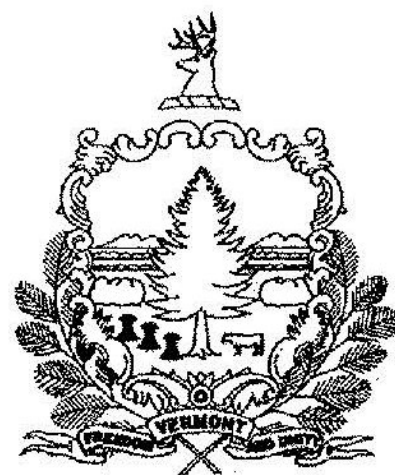


STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
TOWN OF WOODSTOCK
COUNTY OF WINDSOR
VT ROUTE 12 (MAJOR COLLECTOR)

RECORD PLANS

CONTRACTOR: BAZIN BROTHERS, INC. - WESTMINSTER, VT

RESIDENT ENGINEER: DARYL BASSETT

CONSTRUCTION BEGAN: AUGUST 24, 2015

CONSTRUCTION COMPLETE: OCTOBER 23, 2015

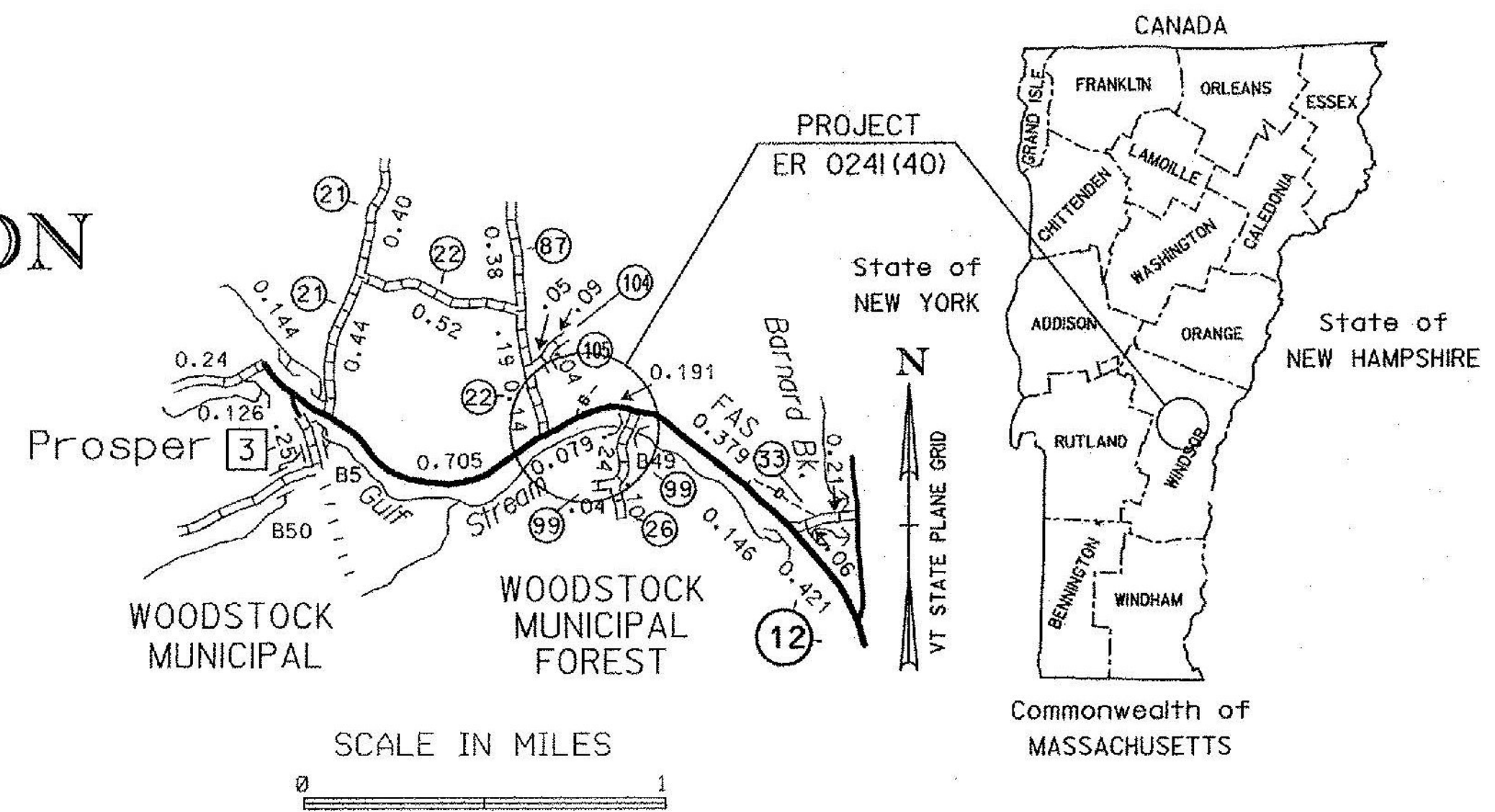
RECORD PLANS BY: DARYL BASSETT & KEVIN KING

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

BY [Signature] RESIDENT ENGINEER

DATE March 20, 2017

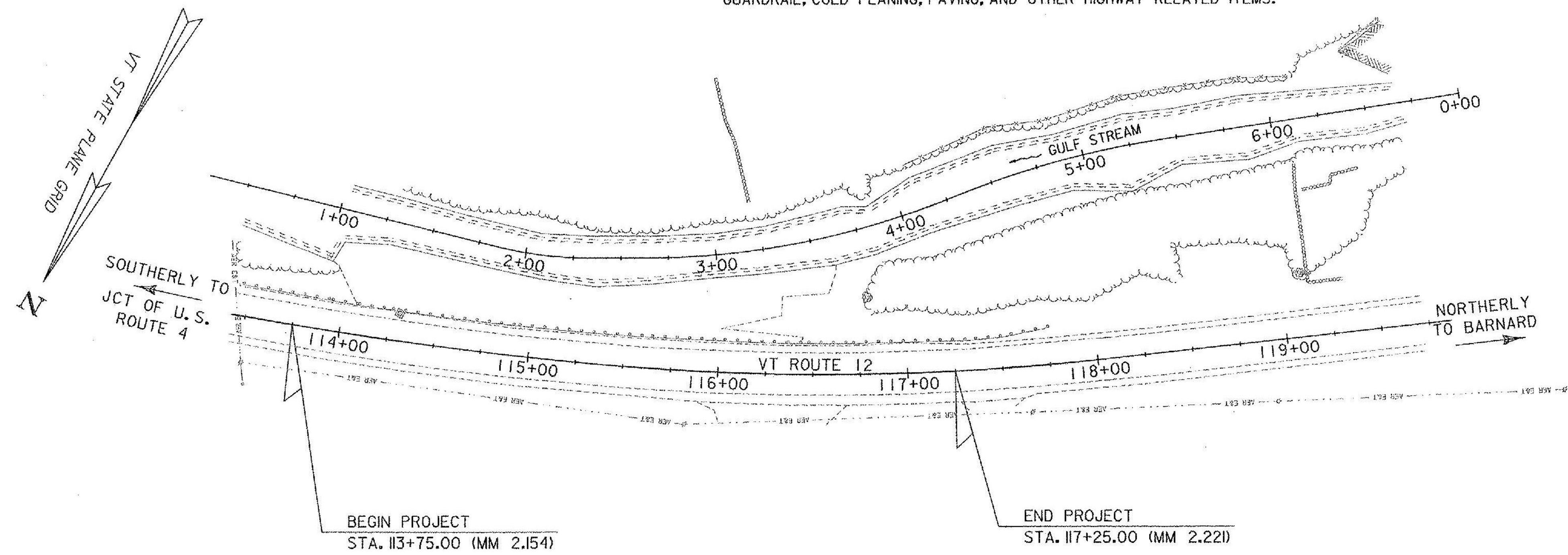
NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found at Central Files in the electronic archives.



PROJECT LOCATION: BEGINNING IN THE TOWN OF WOODSTOCK ON VT ROUTE 12 APPROXIMATELY 0.09 MILE NORTHEAST OF THE VT ROUTE 12/GULLY ROAD INTERSECTION AT STATION 113+75.00 (MM 2.154) AND EXTENDING NORTHERLY ALONG VT ROUTE 12 350.00 FEET (0.066 MILES) TO STATION 117+25.00 (MM 2.220).

LENGTH OF PROJECT: 350.00 FEET = 0.066 MILES

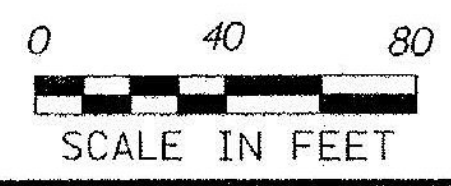
PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT CONSISTS OF RECONSTRUCTING THE SOUTHERLY SIDESLOPE AND RIVERBED, REMOVING AND REPLACING GUARDRAIL, COLD PLANING, PAVING, AND OTHER HIGHWAY RELATED ITEMS.



TRAFFIC DATA	
2015 AADT	2000
2025 AADT	2100
2025 DHV	250
%D	61
%T	5.0
DESIGN SPEED	50 MPH
2015~2025 ESAL	242,000
2015~2035 ESAL	545,000
POSTED SPEED	50MPH

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 2	
SURVEYED BY :	VERMONT SURVEY AND ENGINEERING, INC.
SURVEYED DATE :	6/2013
DATUM	
VERTICAL	NAVD 88 (GEOID12A) FT
HORIZONTAL	NAD 83 (2011) SFT



	DIRECTOR OF PROJECT DELIVERY
	APPROVED <u>[Signature]</u> DATE <u>2/11/2015</u>
	PROJECT MANAGER : PAUL LIBBY
	PROJECT NAME : WOODSTOCK PROJECT NUMBER : ER 0241(40)
SHEET 1 OF 27 SHEETS	

TYLIN INTERNATIONAL

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2	INDEX OF SHEETS
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4	TYPICAL SECTION SHEET
5	DETAIL SHEET 1
6	DETAIL SHEET 2
7	TIE SHEET
8	QUANTITY SHEET #1
9	QUANTITY SHEET #2
10	EARTHWORKS & ITEM DETAIL SHEET
11	R.O.W. DETAIL SHEET
12	R.O.W. LAYOUT SHEET
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14	PROFILE SHEET
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16	EPSC EXISTING CONDITIONS PLAN SHEET
17	EPSC CONSTRUCTION PLAN SHEET
18	EPSC FINAL SITE PLAN SHEET
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21	VT ROUTE 12 CROSS SECTION SHEET 1
22	VT ROUTE 12 CROSS SECTION SHEET 2
23	VT ROUTE 12 CROSS SECTION SHEET 3
24	TRAFFIC CONTROL SHEET 1
25	TRAFFIC CONTROL SHEET 2
26	TRAFFIC CONTROL SHEET 3
27	RESOURCE IMPACT PLAN

LIST OF STANDARDS

E-121	STANDARD SIGN PLACEMENT CONVENTIONAL ROAD	8/8/1995
E-160	FLANGED CHANNEL STEEL SIGN POST	5/20/1999
E-171A	GENERAL NOTES & DETAILS	8/9/1995
E171B	TRAFFIC CONTROL SIGNALS MISC. DETAILS	8/9/1995
E171C	TRAFFIC CONTROL SIGNALS CANTILEVER MOUNTING DETAILS PED. PUSH BUTTON ACCESSIBILITY DETAIL	8/9/1995
E-172	VEHICLE DETECTOR LOOP DETAILS	8/9/1995
E-175	POWER DROP STANCHIONS	6/8/2009
E-193	PAVEMENT MARKING DETAILS	8/18/1995
G-1	STEEL BEAM GUARDRAIL WITH STEEL POSTS	2/10/2014
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	2/10/2014
T-1	TRAFFIC CONTROL GENERAL NOTES	8/6/2012
T-10	CONVENTIONAL ROADS CONSTRUCTION APPROACH SIGNING	8/6/2012
T-17	TRAFFIC CONTROL MISC. DETAILS	8/6/2012
T-24	TRAFFIC CONTROL FOR MAINTENANCE PAVEMENT MARKING OPERATION	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 LONGITUDINAL DROP OFFS	8/6/2012
T-36	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS FOR PAVING	8/6/2012
T-45	SQUARE TUBE SIGN POST AND ANCHOR	1/2/2013

TYLININTERNATIONAL

PROJECT NAME: WOODSTOCK
PROJECT NUMBER: ER 0241(40)

FILE NAME: z13c014Index.dgn
PROJECT LEADER: D. BRYANT
DESIGNED BY: T. KELLEY
INDEX OF SHEETS

PLOT DATE: 2/4/2015
DRAWN BY: T. KELLEY
CHECKED BY: D. BRYANT
SHEET 2 OF 27

GENERAL INFORMATION

SYMBOLGY LEGEND NOTE

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

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

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

COMMON TOPOGRAPHIC POINT SYMBOLS

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

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

PROPOSED GEOMETRY CODES

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

UTILITY SYMBOLGY

UNDERGROUND UTILITIES

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

ABOVE GROUND UTILITIES (AERIAL)

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

PROJECT CONSTRUCTION SYMBOLGY

PROJECT DESIGN & LAYOUT SYMBOLGY

— — — CZ — — —	CLEAR ZONE
—————	PLAN LAYOUT MATCHLINE

PROJECT CONSTRUCTION FEATURES

△ — △ — △ — △	TOP OF CUT SLOPE
○ — ○ — ○ — ○	TOE OF FILL SLOPE
⊕ ⊕ ⊕ ⊕ ⊕ ⊕	STONE FILL
—————	BOTTOM OF DITCH
=====	CULVERT PROPOSED
—————	STRUCTURE SUBSURFACE
PDF — PDF —	PROJECT DEMARCATION FENCE
BF — — — — BF — — — —	BARRIER FENCE
XXXXXXXXXXXXXXXXXXXX	TREE PROTECTION ZONE (TPZ)
//////////	STRIPING LINE REMOVAL
~~~~~	SHEET PILES

CONVENTIONAL BOUNDARY SYMBOLGY

BOUNDARY LINES

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

EPSC LAYOUT PLAN SYMBOLGY

EPSC MEASURES

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLGY

ENVIRONMENTAL RESOURCES

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

ARCHEOLOGICAL & HISTORIC

—————	ARCH	ARCHEOLOGICAL BOUNDARY
—————	HISTORIC DIST	HISTORIC DISTRICT BOUNDARY
—————	HISTORIC	HISTORIC AREA
Ⓜ		HISTORIC STRUCTURE

CONVENTIONAL TOPOGRAPHIC SYMBOLGY

EXISTING FEATURES

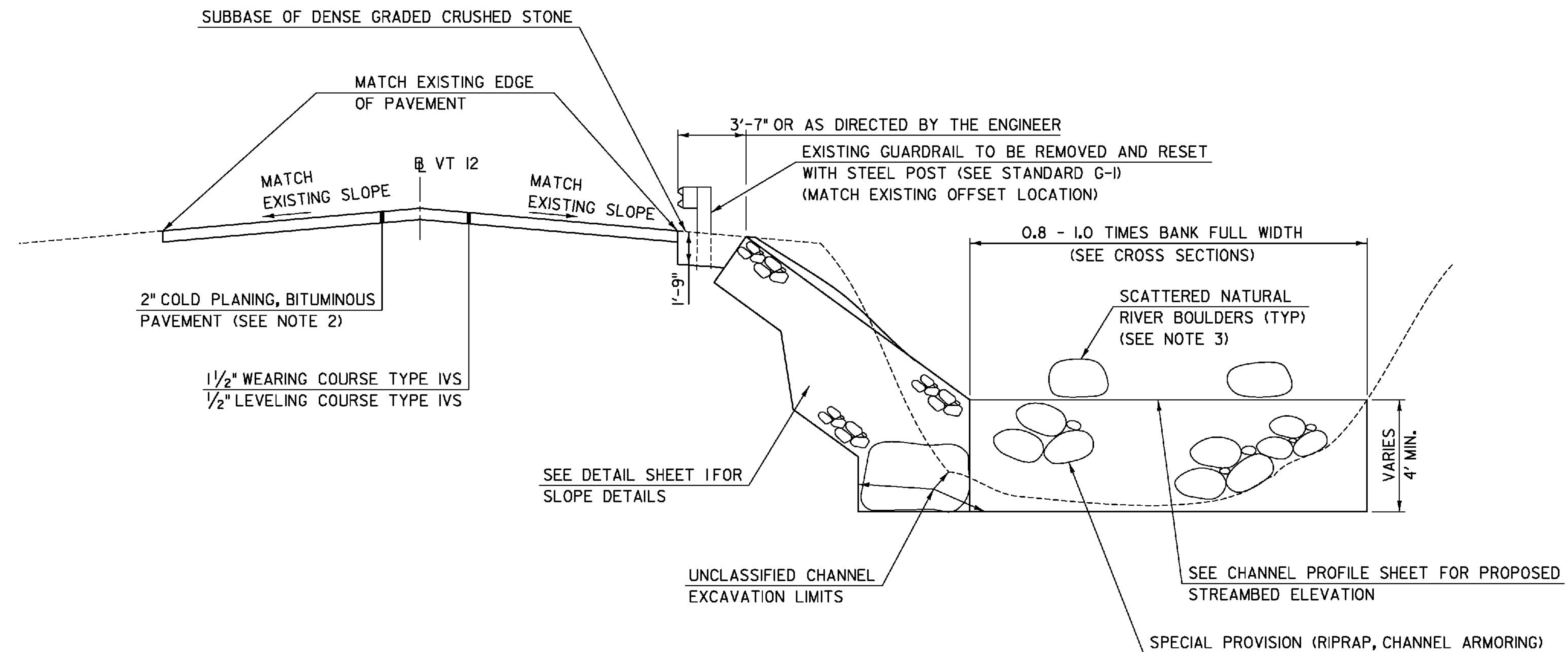
—————	ROAD EDGE PAVEMENT
—————	ROAD EDGE GRAVEL
—————	DRIVEWAY EDGE
—————	DITCH
—————	FOUNDATION
— x — x — x — x —	FENCE (EXISTING)
— □ — □ — □ — □ —	FENCE WOOD POST
— ○ — ○ — ○ — ○ —	FENCE STEEL POST
~~~~~	GARDEN
— ○ — ○ — ○ — ○ —	ROAD GUARDRAIL
	RAILROAD TRACKS
—————	CULVERT (EXISTING)
—————	STONE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

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

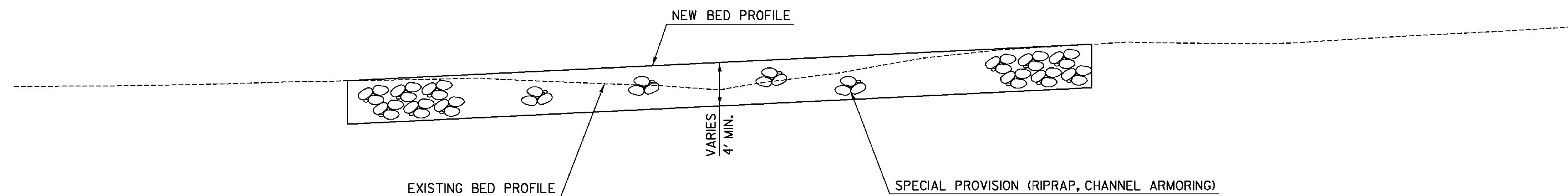
FILE NAME: z13c014legend.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: D. BRYANT  
CONVENTIONAL SYMBOLGY LEGEND SHEET  
PLOT DATE: 2/4/2015  
DRAWN BY: B. CARTER  
CHECKED BY: T. KELLEY  
SHEET 3 OF 27

TYLININTERNATIONAL





**ROADWAY AND CHANNEL ROCK ARMOR TYPICAL**  
NOT TO SCALE



**CHANNEL ROCK ARMOR ELEVATION**  
NOT TO SCALE

**MATERIAL TOLERANCES**  
(IF USED ON PROJECT)

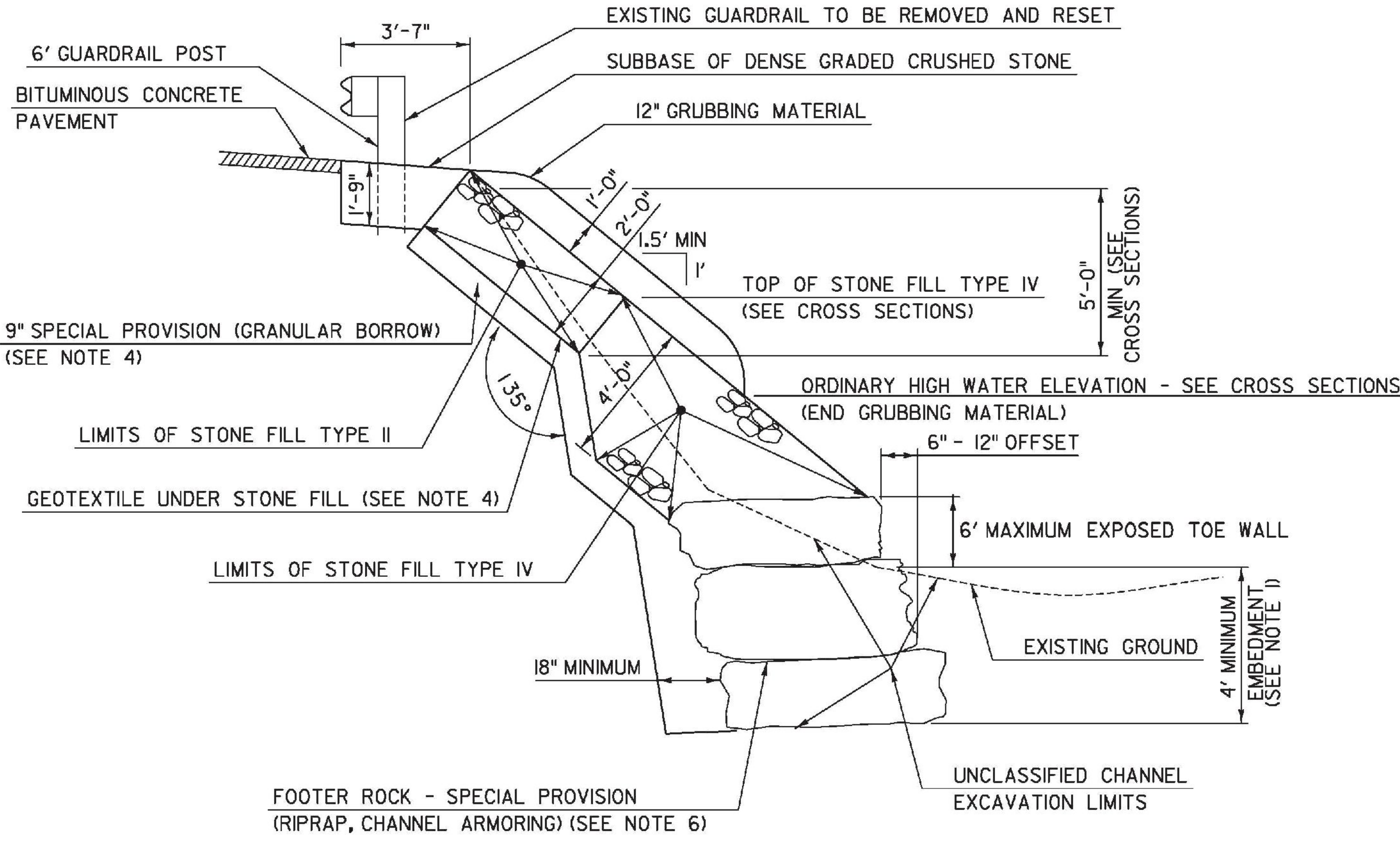
SURFACES	
- PAVEMENT (TOTAL THICKNESS)	+/- 1/4"
SUBBASE	+/- 1"
SAND BORROW	+/- 1"

**NOTES:**

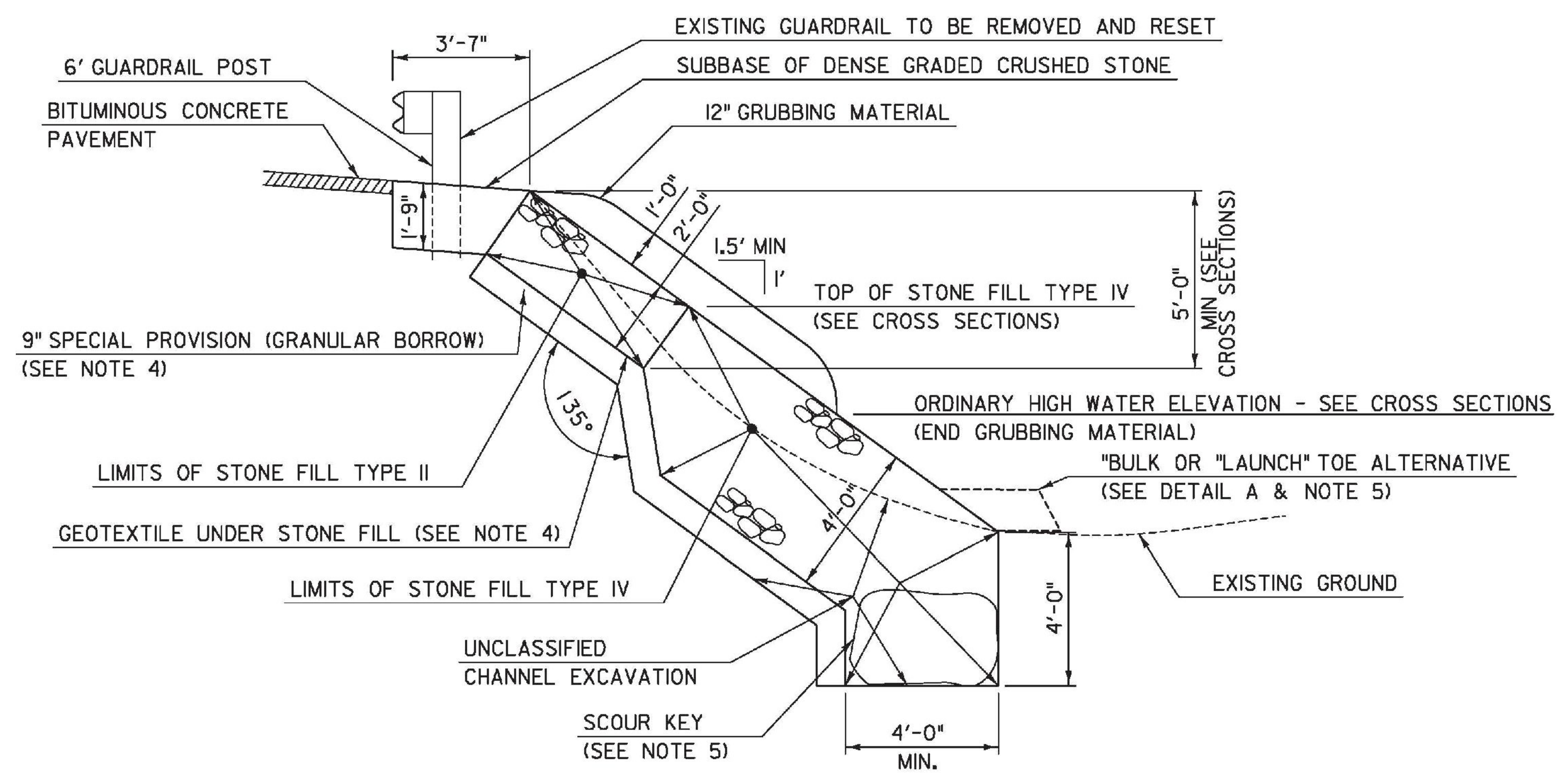
1. THIS PROJECT WILL INCLUDE PRE-CONSTRUCTION COORDINATION, ON-SITE CONSTRUCTION SUPERVISION AND DIRECTION BY A QUALIFIED FLUVIAL GEOMORPHOLOGIST, AS APPROVED BY THE ENGINEER, DURING STREAM BANK STABILIZATION AND STREAMBED RECONSTRUCTION WORK.
2. COLD PLANING TO BE COMPLETED ACCORDING TO TYPICAL OR AS NOTED OTHERWISE ON THE PLANS. PAYMENT WILL BE MADE UNDER ITEM 210.10 COLD PLANING, BITUMINOUS PAVEMENT. SAWCUTTING WILL NOT BE PAID FOR SEPARATELY, BUT WILL BE CONSIDERED INCIDENTAL TO ITEM 210.10 COLD PLANING, BITUMINOUS PAVEMENT.
3. PLACE BOULDERS WITH 2'-0" TO 4'-0" MIDDLE DIMENSION AT A RATE OF 20 PER 100 LINEAR FEET. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 900.608 SPECIAL PROVISION (RIPRAP, CHANNEL ARMORING).

TYLIN INTERNATIONAL	PROJECT NAME: WOODSTOCK	PLOT DATE: 2/4/2015
	PROJECT NUMBER: ER 024I(40)	DRAWN BY: P. MCCLURE
	FILE NAME: z13c014typ.dgn	CHECKED BY: D. BURHANS
	PROJECT LEADER: D. BRYANT	SHEET 4 OF 27
	DESIGNED BY: D. BRYANT	
	TYPICAL SECTION SHEET	





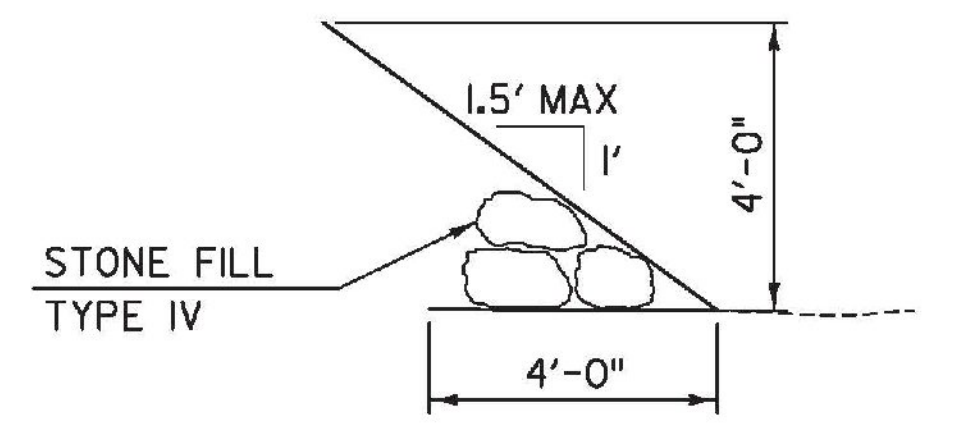
**STONE FILL SLOPE PROTECTION WITH STONE TOE WALL**  
STA. 114+25.00 LT TO STA. 116+25.00 LT  
NOT TO SCALE



**STONE FILL SLOPE PROTECTION**  
STA. 113+75.00 LT TO STA. 117+20.39 LT  
NOT TO SCALE

- NOTES FOR STONE FILL SLOPE PROTECTION WITH OR WITHOUT STONE TOE WALL
1. FOOTER ROCK SHALL BE EMBEDDED BELOW THE CHANNEL A MINIMUM OF 4'-0" OR ON BEDROCK.
  2. CONTRACTOR SHALL SELECT AND PLACE INDIVIDUAL STONES TO MAXIMIZE CONTACT WITH ADJACENT STONES. DUMPING OF STONES IS NOT PERMITTED. ENGINEER SHALL HAVE FINAL APPROVAL OF STONE SELECTION AND PLACEMENT.
  3. THE STONE SLOPE SHALL BE NO STEEPER THAN 1.0 V TO 1.5 H (TYP.) UNLESS DIRECTED BY THE ENGINEER.
  4. ITEM 649.31, GEOTEXTILE UNDER STONE FILL AND/OR ITEM 900.608 SPECIAL PROVISION (GRANULAR BORROW) IS TO BE PLACED UNDER STONE FILL. GEOTEXTILE SHALL ONLY BE USED AT THE TOP 5 FEET OF ANY SLOPE. THE STONE FILL SHALL BE PLACED SUCH THAT MIGRATION OF THE GRANULAR BORROW DOES NOT OCCUR.

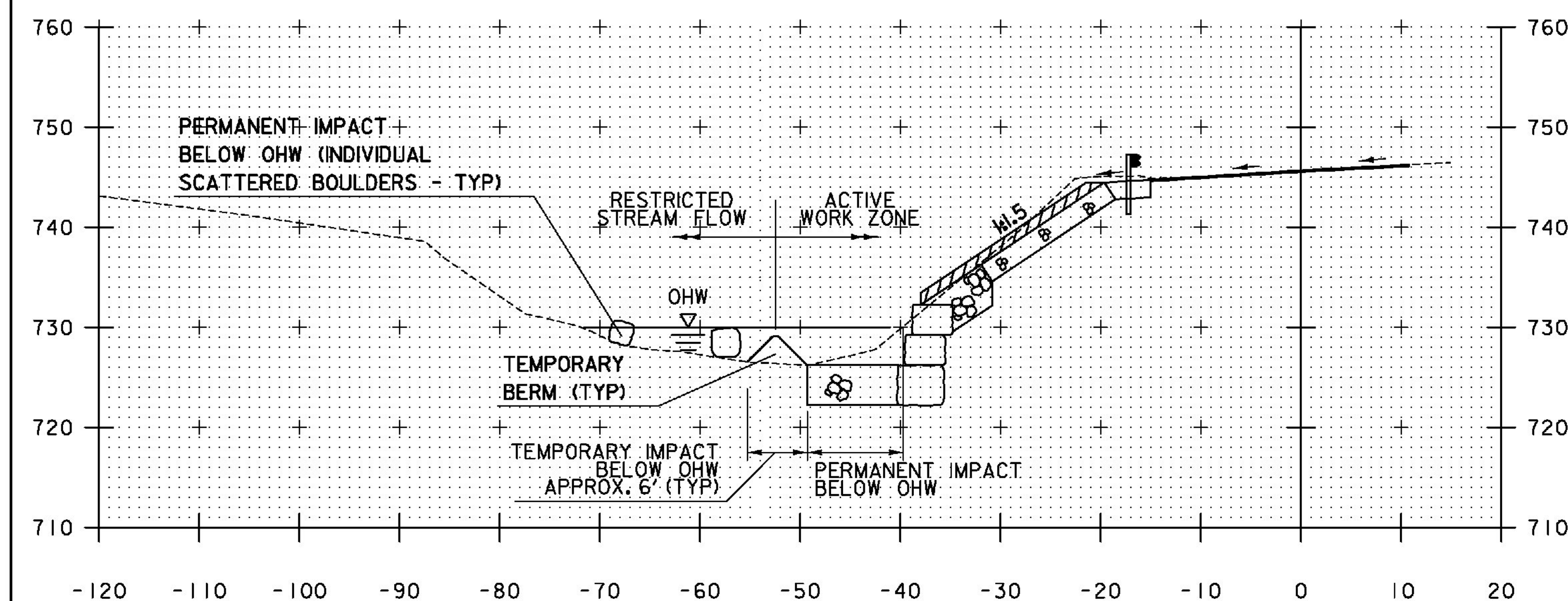
- NOTES FOR STONE FILL SLOPE PROTECTION WITHOUT STONE TOE WALL
5. "BULK" OR "LAUNCH" TOE MAY BE USED INSTEAD OF SCOUR KEY ONLY IF DIRECTED BY THE ENGINEER, AND ONLY IN CASES WHERE ADDITIONAL ENCHROACHMENT IS ACCEPTABLE AND INSTALLATION OF KEY IS IMPRACTICAL.
- NOTES FOR STONE FILL SLOPE PROTECTION WITH STONE TOE WALL
6. THE PRINCIPLE DIMENSION OF FOOTER ROCK SHALL BE GREATER THAN 5'-0" WITH THE LEAST DIMENSION AT LEAST 1/3 THE LONGEST DIMENSION. STONE USED AS FOOTER ROCK SHALL BE ANGULAR. UPON APPROVAL BY THE ENGINEER, ROUGH, UNHEWN QUARRY STONE MAY BE USED. THE STONES SHALL BE HARD, SOUND AND RESISTENT TO THE ACTION OF WATER AND WEATHERING. THEY SHALL BE OF A ROCK TYPE OTHER THAN SERPENTINE ROCK CONTAINING THE FIBROUS VARIETY OF CHRYSOTILE (ASBESTOS).
  7. WALL SHALL BE CONSTRUCTED WITH STAGGERED JOINTS BETWEEN COURSES.
  8. TO EXTENT PRACTICAL, STONES SHALL SLOPE DOWNWARD INTO THE EMBANKMENT TO BETTER RESIST SLIDING.



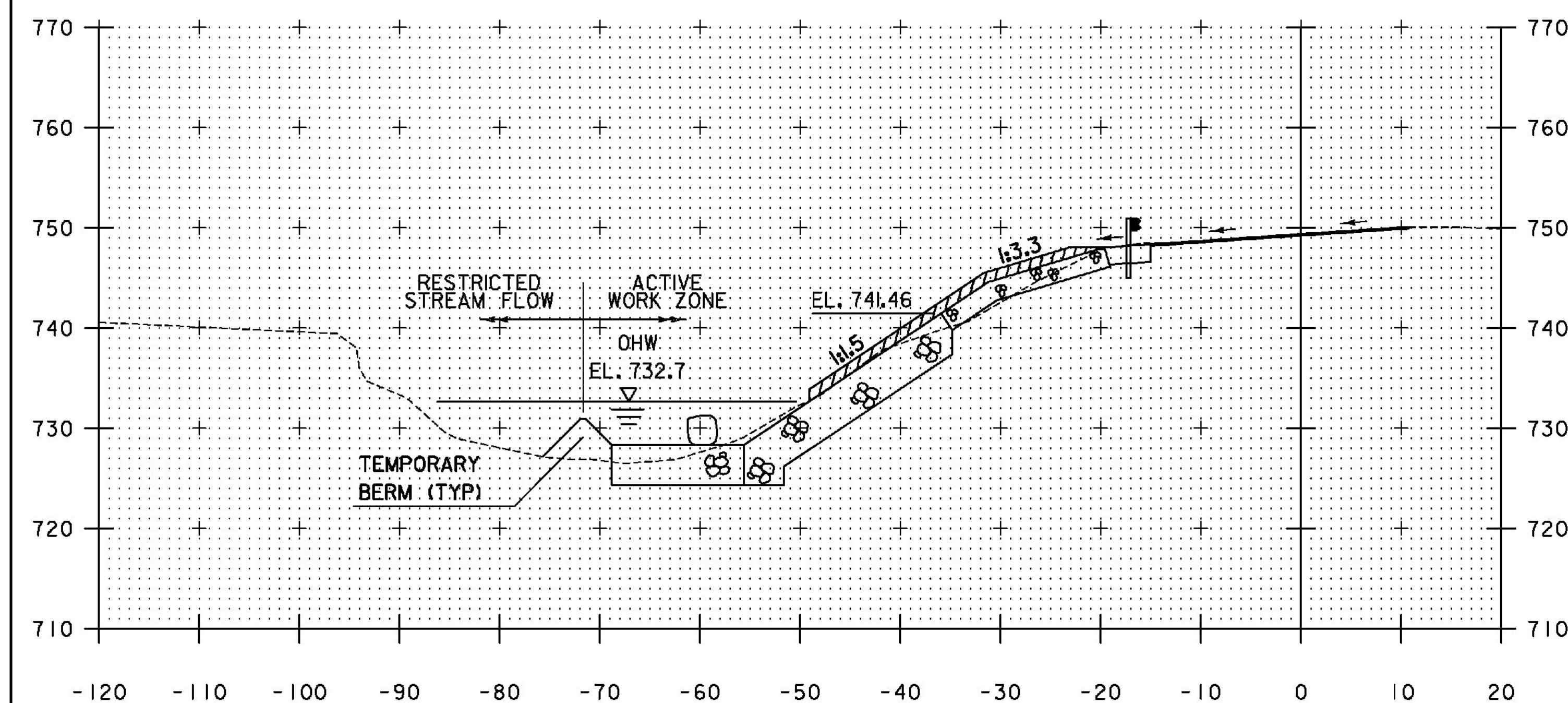
**DETAIL A**  
"BULK" OR "LAUNCH" TOE DETAIL  
(SEE NOTE 5)

TYLIN INTERNATIONAL	PROJECT NAME: WOODSTOCK	PLOT DATE: 2/12/2015
	PROJECT NUMBER: ER 0241(40)	
	FILE NAME: z13c014detail.dgn	DRAWN BY: P. MCCLURE
	PROJECT LEADER: D. BRYANT	CHECKED BY: D. BURHANS
	DESIGNED BY: D. BRYANT	SHEET 5 OF 27
	DETAIL SHEET 1	

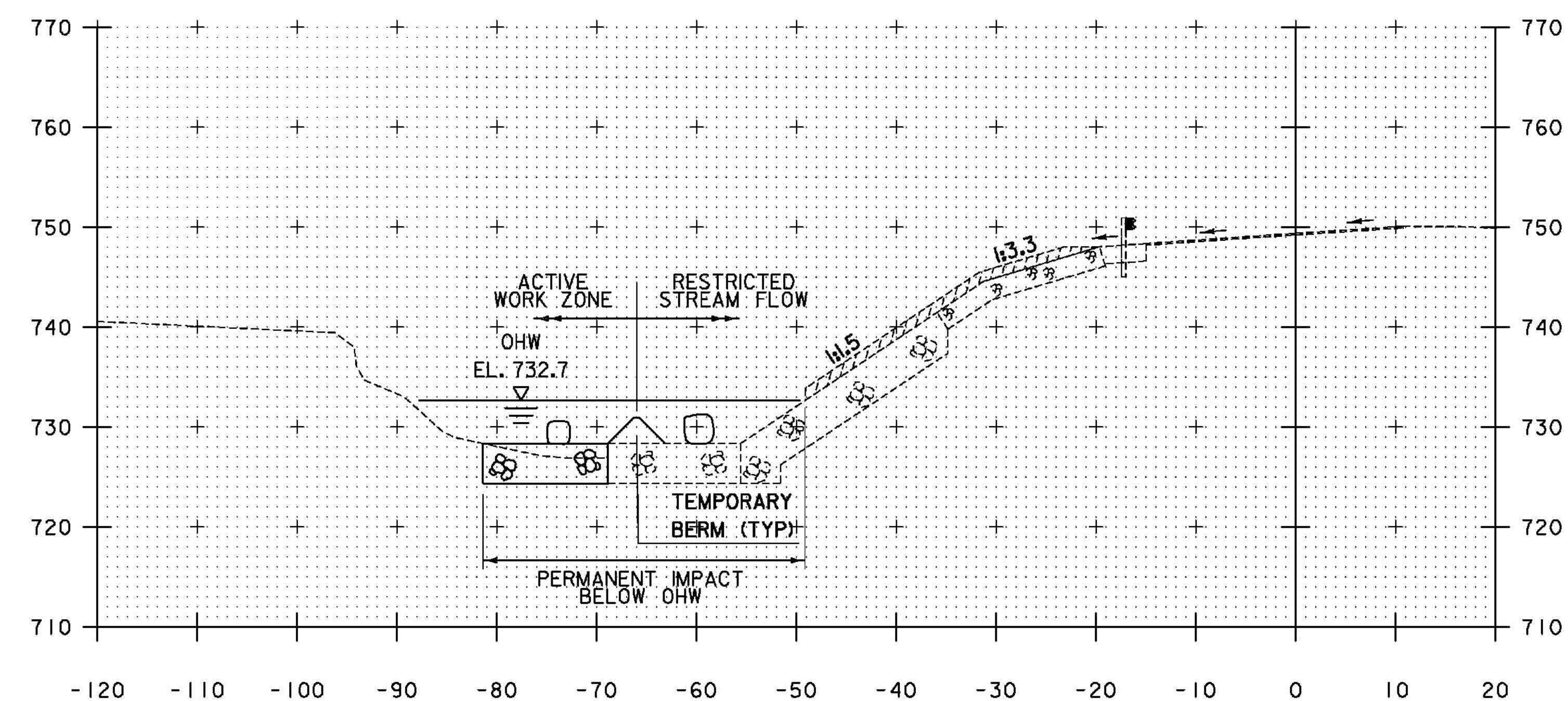




MAINTENANCE OF STREAM FLOW DURING  
PARTIAL CHANNEL RECONSTRUCTION



MAINTENANCE OF STREAM FLOW DURING  
FULL CHANNEL RECONSTRUCTION  
PHASE I



MAINTENANCE OF STREAM FLOW DURING  
FULL CHANNEL RECONSTRUCTION  
PHASE II

- NOTES:
1. THE CONTRACTOR SHALL AT ALL TIMES MAKE A REASONABLE AND CONCERTED EFFORT TO ISOLATE THE WORK AREA FROM THE FLOWING WATER IN ORDER TO MINIMIZE THE DISCHARGE OF TURBID WATER. THIS MAY BE ACCOMPLISHED BY USE OF TEMPORARY BERMS IN THE STREAM (AS SHOWN ON THE CHANNEL SECTIONS ON THIS SHEET), OR OTHER MEASURES PROPOSED BY THE CONTRACTOR AND APPROVED BY THE AGENCY OF NATURAL RESOURCES STREAM ALTERATION ENGINEER AND THEN BY THE ENGINEER.
  2. WORK SHALL BE COMPLETED IN LOW-FLOW CONDITIONS.
  3. THESE CHANNEL SECTIONS SHOW ONE METHOD THE CONTRACTOR COULD USE FOR ISOLATING THE WORK AREA FROM THE FLOWING WATER. IF THE CONTRACTOR ELECTS TO USE AN ALTERNATE METHOD THE CONTRACTOR SHALL SUBMIT PLANS SHOWING THE ALTERNATE 30 DAYS IN ADVANCE OF BEGINNING OF WORK TO THE AGENCY OF NATURAL RESOURCES STREAM ALTERATION ENGINEER AND THEN THE ENGINEER FOR REVIEW AND APPROVAL.
  4. PAYMENT FOR ISOLATING STREAM FLOW FROM WORK ZONE WILL BE PAID FOR UNDER ITEM 900.645 SPECIAL PROVISION (TEMPORARY RELOCATION OF STREAM).

0 10 20  
SCALE IN FEET

TYLIN INTERNATIONAL

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

FILE NAME: z13c014detall2.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: T. KELLEY  
DETAIL SHEET 2

PLOT DATE: 2/4/2015  
DRAWN BY: T. KELLEY  
CHECKED BY: D. BRYANT  
SHEET 6 OF 27



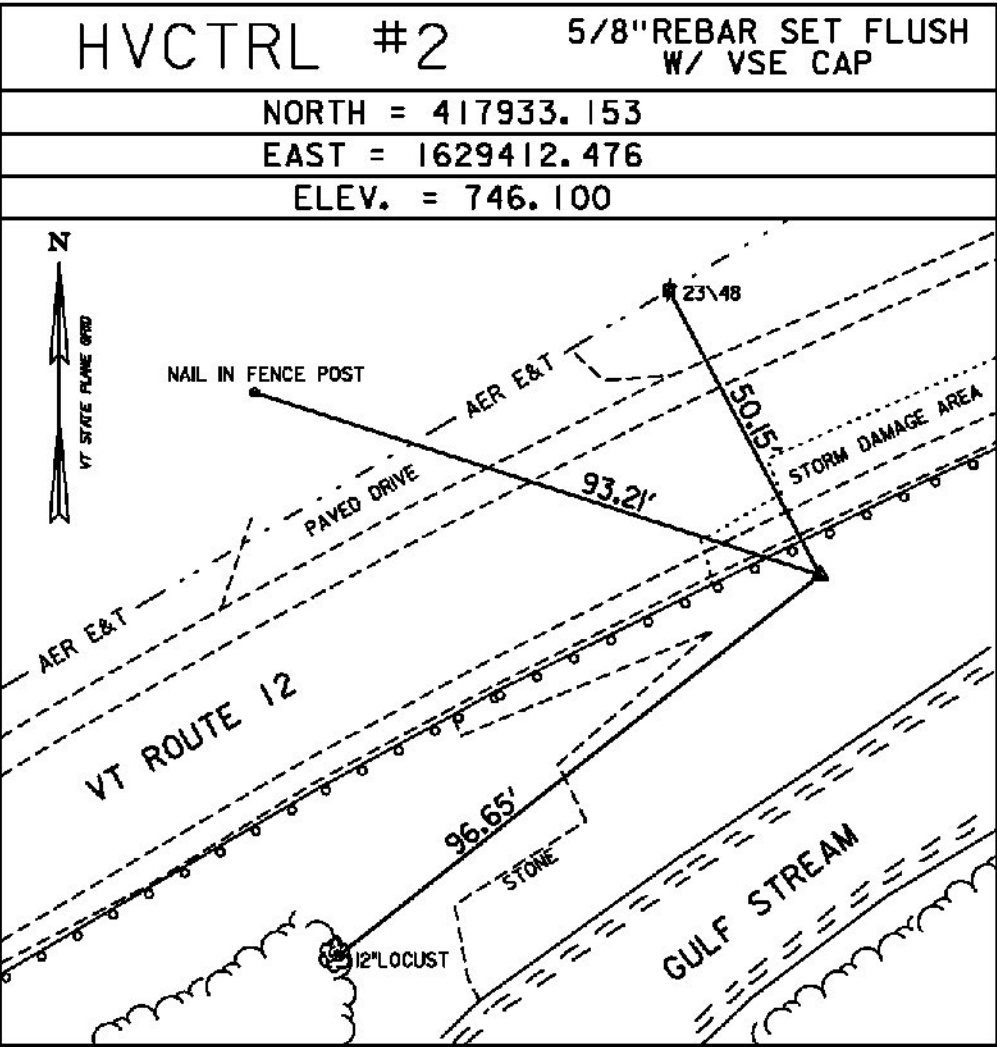
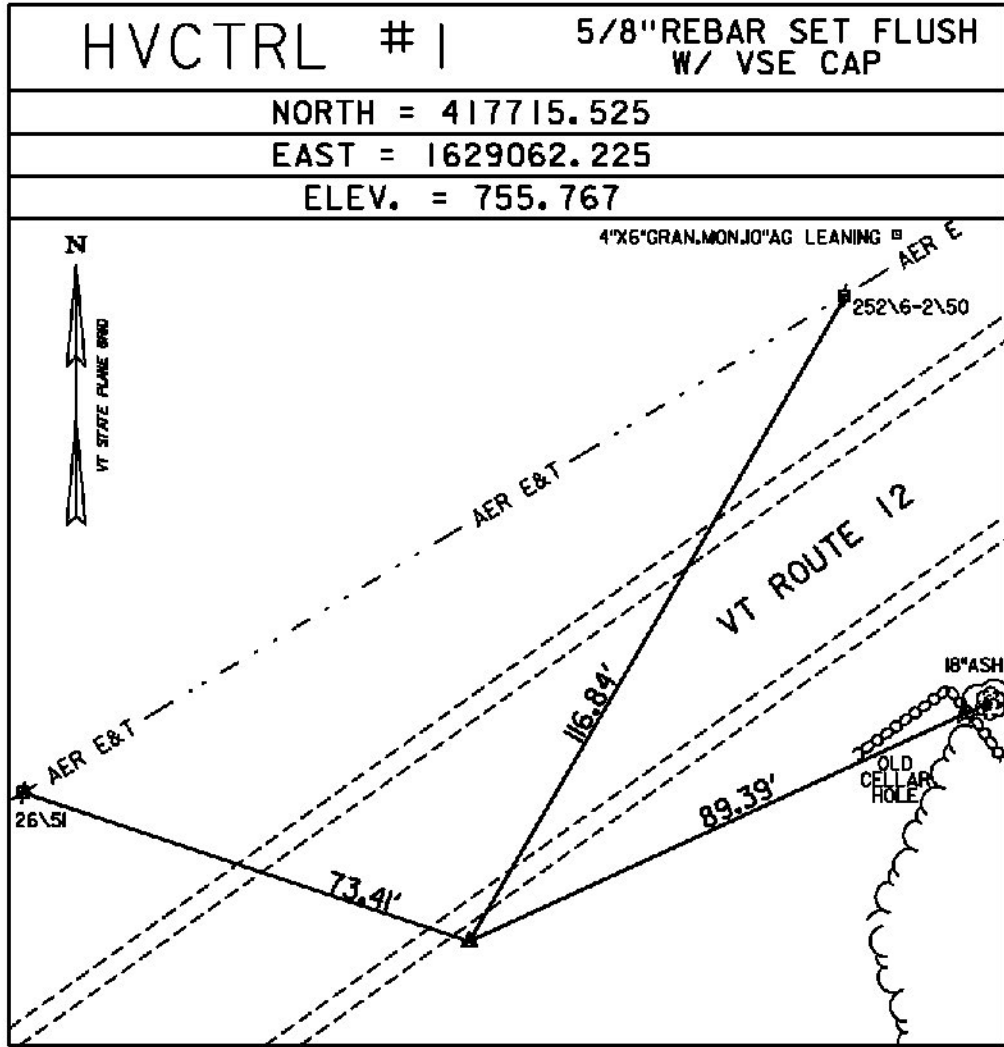
GPS/NGS CONTROL POINTS

WHITE RIVER JCT CORS ARP

ID VTWR  
N = 418844.60  
E = 1688745.13  
ELLIP HEIGHT = 320.00

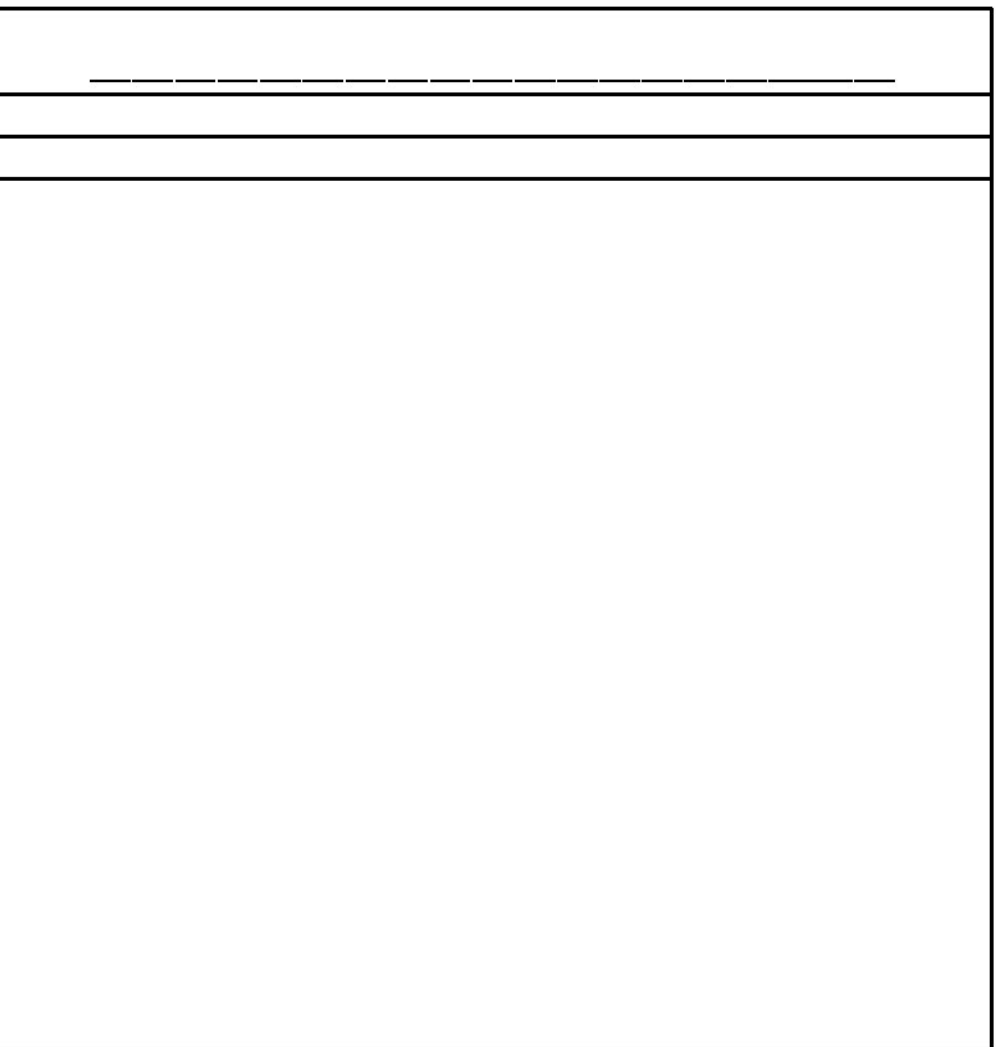
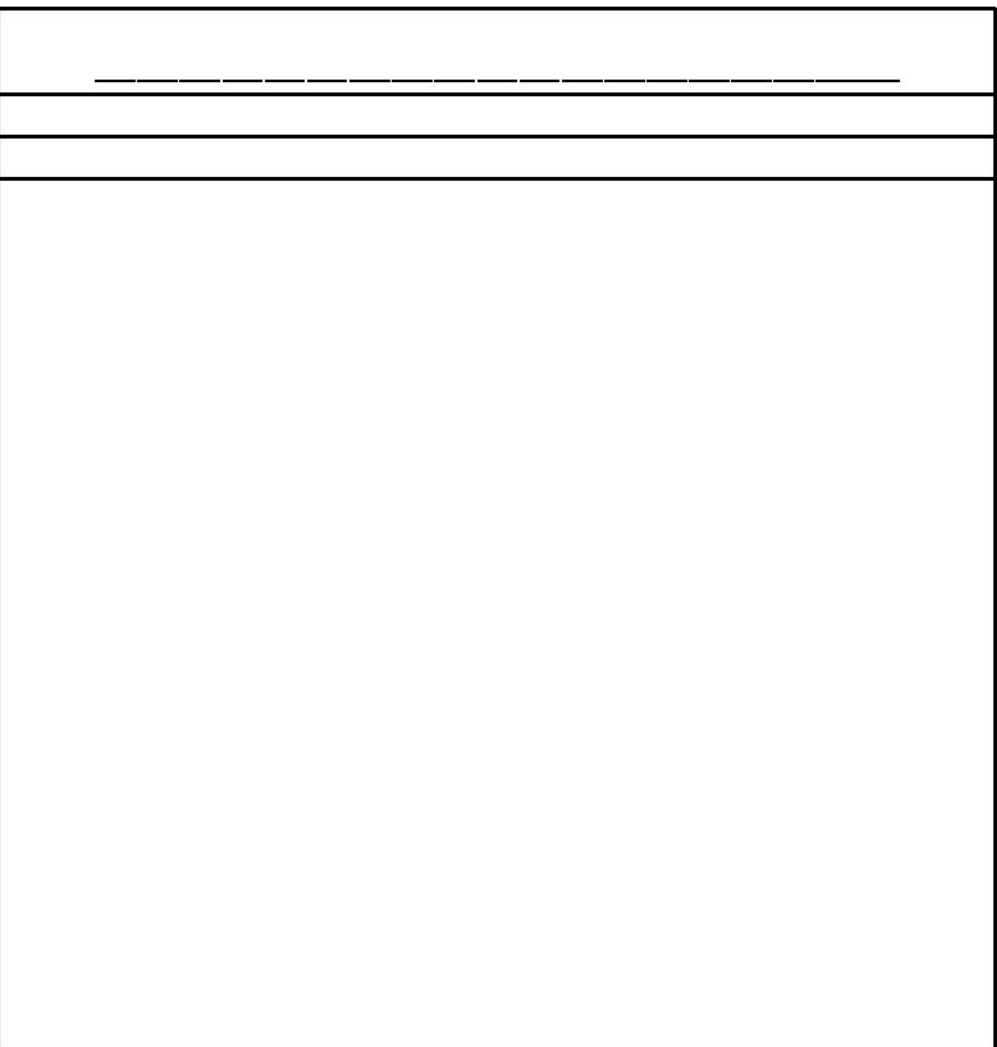
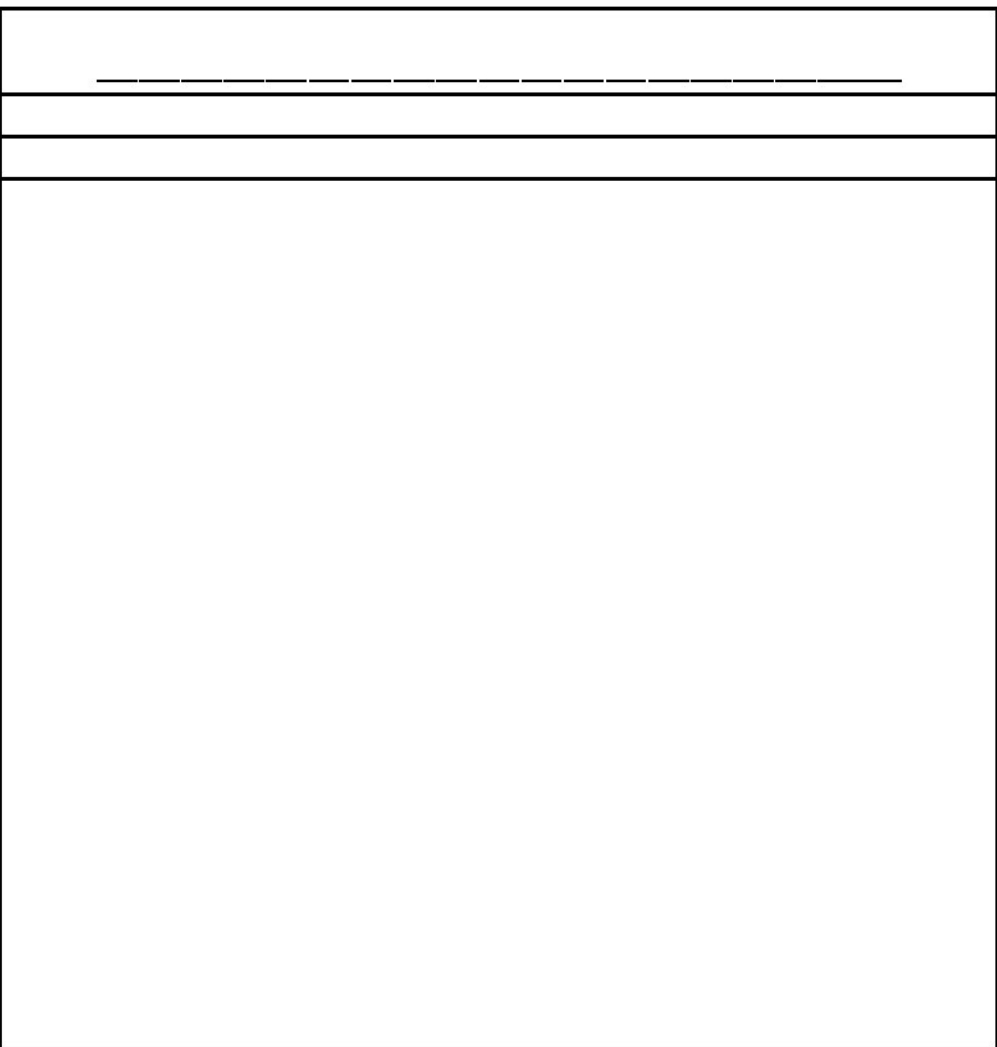
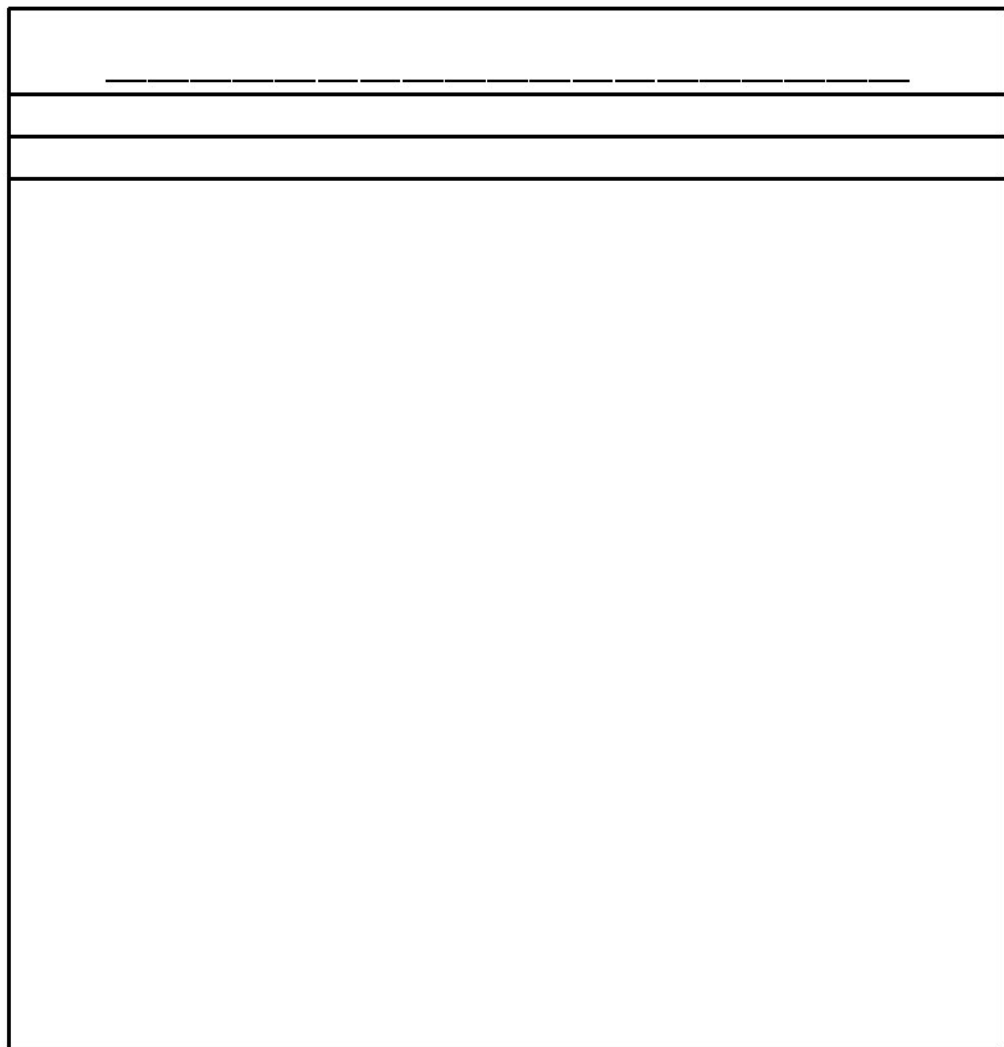
STATION IS A GPS CONTINUOUSLY OPERATING REFERENCE STATION. STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA. THE ANTENNA IS MOUNTED ON THE ROOF OF THE DISTRICT COURT HOUSE IN WHITE RIVER JUNCTION, VT. THE MONUMENT IS ATTACHED TO A THREE STORY BRICK BUILDING WITH A 5 FT CONCRETE FOUNDATION BUILT IN 1988. THE MAST IS A 1.75 INCH DIA GALV PIPE THAT IS 108 INCHES LONG. THE MAST ATTACHED TO A STEEL MOUNTING FRAME WITH THREE ATTACHMENTS CONSISTING OF 3/8 INCH SS THROUGH BOLTS. THE MOUNTING FRAME IS ATTACHED TO THE BUILDING USING 8 ATTACHMENT POINTS. ALL 8 ATTACHMENT POINTS ARE 1/2 INCH SS BOLTS SECURED TO THE BRICK OR CONC WITH LEAD ANCHORS.

TRAVERSE TIES



* PROJECT COMPLETED: JUNE 4, 2013 BY VSE, T. CATTANEO-PC, T. YEFCHAK

ALIGNMENT TIES



DATUM  
VERTICAL NAVD 88(GEOD12A) FT  
HORIZONTAL NAD 83(2011) sFT  
ADJUSTMENT LSQ



PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

FILE NAME:  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: A. McQUEENEY  
TIE SHEET

PLOT DATE:  
DRAWN BY: M. BACKMAN  
CHECKED BY: A. McQUEENEY  
SHEET 7 OF 27



STATE OF VERMONT AGENCY OF TRANSPORTATION														QUANTITY SHEET 1											
SUMMARY OF ESTIMATED QUANTITIES														TOTALS		DESCRIPTIONS						DETAILED SUMMARY OF QUANTITIES			
										ROADWAY	TRAINING	EROSION CONTROL	FULL C.E. ITEMS	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS			
										140				140		CY	COMMON EXCAVATION	203.15	2						
										10				10		CY	SOLID ROCK EXCAVATION	203.16	-						
										3015				3015		CY	UNCLASSIFIED CHANNEL EXCAVATION	203.27	29						
										1				1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-						
										1165				1165		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	8						
										145				145		CY	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	2						
										5				5		CWT	EMULSIFIED ASPHALT	404.65	-						
										1				1		LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-						
										20				20		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST						
										20				20		HR	TRUCK RENTAL	608.37	EST						
										20				20		HR	LOADER RENTAL, TYPE I	608.40	EST						
										47				47		MGAL	DUST CONTROL WITH WATER	609.10	-						
										368				368		CY	STONE FILL, TYPE II	613.11	3						
										1310				1310		CY	STONE FILL, TYPE IV	613.13	12						
										107				107		LF	STEEL BEAM GUARDRAIL, GALVANIZED	621.20	-						
										7				7		EACH	ENERGY ABSORPTION ATTENUATOR	621.56	-						
										1				1		EACH	ANCHOR FOR STEEL BEAM RAIL	621.60	-						
										372				372		LF	REMOVE AND RESET GUARDRAIL	621.75	-						
										26				26		LF	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80	1						
										610				610		LF	TEMPORARY TRAFFIC BARRIER	621.90	EST						
										80				80		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST						
										500				500		HR	FLAGGERS	630.15	EST						
													1	1		LS	FIELD OFFICE, ENGINEERS	631.10	-						
													1	1		LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-						
													3000	3000		DL	FIELD OFFICE TELEPHONE (N.A.B.I.)	631.26	EST						
											500			500		HR	EMPLOYEE TRAINEESHIP	634.10	-						
										1				1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-						
										1				1		LS	TRAFFIC CONTROL	641.10	-						
										2				2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-						
										1470				1470		LF	4 INCH WHITE LINE	646.20	10						
										1470				1470		LF	4 INCH YELLOW LINE	646.21	10						
										1700				1700		SY	GEOTEXTILE UNDER STONE FILL	649.31	7						
												47		47		SY	GEOTEXTILE FOR SILT FENCE	649.51	1						
												16		16		LB	SEED	651.15	1						
												1		1		LB	SEED, WINTER RYE	651.17	EST						
												130		130		LB	FERTILIZER	651.18	4						
												0.6		0.6		TON	AGRICULTURAL LIMESTONE	651.20	-						
												0.6		0.6		TON	HAY MULCH	651.25	-						
										35				35		CY	TOPSOIL	651.35	1						
										1044				1044		SY	GRUBBING MATERIAL	651.40	10						
																		PROJECT NAME: WOODSTOCK							
																		PROJECT NUMBER: STP 024I(40)							
																		TYLIN INTERNATIONAL	FILE NAME: z13c014qs.dgn			PLOT DATE: 2/4/2015			
																			PROJECT LEADER: D. BRYANT			DRAWN BY: T. KELLEY			
																			DESIGNED BY: T. KELLEY			CHECKED BY: D. BRYANT			
																			QUANTITY SHEET I			SHEET 8 OF 27			



## QUANTITY SHEET 2

[illegible]

		PROJECT NAME: WOODSTOCK	
		PROJECT NUMBER: STP 0241(40)	
	FILE NAME: z13c014qs.dgn		PLOT DATE: 2/4/2015
	PROJECT LEADER: D. BRYANT		DRAWN BY: T. KELLEY
	DESIGNED BY: T. KELLEY		CHECKED BY: D. BRYANT
	QUANTITY SHEET 2		SHEET 9 OF 27



# EARTHWORKS

UNCLASSIFIED CHANNEL EXCAVATION

## ITEM DETAIL AND DRAINAGE SUMMARY

**TY·LIN**INTERNATIONAL

FILE NAME: z13c014ewl.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: T. KELLEY  
EARTHWORKS & ITEM DETAIL SHEET

PLOT DATE: 2/4/2015  
DRAWN BY: T. KELLEY  
CHECKED BY: D. BRYANT  
SHEET 10 OF 27



# RIGHT - OF - WAY DETAIL SHEET

[illegible][illegible]

APPROVED: RYAN CLOUTIER DATE: 05-27-14  
ACTING CHIEF, PLANS & TITLES

PROJECT NAME: <b>WOODSTOCK</b>	
PROJECT NUMBER: <b>ER 0241(40)</b>	
FILE NAME: <b>r13c014detail.xls</b>	PLOT DATE: <b>27-MAY-2014</b>
PROJECT LEADER: <b>P. LIBBY</b>	DRAWN BY: <b>M. TROTTIER</b>
DESIGNED BY: <b>A. EGIZI</b>	CHECKED BY: <b>R. CLOUTIER</b>
<b>R.O.W. DETAIL SHEET #1</b>	<b>SHEET 11 OF 27</b>



STONE FILL, TYPE II  
113+75.00, LT - 117+25.00, LT

STONE FILL, TYPE IV  
113+75.00, LT - 117+25.00, LT

STEEL BEAM GUARDRAIL, GALVANIZED  
117+50.38, LT - 118+20.01, LT

MANUFACTURED TERMINAL SECTION, FLARED  
118+20.01, LT - 118+57.30, LT

ANCHOR FOR STEEL BEAM RAIL  
118+56.35, LT

REMOVE AND RESET GUARDRAIL  
113+75.00, LT - 117+50.38, LT

REMOVAL AND DISPOSAL OF GUARDRAIL  
117+50.38, LT - 117+75.81, LT

4" YELLOW LINE  
113+75 - 117+25, CL (DBL)

4" WHITE LINE  
113+75, LT - 117+25, LT  
113+75, RT - 117+25, RT

SPECIAL PROVISION  
5 FT RIPRAP, HEAVY TYPE  
(SCATTERED NATURAL RIVER BOULDERS)  
113+75.00, LT - 117+25.00, LT

SPECIAL PROVISION  
5 FT RIPRAP, HEAVY TYPE  
(STONE TOE WALL)  
114+25.00, LT - 116+25.00, LT

GULF STREAM  
CURVE (GS1)  
DELTA = 13°53'53"  
D = 28°38'52"  
R = 200.00'  
T = 24.38'  
L = 48.51'  
E = 1.48'

GULF STREAM  
CURVE (GS2)  
DELTA = 22°08'16"  
D = 13°19'29"  
R = 430.00'  
T = 84.12'  
L = 166.14'  
E = 8.15'

GULF STREAM  
CURVE (GS3)  
DELTA = 13°35'17"  
D = 11°56'12"  
R = 480.00'  
T = 57.19'  
L = 113.84'  
E = 3.39'

BENCHMARK  
HVCTRL #1  
5/8" REBAR  
EL. 750.76

**END R.O.W. PROJECT  
WOODSTOCK ER 0241 (40)  
STA. 118+77, 36.78 LT**

**BEGIN R.O.W. PROJECT  
WOODSTOCK ER 0241 (40)  
STA. 116+70, 96.13 LT**

**KILLIAN, HENRIETTE M.**

**MARTSOLF, AMY  
& TAN, TERESA**

N 417828.85  
E 1629102.67  
STA. 119+00, 52.37 RT

VT 12  
CURVE (1)  
DELTA = 4°54'42"  
D = 2°31'07"  
R = 2275.00'  
T = 96.91'  
L = 193.70'  
E = 2.06'

VT 12  
CURVE (2)  
DELTA = 11°36'42"  
D = 4°20'26"  
R = 1320.00'  
T = 134.22'  
L = 267.52'  
E = 6.81'

BENCHMARK  
HVCTRL #2  
5/8" REBAR  
EL. 746.10

N 417882.56  
E 1629572.04  
STA. 114+50, 131.85 LT

**MARTSOLF, AMY  
& TAN, TERESA**

LINES SHOWN ON THIS PLAN AS EXISTING  
PROPERTY LINES P/L ARE BELIEVED TO  
BE ACCURATE BUT SHOULD NOT BE RELIED  
UPON FOR PURPOSES UNRELATED TO THE  
STATE OF VERMONT'S ACQUISITION OF LAND  
AND RIGHTS FOR THIS PROJECT.

**FOR R.O.W.  
USE ONLY**

0 20 40  
SCALE IN FEET

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 0241(40)

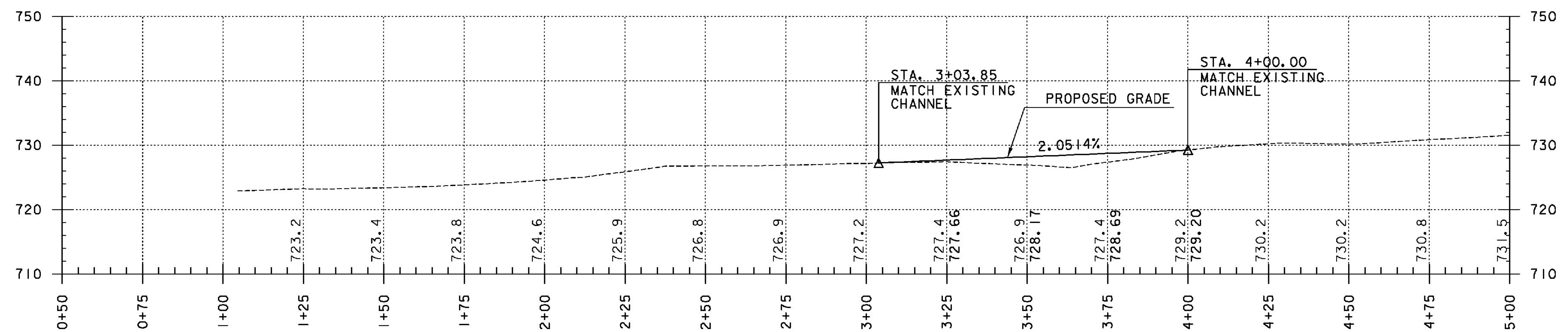
FILE NAME: r13c014lay.dgn  
PROJECT LEADER: P. LIBBY  
DESIGNED BY: TYLIN  
ROW LAYOUT SHEET 1 OF 1

PLOT DATE: 27-MAY-2014  
DRAWN BY: A. EGIZI  
CHECKED BY: R. CLOUTIER  
SHEET 12 OF 27









PROFILE - GULF STREAM  
NOTE: STATIONS AND ELEVATIONS ARE IN FEET

THE GRADES SHOWN TO THE NEAREST TENTH ARE THE ORIGINAL  
GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT.

THE GRADES SHOWN TO THE NEAREST HUNDRETH ARE THE PROPOSED  
GRADES FOR THE NEW ALIGNMENT.

TYLIN INTERNATIONAL

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

FILE NAME: z13c014pro.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: T. KELLEY  
PROFILE SHEET

PLOT DATE: 2/4/2015  
DRAWN BY: T. KELLEY  
CHECKED BY: D. BRYANT  
SHEET 14 OF 27



EROSION CONTROL NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF A STONE FILL SLOPE AND STREAMBED ALONG THE GULF STREAM ADJACENT TO VT 12 IN THE TOWN OF WOODSTOCK. THE PROJECT BEGINS AT A POINT APPROXIMATELY 0.09 MILES NORTHEAST OF THE VT RTE 12 /GULLY ROAD INTERSECTION AND EXTENDS NORTHEASTERLY FOR 0.07 MILES ALONG VT 12. WORK WILL INVOLVE REMOVING AND REPLACING THE EXISTING STONE FILL SIDESLOPES, RAISING THE STREAMBED FOR APROXIMATELY 125’ ALONG THE CHANNEL, REPAVING THE TRAVEL LANES AND SHOULDERS THROUGH THE PROJECT SITE, AND INCIDENTAL ITEMS.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA AS SHOWN ON THE ATTACHED EPSC PLAN. THE AREA OF DISTURBANCE DOES NOT INCLUDE WASTE, BORROW AND STAGING AREAS. THE CONTRACTOR IS RESPONSIBLE FOR SUBMITTING THE LOCATION OF THE WASTE, BORROW AND STAGING AREAS, AS WELL AS THE MATERIAL STOCKPILE, REFUELING AND MAINTENANCE AREAS. A MAP SHALL BE ATTACHED IF NECESSARY.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 33,834.7 SQUARE FEET (0.78 ACRES).

IT IS ANTICIPATED THAT THE PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY, EXISTING ROADS, UTILITIES

THE TOPOGRAPHY SURROUNDING THE PROJECT SITE CONSISTS PREDOMINANTELY OF ROLLING HILLS SLOPING TOWARD THE STREAM. VT 12 RUNS SOUTHWEST TO NORTHEAST GENERALLY FOLLOWING GULF STREAM ALONG THE VALLEY BETWEEN ADJACENT HILLS. THE GENERAL TOPOGRAPHY WITHIN THE PROJECT SITE SLOPES TOWARD THE STREAM FROM NORTH TO SOUTH ACROSS ROUTE 12.

THERE ARE TWO RESIDENTIAL PROPERTIES NEAR THE SOUTHWEST CORNER OF THE PROJECT AND A RESIDENTIAL PROPERTY/FARMLAND ON THE NORTHEAST CORNER OF THE PROJECT.

ALL ROAD SURFACES IN THE PROJECT AREA ARE BITUMINOUS CONCRETE PAVEMENT. THERE IS ONE DRIVE WITHIN THE PROJECT AREA WHICH IS NOT IMPACTED BY THE PROJECT. THIS DRIVE IS GRAVEL.

WITHIN THE PROJECT AREA THERE ARE AERIAL ELECTRICAL LINES ON THE OPPOSITE SIDE OF THE ROAD FROM THE PROJECT.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THE ROADWAY PARALLELS GULF STREAM IN THE PROJECT AREA. THE TERRAIN ON THE NORTHERLY SIDE OF THE ROAD IS GENTLE TO MODERATELY SLOPED TOWARD THE ROAD WITH GRASS AND WOODED AREAS. THE TERRAIN ON THE SOUTHERLY SIDE OF THE ROAD SLOPES STEEPLY AWAY FROM THE ROAD TOWARD GULF STREAM. CONSTRUCTION OF THE NEW SIDESLOPES AND STREAM BED WILL REQUIRE SOME TEMPORARY AND PERMANENT IMPACTS TO THE STREAM BANKS AND BOTTOM. THE CONTRACTOR SHALL AT ALL TIMES MAKE A REASONABLE AND CONCERTED EFFORT TO ISOLATE THE WORK AREA FROM FLOWING WATER IN ORDER TO MINIMIZE THE DISCHARGE OF TURBID WATER.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA IS A MIX OF GRASS, BRUSH AND TREES, WITH THE GRASSED AREAS BEING PREDOMINATLY IN THE VICINITY OF THE RESIDENTAL PROPERTIES. THERE ARE SOME AREAS OF TREES. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS REQUIRED FOR PLACEMENT OF THE PROPOSED STONE FILL AND THE EXTENSION OF GUARDRAIL ON THE WESTERLY END OF THE PROJECT. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES, OR WITH STONE FILL.

1.2.4 SOILS

SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE FOR THE COUNTY OF ORANGE, VERMONT. SOILS ON THE PROJECT SITE ARE:

NINIGRET.

SEE EPSC EXISTING CONDITIONS PLAN SHEET FOR SOIL LOCATIONS AND ADDITIONAL INFORMATION.

1.2.4 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO  
HISTORICAL OR ARCHAEOLOGICAL AREAS: NO  
PRIME AGRICULTURE LAND: NO  
THREATENED AND ENDANGERED SPECIES: NO  
WATER RESOURCE: GULF STREAM  
WETLANDS:NO  
TOTAL IMPACTED AREA 0 SF.

1.3 RISK EVALUATION

THE PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT TO AVOID SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING.

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR’S PROGRESS SCHEDULE.

THE USE OF STABILIZED CONSTRUCTION ENTRANCES IS ANTICIPATED.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHOULD BE INSTALLED PRIOR TO ANY UPSLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND DETAIL SHEETS.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

DIVERSION OF UPLAND RUNOFF IS NOT ANTICIPATED.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSIIVE POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

THE USE OF CHECK STRUCTURES IS NOT ANTICIPATED FOR THIS PROJECT.

1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES ARE NOT ANTICIPATED FOR THIS PROJECT.

SEED AND MULCH WILL BE USED AS PERMANENT CONTROLS TO STABILIZE EXPOSED SOIL. STONE FILL WILL BE USED TO STABILIZE THE STEEPER PORTIONS OF THE STREAM BANKS.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE. THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

SHOULD EARTH DISTURBANCE BE PERFORMED OUTSIDE THE CONSTRUCTION SEASON, A WINTER EROSION AND SEDIMENT CONTROL PLAN DESCRIBING ALTERNATIVE STABILIZATION METHODS SHALL BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO AUGUST 15TH FOR APPROVAL.

WINTER CONSTRUCTION IS NOT ANTICIPATED FOR THIS PROJECT.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER, AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

THE USE OF EROSION CONTROL MATTING IS ANTICIPATED ON GRUBBING MATERIAL.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

DEWATERING ACTIVITIES ARE NOT ANTICIPATED FOR THIS PROJECT.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS.

1.5 SEQUENCE AND STAGING

THIS SECTION WILL BE DEVELOPED BY THE CONTRACTOR USING THE GUIDANCE OUTLINED IN THE VTRANS EPSC PLAN CONTRACTOR CHECKLIST.

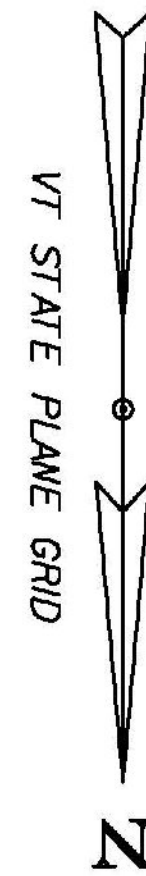
1.5.1 CONSTRUCTION SEQUENCE

1.5.2 OFF-SITE ACTIVITIES

IN ADDITION TO THE CONTRACTOR CHECKLIST ANY ACTIVITIES OUTSIDE THE CONSTRUCTION LIMITS SHALL FOLLOW SUBSECTIONS 105.25- 105.29 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION. WASTE, BORROW AND STAGING SITES MUST BE APPROVED BY VTRANS ENVIRONMENTAL SECTION.

TYLININTERNATIONAL	PROJECT NAME: WOODSTOCK	
	PROJECT NUMBER: ER 024I(40)	
	FILE NAME: z13c014ero_n.dgn	PLOT DATE: 2/12/2015
	PROJECT LEADER: D. BRYANT	DRAWN BY: P. MCCLURE
	DESIGNED BY: D. BRYANT	CHECKED BY: D. BURHANS
	EPSC NARRATIVE	SHEET 15 OF 27





SOIL CLASSIFICATION  
VERSHIRE-DUMMERSTON  
COMPLEX, ROCKY  
15 TO 25% SLOPES  
"K FACTOR" 0.28

SOIL CLASSIFICATION  
DUMMERSTON  
FINE SANDY LOAM  
8 TO 15% SLOPES  
"K FACTOR" 0.32

WOODS

BRUSH/  
TREES

BRUSH/  
TREES

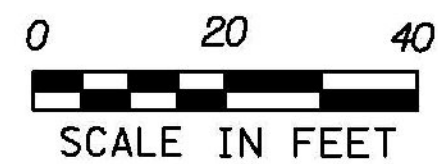
WOODS

STONE  
FILL

SOIL CLASSIFICATION  
NINIGRET  
FINE SANDY LOAM  
0 TO 8% SLOPES  
"K FACTOR" 0.32

EXISTING ROW (TYP)

EPSC EXISTING CONDITION



TYLIN INTERNATIONAL

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

FILE NAME: z13c014bdrero_E.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: D. BRYANT  
EPSC EXISTING CONDITIONS PLAN SHEET

PLOT DATE: 2/11/2015  
DRAWN BY: P. MCCLURE  
CHECKED BY: D. BURHANS  
SHEET 16 OF 27

BEGIN PROJECT  
STA. 113+75.00 (MM 2.154)  
VT 12  
STA. 113+70.00  
LIMIT OF WORK

END PROJECT  
STA. 117+25.00 (MM 2.221)

VT 12  
STA. 118+79.35  
LIMIT OF WORK

VT 12  
TO BARNARD

VT 12  
TO WOODSTOCK

AER E&T

AER E&T

AER E&T

AER E&T

AER E&T

AER E&T

AER E&T

AER E&T

AER E&T

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AER E&T

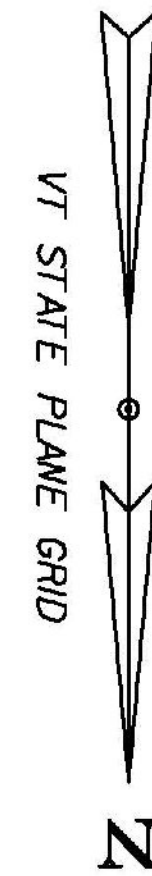
AER E&T

AER E&T

AER E&T

AER E&T





**NOTES:**

1. PROTECT EXISTING VEGETATION ADJACENT TO THE WORK AREA
2. THE CONTRACTOR SHALL AT ALL TIMES MAKE A REASONABLE AND CONCERTED EFFORT TO ISOLATE THE WORK AREA FROM FLOWING WATER IN ORDER TO MINIMIZE THE DISCHARGE OF TURBID WATER. THIS MAY BE ACCOMPLISHED BY USE OF TEMPORARY BERMS IN THE STREAM, OR OTHER MEASURES PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. WORK SHALL BE COMPLETED IN LOW-FLOW CONDITIONS.
3. ORDINARY HIGH WATER ELEVATION VARIES - SEE CROSS SECTION SHEETS.
4. CONTOURS REFLECT EXISTING CONDITIONS. FINAL CONTOURS WILL BE SIMILAR. SEE CROSS SECTION SHEETS FOR FINAL GRADES.
5. TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 33,834.70 SQUARE FEET (0.78 ACRES).

PERMANENT CONSTRUCTION BELOW OHW  
(TOTAL AREA = 6,350.9 S.F.)  
SEE NOTE 2  
TEMPORARY CONSTRUCTION BELOW OHW  
(TOTAL AREA = 1,239.8 S.F.)

**TEMPORARY EROSION MATTING**  
113+75.0, LT - 117+13.0, LT

**GEOTEXTILE FOR SILT FENCE**  
117+11.9, LT - 117+63.8, LT  
117+66.6, LT - 118+56.4, LT  
118+71.8, LT - 118+78.8, LT

**PROJECT DEMARCATION FENCE**  
113+74.91, LT - 113+75.00, LT  
117+07.92, LT - 118+79.00, LT

**VEHICLE TRACKING PAD**  
116+85.6, LT

BENCHMARK  
HVCTRL #2  
3/4" REBAR  
EL. 746.10

BENCHMARK  
HVCTRL #1  
3/4" REBAR  
EL. 755.76

**LEGEND:**

- STONE FILL, TYPE II
- STONE FILL, TYPE IV
- SPECIAL PROVISION (RIPRAP, CHANNEL ARMORING) (NATURAL RIVER BOULDERS)
- COLD PLANING
- STONE FILL, TYPE IV W/SPECIAL PROVISION (RIPRAP, CHANNEL ARMORING) - (NATURAL RIVER BOULDERS)
- VEHICLE TRACKING PAD

NOTE: SEE SHEET 3 FOR EPSC SYMBOLOGY LEGEND

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024(40)

FILE NAME: z13c014bdrero_C.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: D. BRYANT  
EPSC CONSTRUCTION PLAN SHEET

PLOT DATE: 2/4/2015  
DRAWN BY: P. MCCLURE  
CHECKED BY: D. BURHANS  
SHEET 17 OF 27

TYLIN INTERNATIONAL

0 20 40  
SCALE IN FEET

EPSC CONSTRUCTION CONDITION

EXISTING GUARDRAIL TO REMAIN IN PLACE  
(LOCATION IS APPROXIMATE)

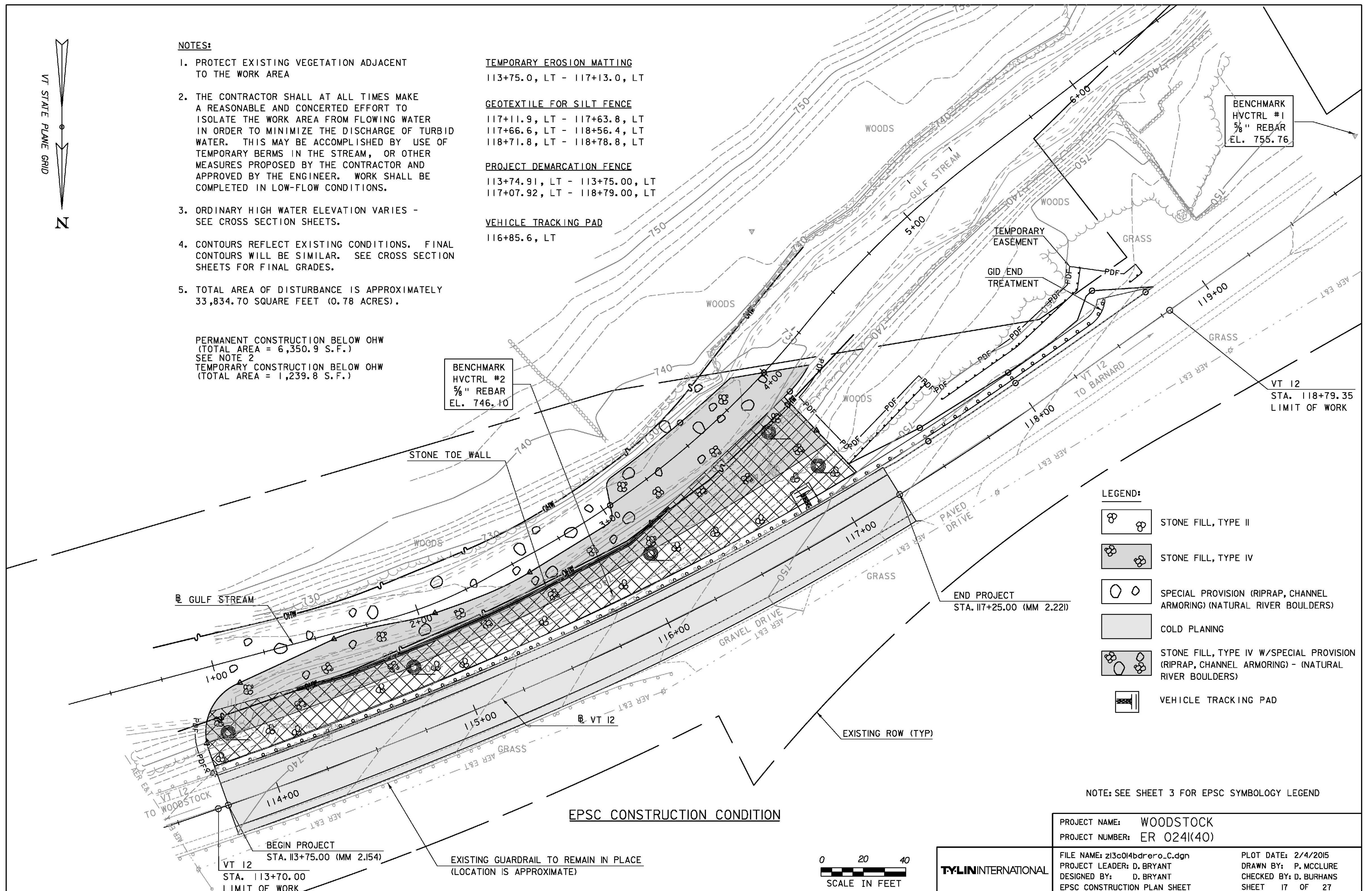
BEGIN PROJECT  
STA. 113+75.00 (MM 2.154)

VT 12  
STA. 113+70.00  
LIMIT OF WORK

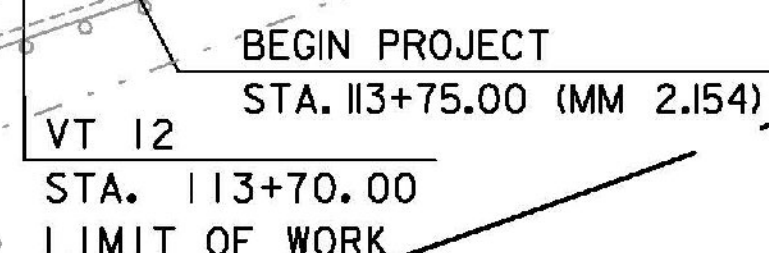
EXISTING ROW (TYP)

END PROJECT  
STA. 117+25.00 (MM 2.221)

VT 12  
STA. 118+79.35  
LIMIT OF WORK









SYMBOL

□

×

□

SILT FENCE

□

×

□

SILT FENCE  
WOVEN WIRE

NOT TO SCALE

↑

FILTER CLOTH  
16" MIN

↑

EMBED 6" MIN

WOVEN WIRE

FILTER CLOTH  
(UPSLOPE OF WIRE  
AND POST)

FLOW

EMBED FILTER  
CLOTH 6" MIN

POST DETAIL

4"

CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.

2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.

3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.

4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.

5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.

6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

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

SILT FENCE

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

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH  
SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE  
FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR  
SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS

MARCH 21, 2008

WHF

DECEMBER 11, 2008

WHF

JANUARY 13, 2009

WHF

VAOT LOW GROW / FINE FESCUE MIX

LBS/AC						
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
38%	57	95	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	90%	98%
29%	43.5	72.5	HARD FESCUE	FESTUCA LONGIFOLIA	85%	95%
15%	22.5	37.5	CHEWINGS FESCUE	FESTUCA RUBRA VAR. COMMUTATA	87%	95%
15%	22.5	37.5	ANNUAL RYEGRASS	LOLIUM MULTIFLORUM	90%	95%
3%	4.5	7.5	INERTS			
100%	150	250				

VAOT RURAL AREA MIX

LBS/AC						
WEIGHT	BROADCAST	HYDROSEED	NAME	LATIN NAME	GERM	PURITY
37.5%	22.5	45	CREEPING RED FESCUE	FESTUCA RUBRA VAR. RUBRA	85%	98%
37.5%	22.5	45	TALL FESCUE	FESTUCA ARUNDINACEA	90%	95%
5.0%	3	6	RED TOP	AGROSTIS GIGANTEA	90%	95%
15.0%	9	18	WHITE FIELD CLOVER	TRIFOLIUM REPENS	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	LOLIUM MULTIFLORUM	85%	95%
100%	60	120				

GENERAL AMENDMENT GUIDANCE

FERTILIZER	LIME	
10/20/10	AG LIME	PELLITIZED
500 LBS/AC	2 TONS/AC	1 TONS/AC

CONSTRUCTION GUIDANCE

1. SEED MIX: THE CONTRACTOR SHALL COORDINATE WITH THE RESIDENT ENGINEER ON WHICH SEED MIX TO USE.

2. SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) 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. HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED PROPOSED FOR USE WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED.

7. TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR  
ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH  
SECTION 651 FOR SEED (PAY ITEM 651.15)

REVISIONS

JANUARY 12, 2015

WHF

PROJECT NAME: WOODSTOCK

PROJECT NUMBER: ER 0241(40)

FILE NAME: z13c014epsc_details.dgn

PROJECT LEADER: D. BRYANT

DESIGNED BY: D. BRYANT

EPSC DETAIL SHEET 1

PLOT DATE: 2/4/2015

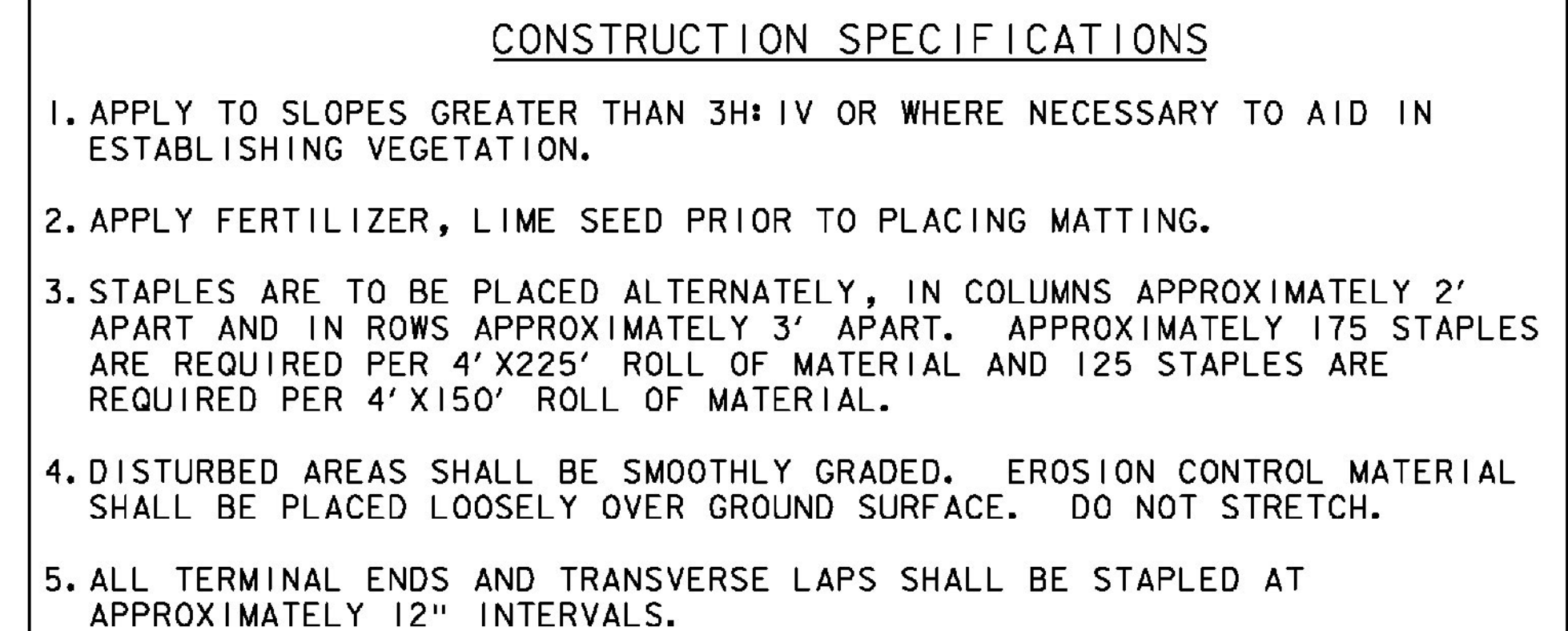
DRAWN BY: P. MCCLURE

CHECKED BY: D. BURHANS

SHEET 19 OF 27

TYLIN INTERNATIONAL





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



1. STONE SIZE- USE 1-4" STONE, RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
3. THICKNESS- NOT LESS THAN 8".
4. WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
5. GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
6. SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

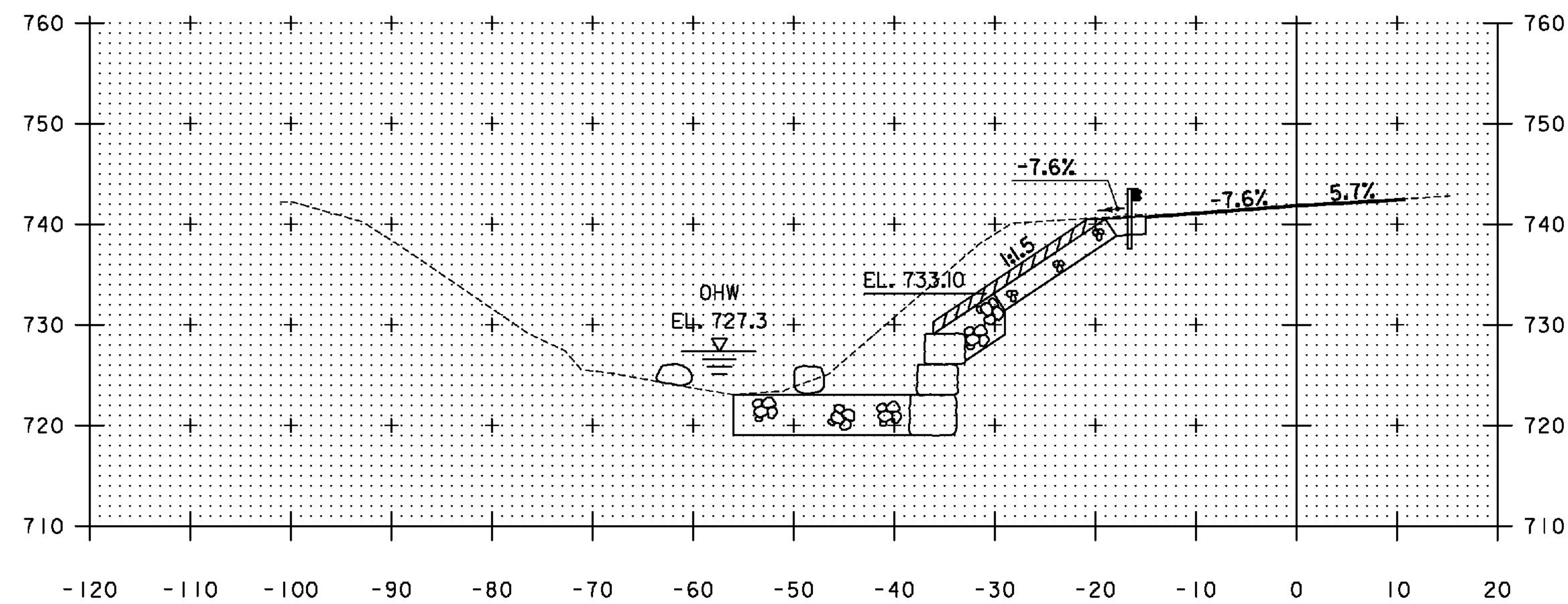
STABILIZED  
CONSTRUCTION  
ENTRANCE

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 VEHICLE TRACKING PAD (PAY ITEM 653.35)  
OR AS SPECIFIED IN THE CONTRACT.

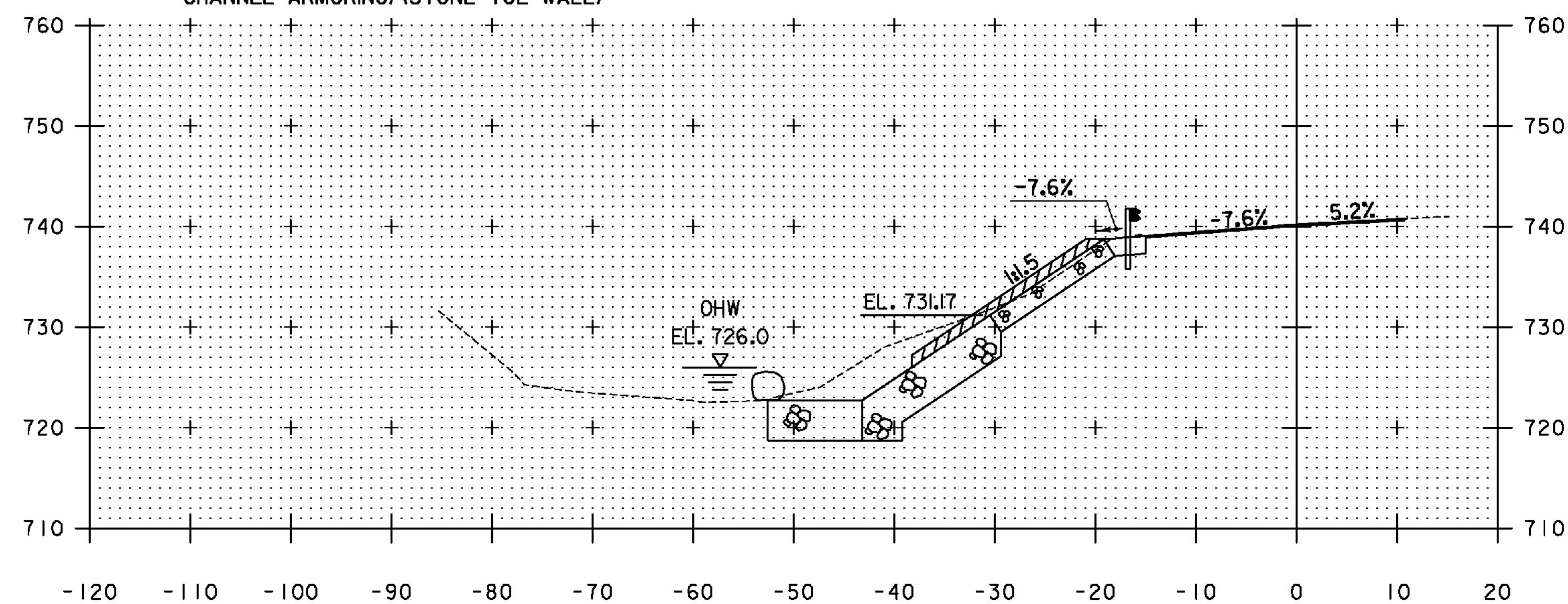
REVISIONS	
MARCH 24, 2008	WHF
JANUARY 13, 2009	WHF





STA. 114+25.00 LT  
 BEGIN SPECIAL PROVISION (RIPRAP,  
 CHANNEL ARMORING) (STONE TOE WALL)

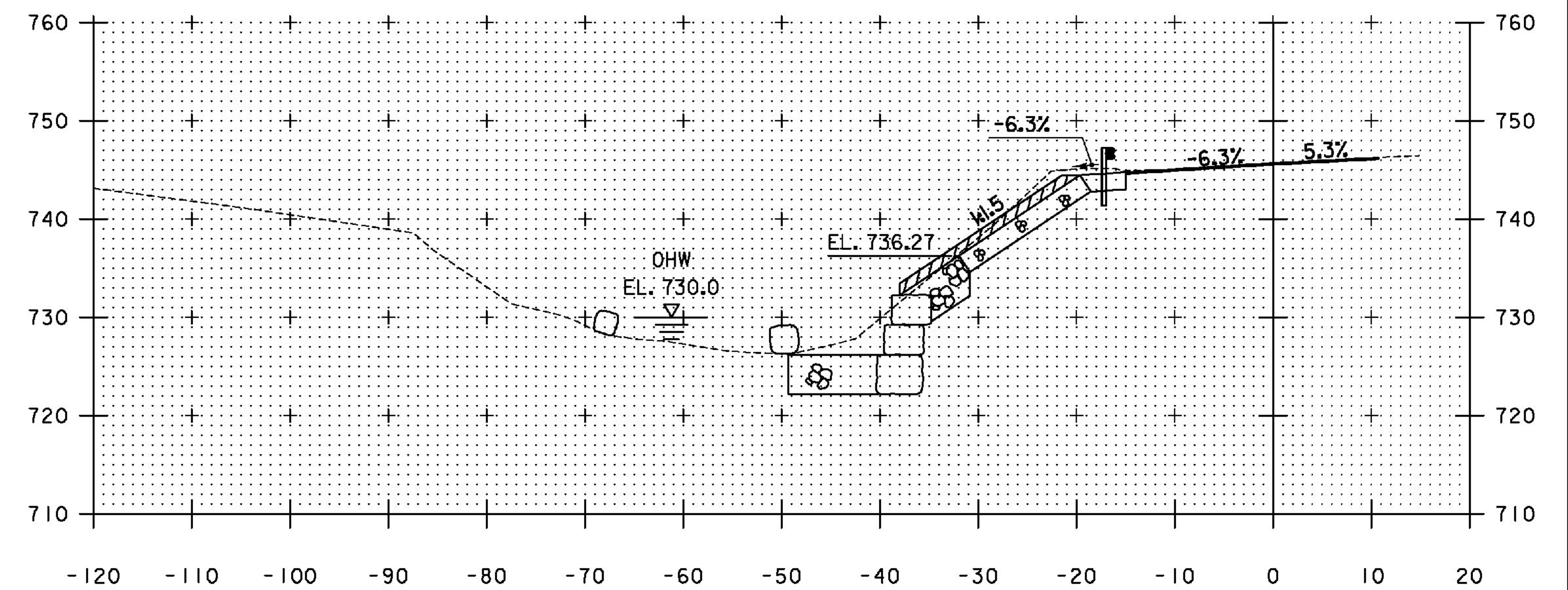
114+50



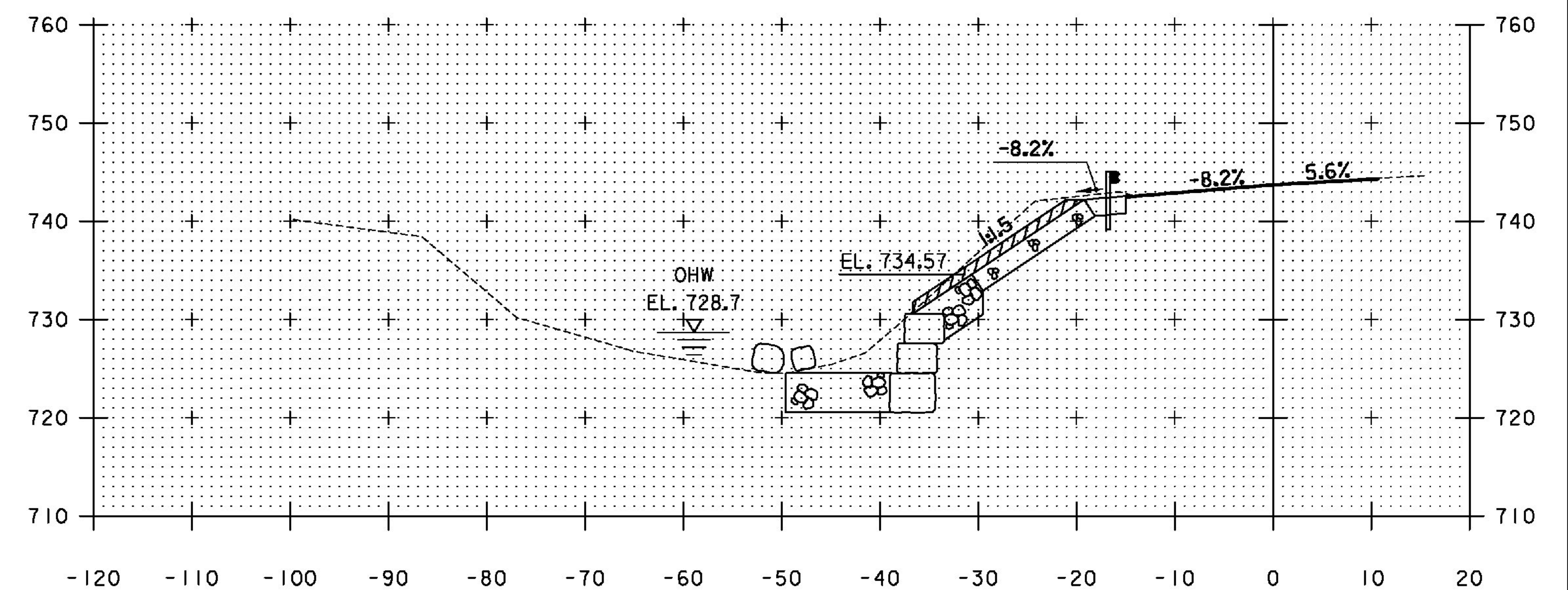
STA. 113+75.00 LT  
 BEGIN GRUBBING MATERIAL  
 STA. 113+75.00  
 BEGIN SPECIAL PROVISION (RIPRAP,  
 CHANNEL ARMORING) (NATURAL RIVER  
 BOULDERS)  
 STA. 113+75.00  
 BEGIN STONE FILL, TYPE II  
 STA. 113+75.00  
 BEGIN STONE FILL, TYPE IV

BEGIN PROJECT  
 STA. 113+75.00  
 MATCH EXISTING PAVEMENT  
 STA. 113+70.00  
 LIMIT OF WORK

114+00



115+50



115+00

STA. 114+00 TO STA. 115+50

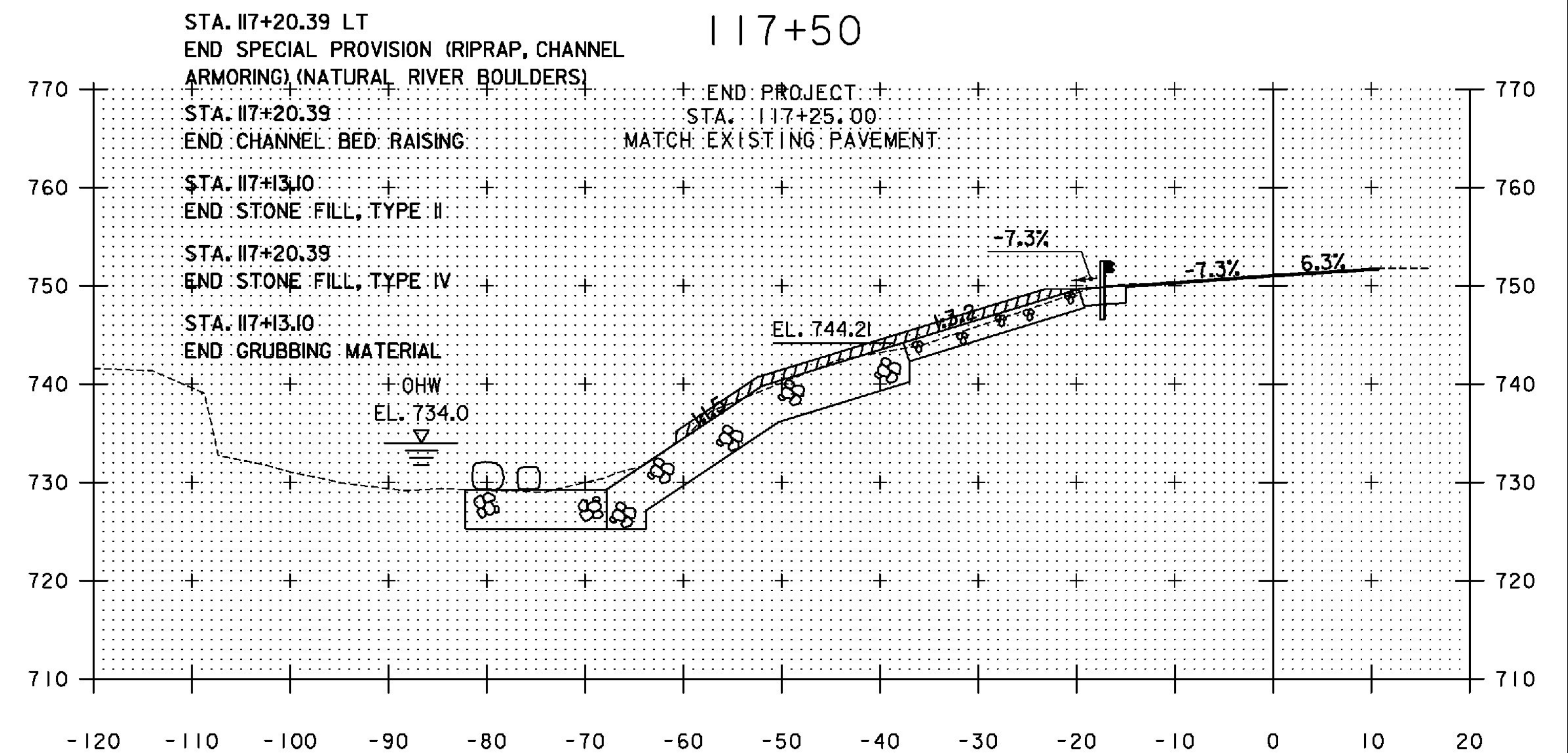
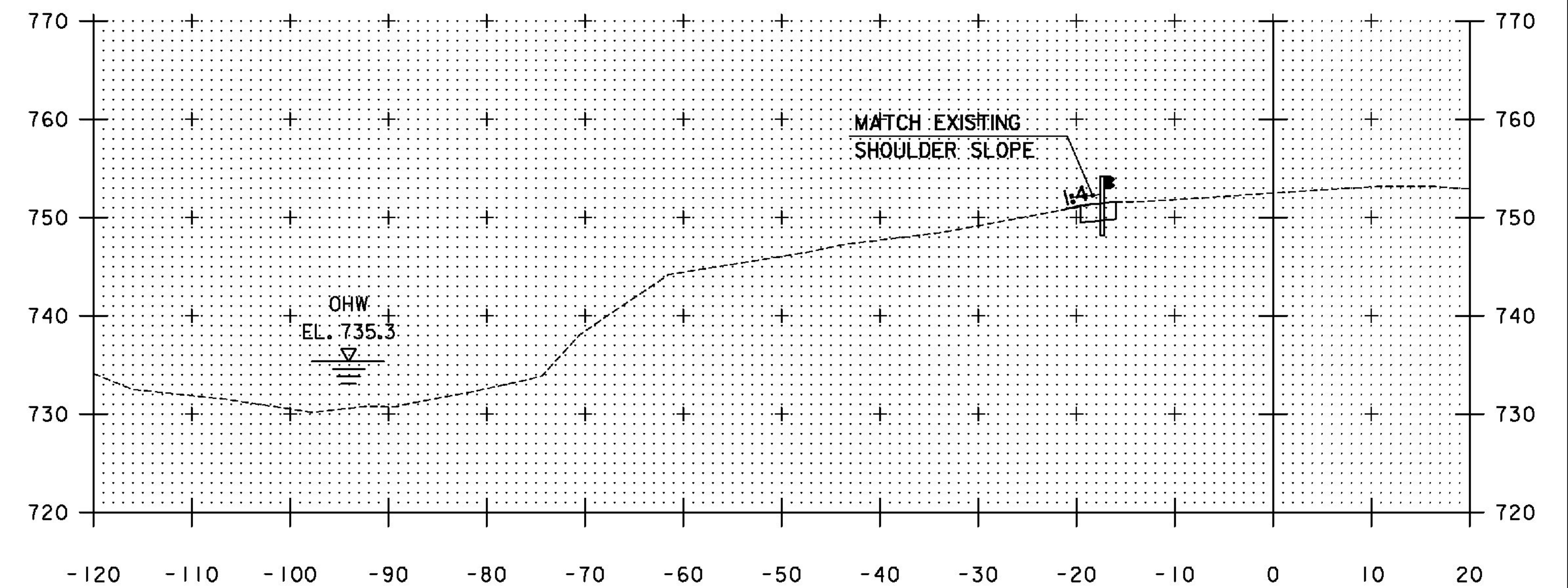
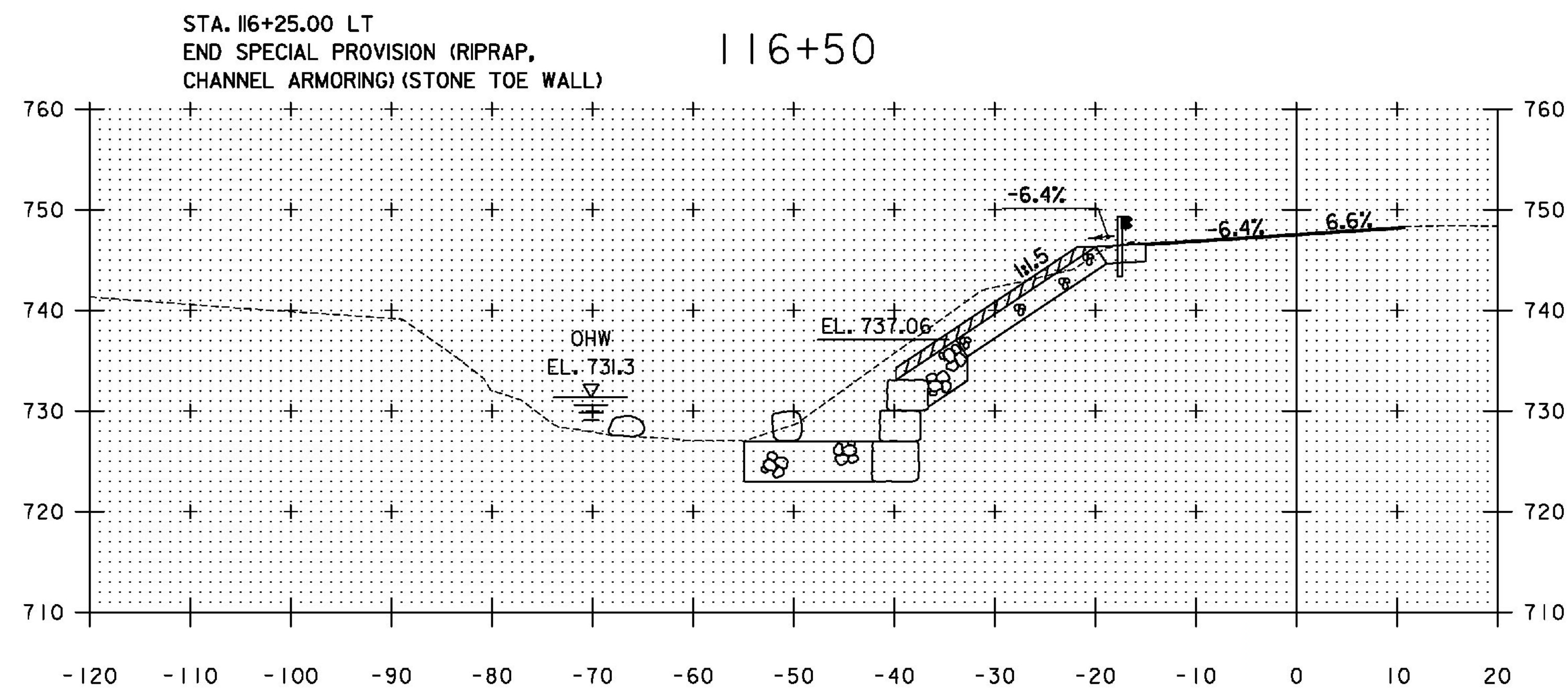
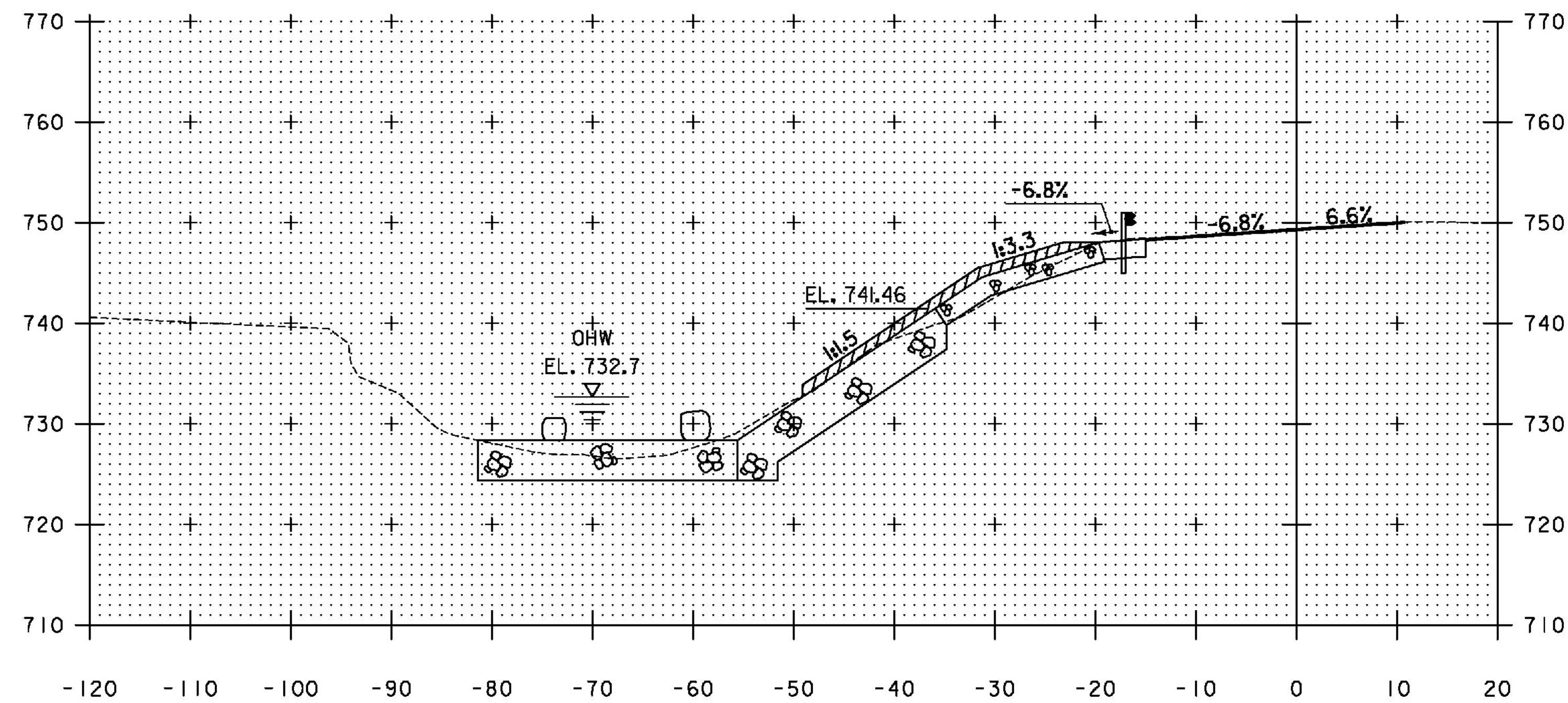
TYLIN INTERNATIONAL

PROJECT NAME: WOODSTOCK  
 PROJECT NUMBER: ER 024(40)

FILE NAME: z13c014XS.dgn  
 PROJECT LEADER: D. BRYANT  
 DESIGNED BY: T. KELLEY  
 VT ROUTE 12 CROSS SECTION SHEET 1

PLOT DATE: 2/4/2015  
 DRAWN BY: T. KELLEY  
 CHECKED BY: D. BRYANT  
 SHEET 21 OF 27



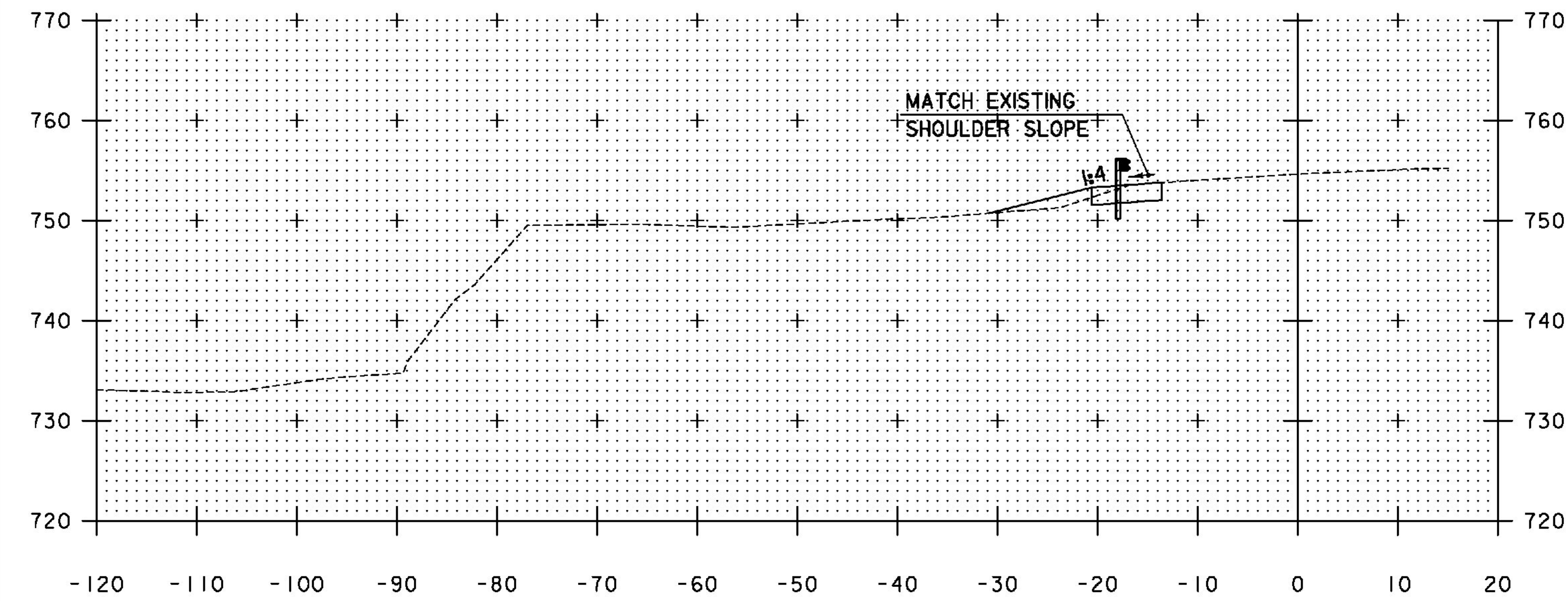


STA. 116+00 TO STA. 117+50

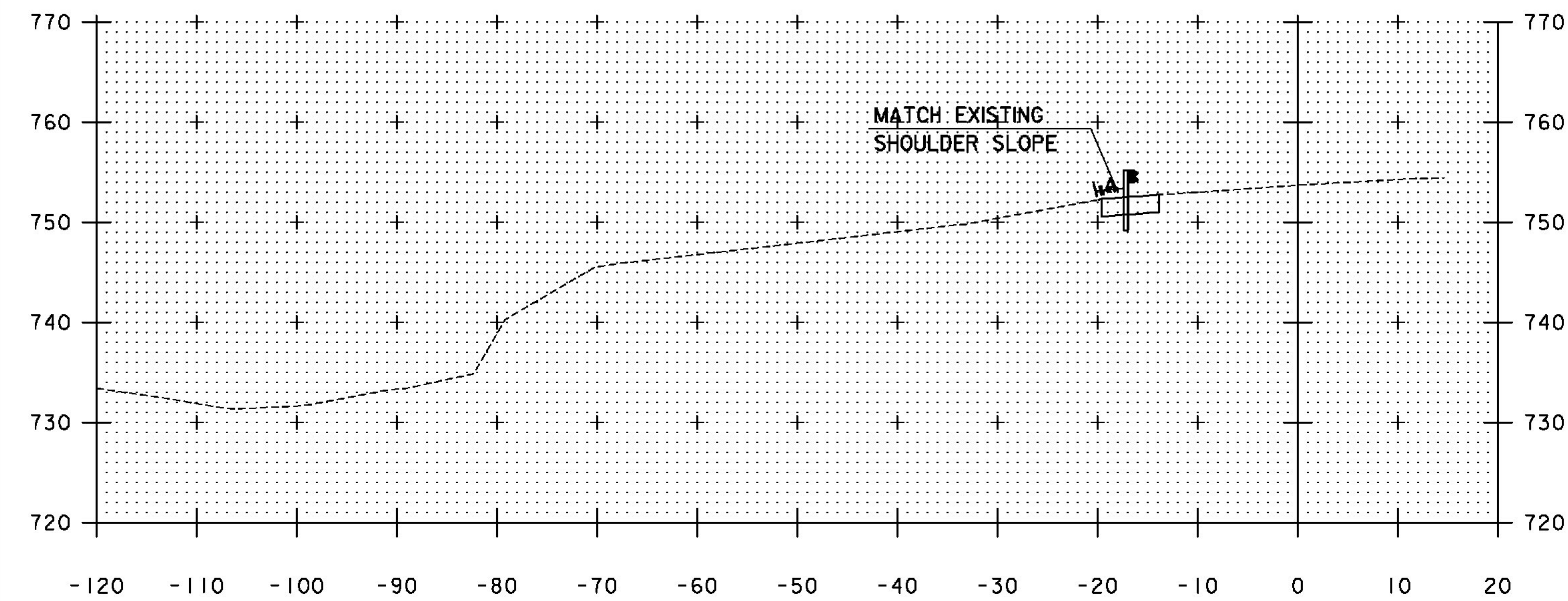
TYLIN INTERNATIONAL	PROJECT NAME: WOODSTOCK	
	PROJECT NUMBER: ER 024(40)	
FILE NAME: z13c014XS.dgn	PLOT DATE: 2/4/2015	
	PROJECT LEADER: D. BRYANT	
DESIGNED BY: T. KELLEY	DRAWN BY: T. KELLEY	
	CHECKED BY: D. BRYANT	
VT ROUTE 12 CROSS SECTION SHEET 2		SHEET 22 OF 27



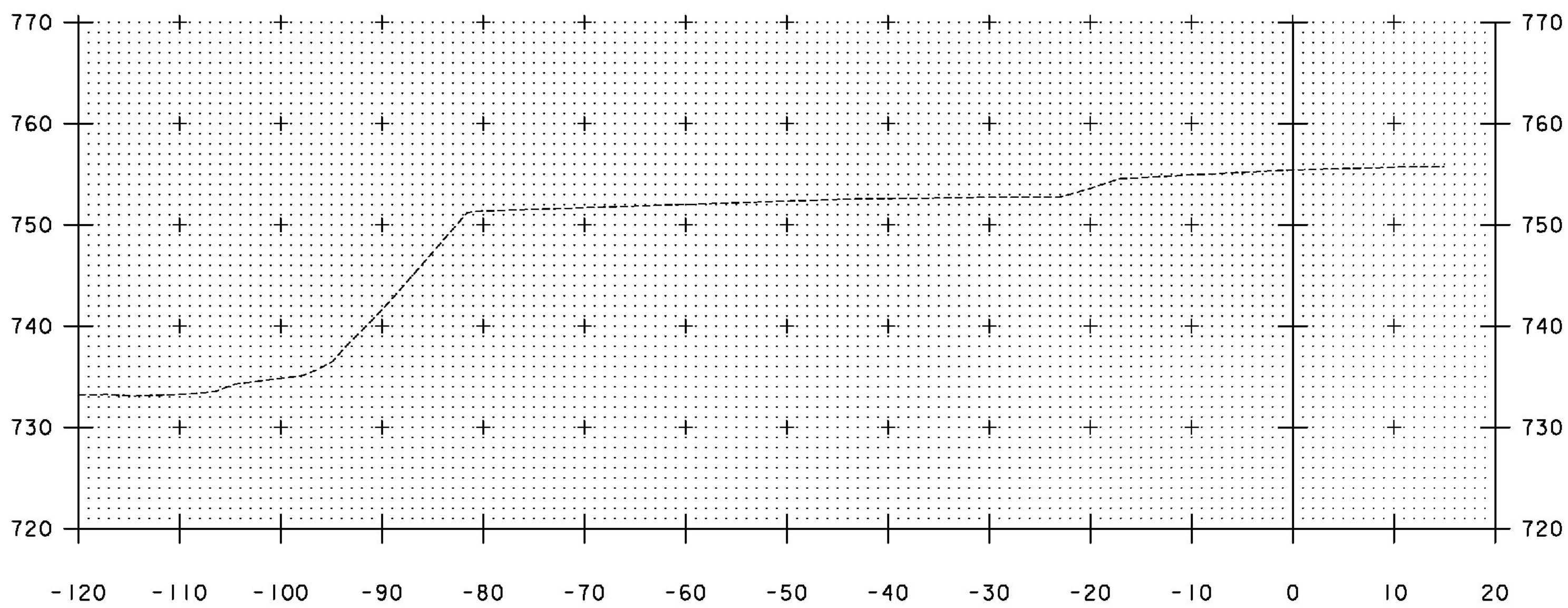
STA. 118+79.35  
LIMIT OF WORK



118+50



118+00



119+00

STA. 118+00 TO STA. 119+00

TYLIN INTERNATIONAL

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

FILE NAME: z13c014XS.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: T. KELLEY  
VT ROUTE 12 CROSS SECTION SHEET 3

PLOT DATE: 2/4/2015  
DRAWN BY: T. KELLEY  
CHECKED BY: D. BRYANT  
SHEET 23 OF 27



SEE TRAFFIC CONTROL SHEET 2 FOR RECONSTRUCTION  
OF EASTBOUND SIDE SLOPE AND SIGNING NOTES.

* RETROREFLECTIVE  
** SEE "TRAFFIC CONTROL SHEET 3" FOR SIGN DETAILS

W1-8 MOUNT ON TYPE III BARRICADE (MOD.) (TYP.)

112+46 STA 111+85 TEMPORARY 24" STOP BAR (REMOVE AFTER PROJECT COMPLETION)

BEGIN TEMP. EDGE LINE AND RPM'S

TEMPORARY VEHICLE DETECTOR ZONE (TYP.) SEE NOTE 9 ON "TRAFFIC CONTROL SHEET 3"

G20-2 END ROAD WORK

576' 500' 512' 500' 890' 500'

40' 50' TRANSITION

APPROXIMATE EXISTING GUARDRAIL LOCATION

TEMPORARY TRAFFIC BARRIER

PHASE I WORK AREA

1+00 2+00

116+00 115+00 114+00

TEMPORARY 4" YELLOW LINE 113+75 - 117+25, CL (DBL)

TEMPORARY 4" WHITE LINE 113+75, LT - 117+25, LT 113+75, RT - 117+25, RT

TEMPORARY 4" YELLOW LINE, TEMPORARY PAVEMENT MARKING TAPE 111+85 - 113+75, CL (DBL) 117+25 - 119+15, CL (DBL)

TEMPORARY 4" WHITE LINE, TEMPORARY PAVEMENT MARKING TAPE 111+85, LT - 113+75, LT 117+25, LT - 119+15, LT 111+85, RT - 113+25, RT 117+25, RT - 119+15, RT

TEMPORARY 24" STOP BAR, TEMPORARY PAVEMENT MARKING TAPE 111+85, RT - 111+85, RT 119+15, LT - 119+15, LT

TEMPORARY TRAFFIC BARRIER 112+65, LT - 118+84, LT

POWER SOURCE RTQ-6

STOP HERE ON RED TO GET GREEN LIGHT

W3-3

48"x48" (ORANGE) SEE DETAIL ON STD E-152

W20-1 ROAD WORK AHEAD

ONE LANE ROAD AHEAD W20-4

ROAD WORK AHEAD W20-1

25 M.P.H. W13-1P

LEGEND

- UNDER CONSTRUCTION
- ALTERNATING ONE WAY TRAFFIC
- TEMPORARY TRAFFIC BARRIER
- TYPE III BARRICADES
- TYPE III BARRICADES (MOD.)
- PAVEMENT MARKING REMOVAL
- TRAFFIC SIGNAL POLE WITH LUMINAIRE
- SIGNAL HEAD AND PHASE
- CONTROLLER
- JUNCTION BOX
- CONSTRUCTION SIGN
- ENERGY ABSORPTION ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NAME: WOODSTOCK

PROJECT NUMBER: ER 024(40)

FILE NAME: z13c014bdr+op.dgn

PROJECT LEADER: D. BRYANT

DESIGNED BY: D. BRYANT

TRAFFIC CONTROL SHEET 1

PLOT DATE: 2/11/2015

DRAWN BY: T. KELLEY

CHECKED BY: D. BURHANS

SHEET 24 OF 27

TYLIN INTERNATIONAL

SCALE IN FEET

PROJECT NAME:	WOODSTOCK
PROJECT NUMBER:	ER 024(40)

FILE NAME: z13c014bdr+cp.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: D. BRYANT  
TRAFFIC CONTROL SHEET 1

PLOT DATE: 2/11/2015  
DRAWN BY: T. KELLEY  
CHECKED BY: D. BURHANS  
SHEET 24 OF 27



TRAFFIC CONTROL NOTES

1.

TRAFFIC CONTROL SHALL BE PROVIDED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) INCLUDING ITS REVISIONS AND AMENDMENTS. WHERE CONFLICTS EXIST BETWEEN THE VTRANS STANDARD DRAWINGS AND THE MUTCD, THE MUTCD SHALL GOVERN.
2.

IN ORDER TO MAINTAIN EFFECTIVE TRAFFIC CONTROL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING SURE THAT THE SIGNS AND OTHER TRAFFIC CONTROL DEVICES ARE IN GOOD CONDITION AND ARE IN PLACE. SIGNS SHALL BE LOCATED IN ACCORDANCE WITH VAOT STANDARD DRAWINGS T-1, T-10, AND T-17 AS WELL AS ANY OTHER APPLICABLE STANDARD DRAWINGS. THE SOLE JUDGE OF THE EFFECTIVENESS OF THE CONTRACTOR'S EFFORT TOWARD THE PROTECTION OF TRAFFIC AND PERSONNEL IS THE ENGINEER.
3.

THE CONTRACTOR SHALL SUBMIT TRAFFIC CONTROL PHASING PLANS SHOWING THE PROPOSED CONSTRUCTION PHASING AND NECESSARY TRAFFIC CONTROL MEASURES TO THE ENGINEER AT LEAST ONE WEEK PRIOR TO THE PRE-CONSTRUCTION CONFERENCE. THE TRAFFIC CONTROL PLAN SHOWN IS CONSIDERED THE MINIMUM REQUIREMENT FOR SAFE OPERATIONS AND ONLY COVERS CERTAIN MINIMUM REQUIREMENTS FOR SAFE OPERATIONS. ADDITIONAL SIGNS AND/OR TRAFFIC CONTROL DEVICES MAY BE REQUIRED AS DETERMINED BY THE ENGINEER.
4.

DURING CLOSURE OF THE SOUTHBOUND LANE, TEMPORARY SIGNAL HEADS WILL BE INSTALLED FOR ALL DRIVES. FOR ANY OTHER DRIVES OUTSIDE THE LANE CLOSURE LIMITS, RESIDENTIAL OWNERS AND/OR OCCUPANTS SHALL BE NOTIFIED 24 HOURS IN ADVANCE OF WORK THAT WILL CUT OFF ACCESS. THE CONTRACTOR IS REQUIRED TO ALLOW ACCESS TO ALL PROPERTIES AT ALL TIMES FOR EMERGENCY VEHICLES.
5.

CONSTRUCTION SIGNS, SIGN POSTS AND ALL OTHER TEMPORARY TRAFFIC CONTROL DEVICES SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10 TRAFFIC CONTROL. TEMPORARY TRAFFIC BARRIER AND ENERGY ABSORPTION ATTENUATORS WILL BE PAID FOR UNDER THEIR RESPECTIVE BID ITEMS.
6.

BEFORE TRAFFIC CAN UTILIZE CONSTRUCTED ROADWAYS, GUARDRAIL OR BARRIERS SHALL BE IN PLACE.
7.

THE CONTRACTOR SHALL SCHEDULE OPERATIONS IN A MANNER THAT REDUCES THE AMOUNT OF TIME THAT NORMAL TRAFFIC FLOWS ARE DISRUPTED.
8.

THE CONTRACTOR SHALL COORDINATE CONSTRUCTION OPERATIONS WITH THE ACTIVITIES OF THE UTILITY COMPANIES AND OTHER ENTITIES AFFECTED BY THE CONSTRUCTION IN ORDER TO MINIMIZE OR ELIMINATE DISRUPTIONS TO SERVICE.
9.

ALL DROP-OFF AREAS WITHIN CONSTRUCTION AND MAINTENANCE WORK ZONE AREAS SHALL BE PROTECTED FROM ADJACENT TRAVEL LANES IN ACCORDANCE WITH POLICIES FOLLOWED BY THE AGENCY (SEE VAOT STD. T-35 AND T-36).
10.

THE PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE IN USE TWO WEEKS PRIOR TO THE PROJECT START TO WARN THE PUBLIC OF TRAFFIC DISRUPTION THROUGH THE PROJECT. LOCATIONS TO BE CONFIRMED BY THE ENGINEER.
11.

TEMPORARY LANE WIDTHS SHALL BE A MINIMUM OF 11 FEET UNLESS OTHERWISE NOTED.

RECONSTRUCTION OF EASTBOUND SIDE SLOPE

1.

USE ALTERNATING ONE WAY TRAFFIC WITH TEMPORARY TRAFFIC CONTROL SIGNAL IN THE NORTHBOUND LANE WHILE CONSTRUCTING EAST SIDE SLOPE AND WHILE COLD PLANING AND OVERLAYING SOUTHBOUND LANE.
2.

USE ALTERNATING ONE WAY TRAFFIC WITH FLAGGERS IN THE SOUTHBOUND LANE AND SHOULDER DURING COLD PLANING AND OVERLAYING OF NORTHBOUND LANE.
3.

ENDS OF TEMPORARY TRAFFIC BARRIER SHALL BE PROTECTED BY ENERGY ABSORPTION ATTENUATOR.
4.

SIGNING TO BE INSTALLED PER THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) CURRENT EDITION AND APPLICABLE STATE OF VERMONT T STANDARDS.
5.

ALL SIGNAL RELATED SIGNS SHALL BE REMOVED OR COVERED WHEN THE SIGNAL IS NOT OPERATING.
6.

ITEM LOCATIONS ARE APPROXIMATE.
7.

THE CONTRACTOR SHALL BE RESPONSIBLE TO CONFIRM ALL MEASUREMENTS IN THE FIELD.
8.

WORK SHALL BE CONSTRUCTED IN TWO TRAFFIC CONTROL PHASES (SEE NOTES 1 & 2).

9.

APPROACH CONSTRUCTION SIGNING SHALL REMAIN IN PLACE DURING THE ENTIRE CONSTRUCTION PERIOD.
10.

REMOVE ALL TEMPORARY PAVEMENT MARKINGS AFTER COMPLETION OF PROJECT.
11.

THE CONTRACTOR SHALL REPLACE ALL EXISTING PAVEMENT MARKINGS IN KIND AFTER COMPLETION OF PROJECT. SEE PLAN SHEET 13 FOR DETAILS.
12.

TEMPORARY TRAFFIC SIGNAL POLES MAY BE CANTILEVER OR STRAIN POLE AT THE CONTRACTOR'S OPTION. POSITION TEMPORARY SIGNAL POLES FOR MAXIMUM VISIBILITY.
13.

INSTALLATION OF TEMPORARY CONSTRUCTION SIGNS SHALL NOT OBSTRUCT EXISTING SIGNS UNLESS EXPLICITLY INTENDED.
14.

LOCATIONS OF CONSTRUCTION APPROACH SIGNS ARE NOT SHOWN TO SCALE. USE THE DIMENSIONING SHOWN.
15.

SEE SHEET ENTITLED TRAFFIC CONTROL SHEET 3 FOR ADDITIONAL NOTES.

SIGNING NOTES

1.

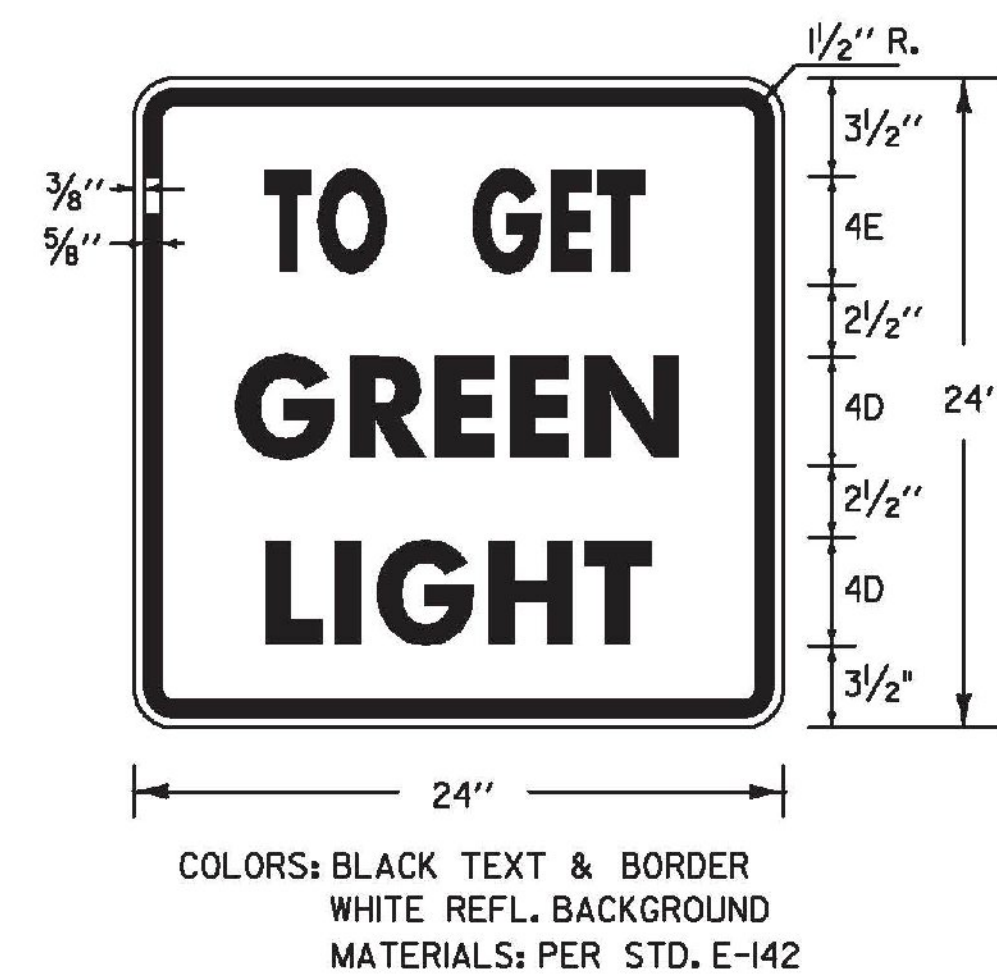
INSTALL SIGNS WITH THE FLOW OF TRAFFIC.
2.

ADJUST SIGN SPACES TO ACCOMODATE EXISTING SIGNS OR OBSTRUCTIONS - TRIM BRANCHES AS NECESSARY. PAYMENT INCIDENTAL TO CONTRACT ITEM 641.10.
3.

COVER CONTRADICTIONY EXISTING SIGNING.

TYLININTERNATIONAL	PROJECT NAME: WOODSTOCK	
	PROJECT NUMBER: ER 024I(40)	
TYLININTERNATIONAL	FILE NAME: z13c014ten.dgn	PLOT DATE: 2/4/2015
	PROJECT LEADER: D. BRYANT	DRAWN BY: P. MCCLURE
	DESIGNED BY: D. BRYANT	CHECKED BY: D. BURHANS
	TRAFFIC CONTROL SHEET 2	SHEET 25 OF 27





**CHART SEQUENCE FOR VT ROUTE 12**  
(SEE NOTE 10, THIS SHEET)

**MOVEMENT DIAGRAM VT ROUTE 12**  
(SEE NOTE 10, THIS SHEET)

**SIGNAL FACE ARRANGEMENT**  
**(12" LENSES)**



ALL

NOTE:  
RED BALL AND RED ARROW INDICATIONS REQUIRE LED LAMPS  
WITH A VISIBLE BEAM SPREAD OF 80 DEGREES OFF AXIS

**NOTES:**

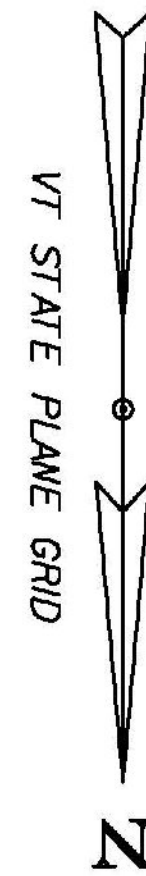
1. DESIGN OF THE SIGNAL SUPPORT(S) AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR. ALL WORK SHALL BE COMPLETED WITHIN THE EXISTING ROW.
2. SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE ENGINEER SHALL BE ACCOMPLISHED AS DIRECTED BY THE ENGINEER AND PAYMENT SHALL BE INCIDENTAL TO THE TRAFFIC SIGNAL ITEM. THE ALL-RED CLEARANCE INTERVAL SHALL BE BASED ON AN ASSUMED SPEED OF 10-20 MPH, THE ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL (ALSO SEE NOTE 23).
3. SIGNAL FACES SHALL CONSIST OF 12" LENSES. (RED, YELLOW, AND GREEN)
4. THE BOTTOM OF THE HOUSING OF A SIGNAL FACE SUSPENDED OVER A ROADWAY SHALL NOT BE LESS THAN 16½ FEET NOR MORE THAN 19 FEET ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY. THE BOTTOM OF A SIGNAL FACE NOT MOUNTED OVER A ROADWAY, SHALL NOT BE LESS THAN 8 FEET NOR MORE THAN 15 FEET ABOVE THE GROUND. CAUTION SHOULD BE USED TO ENSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROAD GRADE.
5. SIGNAL FACES FOR ANY ONE APPROACH SHALL NOT BE LESS THAN 8 FEET APART MEASURED HORIZONTALLY BETWEEN CENTER OF FACES.
6. SIGNAL HEADS MAY BE HUNG ON A SPAN WIRE OR ON A CANTILEVER MAST ARM. AT LEAST ONE SIGNAL HEAD SHALL BE UNMISTAKABLY IN LINE WITH THE CENTER OF APPROACHING TRAFFIC AT ALL TIMES. THE SECOND SIGNAL HEAD MAY BE POST MOUNTED, LOCATED AT A DISTANCE NO GREATER THAN 14½ FEET FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 40 FEET FROM THE SIGNAL HEAD. CONSULT THE M.U.T.C.D. FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.
7. SIGNAL HEAD PLACEMENT IS CRITICAL. HEADS SHALL BE ADJUSTED TO REFLECT LANE LOCATION CHANGES.
8. THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. THE APPROACHES NOTED SHALL HAVE A TEMPORARY VEHICLE DETECTOR (VIA MICROWAVE EQUIPMENT). LOOPS ARE SHOWN FOR PLACEMENT PURPOSES ONLY. THE CONTROLLER, DETECTOR AND ALL OTHER SIGNAL EQUIPMENT SHALL MEET OR EXCEED ALL NEMA STANDARDS.
9. VEHICLE DETECTION SHALL BE VIA MICROWAVE DETECTION AND SHALL BE 6' X 40' FOR PRESENCE DETECTION AT THE STOP BAR WITH THE NEAR PORTION LOCATED 5'-0" BEYOND THE STOP BAR.

10. CONTRACTOR SHALL BE RESPONSIBLE FOR SEQUENCE TIMING AND VEHICLE MOVEMENTS.
11. INTERCONNECT BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION.
12. PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE POSSIBLE.
13. POLES SUPPORTING SPAN WIRES AND/OR MAST ARMS SHALL BE ADEQUATELY BRACED OR GUYED AND SHALL NOT BE PLACED SO AS TO CREATE A HAZARD TO THE TRAVELLING PUBLIC.
14. ALL TEMPORARY SIGNAL EQUIPMENT, SIGNS, ETC., SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR REMOVAL, INCLUDING ANY TEMPORARY PAVEMENT MARKINGS, UTILITY POLES, WIRES, ETC.
15. A 250 WATT MER/150 WATT HPS LUMINAIRE AND MAST ARM SHALL BE PROVIDED ON A POLE ON EACH APPROACH AT A MOUNTING HEIGHT OF 30' ABOVE ROADWAY CENTERLINE. THE INTENT IS TO LIGHT UP THE AREA AROUND THE SIGNAL HEADS AND STOP BAR FOR INCREASED VISIBILITY. THE ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT.
16. STOP BARS SHALL BE LOCATED A MINIMUM OF 40' AND A MAXIMUM OF 120' FROM THE NEAREST SIGNAL HEAD.
17. PAYMENT FOR THE VEHICLE DETECTORS WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 678.40.
18. SEE STANDARDS E-171A, E171B, AND E-171C FOR ADDITIONAL INFORMATION ON SIGNALS AND DETECTORS.
19. A "SIGNAL AHEAD" SIGN SHALL BE PLACED AT LEAST 500' FROM THE SIGNAL OR AT A POSITION TO BE DETERMINED BY THE ENGINEER. THE COST OF THIS SIGN SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 678.40.
20. ADDITIONAL PROJECT CONSTRUCTION SIGNS SHALL BE INSTALLED AS REQUIRED BY THE ENGINEER PER STANDARDS T-10, T-28, T-29 AND T-30. PAYMENT FOR THESE SIGNS AND REFLECTORIZED PLASTIC DRUMS, ETC. SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641J0.

21. THE "TO GET GREEN LIGHT" SIGN IS TO BE USED ONLY ON APPROACHES WITH VEHICLE DETECTORS.
22. WHEN TEMPORARY BARRIER IS USED, BARRIER ENDS FACING ONCOMING TRAFFIC SHALL BE TAPERED BEYOND THE CLEAR ZONE, OR PROTECTED WITH AN APPROVED END TREATMENT DESIGNED FOR THE 85TH PERCENTILE SPEED OR THE POSTED SPEED LIMIT OF THE ROADWAY.
23. THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO ACTIVATING THE TRAFFIC SIGNALS SUCH THAT THE ENGINEER MAY FIELD REVIEW CONDITIONS. THE SIGNAL SYSTEM WILL BE PAID FOR UNDER ITEM 678.40 AND SHALL CONSIST OF POLES, SIGNS AND POSTS, WARNING SIGNS, LUMINAIRES (IF USED) AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN. ALSO INCLUDED ARE PERMITS AND COSTS ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
24. PAYMENT FOR ALL TEMPORARY TRAFFIC CONTROL DEVICES NOT ASSOCIATED DIRECTLY WITH THE TEMPORARY TRAFFIC SIGNAL SYSTEM, INCLUDING BUT NOT LIMITED TO CONSTRUCTION APPROACH SIGNING, WILL BE MADE UNDER ITEM 641.0.
25. SIGNS, POSTS, TEMPORARY PAVEMENT MARKINGS, RAISED PAVEMENT MARKINGS AND PAVEMENT MARKING MASK RELATED TO THE TEMPORARY TRAFFIC SIGNAL SYSTEM INSTALLATION AS SHOWN ON THE TRAFFIC CONTROL PLAN ("STOP HERE ON RED", "SIGNAL AHEAD", "TO GET GREEN LIGHT", ETC.) ARE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 678.40.
26. PAYMENT FOR TEMPORARY TRAFFIC BARRIER AND ASSOCIATED ENERGY ABSORPTION ATTENUATORS USED WILL BE MADE UNDER THE APPROPRIATE CONTRACT ITEMS. PAYMENT FOR THE REMOVING AND RESETTING OF THE ENERGY ABSORPTION ATTENUATORS WILL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 621.56.

	PROJECT NAME: WOODSTOCK	
	PROJECT NUMBER: ER 024I(40)	
	FILE NAME: z13c014+cs.dgn	PLOT DATE: 2/12/2015
	PROJECT LEADER: D. BRYANT	DRAWN BY: P. BRYANT
	DESIGNED BY: P. BRYANT	CHECKED BY: T. KELLEY
	TRAFFIC CONTROL SHEET 3	SHEET 26 OF 27





LEGEND:

PERMANENT CONSTRUCTION BELOW OHW  
(TOTAL AREA = 6,350.9 S.F.)  
SEE NOTE 2

TEMPORARY CONSTRUCTION BELOW OHW  
(TOTAL AREA = 1,239.8 S.F.)

STONE FILL, TYPE II

STONE FILL, TYPE IV

SPECIAL PROVISION (RIPRAP, CHANNEL ARMORING)  
(NATURAL RIVER BOULDERS)

BENCHMARK  
HVCTRL #2  
3/4" REBAR  
EL. 746.10

BENCHMARK  
HVCTRL #1  
3/4" REBAR  
EL. 755.76

END PROJECT  
STA. 117+25.00 (MM 2.221)

BEGIN PROJECT  
STA. 113+75.00 (MM 2.154)

VT 12  
STA. 113+70.00  
LIMIT OF WORK

VT 12  
STA. 118+79.35  
LIMIT OF WORK

NOTES:

1. ORDINARY HIGH WATER ELEVATION VARIES - SEE CROSS SECTION SHEETS.
2. PERMANENT CONSTRUCTION BELOW OHW INCLUDES THE AREA WITHIN PROJECT SLOPE LIMITS (5,260.9 SF) PLUS AN ADDITIONAL ESTIMATED AREA FOR THE NATURAL RIVER BOULDERS (1,090 SF).

RESOURCE IMPACT PLAN

0 20 40  
SCALE IN FEET

TYLIN INTERNATIONAL

PROJECT NAME: WOODSTOCK  
PROJECT NUMBER: ER 024I(40)

FILE NAME: z13c014bdrero_RI.dgn  
PROJECT LEADER: D. BRYANT  
DESIGNED BY: D. BRYANT  
RESOURCE IMPACT PLAN

PLOT DATE: 2/4/2015  
DRAWN BY: P. MCCLURE  
CHECKED BY: D. BURHANS  
SHEET 27 OF 27