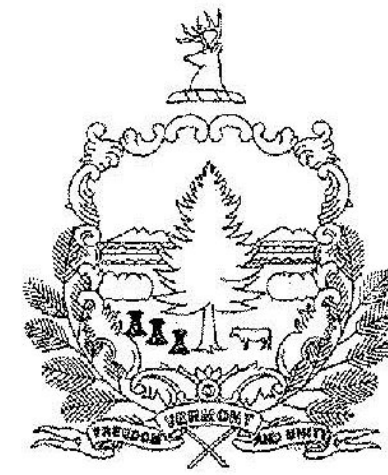
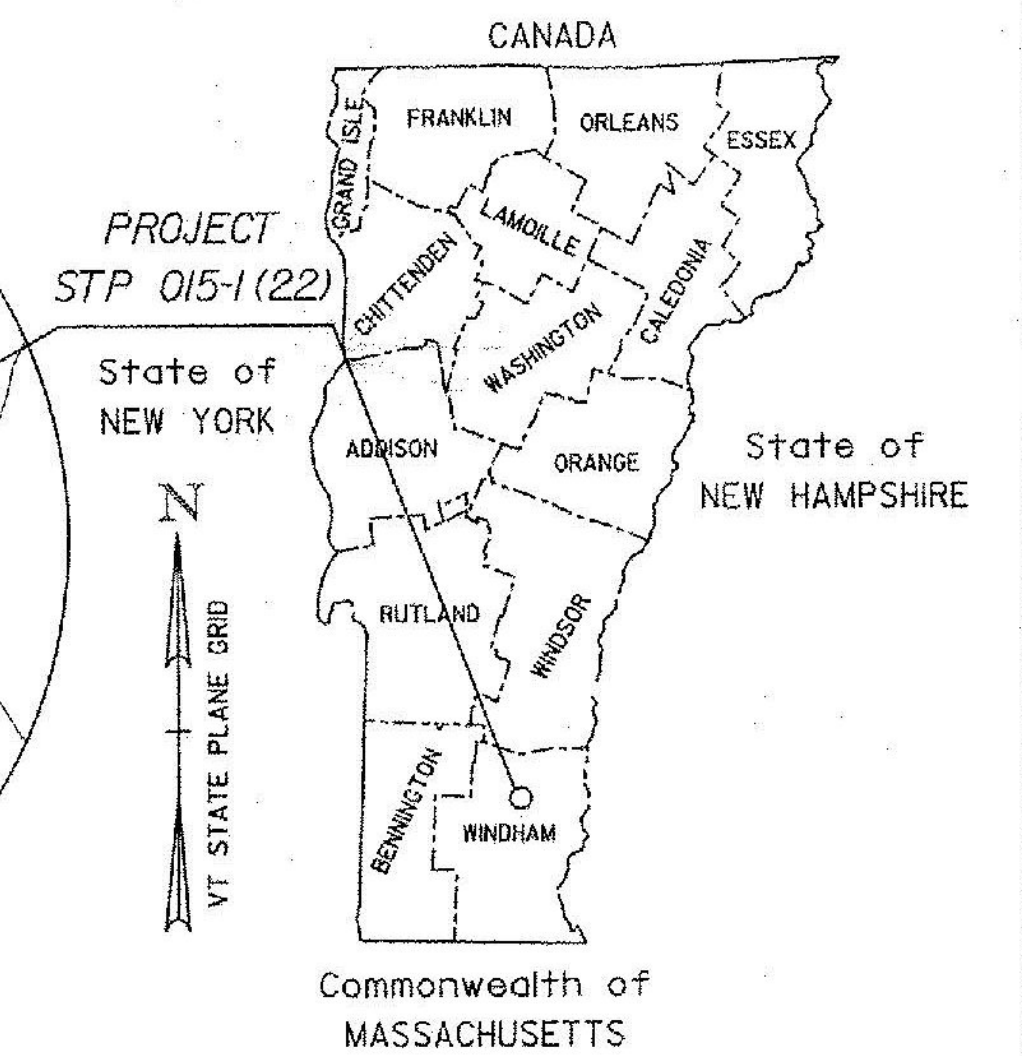
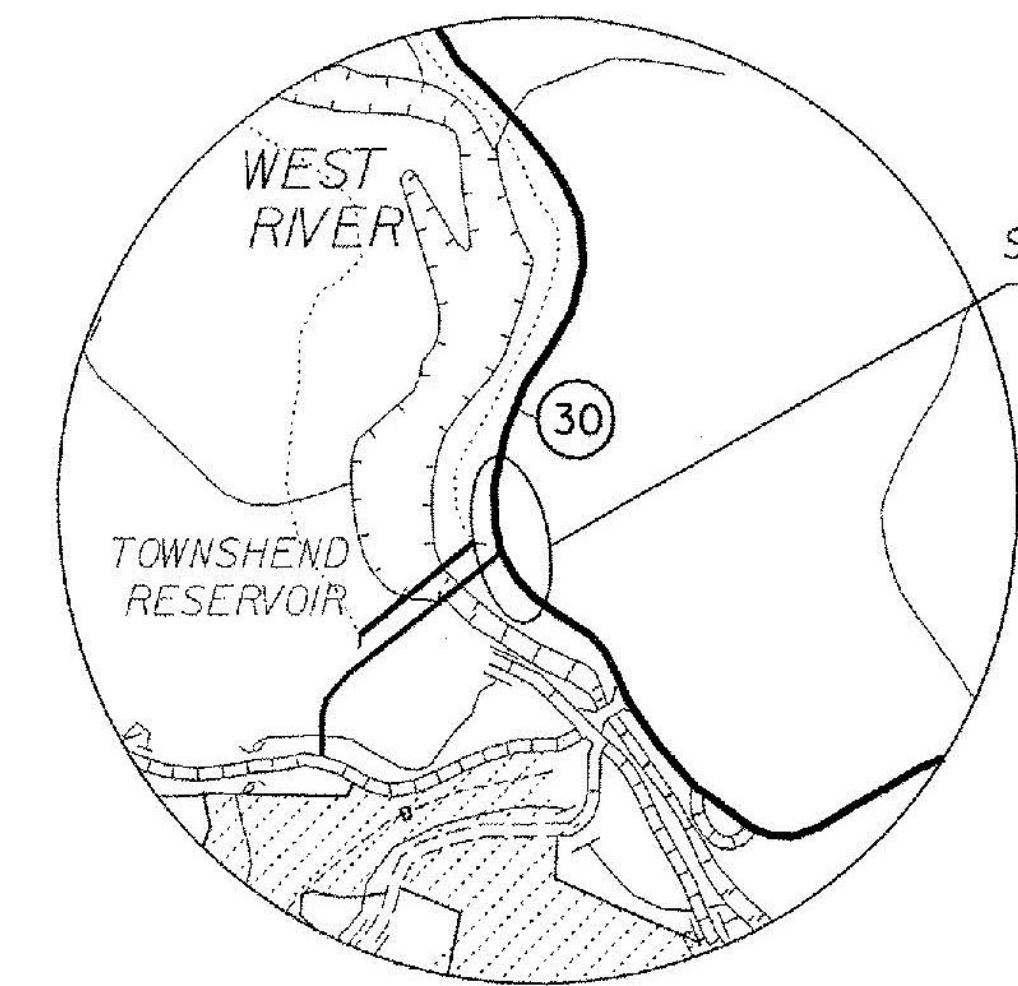


STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT TOWN OF TOWNSHEND COUNTY OF WINDHAM VT ROUTE 30 (MINOR ARTERIAL)

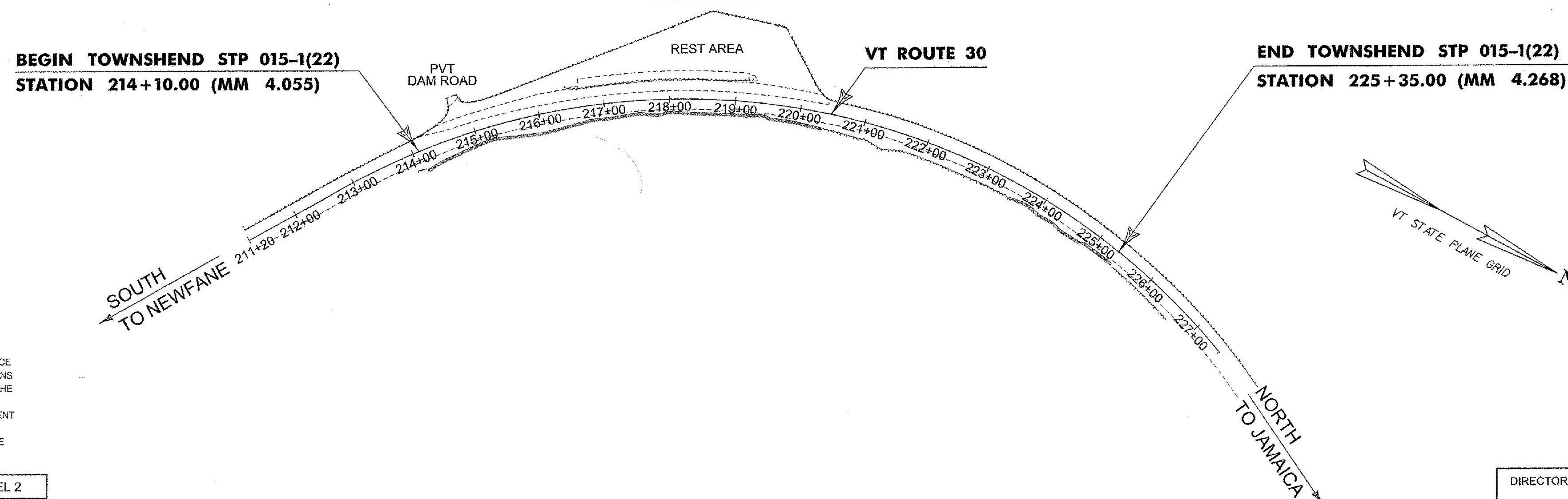


RECORD PLANS	
CONTRACTOR:	B.U.R. CONSTRUCTION, LLC, CLAREMONT, NH
RESIDENT ENGINEER:	CHAD GREENWOOD
CONSTRUCTION BEGAN:	JUNE 16, 2015
CONSTRUCTION COMPLETE:	OCTOBER 7, 2015
RECORD PLANS BY:	CHAD GREENWOOD & KEVIN KING
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	RESIDENT ENGINEER
DATE	1/25/17
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 TOWNSHEND ON VT ROUTE 30 AT MM 4.055 (STA. 214+10.00) AND EXTENDING NORTHERLY 0.213 MILES (1125 FT.) TO MM 4.268 (STA 225+35.00).

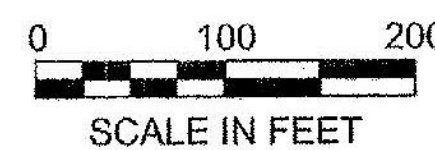
LENGTH OF PROJECT: 1125 FT = 0.213 MILES

PROJECT DESCRIPTION: WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES HAND SCALING, MACHINE SCALING, TRIM BLASTING, ROCK DOWELING, INSTALLATION OF ROCK DRAINS, TRAFFIC CONTROL AND OTHER HIGHWAY RELATED ITEMS.



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 :	VAOT
SURVEYED DATE :	08/15/2013
DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83(2011)



TRAFFIC DATA					
YEAR	AADT	DHV	ADTT	% T	% D
2015	3400	480	340	9.3	53
2035	3500	490	430	11.6	53

18 kip ESAL for flexible pavement from 2015 to 2035: 923,000 - 20 YRS
 18 kip ESAL for flexible pavement from 2015 to 2035: 2,062,000 - 40 YRS
 Design speed: 50 MPH

DIRECTOR OF PROJECT DELIVERY	
APPROVED	DATE 1/9/2015
PROJECT MANAGER :	KEN UPMAL, P.E.
PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
SHEET 1 OF 34 SHEETS	

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INDEX OF SHEETS

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9.-11.	PLAN SHEETS
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16.-18.	EPSC PLAN SHEETS
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28.	TRAFFIC CONTROL NOTES
29.	TRAFFIC CONTROL DETAIL SHEET
30.-31.	CONSTRUCTION APPROACH SIGNING SHEETS
32.-34.	TRAFFIC CONTROL SHEETS

VAOT DESIGN STANDARDS

A-60	STANDARD TYPICAL FOR SLOPES IN SOLID ROCK EXCAVATION DRILLING AND BLASTING OF SOLID ROCK SUBGRADE	06-01-94
B-5	EMBANKMENT ON EARTH SLOPE, EMBANKMENT ON ROCK SLOPE MUCK EXCAVATION, TYPICAL SLOPE ROUNDING	06-01-94
E-191	PAVEMENT MARKING DETAILS	02-01-99
E-192	PAVEMENT MARKING DETAILS	10-12-00
E-193	PAVEMENT MARKING DETAILS	08-18-95
G-1	STEEL BEAM GUARDRAIL DETAILS (POST, DELINEATOR, TYPICALS)	02-10-14
G-1D	STEEL BEAM GUARDRAIL DETAILS (END TERMINAL, ANCHOR, MEDIAN)	02-10-14
T-1	TRAFFIC CONTROL GENERAL NOTES	08-06-12
T-10	CONSTRUCTION APPROACH SIGNS	08-06-12
T-11	CONSTRUCTION APPROACH SIGNING DIVIDED HIGHWAY ONE LANE CLOSED	08-06-12
T-12	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	08-06-12
T-13	TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	08-06-12
T-28	CONSTRUCTION SIGN DETAILS	08-06-12
T-30	CONSTRUCTION SIGN DETAILS	08-06-12

PROJECT NAME: TOWNSHEND
PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050frm.dgn	PLOT DATE: 2/12/2015
PROJECT LEADER: K. UPMAL	DRAWN BY: C. LEACH
DESIGNED BY: C. LEACH	CHECKED BY: B. KIPP
INDEX OF SHEETS	SHEET 2 OF 34

GENERAL INFORMATION

SYMBOLY LEGEND NOTE

THE SYMBOLY ON THIS SHEET IS INTENDED TO COVER STANDARD CONVENTIONAL SYMBOLY. THE SYMBOLY 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. SYMBOLY 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 BOUND SET
▣	BNDNS BOUND TO BE SET
●	IPNS IRON PIN SET
⊙	IPNS IRON PIN TO BE SET
⊠	CALC EXISTING ROW POINT
○	PROW PROPOSED ROW POINT
[LENGTH]	LENGTH CARRIED ON NEXT SHEET

COMMON TOPOGRAPHIC POINT SYMBOLS

POINT CODE	DESCRIPTION
#	APL BOUND APPARENT LOCATION
□	BM 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 VALVE
⊕	H TREE HARDWOOD
△	HCTRL CONTROL HORIZONTAL
▲	HVCTRL CONTROL HORIZ. & VERTICAL
◇	HYD HYDRANT
○	IP IRON PIN
○	IPIPE IRON PIPE
⊕	LI LIGHT - STREET OR YARD
⊕	MB MAILBOX
○	MH MANHOLE (MH)
▣	MM MILE MARKER
○	PM PARKING METER
▣	PMK PROJECT MARKER
○	POST POST STONE/WOOD
⊕	RRSIG RAILROAD SIGNAL
⊕	RRSL RAILROAD SWITCH LEVER
⊕	S TREE SOFTWOOD
⊕	SAT SATELLITE DISH
⊕	SHRUB SHRUB
⊕	SIGN SIGN
⊕	STUMP STUMP
⊕	TEL TELEPHONE POLE
○	TIE TIE
⊕	TSIGN SIGN W/DOUBLE POST
⊕	VCTRL CONTROL VERTICAL
○	WELL WELL
×	WSO WATER SHUT OFF

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

PROPOSED GEOMETRY CODES

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

UTILITY SYMBOLY

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 SYMBOLY

— — — 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 — — — — —	PROJECT DEMARCATION FENCE
BF — — — — —	BARRIER FENCE
XXXXXXXXXXXXXXXX	TREE PROTECTION ZONE (TPZ)
//////	STRIPING LINE REMOVAL
~~~~~	SHEET PILES

**CONVENTIONAL BOUNDARY SYMBOLY**

**BOUNDARY LINES**

— — — — —	TOWN BOUNDARY LINE
— — — — —	COUNTY BOUNDARY 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/L	PROPERTY LINE (P/L)
SR	SLOPE RIGHTS
6f	6F PROPERTY BOUNDARY
4f	4F PROPERTY BOUNDARY
HAZ	HAZARDOUS WASTE

**EPSC LAYOUT PLAN SYMBOLY**

**EPSC MEASURES**

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

SEE EPSC DETAIL SHEETS FOR ADDITIONAL SYMBOLY

**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**

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

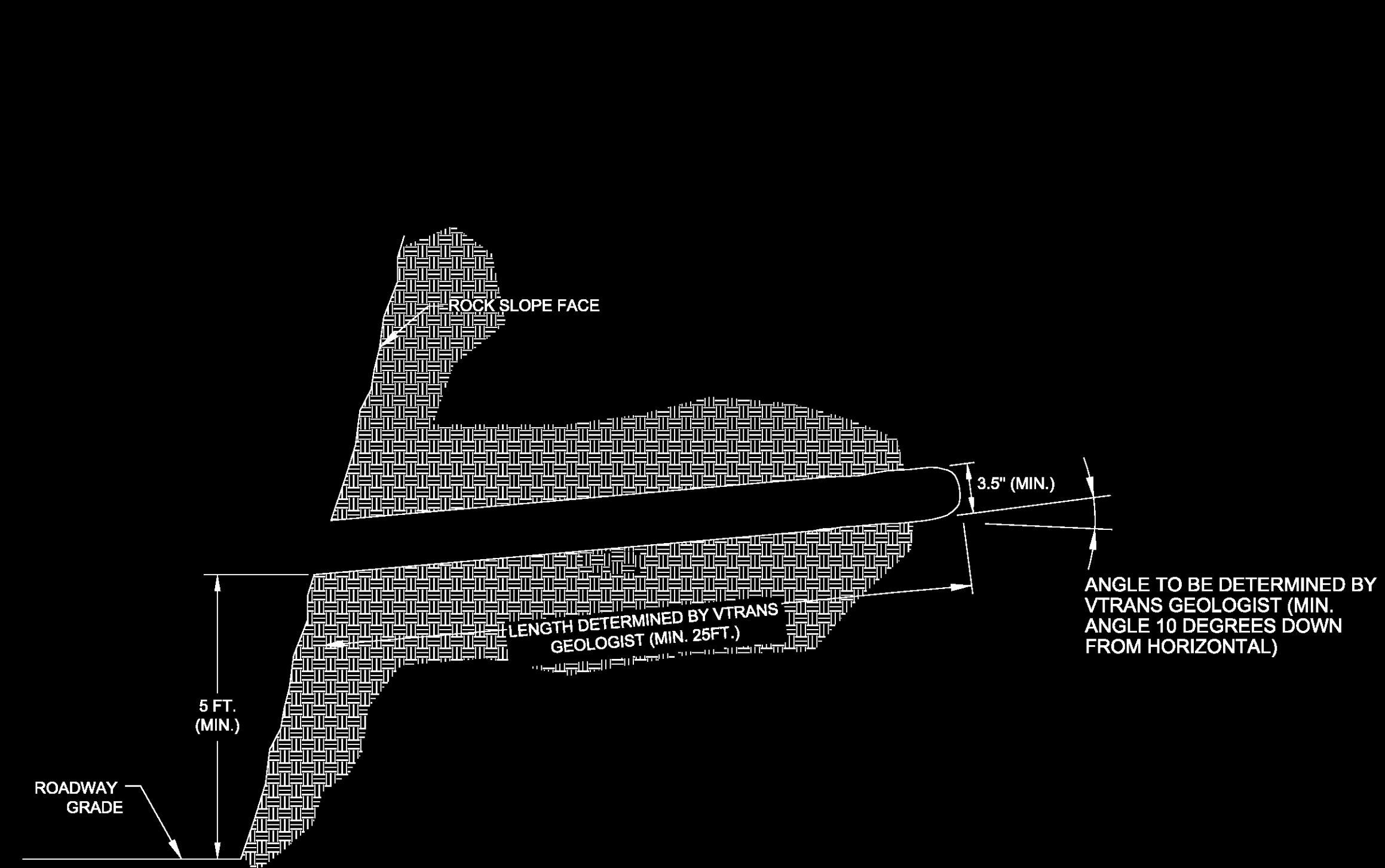
**CONVENTIONAL TOPOGRAPHIC SYMBOLY**

**EXISTING FEATURES**

— — — — —	ROAD EDGE PAVEMENT
— — — — —	ROAD EDGE GRAVEL
— — — — —	DRIVEWAY EDGE
— — — — —	DITCH
— — — — —	FOUNDATION
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

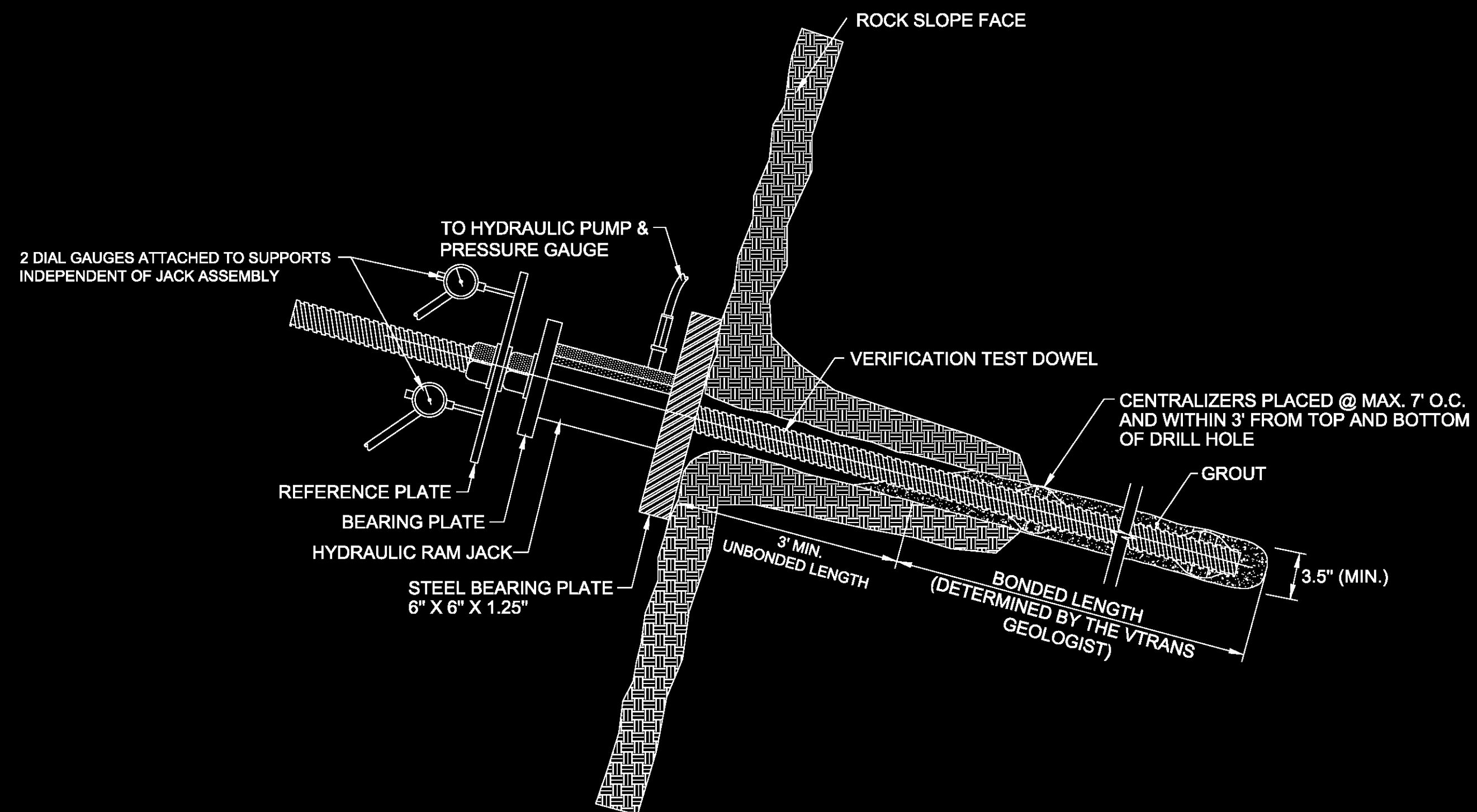
PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050frm.dgn PLOT DATE: 1/9/2015  
PROJECT LEADER: K. UPMAL DRAWN BY: C. LEACH  
DESIGNED BY: C. LEACH CHECKED BY: B. KIPP  
CONVENTIONAL SYMBOLY LEGEND SHEET SHEET 3 OF 34



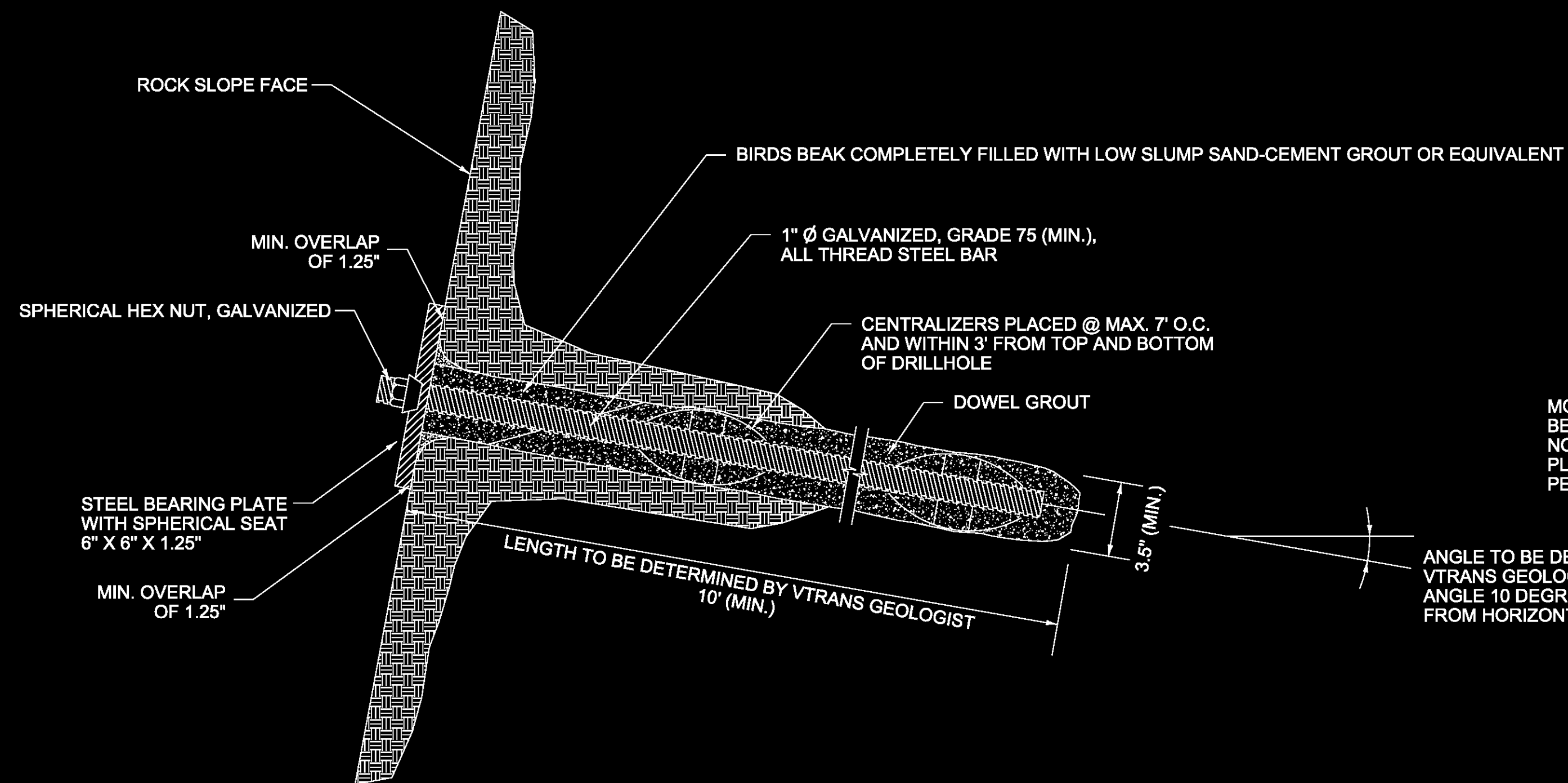
**TYPICAL ROCK DRAIN DETAIL**

PAY ITEM 900.640 SPECIAL PROVISION (ROCK DRAIN)



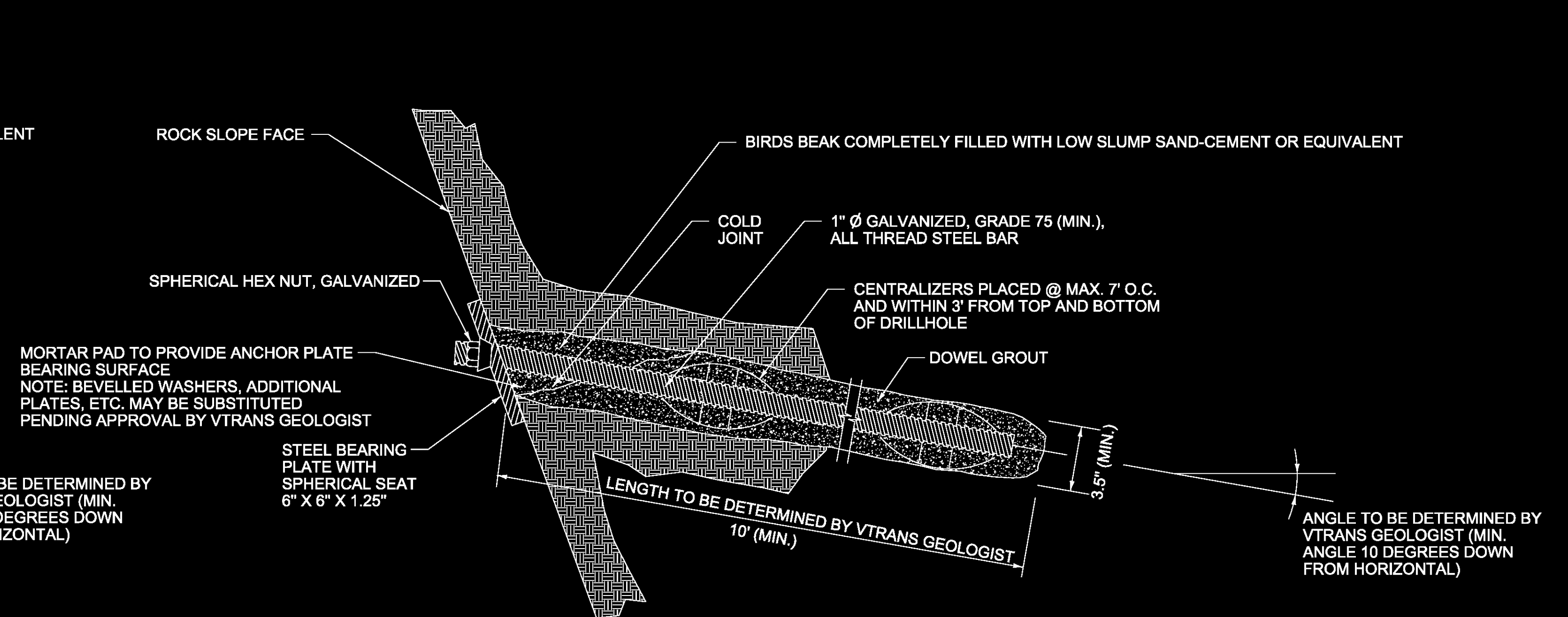
**TYPICAL PULL-OUT TEST  
ROCK DOWEL DETAIL**

PAY ITEM 900.640 SPECIAL PROVISION (ROCK DOWEL TESTING)



**TYPICAL ROCK DOWEL DETAIL**

PAY ITEM 900.640 SPECIAL PROVISION (ROCK DOWELING)



**TYPICAL ROCK DOWEL DETAIL  
OVERHANGING CONDITION**

PAY ITEM 900.640 SPECIAL PROVISION (ROCK DOWELING)

**NOT TO SCALE**

PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050det.dgn  
PROJECT LEADER: K. UPMAL  
DESIGNED BY: C. LEACH  
DETAIL SHEET

PLOT DATE: 1/9/2015  
DRAWN BY: C. LEACH  
CHECKED BY: B. KIPP  
SHEET 4 OF 34

GPS CONTROL POINTS

HVCTRL #1  
 TOWNSHEND  
 NORTH = 200804.522  
 EAST = 1585041.741  
 ELEV. = 583.936

GENERAL LOCATION, TOWNSHEND, VT.

TO REACH FROM THE INTERSECTION OF VT ROUTE 30 AND VT ROUTE 35 IN TOWNSHEND GO NORTHWEST ALONG VT ROUTE 30 FOR 2.0 MI (3.2 KM) TO THE INTERSECTION OF DAM ROAD LEFT CROSSING OVER THE TOWNSHEND DAM. TURN LEFT AND GO SOUTHWEST ALONG DAM ROAD FOR 0.4 MI (0.6 KM) TO A GRASS ISLAND CONTAINING THE SIGN FOR THE LAKE TOWNSHEND RECREATION AREA. BEAR RIGHT AND GO NORTH ALONG A DRIVE LEADING TO A SMALL PAVED PARKING LOT AND THE SITE OF THE MARK ON THE RIGHT.

HVCTRL #2  
 TOWNSHEND AZ MK  
 NORTH = 202147.428  
 EAST = 1586451.419  
 ELEV. = 611.479

GENERAL LOCATION, TOWNSHEND, VT.

TO REACH FROM THE INTERSECTION OF VT ROUTE 30 AND VT ROUTE 35 IN TOWNSHEND GO NORTHWEST ALONG VT ROUTE 30 FOR 2.0 MI (3.2 KM) TO THE INTERSECTION OF DAM ROAD LEFT CROSSING OVER THE TOWNSHEND DAM AND A LARGE SCENIC AREA PARKING LOT STRAIGHT AHEAD. ENTER THE LOT AND CONTINUE STRAIGHT AHEAD AND GO NORTHWEST THROUGH THE LOT FOR ABOUT 75 M (246.1 FT) TO THE SITE OF THE MARK ON THE LEFT, JUST SOUTH OF A WOODEN TOURISM BULLETIN BOARD AND WEST OF A STEEL BEAM GUARDRAIL.

TRAVERSE TIES

HVCTRL #100  
 NORTH = 201901.9851  
 EAST = 1586726.6349  
 ELEV. = 597.172

NOT TIED

HVCTRL #101  
 NORTH = 202311.4622  
 EAST = 1586477.6506  
 ELEV. = 614.710

NOT TIED

HVCTRL #102  
 NORTH = 202792.4424  
 EAST = 1586463.8956  
 ELEV. = 613.510

NOT TIED

NORTH =  
 EAST =  
 ELEV. =

NORTH =  
 EAST =  
 ELEV. =

* MAIN TRAVERSE COMPLETED BY R. GILMAN & P. WINTERS P.C.

ALIGNMENT TIES

NORTH =  
 EAST =  
 ELEV. =

NORTH =  
 EAST =  
 ELEV. =

NORTH =  
 EAST =  
 ELEV. =

NORTH =  
 EAST =  
 ELEV. =

NORTH =  
 EAST =  
 ELEV. =

DATUM  
 VERTICAL NAVD 88  
 HORIZONTAL NAD 83 2011  
 ADJUSTMENT COMPASS

PROJECT NAME: TOWNSHEND  
 PROJECT NUMBER: STP 015-1(22)  
 FILE NAME: XIIB0501.DGN  
 PROJECT LEADER: K. UPMAL  
 DESIGNED BY: VTRANS  
 TIE SHEET

PLOT DATE: 1/9/2015  
 DRAWN BY: C. CYR  
 CHECKED BY: P. BEYOR  
 SHEET 5 OF 34

# 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	-			ITEM 900.645 SPECIAL PROVISION (TEMPORARY ROADWAY WIDENING)(WORK ZONE)
							1			1		ACRE	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.11	0.1			
							825			825		CY	COMMON EXCAVATION	203.15	28			INSTALLING TWO-WAY TEMPORARY TRAFFIC PHASING
							100			100		CY	SOLID ROCK EXCAVATION	203.16	EST.			55 CY SUBBASE OF DENSE GRADED CRUSHED STONE
							1			1		CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	-			2000 LF TEMPORARY 4 INCH WHITE LINE, TEMPORARY MARKING TAPE
							20			20		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST.			2000 LF TEMPORARY 4 INCH YELLOW LINE, TEMPORARY MARKING TAPE
							30			30		HR	POWER BROOM RENTAL, TYPE II	608.31	EST.			500 SY GEOTEXTILE UNDER STONE FILL
							20			20		HR	TRUCK RENTAL	608.37	EST.			2 EA REMOVAL OF EXISTING DELINEATOR
							3			3		EACH	ENERGY ABSORPTION ATTENUATOR	621.56	-			52 TON BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY
							287.5			287.5		LF	REMOVE AND RESET GUARDRAIL	621.75	-			REMOVAL OF TWO-WAY TEMPORARY TRAFFIC PHASING
							840			840		LF	TEMPORARY TRAFFIC BARRIER	621.90	10			75 CY COMMON EXCAVATION
							360			360		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			287.5 LF REMOVE AND RESET GUARDRAIL
							300			300		HR	FLAGGERS	630.15	EST.			1350 SF REMOVAL OF EXISTING PAVEMENT MARKINGS
									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	-			
							1			1		LS	MOBILIZATION/DEMOBILIZATION	635.11	-			
							1			1		LS	TRAFFIC CONTROL	641.10	-			
							2			2		EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-			
								100		100		SY	GEOTEXTILE FOR SILT FENCE	649.51	10			
								150		150		LB	SEED	651.15	30			
								1025		1025		LB	FERTILIZER	651.18	25			
								4		4		TON	AGRICULTURAL LIMESTONE	651.20	EST.			
								4		4		TON	HAY MULCH	651.25	EST.			
							550			550		CY	TOPSOIL	651.35	12			
								1		1		LS	EPSC PLAN	652.10	-			
								15		15		HR	MONITORING EPSC PLAN	652.20	EST.			
								1		1		LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30	-			
								3050		3050		SY	TEMPORARY EROSION MATTING	653.20	66			
								5		5		CY	TEMPORARY STONE CHECK DAM, TYPE I	653.25	EST.			
								40		40		CY	VEHICLE TRACKING PAD	653.35	4			
								2		2		EACH	INLET PROTECTION DEVICE, TYPE I	653.40	-			
								1040		1040		LF	PROJECT DEMARCATION FENCE	653.55	28			
							2			2		EACH	DELINEATOR WITH STEEL POST	676.10	-			
								5		5		EACH	REMOVE AND REPLACE REFLECTOR UNIT	676.15	EST.			
							100			100		CY	SPECIAL PROVISION (REMOVAL OF LEDGE SALVAGE MATERIAL)	900.608	EST.			
							400			400		CY	SPECIAL PROVISION (REMOVAL OF LEDGE WASTE MATERIAL)	900.608	EST.			
							20			20		CY	SPECIAL PROVISION (TRIM BLASTING, TRUCK MEASUREMENT)	900.608	EST.			
							100			100		HR	SPECIAL PROVISION (HAND SCALING)	900.630	EST.			
							50			50		HR	SPECIAL PROVISION (MACHINE SCALING)	900.630	EST.			

PROJECT NAME: TOWNSHEND  
 PROJECT NUMBER: STP 015-1(22)  
 FILE NAME: d1b050frm.dgn  
 PROJECT LEADER: K. UPMAL  
 DESIGNED BY: C. LEACH  
 QUANTITY SHEET 1  
 PLOT DATE: 1/9/2015  
 DRAWN BY: C. LEACH  
 CHECKED BY: B. KIPP  
 SHEET 6 OF 34



## GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2011 AND ITS LATEST REVISIONS.
2. PRIOR TO SUBMITTING A BID FOR THIS PROJECT, CONTRACTORS ARE ENCOURAGED TO FAMILIARIZE THEMSELVES WITH THE CURRENT SITE CONDITIONS AND ACCESSIBILITY.
3. EXISTING DIMENSIONS AND STATIONING SHOWN IN THE PLANS WERE DEVELOPED FROM LIMITED FIELD SURVEY AND ORIGINAL DESIGN PLANS AND ARE SHOWN FOR INFORMATION ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD CHECKING ALL DIMENSIONS APPLICABLE TO THIS WORK.
4. IN ACCORDANCE WITH SUBSECTION 107.12 THE CONTRACTOR SHALL TAKE CARE NOT TO DAMAGE THE EXISTING PAVEMENT, SUBBASE, SHOULDER MATERIAL, GUARDRAIL, FENCING, PIPES, DROP INLETS, SIGNS, SIGN POSTS, CONCRETE SIGN FOUNDATIONS AND HEADWALLS. IF DAMAGED, THE CONTRACTOR, AT NO ADDITIONAL COMPENSATION, SHALL REPAIR THE DAMAGED ITEMS TO THE SATISFACTION OF THE ENGINEER.
5. THE CONTRACTOR SHALL REMOVE, STOCKPILE, AND REINSTALL SIGNS, MILE MARKER POSTS, AND DELINEATORS LOCATED WHERE REQUIRED WORK MAY CAUSE DAMAGE TO THEM.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY LOCATIONS OF BURIED CABLE THROUGH DIG SAFE AND ITEM 204.22 TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.) PRIOR TO THE START OF LEDGE REMOVAL OPERATIONS.
7. GUARDRAIL MAY BE REMOVED AND RESET AS NEEDED AND AS APPROVED BY THE ENGINEER. PAYMENT WILL BE MADE UNDER CONTRACT ITEM 900.645 SPECIAL PROVISION (TEMPORARY ROADWAY WIDENING)(WORK ZONE A).
8. ALL EQUIPMENT SHALL BE MOVED OUTSIDE OF THE CLEAR ZONE OR PROTECTED BY APPROVED BARRIERS DURING NON-WORKING HOURS.
9. THE CONTRACTOR SHALL ADEQUATELY MAINTAIN THE EXISTING DITCH LINE TO ENSURE PROPER DRAINAGE DURING CONSTRUCTION ACTIVITIES AND UPON COMPLETION OF THE WORK, AS DIRECTED BY AND TO THE SATISFACTION OF THE ENGINEER.

## LEDGE REMOVAL

1. LEDGE REMOVAL SHALL CONSIST OF THE REMOVAL OF LOOSE ROCK FROM THE LEDGE CUT USING THE FOLLOWING CONTRACT ITEMS:  
  
203.16 SOLID ROCK EXCAVATION CY  
900.608 SPECIAL PROVISION (REMOVAL OF LEDGE SALVAGE MATERIAL) CY  
900.608 SPECIAL PROVISION (REMOVAL OF LEDGE WASTE MATERIAL) CY  
900.608 SPECIAL PROVISION (TRIM BLASTING, TRUCK MEASUREMENT) CY  
900.630 SPECIAL PROVISION (HAND SCALING) HR  
900.630 SPECIAL PROVISION (MACHINE SCALING) HR
2. LIMITS OF LEDGE REMOVAL INVOLVING HAND SCALING, MACHINE SCALING AND SOLID ROCK EXCAVATION, INCLUDES THE ENTIRE FACE OF LEDGE AS NEEDED OR AS DETERMINED BY THE ENGINEER OR GEOLOGIST. THE CONTRACTOR SHALL PERFORM ANY ADDITIONAL WORK WITHIN THE PROJECT LIMITS AT THE UNIT PRICES PROVIDED IN THE CONTRACT UNDER THE FOLLOWING ITEMS: 203.16 SOLID ROCK EXCAVATION, 900.630 SPECIAL PROVISION (HAND SCALING) AND 900.630 SPECIAL PROVISION (MACHINE SCALING).
3. APPROXIMATE LIMITS OF LEDGE REMOVAL METHODS ARE:  
  
VERMONT ROUTE 30: STA 214+10 RT TO STA 221+00 RT; SOLID ROCK EXCAVATION  
STA 214+10 RT TO STA 221+00 RT; HAND SCALING  
STA 214+10 RT TO STA 221+00 RT; MACHINE SCALING  
STA 214+00 RT TO STA 221+00 RT; TRIM BLASTING  
  
STA 223+44 RT TO STA 225+35 RT; HAND SCALING  
STA 223+44 RT TO STA 225+35 RT; MACHINE SCALING  
  
ROCK DOWELING LOCATIONS SHALL BE DETERMINED BY THE VTRANS GEOLOGIST ON AN AS NEEDED BASIS. WORK SHALL BE PAID FOR UNDER ITEM 900.640 SPECIAL PROVISION (ROCK DOWELING) AND ITEM 900.645 SPECIAL PROVISION (ROCK DOWEL TESTING).  
  
ROCK DRAIN LOCATIONS SHALL BE DETERMINED BY THE VTRANS GEOLOGIST ON AN AS NEEDED BASIS. WORK SHALL BE PAID FOR UNDER ITEM 900.640 SPECIAL PROVISION (ROCK DRAIN).  
  
TRIM BLASTING LOCATIONS SHALL BE DETERMINED BY THE VTRANS GEOLOGIST ON AN AS NEEDED BASIS. WORK SHALL BE PAID FOR UNDER ITEM 900.608 SPECIAL PROVISION (TRIM BLASTING, TRUCK MEASUREMENT).
4. LIMITS OF THE TOE OF LEDGE SHALL BE DETERMINED BY THE ENGINEER, VTRANS GEOLOGIST AND THE CONTRACTOR BEFORE ANY WORK BEGINS. WORK SHALL BE PAID FOR UNDER ITEM 900.608 SPECIAL PROVISION (REMOVAL OF LEDGE SALVAGE MATERIAL) AND ITEM 900.608 SPECIAL PROVISION (REMOVAL OF LEDGE WASTE MATERIAL)  
  
ALL LEDGE REMOVAL SHALL BE CONDUCTED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND BY PERSONNEL EXPERIENCED WITH THE REMOVAL METHODS BEING USED.
5. A QUANTITY OF LEDGE MATERIAL SHALL BE SALVAGED TO THE STATE OF VERMONT. SEE THE SPECIAL PROVISIONS FOR ADDITIONAL INFORMATION AND REQUIREMENTS.
6. THE CONTRACTOR SHALL TAKE CARE DURING THE LEDGE REMOVAL NOT TO DAMAGE OR DISTURB EXISTING UTILITIES WITHIN THE PROJECT AREA AND IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

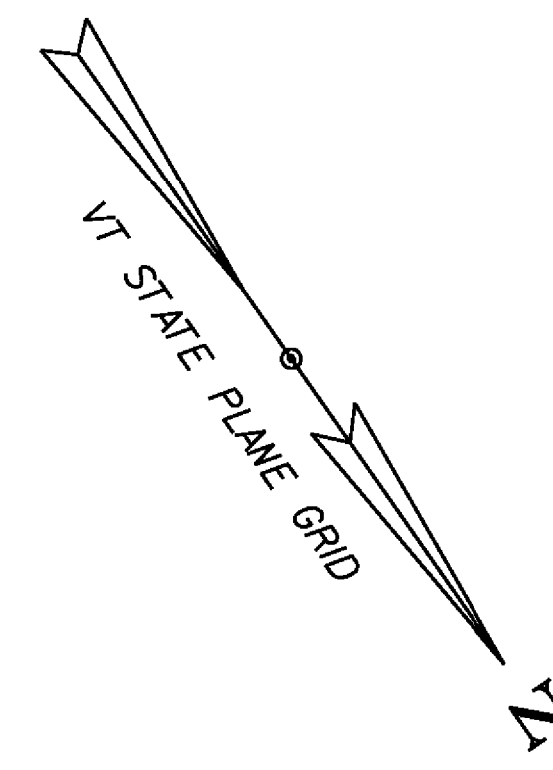
## CLEARING AND GRUBBING

1. CLEARING SHALL CONSIST OF REMOVAL OF ALL TREES AND SHRUBS BEGINNING AT THE EDGE OF PAVEMENT INCLUDING THE DITCHLINE, FACE OF LEDGE CUT AND TO THE LIMITS OF THE EXISTING ROW BEYOND THE FINAL CREST OF LEDGE. THE FINAL CLEARING LIMITS SHALL BE DETERMINED BY THE ENGINEER AND THE VTRANS GEOLOGIST.
2. ALL VEGETATION AND SOILS SHALL BE REMOVED FROM THE FACE OF THE LEDGE. THIS WORK SHALL BE PAID UNDER ITEM 201.11 'CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS.
3. ALL VEGETATION TO BE REMOVED BETWEEN THE EDGE OF PAVEMENT AND THE TOE OF LEDGE, AND BETWEEN THE FINAL CREST OF LEDGE AND TO THE EXISTING ROW BEYOND THE FINAL CREST OF LEDGE, SHALL BE PAID UNDER ITEM 201.10 CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS.
4. ALL VEGETATION, INCLUDING REMOVED LIMBS, FOR BOTH ITEM 201.10 AND ITEM 201.11, SHALL BE CLEARED AND DISPOSED OF IN ACCORDANCE WITH SECTION 201 AND THE CONTRACT DOCUMENTS.
5. INDIVIDUAL TREES THAT ARE DEEMED, BY THE ENGINEER, TO BE AT RISK OF FALLING OUTSIDE OF THE CLEARING AND GRUBBING AREA IDENTIFIED ON THE PLANS SHALL BE REMOVED. THIS WORK SHALL BE INCIDENTAL TO ITEM 201.10 CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN, TO THE SATISFACTION OF THE ENGINEER, A NEAT TREE LINE ALONG THE AREA TO BE CLEARED. THIS WORK SHALL BE INCIDENTAL TO ITEM 201.10 CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS.
7. AN ESTIMATED QUANTITY OF ITEM 651.35 TOPSOIL HAS BEEN ADDED IF THE ENGINEER DEEMS NECESSARY THAT RESHAPING OF THE DITCH REQUIRES MORE MATERIAL ONCE THE LEDGE HAS BEEN REMOVED.
8. AN ESTIMATED QUANTITY OF ITEM 651.25 HAY MULCH HAS BEEN ADDED IF THE ENGINEER DEEMS ITS USE IS NECESSARY.
9. THE CONTRACTOR MAY GRIND OR TREAT THE EXISTING STUMPS DESIGNATED FOR REMOVAL WITHIN CLEARING AND GRUBBING AREAS, WITH THE EXCEPTION OF THOSE ON THE ROCK FACE. THE CONTRACTOR SHALL ENSURE THAT THE STUMPS WILL NOT GROW BACK. PAYMENT WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 201.11.

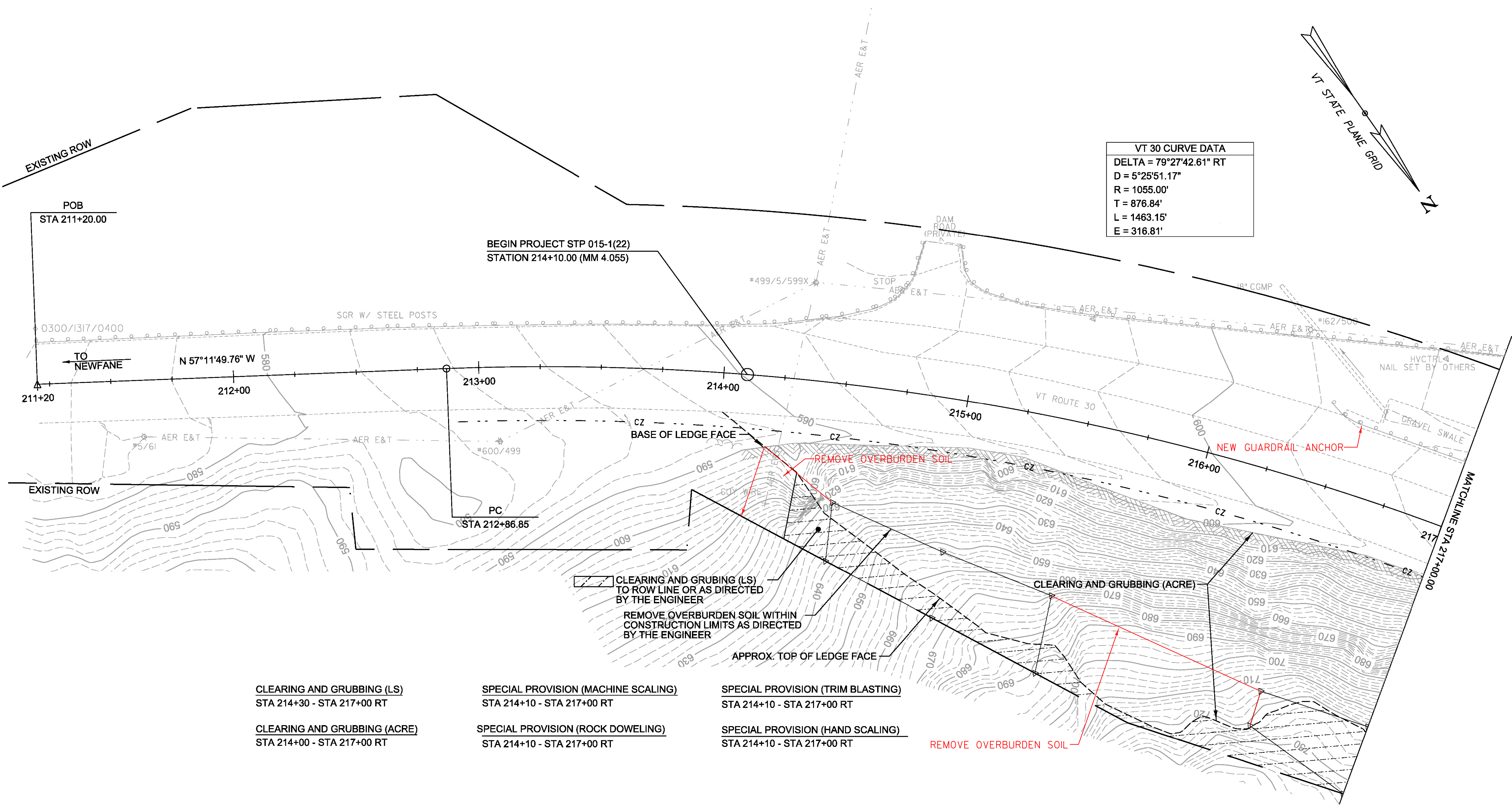
PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050frm.dgn  
PROJECT LEADER: K. UPMAL  
DESIGNED BY: C. LEACH  
PROJECT NOTES

PLOT DATE: 2/13/2015  
DRAWN BY: C. LEACH  
CHECKED BY: B. KIPP  
SHEET 8 OF 34



VT 30 CURVE DATA	
DELTA =	79°27'42.61" RT
D =	5°25'51.17"
R =	1055.00'
T =	876.84'
L =	1463.15'
E =	316.81'



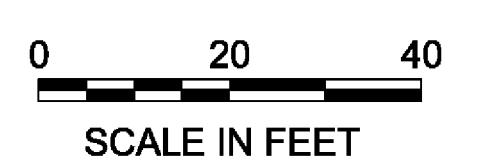
CLEARING AND GRUBBING (LS)  
 TO ROW LINE OR AS DIRECTED  
 BY THE ENGINEER  
 REMOVE OVERBURDEN SOIL WITHIN  
 CONSTRUCTION LIMITS AS DIRECTED  
 BY THE ENGINEER

CLEARING AND GRUBBING (LS)  
 STA 214+30 - STA 217+00 RT  
 CLEARING AND GRUBBING (ACRE)  
 STA 214+00 - STA 217+00 RT

SPECIAL PROVISION (MACHINE SCALING)  
 STA 214+10 - STA 217+00 RT  
 SPECIAL PROVISION (ROCK DOWELING)  
 STA 214+10 - STA 217+00 RT

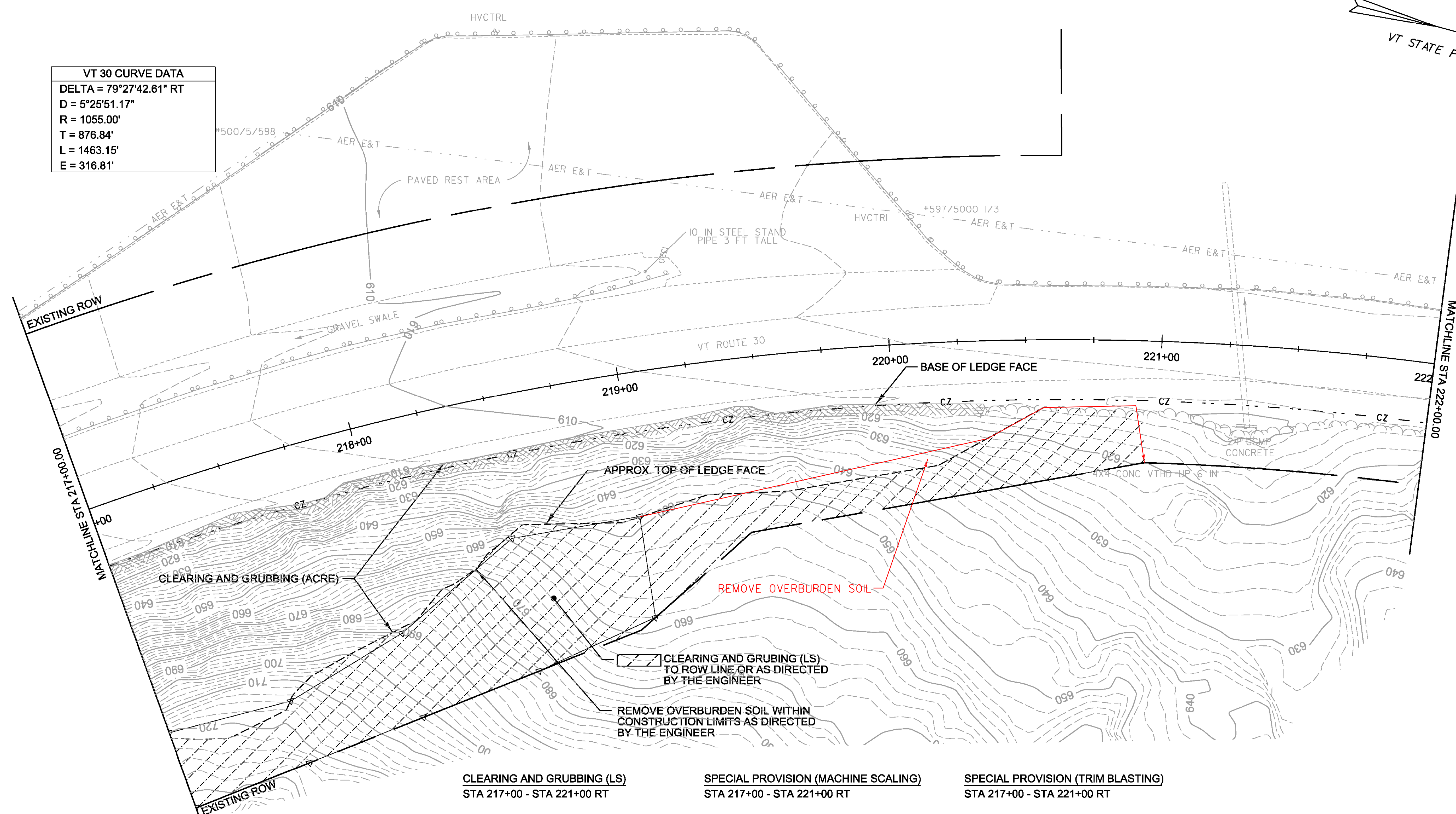
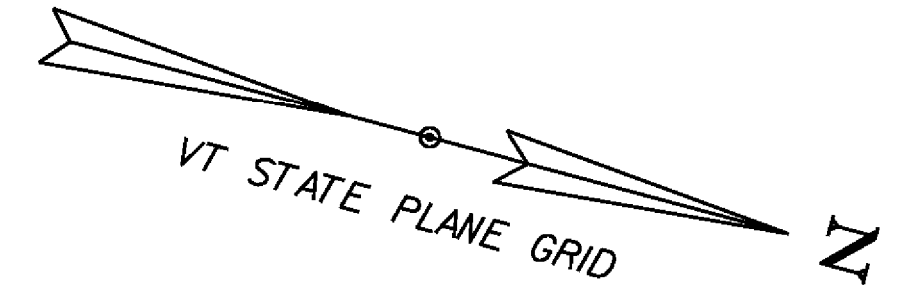
SPECIAL PROVISION (TRIM BLASTING)  
 STA 214+10 - STA 217+00 RT  
 SPECIAL PROVISION (HAND SCALING)  
 STA 214+10 - STA 217+00 RT

REMOVE OVERBURDEN SOIL



PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	d1b050nui.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
PLAN SHEET 1	
PLOT DATE:	1/9/2015
DRAWN BY:	C. LEACH
CHECKED BY:	B. KIPP
SHEET	9 OF 34

VT 30 CURVE DATA	
DELTA =	79°27'42.61" RT
D =	5°25'51.17"
R =	1055.00'
T =	876.84'
L =	1463.15'
E =	316.81'



**CLEARING AND GRUBBING (LS)**  
STA 217+00 - STA 221+00 RT

**SPECIAL PROVISION (MACHINE SCALING)**  
STA 217+00 - STA 221+00 RT

**SPECIAL PROVISION (TRIM BLASTING)**  
STA 217+00 - STA 221+00 RT

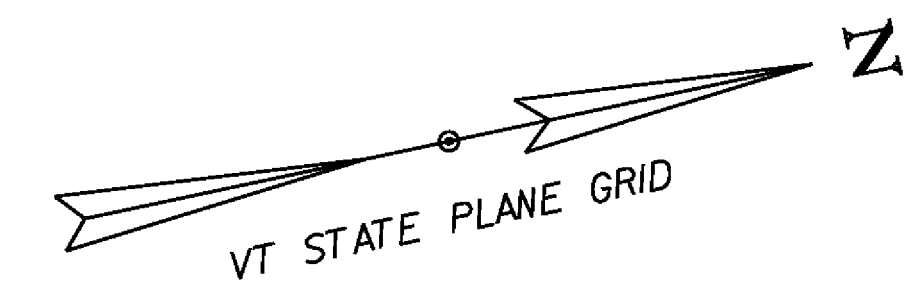
**CLEARING AND GRUBBING (ACRE)**  
STA 217+00 - STA 220+00 RT

**SPECIAL PROVISION (ROCK DOWELING)**  
STA 217+00 - STA 221+00 RT

**SPECIAL PROVISION (HAND SCALING)**  
STA 217+00 - STA 221+00 RT



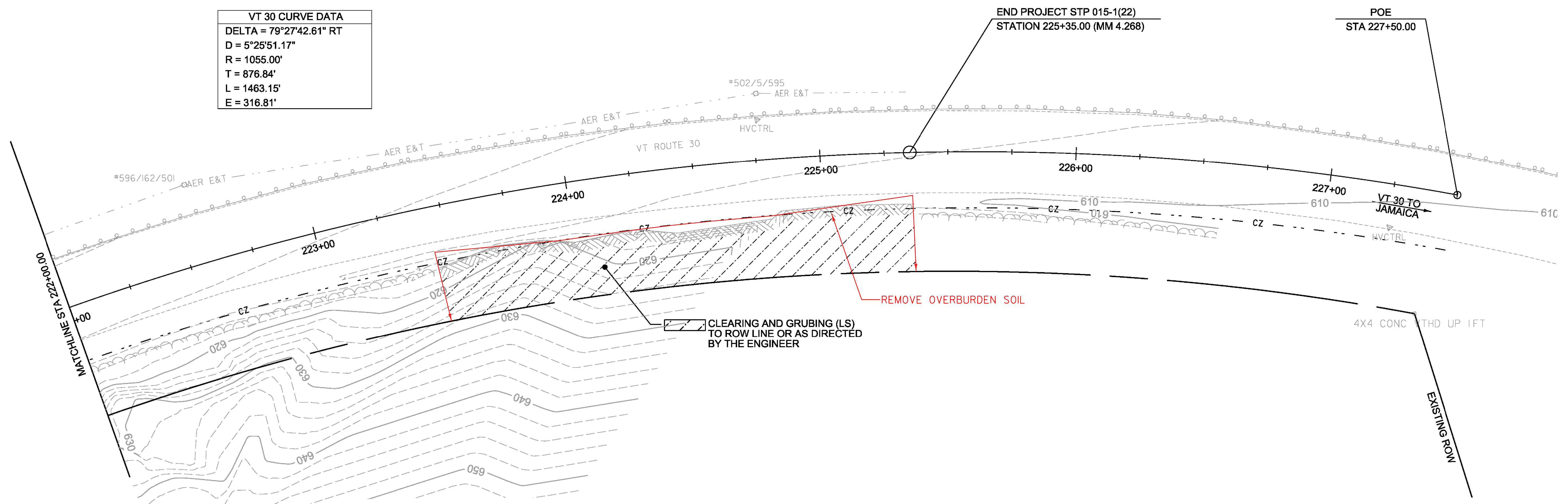
PROJECT NAME:	TOWNSHEND	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	DRAWN BY:	C. LEACH
FILE NAME:	d1lb050nui.dgn	CHECKED BY:	B. KIPP
PROJECT LEADER:	K. UPMAL	SHEET	10 OF 34
DESIGNED BY:	C. LEACH	PLAN SHEET	2



VT 30 CURVE DATA	
DELTA =	79°27'42.61" RT
D =	5°25'51.17"
R =	1055.00'
T =	876.84'
L =	1463.15'
E =	316.81'

END PROJECT STP 015-1(22)  
STATION 225+35.00 (MM 4.268)

POE  
STA 227+50.00



CLEARING AND GRUBBING  
STA 223+44 - STA 225+35 RT

SPECIAL PROVISION (HAND SCALING)  
STA 223+44 - STA 225+35 RT

SPECIAL PROVISION (MACHINE SCALING)  
STA 223+44 - STA 225+35 RT



PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	dlib050bdr.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
PLAN SHEET	3
PLOT DATE:	1/9/2015
DRAWN BY:	C. LEACH
CHECKED BY:	B. KIPP
SHEET	II OF 34

## EPSC PLAN NARRATIVE

### 1.1 PROJECT DESCRIPTION

THE PURPOSE OF THIS PROJECT IS TO REHABILITATE AN EXISTING LEDGE FACE WHICH INVOLVES TRIM BLASTING, HAND SCALING, MACHING SCALING, ROCK DOWELING, CLEARING AND GRUBBING AND TRAFFIC CONTROL. THIS LEDGE FACE IS LOCATED IN THE TOWN OF TOWNSHEND, ON VT ROUTE 30 BETWEEN MM 4.055 AND 4.268.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.60 ACRE.

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

### 1.2 SITE INVENTORY

#### 1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE AREA IS MOUNTAINOUS AND IS MOSTLY WELL ESTABLISHED FOREST WITH OCCASIONAL OPEN AREAS. VT ROUTE 30, DAM ROAD AND A PAVED REST AREA ARE WITHIN THE PROJECT LIMITS. THE TOWNSHEND DAM IS ALSO IN CLOSE PROXIMITY TO THE PROJECT SITE.

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

THE WEST RIVER IS THE ONLY KNOWN WATER SOURCE NEAR THE PROJECT SITE. THE WEST RIVER IS APPROXIMATELY 450 FEET AWAY FROM THE PROJECT SITE. THERE ARE TWO CULVERTS WITHIN THE PROJECT LIMITS WHICH CONVEY ROADSIDE RUNOFF AND PORTIONS OF OFFSITE RUNOFF TO THE WESTERLY SIDE OF VT ROUTE 30. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF WATER FROM A FEW NEARBY SLOPES.

#### 1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF HARDWOOD TREES AND UNDERGROWTH. THE IMPACT TO VEGETATION WILL BE LIMITED TO THE EXISTING LEDGE FACE AND AREAS DIRECTLY ON TOP AND BEHIND THE EXISTING LEDGE FACE. UPON PROJECT COMPLETION, THE TOP OF LEDGE WILL BE STABILIZED WITH EROSION MATTING AND STANDARD SEED AND MULCH PRACTICES.

#### 1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF WINDHAM, VERMONT. SOILS BOARDERING THE PROJECT SITE ARE RAWSONVILLE-HOGBACK, FINE SANDY LOAM, 25% TO 50% SLOPES, "K FACTOR" = 0.49. THE SOIL IS CONSIDERED HIGHLY ERODIBLE DUE TO SIGNIFICANT SLOPES.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:  
0.0-0.23 = LOW EROSION POTENTIAL  
0.24-0.36 = MODERATE EROSION POTENTIAL  
0.37 AND HIGHER = HIGH EROSION POTENTIAL

#### 1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO  
HISTORICAL OR ARCHEOLOGICAL AREAS: NO  
PRIME AGRICULTURAL LAND: NO  
THREATENED AND ENDANGERED SPECIES: NO  
WATER RESOURCE: WEST RIVER  
WETLANDS: NO

### 1.3 RISK EVALUATION

THIS 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 CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE 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 UPON 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, WETLANDS 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. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR'S PROGRESS SCHEDULE.

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.

#### 1.4.4 INSTALL SEDIMENT BARRIERS

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

ANY SEDIMENT ON THE EXISTING LEDGE CREST AND/OR BEHIND LEDGE FACE MAY MIGRATE DOWN TO EXISTING ROADSIDE SWALES AND EVENTUALLY DISCHARGE THROUGH INLETS OF ROADWAY CROSS PIPES.

SILT FENCE SHALL BE USED ON THE LEDGE CREST AND AREAS BEHIND LEDGE FACE TO MINIMIZE MIGRATION OF SEDIMENT.

#### 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.

LARGE PORTIONS OF THE PROJECT AREA CONSIST OF STEEP BEDROCK OR LEDGE. IT IS NOT ANTICIPATED THAT DIVERSION MEASURES WILL BE NECESSARY.

#### 1.4.6 SLOW DOWN CHANNELIZED RUNOFF

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

STONE CHECK DAMS WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN, AT A MINIMUM.

#### 1.4.7 CONSTRUCT PERMANENT CONTROLS

PERMANENT STORMWATER TREATMENT DEVICES SHALL BE INSTALLED AS SHOWN ON PLANS AND IN ACCORDANCE WITH PERMIT CONDITIONS.

THIS PROJECT DOES NOT REQUIRE ANY PERMANENT STORMWATER TREATMENT DEVICES.

#### 1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE ANR LOW RISK SITE HAND BOOK FOR EPSC.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

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.

WINTER CONSTRUCTION IS NOT ANTICIPATED.

#### 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.

#### 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.

THERE ARE NO DEWATERING ACTIVITIES REQUIRED FOR THIS PROJECT.

#### 1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS OR THE ANR LOW RISK HAND BOOK FOR EPSC.

### 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.

#### 1.5.3 UPDATES

PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: d1lb050frm.dgn  
PROJECT LEADER: K. UPMAL  
DESIGNED BY: C. LEACH  
EPSC NARRATIVE

PLOT DATE: 2/12/2015  
DRAWN BY: C. LEACH  
CHECKED BY: B. KIPP  
SHEET 12 OF 34

VAOT RURAL AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
37.5%	22.5	45	CREEPING RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
% WEIGHT	LBS/AC		NAME	GERM %	PURITY %
	BROADCAST	HYDROSEED			
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			

SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

**CONSTRUCTION GUIDANCE**

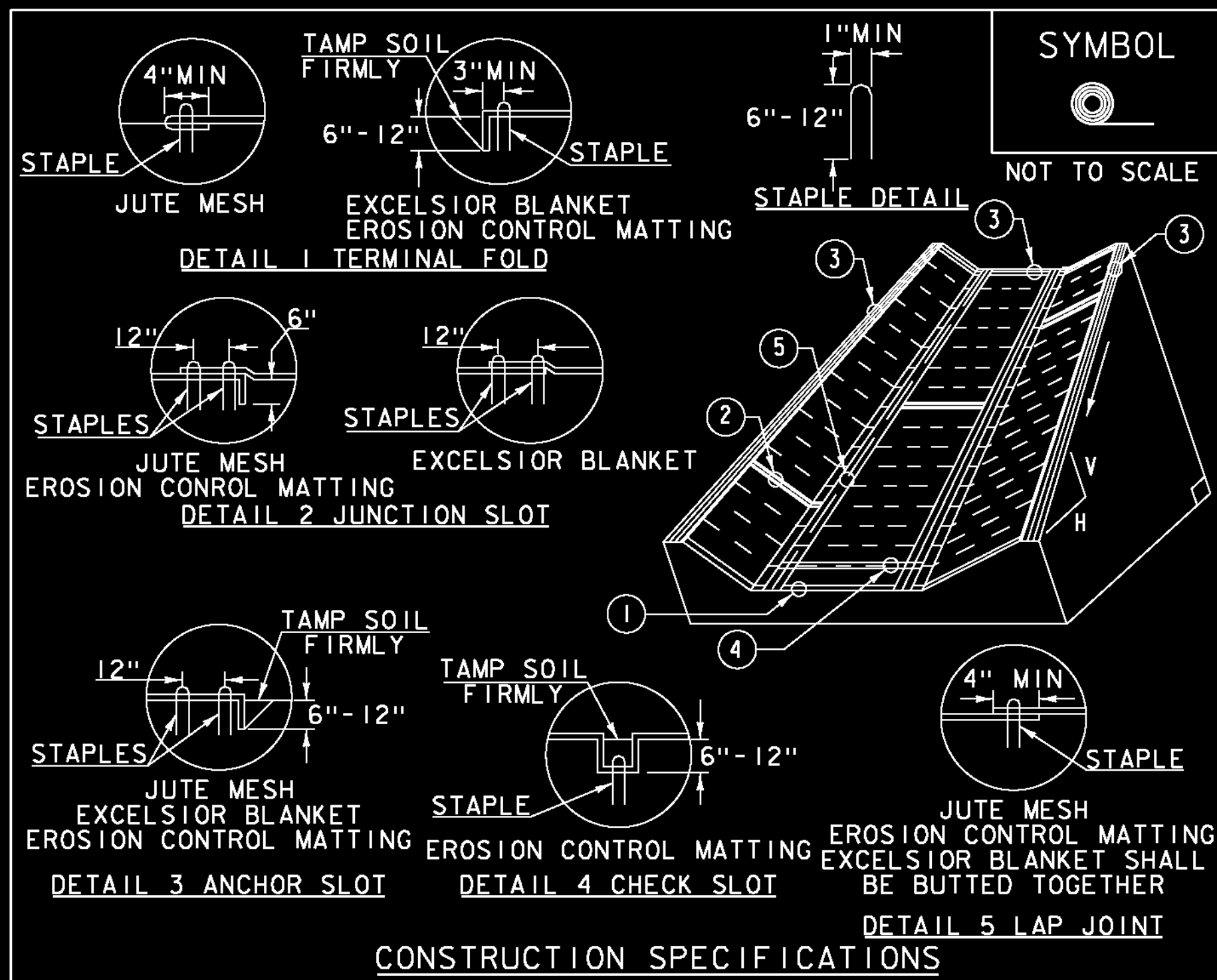
1. RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
2. URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
3. ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 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.

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	
JUNE 23, 2009	WHF
JANUARY 15, 2010	WHF
FEBRUARY 16, 2011	WHF



**CONSTRUCTION SPECIFICATIONS**

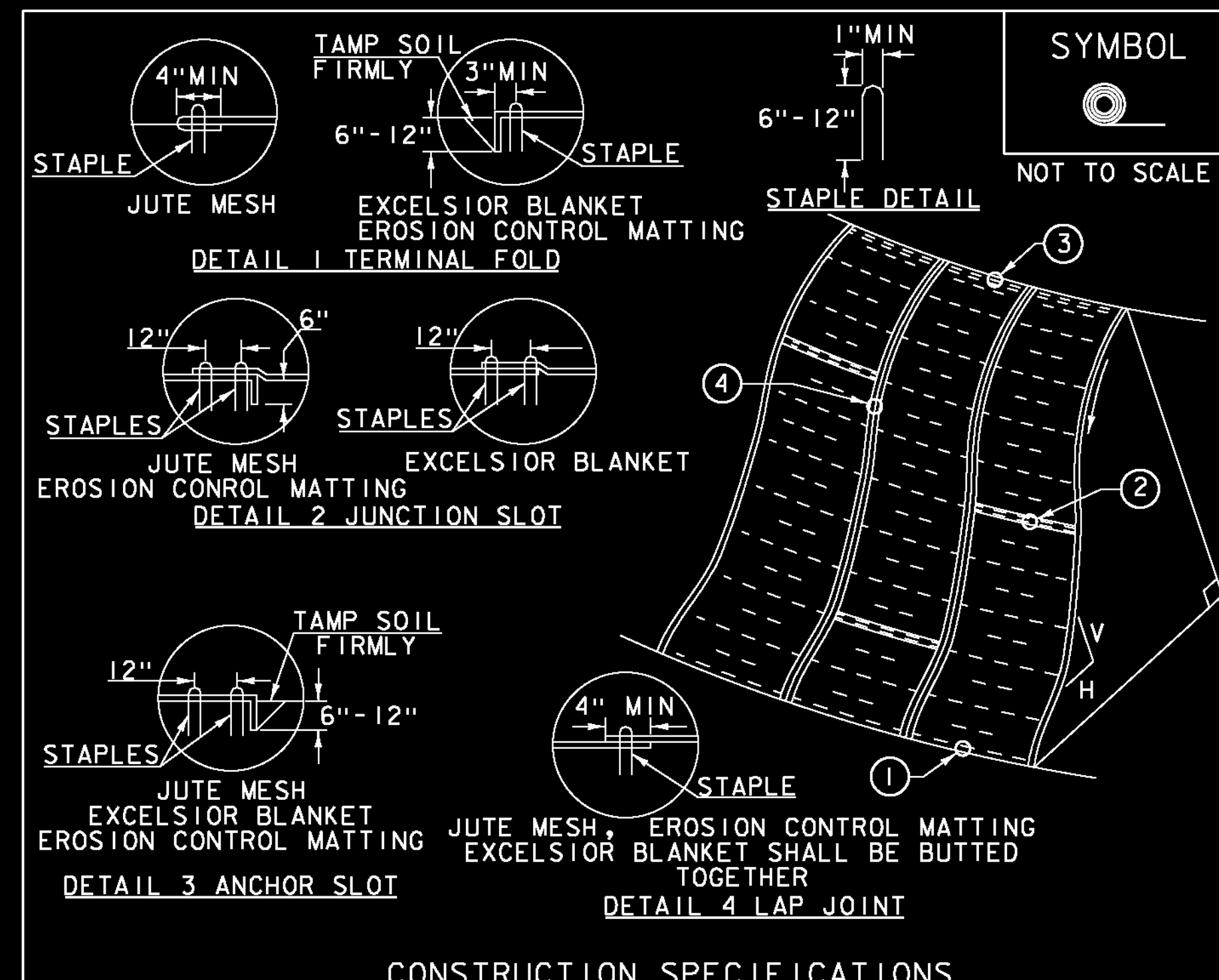
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' 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 653.20).

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' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' 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**

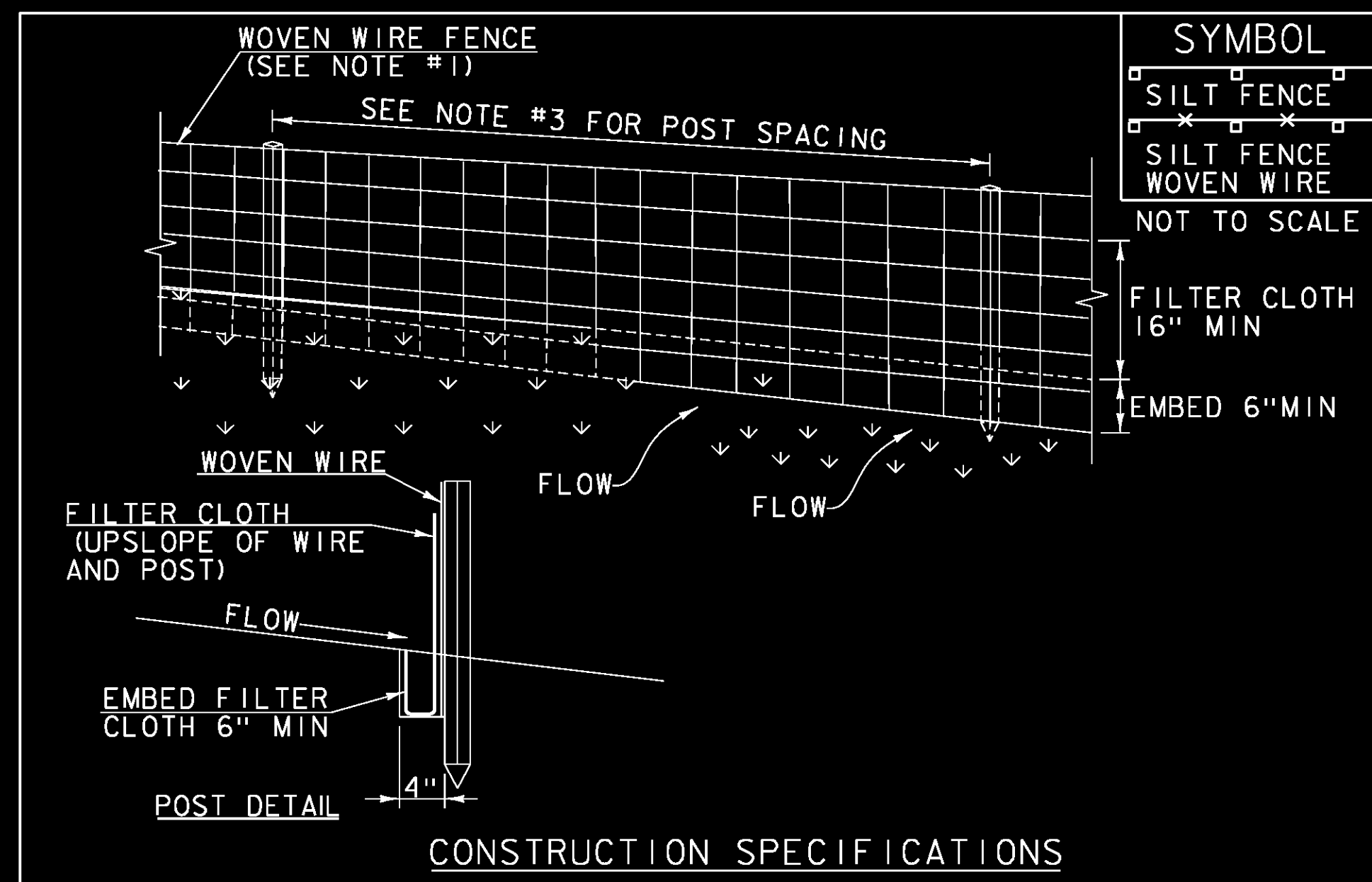
NOTES:  
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.  
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING (PAY ITEM 653.20).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF

**NOT TO SCALE**

PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: d1lb050det.dgn PLOT DATE: 1/9/2015  
PROJECT LEADER: K. UPMAL DRAWN BY: C. LEACH  
DESIGNED BY: C. LEACH CHECKED BY: B. KIPP  
EPSC DETAIL SHEET 1 SHEET 13 OF 34



SYMBOL	
[Symbol]	SILT FENCE
[Symbol]	SILT FENCE WOVEN WIRE

**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.

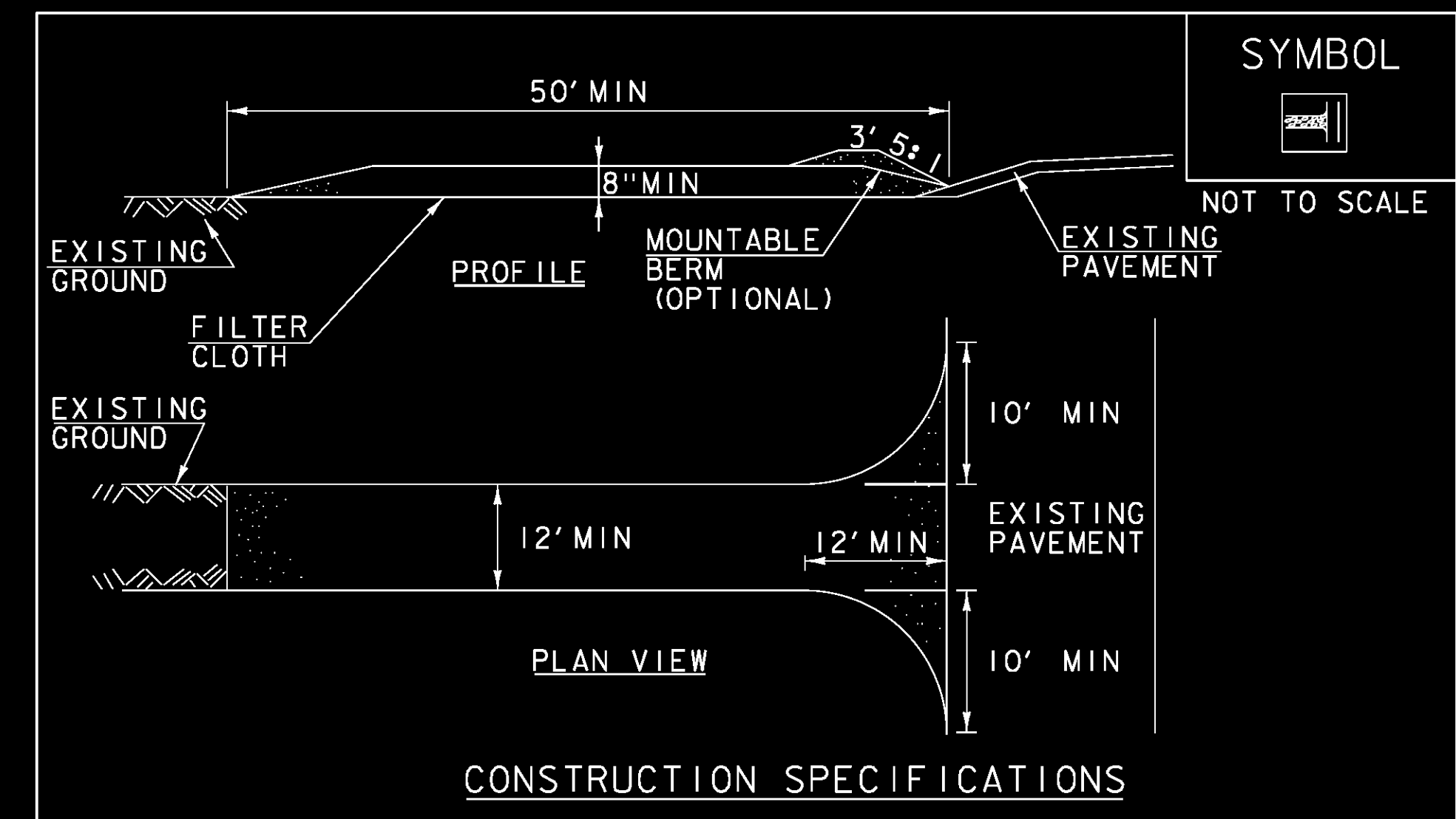
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**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



SYMBOL	
[Symbol]	STABILIZED CONSTRUCTION ENTRANCE

**CONSTRUCTION SPECIFICATIONS**

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.

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

**STABILIZED CONSTRUCTION ENTRANCE**

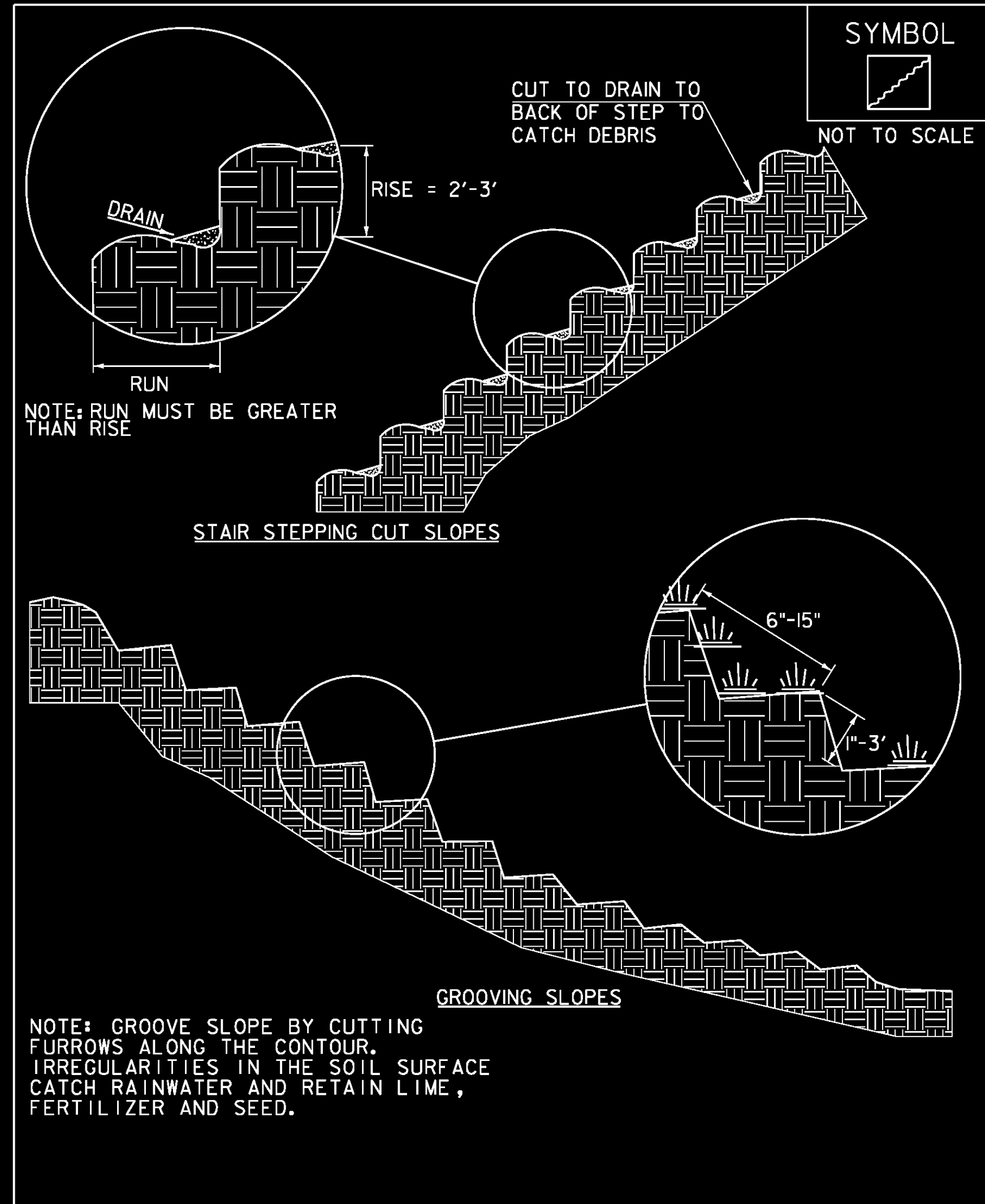
NOTES:  
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006-" FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

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

**NOT TO SCALE**

PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	dlib050det.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
EPSC DETAIL SHEET	2
PLOT DATE:	1/9/2015
DRAWN BY:	C. LEACH
CHECKED BY:	B. KIPP
SHEET	14 OF 34



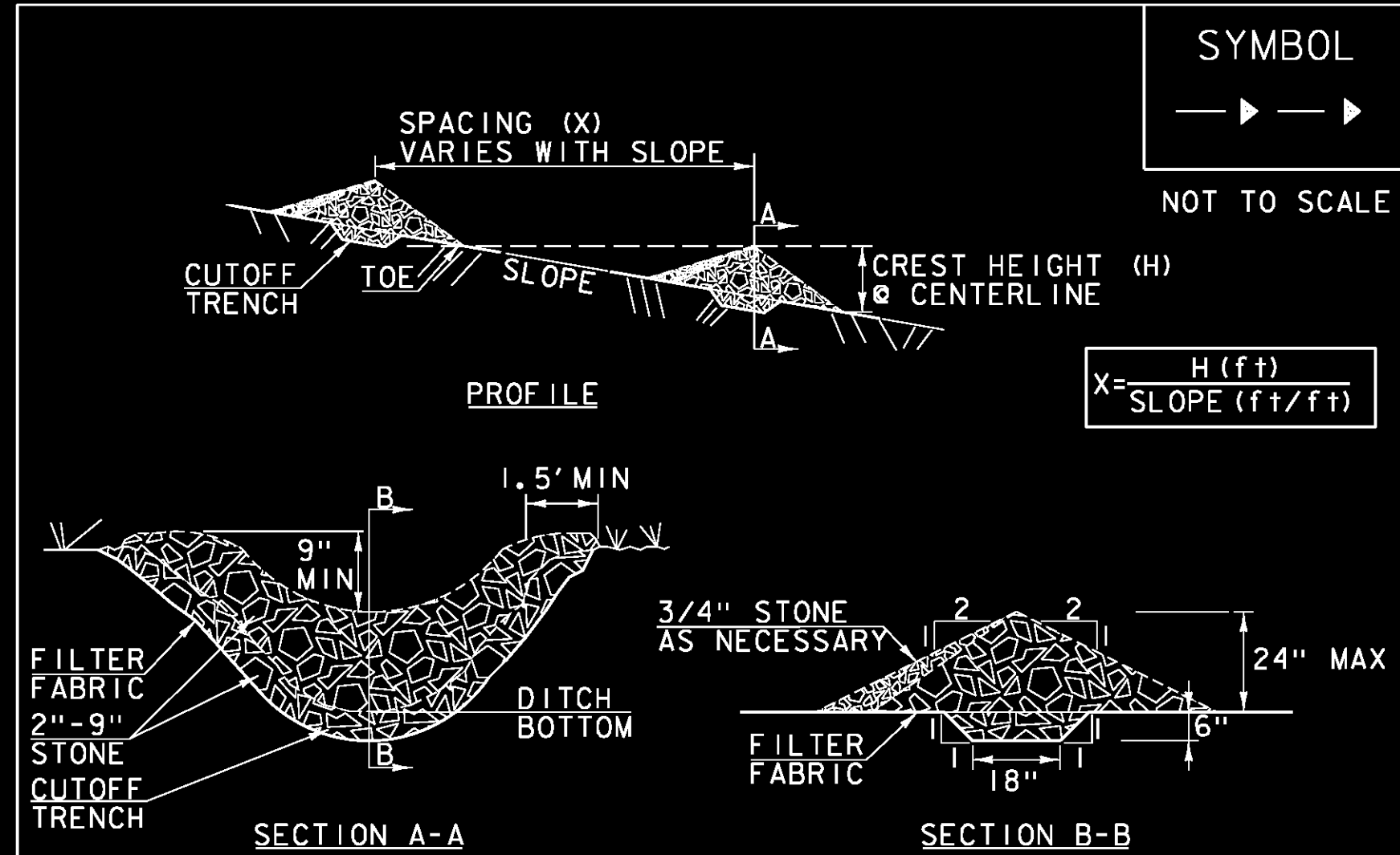
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**SURFACE ROUGHENING**

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 CONSIDERED INCIDENTAL TO THE  
CONTRACT

REVISIONS	
APRIL 1, 2008	WHF
JANUARY 13, 2009	WHF



**CHECK DAM**

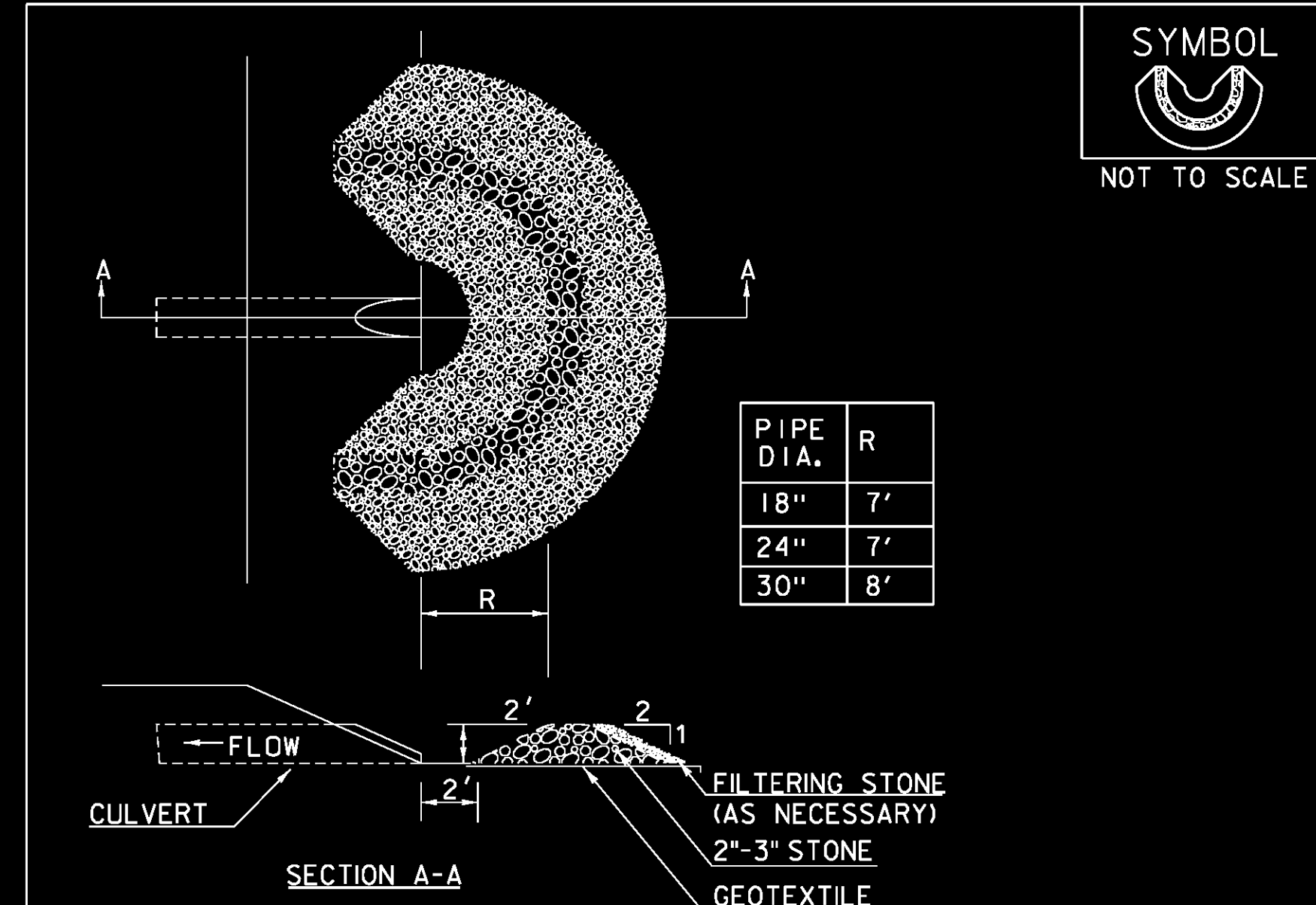
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A 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

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



**PIPE INLET PROTECTION**

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 SHALL 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.

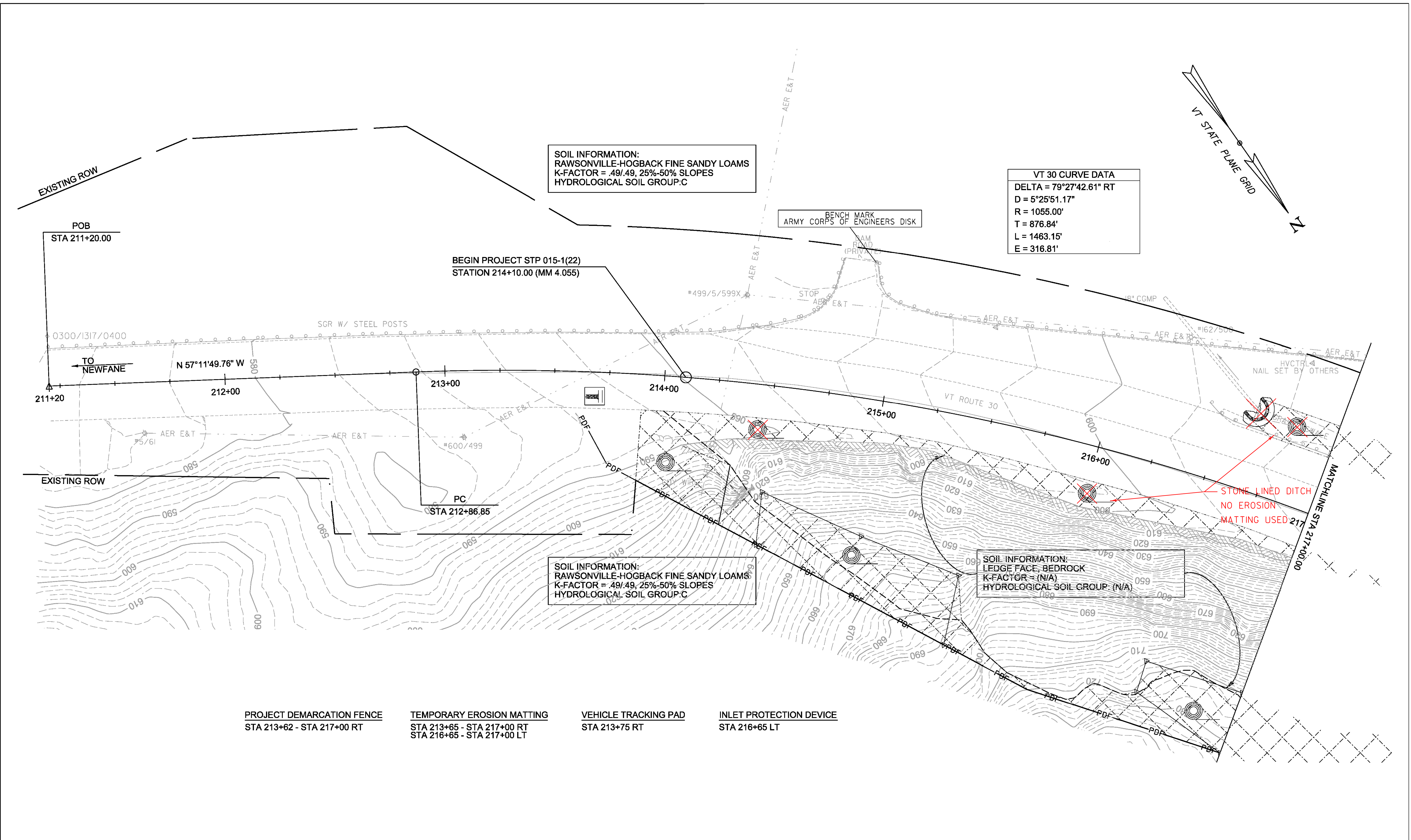
ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS  
ORIGINALLY DEVELOPED BY USDA-NRCS

REVISIONS	
MARCH 6, 2008	WHF
JANUARY 13, 2009	WHF

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH  
SECTION 653 FOR INLET PROTECTION DEVICE, TYPE I (PAY  
ITEM 653.40).

**NOT TO SCALE**

PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	dlib050det.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
EPSC DETAIL SHEET	3
PLOT DATE:	1/9/2015
DRAWN BY:	C. LEACH
CHECKED BY:	B. KIPP
SHEET	15 OF 34



SOIL INFORMATION:  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP: C

VT 30 CURVE DATA  
 DELTA = 79°27'42.61" RT  
 D = 5°25'51.17"  
 R = 1055.00'  
 T = 876.84'  
 L = 1463.15'  
 E = 316.81'

SOIL INFORMATION:  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP: C

SOIL INFORMATION:  
 LEDGE FACE, BEDROCK  
 K-FACTOR = (N/A)  
 HYDROLOGICAL SOIL GROUP: (N/A)

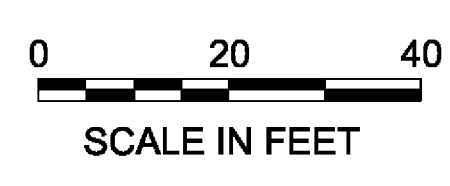
STONE LINED DITCH  
 NO EROSION  
 MATTING USED

PROJECT DEMARCATION FENCE  
 STA 213+62 - STA 217+00 RT

TEMPORARY EROSION MATTING  
 STA 213+65 - STA 217+00 RT  
 STA 216+65 - STA 217+00 LT

VEHICLE TRACKING PAD  
 STA 213+75 RT

INLET PROTECTION DEVICE  
 STA 216+65 LT



PROJECT NAME: TOWNSHEND	FILE NAME: dl1b050erobdr.dgn	PLOT DATE: 1/9/2015
PROJECT NUMBER: STP 015-K(22)	PROJECT LEADER: K. UPMAL	DRAWN BY: C. LEACH
	DESIGNED BY: C. LEACH	CHECKED BY: B. KIPP
	EPSC PLAN SHEET 1	SHEET 16 OF 34

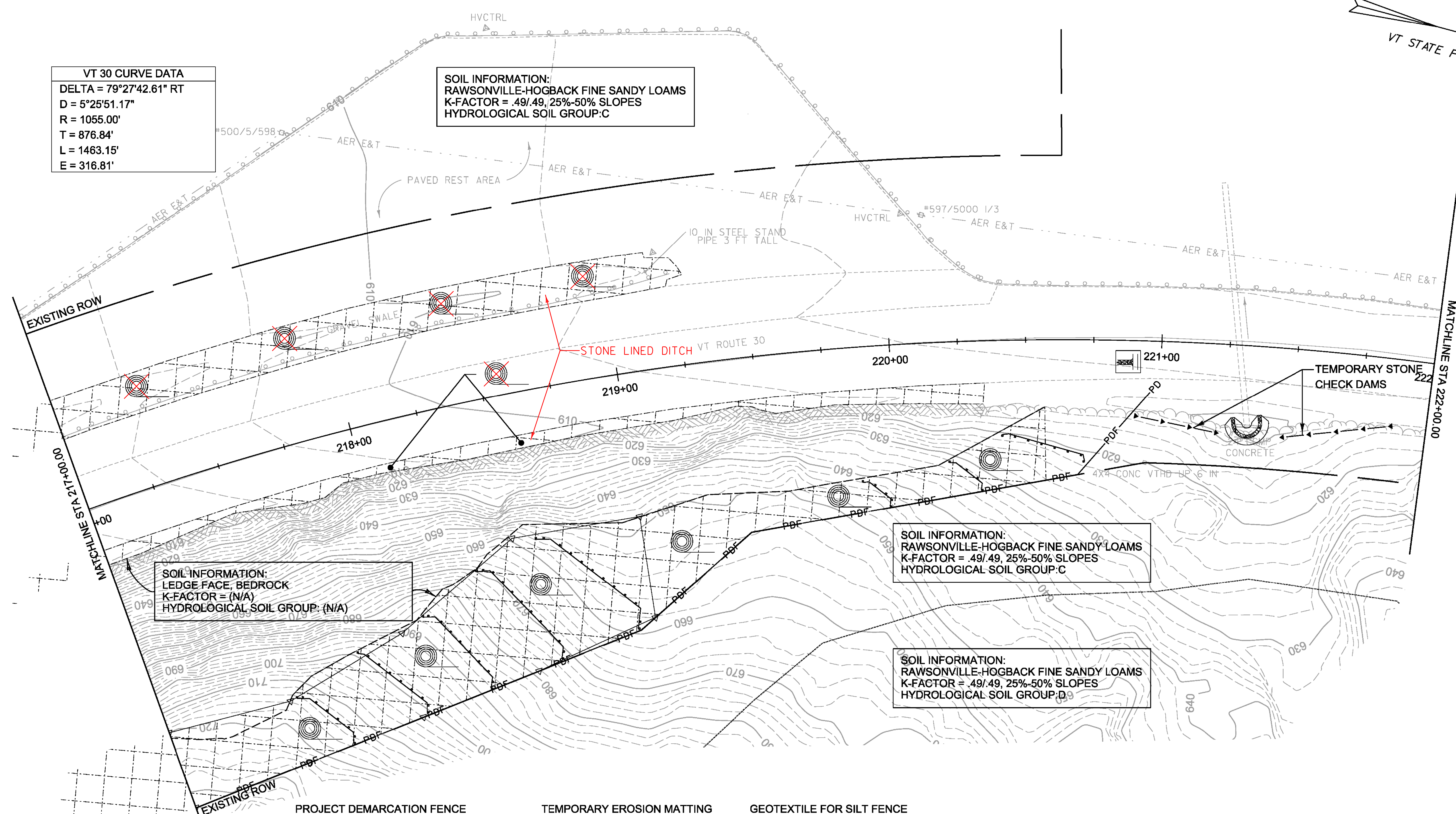
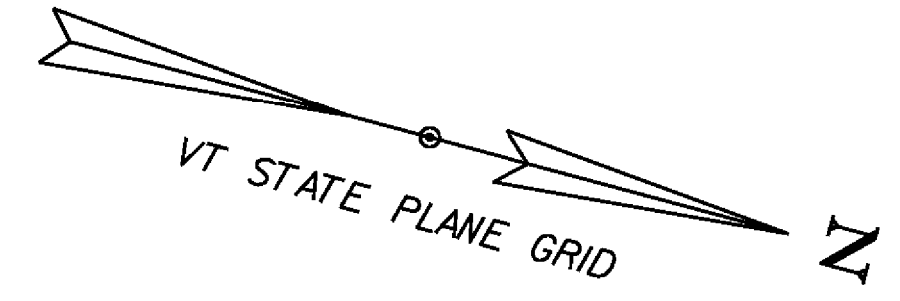
**VT 30 CURVE DATA**  
 DELTA = 79°27'42.61" RT  
 D = 5°25'51.17"  
 R = 1055.00'  
 T = 876.84'  
 L = 1463.15'  
 E = 316.81'

**SOIL INFORMATION:**  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP: C

**SOIL INFORMATION:**  
 LEDGE FACE, BEDROCK  
 K-FACTOR = (N/A)  
 HYDROLOGICAL SOIL GROUP: (N/A)

**SOIL INFORMATION:**  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP: C

**SOIL INFORMATION:**  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP: D₉



**PROJECT DEMARCATION FENCE**  
 STA 217+00 - STA 221+00 RT

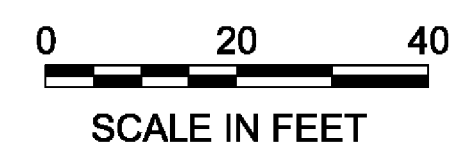
**TEMPORARY EROSION MATTING**  
 STA 217+00 - STA 220+57 RT  
 STA 217+00 - STA 219+27 LT

**GEOTEXTILE FOR SILT FENCE**  
 STA 217+53 - STA 220+75 RT

**TEMPORARY STONE CHECK DAM, TYPE I**  
 STA 221+33 - STA 221+88 RT

**VEHICLE TRACKING PAD**  
 STA 220+87 RT

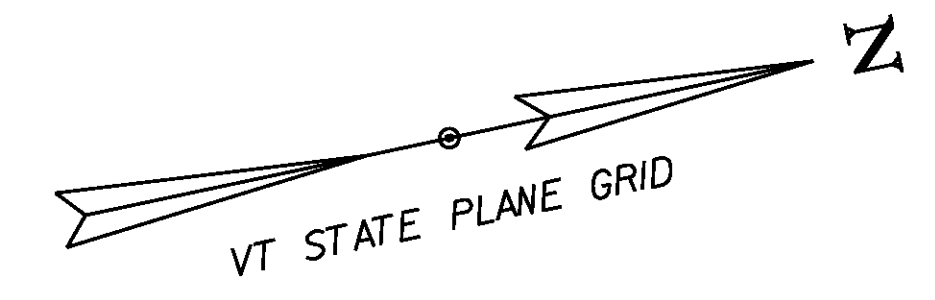
**INLET PROTECTION DEVICE**  
 STA 221+33 RT



PROJECT NAME: TOWNSHEND  
 PROJECT NUMBER: STP 015-1(22)

FILE NAME: dl1b050erobdr.dgn  
 PROJECT LEADER: K. UPMAL  
 DESIGNED BY: C. LEACH  
 EPSC PLAN SHEET 2

PLOT DATE: 2/12/2015  
 DRAWN BY: C. LEACH  
 CHECKED BY: B. KIPP  
 SHEET 17 OF 34

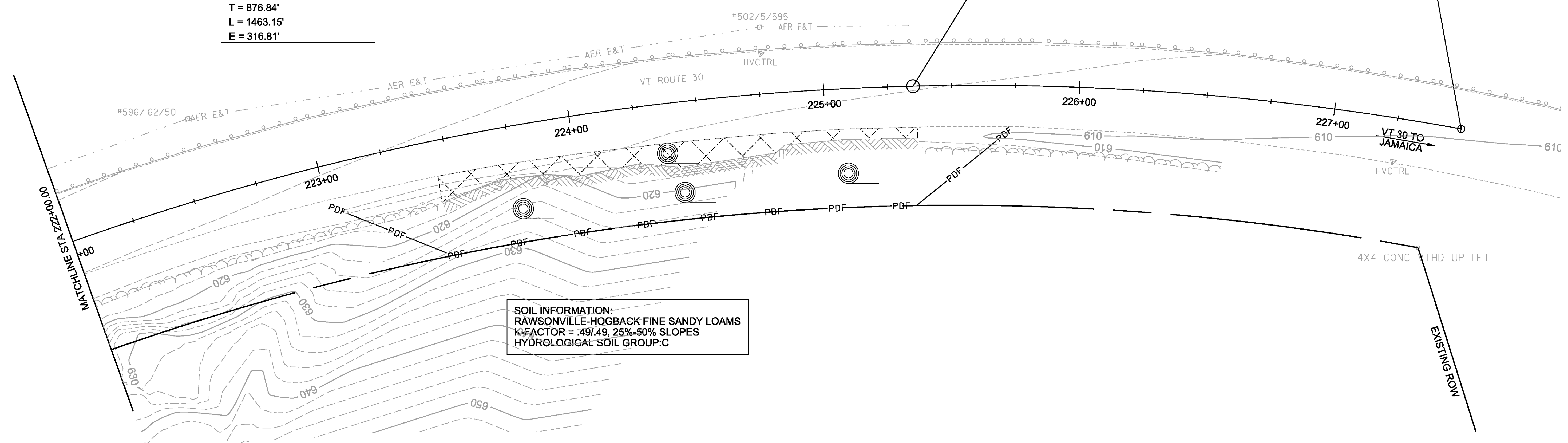


VT 30 CURVE DATA	
DELTA =	79°27'42.61" RT
D =	5°25'51.17"
R =	1055.00'
T =	876.84'
L =	1463.15'
E =	316.81'

SOIL INFORMATION:  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP:C

END PROJECT STP 015-1(22)  
 STATION 225+35.00 (MM 4.268)

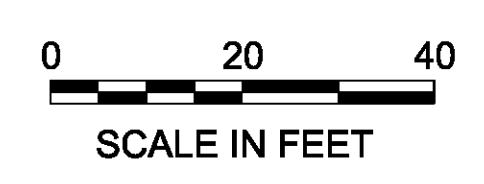
POE  
 STA 227+50.00



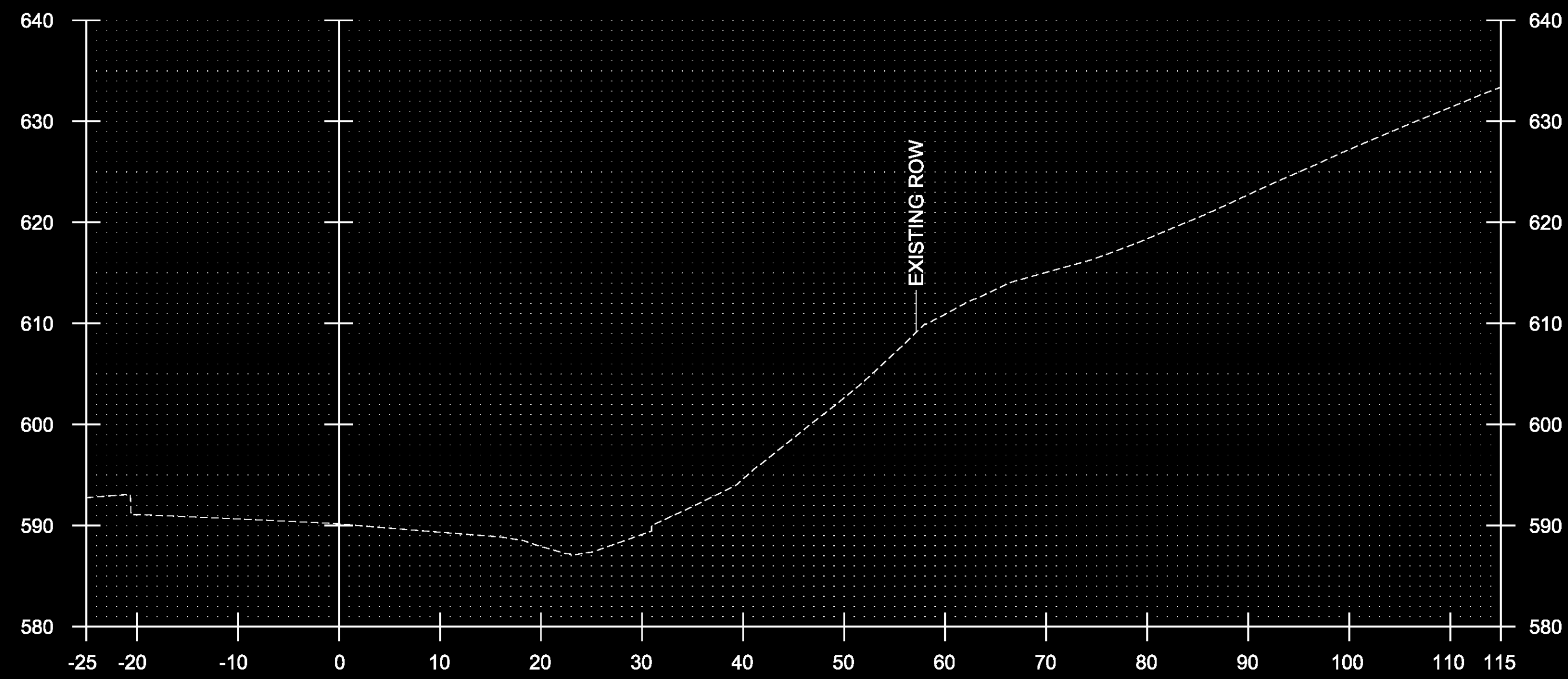
SOIL INFORMATION:  
 RAWSONVILLE-HOGBACK FINE SANDY LOAMS  
 K-FACTOR = .49/.49, 25%-50% SLOPES  
 HYDROLOGICAL SOIL GROUP:C

PROJECT DEMARCATION FENCE  
 STA 223+00 - STA 225+75 RT

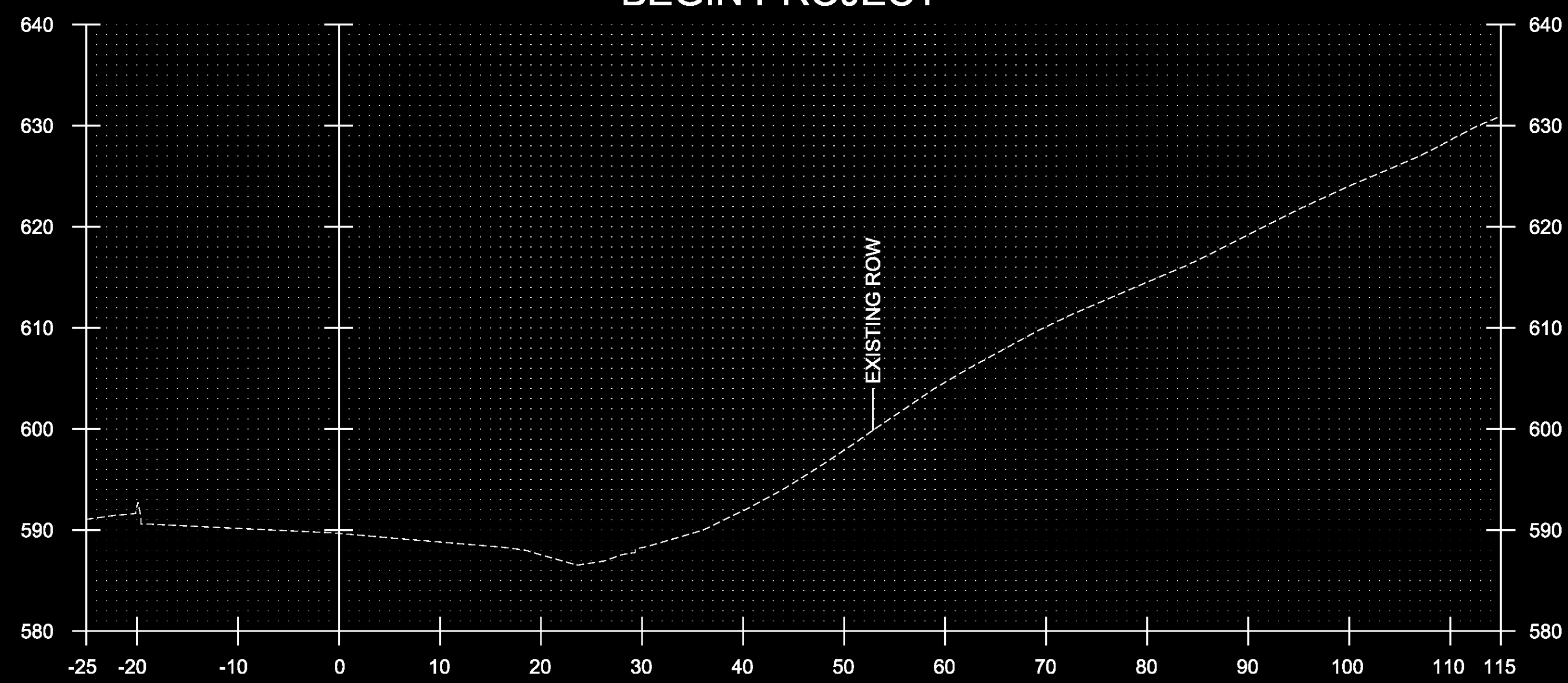
TEMPORARY EROSION MATTING  
 STA 223+35 - STA 225+35 RT



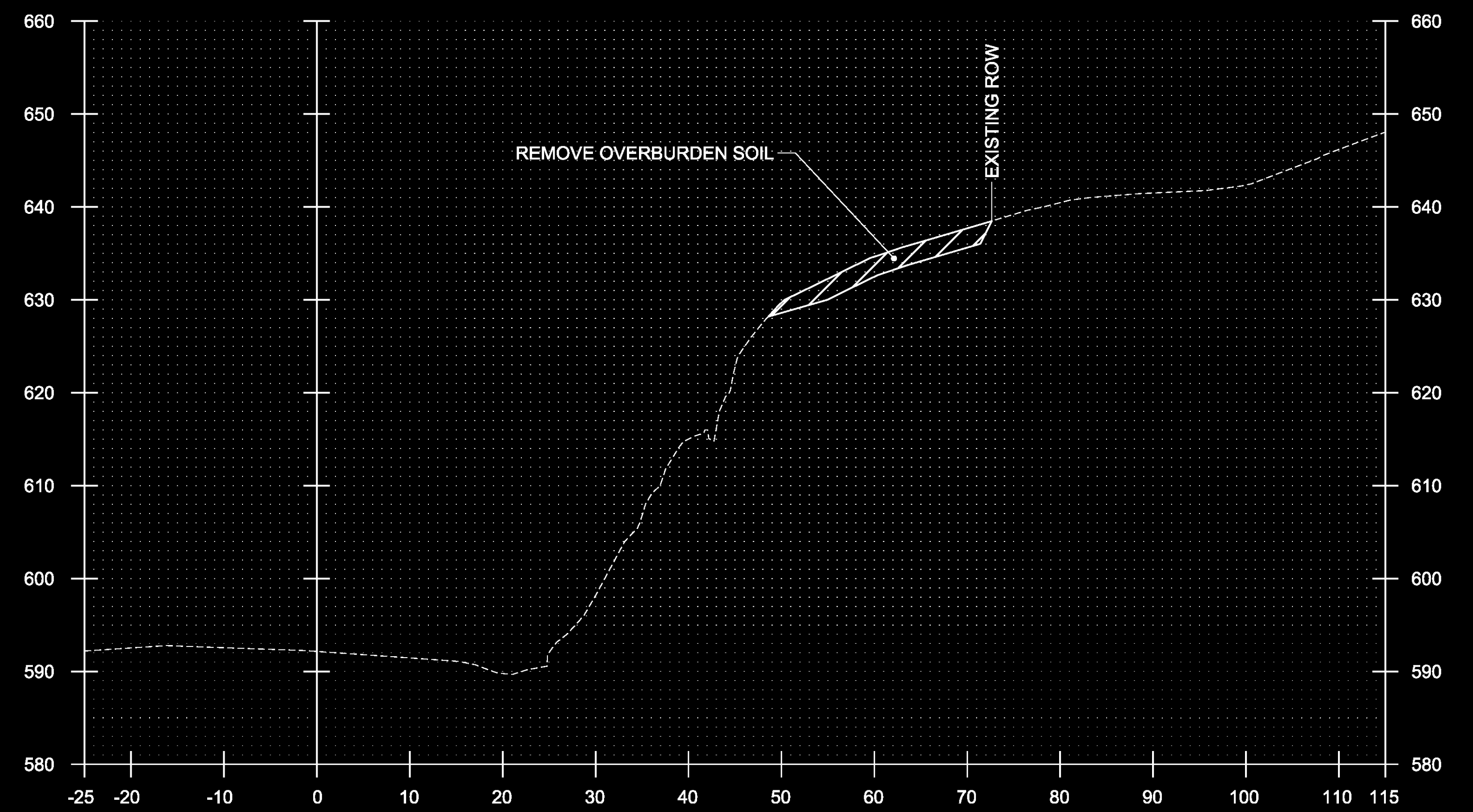
PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	d11b050erobdr.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
EPSC PLAN SHEET	3
PLOT DATE:	1/9/2015
DRAWN BY:	C. LEACH
CHECKED BY:	B. KIPP
SHEET	18 OF 34



214+10  
BEGIN PROJECT



214+00



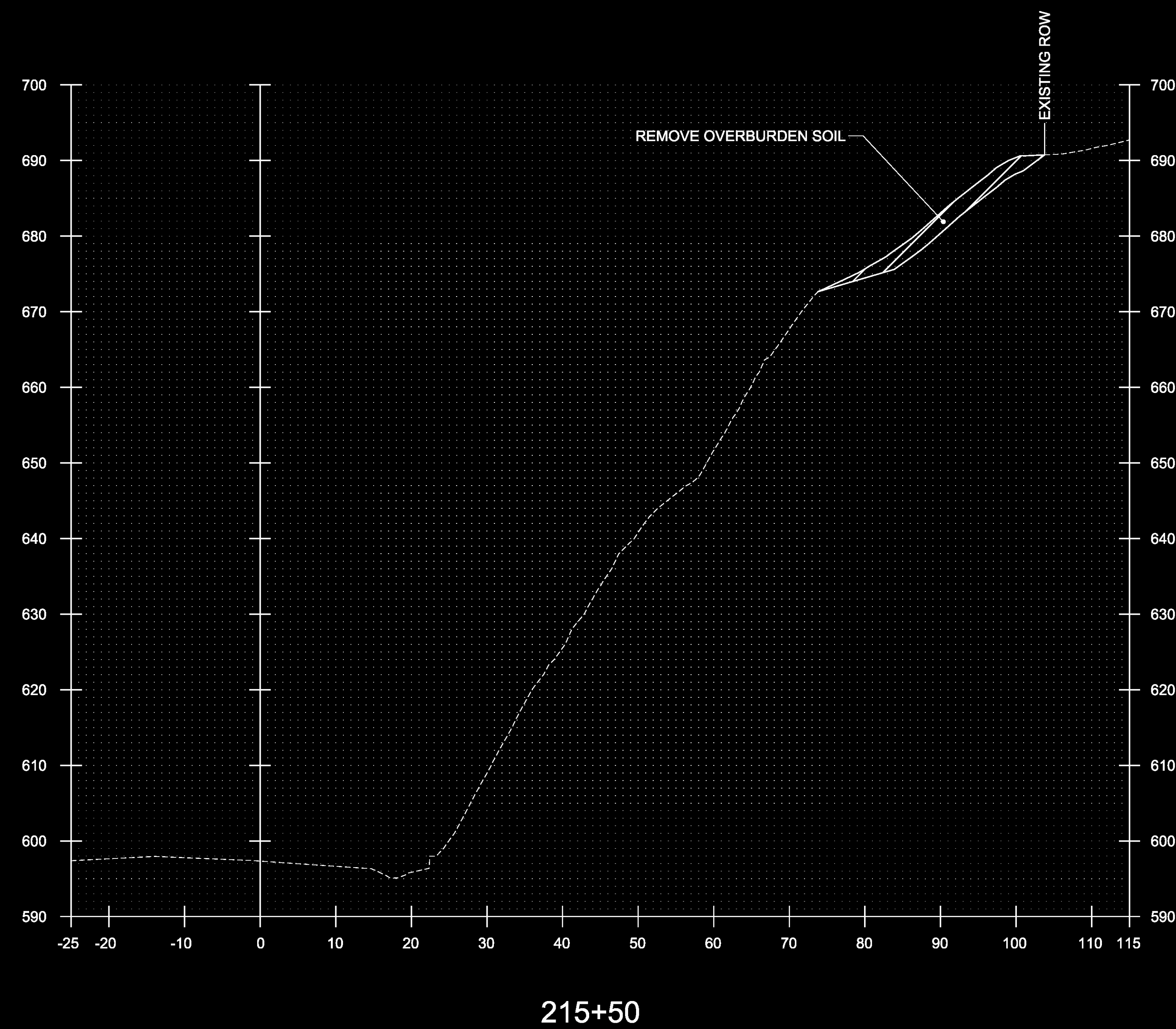
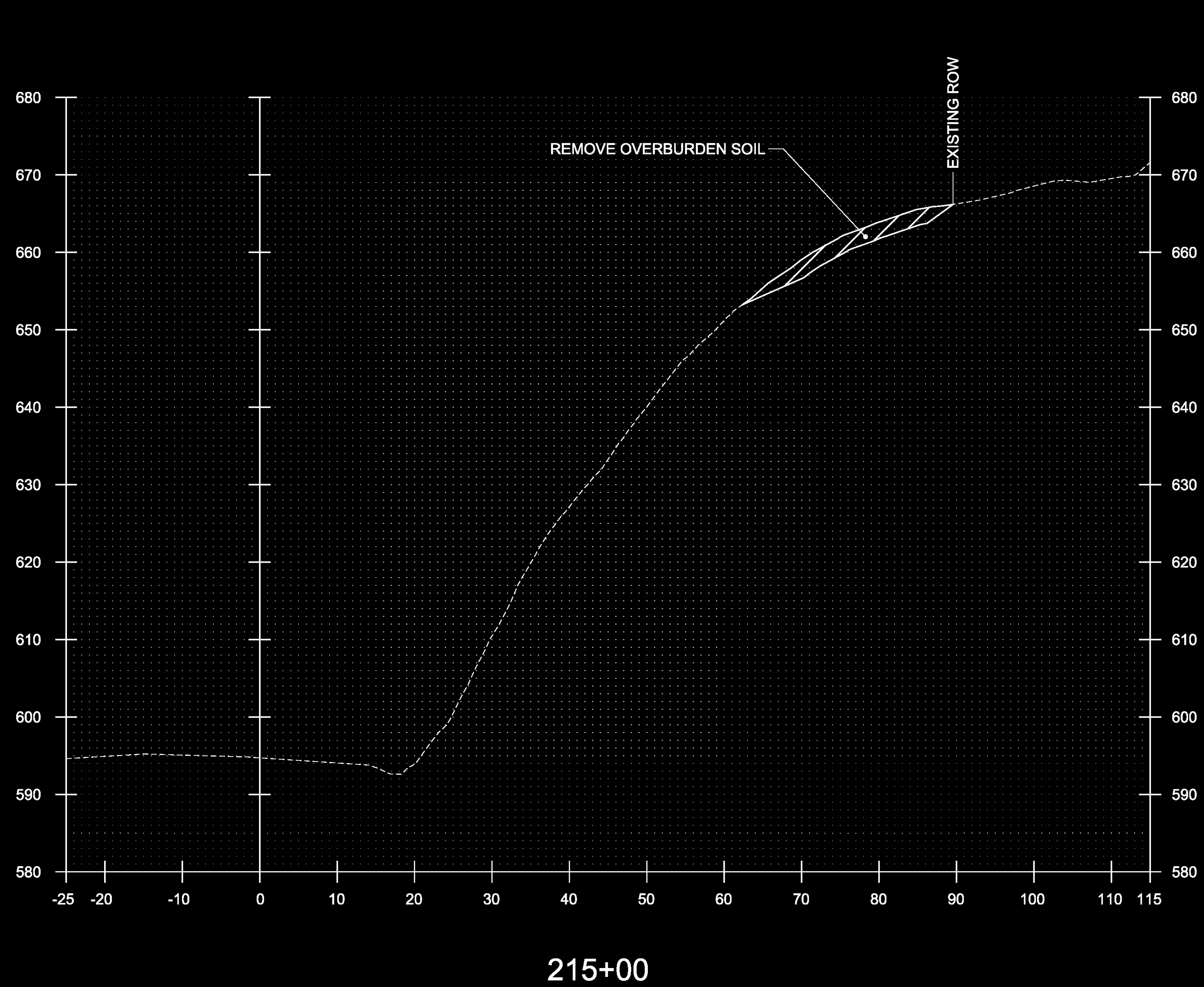
214+50

STA.214+00 TO STA.214+50

PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

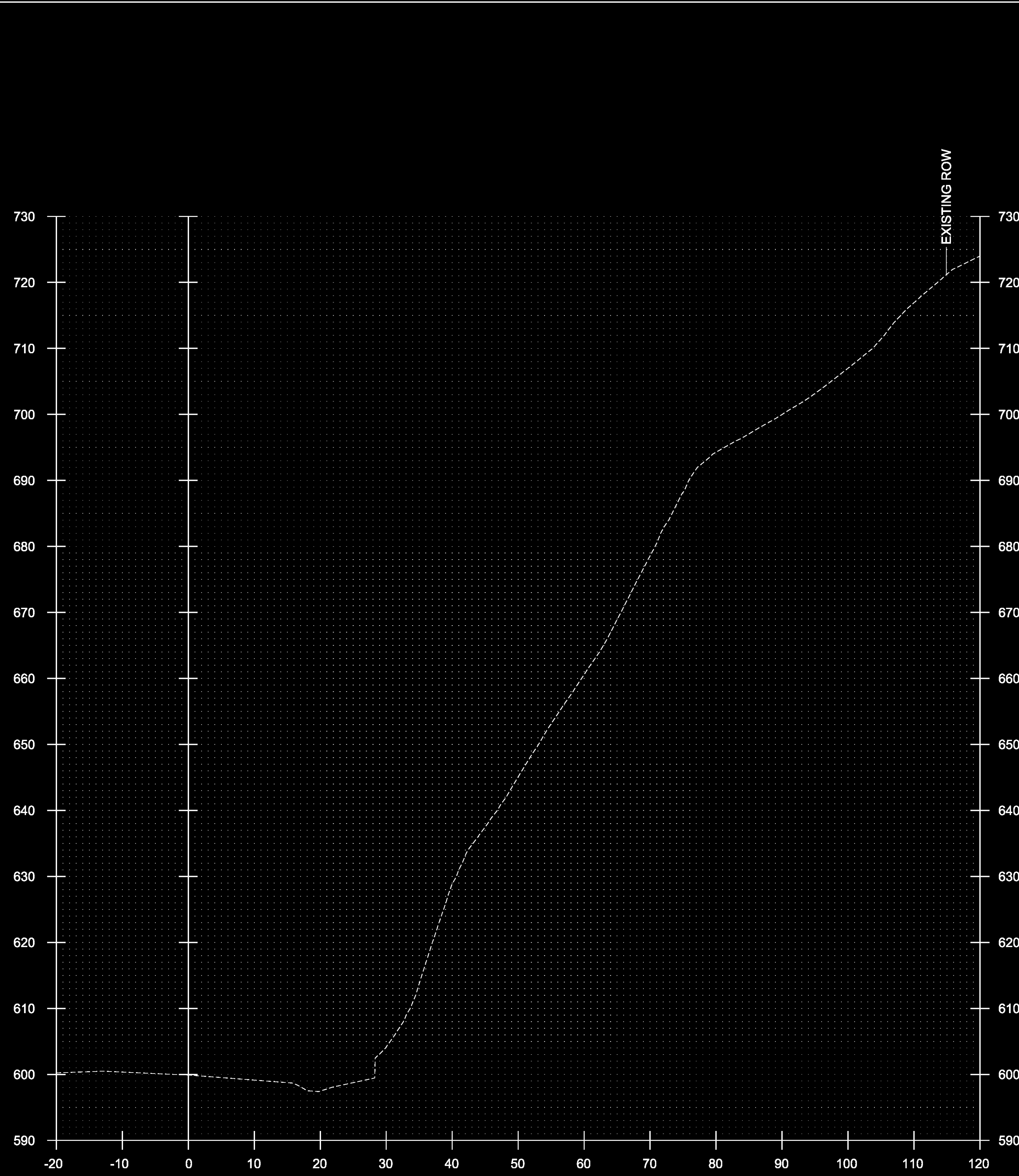
FILE NAME: dlib050xsc.dgn  
PROJECT LEADER: K. UPMAL  
DESIGNED BY: C. LEACH  
CROSS SECTIONS 1

PLOT DATE: 1/9/2015  
DRAWN BY: B. KIPP  
CHECKED BY: A. KEMPTON  
SHEET 19 OF 34

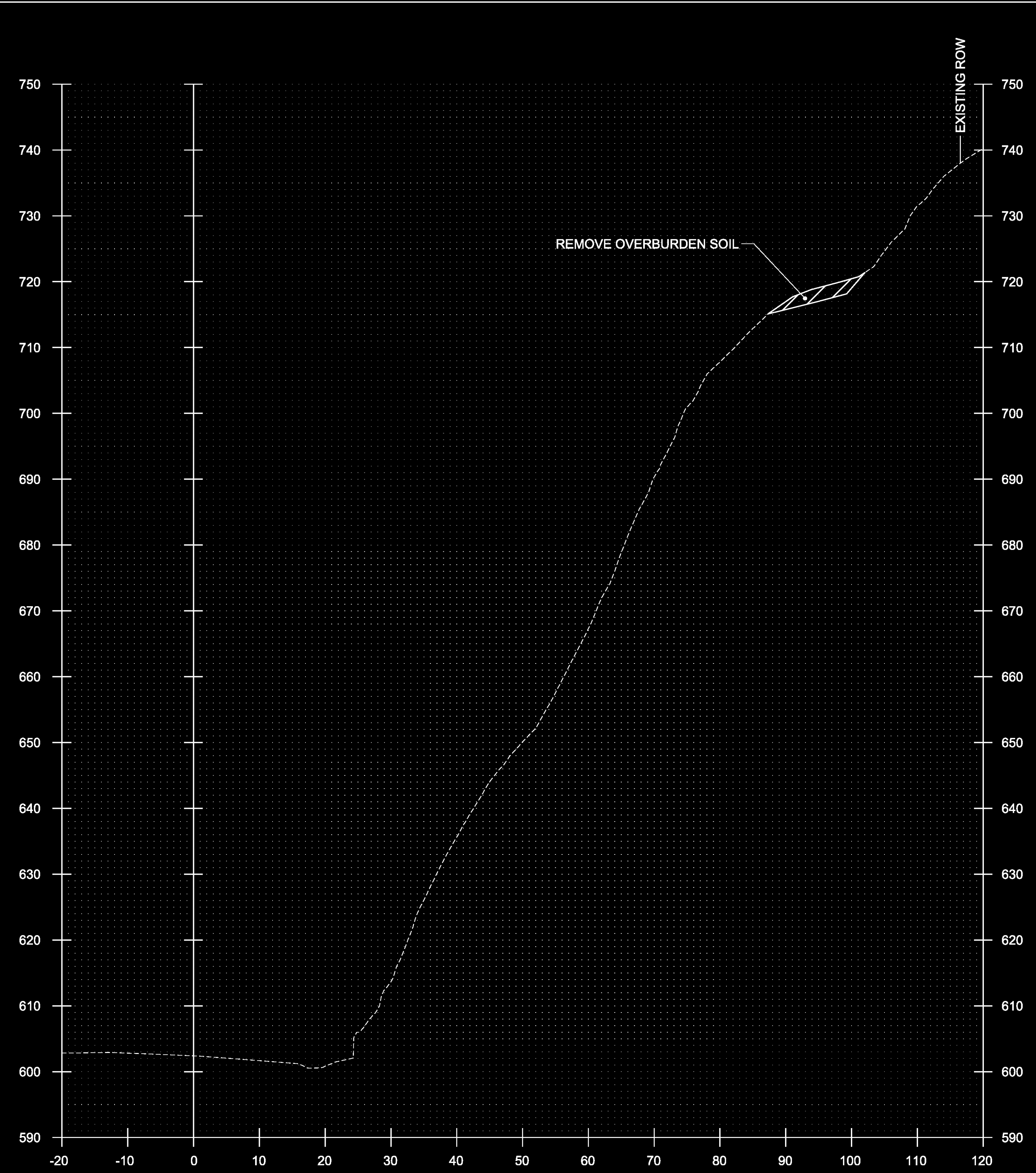


STA.215+00 TO STA.215+50

PROJECT NAME:	TOWNSHEND	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	DRAWN BY:	B. KIPP
FILE NAME:	dlib050xsc.dgn	CHECKED BY:	A. KEMPTON
PROJECT LEADER:	K. UPMAL	SHEET	20 OF 34
DESIGNED BY:	C. LEACH		
CROSS SECTIONS	2		



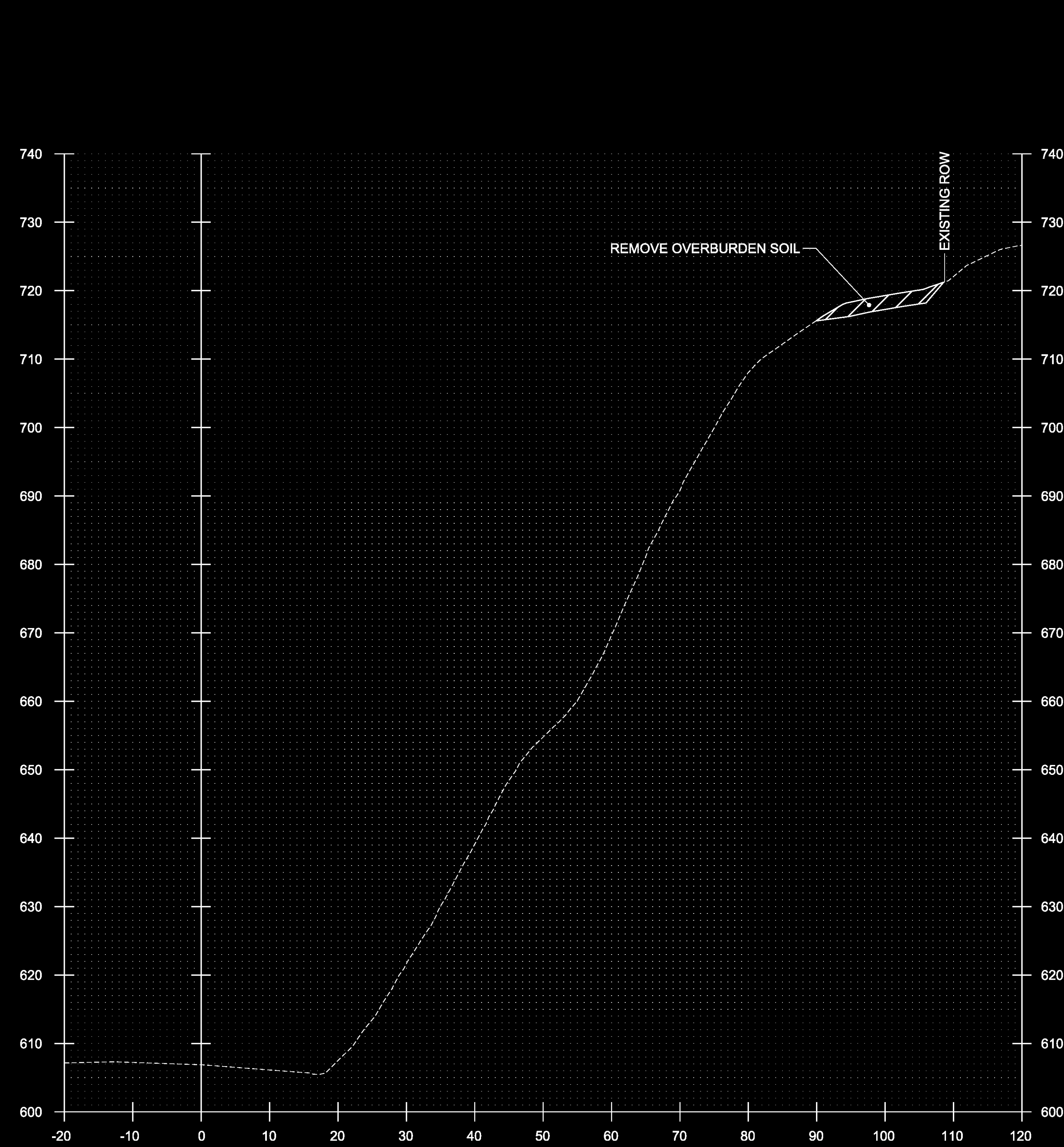
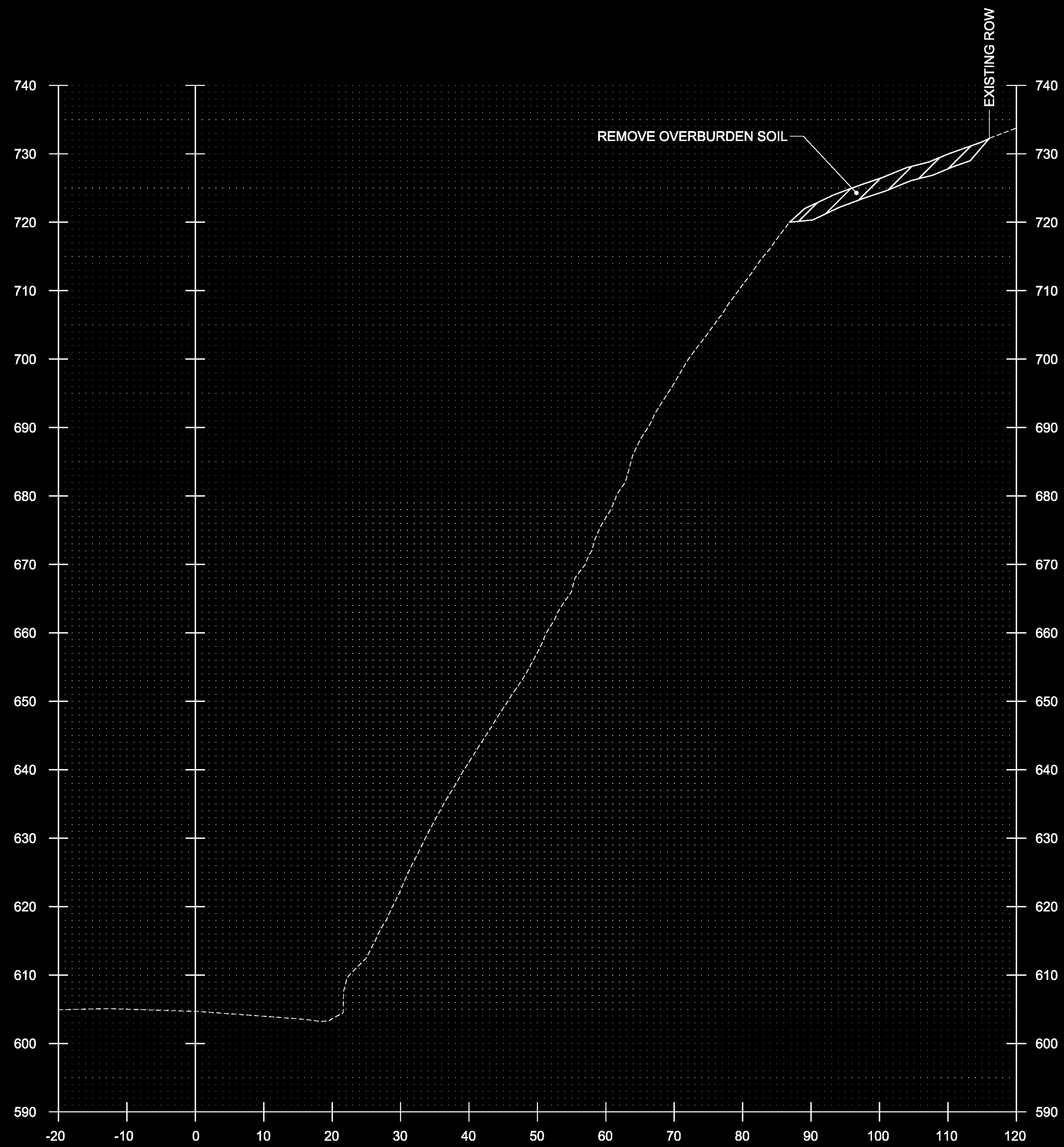
216+00



216+50

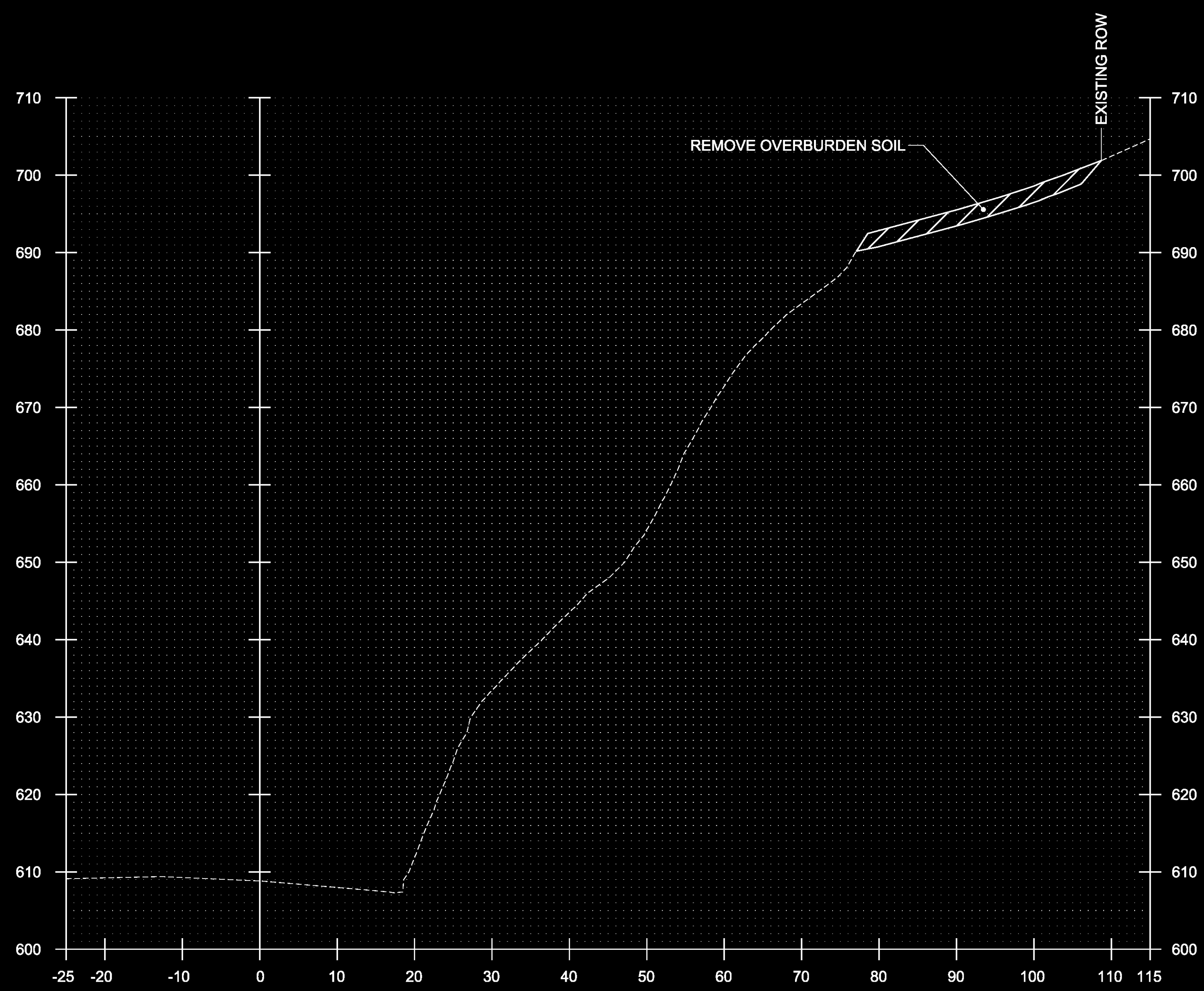
STA.216+00 TO STA.216+50

PROJECT NAME:	TOWNSHEND	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	DRAWN BY:	B. KIPP
FILE NAME:	dlib050xsc.dgn	CHECKED BY:	A. KEMPTON
PROJECT LEADER:	K. UPMAL	SHEET	21 OF 34
DESIGNED BY:	C. LEACH		
CROSS SECTIONS	3		

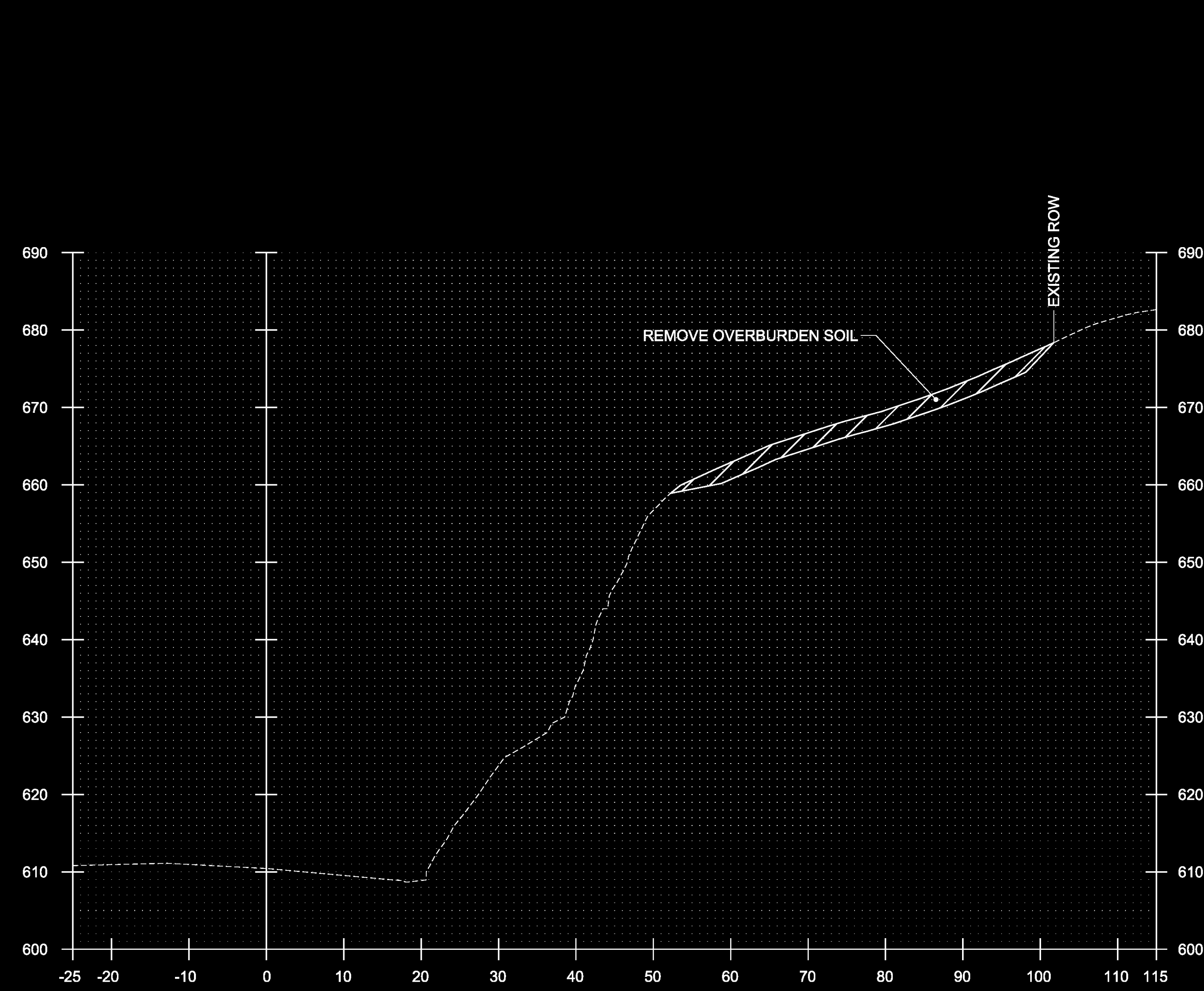


STA.217+00 TO STA.217+50

PROJECT NAME:	TOWNSHEND	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(17)	DRAWN BY:	B. KIPP
FILE NAME:	dlib050xsc.dgn	CHECKED BY:	A. KEMPTON
PROJECT LEADER:	K. UPMAL	SHEET	22 OF 34
DESIGNED BY:	C. LEACH	CROSS SECTIONS	4



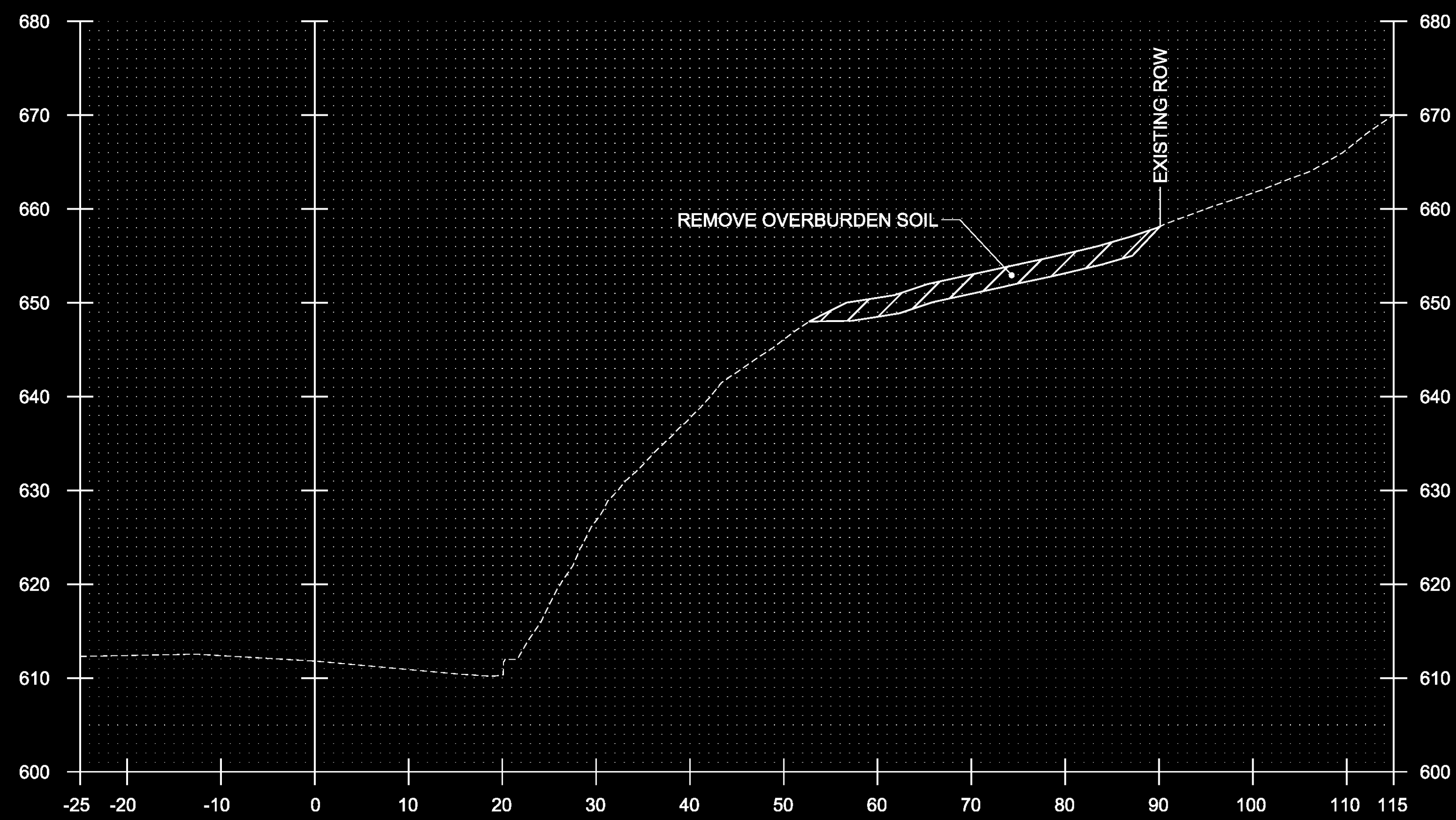
218+00



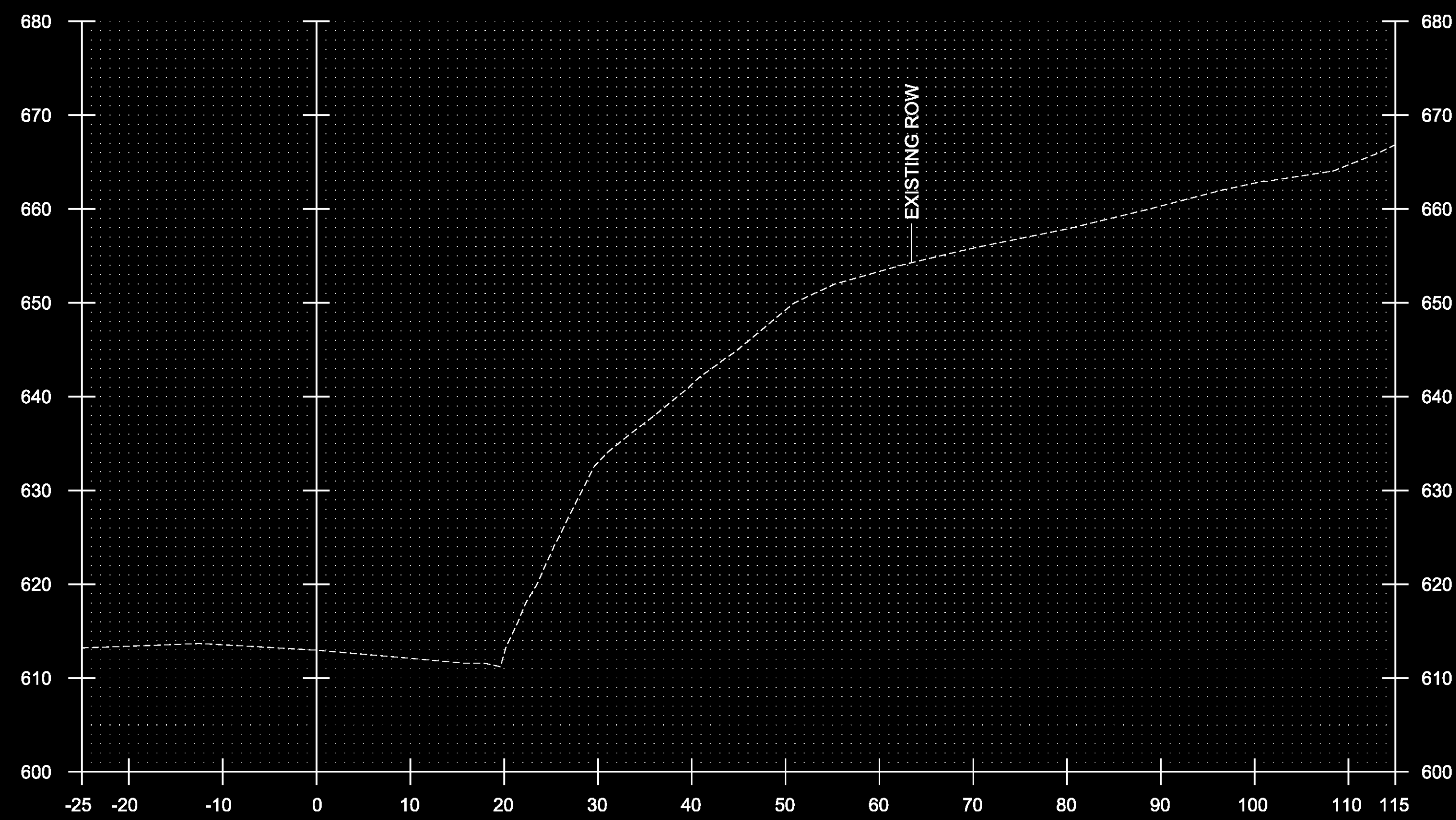
218+50

STA.218+00 TO STA.218+50

PROJECT NAME:	TOWNSHEND	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	DRAWN BY:	B. KIPP
FILE NAME:	dlib050xsc.dgn	CHECKED BY:	A. KEMPTON
PROJECT LEADER:	K. UPMAL	SHEET	23 OF 34
DESIGNED BY:	C. LEACH	CROSS SECTIONS	5



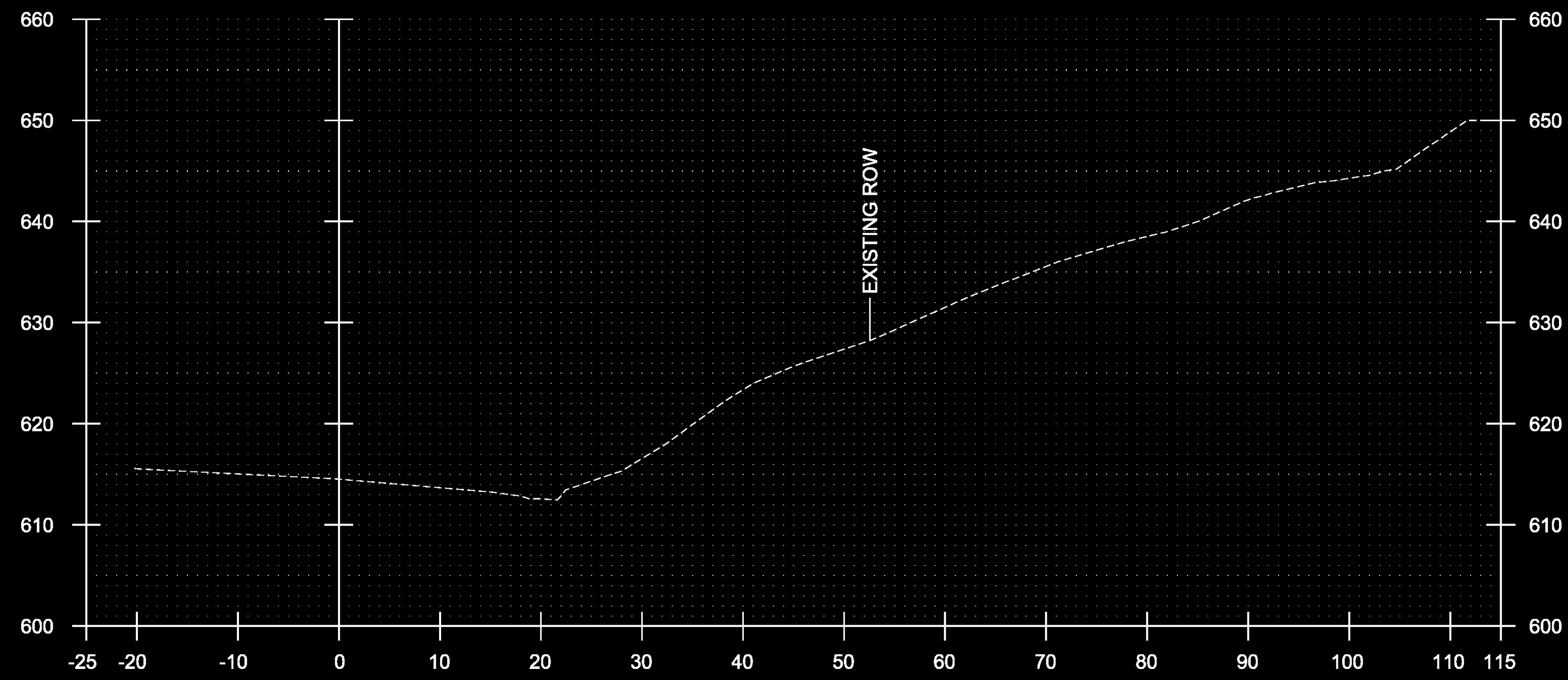
219+00



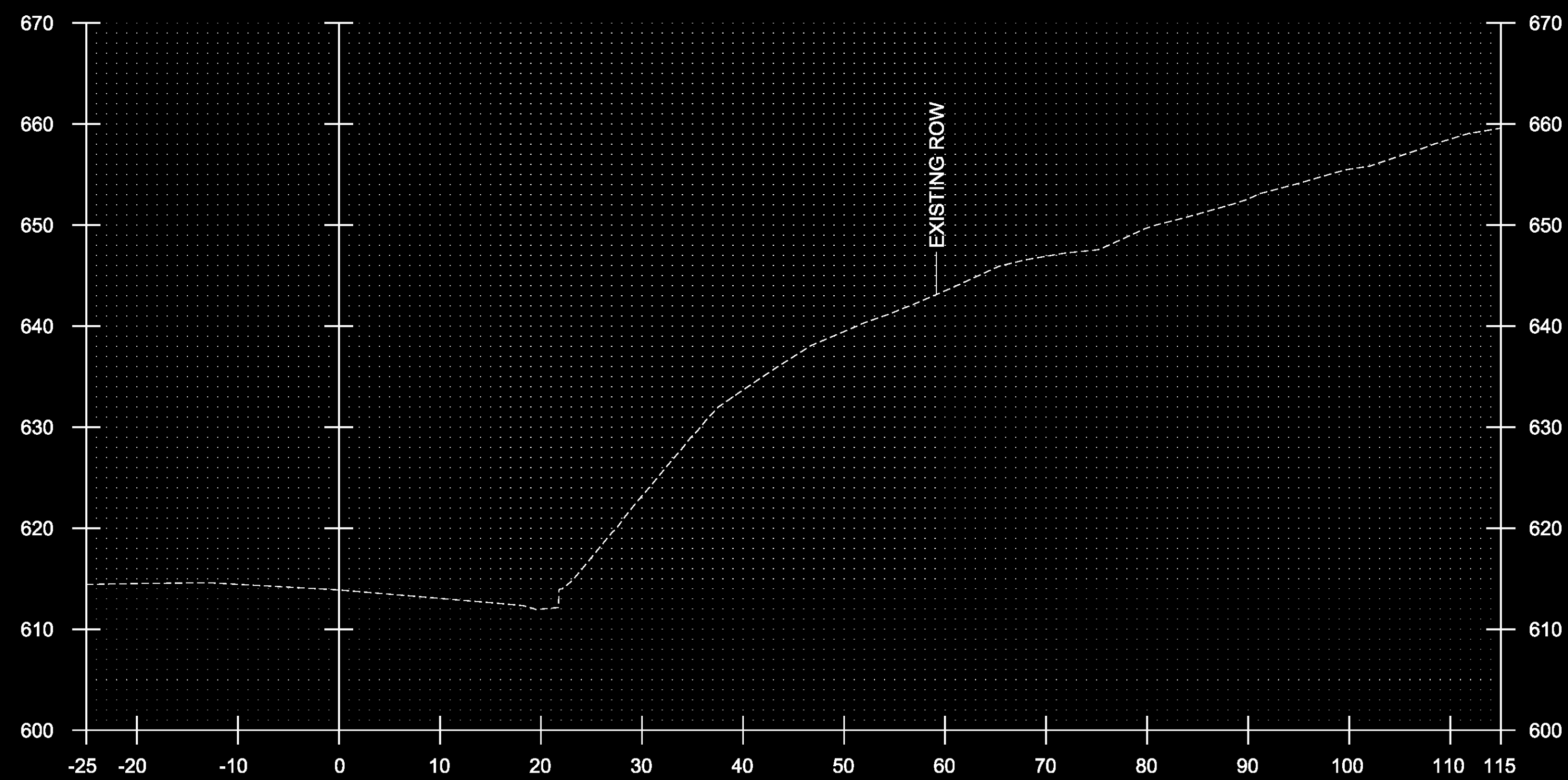
219+50

STA.219+00 TO STA.219+50

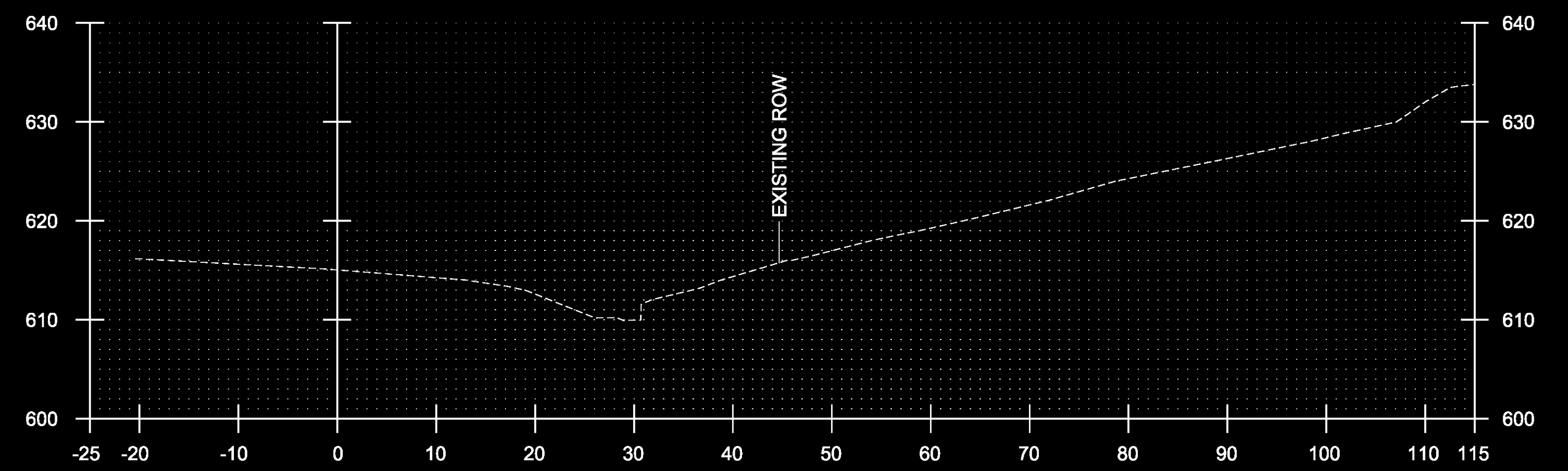
PROJECT NAME:	TOWNSHEND	FILE NAME:	dlib050xsc.dgn	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	PROJECT LEADER:	K. UPMAL	DRAWN BY:	B. KIPP
		DESIGNED BY:	C. LEACH	CHECKED BY:	A. KEMPTON
		CROSS SECTIONS	6	SHEET	24 OF 34



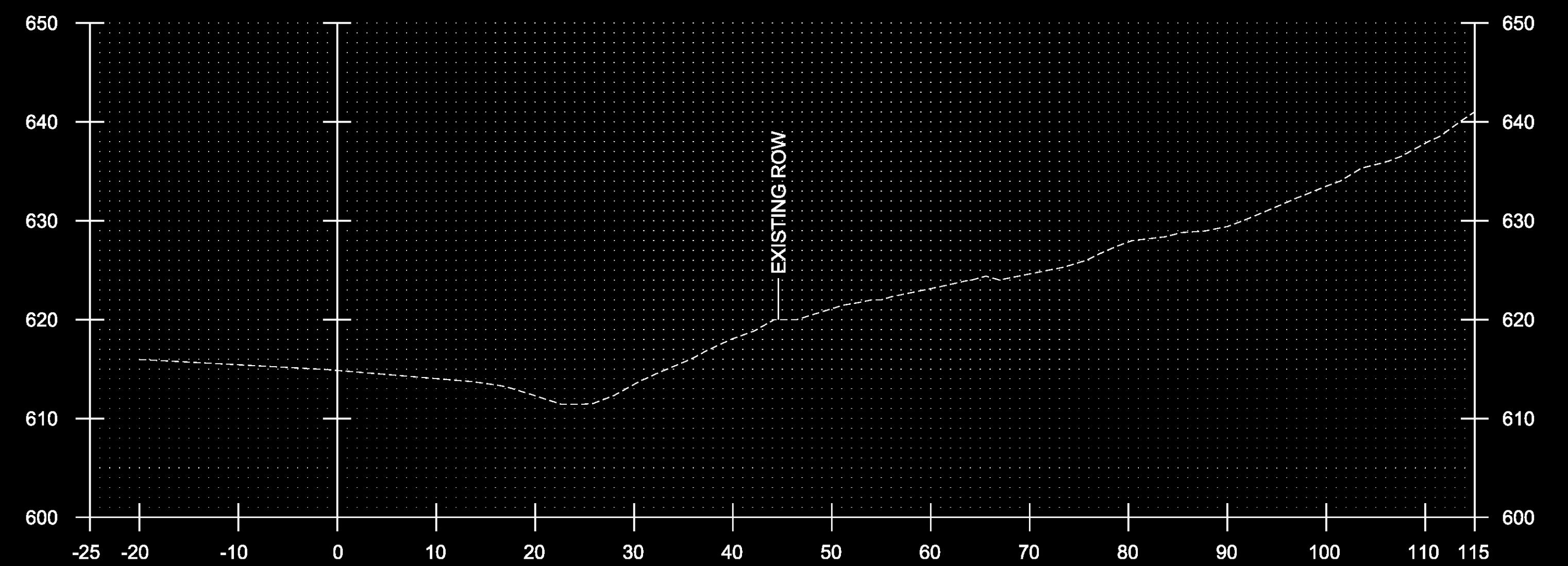
220+50



220+00



221+50



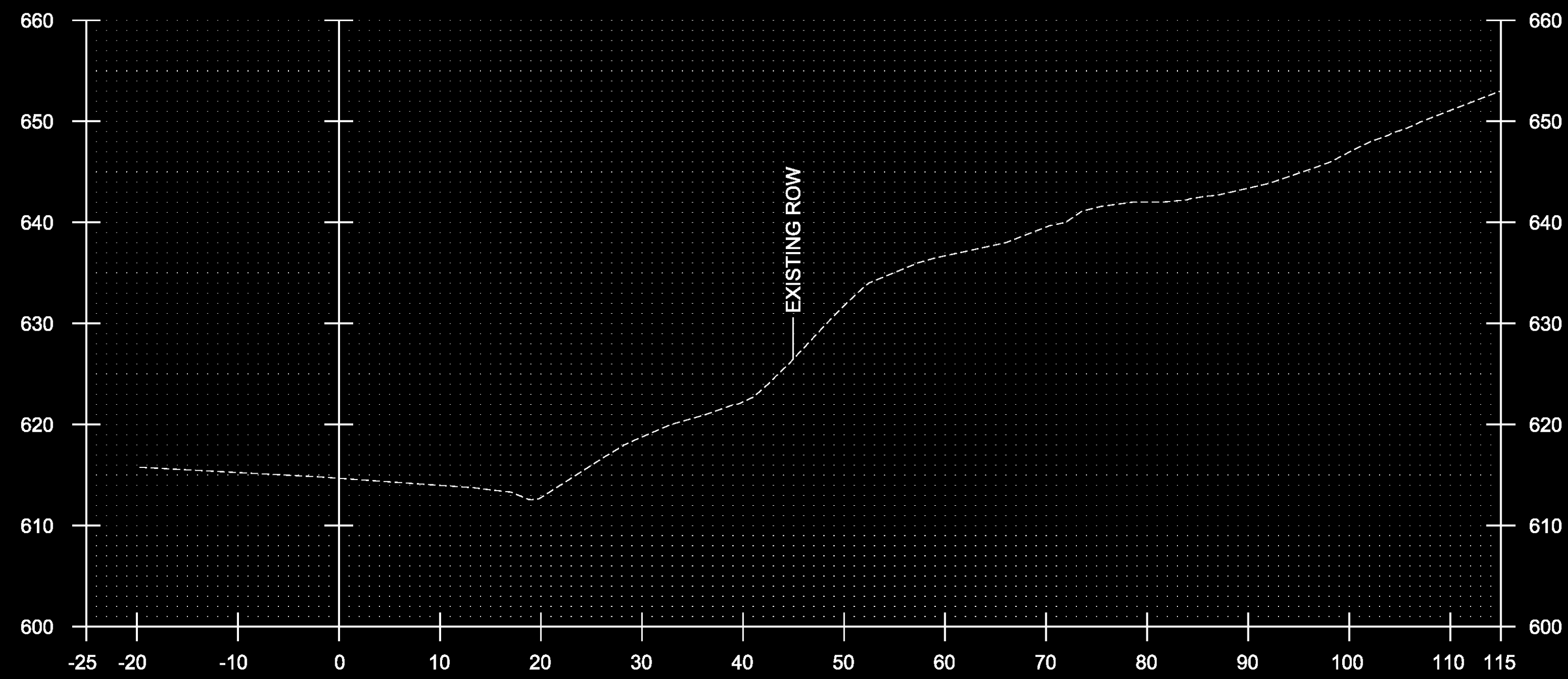
221+00

STA.220+00 TO STA.221+50

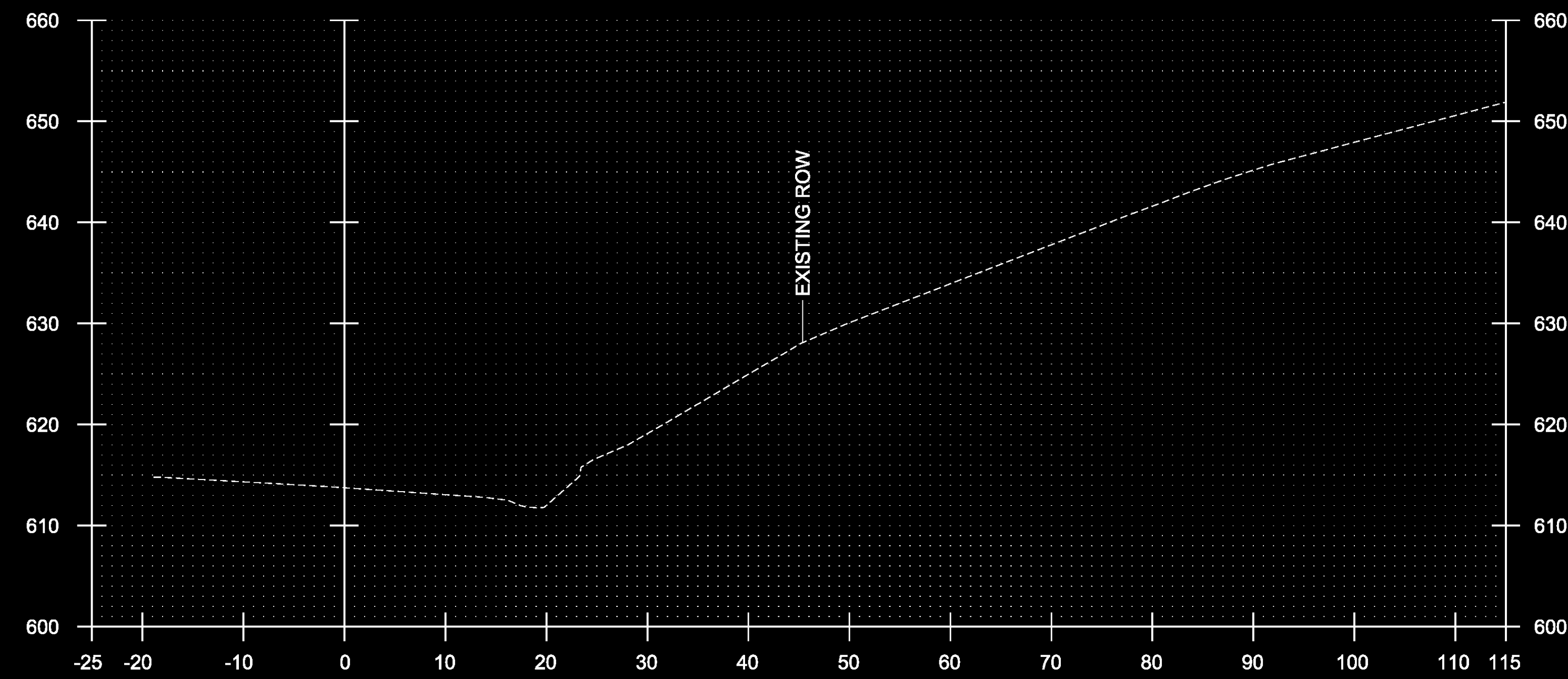
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 PROJECT NUMBER: STP 013-1(17)

FILE NAME: dlib050xsc.dgn  
 PROJECT LEADER: K. UPMAL  
 DESIGNED BY: C. LEACH  
 CROSS SECTIONS 7

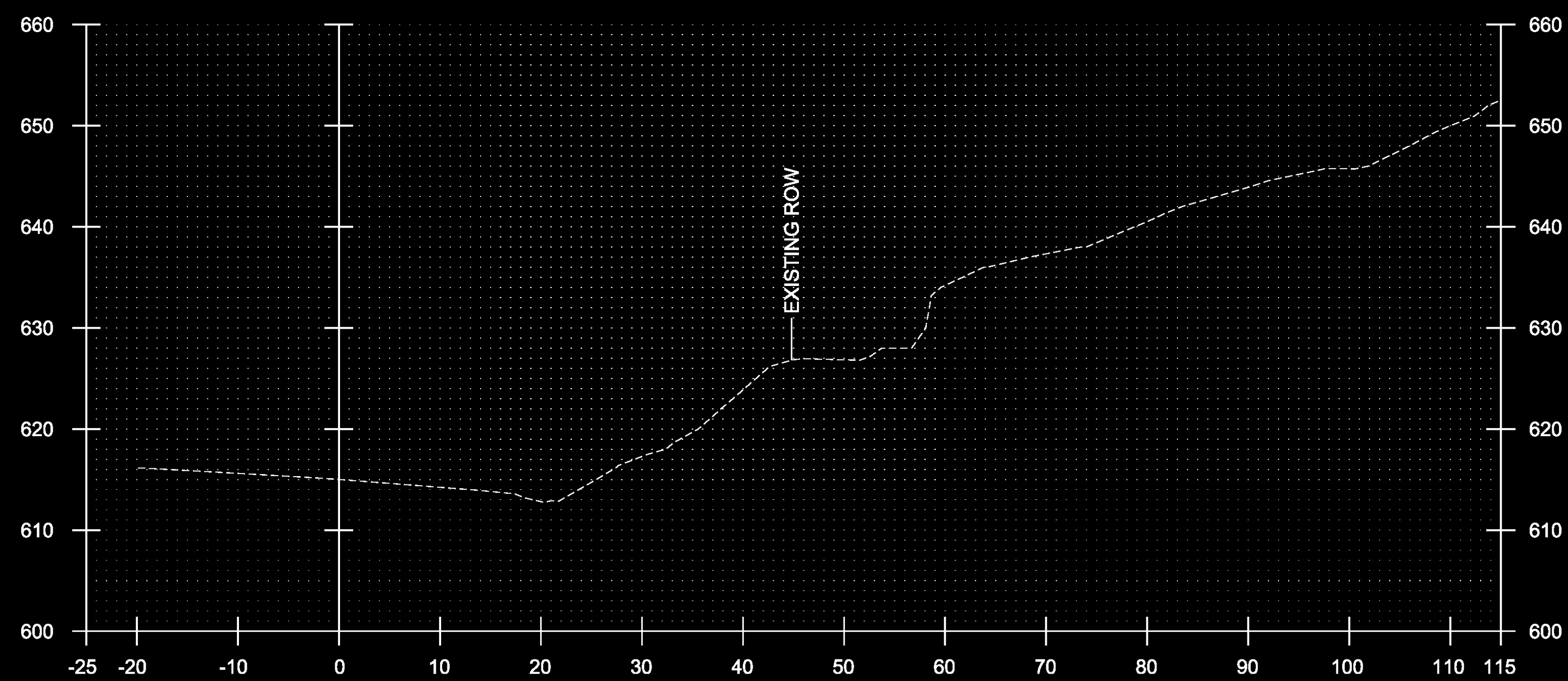
PLOT DATE: 1/9/2015  
 DRAWN BY: B. KIPP  
 CHECKED BY: A. KEMPTON  
 SHEET 25 OF 34



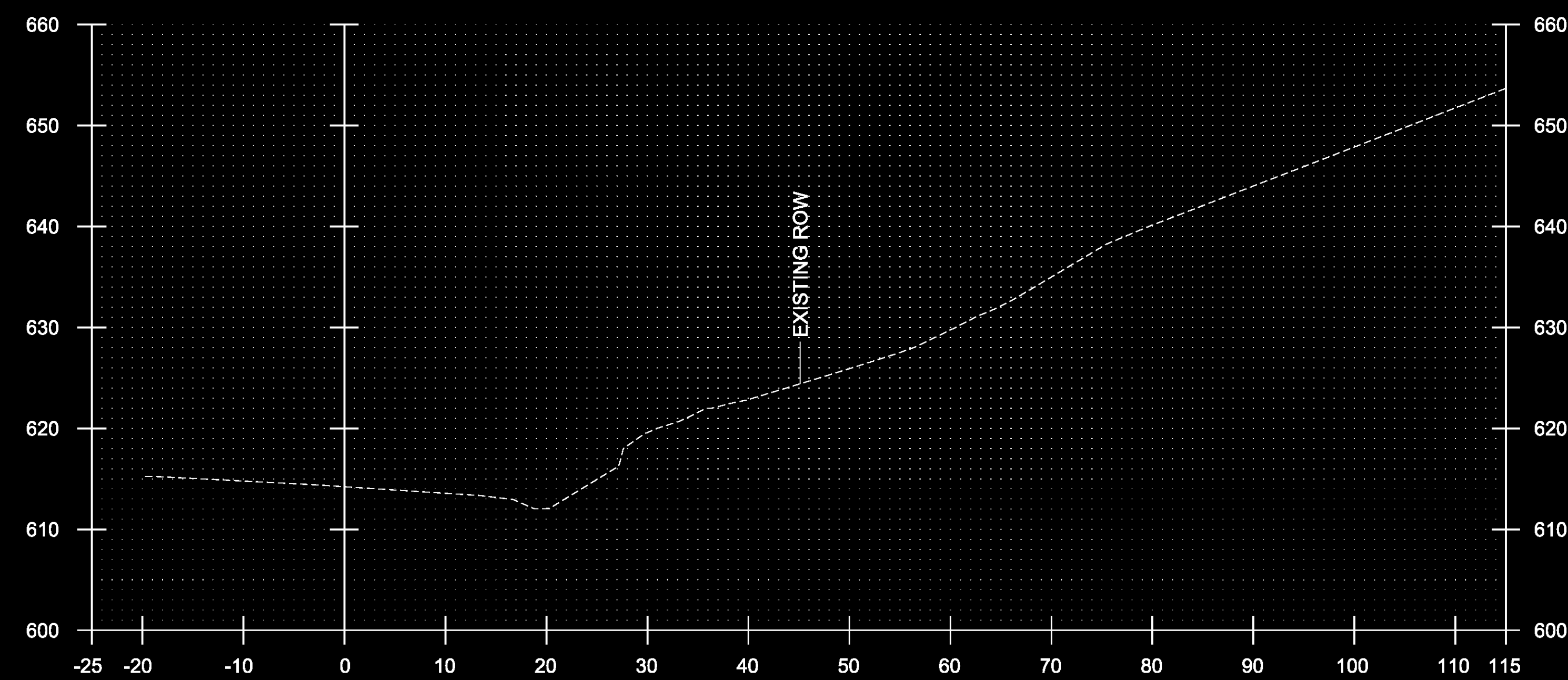
222+50



223+50



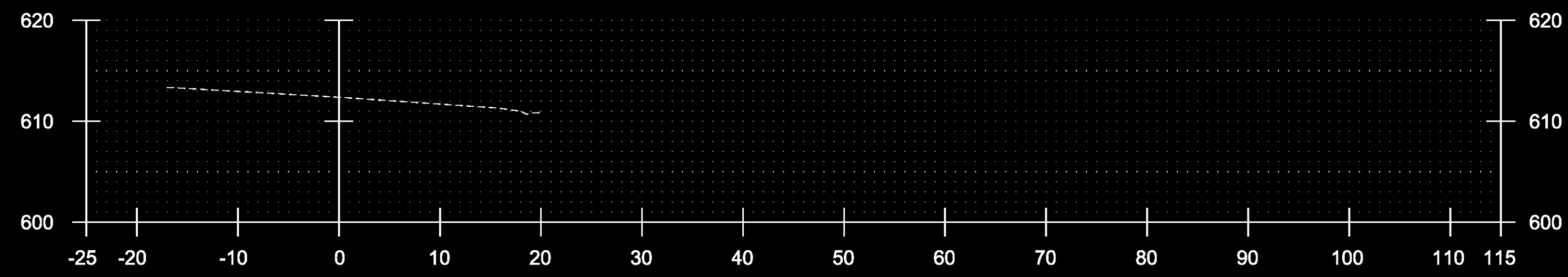
222+00



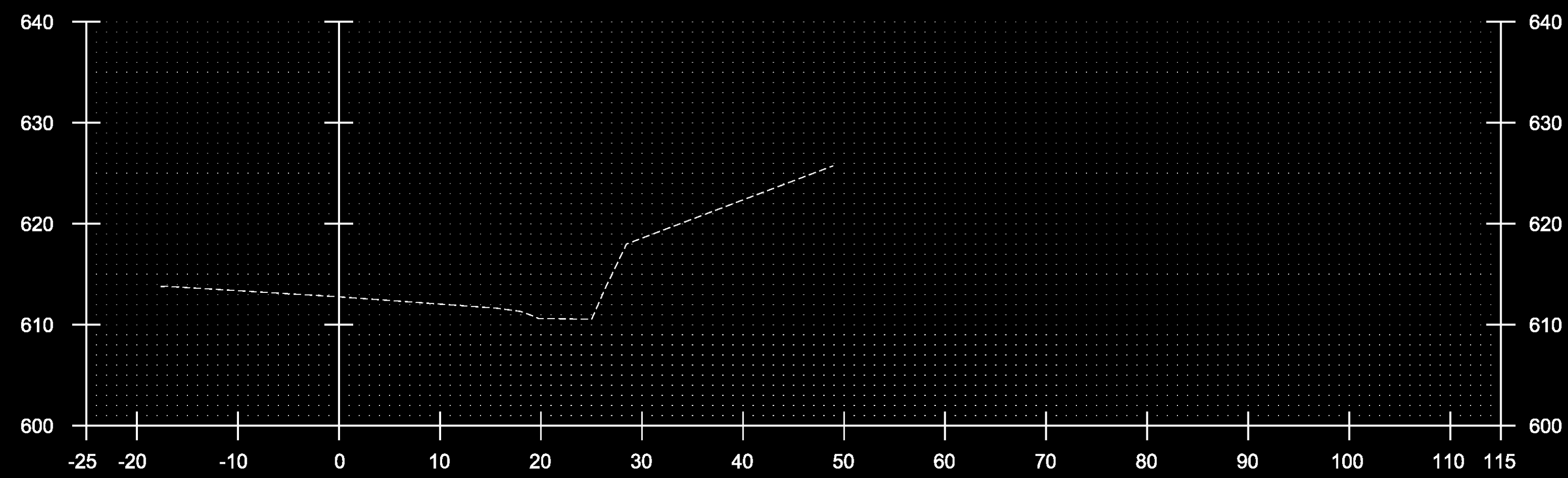
223+00

STA.222+00 TO STA.223+50

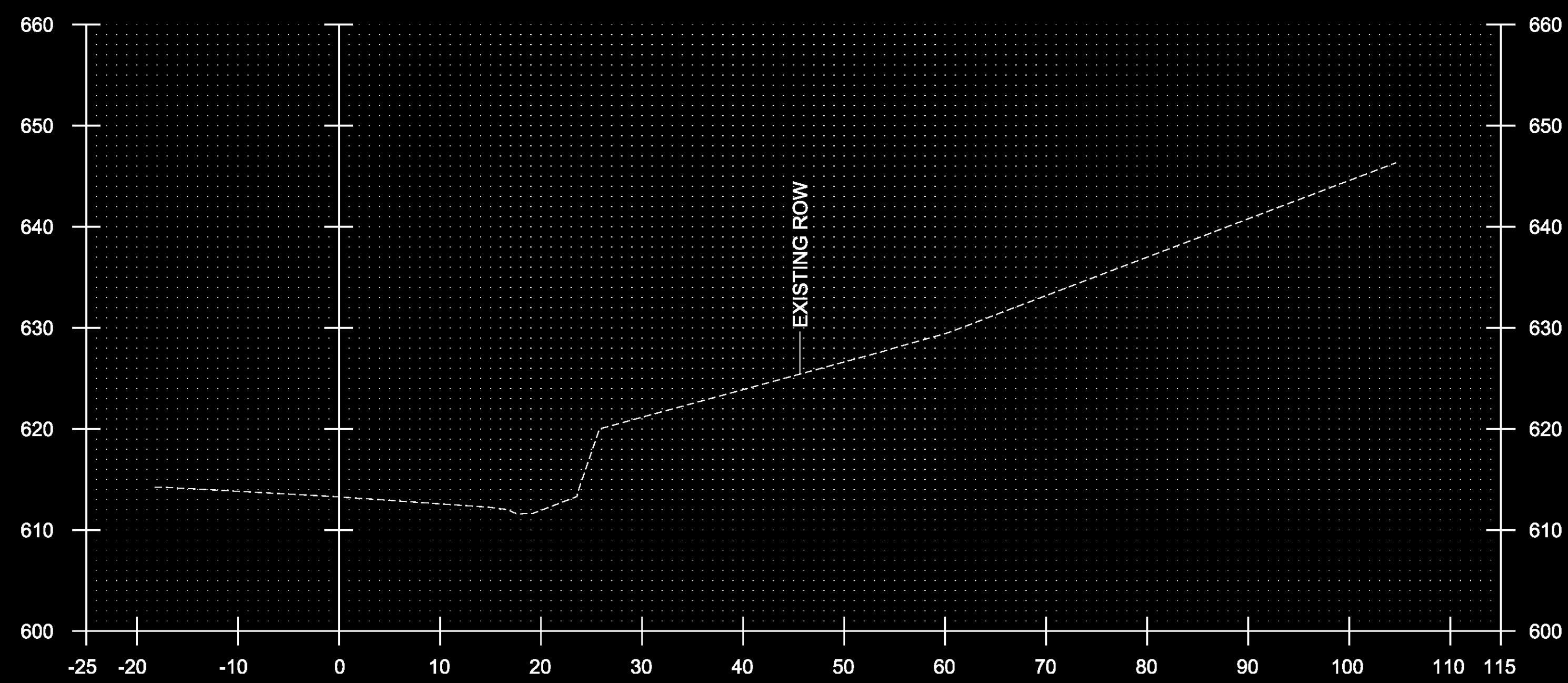
PROJECT NAME:	TOWNSHEND	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	DRAWN BY:	B. KIPP
FILE NAME:	dlib050xsc.dgn	CHECKED BY:	A. KEMPTON
PROJECT LEADER:	K. UPMAL	SHEET	26 OF 34
DESIGNED BY:	C. LEACH	CROSS SECTIONS	8



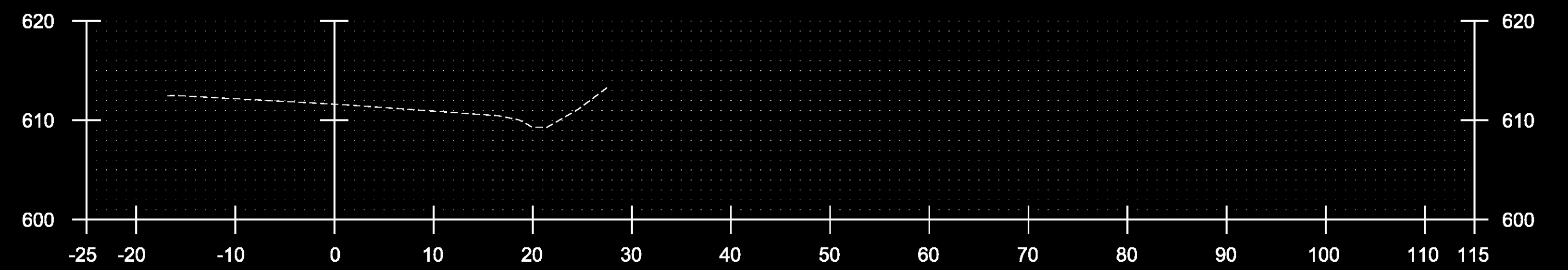
225+00



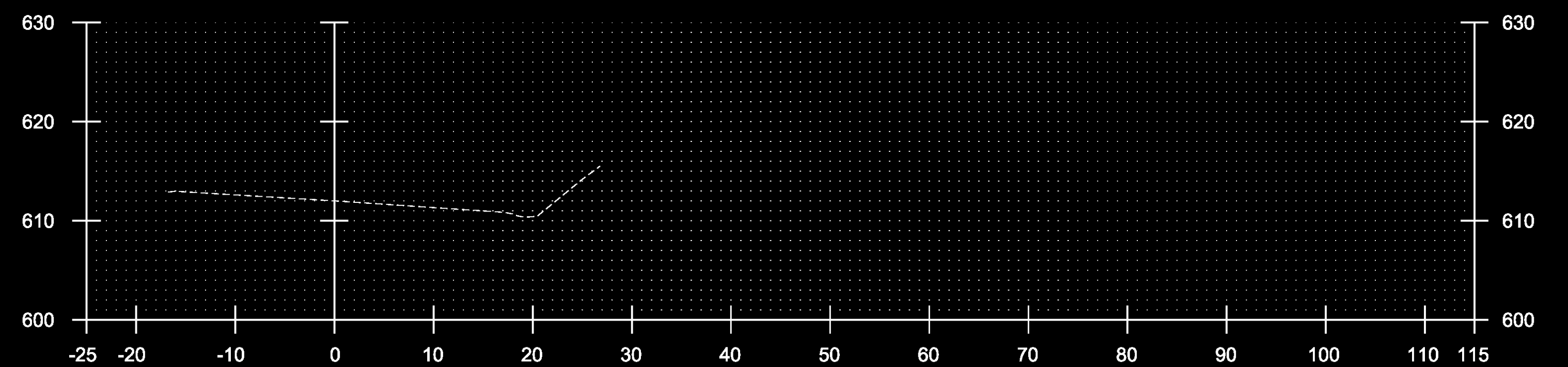
224+50



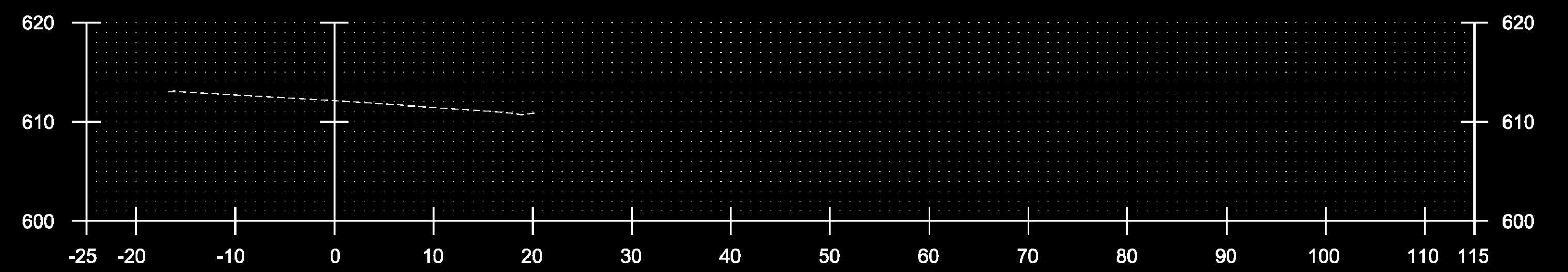
224+00



226+00



225+50



225+35  
END PROJECT

STA.224+00 TO STA.226+00

PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050xsc.dgn  
PROJECT LEADER: K .JPMAL  
DESIGNED BY: C. LEACH  
CROSS SECTIONS 9

PLOT DATE: 1/9/2015  
DRAWN BY: B. KIPP  
CHECKED BY: A. KEMPTON  
SHEET 27 OF 34

# TRAFFIC CONTROL NOTES

## LONG TERM CLOSURE AND TEMPORARY TRAFFIC DETOUR NOTES – WORK ZONE "A"

1. WORK ZONE "A" IS ANTICIPATED TO BE A TEMPORARY LONG TERM CLOSURE (3 DAYS OR GREATER) FOR VT ROUTE 30. A TWO-WAY TEMPORARY TRAFFIC DETOUR SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE LATEST VERSION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE CONTRACT DOCUMENTS.
2. TEMPORARY TRAFFIC BARRIER SHALL BE USED FOR WORK ZONE "A" AS INDICATED IN THE TEMPORARY TRAFFIC CONTROL PLANS AND PAID FOR UNDER CONTRACT ITEM 621.90 "TEMPORARY TRAFFIC BARRIER". ANY INTERIM REMOVING AND RESETTING OF TEMPORARY TRAFFIC BARRIER SHALL BE INCIDENTAL TO CONTRACT ITEM 621.90 "TEMPORARY TRAFFIC BARRIER".
3. THE TEMPORARY TRAFFIC BARRIER SHALL BE PLACED ONE FOOT OUTSIDE THE EDGE OF TRAVELLED WAY, THROUGH THE LENGTH OF THE WORK AREA, AND SHALL HAVE A 1:11 TAPER EXTENDING OUTSIDE OF THE CLEAR ZONE (12 FEET OUTSIDE TRAVELLED WAY) ON EACH END OF THE SHOULDER CLOSURE. IF IT IS NOT POSSIBLE TO GET THE TEMPORARY TRAFFIC BARRIER OUTSIDE OF THE CLEAR ZONE THEN A CRASH ATTENUATOR SHALL BE USED.
4. DELINEATING DEVICES USED TO DIVERT TRAFFIC AND TO LIMIT POINTS OF ACCESS TO THE TOWNSHEND DAM REST AREA SHALL BE PAID FOR UNDER CONTRACT ITEM 641.10 "TRAFFIC CONTROL"
5. OTHER CONTRACT ITEMS NECESSARY TO CONSTRUCT THE TWO-WAY TEMPORARY TRAFFIC DETOUR SHALL BE PAID AS INDICATED IN THE PLANS AND SPECIAL PROVISIONS.
6. ALL SIGNS ASSOCIATED WITH THE LONG TERM CLOSURE AND TWO-WAY TEMPORARY TRAFFIC DETOUR SHALL BE POST MOUNTED AND SHALL BE VISIBLE TO THE TRAVELING PUBLIC FOR THE DURATION OF THE CLOSURE.

## SHORT TERM LANE CLOSURE NOTES – WORK ZONE "B"

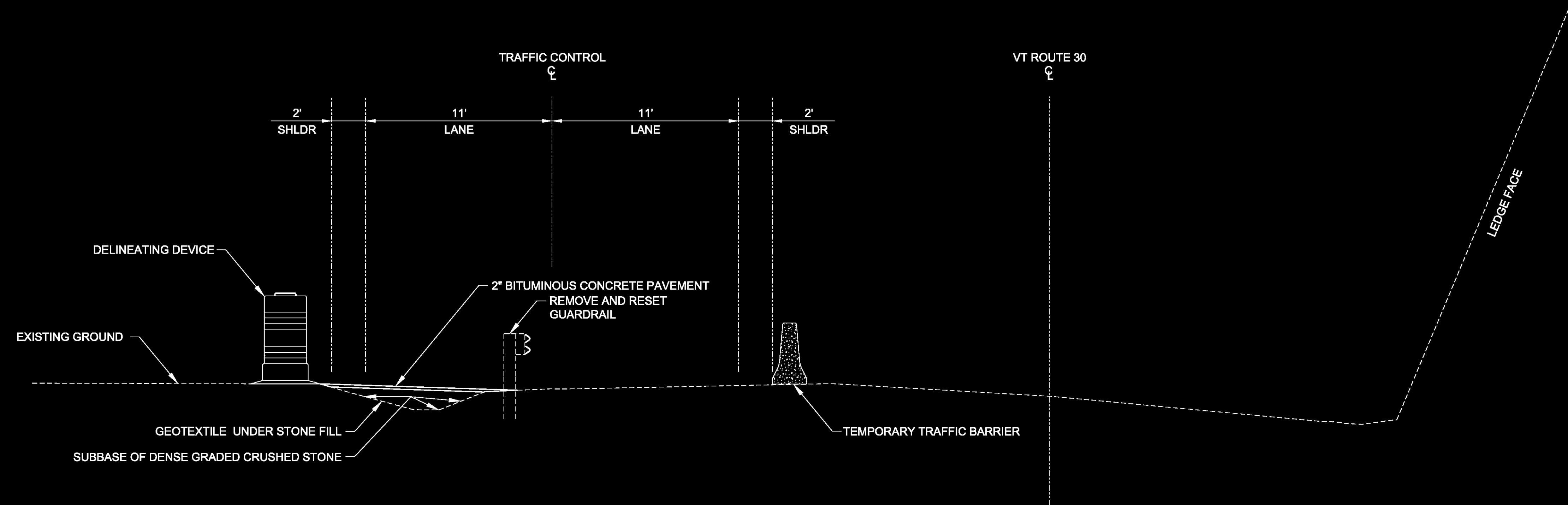
1. WORK ZONE "B" IS ANTICIPATED TO BE A TEMPORARY SHORT TERM ALTERNATING ONE-LANE CLOSURE (LESS THAN 3 DAYS) FOR VT ROUTE 30.
2. TRAFFIC CONTROL ASSOCIATED WITH WORK ZONE "B" CAN BE CONCURRENT WITH WORK ZONE "A", HOWEVER THIS SHOULD BE STRATEGICALLY PLANNED TO MINIMIZE TRAFFIC QUEING WITHIN WORK ZONE "A" DURING HAZARDOUS CONSTRUCTION ACTIVITIES ASSOCIATED WITH THE LEDGE WORK.

## GENERAL TRAFFIC CONTROL NOTES

1. TRAFFIC CONTROL FOR THIS PROJECT SHALL BE PROVIDED IN ACCORDANCE WITH THE CURRENT VTRANS T-SERIES STANDARDS AND THE CURRENT MUTCD AND ITS LATEST REVISIONS.
2. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE ENGINEER AND VTRANS TRAFFIC SAFETY UNIT FOR REVIEW ONE-MONTH PRIOR TO PERFORMING ANY CONSTRUCTION ACTIVITY. THE PLAN SHALL INCLUDE PROVISIONS FOR IMPLEMENTATION AND MAINTENANCE OF TRAFFIC CONTROL FOR ALL WORK ASSOCIATED WITH THIS PROJECT. UPON WRITTEN APPROVAL FROM THE ENGINEER, THE CONTRACTOR SHALL IMPLEMENT THE TRAFFIC CONTROL PLAN AND COMMENCE CONSTRUCTION ACTIVITIES. ALL COSTS ASSOCIATED WITH THE DEVELOPMENT AND ANY NECESSARY REVISION OF A TRAFFIC CONTROL PLAN SHALL BE PAID FOR UNDER CONTRACT ITEM 641.10 "TRAFFIC CONTROL".
3. THE TRAFFIC CONTROL PLANS SHOWN HEREIN ARE APPROXIMATE AND INTENDED TO BE UTILIZED IN CONJUNCTION WITH APPLICABLE VTRANS STANDARD DRAWINGS AND AT THE DISCRETION OF THE ENGINEER.
4. PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE PLACED AT THE BEGINNING AND END OF THE PROJECT. THE MESSAGE SIGNS SHALL BE PLACED ONE-WEEK PRIOR TO ANY CONSTRUCTION ACTIVITY TO WARN THE TRAVELING PUBLIC OF THE PROJECT. THE MESSAGE SIGNS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THE PROJECT, AND TURNED OFF WHEN NOT NECESSARY. PAYMENT FOR THIS WORK SHALL BE MADE UNDER CONTRACT ITEM 641.15 "PORTABLE CHANGEABLE MESSAGE SIGN".
5. INITIATION OF TRAFFIC CONTROL MEASURES WILL NOT BE PERMITTED BETWEEN THE DATES OF NOVEMBER 15 AND APRIL 15 UNLESS OTHERWISE APPROVED BY THE ENGINEER. ONCE TRAFFIC CONTROL DEVICES HAVE BEEN INSTALLED, THE CONTRACTOR SHALL BEGIN WORK IMMEDIATELY AND PROCEED IN A TIMELY MANNER THROUGH TO COMPLETION OF CONSTRUCTION IN ORDER TO MINIMIZE HAZARD AND INCONVENIENCE TO THE TRAVELING PUBLIC.
6. PRIVATE VEHICLES BELONGING TO THE CONTRACTOR OR ITS EMPLOYEES WILL NOT BE ALLOWED TO PARK ON THE RIGHT OF WAY AND/OR THE TRAVELED WAY OF ANY PUBLIC HIGHWAY.
7. ALL SIGNS, BARRICADES, AND OTHER TRAFFIC CONTROL DEVICES SHALL BE CLEANED WEEKLY OR AS DIRECTED BY THE ENGINEER. EXISTING PERMANENT SIGNS THAT CONTRADICT TEMPORARY TRAFFIC CONTROL SIGNS SHALL BE REMOVED AND REPLACED OR COVERED FOR THE PERIOD OF TIME THAT THE TRAFFIC CONTROL PLAN IS IMPLEMENTED. COST FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 641.10 "TRAFFIC CONTROL".
8. THE CONTRACTOR IS NOTIFIED THAT ALL ROADWAYS INCLUDED IN AND ASSOCIATED WITH THIS PROJECT ARE SUBJECT TO OCCASIONAL USE AND TRAVEL BY EMERGENCY RESPONSE VEHICLES. THE CONTRACTOR SHALL MAKE AND IMPLEMENT PLANS AND PROCEDURES DESIGNED TO ENSURE UNIMPEDED TRAVEL OF EMERGENCY RESPONSE VEHICLES THROUGH CONSTRUCTION ZONES AND SHALL SUBMIT THEM TO THE ENGINEER. ANY COSTS ASSOCIATED WITH SUCH PLANS AND PROCEDURES SHALL BE INCIDENTAL TO CONTRACT ITEM 641.10 "TRAFFIC CONTROL".
9. ALL TRAFFIC WILL BE STOPPED DURING TRIM BLASTING OPERATIONS. STOPPAGE TIME IS NOT TO EXCEED 10 MINUTES UNLESS DIRECTED BY THE ENGINEER.

PROJECT NAME: TOWNSHEND  
PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050frm.dgn	PLOT DATE: 2/4/2015
PROJECT LEADER: K. UPMAL	DRAWN BY: C. LEACH
DESIGNED BY: C. LEACH	CHECKED BY: B. KIPP
TRAFFIC CONTROL NOTES	SHEET 28 OF 34

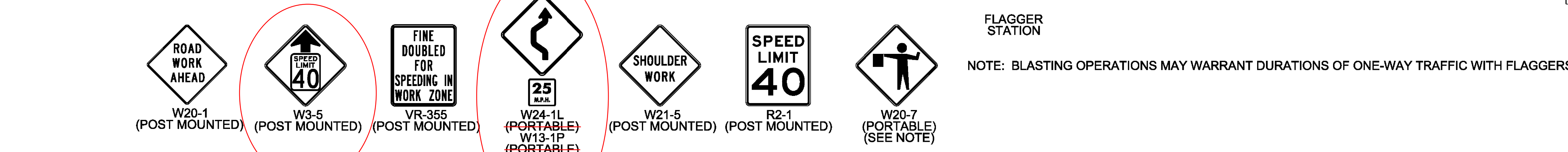
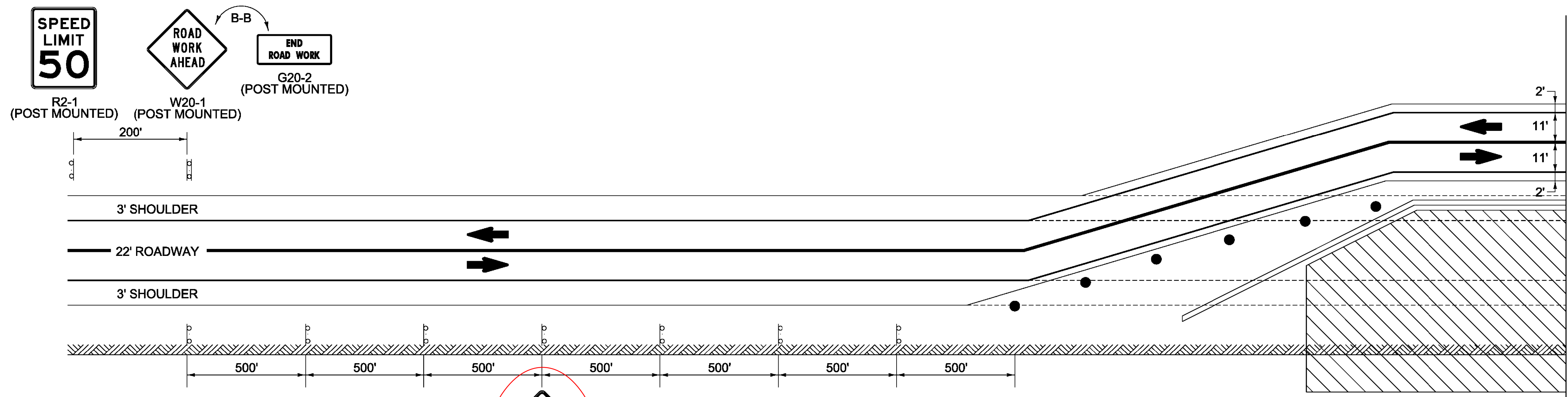


**TRAFFIC CONTROL DETAIL  
"WORK ZONE A"**

NOTE: ALL WORK FOR CONSTRUCTING AND REMOVING THE TEMPORARY ROADWAY WIDENING FOR "WORK ZONE A" AS DETAILED IN THE PLANS AND AS SPECIFIED IN THE CONTRACT DOCUMENTS WILL BE PAID FOR UNDER CONTRACT ITEM 900.645 SPECIAL PROVISION (TEMPORARY ROADWAY WIDENING). TEMPORARY TRAFFIC BARRIER WILL BE PAID SEPARATELY UNDER CONTRACT ITEM 621.90. TRAFFIC CONTROL DEVICES AND TEMPORARY CONSTRUCTION SIGNING WILL BE PAID SEPARATELY UNDER CONTRACT ITEM 641.10.

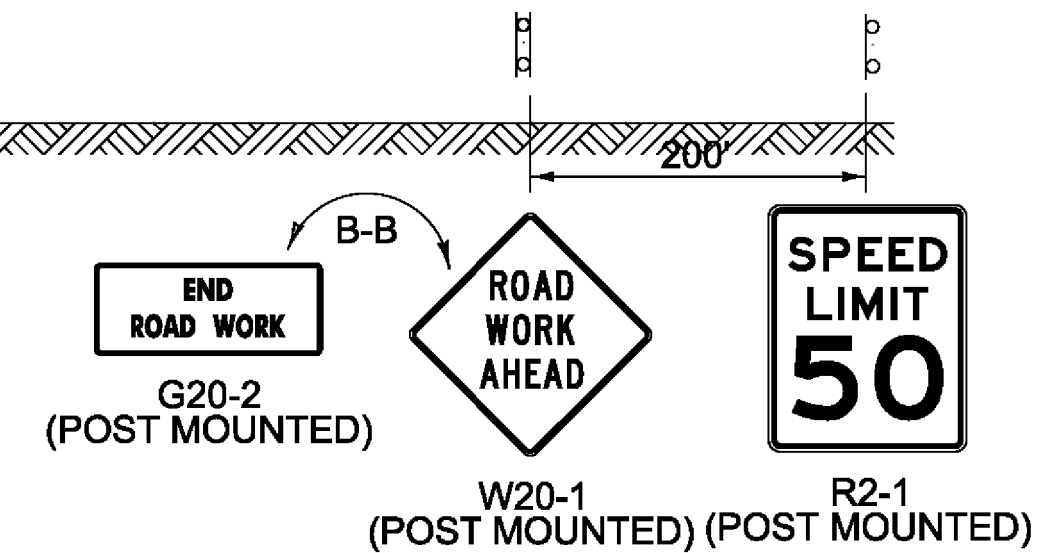
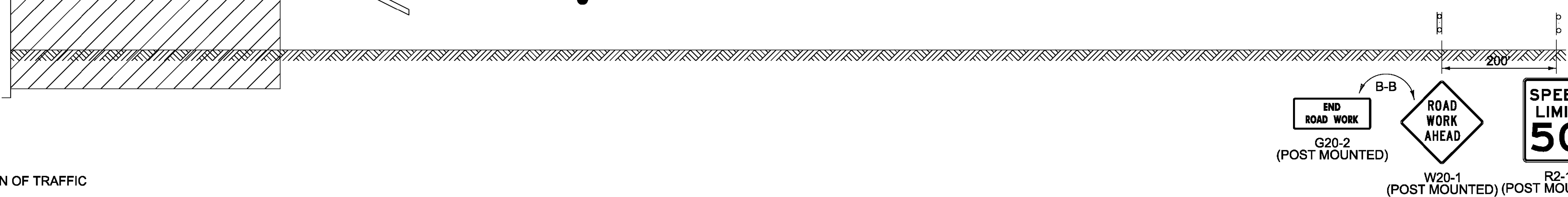
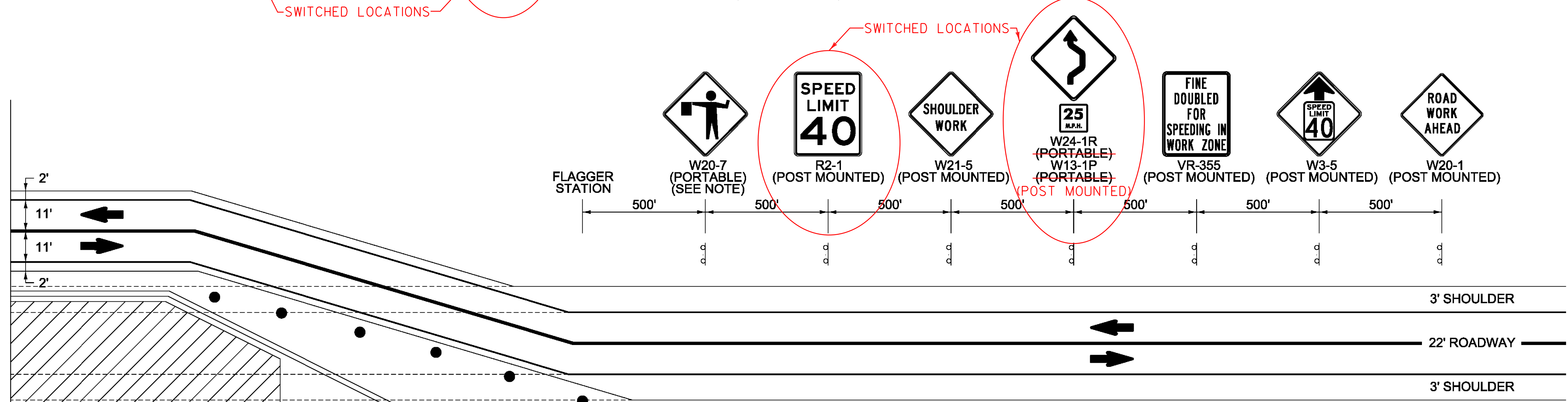
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PROJECT NAME:	TOWNSHEND	FILE NAME:	dlib050det.dgn	PLOT DATE:	2/12/2015
PROJECT NUMBER:	STP 015-1(22)	PROJECT LEADER:	K. UPMAL	DRAWN BY:	C. LEACH
		DESIGNED BY:	C. LEACH	CHECKED BY:	B. KIPP
		TRAFFIC CONTROL DETAIL SHEET		SHEET	29 OF 34



FLAGGER STATION  
 NOTE: BLASTING OPERATIONS MAY WARRANT DURATIONS OF ONE-WAY TRAFFIC WITH FLAGGERS.

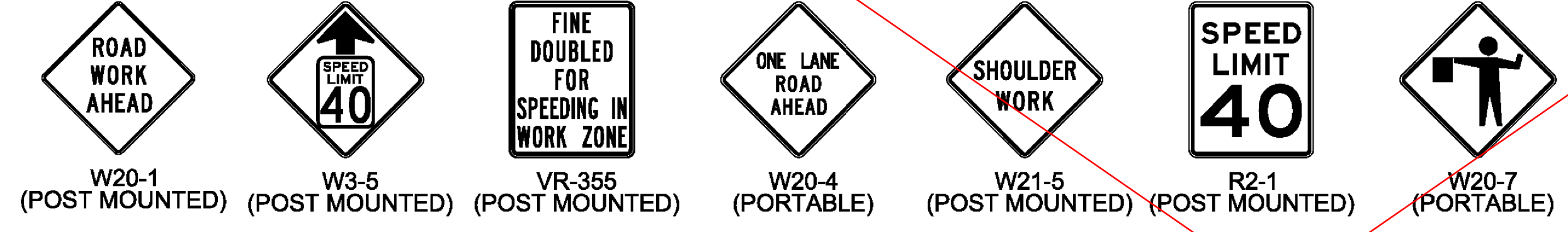
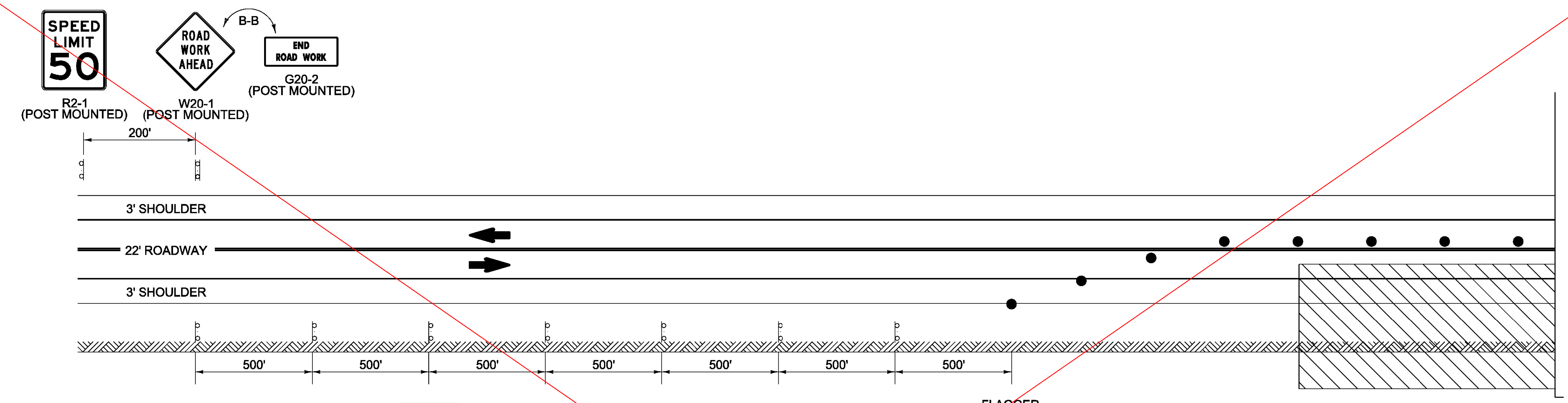
**WORK ZONE A - TWO-WAY PHASED DETOUR**  
 (NOT TO SCALE)



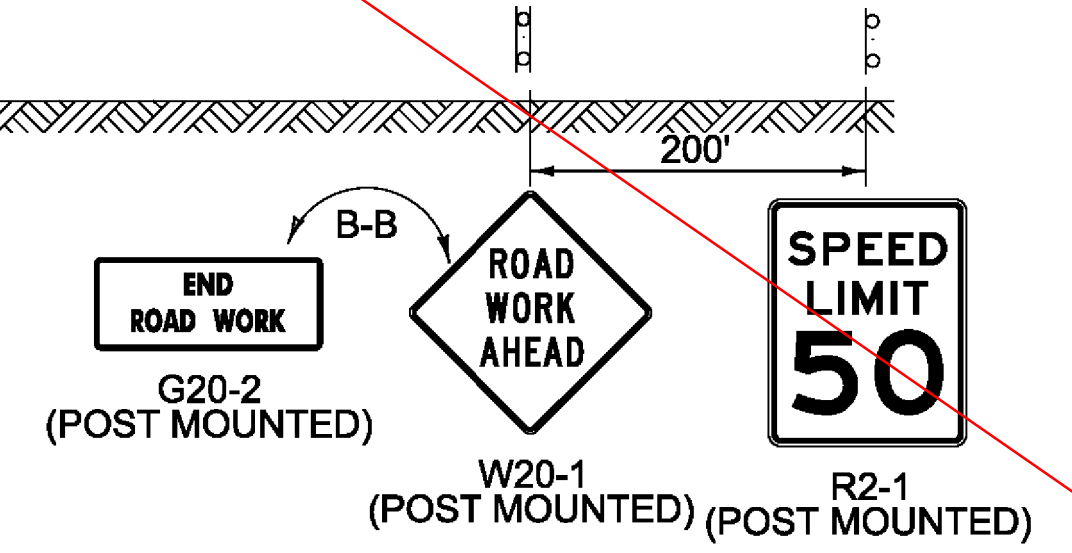
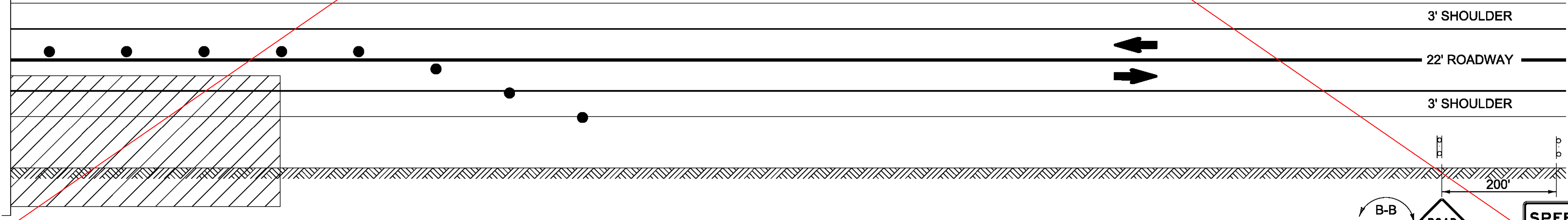
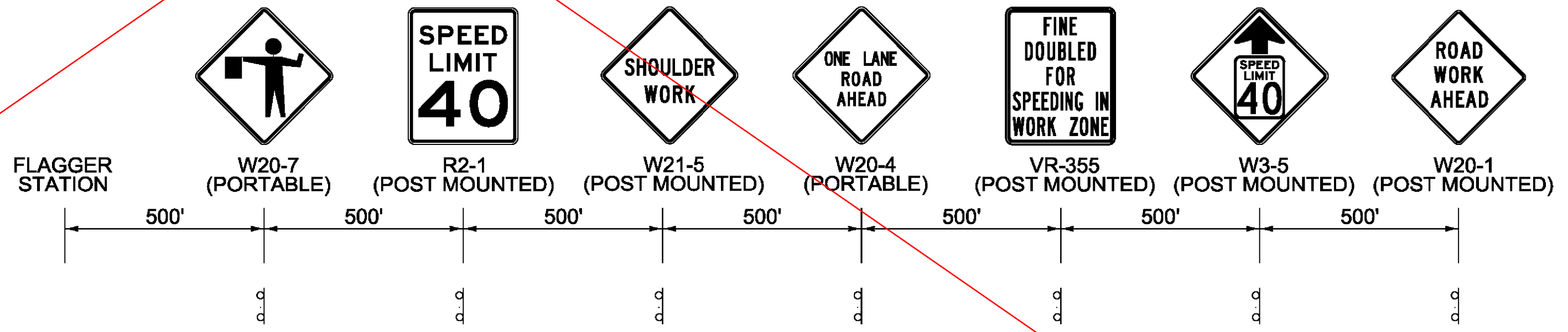
- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE
- TEMPORARY TRAFFIC BARRIER
- WORK AREA

**WORK ZONE A - TWO-WAY PHASED DETOUR**  
 (NOT TO SCALE)

PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	d1b050frm.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
CONSTRUCTION APPROACH SIGNING SHEET 1	PLOT DATE: 1/9/2015
	DRAWN BY: C. LEACH
	CHECKED BY: B. KIPP
	SHEET 30 OF 34



**WORK ZONE B - ONE-WAY ALTERNATING TRAFFIC**  
(NOT TO SCALE)

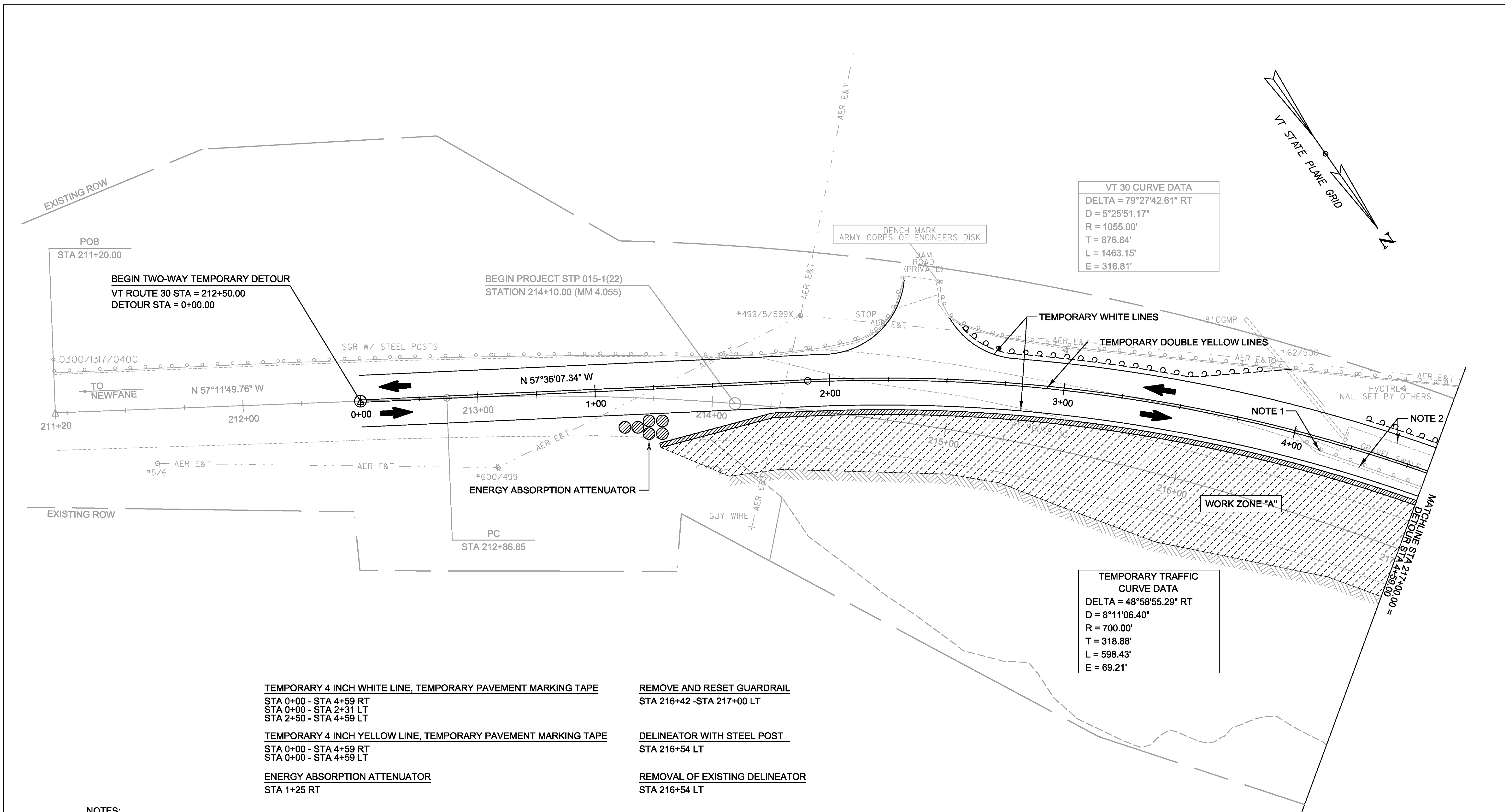


- DIRECTION OF TRAFFIC
- TRAFFIC CONTROL DEVICE
- TEMPORARY TRAFFIC BARRIER
- WORK AREA

**WORK ZONE B - ONE-WAY ALTERNATING TRAFFIC**  
(NOT TO SCALE)

WORK ZONE A SIGNS WERE PLACED TO COVER BOTH LOCATIONS

PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	d1b050frm.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
CONSTRUCTION APPROACH SIGNING SHEET 2	PLOT DATE: 1/9/2015
	DRAWN BY: C. LEACH
	CHECKED BY: B. KIPP
	SHEET 31 OF 34



VT 30 CURVE DATA	
DELTA	= 79°27'42.61" RT
D	= 5°25'51.17"
R	= 1055.00'
T	= 876.84'
L	= 1463.15'
E	= 316.81'

TEMPORARY TRAFFIC CURVE DATA	
DELTA	= 48°58'55.29" RT
D	= 8°11'06.40"
R	= 700.00'
T	= 318.88'
L	= 598.43'
E	= 69.21'

**TEMPORARY 4 INCH WHITE LINE, TEMPORARY PAVEMENT MARKING TAPE**

STA 0+00 - STA 4+59 RT  
 STA 0+00 - STA 2+31 LT  
 STA 2+50 - STA 4+59 LT

**TEMPORARY 4 INCH YELLOW LINE, TEMPORARY PAVEMENT MARKING TAPE**

STA 0+00 - STA 4+59 RT  
 STA 0+00 - STA 4+59 LT

**ENERGY ABSORPTION ATTENUATOR**

STA 1+25 RT

**REMOVE AND RESET GUARDRAIL**

STA 216+42 - STA 217+00 LT

**DELINEATOR WITH STEEL POST**

STA 216+54 LT

**REMOVAL OF EXISTING DELINEATOR**

STA 216+54 LT

**NOTES:**

1. REMOVE AND RESET GUARDRAIL FOR TEMPORARY TRAFFIC PHASING.
2. PLACE TEMPORARY PAVEMENT WITHIN GRAVEL SWALE FOR TEMPORARY TRAFFIC PHASING. REMOVE TEMPORARY PAVEMENT, RESTORE GRAVEL SWALE UPON COMPLETION OF THE WORK ASSOCIATED WITHIN THE LIMITS OF "WORK ZONE A". REFER TO THE PROJECT DETAILS FOR MORE INFORMATION.
3. MAINTAIN DUAL ACCESS TO RESERVOIR OVERLOOK PARKING AREA DURING CONSTRUCTION.



**LEGEND**

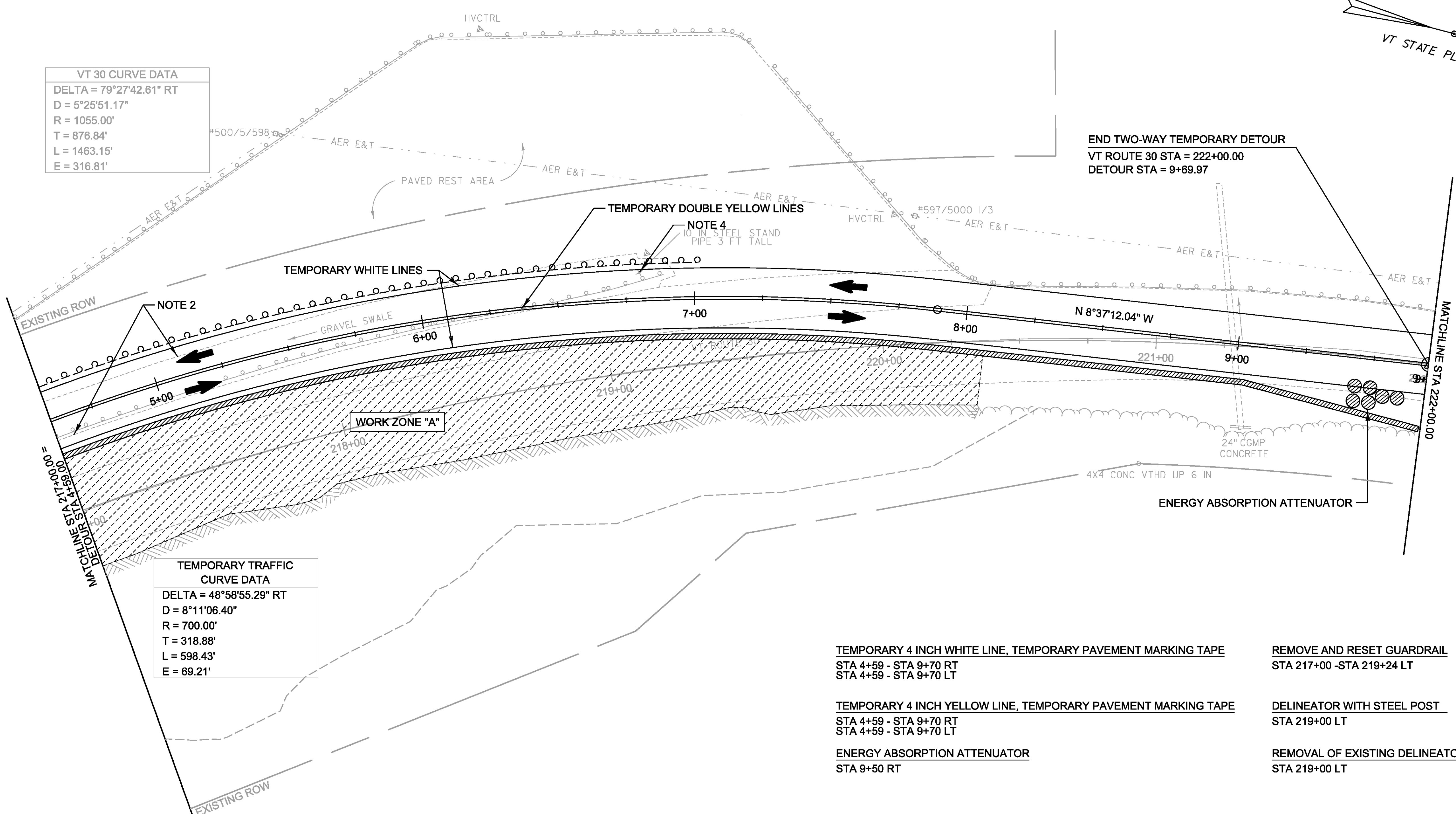
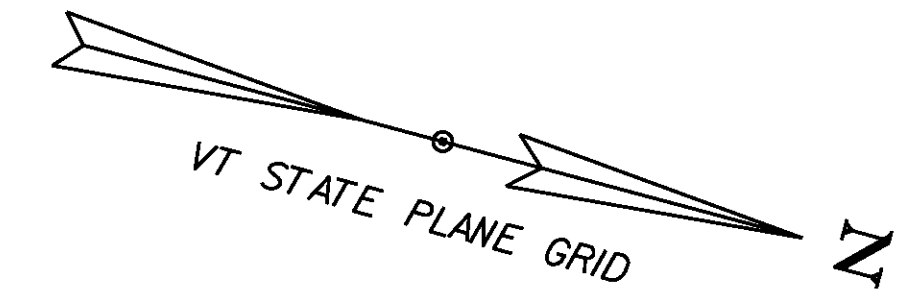
	TEMPORARY TWO-WAY TRAFFIC WORK ZONE "A" CONSTRUCTION
	CHANNELIZING DEVICES
	TEMPORARY TRAFFIC BARRIER

PROJECT NAME: TOWNSHEND  
 PROJECT NUMBER: STP 015-1(22)

FILE NAME: dlib050nui.dgn  
 PROJECT LEADER: K. UPMAL  
 DESIGNED BY: C. LEACH  
 TRAFFIC CONTROL SHEET 1

PLOT DATE: 1/9/2015  
 DRAWN BY: C. LEACH  
 CHECKED BY: B. KIPP  
 SHEET 32 OF 34

VT 30 CURVE DATA	
DELTA =	79°27'42.61" RT
D =	5°25'51.17"
R =	1055.00'
T =	876.84'
L =	1463.15'
E =	316.81'

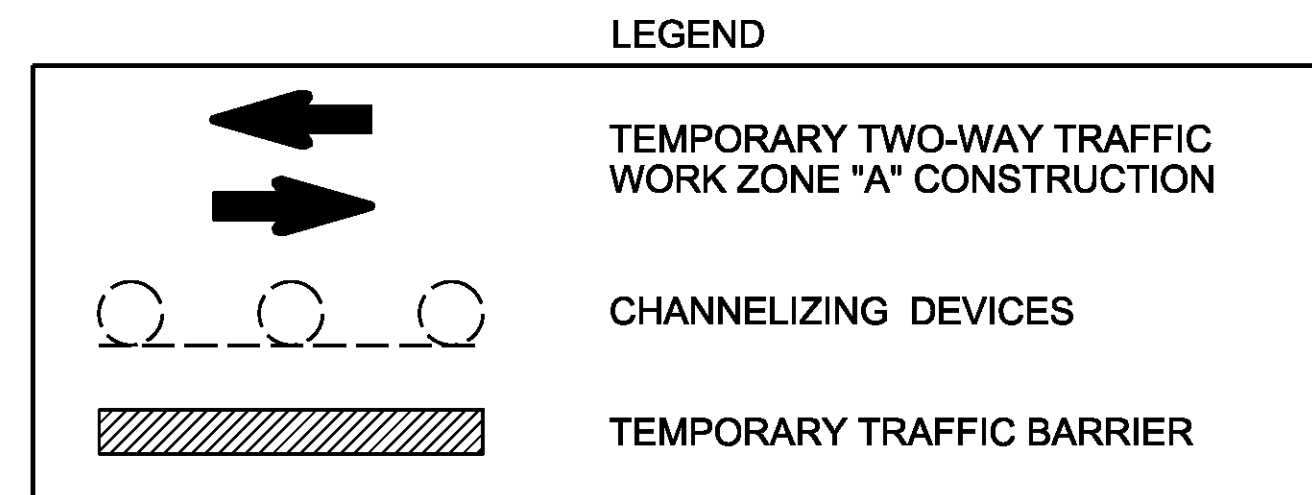


TEMPORARY TRAFFIC CURVE DATA	
DELTA =	48°58'55.29" RT
D =	8°11'06.40"
R =	700.00'
T =	318.88'
L =	598.43'
E =	69.21'

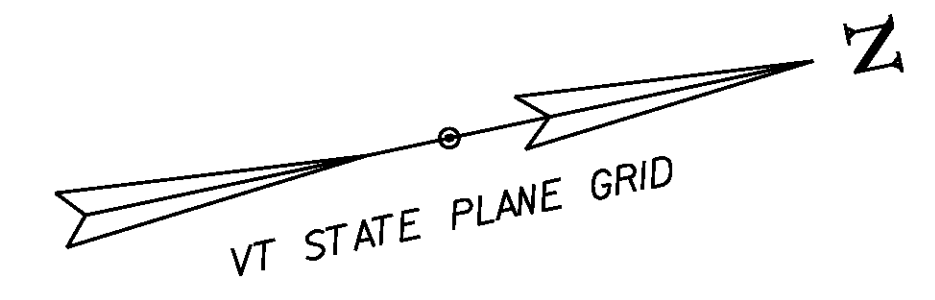
- TEMPORARY 4 INCH WHITE LINE, TEMPORARY PAVEMENT MARKING TAPE  
STA 4+59 - STA 9+70 RT  
STA 4+59 - STA 9+70 LT
- TEMPORARY 4 INCH YELLOW LINE, TEMPORARY PAVEMENT MARKING TAPE  
STA 4+59 - STA 9+70 RT  
STA 4+59 - STA 9+70 LT
- ENERGY ABSORPTION ATTENUATOR  
STA 9+50 RT
- REMOVE AND RESET GUARDRAIL  
STA 217+00 - STA 219+24 LT
- DELINEATOR WITH STEEL POST  
STA 219+00 LT
- REMOVAL OF EXISTING DELINEATOR  
STA 219+00 LT

**NOTES:**

1. REMOVE AND RESET GUARDRAIL FOR TEMPORARY TRAFFIC PHASING.
2. PLACE TEMPORARY PAVEMENT WITHIN GRAVEL SWALE FOR TEMPORARY TRAFFIC PHASING. REMOVE TEMPORARY PAVEMENT, RESTORE GRAVEL SWALE UPON COMPLETION OF THE WORK ASSOCIATED WITHIN THE LIMITS OF "WORK ZONE A". REFER TO THE PROJECT DETAILS FOR MORE INFORMATION.
3. MAINTAIN DUAL ACCESS TO RESERVOIR OVERLOOK PARKING AREA DURING CONSTRUCTION.
4. REMOVE 3'X10" VERTICAL STEEL STAND PIPE AT VT 30 STA 219+14 LT. PAYMENT FOR REMOVAL SHALL BE INCIDENTAL TO CONTRACT ITEM 641.10 "TRAFFIC CONTROL".



PROJECT NAME:	TOWNSHEND	FILE NAME:	d11b050n1.dgn	PLOT DATE:	1/9/2015
PROJECT NUMBER:	STP 015-1(22)	PROJECT LEADER:	K. UPMAL	DRAWN BY:	C. LEACH
		DESIGNED BY:	C. LEACH	CHECKED BY:	B. KIPP
		TRAFFIC CONTROL SHEET 2		SHEET	33 OF 34

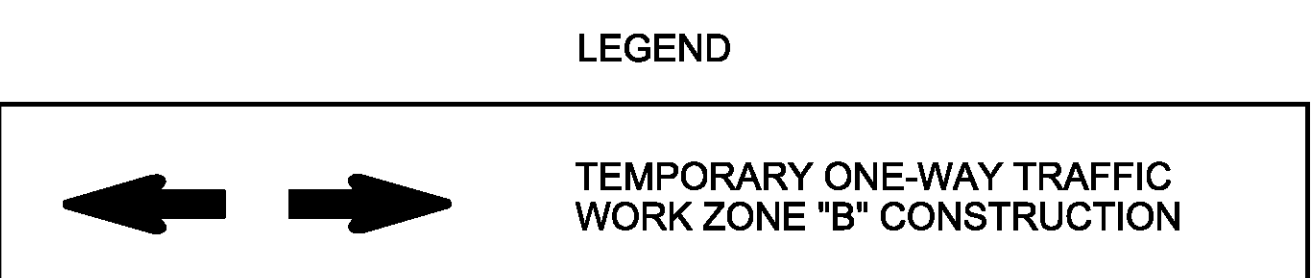
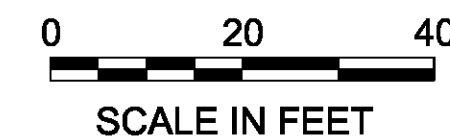
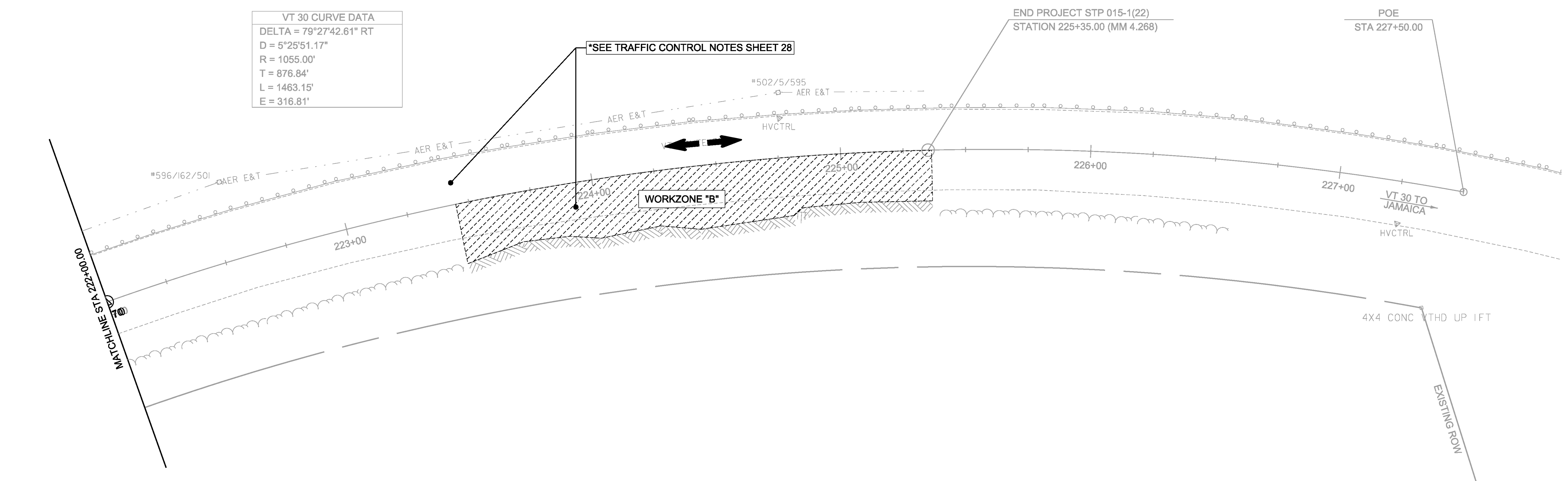


VT 30 CURVE DATA	
DELTA =	79°27'42.61" RT
D =	5°25'51.17"
R =	1055.00'
T =	876.84'
L =	1463.15'
E =	316.81'

*SEE TRAFFIC CONTROL NOTES SHEET 28

END PROJECT STP 015-1(22)  
STATION 225+35.00 (MM 4.268)

POE  
STA 227+50.00



PROJECT NAME:	TOWNSHEND
PROJECT NUMBER:	STP 015-1(22)
FILE NAME:	d1lb050bdr.dgn
PROJECT LEADER:	K. UPMAL
DESIGNED BY:	C. LEACH
TRAFFIC CONTROL SHEET 3	
PLOT DATE:	1/9/2015
DRAWN BY:	C. LEACH
CHECKED BY:	B. KIPP
SHEET 34 OF 34	