL.
- 1.4. THE OWNER'S SITE REPRESENTATIVE SHALL VERIFY THE COMPETENCY OF THE FOUNDATION SOILS.

2. LEVELING PAD & BOTTOM BLOCK:

- 2.1. LEVELING PAD SHALL CONSIST OF DENSE GRADED 3/4" CRUSHED STONE, 12" THICK AND EXTENDING AT LEAST 12" TO EITHER SIDE OF THE BASE BLOCK.
- 2.2. MINIMUM EMBEDMENT OF WALL BELOW FINISH GRADE SHALL BE AS INDICATED ON THE WALL FACE DRAWING.
- 2.3. FOLLOW APPLICABLE PROVISIONS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS, ESPECIALLY WITH REGARDS TO LEVELING OF BLOCKS AND BASE.

3. WALL DRAIN:

- 3.1. DRAINAGE FILL SHALL CONSIST OF VT ADT 704.02B 3/4" CRUSHED STONE PLACED FOR A DEPTH OF AT LEAST 12" BEHIND THE WALL. A FILTER FABRIC SHALL BE PLACED OVER THE CUT OR FILL FACE BEHIND THE WALL TO PREVENT THE MIGRATION OF SOIL INTO THE DRAINAGE MATERIAL.
- 3.2. THE 4" DIA. PERFORATED HDPE WALL DRAIN SHALL DIP UNDER THE WALL AND TIE TO THE SITE DRAINAGE SYSTEM AT DI #12.
- 3.3. IF THE PERFORATED WALL DRAIN IS TO BE CARRIED UNDER THE WALL TO OUTLET, IT SHALL BE CARRIED DOWN SLOPE ENOUGH DISTANCE TO ALLOW FOR A PROPER DRAINING SLOPE (MIN. 1/4" PER FOOT FROM WALL TO DAYLIGHT) OR TIED TO A CLOSED DRAINAGE SYSTEM.
- 3.4. DRAIN LINES (4" HDPE) WHICH PASS UNDER THE WALL BASE SHOULD BE CENTERED UNDER THE BASE BLOCK. THE PIPE TRENCH SHALL BE MINIMIZED SO THAT THE BASE BLOCK ACTS AS A LINTEL OVER THE PIPE AND TRENCH.
- 3.5. PLACE A FILTER FABRIC (MIRAF 140N, OR EQUAL) OVER THE DRAINAGE MATERIAL TO MINIMIZE SOIL MIGRATION FROM THE SURFACE MATERIAL (TOPSOIL OR IMPERVIOUS) INTO THE DRAINAGE MATERIAL.

4. BACKFILLING & COMPACTION:

- 4.1. BACKFILL AND COMPACT THE FILL MATERIAL BEHIND THE WALL AS THE WALL IS INSTALLED.
- 4.2. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE OWNER'S SITE REPRESENTATIVE.
- 4.3. COMPACTION SHALL BE TO A MINIMUM OF 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY.
- 4.4. RECOMMENDED COMPACTION EQUIPMENT WITHIN 15 FEET OF THE BACK OF THE WALL IS AS FOLLOWS:
0 - 4 FEET HAND TAMP OR VIBRATORY PLATE COMPACTOR
4 - 15 FEET NOTHING LARGER THAN TWO-DRUM, WALK-BEHIND VIBRATORY ROLLER
(LARGER ROLLERS CAN BE USED STATICALLY, PROVIDED LIFT SIZE DOES NOT COMPROMISE ACHIEVEMENT OF NECESSARY COMPACTION RATES.)

5. GENERAL WALL LAYOUT & CONSTRUCTION:

- 5.1. FINAL WALL ALIGNMENT SHALL BE LOCATED IN THE FIELD BY THE OWNER'S SITE REPRESENTATIVE.
- 5.2. PROVIDE LATERAL DRAINAGE SWALES TO DIRECT FLOWS AROUND THE ENDS OF THE WALL AND AWAY FROM THE WALL DURING CONSTRUCTION. PERMANENT SWALES SHALL BE PITCHED TO DRAIN SURFACE WATER RUNOFF TO THE ENDS OF THE WALL. DO NOT ALLOW WATER TO POND AT THE TOP OF THE WALL.
- 5.3. TURF, OR SOME ACCEPTABLE FORM OF SOIL EROSION PROTECTION, SHOULD BE ESTABLISHED AT THE TOP OF THE WALL (WHERE REQUIRED) BY THE LANDSCAPE CONTRACTOR AS SOON AS THE WALL IS COMPLETED.
- 5.4. ENDS OF THE RETAINING WALLS SHALL BE BLENDED INTO THE PROPOSED/EXISTING GRADE IN A MANNER SATISFACTORY TO THE OWNER'S SITE REPRESENTATIVE. AT THE ENDS OF A WALL WHERE BLENDING TAKES PLACE, THE ISSUE IS NOT A STRUCTURAL FACTOR BUT AN AESTHETIC FACTOR AND THE OWNER'S SITE REPRESENTATIVE IS QUALIFIED TO MAKE THIS JUDGEMENT.
- 5.5. IF CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.
- 5.6. THESE WALLS HAVE BEEN DESIGNED WITH CONSIDERATION OF SEISMIC LOADINGS.
- 5.7. WALL CERTIFICATIONS: OCCASIONALLY A "SIGN OFF" BY THE DESIGN ENGINEER IS NEEDED AFTER COMPLETION OF WALL CONSTRUCTION. IF THIS SERVICE IS NEEDED ARRANGEMENTS MUST BE MADE WITH THE DESIGN ENGINEER PRIOR TO WALL CONSTRUCTION FOR A SERIES OF SITE VISITS TO OBSERVE WALL CONSTRUCTION. ACCEPTANCE LETTERS, SIGN OFFS, CERTIFICATIONS, WARRANTIES, ETC. WILL NOT BE PROVIDED WITHOUT PERIODIC SITE VISITS.

IT IS THE RESPONSIBILITY OF THE INSTALLER TO REVIEW THE NOTES AND DETAILS ON ALL SHEETS OF THIS PLAN SET



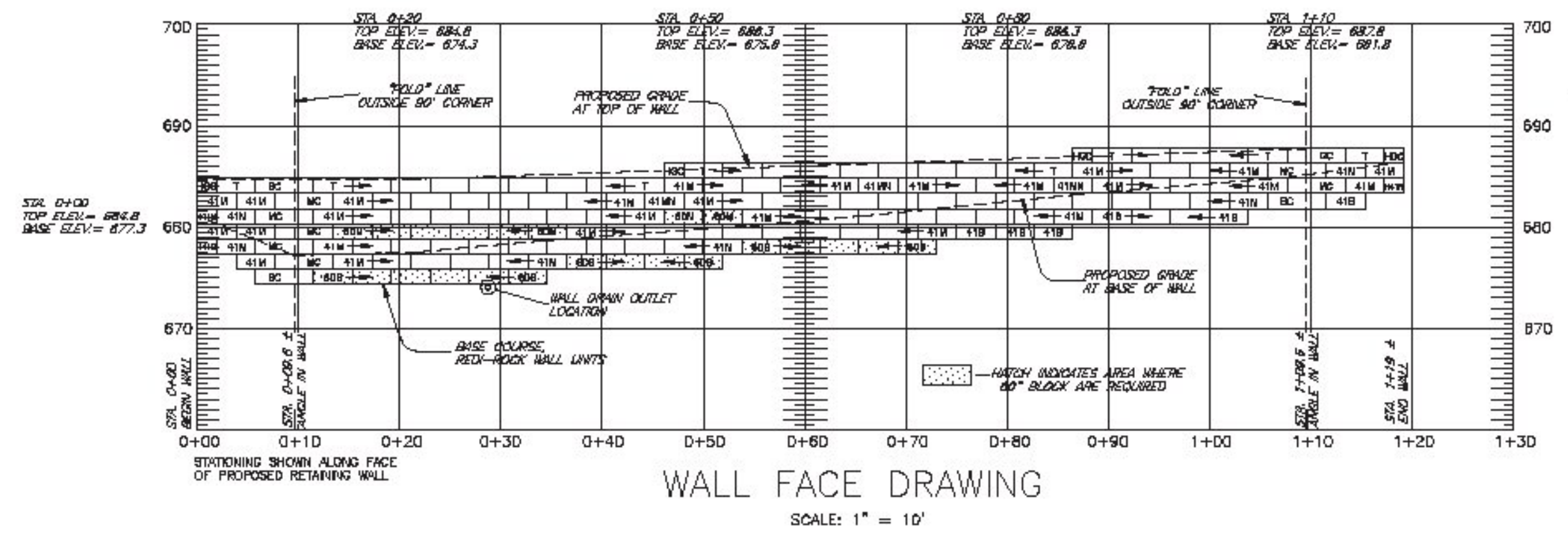
NOTE: THIS DRAWING WAS PREPARED FOR USE WITH REDI-ROCK (TM) RETAINING WALL SYSTEMS. CONTACT REDI-ROCK WALLS OF NEW ENGLAND AT (802) 863-1000.

ERIC MERLUZZI, P.E.

184 ROWENTOWN ROAD, WENTWORTH, NH 03282
PHONE: (802) 796-8751 E-MAIL: em35@earthlink.net
CLIENT: REDI-ROCK WALLS OF NEW ENGLAND
8 REEDS MILL ROAD, NEWPORT, NH 03773
PROJECT: EAST MONTPELIER BRD 037-1(7)
US ROUTE 2, EAST MONTPELIER, VT
SHEET TITLE: RETAINING WALL DESIGN SHEET 1
DATE: AUGUST 30, 2016 SCALE: AS SHOWN PROJECT No.: 2016-050

SHEET 1 OF 2

Please provide additional information on wall texture, integral color and stained color for approval before casting.



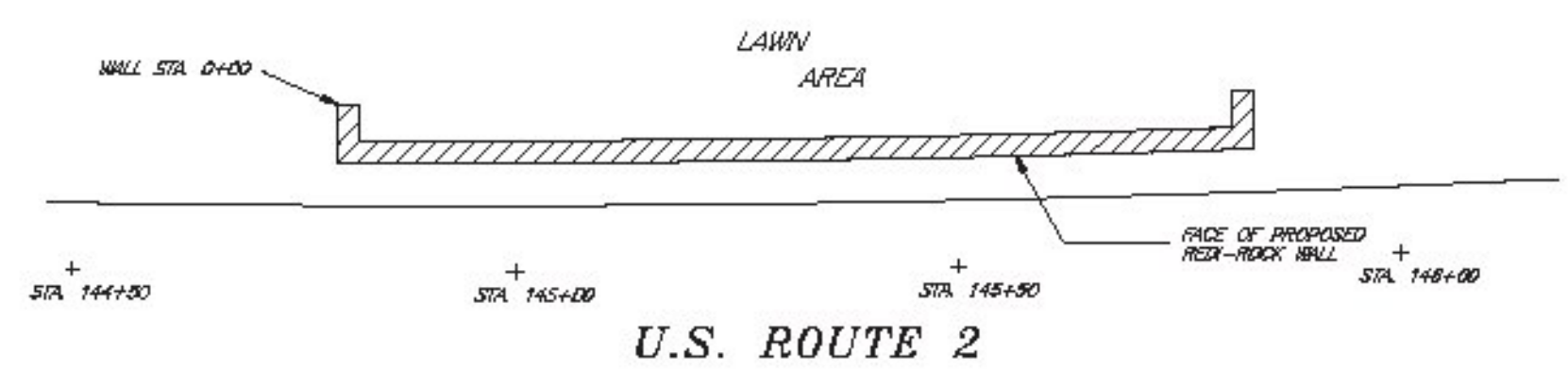
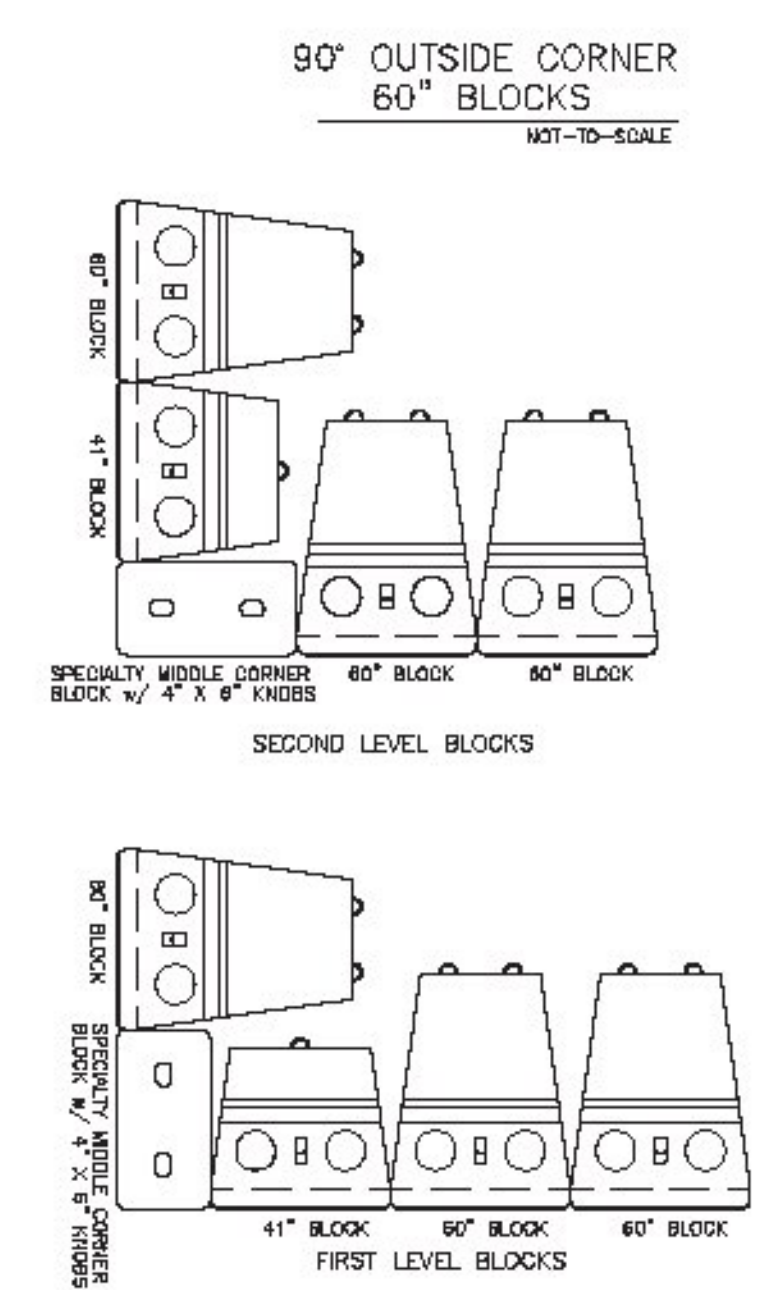
BLOCK LEGEND & QUANTITIES		
HGC	HALF GARDEN CORNER BLOCK	4
GC	GARDEN CORNER BLOCK	2
T	TOP BLOCK	26
MC	MIDDLE CORNER BLOCK	7
BC	BOTTOM CORNER BLOCK	2
H41M	HALF 41" MIDDLE BLOCK	1
41M	41" MIDDLE BLOCK	97
41MN	41" MIDDLE "NARROW" BLOCK	3
H41B	HALF 41" BOTTOM BLOCK	2
41B	41" BOTTOM BLOCK	8
60M	60" MIDDLE BLOCK	8
60B	60" BOTTOM BLOCK	15

NOTE: IF THE FIELD CONDITIONS INDICATE THE GRADE AT THE BASE AND/OR TOP OF THE WALL TO BE DIFFERENT FROM THAT SHOWN ON THESE PLANS, THE DESIGN ENGINEER SHALL BE CONTACTED TO VERIFY CHANGES TO THE WALL BASE COURSE AND/OR TOP OF WALL ELEVATION. THE GRADES SHOWN ON THIS PLAN ARE BASED ON THE WALL PLAN & PROFILE (SHEET 12) PREPARED BY STANTEC, PLOT DATE 5/24/16.

Please provide additional information on wall texture, integral color and stained color for approval before

APPROVED: Approval of drawing and/or procedure indicated on measurement with the information provided and data not subject to the Contractor's fabrication of compliance with all specifications and code requirements.	✓	Stantec
APPROVED AS NOTED		
REVIEW AND RESUBMIT		
NOT REVIEWED		
Date:	9/9/16	
Signature:	TEK	
This review by Stantec Consulting Services Inc. is for the sole purpose of maintaining compliance with the ground design concept. The reviewer shall not assume that Stantec Consulting Services Inc. has approved the design, inherent in the design stage responsibility for which shall remain with the Contractor. Substantiating notes and such review shall not release the Contractor of his responsibility for compliance with the design concept. The reviewer is responsible for the design to be reviewed and approved at the job site, for the information that remains solely to the Contractor's review and approval. The reviewer is not responsible for the construction of the work of all subcontractors.		

IT IS THE RESPONSIBILITY OF THE INSTALLER TO REVIEW THE NOTES AND DETAILS ON ALL SHEETS OF THIS PLAN SET



NOTE: THIS DRAWING WAS PREPARED FOR USE WITH RED-ROCK (TM) RETAINING WALL SYSTEMS. CONTACT RED-ROCK WALLS OF NEW ENGLAND AT (803) 883-1000.

ERIC MERLUZZI, P.E.	
184 ROWENTOWN ROAD, WENTWORTH, NH 03282	
PHONE: (803) 788-2751	E-MAIL: em35@earthlink.net
CLIENT:	REDI-ROCK WALLS OF NEW ENGLAND 8 NEEDS MILL ROAD, NEWPORT, NH 03773
PROJECT:	EAST MONTPELIER BRP 037-1(7) US ROUTE 2, EAST MONTPELIER, VT
SHEET TITLE:	RETAINING WALL DESIGN SHEET 2
DATE:	AUGUST 30, 2016
SCALE:	AS SHOWN
PROJECT NO.:	2016-050

SHEET 2 OF 2