

SEE SHEET 2 FOR A LIST OF SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF MONTGOMERY

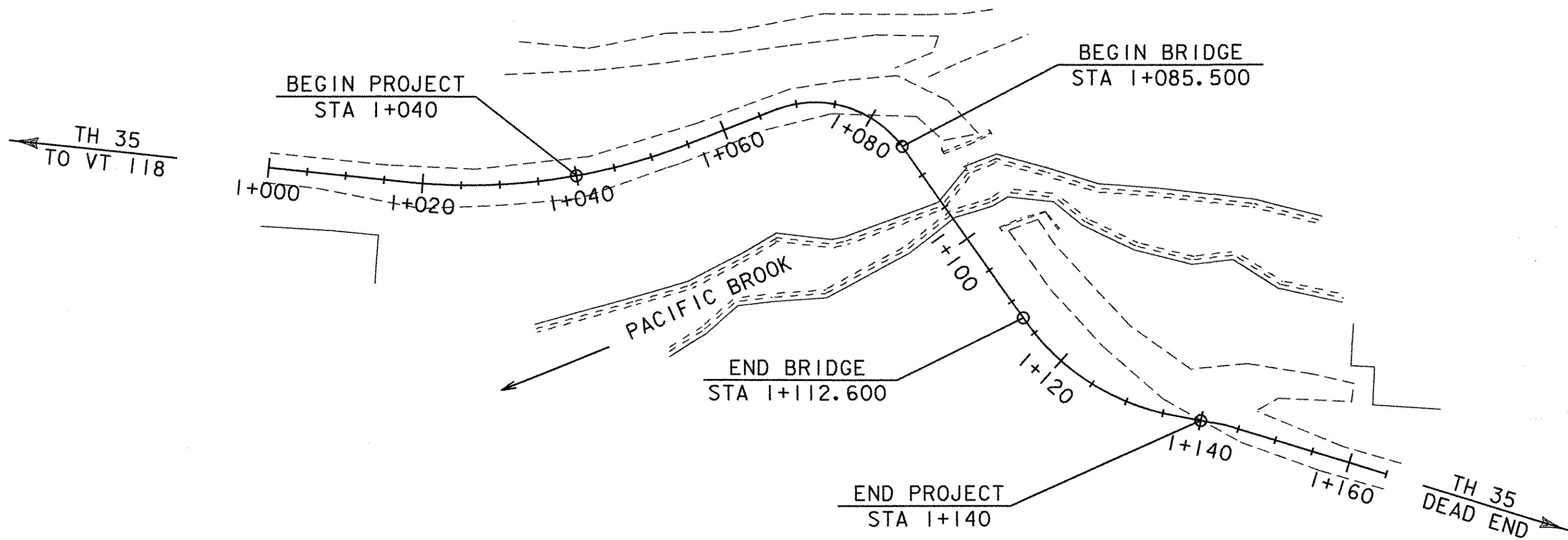
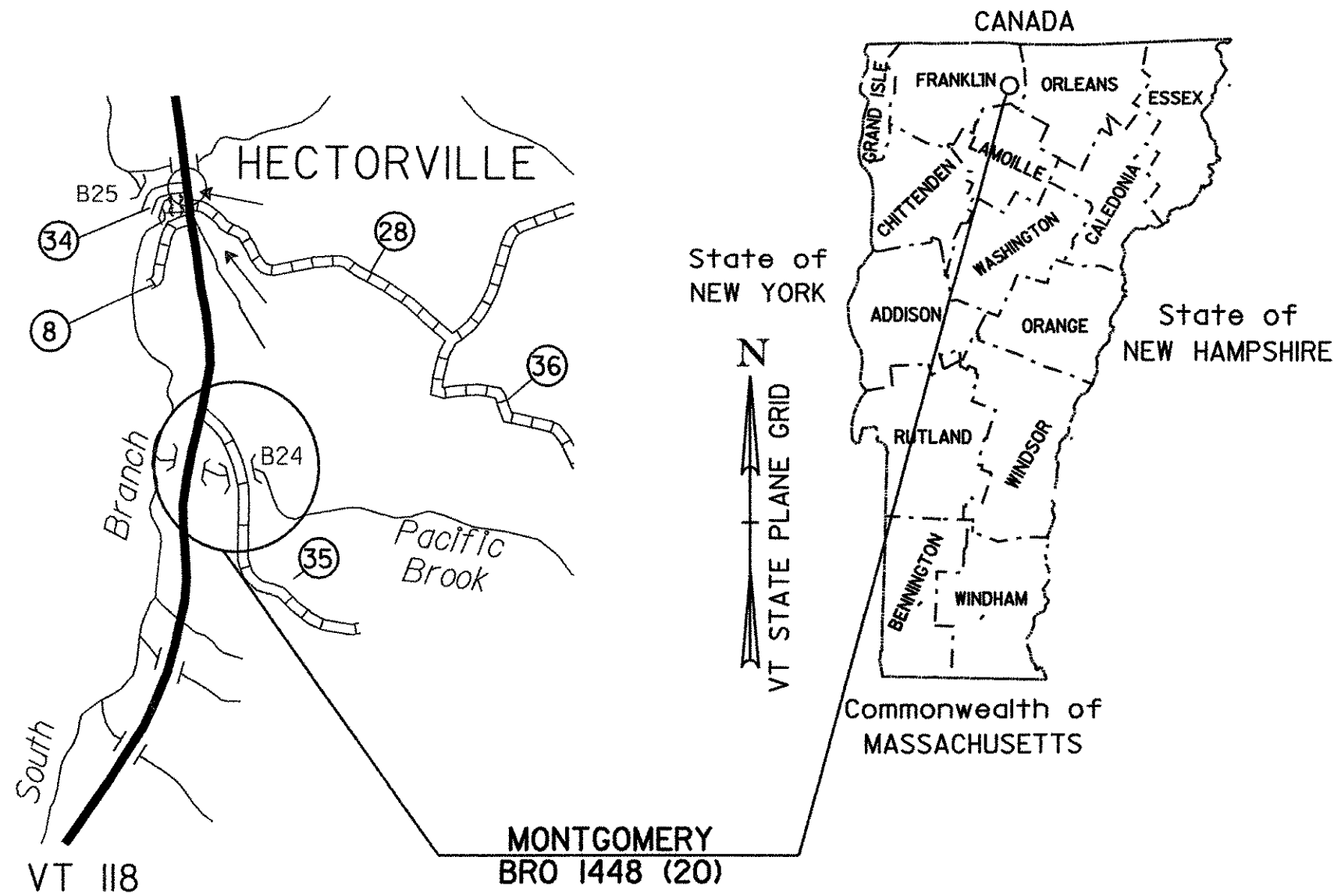
COUNTY OF FRANKLIN

ROUTE NO : TH 35 (CLASS 3) (LOCAL ROAD) BRIDGE NO : 24

PROJECT LOCATION : BRIDGE 24 ON TH 35 APPROXIMATELY 0.2 KM
SOUTHEASTERLY OF THE INTERSECTION OF TH 35 AND VT 118
AND EXTENDING ALONG TH 35 FOR 100 METERS.

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGE 24 WITH NECESSARY APPROACH WORK.

LENGTH OF STRUCTURE : 27.100 METERS.
LENGTH OF ROADWAY : 72.900 METERS.
LENGTH OF PROJECT : 100.000 METERS.



CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
RAILROAD	
SURVEY LINE	
CULVERT	
POWER POLE	
TELEPHONE POLE	
TREES	
CONTROL OF ACCESS	
PROPERTY LINE	
R.O.W. TAKING LINE	
SLOPE RIGHTS	
TOP OF CUT	
TOE OF SLOPE	

SURVEYED BY : R. Moreau
SURVEYED DATE : 1995

DATUM
VERTICAL NAVD 88
HORIZONTAL NAD - 83 (92)

0 10 20 30
SCALE 1:500

RECORD PLANS

CONTRACTOR: A.L. ST. ONGE CONTRACTOR, INC. - MONTGOMERY, VT.
RESIDENT ENGINEER: CARL GLEASON
CONSTRUCTION BEGAN: MAY 19, 2006
CONSTRUCTION COMPLETE: JULY 28, 2007
RECORD PLANS BY: C. GLEASON & N. GARBACIK
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET
OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.
BY RESIDENT ENGINEER
DATE 11/16/08

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.

Metric

UNLESS NOTED OTHERWISE
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 PROGRAM
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.

/PW/94/J124/sj124bdr.dgn

PLOTTED: 19-SEP-2005

DIRECTOR OF PROGRAM DEVELOPMENT

APPROVED DATE 9/23/05

PROJECT MANAGER : ROGER WHITCOMB

PROJECT NAME : MONTGOMERY
PROJECT NUMBER : BRO 1448 (20)

SHEET 1 OF 50 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PRELIMINARY INFORMATION SHEET

Metric

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36. Sign Summary

37-44. Mainline Cross Sections

45-50. Channel Cross Sections

LIST OF STANDARDS

A-61M Standard Typical for Slopes in Solid Rock Excavation, Drilling and Blasting of Solid Rock Subgrade6/13/1997

B-5M Embankment of Earth Slope, Embankment of Rock Slope, Muck Excavation, Typical Slope Rounding1/3/2000

D-1M Precast Reinforced Pipe Drop Inlet With Cast Iron Grate6/13/1997

D-2M C.R.M. Headwalls, Underdrain; C.R.M. Headwalls and Retaining Walls; Riprap Light Type Slope Headwall; Reinforced Concrete Headwall, Underdrain and Carrier Pipe Construction Details6/13/1997

E-100 Construction Approach Signs1/2/2004

E-101 Construction Sign Details5/30/2003

E-102A Construction Sign Details5/1/2004

E-102 Construction Sign Details6/30/2003

E-107A Breakaway Barricade Details8/8/1995

E-107 Delineation, Barricades and Detours for Construction Areas6/30/2003

E-150 Warning Sign Details5/1/2004

E-152 Warning Sign Details5/1/2004

E-160 Flanged Channel Steel Sign Post5/20/1999

E-164 Square Steel Sign Post6/13/1997

G-1dM Steel Beam Guardrail Approach End Terminal, Steel Beam Guardrail Trailing End Terminal, Anchor for Steel Beam Guardrail, Steel Beam Median Barrier1/3/2000

G-1M Steel Beam Guardrail with Steel Posts, Steel Beam Guardrail with Wood Posts1/3/2000

SB-R6-82M Bridge Railing Heavy Duty Steel Beam (Type A, Type B, Type C and Type D), Bridge Railing Heavy Duty Steel Beam with Box Beam Hand Rail (Type E)7/10/1997

FINAL HYDRAULIC REPORT

HYDROLOGIC DATA

Date:3/14/02

DRAINAGE AREA :8.6 sq. km

CHARACTER OF TERRAIN :Mountainous and forested

STREAM CHARACTERISTICS :Perennial, flashy, steep, incised, non-alluvial, and sinuous

NATURE OF STREAMBED :Mostly ledge with some boulders, cobbles and gravel.

PEAK FLOW DATA

Q 2.33 =6.5 cms

Q 10 =14.2 cms

Q 25 =19.8 cms

Q 50 =23.8 cms

Q 100 =27.8 cms

Q 500 =45.0 cms

DATE OF FLOOD OF RECORD :unknown

ESTIMATED DISCHARGE :unknown

WATER SURFACE ELEV.:unknown

NATURAL STREAM VELOCITY :@ Q25 =6.4 mps

ICE CONDITIONS :Moderate

DEBRIS :Moderate

DOES THE STREAM REACH MAXIMUM HIGHWATER ELEV. RAPIDLY?Yes

IS ORDINARY RISE RAPID?Yes

IS STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS?No

IF YES, DESCRIBE:

WATERSHED STORAGE :1%

HEADWATERS:UNIFORM:XIMMEDIATELY ABOVE SITE:

EXISTING STRUCTURE INFORMATION

STRUCTURE TYPE :Single span steel pony truss with wood deck.

YEAR BUILT :1901

CLEAR SPAN(NORMAL TO STREAM):10.5 m

VERTICAL CLEARANCE ABOVE STREAMBED:2.7 m (Low beam elev. 255.9m)

WATERWAY OF FULL OPENING:32.9 sq. m

DISPOSITION OF STRUCTURE:Remove

TYPE OF MATERIAL UNDER SUBSTRUCTURE:Ledge

WATER SURFACE ELEVATIONS AT:

Q2.33 =254.0 m *

Q10 =254.4 m

Q25 =254.5 m

Q50 =254.7 m

Q100 =254.8 m

VELOCITY=6.4 mps **

"6.9 mps

"7.3 mps

"7.4 mps

"7.6 mps

LONG TERM STREAMBED CHANGES:None expected due to the presence of ledge.

IS THE ROADWAY OVERTOPPED BELOW Q100:No

FREQUENCY:Above Q100

RELIEF ELEVATION:257.8 m

DISCHARGE OVER ROAD @Q100:None

UPSTREAM STRUCTURE

TOWN:(There is no upstream structure)

DISTANCE:

HIGHWAY #:STRUCTURE #:

CLEAR SPAN:CLEAR HEIGHT:

YEAR BUILT:FULL WATERWAY:

STRUCTURE TYPE:

DOWNSTREAM STRUCTURE

TOWN:Montgomery

DISTANCE:250 m

HIGHWAY #:VT 118

STRUCTURE #:11

CLEAR SPAN:16.2 m

CLEAR HEIGHT:2.4 m

YEAR BUILT:1961

FULL WATERWAY:16.2 sq. m

STRUCTURE TYPE:Single span bridge with steel beams and concrete deck.

LOAD FACTOR LOAD RATING (METRIC TONNES)

LOADING LEVELS (LOAD FACTOR)

INVENTORY

POSTED

OPERATING

M

MS

3S2

6 AXLE

3A, STR.

4A, STR.

5A, SEMI

57

79

80

111

130

102

105

120

133

155

182

122

125

STRENGTH RF=

SERVICEABILITY RF=

TRAFFIC DATA

YEAR

ADT

DHV

% D

% T

ADTT

1995

50

10

0

<1

<1

2015

60

10

0

<1

<1

20 year ESAL for flexible pavement from 1999 to 2019 :<50,000

40 year ESAL for flexible pavement from 1999 to 2039 :<50,000

Design Speed :30 km/h

PROPOSED STRUCTURE

STRUCTURE TYPE:Single span bridge with steel girders and concrete deck.

CLEAR SPAN(NORMAL TO STREAM):25.9 m

VERTICAL CLEARANCE ABOVE STREAMBED:5.5 m

WATERWAY OF FULL OPENING:75.0 sq. m

WATER SURFACE ELEVATIONS AT:

Q2.33 =254.0 m *

Q10 =254.4 m

Q25 =254.5 m

Q50 =254.7 m

Q100 =254.8 m

VELOCITY=6.4 mps **

"6.9 mps

"7.3 mps

"7.4 mps

"7.6 mps

IS THE ROADWAY OVERTOPPED BELOW Q100:No

FREQUENCY:Above Q100

RELIEF ELEVATION:257.8 m

DISCHARGE OVER ROAD @Q100:None

AVERAGE LOW ELEVATION OF SUPERSTRUCTURE:256.8 m

VERTICAL CLEARANCE:@ Q100 =2.0 m

SCOUR:None. The bridge spans the entire channel and abutments are poured on ledge.

REQUIRED CHANNEL PROTECTION:Stone Fill, Type II is adequate as shown.

PERMIT INFORMATION

AVERAGE DAILY FLOW:0.2 cms

ORDINARY LOW WATER:0.1 cms

ORDINARY HIGH WATER:2.8 cms

DEPTH OR ELEVATION:less than 0.2 m

less than 0.2 m

TEMPORARY BRIDGE REQUIREMENTS

STRUCTURE TYPE:Traffic will be maintained on the existing bridge.

CLEAR SPAN (NORMAL TO STREAM):

VERTICAL CLEARANCE ABOVE STREAMBED:

WATERWAY AREA OF FULL OPENING:

ADDITIONAL INFORMATION

* Water surface elevations for both existing and proposed bridges are reported at a location about 10.0 m upstream of the existing bridge. Water surface elevations will be lower at the bridges, especially at the proposed bridge where the channel bottom is much lower.

**Velocities reported are the highest through the bridge area.

DESIGN CRITERIA

1. DESIGN LIVE LOAD AASHTO MS 22.50

2. DESIGN SPAN26.500m

3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL120 kPa

ON LEDGE480 kPa

4. ALLOWABLE LOAD FOR PILINGN/A

TYPEN/A

ESTIMATED LENGTHN/A

5. STRUCTURAL STEEL AASHTO M270/M270M GRADE345W

6. REINFORCING STEEL GRADE420

7. ALLOWABLE STRESS FOR CONCRETEHIGH PERFORMANCE CLASS A f'c:30 Mpa

HIGH PERFORMANCE CLASS B f'c:25 Mpa

8. SOIL UNIT WEIGHT22 KN/m³

9. DESIGN LOAD FOR SPREAD FOOTINGS ON LEDGE380 kPa

TRAFFIC MAINTENANCE

1. IS TRAFFIC TO BE MAINTAINED?YES

IF YES, ON EXISTING STRUCTURE?YES

OR ON TEMPORARY BRIDGE?N/A

2. ONE OR TWO-WAY TRAVEL?N/A

TRAFFIC CONTROL SIGNALS REQUIRED?NO

3. ARE SIDEWALKS REQUIRED?NO

PROJECT NAME:MONTGOMERY

PROJECT NUMBER:BRO 1448(20)

FILE NAME:/TransFANS/04j124/sj124pi.xls

PROJECT MANAGER:R. WHITCOMB

DESIGNED BY:C. CARLSON

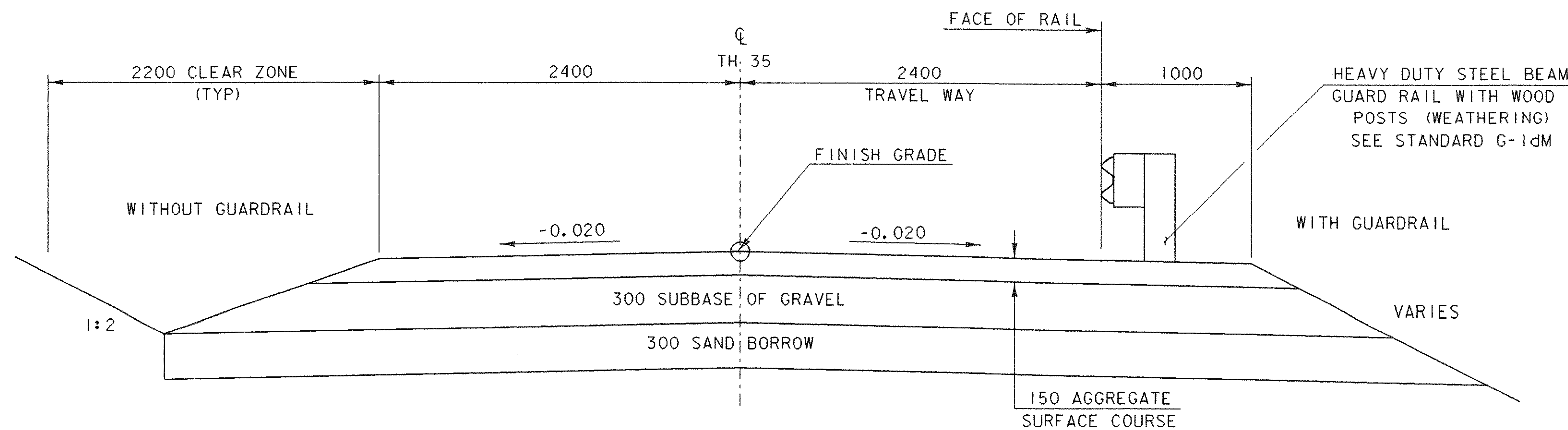
PRELIMINARY INFORMATION SHEET

PLOT DATE:4/20/2005

DRAWN BY:J. GILMORE

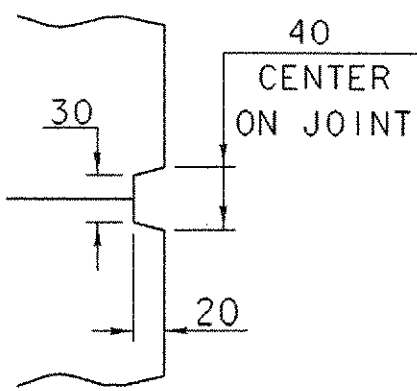
CHECKED BY:C. CARLSON

SHEET2 OF 50

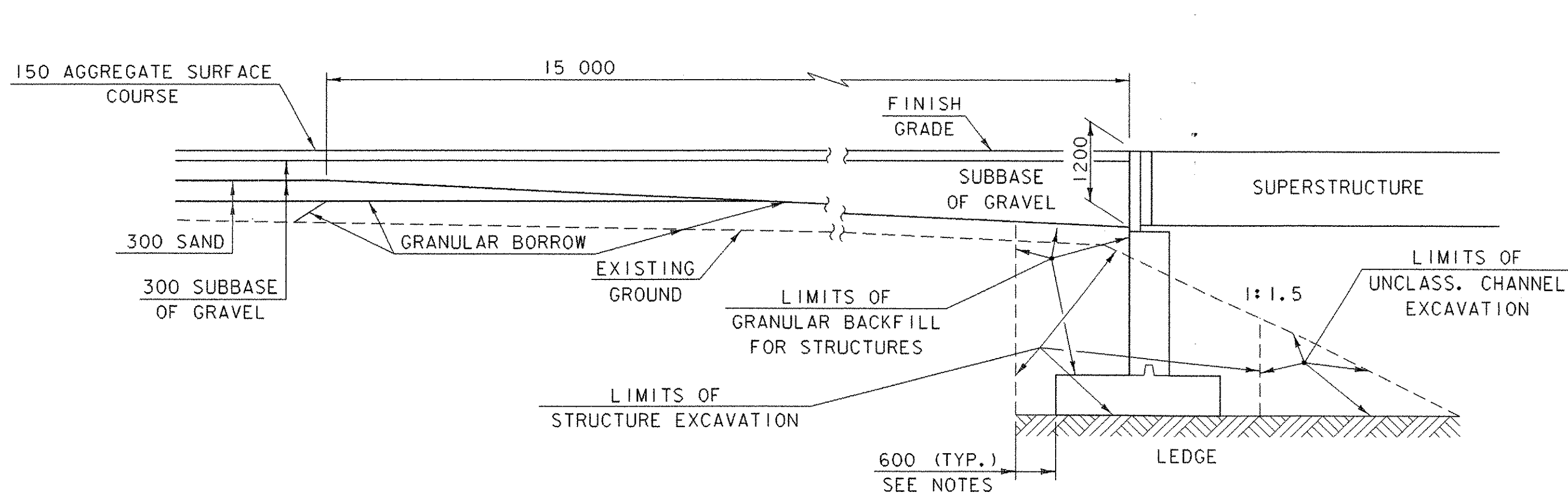


ROADWAY TYPICAL SECTION
SCALE: 1 : 25

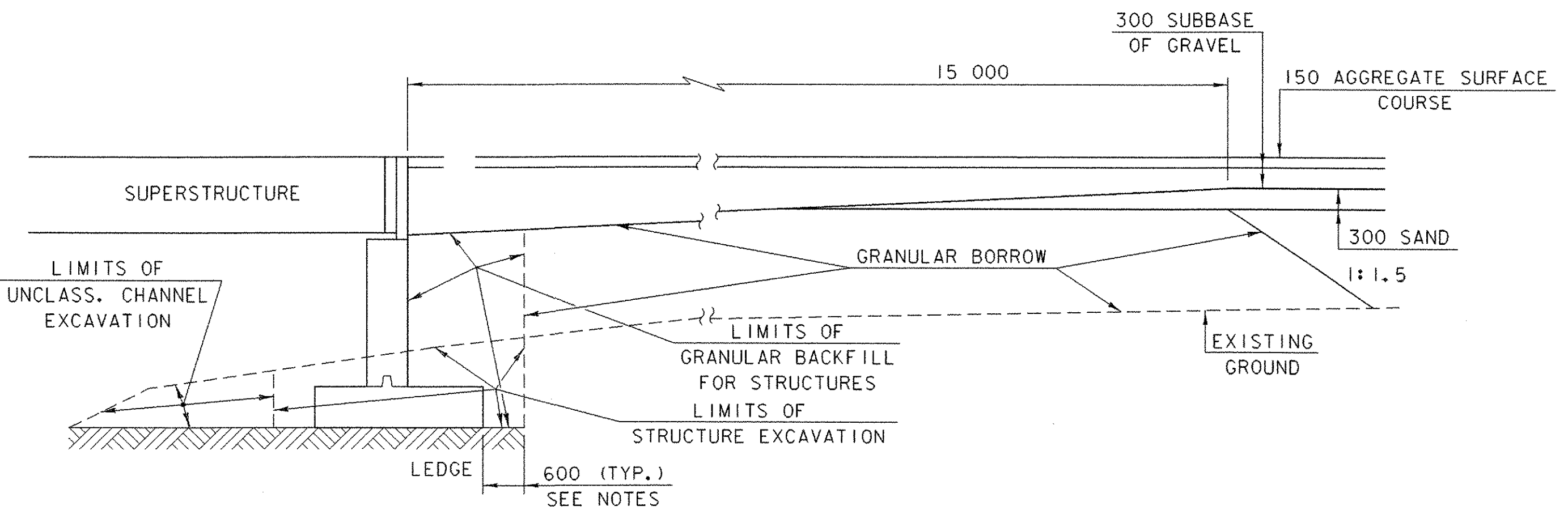
MATERIAL ITEM	TOLERANCE
SUBBASE	± 30 mm
SAND BORROW	± 30 mm
AGGREGATE SURFACE COURSE	± 15 mm
GRANULAR BORROW	± 25 mm



SCORE MARK DETAIL



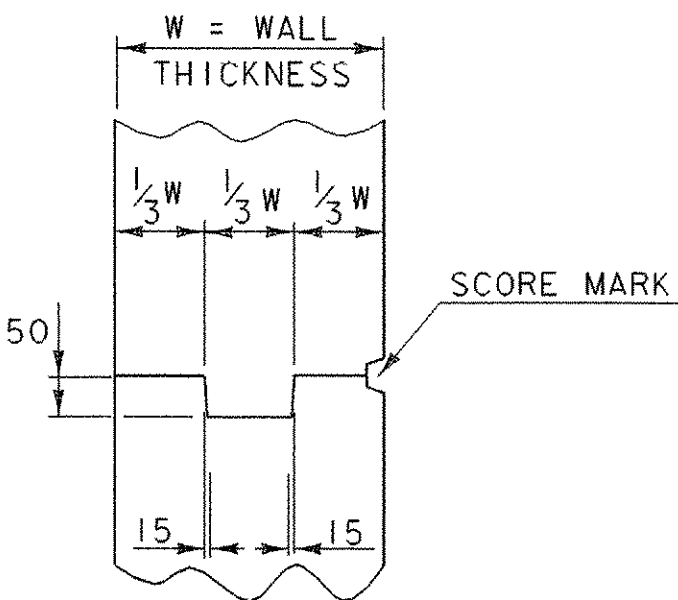
TYPICAL ABUTMENT #1 SECTION
(NOT TO SCALE)



TYPICAL ABUTMENT #2 SECTION
(NOT TO SCALE)

NOTES

- FOR PURPOSES OF ESTIMATING EARTHWORK QUANTITIES, THE LIMITS OF STRUCTURE EXCAVATION HAVE BEEN ASSUMED TO BE 600mm OUTSIDE THE PERIMETER OF THE FOOTING.



TYPICAL CONCRETE CONSTRUCTION JOINT

(FOR CONSTRUCTION JOINTS LOCATED IN ABUTMENT NO. 1 & ABUTMENT NO. 2)

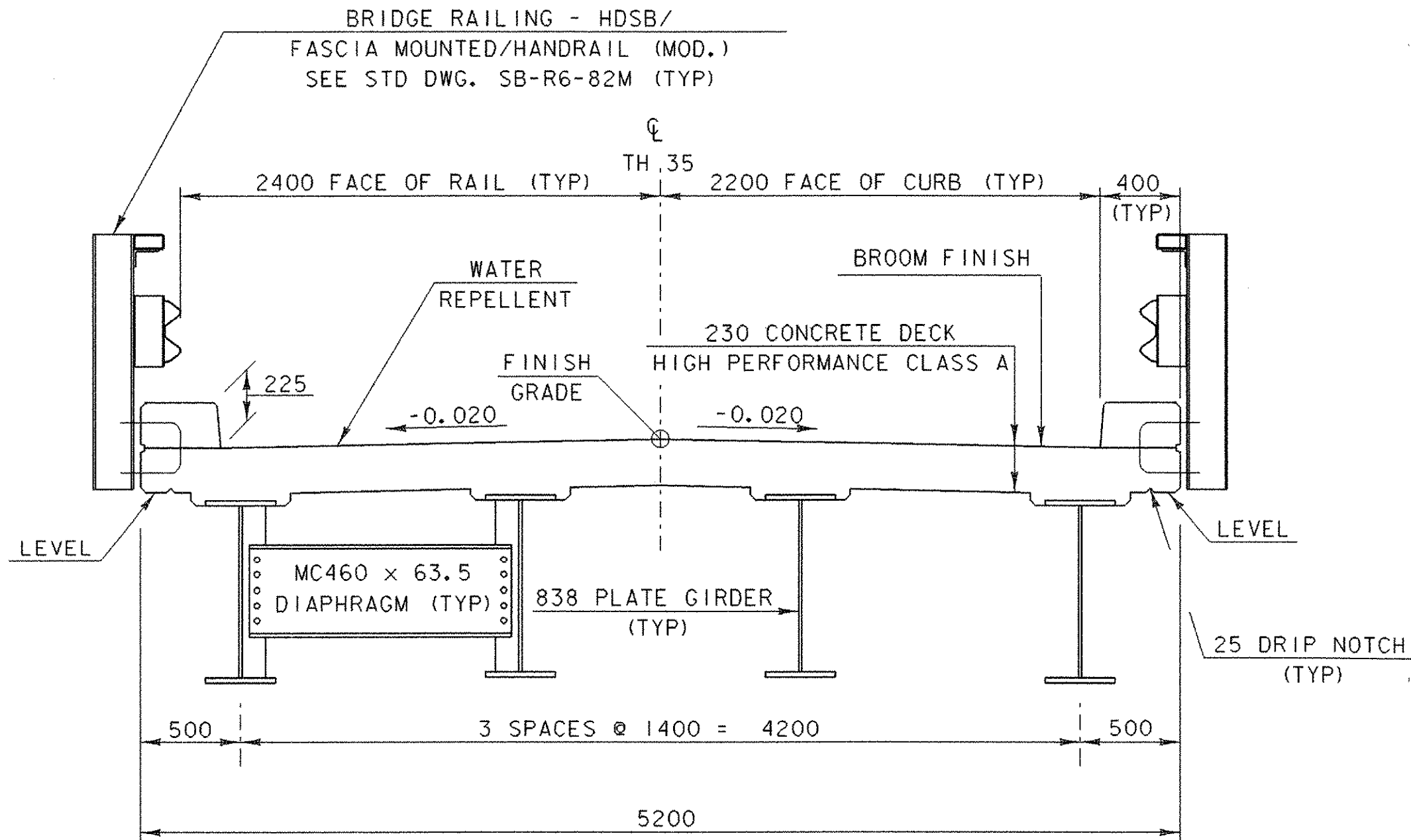
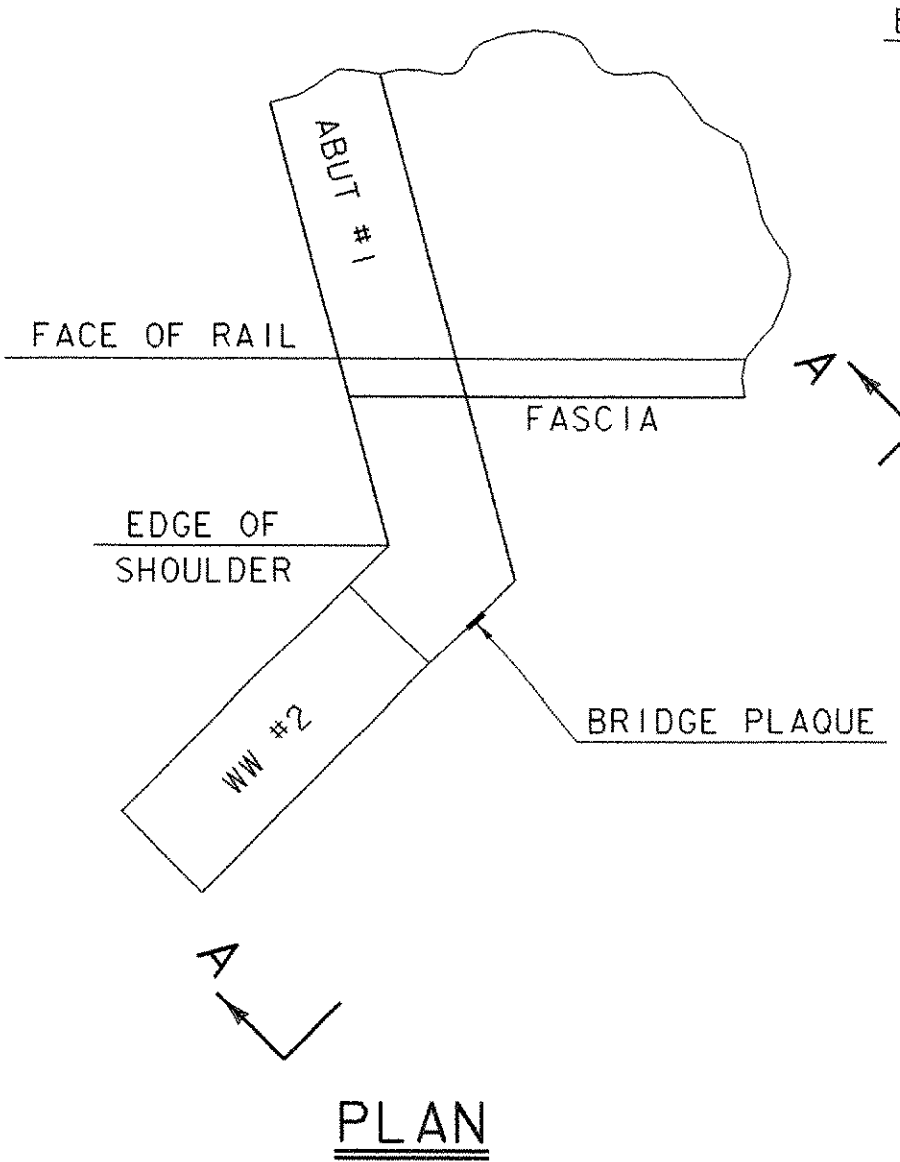
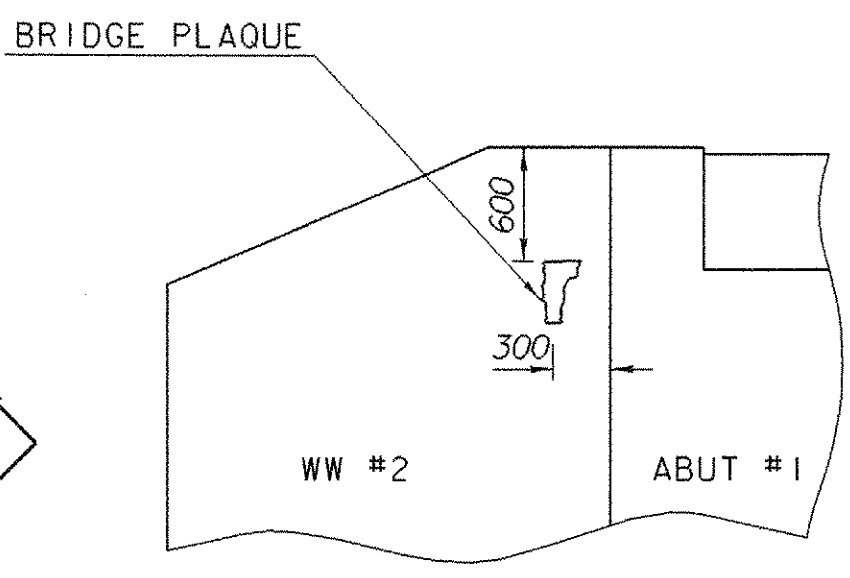


PLATE GIRDER TYPICAL SECTION
SCALE: 1 : 25



PLAN



VIEW "A-A"

LOCATE BRIDGE PLAQUE

THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT #1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.

SHEET NAME:	TYPICAL SECTIONS	
PROJECT NAME:	MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER:	BRO 1448(20)	BRIDGE NO.: 24
		OVER: PACIFIC BROOK
FILE NAME:	/PW/94j124/sj124pl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER:	R. WHITCOMB	DRAWN BY: T. FILLBACH
DESIGNED BY:	C. CARLSON	IPARM NAME: sj124pl.i
BRIDGE SHEET NUMBER:		SHEET 3 OF 50

STATE OF VERMONT AGENCY OF TRANSPORTATION														QUANTITY SHEET										Metric		
SUMMARY OF ESTIMATED QUANTITIES														TOTALS			DESCRIPTIONS					DETAILED SUMMARY OF QUANTITIES				
	ROADWAY		GABION RETAINING WALL		CHANNEL		SUPER- STRUCTURE		ABUTMENT #1		ABUTMENT #2		EROSION CONTROL		FULL CE ITEMS	BRIDGE QUANTITY	ROUND	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	QUANTITIES	UNIT	ITEMS	
	1																	1			LS	CLEARING AND GRUBBING (INCL. INDV. TREES AND STUMPS)	201.10			
	200																	200			CM	COMMON EXCAVATION	203.15			
					300											300		300			CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27			TEMPORARY EROSION CONTROL ITEMS (Included under Erosion Control Items)
	210																	210			CM	SAND BORROW	203.31	10	CM	204.20 TRENCH EXCAVATION OF EARTH
	60																	60			CM	GRANULAR BORROW	203.32	50	CM	301.35 SUBBASE OF GRAVEL
	50												10					60			CM	TRENCH EXCAVATION OF EARTH	204.20	10	CM	613.10 STONE FILL, TYPE I
			240						140		90					230		470			CM	STRUCTURE EXCAVATION	204.25	10	CM	613.10 STONE FILL, TYPE I (MOD. 1 - CHECK DAMS)
	30		120						50		70					120		270			CM	GRANULAR BACKFILL FOR STRUCTURES	204.30	120	SM	613.10 STONE FILL, TYPE I (MOD. 2 - CONST. ENTRANCE)
	260												50					310			CM	SUBBASE OF GRAVEL	301.15	120	SM	649.51 GEOTEXTILE FOR SILT FENCE
	100																	100			CM	AGGREGATE SURFACE COURSE	401.10	5	KG	651.17 SEED - WINTER RYE
							43									43		43			CM	CONCRETE, HIGH PERFORMANCE CLASS A	501.33	640	SM	654.10 EROSION MATTING
									36		35					71		71			CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34			NABI = NOT A BID ITEM
							26750									26750		26750			KG	STRUCTURAL STEEL(PLATE GIRDER)	506.55			EARTHWORK SUMMARY
									2360		2305					4665		4665			KG	REINFORCING STEEL	507.15			FILL REQUIRED
									27		29					56		56			M	DRILLING AND GROUTING DOWELS	507.16			FILL FACTOR (x 0.15) (60 X 0.15)
							6165		30							6195		6195			KG	EPOXY COATED REINFORCING STEEL	507.17			TOTAL FILL x FACTOR
							1									1		1			LS	SHEAR CONNECTORS (656 - 22 x 180)	508.15			COMMON EXCAVATION (200 CM x 1.00) = 200 CM
							62		12		10					84		84			L	WATER REPELLENT (MOD. - SILANE)	514.10			STRUCTURE EXCAVATION (470 CM X 0.60) = 282 CM
							59									59		59			M	BRIDGE RAILING - HDSB/FASCIA MOUNTED/HAND RAIL (MOD.)	525.43			UNCLASSIFIED CHANNEL EXCAVATION (300 CM X 0.60) = 180 CM
	1																	1			LS	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS (MOD.)	527.10			TRENCH EXCAVATION (41 CM X 1.00) = 41 CM
							1									1		1			EACH	PARTIAL REMOVAL OF STRUCTURE	529.20			TOTAL MATERIAL
							8									8		8			EACH	BEARING DEVICE ASSEMBLY (FABRIC)	531.10			AVAILABLE FOR FILL
																										703 CM
	41																	41			M	450 mm CSP 2.01 mm (68 mm X 12 mm)	601.0016			EXCESS MATERIAL
	41																	41			M	450 mm CAAP 2.67 mm (68 mm X 12 mm)	601.0217			634 CM
	41																	41			M	450 mm CPEP	601.0915			
	1																	1			EACH	450 mm CSP ELBOW 1.63 mm (68 mm X 12 mm)	601.5015			
	1																	1			EACH	450 mm CAAP ELBOW 1.52 mm (68 mm X 12 mm)	601.5215			
	1																	1			EACH	450 mm CPEP ELBOW	601.5814			
																										END PIPE & ELBOW OPTIONS
	5																	5			CM	DRY RUBBLE MASONRY	602.20			
	1																	1			EACH	PRC PIPE DROP INLET WITH CAST IRON GRATE	604.25			
	275																	275			CM	DUST CONTROL WITH WATER	609.10			
			150															150			CM	GABION RETAINING WALL	612.10			
	30				20								10			20		60			CM	STONE FILL, TYPE I	613.10			
													10					10			CM	STONE FILL, TYPE I (MOD. - CHECK DAMS)	613.10			
													10					10			CM	STONE FILL, TYPE I (MOD. - CONSTRUCTION ENTRANCE)	613.10			
					120											120		120			CM	STONE FILL, TYPE II	613.11			
	1																	1			EACH	RELOCATE MAIL BOX, SINGLE SUPPORT	617.10			
	1																	1			EACH	YIELDING MARKER POSTS	619.17			
	280																	280			M	SNOW FENCE (MOD. - PDF)	620.70			
	88																	88			M	HEAVY DUTY STEEL BEAM GUARD RAIL (WEATHERING) (WOOD POSTS)	621.21			
	4																	4			EACH	ANCHOR FOR STEEL BEAM RAIL	621.60			
															1			1			LS	FIELD OFFICE-ENGINEERS	631.10			
																						PROJECT NAME: MONTGOMERY				
																						PROJECT NUMBER: BRO 1448(20)				
																						FILE NAME: /PW/94j124/sj124qnt.xls				
																						PROJECT MANAGER: R. WHITCOMB				
																						DESIGNED BY: C.CARLSON				
																						QUANTITY SHEET #1				
																						PLOT DATE: 11/1/2005				
																						DRAWN BY: T. FILLBACH				
																						CHECKED BY: C.CARLSON				
																						SHEET 4 OF 50				

QUANTITY SHEET

[illegible]

PROJECT NAME: MONTGOMERY	
PROJECT NUMBER: BRO 1448(20)	
FILE NAME: /P/W/94j124/sj124qnt.xls	PLOT DATE: 12/9/98
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: T. FILLBACH
DESIGNED BY: C.CARLSON	CHECKED BY: C.CARLSON
QUANTITY SHEET #2	SHEET 5 OF 50

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF MONTGOMERY
COUNTY OF FRANKLIN

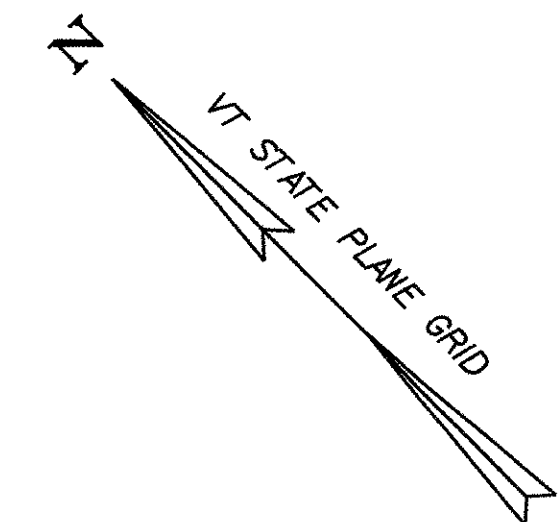
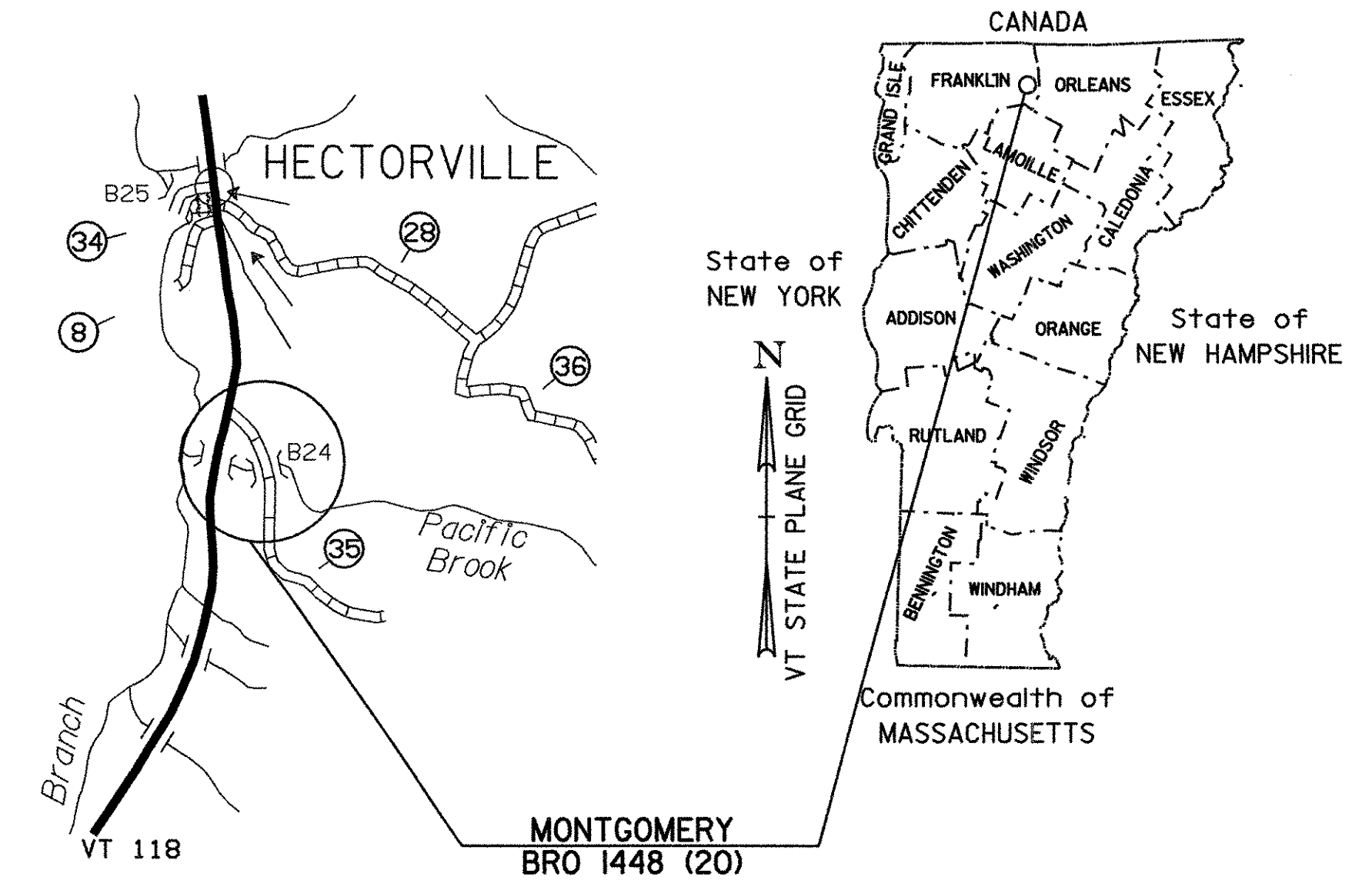
ROUTE NO : TH 35 (CLASS 3) (LOCAL ROAD) BRIDGE NO : 24

PROJECT LOCATION : BRIDGE 24 ON TH 35 APPROXIMATELY 0.2 KM
SOUTHEASTERLY OF THE INTERSECTION OF TH35 AND VT 118
AND EXTENDING ALONG TH 35 FOR 100 METERS.

PROJECT DESCRIPTION : REPLACEMENT OF BRIDGE 24 WITH NECESSARY APPROACH WORK.

LENGTH OF STRUCTURE :	27.100	METERS.	
LENGTH OF ROADWAY :	72.900	METERS.	
LENGTH OF PROJECT :	100.000	METERS.	
LENGTH OF R.O.W. PROJECT :	131.5+/-	METERS.	(431 FEET +/-)

NOTE: TRAFFIC WILL BE MAINTAINED ON EXISTING BRIDGE.



THE FOLLOWING RIGHT OF WAY PLAN SHEETS PERTAIN
DIRECTLY TO THE ACQUISITION OF LAND AND RIGHTS
NECESSARY TO CONSTRUCT THIS TRANSPORTATION
PROJECT. SHEETS REGARDING SPECIFIC CONSTRUCTION
DETAILS ARE NOT INCLUDED IN THIS RECORDED SET.

CONVENTIONAL SYMBOLS

COUNTY LINE	
TOWN LINE	
LIMITS OF ACCESS	
POINT OF ACCESS	
FENCE LINE	
STONE WALL	
TRAVELED WAY	
GUARD RAIL	
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TOE OF SLOPE	

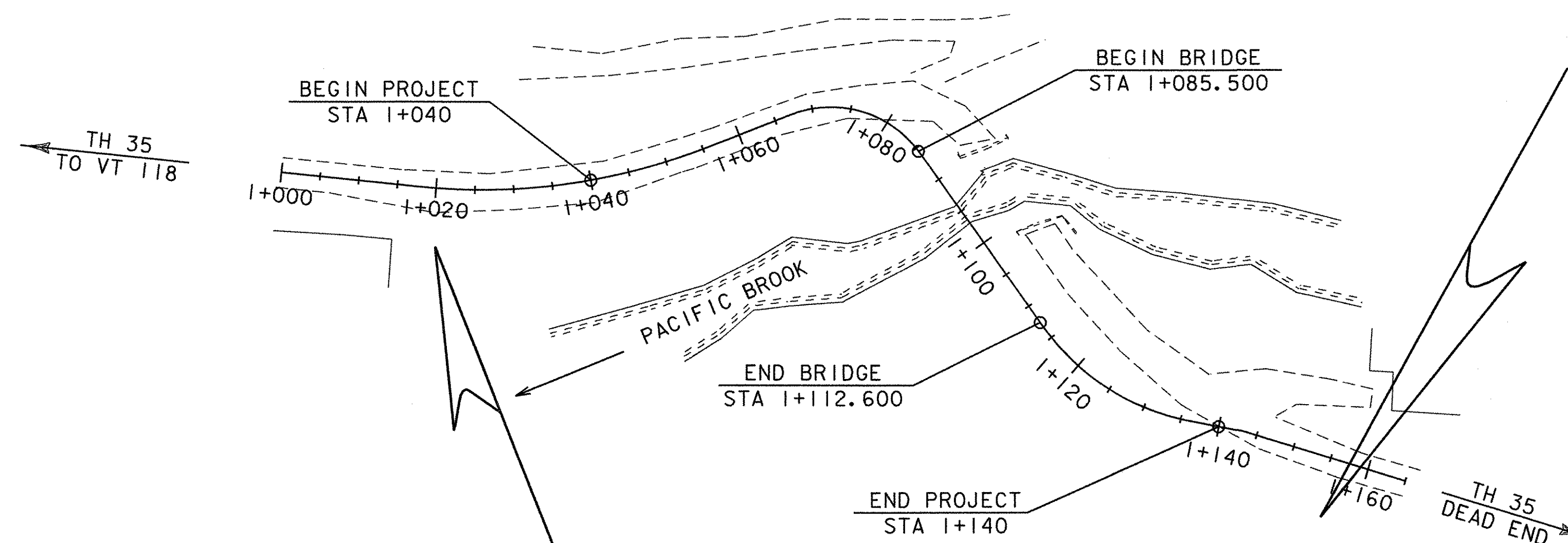
BEGIN R. O. W. PROJECT

BRO 1448(20) STA. 1+023.00
7.54M (24.75') RT.

SURVEYED BY :
SURVEYED DATE :

DATUM

VERTICAL NAVD 88
HORIZONTAL NAD - 83 (92)



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

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.
/str1/94j124/sj124bdr.dgn

PLOTTED: 31-JAN-2003

END R. O. W. PROJECT
BRO 1448(20) STA. 1+154.49
7.54M (24.75') RT.

ALL DRIVES AS INDICATED ON PLANS
ARE SUBJECT TO PERMITS PURSUANT
TO TITLE 19 SECTION III, V.S.A.

Metric

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

APPROVED DATE 2/3/03
Director of Project Development

APPROVED DATE 1/31/03
Chief of Right of Way

MONTGOMERY
BRO 1448(20)

R. O. W. SHEET 1 OF 7 SHEETS

BRIDGE RAILING - HDSB
/FASCIA MOUNTED/
HANDRAIL (MOD.)

STA. 1+084.600 RT. - STA. 1+113.380 RT.
STA. 1+083.500 LT. - STA. 1+113.380 LT.

HDSB GUARD RAIL WITH WOOD POSTS (WEATHERING)

STA. 1+047.500 RT. - STA. 1+084.600 RT.
STA. 1+113.380 RT. - STA. 1+128.640 RT.
STA. 1+082.370 LT. - STA. 1+083.500 LT.
STA. 1+113.380 LT. - STA. 1+127.700 LT.

STONE FILL, TYPE I (IN DITCHES)

STA. 1+025.000 LT. - STA. 1+080.500 LT.
STA. 1+112.500 RT. - STA. 1+145.000 RT.

CONSTRUCT DRIVE

STA. 1+078.000 LT.
STA. 1+142.000 LT.

ANCHOR FOR STEEL BEAM RAIL

STA. 1+048.500 RT.
STA. 1+082.443 LT.
STA. 1+127.500 RT.
STA. 1+125.600 LT.

PIPE OPTION (450)

STA. 1+040
CSP
CPEP
CAAP

STA. 1+113.900 - 1+147.500 LT.
CSP
CPEP
CAAP

GABION WALL

STA. 1+044.800 RT. - STA. 1+080.800 RT.

RELOCATION OF MAILBOX

STA. 1+134.400 LT.

DECIDUOUS TREES
(SEE GENERAL NOTE #19)

STA. 1+109.500 LT. +/- - STA. 1+120.000 LT. +/-

EXISTING R.O.W. IS 3 RODS (49.5')
AS CLAIMED BY
THE TOWN OF MONTGOMERY
SELECT BOARD

CURVE NO. 2 DATA
 $\Delta = 75^\circ 53' 56''$
R = 14.000
T = 10.918
L = 18.546
E = 3.754
BANK = NORMAL CROWN

②

**CHAUVIN, PAUL J.
& DEBORAH J.**

VT STATE PLANE GRID

* THE INDICATED LOCATIONS OF THE SEPTIC TANK
AND LEACHFIELD ARE APPROXIMATE AND WERE
ESTABLISHED AS PER AN ONSITE MEETING WITH THE
PROPERTY OWNER. APPROPRIATE CARE SHOULD BE
TAKEN WHILE WORKING IN THIS AREA. SEE GENERAL
NOTE 16.

**FORMERLY
SCOTT**

CURVE NO. 1 DATA
 $\Delta = 27^\circ 07' 21.0''$
R = 80.000
T = 19.298
L = 37.870
E = 2.295
BANK = VARIES

STA. 1+040 - 450 x 11 000 OPTION
PIPE WITH D.I. AT INLET AND
STONE FILL, TYPE I PAD AT OUTLET

STA 1+040
BEGIN PROJECT
END APPROACH

PI
Sta 1+036.935

PC
Sta 1+017.639

POB
Sta 1+000.000

TH 35
TO VT 118

①

**KADEN, BARBARA
REVOCABLE TRUST
KADEN, BARBARA, TRUSTEE**

BEGIN R.O.W. PROJECT

BRO 1448(20) STA. 1+023.00
7.54M (24.75') RT.

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

STA 1+085.500
BEGIN BRIDGE
F.G. = 258.016

PI
Sta 1+078.183

PC
Sta 1+067.265

HARDWOOD/SOFTWOOD
TREES

PT
Sta 1+055.509

STONE FILL TYPE I
(TYP)

1+072.75
7.54M (24.75') RT.

1+080
7.54M (24.75') RT.

1+095.71
0.61M (2.00') RT.

1+094.47
7.54M (24.75') RT.

STA 1+102.000
CHAN STA 5+000.000
 $\Delta = 90^\circ$

POB
Sta 4+950.000

STATIONING
4+960
4+950

④

**KEEN, COLIN G.
& BRIGITTE**

CURVE NO. 3 DATA
 $\Delta = 43^\circ 35' 23.1''$
R = 30.000
T = 11.997
L = 22.824
E = 2.286
BANK = NORMAL CROWN

END R.O.W. PROJECT

BRO 1448(20) STA. 1+154.49
7.54M (24.75') RT.

CURVE NO. 4 DATA
 $\Delta = 5^\circ 55' 44.9''$
R = 120.000
T = 6.215
L = 12.418
E = 0.161
BANK = NORMAL CROWN

STA. 1+113.900 - 1+147.500 LT - 450 x 30 000
OPTION PIPE WITH STONE HEADWALL AT INLET

LEGEND

— FILTER CURTAIN
— SILT FENCE
— STONE FILL, TYPE I
— PDF — PROJECT DEMARCATION
FENCE (SNOW FENCE
(MOD. -PDF))
— STONE CHECK DAM (TEMP.)
(TO BE REMOVED UPON
COMPLETION OF STONE
DITCHES.)

FOR RIGHT OF WAY
INFORMATION
ONLY

EXISTING BRIDGE DATA

BRIDGE WIDTH: 5151
BRIDGE LENGTH: 13.716
ROADWAY APPROACH WIDTH: 3962
THE EXISTING BRIDGE IS A PONY TRUSS
WITH A WOOD PLANK DECK WITH RUNNERS.
THERE IS A ROLLED BEAM STRINGER
AT EACH FASCIA WITH FOUR H-PILES
IN BETWEEN SUPPORTING THE DECK.
THE EXISTING ABUTMENTS ARE CONCRETE
WITH METAL I-BEAM BACKWALLS.

SHEET NAME: PLAN SHEET

PROJECT NAME: MONTGOMERY
PROJECT NUMBER: BRO 1448(20)

HIGHWAY NO.: TH 35
BRIDGE NO.: 24
OVER: PACIFIC BROOK

FILE NAME: /PW/94j124/sj124bdr.dgn
PROJECT MANAGER: R. WHITCOMB
DESIGNED BY: C. CARLSON
R.O.W. SHEET 7 OF 7 SHEETS

PLOT DATE: 06-DEC-2005
DRAWN BY: J. GILMORE
IPARM NAME: sj124d1.i
SHEET 6 OF 50

0 10 20
SCALE 1:250

BRIDGE RAILING-HEAVY DUTY
STEEL BEAM/FASCIA MOUNTED
WITH HANDRAIL (TYPE E) (MOD.)
STA. 1+084.600 RT. - STA. 1+113.380 RT.
STA. 1+083.500 LT. - STA. 1+113.380 LT.

GUARD RAIL, HEAVY DUTY STEEL BEAM, TYPE 4
STA. 1+047.500 RT. - STA. 1+084.600 RT.
STA. 1+113.380 RT. - STA. 1+128.640 RT.
STA. 1+082.370 LT. - STA. 1+083.500 LT.
STA. 1+113.380 LT. - STA. 1+127.700 LT.

STONE FILL, TYPE I (IN DITCHES)
STA. 1+025.000 LT. - STA. 1+080.500 LT.
STA. 1+112.500 RT. - STA. 1+145.000 RT.

CONSTRUCT DRIVE
STA. 1+078.000 LT.
STA. 1+142.000 LT.

ANCHOR FOR STEEL BEAM RAIL
STA. 1+048.500 RT.
STA. 1+082.443 LT.
STA. 1+127.500 RT.
STA. 1+125.600 LT.

PIPE OPTION (450)
STA. 1+040
CSP
CPEP
CAAP
STA. 1+136.5 - 1+147.5 LT.
CSP
CPEP
CAAP

GABION WALL
STA. 1+044.700 RT. - STA. 1+080.900 RT.

RELOCATION OF MAILBOX
STA. 1+134.400 LT.

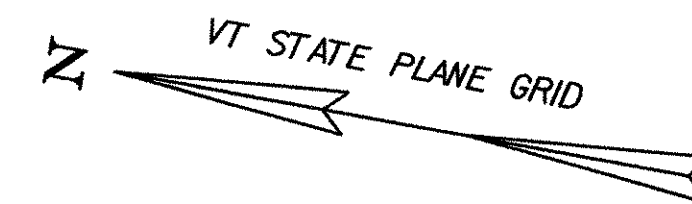
DECIDUOUS TREES
(SEE GENERAL NOTE #19)
STA. 1+106.000 LT. +/- - STA. 1+108.500 LT. +/-

EXISTING R.O.W. IS 3 RODS (49.5')
AS CLAIMED BY
THE TOWN OF MONTGOMERY
SELECT BOARD

CURVE NO. 2 DATA
Δ = 75°53'56"
R = 14.000
T = 10.918
L = 18.546
E = 3.754
BANK = NORMAL CROWN

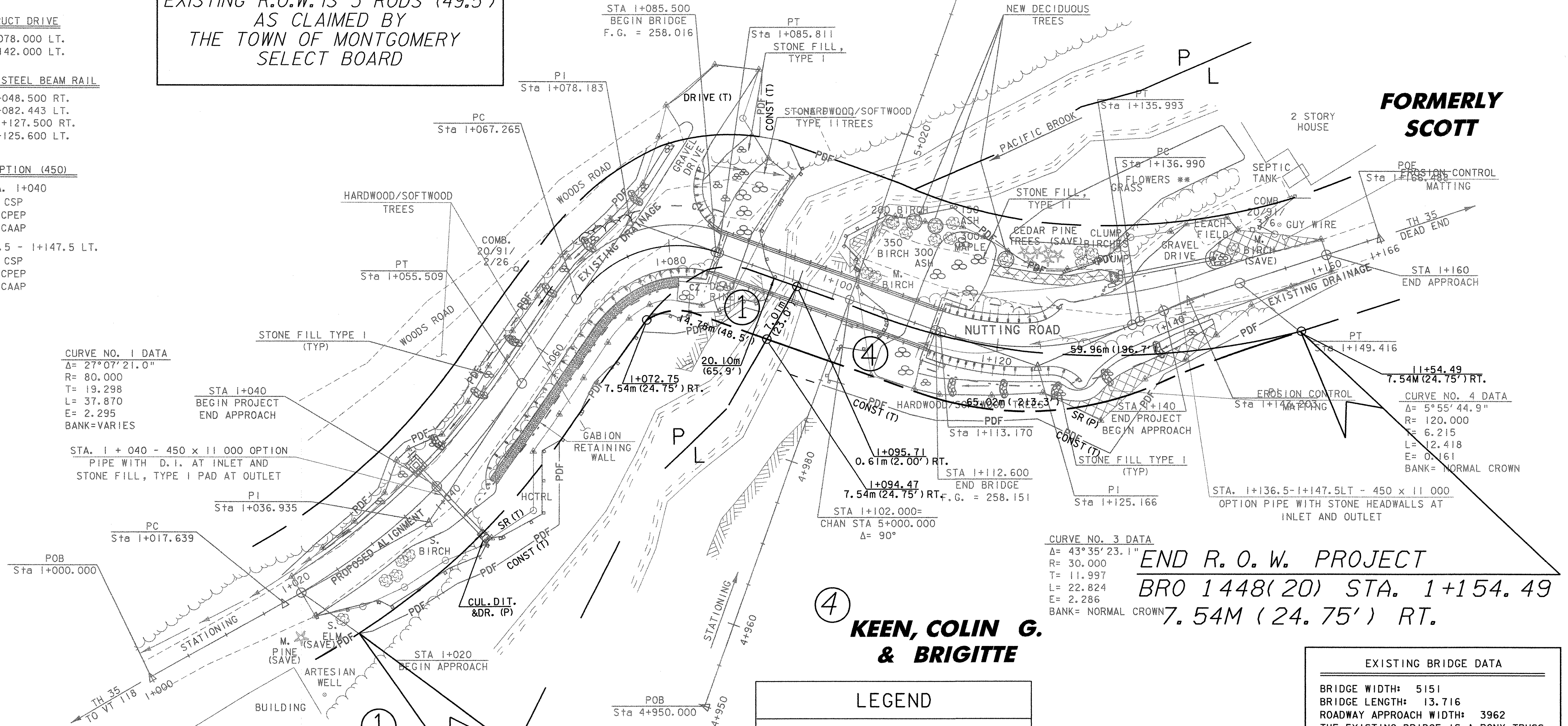
STA 1+085.500
BEGIN BRIDGE
F.G. = 258.016

**CHAUVIN, PAUL J.
& DEBORAH J.**



* THE INDICATED LOCATIONS OF THE SEPTIC TANK AND LEACHFIELD ARE APPROXIMATE AND WERE ESTABLISHED AS PER AN ONSITE MEETING WITH THE PROPERTY OWNER. APPROPRIATE CARE SHOULD BE TAKEN WHILE WORKING IN THIS AREA. SEE GENERAL NOTE 16.

**FORMERLY
SCOTT**



**KADEN, BARBARA
REVOCABLE TRUST
KADEN, BARBARA, TRUSTEE**

BEGIN R. O. W. PROJECT
BRO 1448(20) STA. 1+023.00
7.54M (24.75') RT.

**KEEN, COLIN G.
& BRIGITTE**

END R. O. W. PROJECT
BRO 1448(20) STA. 1+154.49
7.54M (24.75') RT.

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

SHEET NAME: PLAN SHEET			
PROJECT NAME:	MONTGOMERY	HIGHWAY NO.:	TH 35
PROJECT NUMBER:	BRO 1448(20)	BRIDGE NO.:	24
		OVER:	PACIFIC BROOK
FILE NAME:	/PW/94J24/sj24bdr.dgn		
PROJECT MANAGER:	R. WHITCOMB	PLOT DATE:	17-JUN-2004
DESIGNED BY:	C. MEUNIER	DRAWN BY:	J. GILMORE
R. O. W. SHEET 7 OF 7 SHEETS		IPARM NAME:	sj24d1.i
		SHEET	6 OF 50

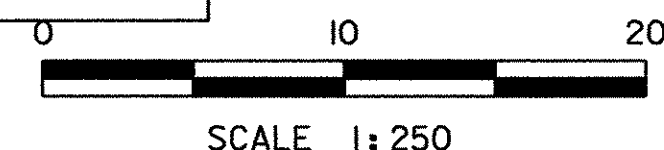




TABLE OF PROJECT PROPERTY ACQUISITION

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

PARCEL NO.	GRANTOR	SHEET NO.	BEGINNING STATION	ENDING STATION	TAKING	REM.	RIGHTS	TITLE TAKEN	DATE	TOWN OR CITY RECORDED	BK.	PG.	REMARKS	REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	KADEN, BARBARA REVOCABLE TRUST BARBARA KADEN, TRUSTEE	7	1+072.75 RT. 1+023.0 RT.	1+095.71 RT. 1+052.5 RT.	80 SM±		CONST. (T) 75 SM±	WDOE	05-19-04	MONTGOMERY	68	408-410	861 S.F.± 807 S.F.± INCLUDES EROSION CONTROL 183 S.F.±	1	6, 7	PARCEL NO. 2 CHAUVIN. DELETE EROSION CONTROL FROM THE PLANS. SHOW TEMPORARY CONSTRUCTION ON THE PLANS. PER C.O. 9328	01-12-04	G. J. F.	R. P. D.
			1+036.8 RT. 1+040.0 RT.	1+048.0 RT.			SLOPE (T) 17 SM± CUL., DIT. & DR. (P)							2	6, 7	PARCEL NO. 3 SCOTT. DELETE EROSION CONTROL FROM THE PLANS. SHOW TEMPORARY CONSTRUCTION ON THE PLANS. PER C.O. 9329	01-12-04	G. J. F.	R. P. D.
2	CHAUVIN, PAUL J. & DEBORAH J.	7	1+078.0 LT. 1+084.6 LT.	1+085.8 LT.			DRIVE (T) CONST. (T) 9.44 SM±						4M (12') GRAVEL 102 S.F.±	3	6, 7	PARCEL NO. 3 SCOTT. DELETE PARCEL FROM PROJECT. PER C.O. 9346.	04-16-04	M. J. R.	R. P. D.
3	DELETED												FORMERLY SCOTT			ELECTRONIC FILES TO STRUCTURES	06-17-04	G. J. F.	R. P. D.
4	KEEN, COLIN G. & BRIGITTE	7	1+094.47 RT. 1+096.9 RT. 1+127.95 RT.	1+154.49 RT. 1+135.7 RT. 1+131.68 RT.	320 SM±		CONST. (T) 111 SM± SLOPE (P) 4.5 SM±	WDOE	05-19-04	MONTGOMERY	68	412-413	3,445 S.F.± 1,195 S.F.± 48 S.F.±						
5	VERMONT ELECTRIC COOPERATIVE, INC.												UTILITY						
6	FAIRPOINT COMMUNICATIONS SOLUTIONS CORPORATION (NORTHLAND TELEPHONE COMPANY, INC.)												UTILITY						

ACCT.rdown
IP_PWP:dms02054\vrj124d.dgn
DATE PLOTTED 06-DEC-2005

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 ---
P ---
L ---
TOP OF CUT
TOE OF SLOPE

CLEARING & TRIMMING
CLEAR ZONE
CONSTRUCTION EASEMENT
SLOPE RIGHTS
PROPERTY LINE

APPROVED: ROGER P. DUMAS DATE: 01-31-03
CHIEF, PLANS & TITLES

R. O. W. PLANS

MONTGOMERY
BRO 1448(20)
R. O. W. SHEET 6 OF 7 SHEETS
SHEET 7 OF 50



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	KADEN, BARBARA REVOCABLE TRUST BARBARA KADEN, TRUSTEE	7	1+072.75 RT. 1+023.0 RT.	1+095.71 RT. 1+052.5 RT.	80 SM±		CONST. (T) 75 SM±	WDOE	05-19-04	MONTGOMERY	68	408-410	861 S.F.± 807 S.F.± INCLUDES EROSION CONTROL 183 S.F.±	1	6, 7	PARCEL NO. 2 CHAUVIN. DELETE EROSION CONTROL FROM THE PLANS. SHOW TEMPORARY CONSTRUCTION ON THE PLANS. PER C.O. 9328	01-12-04	G. J. F.	R. P. D.
			1+036.8 RT. 1+040.0 RT.	1+048.0 RT.			SLOPE (T) 17 SM± CUL., DIT. & DR. (P)							2	6, 7	PARCEL NO. 3 SCOTT. DELETE EROSION CONTROL FROM THE PLANS. SHOW TEMPORARY CONSTRUCTION ON THE PLANS. PER C.O. 9329	01-12-04	G. J. F.	R. P. D.
2	CHAUVIN, PAUL J. & DEBORAH J.	7	1+078.0 LT. 1+084.6 LT.	1+085.8 LT.			DRIVE (T) CONST. (T) 9.44 SM±						4M (12") GRAVEL 102 S.F.±	3	6, 7	PARCEL NO. 3 SCOTT. DELETE PARCEL FROM PROJECT. PER C.O. 9346.	04-16-04	M. J. R.	R. P. D.
3	DELETED												FORMERLY SCOTT			ELECTRONIC FILES TO STRUCTURES	06-17-04	G. J. F.	R. P. D.
4	KEEN, COLIN G. & BRIGITTE	7	1+094.47 RT. 1+096.9 RT. 1+127.95 RT.	1+154.49 RT. 1+135.7 RT. 1+131.68 RT.	320 SM±		CONST. (T) 111 SM± SLOPE (P) 4.5 SM±	WDOE	05-19-04	MONTGOMERY	68	412-413	3,445 S.F.± 1,195 S.F.± 48 S.F.±						
5	VERMONT ELECTRIC COOPERATIVE, INC.												UTILITY						
6	FAIRPOINT COMMUNICATIONS SOLUTIONS CORPORATION (NORTHLAND TELEPHONE COMPANY, INC.)												UTILITY						

ACCT.mryan
IP_PWP\dms02054\7ji24d.dgn
DATE PLOTTED 18-JUN-2004

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

--- -- --
/// ---
--- P ---
--- L ---
(P)
(T)

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

LEGEND

--- C&T (P) ---
... C&T (P) ...
--- CONST. (T) ---
SR P SR
P
L
△ L △
○ L ○

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

--- UE (P) --- PERMANENT UTILITY EASEMENT

APPROVED: ROGER P. DUMAS DATE: 01-31-03
CHIEF, PLANS & TITLES

R. O. W. PLANS

MONTGOMERY
BRO 1448(20)
R. O. W. SHEET 6 OF 7 SHEETS
SHEET 7 OF 50

GPS CONTROL POINTS

HVCTRL #1

STANDARD DISC STAMPED

NUTTING AZ

N = 259357.2390

E = 491398.8680

ELEV. = 242.100

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1994 (CHR)
GENERAL LOCATION, MONTGOMERY, VT., IN THE SMALL SETTLEMENT OF
HECTORVILLE, ABOUT 12.5 MI (20.1 KM) SOUTH OF THE U.S./CANADA BORDER,
ABOUT 20.5 MI (33.0 KM) WEST OF NEWPORT, AND ABOUT 23.5 MI (37.8 KM)
EAST OF ST ALBANS. OWNERSHIP, ARNOLD MERCY, RD 1 BOX 330, MONTGOMERY
CENTER, VT. 05471. PHONE 802-326-4200. TO REACH FROM THE
INTERSECTION OF VT ROUTES 118 AND 242 IN MONTGOMERY CENTER GO SOUTH
ALONG VT ROUTE 118 FOR 3.1 MI (5.0 KM) TO THE MARK ON THE RIGHT, ABOUT
0.1 MI (0.2 KM) NORTH OF A LOG HOME. THE MARK IS 11.5 M (37.7 FT)
WEST OF AND ABOUT LEVEL WITH THE CENTERLINE OF VT ROUTE 118, 2.6 M
(8.5 FT) SOUTH OF UNDERGROUND TELEPHONE CABLE BOX NO. 2/29, 4.3 M
(14.1 FT) SOUTHWEST OF MILE MARKER 1180/0610/0260 AND A GUY ANCHOR,
AND 3.4 M (11.2 FT) SOUTH OF A FIBERGLASS WITNESS POST AND POLE NO.
MT/168. IT IS SET FLUSH WITH THE GROUND IN THE TOP OF A 1 M (3.3 FT)
X 0.5 M (1.6 FT) ROCK OUTCROP.

HVCTRL #2

STANDARD DISC STAMPED

NUTTING

N = 258972.7470

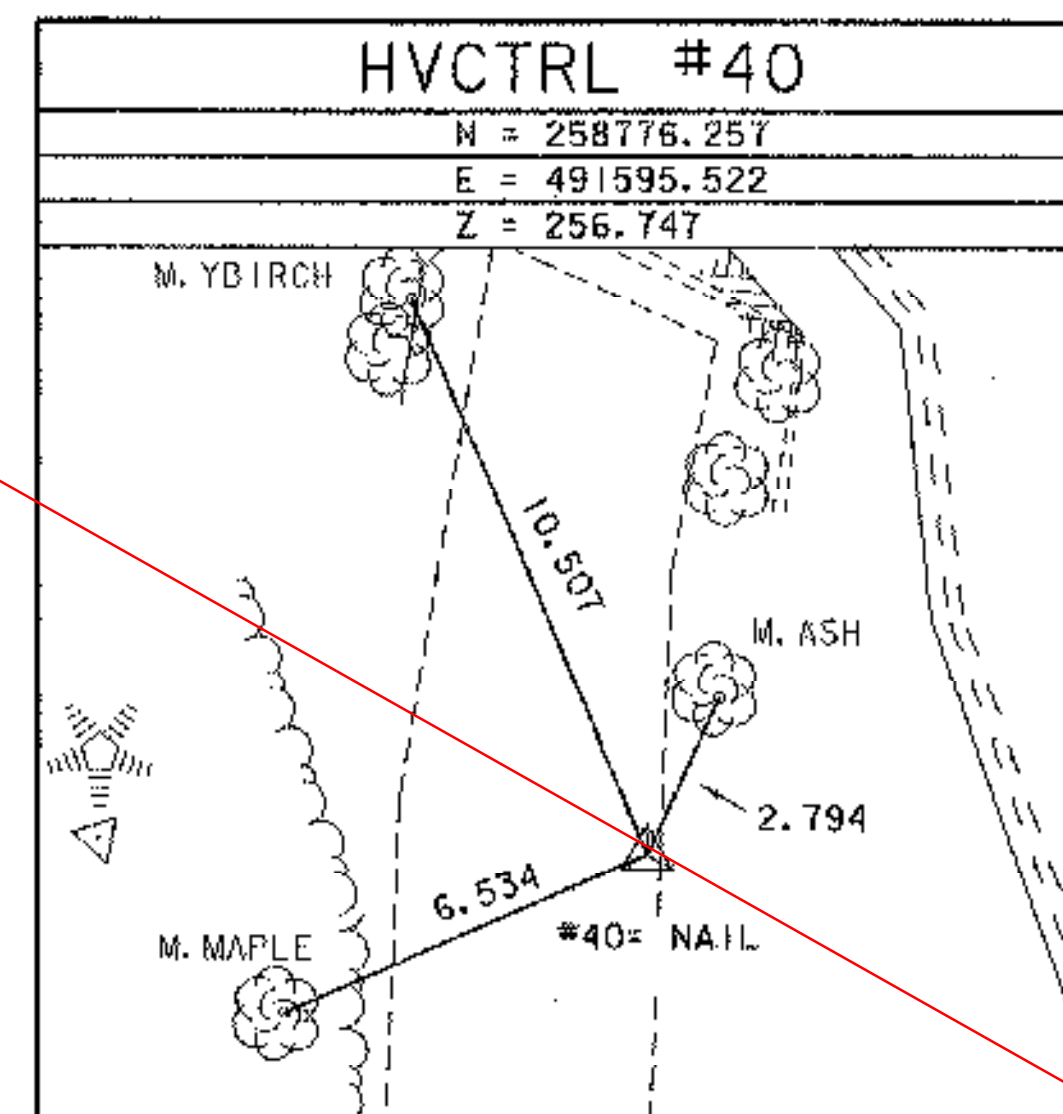
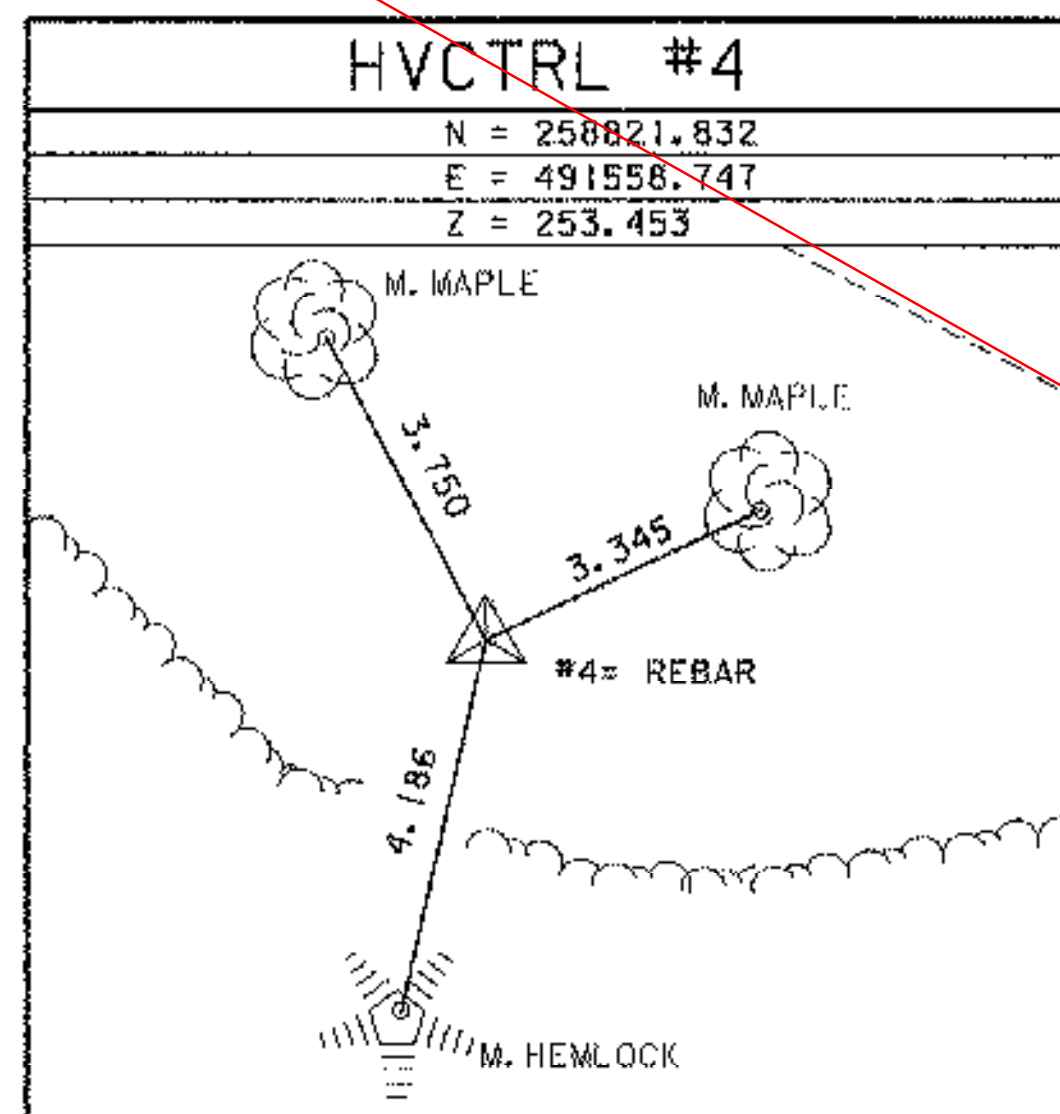
E = 491386.9480

ELEV. = 243.000

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1994 (CHR)
GENERAL LOCATION, MONTGOMERY, VT., IN THE SMALL SETTLEMENT OF
HECTORVILLE, ABOUT 13 MI (20.9 KM) SOUTH OF THE U.S./CANADA BORDER,
ABOUT 20.5 MI (33.0 KM) WEST OF NEWPORT, AND ABOUT 23.5 MI (37.8 KM)
EAST OF ST ALBANS. TO REACH FROM THE INTERSECTION OF VT ROUTES 118
AND 242 IN MONTGOMERY CENTER GO SOUTH ALONG VT ROUTE 118 FOR 3.3 MI
(5.3 KM) TO THE MARK ON THE RIGHT, ABOUT 25 M (82.0 FT) SOUTH OF THE
INTERSECTION OF NUTTING ROAD. THE MARK IS 8.7 M (28.5 FT) WEST OF AND
ABOUT LEVEL WITH THE CENTERLINE OF VT ROUTE 118, 35.4 M (116.1 FT)
SOUTHWEST OF POLE NO. VE COOP MT/164, 17.4 M (57.1 FT) EAST OF A
40-CM MAPLE (MOST NORTHERLY OF 2), 34.7 M (113.8 FT) NORTH-NORTHEAST
OF POLE NO. 20/91A/1/2/29-2, AND 0.3 M (1.0 FT) EAST OF A FIBERGLASS
WITNESS POST. IT IS SET FLUSH WITH THE GROUND IN THE TOP OF A 30-CM
DIAMETER CONCRETE MONUMENT POURED TO A DEPTH OF 1.3 M.

* DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT

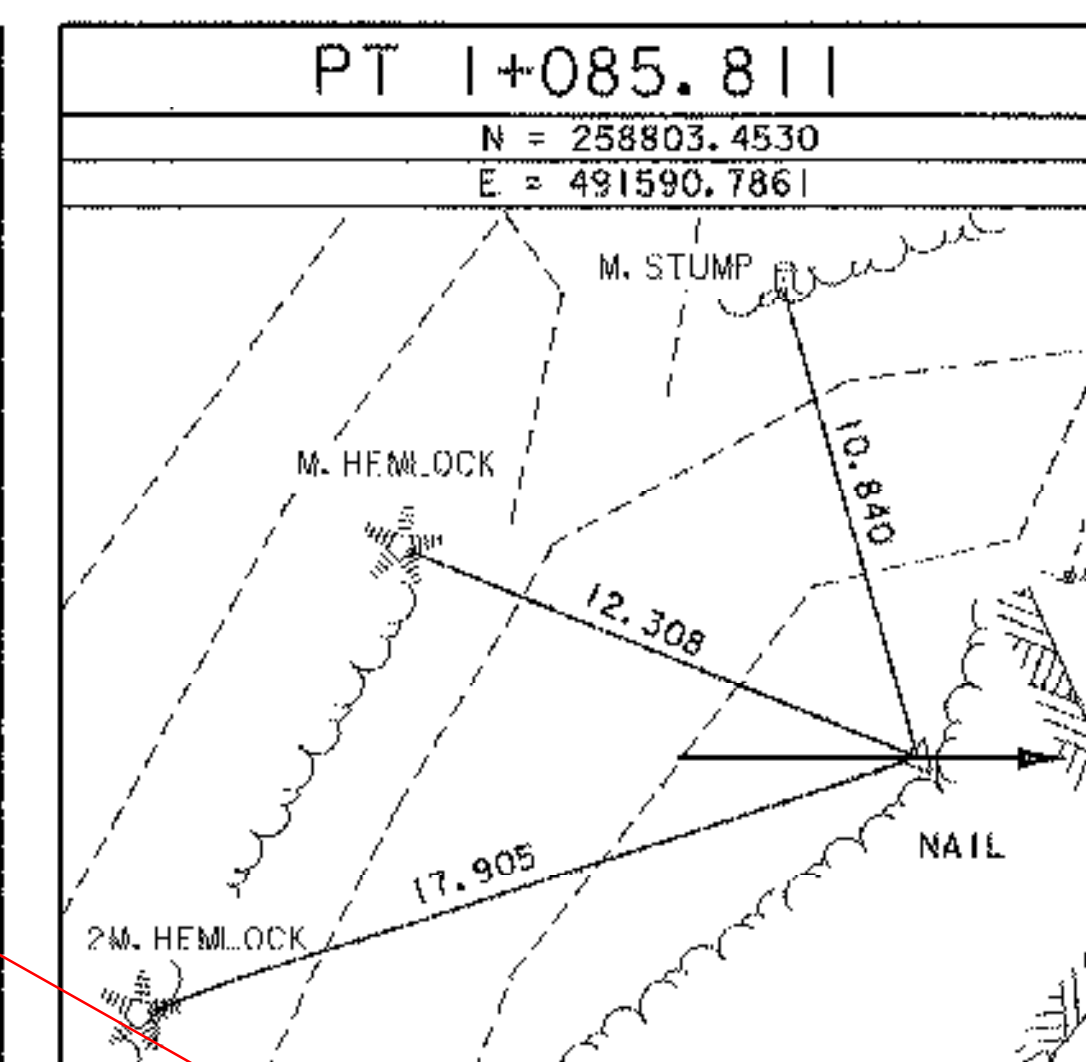
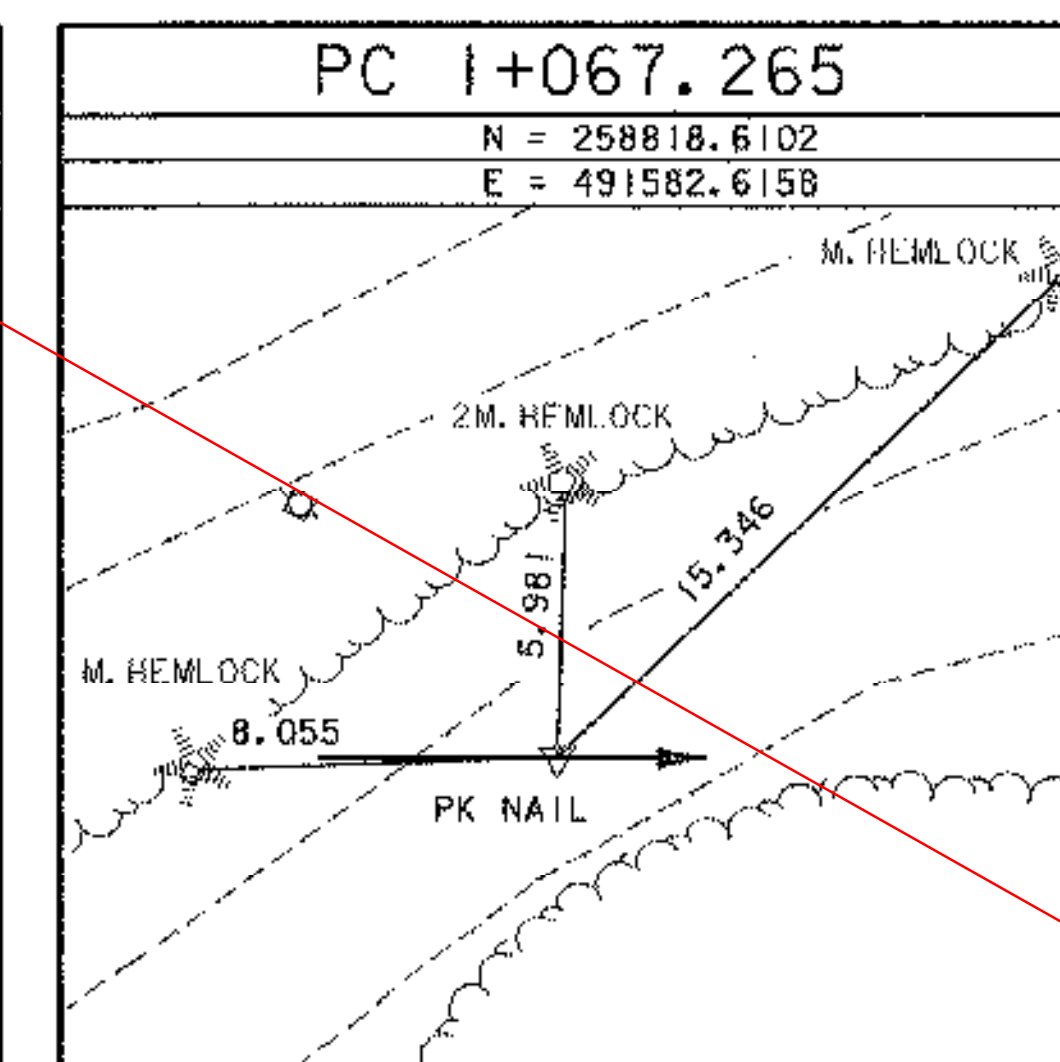
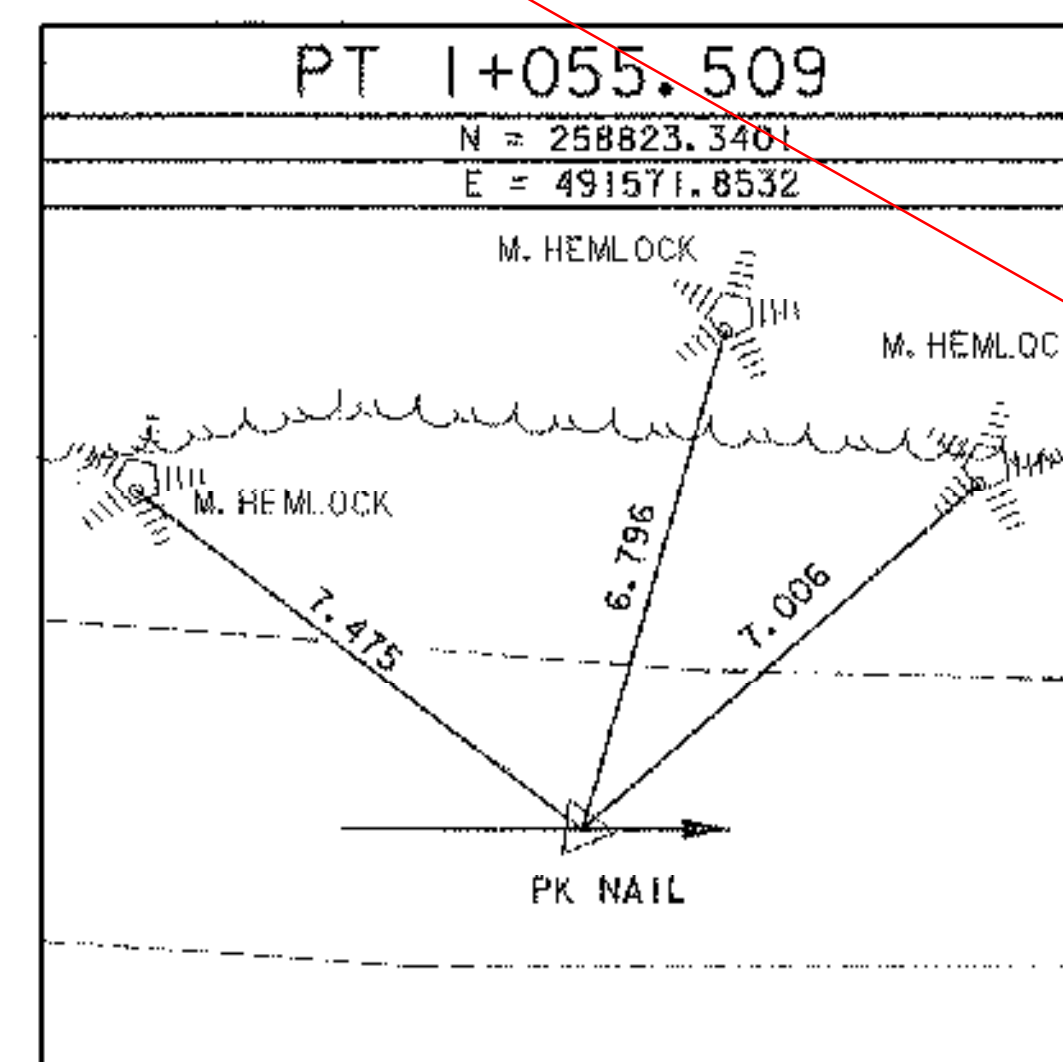
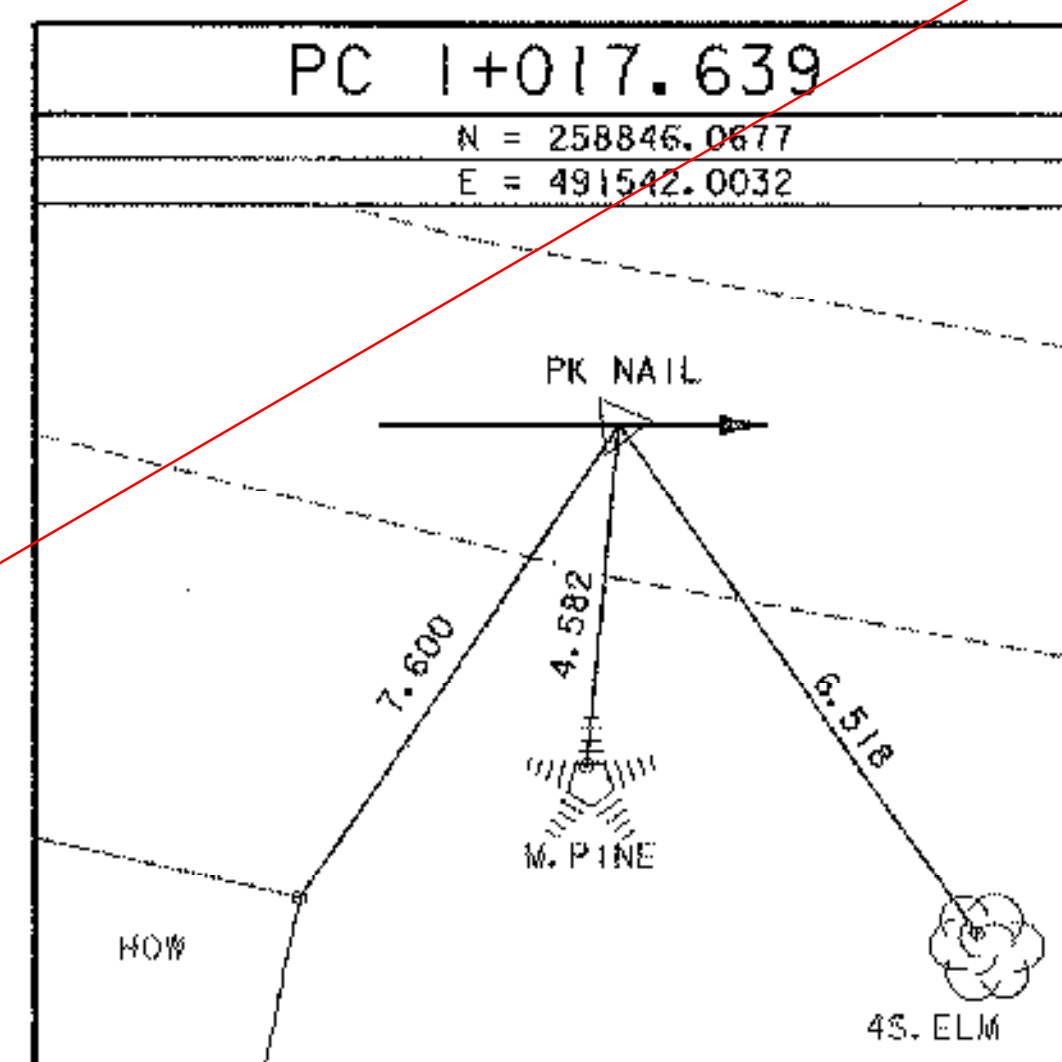
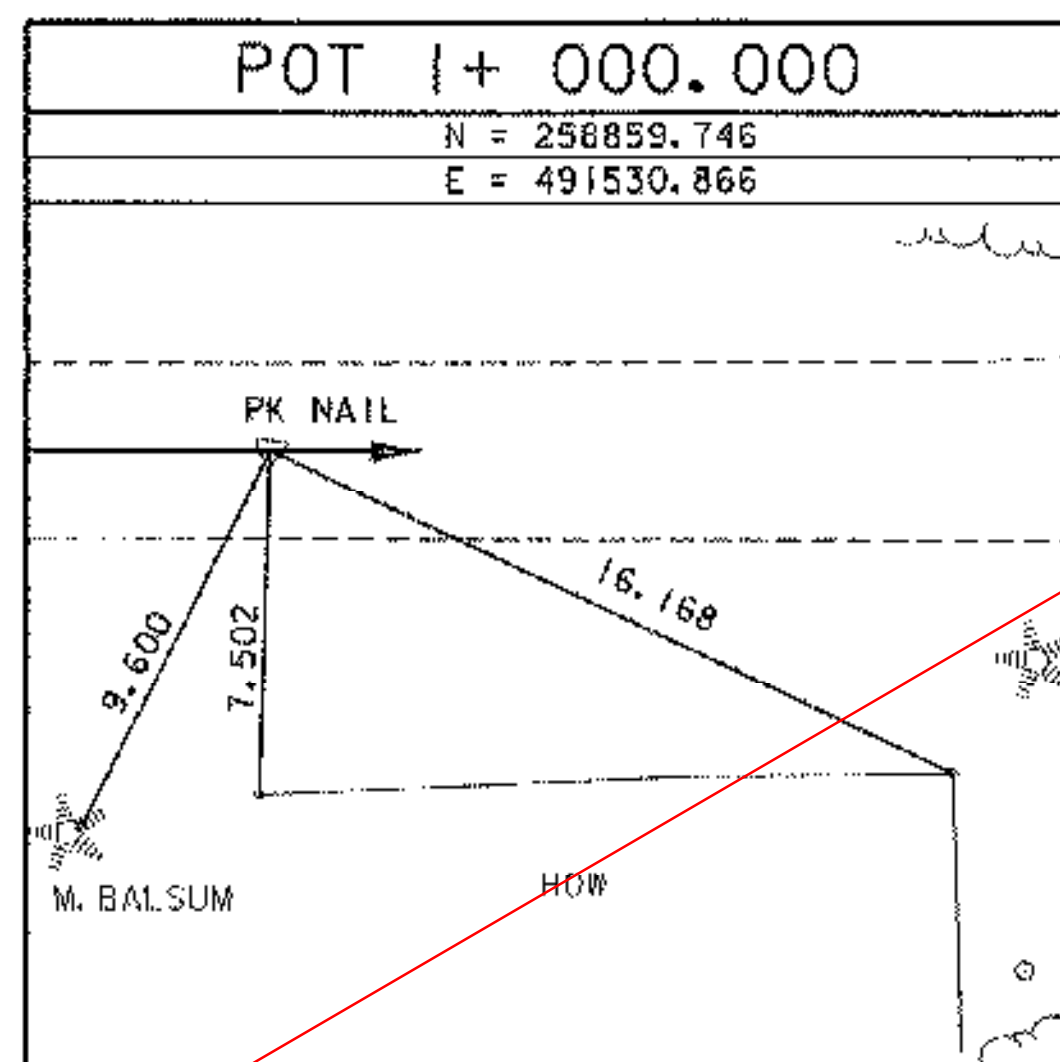
TRAVERSE TIES



* MAIN TRAVERSE COMPLETED: FEBRUARY 21, 1995 BY R. MOREAU, A. MYERS & T. CHASE

SEE REVISED SHEET 8 & 8A

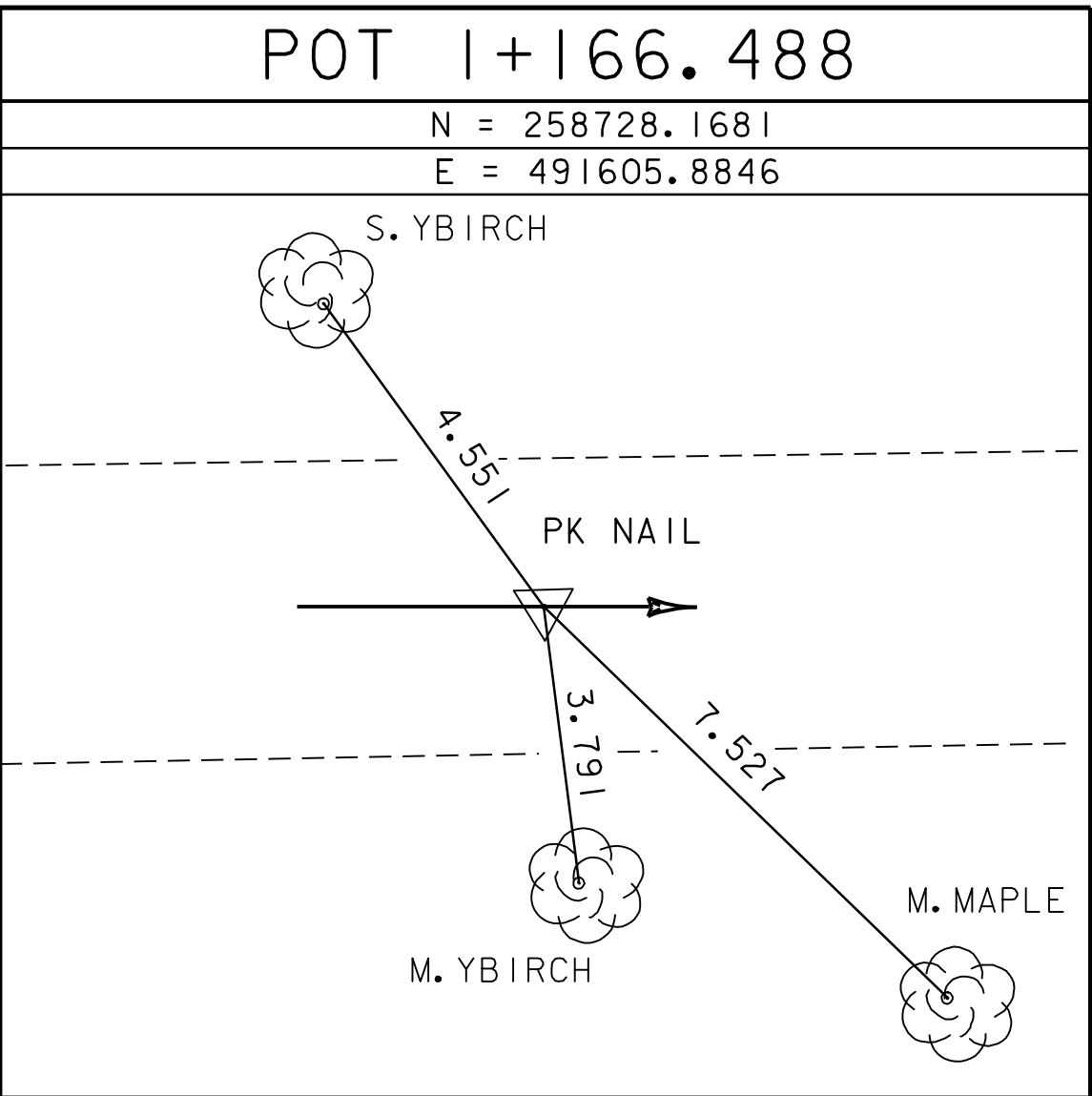
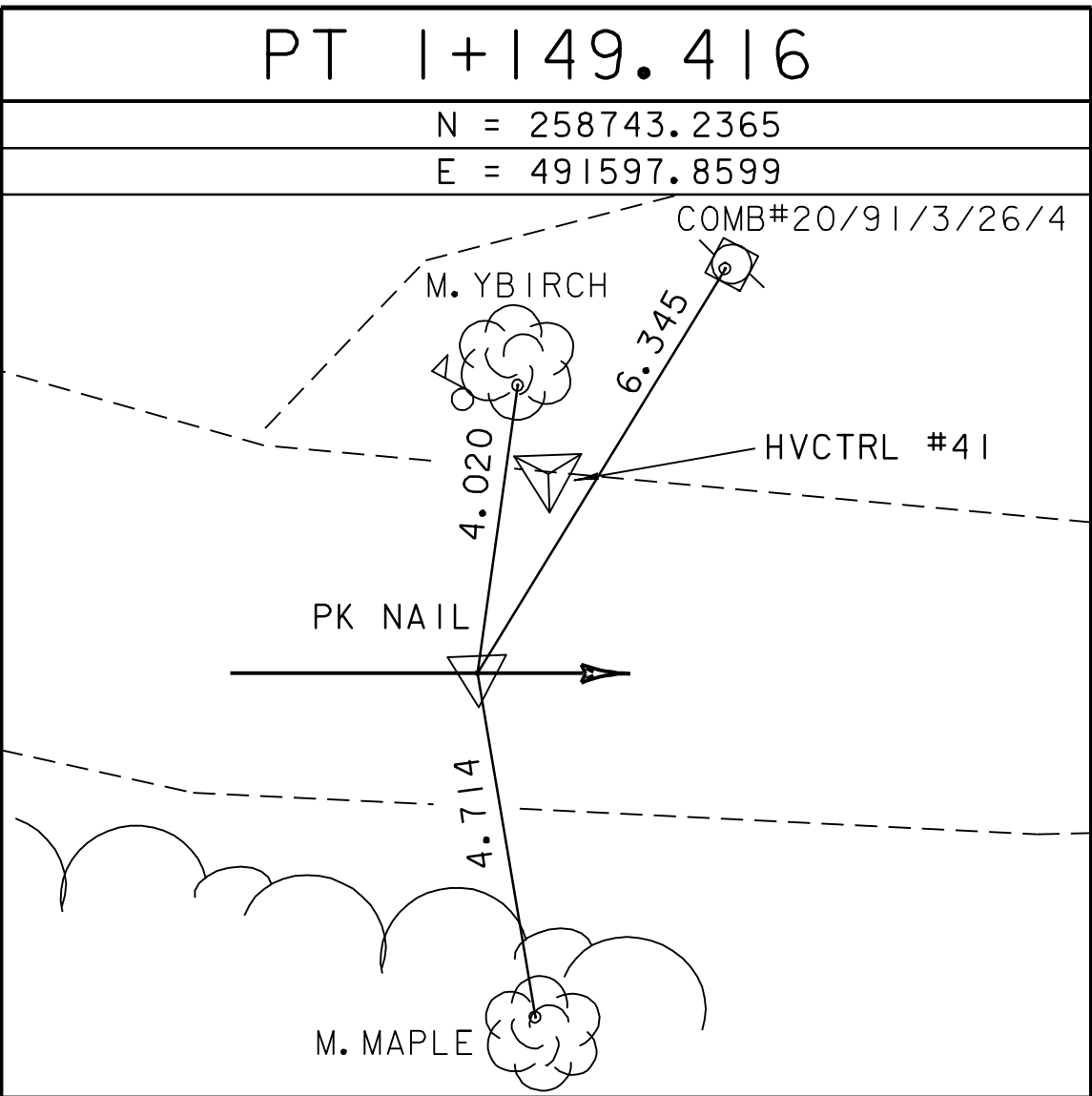
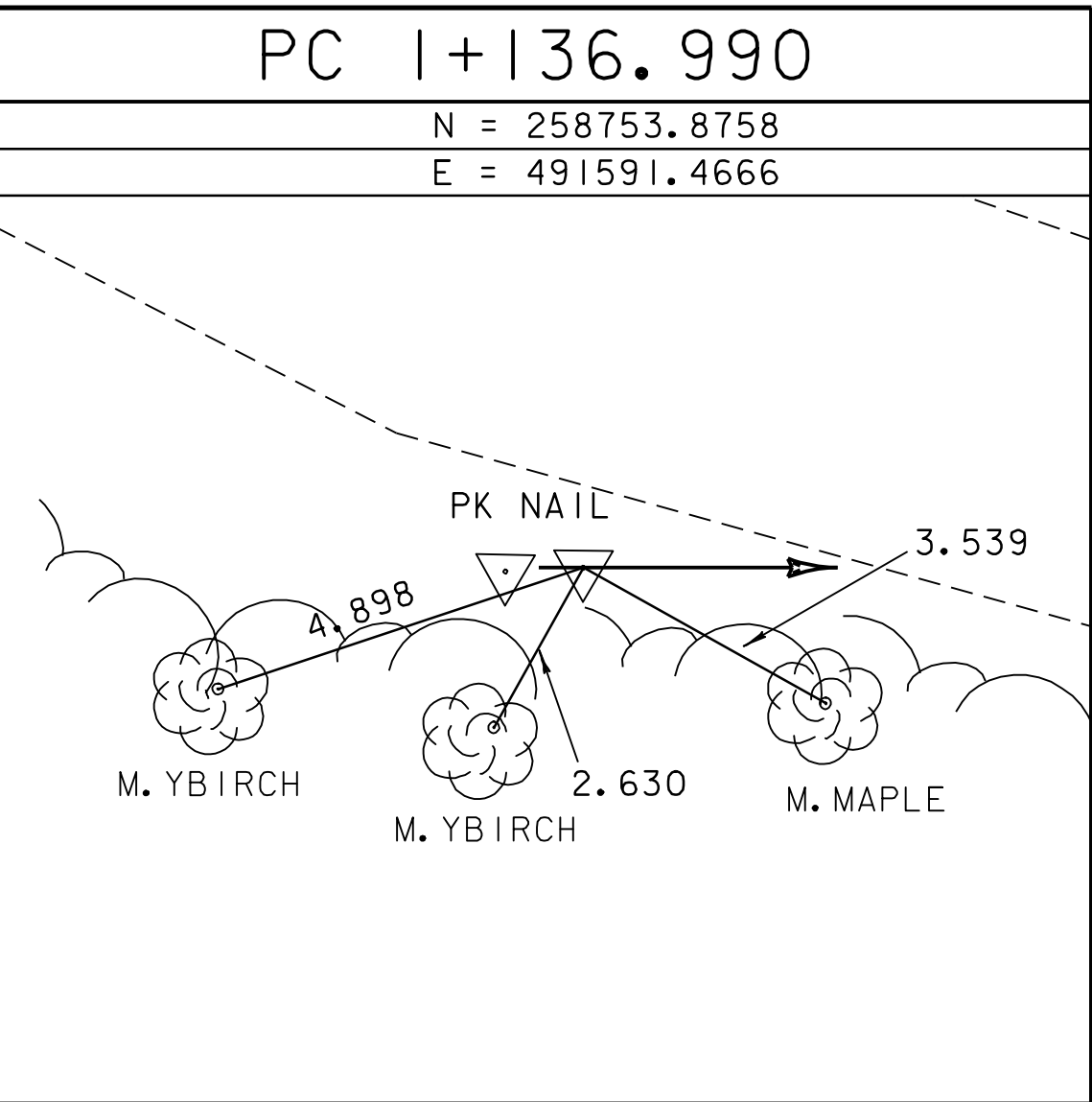
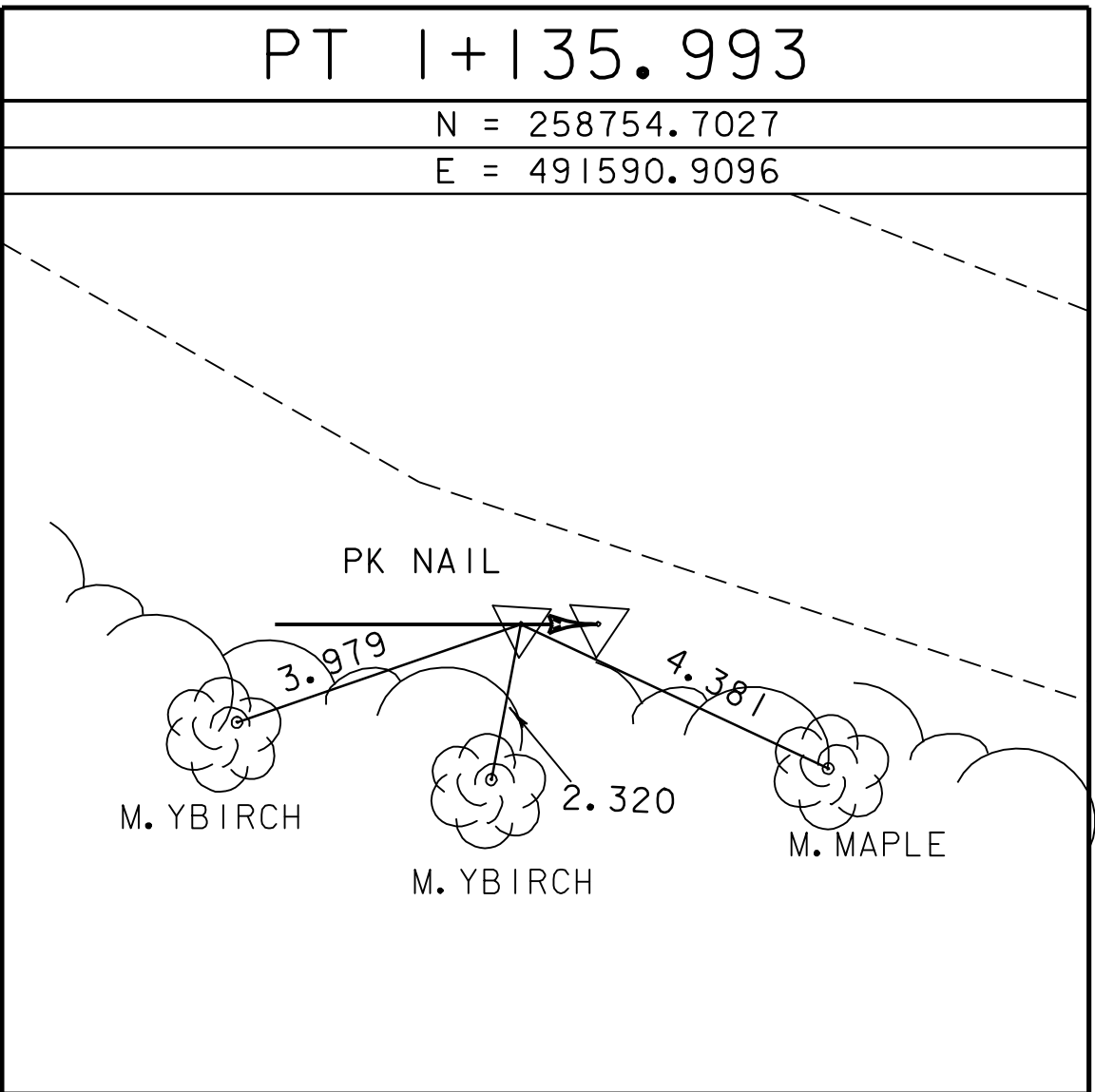
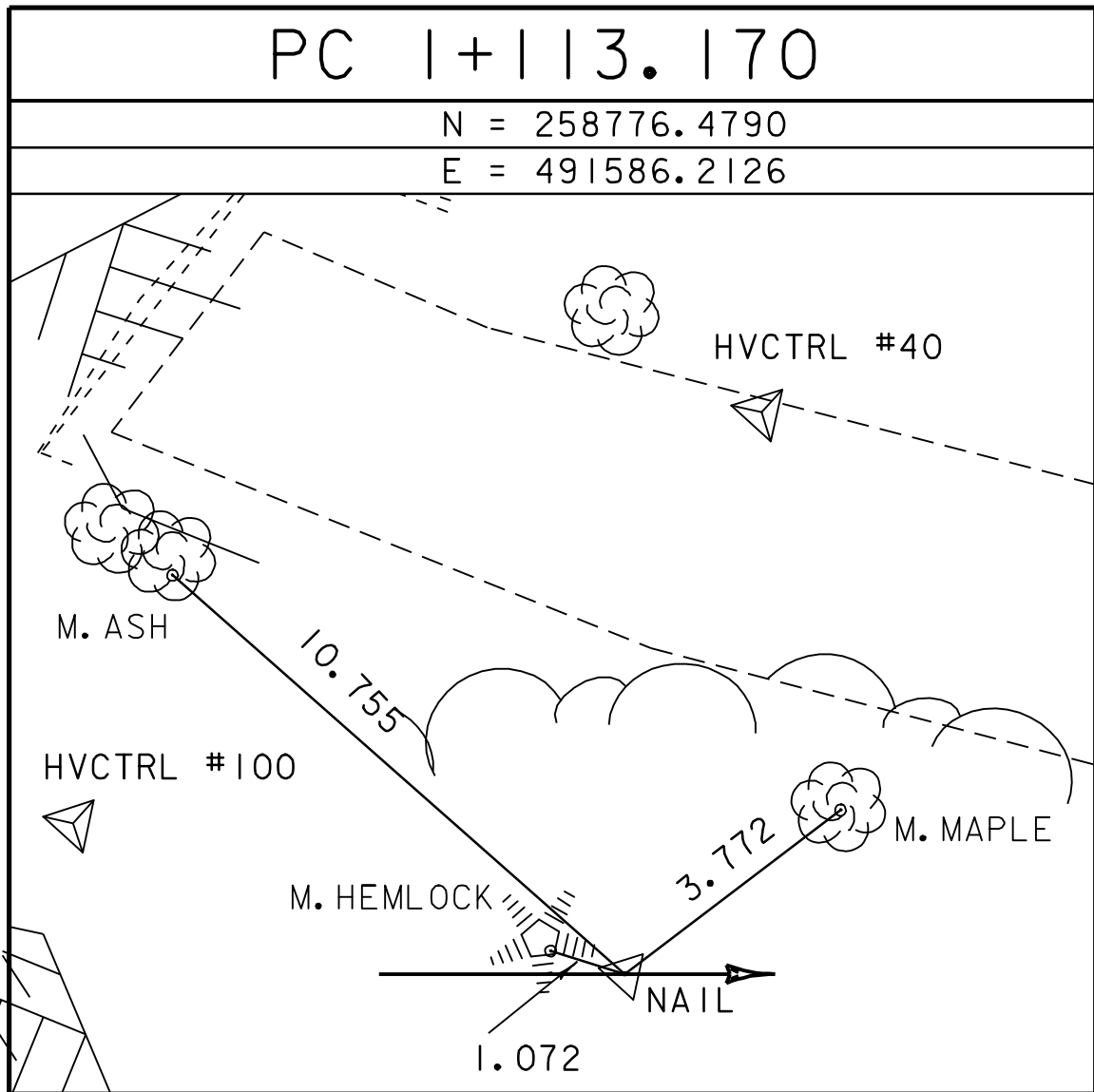
ALIGNMENT TIES



* ALIGNMENT STAKED ON JANUARY 20, 2002 BY R. GILMAN & P. WINTERS

DATUM	
VERTICAL	NAYD 88
HORIZONTAL	NAD 83 (92)

PROJECT NAME:	MONTGOMERY
PROJECT NUMBER:	BRO 1448 (20)
FILE NAME:	94\124\X\1241.dgn
PROJECT LEADER:	R. R. WHITCOMB
DESIGNED BY:	C. CARLSON
PLOT DATE:	10-APR-2000
DRAWN BY:	J. HULETT
CHECKED BY:	P. HODGE
SHEET 8	OF 50



* ALIGNMENT STAKED ON JANUARY 20, 2002 BY R.GILMAN & P.WINTERS

DATUM		PROJECT NAME: MONTGOMERY	
VERTICAL NAVD 88		PROJECT NUMBER: BRO 1448 (20)	
HORIZONTAL NAD 83 (92)		FILE NAME: 94J124\XJ124t1.dgn	PLOT DATE: 08-JAN-2009 12:00
		PROJECT LEADER:	DRAWN BY: J.HULETT
		DESIGNED BY:	CHECKED BY: P.HODGE
			SHEET OF

HVCTRL #1

STANDARD DISC STAMPED

NUTTING AZ

N = 259357.2390

E = 491398.8680

ELEV. = 242.100

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1994 (CHR)
GENERAL LOCATION, MONTGOMERY, VT., IN THE SMALL SETTLEMENT OF
HECTORVILLE, ABOUT 12.5 MI (20.1 KM) SOUTH OF THE U.S./CANADA BORDER,
ABOUT 20.5 MI (33.0 KM) WEST OF NEWPORT, AND ABOUT 23.5 MI (37.8 KM)
EAST OF ST ALBANS. OWNERSHIP, ARNOLD MERCY, RD 1 BOX 330, MONTGOMERY
CENTER, VT. 05471. PHONE 802-326-4200. TO REACH FROM THE
INTERSECTION OF VT ROUTES 118 AND 242 IN MONTGOMERY CENTER GO SOUTH
ALONG VT ROUTE 118 FOR 3.1 MI (5.0 KM) TO THE MARK ON THE RIGHT, ABOUT
0.1 MI (0.2 KM) NORTH OF A LOG HOME. THE MARK IS 11.5 M (37.7 FT)
WEST OF AND ABOUT LEVEL WITH THE CENTERLINE OF VT ROUTE 118, 2.6 M
(8.5 FT) SOUTH OF UNDERGROUND TELEPHONE CABLE BOX NO. 2/29, 4.3 M
(14.1 FT) SOUTHWEST OF MILE MARKER 1180/0610/0260 AND A GUY ANCHOR,
AND 3.4 M (11.2 FT) SOUTH OF A FIBERGLASS WITNESS POST AND POLE NO.
MT/168. IT IS SET FLUSH WITH THE GROUND IN THE TOP OF A 1 M (3.3 FT)
X 0.5 M (1.6 FT) ROCK OUTCROP.

HVCTRL #2

STANDARD DISC STAMPED

NUTTING

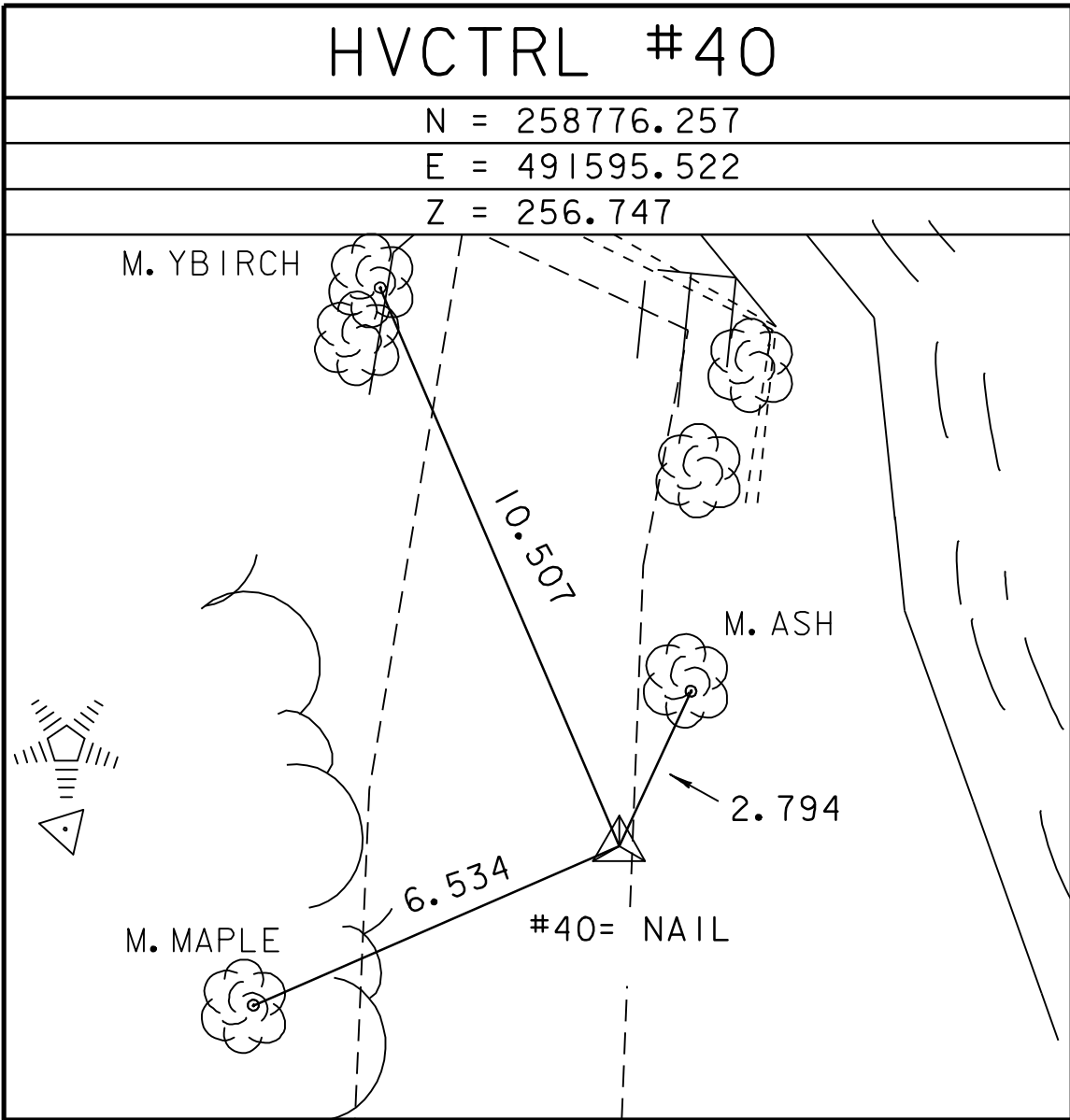
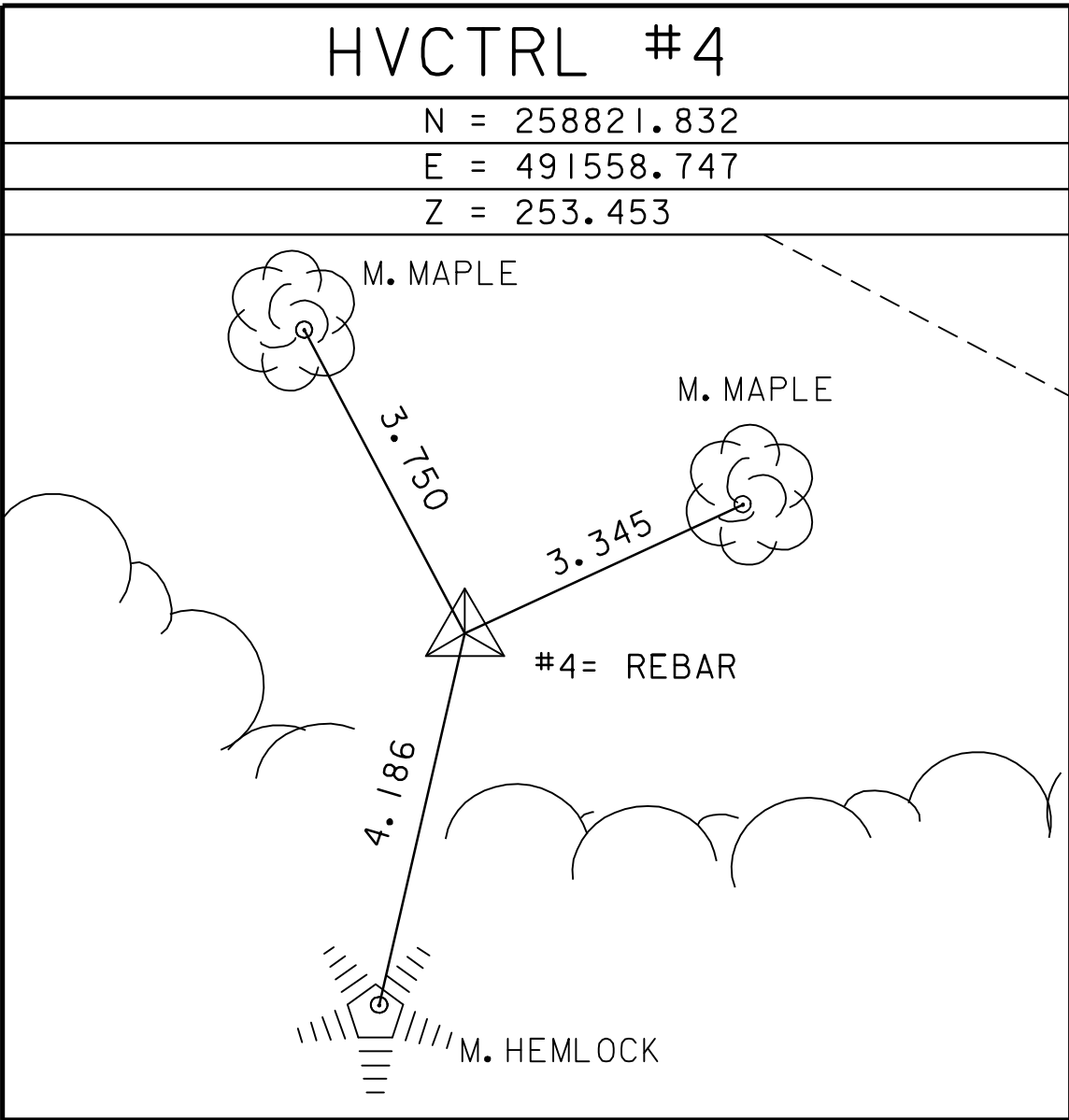
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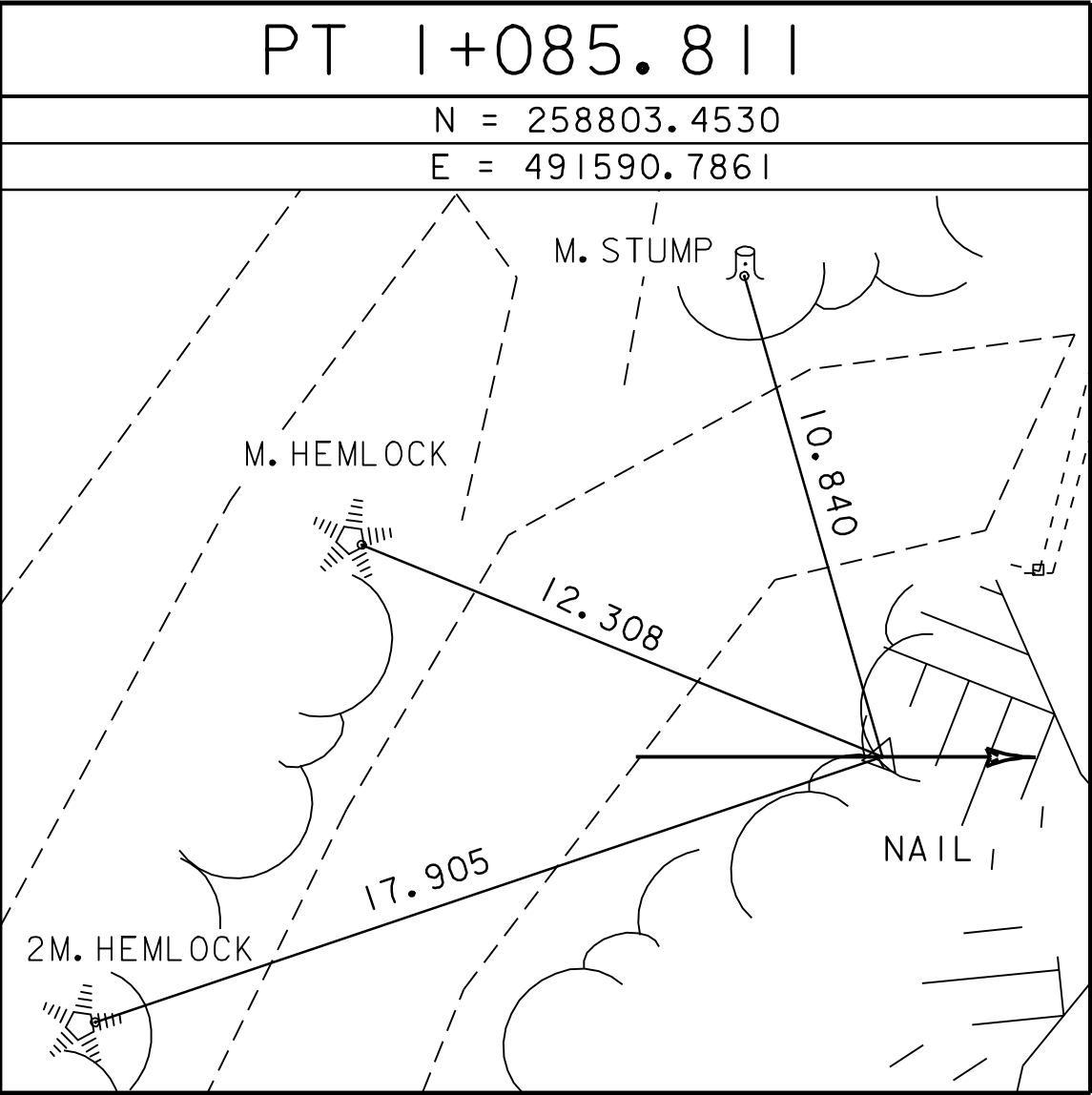
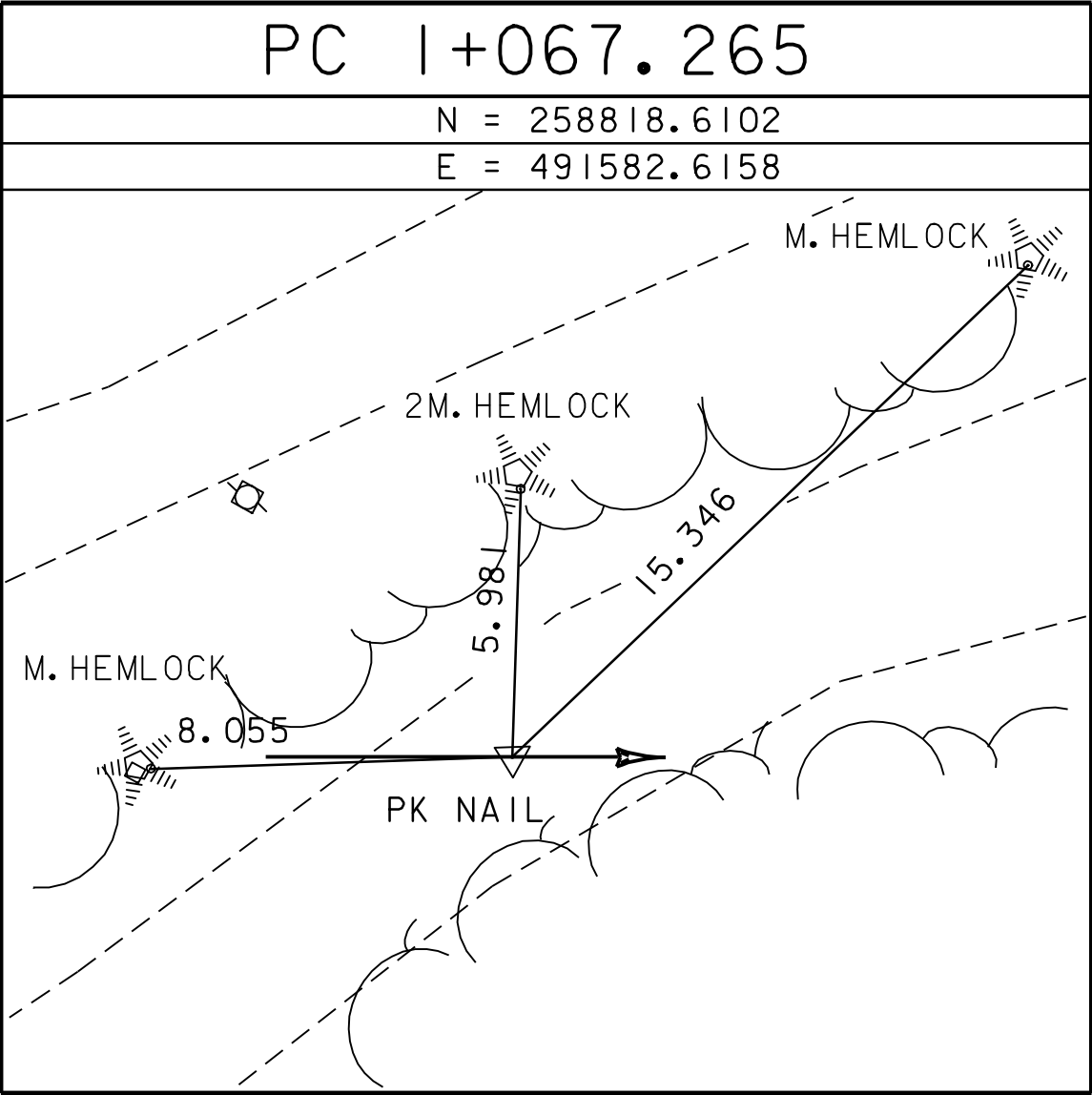
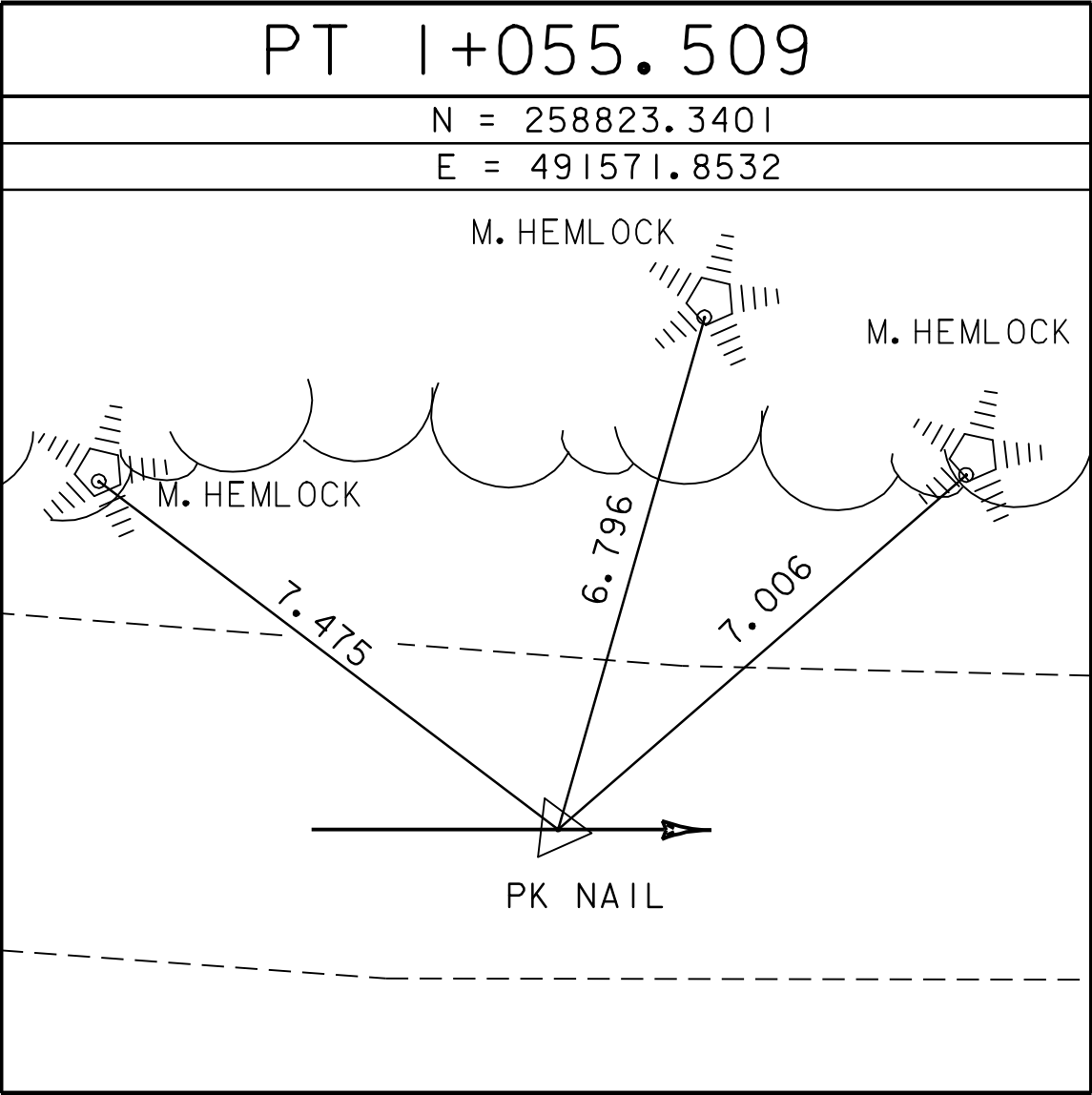
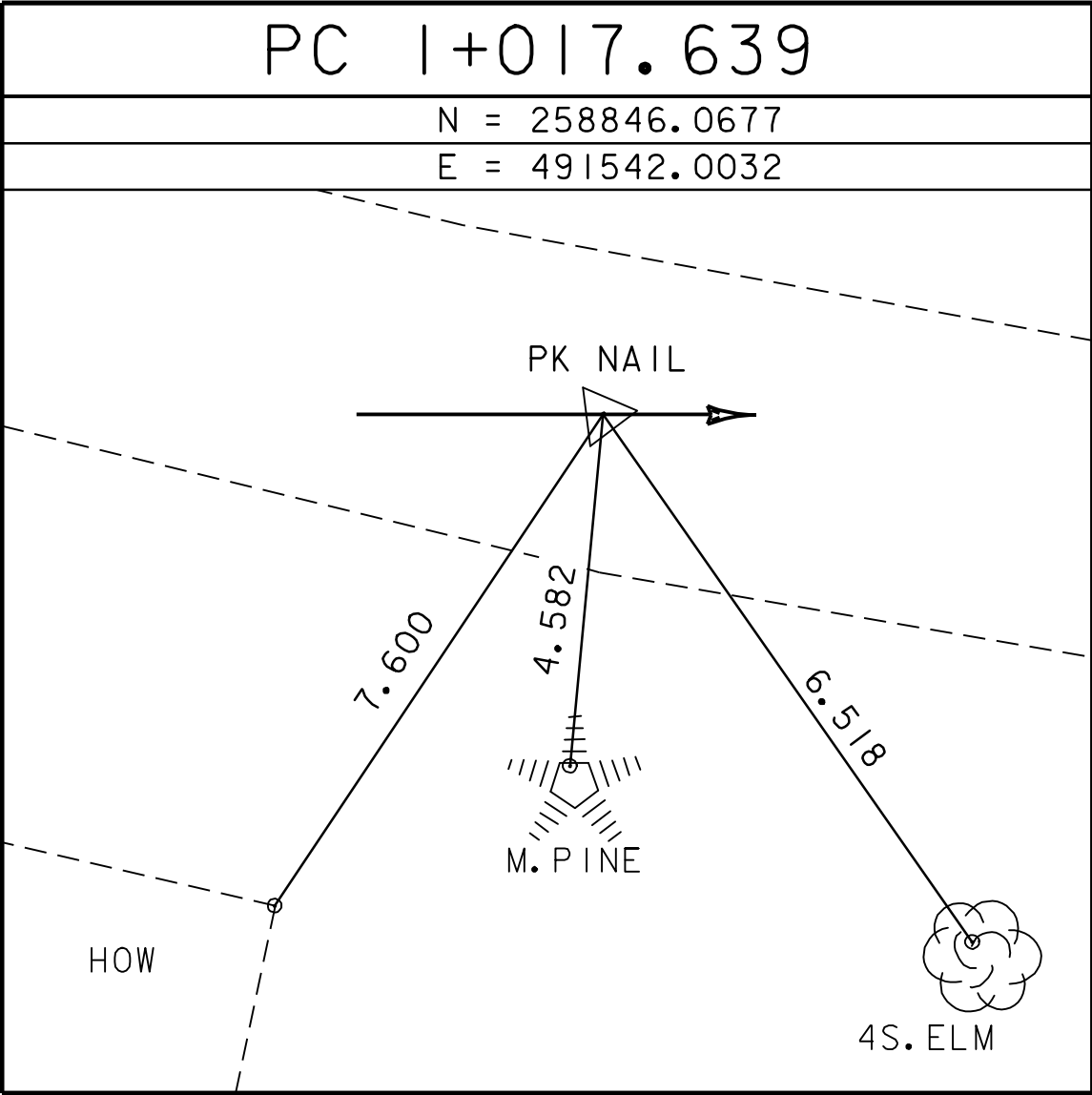
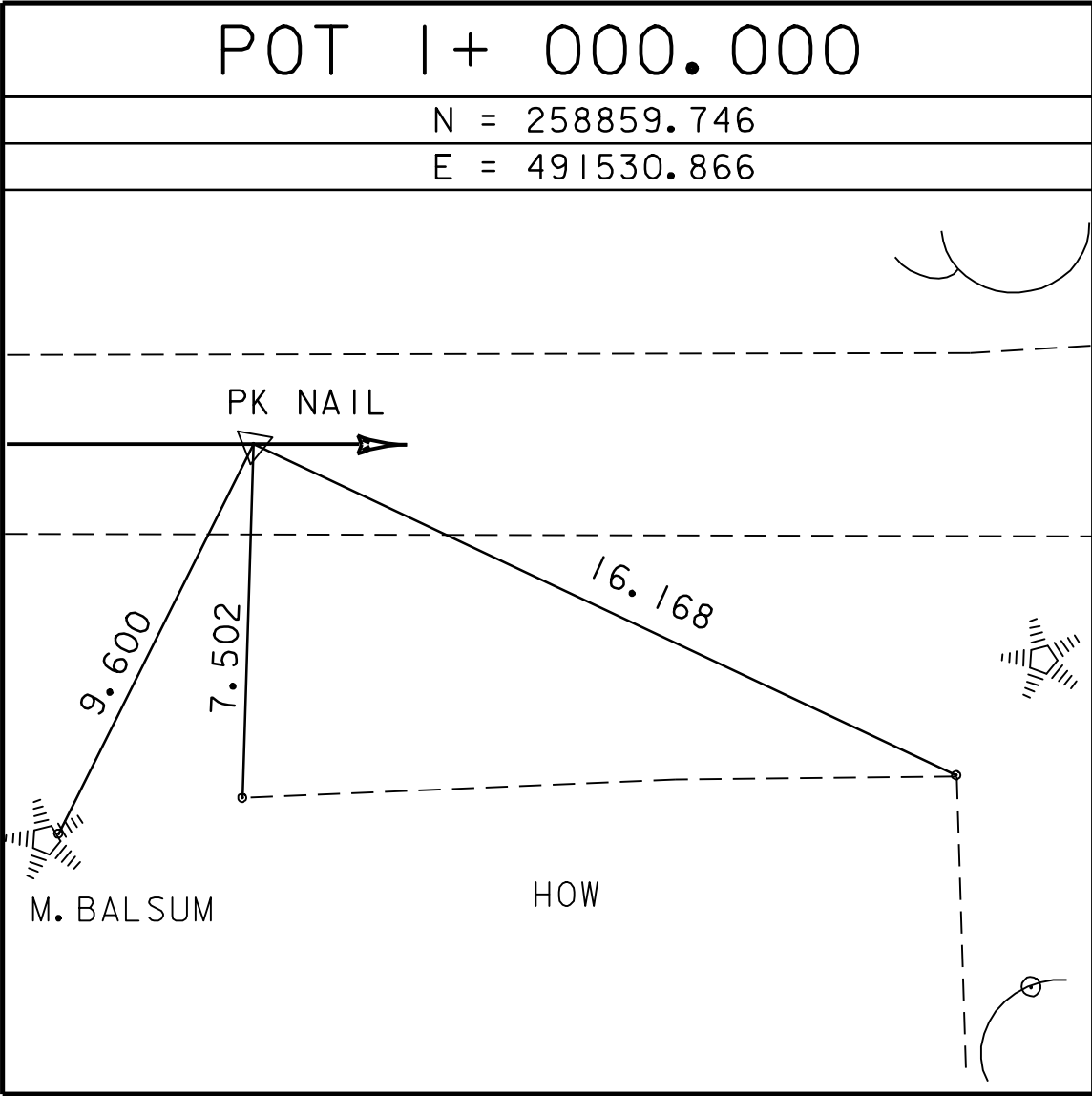
ELEV. = 243.000

DESCRIBED BY VERMONT AGENCY OF TRANSPORTATION 1994 (CHR)
GENERAL LOCATION, MONTGOMERY, VT., IN THE SMALL SETTLEMENT OF
HECTORVILLE, ABOUT 13 MI (20.9 KM) SOUTH OF THE U.S./CANADA BORDER,
ABOUT 20.5 MI (33.0 KM) WEST OF NEWPORT, AND ABOUT 23.5 MI (37.8 KM)
EAST OF ST ALBANS. TO REACH FROM THE INTERSECTION OF VT ROUTES 118
AND 242 IN MONTGOMERY CENTER GO SOUTH ALONG VT ROUTE 118 FOR 3.3 MI
(5.3 KM) TO THE MARK ON THE RIGHT, ABOUT 25 M (82.0 FT) SOUTH OF THE
INTERSECTION OF NUTTING ROAD. THE MARK IS 8.7 M (28.5 FT) WEST OF AND
ABOUT LEVEL WITH THE CENTERLINE OF VT ROUTE 118, 35.4 M (116.1 FT)
SOUTHWEST OF POLE NO. VE COOP MT/164, 17.4 M (57.1 FT) EAST OF A
40-CM MAPLE (MOST NORTHERLY OF 2) , 34.7 M (113.8 FT) NORTH-NORTHEAST
OF POLE NO. 20/91A/1/2/29-2, AND 0.3 M (1.0 FT) EAST OF A FIBERGLASS
WITNESS POST. IT IS SET FLUSH WITH THE GROUND IN THE TOP OF A 30-CM
DIAMETER CONCRETE MONUMENT POURED TO A DEPTH OF 1.3 M.

* DESCRIPTION PROVIDED BY VERMONT AGENCY OF TRANSPORTATION GEODETIC SURVEY UNIT



* MAIN TRAVERSE COMPLETED: FEBRUARY 21, 1995 BY R.MOREAU, A.MYERS & T.CHASE



* ALIGNMENT STAKED ON JANUARY 20, 2002 BY R.GILMAN & P.WINTERS



BRIDGE RAILING - HDSB
/FASCIA MOUNTED/
HANDRAIL (MOD.)

STA. 1+084.600 RT. - STA. 1+113.380 RT.
STA. 1+083.500 LT. - STA. 1+113.380 LT.

GABION WALL

STA. 1+044.800 RT. - STA. 1+080.800 RT.

HDSB GUARD RAIL WITH WOOD POSTS (WEATHERING)

STA. 1+047.500 RT. - STA. 1+084.600 RT.
STA. 1+113.380 RT. - STA. 1+128.640 RT.
STA. 1+082.370 LT. - STA. 1+083.500 LT.
STA. 1+113.380 LT. - STA. 1+127.700 LT.

RELOCATION OF MAILBOX

STA. 1+134.400 LT.

DECIDUOUS TREES
(SEE GENERAL NOTE #19)

STA. 1+109.500 LT. +/- - STA. 1+120.000 LT. +/-

STONE FILL, TYPE I (IN DITCHES)

STA. 1+025.000 LT. - STA. 1+080.500 LT.
STA. 1+112.500 RT. - STA. 1+145.000 RT.

CONSTRUCT DRIVE

STA. 1+078.000 LT.
STA. 1+142.000 LT.

ANCHOR FOR STEEL BEAM RAIL

STA. 1+048.500 RT.
STA. 1+082.443 LT.
STA. 1+127.500 RT.
STA. 1+125.600 LT.

PIPE OPTION (450)

STA. 1+040
CSP
CPEP
CAAP

STA. 1+113.900 - 1+147.500 LT.

CSP
CPEP
CAAP

CURVE NO. 1 DATA
 $\Delta = 27^\circ 07' 21.0''$
R= 80.000
T= 19.298
L= 37.870
E= 2.295
BANK=VARIES

STA. 1 + 040 - 450 x 11 000 OPTION
PIPE WITH D.I. AT INLET AND
STONE FILL, TYPE I PAD AT OUTLET

PC
Sta 1+017.639

POB
Sta 1+000.000

STATIONING
TH 35
TO VT 118
1+000
M. PINE (SAVE)
S. ELM (SAVE)
ARTESIAN WELL
BUILDING

STA 1+040
BEGIN PROJECT
END APPROACH

PI
Sta 1+036.935

STONE FILL TYPE I
(TYP)

BENCH MARK #1
RRSIR
ELEV. 257.224

PT
Sta 1+055.509

PC
Sta 1+067.265

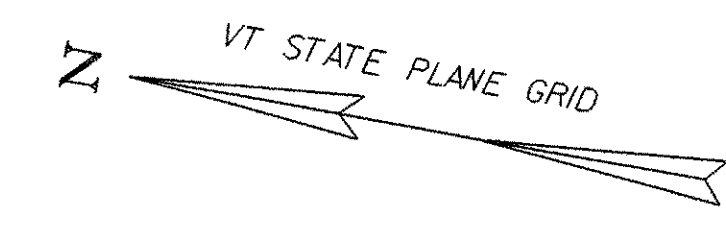
PI
Sta 1+078.183

STA 1+085.500
BEGIN BRIDGE
F.G. = 258.016

PT
Sta 1+085.811
STONE FILL,
TYPE II
BENCH MARK #2
CHISELED SQUARE
ELEV. 256.215

CURVE NO. 2 DATA
 $\Delta = 75^\circ 53' 56''$
R= 14.000
T= 10.918
L= 18.546
E= 3.754
BANK= NORMAL CROWN

POE
Sta 5+050.000



NEW DECIDUOUS
TREES

PT
Sta 1+135.993

PC
Sta 1+136.990

STONE FILL,
TYPE II
EXISTING R.O.W.
CEDAR PINE CLUMP
TREES (SAVE) BIRCHES
BIRCH ASH
MAPLE
STUMP

PT
Sta 1+136.990

FLOWERS **

SEPTIC TANK

COMB. 20/91/2/26

3/6 GUY WIRE

LEACH FIELD

GRAVEL DRIVE

2 STORY HOUSE

POE
Sta 1+166.488

TH 35
DEAD END

STA 1+160
END APPROACH

EXISTING R.O.W.

PT
Sta 1+149.416

PI
Sta 1+143.203

STA 1+140
END PROJECT
BEGIN APPROACH

STONE FILL TYPE I
(TYP)

STA. 1+113.900 - 1+147.500 LT - 450 x 30 000
OPTION PIPE WITH STONE HEADWALL AT INLET

PC
Sta 1+113.170

STA 1+112.600
END BRIDGE
F.G. = 258.151

STA 1+102.000=

CHAN STA 5+000.000
 $\Delta = 90^\circ$

CURVE NO. 3 DATA
 $\Delta = 43^\circ 35' 23.1''$
R= 30.000
T= 11.997
L= 22.824
E= 2.286
BANK= NORMAL CROWN

CURVE NO. 4 DATA
 $\Delta = 5^\circ 55' 44.9''$
R= 120.000
T= 6.215
L= 12.418
E= 0.161
BANK= NORMAL CROWN

EXISTING BRIDGE DATA

BRIDGE WIDTH: 5151
BRIDGE LENGTH: 13.716
ROADWAY APPROACH WIDTH: 3962
THE EXISTING BRIDGE IS A PONY TRUSS
WITH A WOOD PLANK DECK WITH RUNNERS.
THERE IS A ROLLED BEAM STRINGER
AT EACH FASCIA WITH FOUR H-PILES
IN BETWEEN SUPPORTING THE DECK.
THE EXISTING ABUTMENTS ARE CONCRETE
WITH METAL I-BEAM BACKWALLS.

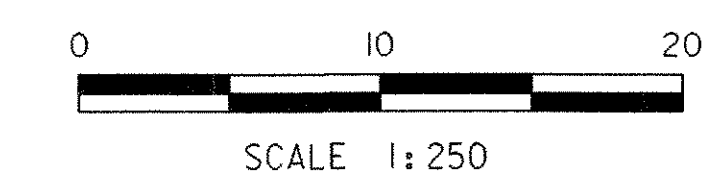
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PROJECT NAME: MONTGOMERY
PROJECT NUMBER: BRO 1448(20)

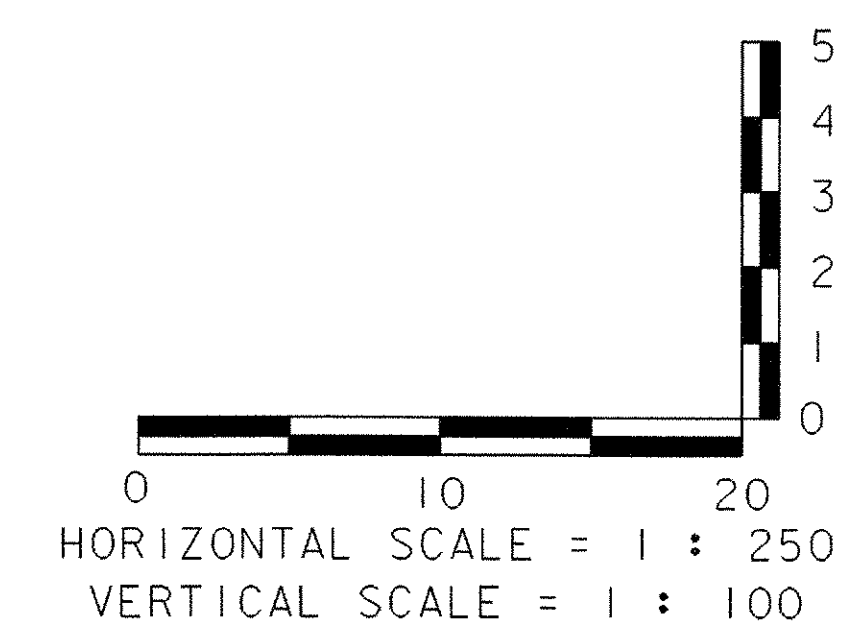
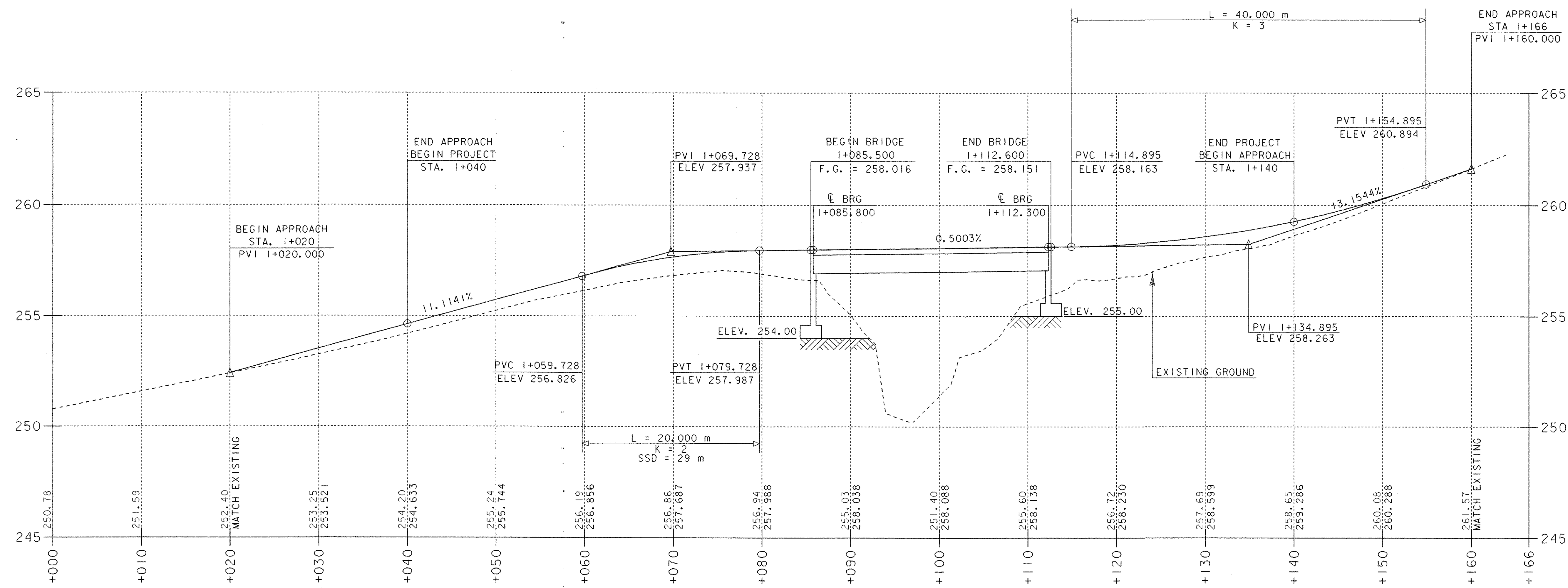
HIGHWAY NO.: TH 35
BRIDGE NO.: 24
OVER: PACIFIC BROOK

FILE NAME: /PW/94j124/sj124bdr.dgn
PROJECT MANAGER: R. WHITCOMB
DESIGNED BY: C. CARLSON
BRIDGE SHEET NUMBER:

PLOT DATE: 06-DEC-2005
DRAWN BY: J. GILMORE
IPARM NAME: sj124i1.i
SHEET 9 OF 50



Profile



THE GRADES SHOWN TO THE NEAREST HUNDREDTH ARE THE ORIGINAL GROUND ELEVATIONS ALONG THE PROPOSED ALIGNMENT. THE GRADES SHOWN TO THE NEAREST THOUSANDTH ARE THE PROPOSED GRADES FOR THE NEW ALIGNMENT.

SHEET NAME: MAINLINE PROFILE		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124pro.1	
BRIDGE SHEET NUMBER:	SHEET 10 OF 50	

LEGEND

- REFLECTORIZED PLASTIC DRUMS (SEE STD. E-106)
- TYPE III BARRICADES (SEE STD. E-107A)

TRAFFIC CONTROL SEQUENCE

PHASE 1

1. MAINTAIN TRAFFIC ON THE EXISTING ROADWAY WHILE CONSTRUCTING THE NEW BRIDGE AND APPROACHES. BARRICADES AND BARRELS WILL BE NECESSARY TO MAINTAIN TRAFFIC DURING THIS PHASE. THE CONTRACTOR IS TO MAINTAIN 3.5m MINIMUM LANE WIDTH OF TRAVEL.

PHASE 2

2. MAINTAIN TRAFFIC ON THE NEW ALIGNMENT. REMOVE THE EXISTING STRUCTURE AND BRIDGE ABUTMENTS, REGRADE AS PER PLANS.

TRAFFIC CONTROL NOTES

1. DUE TO THE CLOSE PROXIMITY BETWEEN THE EDGE OF THE EXISTING BRIDGE, ROADWAY, AND NEW ABUTMENTS, TEMPORARY STEEL SHEETING HAS BEEN INDICATED ON THE PLANS. HOWEVER, DUE TO THE SHALLOW DEPTH TO LEDGE, ALTERNATIVE METHODS OF SAFELY SEPARATING TRAFFIC FROM THE WORK AREAS MAY BE PROPOSED BY THE CONTRACTOR. PAYMENT FOR THIS WORK SHALL BE INCLUDED IN THE ITEM 641.40 "TRAFFIC CONTROL".
2. STANDARD CONSTRUCTION BARRELS, TYPE III BARRICADES SHALL BE INSTALLED TO GUIDE TRAFFIC AROUND THE WORK ZONE. THIS WORK WILL BE PAID FOR UNDER THE ITEM 641.10, "TRAFFIC CONTROL."
3. ALL SIGN STANDS AND POST INSTALLATION SHALL BE NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM REPORT 350 (NCHRP) COMPLIANT.
4. AS A MINIMUM, ROLL-UP SIGN MATERIAL SHALL HAVE ASTM D 4956-01 TYPE VI FLOURESCENT ORANGE RETROREFLECTIVE SHEETING.
5. ALL OTHER SIGNS SHALL HAVE ASTM D 4956-01 TYPE VIII RETROREFLECTIVE SHEETING.
6. IF STEEL SHEETING IS USED THEN THE STEEL GUARDRAIL SHALL BE ATTACHED TO THE SHEETING AND FLARED TOWARDS THE EDGE OF THE ROAD. THIS WORK SHALL BE PAID FOR UNDER THE ITEM 527.10, "MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS (MOD.)".

IF STEEL SHEETING IS USED,
TOPS OF TEMPORARY STEEL SHEETING
SHALL BE DRIVEN NO LOWER THAN
1100 ABOVE GROUND LEVEL

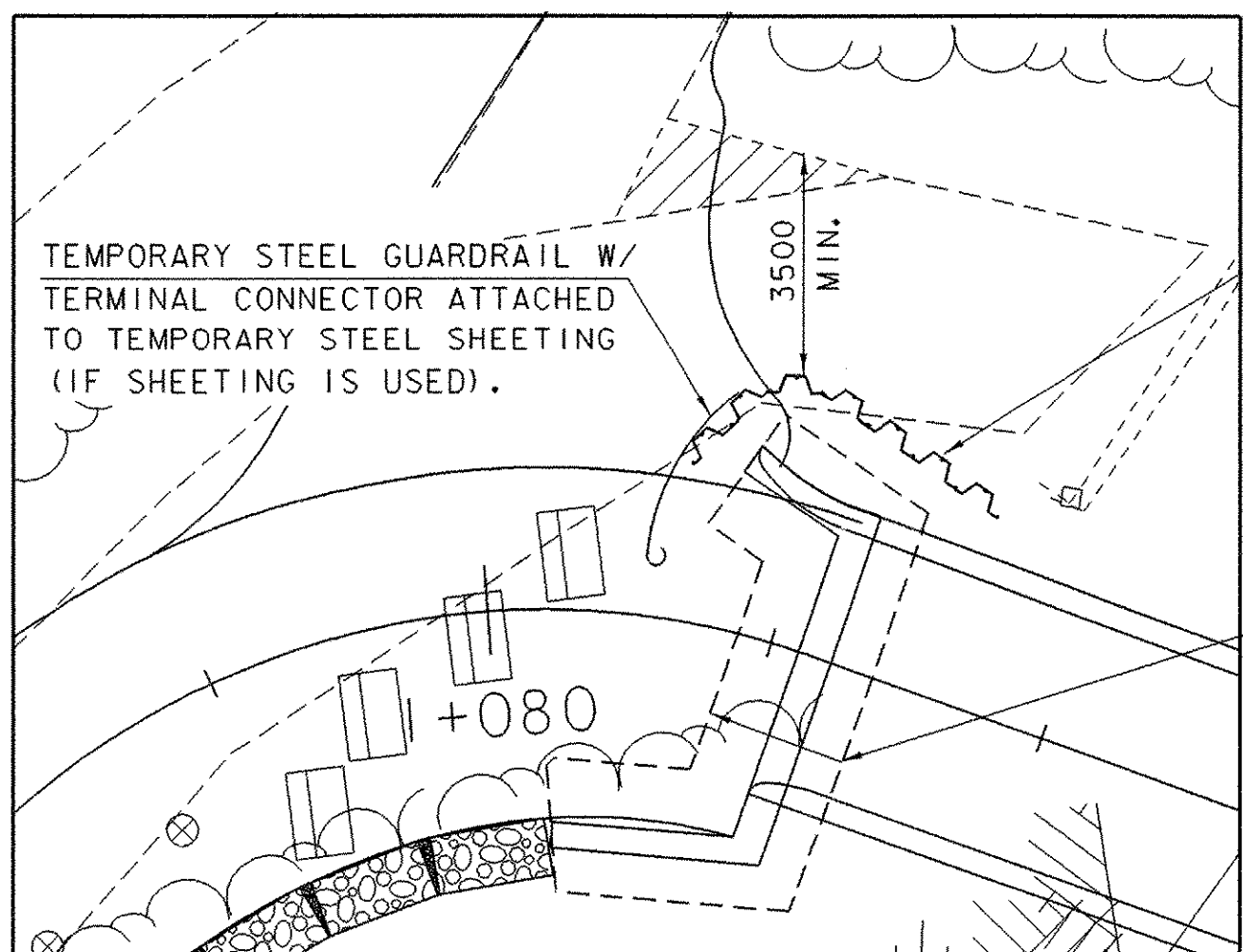
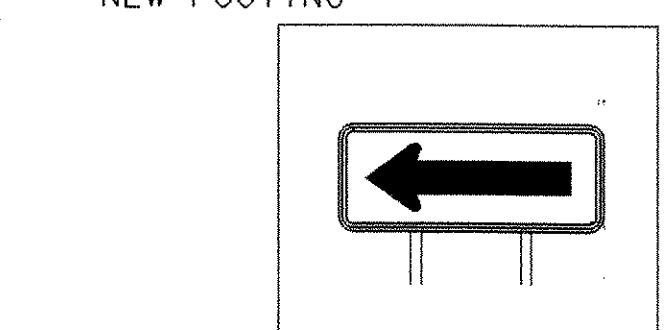


FIGURE #1



LIMITS OF NEW FOOTING



GRANULAR FILL MAY BE REQUIRED TO ADEQUATELY PROVIDE 3.5m MIN. TRAVEL WAY (THE COST FOR THIS WILL BE CONSIDERED INCIDENTAL TO THE "TRAFFIC CONTROL" ITEM

STONE FILL, TYPE II

VT STATE PLANE GRID

NEW DECIDUOUS TREES

STONE FILL, TYPE II

SEE FIGURE #2

STONE FILL TYPE I (TYP)

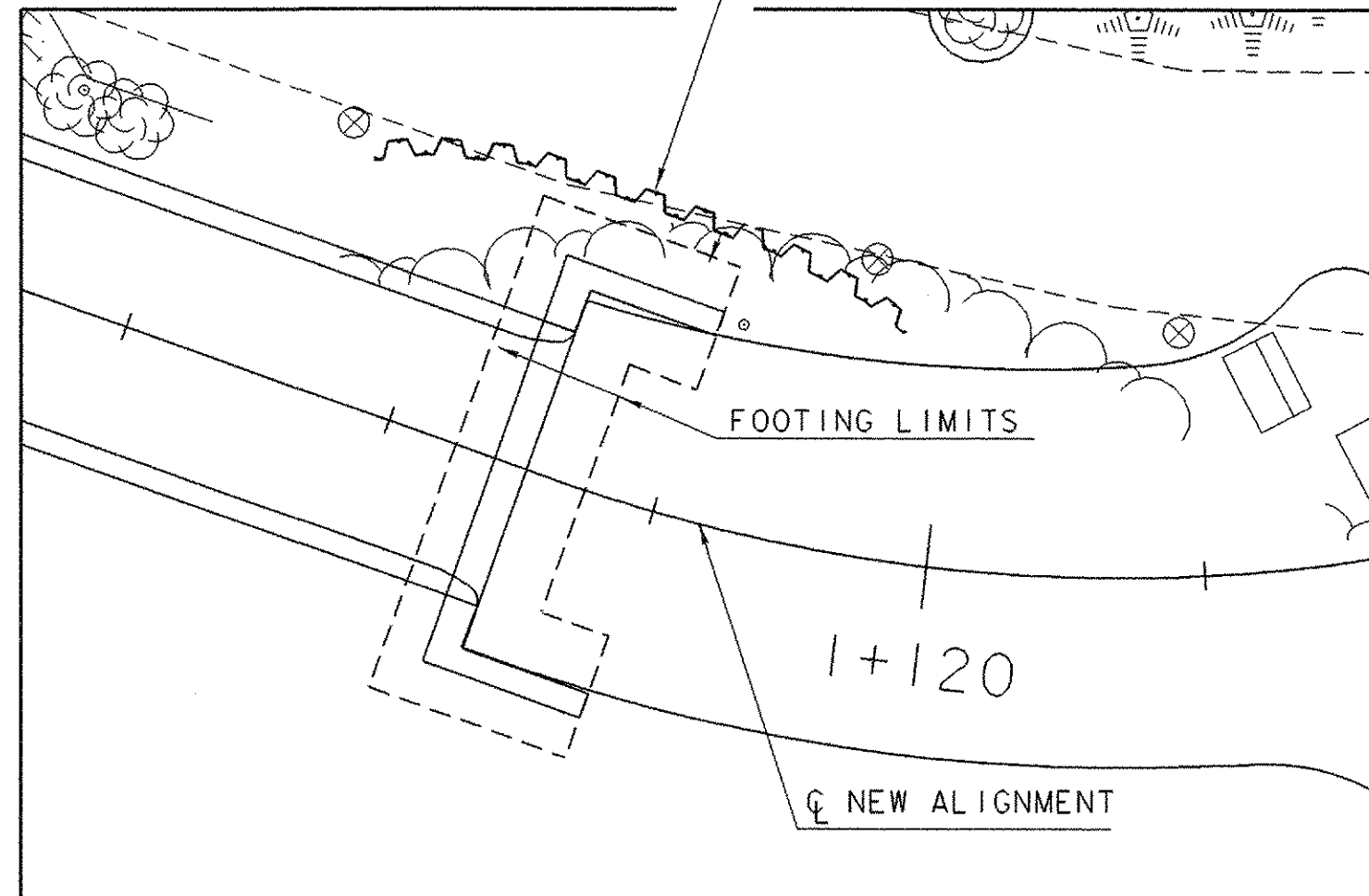
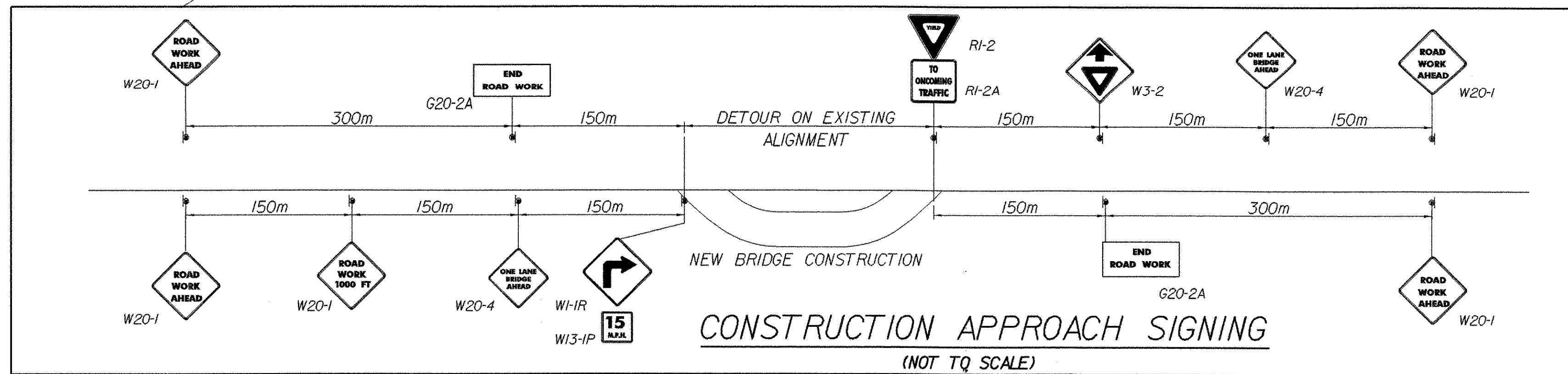


FIGURE #2



0 10 20

SCALE 1:250

SHEET NAME:	CONSTRUCTION SIGNING	
PROJECT NAME:	MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER:	BRO 1448(20)	BRIDGE NO.: 24
		OVER: PACIFIC BROOK
FILE NAME:	/PW/94j124/sj124+cs.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER:	R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY:	C. CARLSON	IPARM NAME: sj124+cs.i
BRIDGE SHEET NUMBER:		SHEET 11 OF 50

SOIL CLASSIFICATION

AASHTO

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

ROCK QUALITY DESIGNATION

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

SHEAR STRENGTH

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

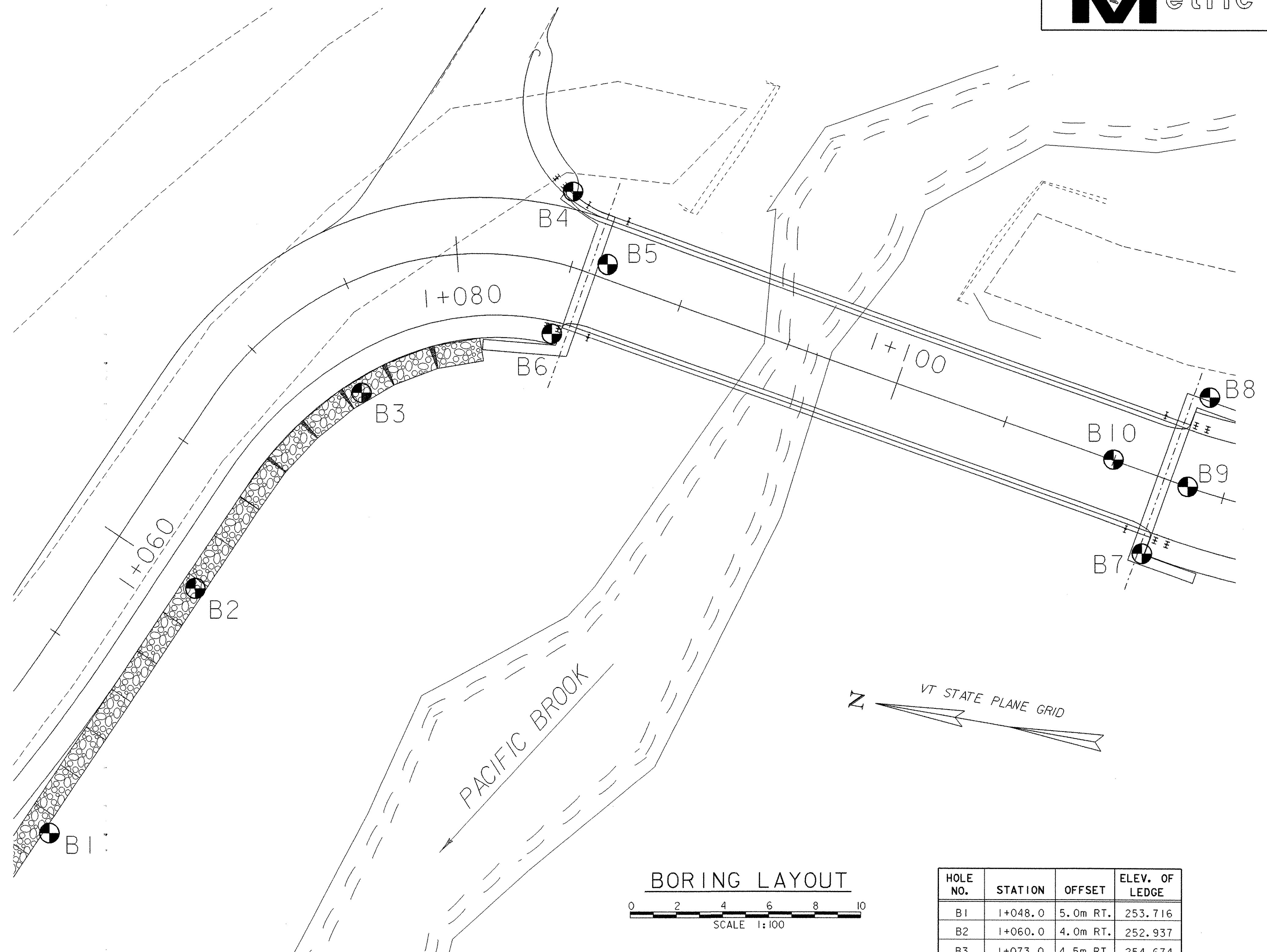
CORRELATION GUIDE OF "N" TO DENSITY/CONSISTENCY

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

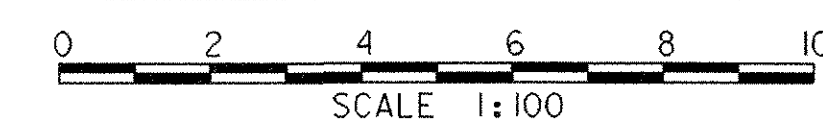
COMMONLY USED SYMBOLS

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

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



BORING LAYOUT



HOLE NO.	STATION	OFFSET	ELEV. OF LEDGE
B1	I+048.0	5.0m RT.	253.716
B2	I+060.0	4.0m RT.	252.937
B3	I+073.0	4.5m RT.	254.674
B4	I+084.6	3.0m LT.	255.918
B5	I+086.5	0.6m LT.	255.863
B6	I+085.0	3.0m RT.	255.488
B7	I+112.5	3.4m RT.	255.046
B8	I+113.0	4.0m LT.	255.445
B9	I+113.4	0.0m RT.	255.481
B10	I+110.0	0.0m RT.	254.730

DEFINITIONS (AASHTO)

BEDROCK (LEDGE) - Rock in its native location of indefinite thickness.

BOULDER - A rock fragment with an average dimension > 304.8 mm.

COBBLE - Rock fragments with an average dimension between 76.2 and 304.8 mm.

GRAVEL - Rounded particles of rock < 76.2 mm and > 2 mm (#10 sieve).

SAND - Particles of rock < 2 mm (#10 sieve) and > 75 µm (#200 sieve).

SILT - Soil < 75 µm (#200 sieve), non or slightly plastic and exhibits no strength when air-dried.

CLAY - Fine grained soil, exhibits plasticity when moist and considerable strength when air-dried.

VARVED - Alternate layers of silt and clay.

HARDPAN - Extremely dense soil, cemented layer, not softened when wet.

MUCK - Soft organic soil (containing > 10% organic material).

MOISTURE CONTENT - Weight of water divided by dry weight of soil.

FLOWING SAND - Granular soil so saturated (loose) that it flows into drill casing during extraction of wash rod.

STRIKE - Angle from magnetic north to line of intersection of bed with a horizontal plane.

DIP - Inclination of bed with a horizontal plane.

GENERAL NOTES

1. The subsurface explorations shown herein were made between 9/30/02 and 10/22/02 by the Agency.

2. Soil and rock classifications, properties and descriptions are based on engineering interpretation from available subsurface information by the Agency and may not necessarily reflect actual variations in subsurface conditions that may be encountered between individual boring or sample locations.

3. 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.

4. Engineering judgement was exercised in preparing the subsurface information presented herein. Analysis and interpretation of subsurface data was performed and interpreted for Agency design and estimating purposes. Presentation of the information in the Contract is intended to provide the Contractor access to the same data available to the Agency. The subsurface information is presented in good faith and is not intended as a substitute for personal investigation, independent interpretation, independent analysis or judgement by the Contractor.

5. Pictorial structure details shown on the boring plan layout or soils profile are for illustrative purposes only and may not accurately portray final contract details.

6. 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.

SHEET NAME: BORING LAYOUT SHEET

PROJECT NAME: MONTGOMERY
PROJECT NUMBER: BRO 1448(20)

HIGHWAY NO.: TH 35
BRIDGE NO.: 24
OVER: PACIFIC BROOK

FILE NAME: /PW/94j124/sj124bor.dgn
PROJECT MANAGER: R. WHITCOMB
DESIGNED BY: C. CARLSON
BRIDGE SHEET NUMBER:

PLOT DATE: 06-DEC-2005
DRAWN BY: STRI
IPARM NAME: sj124br1.1
SHEET 12 OF 50

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

HOLE NO.: B-01
SHEET 1 OF 1
DATE STARTED: 10/2/02
DATE COMPLETED: 10/3/02

PROJECT NAME: MONTGOMERY
SITE NAME: BR 24
STATION: H+048.00
GROUND EL.: 254.916

PROJECT NUMBER: BRO 1448 (20)
SITE NO.: TH 35
OFFSET: 5.00
G.W. DEPTH: NO WATER FOUND

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: TALLMAN
LOGGER: RUSSELL
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

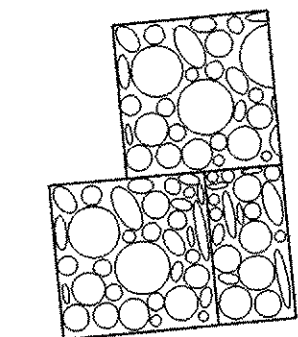
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-b, SoGr, brn, Moist, Rec. = 0.15m	R	24.4	44	39.9	16.1		
		Run#1: NXMDC, 1.2m-2.2m, Rec. = 0.70m, See Geologist's Report.	RUN	REC%	ROD%	Dip°			
			1	70	0	40			
		Run#2: NXMDC, 2.2m-3.7m, Rec. = 1.50m, See Geologist's Report.	2	100	17	40-50			
		Run#3: NXMDC, 3.7m-4.3m, Rec. = 0.60m, See Geologist's Report.	3	100	83	40-50			
		Hole stopped @ 4.30m							
5		DRILLER'S NOTES: 1. A few very small rock breaks on Run#1 & Run#2.							
10									

GEOLOGISTS REPORT:

Run#1: Gray quartz-sericite schist, Very closely spaced jointing along foliation planes, Jointing is rust stained, Moderately hard, Slightly to moderately weathered, Poor ROD, Poorly competent.

Run#2: Gray quartz-sericite schist, Closely to moderately closely spaced jointing along foliation planes, Moderately hard, Slightly weathered, Poor ROD, Moderately competent.

Run#3: Gray quartz-sericite schist, Closely to moderately closely spaced jointing along foliation planes, Moderately hard, Slightly weathered, Competent.



ELEV. 253.900

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

HOLE NO.: B-02
SHEET 1 OF 1
DATE STARTED: 9/30/02
DATE COMPLETED: 10/2/02

PROJECT NAME: MONTGOMERY
SITE NAME: BR 24
STATION: H+060.00
GROUND EL.: 255.367

PROJECT NUMBER: BRO 1448 (20)
SITE NO.: TH 35
OFFSET: 4.00
G.W. DEPTH: NO WATER FOUND

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: TALLMAN
LOGGER: RUSSELL
ADDITIONAL CREW:

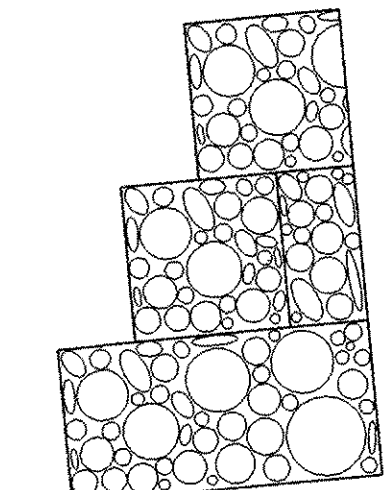
BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-b, GrSa with Trace of Organics (3.8%), brn, Moist, Rec. = 0.45m,	6	22.4	35.3	47.3	17.4		
		NXMDC, 1.7m-2.2m, Boulder							
		Top of bedrock @ 2.43 m							
		Run#1: NXMDC, 2.43m-3.95m, Rec. = 1.05m, See Geologist's Report.	RUN	REC%	ROD%	Dip°			
			1	69	33	55			
		Run#2: NXMDC, 3.95m-5.47m, Rec. = 1.52m, See Geologist's Report.	2	100	90	55			
5		Hole stopped @ 5.47m							
10		DRILLER'S NOTES: 1. At 3.65m-3.80m we had brownish color water.							

GEOLOGISTS REPORT:

Run#1: Gray quartz-sericite-albite-chlorite schist with thin graphitic partings, Moderately hard, Severely weathered from 2.78m to 3.03m, Poorly competent.

Run#2: Silver gray quartz-sericite-albite-chlorite schist with thin graphitic partings, Hard, Unweathered, Competent.



ELEV. 254.900

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

HOLE NO.: B-03
SHEET 1 OF 1
DATE STARTED: 10/9/02
DATE COMPLETED: 10/10/02

PROJECT NAME: MONTGOMERY
SITE NAME: BR 24
STATION: H+073.00
GROUND EL.: 255.974

PROJECT NUMBER: BRO 1448 (20)
SITE NO.: TH 35
OFFSET: 4.50
G.W. DEPTH: NO WATER FOUND

BORING CREW
CREW CHIEF: TALLMAN
DRILLER: TALLMAN
LOGGER: RUSSELL
ADDITIONAL CREW:

BORING RIG: LAG TRACK RIG
BORING TYPE: WASH BORE
SAMPLE TYPE: SPLIT BARREL

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-a, SoGr, gry-brn, Moist, Rec. = 0.20m,	Some 37	Broken 20.8	Rock 56.9	was 29.9	within 13.2		sample.
		Run#1: NXMDC, 1.30m-2.82m, Rec. = 0.55m, See Geologist's Report.	RUN	REC%	ROD%	Dip°			
			1	36	7	60			
		Run#2: NXMDC, 2.82m-3.90m, Rec. = 1.02m, See Geologist's Report.	2	94	46	60			
		Hole stopped @ 3.90m							
5									
10									

GEOLOGISTS REPORT:

Run#1: Gray quartz-sericite-albite-chlorite schist, Soft to moderately hard, Severely weathered, Poorly competent.

Run#2: Gray quartz-sericite-albite-chlorite schist, Mineralized near-vertical joint surface from 3.52m to 3.84m, Moderately hard, Unweathered, Fairly competent.

SHEET NAME: BORING LOG #1

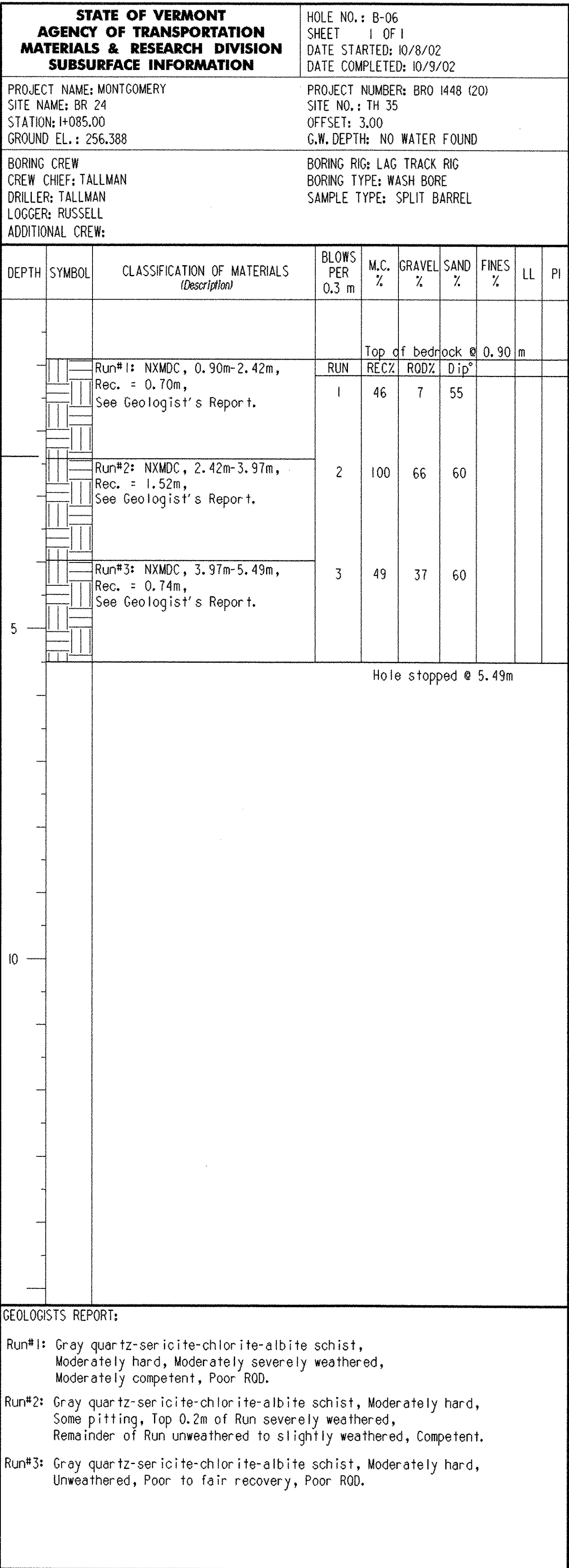
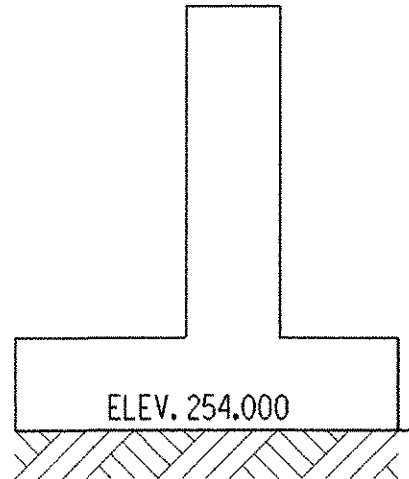
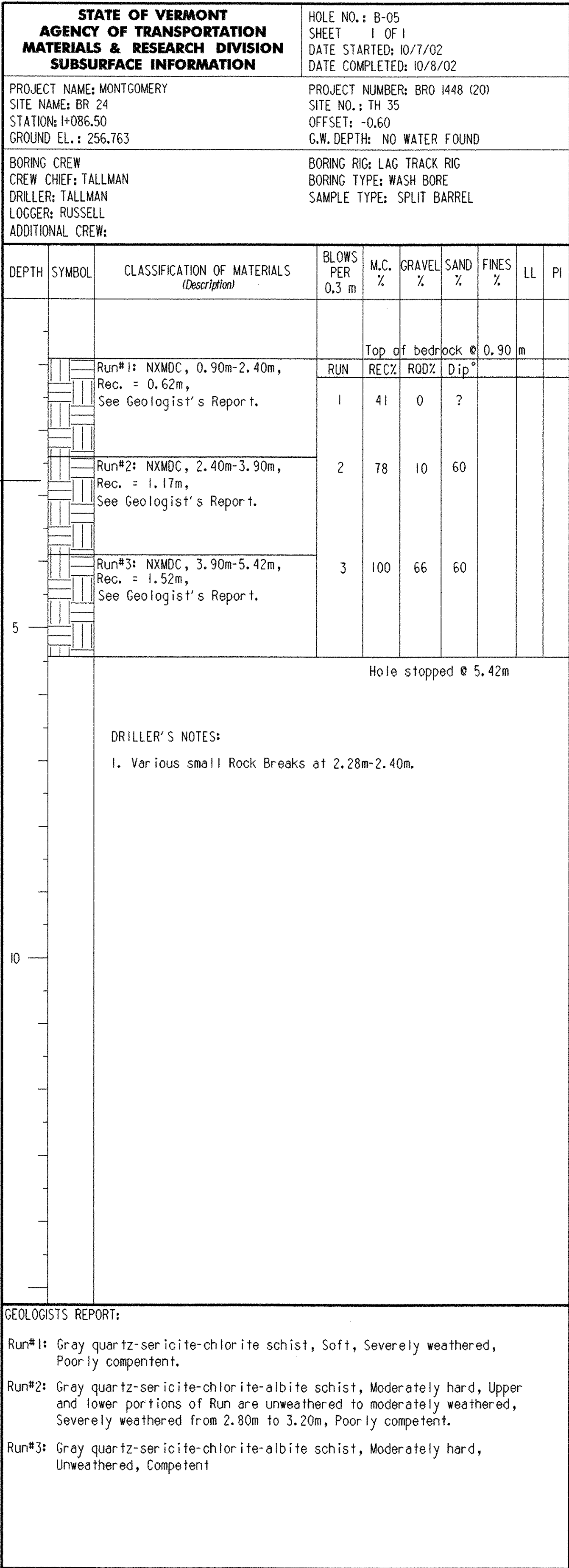
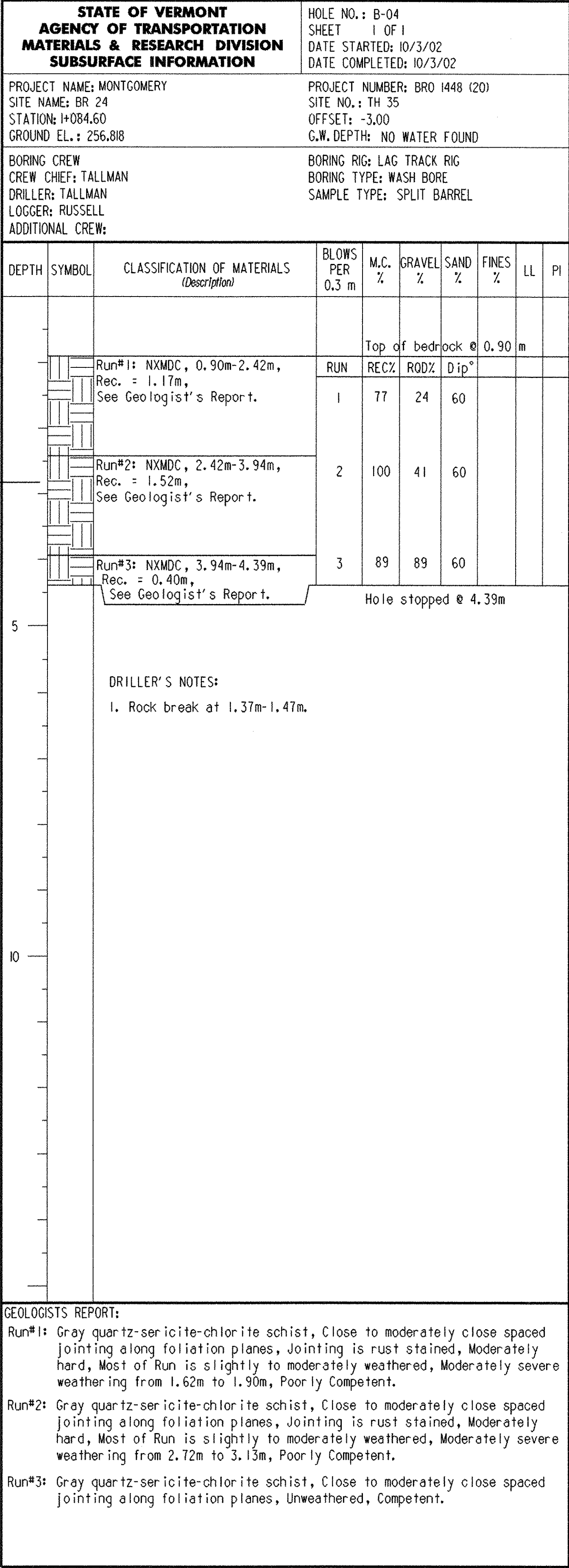
PROJECT NAME: MONTGOMERY
PROJECT NUMBER: BRO 1448(20)

HIGHWAY NO.: TH 35
BRIDGE NO.: 24
OVER: PACIFIC BROOK

FILE NAME: /PW/94ji24/sji24bor.dgn
PROJECT MANAGER: R. WHITCOMB
DESIGNED BY: C. CARLSON
BRIDGE SHEET NUMBER:

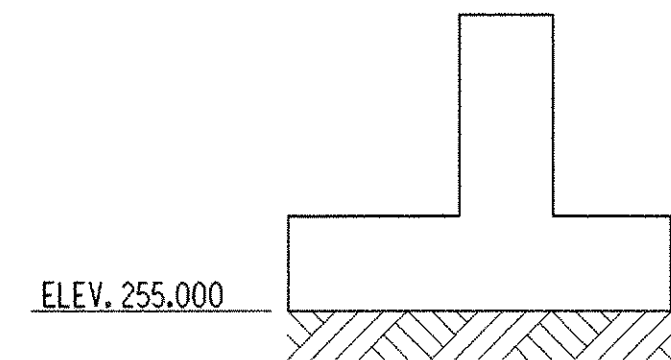
PLOT DATE: 06-DEC-2005
DRAWN BY: J. TOUCHETTE
IPARM NAME: sji24br2.i
SHEET 13 OF 50



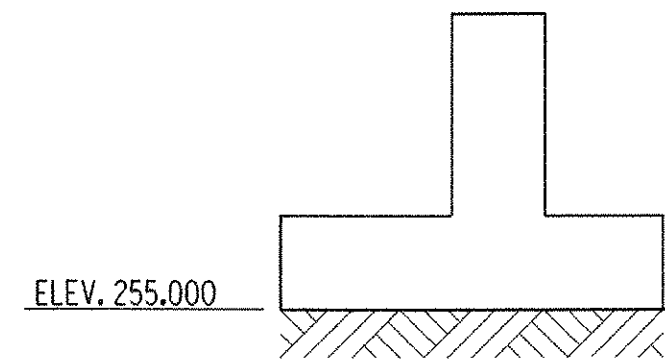


SHEET NAME: BORING LOG #2	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94ji24/sji24bor.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. TOUCHETTE
DESIGNED BY: C. CARLSON	IPARM NAME: sji24br3.i
BRIDGE SHEET NUMBER:	SHEET 14 OF 50





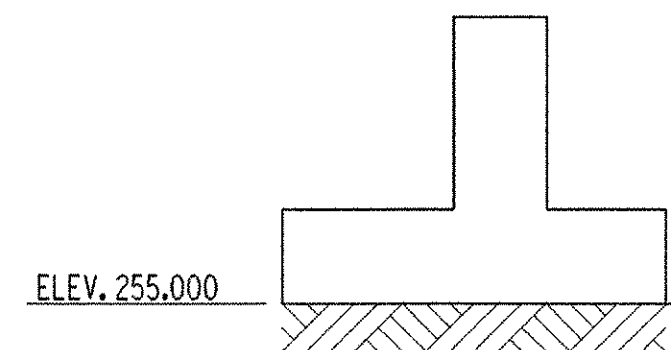
STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION				HOLE NO.: B-07 SHEET 1 OF 1 DATE STARTED: 10/16/02 DATE COMPLETED: 10/16/02					
PROJECT NAME: MONTGOMERY SITE NAME: BR 24 STATION: +112.50 GROUND EL.: 255.946				PROJECT NUMBER: BRO 1448 (20) SITE NO.: TH 35 OFFSET: 3.40 G.W. DEPTH: NO WATER FOUND					
BORING CREW CREW CHIEF: TALLMAN DRILLER: TALLMAN LOGGER: RUSSELL ADDITIONAL CREW:				BORING RIG: LAG TRACK RIG BORING TYPE: WASH BORE SAMPLE TYPE: SPLIT BARREL					
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		Run#1: NXMDC, 0.90m-2.42m, Rec. = 0.65m, See Geologist's Report.	RUN	REC%	ROD%	Dip°			
			1	43	17	40-60			
		Run#2: NXMDC, 2.42m-3.94m, Rec. = 1.52m, See Geologist's Report.	2	100	90	60			
Hole stopped @ 3.94m									
5		DRILLER'S NOTES: 1. Rock Breaks at 1.65m-1.70m.							
10									
GEOLOGISTS REPORT:									
Run#1: Gray quartz-sericite-albite-chlorite schist, Drilling break from 1.65m to 1.70m, Moderately hard, Slightly weathered, Fair to poorly competent.									
Run#2: Silver gray quartz-sericite-albite-chlorite schist with graphitic partings, Moderately hard, Unweathered, Competent.									



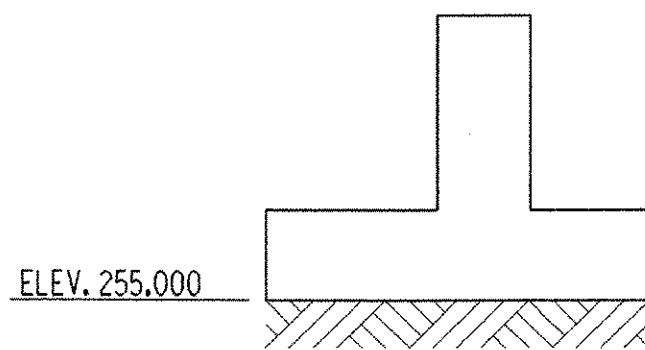
STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION				HOLE NO.: B-08 SHEET 1 OF 1 DATE STARTED: 10/15/02 DATE COMPLETED: 10/15/02					
PROJECT NAME: MONTGOMERY SITE NAME: BR 24 STATION: +113.00 GROUND EL.: 256.345				PROJECT NUMBER: BRO 1448 (20) SITE NO.: TH 35 OFFSET: 4.00 G.W. DEPTH: NO WATER FOUND					
BORING CREW CREW CHIEF: TALLMAN DRILLER: TALLMAN LOGGER: RUSSELL ADDITIONAL CREW:				BORING RIG: LAG TRACK RIG BORING TYPE: WASH BORE SAMPLE TYPE: SPLIT BARREL					
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		Run#1: NXMDC, 0.90m-2.42m, Rec. = 1.50m, See Geologist's Report.	RUN	REC%	ROD%	Dip°			
			1	99	99	30			
		Run#2: NXMDC, 2.42m-3.94m, Rec. = 1.52m, See Geologist's Report.	2	100	100	30			
Hole stopped @ 3.94m									
5									
10									
GEOLOGISTS REPORT:									
Run#1: Silver gray quartz-sericite-albite-chlorite schist, Hard, Unweathered, Competent.									
Run#2: Silver gray quartz-sericite-albite-chlorite schist, Hard, Unweathered, Competent.									



SHEET NAME: BORING LOG #3		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94ji24/sji24bor.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. TOUCHETTE	
DESIGNED BY: C. CARLSON	IPARM NAME: sji24br4.i	
BRIDGE SHEET NUMBER:	SHEET 15 OF 50	



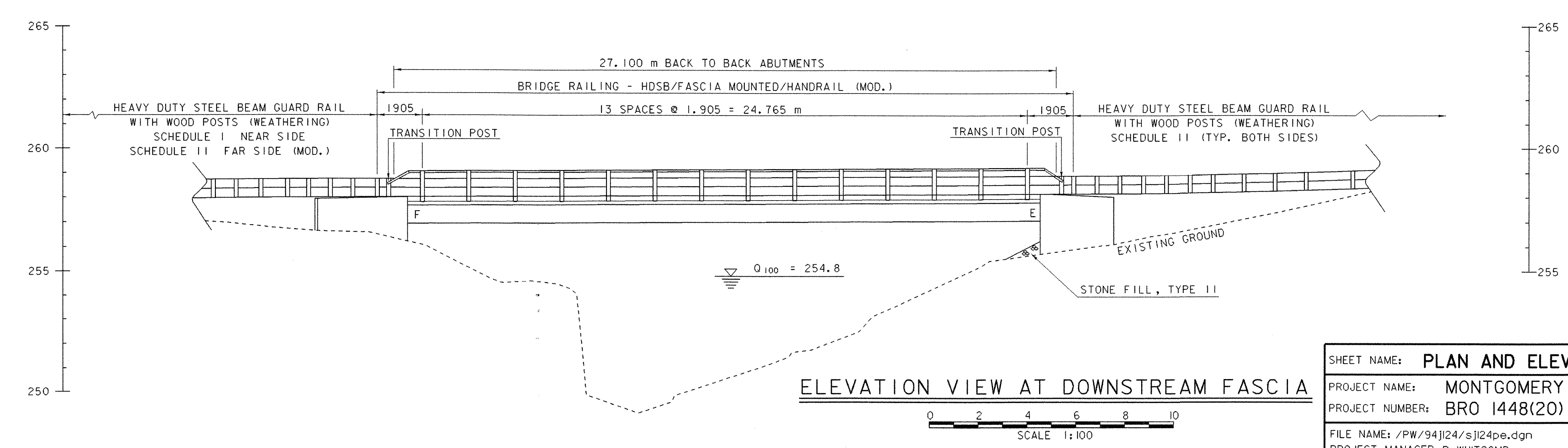
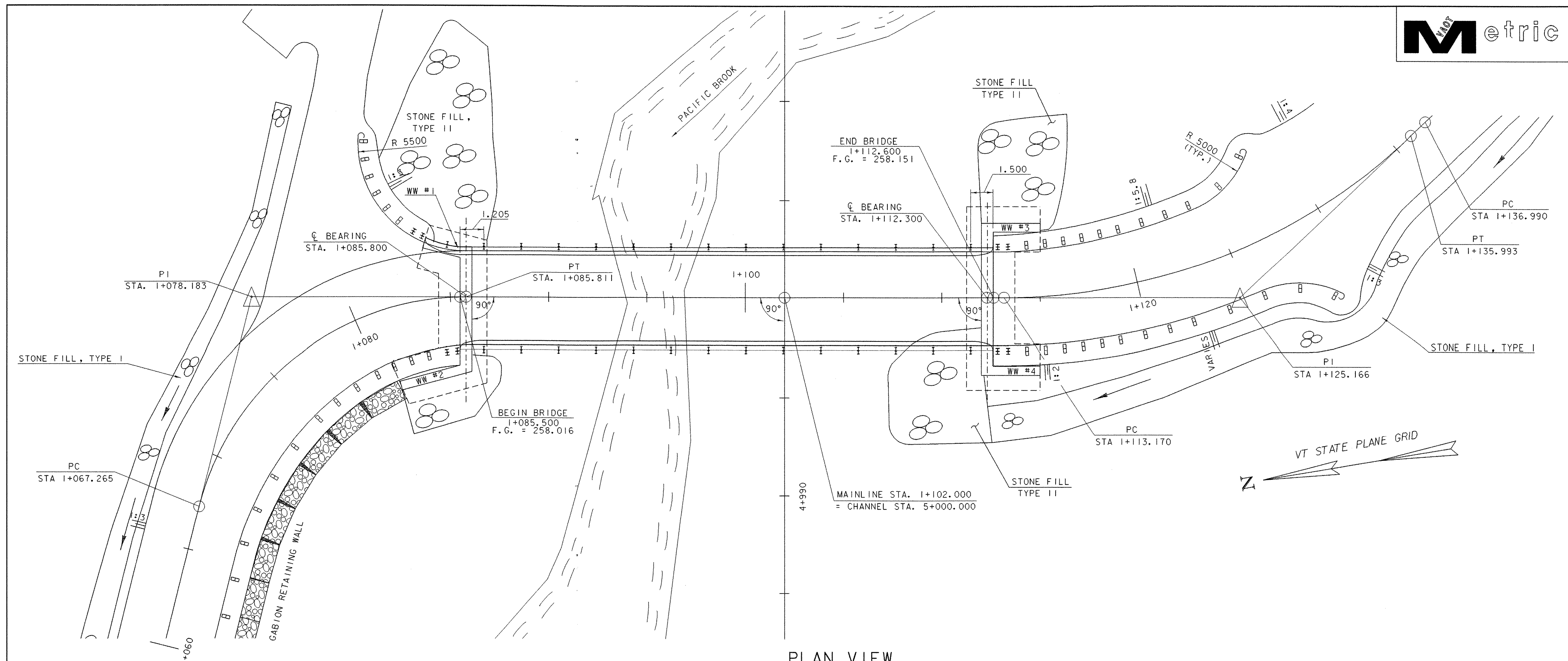
STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION				HOLE NO.: B-09 SHEET 1 OF 1 DATE STARTED: 10/17/02 DATE COMPLETED: 10/17/02							
PROJECT NAME: MONTGOMERY SITE NAME: BR 24 STATION: 1413.40 GROUND EL.: 256.181				PROJECT NUMBER: BRO 1448 (20) SITE NO.: TH 35 OFFSET: 0.00 G.W. DEPTH: NO WATER FOUND							
BORING CREW CREW CHIEF: RUSSELL DRILLER: RUSSELL LOGGER: GARROW ADDITIONAL CREW:				BORING RIG: LAG TRACK RIG BORING TYPE: WASH BORE SAMPLE TYPE: SPLIT BARREL							
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI		
				Top of bedrock @ 0.70 m							
		Run#1: NXMDC, 0.70m-2.22m, Rec. = 1.28m, See Geologist's Report.	1	84	66	60					
		Run#2: NXMDC, 2.22m-3.74m, Rec. = 1.45m, See Geologist's Report.	2	95	86	60					
Hole stopped @ 3.74m											
5											
10											
GEOLOGISTS REPORT:											
Run#1: Silver gray quartz-sericite-albite-chlorite schist, Hard, Top 0.3m severely weathered, Unweathered below 1.00m, Competent below 1.00m.											
Run#2: Silver gray quartz-sericite-albite-chlorite schist, Hard, Unweathered, Competent.											



STATE OF VERMONT AGENCY OF TRANSPORTATION MATERIALS & RESEARCH DIVISION SUBSURFACE INFORMATION				HOLE NO.: B-10 SHEET 1 OF 1 DATE STARTED: 10/21/02 DATE COMPLETED: 10/22/02							
PROJECT NAME: MONTGOMERY SITE NAME: BR 24 STATION: 1410.00 GROUND EL.: 255.330				PROJECT NUMBER: BRO 1448 (20) SITE NO.: TH 35 OFFSET: 0.00 G.W. DEPTH: NO WATER FOUND							
BORING CREW CREW CHIEF: TALLMAN DRILLER: TALLMAN LOGGER: RUSSELL ADDITIONAL CREW:				BORING RIG: LAG TRACK RIG BORING TYPE: WASH BORE SAMPLE TYPE: SPLIT BARREL							
DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS <i>(Description)</i>	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI		
					Top of bedrock @ 0.60 m						
		Run#1: NXMDC, 0.60m-2.12m, Rec. = 1.52m, See Geologist's Report.	RUN 1	REC% 100	ROD% 100	Dip° 60					
		Run#2: NXMDC, 2.12m-3.64m, Rec. = 1.52m, See Geologist's Report.	2	100	100	60					
Hole stopped @ 3.64m											
5											
10											
GEOLOGISTS REPORT:											
Run#1: Silver gray quartz-sericite-albite-chlorite schist, Hard, Unweathered, Competent.											
Run#2: Silver gray quartz-sericite-albite-chlorite schist, Hard, Unweathered, Competent.											



SHEET NAME: BORING LOG #4		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94j124/sj124bor.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. TOUCHETTE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124br5.1	
BRIDGE SHEET NUMBER:	SHEET 16 OF 50	



SHEET NAME: PLAN AND ELEVATION		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BR0 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/941124/sj124pe.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: T. HUSK	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124pe.i	
BRIDGE SHEET NUMBER:	SHEET 17 OF 50	

DESCRIPTION OF PROJECT

This project involves the reconstruction of a bridge over the Pacific Brook. The project is on Nutting Road, an unpaved, Class III town highway, in the Town of Montgomery. A new single lane, single span, steel grider bridge will be constructed downstream of the existing bridge while traffic is maintained on the existing bridge during construction. Following completion of the new bridge, the existing bridge and abutments will be removed. In addition, a portion of the southern approach will also be removed to accomodate the larger waterway opening of the new bridge. Total roadway approach work, including both approaches, is approximately 133 meters. The limits of construction do not approach any buildings or other structures but do encroach upon a leach field area. No 'Threatened & Endangered Species,' Wetlands, or Historic Resources have been identified in the project area. The existing bridge structure has been cleared for removal as it has been photo-documented for Historical purposes. The site is located, based upon NAD 83/92 at 258776.257 N, 491595.522 E.

In addition to the bridge replacement, a retaining wall constructed of gabion baskets will be constructed along the western approach to the bridge. The wall will be 34 meters long and serve to reduce the limits of impact as the roadway is raised in the approach to the new bridge.

It is anticipated that this project will last one construction season.

Total disturbed area (excluding waste, borrow and staging areas):
0.25 ha (0.62 ac.)

SITE INVENTORY & ANALYSIS

OFF SITE DRAINAGE CHARACTERISTICS:

The property surrounding the project site consists of well established vegetation, moderate to steeply sloping, mixed softwood and hardwood forest with well defined drainageways. Due to the nature of the surrounding terrain, runoff water entering the project site will be primarily limited to that which is conveyed along roadway ditches, and that which follows Nutting Road along the 14% grade at the end of the project limits. The current roadway ditches are not well defined and are not lined with stone.

DRAINAGE, WATERWAYS, BODIES OF WATER:

Pacific Brook is located in the project area. There are no other waterbodies or wetlands within the project area. The Pacific Brook is classified as flashy and steep with mountainous, forested surroundings and containing a streambed of mostly ledge with some boulders, cobbles and gravel. The contributing drainage area at the bridge crossing is 8.6 sq. km.

TOPOGRAPHY, EXISTING ROADS, BUILDINGS, UTILITIES:

The topography of the project site is mountainous and wooded with Nutting road following parallel to Pacific Brook which is contained by steep river banks along each side. Development along Nutting road consists of a mix of permanent and seasonal residences, two of which exist near the project limits. Overhead utility service follows along Nutting Road with the need for relocation of the utility poles unlikely.

VEGETATION:

A mix of hardwood and softwood trees of all sizes exist along Nutting Road. The two residences near the bridge site have small areas of lawn and landscape plantings. No fields or other agricultural crops exist near the project. Impacts to vegetation will be limited to that which are effected by the construction of the new bridge along a new alignment. Some mature 300 - 500 (12" - 20") trees, both softwood and hardwood, will be removed, however, a gabion retaining wall along the western approach to the bridge will reduce these impacts along the stream bank by allowing a steeper transition from the road grade to native ground.

Following construction of the new bridge, the existing bridge and roadway approaches will be removed, the slopes stabilized with stone fill and vegetation reestablished with standard seed & mulch practices. Included are three 80 mm caliper maple trees to be planted to help restore the site.

SOILS:

The Soil Conservation Service has mapped the soils throughout Franklin County. The soil type identified for this project site is WxD (Woodstock-Rock outcrop complex). This soil type is described as '...Moderately steep and hilly, shallow, somewhat excessively drained and excessively drained soils and rock outcrop in irregularly shaped areas on bedrock ridges... they have a surface layer of very dark grayish brown fine sandy loam 2 inches thick. The subsoil is friable, brown to dark brown gravelly fine sandy loam 10 inches thick. Hard, massive schist bedrock is at a depth of 12 inches....Permeability is moderately rapid...The hazard of erosion is severe. Runoff is rapid on the rock outcrop part of this complex.'

The listed Soil Erodibility Coefficient (K-value) for this soil type is 0.20. Generally, K-values indicate the following: 0.0 - 0.23 = low erodibility; 0.24 - 0.36 = moderate erodibility; 0.37 and higher = higher erodibility.

SENSITIVE RESOURCE AREAS:

No 'Threatened & Endangered Species' have been identified within the project limits and there will be no adverse effect to Historic or Archaeological features. Pacific Brook is the only identified resource and being a steep, high gradient stream, there are no wetlands within the vicinity of the project.

RIPIARIAN BUFFER:

A 15 meter (50') riparian conservation buffer boundary will be maintained. Earth disturbances within this buffer zone shall be minimized.

PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES:

Disturbance of soils near natural or man-made waterways consists of that which is necessary to construct two new concrete bridge abutments and applicable roadway approaches as well as the removal of the existing crossing. Stabilization of disturbances to stream banks will be accomplished with Stone Fill, Type II.

TEMPORARY EROSION PREVENTION & SEDIMENT CONTROL

Temporary erosion prevention measures to be utilized include:

"Project Demarcation Fencing," denoted -PDF- on the plans, to delineate the limits the contractor can access with construction equipment. This measure limits the area that can be disturbed and exposed to erosion.

Seeding, mulching and biodegradable erosion control matting, or an equivalent product, will be ulitized on all slopes steeper than 3H:1V that are not lined with stone fill. Areas at stations 1+125 - 1+135 RT and 1+147 - 1+160 LT will require this technique. These slopes shall be stabilized within 48 hours of reaching final grade or during intermitant phases of construction activity.

Tracking of all exposed slopes, combined with temporary mulching, will also be utilized on a regular basis. Any slopes to be exposed for several days prior to final grading shall be tracked and mulched. The forecast of rainfall events shall also trigger protection of exposed slopes.

Temporary stone check dams will be placed in ditches to reduce flow velocities and thus reduce the potential for erosion. Check dams will be placed along the ditches such that the elevation of the top of each check dam corresponds with the elevation of the toe of the preceding upslope check dam. See 'Erosion Controls Details' sheet. The check dams may be removed once the stone lining of the ditches is complete and the surrounding area stabilized.

Temporary measures to control sediment transport include:

Silt fence will be installed a distance of 1500 - 3000 (5'-10') from the toe of slopes to prevent sediment transport to down gradient areas. Each line of silt fence will be placed along the contour with ends turned slightly uphill to create a ponding effect should water try to run along the fencing and around the ends. The maximum slope length between separate runs of silt fence is 30 000 (100'). Silt fence shall be installed prior to any upslope earthwork.

Sand bags filled with clean, small diameter stone, or an equivalent barrier, will be utilized around the drop inlet to create a temporary ponding area for particles to settle out as water drains through the barrier. Inlet protection shall be installed as soon as there is the possibility of water flowing to the structure. The height of the barrier shall be limited such that the ponding area does not present a hazard to the traveling public. Alternative inlet control measures shall be approved by the Engineer prior to implementation.

Measures such as temporary stone check dams, silt fence, and sand bags shall be checked regulary for accumulation of sediment. Sediment build-up shall be removed when the level of sediment reaches one-half the height of the control measure. Sediments shall be disposed of in an approved area such that they will not be subject to erosion.

Stabilized construction entrances to the project site, staging areas, as well as to waste and borrow areas shall be established. The minimum size of a stabilized construction entrance is 3700 x 15 000 (12' x 50'). All surface water flowing to or diverted towards a construction entrance shall be piped under the stone. Pipes shall be appropriately sized for the contributing area, however, no pipes smaller than 150mm diameter shall be used. See typical detail on 'Erosion & Sediment Control Plan' sheet for materials and construction method to be utilized when constructing a stabilized entrance.

PERMANENT EROSION CONTROL MEASURES

Several permanent erosion control measures will be utilized:

Stone lining of roadway ditches with clean, angular Stone Fill, Type I will be used to prevent erosion during storm events. See 'Erosion Control Details' sheet for typical ditch section.

Stone lining of the stream banks with Stone Fill, Type II as specified by VTrans Hydraulics personnel is specified. This stone will protect from stream bank erosion during design storm events.

Stone Fill, Type I will be utilized at culvert outlets to dissipate water velocities and reduce erosion potential.

Grass, or other suitable ground cover will be established outside of the roadway limits where stone lining has not been specified. Specifically, stations 1+020 - 1+050 RT, the 3H on 1V slope shall be seeded and mulched promptly upon achieving final grade.

GENERAL EROSION & SEDIMENT CONTROL GUIDELINES

The Erosion Control Plans are meant as a guideline for preventing erosion and controlling sediment transport. The work outlined in this narrative consists of applying measures throughout the life of the project to control erosion and minimize the sedimentation of receiving waters. The measures include stabilization and structural practices, stormwater controls and other pollution prevention controls.

Coordinate the installation, use, and removal of erosion and sediment control measures with contruction activities to ensure economical, effective and continuous erosion and sediment control. Employ temporary stabilization practices in incremental stages as construction proceeds. The contractor will use additional erosion control measures as necessitated by the sequence of construction and as directed by the Engineer. See section 105.23 of the Vermont AOT Standard Specifications for Construction, dated 2001.

Install all erosion and sediment control measures as shown in the Erosion Control Plan or as directed by the Engineer. Do not modify the type, size or location of any control or practice without approval of the Engineer. Any changes shall be noted on the plans, in the weekly inspection report, and reported to the appropriate authority in a timely manner. Inspect all control measures weekly and after each rainfall event. Repair measures promptly once damage is discovered.

Preventing initial soil erosion is much more effective than treating eroded sediment. Therefore, stabilize all disturbed areas promptly after construction activity has temporarily or permanently ceased. Temporary vegetation shall be established if the area is to be without construction activity for a period of 14 days. Perimeter control measures shall be installed following clearing, but prior to the start of any grubbing or grading activity, install other temporary controls in incremental stages as construction proceeds.

Maintaining vegetated buffers along stream banks, wetlands or other sensitive areas is a crucial erosion and sediment control measure that should be established wherever possible.

Control only sediment-laden runoff generated by the project site. Collect and route clean offsite runoff around or through the project site using diversion berms, diversion channels, culverts and/or temporary pipes.

Do not allow construction equipment to operate on the downslope side of perimeter control measures.

PROJECT NAME:	MONTGOMERY		
PROJECT NUMBER:	BRO 1448(20)		
FILE NAME:	/PW/94j124/sj124ecn.xls	PLOT DATE:	9/29/2005
PROJECT LEADER:	R. WHITCOMB	DRAWN BY:	J. GILMORE
DESIGNED BY:	D. BONNEAU	CHECKED BY:	D. BONNEAU
EROSION CONTROL NARRATIVE		SHEET	18 OF 50

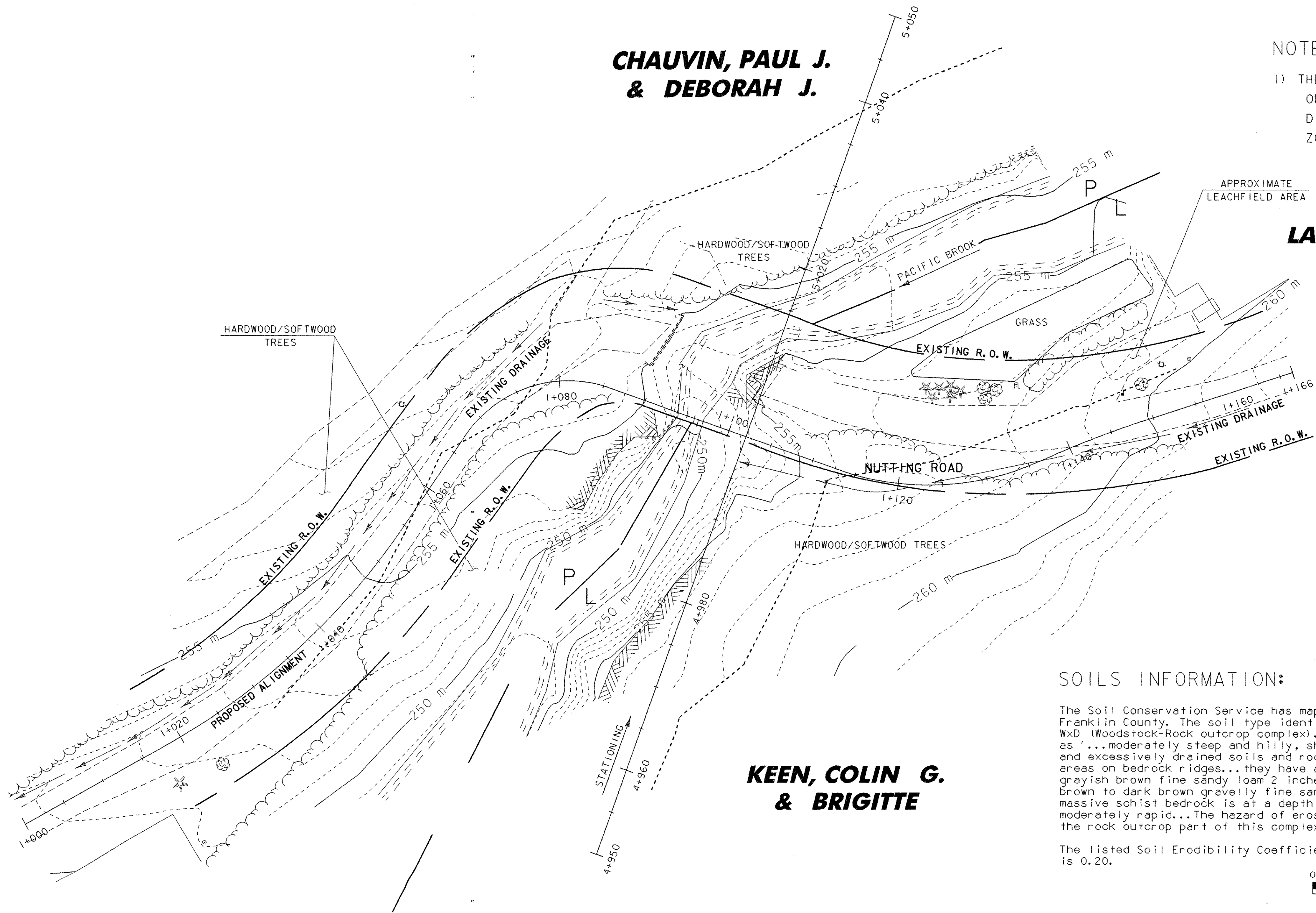


**CHAUVIN, PAUL J.
& DEBORAH J.**

NOTES:

- 1) THE RIPARIAN BUFFER IS A RESOURCE OF SPECIFIC CONCERN. EARTH DISTURBANCES WITHIN THE BUFFER ZONE SHALL BE MINIMIZED.

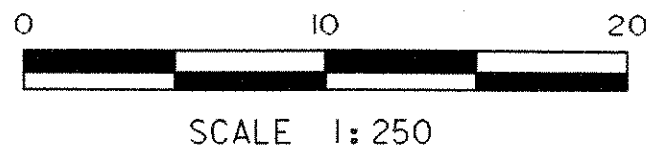
**SCOTT,
LAURA FALK**



SOILS INFORMATION:

The Soil Conservation Service has mapped the soils throughout Franklin County. The soil type identified for this project site is WxD (Woodstock-Rock outcrop complex). This soil type is described as "...moderately steep and hilly, shallow, somewhat excessively drained and excessively drained soils and rock outcrop in irregularly shaped areas on bedrock ridges...they have a surface layer of very dark grayish brown fine sandy loam 2 inches thick. The subsoil is friable, brown to dark brown gravelly fine sandy loam 10 inches thick. Hard, massive schist bedrock is at a depth of 12 inches....Permeability is moderately rapid...The hazard of erosion is severe. Runoff is rapid on the rock outcrop part of this complex."

The listed Soil Erodibility Coefficient (K-value) for this soil type is 0.20.



LEGEND

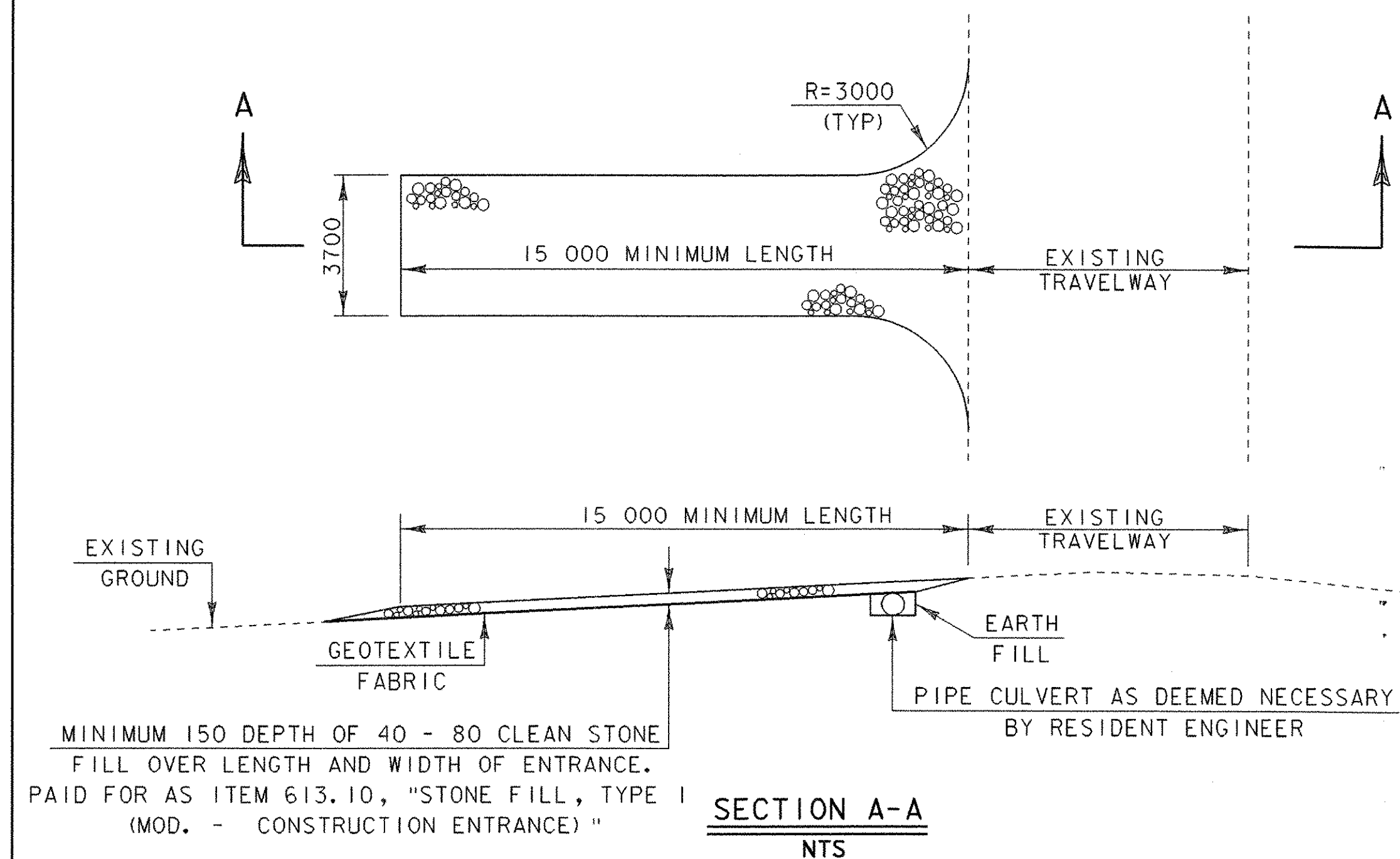
----- RIPARIAN BUFFER

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83/92

SHEET NAME: EXISTING CONDITIONS SITE PLAN

PROJECT NAME:	MONTGOMERY	HIGHWAY NO.:	TH 35
PROJECT NUMBER:	BRO 1448(20)	BRIDGE NO.:	24
		OVER:	PACIFIC BROOK

FILE NAME:	/PW/94j124/sj124ero.dgn	PLOT DATE:	06-DEC-2005
PROJECT MANAGER:	R. WHITCOMB	DRAWN BY:	T. HUSK
DESIGNED BY:	D. BONNEAU	IPARM NAME:	sj124ec2.1
BRIDGE SHEET NUMBER:		SHEET	19 OF 50



STABILIZED CONSTRUCTION ENTRANCE

EROSION AND SEDIMENT CONTROL INDEX	
NO.	DESCRIPTION
1	INSTALL SILT FENCE TO CONTAIN EROSION AS INDICATED
2	ENDS OF FENCE TURNED UPHILL TO CREATE PONDING
3	PROJECT LIMITS DEMARCATION FENCE (SNOW FENCE (MOD.-PDF))
4	GRAVEL BAG DROP INLET PROTECTION, OR EQUIVALENT
5	STONE PAD OUTLET CONTROL

NOTE: ALL DISTURBED AREAS WITH SLOPES GREATER THAN 1:3 WILL REQUIRE TEMPORARY EROSION MATTING (SEE EROSION CONTROL DETAILS SHEET)

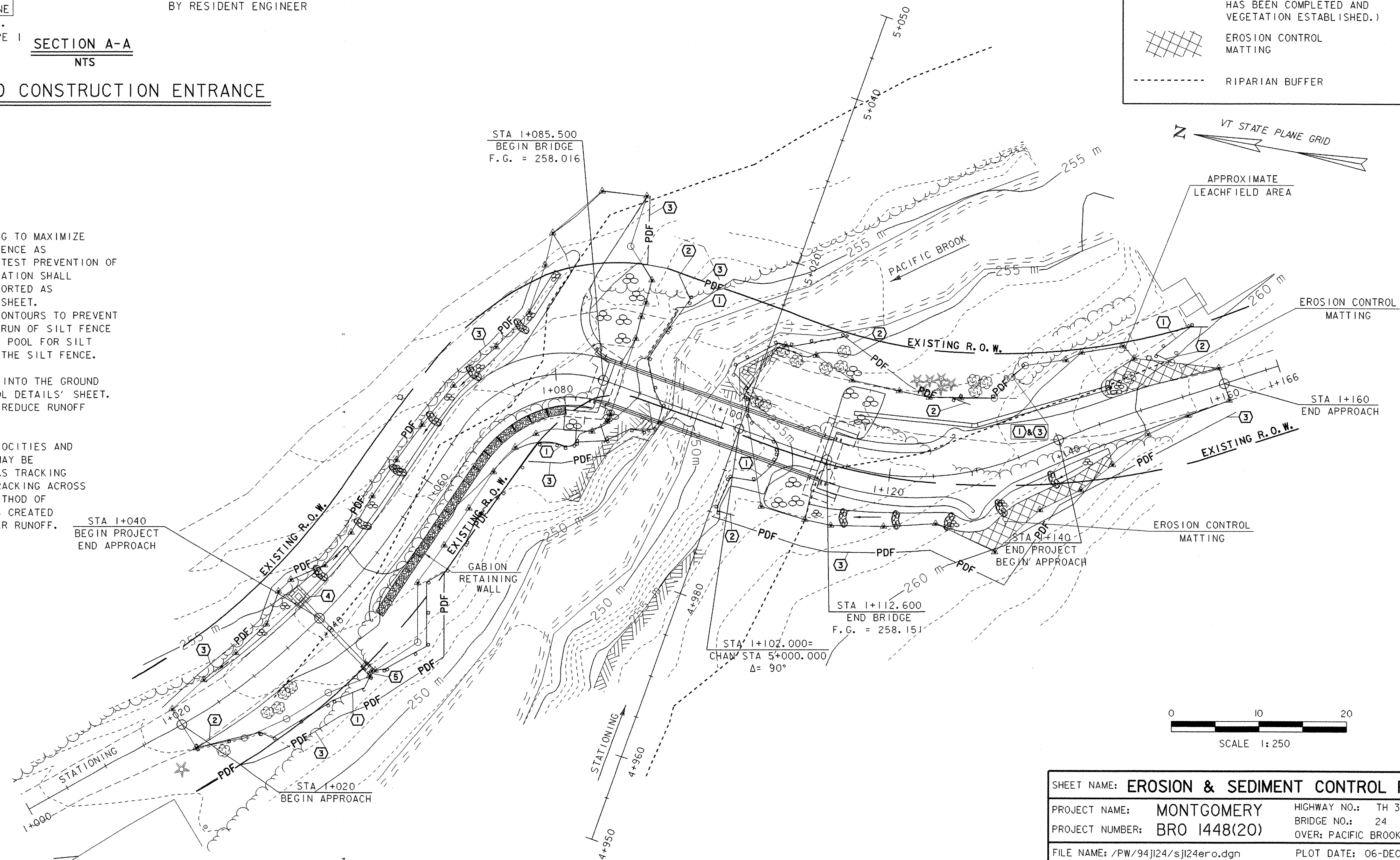
LEGEND	
	SILT FENCE
	STONE FILL, TYPE I
	STONE FILL, TYPE II
	PROJECT DEMARCATION FENCE DEFINING LIMITS OF DISTURBANCE (SNOW FENCE (MOD.-PDF))
	STONE CHECK DAM (TEMP.), OR EQUIVALENT PRODUCT, (TO BE REMOVED ONCE STONE FILL, TYPE I IN DITCHES HAS BEEN COMPLETED AND VEGETATION ESTABLISHED.)
	EROSION CONTROL MATTING
	RIPARIAN BUFFER

NOTES:

SILT FENCE INSTALLATION MAY REQUIRE PHASING TO MAXIMIZE EFFECTIVENESS. INSTALL AND/OR MOVE SILT FENCE AS CONSTRUCTION PROGRESSES TO OBTAIN THE GREATEST PREVENTION OF SEDIMENT TRANSPORT. ALL SILT FENCE INSTALLATION SHALL BE PROPERLY KEYED INTO THE GROUND AND SUPPORTED AS DETAILED ON THE 'EROSION CONTROL DETAILS' SHEET. SILT FENCE SHOULD BE INSTALLED ALONG THE CONTOURS TO PREVENT CONCENTRATION OF RUNOFF. THE ENDS OF EACH RUN OF SILT FENCE SHOULD BE TURNED UPHILL TO PROVIDE A SMALL POOL FOR SILT SHOULD WATER TRY TO RUN AROUND THE END OF THE SILT FENCE.

TEMPORARY STONE CHECK DAMS SHALL BE KEYED INTO THE GROUND AND CONSTRUCTED AS PER THE 'EROSION CONTROL DETAILS' SHEET. THE PURPOSE OF TEMPORARY CHECK DAMS IS TO REDUCE RUNOFF VELOCITIES THUS PREVENTING EROSION.

SURFACE ROUGHENING HELPS REDUCE RUNOFF VELOCITIES AND INCREASES INFILTRATION RATES. ROUGHENING MAY BE ACCOMPLISHED BY A NUMBER OF METHODS SUCH AS TRACKING UP AND DOWN THE SLOPE WITH A BULLDOZER, TRACKING ACROSS THE SLOPE WITH A WHEELED VEHICLE OR ANY METHOD OF SCARIFYING THE SLOPE SUCH THAT THE GROOVES CREATED RUN PERPENDICULAR TO THE DIRECTION OF WATER RUNOFF.



DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83/92

SHEET NAME: EROSION & SEDIMENT CONTROL PLAN

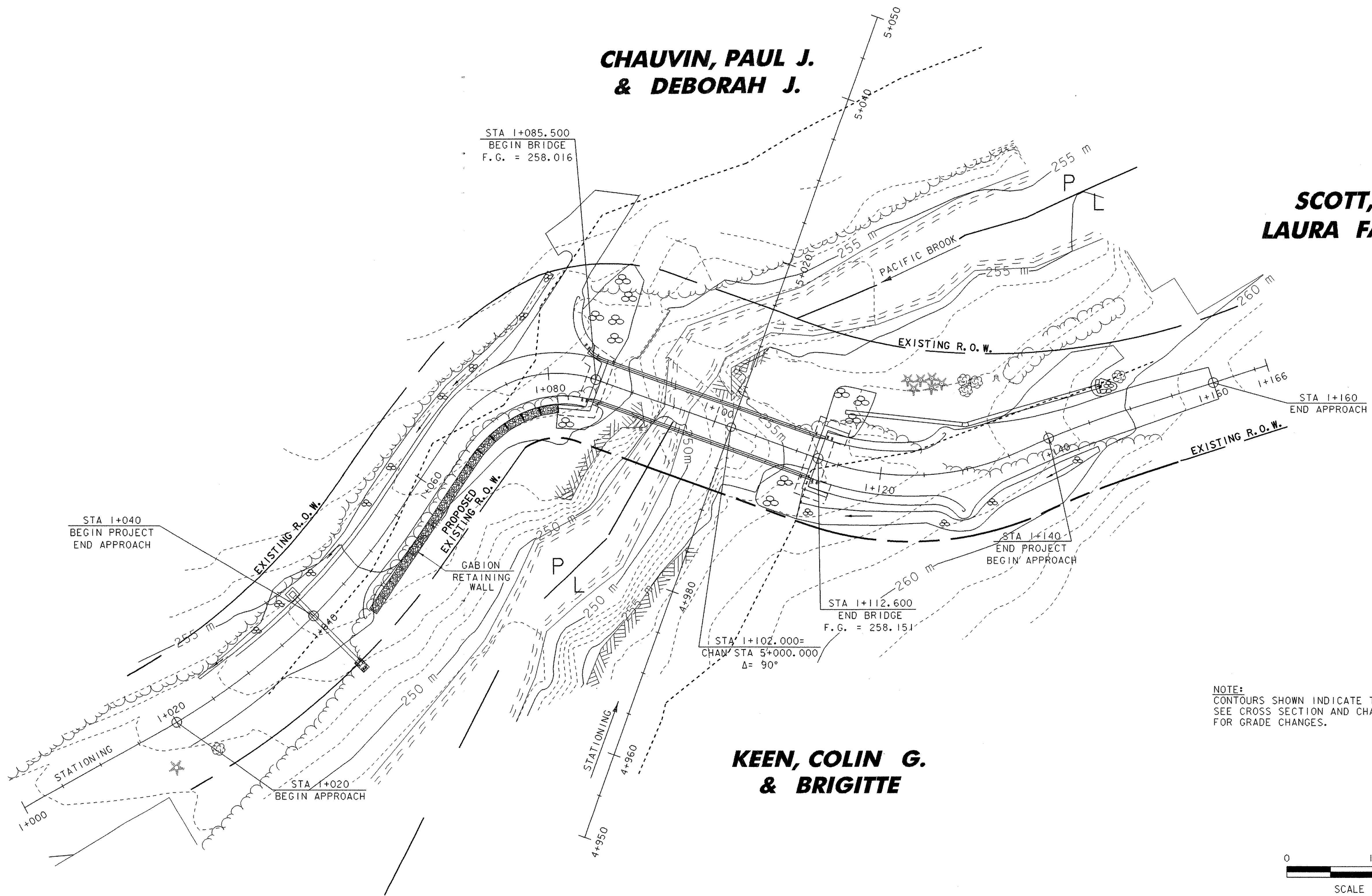
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j124/sj124ero.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: T. HUSK
DESIGNED BY: D. BONNEAU	IPARM NAME: sj124ec3.1
BRIDGE SHEET NUMBER:	SHEET 20 OF 50



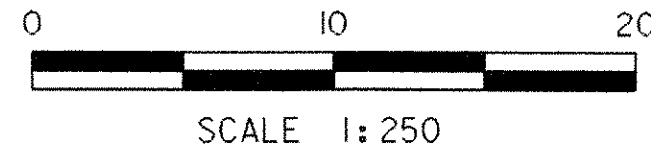
**CHAUVIN, PAUL J.
& DEBORAH J.**

**SCOTT,
LAURA FALK**

**KEEN, COLIN G.
& BRIGITTE**



NOTE:
CONTOURS SHOWN INDICATE THE EXISTING SITE.
SEE CROSS SECTION AND CHANNEL SECTION SHEETS
FOR GRADE CHANGES.



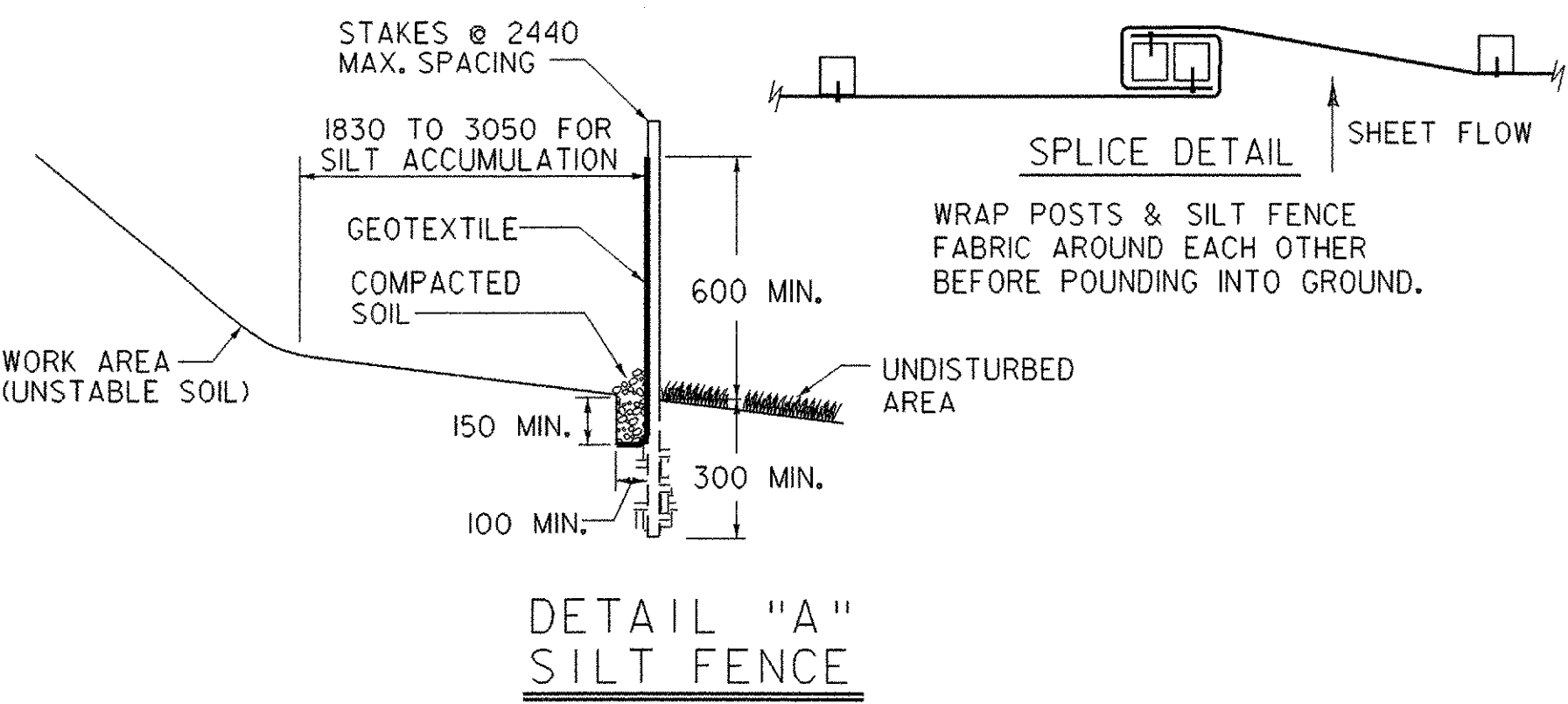
LEGEND	
-----	RIPARIAN BUFFER

DATUM	
VERTICAL	NAVD88
HORIZONTAL	NAD 83/92

SHEET NAME: FINAL CONDITIONS SITE PLAN	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j124/sj124ero.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: T. HUSK
DESIGNED BY: D. BONNEAU	IPARM NAME: sj124ec4.i
BRIDGE SHEET NUMBER:	SHEET 21 OF 50

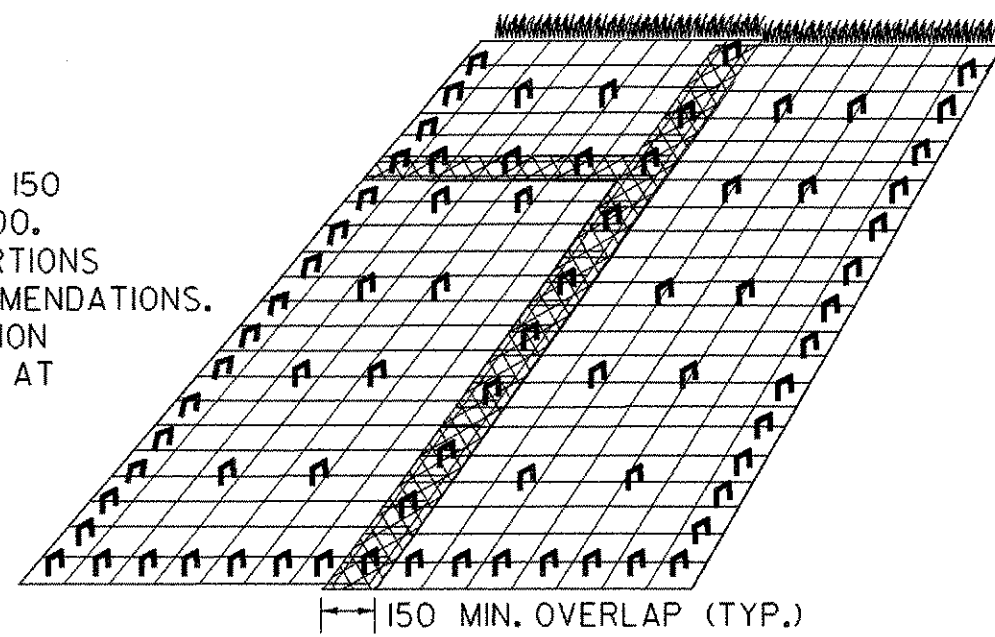
NOTE: REFER TO THE "VERMONT HANDBOOK FOR SOIL EROSION AND SEDIMENT CONTROL FOR CONSTRUCTION SITES" FOR ADDITIONAL EROSION CONTROL MEASURES.

HAY BALES AND SILT FENCE ARE NOT TO BE USED ACROSS AREAS OF CONCENTRATED FLOW.

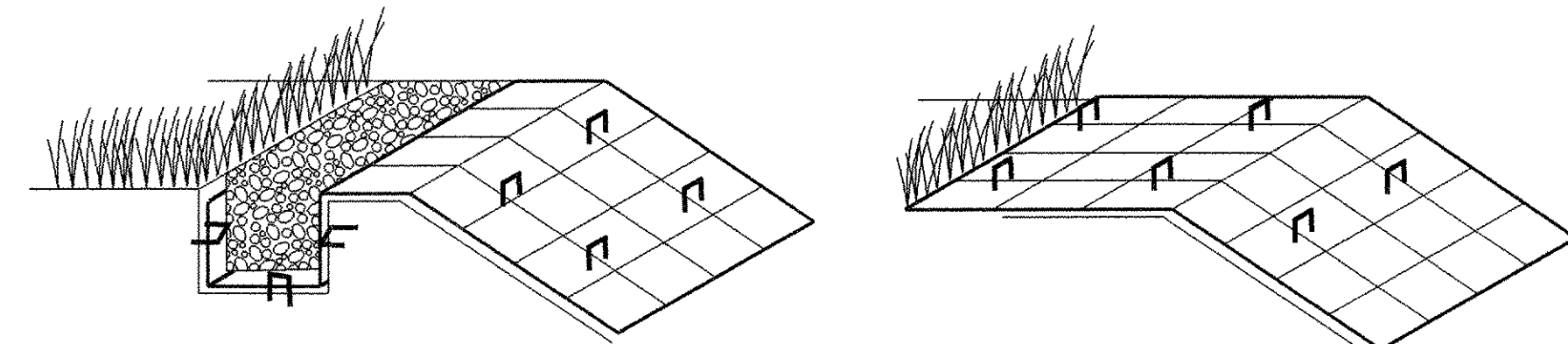


- NOTES:
- DO NOT USE SILT FENCE IN STREAMS, DRAINAGE DITCHES, OR AREAS OF CONCENTRATED FLOW.
 - BACK WITH STAKED-IN-PLACE HAY BALES OR WIRE FENCE IF ADDITIONAL SUPPORT IS NEEDED.
 - MUST BE REMOVED WHEN SOIL IS STABILIZED.

- NOTES:
- ALL FABRIC OVERLAPS SHALL BE 150 MINIMUM WITH STAPLES EVERY 500.
 - STAPLE EDGES AND INTERIOR PORTIONS PER THE MANUFACTURER'S RECOMMENDATIONS.
 - SEE "ANCHOR DETAILS FOR EROSION MATTING" DETAIL FOR ANCHORING AT TOPS OF SLOPES.



DETAIL "C"
EROSION MATTING FOR SLOPES STEEPER THAN 1:3



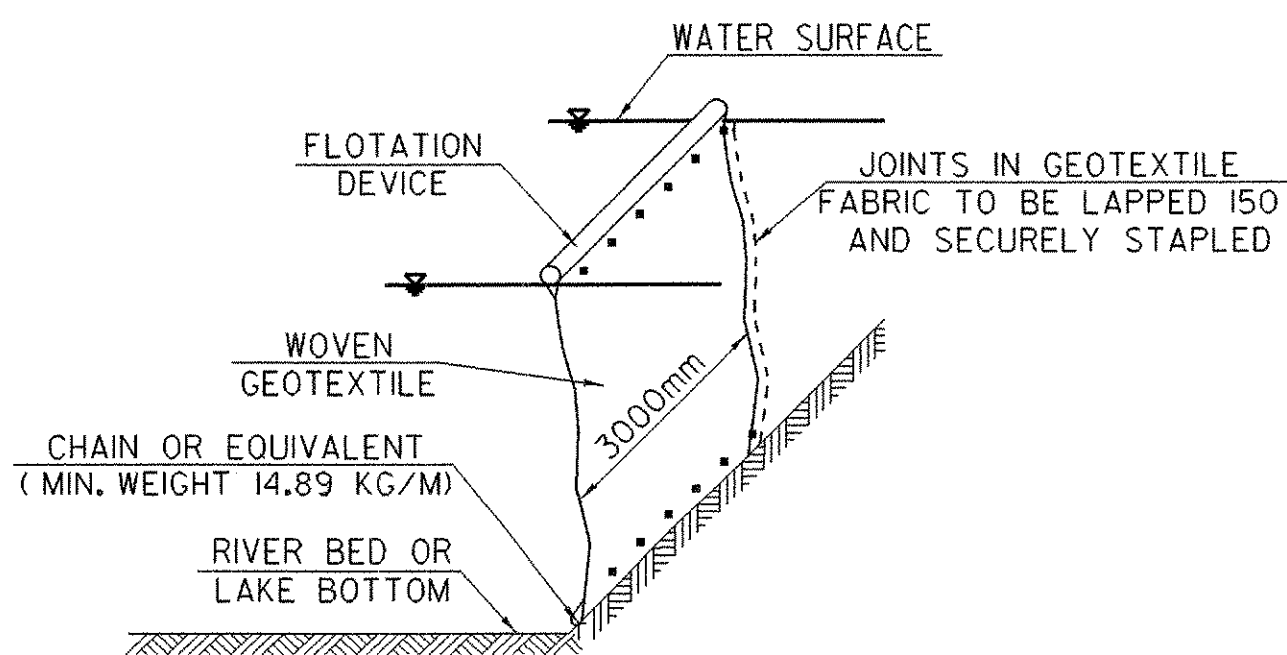
ANCHOR DETAIL 'E1'

INSERT & STAPLE FABRIC INTO 150 X 150 TRENCH PRIOR TO BACKFILLING & COMPACTING SOIL. USE 3 STAPLE PATTERN EVERY 500.

ANCHOR DETAIL 'E2'

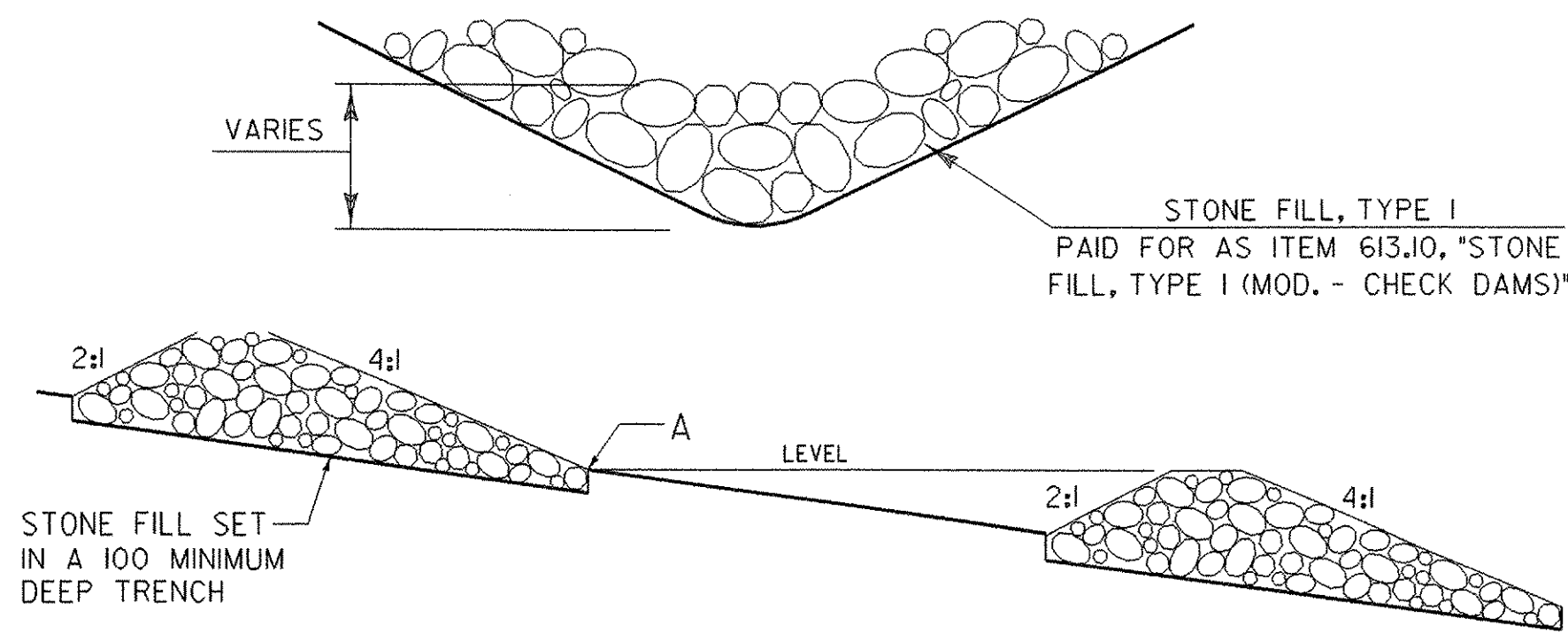
IF THE TOP OF SLOPE IS RELATIVELY FLAT EXTEND MATERIAL APPROXIMATELY 600 AND STAPLE EVERY 500 MINIMUM.

DETAIL "E"
ANCHOR DETAILS FOR EROSION MATTING



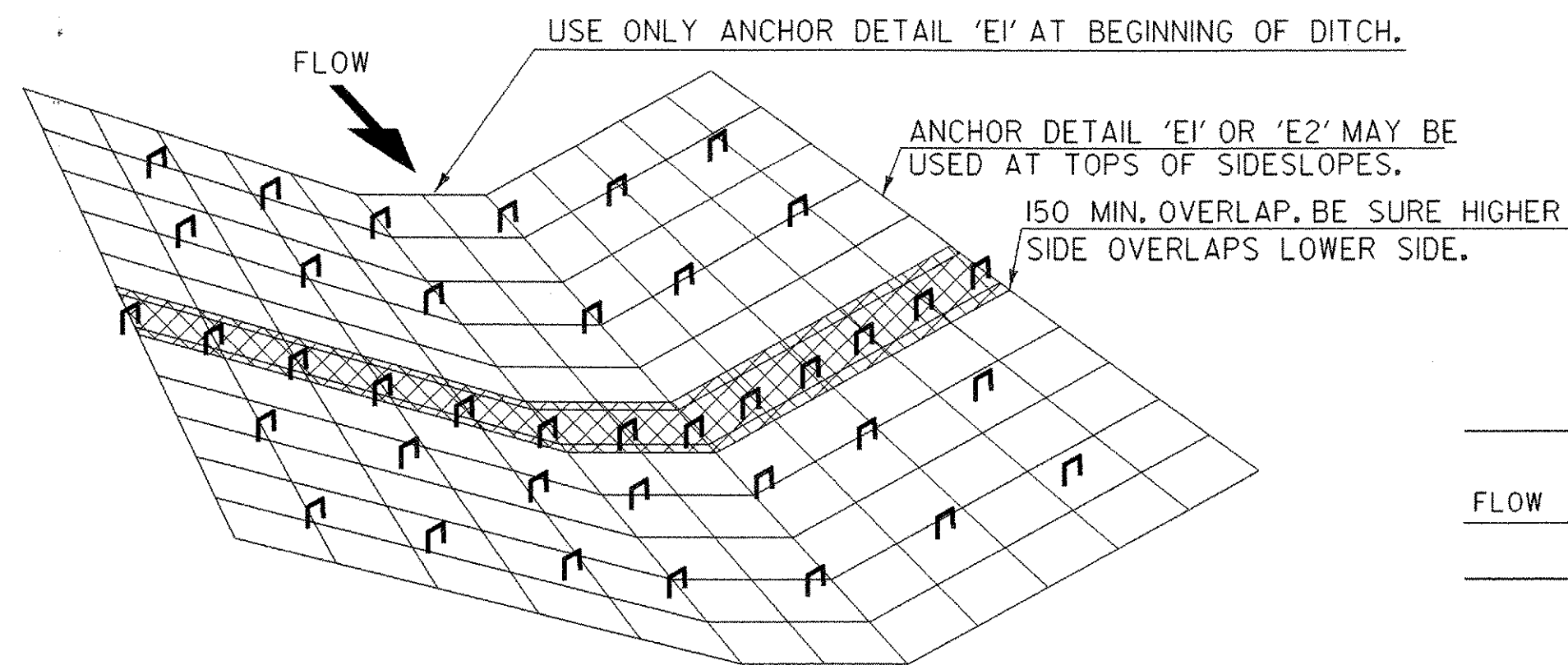
DETAIL "F"
FILTER CURTAIN

- NOT TO BE USED ACROSS THE FLOW OF WATER
- HEIGHT SHOULD BE SUFFICIENT TO ALLOW FOR FLUCTUATIONS IN WATER SURFACE ELEVATION
- ANCHOR FIRMLY IN PLACE AS NEEDED
- INSTALL PRIOR TO EARTH DISTURBING ACTIVITIES AND/OR INSTALLATION OF COFFERDAM WHERE APPLICABLE
- LEAVE IN PLACE UNTIL UP-SLOPE AREAS ARE STABLE AND/OR COFFERDAM IS REMOVED
- USE CARE DURING REMOVAL TO PREVENT THE RELEASE OF CAPTURED SEDIMENT AS MUCH AS POSSIBLE



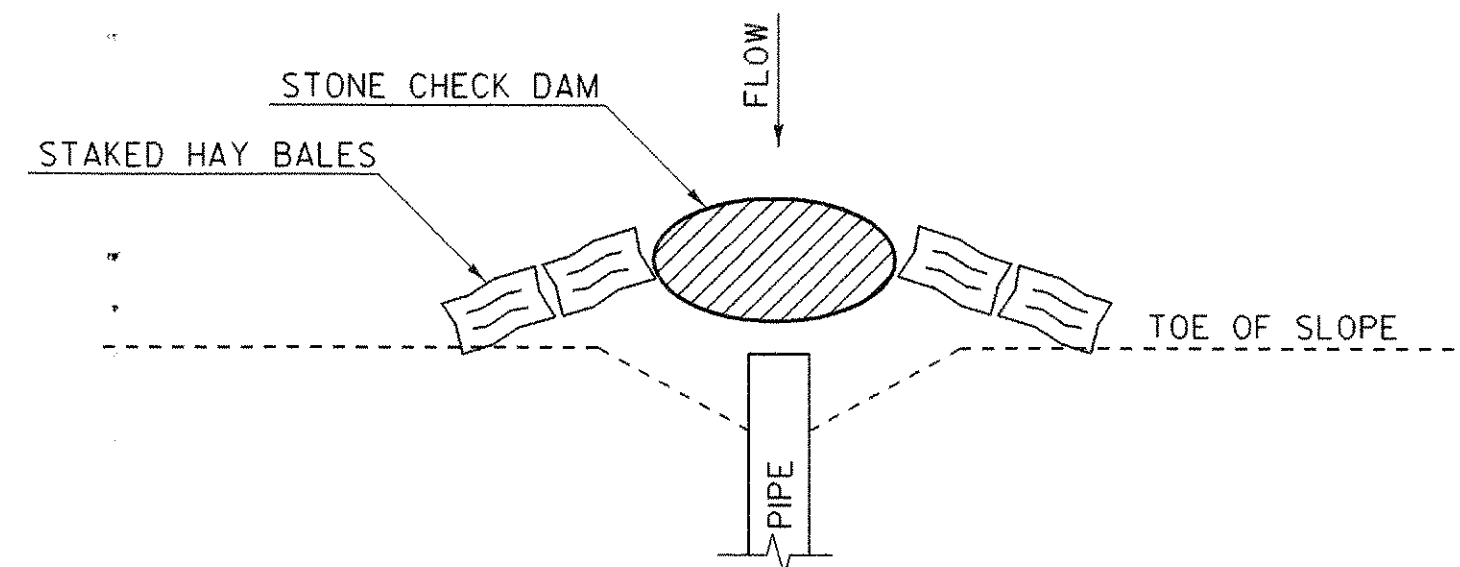
DETAIL "B"
TEMPORARY STONE CHECK DAM

- NOTES:
- CHECK DAMS TO BE USED PRIOR TO COMPLETION OF STONE LINING IN DITCHES
 - LOCATE DOWNSTREAM STRUCTURE SUCH THAT POINT "B" IS APPROXIMATELY LEVEL WITH THE LOWEST GROUND ELEVATION "A" OF THE UPSTREAM STRUCTURE
 - PAYMENT FOR STONE CHECK DAMS WILL BE MADE FOR THE QUANTITY OF STONE FILL USED. REMOVAL OF STONE CHECK DAMS WILL BE INCIDENTAL TO THE STONE FILL ITEM USED.

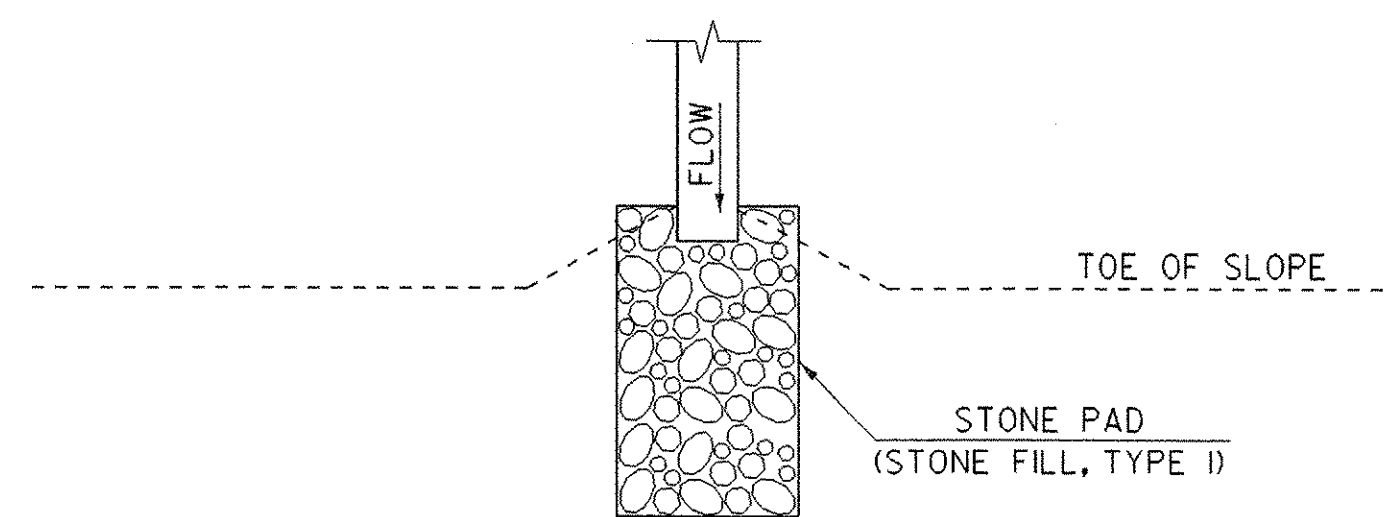


DETAIL "D"
EROSION MATTING FOR DITCHES

- TO BE USED WHERE SLOPE OF DITCHLINE RANGES FROM 1% - 2.5%, SLOPES EXCEEDING 2.5% SHALL BE LINED WITH STONE FILL, TYPE I.
- OVERLAPS SHALL BE 150 MINIMUM IN THE DIRECTION OF FLOW AND STAPLED EVERY 500 MIN. THROUGH BOTH FABRICS.
- USE STAPLE SPACING PER MANUFACTURER'S RECOMMENDATIONS.



DETAIL "G"
EXISTING PIPE INLET CONTROL



DETAIL "H"
PIPE OUTLET CONTROL

SEEDING FORMULA RURAL AREAS

Metric

% 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.

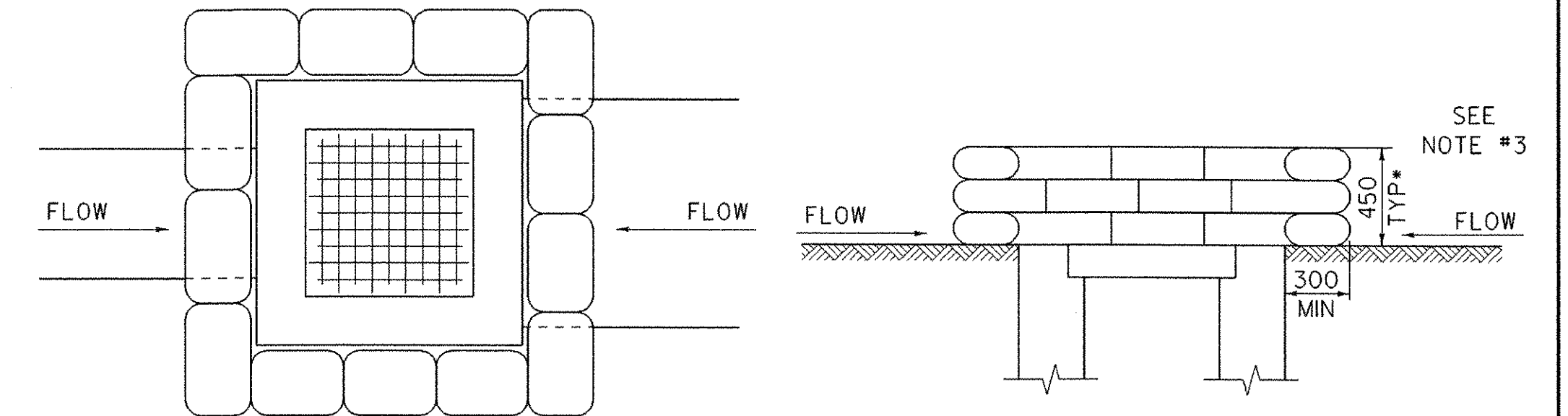
SEED: TO BE APPLIED PER SEEDING FORMULAS OR AS DIRECTED BY THE ENGINEER.

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.

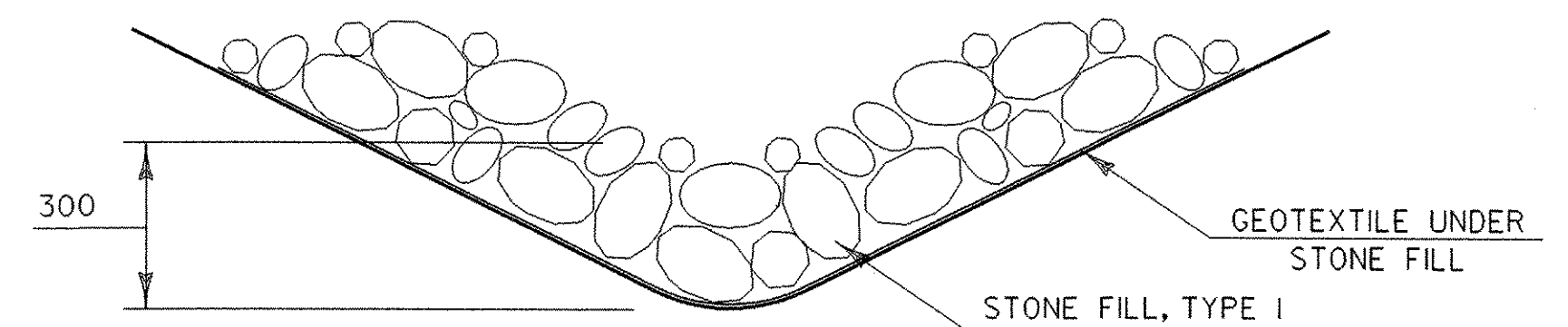
HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 4500 kg/ha, OR AS DIRECTED BY THE ENGINEER.

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



DETAIL "I"
PROPOSED PIPE INLET CONTROL
GRAVEL BAGS

- THE PURPOSE OF DRAINAGE STRUCTURE INLET PROTECTION IS TO PREVENT SEDIMENT FROM ENTERING A DRAINAGE SYSTEM. CREATING AND MAINTAINING A SMALL PONDING AREA ALLOWS SEDIMENT TO FALL OUT OF SUSPENSION PRIOR TO ENTERING THE STRUCTURE.
- GRAVEL BAGS ARE FILLED WITH CLEAN, SMALL DIAMETER STONE ALLOWING WATER TO SLOWLY PERCOLATE THROUGH RATHER THAN SAND WHICH WOULD CREATE A DAM EFFECT.
- THE TOP OF THE INLET PROTECTION SHALL BE SET AT THE MAXIMUM DESIRED WATER LEVEL BASED ON FIELD LOCATION AND CONDITIONS.



TYPICAL ROADWAY DRAINAGE DITCH

SHEET NAME: **EROSION CONTROL DETAILS**

PROJECT NAME: **MONTGOMERY**
PROJECT NUMBER: **BRO 1448(20)**

HIGHWAY NO.: **TH 35**
BRIDGE NO.: **24**
OVER: **PACIFIC BROOK**

FILE NAME: **/PW/94/j124/sj124ero.dgn**
PROJECT MANAGER: **R. WHITCOMB**
DESIGNED BY: **SQUAD 1**
BRIDGE SHEET NUMBER:

PLOT DATE: **06-DEC-2005**
DRAWN BY: **SQUAD 1**
IPARM NAME: **sj124ec5.1**
SHEET **22** OF **50**

NOTE: DETAILS NOT TO SCALE

PROJECT NAME: MONTGOMERY	
PROJECT NUMBER: BRO 1448(20)	
FILE NAME: /PW/94j124/sj124drn.xls	PLOT DATE: 11/2/2005
PROJECT LEADER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	CHECKED BY: C. CARLSON
DRAINAGE DETAIL SHEET	SHEET 23 OF 50

- ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO THE AGENCY OF TRANSPORTATION'S STANDARD SPECIFICATIONS FOR CONSTRUCTION, DATED 2001, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SEVENTEENTH EDITION, AND ITS LATEST REVISIONS.
- THE BRIDGE IS DESIGNED FOR MS 22.5 LIVE LOAD WITH NO ALLOWANCE FOR FUTURE PAVEMENT.
- IN-STREAM CONSTRUCTION SHALL BE RESTRICTED TO JUNE 1 TO OCTOBER 1, UNLESS THE CONTRACTOR OBTAINS WRITTEN PERMISSION FROM THE AGENCY OF NATURAL RESOURCES TO DO WORK OUTSIDE OF THAT TIME FRAME.
- THE CONTRACTOR SHALL REVIEW AND UNDERSTAND ALL APPLICABLE ENVIRONMENTAL PERMITS AND PROJECT SPECIAL PROVISIONS TO INSURE THAT ALL CONDITIONS ARE MET, SPECIFICALLY, THE CONTRACTOR'S RESPONSIBILITY FOR TIMELY NOTIFICATION OF UTILITY PERSONNEL SHOULD ANY LINES REQUIRE MOVING.
- THE CONTRACTOR SHALL TAKE ALL PRECAUTIONS NECESSARY TO PREVENT SILTATION OR POLLUTION, ESPECIALLY THE DISCHARGE OF RAW CONCRETE, INTO THE PACIFIC BROOK.
- THE EXISTING SUPERSTRUCTURE SHALL BE REMOVED UNDER THE PAY ITEM 529.20 "PARTIAL REMOVAL OF STRUCTURE." THIS INCLUDES EXISTING TRUSSES, BEAMS, H-PILES AND DECKING. THE REMOVED COMPONENTS WILL BECOME THE PROPERTY OF THE CONTRACTOR. THESE COMPONENTS MAY BE PAINTED WITH MATERIAL THAT CONTAINS LEAD. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THESE COMPONENTS.
- THE EXISTING ABUTMENTS SHALL BE REMOVED TO THE LIMITS SHOWN ON THE CHANNEL SECTIONS UNDER THE PAY ITEM 203.27 "UNCLASSIFIED CHANNEL EXCAVATION".
- THE COST OF ON-PROJECT CONSTRUCTION SIGNS AND BARRICADES REQUIRED SHALL BE PAID FOR UNDER THE ITEM 641.40 "TRAFFIC CONTROL." THIS ITEM SHALL ALSO INCLUDE ALL WORK AND MATERIALS NECESSARY FOR THE SAFE SEPARATION OF TRAFFIC FROM WORK AREAS. THE PROPOSED METHOD FOR SEPARATING TRAFFIC FROM WORK AREAS MUST BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL AND ARE GIVEN AT 20 DEGREES C UNLESS OTHERWISE NOTED.
- ONE-WAY TRAFFIC WILL BE MAINTAINED ON THE EXISTING STRUCTURE, DURING CONSTRUCTION, TO BE PAID AS THE ITEM 527.10 "MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS (MOD.)."
- ACCESS TO DRIVES WITHIN THE PROJECT LIMITS SHALL BE MAINTAINED. WHEN THE CONTRACTOR MUST TEMPORARILY RESTRICT ACCESS TO THE DRIVES, NOTICE TO THE PROPERTY OWNERS SHALL BE GIVEN IN ADVANCE BY THE CONTRACTOR. THIS WORK SHALL BE INCIDENTAL TO ITEM 527.10 "MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS (MOD.)."
- THE REMOVAL AND/OR RESETTING OF CONSTRUCTION TRAFFIC SIGNS, AS DEEMED NECESSARY BY THE RESIDENT ENGINEER, WILL BE PAID FOR UNDER THE ITEM 641.40 "TRAFFIC CONTROL."
- BRIDGE RAILING AND HEAVY DUTY STEEL BEAM GUARD RAIL W/ WOOD POSTS SHALL BE WEATHERING STEEL. (SEE NOTE 4 ON STD. DWG. SB-R6-82.) THE HANDRAIL ON THE BRIDGE SHALL BE COLOR GALVANIZED BROWN (TO MATCH WEATHERING STEEL). THE COLOR GALVANIZING WILL BE PAID FOR UNDER THE ITEM 525.43, "BRIDGE RAILING, HDSE/PASCIA MOUNTED/HANDRAIL, TYPE E (MOD)."
- THE CONTRACTOR SHALL INSPECT THE HOUSES AT STATIONS 1+000 RT AND 1+160 LT. THE INSPECTION WILL INCLUDE THE INSIDE AND OUTSIDE OF EACH HOUSE AND THE HOUSE FOUNDATIONS PRIOR TO COMMENCEMENT AND AFTER PROJECT COMPLETION. THIS WORK WILL BE INCIDENTAL TO THE STRUCTURE EXCAVATION PAY ITEM.
- WATER QUALITY AND QUANTITY TESTS WILL BE PERFORMED FOR APPLICABLE WATER SUPPLIES LOCATED NEAR THE PROJECT. THIS WORK WILL BE PERFORMED BY AGENCY STAFF AND/OR DESIGNEES PRIOR TO AND IMMEDIATELY AFTER CONSTRUCTION.
- THE CONTRACTOR SHALL AVOID PLACING HEAVY EQUIPMENT ON THE DRIVE AT STA 1+142 LT. THE LEACH FIELD FOR THIS PROPERTY OWNER IS LOCATED APPROXIMATELY IN THE DRIVEWAY. APPROPRIATE CARE SHALL BE USED. ANY DAMAGE THAT OCCURS WILL BE FIXED AND THE CONTRACTOR WILL PAY FOR THE DAMAGES.
- FLOWERS LOCATED BETWEEN STATIONS 1+136 +/- LT TO 1+150 +/- LT SHALL BE REMOVED AND REPLANTED AS DIRECTED BY THE RESIDENT ENGINEER. THE RESIDENT ENGINEER SHALL CONSULT WITH THE PROPERTY OWNER TO DETERMINE THE LOCATION THE FLOWERS WILL BE TRANSPLANTED TO. THIS WORK WILL BE PAID FOR UNDER THE ITEM, "656.50, "TRANSPLANTING SHRUBS." ALL OF THE PLANTS IN THE FLOWER BED WILL BE PAID AS ONE UNIT OF PAYMENT. (I.E IF THE CONTRACTOR MOVES 10 PLANTS OR 20 PLANTS THEY WILL BE PAID ONLY FOR 1 (ONE).)
- THE CEDAR TREES LOCATED APPROXIMATELY BETWEEN STATIONS 1+122 LT AND 1+130 LT SHALL BE SAVED. IF THEY ARE DAMAGED BY CONSTRUCTION ACTIVITIES, THE TREES SHALL BE REPLACED, IN KIND, AT THE EXPENSE OF THE CONTRACTOR.
- THERE WILL BE 3 - (80 - 100 mm CALIPER) MAPLE TREES PLANTED NEAR THE SOUTHEAST END OF THE BRIDGE. THE EXACT LOCATION OF THESE TREES SHALL BE DETERMINED BY THE RESIDENT ENGINEER AND THE PROPERTY OWNER. THE APPROXIMATE LOCATIONS OF THESE TREES HAVE BEEN SHOWN ON SHEET 9. THE TREES WILL BE PAID FOR UNDER ITEM 656.30, "DECIDUOUS TREES".

CONCRETE

- THE HEIGHT OF FILL BEHIND ABUTMENTS WILL BE LIMITED TO THE BRIDGE SEAT ELEVATION UNTIL THE DECK HAS BEEN POURED AND THE CURING PERIOD IS UP.
- THE KEY IN CONCRETE CONSTRUCTION JOINTS SHALL BE MONOLITHIC AND CONTINUOUS FOR THE FULL LENGTH OF THE JOINT, ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.
- ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 mm BY 25 mm.
- JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.
- ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE CONCRETE REINFORCING STEEL INSTITUTE (CRSI).
- REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +/- 25 mm
CLEARANCE +/- 5 mm
- MINIMUM COVER FOR REINFORCING STEEL SHALL BE 50 mm ALONG THE BACK FACES OF WALLS AGAINST EARTH, 40 mm ALONG THE BOTTOM SURFACE OF THE DECK AND 80 mm ELSEWHERE, UNLESS OTHERWISE NOTED.
- SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL, OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 4.0 % TOWARDS MID-SPAN. THE ENTIRE BRIDGE SEAT SURFACE SHALL BE SMOOTHED WITH A MAGNESIUM FLOAT FINISH.
- DECK POUR IS TO BE DONE IN ONE POUR WITHIN A MAXIMUM OF EIGHT HOURS. IF CIRCUMSTANCES BEYOND THE CONTRACTOR'S CONTROL PREVENT THIS FROM BEING ACCOMPLISHED, A MINIMUM DELAY OF NINETY-SIX (96) HOURS BETWEEN THE COMPLETION OF ONE DAY'S POUR AND THE BEGINNING OF ANY OTHER POUR WILL BE ADHERED TO. SEE SHEET 26 FOR DETAIL OF TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT.
- WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN THE DRIP BEADS.
- NO CONCRETE IN THE ABUTMENTS OR WINGWALLS SHALL BE PLACED ABOVE THE BRIDGE SEAT ELEVATIONS UNTIL THE BEAMS/GIRDERS HAVE BEEN PROFILED AND THE FINISHED GRADE OF THE DECK HAS BEEN DETERMINED.
- ALL SUBSTRUCTURE CONCRETE SHALL BE CONCRETE, HIGH PERFORMANCE CLASS B UNLESS OTHERWISE NOTED.
- THE DECK AND CURBS SHALL BE CONCRETE, HIGH PERFORMANCE CLASS A. THE DECK SHALL BE BROOM FINISHED PERPENDICULAR TO THE DIRECTION OF TRAFFIC. APPLYING A BROOM FINISH WILL NOT BE PAID SEPARATELY, BUT WILL BE MADE INCIDENTAL TO THE PAY ITEM 501.33 "CONCRETE, HIGH PERFORMANCE CLASS A".

STRUCTURAL STEEL

- NOT USED.
- ANY CONNECTIONS THAT ARE NOT DETAILED ON THE PLANS SHALL BE DETAILED BY THE FABRICATOR AND SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
- ALL WELDING SHALL CONFORM TO THE PROVISIONS OF VERMONT SPECIFICATION 506.10.
- ALL MEMBERS MARKED (CVN) MUST MEET THE CHARPY V-NOTCH TESTING REQUIREMENTS AS INDICATED IN SECTION 714 OF THE VERMONT AGENCY OF TRANSPORTATION SPECIFICATIONS FOR CONSTRUCTION.
- ANY HOLES IN THE WEBS OF THE FASCIA BEAMS/GIRDERS THAT ARE NOT OTHERWISE FILLED, SHALL BE FILLED WITH EITHER BUTTON HEAD OR HEX HEAD BOLTS. THESE BOLTS SHALL BE TIGHTENED IN ACCORDANCE WITH VERMONT SPECIFICATION 506.19.
- ALL FIELD CONNECTIONS SHALL BE MADE WITH 22 mm DIAMETER AASHTO DESIGNATION M 164M TYPE III BOLTS IN 24 mm DIAMETER HOLES.
- THE DESIGN OF THE FLEMING BRACKETS SHALL BE LEFT UP TO THE CONTRACTOR BUT SHALL BE LIMITED TO A MAXIMUM OF 1.22 METER SPACING.
- AFTER THE SUPERSTRUCTURE HAS BEEN ERECTED, ELEVATIONS SHALL BE TAKEN ALONG THE TOP OF THE BEAMS/GIRDERS, AS DIRECTED BY THE RESIDENT ENGINEER, FOR USE IN DETERMINING THE FINISHED GRADE.

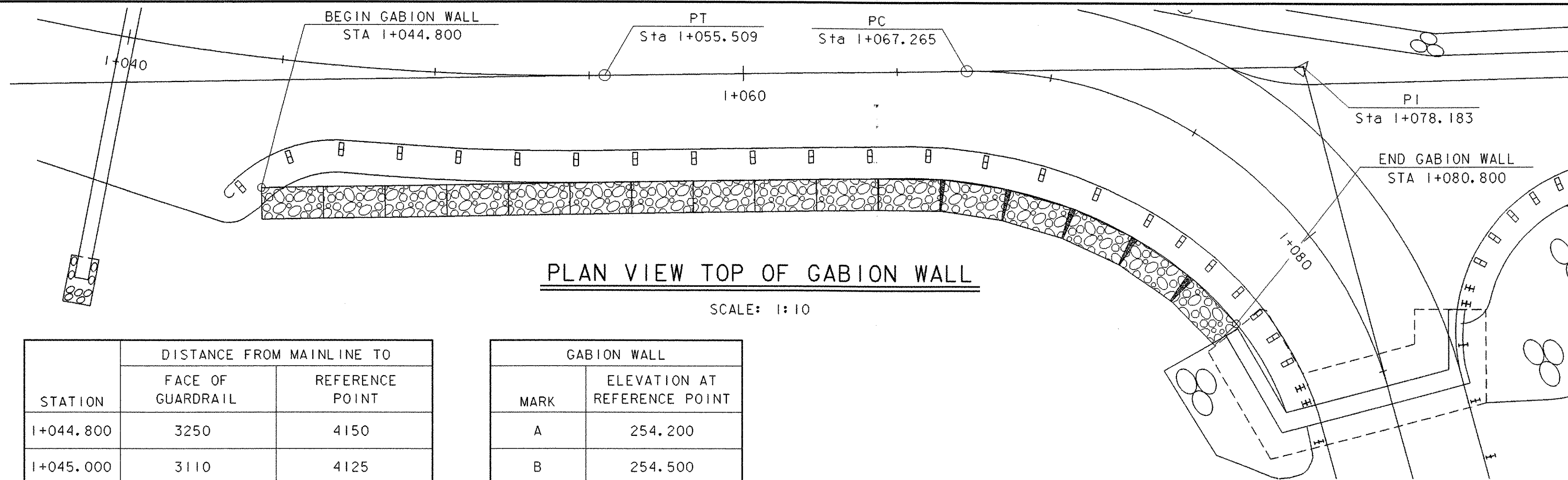
LEDGE

- IF LEDGE IS ENCOUNTERED MORE THAN 600 mm BELOW THE INDICATED BOTTOM OF FOOTING ELEVATIONS AS SHOWN ON THE PLANS, THE STRUCTURES SECTION SHALL BE CONTACTED. PROFILES OF THE LEDGE MAY BE REQUIRED TO ADJUST THE FOOTING ELEVATIONS AND SIZE. NO FURTHER WORK SHALL BE DONE ON THE FOOTINGS UNTIL A REPLY IS RECEIVED FROM THE STRUCTURES SECTION.
- FOOTINGS SHALL BE PLACED ON SOUND, CLEAN LEDGE, ALL OVER BREAKAGE BELOW INDICATED BOTTOM OF FOOTING SHALL BE REPLACED WITH "CONCRETE, HIGH PERFORMANCE CLASS B." A MAXIMUM OF 150 mm AVERAGE DEPTH FOR OVER BREAKAGE SHALL BE PAID FOR AS "CONCRETE, HIGH PERFORMANCE CLASS B," AND ADDITIONAL CONCRETE REQUIRED BELOW THAT DEPTH SHALL BE PLACED AT THE CONTRACTOR'S EXPENSE. THE ADDITIONAL 150 mm OVERBREAKAGE QUANTITY IS INCLUDED IN THE QUANTITY OF "CONCRETE, HIGH PERFORMANCE CLASS B".

PROJECT NAME: MONTGOMERY
PROJECT NUMBER: BRO 1448(20)

FILE NAME: /PW/94j124/sj124gen.xls
PROJECT LEADER: R. WHITCOMB
DESIGNED BY: C. CARLSON
GENERAL NOTES SHEET

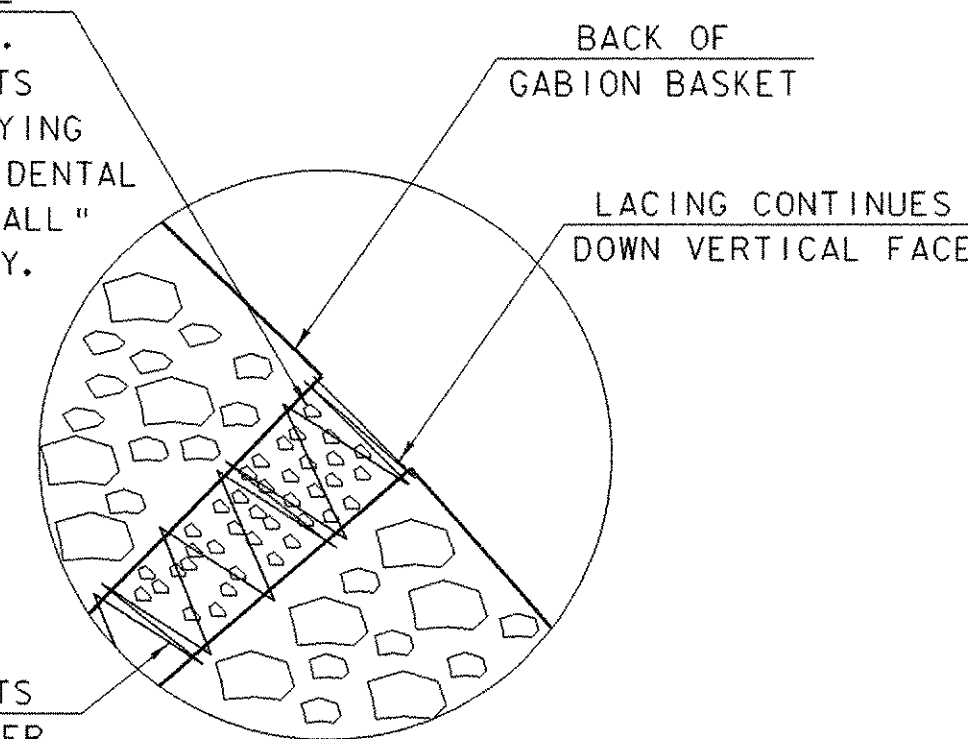
PLOT DATE: 10/25/2005
DRAWN BY: J. GILMORE
CHECKED BY: C. CARLSON
SHEET 24 OF 50



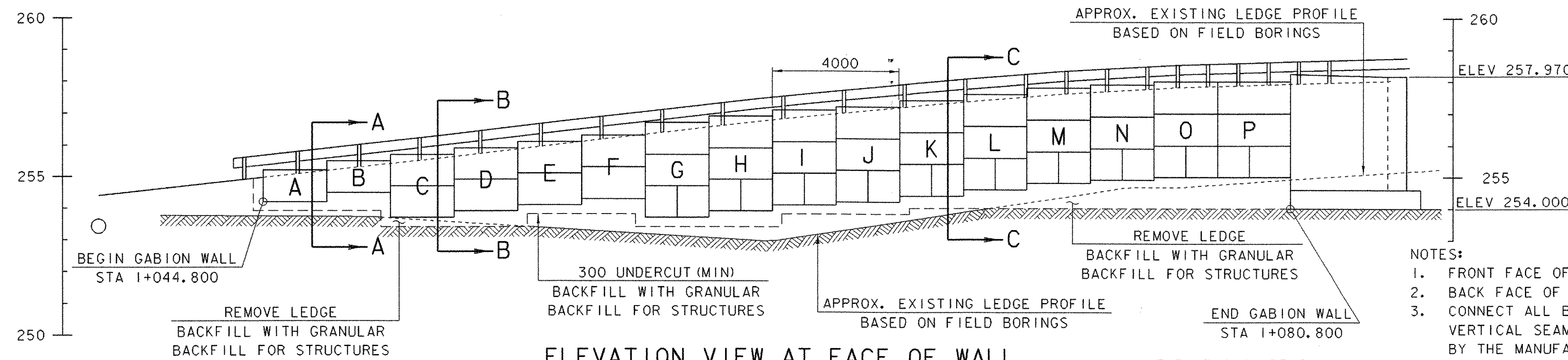
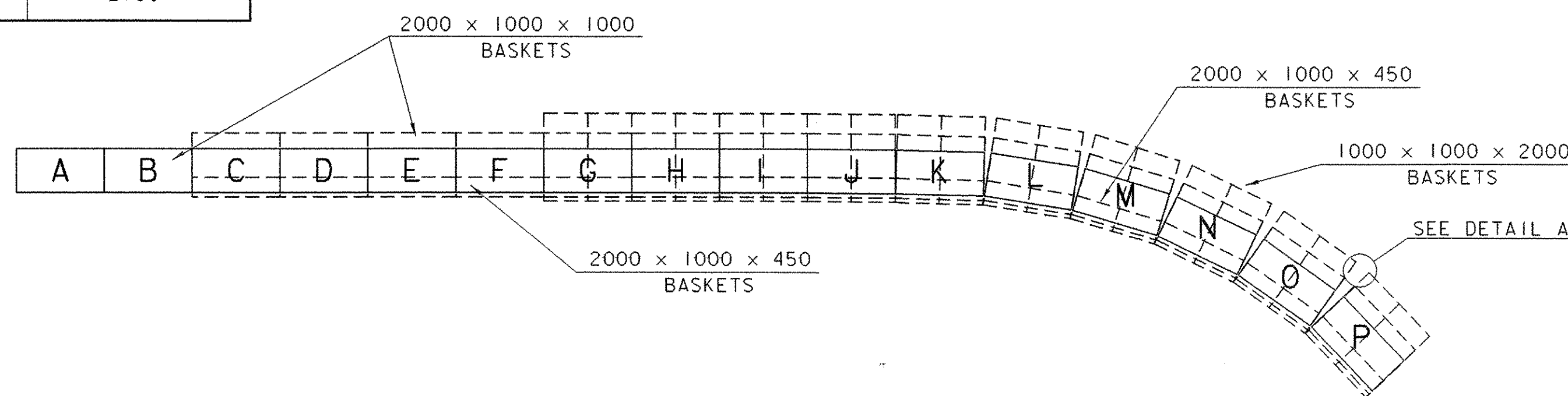
STATION	DISTANCE FROM MAINLINE TO	
	FACE OF GUARDRAIL	REFERENCE POINT
1+044.800	3250	4150
1+045.000	3110	4125
1+047.500	2400	3820
1+050.000	2400	3250
1+052.500	2400	3110
1+055.000	2400	3050
1+057.500	2400	2600
1+060.000	2400	2600
1+062.500	2400	2600
1+065.000	2400	2620
1+067.500	2570	2800
1+070.000	2775	3000
1+072.500	2865	3080
1+075.000	2855	3045
1+077.500	2780	3000
1+080.000	2670	2890
1+080.800	2620	2780

GABION WALL	
MARK	ELEVATION AT REFERENCE POINT
A	254.200
B	254.500
C	253.700
D	253.900
E	254.100
F	254.300
G	253.700
H	253.900
I	254.100
J	254.200
K	254.400
L	254.600
M	254.800
N	254.900
O	255.000
P	255.000

BACKFILL BETWEEN GABIONS WHERE NECESSARY WITH 3/4" WASHED STONE. THIS SHOULD BE DONE AFTER BASKETS HAVE BEEN TIED AND FILLED. SUPPLYING AND PLACING 3/4" STONE SHALL BE INCIDENTAL TO ITEM 612.10 "GABION RETAINING WALL" AND WILL NOT BE PAID SEPARATELY.



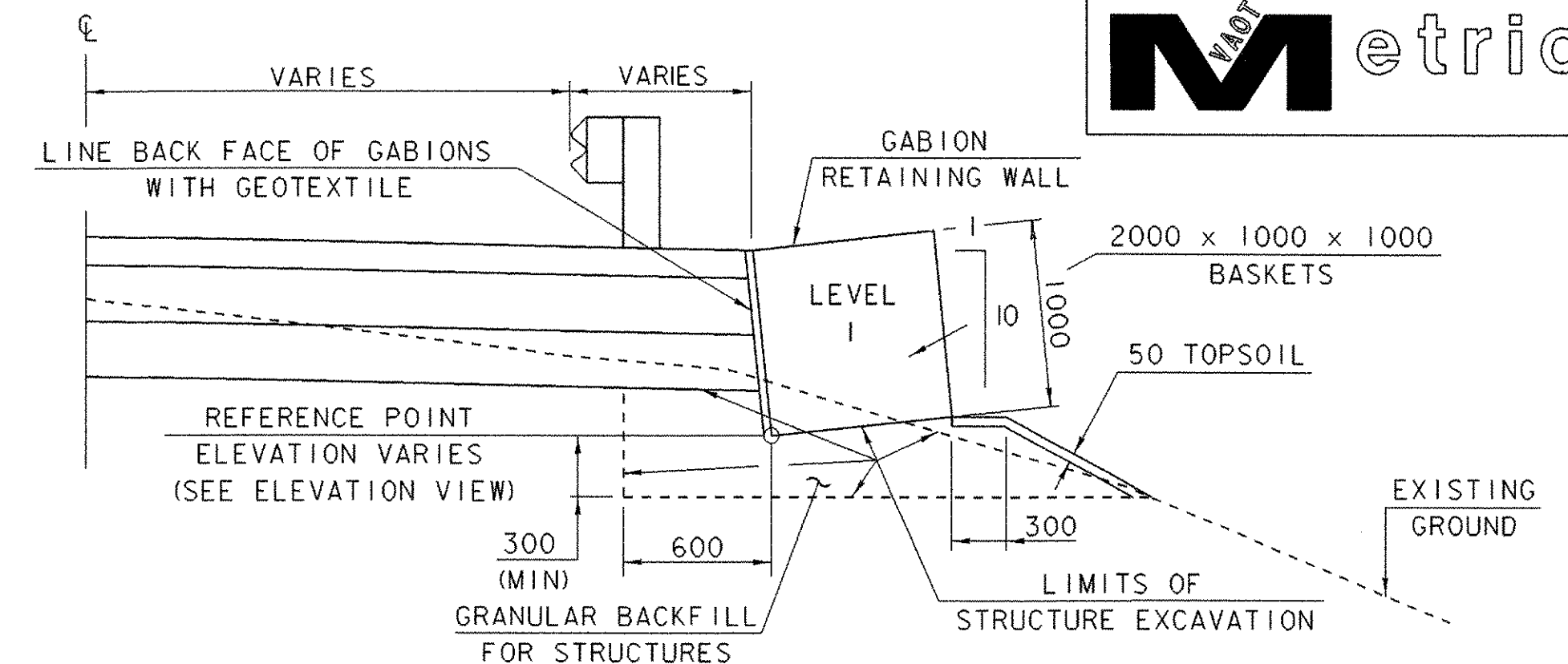
DETAIL A
NTS



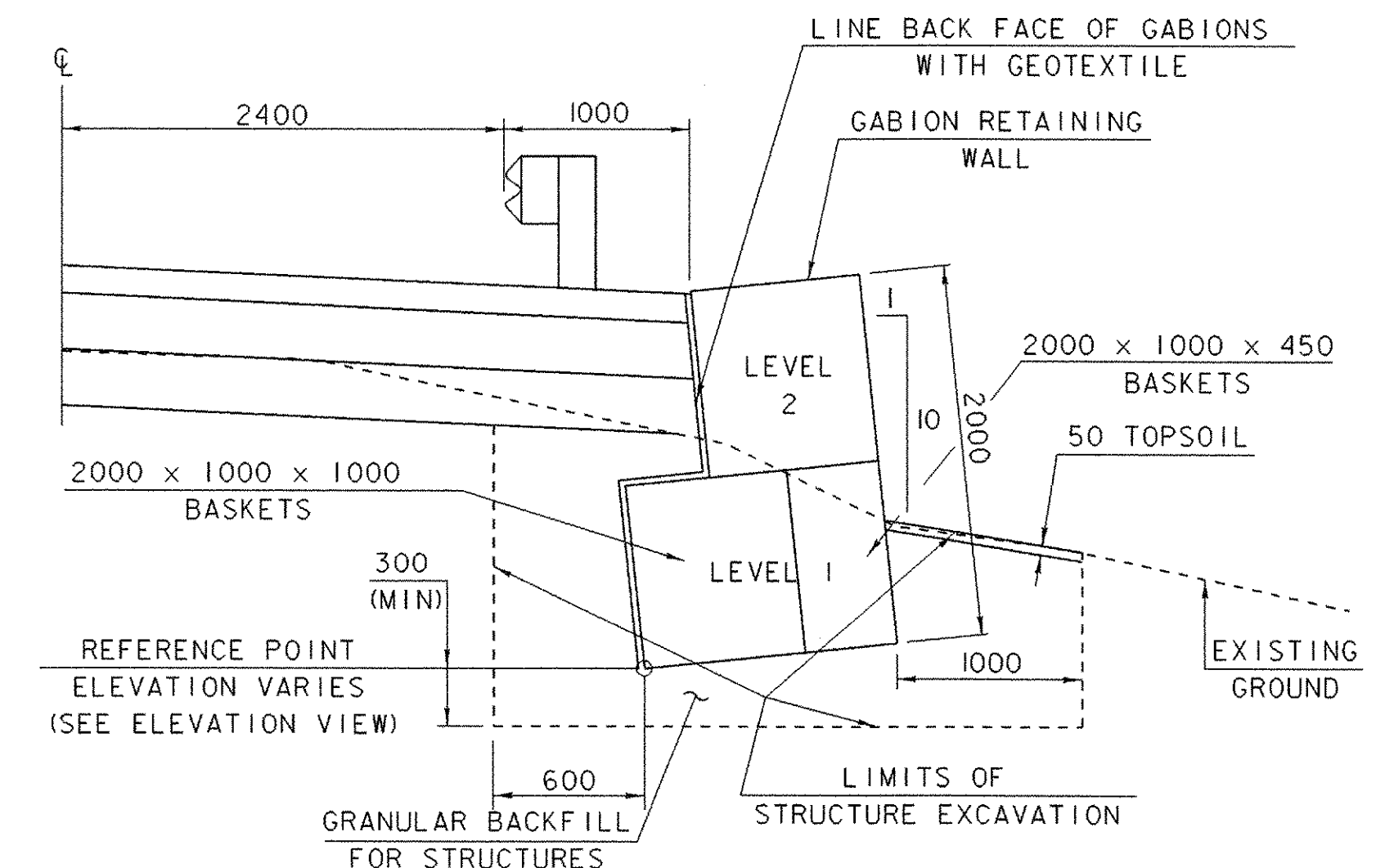
ELEVATION VIEW AT FACE OF WALL
SCALE: 1:10

(ELEVATIONS ARE SHOWN AT THE BACK FACE OF GABION)

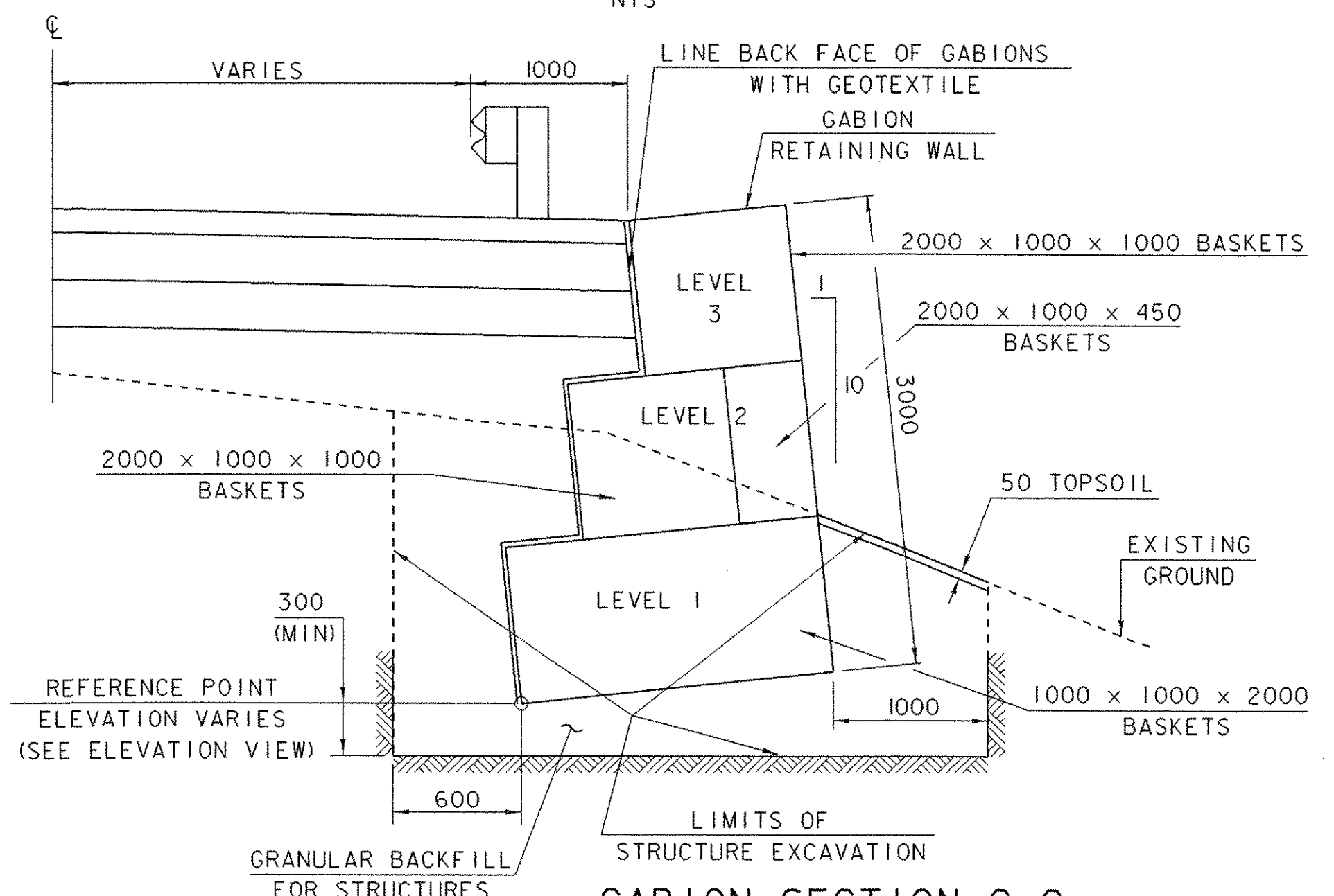
- NOTES:
1. FRONT FACE OF GABION IS EXPOSED FACE.
 2. BACK FACE OF GABION IS BURIED.
 3. CONNECT ALL BASKETS AT EACH HORIZONTAL AND VERTICAL SEAM OR JOINT WITH WIRE LACING SUPPLIED BY THE MANUFACTURER AT THE RECOMMENDED SPACING. THIS WORK IS INCIDENTAL TO ITEM 612.10, "GABION RETAINING WALL".
 4. GEOTEXTILE WILL BE PAID FOR UNDER ITEM 649.31, "GEOTEXTILE UNDER STONE FILL".



GABION SECTION A-A
STA 1+044.800 - STA 1+048.580
NTS

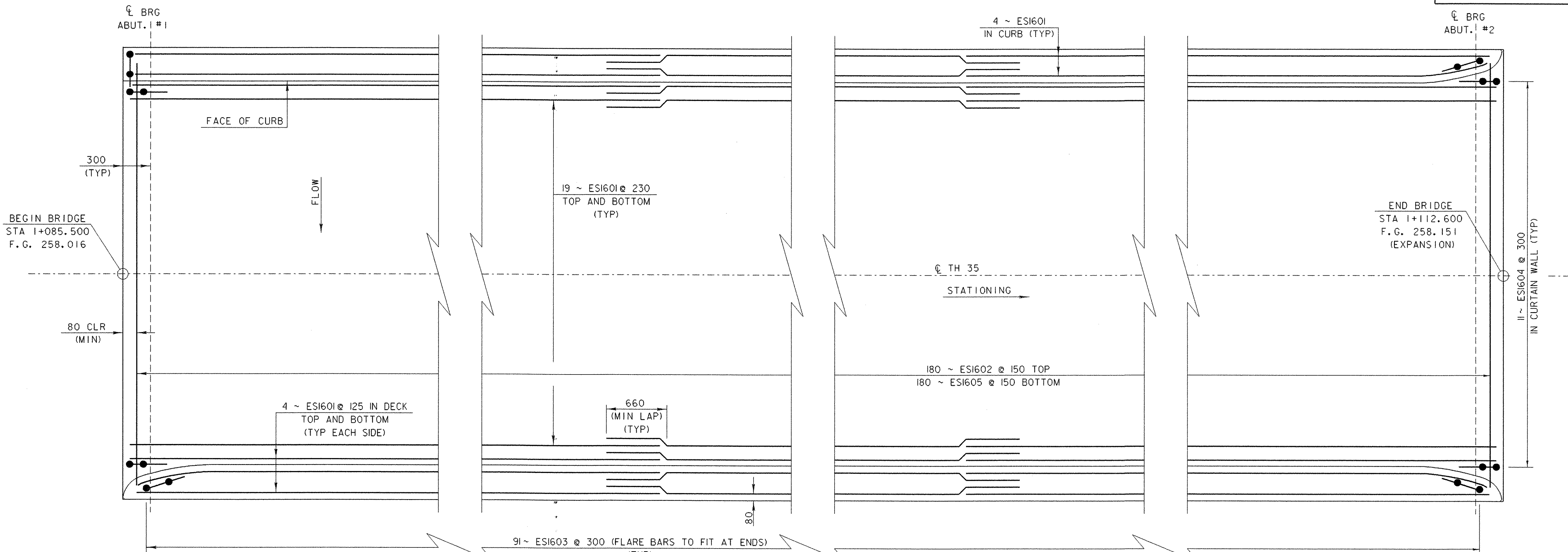


GABION SECTION B-B
STA 1+048.580 - STA 1+056.279
NTS

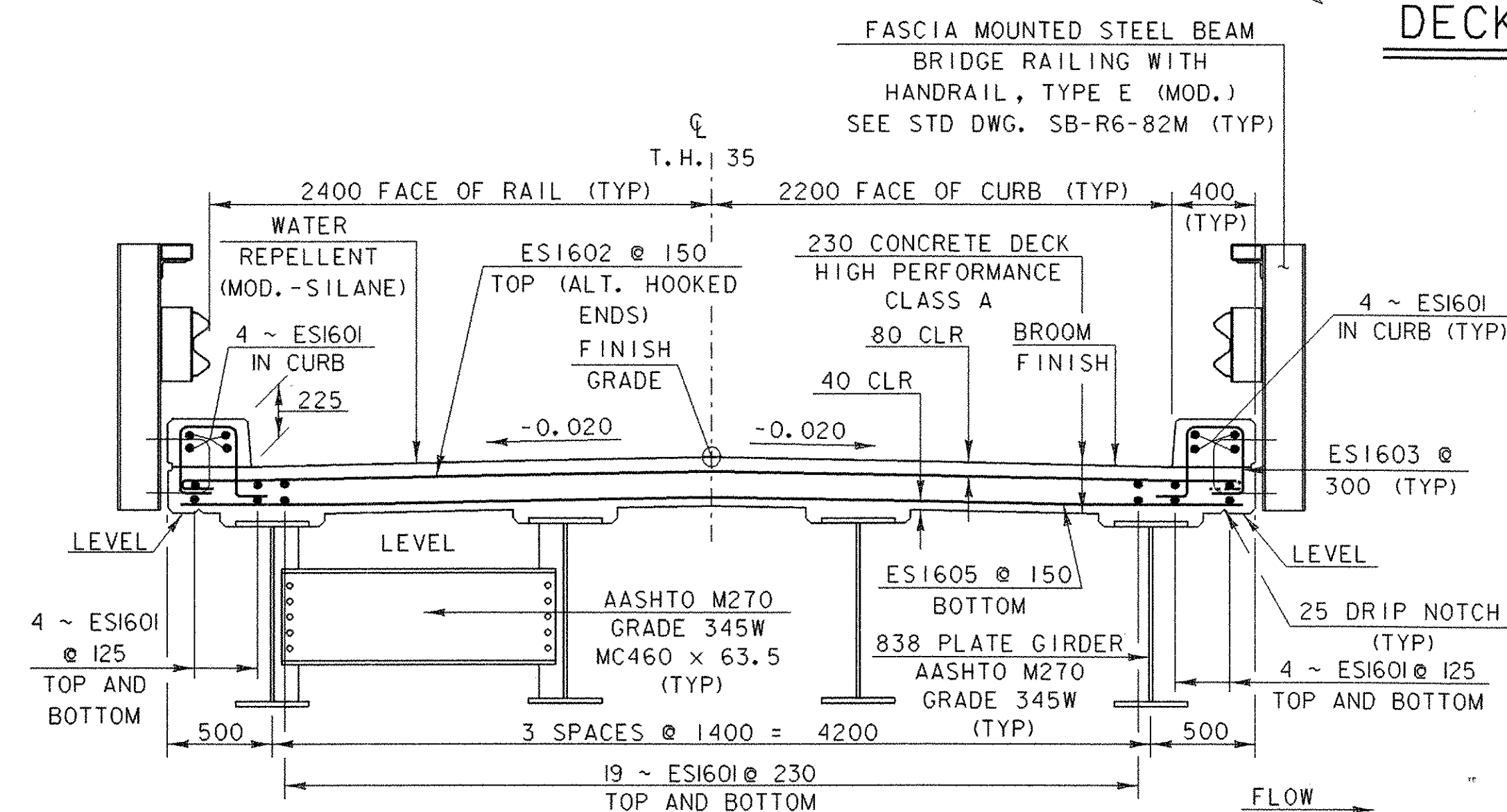


GABION SECTION C-C
STA 1+056.279 - STA 1+080.800
NTS

SHEET NAME: GABION WALL DETAILS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94j124/sj124gab.dgn	PLOT DATE: 12-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: T. HUSK	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124grw.1	
BRIDGE SHEET NUMBER:	SHEET 25 OF 50	

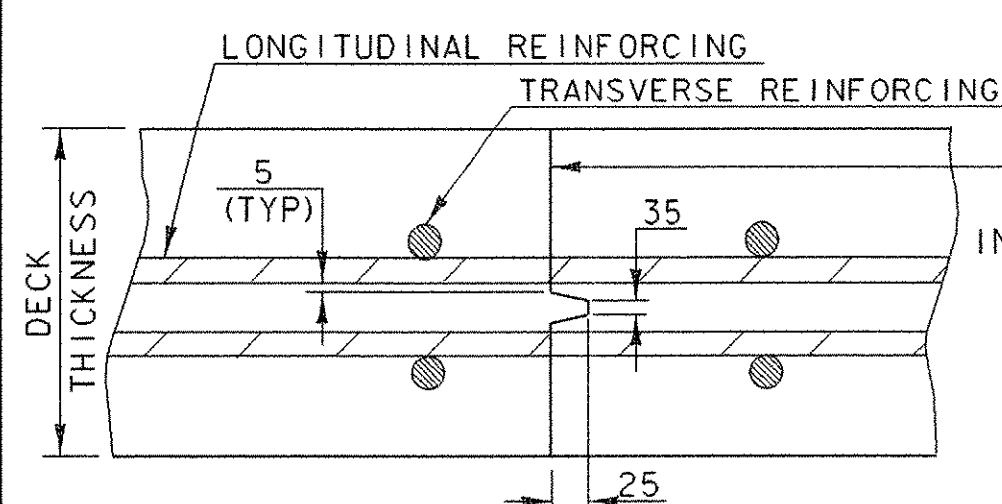


SCALE: 1:25



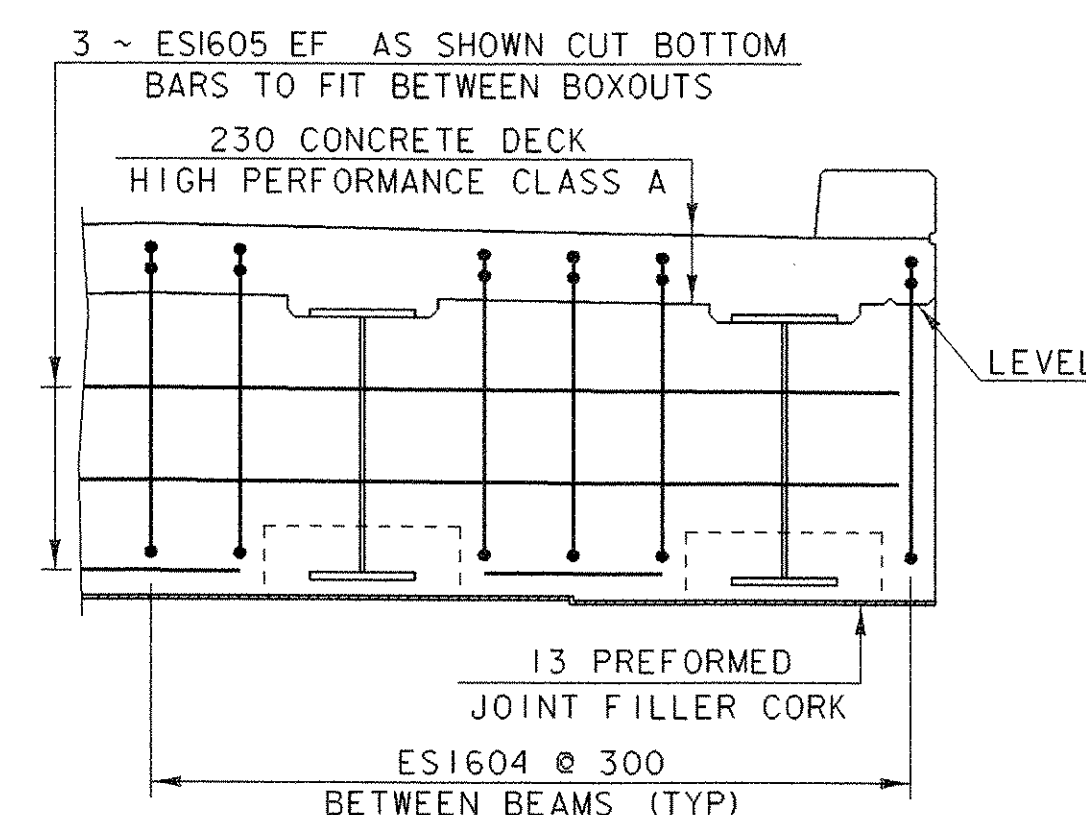
BRIDGE SECTION AT MIDSPAN

SCALE: 1:25



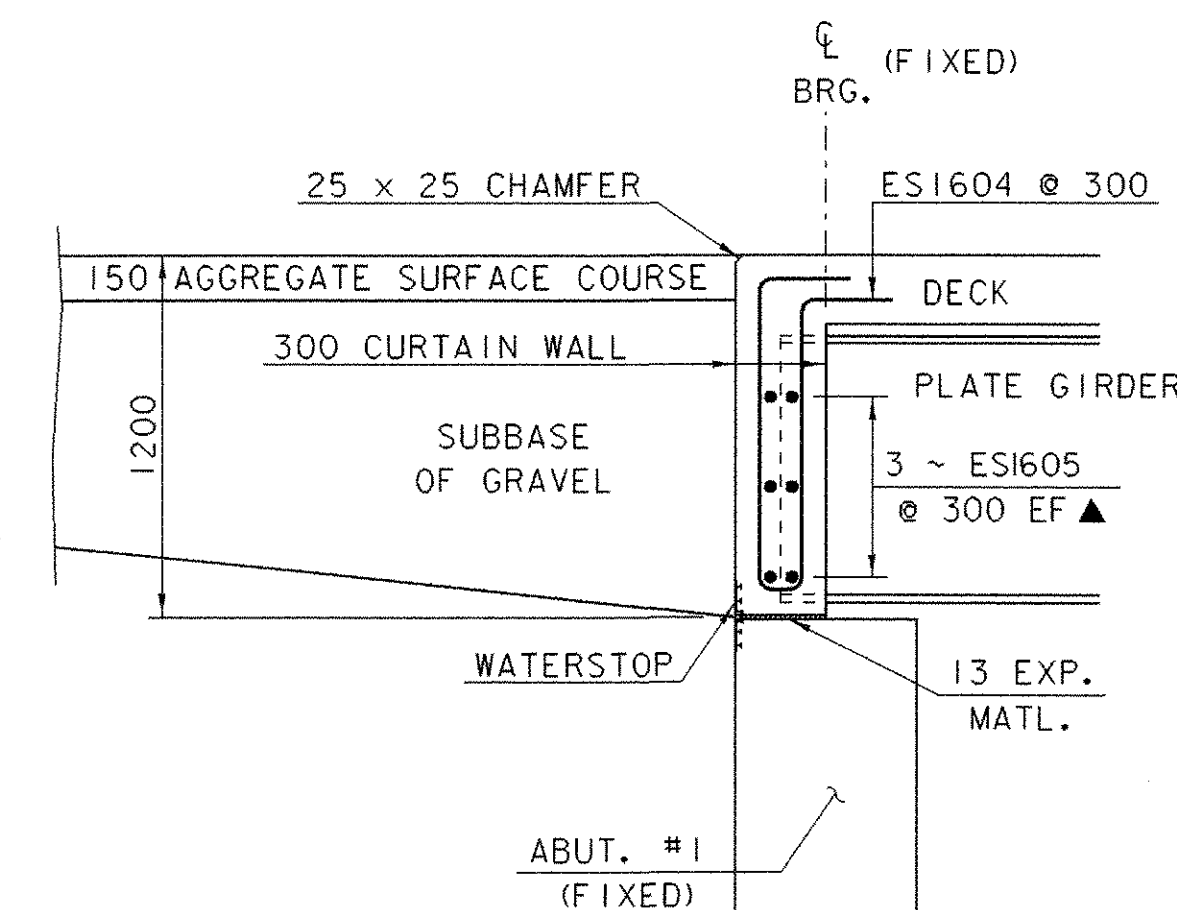
TRANSVERSE BRIDGE SLAB CONSTRUCTION JOINT DETAILS

NTS



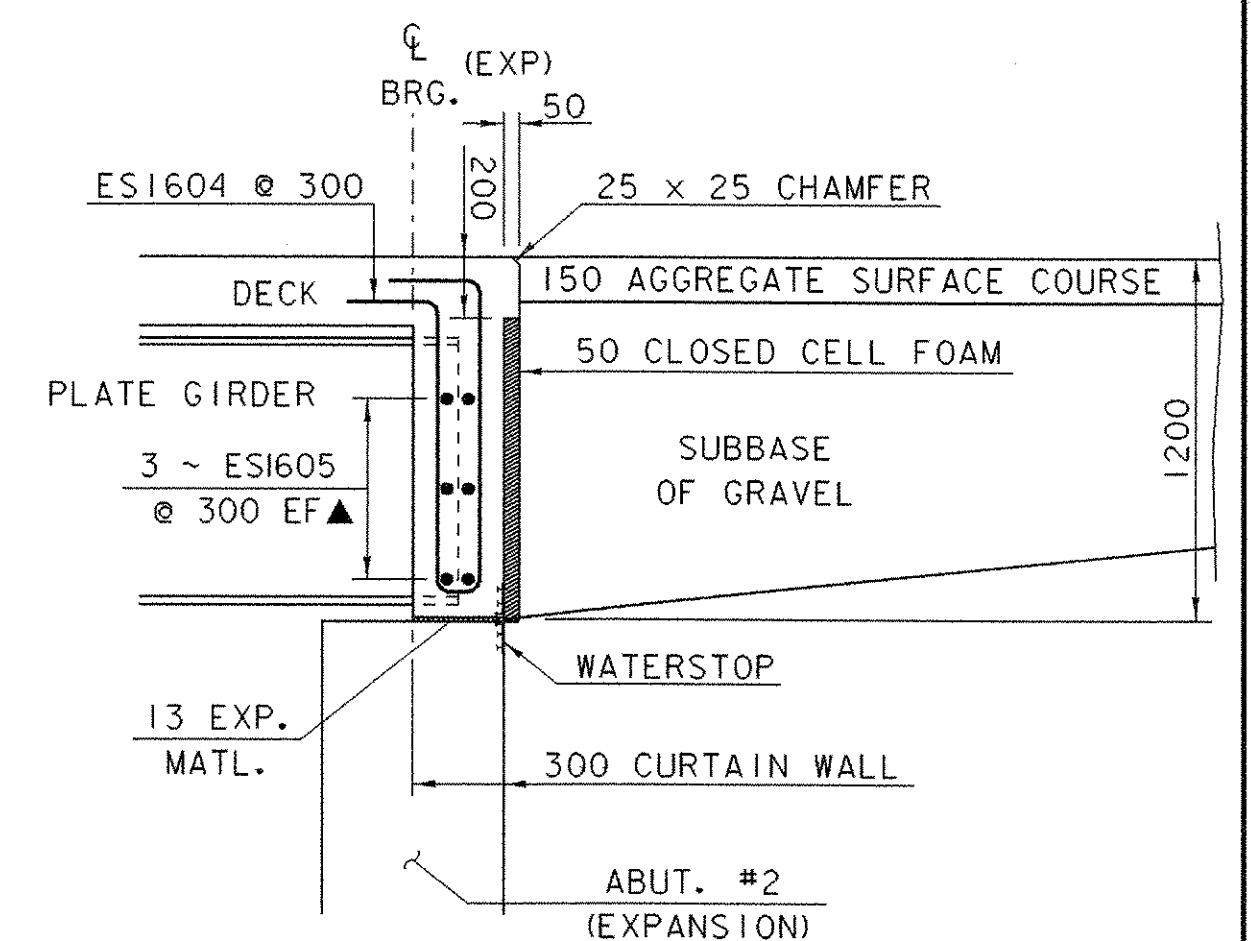
CURTAIN WALL ELEVATION

NTS



BEGIN BRIDGE DETAIL

NTS



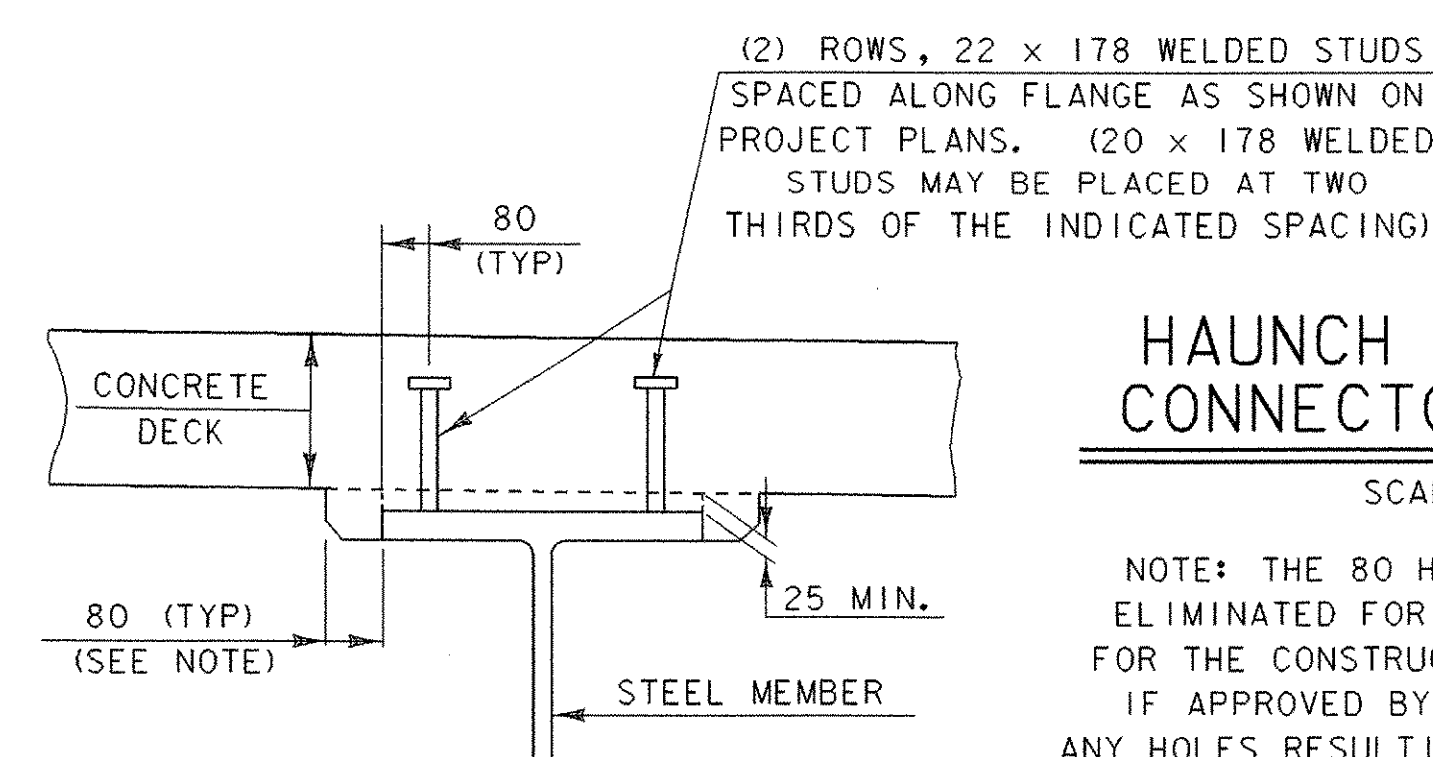
END BRIDGE DETAIL

NTS



P.V.C. WATERSTOP FOR CONSTRUCTION JOINTS

THE COSTS FOR P.V.C. WATERSTOP SHALL BE INCLUDED IN THE UNIT PRICE
BID FOR CONCRETE. OTHER CONFIGURATIONS MAY BE USED UPON APPROVAL
OF THE STRUCTURES ENGINEER.

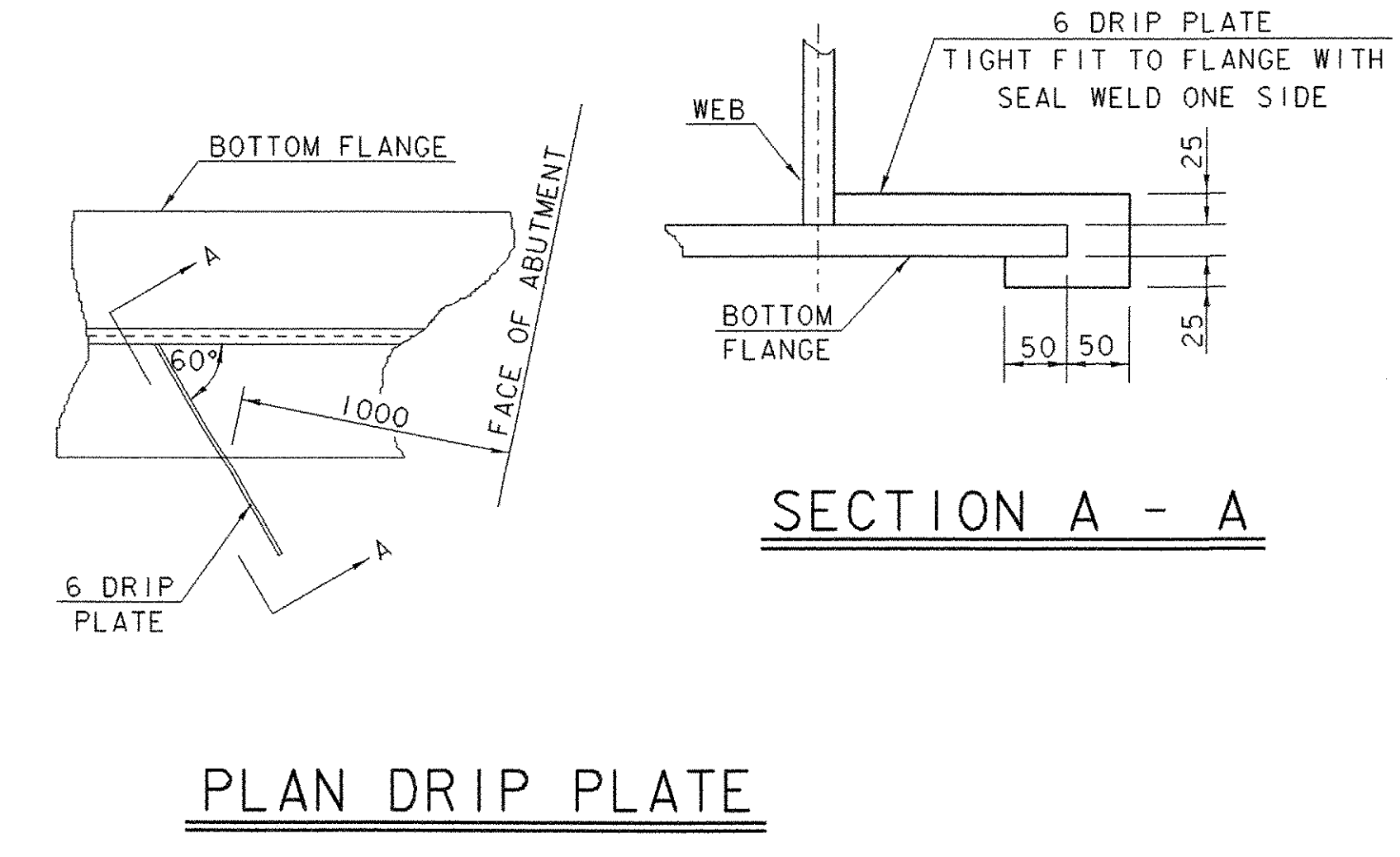
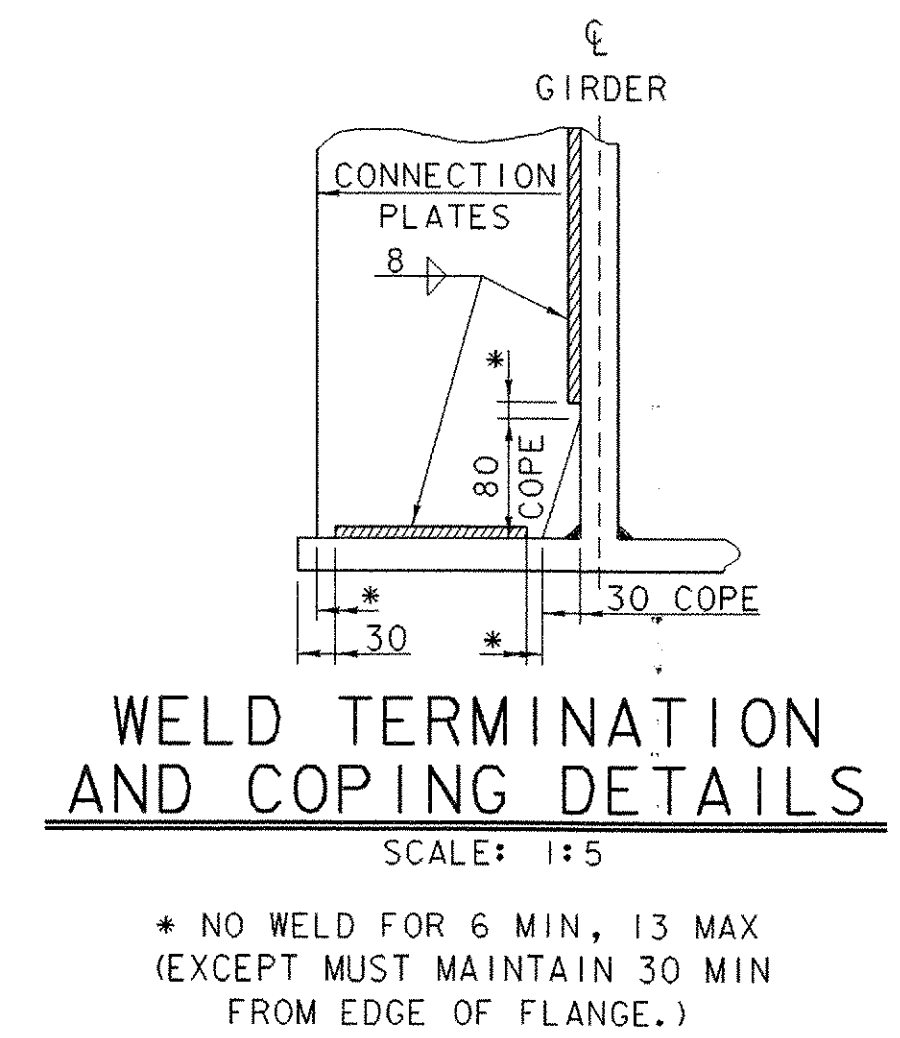
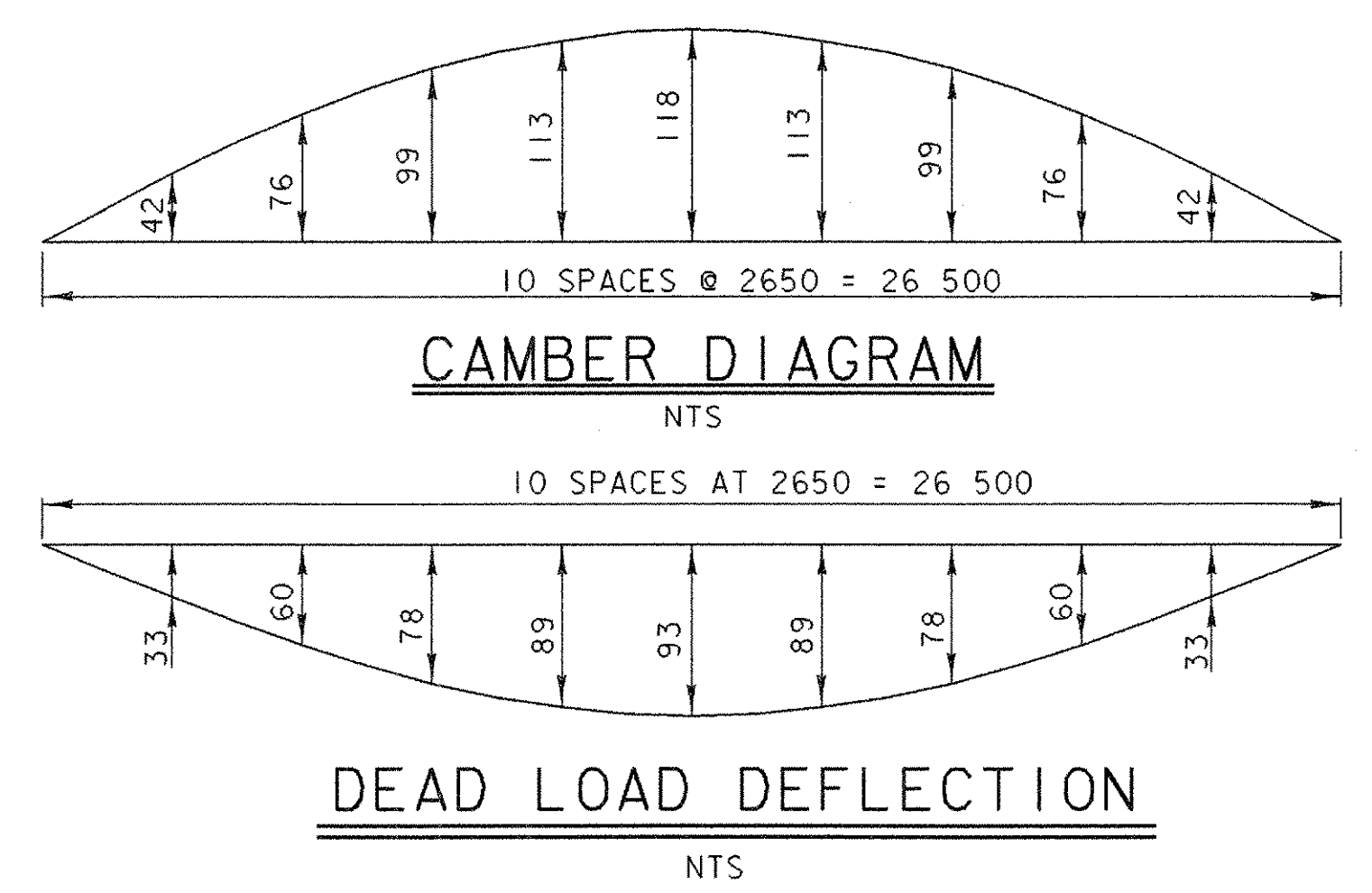
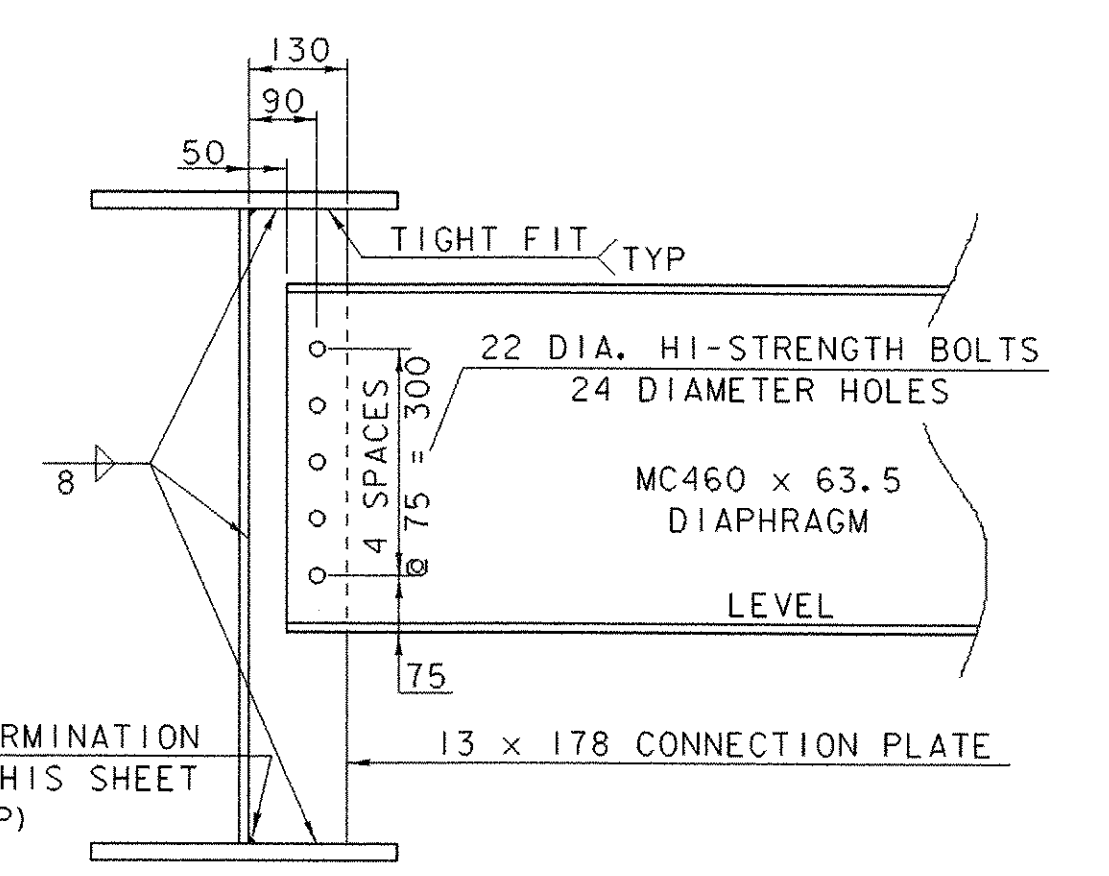
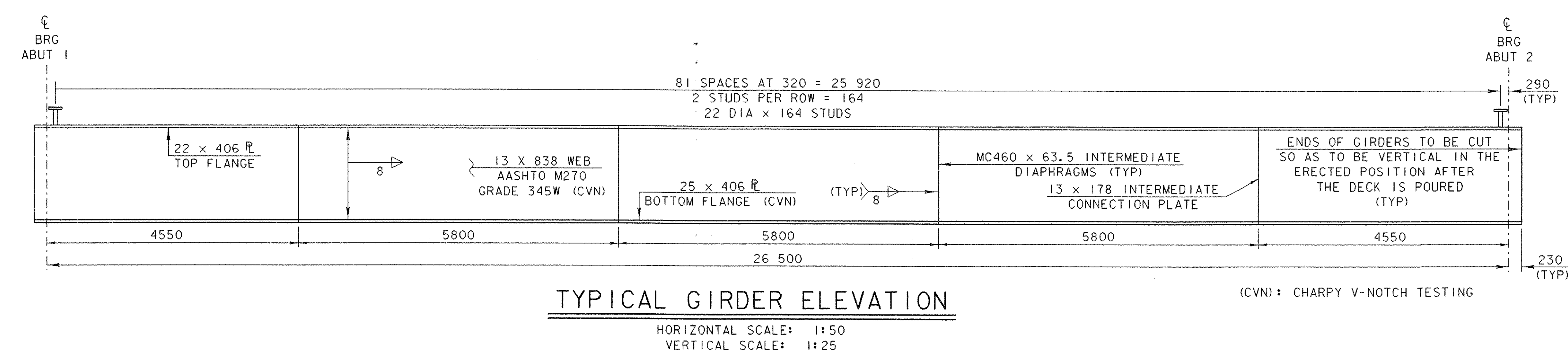
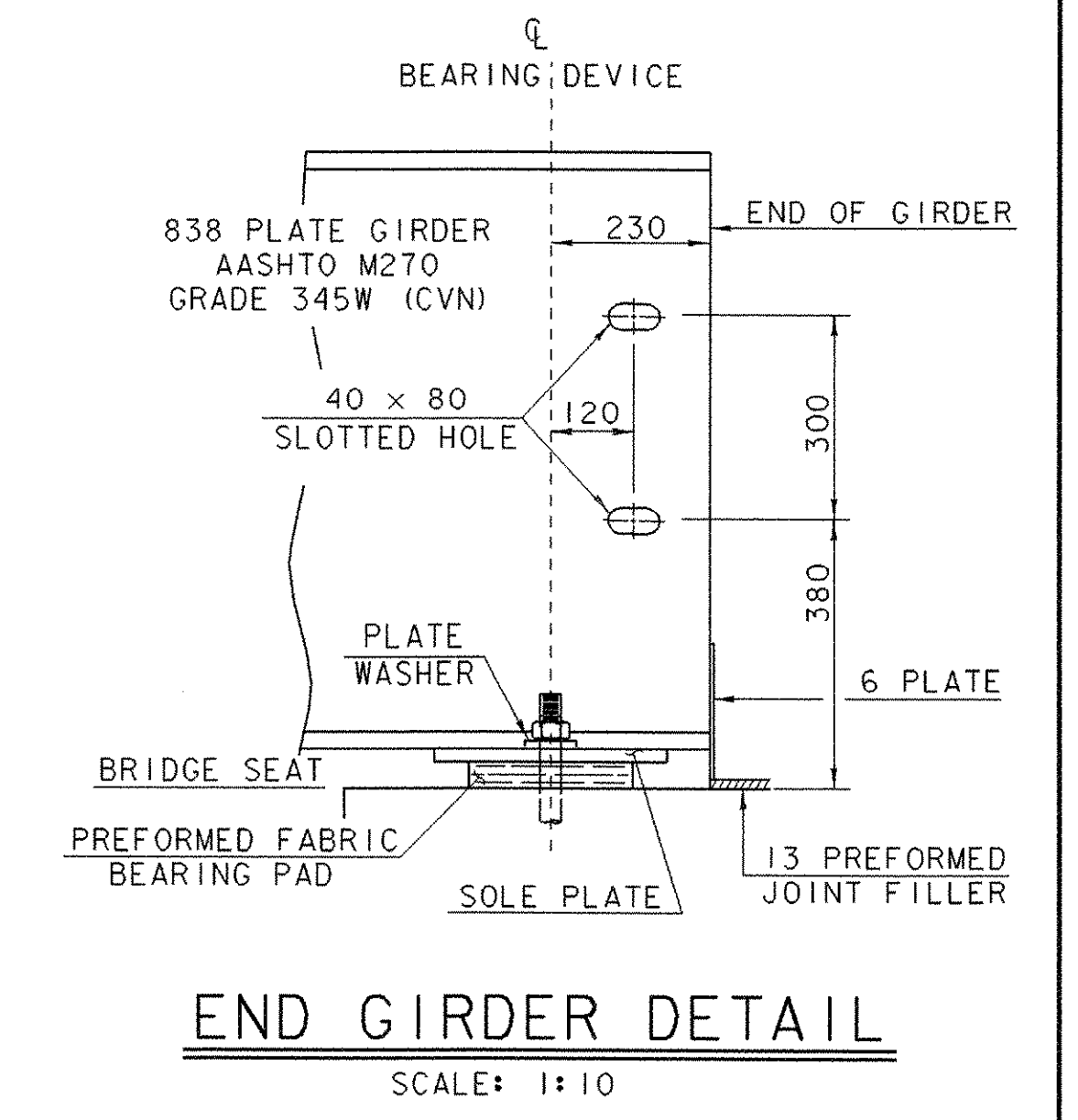
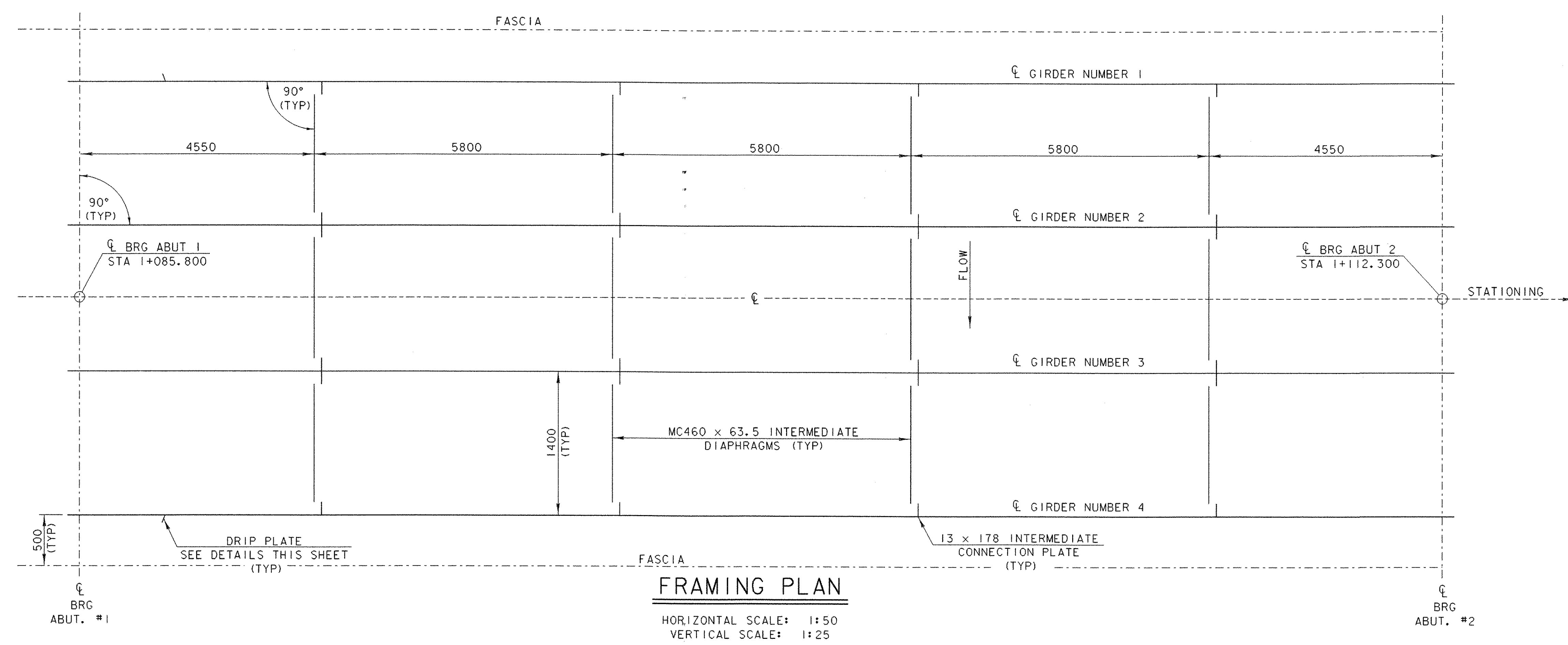


HAUNCH AND SHEAR CONNECTOR DETAILS

SCALE: 1:10

NOTE: THE 80 HORIZONTAL SECTION MAY BE ELIMINATED FOR FORMING SYSTEMS DESIGNED FOR THE CONSTRUCTION OF VERTICAL HAUNCHES IF APPROVED BY THE STRUCTURES ENGINEER. ANY HOLES RESULTING FROM FORMING THIS HAUNCH TYPE SHALL BE FILLED WITH MORTAR TYPE IV.

SHEET NAME: DECK REINFORCING DETAILS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/941J24/s1J24sup.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: D.BONNEAU	IPARM NAME: s1J24dr.d1
BRIDGE SHEET NUMBER:	SHEET 26 OF 50



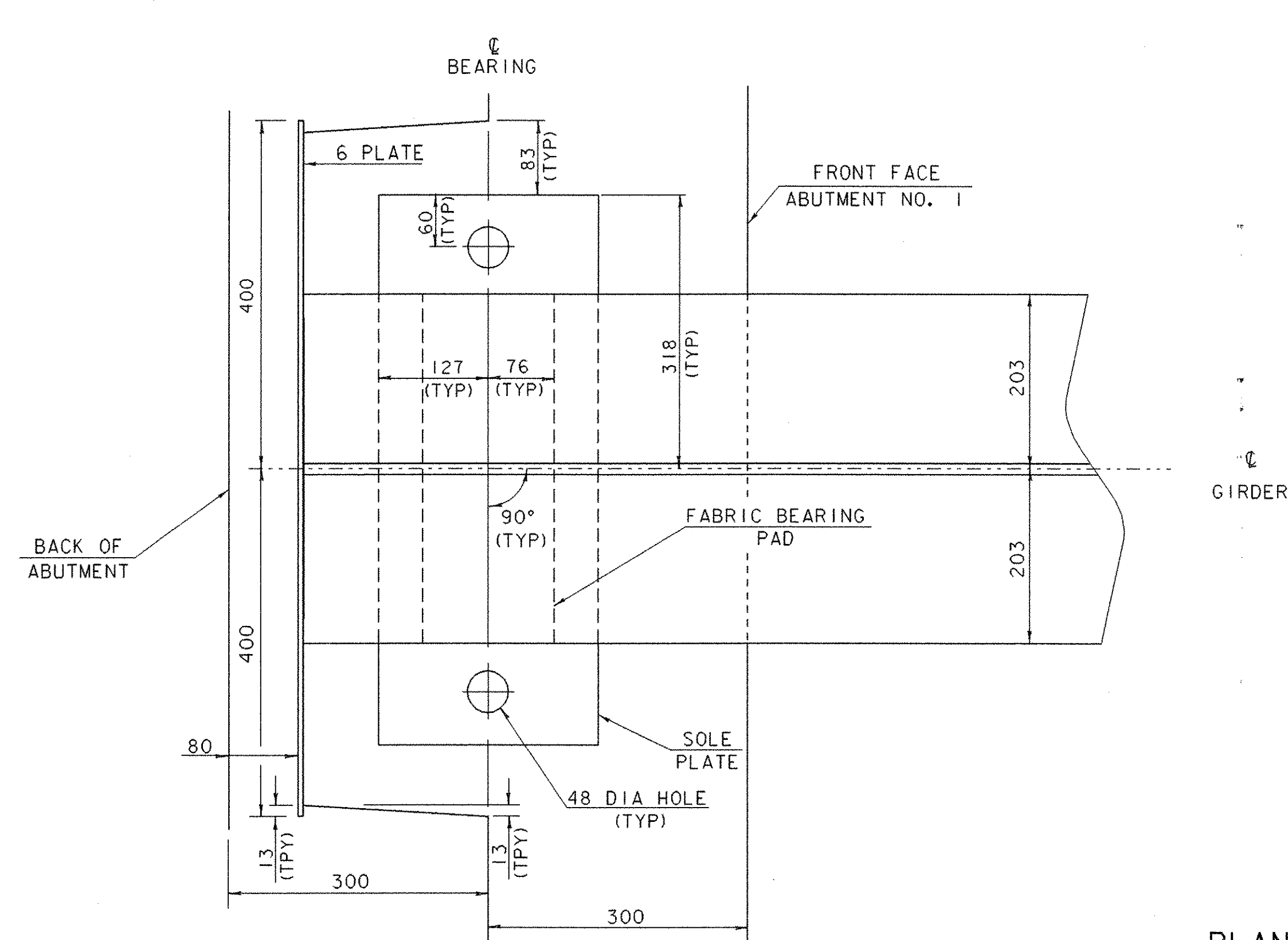
SEE WELD TERMINATION DETAIL ON THIS SHEET (TYP)

INTERMEDIATE DIAPHRAGMS
 SCALE: 1:10

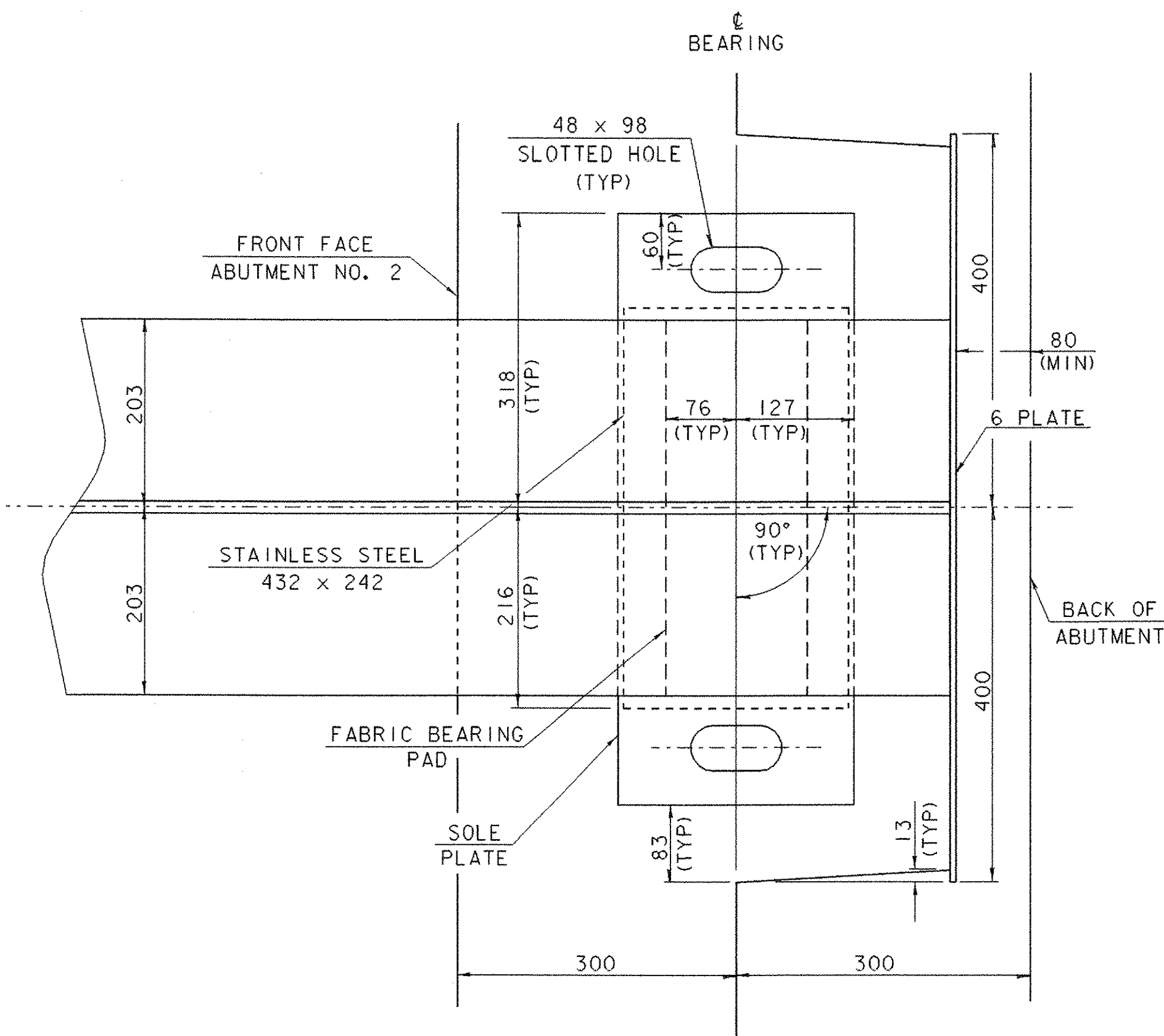
NOTE: HI-STRENGTH BOLTS, NUTS AND WASHERS SHALL CONFORM TO AASHTO DESIGNATION M 164.

SHEET NAME: FRAMING PLAN	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j124/sj124sup.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: D. BONNEAU	IPARM NAME: sj124fp.i
BRIDGE SHEET NUMBER:	SHEET 27 OF 50

NOTE: DEAD LOAD DEFLECTION IS DUE TO GIRDER, DIAPHRAGMS, DECK, CURBS AND RAILING.

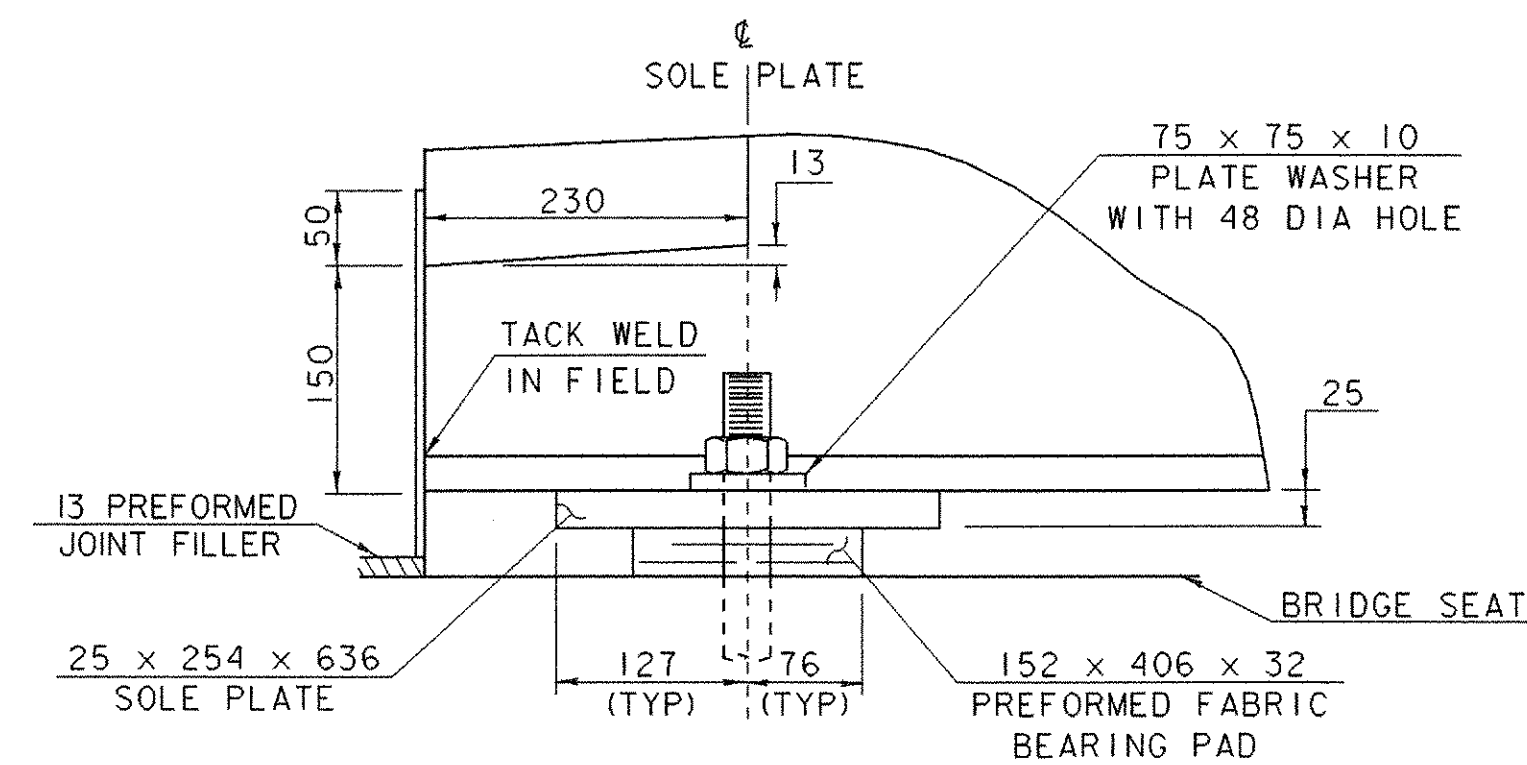


PLAN
SCALE: 1:5

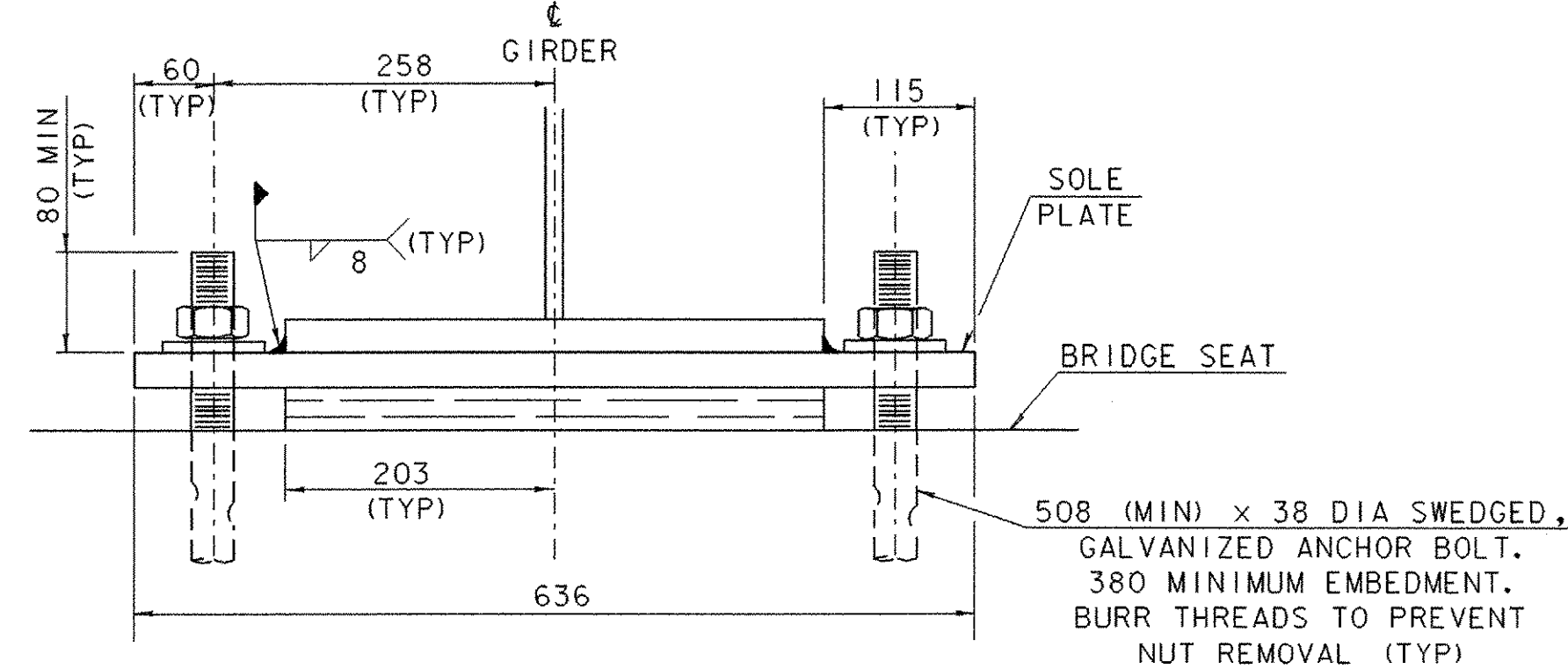
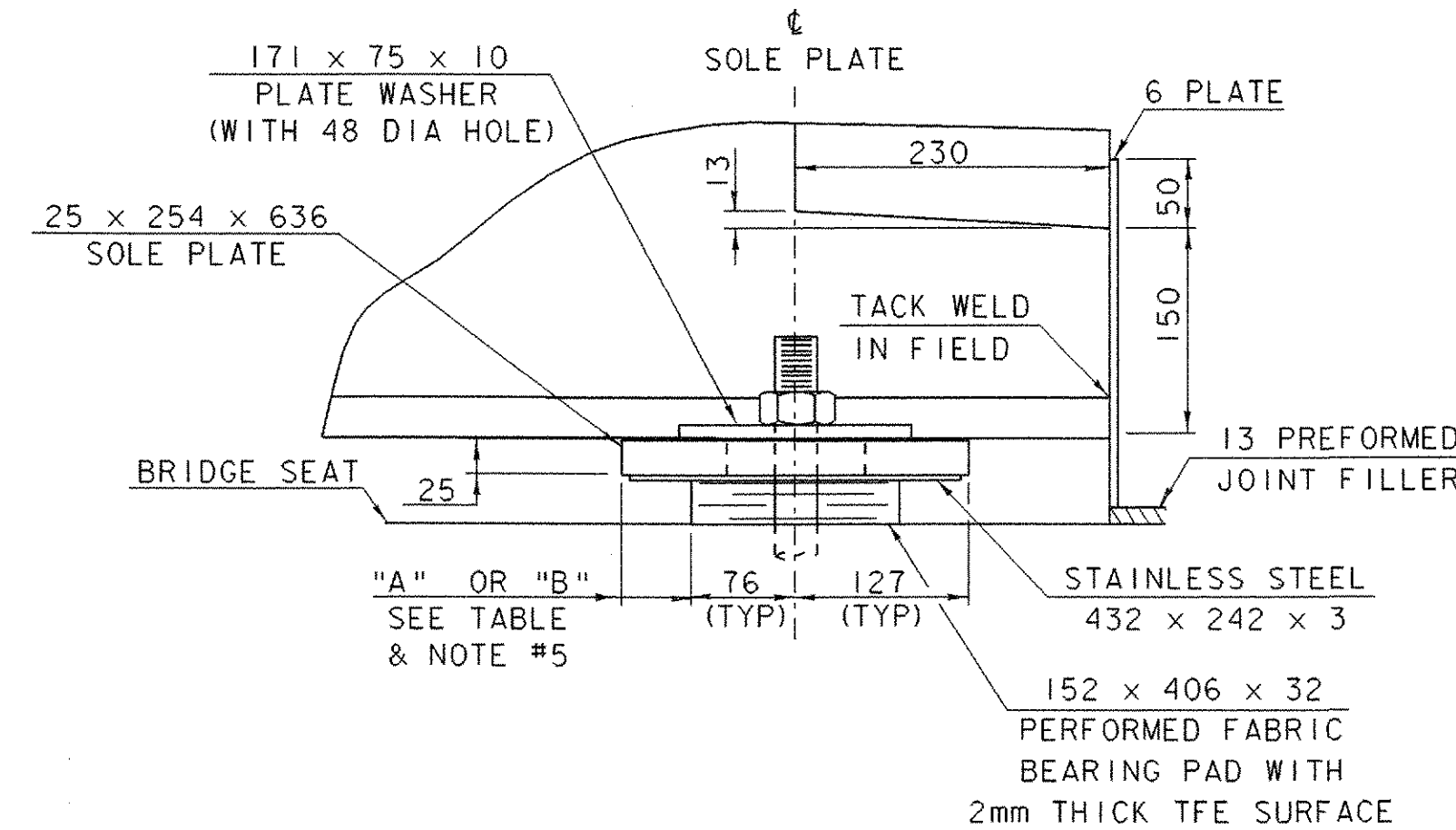


BEARING NOTES

- BEARINGS SHALL CONFORM TO APPLICABLE SUBSECTIONS OF SECTION 531 AND 731.
- BEARINGS SHALL BE PAID FOR UNDER THE ITEM 531.10 "BEARING DEVICE ASSEMBLY (FABRIC)."
- SHOP DRAWINGS CONFORMING TO SUBSECTION 531.03 SHALL BE SUBMITTED TO INCLUDE WELDING AND BONDING PROCEDURES.
- THE CONCRETE SURFACE UNDER THE BEARING DEVICE SHALL BE LEVEL.
- "A" DISTANCE IS THE FINAL SETTING FOR THE BEARING PAD AFTER THE CONCRETE SLAB, CURB AND BRIDGE RAIL ARE PLACED. "B" DISTANCE IS LISTED FOR SETTING THE BEARING AFTER THE STRUCTURAL STEEL IS ERECTED AND BEFORE THE CONCRETE DECK AND CURBS HAVE BEEN PLACED. THE DIFFERENCE IS THE THEORETICAL ELONGATION OF THE BOTTOM FLANGE DUE TO DEAD LOAD DEFLECTION. THE FINAL "A" DISTANCE, AS SHOWN IN THE TABLE, MUST BE ATTAINED WITHIN 2mm.
- DESIGN CRITERIA:
 - BASE PLATE TO CONCRETE DESIGN PRESSURE = 7000 kPa MAXIMUM
 - MINIMUM ALLOWABLE DESIGN ROTATION = 0.015 RADIAN
 - HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 10% OF THE VERTICAL LOAD
 - DESIGN LOAD PER BEARING = 377 kN
LL = 218 kN
DL = 141 kN
SDL = 18 kN
- ALL STEEL IN BEARING DEVICES (EXCEPT STAINLESS) SHALL BE AASHTO M-270, GRADE 345.
- ANCHOR BOLTS SHALL HAVE A MINIMUM OF 380 EMBEDMENT INTO THE CONCRETE AND SHALL CONFORM TO SUBSECTION 714.08 IN THE "VERMONT SPECIFICATIONS."
- ALL BEARING DEVICES SHALL BE GALVANIZED OR METALIZED AS PER SUBSECTION 531.04 (b) AND 506.15 OF THE GENERAL SPECIAL PROVISIONS. AREAS OF GALVANIZING OR METALIZING DAMAGED BY FIELD WELDING OR HANDLING SHALL BE PAINTED WITH A ZINC RICH PAINT IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 513.
- ALL THE ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED. ALL WASHERS SHALL BE 10 PLATE (MINIMUM). PAYMENT FOR ANCHOR BOLTS, NUTS AND WASHERS SHALL BE INCLUDED IN THE UNIT BID PRICE FOR "BEARING DEVICE ASSEMBLY (FABRIC)."

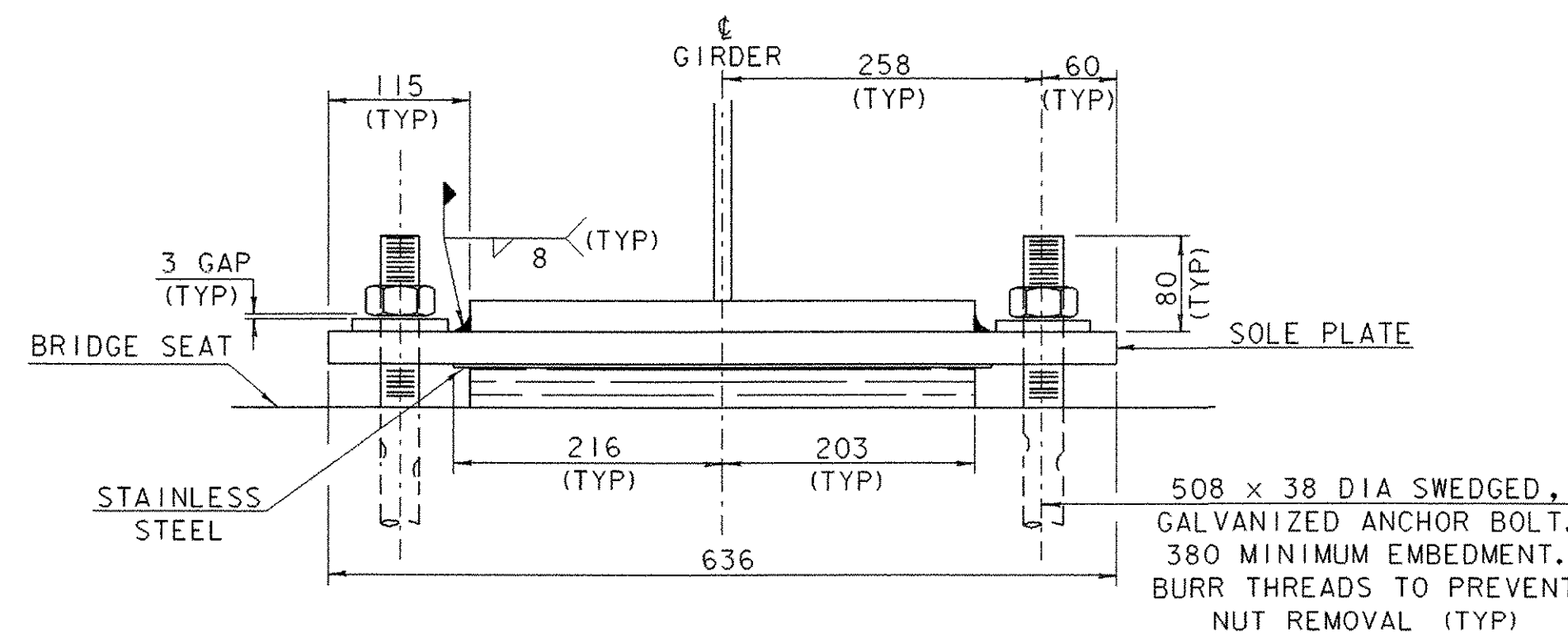


SIDE ELEVATION
SCALE: 1:5



FIXED BEARING @ ABUT #1

FRONT VIEW
SCALE: 1:5

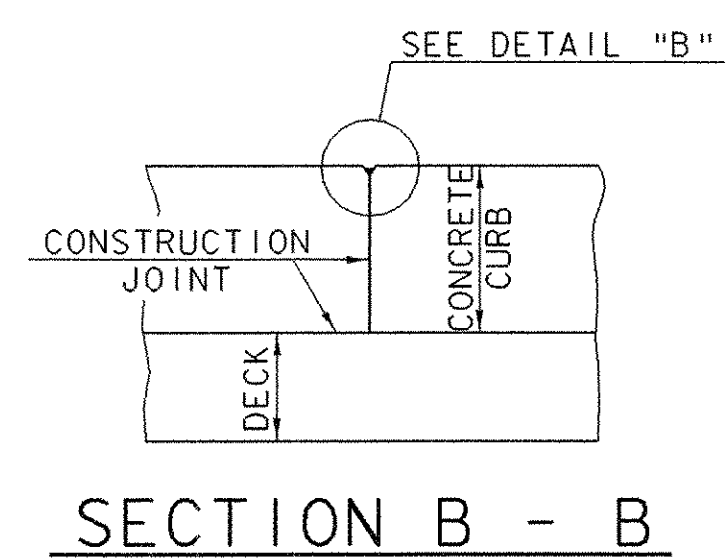
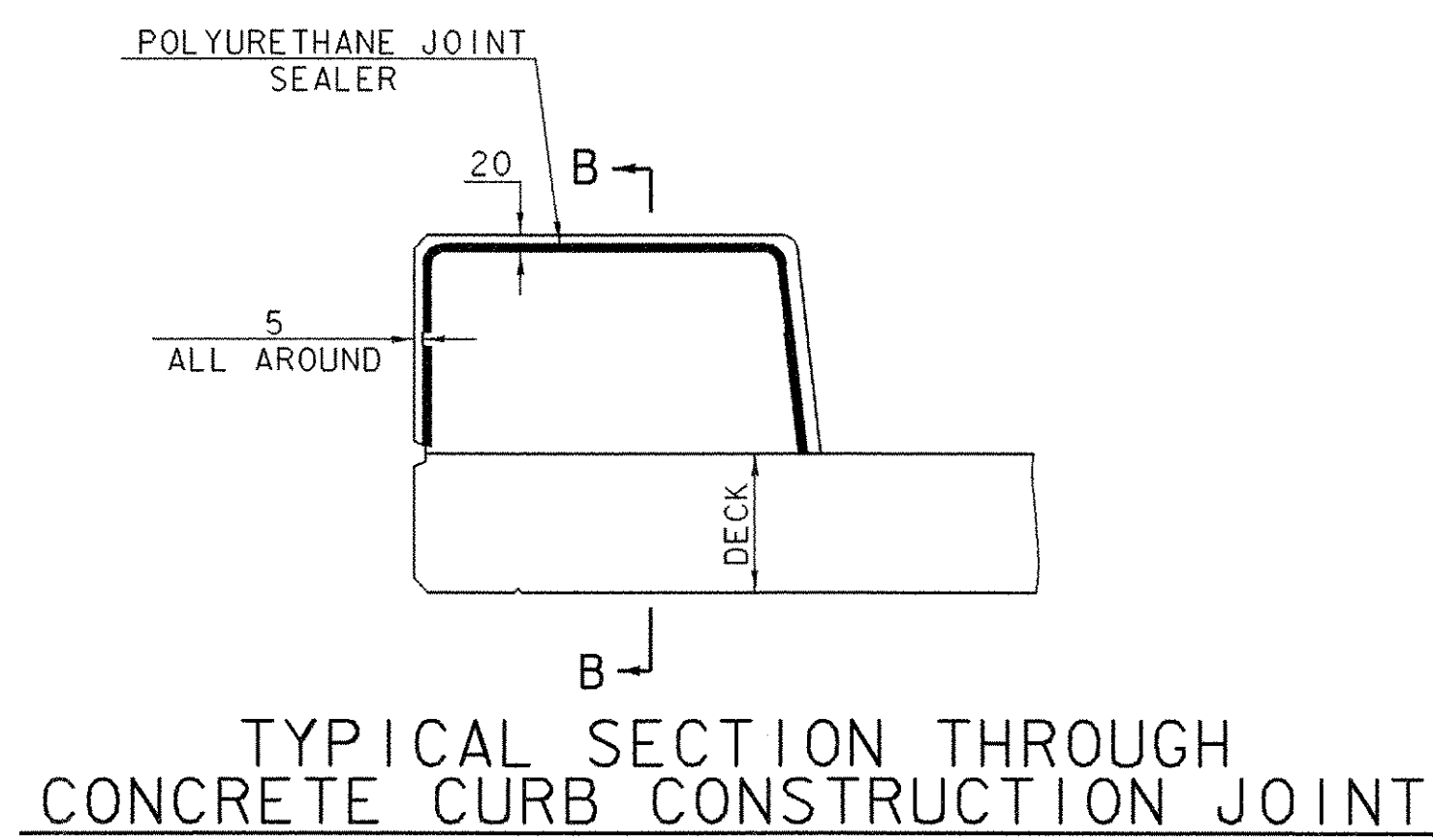


EXPANSION BEARING @ ABUT #2

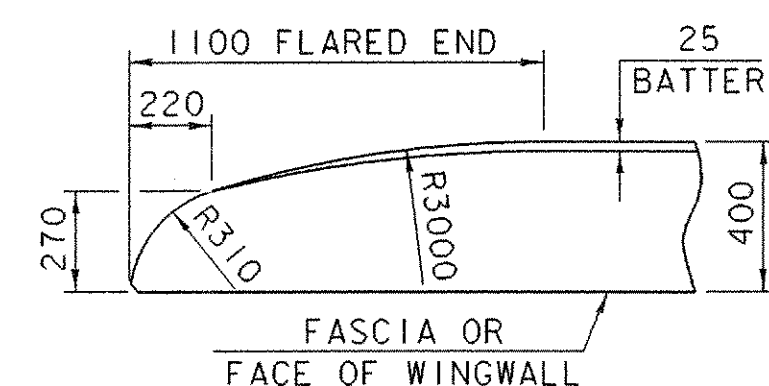
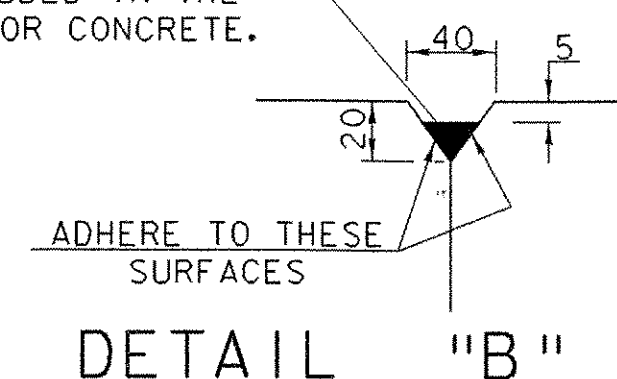
TEMP	"A" DIST	"B" DIST
-34°C	73	64
-26°C	70	61
-18°C	68	59
-9°C	65	56
-1°C	63	53
7°C	60	51
16°C	57	48
24°C	55	46
32°C	52	43
41°C	50	40
49°C	47	38

SHEET NAME: BEARING DETAILS

PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j124/sj124sup.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: D. BONNEAU	IPARM NAME: sj124ber.1
BRIDGE SHEET NUMBER:	SHEET 28 OF 50

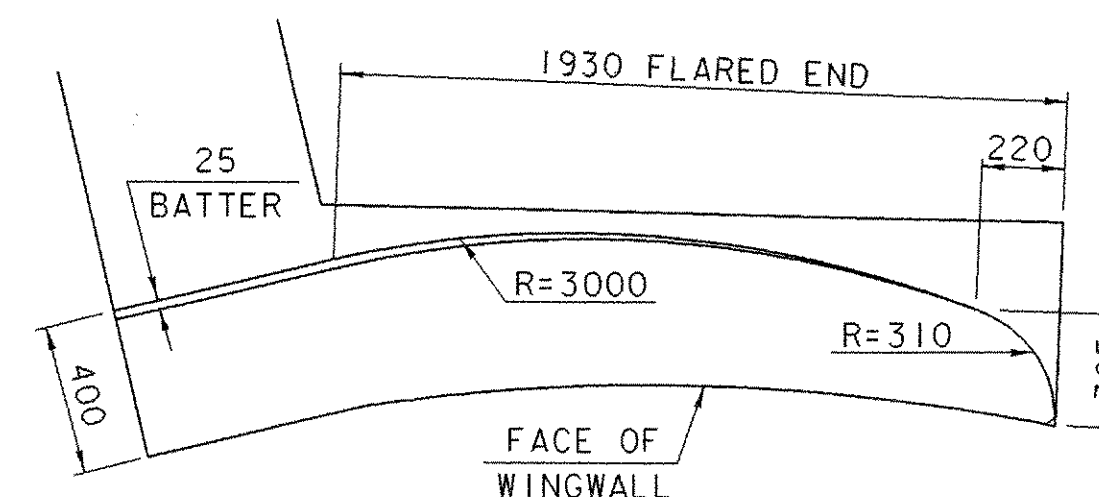
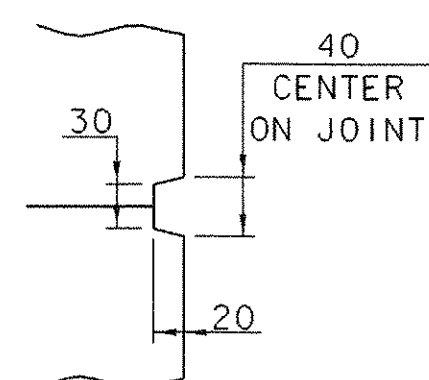


POLYURETHANE JOINT SEALER
PER SUBSECTION 524.06C
COLOR TO MATCH CONCRETE.
COST TO BE INCLUDED IN THE
UNIT PRICE BID FOR CONCRETE.



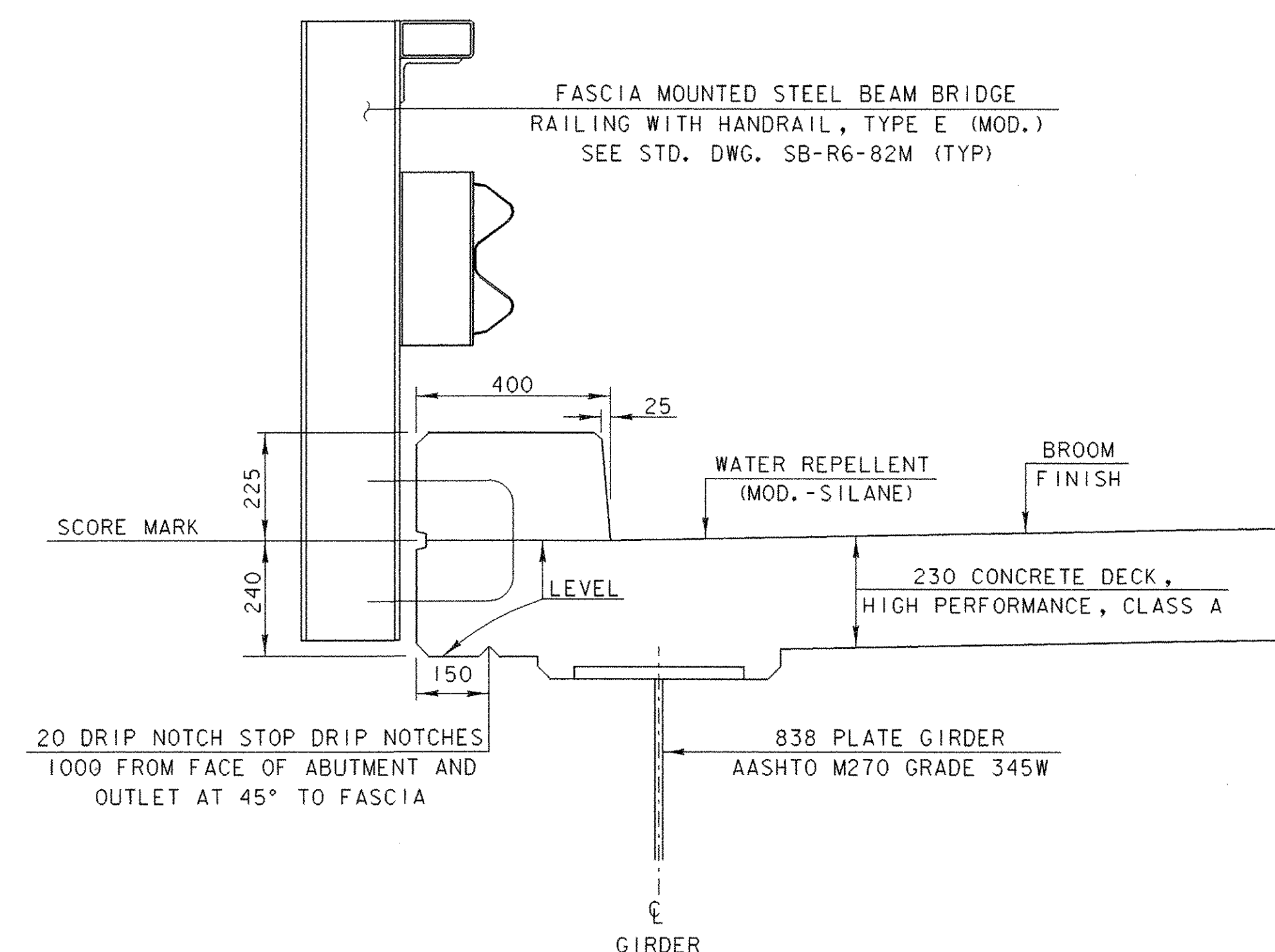
FLARED END FOR 400 CURB

BARS SHALL BE TURNED AS
REQUIRED TO FIT FLARED ENDS



**CURB FLARE DETAIL
FOR WINGWALL #1**

BARS SHALL BE TURNED AS
REQUIRED TO FIT FLARED ENDS
SEE SHT. 30 FOR MORE DETAILS.



400 CURB SECTION

SCALE: 1:10

NOTES:

1. CONSTRUCTION JOINTS THROUGH CONCRETE CURBS SHALL BE SPACED A MAXIMUM 3000 CENTER TO CENTER AND SHALL BE 450 MINIMUM FROM THE CENTER OF THE NEAREST BRIDGE RAIL POST. CONCRETE SHALL BE PLACED IN ALTERNATING SECTIONS WITH A MINIMUM OF 48 HOURS DELAY BETWEEN ADJACENT POURS.
2. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURB CONSTRUCTION JOINTS.
3. CURB REINFORCING STIRRUP BARS SHALL BE TURNED AS REQUIRED TO FIT TAPERED ENDS.

SHEET NAME: **CURB DETAILS**

PROJECT NAME: **MONTGOMERY**
PROJECT NUMBER: **BRO 1448(20)**

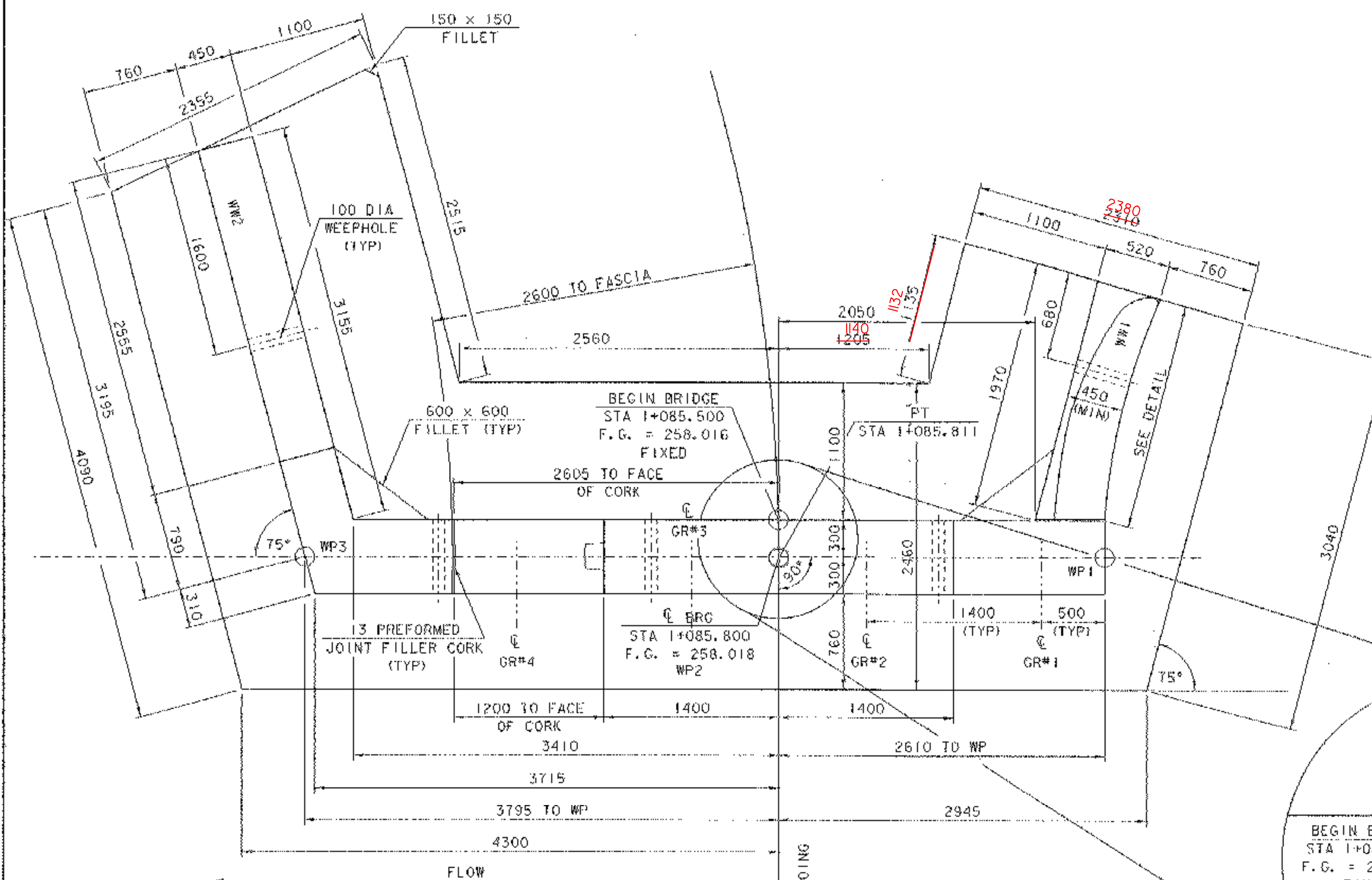
HIGHWAY NO.: **TH 35**
BRIDGE NO.: **24**
OVER: **PACIFIC BROOK**

FILE NAME: **/PW/94j124/sj124sup.dgn**
PROJECT MANAGER: **R. WHITCOMB**
DESIGNED BY: **D. BONNEAU**
BRIDGE SHEET NUMBER:

PLOT DATE: **06-DEC-2005**
DRAWN BY: **J. GILMORE**
IPARM NAME: **sj124crb.i**
SHEET **29** OF **50**

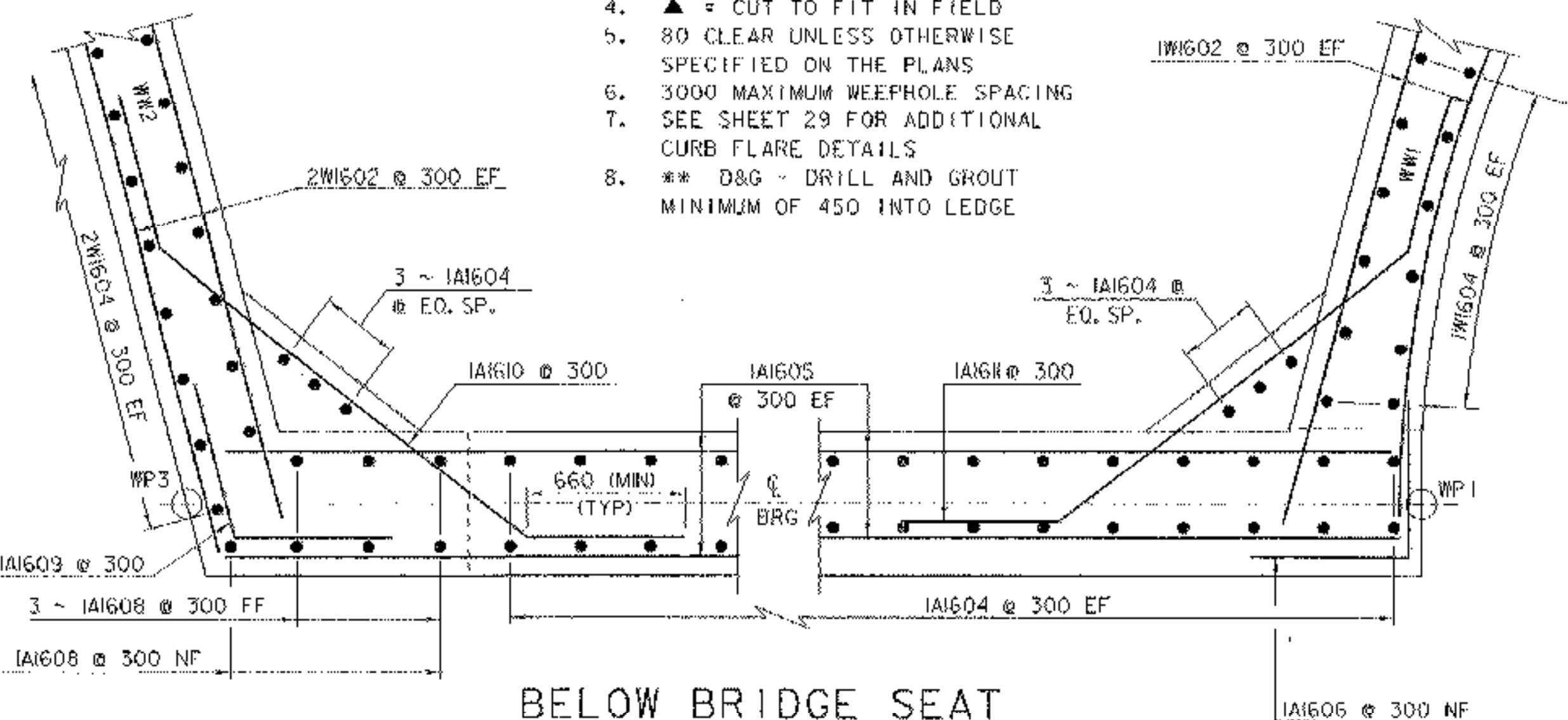
NOTES:

1. NF = NEAR FACE
2. FF = FAR FACE
3. EF = EACH FACE
4. ▲ = CUT TO FIT IN FIELD
5. 80 CLEAR UNLESS OTHERWISE SPECIFIED ON THE PLANS
6. 3000 MAXIMUM WEEPHOLE SPACING
7. SEE SHEET 29 FOR ADDITIONAL CURB FLARE DETAILS
8. ** Ø &G ~ DRILL AND GROUT MINIMUM OF 450 INTO LEDGE



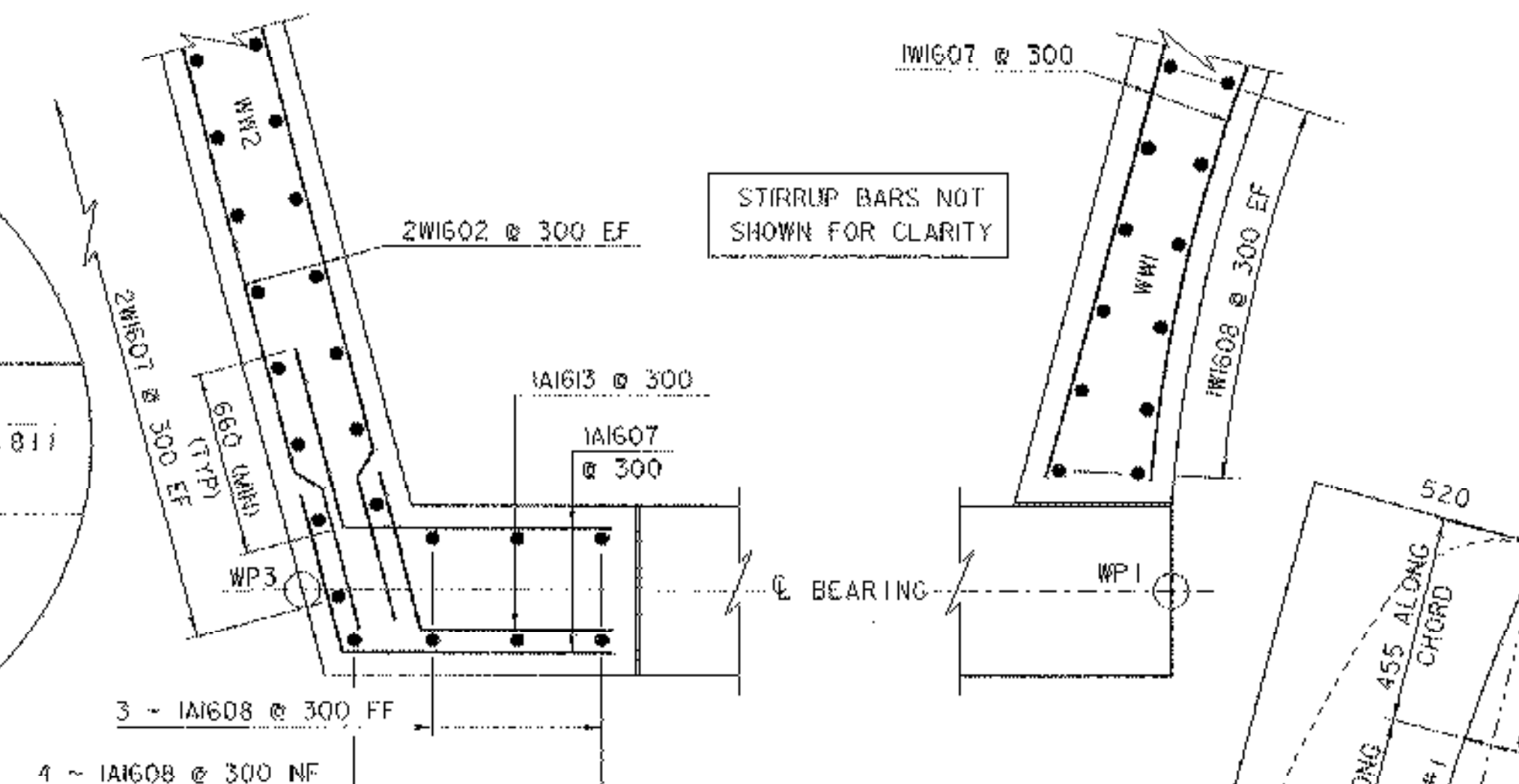
ABUTMENT #1 PLAN

SCALE: 1:25



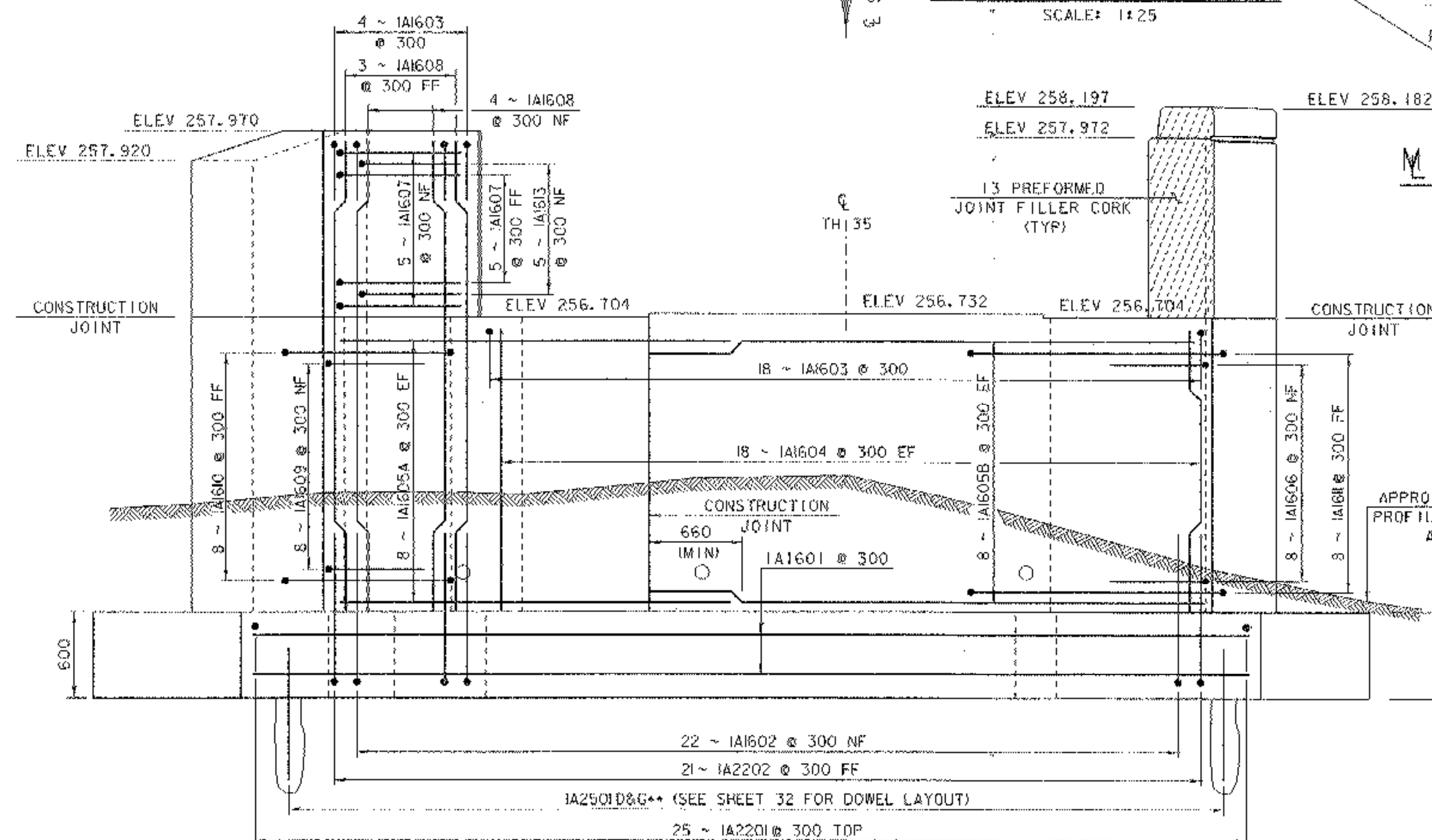
BELOW BRIDGE SEAT

SCALE: 1:20



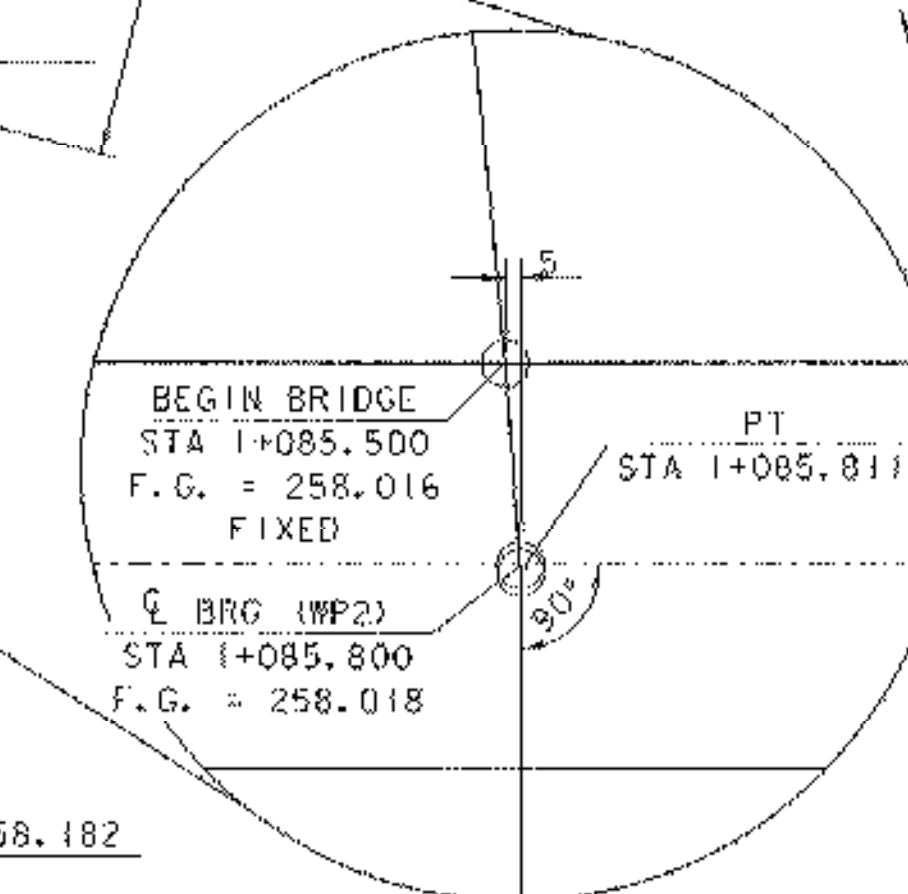
ABOVE BRIDGE SEAT

SCALE: 1:20



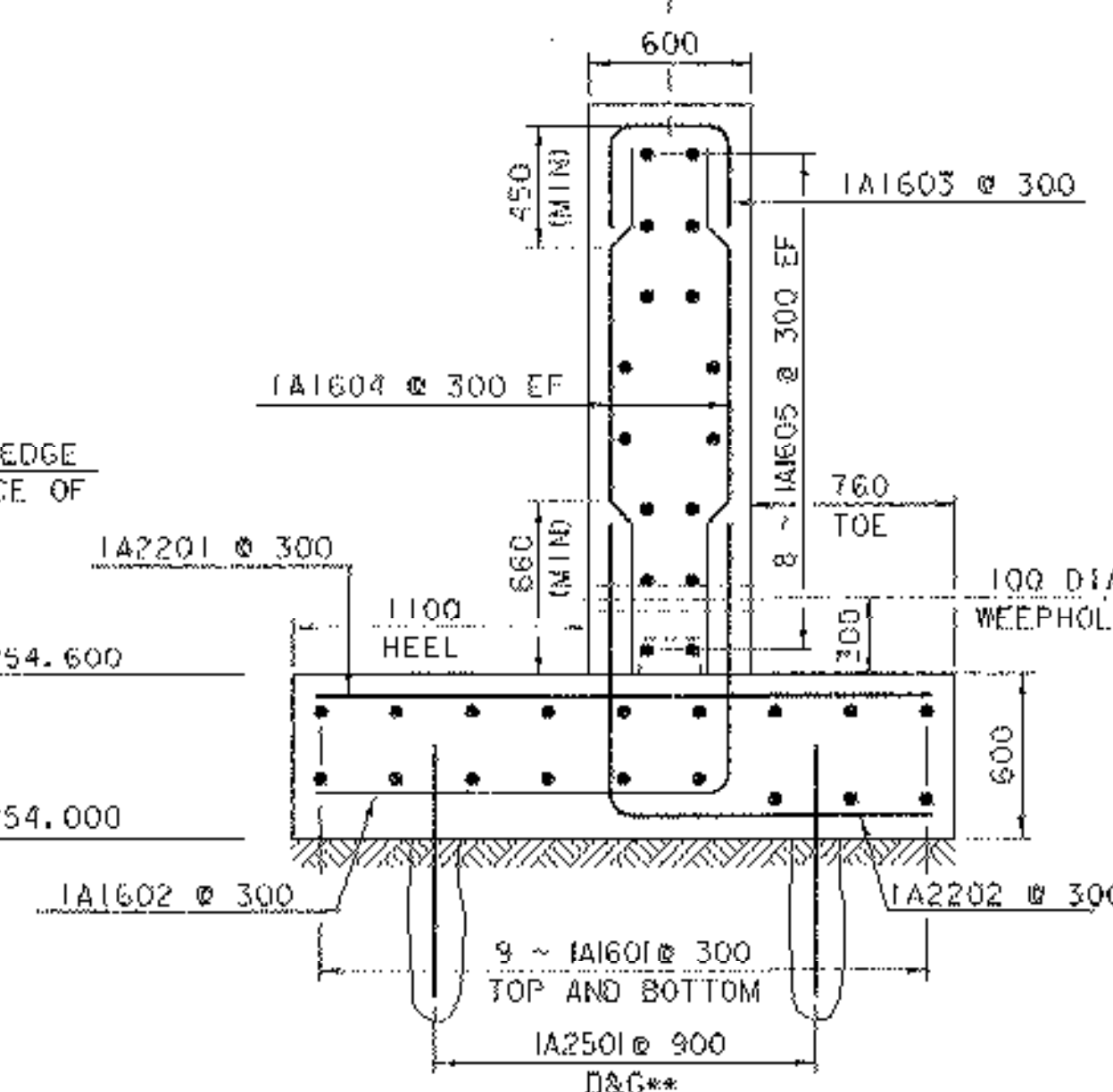
ABUTMENT #1 ELEVATION :

SCALE: 1:25



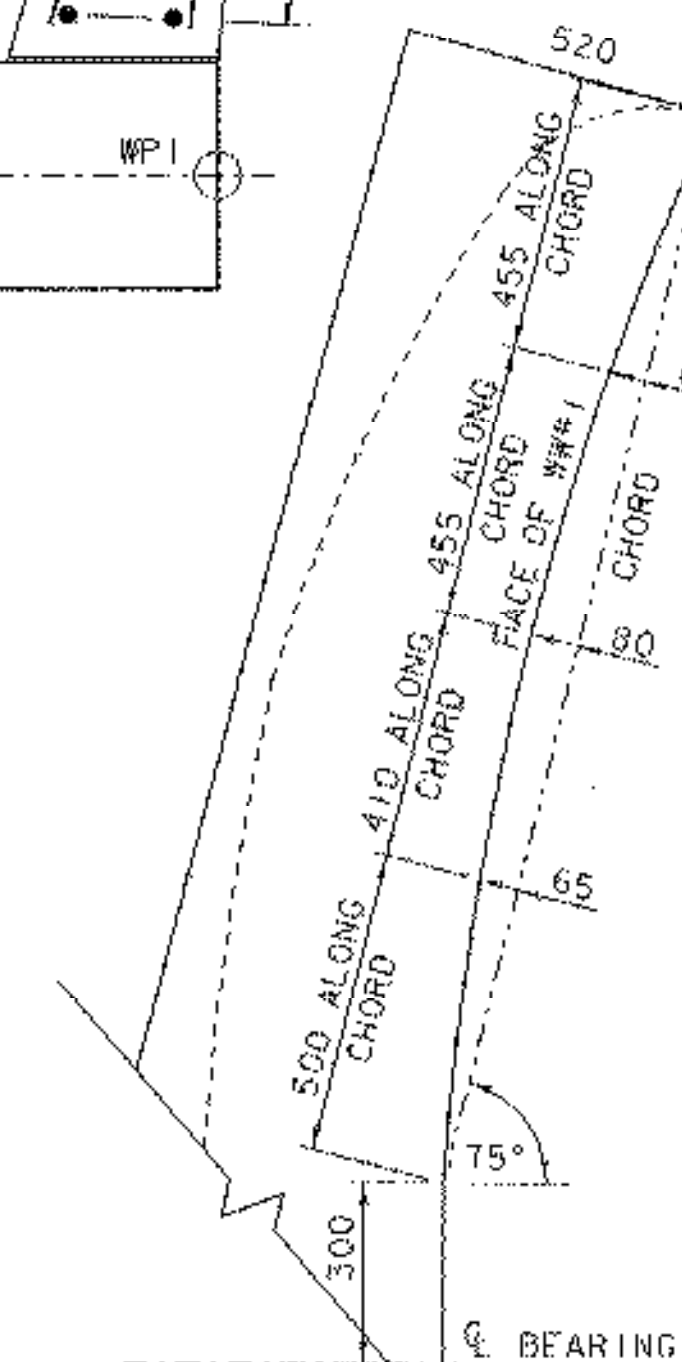
M POINTS ABUTMENT #1

NTS



ABUTMENT # | SECTION

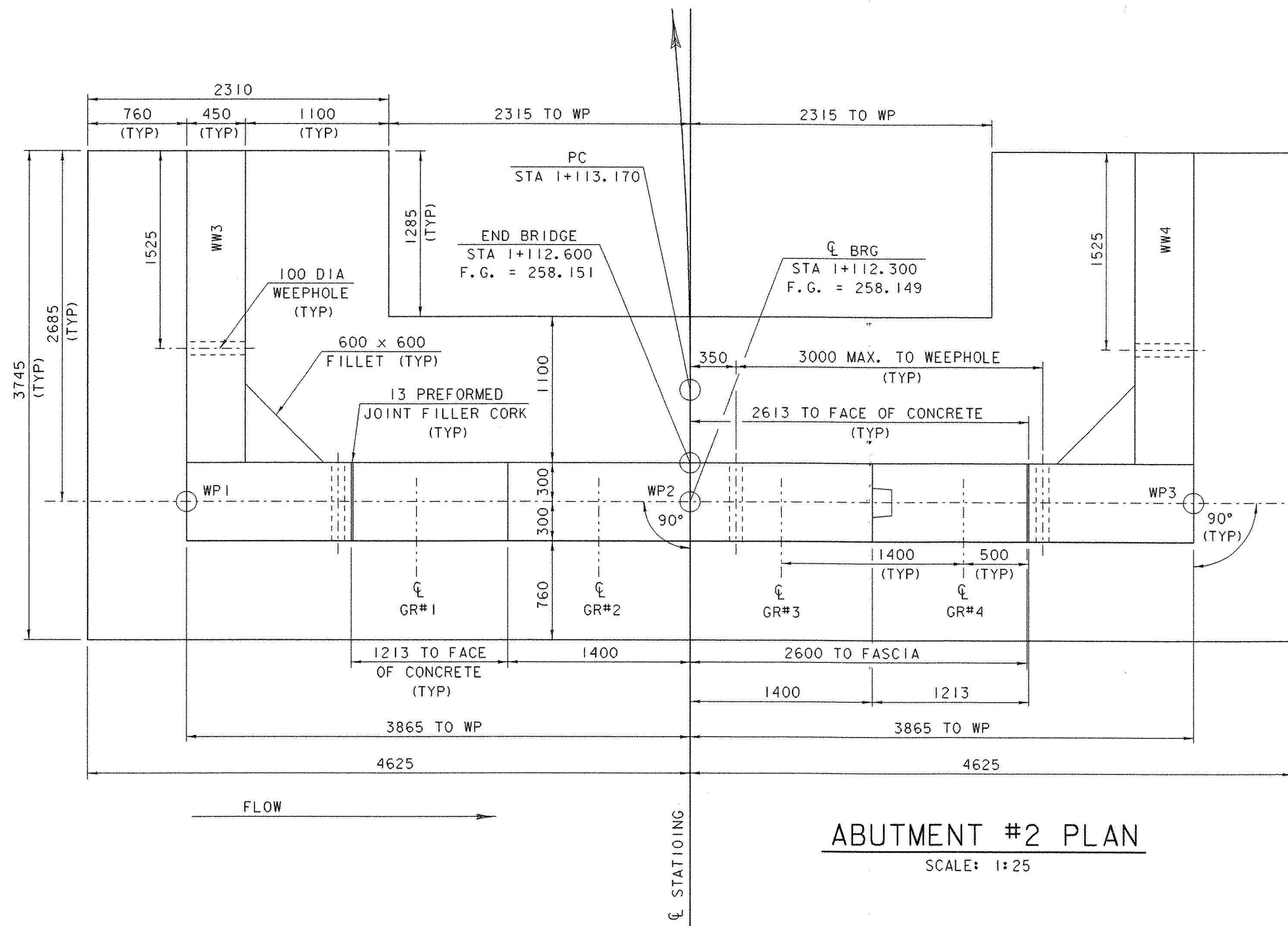
SCALE: 1:25



WW#1 CURVED FACE DETAILS

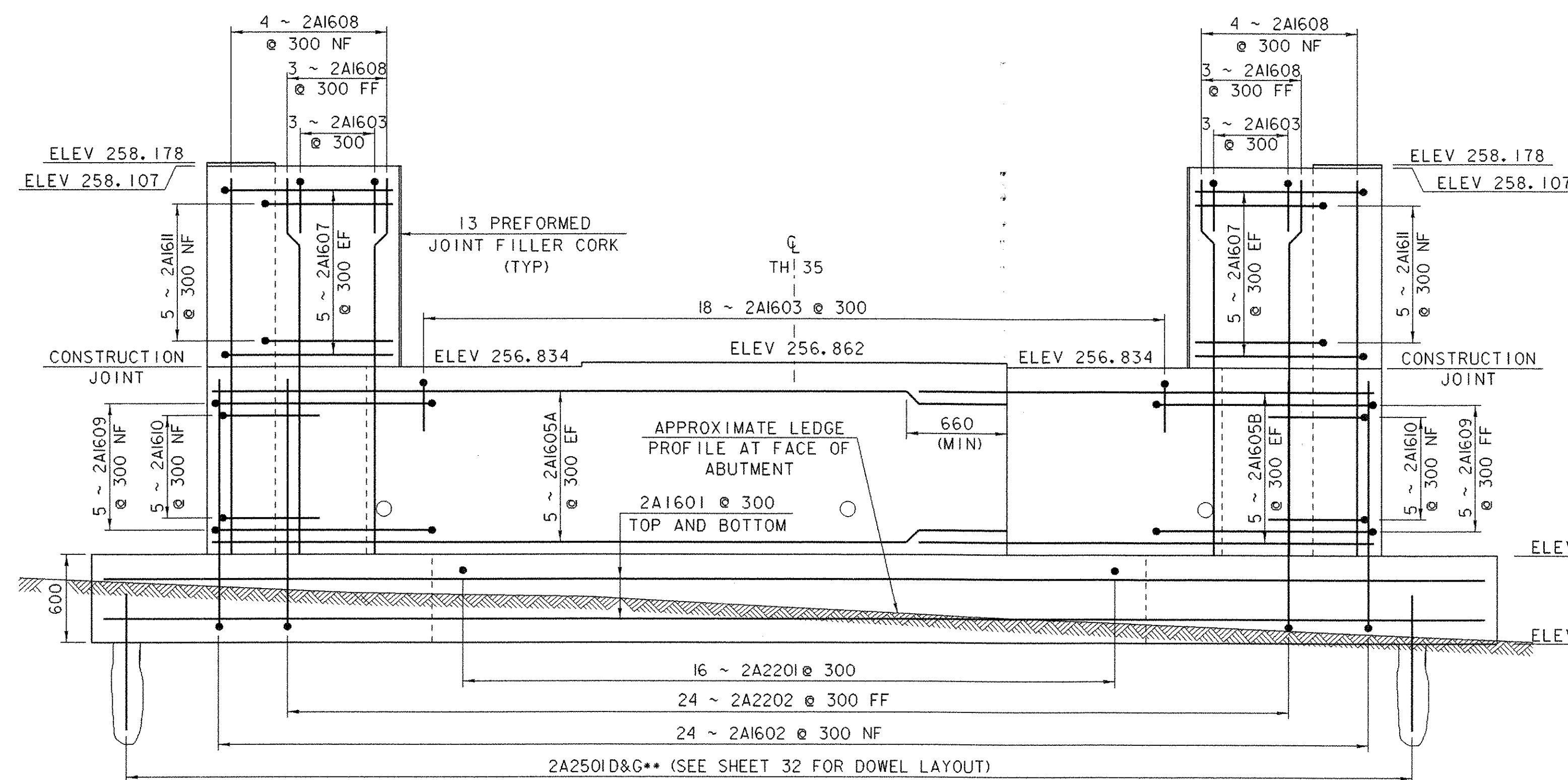
NTS

SHEET NAME: ABUTMENT #1 DETAILS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94J124/S124sub.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: D.BONNEAU	IPARM NAME: S124abl.l
BRIDGE SHEET NUMBER:	SHEET 30 OF 50



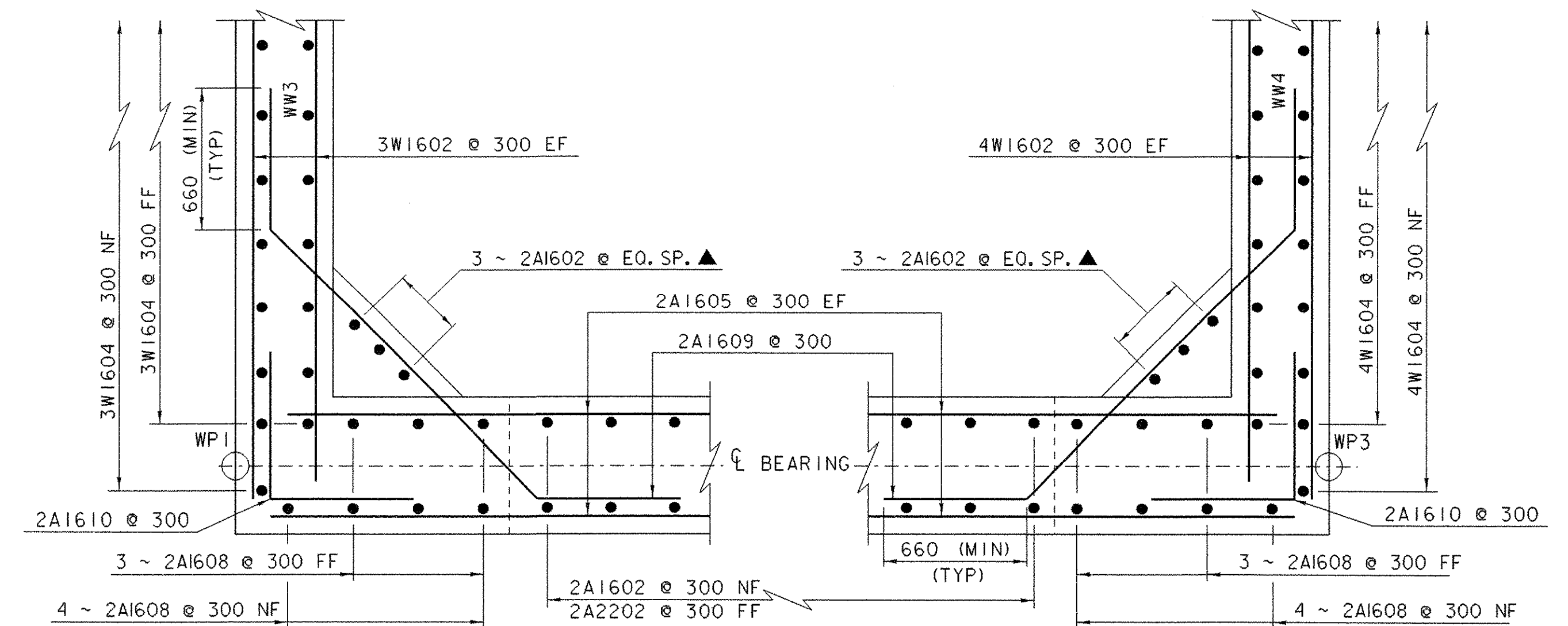
ABUTMENT #2 PLAN

SCALE: 1:25



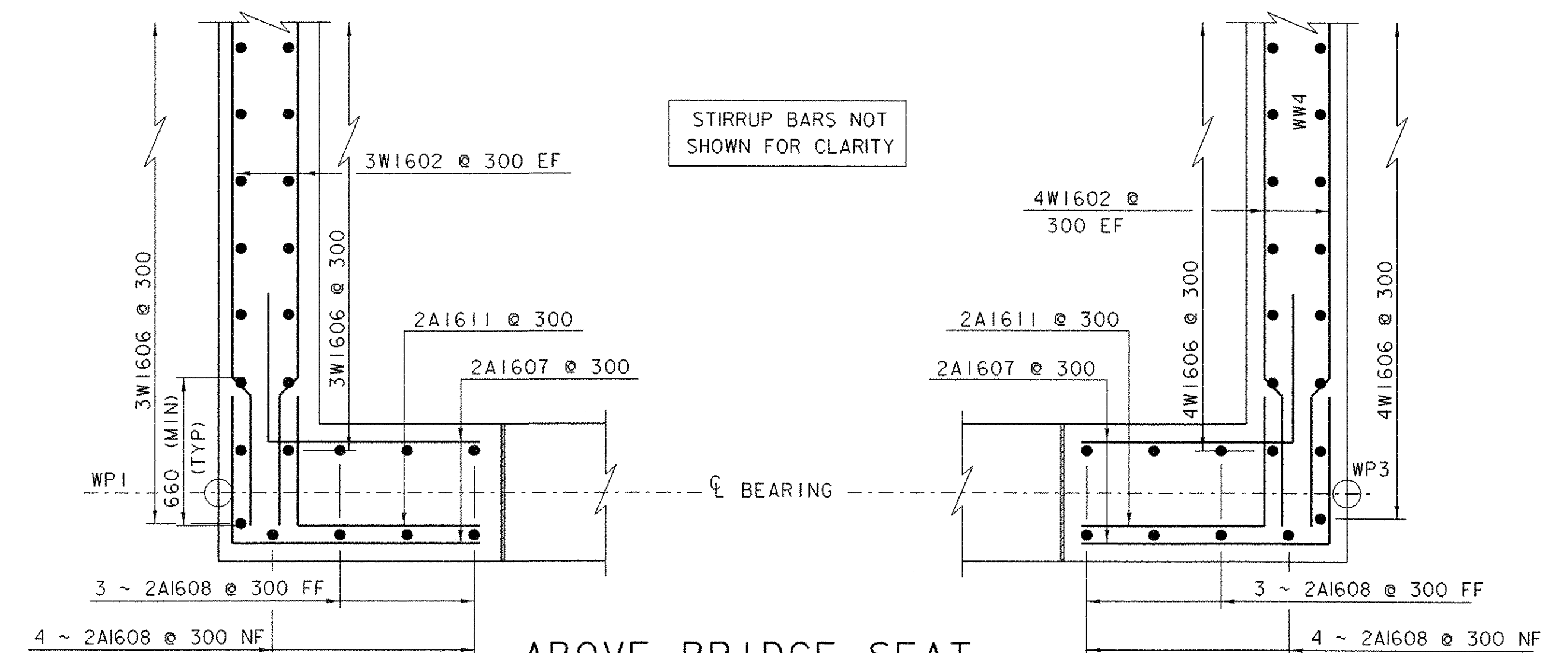
ABUTMENT #2 ELEVATION

SCALE: 1:25



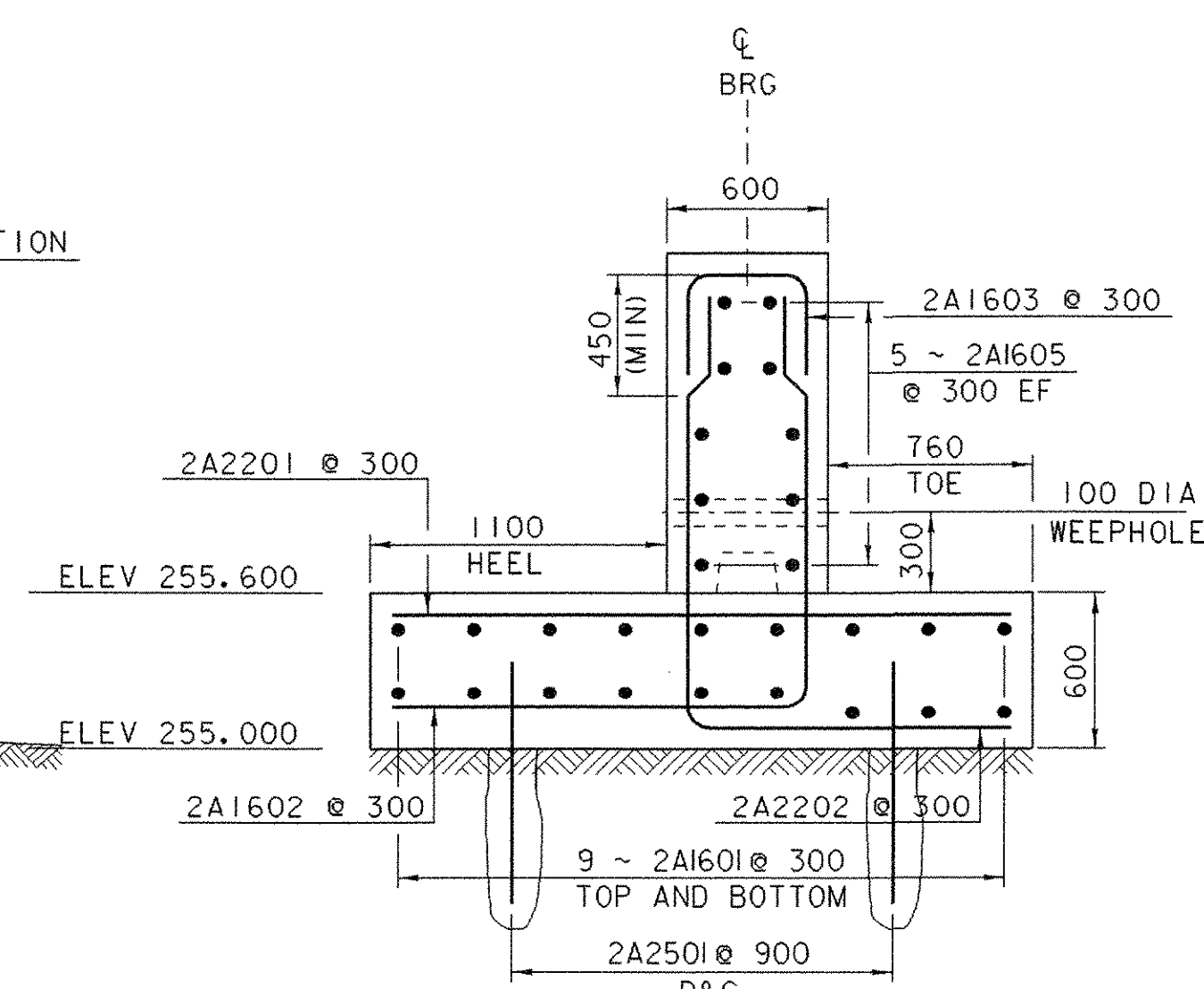
BELOW BRIDGE SEAT

SCALE: 1:20



ABOVE BRIDGE SEAT

SCALE: 1:20



ABUTMENT #2 SECTION

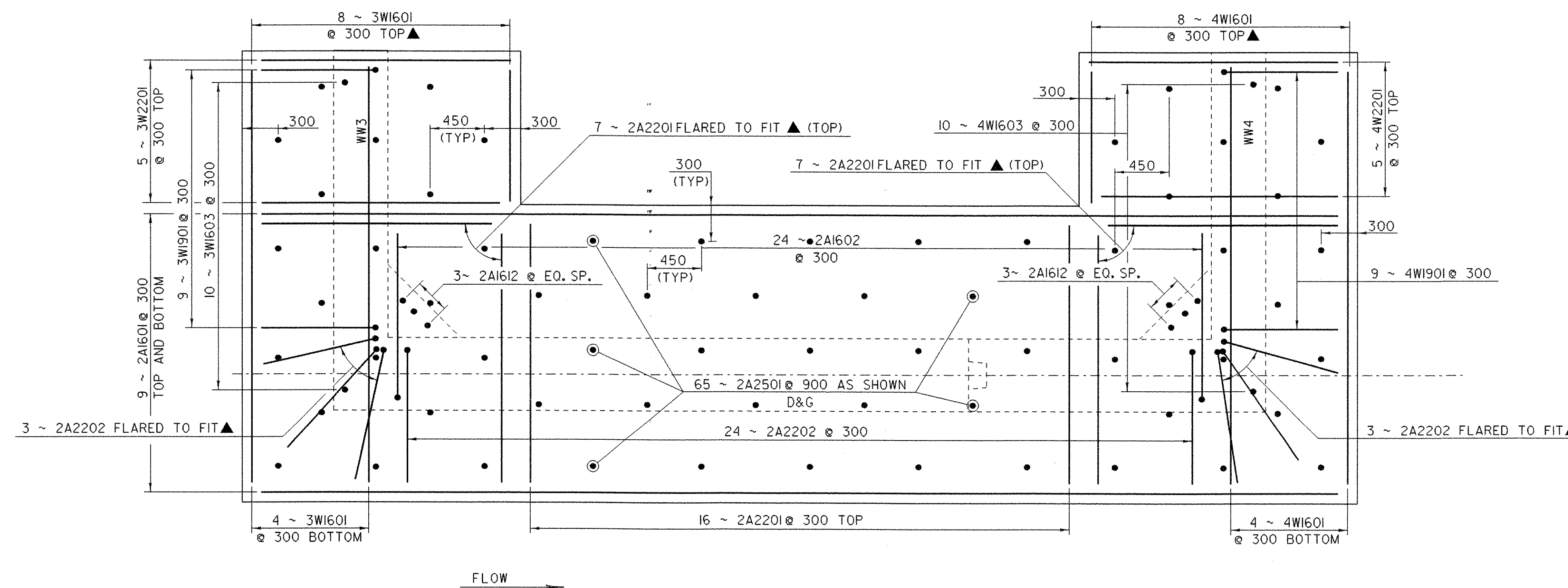
SCALE: 1:25

NOTES:

1. NF = NEAR FACE
2. FF = FAR FACE
3. EF = EACH FACE
4. ▲ = CUT TO FIT IN FIELD
5. 80 CLEAR UNLESS OTHERWISE SPECIFIED ON THE PLANS
6. 3000 MAXIMUM WEEPHOLE SPACING
7. ** D&G - DRILL AND GROUT MINIMUM 450 INTO LEDGE

SHEET NAME: ABUTMENT #2 DETAILS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94/jl24/sjl24sub.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: D.BONNEAU	IPARM NAME: sjl24ab2.1
BRIDGE SHEET NUMBER:	SHEET 31 OF 50

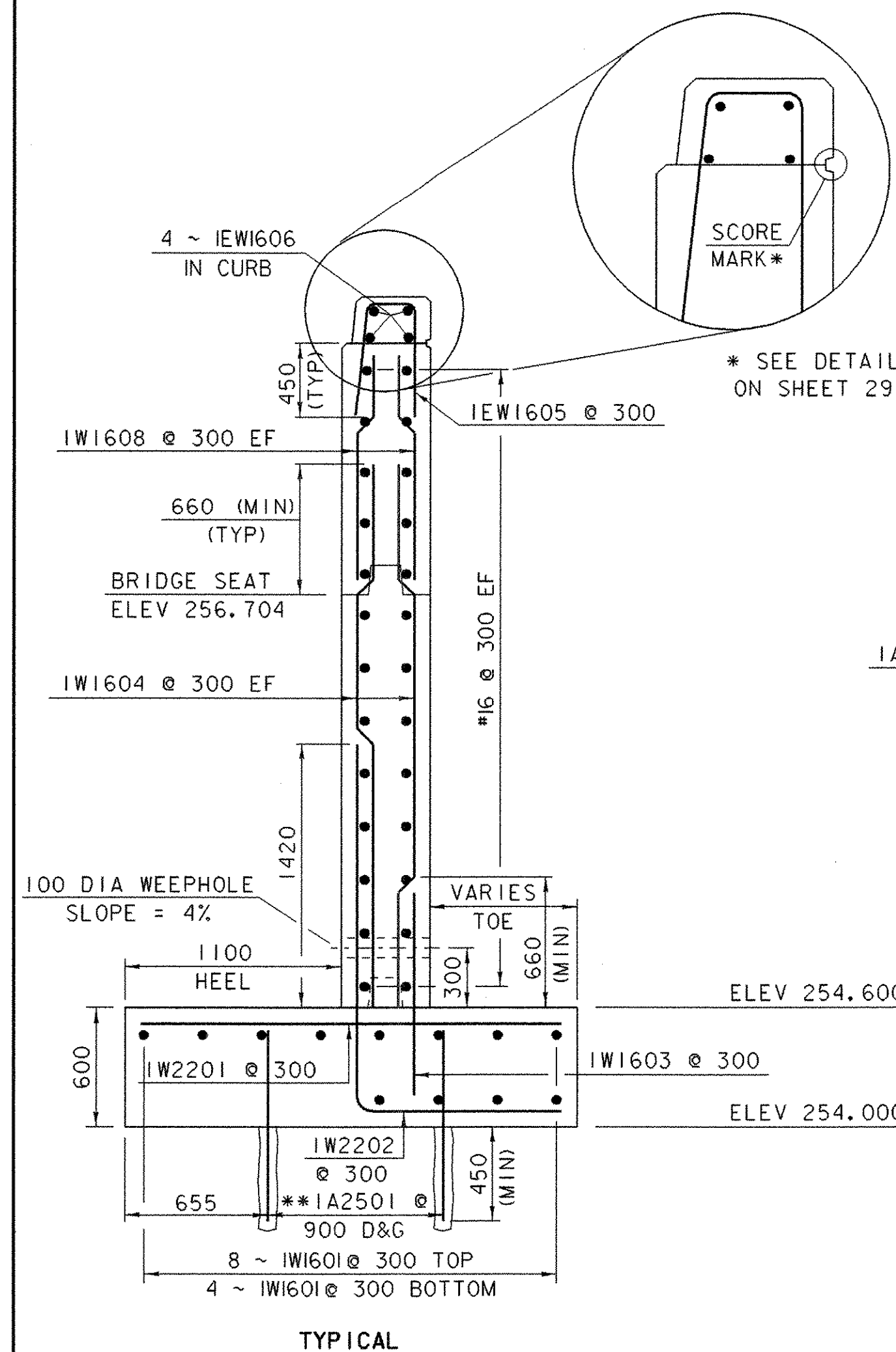
SCALE: 1:25



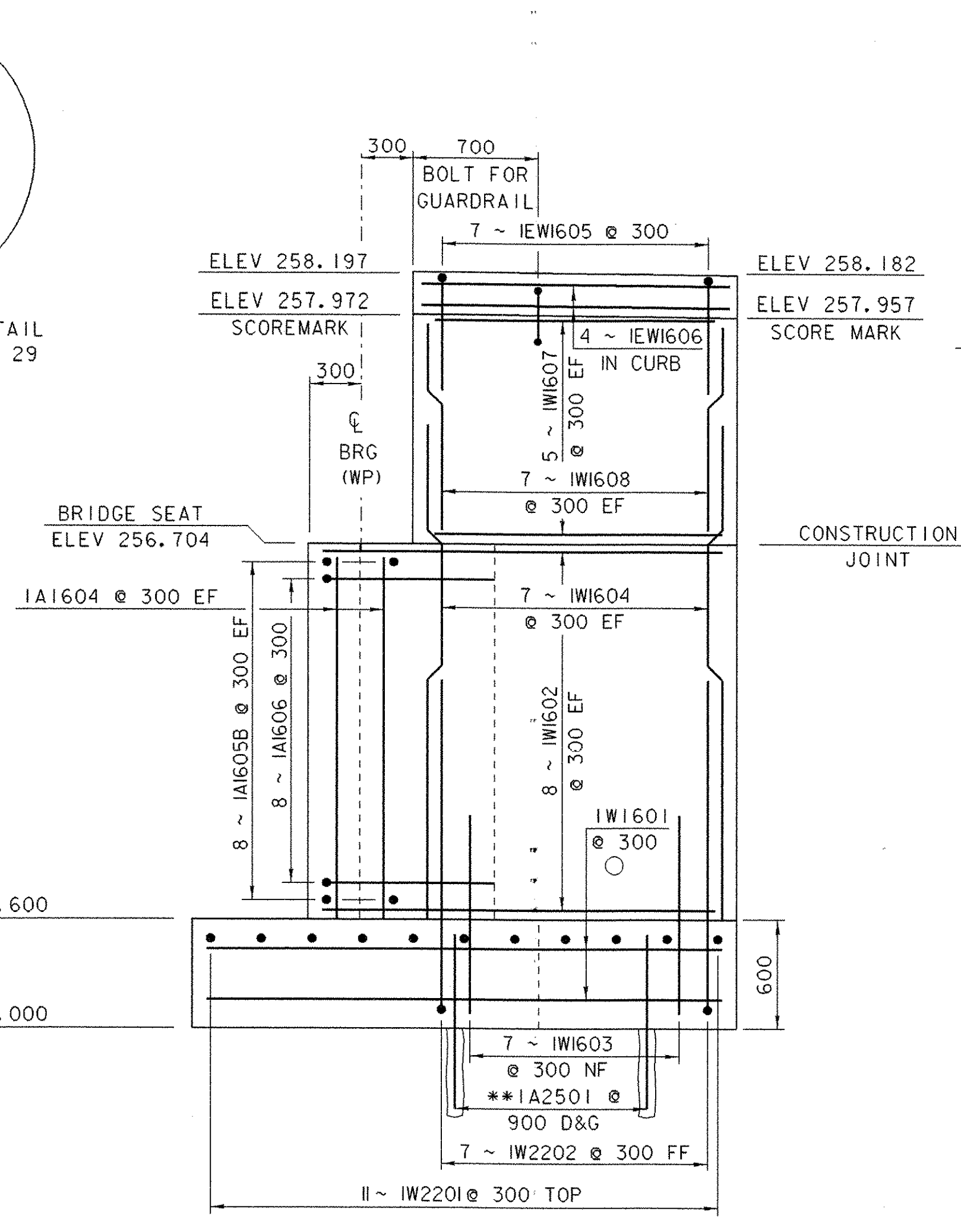
SCALE: 1:25

1. NF = NEAR FACE
2. FF = FAR FACE
3. EF = EACH FACE
4. ▲ = CUT TO FIT IN FIELD
5. 80 CLEAR UNLESS OTHERWISE SPECIFIED ON THE PLANS
6. D&G = DRILL AND GROUT,
450 MINIMUM DEPTH OF GROUTING

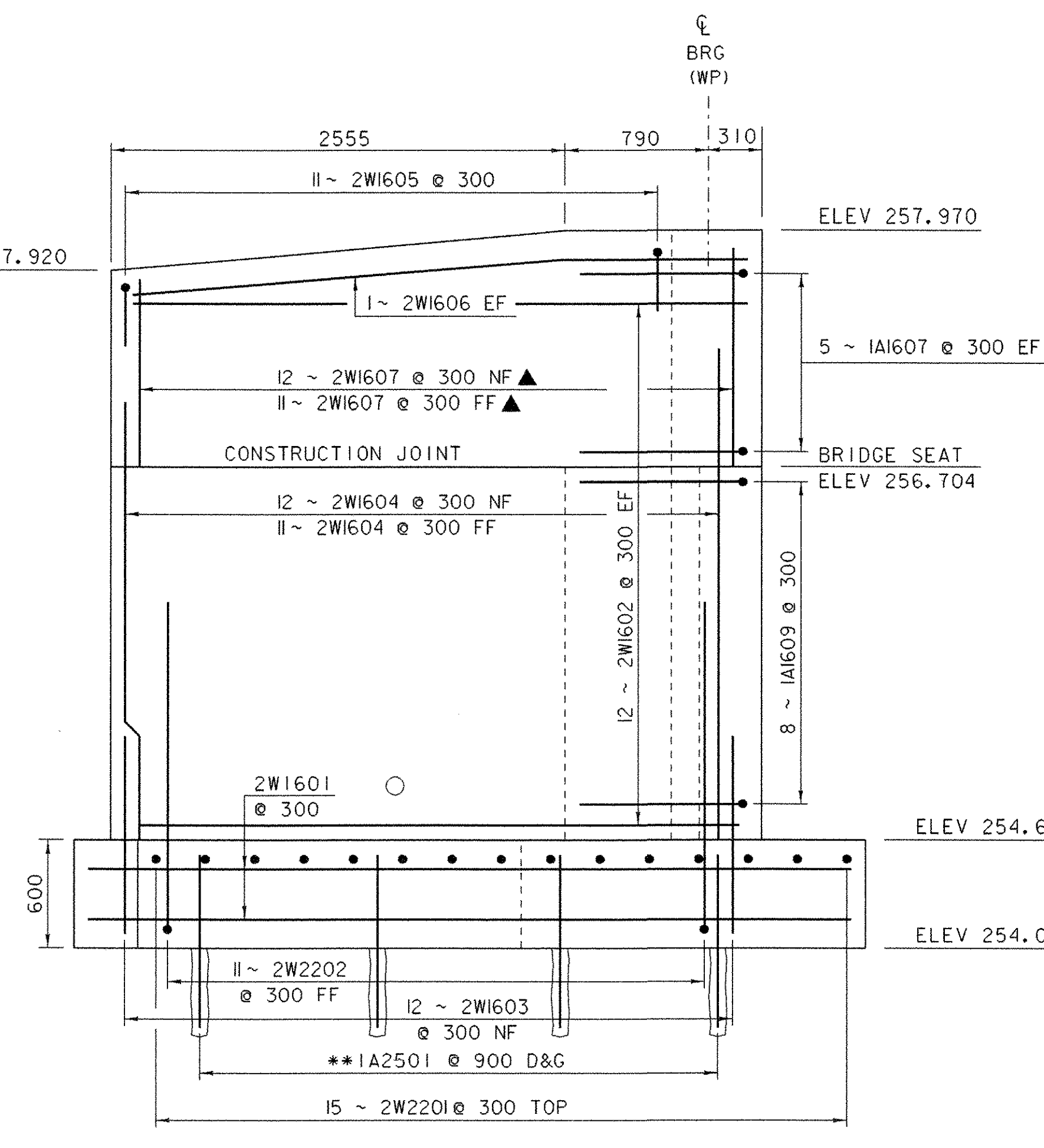
SHEET NAME: FOOTING REINFORCING PLANS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j24/sj124sub.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: D.BONNEAU	IPARM NAME: sj124frp.i
BRIDGE SHEET NUMBER:	SHEET 32 OF 50



WINGWALL #1
SCALE: 1:25

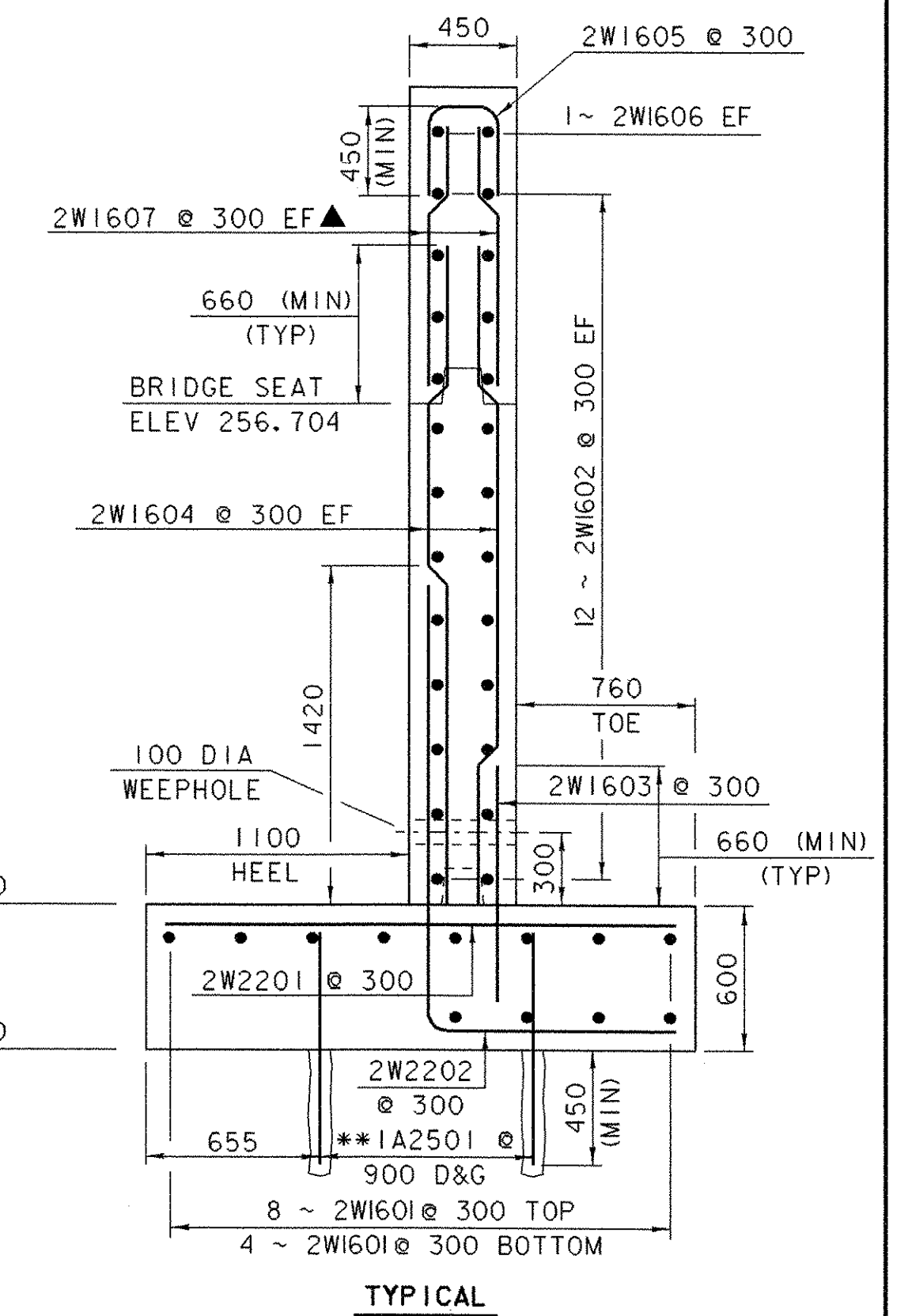


ELEVATION

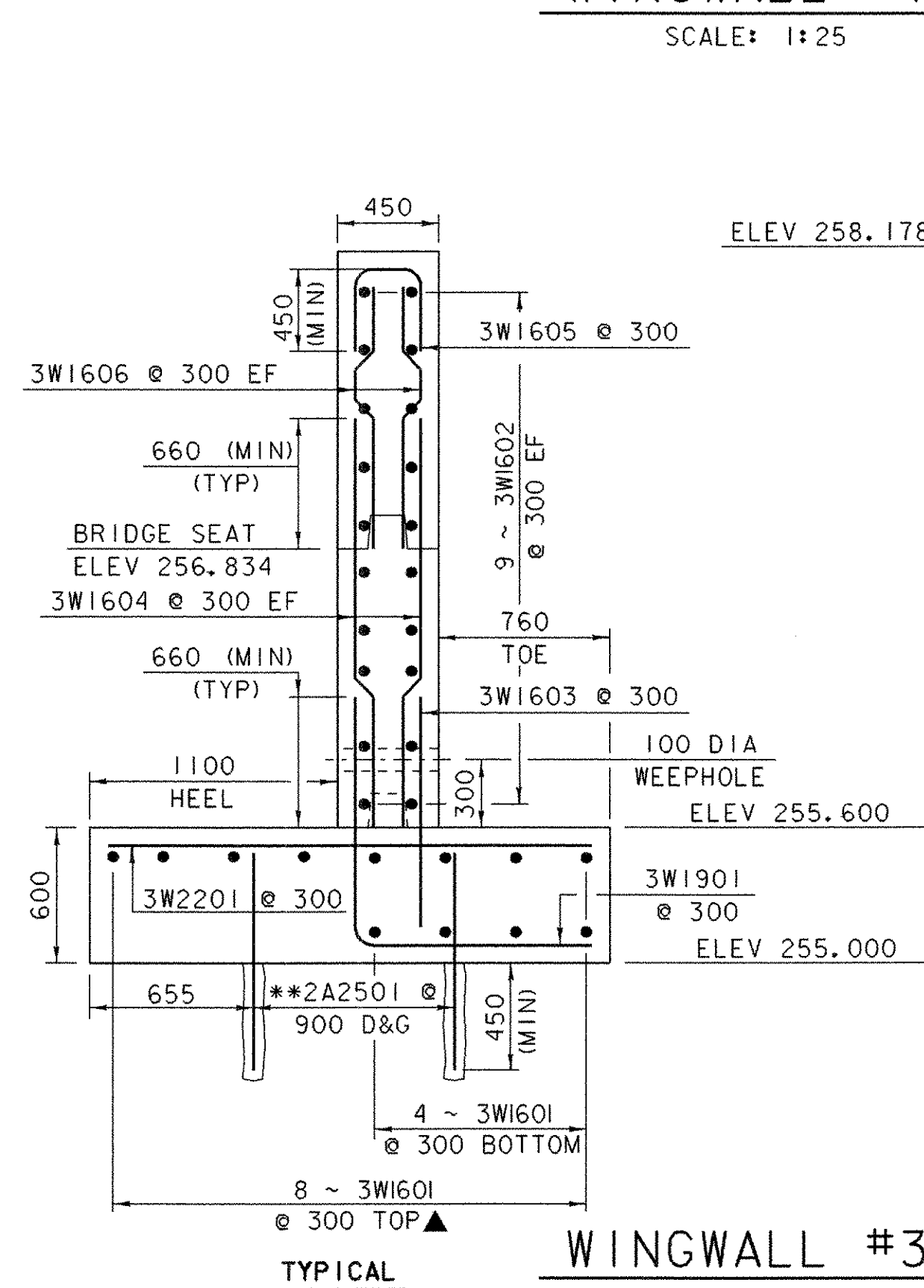


ELEVATION

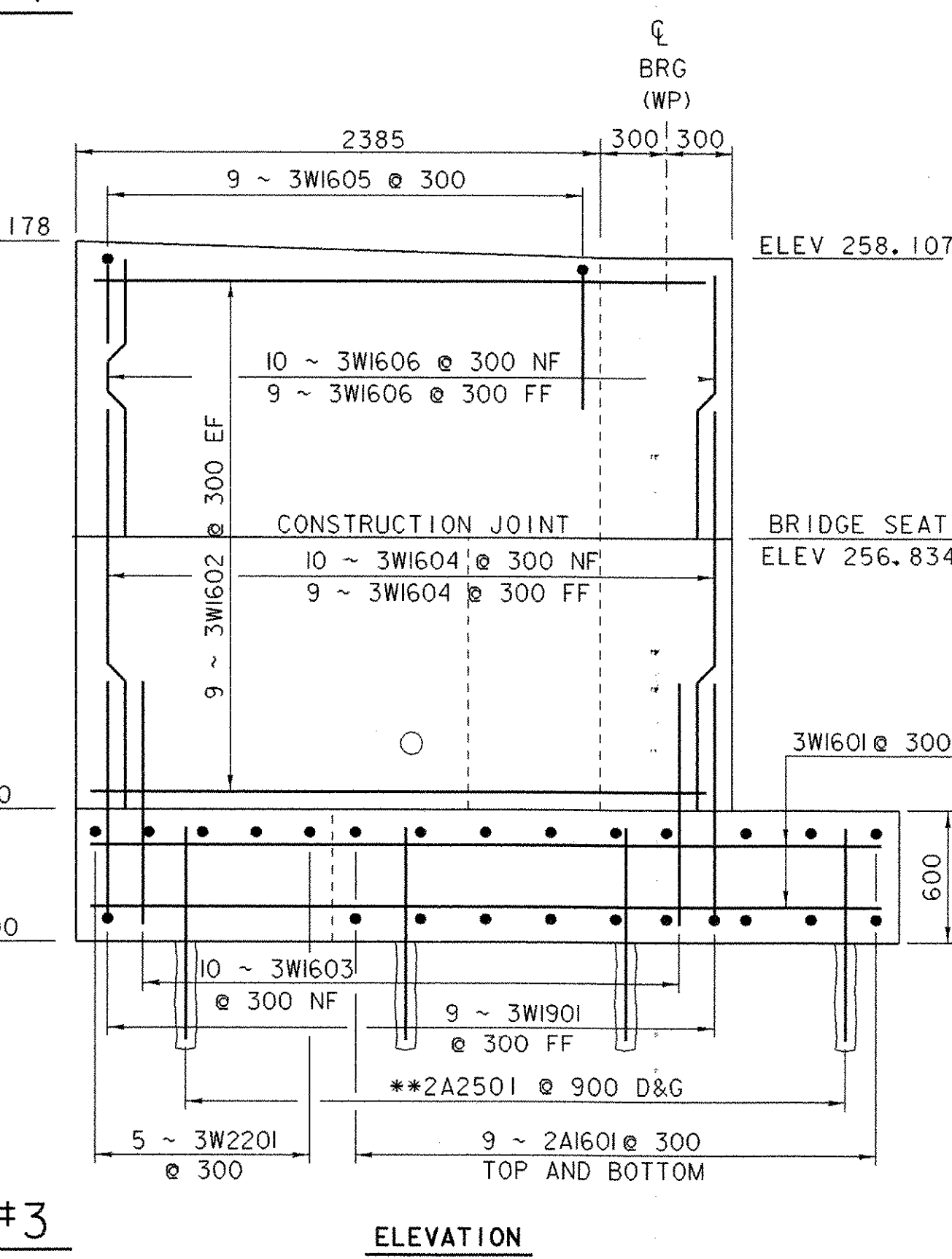
WINGWALL #2
SCALE: 1:25



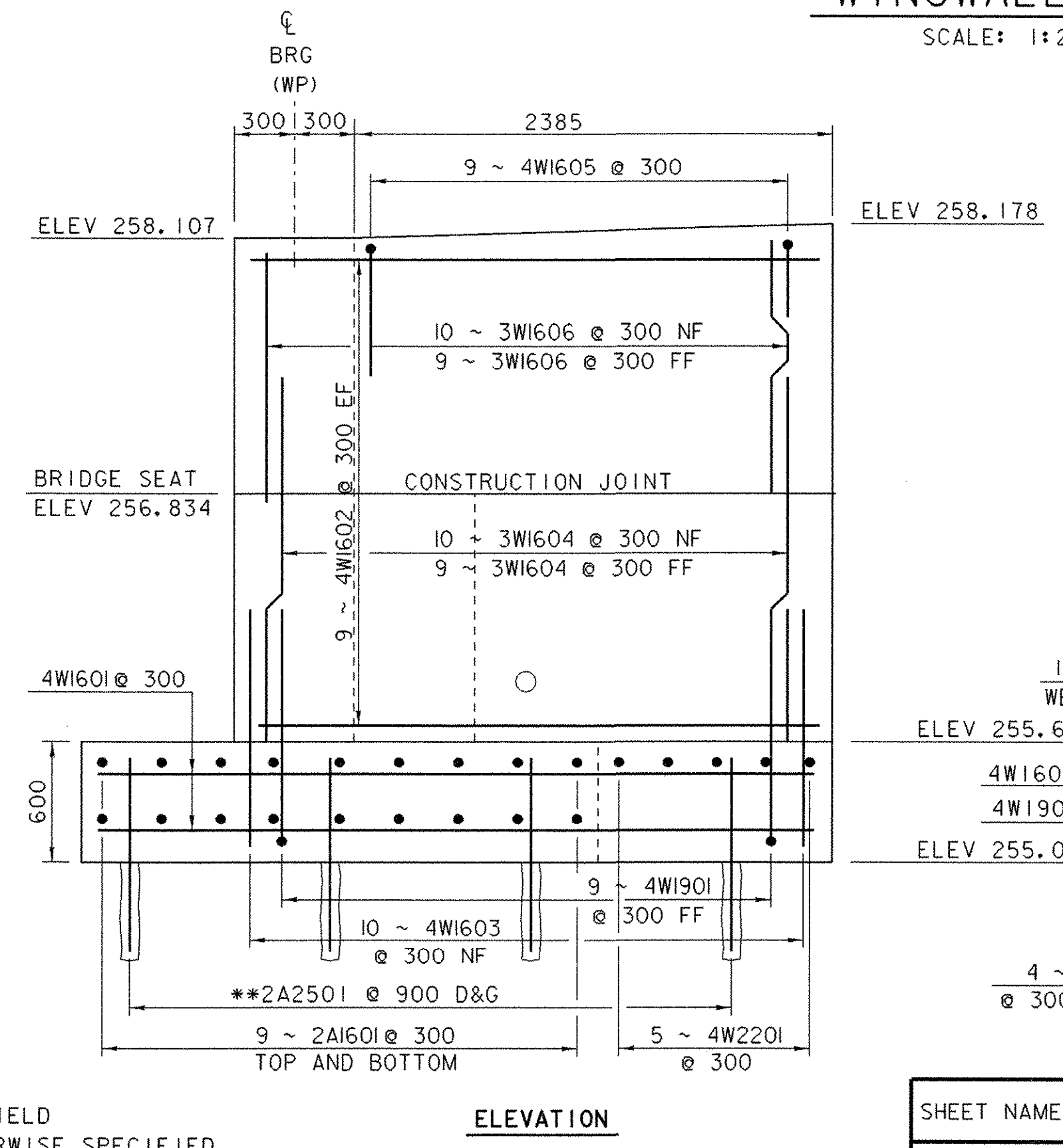
TYPICAL



WINGWALL #3
SCALE: 1:25

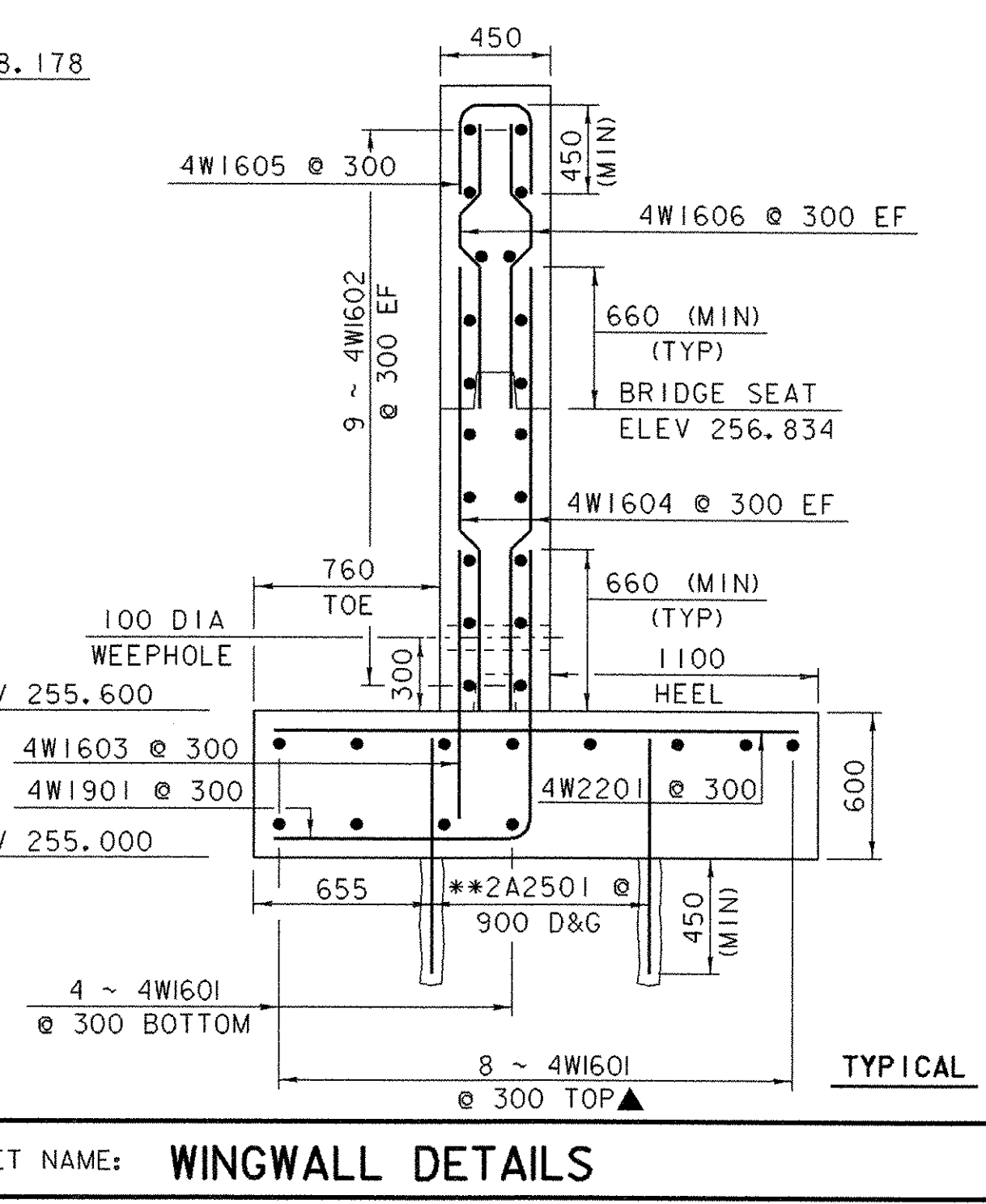


ELEVATION



ELEVATION

WINGWALL #4
SCALE: 1:25



TYPICAL

NOTES:

1. NF = NEAR FACE
2. FF = FAR FACE
3. EF = EACH FACE
4. ▲ = CUT TO FIT IN FIELD
5. 80 CLEAR UNLESS OTHERWISE SPECIFIED ON THE PLANS
6. D&G = DRILL AND GROUT, 450 MINIMUM DEPTH OF GROUTING
7. ** = SEE FOOTING REINFORCING PLANS, SHEET 32 FOR LAYOUT OF 1A2501 AND 2A2501 BARS.

SHEET NAME: WINGWALL DETAILS

PROJECT NAME: MONTGOMERY
PROJECT NUMBER: BRO 1448(20)

HIGHWAY NO.: TH 35
BRIDGE NO.: 24
OVER: PACIFIC BROOK

FILE NAME: /PW/94J124/sj124sub.dgn
PROJECT MANAGER: R. WHITCOMB
DESIGNED BY: D. BONNEAU
BRIDGE SHEET NUMBER:

PLOT DATE: 06-DEC-2005
DRAWN BY: J. GILMORE
IPARM NAME: sj124ww.1
SHEET 33 OF 50

~ NOTES ~

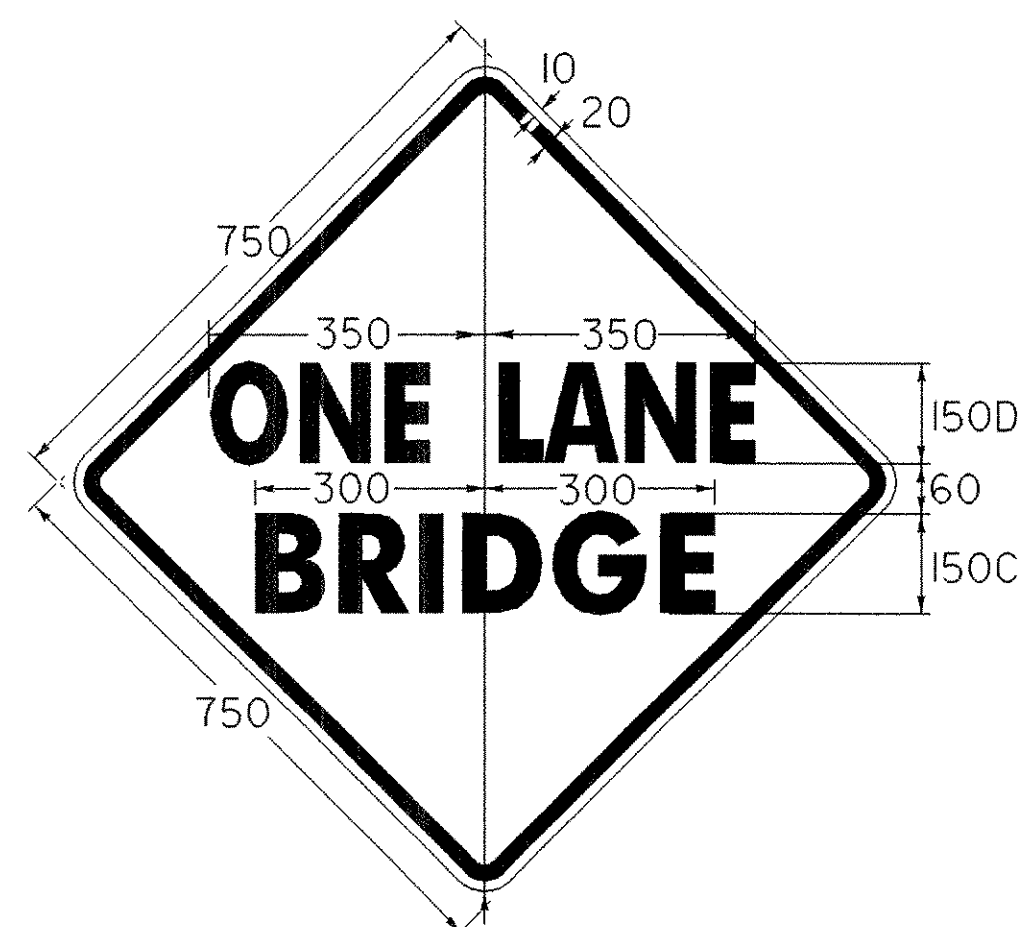
1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING 55M SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31M (ASTM A 615M-SI). ALL BARS SHALL BE GRADE 420, UNLESS OTHERWISE DESIGNATED.
2. 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".
3. BARS WHICH REQUIRE MORE ACCURATE BENDING THAN STANDARD PRACTICES SHOULD HAVE LIMITS INDICATED.
4. ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180 DEGREE AND 135 DEGREE HOOKS.
5. "J" DIMENSION ON 180 DEGREE HOOKS TO BE SHOWN ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE. OTHERWISE, STANDARD HOOKS ARE TO BE USED.
6. "H" DIMENSION ON STIRRUPS TO BE SHOWN ONLY WHEN NECESSARY TO MAINTAIN CLEARANCES.
7. WHERE SLOPE DIFFERS FROM 45 DEGREES, DIMENSIONS "H" AND "K" MUST BE SHOWN.
8. ▲ DENOTES BARS TO BE CUT IN FIELD.
9. ✱ DENOTES ONE EXTRA BAR ADDED FOR TESTING PURPOSES.
10. △ DENOTES TWO EXTRA BARS ADDED FOR TESTING PURPOSES.
11. "E" IN PREFIX DENOTES EPOXY COATED REINFORCING STEEL.

ASTM STANDARD REINFORCING BARS

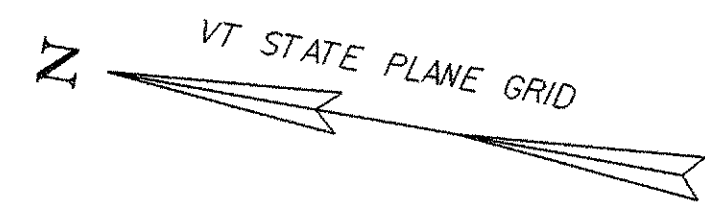
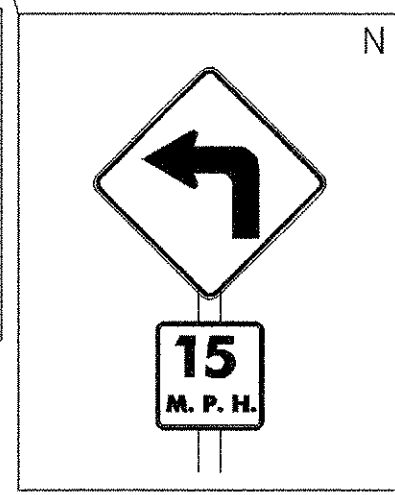
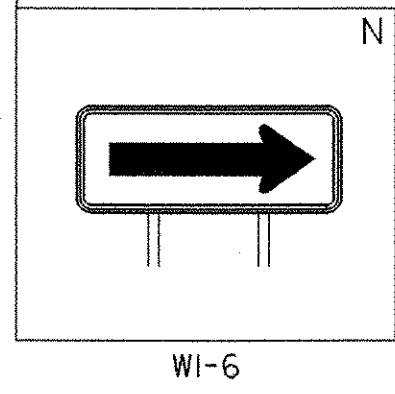
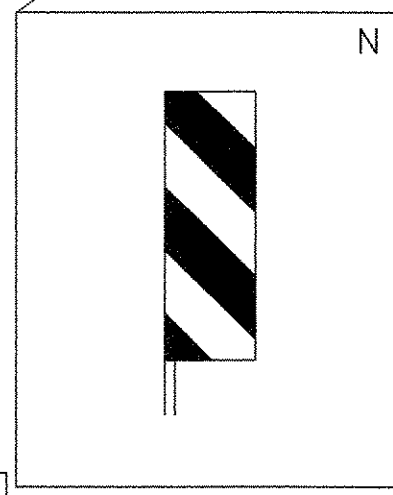
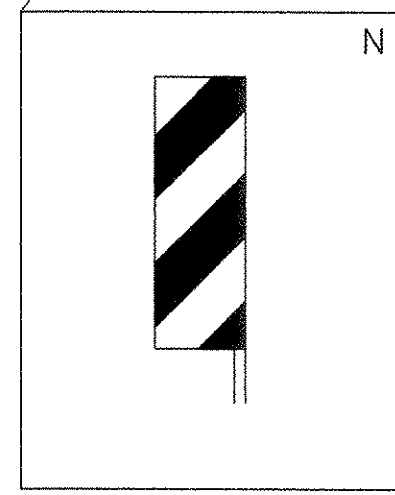
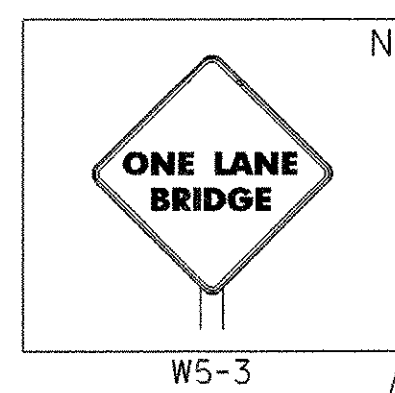
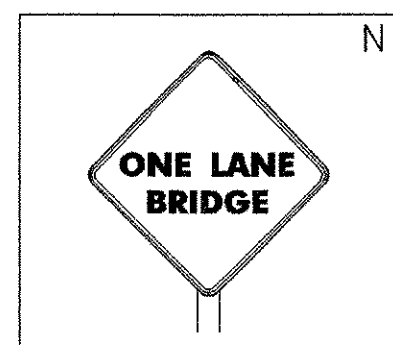
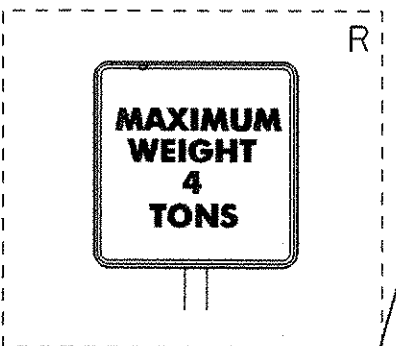
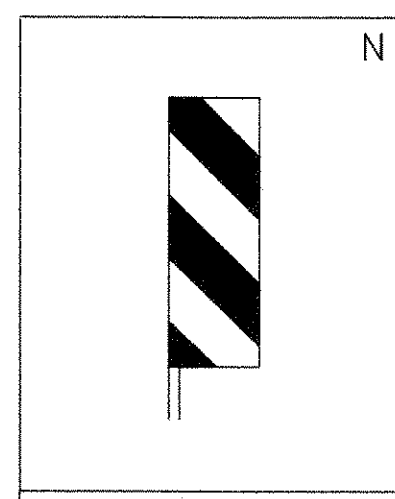
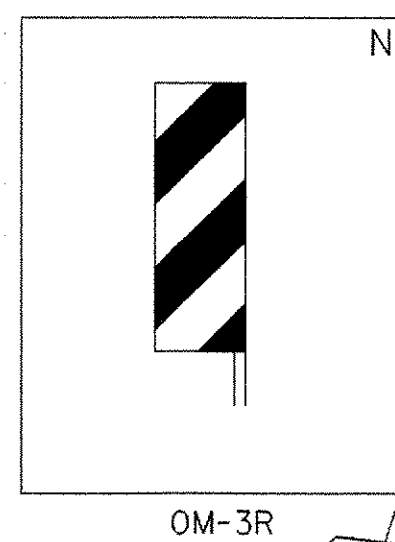
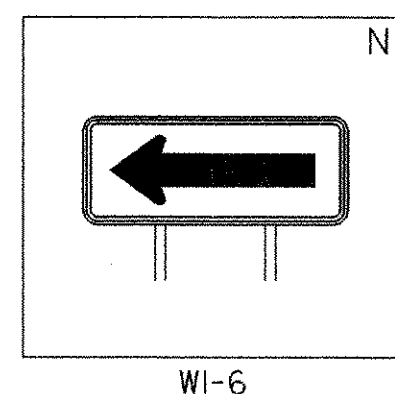
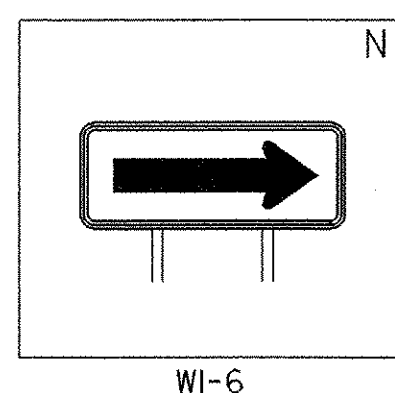
BAR SIZE	NOMINAL MASS (kg/m)	NOMINAL DIMENSIONS ROUND SECTION DIAMETER (mm)	CROSS SECTIONAL AREA (mm ²)	PERIMETER (mm)
#10	0.560	9.5	71	29.84
#13	0.994	12.7	129	39.90
#16	1.552	15.9	199	49.95
#19	2.235	19.1	284	60.00
#22	3.042	22.2	387	69.74
#25	3.973	25.4	510	79.80
#29	5.060	28.7	645	90.16
#32	6.404	32.3	819	101.47
#36	7.907	35.8	1006	112.47
#43	11.380	43.0	1452	135.09
#57	20.240	57.3	2581	180.01

PROJECT NAME: **MONTGOMERY**
PROJECT NUMBER: **BRO 1448(20)**

FILE NAME: /TransFANS/94j124/sj124rss.xl PLOT DATE: 10/27/2005
PROJECT LEADER: R. WHITCOMB DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON CHECKED BY: C. CARLSON
REINFORCING STEEL SCHEDULE SHEET SHEET 34 OF 50



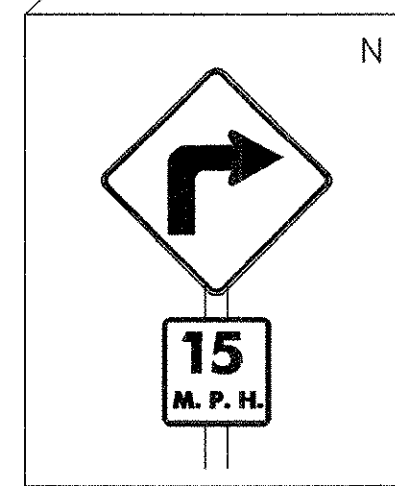
2 1/4 R
VC-812
COLORS:
BLACK BORDER AND TEXT NON (REFL.)
YELLOW BACKGROUND (REFL.)



LEGEND

- N - NEW SIGN TO BE PLACED
- R - EXISTING SIGN TO BE REMOVED

NOTE: STATIONS FOR NEW SIGNS
ARE SHOWN ON SHEET 36



WI-IR
WI3-I

0 10 20
SCALE 1:250

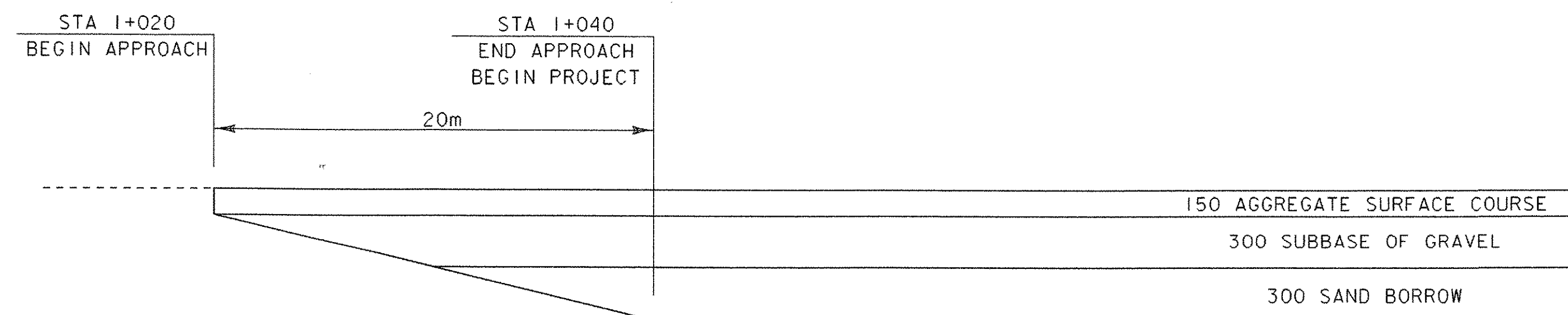
SHEET NAME: SIGNING SHEET	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94/jl24/sjl24sgn.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sjl24sgl.i
BRIDGE SHEET NUMBER:	SHEET 35 OF 50

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

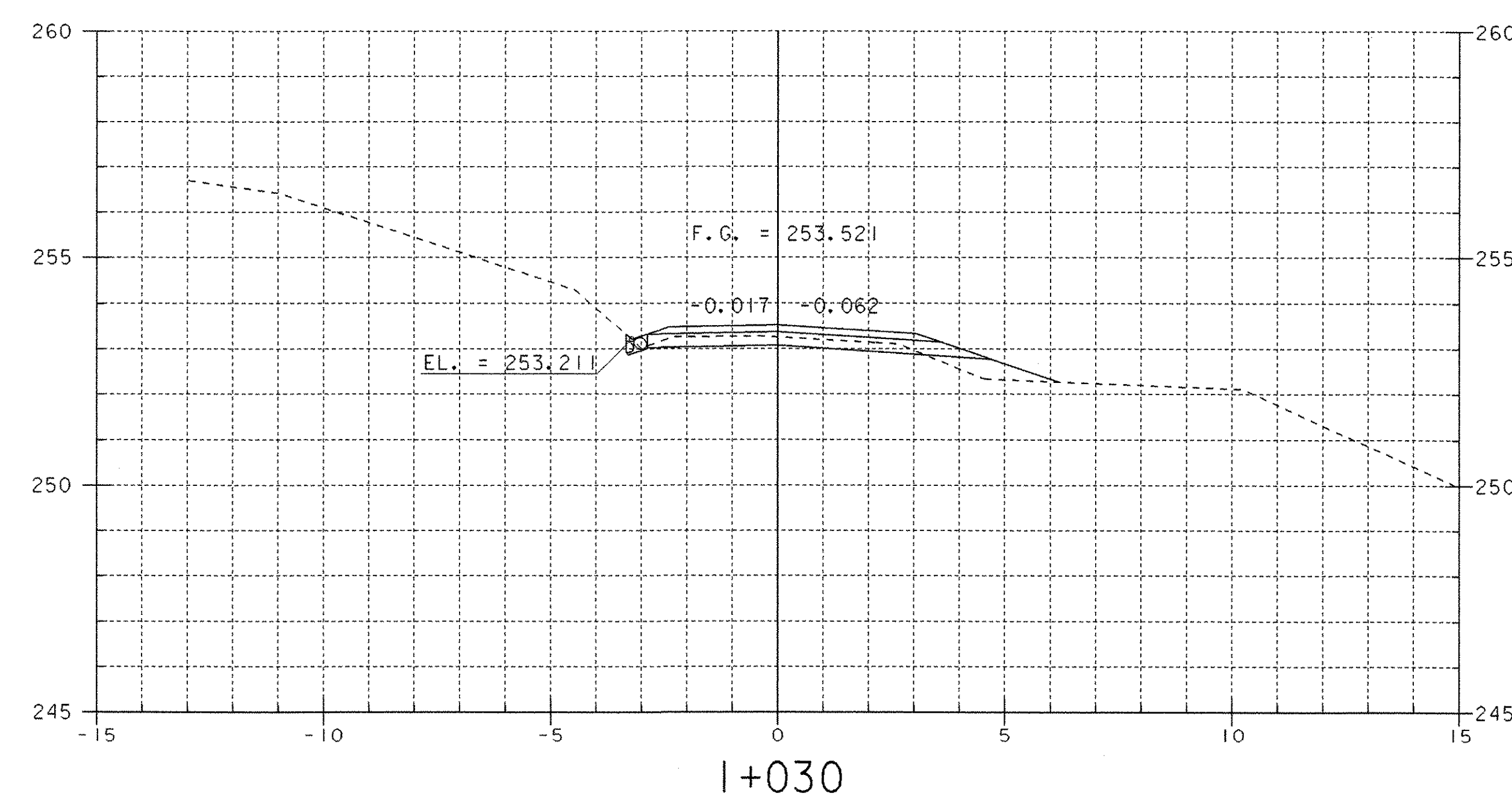
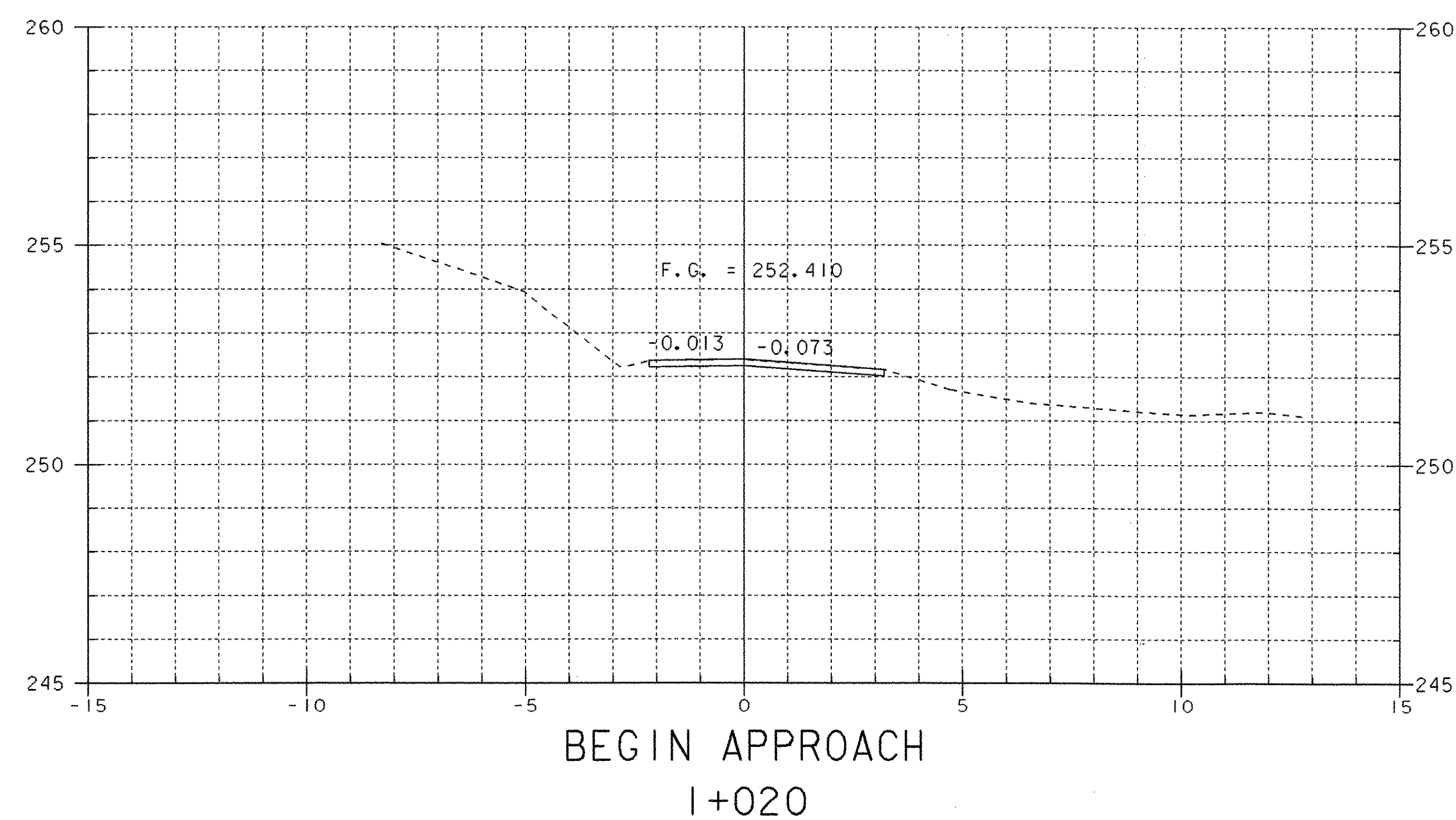
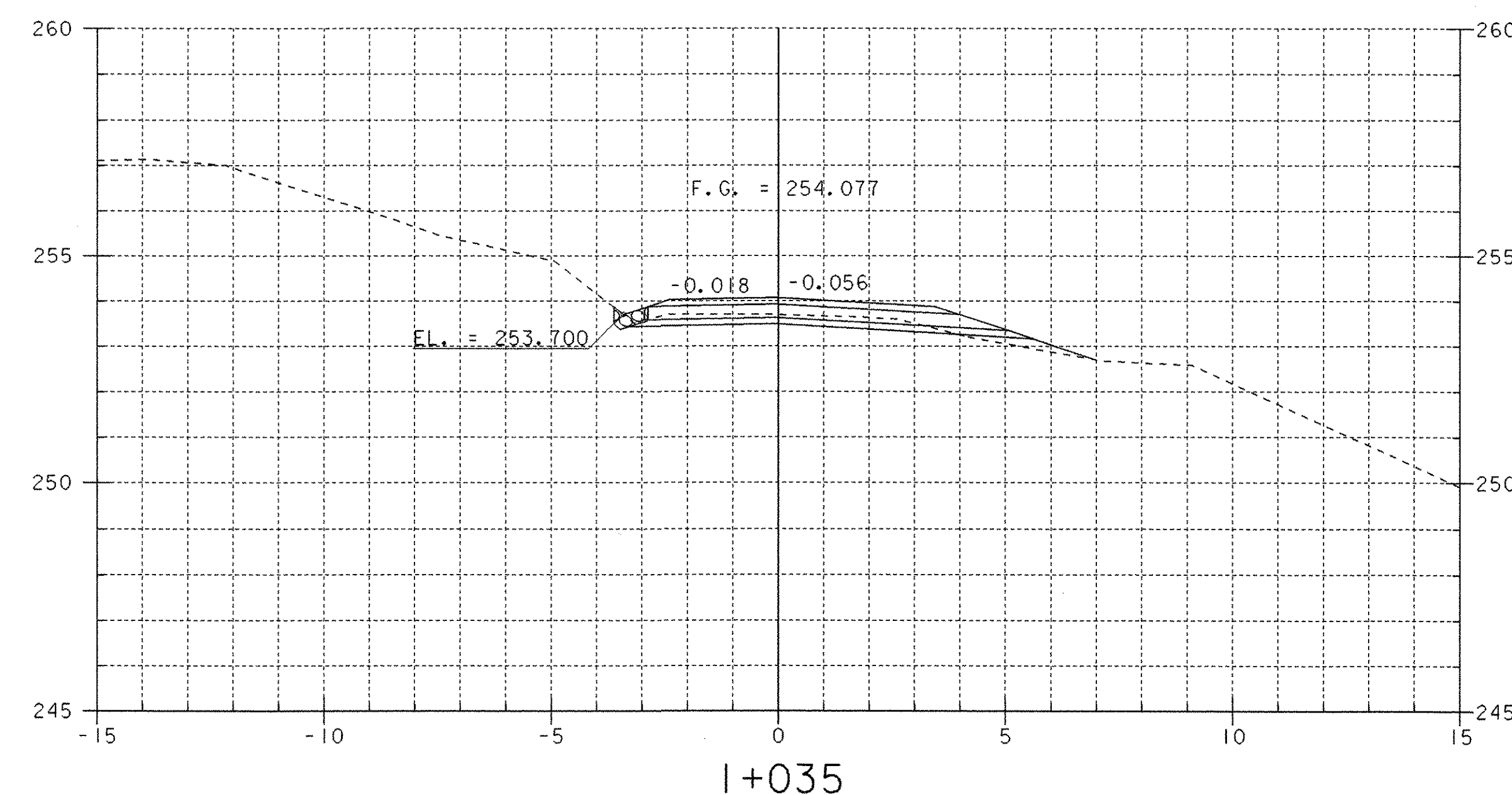
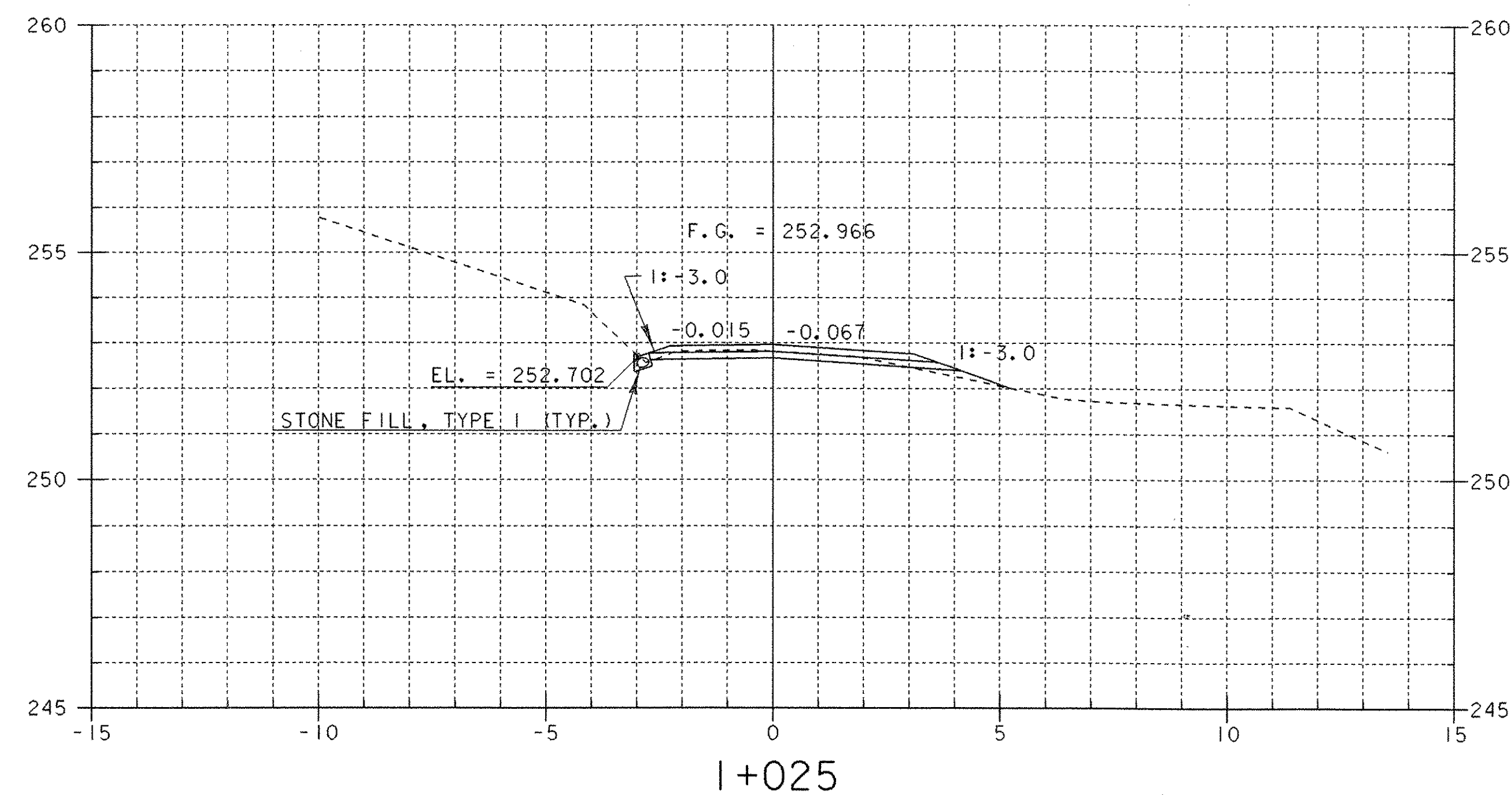
Metric

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS		NEW & SALVAGED SIGNS				EXIST POST NO. OF POSTS	NEW SIGN POSTS												REMARKS	SIGN DETAIL													
		E A	WIDTH (mm)	HEIGHT (mm)	"A"	"B"	SALV SIGN		SALV TIS	FLANGED CHANNEL			SQUARE STEEL (mm)			TUBULAR ALUMINUM Ø (mm)			TUBULAR STEEL Ø (mm)				W-SHAPE STEEL				DETAIL ON SHEET NUMBER	STD. SHEET NUMBER							
										kg/m	1.7	3.0	4.5	44	50	63	ANCHOR	SLEEVE	75	100		100 MOD.	FOUND- ATION	75	89	100			125	FTG. SIZE		WEIGHT	POST SIZE		
																														kg/m	600 mm			750 mm	
																																			kg/m
OPTION ITEMS																																			
STA 0+960 RT		1	600	600	0.36				1		X			X		X															WI-IR		E-151		
STA 0+960 RT		1	450	450	0.20																										WI3-1		E-155		
STA 1+005 RT		1	750	750	0.56				1		X			X		X															W5-3		SEE SHEET 35		
											X			X		X																			
STA 1+074.710 LT		1	900	450	0.41				1		X			X		X																WI-6		E-152	
STA 1+076.230 LT		1	900	450	0.41				1		X			X		X																WI-6		E-152	
STA 1+085 RT & STA 1+113 LT		2	300	900	0.54				1		X			X		X																OM-3R		E-120	
STA 1+085 LT & STA 1+113 RT		2	300	900	0.54				1		X			X		X																OM-3L		E-120	
STA 1+116.640 RT		1	900	450	0.41				1		X			X		X																WI-6		E-152	
STA 1+120 LT		1	600	600	0.36				1		X			X		X																WI-1L		E-151	
STA 1+120 LT		1	450	450	0.20																												WI3-1		E-155
STA 1+185 LT		1	750	750	0.56				1		X			X		X																	W5-3		SEE SHEET 35
FINAL POST ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."																																			
						</																													



TRANSITION DIAGRAM

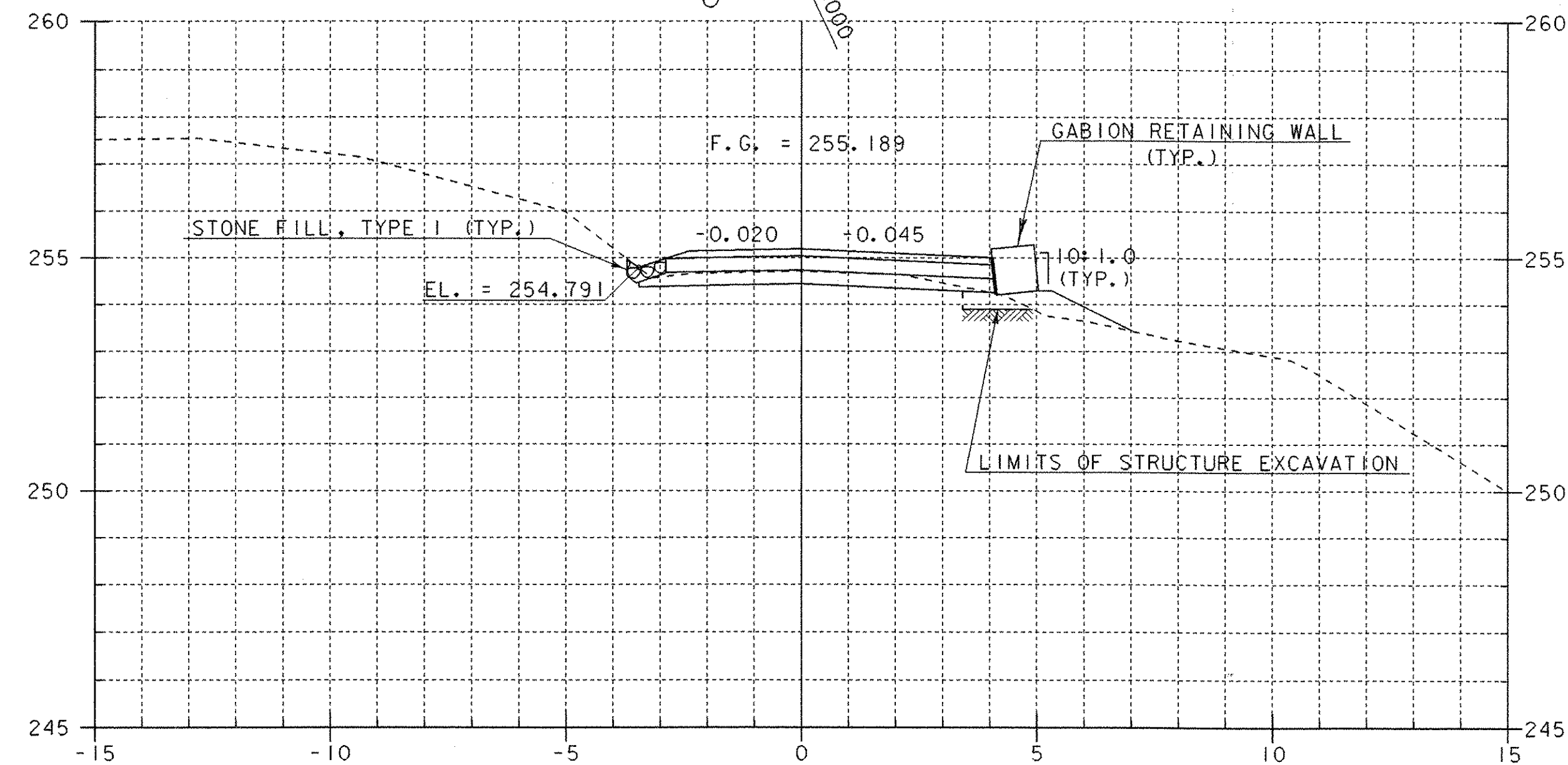
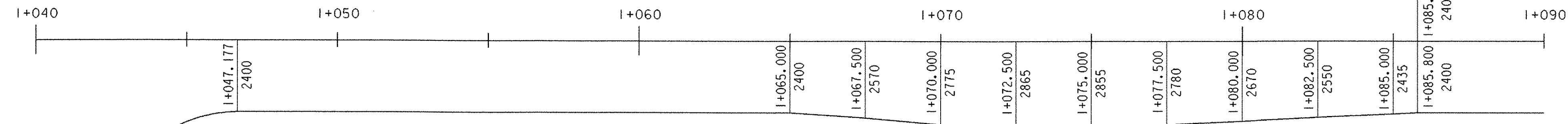
NTS



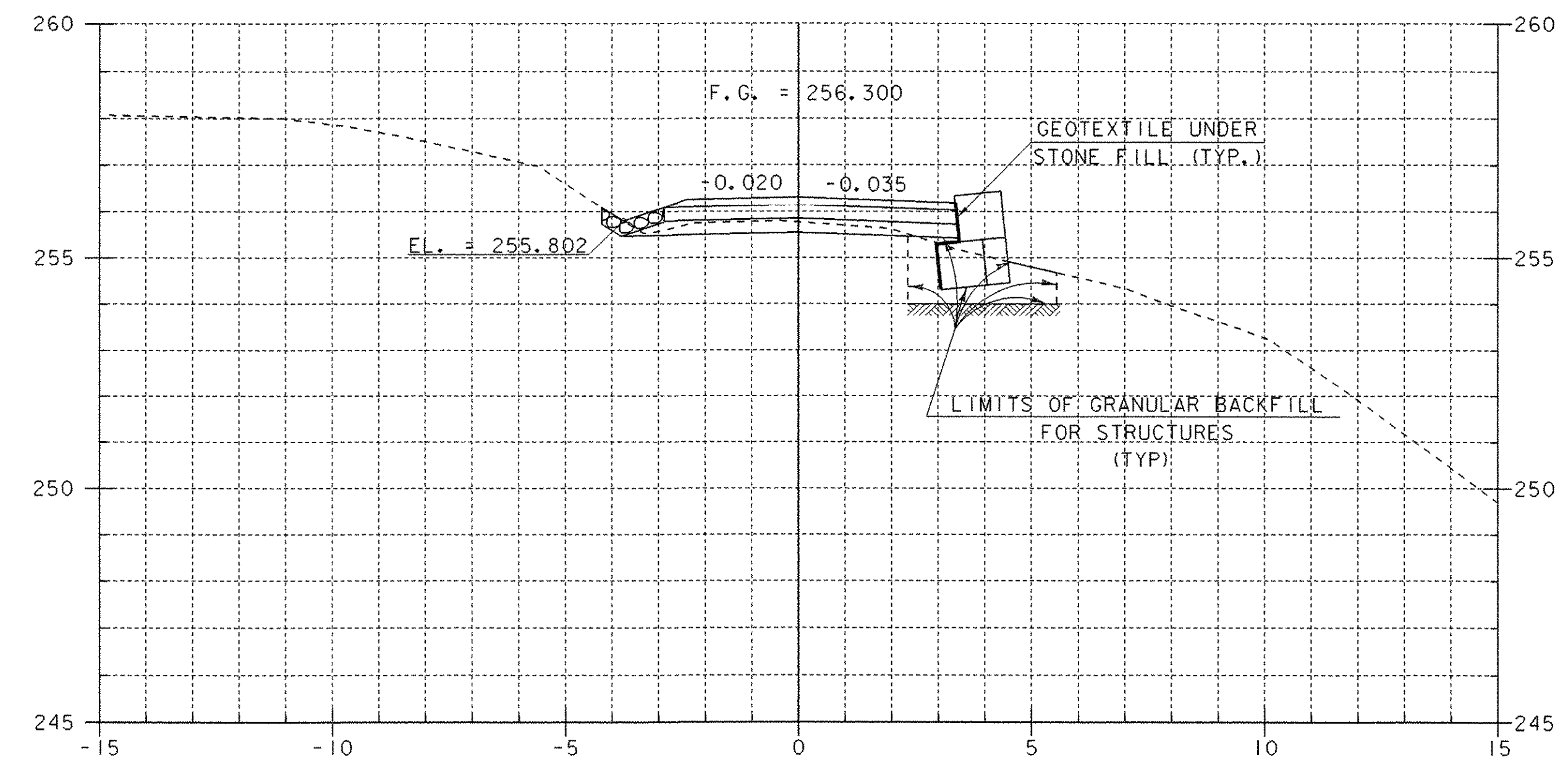
SHEET NAME: MAINLINE CROSS SECTIONS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94J124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx1.1
BRIDGE SHEET NUMBER:	SHEET 37 OF 50

GUARD RAIL OFFSETS

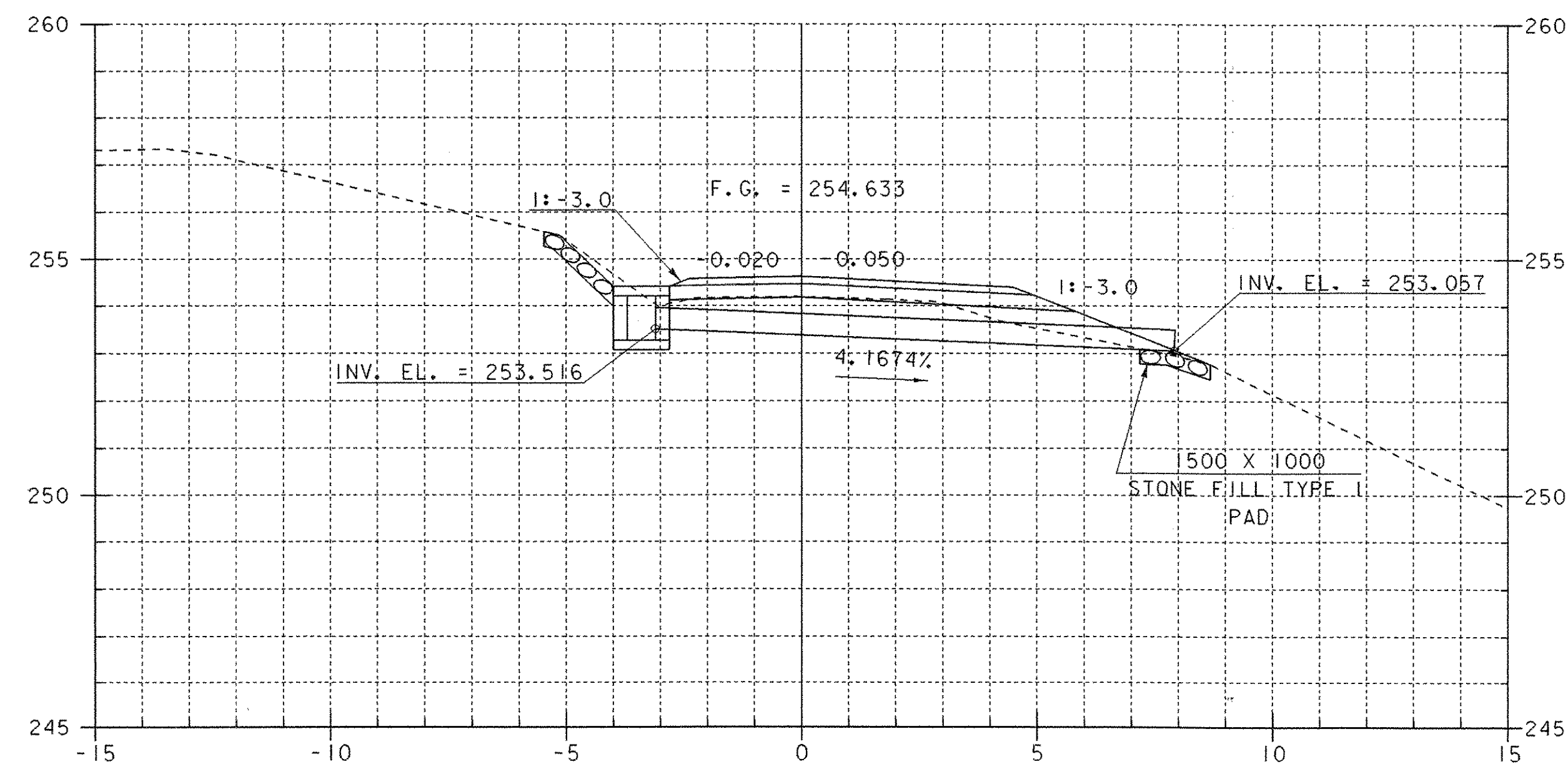
NTS



I+045
STA. I+044.800 RT
BEGIN GABION RETAINING WALL

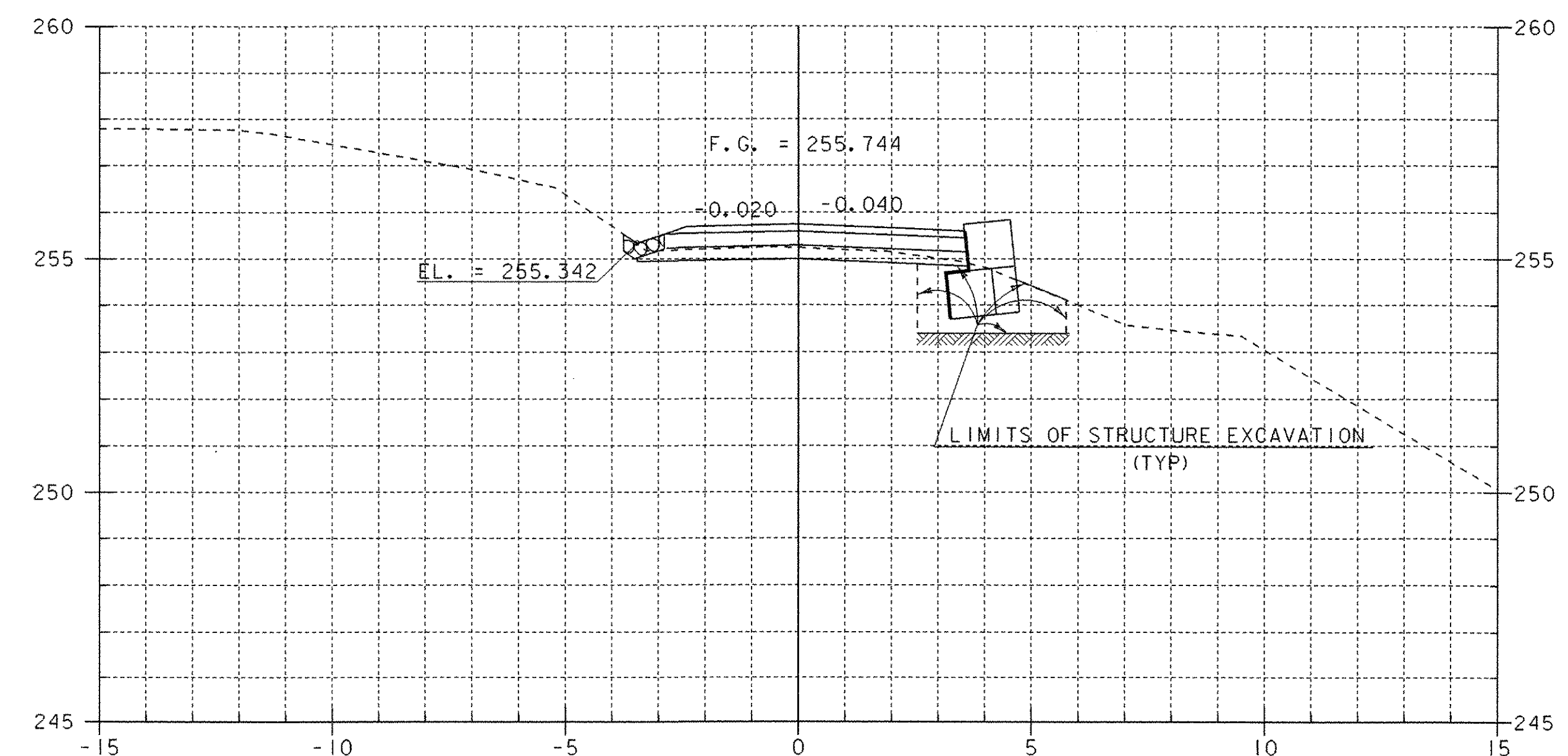


I+055



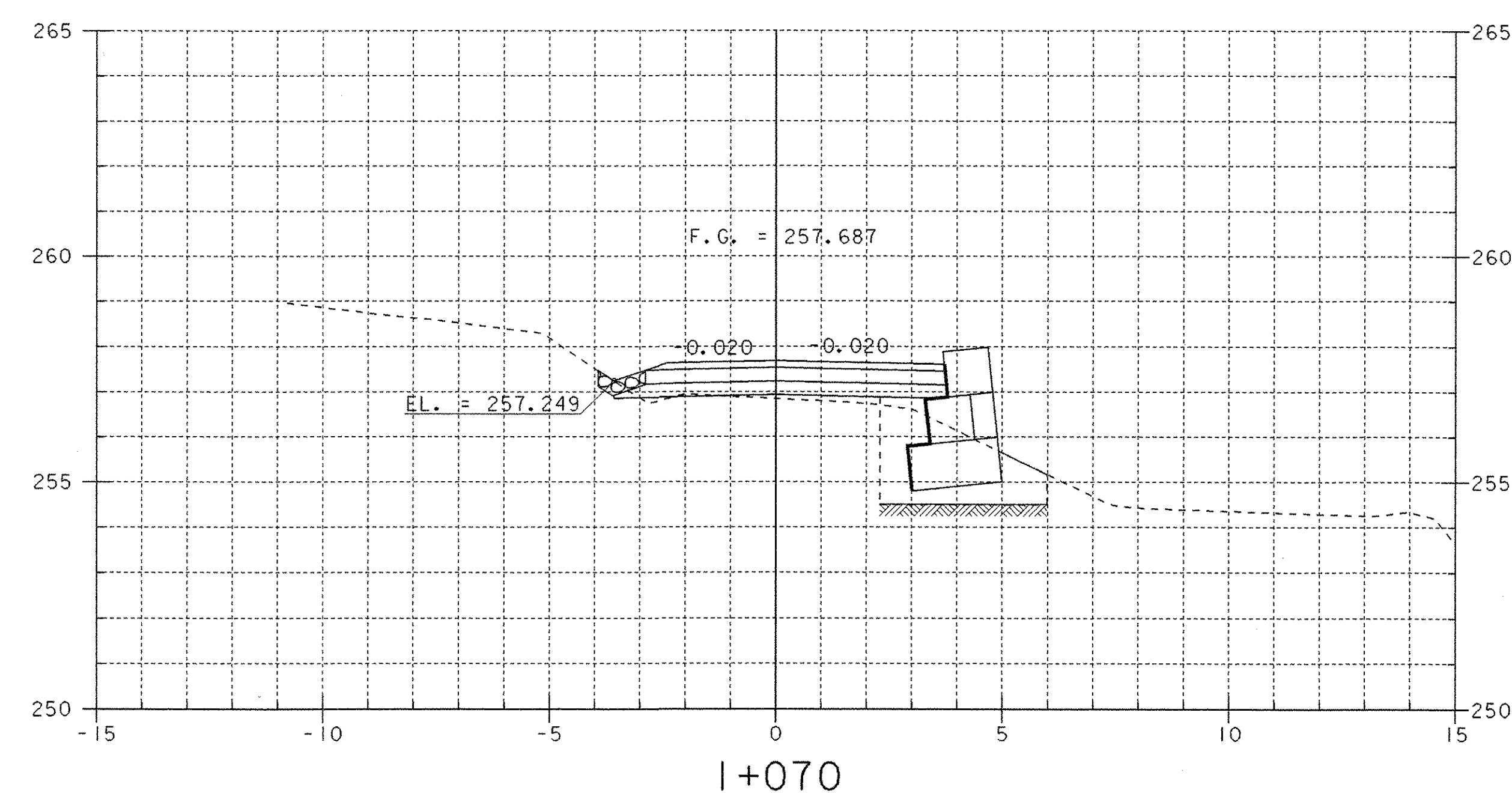
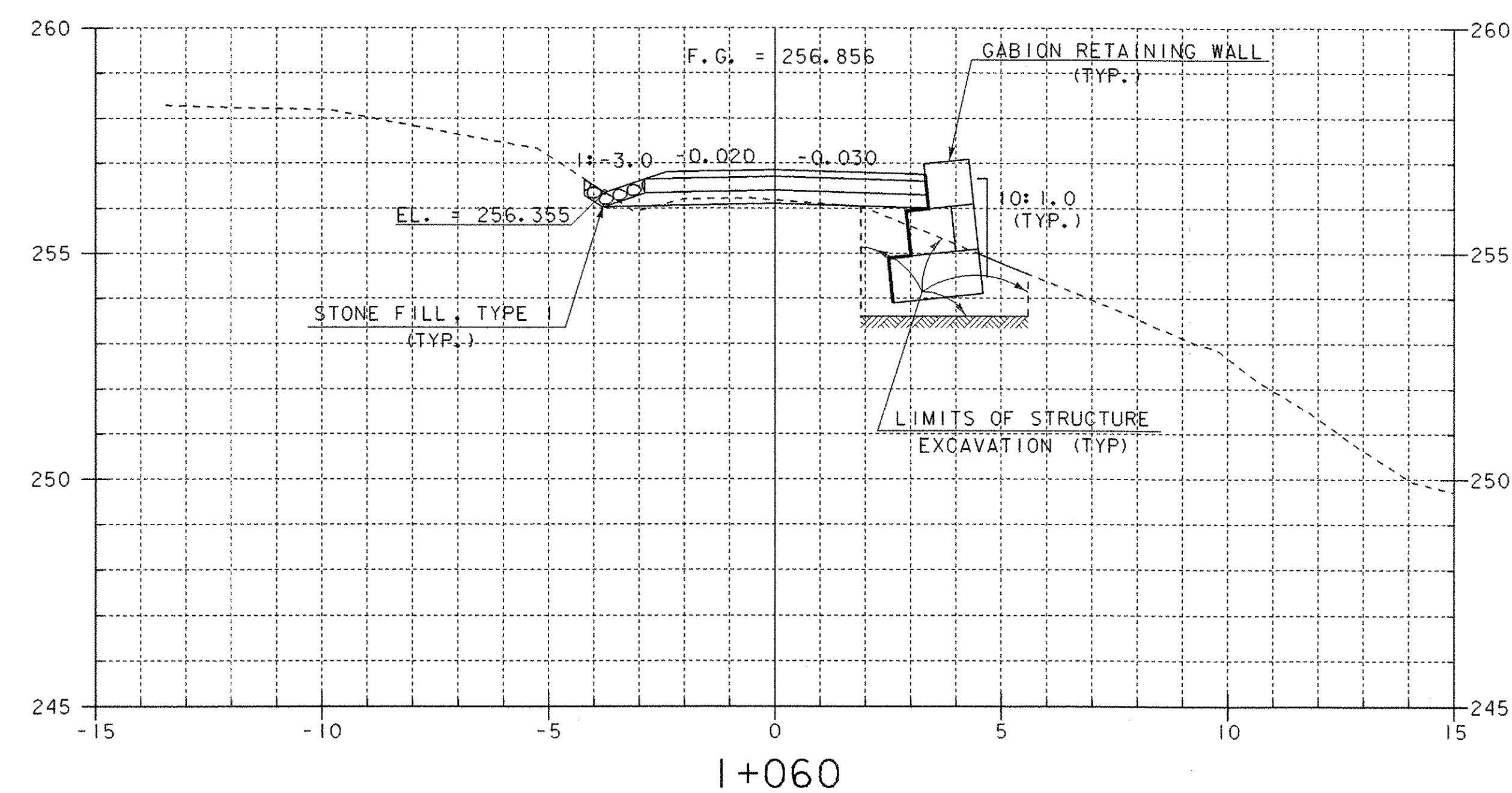
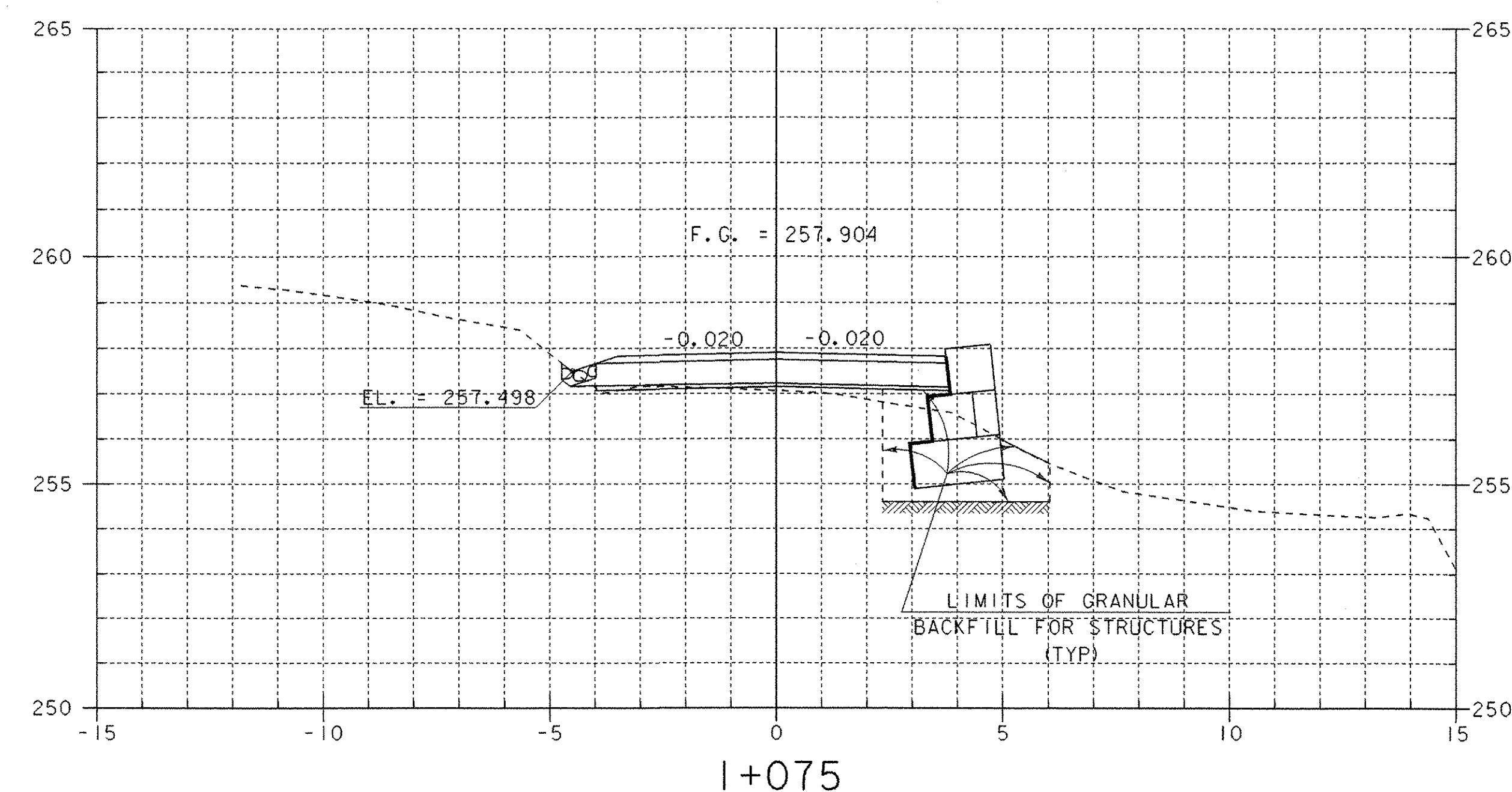
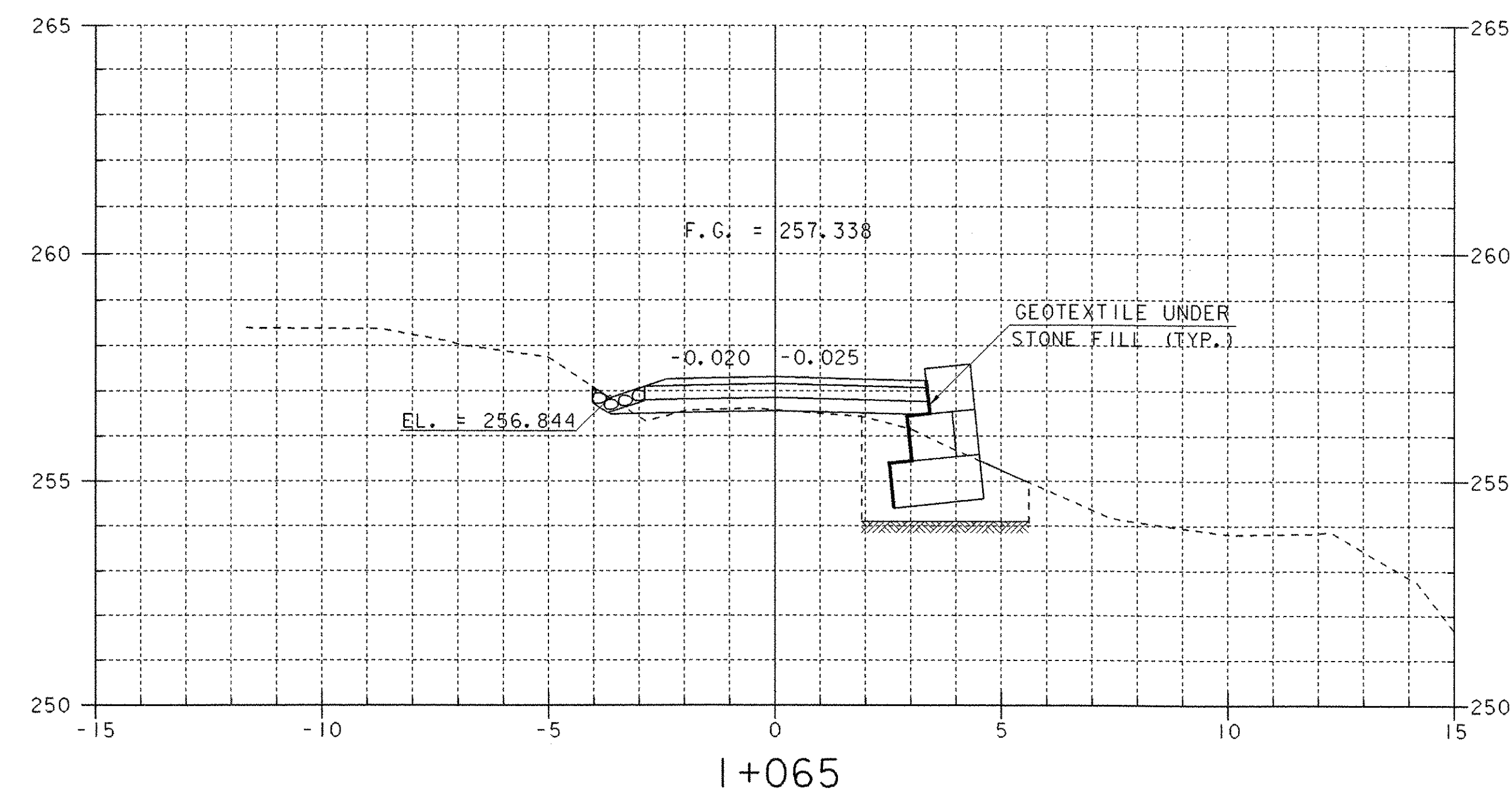
END APPROACH
BEGIN PROJECT
I+040

STA I+040 CONSTRUCT
450 x 11 000 OPTION PIPE

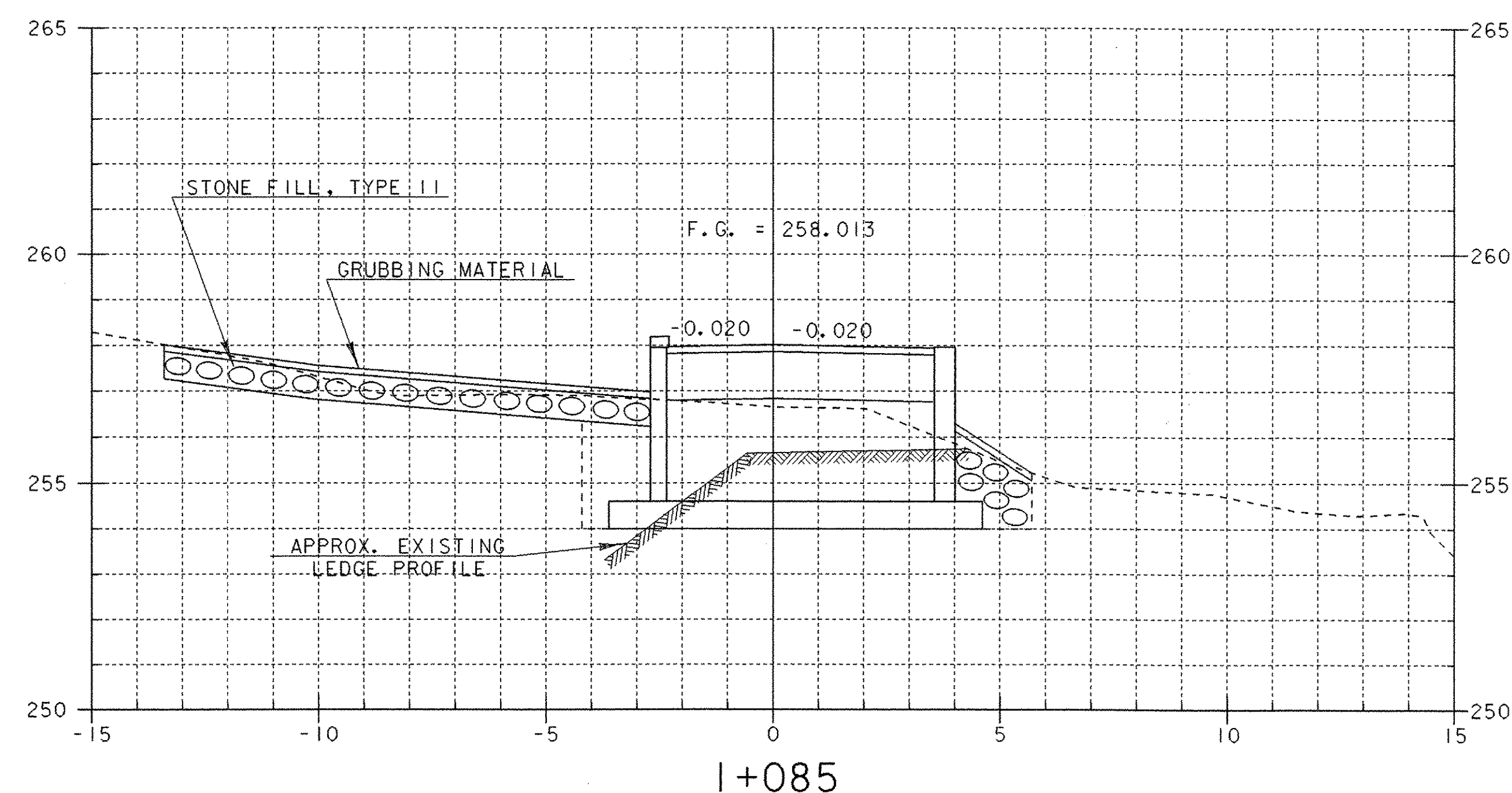


I+050

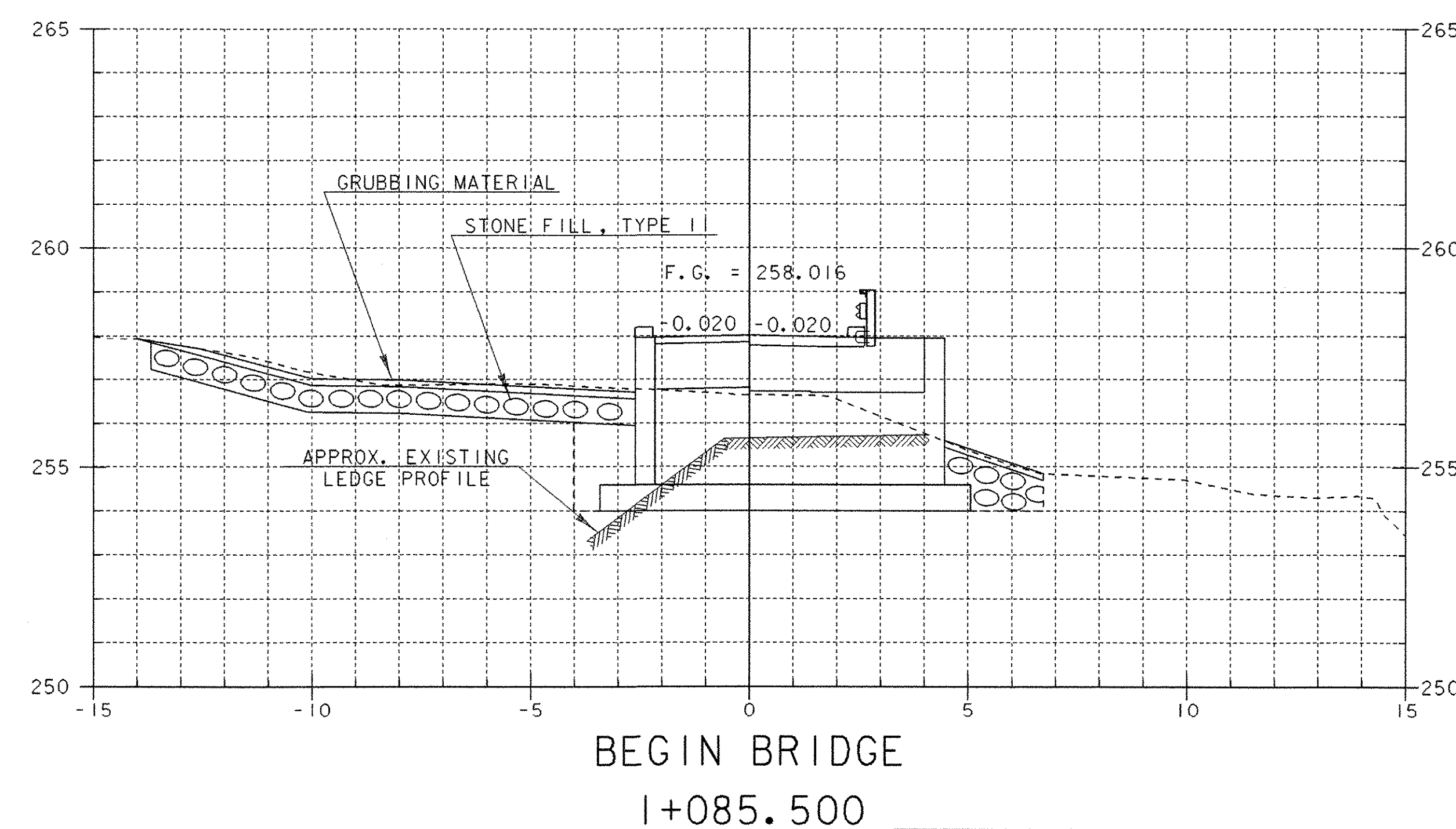
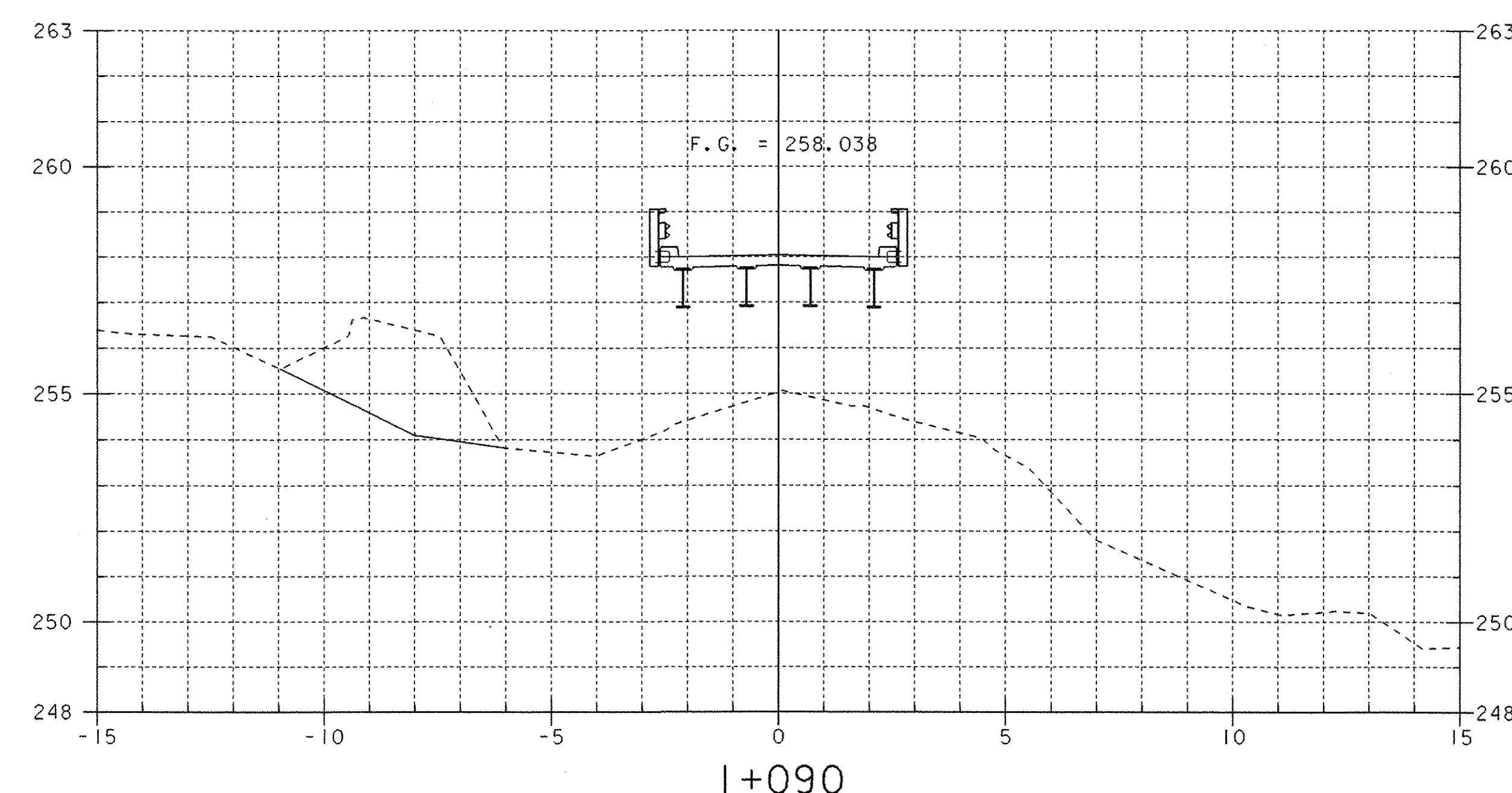
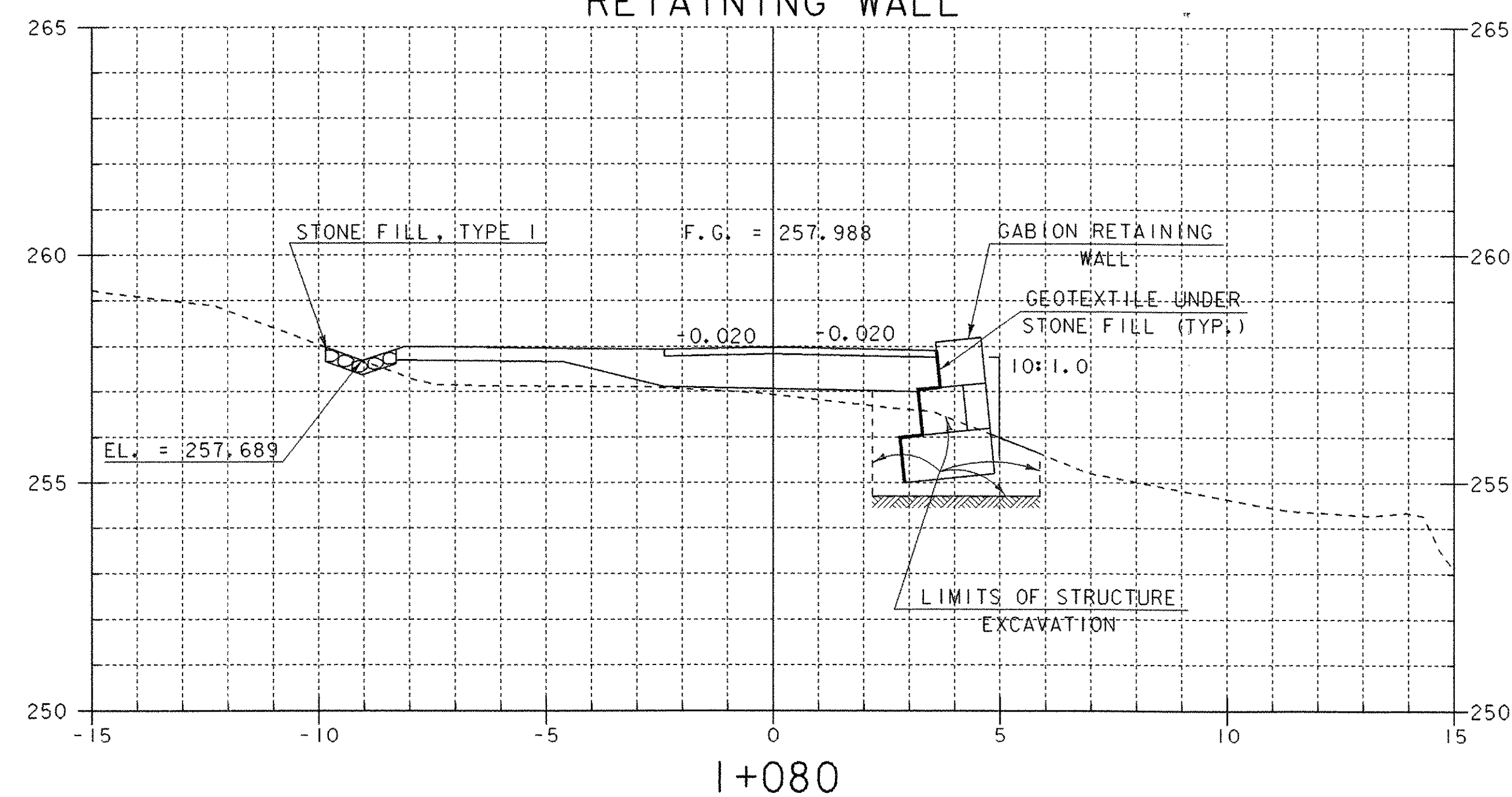
SHEET NAME: MAINLINE CROSS SECTIONS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx2.1
BRIDGE SHEET NUMBER:	SHEET 38 OF 50



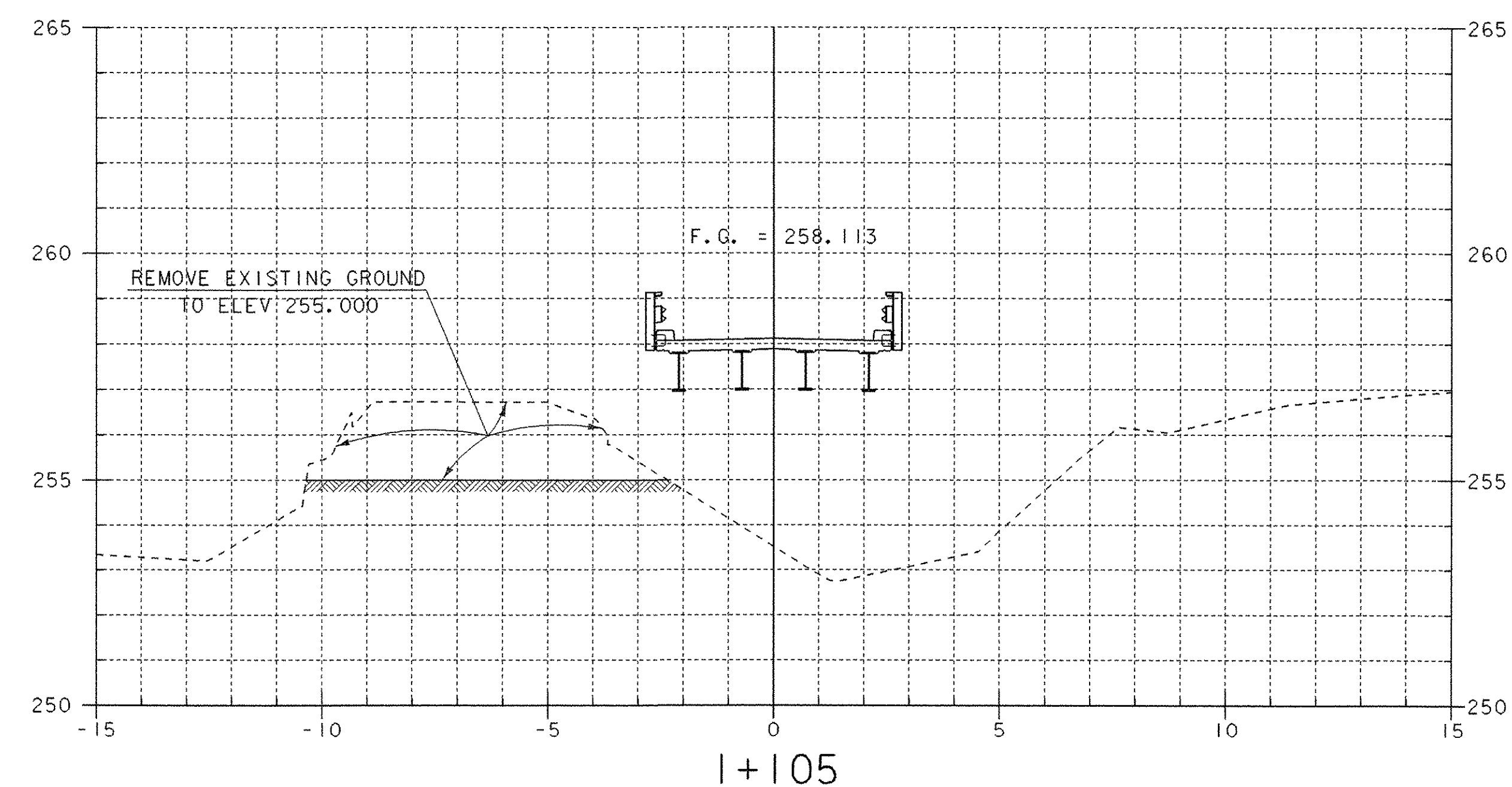
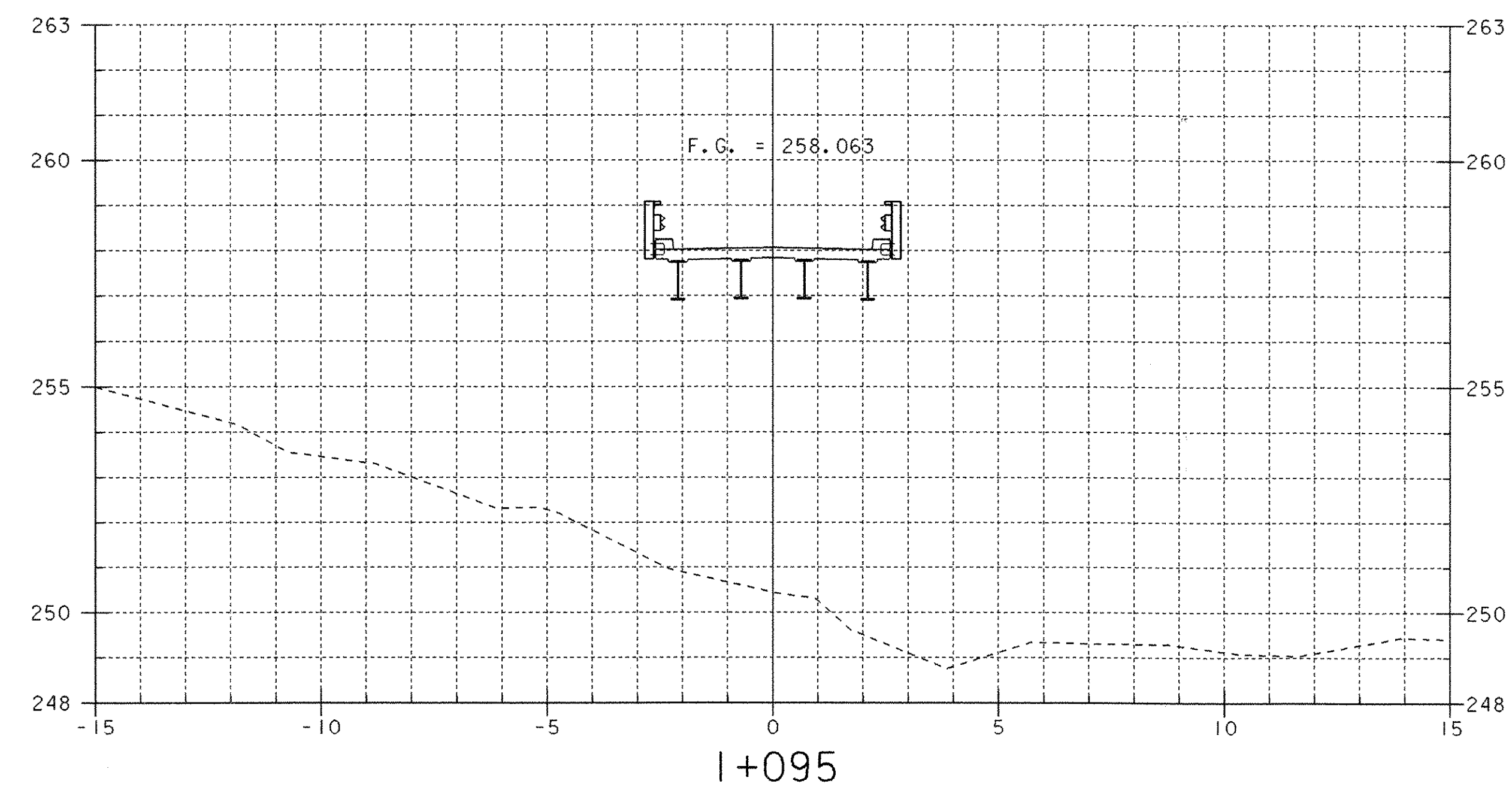
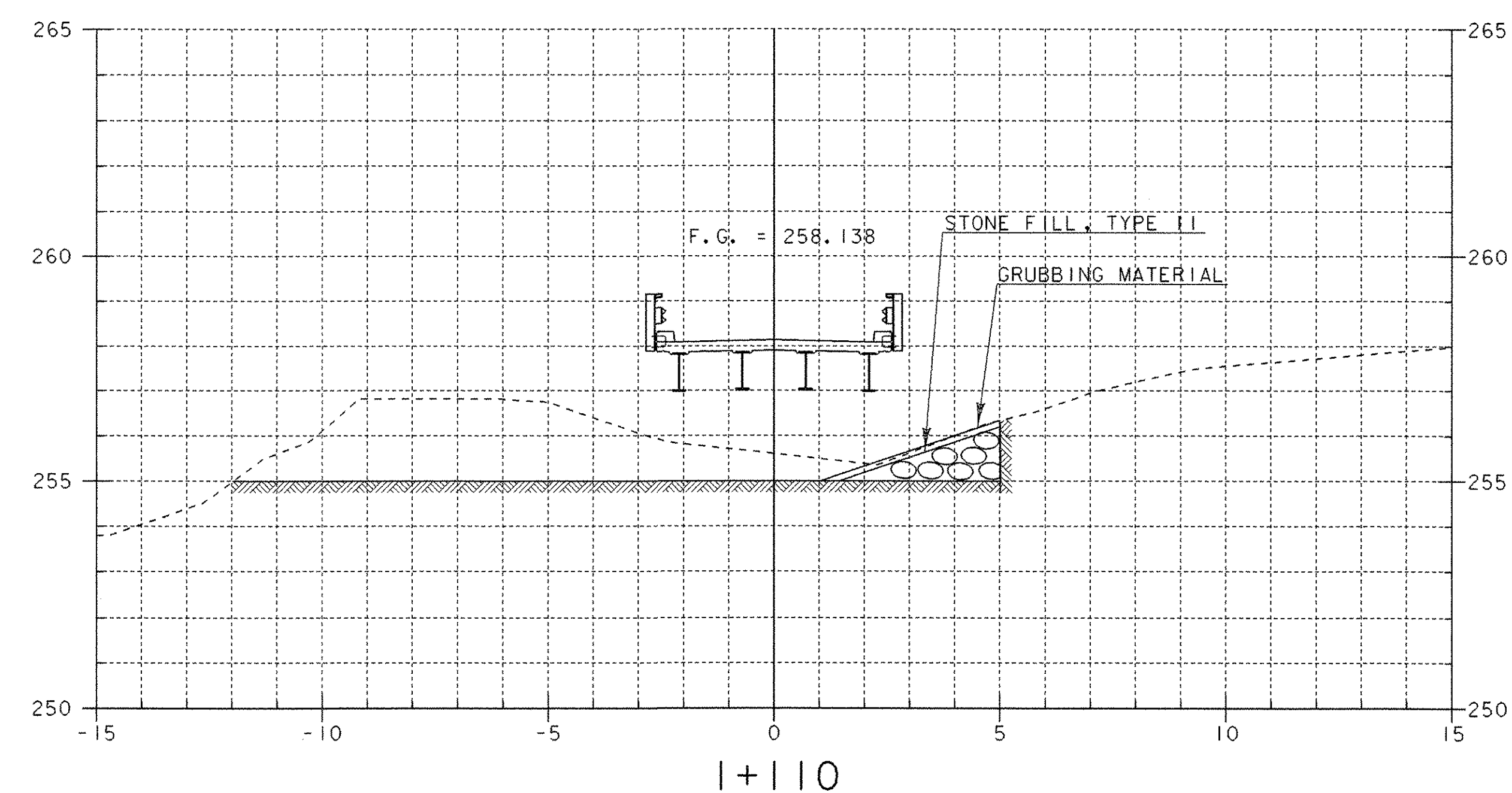
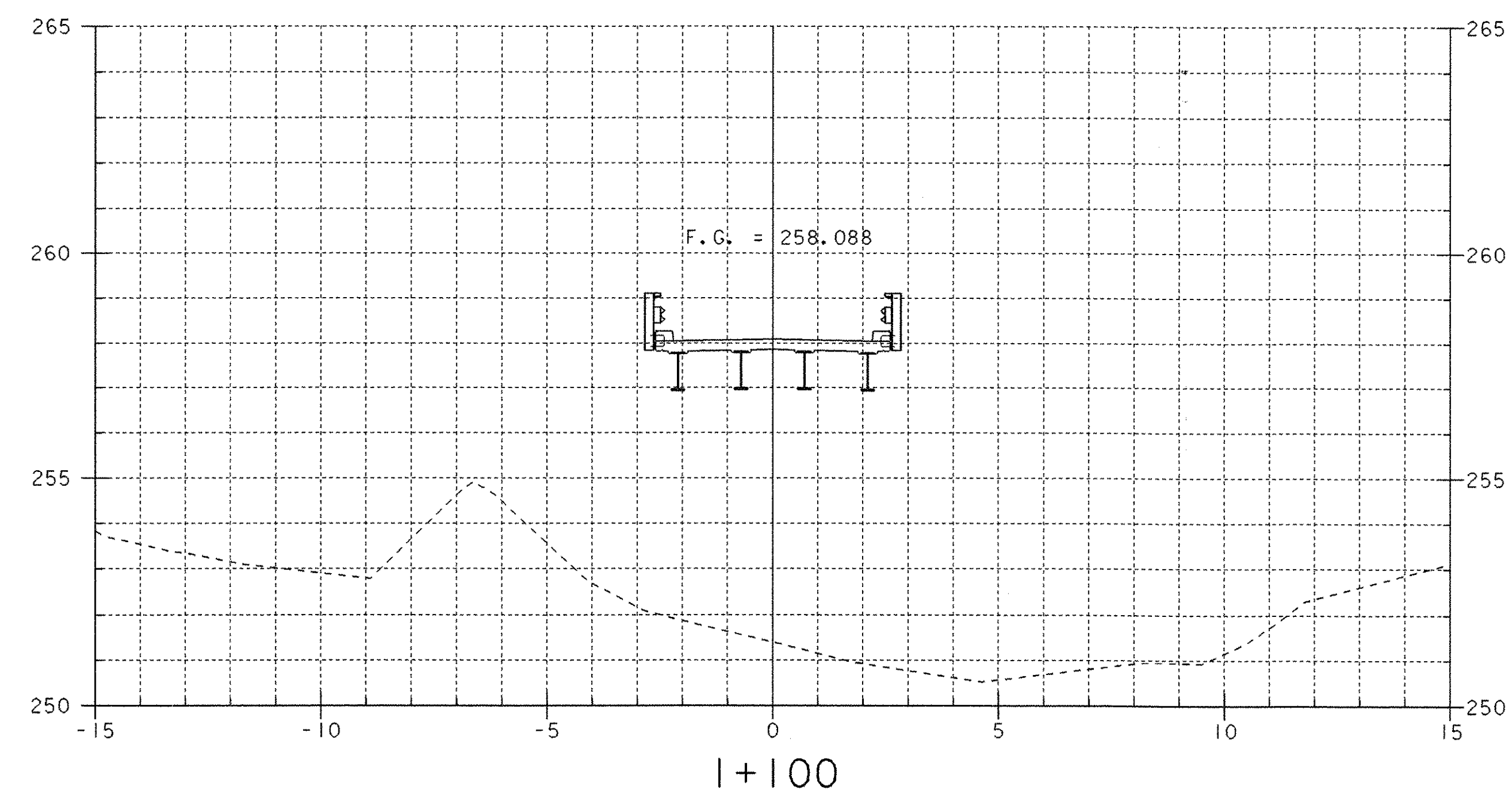
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PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx3.1	
BRIDGE SHEET NUMBER:	SHEET 39 OF 50	



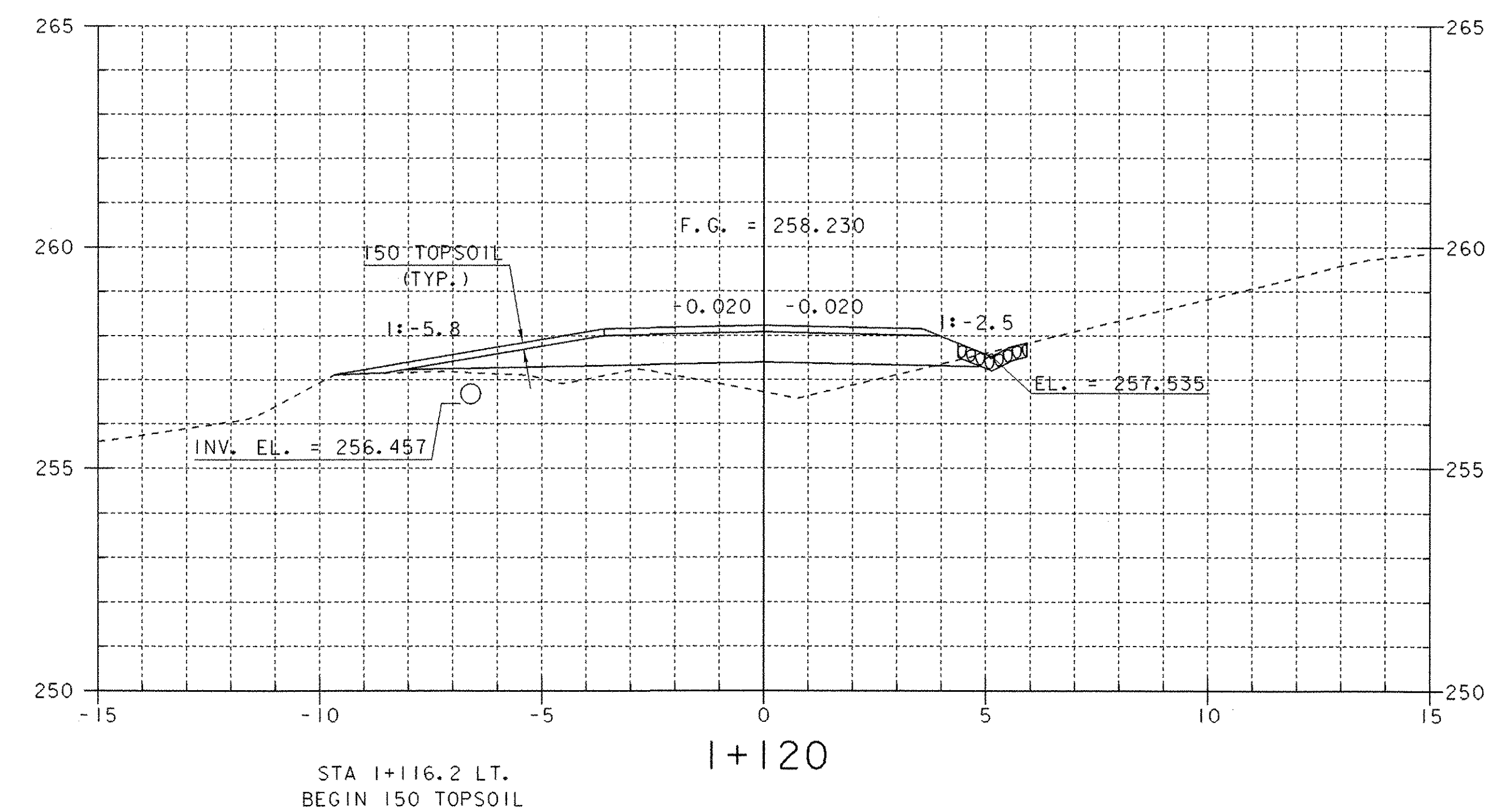
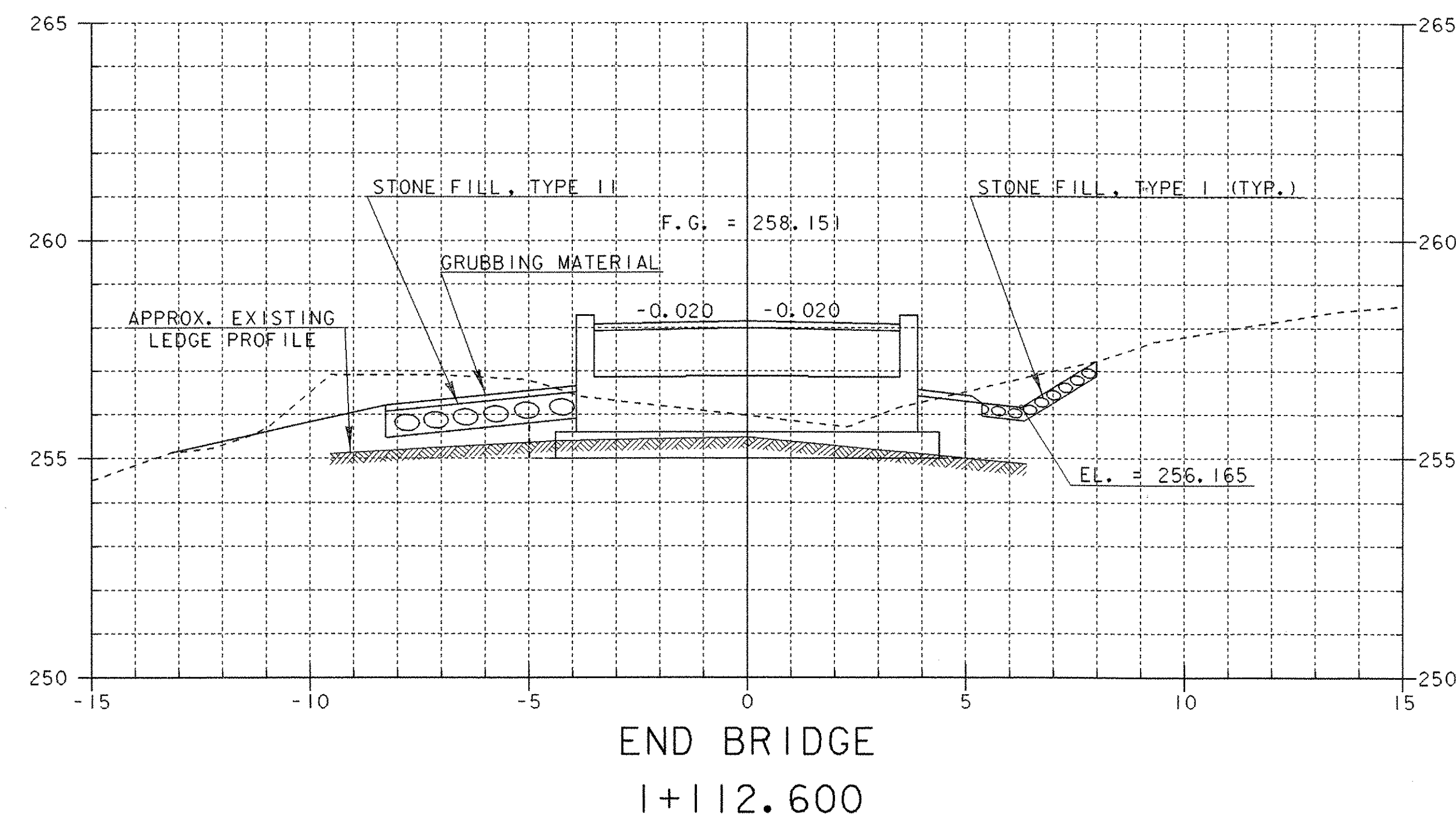
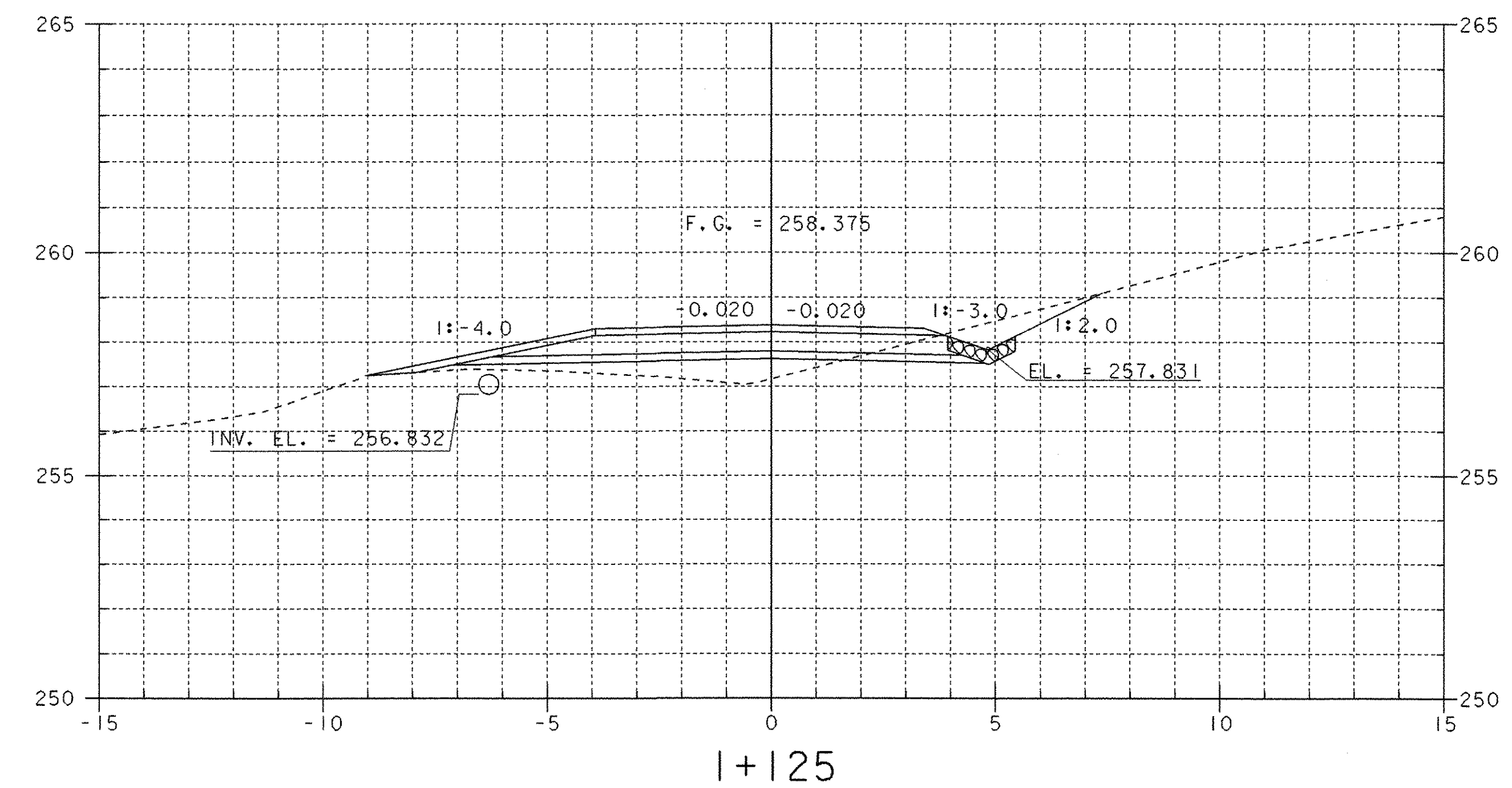
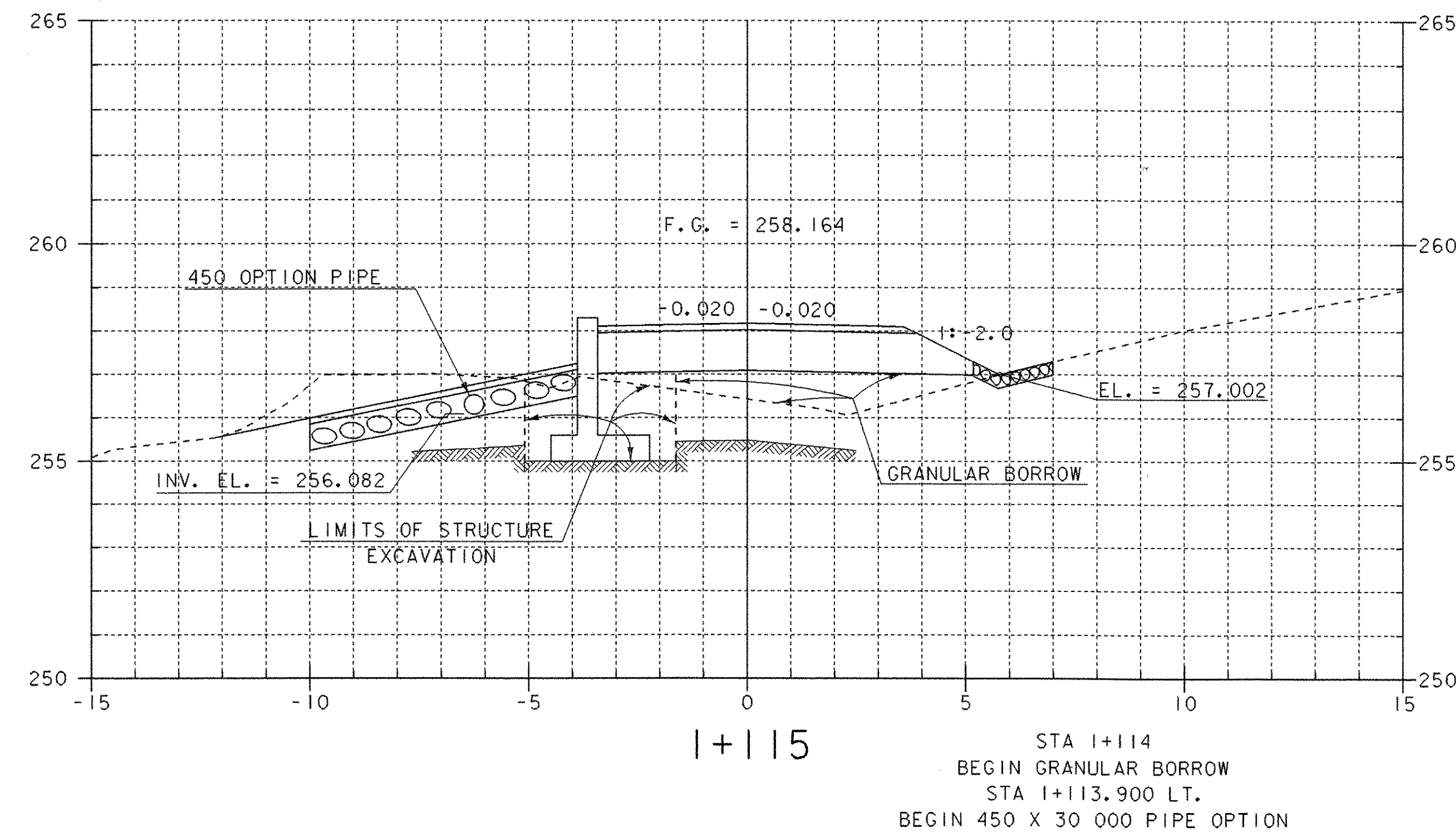
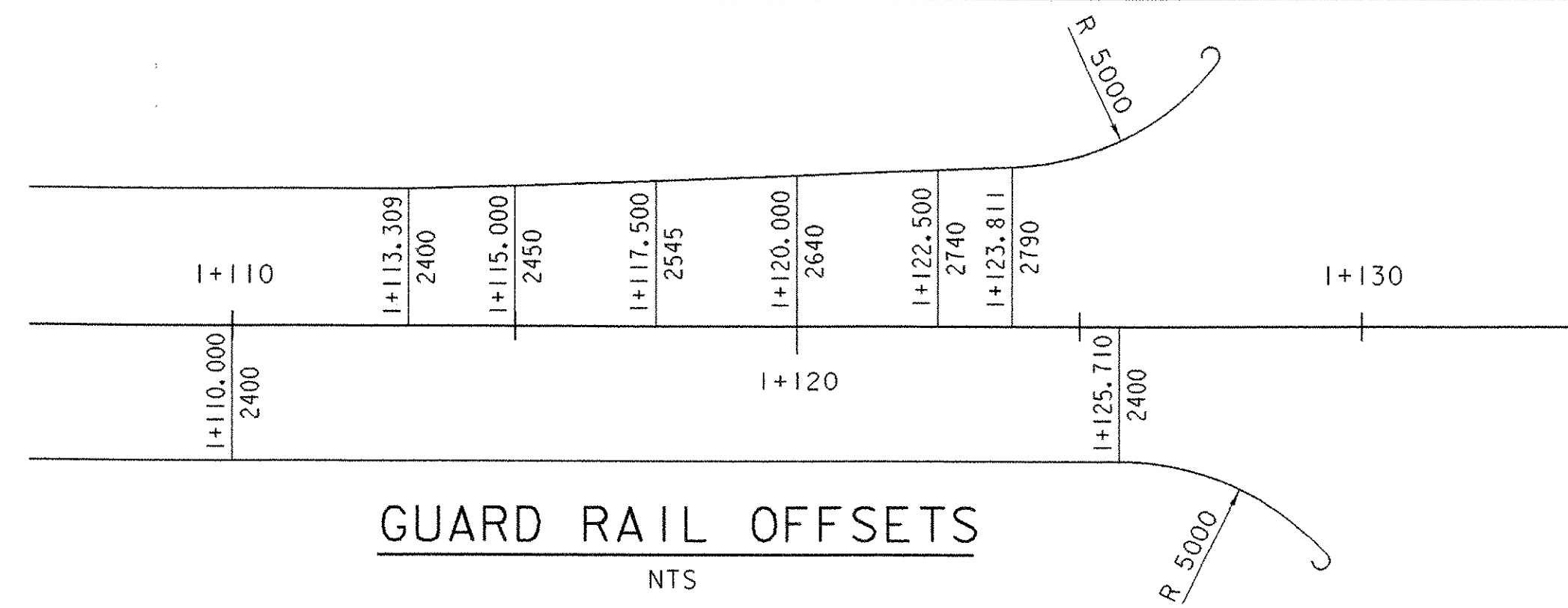
STA 1+080.800
END GABION
RETAINING WALL



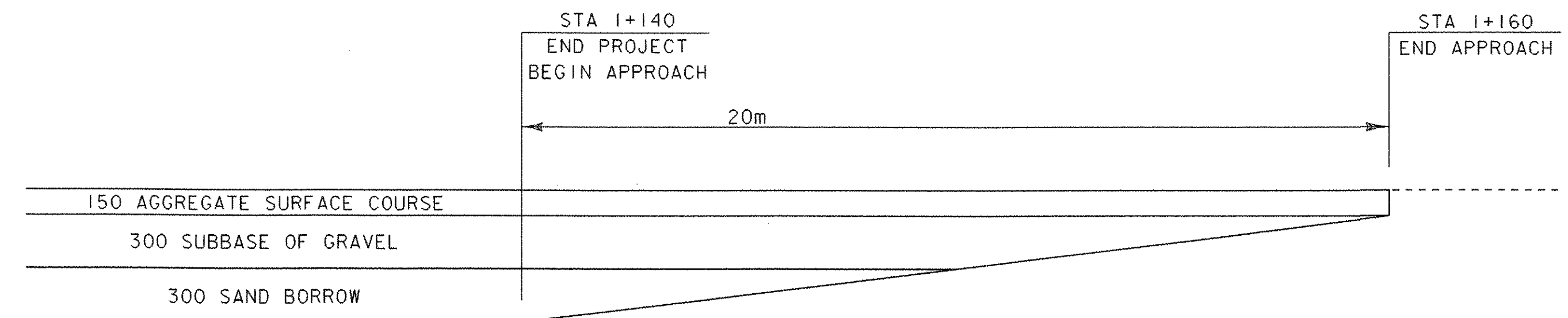
SHEET NAME: MAINLINE CROSS SECTIONS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94J124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx4.i
BRIDGE SHEET NUMBER:	SHEET 40 OF 50



SHEET NAME: MAINLINE CROSS SECTIONS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx5.1	
BRIDGE SHEET NUMBER:	SHEET 41 OF 50	

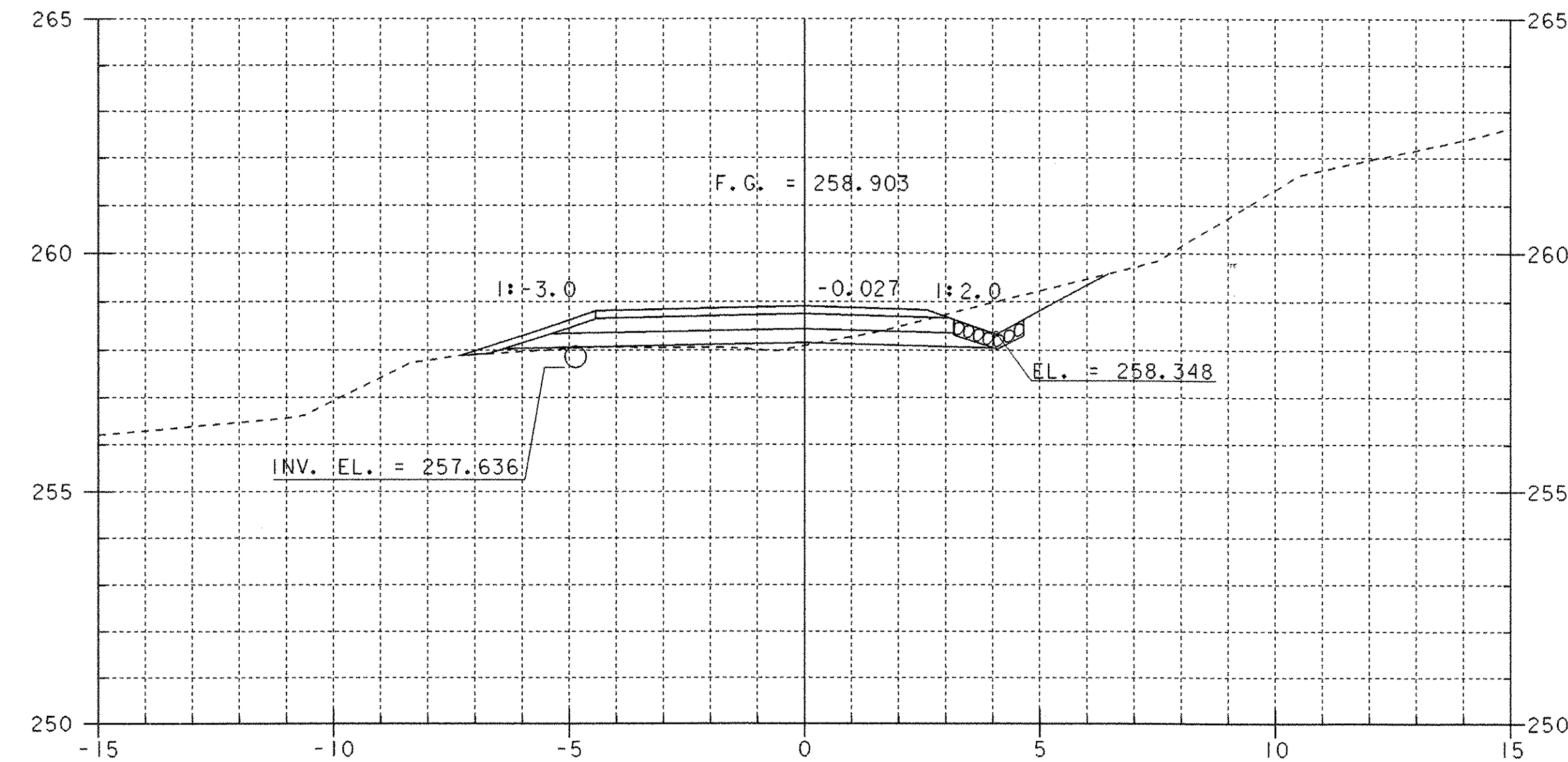


SHEET NAME: MAINLINE CROSS SECTIONS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx6.1	
BRIDGE SHEET NUMBER:	SHEET 42 OF 50	

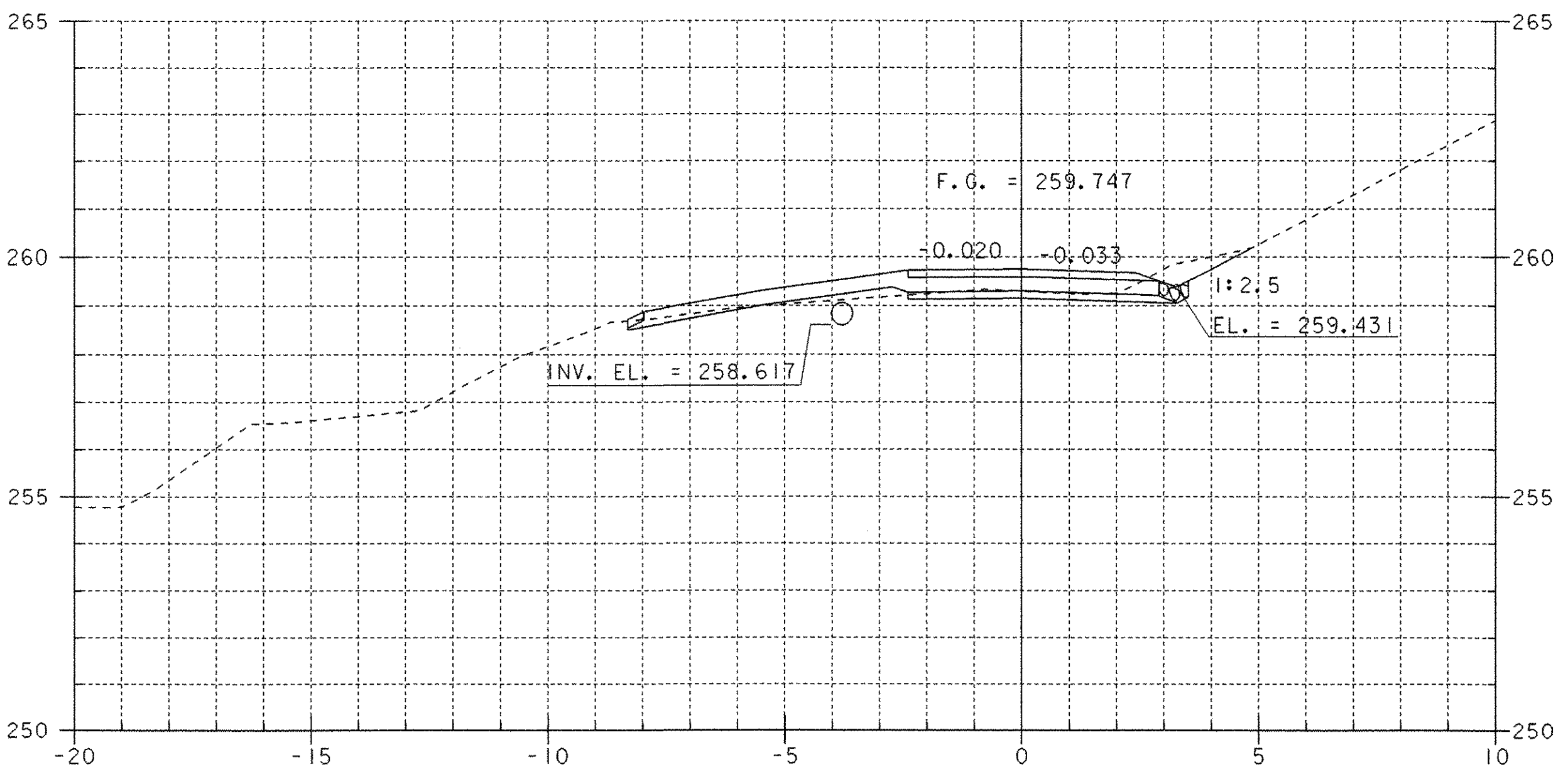


TRANSITION DIAGRAM

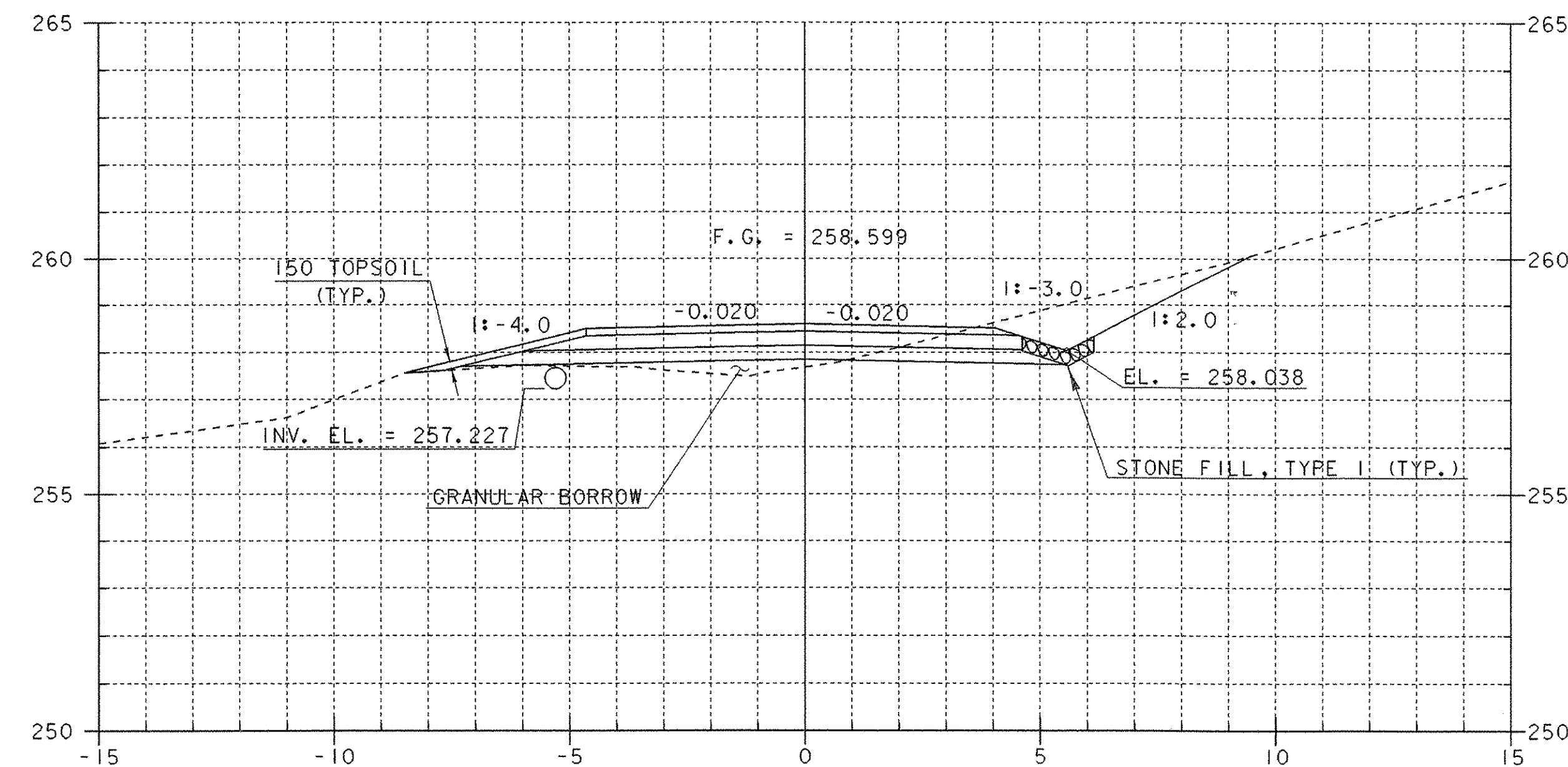
NTS



1+135

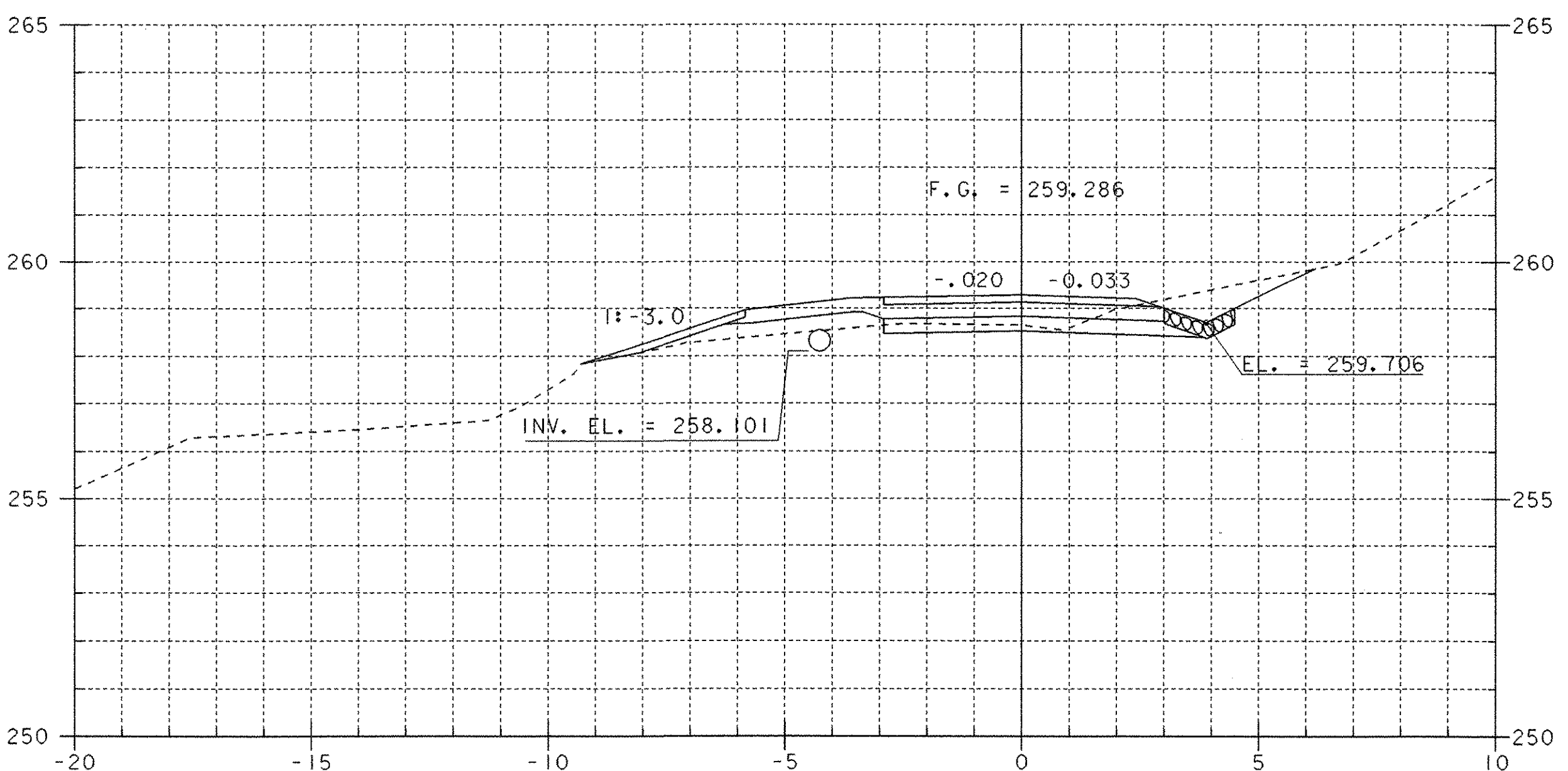


1+145



1+130

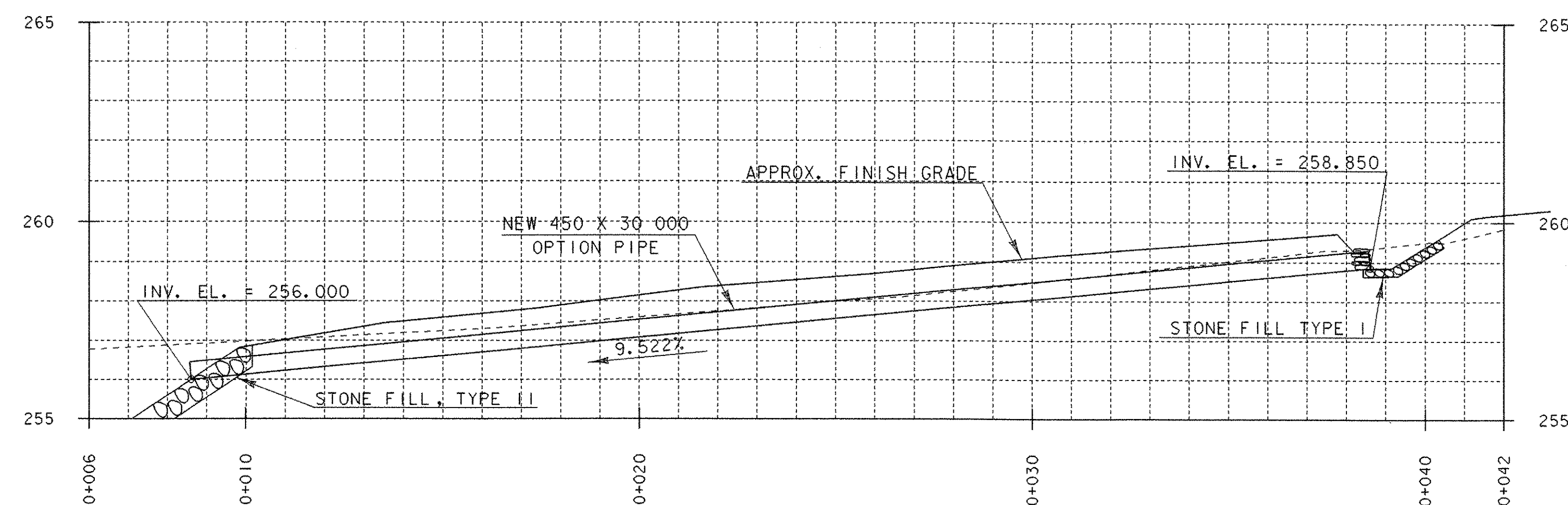
STA 1+130
END GRANULAR BORROW



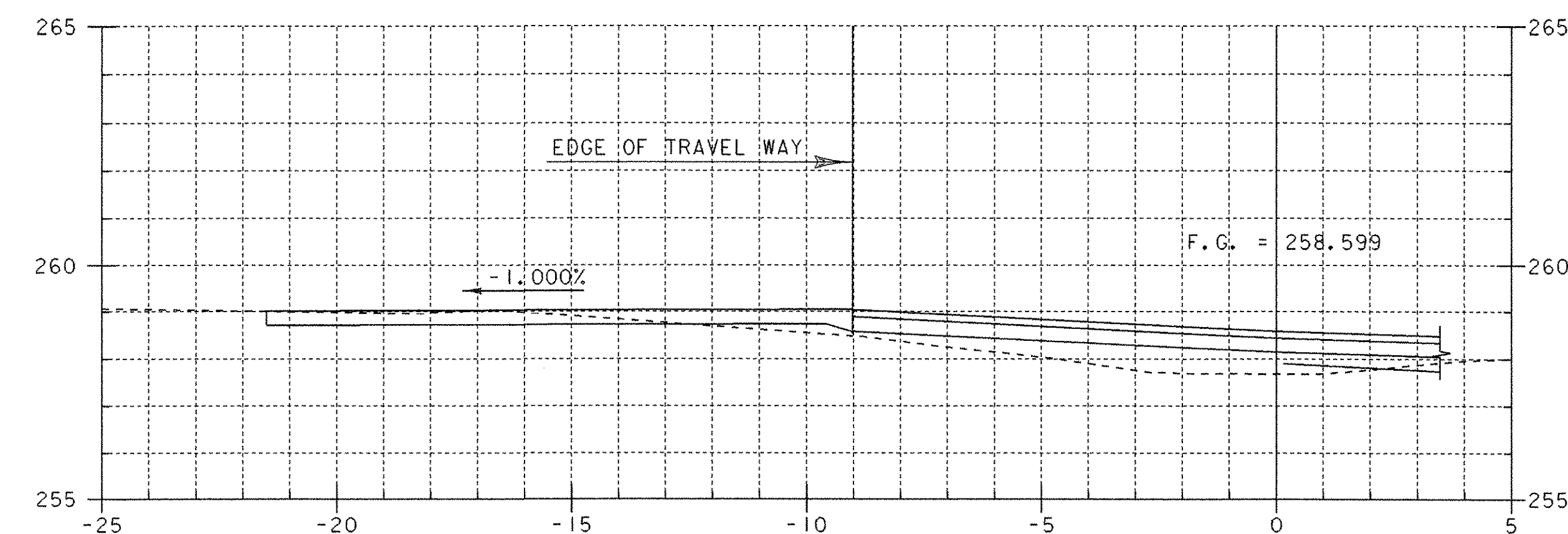
END PROJECT
BEGIN APPROACH

1+140

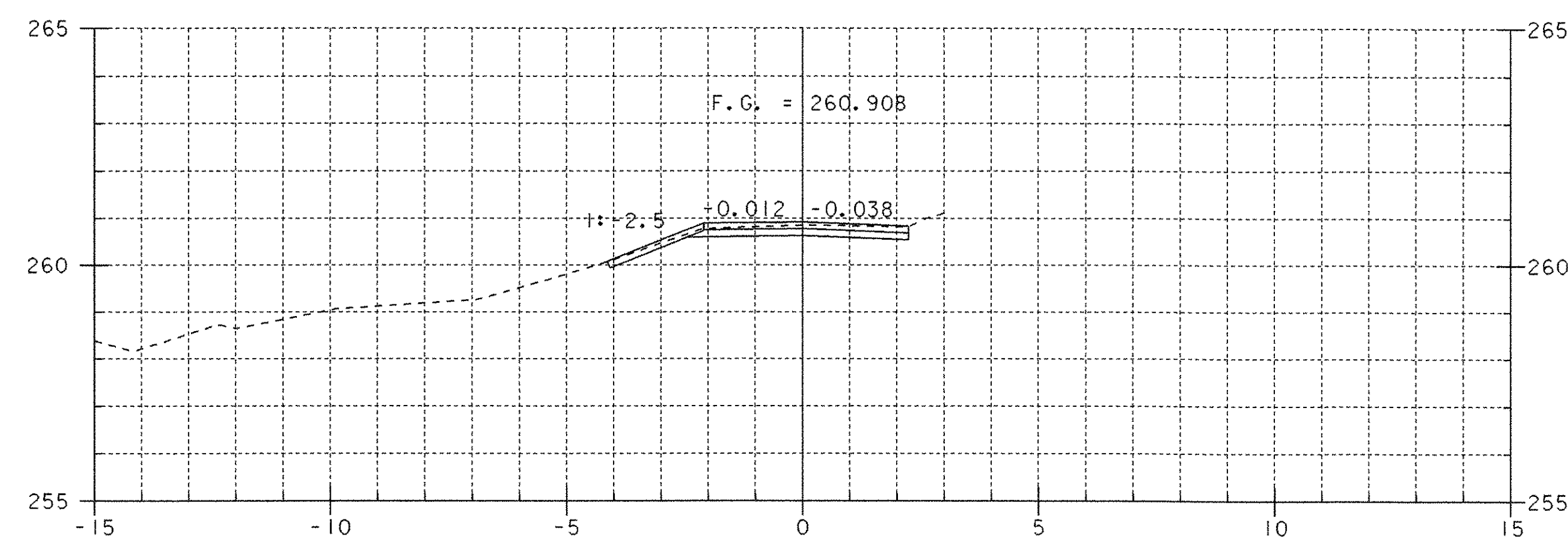
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PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx7.1	
BRIDGE SHEET NUMBER:	SHEET 43 OF 50	



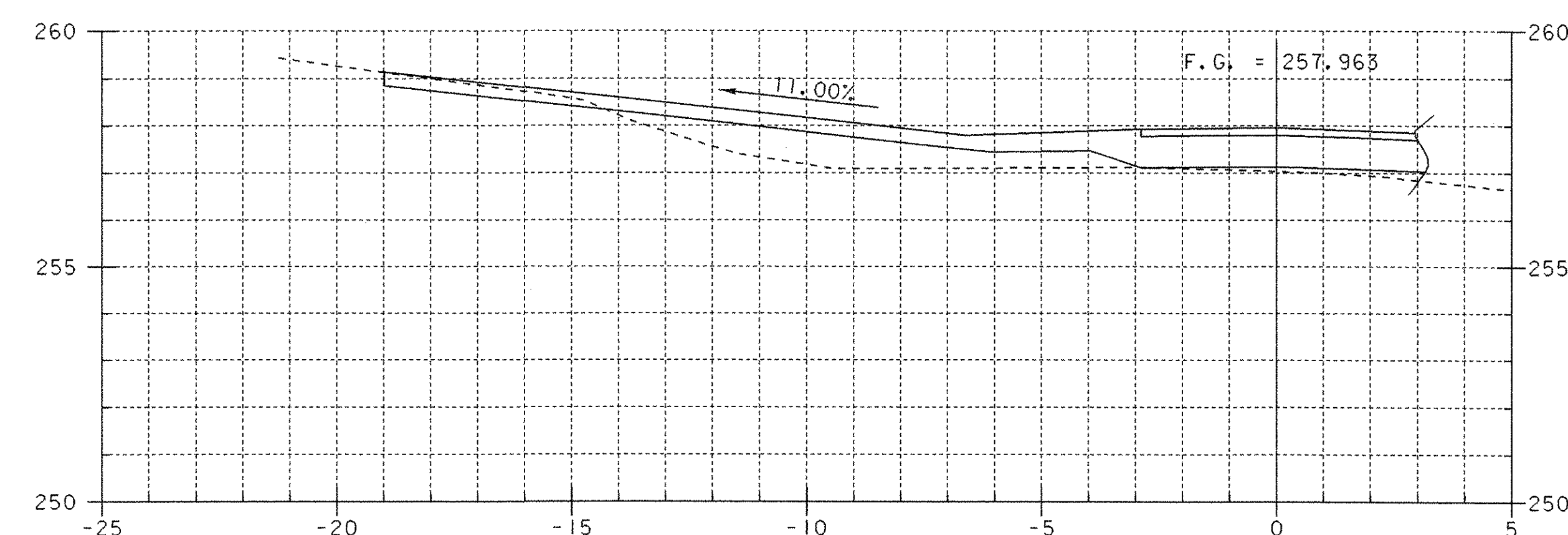
450 OPTION PIPE PROFILE
STATIONS 1+113.900 - 1+147.500 LT



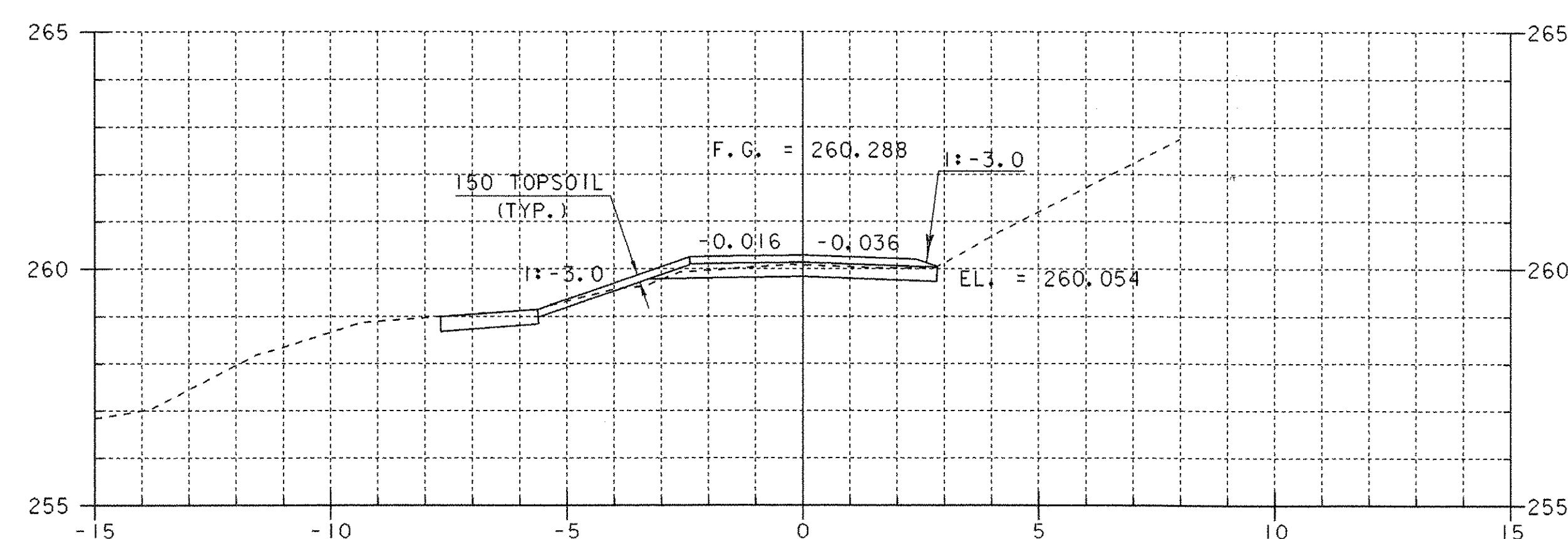
DRIVE AT STA 1+142 LT
SKEW = 138 DEGREES LT



1+155

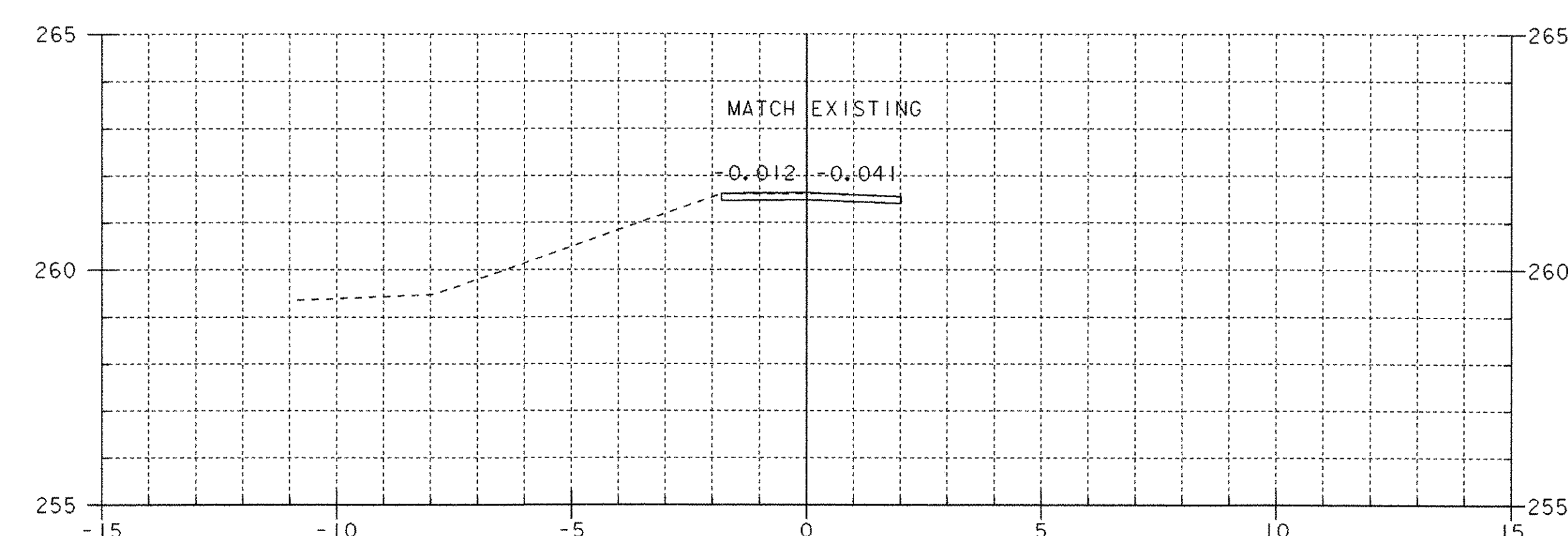


DRIVE AT STA 1+078 LT
SKEW = 40 DEGREES



1+150

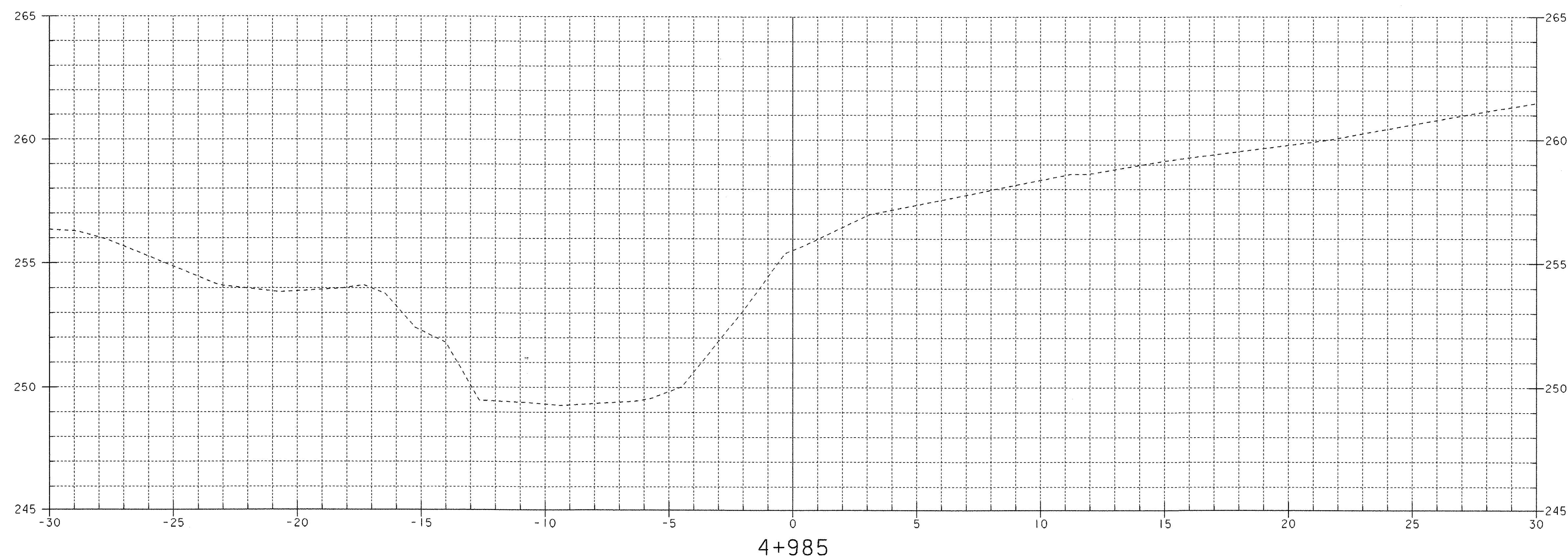
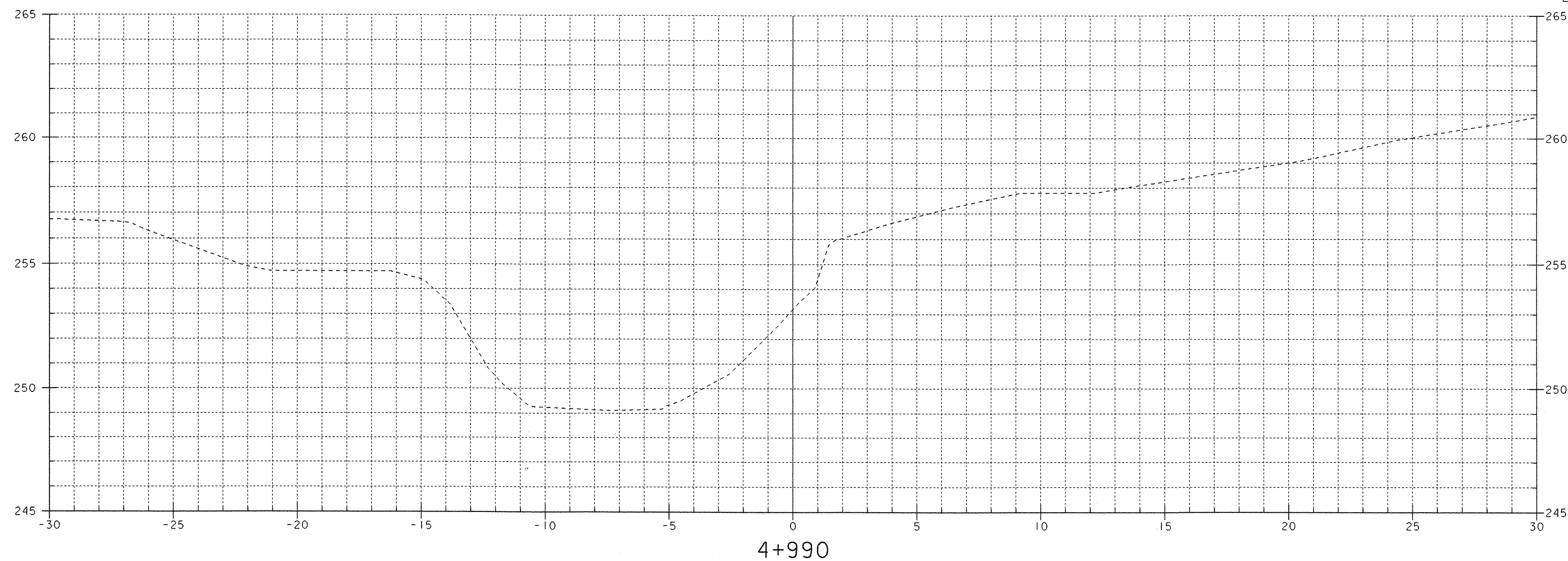
STA 1+147.500 LT.
END 450 X 30 000 PIPE OPTION



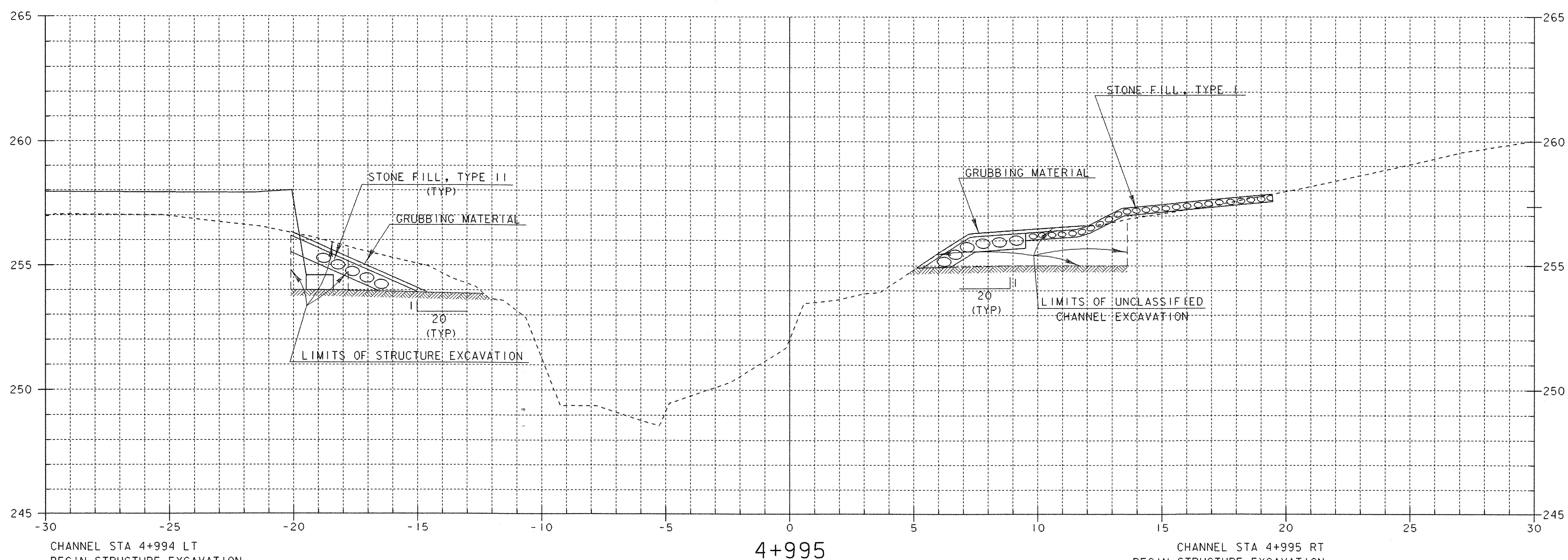
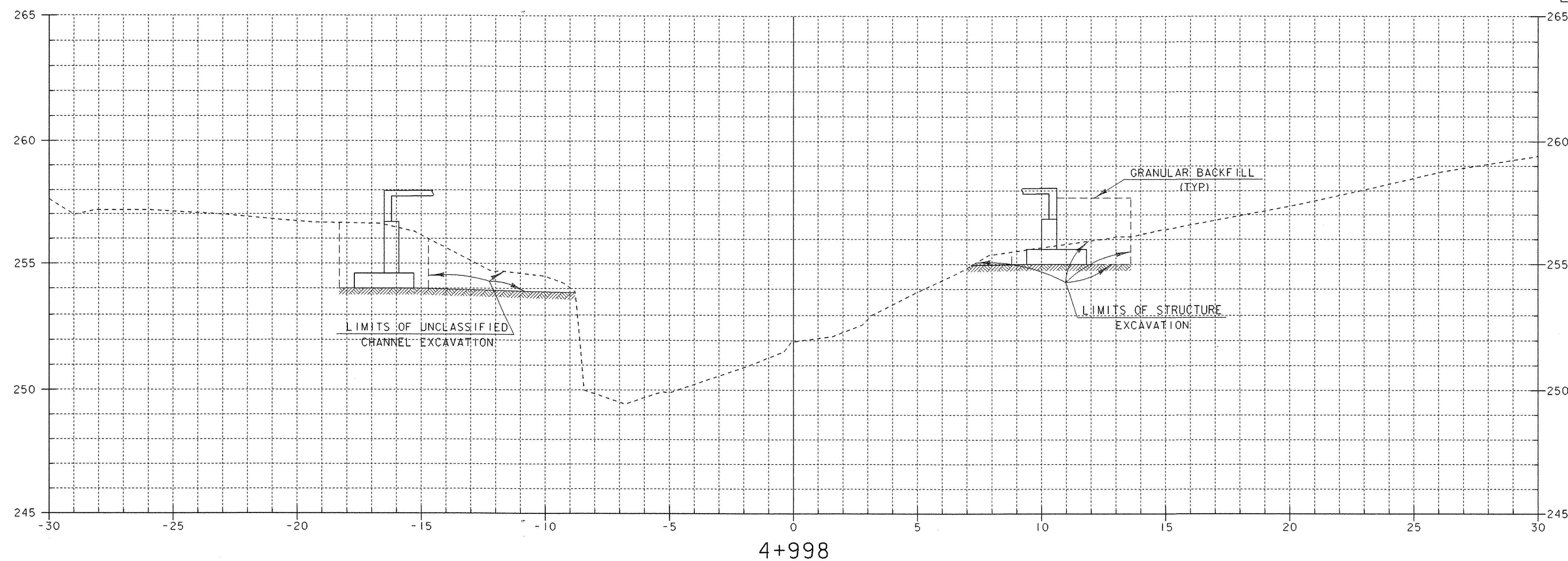
STA 1+160.0 LT.
END 150 TOPSOIL

END APPROACH
1+160

SHEET NAME: MAINLINE CROSS SECTIONS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: /PW/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sj124mx8.1
BRIDGE SHEET NUMBER:	SHEET 44 OF 50



SHEET NAME: CHANNEL CROSS SECTIONS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: P:\94\124\sj124xsl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sj124c3.1
BRIDGE SHEET NUMBER:	SHEET 45 OF 50



CHANNEL STA 4+994 LT
BEGIN STRUCTURE EXCAVATION
BEGIN GRANULAR BACKFILL FOR STRUCTURES

CHANNEL STA 4+993 LT
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL, TYPE II
BEGIN GRUBBING MATERIAL

CHANNEL STA 4+995 RT
BEGIN STRUCTURE EXCAVATION
BEGIN GRANULAR BACKFILL FOR STRUCTURES

CHANNEL STA 4+992.5 RT
BEGIN UNCLASSIFIED CHANNEL EXCAVATION
BEGIN STONE FILL, TYPE II
BEGIN GRUBBING MATERIAL

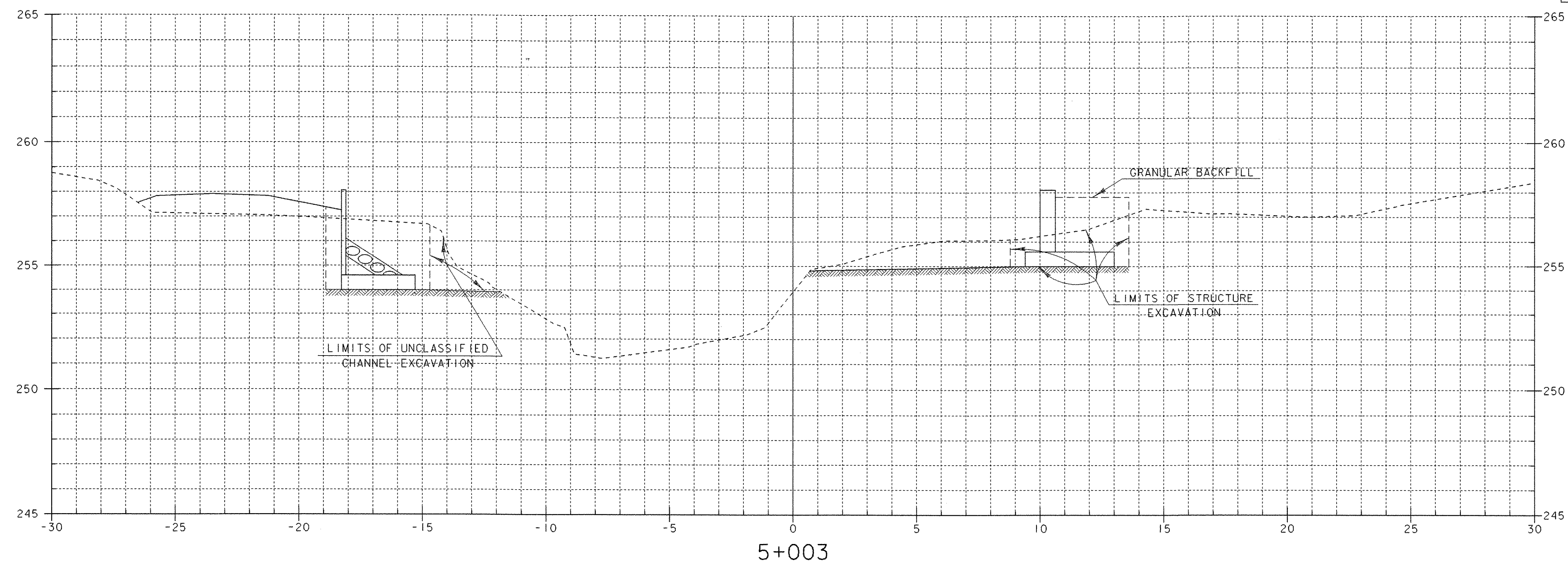
SHEET NAME: **CHANNEL CROSS SECTIONS**

PROJECT NAME: **MONTGOMERY**
PROJECT NUMBER: **BRO 1448(20)**

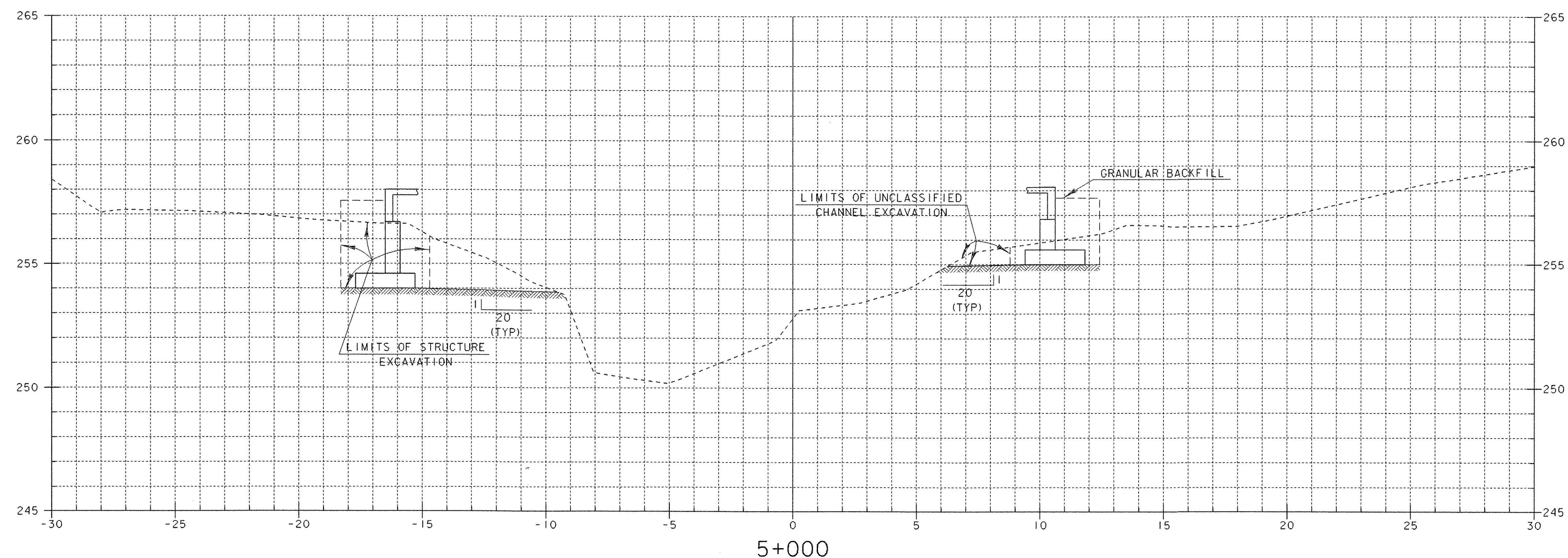
HIGHWAY NO.: **TH 35**
BRIDGE NO.: **24**
OVER: **PACIFIC BROOK**

FILE NAME: **94j124/sj124xsl.dgn**
PROJECT MANAGER: **R. WHITCOMB**
DESIGNED BY: **C. CARLSON**
BRIDGE SHEET NUMBER:

PLOT DATE: **06-DEC-2005**
DRAWN BY: **J. GILMORE**
IPARM NAME: **sj124cx4.i**
SHEET **46** OF **50**

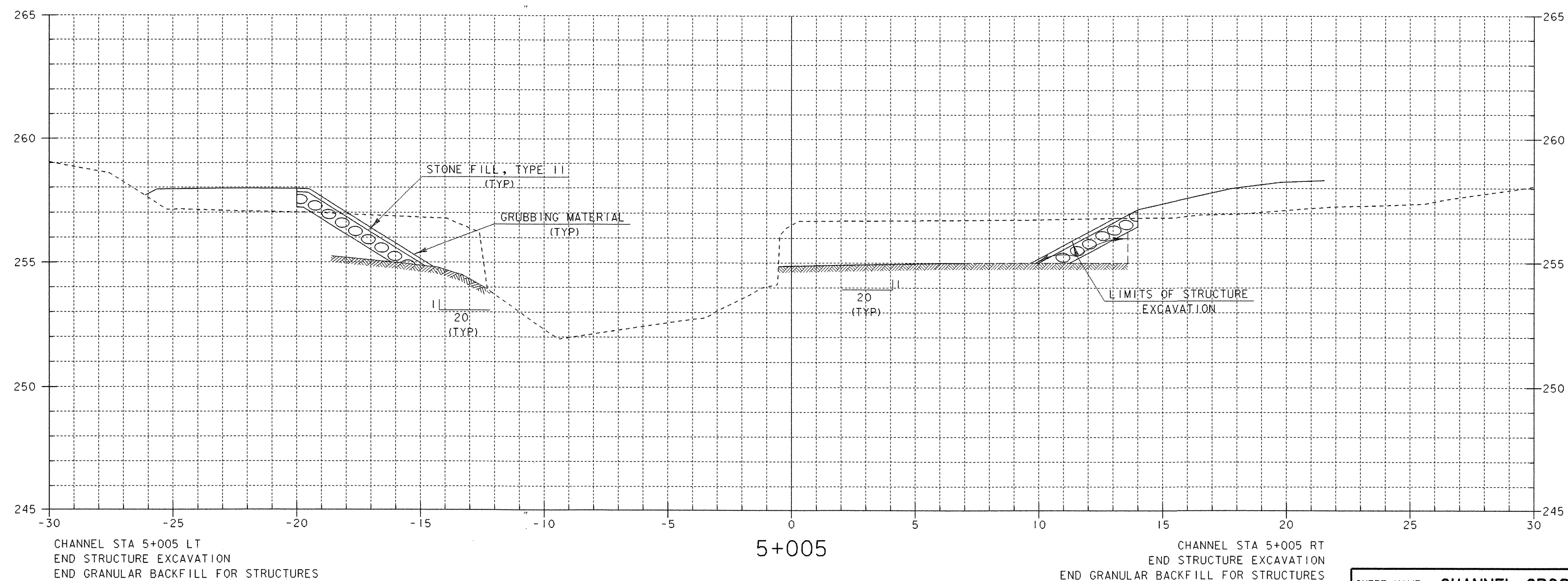
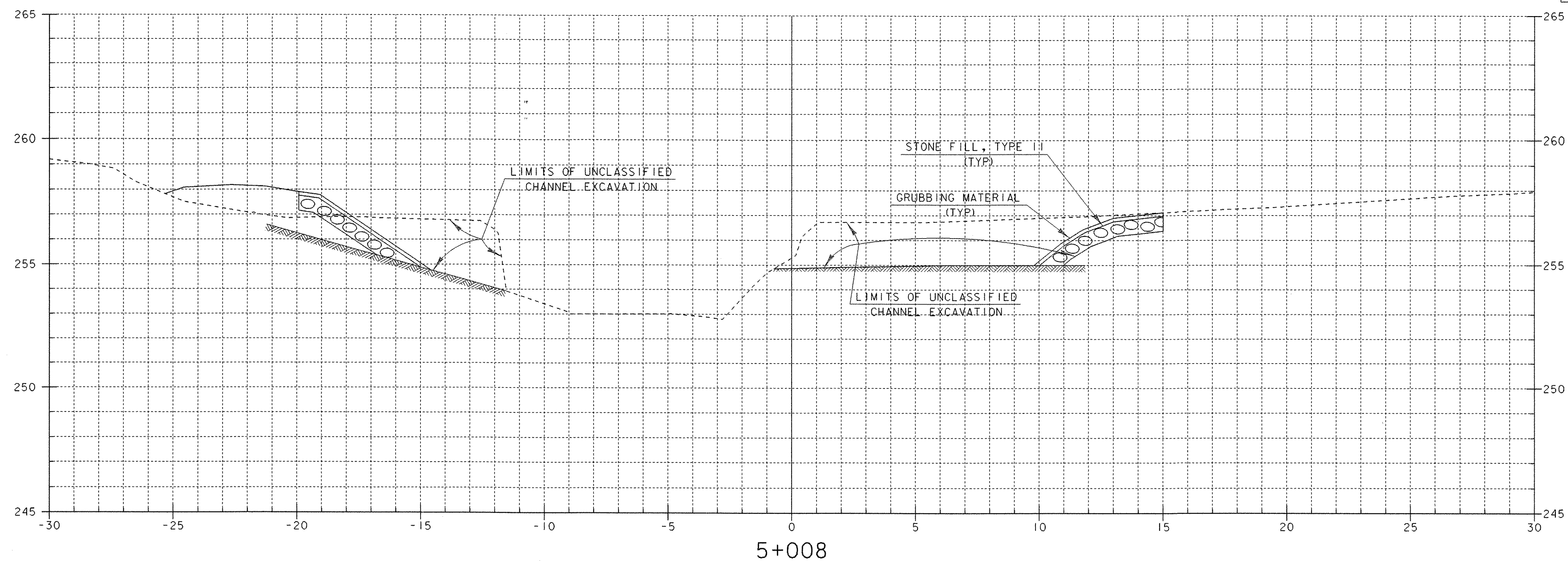


CHANNEL STA 5+002.5 LT + RT
BEGIN GRUBBING MATERIAL

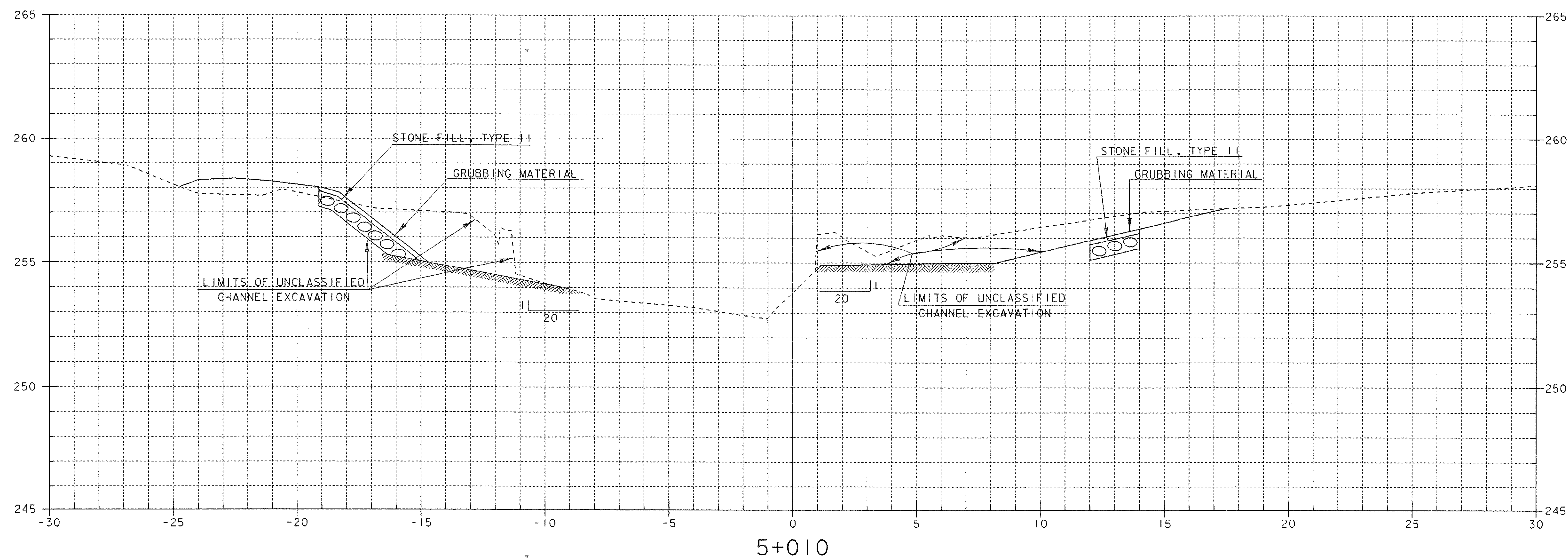
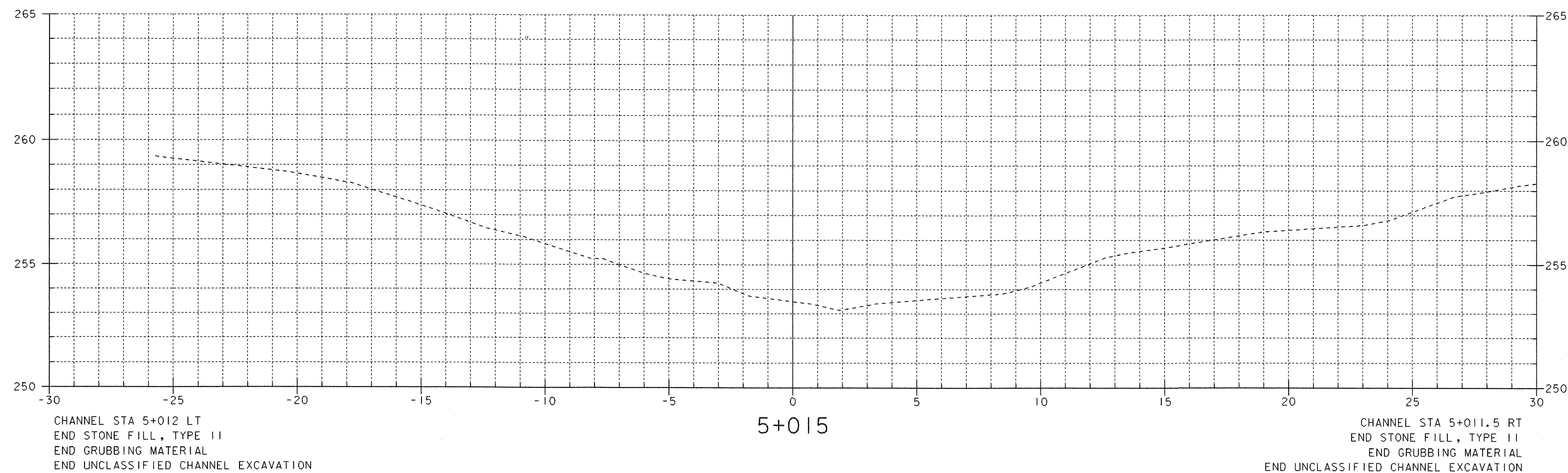


CHANNEL STA 4+997.5 LT + RT
END GRUBBING MATERIAL

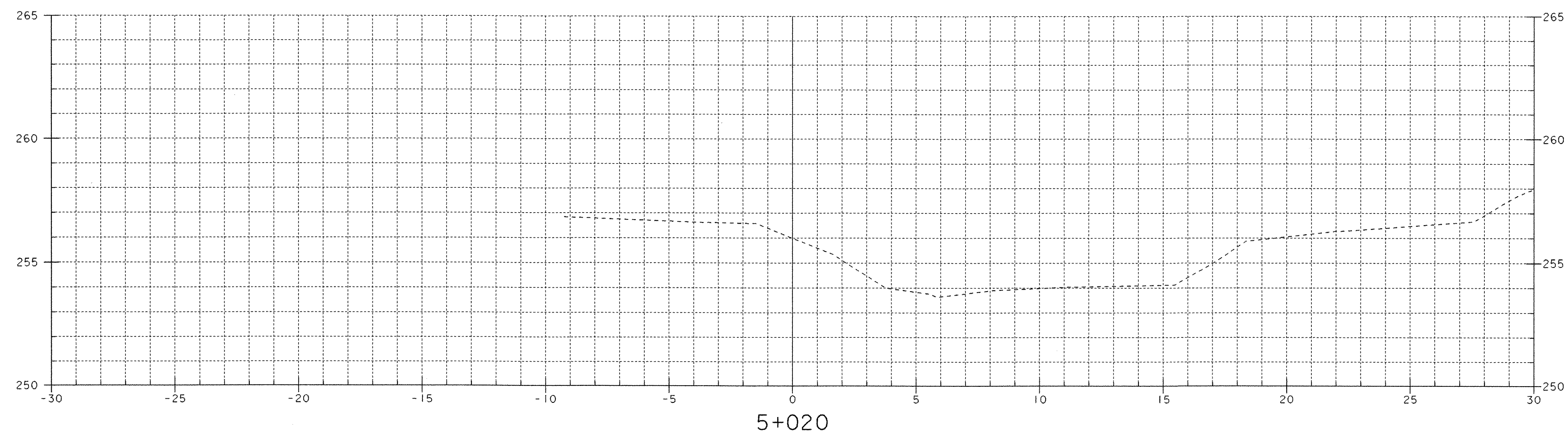
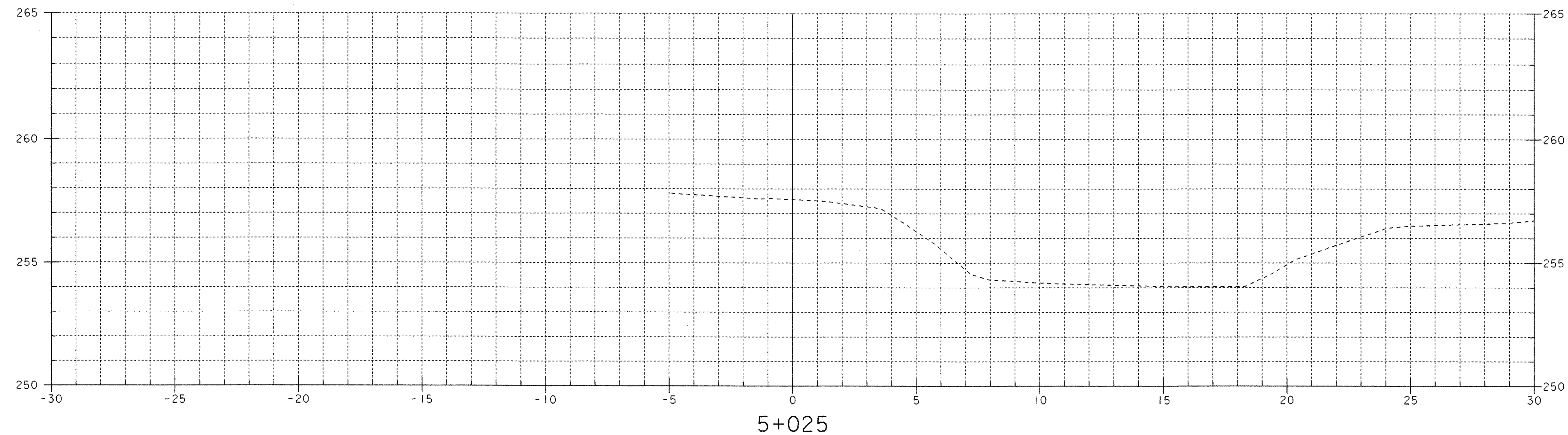
SHEET NAME: CHANNEL CROSS SECTIONS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: W/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124x5.1	
BRIDGE SHEET NUMBER:	SHEET 47 OF 50	



SHEET NAME: CHANNEL CROSS SECTIONS	
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24
	OVER: PACIFIC BROOK
FILE NAME: W/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE
DESIGNED BY: C. CARLSON	IPARM NAME: sj124cx6.1
BRIDGE SHEET NUMBER:	SHEET 48 OF 50



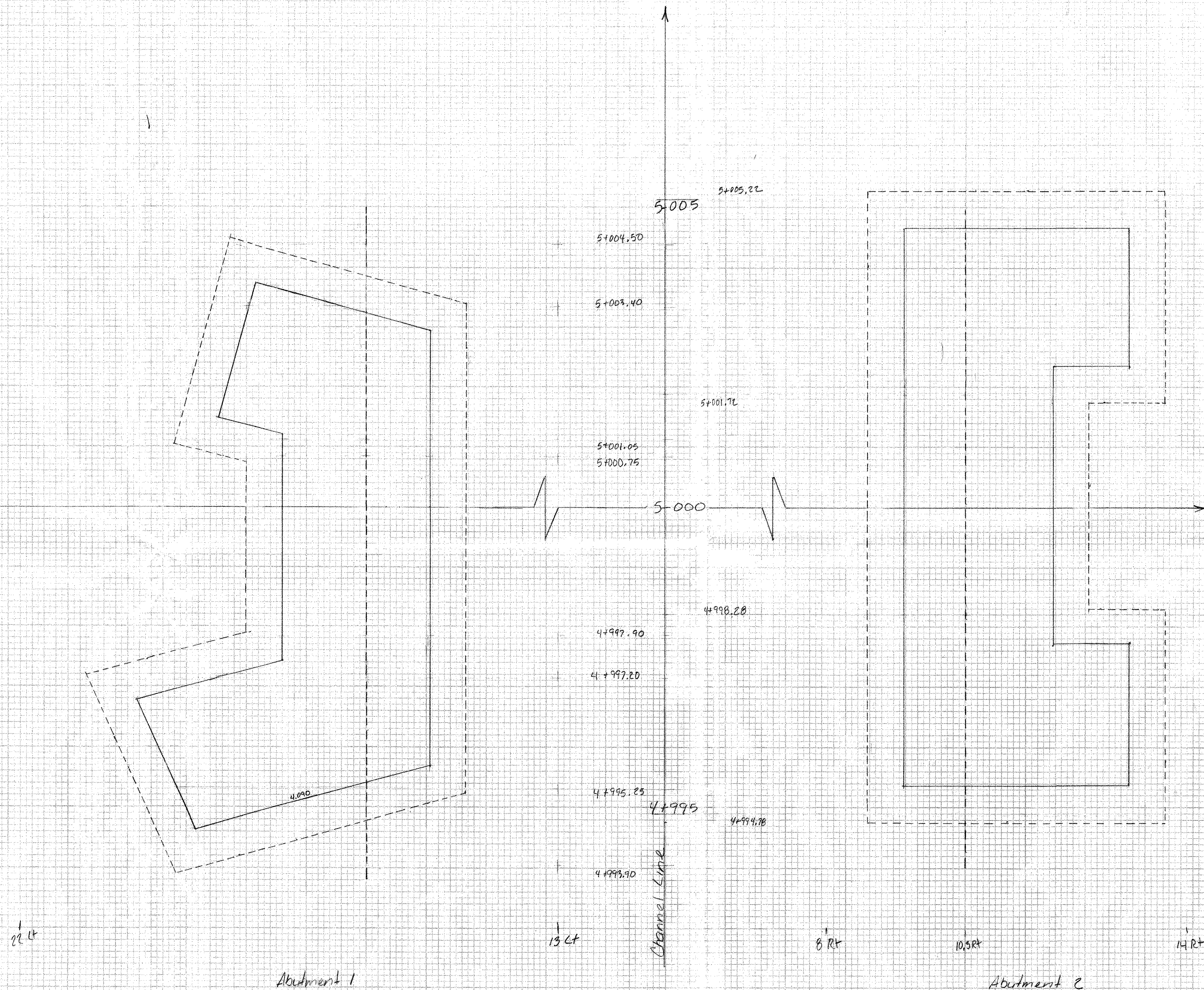
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PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: W/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124c7.i	
BRIDGE SHEET NUMBER:	SHEET 49 OF 50	



SHEET NAME: CHANNEL CROSS SECTIONS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: W/94j124/sj124xsl.dgn	PLOT DATE: 06-DEC-2005	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: J. GILMORE	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124cx8.i	
BRIDGE SHEET NUMBER:	SHEET 50 OF 50	

ORIGINAL SURVEY
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 SCALE: _____
 SHEET NO. _____

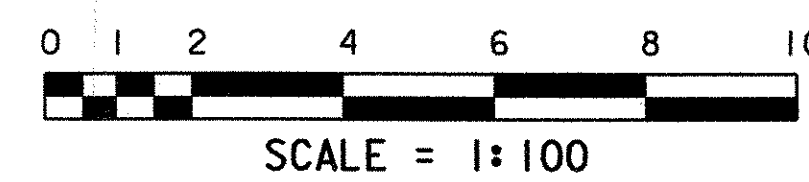
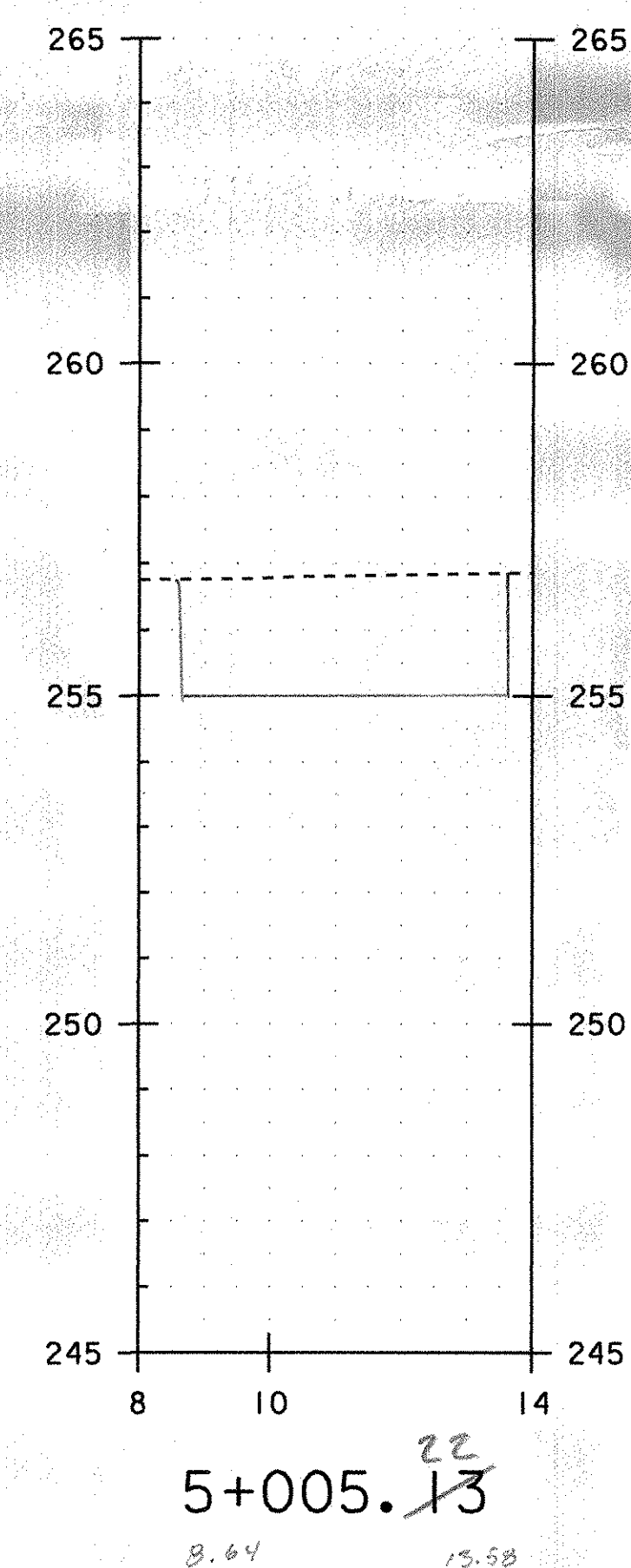
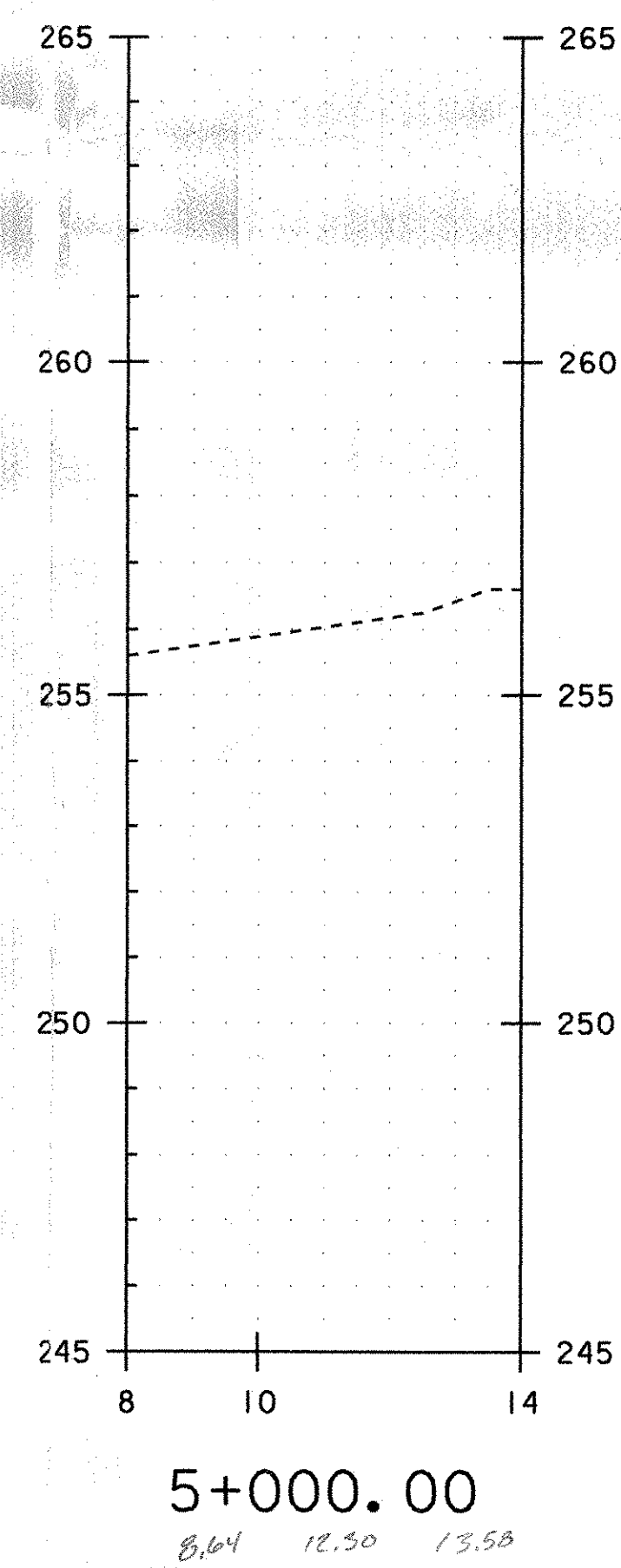
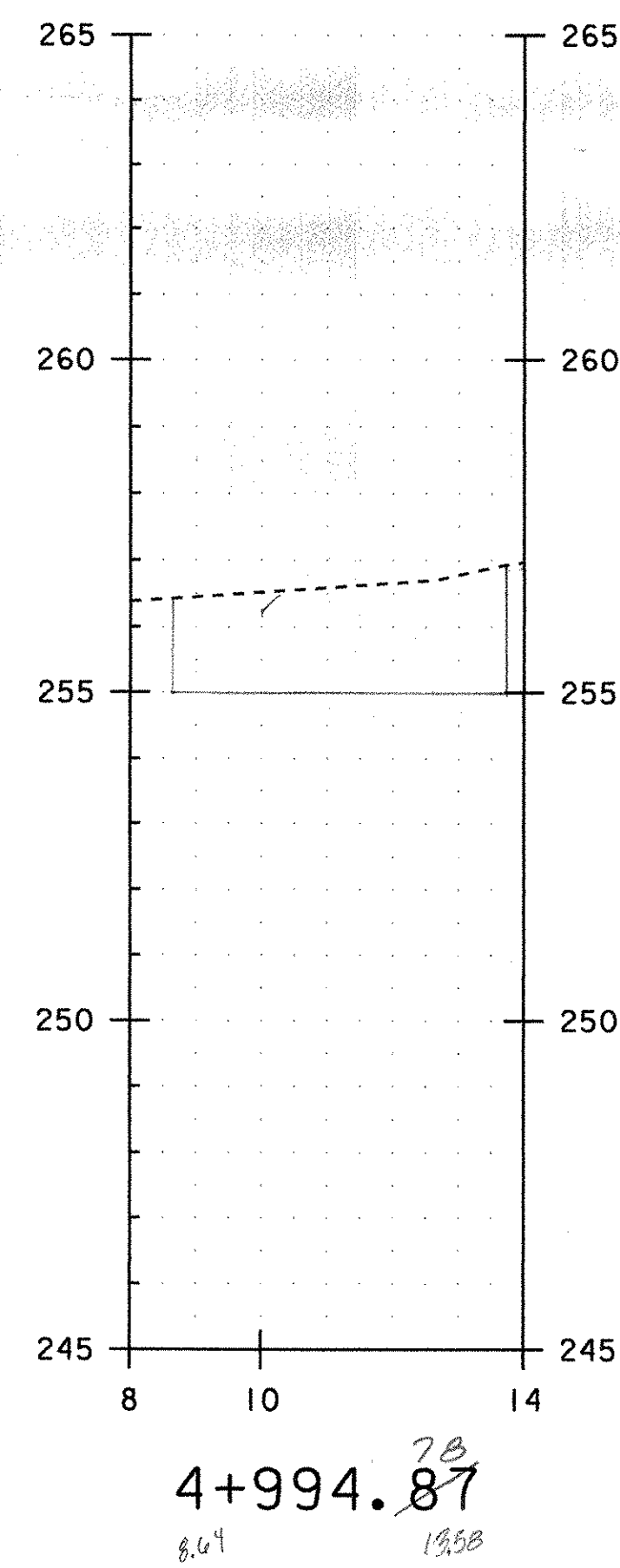
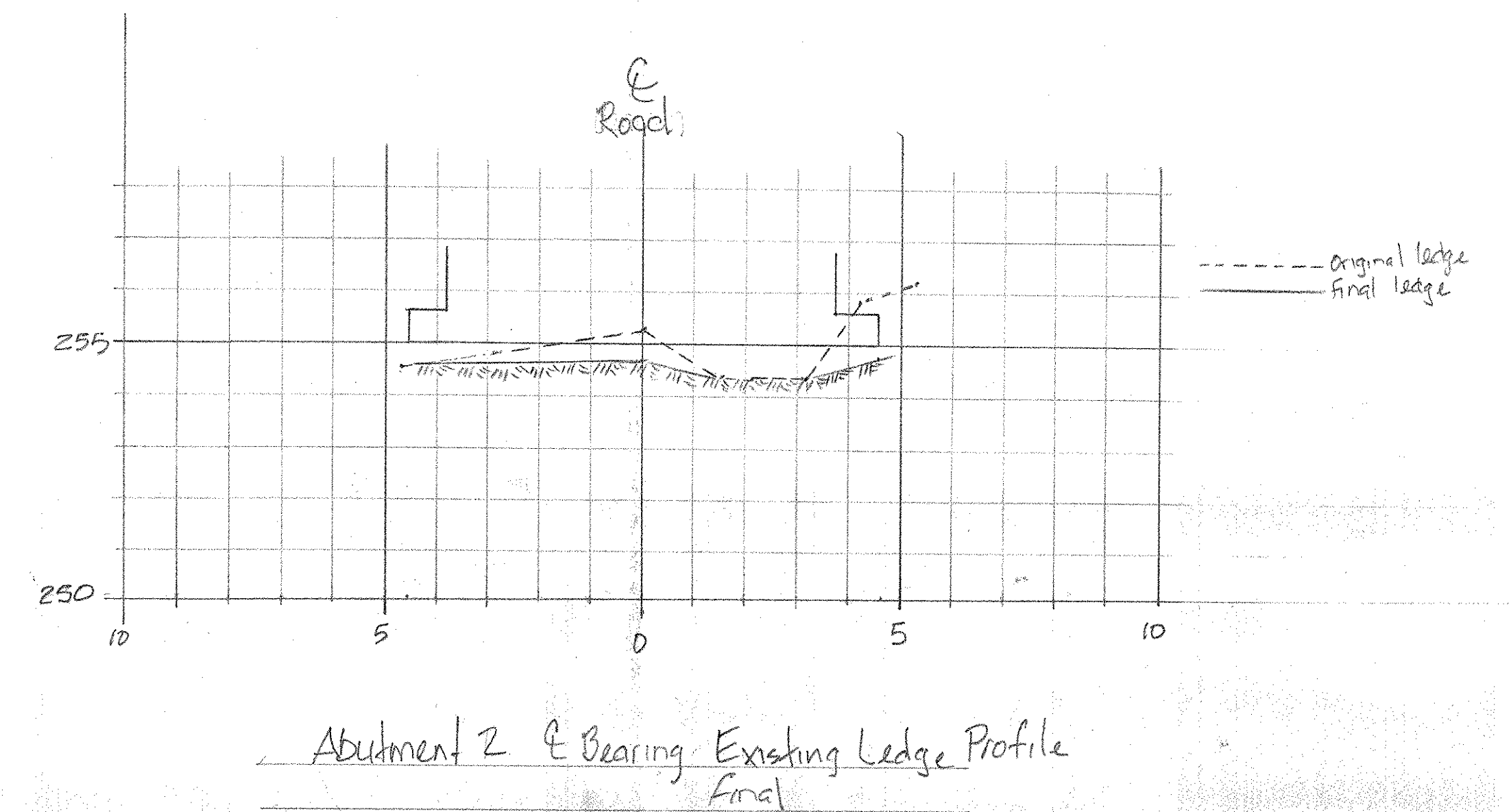
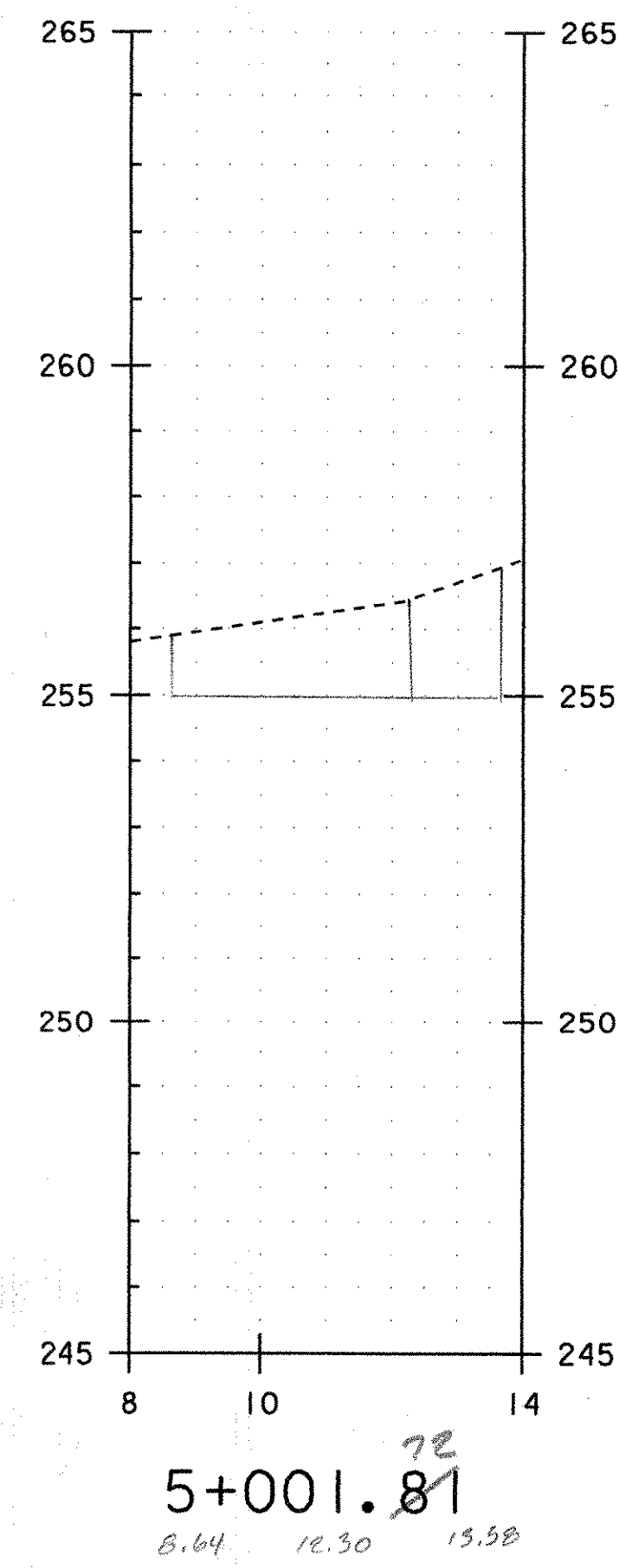
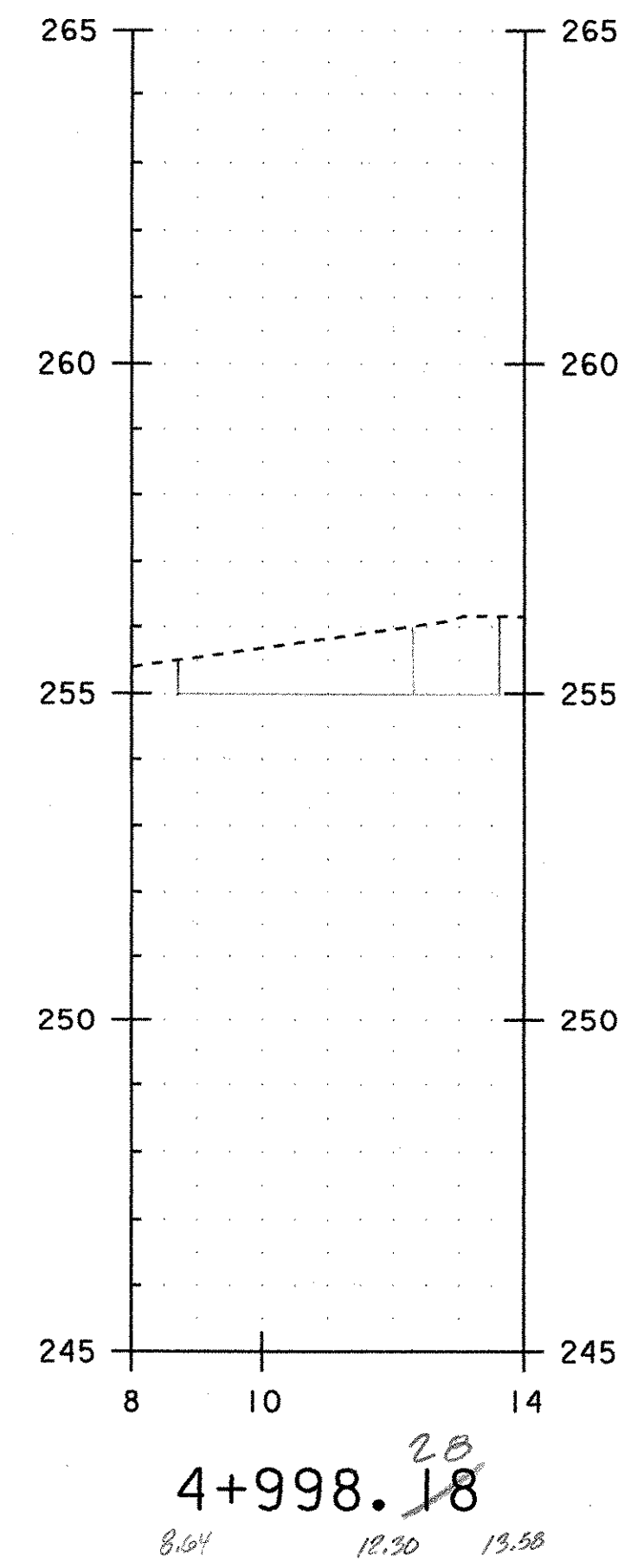
ORIGINAL SURVEY
 DATE: _____
 DRAWN BY: _____
 CHECKED BY: _____
 SCALE: _____
 SHEET NO. _____



Structure Excavation

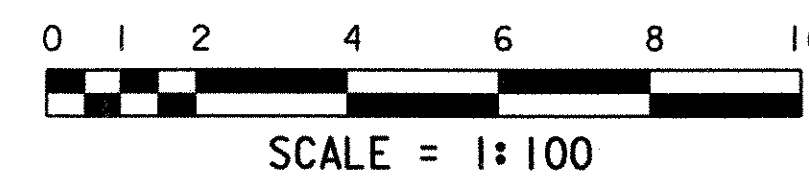
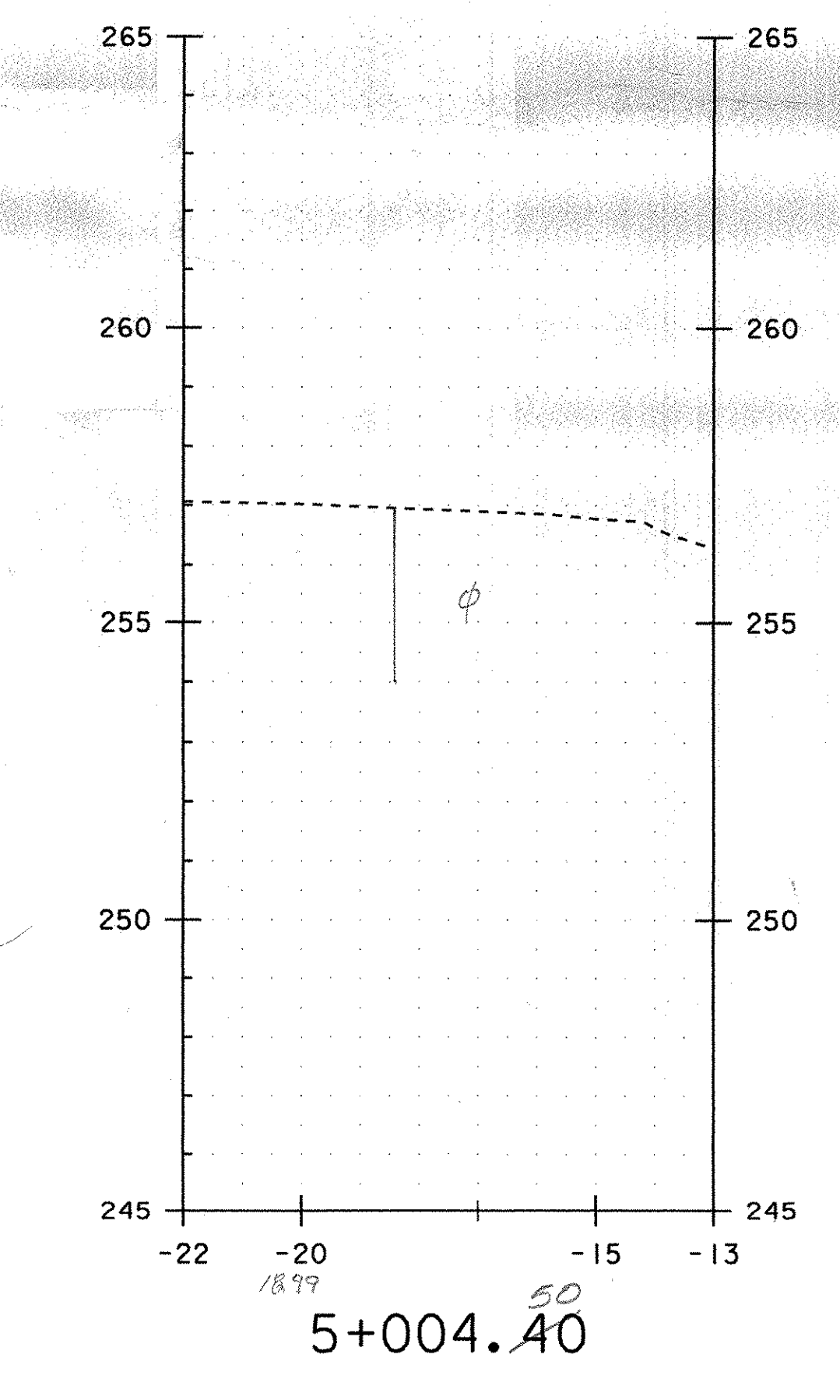
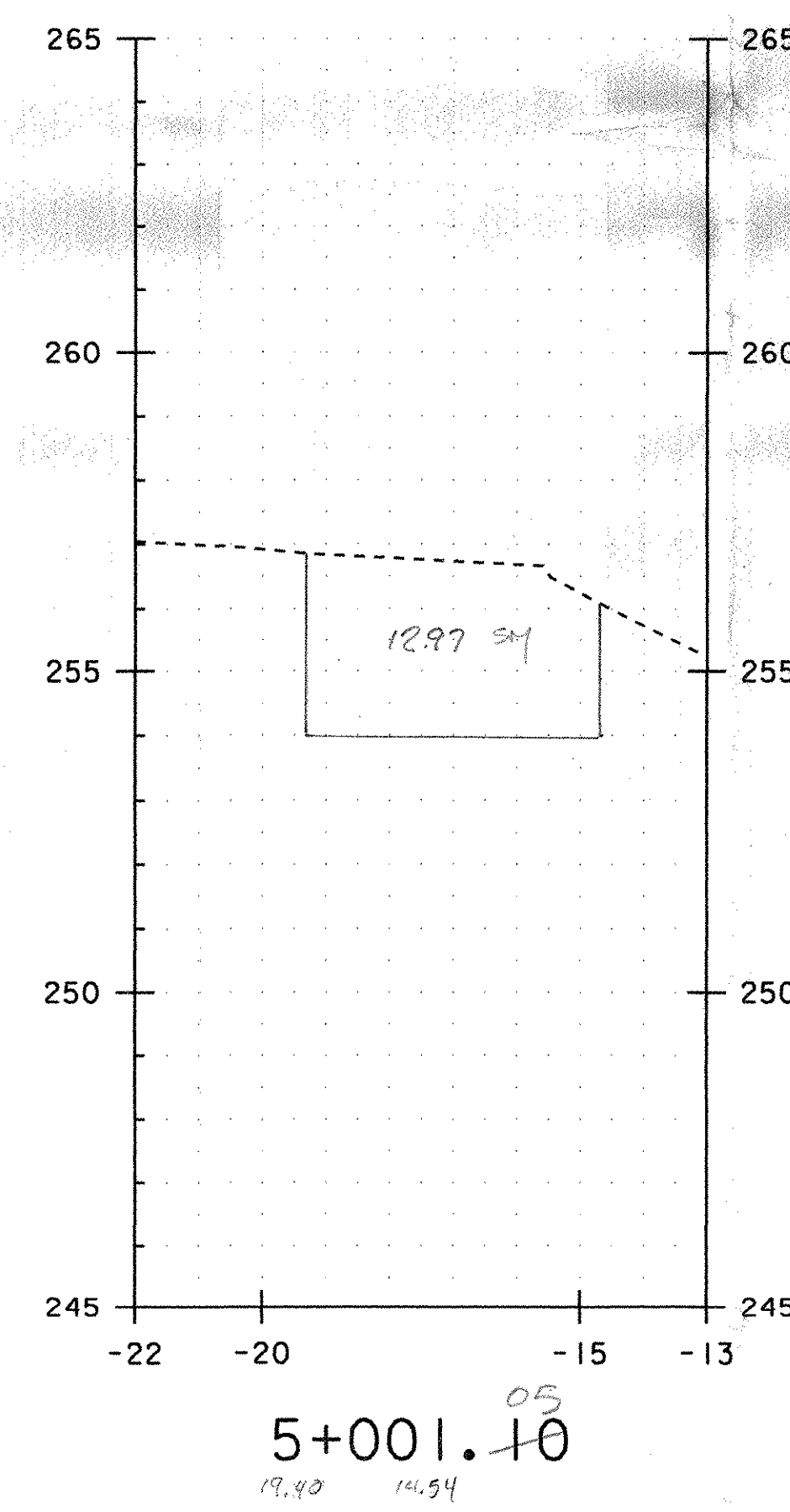
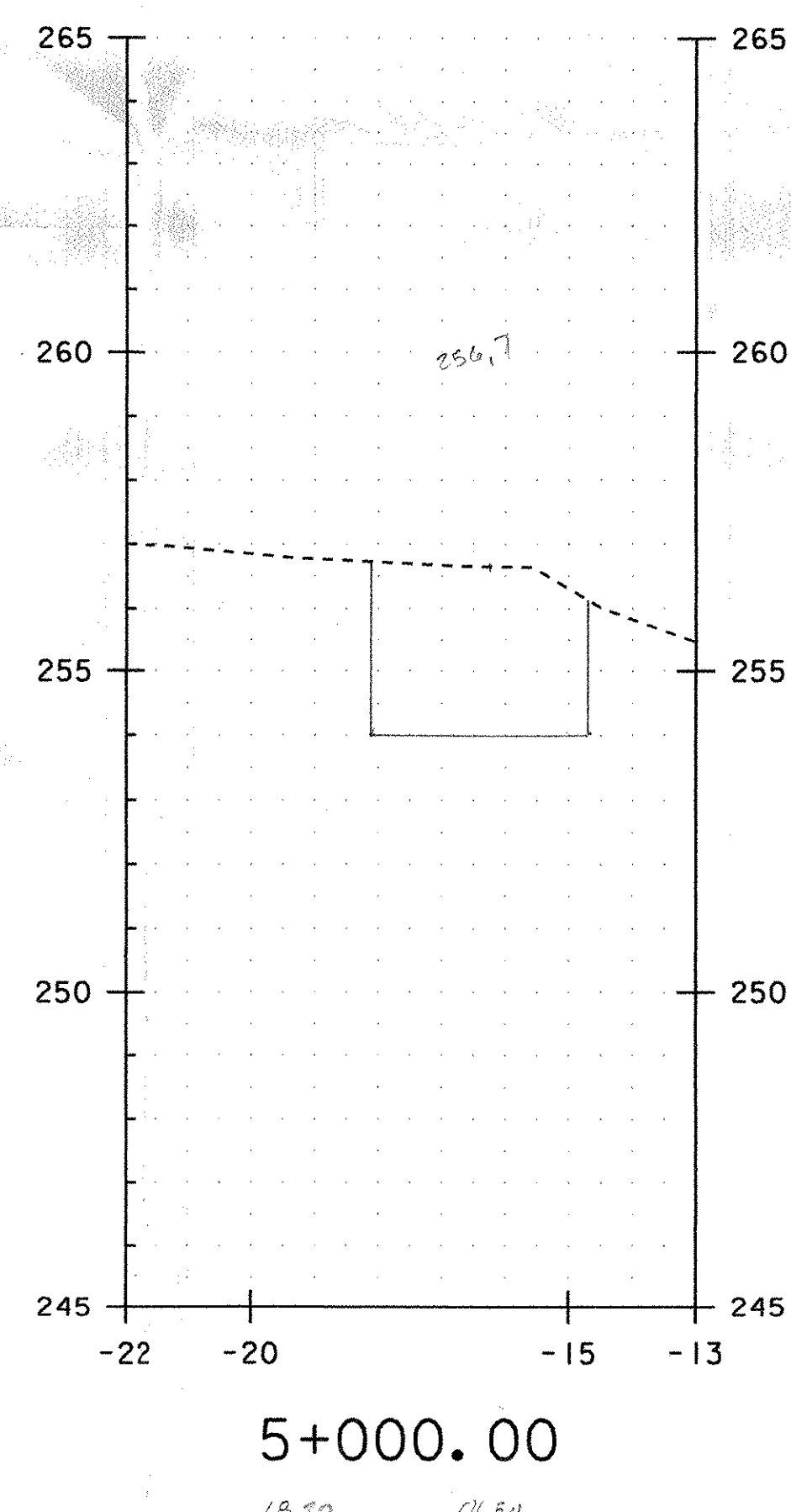
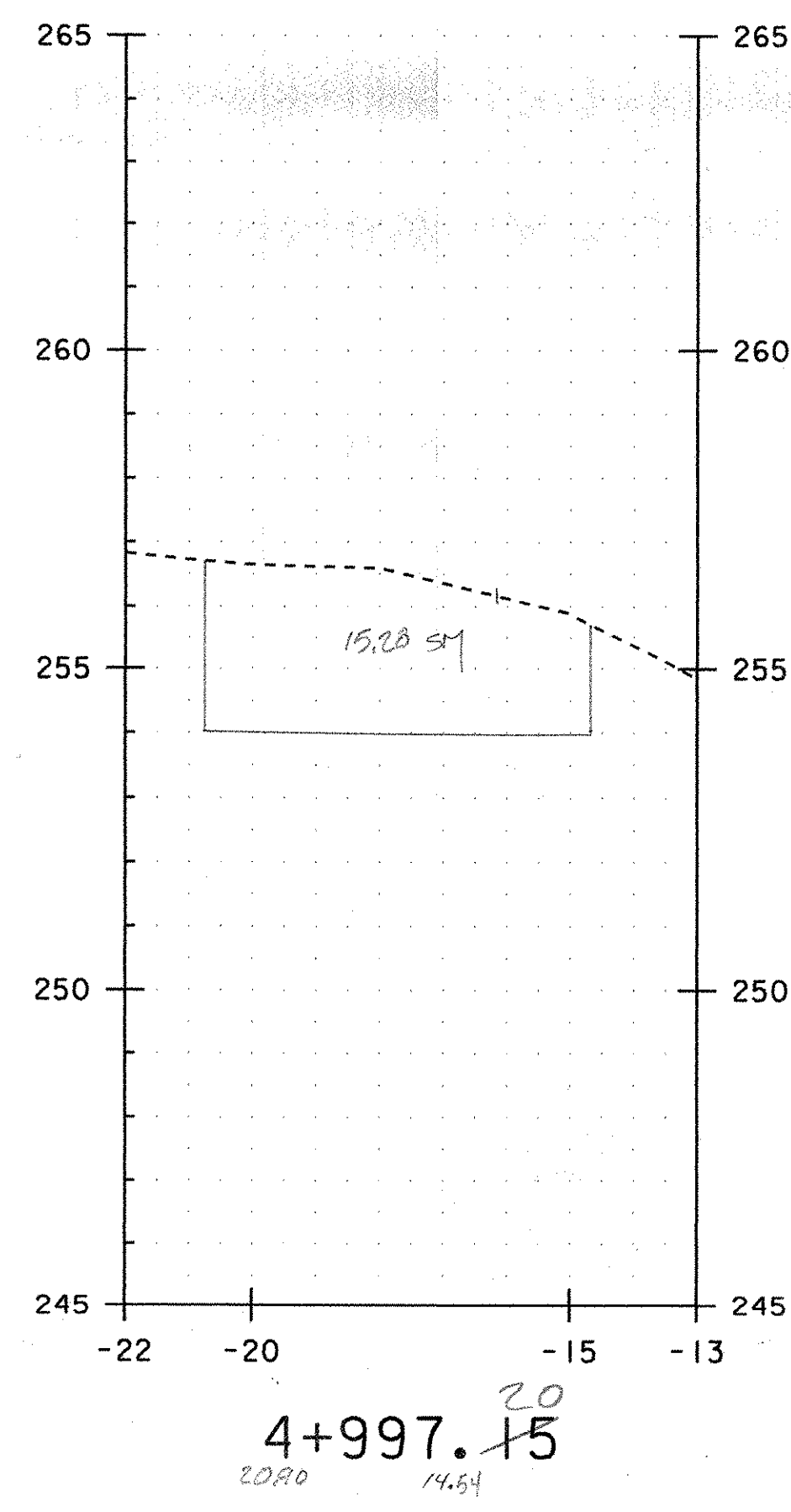
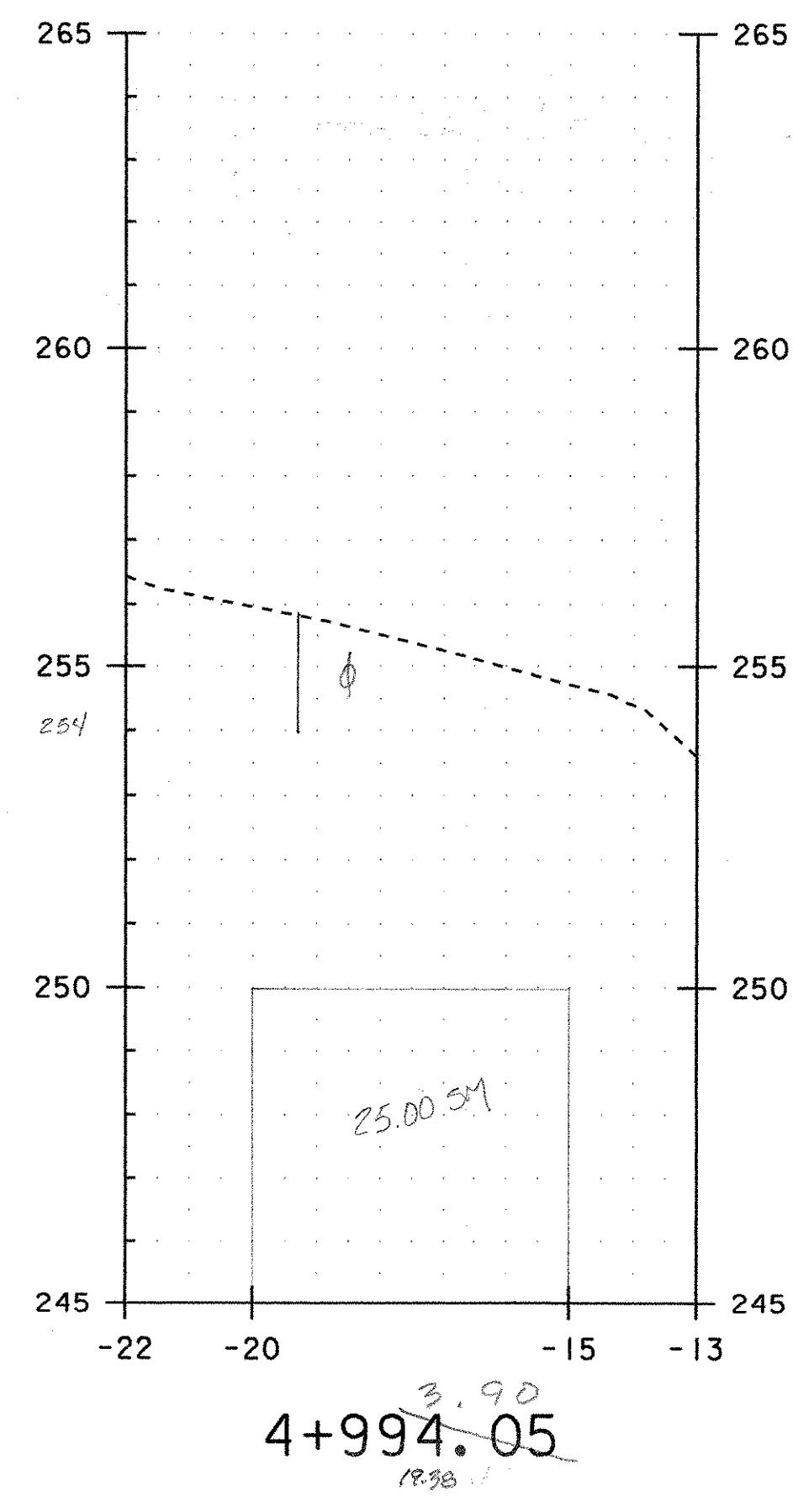
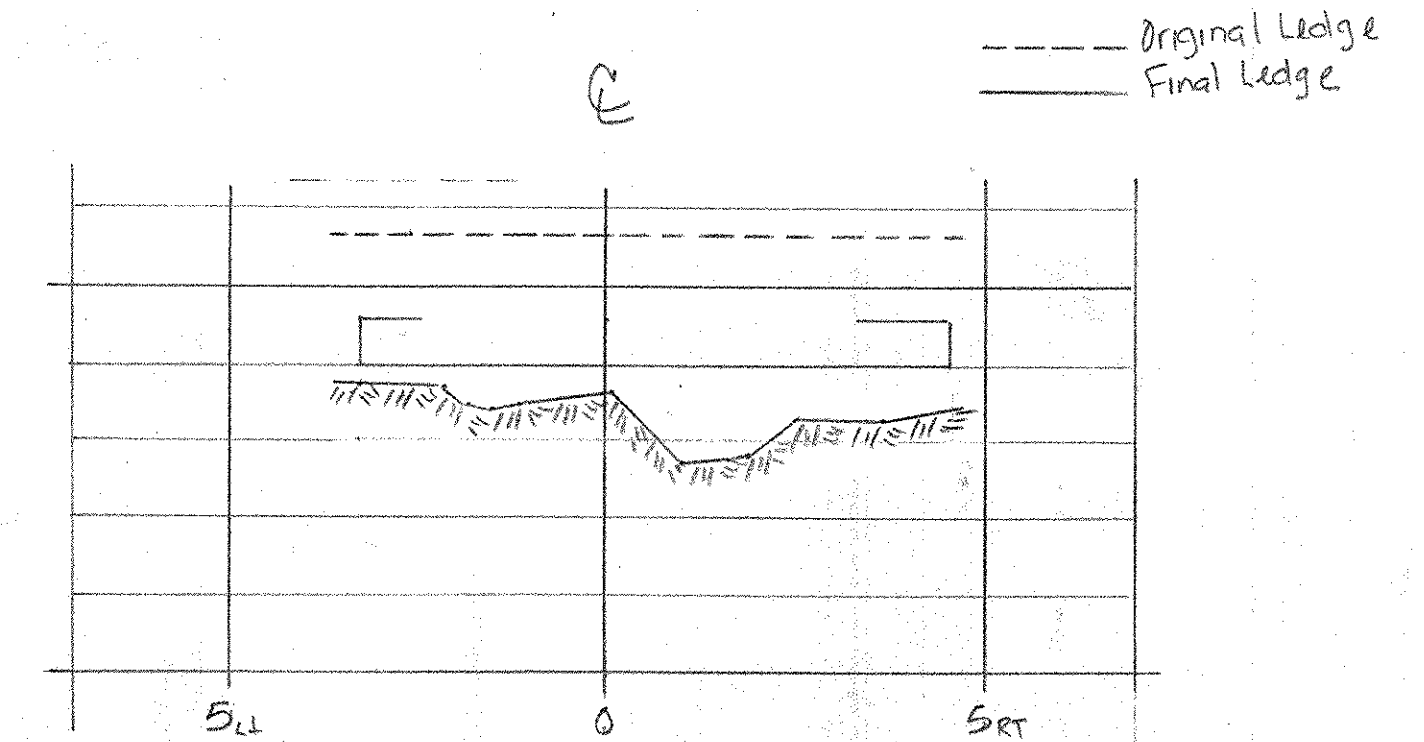
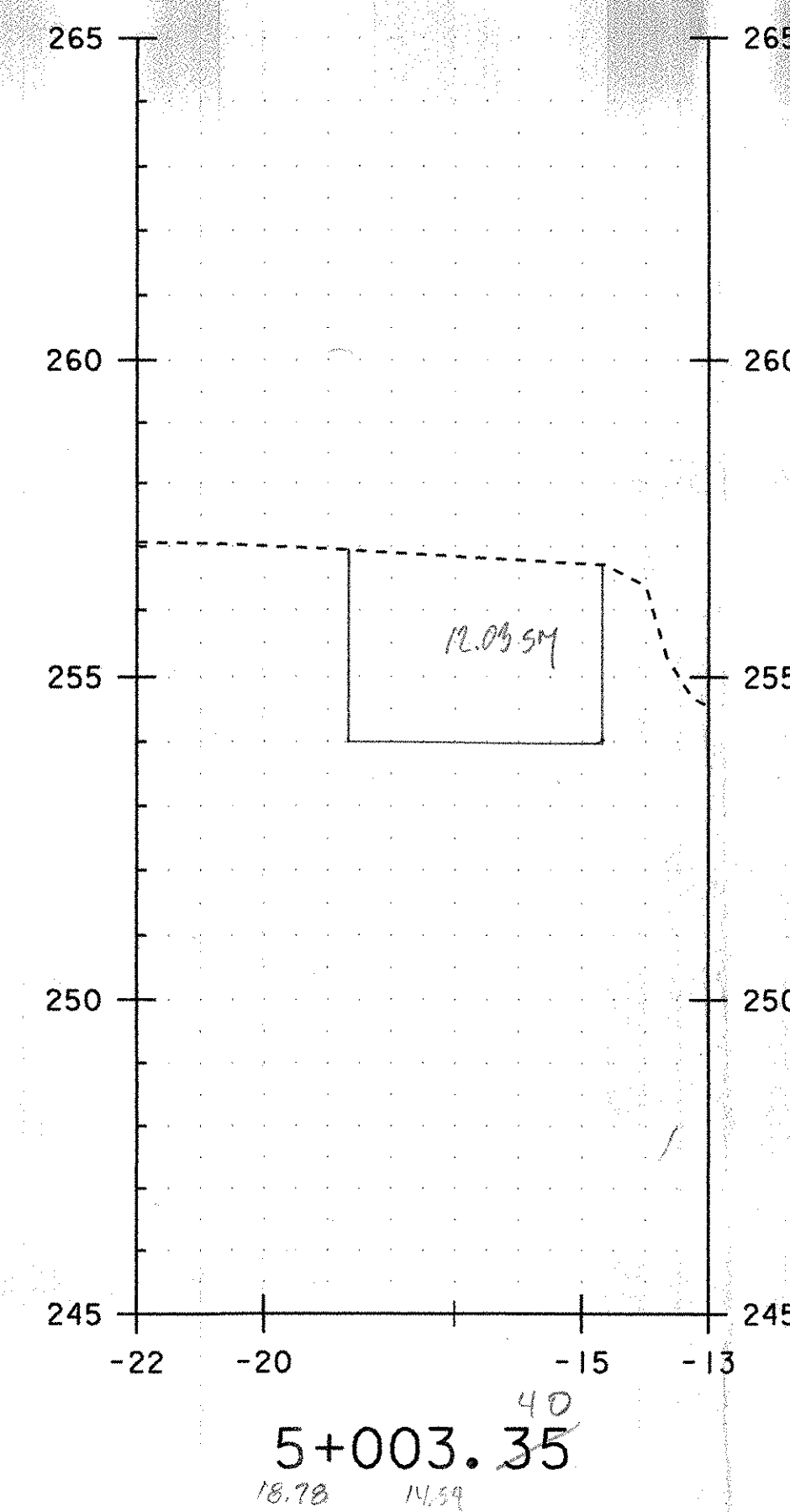
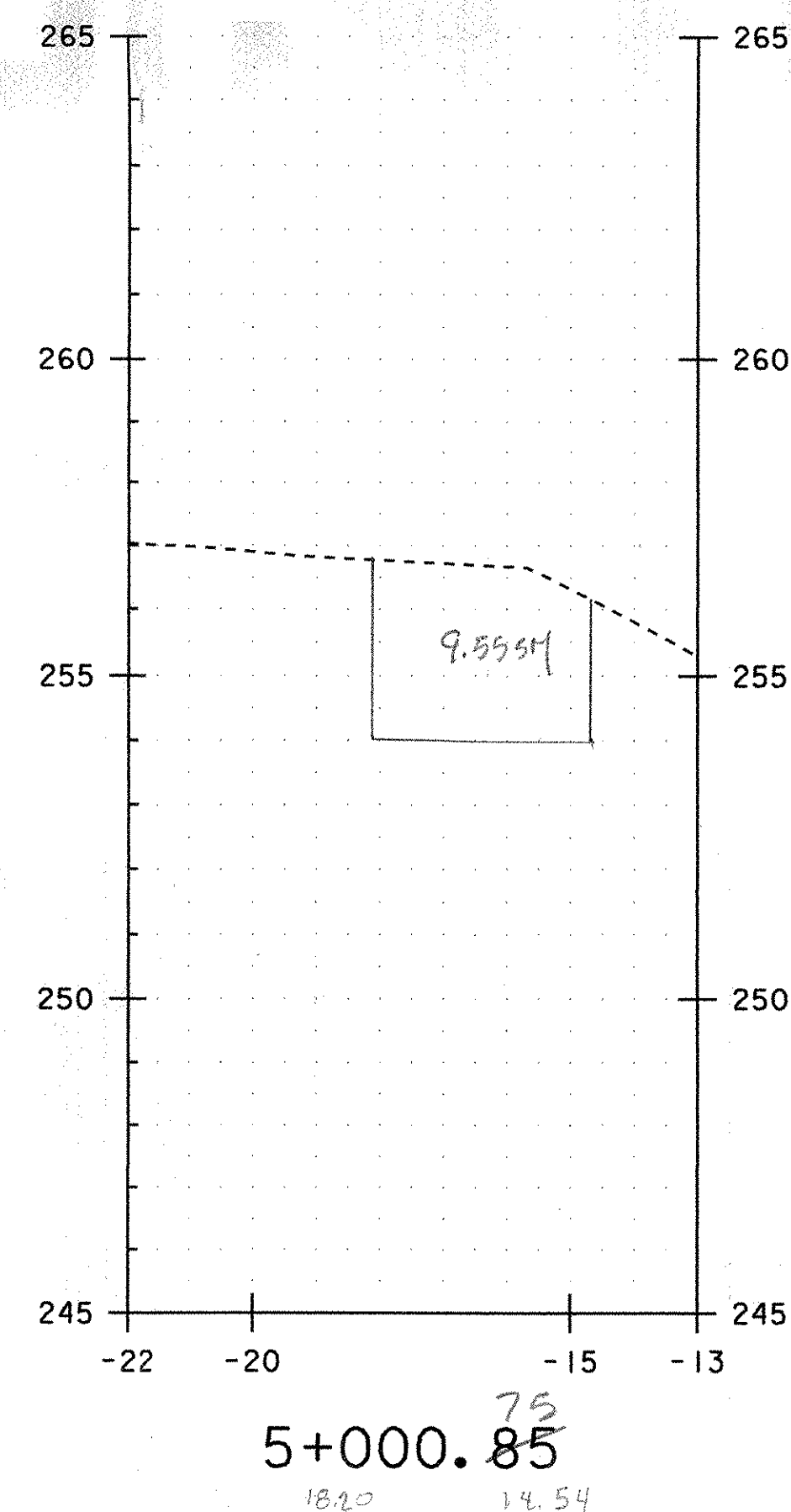
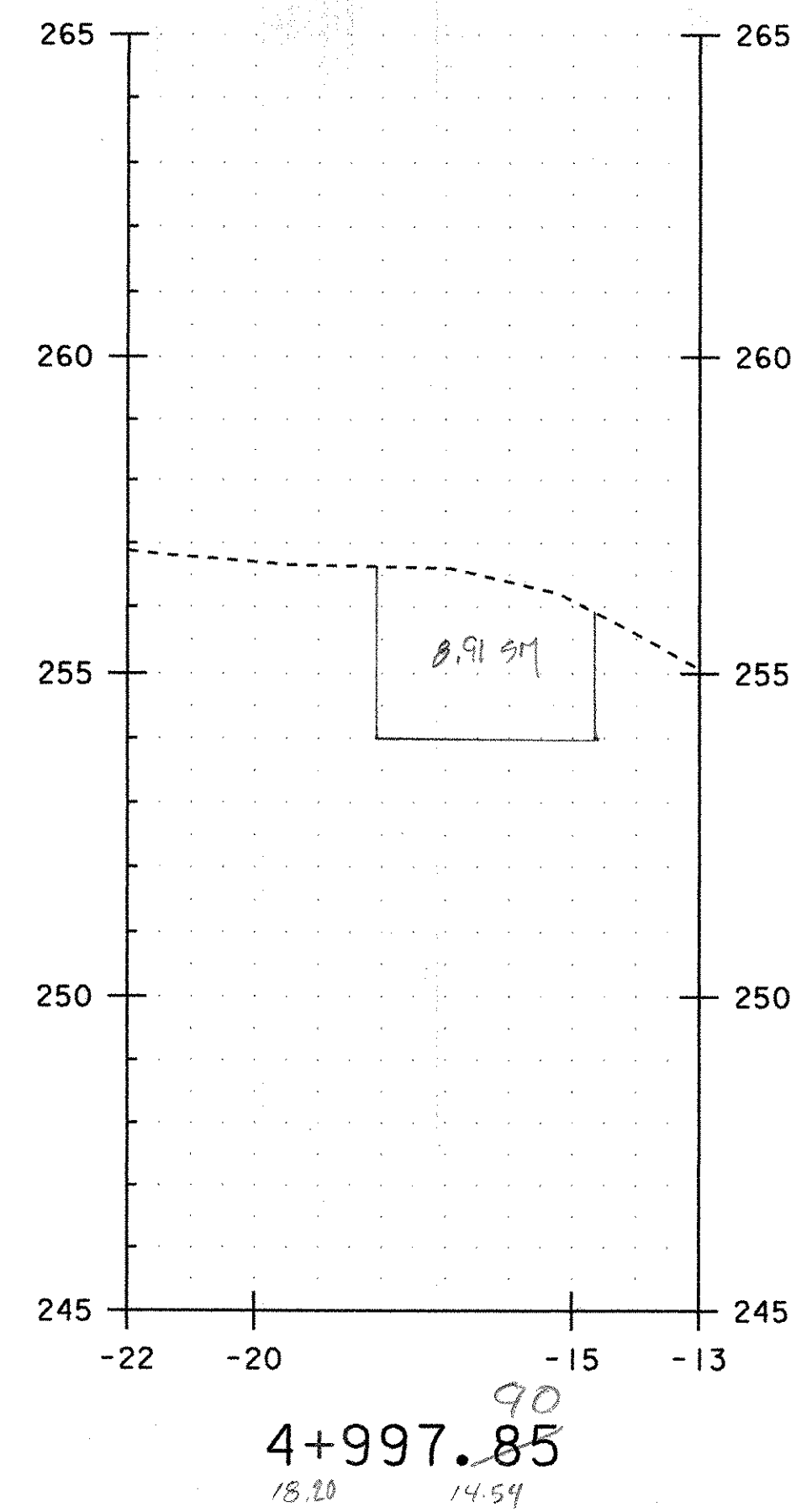
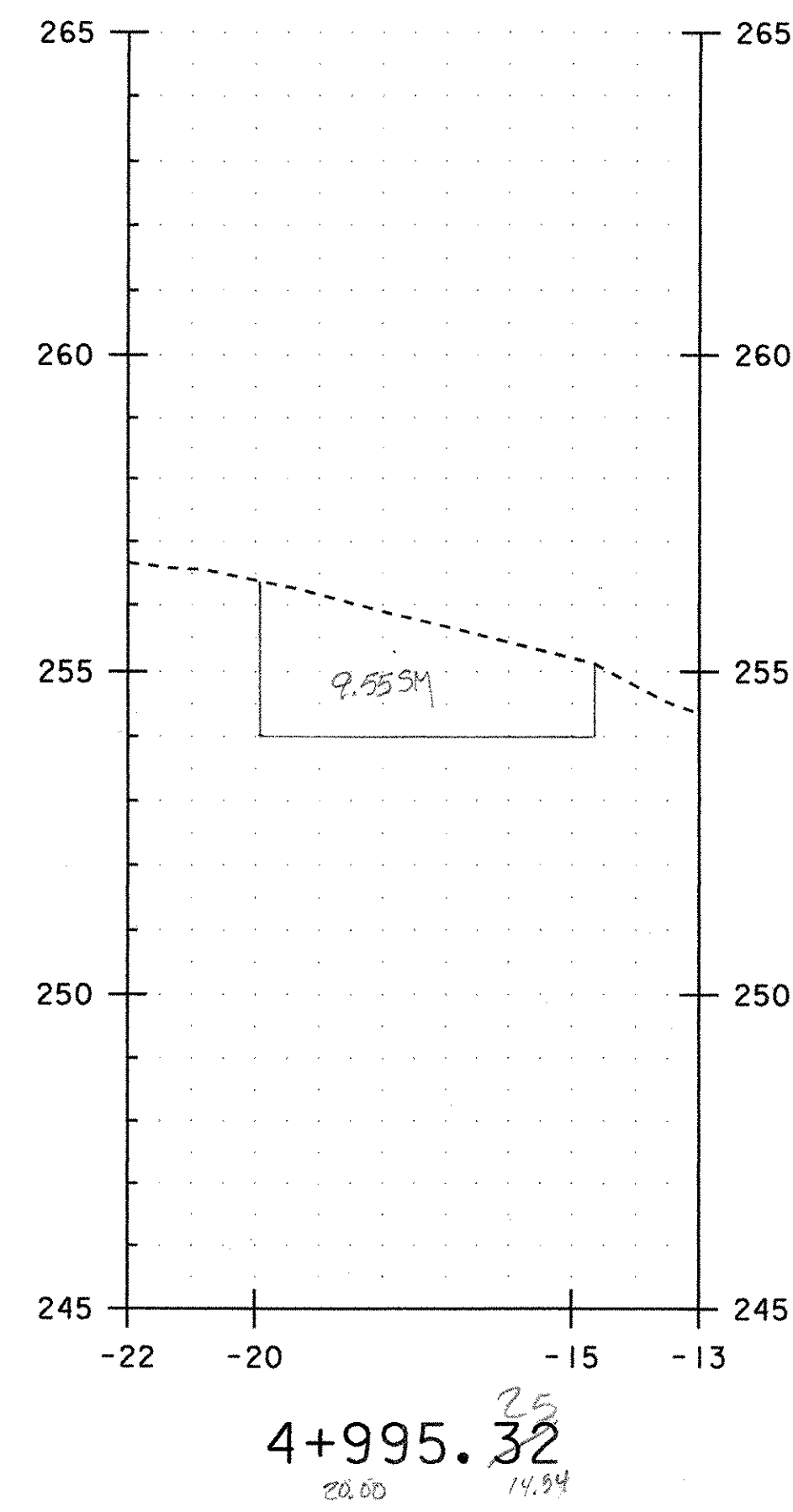
Montgomery 3RD 1448 (20)

051 CWG 4/15/06



STA. 4+994.87 TO STA. 5+005.13

SHEET NAME: ABUT. NO. 2 CHANNEL CROSS SECTIONS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94/J24/sj24xsl.dgn	PLOT DATE: 10-APR-2006	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: C. ROY	
DESIGNED BY: C. CARLSON	IFARM NAME: sj24ab2cx.1	
BRIDGE SHEET NUMBER:	SHEET 052 OF	



SHEET NAME: ABUT. NO. 1 CHANNEL CROSS SECTIONS		
PROJECT NAME: MONTGOMERY	HIGHWAY NO.: TH 35	
PROJECT NUMBER: BRO 1448(20)	BRIDGE NO.: 24	
	OVER: PACIFIC BROOK	
FILE NAME: /PW/94/J124/sj124xsl.dgn	PLOT DATE: 10-APR-2006	
PROJECT MANAGER: R. WHITCOMB	DRAWN BY: G. ROY	
DESIGNED BY: C. CARLSON	IPARM NAME: sj124ablocx.t	
BRIDGE SHEET NUMBER:	SHEET 053 OF	

STA. 4+994.05 TO STA. 5+004.40

VT-06001Contract #BRO 1448(20)

RECEIVED
OK'D BY: OK'D BY: Jan
APR 03 2006
RESUBMIT: APPROVED: ✓

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS BY WJC DATE 4/19/96
W2 - METRIC
PROCEDURE SPECIFICATIONS
MATERIAL SPECIFICATION ASTM A709 GRADES: 250, 345, 345W
WELDING PROCESS SHIELDED METAL ARC WELDING
MANUAL OR MACHINE MANUAL
POSITION OF WELDING ALL (EXCEPT AS NOTED BELOW)
FILLER METAL SPECIFICATION AWS A5.1 AND A5.5
WELD METAL CLASSIFICATION E7018/E7028 (TACKING ONLY) AND E8018-C3
WIRE/FLUX D.N.A.
POLARITY DC+ OR AC
ROOT TREATMENT MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE SEE PREHEAT CHART
ELECTRICAL STICK-OUT D.N.A.
SHIELDING GAS D.N.A.
WELDING PROCEDURE
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					

Z:\HS\JOBS\06001\wp1.dgn 03/31/06 01:07:58 PM054 ss w

VT-06001Contract #BRO 1448(20)

RECEIVED
OK'D BY _____ OK'D BY Joe
APR 03 2006
RESUBMIT _____ APPROVED ✓

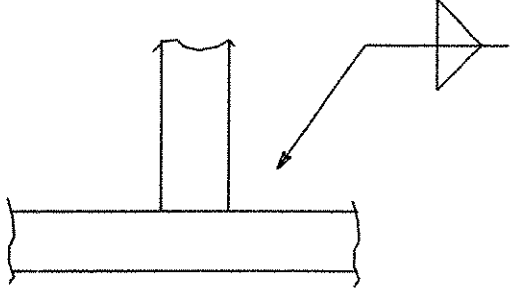
BY Joe DATE 4/10/06

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W14X - METRIC
PROCEDURE SPECIFICATIONS
MATERIAL SPECIFICATION _____ ASTM A709 GRADES: 250, 345, 345W
WELDING PROCESS _____ SUBMERGED ARC WELDING
MANUAL OR MACHINE _____ SEMIAUTOMATIC OR MACHINE
POSITION OF WELDING _____ 2F
FILLER METAL SPECIFICATION _____ AWS A5.23
WELD METAL CLASSIFICATION _____ F8A2-ENI1K-N11-H8
WIRE/FLUX _____ LINCOLN LA-75/960
WIRE DIAMETER _____ 2.4mm
SINGLE OR MULTIPLE ARC _____ SINGLE ARC
POLARITY _____ DC-
ROOT TREATMENT _____ REMOVE ALL MILL SCALE
PREHEAT AND INTERPASS TEMPERATURE _____ SEE PREHEAT CHART
ELECTRICAL STICK-OUT _____ 25.4mm
SHIELDING GAS _____ D.N.A.

REVISED:
ORIGINAL ISSUE: 1/26/99

PASS NO.	WELDING CURRENT			TRAVEL SPEED (mm/m)	JOINT DETAIL
	AMPS	WIRE FEED SPEED	VOLTS		
1	461-550	3.9-5.0	35.0-39.5	432-533	8mm FILLET WELD

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



AWS D1.5 FWST I-TEST-16
PROCEDURE QUALIFICATION RECORD AWS-Q5-01B (EXPIRES 6/26/10)

RECEIVED
OK'D BY _____ OK'D BY JAC

APR 03 2006

VT-06001

Contract #BRO 1448(20)

RESUBMIT _____ APPROVED ✓

BY one DATE 4/10/06

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W34X - METRIC

PROCEDURE SPECIFICATIONS

MATERIAL SPECIFICATION _____ ASTM A709 GRADES: 250, 345, 345W
WELDING PROCESS _____ SUBMERGED ARC WELDING
MANUAL OR MACHINE _____ SEMIAUTOMATIC OR MACHINE
POSITION OF WELDING _____ 2F
FILLER METAL SPECIFICATION _____ AWS A5.17
WELD METAL CLASSIFICATION _____ F7A2-EM12K
WIRE/FLUX _____ LINCOLN L61/761
WIRE DIAMETER _____ 2.4mm
SINGLE OR MULTIPLE ARC _____ SINGLE ARC
POLARITY _____ DC-
ROOT TREATMENT _____ MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE _____ SEE PREHEAT CHART
ELECTRICAL STICK-OUT _____ 25.4mm
SHIELDING GAS _____ D.N.A.

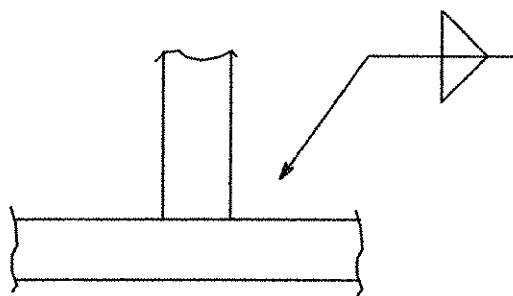
REVISED: 5/5/03

WELDING PROCEDURE

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)

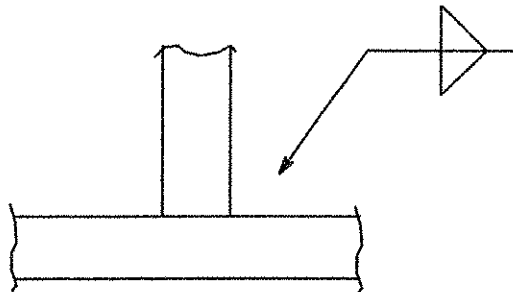
CK'D BY
APR 03 2006
RESUBMIT
APPROVED
BY
DATE 4/19/06

VT-06001Contract #BRO 1448(20)

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS
W44X - METRIC
PROCEDURE SPECIFICATIONS
MATERIAL SPECIFICATION _____ASTM A709 GRADES: 250, 345, 345W
WELDING PROCESS _____SUBMERGED ARC WELDING
MANUAL OR MACHINE _____SEMI-AUTOMATIC OR MACHINE
POSITION OF WELDING _____2F
FILLER METAL SPECIFICATION _____AWS A5.17
WELD METAL CLASSIFICATION _____F7A2-EM12K
WIRE/FLUX _____LINCOLN L61/761
WIRE DIAMETER _____2.4mm
SINGLE OR MULTIPLE ARC _____SINGLE ARC
POLARITY _____DC-
ROOT TREATMENT _____MANUAL CLEANING
PREHEAT AND INTERPASS TEMPERATURE _____SEE PREHEAT CHART
ELECTRICAL STICK-OUT _____25.4mm
SHIELDING GAS _____D.N.A.
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)

RECEIVED

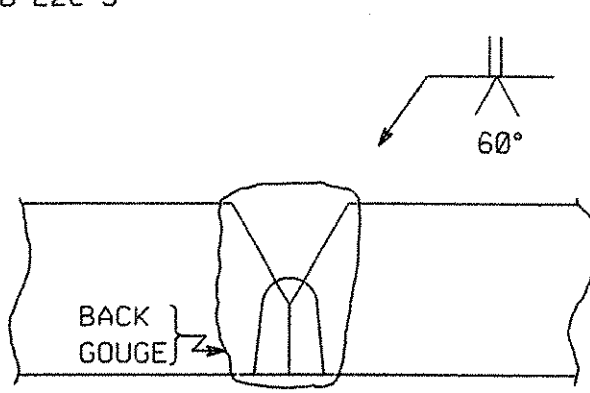
CK'D BY _____ OK'D BY guc

VT-06001

Contract #BRO 1448(20)

APR 03 2006

RESUBMIT _____ APPROVED ✓

WELDING PROCEDURE FOR AWS PREQUALIFIED JOINTS BY <u>one</u> DATE <u>4/10/06</u>					
W71X-2 METRIC					
PROCEDURE SPECIFICATIONS					
MATERIAL SPECIFICATION _____ ASTM A709 GRADES: 250, 345, 345W					
WELDING PROCESS _____ SUBMERGED ARC WELDING					
MANUAL OR MACHINE _____ SEMIAUTOMATIC OR MACHINE					
POSITION OF WELDING _____ 1G					
FILLER METAL SPECIFICATION _____ AWS A5.23					
WELD METAL CLASSIFICATION _____ F8A2-ENI1K-N11-H8					
WIRE/FLUX _____ LINCOLN LA-75/960					
WIRE DIAMETER _____ 2.4 mm					
SINGLE OR MULTIPLE ARC _____ SINGLE ARC					
POLARITY _____ DC+					
ROOT TREATMENT _____ MANUAL CLEANING					
PREHEAT AND INTERPASS TEMPERATURE _____ SEE PREHEAT CHART					
ELECTRICAL STICK-OUT _____ 25.4 mm					
SHIELDING GAS _____ D.N.A.					
				REVISED:	
WELDING PROCEDURE				ORIGINAL ISSUE: 3/10/03	
PASS NO.	AMPS	WIRE FEED SPEED (m/MIN.)	VOLTS	TRAVEL SPEED (mm/MIN.)	JOINT DETAIL
ALL	448-550	2.3-3.2	31.0-38.0	381-635	B-L2c-S
					
PROCEDURE QUALIFICATION RECORD AWS-04-1 (EXPIRES 4/29/09)					
PROCEDURE QUALIFICATION RECORD AWS-04-2 (EXPIRES 2/2/09)					

VT-06001Contract #BRO 1448(20)

RECEIVED

OK'D BY _____ OK'D BY JWC

APR 03 2006

RESUBMIT _____ APPROVED ✓

BY One DATE 4/10/06

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 20, INCL.	10°C
OVER 20 TO 40, INCL.	20°C
OVER 40 TO 60, INCL.	65°C
OVER 60	110°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

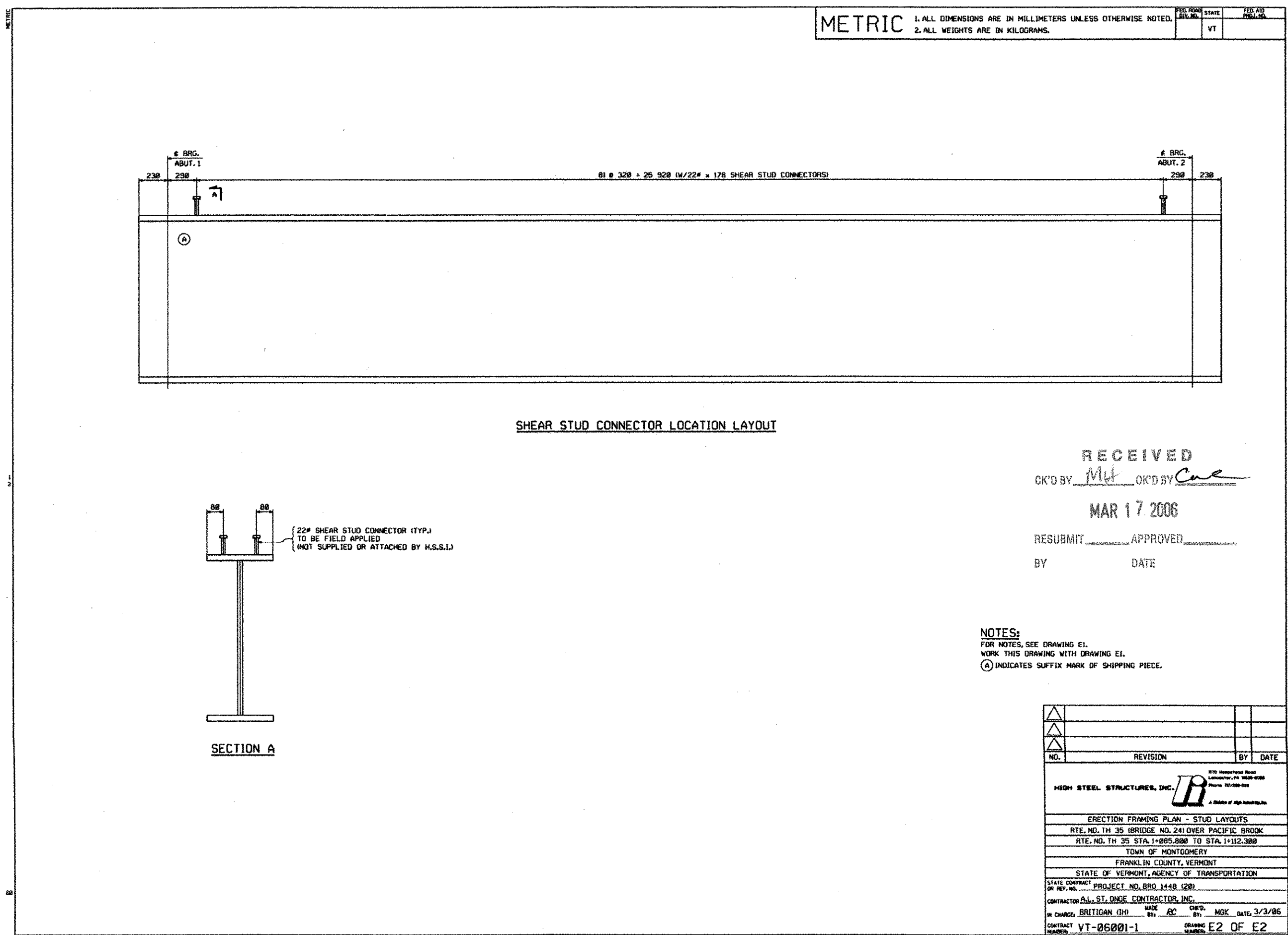
REVISED:

ORIGINAL ISSUE: 3/4/96

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059SSW





ORDERED LENGTH TOP FLANGE		8.22 x 486 x 27.888 (114/2)	METRIC	1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED. 2. ALL WEIGHTS ARE IN KILOGRAMS.		REV. NO.	DATE	FILE NO.
ONE - PLG. PLATE ASSEMBLY EA. - MK. DIA. DIA. DIA. DIA.				1	VT			
ORDERED LENGTH BOTTOM FLANGE		8.22 x 486 x 26.988 (114/2)						

RECEIVED

OK'D BY ML OK'D BY ave

MAR 17 2006

RESUBMIT _____ APPROVED ✓

BY CWC DATE 4-11-06

NOTES:

FOR DIMENSIONAL SHOP NOTES, SEE DRAWING 041.

(1) INDICATES PLATES THAT REQUIRE CHIPPY V-NOTCH TEST.

NO.	REVISION	BY	DATE
1			
2			
3			

HIGH STEEL STRUCTURES, INC.

PLATE SPlice DETAILS

ITE. NO. 14 35 BRIDGE NO. 24 OVER PACIFIC BROOK

ITE. NO. 14 35 STA. 1+805.880 TO STA. 1+102.380

TOWN OF MONTICOMERY

FRANKLIN COUNTY, VERMONT

STATE OF VERMONT AGENCY OF TRANSPORTATION

STATE CONTRACT PROJECT NO. 800 1448 020

CONTRACTOR DALL ST. ENGINE CONTRACTOR, INC.

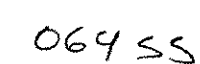
IN CHARGE: JEROME L. LEE, JR. DATE: 3/14/06

PROJECT: VT-800001-1

SCALE: 1" = 1'-0"

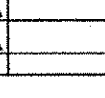
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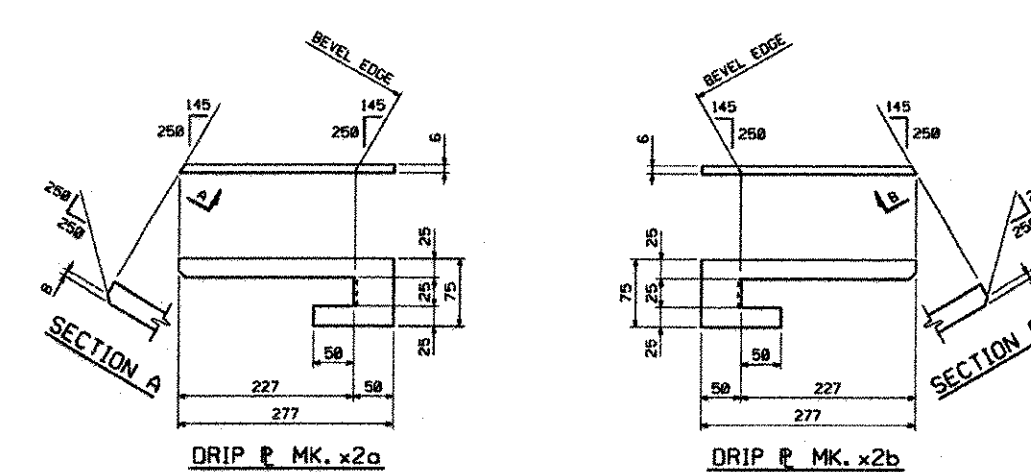
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OK'D BY ML OK'D BY Cue
MAR 17 2006
RESUBMIT _____ APPROVED AS noted
BY Cue DATE 4-11-06

   	NO.	REVISION	DATE	BY
				
1700 Shepherd Road Norcross, GA 30092 (404) 447-1000 FAX (404) 447-1001				
GIRDER AND STANDARDS RTE. NO. 76 TO 35 BRIDGE NO. 241 OVER PACIFIC BROOK RTE. NO. 76 TO 35 STA. 16480+00 TO STA. 16112+00 TOWN OF MONTICELLO FRANKLIN COUNTY, VERMONT STATE OF VERMONT, AGENCY OF TRANSPORTATION STATE CONTRACT NO. VTS 1449 (1987) NO. 88-1 CONTRACTOR: A. L. CHES CONTRACTING, INC. IN CHARGE: <u>BRITTON DILL</u> WORK ORDER NO. <u> </u> DRAWING NO. <u>VI-0-000-1-1</u> SHEET NO. <u> </u> OF <u> </u>				



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100	100

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

BILL OF MATERIAL										
QTY	UNIT	DESCRIPTION	LENGTH	SPC	GRADE	TEST	REMARKS	REP.	DATE	REVISION
1	1	x28	PL	8 x 75	277	MC270M	345W	7	2	0.90
1	1	x26	PL	8 x 75	277	MC270M	345W	7	2	0.90

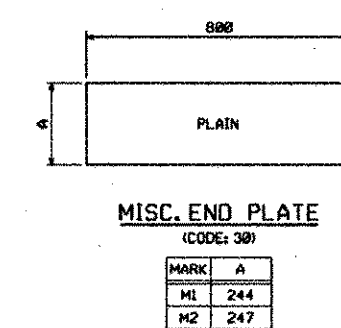
SHOP NOTE

SHOP NOTE
HOLES: NONE
BOLTS: NONE
PAINT: NONE
FOR GENERAL SHOP NOTES, SEE DWG. (N).

RECEIVED
CK'D BY MIT OK'D BY Cue
MAR 17 2006
RESUBMIT _____ APPROVED _____
BY _____ DATE _____

NEL	REVISION			BY	DATE
870 Hampshire Road Westborough, MA 01581-9000 Phone 781-366-4400					
HIGH STEEL STRUCTURES, INC.					
<i>A Division of High Technologies</i>					
ORDER JOB STANDARDS					
RTE. NO. 1H 3S ORDERS NO. 24 OVER PACIFIC BROOK					
RTE. NO. 1H 3S 1A-1485-500 RTA 21A-1122-500					
TOWN OF MONTGOMERY					
FRANKLIN COUNTY, VERMONT					
STATE OF VERMONT, AGENCY OF TRANSPORTATION					
04/14/2001 PROJECT NO. HSH 1485 JOB: CONTRACTOR-BAL STONE CONTRACTORS, INC. IN CHARGE BRITTON RAYMOND JR.					
CONTRACT	VT-26801-1	REV	00	CDSK	NO. DATE 3/2/28
				K2	OF 2

06755



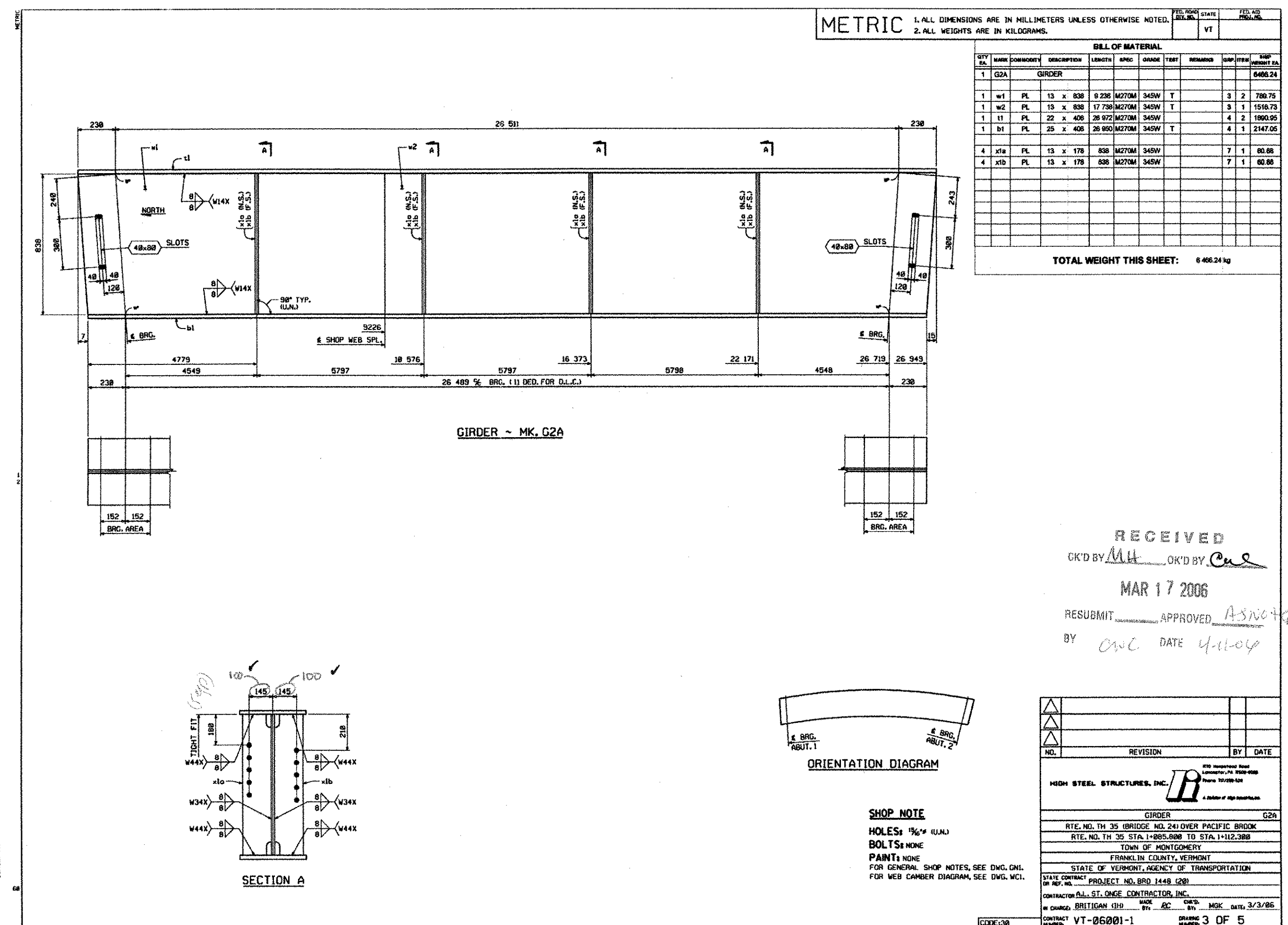
BILL OF MATERIAL													
SHIP NO.	CITY	STATE	MARK	COMMODITY	DESCRIPTION	LENGTH	SPEC.	GRADE	TEST	REMARKS	SHIP TON.	SHIP WEIGHT	
DAPHRAGM													
1	12	D1	MC	480	x 65.5	1.180	MC20M	345W		MC18 (x 4.7)	10	1	75.57
MISC. END PLATES													
1	4	M1	PL	8	x 264	800	MC20M	345W			7	3	9.18
1	4	M2	PL	8	x 247	800	MC20M	345W			7	3	9.31
TOTAL WEIGHT THIS SHEET:											980.77 kg		

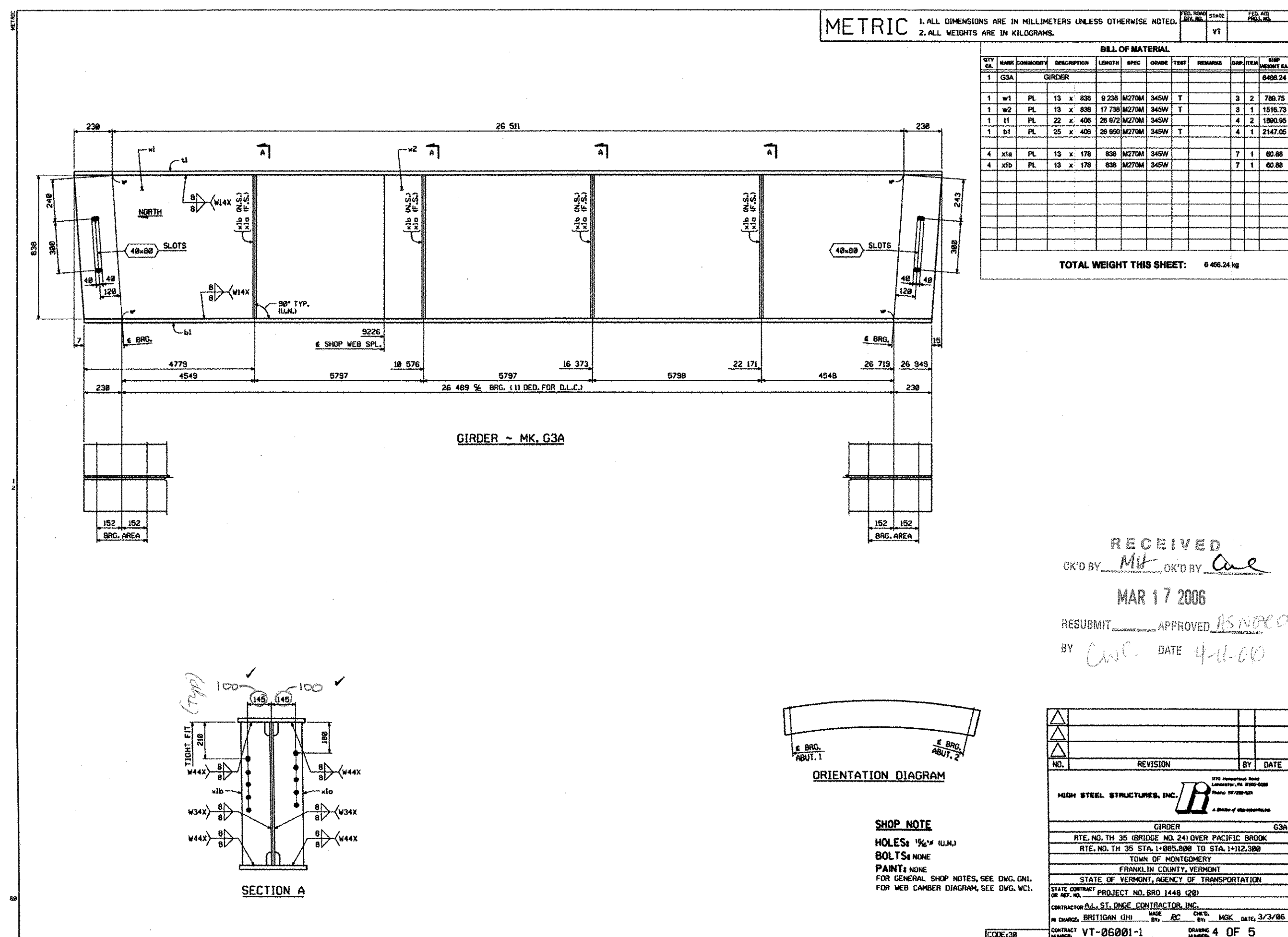
RECEIVED
CK'D BY mt CK'D BY cwe
MAR 17 2006
RESUBMIT _____ APPROVED AS NOTED
BY cwe DATE 4/4/06

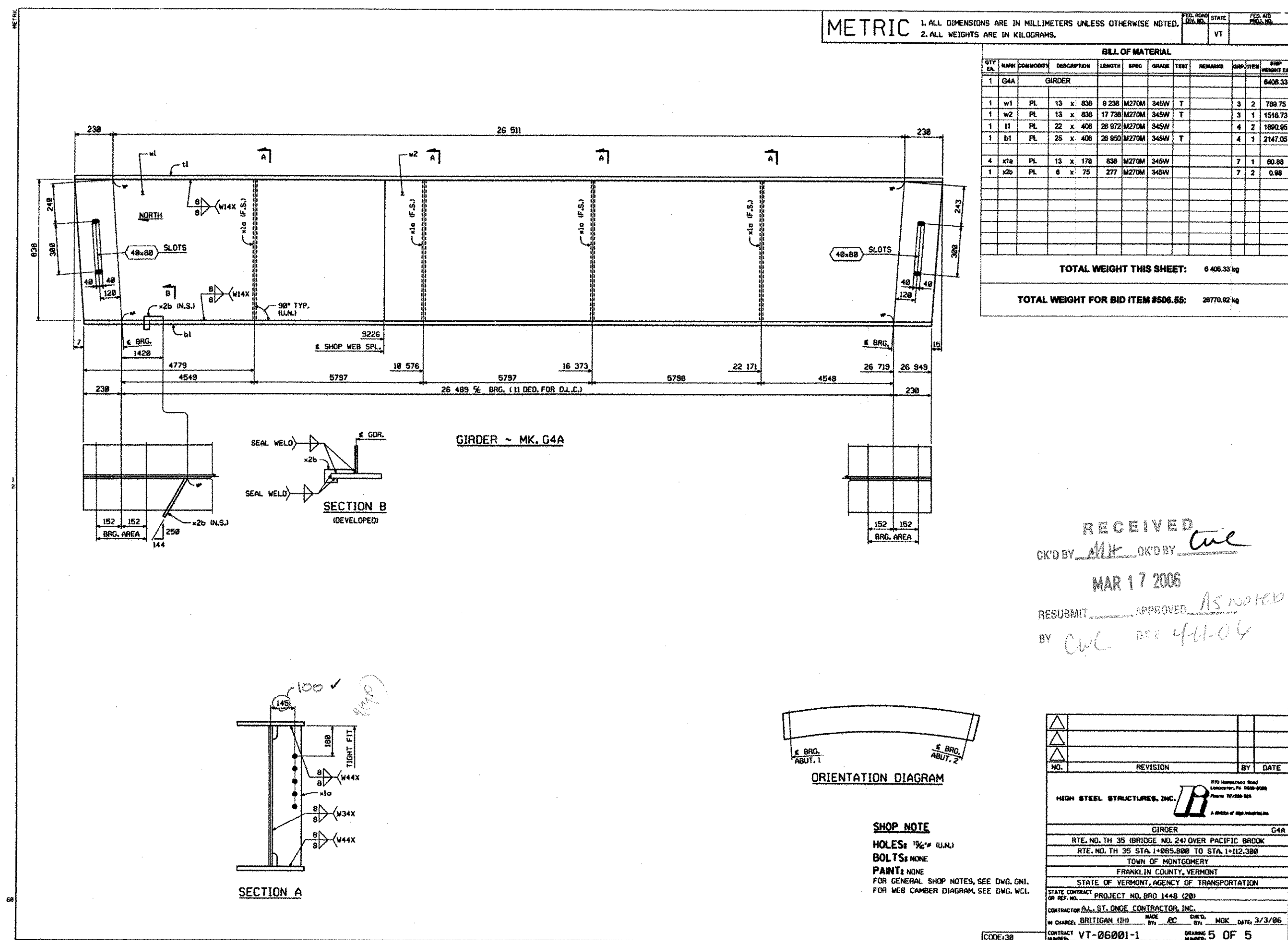
SHOP NOTE
HOLES: 1 5/16"
BOLTS: NONE
PAINT: NONE
FOR GENERAL SHOP NOTES, SEE DWG. ONL.

	NO. _____		REVISION _____		BY DATE _____	
	HIGH STEEL STRUCTURES, INC.		 675 UNIVERSITY AVENUE WASHINGTON, D.C. 20004 A Division of HSC INDUSTRIES			
DIAPHRAGM & MUSIC END PLATES DL# 8 & 9 RTE. NO. 135 BRIDGE NO. 242 OVER PACIFIC BROOK RTE. NO. 139 TO STA. 100+00 TO STA. 112+300 TOWNS OF MONTGOMERY FRANKLIN COUNTY, VERMONT						
STATE OF VERMONT, AGENCY FOR TRANSPORTATION PROJECT NO. RD# 1448-020 CONTRACT NO. _____						
IN CHARGE: _____		DESIGNED BY: _____		CHECKED BY: _____		DATE: 3/3/80
CONTRACT NO. VT-86001-1		SHEET NO. _____		OF 5		









STATE OF VERMONT
HIGHWAY 136
BRIDGE #24 OVER PACIFIC BROOK
PROJECT NO. BRO 1448 (20)
MONTGOMERY, VT

COSMEC INC.

WELDING PROCEDURE SPECIFICATION

SPECIFICATIONS AND CODE: D1.6 (D1.3)
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
SHIELDING GAS----- ARGON
SINGLE OR MULTIPLE PASS SINGLE
SINGLE OR MULTIPLE ARC SINGLE
WELDING CURRENT----- DC
POLARITY: REVERSE (EN)
WELDING PROGRESSION-----
ROOT TREATMENT----- CLEANED & PREPARED BRIGHT METAL
PREHEAT AND INTERPASS TEMPERATURE----- SEE BELOW
POSTHEAT TEMPERATURE N/A
HEAT INPUT MIN.----- MAX.-----

CLASSIFICATION: A5.9
TRADE NAME:
FLOW RATE 45 CFH

WELDING PROCEDURE

PASS NO.	ELECTRODE SIZE	WELDING CURRENT AMPERES	TRAVEL SPEED VOLTS	JOINT DETAIL
ALL	3/32"	130-155 16 GA THRU 10 GA BM THICKNESS	14-17 6.75-8.5	LAP JOINT

PREHEAT TEMPS.	THICKNESS	TEMP.
UP TO 3/4"	100 DEG.	100 DEG.
OVER 3/4" TO 1 1/2"	100 DEG.	100 DEG.
OVER 1 1/2" TO 2 1/2"	100 DEG.	100 DEG.
OVER 2 1/2"	100 DEG.	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#01100851

REVISION NO. 1

DATE: 2/1/2005

TRANS RECEIVED
JWC

FEB 13 2006

RECEIVED
2/22/06



073 BBW

STATE OF VERMONT
HIGHWAY 1136
BRIDGE #24 OVER PACIFIC BROOK
PROJECT NO. 680 1448 (22)
MONTGOMERY, VT

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

EMS-00110
RECEIVED
OK'D BY _____ OK'D BY JWC
FEB 16 2006
RESUBMIT _____ APPROVED ✓
BY RW DATE 2/22/06

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

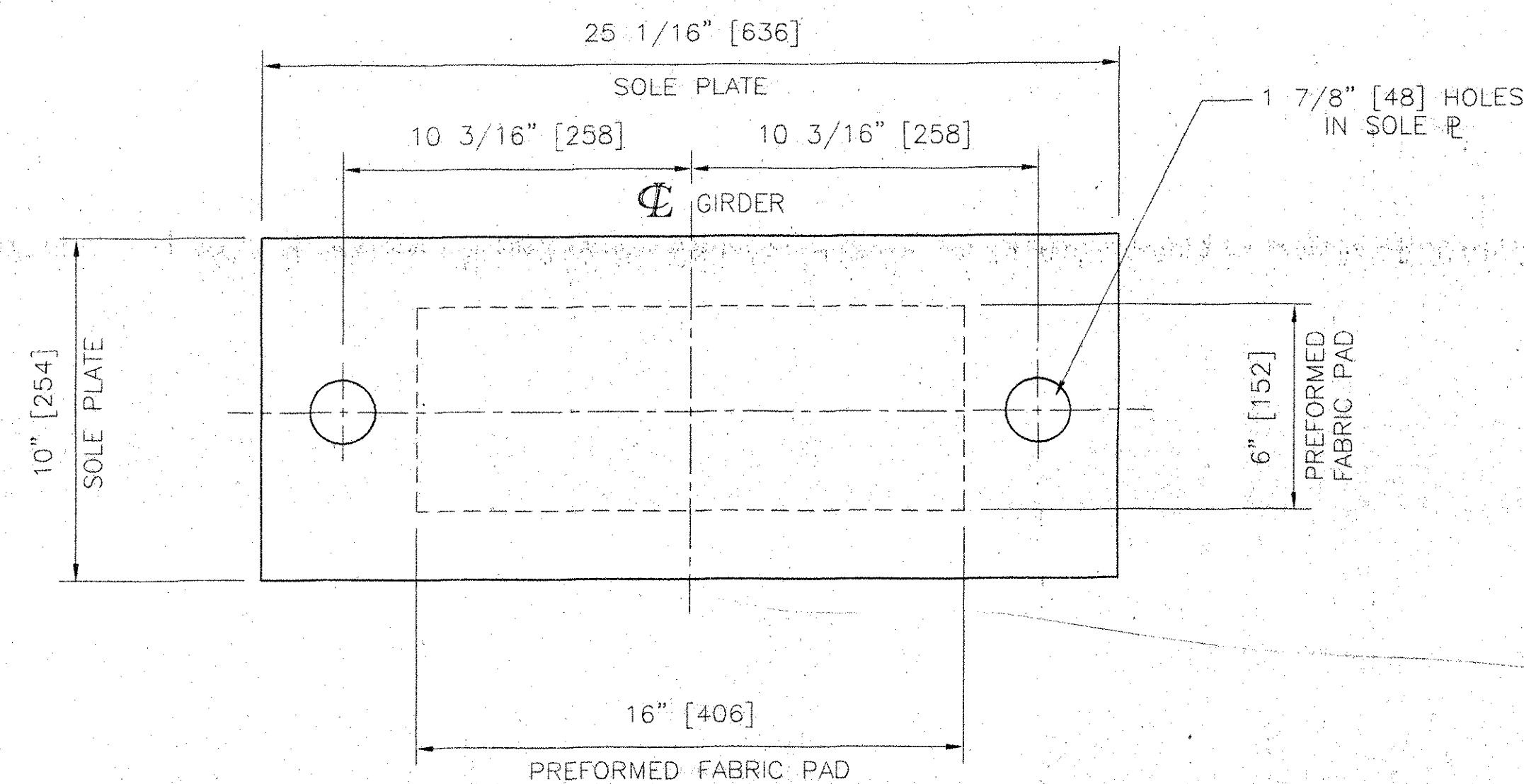
The PTFE and substrate mating surfaces shall be clean and dry with final degreasing performed within 30 minutes of bonding. Adhesive shall consist of a two-part epoxy adhesive system conforming to Military Specification MMM-A-134

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.

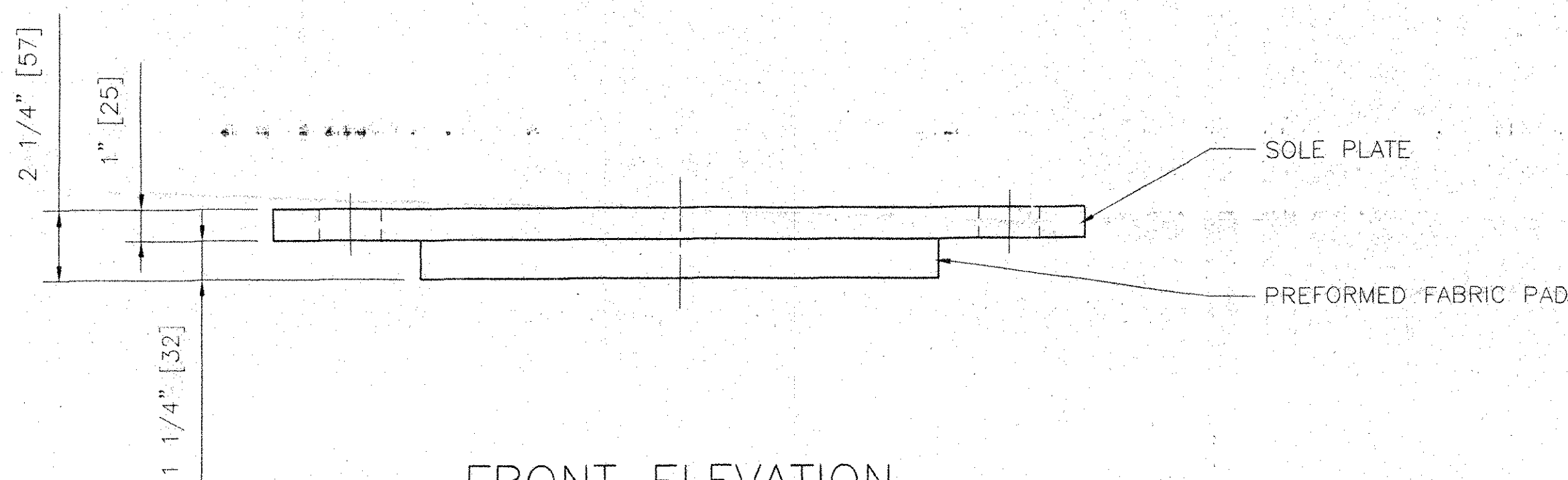
The PTFE material shall be greater in width and length than the substrate material by at least 1/4 inch when bonded. The PTFE shall be applied with contact starting at one edge and with contact progressing across entire bonded surface to eliminate air entrapment. The PTFE is to be in full contact with 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.

074824



PLAN



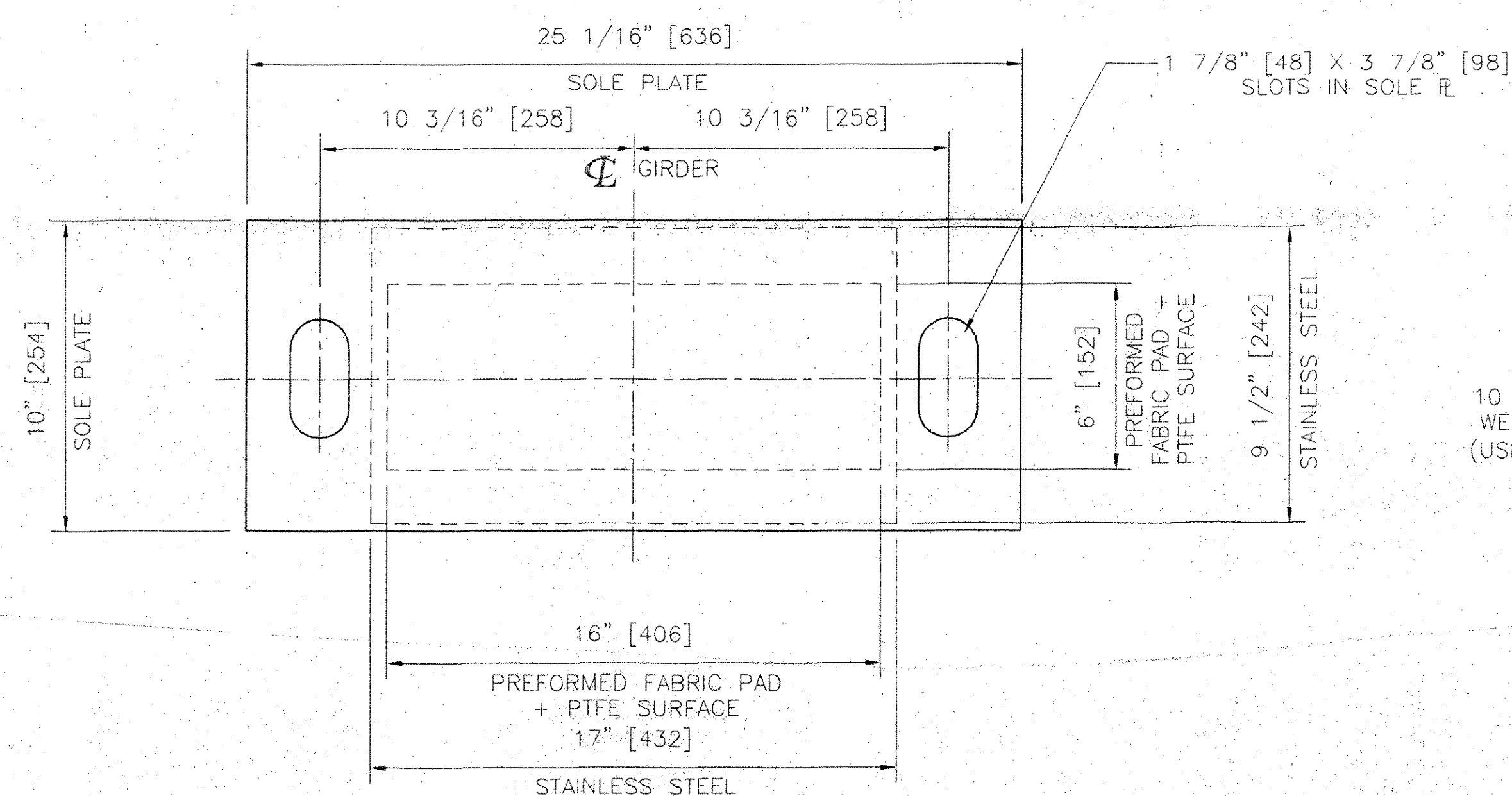
FRONT ELEVATION

COSMEC FIXED PREFORMED FABRIC PAD BEARING

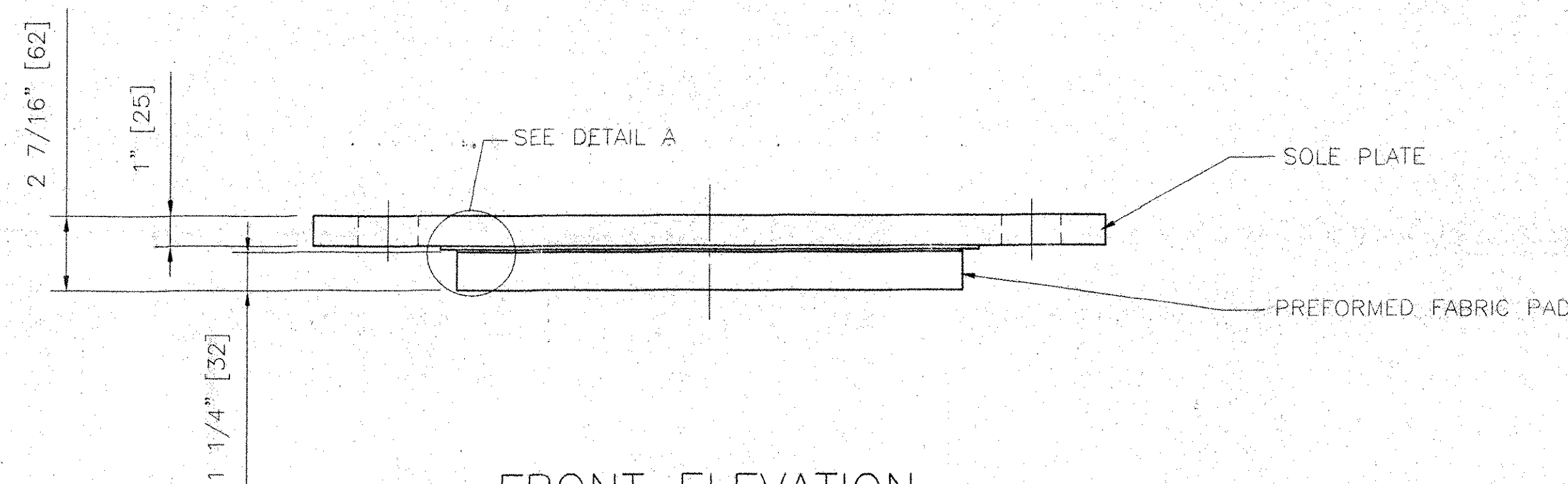
LOCATION: ABUTMENT 1
QUANTITY: 4

BEARING NOTES

- ALL MATERIALS USED IN THE FABRICATION OF THESE BEARINGS SHALL BE MADE IN THE U.S.A.
- BEARINGS ARE TO BE SHIPPED AS COMPLETE UNITS, STEEL BANDED, AND SHALL BE WRAPPED TO PROTECT FROM MOISTURE AND DIRT DURING TRANSIT AND STORAGE.
- LOCATION OF FABRICATION PLANT - 70 SOUTH STREET
WALPOLE, MA 02081
- COSMEC, INC. REPRESENTATIVE - MR. MATT McANDREWS (508) 668-6600
- BEARINGS SHALL BE STORED IN A CLEAN, DRY, LEVEL UPRIGHT POSITION.
- ALL EDGES OF STEEL PLATES SHALL HAVE 1/16" MINIMUM RADIUS.
- DESIGN CRITERIA:
 - BASE PLATE TO CONCRETE DESIGN PRESSURE = 7000 KPa MAXIMUM
 - MINIMUM ALLOWABLE DESIGN ROTATION = 0.015 RADIAN
 - HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 10% OF THE VERTICAL LOAD
 - DESIGN LOAD FOR BEARING = 377 KIP
 - LL = 218 kN
 - DL = 141 kN
 - SDL = 18 kN



PLAN



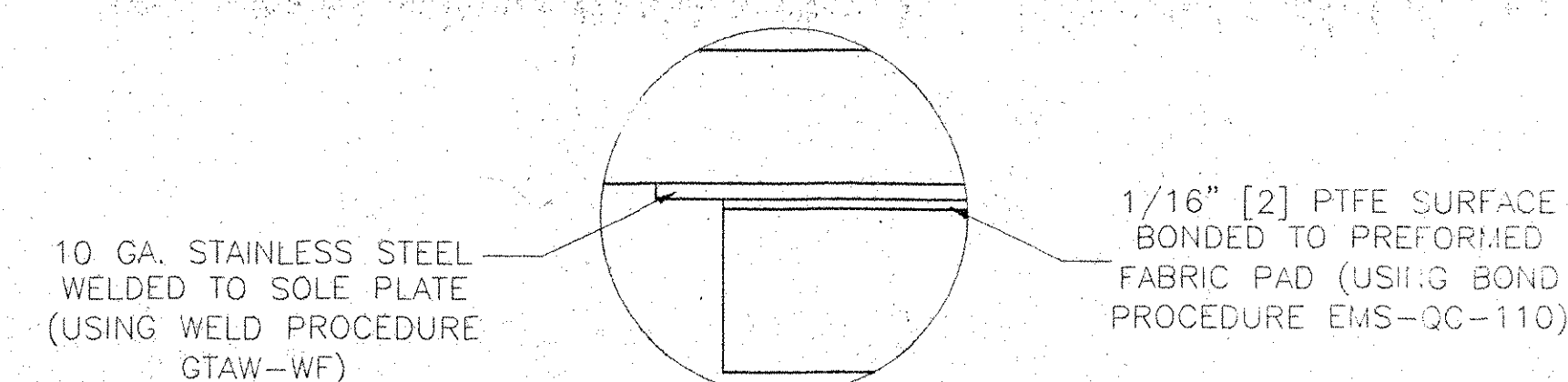
FRONT ELEVATION

COSMEC EXPANSION PREFORMED FABRIC PAD BEARING

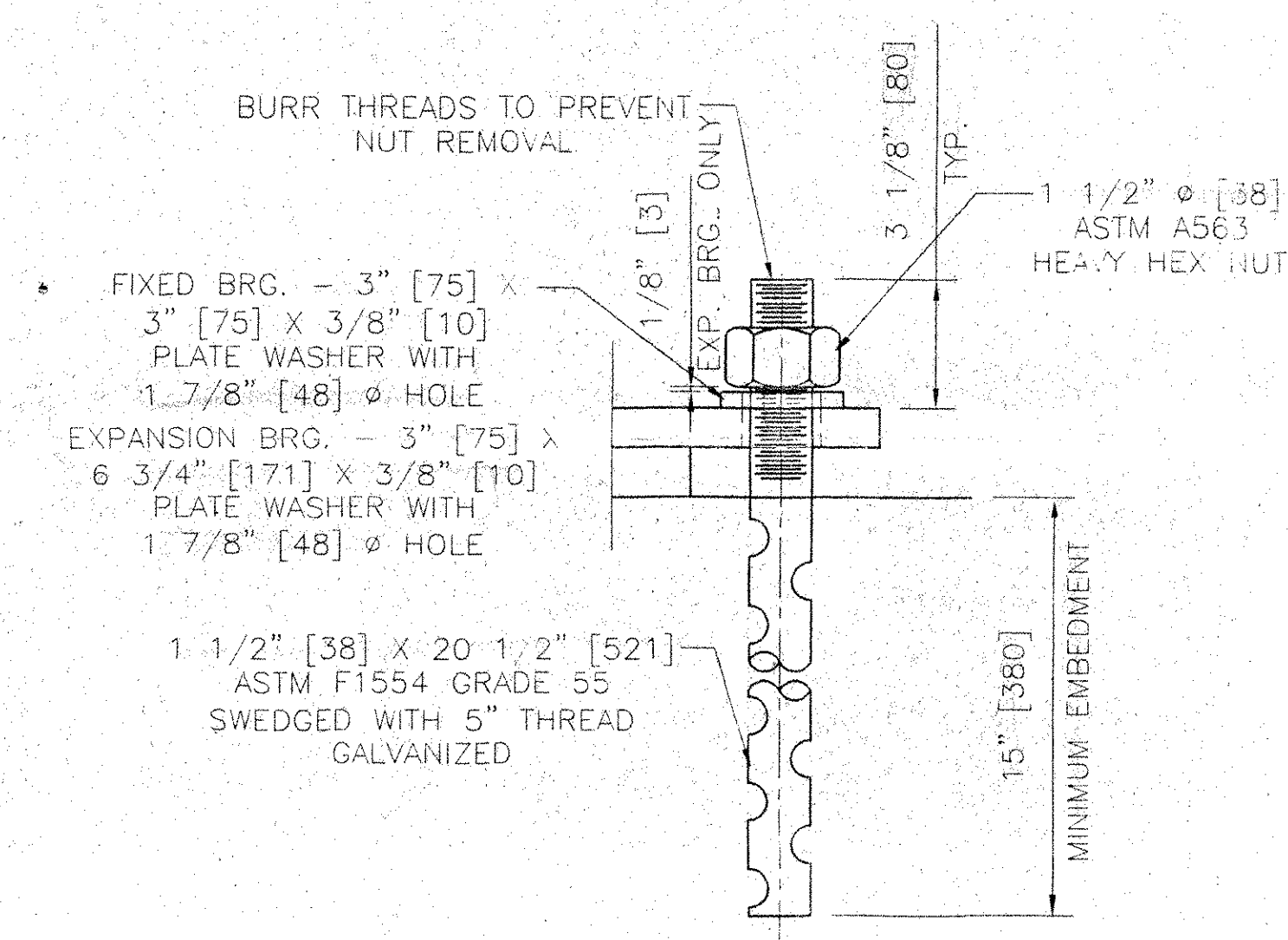
LOCATION: ABUTMENT 2
QUANTITY: 4

MATERIALS

STEEL - ASTM A709 GR. 50 ZINC METALIZED AND SEAL COATED
STAINLESS STEEL - ASTM A240 TYPE 304, 10 RMS FINISH OR LESS ON SLIDING SURFACE
PREFORMED FABRIC PAD - AASHTO DIV. II SPEC. 18.4.9.1
PTFE - ASTM D4894 VIRGIN UNFILLED
ANCHOR BOLTS, NUTS & WASHERS - SEE DETAIL, ALL GALV.



DETAIL A



ANCHOR BOLT DETAIL

Structures Copy

Structures Copy

RECEIVED
FEB 10 2006
BY: *Per* DATE: 2/10/06

STATE OF VERMONT			
HIGHWAY TH 36			
BRIDGE #24 OVER PACIFIC BROOK			
PROJECT NO. BRO 1448 (20)			
MONTGOMERY, VT			
COSMEC, INC. 70 SOUTH STREET WALPOLE, MA 02081			
SCALE: 1/4" = 1"	DRAWN BY: MRR	CHECKED BY: MCM	
	DATE: 2/9/06	DATE: 2/11/06	
COSMEC FABRIC PAD BEARING			
CUSTOMER: A. L. ST. ONGE	S.O. NUMBER: 60522	DRAWING NUMBER: 4619	REV.

Highway Safety Corporation
Glastonbury, CT

Welding Procedure Specification

Material specificationA572 gr 50, ASTM A709 Gr 50, AASHTO M222

Welding processGas Metal Arc Welding (GMAW)

Manual, semi-automatic, or automaticSemi-Automatic

Position of weldingFlat (1F) or Horizontal (2F)

Filler metal specificationAWS A5.18

Filler metal classificationER70S-3

Electrode and manufacturerLincoln Electric Lincoln Weld L-50

Flux and manufacturerN/A

Shielding gas85% Argon / 15% CO2Flow rate19-27 L / min

Single or multiple passSingle

Single or multiple arcSingle

Welding currentDCEP

PolarityReverse - electrode positive

Welding progressionStringers

Root treatmentNone

Preheat and interpass temperaturebase metal up to 3/4" (50°F) ; over 3/4 thru 1-1/2" (150°F) ; over 1-1/2" thru 2-1/2" (225°F)

Postheat treatmentNone

Electrode extension3/4" ± 1/4"

WELDING PROCEDURE						
Weld size	Pass no.	Electrode size	Welding parameters		Travel speed	Joint detail
			Amps	Volts		
1/4"	1	.062"	350 A ± 30	28 V ± 2	12 ipm ± 2	TYPICAL ALL FILLET WELDS
TRANS RECEIVED			OK'D BY	OK'D BY JWC		
AUG 04 2006			RESUBMIT	APPROVED		
			BY	DATE 8-8-06		

This procedure may vary due to fabrication sequence, fit-up, pass size, etc. within the limitation of variables given in section 5 of latest edition AWS D1.5

WPS no. W-1562B

Revision no. 0

Supporting PQR no. pre-qualified

Project Name Montgomery, Vermont

Fabricator Highway Safety Corporation

Authorized by Paul Radice

Date 7/28/06

Project Number BRO 1448 (20)

AWS D1.5
PAUL A. RADICE
7/28/2006
CWI

157RR

Highway Safety Corporation
Glastonbury, CT
Welding Procedure Specification

Material specification

ASTM A500 Gr B

Welding process

Shielded Metal Arc Welding (SMAW)

Manual, semi-automatic, or automatic

Manual

Position of welding

Flat (1G)

Filler metal specification

AWS A5.1

Filler metal classification

ER7018

Electrode and manufacturer

Lincoln Electric Jet LH 78 MR

Flux and manufacturer

N/A

Shielding gas

N/A

Flow rate

N/A

Single or multiple pass

Multiple

Single or multiple arc

Single

Welding current

AC

Polarity

N/A

Welding progression

Stringers

Root treatment

None

Preheat and interpass temperature

50°F (min)

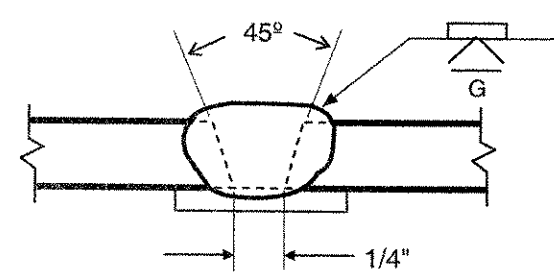
Postheat treatment

None

Electrode extension

N/A

WELDING PROCEDURE

Weld size	Pass no.	Electrode size	Welding parameters		Travel speed	Joint detail
			Amperes	Volts		
	ALL	5/32"	150 A to 220 A		VARIES	B-U2a
TRANS RECEIVED OK'D BY: OK'D BY: Juc AUG 04 2006 RESUBMIT APPROVED BY: DATE: 8-3-06						
						

This procedure may vary due to fabrication sequence, fit-up, pass size, etc. within the limitation of variables given in section 5 of latest edition AWS D1.1

WPS no.

W-1562A

Revision no.

0

Supporting PQR no.

Pre-Qualified

Project Name

Montgomery, Vermont

Fabricator

Highway Safety Corporation

Authorized by

Paul Radice

Date

7/28/06

Project Number

BRO 1448 (20)

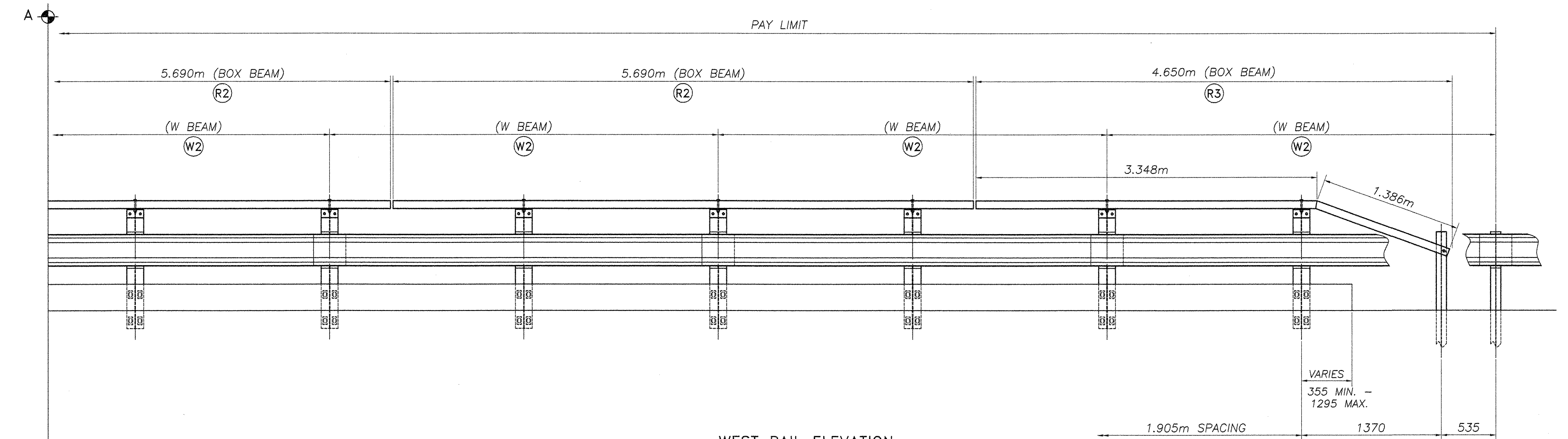
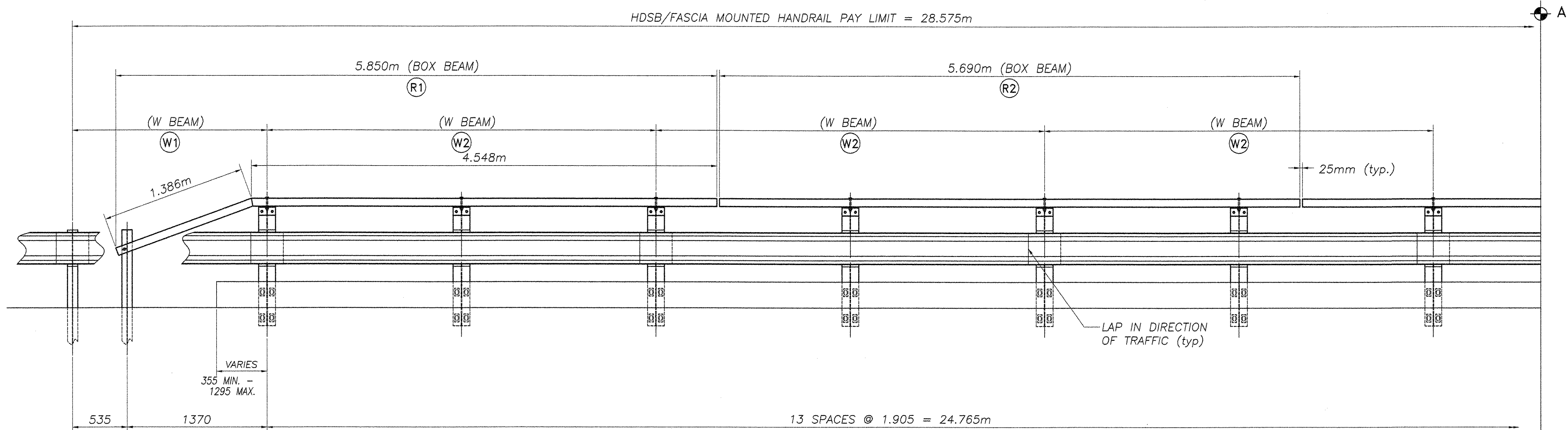
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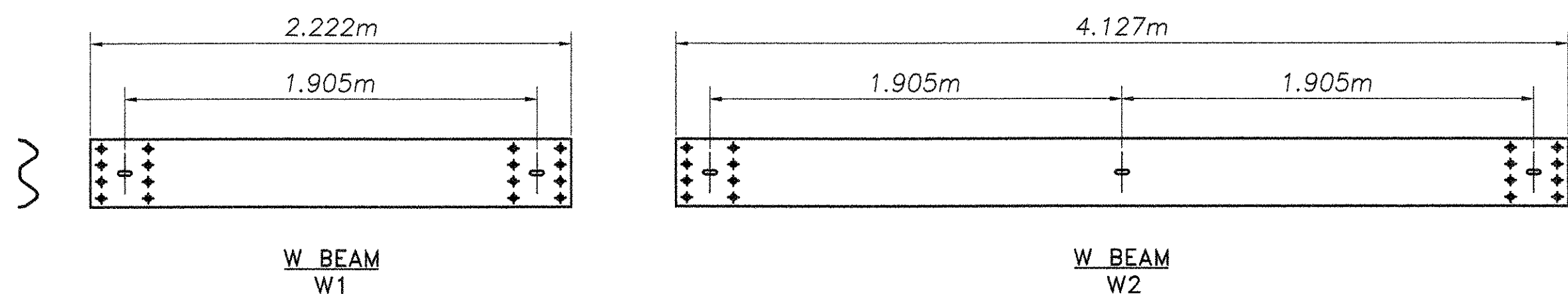
7/28/06

CWT

1562A



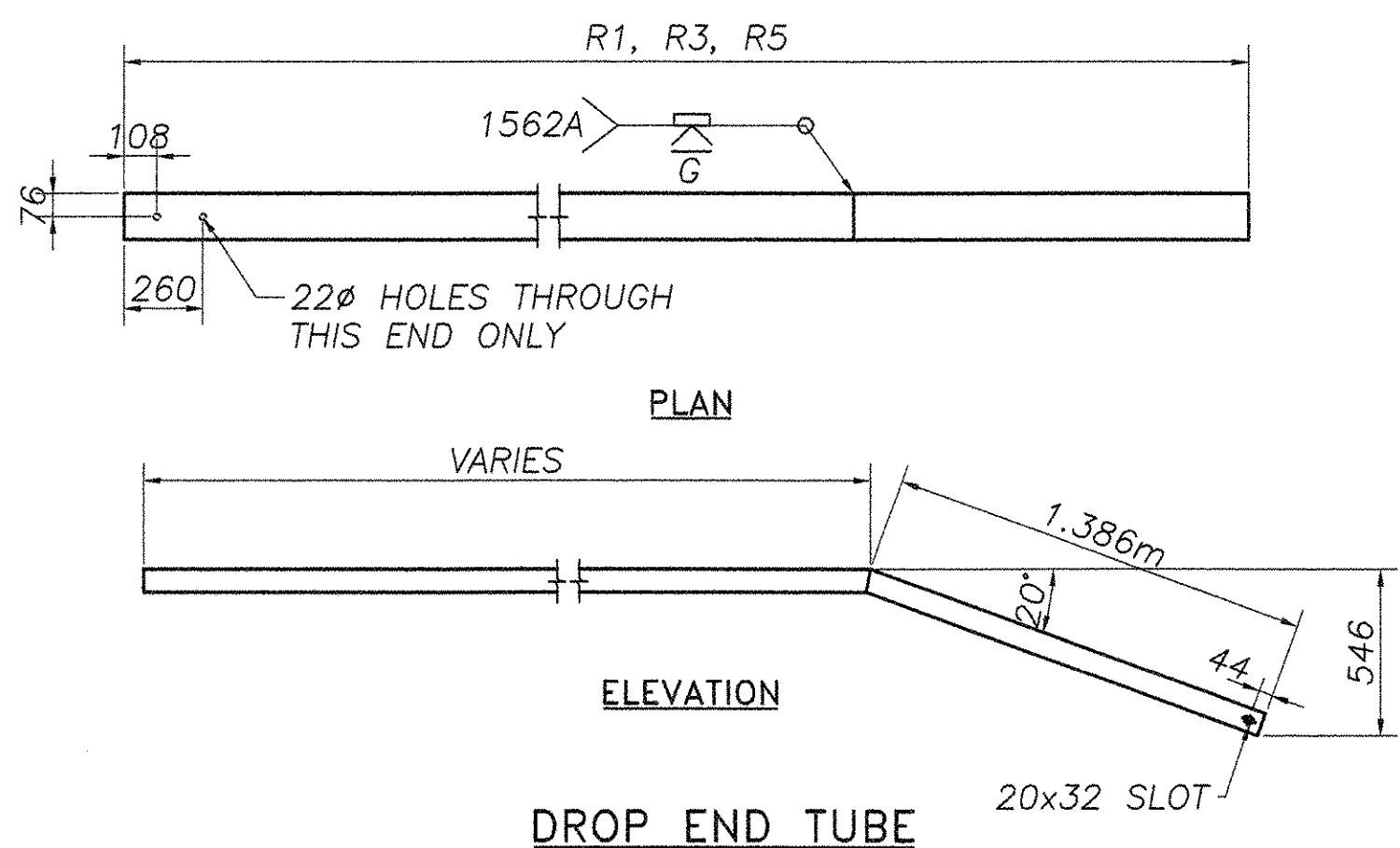
WEST RAIL ELEVATION
LOOKING WEST FROM C.O.F. ROAD



BILL OF MATERIAL (BOTH SIDES OF BRIDGE)					
MK. #	Qty.	Description	Size/Shape	Length	Material
WEATHERING STEEL COMPONENTS					
POST					
29		fascia mounted post	W200 x 35.9	1270	AASHTO M222
33		steel blockout	W150 x 13.5	360	AASHTO M222
4		hex bolt w/ nut, flat washer & rec washer	M16	250	A307
33		post bolt w/ hx nut, flat washer & rec washer	M16	50	A307
136		post bolt w/ flat washer & hex nut	M16	38	A307
29		hand rail attachment angle	L127 x 89 x 9.5	165	AASHTO M222
58		post bolt w/ flat washer & hex nut	M16	50	A307
8		driven post	W150 x 13.5	1829	AASHTO M222
136		w beam splice bolt w/ DR nut	M16	32	A307
GALVANIZED AND PAINTED STEEL COMPONENTS					
HANDRAIL					
R1	1	hand rail tube w/ drop end	TS 152x75x6.4	5.850m	A500 gr B
R2	6	hand rail tube	TS 152x75x6.4	5.690m	A500 gr B
R3	1	hand rail tube w/ drop end	TS 152x75x6.4	4.560m	A500 gr B
R4	1	partially curved hand rail tube w/ drop end	TS 152x75x6.4	5.864m	A500 gr B
R5	1	hand rail tube w/ drop end	TS 152x75x6.4	6.555m	A500 gr B
	29	hex bolt w/2 flat washer & heavy hex nut	M16	120	A307
	16	splice plate	PL 20 x 127	787	AASHTO M223
	32	hex bolt w/ flat washer & heavy hex nut	M20	114	A307
ITEMS FURNISHED BY OTHERS					
W BEAM (by others)					
W1	2	w beam	1.905m		M180 B4
W2	13	w beam	3.810m		M180 B4
W3	1	w beam curved to 5.500m convex radius	1.905m		M180 B4
W4	1	w beam partially curved to 5.500m convex radius	3.810m		M180 B4
ANCHORS (by others)					
58		anchor u bolt w/ 4 hex nuts and 2 flat washers	25 x 250	305	A449
116		plate washer	PL 6x55	130	AASHTO M222

NOTE:

- WEATHERING STEEL HARDWARE PROVIDED, SUBJECT TO AVAILABILITY AT TIME OF DELIVERY. BOLTS MAY BE ALTERNATIVELY PROVIDED GALVANIZED WITH ALL SURFACES, EXPOSED TO VIEW AFTER FINAL INSTALLATION, TOUCHED UP WITH BROWN PAINT. PAINTING OF EXPOSED HARDWARE SURFACES SHALL BE PAINTED AFTER INSTALLATION IN THE FIELD. TOUCH UP PAINT MATCHING THE SHOP APPLIED PAINT SYSTEM WILL BE FURNISHED FOR MINOR FIELD REPAIR AFTER INSTALLATION AND PAINTING OF HARDWARE IF NECESSARY.
- TS 152 x 76 x 6 HAND RAIL TO BE GALVANIZED AND PAINTED BROWN, COLOR 20059 IN ACCORDANCE WITH VAOT SUPPLEMENTAL SPECIFICATION 513.06(r).



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SEP 06 2006

Structures Design Section

—RECORD PLANS—

HIGHWAY SAFETY CORP.

GLASTONBURY, CT

ITEM # 525.43 FASCIA MOUNTED HDSB WITH HANDRAIL

PROJECT NUMBER: BRO 1448 (20)

TOWN OF MONTGOMERY, VT

COUNTY OF FRANKLIN

ROUTE NO. TH 35, BRIDGE NO. 24

GENERAL CONTRACTOR

SUB CONTRACTOR

F.R. LAFAYETTE INC.

DRAWN: MHM

CHECKED:

DATE: 7/20/06

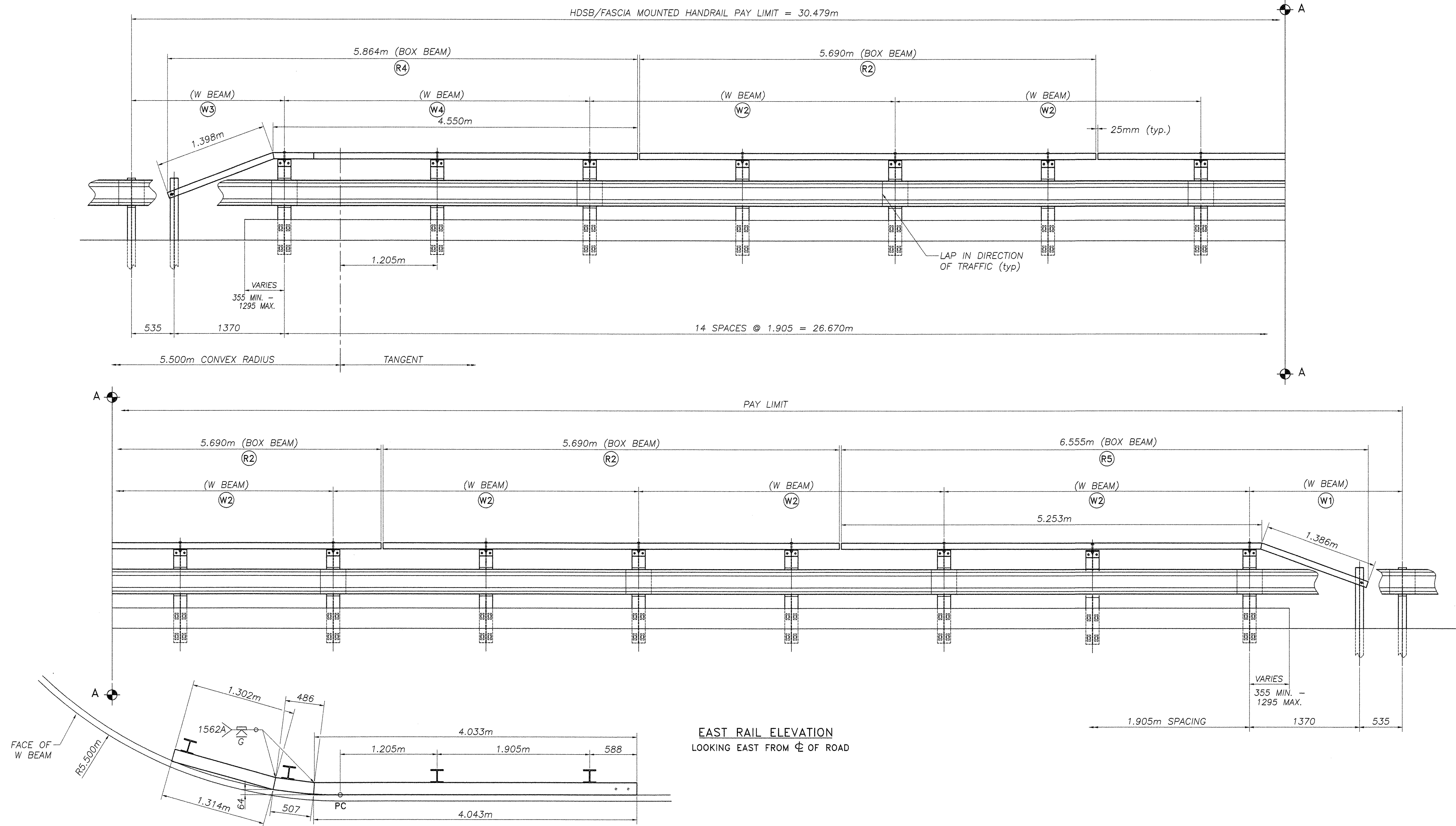
SCALE: NTS

HSC REFERENCE NO. 1562

SIZE: D

REVISION: 0

SHEET NO. 1 of 3



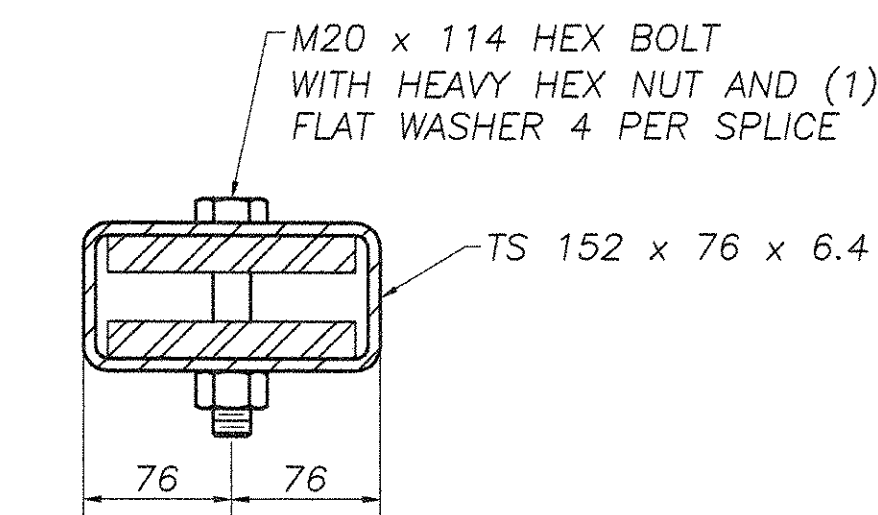
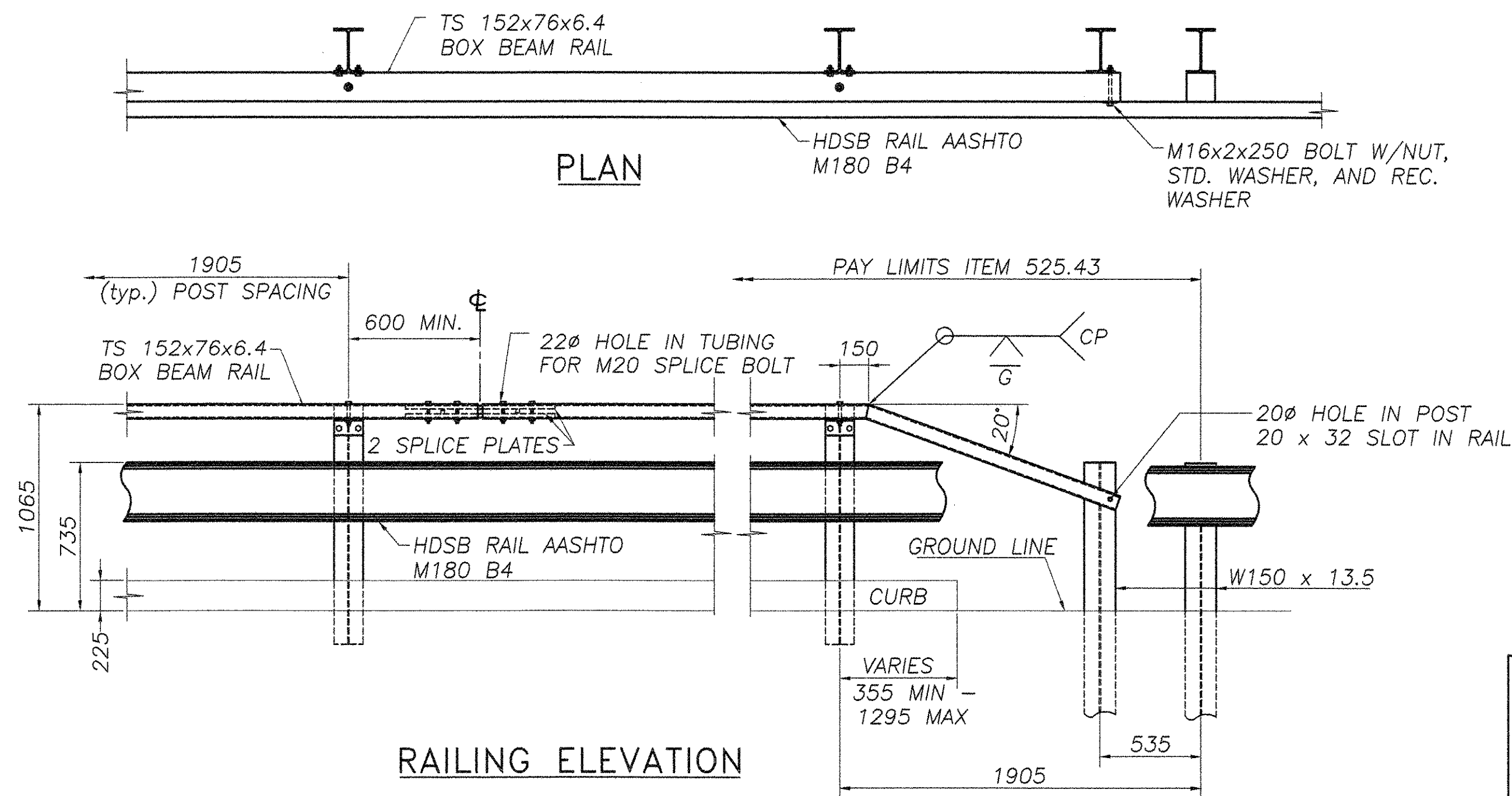
HIGHWAY SAFETY CORP.
GLASTONBURY, CT

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SEP 05 2006
Structures Design
Section

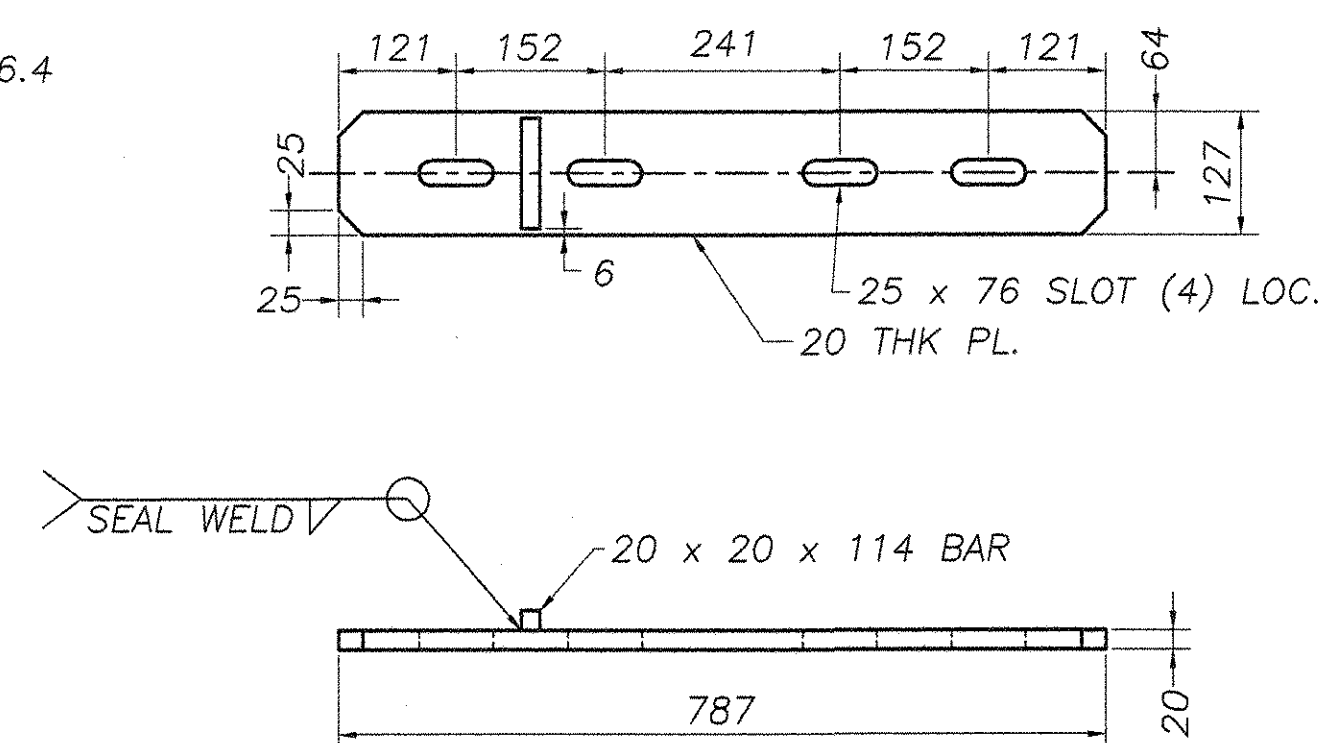
ITEM # 525.43 FASCIA MOUNTED HDSB WITH HANDRAIL	DRAWN	MHM
PROJECT NUMBER: BRO 1448 (20)	CHECKED	
TOWN OF MONTGOMERY, VT	DATE	7/20/06
COUNTY OF FRANKLIN	SCALE	NTS
ROUTE NO. TH 35, BRIDGE NO. 24	HSC REFERENCE NO.	1562
GENERAL CONTRACTOR	SIZE	D REVISION 0
SUB CONTRACTOR	SHEET NO.	2 of 3
F.R. LAFAYETTE INC.		

REVISIONS		
No.	Remarks	Date
0	Initial submittal	7/31/06
0	Second submittal	8/16/06

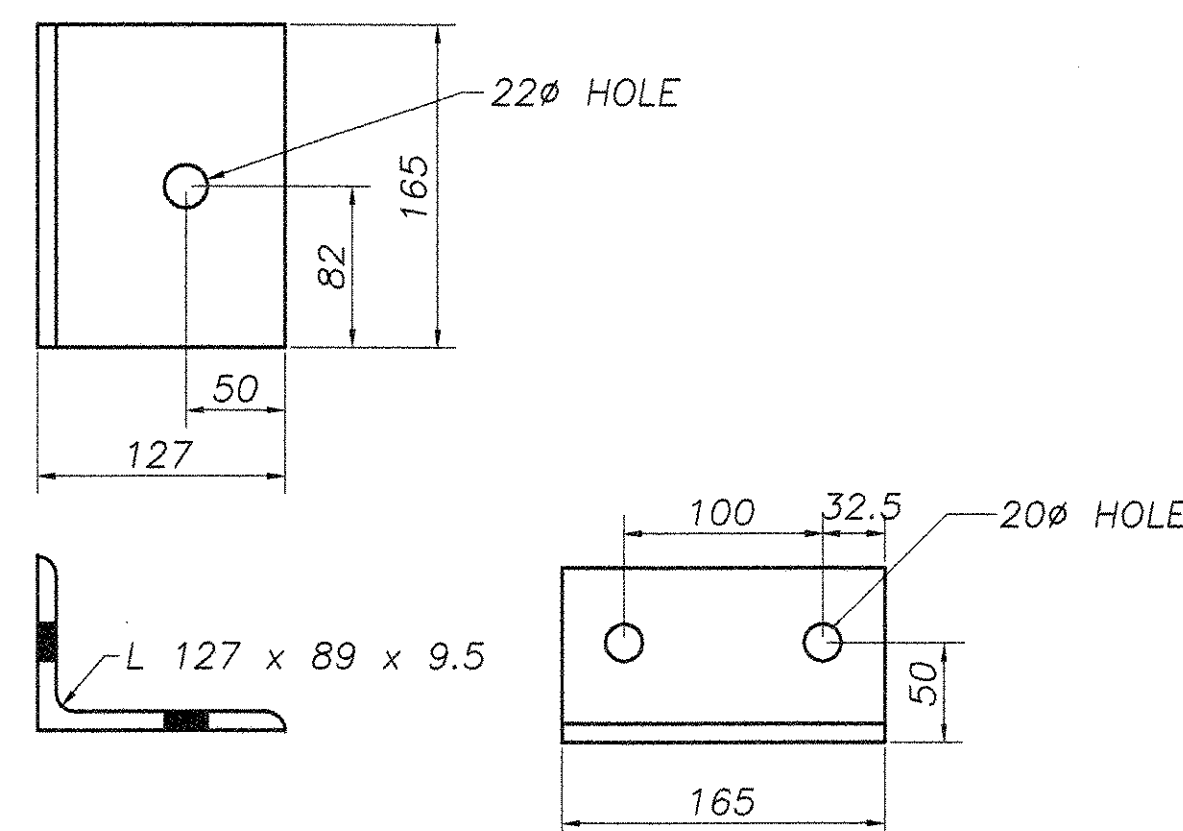
—RECORD PLANS—



SPlice SECTION



SPlice PLATE DETAILS

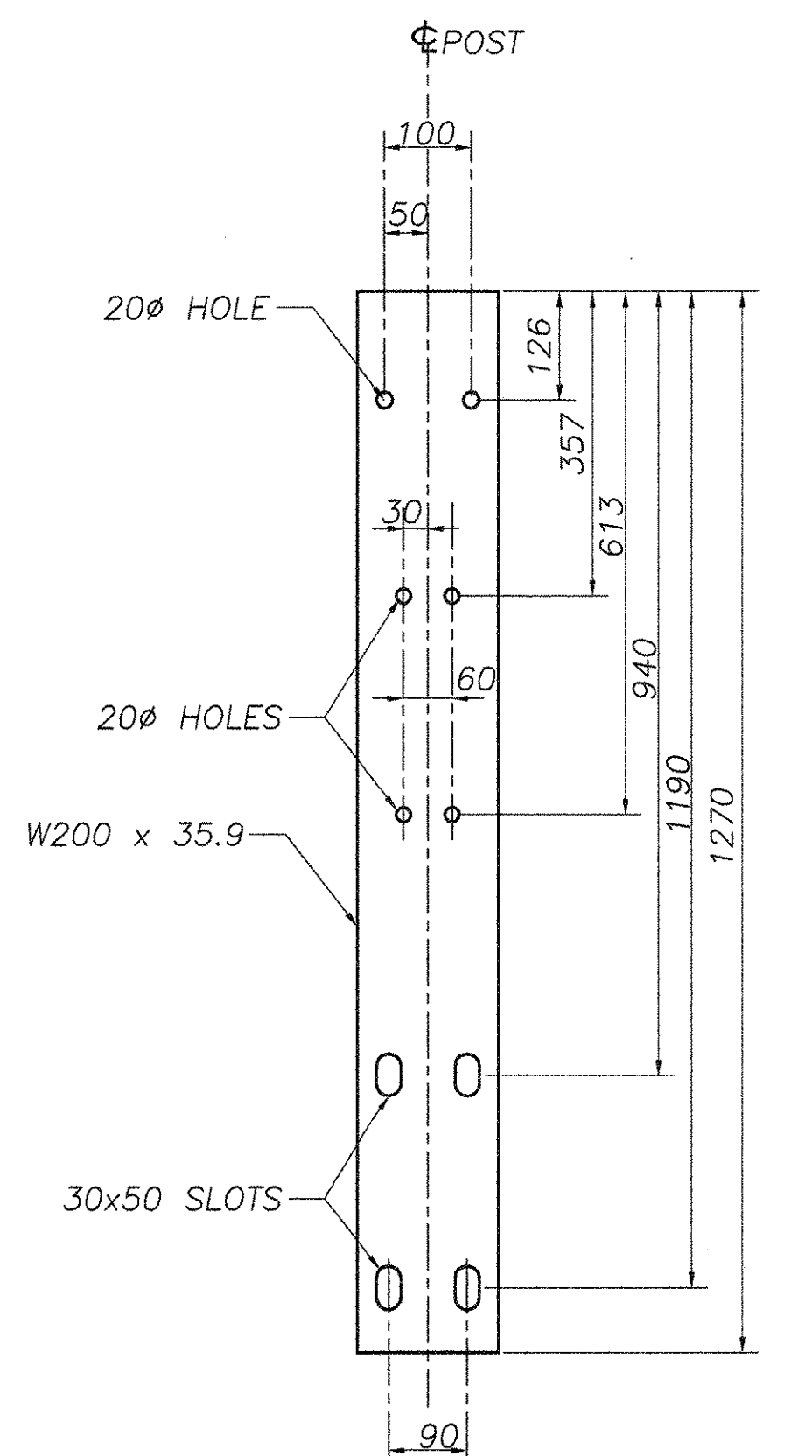


SHELF BRACKET

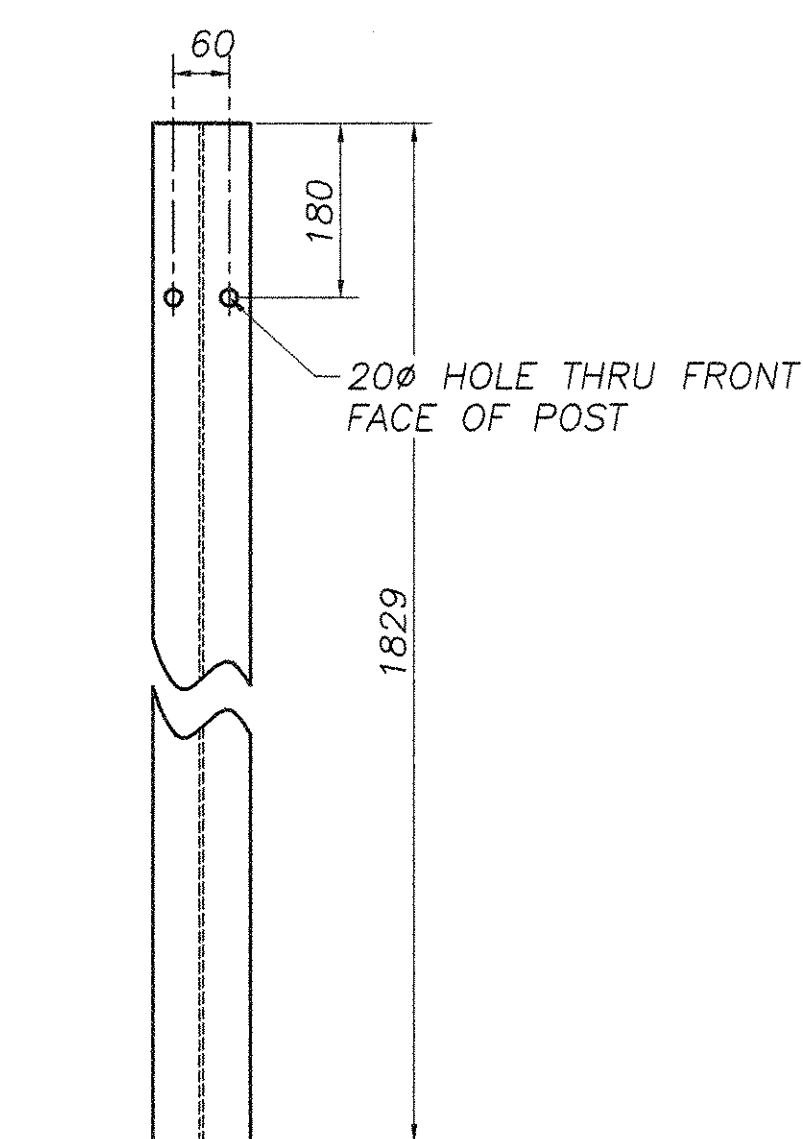
M16 x 120 HEX BOLT WITH NUT & (2) WASHERS (FIELD DRILL HOLES IN HAND RAIL TUBE)
TS 152 x 76 x 6.4
2-M16 x 50 HEX BOLT WITH HEX NUTS AND WASHERS
SHELF BRACKET L127 x 89 x 9.5 165 mm LONG, (SEE DETAIL)
W150 x 13.5 POST BLOCKOUT 360 LONG

M16 x 50 POST BOLT WITH NUT AND WASHER (OTHER SIDE)
REC. WASHER THIS SIDE
4 M16 x 38 HEX BOLT WITH NUT & WASHER
2 M27 ANCHOR ROD U-BOLTS AND HARDWARE EACH WITH (4) NUTS & (4) WASHERS (2) PLATE & (2) STANDARD (PROVIDED BY OTHERS)
REFERENCE SURFACE (TOP OF DECK)

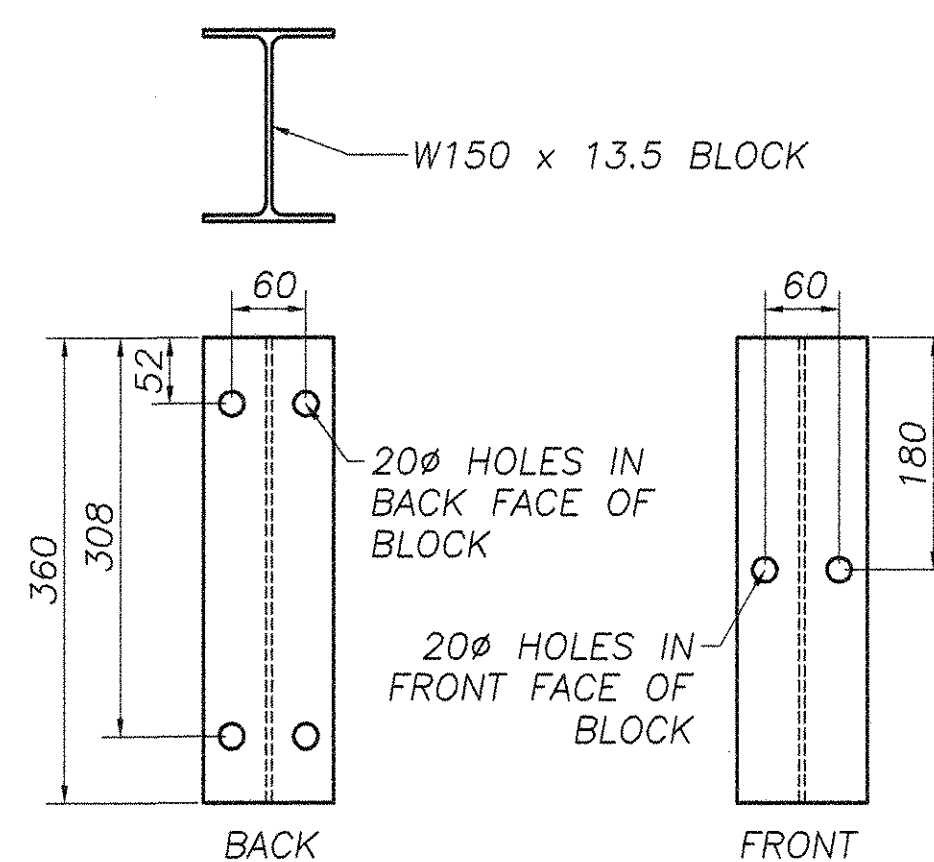
TYPICAL SECTION



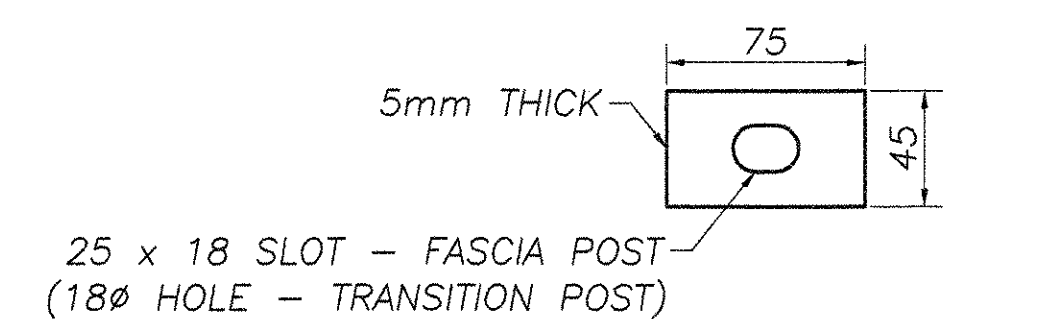
FASCIA MOUNTED POST



DRIVEN POST
W150 x 13.5



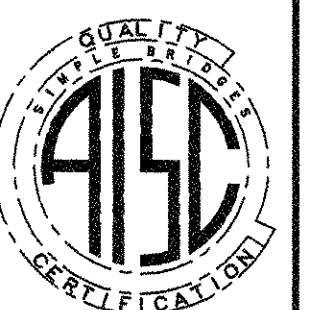
OFFSET BLOCK DETAIL



RECTANGULAR WASHER

NOTES

- SEE STANDARD G-1M & G-1dM FOR ADDITIONAL DETAILS OF STEEL BEAM GUARD RAIL AND STANDARD SB-R4a-82 FOR ADDITIONAL DETAILS OF BOX BEAM GUARD RAIL
- ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED AND CONFORM TO SECTION 714.07 ****BY OTHERS****
- BRIDGE RAIL TYPES A, C & E: HEAVY DUTY STEEL BEAM RAIL SHALL BE AASHTO M180, CLASS B TYPE-II. POST AND BRACKETS, AS WELL AS PLATE AND SPECIAL WASHERS, SHALL BE AASHTO M223/M223M STEEL. BOLTS SHALL BE ASTM F568M, CLASS 4.6. ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION TO AASHTO M111 OR M232 (HARDWARE). PRIOR TO GALV, GRIND ALL EDGES OF SHAPES AND PLATES TO MIN. 2mm RADIUS
- BRIDGE RAIL TYPE B & D: HEAVY DUTY STEEL BEAM RAIL SHALL BE AASHTO M180, CLASS B-TYPE 4 ****BY OTHERS****. POSTS AND BRACKETS AS WELL AS PLATE AND SPECIAL WASHERS, SHALL BE AASHTO M222/M222M STEEL.
- ALL POSTS SHALL BE SET TO NORMAL GRADE
- BRIDGE APPROACH RAIL HEIGHT SHALL BE TRANSITIONED TO NORMAL ROADWAY HEIGHT IN 7.62m
- APPROACH RAILING SHALL BE HEAVY DUTY STEEL BEAM AS DETAILED ON THE PLANS.
- FOR THE TYPE A,B,C, OR D BRIDGE RAILING, THE TRANSITION POST SHALL HAVE AN OFFSET BLOCK AND BE LOCATED AS CLOSE AS PRACTICAL TO THE MID POINT BETWEEN THE BRIDGE END POST AND APPROACH RAIL POST I.
- SPLICES SHALL LAP IN DIRECTION OF TRAFFIC FLOW
- SEE STANDARD SHEET G-1M FOR DELINEATOR DETAILS AND PLACEMENT.
- ERECT DELINEATOR ON EVERY FIFTH POST OR APPROXIMATELY 9m APART. PAYMENT SHALL BE SUBSIDIARY TO OTHER ITEMS.
- THE DROP WEIGHT TEAR TEST IN SECTION 732 SHALL NOT APPLY TO THE STRUCTURAL TUBING.



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Structures Design
Section

RECORDED PLANS

REVISIONS		
No.	Remarks	Date
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HIGHWAY SAFETY CORP.		GLASTONBURY, CT	
ITEM # 525.43 FASCIA MOUNTED HDSB WITH HANDRAIL	DRAWN	MMH	
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COUNTY OF FRANKLIN	SCALE	NTS	
ROUTE NO. TH 35, BRIDGE NO. 24	HSC REFERENCE NO.	1562	
GENERAL CONTRACTOR	SIZE	D	REVISION 0
SUB CONTRACTOR	SHEET NO.	3	of 3
F.R. LAFAYETTE INC.			

075BR

VTRANS
RECEIVED
AUG 04 2006
RESUBMIT APPROVED
DATE 8-14-06

August 6, 2006
Highway Safety Corp.
239 Commerce St.
Glastonbury, CT 06033

RE: Colorzinq® Coating over Galvanized surface.

Dear Maric Sniezko,

The following is our proposed high performance coating system for the following project:
MONTGOMERY 1448 (20) HSC Job Reference# 1562

Material to be galvanized to the ASTM A123, A153 galvanizing standards and coated with a Duplex System; Color: Brown Federal #20059, standard 595.

Our QC inspects all incoming material to check for damage from shipping and assure venting is suitable for the galvanizing process.

Material is cleaned of all oxidation, dirt and oils through repeated dipping in hot Alkali solutions. Next, any scale or rust is removed from the cleaned steel by dipping in a diluted ambient temperature Hydrochloric Solution. The pickled material is then transferred into a Zinc Ammonium chloride flux, (Dry Kettle Process) step.

The fluxed product is then completely immersed in a bath consisting of minimum 98% pure molten zinc.

After Galvanizing the material is air cooled, no quenching allowed on any material requiring Duplex Coatings.

157BR

V & S Colorzinc® galvanizing and coating operations are all enclosed inside the same environmentally controlled facility. After galvanizing, the material is transported directly into the coating room.

The galvanized surfaces are prepared using the most current ASTM method D 6386-99 as described under Section 5.4.1. The method of lightly sweep abrading the zinc surface immediately before applying the primer removes even minute amounts of oxides that have formed. We use a proprietary media that complies with the D 6386-99 guidelines. Our light sweep abrade at low pressure cleans the surface and provides a profile of 1.0 to 1.5 mils anchor pattern. Immediately material is transported via our automated overhead rail system into the Primer booth. These steps will commence within a 24 hour window to further insure surface preparation integrity. This positive action approach to surface preparation eliminates any variables associated with a time sensitive surface preparation method.

Coatings are applied at a film thickness **International Paint** recommends. The epoxy prime coat of **Interurec 420 Epoxy Primer** will be applied at 5 – 6 mils DFT followed by a finish urethane coat of **Interthane 990HS** applied at 2-5 mils DFT. When applied to 4 mils of hot dip zinc, a total system thickness of 11 – 13 mils will be achieved. All coats will be cured by heating in our enclosed paint facility to promote maximum performance of the system. Our controlled heat curing process eliminates the variables normally associated with relying on existing ambient drying conditions.

International Paint is our proposed paint system and is not only equal to the other listed paint systems in performance but in many ways superior. **International Paint** is a division of the Akzo Nobel Corp. who is a global leader in innovative high performance coatings. All proposed coatings are well below the 3.5 lb./gallon V.O.C. limit. The most important feature of our coating system is the **Intercure 420®** Bicarbox Iron Oxide prime coat. With MIO plating effect, we have achieved superior barrier protection and adhesion to hot dip galvanize compared to conventional epoxy primers.

The Interthane 990HS ® Urethane Finish is listed on the current N.E.P.C.O.A.T approved listing and is used to protect many of the projects painted by area State

Departments of Transportation. These structures are exposed to many harsh environments and their coating systems are designed to withstand these conditions for many years. **International Paint** has a field technician available for our use during startup and throughout the duration of the project as needed.

Voigt and Schweitzer is an ISO 9002 company and as such are very comfortable with any inspections you may want to make. Our lead paint mechanics each have many years experience in the application of complex coating systems. All processes are documented and available to the project authorities.

Thank you for the opportunity. Voigt & Schweitzer are uniquely qualified to present a single source location for the galvanizing and coating of your project. If you need further information or clarifications please call me at (860) 294-1030.

Best regards,
Jay J. Besozzi
V&S Taunton Galvanizers, LLC.