

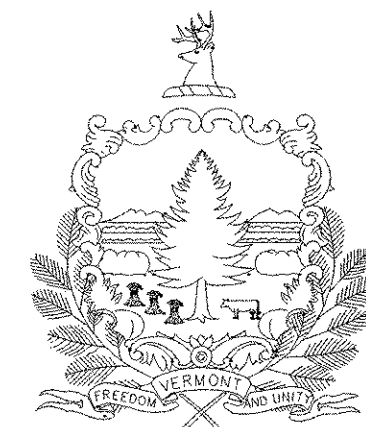
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STANDARDS

D-3	06-01-94	E-121	08-08-95	E-175	11-17-93
E-100	01-02-04	E-140	08-30-96	E-193	08-18-95
E-101	05-30-03	E-142	09-20-95	G-1	01-03-00
E-102	06-30-03	E-160	05-20-99	G-10	01-03-00
E-102A	05-01-04	E-163	05-20-99	G-4	06-01-94
E-106	03-01-04	E-170	11-04-99	G-18	06-01-94
E-107	06-30-03	E-171A	08-09-95	G-19	11-15-02
E-107A	08-08-95	E-171B	08-09-95		
E-108	08-18-95	E-171C	08-09-95		
E-110	08-08-95	E-172	08-09-95		

STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT BRIDGE PROJECT

TOWN OF FAYSTON
COUNTY OF WASHINGTON

ROUTE NO. VT 17 (MAJOR COLLECTOR), BRIDGE NO. 36

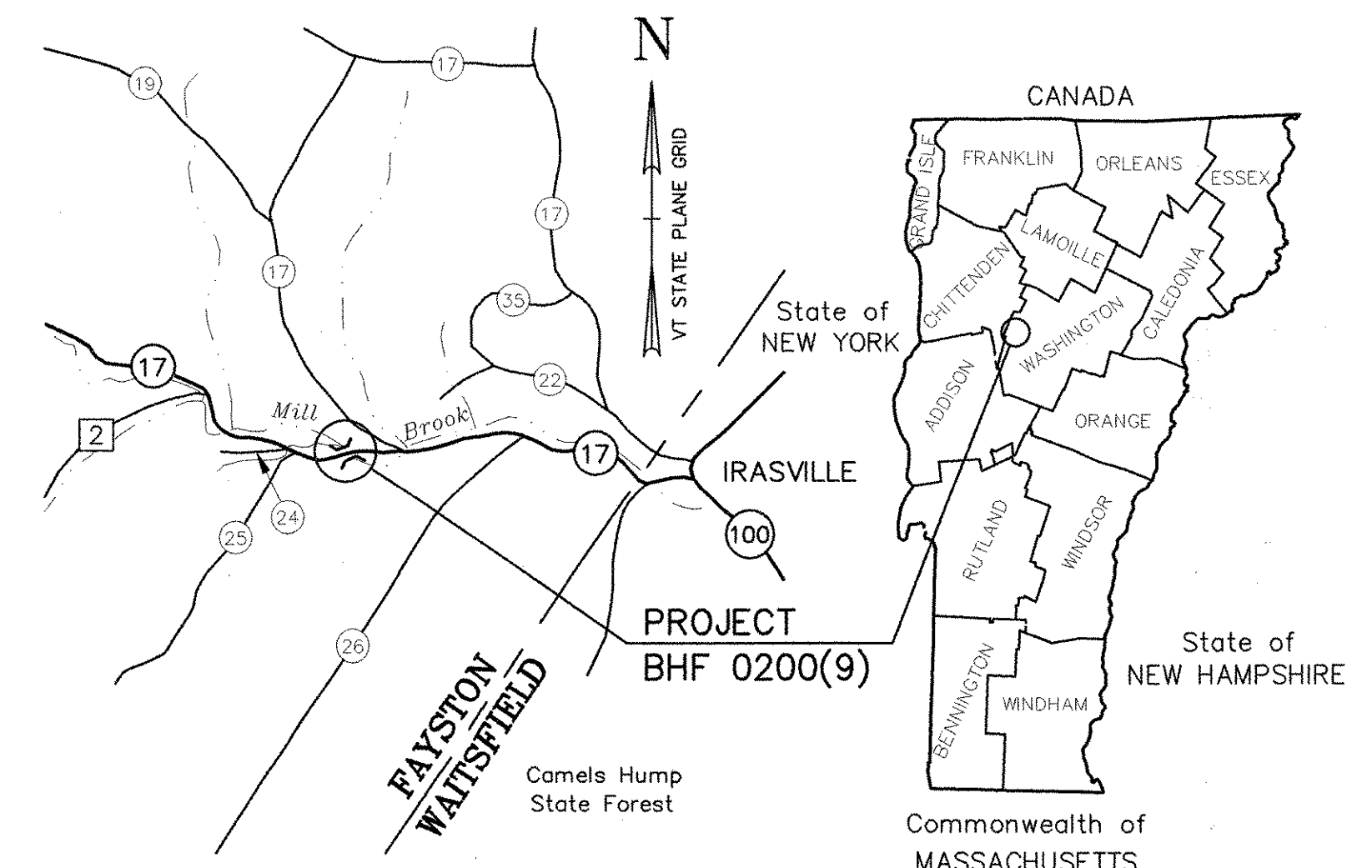
PROJECT LOCATION: BEGINNING AT A POINT 1.64 km WESTERLY OF THE
WAITSFIELD-FAYSTON TOWN LINE AND EXTENDING
EASTERLY 0.10 km.

PROJECT DESCRIPTION: REMOVAL OF EXISTING SUPERSTRUCTURE, CONSTRUCTION
OF A NEW STEEL BEAM, CONCRETE DECK SUPERSTRUCTURE,
REHABILITATION AND WIDENING OF SUBSTRUCTURE WITH RELATED
ROADWAY AND CHANNEL WORK.

LENGTH OF STRUCTURE: 24.570 m

LENGTH OF ROADWAY: 75.430 m

LENGTH OF PROJECT: 100.000 m



LOCATION MAP

RECORD PLANS

CONTRACTOR: WINTERSET, INC. - LYNDON, VT

RESIDENT ENGINEER: RICK HALE

CONSTRUCTION BEGAN: SEPTEMBER 8, 2006

CONSTRUCTION COMPLETE: AUGUST 21, 2007

RECORD PLANS BY: RICK HALE & C. PIERCE

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

BY Rick Hale RESIDENT ENGINEER

DATE 4-10-9

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

END PROJECT
REV. STA. 1+025.000

END BRIDGE
REV. STA. 0+968.930

END APPROACH
REV. STA. 1+045.000

BEGIN APPROACH
REV. STA. 0+905.000

BEGIN BRIDGE
REV. STA. 0+944.360

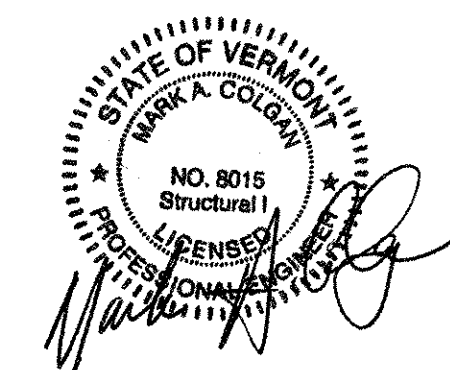
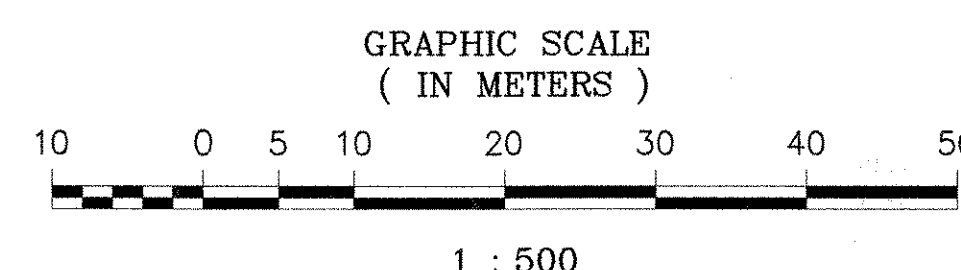
BEGIN PROJECT
REV. STA. 0+925.000

CONVENTIONAL SYMBOLS

COUNTY LINE	---
TOWN LINE	- - - -
LIMITS OF ACCESS	—○—○—○—
POINT OF ACCESS	X
FENCE LINE	—X—X—X—
STONE WALL	—○—○—○—○—
TRAVELED WAY	—+—+—+—+—
GUARD RAIL	—+—+—+—+—
RAILROAD	—+—+—+—+—
SURVEY LINE	—+—+—+—+—
CULVERT	—+—+—+—+—
UTILITY POLE	—○—
OVERHEAD WIRE	—OHV—
TREES	—+—+—+—+—
CONTROL OF ACCESS	—+—+—+—+—
PROPERTY LINE	—+—+—+—+—
R.O.W.	—+—+—+—+—
SLOPE RIGHTS	—+—+—+—+—
TOP OF CUT	—+—+—+—+—
TOE OF CONST. SLOPE	—+—+—+—+—

SURVEYED BY :
SURVEYED DATE :

DATUM
VERTICAL NAVD 1988
HORIZONTAL NAD 83-92



Metric

UNLESS OTHERWISE NOTED
STATIONS ARE IN KILOMETERS
ELEVATIONS ARE IN METERS
DIMENSIONS ARE IN MILLIMETERS

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

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE
WITH THESE PLANS AND THE STANDARD SPECIFICATIONS
FOR CONSTRUCTION DATED 2001, AS APPROVED BY THE
FEDERAL HIGHWAY ADMINISTRATION ON JANUARY 4, 2001
FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT
REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL
PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

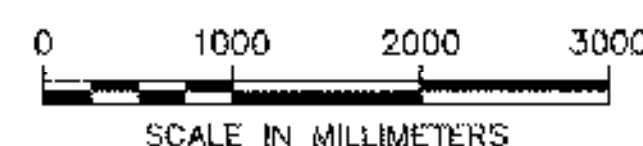
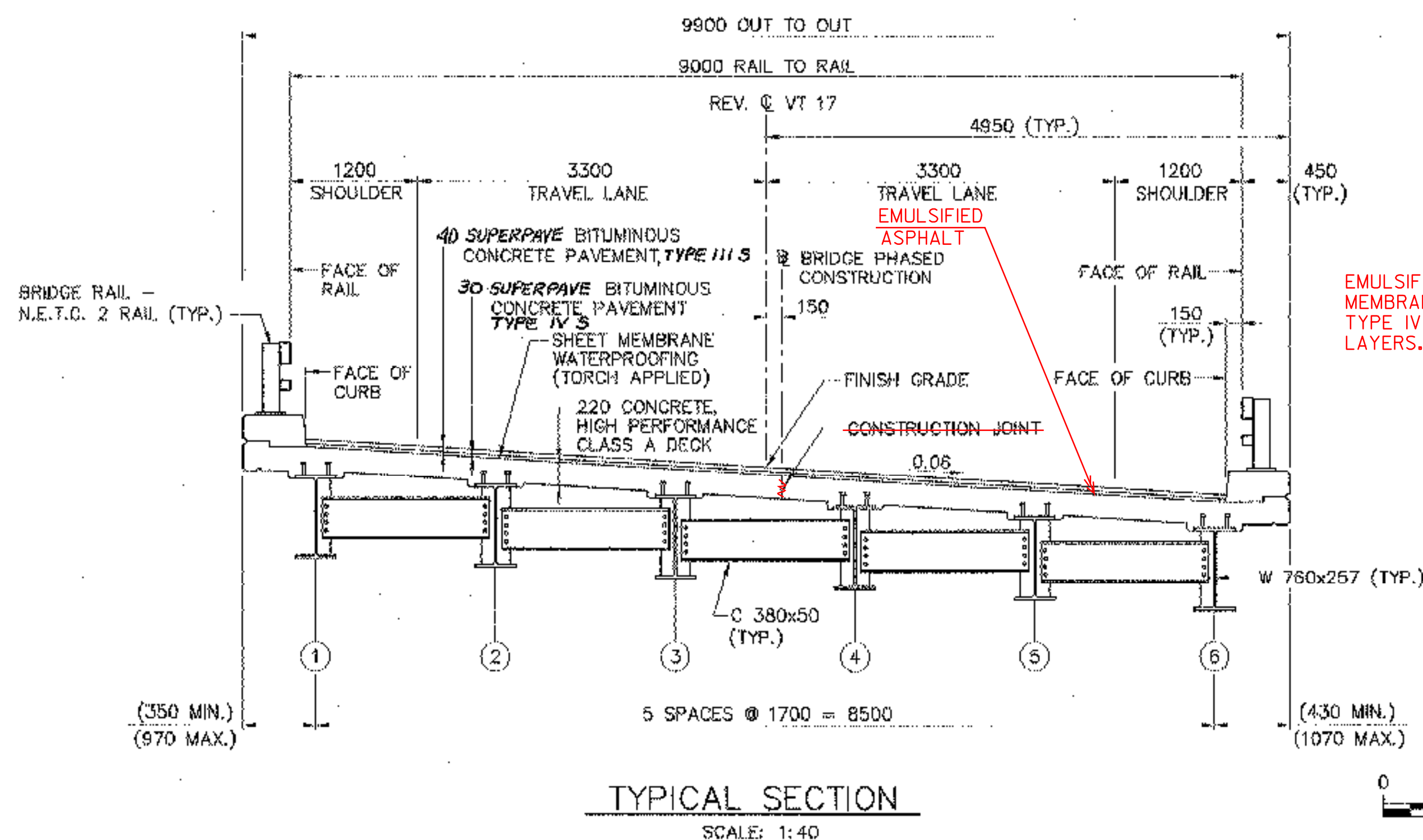
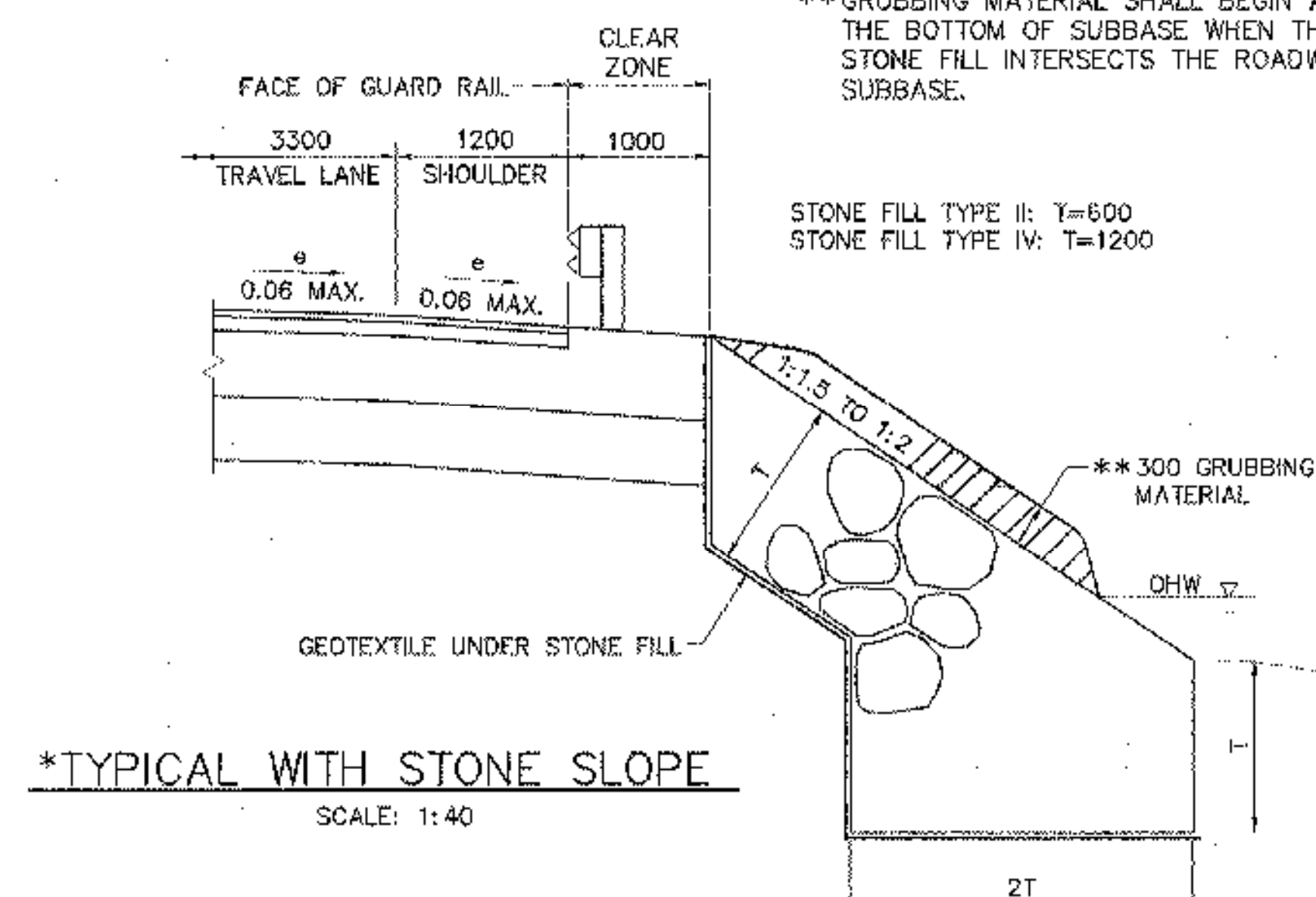
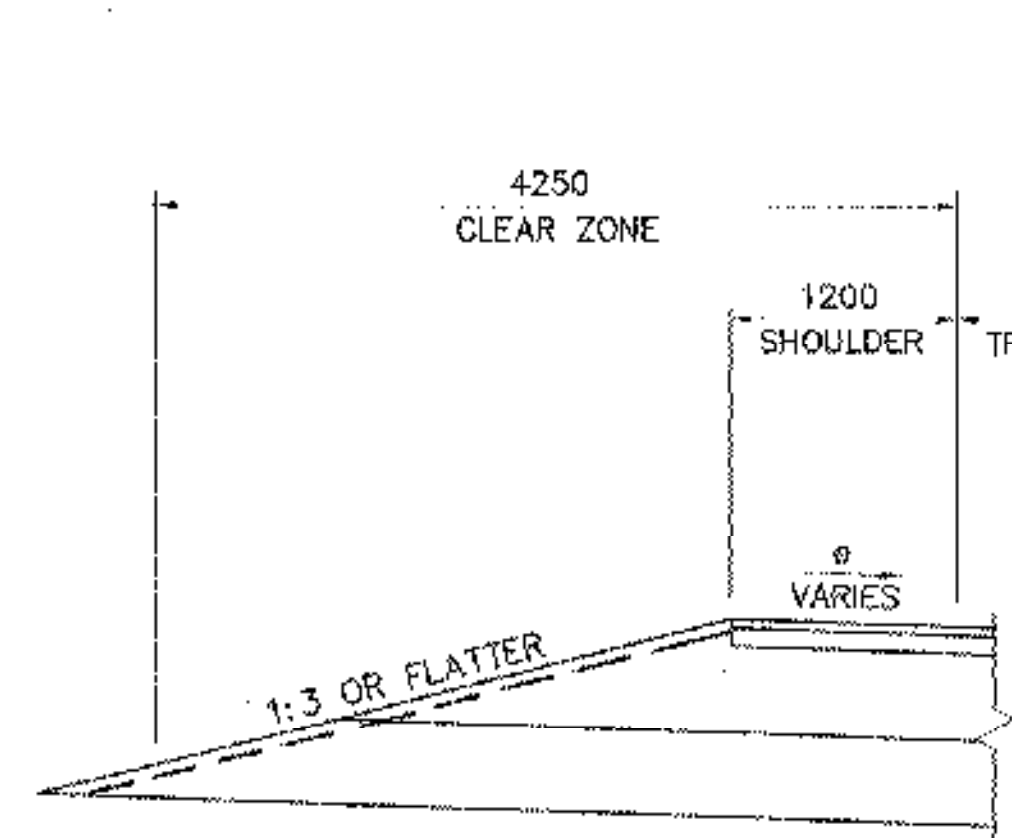
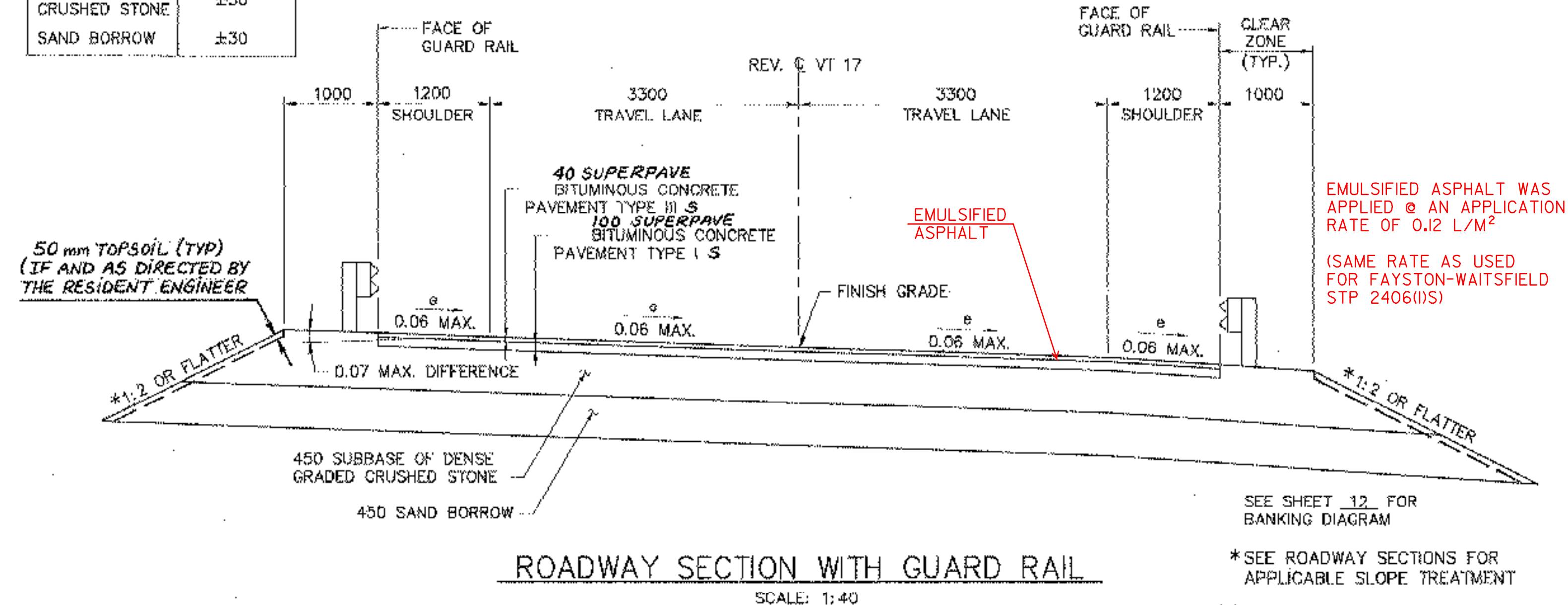
VHB Vanasse Hangen Brustlin, Inc.

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED James V. B... DATE 5-09-2006
PROJECT MANAGER : WAYNE B. SYMONDS
PROJECT NAME : FAYSTON
PROJECT NUMBER : BHF 0200(9) (READVERTISED)
SHEET 1 OF 70 SHEETS

/str5/93C065/zc065TIT

PLOTTED 1-13-06

MATERIAL ITEM	THICKNESS TOLERANCE
PAVEMENT	±5 (TOTAL)
DENSE GRADED CRUSHED STONE	±30
SAND BORROW	±30



FINAL HYDRAULICS REPORT



HYDROLOGIC DATA

DRAINAGE AREA = 49 km²

CHARACTER OF TERRAIN: MOUNTAINOUS, MOSTLY FORESTED AND RESIDENTIAL

CHARACTER & TYPE OF STREAM: SMALL, SINUOUS, SEMI-ALLUVIAL, PROBABLY INCISED

FLOODPLAIN, WITH PERENNIAL BUT FLASHY FLOW HABIT

NATURE OF STREAMBED: GRAVEL, COBBLES, SMALL BOULDERS

Q2.33=	16 m ³ /s	Q50=	60 m ³ /s
Q10=	35 m ³ /s	Q100=	72 m ³ /s
Q25=	48 m ³ /s	Q500=	108 m ³ /s

DATE OF FLOOD OF RECORD: 1927, 1938

WATER SURFACE ELEV.: SEE NOTE 3 ESTIMATED DISCHARGE: —

NATURAL STREAM VELOCITY @ Q50 = 3.1 m/s

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 <1% HEADWATERS — UNIFORM THROUGHOUT WATERSHED YES

IMMEDIATELY ABOVE SITE —

EXISTING STRUCTURE

STRUCTURE TYPE: SINGLE SPAN STEEL STRINGER WITH CONCRETE DECK YEAR BUILT: 1939

AND SPILL THROUGH ABUTMENTS

CLEAR SPAN (NORMAL TO STREAM): 19.7 m

VERTICAL CLEARANCE ABOVE STREAMBED: 4.2 m

WATERWAY OF FULL OPENING: 59.2 m²

DISPOSITION OF STRUCTURE: SUPERSTRUCTURE TO BE REPLACED

TYPE OF MATERIAL UNDER SUBSTRUCTURE: UNKNOWN (SEE NOTE 2)

WATER SURFACE ELEV. @ Q2.33=	262.55	VELOCITY=	1.59 m/s
Q10=	263.10	"	2.25 m/s
Q25=	263.41	"	2.68 m/s
Q50=	263.66	"	3.09 m/s
Q100=	263.87	"	3.40 m/s

LONG TERM STREAM BED CHANGES: UNKNOWN

IS THE ROADWAY OVERTOPPED BELOW THE Q100? NO FREQUENCY: >Q500

RELIEF ELEVATION: — DISCHARGE OVER ROAD @ Q100: 0 cms

UPSTREAM STRUCTURE: TOWN: FAYSTON DISTANCE: 671 m

HIGHWAY NO.: VT 17 STRUCTURE NO.: 35

STRUCTURE TYPE: SINGLE SPAN STEEL STRINGER WITH CONCRETE DECK

CLEAR SPAN: 15.8 m CLEAR HEIGHT: 3.3 m

YEAR BUILT: 1939 FULL WATERWAY: 40.8 m²

DOWNSTREAM STRUCTURE: TOWN: FAYSTON DISTANCE: 402 m

HIGHWAY NO.: VT 17 STRUCTURE NO.: —

STRUCTURE TYPE: —

CLEAR SPAN: — CLEAR HEIGHT: —

YEAR BUILT: — FULL WATERWAY: —

DESIGN CRITERIA:

- DESIGN LIVE LOAD AASHTO MS22.5
- DESIGN SPAN 23.839 m
- ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 850 kPa (ABUT. NO. 1) ON LEDGE 950 kPa (ABUT. NO. 2)
- ALLOWABLE LOAD FOR PILING TYPE — ESTIMATED LENGTH —
- STRUCTURAL STEEL AASHTO M270M GRADE 345W
- REINFORCING STEEL GRADE 420
- CONCRETE, HIGH PERFORMANCE CLASS A f'_c 30 MPa CLASS B f'_c 25 MPa

TRAFFIC MAINTENANCE:

- IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES** OR ON TEMPORARY BRIDGE NO
- 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: —

** PHASED CONSTRUCTION WITH TEMPORARY TRAFFIC CONTROL SIGNAL

LOAD FACTOR LOAD RATING (METRIC TONNES)							
LOADING LEVELS (LOAD FACTORS)	TRUCK						
	M	MS	3S2	6 AXLE	3A STR	4A STR	5A SEMI
INVENTORY							
A=2.17 B=1.00	35	48					
POSTED							
A=1.55 B=1.40	48	67	82		61	62	74
OPERATING							
A=1.30 B=1.67		80	97	115	72	74	

STRENGTH $RF = \frac{\phi M_n - 1.3 M_{u1}}{A \times M_{u1}}$ *SERVICEABILITY $RF = B - \frac{U_1 \times S_{u1} - M_{u1} \times S_{u1}}{1.67 M_{u1} - M_{u1} \times S_{u1}}$

TRAFFIC DATA

2000 ADT = 3900 2020 ADT = 5100 2000-2020 ESAL'S 792,000

2000 DHV = 570 2020 DHV = 740 2000-2040 ESAL'S 1,946,000

2000 ADTT = 100 2020 ADTT = 100 DESIGN SPEED = 65 km/h

2000 % D = 66 2020 % D = 66

2000 % T = 2.5 2020 % T = 2.0

VHB Vanasse Hangen Brustlin, Inc.

PROPOSED STRUCTURE

(SEE NOTE 4)

STRUCTURE TYPE: SINGLE SPAN STEEL STRINGER WITH CONCRETE DECK

CLEAR SPAN (NORMAL TO STREAM): 19.7 m

VERTICAL CLEARANCE ABOVE STREAMBED: 4.2 m

WATERWAY OF FULL OPENING: 59.2 m²

WATER SURFACE ELEV. @ Q2.33=	262.55	VELOCITY=	1.59 m/s
Q10=	263.10	"	2.25 m/s
Q25=	263.41	"	2.68 m/s
Q50=	263.66	"	3.09 m/s
Q100=	263.87	"	3.40 m/s

IS THE ROADWAY OVERTOPPED BELOW THE Q100? NO FREQUENCY: >Q500

RELIEF ELEVATION: — DISCHARGE OVER ROAD @ Q100: 0 cms

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 264.0

VERTICAL CLEARANCE @ Q100: 4.1 m

SCOUR: —

REQUIRED CHANNEL PROTECTION: STONE FILL, TYPE IV

PERMIT INFORMATION

AVERAGE DAILY FLOW: 1.1 m³/s

ORDINARY LOW WATER: 0.6 m³/s DEPTH: WSEL: 261.36

ORDINARY HIGH WATER: 6.7 m³/s DEPTH: WSEL: 261.81

ADDITIONAL COMMENTS

- PEAK DISCHARGES FOR 10 YEAR, 50 YEAR, 100 YEAR AND 500 YEAR EVENTS WERE OBTAINED FROM FAYSTON FIS (MARCH 1980) AND 2.33 AND 25 YEAR EVENTS WERE APPROXIMATED USING GRAPHICAL METHODS.
- THE EXISTING 1939 PLANS DENOTE "GRAVEL" AND "BOULDERS" AT ONE BORING LOCATION. TIMBER PILES WERE ORIGINALLY SPECIFIED AND LATER ELIMINATED PER AS-BUILT NOTES.
- THE EXISTING 1939 PLANS INDICATE "HIGH WATER LEVEL (SEPT. 1938)" AT AN ELEVATION APPROXIMATELY 0.10 METERS BELOW THE EXISTING STEEL STRINGERS.
- HYDRAULIC CONDITIONS FOR PROPOSED STRUCTURE ARE COMPARABLE TO EXISTING STRUCTURE.
- WATER SURFACE ELEVATIONS ARE PROVIDED AT A SECTION 32.6 m UPSTREAM OF THE BRIDGE. VELOCITIES ARE PROVIDED AT THE BRIDGE.



STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of FAYSTON Bridge No. 36

Highway No. VT 17 Log Sta. —

Surv. Sta. —

VT 17 OVER MILL BROOK

PRELIMINARY INFORMATION SHEET

Designed By S.M. GUNN/R.L. JOY Drawn By B.J. MASSE

Checked By M.A. COLGAN Date 1/06 Bridge Design Supervisor M.A. COLGAN Date 1/06

PROJECT FAYSTON PROJECT NO. BHF 0200(9)

I.G.C. Info. —

Bridge Sheet No. 50543PI Sheet 2 of 70

/str5/93C065/zc065PI

PRINTED 1 13 2006

QUANTITY SHEET

[illegible]

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
	Surv. Sta.
VT 17 OVER MILL BROOK	
QUANTITY SHEET (1 OF 3)	
Designed By M.A. COLGAN	Drawn By B.J. MASSE
Checked By J.T. KLEIN	Bridge Design Supervisor
Date 1/06	M.A. COLGAN Date 1/06
PROJECT FAYSTON	PROJECT NO. BHF 0200(9)
I.G.C. Info.	
Bridge Sheet No. 50543QNT	Sheet 3 of 70

QUANTITY SHEET



SUMMARY OF ESTIMATED QUANTITIES														TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES			
CHANNEL	SUPER- STRUCTURE	APPROACH SLAB #1	ABUTMENT #1	ABUTMENT #2	APPROACH SLAB #2	BRIDGE SUBTOTAL	ROADWAY	EROSION CONTROL	FULL E & C	TRAINING				ROUND	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITY	UNIT	ITEMS
	26		11	7		44									44		L	WATER REPELLENT (MOD. - SILANE)	514.10			
			11	11		22									22		M	BRIDGE EXPANSION JOINT (ASPHALTIC PLUG)	516.10			
	220					220									220		SM	SHEET MEMBRANE WATERPROOFING (MOD. - TORCH APPLIED)	519.20			
	80					80									80		M	BRIDGE RAILING -- NETC 2 RAIL	525.33			
							1								1		LS	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS (MOD.)	527.10			
	177					177									177		SM	REMOVAL OF BRIDGE PAVEMENT	529.10			
	0.8		0.1	0.1		1									1		EA	PARTIAL REMOVAL OF STRUCTURE (206 SM - EST.)	529.20			
			8	6		12									12		EA	BEARING DEVICE ASSEMBLY (FABRIC)	531.10			
			1	2		3								EST.	3		SM	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I	580.13			
			1	2		3								EST.	3		SM	REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS II	580.14			
							4								4		M	450 mm CSP 1.63 mm (88 mm x 12 mm)	601.0015			
							10							EST.	10		HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25			
							80	4							84		CM	STONE FILL, TYPE I	613.10			
							10							EST.	10		CM	STONE FILL, TYPE I (MOD. - CHECK DAM)	613.10			
							25							EST.	25		CM	STONE FILL, TYPE I (MOD. - CONSTRUCTION ENTRANCE)	613.10			
							130								130		CM	STONE FILL, TYPE II	613.11			
225						225	195								420		CM	STONE FILL, TYPE IV	613.13			
							2								2		EA	YIELDING MARKER POST	619.17			
							525								525		M	SNOW FENCE (MOD. - PDF)	620.70			
							80								80		M	SNOW FENCE (MOD. - ARCH)	620.70			
							195								195		M	HEAVY DUTY STEEL BEAM GUARD RAIL (CALVANIZED)	621.21			
							2								2		EA	MANUFACTURED TERMINAL SECTION (FLARED)	621.505			
							1								1		EA	MANUFACTURED TERMINAL SECTION (TANGENT)	621.505			
							5								5		EA	ENERGY ABSORPTION ATTENUATOR (SAND-FILLED PLASTIC BARREL)	621.56			
							1								1		EA	ANCHOR FOR STEEL BEAM GUARD RAIL	621.60			
							4								4		EA	GUARD RAIL APPROACH SECTION, NETC 2 RAIL	621.72			
							156								156		M	REMOVAL AND DISPOSAL OF GUARD RAIL	621.80			
							105								105		M	TEMPORARY TRAFFIC BARRIER (MOD.)	621.90			
							80								80		HR	UNIFORMED TRAFFIC OFFICERS	630.10			
							200							EST.	200		HR	FLAGGERS	630.15			
									1						1		LS	FIELD OFFICE -- ENGINEERS	631.10			

Town Of FAYSTON		Bridge No. 36
Highway No. VT 17		Log Sta.
		Surv. Sta.
VT 17 OVER M.R. BROOK		
QUANTITY SHEET (2 OF 3)		
Designed By M.A. COLGAN	Drawn By B.J. MASSE	
Checked By Date	Bridge Design Supervisor	
J.T. KLEIN 1/06	M.A. COLGAN Date 1/06	
PROJECT FAYSTON	PROJECT NO. BHF 0200(9)	
I.G.C. Info.		
I.G.C. Sheet No. 50543QNT	Sheet 4 of 70	

/str5/93C065/zc065Q52 PLOTTED 1-13-2006

SUMMARY OF ESTIMATED QUANTITIES														TOTALS		DESCRIPTIONS			DETAILED SUMMARY OF QUANTITIES		
CHANNEL	SUPER- STRUCTURE	APPROACH SLAB #1	ABUTMENT #1	ABUTMENT #2	APPROACH SLAB #2	BRIDGE SUBTOTAL	ROADWAY	EROSION CONTROL	FULL E & C	TRAINING				GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITY	UNIT	ITEMS
									1					1		LS	TESTING EQUIPMENT - CONCRETE	631.16			
									1					1		LS	TESTING EQUIPMENT - BITUMINOUS	631.17			
									1					1		LU	FIELD OFFICE - TELEPHONE (N.A.B.I.)	631.25			
							1							1		LS	MOBILIZATION / DEMOBILIZATION	835.11			
							1							1		LS	TRAFFIC CONTROL	641.10			
							360							360		M	DURABLE 100 mm WHITE LINE (THERMOPLASTIC)	646.40			
							360							360		M	DURABLE 100 mm YELLOW LINE (THERMOPLASTIC)	646.41			
							270							270		M	TEMPORARY 100 mm WHITE LINE (PAINT)	646.60			
							8							8		M	TEMPORARY 600 mm STOP BAR (PAINT)	646.66			
							80							80		EA	LINE STRIPING TARGETS	646.76			
							40							40		SM	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85			
350						350	575							925		SM	GEOTEXTILE UNDER STONE FILL	649.31			
								350						350		SM	GEOTEXTILE FOR SILT FENCE	649.51			
								25						25		KG	SEED	651.15			
								150						150		KG	FERTILIZER	651.18			
								1						1		T	AGRICULTURAL LIMESTONE	651.20			
								1						1		T	HAY MULCH	651.25			
							90							90		CM	TOPSOIL	651.35			
							265						EST.	265		SM	GRUBBING MATERIAL	651.40			
								1						1		LS	EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.10			
								80					EST.	80		HR	MONITORING EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.20			
								1						1		LU	MAINTENANCE OF EROSION PREVENTION & SEDIMENT CONTROL PLAN (N.A.B.I.)	652.30			
								640						640		SM	EROSION MATTING (STRAW MATTING)	654.10			
																	** BEGIN OPTION **				
							14							14		M	FLANGED CHANNEL SIGN POSTS	675.301			
							14							14		M	SQUARE TUBE STEEL SIGN POSTS AND ANCHOR	675.341			
																	** END OPTION **				
								7						7		EA	REMOVING SIGNS	675.50			
								3						3		EA	ERECTING SALVAGED SIGNS	675.60			
								1						1		EA	TEMPORARY TRAFFIC SIGNAL SYSTEM	678.40			
								2						2		EA	TEMPORARY DETECTOR	678.42			
																	N.A.B.I. = NOT A BID ITEM				
														1		LS	SUPPLEMENTARY AGREEMENT (528.11 - TWO-WAY TEMPORARY BRIDGE)	900.545			

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
	Surv. Sta.
VT 17 OVER MILL BROOK	
QUANTITY SHEET (3 OF 3)	
Designed By M.A. COLGAN	Drawn By B.J. MASSE
Checked By J.T. KLEIN	Bridge Design Supervisor
Date 1/06	M.A. COLGAN Date 1/06
PROJECT FAYSTON	PROJECT NO. BHF 0200(9)
I.G.C. Info.	
Bridge Sheet No. 50543QNT	Sheet 5 of 70

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

TABLE OF PROJECT PROPERTY ACQUISITION

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS	REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	HALL, EVELYN	10,11	0+807.3 CL.	REV. 0+956.2 LT.	0.11HA±		ALL R.T. & I.	WD	06-03-99	FAYSTON	77	88-89	HWY. EASE. VT. RTE. 17 (0.27A±) SILT FENCE (40 S.F.±) SILT FENCE (307 S.F.±) G.M.P. GUY WIRE (0.03A±) (508 S.F.±) (775 S.F.±)	1	8,9 10,11	PARCEL NO. 2 COLVIN & DEVEREAUX. REMOVE RIGHTS ASSOCIATED WITH SILT FENCES, ALSO SEDIMENTATION TRAP. REMOVE SLOPES 1+060 RT±. REMOVE SILT FENCES AND MOVE GUARDRAIL LOCATION TO 1+033 RT. ALSO CHANGE NOTES. PER C.O. NO. 9073.	10-01-99	B. A. H.	L. W. B.
			0+807.3 LT.	0+836.2 LT.			INSTALL (T)							2	9	C. O. 9078.			
			0+815.0 LT.	0+825.4 LT.			SLOPE (T) 45M±												
			0+825.4 LT.	0+829.0 LT.			CUL. & DIT. (P)												
			0+827.5 LT.				DRAINAGE (P)												
			0+850.7 LT.	0+898.6 LT.			INSTALL (T)												
			0+855.5 LT.	0+890.7 LT.			SLOPE (P) 28.65M±												
			REV. 0+904.0 LT.	REV. 0+905.7 LT.			INSTALL (P)												
			REV. 0+906.2 LT.	REV. 0+946.2 LT.			CONST. (T) 0.01HA±												
			REV. 0+913.2 LT.	REV. 0+930.0 LT.			SLOPE (P) 47.25M±												
			REV. 0+930.0 LT.	REV. 0+946.2 LT.			CHANNEL (P) 72SM±												
2A	DEVEREUX, L. READ & COLVIN, KRIS	10,11	REV. 0+931.9 RT.	1+046.6 RT.	0.05HA±			QCD	12-27-00	FAYSTON	81	330-32	(0.13A±) (5 S.F.±) (199 S.F.±) G.M.P. GUY WIRE G.M.P. GUY WIRE						
			0+889.2 RT.	0+892.2 RT.			SLOPE (P) 0.45M±												
			REV. 0+917.0 RT.	REV. 0+936.6 RT.			SLOPE (P) 18.55M±												
			REV. 0+937.0 RT.	REV. 0+938.7 RT.			INSTALL (P)												
			REV. 1+030.0 RT.	REV. 1+030.4 RT.			INSTALL (P)												
2B		10,11	0+858.8 RT.	1+080.0 RT.	0.17 HA±		ALL R.T. & I.			FAYSTON			HWY. EASE. VT. RTE. 17 (0.42A±)						
3	POSŁUSZNY, ROBERT F. & PHYLLIS D.	10,11	REV. 0+950.7 LT.	1+080.0 LT.	0.10HA±		ALL R.T. & I.	WD	10-28-99	FAYSTON	78	383-384	HWY. EASE. VT. RTE. 17 (0.24A±) (0.03A±) (950 S.F.±) (1036 S.F.±)						
			REV. 0+962.0 LT.	1+041.0 LT.			CONST. (T) 0.01HA±												
			REV. 0+966.7 LT.	REV. 0+997.5 LT.			DITCH (P) 88.25M±												
			REV. 1+003.0 LT.	REV. 1+037.5 LT.			SLOPE (P) 96.35M±												
4	GREEN MOUNTAIN POWER CORP.												UTILITY						
5	CHAMPLAIN VALLEY TELECOM												UTILITY						

0200009 200 1805 HP

ACCT.TFrench
\\vaot_cadd\fillingoblne+\93c065\RightOfWay\rc065d.dgn
DATE PLOTTED 29-MAR-2001
rc065dl.l

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) ---
CZ (P)
CONST. (T) ---
SR --- SR
P ---
L ---
TOP OF CUT
TOE OF SLOPE

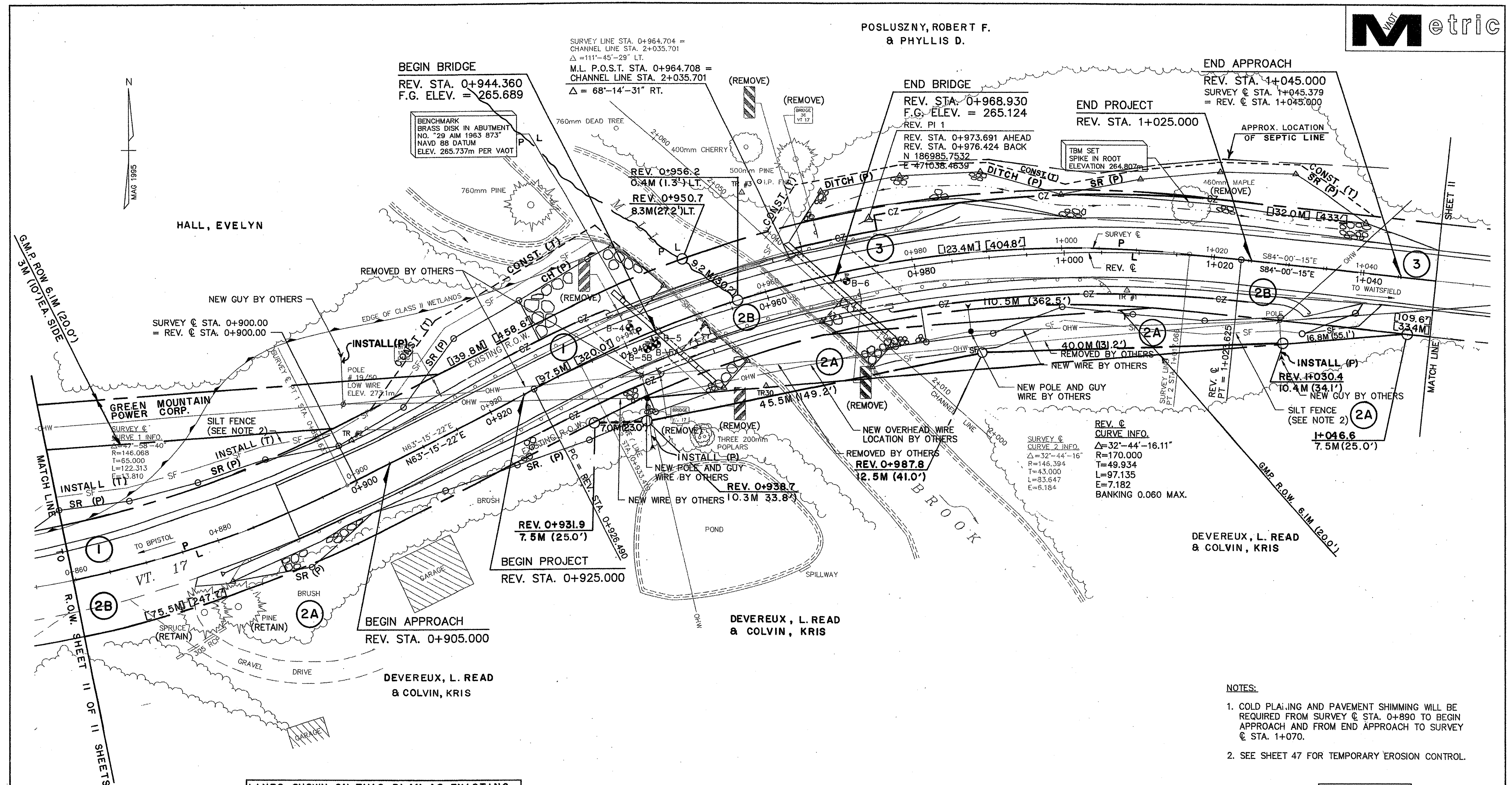
CLEARING & TRIMMING
CLEAR ZONE
CONSTRUCTION EASEMENT
SLOPE RIGHTS
PROPERTY LINE
TOP OF CUT
TOE OF SLOPE

PERMANENT EASEMENT
PERMANENT EASEMENT

APPROVED: LAWRENCE W. BLISS DATE: 04-08-98
CHIEF, PLANS & TITLES

R. O. W. PLANS
FAYSTON
BHF 0200(9)
SHEET 6 OF 70

POSLUSZNY, ROBERT F.
& PHYLLIS D.



- NOTES:
1. COLD PLACING AND PAVEMENT SHIMMING WILL BE REQUIRED FROM SURVEY @ STA. 0+890 TO BEGIN APPROACH AND FROM END APPROACH TO SURVEY @ STA. 1+070.
 2. SEE SHEET 47 FOR TEMPORARY EROSION CONTROL.

FOR ROW
USE ONLY

STATE OF VERMONT
 AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No. 36
Highway No.	VT 17	Log Sta.
		Surv. Sta.
VT 17 OVER MILL BROOK		
PLAN (1 OF 2)		
Designed By	S.M. GUNN	Drawn By R.F. CLARK
Checked By	Date	Bridge Design Supervisor
		Date
PROJECT FAYSTON		PROJECT NO. BHF 0200(9)
I.G.C. Info.		
SHEET 7 OF 70 SHEETS		

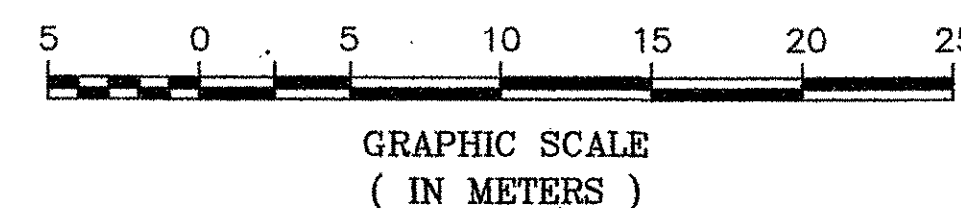
PLOTTED 9-22-98

ZC065RWZ

VANASSE HANGEN BRUSTLIN, INC.

SHEET 7 OF 70 SHEETS

PLAN
SCALE: 1:250



FOR EROSION SHEET
SEE R.O.W. SHEET 8 OF 11 SHEETS.

NEW SIDESLOPES TO BE CONSTRUCTED WITH STONEFILL, TYPE II AND COVERED WITH 150 mm OF EARTH BORROW. SLOPES ARE TO BE SEEDED AND MULCHED. NO ADDITIONAL CLEARING AND GRUBBING WILL BE ALLOWED BEYOND THE LIMITS OF THE STONE FILL SLOPE.

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

CONSTRUCTION NOTES

REMOVAL AND DISPOSAL OF GUARD RAIL
STA. 0+880.0 - REV. STA. 0+946.0 RT.
REV. STA. 0+970.7 - 1+006.0 RT.
REV. STA. 0+904.3 - 0+942.2 LT.
REV. STA. 0+965.5 - 0+981.8 LT.

HEAVY DUTY STEEL BEAM GUARD RAIL
STA. 0+860.0 - REV. STA. 0+929.2 LT.
STA. 0+894.3, 3.65 m RT. - REV. STA. 0+932.4, 4.50 m RT.
REV. STA. 0+986.6 - STA. 1+033.0 RT.

MODIFIED ECCENTRIC LOADER TERMINAL
REV. STA. 0+975.6 - 0+986.7 LT.

MANUFACTURED TERMINAL SECTION
STA. 0+879.5, 4.44 m RT. - 0+894.3, 3.71 m RT.

GUARD RAIL APPROACH SECTION, TYPE I (MODIFIED)

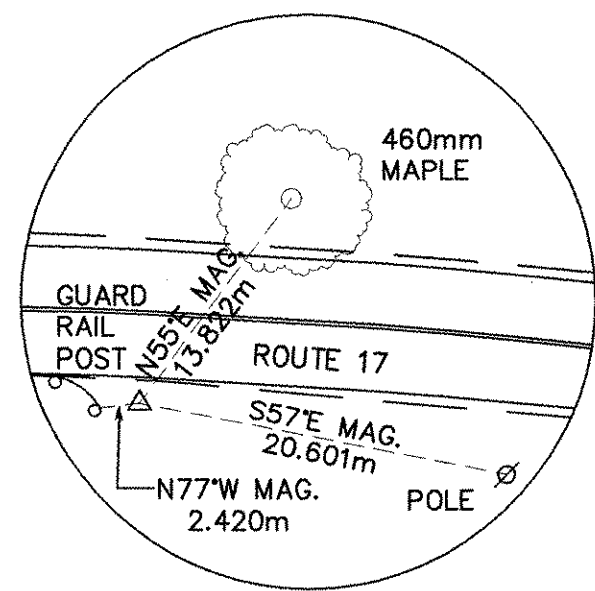
GUARD RAIL APPROACH SECTION 1
REV. STA. 0+932.4 - 0+940.3 RT.
REV. STA. 0+978.8 - 0+986.6 RT.
REV. STA. 0+929.2 - 0+936.7 LT.
REV. STA. 0+968.2 - 0+975.6 LT.

BRIDGE RAILING - 2 RAIL GALVANIZED BOX BEAM (MODIFIED)
REV. STA. 0+936.7 - 0+968.2 LT.
REV. STA. 0+940.3 - 0+978.8 RT.

COLD PLANING BIT. CONCRETE PAVEMENT
STA. 0+890.0 - REV. STA. 0+905.0
REV. STA. 1+045.0 - STA. 1+050.0

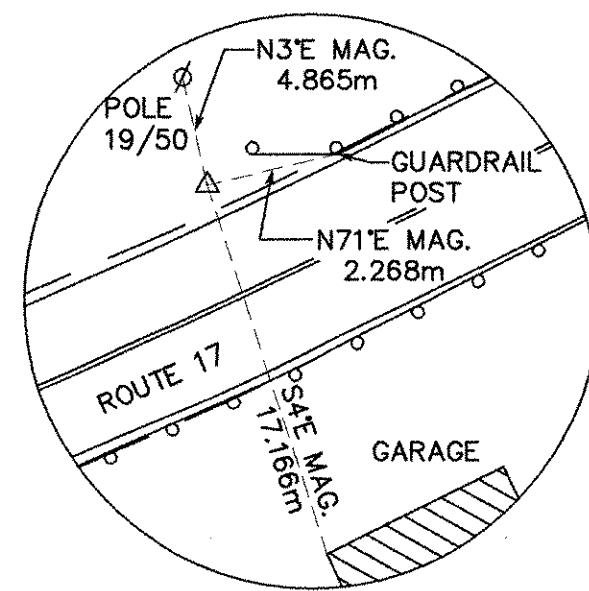
DURABLE 100 mm WHITE LINE
STA. 0+890.0 - STA. 1+050.0 LT, RT

DURABLE 100 mm YELLOW LINE
STA. 0+890.0 - STA. 1+050.0 (DOUBLE CENTER LINE)



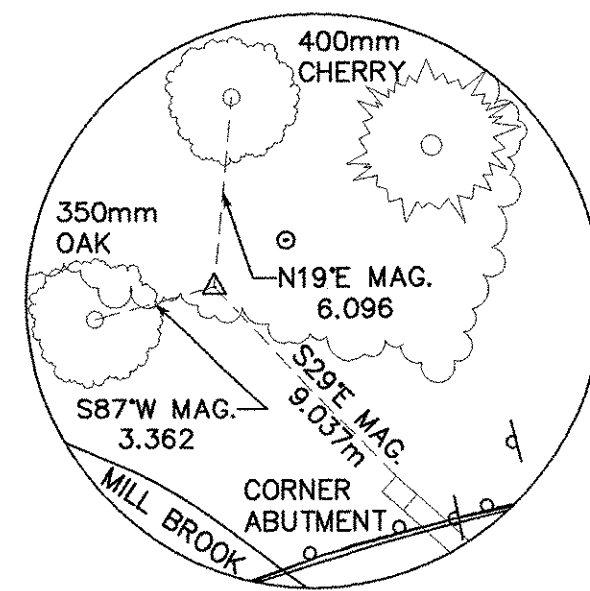
TR #1
REBAR & CAP
NORTHING = 186976.461
EASTING = 471072.922
NAVD 88 DATUM
ELEVATION = 263.923

TR #1
N.T.S.



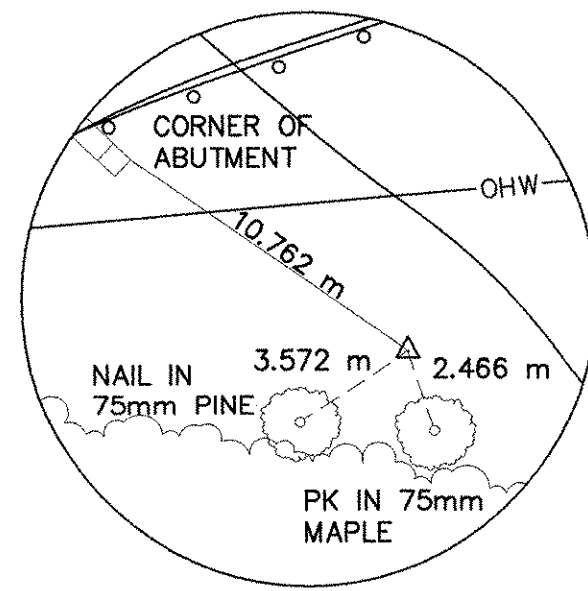
TR #2
REBAR & CAP
NORTHING = 186956.739
EASTING = 470969.574
ELEVATION = 266.483m

TR #2
N.T.S.



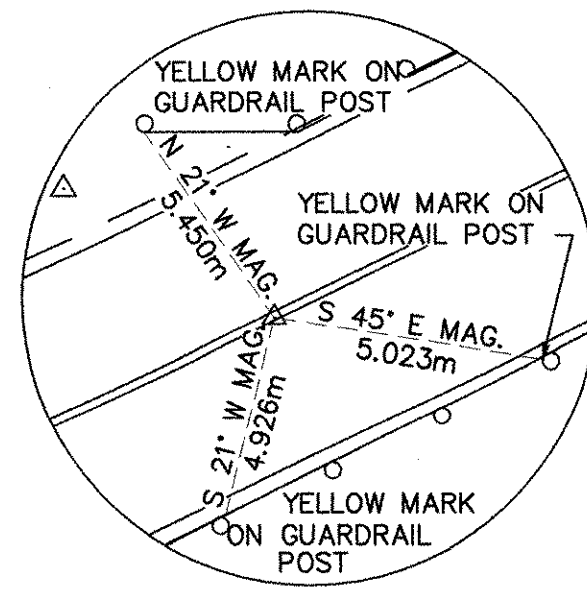
TR #3
REBAR & CAP
NORTHING = 186989.171
EASTING = 471021.535
ELEVATION = 263.960m

TR #3
N.T.S.



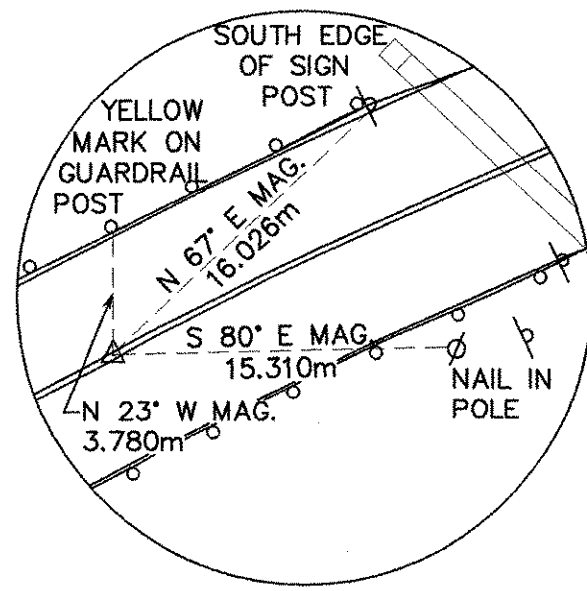
TR #30
REBAR & CAP
NORTHING = 186963.613
EASTING = 471024.806
ELEVATION = 261.880m

TR #30
N.T.S.



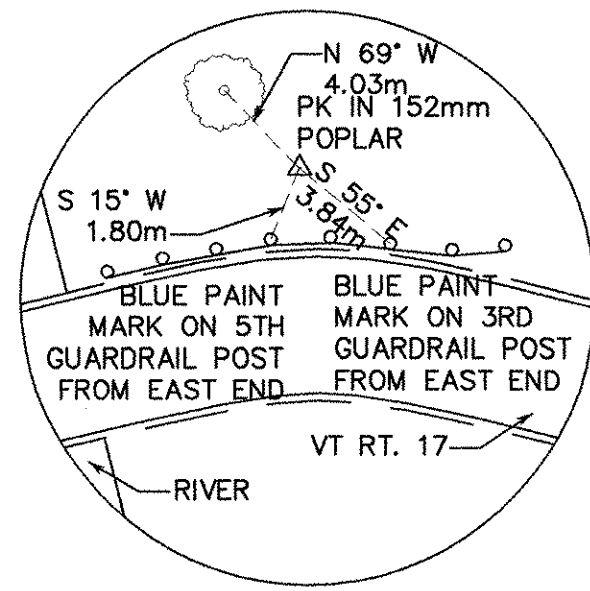
REV. STA 0+905.000
PK SET
NORTHING = 186953.613
EASTING = 470974.685
REV. CENTERLINE P.O.T.

REV. STA 0+905.000
N.T.S.

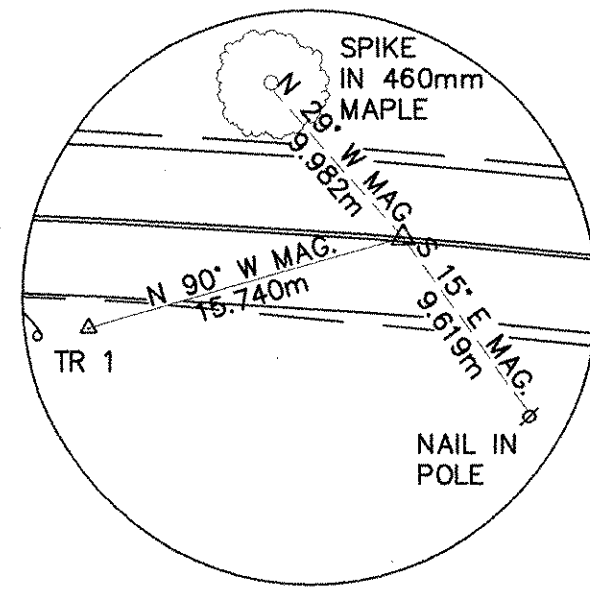


REV. STA 0+926.490
PK SET
NORTHING = 186963.282
EASTING = 470993.872
REV. CENTERLINE P.C.

REV. STA 0+926.490
N.T.S.

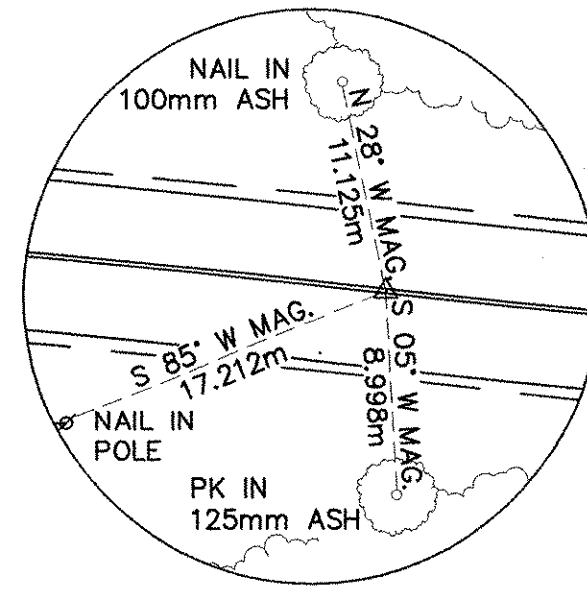


REV. PI #1
N.T.S.



REV. STA 1+023.625
PK SET
NORTHING = 186980.538
EASTING = 471088.124
REV. CENTERLINE P.T.

REV. STA 1+023.625
N.T.S.



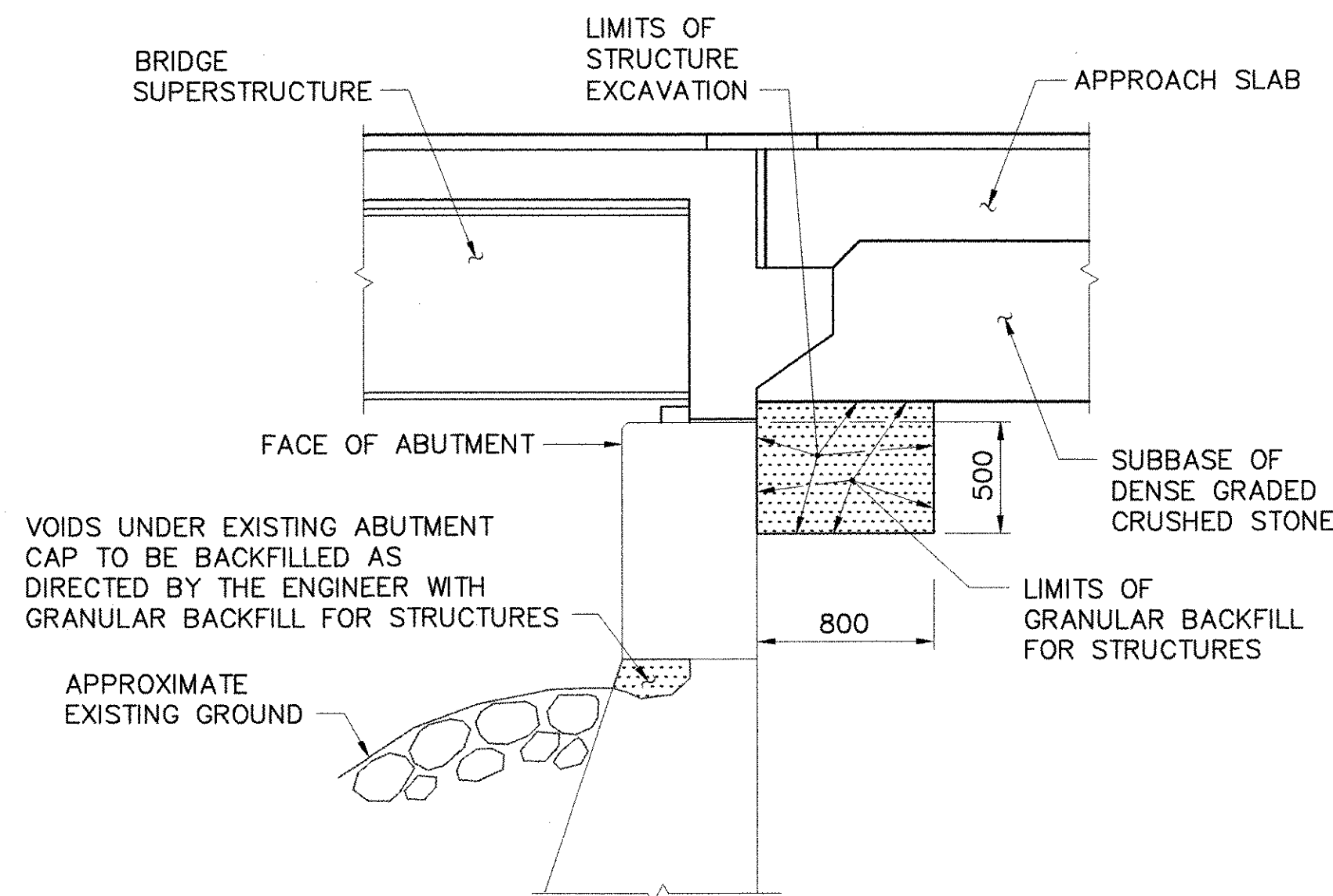
REV. STA 1+045.000
PK SET
NORTHING = 186978.305
EASTING = 471109.387
REV. CENTERLINE P.O.T.

REV. STA 1+045.000
N.T.S.

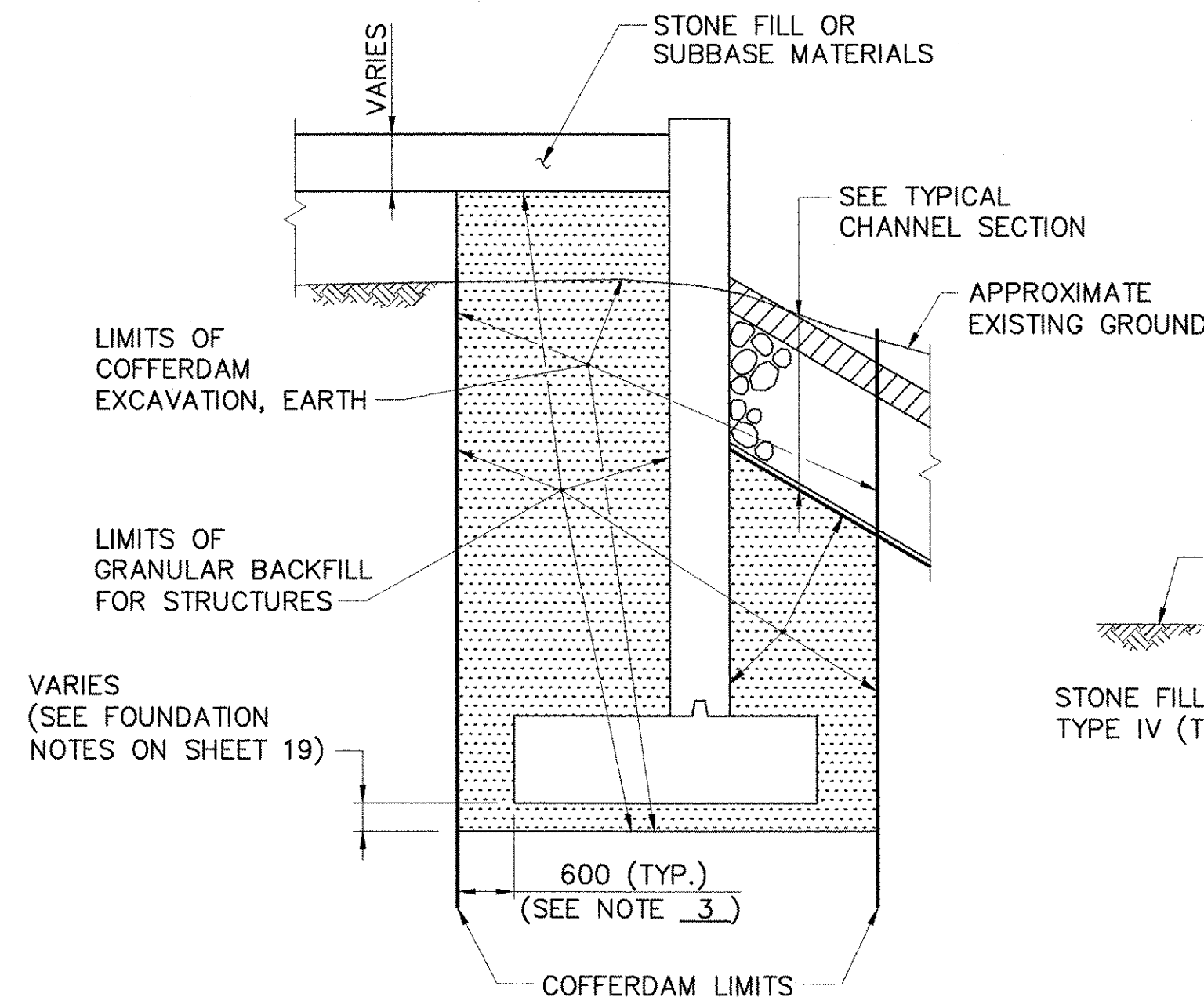
COFFERDAM NOTES:

- COFFERDAMS SHALL BE USED FOR THE CONSTRUCTION OF WINGWALLS NO. 1, NO. 2, AND NO. 4 AND SHALL BE PAID AS ITEM 208.40, COFFERDAM.
- COFFERDAM LIMITS SHALL BE DETERMINED BY THE CONTRACTOR, AND APPROVED BY THE RESIDENT ENGINEER.
- FOR PURPOSES OF ESTIMATING EARTHWORK QUANTITIES, THE LIMITS OF COFFERDAMS HAVE BEEN ASSUMED TO BE 600 MILLIMETERS OUTSIDE THE PERIMETER OF THE FOOTINGS.
- COFFERDAMS SHALL BE DESIGNED SO AS NOT TO DAMAGE OR UNDERMINE THE EXISTING STRUCTURE TO REMAIN NOR TO CONFLICT WITH THE PROPOSED CONSTRUCTION.
- NO PORTION OF THE EXISTING STRUCTURE TO REMAIN SHALL BE INCORPORATED INTO THE COFFERDAM.
- IF THE COFFERDAM IS ENLARGED FOR THE CONTRACTOR'S CONVENIENCE, ANY ADDITIONAL EXCAVATION REQUIRED WILL BE AT THE CONTRACTOR'S EXPENSE. IF IN ENLARGING THE COFFERDAM, THE LIMITS OF THE COFFERDAM ENCRANCH ON THE UNCLASSIFIED CHANNEL EXCAVATION REQUIRED BY THE PLANS, THAT EXCAVATION WILL BE PAID FOR AS UNCLASSIFIED CHANNEL EXCAVATION.
- ALL IN STREAM CHANNEL WORK WILL TAKE PLACE IN A DRY CHANNEL WITH THE EXCEPTION OF CLEAN STONE FILL PLACEMENT. THIS MAY BE ACCOMPLISHED BY DIRECTING THE STREAM FLOW THROUGH A TEMPORARY CHANNEL, THROUGH TEMPORARY CULVERTS, OR BY THE USE OF A COFFERDAM AND PUMPS. ABSOLUTELY NO RAW CONCRETE CAN BE ALLOWED TO MIX WITH THE STREAM FLOW. PUMPING FROM EXCAVATION FOR FOOTINGS WILL BE CLARIFIED USING A SEDIMENTATION TRAP BEFORE BEING ALLOWED TO MIX WITH THE STREAM FLOW.
- SPECIAL CONSIDERATION MUST BE GIVEN TO THE FIRST PUMP-DOWN OF THE COFFERDAMS. THIS WILL CONTAIN THE GREATEST VOLUME OF WATER WITH A HIGH SEDIMENT LOAD. THE SEDIMENT TRAP(S) SHALL BE DESIGNED BY THE CONTRACTOR WITHIN THE RIGHT OF WAY AND APPROVED BY THE RESIDENT ENGINEER.
- AFTER COMPLETION OF THE SUBSTRUCTURE, THE SEDIMENT IN THE TRAP SHALL BE REMOVED AND PROPERLY DISPOSED, AND THE GROUND SHALL BE RESTORED TO ITS ORIGINAL SLOPES.

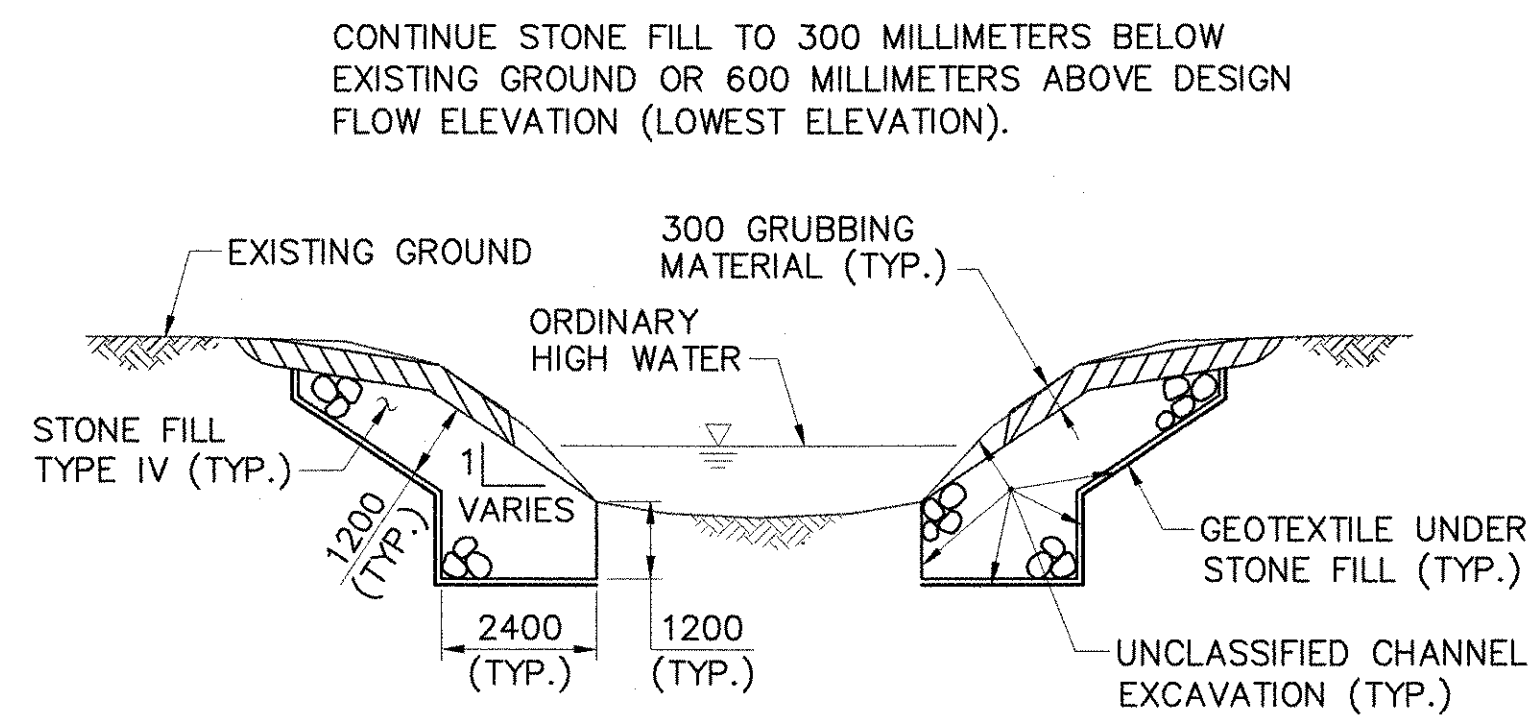
ALIGNMENT TIES



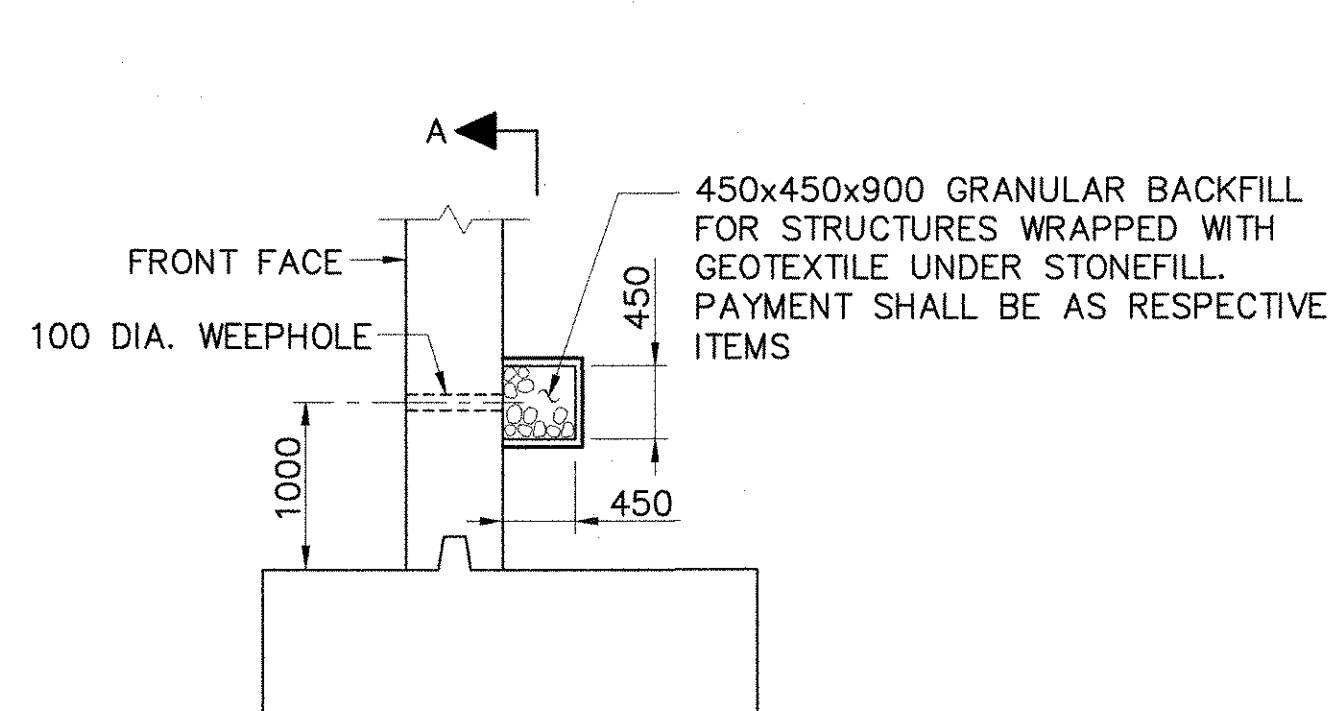
ABUTMENT EARTHWORK TYPICAL
(ABUT. NO. 1, ABUT. NO. 2 AND WW #3)
N.T.S.



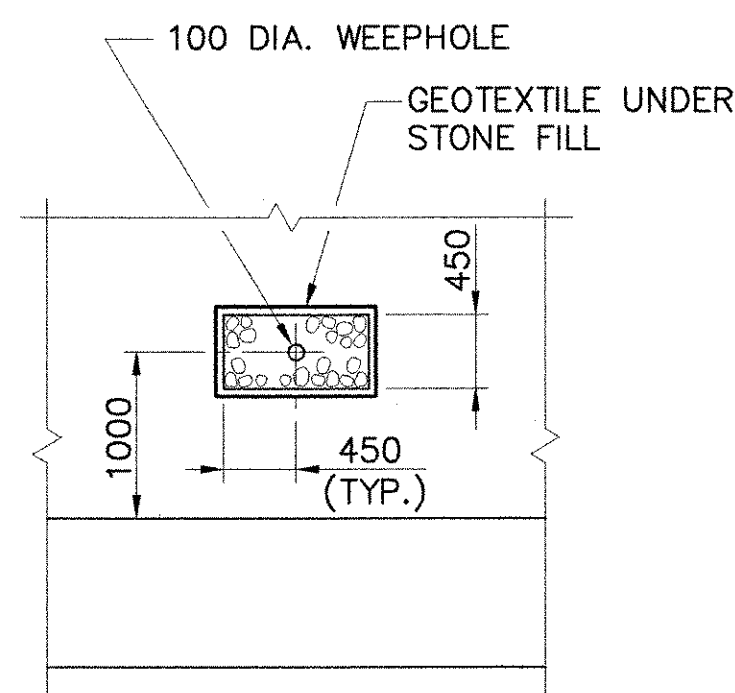
WINGWALL EARTHWORK TYPICAL
(WW#1, WW#2, AND WW#4)
N.T.S.



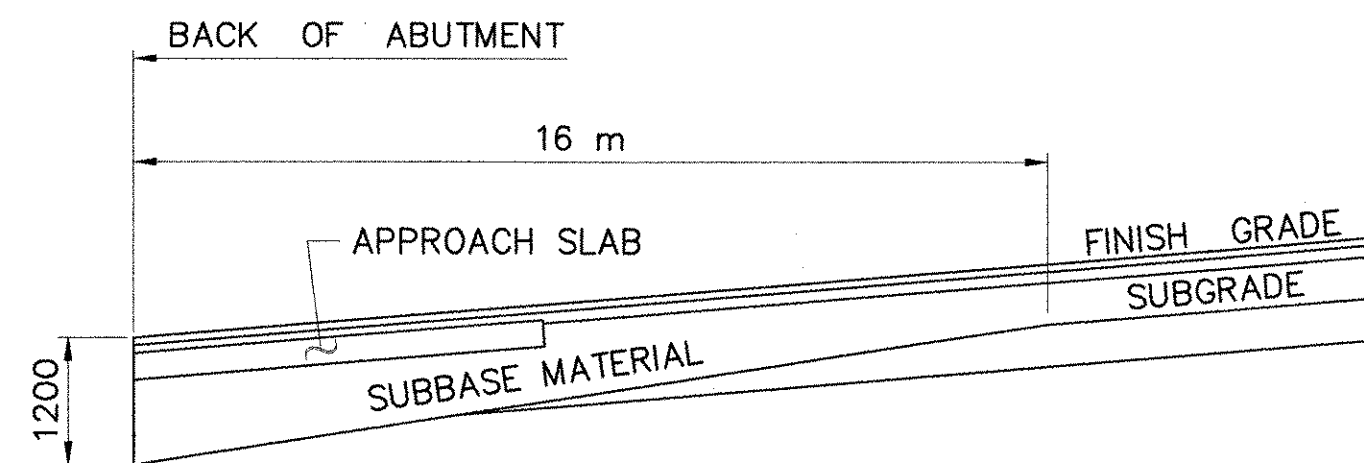
TYPICAL CHANNEL SECTION
N.T.S.



TYPICAL WEEPHOLE DETAIL
N.T.S.



SECTION A-A
N.T.S.



SUBBASE DETAIL AT ABUTMENTS
(ELEVATION IN CUT AND FILL)
N.T.S.

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD 83-92

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	

VT 17 OVER MILL BROOK

TIE SHEET AND TYPICAL DETAILS

Designed By	EIV/S.M. GUNN	Drawn By	B.J. MASSE
Checked By	EIV/M.A. COLGAN	Bridge Design Supervisor	M.A. COLGAN
Date	1/06	Date	1/06

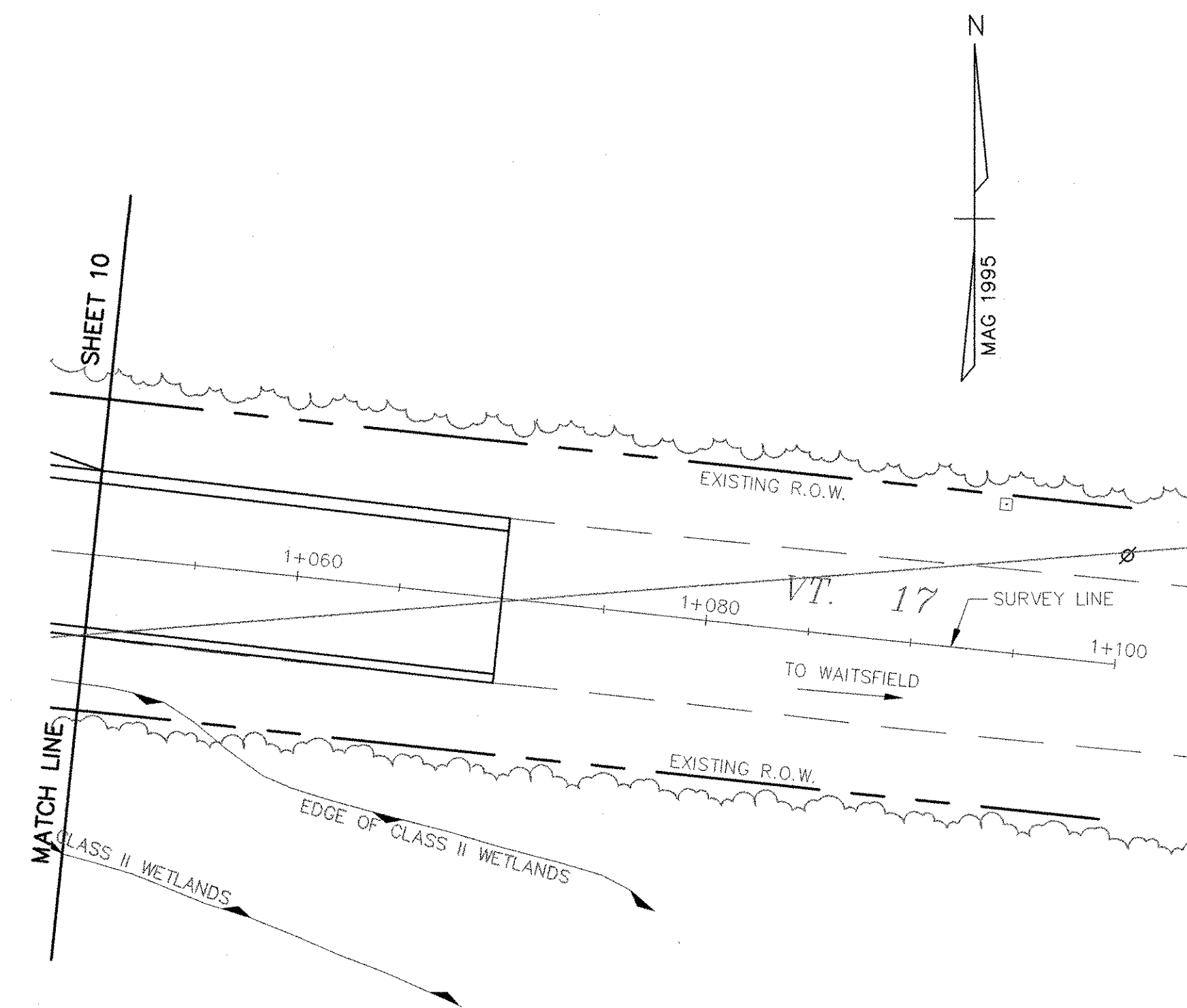
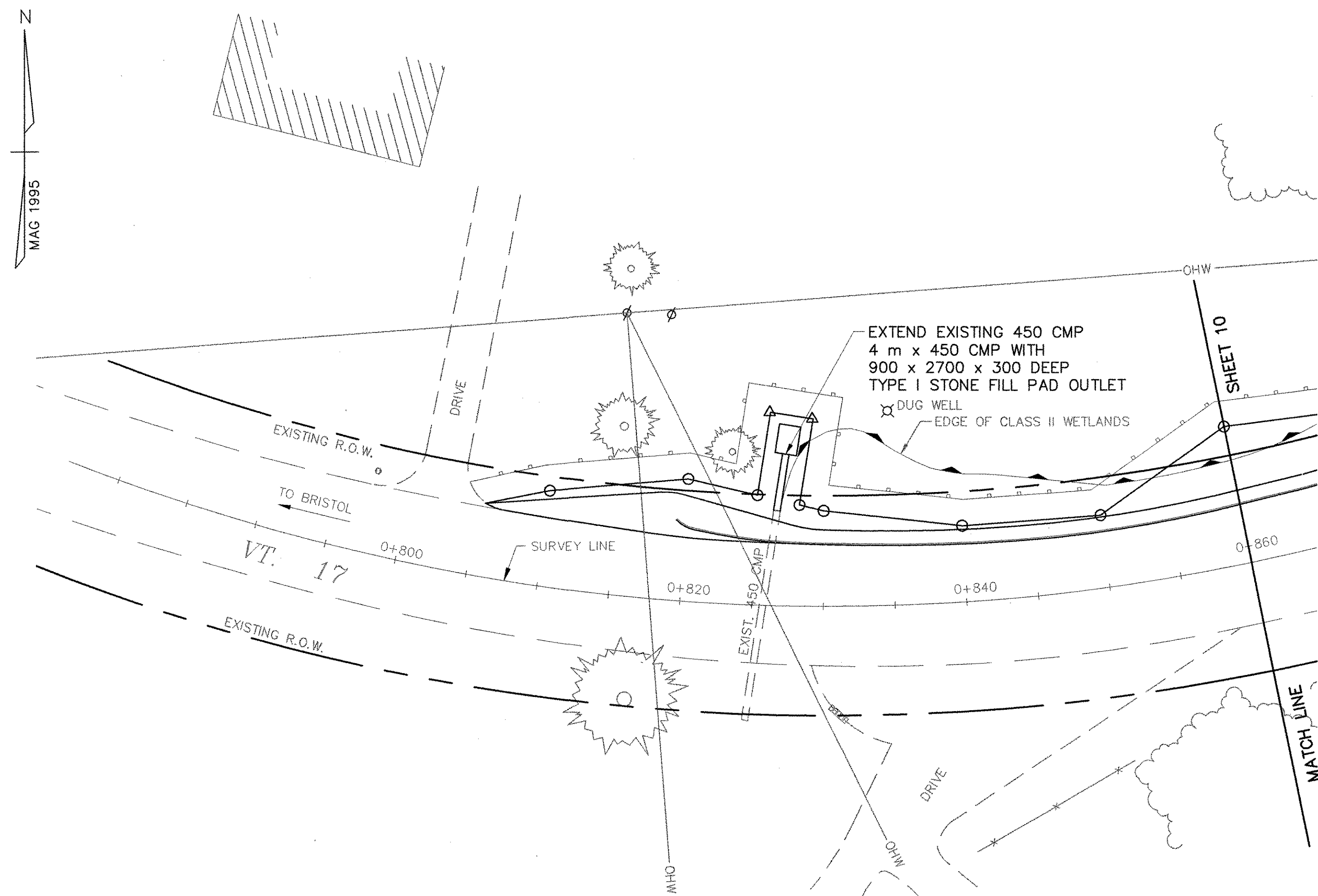
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
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I.G.C. Info.	Bridge Sheet No. 50543TIE	Sheet	9 of 70
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1. COLD PLANING AND PAVEMENT SHIMMING WILL BE REQUIRED FROM SURVEY LINE STA. 0+890 TO BEGIN APPROACH AND FROM END APPROACH TO SURVEY LINE STA. 1+070.
2. SEE SHEETS 45-48 FOR TEMPORARY EROSION CONTROL.
3. NEW SIDESLOPES ARE TO BE CONSTRUCTED WITH STONEFILL, TYPE II AND TYPE IV, STA. 0+880 RT. ~ 0+950 RT. AND COVERED WITH 300 OF GRUBBING MATERIAL. SLOPES ARE TO BE SEEDED AND MULCHED. NO ADDITIONAL CLEARING AND GRUBBING WILL BE ALLOWED BEYOND THE LIMITS OF THE STONE FILL SLOPE.

PLOTTED 1-13-2006



NOTES:

1. COLD PLANING AND PAVEMENT SHIMMING WILL BE REQUIRED FROM SURVEY LINE STA. 0+890 TO BEGIN APPROACH AND FROM END APPROACH TO SURVEY LINE STA. 1+070.
2. SEE SHEETS 45-48 FOR TEMPORARY EROSION CONTROL.

CONSTRUCTION NOTES

HEAVY DUTY STEEL BEAM GUARD RAIL
STA. 0+831.1 - STA. 0+860.0 LT.

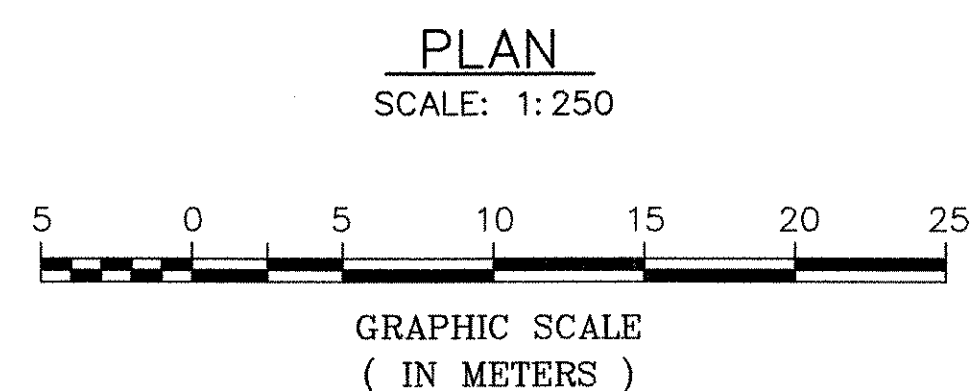
MANUFACTURED TERMINAL SECTION (FLARED)
STA. 0+819.4 - 0+831.1 LT.

COLD PLANING BIT. CONCRETE PAVEMENT
REV. STA. 1+050.0 - STA. 1+070.0

DURABLE 100 mm WHITE LINE
STA. 1+050.0 - STA. 1+070.0 LT, RT

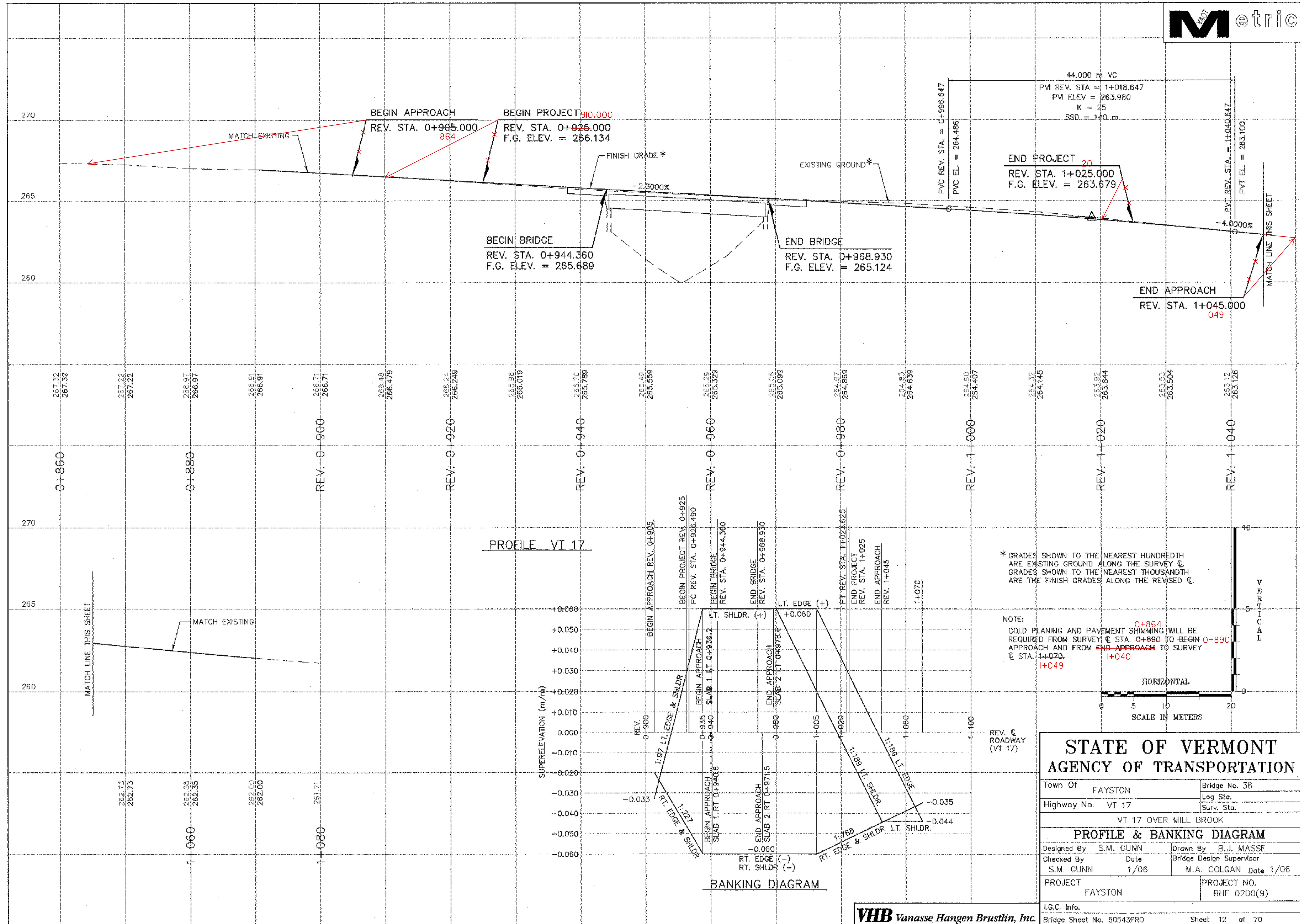
DURABLE 100 mm YELLOW LINE
STA. 1+050.0 - STA. 1+070.0 (DOUBLE CENTER LINE)

YIELDING MARKER POSTS
STA. 0+825.0 RT.
STA. 0+827.5 LT.

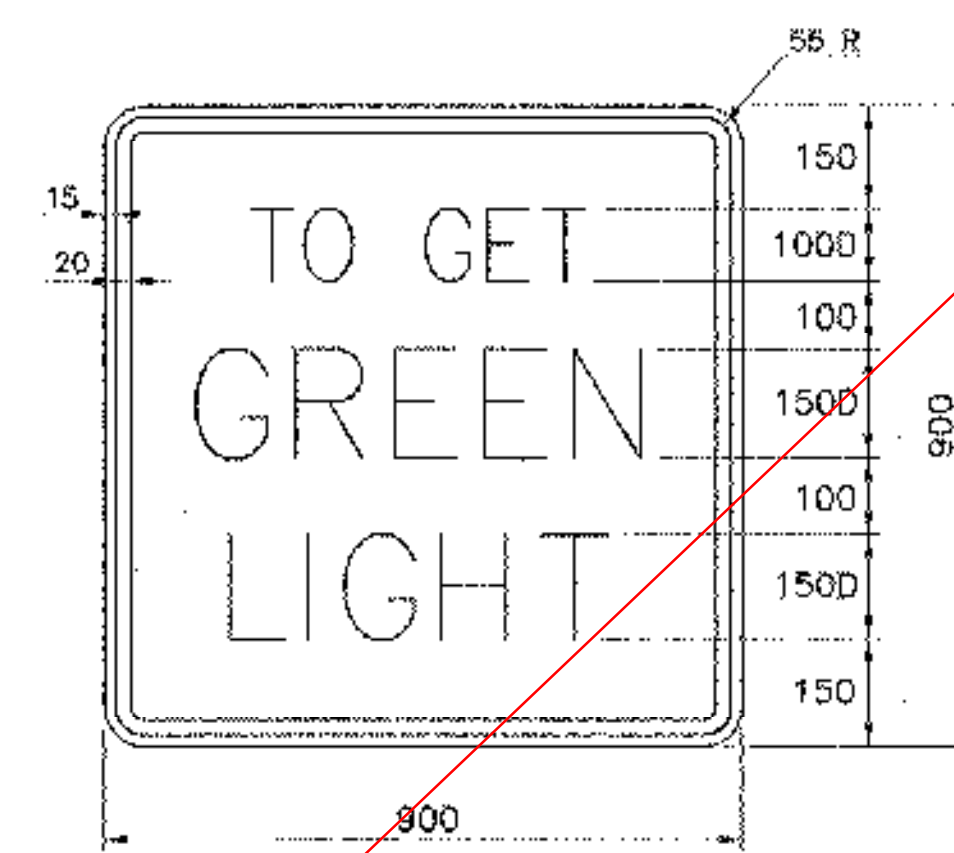


**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

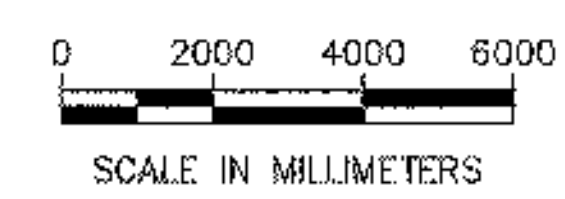
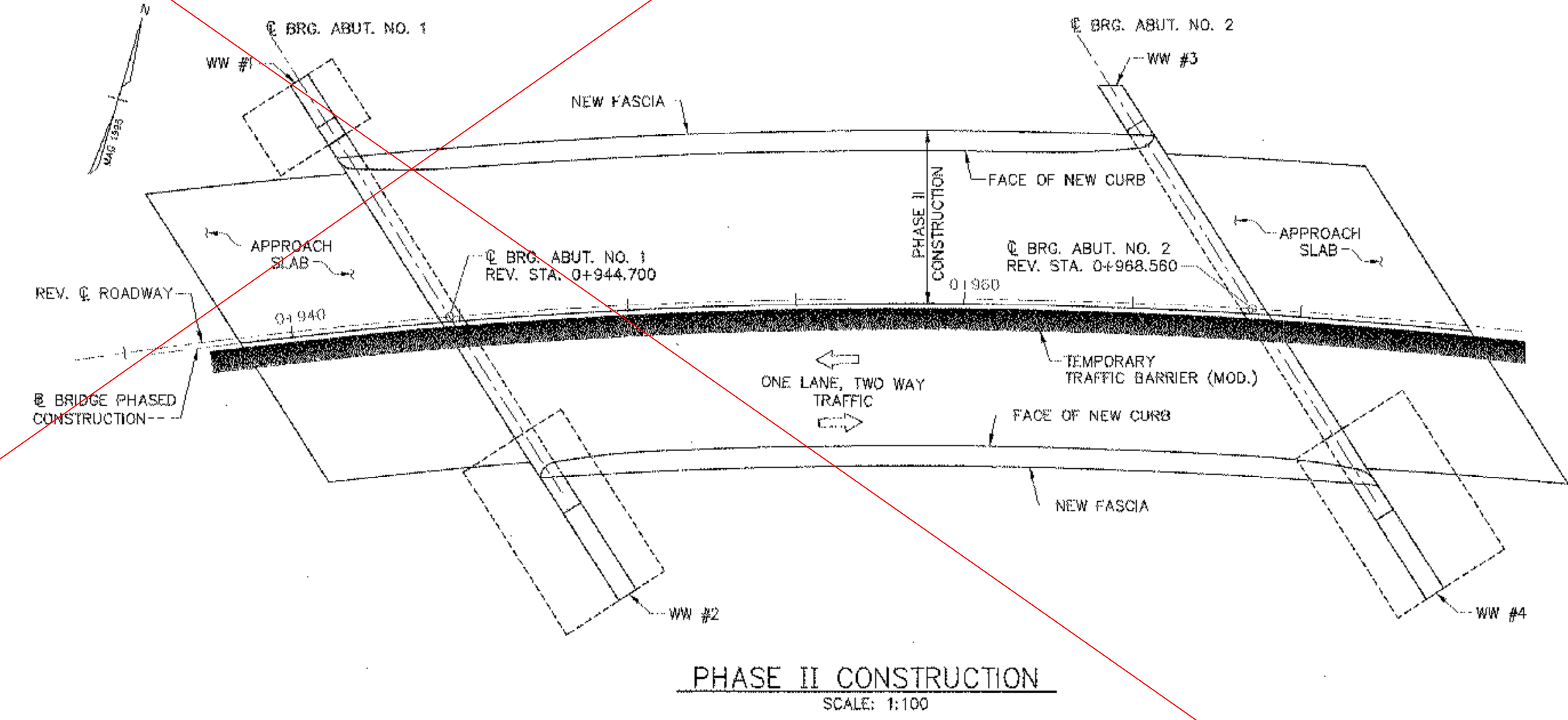
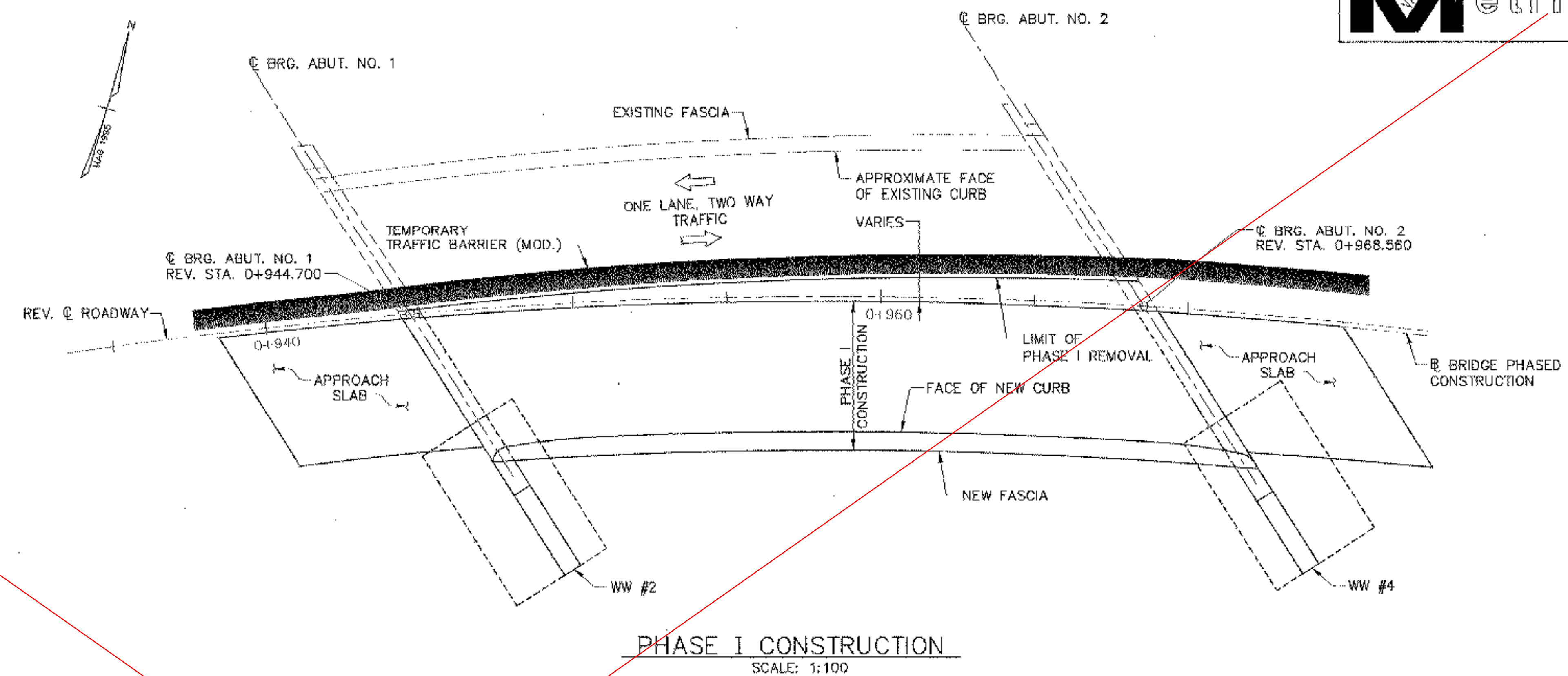
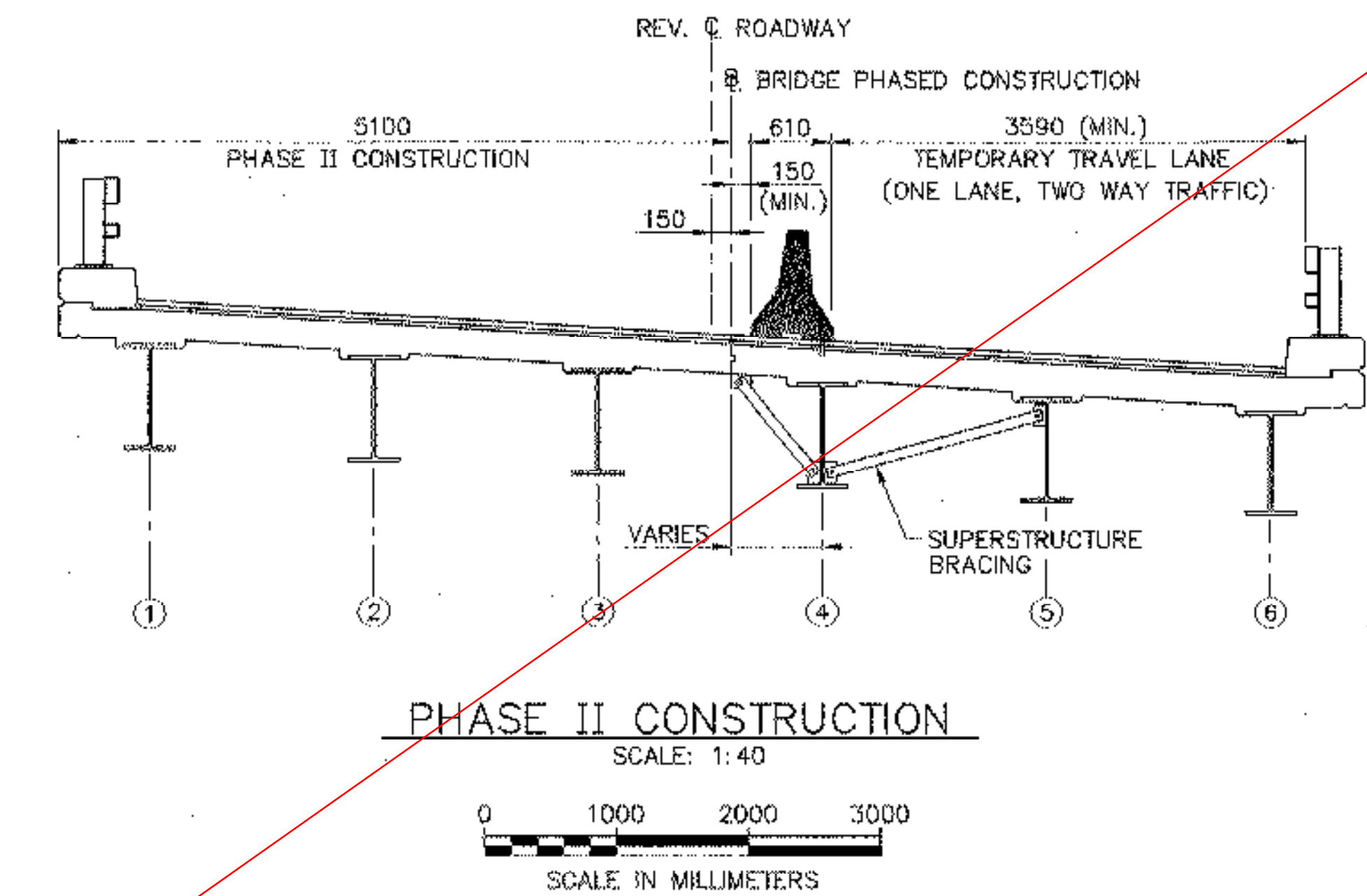
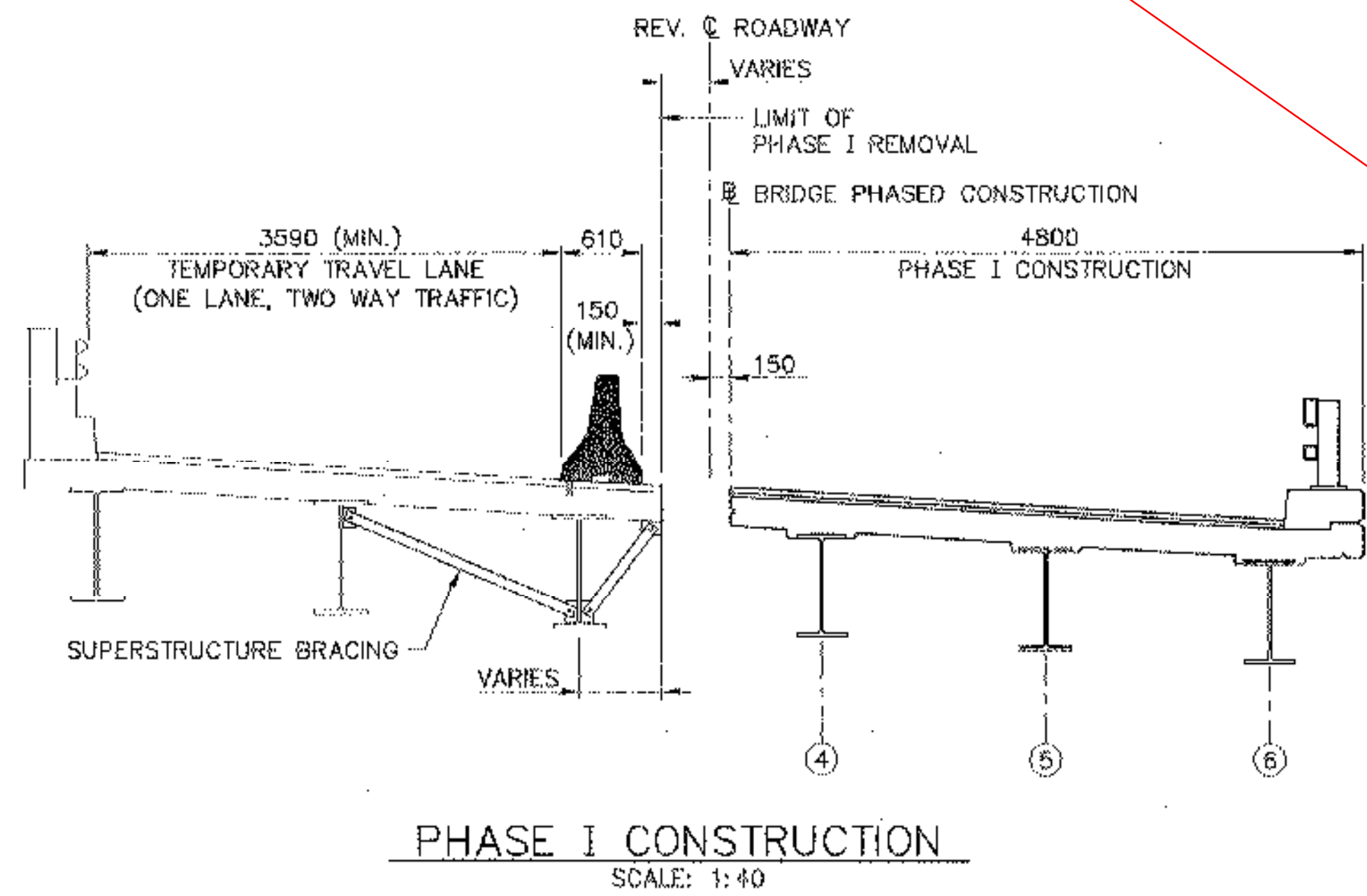
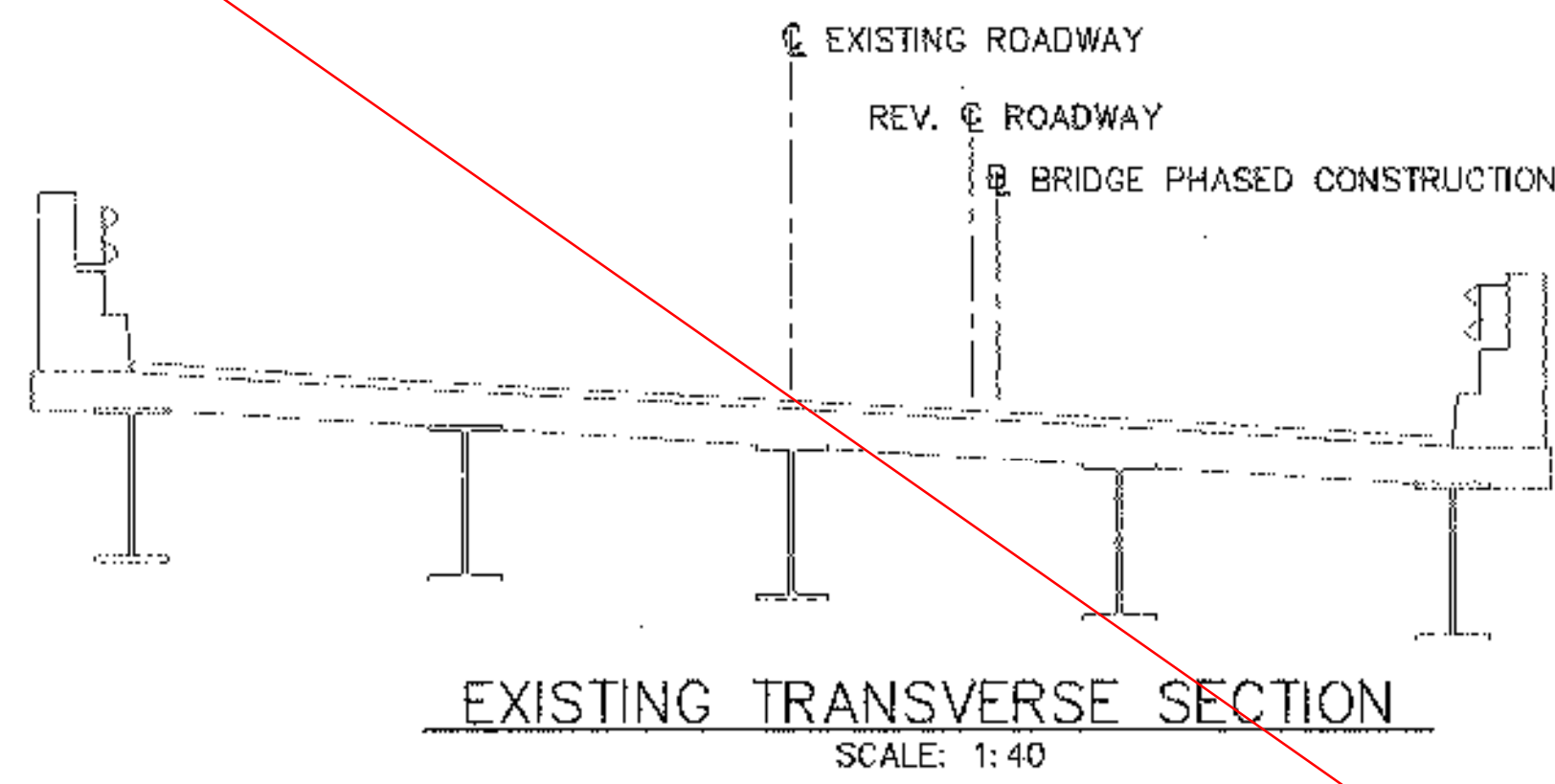
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
PLAN (2 OF 2)			
Designed By	S.M. GUNN	Drawn By	B.J. MASSE
Checked By	S.M. GUNN	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN Date 1/06
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	50543PLN	Sheet	11 of 70



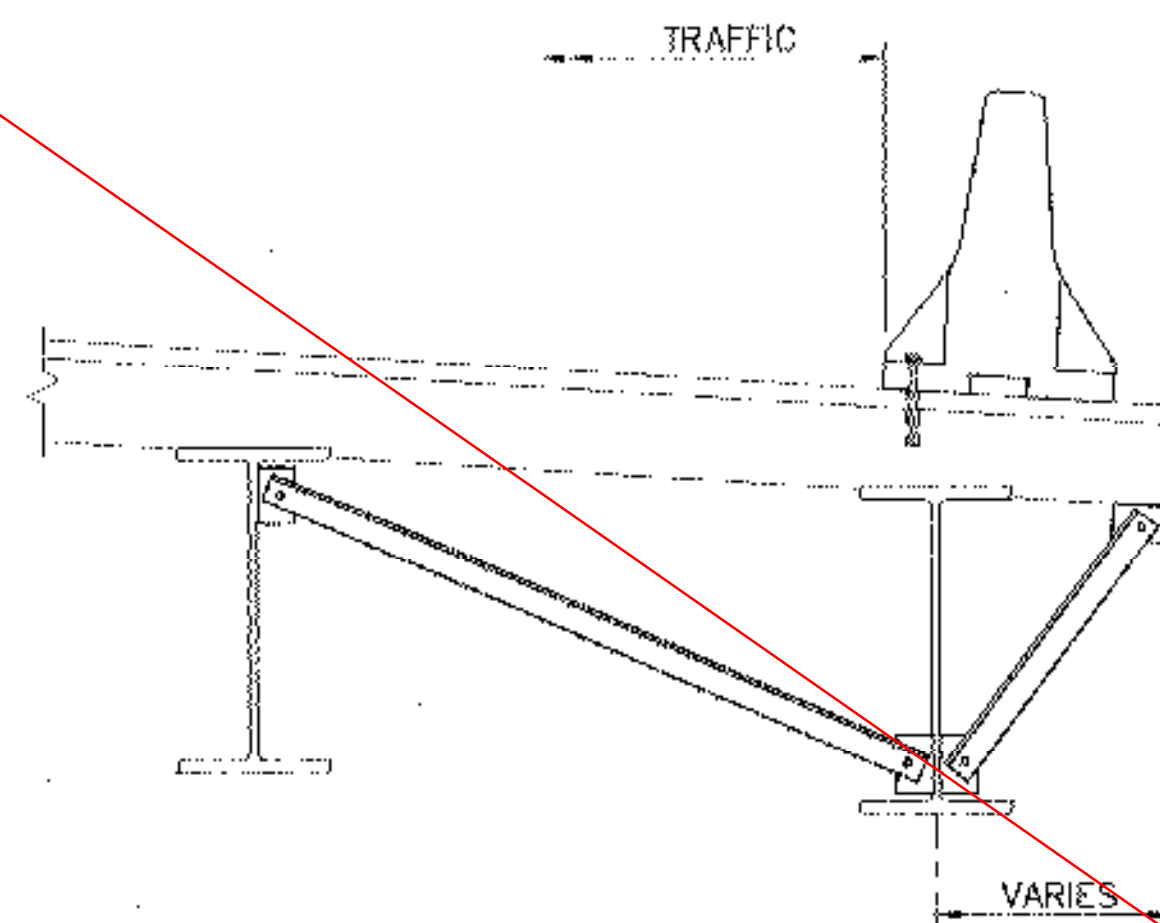
1. DESIGN OF THE SIGNAL SUPPORT(S), AND ANY REQUIRED GUYING IS THE RESPONSIBILITY OF THE CONTRACTOR.
2. SIGNAL TIMING/TIMING ADJUSTMENTS REQUESTED BY THE RESIDENT ENGINEER SHALL BE ACCOMPLISHED WITHIN A 48 HOUR PERIOD AND PAYMENT SHALL BE SUBSIDIARY TO THE TRAFFIC SIGNAL ITEM. THE ALL-RED CLEARANCE INTERVAL IS BASED ON AN ASSUMED SPEED OF 15-30km/h. THE RESIDENT ENGINEER SHALL MAKE SEVERAL TRIAL RUNS TO DETERMINE THE PROPER ALL-RED CLEARANCE INTERVAL.
3. SIGNAL FACES SHALL CONSIST OF 300 mm LENSES. (RED, YELLOW, AND GREEN)
4. THE BOTTOM OF THE HOUSING OF A SIGNAL FACE SUSPENDED OVER A ROADWAY SHALL NOT BE LESS THAN 6.0 m OR MORE THAN 6.8 m ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY. THE BOTTOM OF A SIGNAL FACE NOT MOUNTED OVER A ROADWAY, SHALL NOT BE LESS THAN 2.4 m NOR MORE THAN 4.6 m ABOVE THE GROUND. CAUTION SHOULD BE USED TO ENSURE COMPLIANCE WITH THE HEIGHT REQUIREMENTS IN THE EVENT THE NEW APPROACH GRADES DIFFER SIGNIFICANTLY FROM THE OLD ROAD GRADE.
5. SIGNAL FACES FOR ANY ONE APPROACH SHALL NOT BE LESS THAN 2.4 m APART MEASURED HORIZONTALLY BETWEEN CENTER OF FACES.
6. SIGNAL HEADS MAY BE HUNG ON A SPAN WIRE OR ON A CANTILEVER MAINT ARM. AT LEAST ONE SIGNAL HEAD SHALL BE UNMISTAKABLY IN LINE WITH THE CENTER OF APPROACHING TRAFFIC AT ALL TIMES. THE SECOND SIGNAL HEAD MAY BE POST MOUNTED, LOCATED AT A DISTANCE NO GREATER THAN 4.4 m FROM THE CENTER OF THE APPROACH LANE WHEN THE STOP BAR IS 12 m FROM THE SIGNAL HEAD. CONSULT THE M.U.T.C.D. FOR ADDITIONAL INFORMATION CONCERNING SIGNAL PLACEMENT.
7. SIGNAL HEAD PLACEMENT IS CRITICAL. HEADS SHALL BE ADJUSTED TO REFLECT LANE LOCATION CHANGES.
8. THE SIGNAL SYSTEM SHALL CONSIST OF POLES, SIGNS AND POSTS, WARNING SIGN, LUMINAIRES, FLASHING BEACONS, AND SIGNAL EQUIPMENT TO PROVIDE FOR AN ADEQUATE DESIGN. IT ALSO INCLUDES PERMITS AND COST ASSOCIATED WITH PROVIDING ELECTRICAL POWER.
9. THE CONTRACTOR SHALL PROVIDE AN ACTUATED CONTROLLER. THE APPROACHES NOTED SHALL HAVE TEMPORARY VEHICLE DETECTORS. THE TYPE OF DETECTOR SHALL BE AT THE OPTION OF THE CONTRACTOR. LOOPS ARE SHOWN FOR PLACEMENT PURPOSES ONLY. THE CONTROLLER, DETECTOR AND ALL OTHER SIGNAL EQUIPMENT SHALL MEET OR EXCEED ALL NEMA STANDARDS.
10. WHEN USED, VEHICLE DETECTOR LOOPS SHALL BE 1.2 m X 12 m FOR PRESENCE DETECTION AT THE STOP BAR WITH THE NEAR PORTION LOCATED 1.5 m BEYOND THE STOP BAR.
11. ON A SEMI-ACTUATED SIGNAL, PARTICULARLY WITH LONG BRIDGES, THE CONTROLLER SHOULD BE LOCATED ON THE SAME SIDE OF THE BRIDGE AS THE DETECTOR.
12. INTERVAL TIMING SHOWN IN SECONDS.
13. INTERCONNECT BETWEEN SIGNAL POLES BY WHATEVER MEANS POSSIBLE OR CONVENIENT TO PROVIDE FOR A SAFE INSTALLATION.
14. PLACE TEMPORARY POLES BEHIND GUARDRAIL WHERE PRACTICAL.
15. POLES SUPPORTING SPAN WIRES AND/OR MAST ARMS SHALL BE ADEQUATELY BRACED OR GUYED AND SHALL NOT BE PLACED SO AS TO CREATE A HAZARD TO THE TRAVELING PUBLIC.
16. ALL TEMPORARY SIGNAL EQUIPMENT, SIGNS, ETC., SHALL BELONG TO THE CONTRACTOR AT THE END OF THE PROJECT AND THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS REMOVAL, INCLUDING ANY TEMPORARY PAVEMENT MARKINGS, UTILITY POLES, WIRES, ETC.
17. A 250 WATT MER/150 WATT HPS LUMINAIRE AND MAST ARM SHALL BE PROVIDED ON A POLE ON EACH APPROACH AT A MOUNTING HEIGHT OF 8 m ABOVE ROADWAY CENTERLINE. THE INTENT IS TO LIGHT UP THE AREA AROUND THE SIGNAL HEADS AND STOP BAR FOR INCREASED VISIBILITY. THE RESIDENT ENGINEER SHALL DETERMINE THE ADEQUACY OF THE LIGHTING AND DIRECT CHANGES IF THE LIGHTING IS INSUFFICIENT.
18. STOP BARS SHALL BE LOCATED A MINIMUM OF 12 m AND A MAXIMUM OF 38 m FROM THE NEAREST SIGNAL HEAD.
19. PAYMENT FOR THE VEHICLE DETECTORS SHALL BE FOR EACH UNIT INSTALLED.
20. SIGNS AND POSTS AS SHOWN ON THIS SHEET AND NOTED BELOW ARE INCIDENTAL TO THE "TRAFFIC CONTROL" ITEM. ("STOP HERE ON RED", "SIGNAL AHEAD", "NO PASSING ZONE", AND "TO GET GREEN LIGHT" ETC.) THE TEMPORARY STOP BARS SHOULD BE PAID UNDER THE TEMPORARY 600 mm STOP BAR ITEM.
21. SEE STD. E-140 FOR "STOP HERE ON RED" SIGN DETAIL AND E-101 FOR "SIGNAL AHEAD" SYMBOL SIGN. SEE STANDARD E-121 FOR SIGN PLACEMENT. SEE STANDARD E-171A AND E-172 FOR ADDITIONAL INFORMATION ON SIGNALS AND DETECTORS.
22. A "SIGNAL AHEAD" SIGN SHALL BE PLACED AT LEAST 225 m FROM THE SIGNAL OR AT A POSITION TO BE DETERMINED BY THE ENGINEER.
23. THE "NO PASSING" SIGN SHALL BE USED TO PREVENT PASSING FOR 225 m IN ADVANCE OF THE STOP BAR. THE SIGN SHALL BE PER STANDARD E-102.
24. ALL ELECTRICAL WORK SHALL MEET THE REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE AND STATE INSPECTOR.
25. TWO-WAY TRAFFIC SHALL BE MAINTAINED ON THE DETOUR WHENEVER POSSIBLE. DURING TWO-WAY TRAFFIC, THE SIGNALS SHALL BE SET ON FLASHING YELLOW.
26. APPROACH WIDTHS SHALL BE AS DETAILED IN SECTION 528.04(b)2 TO MINIMIZE VEHICLE DELAY.
27. TRAFFIC CONTROL WARNING SIGNS SHALL BE PROVIDED ON EACH APPROACH PER STANDARD E-107. ADDITIONAL PROJECT CONSTRUCTION SIGNS SHALL BE INSTALLED AS REQUIRED BY THE RESIDENT ENGINEER PER STANDARD E-100, E-101, E-102 & E-102A. PAYMENT FOR THESE SIGNS, THE REFLECTORIZED PLASTIC DRUMS, ETC. SHALL BE PAID AS A PART OF THE "TRAFFIC CONTROL" ITEM.
28. THE "TO GET GREEN LIGHT" SIGN IS TO BE USED ONLY ON APPROACHES WITH VEHICLE DETECTORS.
29. IF BRIDGE WORK REQUIRES LANE CLOSURE ON A ROADWAY UNDERNEATH THE BRIDGE, REFER TO STD. E-110 FOR TRAFFIC CONTROL DETAILS. PAYMENT INCIDENTAL TO "TRAFFIC CONTROL".
30. IN SITUATIONS WHERE EXISTING PASSING ZONES EXTEND THROUGH THE AREA BETWEEN THE STOP BAR AND THE "NO PASSING ZONE" SIGN, THEN TEMPORARY DOUBLE YELLOW LINES SHALL BE INSTALLED FROM THE STOP BAR TO THE "NO PASSING ZONE" SIGN. THESE MARKINGS SHALL BE PAID UNDER THE "TEMPORARY 100 mm YELLOW LINE" ITEM.
31. TEMPORARY TRAFFIC BARRIER SHOULD BE SUBSTITUTED FOR THE CHANNELIZING DEVICES SHOWN WHEN ANY OF THE FOLLOWING ARE MET:
A.) THE BRIDGE DECK IS REMOVED,
B.) THE BRIDGE RAIL IS REMOVED, OR
C.) IN THE JUDGEMENT OF THE RESIDENT ENGINEER TEMPORARY BARRIER IS NEEDED.
32. WHEN TEMPORARY BARRIER IS USED, BARRIER ENDS FACING ONCOMING TRAFFIC SHALL BE TAPERED BEYOND THE TAPER ZONE, OR PROTECTED WITH AN APPROVED END TREATMENT DESIGNED FOR THE 85th PERCENTILE SPEED OR THE POSTED SPEED LIMIT OF THE ROADWAY.
33. PAYMENT FOR TEMPORARY BARRIER USED SHALL BE MADE UNDER THE APPROPRIATE ITEM.



PLOTTED 1-13-2006



STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
CONSTRUCTION PHASING (1 OF 2) (N/A)			
Designed By	S.M. SAREAULT	Drawn By	B.J. MASSE
Checked By	M.A. COLGAN	Bridge Design Supervisor	M.A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.		Sheet 14 of 70	
Bridge Sheet No. 50543CP1		/str5/93C065/zc065CP1	



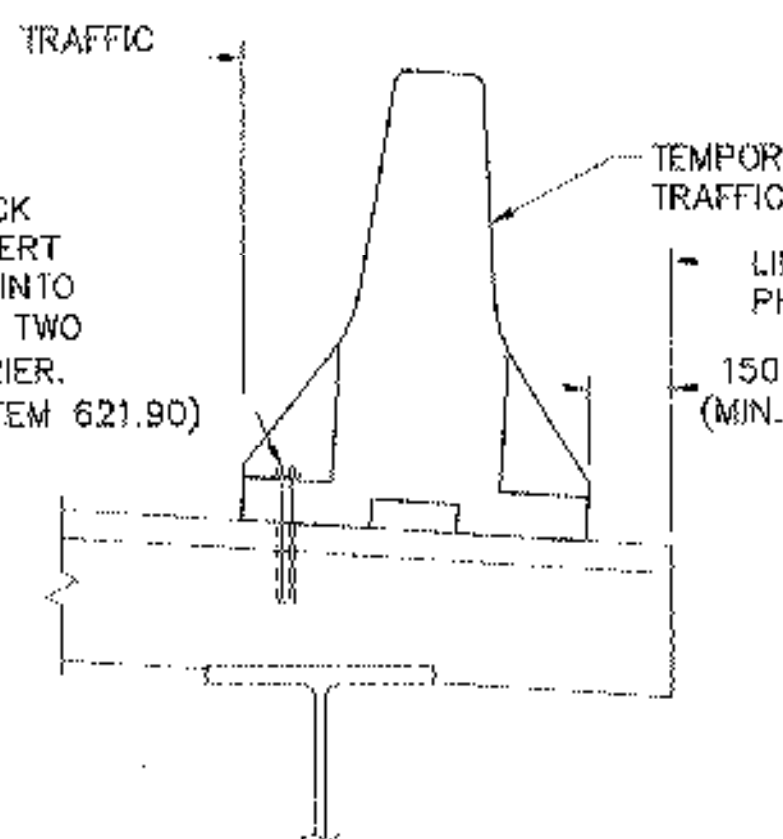
SUPERSTRUCTURE BRACING

(BRACING OF EXISTING SUPERSTRUCTURE SHOWN,
BRACING OF NEW SUPERSTRUCTURE SIMILAR)
N.T.S.

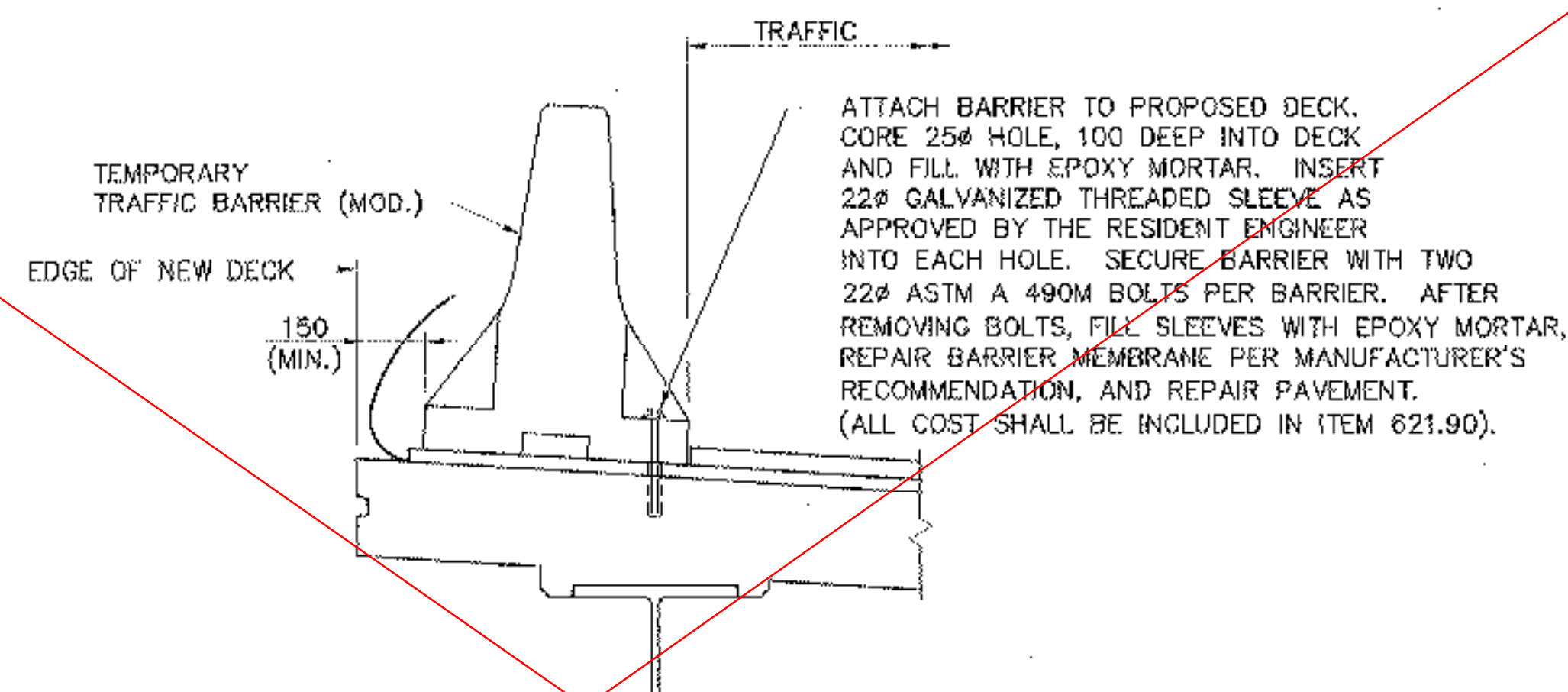
SUPERSTRUCTURE BRACING NOTES:

1. SUPERSTRUCTURE BRACING MAY BE REQUIRED AT THE LOCATIONS SHOWN DUE TO PHASED CONSTRUCTION REQUIREMENTS. THE SUPERSTRUCTURE BRACING SHOWN IS CONCEPTUAL AND SCHEMATIC ONLY AND IS NOT INTENDED TO INDICATE A REQUIRED OR PREFERRED METHOD OF CONSTRUCTION. SUPERSTRUCTURE BRACING DESIGN SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE APPROVED BY VAOT IN ACCORDANCE WITH THE SPECIFICATIONS SECTION 105.03.
2. ALL COSTS FOR THE DESIGN, INSTALLATION, MAINTENANCE, AND REMOVAL OF THE SUPERSTRUCTURE BRACING SHALL BE INCLUDED IN ITEM 502.10, SHORING SUPERSTRUCTURE.
3. SUPERSTRUCTURE BRACING SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES. THE MINIMUM DESIGN LIVE LOAD SHALL BE AASHTO MS18. THE BRACING SHALL ALSO BE DESIGNED TO PROVIDE ADEQUATE SUPPORT FOR THE PORTABLE CONCRETE BARRIER WHEN THE BARRIER IS SUBJECTED TO THE AASHTO DESIGN RAIL LOAD IN ACCORDANCE WITH AASHTO SECTION 3.14.3.
4. ATTACHMENT OF THE SUPERSTRUCTURE BRACING TO THE EXISTING AND NEW SUPERSTRUCTURES SHALL BE APPROVED BY THE ENGINEER. WELDING TO THE EXISTING OR NEW STEEL WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE STRUCTURES ENGINEER.

ATTACH BARRIER TO EXISTING DECK.
CORE 25# HOLE, 100 DEEP INTO DECK
AND FILL WITH EPOXY MORTAR. INSERT
22# GALVANIZED THREADED SLEEVE INTO
EACH HOLE. SECURE BARRIER WITH TWO
22# ASTM A 490M BOLTS PER BARRIER.
(ALL COST SHALL BE INCLUDED IN ITEM 621.90)



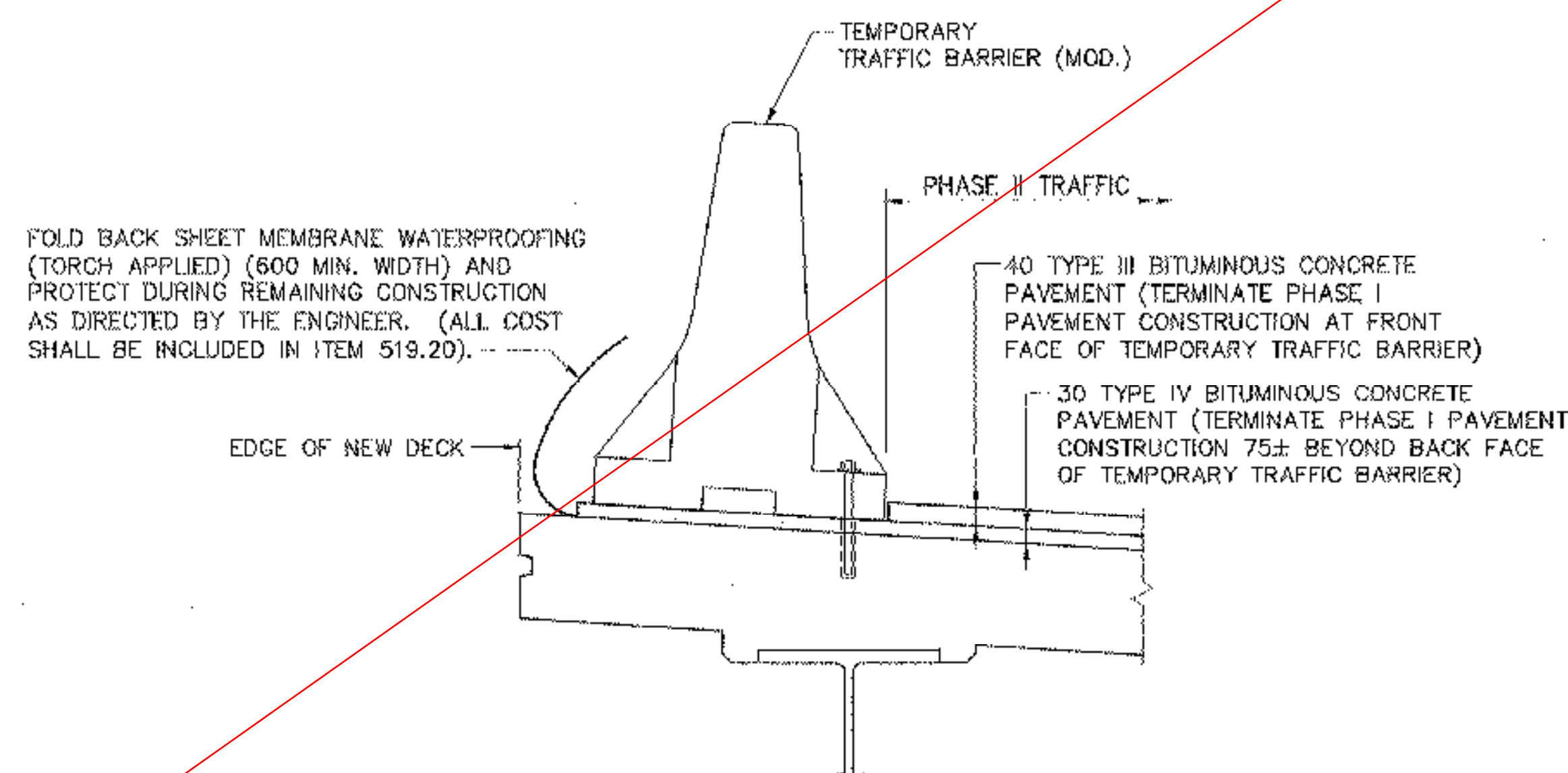
EXISTING DECK DETAIL



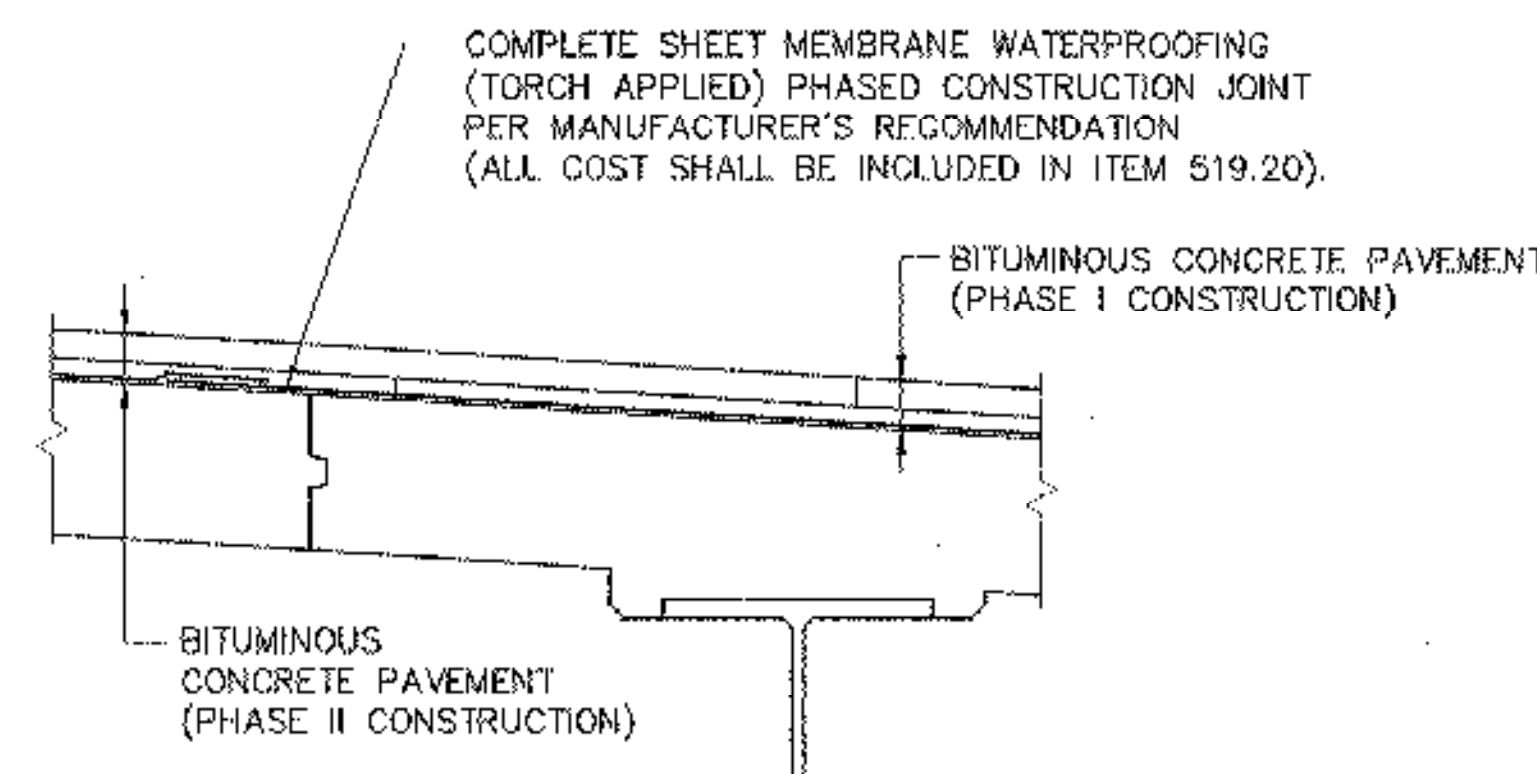
PROPOSED DECK DETAIL

TEMPORARY TRAFFIC BARRIER ANCHORAGE DETAILS

N.T.S.



PHASE I



PHASE II

PHASED CONSTRUCTION JOINT DETAILS

N.T.S.

BRIDGE CONSTRUCTION PHASING NOTES:

GENERAL

1. TRAFFIC WILL BE MAINTAINED DURING CONSTRUCTION UTILIZING A SINGLE TRAFFIC LANE WITH ALTERNATING EASTBOUND AND WESTBOUND TRAFFIC CONTROLLED BY A TEMPORARY TRAFFIC SIGNAL.
2. ALL CONSTRUCTION SHALL BE COMPLETED USING THE TRAFFIC CONTROL PLAN AND APPROVED TRAFFIC CONTROL PROCEDURES.
3. THE EXISTING AND NEW SUPERSTRUCTURE MAY REQUIRE BRACING.
4. TEMPORARY EXCAVATION SUPPORT MAY BE REQUIRED TO SUPPORT THE ROADWAY EMBANKMENTS AND MAINTAIN TRAFFIC DURING PHASED CONSTRUCTION. ALL COSTS SHALL BE PAID AS ITEM 505.36, TEMPORARY STEEL SHEET PILING. SEE STANDARD SPECIFICATIONS SECTION 505.03 FOR SUBMITTAL REQUIREMENTS.

PHASE I CONSTRUCTION

1. MAINTAIN ONE 3590 TRAVEL LANE FOR ALTERNATING EASTBOUND AND WESTBOUND TRAFFIC.
2. INSTALL TRAFFIC CONTROL FOR PHASE I CONSTRUCTION AND INSTALL TEMPORARY SUPERSTRUCTURE BRACING AND TEMPORARY EXCAVATION SUPPORT AS REQUIRED.
3. ROUTE TRAFFIC ONTO THE PHASE I DETOUR.
4. REMOVE PORTIONS OF THE EXISTING BRIDGE AS REQUIRED FOR PHASE I CONSTRUCTION OF THE NEW BRIDGE.
5. CONSTRUCT PHASE I PORTION OF THE NEW SUBSTRUCTURE, SUPERSTRUCTURE, AND APPROACH SLABS.
6. INSTALL TEMPORARY SUPERSTRUCTURE BRACING AND TEMPORARY EXCAVATION SUPPORT FOR PHASE II CONSTRUCTION.

PHASE II CONSTRUCTION

1. MAINTAIN ONE 3590 TRAVEL LANE FOR ALTERNATING EASTBOUND AND WESTBOUND TRAFFIC.
2. INSTALL TRAFFIC CONTROL FOR PHASE II CONSTRUCTION AND ROUTE TRAFFIC ONTO THE PHASE II DETOUR.
3. REMOVE PORTIONS OF THE EXISTING BRIDGE AS REQUIRED FOR PHASE II CONSTRUCTION.
4. CONSTRUCT PHASE II PORTION OF THE NEW SUBSTRUCTURE, SUPERSTRUCTURE, AND APPROACH SLABS.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of FAYSTON Bridge No. 38
Highway No. VT 17 Log Sta.
Surv. Sta.

VT 17 OVER MILL BROOK

CONSTRUCTION PHASING (2 OF 2) (N/A)

Designed By S.M. SAREAULT Drawn By B.J. MASSE
Checked By M.A. COLGAN Date 1/06 Bridge Design Supervisor
M.A. COLGAN Date 1/06

PROJECT FAYSTON PROJECT NO. BHF 0200(9)

I.G.C. Info.
Bridge Sheet No. 50543CP2 Sheet 15 of 70

CON-TEC, INC. TEST BORING LOG (ENGLISH UNITS)

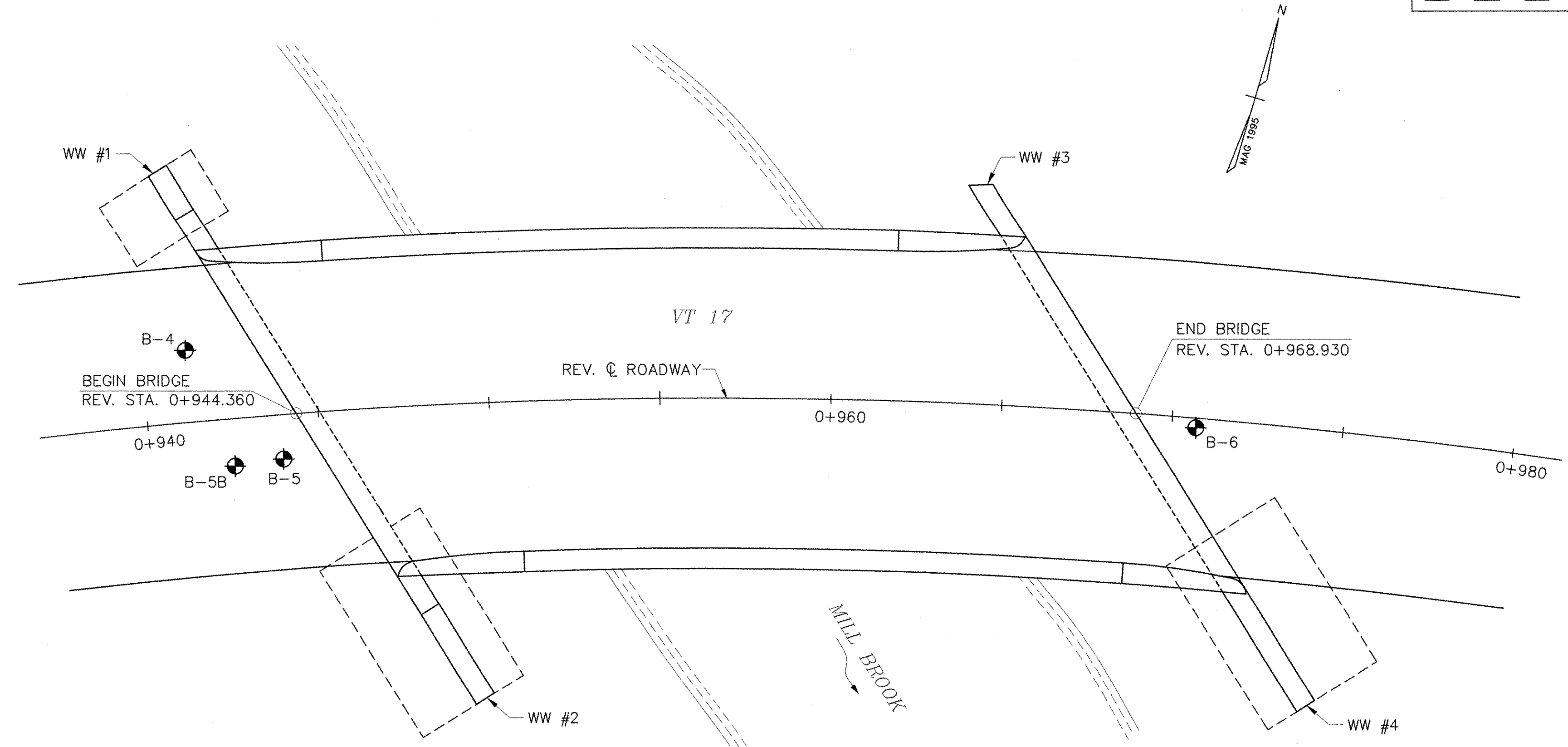
PROJECT: BRIDGE NO. 36
LOCATION: RT. 17, FAYSTON, VERMONT

JOB NO. 9811
HOLE NO. B-4
SHEET 1 of 1
START DATE 2/17/98
FINISH DATE 3/30/98
DRILLER R. Bourassa
HELPER A. Carter
INSPECTOR

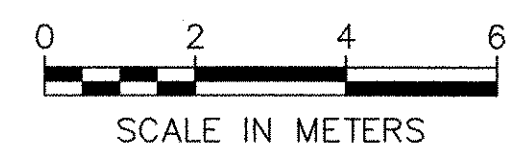
TYPE		CASINO		SAMPLE		CORE	
HW	NW	SS	NX				
4"	3"	1 3/8"	2"				
HAMMER WT.		140		30"			
HAMMER FALL							
DEPTH IN FEET	CASINO DEPTH IN FEET	SAMP. NO.	SAMPLE DEPTH IN FEET	SAMPLE BLOW PER FEET	PROV. BLOW		

SOIL DESCRIPTION	
4"	0.5'
5.0'	1 5'-7' 18-16 14-15 9"
10.0'	2 10'-12' 12-19 14-11 16"
15.0'	3 15'-16.5' 21-33 49-50/0 18"
20.0'	4 20'-20.5' 110 6"
25.0'	25' 50/0 0"
30.0'	
35.0'	
40.0'	

ASPHALT SAND, GRAVEL & COBBLES
Light brown, dry, medium dense f/m/c SAND & f/m/c GRAVEL, trace sil
Light brown, dry, dense f/m/c SAND & f/m/c GRAVEL, trace sil
Gray-brown, wet, very dense f/m/c SAND & embedded c/m/f GRAVEL, little silt occasional cobbles
Gray-brown, wet, very dense f/m/c SAND & embedded c/m/f GRAVEL, little silt occasional cobbles
COBBLES & C/GRAVEL
Weathered BEDROCK
NX RUN - 1 29.0' - 34.0'
REC 5.0' - 100%
RQD 1.2' - 24%
Gray, biotite quartz GNEISS
NX RUN - 2 34.0' - 39.0'
REC 4.2' - 84%
RQD 2.5' - 50%
Gray, biotite quartz GNEISS
BOTTOM OF BORING 39.0'
Note: 1. Coring time in rock averaged 6 Min/LF; no water loss
2. Typed Driller's Field Log



BORING PLAN
SCALE: 1:100



BORING NOTES

- SOIL AND ROCK CLASSIFICATIONS, PROPERTIES, AND DESCRIPTIONS ARE BASED ON ENGINEERING INTERPRETATION FROM AVAILABLE SUBSURFACE INFORMATION 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 BY LAMSON ENGINEERING CORP. FOR DESIGN AND ESTIMATING PURPOSES. PRESENTATION OF THE INFORMATION IN THE CONTRACT IS INTENDED TO PROVIDE THE CONTRACTOR ACCESS TO THE SAME DATA. 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 SOIL PROFILES 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.

BORING CHART

BORING HOLE #	STATION	OFFSET (M)	BEDROCK ELEV.
B-4	0+941.3	2.1 LT.	257.2
B-5	0+942.9	1.3 RT.	N/A
B-5B	0+943.5	1.4 RT.	255.4
B-6	0+970.7	0.3 RT.	259.3

THE SUBSURFACE EXPLORATIONS SHOWN HEREIN ARE IN ENGLISH UNITS AS RECORDED BY CON-TEC INC. BORING PLAN AND CHART INFORMATION IS SHOWN IN METRIC UNITS.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
VT 17 OVER MILL BROOK	
BORING LOGS & INFORMATION (1 OF 2)	
Designed By S.M. GUNN	Drawn By B.J. MASSE
Checked By M.A. COLGAN	Bridge Design Supervisor M.A. COLGAN
Date 1/06	Date 1/06
PROJECT FAYSTON	PROJECT NO. BHF 0200(9)
I.G.C. Info.	
Bridge Sheet No. 50543BOR	Sheet 16 of 70

CON-TEC, INC. TEST BORING LOG (ENGLISH UNITS)											
PROJECT: BRIDGE NO. 36						JOB NO. 9811					
LOCATION: RT. 17, FAYSTON, VERMONT						HOLE NO. B-5					
						SHEET 1 of 1					
START DATE 2/17/98						FINISH DATE 2/17/98					
DRILLER R. Bourassa						HELPER P. Angelone					
INSPECTOR											
DEPTH IN FEET	CASING BLOW PER FOOT	SAMP. NO.	SAMPLE DEPTH	SAMPLE BLOWS PER 6 INCHES	RECOV.	SOIL DESCRIPTION					
5.0'						ASPHALT 0.5'					
						Frozen m/f SAND & m/f GRAVEL 2.0'					
10.0'	1	5' - 7'	26 - 16	14 - 14	20"	Brown, dry, medium dense f/m/c SAND & f/m/c GRAVEL, occasional cobble					
15.0'	2	10' - 12'	28 - 19	12 - 12	16"	Brown, moist, dense f/m/c SAND, some f/m/c gravel, trace sil					
20.0'	3	15' - 17'	54 - 48	69 - 78	11"	Brown, wet, very dense c/m/f GRAVEL, COBBLES, some f/m/c sand, little si (Possible Weathered Rock) 17.0'					
						NXRUN - 1 17.0' - 19.5'					
						REC 1.2' - 40%					
						COBBLES 19.5'					
25.0'						NXRUN - 2 19.5' - 21.8'					
						REC 1.1' - 48%					
						COBBLES 21.8'					
						NXRUN - 3 21.8' - 24.0'					
						REC 1.7' - 77%					
						COBBLES & GRAVEL 24.0'					
30.0'						NXRUN - 4 24.0' - 27.0'					
						REC 1.0' - 33%					
						RQD 0.9' - 30%					
						QUARTZ BIOTITE SCHIST 27.0'					
						BOTTOM OF BORING 27.0'					
Note: 1. Left 2' of core in hole Run #4 2. Possible bedrock @ 24' 3. Typed Driller's Field Log											

EL. 265.62 (METRIC)

WINGWALL NO. 2 BOTTOM OF FOOTING
EL. 259.45 (METRIC)

CON-TEC, INC. TEST BORING LOG (ENGLISH UNITS)											
PROJECT: BRIDGE NO. 36						JOB NO. 9811					
LOCATION: RT. 17, FAYSTON, VERMONT						HOLE NO. B-5B					
						SHEET 1 of 1					
START DATE 4/3/98						FINISH DATE 4/3/98					
DRILLER R. Bourassa						HELPER A. Carter					
INSPECTOR											
DEPTH IN FEET	CASING BLOW PER FOOT	SAMP. NO.	SAMPLE DEPTH	SAMPLE BLOWS PER 6 INCHES	RECOV.	SOIL DESCRIPTION					
10.0'						4" CASING					
20.0'						3" SPIN					
30.0'						30.0'					
35.0'						TOP OF ROCK 33.5'					
						NX RUN - 1 34.0' - 39.0'					
						REC 4.2' - 84%					
						RQD 1.5' - 30%					
						MICA SHIST, occasional quartz veins 39.0'					
40.0'						NX RUN - 2 39.0' - 44.0'					
						REC 4.8' - 96%					
						RQD 3.8' - 76%					
						MICA SHIST, occasional quartz veins 44.0'					
45.0'						BOTTOM OF BORING 44.0'					
Note: 1. Coring time in rock averaged 5 Min/LF; no water loss 2. B-5A drilled to 20' and lost bottom 5' section of 3" spin casing in hole 3. Typed Driller's Field Log											

EL. 265.65 (METRIC)

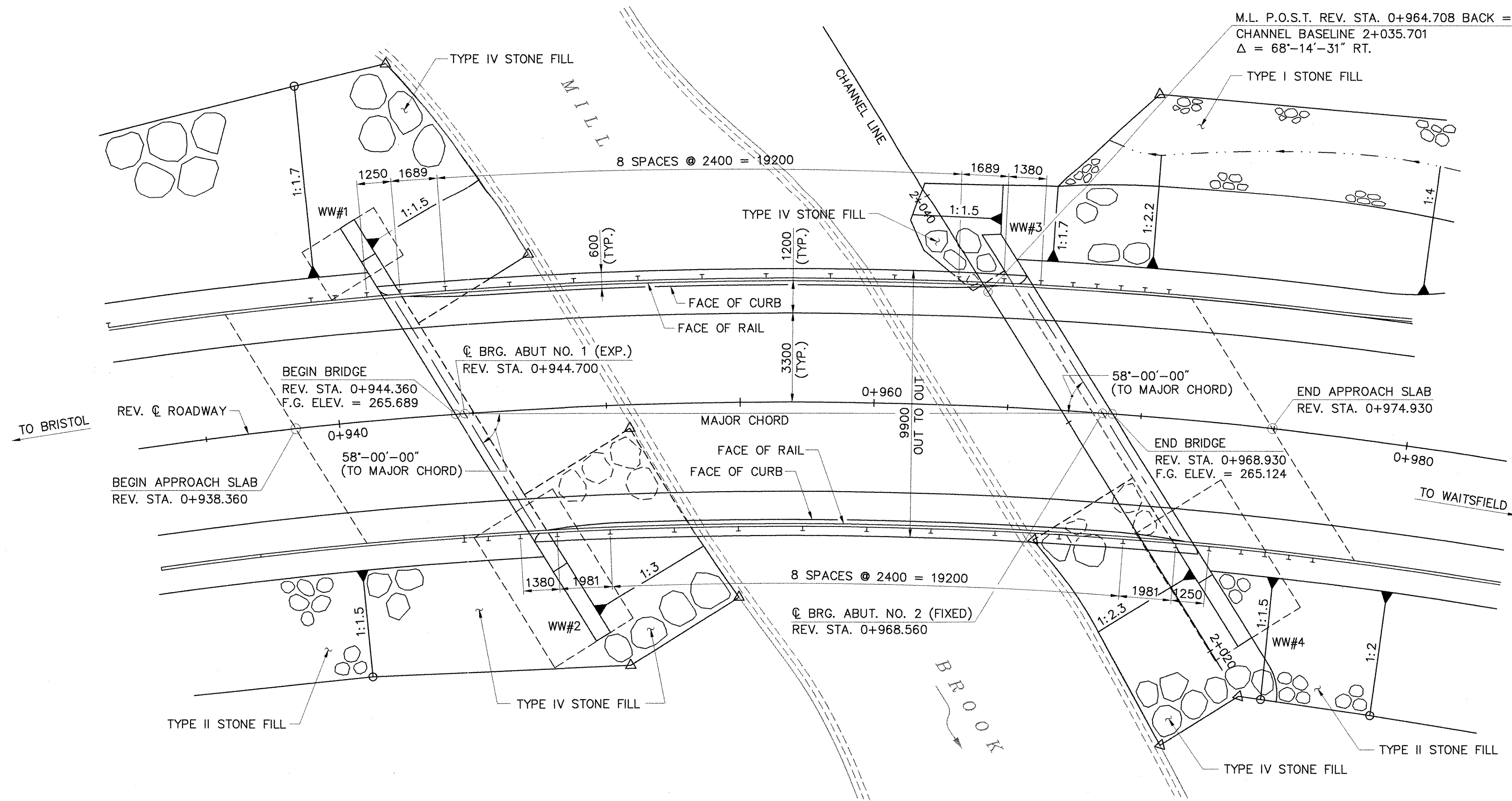
WINGWALL NO. 4 BOTTOM OF FOOTING
EL. 259.41 (METRIC)

CON-TEC, INC. TEST BORING LOG (ENGLISH UNITS)											
PROJECT: BRIDGE NO. 36						JOB NO. 9811					
LOCATION: RT. 17, FAYSTON, VERMONT						HOLE NO. B-6					
						SHEET 1 of 1					
START DATE 2/11/98						FINISH DATE 2/11/98					
DRILLER R. Bourassa						HELPER P. Angelone					
INSPECTOR											
DEPTH IN FEET	CASING BLOW PER FOOT	SAMP. NO.	SAMPLE DEPTH	SAMPLE BLOWS PER 6 INCHES	RECOV.	SOIL DESCRIPTION					
5.0'			1'	100/0		ASPHALT 0.2'					
						Frozen SAND & GRAVEL 2.0'					
10.0'	1	5' - 5.8'	11 - 100/3	8"		Gray, stiff to hard CLAY, trace embedded f/g gravel & COBBLES (FILL)					
15.0'	2	10' - 12'	6 - 8	9 - 6	3"	Brown, moist, medium dense SILT, little embedded f/m/c sand, little embedder f/gravel, trace c/gravel Note: Stone stuck in spoon nose.					
20.0'	3	14' - 16'	12 - 14	19 - 18	7"	Brown, wet, dense c/m/f GRAVEL & f/m/c SAND, some silt, occasional cobble					
25.0'						TOP OF ROCK 19.0'					
						Drilled into bedrock with 4" roller bit					
30.0'						NXRUN - 1 24.0' - 28.5'					
						REC 4.5' - 100%					
						RQD 0.4' - 8%					
						QUARTZ BIOTITE SCHIST 28.5'					
						NXRUN - 2 28.5' - 34.0'					
						REC 5.5' - 100%					
						RQD 2.9' - 53%					
						QUARTZ BIOTITE SCHIST 34.0'					
						BOTTOM OF BORING 34.0'					
Note: 1. Coring time in rock averaged 6 Min/LF, no water loss 2. Typed Driller's Field Log											

EL. 265.07 (METRIC)

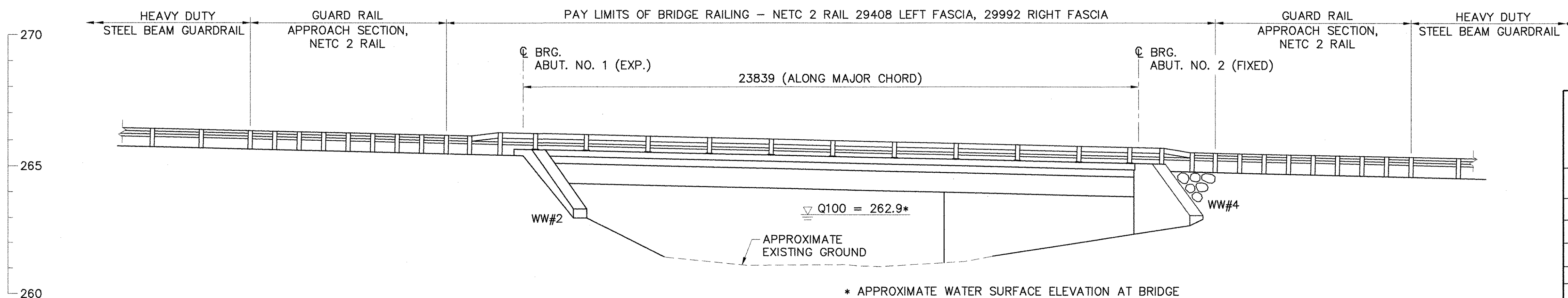
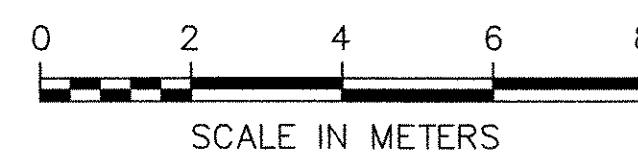
THE SUBSURFACE EXPLORATIONS SHOWN HEREIN ARE
IN ENGLISH UNITS AS RECORDED BY CON-TEC INC.

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
Surv. Sta.	
VT 17 OVER MILL BROOK	
BORING LOGS & INFORMATION (2 OF 2)	
Designed By S.M. GUNN	Drawn By B.J. MASSE
Checked By M.A. COLGAN Date 1/06	Bridge Design Supervisor M.A. COLGAN Date 1/06
PROJECT FAYSTON	PROJECT NO. BHF 0200(9)
I.G.C. Info.	
Bridge Sheet No. 50543BOR	Sheet 17 of 70



PLAN

SCALE: 1:100



ELEVATION

SCALE: 1:100

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	

VT 17 OVER MILL BROOK

PLAN AND ELEVATION

Designed By	S.M. GUNN	Drawn By	B.J. MASSE
Checked By	M.A. COLGAN	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN Date 1/06

PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
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I.G.C. Info.	Bridge Sheet No. 50543ELV	Sheet	18 of 70
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VHB Vanasse Hangen Brustlin, Inc.

/str5/93C065/zc065PE

PLOTTED 1-13-2006

GENERAL NOTES:

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE STATE OF VERMONT AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, DATED 2002.
- DESIGN CRITERIA:
DESIGN LIVE LOAD FOR EXISTING STRUCTURE: M13.5 (H15-44)
DESIGN LIVE LOAD FOR NEW SUPERSTRUCTURE: MS22.5
SEISMIC PERFORMANCE CATEGORY: A
- THE FOLLOWING MATERIAL CRITERIA, DESIGNATIONS AND UNIT WEIGHTS APPLY TO THESE PLANS FOR DESIGN PURPOSES:
CONCRETE: HIGH PERFORMANCE CLASS "A" $f'_c = 30 \text{ MPa}$
HIGH PERFORMANCE CLASS "B" $f'_c = 25 \text{ MPa}$
STRUCTURAL STEEL: AASHTO M 270M GRADE 345W
REINFORCING STEEL: AASHTO M 31M GRADE 420
UNIT WEIGHT OF SOIL: 2243 kg/m³
ALLOWABLE SOIL BEARING PRESSURE AT ABUTMENT NO. 1 = 650 kPa
ALLOWABLE BEDROCK BEARING PRESSURE AT ABUTMENT NO. 2 = 950 kPa
- DIMENSIONS, ANGLES, BEARINGS, AND ELEVATIONS OF THE EXISTING BRIDGE SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND LIMITED FIELD INVESTIGATION AND MAY NOT ACCURATELY REFLECT ACTUAL FIELD CONDITIONS. THE CONTRACTOR WILL BE RESPONSIBLE FOR MAKING FIELD MEASUREMENTS OF ALL EXISTING STRUCTURE COMPONENTS IMPACTED BY THE NEW WORK TO ASSURE CONSISTENCY WITH THE PROPOSED MODIFICATIONS. ANY DISCREPANCIES IN DIMENSIONS, CHARACTER, OR EXTENT OF THE EXISTING FEATURES SHALL BE BROUGHT TO THE ATTENTION OF THE RESIDENT ENGINEER BEFORE ADVANCING THE WORK.
- WORKING DRAWINGS REQUIRED FOR VARIOUS ITEMS OF WORK SHALL INDICATE THE ACTUAL FIELD MEASUREMENTS AND SHALL BE SO NOTED.
- DIMENSIONS OF THE EXISTING BRIDGE HAVE BEEN CONVERTED TO METRIC UNITS IN ACCORDANCE WITH THE VERMONT AGENCY OF TRANSPORTATION'S METRIC POLICY AND ROUNDED TO THE NEAREST MILLIMETER.
- ABUTMENT NUMBERING DIFFERS FROM ORIGINAL PLANS.
- PLANS OF THE EXISTING BRIDGE ARE AVAILABLE FOR REVIEW DURING THE BIDDING PERIOD AT THE CONTRACT ADMINISTRATION OFFICE OF THE AGENCY OF TRANSPORTATION.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES CELSIUS, UNLESS NOTED OTHERWISE.
- SEE SHEET 27 FOR REMOVAL AND REPAIR NOTES.
- SEE SHEET 9 FOR COFFERDAM NOTES.
- THE SURVEY LINE DOES NOT NECESSARILY COINCIDE WITH THE EXISTING VT 17 CENTERLINE.

CONSTRUCTION NOTES:

- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION, POLLUTION, AND DISCHARGE OF RAW CONCRETE INTO MILL BROOK AS DIRECTED BY THE RESIDENT ENGINEER.
- ANY CONSTRUCTION WITHIN THE STREAM BANKS SHALL BE CONDUCTED DURING THE PERIOD DESIGNATED IN THE PERMITS. THE AGENCY OF NATURAL RESOURCES MUST APPROVE ANY DEVIATION FROM THIS PERIOD IN WRITING.
- ~~TRAFFIC WILL BE MAINTAINED DURING CONSTRUCTION BY UTILIZING A SINGLE TRAFFIC LANE WITH ALTERNATING EASTBOUND AND WESTBOUND TRAFFIC CONTROLLED BY A TEMPORARY TRAFFIC SIGNAL. PHASED CONSTRUCTION OF THE BRIDGE WILL BE REQUIRED. ALL WORK REQUIRED TO MAINTAIN TRAFFIC DURING CONSTRUCTION SHALL BE PAID AS ITEM 641.10 TRAFFIC CONTROL, UNLESS OTHERWISE NOTED.~~
- ~~TEMPORARY TRAFFIC SIGNAL SHALL BE PAID AS ITEM 678.40, TEMPORARY TRAFFIC SIGNAL SYSTEM.~~
- ITEM 505.36, TEMPORARY STEEL SHEET PILING IS INCLUDED AS TEMPORARY EXCAVATION SUPPORT AND TO SAFELY SEPARATE THE WORK AREA FROM TRAFFIC.
- ~~ITEM 621.90, TEMPORARY TRAFFIC BARRIER (MOD.), SHALL BE PAID ONLY ONCE.~~
- ITEM 204.25, STRUCTURE EXCAVATION SHALL BE USED TO EXCAVATE TO THE LIMITS SHOWN ON THE PLANS. SEE EARTHWORK TYPICALS ON SHEET 9.
- THE BRIDGE PLAQUE SHALL BE FURNISHED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AS SHOWN ON THE PLANS. ALL COSTS SHALL BE INCLUDED IN ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B.
- THE CONTRACTOR SHALL ERECT, MAINTAIN, REMOVE, AND/OR RESET AS REQUIRED ALL ON-PROJECT SIGNS AND BARRICADES. THE COST OF ALL CONSTRUCTION SIGNS AND BARRICADES SHALL BE INCLUDED IN ITEM 641.10 TRAFFIC CONTROL.
- ANY EXISTING SIGNS NOT REUSED SHALL REMAIN THE PROPERTY OF THE STATE. THESE SIGNS SHALL BE REMOVED BY THE CONTRACTOR AND STOCKPILED AS DIRECTED BY THE RESIDENT ENGINEER FOR REMOVAL BY THE STATE AND SHALL BE PAID AS ITEM 675.50, REMOVING SIGNS.
- GRUBBING MATERIAL SHALL NOT BE PLACED ON THE STONE FILL IN THE AREA UNDER THE BRIDGE.
- THE DESIGN OF THE FLEMING BRACKET OR SIMILAR FALSEWORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL BE SPACED AT A MAXIMUM OF 1200 MILLIMETERS.

REINFORCING STEEL NOTES:

- REINFORCING STEEL IN THE DECK, CURTAIN WALLS, APPROACH SLABS, AND BRUSH CURBS SHALL BE EPOXY COATED AND PAID AS ITEM 507.17, EPOXY COATED REINFORCING STEEL. REINFORCING STEEL MECHANICAL CONNECTORS SHALL BE EPOXY COATED AND PAID AS ITEM 507.19, MECHANICAL BAR CONNECTOR. ALL OTHER REINFORCING STEEL SHALL BE PAID AS ITEM 507.15, REINFORCING STEEL.
- DRILLING AND GROUTING DOWELS SHALL BE PAID AS ITEM 507.16, DRILLING AND GROUTING DOWELS. ALL DRILLED HOLES SHALL HAVE A MINIMUM OF 150 MILLIMETERS CLEAR COVER.
- MINIMUM CLEAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:
ALONG BACK FACES OF WALLS AGAINST EARTH: FIFTY (50) MILLIMETERS
ALONG TOP SURFACE OF DECK SLAB: SIXTY-FIVE (65) MILLIMETERS
ALONG BOTTOM SURFACE OF DECK SLAB: FORTY (40) MILLIMETERS
ELSEWHERE UNLESS OTHERWISE INDICATED: EIGHTY (80) MILLIMETERS
- REINFORCING STEEL PLACEMENT TOLERANCES SHALL BE:
SPACING: ± 25 MILLIMETERS
CLEARANCE: ± 5 MILLIMETERS

STRUCTURAL STEEL NOTES:

- ALL NEW STRUCTURAL STEEL SHALL BE AASHTO M 270M, GRADE 345W UNLESS OTHERWISE NOTED.
- ITEM 506.50, STRUCTURAL STEEL (ROLLED BEAM), SHALL INCLUDE ROLLED BEAMS, CONNECTION PLATES, DIAPHRAGMS, AND ALL REQUIRED FASTENERS.
- ALL BOLTED FIELD CONNECTIONS SHALL BE MADE WITH 22 MILLIMETER DIAMETER HIGH STRENGTH BOLTS IN 24 MILLIMETER DIAMETER HOLES UNLESS OTHERWISE NOTED.
- CONNECTIONS NOT DESIGNATED SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE RESIDENT ENGINEER FOR APPROVAL.
- SHEAR CONNECTORS SHALL BE FIELD WELDED USING AUTOMATICALLY TIMED STUD WELDING EQUIPMENT AND SHALL BE PAID AS ITEM 508.15, SHEAR CONNECTORS.
- AFTER THE SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE BEAM SHALL BE TAKEN BY THE CONTRACTOR, AS DIRECTED BY THE RESIDENT ENGINEER, FOR USE IN DETERMINING THE FINAL GRADE AND HAUNCH DEPTHS.
- ANY HOLES IN FASCIA BEAM WEBS NOT OTHERWISE FILLED SHALL BE FITTED WITH BUTTON HEAD OR HEX HEAD BOLTS CONFORMING TO AASHTO M 164M, TYPE 3.
- THE ENDS OF BEAMS SHALL BE VERTICAL UNDER FULL DEAD LOAD DEFLECTION.

BEARING NOTES:

- PREFORMED FABRIC PAD DESIGN CRITERIA:
MAXIMUM ALLOWABLE BEARING PRESSURE ON CONCRETE = 6.9 MPa
MINIMUM ALLOWABLE DESIGN ROTATION = 0.015 RADIANS.
HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 6% VERTICAL LOAD
DESIGN LOAD PER BEARING: 476 kN
- BEARINGS SHALL BE PAID AS ITEM 531.10, BEARING DEVICE ASSEMBLY (FABRIC).
- ALL STEEL IN BEARING DEVICES (EXCEPT STAINLESS) SHALL BE AASHTO M 270M, GRADE 250.
- ANCHOR BOLTS SHALL BE DRILLED AND SET WITH A MINIMUM OF 400 MILLIMETERS EMBEDMENT INTO CONCRETE. HOLES SHALL BE SEVENTY (70) MILLIMETERS IN DIAMETER AND BOLTS SHALL BE SET IN TYPE IV MORTAR. ALL COST SHALL BE INCLUDED UNDER ITEM 531.10, BEARING DEVICE ASSEMBLY (FABRIC).
- ANCHOR BOLTS SHALL BE SWEDGED WITH 125 MILLIMETERS OF THREAD. EXPANSION BEARING NUTS ARE TO BE DRAWN UP FINGER TIGHT AND THEN BACKED OFF FIVE (5) MILLIMETERS. THREADS SHALL BE BURRED ABOVE NUT TO PREVENT NUT REMOVAL.
- THE CONTRACTOR SHALL TAKE ELEVATIONS OF EACH ABUTMENT NO. 2 BEARING SEAT AND ORDER SHIM PLATES OF SUFFICIENT THICKNESS TO EQUAL THE DIFFERENCE BETWEEN THE EXISTING BEARING SEAT ELEVATION AND THE NEW BOTTOM OF PREFORMED FABRIC PAD ELEVATION. THE BOTTOM OF PREFORMED FABRIC PAD ELEVATIONS ARE AS SHOWN ON SHEET 25. ALL COSTS SHALL BE INCLUDED IN ITEM 531.10, BEARING DEVICE ASSEMBLY (FABRIC). SHIM PLATE DETAILS SHALL BE SUBMITTED FOR REVIEW WITH THE BEARING FABRICATION DRAWINGS.
- ADJUSTMENT OF THE EXISTING ABUTMENT NO. 2 BEARING SEATS MAY BE REQUIRED TO PROVIDE A LEVEL SURFACE FOR THE NEW BEARINGS. ADJUSTMENT TO THE BEARING SEATS SHALL BE AS DIRECTED BY THE RESIDENT ENGINEER AND ALL COSTS SHALL BE INCLUDED IN ITEM 531.10, BEARING DEVICE ASSEMBLY (FABRIC).
- AN OUTLET (V-GROOVE) SHALL BE PROVIDED FOR ANY BEARING RECESSED INTO THE BRIDGE SEAT TO PREVENT WATER FROM PONDING NEAR THE BEARING. OUTLETS SHALL BE AS DIRECTED BY THE RESIDENT ENGINEER AND ALL COSTS SHALL BE INCLUDED IN ITEM 531.10, BEARING DEVICE ASSEMBLY (FABRIC).

CONCRETE NOTES:

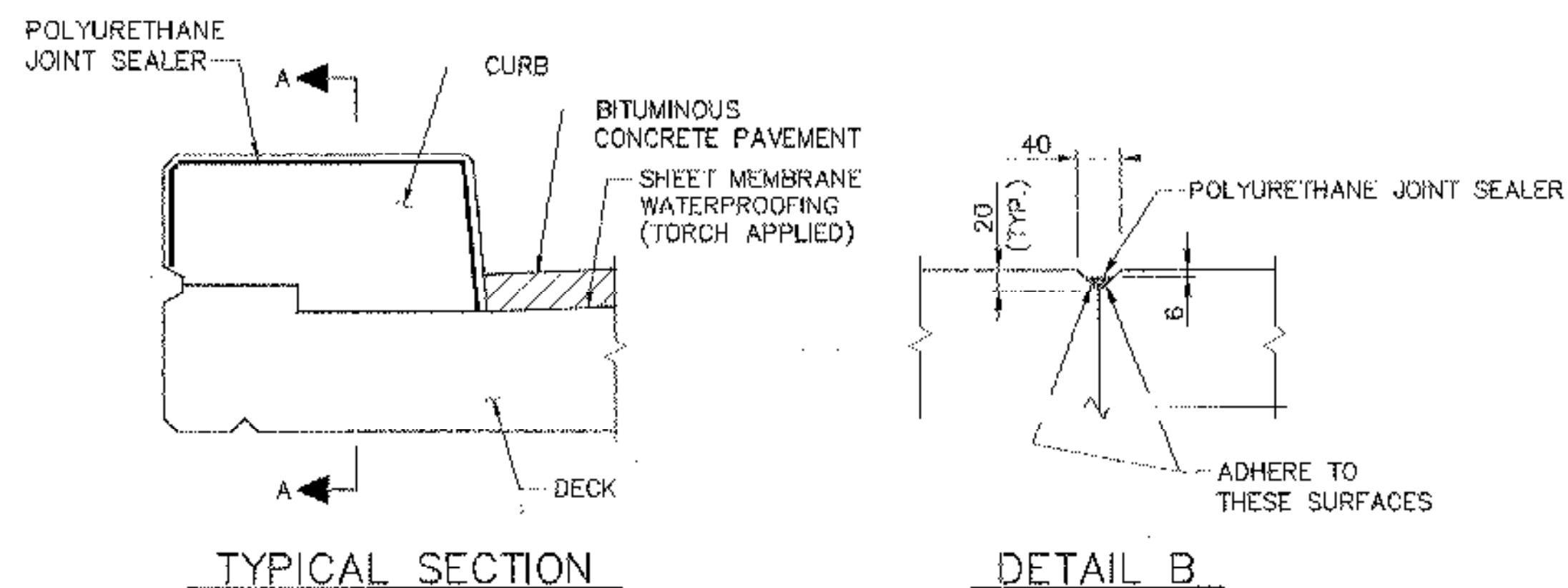
- CONCRETE PAYMENT AND CLASSIFICATION SHALL BE AS FOLLOWS:
ITEM 501.33, CONCRETE, HIGH PERFORMANCE CLASS A: DECK, CURBS, AND CURTAIN WALL
ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B: ALL OTHER COMPONENTS
- ITEM 514.10, WATER REPELLENT, SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BRIDGE SUPERSTRUCTURE EXCEPT THE BOTTOM OF THE DECK BETWEEN THE DRIP NOTCHES. WATER REPELLENT SHALL ALSO BE APPLIED TO THE EXPOSED CONCRETE ON THE NEW AND EXISTING SUBSTRUCTURES.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 MILLIMETERS BY 25 MILLIMETERS, UNLESS OTHERWISE NOTED. A 15 MILLIMETER RADIUS SHALL BE USED ON THE TOP INSIDE CORNER OF CURBS.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE RESIDENT ENGINEER.
- SURFACES OF THE ABUTMENT SEATS UNDER THE BEARING DEVICE SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 6 MILLIMETERS PER 300 MILLIMETERS.
- THE KEY ON CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT UNLESS OTHERWISE INDICATED. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
- FOR EACH CONSTRUCTION PHASE, THE CONCRETE DECK SHALL BE PLACED CONTINUOUSLY WITHIN ONE EIGHT HOUR WORKING DAY. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A TRANSVERSE CONSTRUCTION JOINT SHALL BE USED AS SHOWN ON SHEET 20. THERE SHALL BE A MINIMUM DELAY PERIOD OF 96 HOURS BETWEEN POURS.

FOUNDATION NOTES:

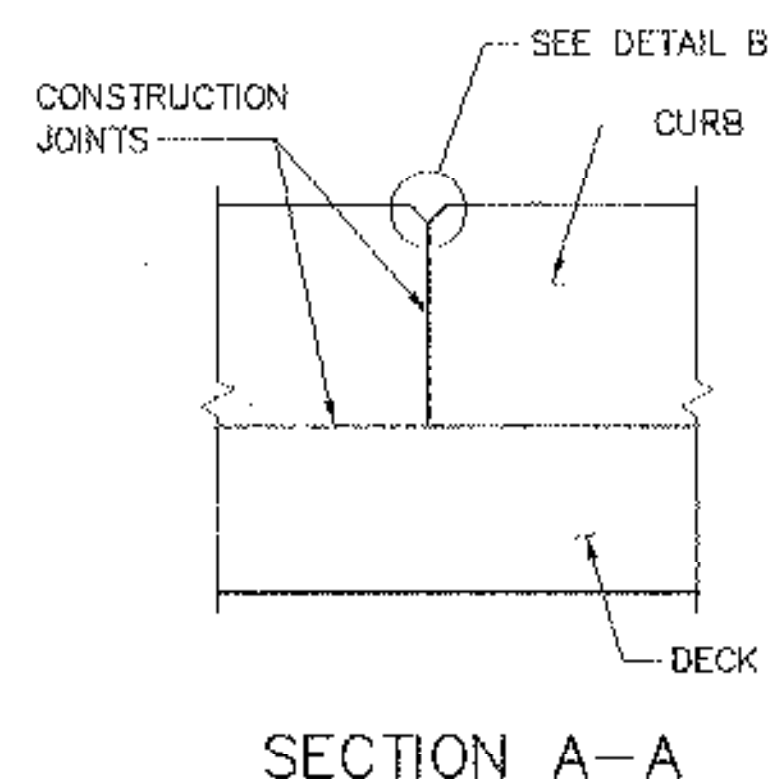
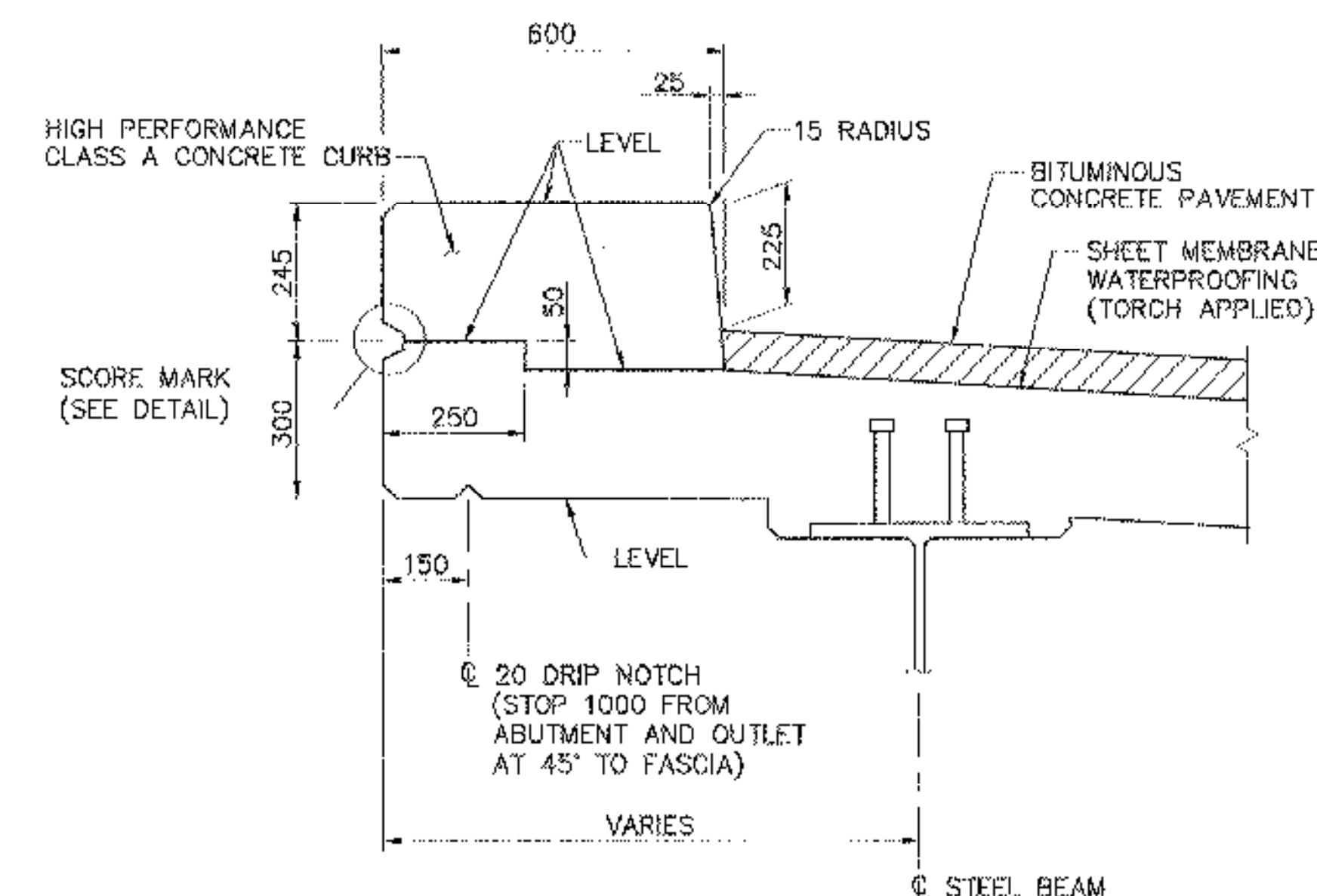
- WINGWALLS #1 AND #2 ARE ON SPREAD FOOTINGS DESIGNED TO BEAR ON SOIL.
- WINGWALL #4 IS ON A SPREAD FOOTING DESIGNED TO BEAR ON BEDROCK. THE PROPOSED BOTTOM OF FOOTING ELEVATION WAS SET EQUAL TO THE EXISTING BOTTOM OF FOOTING ELEVATION. THIS INFORMATION WAS TAKEN FROM AS-BUILT PLANS OF THE EXISTING BRIDGE. IF BEDROCK IS FOUND TO BE LOWER THAN THE PROPOSED BOTTOM OF FOOTING ELEVATION, UP TO 600 MILLIMETERS SHALL BE REPLACED WITH A CONCRETE, HIGH PERFORMANCE CLASS B SUB-FOOTING AND PAID AS ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B. IF A SUB-FOOTING IS REQUIRED, A 150x200 CONTINUOUS SHEAR KEY SHALL BE FORMED BETWEEN THE SPREAD FOOTING AND THE SUB-FOOTING. IF BEDROCK IS ENCOUNTERED MORE THAN 600 MILLIMETERS ABOVE OR BELOW THE BOTTOM OF FOOTING ELEVATION, THE STRUCTURES ENGINEER SHALL BE CONTACTED. NO FURTHER WORK SHALL BE DONE ON THE WINGWALL UNLESS DIRECTED BY THE RESIDENT ENGINEER.
- FOR WINGWALLS ON SOIL, UNDERCUT FOOTING 300 MILLIMETERS OR AS DIRECTED BY THE ENGINEER. FOR WINGWALLS ON BEDROCK, OVERBREAKAGE BELOW THE BOTTOM OF FOOTING ELEVATION SHALL BE REPLACED WITH CONCRETE, HIGH PERFORMANCE CLASS B. A MAXIMUM OF 150 MILLIMETERS SHALL BE PAID AS ITEM 501.34, CONCRETE, HIGH PERFORMANCE CLASS B. ANY ADDITIONAL OVERBREAKAGE SHALL ALSO BE REPLACED WITH CONCRETE, HIGH PERFORMANCE CLASS B AT THE CONTRACTOR'S EXPENSE.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
CONSTRUCTION NOTES			
Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	M.A. COLGAN	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No. 50543NOT		Sheet 19 of 70	



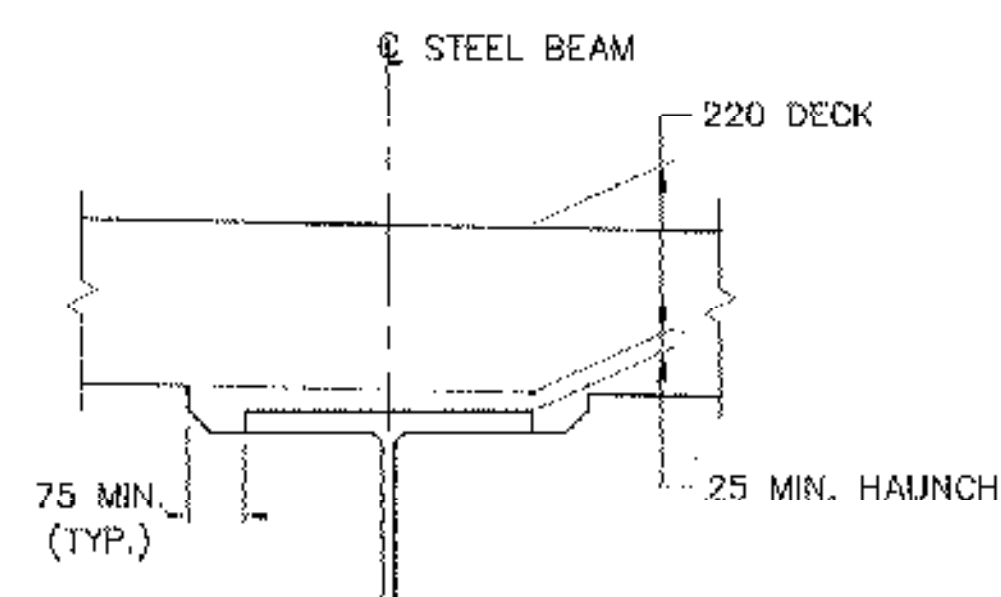
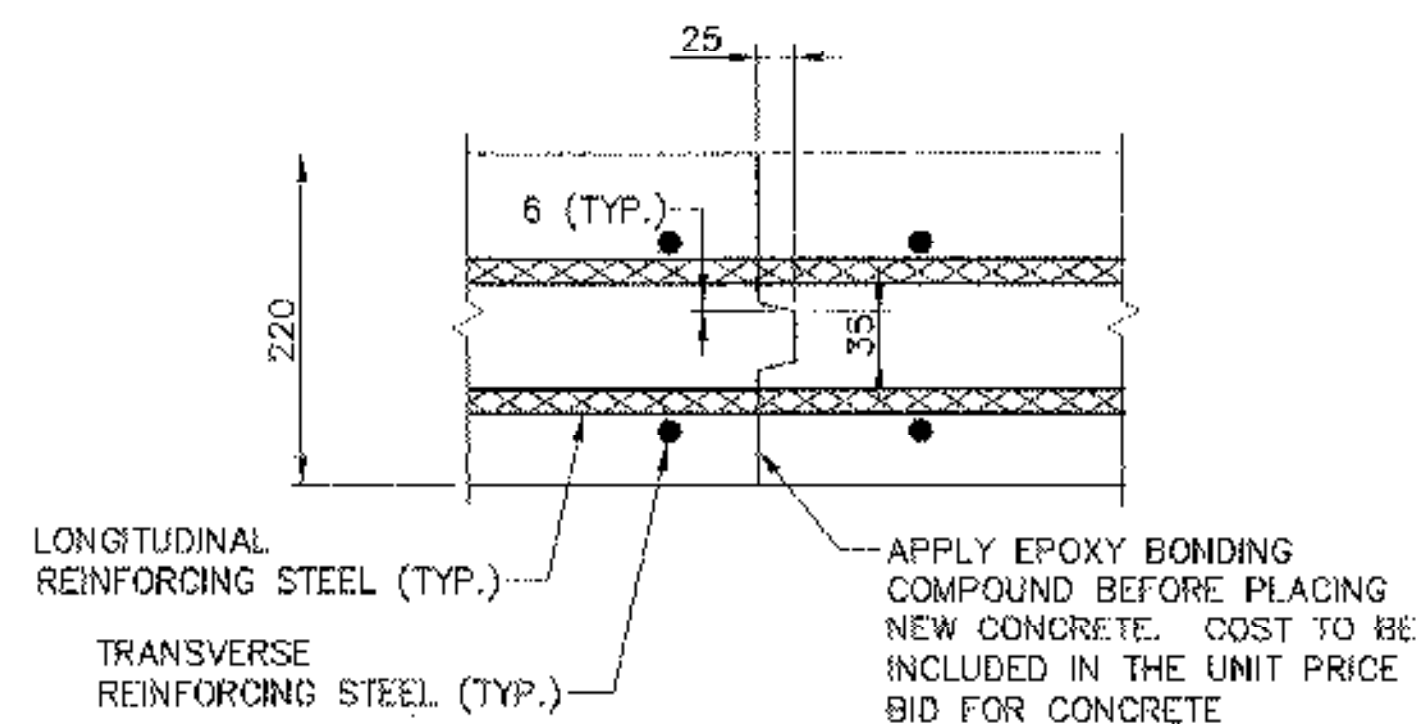
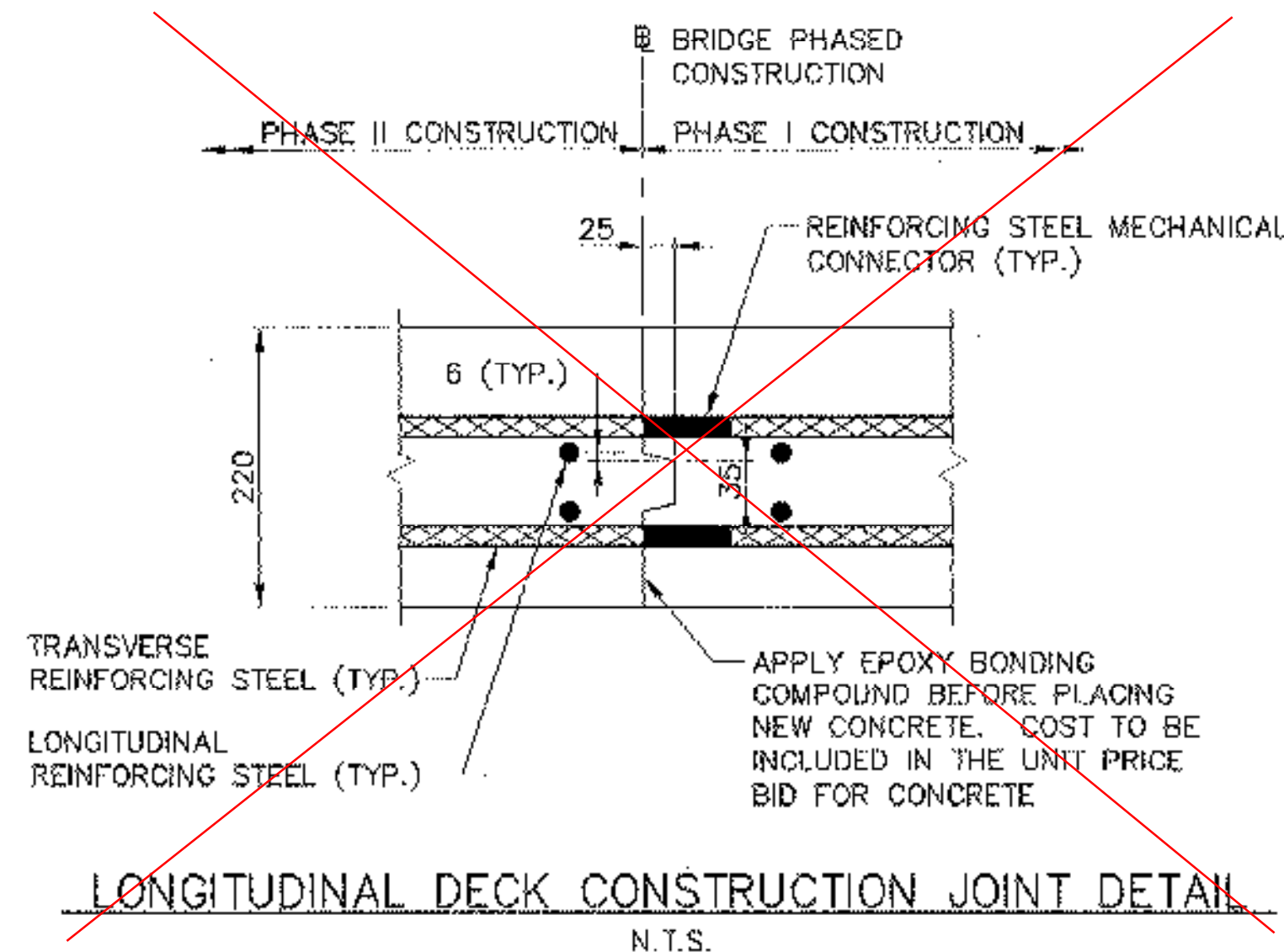
SCORE MARK DETAIL
N.T.S.



CURB CONSTRUCTION JOINT NOTES:

1. CONCRETE CURB CONSTRUCTION JOINTS SHALL BE SPACED A MAXIMUM OF 4500 mm CENTER TO CENTER AND SHALL BE 550 mm MINIMUM FROM THE CENTER OF THE NEAREST BRIDGE RAIL POST. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS BETWEEN ADJACENT POURS.
2. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURB CONSTRUCTION JOINTS UNLESS OTHERWISE SHOWN.
3. POLYURETHANE JOINT SEALER, PER SUBSECTION 524.06(g), SHALL MATCH THE CONCRETE COLOR. COST TO BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE.

CONCRETE CURB CONSTRUCTION JOINT
N.T.S.



**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

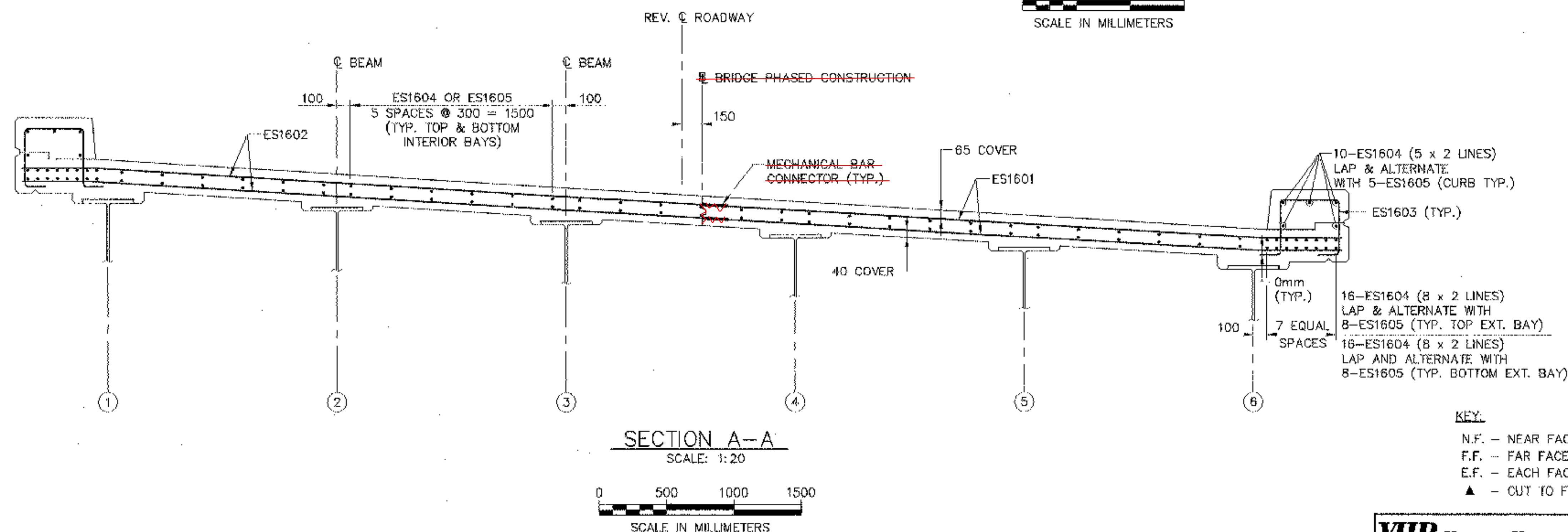
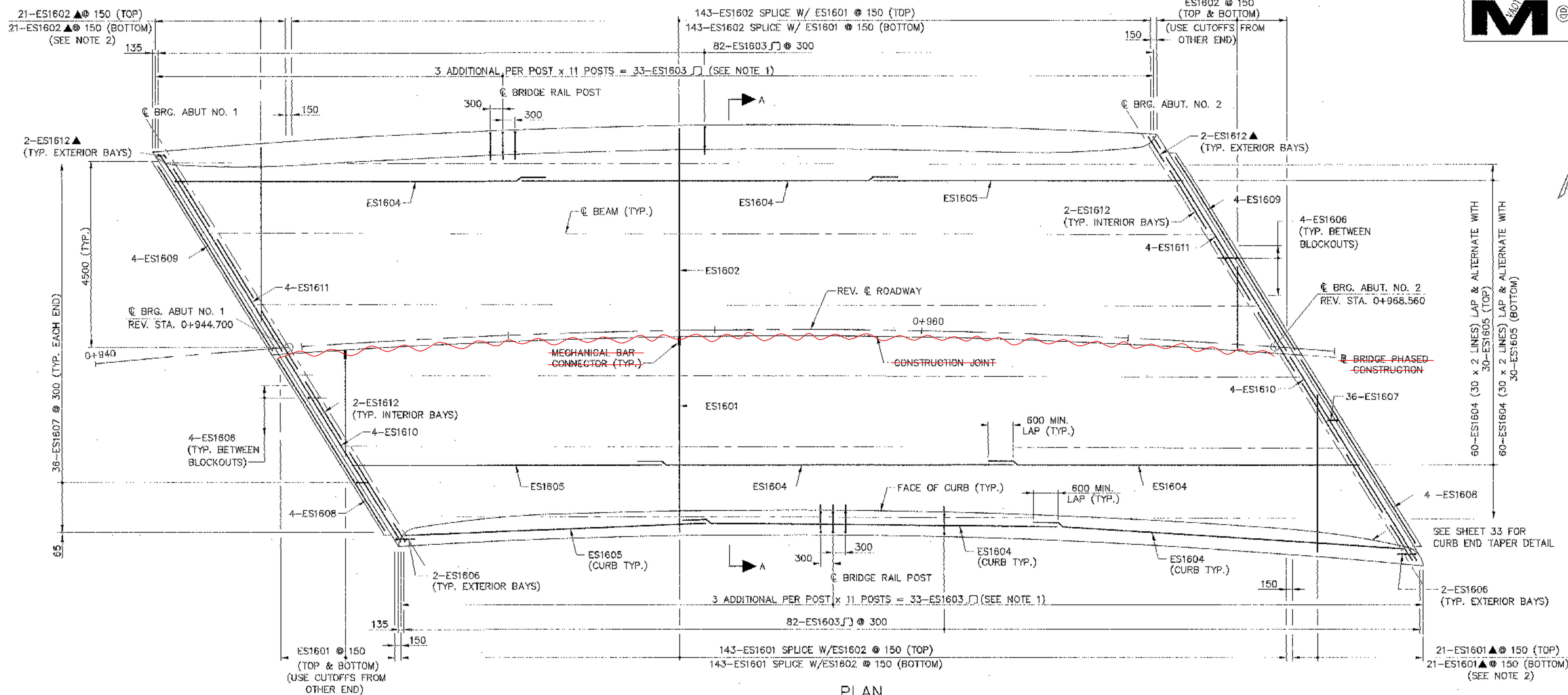
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	

VT 17 OVER MILL BROOK

DECK DETAILS

Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	Date	Bridge Design Supervisor	
M.A. COLGAN	1/06	M.A. COLGAN	Date 1/06
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)

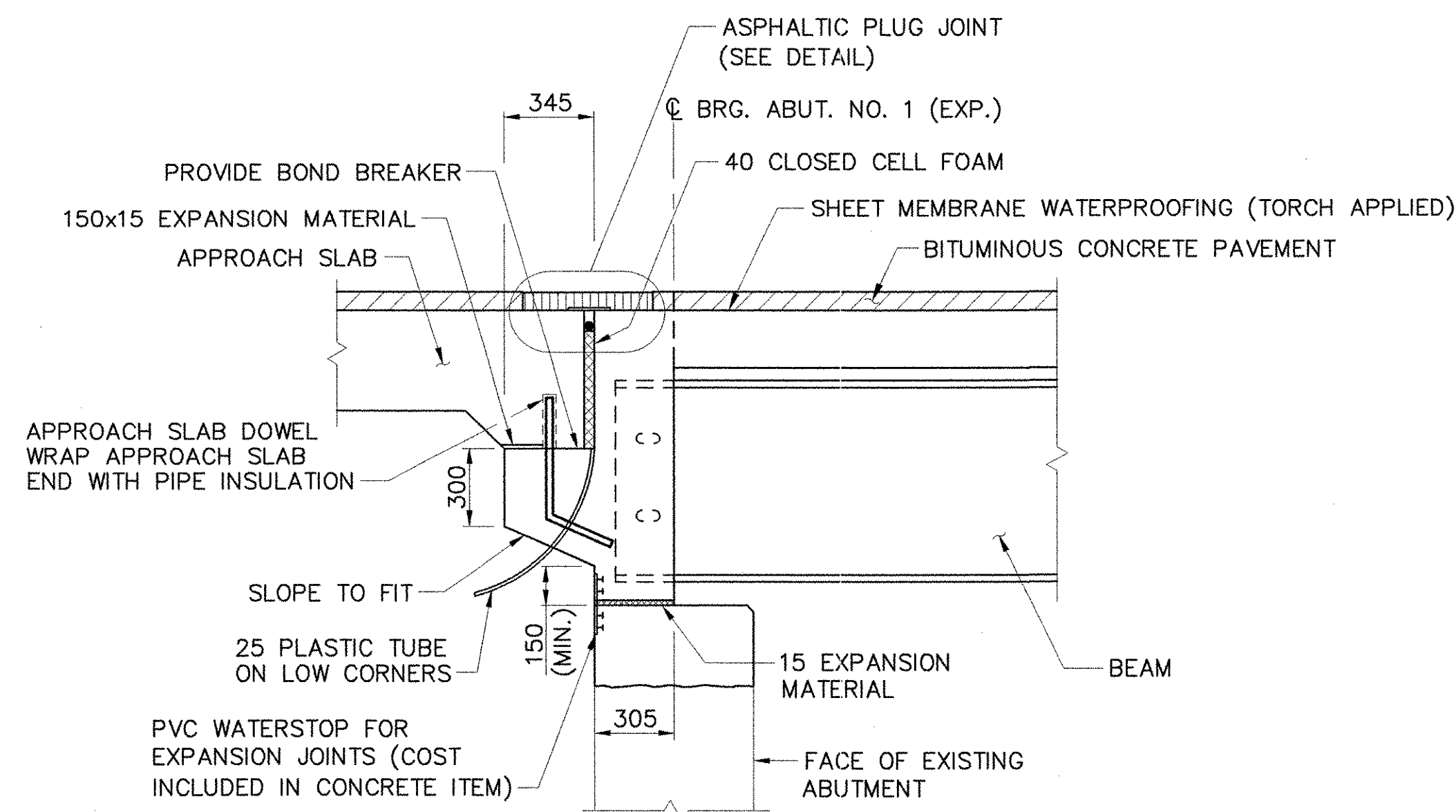
I.G.C. Info.	
Bridge Sheet No.	30543TS
Sheet	20 of 70



NOTES:

- SEE SHEET 32 FOR REINFORCING STEEL DETAIL AT BRIDGE RAIL POSTS.
- USE CUTOFFS FROM THIS END FOR THE OTHER END OF BRIDGE.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Lag Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
DECK REINFORCEMENT			
Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	Date	Bridge Design Supervisor	
	S.M. SAREAULT 1/06	M.A. COLGAN	Date 1/06
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
L.G.C. Info.			
Bridge Sheet No.	50543DCK	Sheet	21 of 70

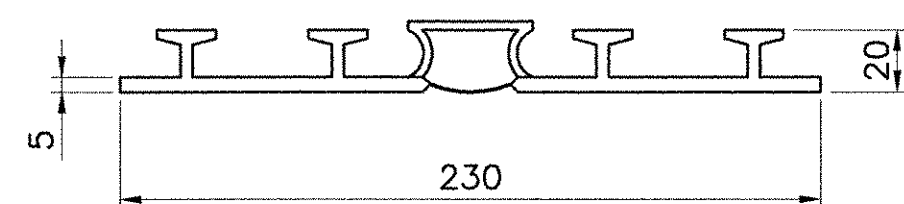
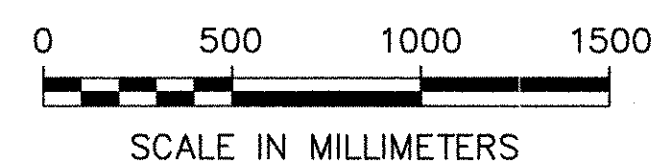


CURTAIN WALL DETAIL

(PERPENDICULAR TO CENTERLINE BEARING)

(ABUTMENT NO. 1 SHOWN, ABUTMENT NO. 2 SIMILAR EXCEPT FOR WATERSTOP - SEE DETAILS BELOW)

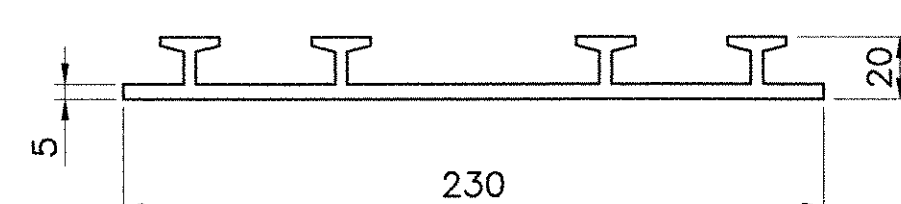
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P.V.C. WATERSTOP FOR EXPANSION JOINTS

(ABUTMENT NO. 1) (EXPANSION)

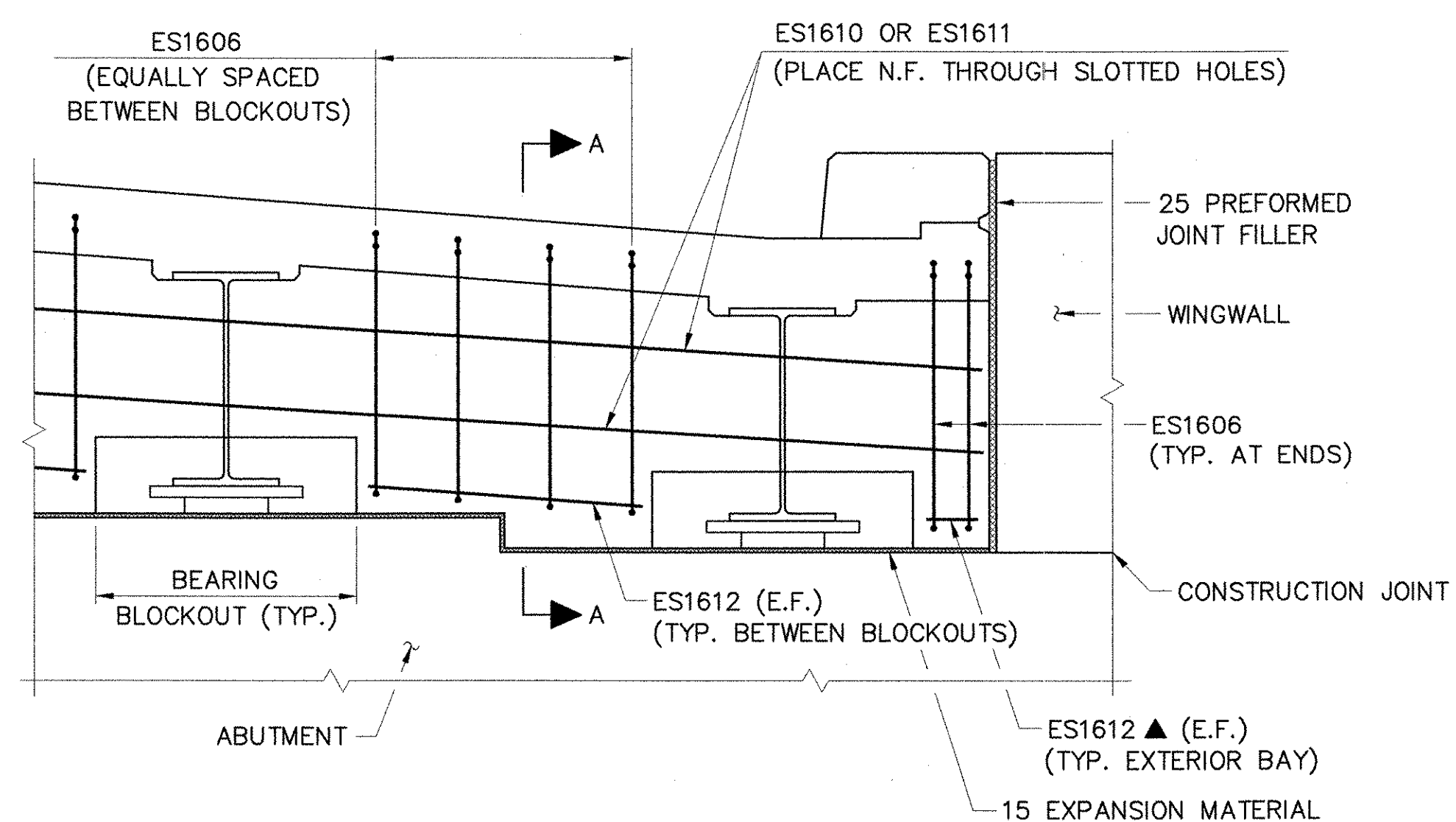
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P.V.C. WATERSTOP

(ABUTMENT NO. 2) (FIXED)

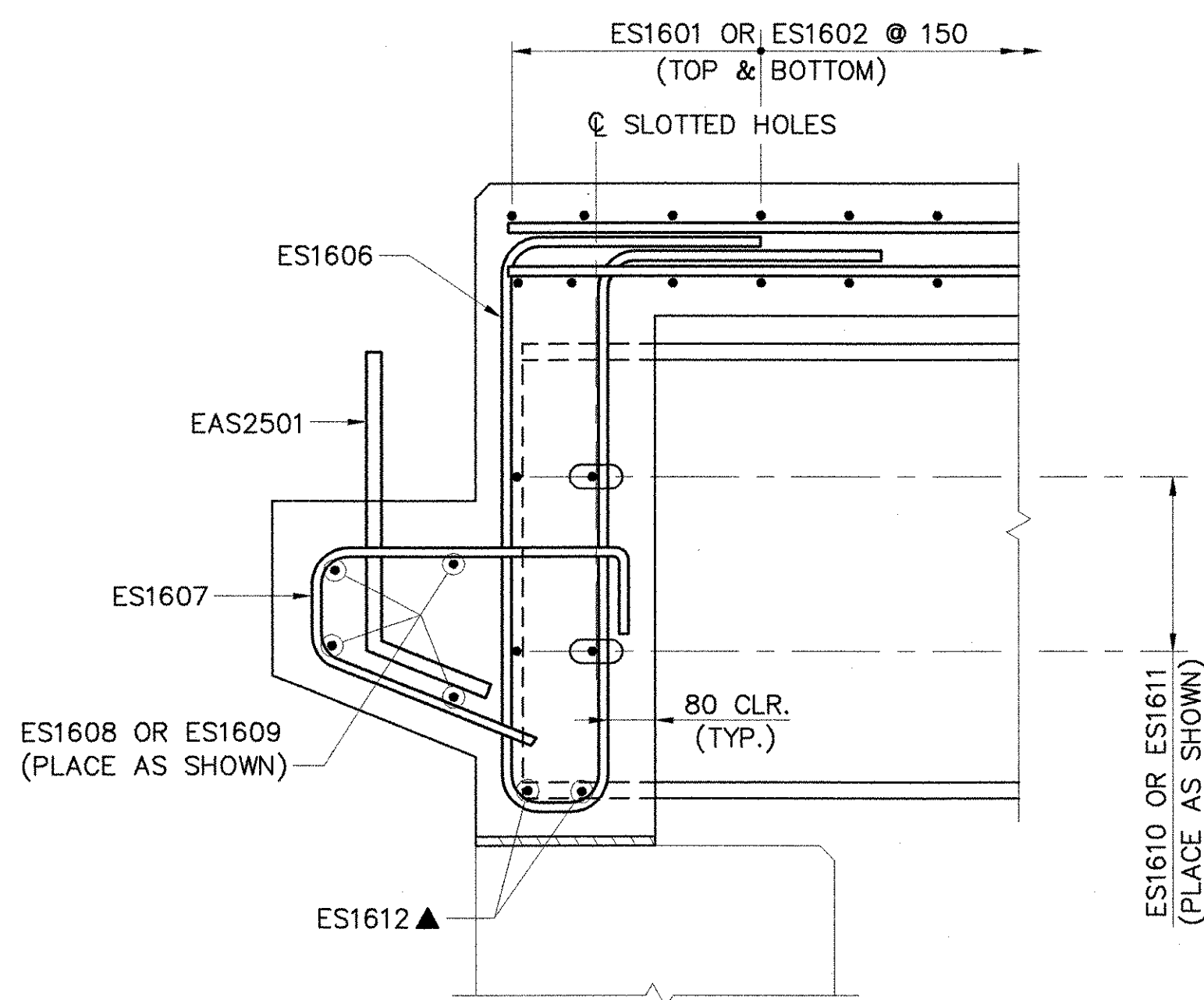
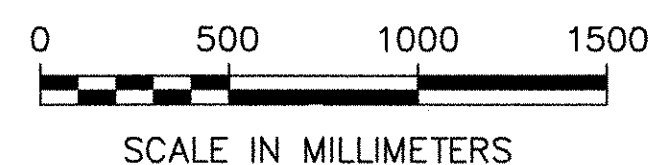
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ELEVATION

(PERPENDICULAR TO CENTERLINE BEAMS)

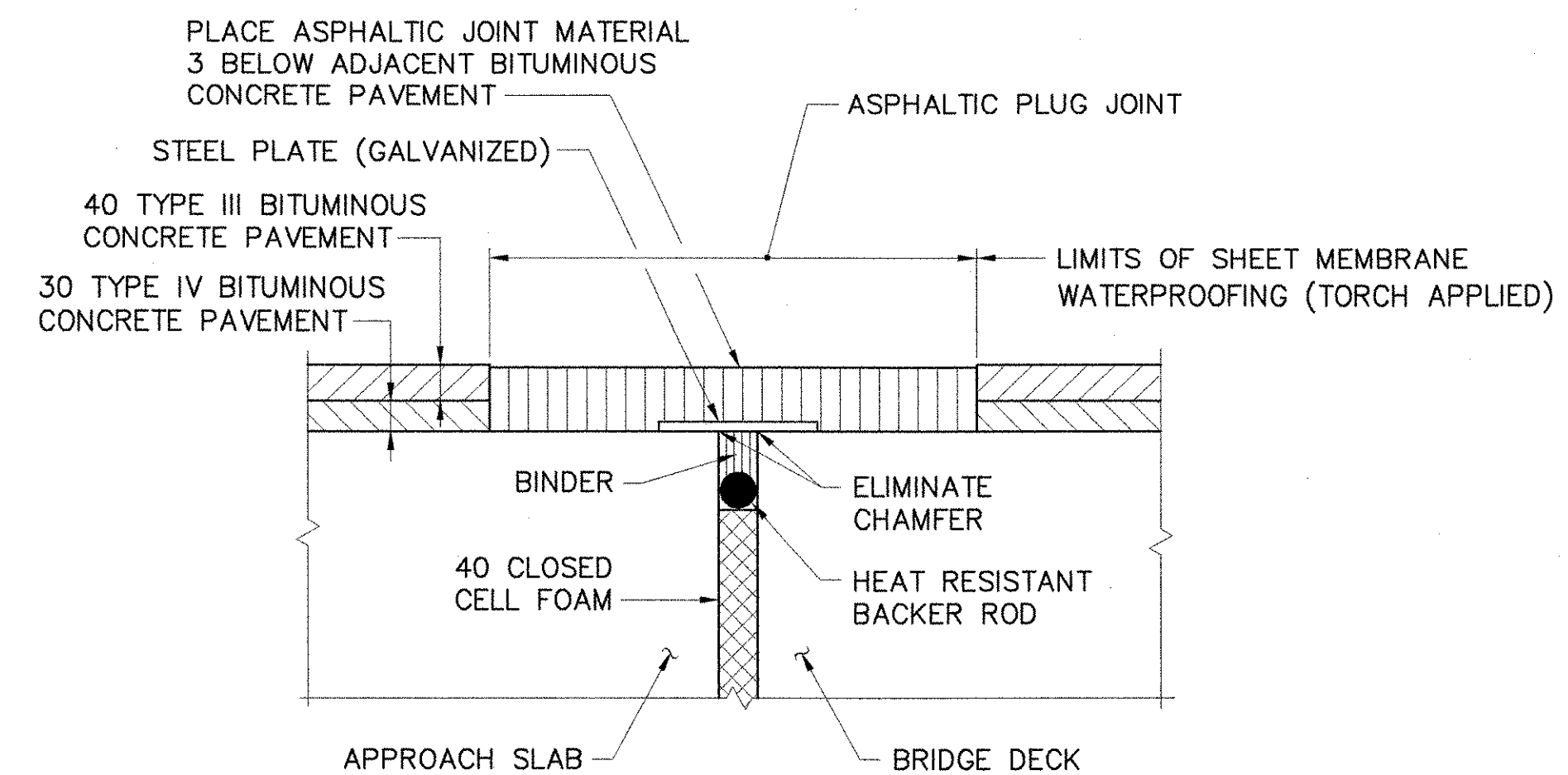
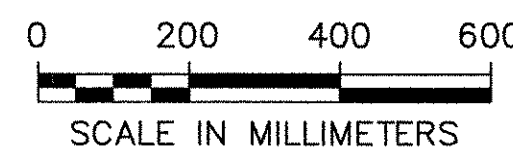
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SECTION A-A

(PERPENDICULAR TO CENTERLINE BEARING)

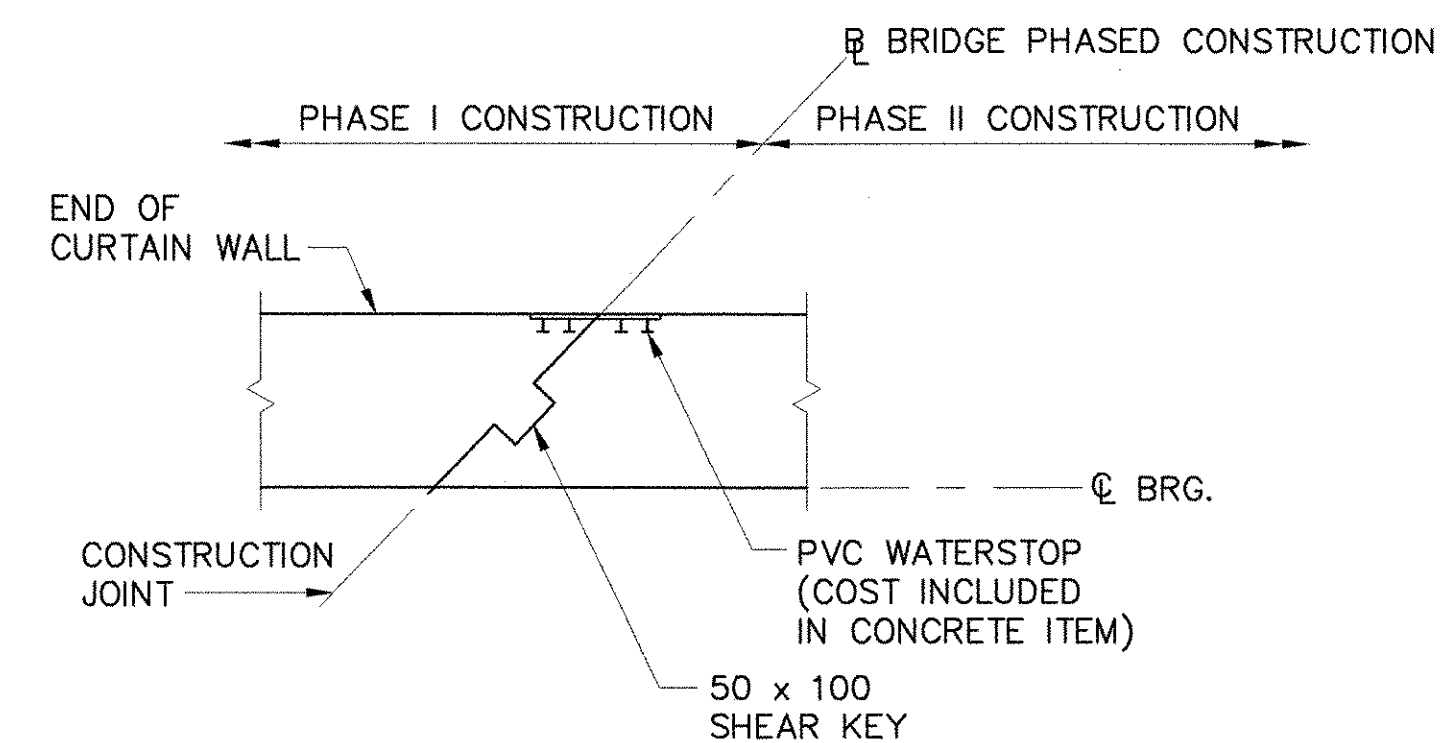
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ASPHALTIC PLUG JOINT DETAIL

(TYPICAL EACH END)

N.T.S.



CURTAIN WALL

CONSTRUCTION JOINT DETAIL

(ABUT. NO. 2 LOCATION SHOWN, ABUT. NO. 1 SIMILAR)

N.T.S.

KEY

N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE
▲ = CUT TO FIT IN FIELD

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	

VT 17 OVER MILL BROOK

CURTAIN WALL

Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	S.M. SAREAUT	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN
		Date	1/06

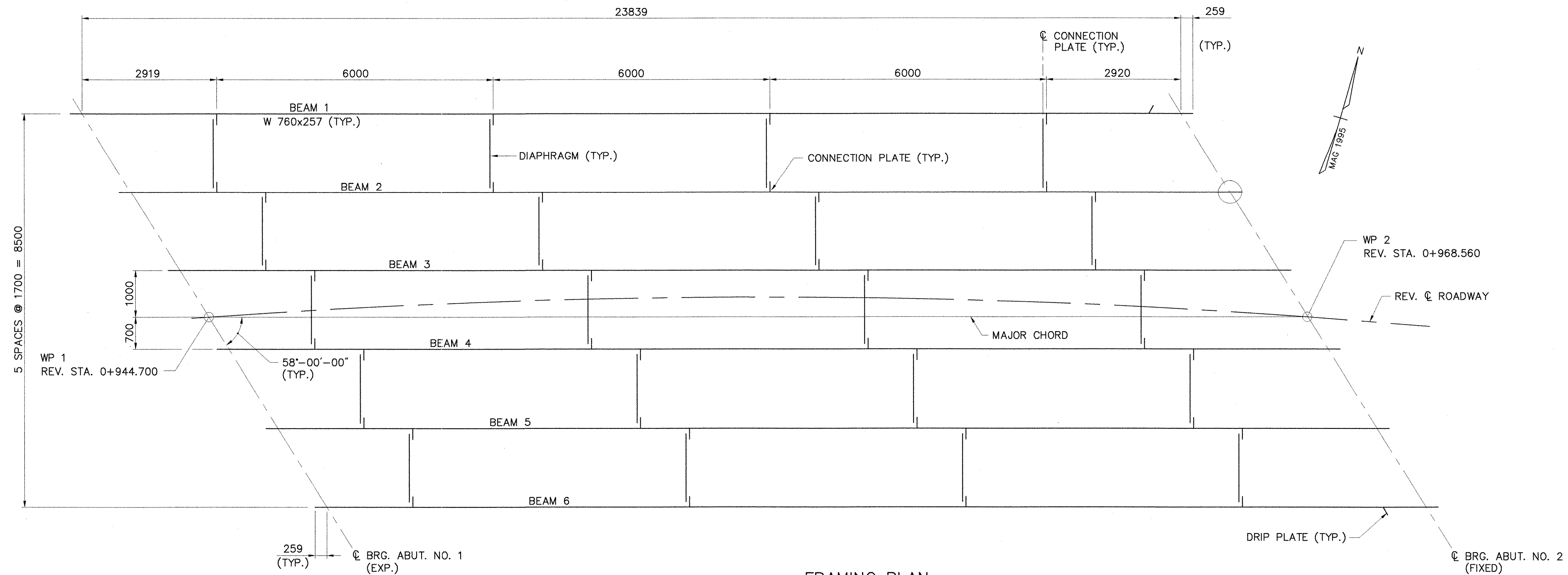
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
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I.G.C. Info.	Bridge Sheet No.	50543DTL	Sheet	22	of	70
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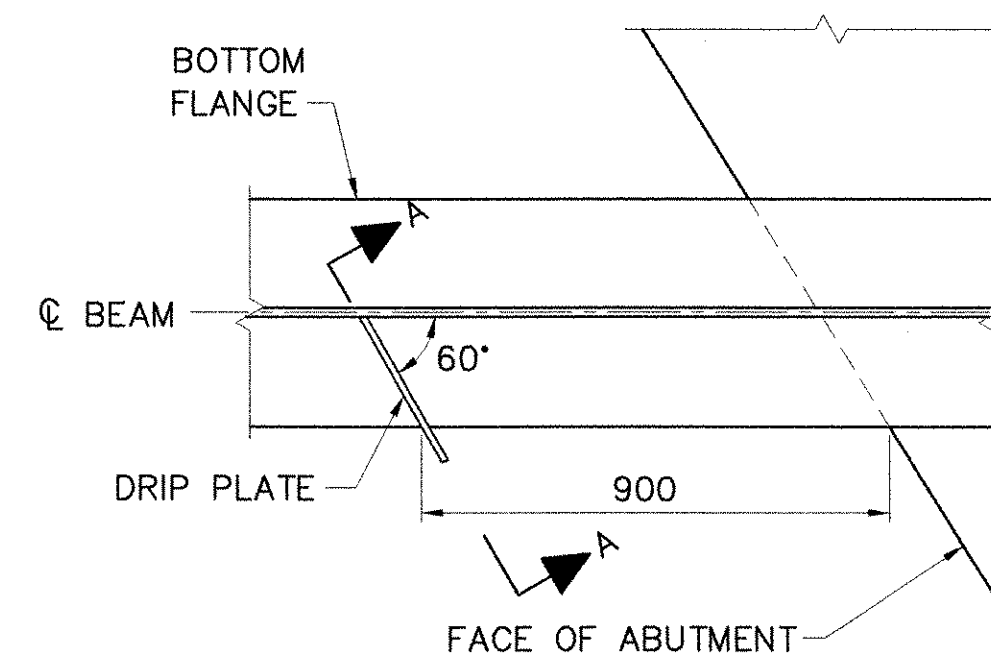
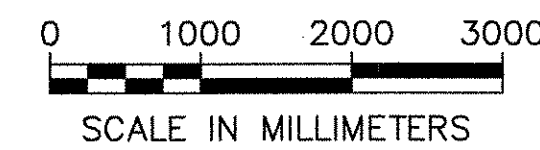
VHB Vanasse Hangen Brustlin, Inc.

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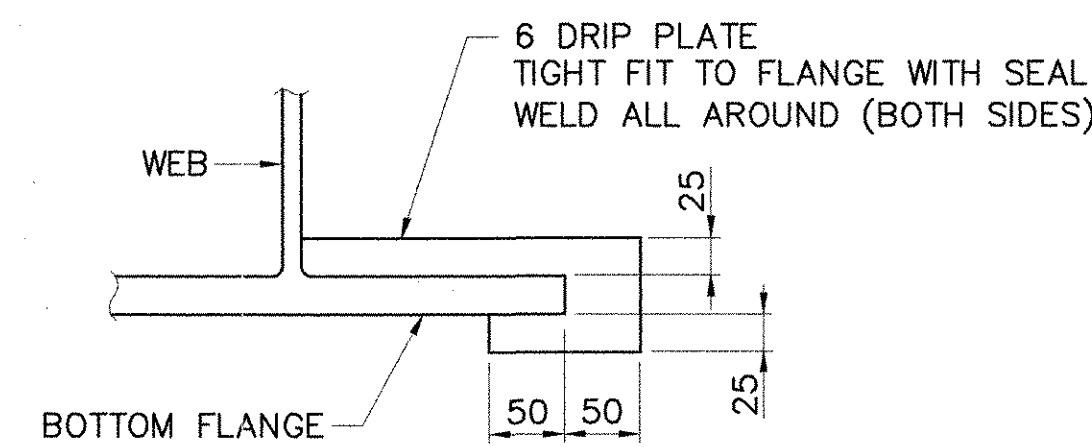
PLOTTED 1-13-2006



FRAMING PLAN
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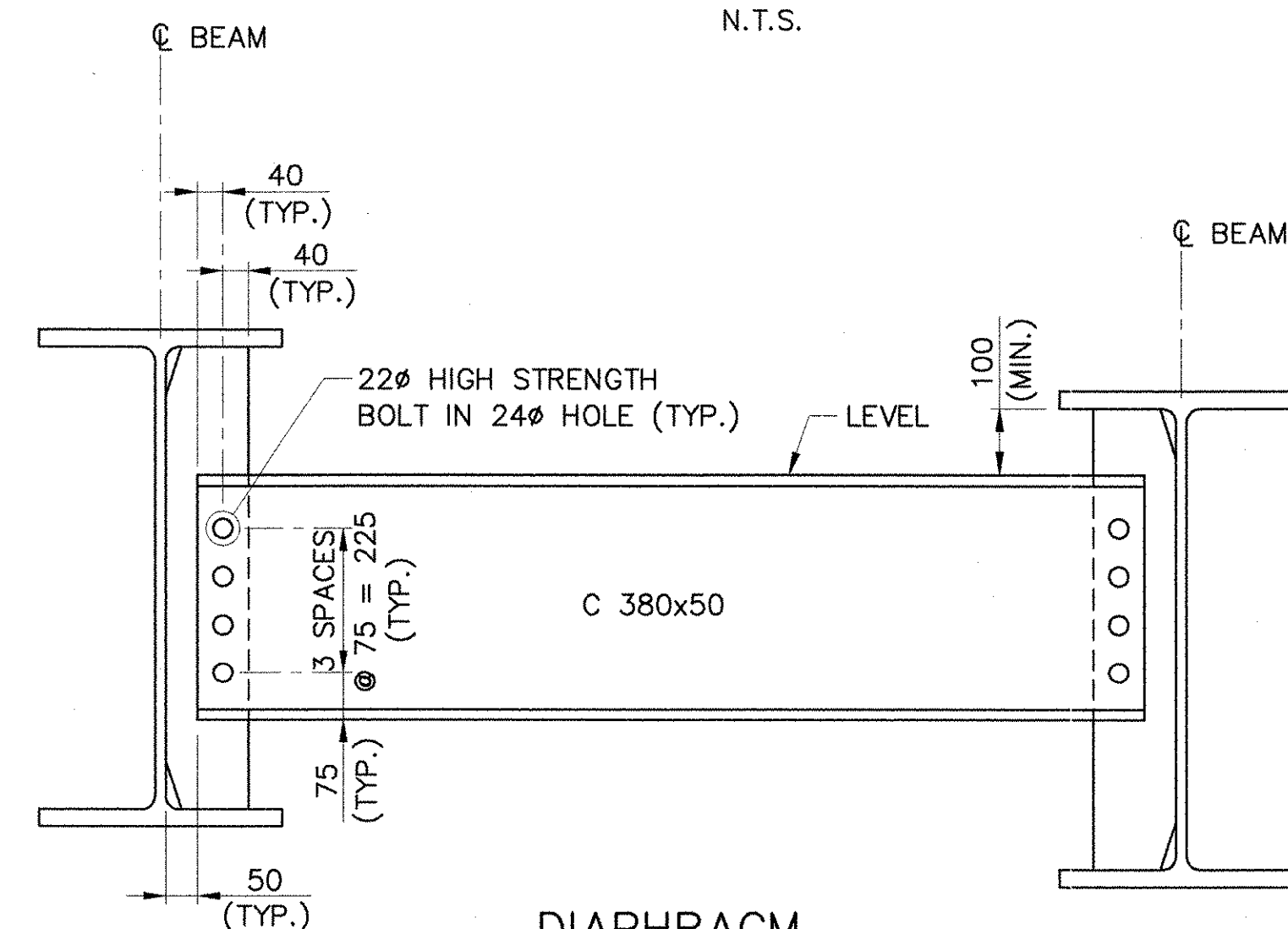


PLAN

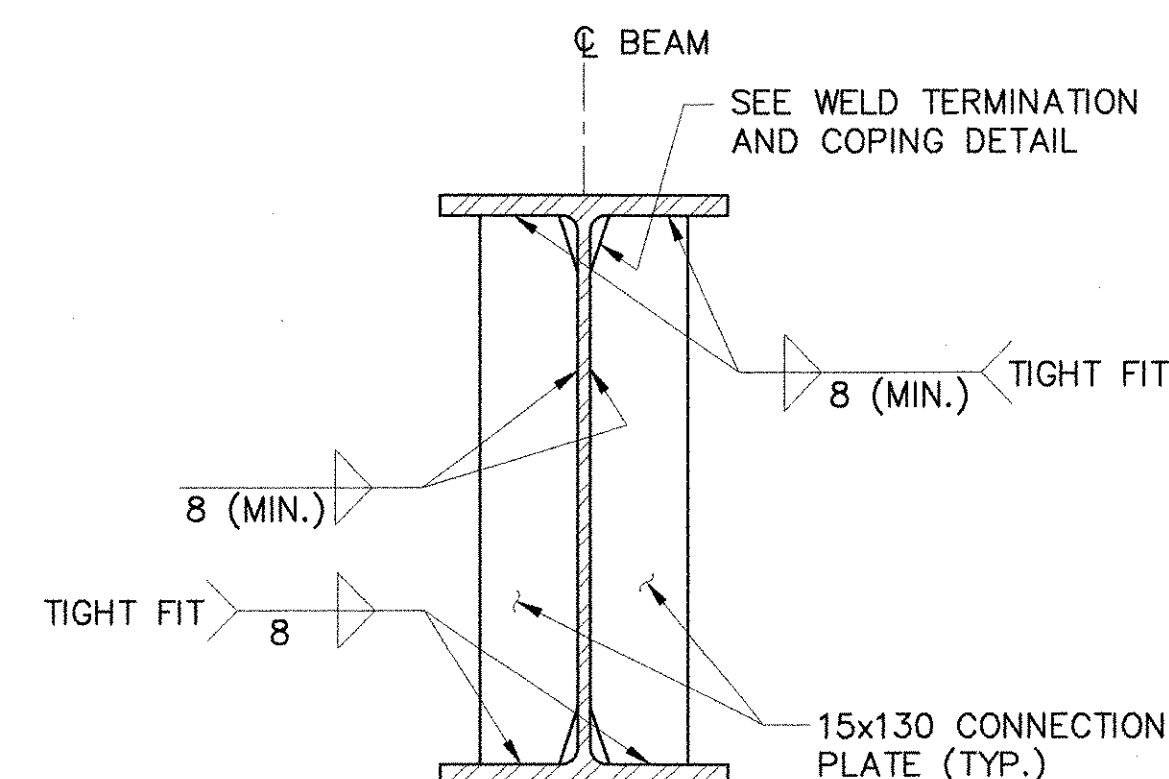
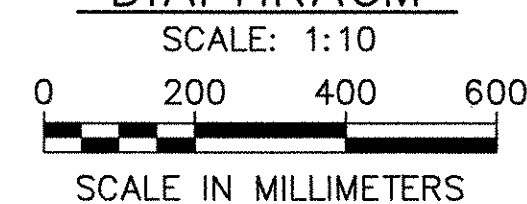


SECTION A-A

DRIP PLATE DETAIL
N.T.S.

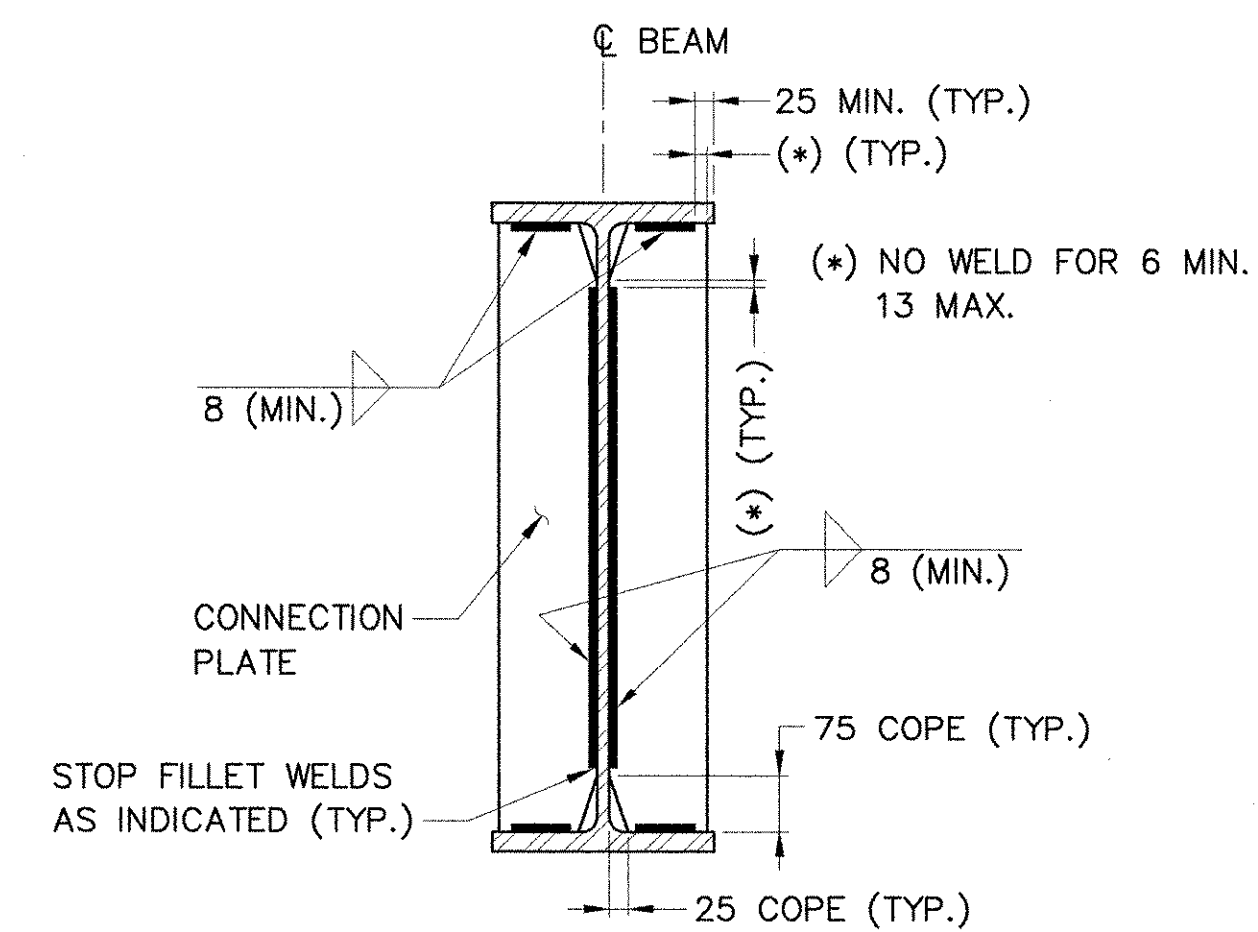


DIAPHRAGM



CONNECTION PLATE DETAIL

N.T.S.



**WELD TERMINATION
AND COPING DETAIL**

N.T.S.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	

VT 17 OVER MILL BROOK

FRAMING PLAN

Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	S.M. SAREAULT	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN

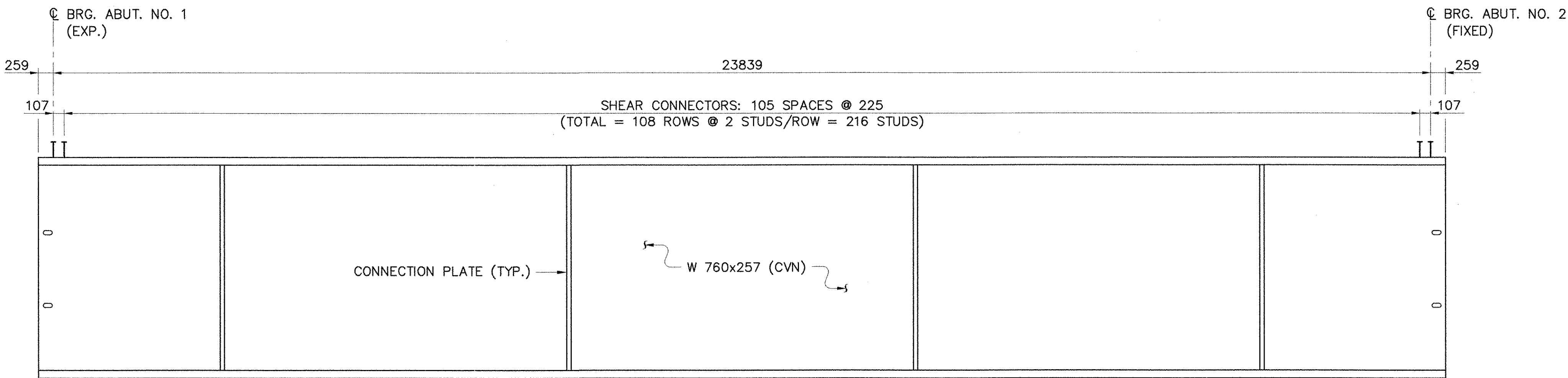
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
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I.G.C. Info.	Bridge Sheet No.	50543FRM	Sheet	23 of 70
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VHB Vanasse Hangen Brustlin, Inc.

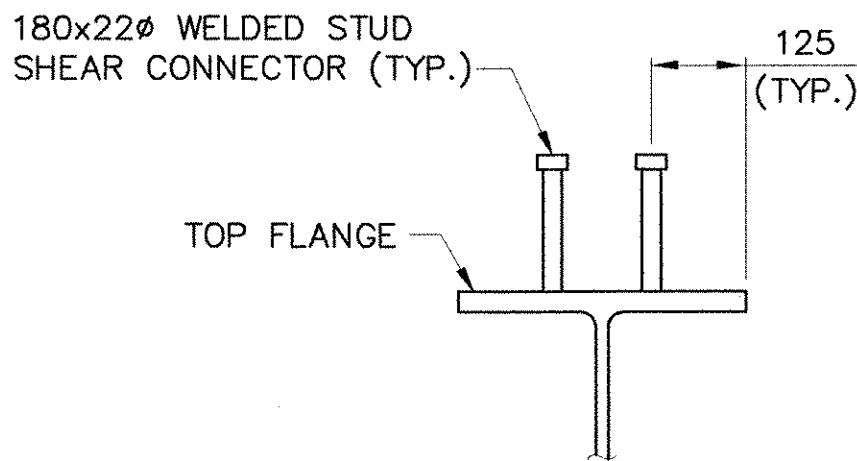
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PLOTTED 1-13-2006

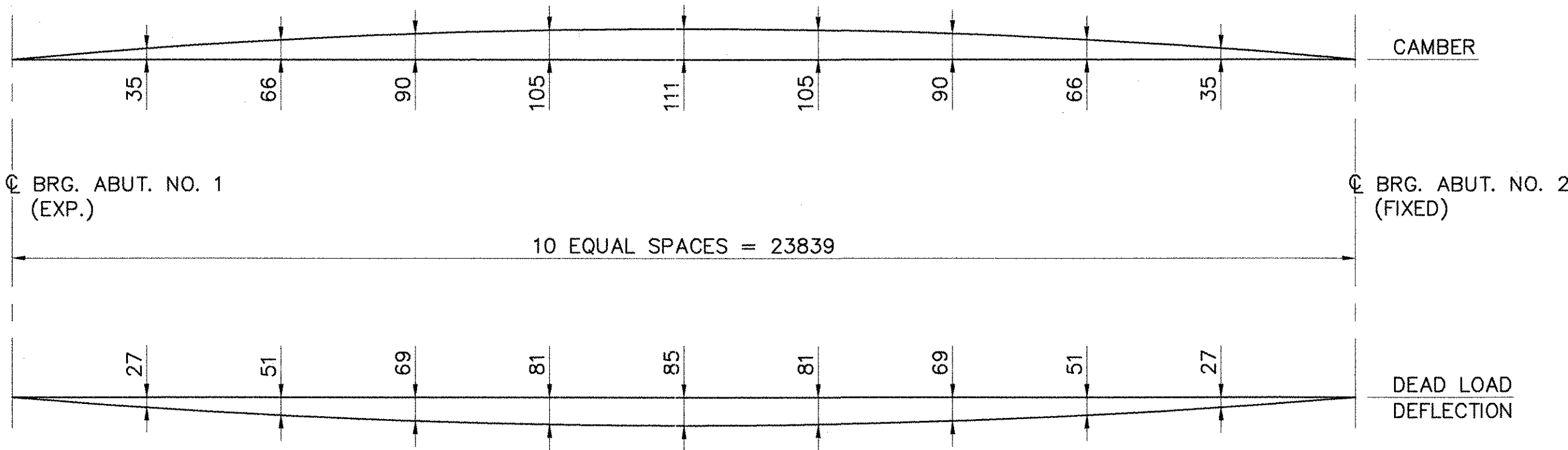


CVN = CHARPY V NOTCH TESTING REQUIRED
PER SPECIFICATION

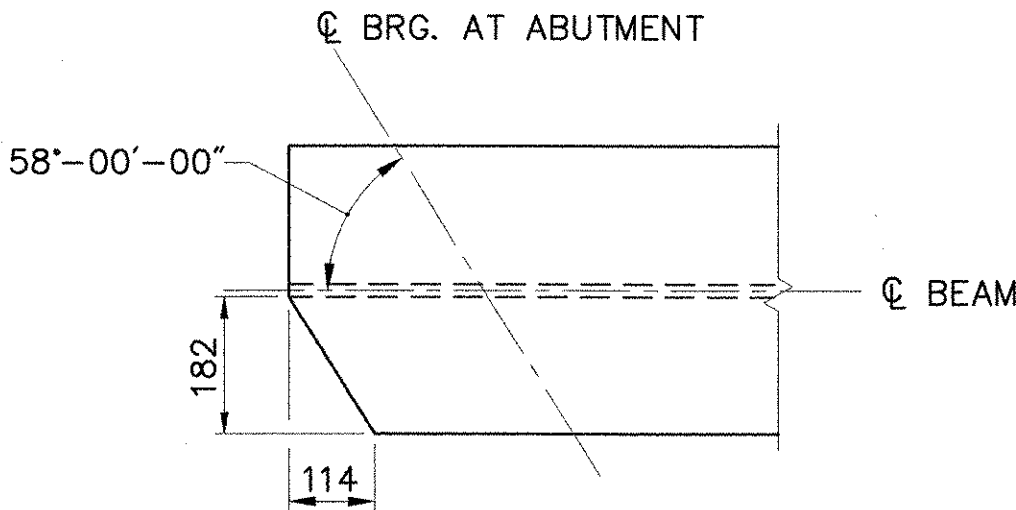
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N.T.S.



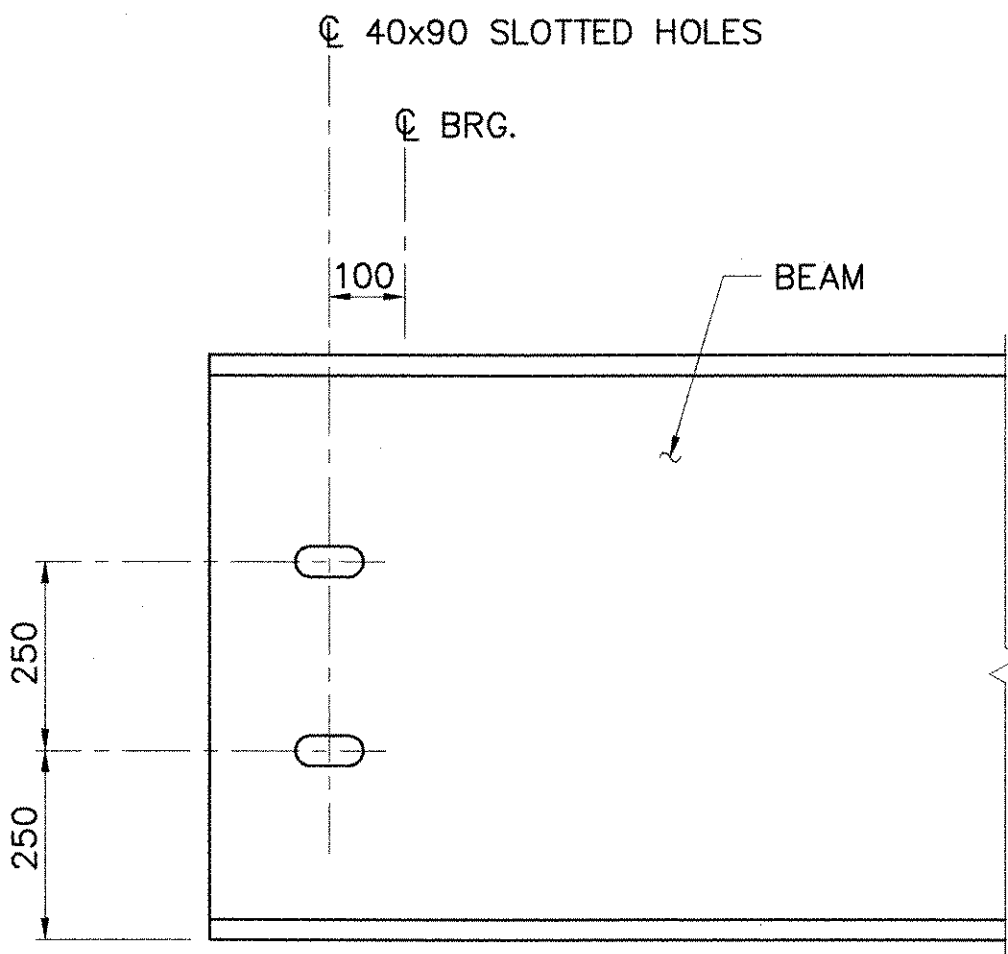
SHEAR CONNECTOR DETAIL
N.T.S.



DEAD LOAD DEFLECTION AND CAMBER DIAGRAM
N.T.S.



TOP & BOTTOM FLANGE CLIP DETAIL
N.T.S.

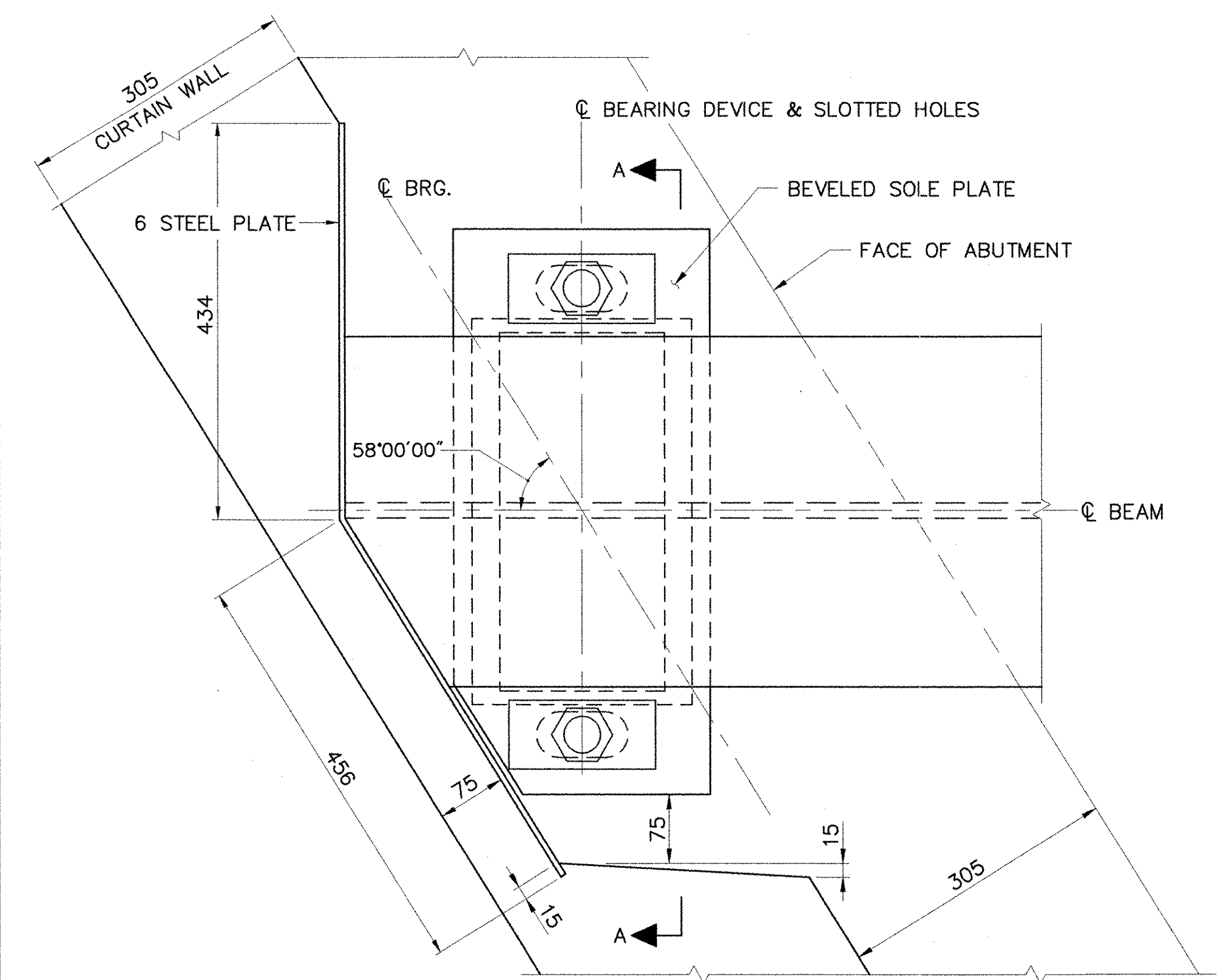


SLOTTED HOLE DETAIL
N.T.S.

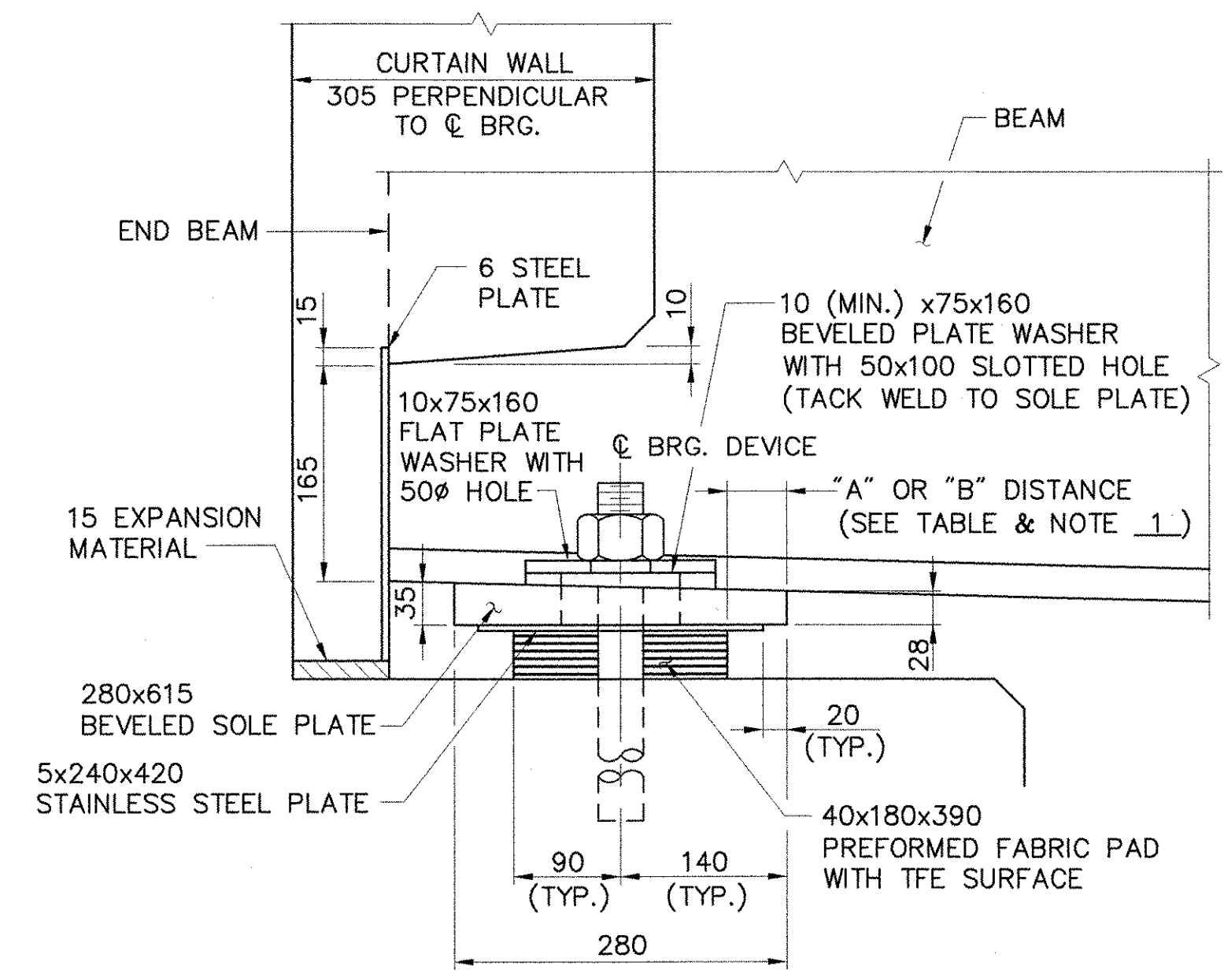
**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
BEAM ELEVATION & DETAILS			
Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	S.M. SAREAUT	Bridge Design Supervisor	M.A. COLGAN
Date	1/06	Date	1/06
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)

I.G.C. Info.	
Bridge Sheet No.	50543SD1
Sheet	24 of 70

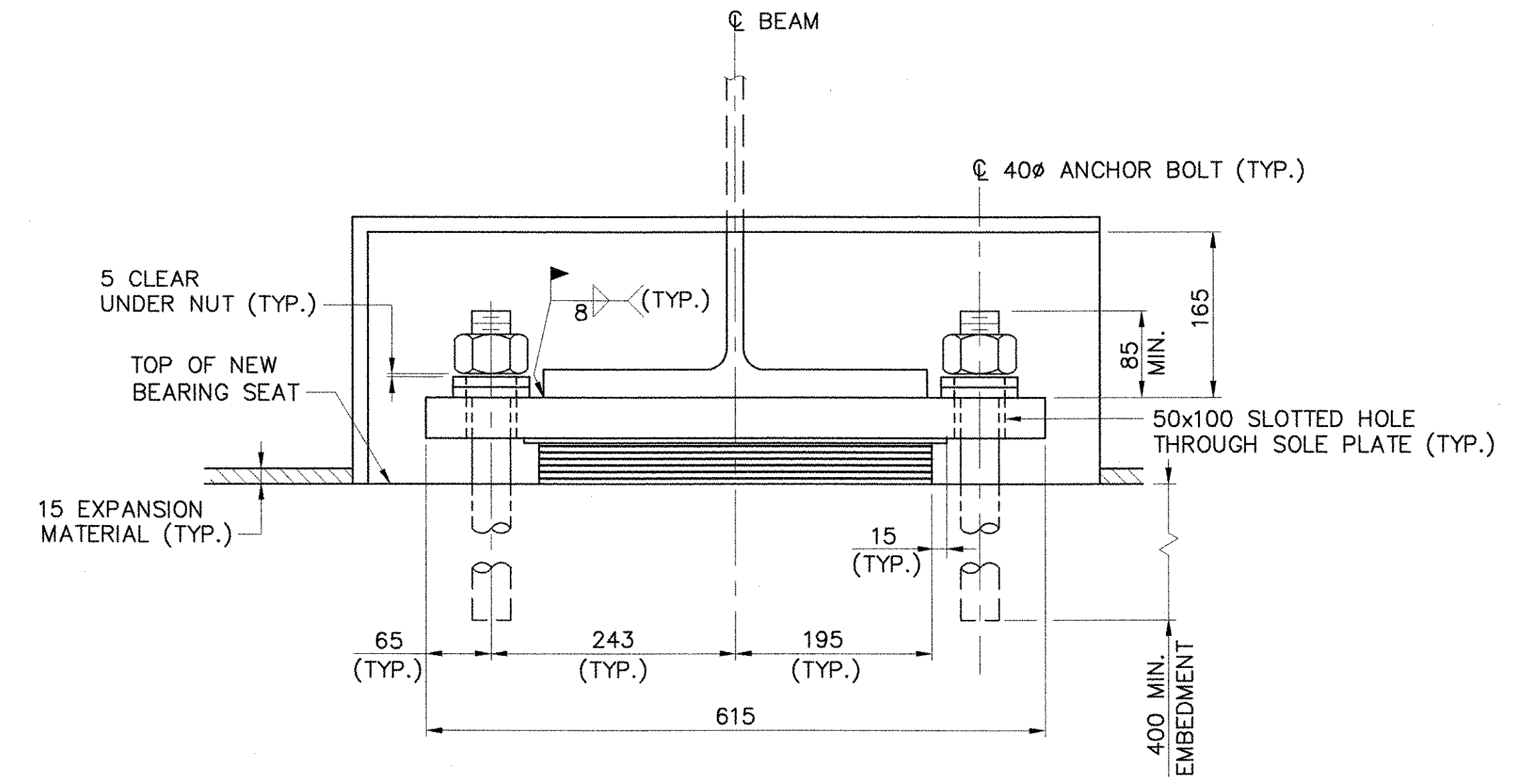


PLAN

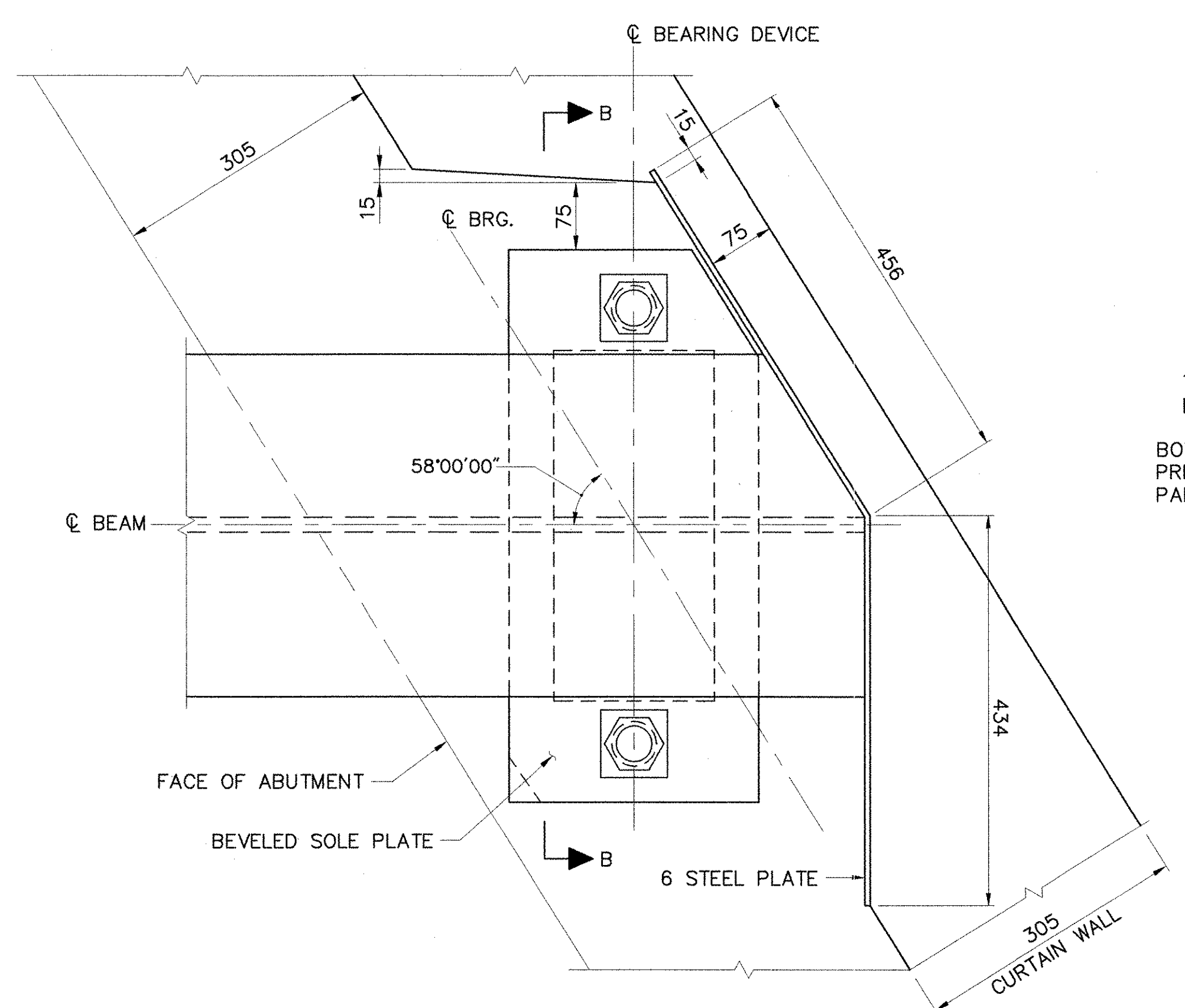


ELEVATION

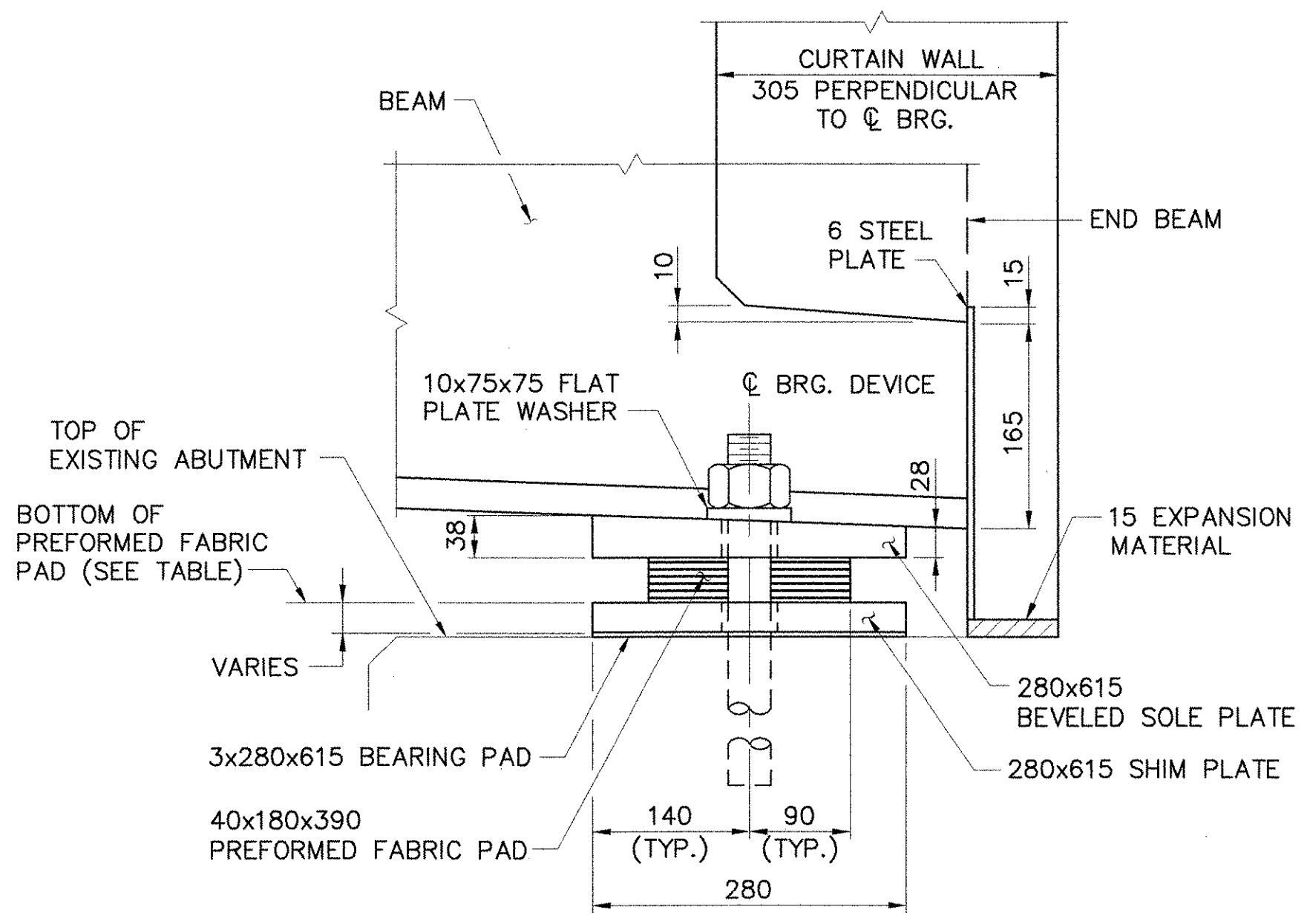
EXPANSION BEARING (ABUTMENT NO. 1)
SCALE: 1:5



SECTION A-A

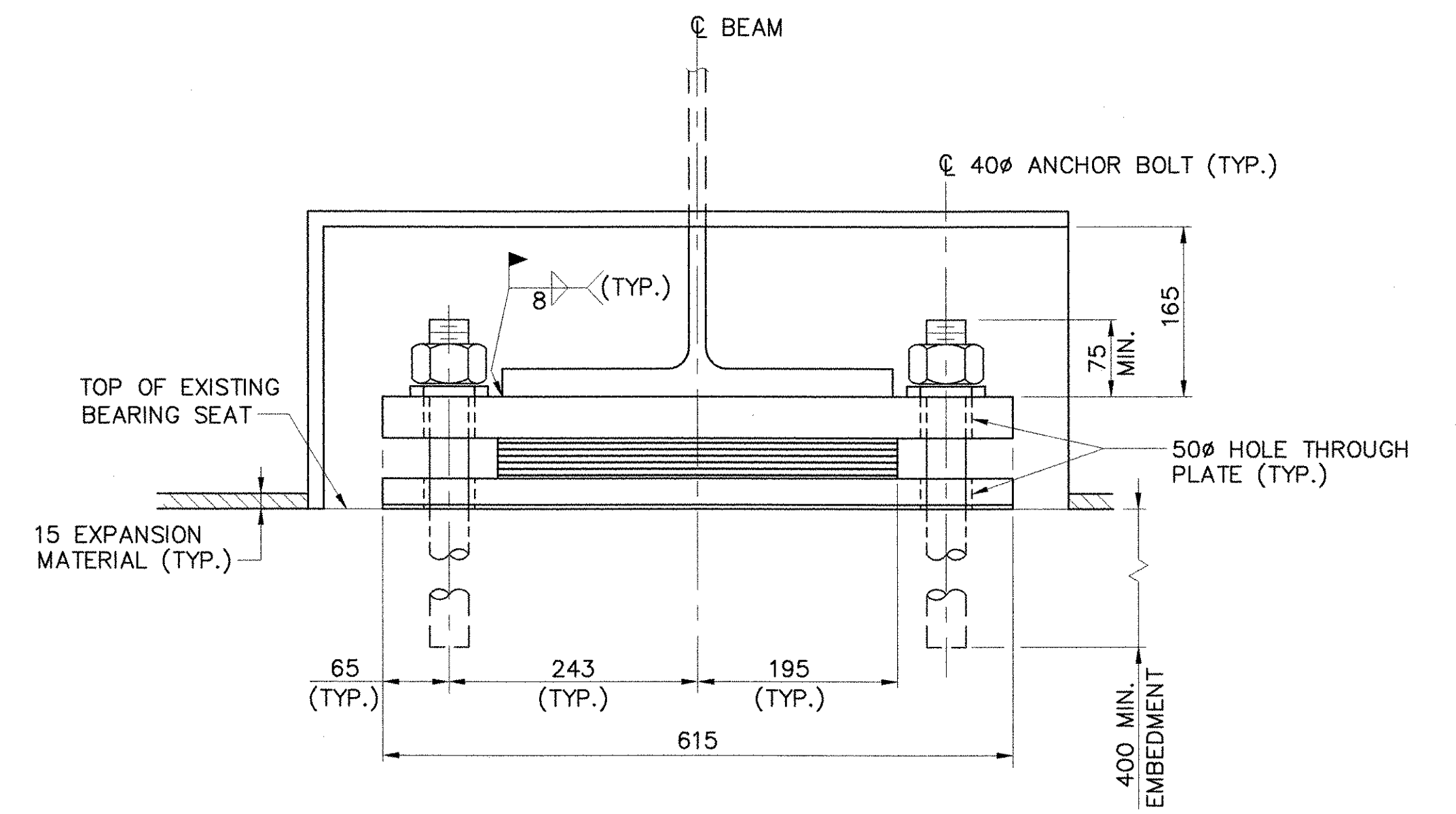


PLAN



ELEVATION

FIXED BEARING (ABUTMENT NO. 2)
SCALE: 1:5



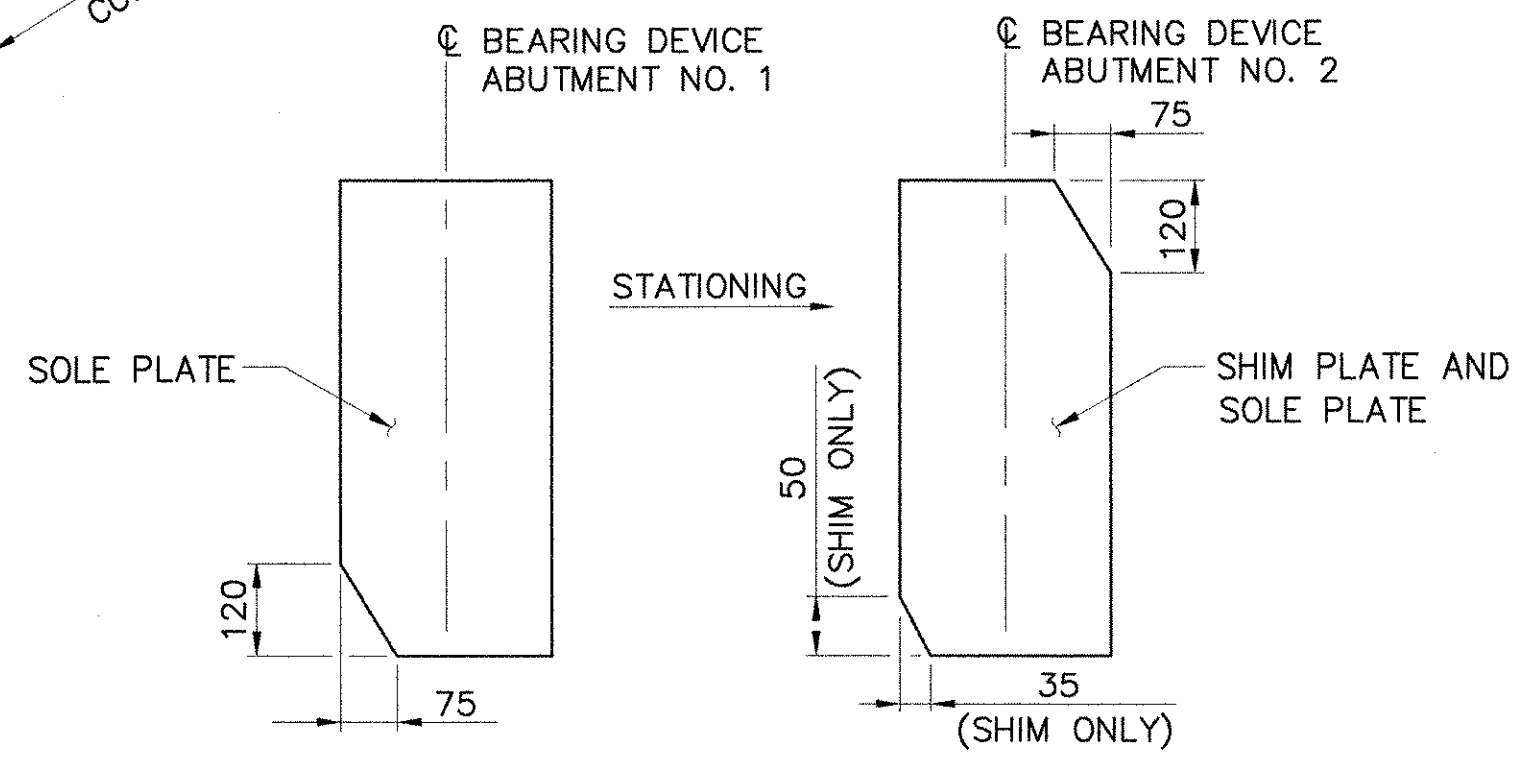
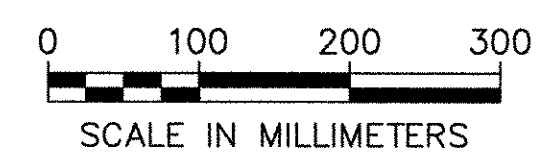
SECTION B-B

NOTE:
1. THE "A" DISTANCE IS THE SOLE PLATE ADJUSTMENT TO BE USED AFTER THE DEAD LOAD HAS BEEN APPLIED. THE "B" DISTANCE IS THE SOLE PLATE ADJUSTMENT TO BE USED BEFORE DEAD LOAD IS ADDED TO THE BEAM SELFWEIGHT. THE DIFFERENCE IS THE ELONGATION DUE TO DEAD LOAD DEFLECTION OF THE SLAB, BRUSH CURB, BRIDGE RAIL AND PAVEMENT.

BOTTOM OF PREFORMED FABRIC PAD ELEVATION TABLE	
BEAM	ELEVATION ABUT. NO. 2
1	264.238
2	264.112
3	263.985
4	263.859
5	263.733
6	*

* SHIM PLATE NOT REQUIRED

TEMPERATURE ADJUSTMENT TABLE		
TEMPERATURE	"A"	"B"
-18° C	58	68
-9° C	55	65
-1° C	53	63
7° C	51	61
16° C	49	59
24° C	46	56
32° C	44	54
41° C	42	52



BEARING CLIP DETAILS
N.T.S.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	

VT 17 OVER MILL BROOK BEARING DETAILS

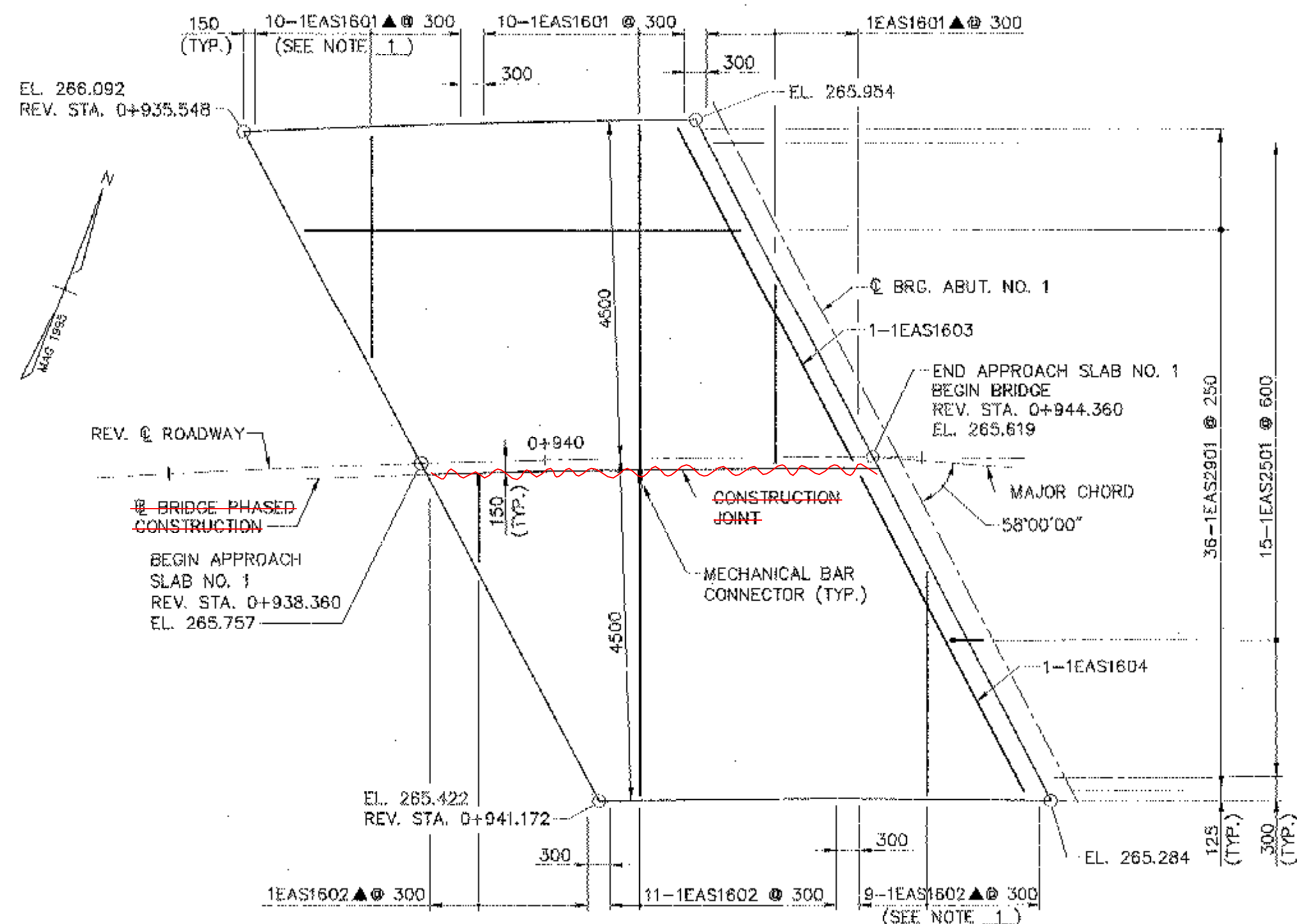
Designed By	S.M. SAREAULT	Drawn By	B.J. MASSE
Checked By	M.A. COLGAN	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN

PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
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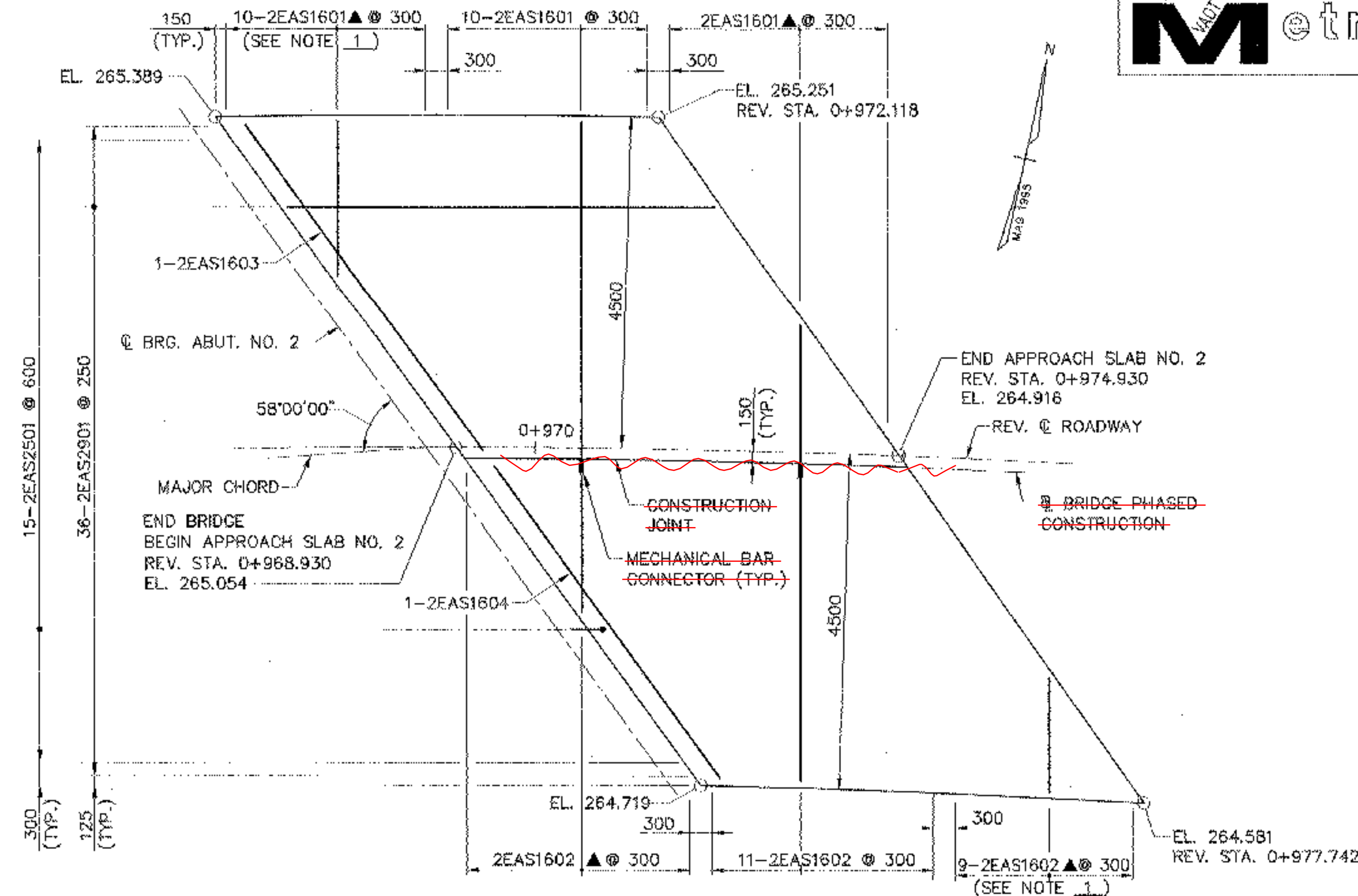
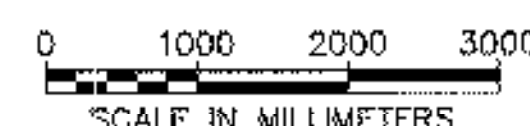
I.G.C. Info.	Bridge Sheet No.	50543BRG	Sheet	25	of	70
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/str5/93C065/zc065BEA

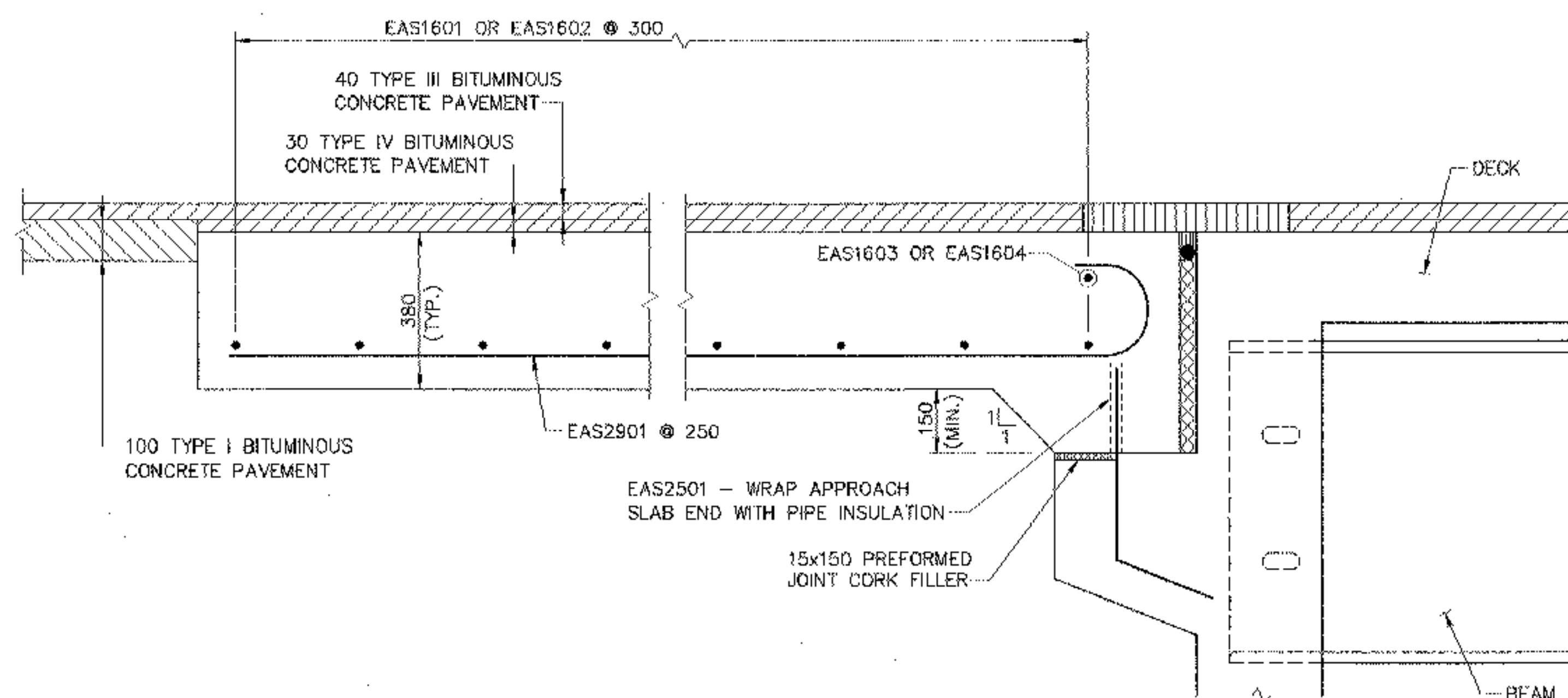
PLOTTED 1-13-2006



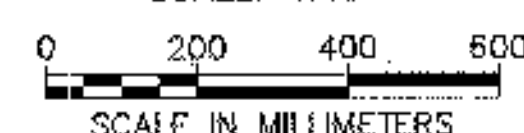
APPROACH SLAB NO. 1
SCALE: 1:50



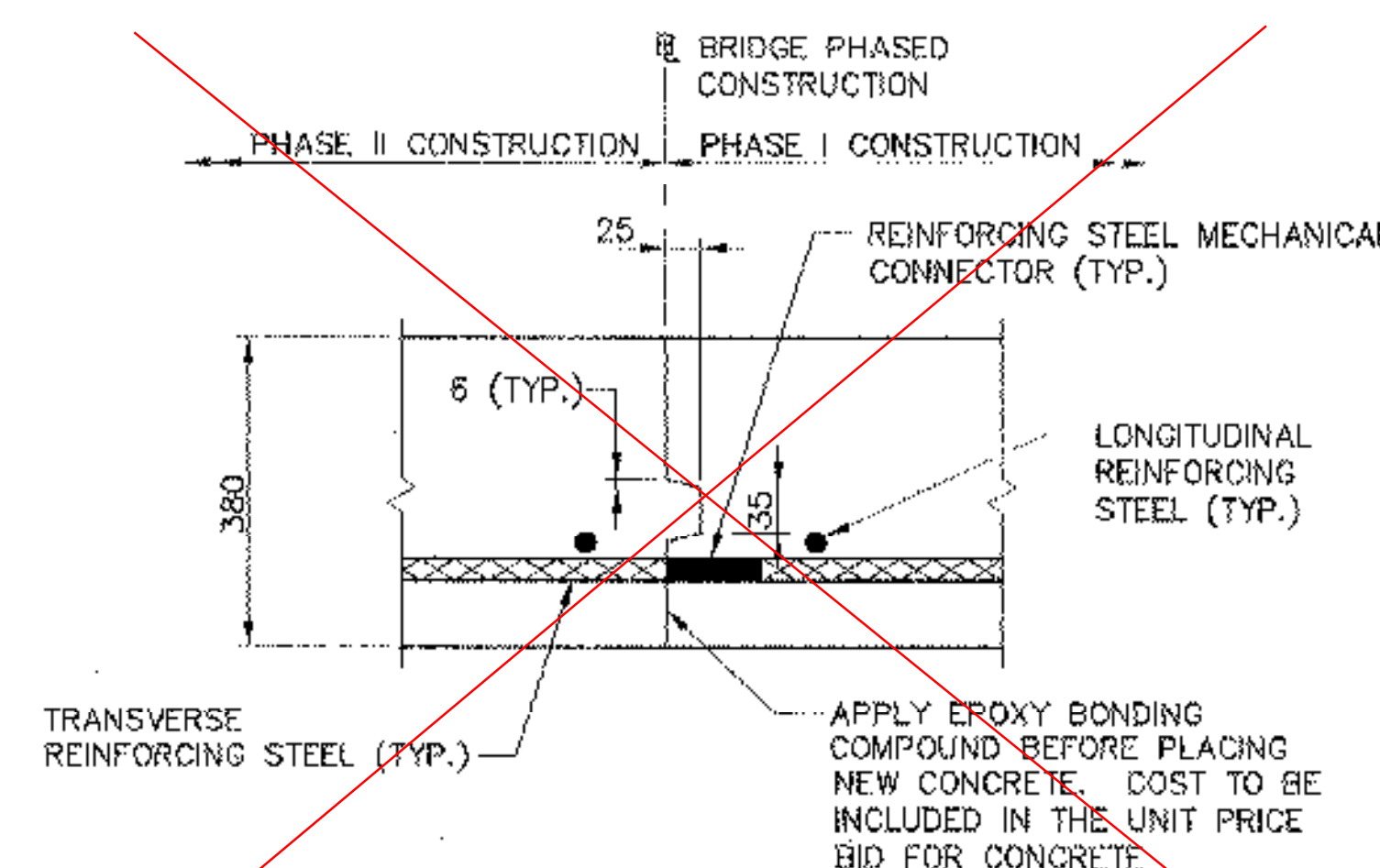
APPROACH SLAB NO. 2
SCALE: 1:50



APPROACH SLAB NO. 1 DETAIL
(APPROACH SLAB NO. 2 SIMILAR)
SCALE: 1:10



KEY
N.F. = NEAR FACE
F.F. = FAR FACE
E.F. = EACH FACE
▲ = CUT TO FIT IN FIELD

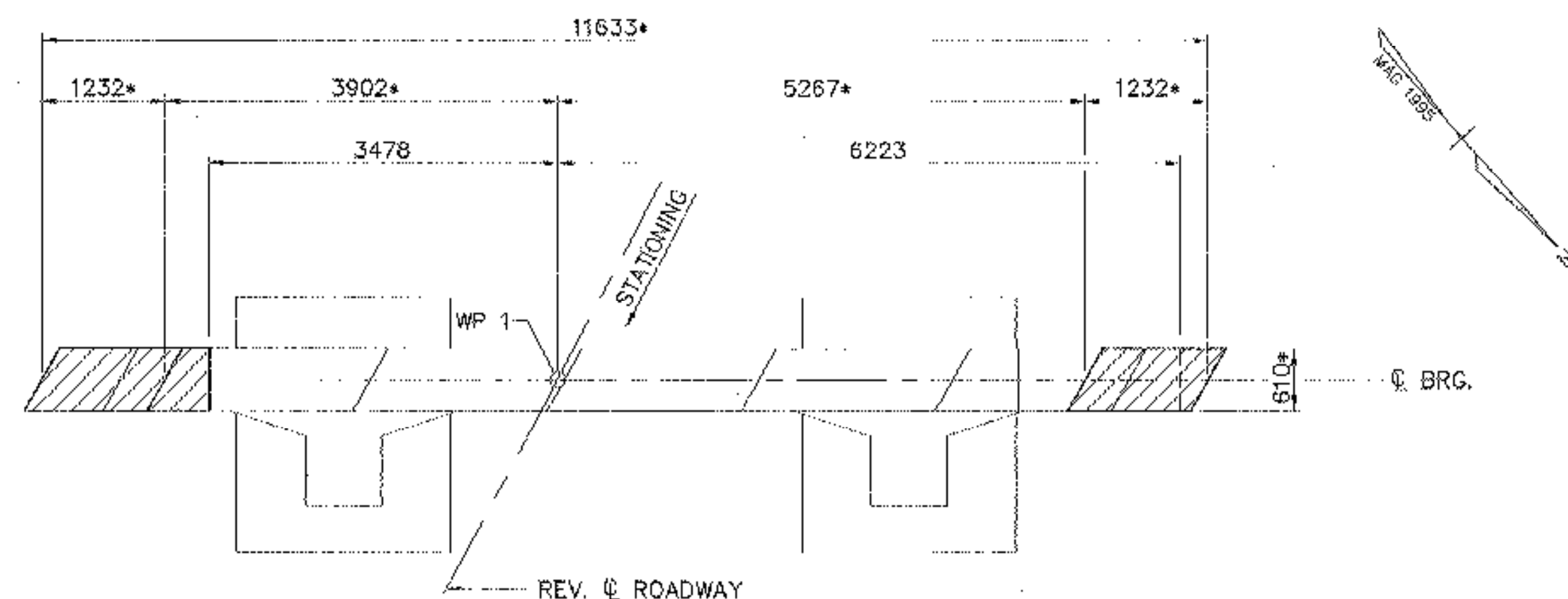


LONGITUDINAL CONSTRUCTION JOINT DETAIL
N.T.S.

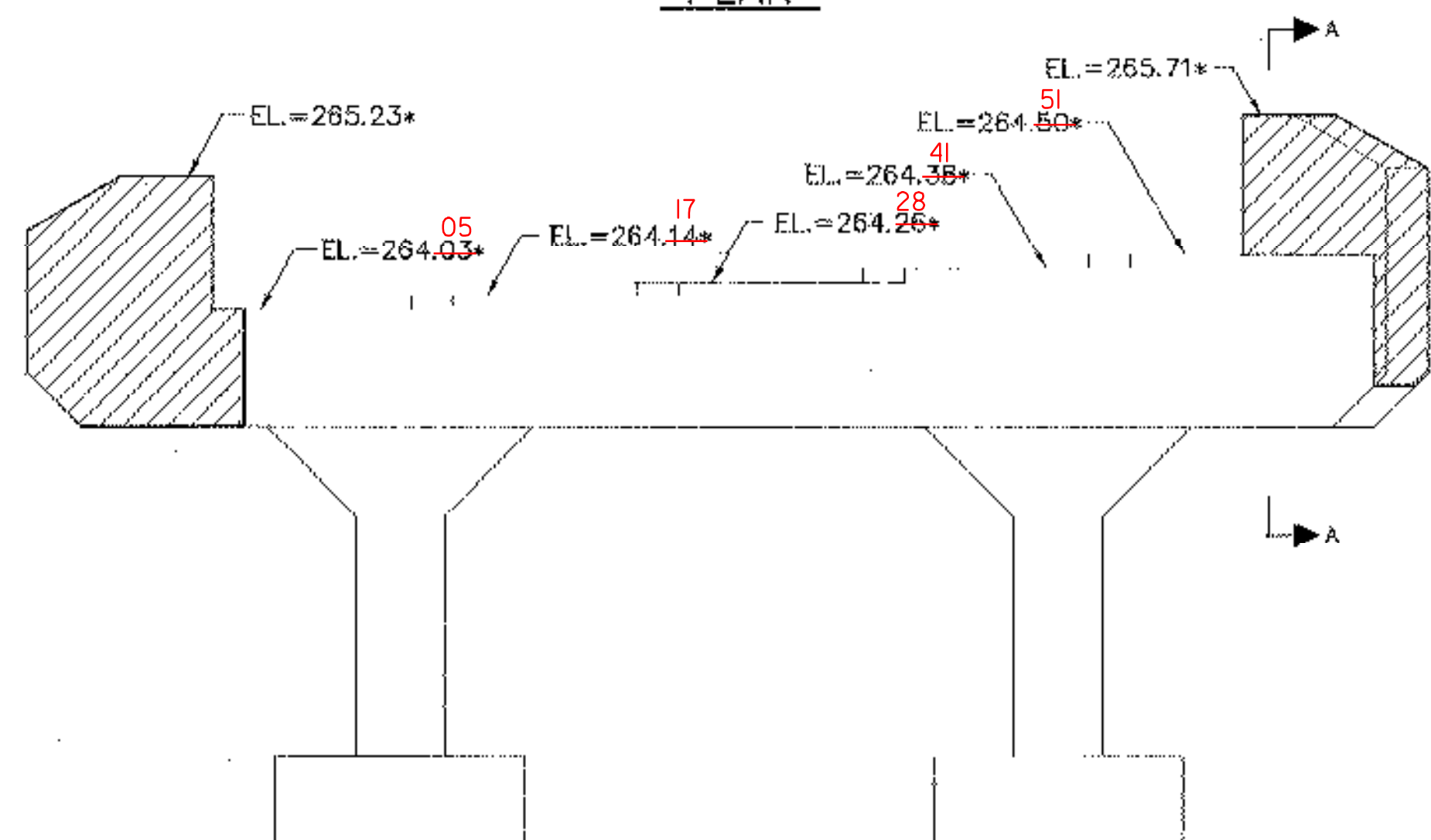
NOTE:
1. USE CUTOFFS FROM THIS END FOR THE OTHER END OF APPROACH SLAB.

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
APPROACH SLABS			
Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	S.M. SAREAUTY	Bridge Design Supervisor	M.A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	50543AS	Sheet	26 of 70



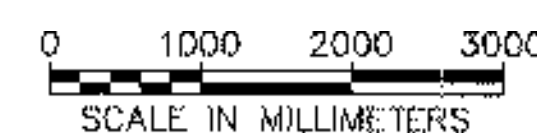
PLAN



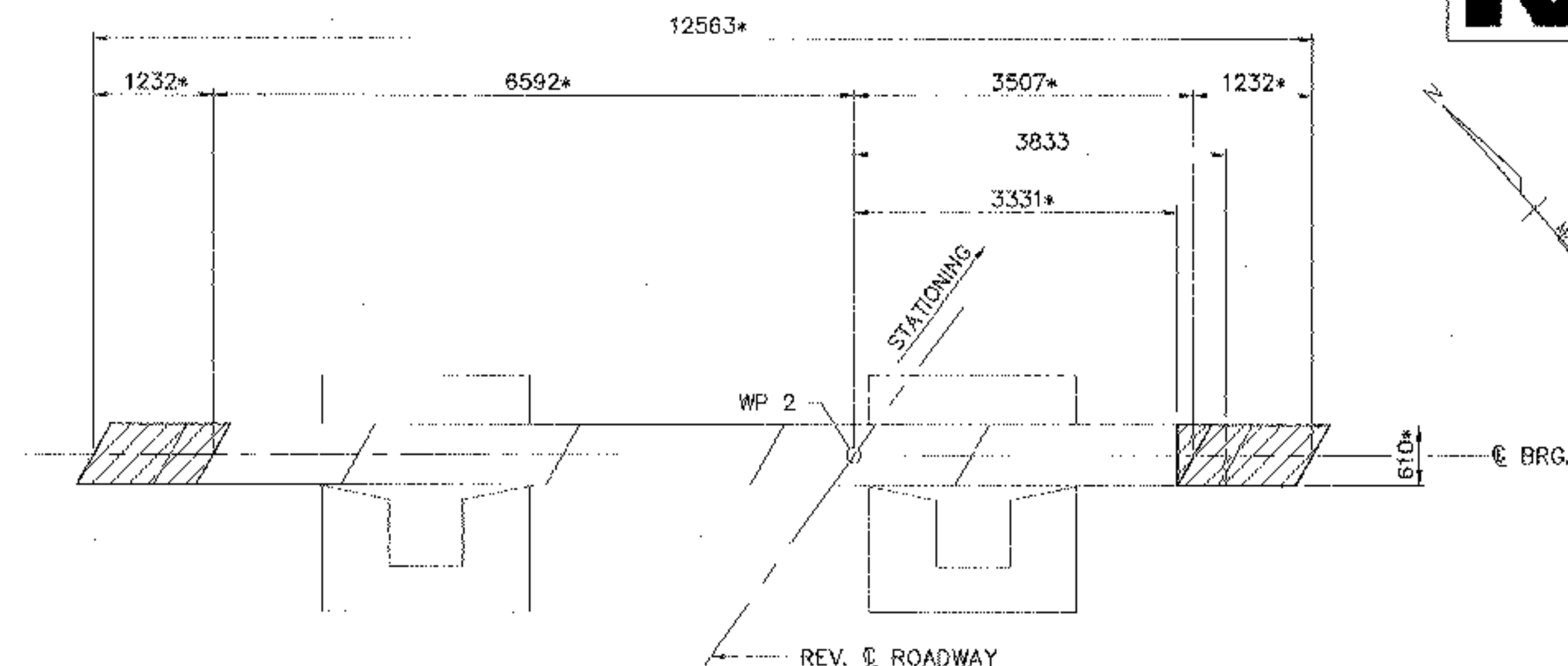
ELEVATION

ABUTMENT NO. 1

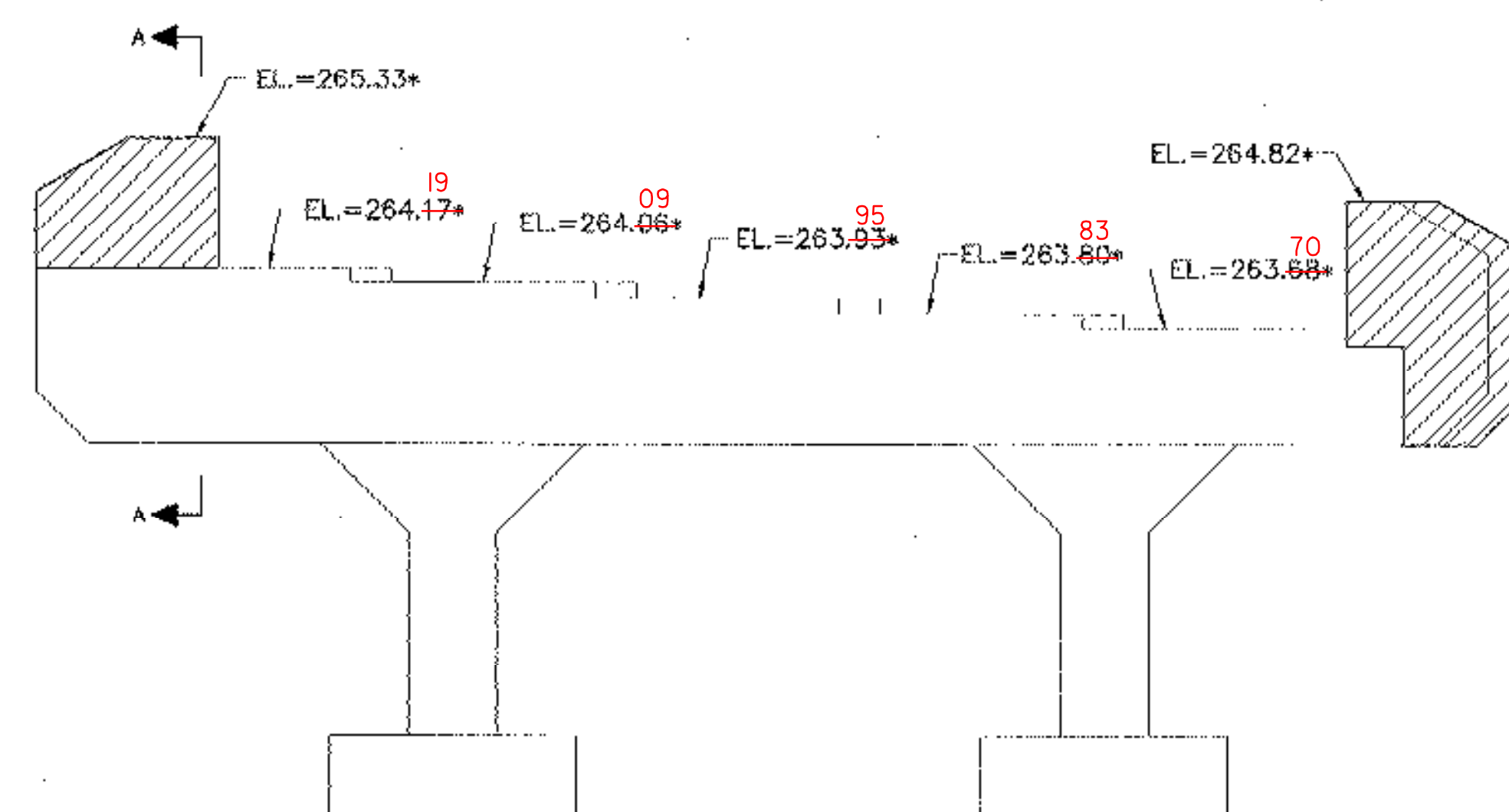
SCALE: 1:50



DENOTES LIMIT OF REMOVAL
 * APPROXIMATE EXISTING ELEVATION OR DIMENSION



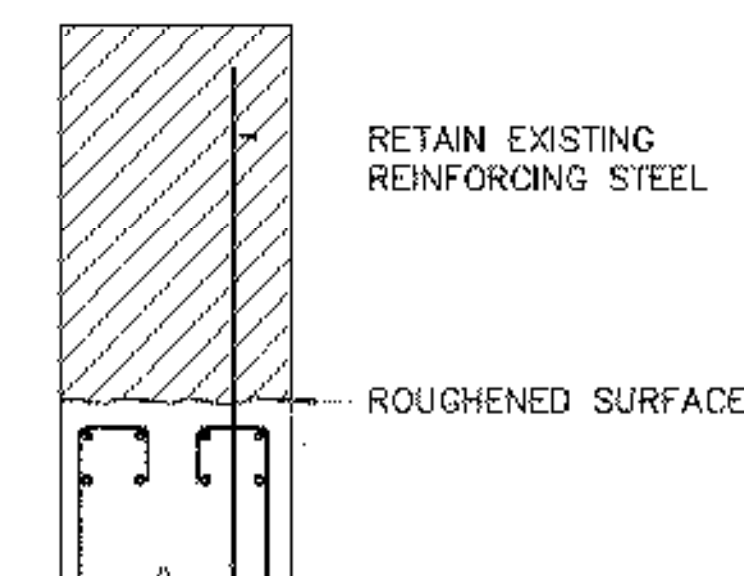
PLAN



ELEVATION

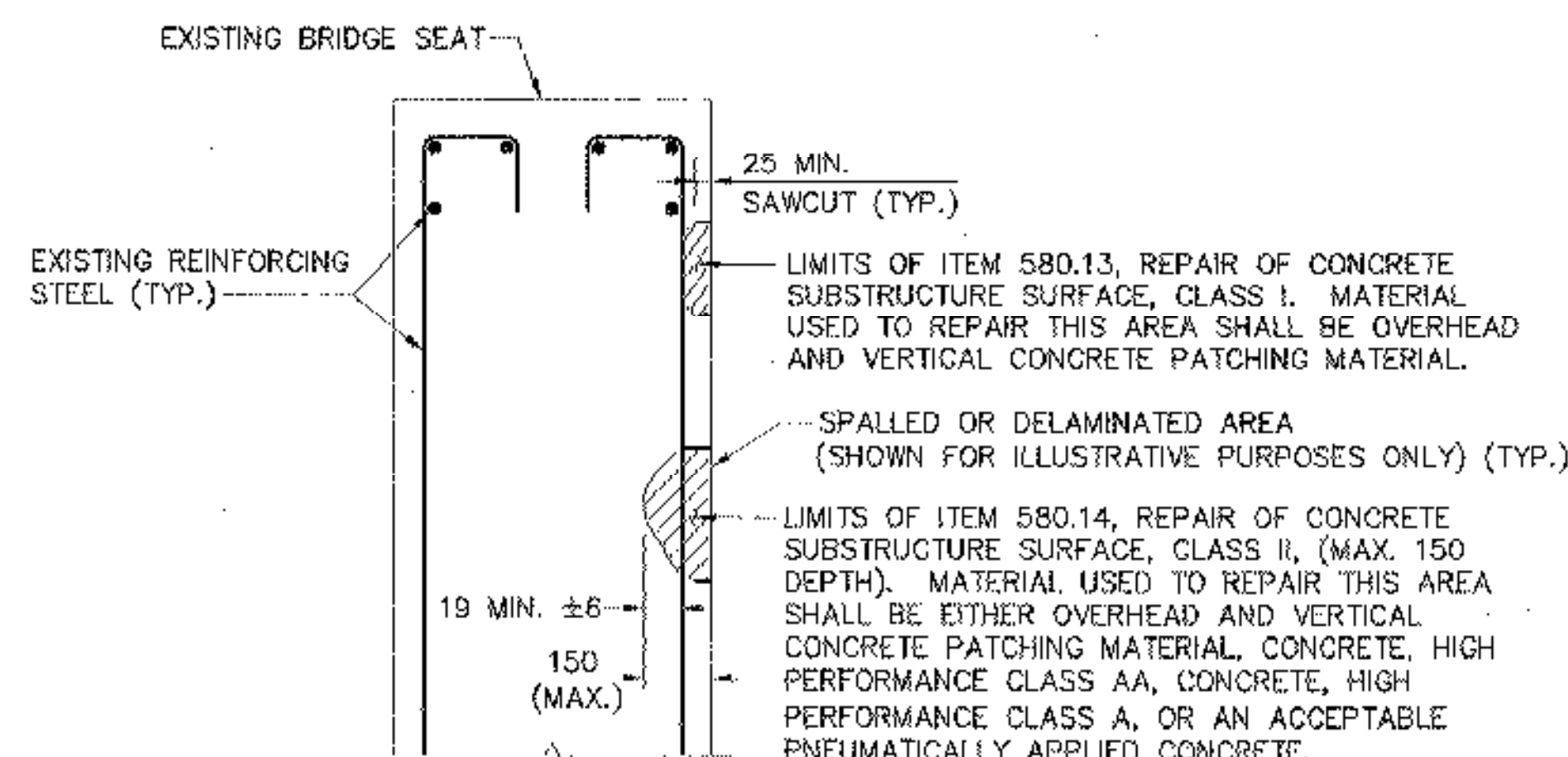
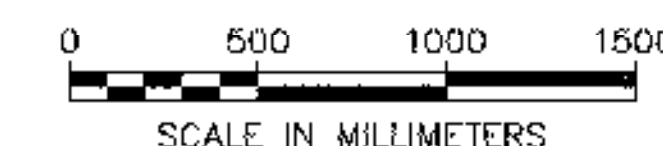
ABUTMENT NO. 2

SCALE: 1:50



SECTION A-A

SCALE: 1:20



REPAIR OF CONCRETE SUBSTRUCTURE SURFACE
CLASS I OR CLASS II

N.T.S.

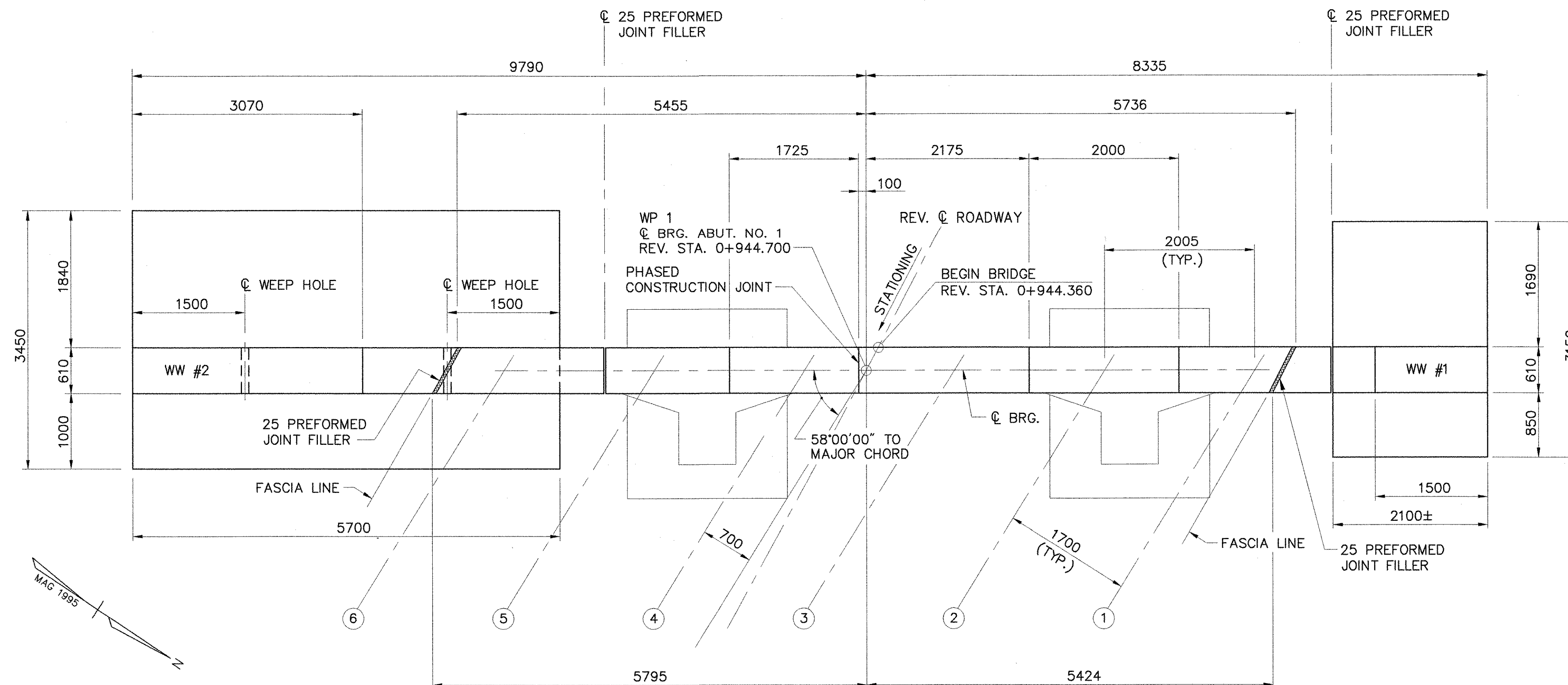
REMOVAL AND REPAIR NOTES:

- SEE SHEETS 14 AND 15 FOR CONSTRUCTION PHASING.
- REMOVAL OF EXISTING BRIDGE PAVEMENT SHALL BE PAID AS ITEM 529.10, REMOVAL OF BRIDGE PAVEMENT.
- ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE SHALL INCLUDE:
 - REMOVAL OF THE EXISTING BRIDGE RAILING, CONCRETE CURBS, CONCRETE BRIDGE DECK, AND CURTAIN WALLS.
 - REMOVAL OF THE EXISTING STRUCTURAL STEEL BEAMS AND DIAPHRAGMS. THE STRUCTURAL STEEL IS PAINTED WITH A MATERIAL THAT MAY CONTAIN LEAD PAINT. THE STRUCTURAL STEEL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND THE CONTRACTOR MAY DISPOSE OF IT OR RETAIN IT FOR FUTURE USE. THE CONTRACTOR SHALL SUBMIT A DISPOSAL OR SALVAGE PLAN TO THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO REMOVAL.
 - REMOVAL OF ALL THE BEARING DEVICES.
 - REMOVAL OF PORTIONS OF THE EXISTING ABUTMENTS AND WINGWALLS AS SHOWN ON THE PLANS AND DIRECTED BY THE RESIDENT ENGINEER.
 - ERECTION, MAINTENANCE, AND REMOVAL OF TEMPORARY STRUCTURES TO PREVENT DEBRIS FROM FALLING INTO MILL BROOK.
- THE CONTRACTOR'S METHODS FOR PARTIAL REMOVAL OF THE EXISTING STRUCTURES SHALL BE APPROVED BY THE ENGINEER PRIOR TO ANY REMOVAL WORK.
- LIMITS OF REMOVAL ARE APPROXIMATE. THE ENGINEER SHALL ESTABLISH ACTUAL LIMITS AFTER A COOPERATIVE INSPECTION BY THE CONTRACTOR AND THE RESIDENT ENGINEER. EXISTING ELEVATIONS SHALL BE FIELD VERIFIED TO ENSURE THE REMOVAL LIMITS ARE ADEQUATE TO OBTAIN THE REQUIRED DIMENSIONS AND ELEVATIONS OF THE NEW CONSTRUCTION.
- SAWCUTS SHALL BE 25 MILLIMETERS DEEP ALONG ALL EXPOSED REMOVAL LINES WHERE NEW CONCRETE IS PLACED AGAINST EXISTING CONCRETE. ALL COSTS SHALL BE INCLUDED IN ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE.
- EXISTING REINFORCING STEEL EXPOSED DURING REMOVAL OPERATIONS, WITHIN THE LIMITS OF THE NEW MASONRY, SHALL BE RETAINED AND INCORPORATED INTO THE NEW MASONRY. EXISTING REINFORCING STEEL TO BE RETAINED SHALL BE CLEANED OF ALL CONCRETE, DIRT, SCALE, PAINT, OIL, AND OTHER FOREIGN SUBSTANCES. ALL COSTS SHALL BE INCLUDED IN ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE.
- EXISTING REINFORCING STEEL THAT WILL NOT BE INCORPORATED INTO THE NEW MASONRY SHALL BE REMOVED A MINIMUM OF 25 MILLIMETERS BEYOND THE MASONRY SURFACE. CAVITIES PRODUCED BY REMOVAL SHALL BE REPAIRED IN ACCORDANCE WITH REPAIR OF CONCRETE SUBSTRUCTURE SURFACE, CLASS I. ALL COSTS SHALL BE INCLUDED IN ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE.
- EXISTING ANCHOR BOLTS SHALL BE PARTIALLY REMOVED OR INCORPORATED INTO THE NEW WORK AS DIRECTED BY THE RESIDENT ENGINEER. PARTIAL REMOVAL DETAILS FOR OR INCORPORATION INTO THE NEW WORK SHALL BE SIMILAR AS THAT REQUIRED FOR REINFORCING STEEL.

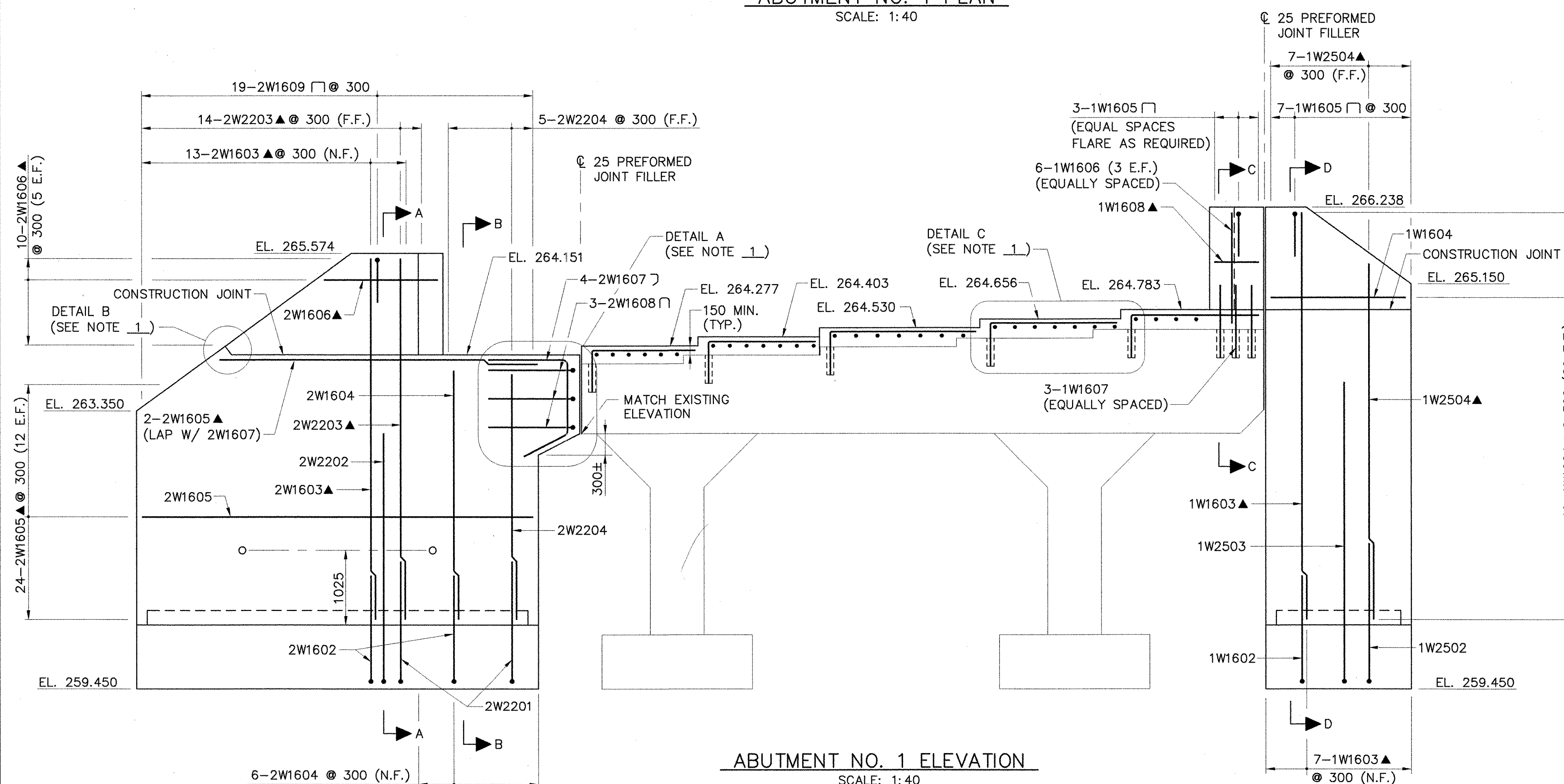
VHB Vanasse Hangen Brustlin, Inc.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

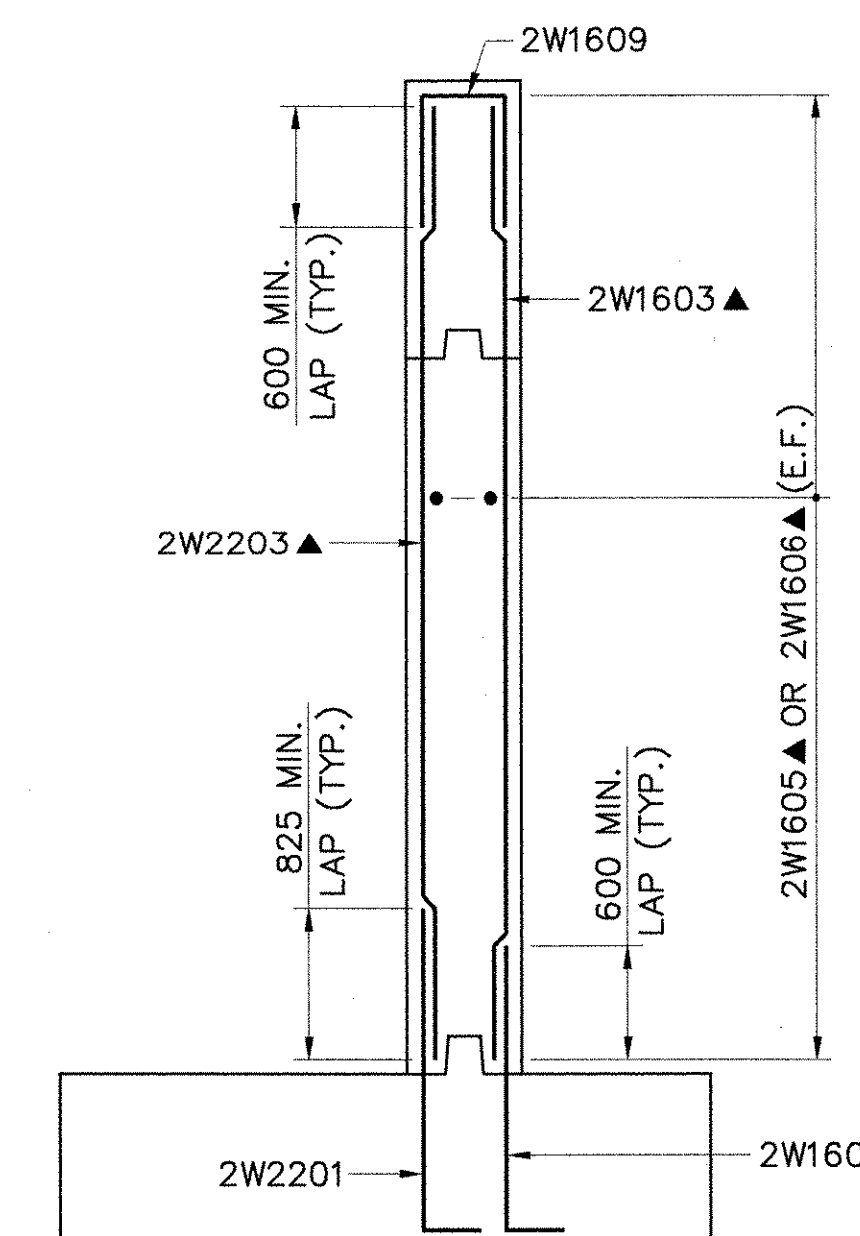
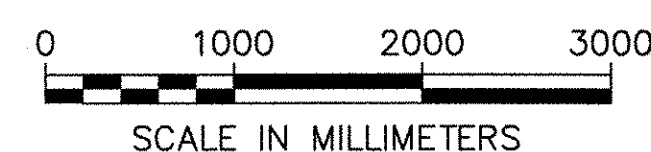
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
VT 17 OVER MILL BROOK			
ABUTMENT REMOVAL AND REPAIR			
Designed By	C.W. COVIELLO	Drawn By	B.J. MASSE
Checked By	S.M. SAREAULT	Bridge Design Supervisor	M.A. COLGAN
Date	1/06	Date	1/06
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	50543AR	Sheet	27 of 70



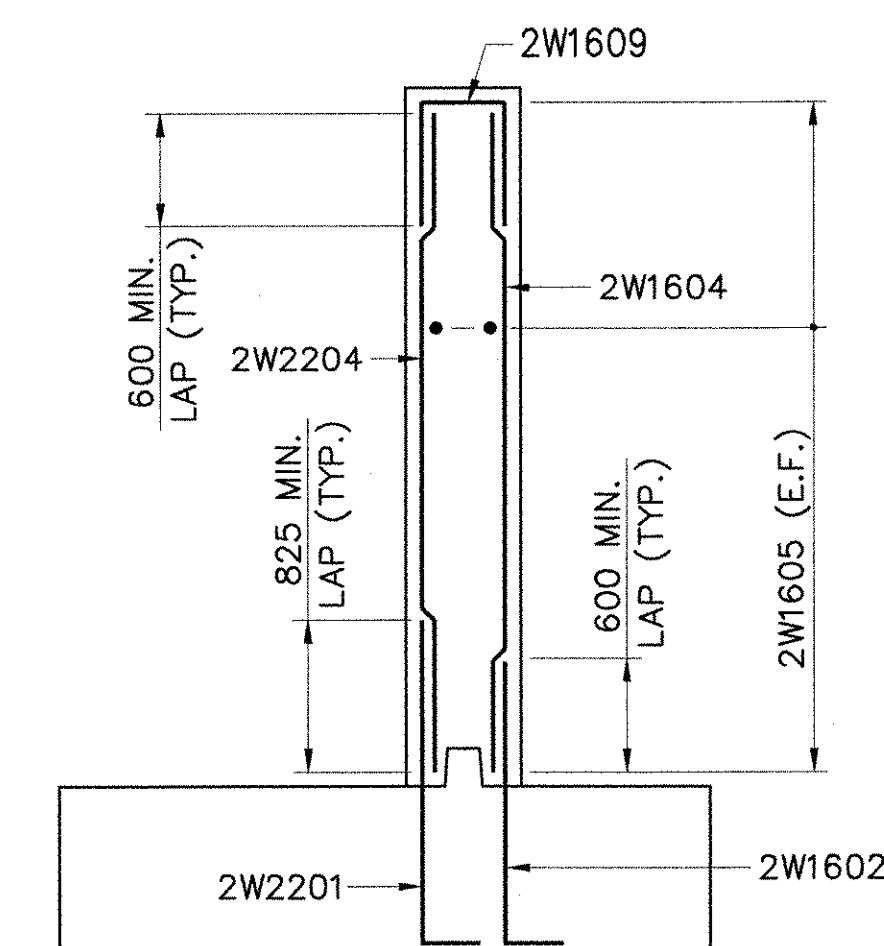
ABUTMENT NO. 1 PLAN
SCALE: 1:40



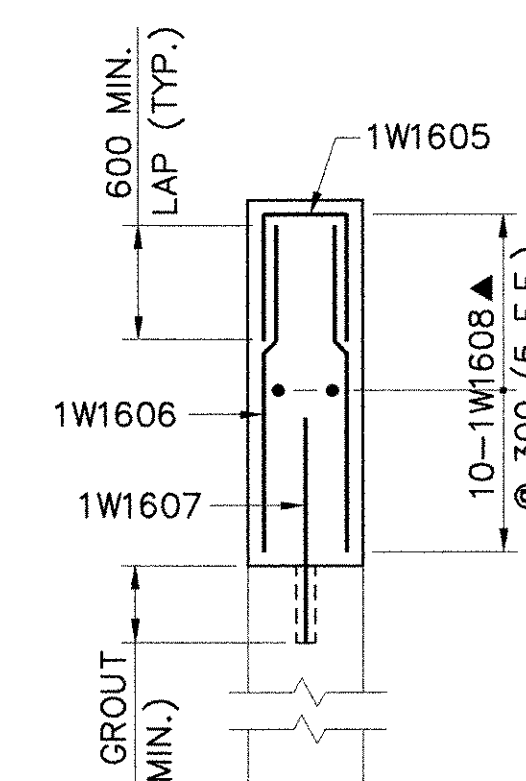
ABUTMENT NO. 1 ELEVATION
SCALE: 1:40



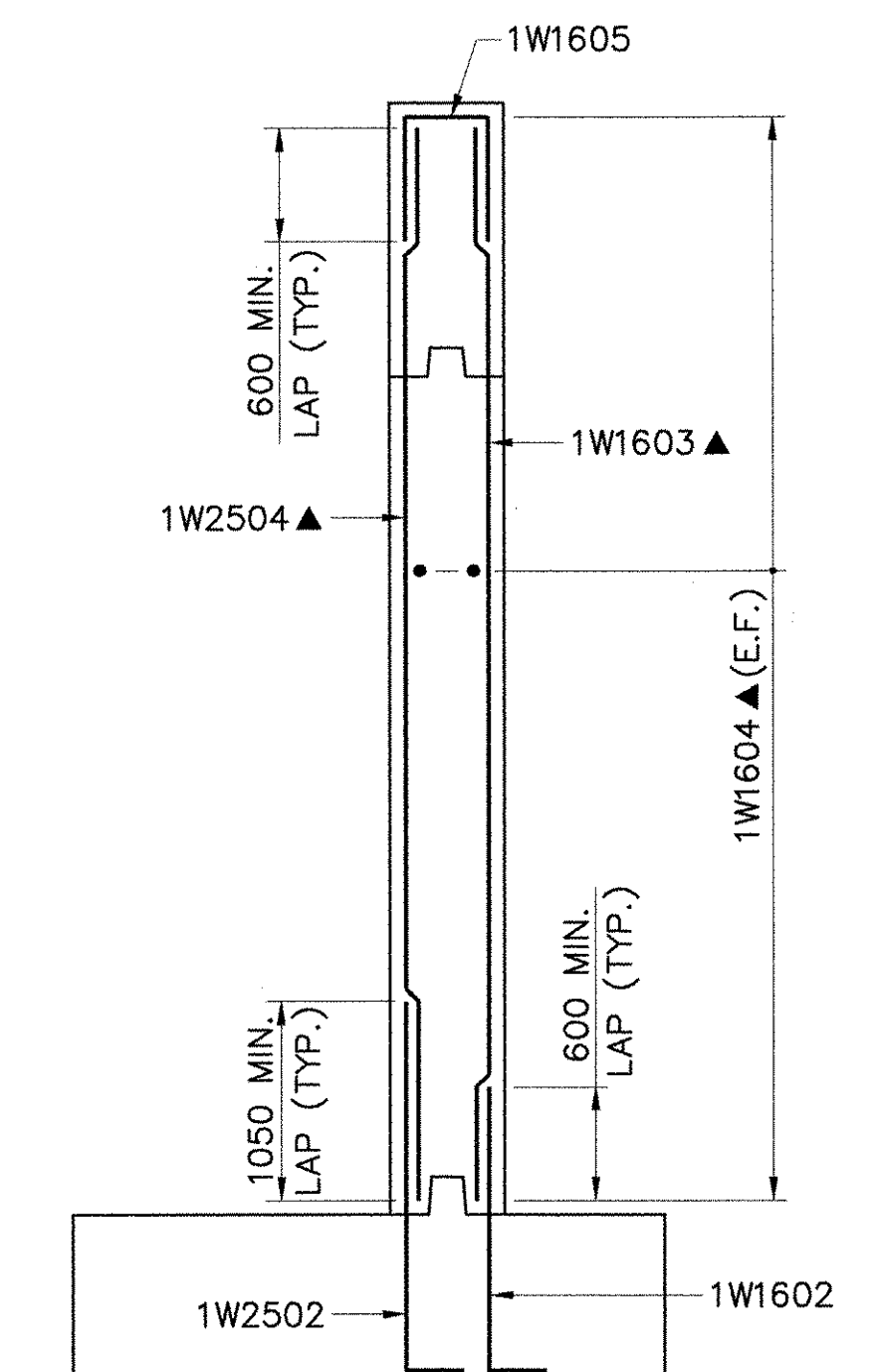
SECTION A-A
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SECTION B-B
SCALE: 1:40



SECTION C-C
SCALE: 1:40



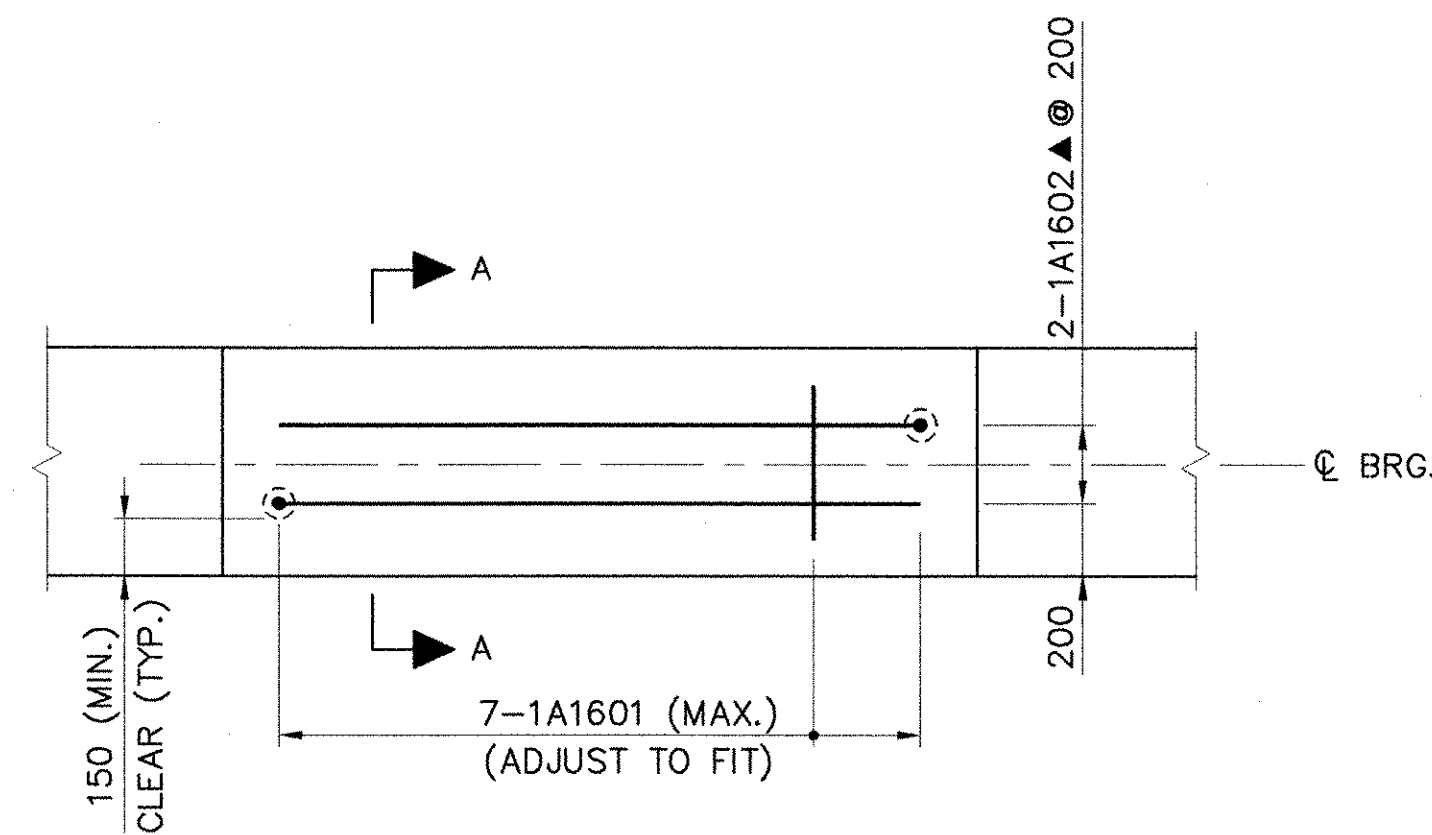
SECTION D-D
SCALE: 1:40

NOTES:

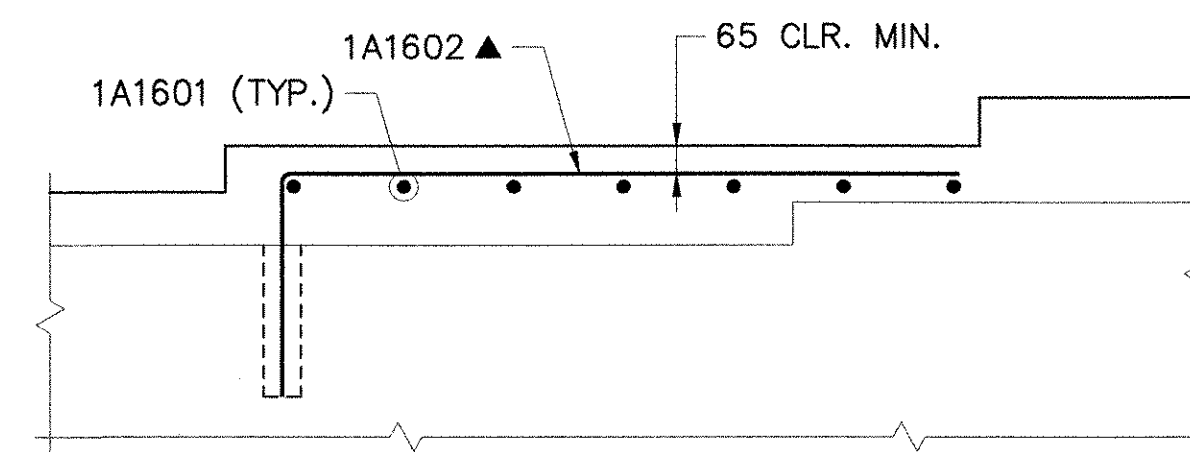
- SEE SHEET 30 FOR DETAILS A, B, AND C.
- ALL FOOTING REINFORCING NOT SHOWN FOR CLARITY.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

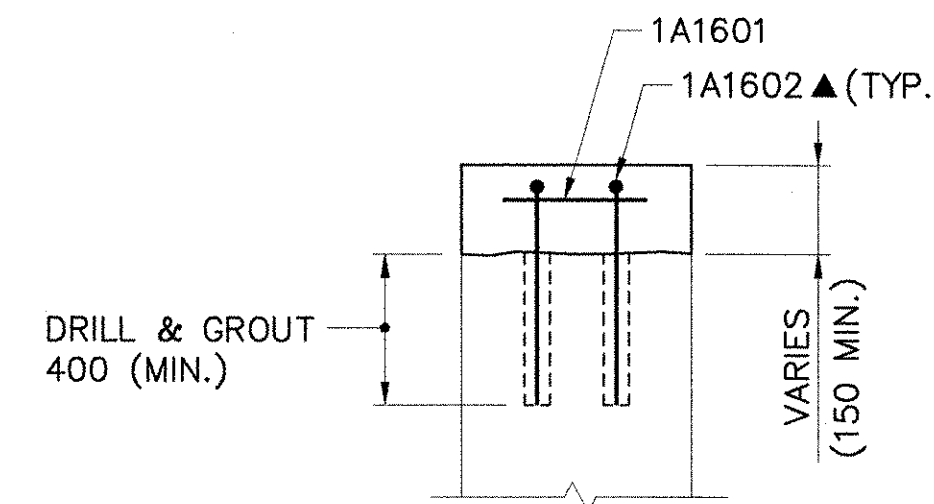
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
ABUTMENT NO. 1			
Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	S.M. SAREAULT	Bridge Design Supervisor	M.A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	50543A1M	Sheet	28 of 70



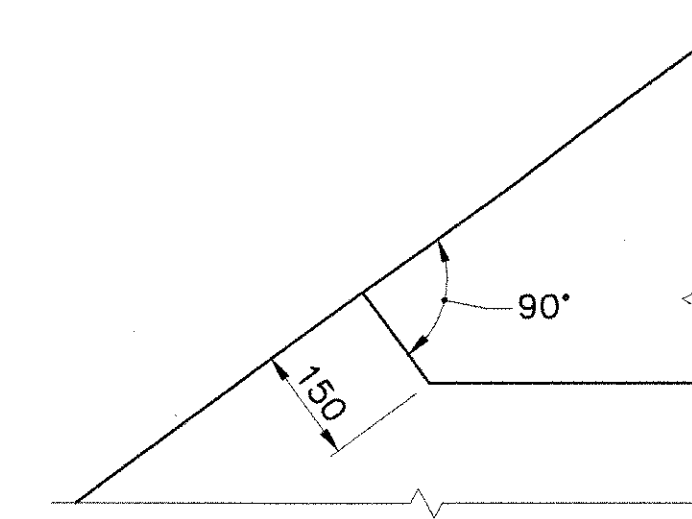
PLAN



ELEVATION

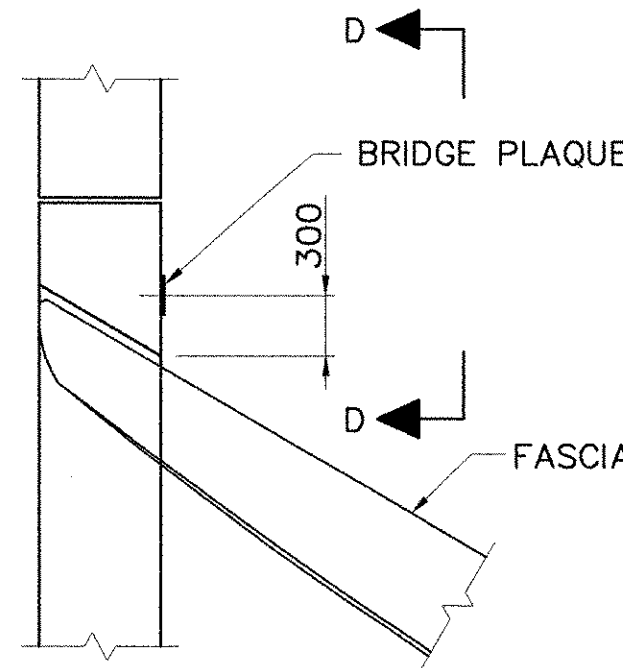


SECTION A-A

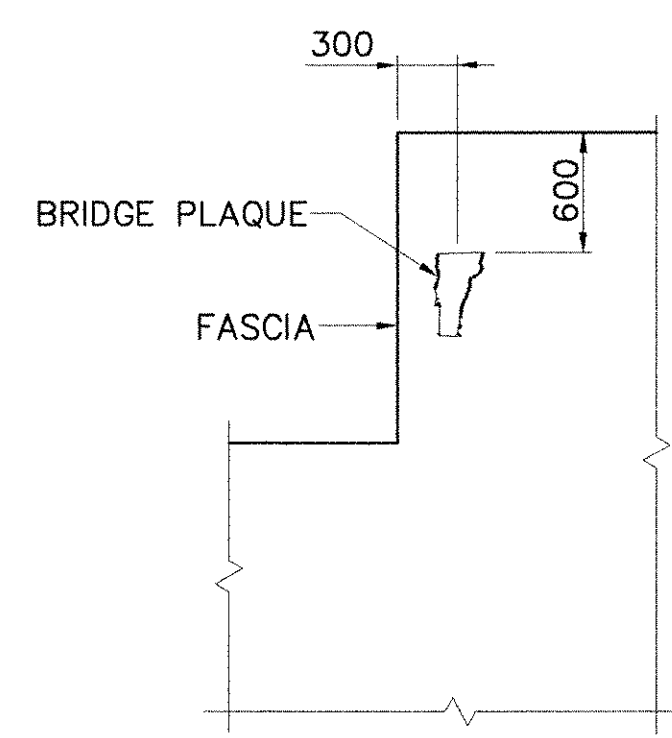


DETAIL B
N.T.S.

DETAIL C
SCALE: 1:20



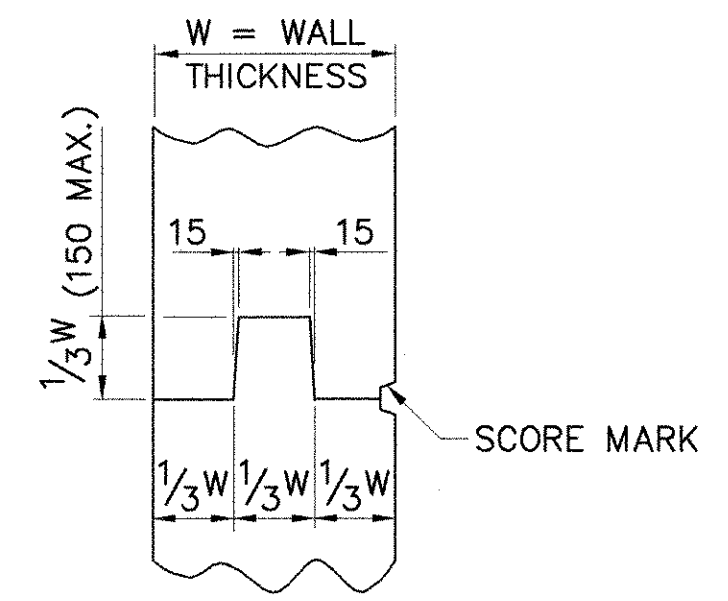
PLAN



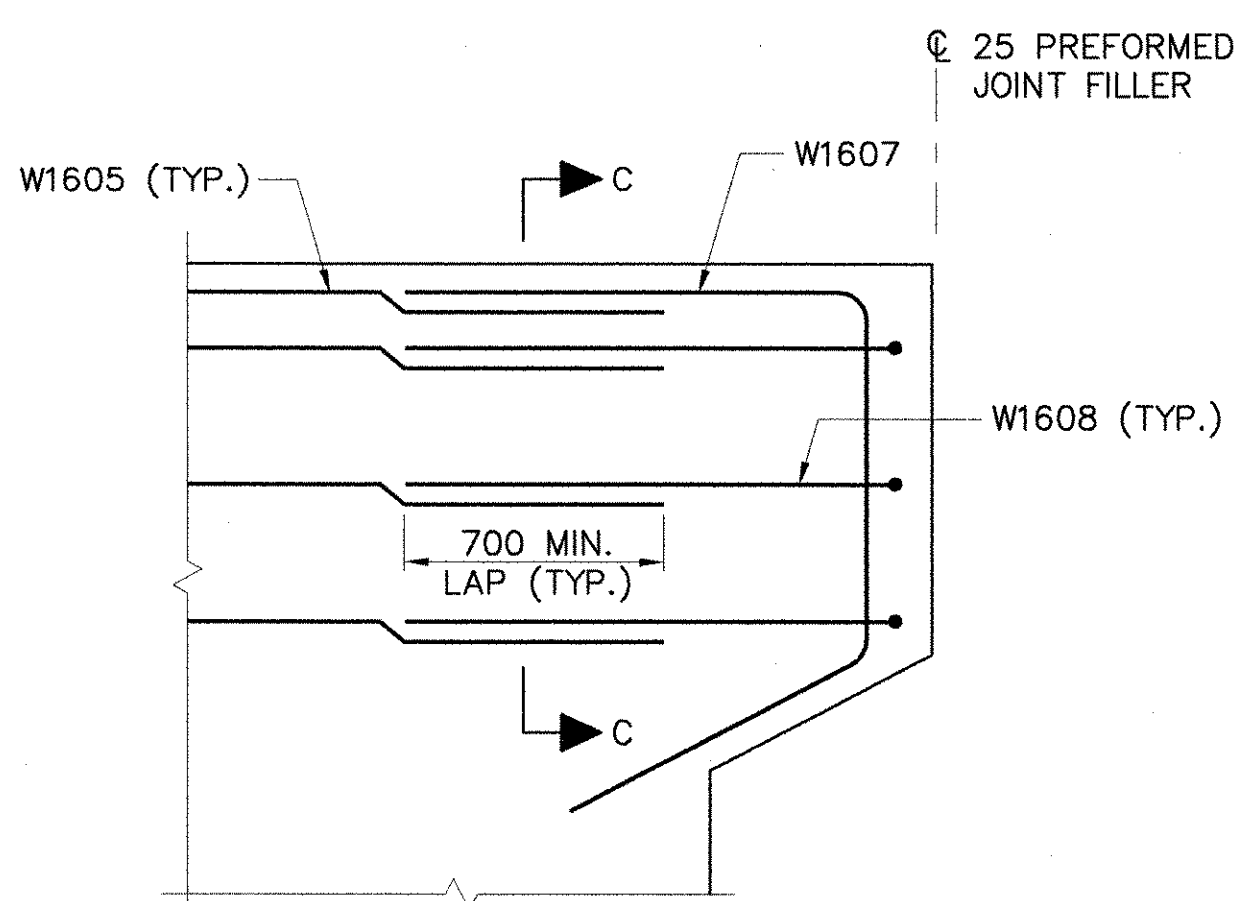
VIEW D-D

THE BRIDGE PLAQUE SHALL BE INSTALLED BY THE CONTRACTOR AT WINGWALL NO. 1 AS SHOWN OR AS DIRECTED BY THE RESIDENT ENGINEER.

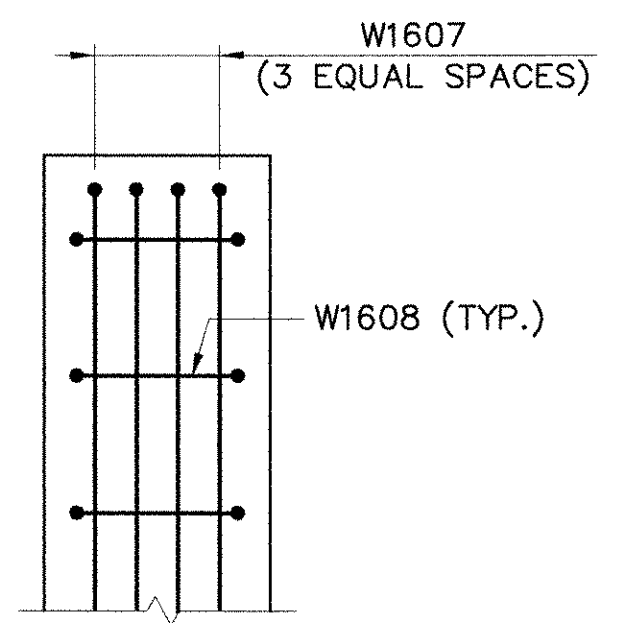
BENCH MARK AND BRIDGE PLAQUE LOCATION
N.T.S.



TYPICAL CONCRETE CONSTRUCTION JOINT
N.T.S.

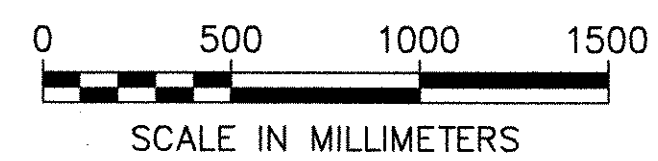


DETAIL A
SCALE: 1:20

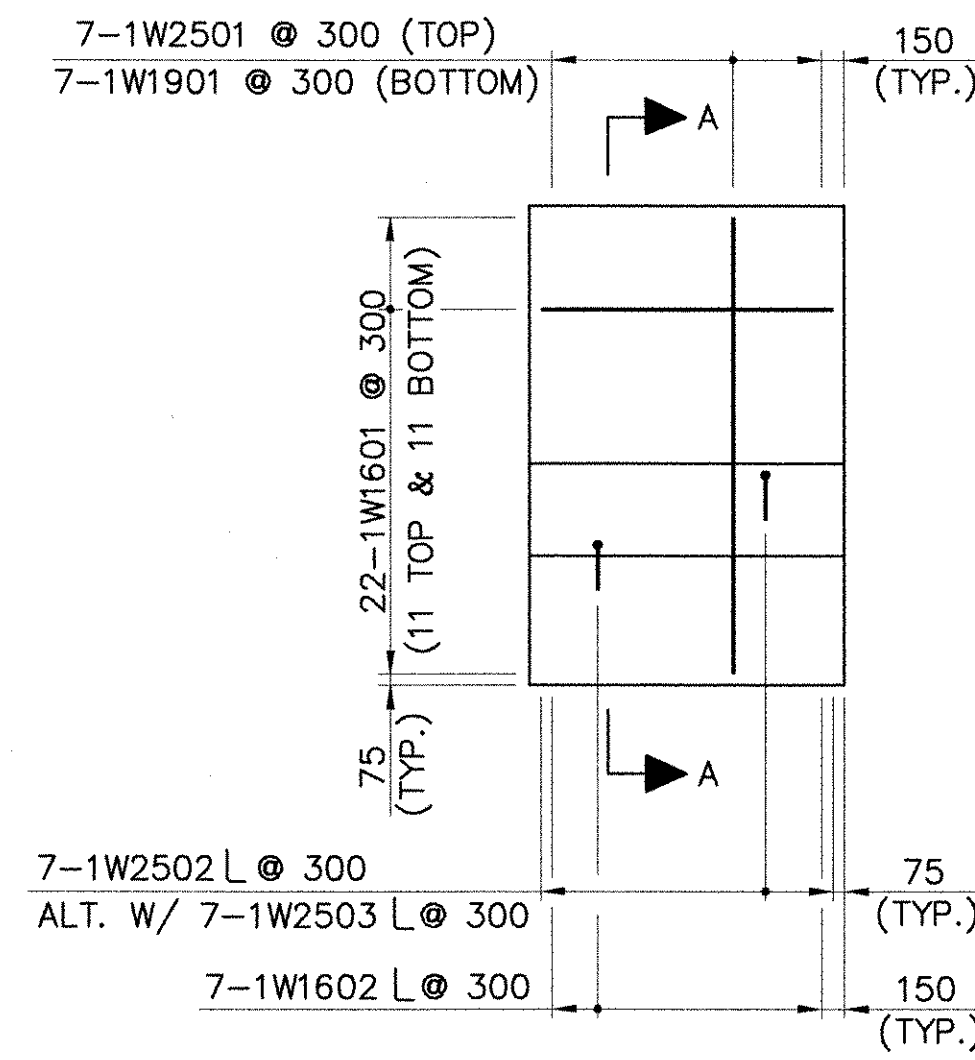


SECTION C-C
SCALE: 1:20

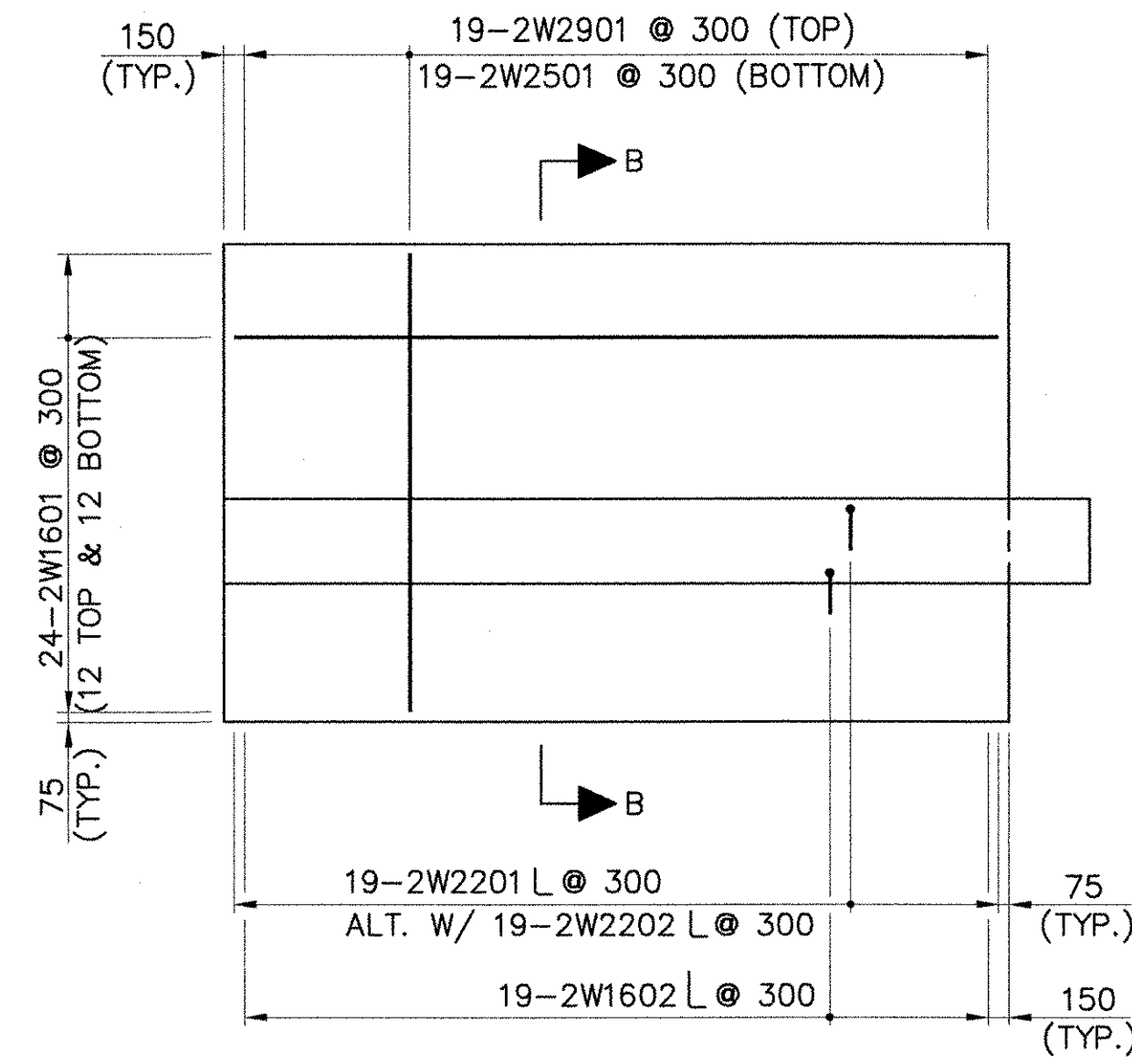
KEY:
N.F. - NEAR FACE
F.F. - FAR FACE
E.F. - EACH FACE
▲ - CUT TO FIT IN FIELD



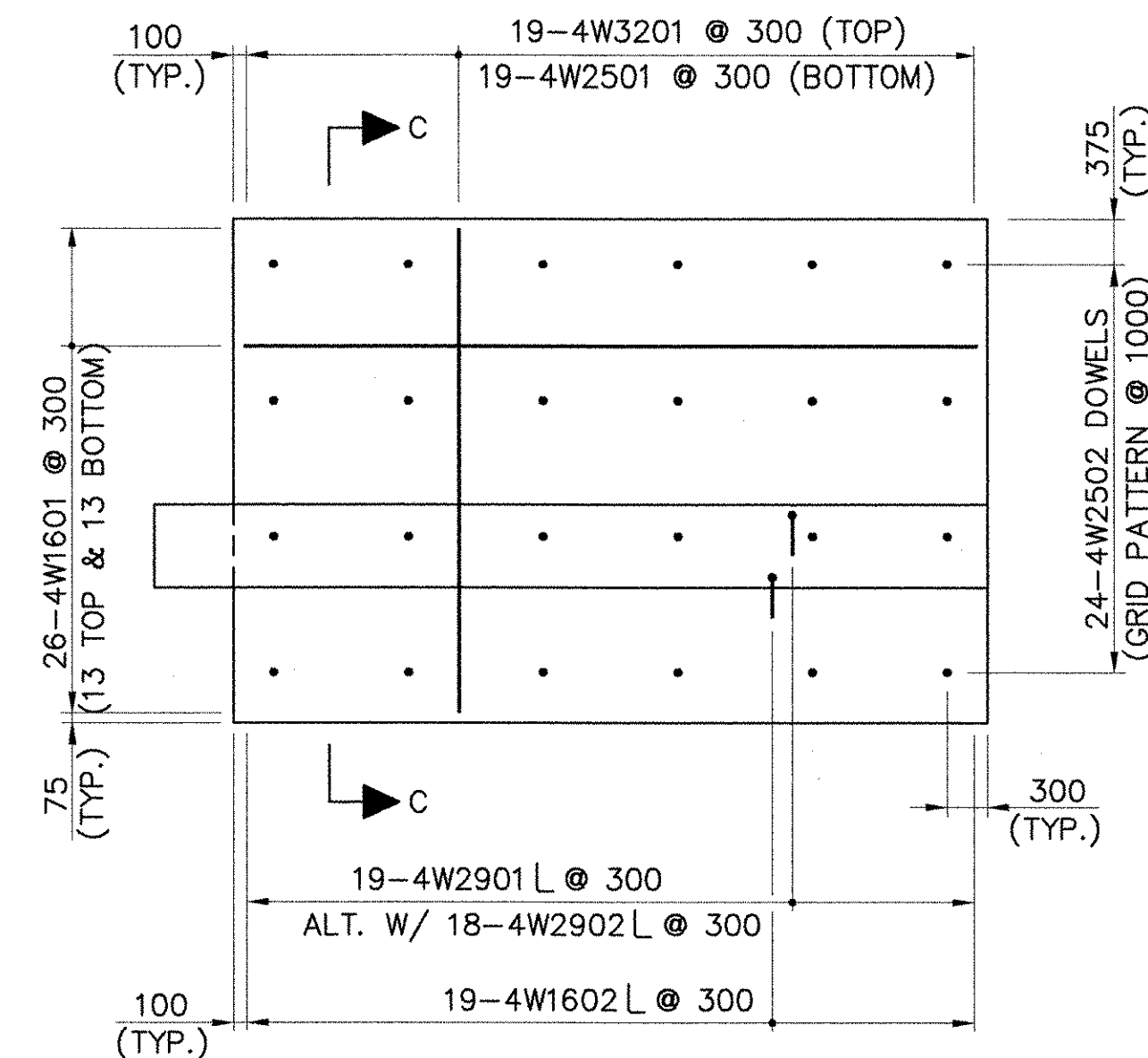
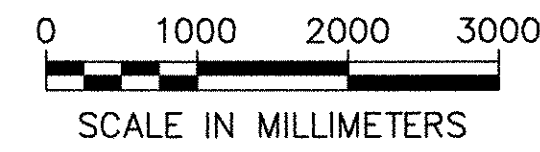
STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of FAYSTON		Bridge No. 36	
Highway No. VT 17		Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
SUBSTRUCTURE DETAILS			
Designed By M.A. COLGAN		Drawn By B.J. MASSE	
Checked By S.M. SAREAUT		Bridge Design Supervisor M.A. COLGAN	
Date 1/06		Date 1/06	
PROJECT FAYSTON		PROJECT NO. BHF 0200(9)	
I.G.C. Info.			
Bridge Sheet No. 50543SD		Sheet 30 of 70	



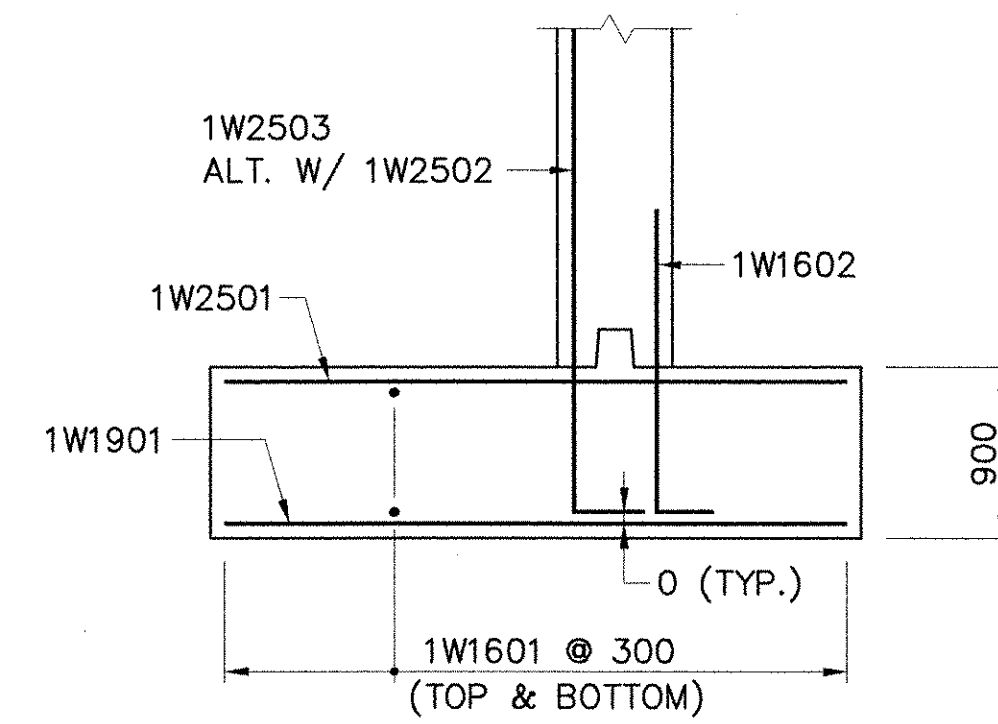
WINGWALL NO. 1
FOOTING REINFORCING
SCALE: 1:50



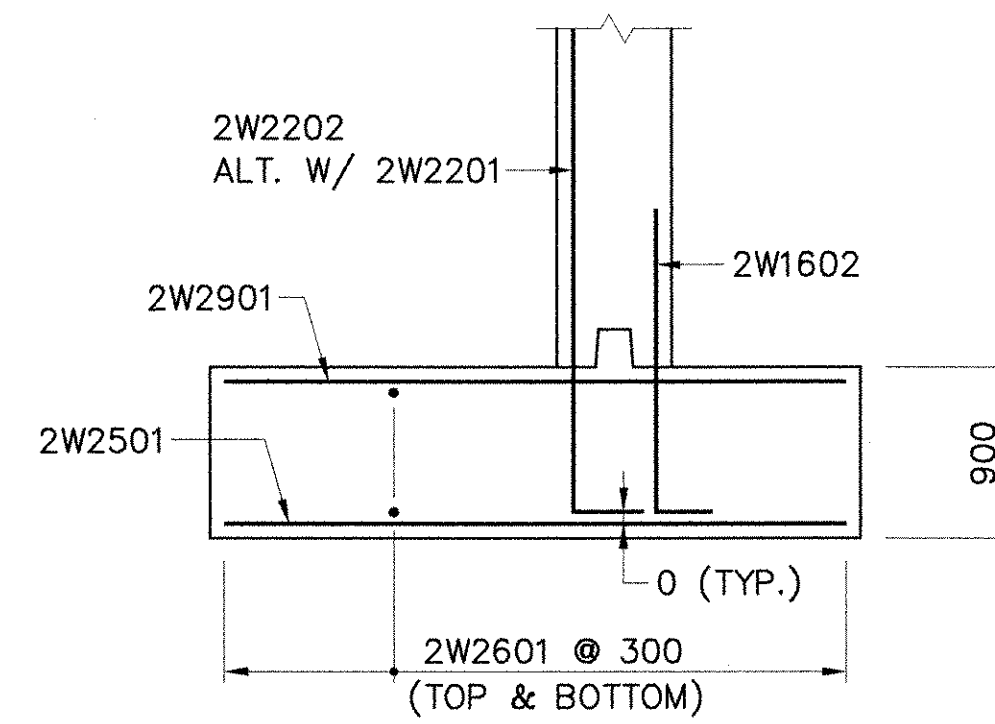
WINGWALL NO. 2
FOOTING REINFORCING
SCALE: 1:50



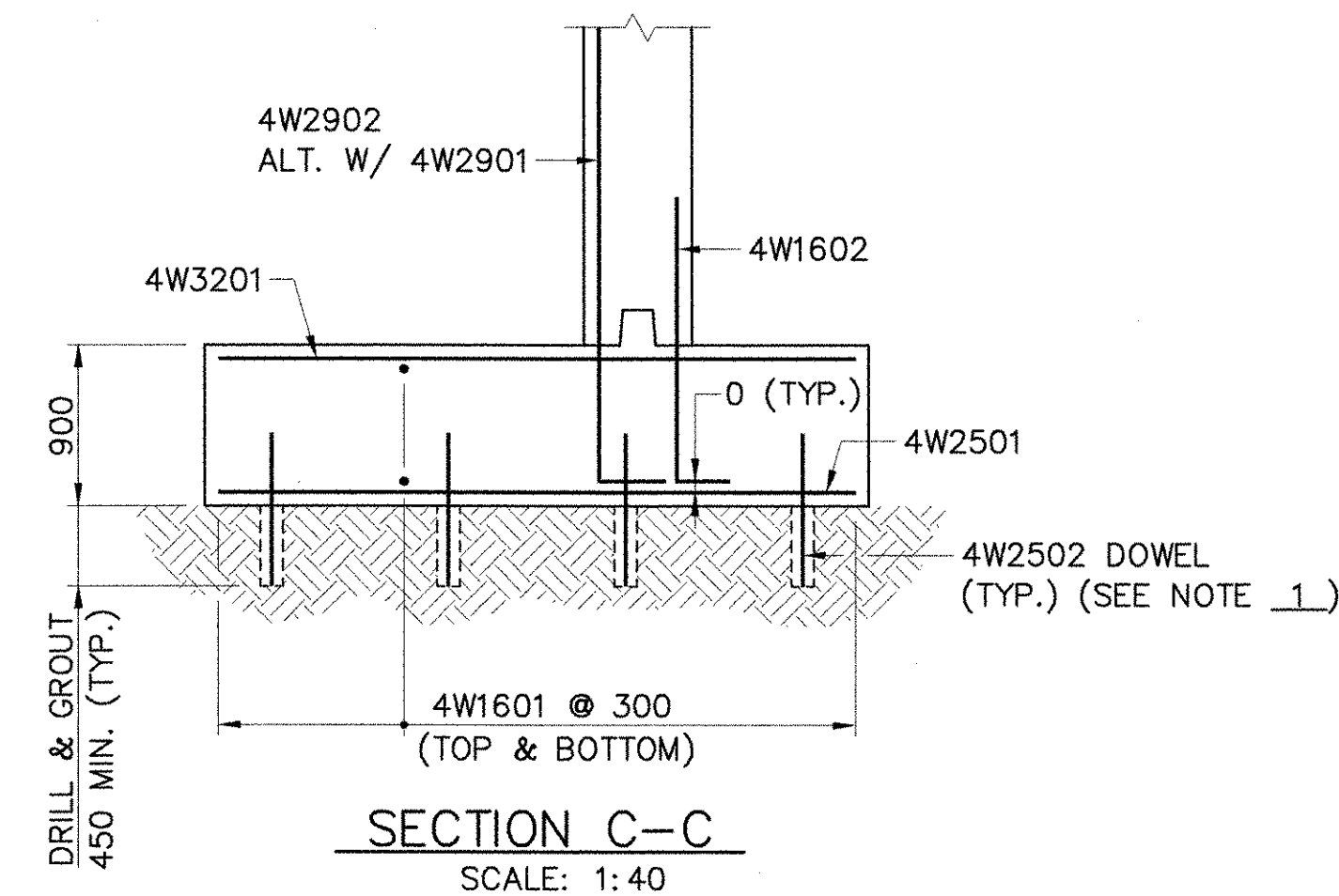
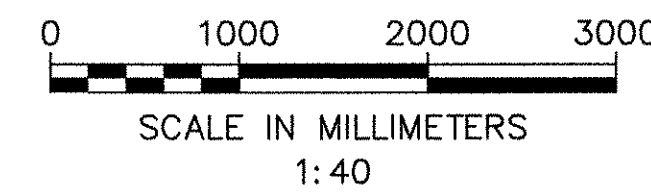
WINGWALL NO. 4
FOOTING REINFORCING
SCALE: 1:50



SECTION A-A
SCALE: 1:40



SECTION B-B
SCALE: 1:40

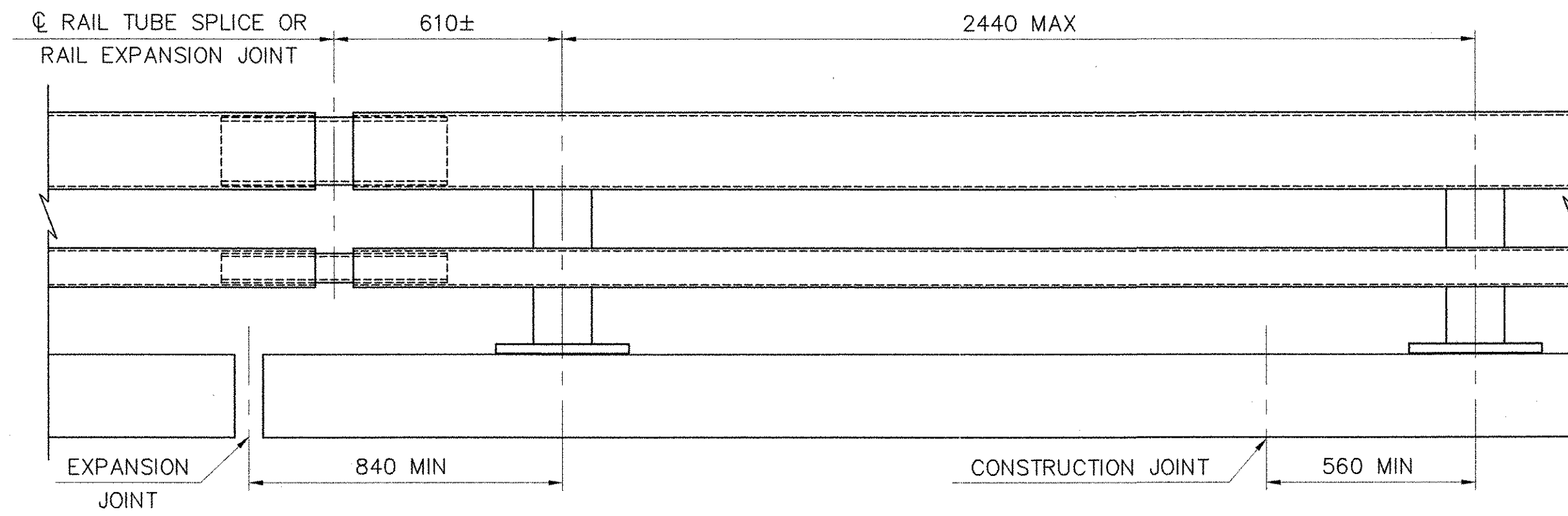


SECTION C-C
SCALE: 1:40

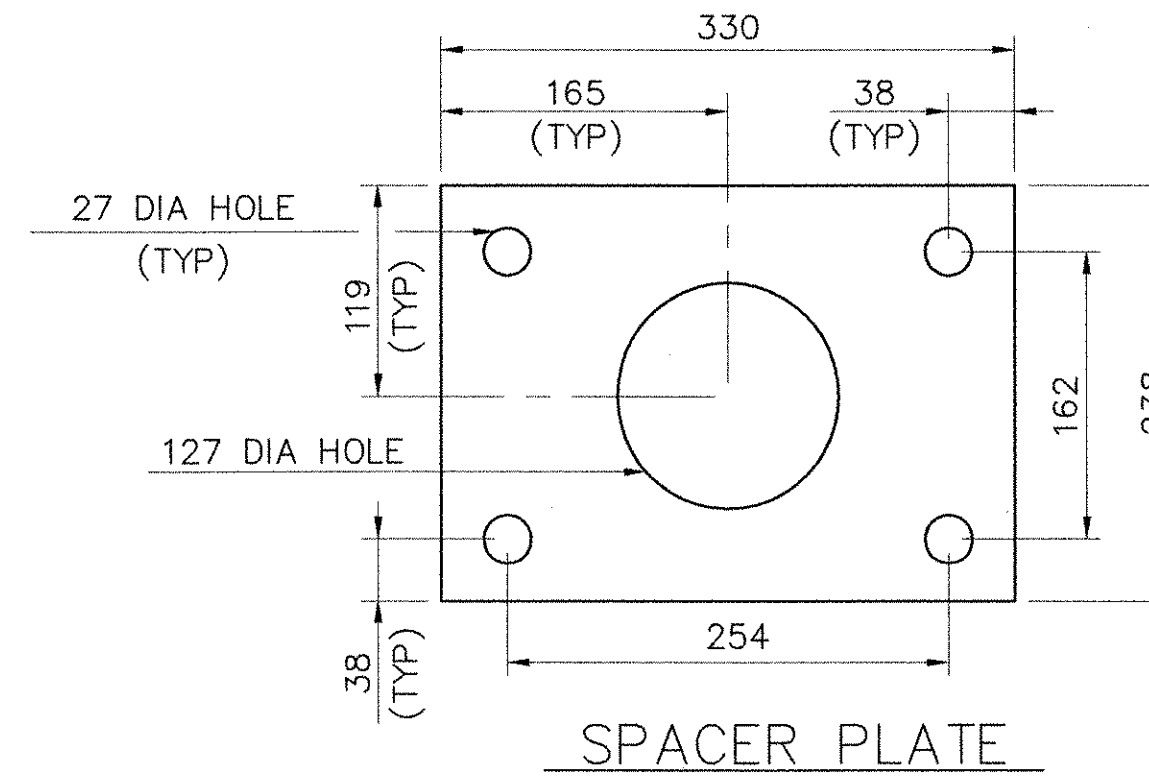
- NOTE:**
1. SEE SHEET 19 FOR FOUNDATION NOTES.

STATE OF VERMONT AGENCY OF TRANSPORTATION

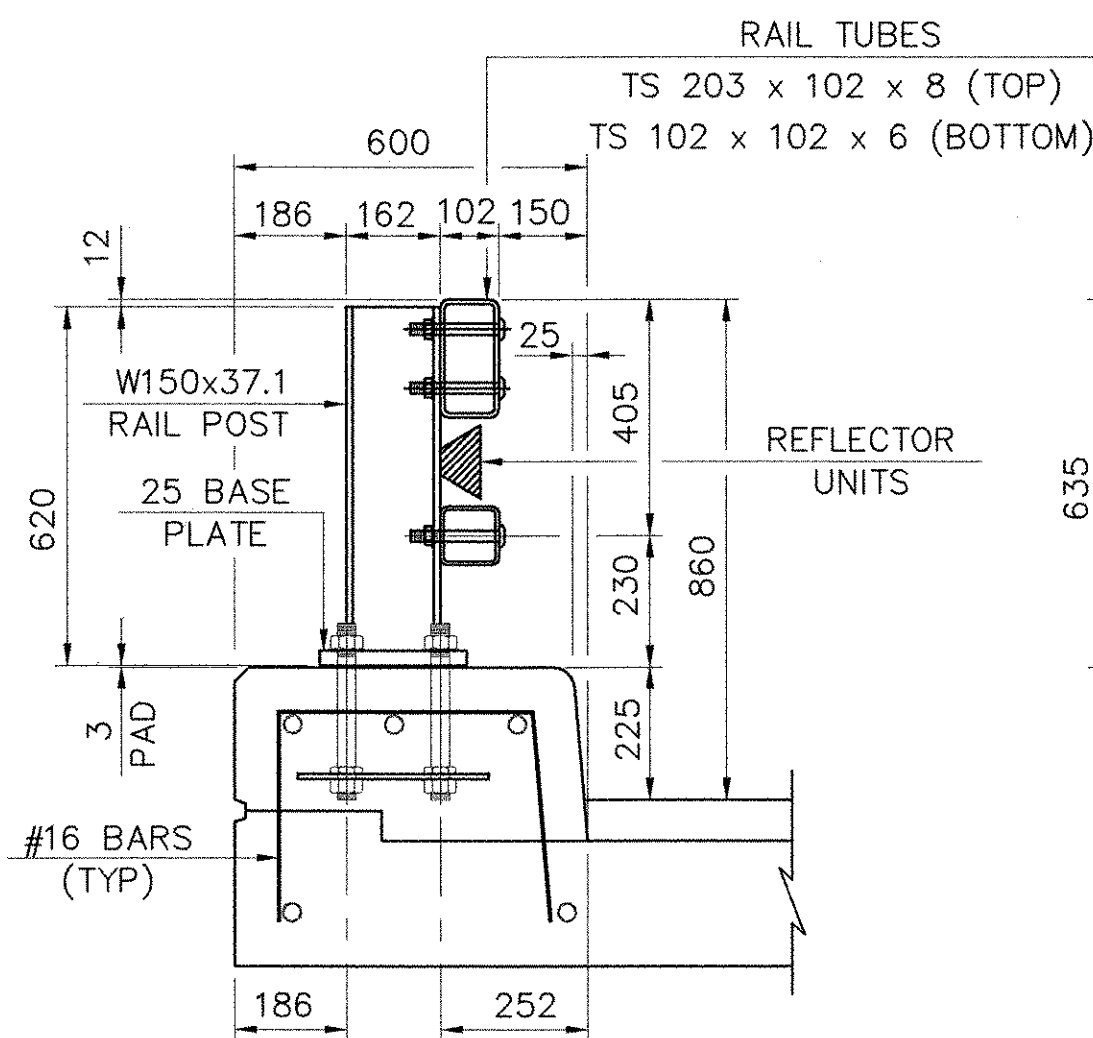
Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
WINGWALL FOOTINGS			
Designed By	M.A. COLGAN	Drawn By	B.J. MASSE
Checked By	S.M. SAREAULT	Bridge Design Supervisor	M.A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	50543WWR	Sheet	31 of 70



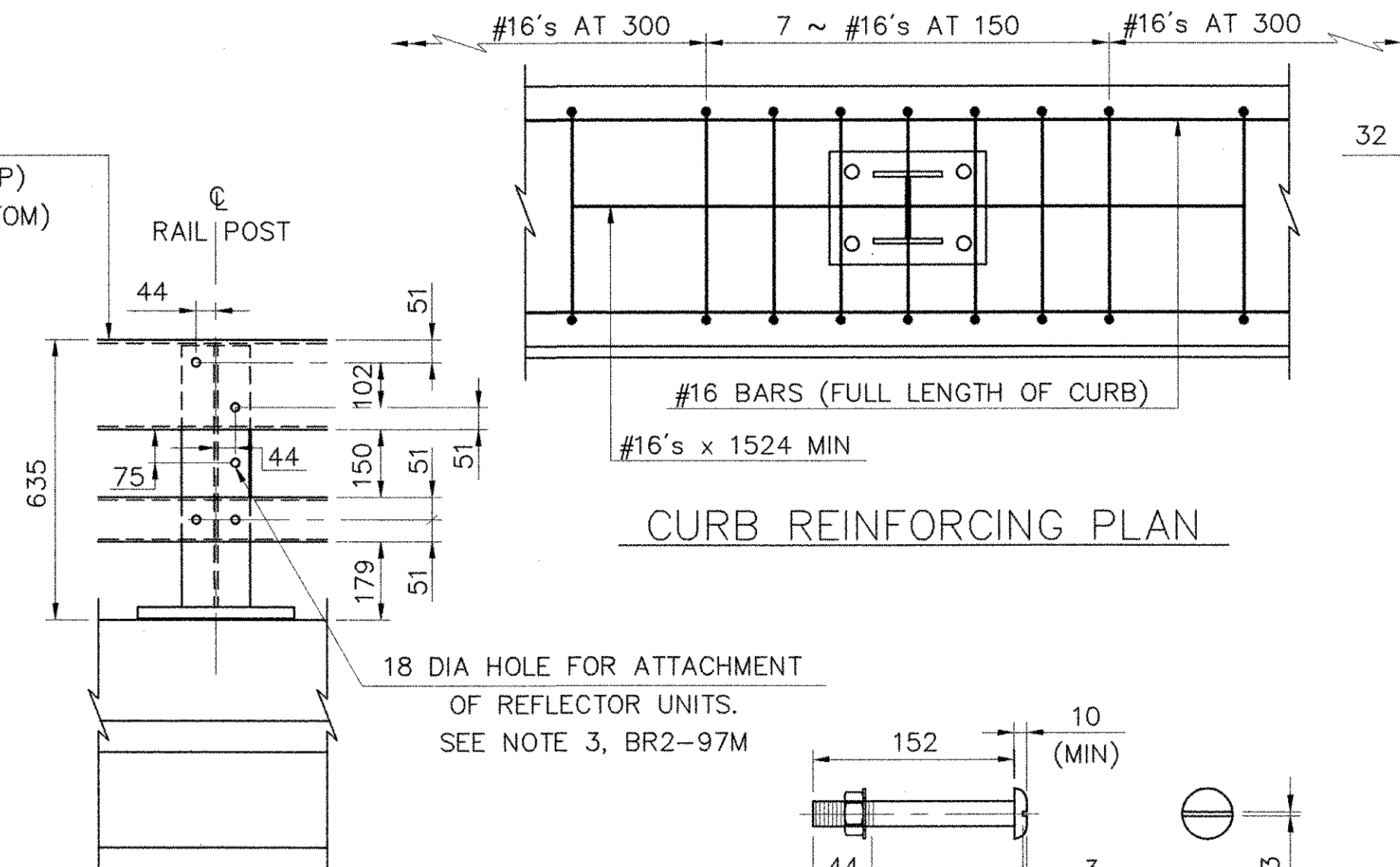
BRIDGE RAILING ELEVATION



SPACER PLATE

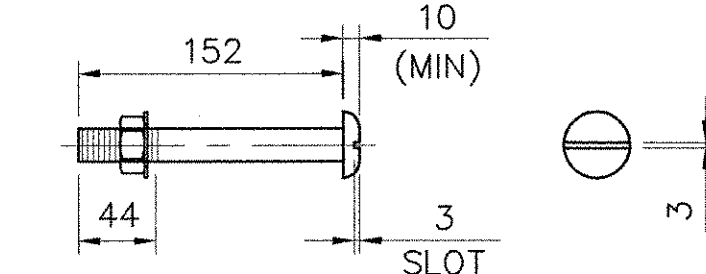


TYPICAL SECTION



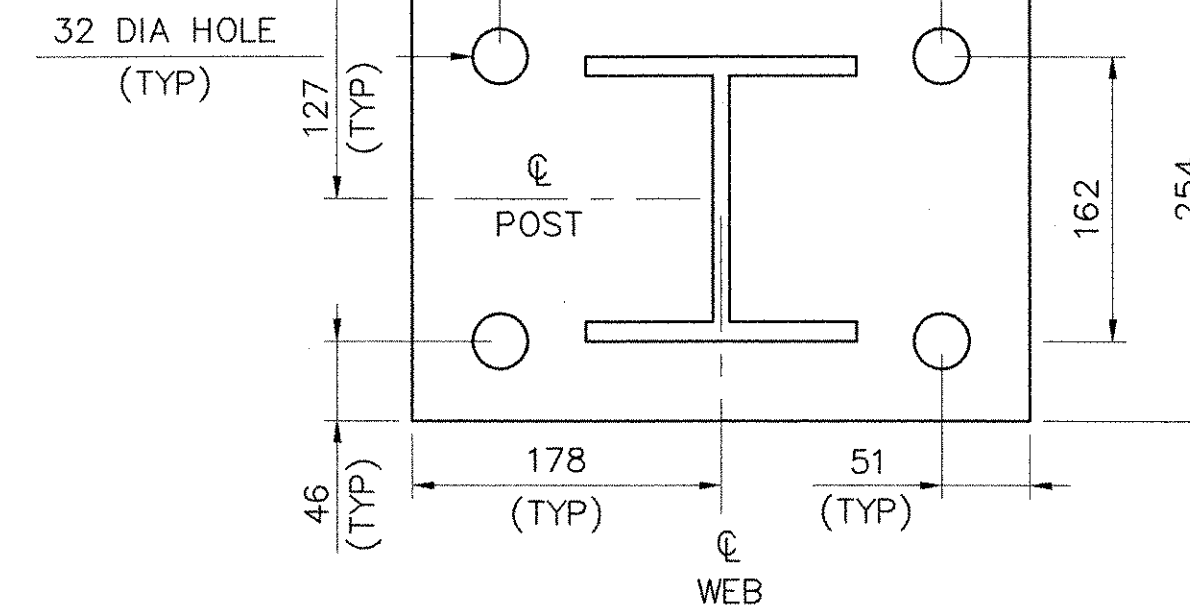
CURB REINFORCING PLAN

ELEVATION

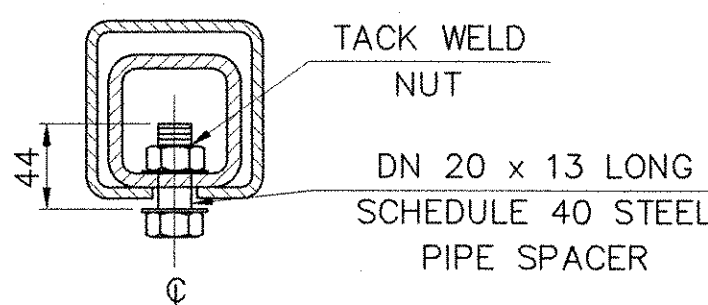


M20 DIA M164 (TYPE I)
ROUND HEAD BOLT

(WITH WASHER AND PREVAILING TORQUE TYPE LOCK NUT)
(SEE NOTE #9)
ONLY FULL DIAMETER BODY BOLTS WILL BE ALLOWED.

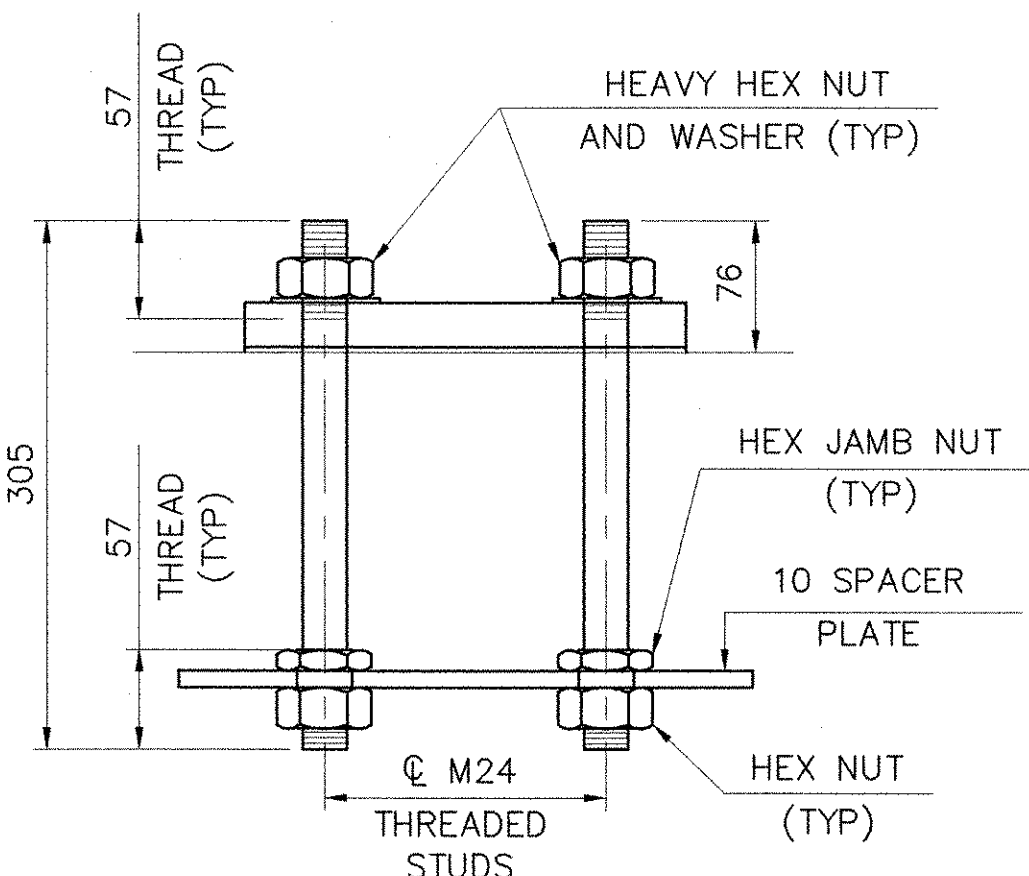


POST AND BASE PLATE

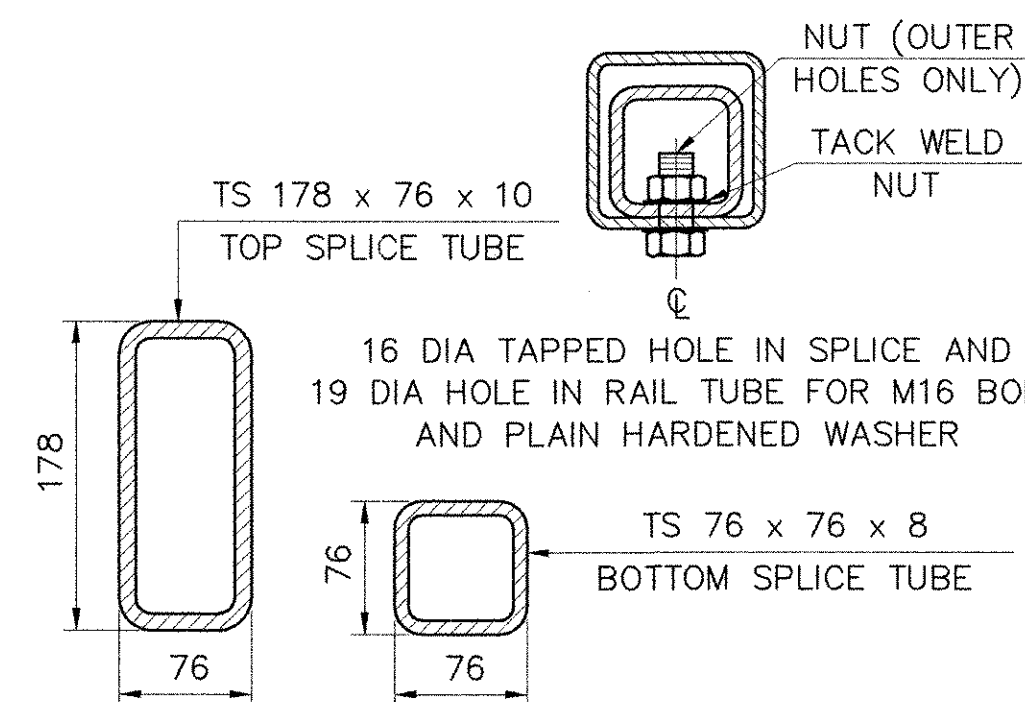


EXPANSION JOINT SECTION

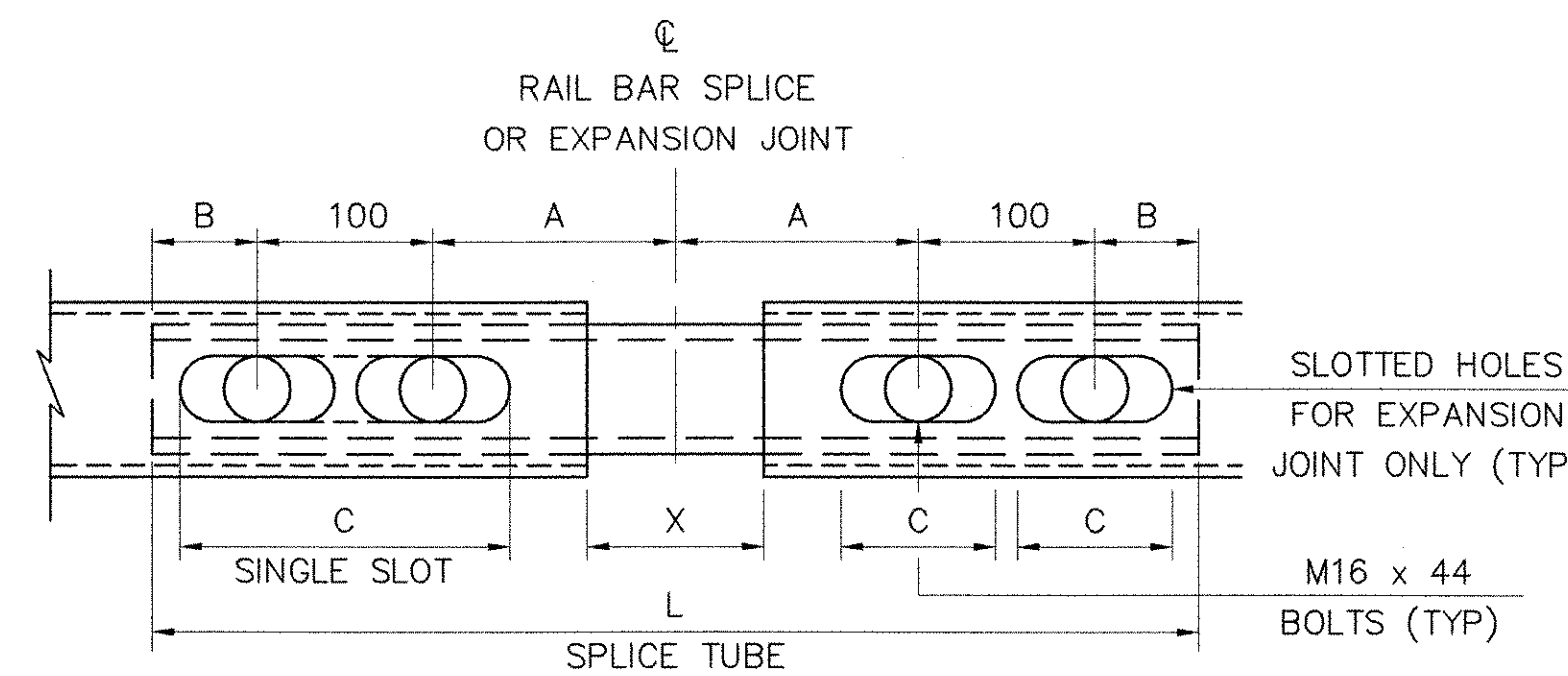
FOR DETAILS NOT SHOWN
SEE "RAIL TUBE SPlice SECTION"



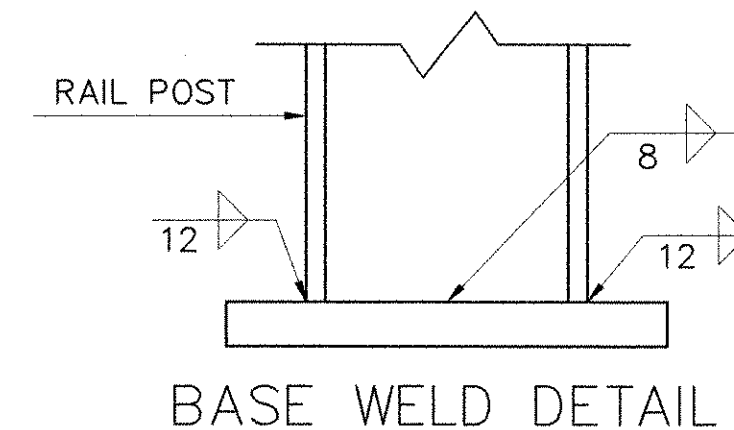
RAIL POST ANCHORAGE



RAIL TUBE SPlice SECTION



RAIL TUBE SPlice AND RAIL
EXPANSION JOINT DETAIL
(BOTTOM VIEW)



BASE WELD DETAIL

NOTES:

- ALL WORK AND MATERIALS SHALL CONFORM TO THE PROVISIONS OF SECTION 525, "RAILINGS OF THE STANDARD SPECIFICATION FOR CONSTRUCTION."
- TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732, "RAILING MATERIALS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION," EXCEPT THAT THE DROP-WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING IN THIS STANDARD.
- ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 2mm RADIUS AND BE FREE OF BURRS.
- RAIL POSTS SHALL BE SET NORMAL TO GRADE.
- SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO (2) RAIL POSTS AND PREFERABLY TO AT LEAST FOUR (4) POSTS.
- RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING A SUPERSTRUCTURE EXPANSION JOINT. EXPANSION JOINT WIDTH SHALL BE "X" AT 7°C AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
- ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M232M.
- RAIL POSTS ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.
- RAIL TUBES SHALL BE ATTACHED USING M20 FULL DIAMETER BODY AASHTO M164 (TYPE I) ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE TUBE. HOLES HOLES IN POSTS SHALL BE 2mm LARGER THAN THE BOLT SIZE.
- HOLES IN RAILS FOR RAIL TUBE ATTACHMENT MAY BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO ERECTION.
- IF THERE IS A CONFLICT BETWEEN THESE DETAILS AND THE DESIGN, THE REQUIREMENTS OF THE DESIGN DRAWINGS SHALL BE FOLLOWED.
- ANY BENDING OF RAIL SHALL BE BY SHOP PROCEDURE ONLY.
- THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS INCLUDING WELDING PROCEDURES TO THE STRUCTURES SECTION FOR APPROVAL IN ACCORDANCE WITH THE PROVISION OF 506.04, SHOP DRAWINGS. ALL WELDING SHALL CONFORM WITH SECTION 506.10.
- RAIL POST AND BASE PLATES SHALL BE TESTED FOR IMPACT PROPERTIES IN ACCORDANCE WITH ASTM A370 CHARPY IMPACT TESTING USING TYPE A SPECIMENS.

MATERIALS:

RAIL TUBES.....ASTM A500, GRADE B OR ASTM A501
RAIL POSTS AND BASE PLATE.....ASTM A709/A709M, GRADE 50
ALL OTHER SHAPES AND PLATES.....ASTM A709/A709M, GRADE 36
ANCHOR STUDS.....ASTM A449
ALL OTHER BOLTS (UNLESS NOTED).....AASHTO M164M, TYPE I

NUTS FOR AASHTO M164 BOLTS AND ANCHOR STUDS SHALL COMPLY WITH AASHTO M291M (ASTM A563M).

WASHERS SHALL COMPLY WITH AASHTO M293M (ASTM F436M) SPECIFICATIONS.

3mm PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02.

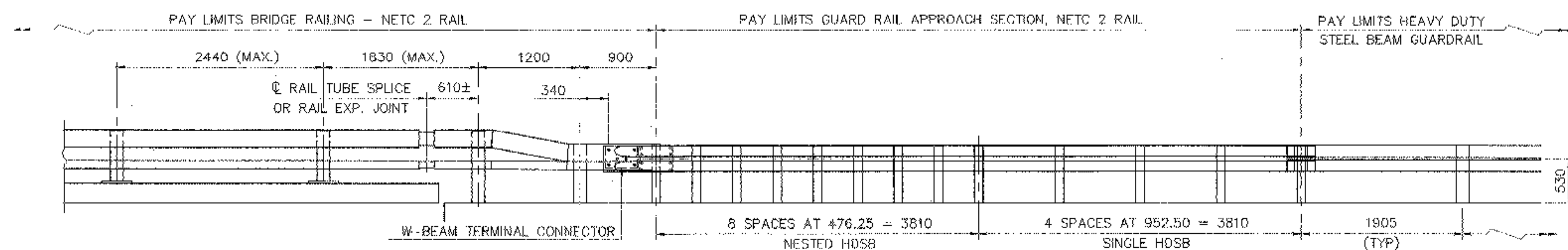
SPlice TABLE					
T	A	B	C	L	X
NA	100	50	--	510	20
EXPANSION JOINT TABLE					
<100	100	50	65	510	65
>100 <165	140	60	90	605	105
>165 <230	165	85	230*	705	130
>230 <330	215	110	280*	860	180

T = TOTAL MOVEMENT BETWEEN BRIDGE
EXPANSION JOINTS. SEE NOTE 6

* = SINGLE SLOT

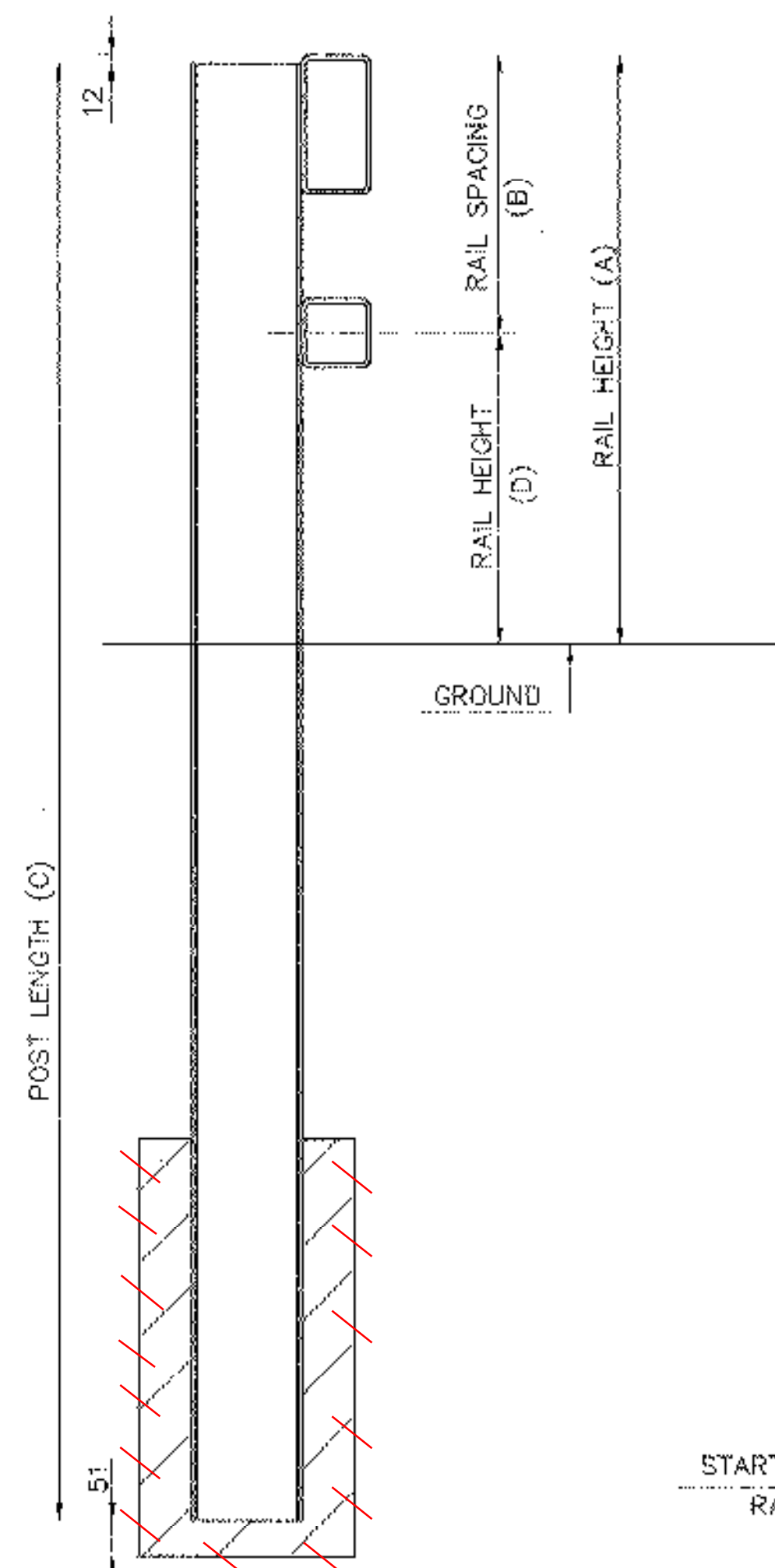
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
BRIDGE RAILING (1 OF 2)			
Designed By	VTRANS	Drawn By	VTRANS
Checked By	VTRANS / J.T.K.	Bridge Design Supervisor	M.A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	BR1-97M	Sheet	32 of 70

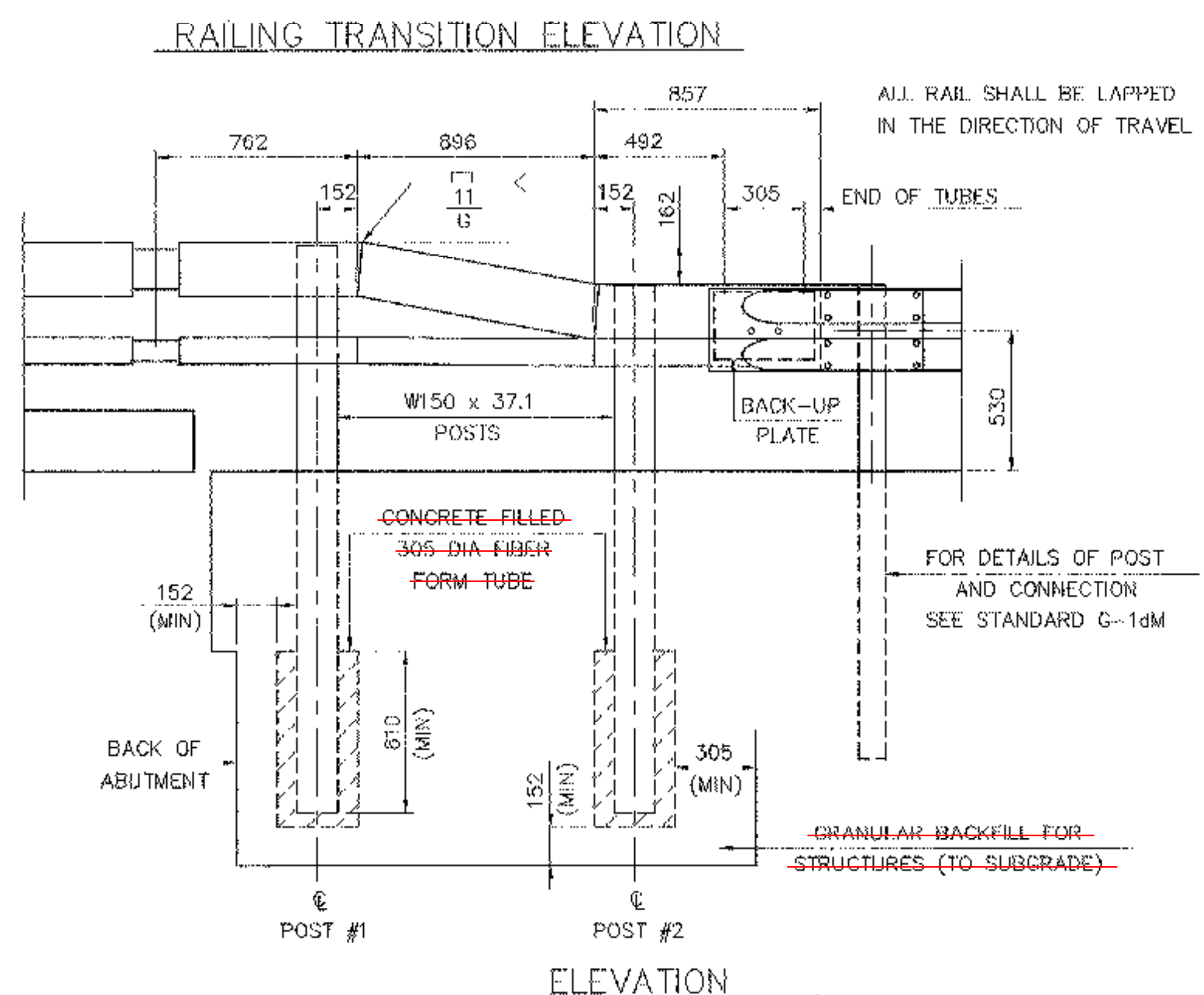


NOTES:

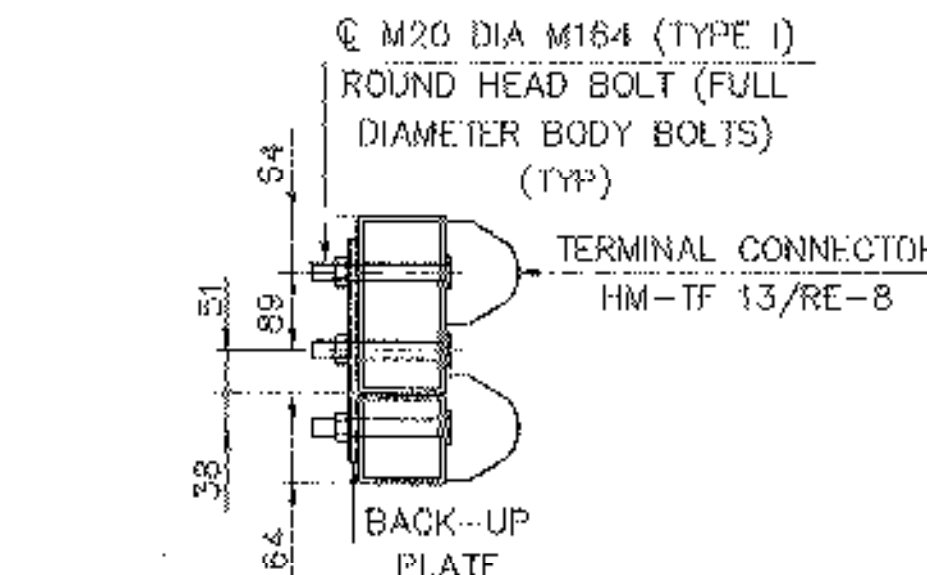
1. REFER TO BRIDGE RAILING (1 OF 2) FOR ADDITIONAL DETAILS, NOTES AND MATERIAL SPECIFICATIONS.
2. ~~TO FACILITATE FIELD SET UP OF THE TRANSITION RAILING, POSTS SHALL BE SET LOOSELY INTO FIBER FORM TUBES WHILE TRANSITION PARTS ARE BEING ASSEMBLED. POST HOLES SHALL BE BACKFILLED WITH A CONCRETE MIX APPROVED BY THE ENGINEER. PAYMENT FOR COMPONENTS, INCLUDING BACKUP PLATE AND END TERMINAL CONNECTOR FOR GUARD RAIL, AUGERING, FIBER FORM TUBES AND CONCRETE, AND INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO BRIDGE RAILING, N.E.T.C. 2 RAIL.~~
3. THE REFLECTORIZED ALUMINUM DELINEATION IS TO BE ERECTED EVERY 9m (OR CLOSEST POST) WITH A M16 BOLT. DELINEATORS SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052-H32.
4. REFLECTIVE MATERIAL SHALL MEET REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER. AMBER IS TO BE INSTALLED ON THE DRIVER'S LEFT AND SILVER ON THEIR RIGHT.
5. ALL APPROACH RAIL SPLICES SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW.
6. SEE STANDARD G-1M AND G-10M FOR ADDITIONAL INFORMATION.



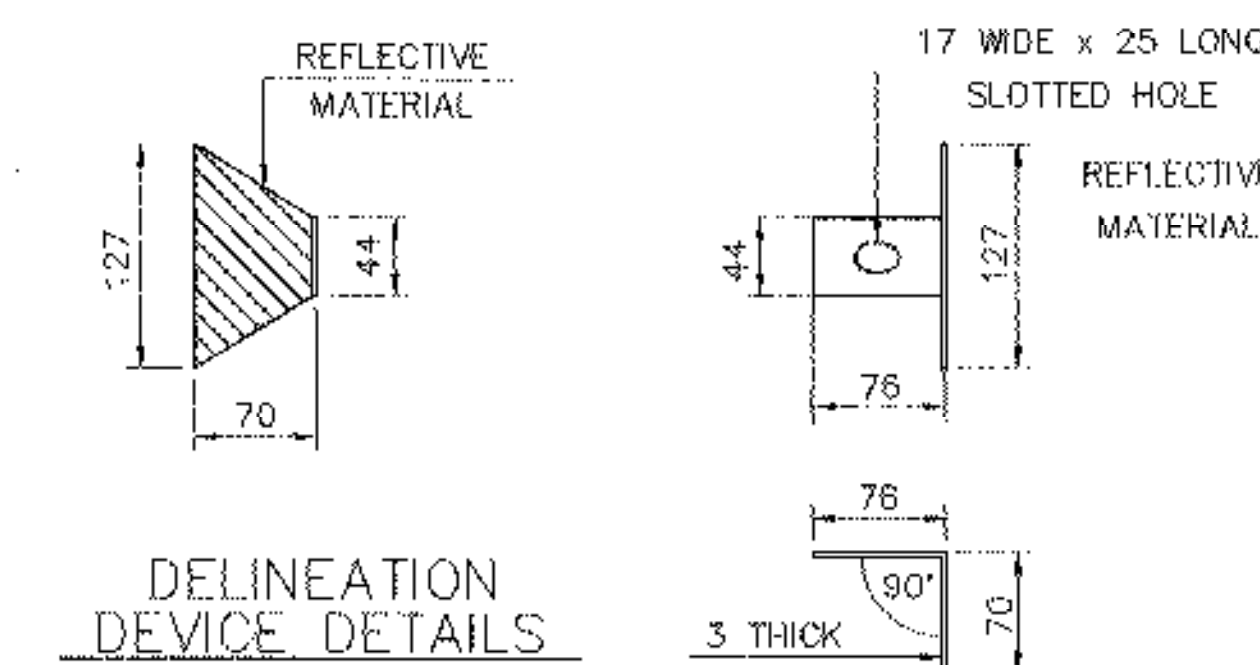
TYPICAL SECTION



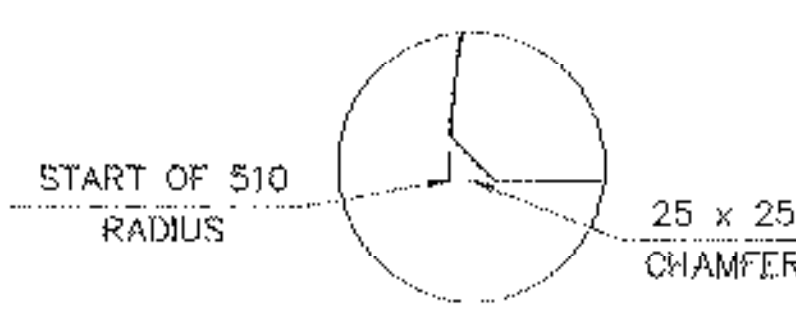
RAILING TRANSITION ELEVATION



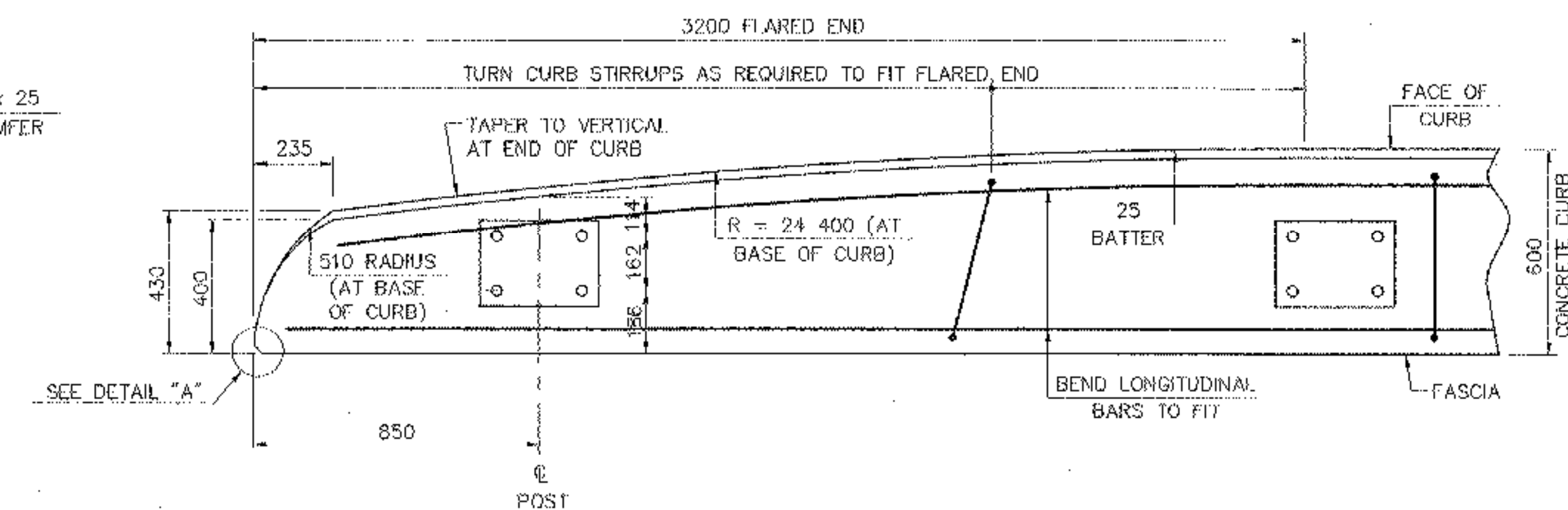
SECTION THROUGH GUARD RAIL CONNECTION AT TERMINAL CONNECTOR



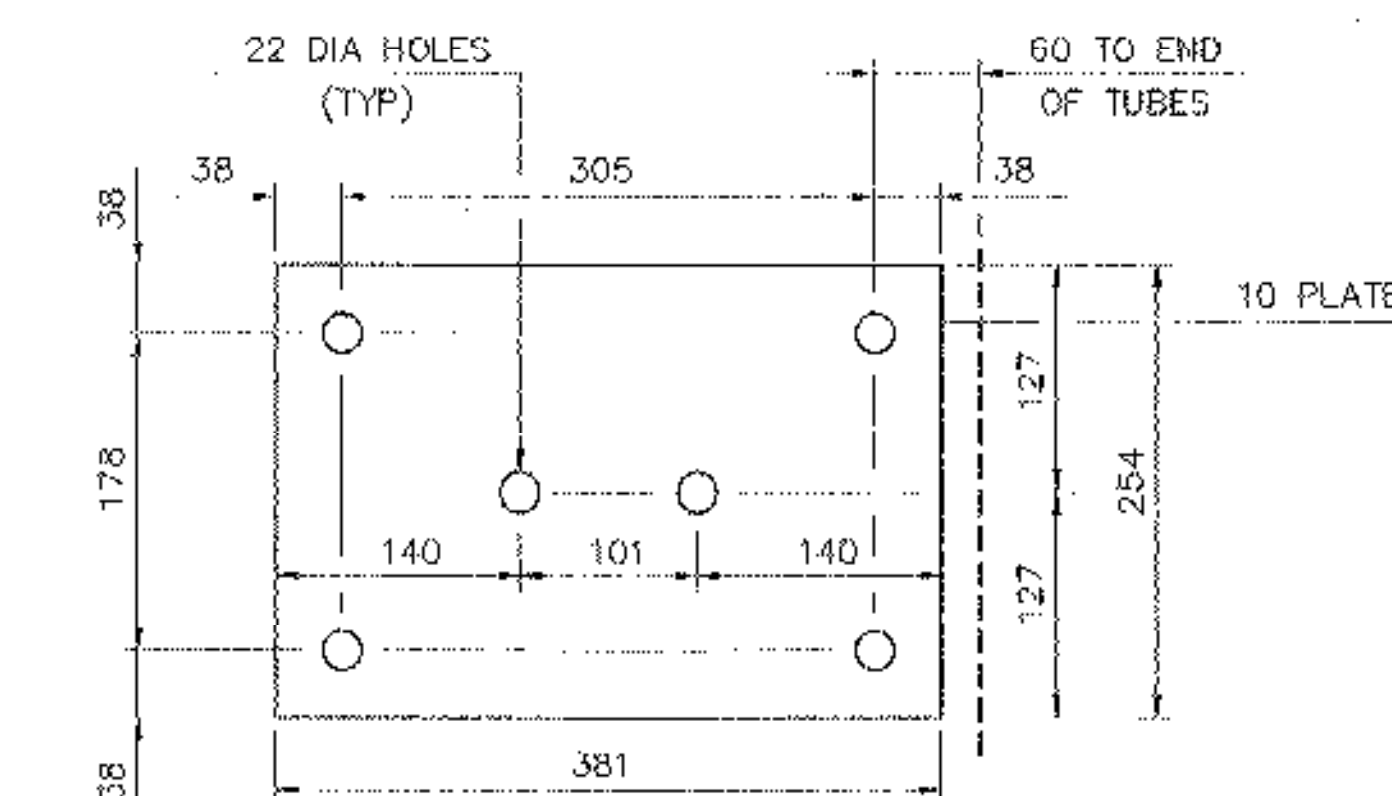
DELINEATION DEVICE DETAILS



DETAIL "A"



PLAN VIEW CURB END



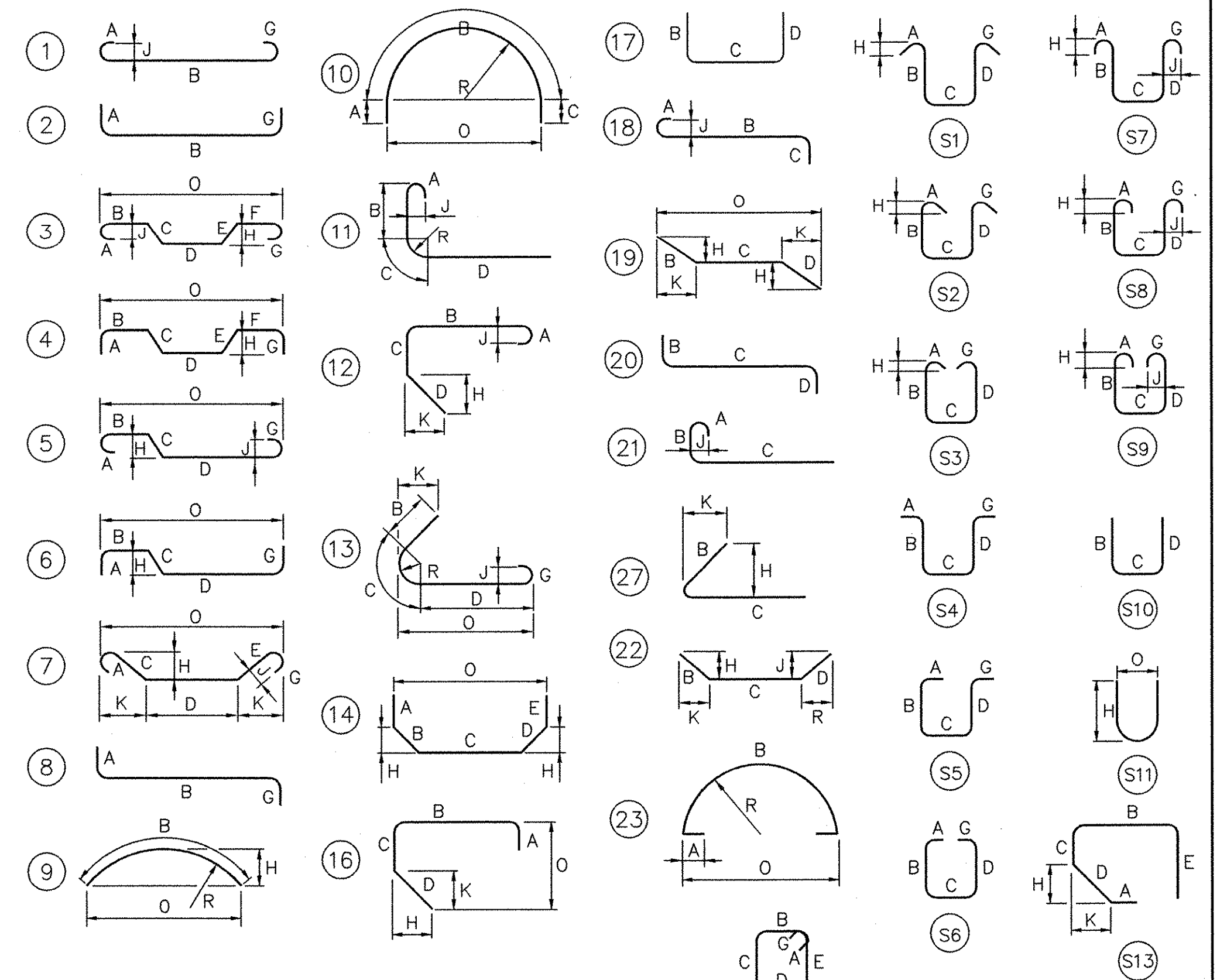
BACK-UP PLATE

POST NUMBER	RAIL HEIGHT (A)	RAIL SPACING (B)	POST LENGTH (C)	RAIL HEIGHT (D)
1	850	405	2134	455
2	702	254	1956	448

STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
Surv. Sta.	
VT 17 OVER MILL BROOK	
BRIDGE RAILING (2 OF 2)	
Designed By VTRANS	Drawn By VTRANS
Checked By VTRANS / J.T.K.	Date 1/06
Bridge Design Supervisor M.A. COLGAN	
PROJECT FAYSTON	PROJECT NO. BHF 0200(9)
I.G.C. Info.	
Bridge Sheet No. BR2-97M	Sheet 33 of 70

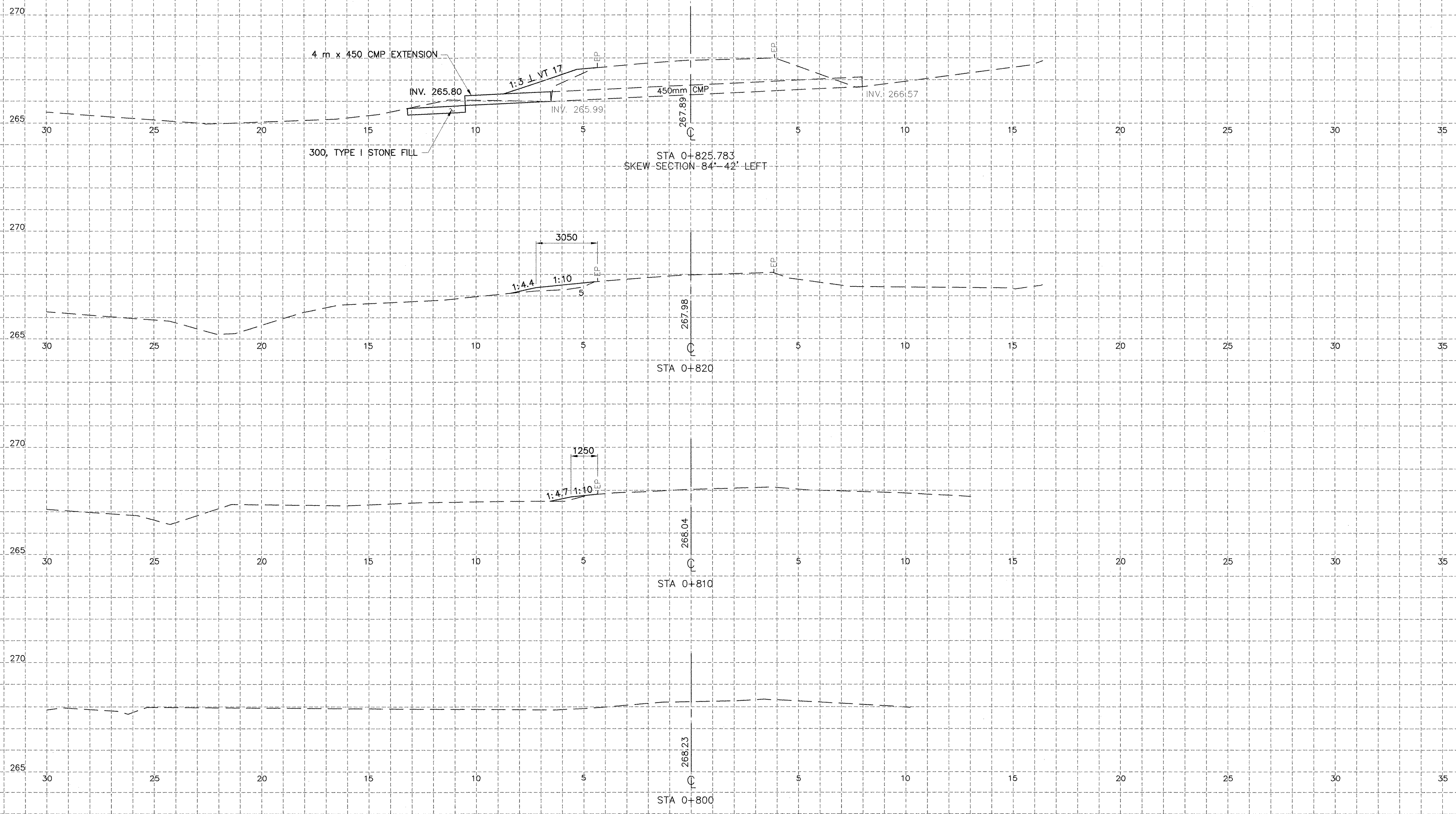
ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
DECK SLAB																	
* 1	329	16	4700	ES1601	STR	▲											
2	328	16	5000	ES1602	STR	▲											
3	204	16	9100	ES1604	STR												
4	102	16	7500	ES1605	STR												
5	8	16	4925	ES1608	STR												
6	8	16	5300	ES1609	STR												
7	8	16	5475	ES1610	STR												
8	8	16	5825	ES1611	STR												
* 9	29	16	850	ES1612	STR	▲											
10																	
* 11	230	16	1700	ES1603	S5	250	400	400	400								
* 12	49	16	2750	ES1606	S5	450	900	125	825								
13																	
14	72	16	1175	ES1607	16	150	475	150	400					350		200	350
APPROACH SLAB NO. 1																	
* 16	21	16	4550	1EAS1601	STR												
* 17	21	16	4250	1EAS1602	STR												
18	1	16	5275	1EAS1603	STR												
19	1	16	4925	1EAS1604	STR												
20																	
21	15	25	1000	1EAS2501	19		500	500						350		350	850
22																	
APPROACH SLAB NO. 2																	
* 25	21	16	4550	2EAS1601	STR												
* 26	21	16	4250	2EAS1602	STR												
27	1	16	5275	2EAS1603	STR												
28	1	16	4925	2EAS1604	STR												
29																	
30	15	25	1000	2EAS2501	19		500	500						350		350	850
31																	
ABUTMENT NO. 1																	
32	38	29	6450	2EAS2901	1	400	5825								225		
33																	
34	35	16	450	1A1601	STR												
35																	
* 36	11	16	2700	1A1602	17	▲	600	2100									
WINGWALL NO. 1																	
38	22	16	1950	1W1601	STR												
39	7	16	5725	1W1603	STR	▲											
40	40	16	1950	1W1604	STR	▲											
41	6	16	1575	1W1606	STR												
* 42	4	16	1000	1W1607	STR												
43	10	16	650	1W1608	STR	▲											
44																	
* 45	8	25	3000	1W2501	STR												
46	7	25	5725	1W2504	STR	▲											
47																	
48	9	19	3000	1W1901	STR												
49																	
50	7	16	1950	1W1602	17		300	1650									
51	10	16	1650	1W1605	17		600	450	600								
52																	
* 53	8	25	2550	1W2502	17		450	2100									
54	7	25	4950	1W2503	17		450	4500									
WINGWALL NO. 2																	
56	24	16	5550	2W1601	STR												
57	13	16	5050	2W1603	STR	▲											
58	6	16	3650	2W1604	STR												
59	26	16	5550	2W1605	STR	▲											
60	10	16	3075	2W1606	STR	▲											
61																	
62	14	22	5050	2W2203	STR	▲											
* 63	6	22	3625	2W2204	STR												
64																	
65	19	25	3300	2W2501	STR												
66																	
67	21	29	3300	2W2901	STR												
68																	
69	4	16	3050	2W1607	16		1250	850	950					850		425	1275
70																	
* 71	20	16	1950	2W1602	17		300	1650									
72	3	16	2950	2W1608	17		1250	450	1250								
73	19	16	1650	2W1609	17		600	450	600								
74																	
* 75	20	22	2125	2W2201	17		400	1725									
76	19	22	4300	2W2202	17		400	3900									
WINGWALL NO. 3																	
78	6	16	800	3W1601	STR												
79	12	16	1350	3W1602	STR	▲											
* 80	11	16	1625	3W1604	STR												
81																	
82	6	16	1650	3W1603	17	▲	600	450	600								
83																	
84																	
85																	
86																	
87																	

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
WINGWALL NO. 4																	
88	26	16	5425	4W1601	STR												
89	5	16	3125	4W1603	STR												
90	14	16	4550	4W1604	STR	▲											
91	22	16	5425	4W1605	STR												
92	10	16	3375	4W1606	STR	▲											
93																	
* 94	20	25	3575	4W2501	STR												
95	26	25	1000	4W2502	STR												
96																	
* 97	8	29	3125	4W2903	STR												
98	12	29	4550	4W2904	STR	▲											
99																	
100	21	32	3575	4W3201	STR												
101																	
102	4	16	3025	4W1607	16		1250	825	950					850		425	1250
103																	
104	20	16	1950	4W1602	17		300	1650									
105	3	16	2950	4W1608	17		1250	450	1250								
106	19	16	1650	4W1609	17		600	450	600								
107	2	16	800	4W1610	17	▲	600	200									
108																	
* 109	20	29	2950	4W2901	17		575	2375									
110	18	29	4900	4W2902	17		575	4025									



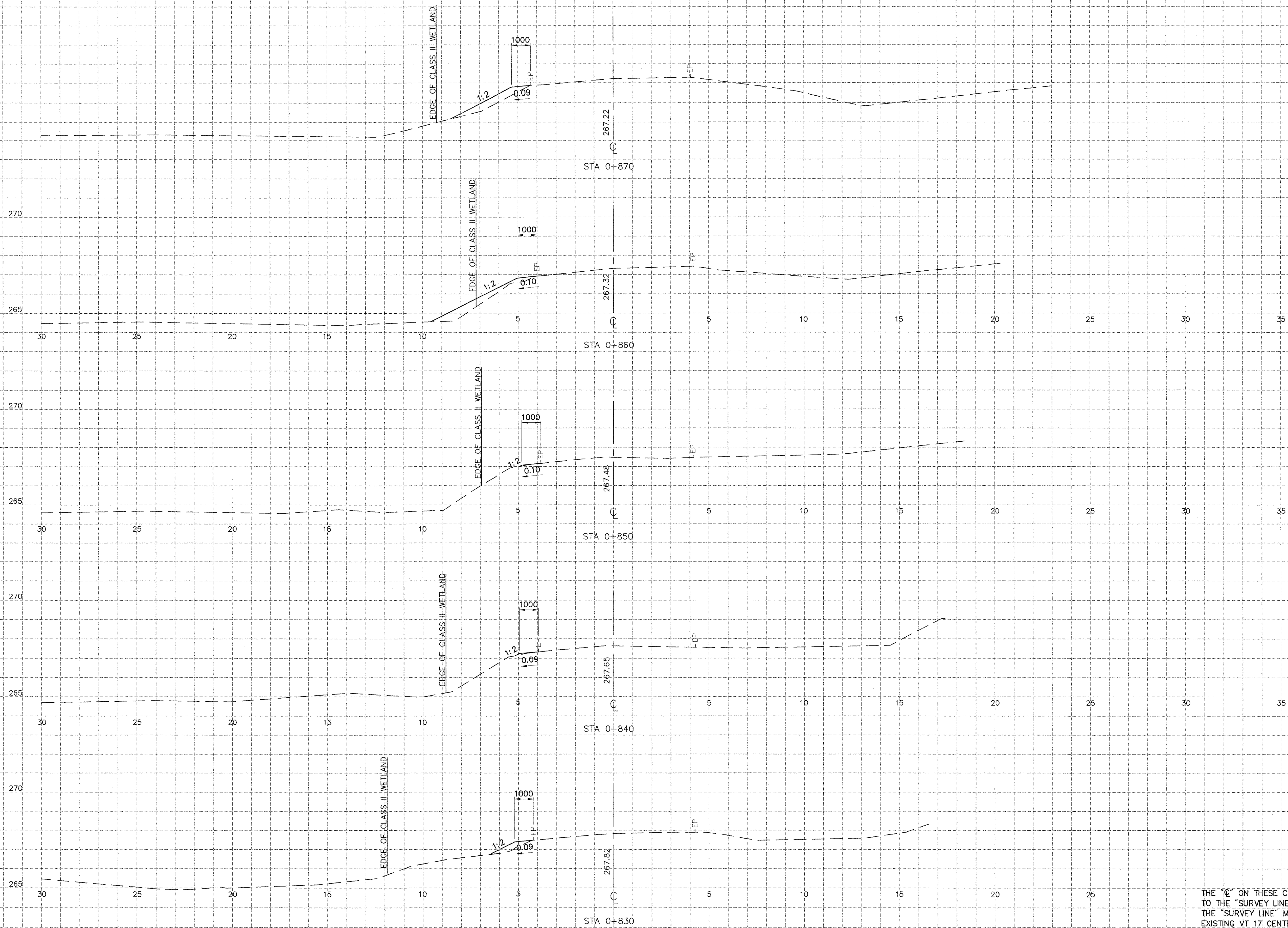
NOTES:

- 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 31 (ASTM A 615-S1). 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° AND 135° HOOKS.
- "J" DIMENSION ON 180° 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.
- "E" IN PREFIX



THE "C" ON THESE CROSS SECTIONS CORRESPONDS
TO THE "SURVEY LINE" ON THE PLAN SHEETS.
THE "SURVEY LINE" MAY NOT COINCIDE WITH THE
EXISTING VT 17 CENTERLINE.

SCALE 5 METERS
HORZ. & VERT.

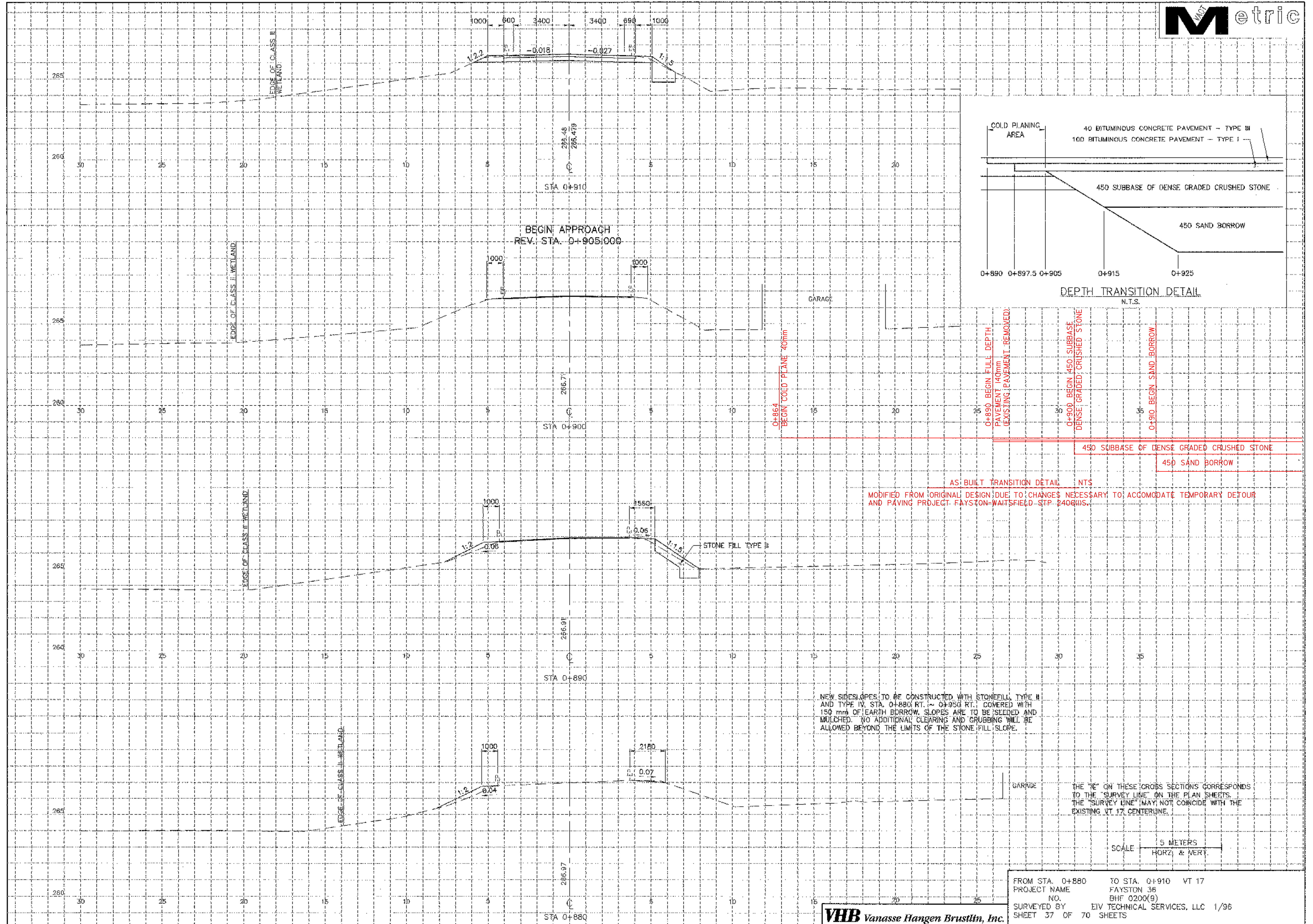


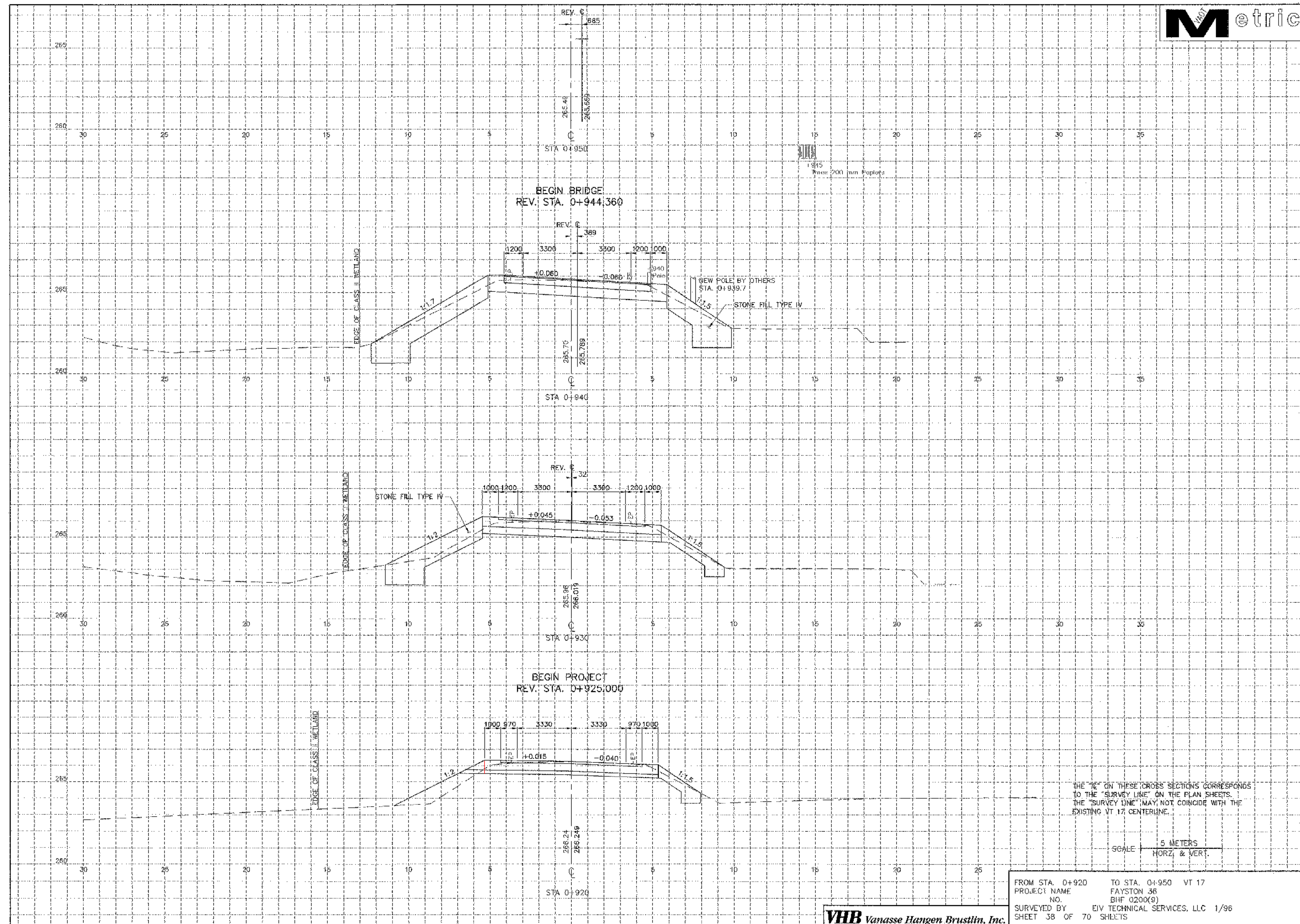
THE "C" ON THESE CROSS SECTIONS CORRESPONDS TO THE "SURVEY LINE" ON THE PLAN SHEETS. THE "SURVEY LINE" MAY NOT COINCIDE WITH THE EXISTING VT 17 CENTERLINE.

SCALE 5 METERS
HORZ. & VERT.

VHB Vanasse Hangen Brustlin, Inc.

FROM STA. 0+830 TO STA. 0+870 VT 17
PROJECT NAME FAYSTON 36
NO. BHF 0200(9)
SURVEYED BY EIV TECHNICAL SERVICES, LLC 1/96
SHEET 36 OF 70 SHEETS



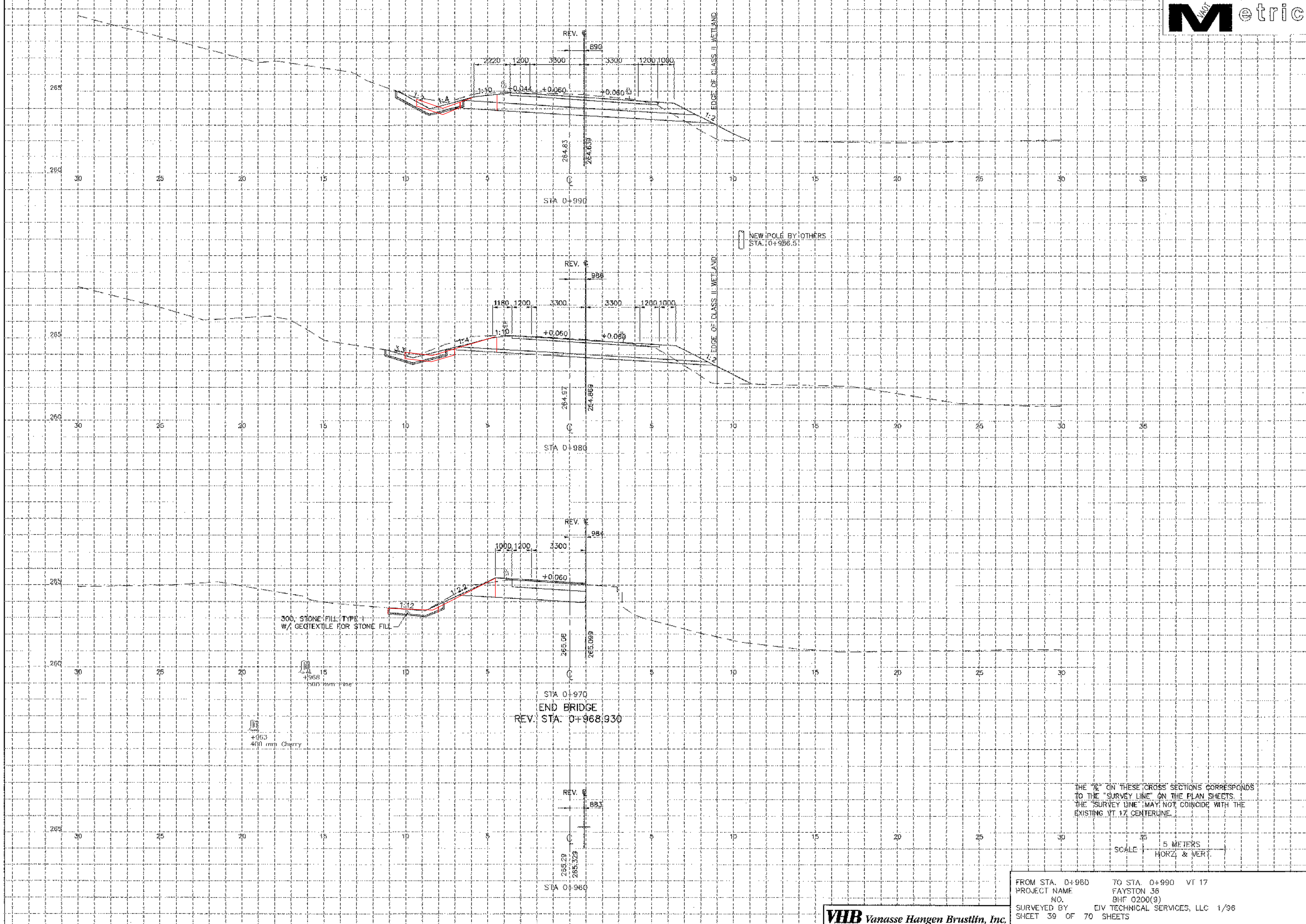


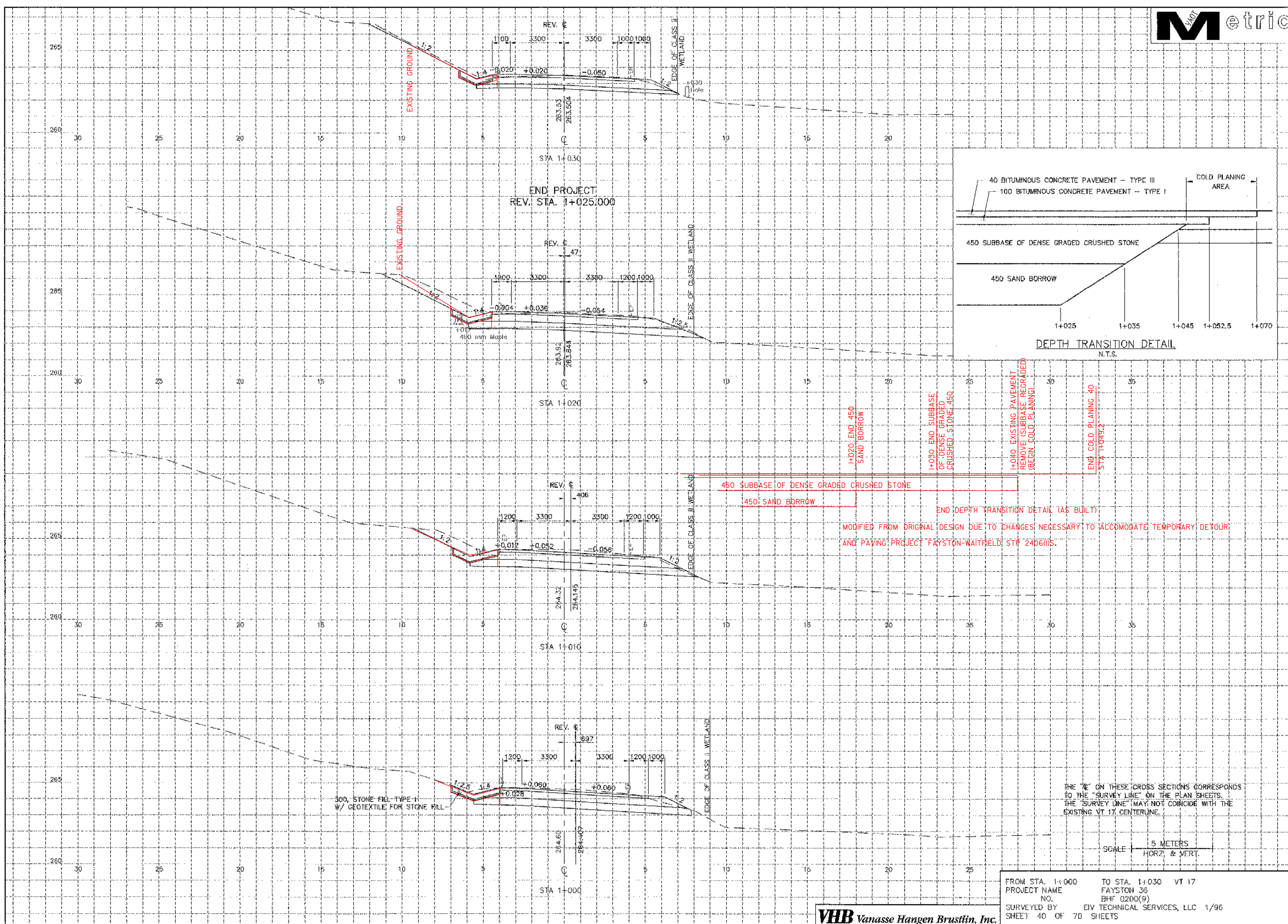
THE "C" ON THESE CROSS SECTIONS CORRESPONDS TO THE "SURVEY LINE" ON THE PLAN SHEETS. THE "SURVEY LINE" MAY NOT COINCIDE WITH THE EXISTING VT 17 CENTERLINE.

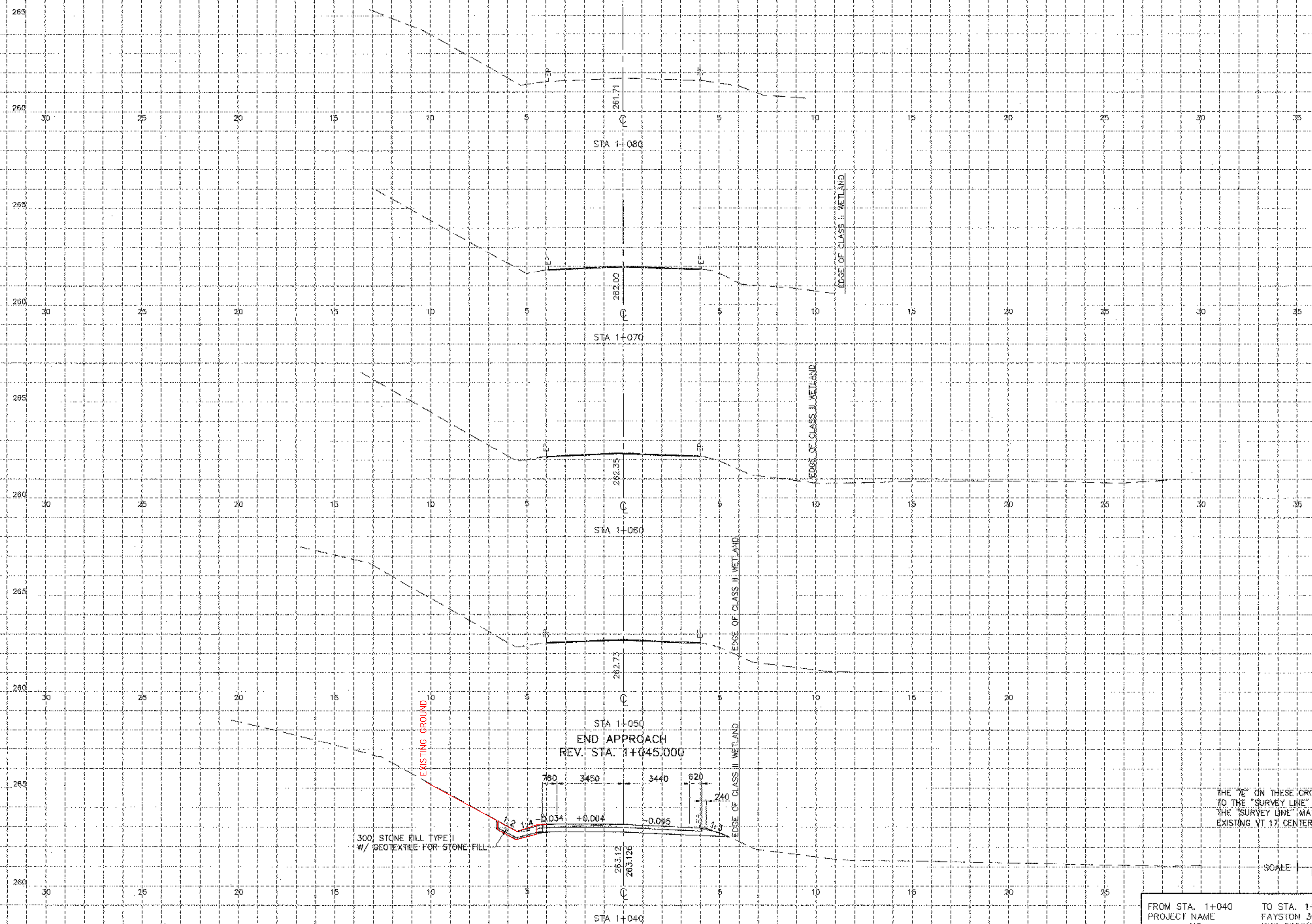
SCALE 5 METERS
HORZ. & VERT.

FROM STA. 0+920 TO STA. 0+950 VT 17
PROJECT NAME FAYSTON 36
NO. BH# 0200(9)
SURVEYED BY EIV TECHNICAL SERVICES, LLC 1/96
SHEET 38 OF 70 SHEETS

VHB Vanasse Hangen Brustlin, Inc.



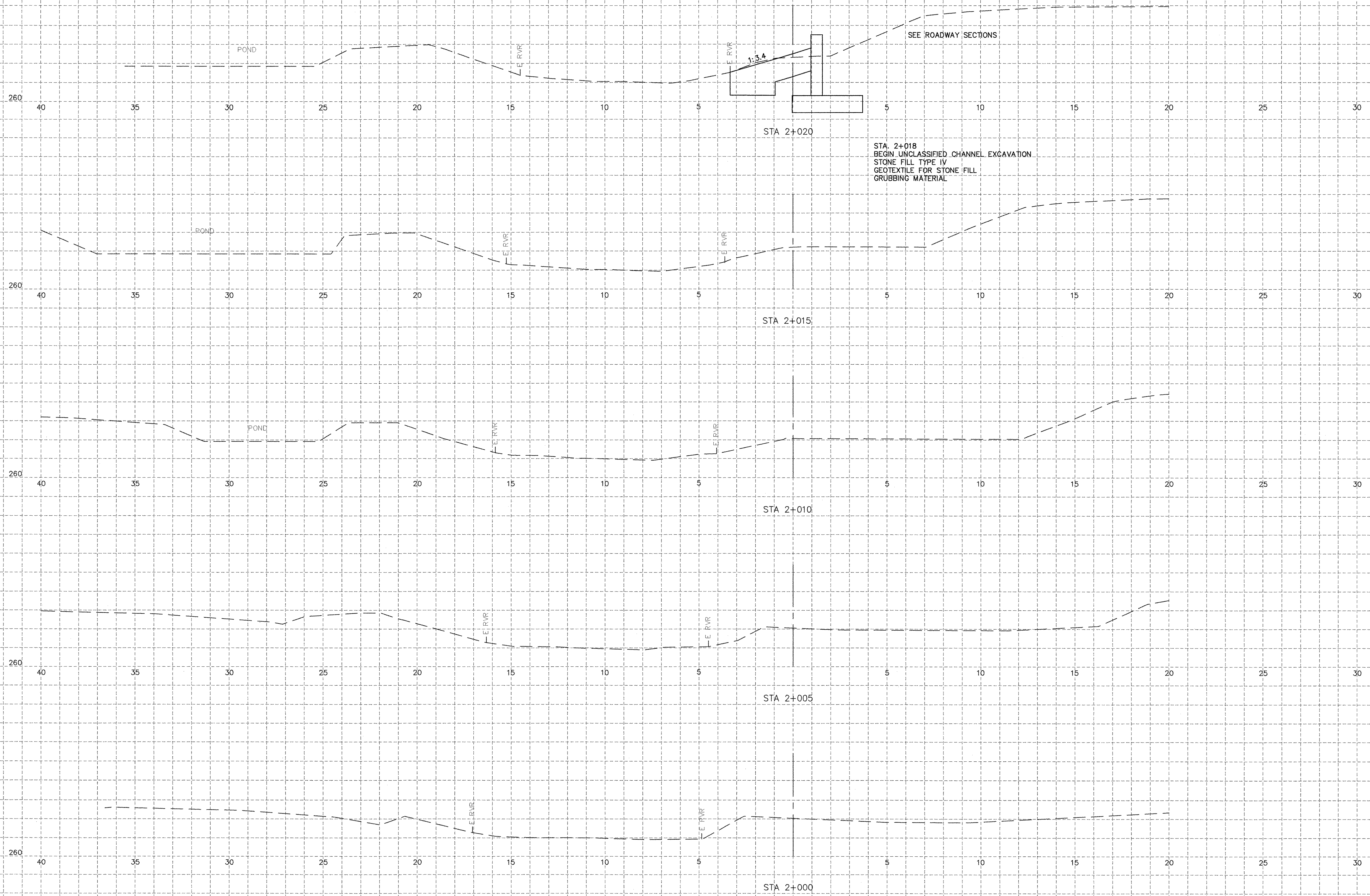




THE "C" ON THESE CROSS SECTIONS CORRESPONDS
TO THE "SURVEY LINE" ON THE PLAN SHEETS.
THE "SURVEY LINE" MAY NOT COINCIDE WITH THE
EXISTING VT 17 CENTERLINE.

SCALE 5 METERS
HORZ. & VERT.

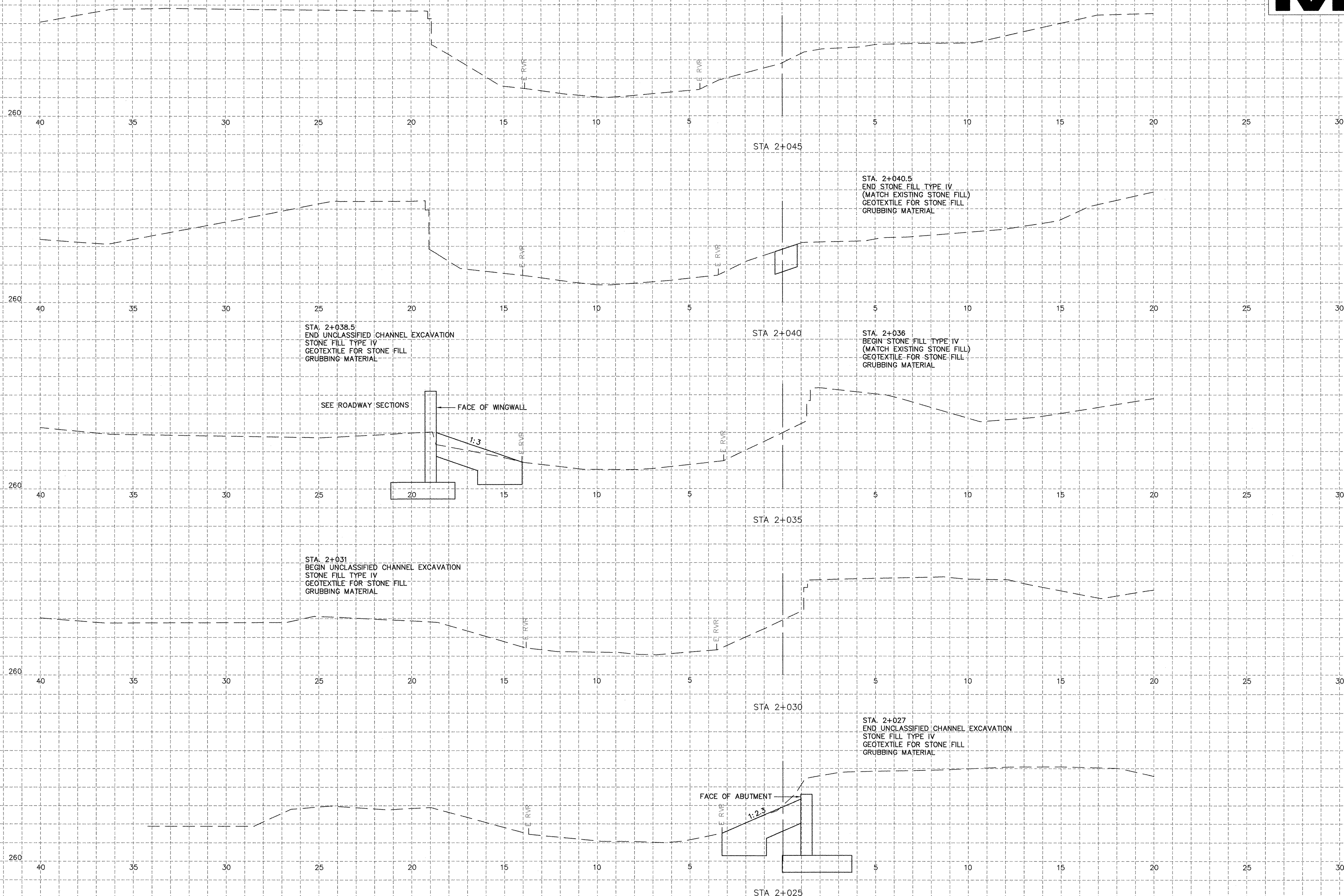
FROM STA. 1+040 TO STA. 1+080 VT 17
PROJECT NAME FAYSTON 36
NO. BHF 0200(9)
SURVEYED BY ELV TECHNICAL SERVICES, LLC 1/96
SHEET 41 OF 70 SHEETS



SCALE 5 METERS
HORZ. & VERT.

FROM STA. 2+000 TO STA. 2+020 VT 17
PROJECT NAME FAYSTON 36
NO. BHF 0200(9)
SURVEYED BY EIV TECHNICAL SERVICES, LLC 1/96
SHEET 42 OF 70 SHEETS

VHB Vanasse Hangen Brustlin, Inc.

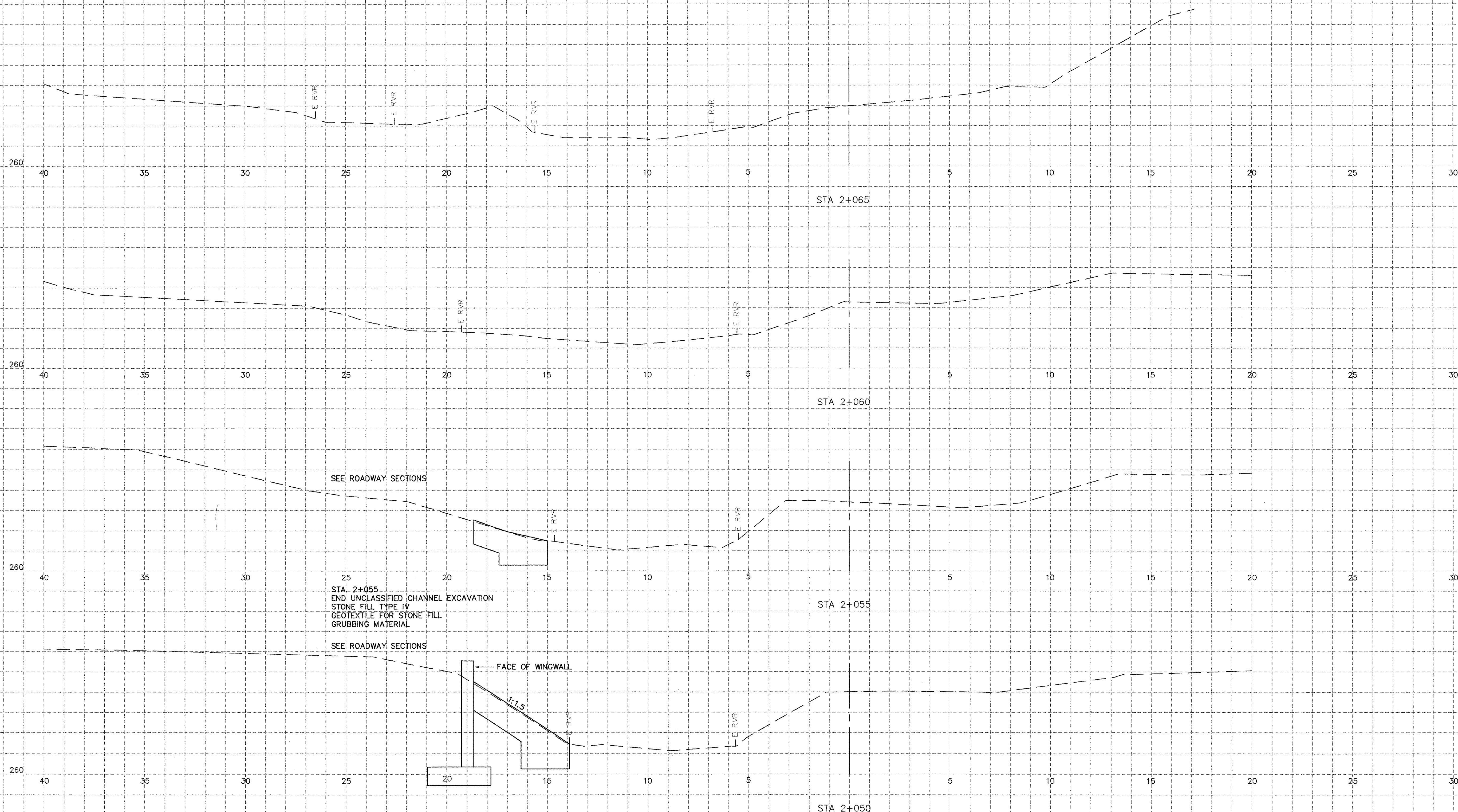


FROM STA. 2+025 TO STA. 2+045 VT 17
 PROJECT NAME FAYSTON 36
 NO. BHF 0200(9)
 SURVEYED BY EIV TECHNICAL SERVICES, LLC 1/96
 SHEET 43 OF 70 SHEETS

VHB Vanasse Hangen Brustlin, Inc.

/str5/93C065/zc065CX2

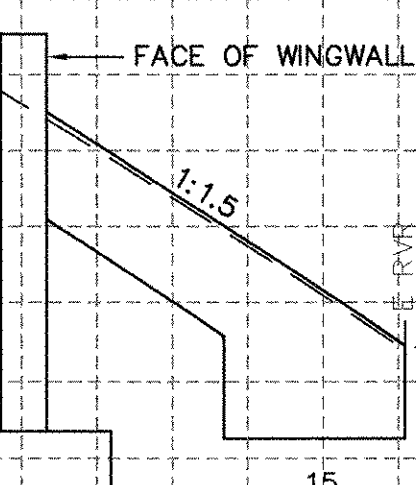
50543CHX PLOTTED 1-13-2006



SEE ROADWAY SECTIONS

STA. 2+055
END UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL TYPE IV
GEOTEXTILE FOR STONE FILL
GRUBBING MATERIAL

SEE ROADWAY SECTIONS

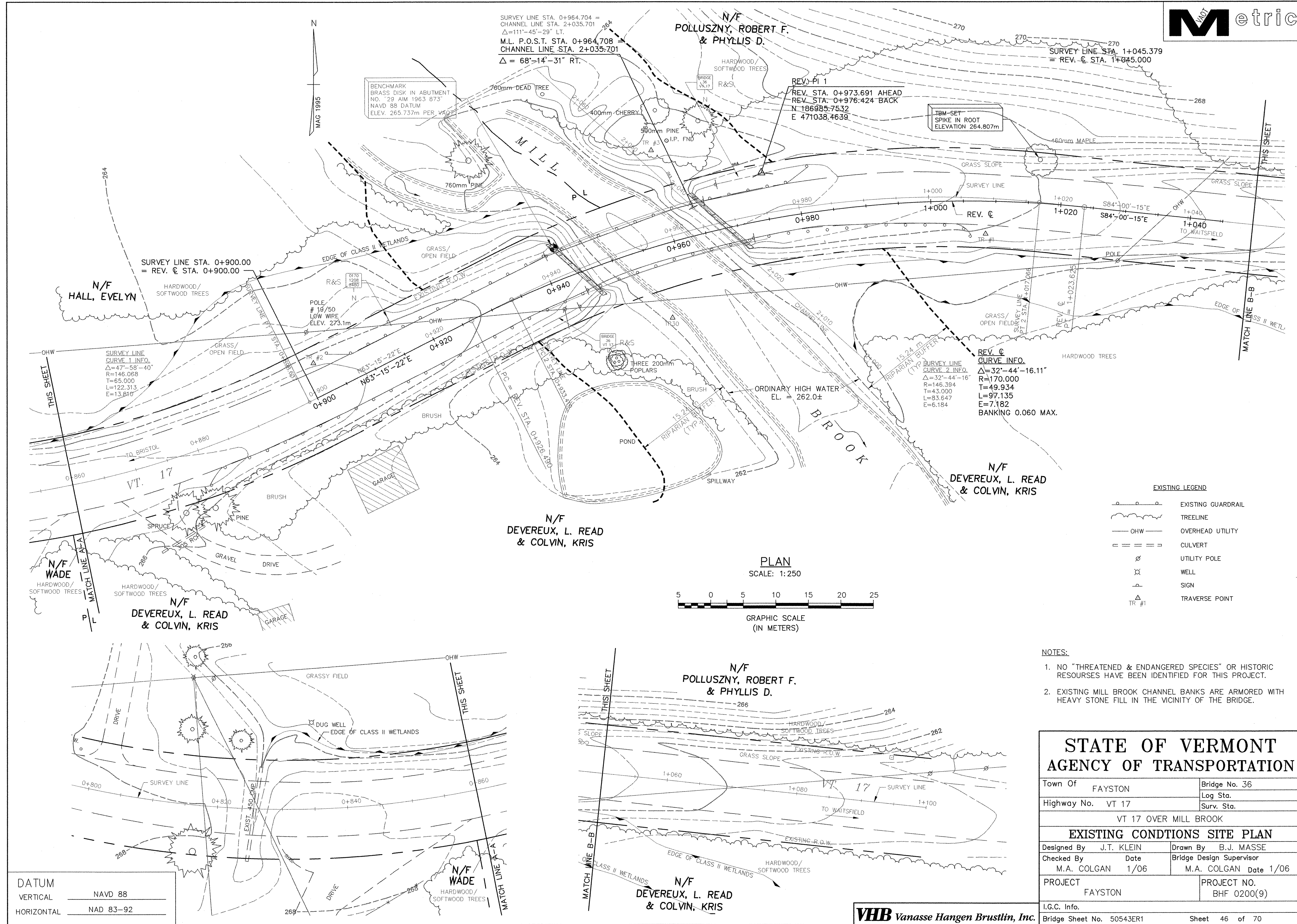


STA. 2+046
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
STONE FILL TYPE IV
GEOTEXTILE FOR STONE FILL
GRUBBING MATERIAL

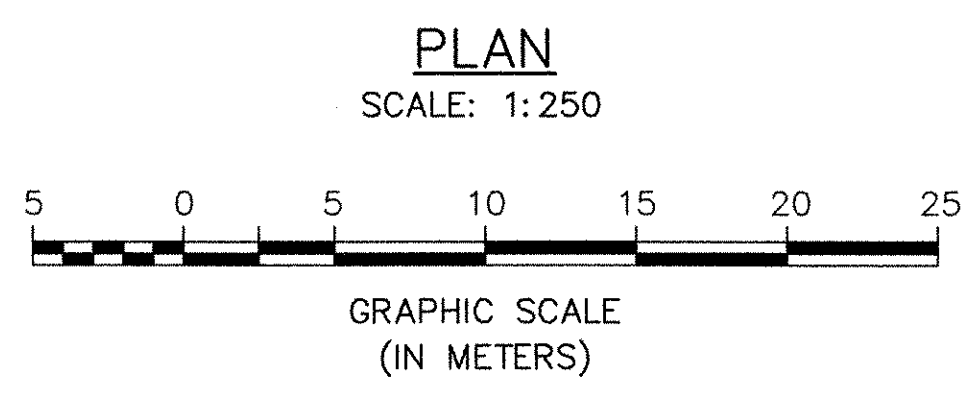
SCALE 5 METERS
HORZ. & VERT.

FROM STA. 2+050 TO STA. 2+065 VT 17
PROJECT NAME FAYSTON 36
NO. BHF 0200(9)
SURVEYED BY EIV TECHNICAL SERVICES, LLC 1/96
SHEET 44 OF 70 SHEETS

VHB Vanasse Hangen Brustlin, Inc.



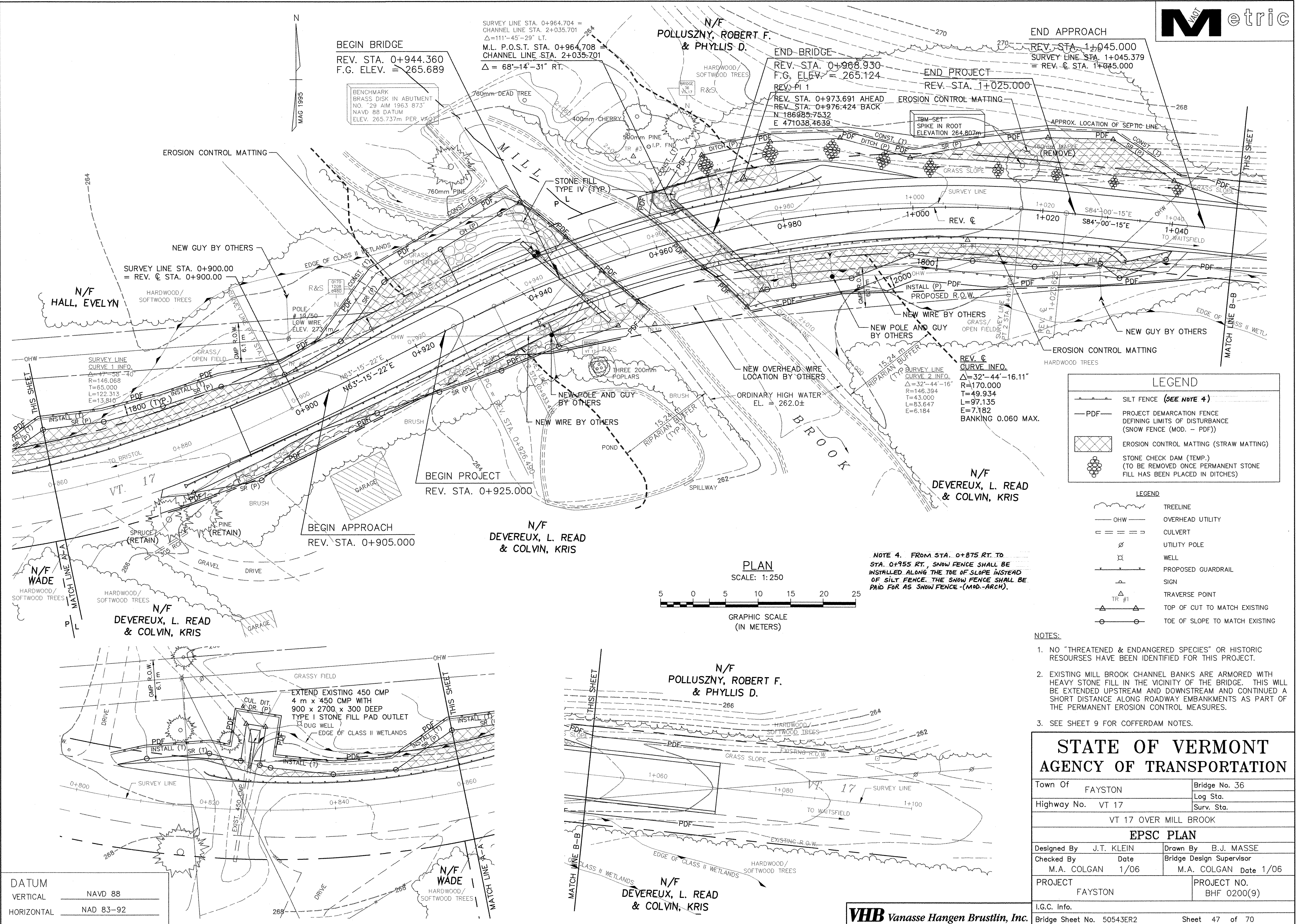
DATUM	
VERTICAL	NAVD 88
HORIZONTAL	NAD 83-92



EXISTING LEGEND	
	EXISTING GUARDRAIL
	TREELINE
	OVERHEAD UTILITY
	CULVERT
	UTILITY POLE
	WELL
	SIGN
	TRAVERSE POINT

- NOTES:
- NO "THREATENED & ENDANGERED SPECIES" OR HISTORIC RESOURCES HAVE BEEN IDENTIFIED FOR THIS PROJECT.
 - EXISTING MILL BROOK CHANNEL BANKS ARE ARMORED WITH HEAVY STONE FILL IN THE VICINITY OF THE BRIDGE.

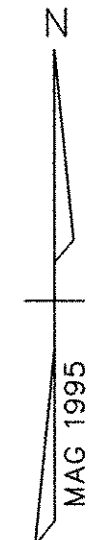
STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
Town Of FAYSTON		Bridge No. 36	
Highway No. VT 17		Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
EXISTING CONDITONS SITE PLAN			
Designed By J.T. KLEIN		Drawn By B.J. MASSE	
Checked By M.A. COLGAN		Bridge Design Supervisor M.A. COLGAN	
Date 1/06		Date 1/06	
PROJECT FAYSTON		PROJECT NO. BHF 0200(9)	
I.G.C. Info.			
Bridge Sheet No. 50543ER1		Sheet 46 of 70	



- NOTES:
1. NO "THREATENED & ENDANGERED SPECIES" OR HISTORIC RESOURCES HAVE BEEN IDENTIFIED FOR THIS PROJECT.
 2. EXISTING MILL BROOK CHANNEL BANKS ARE ARMORED WITH HEAVY STONE FILL IN THE VICINITY OF THE BRIDGE. THIS WILL BE EXTENDED UPSTREAM AND DOWNSTREAM AND CONTINUED A SHORT DISTANCE ALONG ROADWAY EMBANKMENTS AS PART OF THE PERMANENT EROSION CONTROL MEASURES.
 3. SEE SHEET 9 FOR COFFERDAM NOTES.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
Town Of FAYSTON		Bridge No. 36	
Highway No. VT 17		Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
EPSC PLAN			
Designed By J.T. KLEIN		Drawn By B.J. MASSE	
Checked By M.A. COLGAN		Bridge Design Supervisor M.A. COLGAN	
Date 1/06		Date 1/06	
PROJECT FAYSTON		PROJECT NO. BHF 0200(9)	
I.G.C. Info.			
Bridge Sheet No. 50543ER2		Sheet 47 of 70	

- LEGEND**
- TREELINE
 - OHW — OVERHEAD UTILITY
 - CULVERT
 - UTILITY POLE
 - WELL
 - PROPOSED GUARDRAIL
 - SIGN
 - TR #1 — TRAVERSE POINT
 - TOP OF CUT TO MATCH EXISTING
 - TOE OF SLOPE TO MATCH EXISTING



BEGIN BRIDGE
REV. STA. 0+944.360
F.G. ELEV. = 265.689

M.L. P.O.S.T. STA. 0+964.708
CHANNEL LINE STA. 2+035.701
 $\Delta = 68^{\circ}-14'-31''$ RT.

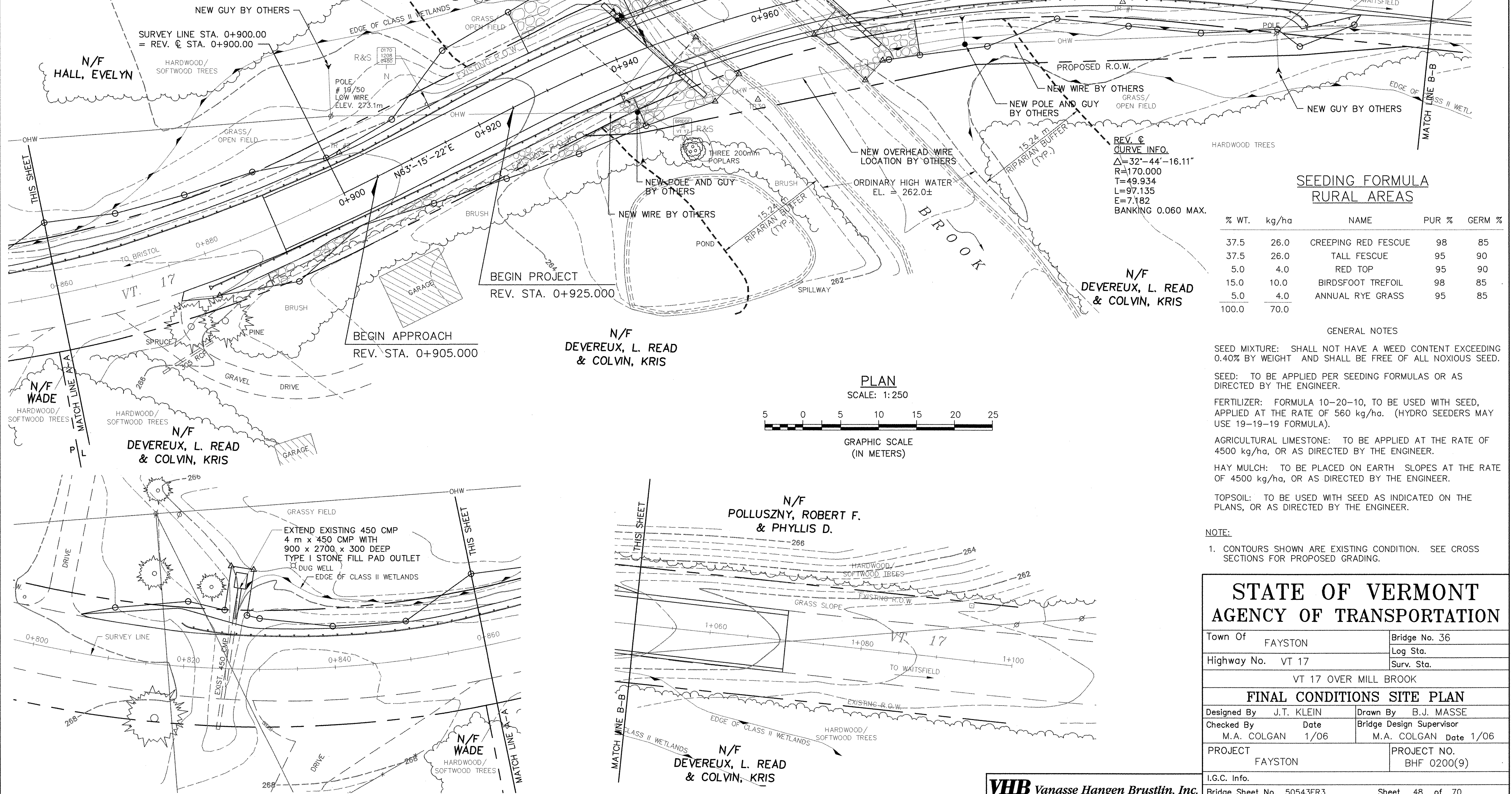
BENCHMARK
BRASS DISK IN ABUTMENT
NO. 29 AIM 1963 873
NAVD 88 DATUM
ELEV. 265.737m PER VDOT

N/F
POLLUSZNY, ROBERT F.
& PHYLLIS D.

END BRIDGE
REV. STA. 0+968.930
F.G. ELEV. = 265.124
REV. PI 1
REV. STA. 0+973.691 AHEAD
REV. STA. 0+976.424 BACK
N 186.985-7532
E 471038.4639

END APPROACH
REV. STA. 1+045.000
SURVEY LINE STA. 1+045.379
= REV. C STA. 1+045.000

END PROJECT
REV. STA. 1+025.000



**SEEDING FORMULA
RURAL AREAS**

% WT.	kg/ha	NAME	PUR %	GERM %
37.5	26.0	CREeping RED FESCUE	98	85
37.5	26.0	TALL FESCUE	95	90
5.0	4.0	RED TOP	95	90
15.0	10.0	BIRDSFOOT TREFOIL	98	85
5.0	4.0	ANNUAL RYE GRASS	95	85
100.0	70.0			

GENERAL NOTES

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

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

FERTILIZER: FORMULA 10-20-10, TO BE USED WITH SEED, APPLIED AT THE RATE OF 560 kg/ha. (HYDRO SEEDERS MAY USE 19-19-19 FORMULA).

AGRICULTURAL LIMESTONE: TO BE APPLIED AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

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

NOTE:

1. CONTOURS SHOWN ARE EXISTING CONDITION. SEE CROSS SECTIONS FOR PROPOSED GRADING.

**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
FINAL CONDITIONS SITE PLAN			
Designed By	J.T. KLEIN	Drawn By	B.J. MASSE
Checked By	M.A. COLGAN	Date	1/06
		Bridge Design Supervisor	M.A. COLGAN Date 1/06
PROJECT	FAYSTON	PROJECT NO.	BHF 0200(9)
I.G.C. Info.			
Bridge Sheet No.	50543ER3	Sheet	48 of 70

SILT FENCE

APPLICATION NOTES:

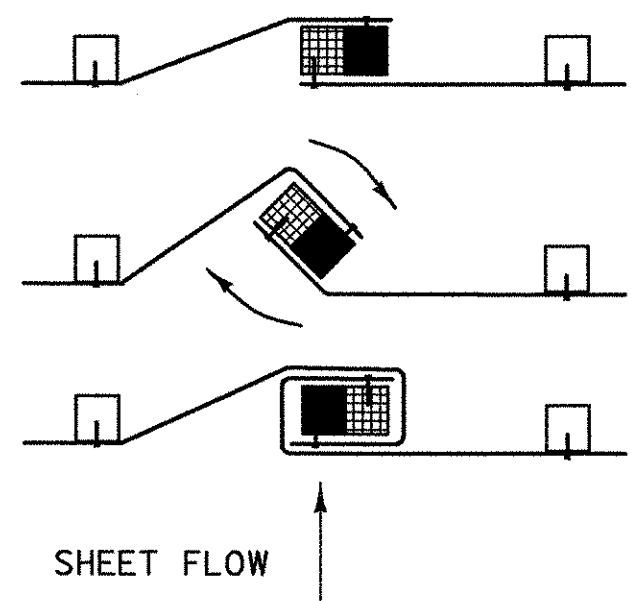
- A. THE PRIMARY PURPOSE OF SILT FENCE IS TO REDUCE RUNOFF VELOCITY AND TRAP SEDIMENT. VELOCITY IS REDUCED, WATER IS IMPOUNDED BEHIND THE MEASURE, AND SEDIMENT FALLS OUT OF SUSPENSION.
- B. SILT FENCE SHALL BE INSTALLED ON A LINE OF EQUAL ELEVATION (CONTOUR). IT MAY BE INSTALLED AT INTERMEDIATE POINTS UP SLOPES AS WELL AS AT THE BOTTOM, AS SHOWN IN THE DETAIL.
- C. SILT FENCE SHALL NOT BE USED ACROSS CONCENTRATED FLOW.

GENERAL NOTES:

- 1. SILT FENCE SHALL GENERALLY BE PLACED A MINIMUM OF 1.5 m BEYOND TOE OF SLOPE, 3 m PREFERRED, TO PROVIDE ADEQUATE AREA FOR SEDIMENT STORAGE AND FACILITATE MAINTENANCE OF SEDIMENT CONTAINMENT AREA.
- 2. ALL ENDS SHALL BE 'J' HOOKED TO TRAP SEDIMENT.
- 3. IN AREAS WITH TWO SLOPES, SILT FENCE SHALL BE USED TO ERECT A DAM AND TRAP SEDIMENT AT THE BASE OF THE STEEPER SLOPE.
- 4. THE BOTTOM EDGE OF SILT FENCE SHALL BE BURIED A MINIMUM OF 150 mm BELOW GROUND, AND KEYED IN 100 mm. THE FENCE SHALL BE INSTALLED WITH THE POSTS ON THE DOWNSTREAM SIDE OF THE FABRIC.
- 5. MAXIMUM DRAINAGE AREA TRIBUTARY TO 30 m OF SILT FENCE SHALL BE 0.1 Ha.
- 6. THE FOLLOWING ARE MAXIMUM SLOPE LENGTHS FOR THESE MEASURES:

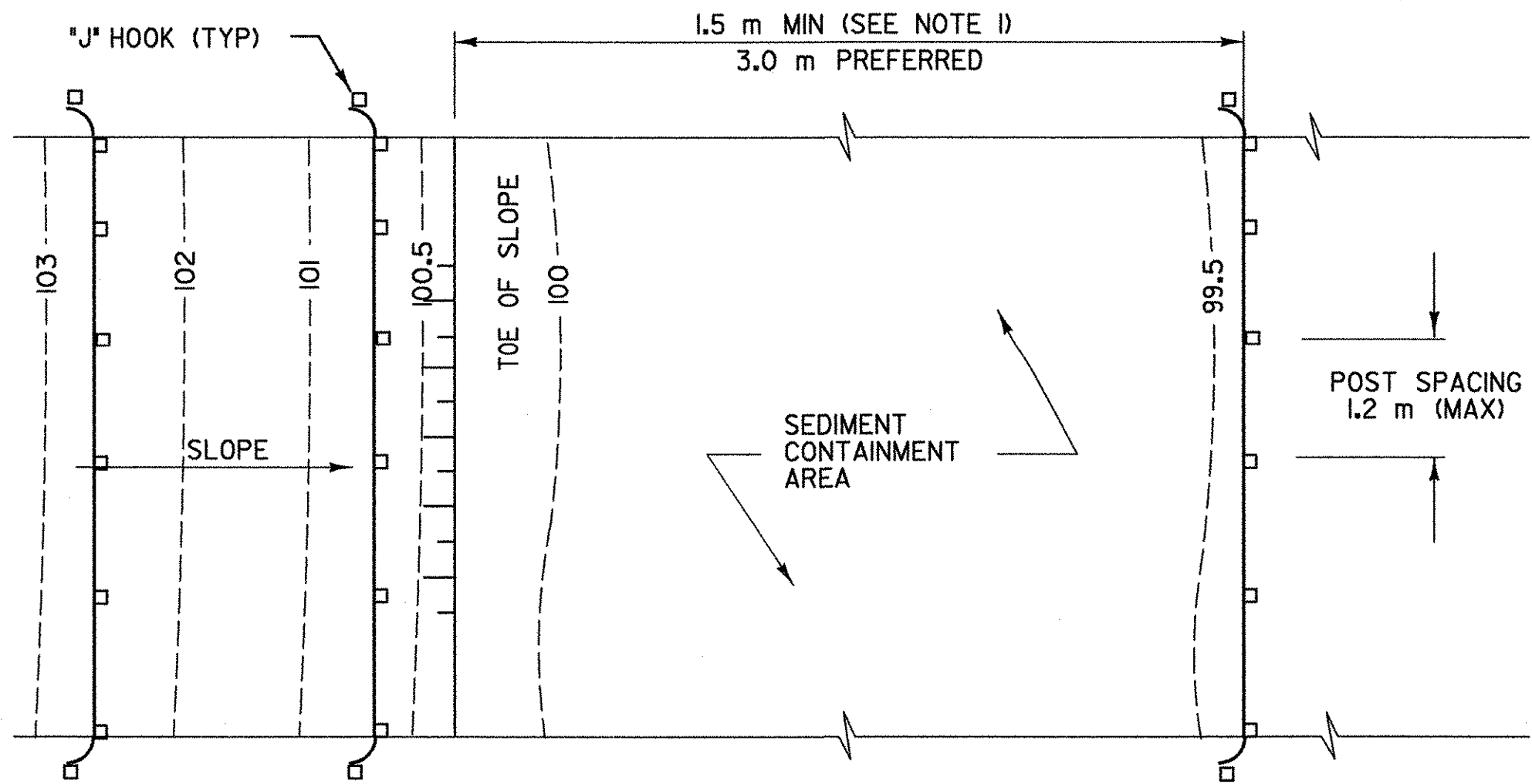
CONSTRUCTED SLOPE	SLOPE LENGTH (LS) m	HORIZONTAL LENGTH (LH) m
3 : 1	25	24
4 : 1	40	39
5 : 1	60	60
> 5 : 1	80	80

- 7. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- 8. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
- 9. SILT FENCE SHALL BE REMOVED WHEN THE AREA HAS BEEN STABILIZED. AT TIME OF REMOVAL OF THE SILT FENCE, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
- 10. PAYMENT FOR INSTALLATION AND REMOVAL OF SILT FENCE SHALL BE MADE UNDER THE GEOTEXTILE FOR SILT FENCE ITEM.
- 11. PAYMENT FOR MONITORING SILT FENCE SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- 12. PAYMENT FOR MAINTAINING SILT FENCE SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

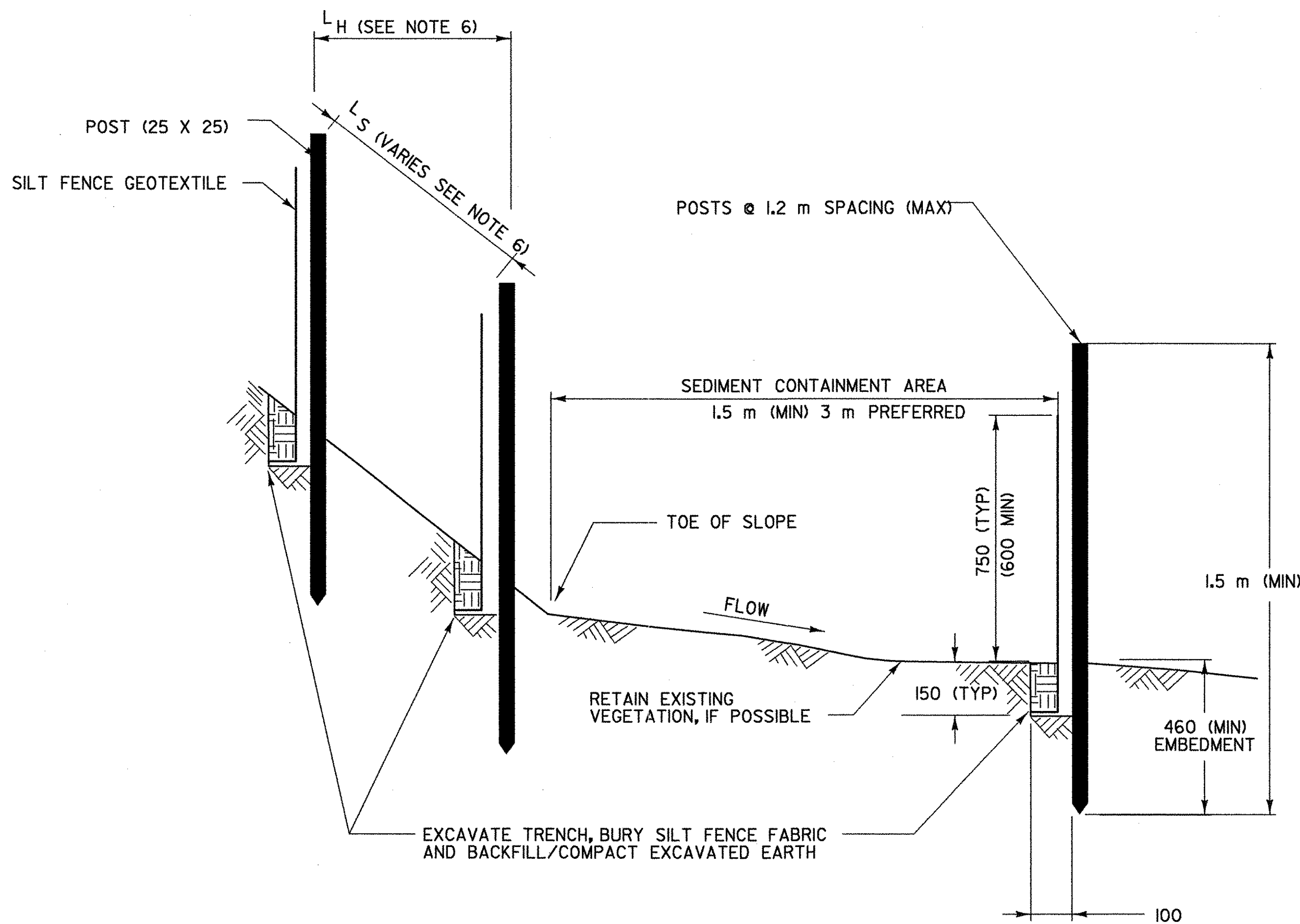


- 1. PLACE THE END POST OF ONE FENCE INSIDE THE END POST OF THE OTHER FENCE.
- 2. ROTATE BOTH POSTS AT LEAST 180 DEGREES IN A CLOCKWISE DIRECTION TO CREATE A TIGHT SEAL WITH THE FABRIC MATERIAL
- 3. DRIVE BOTH POSTS 18 INCHES INTO THE GROUND AND BURY THE FLAP IN THE TRENCH.

SPLICING DETAIL



PLAN



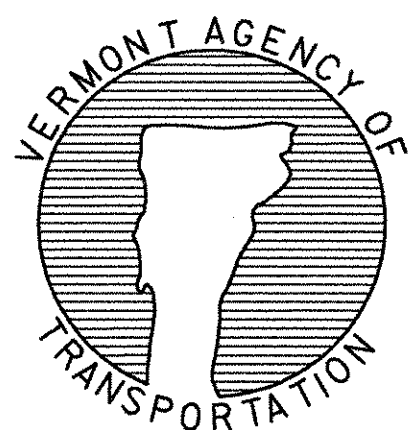
SECTION
SILT FENCE - TEMPORARY

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS
MAY 18, 2004 N. GARBACIK

Metric
DETAIL
EPSC-1M

EROSION PREVENTION &
SEDIMENT CONTROL DETAILS
SILT FENCE



STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta. Surv. Sta.
VT 17 OVER MILL BROOK	
EPSC-1M	
Designed By VTRANS	Drawn By B. J. MASSE
Checked By VTRANS	Bridge Design Supervisor M. A. COLGAN Date 12/05
PROJECT FAYSTON	PROJECT NO. BHF 0200 (9)
I.C.C. Info.	
Bridge Sheet No.	Sheet 49 of 70

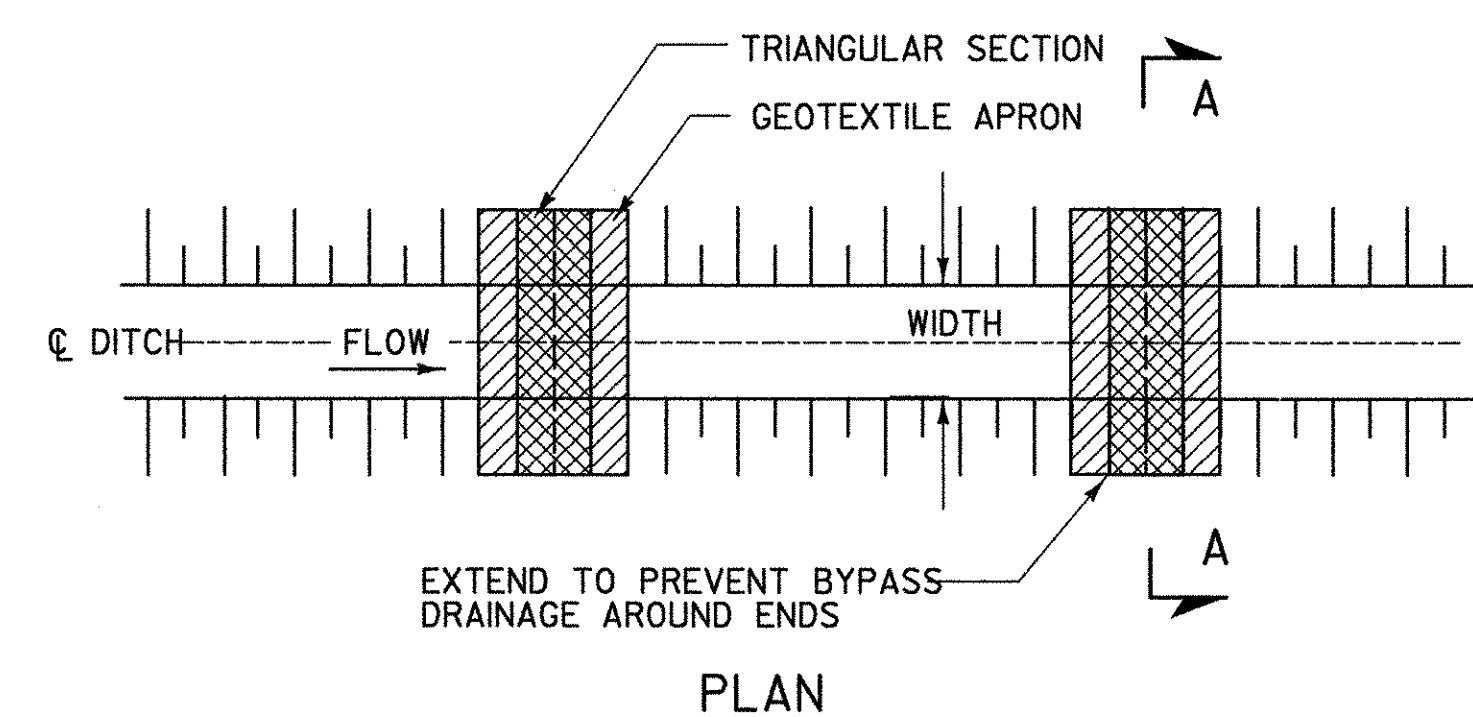
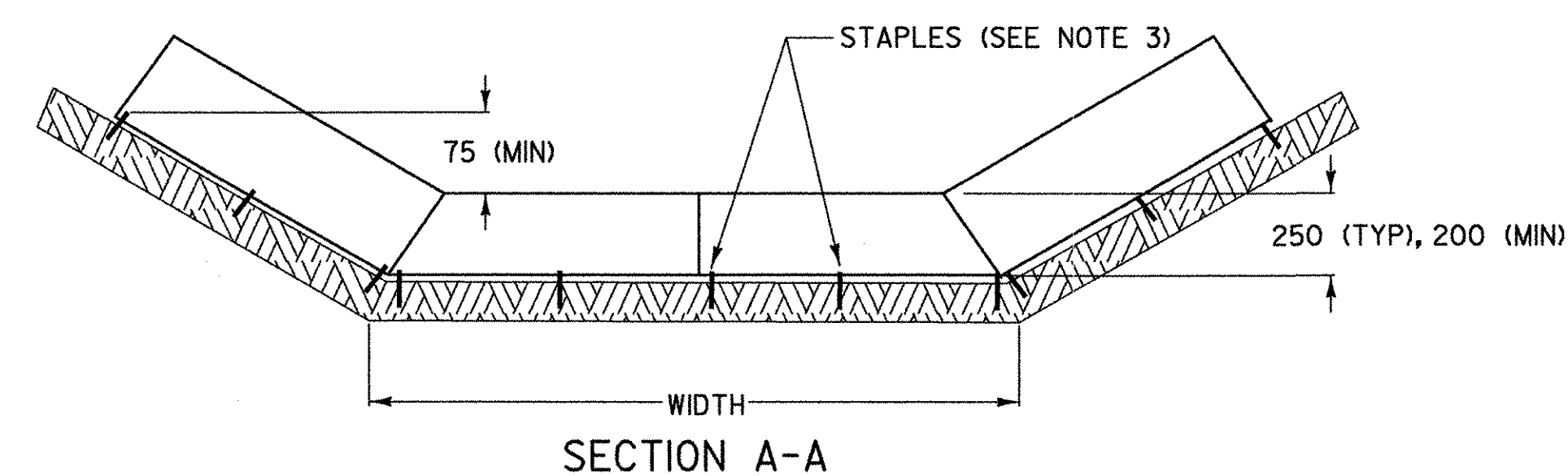
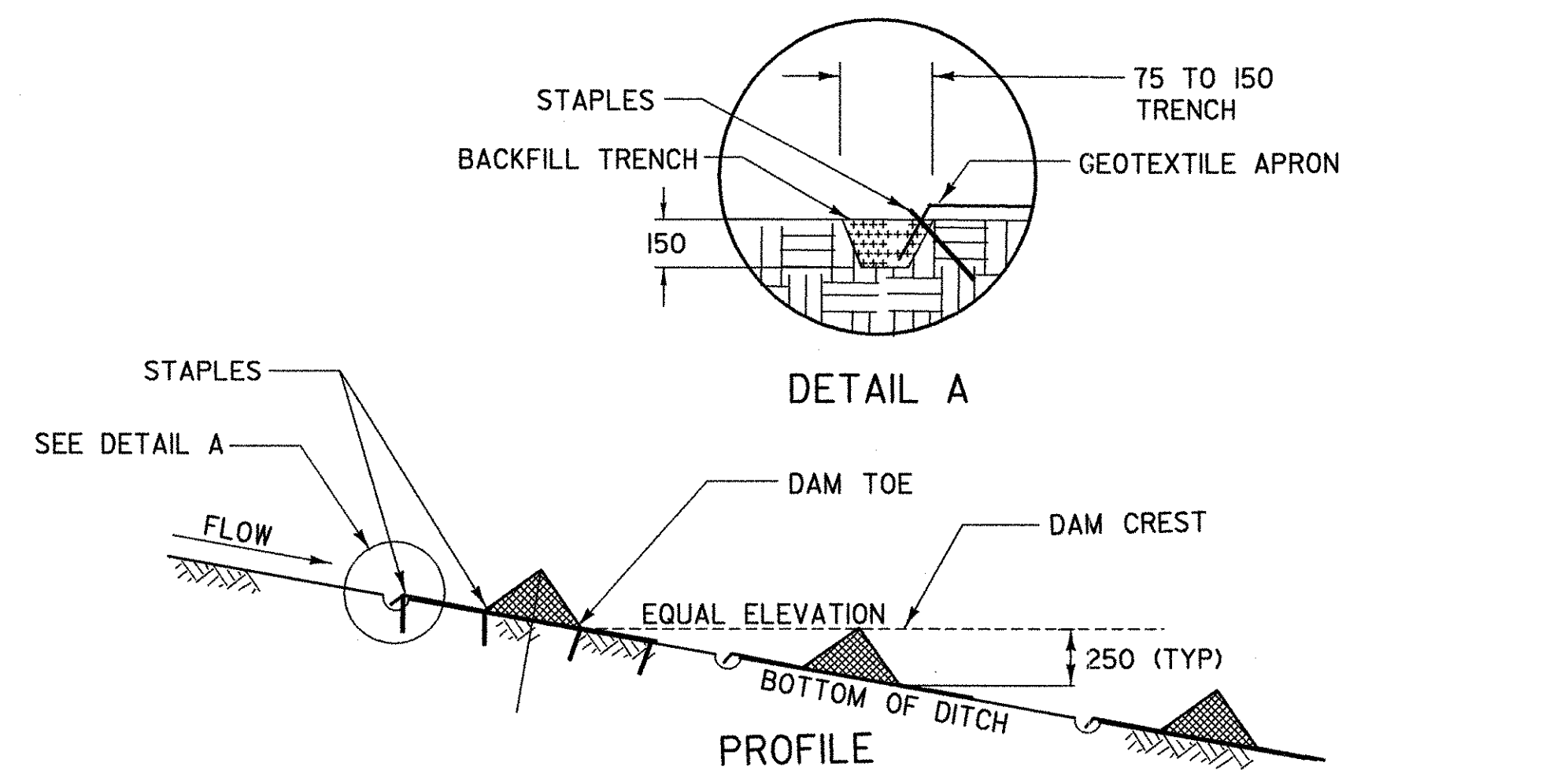
CHECK DAMS

APPLICATION NOTES:

- THE PRIMARY PURPOSE OF A CHECK DAM IS TO REDUCE EROSION IN A CHANNEL BY REDUCING FLOW VELOCITY.
- CHECK DAMS WILL CAPTURE SEDIMENT THAT FALLS OUT OF SUSPENSION BEHIND THE CHECK DAM DUE TO DECREASED VELOCITY.
- CHECK DAMS ARE NOT INTENDED TO FILTER SEDIMENT FROM TURBID WATER.
- DETAILS SHOWN SHALL BE USED FOR TEMPORARY INSTALLATION ONLY.
- PREFABRICATED DAMS ARE NOT TO BE USED ON SLOPES GREATER THAN 5% OR PER MANUFACTURER'S SPECIFICATIONS.
- PREFABRICATED DAM SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.

GENERAL NOTES:

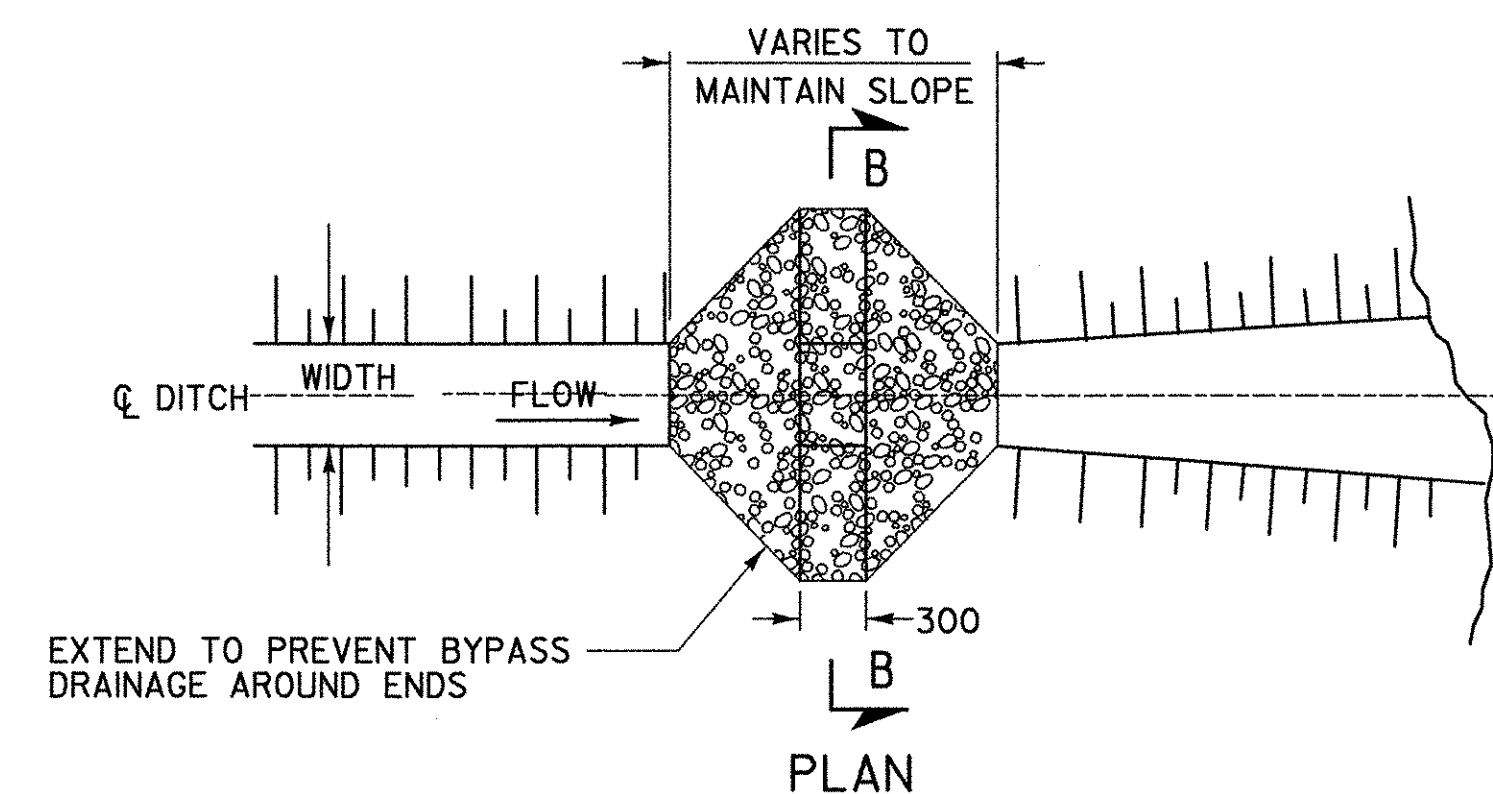
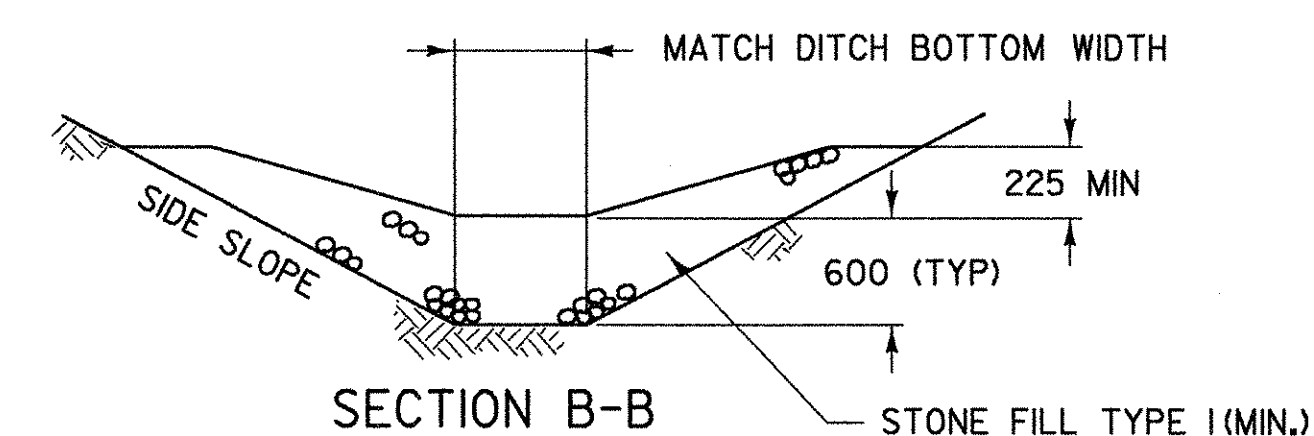
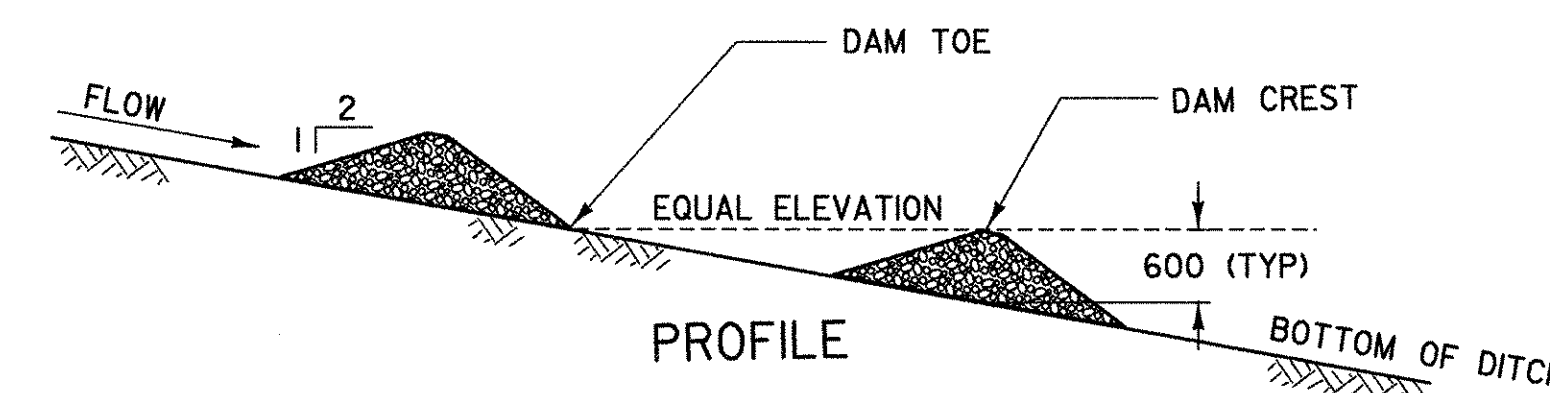
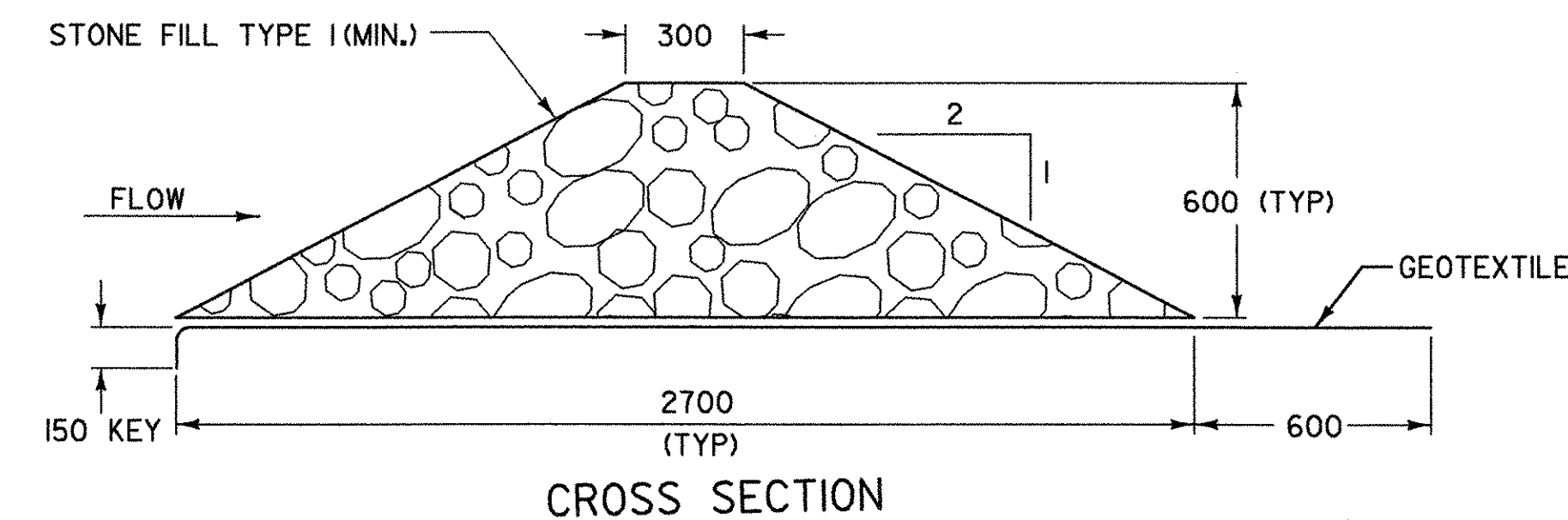
- GEOTEXTILE SHALL BE INSTALLED UNDER STONE FILL. IT SHALL BE KEYED IN ON THE UP HILL END AND SHALL EXTEND 0.6 m BEYOND THE STONE ON THE DOWN HILL END.
- CORE MATERIAL FOR THE STONE CHECK DAM SHALL MEET THE GRADATION REQUIREMENTS OF STONE FILL TYPE I (MIN.). STONE SIZE SHOULD BE INCREASED WITH INCREASED SLOPE AND VELOCITY.
- THE UPHILL END OF THE APRON FOR THE PREFABRICATED CHECK DAM SHALL BE STAPLED AND BURIED AS SHOWN IN DETAIL 'A' OR AS RECOMMENDED BY THE MANUFACTURER'S LITERATURE.
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED. SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
- AT TIME OF REMOVAL OF THE CHECK DAMS, THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
- PAYMENT FOR INSTALLATION AND REMOVAL OF CHECK DAMS SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS OR UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MONITORING CHECK DAMS SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING CHECK DAMS SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



CHECK DAM - TEMPORARY (PREFABRICATED)

PREFABRICATED CHECK DAM PLACEMENT INTERVAL	
DITCH SLOPE	PLACEMENT INTERVAL **
1 %	15 m
2 %	12 m
3 %	8 m
4 %	6 m
5 %	5 m

** BASED ON 0.25 m TYPICAL HEIGHT



CHECK DAM - TEMPORARY (STONE)

STONE CHECK DAM PLACEMENT INTERVAL	
DITCH SLOPE	PLACEMENT INTERVAL **
1 %	60 m
2 %	30 m
3 %	20 m
4 %	15 m
5 %	12 m
6 %	10 m
8 %	7.5 m
10 %	6 m

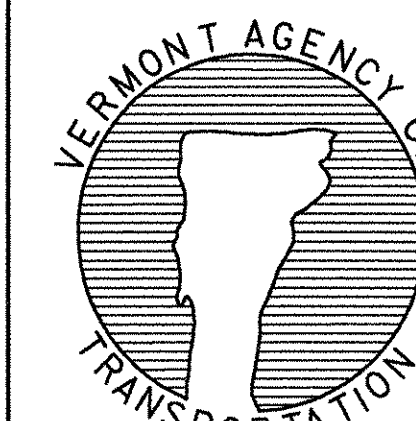
** BASED ON 0.6 m TYPICAL HEIGHT

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS
MAY 15, 2004 N. GARBICK

Metric
DETAIL
EPSC-2M

EROSION PREVENTION &
SEDIMENT CONTROL DETAILS
CHECK DAMS



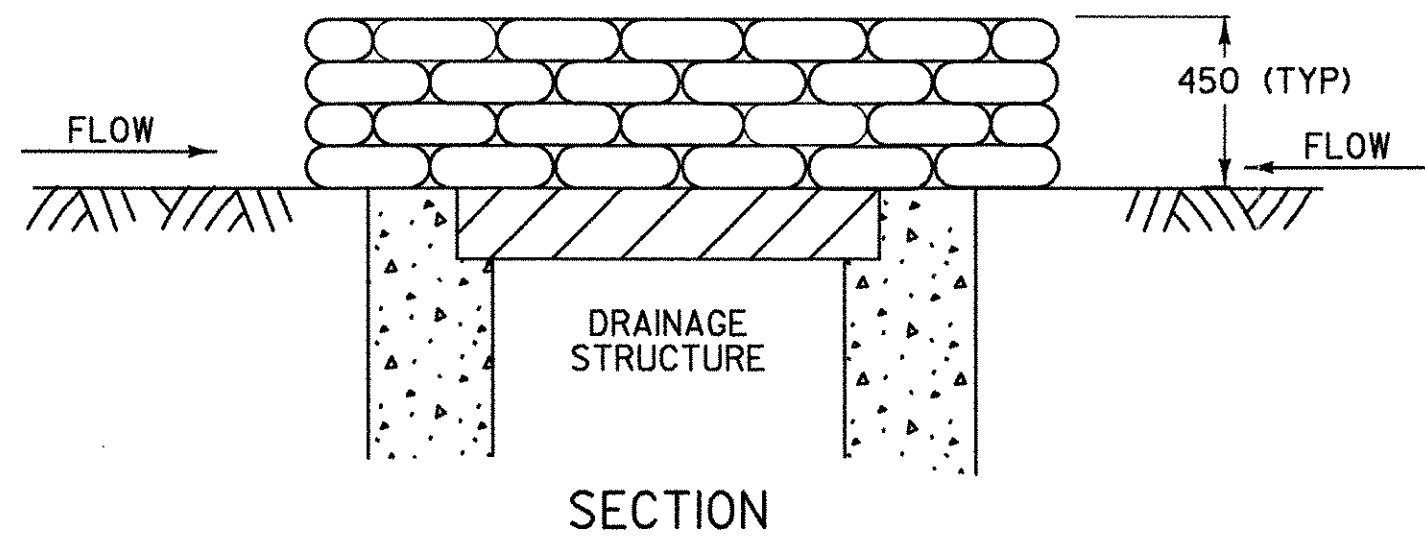
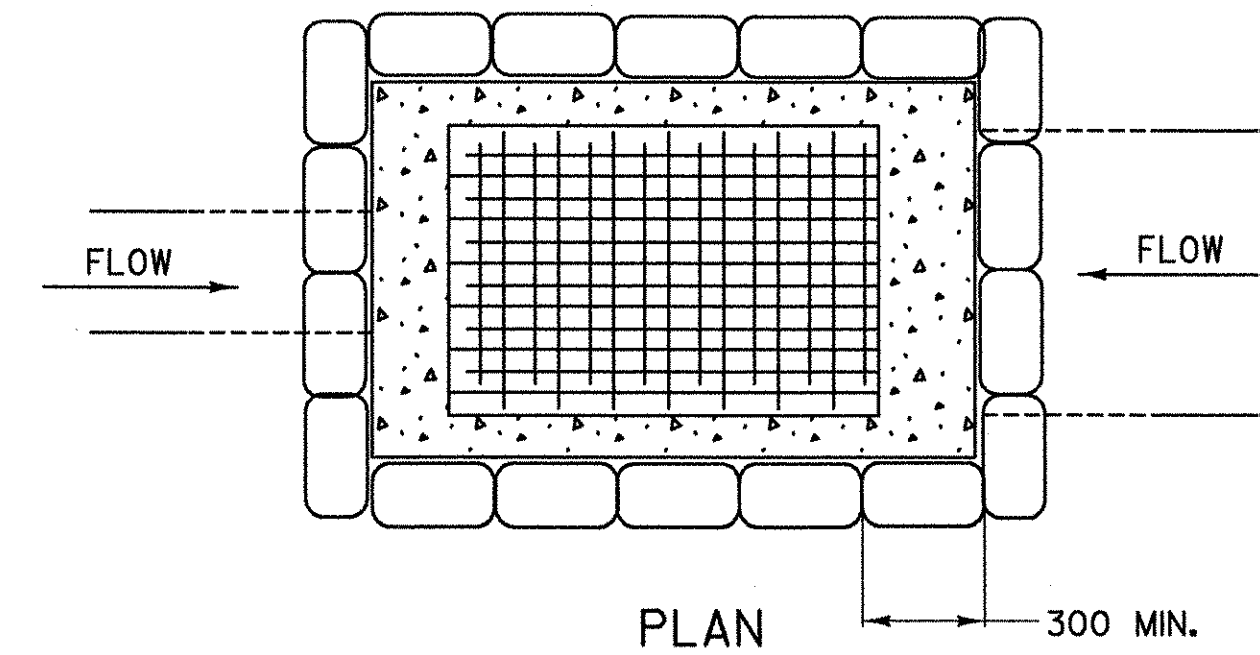
STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	FAYSTON	Bridge No.	36
Highway No.	VT 17	Log Sta.	
		Surv. Sta.	
VT 17 OVER MILL BROOK			
EPSC-2M			
Designed By	VTRANS	Drawn By	B. J. MASSE
Checked By	VTRANS	Bridge Design Supervisor	M. A. COLGAN
PROJECT	FAYSTON	PROJECT NO.	BHF 0200 (9)
I.G.C. Info.		Sheet 50 of 70	
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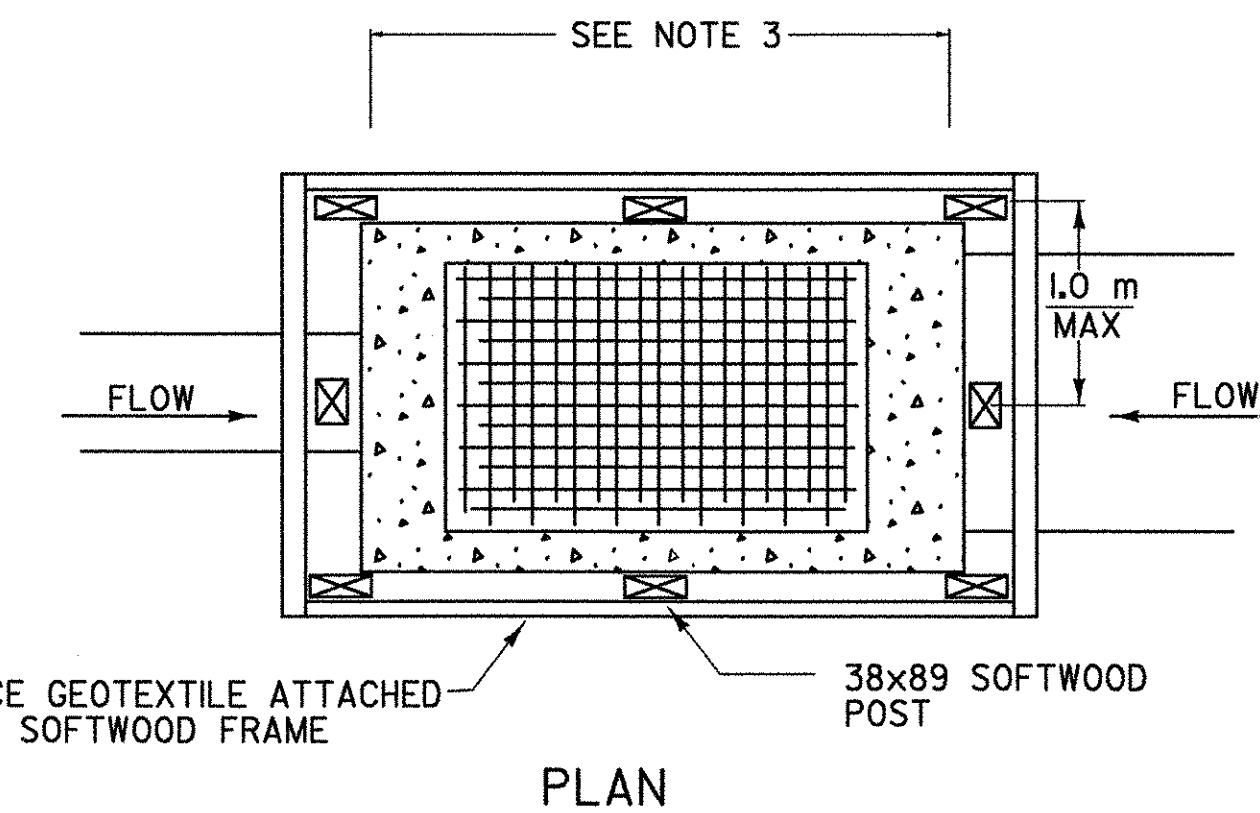
DROP INLET PROTECTION

APPLICATION NOTES:

- A. THE PRIMARY PURPOSE OF DRAINAGE STRUCTURE INLET PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM BY PONDING WATER WHICH ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION.
- B. THESE EXAMPLES OF DROP INLET PROTECTION ARE NOT INTENDED FOR USE ON GRADES. ON GRADE THEY MAY CAUSE WATER TO BYPASS THE STRUCTURE, CREATING ADDITIONAL EROSION OR FLOODING.
- C. POSSIBLE MODIFICATIONS FOR USE ON GRADE INCLUDE ADDING A BERM DOWNSTREAM OF THE INLET TO CREATE PONDING. CHECK DAMS MAY ALSO BE USED UPSTREAM OF THE INLET TO SLOW VELOCITIES.
- D. PREFABRICATED DROP INLET PROTECTION SPECIFICATIONS SHALL BE PROVIDED TO THE ENGINEER FOR APPROVAL PRIOR TO USE.
- GENERAL NOTES:
1. THE TOP OF THE INLET PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL, BASED ON FIELD LOCATION AND CONDITIONS.
2. SILT FENCE GEOTEXTILE SHALL BE A SINGLE CONTINUOUS PIECE TO ELIMINATE JOINTS.
3. SPACE SILT FENCE POSTS EVENLY AROUND INLET WITH A MAXIMUM SPACING OF 1.0 m. DRIVE POSTS A MINIMUM OF 450 mm INTO GROUND. WIRE MESH MAY BE REQUIRED BEHIND GEOTEXTILE TO PROVIDE SUPPORT.
4. SILT FENCE GEOTEXTILE SHALL BE EMBEDDED A MINIMUM OF 150 mm AND BACKFILLED. GEOTEXTILE SHALL BE SECURELY FASTENED TO POSTS AND FRAME.
5. GRAVEL BAGS SHALL BE FILLED WITH CLEAN STONE, RATHER THAN SAND, TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM IF BAGS ARE DAMAGED DURING USE.
6. GRAVEL BAGS SHALL BE INDIVIDUALLY TIED, DOUBLE BAGGED AND INVERSELY INSERTED. GRAVEL BAGS SHALL LAP THE JOINTS BETWEEN THE BAGS IN THE LAYER BELOW.
7. SECURE THE ENDS OF THE APRON FOR THE PREFABRICATED DRAINAGE STRUCTURE INLET PROTECTION WITH STAPLES AS DETAILED IN THE PLAN VIEW OR AS RECOMMENDED BY THE MANUFACTURERS LITERATURE.
8. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
9. MEASURES SHALL BE CLEANED AND REPAIRED AS NEEDED, SEDIMENT SHALL BE REMOVED WHEN ACCUMULATION REACHES ONE-HALF OF THE MEASURE HEIGHT. SEDIMENT SHALL BE DISPOSED OF AS UNSUITABLE MATERIAL.
10. PAYMENT OF INLET PROTECTION SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS OR UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM.
11. PAYMENT FOR MONITORING INLET PROTECTION SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
12. PAYMENT FOR MAINTAINING INLET PROTECTION SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



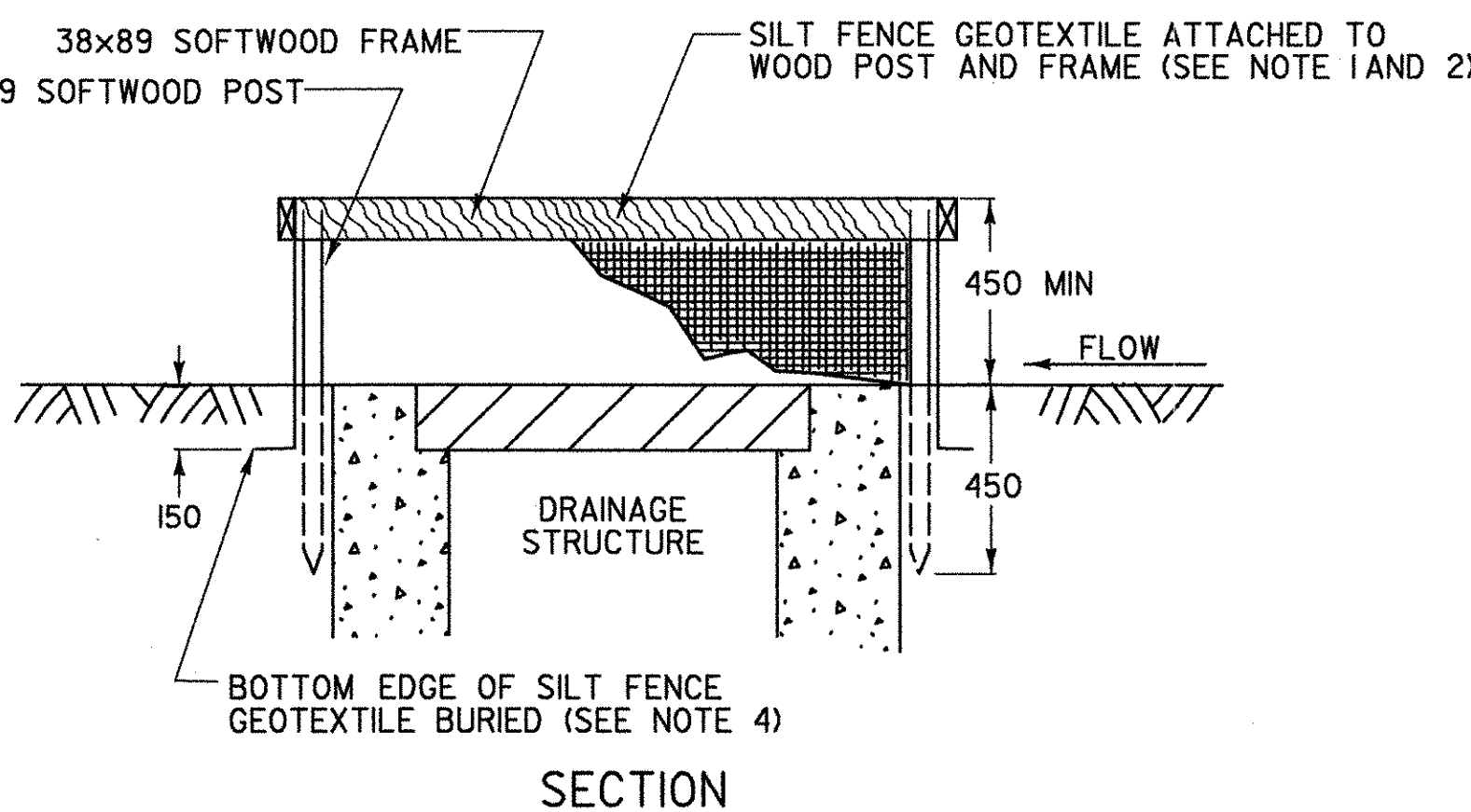
GRAVEL BAG DROP INLET PROTECTION



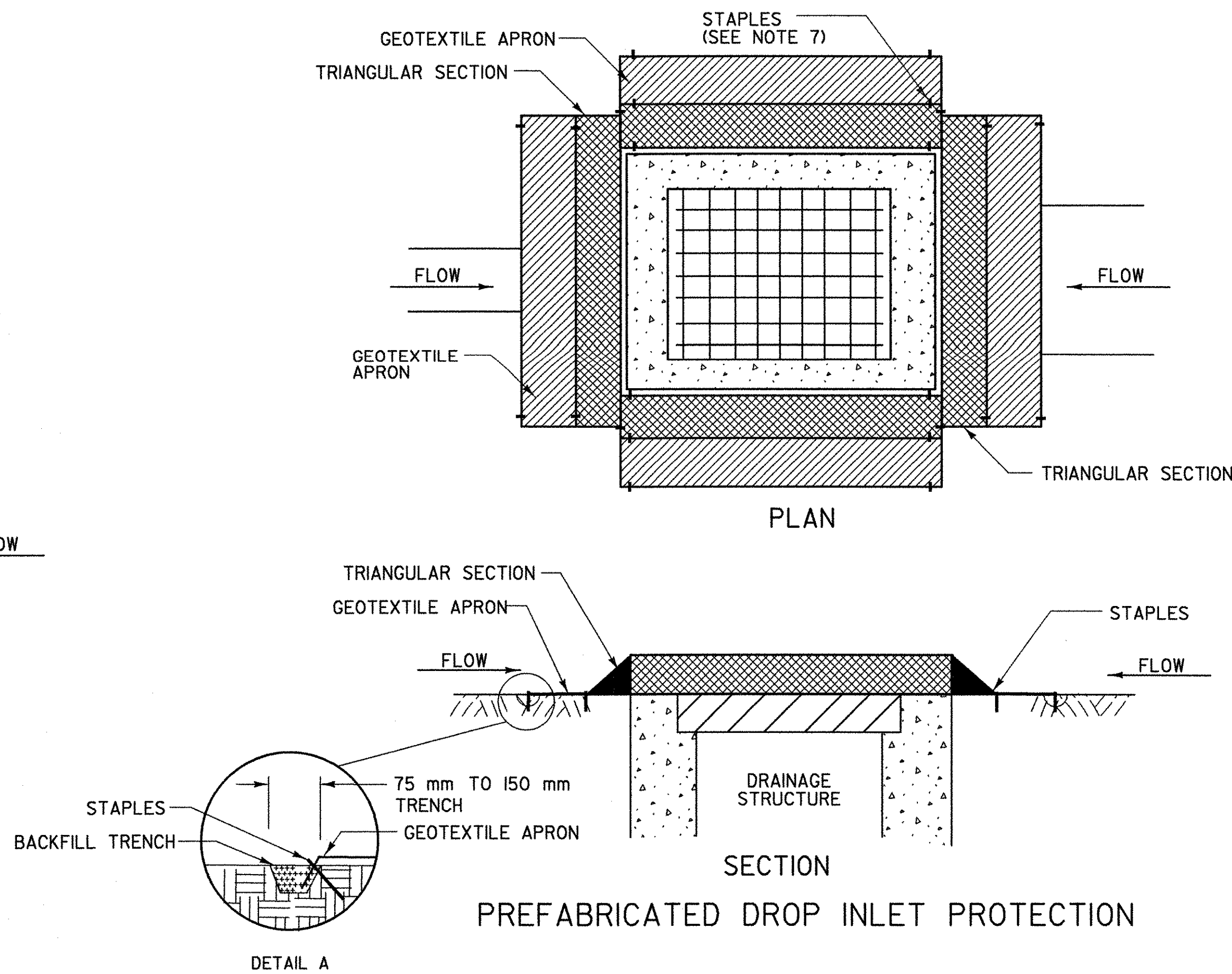
SILT FENCE GEOTEXTILE ATTACHED TO 38x89 SOFTWOOD FRAME

38x89 SOFTWOOD POST

PLAN



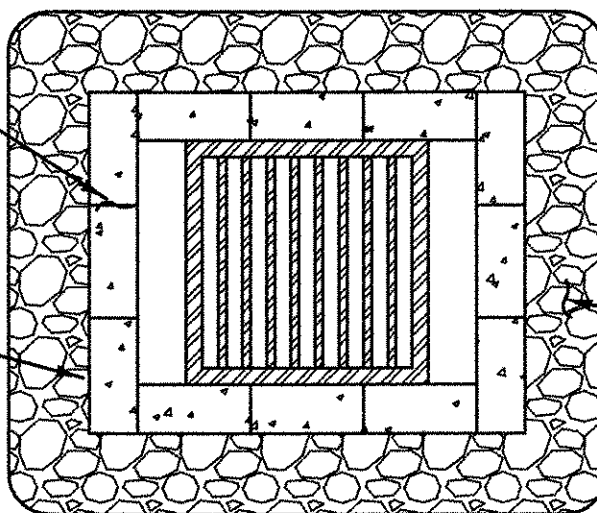
SILT FENCE DROP INLET PROTECTION



PREFABRICATED DROP INLET PROTECTION

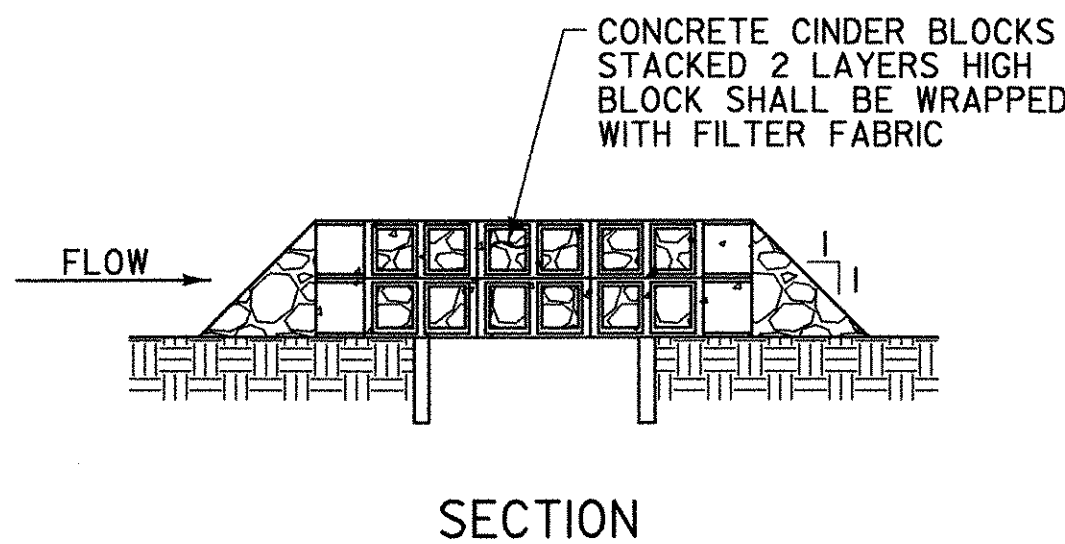
PLACE CONCRETE "CINDER" BLOCKS AROUND THE DRAINAGE STRUCTURE SO THAT OPEN AREAS OF BLOCKS ALLOW FLOW TO REACH THE GRATE.

PLACE FILTER FABRIC AROUND THE CONCRETE BLOCKS TO PREVENT CRUSHED STONE FROM ENTERING OPEN AREAS OF BLOCKS.



CRUSHED STONE (25 mm DIA. MIN.)

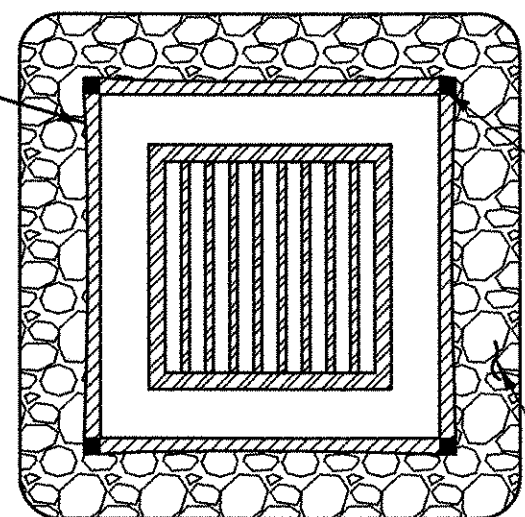
PLAN



SECTION

ROCK BARRIER DROP INLET PROTECTION
TEMPORARY PAVED AREAS

PLACE FILTER FABRIC AROUND THE WIRE MESH TO PREVENT CRUSHED STONE FROM ENTERING THE DROP INLET.

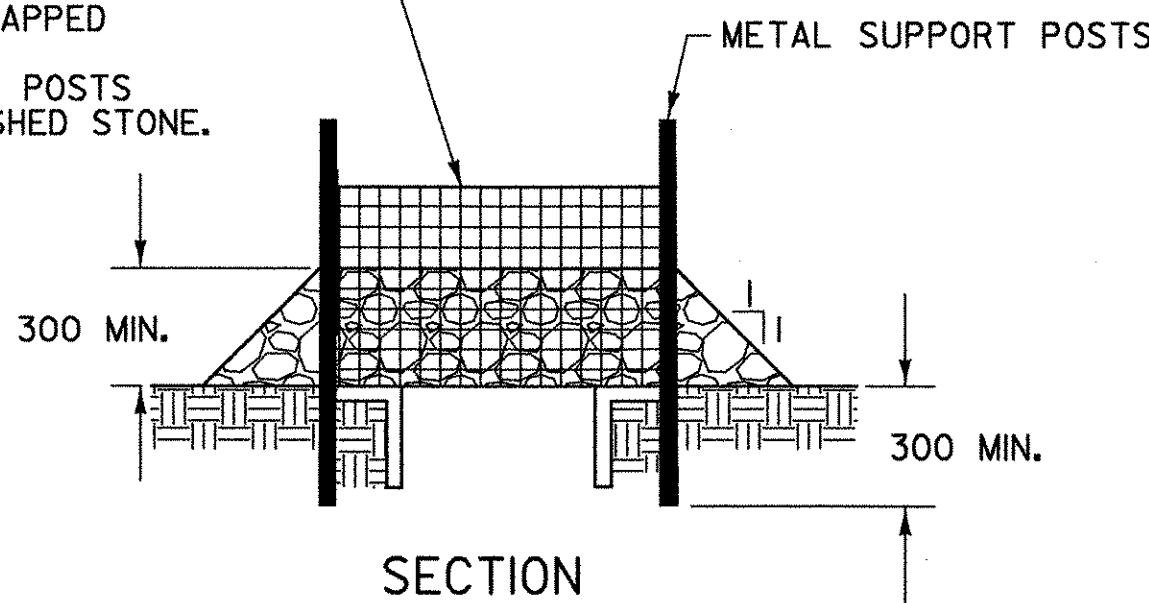


METAL SUPPORT POSTS

CRUSHED STONE (25 mm DIA. MIN.)

PLAN

WIRE MESH FENCE WITH 12 mm MAX. OPENINGS. FENCE WILL BE WRAPPED WITH FILTER FABRIC. SECURE TIGHTLY TO METAL SUPPORT POSTS BEFORE PLACEMENT OF CRUSHED STONE.



SECTION

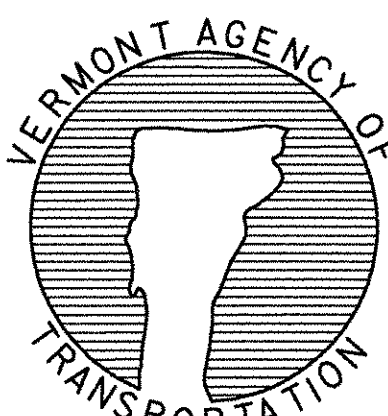
ROCK BARRIER INLET PROTECTION
TEMPORARY UNPAVED AREAS

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS
MAY 18, 2004 N. GARBACIK

Metric
DETAIL
EPSC-3M

EROSION PREVENTION &
SEDIMENT CONTROL DETAILS
DROP INLET PROTECTION



STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta. Surv. Sta.
VT 17 OVER MILL BROOK	
EPSC-3M	
Designed By VTRANS	Drawn By B.J. MASSE
Checked By VTRANS	Bridge Design Supervisor M.A. COLGAN
PROJECT FAYSTON	PROJECT NO. BHF 0200 (9)
I.G.C. Info.	
Bridge Sheet No.	Sheet 51 of 70

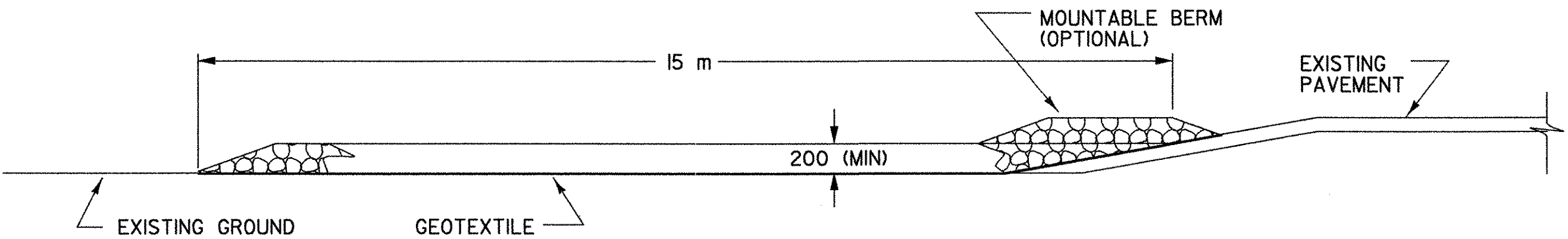
STABILIZED CONSTRUCTION ENTRANCE

APPLICATION NOTES:

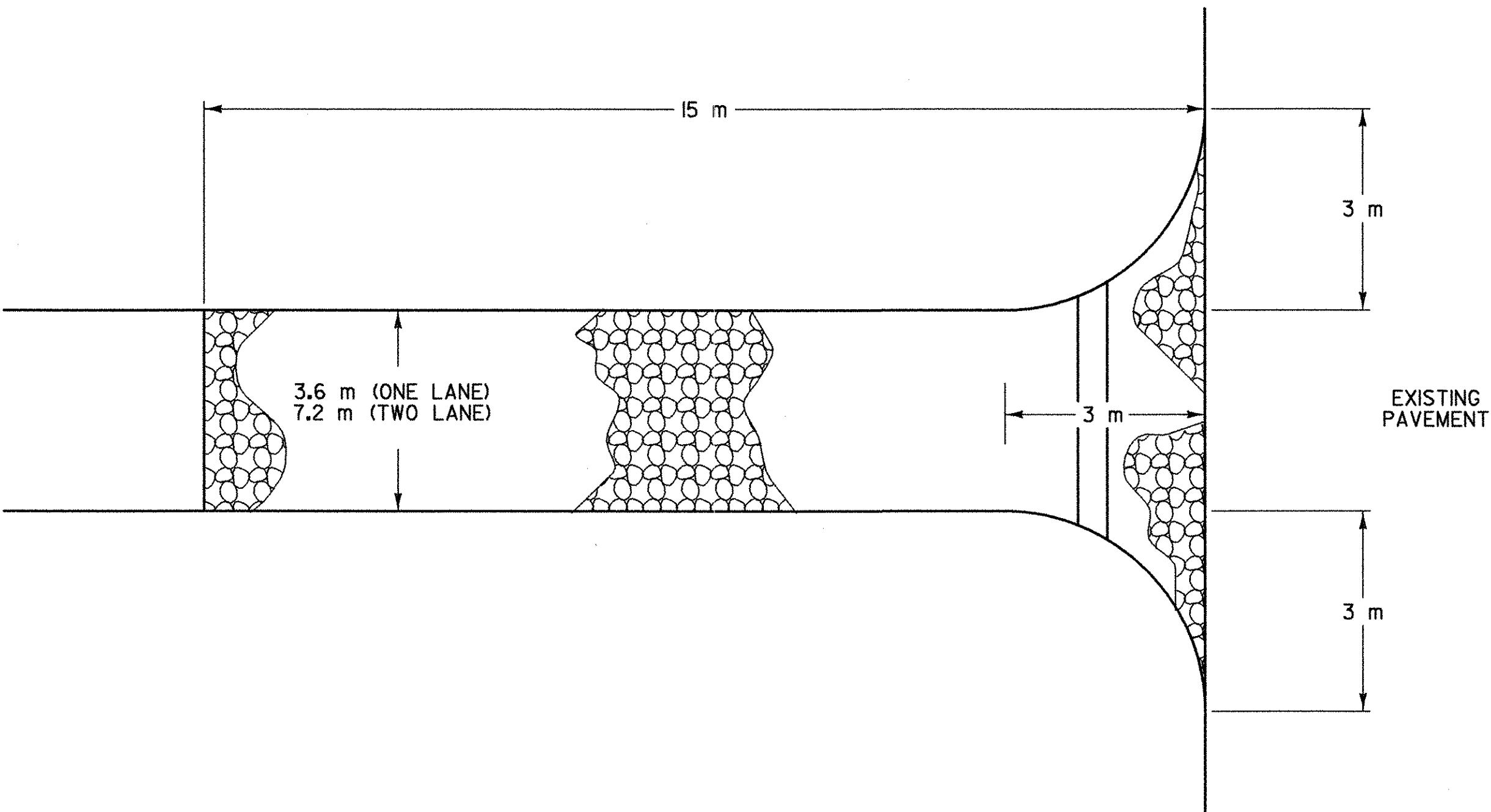
A. THE PURPOSE OF A STABILIZED CONSTRUCTION ENTRANCE IS TO REDUCE OR ELIMINATE THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHTS OF WAY OR STREETS.

GENERAL NOTES:

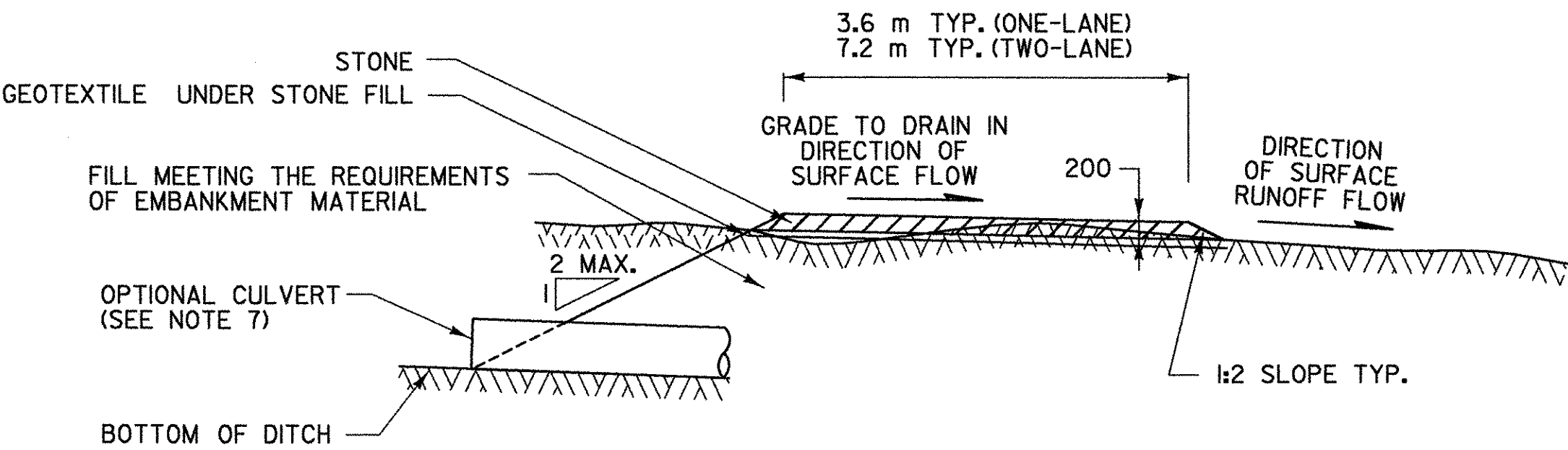
1. STONE SIZE - USE CLEAN STONE WITH GRADATION BETWEEN 50 mm AND 100 mm.
2. LENGTH - 15 m (MIN)
3. THICKNESS - 200 mm (MIN)
4. WIDTH - 3.6 m (MIN)
5. GEOTEXTILE UNDER STONE WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE AS DIRECTED BY THE ENGINEER. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. PROPOSED DRAINAGE PIPES SHALL BE SIZED WITH SUFFICIENT CAPACITY TO CARRY DITCH FLOWS. ALTERNATIVE WAYS OF TRANSPORTING DITCH DRAINAGE ACROSS CONSTRUCTION ENTRANCES MAY BE PROPOSED BY THE CONTRACTOR FOR APPROVAL BY THE ENGINEER.
8. WHEN WASHING OF VEHICLE IS NECESSARY, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
10. 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.
11. AT THE TIME OF REMOVAL OF THE STABILIZED CONSTRUCTION ENTRANCE THE DISTURBED AREA SHALL BE REPAIRED AND STABILIZED.
12. PAYMENT OF THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE MADE UNDER APPLICABLE ITEMS INCLUDED IN THE CONTRACT PLANS OR UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM.
13. PAYMENT FOR MONITORING STABILIZED CONSTRUCTION ENTRANCES SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
14. PAYMENT FOR MAINTAINING STABILIZED CONSTRUCTION ENTRANCES SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



TYPICAL CONSTRUCTION ENTRANCE PROFILE
(CUT AND DITCH SECTIONS)



TYPICAL CONSTRUCTION ENTRANCE PLAN
(CUT/DITCH AND FILL SECTIONS)



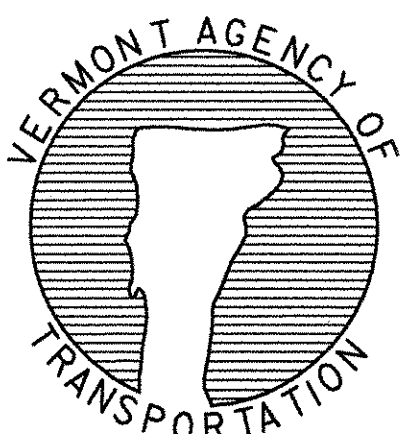
TYPICAL CONSTRUCTION ENTRANCE SECTION

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS
MAY 18, 2004 N. GARBACIK

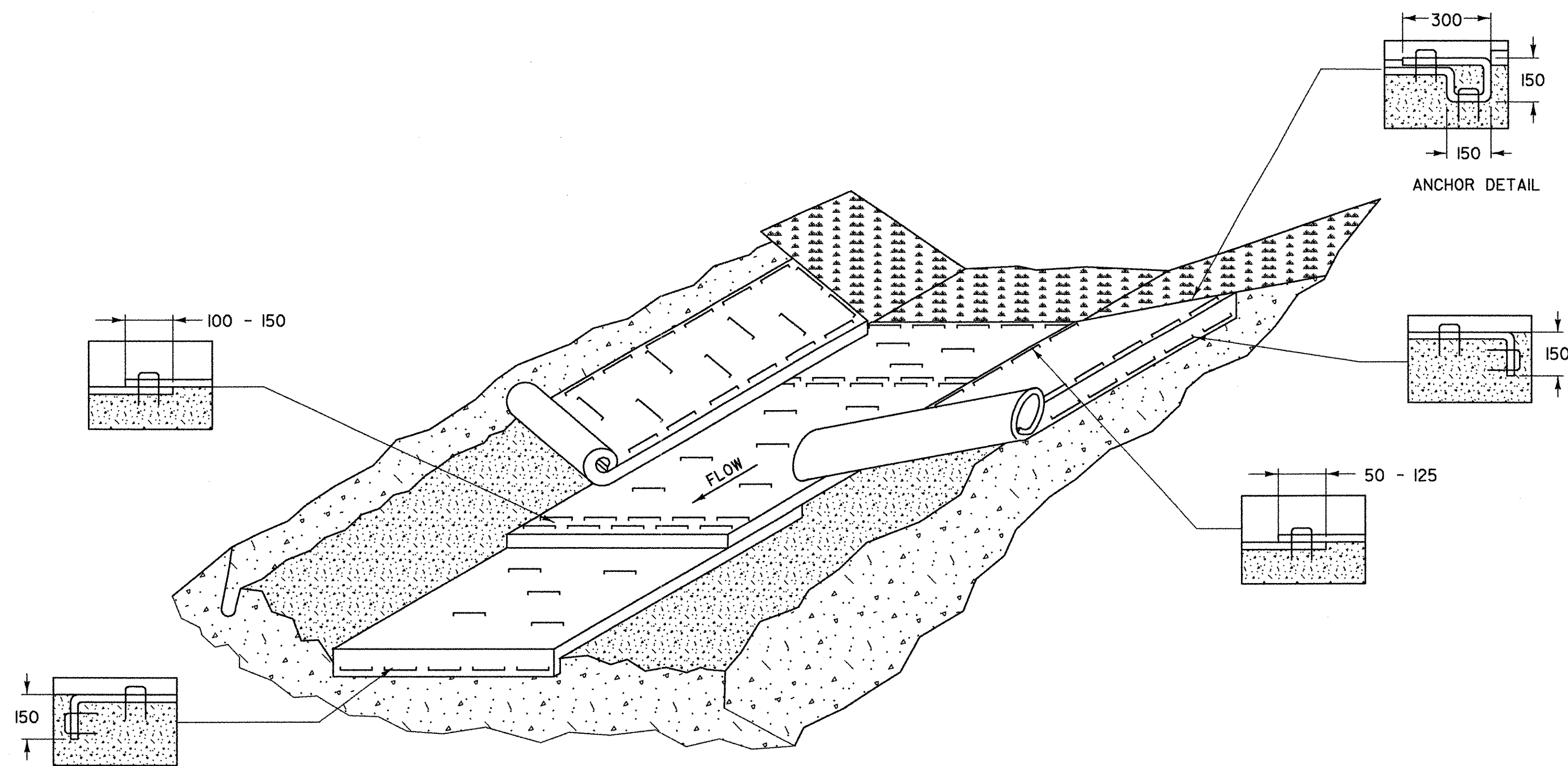
Metric
DETAIL
EPSC - 4M

EROSION PREVENTION &
SEDIMENT CONTROL DETAILS
CONSTRUCTION ENTRANCE



STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
	Surv. Sta.
VT 17 OVER MILL BROOK	
EPSC-4M	
Designed By VTRANS	Drawn By B. J. MASSE
Checked By VTRANS	Bridge Design Supervisor
	M. A. COLGAN Date 12/05
PROJECT FAYSTON	PROJECT NO. BHF 0200 (9)
I.G.C. Info.	
Bridge Sheet No.	Sheet 52 of 70



EROSION PROTECTION FOR DITCHES

APPLICATION NOTES:

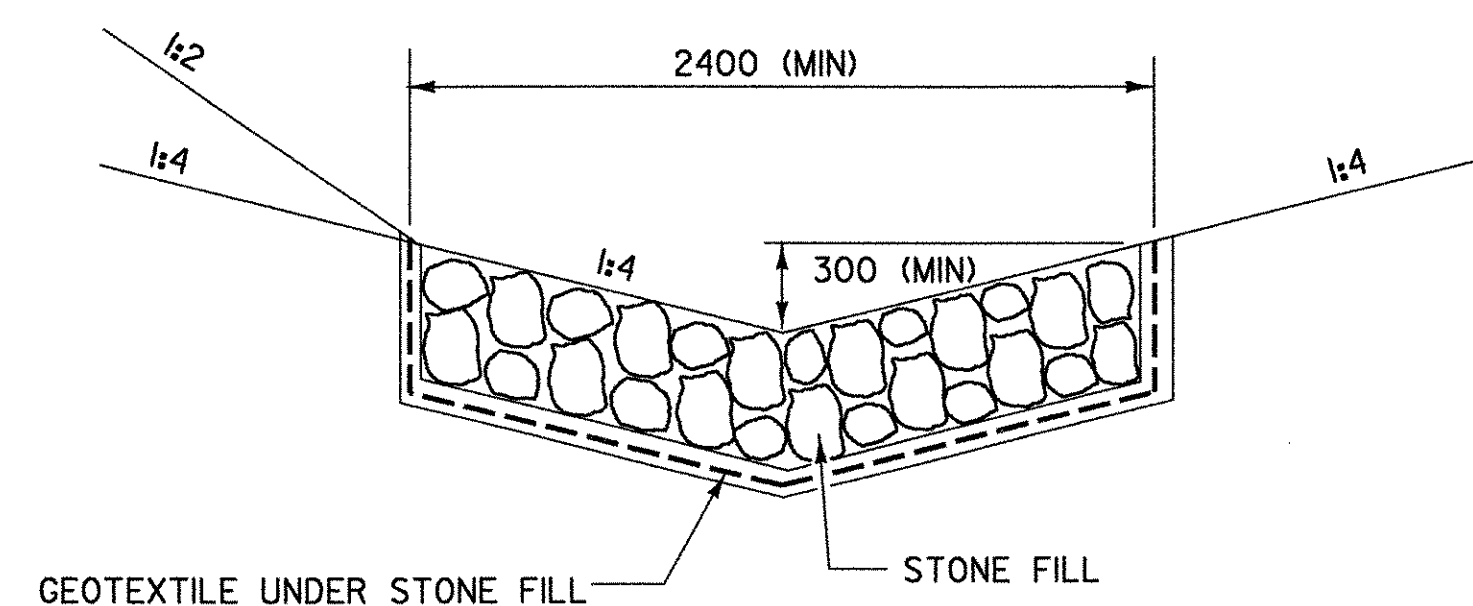
- A. THE PURPOSE OF LINING THE DITCH WITH EROSION MATTING IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION AT LOW VELOCITIES.
- B. THE FOLLOWING CHARTS SHALL BE USED TO DETERMINE THE APPROPRIATE EROSION CONTROL MEASURE:

DITCH AND CHANNEL PROTECTION	
SLOPE	LINING
< 1 %	GRASS
1% TO 4 %	EROSION MATTING
4 % TO 10 %	STONE FILL, TYPE I
> 10 %	STONE FILL, TYPE II

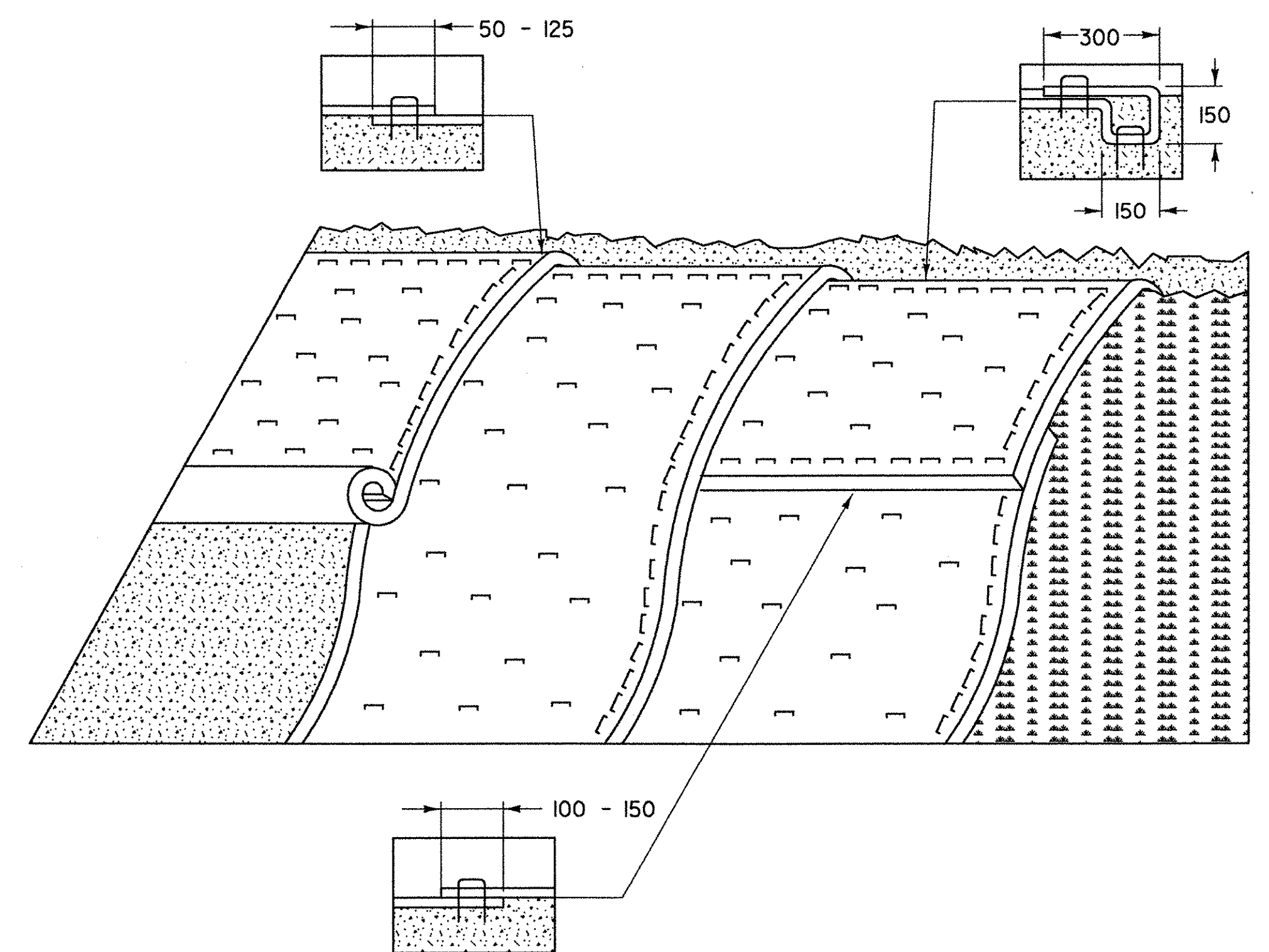
STONE FILL THICKNESS	
STONE FILL TYPE	THICKNESS
TYPE I	0.3 m
TYPE II	0.6 m

GENERAL NOTES:

- WATER MAY NEED TO BE DIVERTED TO ALLOW PROPER MATTING INSTALLATION.
- GRADE AND SMOOTH CHANNEL TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
- APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
- INSTALL MATTING IN THE CENTER OF THE CHANNEL, IN THE DIRECTION OF THE WATER FLOW.
- INSTALL MATTING ON THE SIDE SLOPES OF THE CHANNEL, OVERLAPPING THE CENTER MAT.
- ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MEASURES SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
- PAYMENT FOR INSTALLATION OF MATTING SHALL BE MADE UNDER THE EROSION CONTROL WITH MATTING ITEM.
- PAYMENT FOR MONITORING EROSION CONTROL MATTING SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING EROSION CONTROL MATTING SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.



TEMPORARY STONE LINED DITCH



EROSION PREVENTION FOR SIDE SLOPES

APPLICATION NOTES:

- A. THE PURPOSE OF MATTING ON SIDE SLOPES IS TO REDUCE EROSION AND AID THE ESTABLISHMENT OF VEGETATION
- B. EROSION CONTROL MATTING SHALL BE USED FOR THE FOLLOWING REASONS:
- SIDE SLOPES > 3:1 (H:V)
 - AREAS WHERE SEED AND MULCH WILL NOT STAY IN PLACE ALONE
 - WHERE SEEDING IS OUTSIDE THE GROWING SEASON.

GENERAL NOTES:

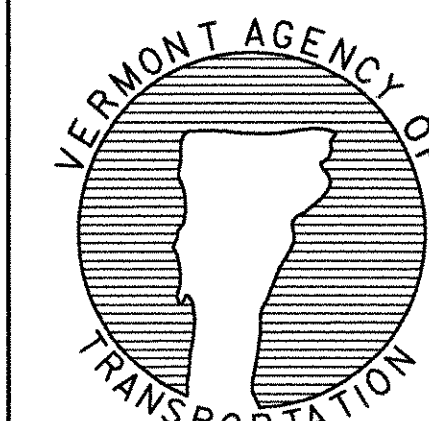
- GRADE AND SMOOTH THE SLOPE TO PROVIDE GOOD MATTING TO SOIL SURFACE CONTACT.
- APPLY FERTILIZER, LIME, AND SEED PRIOR TO PLACING MATTING.
- ANCHOR MATTING AS SHOWN, UTILIZING ANCHOR STAPLES. STAPLE PLACEMENT SHALL BE DETERMINED BY THE MANUFACTURER'S INSTALLATION INSTRUCTIONS.
- UNROLL MATTING VERTICALLY DOWN SLOPE IN THE DIRECTION OF WATER FLOW.
- OVERLAP UPPER MATTING OVER LOWER MATTING AS SHOWN.
- OVERLAP ADJACENT MATTING AS SHOWN.
- CUT EXCESS MATTING AT END OF SLOPE AND ANCHOR THE END.
- MEASURES SHALL BE INSPECTED EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF A STORM EVENT GREAT ENOUGH TO CAUSE WATER TO LEAVE THE CONSTRUCTION SITE.
- MATTING SHALL BE REPAIRED AND RESTAPLED AS NECESSARY TO ENSURE PROPER FUNCTION.
- PAYMENT FOR INSTALLATION OF MATTING SHALL BE MADE UNDER THE EROSION CONTROL WITH MATTING ITEM.
- PAYMENT FOR MONITORING EROSION CONTROL MATTING SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING EROSION CONTROL MATTING SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

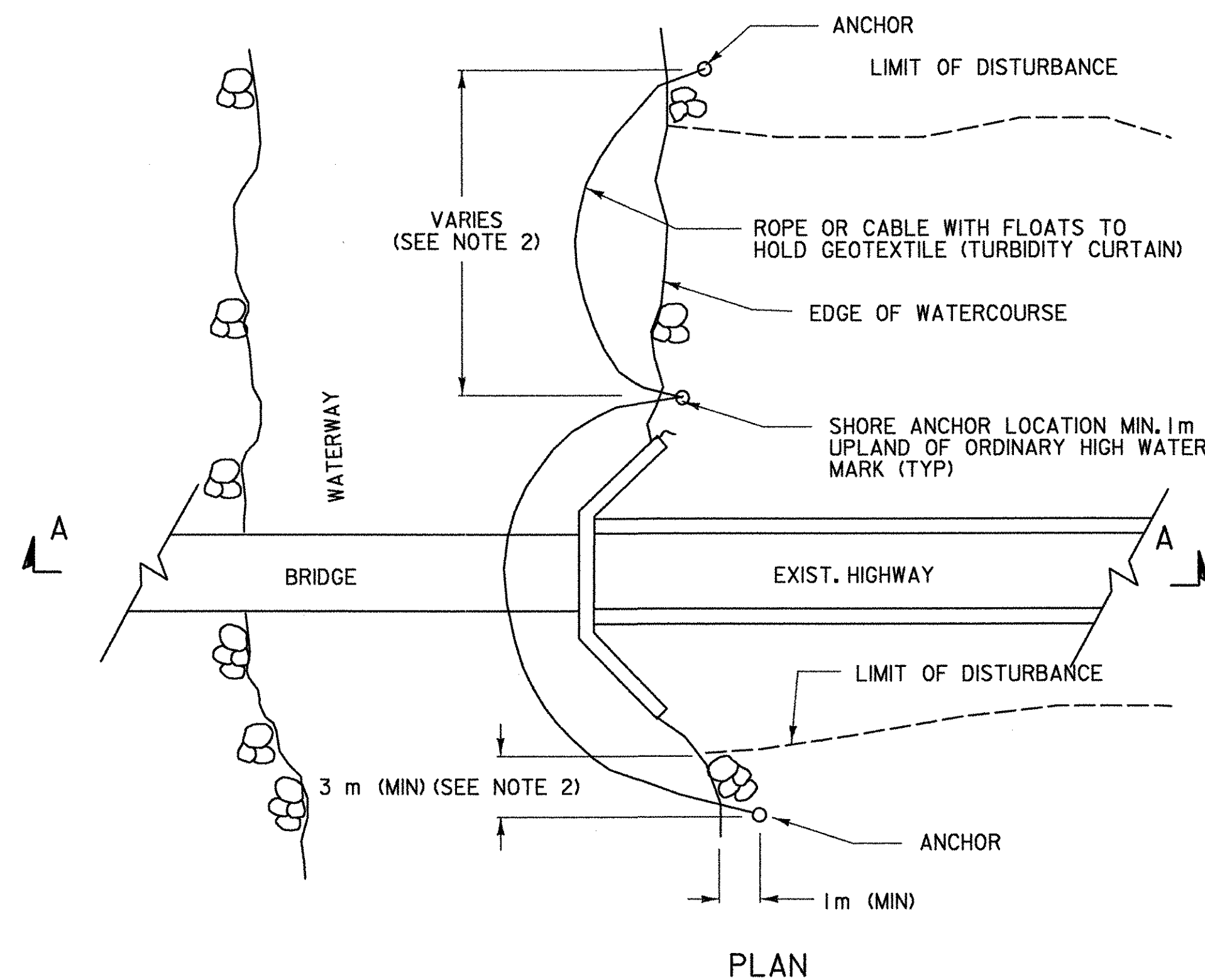
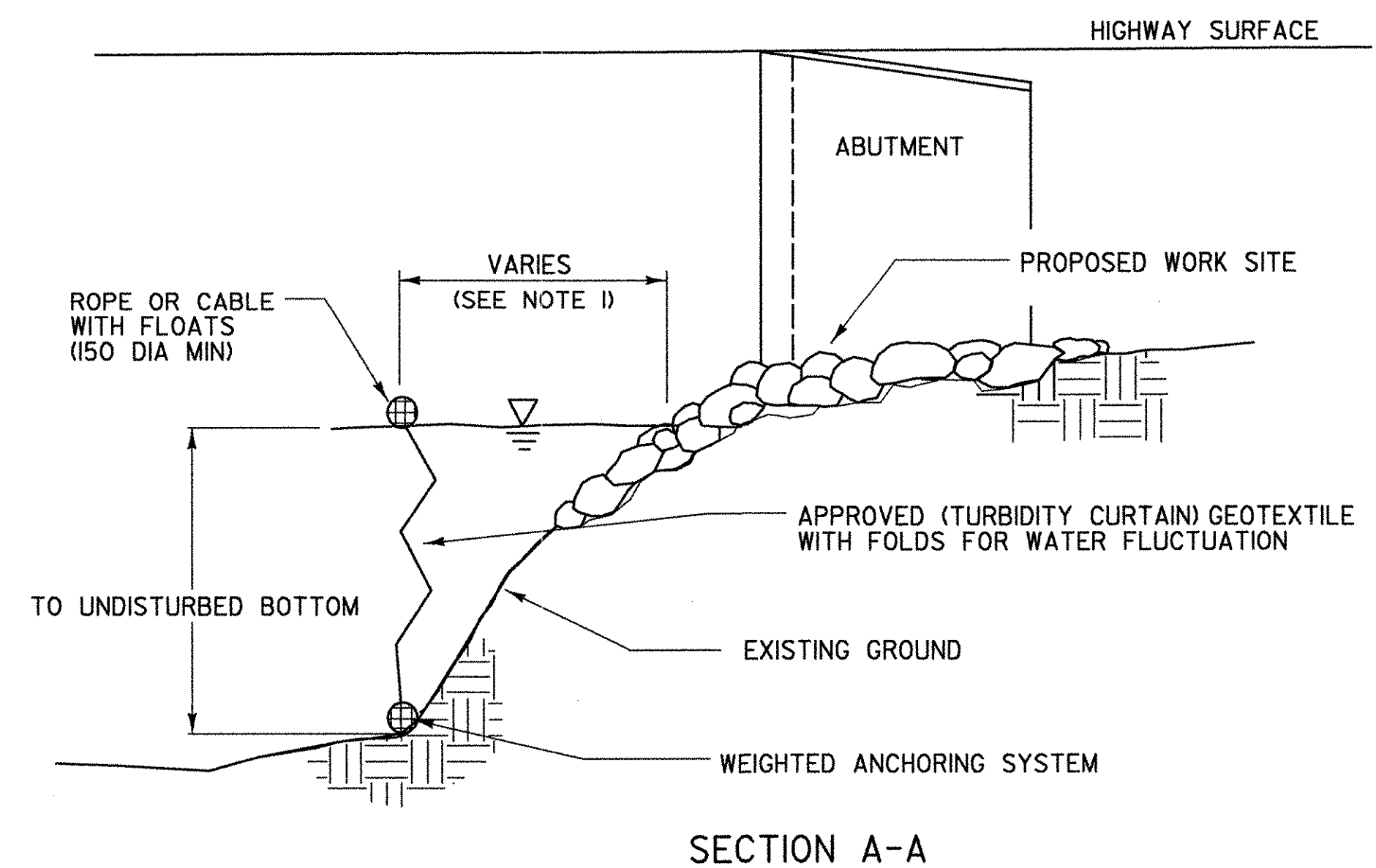
REVISIONS AND CORRECTIONS
MAY 18, 2004 N. GARBACIK

Metric
DETAIL
EPSC-5M

EROSION PREVENTION &
SEDIMENT CONTROL DETAILS
DITCH & SIDE SLOPE PROTECTION



STATE OF VERMONT AGENCY OF TRANSPORTATION	
Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta. Surv. Sta.
VT 17 OVER MILL BROOK	
EPSC-5M	
Designed By VTRANS	Drawn By B. J. MASSE
Checked By VTRANS	Bridge Design Supervisor M. A. COLGAN Date 12/05
PROJECT FAYSTON	PROJECT NO. BHF 0200 (9)
I.G.C. Info.	
Bridge Sheet No.	Sheet 53 of 70



TURBIDITY CURTAIN - TEMPORARY

TURBIDITY CURTAIN

APPLICATION NOTES:

- THE PURPOSE OF A TURBIDITY CURTAIN IS TO SEPARATE WORK AREAS IN OR ADJACENT TO WATERS, TO PREVENT SEDIMENT FROM ENTERING THE WATERS.
- TURBIDITY CURTAIN SHALL NOT BE PLACED ACROSS A FLOWING WATERWAY, OR IN A WATERWAY WITH STREAM VELOCITIES GREATER THAN 0.5m/SEC.
- TURBIDITY CURTAIN SHALL NOT BE PLACED AT THE OUTLET OF A CULVERT OR DITCH UNLESS THE VELOCITY DOES NOT EXCEED 0.5 m/SEC.
- THE DETAIL DEPICTS WORK AT A BRIDGE LOCATION, BUT TURBIDITY CURTAIN MAY BE APPLIED AT OTHER LOCATIONS.

GENERAL NOTES:

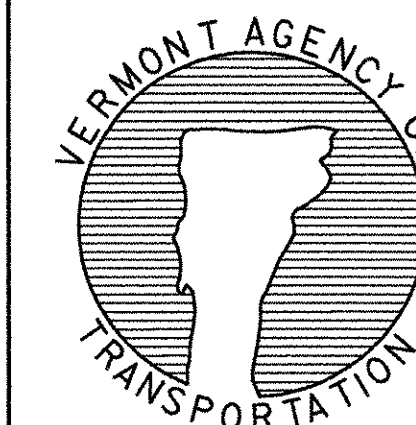
- THE TURBIDITY CURTAIN SHALL BE PLACED AS CLOSE TO THE WORK AS POSSIBLE WITHOUT INTERFERING WITH CONSTRUCTION OPERATIONS.
- THE TURBIDITY CURTAIN SHALL BE A MAXIMUM OF 30 m LONG BETWEEN ANCHORS. LAST SECTION SHALL TERMINATE A MINIMUM OF 3 m BEYOND THE LIMIT OF DISTURBANCE.
- THE CONTRACTOR SHALL MONITOR THE TURBIDITY CURTAIN, TAKING INTO ACCOUNT WEATHER PATTERNS AND PREVAILING WIND DIRECTIONS THAT MAY AFFECT WATER LEVELS, VELOCITY AND MOVEMENT OF THE TURBIDITY CURTAIN.
- THE TURBIDITY CURTAIN SHALL BE REMOVED BY SLOWLY PULLING TOWARD THE SHORE TO MINIMIZE ESCAPE OF SEDIMENTS INTO THE WATERWAY.
- THE WEIGHTED ANCHOR SYSTEM SHALL BE A TYPE THAT ALLOWS THE CURTAIN TO CONFORM TO THE CONTOUR ON THE BOTTOM OF THE WATERWAY.
- PAYMENT FOR INSTALLATION AND REMOVAL OF THE TURBIDITY CURTAIN SHALL BE MADE UNDER THE GEOTEXTILE FOR FILTER CURTAIN ITEM.
- PAYMENT FOR MONITORING TURBIDITY CURTAIN SHALL BE MADE UNDER THE MONITORING EROSION & SEDIMENT CONTROL PLAN ITEM.
- PAYMENT FOR MAINTAINING TURBIDITY CURTAIN SHALL BE MADE UNDER THE FIELD MAINTENANCE OF EROSION & SEDIMENT CONTROL PLAN ITEM, UNLESS MAINTENANCE IS REQUIRED DUE TO POOR INSTALLATION PRACTICES.

NOTE: ALL DIMENSIONS ARE IN MILLIMETERS (mm) EXCEPT WHERE NOTED.

REVISIONS AND CORRECTIONS
MAY 18, 2004 N. GARBACIK

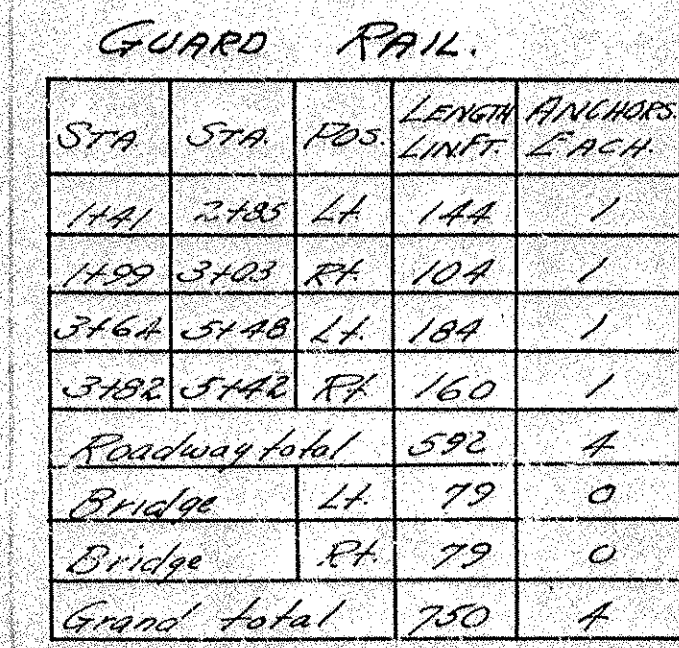
Metric
DETAIL
EPSC-6M

EROSION PREVENTION &
SEDIMENT CONTROL DETAILS
TURBIDITY CURTAIN



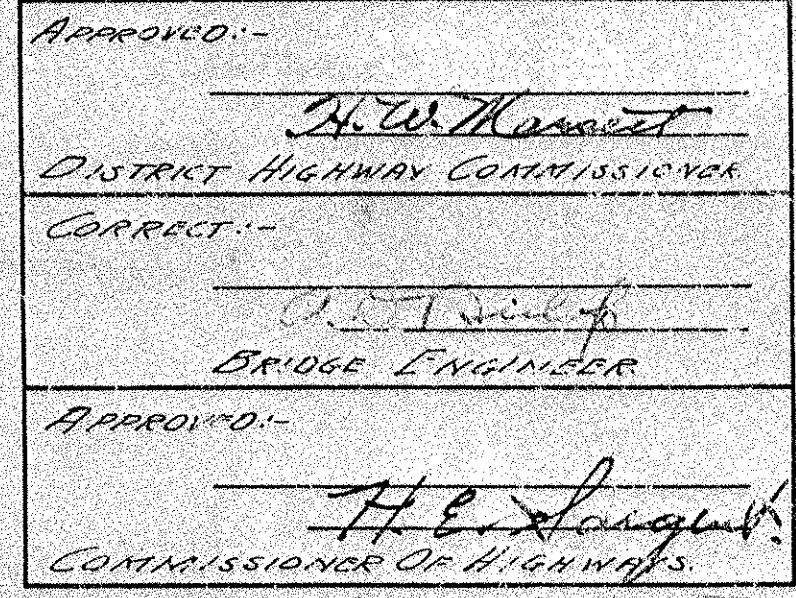
STATE OF VERMONT AGENCY OF TRANSPORTATION

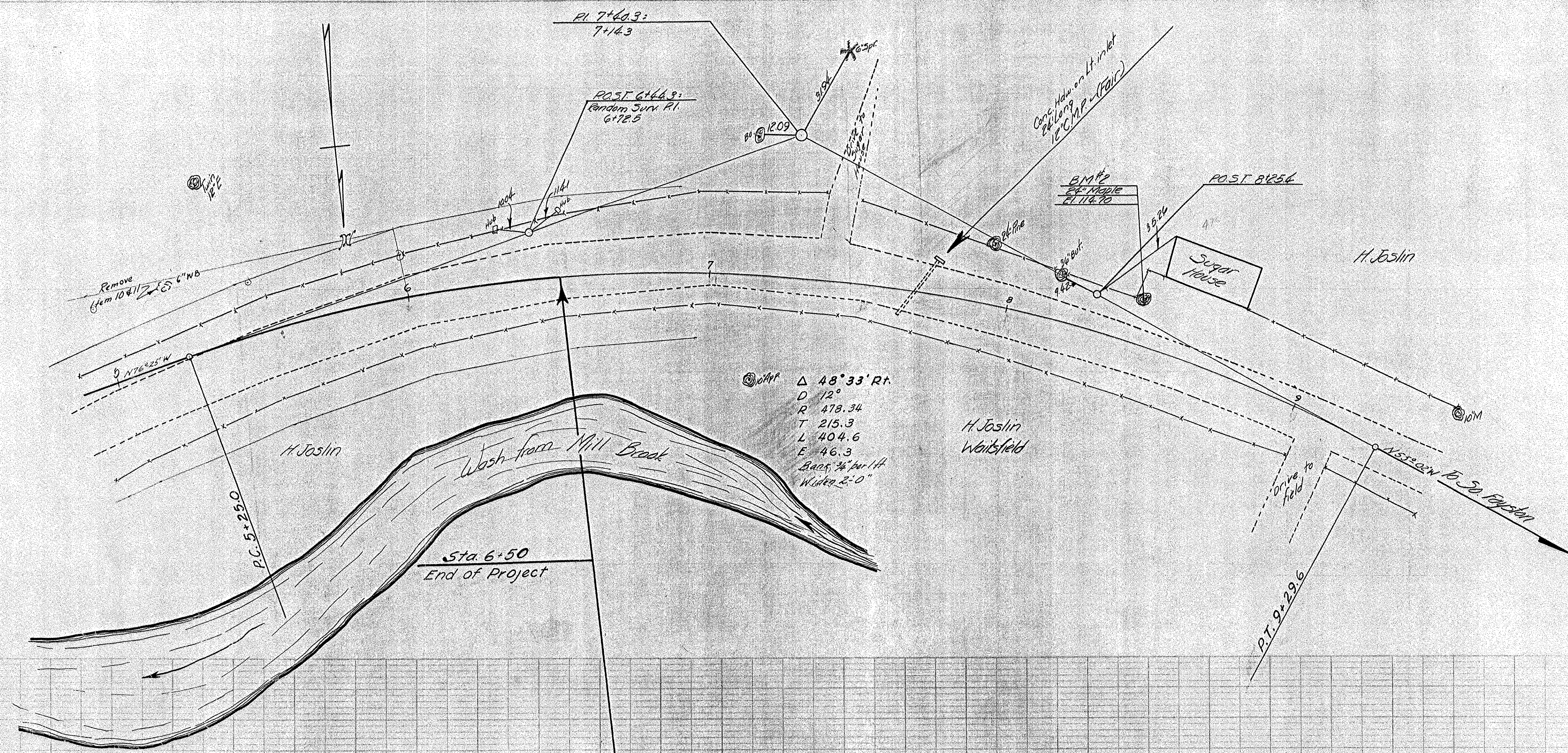
Town Of FAYSTON	Bridge No. 36
Highway No. VT 17	Log Sta.
	Surv. Sta.
VT 17 OVER MILL BROOK	
EPSC-6M	
Designed By VTRANS	Drawn By B.J. MASSE
Checked By VTRANS	Bridge Design Supervisor
	M.A. COLGAN Date 12/05
PROJECT FAYSTON	PROJECT NO. BHF 0200 (9)
I.G.C. Info.	
Bridge Sheet No.	Sheet 54 of 70



STA	STA	POS.	LENGTH LINE	ANCHORS EACH
1441	3485	Lt	144	1
1459	3403	Rt	104	1
3464	3440	Lt	184	1
3482	3442	Rt	160	1
Roadway total			592	4
Bridge		Lt	79	0
Bridge		Rt	79	0
Grand total			750	4

SUMMARY OF QUANTITIES.			
Item No.	ITEM	QUANTITY	UNIT
1041	Common excavation incl borrow	15000	Cu. Yds.
15	Channel excavation	37.0	Cu. Yds.
16	Structure excavation	110	Cu. Yds.
18	Maintenance of traffic	1	L. S.
19C	Subbase of gravel	620	Cu. Yds.
20	Gravel surface course	250	Cu. Yds.
414	Concrete (class "A")	277	Cu. Yds.
42	Reinforcing steel	23338	Lbs.
43B	Steel substructure (braced ^{ns})	1	L. S.
57	Removal of braced substructure	1	L. S.
65	Timber Sillings	607	cu. ft.
69	Heavy Sills 4" x 11"	380	cu. ft.
80A	Cable guard rail	150	cu. ft.
80B	Posters for cable guard rail	4	Each

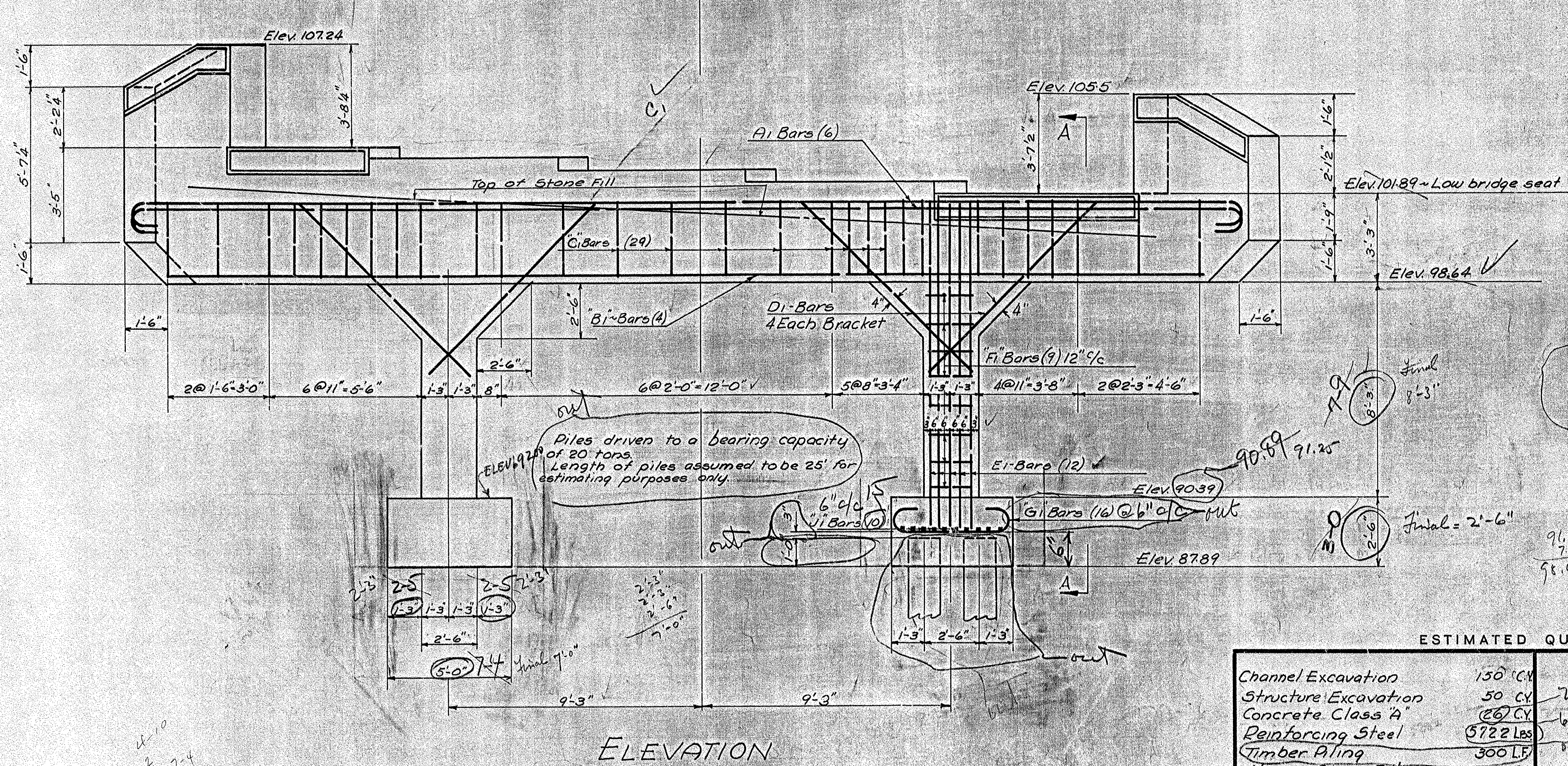
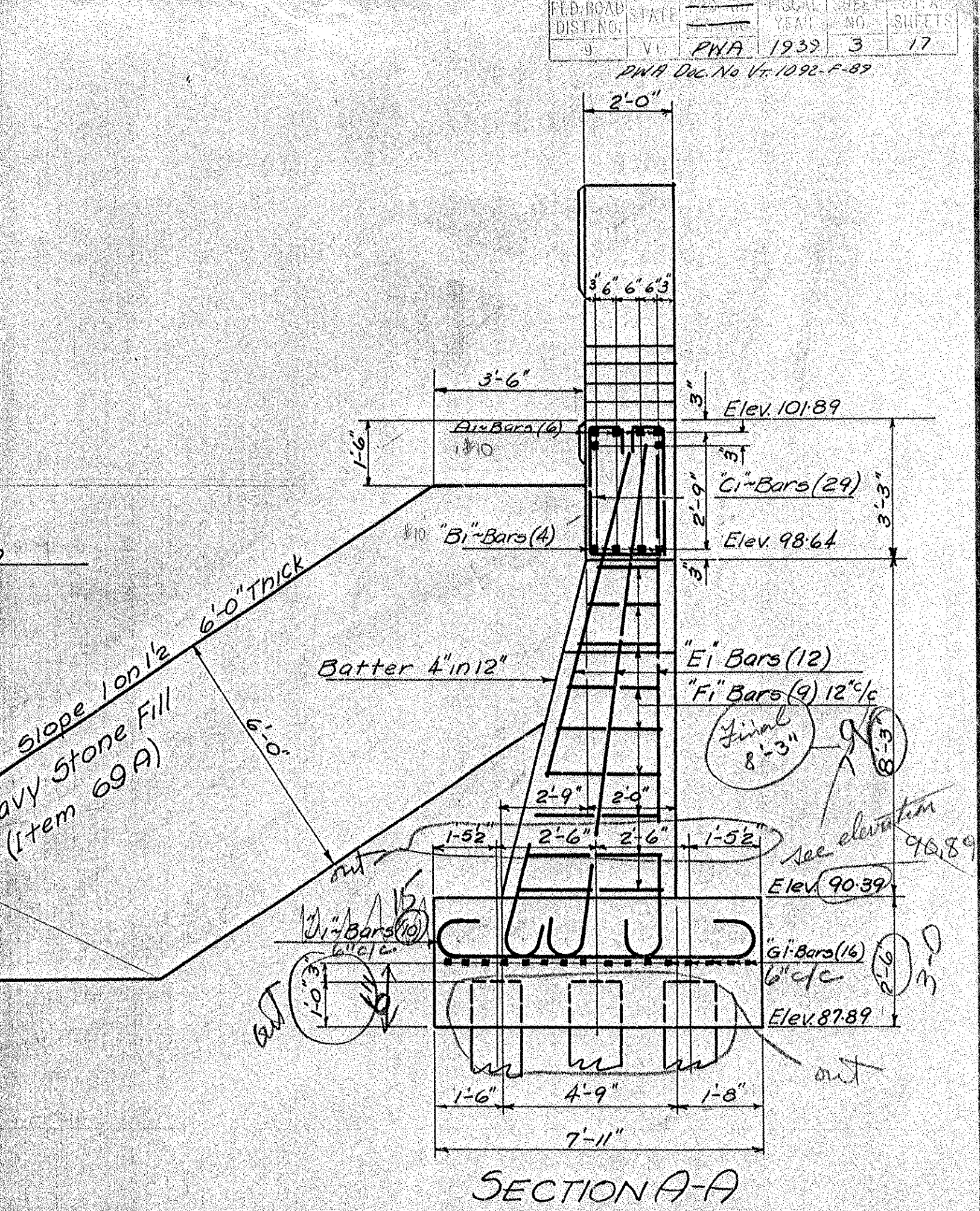
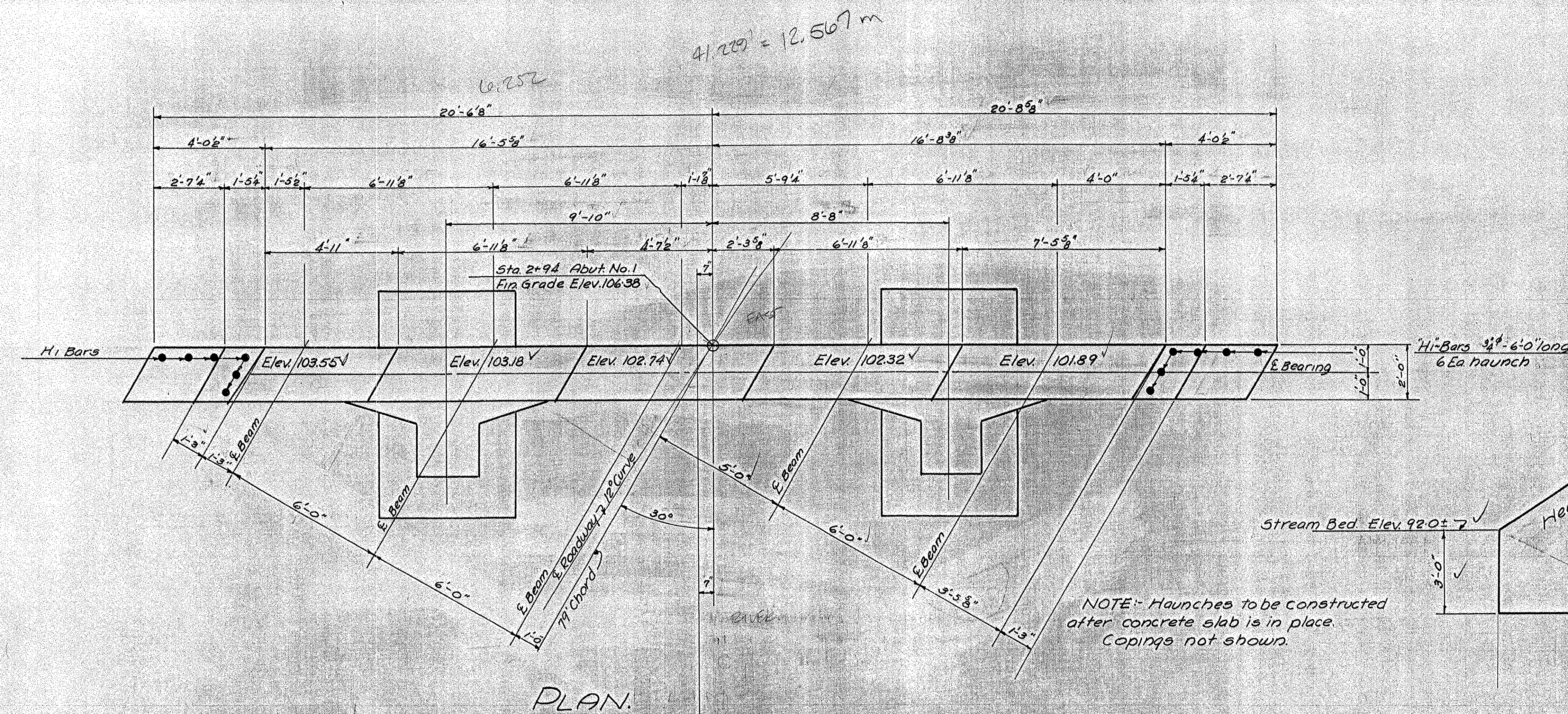




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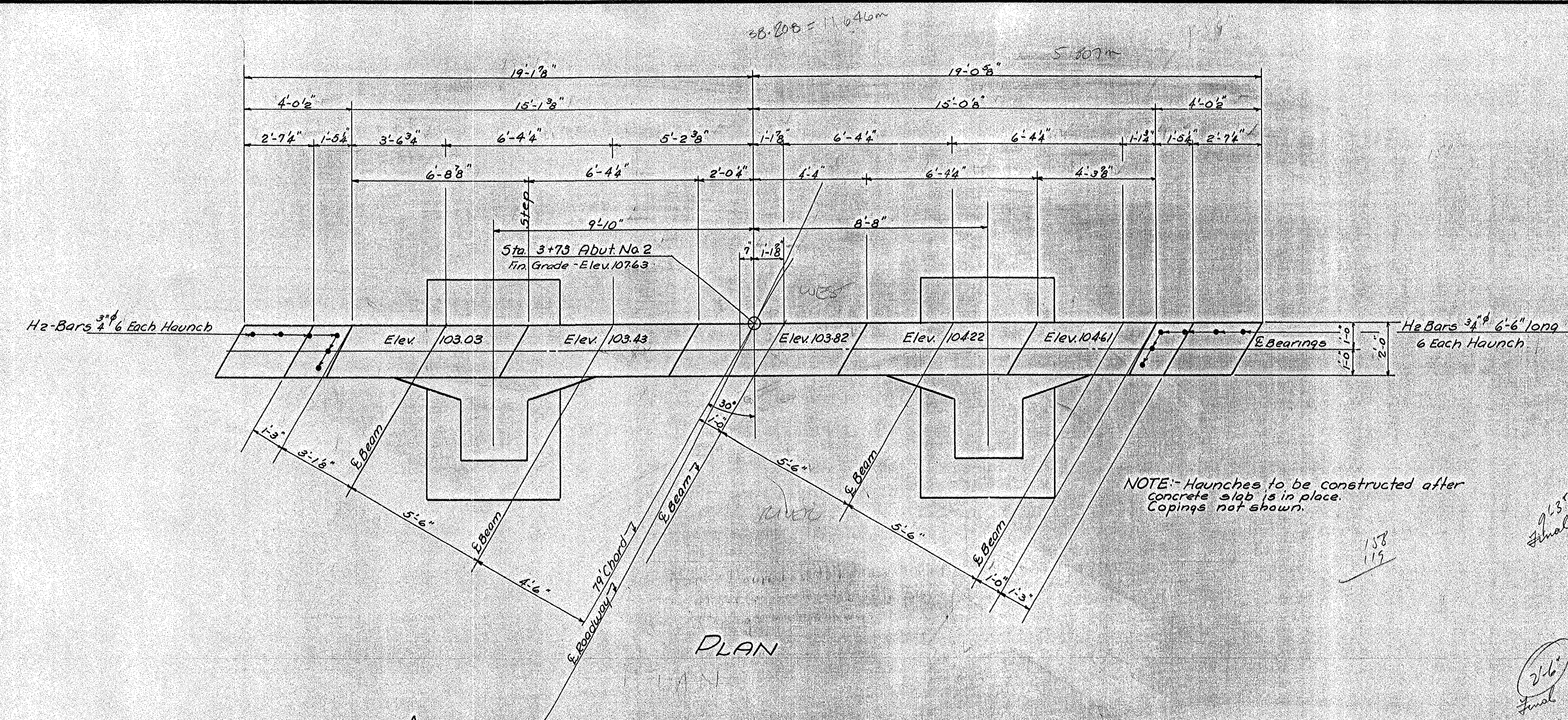


REINFORCING STEEL				
Bar Size	No. Req'd	Total Length	Detail	
A1 1/4"	6	43'-4"	Straight	
B1 1/4"	4	37'-9"	Straight	
C1 3/8"	29	9'-10"	Straight	
D1 1"	16	11'-0"	Straight	
E1 1"	24	13'-9"	Straight	
F1 1/2"	18	14'-6"	Straight - Bend in field to fit.	
H1 3/4"	12	6'-0"	Straight	
G1 1"	32	7'-4 9/8"	Straight	
J1 1"	20	10'-3"	Straight	

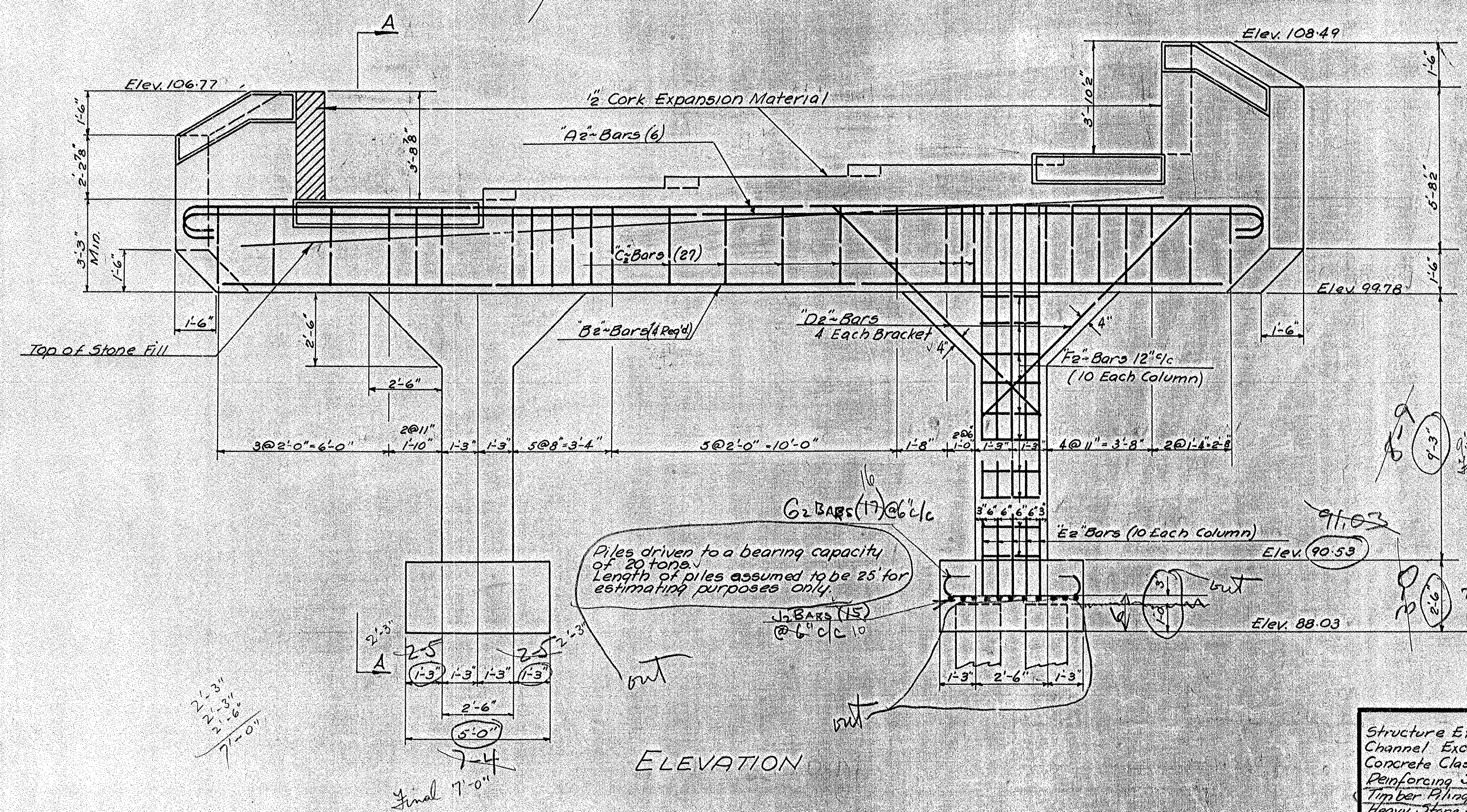
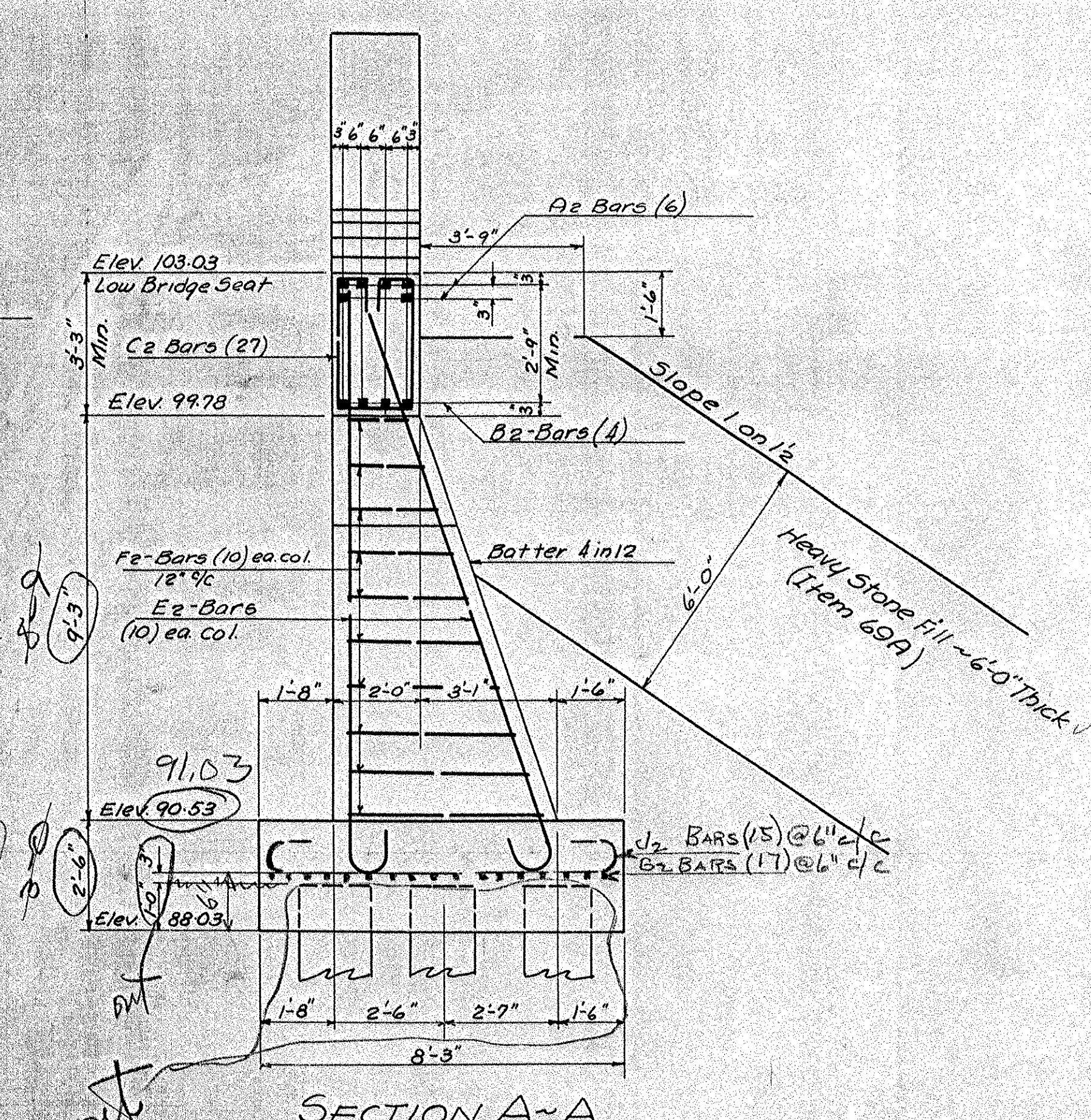
DETAILS - ABUTMENT NO. 1
FAYSTON
 PWA - Doc. No. VT. 1092-F-89
 Scale 3/8" = 1'-0"

ESTIMATED QUANTITIES	
Channel Excavation	150 CY
Structure Excavation	50 CY
Concrete Class "A"	260 CY
Reinforcing Steel	5722 LBS
Timber Piling	300 LF
Heavy Stone Fill	180 CY

Surveyed by
 Designed by H.G.H.
 Drawn by H.G.H.
 Traced by H.W.S.
 Checked by D.R.B.
 Series PWA Doc. No. VT. 1092-F-89 Filed
 Sheet 3 of 17 Sheets



NOTE: Haunches to be constructed after concrete slab is in place. Copings not shown.



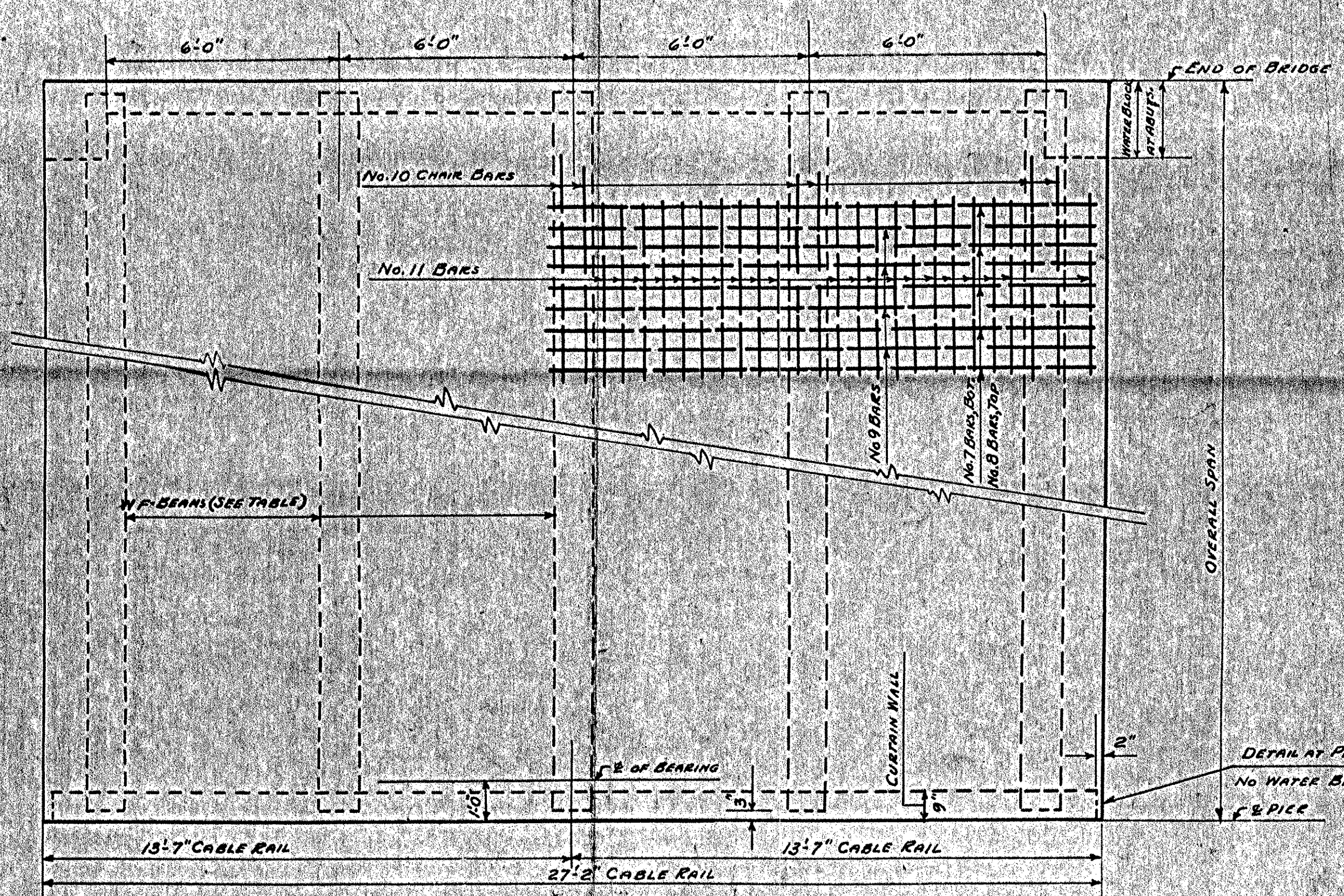
REINFORCING STEEL				
Bar	Size	No. Req'd	Tot. Lnth.	Detail
A2	1 1/4"	6	40'-6"	Detail 1
B2	1 1/4"	4	35'-0"	Straight
C2	5/8"	27	9'-10"	Detail 2
D2	1"	16	11'-0"	Straight
E2	1 1/8"	20	14'-4"	Detail 3
F2	1 1/4"	20	15'-0"	Straight - Bend in field
H2	3/4"	12	6'-6"	Straight - Bend in field
G2	1"	34	9'-6"	Detail 4
J2	1"	30	10'-6"	Detail 5

DETAILS - ABUTMENT NO 2
 FAYSTON
 PWA - Doc. No. VT 1092-89

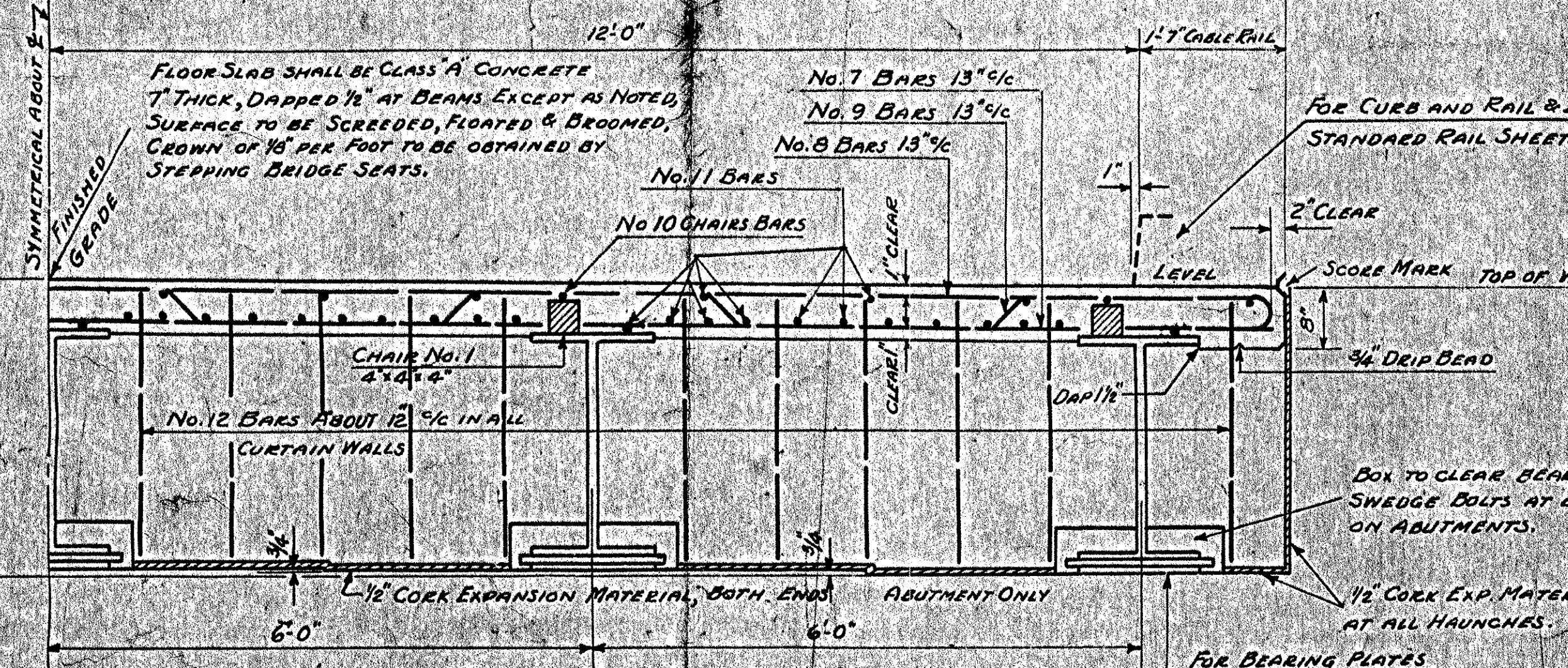
ESTIMATED QUANTITIES

Structure Excav.	60 cy	
Channel Excav.	120 cy	
Concrete Class A	(28) cy	21
Reinforcing Steel	(200) lb	6375
Timber Piling	300 LF	
Heavy Stone Fill (Item 69A)	200 cy	

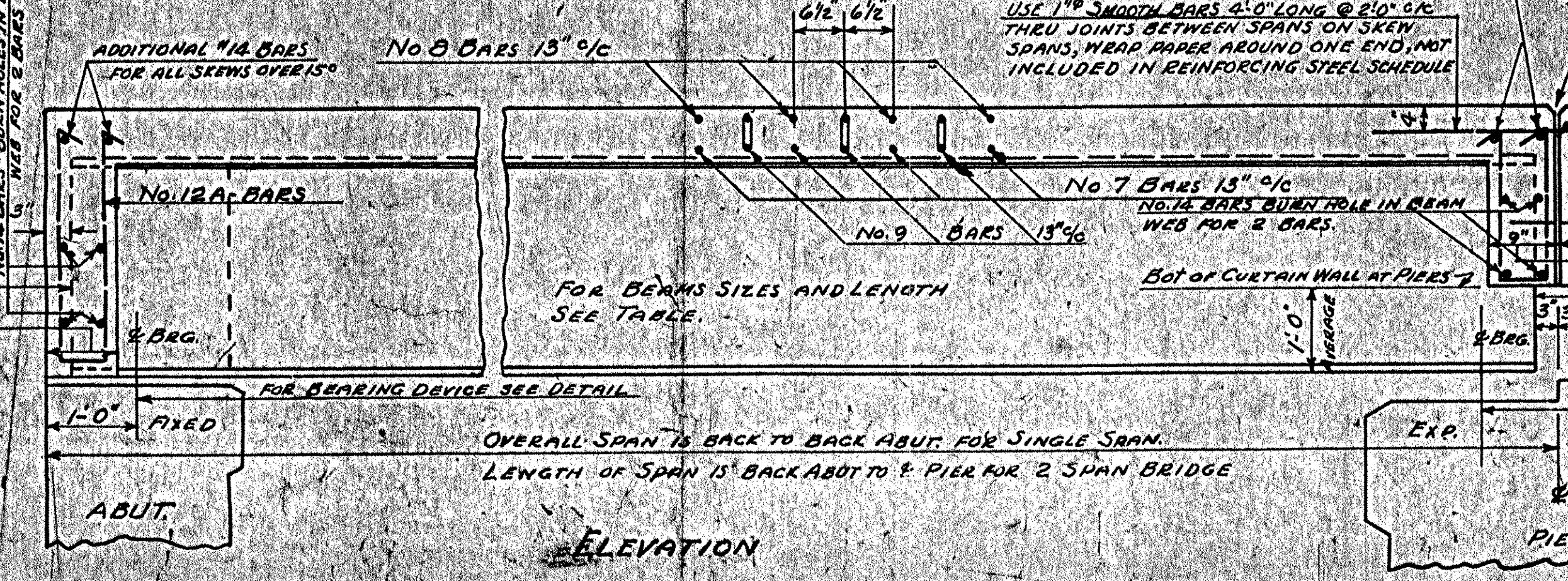
Surveyed by
 Designed by H.G.H.
 Drawn by H.G.H.
 Traced by H.W.S.
 Checked by D.R.B.
 Series PWA Doc. No. VT 1092-89
 Sheet 4 of 17 Sheets



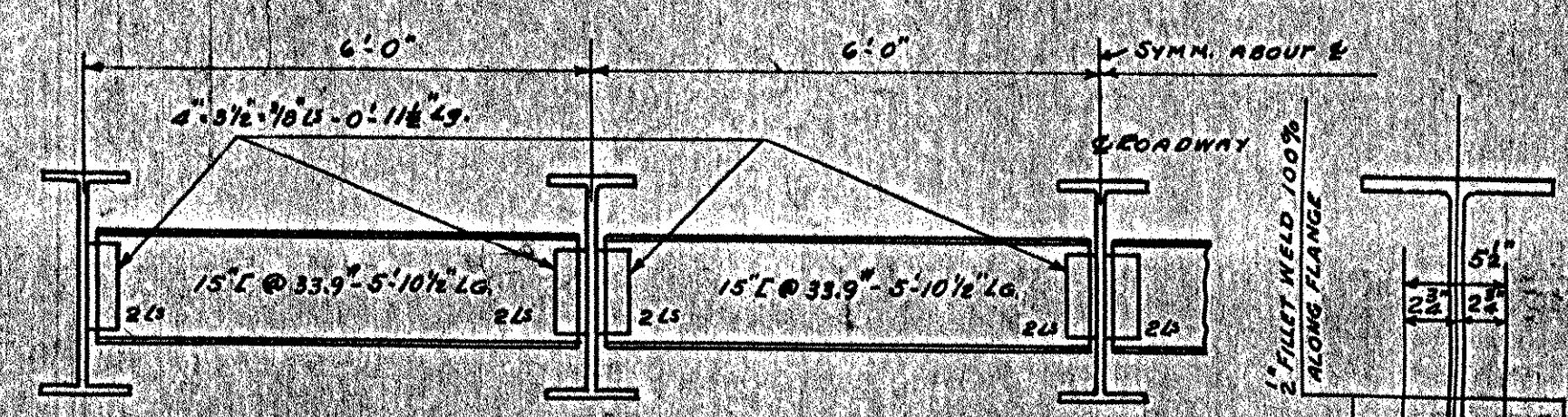
PLAN
SCALE: 3/8"=1'-0"



TYPICAL HALF SECTION END DETAILS SHOWN

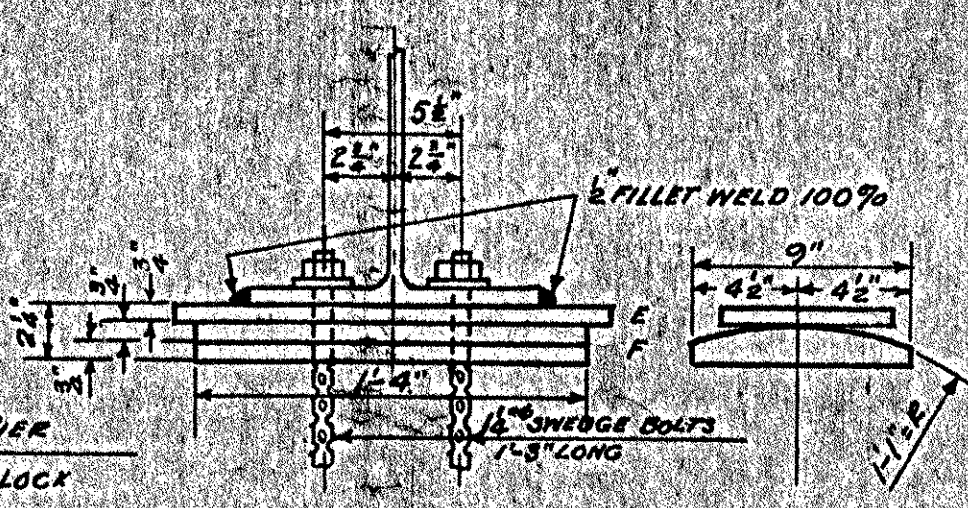


ELEVATION



DETAIL OF DIAPHRAGM ASSEMBLY

SHOP CONNECTIONS MAY BE RIVETED OR 100% ELECTRIC WELDED
FIELD CONNECTIONS TO BE 100% ELECTRIC WELDED.
4-1/2" BOLTS MAY BE USED AT ENDS AND THRU BEAMS FOR ERECTION PURPOSES
SPANS 28'-0" THRU 43'-0" REQUIRED 1 SET OF DIAPHRAGMS
49'-0" 68'-0" 2 (S)
74'-0" 84'-0" 3 (S)
DIAPHRAGM ASSEMBLIES SHALL BE LOCATED TO PASS THROUGH POINTS
MIDWAY BETWEEN REFERENCE POINTS (1/8, 1/3 OR 1/4 POINTS) OF
ADJOINING SPANS ON ALL SPANS.



BEARING PLATE ASSEMBLY NO. 1
WEIGHT 100"

1/2" HOLES IN ALL REINFORCING BEAM FLANGES AT FIELD
ENDS. 3" X 1/2" SLOTTED HOLES IN BEAM FLANGES
& SOLE PLATE AT EXPANSION END. 1/2" HOLES
IN REINFORCING AT EXPANSION END.

NOTES:

STEEL SUPERSTRUCTURE TO INCLUDE 5 WF BEAMS, 10 BEARING PLATE
ASSEMBLIES AND INDICATED DIAPHRAGMS PER SPAN.
ALL STEEL BEAMS SHALL BE ROLLED TO A TRUE CIRCULAR CAMBER,
FULL LENGTH OF THE BEAM AND THE MIDDLE ORDINATE TO BE AS NOTED FOR
VARIOUS SPANS IN THE TABLE UNLESS OTHERWISE NOTED ON PLAN & PROFILE SHEET.
ALL STRUCTURAL STEEL SHALL BE PAINTED AS SPECIFIED UNDER
ITEM 43-A OF PAMPHLET "STANDARD ROAD & BRIDGE SPECIFICATIONS",
STATE OF VERMONT, 1936 UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
THE FINAL COAT OF FIELD PAINT SHALL BE GREEN UNLESS
OTHERWISE DIRECTED BY THE ENGINEER.
THIS SHEET DOES NOT INCLUDE QUANTITIES FOR RAILING, CURBS
AND POSTS. QUANTITIES ARE FOR A SINGLE SPAN BRIDGE.
WHEN BRIDGE IS BUILT ON SKEW, TRANSVERSE BARS SHALL BE FURNISHED AS
FOR SQUARE SPAN. BARS SHALL BE CUT IN FIELD TO FIT ONE SKEW END AND
BARS SHALL BE LENGTHENED AND THE NUMBER OF NO. 12 SERIES BARS SHALL
BE INCREASED. THE LENGTH OF BEAMS
DECREASES ON SKEW SPANS.
ALL MATERIAL AND CONSTRUCTION
SHALL CONFORM TO THE STANDARD ROAD
AND BRIDGE SPECIFICATION, STATE OF
VERMONT, 1936, AND THE A.A.S.H.O. SPEC-
IFICATIONS FOR 1935, DESIGN FOR A-15
LIVE LOADING, 2.50 PMING ALLOWANCE
DEAD LOAD INCLUDES WEIGHT OF BEAMS,
SLAB AND CABLE RAIL.
FOR LOCATION OF FIXED AND EX-
PANSION BEARINGS, SEE PLAN &
PROFILE SHEET.
FOR BRIDGES WITH CABLE GUARDRAIL
SEE STD. SHEET SB-50.



BEARING PLATE ASSEMBLY NO. 2
WEIGHT 135"

NOTES: BEARING PLATE ASSEMBLIES
EDGE OF REINFORCING TO BE BEVELLED 30° AND TO HAVE A
DRIVING FIT IN REINFORCING.
A- 3/4" X 1/2" X 3/4" SLOTTED HOLES
B- 2 (2) FINGER BRONZE, 5/8" X 1/2", SET 1/4" INTO REINFORCING
AND "C" UPPER REINFORCING WITH 5/8" SLOTTED HOLES, LOWER REINFORCING
WITH 2" X 1/2" SLOTTED HOLES. SLIDING SURFACES FINISHED
C- STEEL CASTING OR BILLET, 12" VARIABLE 1/4" WITH 2" X 1/2" SLOTTED HOLES.
D- STEEL CASTING OR BILLET, 12" VARIABLE 1/4", 1/2" HOLE.
E- 2" X 3/4" X 1/2"
F- 2" X 1/2" X 1/2"
USE ASSEMBLY NO. 1 FOR BOTH ENDS, SPANS 28' TO 69' INCL.
NO. 1 "FIXED END," 74' AND UP
NO. 2 "EXP. END," 74' AND UP

REINFORCING STEEL	
BAR NO. 7 5/8"	BAR NO. 8 5/8" TOTAL LENGTH 28' 2 1/2"
STRAIGHT - LENGTH 26'-10"	R. 2' 2" 26'-6" R. 2'
BAR NO. 9 5/8"	TOTAL LENGTH 29'-5 1/2"
BAR NO. 10 5/8"	BAR NO. 12A 5/8"
BAR NO. 11 5/8" STRAIGHT	
BAR LTH.	SPAN A T.L.
28' SPAN 27'-6"	28' 1/4" 41'-6"
33' " 32'-6"	33' 210' 310'
38' " 37'-6"	38' 243' 318'
43' " 42'-6"	43' 276' 351'
48' " 47'-6"	48' 309' 384'
53' " 52'-6"	53' 342' 417'
58' " 57'-6"	58' 375' 450'
63' " 62'-6"	63' 408' 483'
68' " 67'-6"	68' 441' 516'
73' " 72'-6"	73' 474' 549'
78' " 77'-6"	78' 507' 582'
83' " 82'-6"	83' 540' 615'
BAR NO. 14 3/8" 26'-6" LONG STRAIGHT	

* ALL DIMENSIONS ARE GIVEN TO C OF BAR

TABLE OF QUANTITIES FOR SINGLE SPAN (SQUARE)	
OVERALL SPAN	STRUCTURAL STEEL - H15 LANE LOADING
28'-0"	21' 10" 66' 27'-6" 3/4" 1.38 2.61 2.61 11.281
33'-0"	24' 0" 60' 32'-6" 7/8" 1.79 2.85 2.85 14.951
38'-0"	26' 6" 91' 37'-6" 1" 2.22 3.09 3.09 19.944
43'-0"	27' 11" 106' 42'-6" 1 1/8" 2.68 3.71 3.71 24.456
48'-0"	30' 0" 116' 48'-6" 1 1/4" 3.28 3.35 3.35 30.992
54'-0"	33' 0" 125' 53'-6" 1 1/2" 3.83 3.60 3.60 36.300
59'-0"	35' 6" 141' 58'-6" 1 3/4" 4.45 3.62 3.62 44.105
64'-0"	36' 0" 160' 63'-6" 1 3/8" 5.18 3.85 3.85 53.468
69'-0"	36' 6" 182' 68'-6" 1 7/8" 6.01 3.88 3.88 65.197
74'-0"	33' 6" 210' 73'-6" 2" 6.97 3.61 3.76 81.182
79'-0"	35' 6" 230' 78'-6" 2 1/4" 7.92 3.84 3.99 94.242
84'-0"	36' 6" 250' 83'-6" 2 1/2" 8.99 3.86 4.01 108.342
	NOTE: QUANTITIES IN ABOVE TABLE ARE FOR A SINGLE SQUARE SPAN. FOR MULTIPLE AND SKEW SPANS THESE QUANTITIES WILL VARY.

* * QUANTITIES FOR SQUARE BRIDGE. ADDITIONAL 1/4 BARS REQUIRED FOR SKEWS OVER 15°

* LENGTH VARIES FOR SKEW SPANS. SEE BEARING PLATE DETAILS ABOVE.

STANDARD I-BEAM BRIDGE
REINFORCED CONCRETE DECK
24 FT. ROADWAY
SPANS OF 28'-0" TO 84'-0" OVERALL
SQUARE OR SKEW

ESTIMATED QUANTITIES
Project No. Spans
Royalton (Hwy. 102) F.A.P. 14-1-49 1-49 1-59

Surveyed by
Designed by W.H.D. 4/3/37
Drawn by W.H.D.
Traced by J.W.P.
Checked by G.G. 4-15-37
Series SIB No. 243 Filed
Sheet of Sheets



3 m. dms

Diagram illustrating the reinforcement details for a beam:

- No. 8 Bars 6 1/2%
- No. 7 Bars 6 1/2%
- No. 10 Chair Bars
- No. 11 Bars
- Chairs 4x4x4

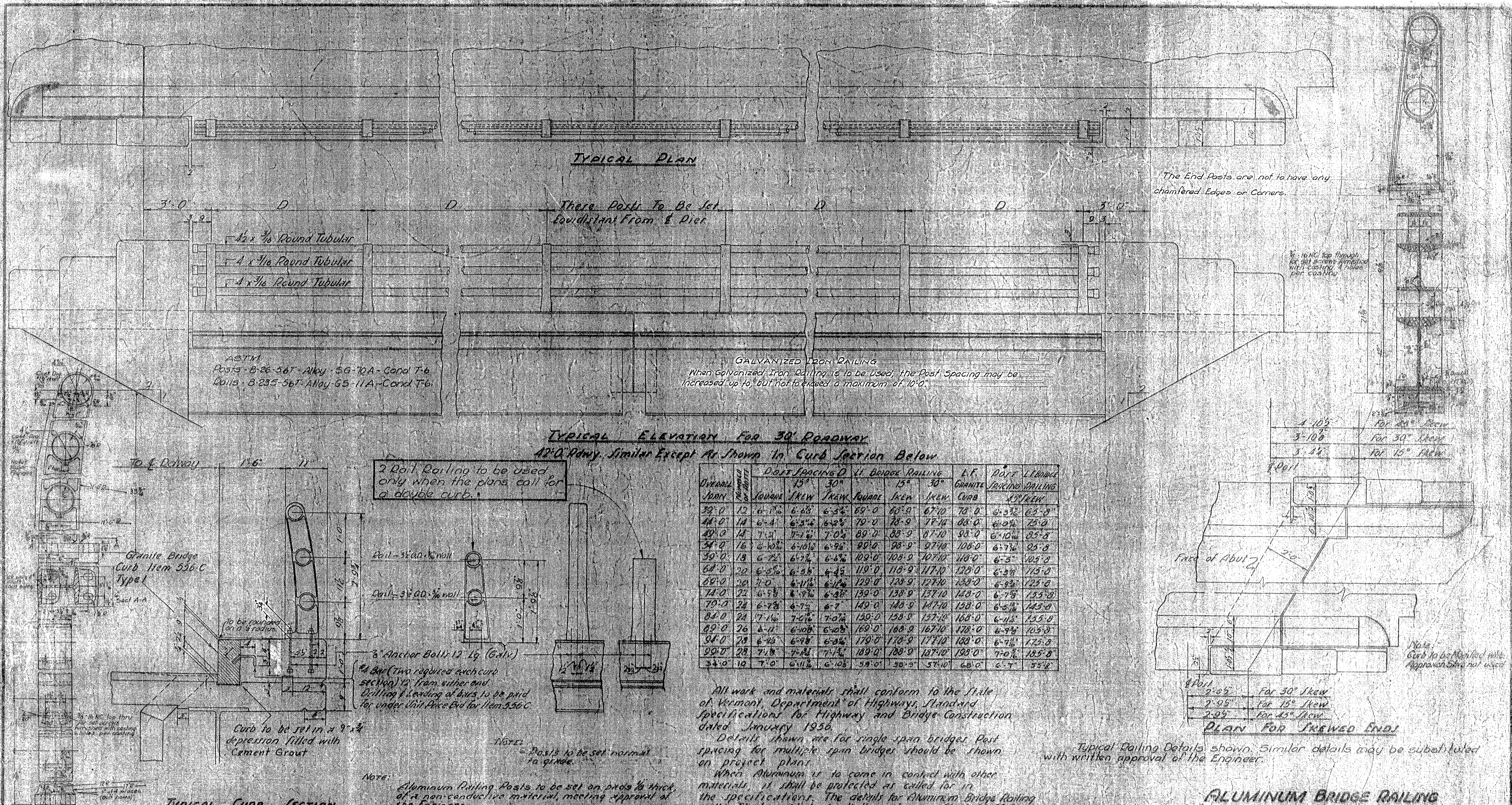
PART LONGITUDINAL SECTION OF SLAB
Showing transverse steel as modified

Diagram illustrating the reinforcement layout for the beam. The top reinforcement consists of No. 8 Bars spaced at 6 inches. The bottom reinforcement consists of No. 7 Bars spaced at 6 inches.

NOTE:- This sheet to be used with Standard Sheet S.I.B. 24. All details and notes on this sheet which differ from those shown on S.I.B. 24 will be used in place of those shown on S.I.B. 24.

30.0208

Surveyed by
Designed by
Drawn by *H.G.H.*
Traced by *H.W.S.*
Checked by *D.R.B.*
Series *RWA*. No. *1092-89* Filed
Sheet *6* of *17* Sheets



Revisions & Corrections Changed width of Curb depression 6/13/58 Added width of End Posts 6/13/58 Changed Guard Rail to Right Hand Side 9/16/59 Changed Metal under Curb to Cement Grout 10/21/59 Changing 2" rail railing to be used only on certain conditions 11/6/59 Granite Bridge Curb revised 6/18/59 Post Bolt clearance revised 5/10/60 Note on End Posts added 6/6/60	Drawn By L.H.B. 9-15-56 Traced By A.B.M. 3-27-56 Checked By L.H.B. 8-20-56 Corrected Aug. 22, 1956 Approved Aug. 22, 1956 Checked (Signature)	DETAILS of BRIDGE RAILING ITEM 572 AND DETAILS of GRANITE BRIDGE CURB ITEM 556-C GALVANIZED BRIDGE RAILING AS SHOWN ON SHEET 2 OF 2 MAY BE SUBSTITUTED.	DEPARTMENT OF HIGHWAYS STANDARD STRUCTURES SB-5G-57
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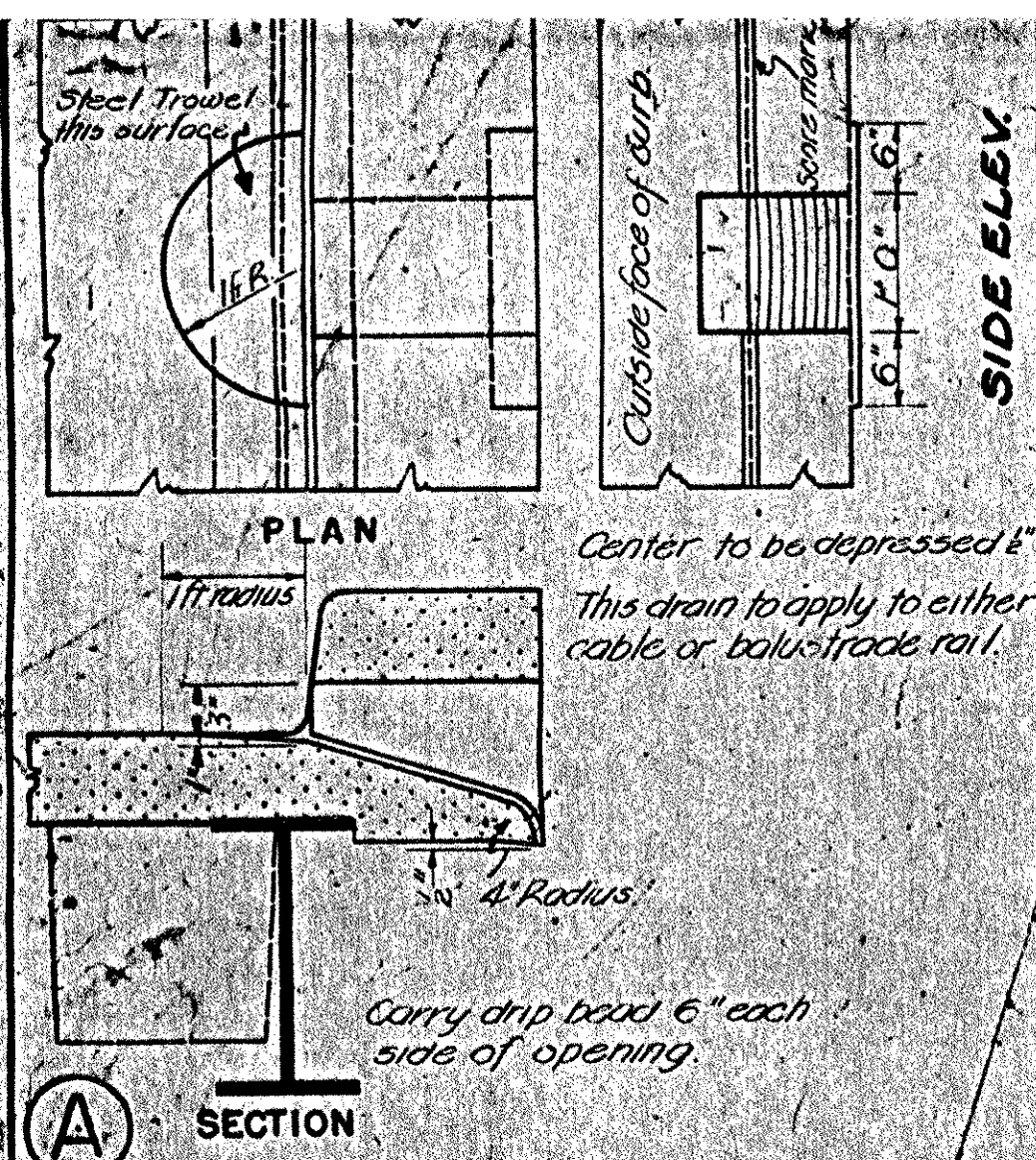


Diagram A: Drain detail for T and I beam bridges.

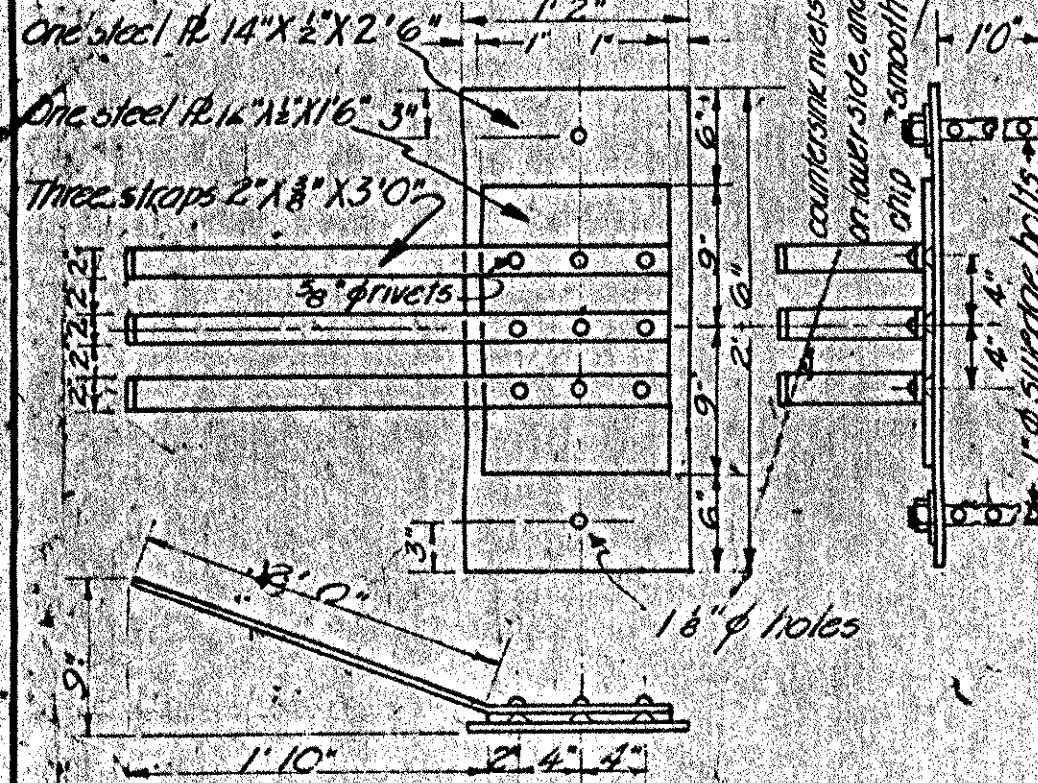


Diagram B: Sliding plate expansion device for skew span T beam.

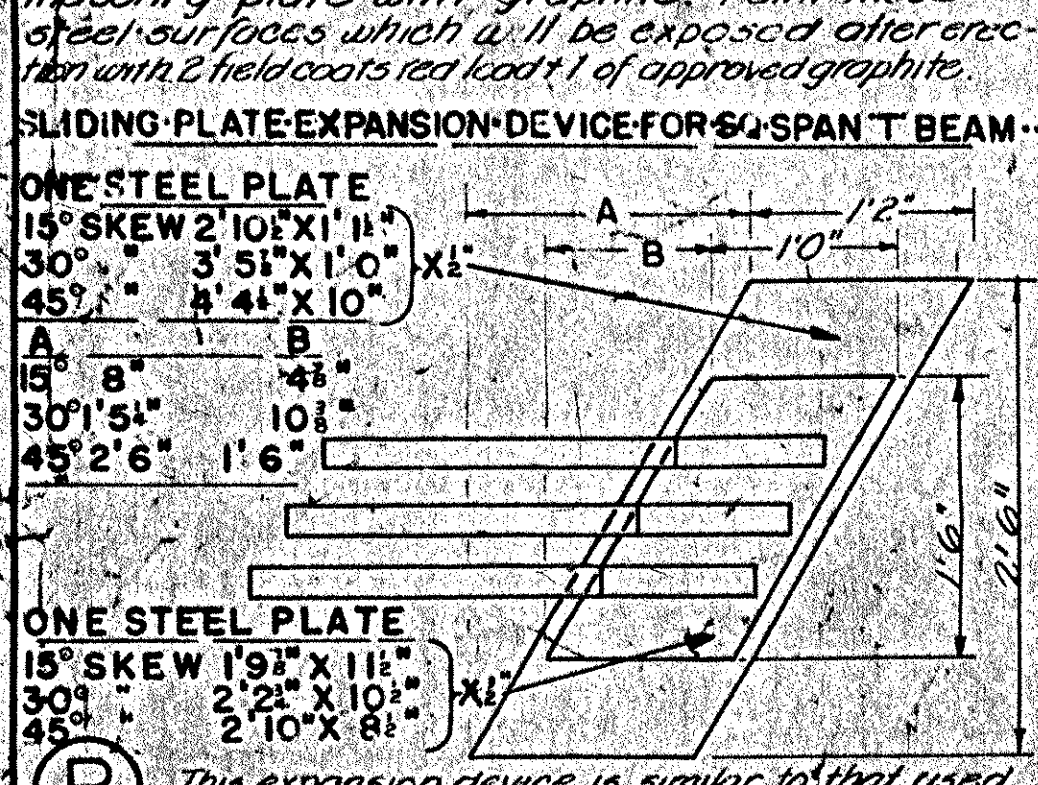


Diagram C: Score mark & const. joint for piers & abut.

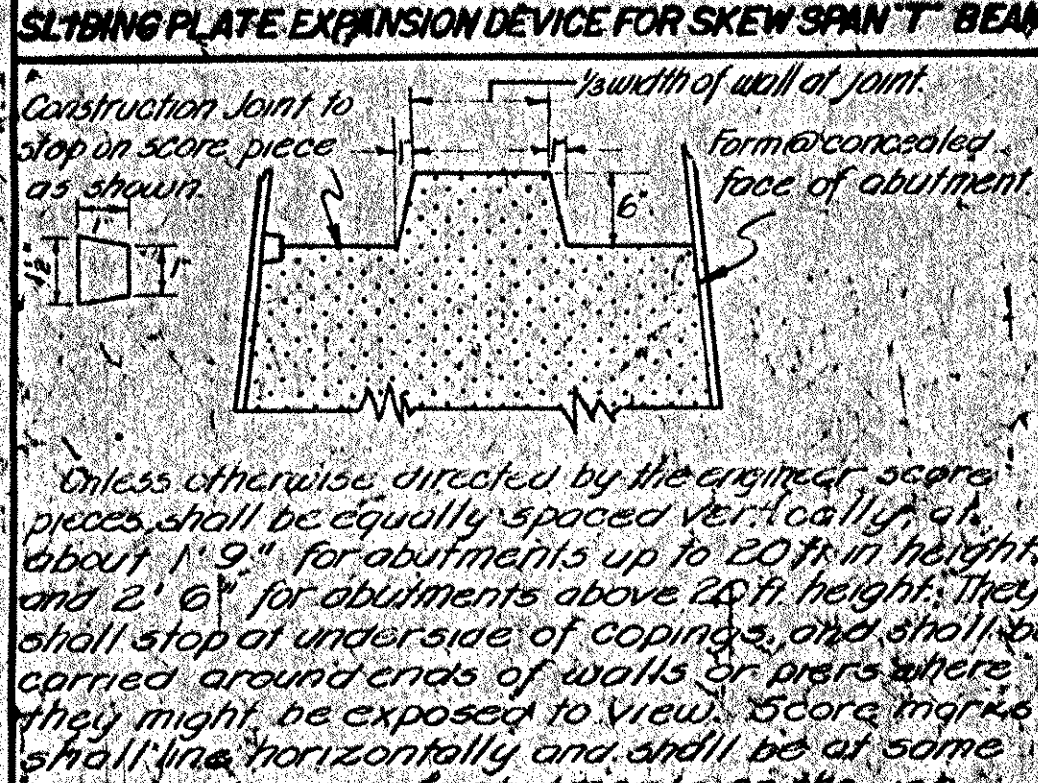


Diagram D: Typical copings.

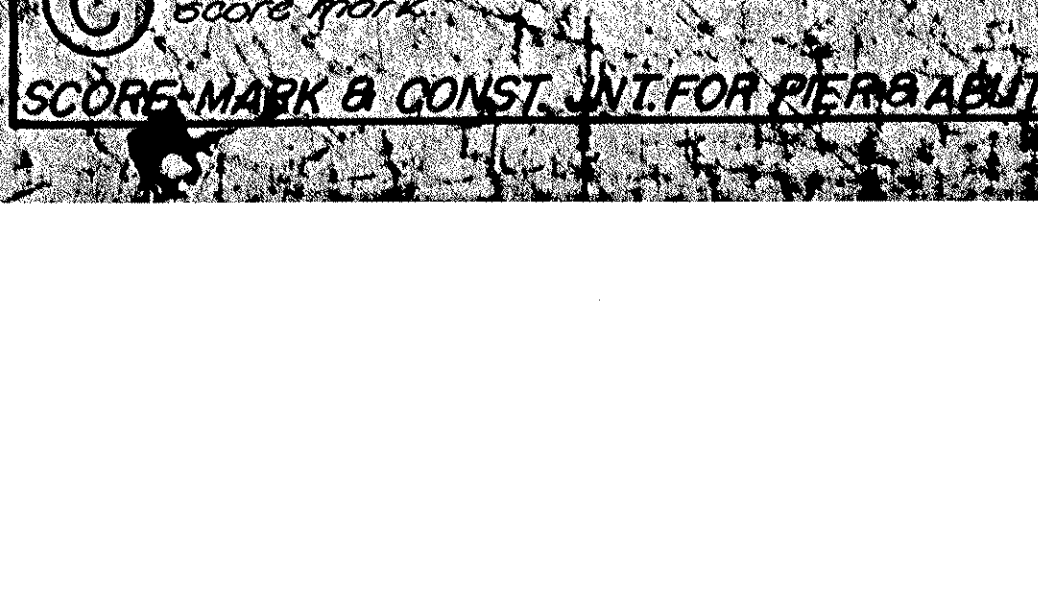


Diagram E: Detail of vertical expansion joint.

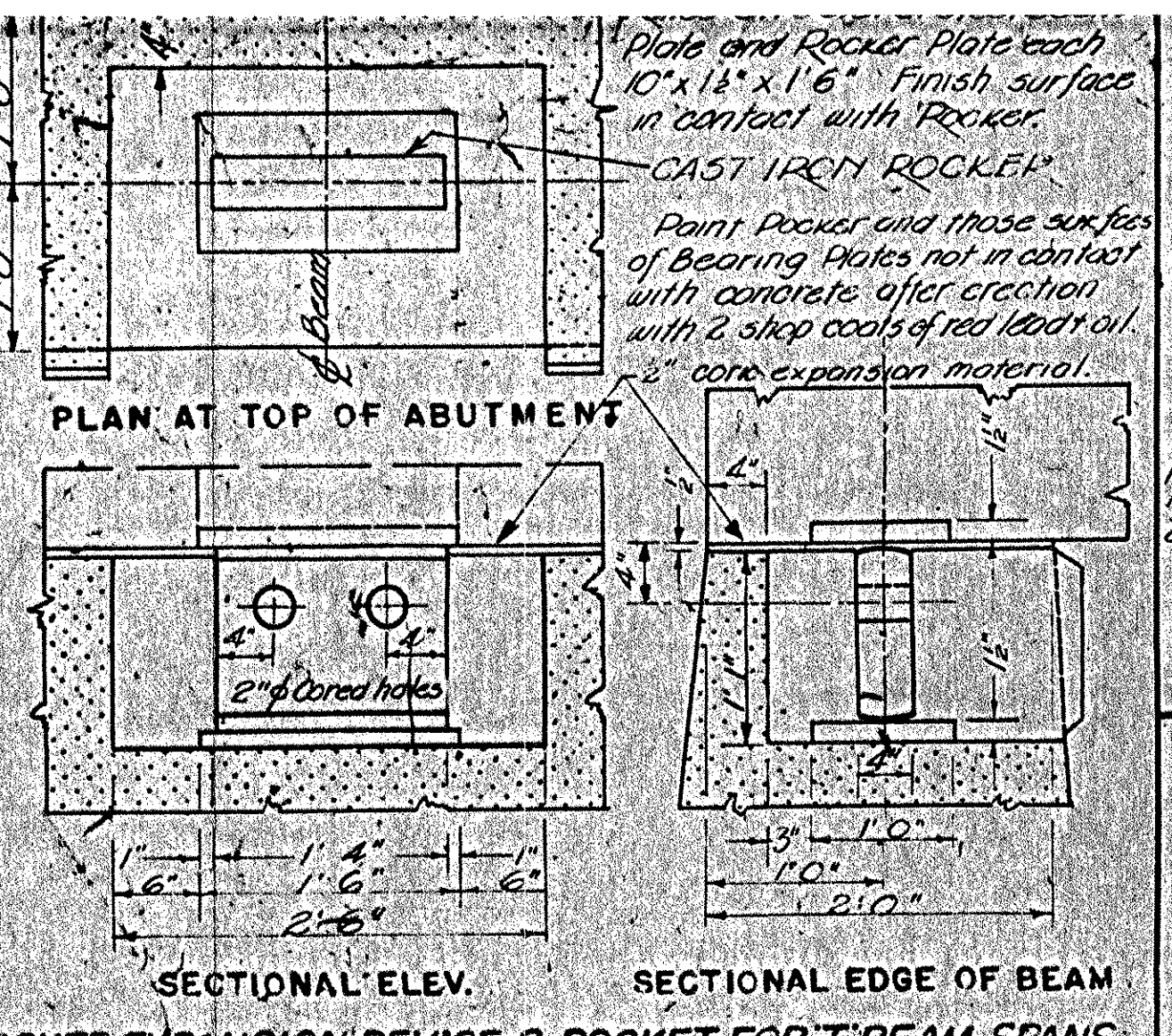


Diagram F: Detail of expansion joint for T beam spans.

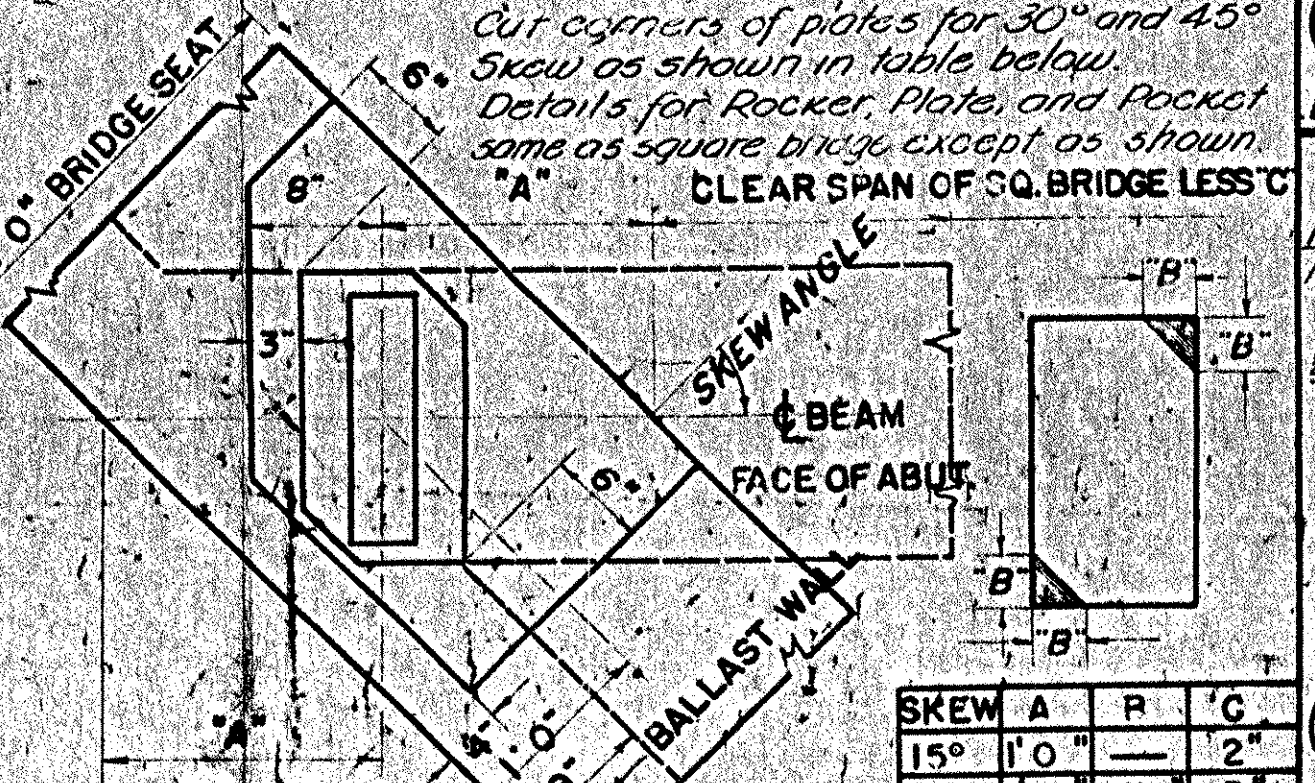


Diagram G: Detail of expansion joint for skew span T beam.

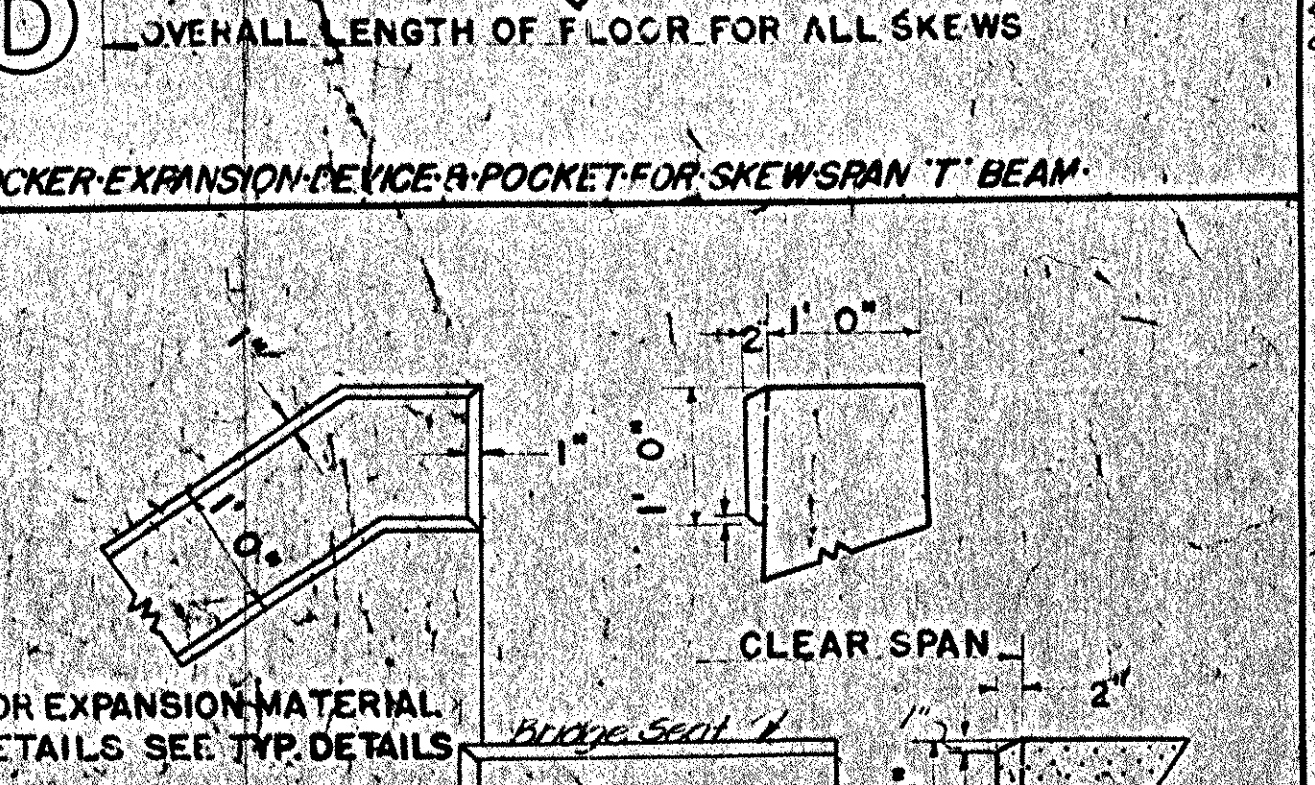


Diagram H: Detail of expansion joint for T beam bridges.

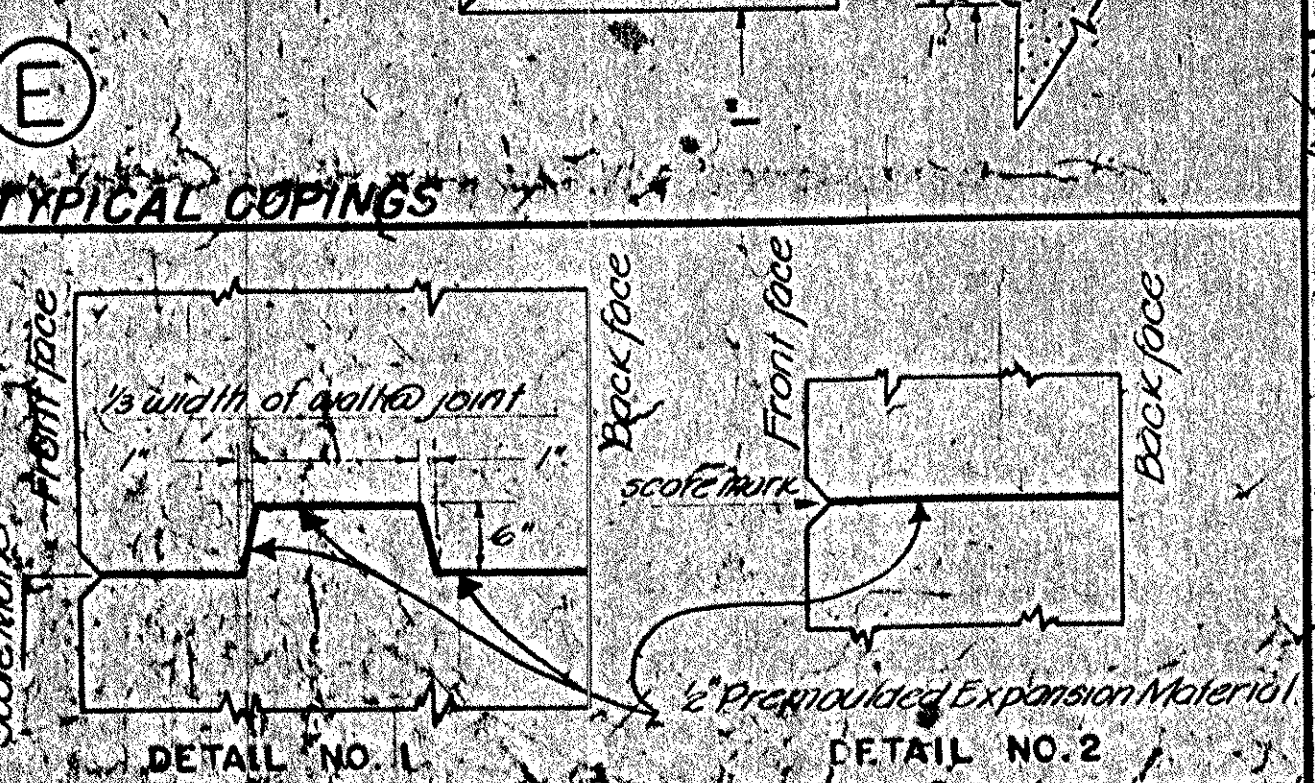


Diagram I: Detail of expansion joint for T beam bridges.



Diagram J: Detail of expansion joint for T beam bridges.

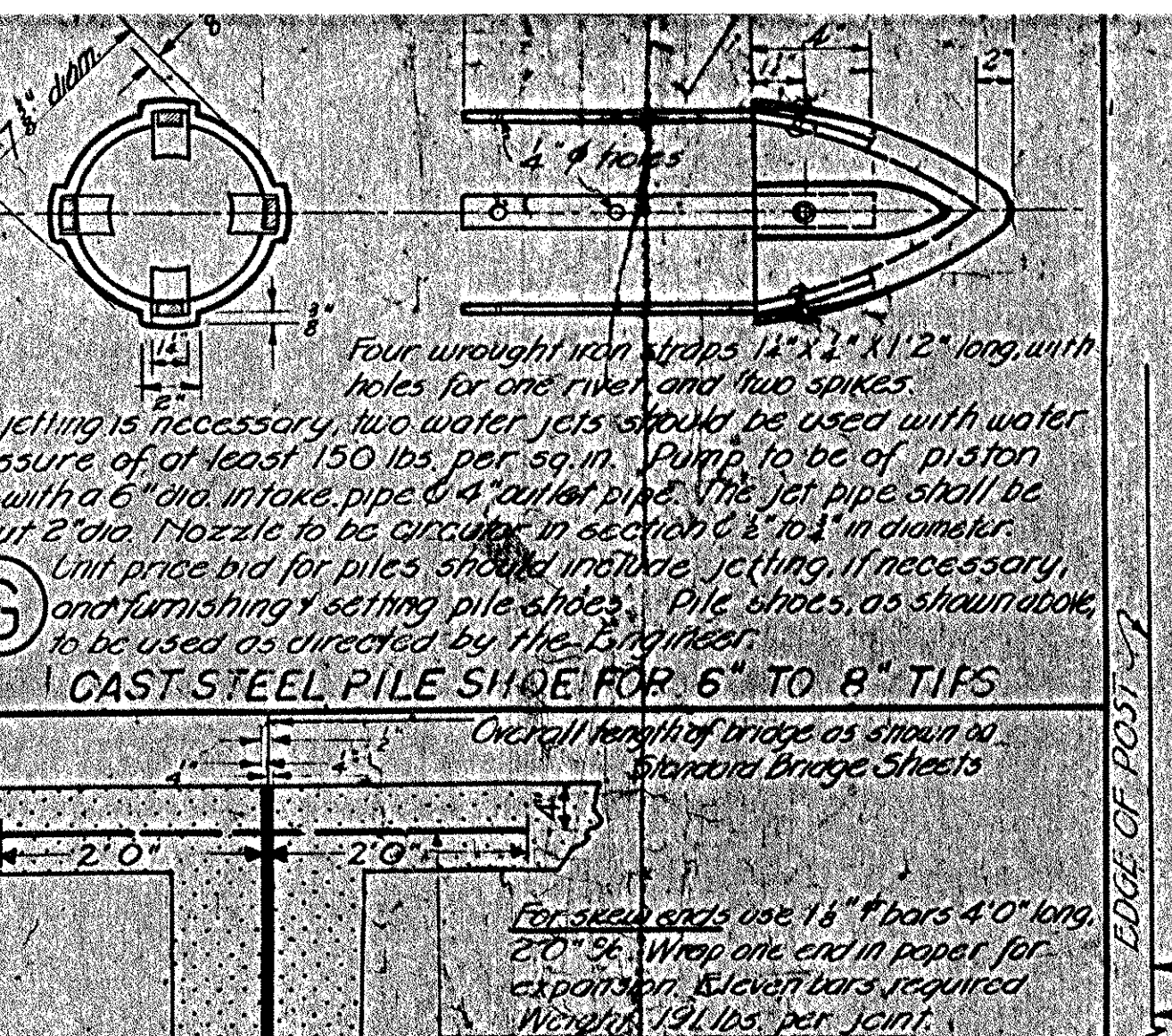


Diagram K: Detail of expansion joint for T beam bridges.

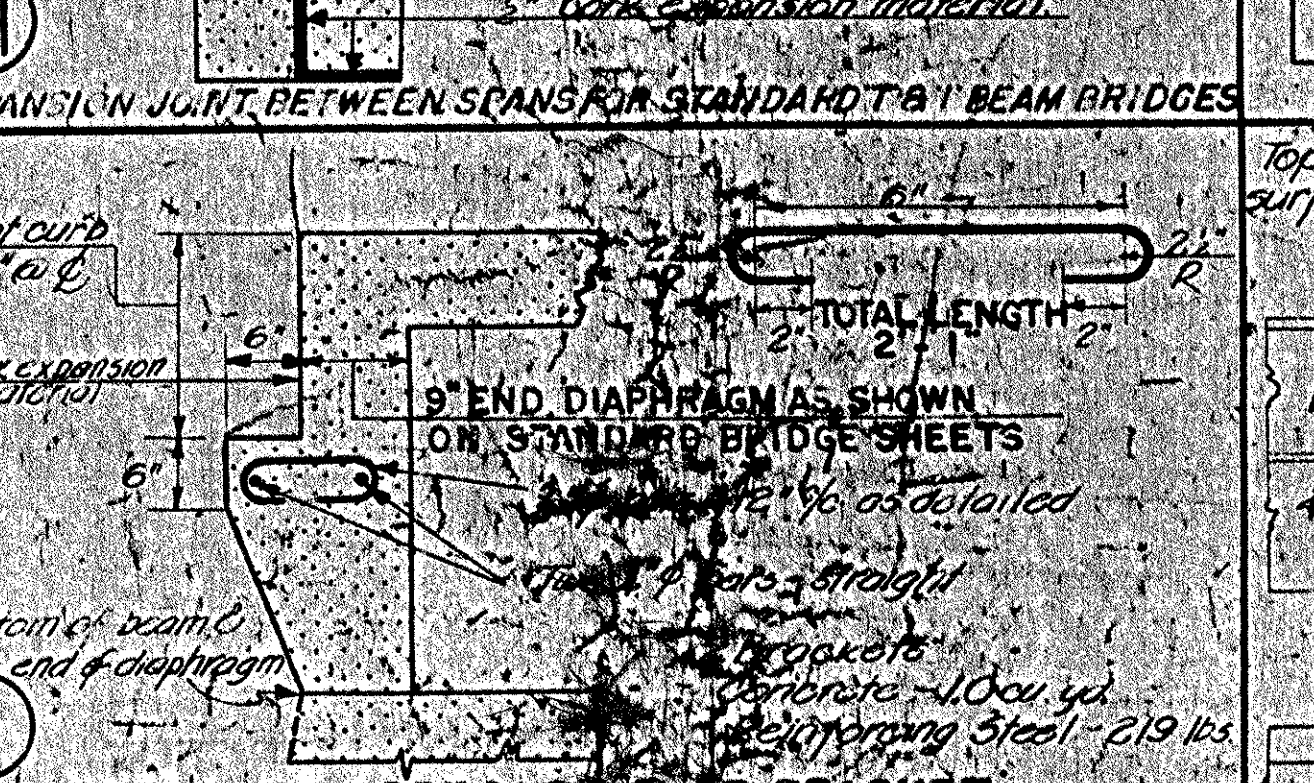


Diagram L: Detail of expansion joint for T beam bridges.



Diagram M: Detail of expansion joint for T beam bridges.

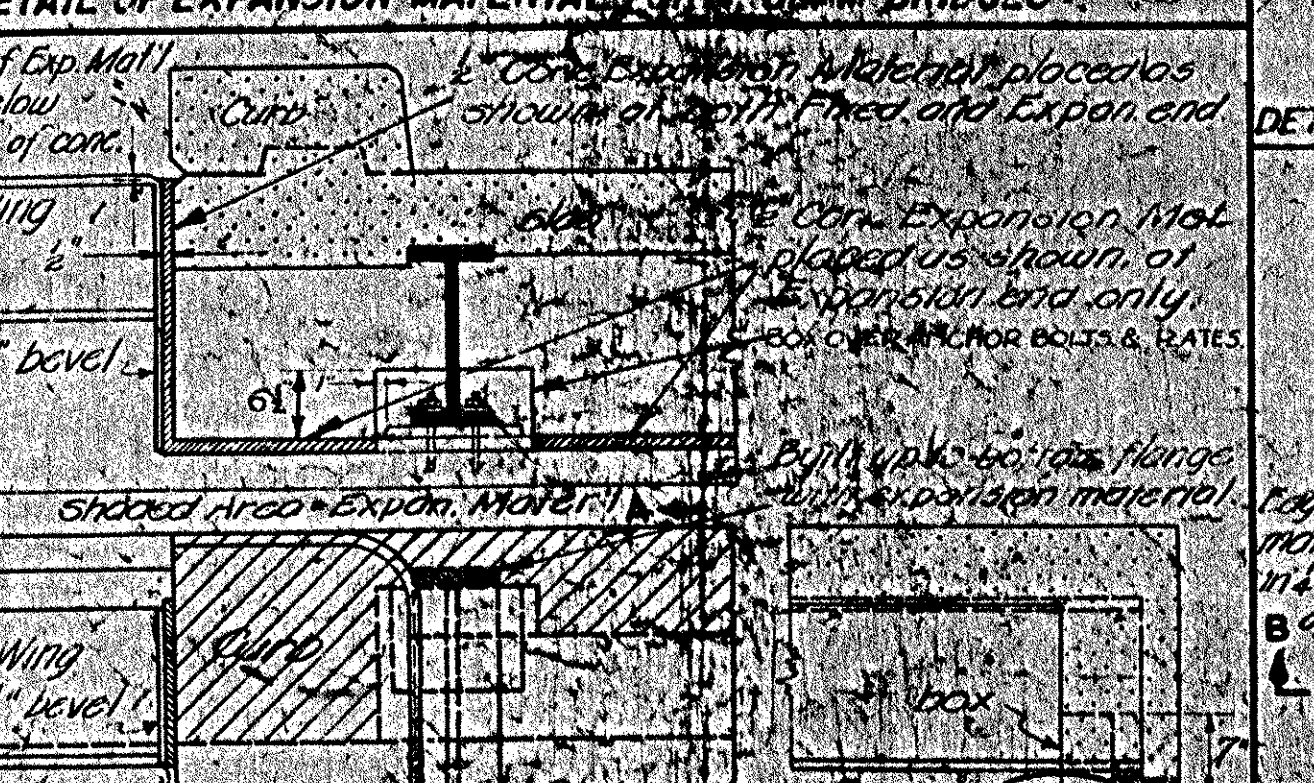


Diagram N: Detail of expansion joint for T beam bridges.

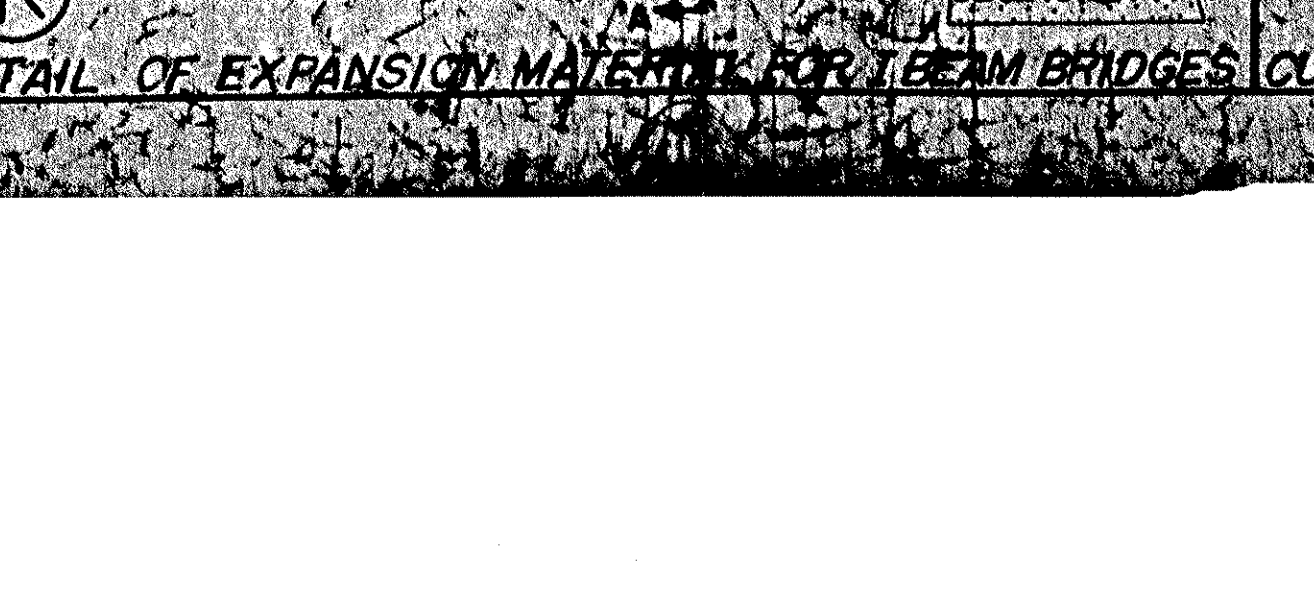


Diagram O: Detail of expansion joint for T beam bridges.

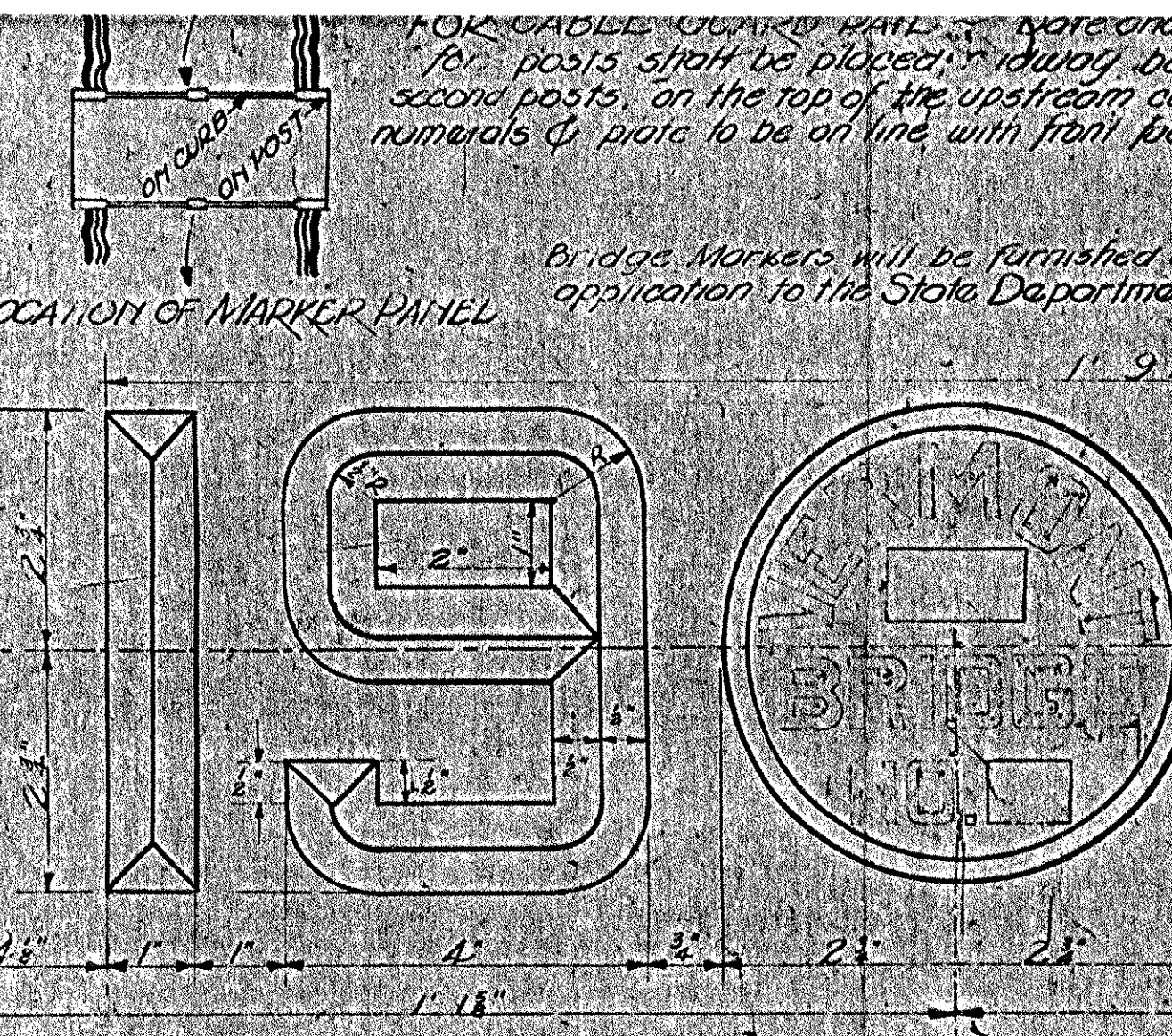


Diagram P: Detail of expansion joint for T beam bridges.

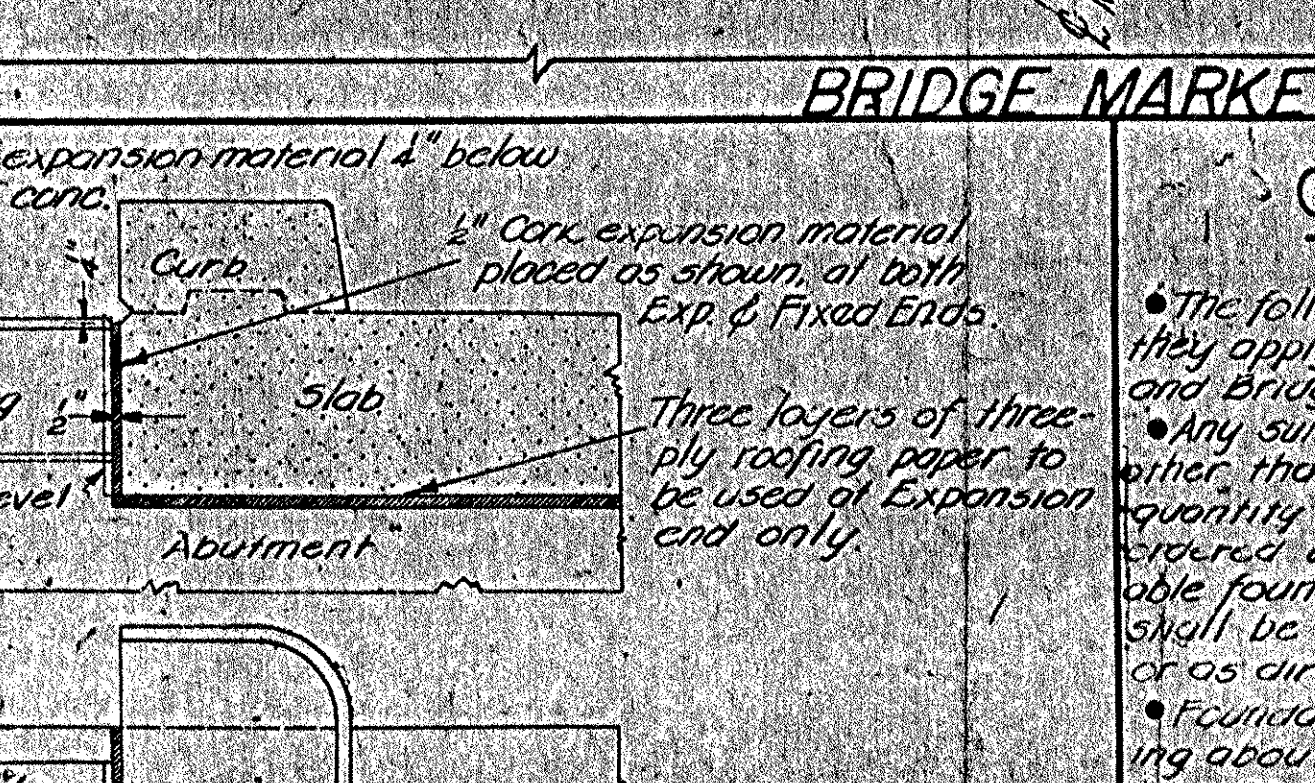


Diagram Q: Detail of expansion joint for T beam bridges.

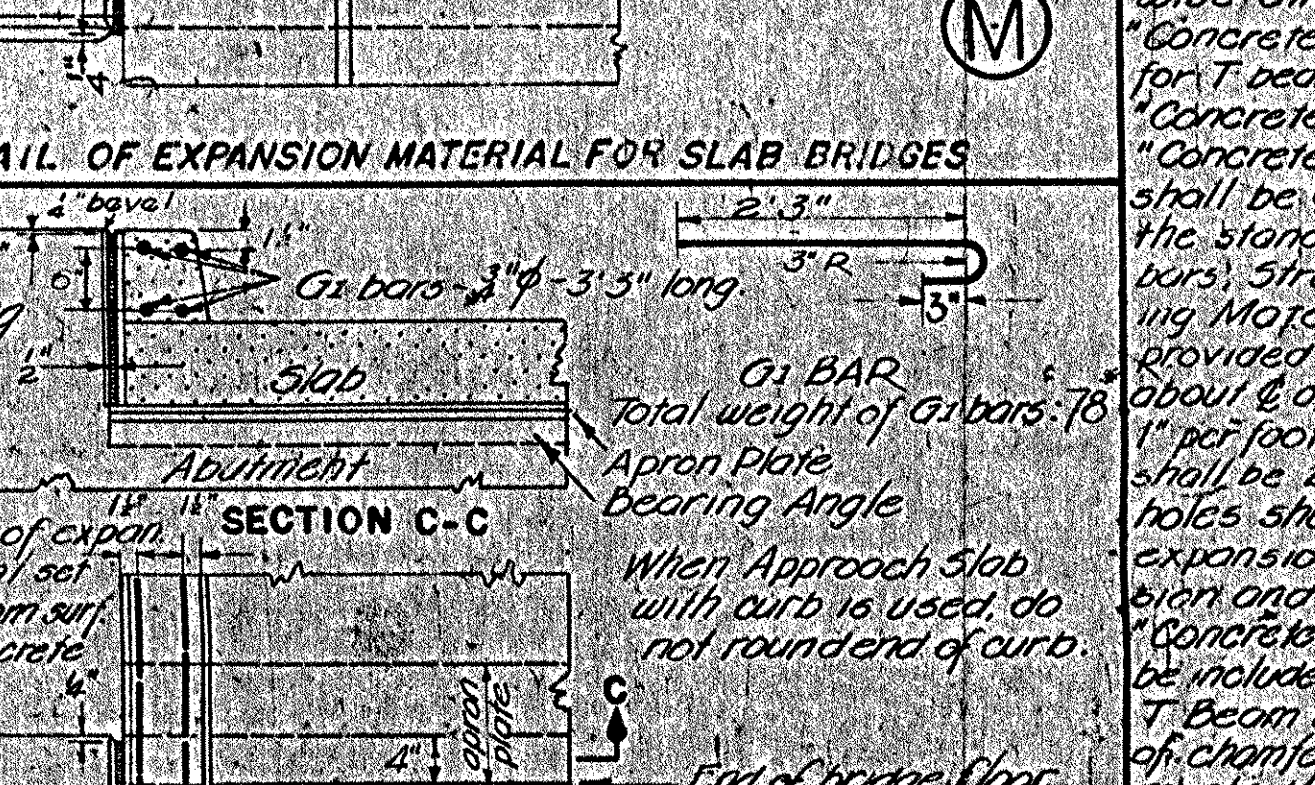


Diagram R: Detail of expansion joint for T beam bridges.

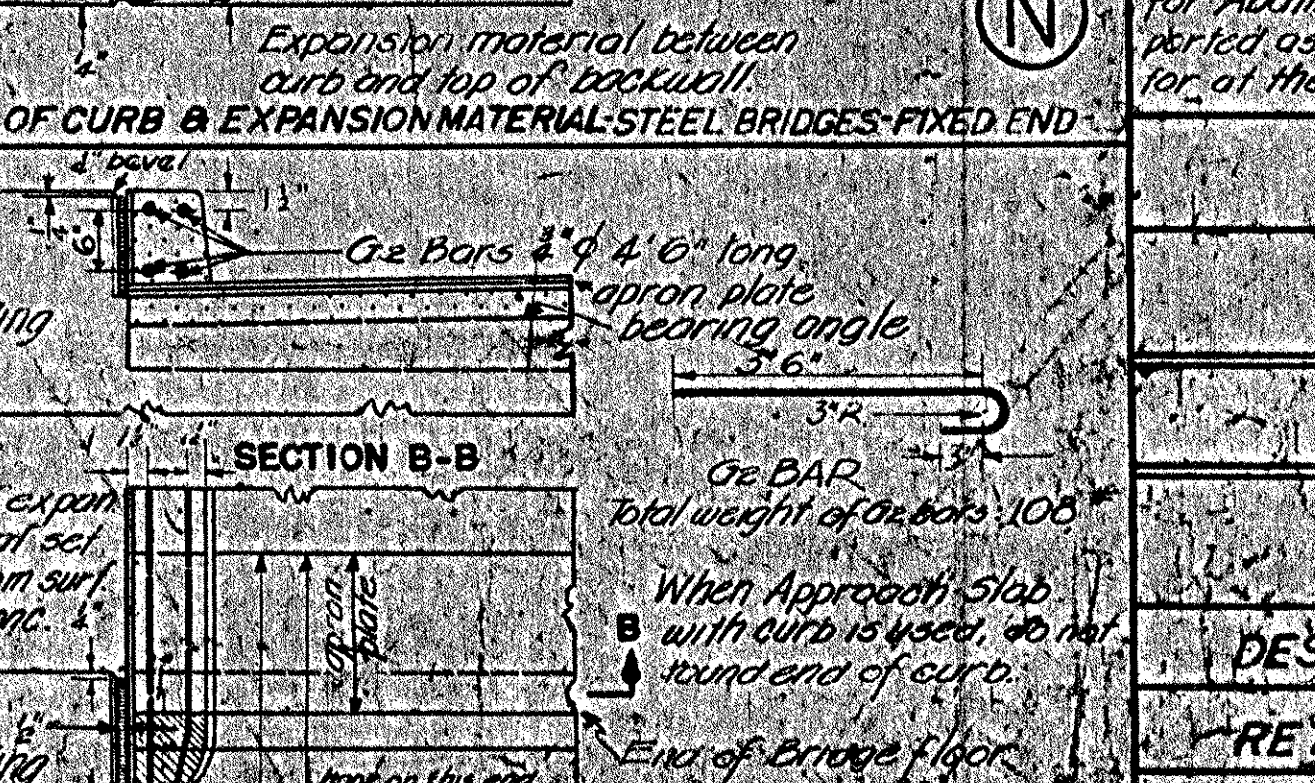


Diagram S: Detail of expansion joint for T beam bridges.

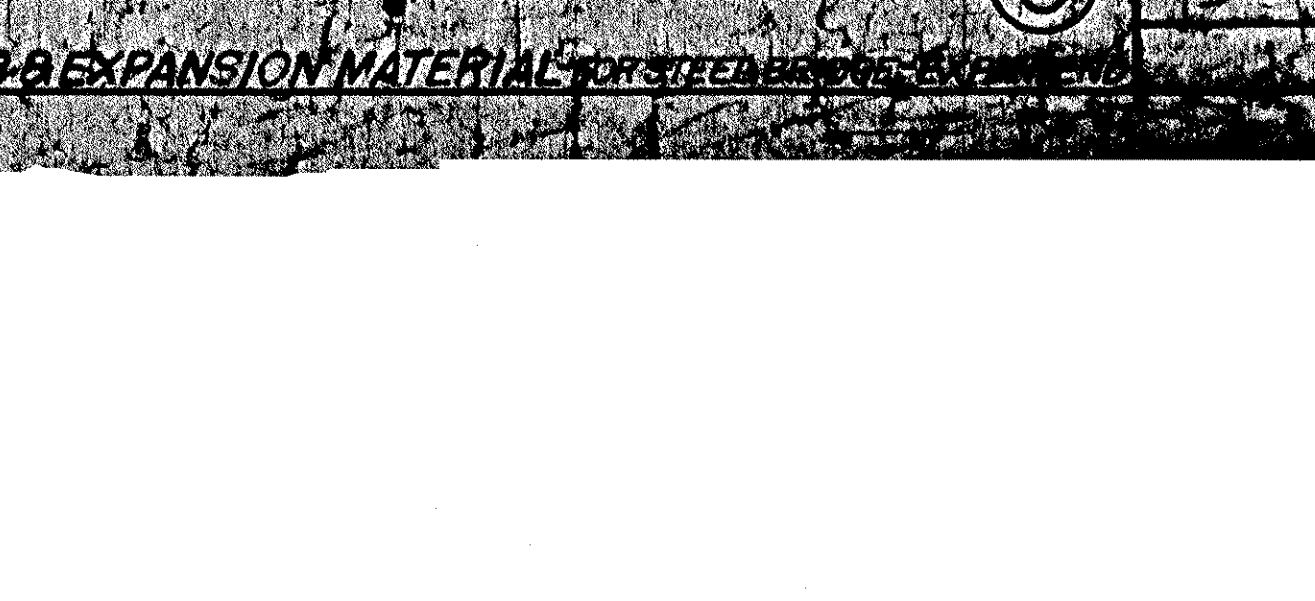


Diagram T: Detail of expansion joint for T beam bridges.

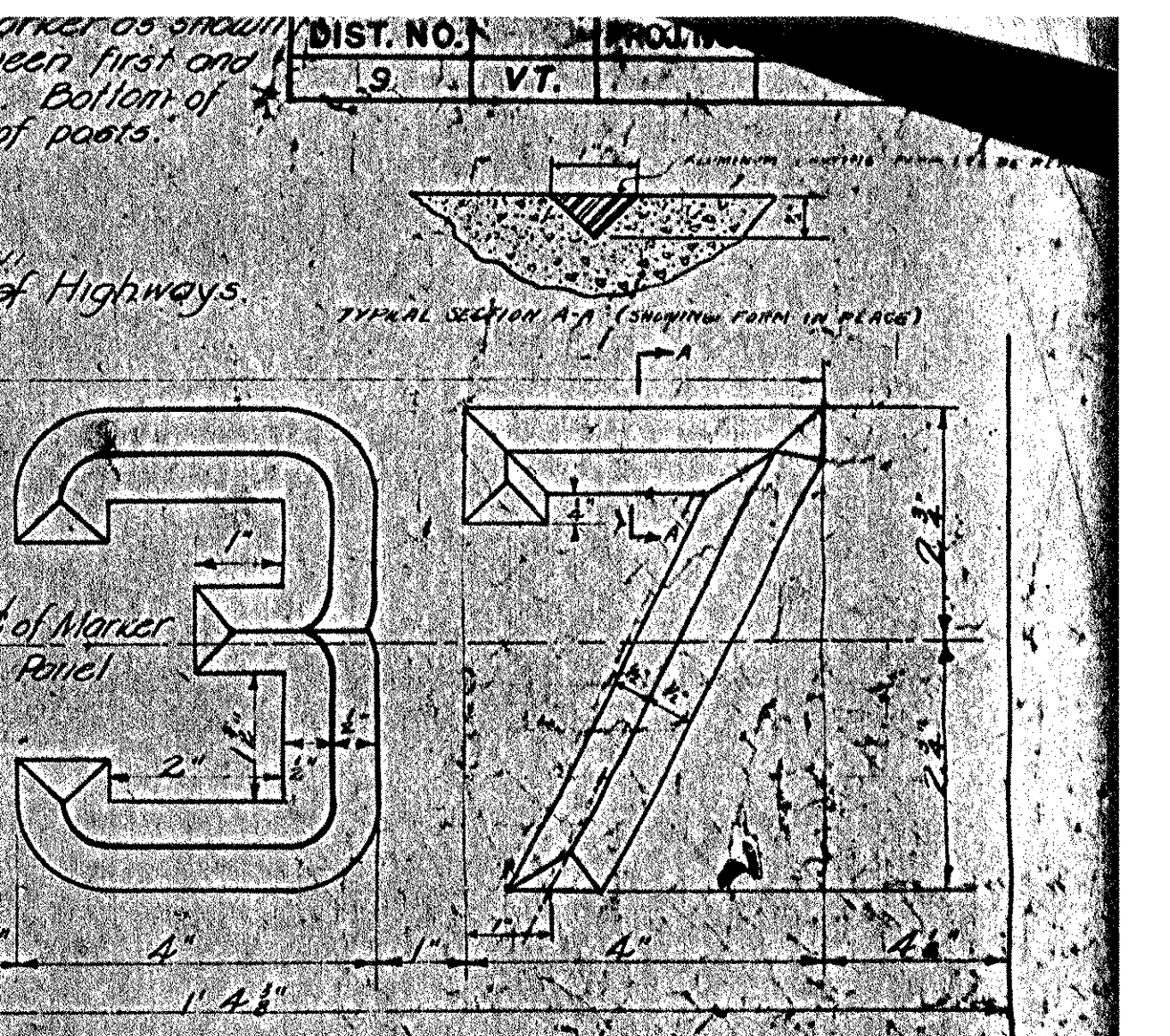


Diagram U: Detail of expansion joint for T beam bridges.

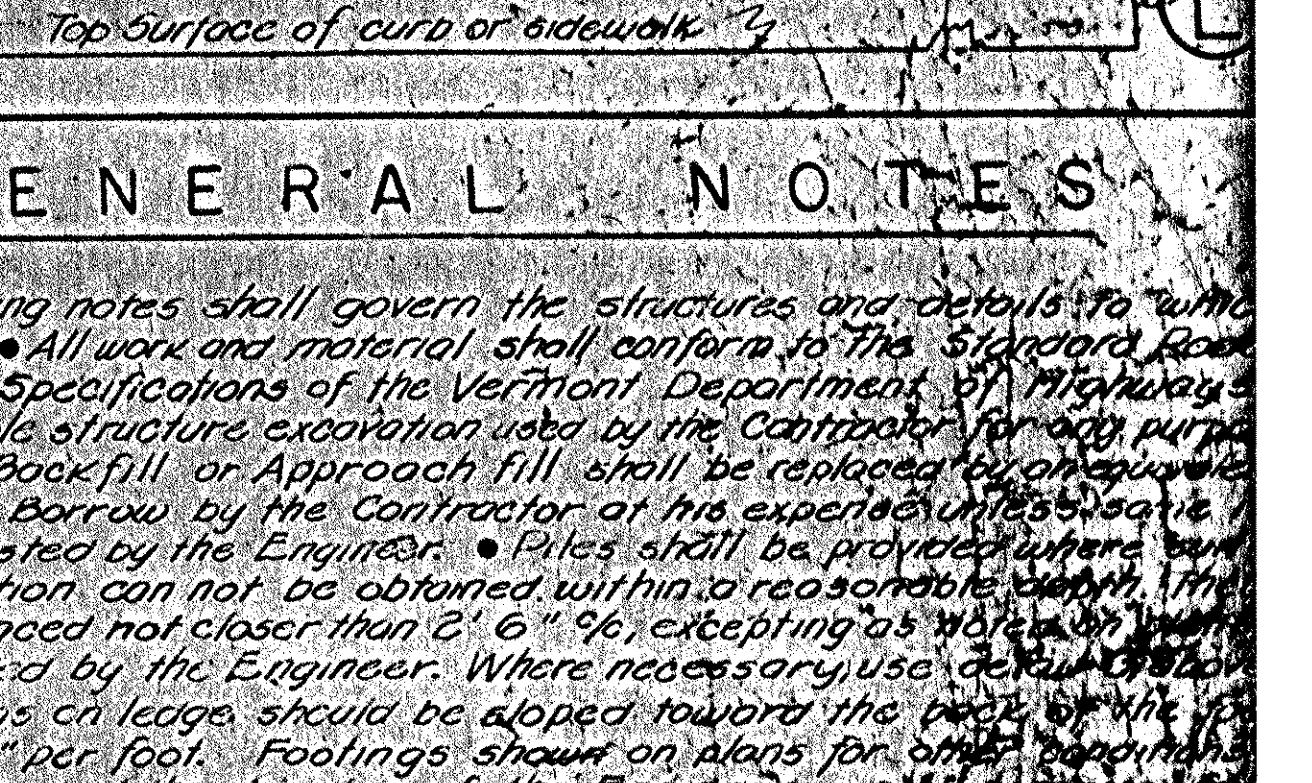


Diagram V: Detail of expansion joint for T beam bridges.

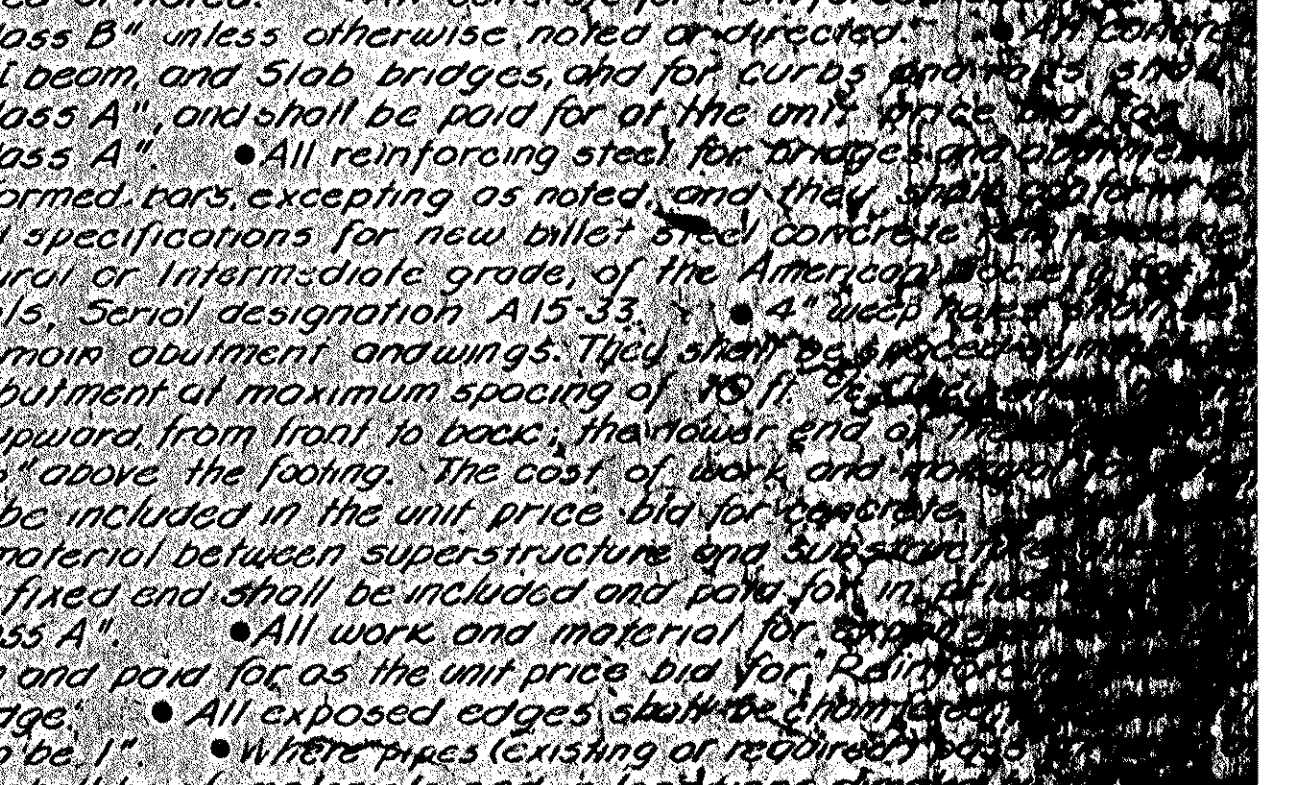


Diagram W: Detail of expansion joint for T beam bridges.

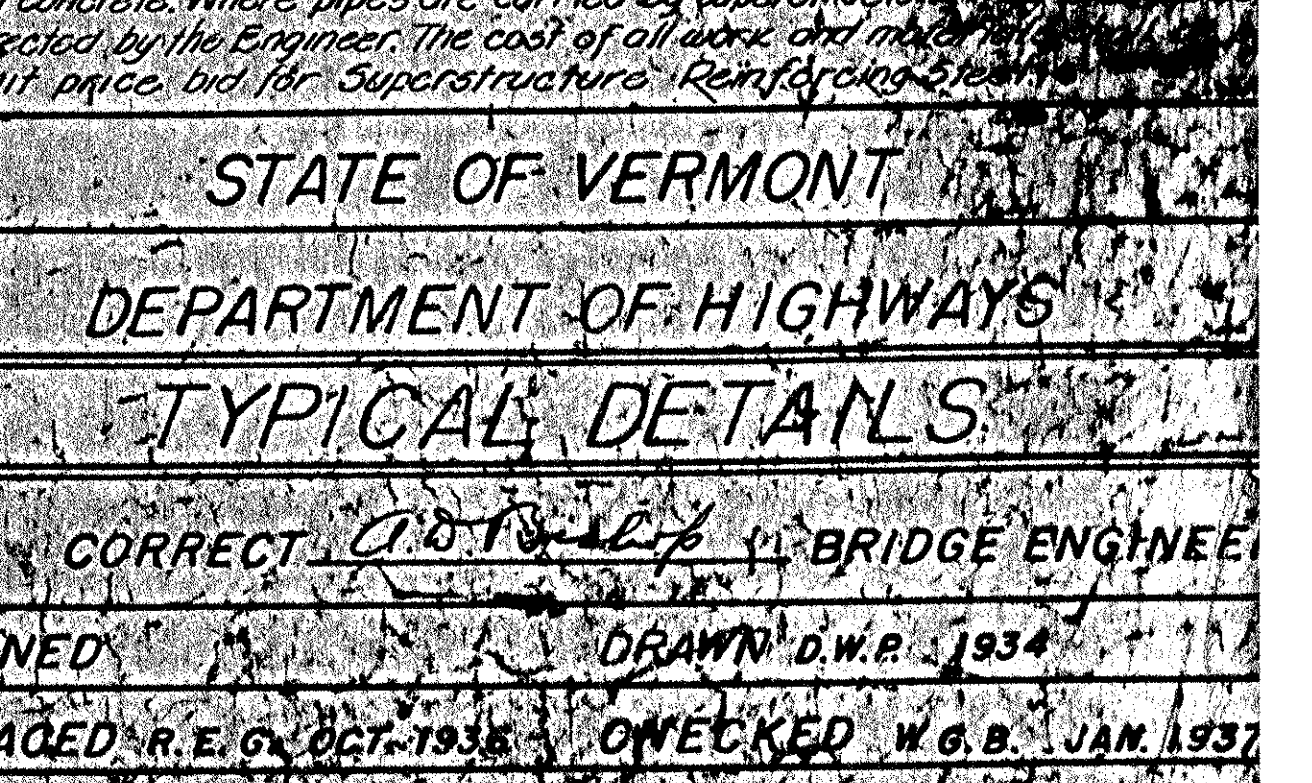


Diagram X: Detail of expansion joint for T beam bridges.

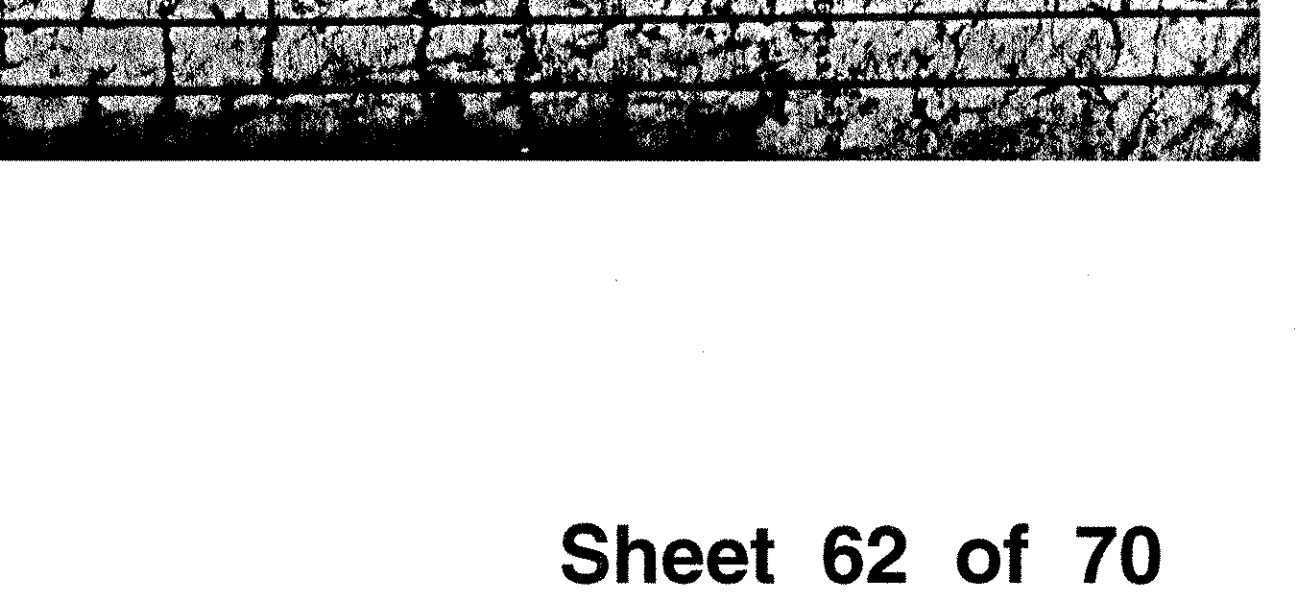


Diagram Y: Detail of expansion joint for T beam bridges.

GENERAL NOTES

The following notes shall govern the structures and details to which they apply. All work and material shall conform to the Standard Road and Bridge Specifications of the Vermont Department of Highways. Any suitable structure excavation used by the Contractor for any purpose other than backfill or Approach fill shall be replaced by an equivalent quantity of Borrow by the Contractor at his expense unless otherwise directed by the Engineer. Piles shall be provided where available foundation can not be obtained within a reasonable depth. They shall be spaced not closer than 2' 6" 96, excepting as noted or as directed by the Engineer. Where necessary use detail C-10. Foundations on ledge should be sloped toward the pier or the wing about 1" per foot. Footings shown on plans for other foundations may be revised at the direction of the Engineer. All concrete for piers and gravity abutments shall be Concrete Class C. All concrete for T beam, I beam, and Slab bridges, and for curbs and walls shall be Concrete Class A, and shall be paid for at the unit price for Concrete Class A. All reinforcing steel for bridges and abutments shall be deformed bars, excepting as noted, and they shall conform to the standard specifications for new billet steel concrete reinforcing bars Structural or Intermediate grade of the American Institute of Steel Construction, Inc. Serial designation A15-33. 4" deep bars shall be provided in main abutment and wings. They shall be spaced at about 2' of abutment at maximum spacing of 18" 96. 1" not foot - upward from front to back, the rear end of the slab shall be 2' 6" above the footing. The cost of work and material for holes shall be included in the unit price bid for concrete. Expansion material between superstructure and Substructure, pier and at fixed end shall be included and paid for in unit price for Concrete Class A. All work and material for expansion material shall be included in and paid for as the unit price bid for Reinforced T Beam Bridge. All exposed edges shall be chamfered of chamfer to be 1". Where pipes (existing or required) are shown they shall be of materials and in locations directed by the Engineer. The cost of all work and material for Abutment concrete. Where pipes are carried by superstructure they shall be as directed by the Engineer. The cost of all work and material for the unit price bid for Superstructure Reinforcing steel.

STATE OF VERMONT

DEPARTMENT OF HIGHWAYS

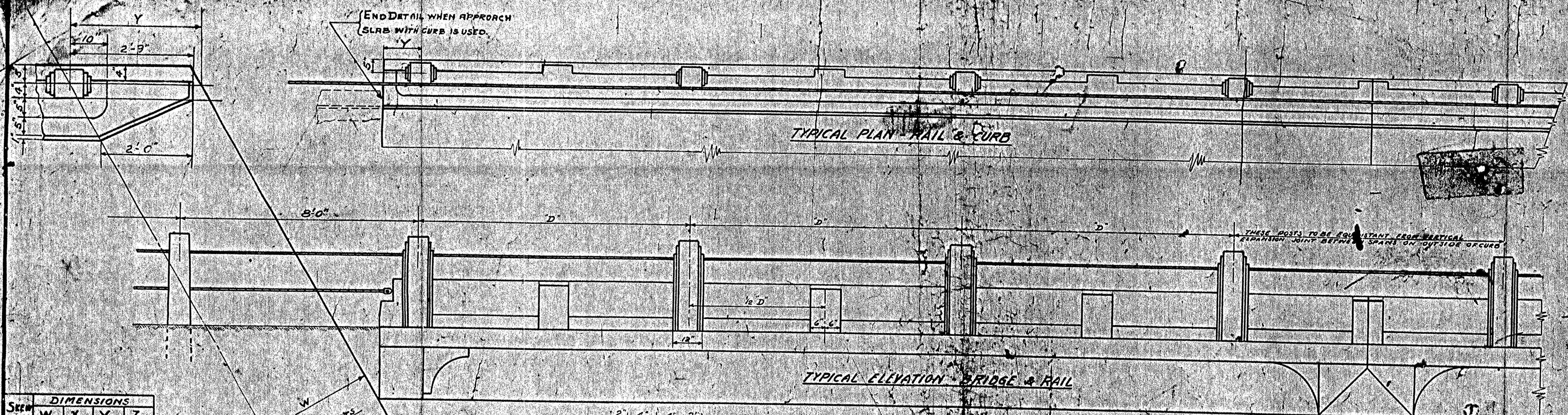
TYPICAL DETAILS

CORRECT 10/18/27 BRIDGE ENGINEER

DESIGNED DRAWN D.W.R. 1934

RETRACED R.E.G. OCT-1935 CHECKED W.G.B. JAN 1937

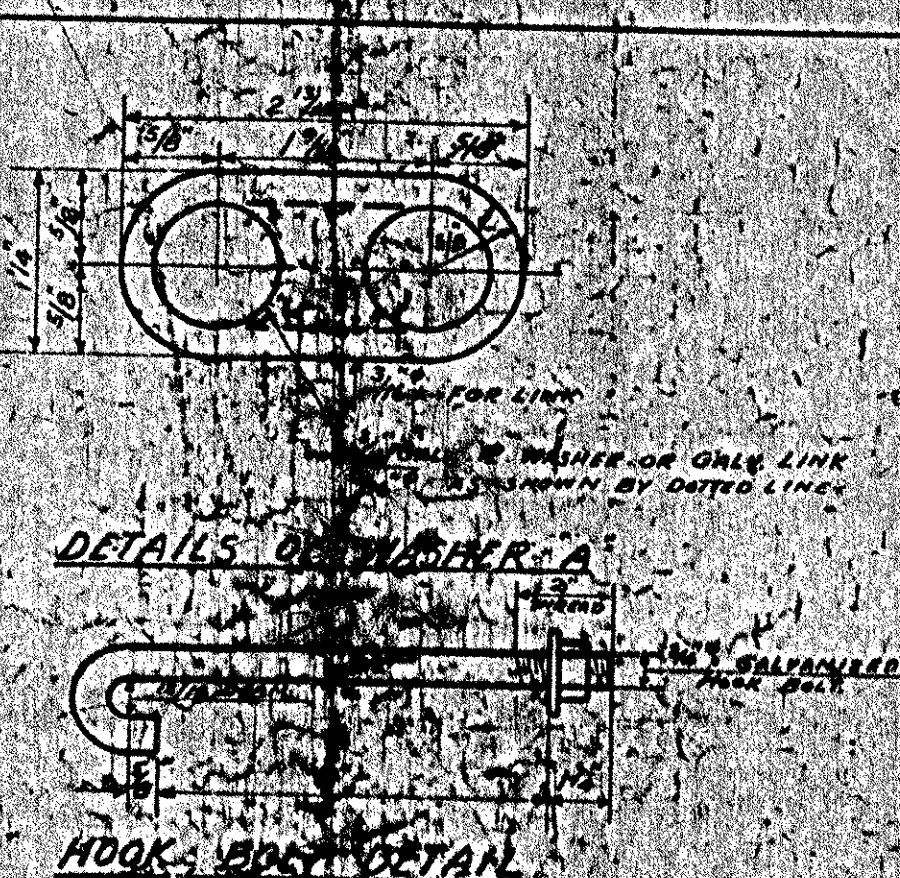
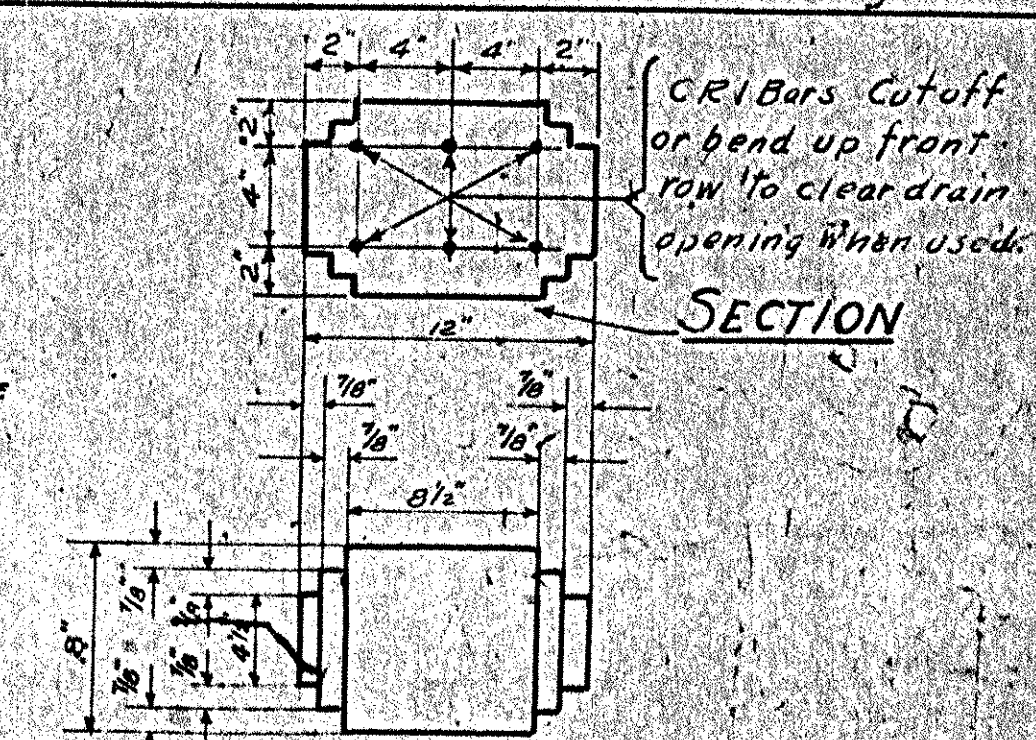
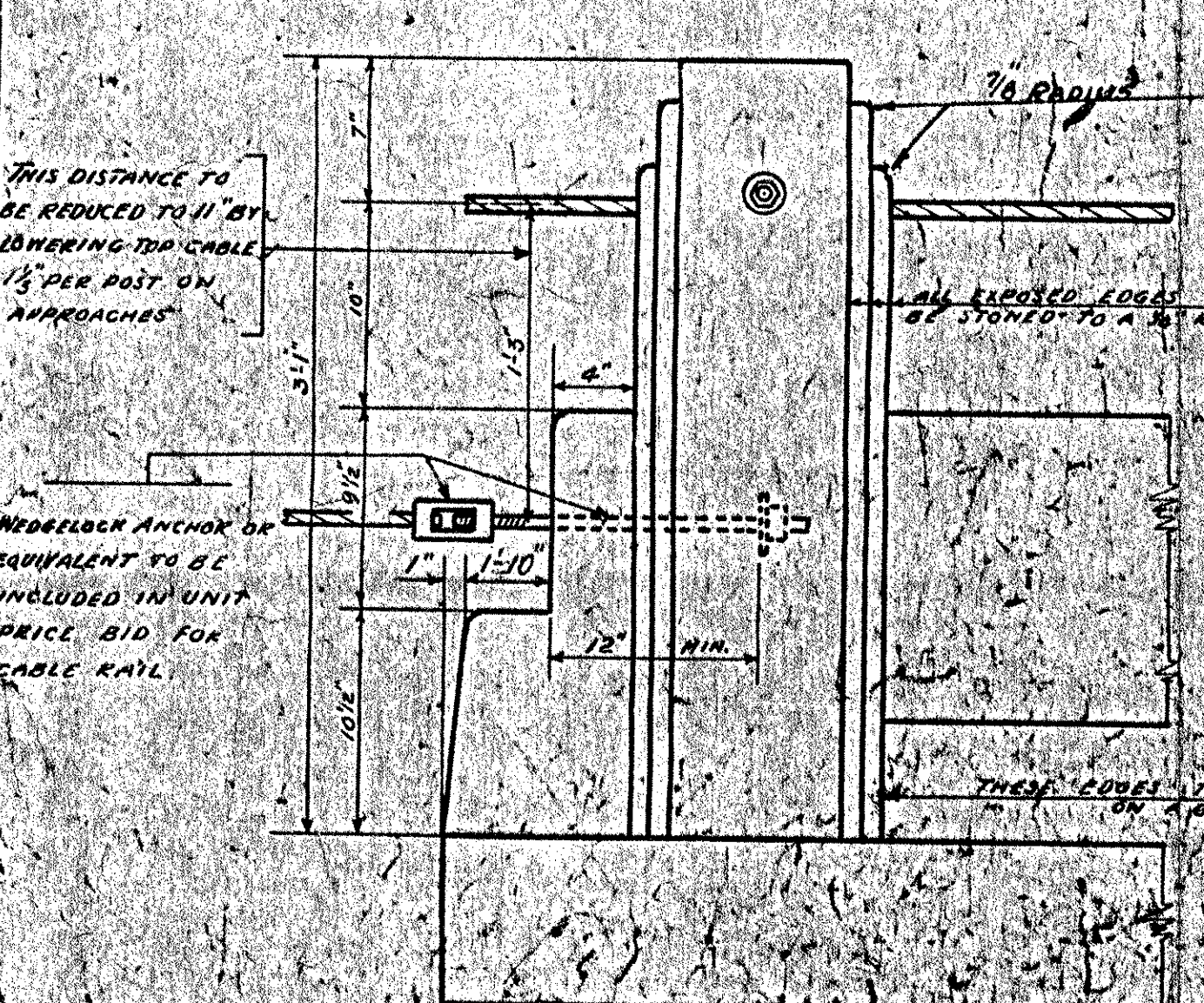
SERIES SB NO 20 SHEET 1 OF 1



SKEN	W	X	Y	Z
68°	1'-2"	1'-10"	3'-7"	1'-0"
60°	1'-8"	1'-3"	3'-4"	8"
45°	2'-2"	9"	3'-1"	5"
30°	2'-6"	5"	2'-11"	3"
15°	2'-8"	2"	2'-10"	1"
SQRE	2'-9"	0	2'-9"	0

NOTE:-
THIS DETAIL NOT TO BE FOLLOWED WHEN APPROACH SLAB WITH CURB IS USED. (SEE TYPICAL PLAN)

PLAN OF CURB ENDS FOR VARIOUS SKEWS
SCALE 3/4"=1'-0"



CLEAR SPAN	NUMBER OF POSTS	POST SPACING	CONCRETE REINFORCING CLAS. CUTS	STEEL LB.
25'-0"	8	7'-6"	3.3	1065
30'-0"	10	6'-10"	3.9	1348
35'-0"	10	8'-11"	4.3	1483
40'-0"	12	7'-6"	5.0	1715
45'-0"	14	7'-3"	5.7	1982
50'-0"	16	8'-1"	6.1	2119
55'-0"	16	7'-2"	6.8	2331
60'-0"	18	7'-3"	7.5	2514
65'-0"	18	7'-11"	7.9	2820
70'-0"	20	7'-7"	8.6	3046
75'-0"	22	7'-4"	9.2	3253
80'-0"	22	7'-10"	9.7	3414

REINFORCING STEEL SCHEDULE

BAR	SIZE	DETAIL
CR1	3/8"	2'-6"
CR2	3/8"	1'-2"
CR3	1/2"	6'-0"
CR4	1/2"	SEE TABLE

REINFORCING BARS REQUIRED

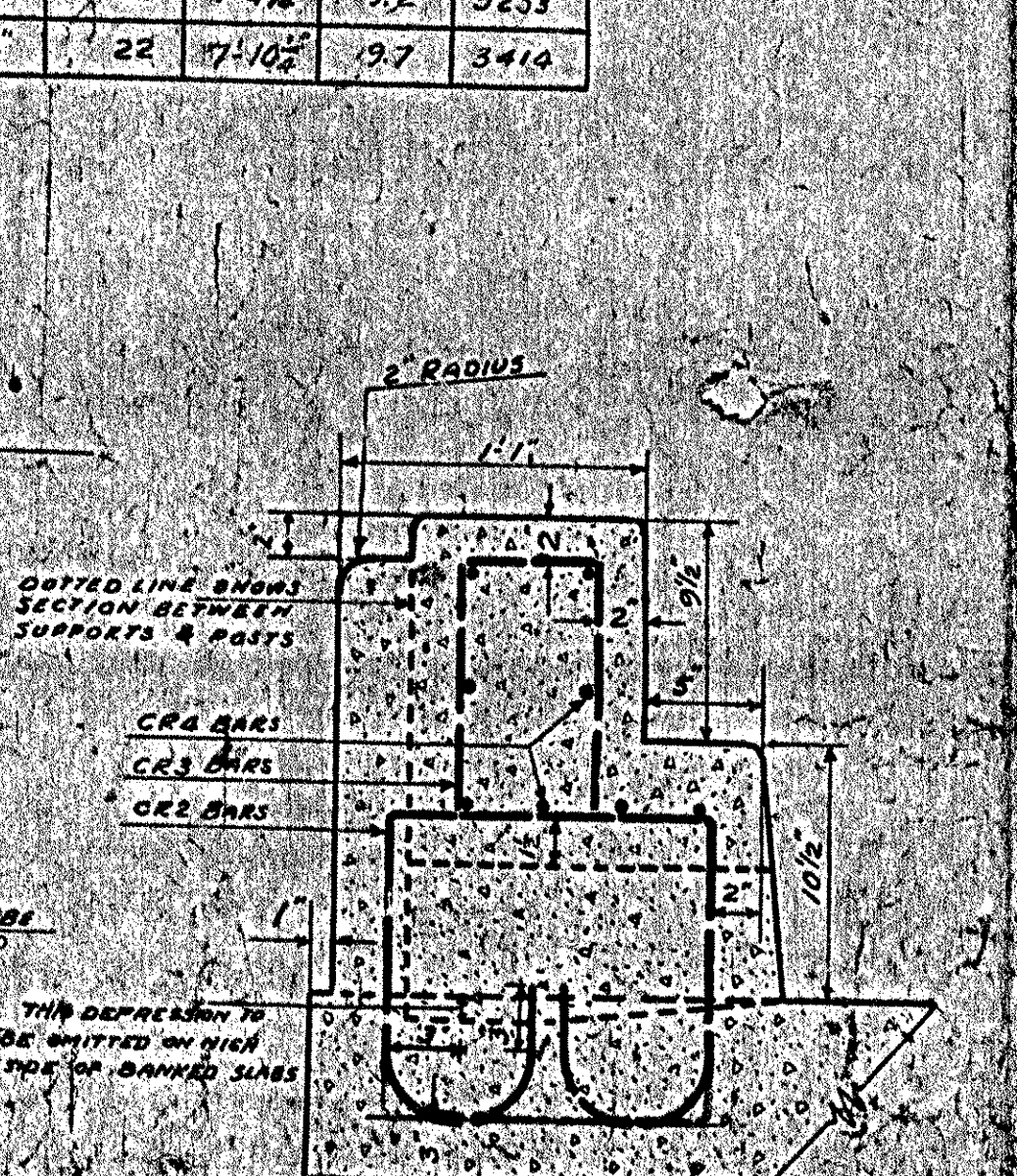
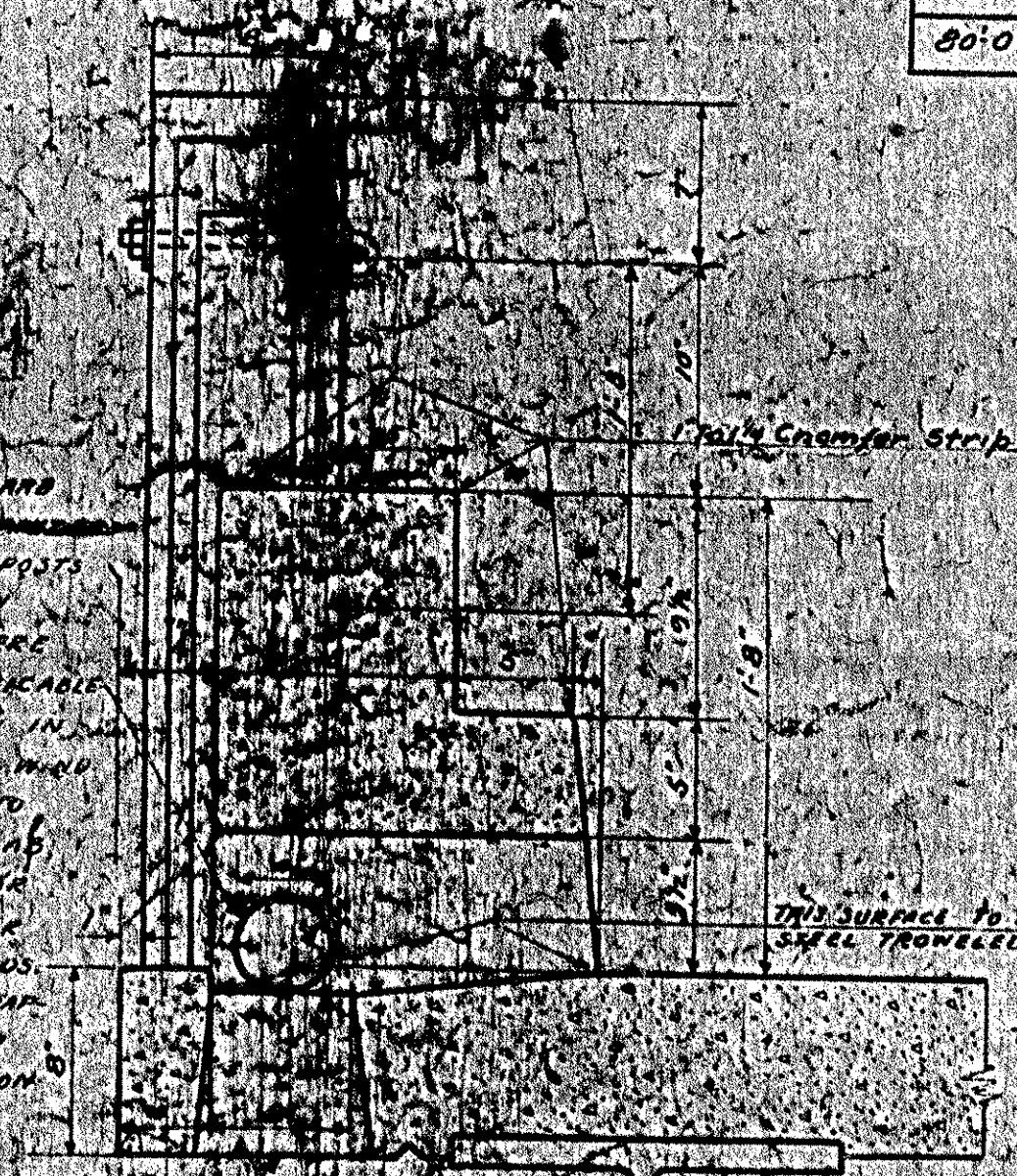
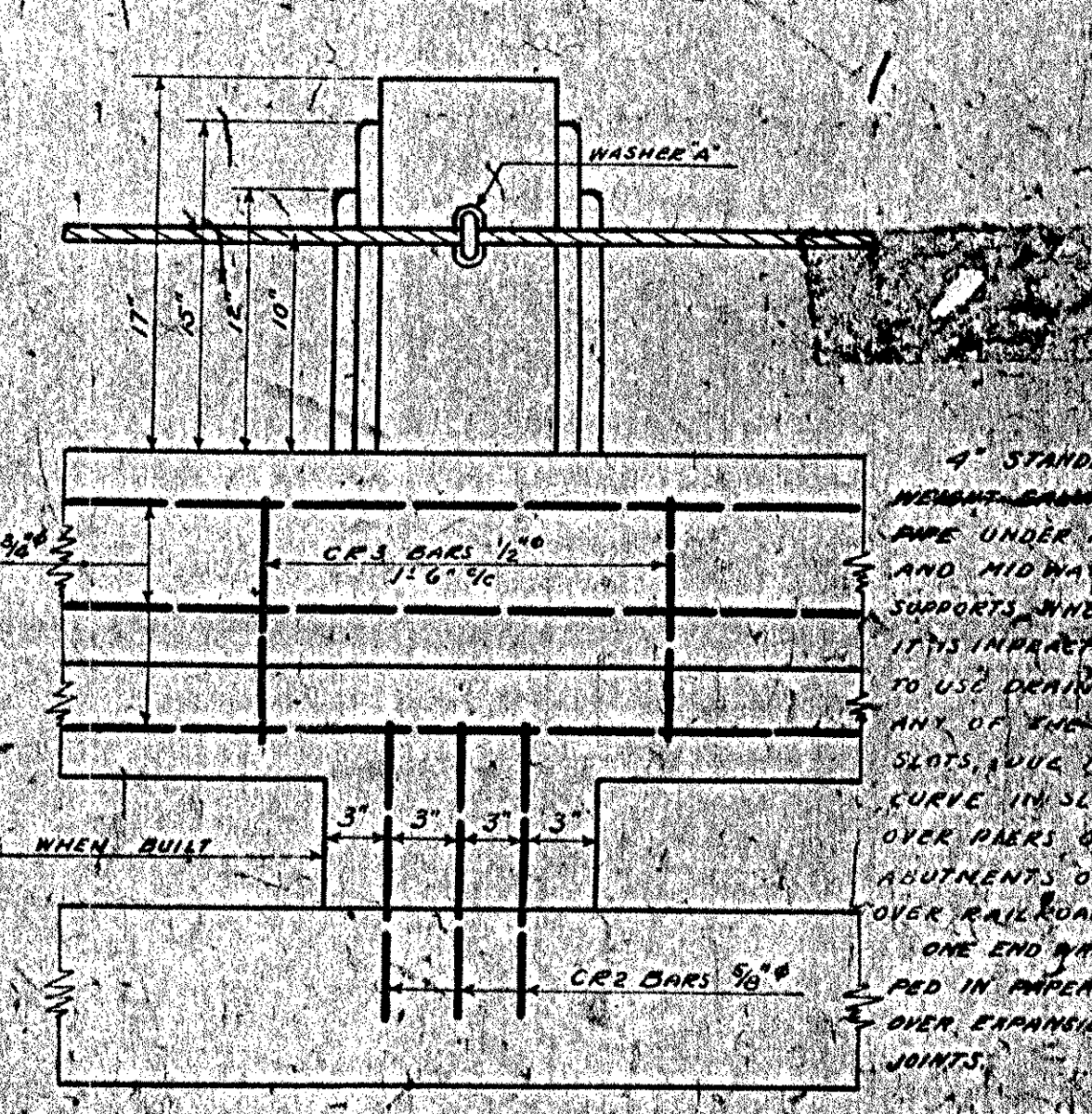
CLEAR SPAN	CR1 LGTH. ROD	CR2 LGTH. ROD	CR3 LGTH. ROD	CR4 LGTH. ROD
25'-0"	2'-6"	4'-7"	3'-6"	2'-6"
30'-0"	60	54	42	17'-0"
35'-0"	60	54	48	19'-6"
40'-0"	72	66	56	22'-0"
45'-0"	84	78	64	25'-3"
50'-0"	84	78	70	27'-9"
55'-0"	96	90	76	30'-0"
60'-0"	108	102	84	33'-9"
65'-0"	108	102	90	35'-0"
70'-0"	120	114	96	36'-8"
75'-0"	132	126	104	38'-0"
80'-0"	132	126	110	38'-6"

GENERAL NOTES

CAMBER - RAIL AND CURB SHALL BE CAMBERED THE SAME AS THE ROAD WHICH THEY ARE USED.
CHAMFER - ALL EXPOSED EDGES SHALL BE CHAMFERED & KEENLY FINISHED.
POSTS - POSTS AND ALL VERTICAL EDGES SHALL BE BUILT PLUMB WITH THE FOLLOWING THE GRADE OF THE ROAD.
WORK & MATERIALS - ALL WORK AND MATERIALS SHALL CONFORM TO THE BRIDGE SPECIFICATIONS OF THE VERMONT STATE HIGHWAY COMMISSION.
PAYMENT - CONCRETE AND REINFORCING STEEL IN CURBS AND RAILS SHALL BE AT UNIT PRICE BID FOR THESE ITEMS.
CABLE - INCLUDING HARDWARE SHALL BE PAID FOR AT UNIT PRICE BID FOR THESE ITEMS.

MULTIPLE SPAN BRIDGES

QUANTITIES AS SHOWN ABOVE MAY BE USED FOR MULTIPLE SPAN BRIDGES. D MUST BE FIGURED FOR EACH INDIVIDUAL CASE.



ELEVATION - BACK OF POST @ SQUARE END

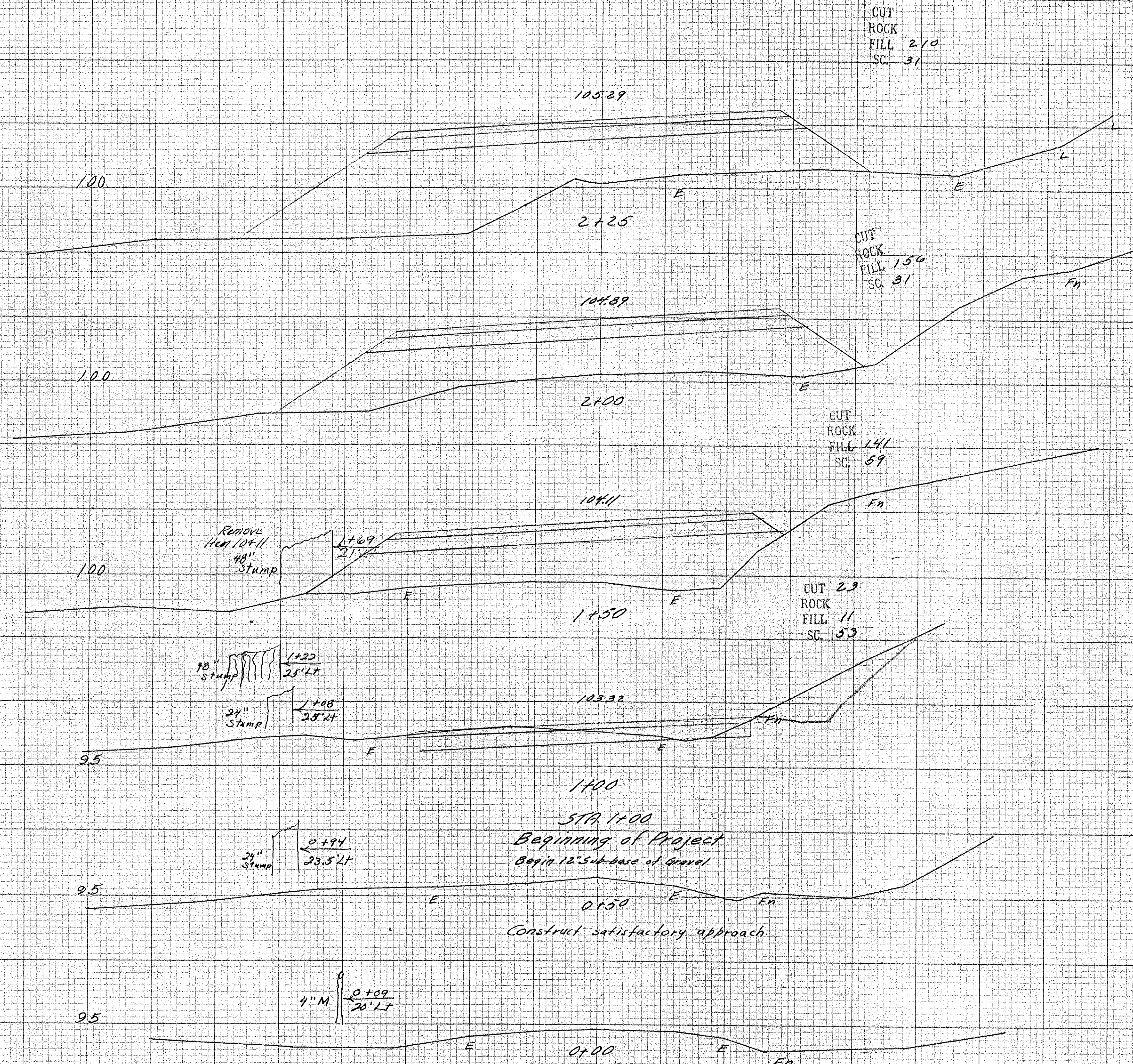
ELEVATION - FRONT OF POST

SIDE ELEV. POST SECTION, CURB & DRAIN

SECTION AT MIDWAY SUPPORTS

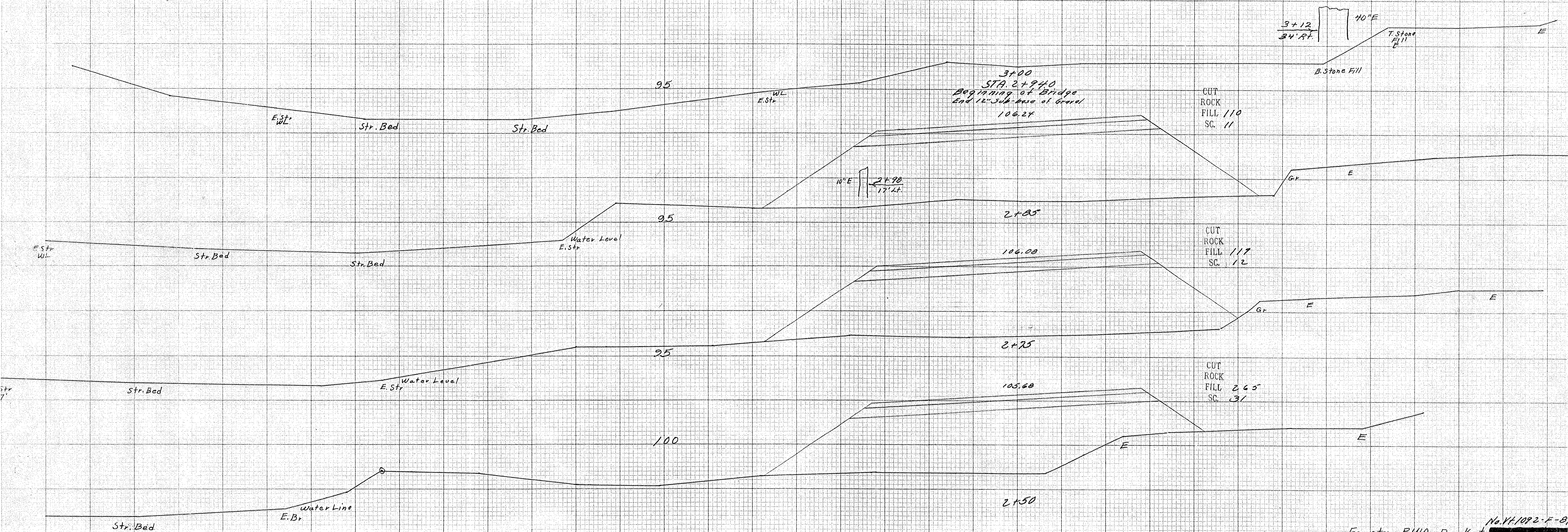
STANDARD CABLE RAIL

BEAM BRIDGES



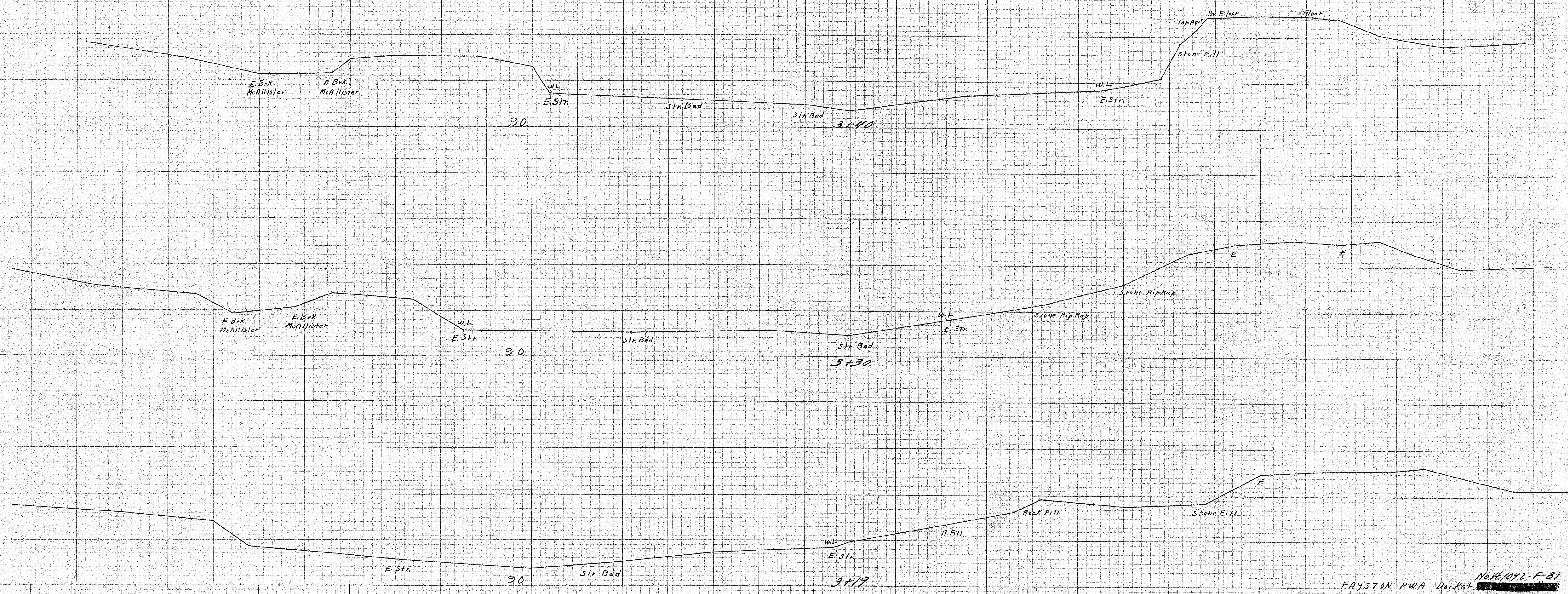
Fayston PWA Docket No. VI. 1092-F-89

LEVELS BY	Colby	CHKD. BY	M/LP
STATIONS PLOTTED BY	McAvey	CHKD. BY	
PLANNED BY		CHKD. BY	
EXAMINED BY		CHKD. BY	
SERIES F		NO.	FILED
SHEET 11		OF 17	



Fayston PWA Docket No. VI/1092-F-89

LEVELS BY	Colby	CHKD BY	MR/LA
SECTIONS PLOTTED BY	Peck	CHKD BY	
PLANNED BY		CHKD BY	
EXAMINED BY		NO.	FILED
SHEET	12	OF	17



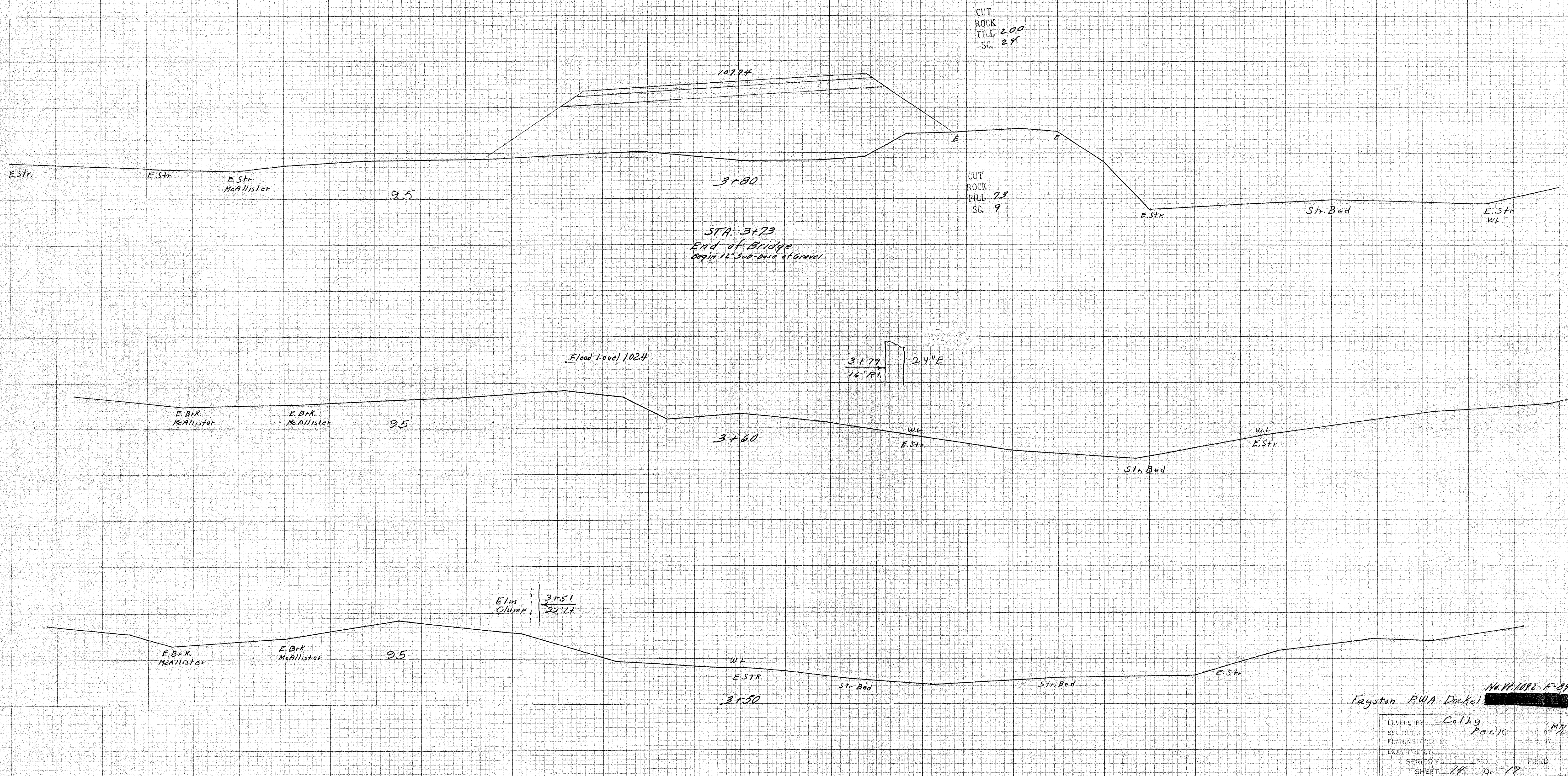
EAYSTON PWA Docket No. 1072-F-89
 LEVELS BY Colby
 SECTIONING BY Peck
 PLAN REVIEWED BY MBP
 EXAMINED BY
 SERIES F NO. FILED
 SHEET 13 OF 17

KEUFFEL & ESSER CO. NEW YORK

1/16" STANDARD MARK
 1/16" D. & 1/16" OFF
 CROSS SECTION 10 X 10
 1/16" D. & 1/16" OFF
 MADE IN U.S.A.

KEUFFEL & ESSER CO. NEW YORK
 1/16" STANDARD MARK
 1/16" D. & 1/16" OFF
 CROSS SECTION 10 X 10
 1/16" D. & 1/16" OFF
 MADE IN U.S.A.

1/16" STANDARD MARK
 1/16" D. & 1/16" OFF
 CROSS SECTION 10 X 10
 1/16" D. & 1/16" OFF
 MADE IN U.S.A.



100% STANDARD MARK
REPRODUCED BY
CROSS SECTION 10 X 10
100% BARS PAPER
MADE IN U.S.A.

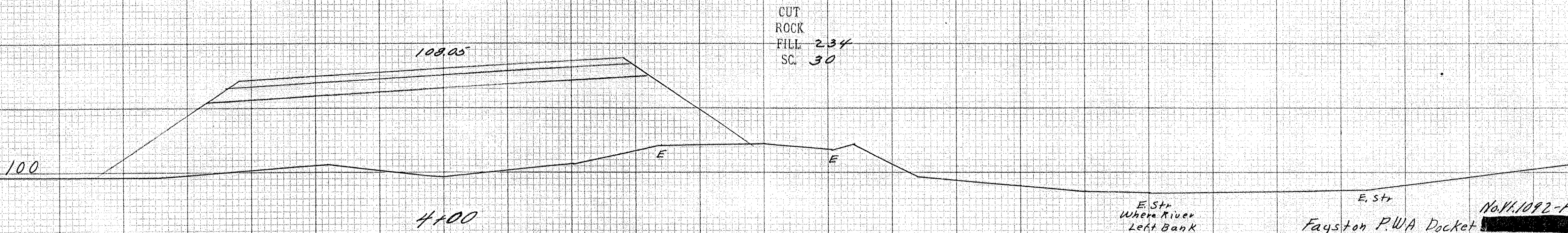
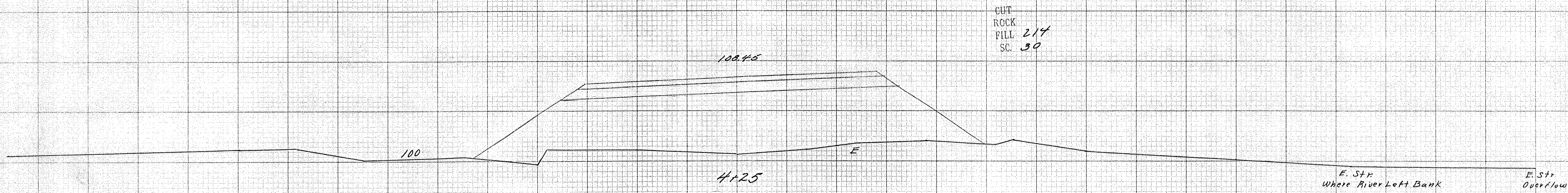
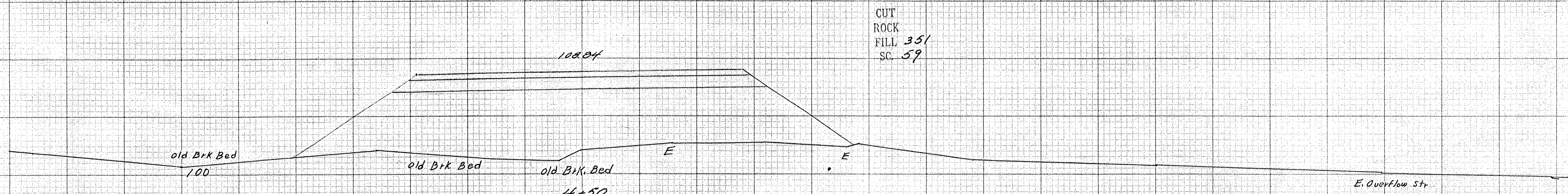
KEUFFEL & ESSER CO.
NEW YORK

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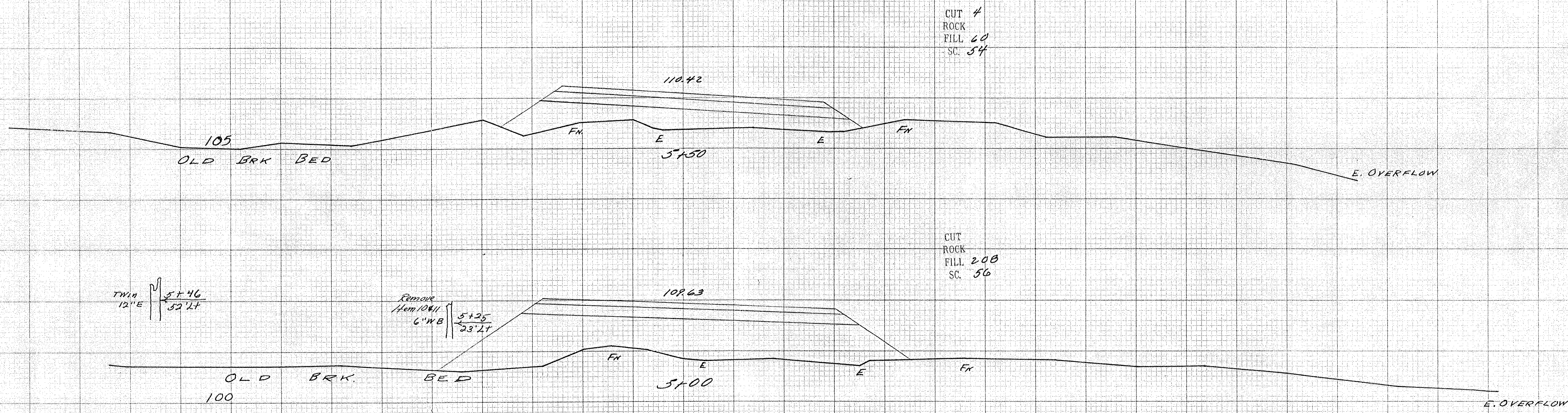
100% STANDARD MARK
REPRODUCED BY
CROSS SECTION 10 X 10
100% BARS PAPER
MADE IN U.S.A.

KEUFFEL & ESSER CO.
NEW YORK

Fayston RWA Docket No. 1092-14-17
LEVELS BY Colby
SECTIONS BY Peck
PLANNING BY M/P
EXAMINED BY
SERIES F NO. FILED
SHEET 14 OF 17

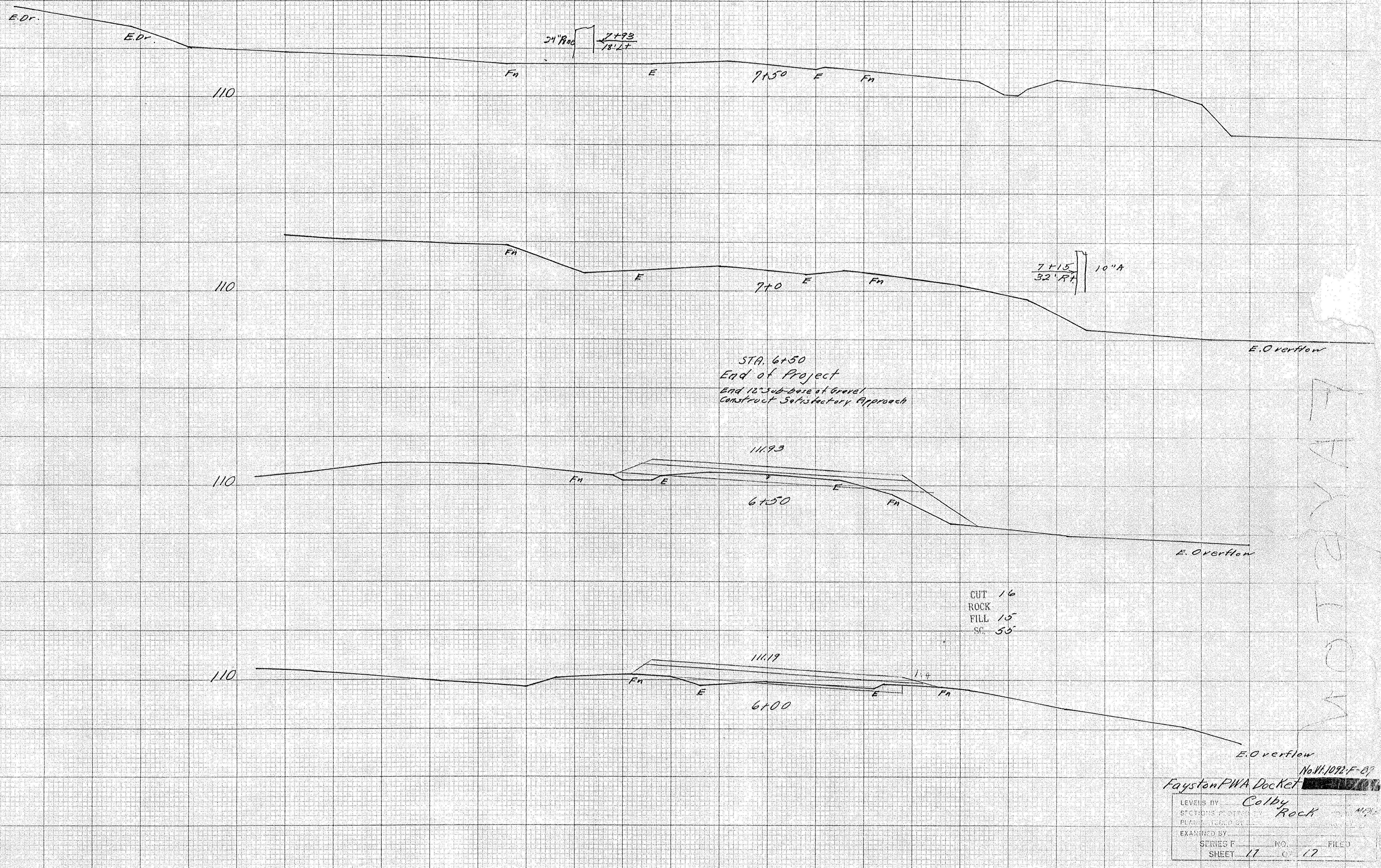


No. 11-1092-F-89
 Fayston PWA Docket
 LEVELS BY Colby
 SECTIONED BY Peck
 PLANNED BY
 EXAMINED BY
 SERIES F NO. 15 OF 17
 SHEET 15 OF 17



No. 1092-F-89
 FAYSTON P.W.A. DOCKET

LEVELS BY	Colay	CHKD. BY	N.R.
STATIONS PLOTTED BY	Rock	CHKD. BY	E.P.
PLANIMETERED BY			
EXAMINED BY			
SERIES F	NO.	FILED	
SHEET 16	OF 17		



Fayston PWA Docket No. 1092-F-87

LEVELS BY Colby
PLAN BY Rock

EXAMINED BY
SERIES F NO. FILED
SHEET 17 17

11-16-5
D. H. ALLEN

SUM PLATE THICKNESS

ABUT. #2
B-1
BOTTOM FABRIC PAD ELEV. 264.736
EXIST. B.F. ELEV. - 264.190
0.046
WEARING SURF. THICKNESS - 0.003
0.043 = 45 mm

B-2

264112
264686
- 0.022
- 0.003
0.017 = 19 mm

B-3

$$\begin{array}{r} 263.955 \\ - 263.950 \\ \hline 0.005 \\ - 0.003 \\ \hline 0.002 \end{array}$$

32

B-4

$$\begin{array}{r} 263.859 \\ - 263.830 \\ \hline 0.029 \\ - 0.003 \\ \hline 0.026 = 26 \text{ mm} \end{array}$$

B-5

$$\begin{array}{r} 263,733 \\ - 283,760 \\ \hline 0,033 \\ - 0,003 \\ \hline 0,030 = 30 \text{ mm} \end{array}$$

TO: WAYNE
SYMONDS

AND

Todo

SUMNER

FROM:

Rick Hall

P.S. - WINTERSET
VERIFIED 11/16/66

STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROJECT BHF-0200-093
ROUTE NO. 17 (MAJOR COLLECTOR)
BRG. NO. 36
TOWN OF FAIRBURY

COSMEC, INC.
70 SOUTH STREET
WALPOLE, MA 02081
PH# 508-668-6600
FAX# 508-660-1022

EMS-QC-110 VTRADE
RECEIVED
CND BY _____ CND BY JWC
OCT 19 2006
RESUBMIT _____ APPROVED _____
BY _____ DATE 10-31-06

ENGINEERING AND MANUFACTURING STANDARD
PIPE FACING AND STEEL
OR PREFORMED FABRIC SUBSTRATE
SURFACE PREPARATION AND ADHESIVE PROCEDURE

The PTFE facing shall be prepared for bonding to a substrate material by chemically etching the face to be bonded using the sodium ammonia process.

The mating surface of the substrate shall be prepared for bonding using a three-step process as follows:

1. preliminary degrease using methyl ethyl ketone.
2. mechanically roughen to approx. 125 RMS and thoroughly brush and clean for final degreasing.
3. final degrease using methyl ethyl ketone

The PTFE and substrate mating surfaces shall be clean and dry with final degreasing performed within 30 minutes of bonding. Adhesive shall consist of a two-part epoxy adhesive system conforming to Military Specification MMM-A-134

The adhesive shall be applied to the full area of the contact surface in an even manner so as to establish a glue line not less than .002 inch nor more than .010 inch thick. Surfaces being bonded are to be assembled immediately with open assembly time not to exceed 20 minutes.

The PTFE material shall be greater in width and length than the substrate material by at least 1/2 inch when bonded. The PTFE shall be applied with contact starting at one edge and with contact progressing across entire bonded surface to eliminate air entrapment. The PTFE is to be in full contact with the steel or preformed fabric substrate. Curing of the bond shall be done under pressure of approx. 2-100 psi for 10-12 hours at approx. 70°F or other schedules as established by the manufacturer of the adhesive.

The PTFE shall be carefully trimmed to the same size as the substrate after bond curing and all bonds shall be visually inspected for bond retention.

07266

STATE OF VERMONT
AGENCY OF TRANSPORTATION
PROJECT BHF-0200193

ROUTE NO. 17 (MAJOR COLLECTOR)
BRIDGE NO. 36

COSMEC INC.

TOWN OF FAIRFAX WELDING PROCEDURE SPECIFICATION

SPECIFICATIONS AND CODE: D1.6
MATERIAL SPECIFICATION ASTM A240 TYPE 304 TO ASTM A709 GR 50W

WELDING PROCESS-----GTAW
MANUAL OR MACHINE-----MANUAL
POSITION OF WELDING-----1F & 2F

FILLER METAL SPECIFICATION ER309L
MANUFACTURER: HARRIS WELCO
FLUX-----INTERNAL

CLASSIFICATION: A5.9
TRADE NAME:

FLOW RATE 45 CFH

SHIELDING GAS-----ARGON
SINGLE OR MULTIPLE PASS SINGLE
SINGLE OR MULTIPLE ARC SINGLE

WELDING CURRENT-----DC
POLARITY: REVERSE (EN)

REQUESTED BY DATE 10-31-06

WELDING PROGRESSION
ROOT TREATMENT-----CLEANED & PREPARED BRIGHT METAL
PREHEAT AND INTERPASS TEMPERATURE-----SEE BELOW

POSTHEAT TEMPERATURE N/A
HEAT INPUT MIN.-----MAX.---

VTRANS
RECEIVED

OCT 13 2006

WELDING PROCEDURE

PASS NO.	ELECTRODE SIZE	WELDING CURRENT AMPERES	TRAVEL SPEED VOLTS	JOINT DETAIL
ALL	3/32"	130-155	14-17	LAP JOINT
16 GA THRU 10 GA BM THICKNESS				

PREHEAT TEMPS.	THICKNESS	TEMP.
UP TO 3/4"	100 DEG.	
OVER 3/4" TO 1 1/2"	100 DEG.	
OVER 1 1/2" TO 2 1/2"	100 DEG.	
OVER 2 1/2"	100 DEG.	

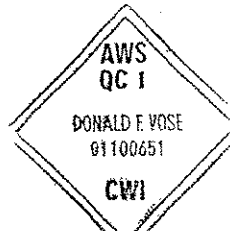
THIS PROCEDURE MAY VARY DUE TO FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC.
WITHIN THE LIMITATION OF VARIABLES GIVEN IN SECTION 5.

SUPPORTING PQR: GTAW-WF-05
PROCEDURE NO. GTAW-WF

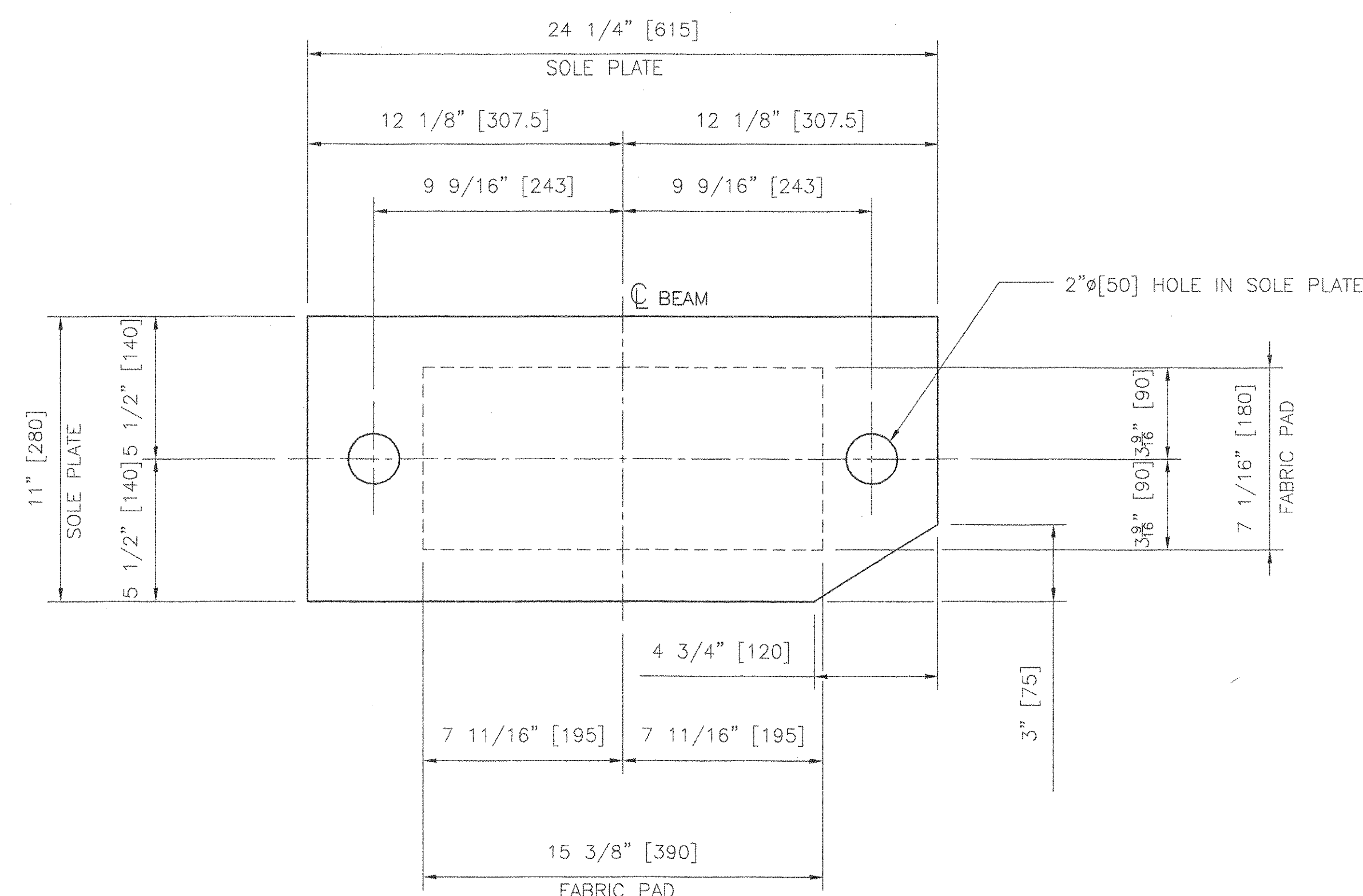
CONTRACTOR: COSMEC INC.
AUTHORIZED BY: DONALD VOSE
CW#01100651

REVISION NO. 1

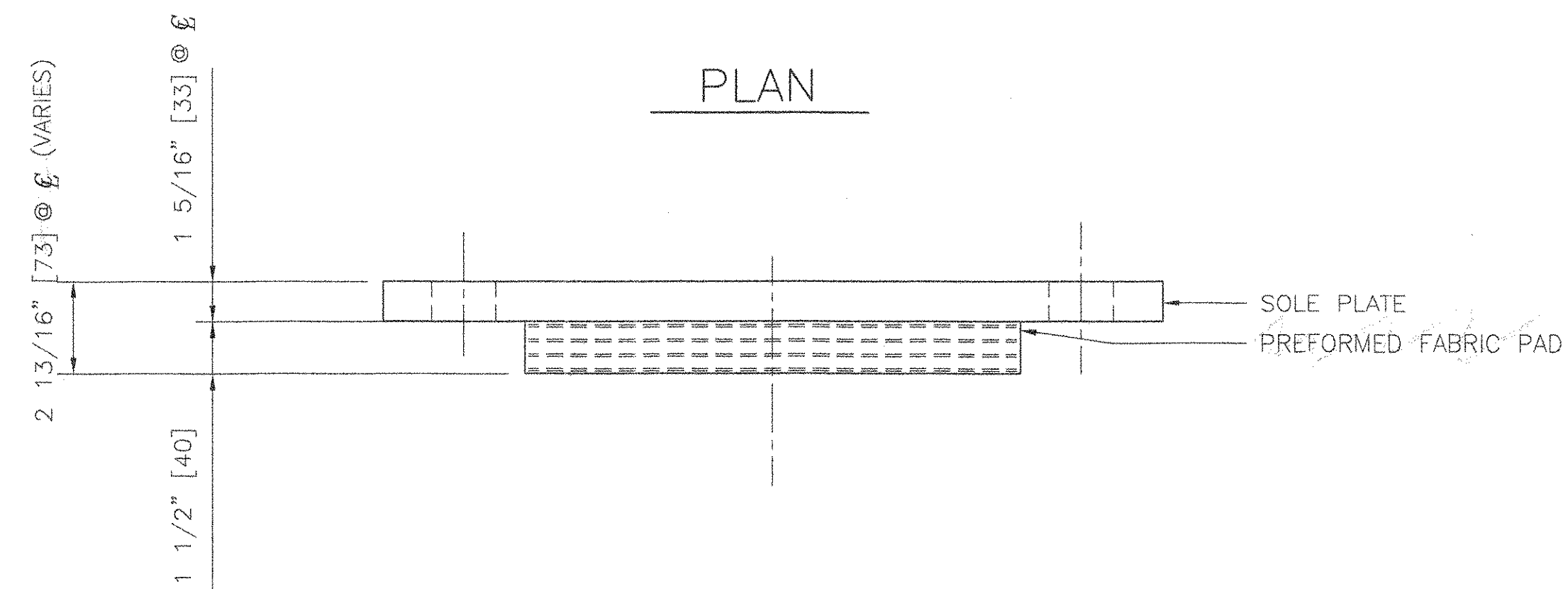
DATE: 2/1/2005



07312



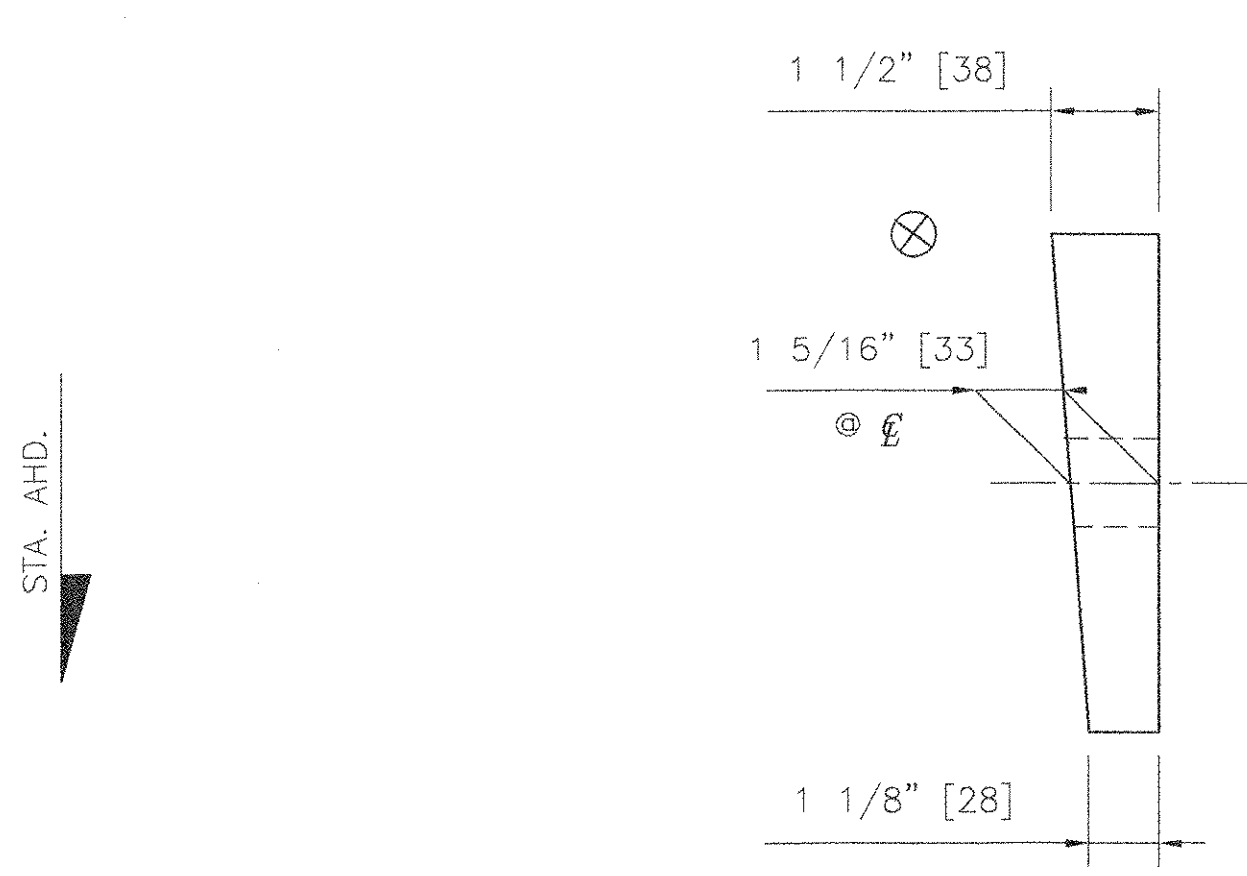
PLAN



FRONT ELEVATION

COSMEC FIXED ELASTOMERIC BEARING

LOCATION:
ABUTMENT NO.2 BEAM 6
TOTAL QUANTITY - 1



ANCHOR BOLT DETAIL
(SIDE VIEW)

BEARING NOTES:

1. ANCHOR BOLTS AND ASSOCIATED HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 OR A123 AS APPLICABLE.
2. LOCATION OF FABRICATION - 70 SOUTH STREET
WALPOLE, MA 02081
3. COSMEC, INC. REPRESENTATIVE: MR. MATT McANDREWS
(508-668-6600)
4. ⊗ MARKS THE THICK END OF SOLE PLATE.
5. MAXIMUM ALLOWABLE BEARING PRESSURE ON CONCRETE= 6.9 MPa
MINIMUM ALLOWABLE DESIGN ROTATION= 0.015 RADIAN
HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 6% VERTICAL LOAD
DESIGN LOAD PER BEARING: 476 kN [107 KIPS]
6. ALL EDGES OF STEEL PLATES SHALL HAVE 1/16" MINIMUM RADIUS
7. UNITS= INCHES [MM]

MATERIALS:

STEEL - AASHTO M-270 GR 36 ZINC METALIZED
PREFORMED FABRIC PAD - AASHTO 18.4.9.1 DIV.II
ANCHOR BOLTS - ASTM F1554 GR 55 GALVANIZED

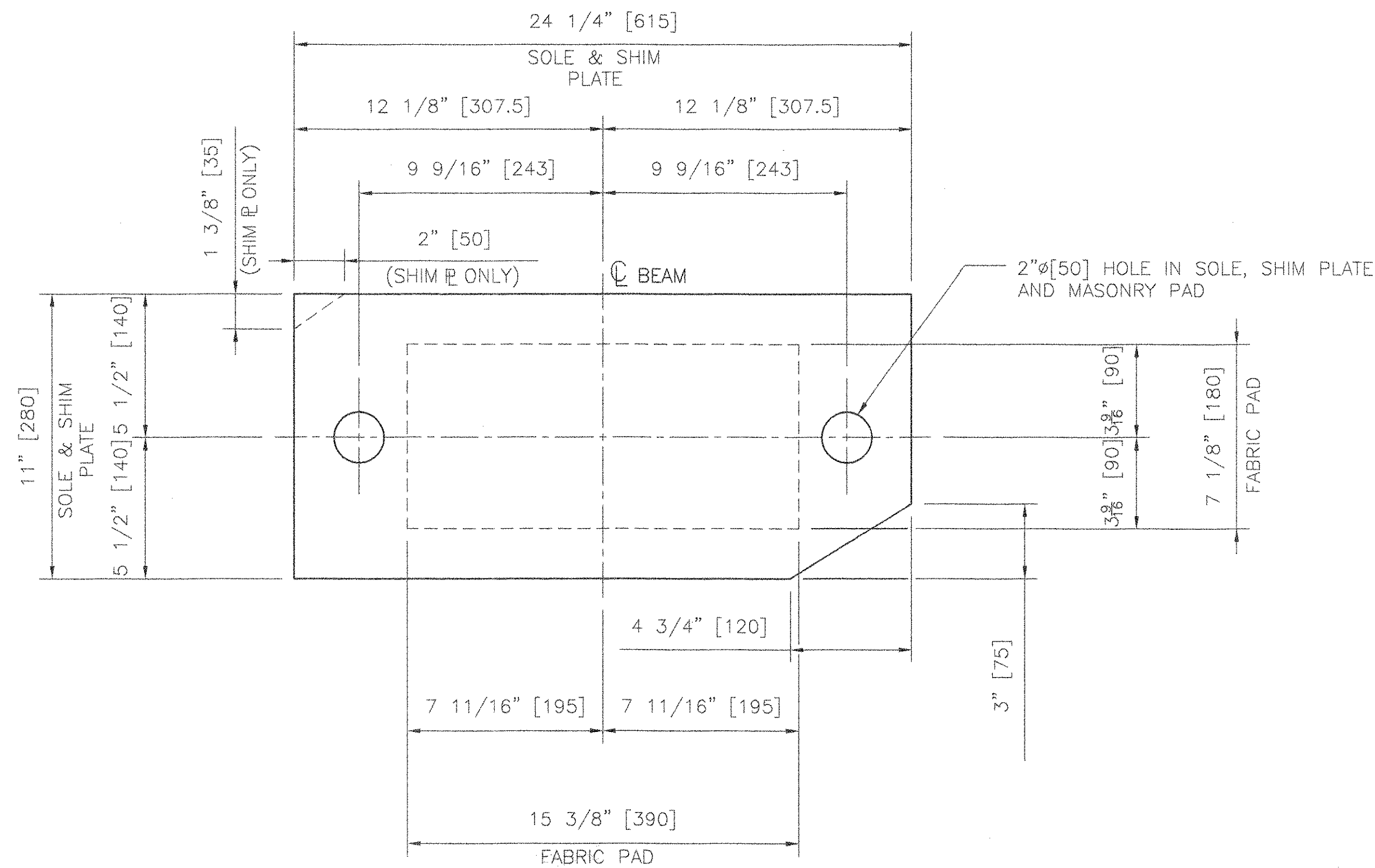
ALL BEARING DEVICES SHALL BE ZINC METALIZED AS PER SUBSECTION 531.04(b) AND 506.15(b). BEARINGS SHALL BE SEALED WITH AN APPROVED SEALER AS SPECIFIED IN STANDARD SPEC. SUBSECTION 506.15(b). AREAS OF METALIZING DAMAGED BY FIELD WELDING OR HANDLING SHALL BE PAINTED WITH AN APPROVED SEALANT.

STATE OF VERMONT AGENCY OF TRANSPORTATION			
ROUTE NO. VT 17 (MAJOR COLLECTOR), BRIDGE NO. 36 TOWN OF FAYSTON WASHINGTON COUNTY PROJECT BHF-0200(9)			
COSMEC, INC. 70 SOUTH STREET WALPOLE, MA. 02081			
SCALE: 1/4"=1"	DRAWN BY: MAE	CHECKED BY: MRR	
	DATE: 8/15/06	DATE: 8/22/06	
COSMEC ELASTOMERIC BEARINGS			
CUSTOMER WINTERSSET, INC.	S.O. NUMBER 60642	DRAWING NUMBER 4880	REV. 1

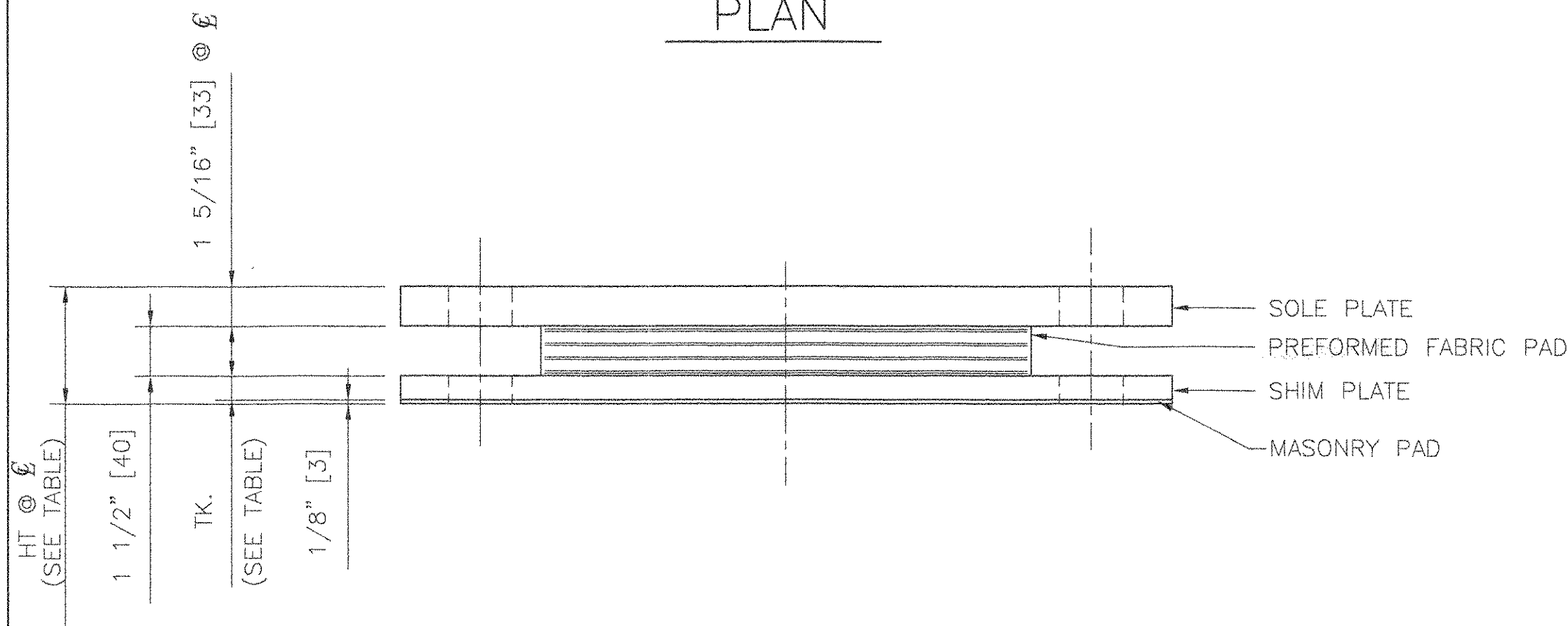
RECEIVED
NOV 16 2006
BY: [Signature] DATE: 11/16/06
RESUBMIT: [Signature] APPROVED: [Signature]

REV.	REVISOR	DATE	BY	DATE	OK'D BY	DATE
1	REVISED AS NOTED PER REVIEWERS COMMENTS	11/06	MAE	11/06	MCM	11/06

074bb



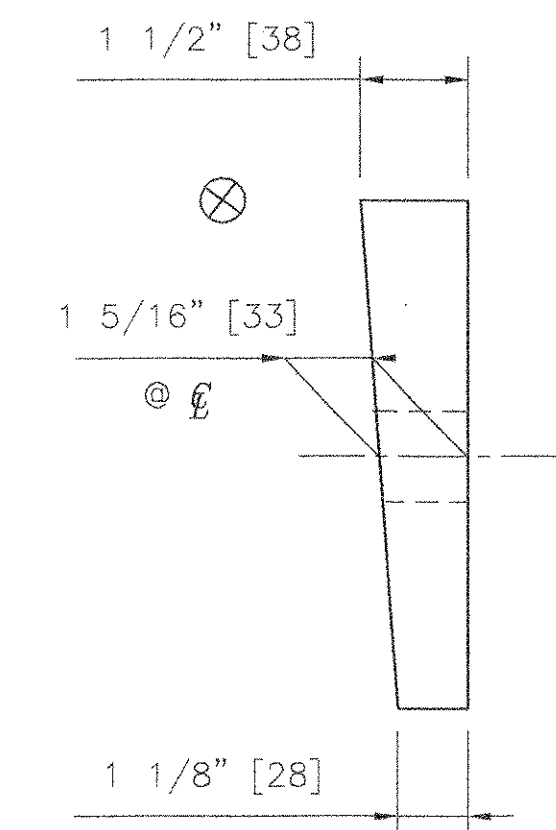
PLAN



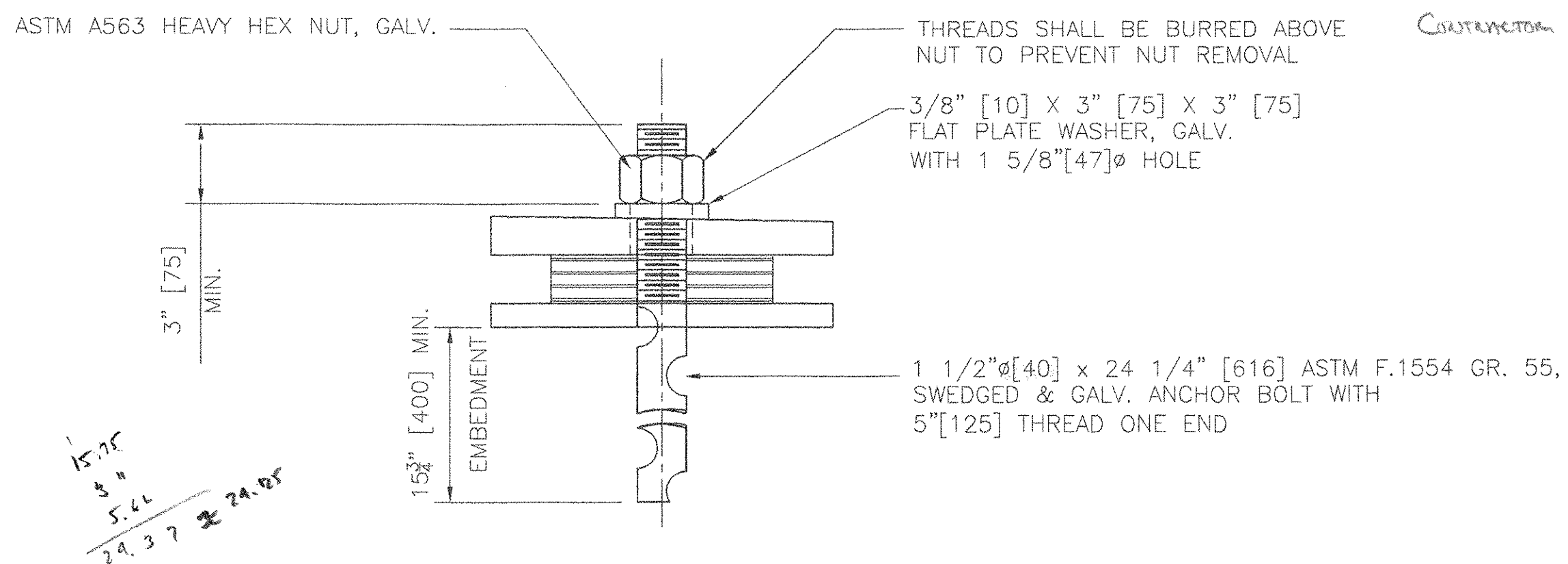
FRONT ELEVATION

COSMEC FIXED ELASTOMERIC BEARING

LOCATION:
ABUTMENT NO. 2 BEAMS 1-5
TOTAL QUANTITY = 5



SIDE ELEVATION
BEVELED SOLE PLATE ONLY



ANCHOR BOLT DETAIL
(SIDE VIEW)

BEARING NOTES:

- ANCHOR BOLTS AND ASSOCIATED HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 OR A123 AS APPLICABLE.
- LOCATION OF FABRICATION - 70 SOUTH STREET
WALPOLE, MA 02081
- COSMEC, INC. REPRESENTATIVE: MR. MATT McANDREWS
(508-668-6600)
- ⊗ MARKS THE THICK END OF SOLE PLATE.
- MAXIMUM ALLOWABLE BEARING PRESSURE ON CONCRETE= 6.9 MPa
MINIMUM ALLOWABLE DESIGN ROTATION= 0.015 RADIAN
HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 6% VERTICAL LOAD
DESIGN LOAD PER BEARING: 476 kN [107 KIPS]
- ALL EDGES OF STEEL PLATES SHALL HAVE 1/16" MINIMUM RADIUS
- UNITS= INCHES [MM]

MATERIALS:

STEEL - AASHTO M-270 GR 36 ZINC METALIZED
PREFORMED FABRIC PAD - AASHTO 18.4.9.1 DIV.II
ANCHOR BOLTS - ASTM F1554 GR 55 GALVANIZED

ALL BEARING DEVICES SHALL BE ZINC METALIZED AS PER SUBSECTION 531.04(b) AND 506.15(b). BEARINGS SHALL BE SEALED WITH AN APPROVED SEALER AS SPECIFIED IN STANDARD SPEC. SUBSECTION 506.15(b). AREAS OF METALIZING DAMAGED BY FIELD WELDING OR HANDLING SHALL BE PAINTED WITH AN APPROVED SEALANT.

NOTE: PER CONTRACT SHEET NO.19 BEARING NOTE
6 THE CONTRACTOR MUST FIELD VERIFY EXISTING
BRG. SEAT ELEVATIONS TO ACCURATELY DETERMINE
SHIM PLATE THICKNESSES.

#3 Provided By Contractor

SHIM PLATE THICKNESS & BEARING HEIGHT		
BEAM	TK.	HT @ E
1	2-68" [86] [45]	5-62" [143] [21]
2	2-06" [52] [19]	4-99" [127] [95]
3	2-17" [56] [32]	5-11" [130] [105]
4	2-32" [59] [26]	5-26" [134] [102]
5	2-09" [53] [30]	5-03" [128] [104]

#6 SHIM PLATE NOT REQUIRED

PLEASE VERIFY
#3 FROM
CONTRACTOR

STATE OF VERMONT AGENCY OF TRANSPORTATION

ROUTE NO. VT 17 (MAJOR COLLECTOR),
BRIDGE NO. 36
TOWN OF FAYSTON
WASHINGTON COUNTY
PROJECT BHF-0200(9)

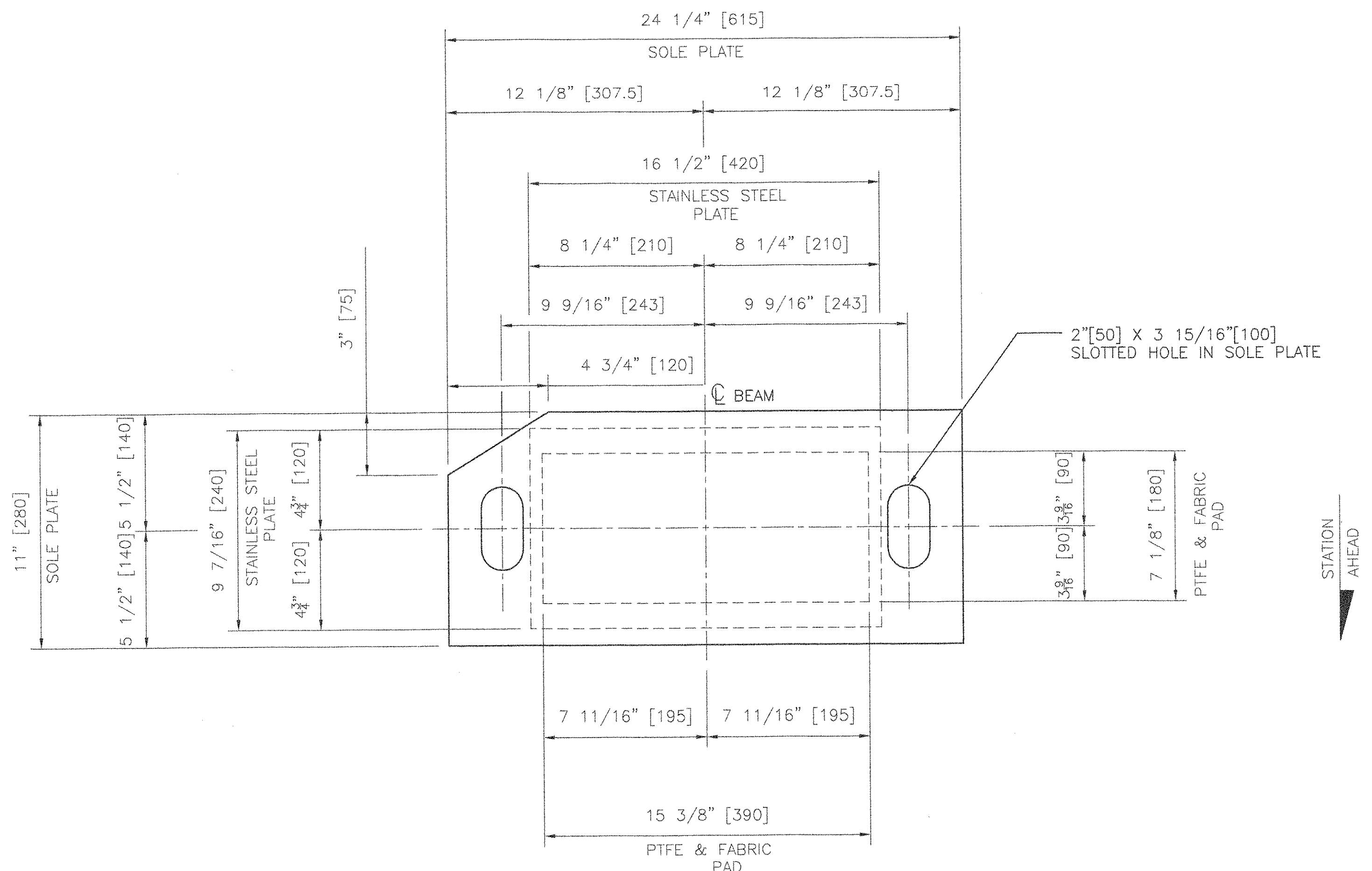
COSMEC, INC.

70 SOUTH STREET
WALPOLE, MA. 02081

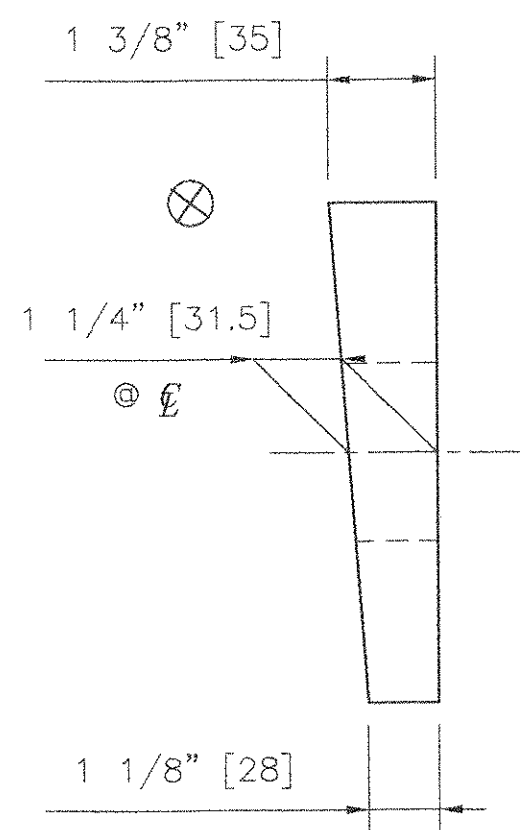
SCALE: 1/4"=1" DRAWN BY: MAE CHECKED BY: MRR
DATE: 8/15/06 DATE: 8/22/06

COSMEC ELASTOMERIC BEARINGS

REV. 1: REVISED AS NOTED PER REVIEWERS COMMENTS BY: MAE DATE: 11/06 OK'D BY: MCM DATE: 11/06
BY: WJ DATE: 11/16/06
CUSTOMER: WINTERSET, INC. S.O. NUMBER: 60642 DRAWING NUMBER: 4876 REV. 1



PLAN



SIDE ELEVATION
BEVELED SOLE PLATE ONLY

BEARING NOTES:

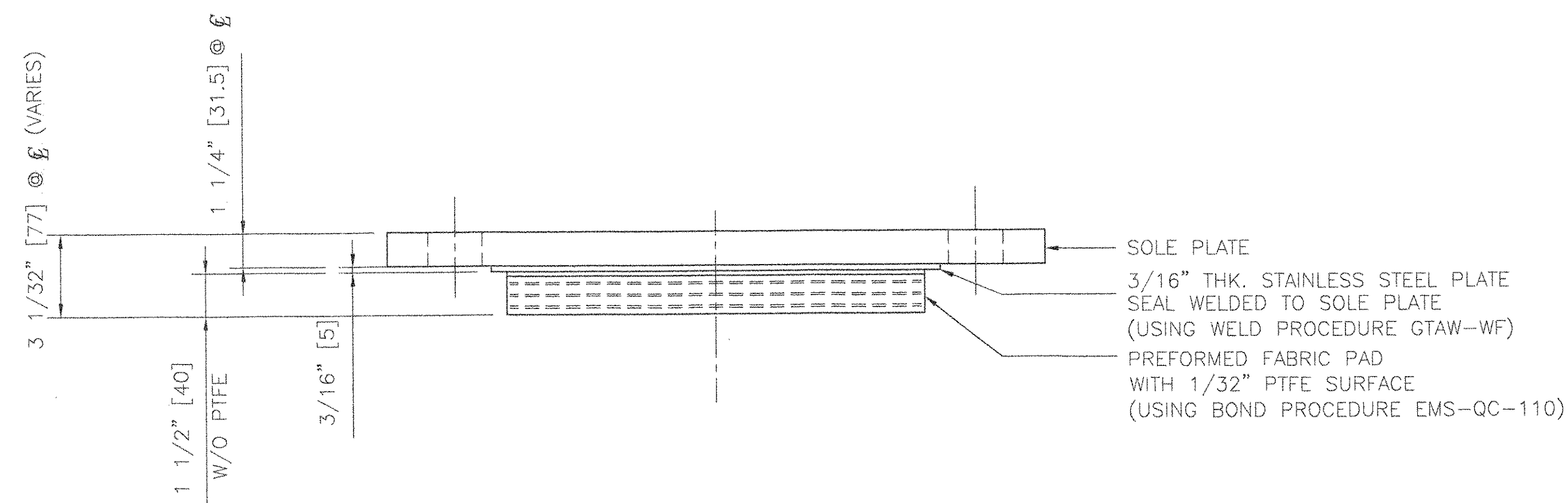
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2. LOCATION OF FABRICATION - 70 SOUTH STREET
WALPOLE, MA 02081
3. COSMEC, INC. REPRESENTATIVE: MR. MATT McANDREWS
(508-668-6600)
4. ⊗ MARKS THE THICK END OF SOLE PLATE.
5. MAXIMUM ALLOWABLE BEARING PRESSURE ON CONCRETE= 6.9 MPa
MINIMUM ALLOWABLE DESIGN ROTATION= 0.015 RADIAN
HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 8% VERTICAL LOAD
DESIGN LOAD PER BEARING: 476 kN [107 KIPS]
6. ALL EDGES OF STEEL PLATES SHALL HAVE 1/16" MINIMUM RADIUS
7. UNITS= INCHES [MM]

MATERIALS:

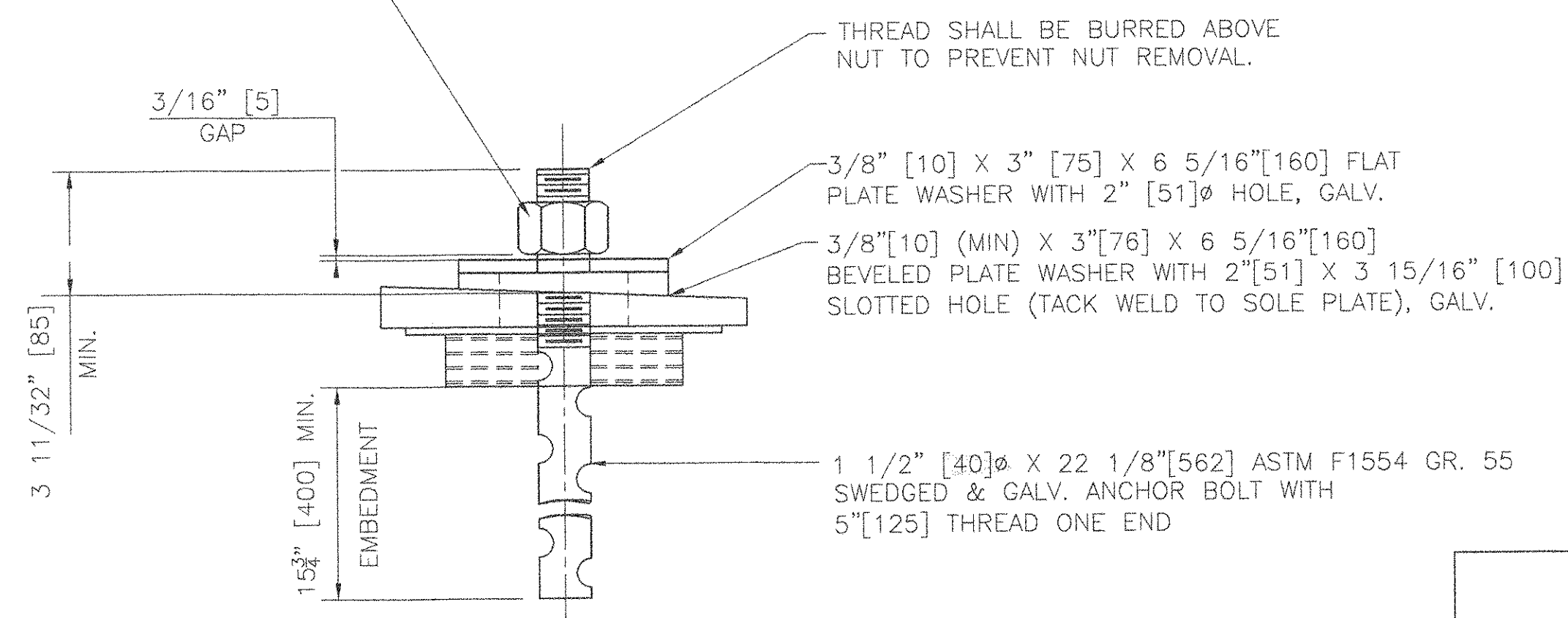
STEEL - AASHTO M-270 GR 36 ZINC METALIZED
PREFORMED FABRIC PAD - AASHTO 18.4.9.1 DIV.II
ANCHOR BOLTS - ASTM F1554 GR 55 GALVANIZED

ALL BEARING DEVICES SHALL BE ZINC METALIZED AS PER SUBSECTION 531.04(b) AND 506.15(b). BEARINGS SHALL BE SEALED WITH AN APPROVED SEALER AS SPECIFIED IN STANDARD SPEC. SUBSECTION 506.15(b). AREAS OF METALIZING DAMAGED BY FIELD WELDING OR HANDLING SHALL BE PAINTED WITH AN APPROVED SEALANT.

ASTM A563 HEAVY HEX NUT, GALV. EXPANSION BEARING NUTS ARE TO BE DRWN UP FINGER TIGHT AND THEN BACKED OFF 3/16" [5]



FRONT ELEVATION



ANCHOR BOLT DETAIL
(SIDE VIEW)

COSMEC EXPANSION ELASTOMERIC BEARING

LOCATION:
ABUTMENT NO.1
TOTAL QUANTITY - 6

RECEIVED
NOV 16 2006
BY: *WJ* DATE: 11/16/06

RECEIVED
NOV 22 2006
BY: *WJ* DATE: 11/22/06

STATE OF VERMONT AGENCY OF TRANSPORTATION			
ROUTE NO. VT 17 (MAJOR COLLECTOR), BRIDGE NO. 36 TOWN OF FAYSTON WASHINGTON COUNTY PROJECT BHF-0200(9)			
COSMEC, INC.		70 SOUTH STREET WALPOLE, MA. 02081	
SCALE: 1/4"=1"	DRAWN BY: MAE	CHECKED BY: MRR	
	DATE: 8/15/06	DATE: 8/22/06	
COSMEC ELASTOMERIC BEARINGS			
CUSTOMER: WINTERSET, INC.	S.O. NUMBER: 60642	DRAWING NUMBER: 4875	REV: 1

07666

VTRANS
RECEIVED
OK'D BY _____ OK'D BY Juk
SEP 13 2006
RESUBMIT _____ APPROVED _____
BY _____ DATE 9-14-06

ALL HEATING OPERATIONS MUST BE WITNESSED BY THE VERMONT AGENCY OF TRANSPORTATION JUMP INSPECTOR

- Heating shall be performed using large, approximately one inch diameter, multi-orifice heating torches.
- Our torch handle selected is the Victor HD 310C. Torch tip is type 5515n (1-132 inch diameter).
- The heating pattern will be brought to a temperature range of 800 - 1125° F as rapidly as possible without overheating.
- Steel temperatures greater than 1125° F shall be considered destructive heating.
- Temperature indicating crayons shall be used to insure the metal is not heated more than 1125° F. Heat measurements shall be made after the heating flame had been removed from the steel.

- When small adjustments are required to correct sweep, the application of heat to a continuous strip along the appropriate flange edge for short lengths not to exceed twelve inches may be used. When flange thickness exceeds 1-1/4 inches, both flange surfaces shall be heated concurrently.

- Heating to increase or decrease camber may be done with the girder web in the vertical position at any time after the web to flange welds are completed.
- If the girder is to be heated with the web in the vertical position:
 - a. Support the girder at each end.
 - b. Supply a catch block to prevent too much downward vertical movement.
 - c. Secure the girder to prevent lateral movement.
- For minor camber adjustments, a strip along the outside surface of the flange where it intersects the web shall be heated at predetermined locations.
- V type heats shall be used to increase/decrease camber when the required correction exceeds ¼ inch. V type heat patterns shall have a base not exceeding ten inches in length and the tip shall not exceed 75% of the web depth.

07755
~~076-07756~~

VT-06062 Contract #BHF 0200 (9), Bridge #36 Improvement

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS

W2 - METRIC

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION

WELDING PROCESS

MANUAL OR MACHINE

POSITION OF WELDING

FILLER METAL SPECIFICATION

WELD METAL CLASSIFICATION

WIRE/FLUX

POLARITY

ROOT TREATMENT

PREHEAT AND INTERPASS TEMPERATURE

ELECTRICAL STICK-OUT

SHIELDING GAS

ASTM A709 GRADES: 250, 345, 345W

SHIELDED METAL ARC WELDING

MANUAL

ALL (EXCEPT AS NOTED BELOW)

AWS A5.1 AND A5.5

E7018/E7028 (TACKING ONLY) AND E8018-C3

D.N.A.

DC+ OR AC

MANUAL CLEANING

SEE PREHEAT CHART

D.N.A.

D.N.A.

REVISED: 7/27/98

ORIGINAL ISSUE: 4/9/96

PASS NO.	WIRE SIZE (mm)	CURRENT RANGE E7018		TRAVEL SPEED (mm/min)	JOINT DETAIL
		DC+	AC		
1	3.2	90-150	110-170	152-228	TACK WELDS
1	4.0	120-190	135-225	203-330	GROOVE ROOT PASSES AND TACK WELDS

PASS NO.	WIRE SIZE (mm)	CURRENT RANGE E7028		TRAVEL SPEED (mm/min)	JOINT DETAIL (LIMITED TO FLAT AND HORIZONTAL TACK WELDS AND FLAT POSITION GROOVE ROOT PASSES)
		DC+	AC		
1	4.0	170-240	180-270	203-330	GROOVE ROOT PASSES AND TACK WELDS

PASS NO.	WIRE SIZE (mm)	CURRENT RANGE E8018-C3		TRAVEL SPEED (mm/min)	JOINT DETAIL
		DC+	AC		
1	4.0	130-190	140-225	203-330	GROOVE ROOT PASSES, REPAIR WELDS AND TACKS
ALL	4.0	130-190	140-225	203-330	FILLET WELDS
ALL	4.8	180-270	210-290	228-381	FILLET WELDS (FLAT AND HORIZONTAL WELDS ONLY)
ALL	4.8	250-330	270-370	228-406	FILLET WELDS (FLAT AND HORIZONTAL WELDS ONLY)

• WELD SIZE DETERMINED BY TRAVEL SPEED

TRANS RECEIVED

07855

SEP 12 2006

✓

9-12-06

VT-06062 Contract #BHF 0200 (9), Bridge #36 Improvement

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS

W6-METRIC

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION_____ASTM A709 GRADES: 250, 345, 345W

WELDING PROCESS_____FLUX CORE ARC WELDING

MANUAL OR MACHINE_____SEMI-AUTOMATIC OR MACHINE

POSITION OF WELDING_____1F, 2F, 3F, 4F

FILLER METAL SPECIFICATION_____AWS A5.20

WELD METAL CLASSIFICATION_____E71T-1

WIRE/FLUX_____HOBART FORMULA XL 550 (H4)

WIRE DIAMETER_____1.4 mm

SINGLE OR MULTIPLE ARC_____SINGLE ARC

POLARITY_____DC+

ROOT TREATMENT_____MANUAL CLEANING

PREHEAT AND INTERPASS TEMPERATURE_____SEE PREHEAT CHART

ELECTRICAL STICK-OUT_____19.1 mm

SHIELDING GAS_____100% CO2

REVISED:

ORIGINAL ISSUE: 5/3/06

PASS NO.	AMPS	VOLTS	TRAVEL SPEED (mm/MIN.)	GAS FLOW (l/MIN.)	JOINT DETAIL
ALL	225-250	25.0-27.0	375-419	19-24	ALL POSITION TACK WELDS

USED FOR:

ALL POSITION TACK WELDS

PREHEAT NOT REQUIRED FOR TACK WELDS REMELTED BY THE SAW PROCESS

PROCEDURE QUALIFICATION RECORD AWS-06-02 (EXPIRES 4/27/11)

VT-06062 Contract #BHF 0200 (9), Bridge #36 Improvement

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS

W34X - METRIC

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION

WELDING PROCESS

MANUAL OR MACHINE

POSITION OF WELDING

FILLER METAL SPECIFICATION

WELD METAL CLASSIFICATION

WIRE/FLUX

WIRE DIAMETER

SINGLE OR MULTIPLE ARC

POLARITY

ROOT TREATMENT

PREHEAT AND INTERPASS TEMPERATURE

ELECTRICAL STICK-OUT

SHIELDING GAS

ASTM A709 GRADES: 250, 345, 345W

SUBMERGED ARC WELDING

SEMI-AUTOMATIC OR MACHINE

2F

AWS A5.17

F7A2-EM12K

LINCOLN L61/761

2.4mm

SINGLE ARC

DC-

MANUAL CLEANING

SEE PREHEAT CHART

25.4mm

D.N.A.

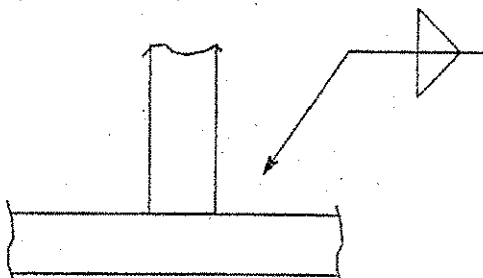
SEP 12 2006

REVISED: 5/5/03

ORIGINAL ISSUE: 3/4/96

PASS NO.	WELDING CURRENT			TRAVEL SPEED (mm/m)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	360-440	2.9-3.7	29.0-36.0	279-686	8mm FILLET WELD

PRIMARY USE:
STIFFENER TO WEB
(AND OTHER APPLICATIONS AS NEEDED)



AWS D1.5 FWST T-TEST-10

PROCEDURE QUALIFICATION RECORD AWS-FCM-02-4 (EXPIRES 6/27/07)

PROCEDURE QUALIFICATION RECORD AWS-FCM-02-5A (EXPIRES 7/16/07)

Z:\HS\JOBS\06062\wp1.dgn 09/11/06 08:36:22 AM

08055

VT-06062 Contract #BHF 0200 (9), Bridge #36 Improvement

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS

W44X - METRIC

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION

WELDING PROCESS

MANUAL OR MACHINE

POSITION OF WELDING

FILLER METAL SPECIFICATION

WELD METAL CLASSIFICATION

WIRE/FLUX

WIRE DIAMETER

SINGLE OR MULTIPLE ARC

POLARITY

ROOT TREATMENT

PREHEAT AND INTERPASS TEMPERATURE

ELECTRICAL STICK-OUT

SHIELDING GAS

ASTM A709 GRADES: 250, 345, 345W

SUBMERGED ARC WELDING

SEMI-AUTOMATIC OR MACHINE

2F

AWS A5.17

F7A2-EM12K

LINCOLN L61/761

2.4mm

SINGLE ARC

DC-

MANUAL CLEANING

SEE PREHEAT CHART

25.4mm

D.N.A.

DATE: 9-13-06

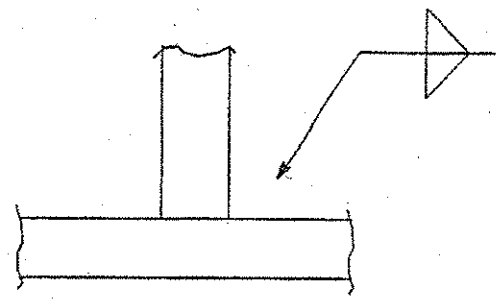
APPROVED: 

REVISED: 5/5/03

ORIGINAL ISSUE: 3/4/96

PASS NO.	WELDING CURRENT			TRAVEL SPEED (mm/m)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	360-440	2.9-3.7	29.0-36.0	279-686	8mm FILLET WELD

PRIMARY USE:
STIFFENER TO FLANGE
(AND OTHER APPLICATIONS AS NEEDED)



AWS D1.5 FWST T-TEST-10

PROCEDURE QUALIFICATION RECORD AWS-FCM-02-4 (EXPIRES 6/27/07)

PROCEDURE QUALIFICATION RECORD AWS-FCM-02-5A (EXPIRES 7/16/07)

VERMS
RECEIVED
DATE 9-13-56

CHK'D BY JAC

SEP 12 2006

RECORDED ✓

DATE 9-13-56

MINIMUM PREHEAT AND INTERPASS TEMPERATURE

SHIELDED METAL-ARC WELDING WITH LOW
HYDROGEN ELECTRODES, OR SUBMERGED ARC
WELDING, OR FLUX CORED ARC WELDING

THICKNESS OF THICKEST PART AT POINT OF WELDING - (mm)	ASTM A-36, A-572, AND A-588 M183, M223, AND M222 ASTM A709, GRADE 36 (250) ASTM A709, GRADE 50 (345) ASTM A709, GRADE 50W (345W)
TO 19.1, INCL.	10°C
OVER 19.1 TO 38.1, INCL.	20°C
OVER 38.1 TO 63.5, INCL.	65°C
OVER 63.5	118°C

THE MAXIMUM PREHEAT TEMPERATURE SHALL NOT EXCEED 232°C.
THE MAXIMUM INTERPASS TEMPERATURE SHALL NOT EXCEED 288°C.

REFER TO THE FOLLOWING CHART FOR EQUIVALENT STEEL TYPES.

ASTM A-36 and A-709 GRADE 36 and AASHTO M183
ASTM A-572 and A-709 GRADE 50 and AASHTO M223
ASTM A-588 and A-709 GRADE 50W and AASHTO M222

CONTACT QUALITY CONTROL FOR PREHEAT REQUIREMENTS ON ANY STEEL
NOT SPECIFICALLY NOTED ABOVE

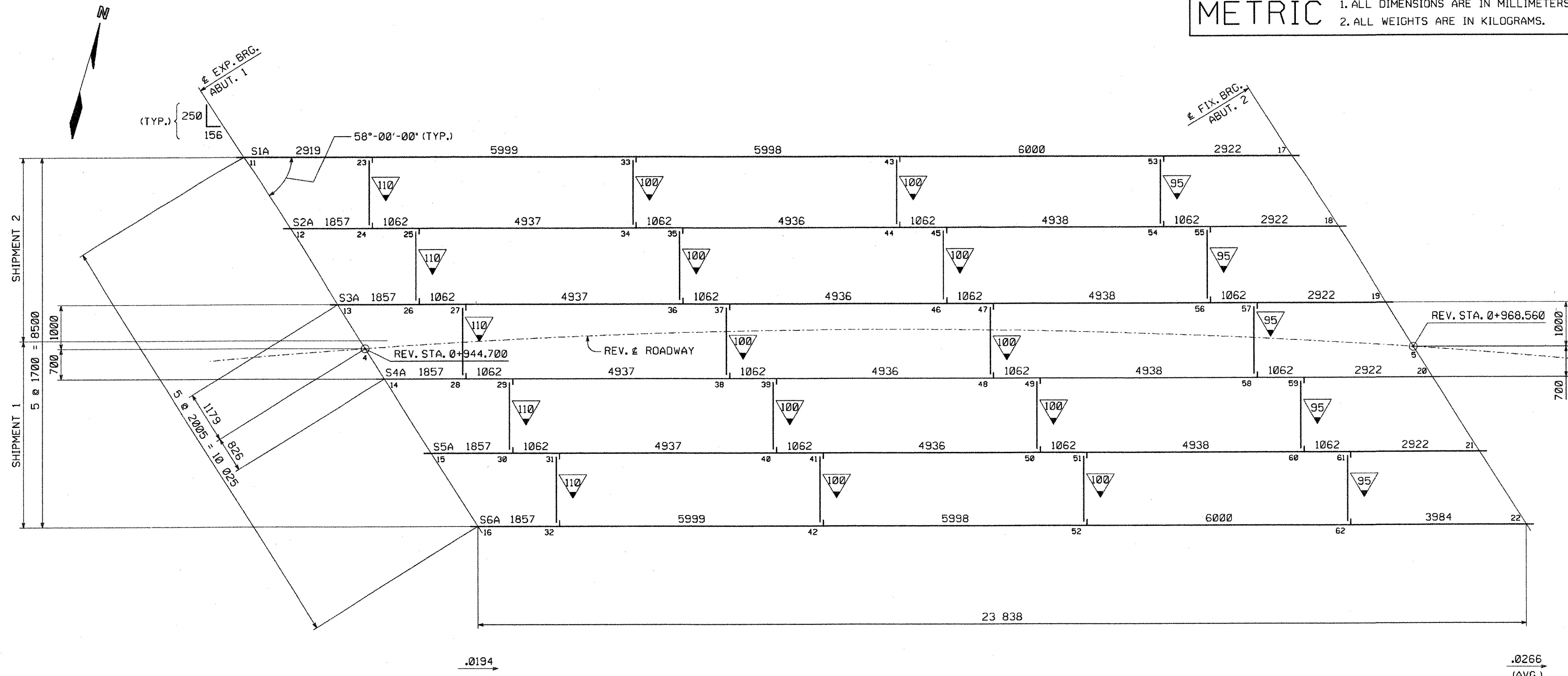
REVISED:

ORIGINAL ISSUE: 3/4/96

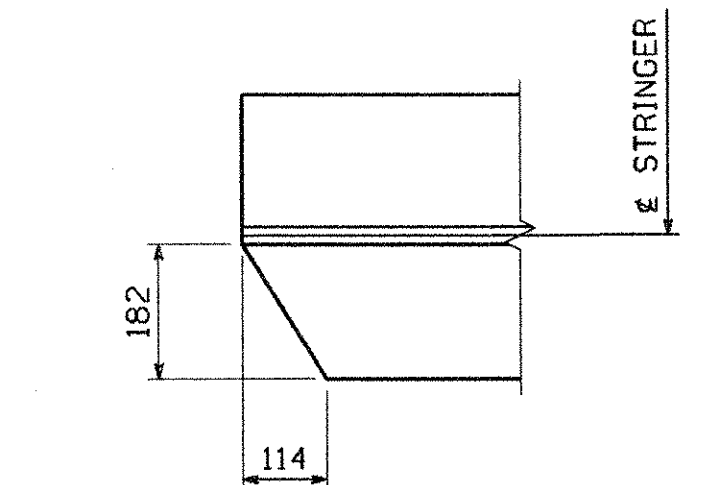
08255

METRIC 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

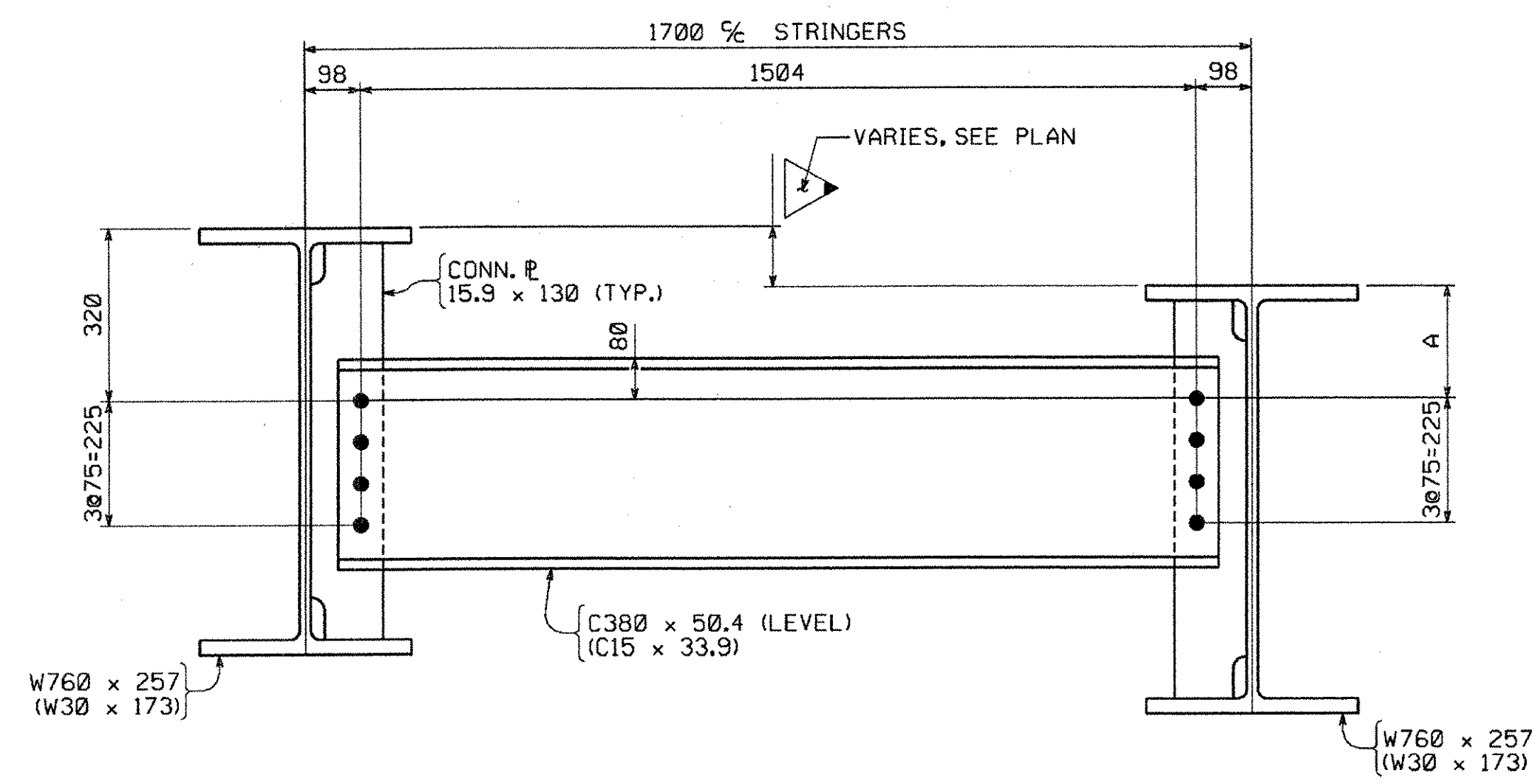
FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
	VT	



CALCULATION PLAN



TOP & BOTT. FLG. CLIP
(ABUT. 1 SHOWN, ROTATE 180° FOR ABUT. 2)



INTERMEDIATE DIAPHRAGM LAYOUT
(LOOKING STATIONS AHEAD)

110	210
100	220
95	225

NOTES:
DIMENSIONS ON PLAN ALONG STRINGERS ARE GIVEN TO THE CHORD AT THE BOTTOM OF STRINGER IN FULLY CAMBERED POSITION. ALL OTHER DIMENSIONS ARE GIVEN HORIZONTALLY.
DIMENSIONS PLACED ON THE STRINGER LINES REPRESENT DIAPHRAGM SPACING. FIGURES GIVEN THUS: 11.79 ARE THE GRADES OF THE STRINGERS AT THE BEARINGS IN FINAL POSITION; ARROW POINTS DOWNGRADE.
ALL STIFFENER AND CONNECTION PLATE SPACINGS ARE GIVEN TO $\pm$ PLATE. ENDS OF STRINGERS TO BE VERTICAL IN FINAL POSITION.
ALL STEEL TO BE AASHTO M270M GRADE 345W (U.N.).
ALL FIELD CONNECTIONS TO BE MADE WITH $\frac{7}{8}$ " H.S. (AASHTO M164 TYPE 3) BOLTS IN $\frac{1}{2}$ " HOLES (U.N.).
FIGURES GIVEN THUS: 10.025 ARE THE DIFFERENCES IN ELEVATIONS OF STRINGERS (IN THE PLANE OF THE DIAPHRAGM IN ERECTED POSITION) AT DIAPHRAGMS; ARROW POINTS TOWARD LOW STRINGER.
ALL STATIONS ARE GIVEN IN METERS.

****NOTE****
THE PURPOSE OF THIS DRAWING IS TO COORDINATE GEOMETRIC CONTROL INFORMATION. THIS DRAWING IS SUBMITTED FOR INFORMATION ONLY AND IS NOT INTENDED FOR SHOP FABRICATION. THIS DRAWING IS FOR REFERENCE ONLY, APPROVAL IS NOT REQUIRED.

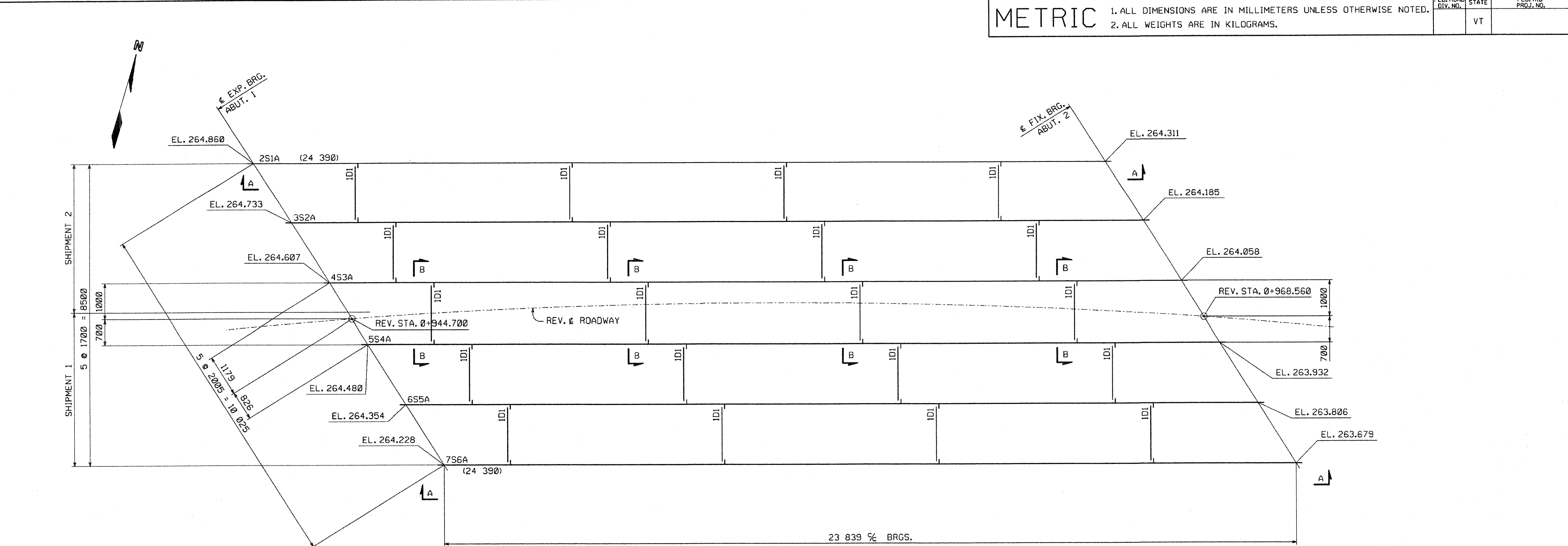
RECEIVED
CHK'D BY: *YHB* OK'D BY: _____
AUG 21 2006
RESUBMIT: _____ APPROVED: *A. H. H.*
BY: *WJH* DATE: 9/19/06

NO.	REVISION	BY	DATE
HIGH STEEL STRUCTURES, INC. <i>HS</i> 1770 Hensford Road Lancaster, PA 17605-0008 Phone 717/293-5228 A Division of High Industries, Inc.			
WORKSHEET - CALCULATION PLAN & LAYOUTS			
VT 17 OVER MILL BROOK			
VT 17 STA. 0+944.700 TO STA. 0+968.560			
TOWN OF FALSTON, WASHINGTON COUNTY, VT			
STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
STATE CONTRACT OR REF. NO. BRIDGE NO. 36			
CONTRACTOR WINTERSSET, INC.			
IN CHARGE: CHRISTMAN (IH) MADE BY: <i>ERS</i> CHK'D BY: <i>MCK</i> DATE: 8-4-06			
CONTRACT NUMBER: VT-06062-1&2 DRAWING NUMBER: WS1 OF WS1			

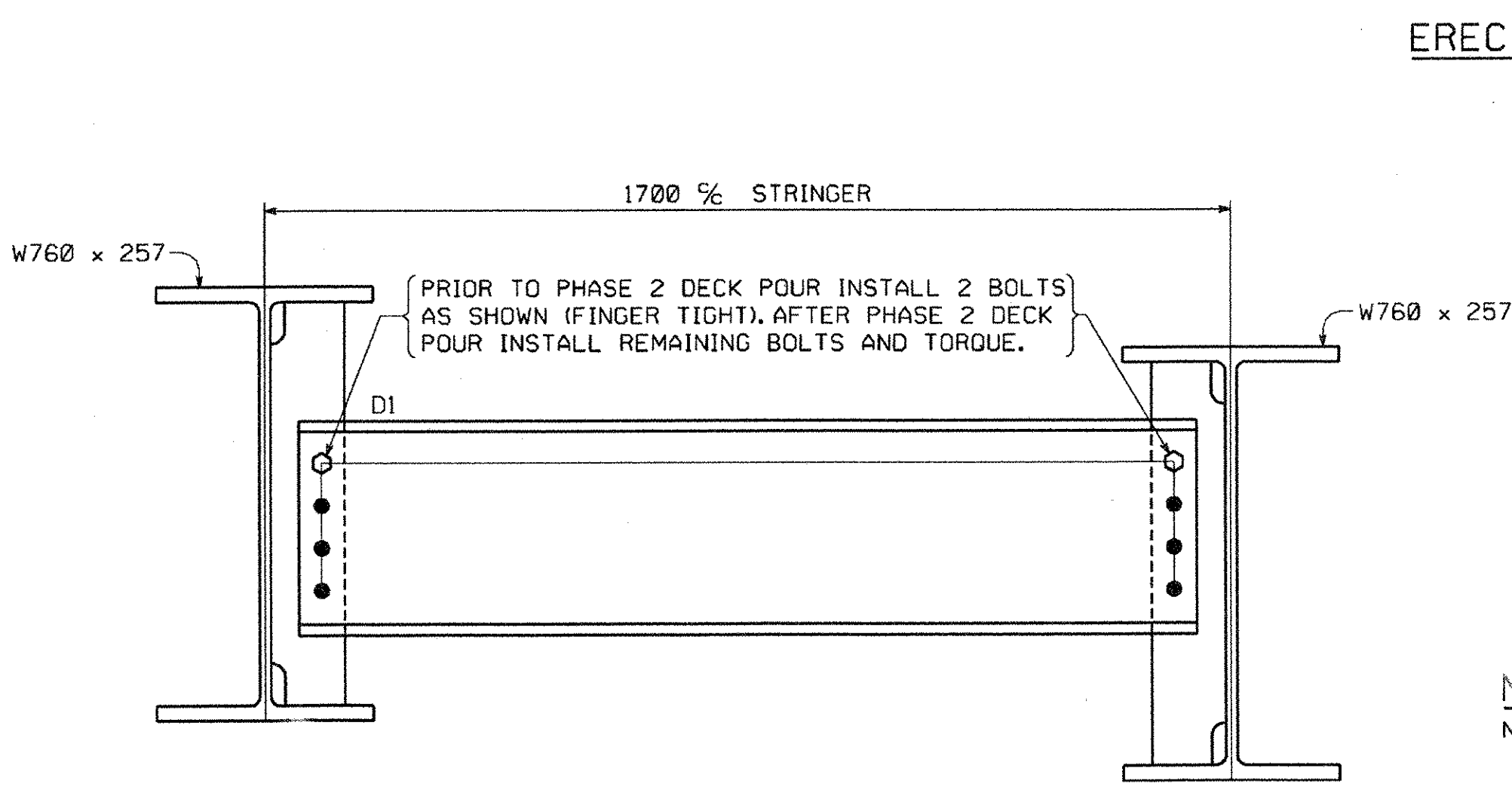
FAYSTON

METRIC

1
2

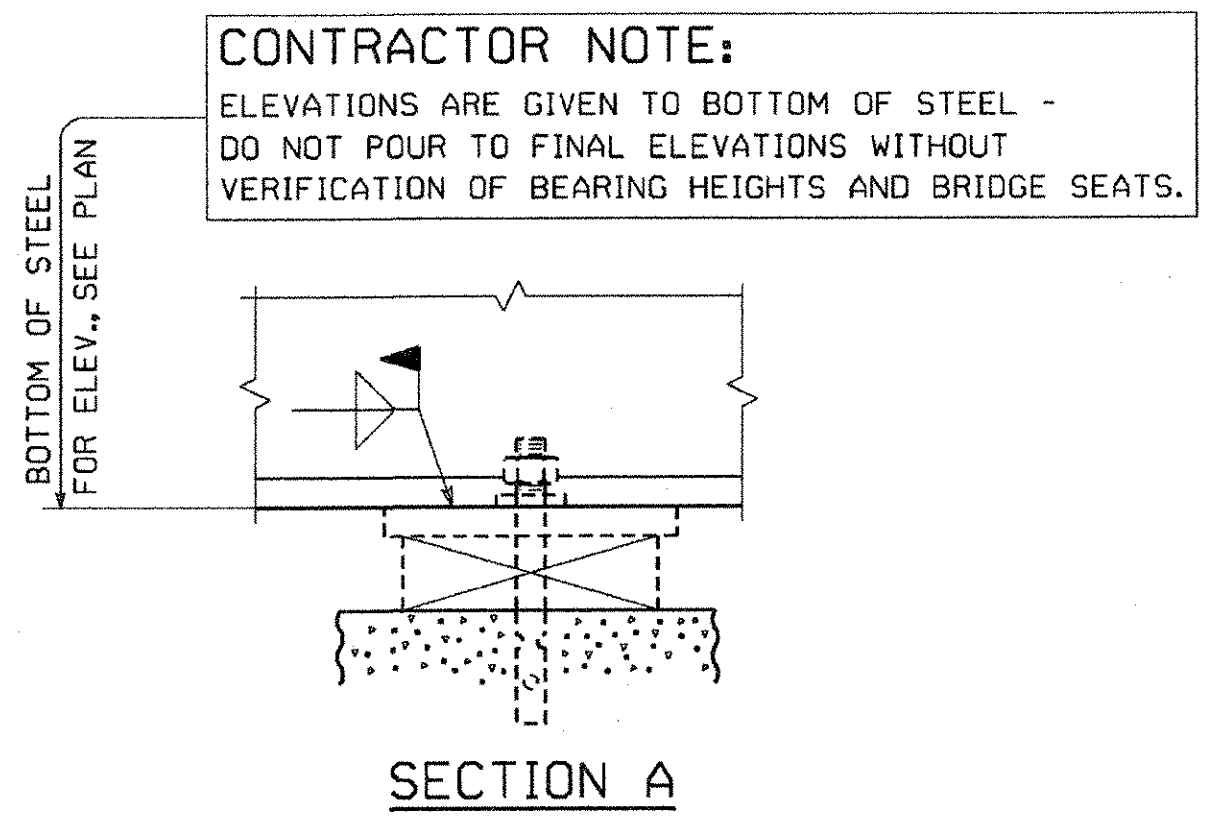


FIELD BOLT SUMMARY - SHIP. #1	
(2% ADDITIONAL BOLTS ADDED + 3 EA. FOR TESTING)	
AASHTO M164 TYPE 3 (RCT); W/HVY HEX HD & AASHTO M291 GRADE DH3 HEX NUT	
69	- 7/8" HIGH STRENGTH BOLTS x 0'-2 1/4
AASHTO M293 WEATHERING (RCT); ROUND & FLAT	
69	- STD WASHERS FOR 7/8" BOLT
FIELD BOLT SUMMARY - SHIP. #2	
(2% ADDITIONAL BOLTS ADDED + 3 EA. FOR TESTING)	
AASHTO M164 TYPE 3 (RCT); W/HVY HEX HD & AASHTO M291 GRADE DH3 HEX NUT	
101	- 7/8" HIGH STRENGTH BOLTS x 0'-2 1/4
AASHTO M293 WEATHERING (RCT); ROUND & FLAT	
101	- STD WASHERS FOR 7/8" BOLT



ERECTION FRAMING PLAN

SHIPPING WEIGHTS	
SHIPPING PIECE MARK	WEIGHT EA. (KG)
S1A	6,314
S2A	6,360
S3A	6,360
S4A	6,360
S5A	6,360
S6A	6,314



NOTES:
NO CREDIT WILL BE ALLOWED FOR WORK PERFORMED BY OTHERS IN REPLACING OR CORRECTING MATERIALS OR WORKMANSHIP COVERED BY THIS DRAWING UNLESS EXPRESSLY AUTHORIZED BY HIGH STEEL STRUCTURES, INC. HIGH STEEL STRUCTURES, INC. DOES NOT SUPPLY SHEAR STUDS, EXPANSION DAM MATERIAL, BEARING ASSEMBLIES INCLUDING PADS AND ANCHOR BOLTS, HOLES OR BOLTS FOR FLEMING BRACKETS. WORK THIS DRAWING WITH DRAWING E2.
NOTICE: WEIGHTS OF MEMBERS LISTED ON THESE DRAWINGS ARE ESTIMATED WEIGHTS AND ACTUAL WEIGHTS WILL VARY. HIGH STEEL STRUCTURES, INC. WILL NOT BE RESPONSIBLE FOR ANY ERECTION PROCEDURES, SHIPPING PROCEDURES, ETC. DEVELOPED USING ESTIMATED WEIGHTS AS SHOWN. ALL DIMENSIONS ARE GIVEN HORIZONTALLY (U.N.). ALL ELEVATIONS AND STATIONS ARE GIVEN IN METERS. DIMENSIONS GIVEN THUS: (24 390) ARE THE SHIPPING LENGTHS OUT TO OUT OF FASCIA STRINGERS. THE SHIPPING MARKS SHOWN CONSIST OF THE PREFIX INDICATING THE SHEET NUMBER UPON WHICH THE PIECE IS DETAILED ALONG WITH THE SHIPPING PIECE MARK. ALL FIELD CONNECTIONS TO BE MADE IN ACCORDANCE WITH THE FIELD BOLT SUMMARY AND LIST OF FIELD CONNECTIONS. (RCT) INDICATES ROTATIONAL CAPACITY TESTED BOLTS. DO NOT MIX NUTS, BOLTS AND WASHERS FROM DIFFERENT CONTAINERS UNLESS ALL NUTS, BOLTS AND WASHERS HAVE THE SAME LOT NUMBER.

SECTION B-B

LIST OF FIELD CONNECTIONS ~ SHIP. 1										ONE WASHER PER BOLT UNLESS NOTED OTHERWISE
LINE	ACTUAL NUMBER REQ'D	BOLT DIAM.	BOLT LENGTH	BOLTS PER CONN.	NO. OF CONN.	GRIP	THICKNESS OF PIECES JOINED		PIECES CONNECTED AND REMARKS	
1	64	7/8	2 1/4	4	16	25.9	10.0	15.9	DIAPHRAGM TO CONN. PLATE	
2										
LIST OF FIELD CONNECTIONS ~ SHIP. 2										ONE WASHER PER BOLT UNLESS NOTED OTHERWISE
LINE	ACTUAL NUMBER REQ'D	BOLT DIAM.	BOLT LENGTH	BOLTS PER CONN.	NO. OF CONN.	GRIP	THICKNESS OF PIECES JOINED		PIECES CONNECTED AND REMARKS	
1	96	7/8	2 1/4	4	24	25.9	10.0	15.9	DIAPHRAGM TO CONN. PLATE	
2										

SHOP DRAWING REVIEW	
☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.	☒ FURNISH AS CORRECTED
☐ REJECTED	☐ REVISE AND RESUBMIT
CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR: CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.	
VHB Vandaele Hargan Beutlin, Inc. Engineers, Planners, and Scientists One Bedford Farm, Kilton Rd. Bedford, NH 03110 603 844 0886	Job Number: 50549 Reviewed By: L.S. GARMER Date: 9/6/06

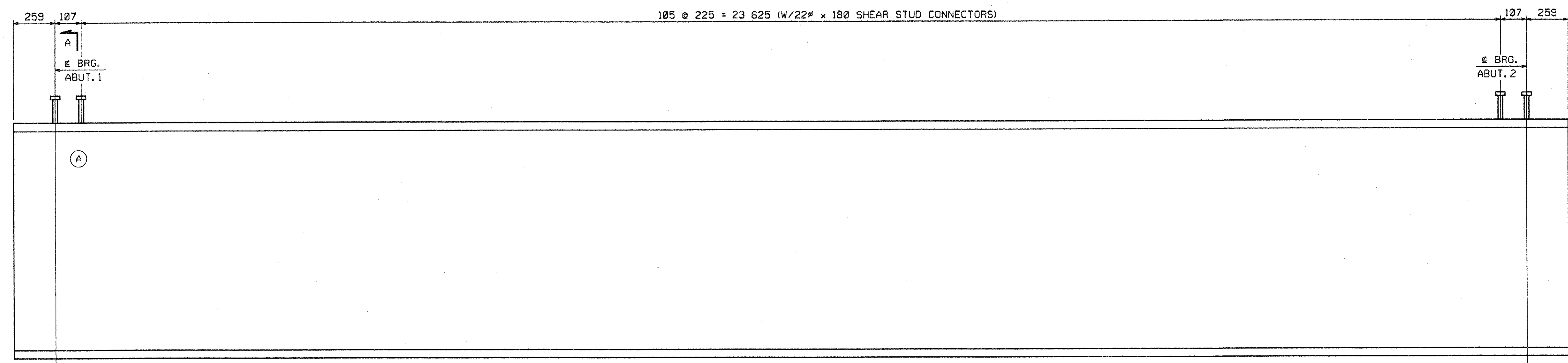
RECEIVED			
CHK'D BY: <i>WJH</i>	OK'D BY:	AUG 21 2006	
RESUBMIT BY: <i>WJH</i>	APPROVED: <i>WJH</i>	DATE: 9/6/06	
NO.	REVISION	BY	DATE
HIGH STEEL STRUCTURES, INC.  1770 Hempstead Road, Lancaster, PA 17602-0008, Phone 717/299-5221			
ERECTION FRAMING PLAN			
VT 17 OVER MILL BROOK			
VT 17 STA. 0+944.700 TO STA. 0+968.560			
TOWN OF FALSTON, WASHINGTON COUNTY, VT			
STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
STATE CONTRACT OR REF. NO. BRIDGE NO. 36			
CONTRACTOR WINTERSET, INC.			
IN CHARGE: CHRISTMAN (IH)	MADE BY: <i>ERS</i>	CHK'D BY: <i>WJH</i>	MKG DATE: 8-9-06
CONTRACT NUMBER: VT-06062-1&2		DRAWING NUMBER: E1 OF E2	

08453

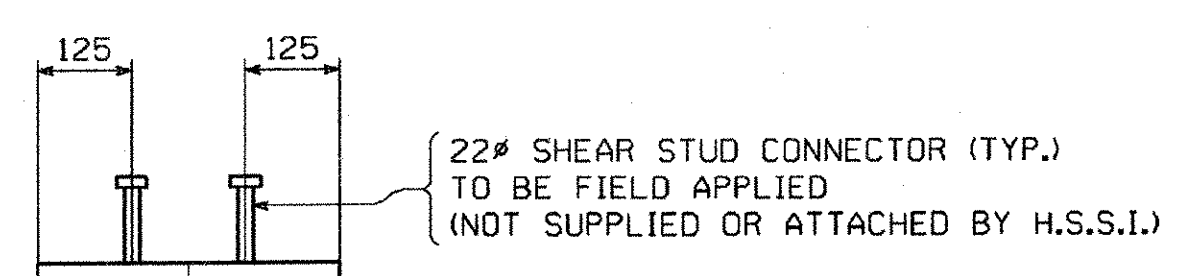
METRIC

METRIC 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
	VT	



SHEAR STUD CONNECTOR LOCATION LAYOUT



SECTION A

SHOP DRAWING REVIEW	
☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.	
☐ REJECTED	☒ REVISE AND RESUBMIT
CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR: CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.	
VHB Vinesse Hengen Bristlin, Inc. Engineers, Planners, and Scientists 25a Bedford Farms, Kilton Rd. Bedford, NH 05110 603 644 0883	Job Number: 50549 Reviewed By: L.S. GARANGER Date: 9/6/06

NOTES:
FOR NOTES, SEE DRAWING E1.
WORK THIS DRAWING WITH DRAWING E1.
(A) INDICATES SUFFIX MARK OF SHIPPING PIECE.

RECEIVED
OK'D BY: *VHB* OK'D BY: _____
AUG 21 2006
RESUBMIT: _____ APPROVED: *As noted*
BY: *WJH* DATE: 9/19/06

NO.	REVISION	BY	DATE

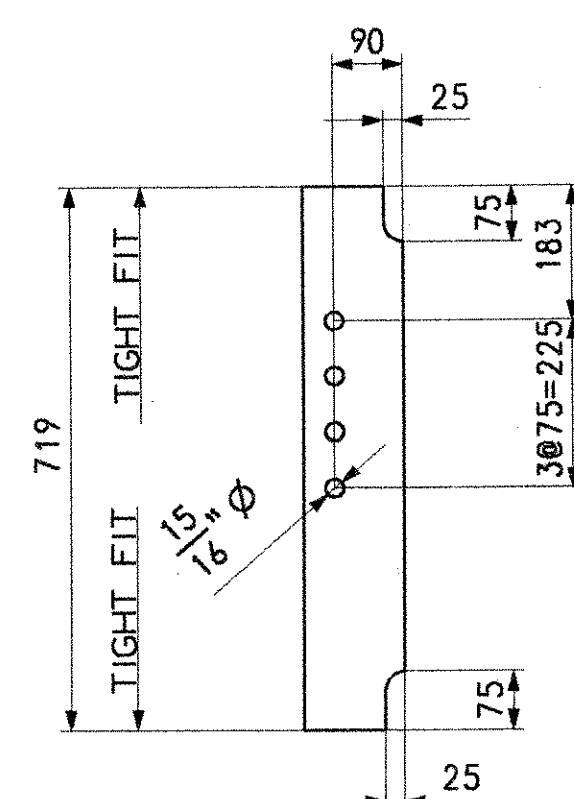
HIGH STEEL STRUCTURES, INC. **H**
1770 Hempstead Road
Lancaster, PA 17605-0008
Phone 717/299-5211
A Division of High Industries, Inc.

ERECTOR PLAN - STUD LAYOUTS
VT 17 OVER MILL BROOK
VT 17 STA. 0+944.700 TO STA. 0+968.560
TOWN OF FALSTON, WASHINGTON COUNTY, VT
STATE OF VERMONT
AGENCY OF TRANSPORTATION

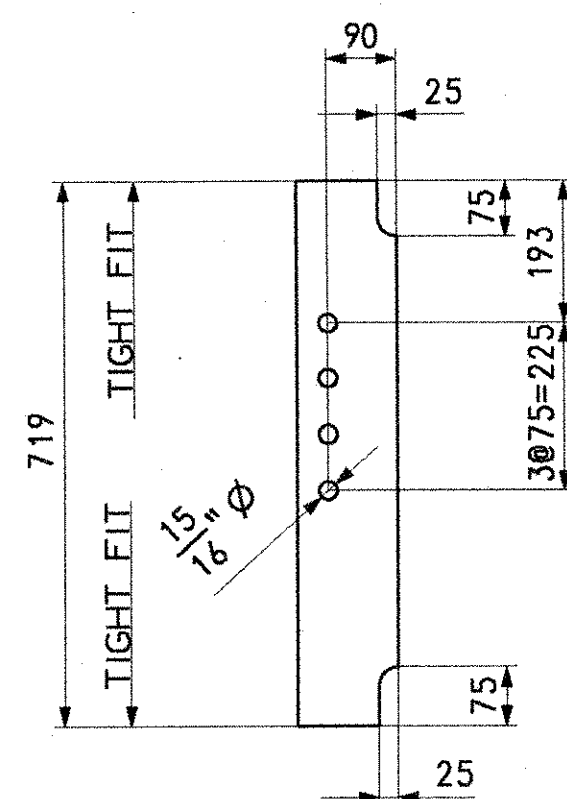
STATE CONTRACT OR REF. NO. BRIDGE NO. 36
CONTRACTOR WINTERSET, INC.
IN CHARGE: CHRISTMAN (IH) MADE BY: *ERS* CHK'D BY: MKK DATE: 8-9-06
CONTRACT NUMBER: VT-06062-1&2 DRAWING NUMBER: E2 OF E2

FAYSTON

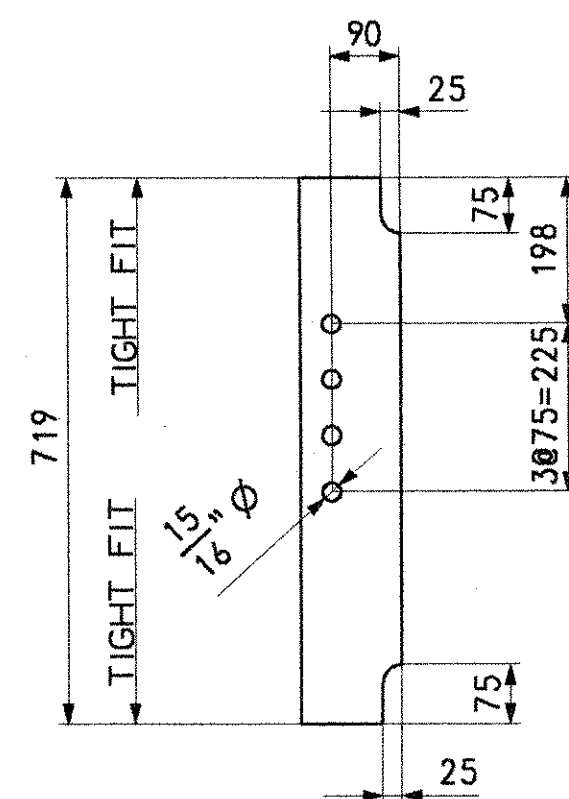
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PLOTTER: 88/10/06
183611 RM



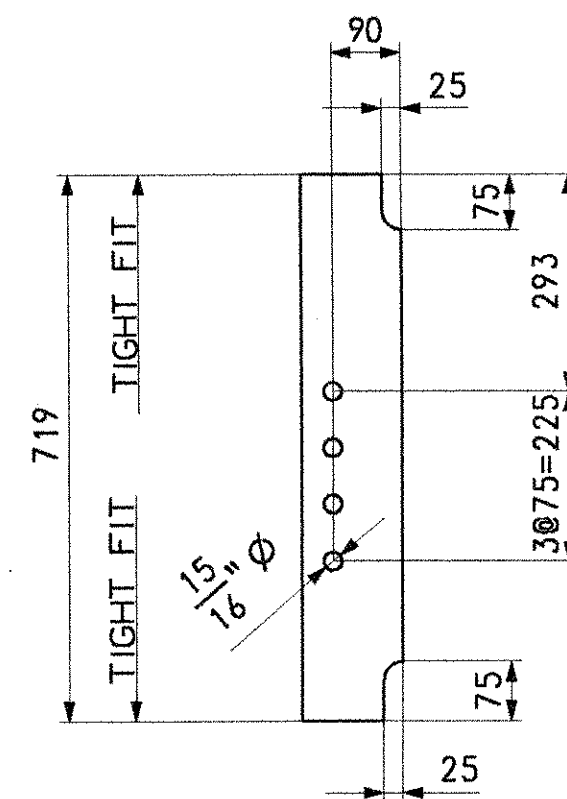
CONN. PLATE MK. z1a



CONN. PLATE MK. z1b



CONN. PLATE MK. z1c



CONN. PLATE MK. z1d

BILL OF MATERIAL

[illegible]

RECEIVED

OK'D BY YHB OK'D BY

AUG 21 2006

RESUBMIT _____ APPROVED As Noted
BY W. C. DATE 9/19/66

SHOP DRAWING REVIEW

☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS

☐ REVISIONS ☐ REVISE AND RESUBMIT ☐ FURNISH AS CORRECTED

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE INTENT AND CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING APPROPRIATE MATERIALS AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

NOTES:

HOLES: 15/16" Ø

BOLTS: NONE

PAINT: NONE

FOR GENERAL SHOP NOTES, SEE DWG. GN1.

CODE: 50

			
			
			
NO.	REVISION	BY	DATE

HIGH STEEL STRUCTURES, INC.



1770 Hempstead Road
Lancaster, PA 17605-0008
Phone 717/299-5211

A Division of High Industries, Inc.

STRINGER JOB STANDARDS

VT 17 OVER MILL BROOK

VT 17 STA. 0+944.700 TO STA. 0+968.560

TOWN OF FALSTON, WASHINGTON COUNTY, VT

STATE OF VERMONT

AGENCY OF TRANSPORTATION

STATE CONTRACT
OR REF. NO. _____ BRIDGE NO. 36

CONTRACTOR **WINTERSET, INC.**

IN CHARGE: CHRISTMAN (IH) MADE BY: ERS CHK'D. BY: MGK DATE: 8-7-0

CONTRACT	VT-04042-182	DRAWING	71 OF 72
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NUMBER: V1-06062-1&2 NUMBER: Z1 OF 22

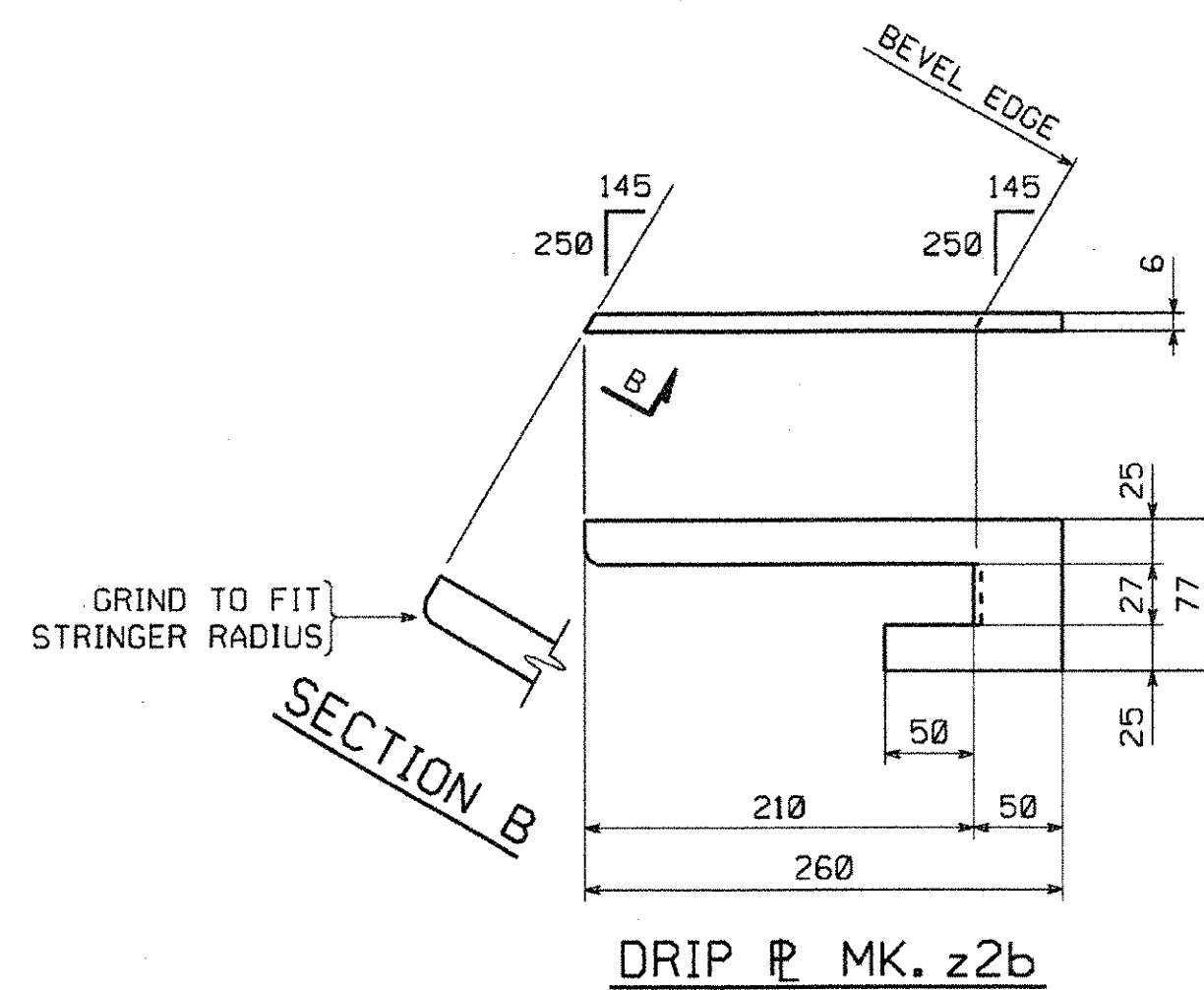
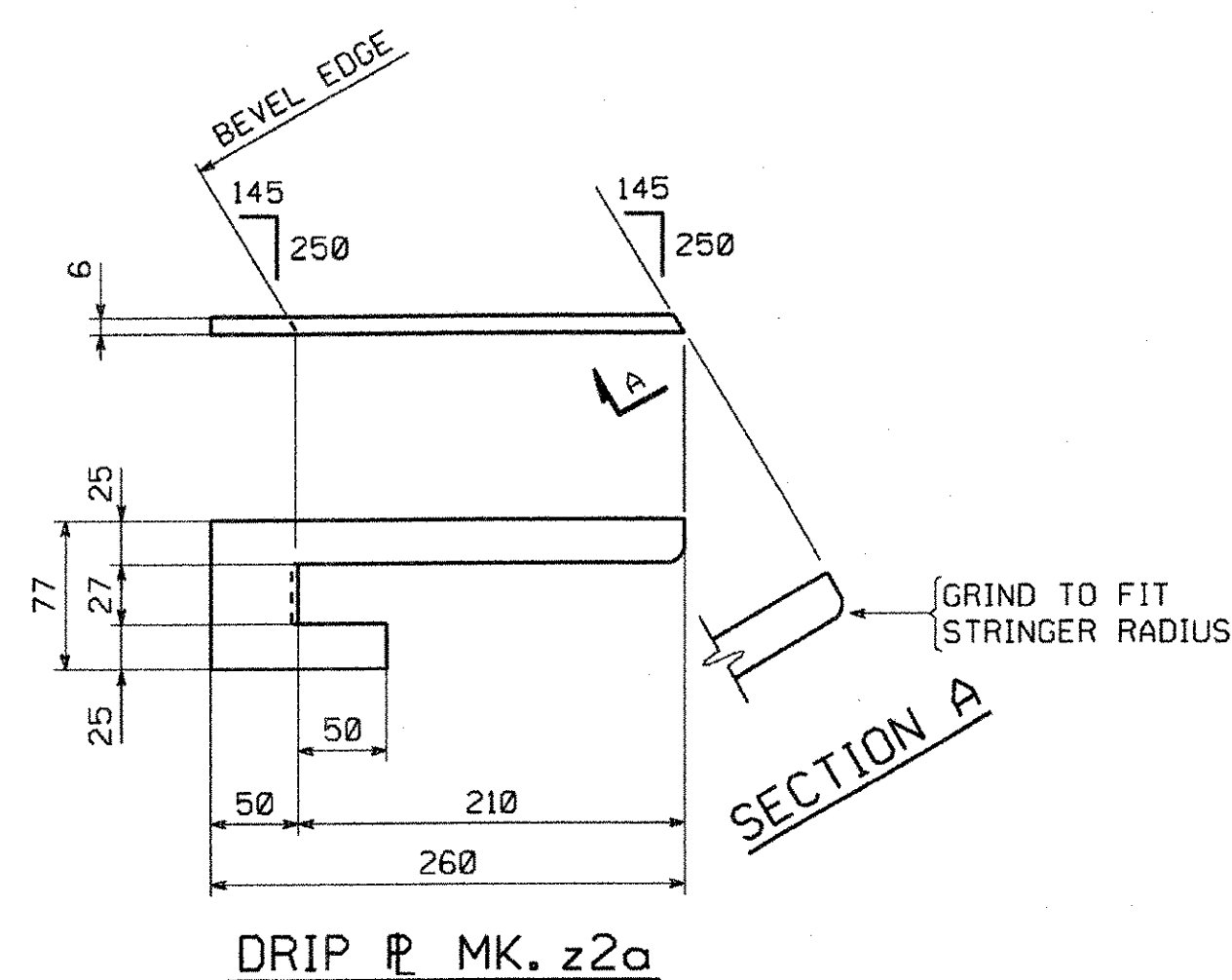
08659

METRIC

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
	VT	

BILL OF MATERIAL

[illegible]

SHOP DRAWING REVIEW

☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

☐ REJECTED ☐ REVERSE AND RESUBMIT ☒ FURNISH AS CORRECTED

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VHB Vanasse Hangen Brustlin, Inc.
Engineers, Planners, and Scientists
Six Bedford Farms, Kilton Rd.
Bedford, NH 03110 603 644 1000

Job Number: 50543
Reviewed By: L.S. GARDNER
Date: 9/6/06

SHOP NOTE

HOLES: NONE

BOLTS: NONE

PAINT: NONE

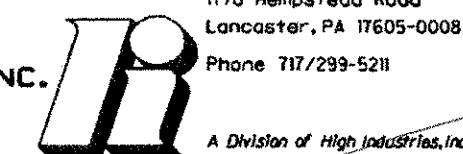
FOR GENERAL SHOP NOTES, SEE DWG. GN1.

CODE:50

RECEIVED
CK'D BY VHB CK'D BY _____
AUG 21 2006
RESUBMIT _____ APPROVED As Noted
BY WJH DATE 9/19/06

△			
△			
△			
NO.	REVISION	BY	DATE

HIGH STEEL STRUCTURES, INC.



1770 Hempstead Road
Lancaster, PA 17605-0008
Phone 717/299-5211

A Division of High Industries, Inc.

STRINGER JOB STANDARDS

VT 17 OVER MILL BROOK

VT 17 STA. 0+944.700 TO STA. 0+968.560

TOWN OF (FALSTON,) WASHINGTON COUNTY, VT

STATE OF VERMONT

AGENCY OF TRANSPORTATION

STATE CONTRACT
OR REF. NO. BRIDGE NO. 36

CONTRACTOR WINTERSET, INC.

IN CHARGE: CHRISTMAN (IH) MADE BY: *ERS* CHK'D. BY: MGK DATE: 8-7-06

CONTRACT NUMBER: VT-06062-1&2 DRAWING NUMBER: Z2 OF Z2

08755

METRIC

METRIC

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
	VT	

GENERAL SHOP NOTES

SPECIFICATIONS:

DESIGN SPECIFICATIONS: THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS: STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES

CONSTRUCTION SPECIFICATIONS: ALL MATERIAL AND WORKMANSHIP TO BE IN ACCORDANCE WITH THE STATE OF VERMONT, AGENCY OF TRANSPORTATION, STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001, WITH CURRENT MODIFICATIONS AND ADDITIONS.

NON-DESTRUCTIVE TESTING:

MAGNETIC PARTICLE INSPECTION IS REQUIRED ON AT LEAST 300 mm OF EVERY 3000 mm LENGTH OF FILLET WELDS AND 300 mm OF SUCH WELDS LESS THAN 3000 mm IN LENGTH ON CONNECTION PLATES TO WEB AND FLANGE WELDS. TESTING PER THE YOKE METHOD, USING DC.

MATERIAL:

UNLESS NOTED OTHERWISE, ALL STEEL TO BE AASHTO M270M GRADE 345W.
(T) INDICATES ZONE 2 CHARPY V-NOTCH TESTING REQUIRED.

CLEANING:

ALL STEEL TO BE BLAST CLEANED TO SSPC-SP10 (NEAR WHITE), AFTER FABRICATION.

PAINTING:

NO PAINT

SHOP PROCEDURE:

CAMBER TOLERANCE: -0 mm TO +19 mm
ALL RE-ENTRANT CUTS TO HAVE 25 MIN. RADIUS.
BEARING AREA, AS NOTED ON GIRDER DETAILS, INDICATES AREA THAT MUST BE FLAT AND TRUE TO RECEIVE SOLE PLATE.
ALL SHARP CORNERS AND EDGES THAT ARE MARRED, CUT OR ROUGHENED IN HANDLING SHALL BE GROUND TO 1.6 mm RADIUS.
ONLY LOW STRESS DIE STAMPS MAY BE USED FOR MARKING IN AREAS NOT EXPOSED ON THE FINISHED STRUCTURE.

INSPECTION:

SHOP INSPECTION BY THE VERMONT AGENCY OF TRANSPORTATION

WELDING:

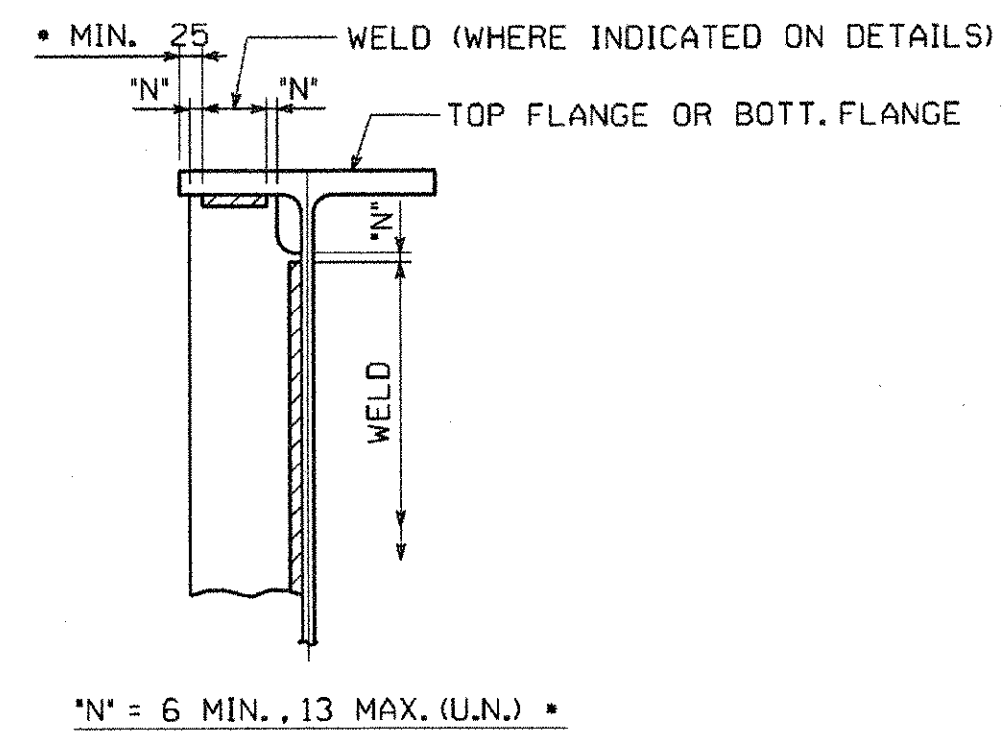
ALL WELDING IS TO CONFORM TO AWS D1.5-02.
WELDING METHODS, PROCEDURES, AND MATERIALS SHALL COMPLY WITH THE SPECIFIC PROCEDURE DESIGNATED IN THE WELD SYMBOL TAIL.
FOR WELDING STIFFENERS AND CONNECTION PLATES TO STRINGERS, SEE TYPICAL WELDING DETAIL.

IDENTIFICATION OF HOLE PLACEMENT:

UNLESS NOTED OTHERWISE, BOLT HOLES IN MATERIAL 16mm OR LESS IN THICKNESS MAY BE CNC (COMPUTER NUMERICALLY CONTROLLED) PUNCHED OR CNC DRILLED FULL SIZE UNASSEMBLED. ALL MATERIAL THICKER THAN 16mm IS TO BE DRILLED.

DRAWING REFERENCE:

STRINGER JOB STANDARDS -PREFIXED 'Z'
WELDING PROCEDURE -PREFIXED 'WP'



STIFFENER WELDING DETAIL
• WELDS MUST STOP 25 MINIMUM FROM EDGE OF FLANGE

RECEIVED
CK'D BY VHB OK'D BY _____
AUG 21 2006
RESUBMIT _____ APPROVED As Noted
BY WJH DATE 9/18/06

△			
△			
△			
NO.	REVISION	BY	DATE
HIGH STEEL STRUCTURES, INC. 1770 Hempstead Road Lancaster, PA 17609-0008 Phone 717/299-5201 A Division of High Industries, Inc.			
GENERAL SHOP NOTES			
VT 17 OVER MILL BROOK			
VT 17 STA. 0+944.700 TO STA. 0+968.560			
TOWN OF FALSTON, WASHINGTON COUNTY, VT			
STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
STATE CONTRACT BRIDGE NO. 36			
OR REF. NO.			
CONTRACTOR WINTERSET, INC.			
IN CHARGE: CHRISTMAN (IH) MADE KMA CHK'D: SJA DATE: 7-27-06			
CONTRACT NUMBER: VT-06062-1&2 DRAWING NUMBER: GN1 OF GN1			

FAYSTON

SHOP DRAWING REVIEW	
☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.	
☐ REJECTED	☐ REVISE AND RESUBMIT
☒ FURNISH AS CORRECTED	
CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR: CONFIRMING AND CORRELATING ALL QUANTITIES AND DIMENSIONS; SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION; COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES; AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.	
Vanessa Hengen Brustlin, Inc. Engineers, Planners, and Scientists 36 Bedford Farms, Bedford Rd. Bedford, NH 05110 603 644 0308	Job Number: <u>5054-3</u> Reviewed By: <u>L.S. GARDNER</u> Date: <u>9/6/06</u>

BY: Mkreisel
PLOTED: 09/19/06 10:36:25 AM



RECEIVED
CK'D BY VAB CK'D BY _____
AUG 21 2006
RESUBMIT _____ APPROVED As Notd
BY WAA DATE 9/19/06

NOTES:

CODE: 56

FAYSTON

BY: Mkreidel
PLOTTED: 08/10/06
10:36:36 AM

METRIC

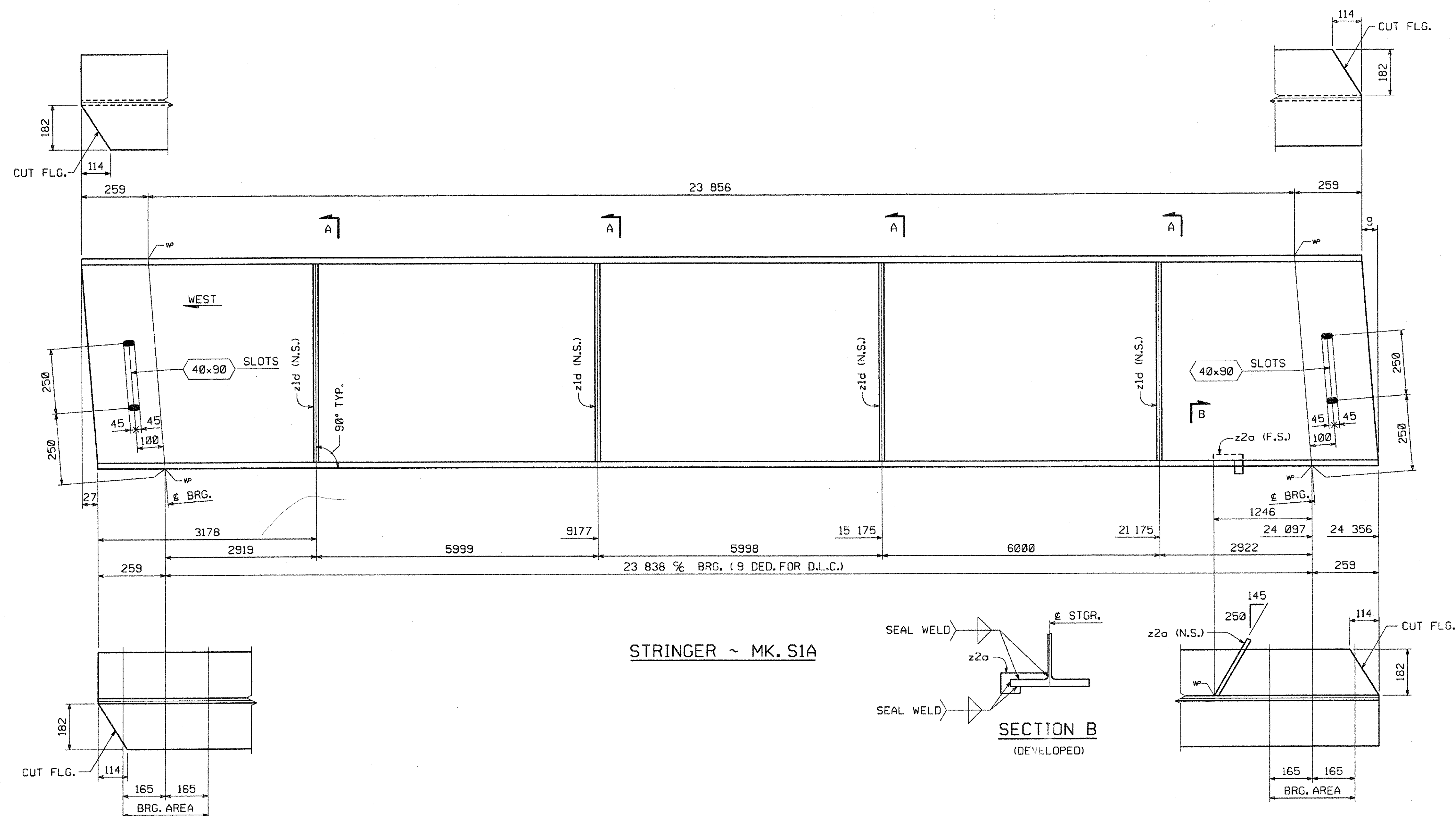
1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

D.	FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
		VT	

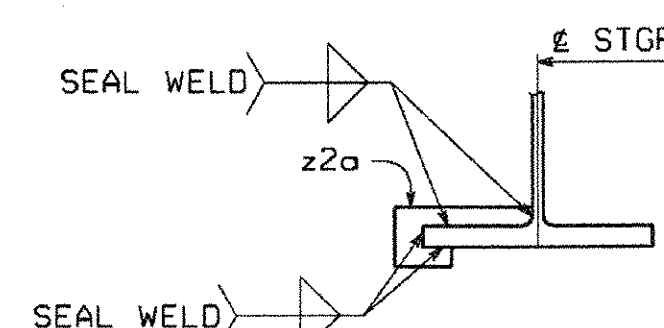
BILL OF MATERIAL

[illegible]

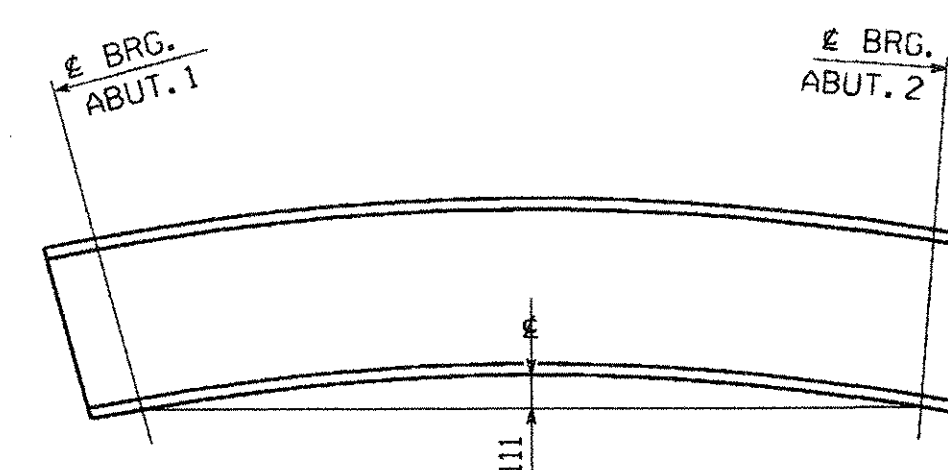
TOTAL WEIGHT THIS SHEET: 6314.10 kg



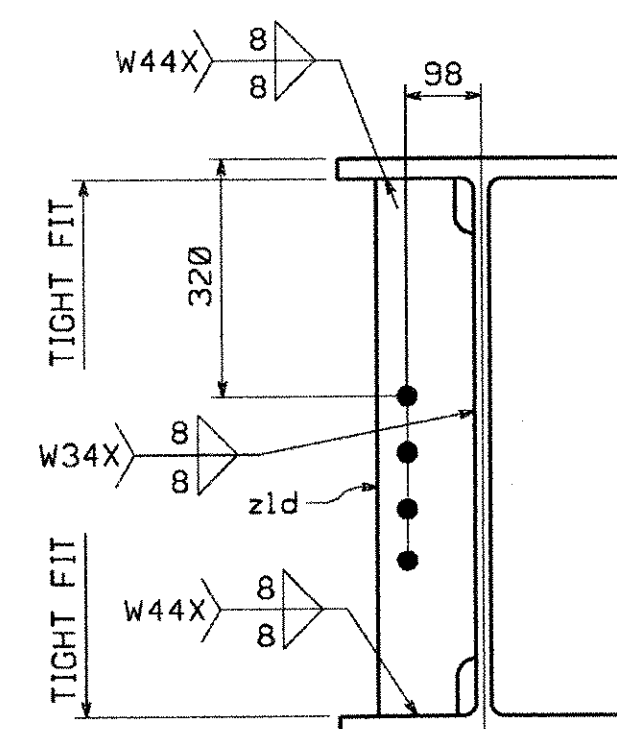
SECTION E
(DEVELOPED)



CAMBER DIAGRAM



SECTION A



SHOP DRAWING REVIEW

- ☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.
- ☐ REJECTED ☐ REUSE AND RESUBMIT ☒ FURNISH AS CORRECTED
- CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS DURING THIS REVIEW DO NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL CONFORMANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

VHB Vanasse Hangen Brustlin, Inc.
Engineers, Planners, and Scientists
Six Bedford Farms, Kilton Rd.
Bedford, NH 03110 603 544 0868

Job Number: 50543
Reviewed By: L.S. GARDNER
Date: 9/6/06

SHOP NOTE

HOLES: $15/16"$ $\varnothing$ (U.N.)

BOLTS: NONE

PAINT: NONE

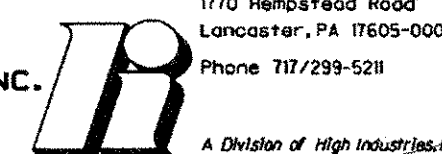
FOR GENERAL SHOP NOTES, SEE DWG. GN1.

CODE:50

RECEIVED
CK'D BY VHB CK'D BY _____
AUG 21 2006
RESUBMIT _____ APPROVED As Not
BY VHB DATE 9/19/06

△			
△			
△			
△			
NO.	REVISION	BY	DATE

HIGH STEEL STRUCTURES, INC.



A Division of High Industries

FAYSTON

STRINGER S1A

VT 17 OVER MILL BROOK

VT 17 STA. 0+944.700 TO STA. 0+968.560

TOWN OF FALSTON, WASHINGTON COUNTY, VT

STATE OF VERMONT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

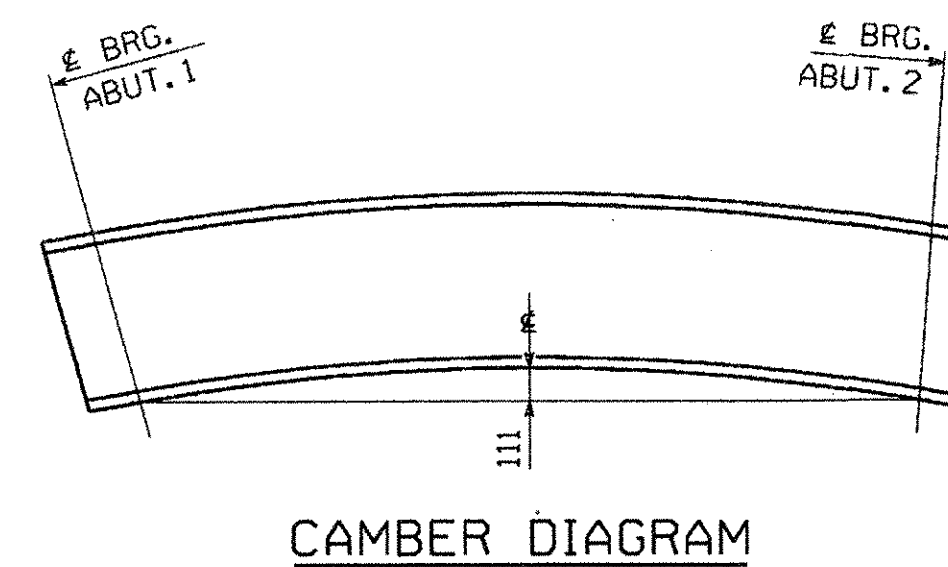
STATE CONTRACT
OR REF NO. BRIDGE NO. 36

OR REF. NO. _____ BRIDGE NO. 36
CONTRACTOR WINTERSET, INC.

IN CHARGE: CHRISTMAN (IH) MADE BY: *ERS* CHK'D. BY: MGK DATE: 8-9-06

CONTRACT NUMBER: VT-06062-2 DRAWING NUMBER: 2 OF 7

QTY EA	MARK	COMMODITY	DESCRIPTION	LENGTH	SPEC	GRADE	TEST	REMARKS	GRP.	ITEM	SHIP WEIGHT EA
1	S2A		STRINGER								6359.75
1		W	760 x 257	24 383	M270M	345W	T	(W30 x 173)	5	2	6266.43
1	z1a	PL	15.9 x 130	719	M270M	345W			8	1	11.67
2	z1b	PL	15.9 x 130	719	M270M	345W			8	1	23.33
1	z1c	PL	15.9 x 130	719	M270M	345W			8	1	11.67
4	z1d	PL	15.9 x 130	719	M270M	345W			8	1	46.66
TOTAL WEIGHT THIS SHEET:								6359.75 kg			



SHOP DRAWING REVIEW

☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

☐ REJECTED ☐ REWRITE AND RESUBMIT ☒ FURNISH AS CORRECTED

CORRECTIONS OR COMMENTS MADE ON THE SHOP DRAWINGS INDICATED THIS REVIEW DID NOT RELIEVE CONTRACTOR FROM COMPLIANCE WITH REQUIREMENTS OF THE DRAWINGS AND SPECIFICATIONS. THIS CHECK IS ONLY FOR REVIEW OF GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONSTRUCTION CONTRACT DOCUMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING AND CORRELATING ALL QUANTITIES AND DIMENSIONS, SELECTING FABRICATION PROCESSES AND TECHNIQUES OF CONSTRUCTION, COORDINATING HIS WORK WITH THAT OF ALL OTHER TRADES, AND PERFORMING HIS WORK IN A SAFE AND SATISFACTORY MANNER.

VHB Varnesse Hangen Brunstli, Inc.
Engineers, Planners, and Scientists
300 Eastfield Parkway, Suite 101
Boulder, CO 80511-0002 644-0888

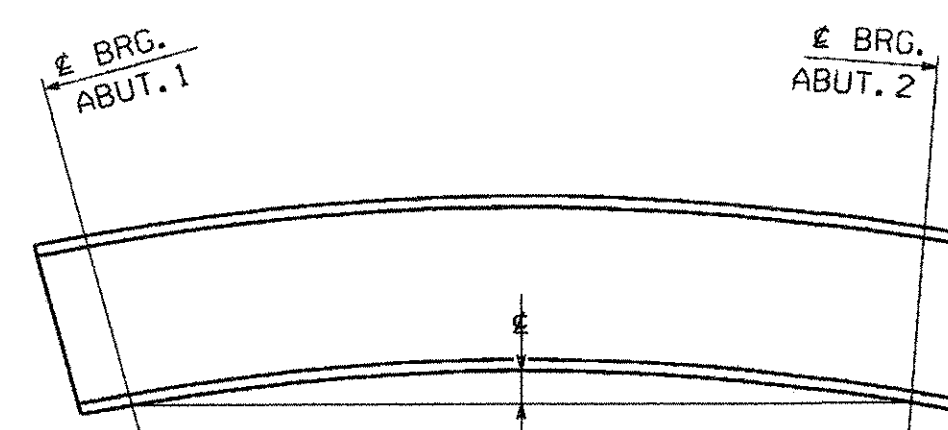
Job Number: 50547
Reviewed By: L.S. GARDNER
Date: 9/6/06

HOLES: 15/16"Ø (U.N.)
BOLTS: NONE
PAINT: NONE
 FOR GENERAL SHOP NOTES, SEE DWG. GN1.

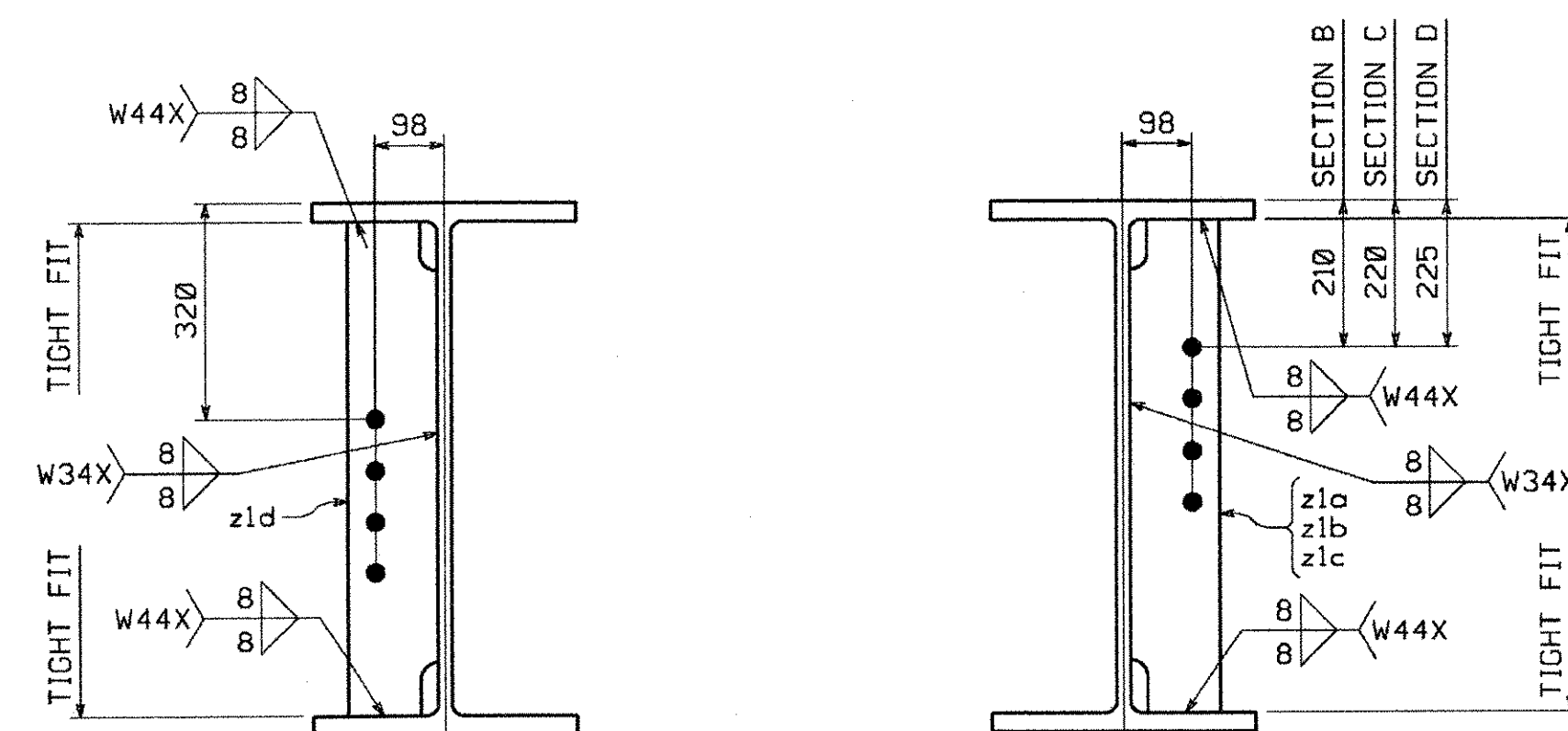
CK'D BY: <u>VHB</u> CK'D BY: _____ AUG 21 2006 RESUBMIT: _____ APPROVED: <u>As Not'd</u> BY: <u>WJF</u> DATE: <u>9/14/06</u>	
  	NO. _____ REVISION _____ BY _____ DATE _____ 1770 Hemstead Road Lancaster, PA 17605-0008 Phone 717/299-5211  A Division of Hoge Industries, Inc. STRINGER _____ SZA _____ VT 17 OVER MILL BROOK VT 17 STA. <u>0+944.700</u> TO STA. <u>0+968.560</u> TOWN OF FALSTON, WASHINGTON COUNTY, VT STATE OF VERMONT AGENCY OF TRANSPORTATION STATE CONTRACT OR REF. NO. <u>BRIDGE NO. 36</u> CONTRACTOR <u>WINTERSET, INC.</u> IN CHARGE: <u>CHRISTMAN (IH)</u> MADE BY: <u>ERS</u> CK'D BY: <u>MGK</u> DATE: <u>8-9-06</u> CONTRACT NUMBER: <u>VT-06062-2</u> DRAWING NUMBER: <u>3 OF 7</u>

BILL OF MATERIAL

QTY EA	MARK	COM/MODITY	DESCRIPTION	LENGTH	SPEC	GRADE	TEST	REMARKS	GRP.	ITEM	SHIP WEIGHT EA
1	S3A		STRINGER								6359.75
1		W	760 x 257	24 383	M270M	345W	T	(W30 x 173)	5	2	6266.43
1	z1a	PL	15.9 x 130	719	M270M	345W			8	1	11.67
2	z1b	PL	15.9 x 130	719	M270M	345W			8	1	23.33
1	z1c	PL	15.9 x 130	719	M270M	345W			8	1	11.67
4	z1d	PL	15.9 x 130	719	M270M	345W			8	1	46.66
TOTAL WEIGHT THIS SHEET:									6359.75 kg		



CAMBER DIAGRAM



SECTION A

SECTIONS B, C & D

SHOP DRAWING REVIEW

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VHB Vanasse Hangen Brustlin, Inc.
Engineers, Planners, and Scientists
Six Bedford Farms, Kilton Rd.
Bedford, NH 03110 603 244 0895

Job Number: 50543
Reviewed By: L. S. GARDNER
Date: 9/6/06

SHOP NOTE

HOLE: $15/16"$ $\varnothing$ (U.N.)

BOLTS: NONE

PAINT: NONE

FOR GENERAL SHOP NOTES, SEE DWG. GN1.

RECEIVED

CK'D BY VHB OK'D BY _____

AUG 21 2006

RESUBMIT _____ APPROVED *As Noted* _____

BY WJG DATE 9/19/10

11/1

HIGH STEEL STRUCTURES, INC

IC. *i* 1770 Hempstead Road
Lancaster, PA 17605-0001
Phone 717/299-5211
A Division of High Industries, Inc.

STRINGER

S3A

VT 17 OVER MILL BROOK

VT 17 STA. 0+944.700 TO STA. 0+968.560

TOWN OF FALSTON, WASHINGTON COUNTY, VT

STATE OF VERMONT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

STATE CONTRACT
OR REF NO. BRIDGE NO. 36

BRIDGE NO. 36

CONTRACTOR WINTERSET, INC.
IN CHARGE: CHRISTMAN (IH) MADE BY: ERS CHK'D. BY: MGK DATE: 8-9-06

IN CHARGE: CHRISTMAN (IH) MADE BY: ERS CHK'D BY: MGK DATE: 8-9-06
CONTRACT NUMBER: VT-06062-2 DRAWING NUMBER: 4 OF 7

CODE:50

09258

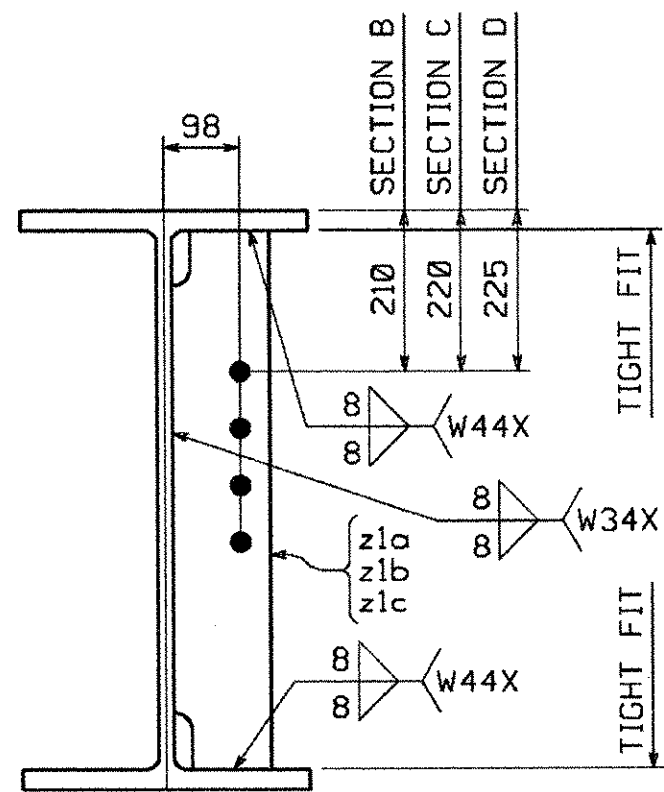
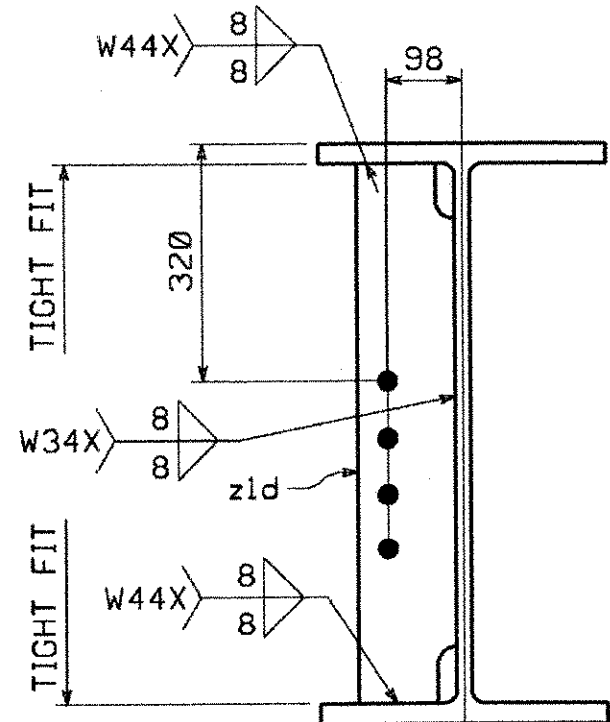
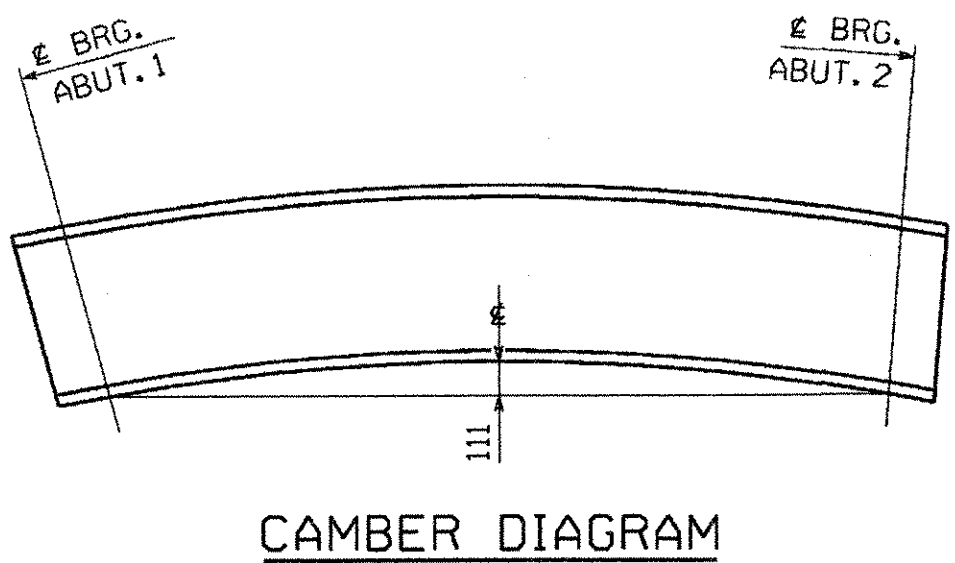
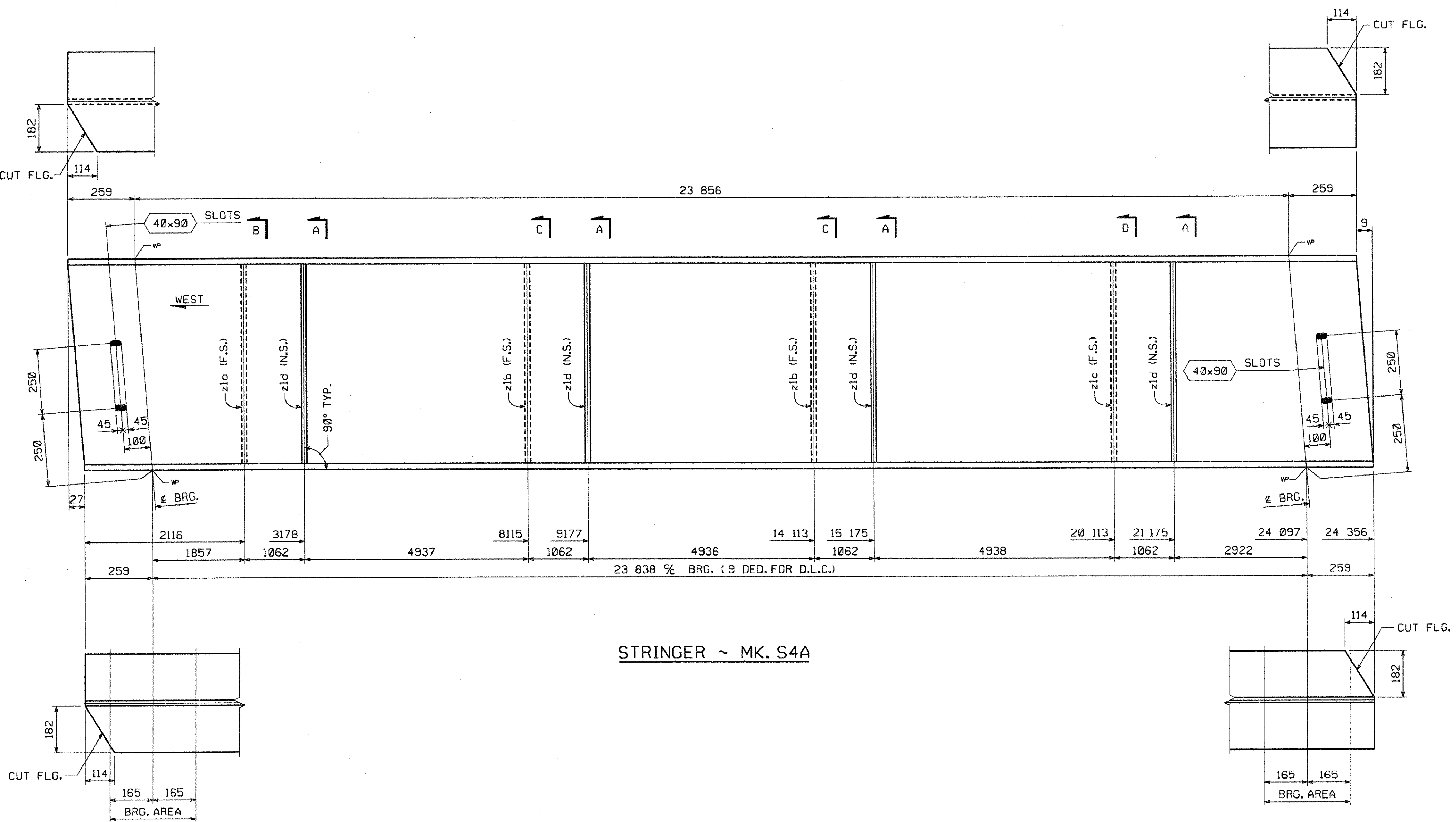
METRIC 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
	VT	

BILL OF MATERIAL

QTY EA.	MARK	COMMODITY	DESCRIPTION	LENGTH	SPEC	GRADE	TEST	REMARKS	GRP.	ITEM	SHIP WEIGHT EA.
1	S4A		STRINGER								6359.75
1		W	760 x 257	24 383	M270M	345W	T	(W30 x 173)	5	1	6266.43
1	z1a	PL	15.9 x 130	719	M270M	345W			8	1	11.67
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1	z1c	PL	15.9 x 130	719	M270M	345W			8	1	11.67
4	z1d	PL	15.9 x 130	719	M270M	345W			8	1	46.66

TOTAL WEIGHT THIS SHEET: 6359.75 kg



SHOP DRAWING REVIEW

☐ REVIEWED AS REQUIRED BY THE CONSTRUCTION CONTRACT DOCUMENTS AND APPROVED, BUT ONLY FOR CONFORMANCE TO THE DESIGN CONCEPT OF THE WORK, AND SUBJECT TO FURTHER LIMITATIONS AND REQUIREMENTS CONTAINED IN THE CONSTRUCTION CONTRACT DOCUMENTS.

☐ REJECTED ☐ REVISE AND RESUBMIT ☒ FURNISH AS CORRECTED

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VHB Versar Engineering Associates, Inc. Engineers, Planners, and Architects
Six Bedford Farms, Kilton Rd.
Bedford, NH 03110 603 544 0559

Job Number: 22549
Reviewed By: L.S. CARDNER
Date: 8/6/06

SHOP NOTE

HOLES: 1 5/8" (U.N.)

BOLTS: NONE

PAINT: NONE

FOR GENERAL SHOP NOTES, SEE DWG. GNI.

RECEIVED

CK'D BY: VHB OK'D BY: _____

AUG 21 2006

RESUBMIT _____ APPROVED: As Noted

BY: WJH DATE: 8/19/06

NO. REVISION BY DATE

HIGH STEEL STRUCTURES, INC. 1770 Hempstead Road
Lancaster, PA 17605-0008
Phone 717/299-5211
A Division of High Industries, Inc.

STRINGER S4A

VT 17 OVER MILL BROOK

VT 17 STA. 0+944.700 TO STA. 0+968.560

TOWN OF FALSTON, WASHINGTON COUNTY, VT

STATE OF VERMONT

AGENCY OF TRANSPORTATION

STATE CONTRACT OR REF. NO. BRIDGE NO. 36

CONTRACTOR WINTERSET, INC.

IN CHARGE: CHRISTMAN (IH) MADE BY: ERS CHK'D BY: MGK DATE: 8-9-06

CONTRACT NUMBER: VT-06062-1 DRAWING NUMBER: 5 OF 7

FAYSTON

PLOTTED: 08/10/06
 10:37:07 AM
 BY: Mkreidel

METRIC

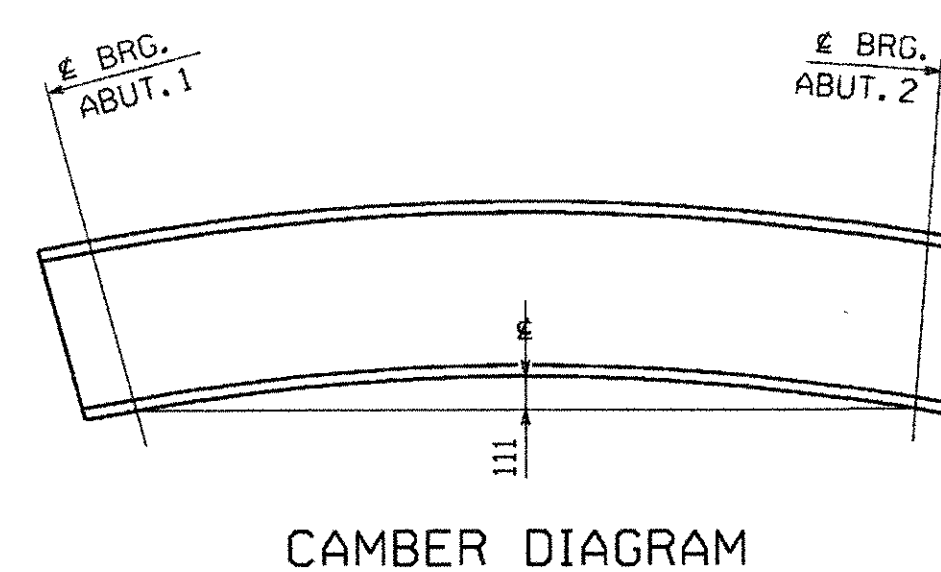
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FED. ROAD DIV. NO.	STATE	FED. AID PROJ. NO.
	VT	

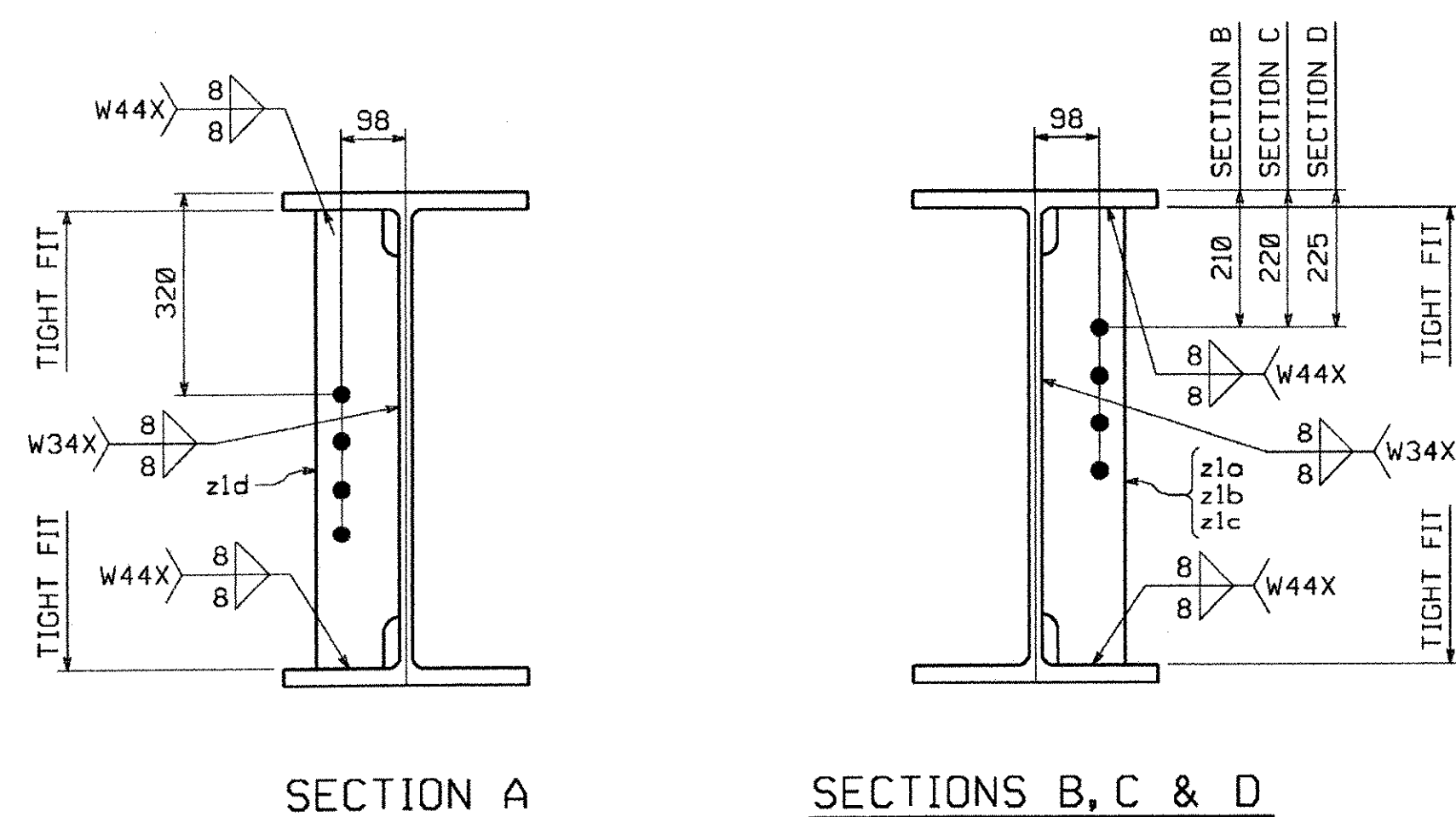
BILL OF MATERIAL

[illegible]

STRINGER ~ MK. S5A



CAMBER DIAGRAM



SECTION A

SECTIONS B, C & D

SHOP DRAWING REVIEW

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VHB Varasse Hangen Brustlin, Inc.
Engineers, Planners, and Scientists
Six Bedford Farms, Kilton Rd.
Bedford, NH 03110 603 844 0888

Job Number: 50543
Reviewed By: L.G. GARDNER
Date: 9/6/06

SHOP NOTE

HOLES: $15/16"$ Ø (U.N.)

BOLTS: NONE

PAINT: NONE

FOR GENERAL SHOP NOTES, SEE DWG. GN1.

RECEIVED

CK'D BY VHB OK'D BY _____

AUG 21 2006

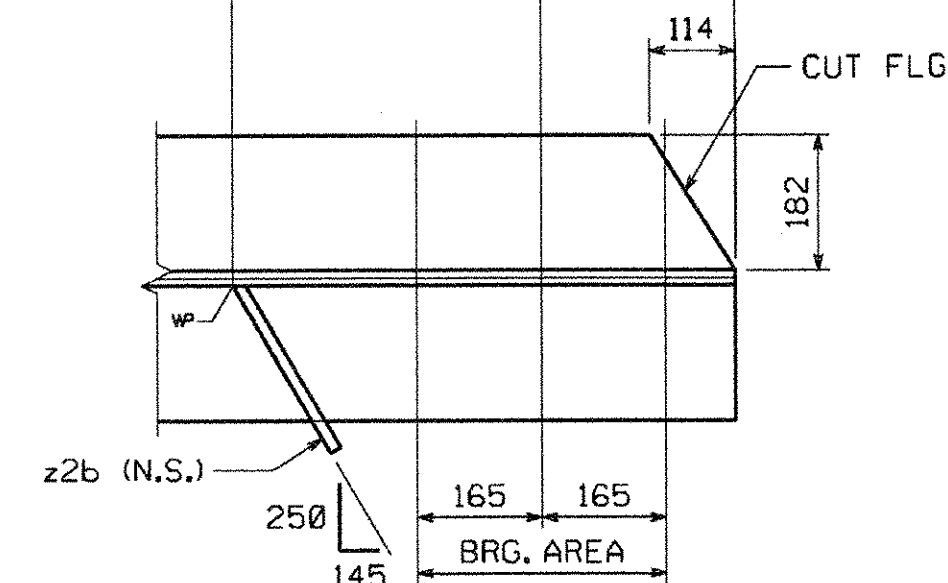
RESUBMIT _____ APPROVED As Noted
BY [Signature] DATE 9/19/06

			
			
			
NO.	REVISION	BY	DATE
HIGH STEEL STRUCTURES, INC. 		1770 Hempstead Road Lancaster, PA 17608-0008 Phone 717/299-5211 A Division of High Industries, Inc.	
STRINGER _____ SE			
VT 17 OVER MILL-BROOK			
VT 17 STA. 0+944.700 TO STA. 0+968.560			
TOWN OF FALSTON, WASHINGTON COUNTY, VT			
STATE OF VERMONT			
AGENCY OF TRANSPORTATION			
STATE CONTRACT OR REF. NO. _____ BRIDGE NO. 36			
CONTRACTOR WINTERSET, INC.			
IN CHARGE:	CHRISTMAN (IH)	MADE BY: <i>ERS</i>	CHK'D. BY: MCK DATE: 8-9-00
CONTRACT NUMBER:	VT-06062-1		DRAWING NUMBER: 6 OF 7

094 SS

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. ALL WEIGHTS ARE IN KILOGRAMS.

BILL OF MATERIAL											
QTY EA	MARK	COMMODITY	DESCRIPTION	LENGTH	SPEC	GRADE	TEST	REMARKS	GRP.	ITEM	SHIP WEIGHT
1	S6A		STRINGER								6314.
1		W	760 x 257	24 383	M270M	345W	T	(W30 x 173)	5	1	6286.
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1	z1c	PL	15.9 x 130	719	M270M	345W			8	1	11.67
1	z2b	PL	6.4 x 77	260	M270M	345W			8	2	1.01
TOTAL WEIGHT THIS SHEET:									6314.10 kg		
TOTAL WEIGHT FOR BID ITEM #506.55:									39663.87 kg		



96

SECTION A
210

SECTION B
220

SECTION C
225

z1a
z1b
z1c

W44X 8

W34X 8

W44X 8

TIGHT FIT

TIGHT FIT

SECTIONS A, B & C

VHB Vanasse Hangen Brustlin, Inc.
Engineers, Planners, and Scientists
Six Bedford Farms, Kilton Rd.
Bedford, NH 03110 603 844 0886

FOR GENERAL SHOP NOTES, SEE DWG. GN1.

NO.	REVISION	BY	DATE

1770 Hempstead Road
 Lancaster, PA 17605-0008
 Phone 717/293-5211
A Division of High Industries, Inc.

STRINGER

VT 17 OVER MILL BROOK

VT 17 STA. 0+944.700 TO STA. 0+968.560

TOWN OF FALSTON, WASHINGTON COUNTY, VT

STATE OF VERMONT

AGENCY OF TRANSPORTATION

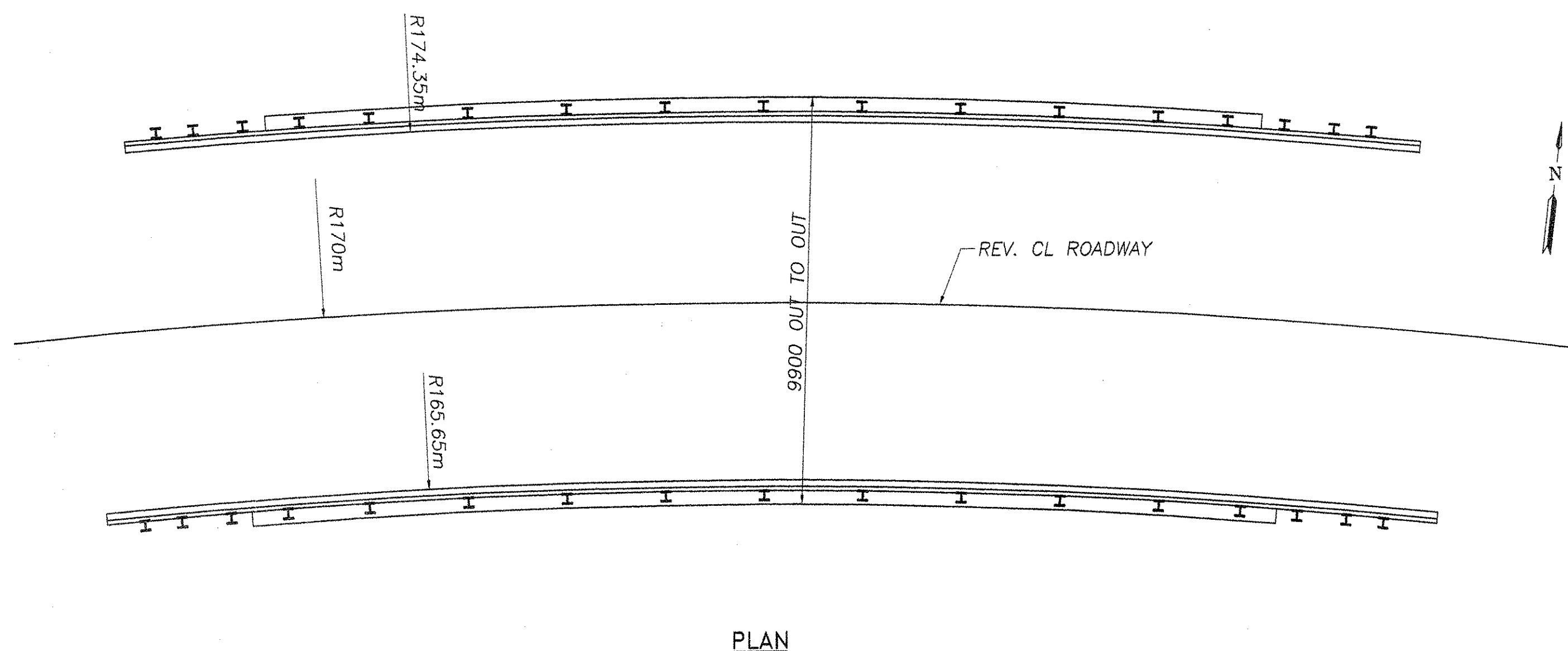
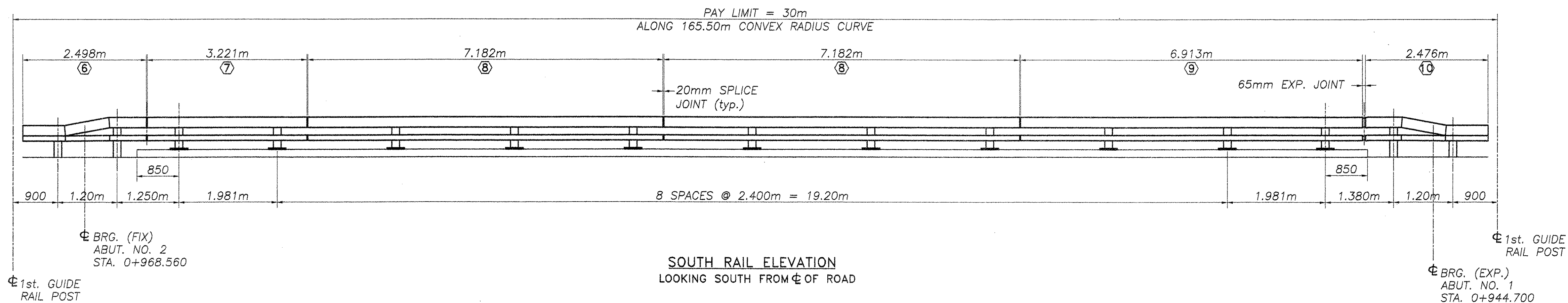
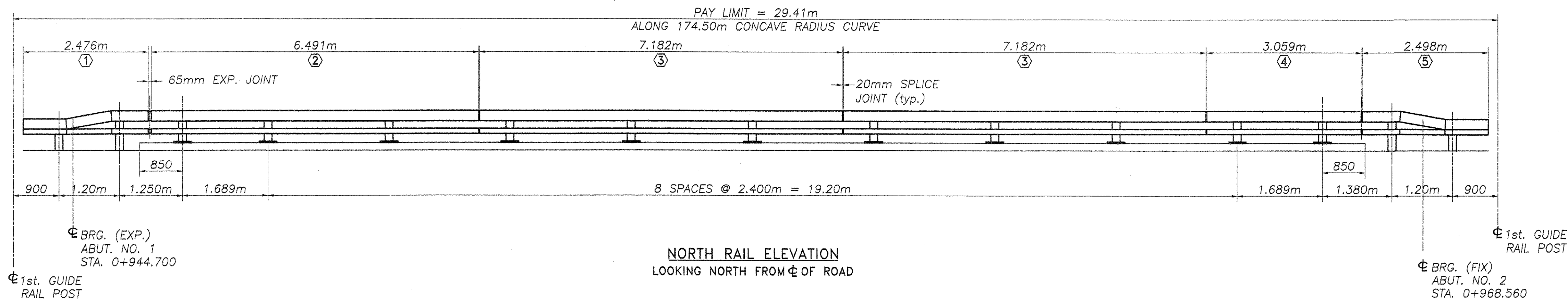
STATE CONTRACT OR REF. NO. BRIDGE NO. 36

CONTRACTOR **WINTERSET, INC.**

IN CHARGE: CHRISTMAN (IH) MADE BY: *ERS* CHK'D. BY: MGK DATE: 8-9-02

CONTRACT NUMBER: **VT-06062-1** DRAWING NUMBER: **7 OF 7**

FAYSTON



BILL OF MATERIAL (BOTH SIDES OF BRIDGE)				
Mark #	Qty.	Description	Length	Material
	22	W150x37.1 POST W/BASEPLATE	620	A709M Gr. 50
	4	W150x37.1 DRIVEN POST	2.134m	A709M Gr. 50
	4	W150x37.1 DRIVEN POST	1.956m	A709M Gr. 50
①	1	TS 203 x 102 x 8 UPPER DROP END TUBE	2.476m	A500 Gr. B
	1	TS 102 x 102 x 6 LOWER DROP END TUBE	2.476m	A500 Gr. B
②	1	TS 203 x 102 x 8	6.491m	A500 Gr. B
	1	TS 102 x 102 x 6	6.491m	A500 Gr. B
③	2	TS 203 x 102 x 8	7.182m	A500 Gr. B
	2	TS 102 x 102 x 6	7.182m	A500 Gr. B
④	1	TS 203 x 102 x 8	3.059m	A500 Gr. B
	1	TS 102 x 102 x 6	3.059m	A500 Gr. B
⑤	1	TS 203 x 102 x 8 UPPER DROP END TUBE	2.498m	A500 Gr. B
	1	TS 102 x 102 x 6 LOWER DROP END TUBE	2.498m	A500 Gr. B
⑥	1	TS 203 x 102 x 8 UPPER DROP END TUBE	2.498m	A500 Gr. B
	1	TS 102 x 102 x 6 LOWER DROP END TUBE	2.498m	A500 Gr. B
⑦	1	TS 203 x 102 x 8	3.221m	A500 Gr. B
	1	TS 102 x 102 x 6	3.221m	A500 Gr. B
⑧	2	TS 203 x 102 x 8	7.182m	A500 Gr. B
	2	TS 102 x 102 x 6	7.182m	A500 Gr. B
⑨	1	TS 203 x 102 x 8	6.913m	A500 Gr. B
	1	TS 102 x 102 x 6	6.913m	A500 Gr. B
⑩	1	TS 203 x 102 x 8 UPPER DROP END TUBE	2.476m	A500 Gr. B
	1	TS 102 x 102 x 6 LOWER DROP END TUBE	2.476m	A500 Gr. B
	10	TS 178 x 76 x 10 SPLICE TUBE	510	A500 Gr. B
	10	TS 76 x 76 x 8 SPLICE TUBE	510	A500 Gr. B
	22	3mm BEARING PAD		NEOPRENE
	4	BACK UP PLATE		A709M Gr. 36
	4	TERMINAL CONNECTOR		M180 B2
	144	M20 ROUND HEAD BOLT	152	M164M
	144	M20 HEX NUT		A563 DH
	144	M20 WASHER		F436M
	80	M16 SPLICE BOLT	50	M164M
	80	M16 PLAIN HARDENED WASHER		F436M
	60	M16 HEX NUT		A563A
	20	M16 HEX NUT WELDED TO SPLICE TUBE		A563A
	16	M20 SCH. 40 PIPE SPACER	15	A53 Gr. B
	88	M24 ANCHOR STUD	300	A449
	88	M24 WASHER		F436M
	88	M24 JAMB NUT		A563 DH
	176	M24 HEX NUT		A563 DH
	22	SPACER PLATE		A709M Gr. 36

NOTE:
ITEMS MARKED "*" ARE NOT SUPPLIED BY HIGHWAY SAFETY CORPORATION, AND THEY ARE SHOWN ONLY FOR REFERENCE.

TOTAL PAY LIMIT ITEM 525.33 = 60m

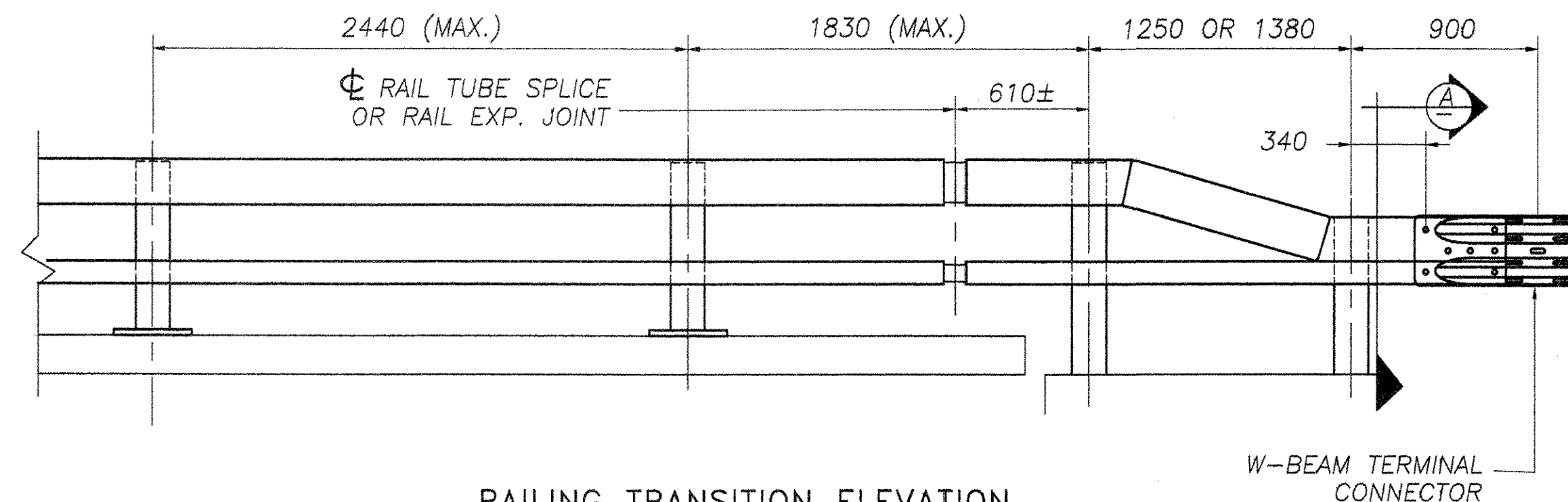
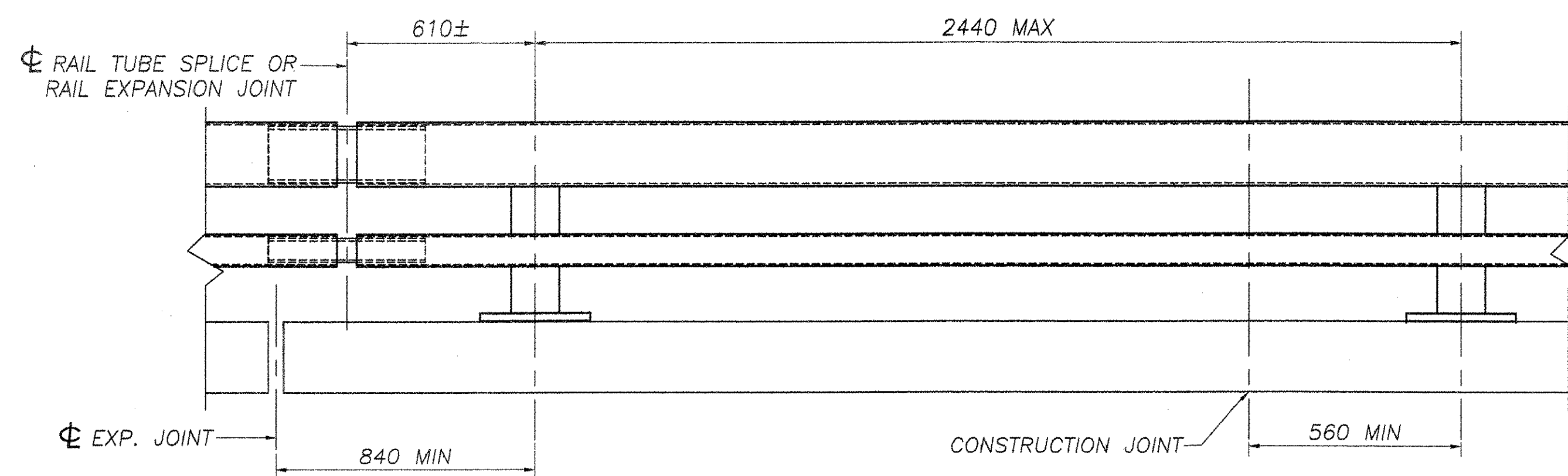
STRUCTURES
COPY



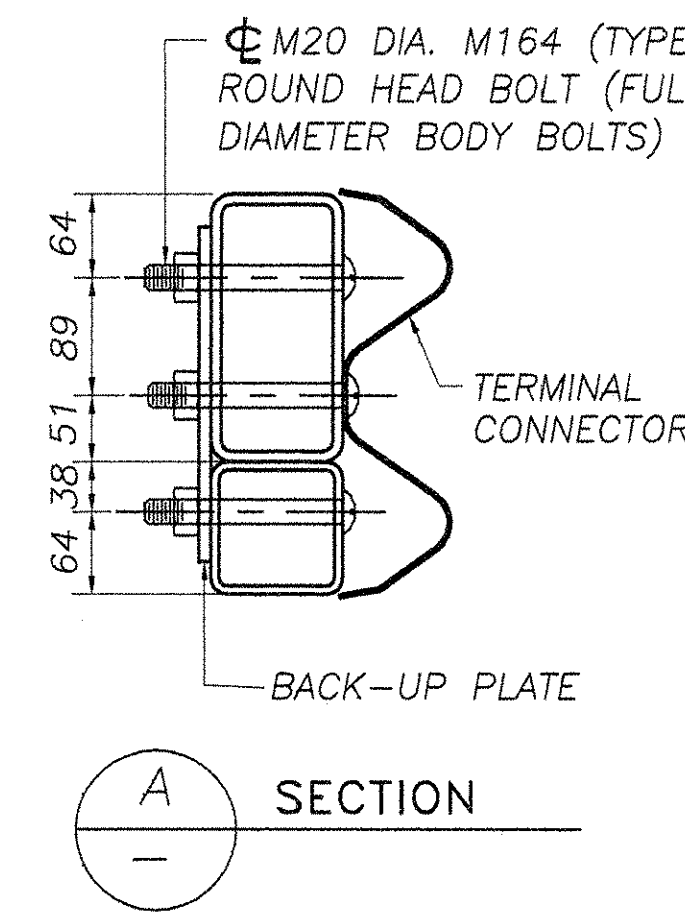
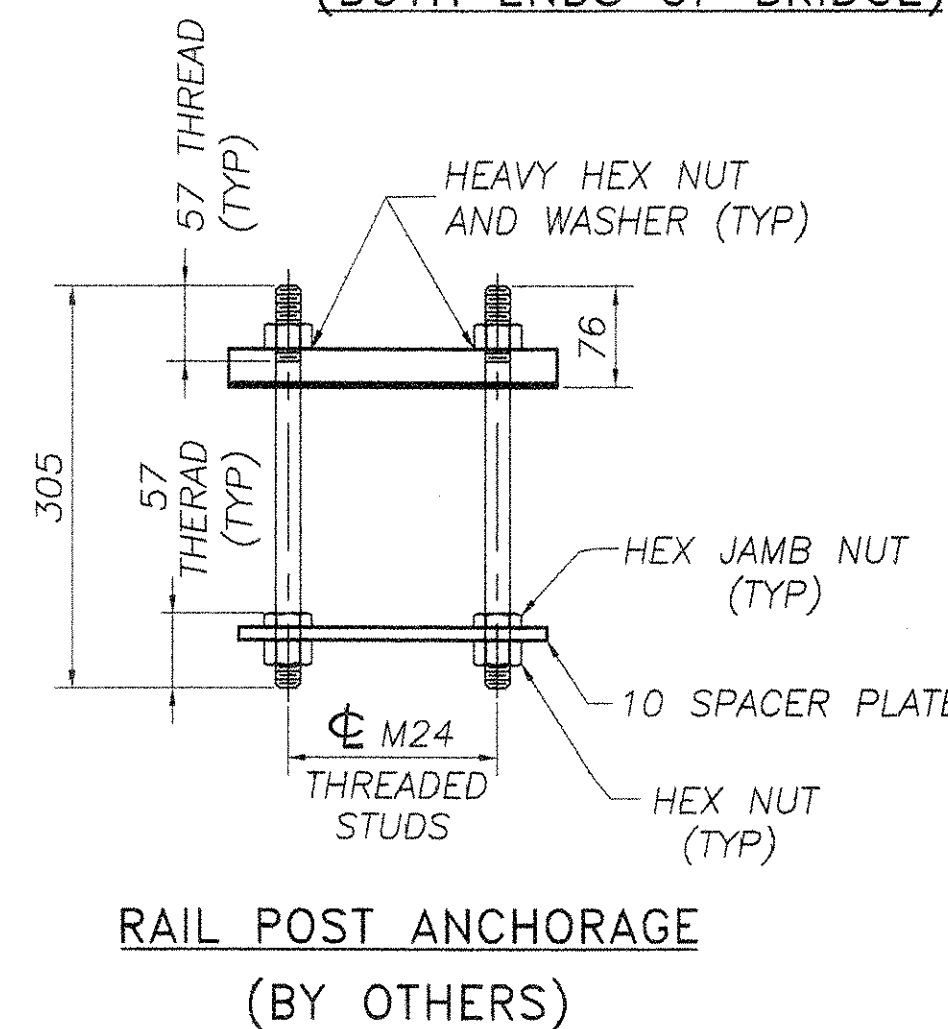
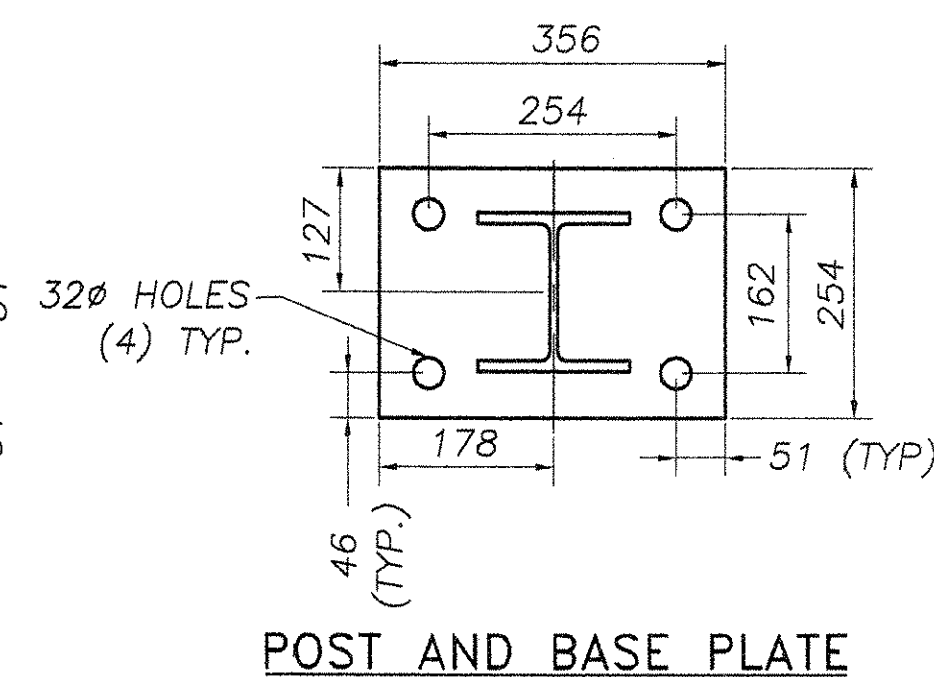
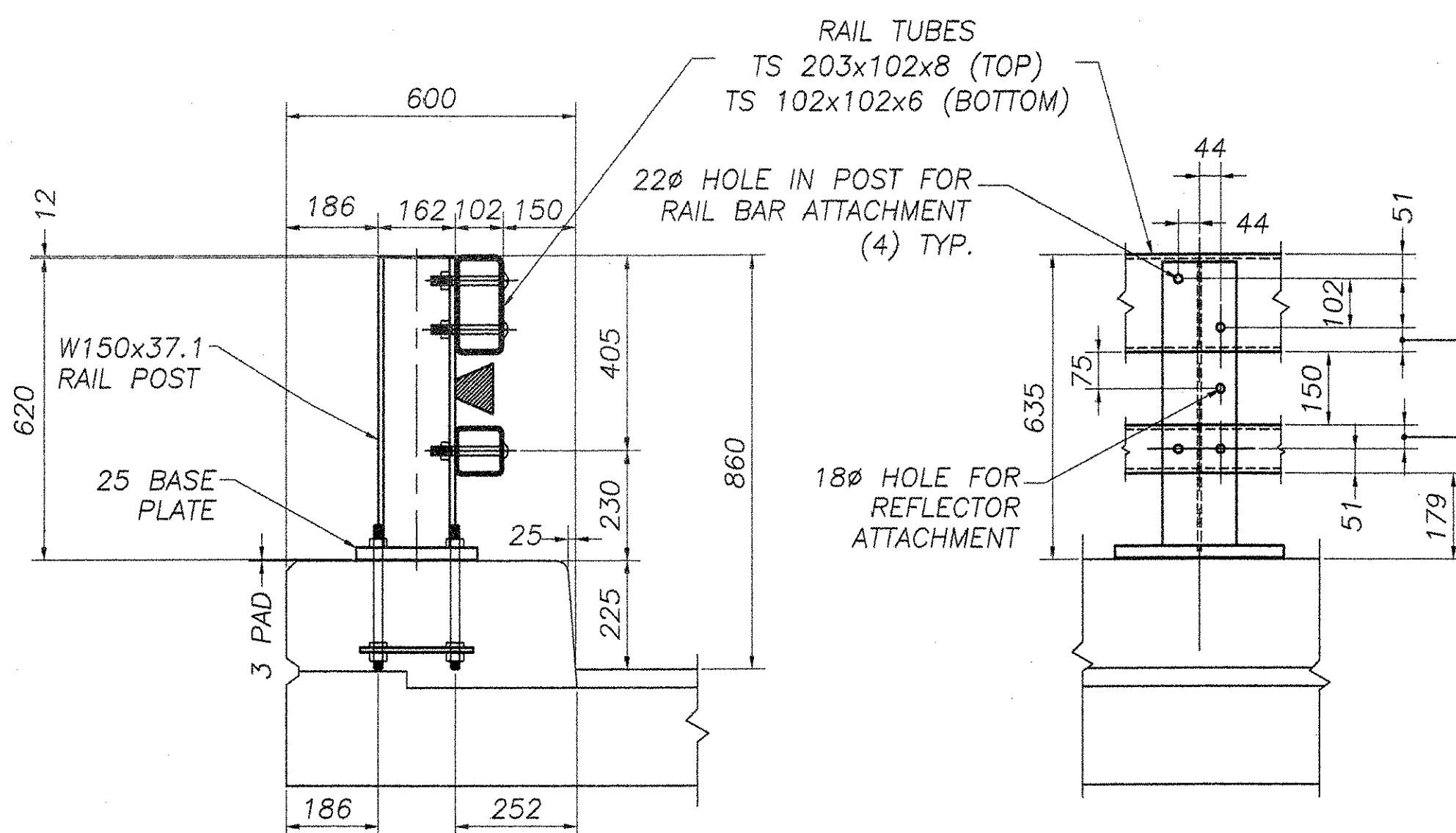
RECEIVED
OCT 23 2006
BY *WJ* DATE 10/23/06

HIGHWAY SAFETY CORP. GLASTONBURY, CT	
ITEM 525.33 - BRIDGE RAILING-NETC 2 RAIL	DRAWN MHM
PROJECT No. bhf 0200(9)	CHECKED <i>fm</i>
TOWN OF FAYSTON, VT Br. No. 36	DATE 9-6-06
WASHINGTON COUNTY, ROUTE VT 17	SCALE NONE
GENERAL CONTRACTOR	HSC REFERENCE NO. 1574
SUB CONTRACTOR F.R. LAFAYETTE, INC.	SIZE D REVISION 0
	SHEET NO. 1 of 2

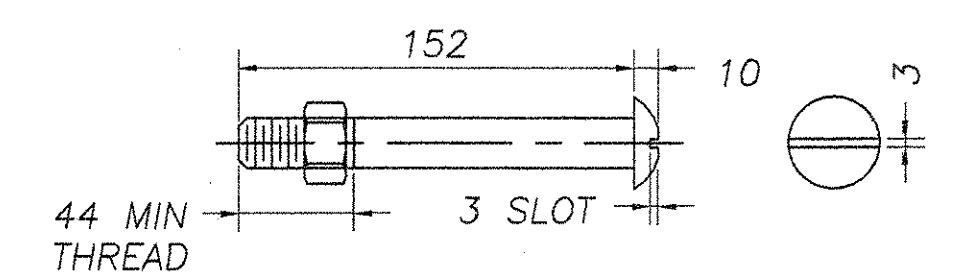
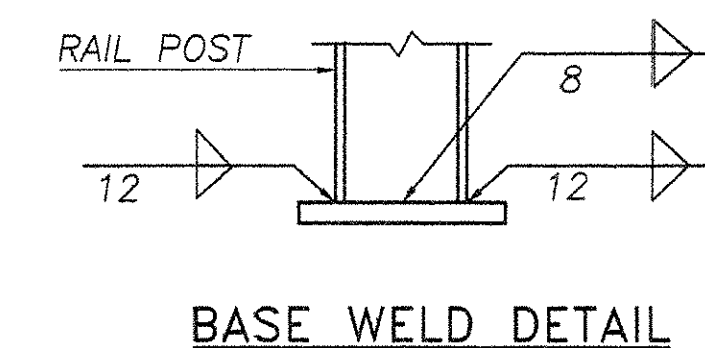
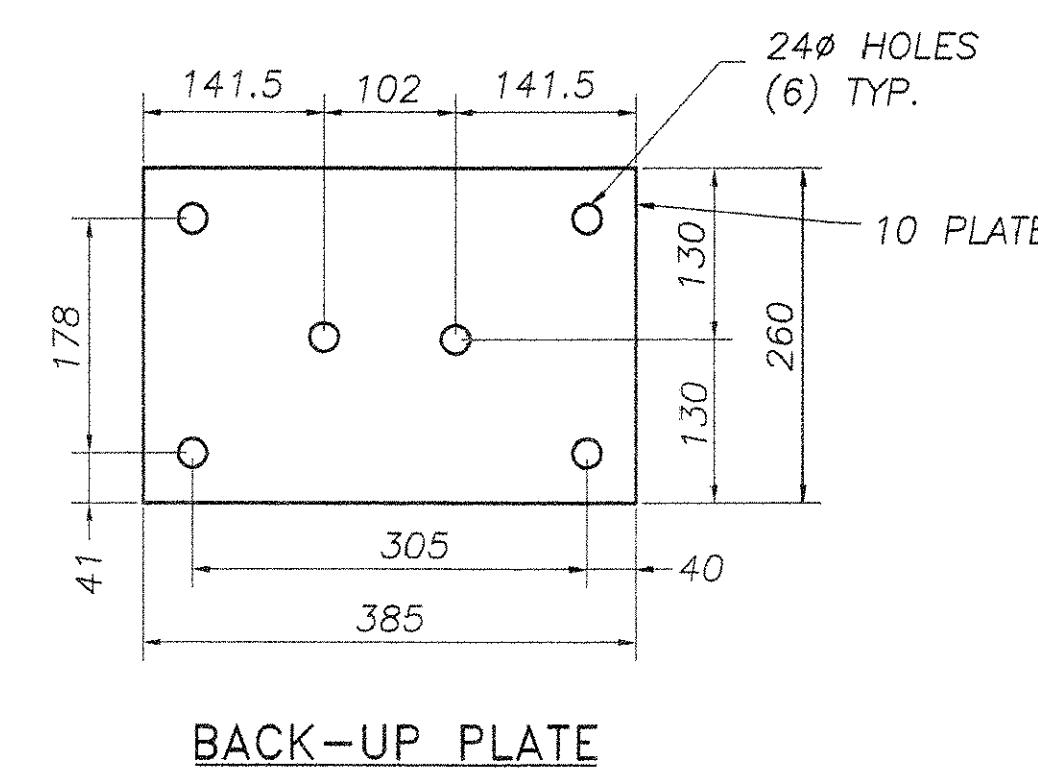
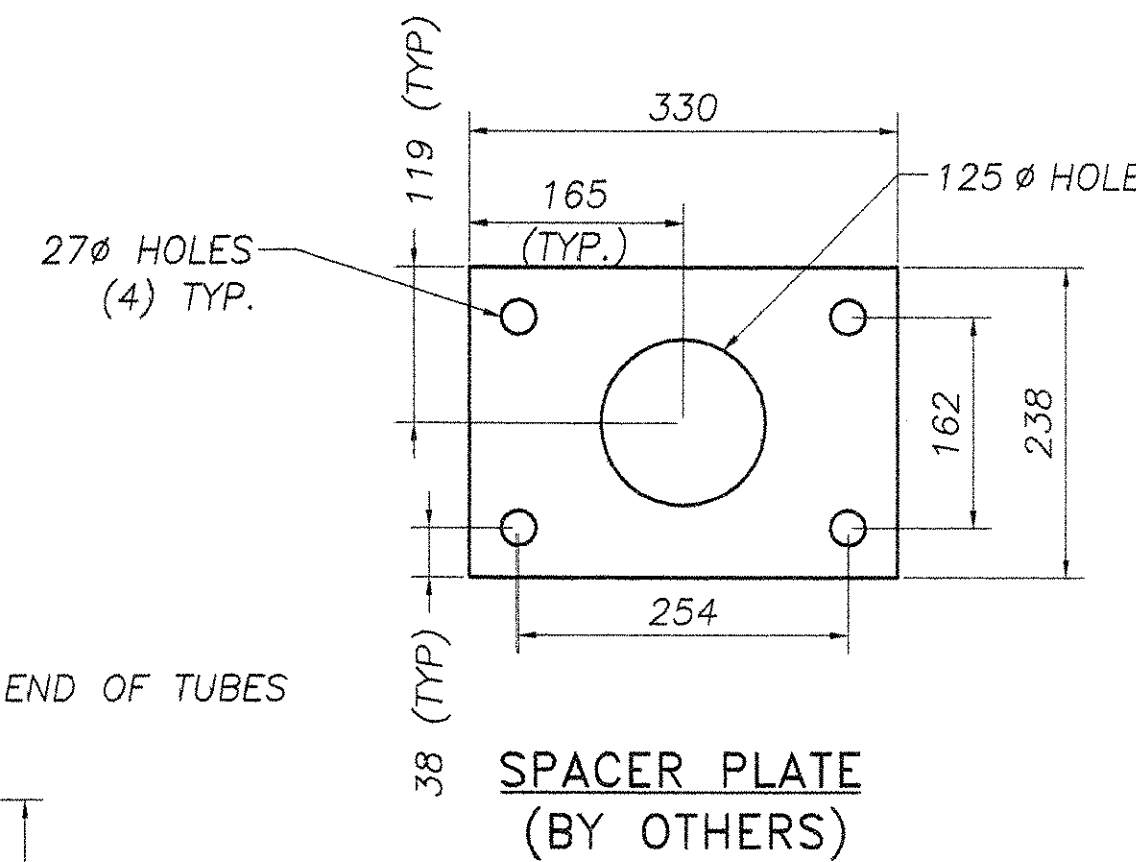
REVISIONS		
No.	Remarks	Date
0	Initial submittal	9-22-06
0	Second submittal	10-16-06



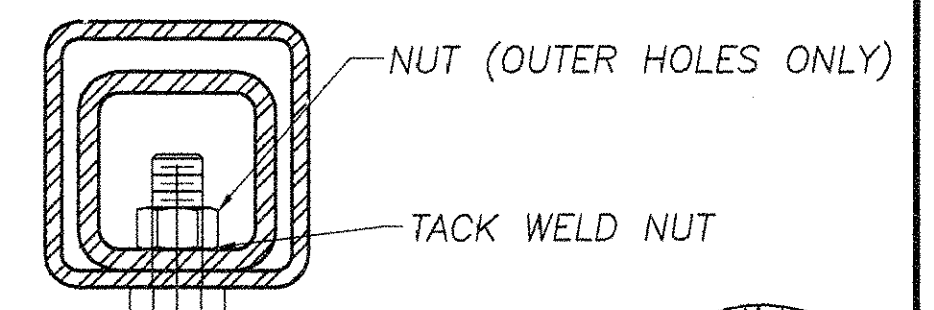
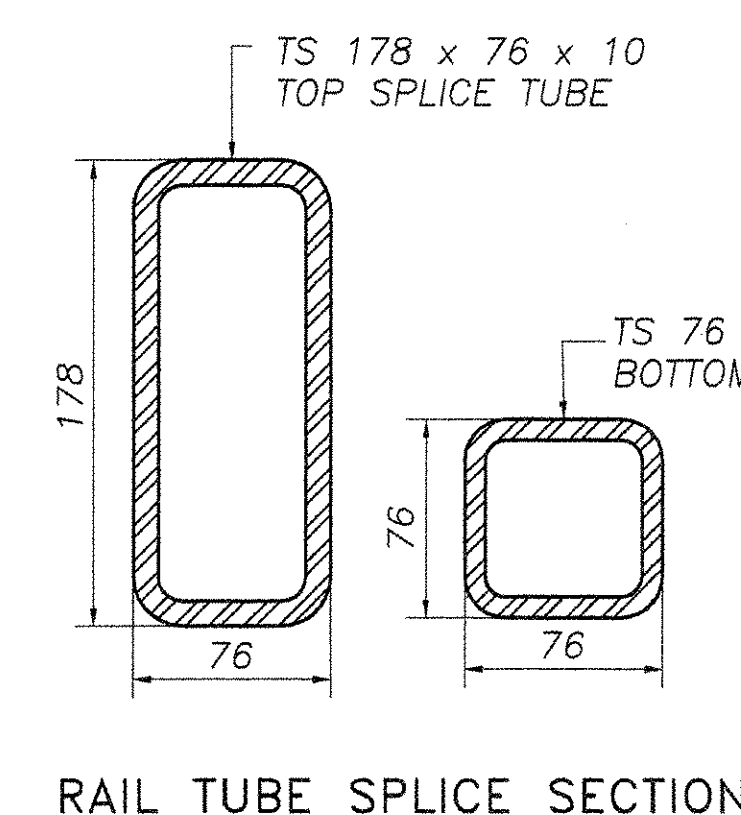
- NOTES:**
1. ALL RAILINGS AND MATERIALS SHALL CONFORM TO THE PROVISION OF SECTION 525, "RAILINGS OF THE STANDARD SPECIFICATION FOR CONSTRUCTION".
 2. TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732, "RAILING MATERIALS OF THE STANDARD SPECIFICATION FOR CONSTRUCTION," EXCEPT THAT THE DROP-WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING SHOWN ON THIS SHEET.
 3. PRIOR TO GALVANIZING, ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 2mm RADIUS AND BE FREE OF BURRS.
 4. RAIL POSTS SHALL BE SET NORMAL TO GRADE.
 5. SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO (2) RAIL POSTS AND PREFERABLY TO AT LEAST FOUR (4) POSTS.
 6. RAIL TUBE EXPANSION JOINT SHALL BE PROVIDED IN ANY RAIL BAY SPANNING A SUPERSTRUCTURE EXPANSION JOINT. EXPANSION JOINT WIDTH SHALL BE "X" AT 7°C AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.
 7. ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO M111, EXCEPT HARDWARE, WHICH SHALL MEET THE REQUIREMENTS OF AASHTO M232M.
 8. RAIL POST ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.
 9. RAIL TUBES SHALL BE ATTACHED USING M20 FULL DIAMETER BODY AASHTO M164M (TYPE 1) ROUND HEAD BOLT INSERTED THROUGH THE FACE OF THE TUBE. HOLES IN POSTS SHALL BE 2mm LARGER THAN THE BOLT SIZE.
 10. HOLES IN RAILS FOR RAIL TUBE ATTACHMENT MAY BE FIELD-DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC-RICH PAINT PRIOR TO ERECTION.
 11. IF THERE IS A CONFLICT BETWEEN THE DETAILS SHOWN ON THIS SHEET AND THE DESIGN, THE REQUIREMENTS OF THE DESIGN DRAWINGS SHALL BE FOLLOWED.
 12. ANY BENDING OF RAIL SHALL BE BY SHOP PROCEDURE ONLY.
 13. THE FABRICATOR SHALL SUBMIT SHOP DRAWINGS, INCLUDING WELDING PROCEDURES TO THE STRUCTURES SECTION FOR APPROVAL IN ACCORDANCE WITH THE PROVISION OF 506.04, SHOP DRAWINGS. ALL WELDING SHALL CONFORM WITH SECTION 506.10.
 14. RAIL POSTS AND BASE PLATES SHALL BE TESTED FOR IMPACT PROPERTIES IN ACCORDANCE WITH ASTM A370 CHARPY IMPACT TESTING USING TYPE A SPECIMENS.
 15. TO FACILITATE FIELD FIT - UP OF THE TRANSITION RAILING, POSTS SHALL BE SET LOOSELY INTO FIBER FORM TUBES WHILE TRANSITION PARTS ARE BEING ASSEMBLED. POST HOLES SHALL BE BACKED FILL WITH A CONCRETE MIX APPROVED BY THE ENGINEER. PAYMENT FOR COMPONENTS, INCLUDING BACKUP PLATE AND END TERMINAL CONNECTOR FOR GUARD RAIL, AUGERING, FIBER FORM TUBES AND CONCRETE, AND INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO ITEM 525.33, "BRIDGE RAILING - NETC 2 RAILING".
 16. ALL APPROACH RAIL SPLICES SHALL BE LAPPED ON THE DIRECTION OF TRAFFIC FLOW.
- MATERIALS**
- RAIL TUBES.....ASTM A500, GRADE B OR ASTM A501
- RAIL POSTS AND BASE PLATES.....ASTM A709/A709M, GRADE 50
- ALL OTHER SHAPES AND PLATES.....ASTM A709/A709M, GRADE 36
- ANCHOR STUDS.....ASTM A443
- ALL OTHER BOLTS (UNLESS NOTED).....AASHTO M164M, TYPE1
- NUTS FOR AASHTO M164M (ASTM A325M) BOLTS AND ANCHOR STUDS SHALL COMPLY WITH AASHTO M291M (ASTM A563M).
- WASHERS SHALL COMPLY WITH AASHTO M293M (ASTM F436M) SPECIFICATIONS.
- 3mm PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02.



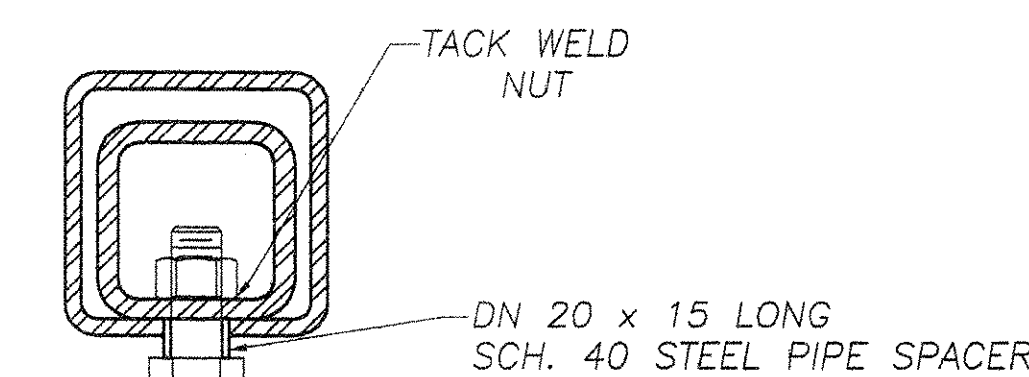
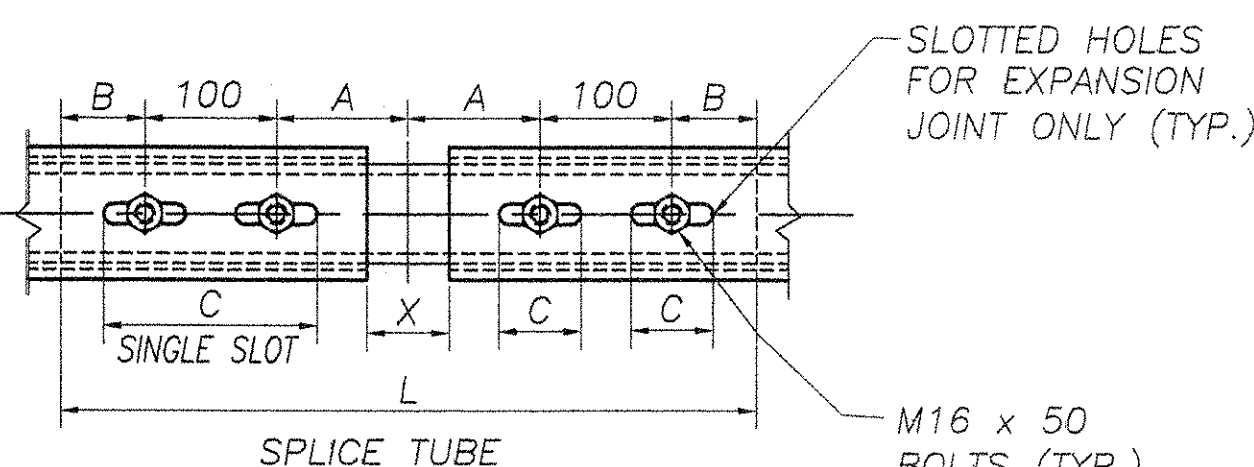
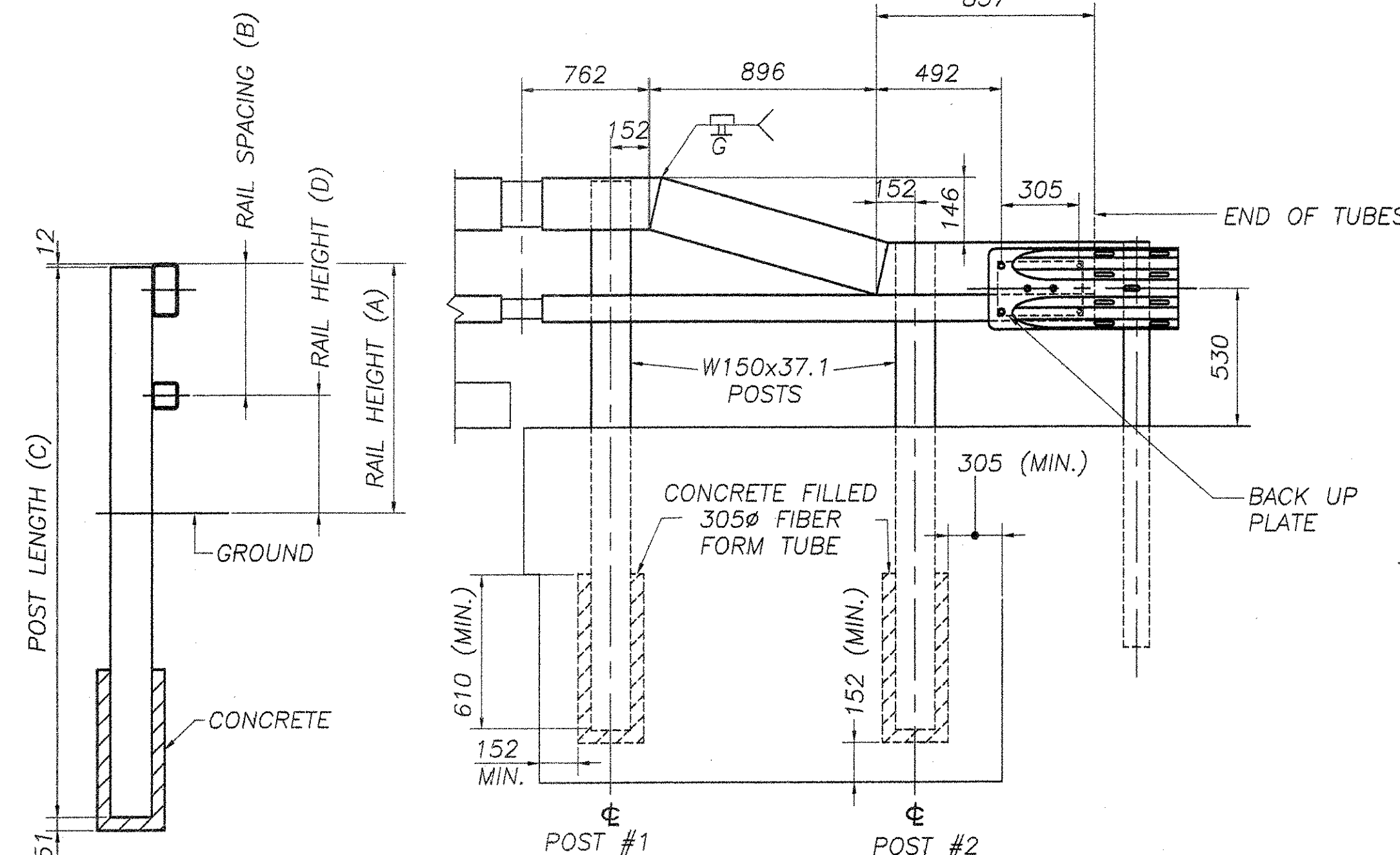
ELEVATION



(WITH WASHER AND PREVAILING TORQUE TYPE LOCK NUT)
(SEE NOTE #9)
ONLY FULL DIAMETER BODY BOLTS WILL BE ALLOWED.



16ø TAPPED HOLE IN SPLICE TUBE &
19 ø HOLE IN RAIL TUBE FOR M16
BOLT & PLAIN HARDENED WASHER



16ø TAPPED HOLE IN SPLICE TUBE
AND 29 x 'C' SLOT IN RAIL TUBE FOR
M16 BOLT AND PLAIN HARDENED WASHER

FOR DETAILS NOT SHOWN,
SEE "RAIL TUBE SPLICE SECTION."

POST NUMBER	RAIL HEIGHT (A)	RAIL SPACING (B)	POST LENGTH (C)	RAIL HEIGHT (D)
1	860	405	2134	455
2	702	254	1956	448

SPLICE TABLE					
T	A	B	C	L	X
N/A	100	50	---	510	20
EXPANSION JOINT TABLE					
<100	100	50	65	510	65

T = TOTAL MOVEMENT BETWEEN BRIDGE
EXPANSION JOINTS. SEE NOTE 6

* = SINGLE SLOT

REVISIONS		
No.	Remarks	Date
0	Initial submittal	9-22-06
0	Second submittal	10-16-06

RECEIVED
OCT 23 2006
SUBMITTAL BY WJ S/D
APPROVED BY DATE 10/16/06

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

ITEM 525.33 - BRIDGE RAILING-NETC 2 RAIL

PROJECT No. bhf 0200(9)

TOWN OF FAYSTON, VT Br. No. 36

WASHINGTON COUNTY, ROUTE VT 17

GENERAL CONTRACTOR

SUB CONTRACTOR F.R. LAFAYETTE, INC.

DATE 9-16-06

SCALE NONE

PROJECT REFERENCE NO. 1574

SIZE D REVISION 0

SHEET NO. 2 of 2