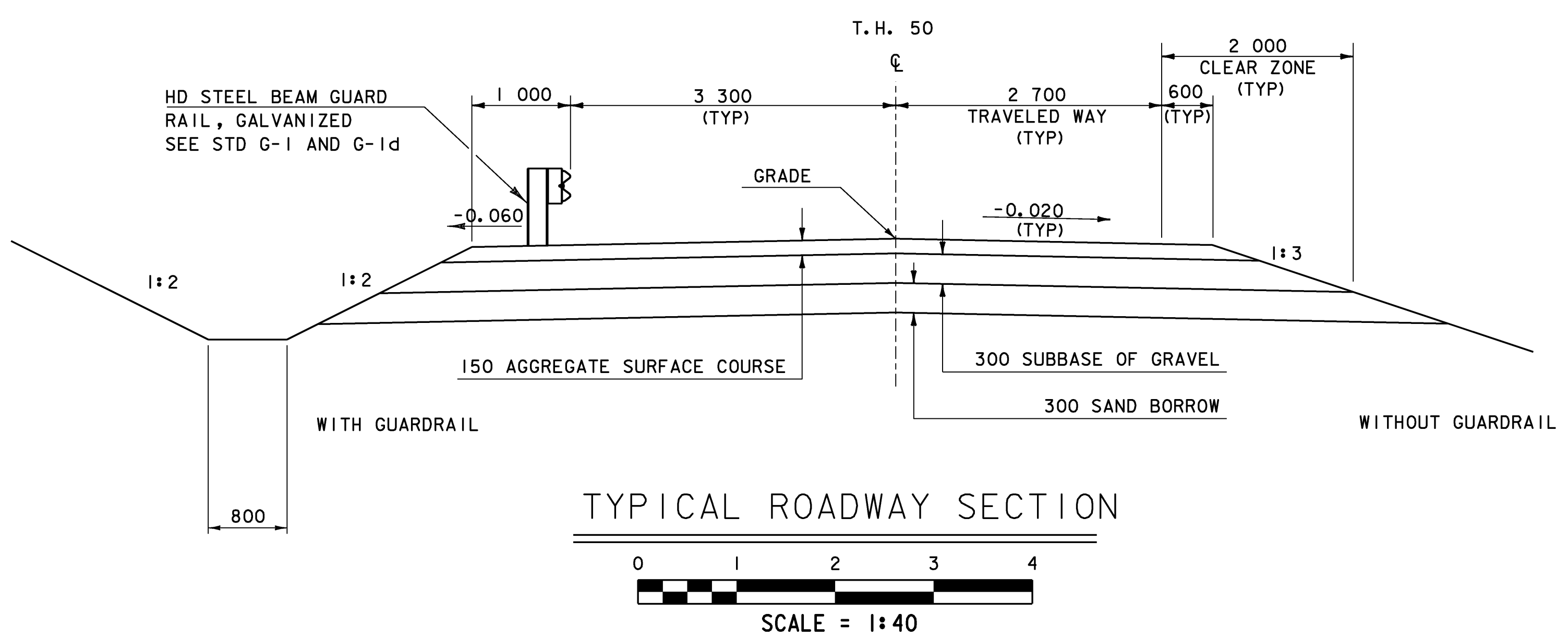


\*SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT)

MATERIAL ITEM	TOLERANCE
AGGREGATE SURFACE COURSE	± 10 mm
SUBBASE	± 30 mm
SAND BORROW	± 30 mm



HYDROLOGIC DATA

DRAINAGE AREA= 93.8 sq. km  
 CHARACTER OF TERRAIN: Hilly to mountainous  
 CHARACTER & TYPE OF STREAM: Straight, probably incised and alluvial. Not braided or anabranching.  
 NATURE OF STREAMBED: mostly gravel with some sand and cobbles.  
 Q2.33= 32.6 cms      Q50= 113.3 cms  
 Q10= 70.8 cms      Q100= 130.3 cms  
 Q25= 94.3 cms      Q500= 221.4 cms  
 DATE OF FLOOD OF RECORD: November 1927  
 WATER SURFACE ELEV.: Unknown ESTIMATED DISCHARGE: Unknown  
 NATURAL STREAM VELOCITY @ Q25 = 3.0 mps  
 ICE CONDITIONS: Moderate DEBRIS: Moderate  
 DOES THE STREAM REACH MAXIMUM HIGHWATER ELEVATION RAPIDLY? Yes  
 IS ORDINARY RISE RAPID? Yes  
 IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No  
 IF YES, DESCRIBE.  
 WATERSHED STORAGE: 2% HEADWATERS: UNIFORM THROUGHOUT WATERSHED X  
 IMMEDIATELY ABOVE SITE

EXISTING STRUCTURE

STRUCTURE TYPE: Single span steel truss bridge YEAR BUILT: 1954  
 CLEAR SPAN (NORMAL TO STREAM): 15.0 m  
 VERTICAL CLEARANCE ABOVE STREAMBED: 2.7 m  
 WATERWAY OF FULL OPENING: 31.8 sq. m  
 DISPOSITION OF STRUCTURE: Remove  
 TYPE OF MATERIAL UNDER SUBSTRUCTURE: Unknown  
 WATER SURFACE ELEV. @ Q2.33= 234.5 VELOCITY= 3.1 mps  
 Q10= 235.3 " " 3.9 mps  
 Q25= 236.0 " " 4.1 mps  
 Q50= 236.1 " " 4.2 mps  
 Q100= 236.1 " " 4.4 mps  
 LONG TERM STREAM BED CHANGES: There is a 0.3m to 1.2m deep scour hole through and downstream of the bridge.  
 IS THE ROADWAY OVERTOPPED BELOW THE Q100? Yes FREQUENCY: Q15  
 RELIEF ELEVATION: 235.6 DISCHARGE OVER ROAD @ Q100: 43.9 cms  
 UPSTREAM STRUCTURE: TOWN: Corinth DISTANCE: 1.6 km  
 HIGHWAY NO.: T.H. 60 STRUCTURE NO.: 33  
 STRUCTURE TYPE: CGMPPA  
 CLEAR SPAN: 6.7 m CLEAR HEIGHT: 3.0 m  
 YEAR BUILT: - FULL WATERWAY: -  
 DOWNSTREAM STRUCTURE: TOWN: Corinth DISTANCE: 1.6 km  
 HIGHWAY NO.: T.H. 40 STRUCTURE NO.: 37  
 STRUCTURE TYPE: Single span steel beam bridge with wood deck  
 CLEAR SPAN: 10.7 m CLEAR HEIGHT: 4.3 m  
 YEAR BUILT: - FULL WATERWAY: -

PROPOSED STRUCTURE

STRUCTURE TYPE: Steel beam single span bridge  
 CLEAR SPAN (NORMAL TO STREAM): 20.0 m  
 VERTICAL CLEARANCE ABOVE STREAMBED: 2.6 m  
 WATERWAY OF FULL OPENING: 43.0 sq. m  
 WATER SURFACE ELEV. @ Q2.33= 234.1 VELOCITY= 2.1 mps  
 Q10= 234.8 " " 2.8 mps  
 Q25= 235.1 " " 3.1 mps  
 Q50= 235.2 " " 3.4 mps  
 Q100= 235.3 " " 3.7 mps  
 IS THE ROADWAY OVERTOPPED BELOW THE Q100? No FREQUENCY: -  
 RELIEF ELEVATION: 235.6 DISCHARGE OVER ROAD @ Q100: None  
 AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 235.5  
 VERTICAL CLEARANCE @ Q25 = 0.4 m  
 SCOUR: 0.8 m of contraction scour at Q100 and Q500  
 REQUIRED CHANNEL PROTECTION: Stone Fill, Type II

PERMIT INFORMATION

AVERAGE DAILY FLOW: 2.1 cms  
 ORDINARY LOW WATER: 1.0 cms ELEV.: 233.0  
 ORDINARY HIGH WATER: 14.0 cms ELEV.: 233.8

DESIGN CRITERIA:

- DESIGN LIVE LOAD AASHTO: HL-93
- DESIGN SPAN: 21.5 m
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL: N/A ON LEDGE: N/A
- ALLOWABLE LOAD FOR PILING SEE GENERAL NOTES TYPE: HP 310x93 ESTIMATED LENGTH: 20.0 m
- STRUCTURAL STEEL AASHTO GRADE: 345W, M 270M/M 270
- REINFORCING STEEL GRADE: 420
- CONCRETE CLASS A:  $f_c$ : 30 MPa SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT).  
 CONCRETE CLASS B:  $f_c$ : 25 MPa CONCRETE, HIGH PERFORMANCE CLASS B.  
 SILICA-FUME CONCRETE:  $f_c$ : 35 MPa N/A

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? NO IF YES, ON EXISTING STRUCTURE: NA OR ON TEMPORARY BRIDGE: NA
- TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY: ----- TRAFFIC CONTROL SIGNALS REQUIRED: -----  
 MINIMUM CLEAR SPAN (NORMAL TO STREAM): ----- VERTICAL CLEARANCE ABOVE STREAMBED: -----  
 WATERWAY OF FULL OPENING: -----  
 ARE SIDEWALKS REQUIRED? ----- IF SO, ON WHAT SIDE? -----  
 STRUCTURE TYPE: Road will be closed during construction.

LOAD FACTOR LOAD RATING (TONNES)

LOADING LEVELS (LOAD FACTOR)	TRUCK						
	M	MS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY A = 2.17 B = 1.00	51	64					
POSTED A = 1.55 B = 1.40	71	89	113		83	85	102
OPERATING A = 1.30 B = 1.67		107	135	164	99	102	

STRENGTH  $RF = \frac{\phi M_N - 1.3 M_{DL}}{A \times M_{LL+I}}$  SERVICEABILITY  $RF = B \left[ \frac{.95 F_y S_{LL+I} - M_{DL} \frac{S_{LL+I}}{S_{DL}} - M_{SDL} \frac{S_{LL+I}}{S_{SDL}}}{1.67 M_{LL+I}} \right]$

TRAFFIC DATA

YEAR	ADT	DHV	% D	% T	ADTT
1996	100	15	--	2	2
2016	130	20	--	2	2

20 year ESAL for flexible pavement from ---- to ---- N.A.  
 40 year ESAL for flexible pavement from ---- to ---- N.A.  
 Design speed: 50 km/h

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of CORINTH Bridge No. 34  
 Highway No. T.H.50 Log Sta. 3971.405  
 Surv. Sta. -----

PRELIMINARY INFORMATION  
T.H.50 OVER SO. BRANCH OF WAITS RIVER

Designed By T.A. SUMNER Drawn By T.A. SUMNER  
 Checked By W.B. SYMONDS Date 10/97 Bridge Design Supervisor C.P. WILLIAMS Date 10/97

PROJECT CORINTH PROJECT NO. STP. BRO. 1447(22)  
 RE-ADVERTISED

# QUANTITY SHEET 1



SUMMARY OF ESTIMATED QUANTITIES										TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES			
						ROADWAY	EROSION CONTROL	BRIDGE	100% STP FUNDS	FULL C.E. ITEM	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1					1	1	LS	CLEARING AND GRUBBING, INCLUDING INDIVIDUAL TREES AND STUMPS	201.10				<b>EARTHWORKS SUMMARY</b>
						536					536	423	CM	COMMON EXCAVATION	203.15				<b>FILL AVAILABLE</b>
								300			300	257.2	CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27				COMMON EXCAVATION: 536 x1.0
						90					90	118.93	CM	SAND BORROW	203.31				UNCLASSIFIED CHANNEL EXCAVATION: 300 x 0.3
							10				10	0	CM	TRENCH EXCAVATION OF EARTH	204.20				STRUCTURE EXCAVATION: 115 x 0.3
						1					1	0	CM	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22				TRENCH EXCAVATION OF EARTH: 10 x 1.0
								115			115	115	CM	STRUCTURE EXCAVATION	204.25				<b>TOTAL</b>
								80			80	80	CM	GRANULAR BACKFILL FOR STRUCTURES	204.30				
						331	-20-0				351	336	CM	SUBBASE OF GRAVEL	301.15				
						90					90	110	CM	AGGREGATE SURFACE COURSE	401.10				
								28			28	23.168	CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34				
								1			1	1	LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10				
								160			160	164.064	M	STEEL PILING FOR INTEGRAL ABUTMENTS, HP 310 X 93	505.255				
								2			2	2	EACH	DYNAMIC PILE LOADING TEST	505.45				
								23305			23305	22687	KG	STRUCTURAL STEEL, ROLLED BEAM	506.50				
								8997			8997	9472	KG	EPOXY COATED REINFORCING STEEL	507.17				
								1			1	1	LS	SHEAR CONNECTORS (440 - 22 X 178)	508.15				
								75			75	103.85	L	WATER REPELLENT, SILANE	514.10				
								46			46	45.72	M	BRIDGE RAILING, GALVANIZED HD STEEL BEAM/FASCIA MOUNTED	525.41				
								1			1	1	EACH	REMOVAL OF STRUCTURE (77 SM - EST.)	529.15				
								8			8	8	EACH	BEARING DEVICE ASSEMBLY, INTEGRAL ABUTMENT	531.14				
							10				10	4	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25				
							1				1	0	T	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15				
							10				10	0	CM	STONE FILL, TYPE I	613.10				
								120			120	122.5	CM	STONE FILL, TYPE II	613.11				
						42					42	0	M	REMOVING AND RESETTING FENCE	620.50				
						0					0	42	M	REMOVAL OF EXISTING FENCE (C.O. NO. 1 DATED 10-03-09)	620.55				
						78					78	80.164	M	HD STEEL BEAM GUARDRAIL, GALVANIZED	621.21				
						4					4	4	EACH	ANCHOR FOR STEEL BEAM RAIL	621.60				
						9					9	8.8	M	REMOVAL AND DISPOSAL OF GUARDRAIL	621.80				
										1	1	1	LS	FIELD OFFICE-ENGINEERS	631.10				
										1	1	1	LS	TESTING EQUIPMENT - CONCRETE	631.16				
										1	1	0.208	LU	FIELD OFFICE - TELEPHONE (NAB)	631.25				
						1					1	1	LS	MOBILIZATION / DEMOBILIZATION	635.11				
						1					1	1	LS	TRAFFIC CONTROL	641.10				
							150				150	161.8	SM	GEOTEXTILE UNDER STONE FILL	649.31				
							100				100	0	SM	GEOTEXTILE FOR SILT FENCE	649.51				
							70				70	72.96	SM	GEOTEXTILE FOR FILTER CURTAIN	649.61				
							5				5	26.074	KG	SEED	651.15				
							10				10	3.175	KG	SEED-WINTER RYE	651.17				
							100				100	115.232	KG	FERTILIZER	651.18				

PROJECT NAME:	CORINTH
PROJECT NUMBER:	STP BRO 1447(22) (RE-ADVERTISED)
FILE NAME:	93j042Structures\sj042excel.dgn
PLOT DATE:	07/16/2008
PROJECT MANAGER:	C.P.WILLIAMS
DRAWN BY:	M.FESSEL
DESIGNED BY:	R.S.YOUNG
CHECKED BY:	R.S.YOUNG
QUANTITY SHEET #1	SHEET 3 OF 42

# QUANTITY SHEET 2



SUMMARY OF ESTIMATED QUANTITIES						TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES						
					ROADWAY	EROSION CONTROL	BRIDGE	100% STP FUNDS	FULL C.E ITEM	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
						1				1	0.249	T	AGRICULTURAL LIMESTONE	651.20				
						1				1	0.37	T	HAYMULCH	651.25				
						100				100	128.5	SM	GRUBBING MATERIAL	651.40				
						1				1	1	LS	EPSC PLAN	652.10				
						40				40	18	HR	MONITORING EPSC PLAN	652.20				
						1				1	0	LU	MAINTENANCE OF EPSC PLAN (N.A.B.I.)	652.30				
						440				440	265.5	SM	TEMPORARY EROSION MATTING	653.20				
						20				20	0	CM	TEMPORARY STONE CHECK DAM, TYPE I	653.25				
						13				13	0	CM	VEHICLE TRACKING PAD	653.35				
						195				195	175	M	PROJECT DEMARCATION FENCE	653.55				
					0.45					0.45	1.53	SM	TRAFFIC SIGNS, TYPE A	675.20				
					3					3	3.66	M	FLANGED CHANNEL SIGN POST	675.301				
					2					2	2	EACH	REMOVING SIGNS	675.50				
							68			68	65.993	CM	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT)	900.608				
								1		1	1	LS	SPECIAL PROVISION (STEEL BRIDGE TRUSS REMOVAL AND DELIVERY)	900.645				
					0					0	1	LS	SUPPLEMENTAL AGREEMENT (INSTALL ELECTRIC FENCE) (C.O. NO. 1 DATED 10-3-09)	900.545				

# QUANTITY SHEET 3



SUMMARY OF BRIDGE QUANTITIES										TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES			
							ABUT 1	SUPER STRUCTURE	ABUT 2	CHANNEL	BRIDGE TOTAL		UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS
										300	300	257.2	CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27			
							57		58		115	115	CM	STRUCTURE EXCAVATION	204.25			
							40		40		80	80	CM	GRANULAR BACKFILL FOR STRUCTURES	204.30			
							14		14		28	23.168	CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34			
							0.5		0.5		1	1	LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10			
							80		80		160	164.064	M	STEEL PILING FOR INTEGRAL ABUTMENTS, HP 310 X 93	505.255			
							1		1		2	2	EACH	DYNAMIC PILE LOADING TEST	505.45			
								23305			23305	22687	KG	STRUCTURAL STEEL, ROLLED BEAM	506.50			
							1475	6046	1476		8997	9472	KG	EPOXY COATED REINFORCING STEEL	507.17			
								1			1	1	LS	SHEAR CONNECTORS (440 - 22 X 178)	508.15			
							6	63	6		75	103.85	L	WATER REPELLENT, SILANE	514.10			
								46			46	45.72	M	BRIDGE RAILING, GALVANIZED HD STEEL BEAM/FASCIA MOUNTED	525.41			
								1			1	1	EACH	REMOVAL OF STRUCTURE (77 SM - EST.)	529.15			
							4		4		8	8	EACH	BEARING DEVICE ASSEMBLY, INTEGRAL ABUTMENT	531.14			
										120	120	122.5	CM	STONE FILL, TYPE II	613.11			
								68			68	65.993	CM	SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT)	900.608			

# GPS CONTROL POINTS



## TRAVERSE POINT 1 "CORINTH TEMP 1" (NOT SHOWN)

N = 167711.2000  
E = 520271.8190  
Z = 247.670

## DESCRIPTION OF TRAVERSE POINT 1

GENERAL LOCATION: SOUTH CORINTH, VT, ABOUT 41.8 km (26 miles) NORTH OF WHITE RIVER JUNCTION, ABOUT 29.0 km (18 miles) SOUTHEAST OF BARRE, AND ABOUT 48.3 km (30 miles) SOUTHWEST OF ST. JOHNSBURY.

TO REACH FROM THE I-91 BRIDGES OVER VT ROUTE 25 IN BRADFORD GO NORTHWEST ALONG VT ROUTE 25 FOR 1.0 km (0.6 miles) TO THE INTERSECTION OF VT ROUTE 25B RIGHT. CONTINUE STRAIGHT AHEAD AND GO NORTHWEST ALONG VT ROUTE 25 FOR 7.2 km (4.5 miles) TO THE INTERSECTION OF COOKEVILLE ROAD LEFT AT A BRIDGE OVER THE WAITS RIVER. TURN LEFT AND GO SOUTHWEST OVER BRIDGE AND ALONG COOKEVILLE ROAD FOR 4.0 km (2.5 miles) TO THE CROSSROADS TRADING POST IN SOUTH CORINTH. CONTINUE STRAIGHT AHEAD ON COOKEVILLE ROAD FOR 2.17 km (1.35 miles) TO THE MARK ON THE LEFT, JUST EAST OF A BEND IN THE ROAD.

THE MARK IS 4.0 m (13.1 ft) SOUTH OF AND ABOUT 0.05m (0.16 ft) LOWER THAN THE CENTERLINE OF COOKEVILLE ROAD, 0.35 m (1.15 ft) SOUTH OF THE SOUTH EDGE OF PAVEMENT, 2.5 m (8.2 ft) NORTH OF A BARB WIRE FENCE, 14.75 m (48.39 ft) SOUTHWEST OF A NAIL IN A 24 cm BALSAM FIR, 14.00 m (45.93 ft) SOUTHEAST OF A NAIL IN A 25cm CHERRY AND 2.4 m (7.9 ft) NORTH OF A WOODEN WITNESS POST.

THE MARK IS A CENTER PUNCHED REBAR SET 3 cm BELOW THE GROUND SURFACE IN THE SHOULDER OF THE ROAD.

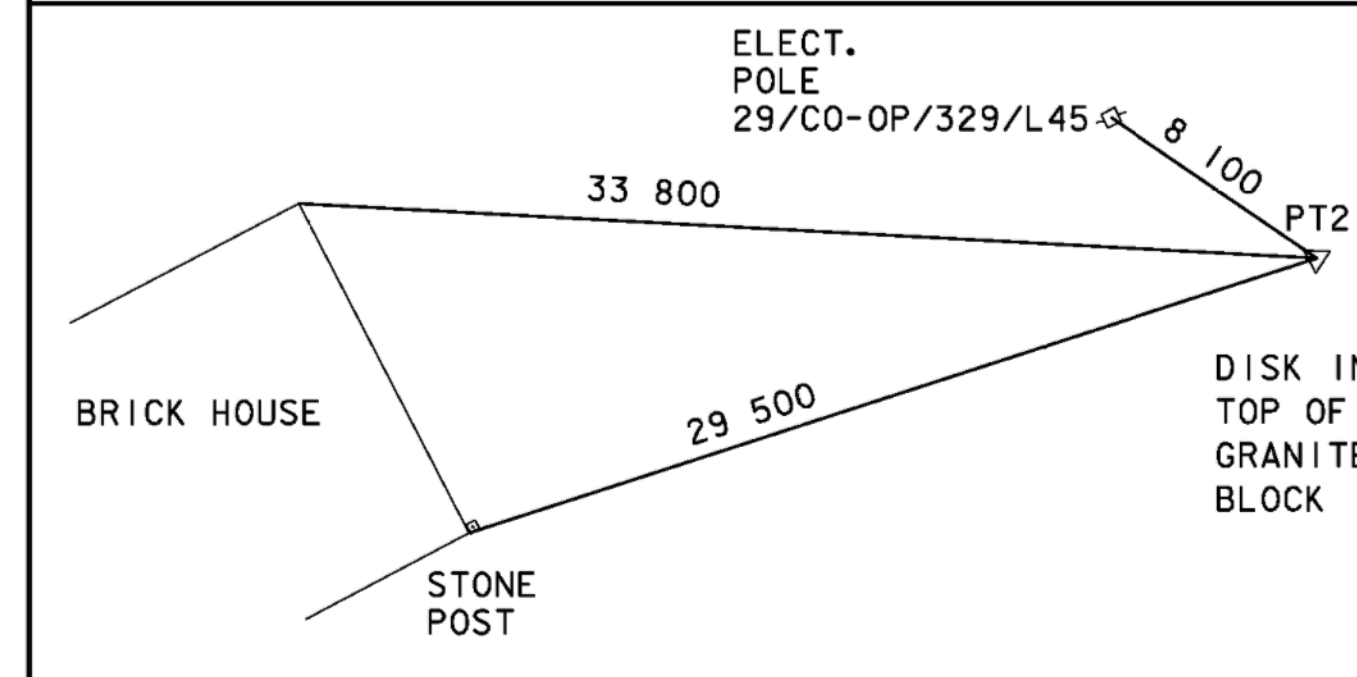
## TRAVERSE POINT 2

"TT 20 LDJ"

N = 167609.1090

E = 520712.1230

Z = 238.070



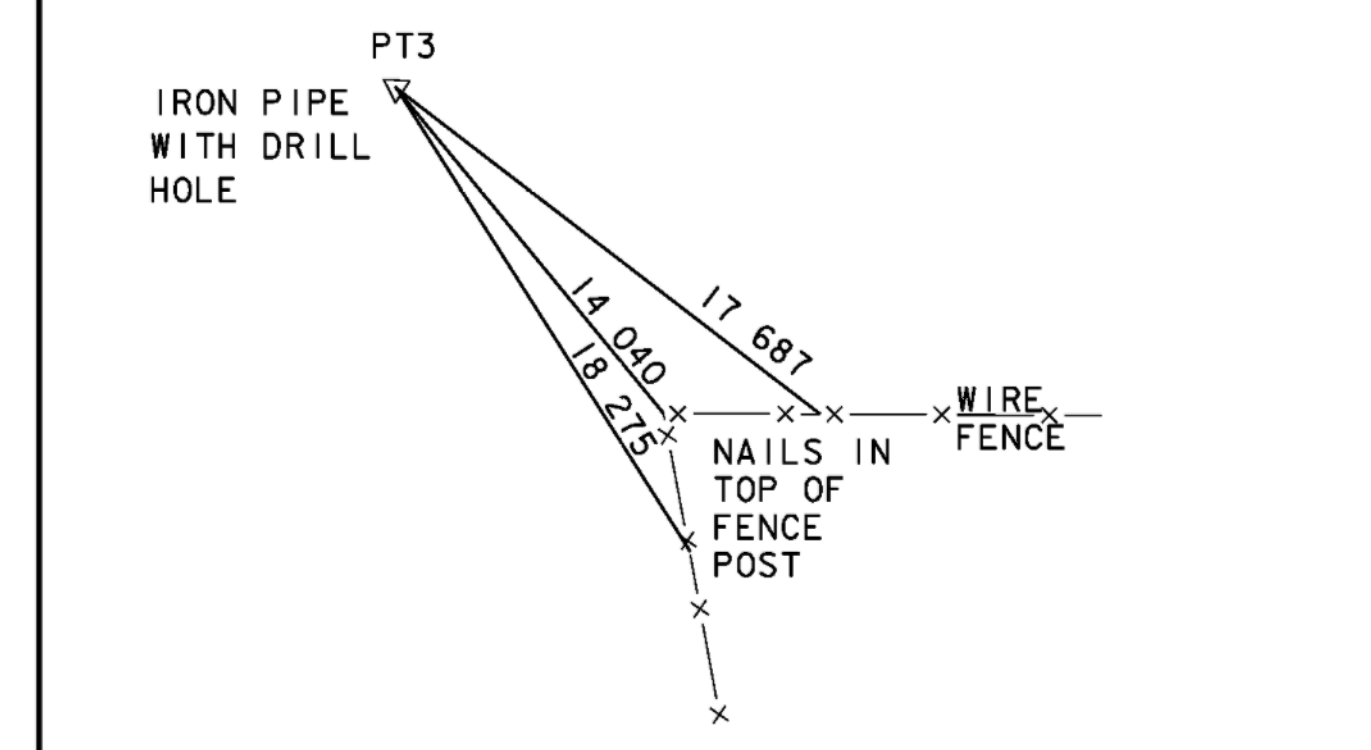
# TRAVERSE TIES

## TRAVERSE POINT 3

N = 167519.2734

E = 520634.6672

Z = 235.3410

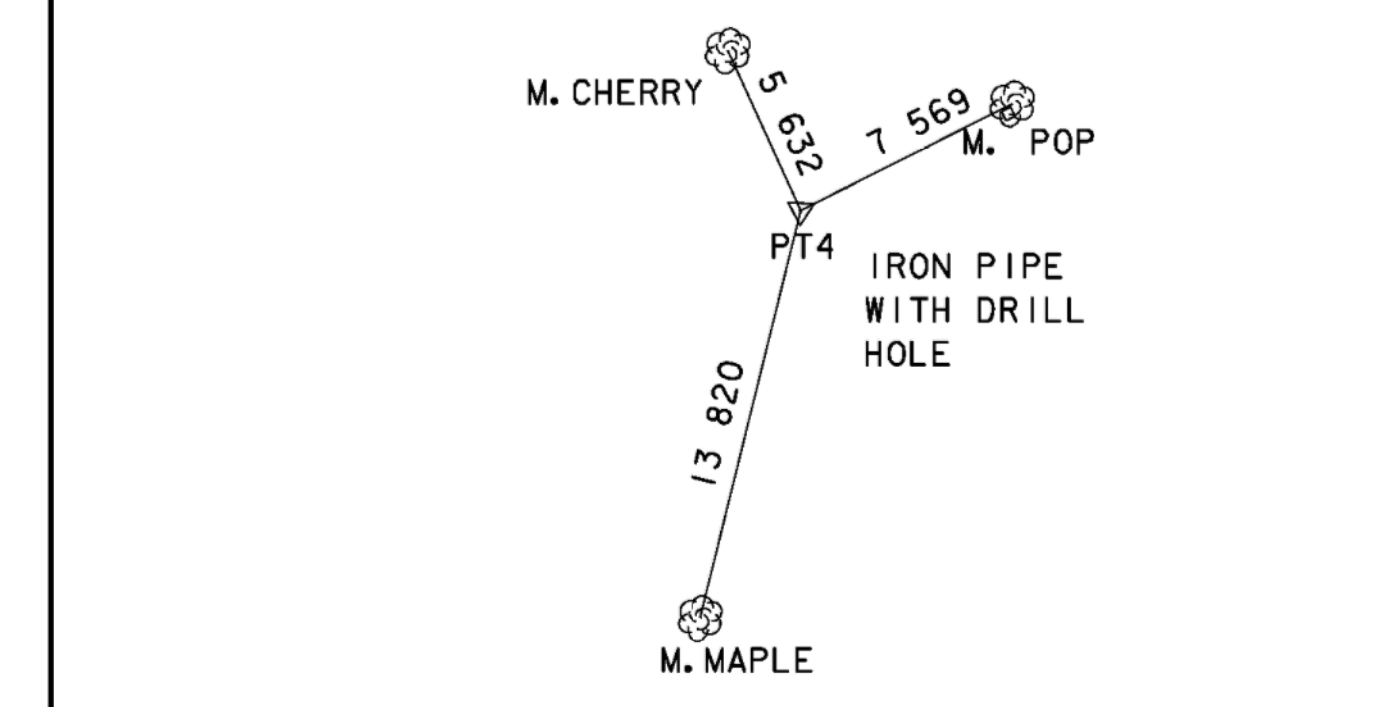


## TRAVERSE POINT 4

N = 167345.4149

E = 520555.0571

Z = 236.2130

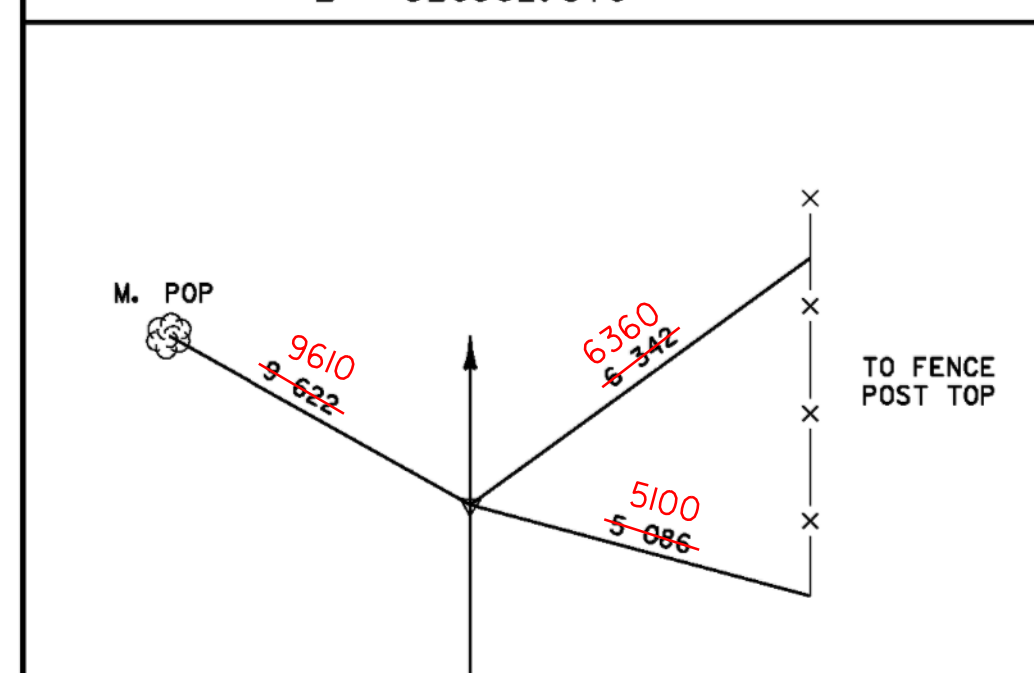


# ALIGNMENT TIES

## MAIN LINE PC 1+015.476

N = 167346.417

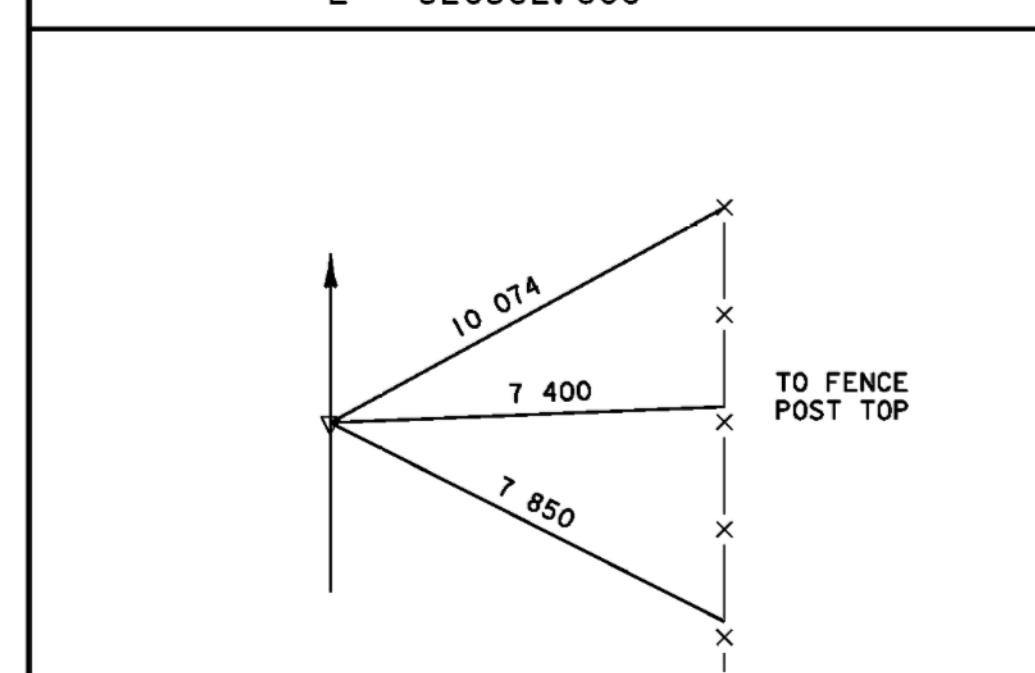
E = 520562.370



## MAIN LINE PT 1+079.667

N = 167407.117

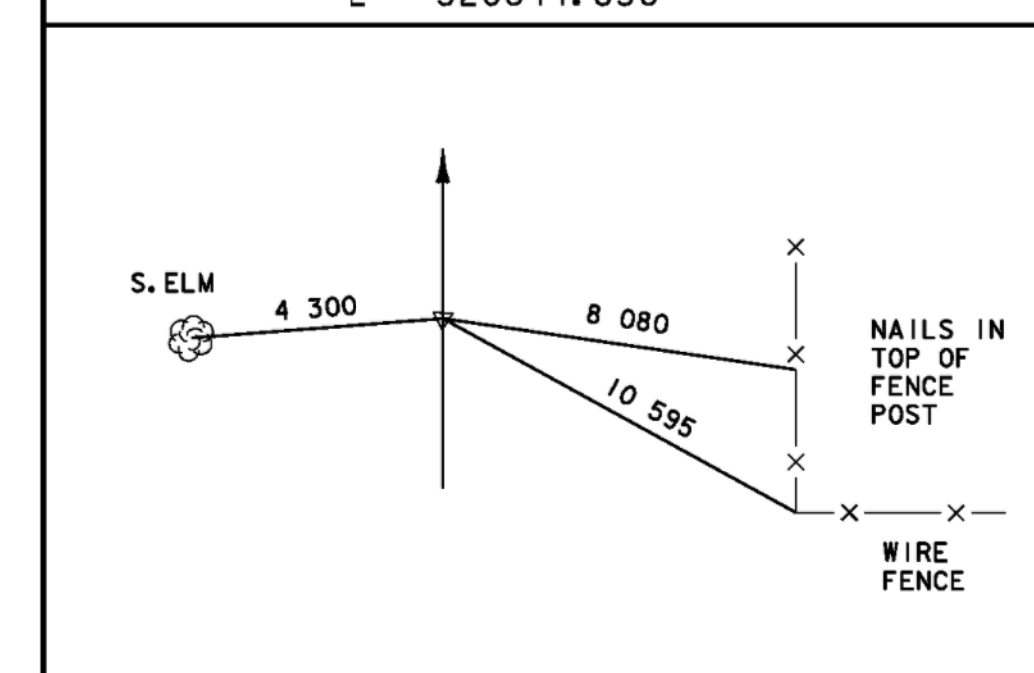
E = 520582.600



## MAIN LINE POT 1+219.500

N = 167532.337

E = 520644.836

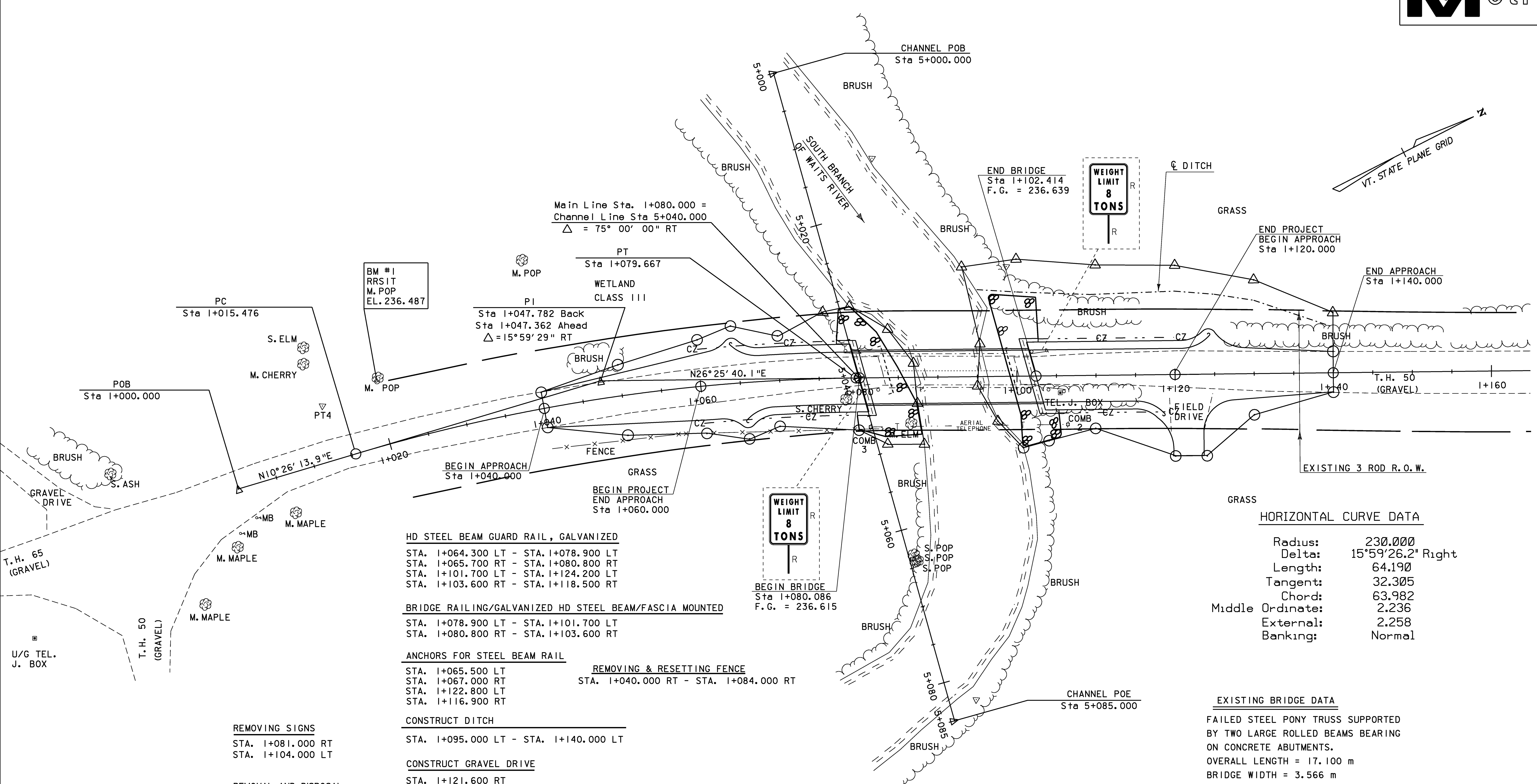


ALL DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE INDICATED.  
NOT TO SCALE

DATUM  
VERTICAL NAVD 88  
HORIZONTAL NAD 83/92

PROJECT: CORINTH  
DESIGN FILE NAME: sj042+1e.dgn  
IPARM FILE NAME: sj042+1e.1  
SURVEYED BY: R.D. GILMAN  
SQUAD LEADER: C.P. WILLIAMS  
TIE SHEET

PROJECT NO.: STP BRO 1447 (22)  
(RE-ADVERTISED)  
PLOT DATE: 16-JUL-2008  
SURVEY DATE: 3-15-95  
DRAWN BY: R.S. YOUNG  
SHEET: 6 OF 42



**HD STEEL BEAM GUARD RAIL, GALVANIZED**  
 STA. 1+064.300 LT - STA. 1+078.900 LT  
 STA. 1+065.700 RT - STA. 1+080.800 RT  
 STA. 1+101.700 LT - STA. 1+124.200 LT  
 STA. 1+103.600 RT - STA. 1+118.500 RT

**BRIDGE RAILING/GALVANIZED HD STEEL BEAM/FASCIA MOUNTED**  
 STA. 1+078.900 LT - STA. 1+101.700 LT  
 STA. 1+080.800 RT - STA. 1+103.600 RT

**ANCHORS FOR STEEL BEAM RAIL**  
 STA. 1+065.500 LT  
 STA. 1+067.000 RT  
 STA. 1+122.800 LT  
 STA. 1+116.900 RT

**REMOVING & RESETTING FENCE**  
 STA. 1+040.000 RT - STA. 1+084.000 RT

**CONSTRUCT DITCH**  
 STA. 1+095.000 LT - STA. 1+140.000 LT

**CONSTRUCT GRAVEL DRIVE**  
 STA. 1+121.600 RT

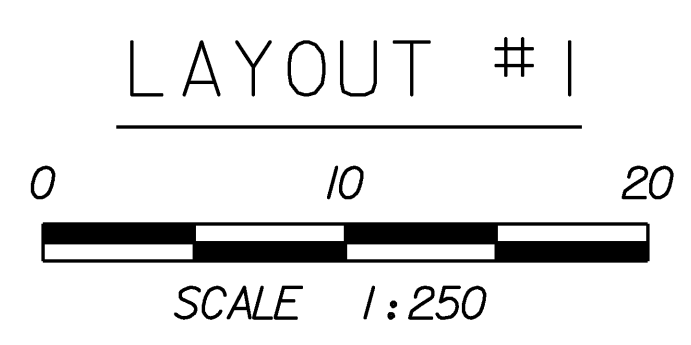
**REMOVING SIGNS**  
 STA. 1+081.000 RT  
 STA. 1+104.000 LT

**REMOVAL AND DISPOSAL OF GUARD RAIL**  
 STA 1+078.200 LT - 1+080.300 LT  
 STA 1+080.400 RT - 1+082.600 RT  
 STA 1+101.700 LT - 1+103.750 LT  
 STA 1+103.750 RT - 1+106.200 RT

**HORIZONTAL CURVE DATA**

Radius:	230.000
Delta:	15°59'26.2" Right
Length:	64.190
Tangent:	32.305
Chord:	63.982
Middle Ordinate:	2.236
External:	2.258
Banking:	Normal

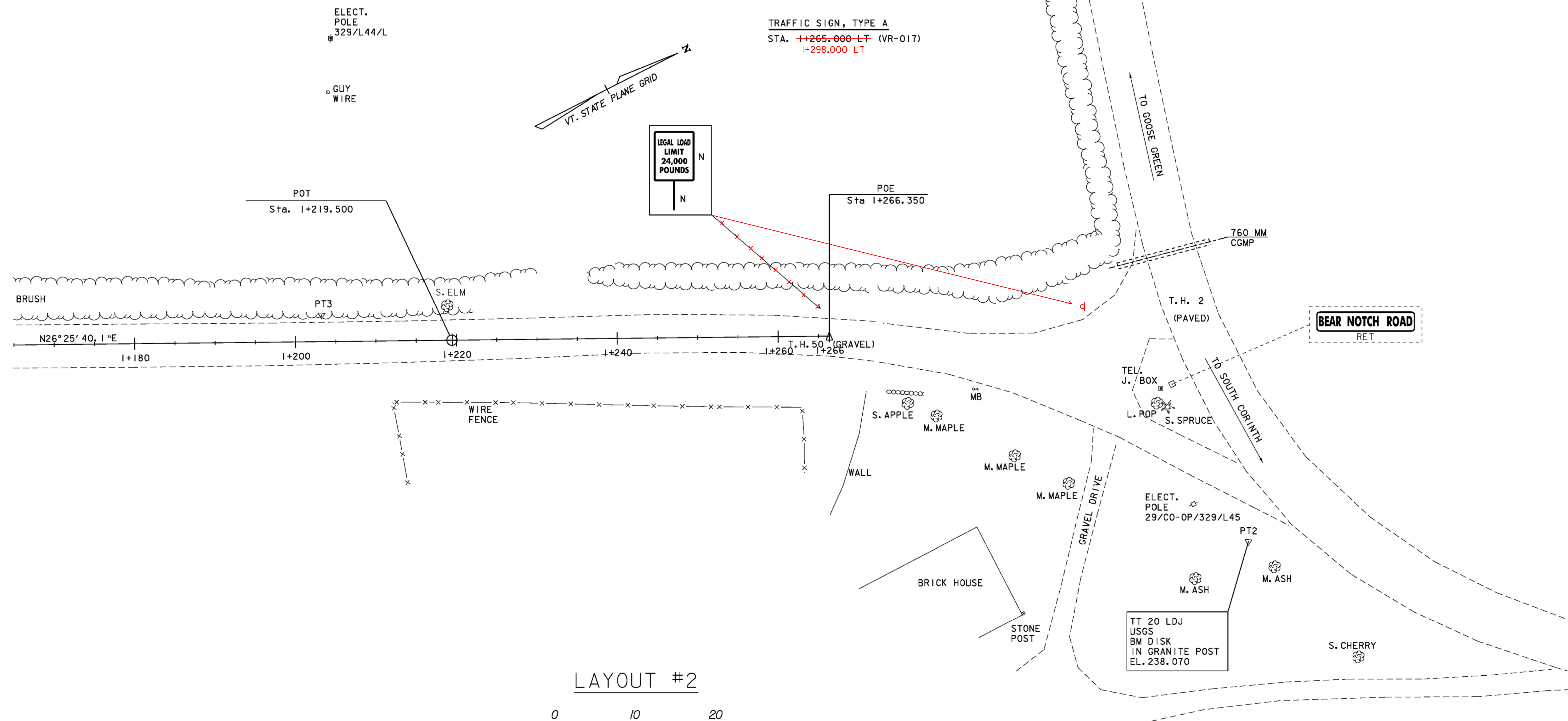
**EXISTING BRIDGE DATA**  
 FAILED STEEL PONY TRUSS SUPPORTED BY TWO LARGE ROLLED BEAMS BEARING ON CONCRETE ABUTMENTS.  
 OVERALL LENGTH = 17.100 m  
 BRIDGE WIDTH = 3.566 m



**LEGEND**

R - REMOVE
RET - RETAIN

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042bdr.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042id1	SURVEY DATE: 3-15-95
SURVEYED BY: R. D. GILMAN	DRAWN BY: P. ROWE
SQUAD LEADER: C.P. WILLIAMS	SHEET: 7 OF 42
LAYOUT SHEET 1	

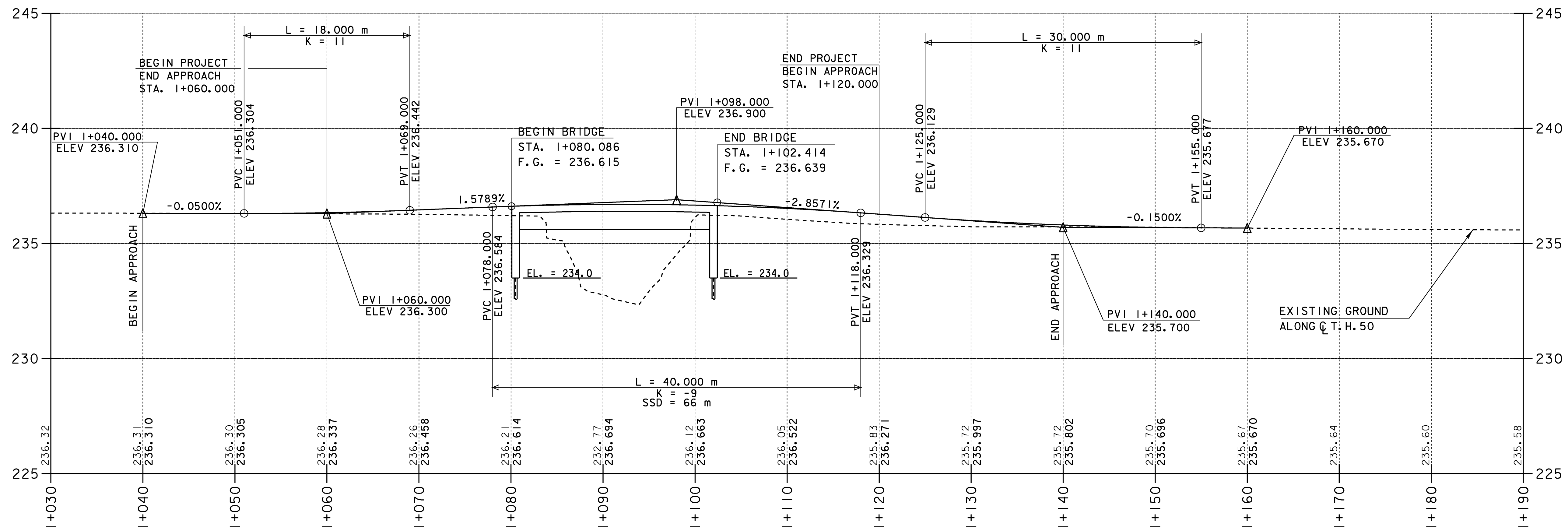


**LEGEND**  
N - NEW  
R - REMOVE  
RET - RETAIN

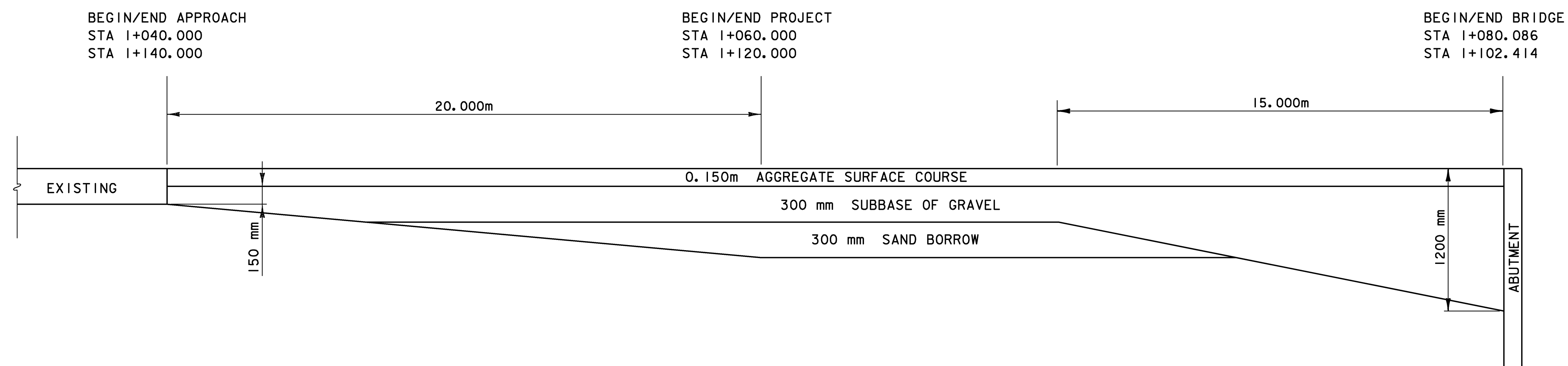
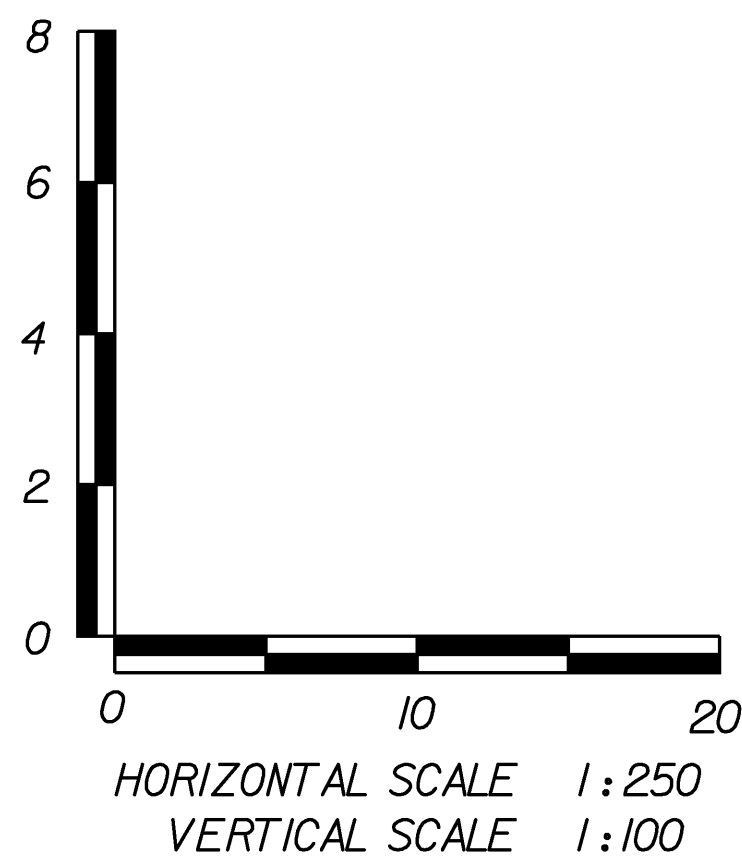
DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83/92

PROJECT:	CORINTH	PROJECT NO.:	STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME:	sj042bdr.dgn	PLOT DATE:	16-JUL-2008
IPARM FILE NAME:	sj042ia2.1	SURVEYED BY:	R. D. GILMAN
SQUAD LEADER:	C.P. WILLIAMS	DRAWN BY:	P. ROWE
LAYOUT SHEET #2		SHEET:	8 OF 42

# Profile TH 50



ELEVATIONS IN THOUSANDTHS ARE PROPOSED FINISH GRADE ALONG CENTERLINE  
 ELEVATIONS IN HUNDREDTHS ARE EXISTING GROUND ALONG CENTERLINE

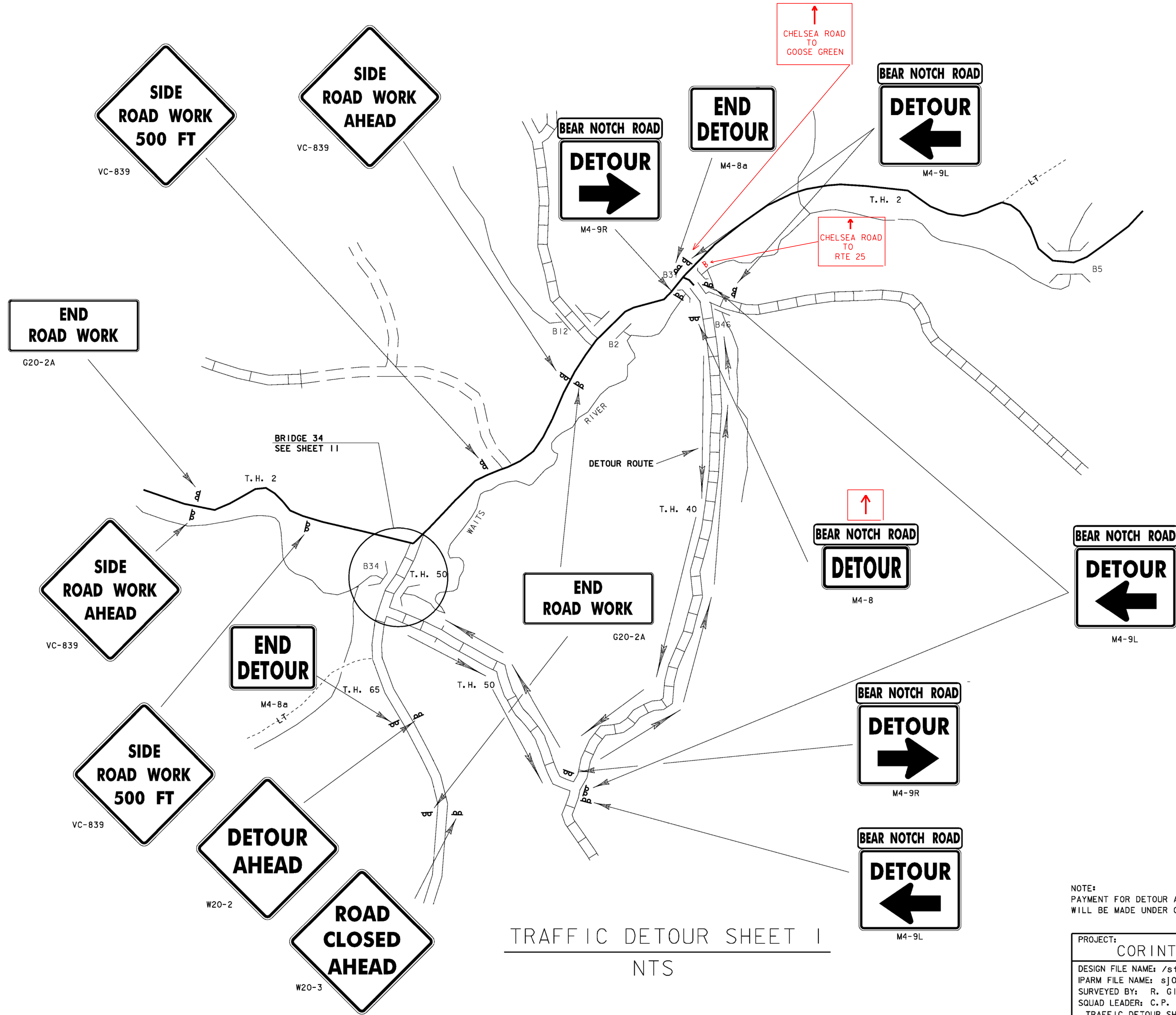


MATERIAL TRANSITION DIAGRAM

NOT TO SCALE

DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83/92

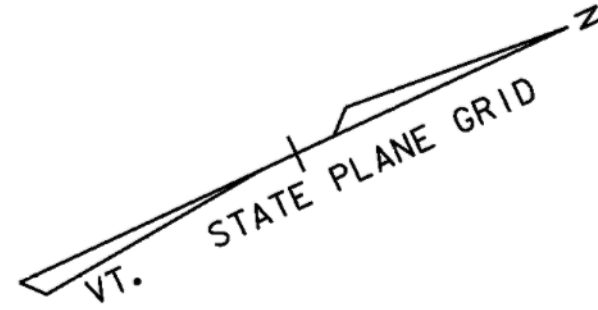
PROJECT: CORINTH	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042pro1	SURVEY DATE: 3-15-95
SURVEYED BY: R.D. GILMAN	DRAWN BY: P. ROWE
SQUAD LEADER: C.P. WILLIAMS	SHEET: 9 OF 42
PROFILE SHEET	



TRAFFIC DETOUR SHEET 1  
NTS

NOTE:  
PAYMENT FOR DETOUR AND CONSTRUCTION SIGNING AND BARRICADES  
WILL BE MADE UNDER CONTRACT ITEM 641.10, TRAFFIC CONTROL.

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: /str4/93j042/sj042tds.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042dtl.i	SURVEY DATE: 3/15/95
SURVEYED BY: R. GILMAN	DRAWN BY: P.G. JARVIS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 10 OF 42
TRAFFIC DETOUR SHEET 1	

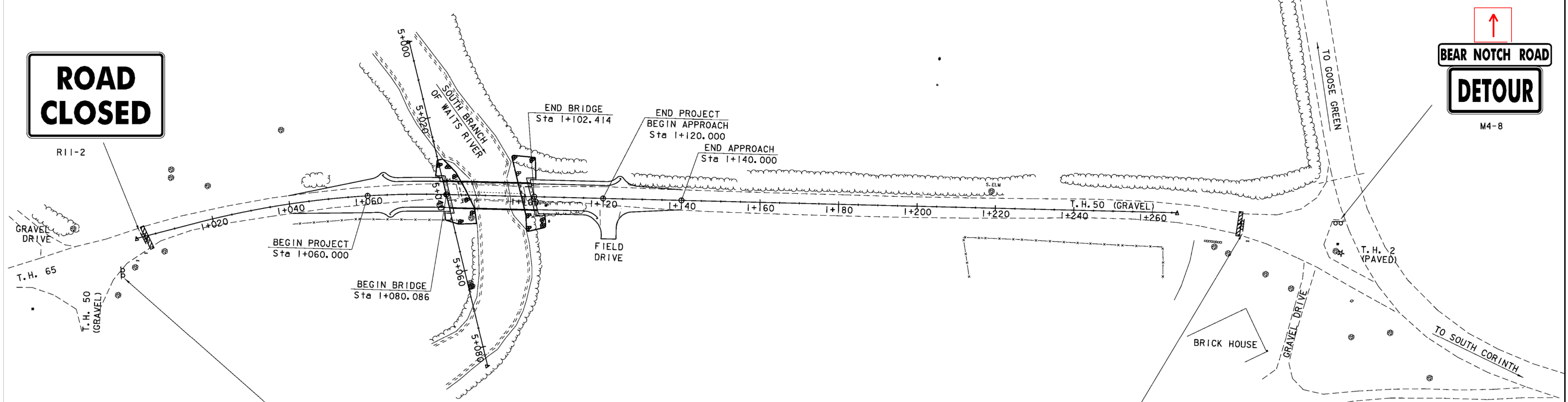


**ROAD CLOSED**

R11-2

↑  
**BEAR NOTCH ROAD**  
**DETOUR**

M4-8



**BEAR NOTCH ROAD**  
**DETOUR**  
→

M4-9R

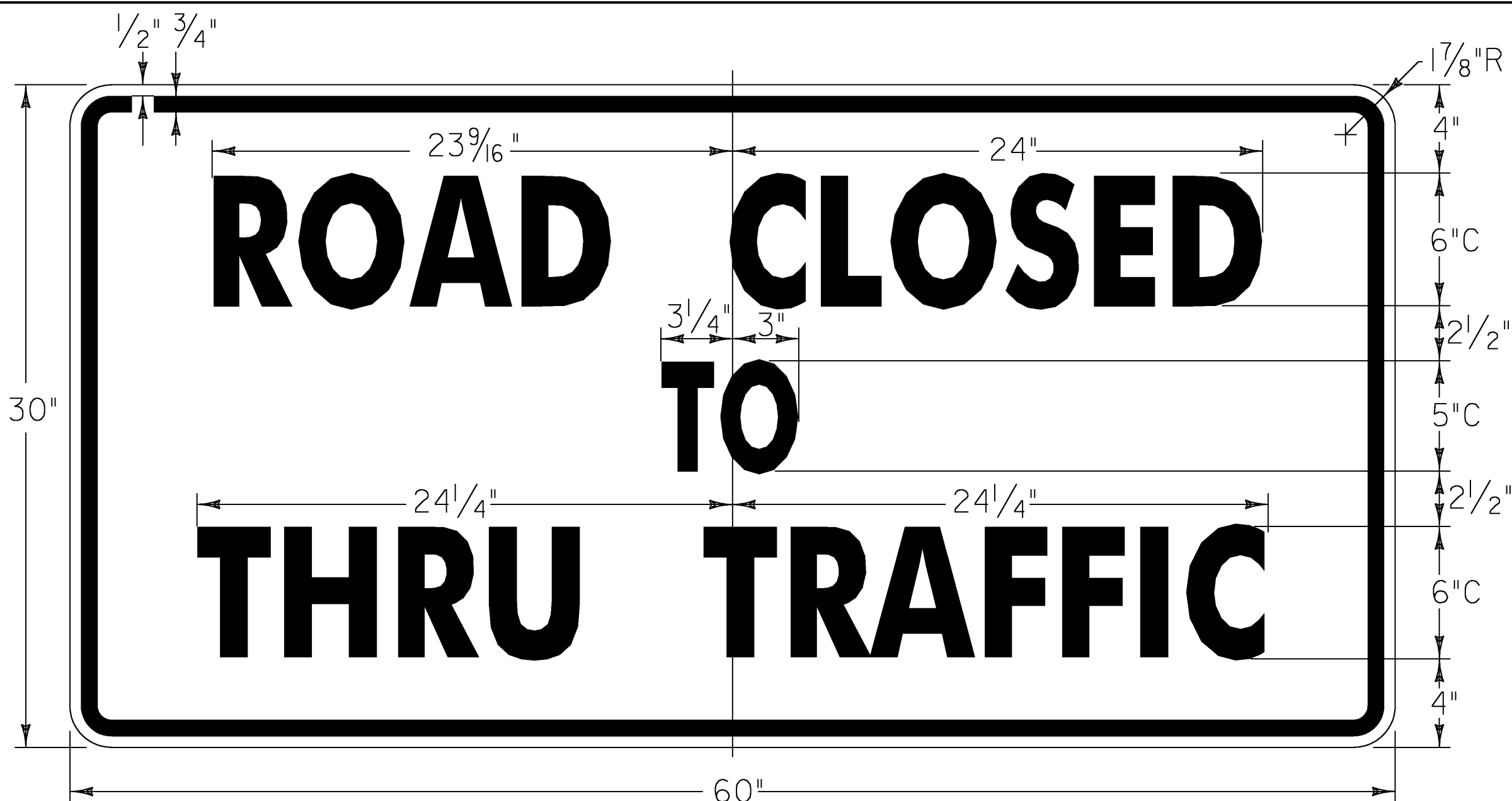
**ROAD CLOSED**  
**TO**  
**THRU TRAFFIC**

R11-4

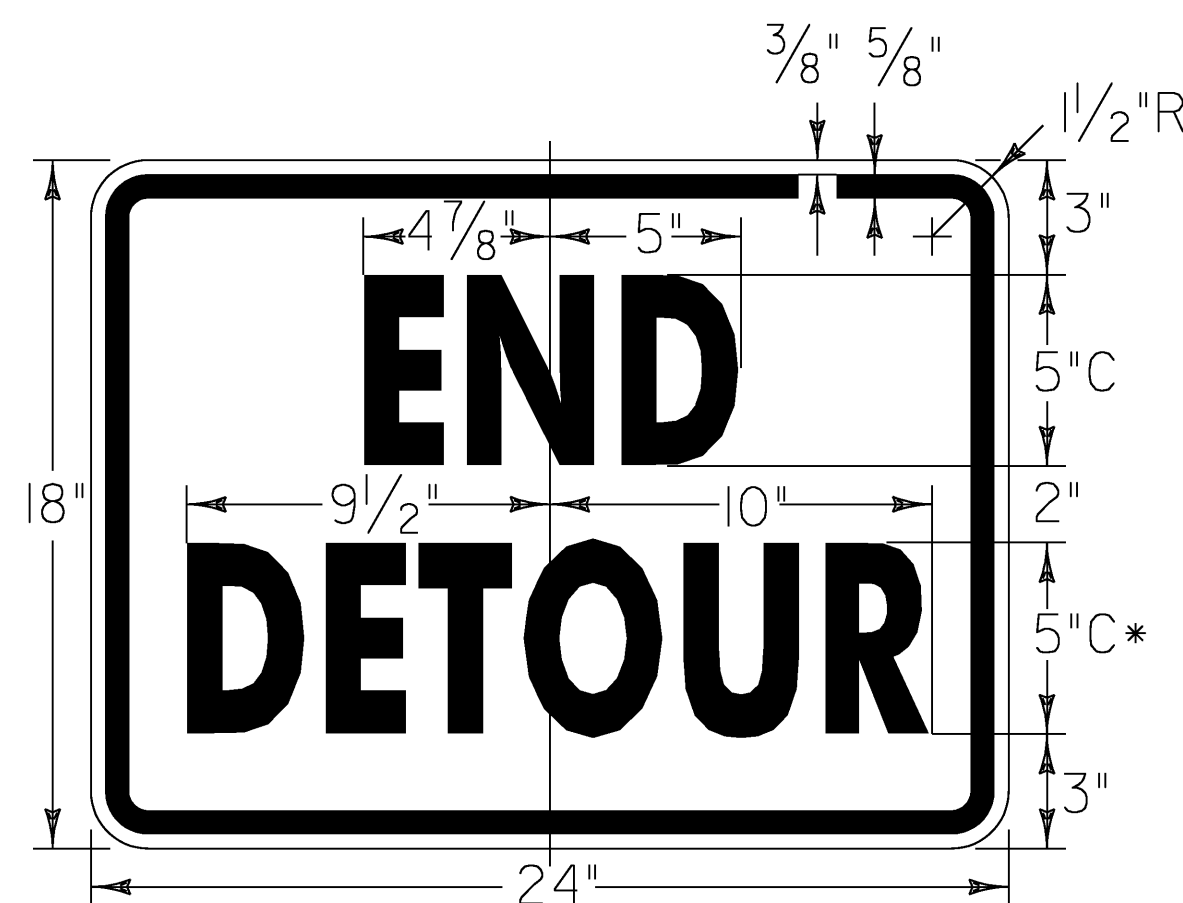
LEGEND  
▨ TYPE III BARRICADE

TRAFFIC DETOUR SHEET 2  
NTS

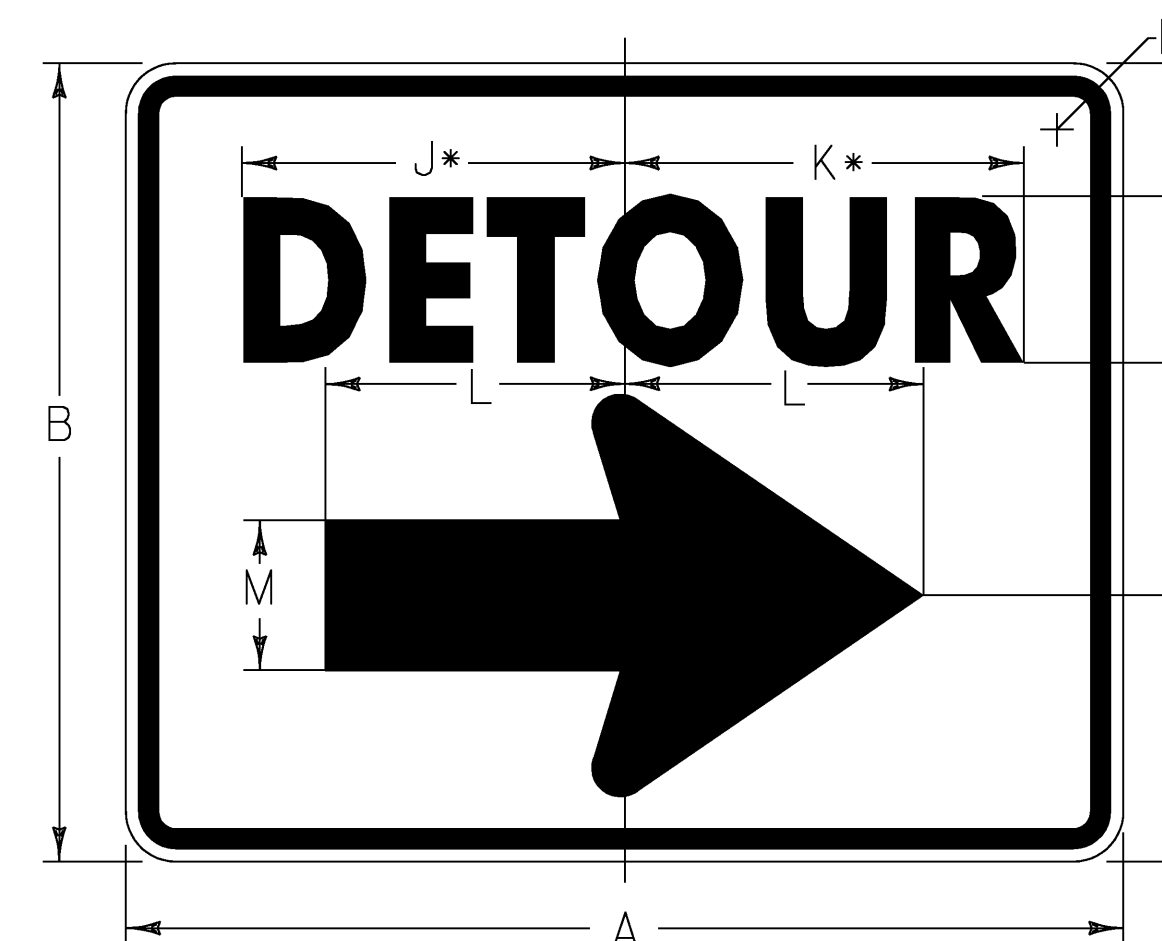
PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: /str4/93j042/sj042tds.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042d+2.i	SURVEY DATE: 3/15/95
SURVEYED BY: R. GILMAN	DRAWN BY: P.G. JARVIS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 11 OF 42
TRAFFIC DETOUR SHEET 2	



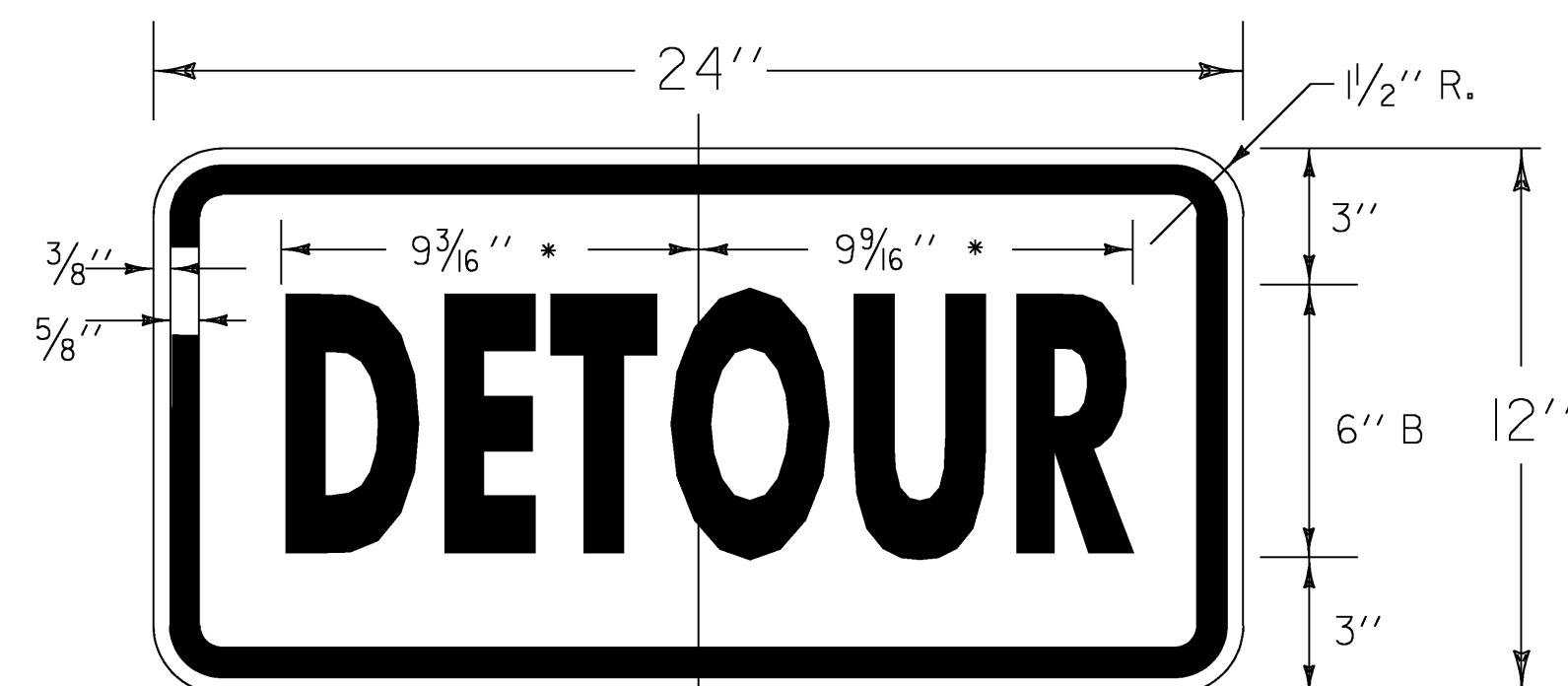
R11-4  
BLACK TEXT & BORDER  
WITH ORANGE BACKGROUND



M4-8a  
BLACK TEXT & BORDER  
WITH ORANGE BACKGROUND  
\* REDUCE SPACING BY 25%



M4-9(R)  
BLACK TEXT & BORDER  
WITH ORANGE BACKGROUND



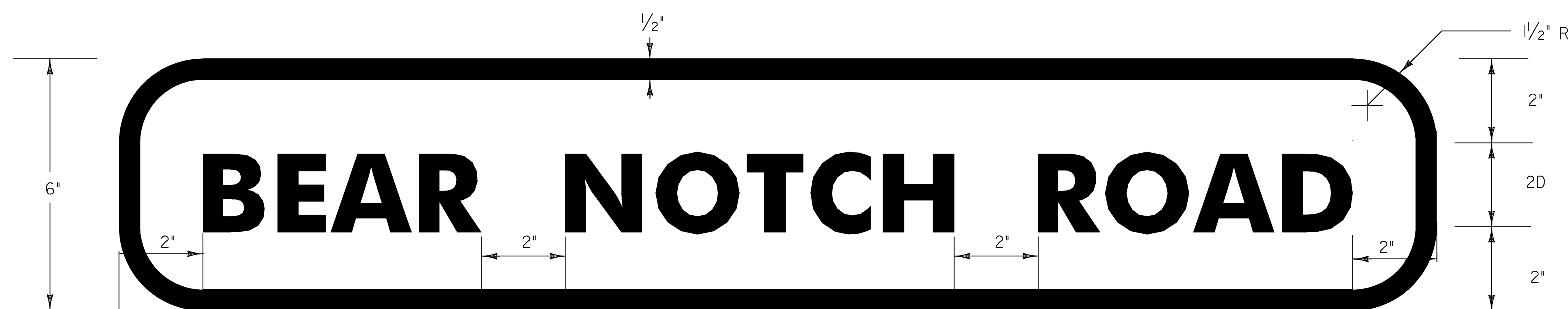
M4-8

\* REDUCE TEXT 20 %  
COLORS

LEGEND - BLACK (NON-REFL.)  
BACKGROUND - ORANGE (REFL.)  
MATERIALS :  
SEE STD. E-136

SIGN	DIMENSIONS (INCHES)												
	A	B	C	D	E	F	G	H	J	K	L	M	N
STD.	30	24	3/8	5/8	4	5D	7	8	11 1/2	12	9	4 1/2	1 1/2
SPECIAL	48	36	5/8	7/8	6	8D	10	12	19 1/2	20 1/4	13 1/2	7	2 1/4
SPECIAL	60	48	3/4	1 1/4	8	10D	14	16	23	24	18	9	3

\* REDUCE SPACING 40%



D1-1C

\* 24 INCH MAX.

TRAFFIC DETOUR SIGN DETAILS  
NTS

SEE STANDARD E-100 FOR MATERIALS & COLORS

PROJECT: <b>CORINTH</b>	PROJECT NO. : STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: /s+4/93j042/sj042tds.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042dt3.i	SURVEY DATE: 3/15/95
SURVEYED BY: R. GILMAN	DRAWN BY: P.G. JARVIS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 12 OF 42
TRAFFIC DETOUR SHEET 3	

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXIST POST REF. NO.	NO. OF POSTS	NEW SIGN POSTS																REMARKS	SIGN DETAIL	
		E A	WIDTH (mm)	HEIGHT (mm)	"A"	"B"	SALV SIGN			SALV TIS	FLANGED CHANNEL			SQUARE STEEL (mm)			TUBULAR ALUMINUM Ø (mm)			TUBULAR STEEL Ø (mm)				W-SHAPE STEEL			DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
											1.7	3.0	4.5	44	50	63	75	100	100 MOD	FOUND- ATION	75	89	100	125	FTG. SIZE			
I+298.000 LT I+265.000 LT		I	600	750						OPTION ITEMS																VR-017		

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."																m <sup>2</sup>		m <sup>2</sup>		EA.		m <sup>2</sup>		m			m			EA			kg			kg			EA.		EA.		kg	
																0.450		I				3																						

PROJECT NAME: CORINTH  
 PROJECT NUMBER: STP BRO 1447(22)(RE-ADVERTISED)  
 FILE NAME: 93J042/Str/sj042trf.dgn PLOT DATE: 16-JUL-2008  
 PROJECT LEADER: C.P.WILLIAMS DRAWN BY: M.FESSEL  
 DESIGNED BY: R.S.YOUNG CHECKED BY: R.S.YOUNG  
 TRAFFIC SIGN SUMMARY SHEET SHEET 13 OF 42

### SOIL CLASSIFICATION

#### AASHTO

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

### COMMONLY USED SYMBOLS

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

### ROCK QUALITY DESIGNATION

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

### SHEAR STRENGTH

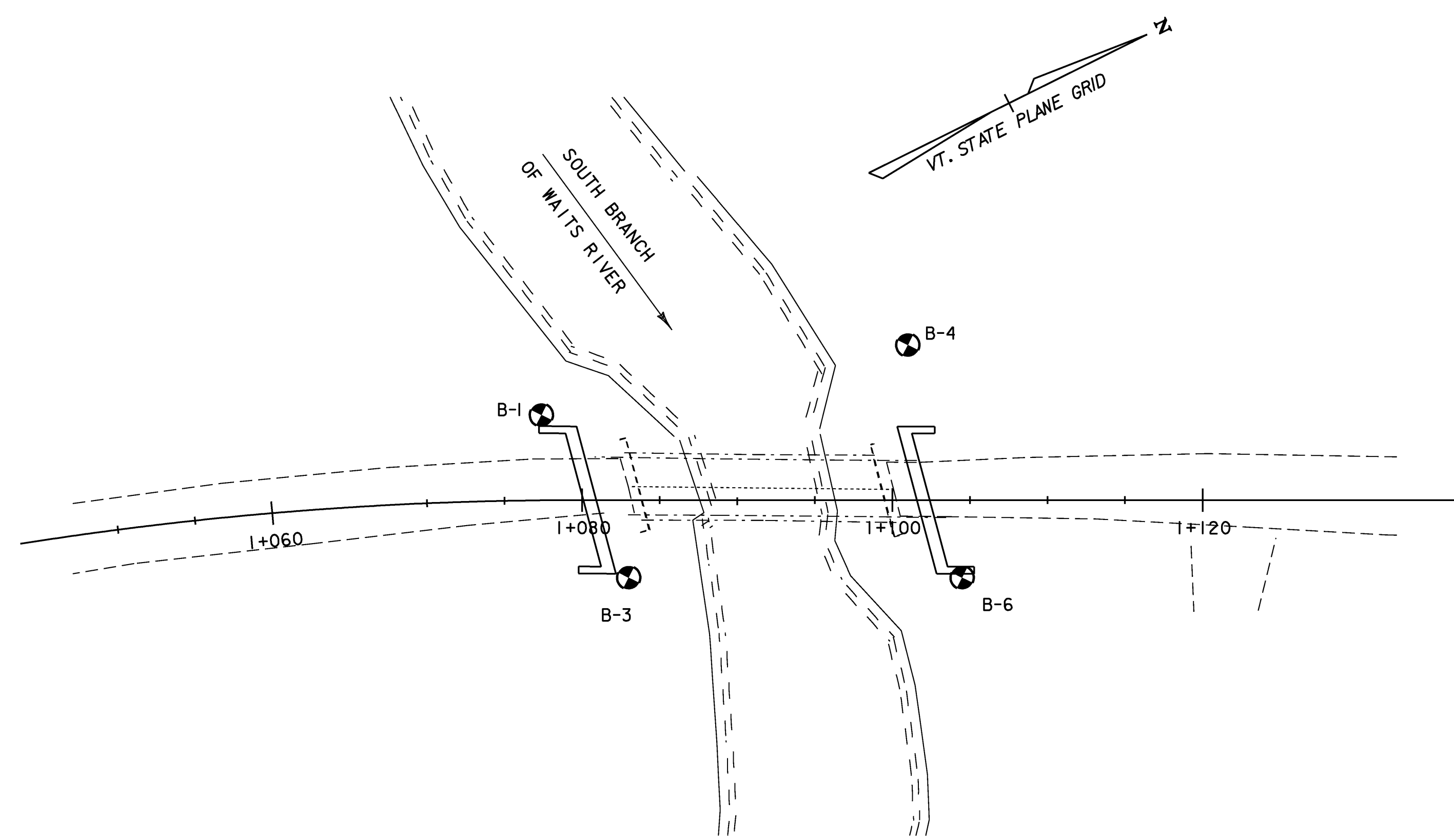
UNDRAINED SHEAR STRENGTH IN kPa	CONSISTENCY
<12	Very Soft
12-24	Soft
24-48	Med. Stiff
48-96	Stiff
96-192	Very Stiff
>192	Hard

### CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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

#### COLOR

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



### BORING CHART

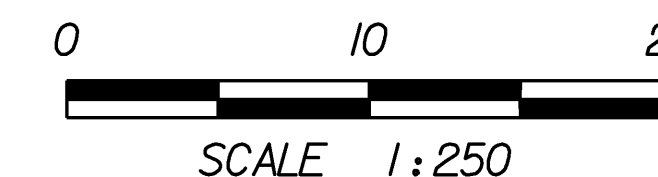
HOLE NO.	STATION	OFFSET (m)	GROUND ELEV.	TLOB
B-1	1+077.500	5.500 LT	235.500	215.000
B-3	1+083.000	5.000 RT	235.174	214.174
B-4	1+101.000	10.000 LT	234.796	212.796
B-6	1+104.500	5.000 RT	235.299	212.199

### DEFINITIONS (AASHTO)

- BEDROCK (LEDGE)** - Rock in its native location of indefinite thickness.
- BOULDER** - A rock fragment with an average dimension > 304.8 mm.
- COBBLE** - Rock fragments with an average dimension between 76.2 and 304.8 mm.
- GRAVEL** - Rounded particles of rock < 76.2 mm and > 2 mm (#10 sieve).
- SAND** - Particles of rock < 2 mm (#10 sieve) and > 75 μm (#200 sieve).
- SILT** - Soil < 75 μm (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.
- CLAY** - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.
- VARVED** - Alternate layers of silt and clay.
- HARDPAN** - Extremely dense soil, cemented layer, not softened when wet.
- MUCK** - Soft organic soil (containing > 10% organic material).
- MOISTURE CONTENT** - Weight of water divided by dry weight of soil.
- FLOWING SAND** - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.
- STRIKE** - Angle from magnetic north to line of intersection of bed with a horizontal plane.
- DIP** - Inclination of bed with a horizontal plane.

### GENERAL NOTES

- The subsurface explorations shown herein were made between 10/15/97 and 11/21/97 by the Agency.
- Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.
- Observed water levels and/or conditions indicated are as recorded at the time of exploration and may vary according to the prevailing rainfall, methods of exploration and other factors.
- Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.
- Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.
- Terminology used on boring logs to describe the hardness, degree of weathering, and spacing of fractures, joints and other discontinuities in the bedrock is defined in the AASHTO Manual on Subsurface Investigations, 1988.



PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: M:\Projects\931042\Structures\1042bor.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042bol.l	
BORING LAYOUT	
SHEET: 14 OF 42	



STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH DIVISION  
SUBSURFACE INFORMATION

HOLE NO.: B-4  
SHEET 1 OF 2  
DATE STARTED: 11/5/97  
DATE COMPLETED: 11/21/97

PROJECT NAME: CORINTH  
SITE NAME: BR\* 34  
STATION: I10100  
GROUND EL.: 234.796

PROJECT NUMBER: BRO 1447(22)  
SITE NO.: TH \*50  
OFFSET: -10.00  
G.W. DEPTH:

BORING RIG: TRUCK  
CREW CHIEF: WILLIS  
DRILLER: TALLMAN R  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: TRUCK  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-a, SaGr, brn, Wet, Rec. = 0.15m	18		64.5	30	5.5		
		No Rec.	8						
		No Rec.	7						
		No Rec.	10						
		A-4, SiSa, gry, Wet, Rec. = 0.45m	11	23.4	1	63.5	35.5		
		A-4, SaSi, gry, Wet, Rec. = 0.40m	6	23		26.3	73.7		
		A-4, SaSi, gry, Wet, Rec. = 0.60m	9	26.5		19.8	80.2		
		A-4, Si, gry, Wet, Rec. = 0.60m	4	29.2		2.7	97.3	24	2
		A-4, Si, gry, Wet, Rec. = 0.60m	9	30.5		4.9	95.1	24	1

GEOLOGISTS REPORT: See next sheet.

STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH DIVISION  
SUBSURFACE INFORMATION

HOLE NO.: B-4  
SHEET 2 OF 2  
DATE STARTED: 11/5/97  
DATE COMPLETED: 11/21/97

PROJECT NAME: CORINTH  
SITE NAME: BR\* 34  
STATION: I10100  
GROUND EL.: 234.796

PROJECT NUMBER: BRO 1447(22)  
SITE NO.: TH \*50  
OFFSET: -10.00  
G.W. DEPTH:

BORING RIG: TRUCK  
CREW CHIEF: WILLIS  
DRILLER: TALLMAN R  
LOGGER:  
ADDITIONAL CREW:

BORING RIG: TRUCK  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-4, Si, gry, Wet, Rec. = 0.60m	3	27.1		6.8	93.2		
		No Rec.	23						
		A-1-b, SiSaGr, gry, Wet, Rec. = 0.15m	R	12.2	46.3	31	22.7		
		A-6, SiCl, gry, Wet, Rec. = 0.20m	R	14.1		6.3	93.7	30	11
		A-4, SaGrSi, gry, Moist, Rec. = 0.15m	R	8.1	32.7	28.1	39.2		
		Top of bedrock @ 22.0m							
		Run #1: BXMDC, 22.0m-23.5m, Rec. = 1.35m, See Geologist's Report.	1	90	25	5-25			
		Run #2: BXMDC, 23.5m-25.0m, Rec. = 1.26m, See Geologist's Report.	2	84	30	5-25			
		Hole stopped @ 25.0m							

GEOLOGISTS REPORT:

Run #1: Gray schist with thin interbedded limestone. Hard to very hard. Unweathered. Poor RQD due to mechanical breakage during drilling.

Run #2: Same as Run #1.

STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH DIVISION  
SUBSURFACE INFORMATION

HOLE NO.: B-6  
SHEET 1 OF 2  
DATE STARTED: 10/15/97  
DATE COMPLETED: 10/20/97

PROJECT NAME: CORINTH  
SITE NAME: BR\* 34  
STATION: I10450  
GROUND EL.: 235.299

PROJECT NUMBER: BRO 1447(22)  
SITE NO.: TH \*50  
OFFSET: 5.00  
G.W. DEPTH: L8

BORING RIG: TRUCK  
CREW CHIEF: TALLMAN  
DRILLER: WILLIS  
LOGGER: GAMMELL  
ADDITIONAL CREW:

BORING RIG: TRUCK  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-2-4, Sa, brn, Moist, Rec. = 0.32m	5	29.3	0.2	82.9	16.9		
		A-2-4, Sa, gry, Moist, Rec. = 0.15m, Trace of Wood (tree root).	2	34.1	1.9	84.7	13.4		
		No Rec.	7						
		A-2-4, SiSa, brn, Moist, Rec. = 0.40m	2	25.5	0.1	69.6	30.3		
		A-2-4, SiSa, gry, Moist, Rec. = 0.35m	5	21.6		65.8	34.2		
		A-3, Sa, gry, Moist, Rec. = 0.50m	8	21.3		92.9	7.1		
		A-2-4, SiSa, gry, Moist, Rec. = 0.42m	10	17.6	0.2	69.1	30.7		
		A-2-4, SiSa, gry, Moist, Rec. = 0.30m	31	18.8	0.2	74.5	25.3		
		A-4, SaSi, gry, MTW, Rec. = 0.45m	8	25.7		44.5	55.5		
		A-4, Si, gry, MTW, Rec. = 0.45m	2	22.3		7.7	92.3		
		A-4, Si, gry, Wet, Rec. = 0.11m	6	27.9	1	3.9	95.1		
		A-4, SaSi, gry, Wet, Rec. = 0.25m	4	22.7		45.9	54.1	25	2
		A-4, Si, gry, Wet, Rec. = 0.35m	4	33.4		0.4	99.6		
		A-4, ClSi, gry, Wet, Rec. = 0.60m	4	27.5		3.3	96.7	27	7
		A-4, Si, gry, Wet, Rec. = 0.25m	4	32.5		3.5	96.5		

GEOLOGISTS REPORT: See next sheet.

STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
MATERIALS & RESEARCH DIVISION  
SUBSURFACE INFORMATION

HOLE NO.: B-6  
SHEET 2 OF 2  
DATE STARTED: 10/15/97  
DATE COMPLETED: 10/20/97

PROJECT NAME: CORINTH  
SITE NAME: BR\* 34  
STATION: I10450  
GROUND EL.: 235.299

PROJECT NUMBER: BRO 1447(22)  
SITE NO.: TH \*50  
OFFSET: 5.00  
G.W. DEPTH: L8

BORING RIG: TRUCK  
CREW CHIEF: TALLMAN  
DRILLER: WILLIS  
LOGGER: GAMMELL  
ADDITIONAL CREW:

BORING RIG: TRUCK  
BORING TYPE: WASH BORE  
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-4, Si, gry, Wet, Rec. = 0.60m	5	27.3		11.6	88.4		
		A-4, Si, gry, Wet, Rec. = 0.30m	5	27.4		7.2	92.8		
		A-4, Si, gry, Wet, Rec. = 0.45m	25	17.3	12.3	13.8	73.9		
		A-2-4, GrSa, gry, Moist, Rec. = 0.30m	90	19	34.6	46.5	18.9		
		No Rec.	R						
		BXMDC, 19.8m-20.0m, Boulders							
		A-1-b, Sa HP, gry, Moist, Rec. = 0.15m	R	12.8	8.4	75	16.6		
		A-4, SaSi HP, gry, Moist, Rec. = 0.13m	R	17	1.1	27.8	71.1		
		A-4, SaSi HP, gry, Moist, Rec. = 0.21m	R	17.1	0.6	23	76.4		
		A-4, Si HP, gry, Moist, Rec. = 0.10m	R	13.4	15.5	12.1	72.4		
		Run #1: BXMDC, 23.1m-24.6m, Rec. = 1.19m, See Geologist's Report.	1	79	0	5			
		Run #2: BXMDC, 24.6m-26.1m, Rec. = 1.34m, See Geologist's Report.	2	89	0	5			
		Hole stopped @ 26.1m							

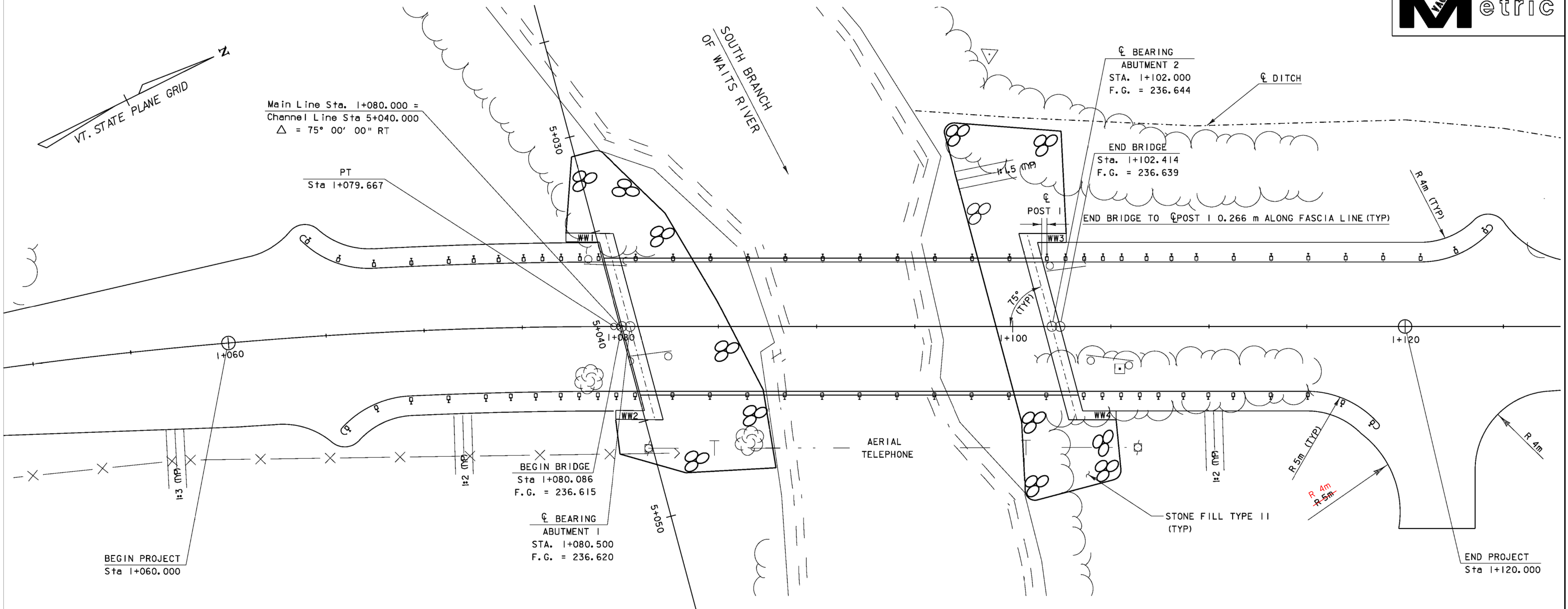
GEOLOGISTS REPORT:

Run #1: Gray schist with thin interbedded limestone. Hard to very hard. Poor RQD due to mechanical breakage during drilling.

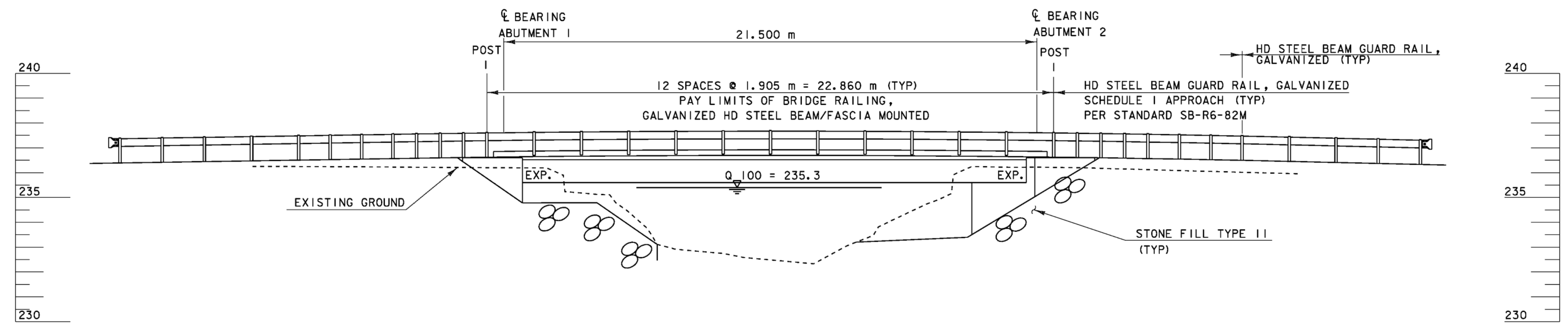
Run #2: (24.60m- 24.88m) Gray schist with thin interbedded limestone. Hard to very hard. (24.88m-26.10m) Quartzite. Very hard. Unweathered. Poor RQD due to mechanical breakage during drilling for all of Run #2.



PROJECT: CORINTH	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NO: /matres/93j042/mj042bor.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME:	SQUAD LEADER: C. C. BENDA
DRAWN BY: J. TOUCHETTE	SHEET: 16 OF 42
BORING LOGS	



PLAN

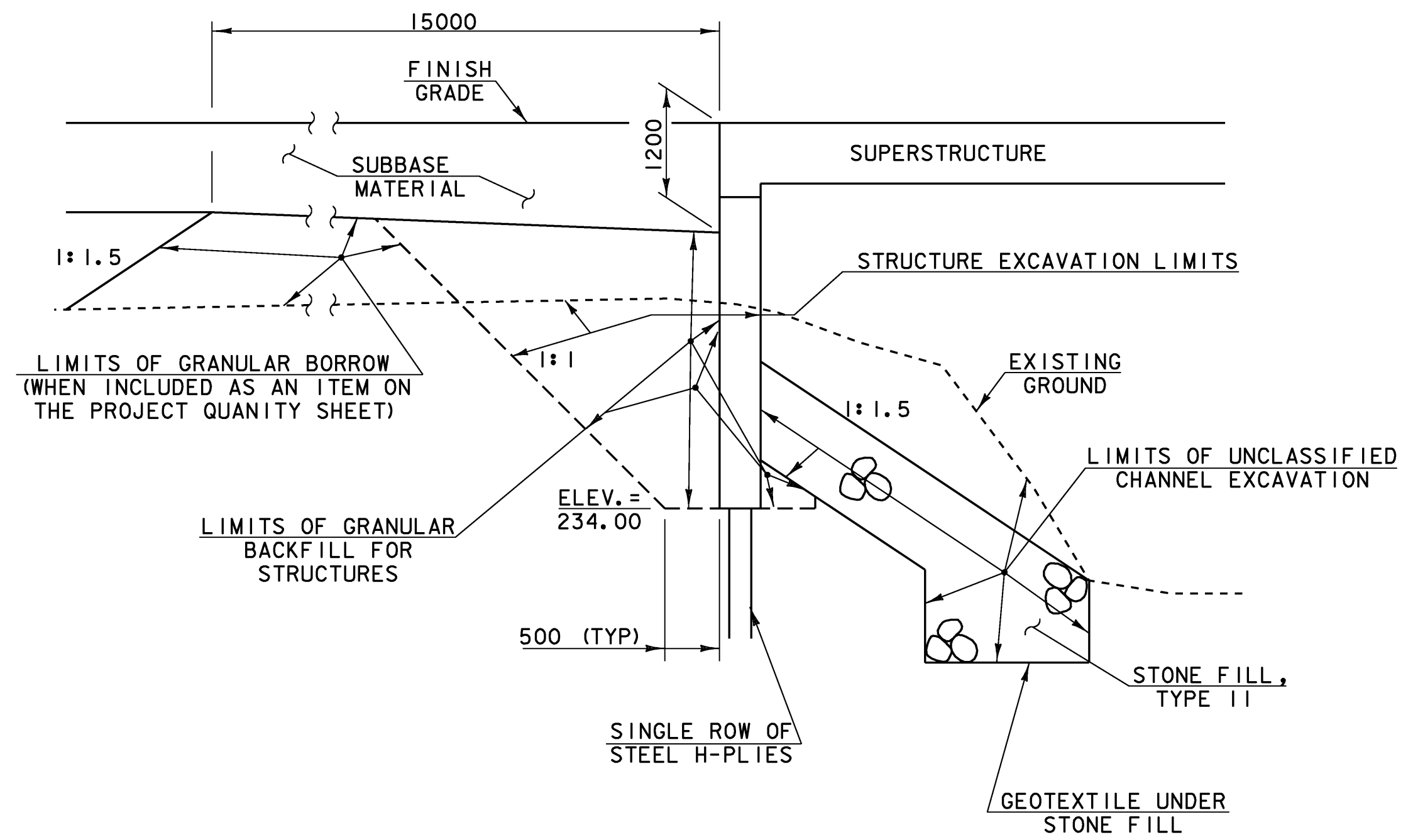


ELEVATION



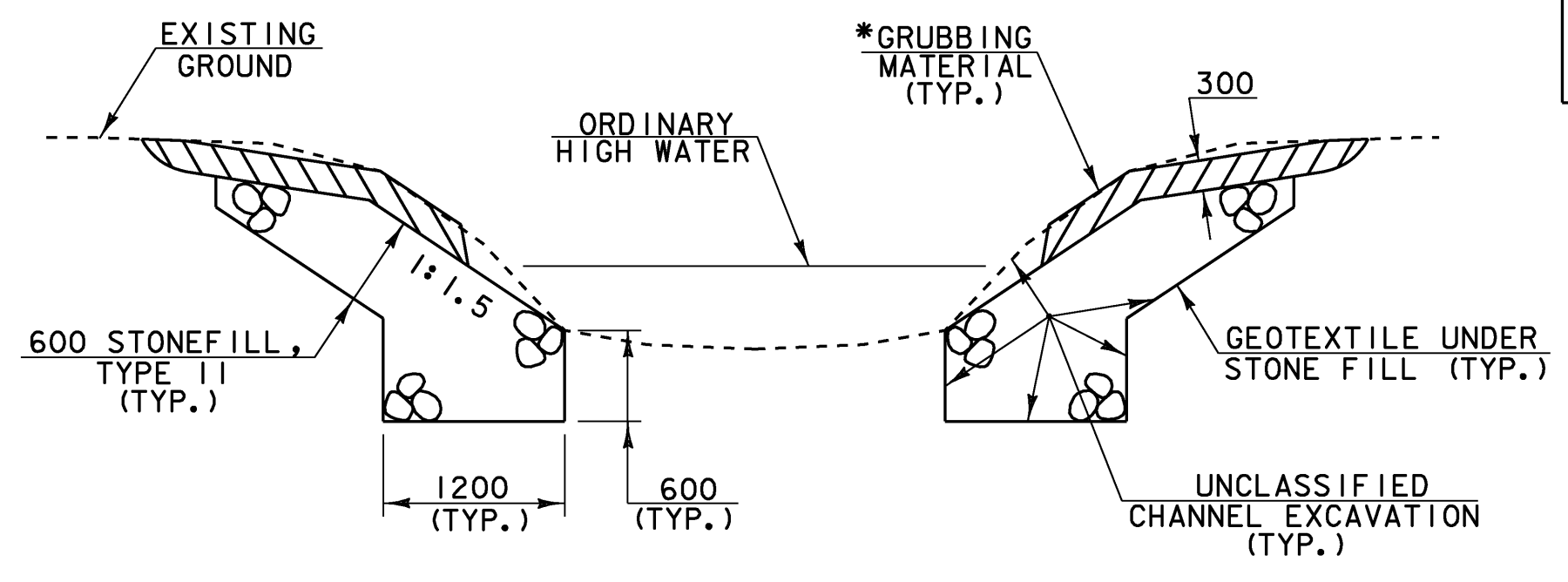
DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83/92

PROJECT: CORINTH	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: /str4/93j042/sj042pe.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042pe.i	SURVEY DATE: 3/15/95
SURVEYED BY: R.D. GILMAN	DRAWN BY: P.G. JARVIS
SQUAD LEADER: C.P. WILLIAMS	SHEET: 17 OF 42
PLAN AND ELEVATION	



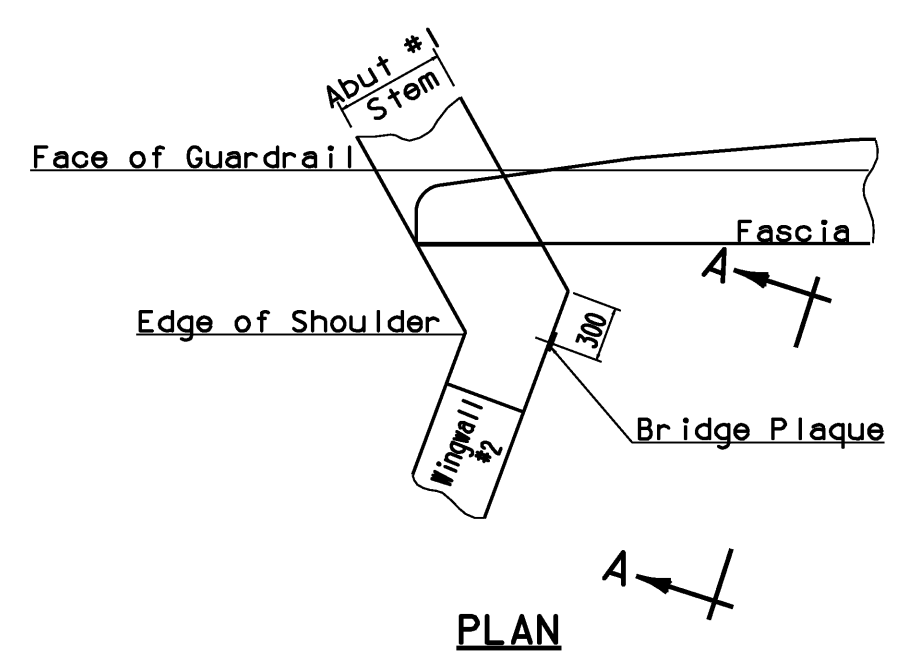
**TYPICAL INTEGRAL ABUTMENT SECTION**  
NTS

1. ACTUAL EXCAVATION LIMITS SHALL BE DETERMINED BY THE CONTRACTOR. HOWEVER, ONLY THE EXCAVATION BETWEEN THE LIMITS SHOWN WILL BE PAID FOR UNDER THE ITEM 204.25 "STRUCTURE EXCAVATION".

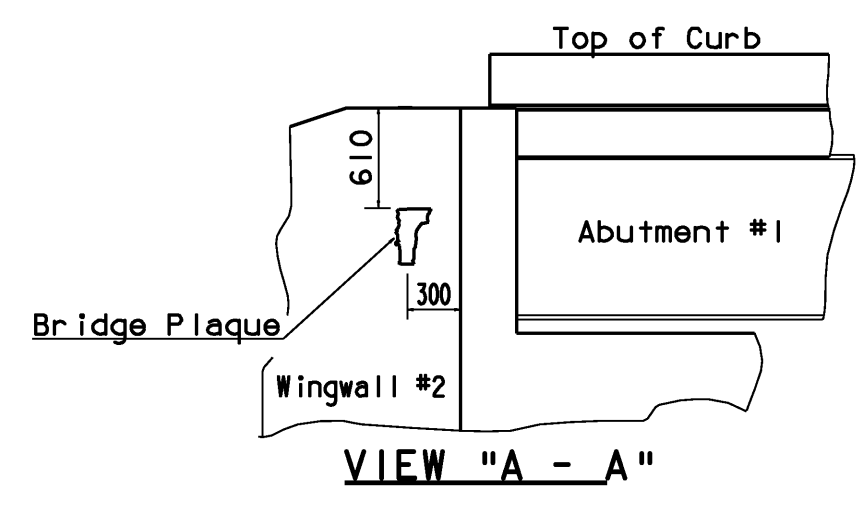


**TYPICAL CHANNEL SECTION**  
NTS

\* GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE. WHENEVER CHANNEL SLOPE INTERSECTS ROADWAY SUBBASE, GRUBBING MATERIAL SHALL BEGIN AT THE BOTTOM OF SUBBASE.



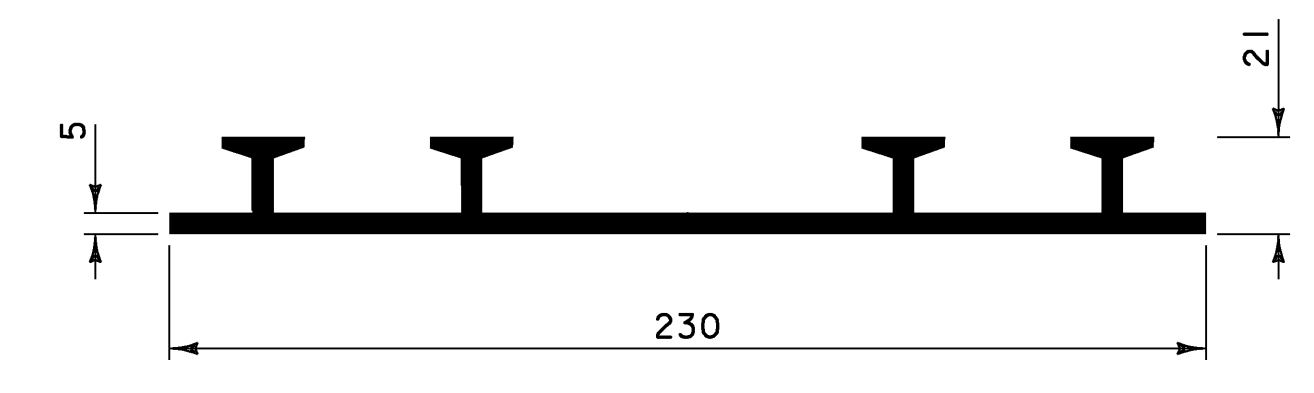
**PLAN**



**VIEW "A - A"**

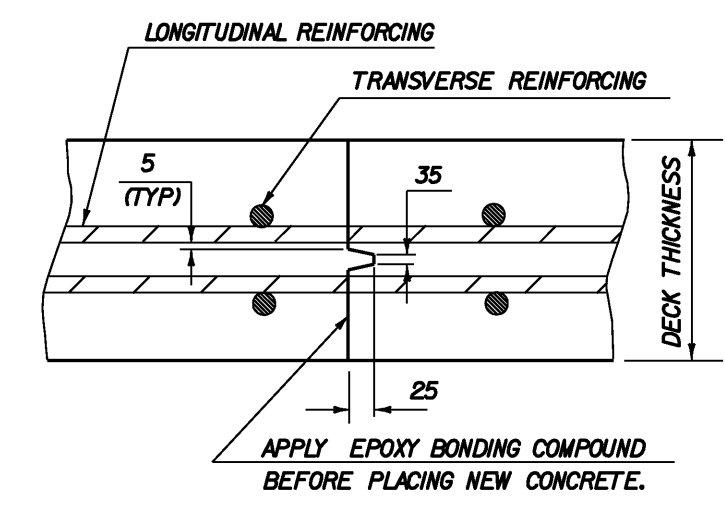
**LOCATE BRIDGE PLAQUE**

The bench mark and bridge plaque will be supplied by the Agency of Transportation and shall be installed by the contractor at abutment #1 on the right side as shown or as directed by the engineer.

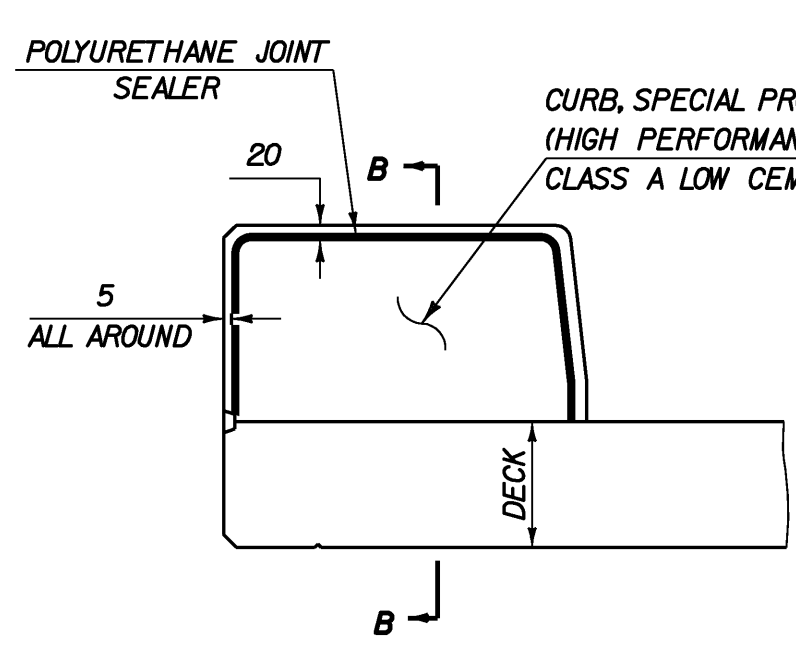


**P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS**

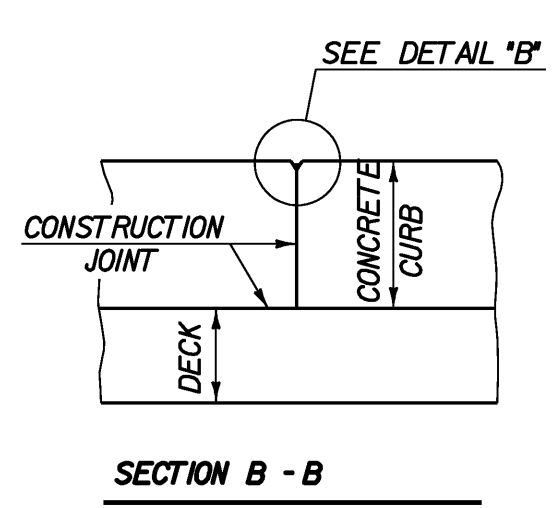
Other configurations may be used upon approval of the structures engineer.



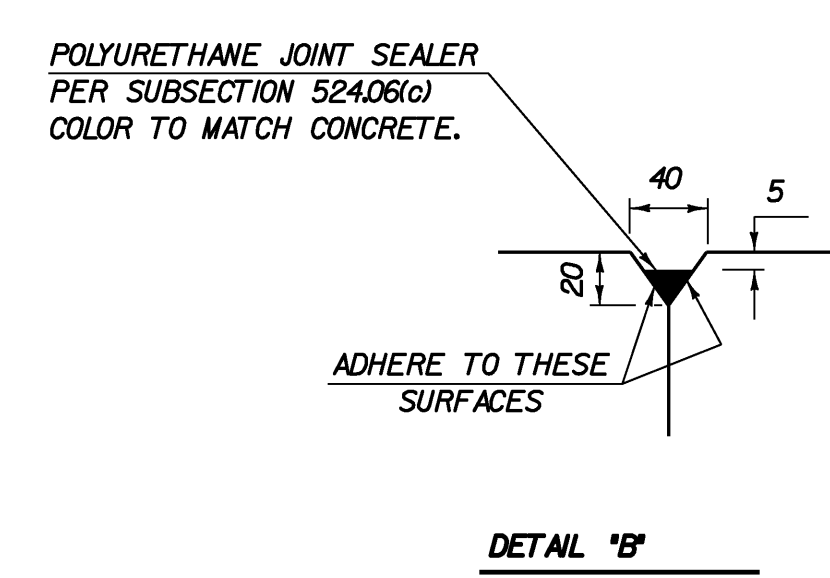
**TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS**



**TYPICAL SECTION THROUGH CONCRETE CURB CONSTRUCTION JOINT**



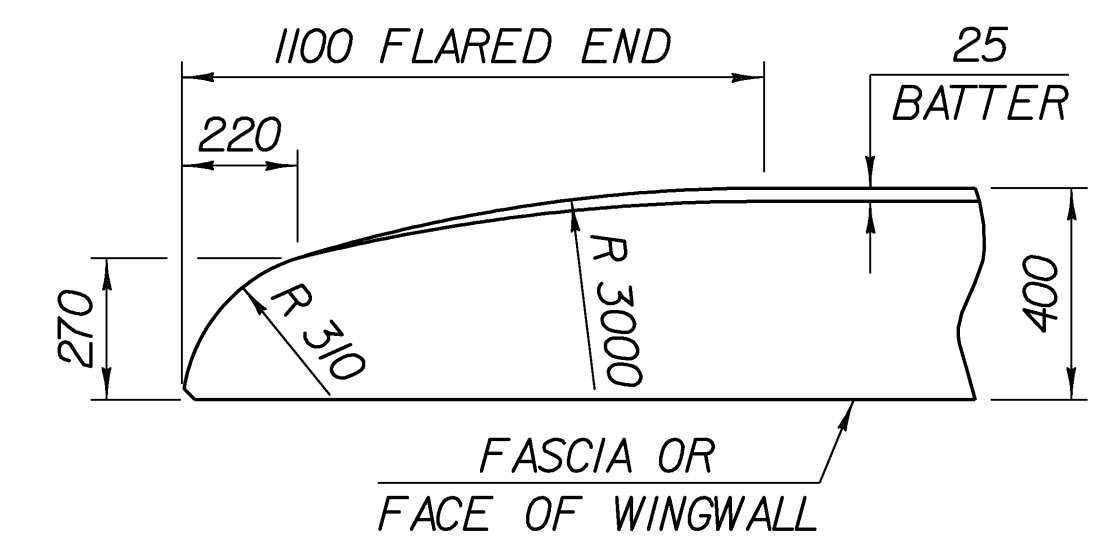
**SECTION B - B**



**DETAIL 'B'**

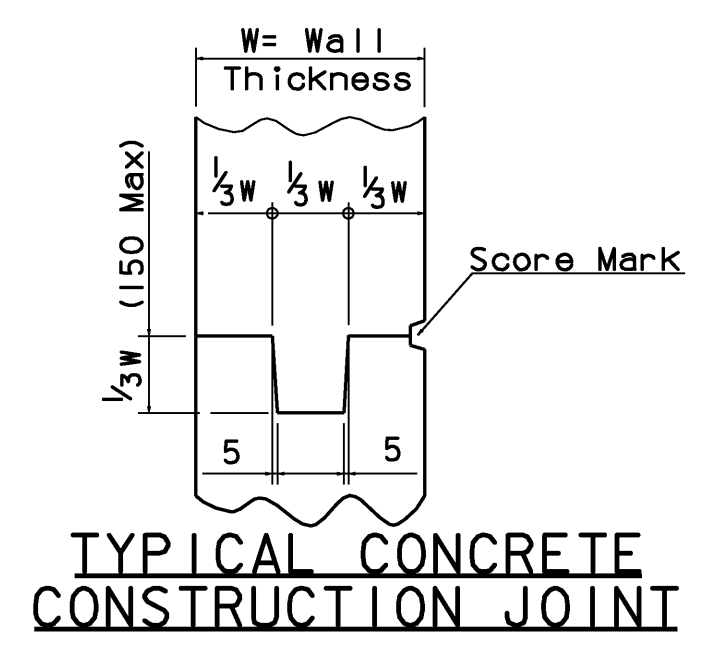
**NOTES:**

- Concrete curbs may be placed in one pour for the full length of the bridge. If the contractor elects to use curb construction joints, they shall be constructed as shown in these details and notes 2 and 3 shall apply.
- Construction joints shall be 460 mm minimum from the center of the nearest bridge rail post. Concrete shall be placed in alternating sections with a minimum of 48 hours delay between adjacent pours.
- Longitudinal reinforcing shall pass through concrete curb construction joints.
- The costs for P.V.C. Waterstop for Construction Joints, Transverse Bridge Slab Construction Joint, Bridge Plaque, and Polyurethane Joint Sealer shall be included in the unit price bid for Item 501.34, Concrete, High Performance Class B.



**FLARED END FOR 400 CURB**

BARS SHALL BE TURNED AS REQUIRED TO FIT FLARED ENDS



**TYPICAL CONCRETE CONSTRUCTION JOINT**

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042.dtl.dgn IPARM FILE NAME: sj042misc.i DESIGNED BY: H. I. SALLS SQUAD LEADER: C. P. WILLIAMS MISCELLANEOUS DETAILS	PLOT DATE: 16-JUL-2008 DRAWN BY: H. I. SALLS CHECKED BY: R. S. YOUNG SHEET: 18 OF 42

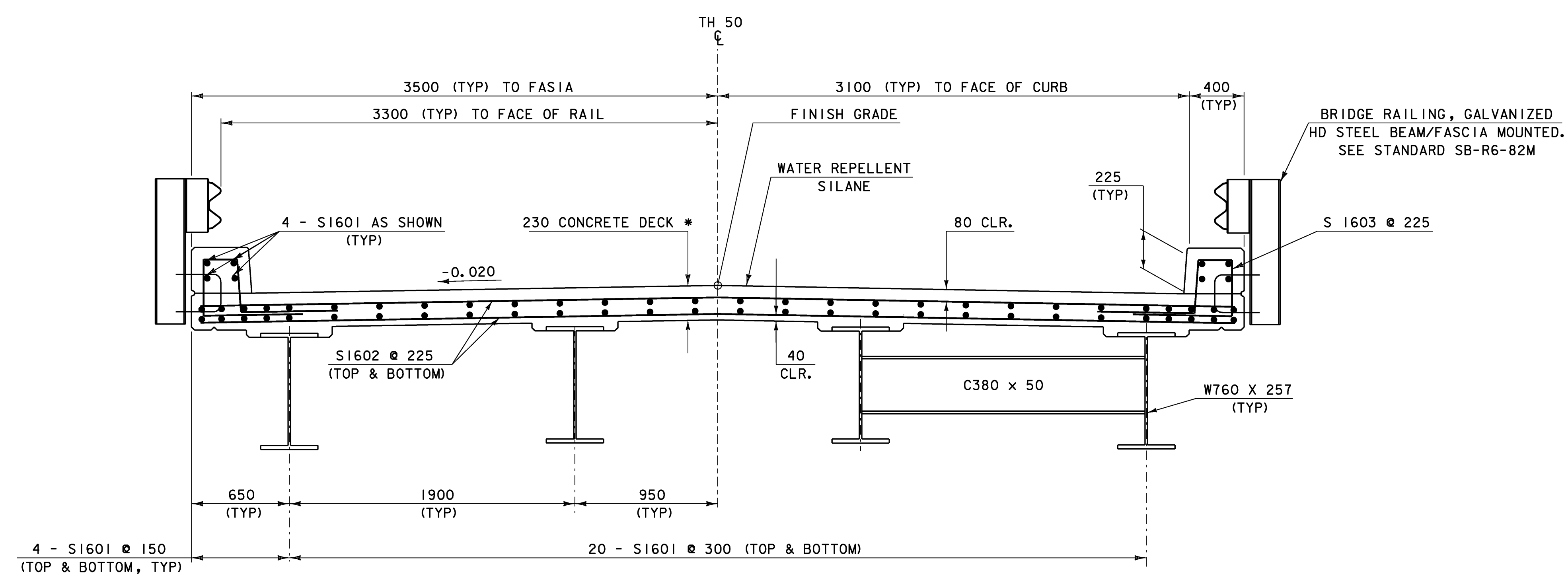


## GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2006, AND ITS LATEST REVISIONS. THE SUPERSTRUCTURE SHALL CONFORM TO AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS, DATED 1998, AND ITS LATEST REVISIONS. THE SUBSTRUCTURE SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2001, AND ITS LATEST REVISIONS.
2. DESIGN IS FOR HL-93 LIVE LOADING.
3. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES CELSIUS OR AS NOTED OTHERWISE.
4. TH 50 WILL REMAIN CLOSED TO THRU TRAFFIC DURING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE TOWN OF CORINTH IN WRITING TWO WEEKS PRIOR TO CLOSING. ACCESS TO RESIDENCES SHALL BE BY DETOUR ALONG TH 50 AND TH 40. SEE TEMPORARY DETOUR SHEET (SHEET 10).
5. ITEM 641.10 "TRAFFIC CONTROL" WILL BE USED TO PAY FOR THE DETOUR SIGNING AS DETAILED ON THESE PLANS.
6. THE STONEFILL TYPE II UNDER THE BRIDGE SHALL BE PLACED BEFORE THE BEAMS ARE SET.
7. THE FENCE TO BE REMOVED AND RESET BETWEEN STATIONS I+040 RIGHT AND I+084 RIGHT SHALL BE RESET ALONG THE NEW RIGHT-OF-WAY LINE. REFER TO THE PROJECT SPECIAL PROVISIONS FOR APPLICABLE SPECIAL AGREEMENTS.
8. AFTER THE SUPERSTRUCTURE STEEL HAS BEEN SET ON THE ANCHOR BOLTS, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF EACH BEAM UNDER THE DIRECTION OF THE RESIDENT ENGINEER. THESE ELEVATIONS SHALL BE USED IN DETERMINING THE FINAL GRADE.
9. ALL FIELD CONNECTIONS SHALL BE MADE USING M22 X 2.5 TYPE 3 BOLTS MEETING THE AASHTO M 164M REQUIREMENTS. ANY CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL. HOLE DIAMETER SHALL BE 24 MILLIMETERS.
10. FLEMING BRACKETS SHALL BE DESIGNED BY THE CONTRACTOR, BUT SHALL BE LIMITED TO A MAXIMUM SPACING OF 1200 MILLIMETERS.
11. ANY HOLES IN THE FASCIA BEAMS NOT OTHERWISE FILLED SHALL BE FILLED WITH BOLTS CONFORMING TO AASHTO M 164M TYPE 3.
12. REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE AS FOLLOWS:

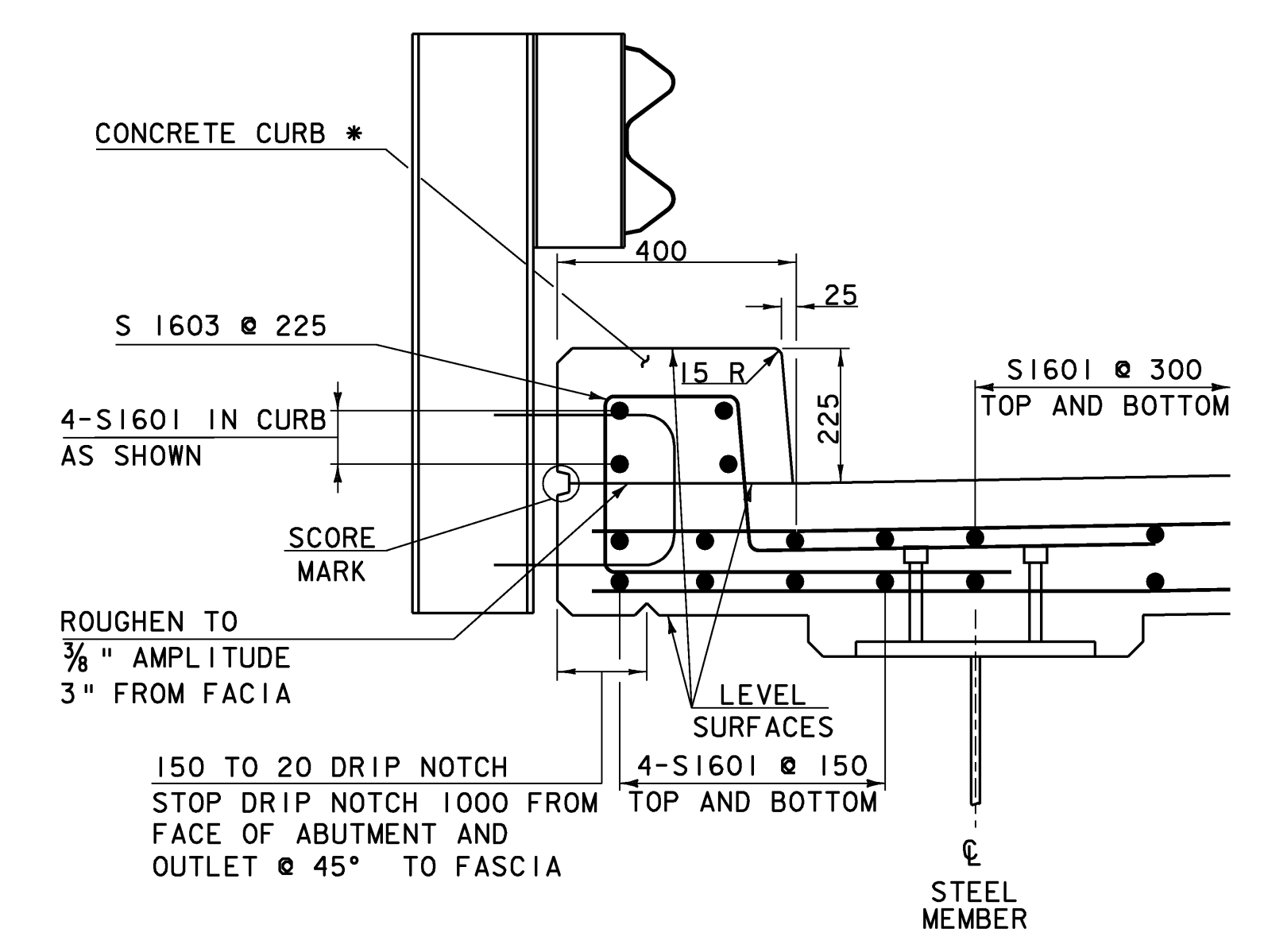
SPACING	+/- 25 MILLIMETERS
CLEARANCE	+/- 6 MILLIMETERS
13. THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. UPWARD KEYS SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
14. JOINTS AND SCORE MARKS IN THE CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
15. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 X 25.
16. WATER REPELLENT SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT THE UNDERSIDE OF THE BRIDGE DECK BETWEEN DRIP NOTCHES.
17. THE DECK POUR IS TO BE PLACED IN ONE CONTINUOUS PLACEMENT WITH A MAXIMUM DURATION OF EIGHT HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A TRANSVERSE CONSTRUCTION JOINT SHALL BE USED. A 96 HOUR DELAY BETWEEN THE COMPLETION OF ONE DAY'S PLACEMENT AND THE BEGINNING OF ANOTHER PLACEMENT SHALL BE OBSERVED.
18. THE DECK SHALL BE GIVEN A TURF DRAG FINISH. SEE SPECIAL PROVISIONS.
19. ALL CONCRETE ABOVE ABUTMENT CONSTRUCTION JOINT ELEVATION, INCLUDING THE DECK AND CURB SHALL BE SPECIAL PROVISION (HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT). ALL OTHER SUBSTRUCTURE CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B, UNLESS NOTED OTHERWISE.
20. ALL REINFORCING STEEL SHALL BE EPOXY COATED AND PAID FOR UNDER THE ITEM 507.17 "EPOXY COATED REINFORCING STEEL".
21. THE PILES SHALL BE HP 310 X 93.
22. THE PILES WILL REQUIRE PILE SHOES. THE SHOES SHALL BE CAST STEEL AND SHALL CONFORM TO SECTION 505.
23. THE PILES SHALL BE DRIVEN TO LEDGE WITH AN ULTIMATE CAPACITY OF 2300 KILONEWTONS AS DETERMINED BY THE RESIDENT ENGINEER.
24. TO ENSURE THAT THE ULTIMATE AXIAL CAPACITY HAS BEEN ATTAINED AND TO PREVENT THE OVERSTRESSING OF THE PILES DURING DRIVING OPERATIONS, DYNAMIC MONITORING SHALL BE PERFORMED FOR THE FIRST PILE DRIVEN AT EACH ABUTMENT. THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SUBSECTION 505.04 (C) (2). PAYMENT FOR PILE TESTING SHALL BE MADE UNDER ITEM 505.45, "DYNAMIC PILE LOADING TEST". ADDITIONAL TESTS MAY BE REQUIRED BY THE RESIDENT ENGINEER.
25. NOT USED
26. THE EXISTING STEEL TRUSS SHALL BE REMOVED USING ITEM 900.645 SPECIAL PROVISION (STEEL BRIDGE TRUSS REMOVAL AND DELIVERY). SEE SPECIAL PROVISIONS FOR DETAILS.
27. ITEM 529.15 "REMOVAL OF STRUCTURE" SHALL BE USED FOR REMOVAL OF ALL OF THE SUPERSTRUCTURE NOT REMOVED UNDER ITEM 900.645 SPECIAL PROVISION (STEEL BRIDGE TRUSS REMOVAL AND DELIVERY) AND FOR ANY PORTION OF THE ABUTMENTS OUTSIDE THE LIMITS OF "STRUCTURE EXCAVATION" OR "UNCLASSIFIED CHANNEL EXCAVATION". THE BID PRICE FOR CONTRACT ITEM 529.15 SHALL INCLUDE ANY NECESSARY BACKFILL BELOW THE LIMITS SHOWN FOR "STRUCTURE EXCAVATION" OR "UNCLASSIFIED CHANNEL EXCAVATION".
28. THE EXISTING STEEL BEAMS AND H-PILES USED AS TEMPORARY SHORING SHALL REMAIN THE PROPERTY OF THE TOWN OF CORINTH. THE CONTRACTOR SHALL DELIVER THESE BEAMS, AND UNLOAD THEM, AT A LOCATION SPECIFIED BY THE TOWN WITHIN 10 MILES OF THE PROJECT. PAYMENT FOR THIS WORK SHALL BE INCLUDED UNDER THE ITEM 529.15 "REMOVAL OF STRUCTURE". CONTACT ROAD FOREMAN JOE BLODGETT AT 439-6272 FOR DETAILS.
29. EXCEPT AS NOTED ABOVE, THE EXISTING STRUCTURAL STEEL IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD. THE CONTRACTOR SHALL FOLLOW ALL APPLICABLE REGULATIONS WHEN HANDLING AND WORKING WITH THIS STEEL. EXISTING STRUCTURAL STEEL REMOVED AND NOT RETAINED BY THE STATE IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE REMOVED EXISTING STRUCTURAL STEEL.
30. THE EXISTING SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF THE TOWN OF CORINTH AND SHALL BE STOCKPILED ON SITE. THE TOWN ROAD FOREMAN, JOE BLODGETT, SHALL BE NOTIFIED TO PICK UP THE SIGNS AT 439-6272.
31. THE TELEPHONE JUNCTION BOX AT STATION I+105.3 RIGHT SHALL BE MOVED BY OTHERS. SEE SPECIAL PROVISIONS.

PROJECT: CORINTH	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042note.dgn IPARM FILE NAME: sj042note.i DESIGNED BY: H. I. SALLS SQUAD LEADER: C.P. WILLIAMS GENERAL NOTES	PLOT DATE: 16-JUL-2008 DRAWN BY: H. I. SALLS CHECKED BY: R. S. YOUNG SHEET: 19 OF 42

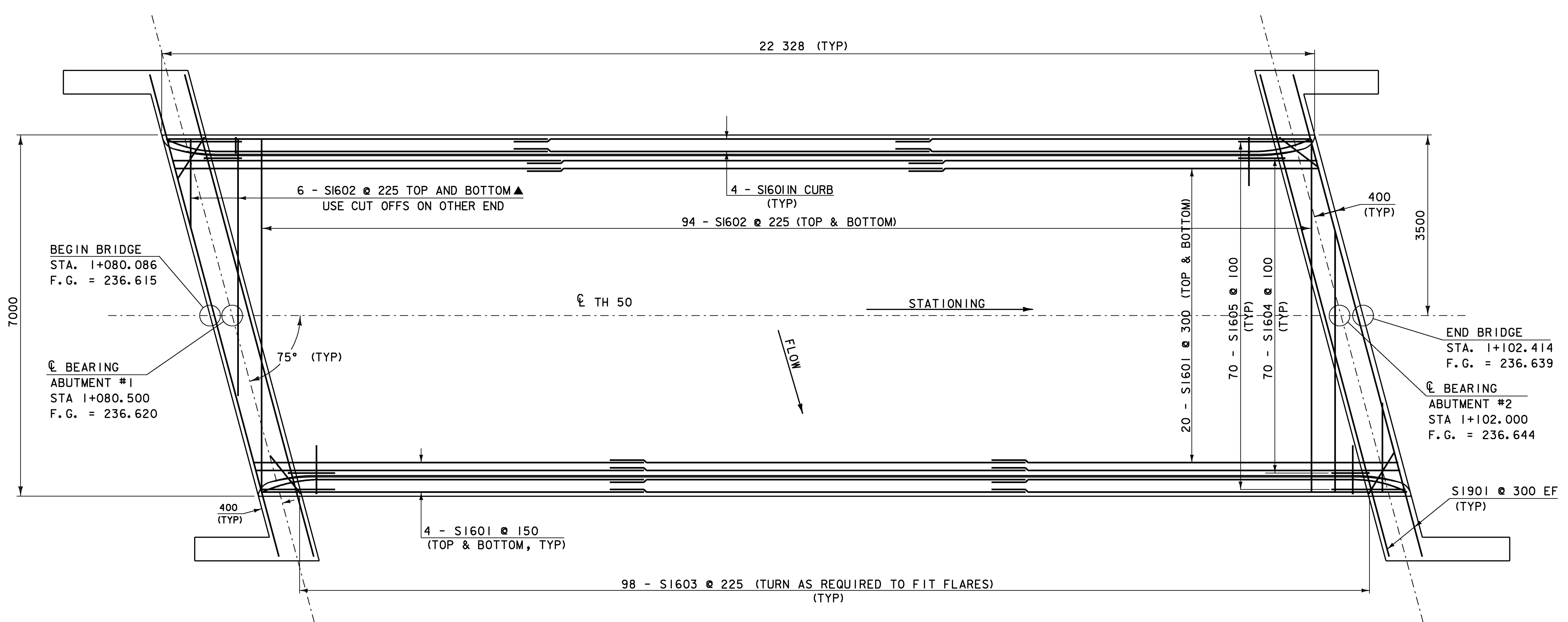


**TYPICAL STEEL BEAM BRIDGE SECTION**  
(SCALE 1 : 20)

\* CONCRETE SHALL BE SPECIAL PROVISION  
(HIGH PERFORMANCE CONCRETE, CLASS A LOW CEMENT)

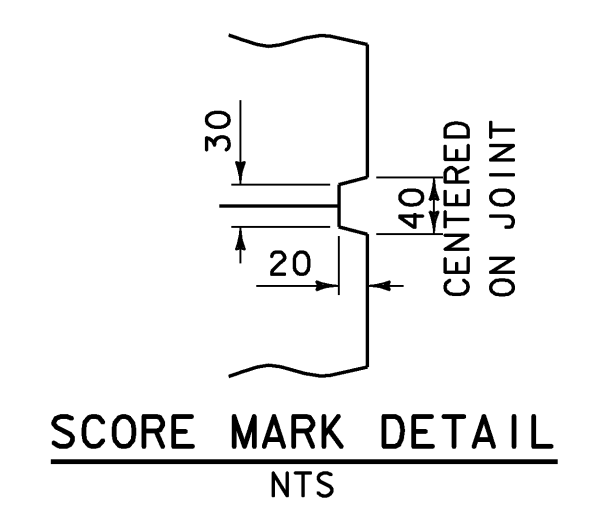


**TYPICAL 400 CURB SECTION**  
(SCALE 1:10)

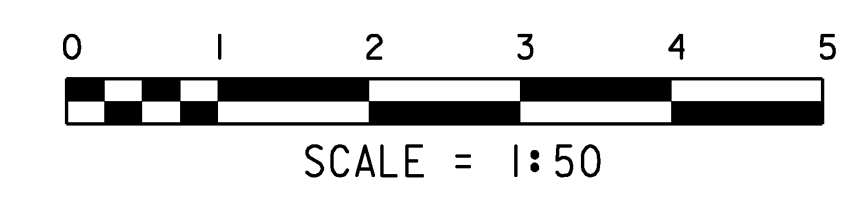
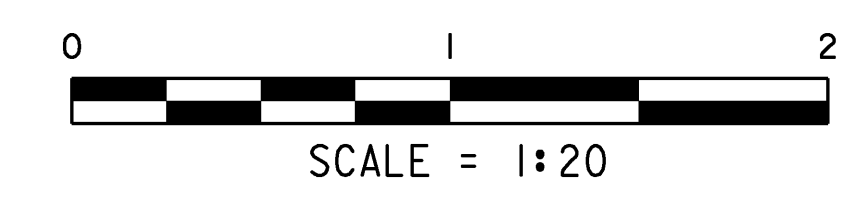


**DECK REINFORCING PLAN**  
SCALE: 1 : 50

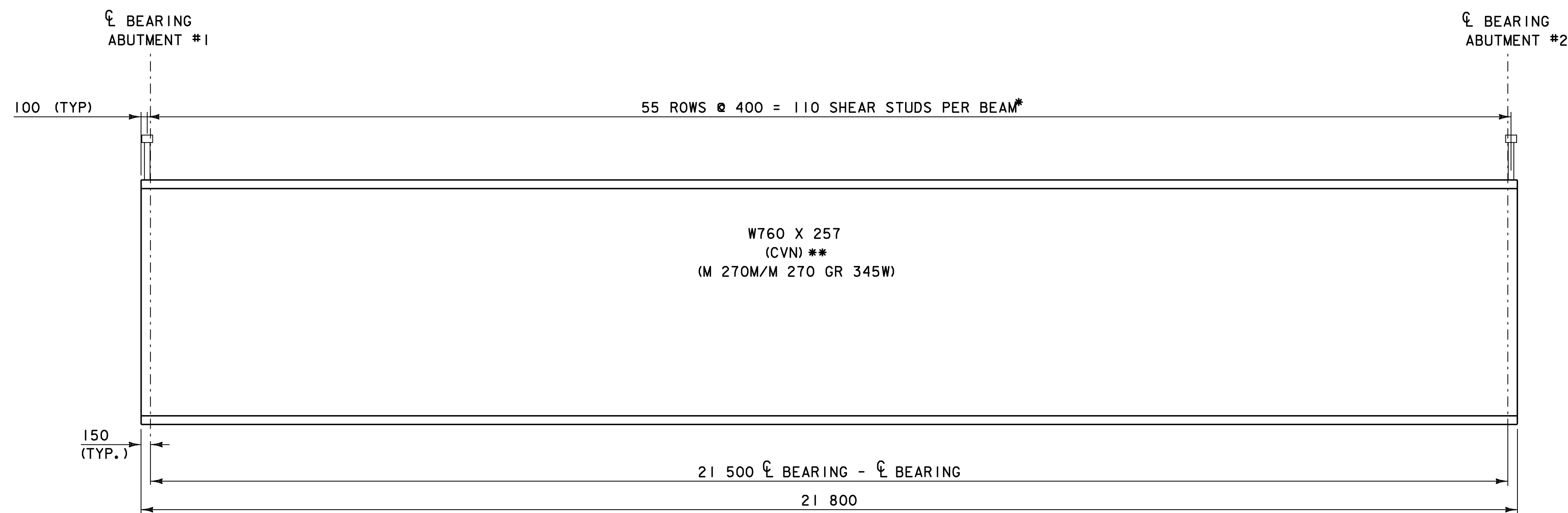
NOTE: SEE SHEET 24 FOR STEM  
STEEL REINFORCEMENT



**NOTE:**  
NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
▲ = CUT TO FIT IN FIELD  
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
ALL LAPS SHALL BE 660 UNLESS NOTED OTHERWISE  
ALL REINFORCING STEEL SHALL BE EPOXY COATED.



PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042sup.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042deckdt1.i	DRAWN BY: H.I. SALLS
DESIGNED BY: H.I. SALLS	CHECKED BY: R.S. YOUNG
SQUAD LEADER: C.P. WILLIAMS	SHEET: 20 OF 42
DECK STRUCTURAL DETAILS	

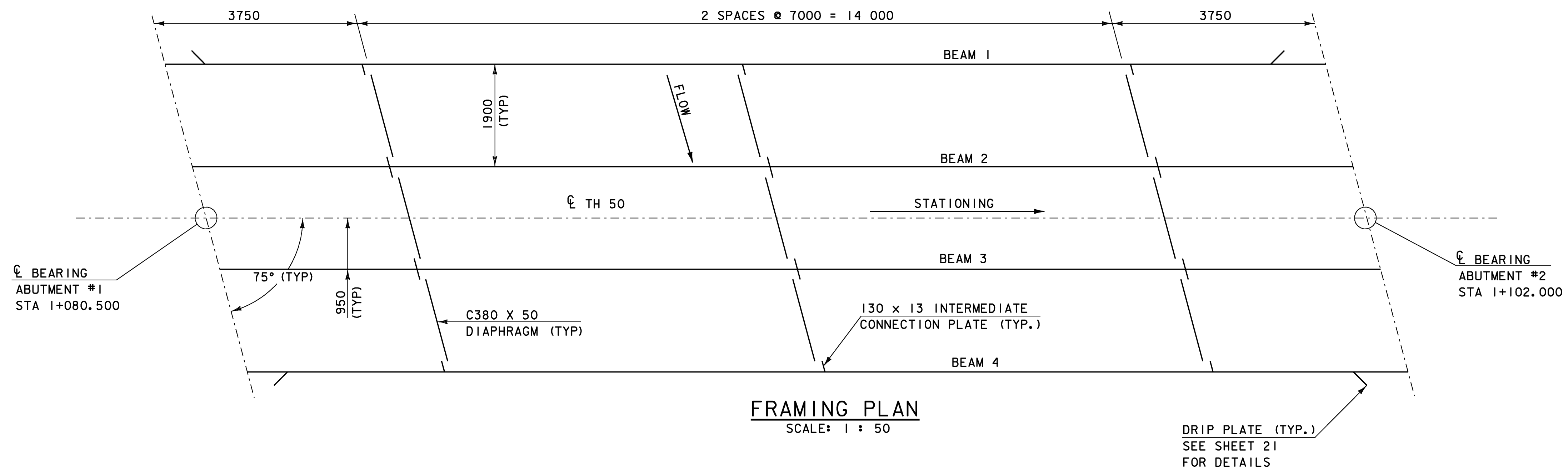


NOTE:  
HOLES FOR TRANSVERSE  
REINFORCING STEEL NOT SHOWN.

**BEAM ELEVATION**

HORIZONTAL SCALE: 1 : 50  
VERTICAL SCALE : 1 : 10

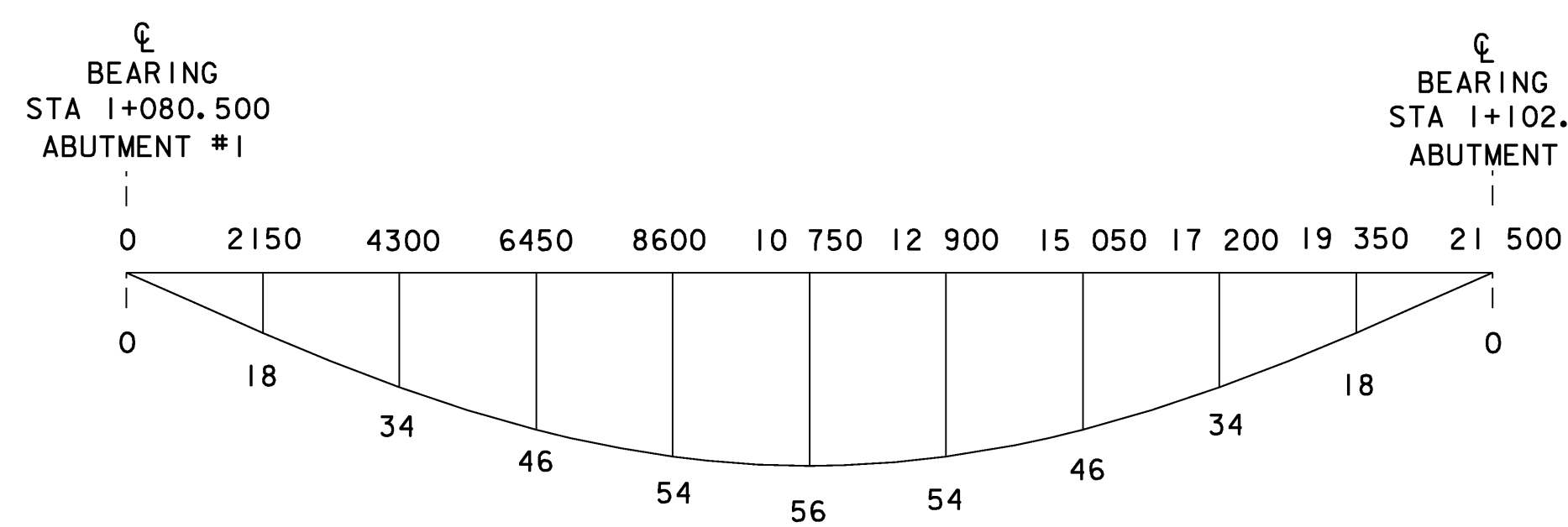
\* SEE HAUNCH AND SHEAR CONNECTOR DETAIL SHEET 22  
\*\* DENOTES THAT CHARPY V-NOTCH TESTING MUST BE DONE



**FRAMING PLAN**

SCALE: 1 : 50

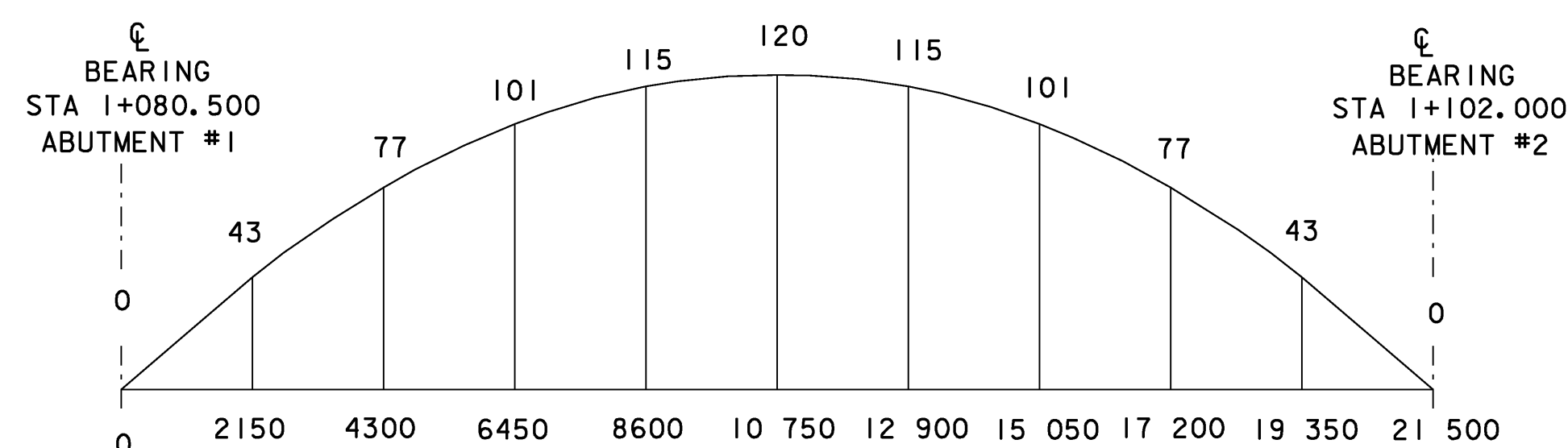
DRIP PLATE (TYP.)  
SEE SHEET 21  
FOR DETAILS



**DEAD LOAD DEFLECTION DIAGRAM**

NOT TO SCALE

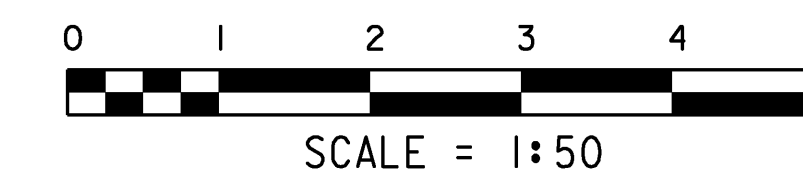
NOTE: DEAD LOAD DEFLECTION DIAGRAM INCLUDES 11 mm DEAD LOAD DEFLECTION @ MIDSPAN DUE TO BEAM SELFWEIGHT.



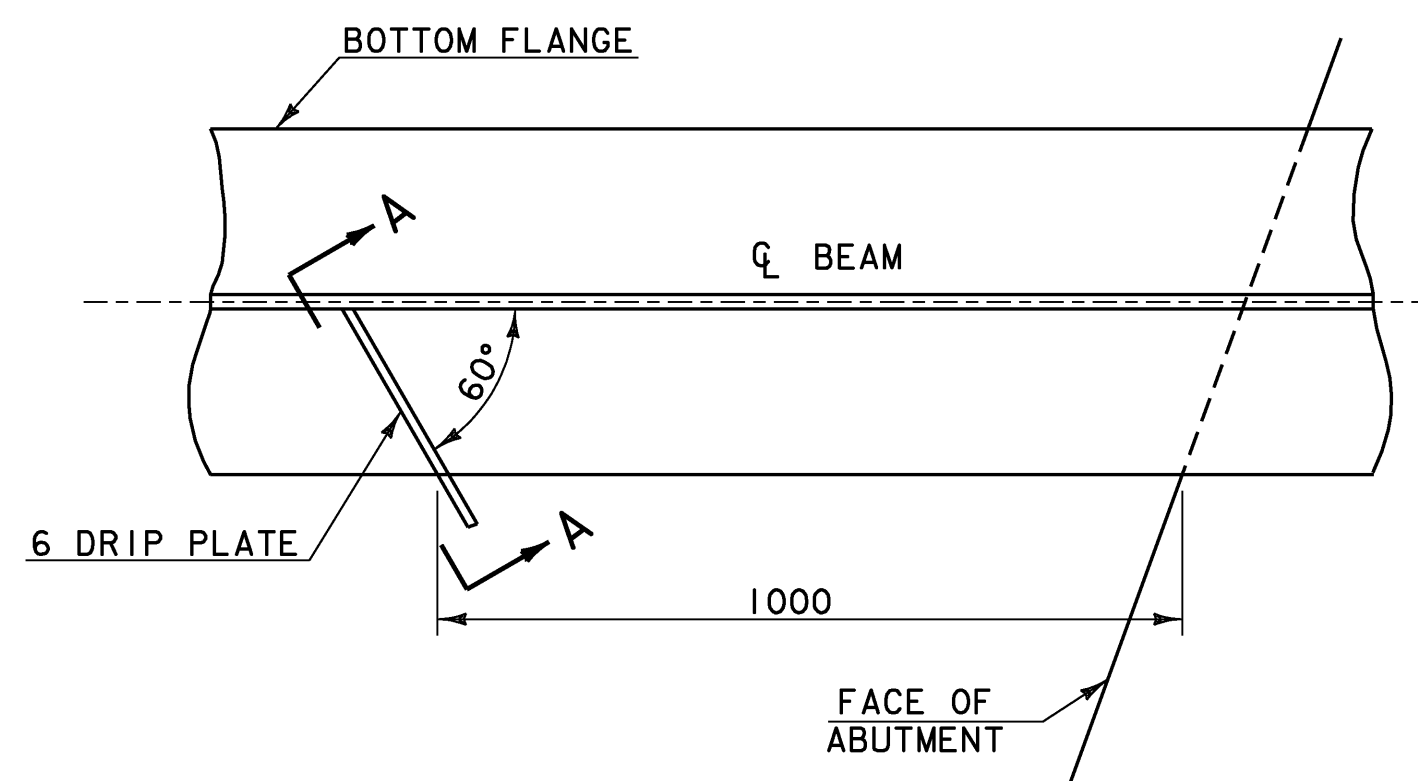
**CAMBER DIAGRAM**

NOT TO SCALE

NOTE: CAMBER DIAGRAM INCLUDES 11 mm DEAD LOAD DEFLECTION @ MIDSPAN DUE TO BEAM SELFWEIGHT. TOTAL CAMBER @ MIDSPAN MEASURED WHEN BEAM IS SUPPORTED ONLY AT CL BEARING POINTS SHALL BE 109 mm.



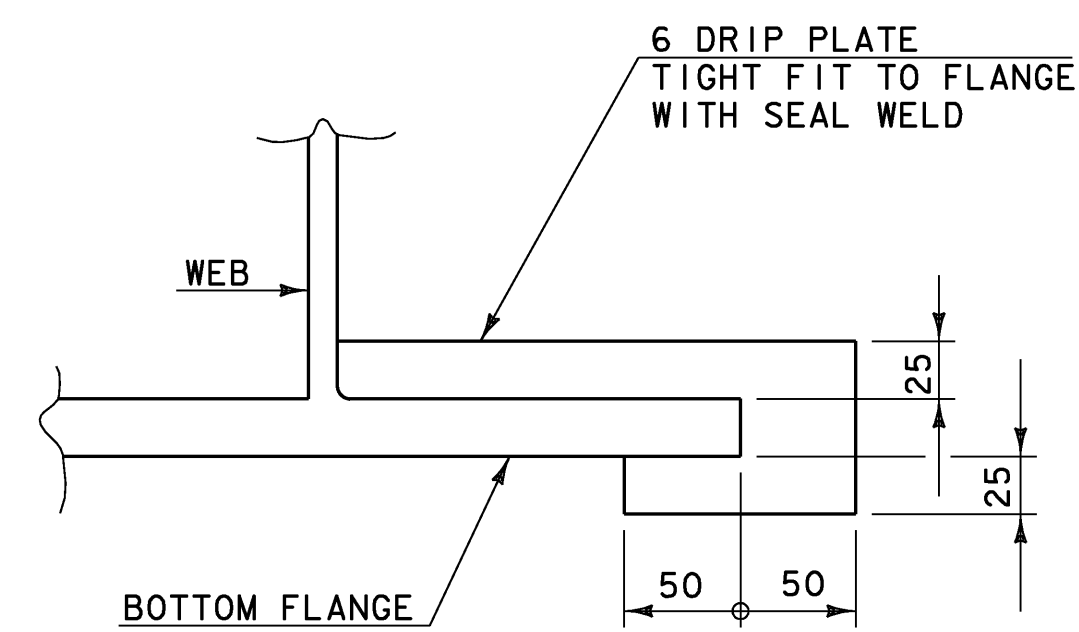
PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042sup.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042frm.i	DRAWN BY: H.I. SALLS
DESIGNED BY: H.I. SALLS	CHECKED BY: R.S. YOUNG
SQUAD LEADER: C.P. WILLIAMS	SHEET: 21 OF 42
FRAMING PLAN	



**PLAN DRIP PLATE**

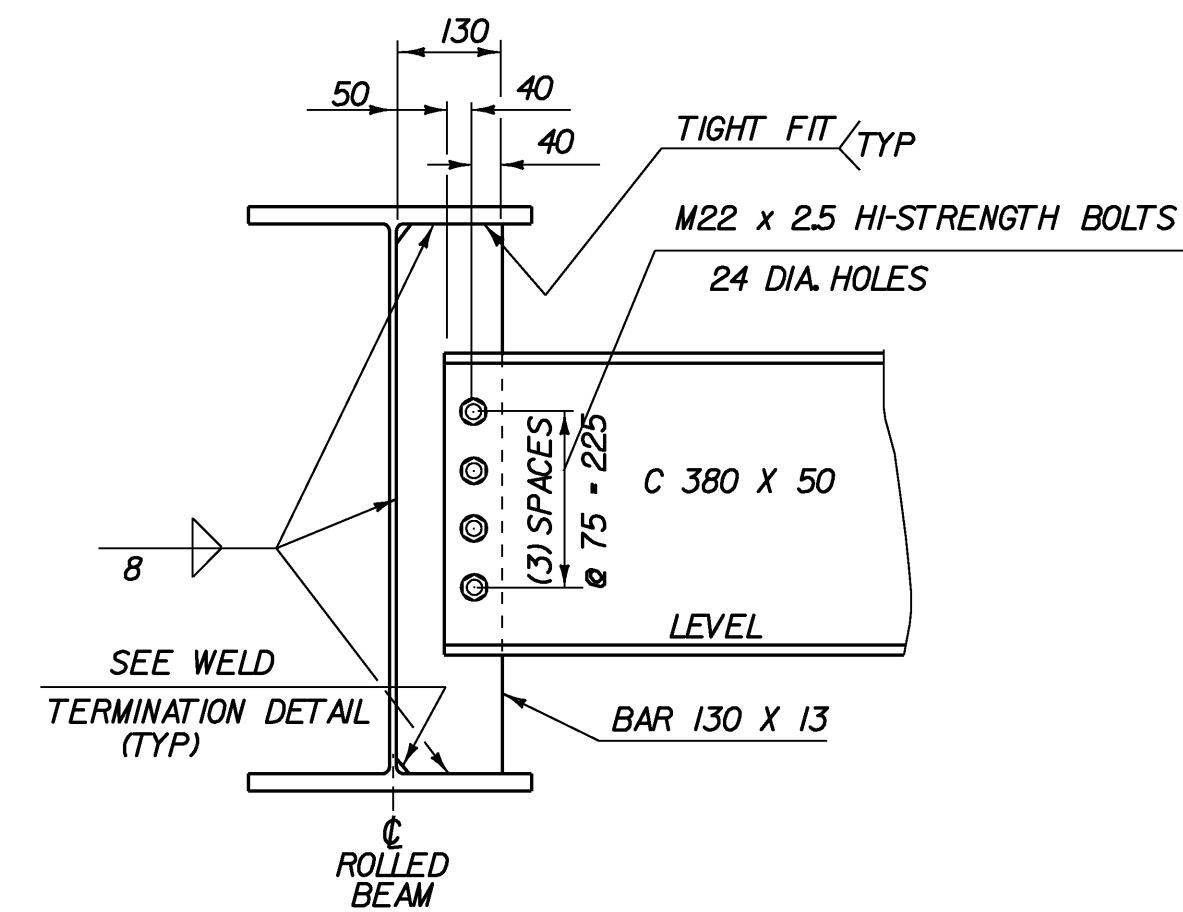
NTS

NOTE:  
DRIP PLATES SHALL BE PLACED ON OUTSIDE EDGE OF FASCIA GIRDERS ON THE HIGH SIDE OF ALL PIERS AND ABUTMENTS OR AS INDICATED ON PROJECT PLANS.



**SECTION A - A**

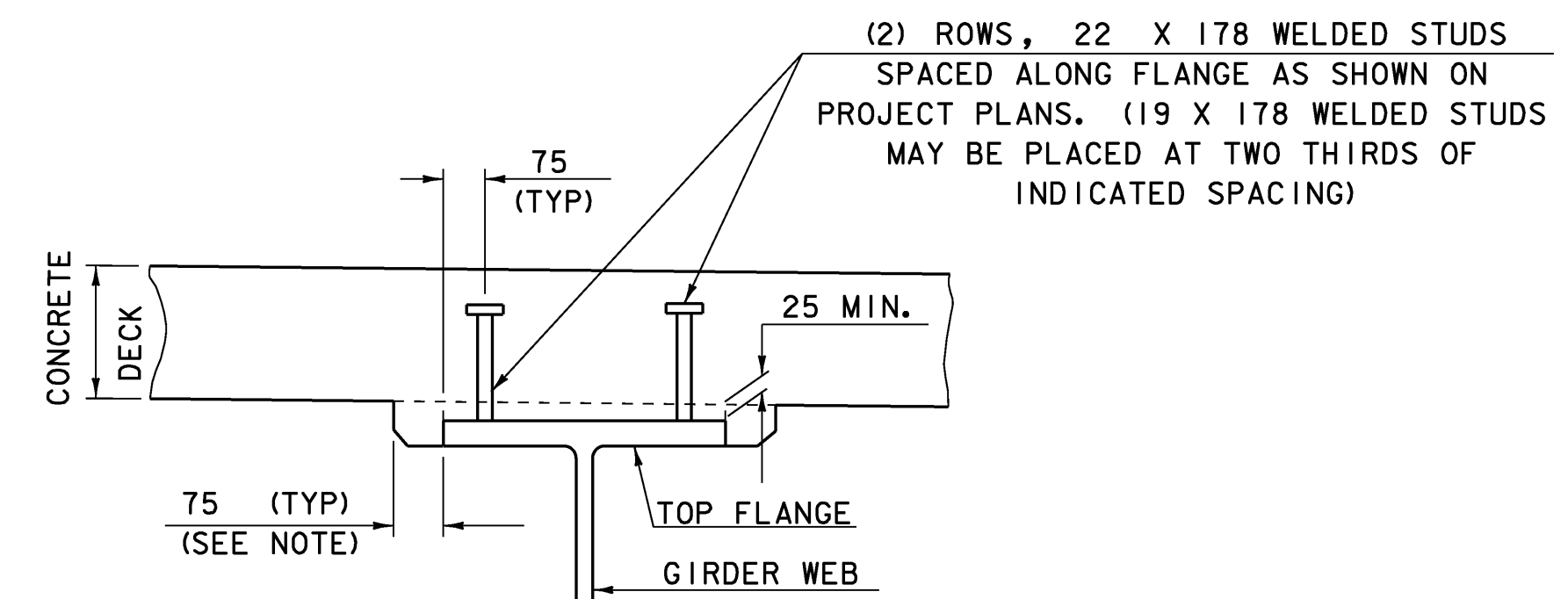
NTS



NOTE: HI-STRENGTH BOLTS, NUTS AND WASHERS SHALL CONFORM TO AASHTO DESIGNATION M164M.

**INTERMEDIATE DIAPHRAGMS**

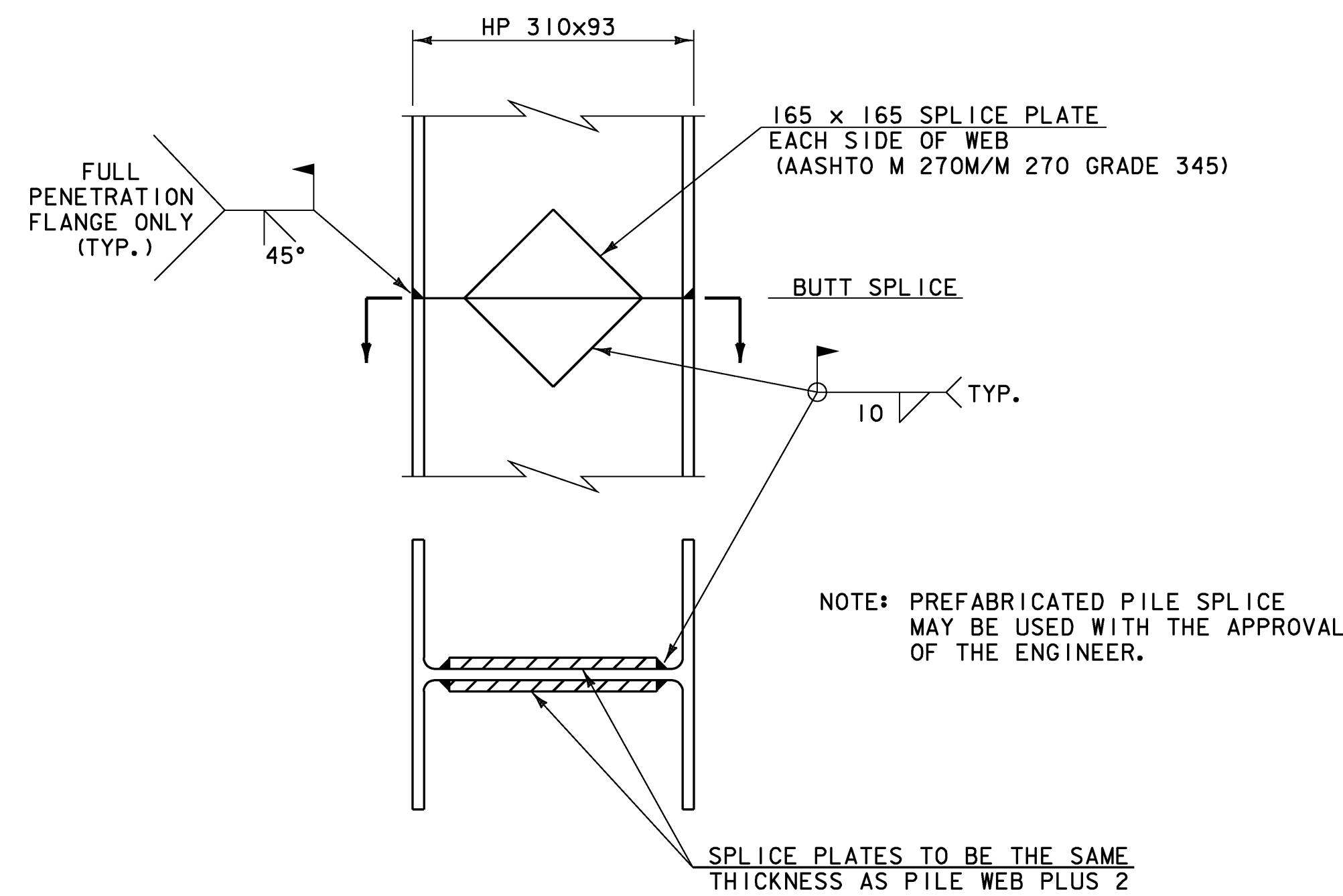
NTS



NOTE: THE 75 HORIZONTAL SECTION MAY BE ELIMINATED FOR FORMING SYSTEMS DESIGNED FOR THE CONSTRUCTION OF VERTICAL HAUNCHES. SYSTEMS SHALL BE SUBMITTED FOR APPROVAL TO THE STRUCTURES ENGINEER. ALL VOIDS SHALL BE FILLED WITH MORTAR, TYPE IV OR AN EQUIVALENT PRODUCT FROM THE APPROVED PRODUCTS LIST.

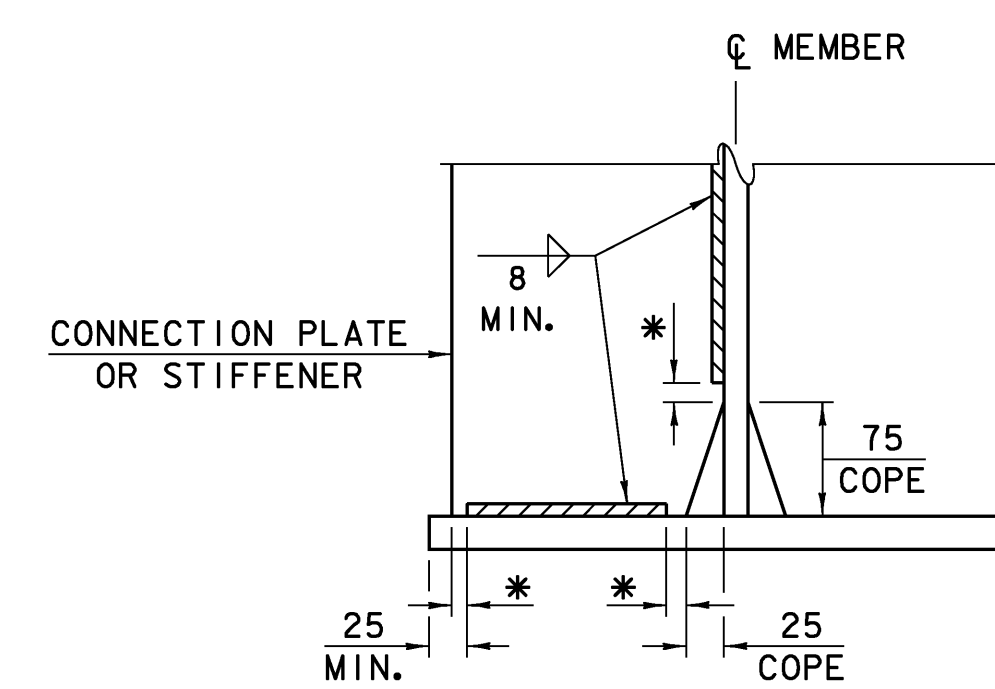
**HAUNCH AND SHEAR CONNECTOR DETAILS**

NTS



**DETAIL OF PILE SPLICE**

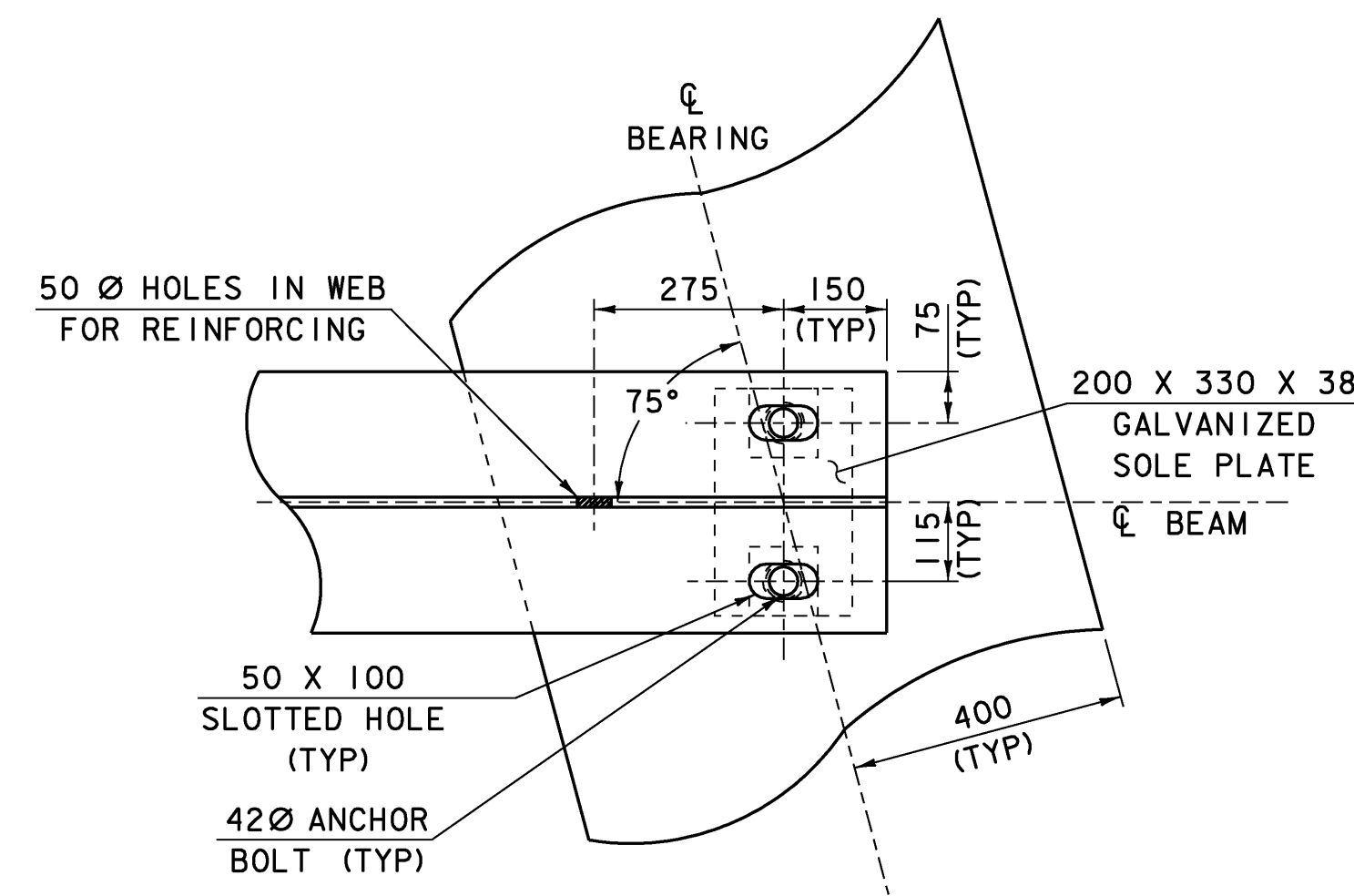
NTS



**WELD TERMINATION AND COPING DETAIL FOR STEEL MEMBERS**

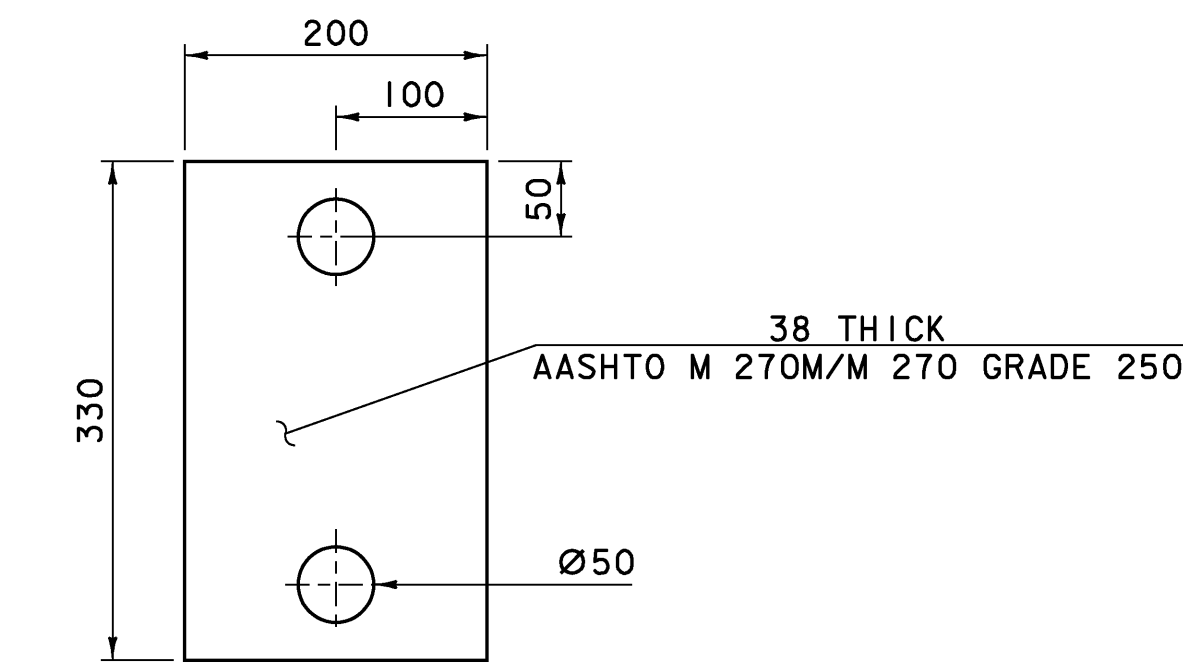
\* NO WELD FOR 10 MIN., 22 MAX. (EXCEPT MUST MAINTAIN 25 MIN. FROM EDGE OF FLANGE)

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042.dtl.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042ssd.i	DRAWN BY: H. I. SALLS
DESIGNED BY: H. I. SALLS	CHECKED BY: R. S. YOUNG
SQUAD LEADER: C. P. WILLIAMS	SHEET: 22 OF 42
STRUCTURAL STEEL DETAILS	



PLAN VIEW END OF STEEL BEAM AT ABUTMENT

SCALE = 1:10



SOLE PLATE DETAIL

SCALE = 1:5

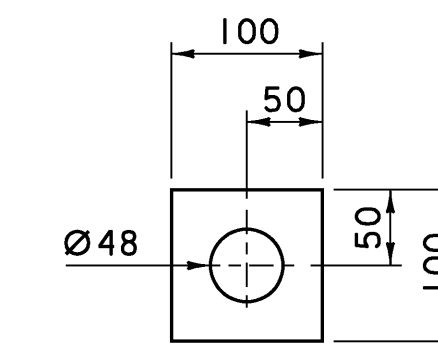
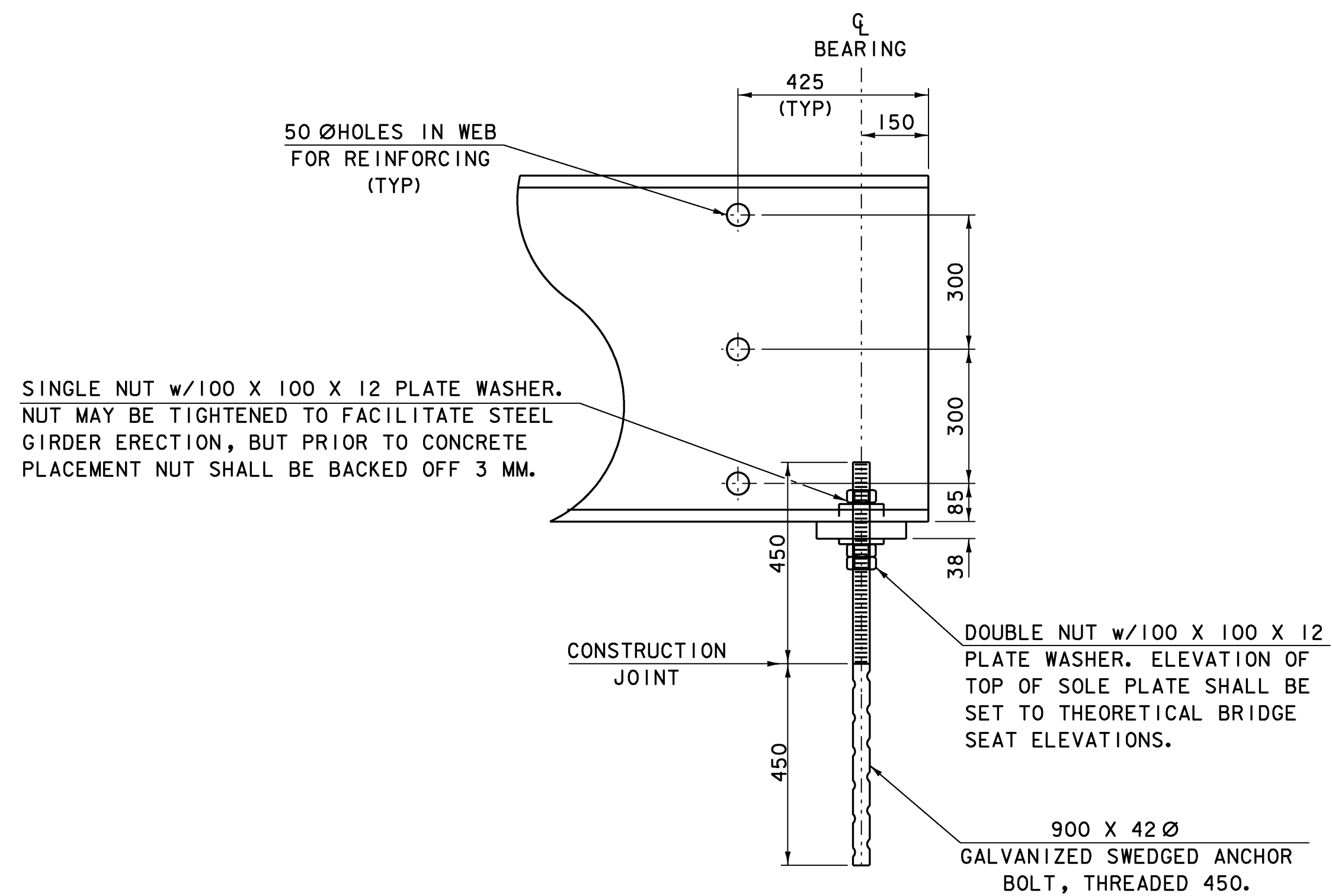


PLATE WASHER DETAIL

SCALE = 1:5

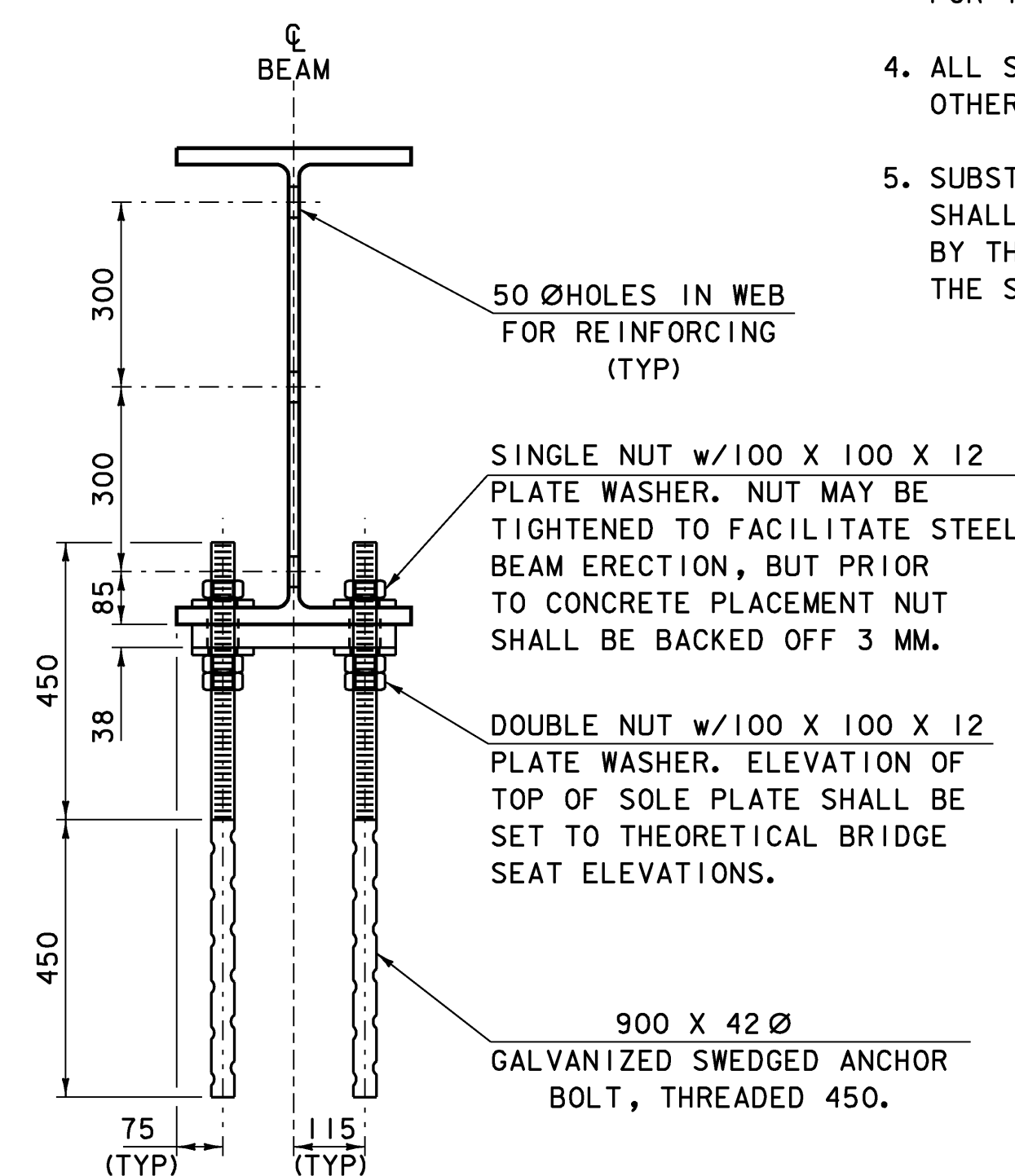
NOTES

1. THE SOLE PLATES, ANCHOR BOLTS, WASHERS AND NUTS SHALL BE PAID FOR UNDER ITEM 531.14, "BEARING DEVICE ASSEMBLY, INTEGRAL ABUTMENT" AND SHALL CONFORM TO SECTION 531 OF THE STANDARD SPECIFICATIONS.
2. THE SOLE PLATES, ANCHOR BOLTS, AND WASHERS SHALL BE GALVANIZED OR METALIZED AS PER SUBSECTIONS 531.04 AND 506.15 OF THE STANDARD SPECIFICATIONS.
3. ANCHOR BOLTS SHALL BE M42 X 4.5, CLASS 8.8 BOLTS MEETING ASTM F 568M. NUTS SHALL MEET AASHTO M291M. THE CONTRACTOR SHALL ENSURE THAT THE ANCHOR BOLTS ARE INSTALLED IN A PLUMB POSITION. ONE EXTRA ANCHOR BOLT SHALL BE SUPPLIED FOR TESTING PURPOSES.
4. ALL STEEL IN BEARING DEVICE ASSEMBLY SHALL BE AASHTO M 270M/M 270 GR 250 UNLESS OTHERWISE NOTED.
5. SUBSTITUTIONS FOR BEARING DEVICE ASSEMBLY COMPONENT MATERIALS AND SIZES SHALL BE DETAILED ON THE SHOP DRAWINGS. ALL SUBSTITUTIONS SHALL BE APPROVED BY THE STRUCTURES ENGINEER PRIOR TO FABRICATION AS PER SUBSECTION 506.04 OF THE STANDARD SPECIFICATIONS.



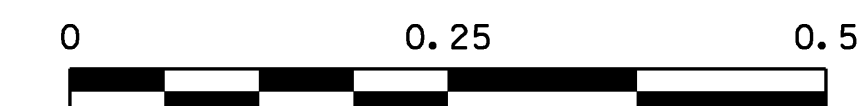
ELEVATION VIEW END OF STEEL BEAM AT ABUTMENT

SCALE: 1:10

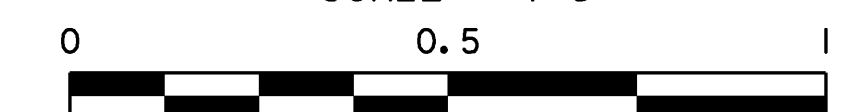


END ELEVATION VIEW OF STEEL BEAM AT ABUTMENT

SCALE: 1:10



SCALE = 1:5



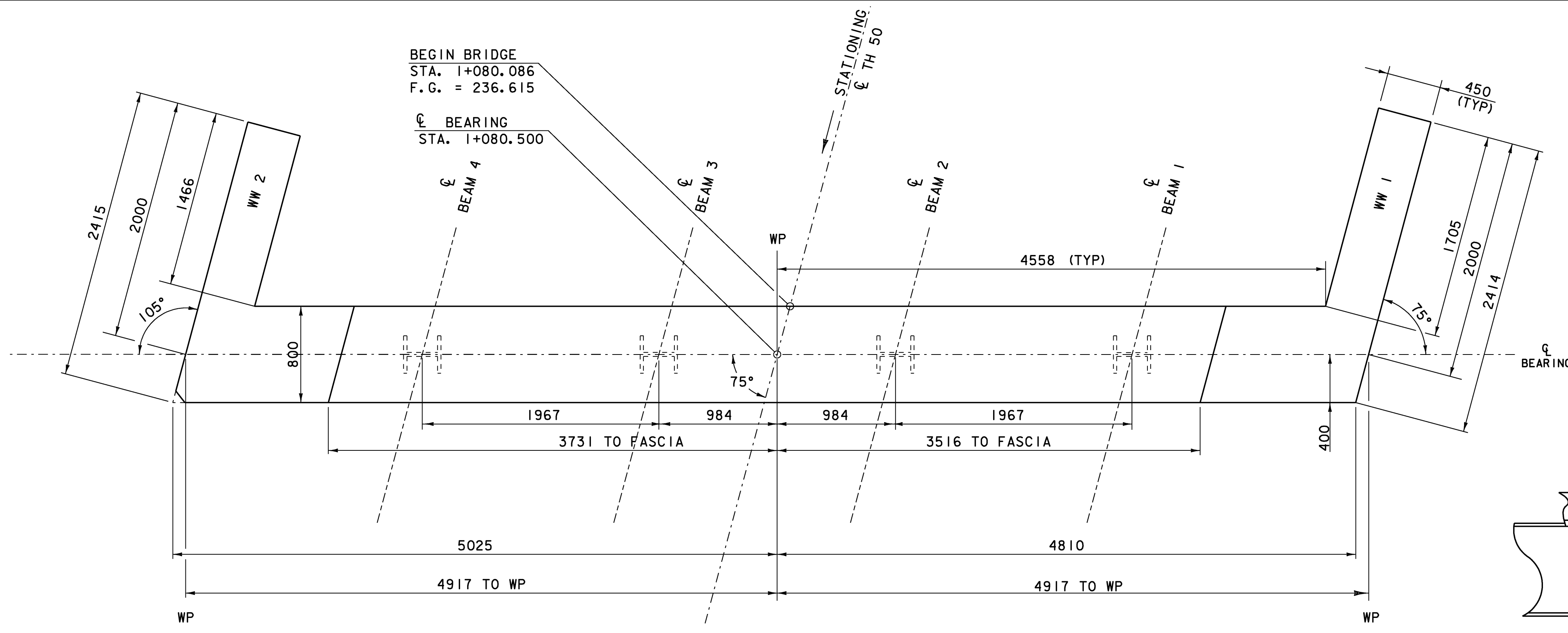
SCALE = 1:10

THEORETICAL BRIDGE SEAT ELEVATIONS		
	ABUTMENT #1	ABUTMENT #2
BEAM #1	235.502	235.544
BEAM #2	235.547	235.576
BEAM #3	235.554	235.571
BEAM #4	235.522	235.527

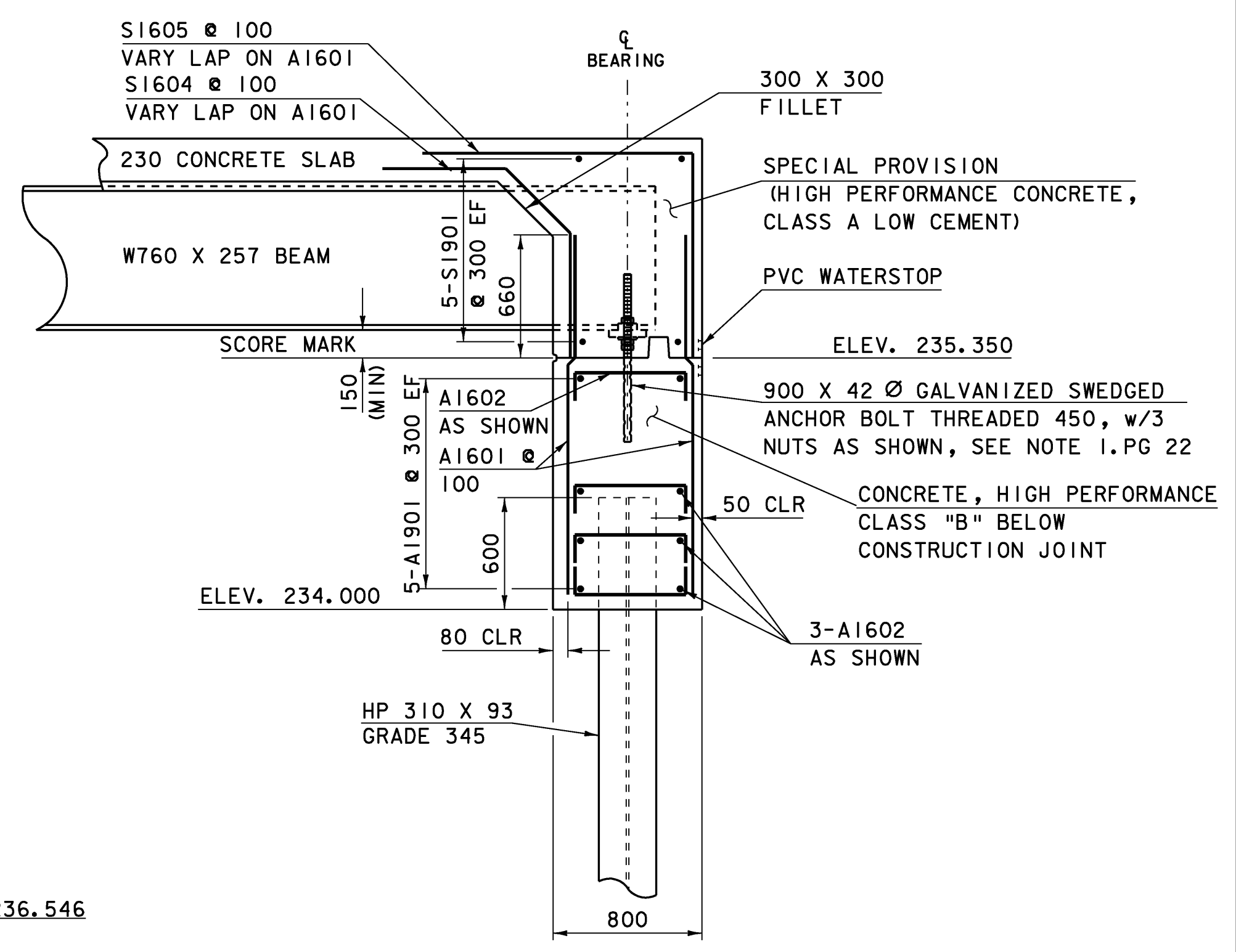
NOTE:

- NF = NEAR FACE
- FF = FAR FACE
- EF = EACH FACE
- ▲ = CUT TO FIT IN FIELD
- 80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.
- ALL LAPS SHALL BE 660 UNLESS NOTED OTHERWISE
- ALL REINFORCING STEEL SHALL BE EPOXY COATED.

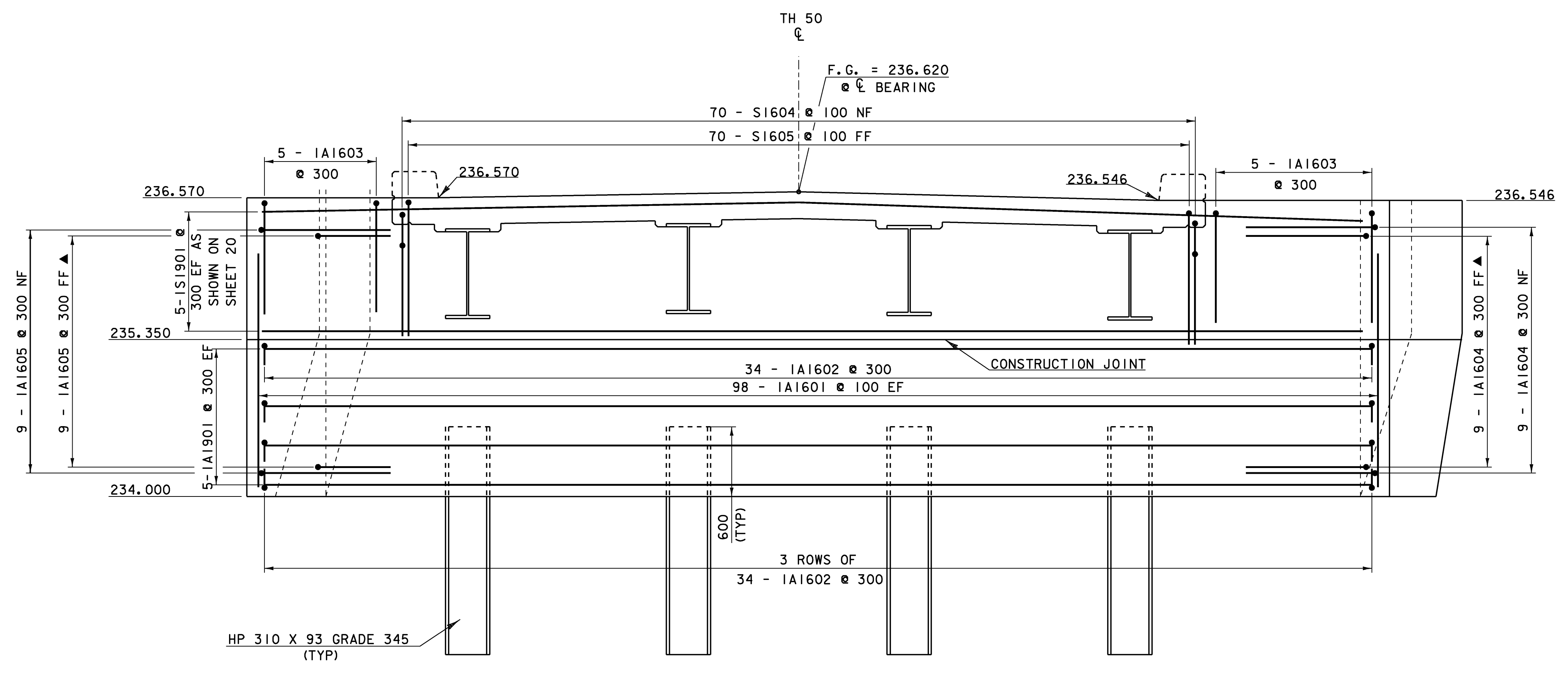
PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042sub.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042abtdt1.i	DRAWN BY: H. I. SALLS
DESIGNED BY: H. I. SALLS	CHECKED BY: R. S. YOUNG
SQUAD LEADER: C. P. WILLIAMS	SHEET: 23 OF 42
BEARING DETAIL SHEET	



**ABUTMENT #1 PLAN**  
(SCALE 1 : 25)



**BRIDGE END DETAIL & ABUTMENT TYPICAL SECTION**  
SCALE: 1 : 25



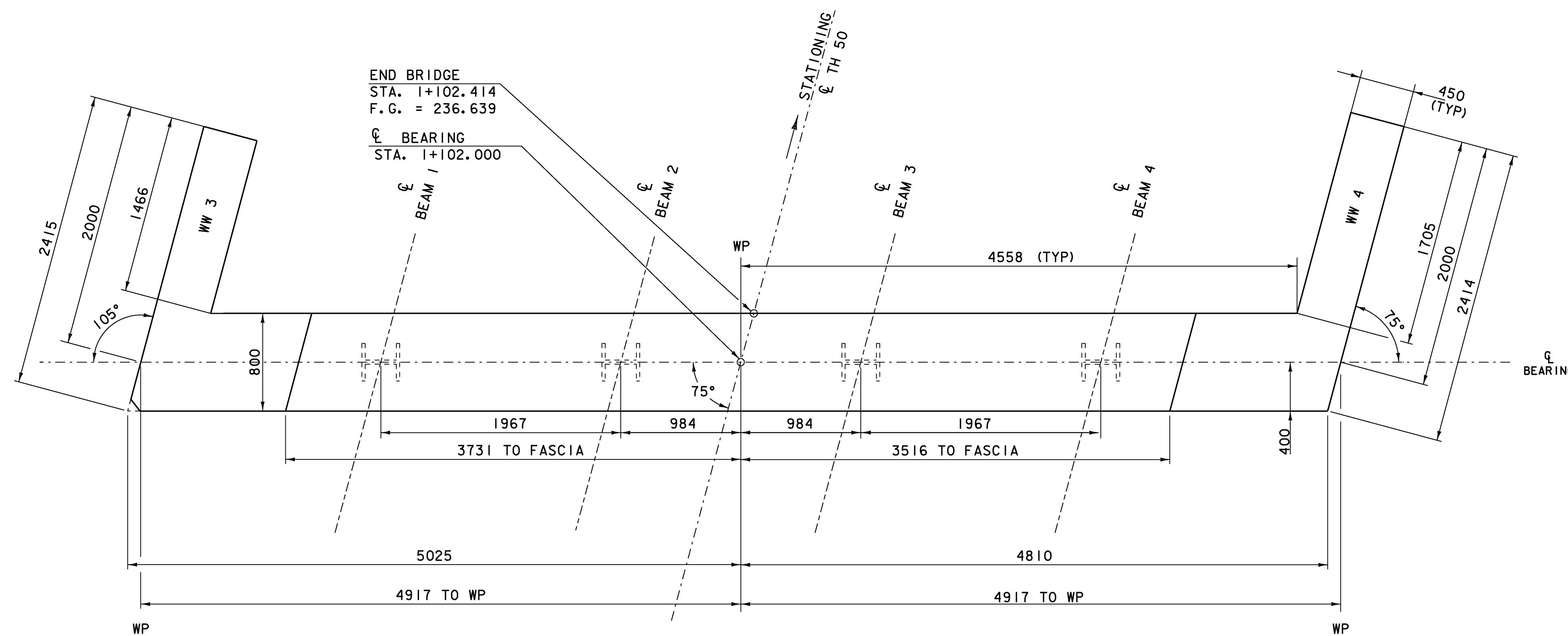
**ABUTMENT #1 ELEVATION**  
(SCALE 1 : 25)

NOTE: ALL PILES SHALL BE CENTERED ALONG THE CENTERLINE OF BEARING WITH THE PILE WEB PARALLEL TO THE FACE OF THE ABUTMENT.

**NOTE:**  
 NF = NEAR FACE  
 FF = FAR FACE  
 EF = EACH FACE  
 ▲ = CUT TO FIT IN FIELD  
 80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
 ALL LAPS SHALL BE 660 UNLESS NOTED OTHERWISE  
 ALL REINFORCING STEEL SHALL BE EPOXY COATED.

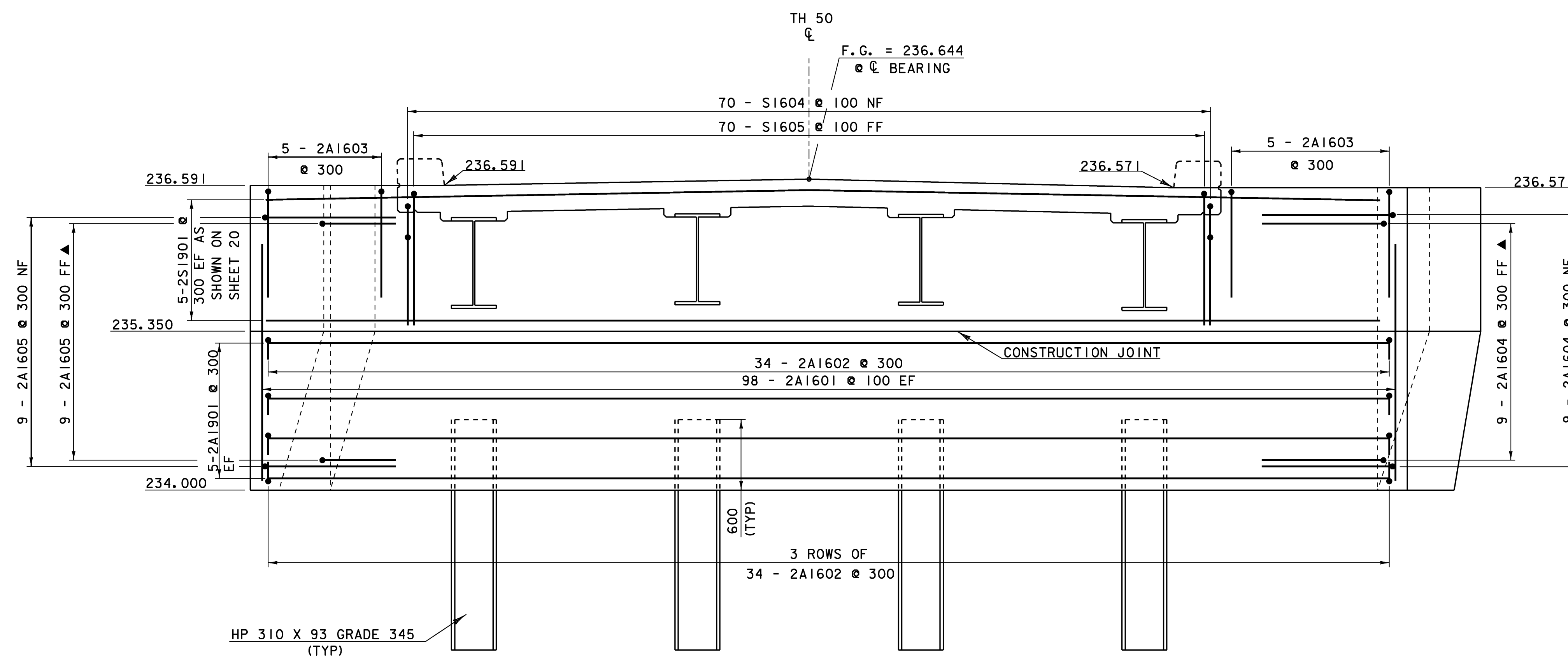


PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042sub.dgn IPARM FILE NAME: sj042a1.i DESIGNED BY: H. I. SALLS SQUAD LEADER: C. P. WILLIAMS ABUTMENT #1 PLAN & ELEVATION	PLOT DATE: 16-JUL-2008 DRAWN BY: H. I. SALLS CHECKED BY: R. S. YOUNG SHEET: 24 OF 42

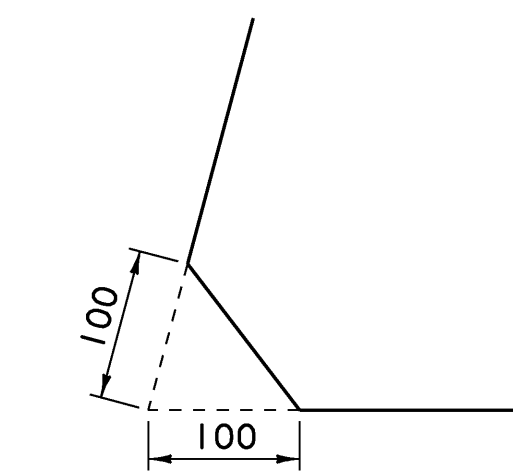


**ABUTMENT #2 PLAN**  
(SCALE 1 : 25)

FLOW →



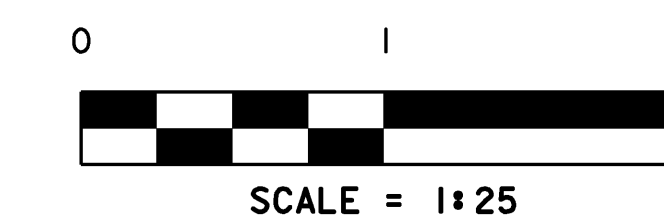
**ABUTMENT #2 ELEVATION**  
(SCALE 1 : 25)



**ABUTMENT ACCUTE ANGLE CLIP DETAIL**

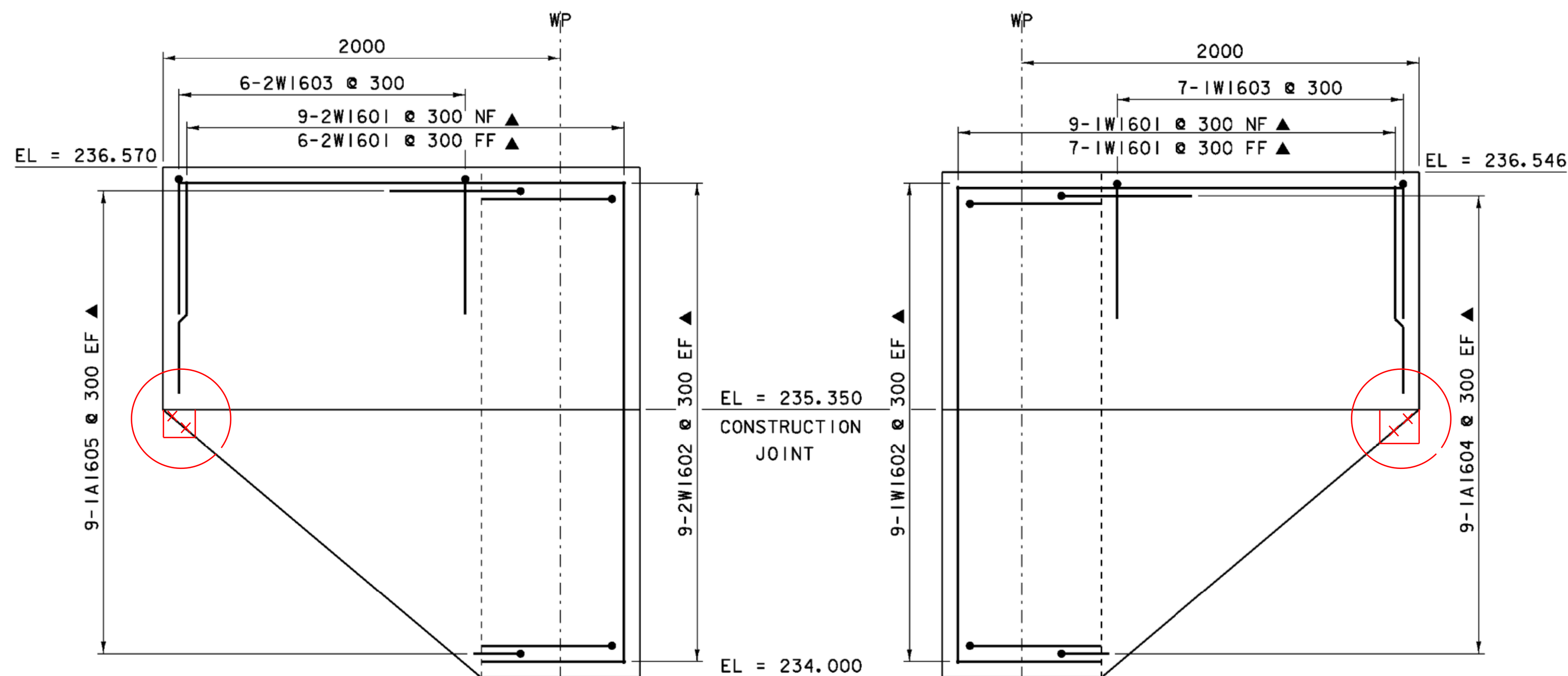
**NOTE:**

NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
▲ = CUT TO FIT IN FIELD  
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
ALL LAPS SHALL BE 660 UNLESS NOTED OTHERWISE  
ALL REINFORCING STEEL SHALL BE EPOXY COATED.



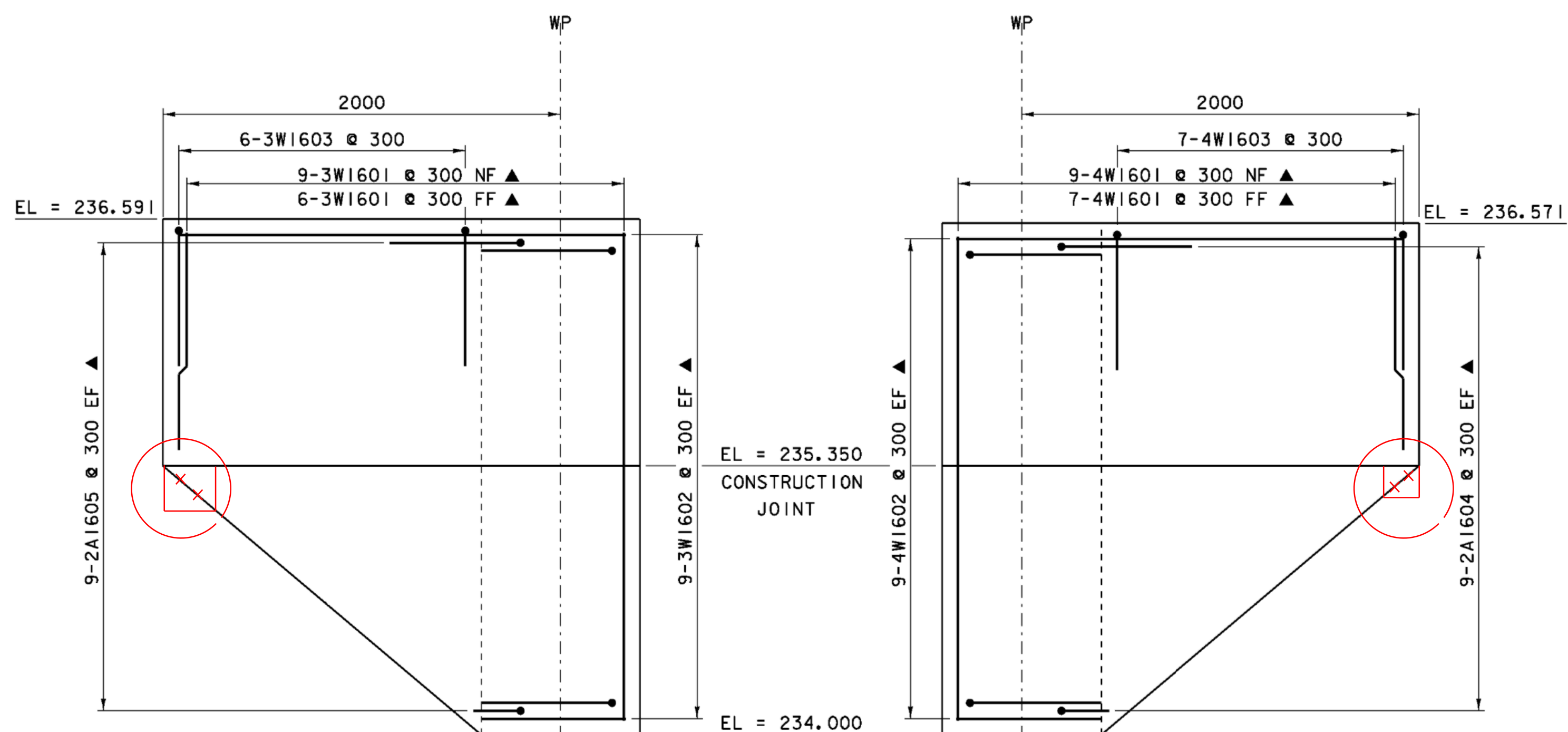
NOTES:  
1: ALL PILES SHALL BE CENTERED ALONG THE CENTERLINE OF BEARING WITH THE PILE WEB PARALLEL TO THE FACE OF THE ABUTMENT.  
2: SEE SHEET 24 FOR TYPICAL ABUTMENT SECTION.

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042sub.dgn IPARM FILE NAME: sj042a2.i DESIGNED BY: H. I. SALLS SQUAD LEADER: C. P. WILLIAMS ABUTMENT #2 PLAN & ELEVATION	PLOT DATE: 16-JUL-2008 DRAWN BY: H. I. SALLS CHECKED BY: R. S. YOUNG SHEET: 25 OF 42



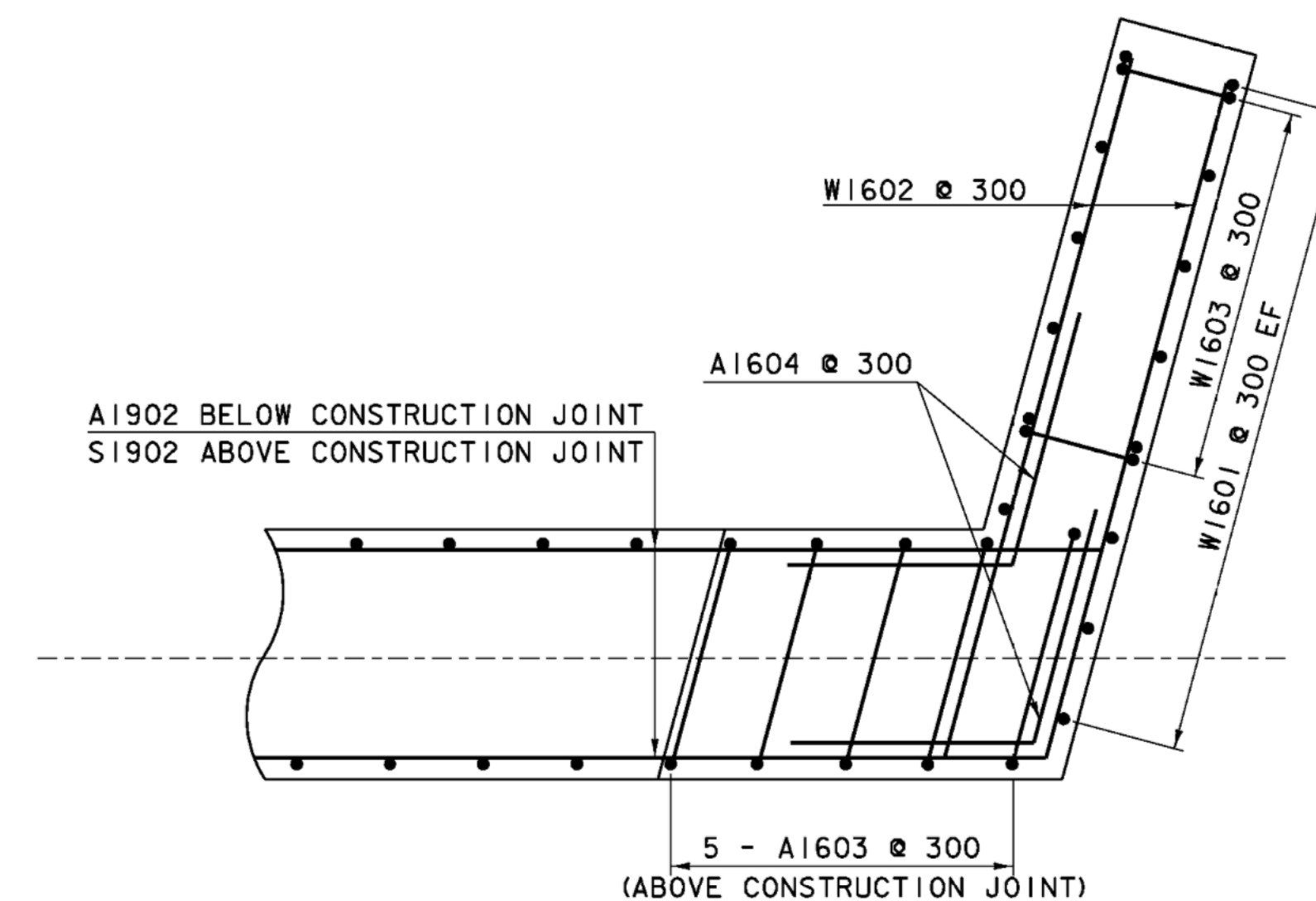
**WINGWALL #2**  
SCALE = 1:20

**WINGWALL #1**  
SCALE = 1:20

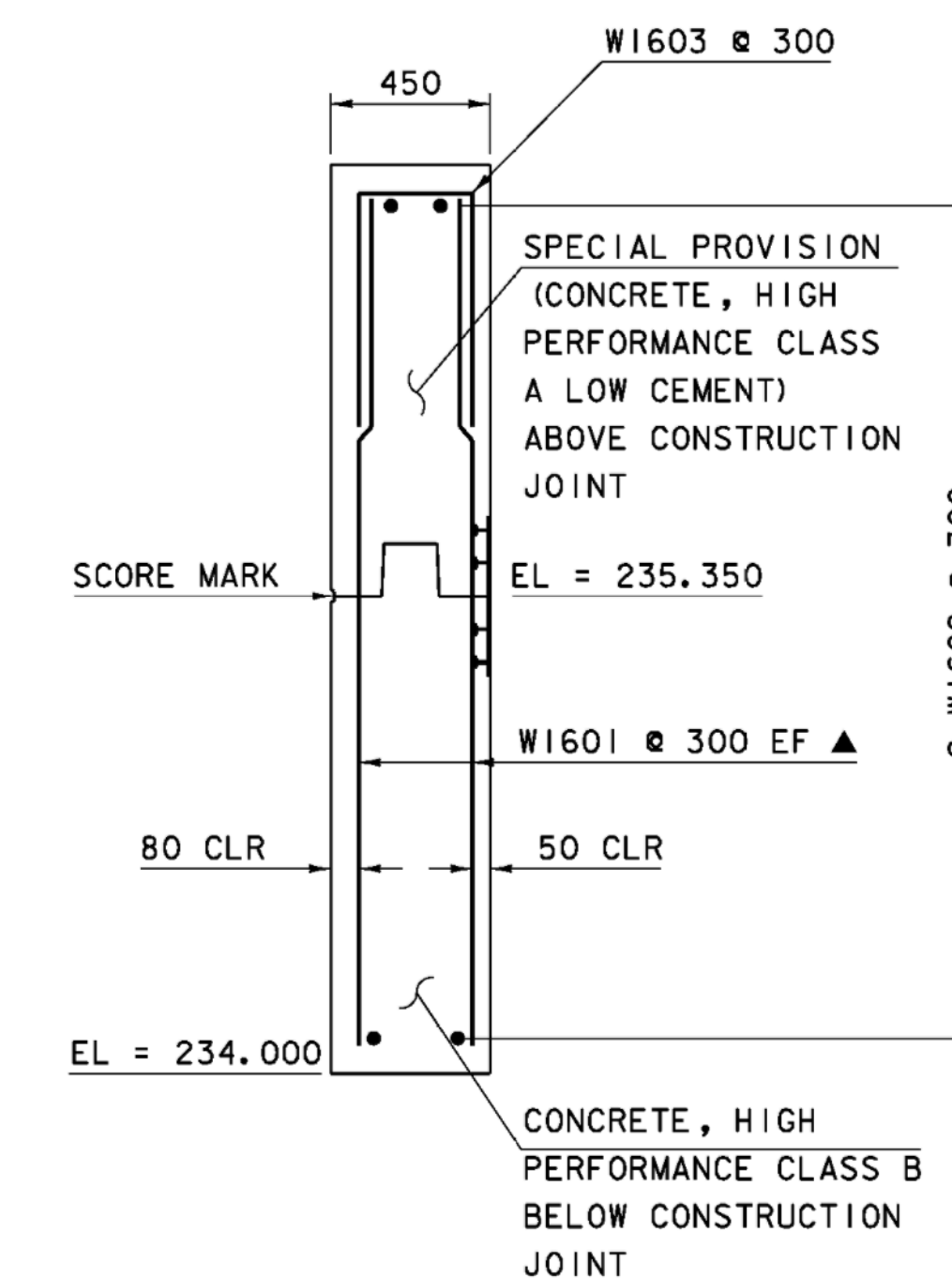


**WINGWALL #3**  
SCALE = 1:20

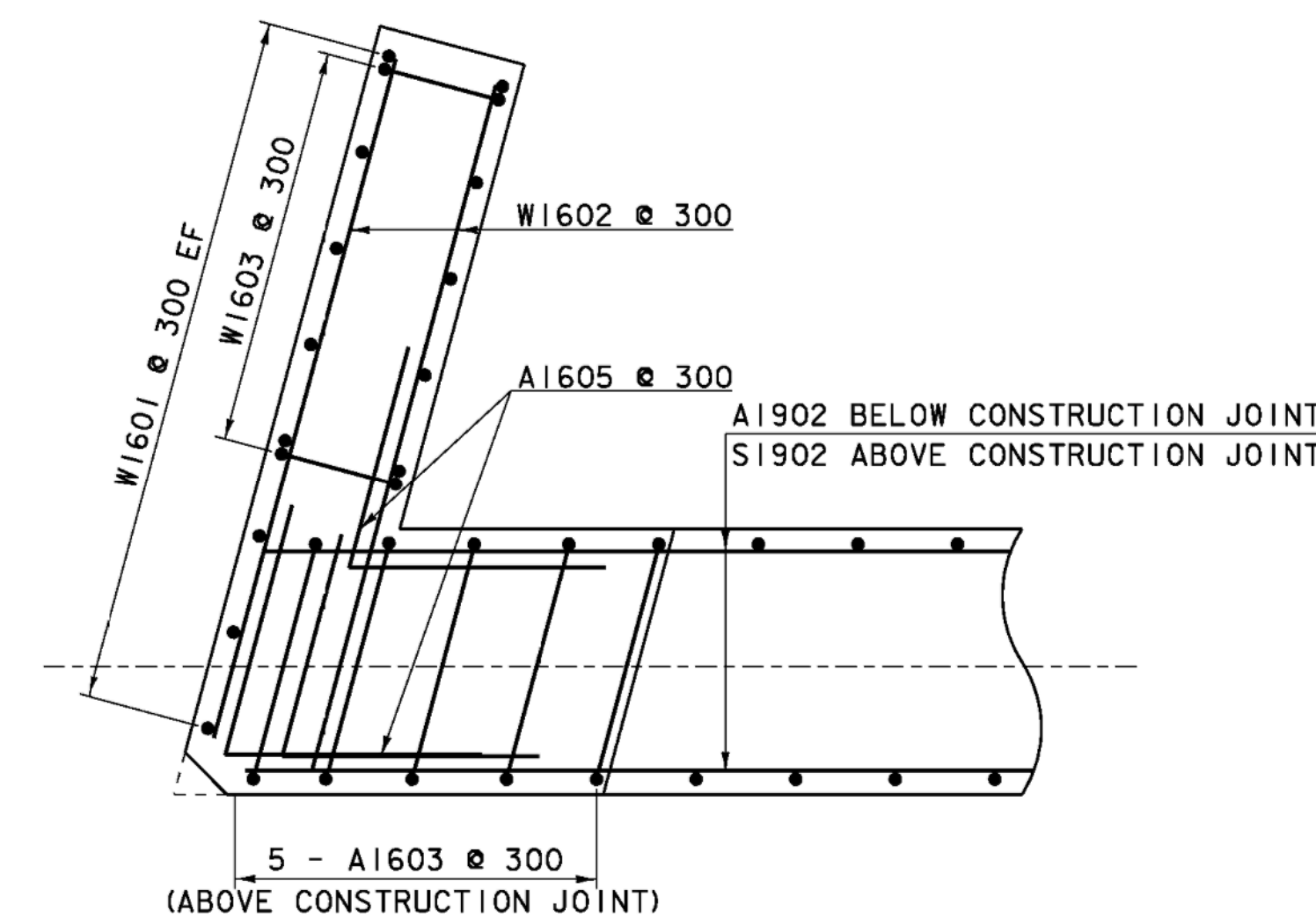
**WINGWALL #4**  
SCALE = 1:20



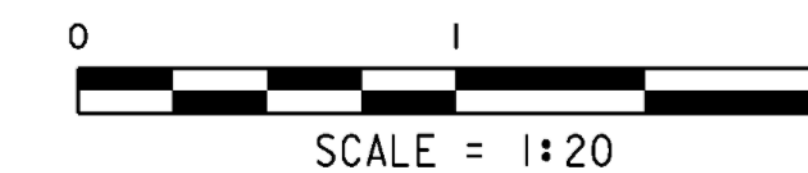
**CORNER DETAIL**  
SCALE = 1:20



**WINGWALL TYPICAL SECTION**  
SCALE = 1:20



**CORNER DETAIL**  
SCALE = 1:20



**NOTE:**

NF = NEAR FACE  
FF = FAR FACE  
EF = EACH FACE  
▲ = CUT TO FIT IN FIELD  
80 CLR. UNLESS OTHERWISE SPECIFIED ON THE PLANS.  
ALL LAPS SHALL BE 660 UNLESS NOTED OTHERWISE  
ALL REINFORCING STEEL SHALL BE EPOXY COATED.

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRG 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042sub.dgn IPARM FILE NAME: sj042wvs.i DESIGNED BY: H. I. SALLS SQUAD LEADER: C. P. WILLIAMS WINGWALL DETAIL SHEET	PLOT DATE: 16-JUL-2008 DRAWN BY: M. FESSEL CHECKED BY: R. S. YOUNG SHEET: 26 OF 42

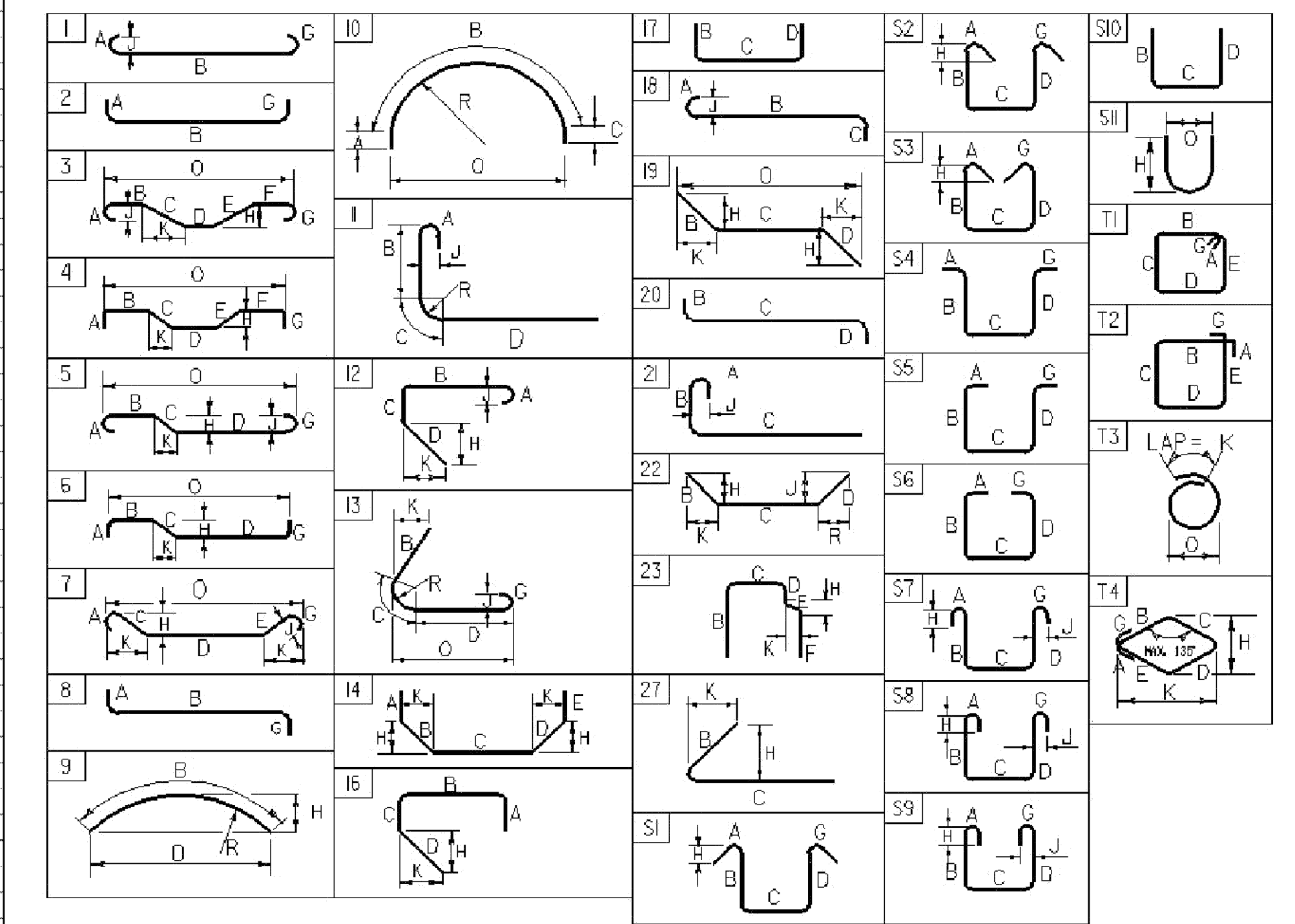
# REINFORCING STEEL SCHEDULE



ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O	ITEM	EACH	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O					
<b>SUPERSTRUCTURE</b>																																								
*	193	16	7830	S1601	STR																																			
	200	16	6840	S1602	STR																																			
	196	16	2050	S1603	S5	660	285	215	230			660																												
	140	16	1820	S1604	22		660	490	670																															
*	141	16	2550	S1605	17		1100	1450	---																															
△	22	19	9670	S1901	STR																																			
<b>ABUTMENT #1</b>																																								
*	197	16	2010	1A1601	STR																																			
	136	16	970	1A1602	17		150	670	150																															
	10	16	2890	1A1603	17		1110	670	1110																															
▲	18	16	1320	1A1604	19		660	660					640		180																									
▲	18	16	1320	1A1605	27		660	660					640		180																									
△	12	19	9670	1A1901	STR																																			
<b>WINGWALL #1</b>																																								
▲	17	16	2385	1W1601	STR																																			
▲	18	16	2240	1W1602	STR																																			
	7	16	1640	1W1603	17	660	320	660																																
<b>WINGWALL #2</b>																																								
▲	15	16	2410	2W1601	STR																																			
▲	18	16	2240	2W1602	STR																																			
	6	16	1640	2W1603	17	660	320	660																																
<b>ABUTMENT #2</b>																																								
*	197	16	2010	2A1601	STR																																			
	136	16	970	2A1602	17		150	670	150																															
	10	16	2950	2A1603	17		1140	670	1140																															
▲	18	16	1320	2A1604	19		660	660					640		180																									
▲	18	16	1320	2A1605	27		660	660					640		180																									
△	12	19	9670	2A1901	STR																																			
<b>WINGWALL #3</b>																																								
▲	15	16	2430	3W1601	STR																																			
▲	18	16	2240	3W1602	STR																																			
	6	16	1640	3W1603	17	660	320	660																																
<b>WINGWALL #4</b>																																								
▲	17	16	2410	4W1601	STR																																			
▲	18	16	2240	4W1602	STR																																			
	7	16	1640	4W1603	17	660	320	660																																

~ NOTES ~

- UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING 55M SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31M (ASTM A 615M-SI). ALL BARS SHALL BE GRADE 420, UNLESS OTHERWISE DESIGNATED.
- FOR TYPICAL BENDING DETAILS, RECOMMENDED PIN DIAMETER "D" OF BENDS AND HOOKS, AND OTHER STANDARD PRACTICE. SEE CURRENT CONCRETE REINFORCING STEEL INSTITUTE "MANUAL OF STANDARD PRACTICE".
- BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
- "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
- "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
- WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
- ▲ DENOTES BARS TO BE CUT IN FIELD.
- \* DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
- △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.



BAR SIZE	NOMINAL MASS (kg/m)	NOMINAL DIMENSIONS ROUND SECTION		
		DIAMETER (mm)	CROSS SECTIONAL AREA (mm²)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
#22	3.042	22.2	387	69.74
#25	3.973	25.4	510	79.80
#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: **CORINTH**  
 PROJECT NUMBER: **STP BRO 1447 (22) (RE-ADVERTISED)**  
 FILE NAME: sj042excel.dgn PLOT DATE: 2/28/2008  
 PROJECT MANAGER: C.P. WILLIAMS DRAWN BY: J. WHITE  
 DESIGNED BY: H.I.SALLS CHECKED BY: R.S.YOUNG  
 REINFORCING STEEL SCHEDULE SHEET #1 SHEET 27 OF 42

## **EROSION CONTROL NARRATIVE**

### **1.1 PROJECT DESCRIPTION**

THIS PROJECT INVOLVES THE REMOVAL AND REPLACEMENT OF BRIDGE #34 AND ITS ABUTMENTS, AND SOME MINOR APPROACH WORK. BRIDGE #34 IS LOCATED IN THE TOWN OF CORINTH ON TH 50, APPROXIMATELY 0.4 KILOMETERS SOUTH OF THE INTERSECTION OF TH 50 AND TH 2. THE NEW BRIDGE WILL BE A SINGLE SPAN STEEL BEAM, 23.328 METERS IN LENGTH SPANNING THE SOUTH BRANCH OF THE WAITS RIVER. THE NEW BRIDGE WILL BE LOCATED ON THE SAME ALIGNMENT AND THEREFORE REQUIRE ONLY MINOR WORK TO THE APPROACHES.

NOTE: AREA OF DISTURBANCE SHALL INCLUDE LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, INCLUDING ANY WASTE, STAGING AND BORROW AREAS WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS.

TOTAL AREA OF DISTURBANCE IS APPROXIMATELY 0.146 HECTARES (0.36 ACRES).

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

### **1.2 SITE INVENTORY**

#### **1.2.1 OFF SITE DRAINAGE CHARACTERISTICS (UP AND DOWN-GRADIENT)**

THE PROPERTY SURROUNDING THE PROJECT SITE CONSISTS OF WELL ESTABLISHED VEGETATION WITH MODERATE SLOPES AT THE PROJECT SITE AND VERY STEEP SLOPES AT THE OUTER EDGES OF THE PROJECT LOCATION. THE SURROUNDING AREA OF THE PROJECT SITE IS MOSTLY GRASSLAND WITH WOODS IN THE DISTANCE. DUE TO THE NATURE OF THE SURROUNDING TERRAIN, RUNOFF WATER ENTERING THE CONSTRUCTION AREA WILL PRIMARILY BE LIMITED TO THAT WHICH IS CONVEYED ALONG ROADWAY DITCHES.

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

THE SOUTH BRANCH OF THE WAITS RIVER IS THE ONLY WATER SOURCE ON OR NEAR THE PROJECT LOCATION. THE RIVER IS CHARACTERIZED AS STRAIGHT, PROBABLY INCISED AND ALLUVIAL, NOT BRAIDED OR ANABRANCHED CONTAINING A STREAM BED OF GRAVEL, SOME SAND, AND COBBLES. THE RIVER HAS A TENDENCY TO RISE QUICKLY. THE TRIBUTARY AREA AT THE BRIDGE CROSSING IS 93.8 SQUARE KILOMETERS. THERE ARE CLASS III WETLANDS ON THE SOUTHWEST SIDE OF THE BRIDGE AND A DRAINAGE DITCH ON THE NORTHWEST SIDE OF THE BRIDGE. ALL DISTURBED SOILS ARE WITHIN 50 METERS OF RECEIVING WATERS.

#### **1.2.3 TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES**

THE TOPOGRAPHY OF THE PROJECT SITE IS MOSTLY OPEN FIELDS WITH PATCHES OF WOODED AREAS. THE TERRAIN IS MOSTLY FLAT WITH SOME STEEP SPOTS IN THE DISTANCE. THERE IS ONE HOUSE LOCATED NEAR THE PROJECT SITE. TH 2, TH 50, AND TH 65 ARE IN OR NEAR THE PROJECT SITE.

#### **1.2.4 VEGETATION**

THE VEGETATION IN THE PROJECT AREA CONSISTS OF GRASS. UPON PROJECT COMPLETION, THE CHANNEL WILL BE ARMORED WITH STONE FILL TYPE II AS SPECIFIED ON THE PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

#### **1.2.5 SOILS**

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF ORANGE, VERMONT. THE SOIL TYPES IDENTIFIED FOR THIS PROJECT ARE WINDHOOSKI VERY FINE SANDY LOAM AND HADLEY VERY FINE SANDY LOAM, WITH K-VALUES OF 0.49 EACH.

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.

#### **1.2.6 SENSITIVE RESOURCE AREAS**

CRITICAL HABITATS: NO  
HISTORICAL OR ARCHEOLOGICAL AREAS: NO  
PRIME AGRICULTURAL LAND: YES - USDA CLEARANCE 02/24/98  
THREATENED AND ENDANGERED SPECIES: NO  
WATER RESOURCE: SOUTH BRANCH OF THE WAITS RIVER  
WETLANDS: YES - CLASS III

### **1.3 RISK EVALUATION**

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF CONSTRUCTION GENERAL PERMIT 3-9020 BASED ON THE PROJECT IMPACT AREA. 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, THEN THE SELECTED CONTRACTOR WILL BE RESPONSIBLE FOR ADDITIONAL PERMITTING WITH VANR VIA FILING OF THE APPROPRIATE NOTICE OF INTENT UNDER THE CONSTRUCTION GENERAL PERMIT PROCESS.

### **1.4 EROSION PREVENTION AND SEDIMENT CONTROL**

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE WORK OUTLINED IN THIS NARRATIVE CONSISTS OF APPLYING MEASURES THROUGHOUT THE LIFE OF THE PROJECT MINIMIZING SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION CONTROLS.

PREVENTING INITIAL SOIL EROSION IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. 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.

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

(REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR EACH PRACTICE REQUIRED ON THE PROJECT WHICH MAY INCLUDE BUT IS NOT LIMITED TO THE FOLLOWING.)

#### **1.4.1 MARK SITE BOUNDARIES**

PROJECT DEMARCATION FENCING, DENOTED -PDF- ON THE PLANS, IS USED TO DELINEATE THE LIMITS THE CONTRACTOR CAN ACCESS WITH CONSTRUCTION EQUIPMENT. THIS MEASURE LIMITS THE AREA THAT CAN BE DISTURBED AND EXPOSED TO EROSION.

#### **1.4.2 LIMIT DISTURBANCE AREA**

EMPLOY TEMPORARY STABILIZATION PRACTICES IN INCREMENTAL STAGES (PHASING) AS CONSTRUCTION PROCEEDS. ADDITIONAL MEASURES MAY BE NEEDED DUE TO THE PHASING OF THE PROJECT AND AS DIRECTED BY THE ENGINEER.

#### **1.4.3 STABILIZE CONSTRUCTION EXIT**

STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED AS NECESSARY.

#### **1.4.4 INSTALL SILT FENCE**

SILT FENCE SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK AS SHOWN ON THE PLANS OR AS NECESSARY.

#### **1.4.5 DIVERT UPLAND RUNOFF**

SWALE (STORM WATER FROM STREET COLLECTIONS DRAINAGE SYSTEM)

#### **1.4.6 SLOW DOWN CHANNELIZED RUNOFF**

CHECK DAMS SHALL BE UTILIZED AS NECESSARY.

#### **1.4.7 CONSTRUCT PERMANENT CONTROLS**

TYPE I, II, STONE FOR SLOPE LINING AND CHANNEL PROTECTION  
SEED AND MULCH  
DRAINAGE INLETS AND PIPING  
SOIL RETENTION WALLS

STREAM BANK VEGETATION WILL BE INTRODUCED IN THE GRUBBING MATERIAL THAT IS TO BE PLACED OVER THE STREAM BANK STONE FILL.

#### **1.4.8 STABILIZE EXPOSED SOILS**

SEED AND MULCH  
EROSION MATTING

TRACKING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, WILL BE UTILIZED ON A REGULAR BASIS. SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF FORECASTED RAIN. SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING INTERMITTENT PHASES OF CONSTRUCTION.

#### **1.4.9 WINTER STABILIZATION**

VARIOUS MEASURES SPECIFIC TO WINTER (SEE LOW RISK HANDBOOK)

#### **1.4.10 STABILIZE SOIL AT FINAL GRADE**

SEED AND MULCH  
EROSION MATTING

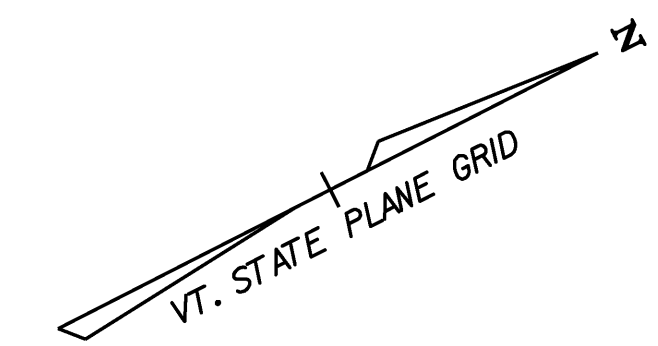
SEEDING, MULCHING AND BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3. THESE SLOPES SHALL BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

#### **1.4.11 DE-WATERING ACTIVITIES**

#### **1.4.12 INSPECT YOUR SITE**

INSPECT SITE BASED ON PERMIT AUTHORIZATION OR SPECIAL PROVISION REQUIREMENTS.

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: 93\042\Structures\93\042erodetail.s.dgn IPARM FILE NAME: 93\042epsonarr.i	PLOT DATE: 16-JUL-2008
DESIGNED BY:	DRAWN BY: M.FESSEL
SQUAD LEADER: C.P. WILLIAMS	CHECKED BY:
EPSC NARRATIVE	SHEET: 28 OF 42



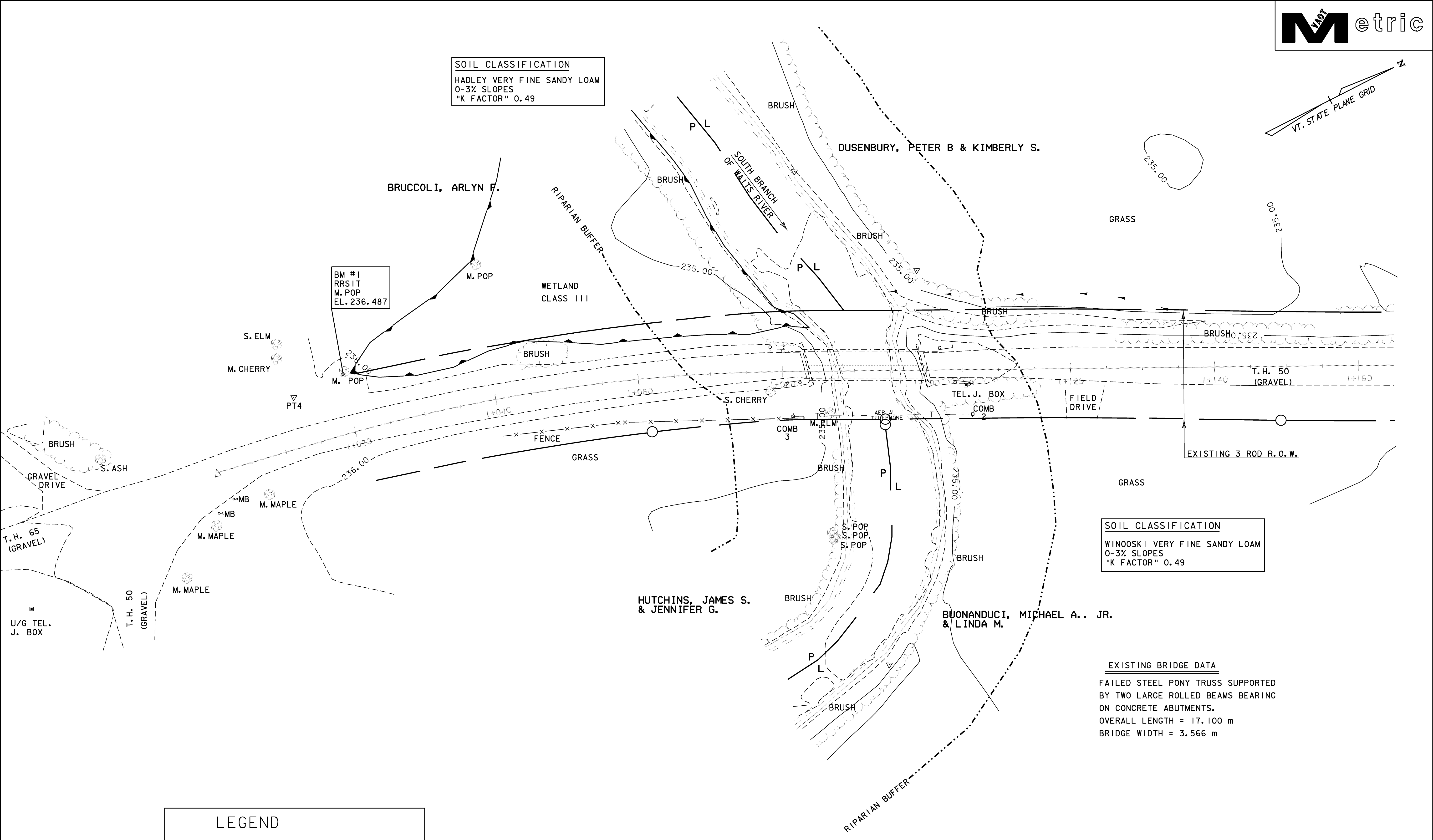
**SOIL CLASSIFICATION**  
 HADLEY VERY FINE SANDY LOAM  
 0-3% SLOPES  
 "K FACTOR" 0.49

**SOIL CLASSIFICATION**  
 WINDOSKI VERY FINE SANDY LOAM  
 0-3% SLOPES  
 "K FACTOR" 0.49

**EXISTING BRIDGE DATA**  
 FAILED STEEL PONY TRUSS SUPPORTED  
 BY TWO LARGE ROLLED BEAMS BEARING  
 ON CONCRETE ABUTMENTS.  
 OVERALL LENGTH = 17.100 m  
 BRIDGE WIDTH = 3.566 m

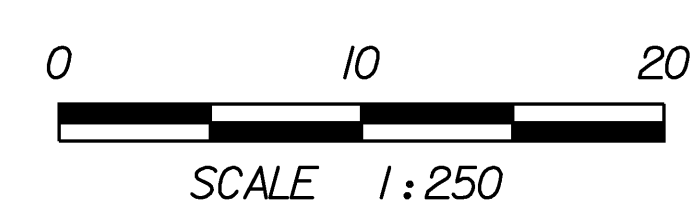
**LEGEND**

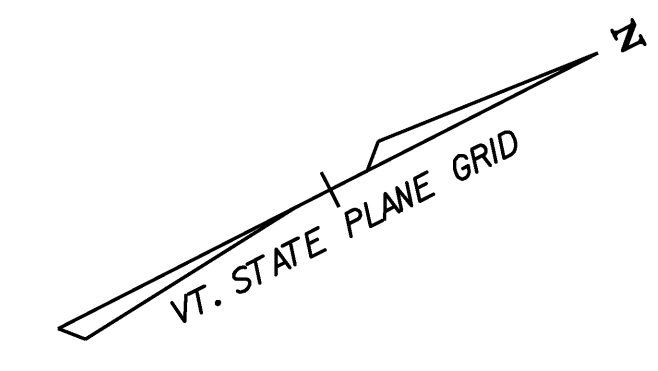
CLASS III WETLANDS  
 RIPARIAN BUFFER ZONE



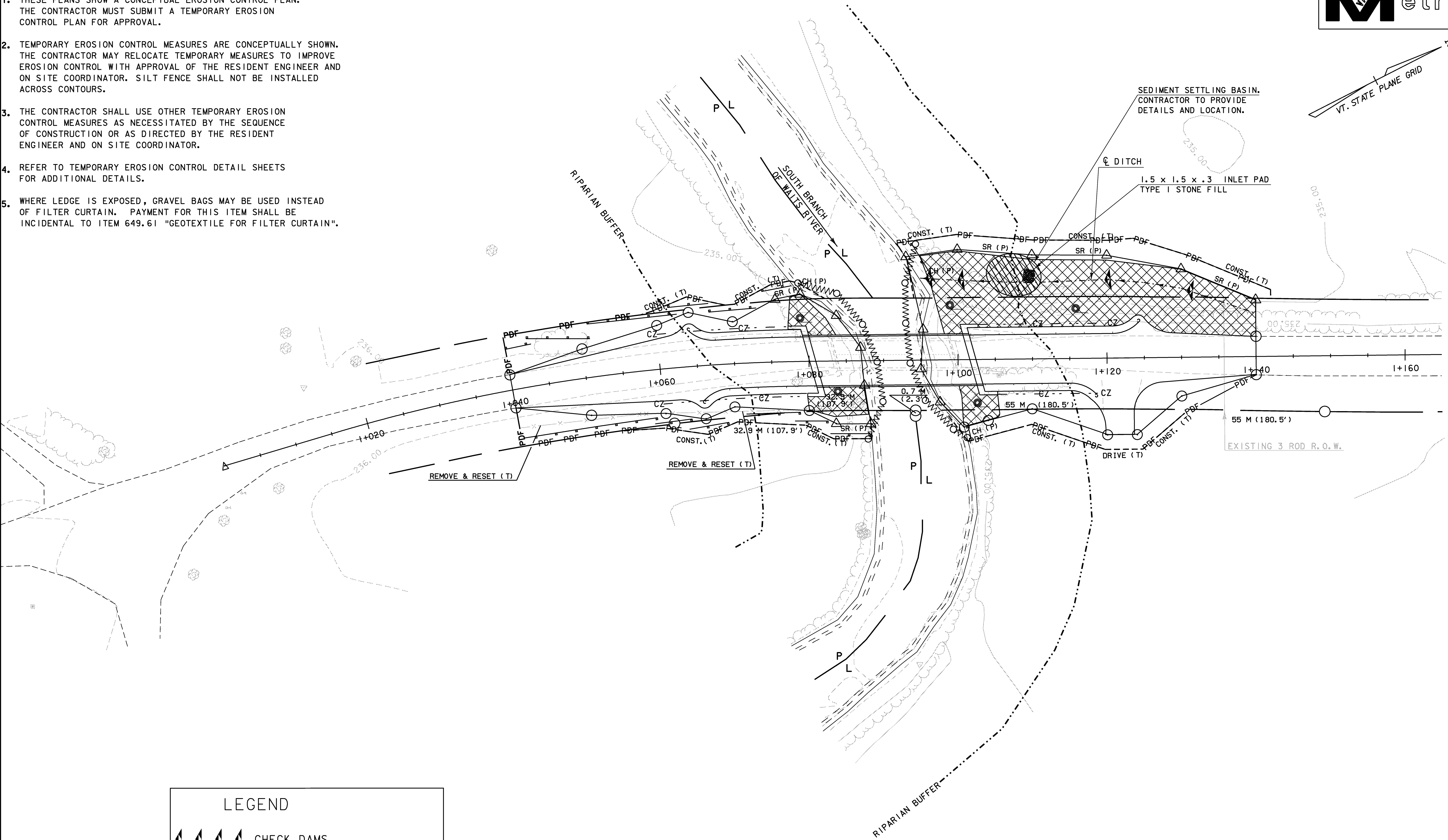
**EPSC EXISTING CONDITIONS SITE PLAN**

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: 93J042/structures/s93J042bdr_ero.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042excon.l	DRAWN BY: M.FESSEL
DESIGNED BY: M.FESSEL	CHECKED BY: R.S.YOUNG
SQUAD LEADER: C.P. WILLIAMS	SHEET: 29 OF 42
EPSC EXISTING CONDITIONS SITE PLAN	

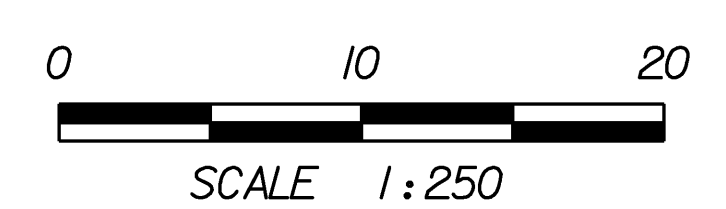




- NOTES:
1. THESE PLANS SHOW A CONCEPTUAL EROSION CONTROL PLAN. THE CONTRACTOR MUST SUBMIT A TEMPORARY EROSION CONTROL PLAN FOR APPROVAL.
  2. TEMPORARY EROSION CONTROL MEASURES ARE CONCEPTUALLY SHOWN. THE CONTRACTOR MAY RELOCATE TEMPORARY MEASURES TO IMPROVE EROSION CONTROL WITH APPROVAL OF THE RESIDENT ENGINEER AND ON SITE COORDINATOR. SILT FENCE SHALL NOT BE INSTALLED ACROSS CONTOURS.
  3. THE CONTRACTOR SHALL USE OTHER TEMPORARY EROSION CONTROL MEASURES AS NECESSITATED BY THE SEQUENCE OF CONSTRUCTION OR AS DIRECTED BY THE RESIDENT ENGINEER AND ON SITE COORDINATOR.
  4. REFER TO TEMPORARY EROSION CONTROL DETAIL SHEETS FOR ADDITIONAL DETAILS.
  5. WHERE LEDGE IS EXPOSED, GRAVEL BAGS MAY BE USED INSTEAD OF FILTER CURTAIN. PAYMENT FOR THIS ITEM SHALL BE INCIDENTAL TO ITEM 649.61 "GEOTEXTILE FOR FILTER CURTAIN".

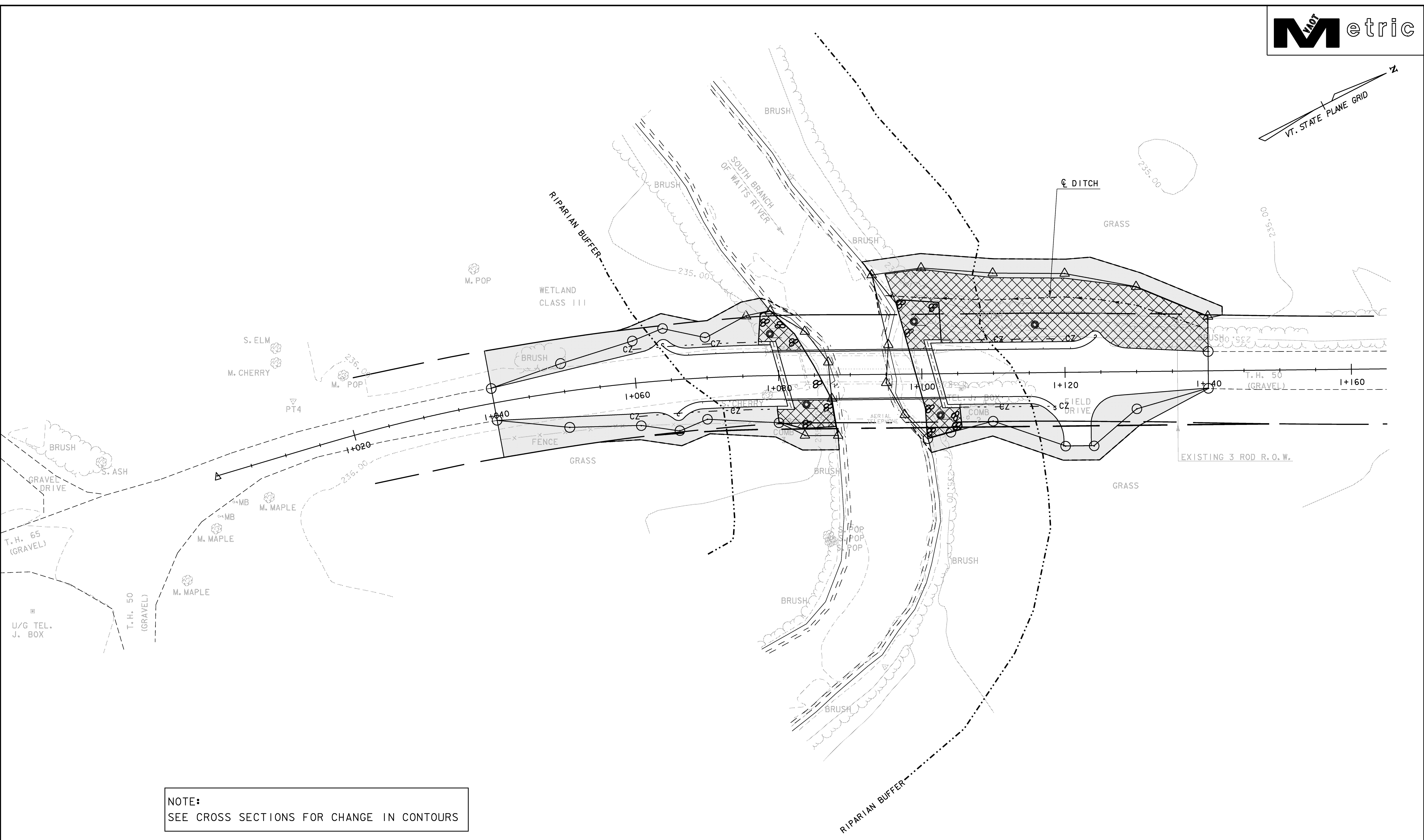
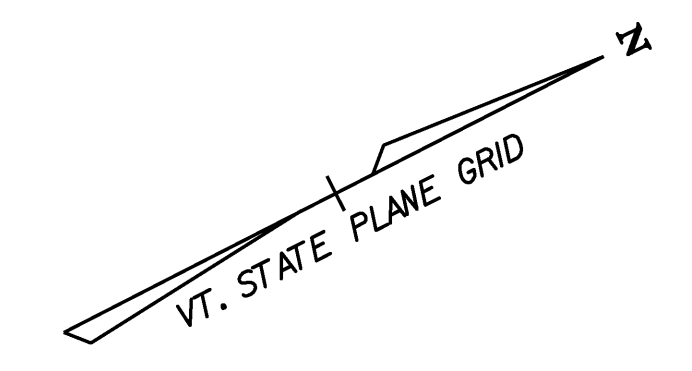


LEGEND	
	CHECK DAMS
	EROSION MATTING
	LIMITS OF CONSTRUCTION
	PROJECT DEMARCATIION FENCE
	RIPARIAN BUFFER
	SILT FENCE
	TURBIDITY CURTAIN



### EPSC CONSTRUCTION SITE PLAN

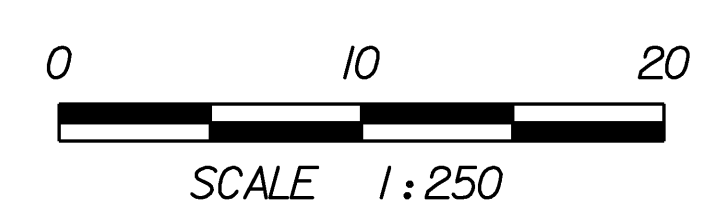
PROJECT: CORINTH	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: 93J042/structures/s93J042bdr_ero.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042epsplan.l	DRAWN BY: M.FESSEL
DESIGNED BY: M.FESSEL	CHECKED BY: R.S.YOUNG
SQUAD LEADER: C.P. WILLIAMS	SHEET: 30 OF 42
EPSC CONSTRUCTION SITE PLAN	



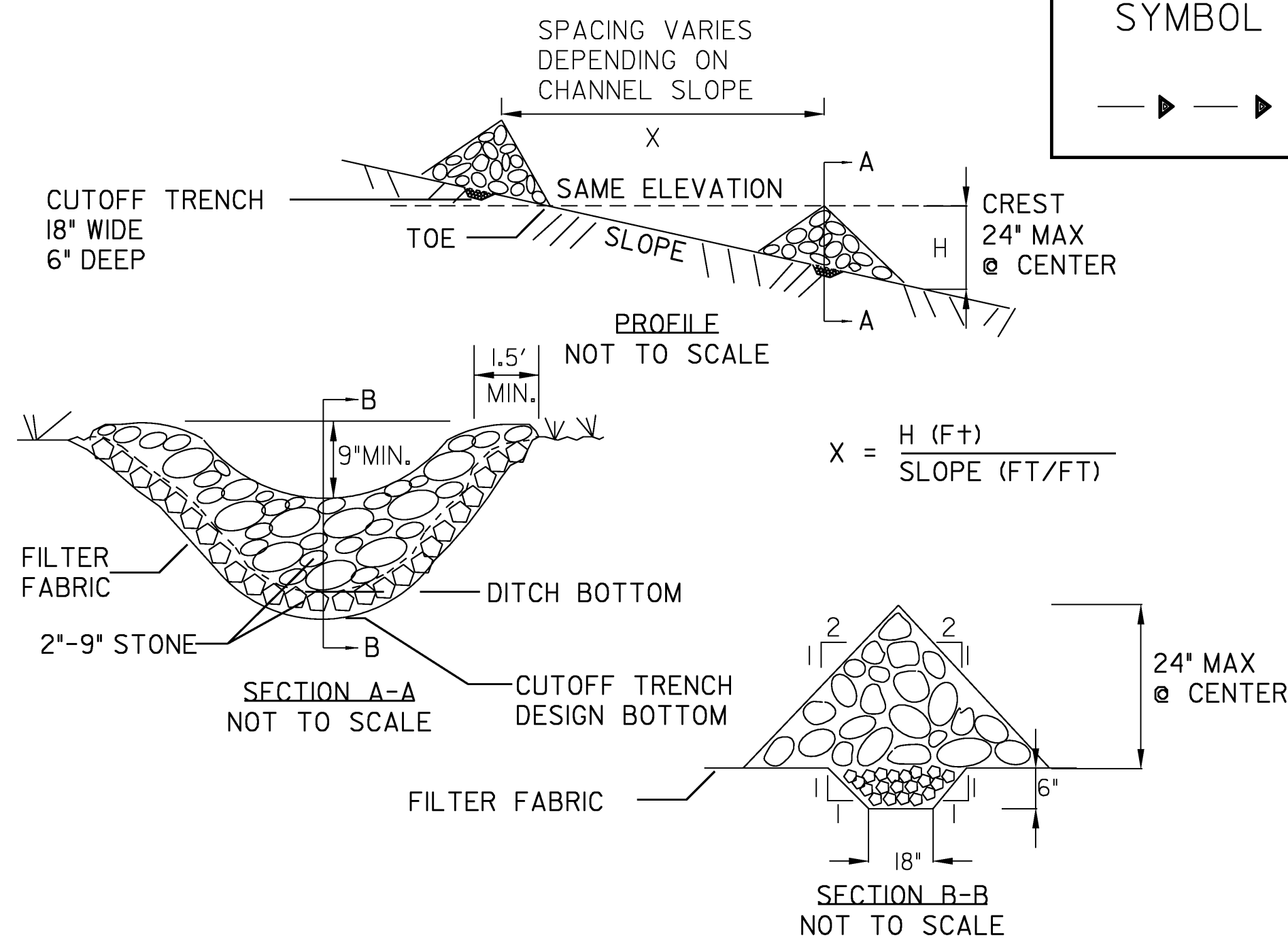
**NOTE:**  
SEE CROSS SECTIONS FOR CHANGE IN CONTOURS

LEGEND	
	DISTURBED AREAS REQUIRING RE-VEGETATION
	EROSION MATTING
	LIMITS OF CONSTRUCTION
	RIPARIAN BUFFER

**EPSC FINAL CONDITIONS SITE PLAN**



PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: 93J042/structures/s93J042bdr_ero.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042fIncon.I	DRAWN BY: M.FESSEL
DESIGNED BY: M.FESSEL	CHECKED BY: R.S.YOUNG
SQUAD LEADER: C.P. WILLIAMS	SHEET: 31 OF 42
EPSC FINAL CONDITIONS SITE PLAN	



**CONSTRUCTION SPECIFICATIONS**

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

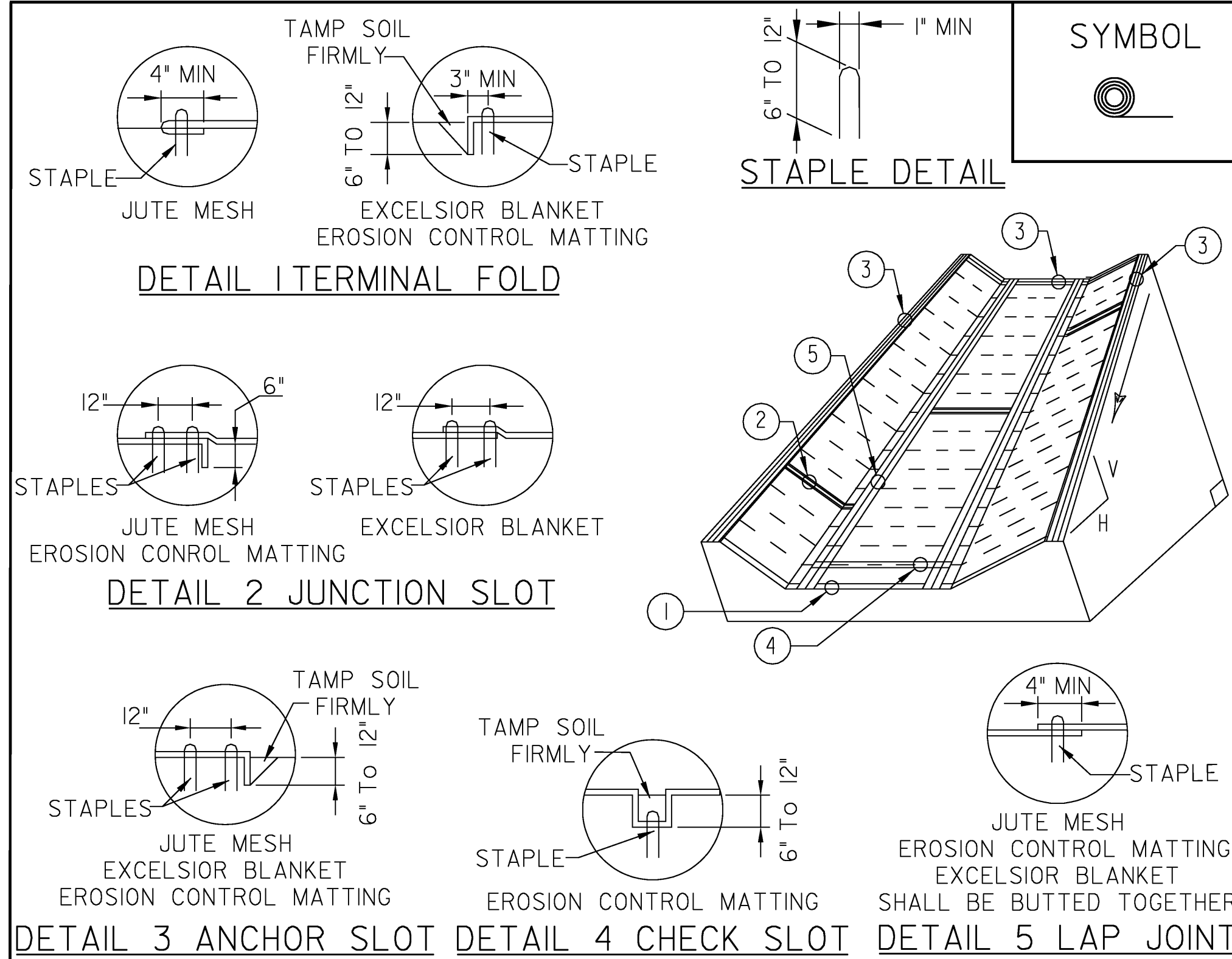
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DECORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**CHECK DAM**

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

THIS ITEM SHALL BE PAID FOR UNDER ITEM 653.25 TEMPORARY STONE CHECK DAM, TYPE 1

REVISIONS	
MARCH 8, 2007	JMF



**CONSTRUCTION SPECIFICATIONS**

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

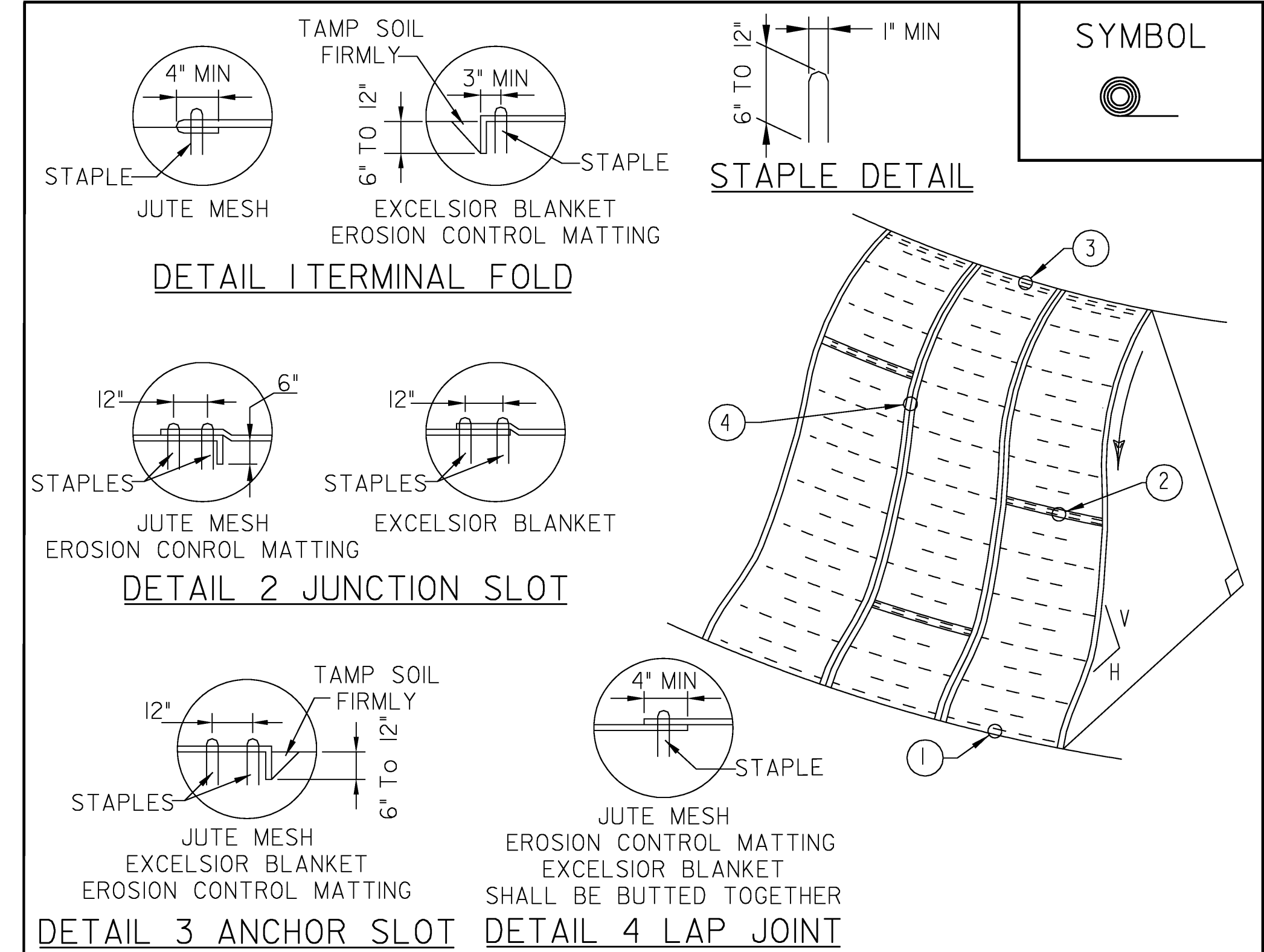
ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS ORIGINALLY DEVELOPED BY USDA-NRCS VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**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 ITEM SHALL BE PAID FOR UNDER ITEM 653.20 TEMPORARY EROSION MATTING OR 653.21 PERMANENT EROSION MATTING

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF



**CONSTRUCTION SPECIFICATIONS**

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

ADAPTED FROM DETAILS PROVIDED BY: ILLINOIS USDA-NRCS 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.

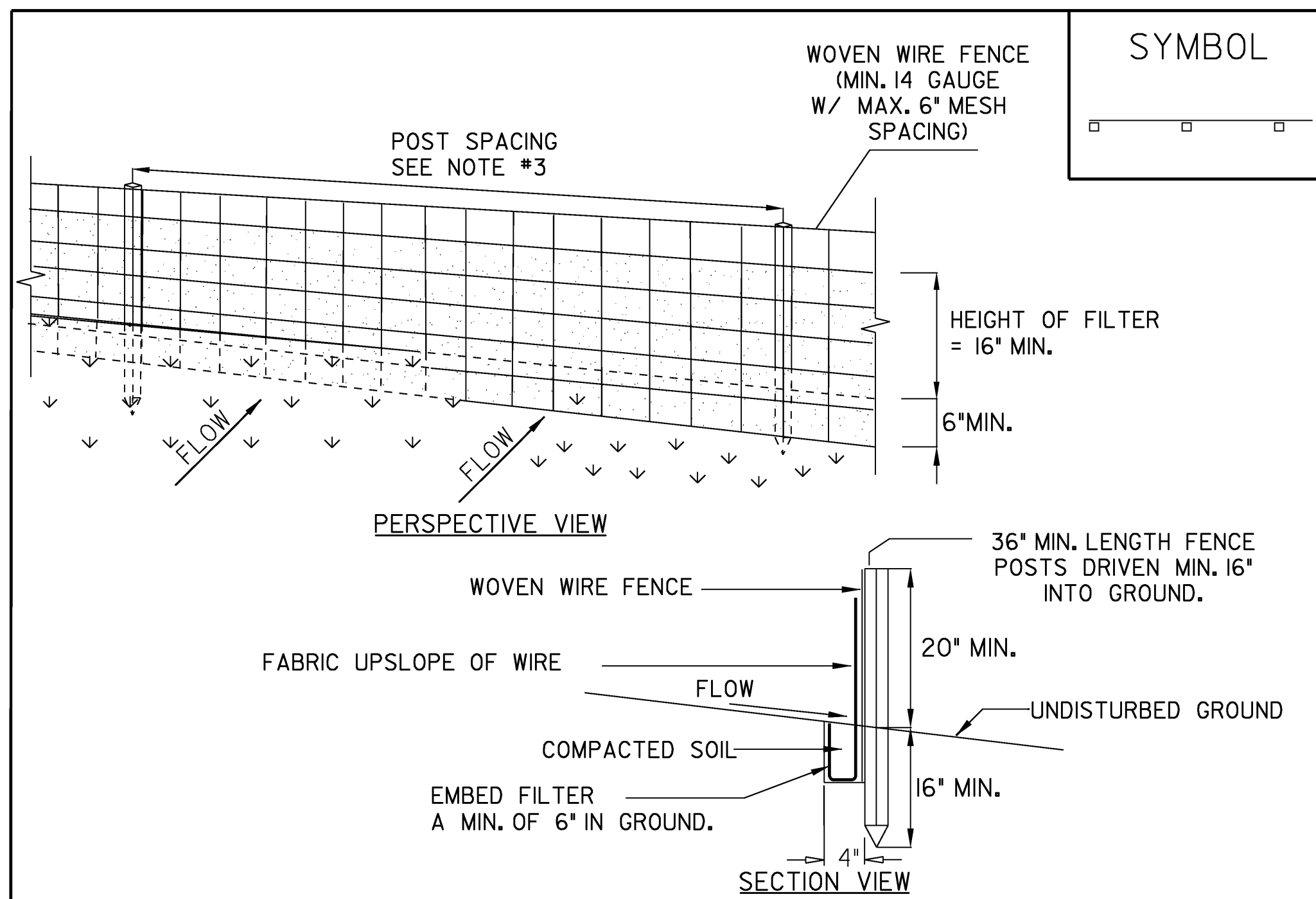
THIS ITEM SHALL BE PAID FOR UNDER ITEM 653.20 TEMPORARY EROSION MATTING OR 653.21 PERMANENT EROSION MATTING

NEW	
APRIL 16, 2007	WHF
REVISIONS	

**NTS**

**EPSC DETAIL SHEETS**

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: 93j042\structures\93j042erodetail.s.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: 93j042epscl.i	DRAWN BY: CONST. ENV. SECT.
DESIGNED BY: CONST. ENV. SECTION	CHECKED BY: ANDREA CABRAL
SQUAD LEADER: C.P. WILLIAMS	SHEET: 32 OF 42
EPSC DETAILS - SHEET 1	



**CONSTRUCTION SPECIFICATIONS**

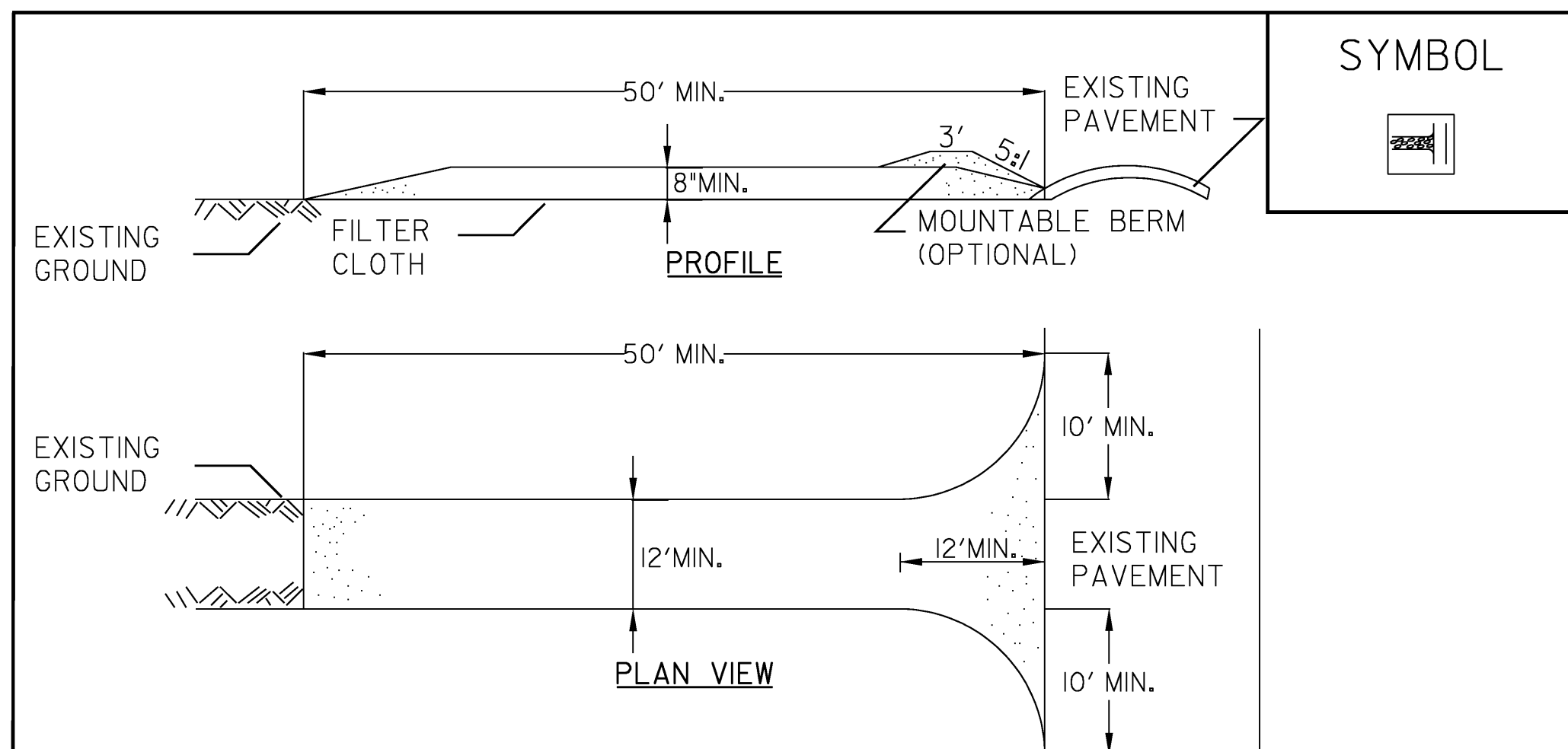
1. WOVEN WIRE FENCE REINFORCEMENT IS ONLY REQUIRED WITHIN 100 FT UPSLOPE OF RECEIVING WATERS.
2. WHERE REQUIRED FENCE SHALL BE WOVEN WIRE, MIN. 14 GAUGE WITH A 6" MAXIMUM MESH OPENING. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF100X, STABILINKA T140N OR APPROVED EQUIVALENT.
3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4'. FOR FILTER-CLOTH FENCE, 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 SIX INCHES AND FOLDED.
6. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE, OR APPROVED EQUIVALENT.
7. 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 ITEM SHALL BE PAID FOR UNDER ITEM  
STANDARD SPECIFICATION 649.51 GEOTEXTILE FOR SILT FENCE OR  
SPECIAL PROVISION 900.675 (GEOTEXTILE FOR SILT FENCE, WOVEN WIRE REINFORCED)



**CONSTRUCTION SPECIFICATIONS**

1. STONE SIZE - USE 1-4" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH APPLIES).
3. THICKNESS - NOT LESS THAN EIGHT (8) INCHES.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT 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.

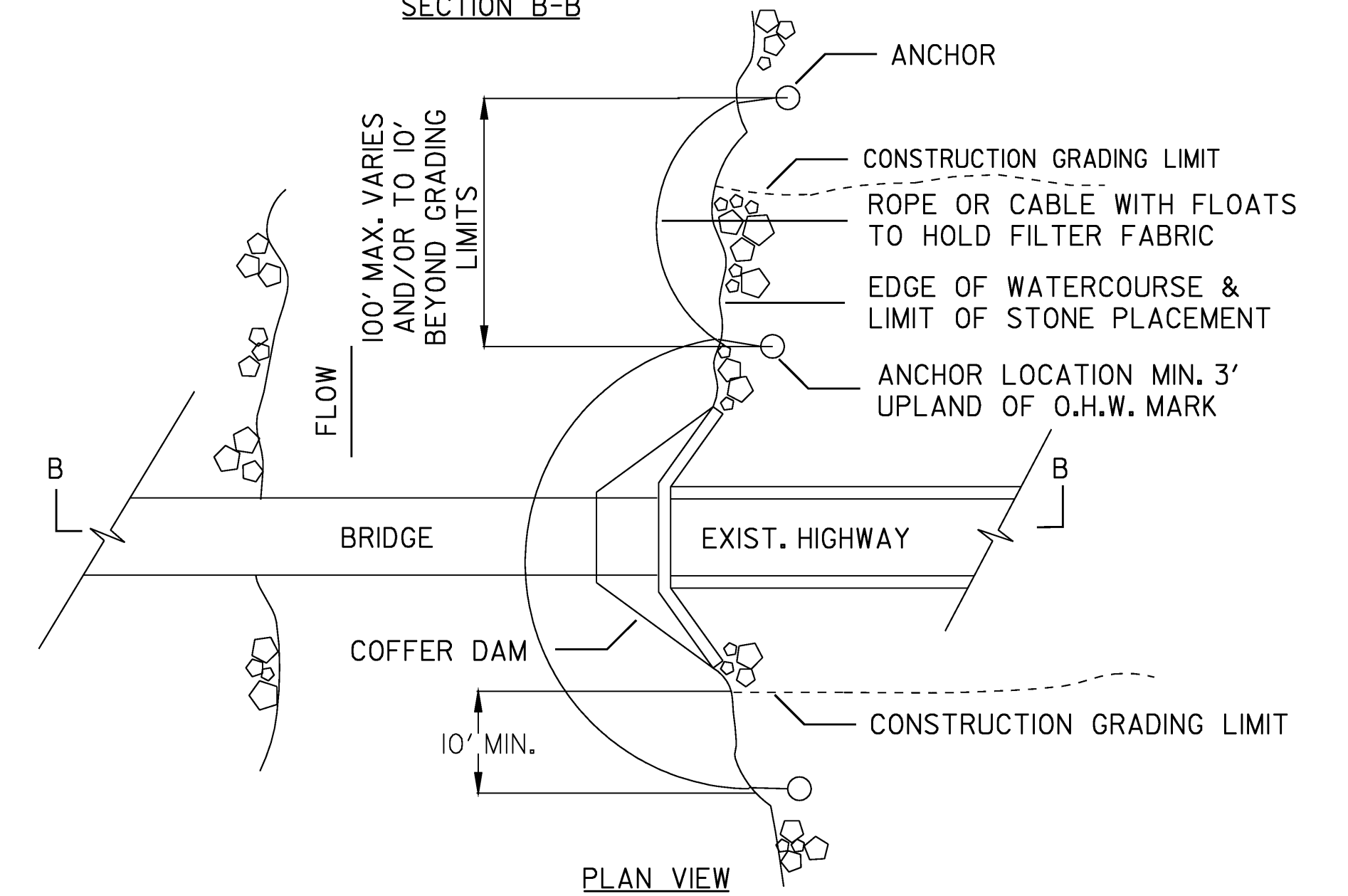
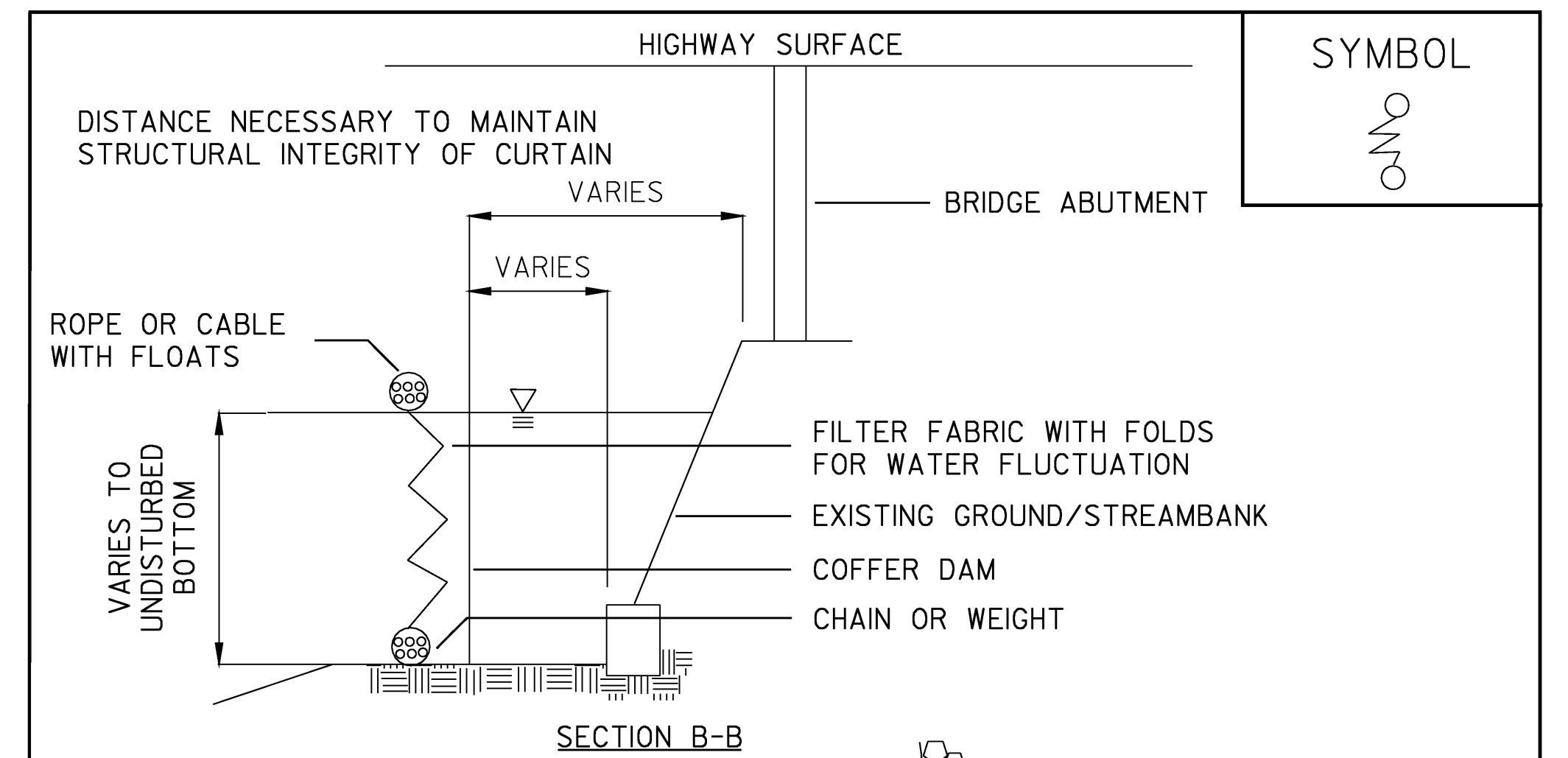
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

**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 ITEM SHALL BE PAID FOR UNDER ITEM  
653.35 VEHICLE TRACKING PAD

REVISIONS	
FEBRUARY 9, 2007	WHF
MARCH 8, 2007	JMF



ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC  
ORIGINALLY DEVELOPED BY USDA-NRCS  
VERMONT AGENCY OF TRANSPORTATION

**TURBIDITY CURTAIN**

NOTES:  
THIS ITEM SHALL BE PAID FOR UNDER ITEM  
649.61 GEOTEXTILE FOR FILTER CURTAIN

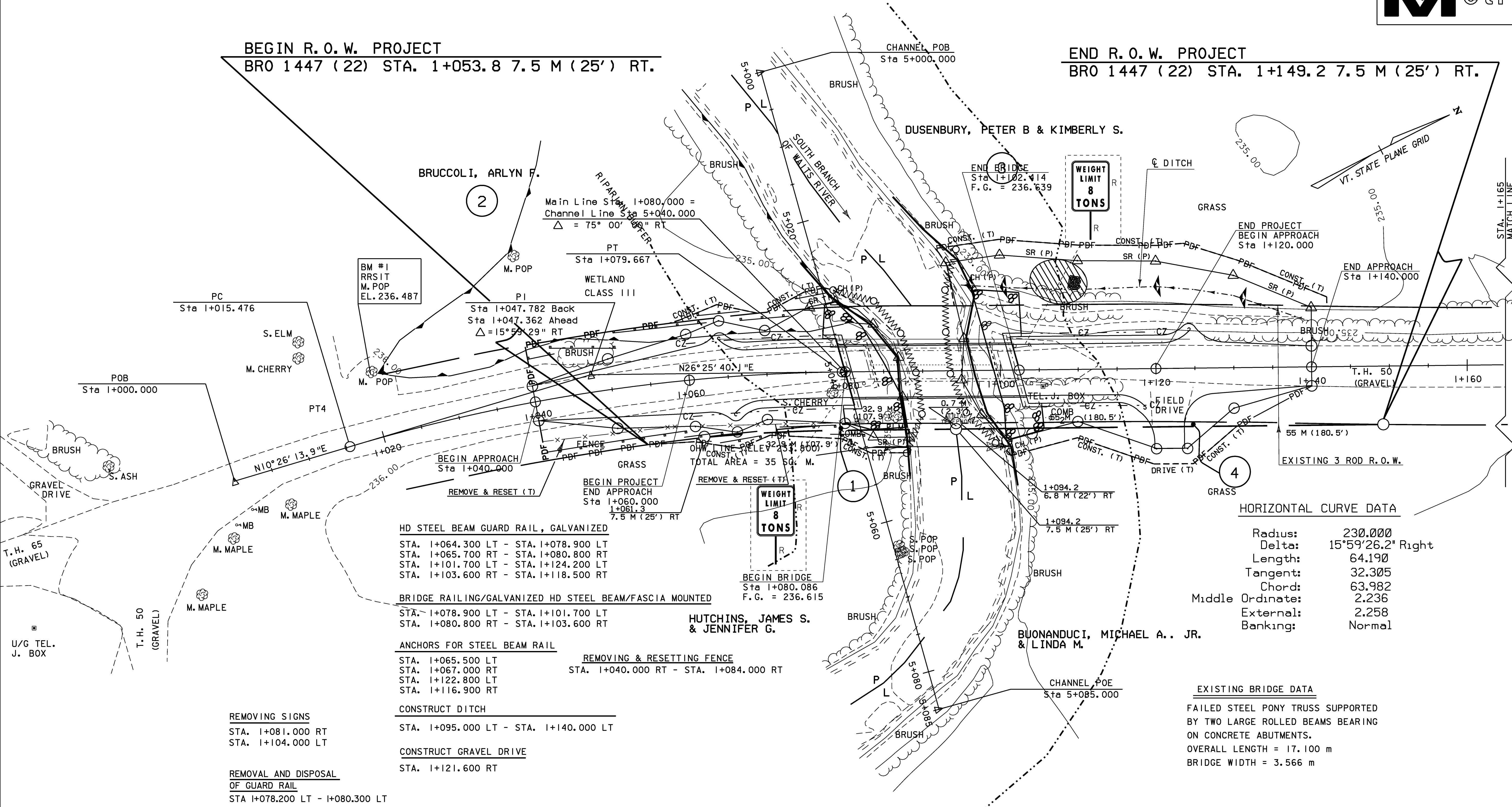
**EPSC DETAIL SHEETS**

PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: 93j042\structures\s93j042erodetail.s.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: 93j042epsc2.i	DRAWN BY: CONST. ENV. SECT.
DESIGNED BY: CONST. ENV. SECTION	CHECKED BY: ANDREA CABRAL
SQUAD LEADER: C.P. WILLIAMS	SHEET: 33 OF 42
EPSC DETAILS - SHEET 2	

**NTS**

**BEGIN R.O.W. PROJECT**  
 BRO 1447 (22) STA. 1+053.8 7.5 M (25') RT.

**END R.O.W. PROJECT**  
 BRO 1447 (22) STA. 1+149.2 7.5 M (25') RT.



**HD STEEL BEAM GUARD RAIL, GALVANIZED**  
 STA. 1+064.300 LT - STA. 1+078.900 LT  
 STA. 1+065.700 RT - STA. 1+080.800 RT  
 STA. 1+101.700 LT - STA. 1+124.200 LT  
 STA. 1+103.600 RT - STA. 1+118.500 RT

**BRIDGE RAILING/GALVANIZED HD STEEL BEAM/FASCIA MOUNTED**  
 STA. 1+078.900 LT - STA. 1+101.700 LT  
 STA. 1+080.800 RT - STA. 1+103.600 RT

**ANCHORS FOR STEEL BEAM RAIL**  
 STA. 1+065.500 LT  
 STA. 1+067.000 RT  
 STA. 1+122.800 LT  
 STA. 1+116.900 RT

**REMOVING & RESETTING FENCE**  
 STA. 1+040.000 RT - STA. 1+084.000 RT

**CONSTRUCT DITCH**  
 STA. 1+095.000 LT - STA. 1+140.000 LT

**CONSTRUCT GRAVEL DRIVE**  
 STA. 1+121.600 RT

**REMOVING SIGNS**  
 STA. 1+081.000 RT  
 STA. 1+104.000 LT

**REMOVAL AND DISPOSAL OF GUARD RAIL**  
 STA 1+078.200 LT - 1+080.300 LT  
 STA 1+080.400 RT - 1+082.600 RT  
 STA 1+101.700 LT - 1+103.750 LT  
 STA 1+103.750 RT - 1+106.200 RT

**HORIZONTAL CURVE DATA**

Radius:	230.000
Delta:	15°59'26.2" Right
Length:	64.190
Tangent:	32.305
Chord:	63.982
Middle Ordinate:	2.236
External:	2.258
Banking:	Normal

**EXISTING BRIDGE DATA**  
 FAILED STEEL PONY TRUSS SUPPORTED BY TWO LARGE ROLLED BEAMS BEARING ON CONCRETE ABUTMENTS.  
 OVERALL LENGTH = 17.100 m  
 BRIDGE WIDTH = 3.566 m

**LAYOUT**



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 TOWN OF CORINTH'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

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

**LEGEND**

R - REMOVE
RET - RETAIN

PROJECT: <b>CORINTH</b>	PROJECT NO. : <b>BRO 1447(22)</b>
DESIGN FILE NAME: /prop/93j042/rj042zzz.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: /prop/93j042/rj042lr.l	SURVEY DATE: 3-15-95
SURVEYED BY: R. D. GILMAN	DRAWN BY:
SQUAD LEADER:	R.O.W. SHEET 9 OF 9 SHEETS
	SHEET 34 OF 42

**DATUM**

VERTICAL	NAVD 88
HORIZONTAL	NAD 83/92



**TABLE OF PROJECT PROPERTY ACQUISITION**

**STATE OF VERMONT  
AGENCY OF TRANSPORTATION  
RIGHT OF WAY PLANS  
DETAIL SHEET**

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS
1	HUTCHINS, JAMES S. & JENNIFER G.	9	1+061.3 RT. 1+053.8 RT. 1+060.0 RT. 1+082.2 RT.	1+094.2 RT. 1+088.2 RT. 1+088.2 RT.	23.9 SM±		CONST. (T) 28.5 SM± REMOVE & RESET (T) SLOPE (P) 5.0 SM±	WDOE	11-14-02	CORINTH	74	359-360	258 SF± 307 SF± FENCE 54 SF±
2	BRUCCOLI, ARLYN F.	9	1+059.2 LT. 1+075.0 LT. 1+077.0 LT.	1+082.5 LT. 1+077.0 LT. 1+080.0 LT.			CONST. (T) 23.0 SM± SLOPE (P) 0.5 SM± CHANNEL (P) 1.2 SM±	WDOE	08-26-02	CORINTH	74	1-2	250 SF± 5 SF± 13 SF±
3	DUSENBURY, PETER B. & KIMBERLY S.	9	1+092.0 LT. 1+093.2 LT. 1+096.5 LT.	1+142.0 LT. 1+140.0 LT. 1+102.8 LT.			CONST. (T) 104.0 SM± SLOPE (P) 209.5 SM± CHANNEL (P) 10.8 SM±	WDOE	07-12-02	CORINTH	73	294-295	1119 SF± 2255 SF± INCLUDES DETENTION BASIN 116 SF±
4	BUONANDUCI, MICHAEL A., JR. & LINDA M.	9	1+094.2 RT. 1+098.5 RT. 1+100.0 RT. 1+121.6 RT.	1+149.2 RT. 1+130.6 RT. 1+106.8 RT.	30.7 SM±		CONST. (T) 58.0 SM± CHANNEL (P) 4.5 SM± DRIVE (T)	WDOE	07-05-02	CORINTH	73	252-253	331 SF± 624 SF± 48 SF± 3.8M GRAVEL (12 FT)
5	TOPSHAM TELEPHONE COMPANY												UTILITY

REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	8, 9	PARCEL NO. 3 SLACK. CHANGE OWNER TO PETER B. & KIMBERLY DUSENBURY, PER C. O. 9185.	01-25-01	T. B. F.	R. P. D.
2	8, 9	PARCEL NO. 2 PACILIO. CHANGE OWNER TO ARLYN F. BRUCCOLI. PER C. O. 9233.  ELECTRONIC FILES TO STRUCTURES 11-7-07	04-24-02	G. J. F.	E. G. P.

DR. (P)- DRAINAGE RIGHT  
DIT. (P)- DITCHING RIGHT  
CH. (P)- CHANNEL RT.  
DRIVE (T)- DRIVE RIGHT  
CUL. (P)- CULVERT RIGHT  
[W]- WATER SOURCES

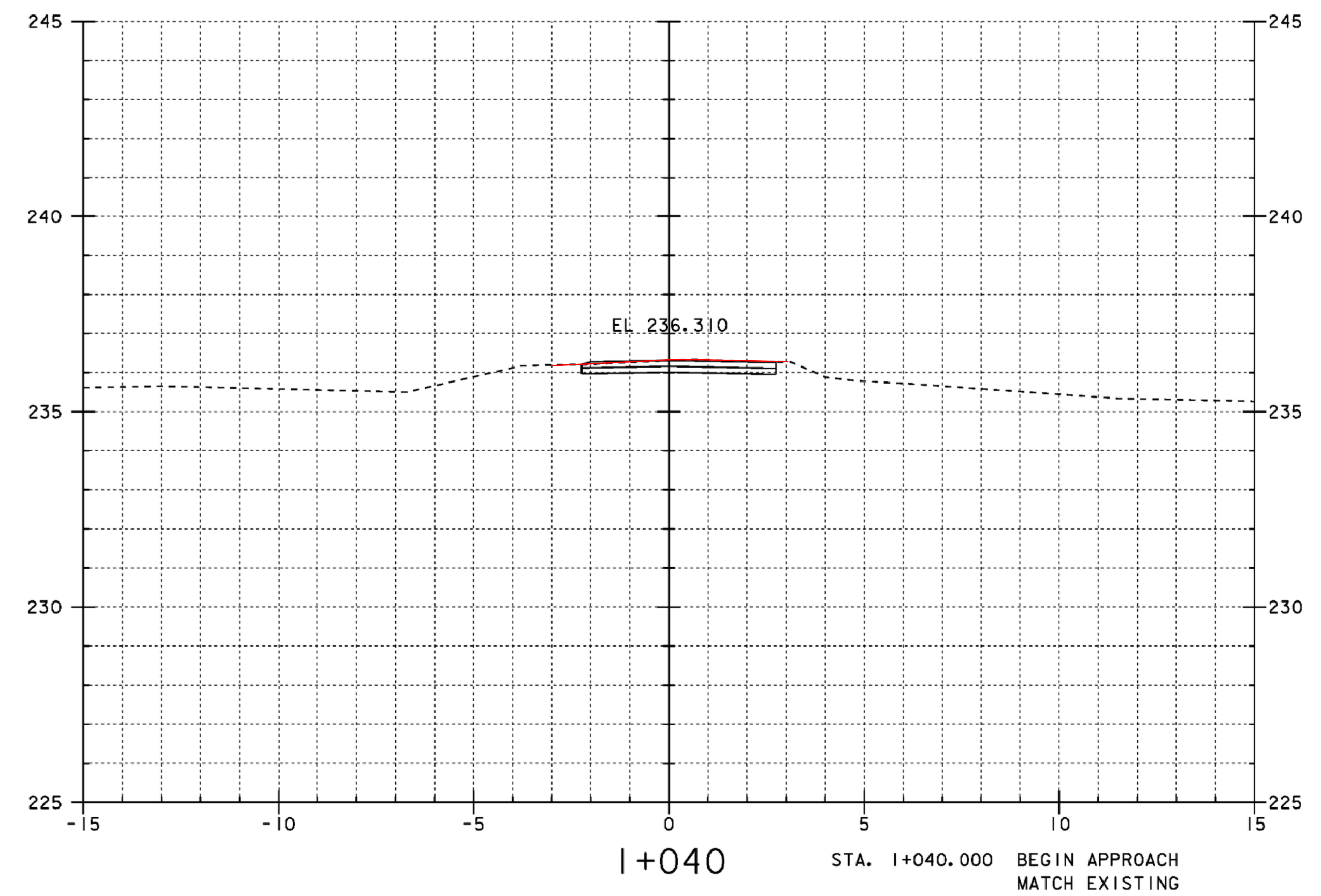
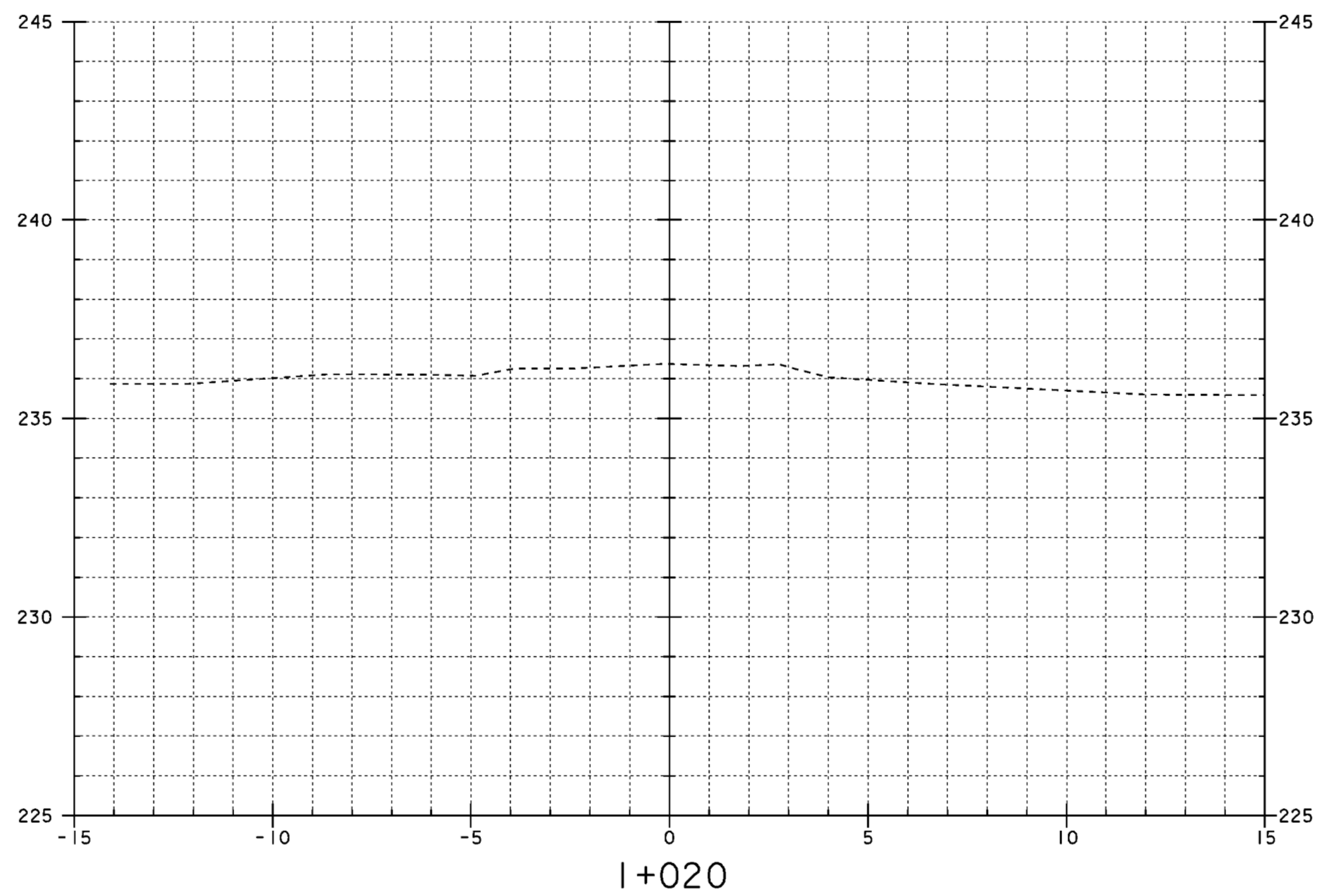
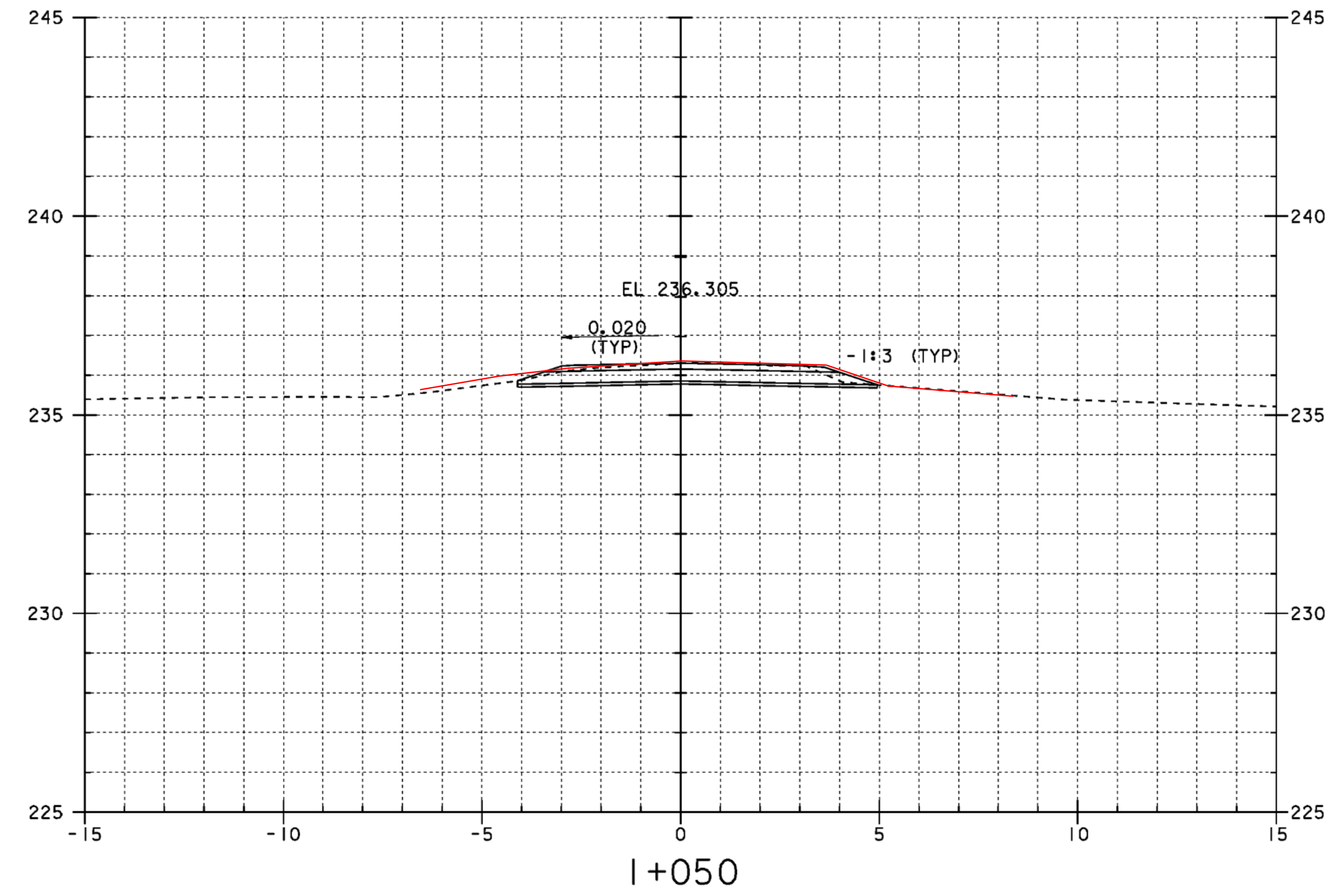
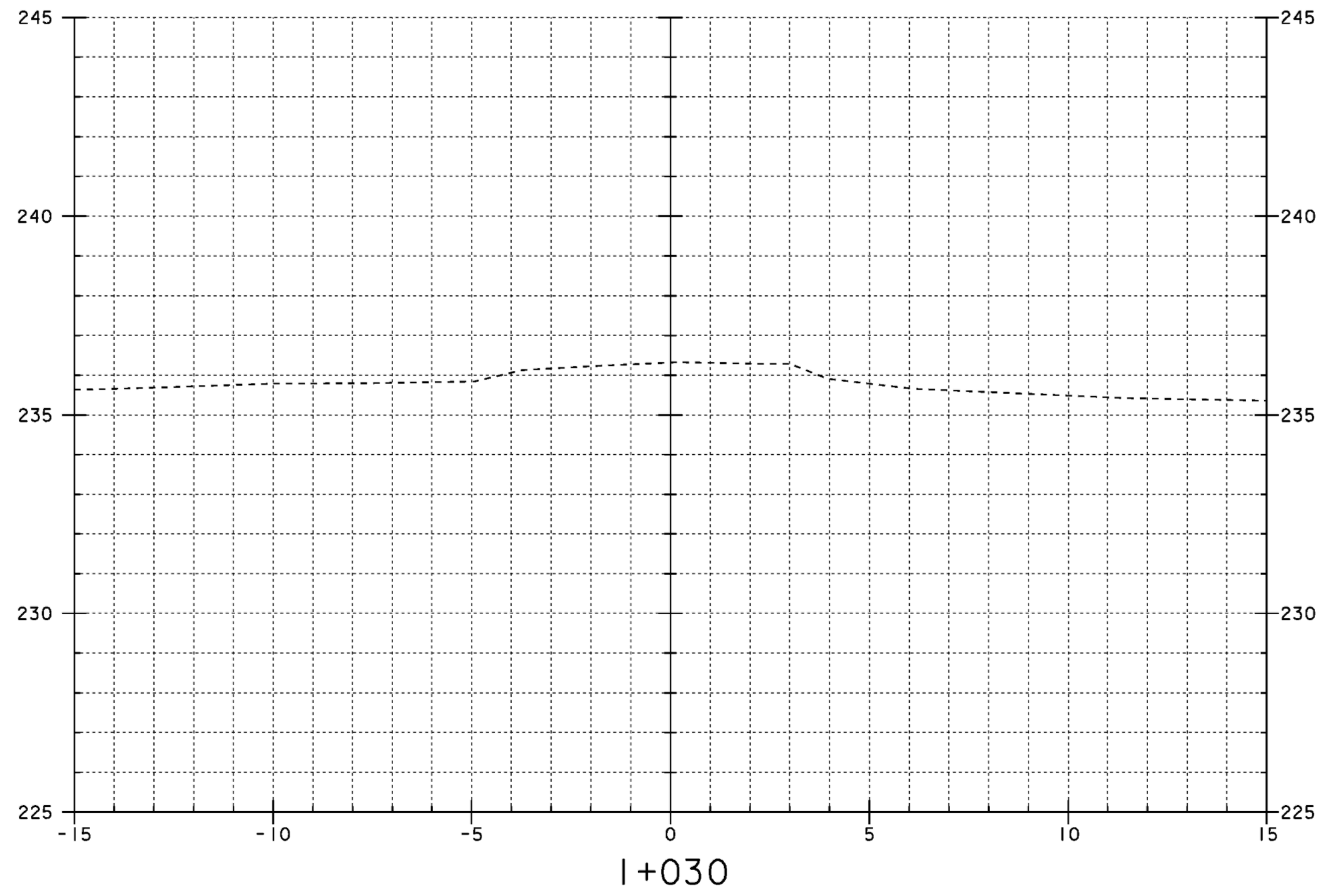
PRESENT R.O.W.  
TAKING WITHOUT ACCESS  
TAKING WITHOUT ACCESS ALONG PROPERTY LINE  
TAKING WITH ACCESS  
PERMANENT EASEMENT  
TEMPORARY EASEMENT

LEGEND  
C&T (P) --- CLEARING & TRIMMING  
CZ (P) . . . . . CLEAR ZONE  
CONST. (T) --- CONSTRUCTION EASEMENT  
SR --- SLOPE RIGHTS  
P --- PROPERTY LINE  
L --- TOP OF CUT  
L --- TOE OF SLOPE  
UE (P) --- PERMANENT UTILITY EASEMENT

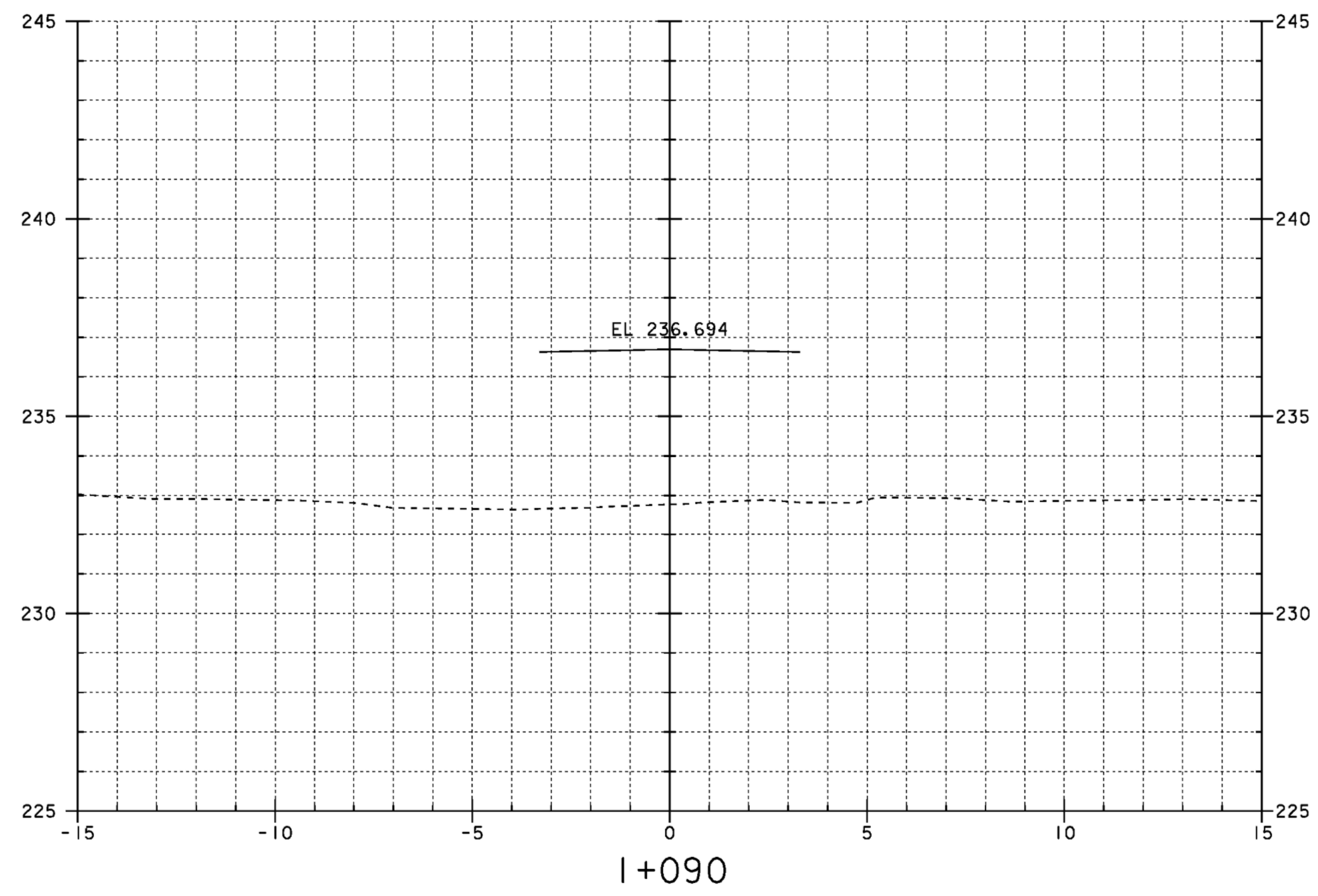
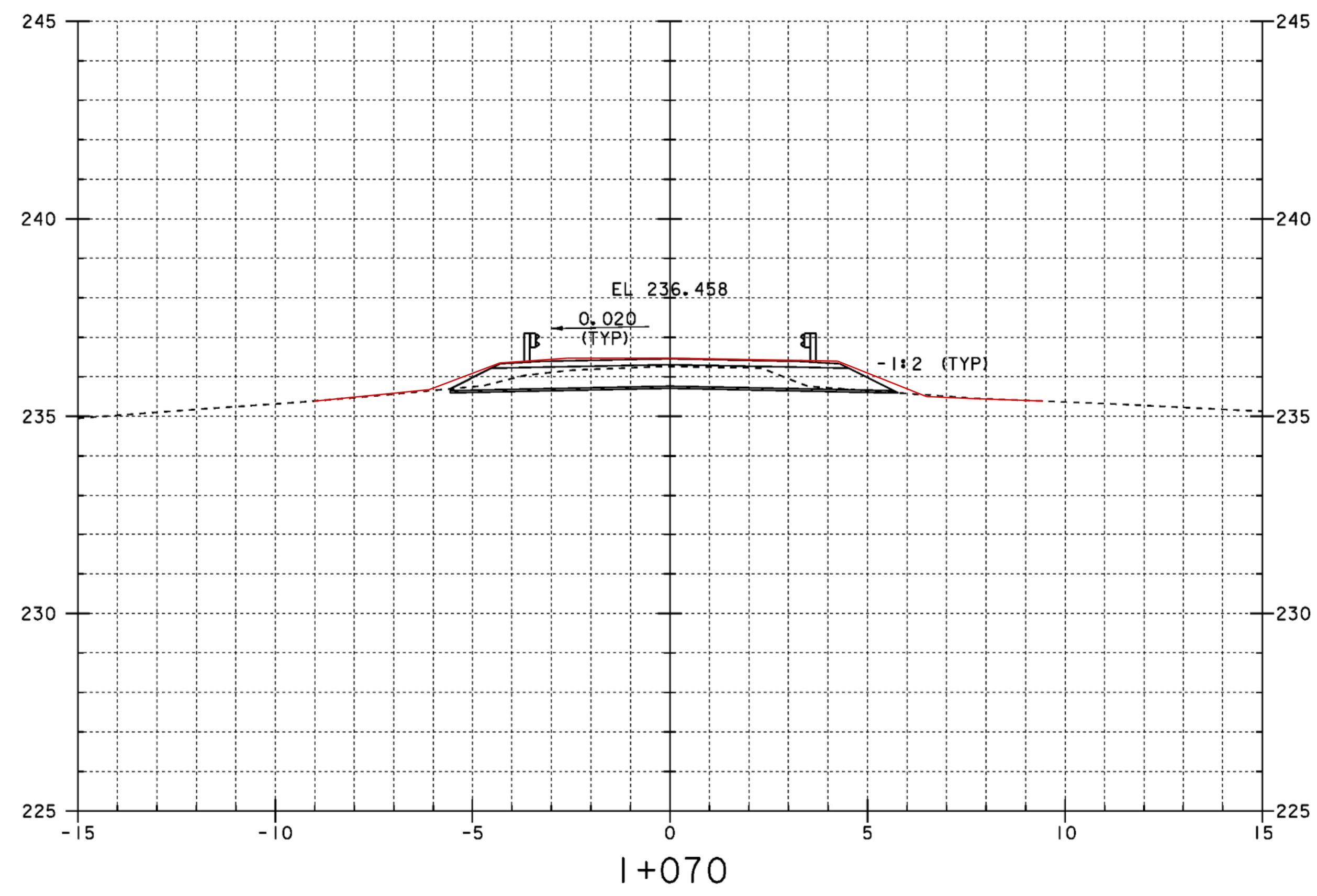
R. O. W. PLANS

CORINTH  
BRO 1447(22)  
R. O. W. SHEET 8 OF 9 SHEETS  
SHEET 35 OF 42

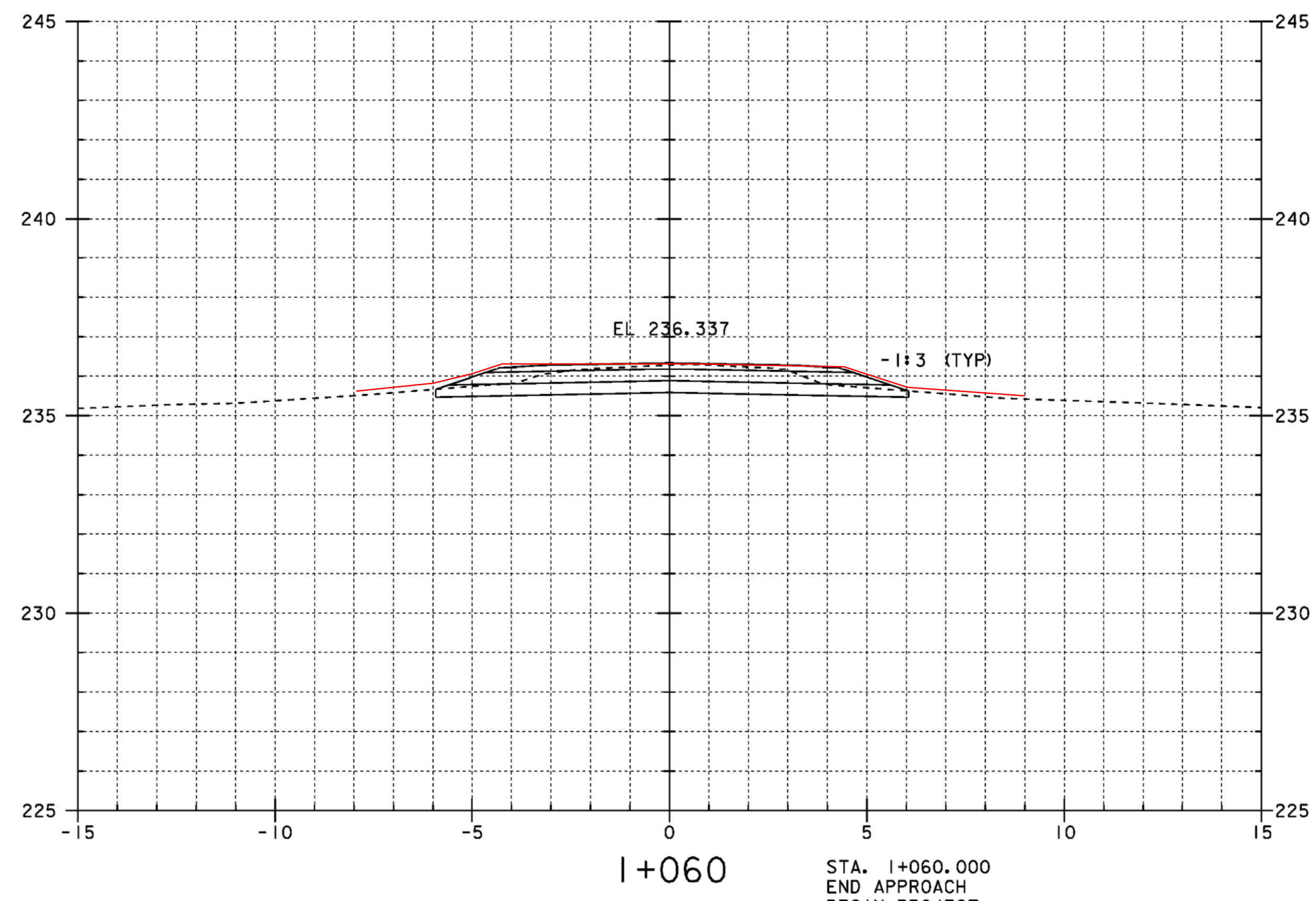
APPROVED: LAWRENCE W. BLISS DATE: 01-11-99  
CHIEF, PLANS & TITLES



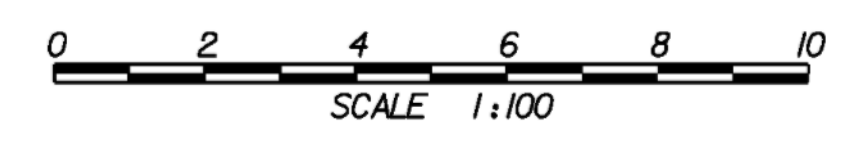
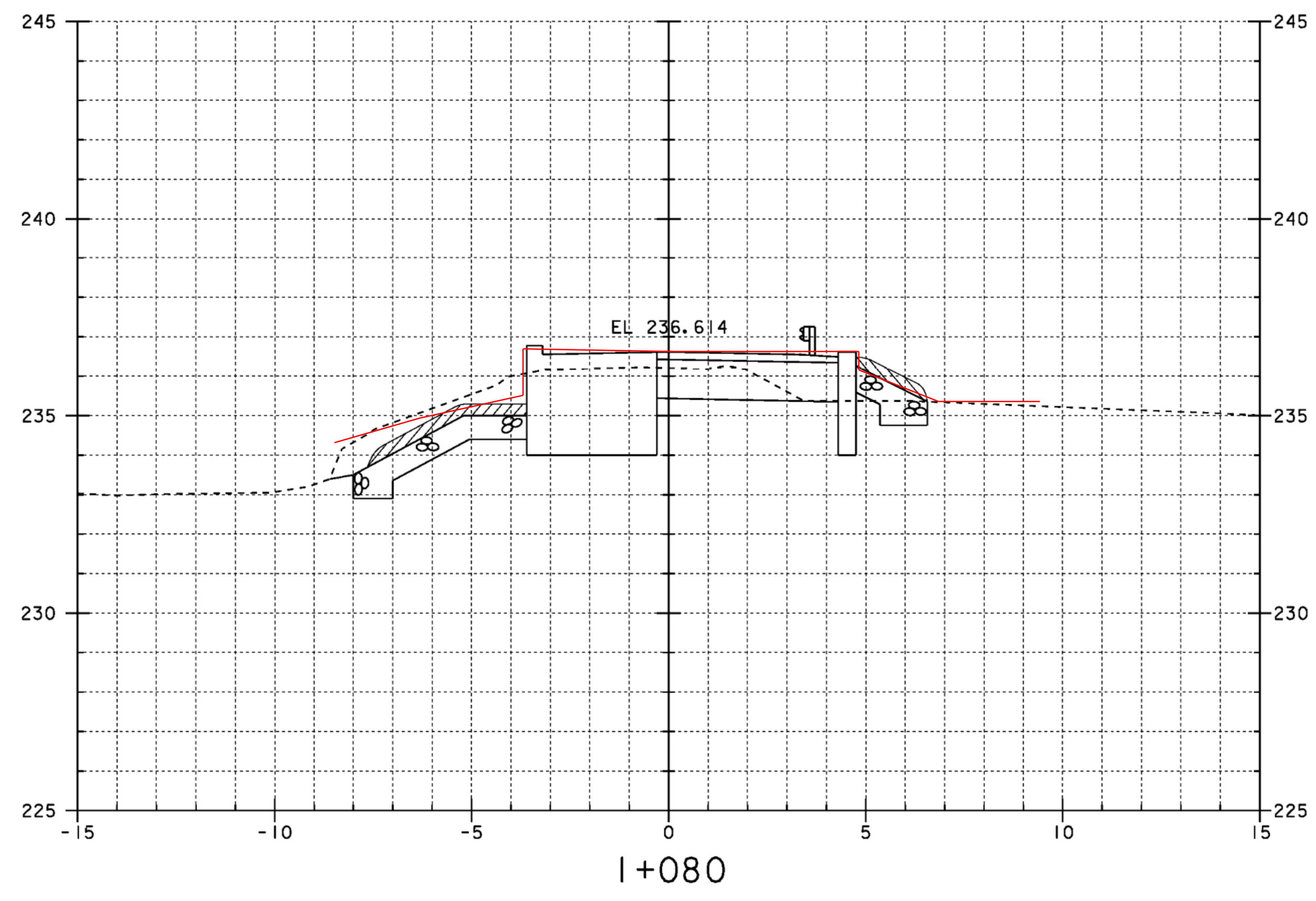
PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn IPARM FILE NAME: sj042m1.l	PLOT DATE: 16-JUL-2008
MAIN LINE SECTIONS	
I+020 TO I+050	SHEET: 36 OF 42



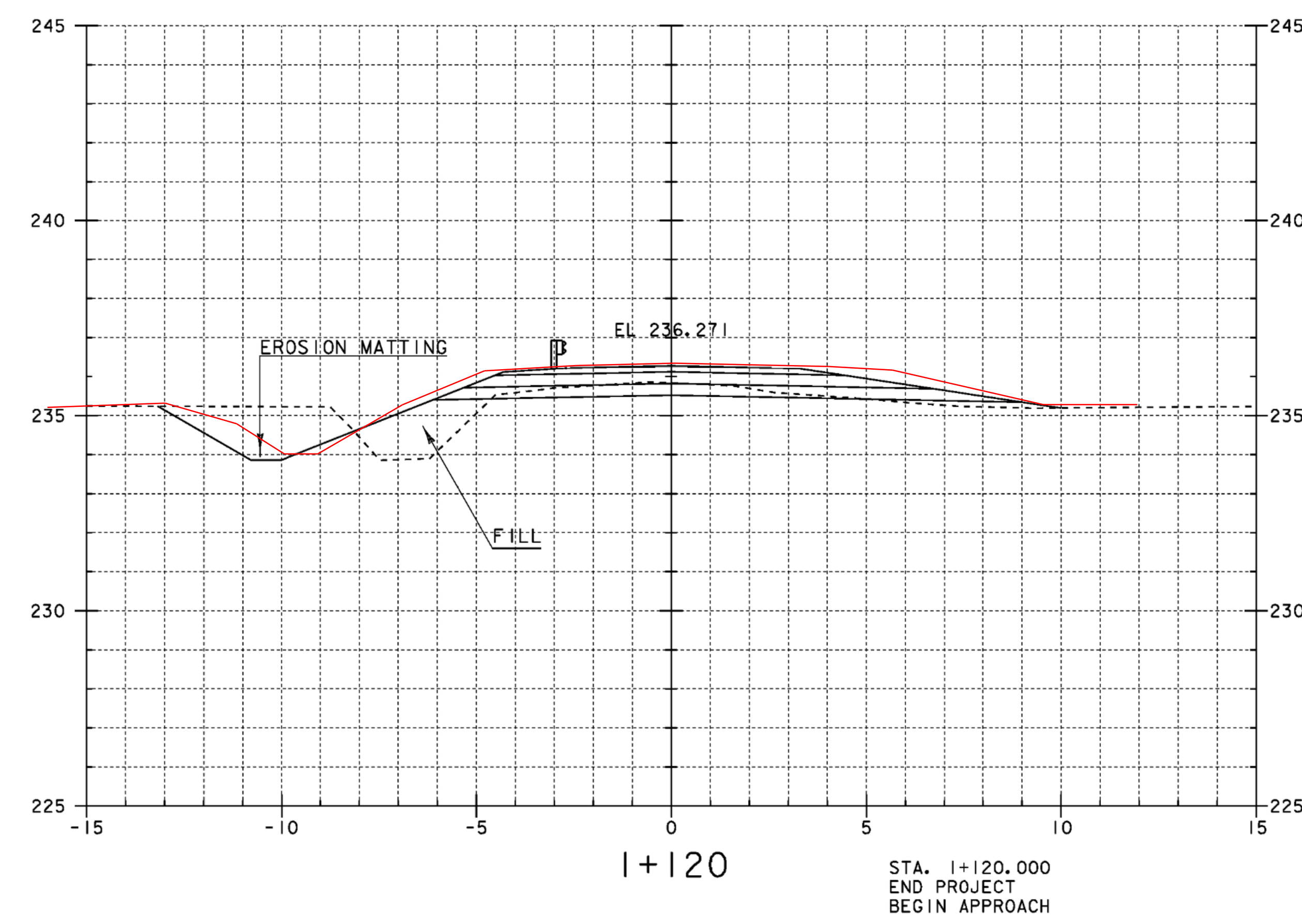
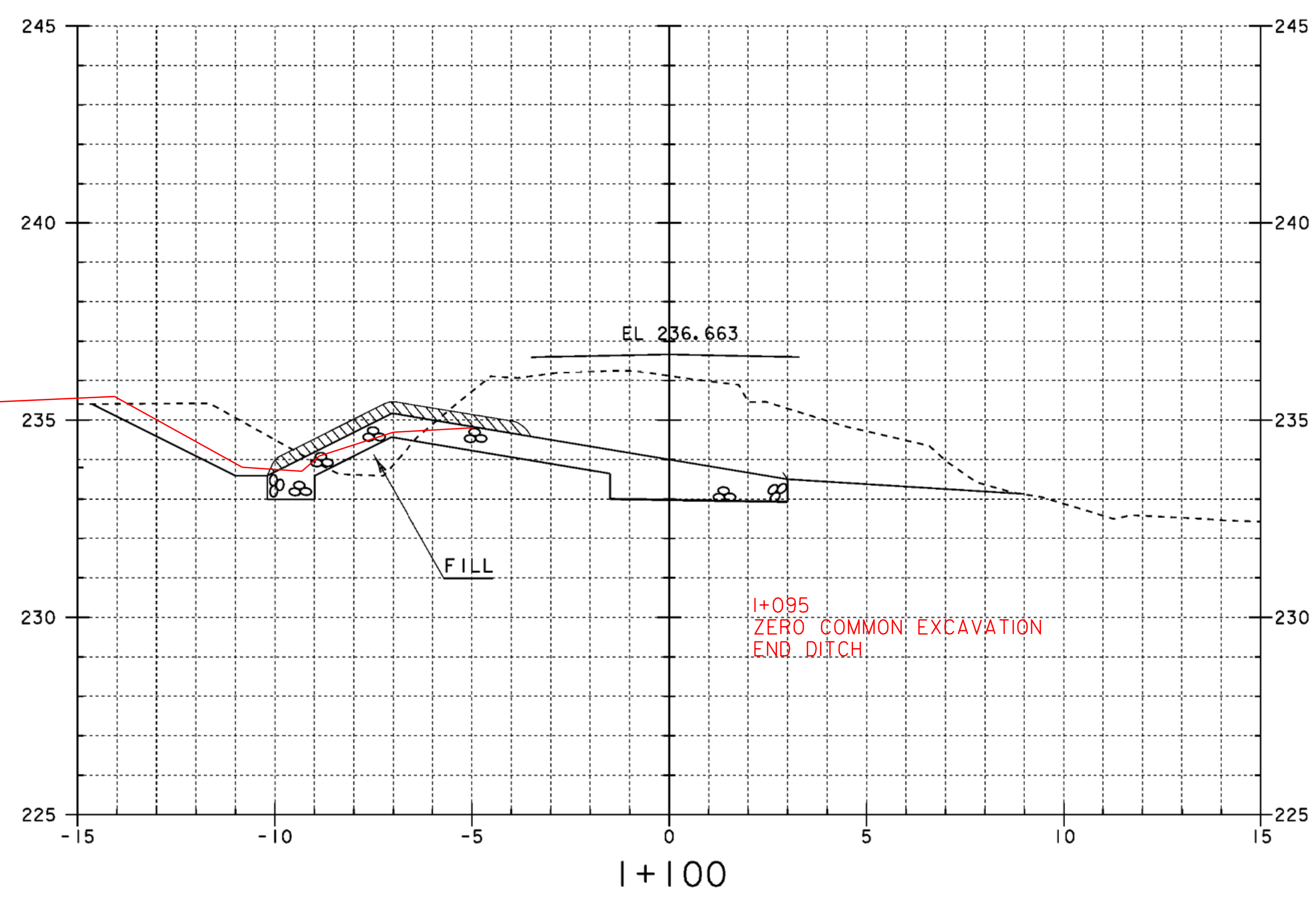
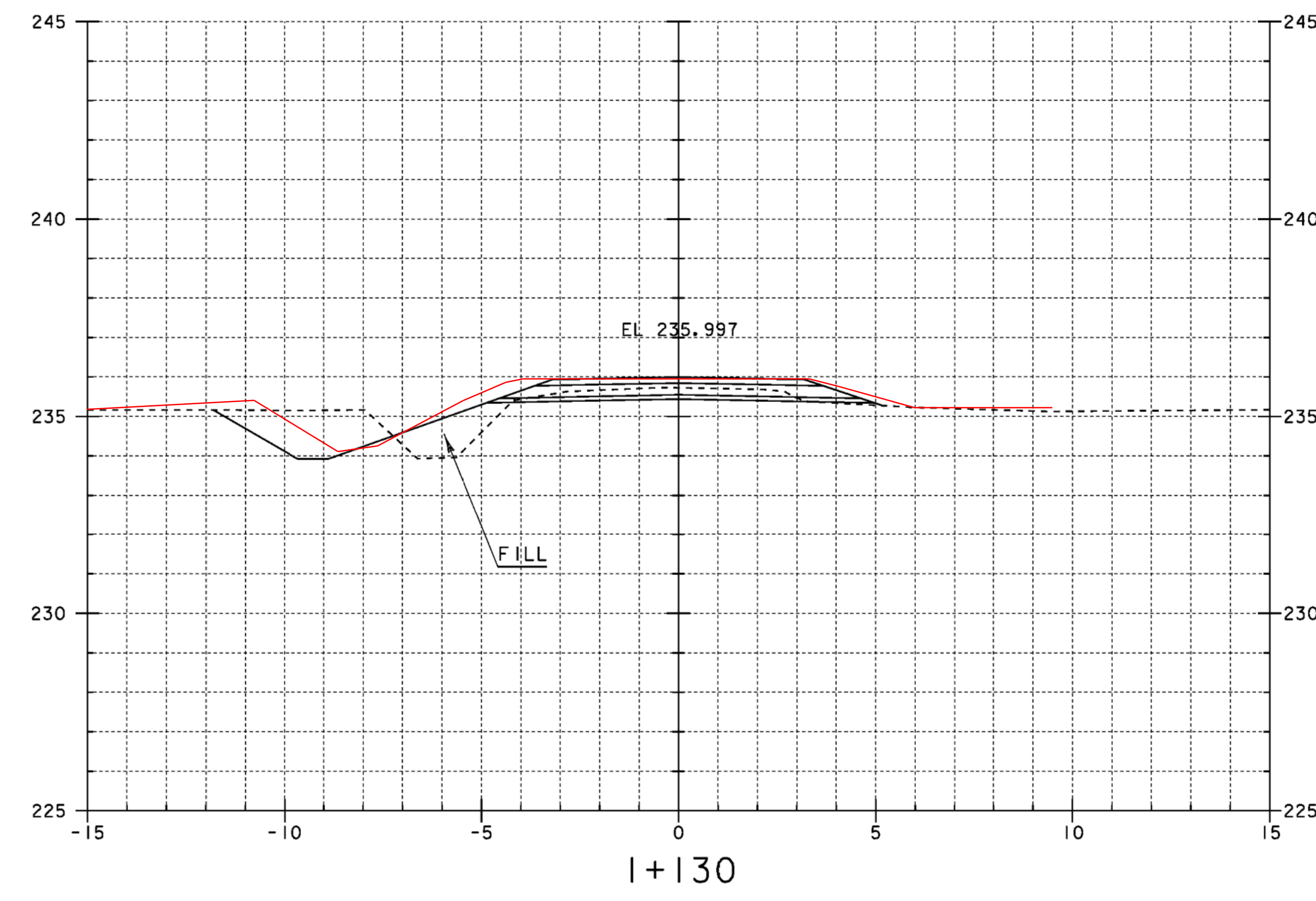
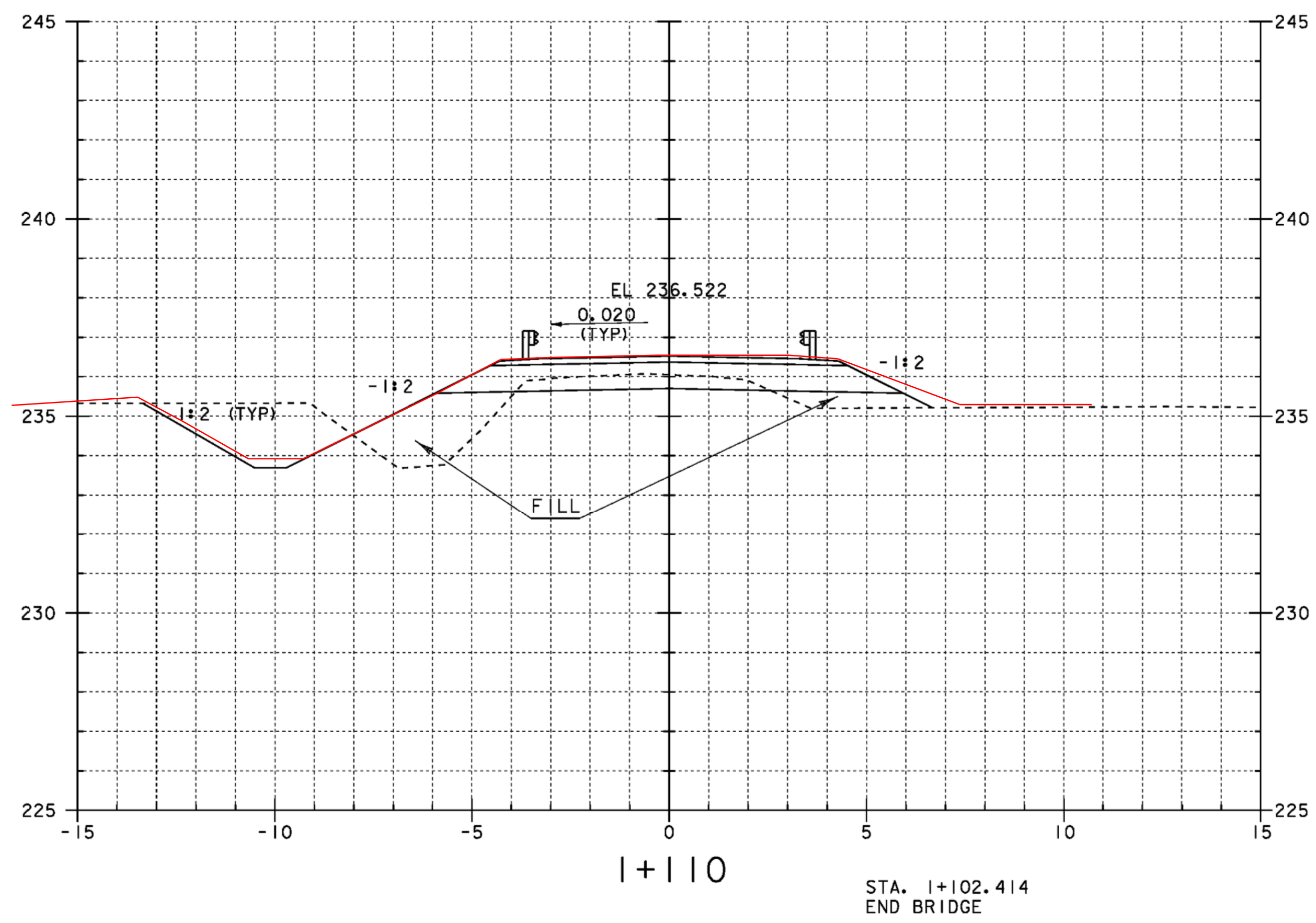
STA. I+080.086  
BEGIN BRIDGE



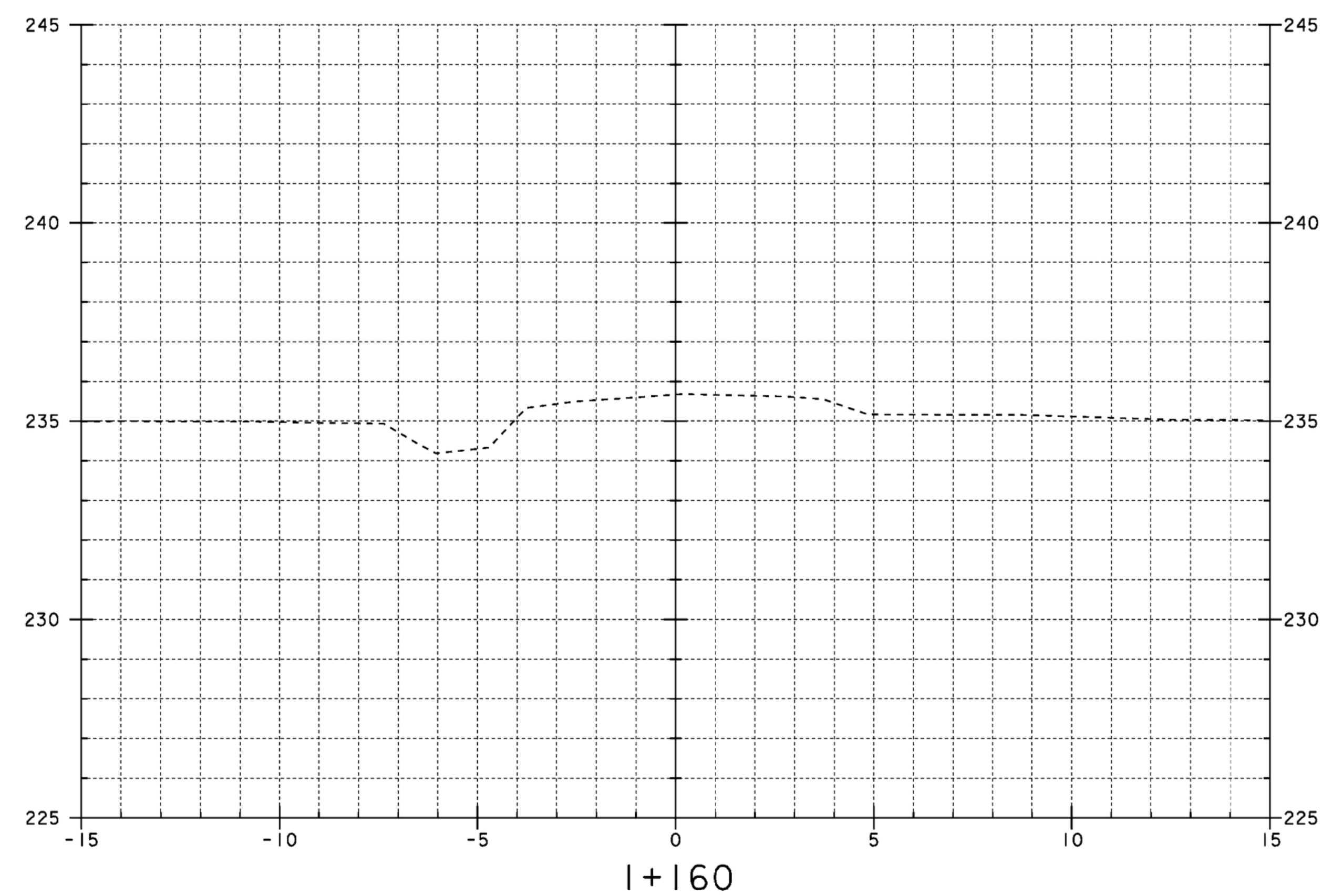
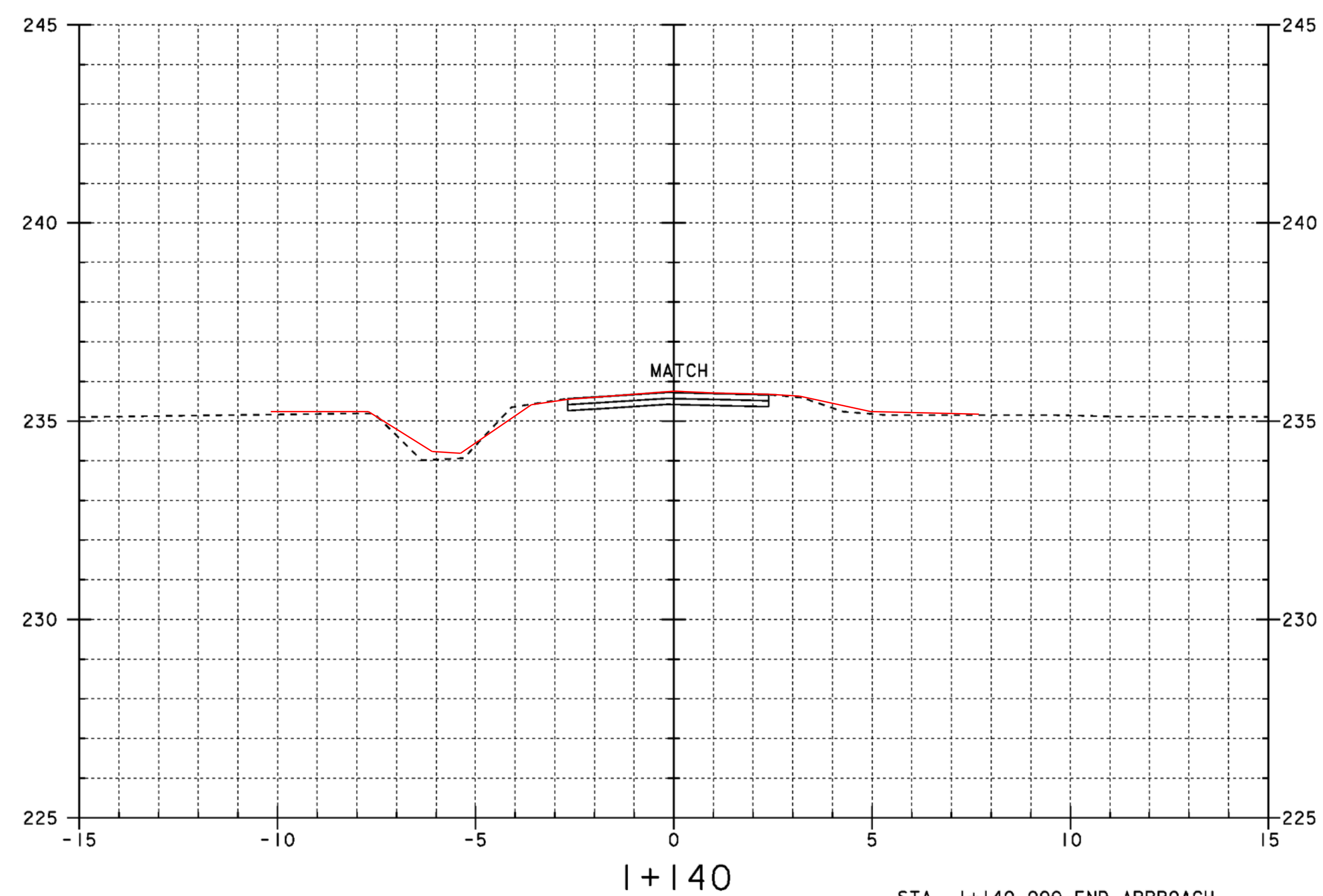
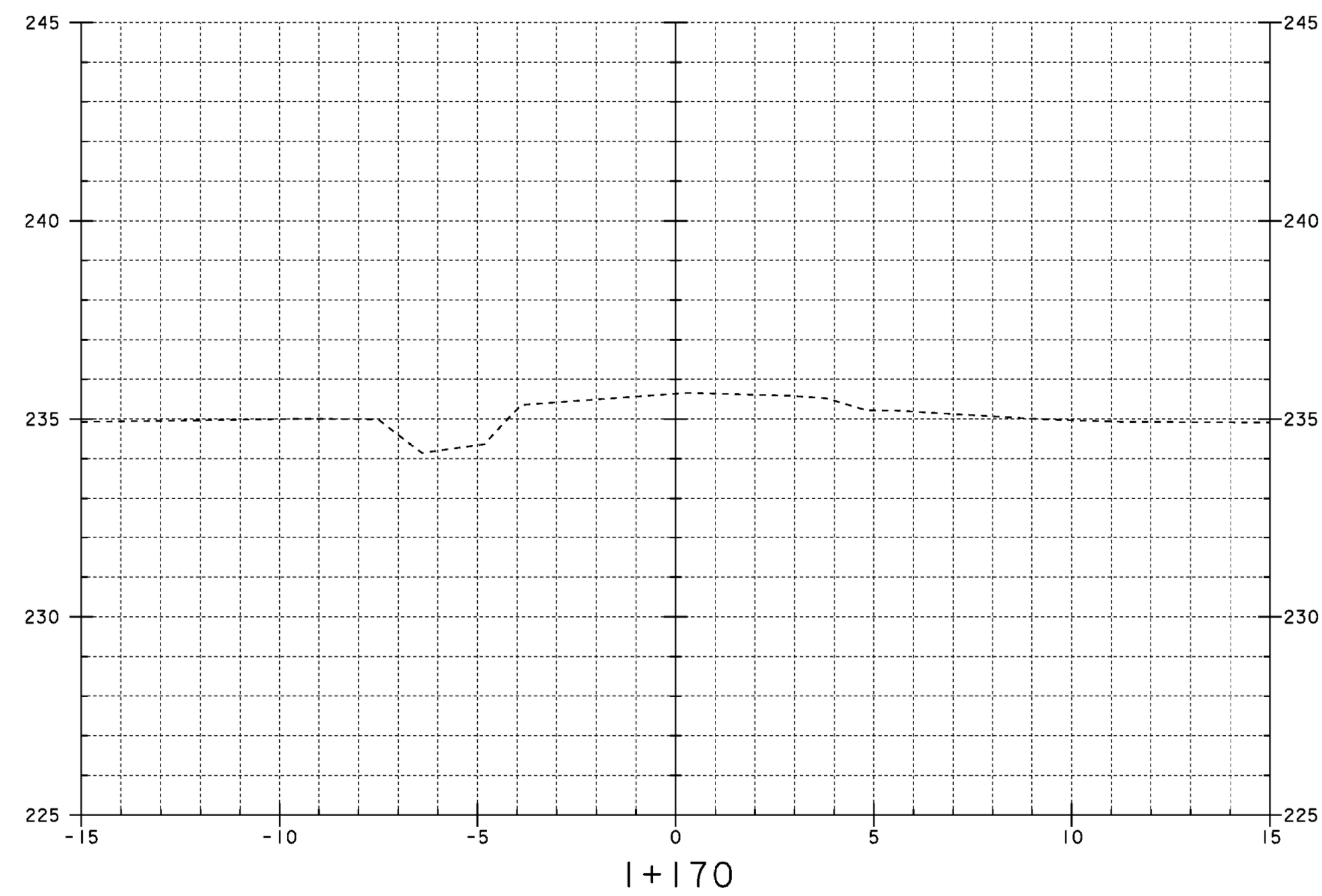
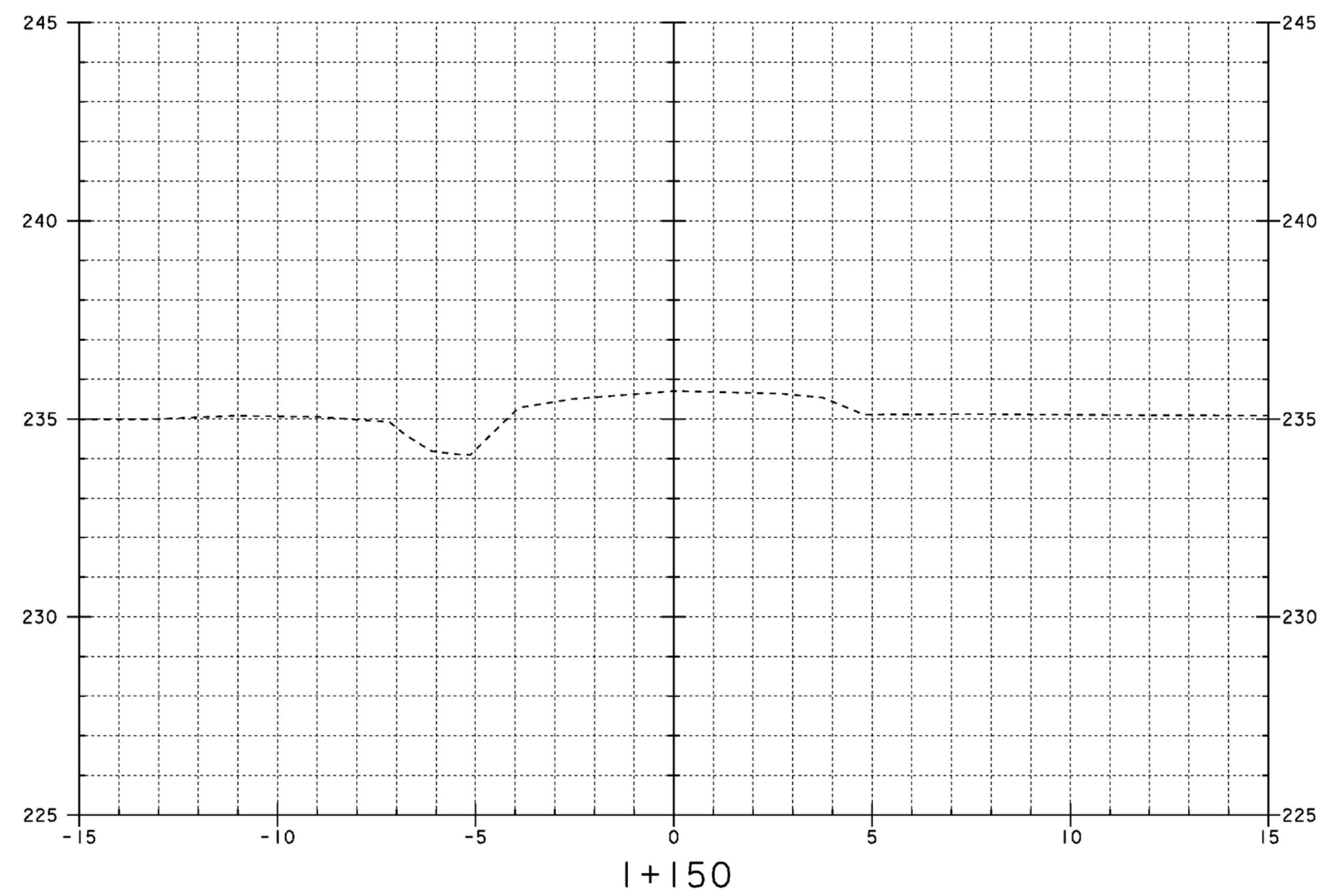
STA. I+060.000  
END APPROACH  
BEGIN PROJECT



PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042m2.i	
MAIN LINE SECTIONS	
I+060 TO I+090	SHEET: 37 OF 42



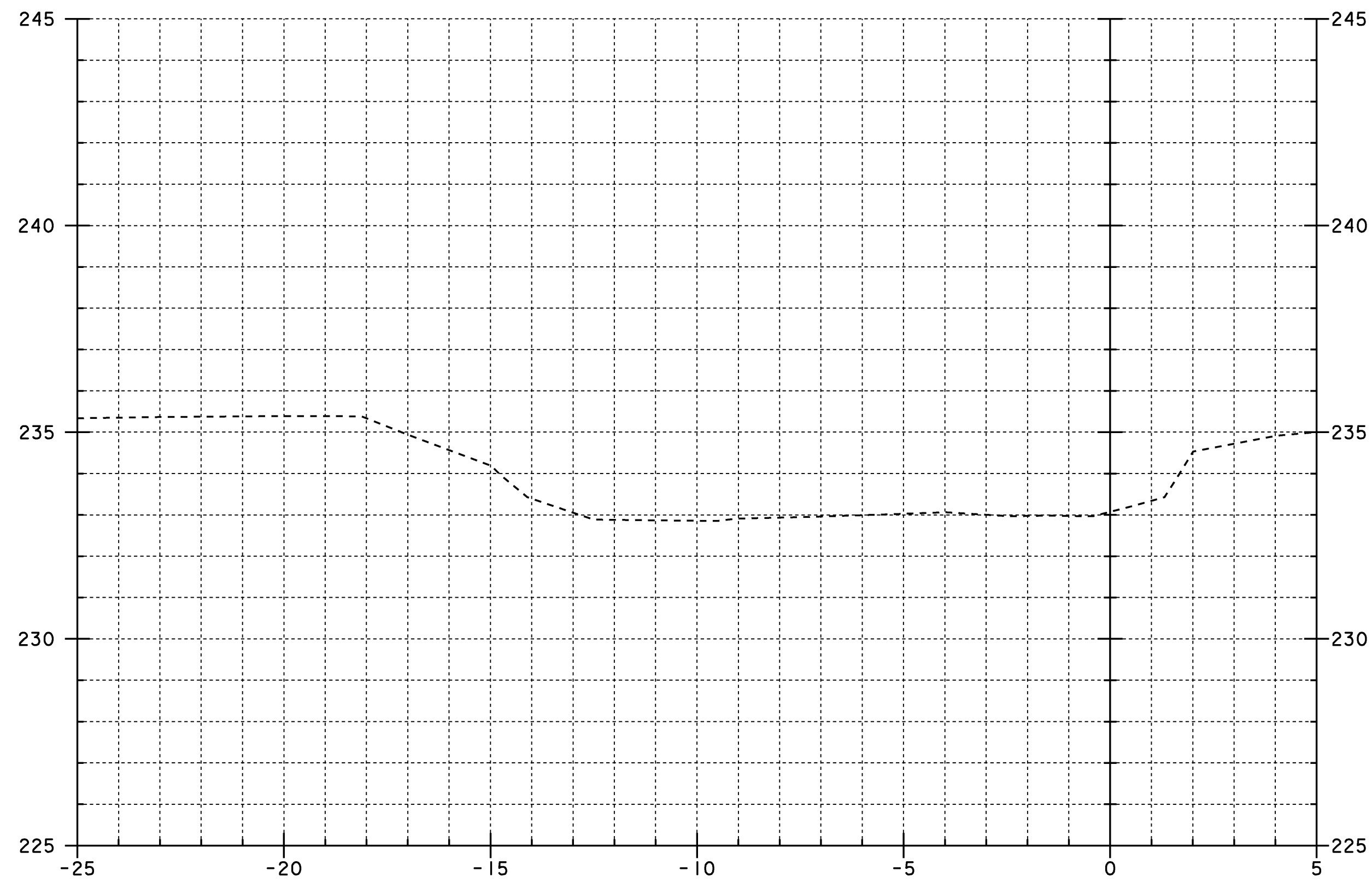
PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042m3.1	
MAIN LINE SECTIONS	
I+100 TO I+130	SHEET: 38 OF 42



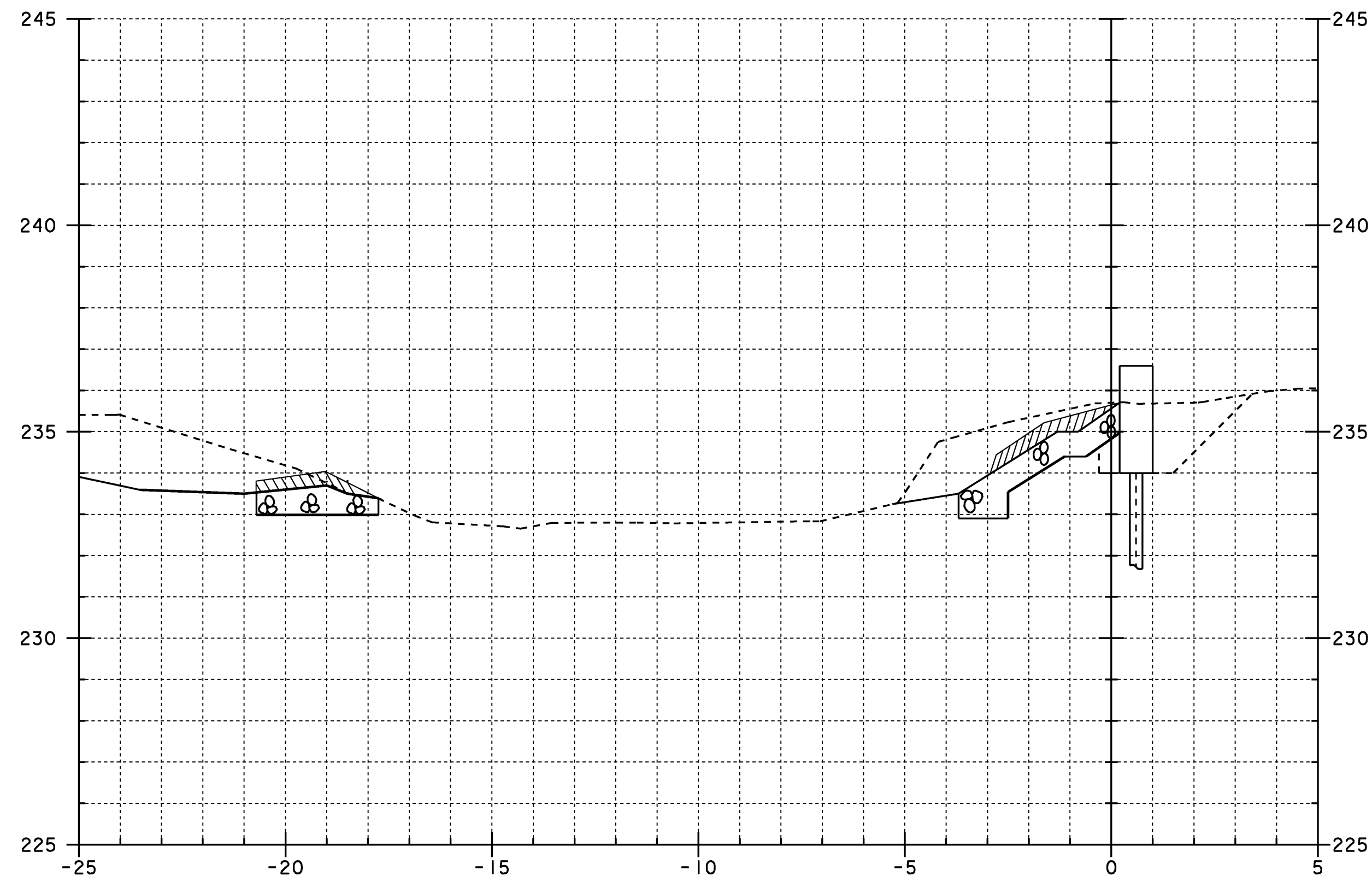
STA. I+140.000 END APPROACH  
END EROSION MATTING



PROJECT: <b>CORINTH</b>	PROJECT NO.: STP BRO I447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn	PLOT DATE: 16-JUL-2008
IPARM FILE NAME: sj042m4.i	
MAIN LINE SECTIONS	
I+140 TO I+170	SHEET: 39 OF 42



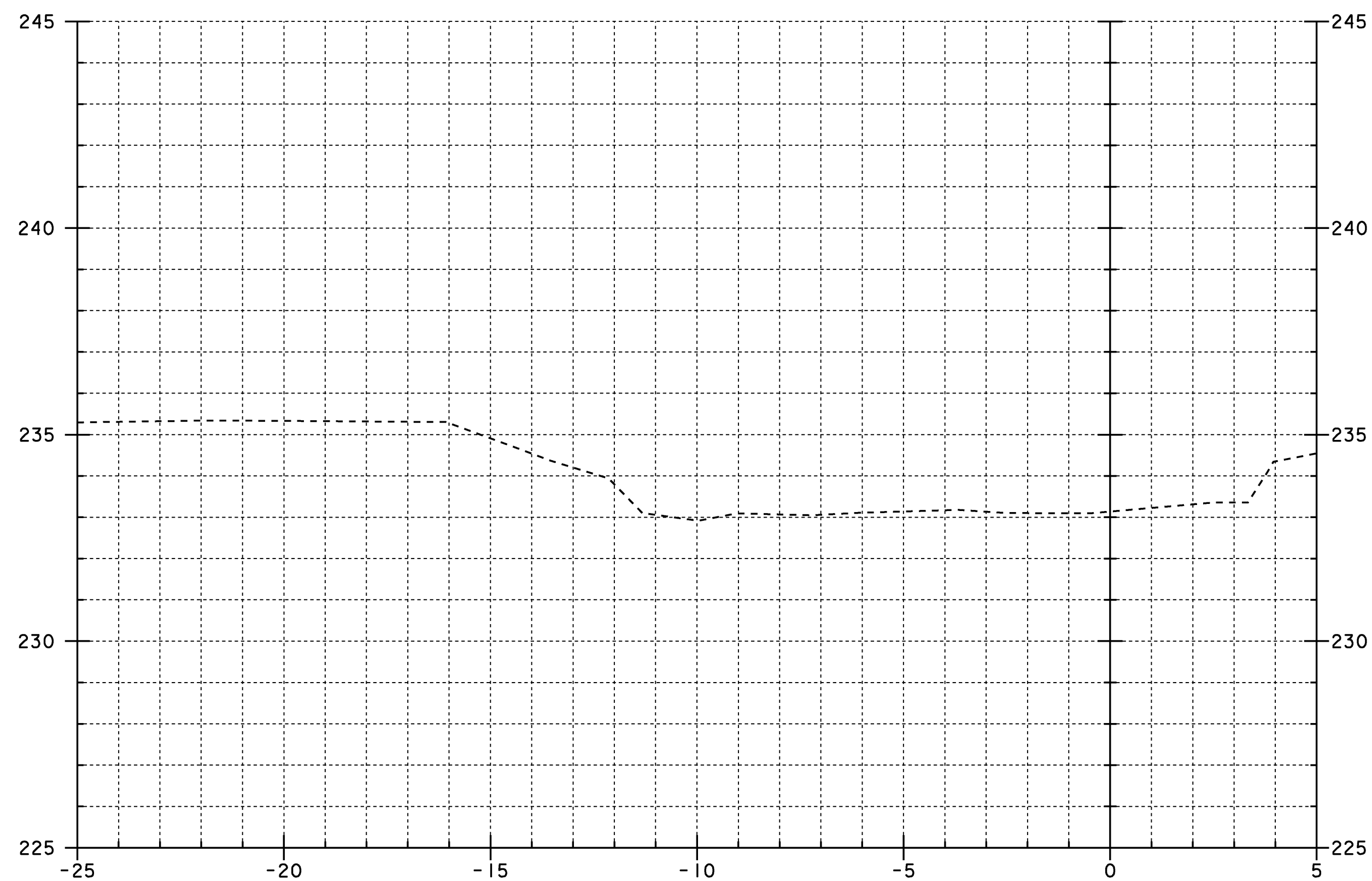
5+025



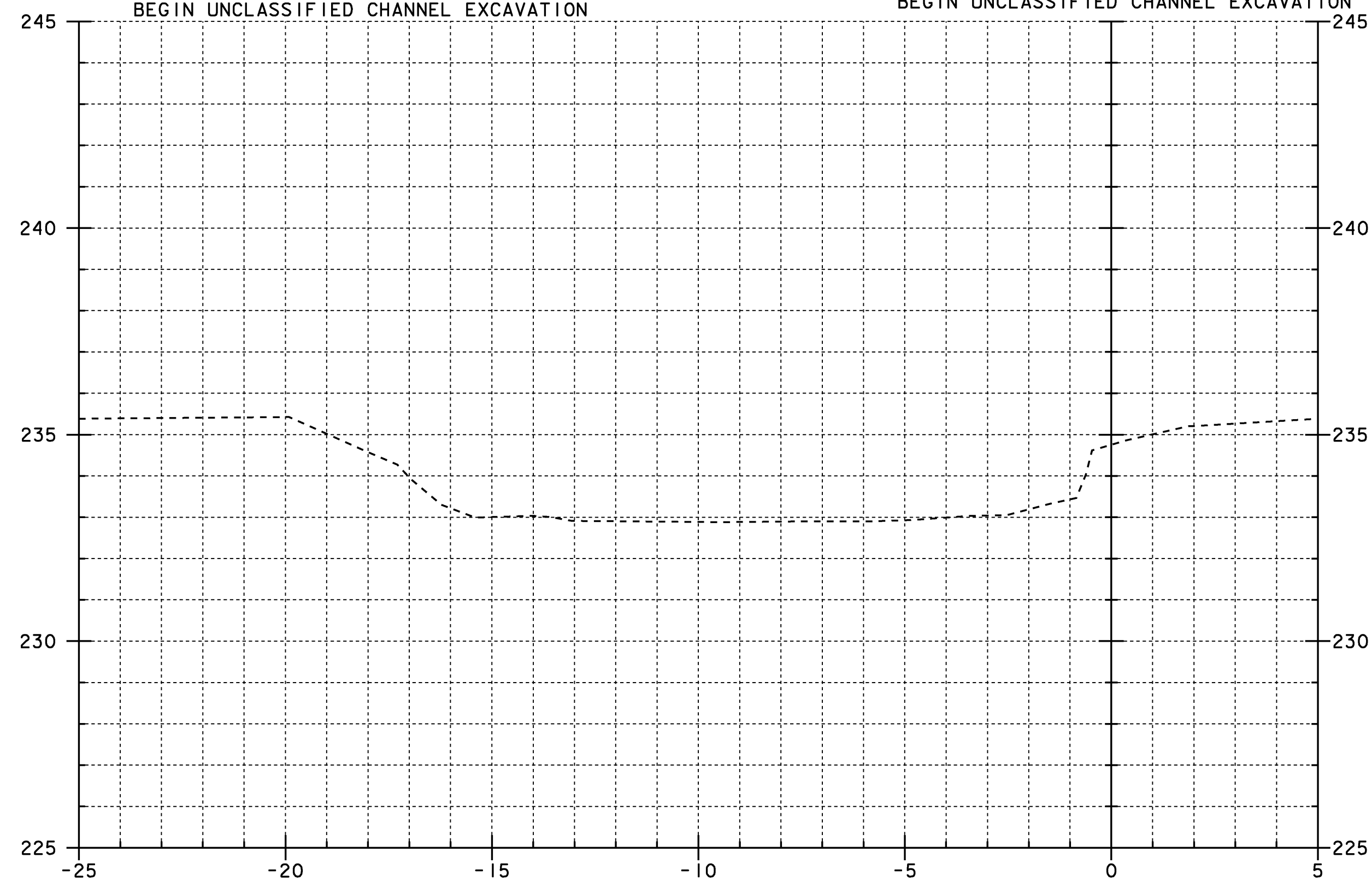
STA. 5+034.000 FAR LEFT 5+035 STA. 5+031.000 LEFT

BEGIN STONE FILL TYPE II  
 BEGIN GRUBBING MATERIAL  
 BEGIN GEOTEXTILE UNDER STONE FILL  
 BEGIN UNCLASSIFIED CHANNEL EXCAVATION

BEGIN STONE FILL TYPE II  
 BEGIN GRUBBING MATERIAL  
 BEGIN GEOTEXTILE UNDER STONE FILL  
 BEGIN UNCLASSIFIED CHANNEL EXCAVATION



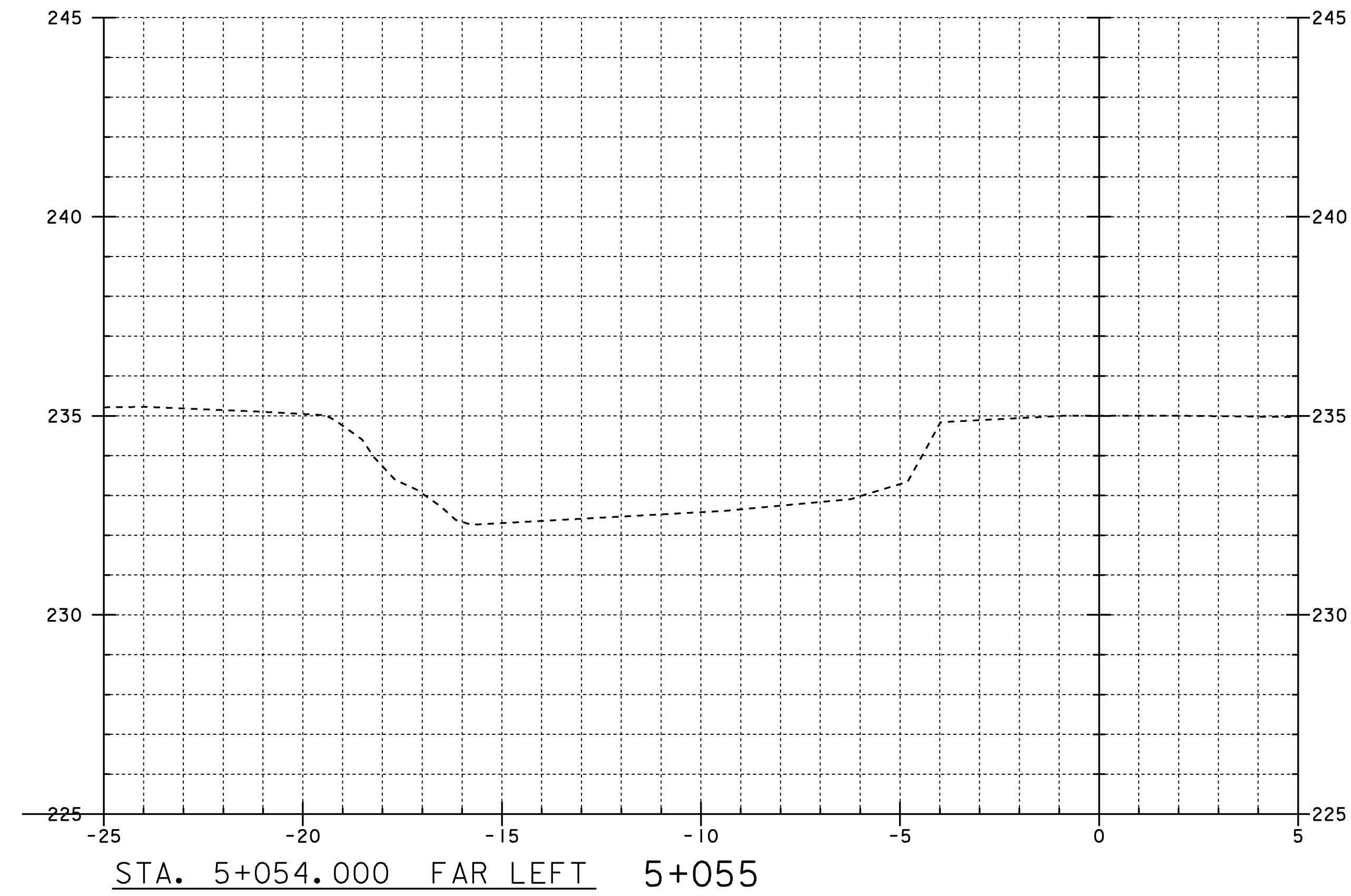
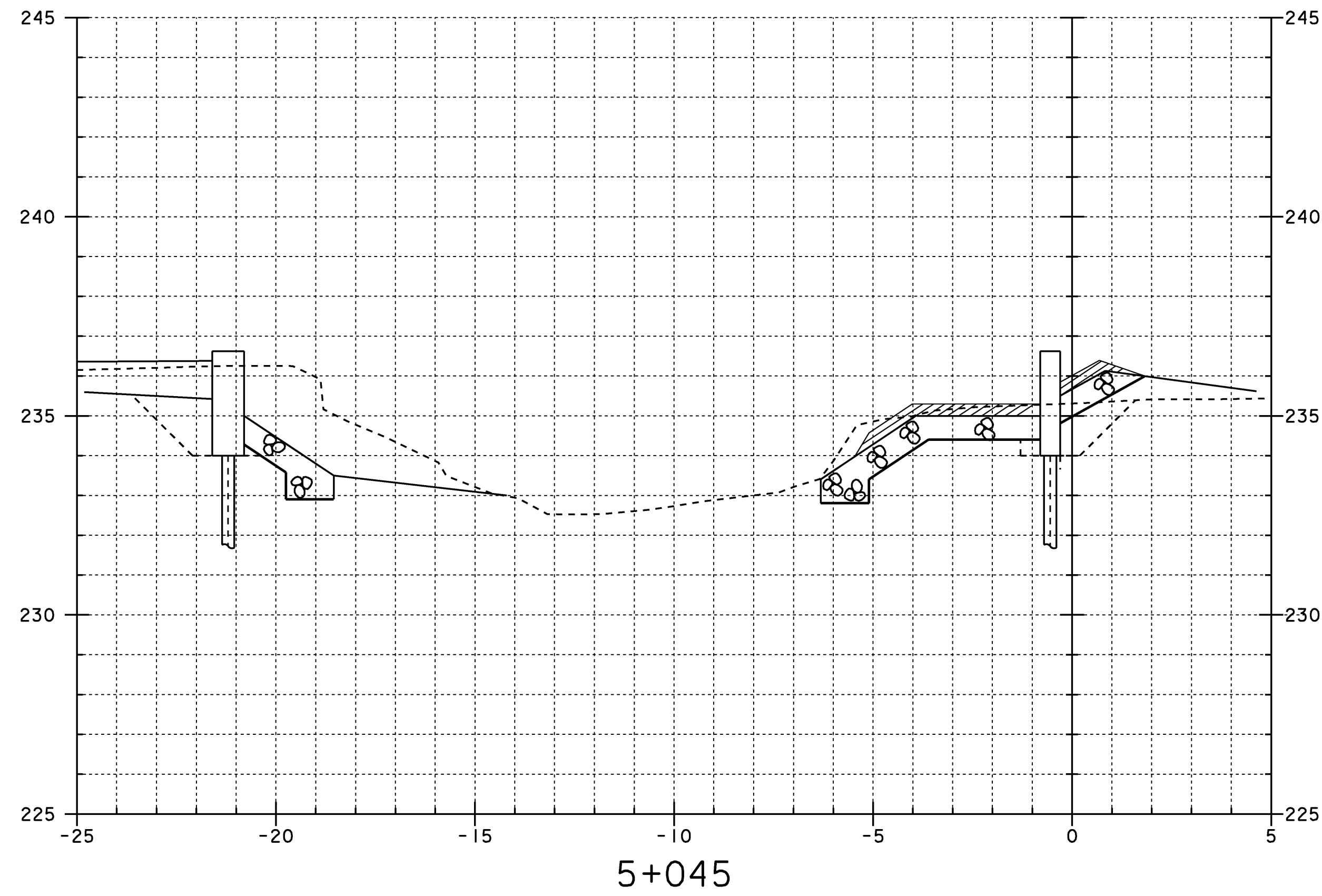
5+020



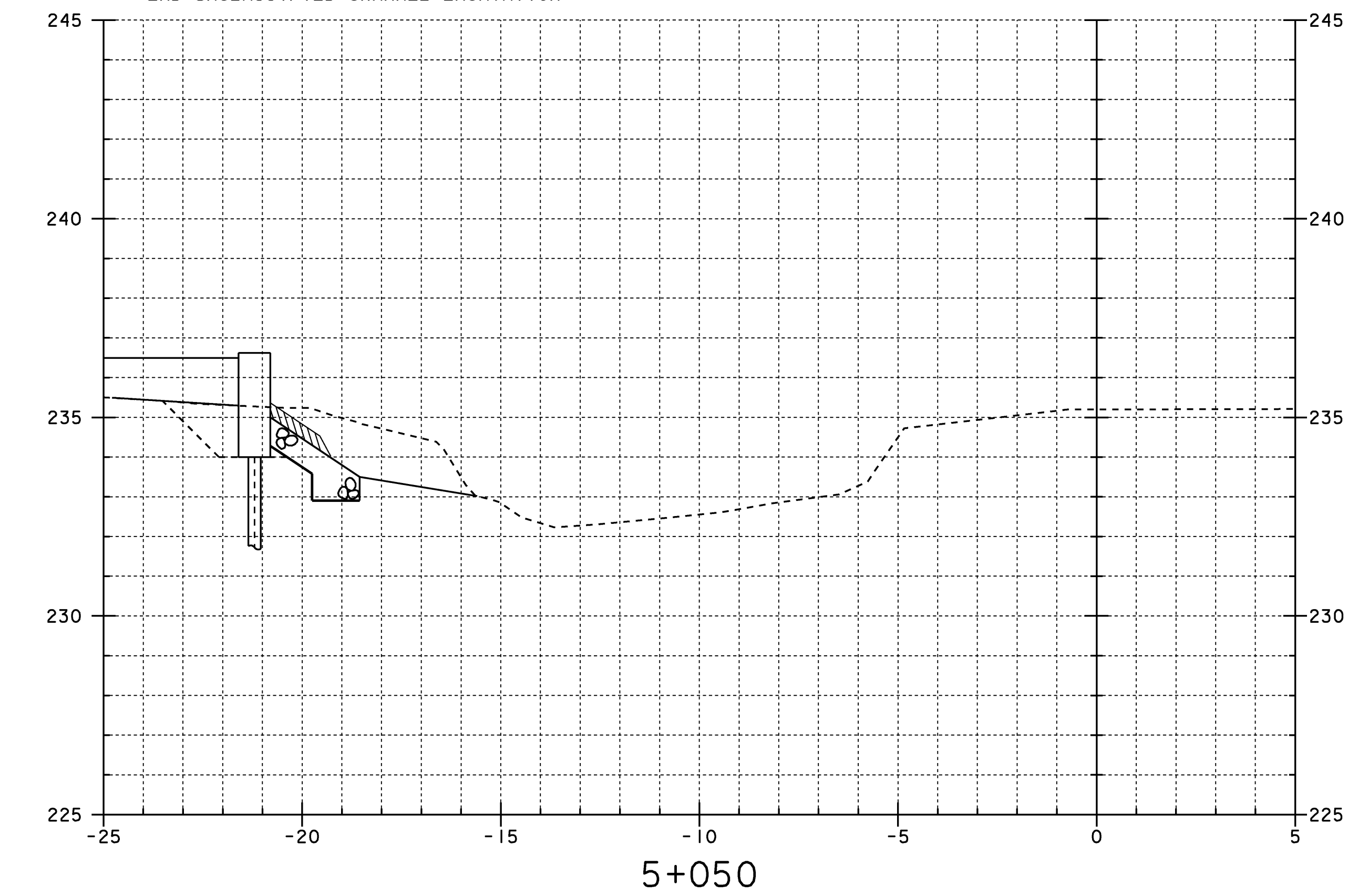
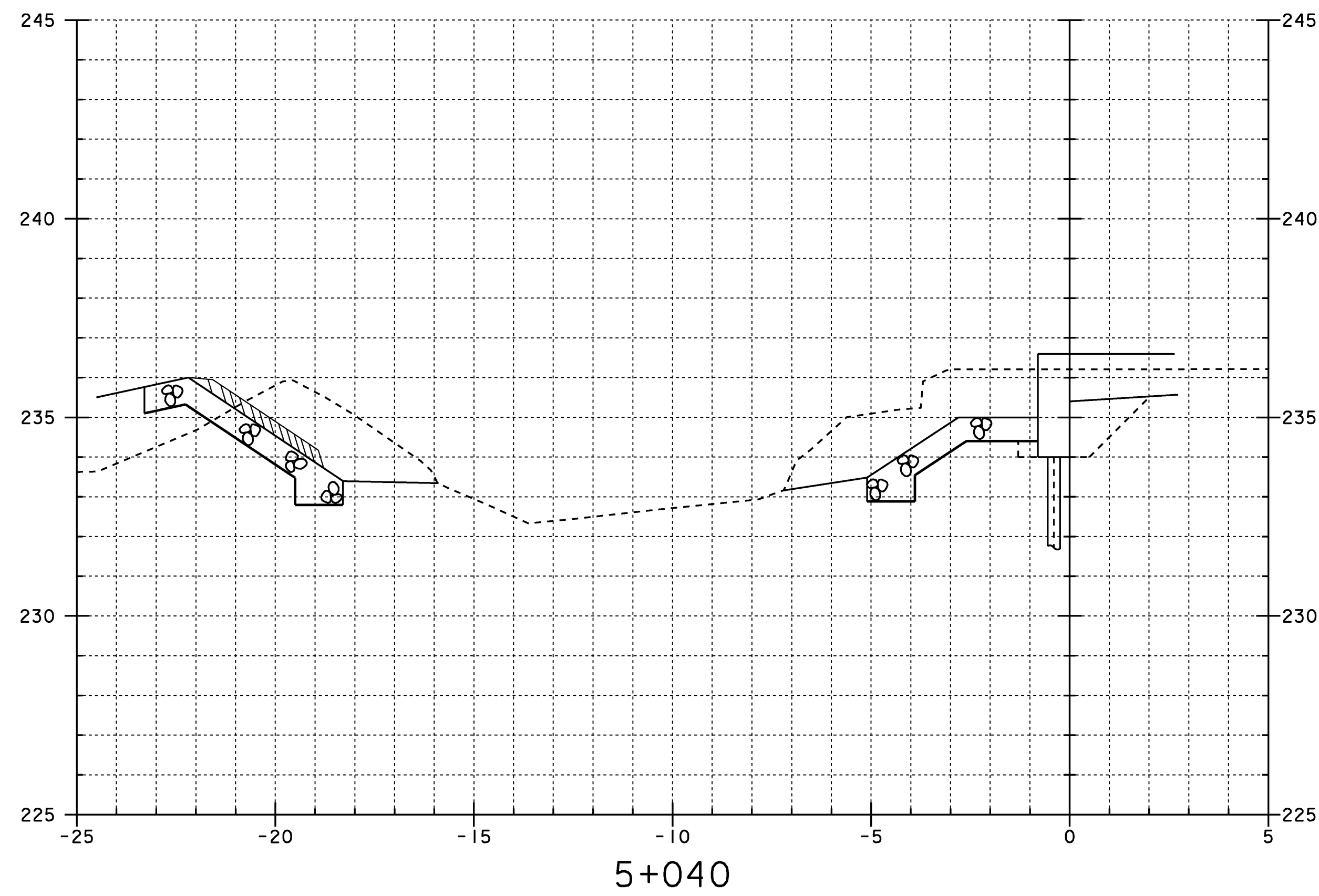
5+030



PROJECT: CORINTH	PROJECT NO. : STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn IPARM FILE NAME: sj042c2.1	PLOT DATE: 16-JUL-2008
CHANNEL LINE SECTIONS	
5+020 TO 5+035	SHEET: 40 OF 42



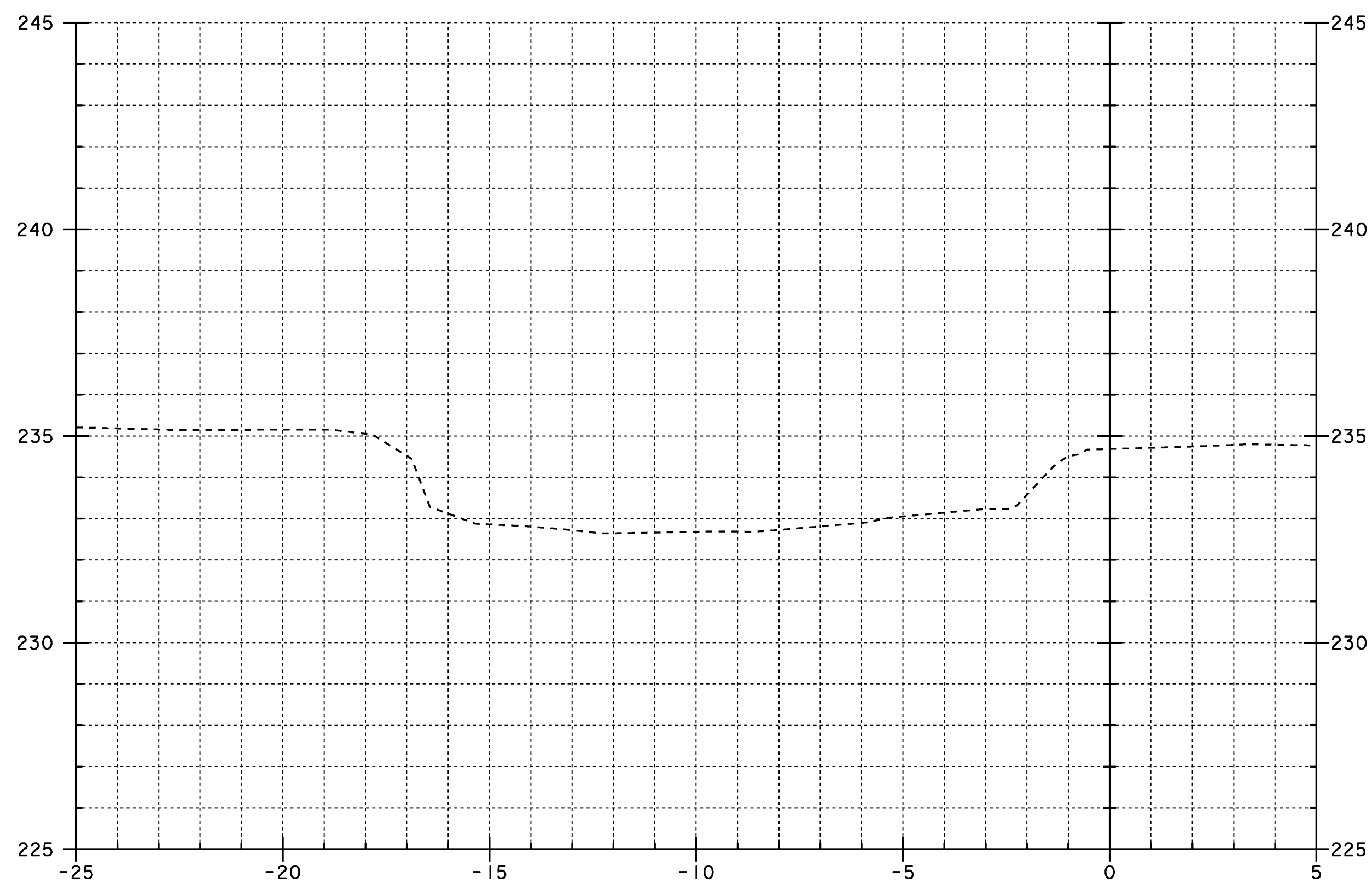
END STONE FILL TYPE II  
 END GRUBBING MATERIAL  
 END GEOTEXTILE UNDER STONE FILL  
 END UNCLASSIFIED CHANNEL EXCAVATION



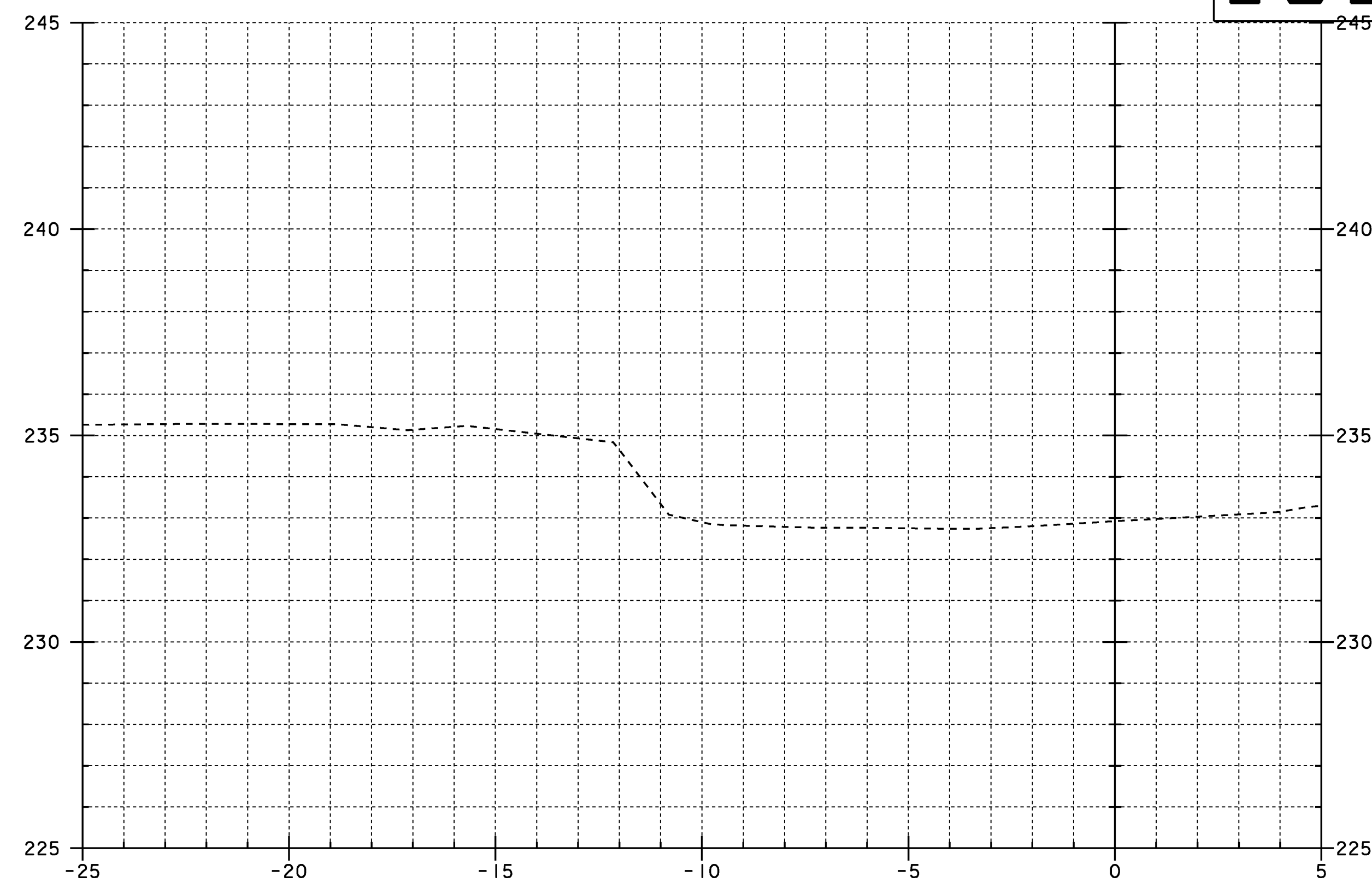
END STONE FILL TYPE II  
 END GRUBBING MATERIAL  
 END GEOTEXTILE UNDER STONE FILL  
 END UNCLASSIFIED CHANNEL EXCAVATION



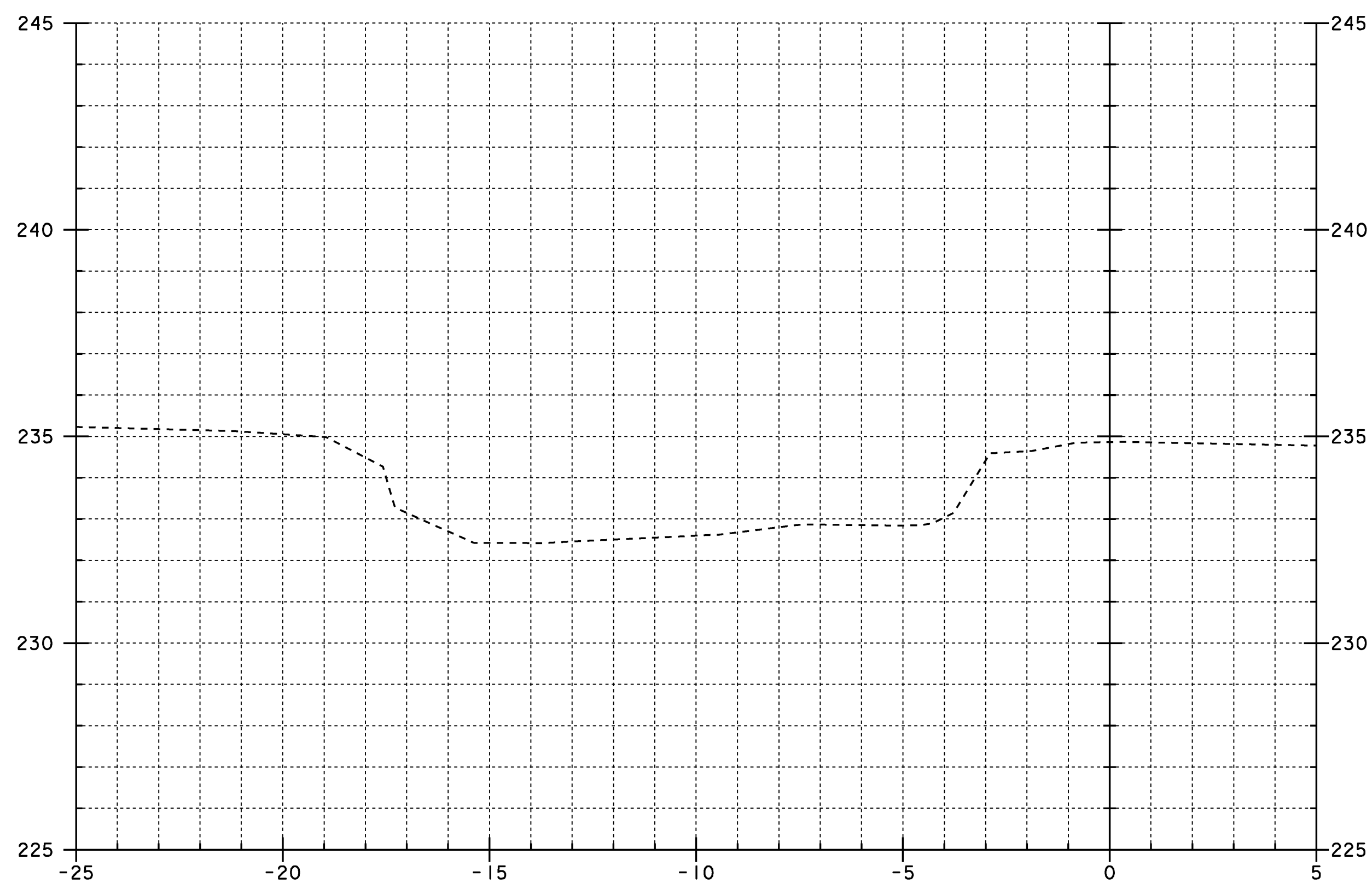
PROJECT: <b>CORINTH</b>	PROJECT NO. : STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn IPARM FILE NAME: sj042c3.i	PLOT DATE: 16-JUL-2008
CHANNEL LINE SECTIONS	
5+040 TO 5+055	SHEET: 41 OF 42



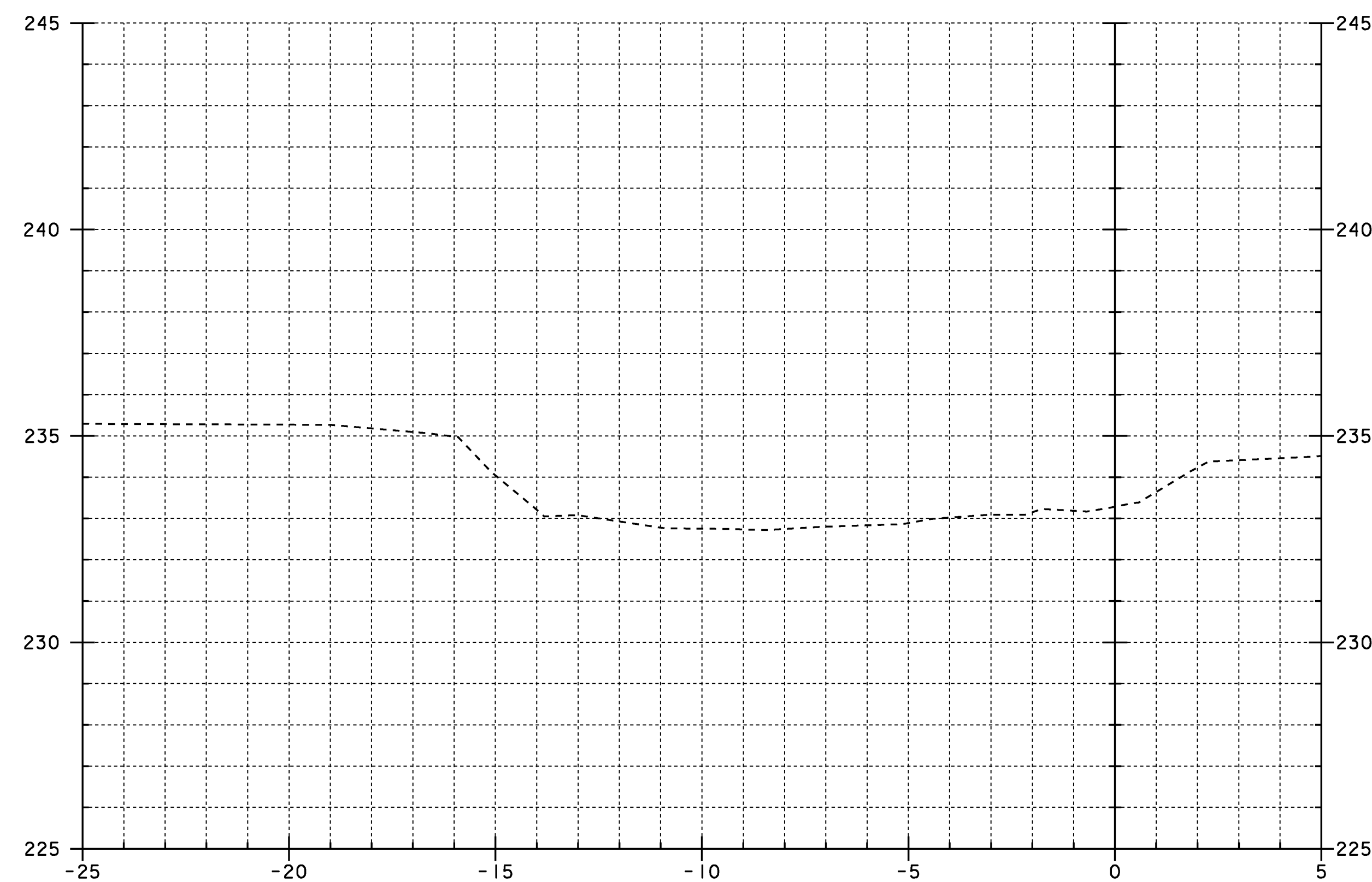
5+065



5+075



5+060



5+070



PROJECT: CORINTH	PROJECT NO. : STP BRO 1447 (22) (RE-ADVERTISED)
DESIGN FILE NAME: sj042xs2.dgn IPARM FILE NAME: sj042c4.i	PLOT DATE: 16-JUL-2008
CHANNEL LINE SECTIONS	
5+060 TO 5+075	SHEET: 42 OF 42

**Casco Bay Steel Structures, Inc.**

5 Industry Road  
South Portland, Maine 04106

Phone: (207) 772-2533

Fax: (207) 772-0580

**WELDING PROCEDURE SPECIFICATION**

Material specification ASTM A109 Gr 36-50-50W (250-345-345W)  
 Welding process Shielded Metal Arc Welding (SMAW)  
 Manual or machine Manual  
 Position of welding Flat (1F) Horizontal (1E)  
 Filler metal specification AWS/A5.1 - A5.5  
 Filler metal classification E7018 - E7018 C63 - 702B  
 Flux NA  
 Shielding gas NA Flow rate NA  
 Single or multiple pass Single and multiple  
 Single or multiple arc Single  
 Welding current AC/DC  
 Polarity Straight / Reverse  
 Welding progression See AWS Specification  
 Root treatment See AWS Specification  
 Preheat and interpass temperature Preheat 3/4 (5) 50 (60) 3/4 (1) 140 (18) 70 (40) 120 (15) 140 (15)  
 Postheat temperature NA  
 Heat Input Min NA Max NA

VT Act Gorinth  
By # 34 - Proj STRBR0-1447(2)  
CBS No 380

(Metric)

Pass no.	Electrode size	Welding current		Travel speed	AWS D1.5	Joint detail	Filler
		Amperes	Volts				
AS REQ	7018 1/8 (3-2)	70-170	22-26	AS REQ	AWS D1.5	Joint detail	Filler
	5/32 (3-9)	120-225	22-26				
	3/16 (4-8)	170-300	24-27				
	702B 1/8 (3-2)	90-160	22-26				
REQ	5/32 (3-9)	120-225	22-26	REQ	AWS D1.5	Joint detail	Filler
	3/16 (4-8)	180-290	24-27				
	702B 5/32 (3-9)	170-270	22-26				
	3/16 (4-8)	210-330	24-27				

This procedure may vary due to location, sequence, fit-up, pass size, etc., within the limitation of variables given in applicable codes or contract specifications

Procedure no. 401 Contractor Casco Bay Steel  
 Revision no. \_\_\_\_\_ Authorized By Paul E. Hoodale  
 Form III-2 Date 3/2/00

**Casco Bay Steel Structures, Inc.**

75 Spring Hill Road  
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1179

**WELDING PROCEDURE SPECIFICATION**

Material specification ASTM A709/A709M, Gr 36 (250) - 50 (345) - F11K (345-4)  
 Welding process Flux Cored Arc welding  
 Manual or machine Semi Auto  
 Position of welding ELT (E) - Horizontal (2F)  
 Filler metal specification AWS - A5-29  
 Filler metal classification E81T1-A1  
 Flux NA  
 Shielding gas 75%AR / 25%CO<sub>2</sub> Flow rate 35 CFH ± 8.6  
 Single or multiple pass Single and Multiple  
 Single or multiple arc Single  
 Welding current Direct  
 Polarity Reverse Electrode Positive  
 Welding progression  
 Root treatment As per AWS D1.5 Specification  
 Preheat and interpass temperature As per AWS D1.5 Specification  
 Postheat temperature NA  
 Heat Input Min 28.6 (1.15kcal) Max 45.0 (1.8kcal) PQR # 2 = 40.9 (1.6kcal)

WELDING PROCEDURE (Metric) VT, ACT CORINTH  
Br # 34 - Proj # STBRO-1447(2)  
C.B.S.S. No 380

Pass no.	Electrode size	Welding current		Travel speed	Notes
		Amperes	Volts		
AS	1/16	27.5	28.8	11.6	IF
		24.7 To 302.5	26.8 To 30.8	10.4 To 12.8	
		27.5 To 302.5	28.8 To 30.8	2.946 To 3.2512	
Req	1.6	27.5	28.8	2.946	2E
		24.7 To 302.5	26.8 To 30.8	2.642 To 3.2512	
		27.5 To 302.5	28.8 To 30.8	2.642 To 3.2512	

Joint detail: Fillet

TRANS RECEIVED  
 OK'D BY: JUC  
 DATE: 11/21/08

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 101-A  
 Revision no. 1  
 Date 2/20/07

**Casco Bay Steel Structures, Inc.**

75 Spring Hill Road  
Saco, Maine 04072

Phone: (207) 282-7360

Fax: (207) 282-1129

**WELDING PROCEDURE SPECIFICATION**

Material specification ASTM-A709M-Gr36(230), 50(345), 50W(345W)  
 Welding process Submerged Arc welding  
 Manual or machine Machine  
 Position of welding Horizontal (GF)  
 Filler metal specification AWS A5-23  
 Filler metal classification E802-E811K-N1 Lincoln  
 Flux Lincoln 800 Flux with LA-75 Electrode  
 Shielding gas NA Flow rate NA  
 Single or multiple pass Single - Electrode Ex. 1#34 (25.4 ± 1%)  
 Single or multiple arc Single  
 Welding current DC  
 Polarity DCEN  
 Welding progression See Joint Detail  
 Root treatment AWS spec. wire brush - grind - Blast (Clean area)  
 Preheat and interpass temperature 34 (19) to 50 (10) to 30 (19) to 140 (60) to 200 (150) to 225 (100) to 250 (100) to 275 (100) to 300 (150)  
 Postheat temperature NA  
 Heat input See chart Max 40.1 kJ/in (1.9 kJ/mm) DGR 4-42.8 kJ/in (1.7 kJ/mm)

WELDING PROCEDURE VT, ACT GORINTH

Pass no.	Electrode size	Welding current		Travel speed	Fillet AWS D1.5
		Amperes	Volts		
1	3/32	299	31	12 IPM	AP
		269	29	11	
		70	33	15	
2	2.4	299	31	380 mm	
		269	29	279	
		70	33	381	

VT, ACT GORINTH  
 Br # 34 - Proj # STRBRO-1447(32)  
 C.B.S.S. NO 380  
 11/24/08

This procedure may vary due to fabrication sequence, fit-up, pass size, etc., within the limitation of variables given in applicable A.W.S. codes or contract specifications

Procedure no. 250 Contractor Casco Bay Steel  
 Revision no. \_\_\_\_\_ Authorized By Paul E. Goodale  
 Form III-2 Date 6-13-00

**GENERAL NOTES**

CONSTRUCTION SPECIFICATIONS

- 1). ALL MATERIAL AND WORKMANSHIP TO BE IN ACCORDANCE WITH THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006 WITH LATEST REVISIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1998 AND ITS LATEST REVISIONS.

MATERIAL SPECIFICATIONS

- 1). UNLESS OTHERWISE NOTED, ALL STEEL TO BE AASHTO M270M (ASTM A709M) GRADE 345W.
- 2). MATERIAL NOTED "CVN" OR "H2-3" ON DETAIL DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF VERMONT STANDARD SPECIFICATIONS SECTION 714.01.
- 3). HIGH STRENGTH BOLTS:  $\frac{3}{4}$ "  $\phi$  ASTM A325 (AASHTO M164) TYPE 3 IN  $\frac{24}{16}$ "  $\phi$  HOLES. NUTS SHALL BE A563 (AASHTO M291) GRADE C3. BOLTS & NUTS SHALL BE ROTATIONAL CAPACITY TESTED. DO NOT MIX NUTS & BOLTS FROM DIFFERENT CONTAINERS UNLESS ALL BOLTS & NUTS HAVE THE SAME LOT NUMBER.

FABRICATION

- 1). ALL HOLES SHALL BE PUNCHED OR DRILLED FULL SIZE (UN).

WELDING

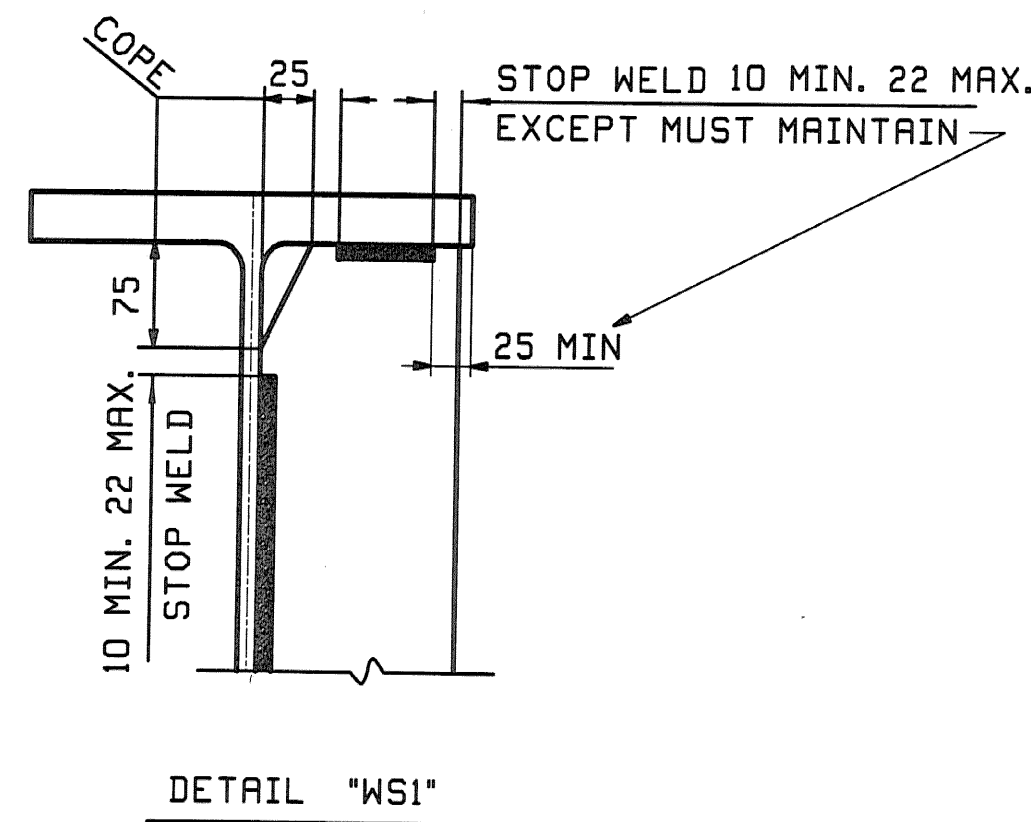
- 1). THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D1.5-02 BRIDGE WELDING CODE AND IN ADDITION TO SPECIFICATIONS SHOWN ABOVE. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.
- 2). WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESSES. ALL WELDS ARE CONTINUOUS U.N.
- 3). NON DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.
- 4). SEE DETAIL "WS1" ON THIS DRAWING FOR WELD TERMINATION DETAIL.

CLEANING

1. ALL STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC SP-10.
2. STRUCTURAL STEEL SHALL NOT BE PAINTED.

FIELD CONNECTIONS

- 1). ALL FIELD CONNECTIONS SHALL BE MADE WITH  $\frac{22}{8}$ " DIAMETER HIGH STRENGTH A-325 TYPE 3 BOLTS (UN), INSTALLED PER SECTION 506.19(c). SEE DWG E1 FOR FIELD BOLT SIZES.
- 2). BOLTS SHALL HAVE HEAVY HEX NUT, HEAVY HEX HEAD, AND AT LEAST ONE FLAT WASHER EACH. WASHER TO BE PLACED UNDER TURNED ELEMENT.
- 3). PIECE MARKS WILL BE LOCATED AS SHOWN ON ERECTION DRAWINGS.



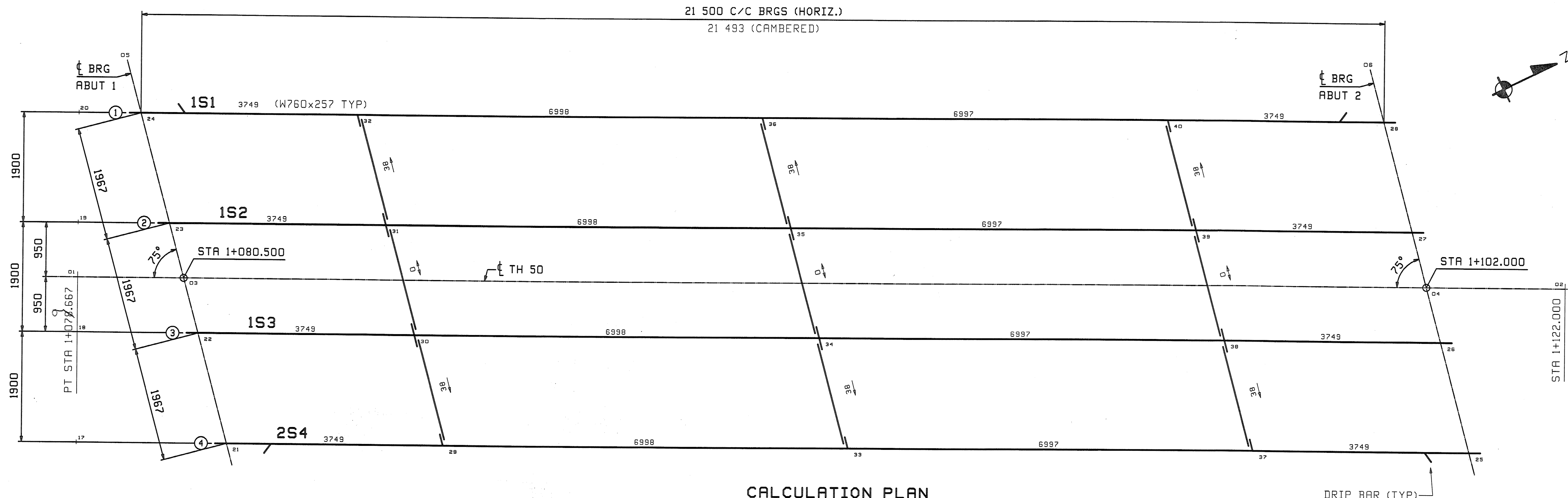
STRUCTURES COPY

RECEIVED  
 NOV 14 2008  
 APPROVED AS NOTED  
 BY OPW DATE 11/25/08

NOTE TO ENGINEER:  
 THESE NOTES ARE NOT INTENDED TO BE ALL INCLUSIVE AND COMPLIANCE WITH RELEVANT SPECIFICATIONS REMAIN UNCHANGED.

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:	HOLES:		SHOP BOLTS:	
DESCRIPTION: GENERAL NOTES						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE				DRAWN:	DATE:	
				JTB	10/14	
				CHKD:	DATE:	
				DBH	10/28	
LOCATION: TOWN OF CORINTH				JOB NO.	DWG NO.	
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)				380	GN1	
CUSTOMER: VERMONT ROT					REV. $\Delta$	



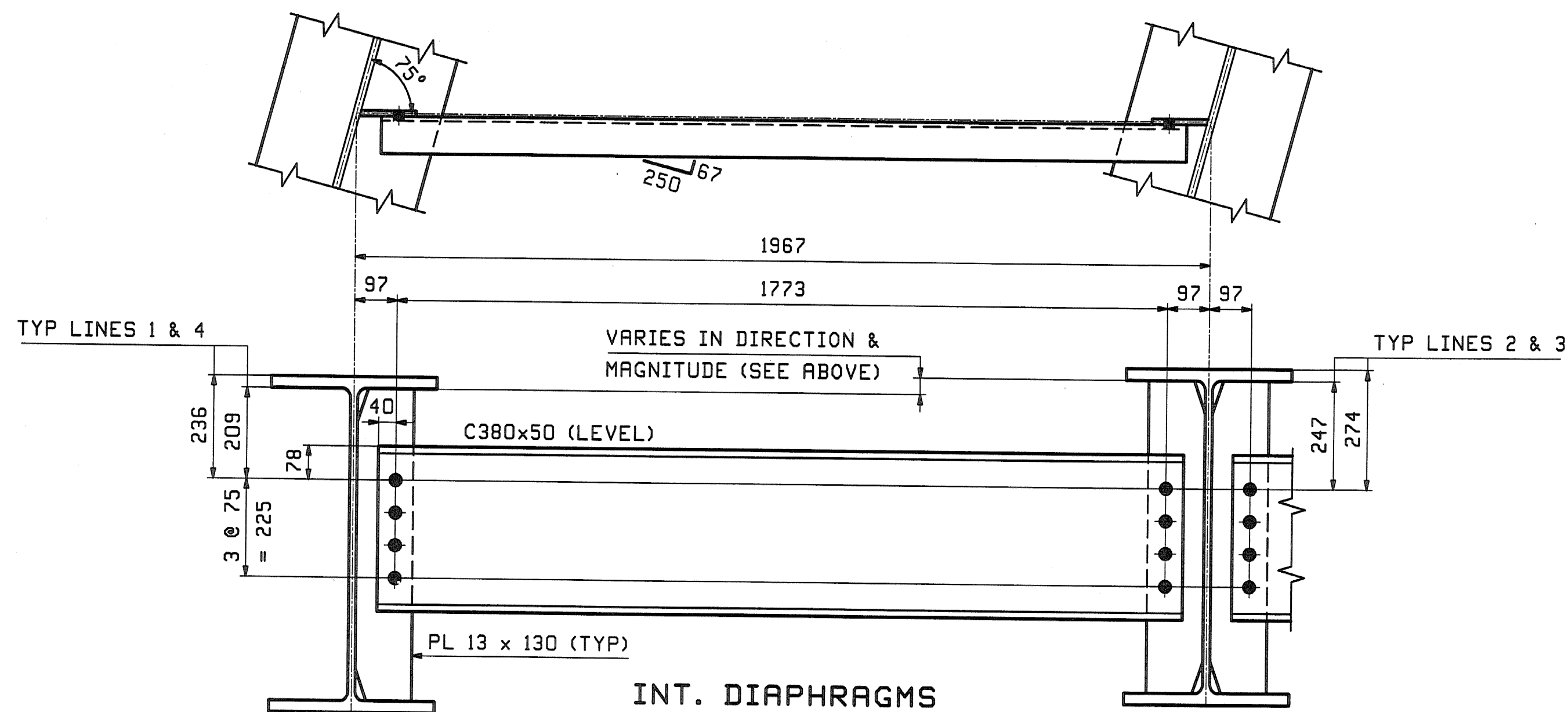


**CALCULATION PLAN**

Line	GRADES	
	ABUT 1	ABUT 2
1	-.0132	-.0093
2	-.0126	-.0099
3	-.0121	-.0104
4	-.0115	-.0110

**CALCULATION PLAN NOTES:**

1. LONGITUDINAL DIMENSIONS ARE SLOPING ALONG BOTTOM OF WEBS WITH CORRECTIONS MADE FOR DL CAMBER, VERTICAL CURVER & GRADE (UN).
2. TRANSVERSE DIMENSIONS ARE IN A HORIZONTAL PLANE (UN).
3. ARROW POINTS TOWARD LOW END OF MEMBER.
4. ENDS OF GIRDERS ARE VERTICAL AFTER DL ROTATION.
5. DIAPHRAGM STIFFENERS ARE NORMAL TO GRADE.
6. BOTTOM POINT NUMBERS = TOP POINT NUMBERS + 100

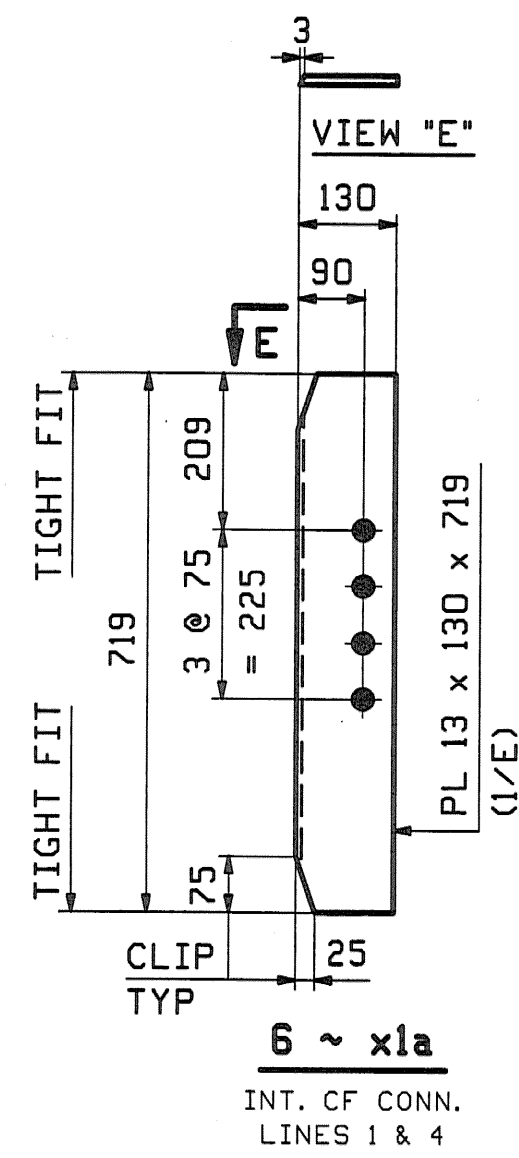


- NOTES:**
1. MATERIAL SHALL BE AASHTO M270M GRADE 345W.
  2. ALL BOLT HOLES SHALL BE  $\frac{15}{16}$ " FOR  $\frac{7}{8}$ " HSB (UN).

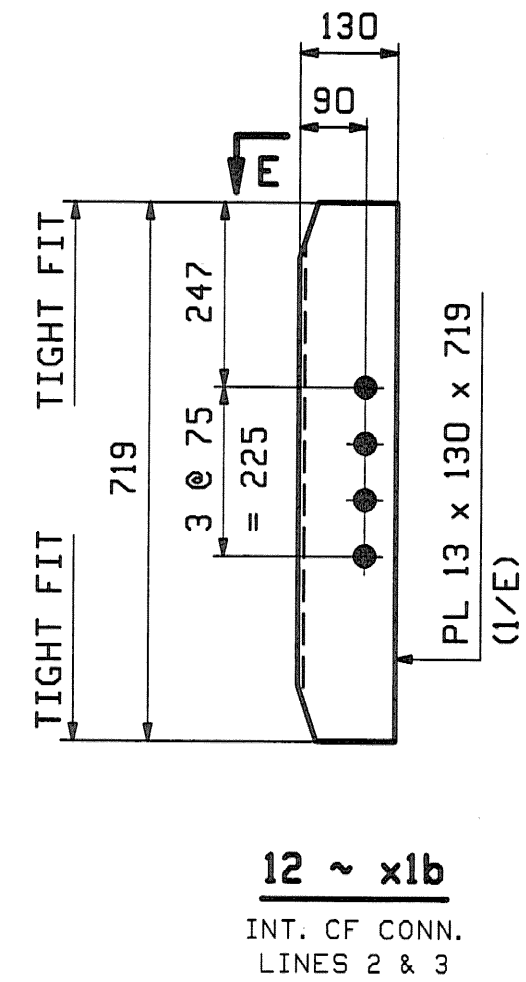
REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
DESCRIPTION: CALCULATION PLAN & LAYOUTS						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE:		ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE		DRAWN:	DATE:	
				JTB	10/13	
				CHKD:	DATE:	
				DBH	10/28	
LOCATION:		TOWN OF CORINTH		JOB NO.	DWG NO.	
PROJ NO.		STP BRO 1447(22) (RE-ADVERTISED)		380	WS1	
CUSTOMER:		VERMONT ROT		REV.	△	

RECEIVED  
NOV 14 2008  
APPROVED: As Noted  
DATE: 11/25/08

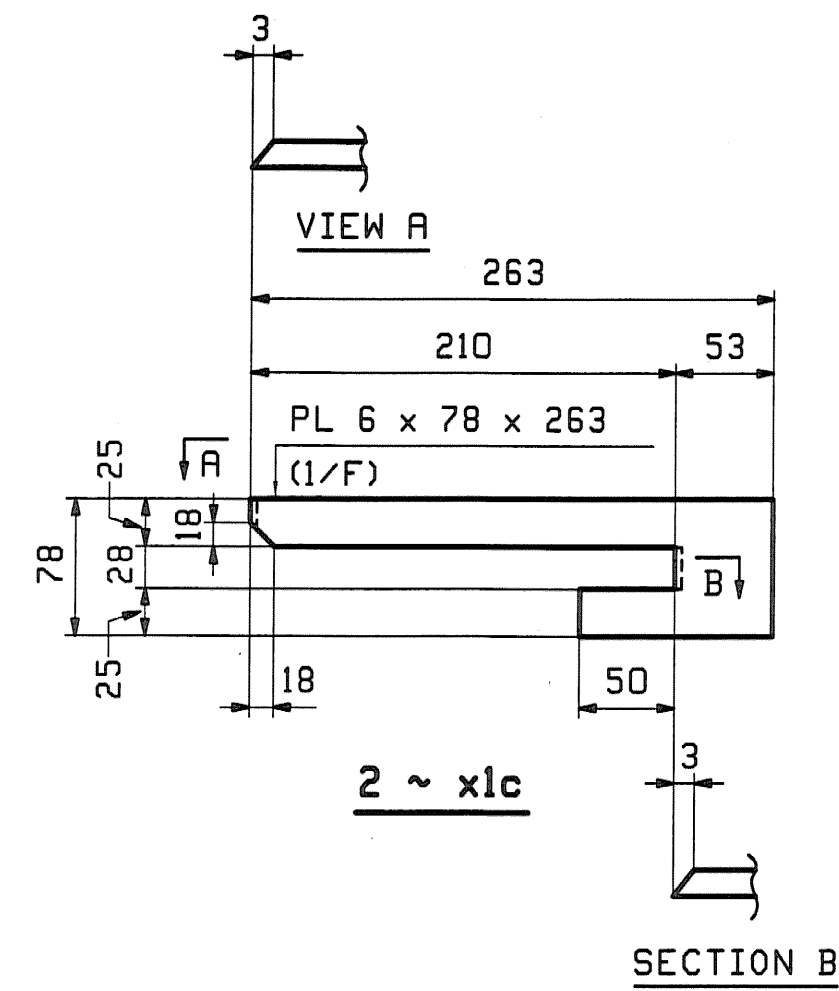




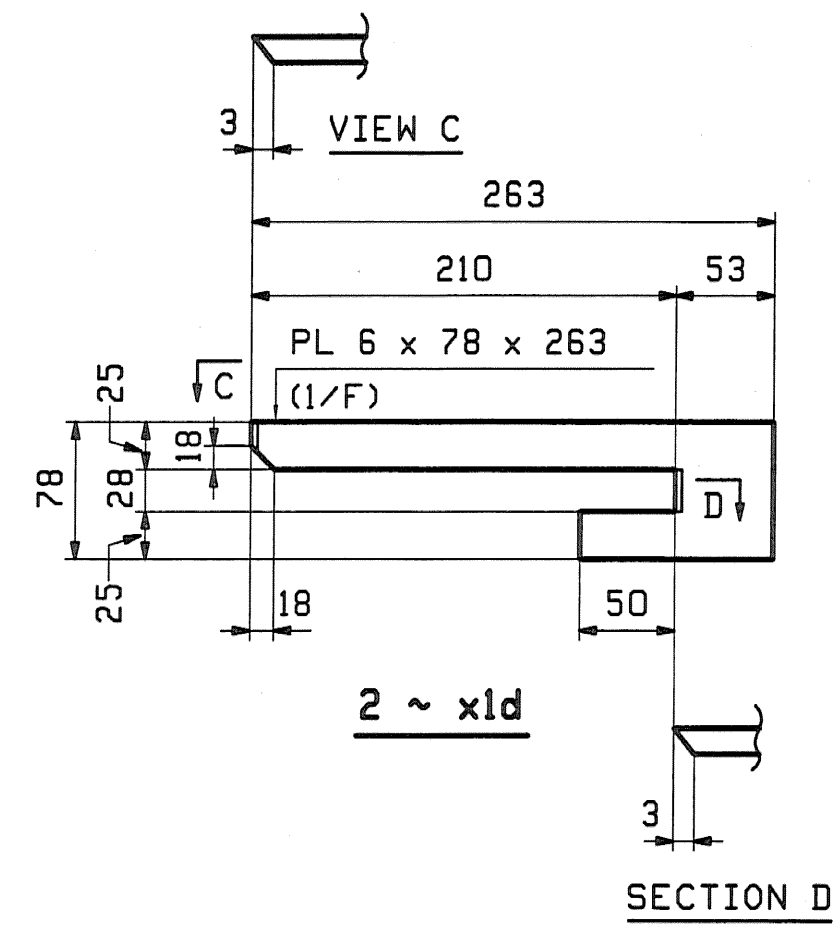
6 ~ x1a  
INT. CF CONN.  
LINES 1 & 4



12 ~ x1b  
INT. CF CONN.  
LINES 2 & 3



SECTION B



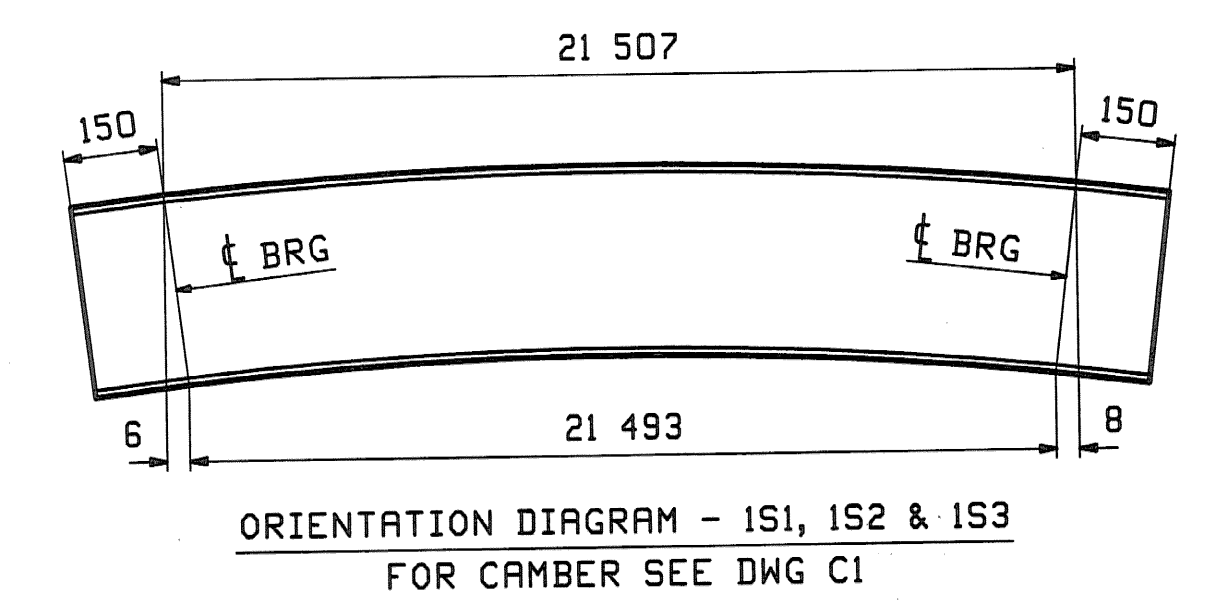
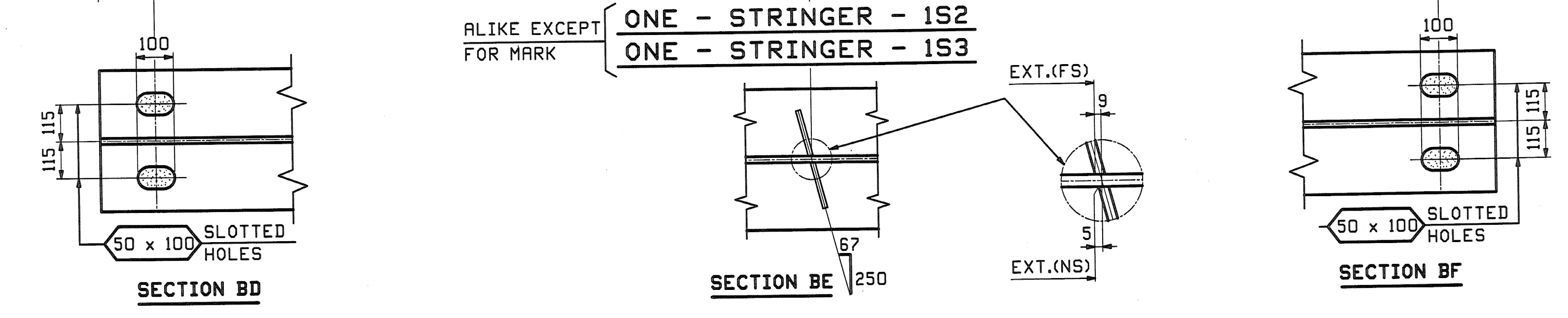
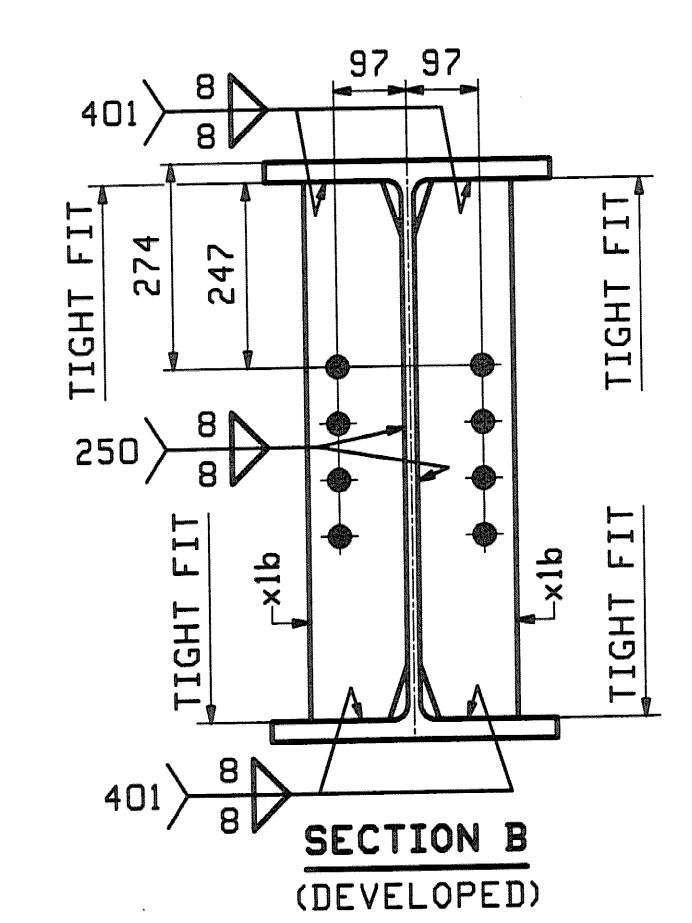
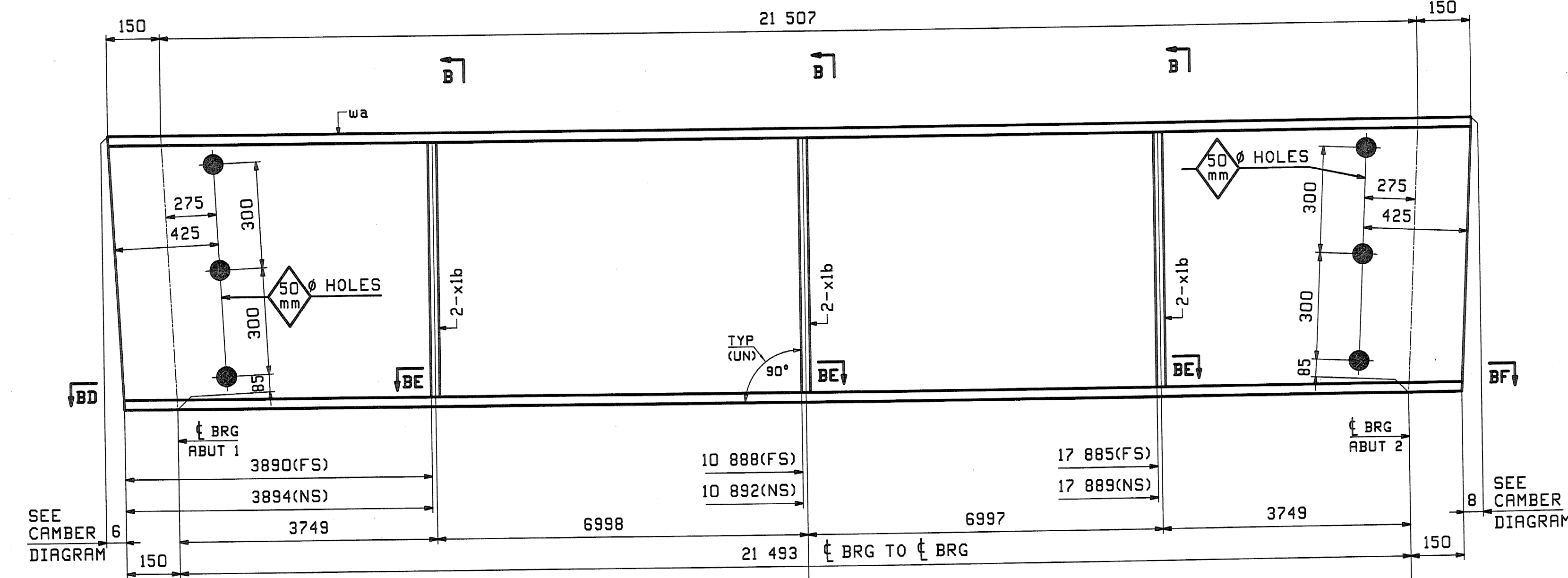
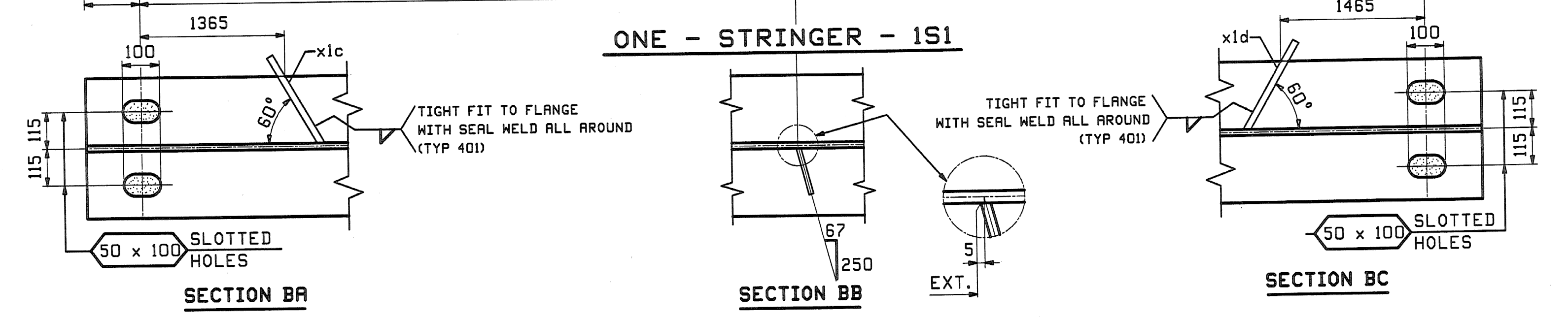
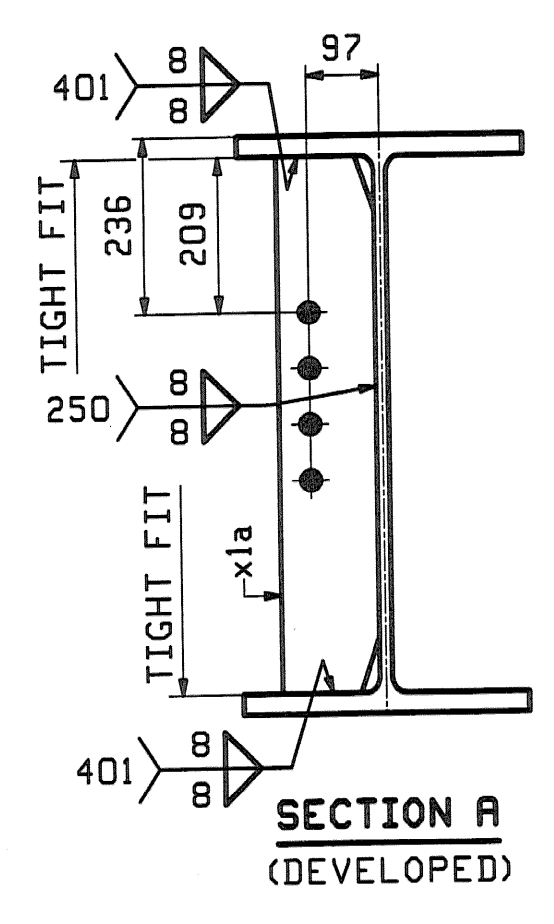
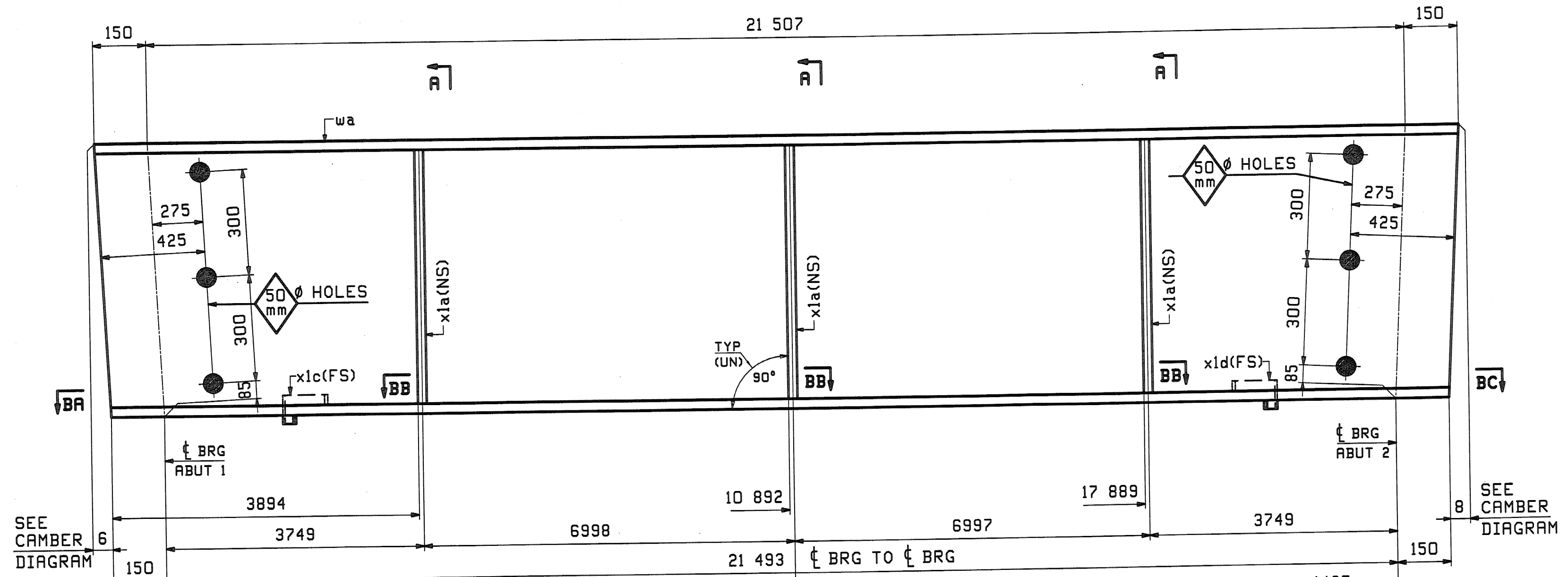
SECTION D

NOTES:  
ALL MATERIAL SHALL BE M270M-345W.  
ALL BOLT HOLES SHALL BE  $\frac{1}{16}$ " FOR  $\frac{3}{8}$ " HSB.  
FOR GENERAL NOTES SEE DRAWING GNI.

0					11-10-03	
REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
DESCRIPTION: STRINGER STANDARD DETAILS						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE			DRAWN: JTB	DATE: 10/14		
			CHKD: DBH	DATE: 10/28		
LOCATION: TOWN OF CORINTH			JOB NO.	DWG NO.		
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)			380	X1		
CUSTOMER: VERMONT ROT				REV. $\Delta$		

RECEIVED  
CHKD BY LSS OKD BY RSY  
NOV 14 2008  
APPROVED Asst  
DATE 11/25/08  
CPW

PAGE	LINE	MARK	QTY	MARK	MATERIAL	LENGTH		REMARKS	WT	PROCUREMENT NOTES
						m	mm			
BILL OF MATERIAL										
JOB NO. 380 DRAWING NO. 1 REV.										
		1S1	1		STRINGER				5635 kg 12482 lbs	
1	B		1	wa	W 760x257	21	807	(M270M-345HT2)	(H2-3)	
1	E		3	x1a	PL 13x130	0	719	(M270M-345H)		
1	F		1	x1c	PL 6x78	0	263	(M270M-345H)		
1	F		1	x1d	PL 6x78	0	263	(M270M-345H)		
		1S2	1		STRINGER				5662 kg 12482 lbs	
		1S3	1		STRINGER				5662 kg 12482 lbs	
1	B		2	wa	W 760x257	21	807	(M270M-345HT2)	(H2-3)	
1	E		12	x1b	PL 13x130	0	719	(M270M-345H)		

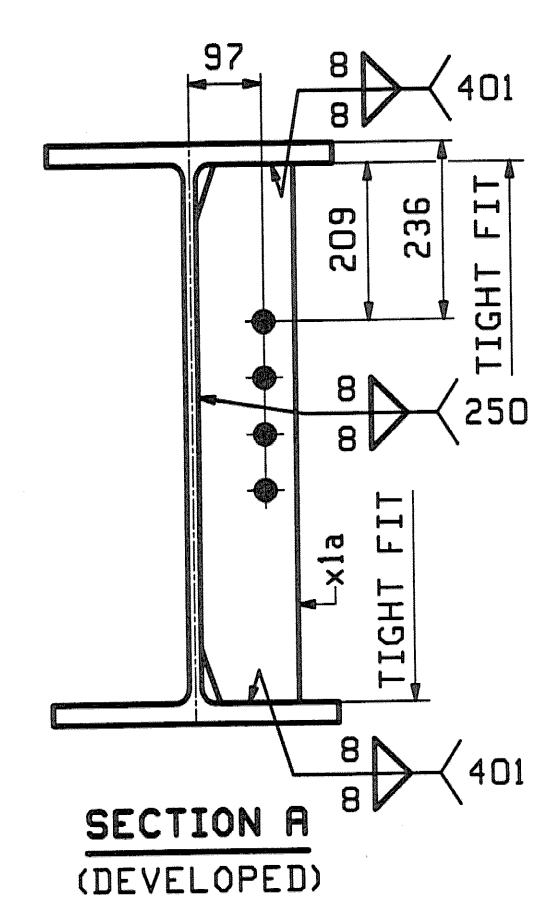
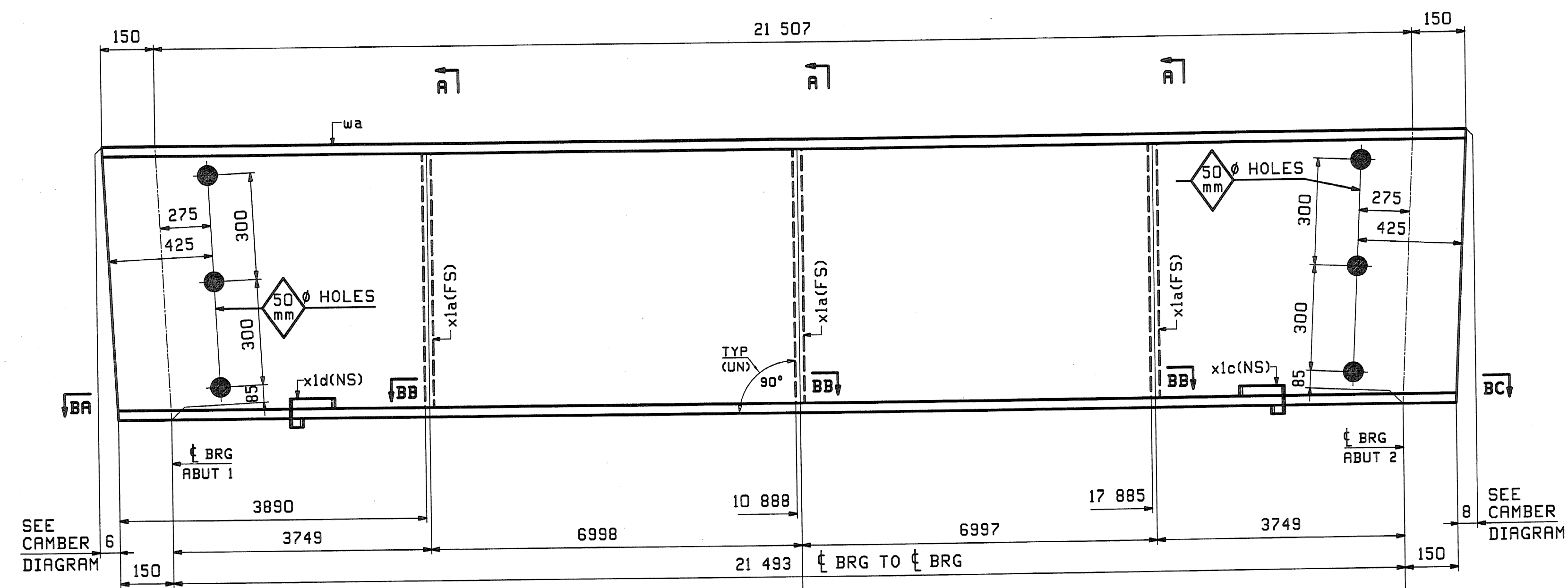


REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:	HOLES:		SHOP BOLTS:	
M270M-345W (UN)		AS NOTED ON GNI	24 15/16 (UN)		NONE	
DESCRIPTION: STRINGERS - 1S1, 1S2 & 1S3						
CASCO BAY STEEL STRUCTURES, INC.						
75 SPRING HILL ROAD SACO, MAINE 04072						
PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3				DRAWN: JTJ		DATE: 10/14
BRIDGE NO: BR 34				CHKD: DBH		DATE: 10/28
COUNTY OF ORANGE				JOB NO. 380		DWG NO. 1
LOCATION: TOWN OF CORINTH						REV. 1
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)						
CUSTOMER: VERMONT AOT						

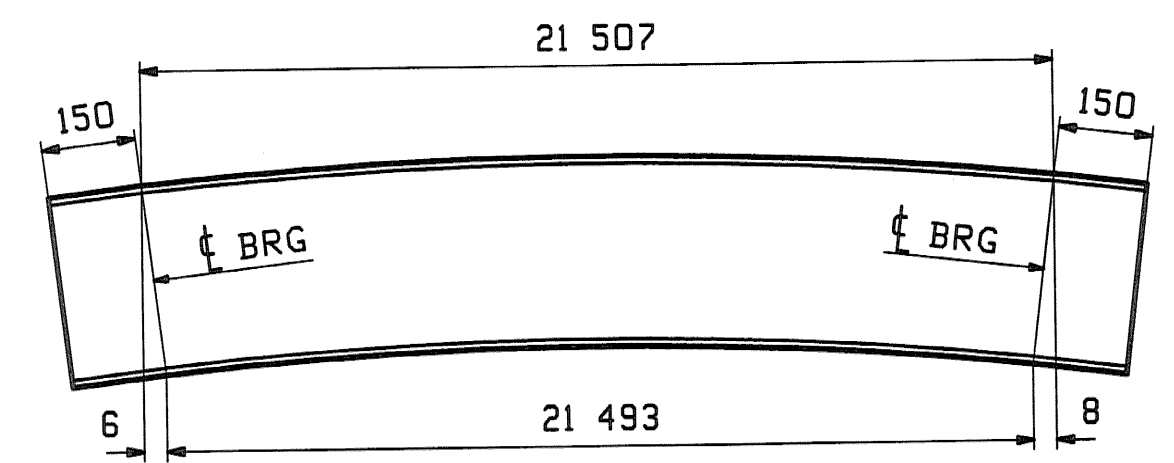
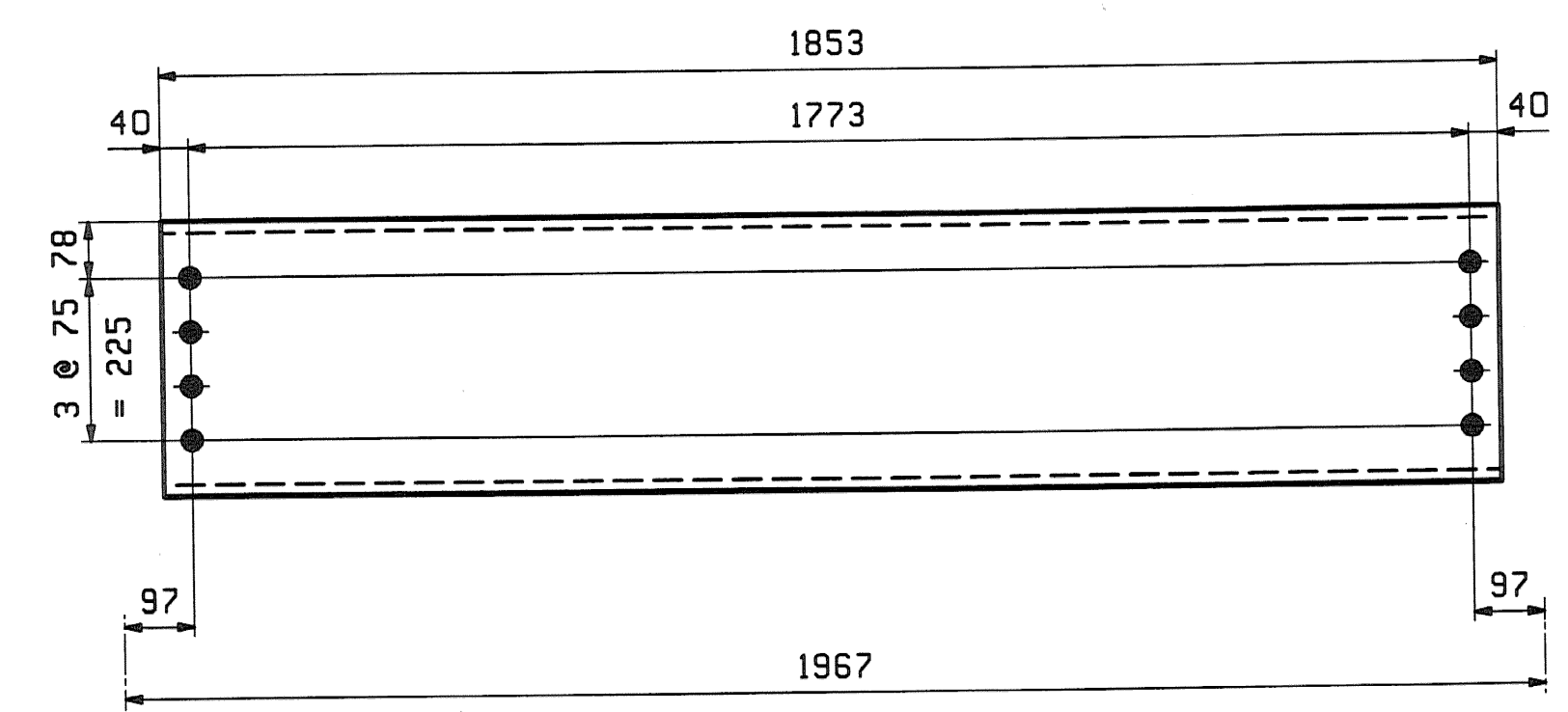
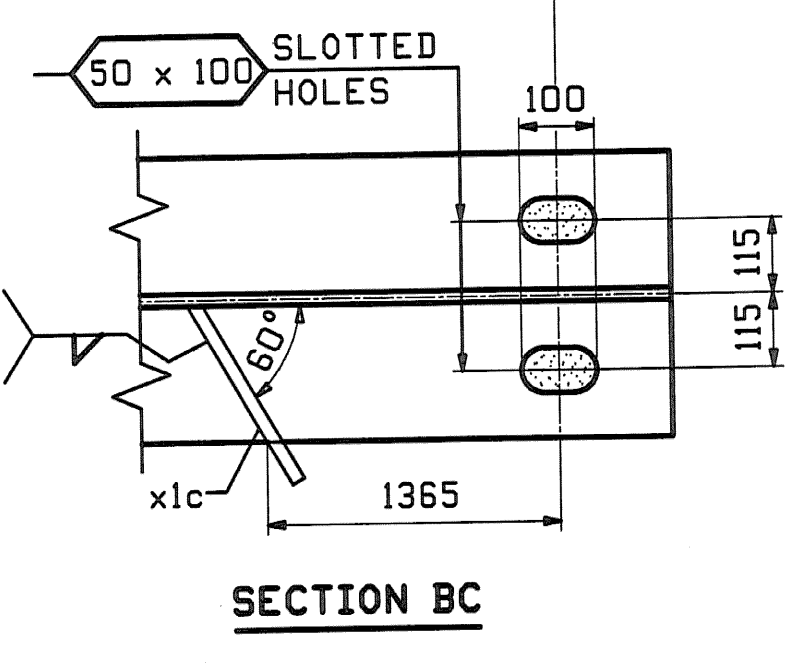
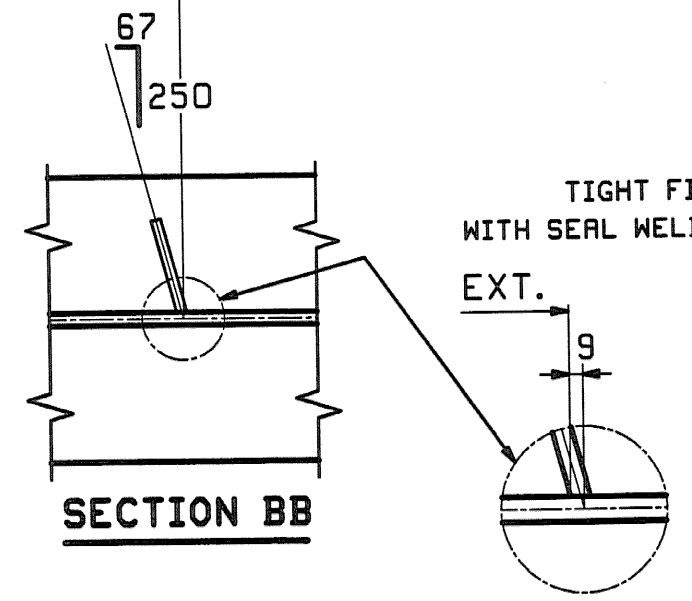
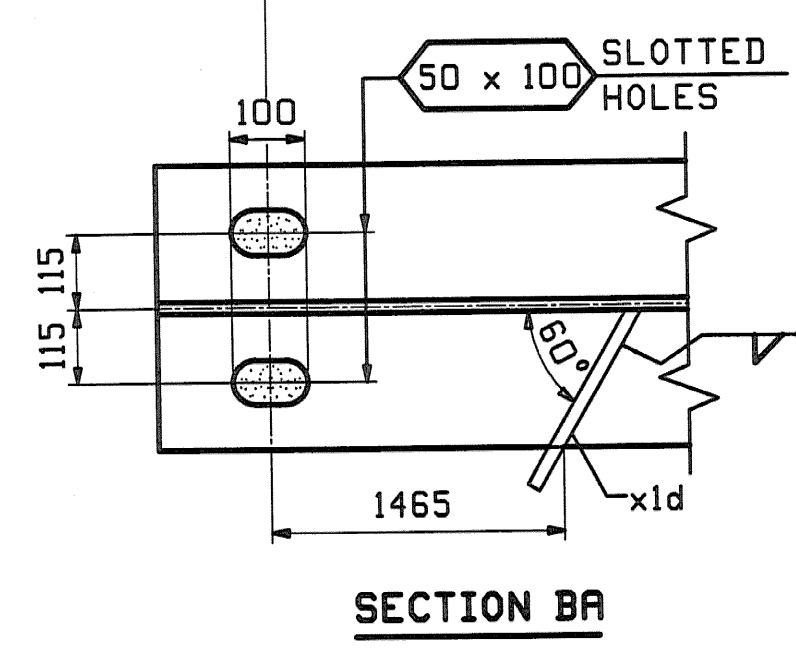
NOTES:  
 FOR STRINGER STANDARDS SEE DRAWINGS X1.  
 FOR CAMBER DIAGRAM SEE DRAWING C1.  
 FOR GENERAL NOTES & WELD PROCEDURES SEE DRAWING GNI.  
 H2-3 DENOTES MATERIAL SUBJECT TO CHAPPY V-NOTCH TESTING.

RECEIVED  
 NOV 14 2008  
 APPROVED: [Signature]  
 DATE: 11/25/08

ABM INFO		BILL OF MATERIAL				JOB NO.	DRAWING NO.	REV.	
						380	2		
PAGE	LINE	MARK	QTY	MARK	MATERIAL	LENGTH	REMARKS	WT	PROCUREMENT NOTES
		2S4	1		STRINGER			835 kg 1823 lbs	
1	B		1	wa	M 760x257	21 807	(M270M-345H2)	(H2-3)	
1	E		3	x1a	PL 13x130	0 719	(M270M-345H)		
1	F		1	x1c	PL 6x78	0 263	(M270M-345H)		
1	F		1	x1d	PL 6x78	0 263	(M270M-345H)		
		DIAPHRAGMS							
1	J	2D1	9		C 380x50	1 853	(M270M-345H)	83 kg 205 lbs	



ONE - STRINGER - 2S4

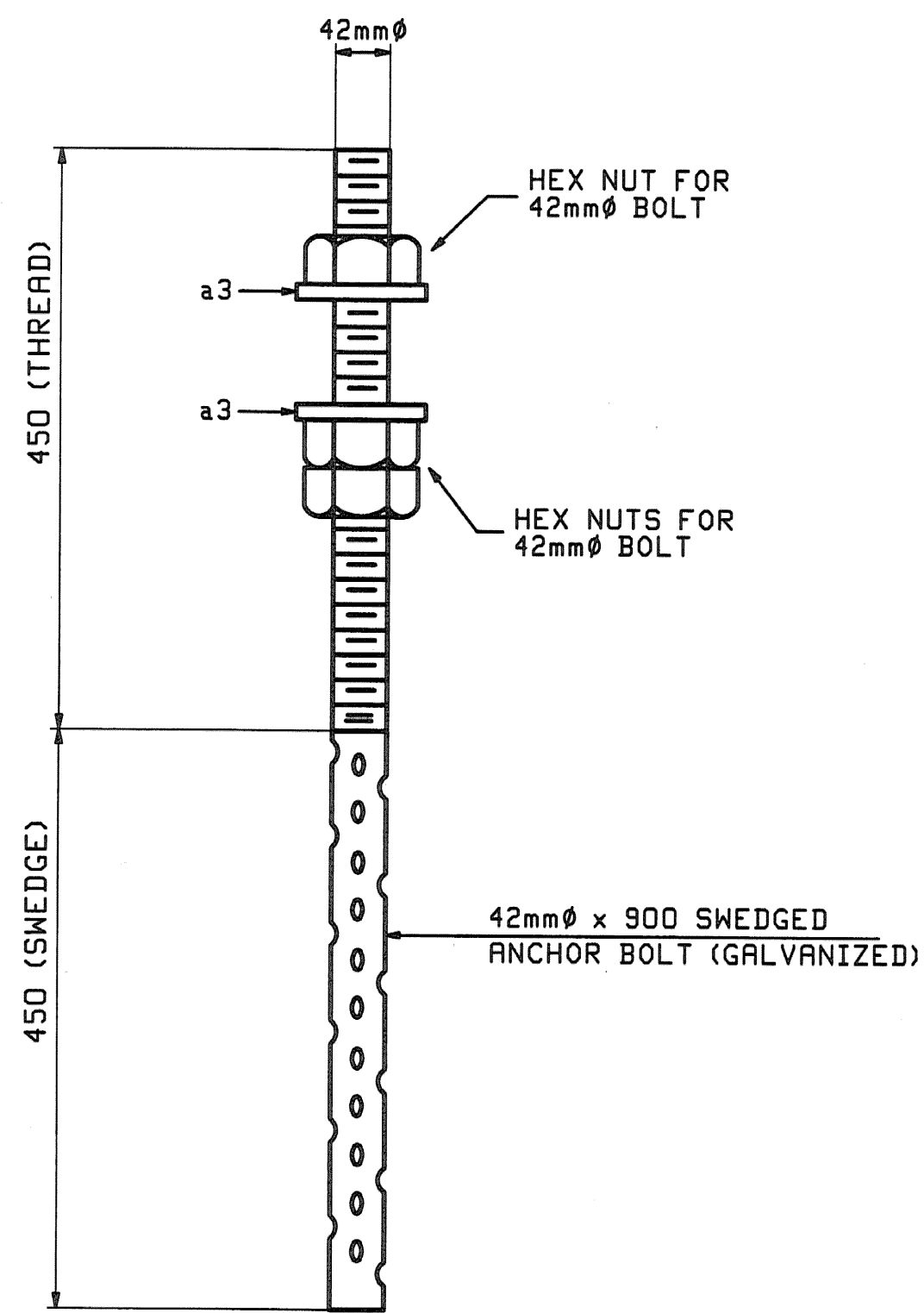


REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:	HOLES:		SHOP BOLTS:	
M270M-345H (UN)		AS NOTED ON GNI	24 15/16 (UN)		NONE	
DESCRIPTION: STRINGER - 2S4 & INT. DIAPHRAGMS - 2D1						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD PHONE (207) 282-7360					SACO, MAINE 04072 FAX. (207) 282-1179	
STRUCTURE:			ROUTE NO:	TH 50, CL 3	DRAWN:	DATE:
BRIDGE NO:			BR 34	COUNTY OF ORANGE	JTB	10/16
LOCATION:			TOWN OF CORINTH	JOB NO.	380	DWG NO.
PROJ NO.:			STP BRO 1447(22) (RE-ADVERTISED)	REV.	2	
CUSTOMER:			VERMONT ROT			

STRINGER NOTES:  
 FOR STRINGER STANDARDS SEE DRAWINGS X1.  
 FOR CAMBER DIAGRAM SEE DRAWING C1.  
 FOR GENERAL NOTES & WELD PROCEDURES SEE DRAWING GNI.  
 H2-3 DENOTES MATERIAL SUBJECT TO CHARNY V-NOTCH TESTING.

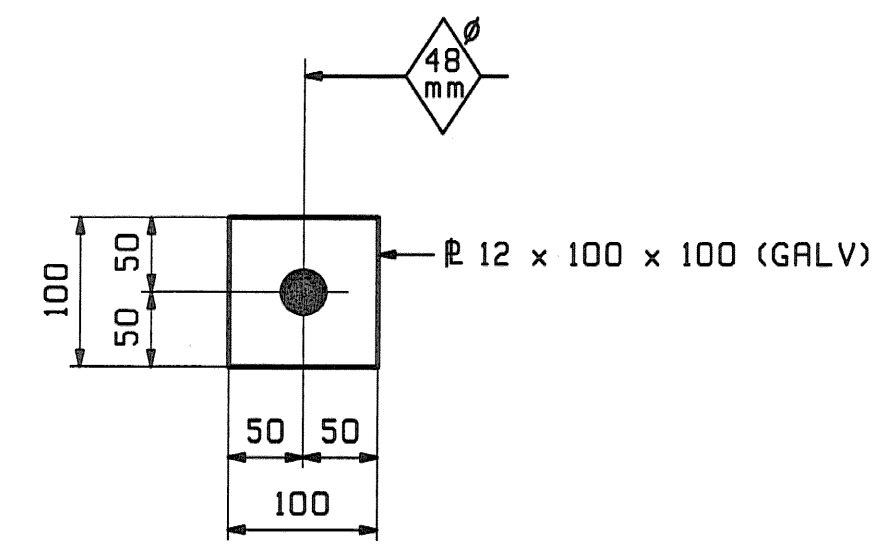
RECEIVED  
 NOV 14 2008  
 APPROVED: *As/Neil*  
 DATE: 11/25/08

JTB Tue Oct 28 10:03 AM EST 2008 /Users/jtb/Projects/2008/2008-11-10-08/2008-11-10-08.dwg

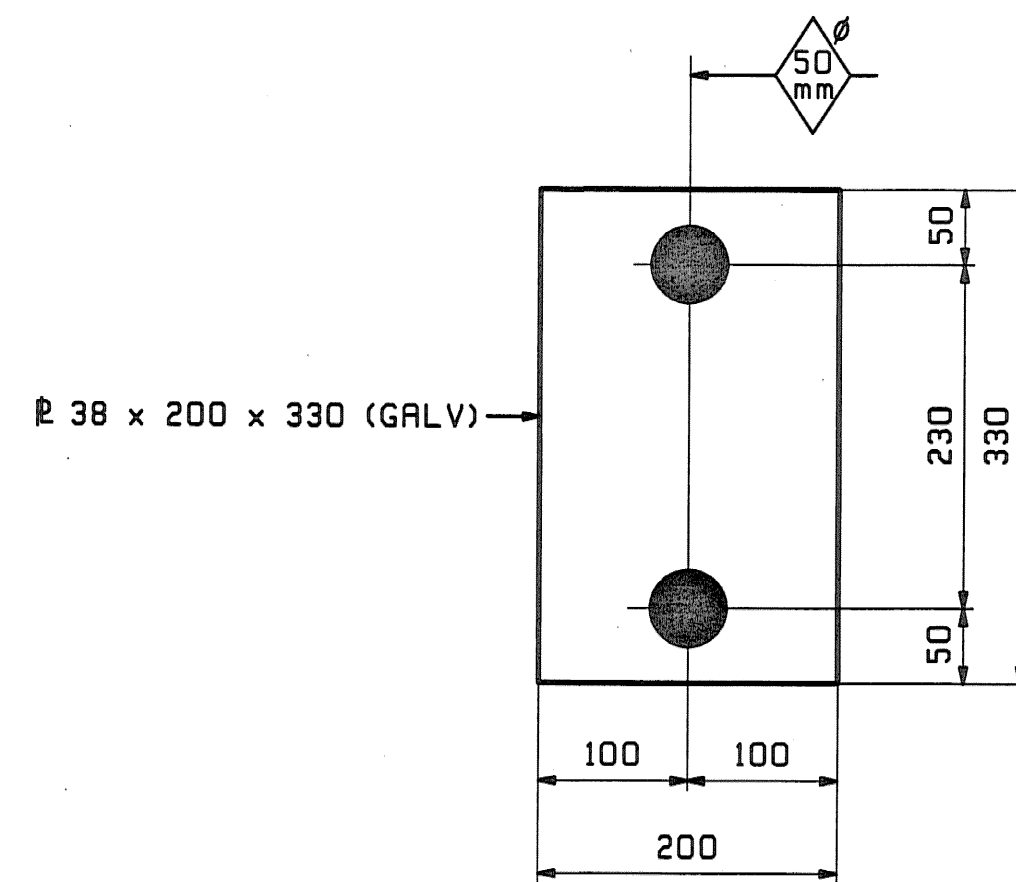


17 - ANCHOR BOLTS ~ 3AB1

1 - EXTRA FOR TESTING  
NO NUTS OR WASHERS REQ'D



32 - PLATE WASHERS ~ a3



8 - SOLE PLATES ~ 3SP1

ABM INFO		SHIP	BILL OF MATERIAL			JOB NO.	DRAWING NO.	REV.	
PAGE	LINE	MARK	QTY	MARK	MATERIAL	LENGTH	REMARKS	WT	PROCUREMENT NOTES
					ANCHOR BOLTS				
2	B		17	3AB1	ROD 42 Ø	0 900	(M270M) 450mm THREADED (GALV)		
2	C		48		42mm DIA. HEX NUT		(M281M)		
2	D		32	a3	PL 12x100	0 100	(M270M-250) (GALV)		
					SOLE PLATES				
2	G		8	3SP1	PL 38x200	0 330	(M270M-250) (GALV)		

LSS  
NOV 17 2008  
AS NOTED  
APV 11/25/08

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-12-08
MATERIAL:		SURFACE PREP. & PAINT:	HOLES:		SHOP BOLTS:	
M270M-250 (UN)		AS NOTED ON GNI	AS NOTED		AS NOTED	
DESCRIPTION: ANCHOR BOLTS & SOLE PLATES						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 CORINTH COUNTY OF ORANGE				DRAWN: ZAD	DATE: 11/10	
				CHKD: WJL	DATE: 11/12	
LOCATION: TOWN OF CORINTH			JOB NO.	DNG NO.		
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)			380	3		
CUSTOMER: VERMONT ROT				REV. ▲		

05055

**GENERAL NOTES**

CONSTRUCTION SPECIFICATIONS

- 1). ALL MATERIAL AND WORKMANSHIP TO BE IN ACCORDANCE WITH THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006 WITH LATEST REVISIONS AND THE AASHTO LRFD BRIDGE CONSTRUCTION SPECIFICATIONS FOR HIGHWAY BRIDGES DATED 1998 AND ITS LATEST REVISIONS.

MATERIAL SPECIFICATIONS

- 1). UNLESS OTHERWISE NOTED, ALL STEEL TO BE AASHTO M270M (ASTM A709M) GRADE 345W.
- 2). MATERIAL NOTED "CVN" OR "H2-3" ON DETAIL DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF VERMONT STANDARD SPECIFICATIONS SECTION 714.01.
- 3). HIGH STRENGTH BOLTS:  $\frac{7}{8}$ " ASTM A325 (AASHTO M164) TYPE 3 IN  $\frac{15}{16}$ " HOLES. NUTS SHALL BE A563 (AASHTO M291) GRADE C3. BOLTS & NUTS SHALL BE ROTATIONAL CAPACITY TESTED. DO NOT MIX NUTS & BOLTS FROM DIFFERENT CONTAINERS UNLESS ALL BOLTS & NUTS HAVE THE SAME LOT NUMBER.

FABRICATION

- 1). ALL HOLES SHALL BE PUNCHED OR DRILLED FULL SIZE (UN).

WELDING

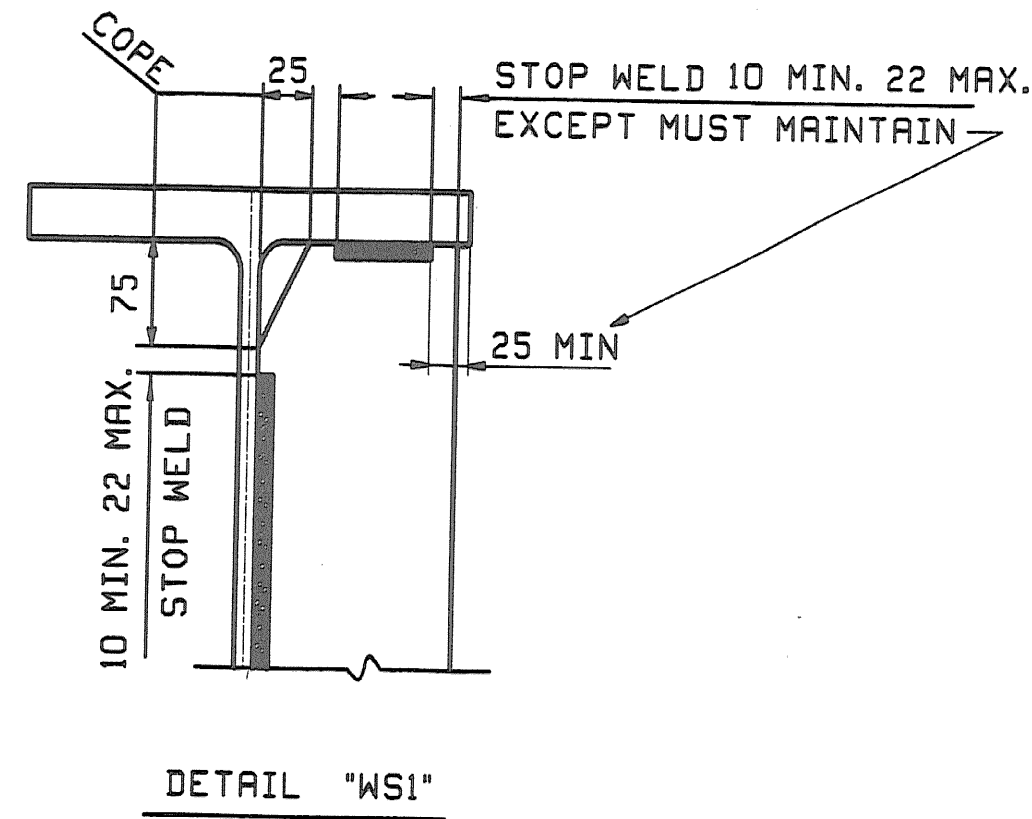
- 1). THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D1.5-02 BRIDGE WELDING CODE AND IN ADDITION TO SPECIFICATIONS SHOWN ABOVE. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.
- 2). WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESSES. ALL WELDS ARE CONTINUOUS U.N.
- 3). NON DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.
- 4). SEE DETAIL "WS1" ON THIS DRAWING FOR WELD TERMINATION DETAIL.

CLEANING

1. ALL STEEL SHALL BE BLAST CLEANED IN ACCORDANCE WITH SSPC SP-8.
2. STRUCTURAL STEEL SHALL NOT BE PRINTED.

FIELD CONNECTIONS

- 1). ALL FIELD CONNECTIONS SHALL BE MADE WITH  $\frac{7}{8}$ " DIAMETER HIGH STRENGTH A-325 TYPE 3 BOLTS (UN), INSTALLED PER SECTION 506.19(c). SEE DWG E1 FOR FIELD BOLT SIZES.
- 2). BOLTS SHALL HAVE HEAVY HEX NUT, HEAVY HEX HEAD, AND AT LEAST ONE FLAT WASHER EACH. WASHER TO BE PLACED UNDER TURNED ELEMENT.
- 3). PIECE MARKS WILL BE LOCATED AS SHOWN ON ERECTION DRAWINGS.



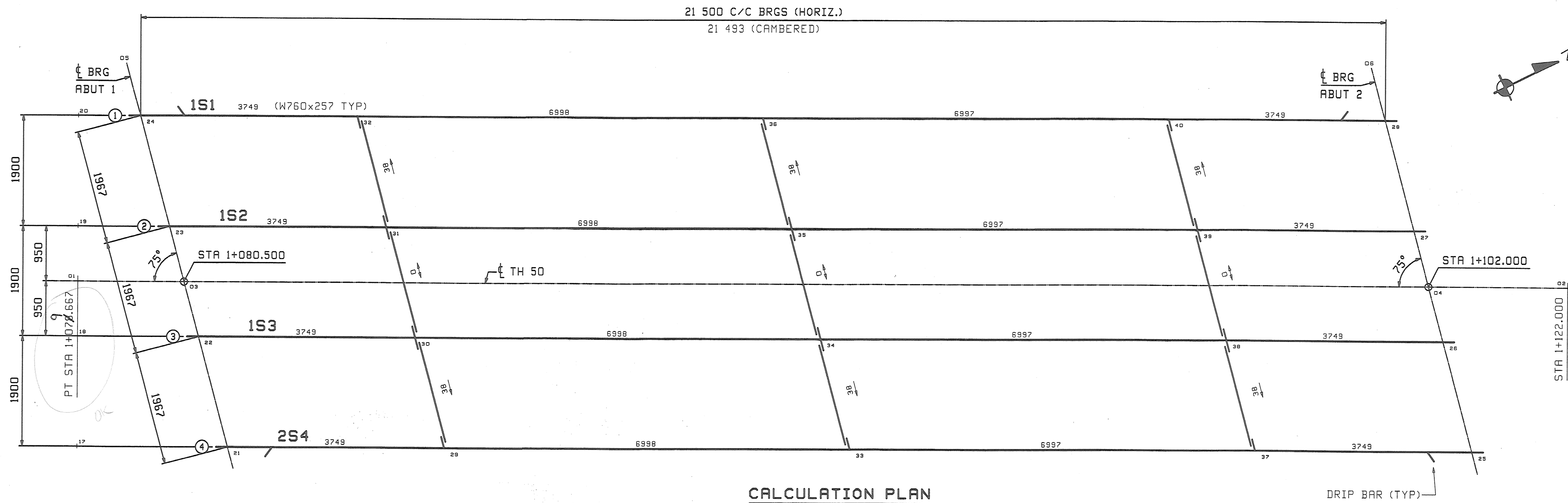
*Sp-10 - GME  
PT Station - W2  
non-UM + comments*

RECEIVED  
DRAWN BY: JTB OK'D BY: RSY  
NOV 14 2008  
RESUBMIT: \_\_\_\_\_ APPROVED: *Ac/Net*  
BY: \_\_\_\_\_ DATE: \_\_\_\_\_

**NOTE TO ENGINEER:**  
THESE NOTES ARE NOT INTENDED TO BE ALL INCLUSIVE AND COMPLIANCE WITH RELEVANT SPECIFICATIONS REMAIN UNCHANGED.

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
DESCRIPTION: GENERAL NOTES						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE			DRAWN: JTB	DATE: 10/14		
			CHKD: DBH	DATE: 10/28		
LOCATION: TOWN OF CORINTH			JOB NO.	DWG NO.		
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)			380	GNI		
CUSTOMER: VERMONT AOT				REV. $\Delta$		

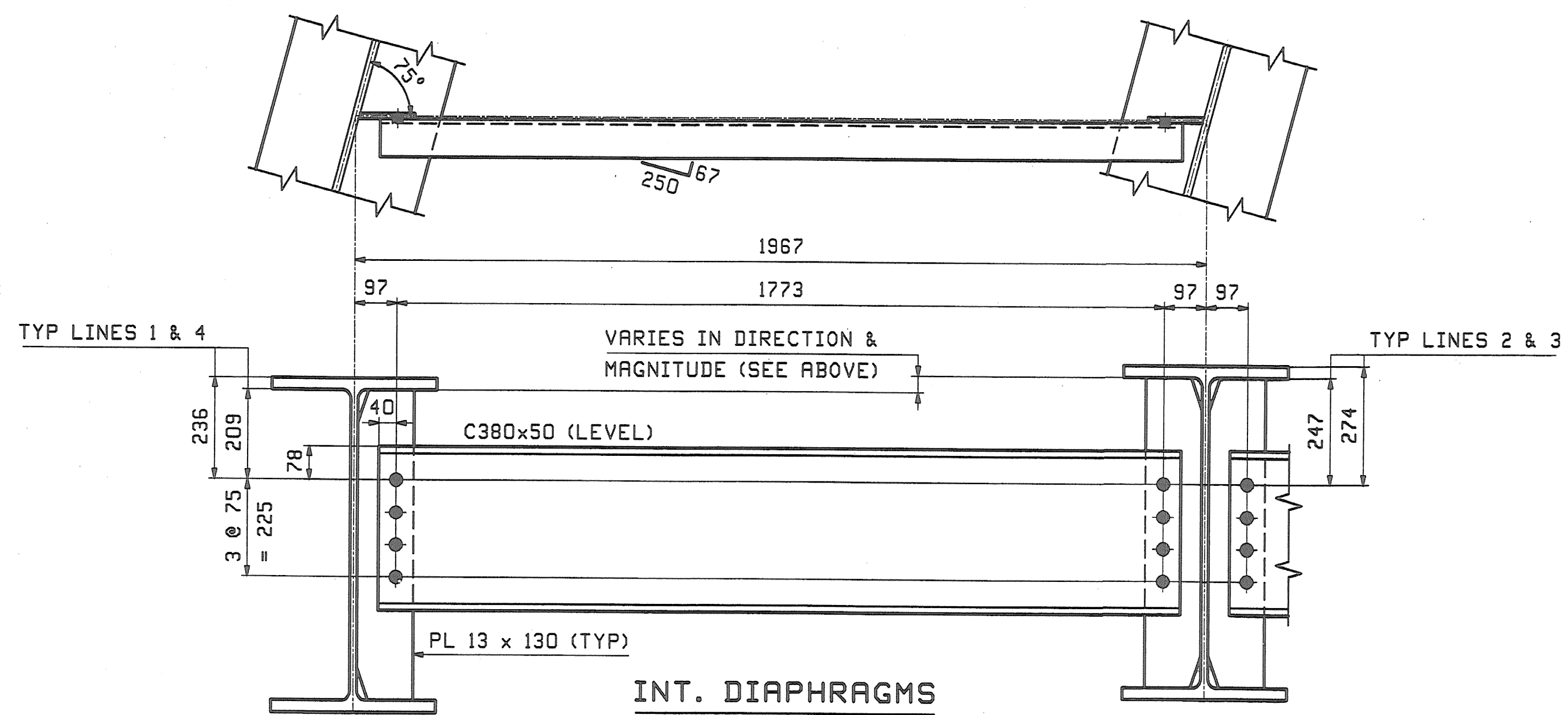




**CALCULATION PLAN**

GRADES		
Line	ABUT 1	ABUT 2
1	.0132	-.0093
2	.0126	-.0099
3	.0121	-.0104
4	.0115	-.0110

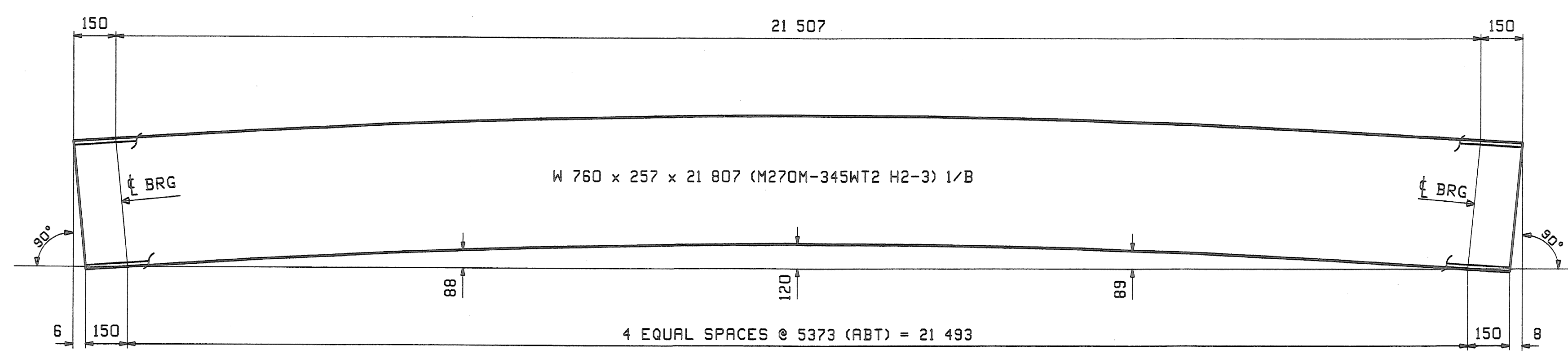
- CALCULATION PLAN NOTES:
1. LONGITUDINAL DIMENSIONS ARE SLOPING ALONG BOTTOM OF WEBS WITH CORRECTIONS MADE FOR DL CAMBER, VERTICAL CURVER & GRADE (UN).
  2. TRANSVERSE DIMENSIONS ARE IN A HORIZONTAL PLANE (UN).
  3. ARROW POINTS TOWARD LOW END OF MEMBER.
  4. ENDS OF GIRDERS ARE VERTICAL AFTER DL ROTATION.
  5. DIAPHRAGM STIFFENERS ARE NORMAL TO GRADE.
  6. BOTTOM POINT NUMBERS = TOP POINT NUMBERS + 100



- NOTES:
1. MATERIAL SHALL BE AASHTO M270M GRADE 345W.
  2. ALL BOLT HOLES SHALL BE  $\frac{1}{16}$ " FOR  $\frac{7}{8}$ " HSB (UN).
- 2016 22 φ Mehtic sk*

RECEIVED  
 NOV 14 2008  
 APPROVED

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:	HOLES:		SHOP BOLTS:	
DESCRIPTION: CALCULATION PLAN & LAYOUTS						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE:		ROUTE NO: TH 50, CL 3		DRAWN:	DATE:	
		BRIDGE NO: BR 34		JTB	10/13	
		COUNTY OF ORANGE		CHKD:	DATE:	
				DBH	10/28	
LOCATION:		TOWN OF CORINTH		JOB NO.	DWG NO.	
PROJ NO.		STP BRO 1447(22) (RE-ADVERTISED)		380	WS1	
CUSTOMER:		VERMONT AOT		REV.	△	

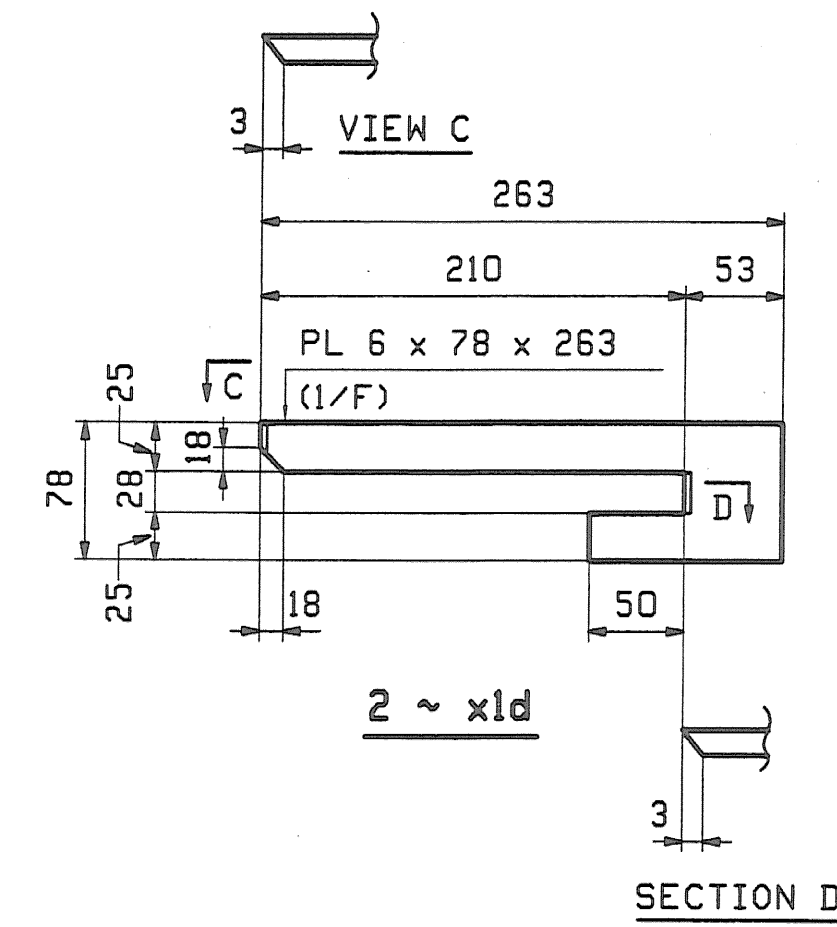
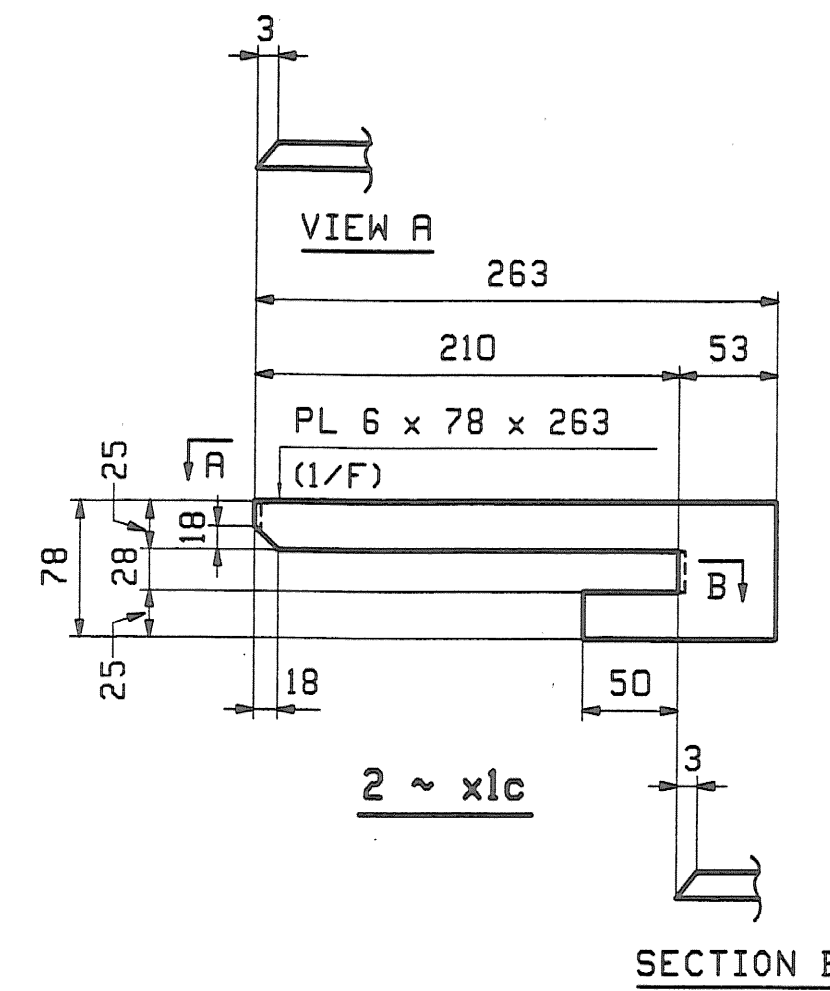
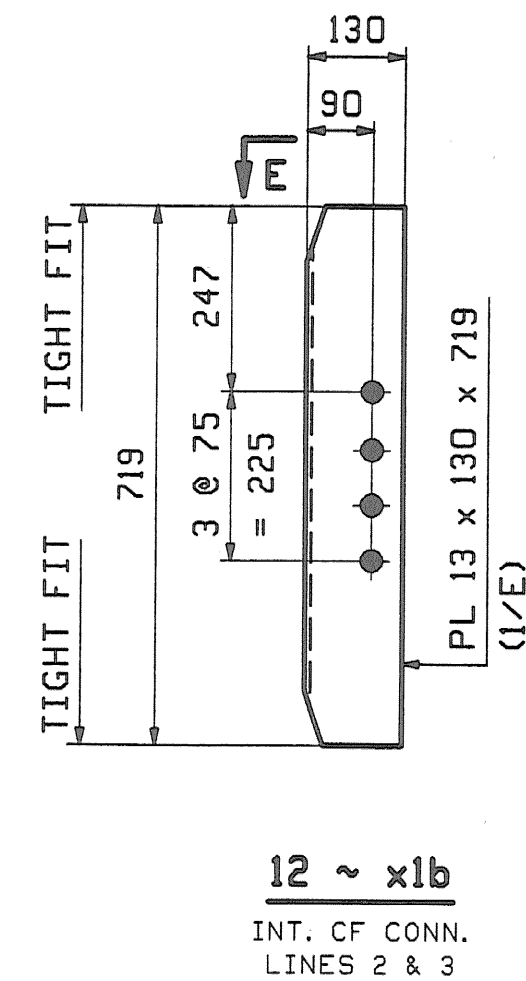
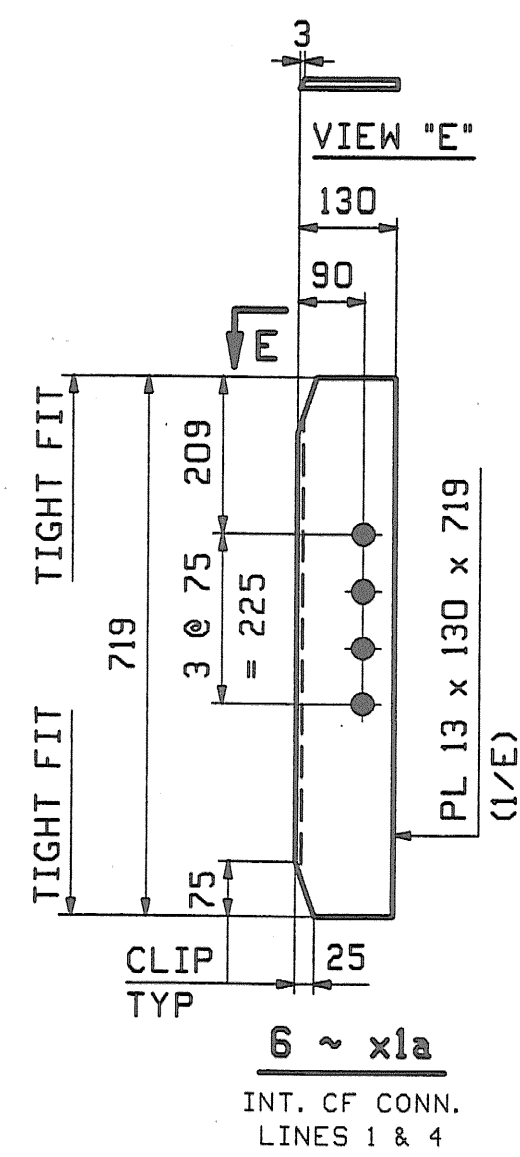


**CAMBER DIAGRAM FOR 1S1 THRU 2S4**

- NOTES:**
1. FOR GENERAL NOTES SEE DRAWING GNI.
  2. H2-3 DENOTES MATERIAL SUBJECT TO CHARPY V-NOTCH TEST AT H FREQ. FOR ZONE 2

0					11-10-08	
REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
M270M-345W (UN)		AS NOTED ON GNI				
DESCRIPTION: CAMBER DIAGRAM						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE				DRAWN:	DATE:	
				JTB	10/14	
				CHKD:	DATE:	
				DBH	10/28	
LOCATION: TOWN OF CORINTH				JOB NO.	DWG NO.	
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)					C1	
CUSTOMER: VERMONT ROT				380	REV.	

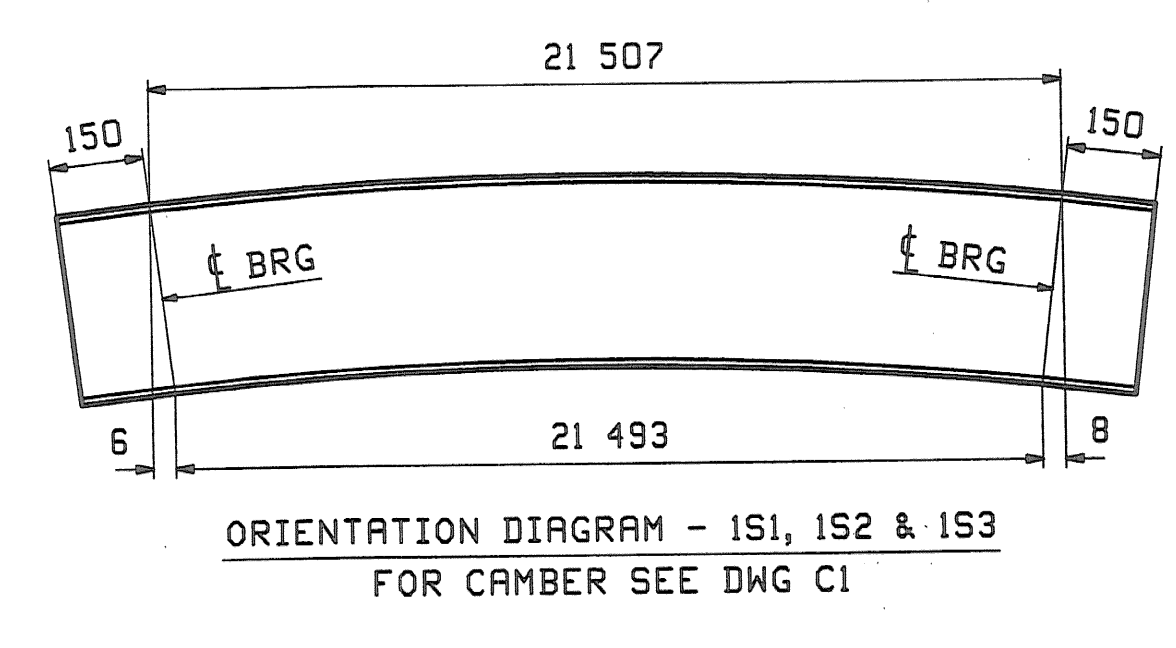
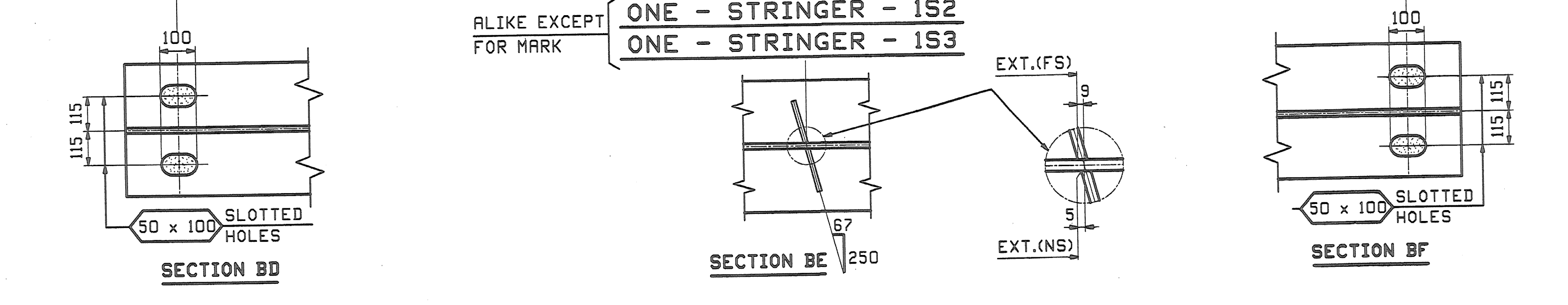
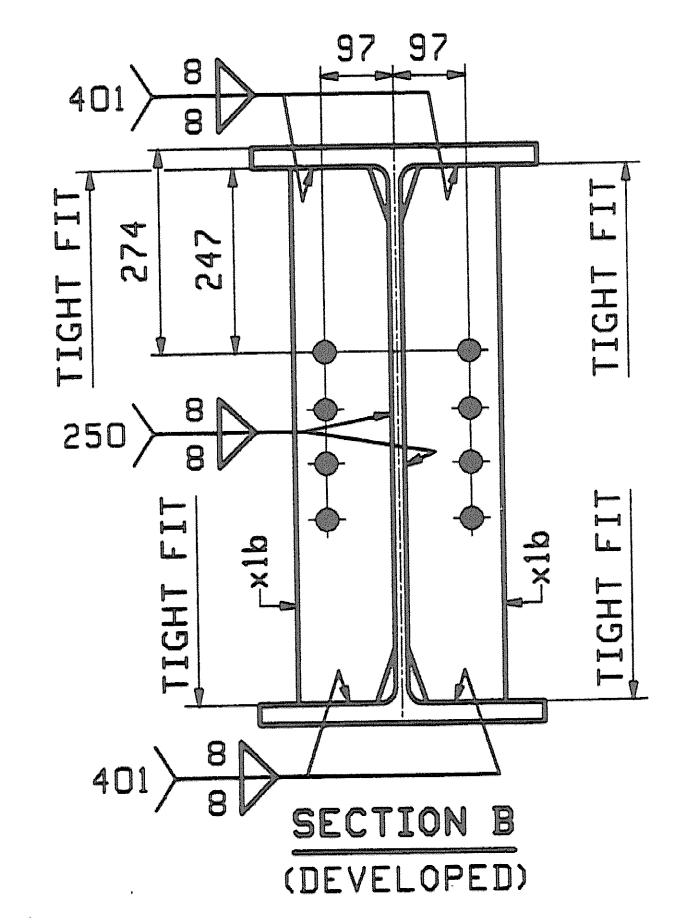
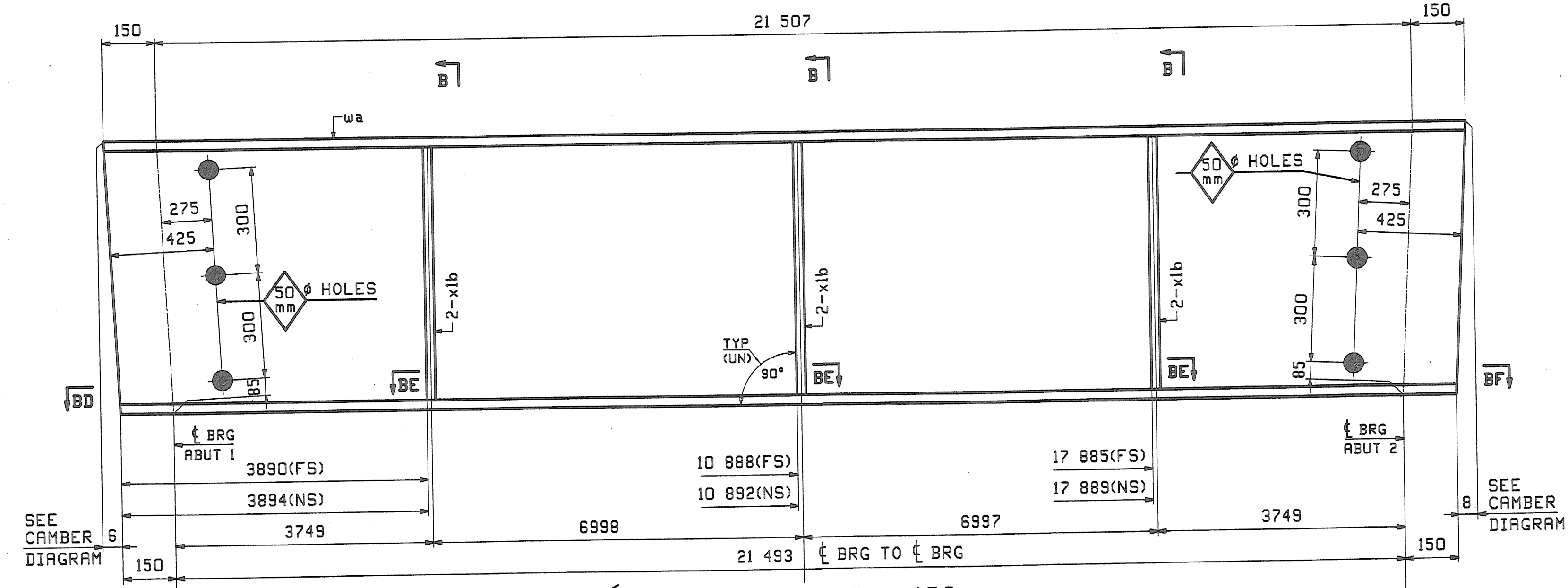
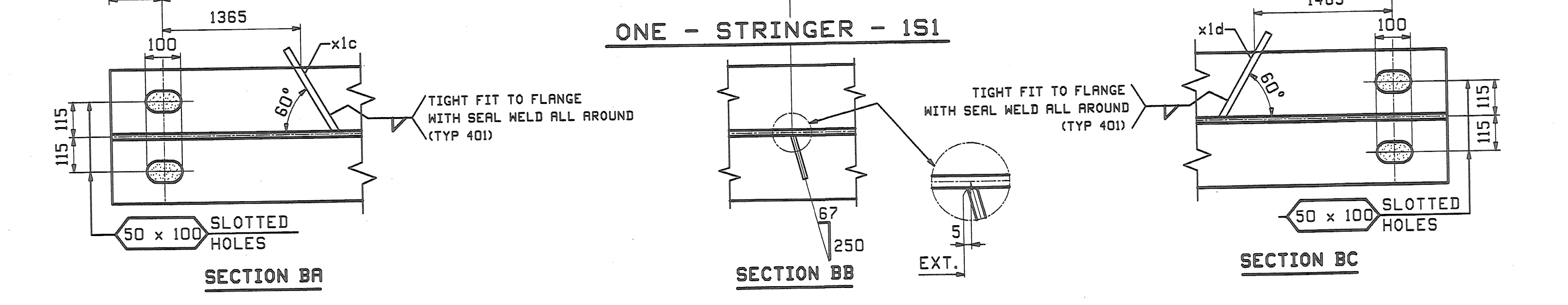
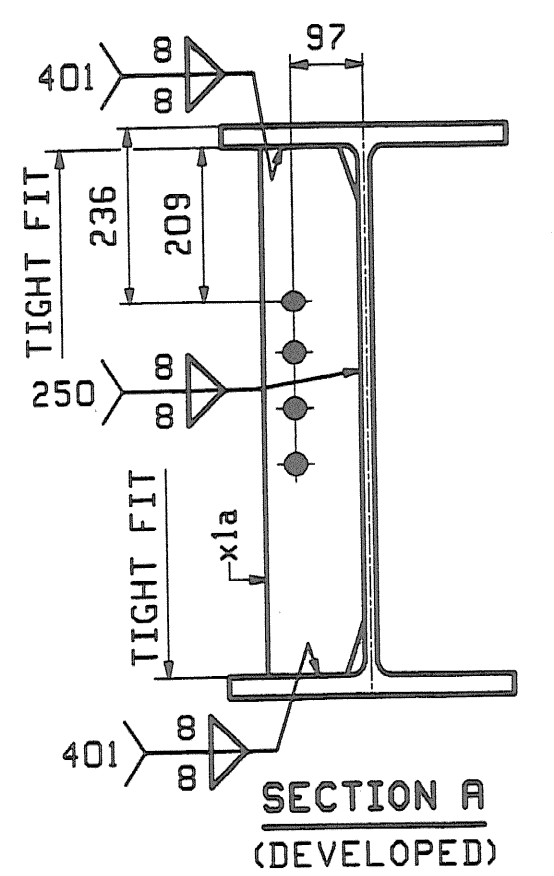
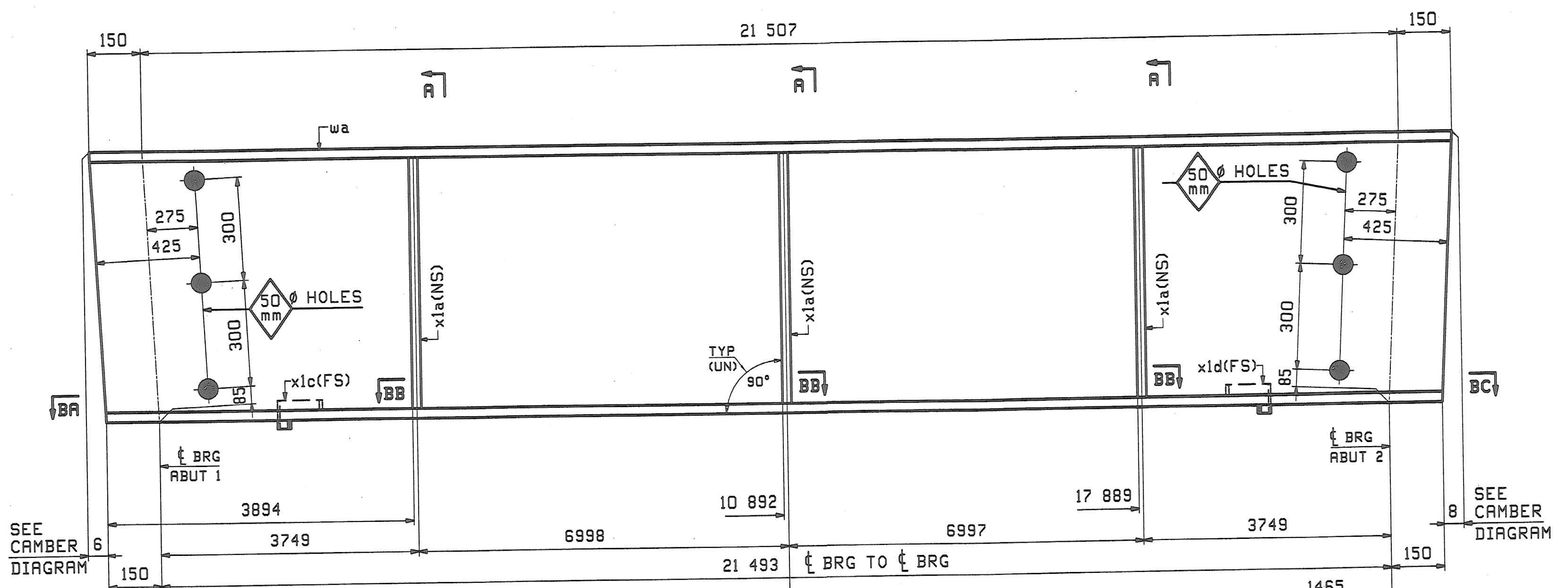
RECEIVED  
 OK'D BY: *hss* OK'D BY: *psr*  
 NOV 4 2008  
 RESUBMIT APPROVED  
 BY DATE



NOTES:  
 ALL MATERIAL SHALL BE M270M-345W,22  
 ALL BOLT HOLES SHALL BE  $\frac{1}{16}$ " FOR  $\frac{7}{8}$ " HSB.  
 FOR GENERAL NOTES SEE DRAWING GNI.

0					11-10-08	
REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
DESCRIPTION: STRINGER STANDARD DETAILS						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE			DRAWN: JTB	DATE: 10/14		
			CHKD: DBH	DATE: 10/28		
LOCATION: TOWN OF CORINTH			JOB NO.	DWG NO.		
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)			380	X1		
CUSTOMER: VERMONT AOT				REV. $\Delta$		

RECEIVED  
 NOV 14 2008  
 APPROVED: *As Mead*

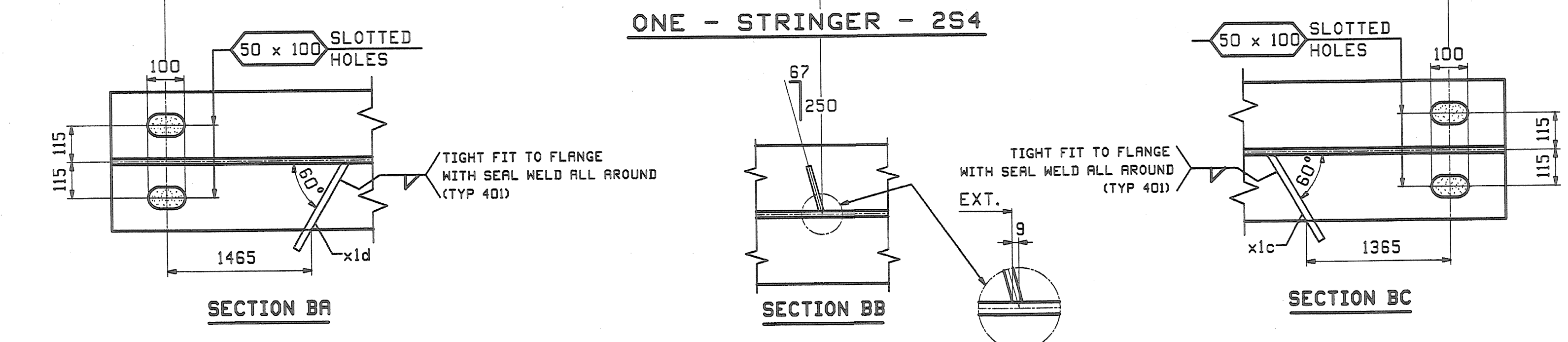
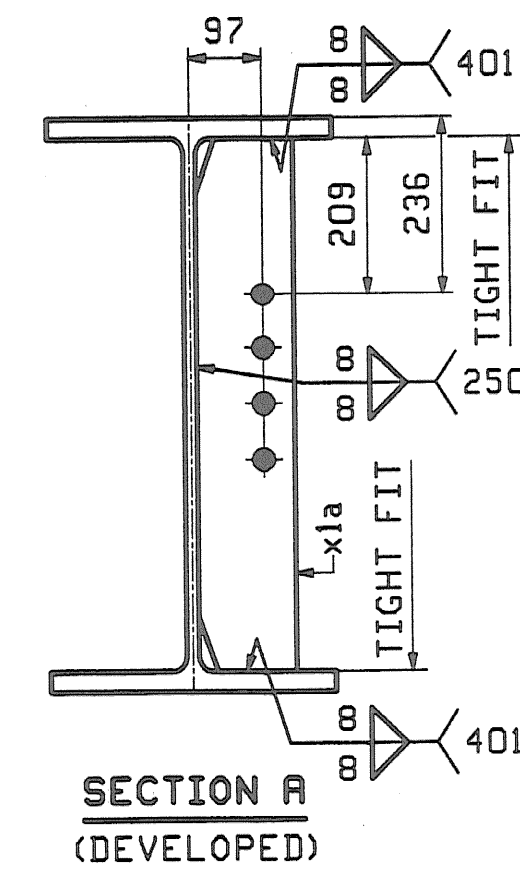
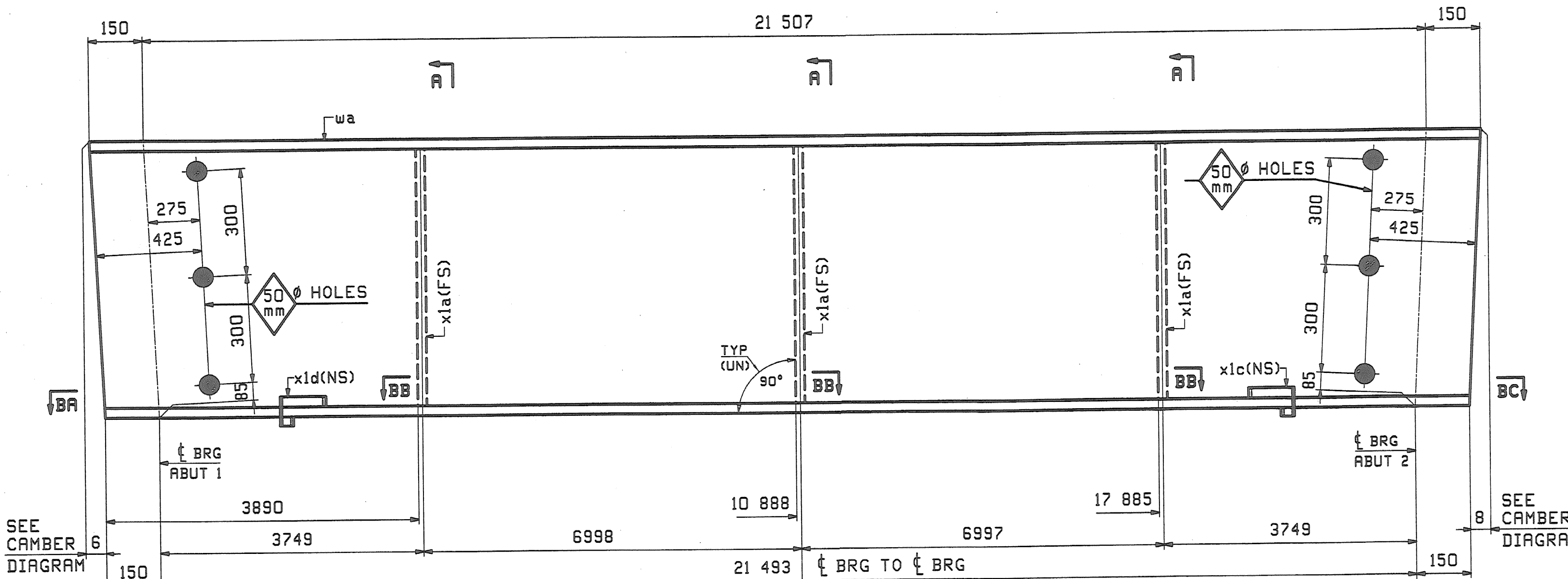


ABM INFO		SHIP		BILL OF MATERIAL		JOB NO.	DRAWING NO.	REV.	
						380	1		
PAGE	LINE	MARK	QTY	MARK	MATERIAL	LENGTH	REMARKS	WT	PROCUREMENT NOTES
		1S1	1		STRINGER			835 kg 18423 lbs	
1	B	1	wa		W 760x257	21 807	(M270M-345WT2)	(H2-3)	
1	E	3	x1a		PL 13x130	0 719	(M270M-345W)		
1	F	1	x1c		PL 6x78	0 263	(M270M-345W)		
1	F	1	x1d		PL 6x78	0 263	(M270M-345W)		
		1S2	1		STRINGER			862 kg 1882 lbs	
		1S3	1		STRINGER			862 kg 1882 lbs	
1	B	2	wa		W 760x257	21 807	(M270M-345WT2)	(H2-3)	
1	E	12	x1b		PL 13x130	0 719	(M270M-345W)		

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
M270M-345W (UN)		AS NOTED ON GNI		24 15/16 (UN)		NONE
DESCRIPTION: STRINGERS - 1S1, 1S2 & 1S3						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE				DRAWN: JTB	DATE: 10/14	
				CHKD: DBH	DATE: 10/28	
LOCATION: TOWN OF CORINTH				JOB NO. 380	DWG NO. 1	
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)				CUSTOMER: VERMONT AOT	REV. 1	

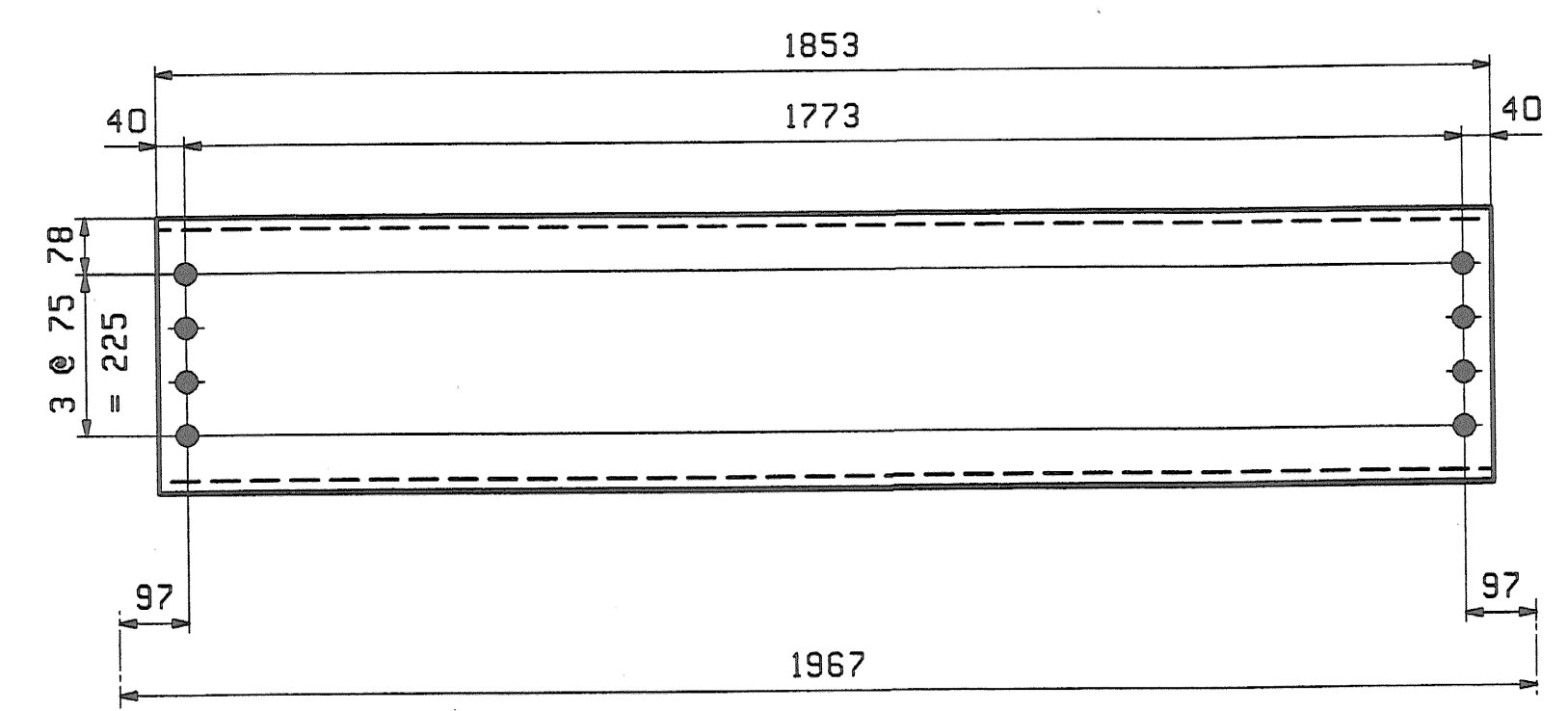
NOTES:  
 FOR STRINGER STANDARDS SEE DRAWINGS X1.  
 FOR CAMBER DIAGRAM SEE DRAWING C1.  
 FOR GENERAL NOTES & WELD PROCEDURES SEE DRAWING GNI.  
 H2-3 DENOTES MATERIAL SUBJECT TO CHARPY V-NOTCH TESTING.

JTB - See Sec 18 (M270) EST 2008 - America's Bridge Builders, Inc.



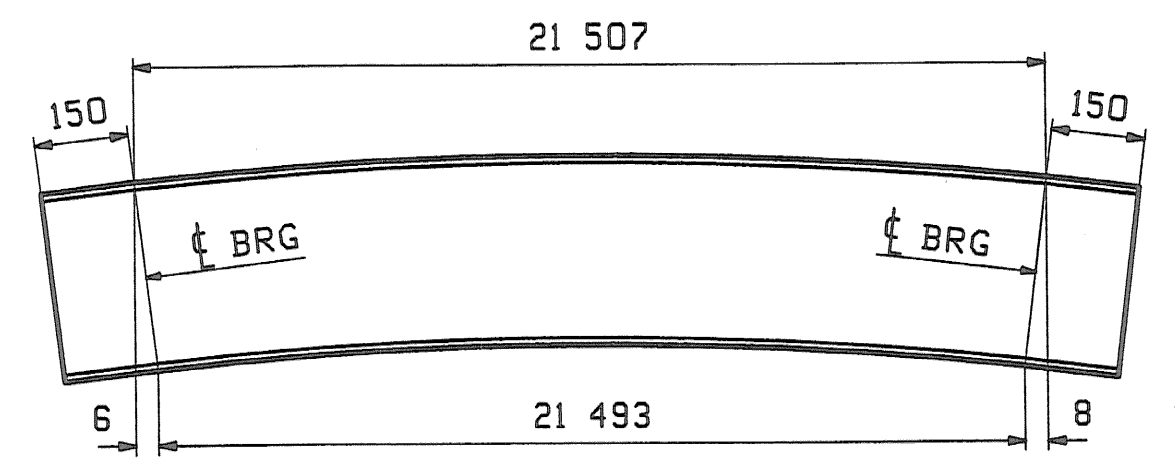
ONE - STRINGER - 2S4

9 ~ INT. DIAPHRAGMS - 2D1



JOB NO.		DRAWING NO.		REV.					
380		2							
PAGE	LINE	MARK	QTY	MARK	MATERIAL	LENGTH	REMARKS	MT	PROCUREMENT NOTES
		2S4	1		STRINGER			595 kg 1323 lbs	
1	B		1	wa	W 760x257	21 807	(M270M-345W2)	(M2-3)	
1	E		3	x1a	PL 13x130	0 719	(M270M-345W)		
1	F		1	x1c	PL 6x78	0 263	(M270M-345W)		
1	F		1	x1d	PL 6x78	0 263	(M270M-345W)		
DIAPHRAGMS									
1	J	2D1	9		C 380x50	1 853	(M270M-345W)	93 kg 205 lbs	

$\frac{33.9 \text{ kg}}{\text{m}} \times 20.853 \text{ m} = 93 \text{ kg}$   
 Metric English  
 $C 380 \times 50 = C 15 \times 33.9$   
 $\frac{33.9 \text{ lb}}{\text{ft}} \times 21.853 \text{ m} \times \frac{1 \text{ m}}{26.4 \text{ ft}} \times \frac{1 \text{ ft}}{12 \text{ in}} = 93 \text{ lb}$



ORIENTATION DIAGRAM - 2S4 FOR CAMBER SEE DWG C1

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0						11-10-08
MATERIAL:		SURFACE PREP. & PAINT:		HOLES:		SHOP BOLTS:
M270M-345W (UN)		AS NOTED ON GNI		24 15/16 (UN)		NONE
DESCRIPTION: STRINGER - 2S4 & INT. DIAPHRAGMS - 2D1						
CASCO BAY STEEL STRUCTURES, INC. 75 SPRING HILL ROAD SACO, MAINE 04072 PHONE (207) 282-7360 FAX. (207) 282-1179						
STRUCTURE: ROUTE NO: TH 50, CL 3 BRIDGE NO: BR 34 COUNTY OF ORANGE			DRAWN: JTB CHKD: DBH		DATE: 10/16 10/28	
LOCATION: TOWN OF CORINTH			JOB NO. 380		DNG NO. 2	
PROJ NO. STP BRO 1447(22) (RE-ADVERTISED)			CUSTOMER: VERMONT AOT		REV. 2	

RECEIVED  
 NOV 4 2008  
 APPROVED: A. Mohr  
 DATE:

STRINGER NOTES:  
 FOR STRINGER STANDARDS SEE DRAWINGS X1.  
 FOR CAMBER DIAGRAM SEE DRAWING C1.  
 FOR GENERAL NOTES & WELD PROCEDURES SEE DRAWING GNI.  
 H2-3 DENOTES MATERIAL SUBJECT TO CHARPY V-NOTCH TESTING.