INDEX OF SHEETS

SEE SHEET 2

RECORD PLANS

CONTRACTOR: F.W.Whitcomb Construction Inc-Walpole NH

RESIDENT ENGINEER: P.Perry

CONSTRUCTION BEGAN: December 2, 2004

CONSTRUCTION COMPLETE: July 30, 2007

RECORD PLANS BY: P. Perry

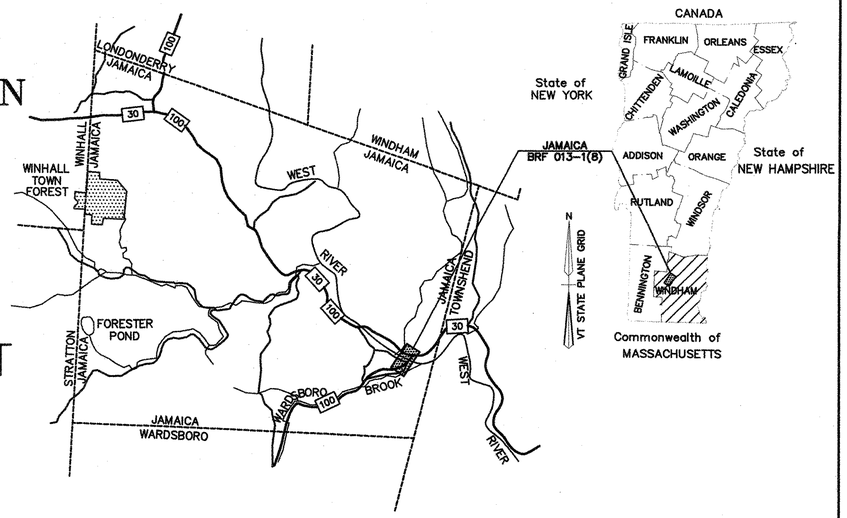
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.

BY Paul K. Perry RESIDENT ENGINEER

DATE 7/19/08

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.

STATE OF VERMONT
AGENCY OF TRANSPORTATION



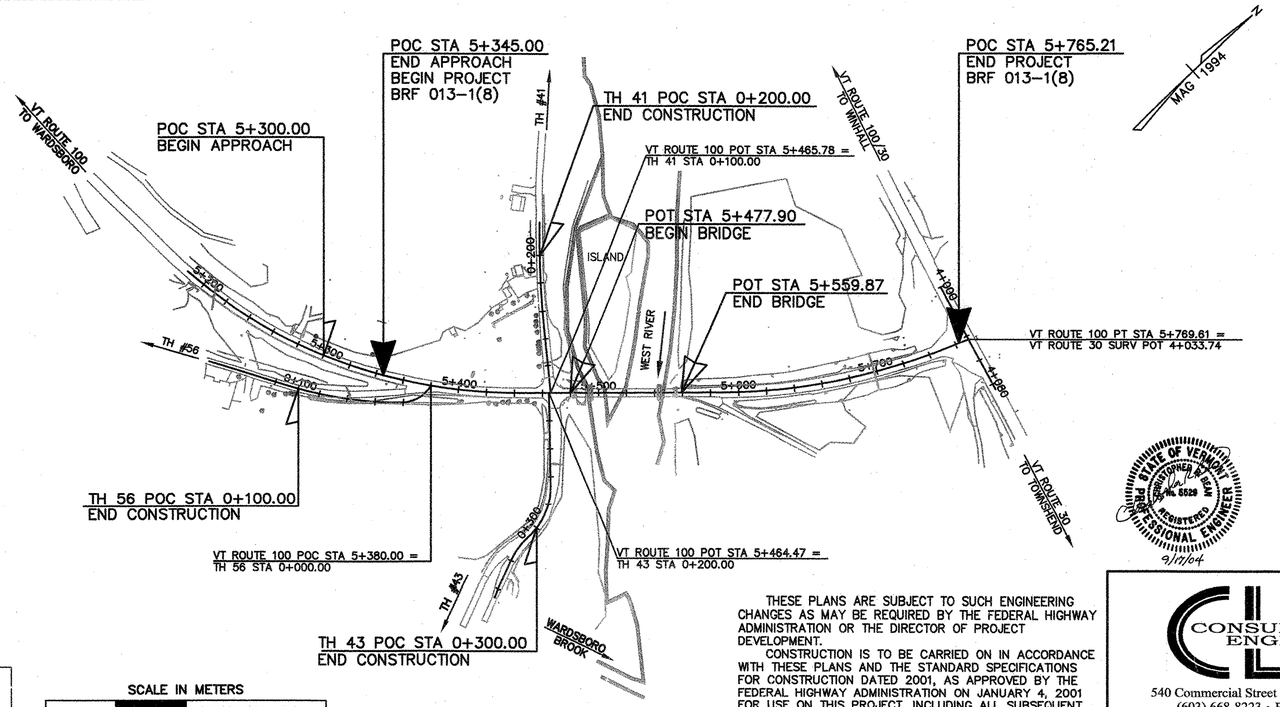
PROPOSED IMPROVEMENT
TOWN OF JAMAICA
COUNTY OF WINDHAM
VT. ROUTE 100
MINOR ARTERIAL

BEGINNING AT A POINT ON VT. ROUTE 100 APPROXIMATELY 420 m SOUTHERLY OF THE INTERSECTION OF VT. ROUTE 100 AND VT. ROUTE 30, EXTENDING NORTHEASTERLY ALONG VT. ROUTE 100 FOR 420 m.

LENGTH OF ROADWAY = 338.24 m
LENGTH OF BRIDGE = 81.97 m
LENGTH OF PROJECT = 420.21 m

WORK TO BE PERFORMED UNDER THIS PROJECT CONSISTS OF THE REPLACEMENT OF EXISTING BRIDGE #80, ON VT ROUTE 100, INCLUDING ALL NECESSARY ROADWAY APPROACH WORK.

0 1 2
SCALE IN KILOMETERS



CONVENTIONAL SIGNS

COUNTY LINE
TOWN LINE
LIMITS OF ACCESS
POINT OF ACCESS
FENCE LINE
STONE WALL
TRAVELED WAY
GUARDRAIL
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

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

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.

STATE OF VERMONT CHRISTOPHER A. BEAM No. 8529 REGISTERED PROFESSIONAL ENGINEER 9/17/04

STATE OF VERMONT JOHN F. BYAM NO. 6478 Structural I LICENSED PROFESSIONAL ENGINEER 9/17/04

NOT Metric

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

CONSULTING ENGINEERS Inc.
540 Commercial Street • Manchester, NH 03101
(603) 668-8223 • Fax: (603) 668-8802
cld@cldengineers.com • www.cldengineers.com
Maine • New Hampshire • Vermont

DIRECTOR OF PROJECT DEVELOPMENT

APPROVED _____ DATE 9/21/04

PROJECT MANAGER : MARTHA EVANS-MONGEON

PROJECT NAME : JAMAICA
PROJECT NUMBER : AC BRF 013-1(8)

SHEET 1 OF 116 SHEETS

Metric

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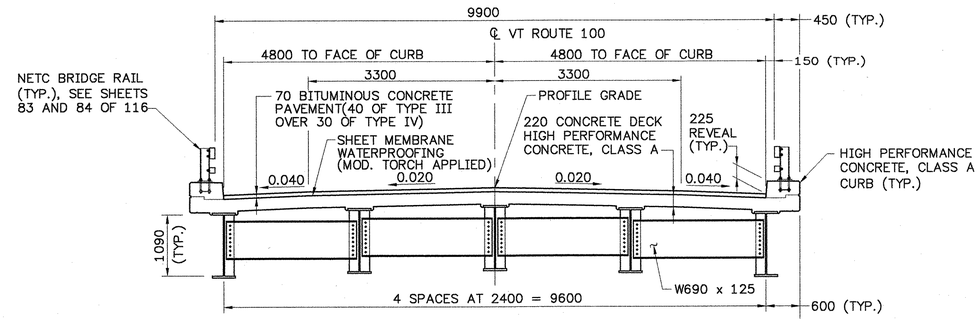
STANDARDS

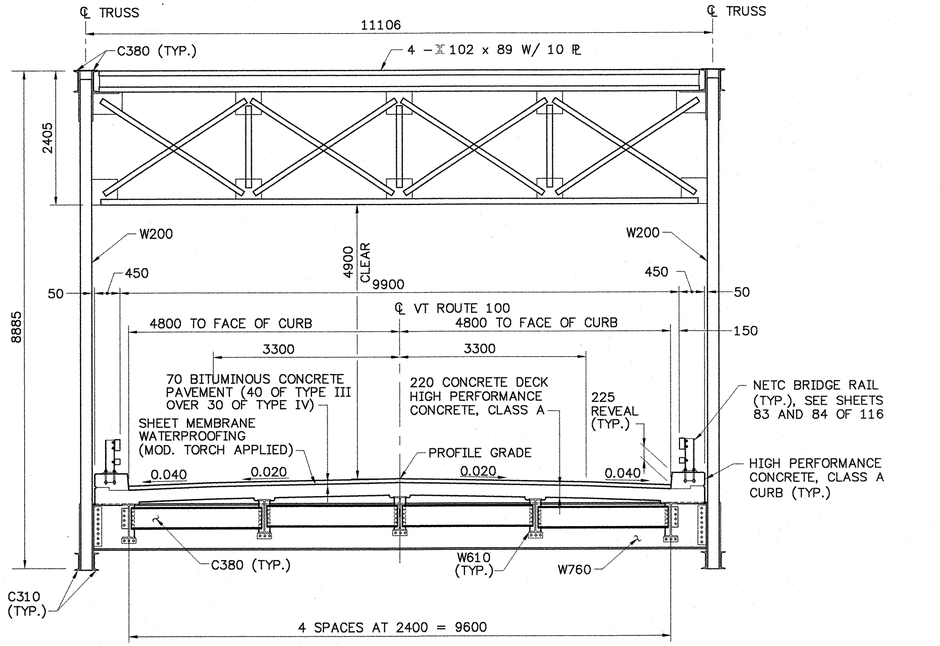
B–5M	SLOPE GRADING, EMBANKMENTS	01/03/00
B–11M	SLOPE STABILIZATION	06/13/97
B–71M	RESIDENTIAL AND COMMERCIAL DRIVES	02/01/04
D–2M	REINFORCED CONCRETE HEADWALL	06/13/97
D–3M	TREATED GUTTERS	06/13/97
D–4M	CSP END SECTIONS	06/13/97
D–16M	RCP END SECTIONS	06/13/97
E–100M	CONSTRUCTION APPROACH SIGNS	03/01/04
E–100AM	SIDE ROAD CONSTRUCTION APPROACH SIGNS	03/01/04
E–101M	CONSTRUCTION SIGN DETAILS	05/30/03
E–102M	CONSTRUCTION SIGN DETAILS	06/30/03
E–102AM	CONSTRUCTION SIGN DETAILS	06/13/97
E–106M	TRAFFIC CONTROL DETAILS	03/01/04
E–107M	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	06/30/03
E–107AM	BREAKAWAY BARRICADE DETAILS	06/13/97
E–108M	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	06/13/97
E–110M	MAJOR MAINTENANCE OPERATION–LANE CLOSURE	06/13/97
E–121M	STANDARD SIGN PLACEMENT, CONVENTIONAL ROAD	06/13/97
E–123M	GUIDE SIGN PLACEMENT, MISCELLANEOUS DETAILS	06/13/97
E–127M	ROUTE MARKINGS AT RURAL INTERSECTIONS	06/13/97
E–134M	BRIDGE NUMBER PLAQUE	06/13/97
E–136BM	STATE ROUTE MARKER SIGN DETAILS	06/13/97
E–138M	REFERENCE PLAQUE DETAILS	05/30/03
E–141M	REGULATORY SIGN DETAILS	06/13/97
E–142M	REGULATORY SIGN DETAILS	06/13/97
E–143M	REGULATORY SIGN DETAILS	06/13/97
E–150M	WARNING SIGN DETAILS	06/13/97
E–155M	WARNING SIGN DETAILS	06/13/97
E–160M	FLANGED CHANNEL STEEL SIGN POST	06/13/97
E–163M	TUBULAR STEEL SIGN POST	06/13/97
E–164M	SQUARE STEEL SIGN POST	06/13/97
E–191M	PAVEMENT MARKING DETAILS	02/01/99
E–193M	PAVEMENT MARKING DETAILS	06/13/97
G–1M	STEEL BEAM GUARDRAIL	01/03/00
G–1DM	STEEL BEAM GUARDRAIL (40MPH & LESS) ANCHOR FOR STEEL BEAM RAIL	01/03/00
G–4M	PLANK RAIL, GUIDEPOSTS, YIELDING MARKER POSTS	06/13/97
J–1M	BOUNDARY MARKERS	06/13/97
J–3M	MAILBOX SUPPORT DETAIL	06/13/97

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

SURVEYED BY CLD DATE 10/94
DRAWN BY TUS DATE
SQUAD LEADER JAW
DESIGN FILE NO. 90–284
IPARM FILE DATE PLOTTED
PROJ. NAME JAMAICA
PROJ. NO. BRF 013–1(8)
SHEET 2 OF 116 SHEETS



APPROACH BRIDGE TYPICAL SECTION



TRUSS BRIDGE TYPICAL SECTION

SCALE IN MILLIMETERS

0 1000 2000 4000

FINAL HYDRAULICS REPORT

VAOT Metric

HYDRAULIC DATA

1. DRAINAGE AREA 605.5 km^2
2. CHARACTER OF TERRAIN MOUNTAINOUS
3. CHARACTER AND TYPE OF STREAM PERENNIAL CONTROLLED BY COE DAMS
4. NATURE OF STREAMBED DEEP, DENSE, SANDY GRAVEL, COVERED BY BOULDER LAYER
   - Q2.33 95 m^3/s — Q50 370 m^3/s
   - Q10 200 m^3/s — Q100 450 m^3/s
   - Q25 280 m^3/s — Q500 740 m^3/s
5. DATE OF FLOOD OF RECORD UNCONTROLLED: NOV 1927; (CONTROLLED: APR 1987)
6. WATER SURFACE ELEVATION 169.0 (169.5) ESTIMATED DISCHARGE 736 (170–238) m^3/s
7. NATURAL STREAM VELOCITY @ Q 2.33 = 0.3 – 0.8 m/s
8. ICE CONDITIONS MODERATE TO HEAVY DEBRIS LIGHT TO MODERATE
9. DOES THE STREAM REACH MAX. HIGHWATER ELEVATION RAPIDLY? UNCONTROLLED
   TRIBUTARIES BELOW BALL MOUNTAIN RESERVOIR ARE FLASHY.
10. IS ORDINARY RISE RAPID? DAM OPERATIONS DAMPEN RISE
11. IS STAGE AFFECTED BY UPSTREAM/DOWNSTREAM CONDITIONS? YES, COE DAMS
    IF YES, DESCRIBE: UPSTREAM BALL MOUNTAIN DAM CONTROLS DISCHARGE; DOWNSTREAM TOWNSHEND DAM CAN CAUSE HIGH BACKWATER.
12. WATERSHED STORAGE 62% HEADWATERS X UNIFORM THROUGHOUT WATERSHED
    IMMEDIATELY ABOVE SITE

EXISTING STRUCTURE

1. STRUCTURE TYPE: STEEL TRUSS W/STEEL GIRDER APPROACH SPANS YEAR BUILT: 1929
2. CLEAR SPAN (NORMAL TO STREAM): 12 m – 49 m – 12 m
3. VERTICAL CLEARANCE ABOVE STREAMBED: 5.5 m
4. WATERWAY OF FULL OPENING: 351 m^2
5. DISPOSITION OF STRUCTURE: TO BE REMOVED
6. TYPE OF MATERIAL UNDER SUBSTRUCTURE: SANDY GRAVEL
7. WATER SURFACE ELEVATION* @ Q2.33= 167.04 (169.80) m VELOCITY= 1.14 (0.26) m/s
   - Q10= 167.60 (169.82) m = 1.54 (0.54) m/s
   - Q25= 167.98 (169.83) m = 1.72 (0.76) m/s
   - Q50= 168.34 (169.86) m = 1.90 (0.99) m/s
   - Q100= 168.62 (169.89) m = 2.03 (1.18) m/s

* WATER SURFACE ELEVATIONS LISTED ARE BASED ON A UNCONTROLLED STREAM FLOW AND NO BACKWATER FROM THE TOWNSHEND DAM. WATER SURFACE ELEVATIONS FOR THE CONTROLLED STREAM FLOW WITH BACKWATER FROM THE TOWNSHEND DAM ARE LISTED IN PARENTHESES.

8. LONG TERM STREAM BED CHANGES: NONE
9. IS THE ROADWAY OVERTOPPED BELOW THE Q100? NO FREQUENCY: NA
10. RELIEF ELEVATION: NA DISCHARGE OVER ROAD @Q100: NA
11. UPSTREAM STRUCTURE: TOWN: JAMAICA DISTANCE: 2.17 km
    HIGHWAY NO.: VT30 STRUCTURE NO.: 29
    STRUCTURE TYPE: 2 SPAN CONT. COMPOSITE PLATE GIRDER
    CLEAR SPAN: 31m – 31m CLEAR HEIGHT: 5.8 m
    YEAR BUILT: 1988 FULL WATERWAY: 227.6m^2
12. DOWNSTREAM STRUCTURE: TOWN: TOWNSHEND DISTANCE: 6.12 km
    HIGHWAY NO.: NA STRUCTURE NO.: NA
    STRUCTURE TYPE: COE TOWNSHEND DAM
    CLEAR SPAN: NA CLEAR HEIGHT: NA
    YEAR BUILT: 1961 FULL WATERWAY: NA

PROPOSED STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE STEEL TRUSS AND PLATE GIRDER WITH CENTER PIER
2. CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 48.8 m – 31.0 m
3. VERTICAL CLEARANCE ABOVE STREAMBED: 6.4 m
4. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

1. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 406 m^2
2. WATER SURFACE ELEVATION* @ Q 2.33 = 167.04 (169.80) m VELOCITY= 1.15 (0.26) m/s
   - Q 10 = 167.59 (169.81) m = 1.54 (0.55) m/s
   - Q 25 = 167.97 (169.83) m = 1.73 (0.76) m/s
   - Q 50 = 168.33 (169.85) m = 1.90 (0.99) m/s
   - Q 100 = 168.61 (169.87) m = 2.04 (1.19) m/s
3. IS THE ROADWAY OVERTOPPED BELOW THE Q100? NO FREQUENCY: NA
4. RELIEF ELEVATION: NA DISCHARGE OVER ROAD @Q100: NA
5. AVERAGE LOW ELEVATION OF SUPERSTRUCTURE: 170.60 m
6. VERTICAL CLEARANCE @Q 100: CONTROLLED = 0.8 m; UNCONTROLLED = 2.4 m
7. SCOUR: Q100: CONTRACTION SCOUR = 0.9m, PIER SCOUR = 7.2m, ABUT. 1 = 4.3m, ABUT. 2 = 5.7m.
8. REQUIRED CHANNEL PROTECTION: STONE FILL, TYPE IV

PERMIT INFORMATION

AVERAGE DAILY FLOW: 13.8 m^3/s
ORDINARY LOW WATER: 6.0 m^3/s DEPTH: 0.6 m
ORDINARY HIGH WATER: 40.7 m^3/s DEPTH: 1.1 m

TRAFFIC DATA

FUNCTIONAL CLASSIFICATION MINOR ARTERIAL

- 2002 ADT = 1700
- 2022 ADT = 2300
- 2022 ADTT = 220
- 2002 DHV = 320
- 2022 DHV = 430
- D = 55%
- T = 6%
- V = 80 km/h
- 2002–2022 18 KIP ESAL = 1 483 000
- 2002–2042 18 KIP ESAL = 3 763 000

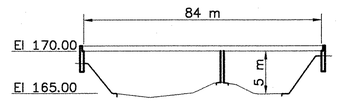
TEMPORARY BRIDGE REQUIREMENTS

1. STRUCTURE TYPE MULTI–SPAN BRIDGE
2. CLEAR SPAN LENGTH(S) NORMAL TO STREAM: 84 m TOTAL
3. VERTICAL CLEARANCE ABOVE STREAMBED: SEE NOTES BELOW
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM): 332 m^2 SEE NOTES BELOW

NOTE: 1. LOW STEEL FOR TEMPORARY BRIDGE IS EL. 170.0 W/ NO FILL BELOW EL. 167.0

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE ____ OR ON TEMPORARY BRIDGE X
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY ONE WAY
   TRAFFIC CONTROL SIGNALS REQUIRED YES
   ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE? ____
   STRUCTURE TYPE: BRIDGE



NOTES:

1. ALL HORIZONTAL REQUIREMENTS ARE PERPENDICULAR TO THE STREAM.
2. THE CONTRACTOR SHALL NOT CUT EXISTING STREAM BANKS TO PROVIDE MINIMUM OPENINGS.
3. IF THE TEMPORARY PIER IS TO BE IN PLACE DURING THE WINTER EXTRA PRECAUTIONS SHALL BE TAKEN TO ACCOUNT FOR ICE DEBRIS.

DESIGN CRITERIA:

1. DESIGN LIVE LOAD AASHTO MS22.5
2. DESIGN SPAN TRUSS: 48.79 m APPROACH: 31.00 m
3. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL ____ ON LEDGE ____
4. ALLOWABLE LOAD FOR PILING 858 kN TYPE HP 360 X 108 ESTIMATED LENGTH 14 m
5. STRUCTURAL STEEL AASHTO GRADE TRUSS: M270M GR345 APPROACH: M270M GR 345W
6. REINFORCING STEEL GRADE 420
7. CONCRETE HIGH PERFORMANCE CLASS A f'_c 30 MPa
   CONCRETE HIGH PERFORMANCE CLASS B f'_c 25 MPa
   CONCRETE CLASS B f'_c 25 MPa

LOAD RATING (TONS)(LOAD FACTOR)

RATING LEVEL	TRUCK						
	M	MS	3S2	6 AXLE	3A. STR.	4A. STR.	5A.SEMI
INVENTORY	24	44					
POSTED	34	62	75		51	54	72
OPERATING		74	90	94	61	64	

REVISIONS

NO.	DESCRIPTION	BY & DATE

CLD CONSULTING ENGINEERS
540 Commercial St.
Manchester, NH 03101
PH: (603) 668–8223
FAX: (603) 668–8802
E–MAIL: CLD@CLDENGINEERS.COM

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

PRELIMINARY INFORMATION (1 OF 2)

Designed By LMM/LKP/JH	Drawn By. GFB
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 3 Of 116

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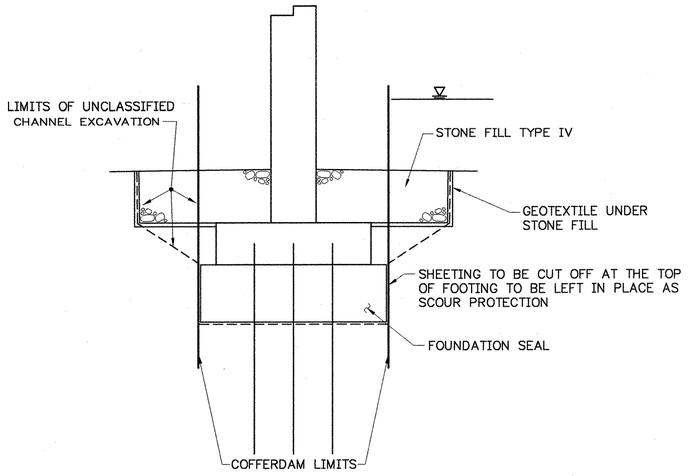
Metric

COFFERDAM NOTES

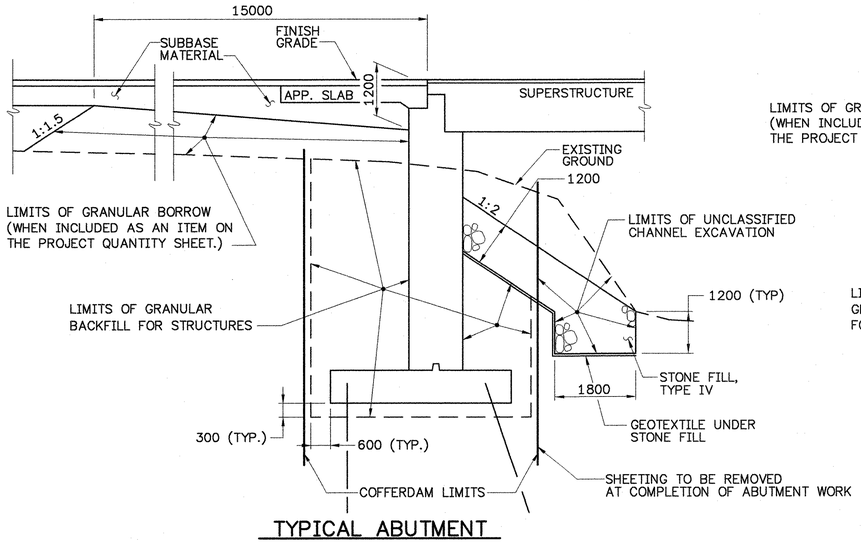
1. COFFERDAM LIMITS TO BE DETERMINED BY THE CONTRACTOR. THE PIER COFFERDAM LIMITS MAY NOT EXCEED THE LIMITS OF THE STONE FILL SURROUNDING THE PIER.
2. THE PAY LIMITS OF "COFFERDAM EXCAVATION, EARTH" AND "COFFERDAM EXCAVATION, ROCK" SHALL BE 600 OUTSIDE THE PERIMETER OF THE ABUTMENT FOOTING AND 1000 OUTSIDE OF THE PIER FOOTING, UP TO EXISTING GROUND OR BOTTOM OF SUBBASE, WHICHEVER IS LOWER.
3. 300 UNDERCUT AS DETERMINED NECESSARY BY THE RESIDENT ENGINEER, AT THE ABUTMENTS ONLY.
4. IF A COFFERDAM IS CONSTRUCTED WHICH IS LARGER THAN THE INDICATED COFFERDAM EXCAVATION PAY LIMITS, PAYMENT FOR ALL UNCLASSIFIFED CHANNEL EXCAVATION, INCLUDING THAT PORTION WHICH IS INSIDE THE COFFERDAM EXCAVATION PAY LIMITS, WILL BE MADE AT THE CONTRACT UNIT PRICE FOR UNCLASSIFIED CHANNEL EXCAVATION.



TYPICAL PIER EARTHWORK SECTION

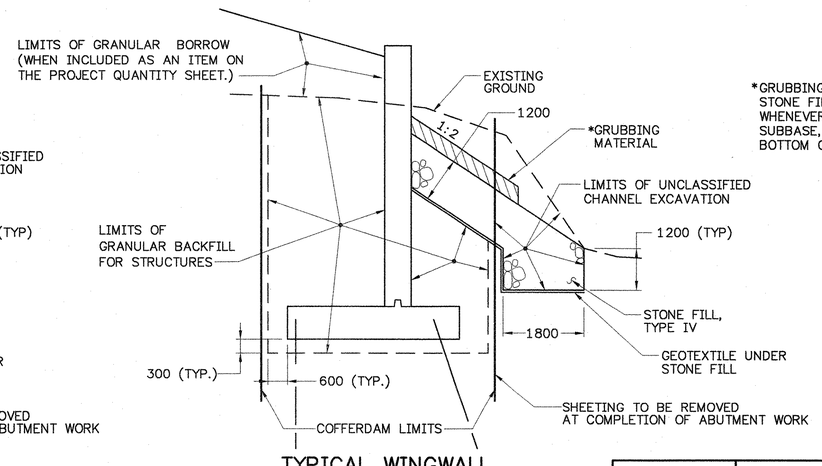
(NOT TO SCALE)

NOTE: SEE SHEET 93 FOR PILE SIZE AND LAYOUT.



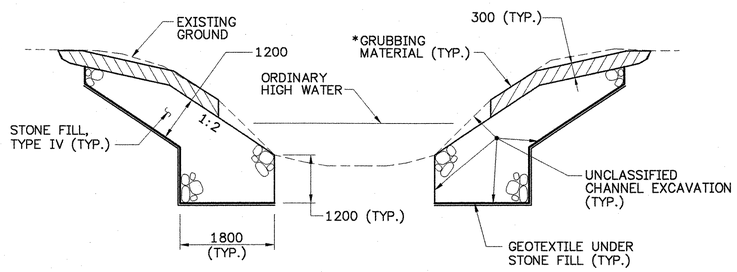
TYPICAL ABUTMENT EARTHWORK SECTION

(NOT TO SCALE)



TYPICAL WINGWALL EARTHWORK SECTION

(NOT TO SCALE)



TYPICAL CHANNEL SECTION

(NOT TO SCALE)

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

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

PRELIMINARY INFORMATION (2 OF 2)

Designed By LMM	Drawn By. GFB
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 4 Of 116

CONSULTING ENGINEERS
540 Commercial St.
Manchester, NH 03101
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E-MAIL: CLD@CLDENGINEERS.COM

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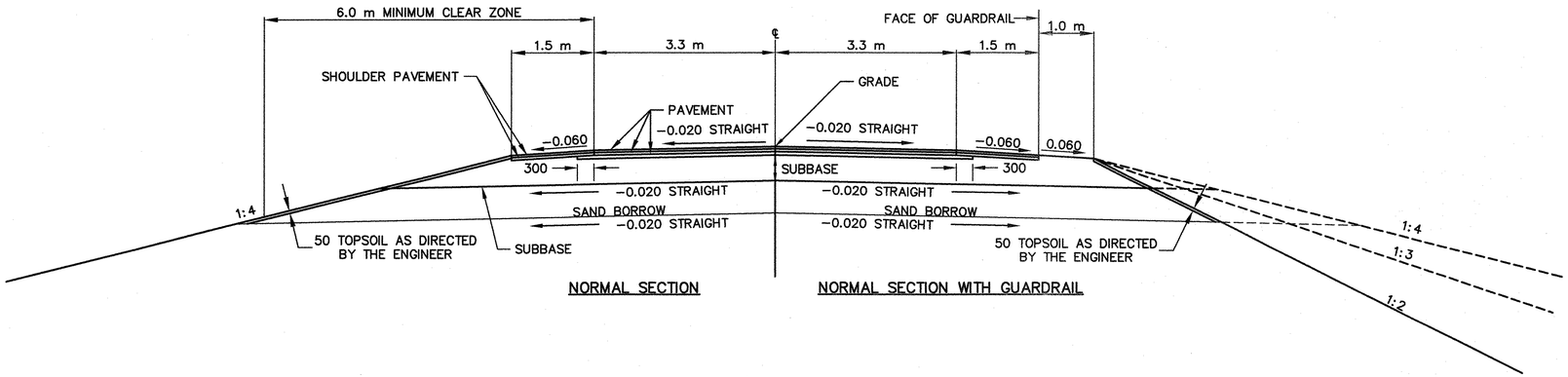
MATERIAL ITEM	THICKNESS TOLERANCE
PAVEMENT(TOTAL DEPTH ALL LAYERS)	± 5
SUBBASE	± 30
SAND BORROW	± 30

MAINLINE TYPICAL SECTIONS

40 BITUMINOUS CONCRETE PAVEMENT (TYPE III) (PG 58–34)
50 BITUMINOUS CONCRETE PAVEMENT (TYPE II) (PG 58–34)
65 BITUMINOUS CONCRETE PAVEMENT (TYPE I) (PG 58–34)
460 SUBBASE OF DENSE GRADED CRUSHED STONE
600 SAND BORROW

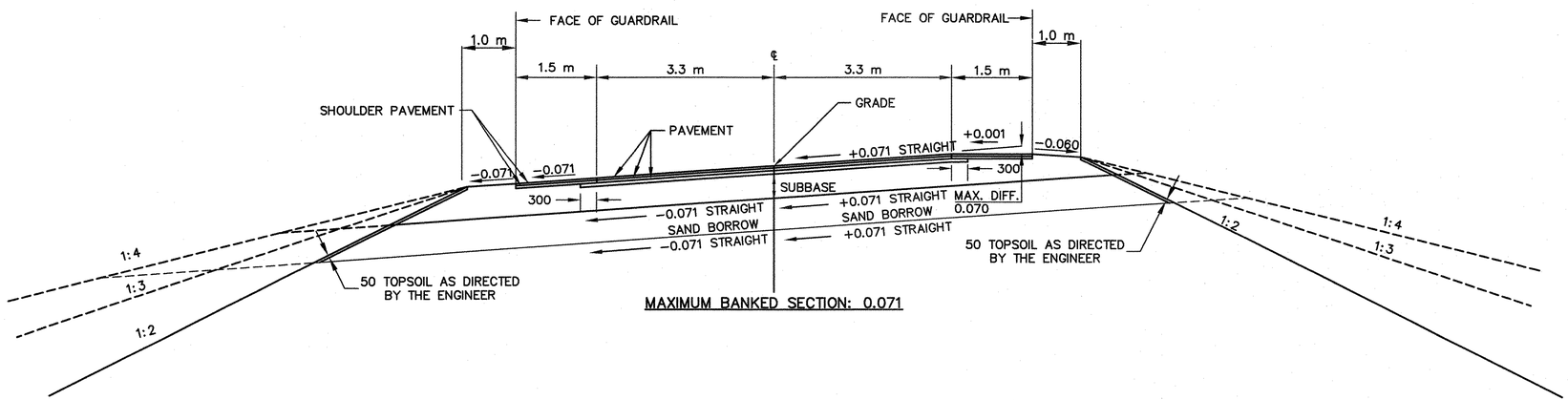
SHOULDERS:
40 BITUMINOUS CONCRETE PAVEMENT (TYPE III) (PG 58–34)
50 BITUMINOUS CONCRETE PAVEMENT (TYPE II) (PG 58–34)

NOTE: EMULSIFIED ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF PAVEMENT AND ON COLD PLANED SURFACES AT A RATE OF 0.12 L/M2 OR AS DIRECTED BY THE RESIDENT ENGINEER.



NORMAL SECTION

NORMAL SECTION WITH GUARDRAIL



MAXIMUM BANKED SECTION: 0.071

SEEDING FORMULA
RURAL AREAS CONSERVATION MIX

% MASS	kg/ha	NAME	PUR %	GERM %
37.14	26	CREEPING RED FESCUE	98	85
37.14	26	TALL FESCUE	95	90
5.71	4	RED TOP	95	90
14.30	10	BIRDSFOOT TREFOIL	98	85
5.71	4	ANNUAL RYE GRASS	95	85
100.00	70			

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

SLOPE ROUNDING: ALL CUT SLOPES TO BE ROUNDED IN ACCORDANCE WITH STANDARD SHEET B–5.

ALL DIMENSIONS IN MILLIMETERS EXCEPT AS INDICATED

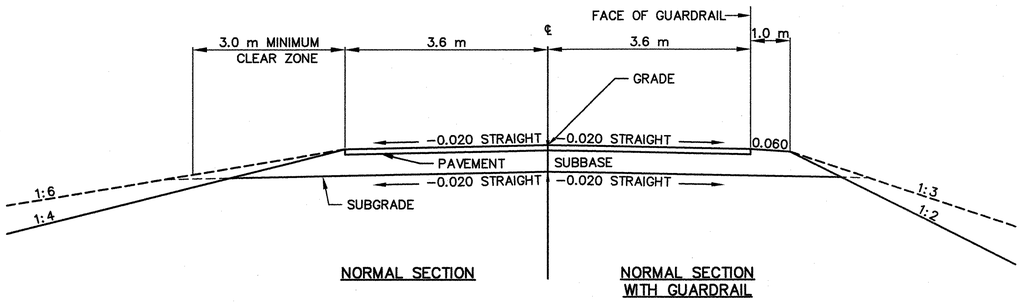
SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	11/96
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013–1(8)		
SHEET	5 OF 116 SHEETS		

DETOUR TYPICAL SECTION AND NOTES

1) AS SPECIFIED IN SECTION 528 – TEMPORARY BRIDGE, WORKING DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR FOR THE PROPOSED WORK UNDER THIS ITEM IN COMPLIANCE WITH THE PROVISIONS IN SUBSECTION 105.03. DRAWINGS FOR THE BRIDGE APPROACHES, INCLUDING TOWN HIGHWAYS, SHALL INCLUDE PLAN, PROFILE, TYPICAL SECTION, AND SPECIFIC CROSS–SECTIONS FOR THE TEMPORARY ROADWAY AND CHANNEL (WHEN APPLICABLE) WITH COMPLETE DETAILS AND IDENTIFICATION OF MATERIALS TO BE USED. GEOMETRICS OF THE TEMPORARY BRIDGE AND ITS APPROACHES SHALL BE ADEQUATE FOR THE VOLUME OF TRAFFIC SERVED AND INDIVIDUAL CONDITIONS ENCOUNTERED.
2) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN, INSTALLATION, AND REMOVAL OF THE TEMPORARY SIGNALS ASSOCIATED WITH THE TEMPORARY ONE–WAY BRIDGE. THIS WORK SHALL BE PAID FOR UNDER ITEM 678.40 TEMPORARY TRAFFIC SIGNAL SYSTEM.
3) ALL EXISTING SIGNALS, WARNING SIGNS AND BARRIER USED IN CONJUNCTION WITH THE PRESENT LANE RESTRICTION ACROSS THE EXISTING BRIDGE SHALL BE RETURNED TO THE AGENCY OF TRANSPORTATION DISTRICT 2 OFFICE.
4) ANY EXISTING PERMANENT SIGNS THAT DO NOT APPLY DURING CONSTRUCTION SHOULD BE COVERED OR REMOVED DURING CONSTRUCTON, AS DEEMED APPROPRIATE BY THE RESIDENT ENGINEER.
5) TWO WEEKS (MINIMUM) PRIOR TO REMOVAL OF THE EXISTING SIGNALS AND FLASHING BEACONS, THE CONTRACTOR SHALL COORDINATE THE TERMINATION OF POWER TO THESE SITES WITH GREEN MOUNTAIN POWER.
6) ACCESS TO ALL EXISTING SIDE ROADS, DRIVES, AND PARKING AREAS SHALL BE MAINTAINED AT ALL TIMES DURING CONSTRUCTION.
7) ALL ON PROJECT SIGNS, BARRICADES AND CONES REQUIRED FOR THE PROJECT AND /OR ORDERED BY THE RESIDENT ENGINEER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL. ALL SIGNS SHALL BE INSPECTED AND REPAIRED DAILY AND CLEANED OF DUST AND DIRT WEEKLY. THIS WORK WILL BE CONSIDERED PART OF THE TRAFFIC CONTROL ITEM.
8) AN ADVISORY SPEED LIMIT OF 40 MPH SHALL BE POSTED FOR THE TEMPORARY DETOUR.
9) FOR TABULATED MINIMUM HYDRAULIC REQUIREMENTS FOR THE TEMPORARY BRIDGE, REFER TO BRIDGE PRELIMINARY INFORMATION SHEET.
10) SEE STANDARD E–107 FOR THE DETOUR SIGNING, DELINEATION AND BARRICADES, AND THE NEED FOR TEMPORARY TRAFFIC BARRIER AND ATTENUATORS. SEE STANDARD E–100 FOR ADVANCE CONSTRUCTION SIGNING. ALSO, REFER TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PART VI FOR FURTHER CLARIFICATION ON TRAFFIC CONTROL NEEDS.
11) PAYMENT FOR THE SUBBASES FOR THE DETOUR IS INCIDENTAL TO ONE–WAY TEMPORARY BRIDGE.
12) REMOVE EXISTING PAVEMENT MARKINGS AS DIRECTED BY THE RESIDENT ENGINEER. REMOVAL SHALL BE INCIDENTAL TO ITEM 641.10 TRAFFIC CONTROL.
13) LAND IMPACTED BY THE CONSTRUCTION OF THE DETOUR, AND ANY OTHER ACTIVE AGRICULTURAL LAND THAT IS DISTURBED, WILL BE RECLAIMED FOLLOWING RECOMMENDATIONS FROM THE NRCS (NATURAL RESOURCES CONSERVATION SERVICE).
14) PLANT INSPECTION, MIX DESIGN AND COMPACTION REQUIREMENTS FOR BITUMINOUS CONCRETE PAVEMENT ARE WAIVED FOR THE DETOUR.
15) TEMPORARY CONCRETE BARRIER SHALL BE NCHRP 350 COMPLIANT.

DETOUR (VT ROUTE 100)

90 BITUMINOUS CONCRETE PAVEMENT (2–45 mm LIFTS, TYPE III)
380 SUBBASE OF DENSE GRADED CRUSHED STONE

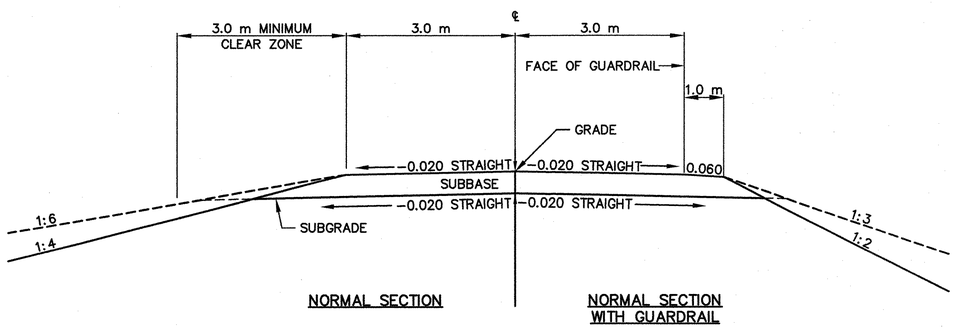


NORMAL SECTION

NORMAL SECTION WITH GUARDRAIL

DETOUR (TH 41 & 43)

380 SUBBASE OF DENSE GRADED CRUSHED STONE



NORMAL SECTION

NORMAL SECTION WITH GUARDRAIL

MATERIAL ITEM	THICKNESS TOLERANCE
PAVEMENT(TOTAL DEPTH ALL LAYERS)	± 5
SUBBASE	± 30
SAND BORROW	± 30

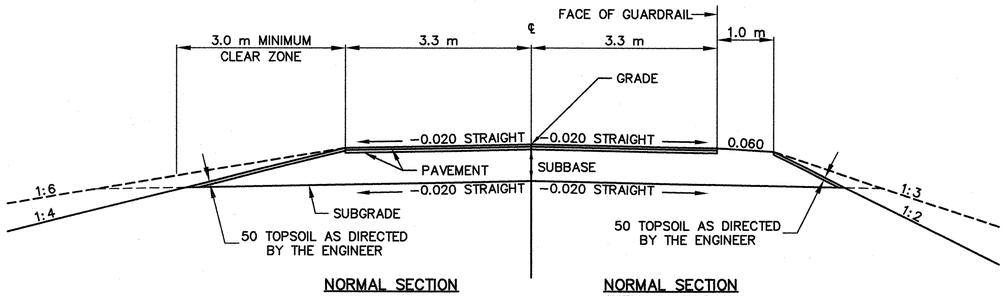
VAOT Metric

TYPICAL SECTION (TH 41 & 43)

40 BITUMINOUS CONCRETE PAVEMENT (TYPE III)
50 BITUMINOUS CONCRETE PAVEMENT (TYPE II) } (STA 0+104.8 TO 0+115.3 TH 41 / STA 0+204.8 TO 0+215.3 TH 43)
460 SUBBASE OF DENSE GRADED CRUSHED STONE }

80 AGGREGATE SURFACE COURSE
460 SUBBASE OF DENSE GRADED CRUSHED STONE } (STA 0+115.3 TO 0+200 TH 41 / STA 0+215.3 TO 0+320 TH 43)

NOTE: EMULSIFIED ASPHALT SHALL BE APPLIED BETWEEN ALL COURSES OF PAVEMENT AND ON COLD PLANED SURFACES AT A RATE OF 0.12 L/M2 OR AS DIRECTED BY THE RESIDENT ENGINEER.

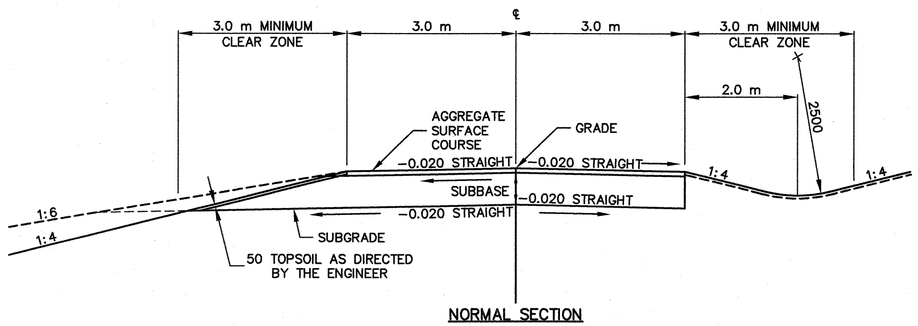


NORMAL SECTION

NORMAL SECTION WITH GUARDRAIL

TYPICAL SECTION (TH 56)

80 AGGREGATE SURFACE COURSE
460 SUBBASE OF DENSE GRADED CRUSHED STONE



NORMAL SECTION

MATERIAL ITEM	THICKNESS TOLERANCE
PAVEMENT(TOTAL DEPTH ALL LAYERS)	± 5
SUBBASE	± 30
SAND BORROW	± 30

ALL DIMENSIONS IN MILLIMETERS EXCEPT AS INDICATED

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	1/95
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013–1(8)		
SHEET 6 OF 116 SHEETS			

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

VAOT Metric

SUMMARY OF ESTIMATED QUANTITIES

NON-GOVT. PARTICIPATING	UTILITY	E & C ITEMS	TRAINING	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NUMBER	RND
						1	1	LS	CLEARING AND GRUBBING (INCLUDING INDIVIDUAL TREES AND STUMPS)	201.10	–
						3740	3740	CM	COMMON EXCAVATION	203.15	41
					1580		1580	CM	UNCLASSIFIED CHANNEL EXCAVATION	203.27	
						20	20	CM	EXCAVATION OF SURFACES AND PAVEMENTS	203.28	1
						9350	9350	CM	EARTH BORROW	203.30	91
						3200	3200	CM	SAND BORROW	203.31	34
					130		130	CM	GRANULAR BORROW	203.32	
						9790	9790	SM	FINE GRADING–SUBGRADE	203.40	98
				40		640	680	CM	TRENCH EXCAVATION OF EARTH	204.20	5
					265	55	320	CM	GRANULAR BACKFILL FOR STRUCTURES	204.30	0.4
					80		80	CM	COFFERDAM EXCAVATION, EARTH	208.30	
					710		710	CM	COFFERDAM EXCAVATION, ROCK	208.35	
					1		1	LS	COFFERDAM (STA 5+480)	208.40	
					1		1	LS	COFFERDAM (STA 5+538)	208.40	
					1		1	LS	COFFERDAM (MOD–STA 5+510)	208.40	
						120	120	SM	COLD PLANING–BIT. PAVEMENT	210.10	2
				200		3745	3945	CM	SUBBASE OF DENSE GRADED CRUSHED STONE	301.35	38
						150	150	CM	AGGREGATE SURFACE COURSE	401.10	4
						910	910	KG	EMULSIFIED ASPHALT	404.65	7
						1950	1950	T	BITUMINOUS CONCRETE PAVEMENT (PG 58–34)	406.25	20
						4	4	CM	CONCRETE, CLASS B	501.25	
					250		250	CM	CONCRETE, HIGH PERFORMANCE CLASS A	501.33	
					440		440	CM	CONCRETE, HIGH PERFORMANCE CLASS B	501.34	
					1		1	LS	FURNISHING EQUIPMENT FOR DRIVING PILING	504.10	
					1215		1215	M	STEEL PILING (HP 360 X 108)	505.17	
					64,400		64,400	KG	STRUCTURAL STEEL (PLATE GIRDER)	506.55	
					147,000		147,000	KG	STRUCTURAL STEEL (TRUSS)	506.60	
					17,551	12	17,563	KG	REINFORCING STEEL	507.15	
					37,790		37,790	KG	EPOXY COATED REINFORCING STEEL	507.17	
					1		1	LS	SHEAR CONNECTORS (1160 CONNECTORS 22 DIA X 180)	508.15	
					1		1	LS	STRUCTURAL PAINTING, SHOP APPLIED (MOD – GALVANIZING FOR TRUSS BRIDGE)	513.25	
					1		1	LS	STRUCTURAL PAINTING, SHOP APPLIED (APPROACH)	513.25	
					1		1	LS	SURFACE PREPARATION, SHOP (APPROACH)	513.40	
					150		150	L	WATER REPELLENT (MOD)	514.10	
					11		11	M	BRIDGE EXPANSION JOINT	516.10	
					775		775	SM	SHEET MEMBRANE WATERPROOFING (MOD–TORCH APPLIED)	519.20	
					185		185	M	BRIDGE RAILING – NETC 2 RAIL	525.33	
					1		1	LS	ONE–WAY TEMPORARY BRIDGE	528.10	
					1		1	EA	PARTIAL REMOVAL OF STRUCTURE	529.20	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		COMMON EXCAVATION
3255	CM	VT ROUTE 100
209	CM	TH 56
99	CM	TH 41
95	CM	TH 43
41	CM	DRIVES
3699	CM	SUBTOTAL
41	CM	ROUNDING
3740	CM	TOTAL
		TRENCH EXCAVATION OF EARTH
280	CM	PROPOSED CULVERT EXCAVATION
197	CM	EXISTING CULVERT EXCAVATION
2	CM	STONE FILL PADS
58	CM	STONE FILL ON SLOPE
		STA 5+380–0+120 (TH 41)
98	CM	DITCH ALONG TH 56
40	CM	TEMPORARY EROSION CONTROL
675	CM	SUBTOTAL
5	CM	ROUNDING
680	CM	TOTAL
		SUBBASE OF DENSE GRADED CRUSHED STONE
2370	CM	VT ROUTE 100
322	CM	TH 56
392	CM	TH 41
404	CM	TH 43
219	CM	DRIVES
200	CM	TEMPORARY EROSION CONTROL
3907	CM	SUBTOTAL
38	CM	ROUNDING
3945	CM	TOTAL
		AGGREGATE SURFACE COURSE
49	CM	TH 56
43	CM	TH 41
44	CM	TH 43
10	CM	DRIVES
146	CM	SUBTOTAL
4	CM	ROUNDING
150	CM	TOTAL

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS				
		BITUMINOUS CONCRETE PAVEMENT (PG 58–34)				
			TYPE IV	TYPE III	TYPE II	TYPE I
106	T	APPROACH	0	38	34	34
1088	T	VT ROUTE 100	0	389	389	310
153	T	BRIDGE	66	87	0	0
502	T	DETOUR	0	502	0	0
31	T	DRIVES	0	31	0	0
26	T	TH 43	0	14	12	0
26	T	TH 41	0	14	12	0
1932	T	SUBTOTAL	66	1075	447	344
18	T	ROUNDING				
1950	T	TOTAL				

PROJECT NAME : JAMAICA

PROJECT NO. : BRF 013–1(8)

DESIGN FILE NAME:
IPARM FILE NAME:
SURVEYED BY:
SQUAD LEADER:

PLOT DATE:
SURVEY DATE:
DRAWN BY: SMC
SHEET: 7 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

VAOT Metric

SUMMARY OF ESTIMATED QUANTITIES

NON-GOVT. PARTICIPATING	UTILITY	E & C ITEMS	TRAINING	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NUMBER	RND
					4		4	EA	BEARING DEVICE ASSEMBLY (TRUSS)	531.10	
					10		10	EA	BEARING DEVICE ASSEMBLY (APPROACH)	531.10	
									****** BEGIN OPTION ITEMS AA ******		
						23	23	M	450 mm CSP 1.63 mm (68 mm x 12 mm)	601.0015	
						23	23	M	450 mm RCP CLASS III	601.0815	
						23	23	M	450 mm CPEP (SL)	601.2615	
						1	1	EA	450 mm CSPES 1.63 mm (68 mm x 12 mm)	601.6015	
						1	1	EA	450 mm RCPES CLASS III	601.6815	
						1	1	EA	450 mm CPEPES	601.7015	
									****** END OPTION ITEMS AA ******		
									****** BEGIN OPTION ITEMS BB ******		
						52	52	M	600 mm CSP 1.63 mm (68 mm x 12 mm)	601.0025	
						52	52	M	600 mm RCP CLASS III	601.0825	
						52	52	M	600 mm CPEP (SL)	601.2620	
						2	2	EA	600 mm CSPES 1.63 mm (68 mm x 12 mm)	601.6025	
						2	2	EA	600 mm RCPES CLASS III	601.6825	
						2	2	EA	600 mm CPEPES	601.7020	
									****** END OPTION ITEMS BB ******		
									****** BEGIN OPTION ITEMS CC ******		
						40	40	M	600 mm CAAP 1.52 mm (68 mm x 12 mm)	601.0225	
						40	40	M	600 mm PCCSP 1.63 mm (68 mm x 12 mm)	601.0425	
						40	40	M	600 mm RCP CLASS III	601.0825	
						40	40	M	600 mm CPEP (SL)	601.2620	
									****** END OPTION ITEMS CC ******		
						10	10	HR	BULLDOZER RENTAL, TYPE I	608.10	EST
						10	10	HR	POWER GRADER RENTAL	608.15	EST
						10	10	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I	608.25	EST
						10	10	HR	POWER BROOM RENTAL	608.30	EST
						10	10	HR	TRUCK RENTAL	608.37	EST
						10	10	HR	LOADER RENTAL, TYPE I	608.40	EST
						3000	3000	CM	DUST CONTROL WITH WATER	609.10	EST
						3	3	T	DUST AND ICE CONTROL WITH CALCIUM CHLORIDE	609.15	EST
				20		330	350	CM	STONE FILL, TYPE I	613.10	7
						3	3	CM	STONE FILL, TYPE II	613.11	
					1675		1675	CM	STONE FILL, TYPE IV	613.13	
						1	1	EA	RELOCATE MAILBOX, SINGLE SUPPORT	617.10	
						10	10	EA	BOUNDARY MARKERS	619.10	EST
						8	8	EA	YIELDING MARKER POSTS	619.17	
						260	260	M	REMOVING AND RESETTING FENCE	620.50	9
						45	45	M	SNOW FENCE (MOD)	620.70	
						700	700	M	STEEL BEAM GUARDRAIL	621.20	35
						10	10	EA	ANCHOR FOR STEEL BEAM RAIL	621.60	
						4	4	EA	GUARDRAIL APPR. SECTION, NETC 2 RAIL	621.72	
						260	260	M	REMOVAL AND DISP OF GUARDRAIL	621.80	2

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME : JAMAICA

PROJECT NO. : BRF 013-1(8)

DESIGN FILE NAME:
IPARM FILE NAME:
SURVEYED BY:
SQUAD LEADER:

PLOT DATE:
SURVEY DATE:
DRAWN BY: SMC
SHEET: 8 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET

VAOT Metric

SUMMARY OF ESTIMATED QUANTITIES

NON-GOVT. PARTICIPATING	UTILITY	E & C ITEMS	TRAINING	EROSION CONTROL	BRIDGE	ROADWAY	QUANTITIES GRAND TOTAL	UNIT	ITEMS	ITEM NUMBER	RND
						150	150	HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST
						550	550	HR	FLAGGERS	630.15	EST
		1					1	LS	FIELD OFFICE–ENGINEERS	631.10	–
		1					1	LS	TESTING EQUIPMENT – CONCRETE	631.16	–
		1					1	LS	TESTING EQUIPMENT – BITUMINOUS (MOD)	631.17	–
		1					1	LU	FIELD OFFICE – TELEPHONE (NOT A BID ITEM)	631.25	–
			1600				1600	HR	EMPLOYEE TRAINEESHIP	634.10	
						1	1	LS	MOBILIZATION	635.10	–
						1	1	LS	TRAFFIC CONTROL	641.10	
						960	960	M	DURABLE 100 mm WHITE LINE	646.40	27
						940	940	M	DURABLE 100 mm YELLOW LINE	646.41	18
						25	25	M	DURABLE 600 mm STOP BAR	646.46	2
						21	21	EA	DURABLE LETTER OR SYMBOL	646.50	
						2800	2800	M	TEMPORARY 100 mm WHITE LINE	646.60	1
						2900	2900	M	TEMPORARY 100 mm YELLOW LINE	646.61	62
						25	25	M	TEMPORARY 600 mm STOP BAR	646.66	2
						21	21	EA	TEMPORARY LETTERS OR SYMBOLS	646.70	
						40	40	EA	LINE STRIPING TARGETS	646.76	EST
					1140	840	1980	SM	GEOTEXTILE UNDER STONE FILL	649.31	6.3
				1400			1400	SM	GEOTEXTILE FOR SILT FENCE	649.51	EST
				130			130	SM	GEOTEXTILE FOR FILTER CURTAIN	649.61	EST
				120			120	KG	SEED	651.15	EST
				10			10	KG	SEED–WINTER RYE	651.17	EST
				895			895	KG	FERTILIZER	651.18	EST
				8			8	T	AGRICULTURAL LIMESTONE	651.20	EST
				9			9	T	HAY MULCH	651.25	EST
				100			100	EA	HAY BALES FOR EROSION CONTROL	651.26	EST
						175	175	CM	TOPSOIL	651.35	18
					565		565	SM	GRUBBING MATERIAL	651.40	
				1			1	LS	EROSION PREVENTION & SEDIMENT CONTROL PLAN	652.10	
				1025			1025	HR	MONITORING EROSION PREVENTION	652.20	
									& SEDIMENT CONTROL PLAN		
				1			1	LU	MAINTENANCE OF EROSION PREVENTION	652.30	
									& SEDIMENT CONTROL PLAN (NOT A BID ITEM)		
				4700			4700	SM	EROSION MATTING	654.10	EST
						26	26	SM	TRAFFIC SIGNS, TYPE A	675.20	0.78
									***** BEGIN OPTION ITEMS *****		
						124	124	M	FLANGED CHANNEL SIGN POST	675.301	–
						124	124	M	SQUARE TUBE SIGN POST AND ANCHOR	675.341	–
									***** END OPTION ITEMS *****		
						230	230	KG	TUBULAR STEEL SIGN POSTS	675.33	4
						4	4	EA	FOUNDATION FOR TUBULAR STEEL POST	675.43	
						77	77	EA	REMOVING SIGNS	675.50	
						1	1	EA	TEMPORARY TRAFFIC SIGNAL SYSTEM	678.40	

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		TEMPORARY EROSION CONTROL
40	CM	TRENCH EXCAVATION OF EARTH
200	CM	SUBBASE OF DENSE GRADED CRUSHED STONE
20	CM	STONE FILL, TYPE I
180	SM	GEOTEXTILE FOR SILT FENCE
10	KG	SEED–WINTER RYE
1	T	HAY MULCH
100	EA	HAY BALES FOR EROSION CONTROL
85	SM	EROSION MATTING

PROJECT NAME : JAMAICA

PROJECT NO. : BRF 013-1(8)

DESIGN FILE NAME:
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PLOT DATE:
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DRAWN BY: SMC
SHEET: 9 OF 116

BRIDGE QUANTITY SHEET

STATE OF VERMONT
AGENCY OF TRANSPORTATION
STRUCTURES DIVISION

ITEM NO.	ITEM	UNIT	QUANTITY BREAKDOWN: SUPER-STRUCT.	ABUT. NO. 1	PIER	ABUT. NO. 2	APPR. SLAB NO. 1	APPR. SLAB NO. 2	CHANNEL	TOTAL	FINAL
203.27	UNCLASSIFIED CHANNEL EXCAVATION	CM		795	65	720				1,580	1463.9
203.32	GRANULAR BORROW	CM		130						130	130
204.30	GRANULAR BACKFILL FOR STRUCTURES	CM		105	40	120				265	140.5
208.30	COFFERDAM EXCAVATION, EARTH	CM		20	35	25				80	302
208.35	COFFERDAM EXCAVATION, ROCK	CM		175	315	220				710	0
208.40	COFFERDAM (STA. 5+480)	LS		1						1	1
208.40	COFFERDAM (STA. 5+538)	LS				1				1	1
208.40	COFFERDAM (MOD. – STA 5+510)	LS			1					1	1
501.33	CONCRETE, HIGH PERFORMANCE CLASS A	CM	250							250	245.97
501.34	CONCRETE, HIGH PERFORMANCE CLASS B	CM		85	215	90	25	25		440	392.63
504.10	FURNISHING EQUIPMENT FOR DRIVING PILING	LS		0.33	0.33	0.33				1	1
505.17	STEEL PILING (HP 360 X 108)	M		335	465	415				1,215	1066.1
506.55	STRUCTURAL STEEL (PLATE GIRDER)	KG	64,400							64,400	64,400
506.60	STRUCTURAL STEEL (TRUSS)	KG	147,000							147,000	147,000
507.15	REINFORCING STEEL	KG		3,095	11,353	3,103				17,551	17,185
507.17	EPOXY COATED REINFORCING STEEL	KG	33,294	554		824	1,573	1,545		37,790	37,191
508.15	SHEAR CONNECTORS (1160 CONNECTORS 22 DIA. x 180)	LS	1							1	1
513.25	STRUCTURAL PAINTING, SHOP APPLIED (MOD.– GALVANIZING FOR TRUSS BRIDGE)	LS	1							1	1
513.25	STRUCTURAL PAINTING, SHOP APPLIED (APPROACH)	LS	1							1	1
513.40	SURFACE PREPARATION, SHOP (APPROACH)	LS	1							1	1
514.10	WATER REPELLANT (MOD.)	L	55	20	55	20				150	103
516.10	BRIDGE EXPANSION JOINT	M	11							11	9.652
519.20	SHEET MEMBRANE WATERPROOFING (MOD.– TORCH APPLIED)	SM	775							775	786.3
525.33	BRIDGE RAILING – NETC 2 RAIL	M	185							185	184.4
528.10	ONE-WAY TEMPORARY BRIDGE	LS	1							1	1
529.20	PARTIAL REMOVAL OF STRUCTURE	EA	1							1	1
531.10	BEARING DEVICE ASSEMBLY (TRUSS)	EA	4							4	4
531.10	BEARING DEVICE ASSEMBLY (APPROACH)	EA	10							10	10
613.13	STONE FILL, TYPE IV	CM		755	150	770				1,675	1535.5
649.31	GEOTEXTILE UNDER STONE FILL	SM		540	60	540				1,140	1037
651.40	GRUBBING MATERIAL	SM		295		270				565	565

BRIDGE AT STATION STA 5+477.900 TO STA 5+559.870
LOCATION VT RTE 100 OVER THE WEST RIVER

PREPARED BY: JH | CHECKED BY: LMM
CLD PROJECT MANAGER: LMM

PROJECT: JAMAICA
BR 80
PROJECT NO: BRF 013-1(8)
SHEET NO: 10 OF 116

90284BRQT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

DRAINAGE DETAIL SHEET

VAOT Metric

DRAINAGE STRUCTURES

STATION KM + M	STATION KM + M	POS.	ASKEW	INLET/OUTLET TYPE		DITCH		PIPE ARCH			PIPE		ALLOWABLE OPTIONS						PIPE ELBOW	ES	CB	PROJ	DEPTH DI	CONC CL B	REINF STEEL	DI GRATE	CHAN ELEV	CRM	TRENCH EXCAVATION		COMM EXC	UNC CHAN EXC	STRUCT EXCAV	GRAN BKFILL STRUCT	GRAN BORR	EROS MATT	STONE FILL		MARKER POSTS		REMARKS
				INLET	OUTLET	IN	OUT	SPAN MM	RISE MM	L M	D MM	L M	PCCSP MM	CAAP MM	RCP CL	CSP MM	CPEP SL MM	PCCSP PI MM	NO. DEG	EA	EA		DI MM	CL B CM	KG	TYPE	EA	CM	EARTH CM	ROCK CM	CM	CM	CM	CM	CM	CM	CM	TYPE	LT EA	RT EA	
0+080	0+060	RT/LT		ES	SF						600	28			III	1.63	300		0	1								40					13.5		80			1	1	
0+122		LT/RT		ES	SF						600	24			III	1.63	300			1								19					11.5					1	1	
0+250		RT/LT		ES	SF					600	450	23			III	1.63	300			1								49					10.4			1	II	1	1	CONSTRUCT 0.9 m X 1.8 m STONE FILL PAD TYPE 2 @ OUTLET
5+695		LT/RT		HW	HW						600	40	1.63	1.52	III		300						4	12				174					19.2			1	I	1	1	CONSTRUCT REINFORCED CONCRETE HEADWALL @ INLET AND OUTLET
																																							CONSTRUCT 1.2 m X 2.4 m STONE FILL PAD TYPE 1 @ OUTLET
SUBTOTALS											600	52			III	1.63	300																						
											600	40	1.63	1.52	III		300																				1	I		
											450	23			III	1.63	300			3			4	12				282					54.6		80	1	II	4	4	

PROJECT NAME : JAMAICA	PROJECT NO. : BRF 013-1(8)
DESIGN FILE NAME:	PLOT DATE:
IPARM FILE NAME:	SURVEY DATE:
SURVEYED BY:	DRAWN BY: SMC
SQUAD LEADER:	SHEET: 11 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

ITEM DETAIL SHEET

VAOT Metric

GUARDRAIL

BEGIN STATION KM + M	END STATION KM + M	POSITION LEFT M	POSITION RIGHT M	END TREATMENT BEGIN EA	END TREATMENT END EA
5+280.0	0+125.5 TH41	193.8		G-1DM	G-1DM
5+300.0	5+360.8		60.8		G-1DM
0+051.4 TH56	0+227.2 TH43		148.2	G-1DM	G-1DM
0+109.7 TH41	0+132.4 TH41		22.8		G-1DM
0+210.2 TH43	0+297.7 TH43	87.4			G-1DM
5+574.9	5+654.2	79.8			G-1DM
5+574.9	5+623.8		49.4		G-1DM
3+994.0 RTE30	4+016.8 RTE30	22.8			G-1DM
TOTALS		383.8 665.0	281.2		10 G-IDM

UNDERDRAIN

BEGIN STATION KM + M	END STATION KM + M	TYPE	POSITION	DIA. MM	LENGTH M	TRENCH EARTH CM	TRENCH ROCK CM	GRAN BKFILL CM	FB EA	MKR PST EA

BEGIN STATION KM + M	END STATION KM + M	POSITION LEFT M	POSITION RIGHT M	REMARKS

BEGIN STATION KM + M	END STATION KM + M	POSITION LEFT M	POSITION RIGHT M	REMARKS

BEGIN STATION KM + M	END STATION KM + M	POSITION LEFT M	POSITION RIGHT M	REMARKS

PROJECT NAME : JAMAICA
PROJECT NO. : BRF 013-1(8)

DESIGN FILE NAME:
IPARM FILE NAME:
SURVEYED BY:
SQUAD LEADER:
PLOT DATE:
SURVEY DATE:
DRAWN BY: SMC
SHEET: 12 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

EARTHWORKS SUMMARY

VAOT Metric

STATION KM + M	DIST M	TOTAL EXCAVATION EARTH AND ROCK AREA SM	TOTAL EXCAVATION EARTH AND ROCK VOLUME CM	ROCK EXCAVATION AREA SM	ROCK EXCAVATION VOLUME CM	EMBANKMENT AREA SM	EMBANKMENT VOLUME CM	AREA	VOLUME
BEGIN PROJECT									
5+280		0.0				0.1			
	20		0.0				44.0		
5+300		0.0				4.3			
	16		10.0				198.0		
5+316		1.2				20.5			
	4		6.0				82.0		
5+320		1.6				20.5			
	20		97.0				337.0		
5+340		8.1				13.2			
	2.5		20.0				33.0		
5+342.5		8.2				13.4			
	2.5		21.0				34.0		
5+345		8.2				13.4		CUT	342.0
	15		101.0				144.0	FILL	2774.0
5+360		5.3				5.8		FFAC	1.15
	20		70.0				115.0	EX FILL	2848
5+380		1.7				5.7			
	0		0.0				0.0		
5+380		1.7				5.0			
	20		17.0				166.0		
5+400		0.0				11.6			
	20		0.0				303.0		
5+420		0.0				18.7			
	20		0.0				402.0		
5+440		0.0				21.5			
	20		0.0				454.0		
5+460		0.0				23.9			
	3.5		0.0				84.0		
5+463.5		0.0				23.9			
	15		0.0				378.0		
5+478.5		0.0				26.5			
	BRIDGE								
5+559		3.0				16.1			
	15		63.0				182.0		
5+574		5.4				8.2			
	6		32.0				49.0		
5+580		5.4				8.2			
	20		124.0				269.0		
5+600		7.0				18.7			
	20		162.0				449.0		
5+620		9.2				26.2			
	20		207.0				485.0		
5+640		11.5				22.3			
	20		265.0				345.0		
5+660		15.0				12.2		CUT	2913.0
	20		332.0				317.0	FILL	3333.0
5+680		18.2				19.5		FFAC	1.15
	20		365.0				551.0	EX FILL	920
5+700		18.3				35.6			
	20		376.0				496.0		
5+720		19.3				14.0			
	20		402.0				160.0		
5+740		20.9				2.0			
	10		209.0				20.0		
5+750		20.9				2.0			
	10		211.0				10.0		
5+760		21.3				0.0			
	3		89.0				0.0		

STATION KM + M	DIST M	TOTAL EXCAVATION EARTH AND ROCK AREA SM	TOTAL EXCAVATION EARTH AND ROCK VOLUME CM	ROCK EXCAVATION AREA SM	ROCK EXCAVATION VOLUME CM	EMBANKMENT AREA SM	EMBANKMENT VOLUME CM	AREA	VOLUME
5+763		37.8				0.0			
	4		76.0				0.0		
5+767		0.0				0.0			
END PROJECT									
	TH 56								
0+002		0.0				0.0			
	18		0.0				280.0		
0+020		0.0				31.1			
	20		3.0				531.0		
0+040		0.3				22.0		CUT	209.0
	20		29.0				366.0	FILL	1339.0
0+060		2.6				14.6		FFAC	1.15
	20		92.0				154.0	EX FILL	1331
0+080		6.6				0.8			
	17		77.0				7.0		
0+097		2.5				0.8			
	3		8.0				1.0		
0+100		2.5				0.0			
	TH 41								
0+105.50		0.0				0.0			
	5.5		0.0				123.0		
0+111		0.0				44.8			
	9		0.0				351.0		
0+120		0.0				33.2			
	0		0.0				0.0		
0+120		0.0				38.0			
	2		0.0				78.0		
0+122		0.0				40.0		CUT	99.0
	18		0.0				483.0	FILL	1258.0
0+140		0.0				13.7		FFAC	1.15
	20		1.0				166.0	EX FILL	1348
0+160		0.1				2.9			
	20		38.0				43.0		
0+180		3.7				1.4			
	20		60.0				14.0		
0+200		2.3				0.0			

STATION KM + M	DIST M	TOTAL EXCAVATION EARTH AND ROCK AREA SM	TOTAL EXCAVATION EARTH AND ROCK VOLUME CM	ROCK EXCAVATION AREA SM	ROCK EXCAVATION VOLUME CM	EMBANKMENT AREA SM	EMBANKMENT VOLUME CM	AREA	VOLUME
	TH 43								
0+205.5		0.0				0.0			
	8.5		0.0				219.0		
0+214		0.0				51.5			
	6		0.0				294.0		
0+220		0.0				46.4			
	20		0.0				801.0		
0+240		0.0				33.7		CUT	95.0
	10		0.0				305.0	FILL	2091.0
0+250		0.0				27.3		FFAC	1.15
	10		0.0				195.0	EX FILL	2310
0+260		0.0				11.7			
	20		18.0				163.0		
0+280		1.8				4.6			
	5		15.0				16.0		
0+285		4.0				1.7			
	15		62.0				38.0		
0+300		4.3				3.4			
	0		0.0				0.0		
0+300		0.0				3.4			
	35		0.0				60.0		
0+335		0.0				0.0			
DRIVES			41.0				610.0	CUT	41.0
								FILL	610.0
								FFAC	1.15
								EX FILL	661
STONEFILL			158.0				0.0	CUT	158.0
								FILL	0.0
								FFAC	1.15
								EX CUT	158.0

SUMMARY AND BALANCES

STATION KM + M	TO STATION KM + M	TOTAL EXC. EARTH+ROCK CM	ROCK EXCAVATION CM	EMBANKMENT CM	EXCESSES CUT	EXCESSES FILL	ACCUMULATIVE EXCESSES CUT	ACCUMULATIVE EXCESSES FILL
5+280	5+478.5	342		2774		2848		
								2848
5+559	5+767	2913		3333		920		
								3768
MAINLINE TOTAL		3255		6107				3768
TH	56	209		1339		1331		
								5099
TH	41	99		1258		1348		
								6447
TH	43	95		2091		2310		
								8757
DRIVES		41		610		660		
								9417
STONEFILL		158		0	158			
								9259
PROJECT TOTALS		3857		11405				9259

REMARKS	
EARTH AND ROCK EXCAVATION	3699
SOLID ROCK EXCAVATION	0
EARTH EXCAVATION	3699
PLANIMETERED FILL	11405
LESS FACTORED SOLID ROCK	0
LESS DISPLACEMENT OF ANY LARGE STRUCTURES	0
NET PLANIMETERED FILL	11405
FACTOR (0.15)	1711
PLANIMETERED FILL INCLUDING FACTOR	13116
MATERIALS AVAILABLE FOR FILLS	
EARTH EXCAVATION	3699
CHANNEL EXCAVATION	–
TRENCH EXCAVATION FOR STONE FILL	158
STRUCTURE EXCAVATION	–
TOTAL MATERIAL AVAILABLE FOR FILL	3857
TOTAL FILL INCLUDING FACTOR	13116
TOTAL MATERIAL FOR FILL	3857
BORROW	9259
EXCESS EXCAVATION	0

PROJECT NAME : JAMAICA

PROJECT NO. : BRF 013-1(8)

DESIGN FILE NAME:
IPARM FILE NAME:
SURVEYED BY:
SQUAD LEADER:

PLOT DATE:
SURVEY DATE:
DRAWN BY: SMC
SHEET: 13 OF 116

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
1A	ROBINSON, HARRY C.	21	5+281.0 RT.	5+321.5 RT.	0.03HA±			WD	06-05-02	JAMAICA	84	471	0.09A±, INCLUDES STONEWALL
1B		21	5+281.0 RT.	5+390.5 RT.	0.14HA±		ALL R.T.& I.						VT. RTE. 100 & 0.35A±
1C		21	TH56 0+109.5 RT.	TH56 0+028.5 RT.	0.04HA±		ALL R.T.& I.						TH 56 .10A±
2	FERTIG, ROBERT G. & MARILYN	21	5+281.0 LT.	5+341.7 LT.	0.08HA±		ALL R.T.& I.	WD	05-20-03	JAMAICA	88	217-	VT. RTE. 100 (0.2A±)
			5+312.2 LT.	5+348.3 LT.			CONST. (T) 87SM±					218	INCLUDES EROSION CONTROL
													937 S.F.±
			5+324.4 LT.	5+346.4 LT.			SLOPE (T) 58SM±						624 S.F.±
			5+289.4 LT.				REMOVE (T)						LIGHTED SIGN
			5+333.9 LT.				REMOVE (T)						CIRCUIT BREAKER PANEL
			5+342.7 LT.	5+343.5 LT.			INSTALL & MAINT. (P)						GUY WIRE
3A	KONOPAS, DOROTHY M. &	19, 21,	TH56 0+106.6 LT.	5+383.0 RT.	0.03HA±			WDOE	06-04-02	JAMAICA	84	462-	0.07A±
	WONDROFSKI, HERMAN F.	22										465	
			TH56 0+100.0 LT.	TH43 0+300.0 RT.			REMOVE & RESET (T)						FENCE & GATES
			TH56 0+089.4 LT.	TH43 0+280.0 RT.			CONST. (T) 0.06HA±						INCLUDES EROSION CONTROL
													0.15A±
			TH56 0+076.0 LT.	TH56 0+030.0 LT.			SLOPE (T) 0.02HA±						0.05A±
			TH56 0+064.3 LT.	TH56 0+060.0 LT.			CULVERT (P)						
			TH56 0+062.7 LT.	5+411.0 RT.			DIT. & DR. (P) 0.02HA±						0.05A±
			5+413.0 RT.				DRAINAGE (P)						
			TH56 0+030.0 LT.	TH43 0+220.0 RT.			SLOPE (P) 0.04HA±						0.10A±
			TH56 0+087.0± LT.										PERSONAL PROPERTY
													WOOD STORAGE BIN
			5+381.5 RT.	5+456.9 RT.			CLEAR & TRIM (P) 0.02HA±						0.05A±
			5+411.4 RT.	5+413.0 RT.			INSTALL & MAINTAIN (P)						GUY WIRE
			5+439.0 RT.	TH43 0+246.8 RT.			DETOUR (T) 260.6SM±						2,805 S.F.±
			TH43 0+220.0 RT.	TH43 0+276.0 RT.			SLOPE (T) 0.03HA±						0.07A±
			TH43 0+250.0 RT.				CULVERT (P)						
			TH43 0+285.0 RT.				DRIVE (T)						5.0M (16.4') GRAVEL
3B		19, 21,	5+386.7 RT.	TH43 0+279.5 RT.	0.04HA±								0.1A±
		22											
3C		19, 22	5+477.0 RT.	5+493.5 RT.	96.0SM±								1,033 S.F.±
			5+477.0 RT.	5+479.2 RT.			SLOPE (P) 3SM±						32 S.F.±
			5+477.0 RT.	5+493.7 RT.			CLEAR & TRIM (P) 49SM±						527 S.F.±
			5+477.0 RT.	5+493.7 RT.			INSTALL (T) 77SM±						EROSION CONTROL 829 S.F.±
			TH43 0+240.0 LT.	TH43 0+301.0 LT.			CONST. (T) 0.02HA±						INCLUDES EROSION CONTROL
													0.05 A±
			TH43 0+250.0 LT.				DIT. & DR. (P) 1SM±						10.8 S.F.±
			TH43 0+273.6 LT.	TH43 0+302.4 LT.			SLOPE (P) 0.01HA±						0.02A±
	PARCEL 3												
	CONTINUED ON NEXT SHEET												

REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY
1	20	PARCEL NO. 4 TEEKE. ADD DRY WELL TOPO WITH THE NOTE 'DO NOT DISTURB.' PER C.O. 9212.	12-04-01	P.J.H.	R.P.D.
2	15, 21	PARCEL 3 KONOPAS. ADD WOOD STORAGE BIN AS PERSONAL PROPERTY AT STA. TH 56 0+087 LT. PER C.O. 9213.	12-04-01	P.J.H.	R.P.D.
3	17, 19 23	PARCEL NO. 6 UNITED STATES OF AMERICA. REMOVE CONST. (T) AT STA. 5+714.0 LT. ~ STA. 5+721.5 LT. REMOVE CONST. (T) AT STA. TH 43 0+300.0 LT. ~ TH 43 0+339.0 LT. PER C.O. 9305.	06-24-03	M.J.R.	R.P.D.

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
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

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

R.O.W. PLANS

JAMAICA
BRF 013-1(8)
SHEET 14 OF 116

APPROVED: ROGER P. DUMAS DATE: 7-25-00
CHIEF, PLANS & TITLES

ACCT.gfunk
\\vaot_cadd\filingcabinet$\78f209\RightOfWay\rf209d.dgn
DATE PLOTTED 20-AUG-2003

NOT Metric

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
	PARCEL 3												
	CONTINUED FROM PREVIOUS SHEET												
3D	KONOPAS, DOROTHY M.	22, 23	5+544.5 RT.	5+555.8 RT.	56.4SM±								607 S.F.±
	WONDROFSKI, HERMAN F.		5+544.1 RT.	5+631.8 RT.			CLEAR & TRIM (P) 0.01 HA±						0.02A±
			5+546.0 RT.	5+586.0 RT.			INSTALL (T)						SNOW FENCE (MODIFIED)
			5+589.0 RT.	5+593.0 RT.			REMOVE (T)						GUARD RAIL
			5+591.0 RT.	5+621.7 RT.			CONST. (T) 82SM±						INCLUDES EROSION CONTROL
													883 S.F.±
			5+619.5 RT.	5+648.8 RT.			INSTALL (T) 97SM±						EROSION CONTROL(SF);
													1049 S.F.±
			5+602.2 RT.	5+620.0 RT.			SLOPE (T) 45SM±						484 S.F.±
			5+617.5 RT.				INSTALL & MAINTAIN (P)						GUY WIRE
			5+630.0 RT.				DRIVE (T)						4.2M (13.8') PAVED MM 0351
			5+644.2 RT.	5+678.6 RT.			CONST. (T) 91SM±						INCLUDES EROSION CONTROL
													980 S.F.±
			5+645.1 RT.	5+666.5 RT.			SLOPE (T) 39SM±						420 S.F.±
			5+695.0 RT.				DRAINAGE (P)						
3E		21, 22	5+321.5 RT.	5+492.5 RT.	0.15HA±		ALL R.T.& I.						VT. RTE. 100,& TH 43&TH 56
													(0.38A±)
3F		22	5+545.4 RT.	5+555.8 RT.	0.01HA±		ALL R.T.& I.						VT. RTE. 100 (.02A±)
3G		22, 23	5+548.4 LT.	5+558.7 LT.			CHANNEL (P) 100SM±						1076 S.F.±
			5+549.0 LT.	5+606.7 LT.			DETOUR (T) 0.03HA±						0.07A±
			5+551.1 LT.	5+562.2 LT.			CONST. (T) 35SM±						INCLUDES EROSION CONTROL
													377 S.F.±
			5+551.2 LT.	5+555.3 LT.			ALL R.T.& I.						STONEWALL
			5+562.0 LT.	5+613.3 LT.			INSTALL (T) 84SM±						EROSION CONTROL 904 S.F.±
			5+668.2 LT.	5+714.0 LT.			CONST. (T) 0.01HA±						INCLUDES EROSION CONTROL
													0.02A±
			5+685.7 LT.	5+712.6 LT.			SLOPE (T) 41SM±						441 S.F.±
3H		21	TH56 0+107.7 CL.	5+390.5 RT.	0.06HA±		ALL R.T.& I.						TH 56 (0.15A±)
							EXCEPT & RESERVE						FLOWAGE RIGHTS ON
													PARCELS 3A - 3H
4	TEEKE, GERALD C. &	20, 21	5+343.5 LT.	5+344.0 LT.			INSTALL & MAINTAIN (P)	WDOE	06-05-02	JAMAICA	84	469-	GUY WIRE
	RITH K.											470	
			5+341.7 LT.	5+355.0 LT.			SLOPE (T) 26SM±						280 S.F.±
			5+346.4 LT.	5+360.8 LT.			CONST. (T) 29SM±						INCLUDES EROSION CONTROL
													312 S.F.±
			5+409.2 LT.				REMOVE (T)						SATELLITE DISH
			TH41 0+143.9 LT.	TH41 0+160.0 LT.			CONST. (T) 46SM±						INCLUDES EROSION CONTROL
													495 S.F.±
			TH41 0+144.4 LT.	TH41 0+152.2 LT.			DETOUR (T) 19SM±						205 S.F.±
			TH41 0+144.6 LT.	TH41 0+145.9 LT.			SLOPE (T) 0.20SM±						2.15 S.F.±
			TH41 0+180.0 LT.										DRIVE 10M (32.8') GRAVEL

REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

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
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

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

APPROVED: ROGER P. DUMAS DATE: 7-25-00
CHIEF, PLANS & TITLES

R. O. W. PLANS
JAMAICA
BRF 013-1(8)
SHEET 15 OF 116

ACCT.MRyan
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DATE PLOTTED 01-NOV-2002

Metric

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
5A	MARCH, ROBIN C.	20, 21	5+456.3 LT.	5+457.5 LT.	0.7SM±					WD	09-11-02	JAMAICA	85	272-	7.53 S.F.±
		22	5+344.0 LT.	5+344.2 LT.			INSTALL & MAINTAIN	(P)						274	GUY WIRE
			5+341.7 LT.	5+380.0 LT.			SLOPE	(T)	0.02HA±						0.05A±
			5+355.0 LT.	TH41 0+144.4 LT.			CONST.	(T)	0.03HA±						INCLUDES EROSION CONTROL
															0.07A±
			5+376.7 LT.	TH41 0+144.6 LT.			DETOUR	(T)	0.08HA±						0.20A±
			5+380.0 LT.	TH41 0+120.0 LT.			SLOPE	(P)	0.02HA±						0.05A±
			5+409.2 LT.				REMOVE	(T)							SATELLITE DISH
			TH41 0+120.0 LT.	TH41 0+123.9 LT.			DIT. & CUL.	(P)	3SM±						32 S.F.±
			TH41 0+120.0 LT.	TH41 0+144.6 LT.			SLOPE	(T)	73SM±						INCLUDES EROSION CONTROL
															786 S.F.
5B	MARCH, ROBIN C.	20, 22	5+472.1 LT.	5+479.5 LT.	19.7SM±										212 S.F.±
			5+471.3 LT.	5+521.8 LT.			DETOUR	(T)	0.06HA±						INCLUDES EROSION CONTROL
															0.15A±
			5+475.1 LT.	5+493.7 LT.			CHANNEL	(P)	0.02HA±						0.05A±
			5+506.9 LT.	5+513.4 LT.			CHANNEL	(P)	9SM±						97 S.F.±
			5+508.0 LT.	5+512.3 LT.			INSTALL	(T)	53SM±						TEMPORARY BRIDGE PIER
															571 S.F.±
			TH41 0+194.7 RT.	5+523.2 LT.			CONST.	(T)	0.05HA±						INCLUDES EROSION CONTROL
															0.12A±
			TH41 0+122.0 RT.				CUL., DIT., & DR.	(P)							
			TH41 0+120.4 RT.	TH41 0+186.4 RT.			SLOPE	(T)	0.03HA±						0.07A±
5C		21, 22	5+341.7 LT.	5+519.4 LT.	0.14HA±		ALL R.T.& I.								VT. RTE. 100 & TH 41
															0.34A±
							EXCEPT & RESERVE								FLOWAGE RIGHTS ON
															PARCEL 5A, 5B, & 5C
6A	UNITED STATES OF AMERICA	22, 23	5+555.8 LT.	VT RT. 30 3+076.7 CL	1.08 HA±							JAMAICA			2.67A± HIGHWAY EASEMENT
			VT RT. 30 4+010.5 RT.	VT RT. 30 4+015.0 RT.			INSTALL & MAINTAIN	(P)							GUYWIRE
6B		19	TH43 0+301.0 LT.	TH43 0+331.5 LT.			SLOPE	(P)	71.25 SM±						767 S.F.±
			TH43 0+321.6 LT.	TH43 0+324.0 LT.			INSTALL & MAINTAIN	(P)							GUY WIRE
							EXCEPT & RESERVE								FLOWAGE RIGHTS ON PARCEL
															6A & 6B

REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

ACCT.mryan
\\vaot_cadd\filingcabinet$\78f209\RightOfWay\rf209d.dgn
DATE PLOTTED 24-JUN-2003

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
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

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

APPROVED: ROGER P. DUMAS DATE: 7-25-00
CHIEF, PLANS & TITLES

R. O. W. PLANS
JAMAICA
BRF 013-1(8)
SHEET 16 OF 116

Metric

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
7A	TOWN OF JAMAICA	21	TH56 0+109.5 RT.	5+390.5 RT.	0.19HA±		ALL R. T. & I.	QCD	05-17-02	JAMAICA	84	396-397	VT. RTE.100 & TH56 (0.47A±)
7B		20,22	5+457.5 LT.	5+472.5 LT.	0.01HA±		ALL R.T. & I.						VT. RTE. 100(0.02A±) & TH 41
			TH41 0+122.0 LT.& RT.				CULVERT (P)						
			TH41 0+122.5 LT.& RT.				REMOVE (T)						CULVERT
			TH41 0+107.5 CL	TH41 0+200.0 CL			APPROACH (T)						INCLUDES EROSION CONTROL
													TH 41
7C		19,22	5+461.9 RT.	5+477.0 RT.	0.02HA±		ALL R.T. & I.						VT. RTE. 100(0.05A±) & TH 43
			TH43 0+213.2 CL	TH43 0+300.0 CL			APPROACH (T)						TH 43
			TH43 0+251.0 LT.& RT.				REMOVE (T)						CULVERT
			TH43 0+250.0 LT.& RT.				CUL,DIT & DR. (P)						
							EXCEPT & RESERVE						FLOWAGE RIGHTS ON PARCEL 7A, 7B, & 7C
	MAINTENANCE AGREEMENT ZONE #1	21	5+375.2 RT.	5+378.5 RT.									LENGTH 6.0M (19.7') TH 56
	MAINTENANCE AGREEMENT ZONE #2	22	TH43 0+203.3 CL	TH43 0+213.2 CL									LENGTH 9.9M (32.4') TH 43
	MAINTENANCE AGREEMENT ZONE #3	22	5+465.5 LT.	5+465.0 LT.									LENGTH 4.0M (13') TH 41
	RELINQUISHMENT AREA NO. I	21	TH56 0+109.5 RT.	5+390.5 RT.									TH 56
	RELINQUISHMENT AREA NO. II	19,22	5+456.9 RT.	TH43 0+279.5 RT.									TH 43
8	CENTRAL VERMONT PUBLIC SERVICE CORPORATION												UTILITY
9	VERIZON NEW ENGLAND, INC.												UTILITY

REVISION NO.	SHEET	DESCRIPTION OF REVISION	DATE	MADE BY	APPROVED BY

ACCT.MRyan
\\vaot_cadd\filingcabinet$\78f209\RightOfWay\rf209d.dgn
DATE PLOTTED 01-NOV-2002

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
(P) PERMANENT EASEMENT
(T) TEMPORARY EASEMENT

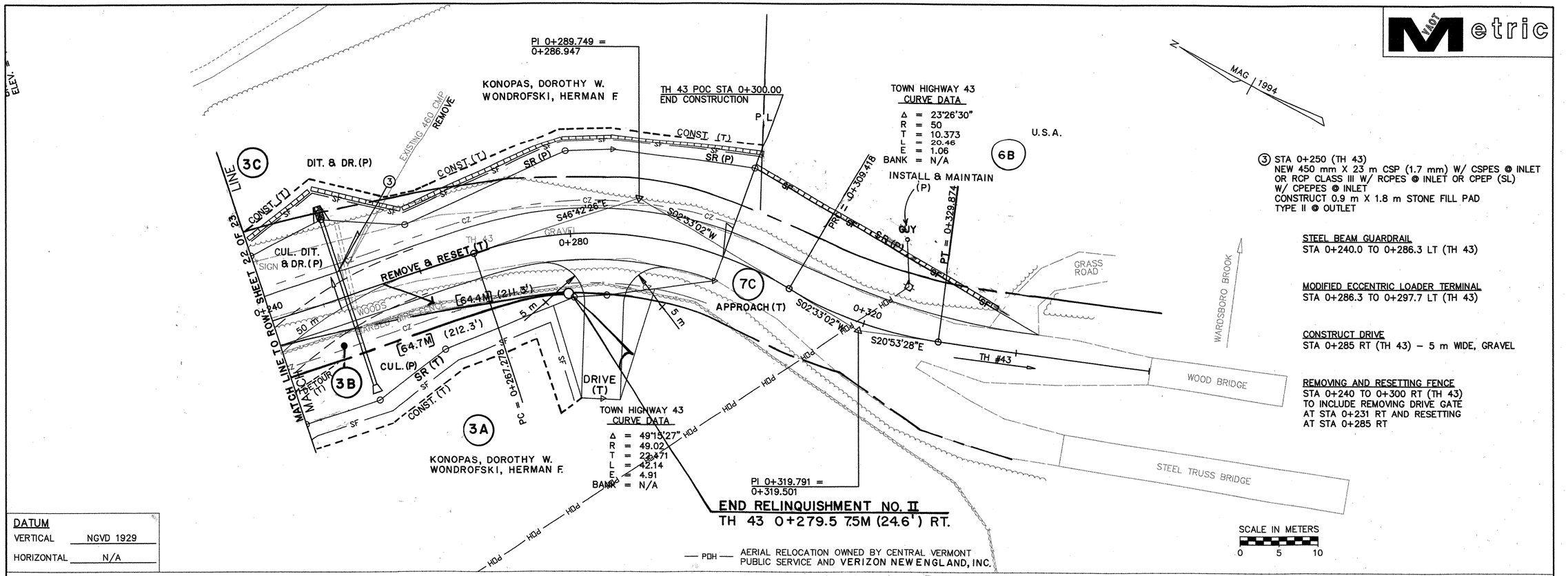
LEGEND
C&T (P) CLEARING & TRIMMING
CZ (P) CLEAR ZONE
CONST.(T) CONSTRUCTION EASEMENT
SR SR SLOPE RIGHTS
P L PROPERTY LINE
TOP OF CUT
TOE OF SLOPE
UE (P) PERMANENT UTILITY EASEMENT

APPROVED: ROGER P. DUMAS DATE: 7-25-00
CHIEF, PLANS & TITLES

R. O. W. PLANS

JAMAICA
BRF 013-1(8)
SHEET 17 OF 116

MDOT Metric



③ STA 0+250 (TH 43)
NEW 450 mm X 23 m CSP (1.7 mm) W/ CSPES @ INLET
OR RCP CLASS III W/ RCPES @ INLET OR CPEP (SL)
W/ CPEPES @ INLET
CONSTRUCT 0.9 m X 1.8 m STONE FILL PAD
TYPE II @ OUTLET

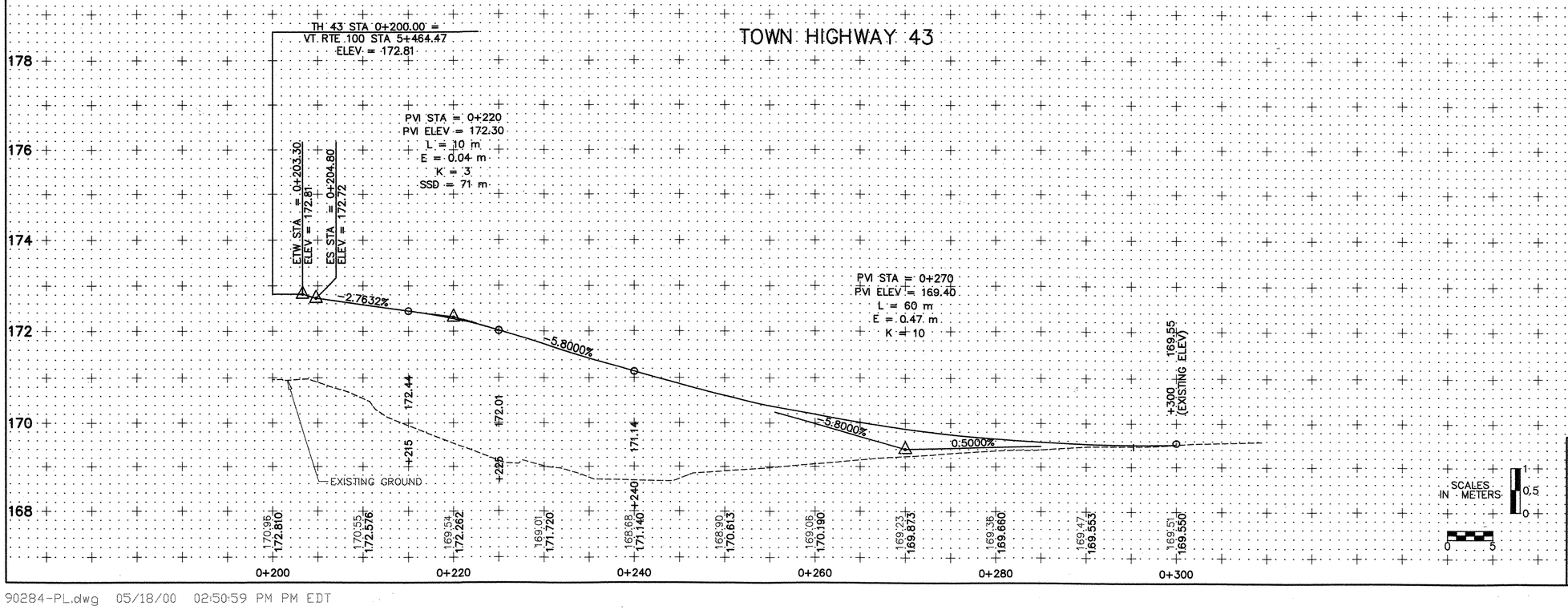
STEEL BEAM GUARDRAIL
STA 0+240.0 TO 0+286.3 LT (TH 43)

MODIFIED ECCENTRIC LOADER TERMINAL
STA 0+286.3 TO 0+297.7 LT (TH 43)

CONSTRUCT DRIVE
STA 0+285 RT (TH 43) – 5 m WIDE, GRAVEL

REMOVING AND RESETTING FENCE
STA 0+240 TO 0+300 RT (TH 43)
TO INCLUDE REMOVING DRIVE GATE
AT STA 0+231 RT AND RESETTING
AT STA 0+285 RT

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A



RIGHT-OF-WAY PLAN/PROFILE

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		

SHEET 18 OF 116 SHEETS

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VAOT Metric

MARCH, ROBIN C. & RUTH K. — TEEKE, GERALD C. & RUTH K.

MATCHLINE TO ROW SHEET 22 OF 23

MATCHLINE TO ROW SHEET 23 OF 23

350 MAPLE — POST — 450 PINE — 500 PINE — DECK — HOUSE — LANDSCAPE AREA — STAIRS — STONE WALL — WELL — PORCH — 500 MAPLE — ORNAMENTAL — WELL — GRAVEL DRIVE — OVERHANG — CONC. — GARAGE — 350 MAPLE — SAVE STONE WALL AND PLANTER — 3 m — CVPS 708/1 NET #2879 — OAK — BUSH — GUY — MAILBOX — HANGER — 50 m

"DO NOT DISTURB" DRYWELL

PDH — 5A — 4 — CONST. (LT) — DETOUR (T) — SF — SR(T) — CZ

PI 0+184.858 = 0+184.73

CONSTRUCT DRIVE
STA 0+180 LT – 10 m WIDE, GRAVEL

RELOCATE MAILBOX, SINGLE SUPPORT
STA 0+172 LT

VAOT SURVEY DISC #41
SET ON BOULDER
STAMPED
"TT 29K RESET 1986"
ELEV. = 173.163

IP — PROPANE TANK — IP — SHED — HOUSE — DECK — CONC. STEP — GRAVEL DRIVE — MAG 1994 — N — P L — 7B — IP

0+160 — N51°16'58"W — N45°02'50"W 0+200 — APPROACH (T) — TH #41 — GRAVEL — TH 41

TOWN HIGHWAY 41
CURVE DATA
Δ = 06°14'36"
R = 633.22
TS = 37.759
E = 75.44
E = 1.03
BANK = N/A

ZO — JS — PC SR(T) 0+147.089 — SR (T) — CONST. (T) — 5B — PT = 0+222.542 — GUY — CVPS 708/2/2

MARCH, ROBIN C.

WEST RIVER (AUXILIARY FLOOD FLOW CHANNEL)

TH 41 POC STA 0+200.00
END CONSTRUCTION

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

— PDH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON NEW ENGLAND, INC.

SCALE IN METERS
0 5 10

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

TOWN HIGHWAY 41

TH 41 STA 0+100.00 = VT RTE 100 STA 5+465.78
ELEV = 172.80

PVI STA = 0+115.00
PVI ELEV = 172.35
L = 10 m
E = 0.06 m
K = 2
SSD = 47 m

ETW STA = 0+103.31
ELEV = 172.73

ES STA = 0+104.82
ELEV = 172.64

2.8880%

PVI STA = 0+160.00
PVI ELEV = 168.90
L = 80 m
E = 1.77 m
K = 5

-7.6667%

10.0000%

EXISTING GROUND

| | | |

VAOT Metric

STEEL BEAM GUARDRAIL
STA 5+291.4 LT TO 5+420.0 LT
STA 5+300.0 RT TO 5+349.4 RT
STA 0+040.0 LT (TH 56) TO STA 5+420.0 RT

REMOVAL & DISP. OF GUARDRAIL
STA 5+300 RT TO 5+359 RT
STA 5+376 RT TO 5+420 RT

REMOVING AND RESETTING FENCE
STA 0+092 LT (TH 56) TO 5+420 RT

MODIFIED ECCENTRIC LOADER TERMINAL
STA 5+280.0 TO 5+291.4 LT
STA 5+349.4 TO 5+360.8 RT
STA 0+040.0 TO 0+051.4 LT (TH 56)

EROSION MATTING
STA 0+020 TO 0+095 RT (TH 56)

COLD PLANING – BIT. PAVEMENT
STA 5+300 TO 5+316

STONE FILL, TYPE I
STA 5+380 TO 5+420 LT – 600 DEEP

BEGIN R.O.W. PROJECT
BRF 013-1(8) STA. 5+281.0 21.8M (71.5') LT.

POC STA 5+300.00
BEGIN APPROACH

CURVE DATA
Δ = 41°47'52"
R = 352.72
T = 134.683
L = 257.31
E = 24.84
BANK = 0.071

POC STA 5+345.00
END APPROACH
BEGIN PROJECT
BRF 013-1(8)

INSTALL & MAINTAIN (P)

FERTIG, ROBERT G. & MARILYN

TEEKE, GERALD C. & RUTH K.

END MAINT. AGREE. ZONE NO. 1
STA. 5+378.5 3.3M (11') RT.

MARCH, ROBIN C.

DETOUR CONSTRUCTION LIMITS

SATELITE DISH

MATCH LINE TO ROW SHEET 22 OF 23

VT RTE 100 POC STA 5+380.00 =
TH 56 STA 0+000.00
ANGLE TO POST = 70°37'24"

59.4M (194.9') IP CONST. (T)
REMOVE (T) CONST (T)
CONST. (T)
DETOUR (T)
REMOVE (T)
SR (T)
SR (P)
61.5M (201.8')
5+404.8
7.5M (24.6') LT.
5+390.5
9.3M (30.5') LT.
5+341.7
5+321.9
5+341.7
CL
5+281.0
CL
5+280
5+320
5+360
5+400
40.9M (134.2')
19.8M (65')
48.8M (160.1')
5+386.7
8.7M (28.5') RT.
27M (88.6')
33.5M (109.9')
37.5M (123.05')
42.5M (139.4')
40.5M (132.9')
78.5M (258')
62M (203.4')
107.7M (353.3')
43.5M (142.7')
72.5M (237.9')
67.2M (220.5')
51.2M (168')
4.2M (13.8')
5+383.0
9.7M (31.8') RT.
5+413.0
11M (36.1')
6M (19.7')
5+375.2
8.0M (26.2') RT.
5+390.5
7.5M (24.6') RT.
TH 56 0+028.5
7.5M (24.6') RT.
TH 56 0+064.0
6.5M (21.3') LT.
TH 56 0+106.6
7.7M (25.3') LT.
TH 56 0+107.7
℄
0+040
0+060
0+080
0+120
S44°22'48"W
S62°06'10"W
N85°58'16"E
N44°07'28"E
S44°22'48"W
PI 0+014.027 =
0+011.348
PI 5+319.683 =
5+307.629
PI 0+069.028 =
0+068.331

TOWN HIGHWAY 56
CURVE DATA
Δ = 17°43'22"
R = 280.00
T = 43.653
L = 86.61
E = 3.38
BANK = N/A

TOWN HIGHWAY 56
CURVE DATA
Δ = 60°40'29"
R = 23.93
T = 14.027
L = 25.37
E = 3.81
BANK = N/A

TH 56 POC STA 0+100.00
END CONSTRUCTION

VT ROUTE 100
TO WARDSBORO

VT ROUTE 100

ROBINSON, HARRY C.

FERTIG, ROBERT G. & MARILYN

KONOPAS, DOROTHY M.
WONDROFSKI, HERMAN F

STONE WALL
STONEWALL
STEEL PIPE
STEEL GUARDRAIL
GRAVEL ENTRANCE
STONE HEADWALL
WOOD FENCE
EXISTING 460 CMP
WOODS ROAD
STOCKADE FENCE
SHED
450 PINE
450 PINE W/LIGHT & SIGN
450 PINE W/ELEC METER
400 PINE
300 HARDWOOD
450 OAK
300 ASH
300 MAPLE
300 CHERRY
300 LOCUST
REMNANTS OF WOODEN WELL HOUSE
STONE RET. WALL
OVERHANG
GUY
DELINEATOR
SATELLITE DISH
BARBED WIRE FENCE
CVPS NET #9
UP #162C/1770
APPROX. LOC. COVERED WOOD STORAGE BIN
EXISTING 460 CMP REMOVE
MAG 1994
N

1 STA 0+080 RT TO 0+060 LT (TH 56)
NEW 600 mm X 28 m CSP (1.7 mm) W/ CSPES @ INLET
OR RCP CLASS III W/ RCPES @ INLET OR CPEP (SL)
W/ CPEPES @ INLET

TH 56 STA 0+060 LT TO VT RTE 100 STA 5+411 RT
CONSTRUCT SPECIAL DITCH
STONE FILL TYPE 1

BEGIN RELINQUISHMENT NO. 1
TH 56 0+109.5 8.0M (26.2') RT.

BEGIN MAINT. AGREE. ZONE NO. 1
STA. 5+375.2 8.0M (26.2') RT.
LENGTH 6M (19.7')

END RELINQUISHMENT NO. 1
STA. 5+390.5 7.5M (24.6') 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 STATE OF VERMONT'S ACQUISITION OF LAND AND RIGHTS FOR THIS PROJECT.

— PDH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON NEW ENGLAND, INC.

—— SF —— = SILT FENCE
—— FC —— = FILTER CURTAIN
▭ = HAY BALE

SCALE IN METERS
0 5 10

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

RIGHT-OF-WAY PLAN

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		

SHEET 20 OF 116 SHEETS

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NOT Metric

EXTRA DEPTH OF SUBBASE
STA 5+462.5 TO 5+478.5
STA 5+559 TO 5+574

GRANULAR BORROW
STA 5+462.5 TO 5+478.5
STA 5+559 TO 5+574

GUARDRAIL APPROACH SECTION, NETC 2 RAIL
STA 0+109.6 RT (TH 41) TO STA 5+474.7 LT
STA 0+210.3 RT (TH 43) TO STA 5+474.7 RT
STA 5+563.0 TO 5+570.6 LT & RT

SNOW FENCE (MODIFIED)
STA 5+546 TO 5+586 RT

STEEL BEAM GUARDRAIL
STA 5+420 TO 0+114.1 LT (TH 41)
STA 5+420 TO 0+215.8 RT (TH 43)
STA 5+570.6 TO 5+600 RT
STA 5+570.6 TO 5+600 LT
STA 0+109.6 TO 0+121.0 RT (TH41)
STA 0+210.3 TO 0+240.0 LT (TH 43)

REMOVAL & DISP. OF GUARDRAIL
STA 5+420 TO 5+429 RT
STA 5+472 TO 5+482 LT
STA 5+478 TO 5+482 RT
STA 5+556 TO 5+592 RT
STA 5+556 LT TO 5+600 LT

MODIFIED ECCENTRIC LOADER TERMINAL
STA 0+114.1 TO 0+125.5 LT (TH 41)
STA 0+121.0 TO 0+132.4 RT (TH 41)
STA 0+215.8 TO 0+227.2 RT (TH 43)

STONE FILL, TYPE I
VT RTE 100 STA 5+420 LT TO
TH 41 STA 0+120 LT–600 DEEP

REMOVING AND RESETTING FENCE
STA 5+420 RT TO 0+240 RT (TH 43)

MARCH, ROBIN C.

KONOPAS, DOROTHY W.
WONDROFSKI, HERMAN F.
3G

MAG 1994

MATCHLINE TO ROW SHEET 20 OF 23

MATCH LINE

DETOUR CONSTRUCTION LIMITS
MARCH, ROBIN C.

VT RTE 100 POT STA 5+465.78 =
TH 41 STA 0+100.00

② STA 0+122 (TH 41)
NEW 600 mm X 24 m CSP (1.7 mm) W/ CSPES @ INLET
OR RCP CLASS III W/ RCPES @ INLET OR CPEP (SL)
W/ CPEPES @ INLET CONST.(T)

TEMPORARY BRIDGE

END MAINT. AGREE. ZONE NO. 3
5+465.0 7.3M LT. CUL. & DIT. (P)
(24')

BEGIN MAINT. AGREE. ZONE NO. 3
STA 5+465.5 3.3M LT. (11')
LENGTH 4M (13.1')

INSTALL (T)

CONST (T)

POT STA 5+559.87
END BRIDGE
ELEV. = 171.918

INSTALL (T)

MATCH LINE TO ROW SHEET 23 OF 23

5+555.8
8M (26.2') LT.

5+548.4
8M (26.2') LT.

5+519.4
7.7M (25.3') LT.

5+516.4

N44°07'25"E

5+520

5+492.5

5+479.4
10.0M (32.8') LT.

5+479.5
7.3M (24.0') LT.

40M (131.2')

POT STA 5+477.90
BEGIN BRIDGE
ELEV. = 172.683

5+477.2
10.0M (32.8') LT.

5+472.5
7.3M (24.0') LT.

5+457.4
8.5M (27.9') LT.

5+456.3
7.5M (24.6') LT.

5+457.5
7.5M (24.6') LT.

5+457.5
5+461.9
7.5M (25') RT.

5+477.0
5+480
5+492.5
5+493.5
5+545.4
7.9M (25.9') RT.
5+544.5
13.3M (43.6') RT.
5+555.8
13.1M (43.0') RT.
5+555.8
15.24M (50')
5+555.8
5.4M, 7.7M (25.3') RT.
5+546.8
5+560
5+555.8
15.24M (50') LT.
6A
5+555.8
5.4M, 7.7M (25.3') RT.
5+546.8
5+560
5+555.8
15.24M (50') LT.
6A
5+461.9
13M (42.7') RT.
5+477.0
13.7M (44.9') RT.
5+477.0
7.7M (25.3') RT.
5+492.5
7.7M (25.3') RT.
5+493.5
13.7M (44.9') RT.

5A 5B 5C 3E 3B 3A 7B 7C 3C 3D 3F 6A

CH.(P) CUL. & DIT. (P) DR.(P) SR(P) SR(T) CONST.(T) REMOVE INSTALL (T) DETOUR (T) REMOVE & RESET

200 OAK 700 OAK 250 MAPLE 300 OAK 550 OAK 400 ELM 200 ASH 300 TWIN OAKS 350 OAK 200 OAK

GRAVEL PAVEMENT LIMIT OF PAVEMENT EXISTING BIO. RAMP

RIPRAP GUARDRAIL CABLE GUARDRAIL GRAVEL ROAD SIGN GUY WALL GUY CVPS #4A SIGNAL BOX

TBM 102
GREEN PAINT ON
BRIDGE ABUTMENT
ELEV. = 171.282

VT ROUTE 100 POT STA 5+464.47 =
TH 43 STA 0+200.00

INSTALL (T)

KONOPAS, DOROTHY W.
WONDROFSKI, HERMAN F.

BEGIN RELINQUISHMENT NO. II
STA 5+456.9 12.7M (41.7') RT.

BEGIN MAINTENANCE AGREEMENT ZONE NO. 2
TH 43 0+203.3 ℄ (LENGTH 9.9M (32.5')

END MAINTENANCE AGREEMENT ZONE NO. 2
TH 43 0+213.2 ℄

MATCHLINE TO ROW SHEET 19 OF 23

INSTALL & MAINTAIN (T)

SNOW FENCE (MODIFIED)
TO PROTECT ARCH.
SENSITIVE AREA

APPROX. ARCHEOLOGIC SITE

KONOPAS, DOROTHY W.
WONDROFSKI, HERMAN F.

WEST RIVER

SF = SILT FENCE
FC = FILTER CURTAIN
= HAY BALE

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

— POH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON NEWENGLAND, INC.

STONE FILL TYPE IV

SCALE IN METERS
0 5 10

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

RIGHT-OF-WAY PLAN

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		

SHEET 21 OF 116 SHEET

VAOT Metric

STEEL BEAM GUARDRAIL
STA 5+600.0 TO 5+642.8 LT
STA 5+600.0 TO 5+612.4 RT
STA 3+994.0 TO 4+005.4 RT (VT ROUTE 100/30)

MODIFIED ECCENTRIC LOADER TERMINAL
STA 5+612.4 TO 5+623.8 RT
STA 5+642.8 TO 5+654.2 LT
STA 4+005.4 TO 4+016.8 RT (VT ROUTE 100/30)

CONSTRUCT DRIVE
STA 5+630 RT – 4.2 m WIDE PAVED

EXCAVATION OF SURFACES & PAVEMENTS
STA 5+748 RT TO 5+765 RT

REMOVAL & DISP. OF GUARDRAIL
STA 5+600 TO 5+644 LT
STA 3+994 TO 4+002 LT (VT ROUTE 100/30)

CURVE DATA
Δ = 22°13'20"
R = 422.10
T = 82.898
L = 163.71
E = 8.06
BANK = 0.045

KONOPAS, DOROTHY M.
WONDROFSKI, HERMAN F.
3G

KONOPAS, DOROTHY M.
WONDROFSKI, HERMAN F.
3D

100 HARDWOOD
MAG 1994
U.S.A.
P L
5+714.0
17.6 M (57.7') LT.
GRASS FIELD ENTRANCE
WOODS
6A
5+752.7
16.2 M (53.1') LT.
37.1 M (121.7') (TIE LINE)
PT = 5+749.70
19.8 M (65') (TIE LINE)
VT ROUTE 100/30 TO WINHALL
4+080
UP #599 & 5/505
POC STA 5+765.21
END PROJECT
BRF 013-1(8)
VT RT 30 4+060.0
14.3 M (46.9') LT.
VT RT 30 4+060.0
℄
14.3 M (46.9') (TIE LINE)
BALL FIELD
4+040
83.3 M (273.3') (TIE LINE)
84°37'58"
5+760
SIGN
UP #599 & 5/505
GUY
UP #599 & 5/505 WITH WEATHER #2 LIGHT & METER BOX
INSTALL & MAINTAIN (P)
S73°27'57"E
4+000
VT ROUTE 30 TO TOWNSHEND
GRAVEL ROAD
34.2 M (112.5') TIE LINE
5+741.4
54.9 M (180') RT.
5+712.5
48.5 M (159.1') RT.
33.2 M (109')
5+713.0
29 M (95.1') RT.
19.5 M (64')
5+678.6
23.0 M (75.5') RT.
42.4 M (139') DRAINAGE (P)
8.8 M (29')
5+673.4
30 M (98.4')
PI 5+668.888 = 5+666.805
[127.4 M] (418')
[152.4 M] (500')
DETOUR CONSTRUCTION LIMITS
MATCH & DETOUR (T)
INSTALL (T)
CONST. (T)
SR (T)
UP #2 REMOVE
UP STUB SIGN POST 3 m HIGH REMOVE
CONC. HEADWALL
NET #162C/1 REMOVE
50 PINE
RIPRAP
CABLE GUARDRAIL
200 m
5+600
5+640
5+680
5+720
VT ROUTE 100
SIGN
N44°07'25"E
N21°54'05"E
UP #7/2 REMOVE
UP #CZ REMOVE
EXISTING 6'0 RCP REMOVE
C & T (P)
INSTALL & MAINT. (P)
ROAD CONST. (T)
INSTALL (T)
DRIVE (T)
SHEET 22 OF 23
MATCHLINE TO ROW SHEET
LINE
BENCHMARK ARROW/DISK ARMY CORPS (NOT USED)
GUY
10 m
15 m
16.5 m
PAVED
PDH
SF
CZ
P L

④ STA 5+695
NEW 600 mm X 40 m PCCSP (1.7 mm) OR CAAP (1.6 mm) OR RCP CLASS III OR CPEP (SL) CONSTRUCT REINFORCED CONCRETE HEADWALL @ INLET AND OUTLET. CONSTRUCT 1.2 m X 2.4 m STONE FILL PAD TYPE I @ OUTLET

VT ROUTE 100 PT STA 5+769.61 =
VT ROUTE 30 POT 4+033.74

EXCAVATION OF SURFACES & PAVEMENTS

— PDH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON NEW ENGLAND, INC.

SF = SILT FENCE
FC = FILTER CURTAIN
▭ = HAY BALE

SCALE IN METERS
0 5 10

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

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

END R.O.W. PROJECT
BRF 013-1(8) STA. VT. RTE. 30 3+076.7 CL.

RIGHT-OF-WAY PLAN

SURVEYED BY CLD DATE 10/94
DRAWN BY SMC DATE 10/97
SQUAD LEADER JAW
DESIGN FILE NO. 90284
IPARM FILE
DATE PLOTTED
PROJ. NAME JAMAICA
PROJ. NO. BRF 013-1(8)

SHEET 22 OF 116 SHEETS

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VAOT Metric

STEEL BEAM GUARDRAIL
STA 5+280.0 TO 5+420.0 LT
STA 5+300.0 TO 5+360.8 RT
STA 0+051.4 LT (TH 56) TO STA 5+420.0 RT

REMOVAL & DISP. OF GUARDRAIL
STA 5+300 TO 5+359 RT
STA 5+376 TO 5+420 RT

REMOVING AND RESETTING FENCE
STA 0+092 LT (TH 56) TO 5+420 RT

ANCHOR FOR STEEL BEAM RAIL
STA 5+280 LT
STA 5+360.8 RT
STA 0+051.4 LT (TH 56)

EROSION MATTING
STA 0+020 TO 0+095 RT (TH 56, IN DITCH)

COLD PLANING – BIT. PAVEMENT
STA 5+300 TO 5+316

STONE FILL, TYPE I
STA 5+380 TO 5+420 LT – 600 DEEP

CURVE DATA
Δ = 41°47'52"
R = 352.72
T = 134.683
L = 257.31
E = 24.84
BANK = 0.071

TOWN HIGHWAY 56 CURVE DATA
Δ = 17°43'22"
R = 280.00
T = 43.653
L = 86.61
E = 3.38
BANK = N/A

TOWN HIGHWAY 56 CURVE DATA
Δ = 60°40'29"
R = 23.93
T = 14.027
L = 25.37
E = 3.81
BANK = N/A

POC STA 5+300.00
BEGIN APPROACH

POC STA 5+345.00
END APPROACH
BEGIN PROJECT
BRF 013-1(8)

VT RTE 100 POC STA 5+380.00 =
TH 56 STA 0+000.00
ANGLE TO POST = 70°37'24"

TH 56 POC STA 0+100.00
END CONSTRUCTION

PT = 0+111.984

PI 5+319.683 =
5+307.629

PI 0+069.028 =
0+068.331

PI 0+014.027 =
0+011.348

DETOUR CONSTRUCTION LIMITS

MATCH LINE STATION 5+420.00

TH 56 STA 0+060 LT TO VT RTE 100 STA 5+411 RT
CONSTRUCT SPECIAL DITCH
STONE FILL TYPE I

① STA 0+080 RT TO 0+060 LT (TH 56)
NEW 600 mm X 28 m CSP (1.63 mm) W/ CSPES ⊖ INLET
OR RCP CLASS III W/ RCPES ⊖ INLET OR CPEP (SL)
W/ CPEPES ⊖ INLET

CONSTRUCTION NOTES (RIGHT-OF-WAY AGREEMENTS)

5+548.4 LT TO 5+714.0 LT AND TH 56 0+107.7
ANY TREES ON THE LAND NOW OR FORMERLY OF THE OWNERS WHICH MUST BE REMOVED FOR PROJECT CONSTRUCTION SHALL BE CUT INTO TIMBER LENGTHS AND STACKED OUTSIDE OF THE HIGHWAY RIGHT-OF-WAY ON THE OWNERS LAND IN AN ACCESSIBLE LOCATION WHICH IS MUTUALLY ACCEPTABLE TO THE OWNERS AND THE RESIDENT ENGINEER.

TH 56 0+087.0 LT
STORAGE BIN WILL BE RELOCATED OUTSIDE OF THE HIGHWAY RIGHT-OF-WAY ON THE OWNERS LAND IN AN ACCESSIBLE LOCATION WHICH IS MUTUALLY ACCEPTABLE TO THE OWNERS AND THE RESIDENT ENGINEER.

5+341.7 LT TO 5+523.2 LT
ANY TREES ON LAND NOW OR FORMERLY OF THE OWNERS MUST BE REMOVED FOR THE PROJECT CONSTRUCTION SHALL BE CUT INTO LENGTHS OF 10" AND LOADED INTO THE OWNERS TRUCK IF AVAILABLE, OR PLACED OUTSIDE THE HIGHWAY RIGHT-OF-WAY ON THE OWNERS LAND IN AN ACCESSIBLE LOCATION WHICH IF MUTUALLY ACCEPTABLE TO THE OWNER AND THE RESIDENT ENGINEER.

— PDH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON

SCALE IN METERS
0 5 10

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

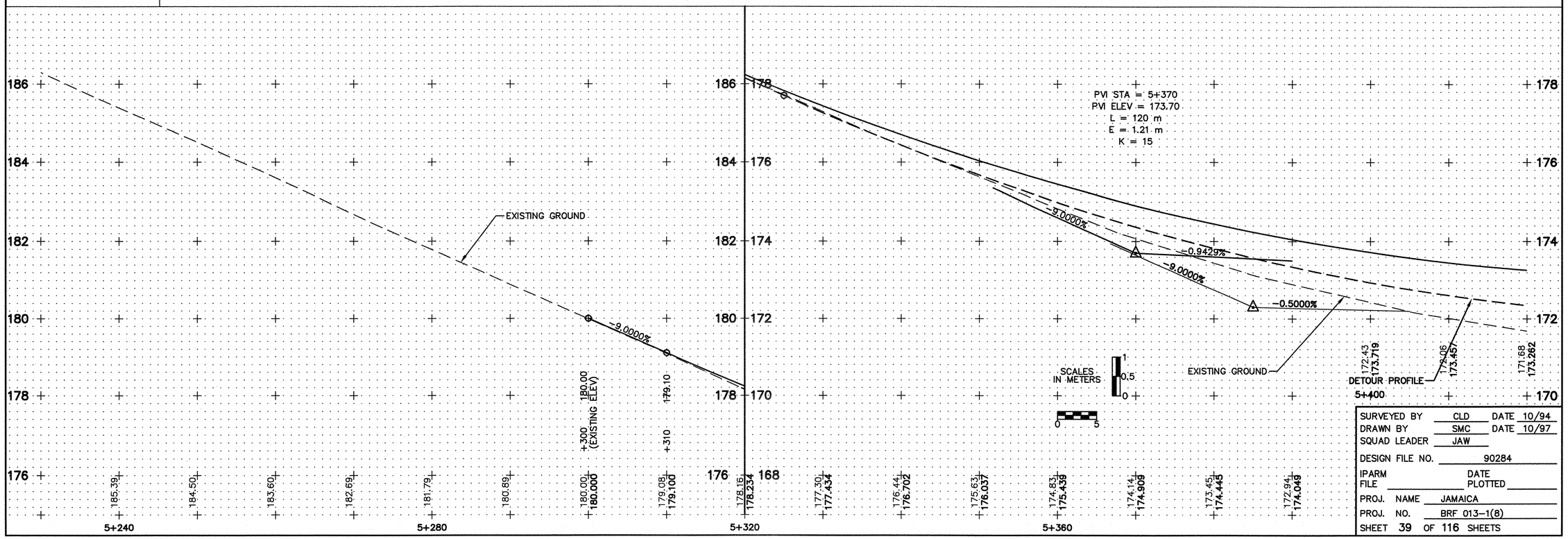
GENERAL PLAN

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		

SHEET 38 OF 116 SHEETS

Metric

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

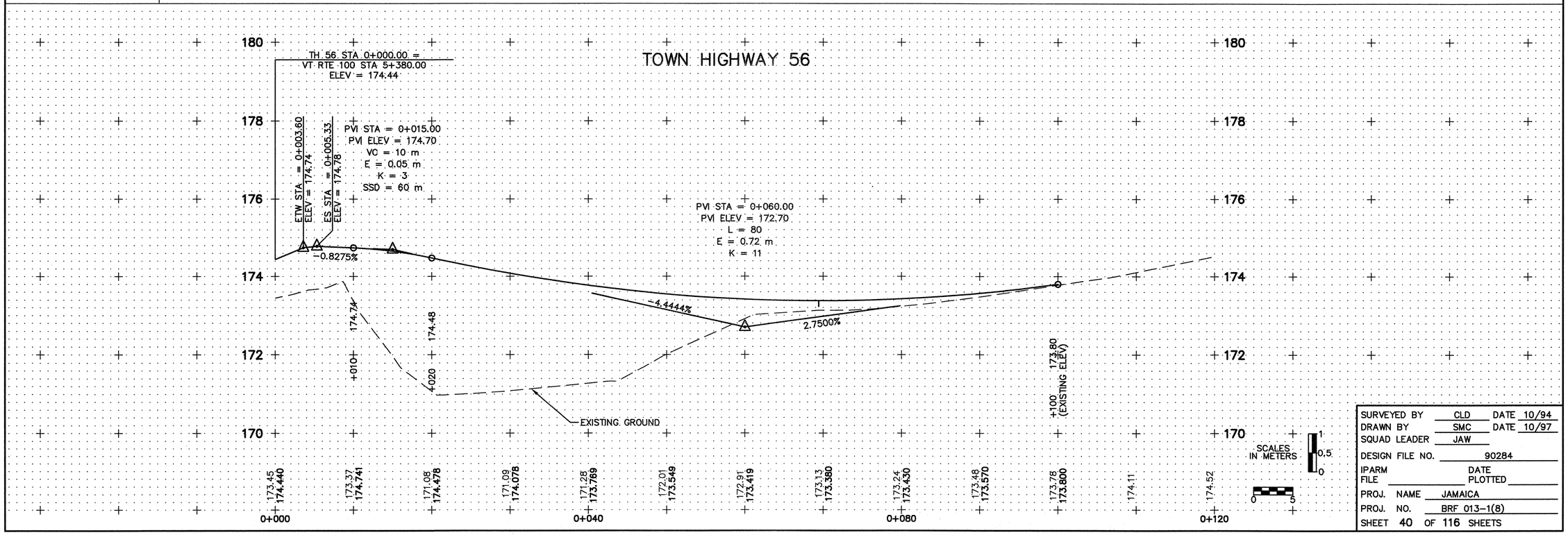


SURVEYED BY	CLD DATE 10/94
DRAWN BY	SMC DATE 10/97
SQUAD LEADER	JAW
DESIGN FILE NO.	90284
IPARM FILE	DATE PLOTTED
PROJ. NAME	JAMAICA
PROJ. NO.	BRF 013-1(8)
SHEET	39 OF 116 SHEETS

Metric

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

TOWN HIGHWAY 56



SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	40	OF	116 SHEETS

EXTRA DEPTH OF SUBBASE
STA 5+462.5 TO 5+478.5 C/L
STA 5+559 TO 5+574 C/L

GRANULAR BORROW
STA 5+462.5 TO 5+478.5 C/L

GUARDRAIL APPROACH SECTION, NETC 2 RAIL
STA 0+109.7 RT (TH 41) TO STA 5+475.1 LT
STA 0+210.2 (TH 43) TO STA 5+475.1 RT
STA 5+567.3 TO 5+574.9 LT & RT

SNOW FENCE (MODIFIED)
STA 5+546 TO 5+586 RT

STEEL BEAM GUARDRAIL
STA 5+420 TO 0+125.5 LT (TH 41)
STA 5+420 TO 0+227.2 RT (TH 43)
STA 5+574.9 TO 5+600 RT
STA 5+574.9 TO 5+600 LT
STA 0+109.7 TO 0+132.4 RT (TH41)
STA 0+210.2 TO 0+240.0 LT (TH 43)

REMOVAL & DISP. OF GUARDRAIL
~~STA 5+420 TO 5+429 RT~~ NOT THERE
STA 5+472 TO 5+482 LT
STA 5+478 TO 5+482 RT
STA 5+556 TO 5+592 RT
STA 5+556 TO 5+600 LT

ANCHOR FOR STEEL BEAM RAIL
STA 0+125.5 LT (TH 41)
STA 0+227.2 RT (TH 43)
STA 0+132.4 RT (TH 41)

STONE FILL, TYPE I
VT RTE 100 STA 5+420 TO
TH 41 STA 0+120 LT-600 DEEP

REMOVING AND RESETTING FENCE
STA 5+420 TO 0+240 RT (TH 43)

② STA 0+122 (TH 41)
NEW 600 mm X 24 m CSP (1.63 mm) ~~W/ CSPES @ INLET OR RCP, CLASS III, W/ RCPES @ INLET~~ OR CPEP (SL) W/ CPEPES @ INLET

VT RTE 100 POT STA 5+465.76 =
TH 41 STA 0+100.00

POT STA 5+477.20
BEGIN BRIDGE
ELEV. = ~~172.683~~ 172.728

POT STA 5+559.87
END BRIDGE
ELEV. = ~~171.910~~ 171.955

TBM 102
GREEN PAINT ON
BRIDGE ABUTMENT
ELEV. = 171.282

VT ROUTE 100 POT STA 5+464.47 =
TH 43 STA 0+200.00

VT Rte 100 Sta 5+469.550 =
Channel Sta 2+133.580

Channel Baseline

TEMPORARY BRIDGE

EXISTING ROW

N44°07'25"E

N51°16'58"W

S46°42'26"E

89°10'39"

84°35'37"

89°53'14"

STATION 0+140.00

STATION 0+240.00

STATION 5+420.00

STATION 5+600.00

MATCH LINE

LIMIT OF DETOUR PAVING

DETOUR CONSTRUCTION LIMITS

7.2 m, 15 m FROM TEMPORARY BRIDGE ABUTMENT

LIMIT OF PAVEMENT

REMOVE

WOODS

GRAVEL

FIELD ENTRANCE

TH 43

SIGN

GUY

RIPRAP

STONE WALL

CONC. HEADWALL

REMOVE REGIONAL BOX

CHAINLINK CABLE GUARDRAIL

GRAVEL ROAD

SMALL HARDWOODS

REMOVE

+547 RT, OFFSET 31M

+572 RT, OFFSET 31M

+586 RT, OFFSET 44M

SNOW FENCE (MODIFIED) TO PROTECT ARCH. SENSITIVE AREA

APPROX. ARCHAEOLOGICAL SITE

WEST RIVER

— PDH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON

STONE FILL TYPE IV

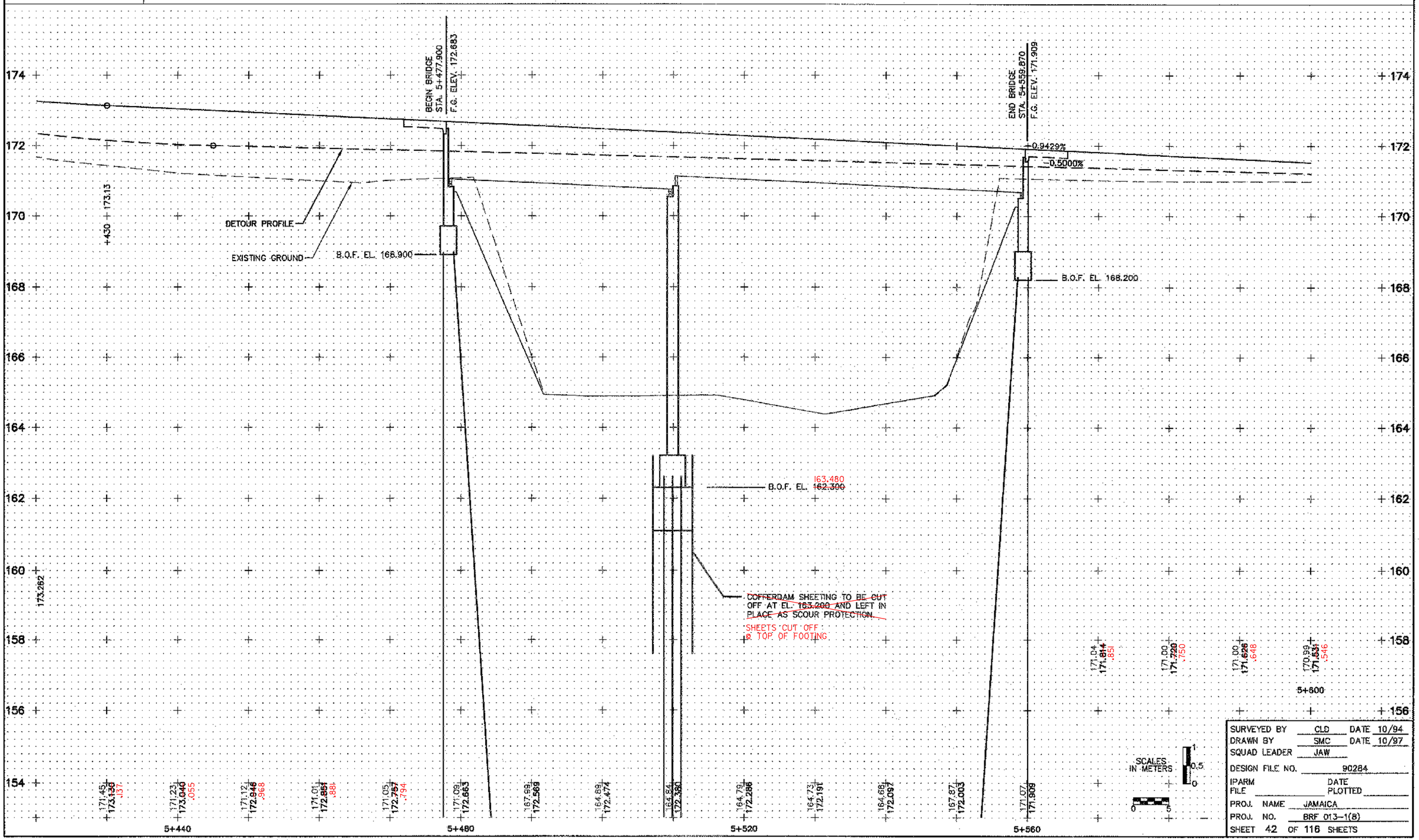
SCALE IN METERS
0 5 10

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

GENERAL PLAN

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	41 OF 116 SHEETS		

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A



SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET 42 OF 116 SHEETS			

VTrans Metric

STEEL BEAM GUARDRAIL
STA 5+600.0 TO 5+654.2 LT
STA 5+600.0 TO 5+623.8 RT
STA 3+994.0 TO 4+016.8 RT (VT ROUTE 100/30)
(CONNECT TO EXISTING GUARDRAIL)

ANCHOR FOR STEEL BEAM RAIL
STA 5+623.8 RT
STA 5+654.2 LT
STA 4+016.8 RT (VT ROUTE 100/30)

CONSTRUCT DRIVE
STA 5+630 LT – 4.2 m WIDE PAVED

EXCAVATION OF SURFACES & PAVEMENTS
STA 5+748 TO 5+765 RT

REMOVAL & DISP. OF GUARDRAIL
STA 5+600 TO 5+644 LT
STA 3+994 TO 4+002 LT (VT ROUTE 100/30)

CURVE DATA
Δ = 22°13'20"
R = 422.10
T = 82.898
L = 163.71
E = 8.06
BANK = 0.045

POC STA 5+765.21
END PROJECT
BRF 013-1(8)

DETOUR CONSTRUCTION LIMITS
EXISTING ROW
LINE
STATION 5+600.00
MATCH
UP #2 REMOVE
UP STUB SIGN POST 3 m HIGH REMOVE
CONC. HEADWALL
NET #162C/1 REMOVE
GUY
50 PINE
RIPRAP
CABLE GUARDRAIL
200 m
SIGN
5+640
5+680
5+720
5+760
90°00'00"
VT ROUTE 100
N44°07'25"E
N21°54'05"E
SIGN REMOVE
UP #7/2
BRUSH
12.5 m
10 m
45 m
PI 5+668.888 = 5+666.805
EXISTING SIGN POST REMOVE
PIPE W/DISC U.S. ARMY CORPS (NOT A BENCHMARK)
WOODS
MIXED GROWTH
ED ROAD
PT = 5+749.703
15 m
16.5 m
GRASS FIELD ENTRANCE
100 HARDWOOD
WOODS
MAG 1994
VT ROUTE 100/30 TO WINHALL
4+080
4+040
4+000
UP #599 & 5/505
UP #599S
BALL FIELD
SIGN
VT ROUTE 30 TO TOWNSHEND
S7°27'57"E
UP #5/596/162C NEW 12/21 METER W/LIGHT & BOX
GUYS
PAVED
RIPRAP
STEEL BEAM GUARDRAIL
GRAVEL ROAD
PAVED ROAD
VT ROUTE 100 PT STA 5+769.61 = VT ROUTE 30 POT 4+033.74

④ STA 5+695
NEW 600 mm X 40 m PCCSP (1.63 mm) OR CAAP (1.52 mm) OR RCP CLASS III OR CPEP (SL) CONSTRUCT REINFORCED CONCRETE HEADWALL @ INLET AND OUTLET. CONSTRUCT 1.2 m X 2.4 m STONE FILL PAD TYPE I @ OUTLET

EXCAVATION OF SURFACES & PAVEMENTS

— POH — AERIAL RELOCATION OWNED BY CENTRAL VERMONT PUBLIC SERVICE AND VERIZON

SCALE IN METERS
0 5 10

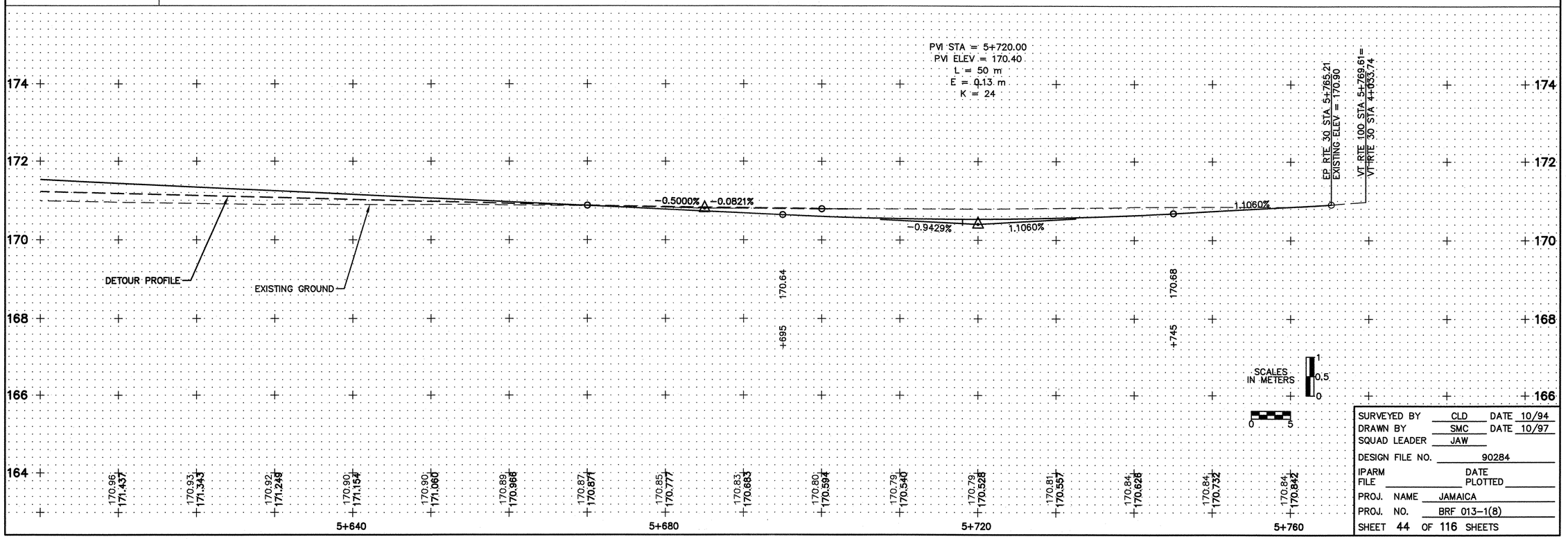
GENERAL PLAN

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	43 OF 116 SHEETS		

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

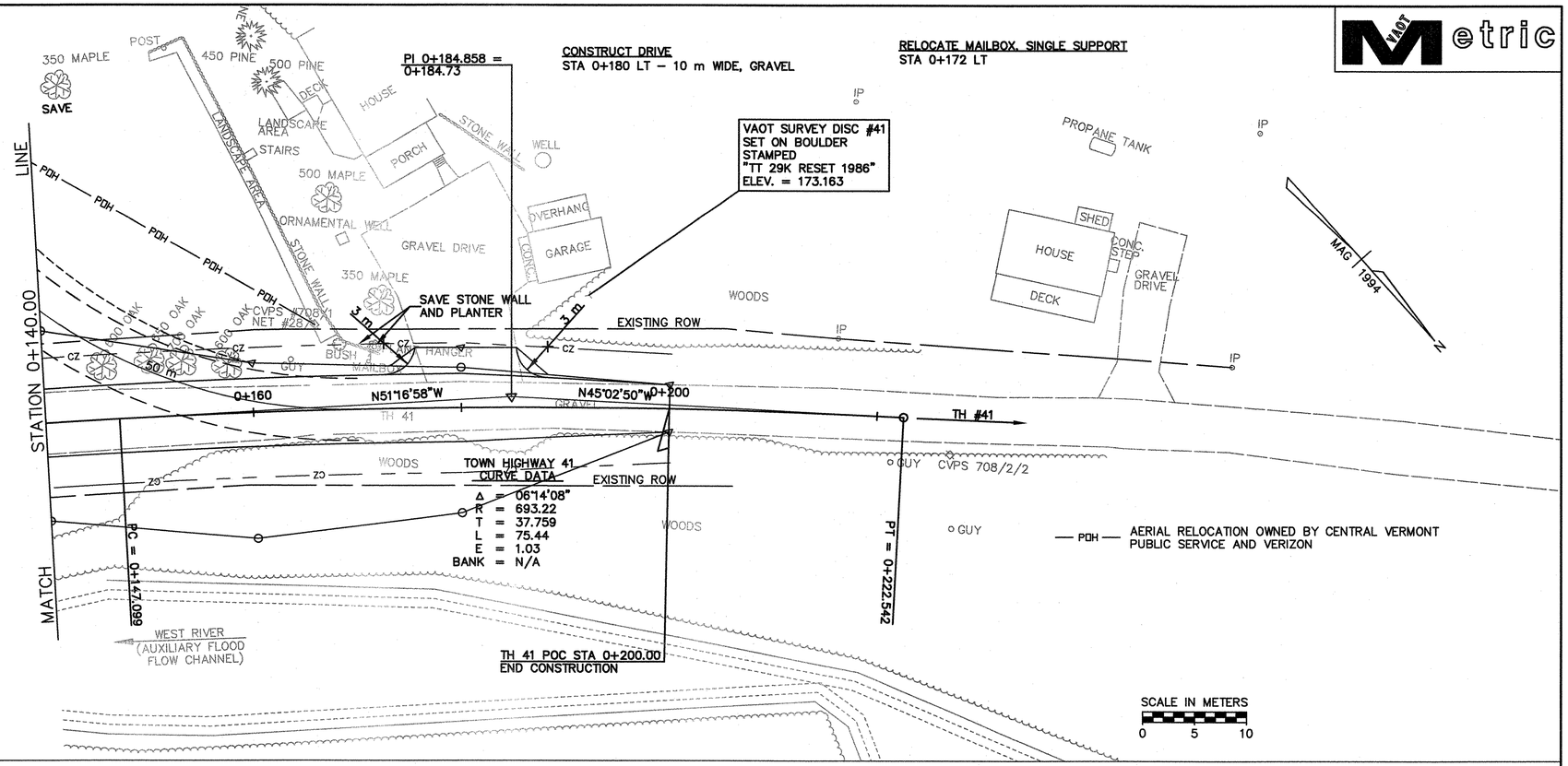
Metric

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A



SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET 44 OF 116 SHEETS			

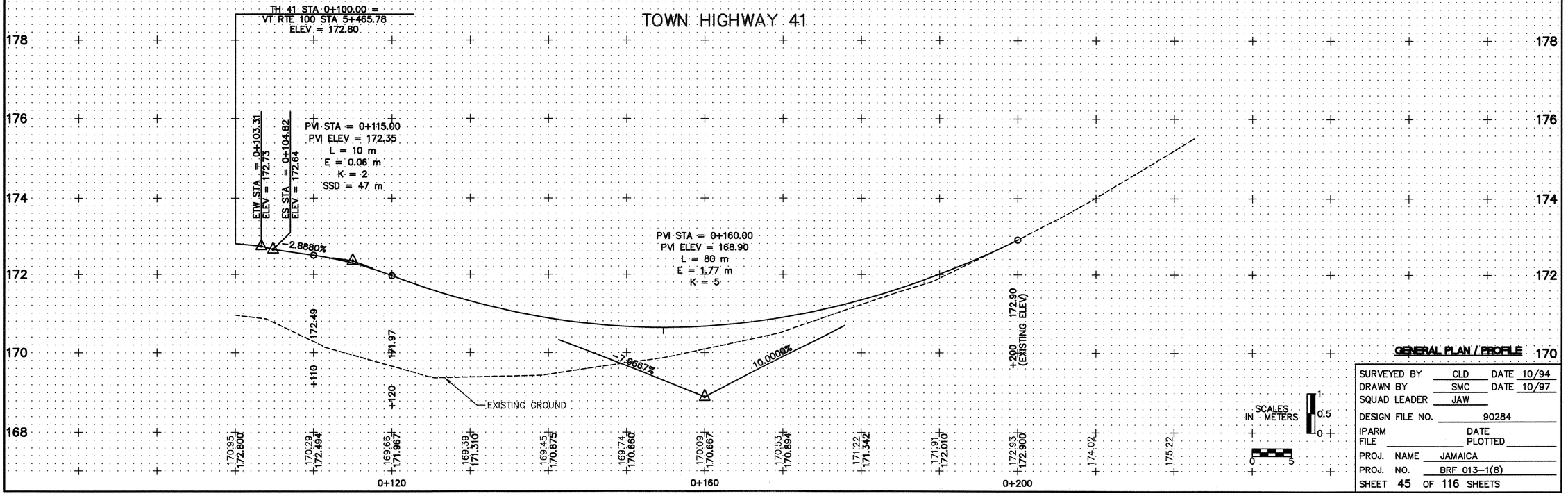
VAOT Metric



DATUM

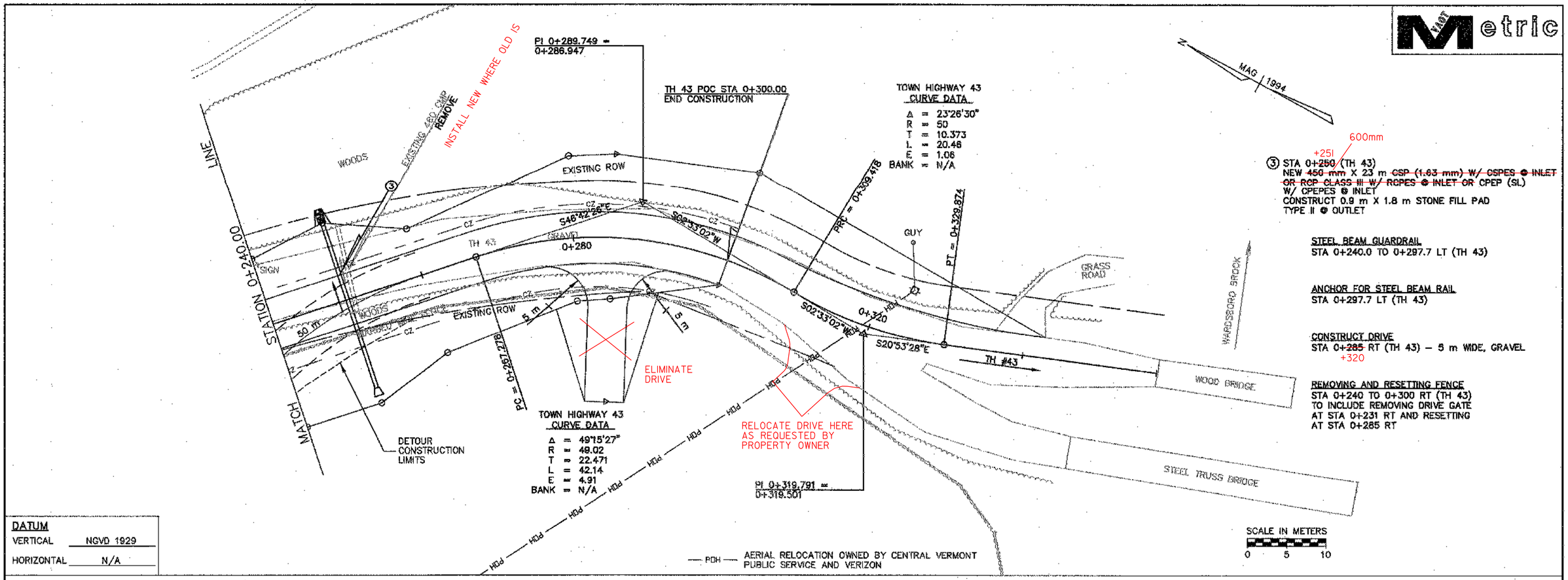
VERTICAL NGVD 1929

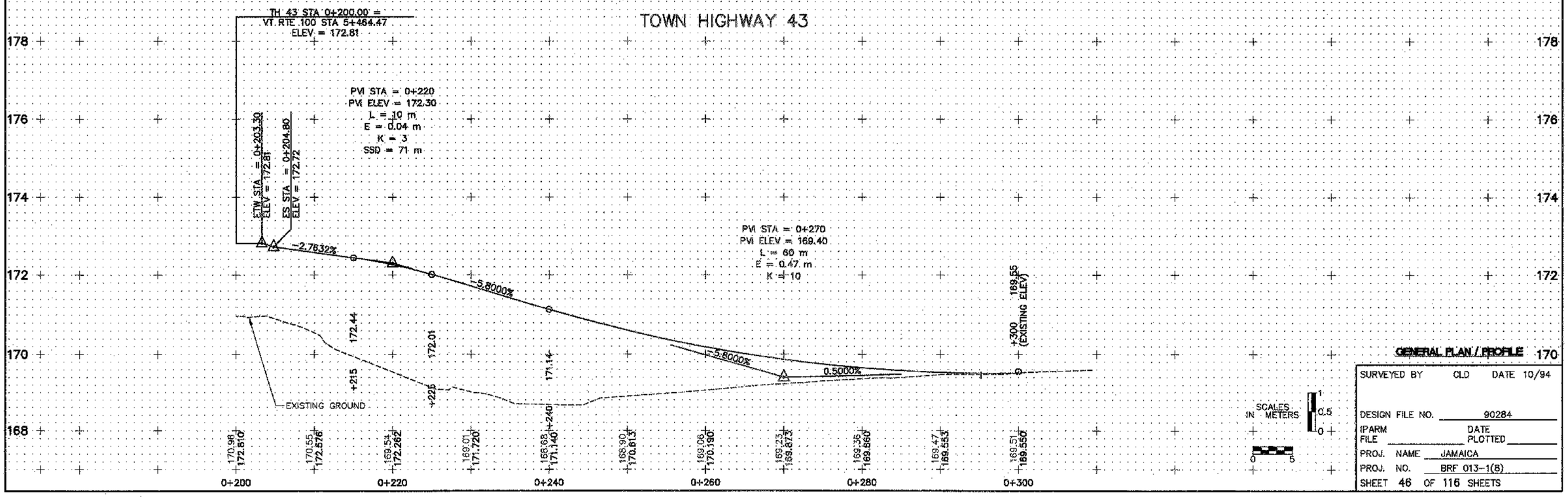
HORIZONTAL N/A



GENERAL PLAN / PROFILE

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	45 OF 116 SHEETS		





GENERAL PLAN / PROFILE

SURVEYED BY CLD DATE 10/94

DESIGN FILE NO. 90284

IPARM FILE DATE PLOTTED

PROJ. NAME JAMAICA

PROJ. NO. BRF 013-1(8)

SHEET 46 OF 116 SHEETS

TEMPORARY AND DURABLE 100 mm YELLOW LINE

STA	5+200	TO	5+374	SOLID LT & RT
STA	5+464	SOLID RT (TH 43 – 9.5 m)		
STA	5+466	SOLID LT (TH 41 – 8.5 m)		
STA	5+386	TO	5+458	SOLID LT & RT
STA	5+472	TO	5+761	SOLID LT & RT

TEMPORARY AND DURABLE 100 mm WHITE LINE

STA	5+300	TO	5+454	SOLID LT
STA	5+300	TO	5+368	SOLID RT
STA	5+392	TO	5+452	SOLID RT
STA	5+478	TO	5+766	SOLID LT
STA	5+476	TO	5+766	SOLID RT

TEMPORARY AND DURABLE LETTER OR SYMBOL

STA	0+209	LT –	"STOP" – TH 43
STA	0+109	LT –	"STOP" – TH 41
STA	5+604	RT –	"STOP"
STA	5+616	RT –	"AHEAD"
STA	5+761	RT –	"STOP"

TEMPORARY AND DURABLE 600 mm STOP BAR

STA	0+206	LT – TH 43
STA	0+106	LT – TH 41
STA	5+764	RT

REMOVING SIGNS

AS SHOWN – 77

NOTE

ANY WARNING SIGNS RELATIVE TO SIGNALS MOUNTED ON THE EXISTING BRIDGE, ARE TO BE REMOVED AND RETURNED TO THE AOT DISTRICT OFFICE.

MAG 1994

5+280 RT — SPEED LIMIT 40 — R

STA 5+020 — SIGNAL AHEAD — 1300 FEET — REMOVE(2)

STA 5+275 RT — REMOVE(1)

420

STA 5+310 RT — JCT 30

STA 0+040 RT — LEGAL LOAD LIMIT 24,000 POUNDS

STA 5+357 RT — LEGAL LOAD LIMIT 24,000 POUNDS

STA 5+357 RT — OLD RTE 8 J-56

STA 5+357 RT — STOP

5+420 LT — JAMAICA BRIDGE REPLACE FALL 2004 — R

STA 5+457 LT — RIVER RD J-41

STA 5+457 LT — RIVER RD J-41 — B–B — STOP — 0100 1300 0340

STA 5+458 LT — STOP

STA 0+120 RT — LEGAL LOAD LIMIT 24,000 POUNDS

STA 0+120 RT — LEGAL LOAD LIMIT 24,000 POUNDS

5+680 LT

STA 5+488 RT — BRIDGE 60 V1100

STA 5+355 LT — BRIDGE 60 V1100

STA 5+482 LT&RT

STA 5+555 LT&RT

STA 5+570 LT — STOP HERE ON RED — TO GET GREEN LIGHT

STA 5+700 LT — SPEED LIMIT 40

STA 5+729 LT — SOUTH — VERMONT 100

STA 5+729 LT — SOUTH — 100

STA 4+140 LT

TOWNSHEND	6
BRATTLEBORO	23
WARDSBORO	5
WILMINGTON	24

STA 4+140 LT

TOWNSHEND	6
BRATTLEBORO	23
WARDSBORO	5
WILMINGTON	24

STA 4+209 LT — JCT 100

STA 4+209 LT — JCT — VERMONT 100

STA 4+127 RT

JAMAICA	3
STRATTON MTN	10

STA 4+127 RT

JAMAICA	3
STRATTON MTN	10

VT ROUTE 100/30 TO WINHALL

STA 4+064 RT — NORTH 30 NORTH 100

STA 4+064 RT — NORTH 30 NORTH 100

STA 4+034 RT

STA 4+034 RT

EQUATION:
VT ROUTE 100 STA 5+769.61 =
VT ROUTE 30 STA 4+033.74

STA 4+029 RT — SOUTH 100 NORTH 30 NORTH 100

NEW (9)

STA 4+003 RT — SOUTH 100 NORTH 30 NORTH 100

REMOVE (9)

STA 5+762 RT — STOP — RET RET

STA 3+968 RT

JAMAICA	3
STRATTON MTN	10
WARDSBORO	5
WILMINGTON	24

STA 3+942 RT

JAMAICA	3
STRATTON MTN	10
WARDSBORO	5
WILMINGTON	24

STA 5+673 RT

JAMAICA	3
STRATTON MTN	10
TOWNSHEND	6
BRATTLEBORO	23

JAMAICA BRIDGE REPLACE FALL 2004

STA 5+640 RT

JAMAICA	3
STRATTON MTN	10
TOWNSHEND	6
BRATTLEBORO	23

STA 3+987 LT — SOUTH 30

STA 3+987 LT — SOUTH — VERMONT 30

VT ROUTE 30 TO TOWNSHEND

STA 3+907 RT — JCT — VERMONT 100

STA 3+881 RT — JCT 100

STA 5+712 RT — NORTH 30 NORTH 100 SOUTH 30 — REMOVE (9)

STA 5+700 RT — NORTH 30 NORTH 100 SOUTH 30 — NEW (9)

STA 0+220 RT — LEGAL LOAD LIMIT 24,000 POUNDS

STA 0+220 RT — LEGAL LOAD LIMIT 24,000 POUNDS

STA 5+382 RT — OLD RTE 8 J-56 — B–B — STOP — 0100 1300 0340

STA 0+240 LT — WEIGHT LIMIT 21T 23T

STA 5+475 RT — STOP

STA 5+476 RT — EATON RD J-43

STA 5+477 RT — STOP HERE ON RED

STA 5+472 RT — EATON RD J-43 — B–B — STOP — 0100 1300 0340

STA 5+580 RT — JCT — VERMONT 30

5+320 RT — ONE LANE BRIDGE — R

STA 5+597 RT

STA 5+610 RT

STA 5+660 LT

WARDSBORO	5
WILMINGTON	24

STA 5+600 LT — 25 M.P.H.

STA 3+926 LT

TOWNSHEND	6
BRATTLEBORO	23

STA 3+926 LT

TOWNSHEND	6
BRATTLEBORO	23

STA 4+079 LT — SOUTH 30 SOUTH 100

STA 4+079 LT — SOUTH 30 SOUTH 100

DURABLE SOLID WHITE LINE

DURABLE DOUBLE YELLOW LINE

VT ROUTE 100 TO WARDSBORO

11m R

0+160 0+120 0+080 0+040 0+200 0+240 0+280 0+320 0+360 0+400 0+440 0+480 0+520 0+560 0+600 0+640 0+680 0+720 0+760 0+800 0+840 0+880 0+920 0+960 1+000 1+040 1+080 1+120 1+160 1+200 3+920 3+960

A B C D E

LEGEND

R = REMOVE
N = NEW

SCALE IN METERS
0 20 40

DATUM

VERTICAL NGVD 1929
HORIZONTAL N/A

TRAFFIC SIGN / PAVEMENT MARKING PLAN

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	4/98
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	47	OF	116 SHEETS

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

Metric

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (MM)	HEIGHT (MM)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	SALVAGE	NO. OF POSTS	NEW SIGN POSTS: FLANGED CHANNEL KG/M 1.7	3.0	4.5	SQUARE STEEL (MM) KG/M 44 3.4	50 3.9	63 5.0	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (MM) KG/M 75 1.9	100 2.5	100 MOD 2.5	FOUNDATION	TUBULAR STEEL Ø (MM) KG/M 75 11.3	89 13.4	100 16.1	125 21.7	W-SHAPE STEEL FTG. SIZE 600 MM	750 MM	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
											OPTION ITEMS																										
VT ROUTE 100 STA 5+382 RT	OLD RTE 8 J-56	1	1050	230	0.24						1			X 4.27		X																	PROPOSED SIGN TO BE INSTALLED USING TOP MOUNTING BRACKET, MOUNTED 0.3 m FROM TOP OF STOP SIGN D-3		E-123M
	STOP 0100 1309 0336	1 1	750 150	750 200	0.56 0.03																											BACK TO BACK R1-1 VD-700		E-143M E-138M
STA 5+457 LT	RIVER RD J-41	1	1050	230	0.24						1			X 4.27		X																	PROPOSED SIGN TO BE INSTALLED USING TOP MOUNTING BRACKET, MOUNTED 0.3 m FROM TOP OF STOP SIGN D-3		E-123M
	STOP 0100 1309 0340	1 1	750 150	750 200	0.56 0.03																											BACK TO BACK R1-1 VD-700		E-143M E-138M
STA 5+472 RT	EATON RD J-43	1	1050	230	0.24						1			X 4.27		X																	PROPOSED SIGN TO BE INSTALLED USING TOP MOUNTING BRACKET, MOUNTED 0.3 m FROM TOP OF STOP SIGN D-3		E-123M
	STOP 0100 1309 0340	1 1	750 150	750 200	0.56 0.03																											BACK TO BACK R1-1 VD-700		E-143M E-138M
STA 5+482 RT	BRIDGE 80 VT100	1	150	200	0.03						1			X 3.05		X																	VD-701		E-134M
STA 5+555 LT	BRIDGE 80 VT100	1	150	200	0.03						1			X 3.05		X																	VD-701		E-134M
STA 5+580 RT	JCT	1	525	375	0.20						1			X 4.27		X																	M2-1		E-136BM
	VERMONT 30	1	600	600	0.36																												M1-5		E-136BM
STA 5+600 LT		1	750	750	0.56						1			X 4.88		X																	W2-1u		E-155M
	25 M.P.H.	1	450	450	0.20																														E-155M
STA 5+610 RT		1	900	900	0.81						2			X 4.27		X																	W3-1a		E-150M
STA 5+640 RT	← JAMAICA 3	1	1800	250	0.45						2			X 4.27		X																	D1-1a		E-123M
	← STRATTON MTN SKI AREA 10	1	1800	250	0.45																												D1-1a		E-123M
	TOWNSHEND 6 →	1	1800	250	0.45																												D1-1a		E-123M
	BRATTLEBORO 23 →	1	1800	250	0.45																												D1-1a		E-123M
												m	m	m ~~44~~ 45.14	m	m ~~44~~	m		EA	kg	kg	kg		kg	kg	kg	kg								
	TOTALS				m 2 6.48	m 2	EA.	m 2				m 44			m 44					kg			EA.	kg				EA.	EA.	kg					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."

PROJECT : JAMAICA	PROJECT NO. : BRF 013-1(8)
DESIGN FILE NAME:	
IPARM FILE NAME:	PLOT DATE:
SURVEYED BY: CLD	SURVEY DATE:
SQUAD LEADER: JAW	DRAWN BY: SMC
	SHEET: 48 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

Metric

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (MM)	HEIGHT (MM)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NEW SIGN POSTS NO. OF POSTS	FLANGED CHANNEL KG/M 1.7	FLANGED CHANNEL KG/M 3.0	FLANGED CHANNEL KG/M 4.5	SQUARE STEEL (MM) 44 KG/M 3.4	SQUARE STEEL (MM) 50 KG/M 3.9	SQUARE STEEL (MM) 63 KG/M 5.0	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (MM) 75 KG/M 1.9	TUBULAR ALUMINUM Ø (MM) 100 KG/M 2.5	TUBULAR ALUMINUM Ø (MM) 100 MOD KG/M 2.5	TUBULAR STEEL Ø (MM) FOUNDATION	TUBULAR STEEL Ø (MM) 75 KG/M 11.3	TUBULAR STEEL Ø (MM) 89 KG/M 13.4	TUBULAR STEEL Ø (MM) 100 KG/M 16.1	TUBULAR STEEL Ø (MM) 125 KG/M 21.7	W-SHAPE STEEL FTG. SIZE 600 MM	W-SHAPE STEEL FTG. SIZE 750 MM	W-SHAPE STEEL WEIGHT	W-SHAPE STEEL POST SIZE	SIGN FRAMED REQUIRED	REMARKS	SIGN DETAIL DETAIL ON SHEET NUMBER	SIGN DETAIL STD. SHEET NUMBER
														OPTION ITEMS																					W13-1		
STA 5+660 LT	WARDSBORO 5	1	1800	250	0.45						2			X 4.27		X																	D1-1a		E-123M
	WILMINGTON 24	1	1800	250	0.45																														E-123M
STA 5+700 LT	SPEED LIMIT 40	1	600	750	0.45						1			X 4.27		X																	R2-1		E-142M
STA 5+700 RT	NORTH NORTH SOUTH	3	600	300	0.54						2												2	X 3.58 3.43							X	M3-1 M3-1 M3-1		E-136BM
	VERMONT 30 VERMONT 100 VERMONT 30	2 1	600 750	600 600	0.72 0.45																											M1-5 M1-5 M1-5		E-136BM
	← ← →	3	525	375	0.60																											M6-1 M6-1 M6-1		E-136BM
STA 5+762 RT	STOP	1	750	750	0.56						1			X 4.27																				
STA 5+729 LT	SOUTH	1	600	300	0.18						1			X 4.27		X																	M3-3		E-136BM
	VERMONT 100	1	750	600	0.45																											M1-5		E-136BM
TH 56 STA 0+040 RT	LEGAL LOAD LIMIT 24,000 POUNDS	1	600	750	0.45						1			X 4.27		X																	VR-017		E-141M
TH 41 STA 0+120 RT	LEGAL LOAD LIMIT 24,000 POUNDS	1	600	750	0.45						1			X 4.27		X																	VR-017		E-141M
TH 43 STA 0+220 RT	LEGAL LOAD LIMIT 24,000 POUNDS	1	600	750	0.45						1			X 4.27		X																	VR-017		E-141M
VT ROUTE 100/30 STA 3+907 RT	JCT	1	525	375	0.20						1			X 4.27		X																	M2-1		E-136BM
	VERMONT 100	1	750	600	0.45																											M1-5		E-136BM
STA 3+926 LT	TOWNSHEND 6	1	1800	250	0.45						2			4.27 X 4.88		X																	D1-1a		E-123M
	BRATTLEBORO 23	1	1800	250	0.45																												D1-1a		E-123M
												m	m	m 47.58 ~~40~~	m	m 40	m		EA	kg	kg	kg		kg 79.2 ~~113~~	kg	kg	kg							
TOTALS		m 2 7.75 ~~7.19~~	m 2	EA.	m 2							m ~~40~~ 47.58			m 40					kg			EA. 2	kg ~~113~~ 79.2				EA.	EA.	kg				

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."

PROJECT :	PROJECT NO. :
JAMAICA	BRF 013-1(8)
DESIGN FILE NAME:	
IPARM FILE NAME:	PLOT DATE:
SURVEYED BY: CLD	SURVEY DATE:
SQUAD LEADER: JAW	DRAWN BY: SMC
	SHEET: 49 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

Metric

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (MM)	HEIGHT (MM)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NO. OF POSTS	NEW SIGN POSTS: FLANGED CHANNEL KG/M 1.7	3.0	4.5	SQUARE STEEL (MM) KG/M 44 3.4	50 3.9	63 5.0	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (MM) KG/M 75 1.9	100 2.5	100 MOD 2.5	TUBULAR STEEL Ø (MM) FOUNDATION	KG/M 75 11.3	89 13.4	100 16.1	125 21.7	W-SHAPE STEEL FTG. SIZE 600 MM	750 MM	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
												OPTION ITEMS																									
STA 3+968 RT	JAMAICA 3	1	1800	250	0.45						2			X 4.88		X																	D1-1a		E-123M
	STRATTON MTN SKI AREA 10	1	1800	250	0.45																											D1-1a		E-123M
	WARDSBORO 5	1	1800	250	0.45																											D1-1a		E-123M
	WILMINGTON 24	1	1800	250	0.45																											D1-1a		E-123M
STA 3+987 LT	SOUTH	1	600	300	0.18						1			X 4.27		X																M3-3		E-136BM
	VERMONT 30	1	600	600	0.36																											M1-5		E-136BM
STA 4+029 RT	SOUTH NORTH NORTH	3	600	300	0.54						2												2	X 3.45 3.99								X	M3-3 M3-1 M3-1		E-136BM
	VERMONT 100 VERMONT 30 VERMONT 100	2 1	750 600	600 600	0.90 0.36																											M1-5 M1-5 M1-5		E-136BM
		3	525	375	0.60																											M6-1 M6-3 M6-3		E-136BM
STA 4+034 RT		1	1200	600	0.72						2			X 3.35		X																W1-7		E-152M
STA 4+064 RT	NORTH NORTH	2	600	300	0.36						1			X 4.27		X																M3-1 M3-1		E-136BM
	VERMONT 30 VERMONT 100	1 1	600 750	600 600	0.36 0.45									X 4.88																		M1-5 M1-5		E-136BM
STA 5+280 LT	SPEED LIMIT 40	1	600	750	0.45																											MISSING		
STA 4+079 LT	SOUTH SOUTH	2	600	300	0.36						2			X 4.88		X																M3-3 M3-3		E-136BM
	VERMONT 30 VERMONT 100	1 1	600 750	600 600	0.36 0.45																											M1-5 M1-5		E-136BM
		2	525	375	0.40																											M6-3 M6-1		E-136BM
STA 5+280 RT	SPEED LIMIT 50	1	600	750	0.45						1			X 4.27																		DAMAGED		
					m2	m2	EA.	m2				m 25	m	m	m 25	m	m	EA		kg	kg	kg		kg 84.1 ~~113~~	kg	kg	kg								
TOTALS					m2 9.10 ~~8.20~~	m2	EA.	m2				m 48.18 ~~25~~			m 25					kg			EA. 2	kg 84.1 ~~113~~				EA.	EA.	kg					

FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE".

PROJECT : JAMAICA	PROJECT NO. : BRF 013-1(8)
DESIGN FILE NAME:	
IPARM FILE NAME:	PLOT DATE:
SURVEYED BY: CLD	SURVEY DATE:
SQUAD LEADER: JAW	DRAWN BY: SMC
	SHEET: 50 OF 116

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TRAFFIC SIGN SUMMARY SHEET

FIRST Metric

KILOMETER MARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS EA	WIDTH (MM)	HEIGHT (MM)	NEW & SALVAGED SIGNS "A"	"B"	SALV SIGN	SALV TIS	EXIST POST RETAIN	EXIST POST SALVAGE	NO. OF POSTS	NEW SIGN POSTS: FLANGED CHANNEL KG/M 1.7	3.0	4.5	SQUARE STEEL (MM) KG/M 44 3.4	50 3.9	63 5.0	ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (MM) KG/M 75 1.9	100 2.5	100 MOD 2.5	TUBULAR STEEL Ø (MM) FOUNDATION	KG/M 75 11.3	89 13.4	100 16.1	125 21.7	W-SHAPE STEEL FTG. SIZE 600 MM	750 MM	WEIGHT	POST SIZE	SIGN FRAME REQUIRED	REMARKS	SIGN DETAIL: DETAIL ON SHEET NUMBER	STD. SHEET NUMBER
												OPTION ITEMS																									
STA 4+127 RT	JAMAICA 3	1	1800	250	0.45						2			X 4.27		X																	D1-1a		E-123M
	STRATTON MTN SKI AREA 10	1	1800	250	0.45																												D1-1a		E-123M
STA 4+140 LT	↑ TOWNSHEND 6	1	1800	250	0.45						2	USED EXISTING POSTS		X		X																D1-1a		E-123M
	↑ BRATTLEBORO 23	1	1800	250	0.45																												D1-1a		E-123M
	WARDSBORO 5 →	1	1800	250	0.45																												D1-1a		E-123M
	WILMINGTON 24 →	1	1800	250	0.45																												D1-1a		E-123M
STA 4+209 LT	JCT	1	525	375	0.20						1			X 4.27		X																M2-1		E-136BM
	VERMONT 100	1	750	600	0.45																												M1-5		E-136BM
		SUBTOTAL SHEET 51			3.35									~~15~~ 12.81		~~15~~																			
		SUBTOTAL SHEET 48			6.48									44		~~44~~ 45.14																			
		SUBTOTAL SHEET 49			~~7.19~~ 7.75									40		~~40~~ 47.58									2	~~113~~ 79.2									
		SUBTOTAL SHEET 50			~~8.20~~ 9.10									25		~~25~~ 48.18									2	~~113~~ 84.1									
		SUBTOTAL SHEET 51			3.35									15		~~15~~ 2.81																			
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE TRAFFIC & SAFETY DIVISION'S "SIGN POST DESIGN GUIDELINE."												m	m	m 124	m	m 124	m		EA	kg	kg	kg		kg 163.3 ~~226~~	kg	kg	kg								
	PROJECT TOTALS				m 2 26.68 ~~25.22~~	m 2	EA.	m 2				m 124			FROM BK IA m 153.6 ~~124~~						kg			EA. 4	kg 163.3 ~~226~~				EA.	EA.	kg					

DIFF. IN ROUNDING W/ BK IA

PROJECT : JAMAICA	PROJECT NO. : BRF 013-1(8)
DESIGN FILE NAME:	
IPARM FILE NAME:	PLOT DATE:
SURVEYED BY: CLD	SURVEY DATE:
SQUAD LEADER: JAW	DRAWN BY: SMC
	SHEET: 51 OF 116

VAOT Metric

N

MAG 1984

IP

450 PINE

STONE WALL

STOCKADE FENCE

SHED

WOODS

EXISTING 460 CMP

WOODS ROAD

STONE HEADWALL

WOOD FENCE

GRAVEL ENTRANCE

450 PINE W/LIGHT & SIGN

450 PINE W/ELEC METER

DELINEATOR

FL

GUY

MATCH LINE

SATELLITE DISH

CVPS #7/8 NET #5

5+240

5+280

5+320

5+360

5+400

STATION 5+420.00

VT ROUTE 100

STEEL GUARDRAIL

EXISTING ROW

REMNANTS OF WOODEN WELL HOUSE

CVPS #7/9 NET #9 W/TELE

SIGN

PT = 0+111.984

PCC = 0+029.375

TRIPLE 350 OAKS

STONEWALL

EXISTING TH ROW

LEDGE OUTCROP

GRAVEL

TH 36

BARBED WIRE FENCE

STEEL PIPE

0+120

0+080

0+040

LIMIT OF PAVEMENT

450 OAK

STONE RET. WALL

GRAVEL ENTRANCE

UP #162C/10 7/10

GATE

400 PINE

300 LOCUST

200 CHERRY

150 CHERRY

200 MAPLE

350 ASH

OVERHANG

STONE RET. WALL

300 HARDWOOD

EXISTING 460 CMP

AG — AGRICULTURAL LAND

FL — FLOODPLAIN

WETLANDS

SCALE IN METERS

0 5 10

DATUM

VERTICAL NGVD 1929

HORIZONTAL N/A

RESOURCE SHEET

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	52 OF 116 SHEETS		

VAOT Metric

MATCH STATION 0+140.00 LINE

TWIN 300 OAKS
300 OAK
550 OAK
400 ELM
200 ASH
EXISTING 810 CAP
WOODS
ISLAND
BRUSH
WOODS
MAG 1994
N
200 OAK
0+120
TH 41
GRAVEL
GUY
PT = 5+442.312
FL
SIGN
NET 162C/4"
EXISTING ROW
STEEL BEAM GUARDRAIL
5+440
5+480
5+520
5+560
STONE RET. WALL
GUY
CMP'S #4A
W/ CENTRAL BOX
RIPRAP
SIGN
PC = 5+585.990
AG
STATION 5+600.00
MATCH
LINE
STATION 5+420.00
250 MAPLE
200 OAK
700 OAK
350 ASH
200 TWIN ASH
600 TWIN OAK
450 OAK
450 OAK
700 OAK
STEEL BEAM GUARDRAIL
W/ LIGHT
TRANSFORMER
GUY
EXISTING ROW
GRAVEL ROAD
SIGN
GUARDRAIL
CABLE GUARDRAIL
UP #4
SMALL HARDWOODS
GUY
LINE
MATCH
WOODS
TH 43
GRAVEL
FIELD ENTRANCE
WOODS
+547 RT,
OFFSET 31M
+572 RT,
OFFSET 31M
SNOW FENCE (MODIFIED)
TO PROTECT ARCH.
SENSITIVE AREA
WOODS
APPROX. ARCHAEOLOGICAL SITE
+586 RT,
OFFSET 44M
MATCH STATION 0+240.00 LINE
WEST RIVER

AG AGRICULTURAL LAND
FL FLOODPLAIN
WETLANDS

SCALE IN METERS
0 5 10

RESOURCE SHEET

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	53 OF 116 SHEETS		

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

100 HARDWOOD
MAG 1994
WOODS
GRASS FIELD ENTRANCE
GUY
UP #2
UP STUB SIGN POST 3 m HIGH
CONC. HEADWALL
CONNET #162C/1
50 PINE
RIPRAP
GUARDRAIL
SIGN
EXISTING ROW
PT = 5+749.703
4+080
4+040
4+000
5+760
5+720
5+680
5+640
STATION 5+600.00
MATCH LINE
UP #7/1
UP #7/2
UP #8 & 5/50S
UP #5&6S
BALL FIELD
PAVED
GRAVEL ROAD
STEEL BEAM GUARDRAIL
MIXED GROWTH
EXISTING DITCH
PIPE W/DISC ARMY CORPS (NOT A BENCHMARK)

AG AGRICULTURAL LAND
FL FLOODPLAIN
WETLANDS

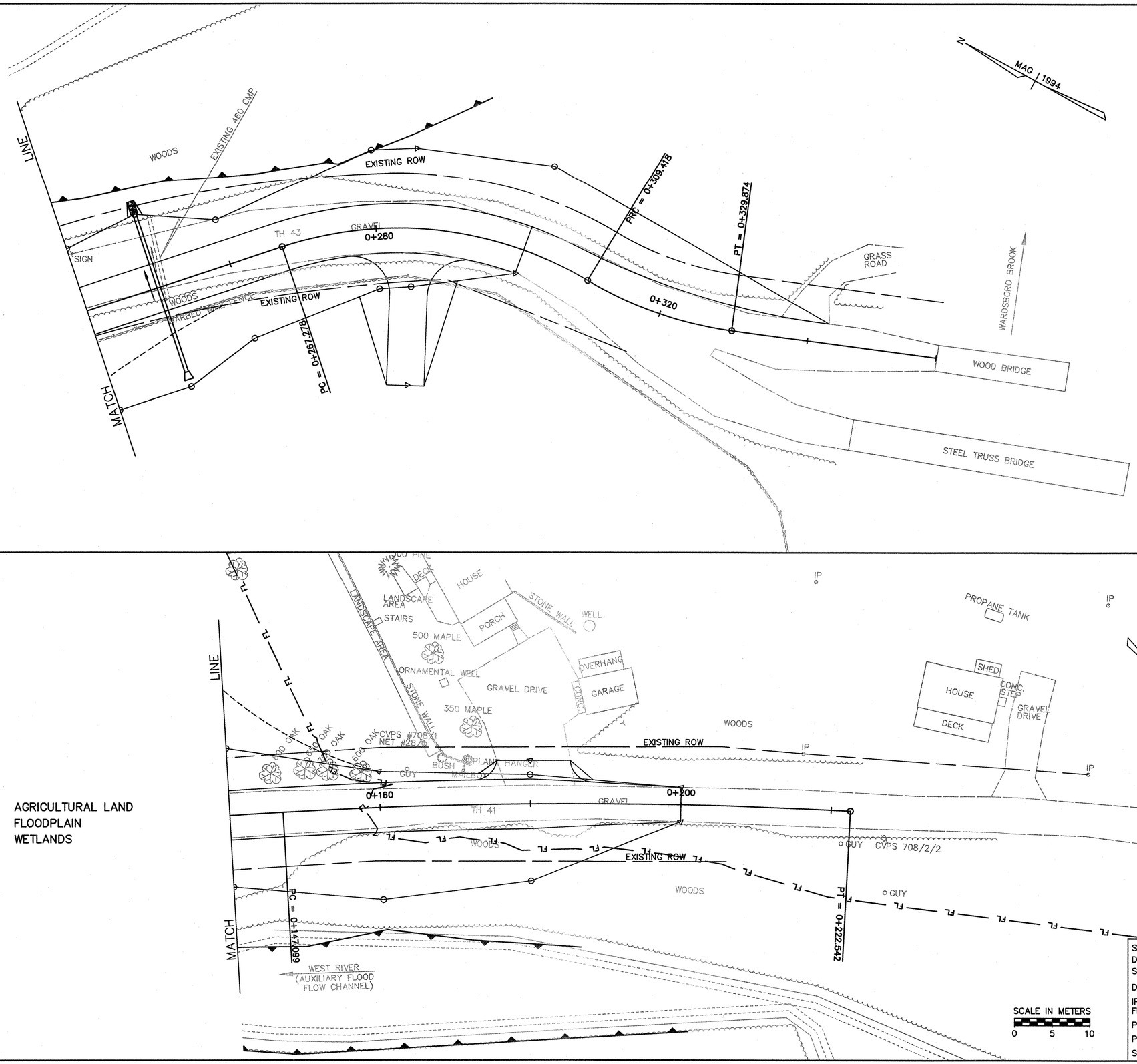
SCALE IN METERS
0 5 10

DATUM
VERTICAL NGVD 1929
HORIZONTAL N/A

REBOURCE SHEET

SURVEYED BY CLD DATE 10/94
DRAWN BY SMC DATE 10/97
SQUAD LEADER JAW
DESIGN FILE NO. 90284
IPARM FILE
DATE PLOTTED
PROJ. NAME JAMAICA
PROJ. NO. BRF 013-1(8)
SHEET 54 OF 116 SHEETS

LAST Metric



AG — AGRICULTURAL LAND
FL — FLOODPLAIN
WETLANDS

DATUM

VERTICAL	NGVD 1929
HORIZONTAL	N/A

RESOURCE SHEET

SURVEYED BY	CLD	DATE	10/94
DRAWN BY	SMC	DATE	10/97
SQUAD LEADER	JAW		
DESIGN FILE NO.	90284		
IPARM FILE		DATE PLOTTED	
PROJ. NAME	JAMAICA		
PROJ. NO.	BRF 013-1(8)		
SHEET	55 OF 116 SHEETS		

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

UNIFIED SOIL SYSTEM

GW/GP	Clean Gravels (Few Fines)
GM/GC	Gravels (Appreciable Fines)
SW/SP	Clean Sands (Few Fines)
SM/SC	Sand (Appreciable Fines)
ML/CL	Low Plastic Silts and Clays
OL	Low Plastic Organic Silt
MH/CH	High Plastic Silts and Clays
OH	High Plastic Organic Silt
Pt	Highly Organic Soils

MOISTURE

DESCRIPTIVE TERM	OBSERVED IN FIELD	% ± BY ANALYSIS
Dry	No Visible Water	< 10
Moist	Damp	10 – 20
Moist to Wet	Moist to Wet	21 – 50
Wet	Visible Water	51 – 70
Saturated		> 70

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) N	DESCRIPTIVE TERM	CONSISTENCY (COHESIVE SOILS) 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 Foot 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 30.1 mm
BX	Core Size 42.0 mm
NX	Core Size 54.7 mm
M	Double Tube Core Barrel Used
LL	Liquid Limit
PL	Plastic Limit
PI	Plasticity Index
NP	Non Plastic
w	Moisture Content (Dry Wgt. Basis)
D	Dry
M	Moist
MTW	Moist To Wet
W	Wet
Sat	Saturated
Bo	Boulder
Gr	Gravel
Sa	Sand
Si	Silt
Cl	Clay
HP	Hardpan
Le	Ledge
NLTD	No Ledge To Depth
CNPF	Can Not Penetrate Further
TLOB	To Ledge Or Boulder
NR	No Recovery
Rec.	Recovery
%Rec.	Percent Recovery
RQD	Rock Quality Designation
CBR	California Bearing Ratio
<	Less Than
>	Greater Than
R	Refusal (N> 100)

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		

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.

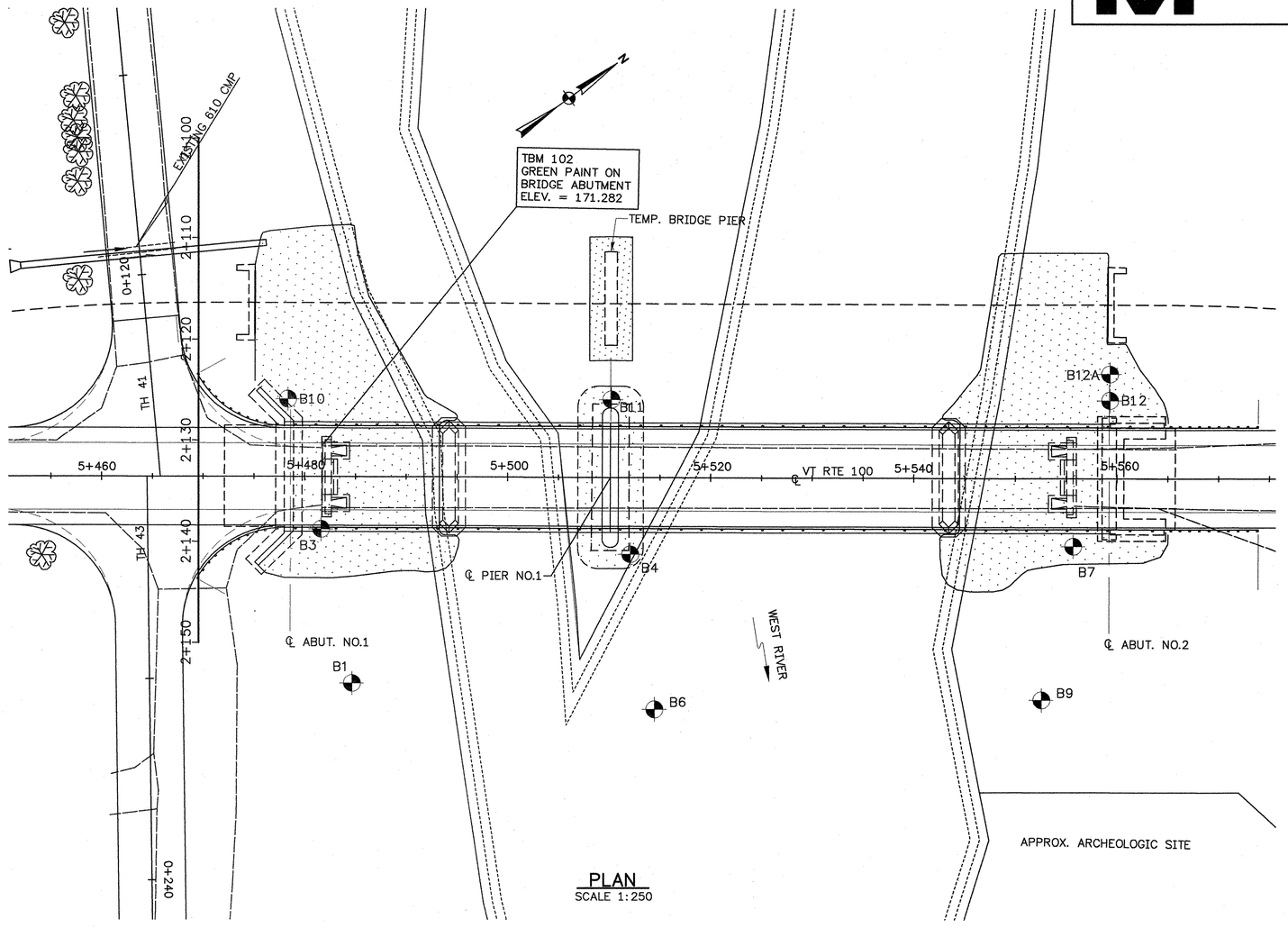
MUCK – Soft organic soil (containing > 10% organic material.

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.



PLAN
SCALE 1:250

BORING NO.	STA.	OFFSET	GROUND ELEV.	ELEV. TLOB
B1	5+484.7	20.42 m RT	165.67	147.53
B3	5+481.6	5.18 m RT	171.08	150.20
B4	5+512.1	7.62 m RT	164.82	148.00
B6	5+514.5	22.86 m RT	164.39	148.90
B7	5+555.7	6.71 m RT	168.38	148.26
B9	5+552.6	21.95 m RT	166.04	149.58

BORING NO.	STA.	OFFSET	GROUND ELEV.	ELEV. TLOB
B10	5+478.5	7.60 m LT	168.97	150.94
B11	5+510.0	7.60 m LT	166.09	149.94
B12	5+561.0	9.00 m LT	168.64	–
B12A	5+559.0	11.60 m LT	168.53	152.23

GRAPHIC SCALE
(IN METERS)
5 0 2 5 10 15 20 25

GENERAL NOTES

1. The subsurface explorations shown herein were made between July 23, 1991 and July 9, 1999 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.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

BORING INFORMATION SHEET

Designed By AS/AEG	Drawn By. PHL
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 56 Of 116

BJ–GENPL.dwg

NOTE: THE BORINGS SHOWN ON THIS SHEET WERE PERFORMED IN ENGLISH UNITS AND HAVE NOT BEEN CONVERTED TO METRIC UNITS.

Metric

171.085 m
170 m
165 m
160 m
155 m
150 m
145 m
140 m
135 m

JAMAICA BRF 013-1(8)
BORING NO. B-1

ELEV. 165.67 m 543.54'

Survey Sta. 180+35, 67' Rt.

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
5	51			MTW	Br	A-1-a Sandy Gravel w=9.7% Rec 0.9'
10	R			W	Br	A-1-a Sandy Gravel w=14.1% Rec 0.5'
15	24			W	Br	A-1-a Sandy Gravel w=10.3% Rec 0.6'
20	23			W	Br	A-3 Gravelly Sand w=26.2% Rec 0.6'
25	33			MTW	Br	A-3 Sand w=26.1% Rec 1.0'
30	38			M	Br	A-3 Gravelly Sand w=22.3% Rec 1.3'
35	38			M	Br	A-4 Sandy Silt w=11.0% Rec 1.2'
40						AMXDC 39.0-42.0' Boulders
45						AXMDC 44.0-49.0' Boulders
50	R			M	Gr	A-4 Gravelly Silty Sand w=8.3% Rec 0.2'
55	R			M	Gr	A-4 Gravelly Sandy Silt w=9.9% Rec 0.5'
60						Bedrock at 59.5'
65						AXMDC 59.5-64.9' rec 4.7'
70						AXMDC 64.5-69.5' rec 5.0'
75						See Geologist Report
80						Hole Stopped @ 69.5' in Bedrock
85						Gelogist Report: RUN% RECOV% RQD% 1 94 - 2 100 -
90						Core consists of quartz-biotite-chlorite greiss. The rock is moderately hard, slightly weathered and competent overall.

JAMAICA BRF 013-1(8)
BORING NO. B-3

ELEV. 171.08 m 561.30'

Survey Sta. 180+25, 17' Rt. 5

ABUT #1 168.9 m B.O.F.

19 m ESTIMATED PILE PENETRATION

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
						Bo unable to sample
10	21			MTW	Br	Rec 0.3'
15	49			M	Br	Rec 0.2'
20	23			MTW	Br	A-1-a Sandy Gravel w=4.9% Rec 0.3'
25	12			W	Br	A-3 Sand w=24.3% Rec 0.8'
30	36			W	Br	A-1-a Sandy Gravel w=9.4% Rec 0.8
35	20			W	Br	Rec 0.6'
40	34			MTW	Br	A-4 Silty Sand w=25.6% Rec 1.4'
45	59			M	Br	A-2-4 Silty Sand w=24.8% Rec 1.3'
50	23			M	Br	A-4 Silty Sand w=27.9% Rec 0.9'
55	R			M	Br	A-1-a Sandy Gravel w=8.3% Rec 0.5'
60	R			M	Br	A-1-a Sandy Gravel w=10.3% Rec 0.6'
65	R			M	Br	A-2-4 Gravelly Silty Sand w=8.8%
70						Bedrock @ 68.5' AXM 68.5-73.5' Rec 4.8' AXMDC 73.5-78.5' Rec 3.9' See Geologist's Report
80						Hole stopped at 78.5' in bedrock Geologist Report: RUN% RECOV% RQD% 1 96 - 2 74 -
90						Core consists of quartz-biotite- chlorite greiss. The rock is moderately hard, slightly weathered and competent
100						

JAMAICA BRF 013-1(8)
BORING NO. B-4

ELEV. 164.82 m 540.75'

Survey Sta. 181+25, 25' Rt.

PIER 162.3 m B.O.F.

15 m ESTIMATED PILE PENETRATION

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
5						Bo unable to sample
10	58			M	Br	A-1-a Sandy Gravel w=11.6% Rec 0.7'
15	R			M	Br	A-1-a Sandy Gravel w=11.7%
20	59			MTW	Br	A-1-a Sandy Gravel w=7.9% Rec 1.1'
25	79			MTW	Br	Gravel (vis.) w=20.8% Rec 0.2'
30	61			M	Br	A-2-4 Gravelly Sand w=25.0% Rec 1.4'
35	R			M	Br	A-4 Silty Sand w=27.6% Rec 1.3'
40	61			M	Br	A-2-4 Silty Gravelly Sand w=12.3% Rec 1.4'
45	R			M	Br	Sandy Gravel (vis.) w=7.2% Rec 0.2'
50	R			M	Gr	A-4 Sandy Silt BXM 51.2-55.2' HP↑Bo
55						Bedrock @ 55.2' BXMDC 55.2-56.2' Rec 0.8' BXM DC 56.2-61.2 Rec 4.4' BXMDC 61.2-65.2' Rec 3.9' See Geologist Report.
60						Hole stopped at 65.2' in bedrock Geologist Report: RUN% RECOV% RQD% 1 80 0 2 88 0 3 97 32
70						Core consists of quartz-biotite-chorite greiss with layers of quartz-chlorite-biotite schist the rock is moderately weathered and competent
75						
80						
85						
90						

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
BORING LOGS (1 OF 3)	
Designed By	Drawn By. DEE
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 57 Of 116

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VAOT Metric

170 m
165 m
160 m
155 m
150 m
145 m
140 m
135 m

JAMAICA BRF 013-1(8)
BORING NO. B-6

ELEV. 164.39 m 539.33'

Survey Sta. 181+33, 75' Rt.

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
5		R		MTW	Br	A-1-a Sandy Gravel w=5.0% Rec 0.1'
10		33		MTW	Br	A-1-a Sandy Gravel w=10.8% Rec 1.3'
15		91		M	Br	A-4 Sandy Gravelly Silt w=5.8% Rec 0.7'
20		R		M	Br	Sandy & Gravel & Boulders w=9.0% Rec 0.2'
25		52		W	Br	A-1-b Gravelly Sand w=16.7% Rec 0.7'
30		26		W	Br	A-3 Sand w=18.8% Rec 1.3'
35		61		W	Br	Sand w=25.2% Rec 0.2'
40		75		MTW	Br	A-1-b Sandy Gravel w=9.1% Rec 1.4'
45						BXDC 44.0-46.0'Bo
50		R		M	Gr	A-4 Silty Sand w=11.2% Rec 0.6'
55						Bedrock @ 50.8' BX 50.8-52.8' Rec 1.8' BX 52.8-57.8' Rec 5.0' See Geologist Report BX 57.8'-60.8' Rec 3.0'
60						Hole stopped @ 60.8' in bedrock
65						Geologist Report:
70						RUN% RECOV% RQD% 1 90 0 2 100 0 3 100 0
75						Core consists of quartz-biotite- chlorite greiss with layers of quartz-chlorite-biotite schist. The rock is moderately hard, unweathered and competent.
80						Low RQD is due to mechanical breaks during coring.
85						
90						

JAMAICA BRF 013-1(8)
BORING NO. B-7

ELEV. 168.38 m 552.42'

ABUT #2
168.2 m B.F.

Survey Sta. 182+68, 22' Rt.

20 m ESTIMATED PILE PENETRATION

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
5						Bo unable to sample
10						
15		R		M	Brn	Sandy Gravel (vis.) w=12.28% Rec 0.1'
20						Bo unable to sample
25						BXMDC 20.0-22.0' (boulders)
30		30		M	Brn	A-1-a Sandy Gravel w=10.9% Rec 0.6'
35		30		W	Brn	A-1-a Sandy Gravel w=9.81% Rec 0.7'
40		55		MTW	Brn	A-1-b Gravelly Sand w=9.75% Rec 0.6'
45		33		MTW	Brn	A-4Sandy Gravelly Silt w=10.8% Rec 0.7'
50		25		MTW	Brn	A-1-a Sandy Gravel w=23.57% Rec 0.6'
55						BXMDC 48.5-51.5 Rec 1.8 Boulders Bo unable to sample BXMDC 51.5-56.5' Rec0.6 Boulders
60						BXMDC 56.5-615' Rec1.2' Boulders
65						BXMDC 61.5-66.5' Rec1.2' Boulders to 66.0'
70						Bedrock @ 66.0' BXMDC 66.5-71.5' Rec 4.1' BXMDC 71.5-76.0'Rec 4.1'
75						See Geologist Report
80						Hole stopped @ 76.0'
85						in bedrock
90						Gelogist Report:
95						RUN% RECOV% RQD% 4 24 0 5 96 80 6 91 47
100						Core consists of quart albite biotite schist which grades into quartz- sericite- albite- biotite greiss at 71.0. The rock is moderately hard, unweathered and competent.
						Low RQD is due to mechanical breaks during coring .

JAMAICA BRF 013-1(8)
BORING NO. B-9

ELEV. 166.04 m 544.75

Survey Sta. 182+58, 72' Rt.

DEPTH	BLOWS ON CASING	STANDARD PENETRATION	SAMPLE NUMBER	MOISTURE	COLOR	LABORATORY CLASSIFICATION OF SOIL
5						Bo unable to sample
10		65		M	Br	A -1 -a Sandy Gravel w=12.0% Rec 0.9'
15		R		M	Br	A-1-a Sandy Gravel w=11.5% Rec 0.9'
20		43		W	Br	A-1-a Sandy Gravel w= 11.0% Rec 0.7'
25		22		W	Br	A-1-a Sandy Gravel w =11.0% Rec 0.5'
30		49				No Recovery
35		43		W	Br	A-1-a Sandy Gravel w=11.6% Rec 1.0'
40		31		MTW	Br	A-4 Sandy Silt w= 28.8% Rec 0.8'
45						Bo BXM 45.0- 46.5'
50						Bedrock @ 54.0'
55						BXM 54'-59' Rec 4.0'
60						0.5 Seam 58.0'-58.5' BXM 59.0'- 64.0' Rec 5.0' See Geologist Report
65						Hole stopped @ 64.0' in bedrock
70						Geologist Report :
75						RUN% RECOV% RQD% 1 80 8 2 100 88
80						Core consists of quartz- albite-mica greiss. The rock is moderately hard , unweathered and competent.
85						0.5' Seam from 58.0 - 58.5'.
90						Low RQD due to mechanical breaks during coring

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER
BORING LOGS (2 OF 3)

Designed By	Drawn By. DEE
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 58 Of 116

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90284BOR2.dwg (1=1)

VAOT Metric

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

HOLE NO.: B-10
SHEET 1 OF 1
DATE STARTED: 7/6/99
DATE COMPLETED: 7/7/99

PROJECT NAME: JAMAICA
SITE NAME: BR-80
STATION: 5+478.50
GROUND EL.: 168.971

PROJECT NUMBER: BRF 013-1 (8)
SITE NO.: VT-100
OFFSET: -7.60
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT
LOGGER: TALLMAN
ADDITIONAL CREW:

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

ABUT. #1 B.O.F. EL. 168.9

18 m ESTIMATED PILE PENETRATION

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		Note: Appears to rock fill 0.00m–6.00m							
		No sample, Boulders, BXDC, 1.5m–2.1m, Rec.= 0.35m							
		No sample, Boulders, BXDC, 3.00m–3.91m, Rec.= 0.52m							
5		No sample, Boulders, BXDC, 4.50m–5.78m, Rec.= 0.60m							
		A-1-a, SaGr, brn, Moist, Rec. = 0.15m	R	9.2	74.7	22.1	3.2		
		A-1-b, GrSa, brn, Moist, Rec. = 0.07m	11	12.6	40.4	54	5.6		
		A-1-b, Sa, brn, Moist, Rec. = 0.19m	13	19.4	5.2	87.8	7		
10		A-4, SiSa, brn, MTW, Rec. = 0.30m	46	25.6	0.8	52.3	46.9		
		A-2-4, Sa, brn, Moist, Rec. = 0.42m	R	19.1	1.8	78.4	19.8		
		A-2-4, GrSa, brn, Moist, Rec. = 0.23m	R	15.9	21.7	59.9	18.4		
15		Boulders, BXDC, 15.00m–15.55m Rec. = 0.46m							
		No sample, (Stone in bit.)	57						
		←No Rec.	R	Top of bedrock @ 15.03 m					
		Run #1: BXDC, 15.03m–19.55m, Rec. = 0.24m, See Geologist's Report.	RUN 1	REC% 16	RQD% 0	Dip ° 10			
20		Run #2: BXDC, 19.55m–21.08m, Rec. = 1.24m, See Geologist's Report.	2	81	72	15			
		Run #3: BXDC, 21.08m–22.58m, Rec. = 1.50m, See Geologist's Report.	3	100	100	15			
25									

Hole stopped @ 22.58m

GEOLOGISTS REPORT:

Run #1: Quartz-Biotite Gneiss. Very hard. Unweathered. Poor Competency.

Run #2: Same as Run #1. Competent.

Run #3: Same as Run #1. Competent.

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

HOLE NO.: B-11
SHEET 1 OF 1
DATE STARTED: 7/8/99
DATE COMPLETED: 7/9/99

PROJECT NAME: JAMAICA
SITE NAME: BR-80
STATION: 5+510.00
GROUND EL.: 166.094

PROJECT NUMBER: BRF 013-1 (8)
SITE NO.: VT-100
OFFSET: -7.60
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: CHABOT
LOGGER: HOLT
ADDITIONAL CREW:

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

PIER B.O.F. EL. 162.3

13 m ESTIMATED PILE PENETRATION

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-1-a, Gr, Lt/brn, Moist, Rec. = 0.19m	30	5.7	74.3	19.3	6.4		
		BXDC, 1.95m–2.28m, Boulder							
		A-1-a, SaGr, brn, Moist, Rec. = 0.10m	R	8.6	66.7	29.5	3.8		+
		BXDC, 3.1m–3.33m, Boulder							
5		A-1-a, SaGr, gry/brn, Moist, Rec. = 0.41m	88	8.6	58.4	31.2	10.4		
		A-2-4, Sa, Lt/brn, MTW, Rec. = 0.34m	29	21.6	1.8	86.2	12		
		A-3, Sa, Lt/brn, MTW, Rec. = 0.20m	35	24	0.5	90.7	8.8		
		A-2-4, SiSa, Lt/brn, MTW, Rec. = 0.37m	50	24.4		76.3	23.7		
10		A-2-4, SiSa, Lt/brn, MTW, Rec. = 0.32m	47	24.4		76.6	23.4		
		A-4, SaSi, Lt/brn, MTW, Rec. = 0.34m	40	26.2		45.3	54.7		
		A-2-4, SiSa, Lt/brn, MTW, Rec. = 0.41m	60	24.5	0.1	66.4	33.5		
15		BXDC, 14.97m–15.93m, Ba's & Sa Advanced casing to 16.15m							
			Top of bedrock @ 16.15 m						
		Run #1: BXMDC, 16.15m–17.01m, Rec. = 0.68m, See Geologist's Report.	RUN 1	REC% 79	RQD% 35	Dip ° 10			
		Run #2: BXMDC, 17.01m–17.95m, Rec. = 0.86m, See Geologist's Report.	2	91	68	10			
20		Run #3: BXMDC, 17.95m–19.59m, Rec. = 1.57m, See Geologist's Report.	3	96	90	10			
25									

Hole stopped @ 19.59m

GEOLOGISTS REPORT:

Run #1: Quartz-Biotite Gneiss. Hard. Unweathered. Poor Competency.

Run #2: Same as Run #1. Competent.

Run #3: Same as Run #1. Competent.

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

HOLE NO.: B-12
SHEET 1 OF 1
DATE STARTED: 6/24/99
DATE COMPLETED: 6/25/99

PROJECT NAME: JAMAICA
SITE NAME: BR-80
STATION: 5+561.00
GROUND EL.: 168.635

PROJECT NUMBER: BRF 013-1 (8)
SITE NO.: VT-100
OFFSET: -9.00
G.W. DEPTH:

BORING CREW
CREW CHIEF: YOUNG
DRILLER: HOLT
LOGGER:
ADDITIONAL CREW:

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

DEPTH	SYMBOL	CLASSIFICATION OF MATERIALS (Description)	BLOWS PER 0.3 m	M.C. %	GRAVEL %	SAND %	FINES %	LL	PI
		A-2-4, Sa, Lt/brn, Moist, Rec. = 0.32m	5	17	0.2	81.3	18.5		
		A-1-a, SaGr, brn, Dry, Rec. = 0.30m	85	5.4	64.3	26.7	9		
		BXDC, 3.68m–4.13m, Stones							
5		A-1-a, SaGr, brn, Dry, Rec. = 0.08m	R	6.3	66.7	26.9	6.4		
		BXDC, 4.80m–7.20m, Cobbles with intermittent sand layers.							
		A-1-b, GrSa, brn, Moist, Rec. = 0.25m	45	13	38.6	52.4	9		
		A-1-a, SaGr, brn, Moist, Rec. = 0.05m	43	5.4	72.2	22.6	5.2		
10		No Rec., On Boulder	R						
		BXDC, 10.56m–10.86m, Cobbles, Casing broke off at 10.70m.	Hole stopped @ 10.86m						
15									
20									
25									

Notes:

Changed carbide bit at 6.00m (worn out)

Many cobble size stones from 2.00m to the bottom of hole encountered while advancing casing.

Hole stopped in Boulders/cobbles and sand at 10.86m due to the casing breaking.

Believe diamond casing bit was worn out causing casing to break with loss of 10.0' of casing.

Also wore out one core barrel bit.

GEOLOGISTS REPORT:

ABUT. #2 B.O.F. EL. 168.2

16 m ESTIMATED PILE PENETRATION

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

HOLE NO.: B-12A
SHEET 1 OF 1
DATE STARTED: 6/29/99
DATE COMPLETED: 7/01/99

PROJECT NAME: JAMAICA
SITE NAME: BR-80
STATION: 5+559.00
GROUND EL.: 168.526

PROJECT NUMBER: BRF 013-1 (8)
SITE NO.: VT-100
OFFSET: -11.60
G.W. DEPTH:

BORING CREW
CREW CHIEF: MCGLYNN
DRILLER: YOUNG
LOGGER: CHABOT
ADDITIONAL CREW:

BORING RIG: TRACTOR
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
		0–1.5m Cobbles & Boulders							
		A-2-4, Sa, brn, Moist, Rec. = 0.36m	8	14.5	0.6	87.3	12.1		
		No sample, Boulders							
5		A-1-a, SaGr, brn, Moist, Rec. = 0.21m	R	7.8	67.3	26.9	5.8		
		No Rec.	R						
		A-1-b, GrSa, gry, Moist, Rec. = 0.23m	39	10.9	43.7	45.1	11.2		
		A-1-b, GrSa, gry/brn, Moist, Rec. = 0.36m	40	10.6	38.9	47.6	13.5		
10		A-1-b, GrSa, gry, Moist, Rec. = 0.12m	R	10.1	53.8	32.4	13.8		
		A-1-b, GrSa, gry, Moist, Rec. = 0.12m	28	11.9	44.4	45.4	10.2		
		BXDC, 13.26m–14.26m, Boulders							
		BXDC, 14.39m–14.80m, Boulder	R						
15		Broken Rock							
		BXDC, 15.24m–16.11m, Rec. = 0.28m, Boulder	Top of bedrock @ 16.30 m						
		Run #1: BXDC, 16.30m–17.98m, Rec. = 1.36m, See Geologist's Report.	RUN 1	REC% 81	RQD% 70	Dip ° 10			
		Run #2: BXDC, 17.98m–18.89m, Rec. = 0.80m, See Geologist's Report.	2	88	85	10			
20		Run #3: BXDC, 18.89m–19.80m, rec.=0.84m See Geologist's Report.	3	92	92	10			
25									

Hole stopped @ 19.80m

GEOLOGISTS REPORT:

Run #1: Quartz-Biotite Gneiss. Hard. Unweathered. Competent.

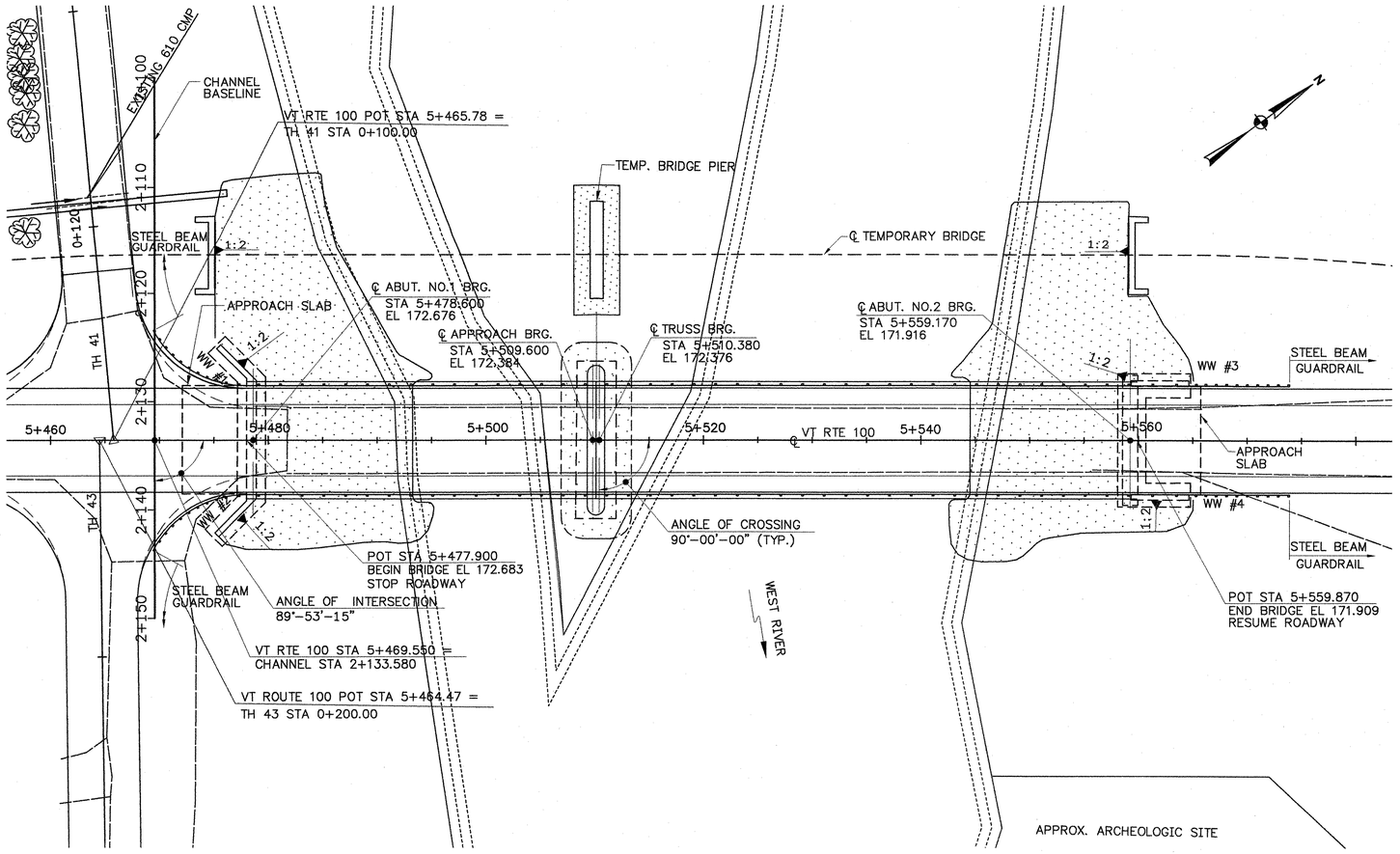
Run #2: Same as Run #1. Competent.

Run #3: Same as Run #1, but granitic texture. Competent.

BORING LOG SHEET 3 OF 3

PROJECT: JAMAICA	PROJECT NO.: BRF 013-1 (8)
DESIGN FILE NAME: /matres/78f209/mf209bor.dgn IPARM FILE NAME:	PLOT DATE: DEC 1999
DRAWN BY: J. TOUCHETTE	SQUAD LEADER: C.C. BENDA
DATE: 08/99	SHEET: 59 OF 116

VAOT **Metric**

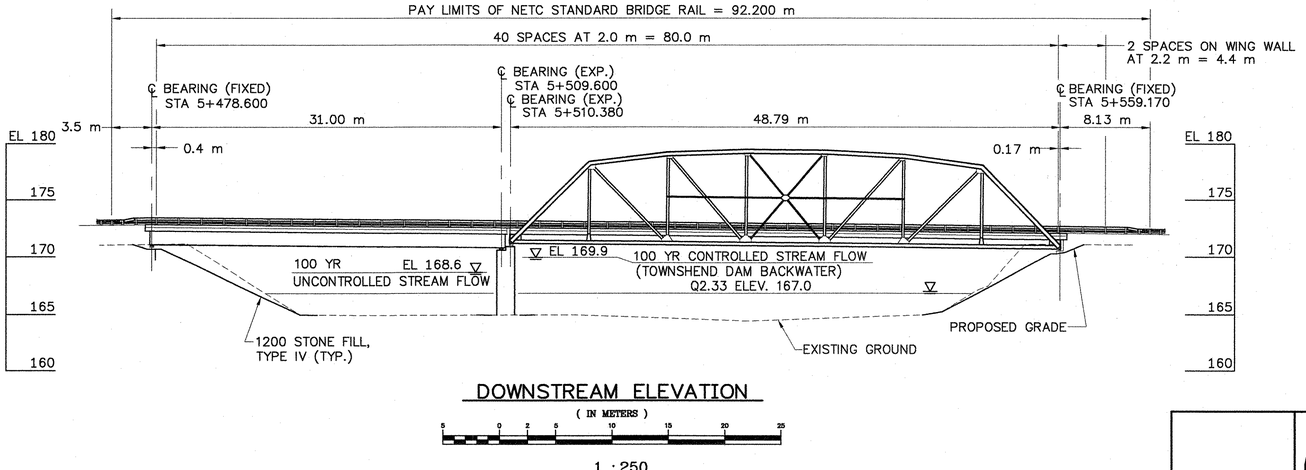


PLAN
(IN METERS)

5 0 2 5 10 15 20 25

1 : 250

—LIMIT OF STONE FILL, TYPE IV



DOWNSTREAM ELEVATION
(IN METERS)

5 0 2 5 10 15 20 25

1 : 250

BRIDGE ENDPOST LOCATION & APPROACH RAIL LENGTH			
LOCATION	ENDPOST DIST. TO DECK END	APPROACH RAIL LENGTH	RADIUS
@ WW #1	1100	7620	10 000
@ WW #2	1100	7620	10 000
@ WW #3	1470*	7620	0
@ WW #4	1470*	7620	0

* END POST DISTANCE TO WW END

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

PLAN AND ELEVATION

Designed By LMM/LKP/JH	Drawn By. GFB
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 60 Of 116

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BJM-GENP (1=1)

Metric

GENERAL NOTES

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2001 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION, AND ITS LATEST REVISIONS, AND AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, AND ITS LATEST REVISIONS.

2. DESIGN IS FOR MS22.5 LOADING WITH NO ALLOWANCE FOR FUTURE PAVING. APPROACH SPAN SUPERSTRUCTURE DESIGN DONE BY LOAD FACTOR DESIGN METHOD. TRUSS SPAN SUPERSTRUCTURE DESIGN DONE BY SERVICE LOAD AND LOAD FACTOR DESIGN METHODS. SUBSTRUCTURE DESIGN DONE BY SERVICE LOAD DESIGN METHOD.

3. LOAD RATING PERFORMED BY STRENGTH AND SERVICEABILITY REQUIREMENTS, EXCEPT TRUSS MEMBERS. TRUSS MEMBER LOAD RATING PERFORMED BY STRENGTH REQUIREMENTS ONLY.

4. TRAFFIC SHALL BE MAINTAINED ON A ONE-WAY TEMPORARY BRIDGE LOCATED UPSTREAM OF THE EXISTING STRUCTURE DURING CONSTRUCTION.

5. ALL STRUCTURAL STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).

6. THE FABRICATOR IS RESPONSIBLE FOR THE DESIGN OF ALL TRUSS MEMBER CONNECTIONS. SEE TRUSS NOTES ON SHEET 69 FOR ADDITIONAL INFORMATION.

7. ALL FIELD CONNECTIONS FOR GALVANIZED AND PAINTED STRUCTURAL STEEL SHALL BE MADE WITH GALVANIZED, 22 mm DIAMETER, TYPE 1 BOLTS MEETING THE REQUIREMENTS OF AASHTO M164M (ASTM A325M). HOLES SHALL BE 24 mm DIAMETER.

8. ALL FIELD CONNECTIONS FOR UNPAINTED M270M GRADE 345W STRUCTURAL STEEL SHALL BE 22 mm DIAMETER, TYPE 3 BOLTS MEETING THE REQUIREMENTS OF AASHTO M164M (ASTM A325M). HOLES SHALL BE 24 mm DIAMETER.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL ENGINEERING AND RELATED COSTS ASSOCIATED WITH ANY DESIGN ALTERNATIVES. DESIGN ALTERNATIVES SHALL BE SUBMITTED TO THE VERMONT AGENCY OF TRANSPORTATION FOR REVIEW.

10. ALL WELDING SHALL CONFORM WITH THE PROVISIONS OF SUBSECTION 506.10.

11. AFTER SUPERSTRUCTURE STEEL HAS BEEN ERECTED, ELEVATIONS ALONG THE TOP OF THE APPROACH SPAN BEAMS SHALL BE TAKEN AS DIRECTED BY THE ENGINEER FOR USE IN DETERMINING FINAL GRADE.

12. ANY HOLES IN FASCIA BEAMS OR FASCIA GIRDER WEBS NOT OTHERWISE FILLED SHALL BE FILLED WITH ASTM A325 BOLTS. SEE STANDARD SPECIFICATION SECTION 506.19 FOR BOLT TENSIONING REQUIREMENTS.

13. ALL REINFORCING STEEL SHALL BE DETAILED AND FABRICATED USING PROCEDURES AND TOLERANCES IN ACCORDANCE WITH APPLICABLE PUBLICATIONS OF THE "CONCRETE REINFORCING STEEL INSTITUTE".

14. MINIMUM COVER FOR REINFORCING STEEL SHALL BE 50 mm ALONG BACK FACES OF WALLS AGAINST EARTH, AND 80 mm ELSEWHERE. FOR BRIDGE DECK: 60 mm MIN. COVER FOR TOP REINFORCING, AND 40 mm MIN. COVER FOR BOTTOM REINFORCING.

15. REINFORCING PLACEMENT TOLERANCES SHALL BE:
SPACING +- 25 mm
CLEARANCE +- 5 mm

16. DECK AND CURB CONCRETE SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS A". ALL OTHER CONCRETE SHALL BE "CONCRETE, HIGH PERFORMANCE CLASS B" UNLESS OTHERWISE DESIGNATED ON THE PLANS.

17. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 25 mm BY 25 mm.

18. SURFACES OF BRIDGE SEATS UNDER BEARING DEVICES SHALL BE LEVEL. OTHER BRIDGE SEAT AREAS SHALL BE SLOPED 40 mm PER METER. ABUTMENT AND PIER SEATS SHALL BE SLOPED FULL WIDTH. THE ENTIRE BRIDGE SEAT SURFACE SHALL HAVE A SMOOTH FLOATED FINISH.

19. FOR BRIDGE DECK POURS, THE MAXIMUM TIME LIMIT FOR ANY COMBINATION OF POURS DONE IN ONE DAY SHALL BE EIGHT HOURS. THERE SHALL BE A MINIMUM DELAY OF NINETY SIX HOURS BETWEEN THE COMPLETION OF ONE DAY'S POUR AND THE BEGINNING OF ANY OTHER POUR.

20. WHEN POURING THE APPROACH AND TRUSS SPAN DECKS, THE CONCRETE SHALL BE DEPOSITED PARALLEL TO THE CENTERLINE OF BEARING SO AS TO LOAD THE THE GIRDERS EQUALLY. THE CONCRETE SHALL REMAIN PLASTIC THROUGHOUT THE ENTIRE POURING SEQUENCE.

21. THE PLACEMENT OF A FOUNDATION SEAL SHALL CONFORM TO THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION SECTION 208. THE SLUMP OF THE CONCRETE, CLASS C USED FOR A SEAL SHALL BE 8" +/- 1".

22. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF DECK BETWEEN DRIP BEADS.

23. ALL DIMENSIONS ARE HORIZONTAL OR VERTICAL, AND ARE GIVEN AT 20 DEGREES CELSIUS UNLESS OTHERWISE NOTED.

24. TRAFFIC SHALL BE ALLOWED ON THE NEW BRIDGE ONLY AFTER THE SPECIFIED CURE PERIOD HAS EXPIRED AND 28 DAY DESIGN STRENGTH HAS BEEN ATTAINED AS EVIDENCED BY TEST CYLINDERS CURED UNDER FIELD CONDITIONS.

25. JOINTS AND SCORE MARKS IN CONCRETE SHALL BE CONSTRUCTED AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

26. 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.

27. IN STREAM CONSTRUCTION SHALL BE PERFORMED BETWEEN JUNE 1 AND OCTOBER 1, UNLESS THE CONTRACTOR OBTAINS PERMISSION FROM THE AGENCY OF NATURAL RESOURCES TO DO THE WORK OUTSIDE OF THAT TIME FRAME.

28. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND SPACING OF THE FASCIA OVERHANG BRACKETS; HOWEVER, SPACING SHALL NOT EXCEED 1200 mm.

29. ASSUMED UNIT WEIGHT OF SOIL IS 2243 kg/m^3.

30. NO CONCRETE ABOVE THE ADJACENT BRIDGE SEATS SHALL BE PLACED UNTIL THE FINAL FINISHED GRADE OF THE DECK HAS BEEN ESTABLISHED, OR AS OTHERWISE PERMITTED BY THE ENGINEER.

31. THE STONE FILL, TYPE IV SHALL BE PLACED IN FRONT OF THE ABUTMENTS AND AROUND THE PIER PRIOR TO ERECTING THE STRUCTURAL STEEL.

32. PARTIAL REMOVAL OF STRUCTURE SHALL INCLUDE COMPLETE REMOVAL OF EXISTING SUPERSTRUCTURE AND REMOVAL OF THE EXISTING SUBSTRUCTURE TO THE LIMITS SHOWN ON THE CHANNEL SECTIONS. THIS WORK SHALL BE PERFORMED UNDER ITEM 529.15 "PARTIAL REMOVAL OF STRUCTURE".

33. THE ¾" (19 mm) STEEL PLATES USED FOR TEMPORARY DECK REPAIRS. AND THE TEMPORARY RAIL, BEAM, AND POSTS, ARE TO BE SALVAGED BY THE CONTRACTOR AND DELIVERED TO THE DISTRICT. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH PAUL GOULD, DISTRICT TECHNICIAN, AT (802) 251-2001. ALL WORK SHALL BE SUBSIDAIRY TO ITEM 529.20, PARTIAL REMOVAL OF STRUCTURE.

34. ALL PILES SHALL BE ASTM A36 HP 360x108 BEARING PILES DRIVEN TO REFUSAL ON BEDROCK. THE ULTIMATE CAPACITY IS 1930 kN PER PILE.

35. ALL PILES SHALL BE FURNISHED WITH A REINFORCED PILE TIP OF PREFABRICATED CAST STEEL MEETING THE REQUIREMENTS OF ASTM A27. SEE STANDARD SPECIFICATION SECTION 505.04 (e).

36. FILL IN AREAS THROUGH WHICH PILES ARE DRIVEN SHALL HAVE A MAXIMUM STONE SIZE OF 230 mm.

37. WHEN EPOXY COATED REBAR IS CUT, THE UNCOATED ENDS SHALL BE REPAIRED WITH MATERIALS AND PROCEDURES APPROVED BY THE COATING MANUFACTURER. FLAME CUTTING OF EPOXY COATED REBAR WILL NOT BE PERMITTED.

38. THE EXISTING TRUSS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AFTER DEMOLITION.

39. THE APPROACH SPAN STRUCTURAL STEEL SHALL BE WEATHERING STEEL. ALL STRUCTURAL STEEL WITHIN A DISTANCE OF 2200 FROM THE EXPANSION END OF GIRDERS SHALL BE COATED WITH A PROTECTIVE PAINT SYSTEM. THIS WORK SHALL BE PAID UNDER ITEM 513.25, STRUCTURAL PAINTING, SHOP APPLIED (APPROACH), AND ITEM 513.40, SURFACE PREPARATION, SHOP (APPROACH). GREASING AND PAINTING OF STRUCTURAL STEEL SHALL CONFORM TO SUPPLEMENTAL SPECIFICATION 513. ALL TRUSS STRUCTURAL STEEL SHALL BE GALVANIZED.

40. THE EXISTING STRUCTURAL STEEL ON THIS PROJECT WAS PAINTED WITH A MATERIAL WHICH MAY CONTAIN LEAD. THE REMOVED STRUCTURAL STEEL IS THE PROPERTY OF THE CONTRACTOR. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE STATE, ITS OFFICERS, AND EMPLOYEES HARMLESS CONCERNING THE CONTRACTOR'S USE OR DISPOSITION OF THE STRUCTURAL STEEL. IN AREAS WHERE THE EXISTING STEEL IS TO BE TORCH CUT THE PAINT SHALL BE REMOVED BY HAND TOOL CLEANING.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
Highway No. VT. ROUTE 100	Log Sta.
	Surv. Sta.

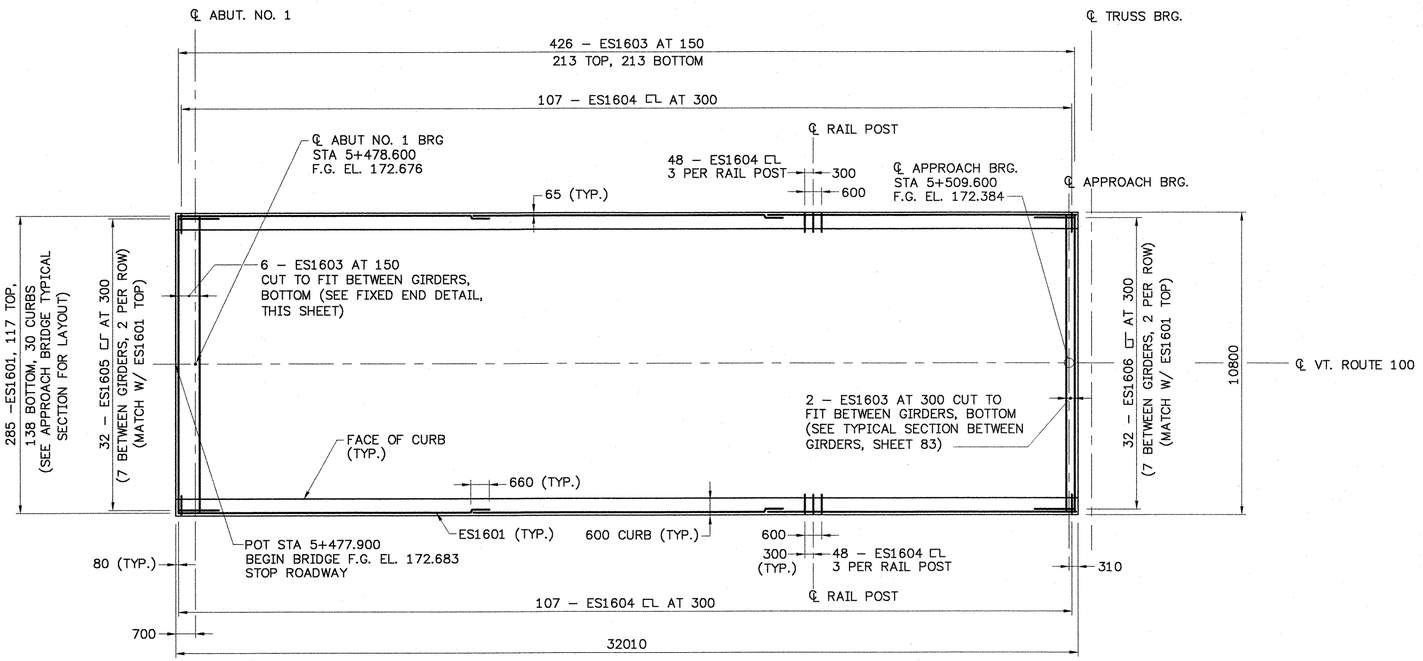
VT. ROUTE 100 OVER THE WEST RIVER

GENERAL NOTES

Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF013-1 (8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 61 Of 116

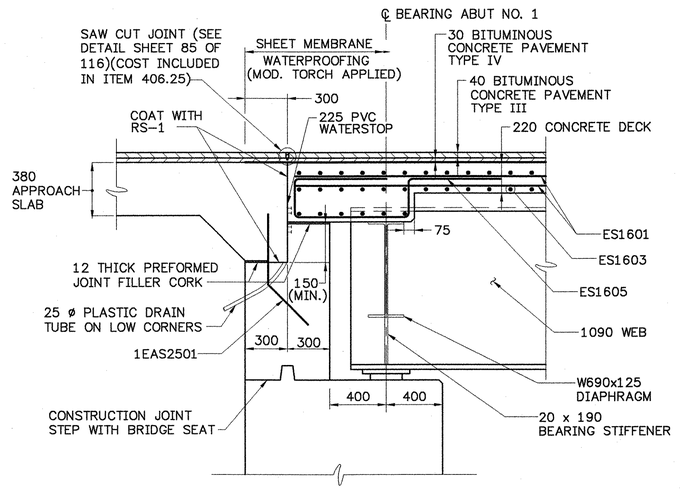
900284NOTES (1=1)

VAOT Metric



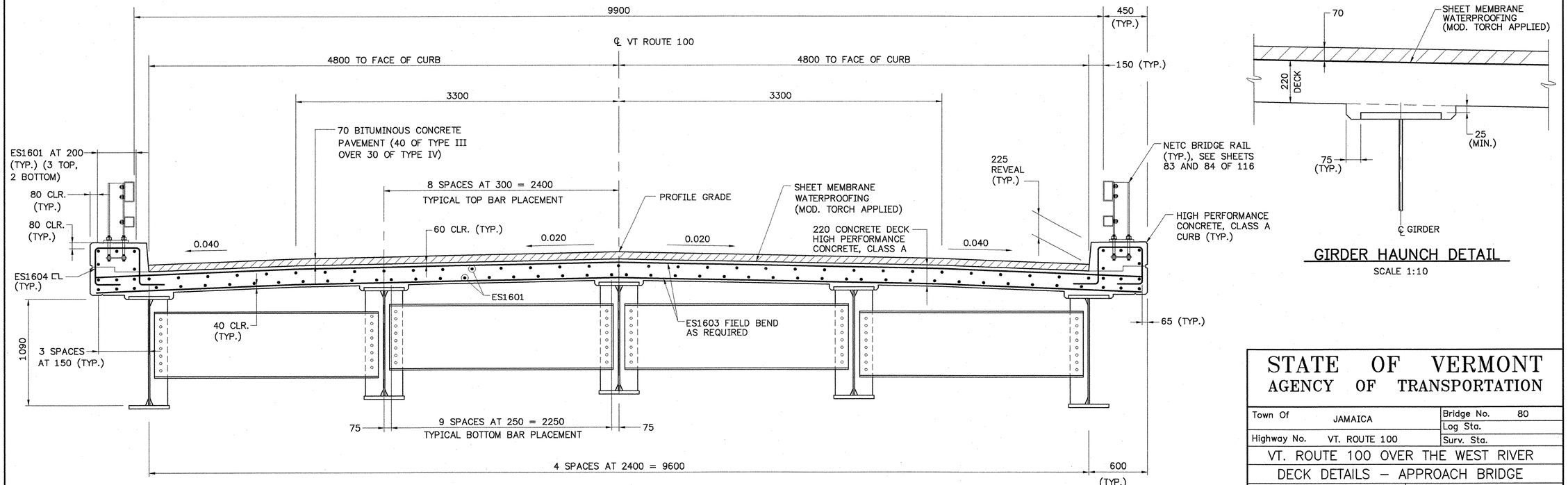
APPROACH BRIDGE DECK PLAN

SCALE 1:100



FIXED END DETAIL AT ABUTMENT NO. 1

SCALE 1:20



APPROACH BRIDGE TYPICAL SECTION

SCALE 1:20

GIRDER HAUNCH DETAIL

SCALE 1:10

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
DECK DETAILS – APPROACH BRIDGE	
Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 62 Of 116

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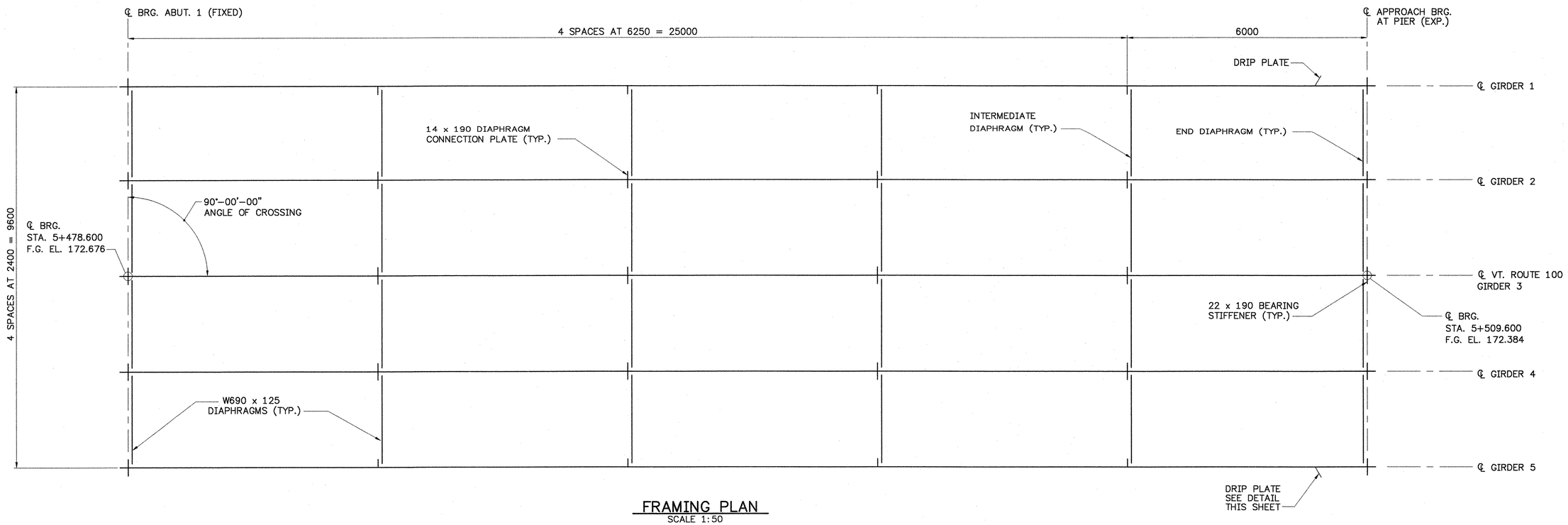
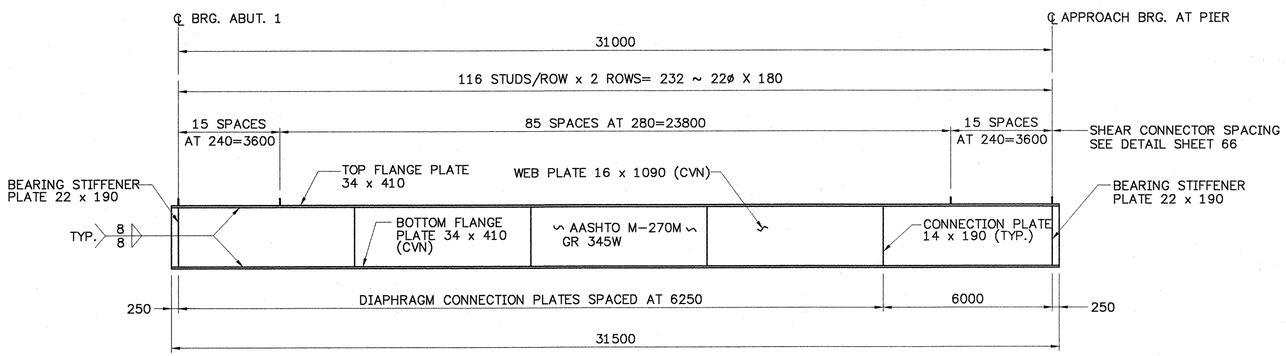
90284ADD.dwg (1=1)

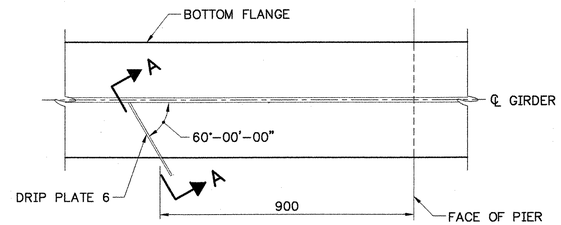


FRAMING PLAN
SCALE 1:50

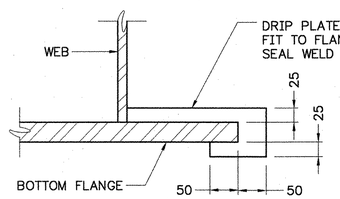


TYPICAL GIRDER ELEVATION
SCALE: HORIZONTAL 1:100
VERTICAL 1:50

NOTE: THE CHARPY V–NOTCH TEST SHALL BE REQUIRED FOR ALL PLATES LABELED WITH CVN. SEE SECTION 714.01 OF THE STANDARD SPECIFICATIONS.



PLAN DRIP PLATE
SCALE 1:10



SECTION A–A
SCALE 1:5

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER
FRAMING PLAN AND GIRDER ELEVATION

Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 63 Of 116

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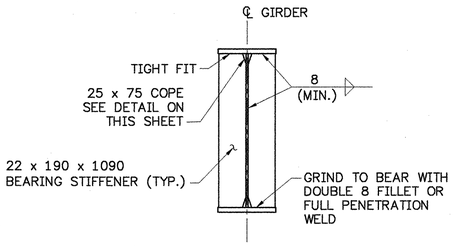
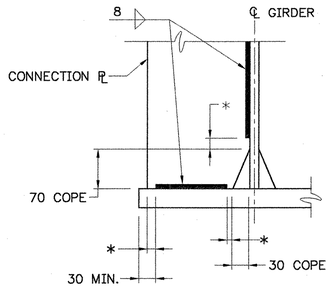
Metric

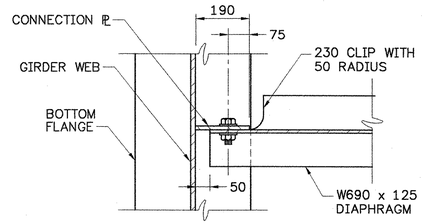


TYPICAL BEARING STIFFENERS
SCALE 1:20

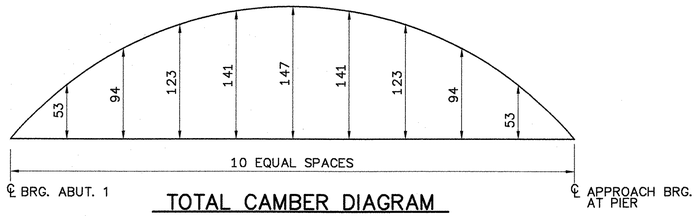
* NO WELD FOR 6 MIN. 13 MAX. (EXCEPT MAINTAIN 30 MIN. FROM EDGE OF FLANGE)



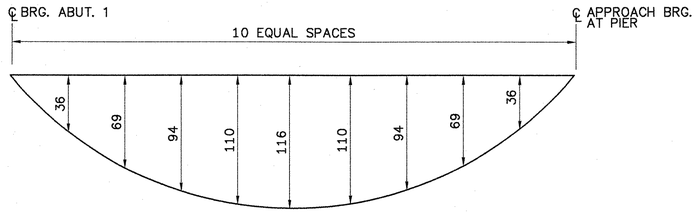
WELD TERMINATION AND COPING DETAILS
SCALE 1:5



SECTION B–B
SCALE: 1:10

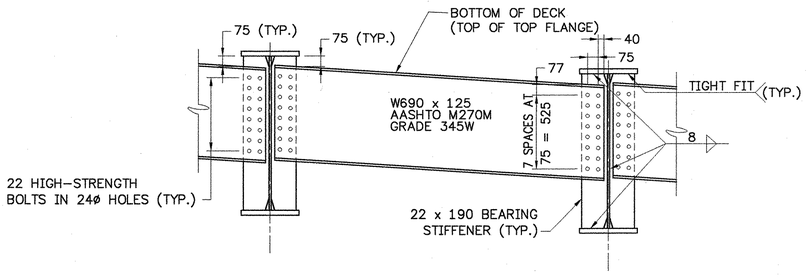


TOTAL CAMBER DIAGRAM
N.T.S



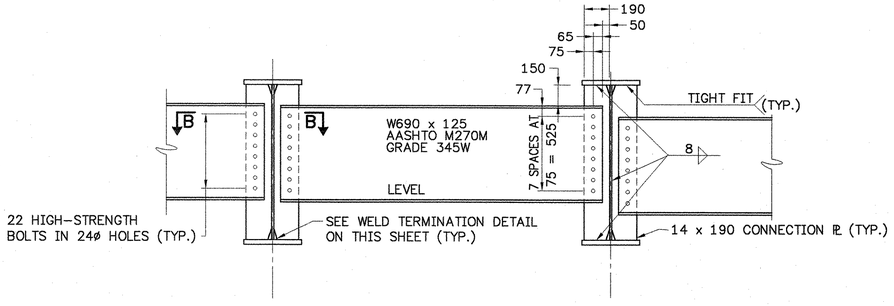
DEAD LOAD DEFLECTION
NOT TO SCALE

NOTE: EACH GIRDER SHALL BE CAMBERED A TOTAL OF 147. TOTAL DEAD LOAD DEFLECTION HAS BEEN CALCULATED TO BE 116. THE RESULTING DESIGN RESIDUAL CAMBER IS 31.



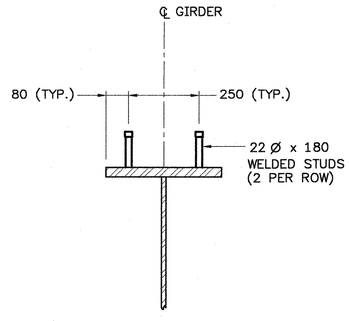
THE ENDS OF THE W690 x 125 DIAPHRAGMS AT ABUTMENT NO. 1 AND PIER ARE TO BE CUT TO VERTICAL IN THE ERECTED POSITION.

TYPICAL DIAPHRAGM DETAILS AT ABUTMENT NO. 1 AND PIER
SCALE 1:20



NOTE:
HIGH–STRENGTH BOLTS, NUTS AND WASHERS SHALL CONFORM TO SUBSECTION 714.05 OF THE 2001 STANDARD SPECIFICATIONS.

TYPICAL INTERMEDIATE DIAPHRAGM
SCALE 1:20



SHEAR CONNECTOR DETAIL
SCALE 1:10

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
GIRDER AND CONNECTION DETAILS	
Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 64 Of 116

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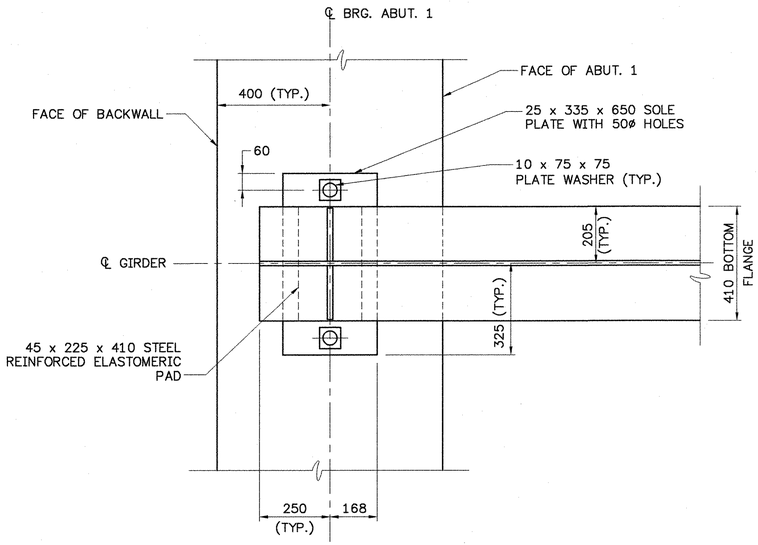
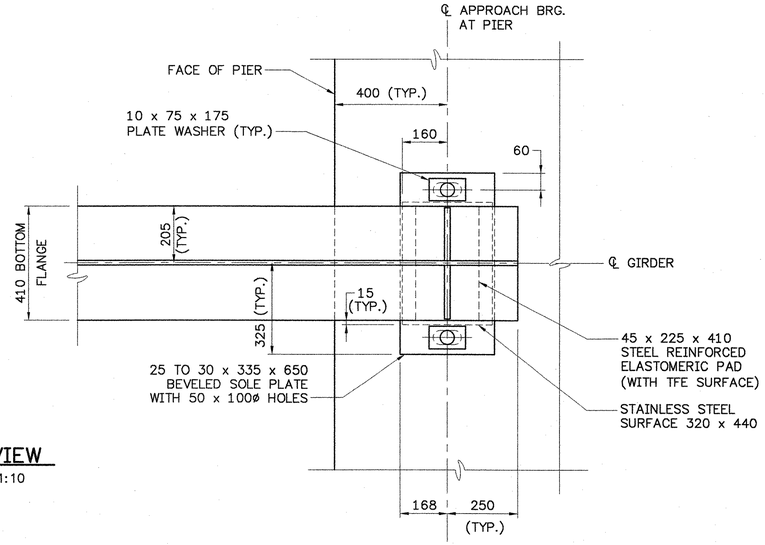
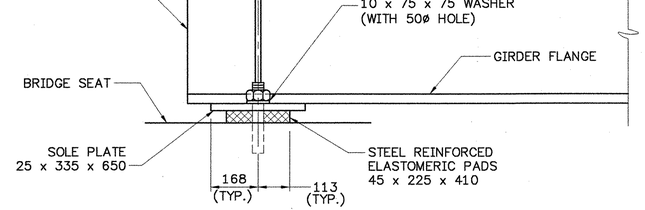


PLAN VIEW

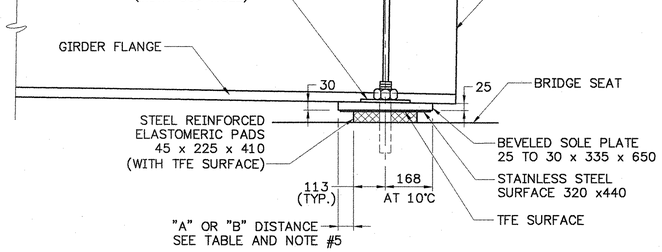
SCALE 1:10

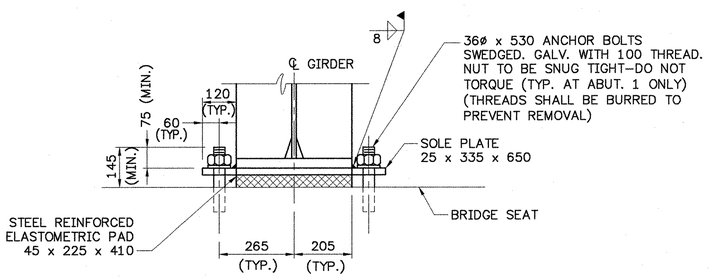




SIDE VIEW

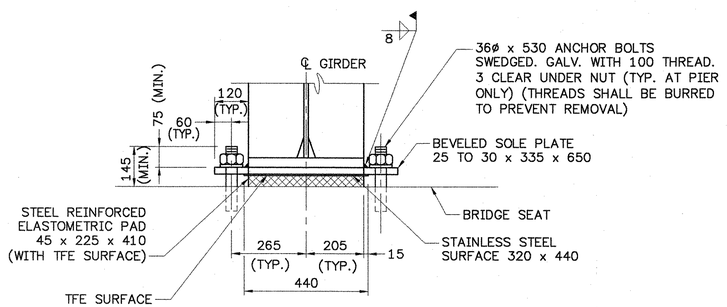
SCALE 1:10





FRONT VIEW

SCALE 1:10



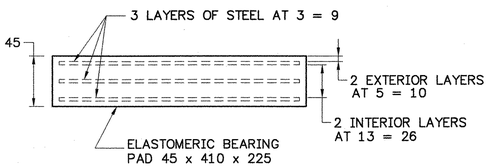
FIXED BEARING DETAILS

BEARING SETTING DIMENSIONS		
TEMP	A (mm)	B (mm)
–30° C	70	84
–20° C	66	80
–10° C	62	77
0° C	59	73
10° C	55	70
20° C	51	66
30° C	48	62
40° C	44	59
50° C	40	55

EXPANSION BEARING DETAILS

BEARING NOTES

1. BEARINGS SHALL BE STEEL REINFORCED ELASTOMERIC BEARING PADS WITH STEEL SOLE PLATES CONFORMING TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, AND ITS LATEST REVISIONS.
2. BEARINGS SHALL BE PAID FOR UNDER THE ITEM 531.11 "BEARING DEVICE ASSEMBLY (APPROACH)".
3. SHOP DRAWINGS CONFORMING TO SUBSECTION 531.03 OF THE 1995 STANDARD SPECIFICATIONS SHALL BE SUBMITTED TO INCLUDE WELDING AND BONDING PROCEDURES.
4. THE CONCRETE SURFACE UNDER THE BEARING DEVICE SHALL BE LEVEL.
5. "A" DISTANCE IS THE FINAL SETTING FOR THE BEARING AFTER THE CONCRETE SLAB, CURB, PAVEMENT AND BRIDGE RAIL ARE PLACED. "B" DISTANCE IS LISTED FOR SETTING THE BEARING AFTER THE STRUCTURAL STEEL IS ERECTED AND BEFORE THE CONCRETE DECK IS POURED. THE DIFFERENCE IS THE THEORETICAL ELONGATION OF THE BOTTOM FLANGE DUE TO THE DEAD LOAD DEFLECTION. THE FINAL "A" DISTANCE, AS SHOWN IN THE TABLE, MUST BE ATTAINED WITHIN 3.00.
6. DESIGN CRITERIA:
   A. AVERAGE BEARING PRESSURE = 7.1 MPa
   B. MINIMUM ALLOWABLE DESIGN ROTATION = 0.04 RADIANS
   C. HORIZONTAL CAPACITY SHALL BE A MINIMUM OF 10% OF THE VERTICAL DESIGN LOAD (WITHOUT IMPACT).
   D. DESIGN LOAD PER BEARING = 643.97 KN (DEAD LOAD PLUS LIVE LOAD WITHOUT IMPACT).
7. ALL STEEL IN BEARING DEVICES (EXCEPT STAINLESS AND STEEL LAMINATIONS) SHALL BE AASHTO M270 GRADE 250. STEEL LAMINATIONS SHALL BE PER AASHTO M251 SPECIFICATIONS.
8. ANCHOR BOLTS SHALL HAVE A MINIMUM OF 380 EMBEDMENT INTO THE CONCRETE AND SHALL CONFORM TO SUBSECTION 714.08 OF THE 2001 STANDARD SPECIFICATIONS FOR CONSTRUCTION AS MODIFIED BY THE GENERAL SPECIAL PROVISIONS FOR ALL PROJECTS.
9. ALL BEARING DEVICES SHALL BE GALVANIZED OR METALIZED AS PER SUBSECTIONS 531.04(b) AND 506.15(a) & (b) OF THE 2001 STANDARD SPECIFICATIONS. AREAS OF GALVANIZING OR METALIZING DAMAGED BY FIELD WELDING OR HANDLING SHALL BE REPAIRED PER THE REQUIREMENTS OF SUPPLEMENTAL SPECIFICATION SECTION 513.
10. 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 ITEM 531.11 "BEARING DEVICE ASSEMBLY".



STEEL REINFORCED ELASTOMERIC BEARING PAD

NOT TO SCALE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
BEARING DETAILS – APPROACH BRIDGE	
Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 65 Of 116

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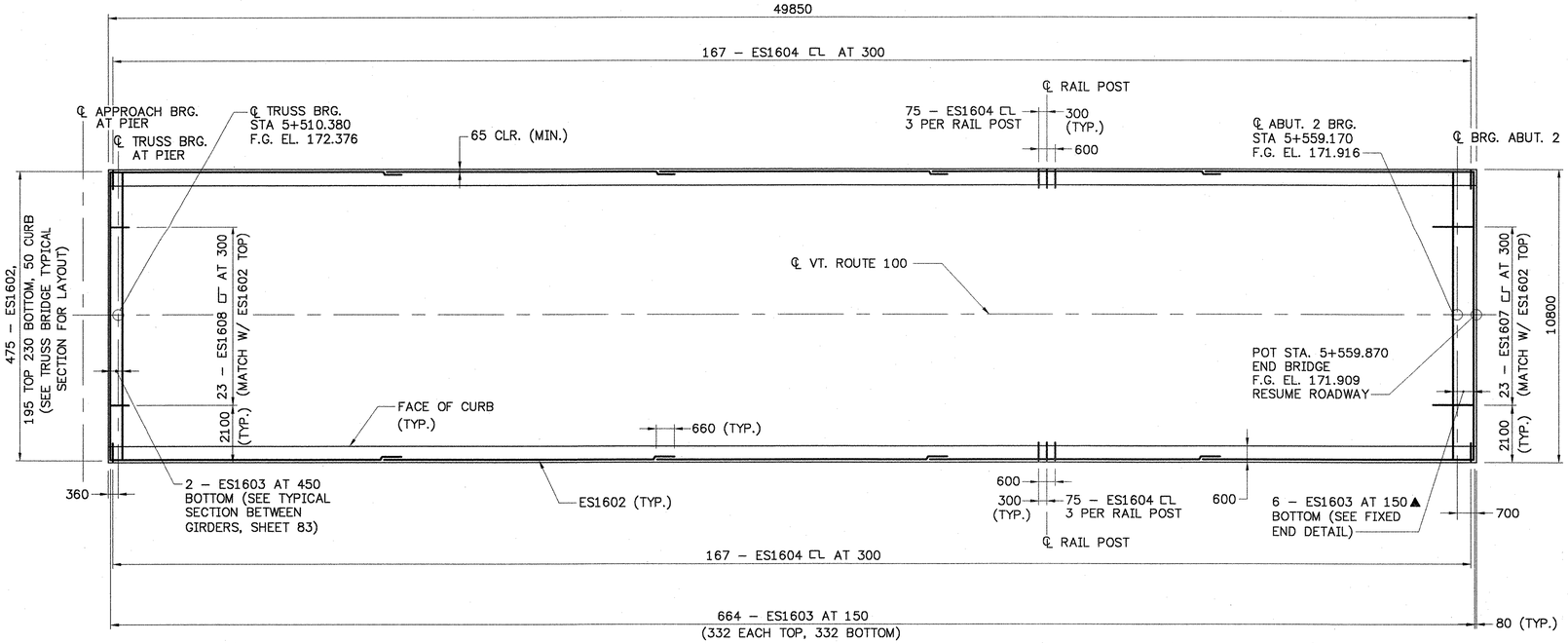
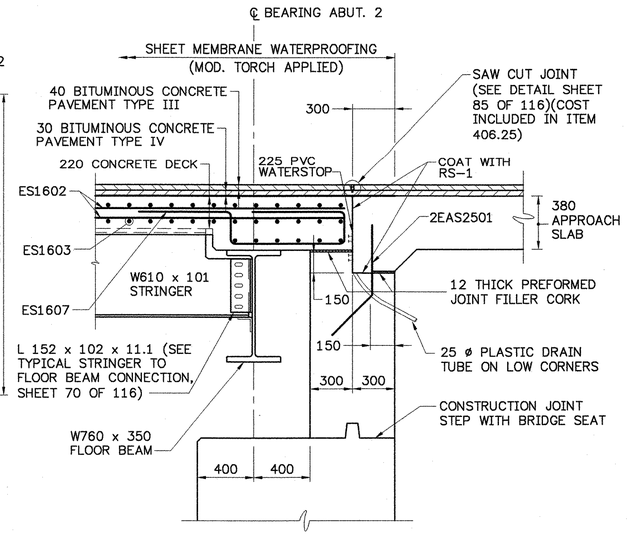


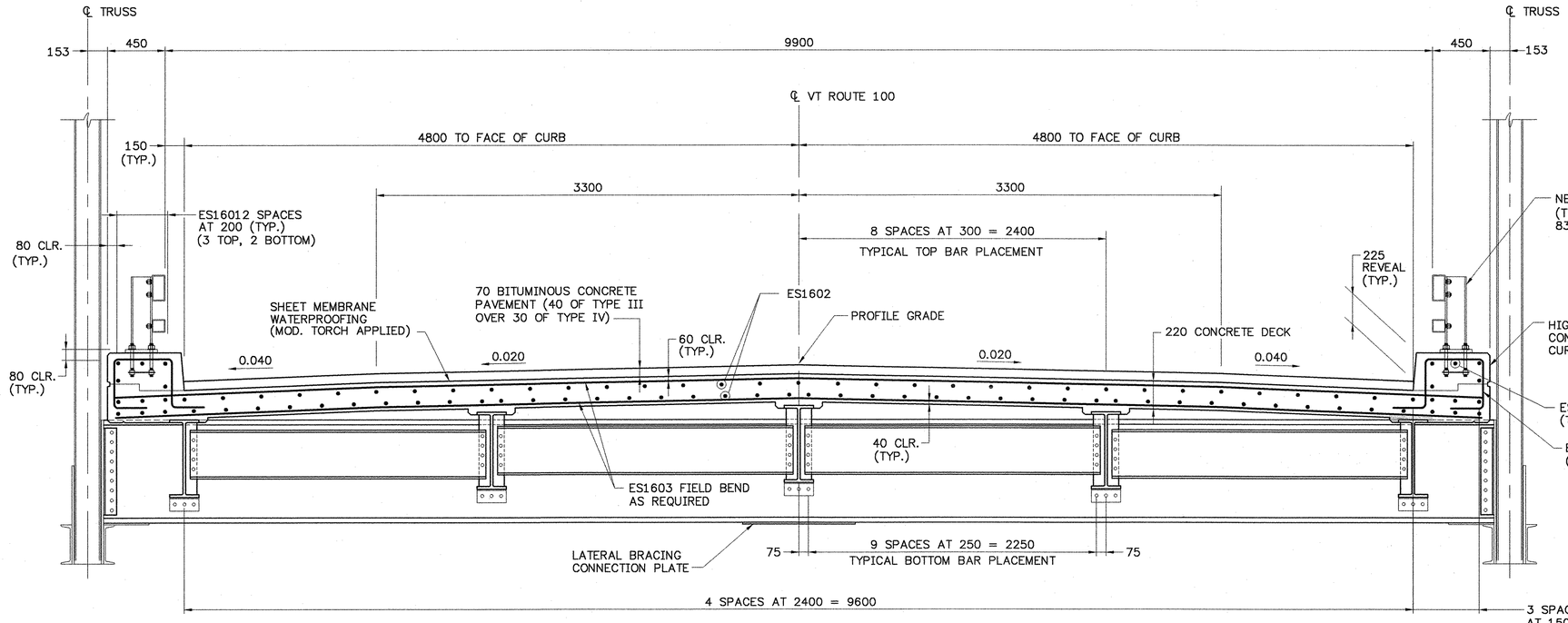
TRUSS BRIDGE DECK PLAN

SCALE 1:100



FIXED END DETAIL AT ABUTMENT NO. 2

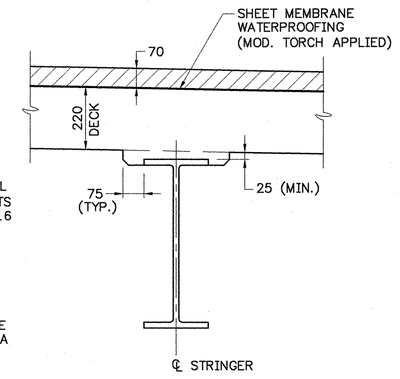
SCALE 1:20



TRUSS BRIDGE TYPICAL DECK SECTION

SCALE 1:20

NOTE: SEE TYPICAL STRINGER TO FLOOR BEAM CONNECTION, SHEET 70 OF 116



STRINGER HAUNCH DETAIL

SCALE 1:10

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

DECK DETAILS – TRUSS

Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 66 Of 116

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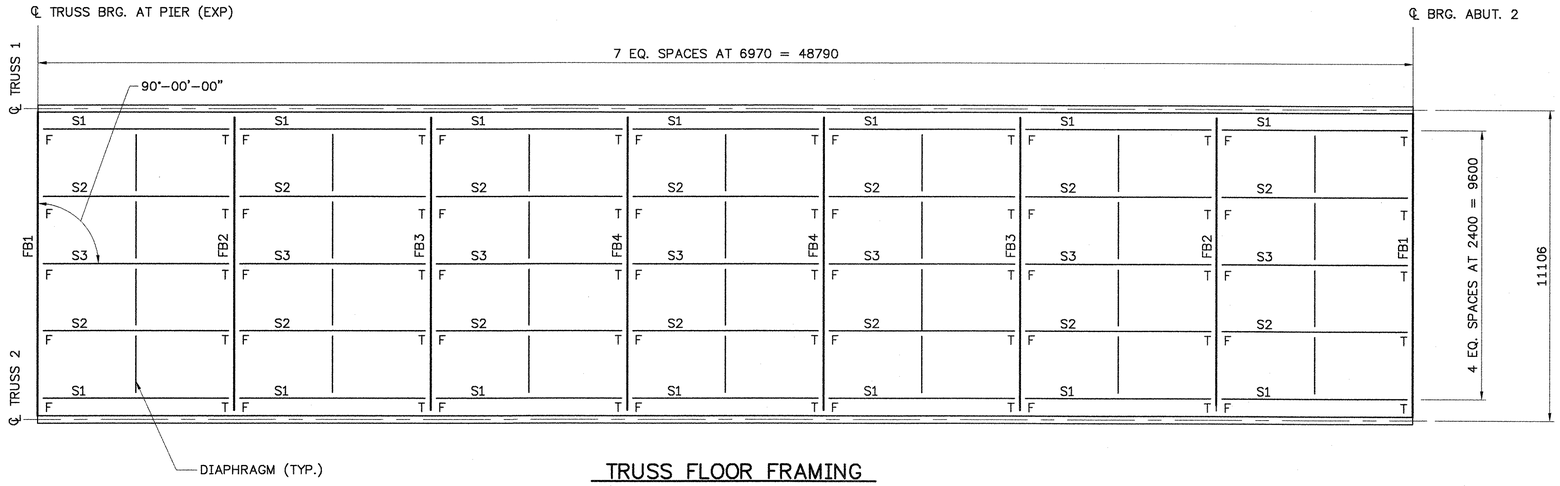
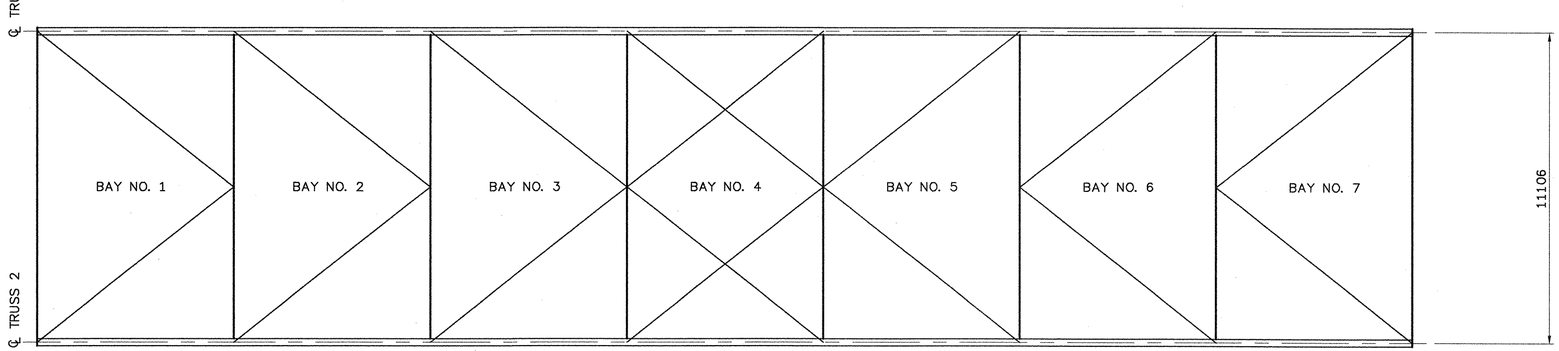


TRUSS FLOOR FRAMING



BOTTOM LATERAL BRACING

(SEE CONSTRUCTION SEQUENCE NOTE 4)

CONSTRUCTION SEQUENCE PLAN

SCALE 1:100

CONSTRUCTION SEQUENCE NOTES

1. DURING CONSTRUCTION THE STRINGERS ARE TO BE SET IN SUCH A MANNER AS TO PERMIT ISOLATED MOVEMENT BETWEEN THE STRINGER AND FLOOR BEAM DECK FROM THE BOTTOM CHORD MOVEMENT. SLOTTED CONNECTIONS AT THE END OF THE STRINGERS WILL ALLOW FOR FLEXIBILITY IN PLACEMENT DURING CONSTRUCTION.
2. THE END OF THE STRINGER DESIGNATED ON THE CONSTRUCTION SEQUENCE PLAN AS "T" SHALL HAVE ALL THE HIGH STRENGTH BOLTS TENSIONED IN ACCORDANCE WITH CONTRACT DOCUMENTS.
3. THE END OF THE STRINGER DESIGNATED ON THE CONSTRUCTION SEQUENCE PLAN AS "F" SHALL HAVE HIGH STRENGTH FINGER TIGHT BOLTS THAT ALLOW FOR SLIP DURING THE CONCRETE DECK POUR. WITHIN 24 HOURS OF THE DECK POUR, THE FINGER TIGHT BOLTS SHALL BE REMOVED AND REPLACED, IF REQUIRED, AND TENSIONED IN ACCORDANCE WITH CONTRACT DOCUMENTS. NO MORE THAN 2 BOLTS PER STRINGER MAY BE REMOVED OR REPLACED AT A TIME.
4. POURING OF THE CONCRETE DECK FOR THE TRUSS BRIDGE SHALL BEGIN AT THE CENTER OF THE SPAN (BAY NO. 4) AND PROCEED EVENLY TOWARDS BOTH ENDS OF THE BRIDGE. ALTERNATE POURING SEQUENCES MAY BE APPROVED IF THE CONTRACTOR'S SCHEME DOES NOT INDUCE UNDESIRABLE STRESS CONCENTRATIONS IN THE TRUSS MEMBERS.

NOTES

T = TENSIONED H.S. BOLT CONNECTION SEE CONSTRUCTION SEQUENCE NOTE 2.

F = FINGER TIGHT BOLTS FOR POUR CONNECTION SEE CONSTRUCTION SEQUENCE NOTE 3.

S = STRINGER

FB = FLOOR BEAM

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
CONCRETE PLACEMENT SCHEDULE – TRUSS	
Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 67 Of 116

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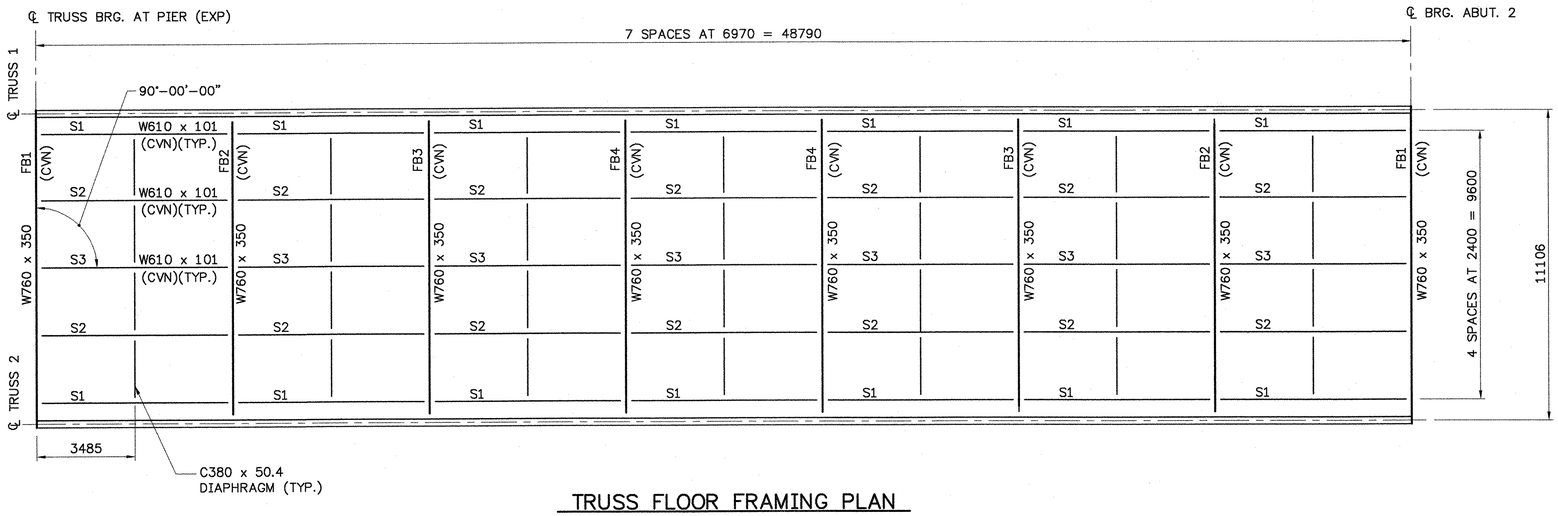
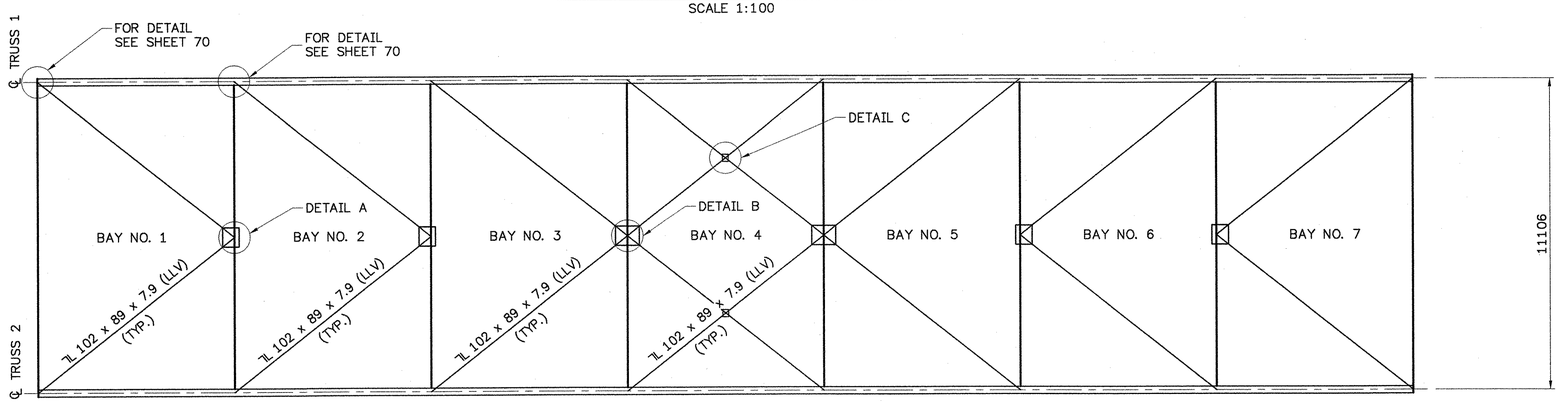


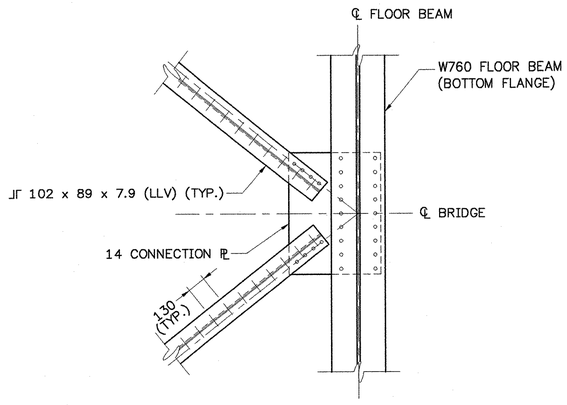
TRUSS FLOOR FRAMING PLAN

SCALE 1:100



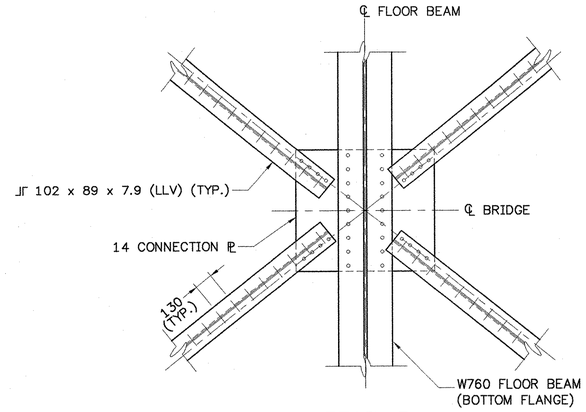
BOTTOM LATERAL BRACING PLAN

SCALE 1:100



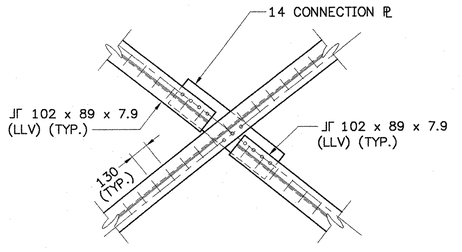
DETAIL A

SCALE 1:20



DETAIL B

SCALE 1:20



DETAIL C

SCALE 1:20

NOTE

LLV = LONG LEG VERTICAL
S = STRINGER
FB = FLOOR BEAM
CVN = MEMBERS REQUIRING A CHARPY V–NOTCH TEST. SEE SECTION 714.01 OF STANDARD SPECIFICATIONS.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

FRAMING PLAN – TRUSS

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 68 Of 116

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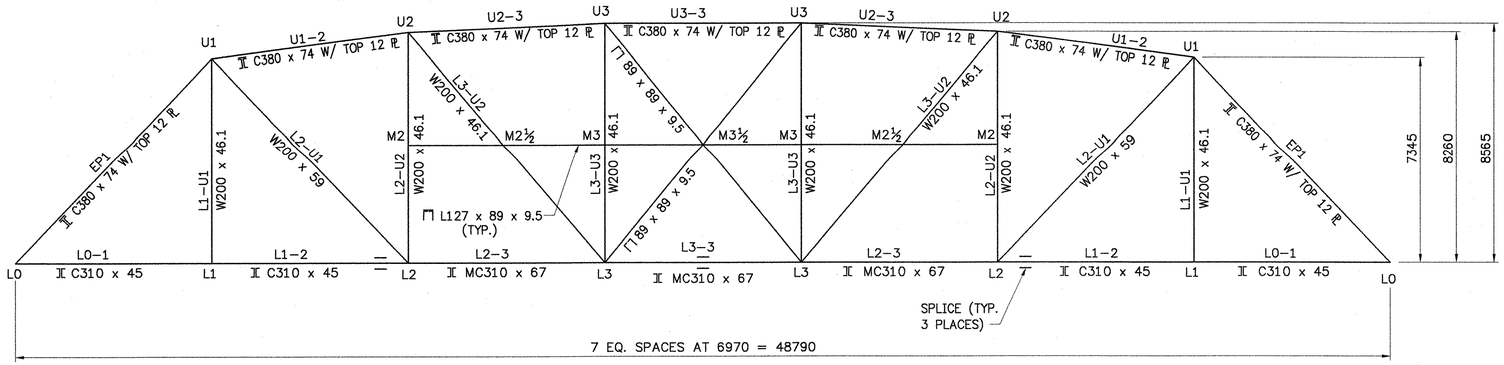
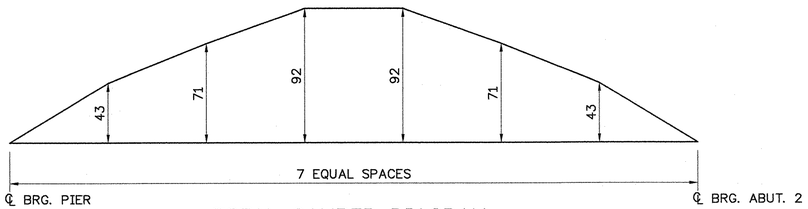


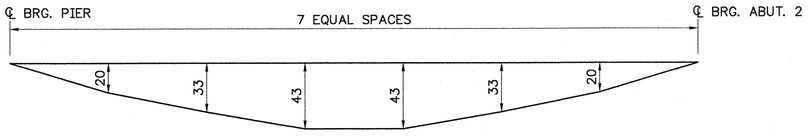
ELEVATION VIEW

SCALE 1:100



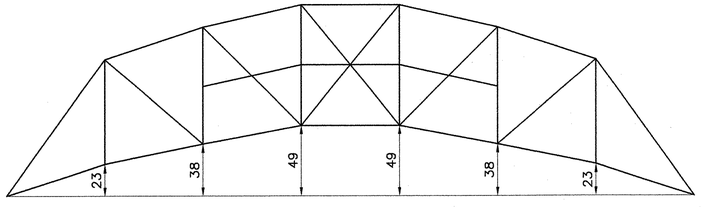
TOTAL CAMBER DIAGRAM

SCALE: HORIZONTAL 1:200
VERTICAL 1:20000



DEAD LOAD DEFLECTION

SCALE: HORIZONTAL 1:200
VERTICAL 1:20000



RESIDUAL CAMBER DIAGRAM

SCALE: HORIZONTAL 1:200
VERTICAL 1:20000

NOTE: THIS CAMBER TO BE RETAINED AFTER DEAD LOAD IS APPLIED.

TRUSS CONNECTION NOTES

1. THE TRUSS FABRICATOR SHALL COMPLETE THE CONNECTION DETAILS, INCLUDING THE NUMBER AND SPACING OF BOLTS, AND THE THICKNESS AND GEOMETRY OF THE GUSSET OR CONNECTION PLATES, WHILE PREPARING THE SHOP AND ERECTION DRAWINGS IN ACCORDANCE WITH THE AISC CODE OF STANDARD PRACTICE FOR STEEL BUILDING AND BRIDGES, MARCH 7, 2000. REFER TO THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, AND ITS LATEST REVISIONS, THE VERMONT AGENCY OF TRANSPORTATION 2001 STRUCTURES MANUAL AND THE CONTRACT DOCUMENTS FOR SPECIFIC CONNECTION DESIGN REQUIREMENTS. THE FABRICATOR SHALL SUBMIT THE CONNECTION DETAILS TO THE VERMONT AGENCY OF TRANSPORTATION FOR APPROVAL. THE CONNECTION DESIGN SHALL BE COMPLETED BY A VERMONT LICENSED PROFESSIONAL ENGINEER. ALL CONNECTIONS SHOWN ARE SCHEMATIC ONLY.
2. MAIN TRUSS MEMBERS SHALL BE DESIGNED FOR THE LOADS GIVEN IN THE TABLE BELOW.
3. SECONDARY MEMBER CONNECTIONS, INCLUDING ALL PORTAL MEMBERS, TOP STRUTS AND SWAY BRACING, AND TOP AND BOTTOM LATERAL BRACING, SHALL BE DESIGNED FOR 75% OF THE DESIGN STRENGTH OF THE CONNECTED MEMBER. FOR SECONDARY CONNECTIONS THE NUMBER OF BOLTS SHOWN SHALL BE THE MINIMUM NUMBER OF BOLTS PROVIDED (ACTUAL NUMBER OF BOLTS REQUIRED PER DESIGN MAY EXCEED THE MINIMUM SHOWN). THE MINIMUM GUSSET OR CONNECTION PLATE THICKNESS SHALL BE AS SHOWN.
4. FLOOR BEAM, STRINGERS, INTERMEDIATE DIAPHRAGM, AND BOTTOM CHORD SPLICE COONECTIONS ARE SHOWN.
5. BOLTED TRUSS CONNECTIONS AND SPLICES SHALL BE DESIGNED AS "SLIP CRITICAL" AS DEFINED IN AASHTO 10.24.1.4 AND AASHTO 10.56.1.4 USING CLASS "B" SLIP COEFFICIENTS. WHERE THE TRUSS CONNECTIONS ARE SUBJECT TO LINEAR LOADS, THE FORMULA GIVEN IN AASHTO 10.57.3.1 SHALL BE CHECKED. IN ADDITION ALL BOLTED TRUSS CONNECTIONS AND SPLICES SHALL BE CHECKED AS BEARING TYPE CONNECTIONS. DESIGN JOINTS WITH BOLT THREADS EXCLUDED FROM THE SHEAR PLANE.
6. IN ACCORDANCE WITH AASHTO 10.18.1.1, CONNECTIONS AND SPLICES FOR MAIN TRUSS MEMBERS SHALL BE DESIGNED FOR SERVICE LOAD AND LOAD FACTOR DESIGN USING THE AVERAGE OF REQUIRED DESIGN STRENGTH AND MAXIMUM DESIGN STRENGTH OF THE MEMBER AT THE POINT OF THE CONNECTION, BUT NOT LESS THAN 75% OF THE MAXIMUM DESIGN STRENGTH OF THE MEMBER.
7. BOLTED CONNECTIONS FOR TRUSS COMPRESSION MEMBERS SHALL BE DESIGNED WITH ENDS IN CLOSE CONTACT PER AASHTO 10.18.3 AND SHALL BE FABRICATED AND ERECTED WITH CLOSE INSPECTION AND DETAILED WITH MILLED ENDS IN FULL CONTACT BEARING. BOLTED CONNECTIONS FOR TRUSS TENSION MEMBER CONNECTIONS AND SPLICES SHALL BE DESIGNED IN ACCORDANCE WITH AASHTO 10.18.4.
8. HIGH STRENGTH BOLTS FOR THE TRUSS CONNECTIONS SHALL REQUIRE TESTING AND RE-CERTIFICATIONS SHALL BE CHECKED TWO WEEKS AFTER INITIAL TIGHTENING IN ACCORDANCE WITH SPECIAL PROVISIONS.

SUMMARY OF MAXIMUM TRUSS LOADS

MEMBER TYPE	TRUSS MEMBER DESIGNATIONS	TENSION OR COMPRESSION	TOTAL DEAD LOADS (kN)	LIVE LOAD IMPACT FACTOR	MAXIMUM SERVICE LOAD (2) (4) (kN)	MAXIMUM DESIGN LOAD (2) (5) (kN)	MAXIMUM OVERLOAD (2) (6) (kN)	MAXIMUM FATIGUE LOAD (3) (4) (kN)
BC	L0–1, L1–2	T	1043	1.3 (1)	1553	2462	1967	1406
		C						
BC	L2–3	T	1550	1.3 (1)	2295	3629	2919	2088
		C						
BC	L3–3	T	1779	1.3 (1)	2593	4078	3280	2368
		C						
EP	EP1	T						
		C	1522	1.3 (1)	2264	3587	2865	2050
TC	U1–2, U2–3, U3–3	T						
		C	1815	1.3 (1)	2652	4189	3384	2421
TV	L1–U1	T	331	1.3	773	1389	1070	603
		C						
TV	L2–U2	T		1.3	471	253	195	
		C	203	1.3	39	845	651	368
TV	L3–U3	T	28	1.3	86	359	277	120
		C		1.3	177	206	159	44
MTD	L2–U1	T	739	1.3	1213	1987	1530	1030
		C						
MTD	L3–U2	T	383	1.3	788	1372	1057	632
		C						
CTCB	U3–L3, L3–M3½, M3½–U3	T	29	1.3	204	415	320	136
		C				283	218	65
HTB	M2–2½, M2½–3, M3–3½	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NOTES

1. FOR TOP AND BOTTOM CHORD MEMBERS, THE IMPACT FACTOR OF 30% IS CONSERVATIVE FOR LANE LOADS. FOR THE TRUSS LENGTH IN THE IMPACT EQUATION I=17.5%
2. LIVE LOAD IS BASED ON MS22.5 TRUCK AND LANE LOADS FOR SERVICE (ASD) LOAD, MAXIMUM DESIGN (LFD) LOAD, AND OVERLOAD.
3. LIVE LOAD IS BASED ON MS18 TRUCK AND LANE LOADS FOR FATIGUE LOAD.
4. SERVICE LOAD (ASD) AND FATIGUE LOAD COMBINATION= 1.0DL + 1.0(LL+I)
5. MAXIMUM DESIGN (LFD) LOAD COMBINATION= 1.3(1.0(DL) + 1.67(LL+I)) = 1.3(DL) + 2.17(LL+I)
6. OVERLOAD COMBINATION= 1.0(DL) + 1.67(LL+I)
7. ALL MAIN TRUSS MEMBERS AND PLATES SHALL REQUIRE A CHARPY V-NOTCH TEST. SEE SECTION 714.01 OF STANDARD SPECIFICATIONS.

MEMBER TYPE

EP	END POST
TC	TOP CHORD
BC	BOTTOM CHORD
MTD	MAIN TRUSS DIAGONAL
TV	TRUSS VERTICAL
CTCB	CENTER TRUSS CROSS BRACING
HTB	HORIZONTAL TRUSS BRACING

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

ELEVATION – TRUSS

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 69 Of 116

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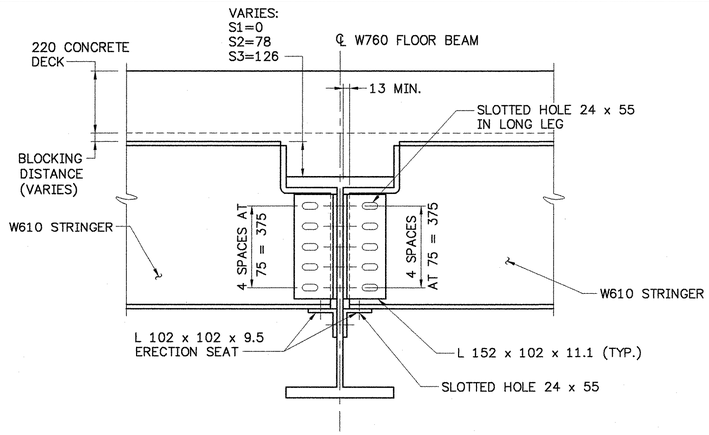

TYPICAL STRINGER TO FLOOR BEAM CONNECTION

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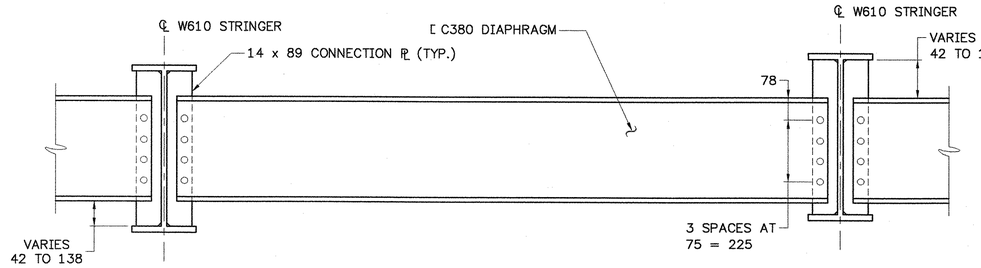

TYPICAL INTERMEDIATE DIAPHRAGM

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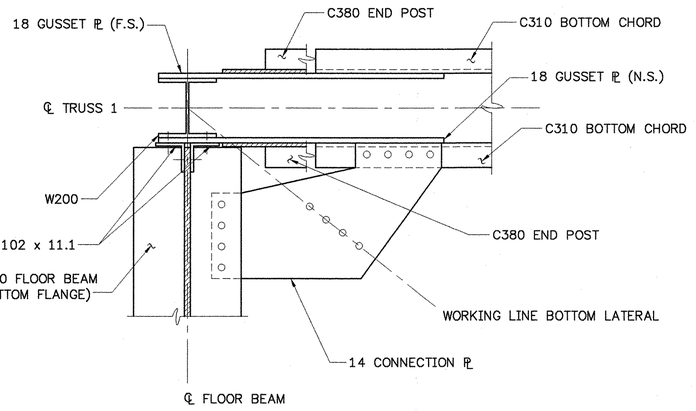
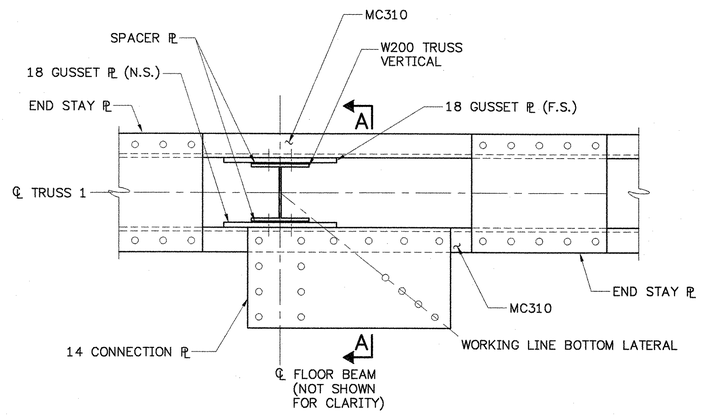


PLAN VIEW PANEL POINT L0 CONNECTION DETAIL

(TRUSS 1 SHOWN)

SCALE 1:10



PLAN VIEW PANEL POINT L1 CONNECTION DETAIL

(TRUSS 1 SHOWN)

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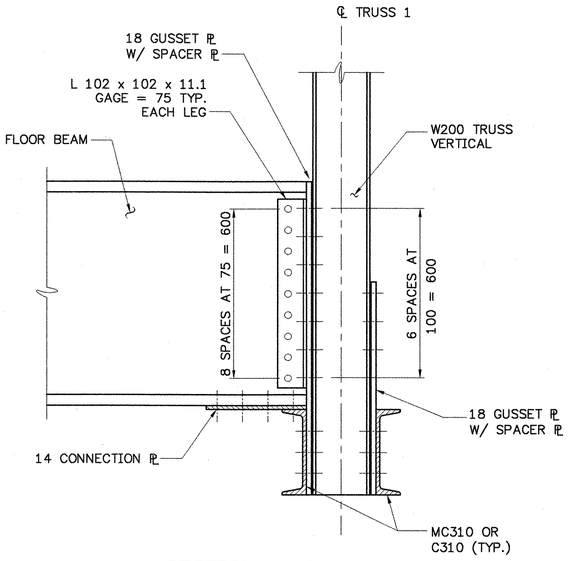

SECTION A–A

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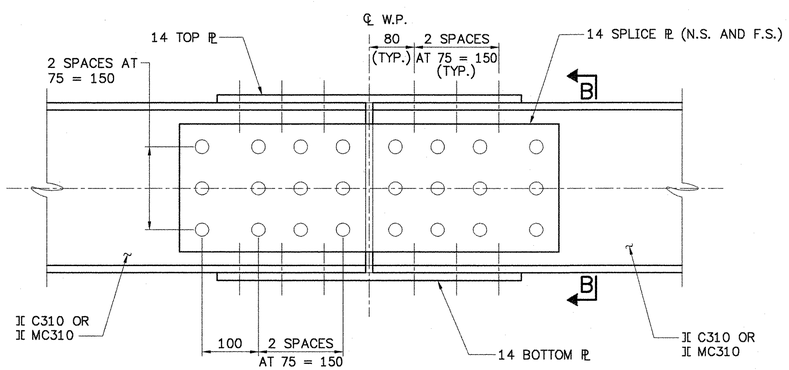
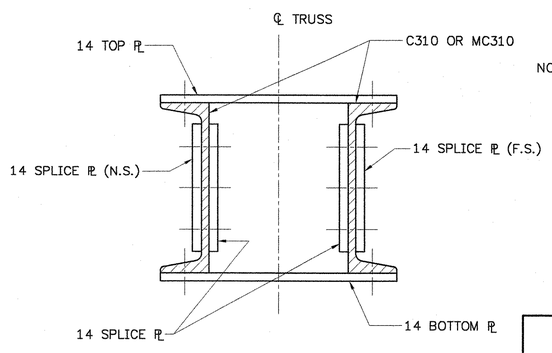


TYPICAL SPLICE DETAIL (BOTTOM CHORD)

SCALE 1:5



SECTION B–B

SCALE 1:5

NOTE: AT SPLICE WITH C310 AND MC310 A 5 mm FILLER PLATE IS NEEDED TYP. EACH SIDE (NOT SHOWN).

NOTE

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STATE OF VERMONT
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Town Of JAMAICA	Bridge No. 80
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Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

TRUSS DETAILS (1 OF 4)

Designed By LKP	Drawn By. MWS
Checked By Date LMM 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 70 Of 116

CONSULTING ENGINEERS
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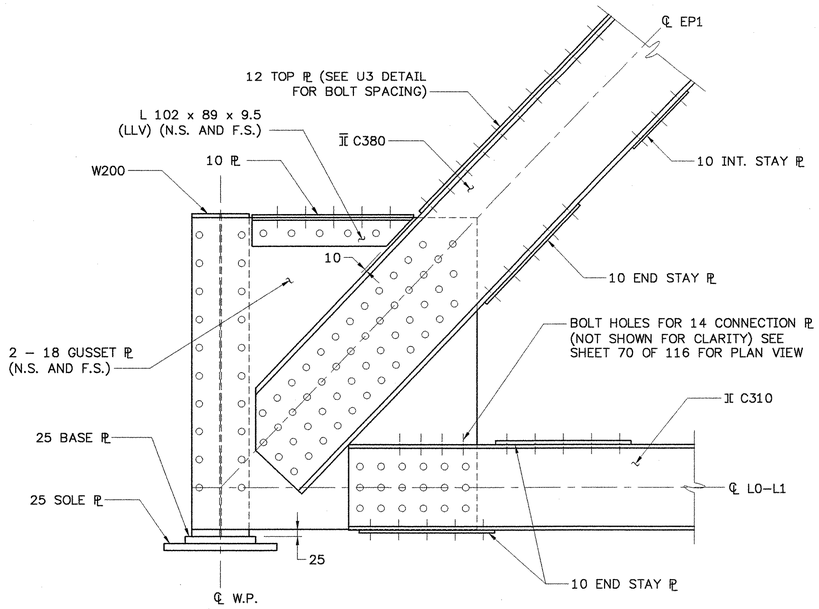
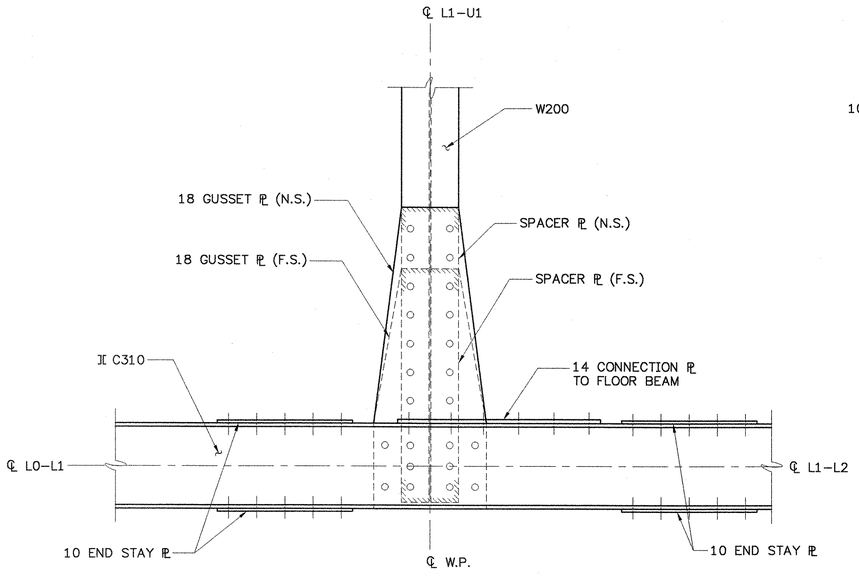


L0 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
SCALE 1:10



L1 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
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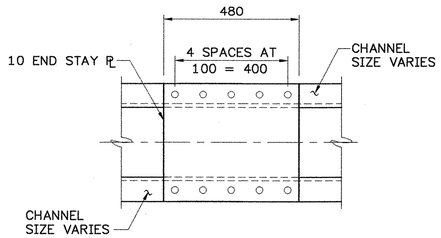

TYPICAL END STAY PLATE FOR UPPER AND LOWER CHORD

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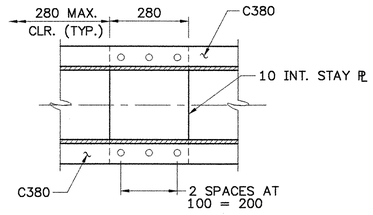
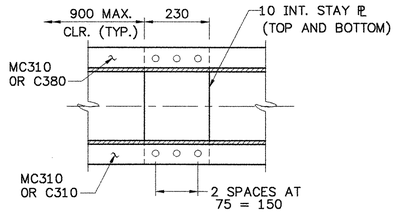


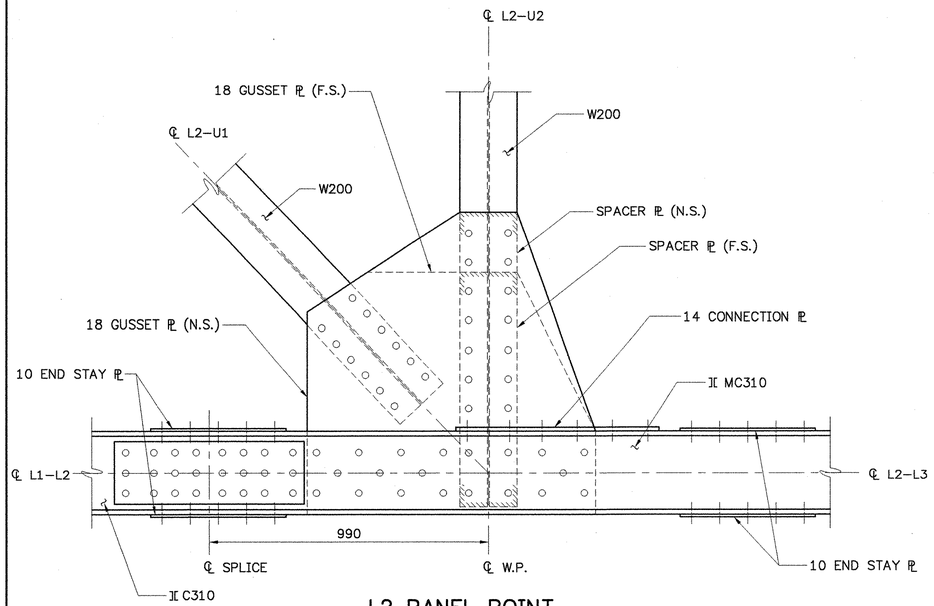
TYPICAL INTERMEDIATE STAY PLATE FOR UPPER CHORD

SCALE 1:10



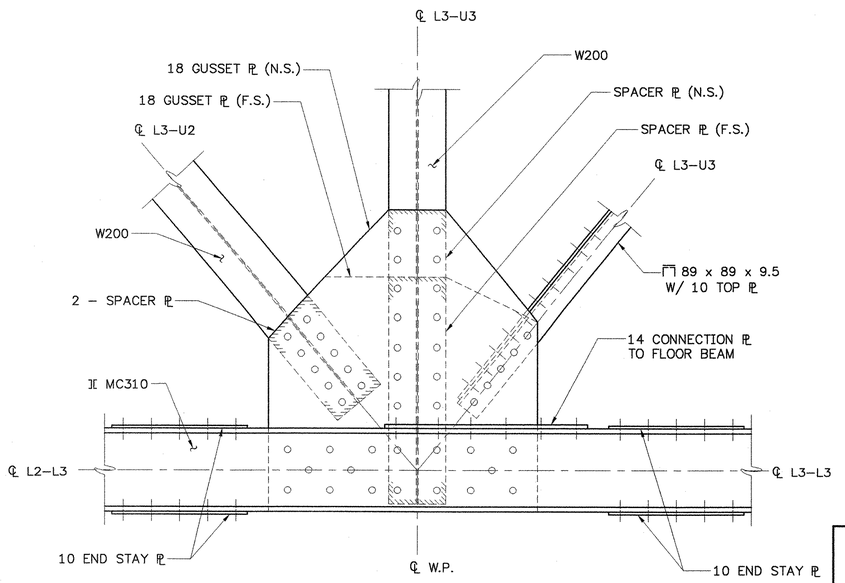
TYPICAL INTERMEDIATE STAY PLATE FOR LOWER CHORD

SCALE 1:10



L2 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
SCALE 1:10



L3 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
SCALE 1:10

NOTE

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STATE OF VERMONT
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Town Of JAMAICA	Bridge No. 80
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TRUSS DETAILS (2 OF 4)

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 71 Of 116

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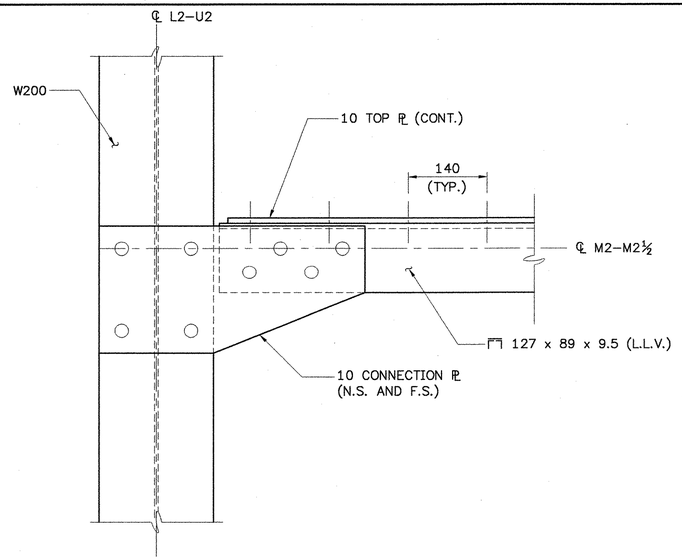
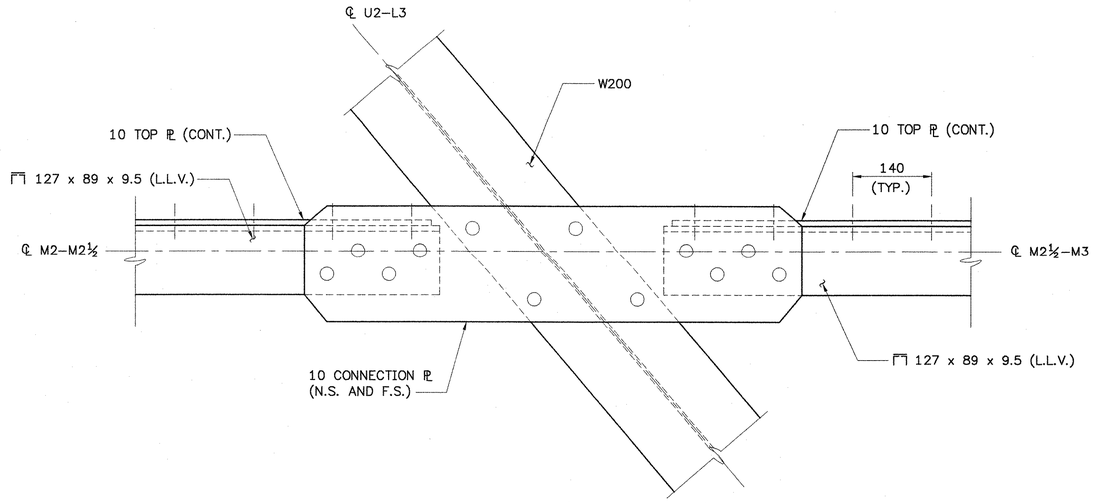
Metric



M2 PANEL POINT CONNECTION DETAIL

SCALE 1:5



M2½ PANEL POINT CONNECTION DETAIL

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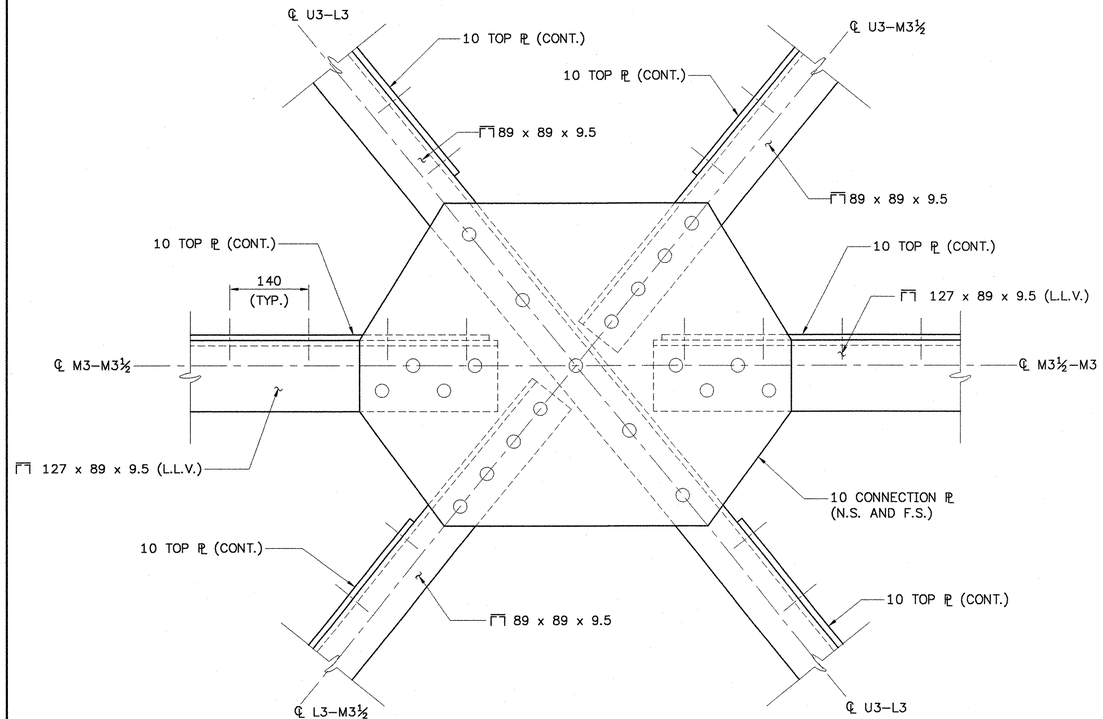
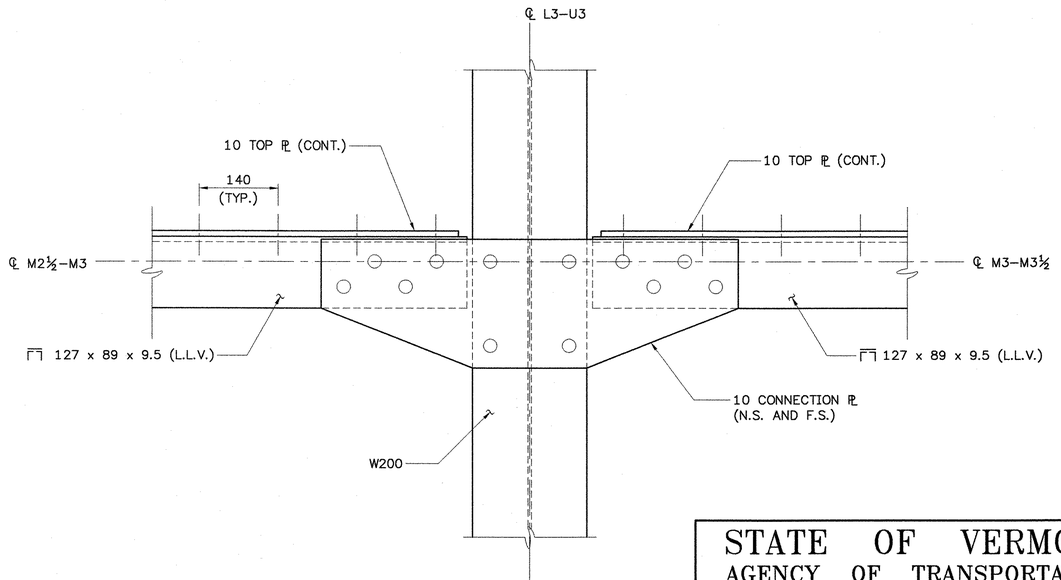


M3½ PANEL POINT CONNECTION DETAIL

SCALE 1:5



M3 PANEL POINT CONNECTION DETAIL

SCALE 1:5

NOTE

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STATE OF VERMONT
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Town Of JAMAICA	Bridge No. 80
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VT. ROUTE 100 OVER THE WEST RIVER

TRUSS DETAILS (3 OF 4)

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 72 Of 116

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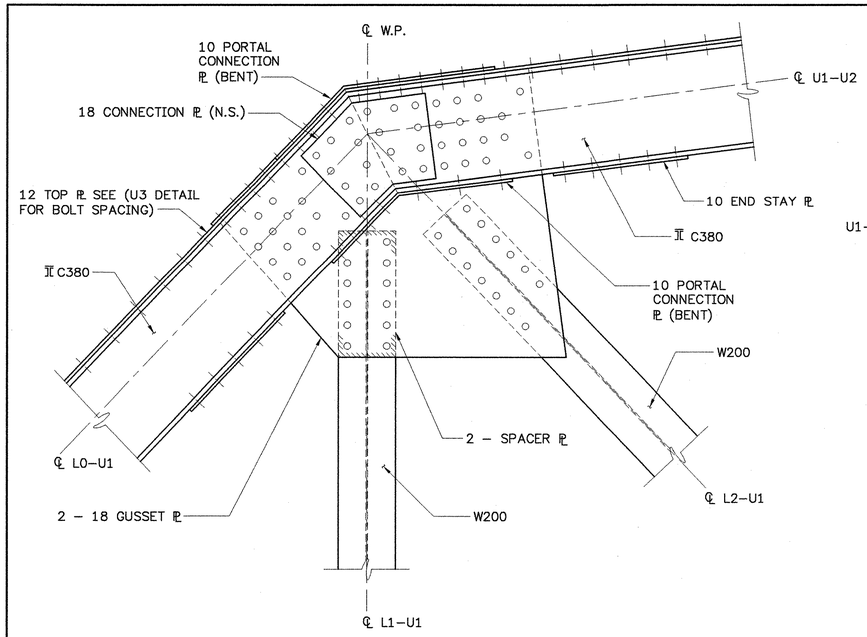
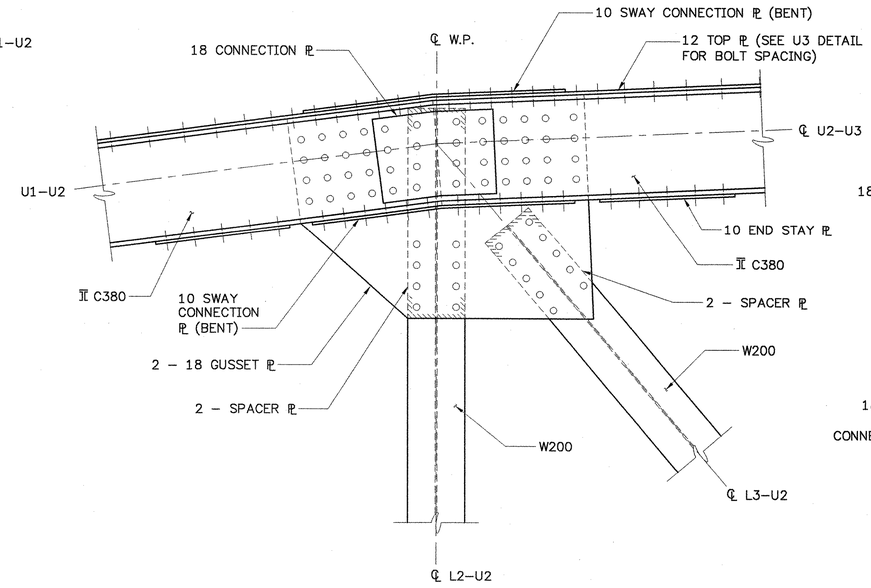


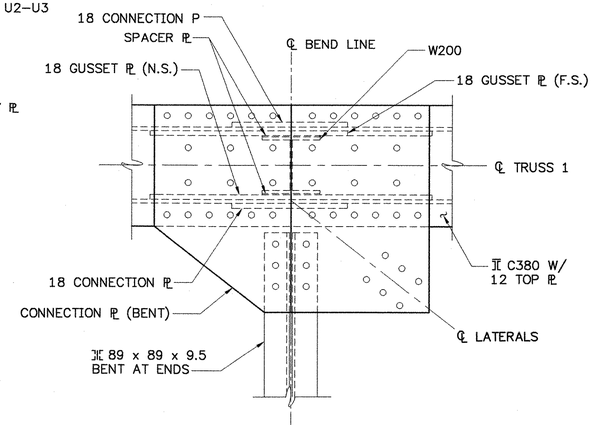
U1 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
SCALE 1:10



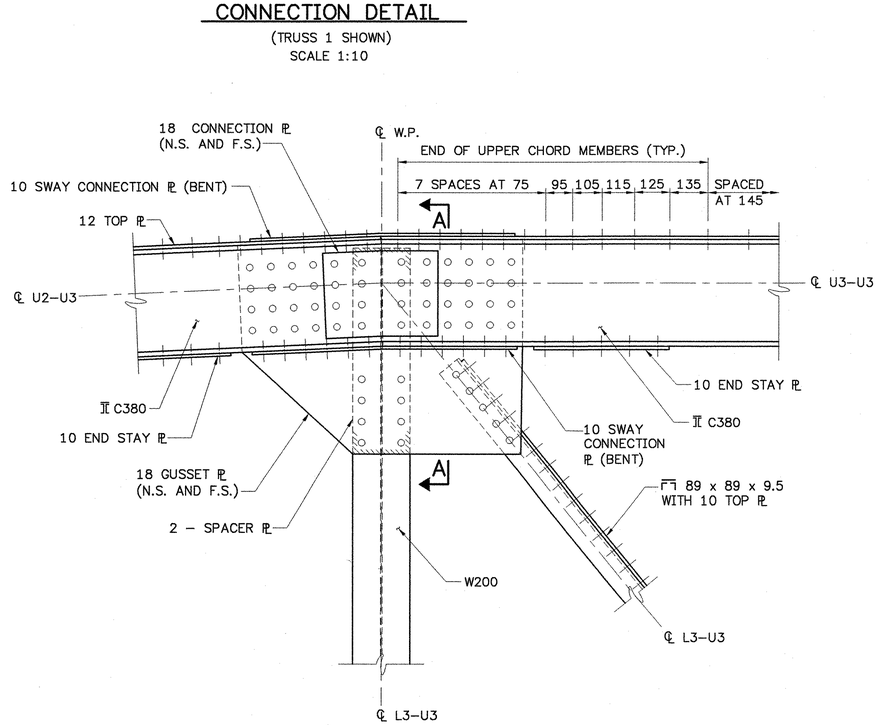
U2 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
SCALE 1:10



PLAN VIEW SWAY BRACING CONNECTION PLATE (TOP)

(U2 SHOWN)
SCALE 1:10



U3 PANEL POINT CONNECTION DETAIL

(TRUSS 1 SHOWN)
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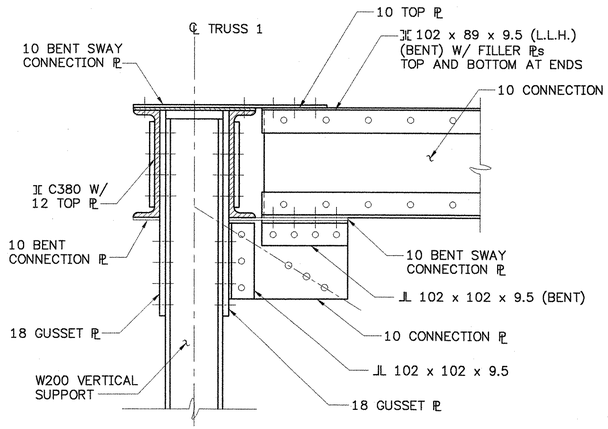
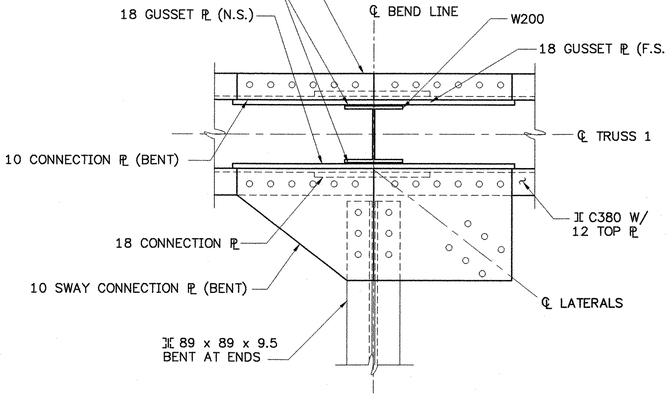


SECTION A–A

SCALE 1:10



PLAN VIEW SWAY BRACING CONNECTION PLATE (BOTTOM)

(U2 SHOWN)
SCALE 1:10

NOTE

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER
TRUSS DETAILS (4 OF 4)

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 73 Of 116

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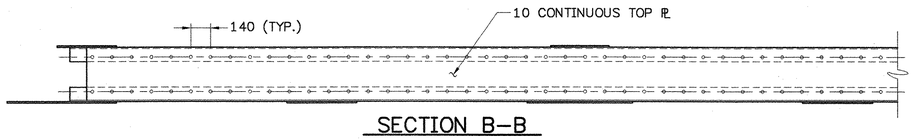
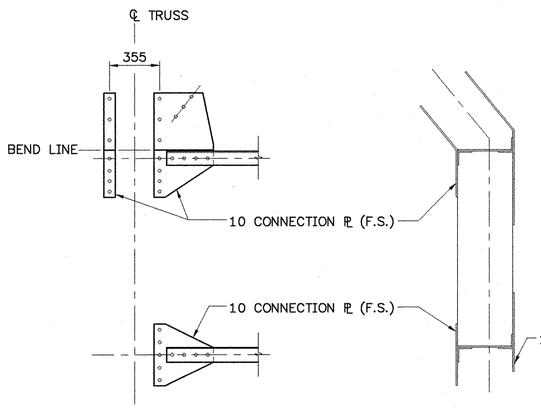
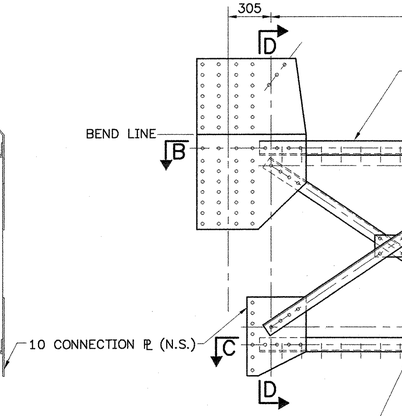
Metric



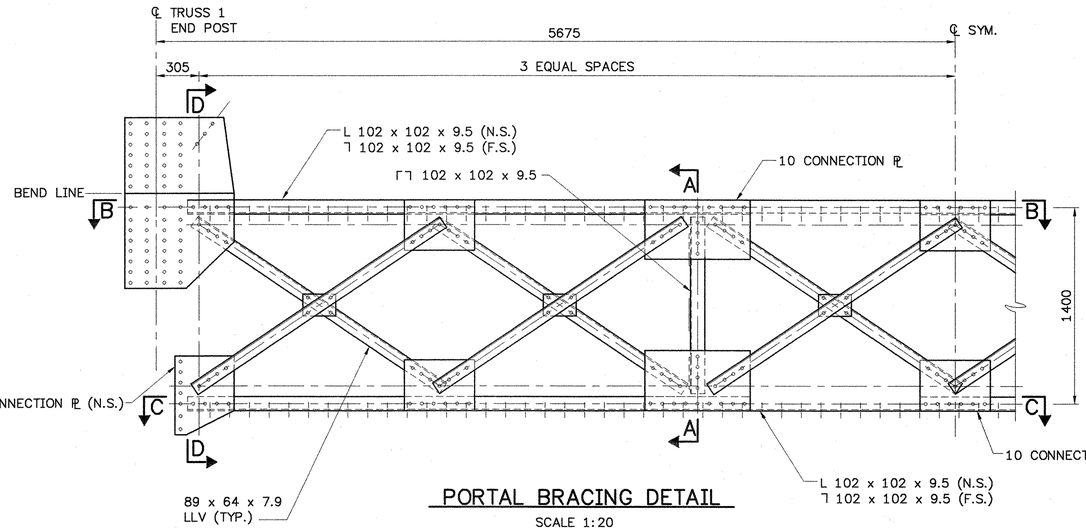
SECTION B–B
SCALE 1:20



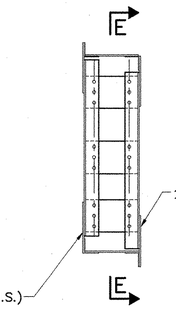
CONNECTION PLATES (FS)
SCALE 1:20



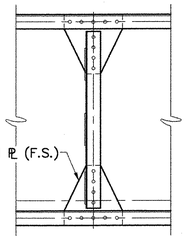
SECTION D–D
SCALE 1:20



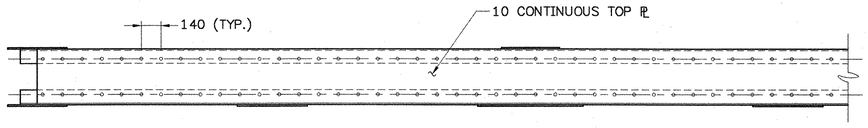
PORTAL BRACING DETAIL
SCALE 1:20



SECTION A–A
SCALE 1:20



SECTION E–E
SCALE 1:20



SECTION C–C
SCALE 1:20

NOTE

N.S. = NEAR SIDE
F.S. = FAR SIDE
L.L.V. = LONG LEG VERTICAL
L.L.H. = LONG LEG HORIZONTAL

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

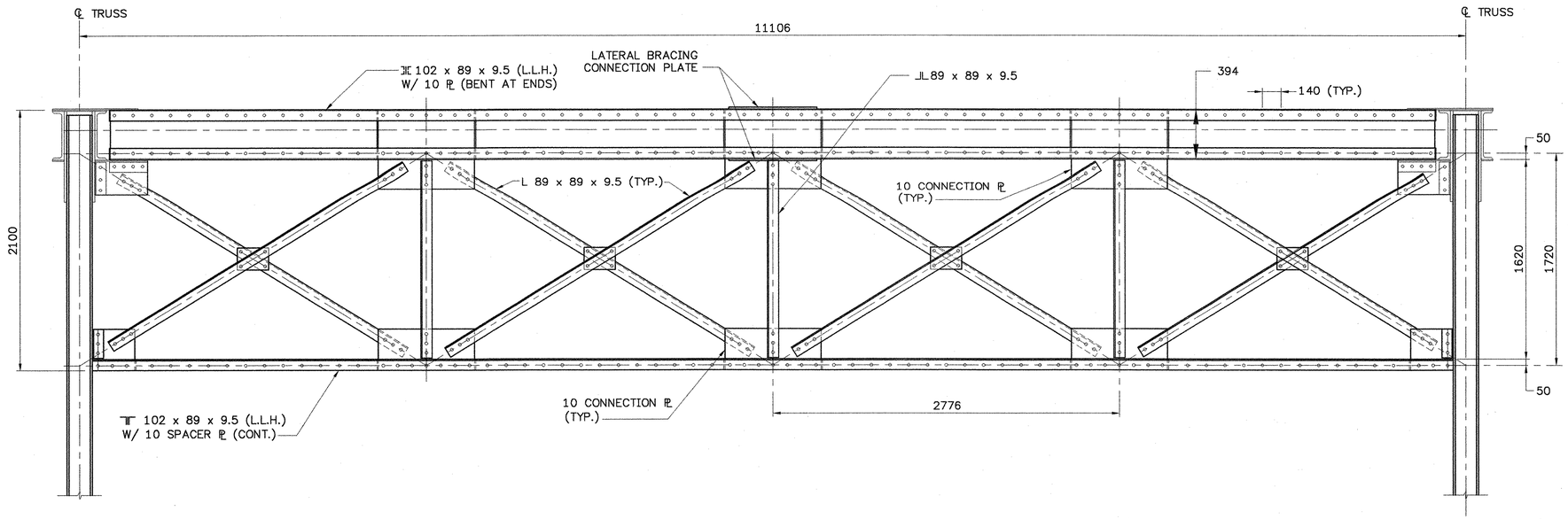
Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

PORTAL DETAILS

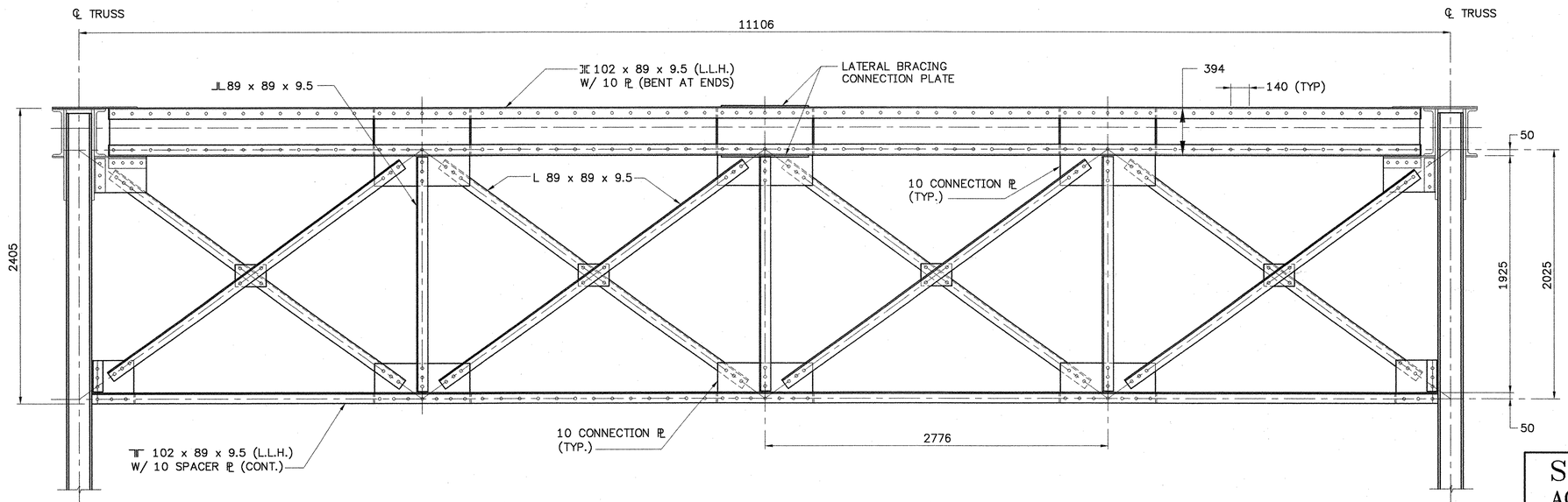
Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 74 Of 116

90284PORTAL.dwg (1=1)



TOP STRUT 1 AND SWAY BRACING

SCALE 1:20



TOP STRUT 2 AND SWAY BRACING

SCALE 1:20

NOTE

N.S. = NEAR SIDE

F.S. = FAR SIDE

L.L.V. = LONG LEG VERTICAL

L.L.H. = LONG LEG HORIZONTAL

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

SWAY BRACING – TRUSS

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF013-1(8)
I.G.C. Info.	
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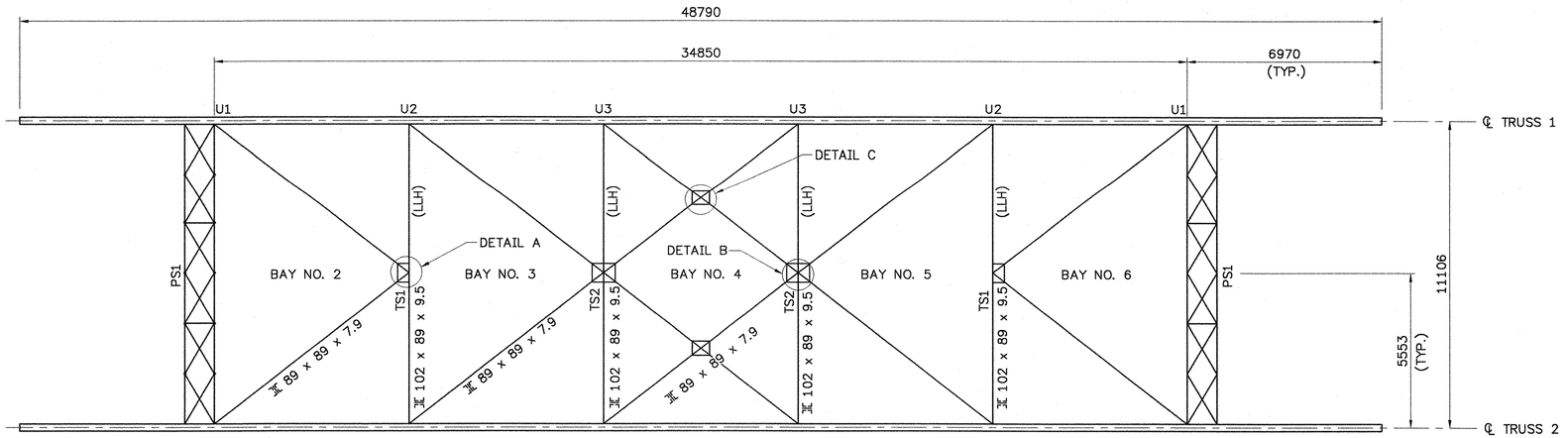
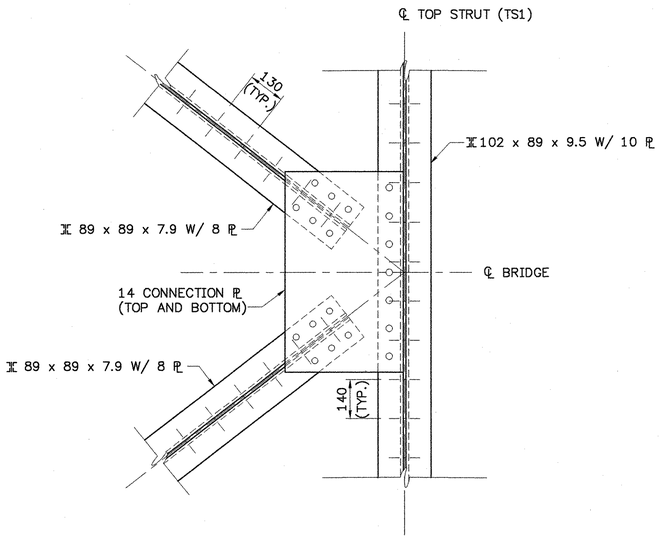
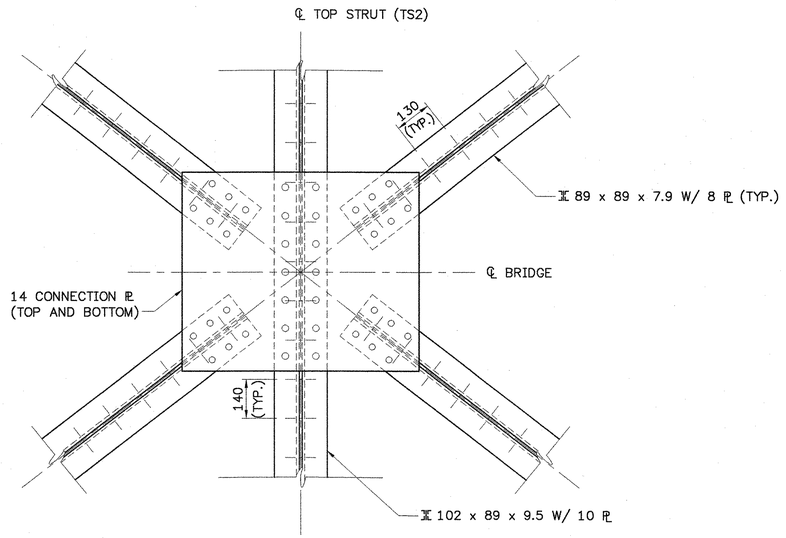
90284SWAY (1=2)



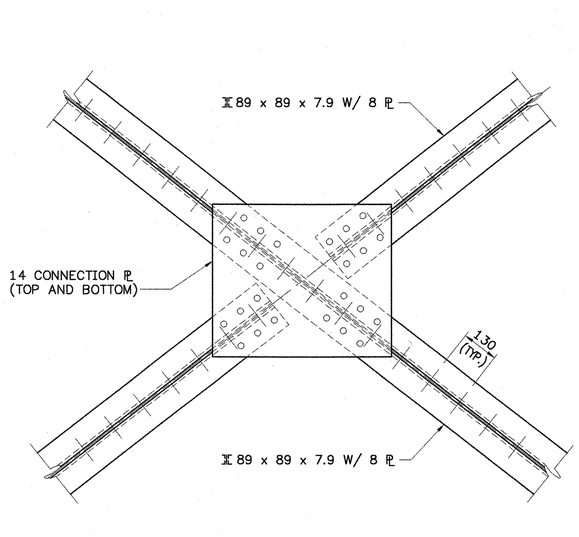
TOP VIEW
SCALE 1:100



DETAIL A
SCALE 1:10



DETAIL B
SCALE 1:10



DETAIL C
SCALE 1:10

NOTE
LLV = LONG LEG VERTICAL
S = STRINGER
FB = FLOOR BEAM

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

TOP LATERALS – TRUSS

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date LMM
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
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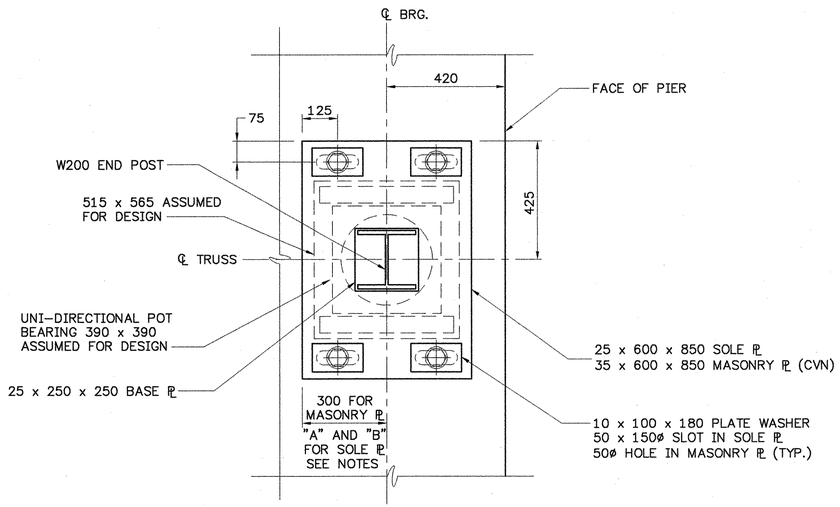
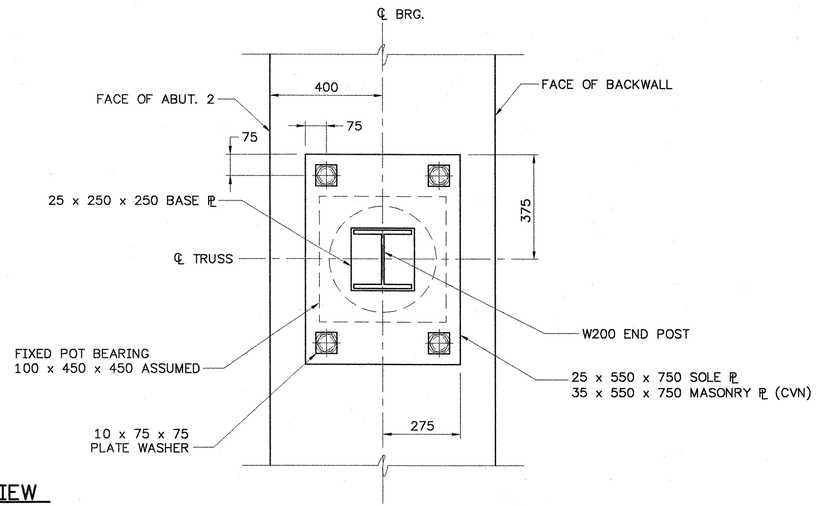
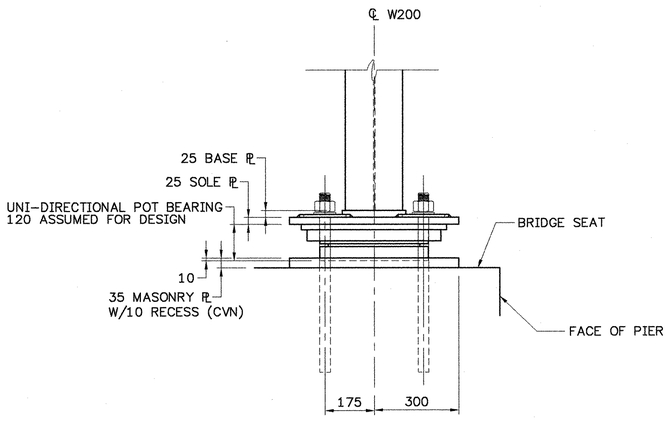
90284LAT.dwg



PLAN VIEW

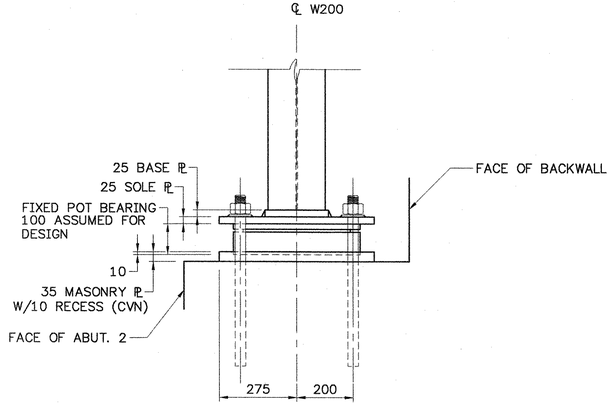
SCALE 1:10

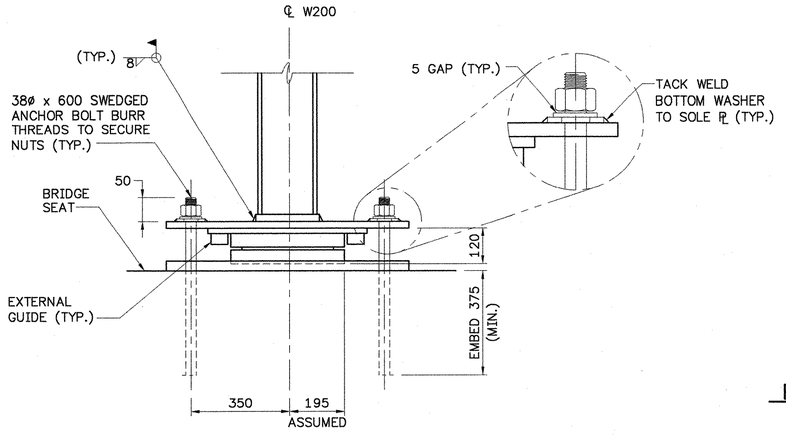




SIDE VIEW

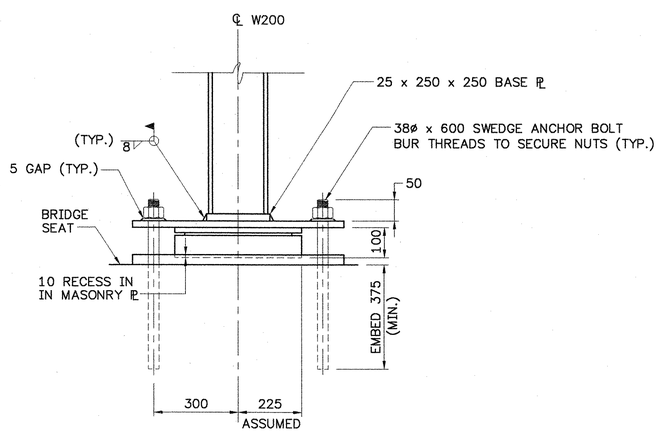
SCALE 1:10





FRONT VIEW

SCALE 1:10



UNI-DIRECTIONAL BEARING DETAILS

FIXED BEARING DETAILS

SOLE PLATE SETTING NOTES

1. "A" IS THE DISTANCE AFTER THE CONCRETE SLAB, CURB, PAVEMENT AND BRIDGE RAIL ARE PLACED.
2. "B" IS THE DISTANCE AFTER THE STRUCTURAL STEEL IS ERECTED AND BEFORE THE CONCRETE DECK IS POURED.
3. THE DIFFERENCE BETWEEN "A" AND "B" IS THE THEORETICAL MOVEMENT OF THE TRUSS FRAMING DUE TO DEAD LOAD DEFLECTION.
4. ATTAIN THE "A" DISTANCE WITHIN 3 mm.

SOLE PLATE SETTING DIMENSIONS FOR TRUSS

TEMP	A (mm) FINAL DISTANCE	B (mm) INITIAL DISTANCE
−30° C	323	340
−20° C	317	334
−10° C	311	328
0° C	306	323
10° C	300	317
20° C	294	311
30° C	289	305
40° C	283	300
50° C	277	294

Metric

STATE OF VERMONT
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VT. ROUTE 100 OVER THE WEST RIVER

BEARING DETAILS (1 OF 2) – TRUSS

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
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Metric

DESIGN MOVEMENTS

BEARING LOCATION	TRUSS	BEARING TYPE	UNFACTORED (SEE NOTE 1)					
			LONGITUDINAL			TRANSVERSE		
			LIVE (SEE NOTE 2)	THERMAL COLD	THERMAL HOT	LIVE (SEE NOTE 2)	THERMAL COLD	THERMAL HOT
			mm	mm	mm	mm	mm	mm
PIER	1	UNI–DIRECTIONAL	+8	–23	+23	0	–1	+1
PIER	2	UNI–DIRECTIONAL	+8	–23	+23	0	+1	–1
ABUT. 2	1	FIXED	0	0	0	0	–1	+1
ABUT. 2	2	FIXED	0	0	0	0	+1	–1

DESIGN LOADS

BEARING LOCATION	TRUSS	BEARING TYPE	UNFACTORED (SEE NOTE 1)					
			VERTICAL LOAD			ROTATION DUE TO LOAD		
			DEAD	LIVE (SEE NOTE 2)	COMBINED (SEE NOTE 3)	DEAD	LIVE (SEE NOTE 2)	COMBINED (SEE NOTE 3)
			kN	kN	kN	RAD	RAD	RAD
PIER	1	UNI–DIRECTIONAL	1340	560	1900	0.003	0.001	0.024
PIER	2	UNI–DIRECTIONAL	1340	560	1900	0.003	0.001	0.024
ABUT. 2	1	FIXED	1340	560	1900	0.003	0.001	0.024
ABUT. 2	2	FIXED	1340	560	1900	0.003	0.001	0.024

TRUSS BEARING NOTES

1. UNFACTORED LOADS AND ROTATIONS ARE PROVIDED IN THE TABLE. AASHTO ARTICLES 14.4 AND 14.4.1 REQUIRE THAT ALL CRITICAL COMBINATIONS OF LOAD AND MOVEMENT (ROTATION) BE CONSIDERED FOR BOTH SERVICE AND FACTORED LOADS (AS SPECIFIED IN AASHTO SECTION 3 OF DIVISION I).
2. INSTANTANEOUS AND LONG–TERM EFFECTS SHALL BE CONSIDERED, BUT THE INFLUENCE OF IMPACT NEED NOT BE INCLUDED PER AASHTO ARTICLE 14.4.
3. UNFACTORED ROTATION BASED ON AASHTO 14.4.1: MINIMUM DESIGN ROTATION = DEAD LOAD + LIVE LOAD + 0.01 RAD FOR FABRICATION AND INSTALLATION TOLERANCES (UNLESS AN APPROVED QC PLAN JUSTIFIES A SMALLER VALUE) + 0.01 RAD FOR ALLOWANCE OF UNCERTAINTIES (UNLESS AN APPROVED QC PLAN JUSTIFIES A SMALLER VALUE).
4. BEARINGS SHALL CONFORM TO APPLICABLE SUBSECTIONS OF SECTIONS 531 AND 731.
5. BEARINGS SHALL CONFORM TO LFD AASHTO STANDARD SPECIFICATION FOR HIGHWAY BRIDGES, 17TH EDITION, AND ITS LATEST REVISIONS.
6. PAY FOR BEARINGS UNDER ITEM 531.10 "BEARING DEVICE ASSEMBLY". INCLUDE MASONRY PLATES, SOLE PLATES, ANCHOR BOLTS, NUTS AND WASHERS.
7. LEVEL THE CONCRETE SURFACES UNDER THE BEARINGS.
8. SUBMIT DESIGNS FOR ALTERNATE BEARINGS FOR APPROVAL. DESIGN AND CERTIFY ALTERNATE BEARINGS TO MEET THE DESIGN PARAMETER SHOWN. MAINTAIN THE ANCHORAGE SYSTEM SHOWN. DESIGNS MAY REVISE BRIDGE SEAT ELEVATION. REVISIONS TO SEAT ELEVATIONS SHALL BE RESPONSIBILITY OF CONTRACTOR.
9. THE CHARPY V–NOTCH TEST SHALL BE REQUIRED FOR BEARING MASONRY PLATES. SEE SECTION 714.01 OF THE STANDARD SPECIFICATIONS.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
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VT. ROUTE 100 OVER THE WEST RIVER

BEARING DETAILS (2 OF 2) – TRUSS

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 78 Of 116

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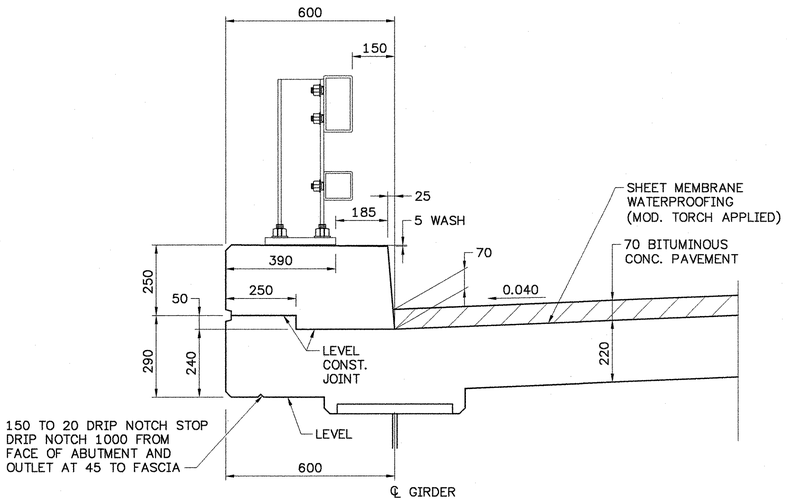
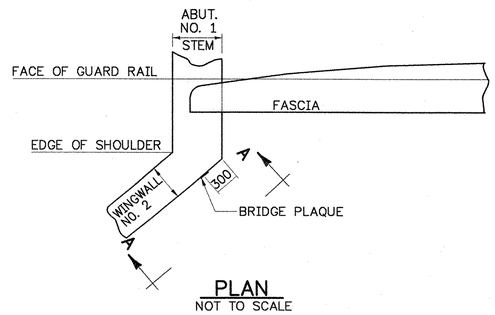


TYPICAL CURB SECTION

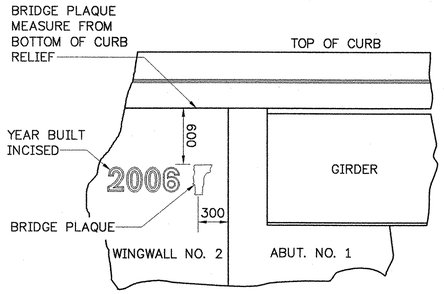
SCALE 1:10



PLAN

NOT TO SCALE

LOCATE BRIDGE PLAQUE

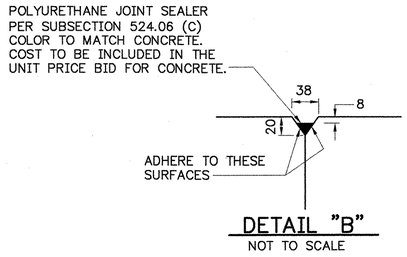


SECTION A–A

NOT TO SCALE

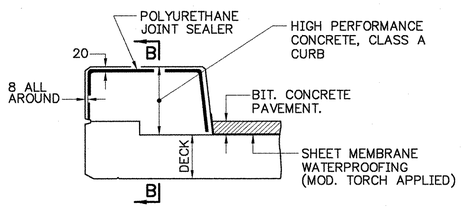
NOTES

1. TWO COATS OF POLYURETHENE MEMBRANE SHALL BE PLACED 100 WIDE ALONG DECK, 80 UP FACE OF CURB AND ALONG CONCRETE SHOULDER AT EXPANSION JOINTS. SEE SPEC. 519.05(B) OF THE 2001 STANDARD SPECIFICATIONS.
2. BLAST CLEAN 900 FROM FACE OF CURB AND 80 UP CURB FACE PRIOR TO PLACING MEMBRANE.
3. SHEET MEMBRANE WATERPROOFING (MOD. TORCH APPLIED) SHALL EXTEND FROM FACE OF CURB TO FACE OF CURB.
4. POLYURETHANE MEMBRANE AND BLAST CLEANING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SHEET MEMBRANE WATERPROOFING (MOD. TORCH APPLIED).
5. CONSTRUCTION JOINTS THROUGH CONCRETE CURBS SHALL BE SPACED MAXIMUM 4600 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 PLACEMENTS.
6. LONGITUDINAL REINFORCING SHALL PASS THROUGH CONCRETE CURB CONSTRUCTION JOINTS.



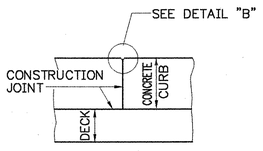
DETAIL "B"

NOT TO SCALE



TYPICAL SECTION THROUGH CONCRETE CURB CONSTRUCTION JOINT

NOT TO SCALE



SECTION B–B

NOT TO SCALE

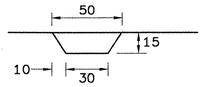
LOCATE BRIDGE PLAQUE

THE BRIDGE PLAQUE WILL BE SUPPLIED BY THE AGENCY OF TRANSPORTATION AND SHALL BE INSTALLED BY THE CONTRACTOR AT ABUTMENT NO. 1 ON THE RIGHT SIDE AS SHOWN OR AS DIRECTED BY THE ENGINEER.

THE YEAR BUILT SHALL BE INCISED TO LOOK LIKE CHISLED ENGRAVED NUMBERS.

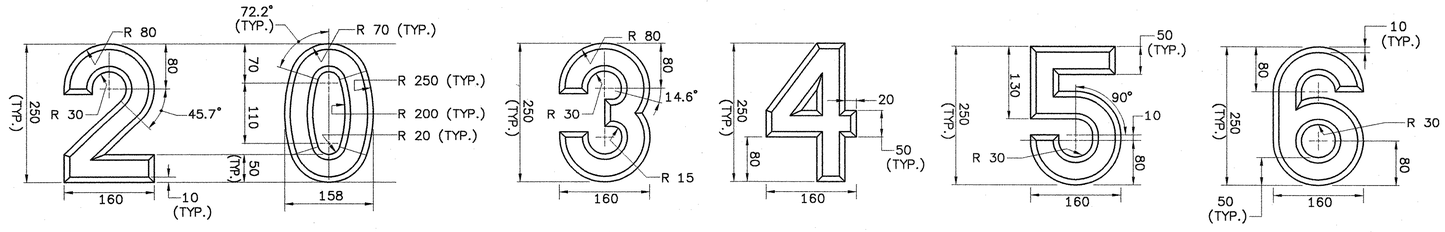
EACH OF THE NUMBERS FOR THE YEAR BUILT SHALL BE 250 mm HIGH AS SHOWN. EACH NUMBER SHALL BE INSET INTO THE CONCRETE BY 15 mm WITH THE SIDES BEING SLOPED BY 10 mm.

THE NUMBERS SHALL BE HORIZONTALLY CENTERED WITH THE BRIDGE PLAQUE



TYPICAL CROSS SECTION OF NUMBER

SCALE 1:2



SPACE BETWEEN NUMBERS = 30

NUMBER DIMENSIONS

SCALE 1:5

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
CURB DETAILS	
Designed By JH	Drawn By. MWS
Checked By RMR 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF013-1 (8)
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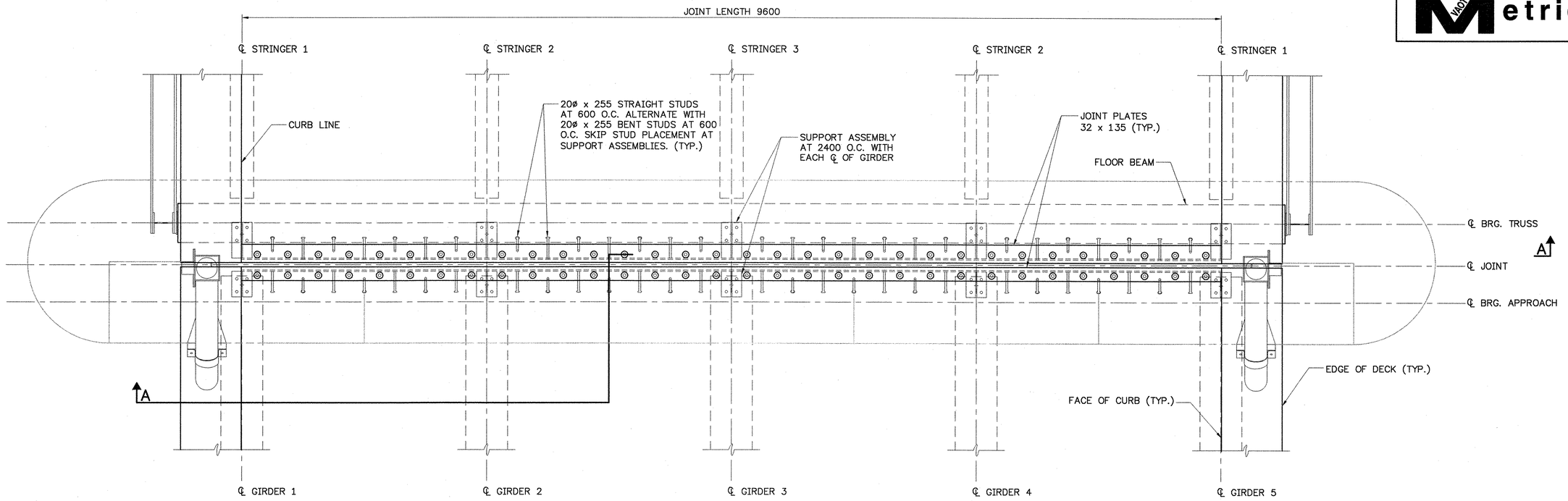
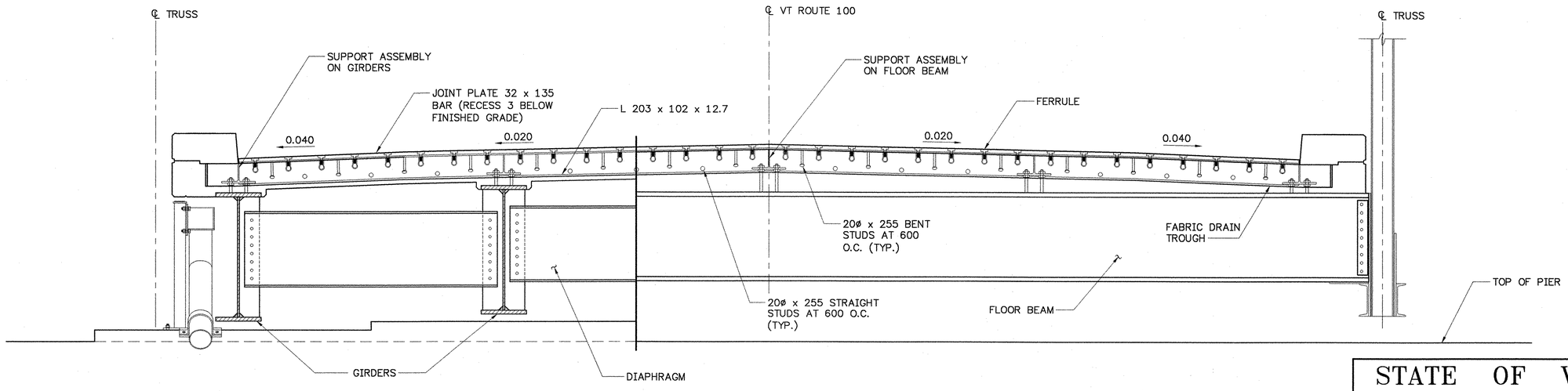


PLAN OF EXPANSION JOINT

SCALE 1:20



SECTION A–A

SCALE 1:20

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

EXPANSION JOINT PLAN AND ELEVATION

Designed By LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1 (8)
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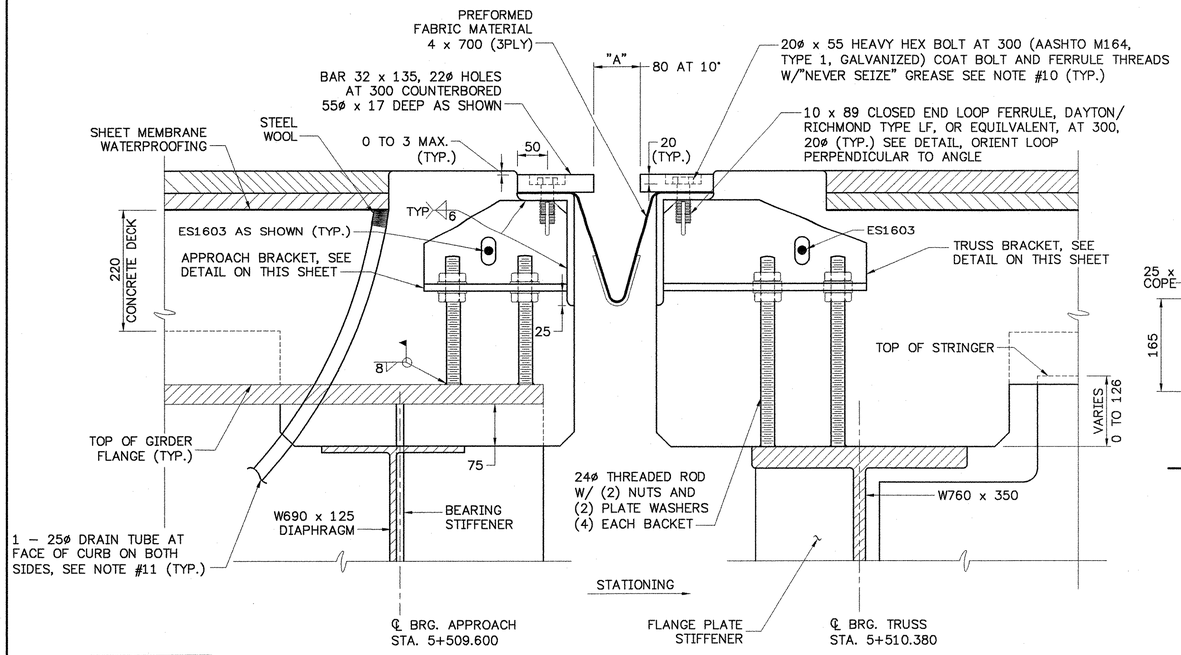
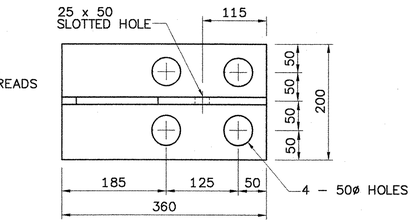


TYPICAL SECTION AT GIRDERS AT PIER

SCALE 1:5

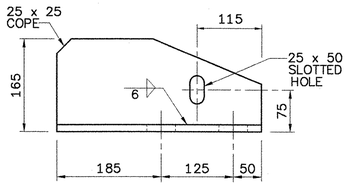
TEMP	"A" DIST
–30°C	117
–20°C	108
–10°C	99
0°C	89
10°C	80
20°C	71
30°C	61
40°C	52
50°C	43

"A" IS THE SETTING BEFORE DEAD LOADS ARE PLACED



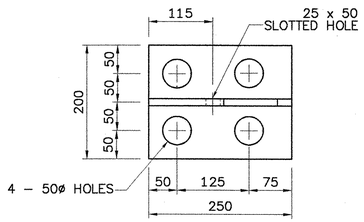
TRUSS BRACKET PLAN

SCALE 1:5



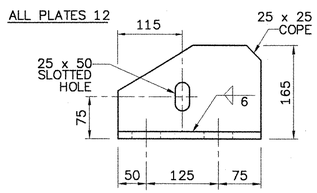
TRUSS BRACKET ELEVATION

SCALE 1:5



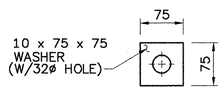
APPROACH BRACKET PLAN

SCALE 1:5



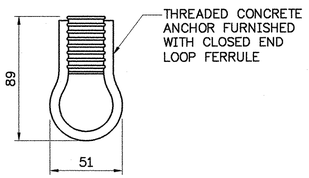
APPROACH BRACKET ELEVATION

SCALE 1:5



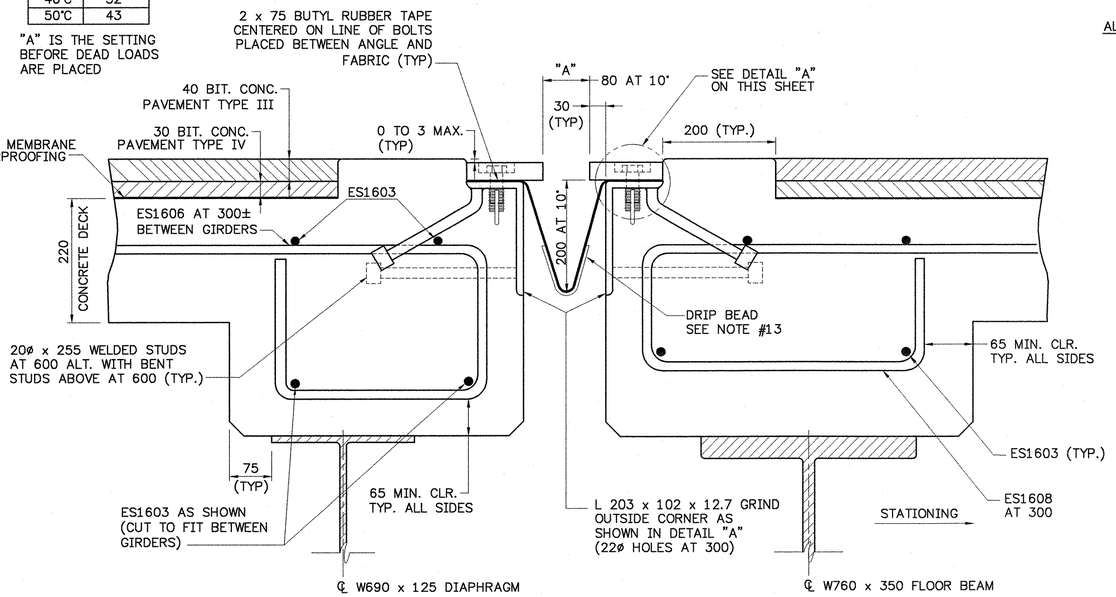
WASHERS FOR BRACKETS

SCALE 1:5



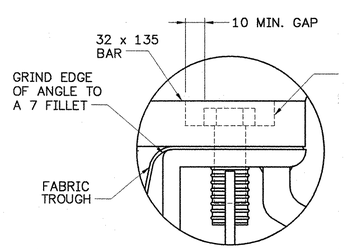
10 x 89 CLOSED END LOOP FERRULE DETAIL

NOT TO SCALE



TYPICAL SECTION BETWEEN GIRDERS AT PIER

SCALE 1:5 (NORMAL TO ℄ BRG.)



DETAIL "A"

N.T.S.

EXPANSION JOINT NOTES

1. DETAILS ON THIS SHEET ARE FOR ITEM 516.10 "BRIDGE EXPANSION JOINT".
2. PREFORMED FABRIC TROUGH MATERIAL SHALL BE CONTINUOUS AND SHALL CONFORM TO SUBSECTION 707.07 OF THE 2001 STANDARD SPECIFICATIONS.
3. BUTYL RUBBER TAPE SHALL CONFORM TO AASHTO SPECIFICATION M–198, TYPE II.
4. THE FINAL FINISH OF THE EXPANSION DEVICE SHALL BE COVERED DURING THE PLACING OF BRIDGE DECK CONCRETE.
5. ALL STEEL COMPONENTS EXCEPT DOWN SPOUT SHALL BE AASHTO M270M GRADE 345 GALVANIZED OR METALIZED AS PER SUBSECTION 506.15 (a) OR (b) OF THE 2001 STANDARD SPECIFICATIONS UNLESS OTHERWISE NOTED. THREADED RODS SHALL BE ASTM A568M, GRADE 345; NUTS, AASHTO M291M (ASTM A563M); AND WASHERS, ASTM F436M.
6. THE ITEM "BRIDGE EXPANSION JOINT" SHALL INCLUDE THE FABRICATION AND ERECTION OF THE COMPLETE JOINT ASSEMBLY INCLUDING ALL STEEL PLATES, BRACKETS, ANGLES, WELDED STUDS OR RODS, PREFORMED FABRIC DRAIN TROUGH MATERIAL AND PLASTIC DRAIN TUBES, BUTYL RUBBER TAPE AND ANY OTHER MISCELLANEOUS MATERIAL NECESSARY TO INSTALL JOINT. DOWNSPOUT SHALL BE PAID FOR UNDER THE BRIDGE EXPANSION JOINT, ITEM 516.10.
7. THE 203 x 102 x 12.7 ANGLES SHALL BE FURNISHED AS ONE CONTINUOUS PIECE.
8. THE 32 x 135 BARS EACH SIDE OF THE JOINT SHALL BE PROVIDED IN TWO EQUAL LENGTHS EACH SIDE OF JOINT.
9. THE 32 x 135 BARS SHALL BE REMOVED AND REPLACED AFTER CONCRETE IS PLACED TO ENSURE THE BARS CAN BE REMOVED FOR MAINTENANCE AT A FUTURE DATE.
10. COAT CONCRETE CONTACT SURFACES WITH AN EPOXY BONDING COMPOUND MEETING THE REQUIREMENTS OF SUBSECTION 719.02 OF THE 1995 STANDARD SPECIFICATIONS. PAYMENT SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 516.10 "BRIDGE EXPANSION JOINT".
11. A 25 DIAMETER PLASTIC DRAIN TUBE (PER STD. SPEC. 740.01) SHALL BE INSTALLED AS SHOWN AT THE FACE OF CURB ON BOTH SIDES. THE UPPER END IS TO BE PLUGGED WITH STEEL WOOL AND THE LOWER END IS TO EXTEND BELOW THE BOTTOM OF THE ADJACENT GIRDER OR BOTTOM TRUSS CHORD. THE DRAIN TUBES SHALL BE FASTENED TO THE GIRDERS OR BOTTOM CHORDS USING A METHOD APPROVED BY THE ENGINEER.
12. FILL COUNTER BORED HOLES WITH HOT POURED JOINT SEALER (PER STD. SPEC. 707.06) AFTER BOLT INSTALLATION. PAYMENT FOR THE WORK SHALL BE SUBSIDIARY TO BRIDGE EXPANSION JOINT, ITEM 516.10.
13. A DRIP BEAD OF 13 WIDE x 225 LONG STRIP OF 3 PLY PREFORMED FABRIC DRAIN TROUGH MATERIAL SHALL BE CEMENTED TO THE BOTTOM OF THE FABRIC TROUGH USING AN ADHESIVE APPROVED BY THE FABRIC MANUFACTURER. THE DRIP BEAD SHALL BE APPLIED 25 FROM THE DOWN SPOUT END OF THE FABRIC TROUGH.
14. FABRIC TROUGH SHALL BE THOROUGHLY CLEANED AND FLUSHED AFTER PAVING OPERATION.
15. THE EXPANSION JOINT SHALL BE SHOP ASSEMBLED AND SHIPPED AS ONE UNIT.
16. PAYMENT FOR THE CURB EXPANSION PLATE ASSEMBLY, COMPLETE IN PLACE, SHALL BE UNDER BRIDGE EXPANSION JOINT, ITEM 516.10.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

EXPANSION JOINT DETAILS

Designed By JH/LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1 (8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 81 Of 116

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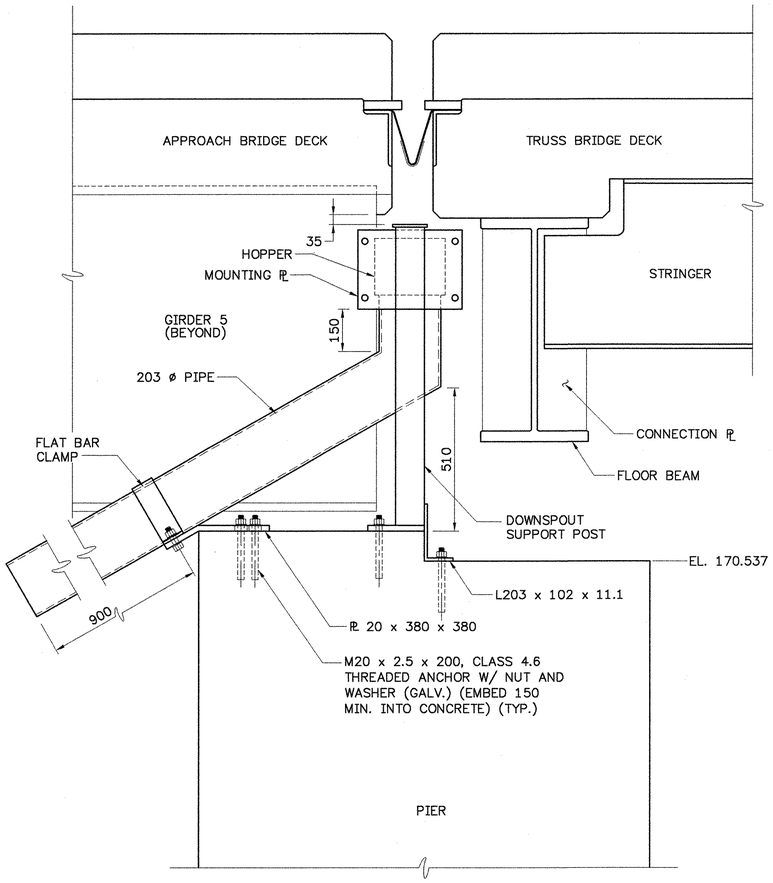
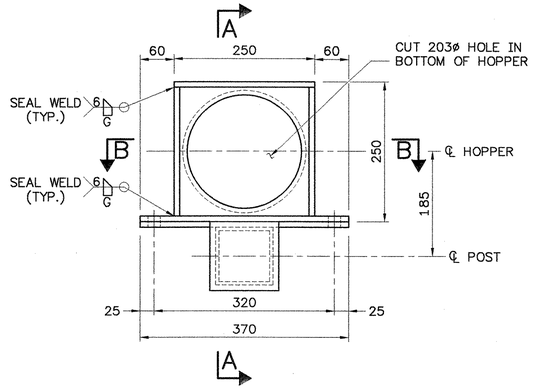


TYPICAL DOWNSPOUT DETAIL

SCALE 1:10

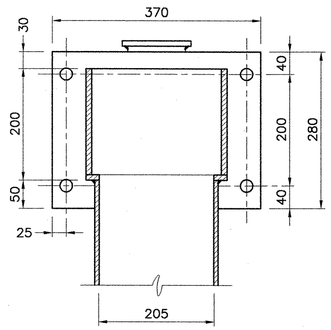
DOWNSPOUT NOTES

1. HOLLOW STRUCTURAL STEEL TUBING SHALL CONFORM TO ASTM A-500 GRADE C.
2. ALL BARS SHALL CONFORM TO AASHTO M270 GRADE 345 MPa AND SHALL BE GALVANIZED.
3. DOWNSPOUT SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 506.15(a) OF 2001 STANDARD SPECIFICATION AFTER FABRICATION.
4. ALL DOWNSPOUT BOLTS AND RELATED HARDWARE SHALL BE ASTM F568M, CLASS 4.6 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A-153 (AASHTO M232).
5. ANY PLACE WHERE THE GALVANIZING HAS BEEN REMOVED FROM THE DOWNSPOUT OR BRACKET EITHER BY CUTTING, BURNING, WELDING, PLACING, OR ANY OTHER MEANS, SHALL BE REPAIRED PER ASTM A780.
6. DOWNSPOUT SHALL BE PAID FOR UNDER THE BRIDGE EXPANSION JOINT, ITEM 516.10



PLAN VIEW OF HOPPER

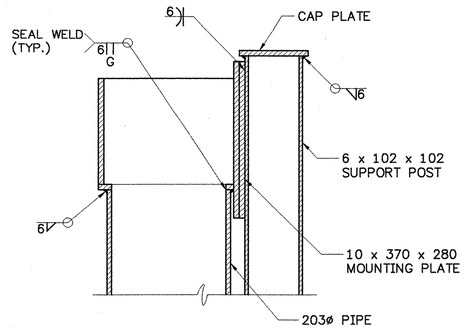
SCALE 1:5



SECTION B-B

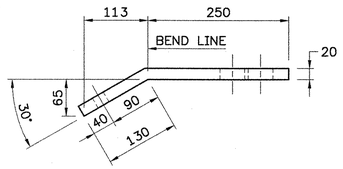
SCALE 1:5

NOTE:
ALL HOPPER PLATES 10



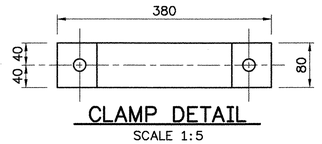
SECTION A-A

SCALE 1:5



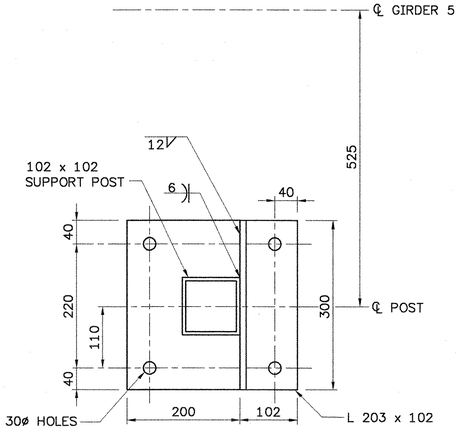
PIER DOWNSPOUT SUPPORT PLATE ELEVATION

SCALE 1:5



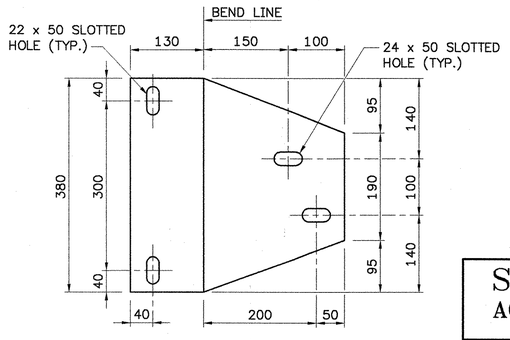
CLAMP DETAIL

SCALE 1:5



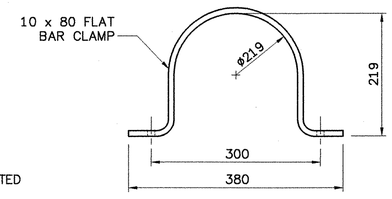
POST AND BASE PLATE

SCALE 1:5



PIER DOWNSPOUT SUPPORT PLATE PLAN

SCALE 1:5



CLAMP ELEVATION

SCALE 1:5

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
DOWNSPOUT DETAILS	
Designed By JH/LKP	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1 (8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 82 Of 116

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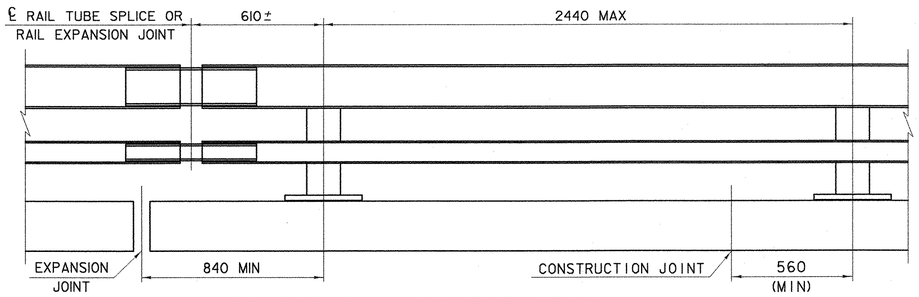
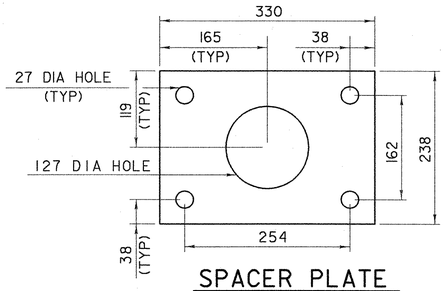
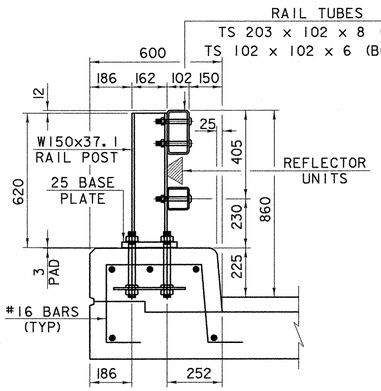
Metric



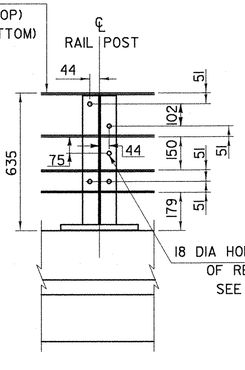
BRIDGE RAILING ELEVATION



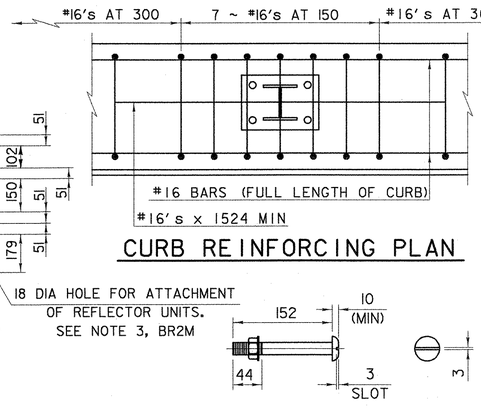
SPACER PLATE



TYPICAL SECTION



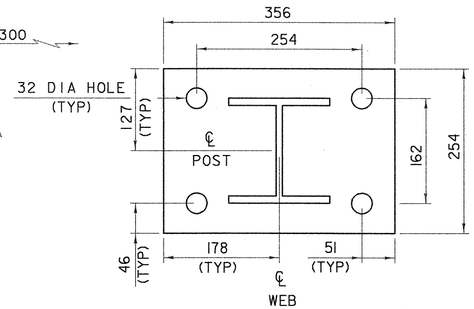
ELEVATION



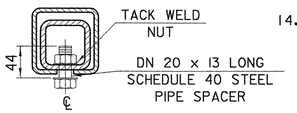
CURB REINFORCING PLAN

M20 DIA M164M (TYPE I) ROUND HEAD BOLT

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



POST AND BASE PLATE



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

EXPANSION JOINT SECTION

FOR DETAILS NOT SHOWN SEE "RAIL TUBE SPLICE SECTION"

NOTES

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

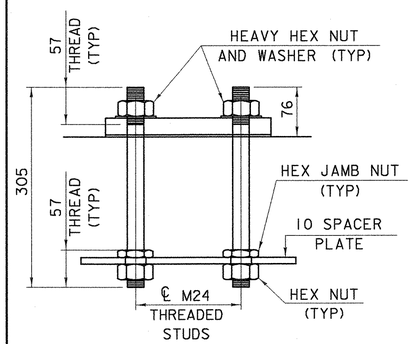
MATERIALS

RAIL TUBES.....ASTM A500, GRADE B OR ASTM A501
RAIL POSTS AND BASE PLATE.....ASTM A709/A709M, GRADE 345
ALL OTHER SHAPES AND PLATES.....ASTM A709/A709M, GRADE 250
ANCHOR STUDS.....ASTM F568M CLASS 8.8
ALL OTHER BOLTS (UNLESS NOTED).....AASHTO M164M, TYPE I

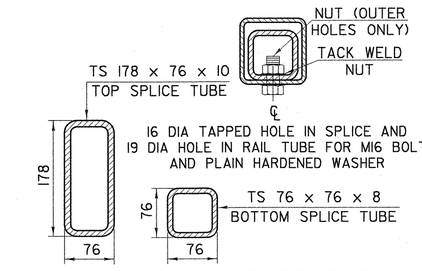
NUTS FOR AASHTO M164M (ASTM A325M) BOLTS AND ANCHOR STUDS SHALL COMPLY WITH AASHTO M291M (ASTM A563M).

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

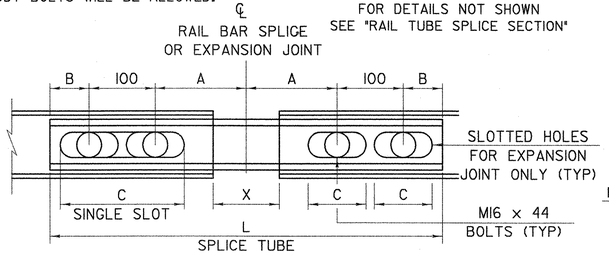
3mm PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02.



RAIL POST ANCHORAGE

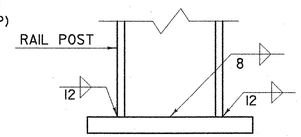


RAIL TUBE SPLICE SECTION



RAIL TUBE SPLICE AND RAIL EXPANSION JOINT DETAIL

(BOTTOM VIEW)



BASE WELD DETAIL

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

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

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

BRIDGE RAILING – N.E.T.C. 2 RAIL

Designed By VAOT	Drawn By.
Checked By Date	Bridge Design Supervisor Date
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 83 Of 116

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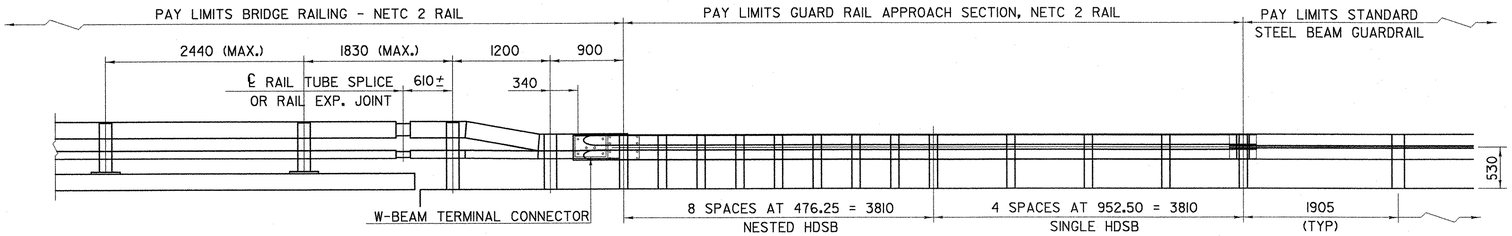
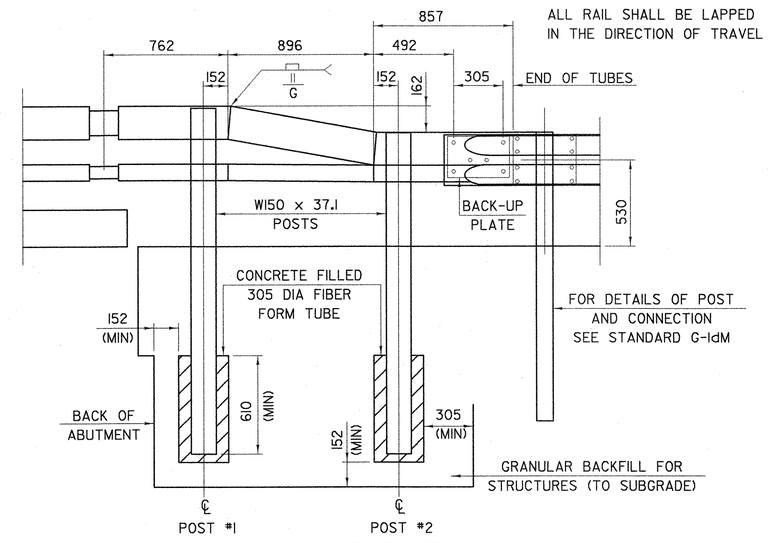
Metric



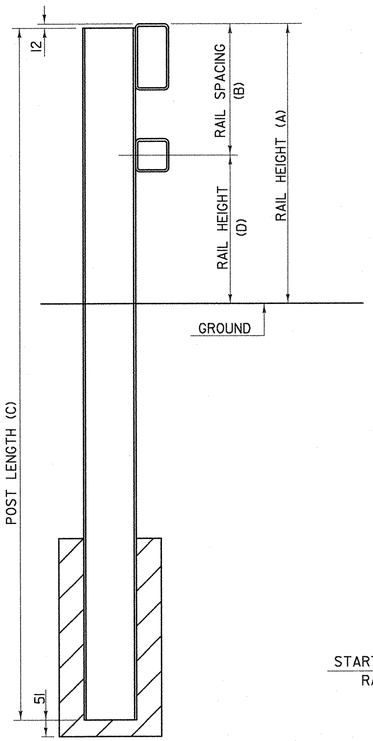
RAILING TRANSITION ELEVATION

NOTES:

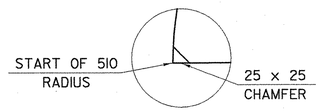
1. REFER TO STANDARD DETAIL BRI-97M FOR ADDITIONAL DETAILS, NOTES AND MATERIAL SPECIFICATIONS.
2. TO FACILITATE FIELD FIT - UP OF THE TRANSITION RAILING, POSTS SHALL BE SET LOOSELY INTO FIBER FORM TUBES WHILE TRANSITION PARTS ARE BEING ASSEMBLED. POST HOLES SHALL BE BACKFILLED WITH A CONCRETE MIX APPROVED BY THE ENGINEER. PAYMENT FOR COMPONENTS, INCLUDING BACKUP PLATE AND END TERMINAL CONNECTOR FOR GUARD RAIL, AUGERING, FIBER FORM TUBES AND CONCRETE, AND INSTALLATION SHALL BE CONSIDERED INCIDENTAL TO BRIDGE RAILING, N.E.TC. 2 RAIL.
3. THE REFLECTORIZED ALUMINUM DELINEATION IS TO BE ERECTED EVERY 9m (OR CLOSEST POST) WITH A M16 BOLT. DELINEATORS SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052-H32.
4. REFLECTIVE MATERIAL SHALL MEET REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER. AMBER IS TO BE INSTALLED ON THE DRIVER'S LEFT AND SILVER ON THEIR RIGHT.
5. ON BRIDGES WITH A SIDEWALK, DELINEATORS ARE NOT TO BE INSTALLED ON THE SIDEWALK SIDE OF THE BRIDGE (I.E. DELINEATORS INSTALLED ONLY ON THE CURB SIDE AND ON THE APPROACH ON THE CURB SIDE). PAYMENT SHALL BE SUBSIDIARY TO ALL OTHER ITEMS.
6. ALL APPROACH RAIL SPLICES SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW.
7. SEE STANDARD G-1M AND G-1dM FOR ADDITIONAL INFORMATION.



ELEVATION

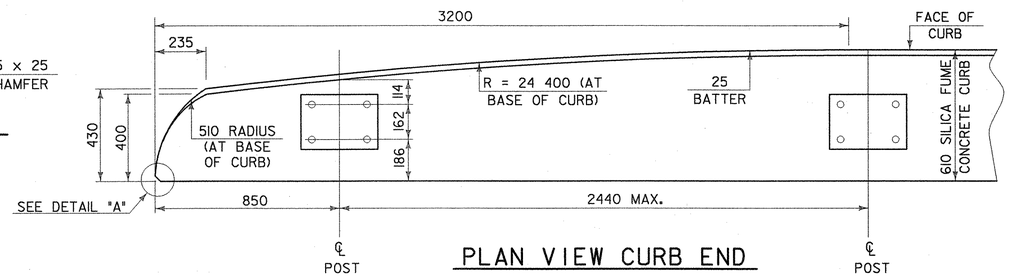


TYPICAL SECTION

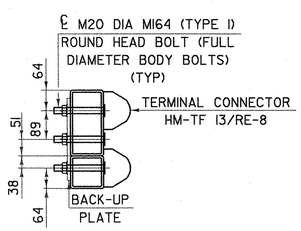


DETAIL "A"

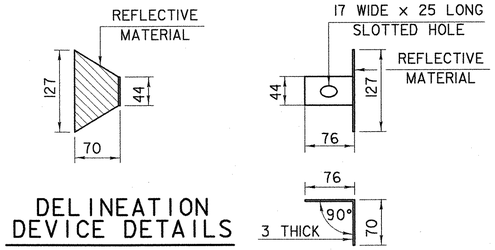
POST NUMBER	RAIL HEIGHT (A)	RAIL SPACING (B)	POST LENGTH (C)	RAIL HEIGHT (D)
1	860	405	2134	455
2	702	254	1956	448



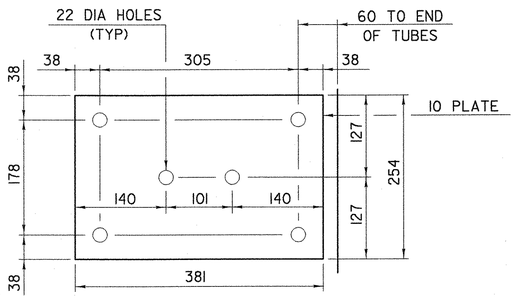
PLAN VIEW CURB END



SECTION THROUGH GUARD RAIL CONNECTION AT TERMINAL CONNECTOR



DELINEATION DEVICE DETAILS



BACK-UP PLATE

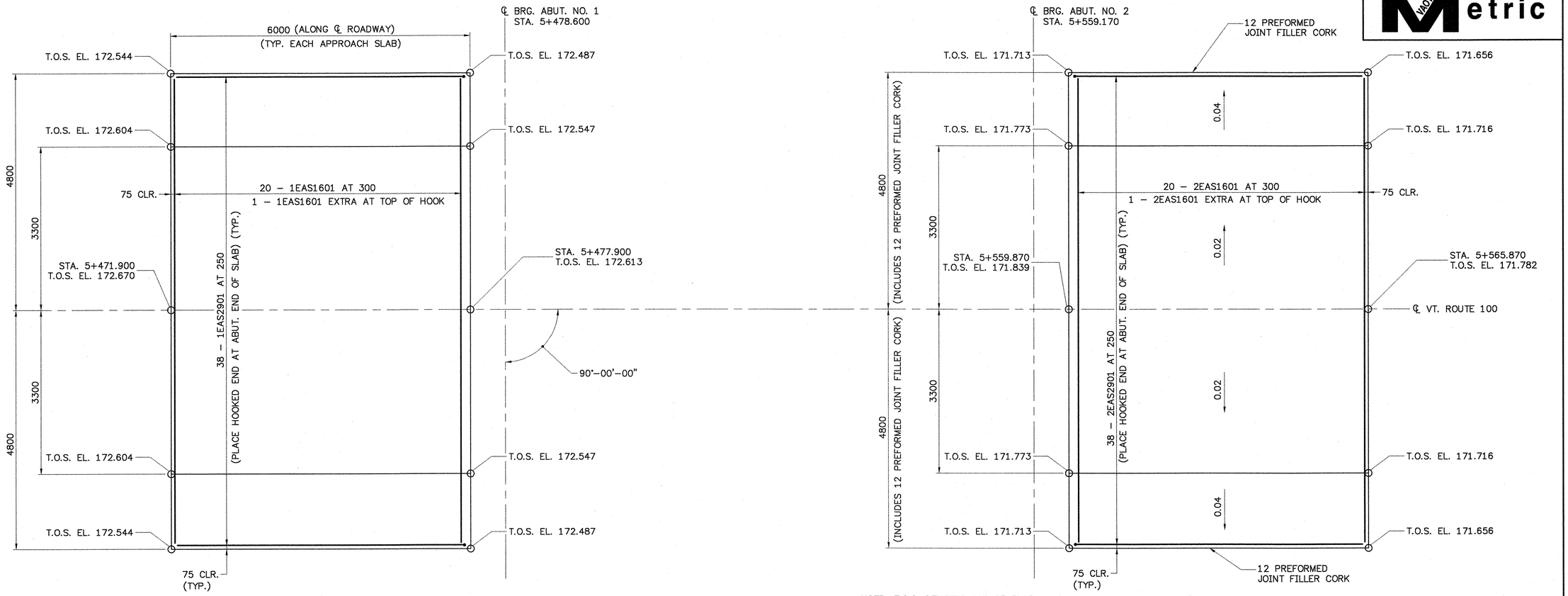
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMACIA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
BRIDGE RAIL – N.E.T.C. 2 RAIL	
– STEEL BEAM APPROACH RAIL	
Designed By VAOT	Drawn By.
Checked By Date	Bridge Design Supervisor Date
PROJECT JAMACIA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 84 Of 116

CLD CONSULTING ENGINEERS
540 Commercial St.
Manchester, NH 03101
PH: (603) 668-8223
FAX: (603) 668-8802
E-MAIL: CLD@CLDENGINEERS.COM

DRAWING NAME (1=?)

VAOT Metric



APPROACH SLAB NO. 1

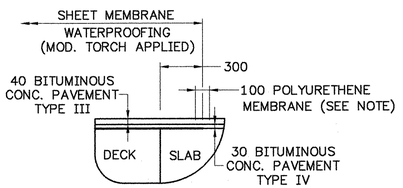
NOTE: T.O.S. DENOTES TOP OF SLAB

APPROACH SLAB NO. 2

APPROACH SLAB PLAN

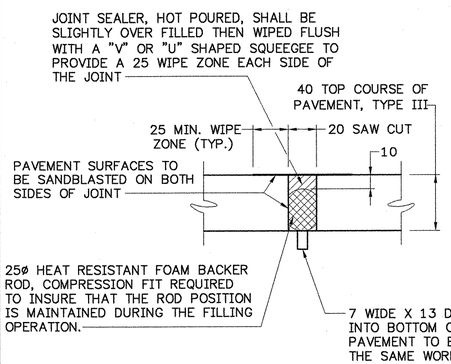
SCALE 1:40

NOTE: TWO COATS OF POLYURETHENE MEMBRANE SHALL BE PLACED 100 WIDE ALONG THE APPROACH SLAB. THE SHEET MEMBRANE WATERPROOFING (MOD. TORCH APPLIED) AND THE POLURETHENE MEMBRANE SHALL OVERLAP 50. SEE SECTION 519.05(B) OF THE 2001 STANDARD SPECIFICATIONS.



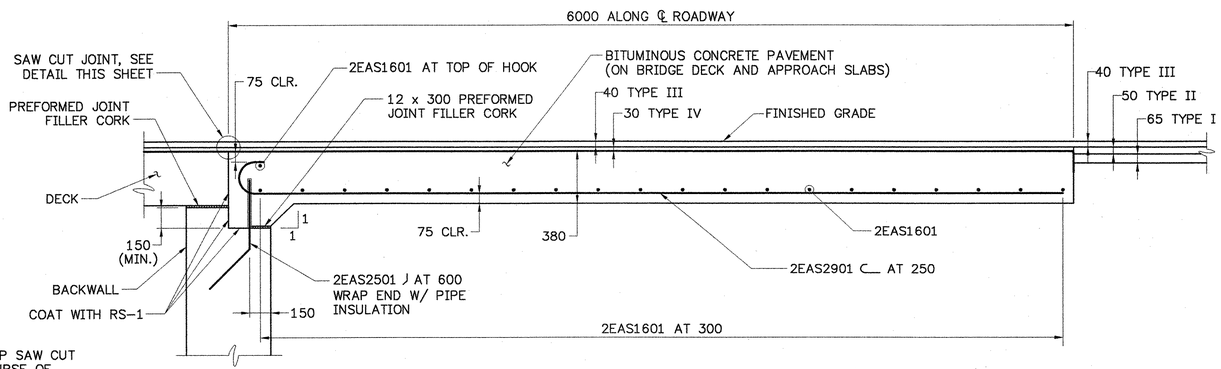
DETAIL FOR SHEET MEMBRANE

(ABUTMENT NO. 2 SHOWN, ABUTMENT NO. 1 SIMILAR)
SCALE 1:20



SAW CUT JOINT DETAIL

SCALE 1:2



APPROACH SLAB DETAIL

SCALE 1:20

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

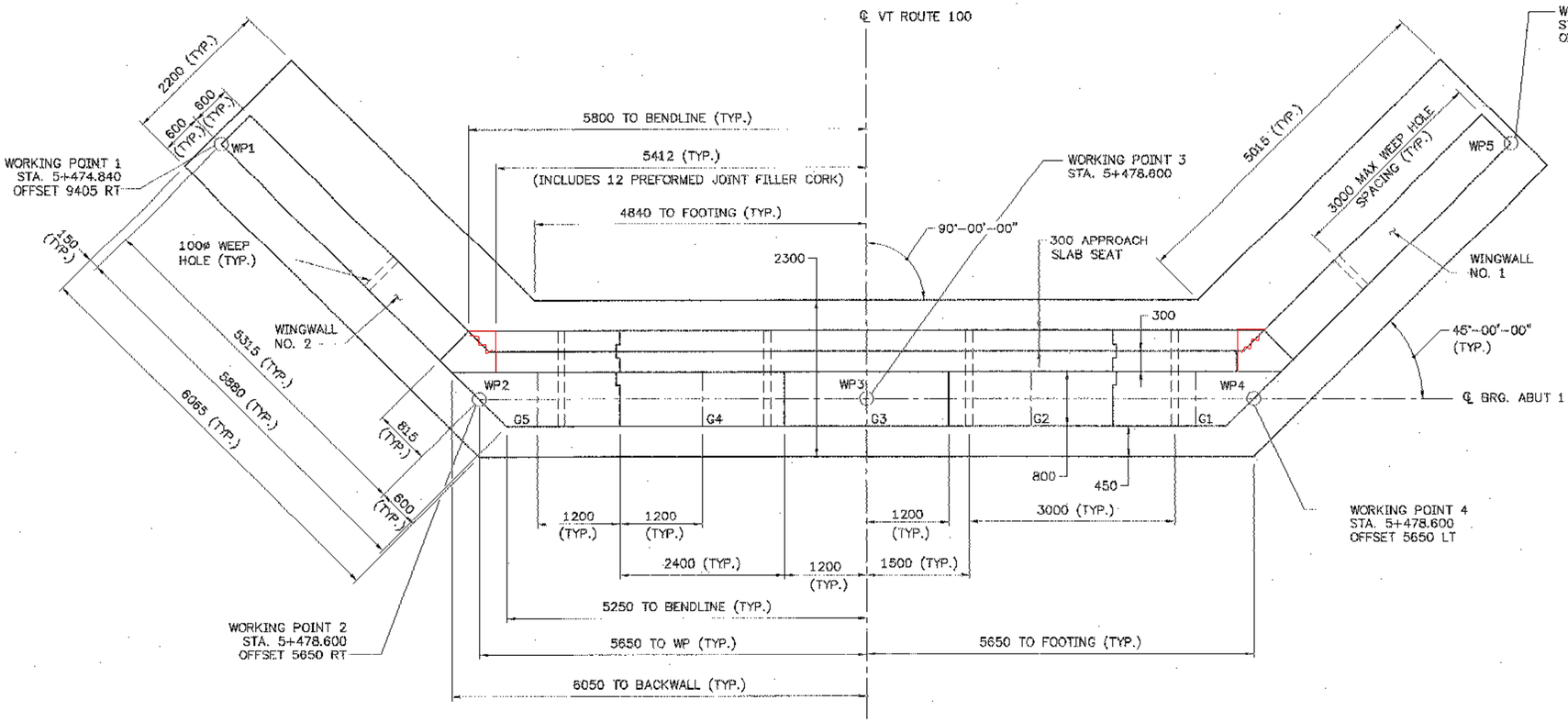
VT. ROUTE 100 OVER THE WEST RIVER

APPROACH SLAB DETAILS

Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 85 Of 116

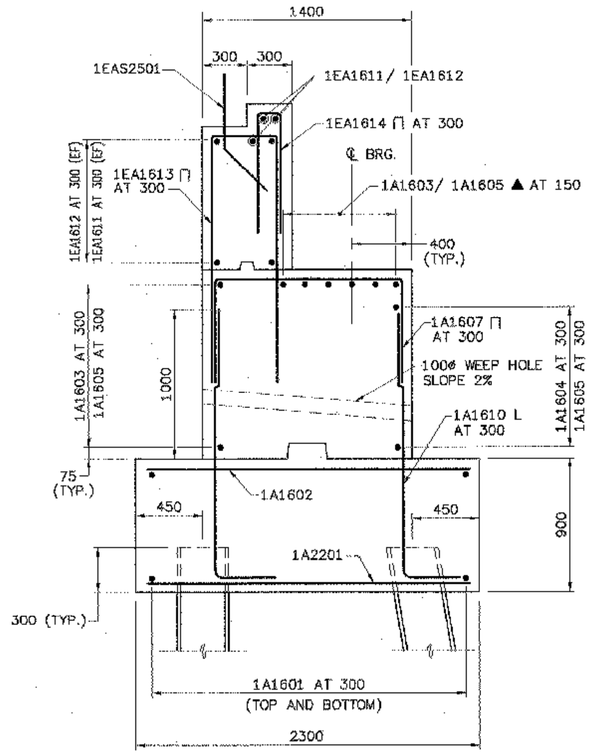
90284APP.dwg (1=1)

VAOT Metric



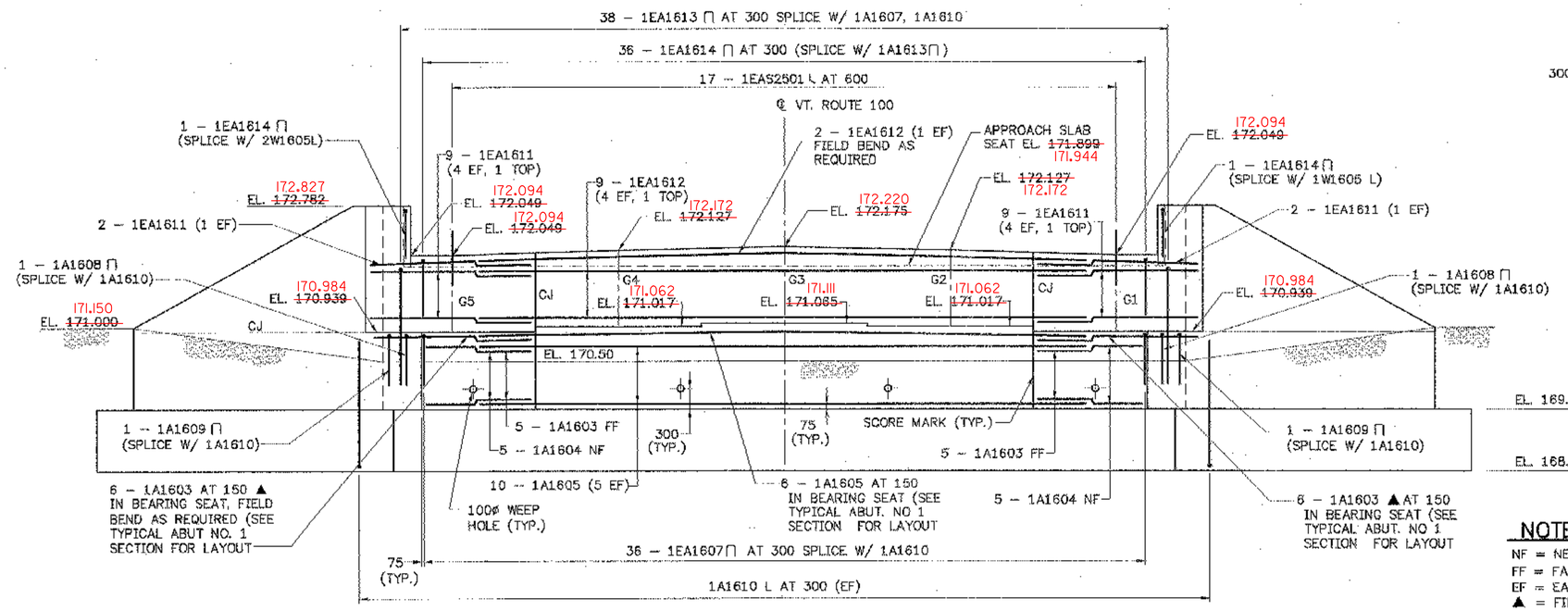
ABUTMENT NO. 1 PLAN (FIXED)

SCALE 1:40



TYPICAL ABUTMENT NO. 1 SECTION (FIXED)

SCALE: 1:20



ABUTMENT NO. 1 ELEVATION (FIXED)

SCALE 1:40

NOTE

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
Highway No. VT. ROUTE 100	Log Sta. / Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

ABUTMENT NO. 1 DETAILS

Designed By JH	Drawn By MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
E.G.C. Info.	
Bridge Sheet No.	Sheet 86 Of 116

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Manchester, NH 03101
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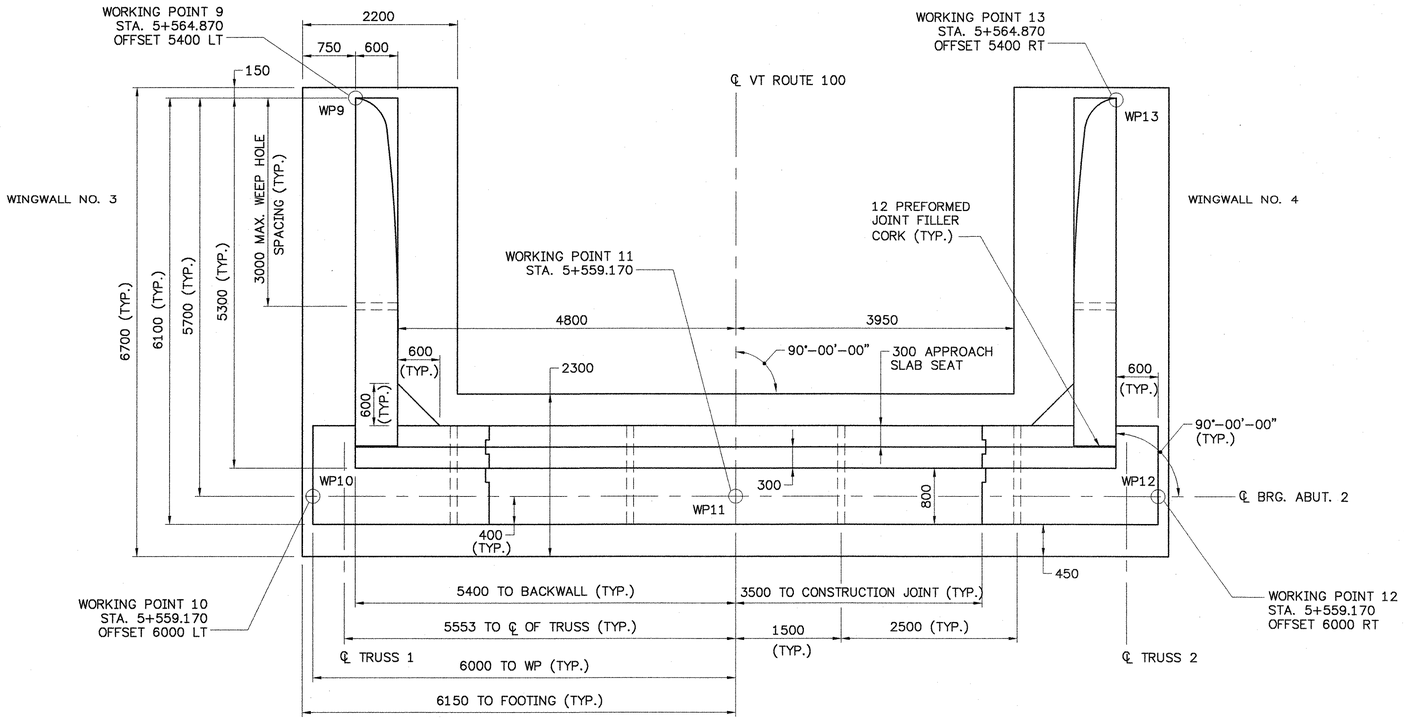
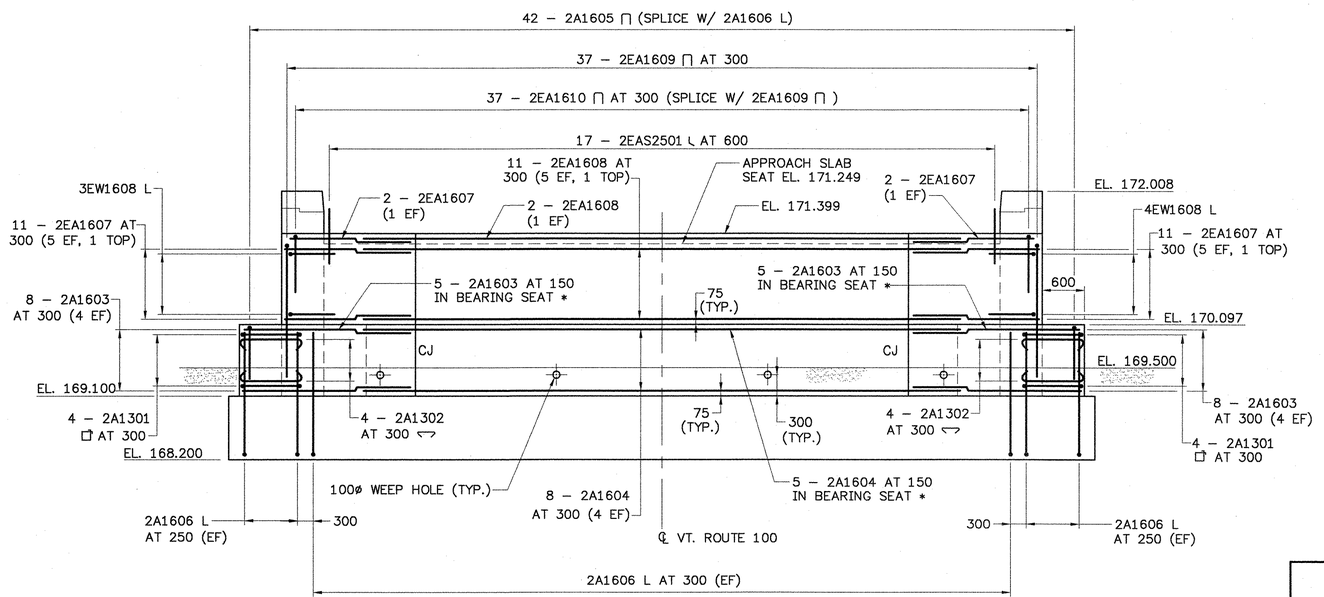
FAX: (603) 668-9002
E-MAIL: CLD@CLDENGINEERS.COM



ABUTMENT NO. 2 PLAN (FIXED)

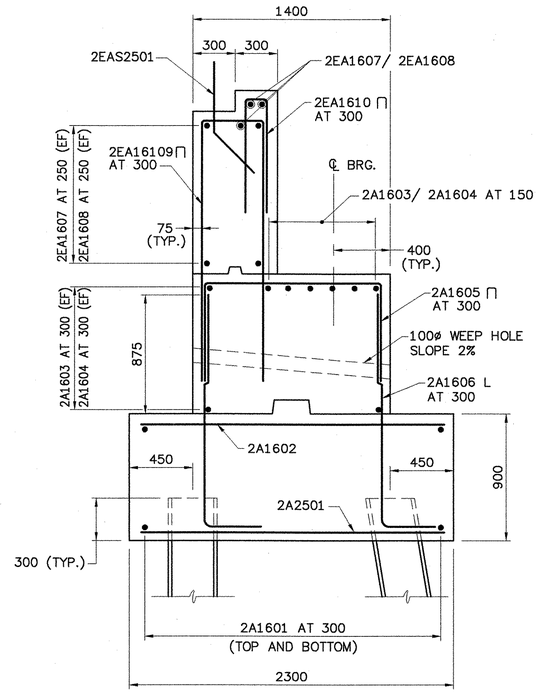
SCALE 1:40



ABUTMENT NO. 2 ELEVATION (FIXED)

SCALE 1:40

* SEE TYPICAL ABUTMENT NO. 2 SECTION FOR LAYOUT



TYPICAL ABUTMENT NO. 2 SECTION (FIXED)

SCALE: 1:20

NOTE

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▲ = FIELD CUT

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

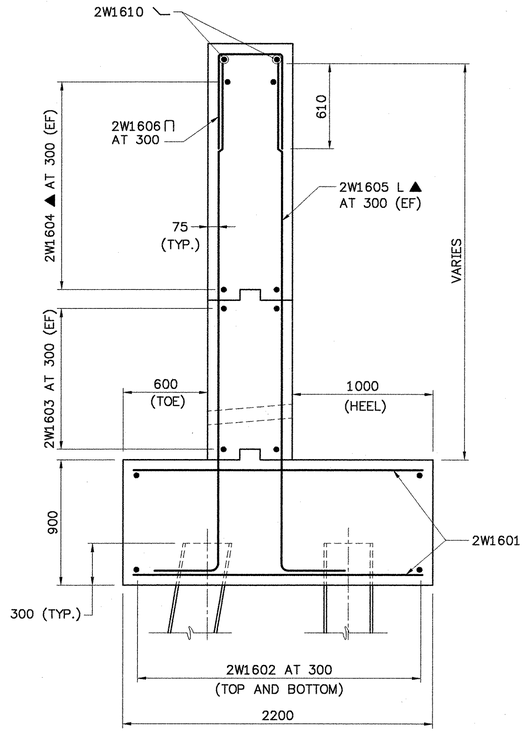
Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

ABUTMENT NO. 2 DETAILS

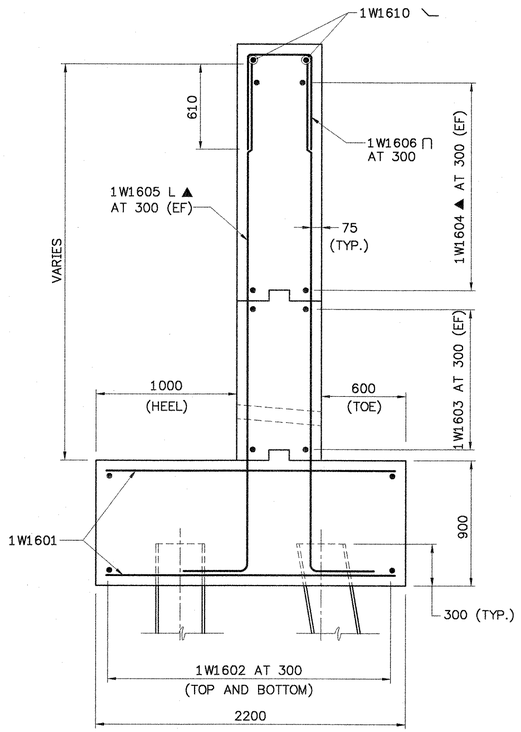
Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 87 Of 116

90284ABUT2.dwg



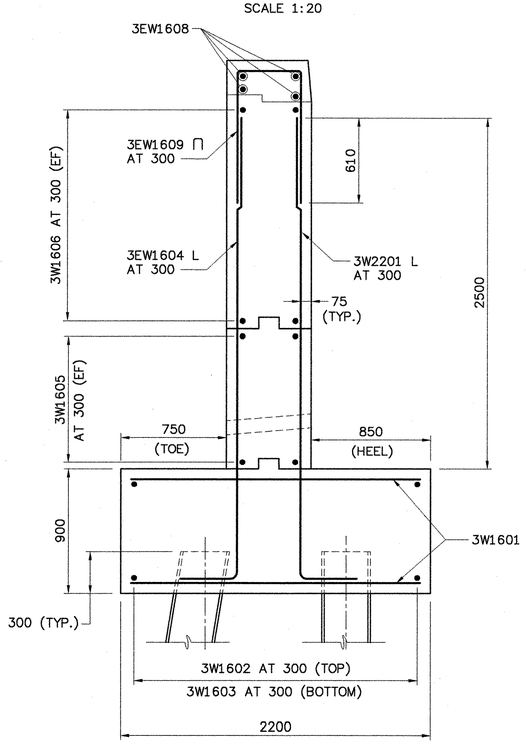
TYPICAL SECTION–WINGWALL NO.2

SCALE 1:20



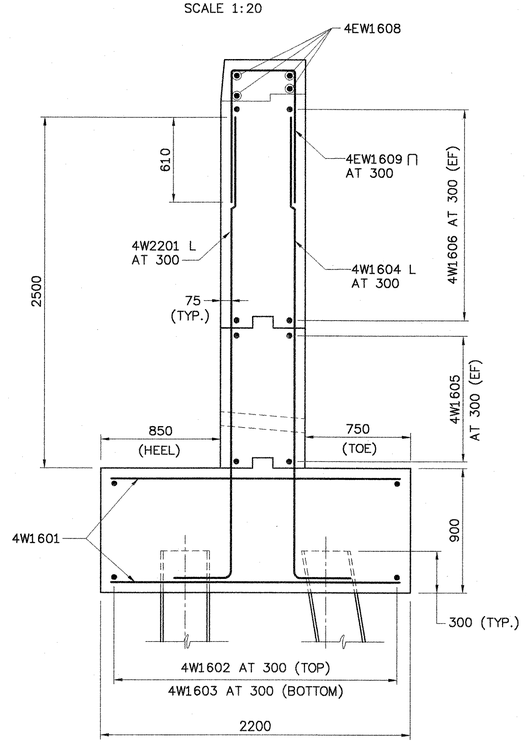
TYPICAL SECTION–WINGWALL NO.1

SCALE 1:20



TYPICAL SECTION–WINGWALL NO.3

SCALE 1:20



TYPICAL SECTION–WINGWALL NO.4

SCALE 1:20

NOTE

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▲ = FIELD CUT

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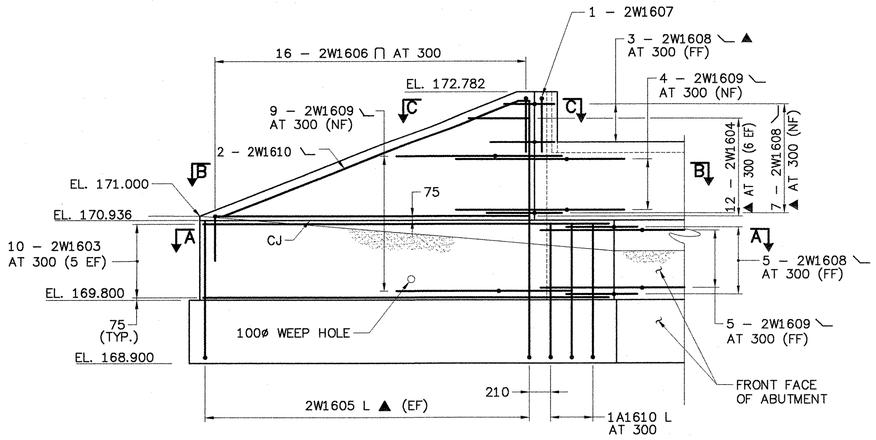
STATE OF VERMONT
AGENCY OF TRANSPORTATION

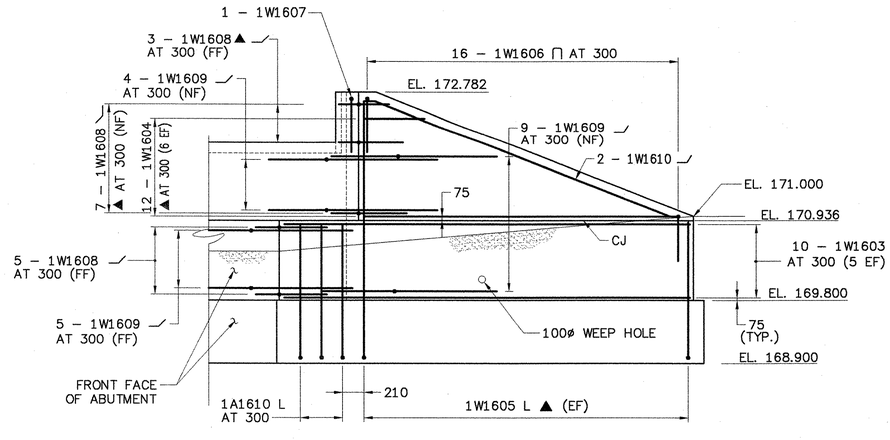
Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
WINGWALL SECTIONS	
Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013_1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 88 Of 116

90284WWS.dwg (1=1)



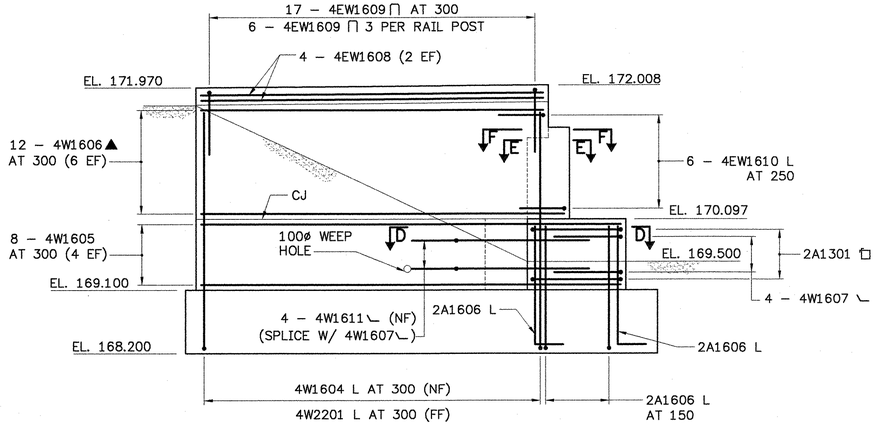
WINGWALL NO. 2 ELEVATION

SCALE 1:40



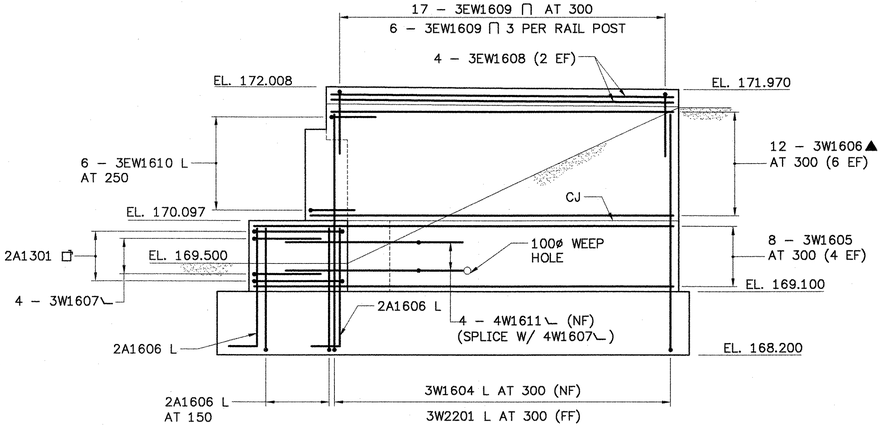
WINGWALL NO. 1 ELEVATION

SCALE 1:40



WINGWALL NO. 4 ELEVATION

SCALE 1:40



WINGWALL NO. 3 ELEVATION

SCALE 1:40

NOTE

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FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT

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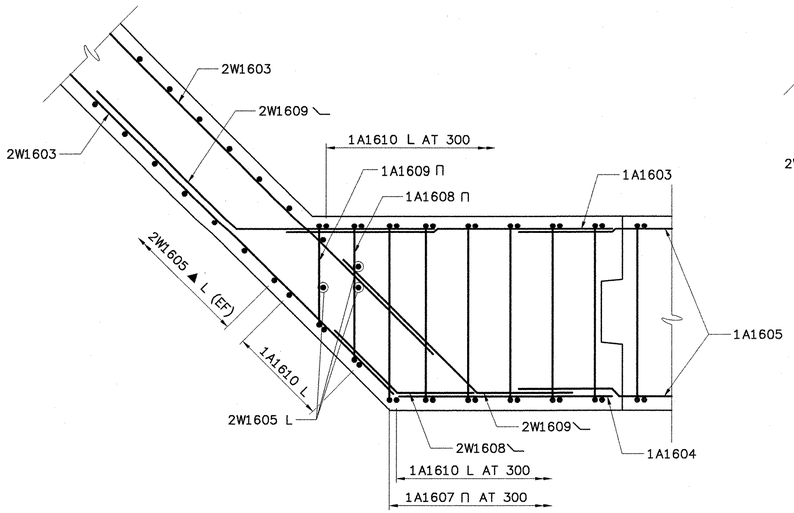
STATE OF VERMONT
AGENCY OF TRANSPORTATION

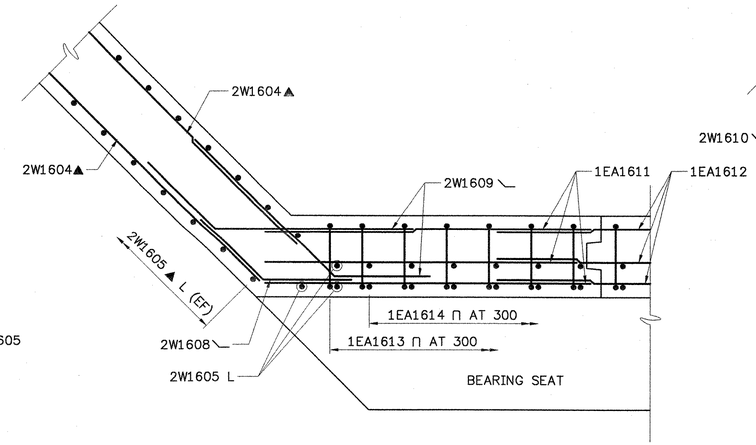
Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
WINGWALL ELEVATION	
Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013_1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 89 Of 116

90284WWS.dwg (1=1)

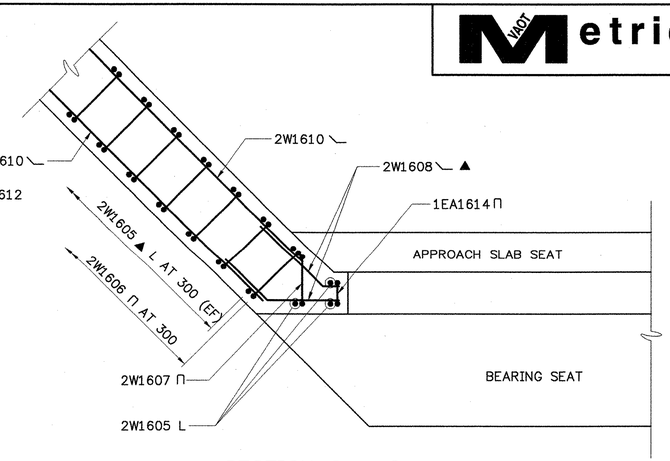
VAOT Metric



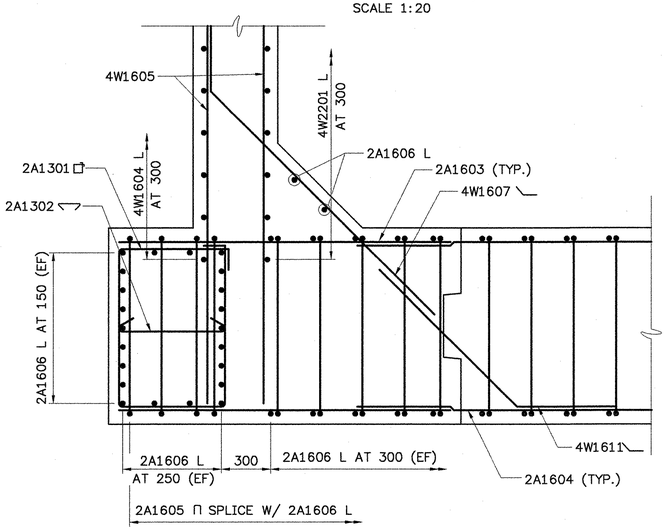
SECTION A – A
(ABUTMENT NO. 1, WINGWALL NO.2
THROUGH BEARING SEAT)
SCALE 1:20



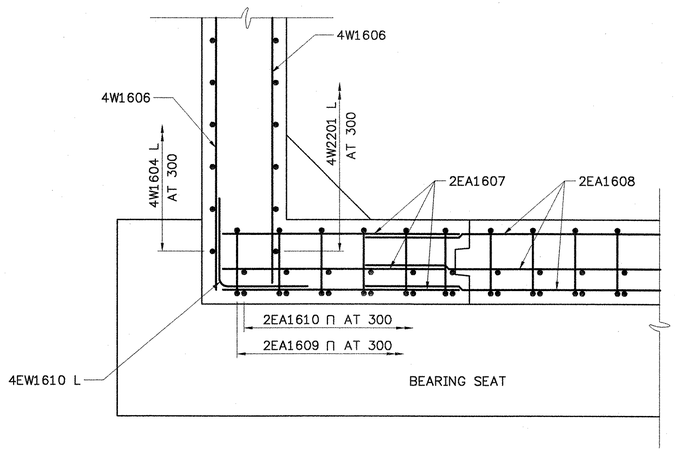
SECTION B – B
(ABUTMENT NO. 1, WINGWALL NO.2
THROUGH APPROACH SLAB SEAT)
SCALE 1:20



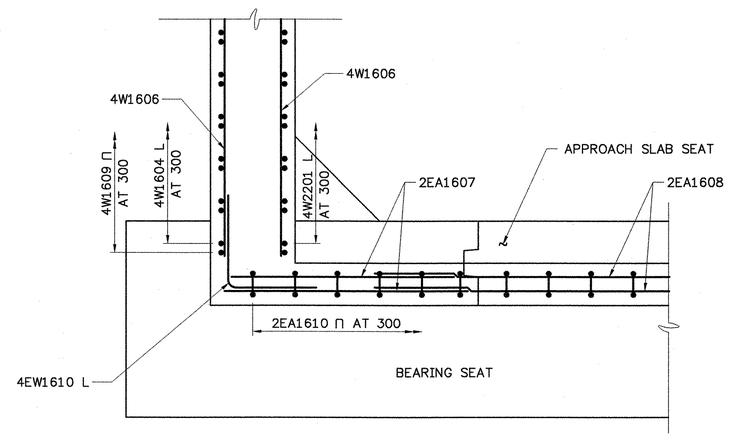
SECTION C – C
(ABUTMENT NO. 1, WINGWALL NO.2
TOP OF WING WALL)
SCALE 1:20



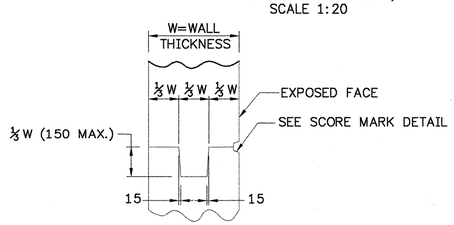
SECTION D – D
(ABUTMENT NO. 2, WINGWALL NO.4
THROUGH BEARING SEAT)
SCALE 1:20



SECTION E – E
(ABUTMENT NO. 2, WINGWALL NO.4
THROUGH APPROACH SLAB SEAT)
SCALE 1:20

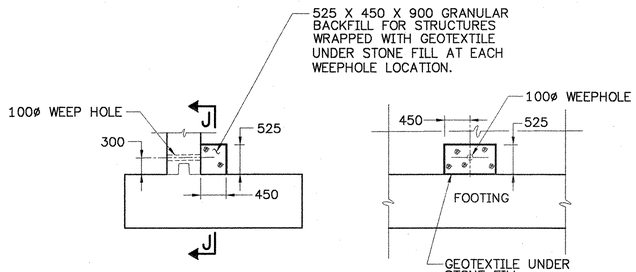


SECTION F – F
(ABUTMENT NO. 2, WINGWALL NO.4
TOP OF WING WALL)
SCALE 1:20



TYPICAL CONCRETE CONSTRUCTION JOINT
NOT TO SCALE

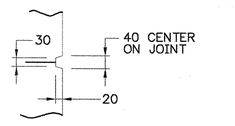
NOTE:
WHERE "CONSTRUCTION JOINT" IS DESIGNATED ON THE DRAWINGS, PROVIDE A CONSTRUCTION JOINT AND SCORE MARK. WHERE "SCORE MARK" IS DESIGNATED ON THE DRAWINGS, PROVIDE A SCORE MARK WITHOUT CONSTRUCTION JOINT, FOR RUSTICATION ONLY.



TYPICAL WEEP HOLE DETAIL
NOT TO SCALE

SECTION J–J
NOT TO SCALE

*NOTE: THIS WILL BE PAID FOR UNDER THE ITEMS "GRANULAR BACKFILL FOR STRUCTURES" AND "GEOTEXTILE UNDER STONE FILL".



SCORE MARK DETAIL
NOT TO SCALE

NOTE
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER
SUBSTRUCTURE DETAILS

Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 90 Of 116

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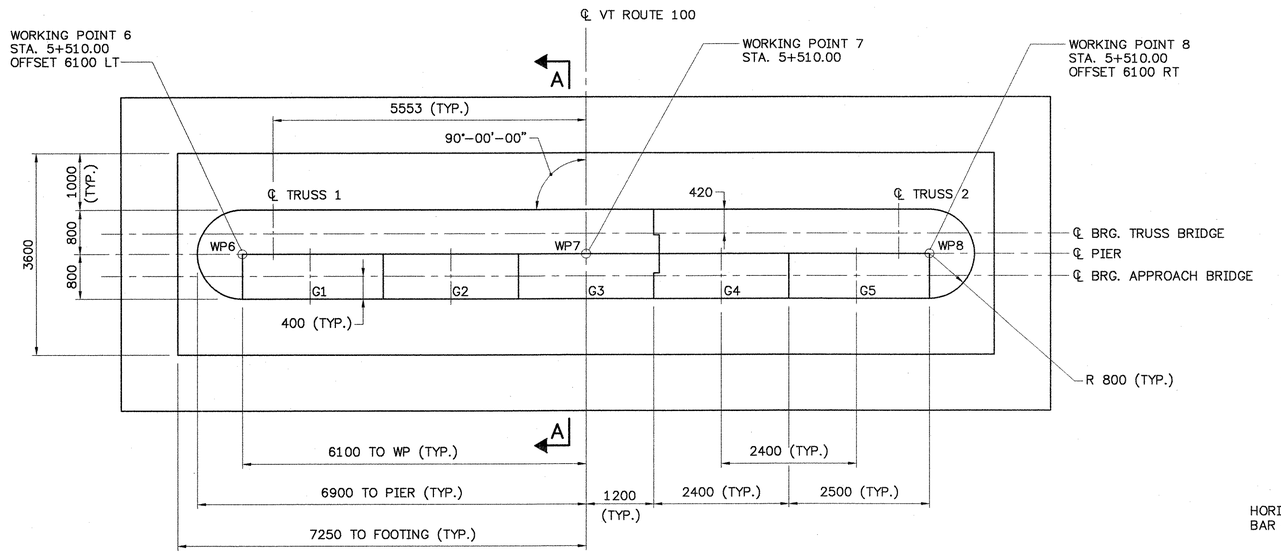
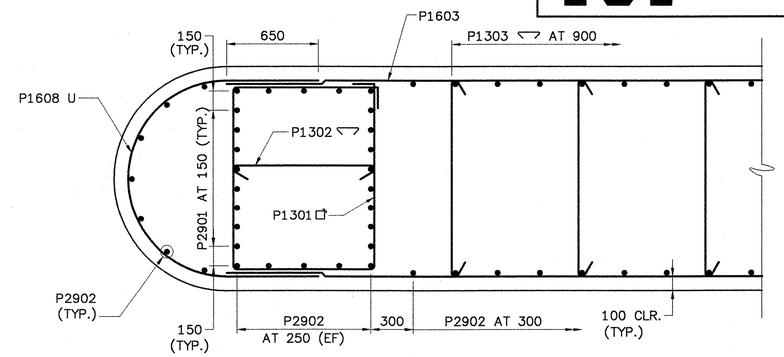
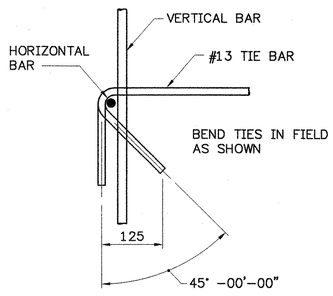
90284SSD.dwg



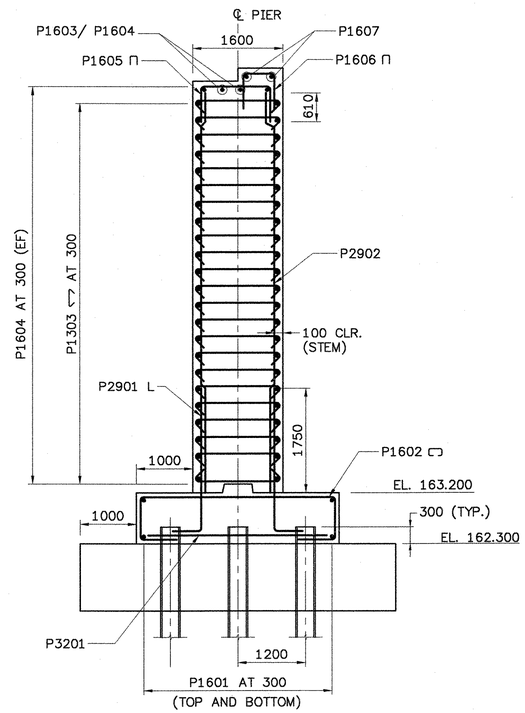
PIER PLAN
SCALE 1:50



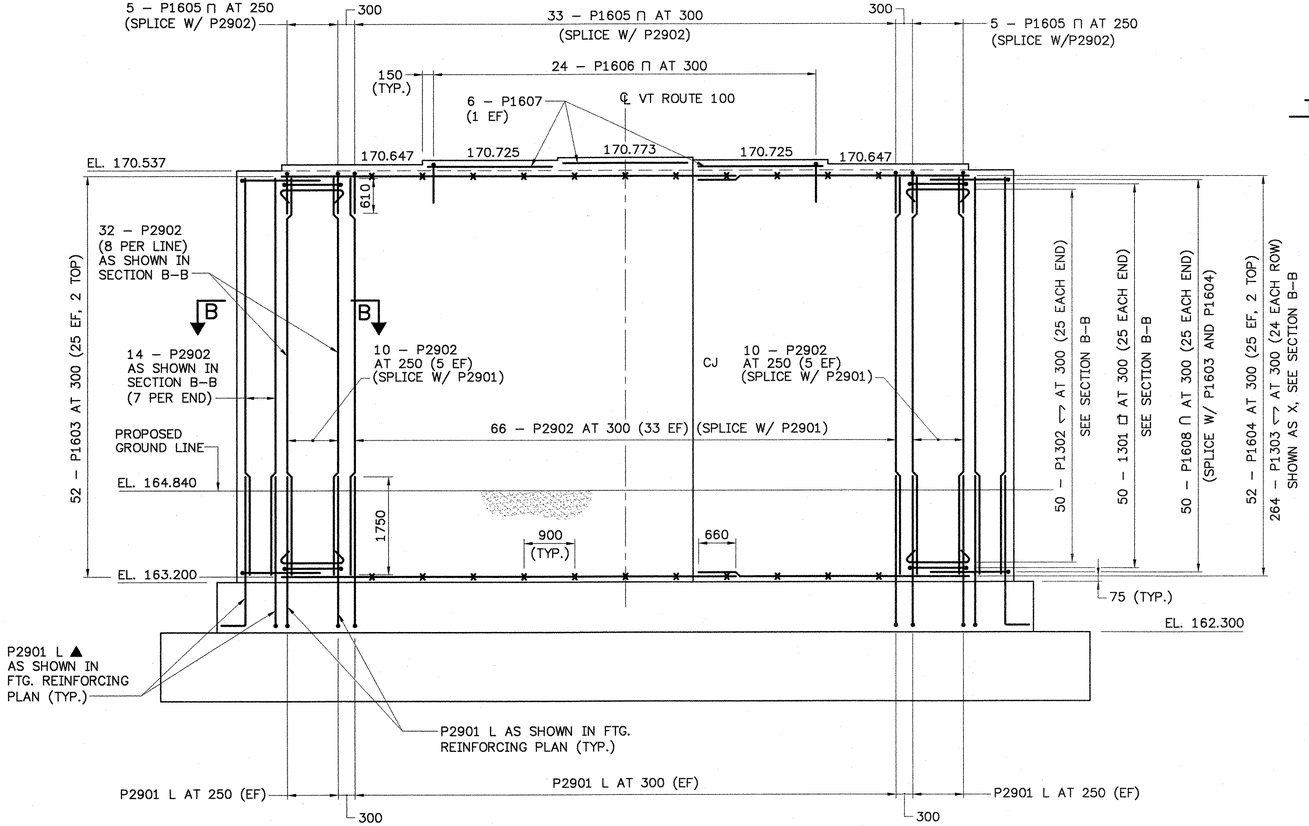
SECTION B–B
SCALE 1:20



TYPICAL TIE BAR DETAIL
SCALE: 1:5



PIER SECTION A–A
SCALE 1:50



PIER ELEVATION
SCALE 1:50

NOTE
NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT
✶ = LATERAL TIE

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

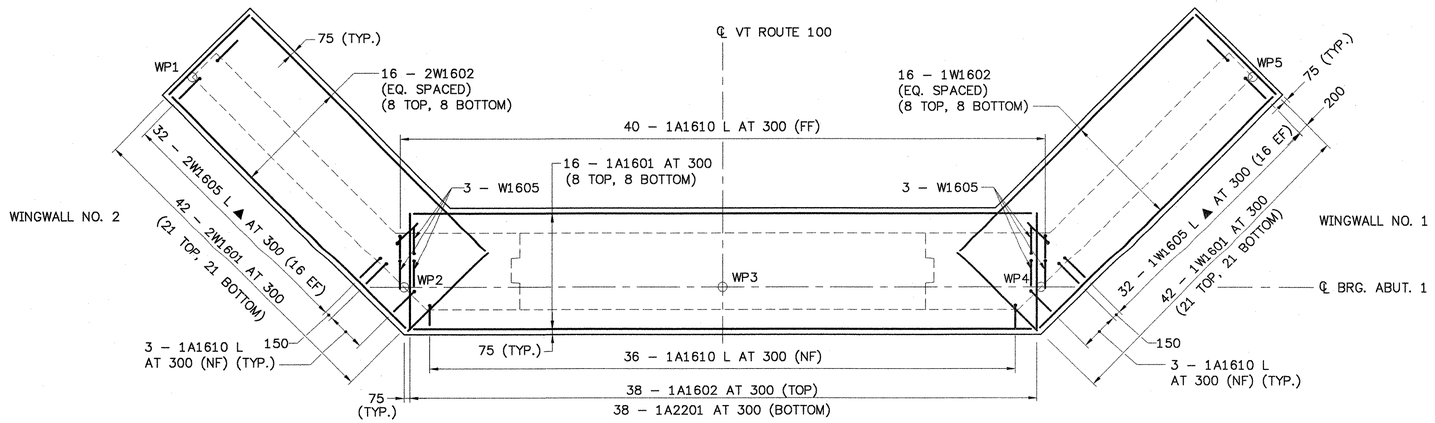
Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

PIER DETAILS

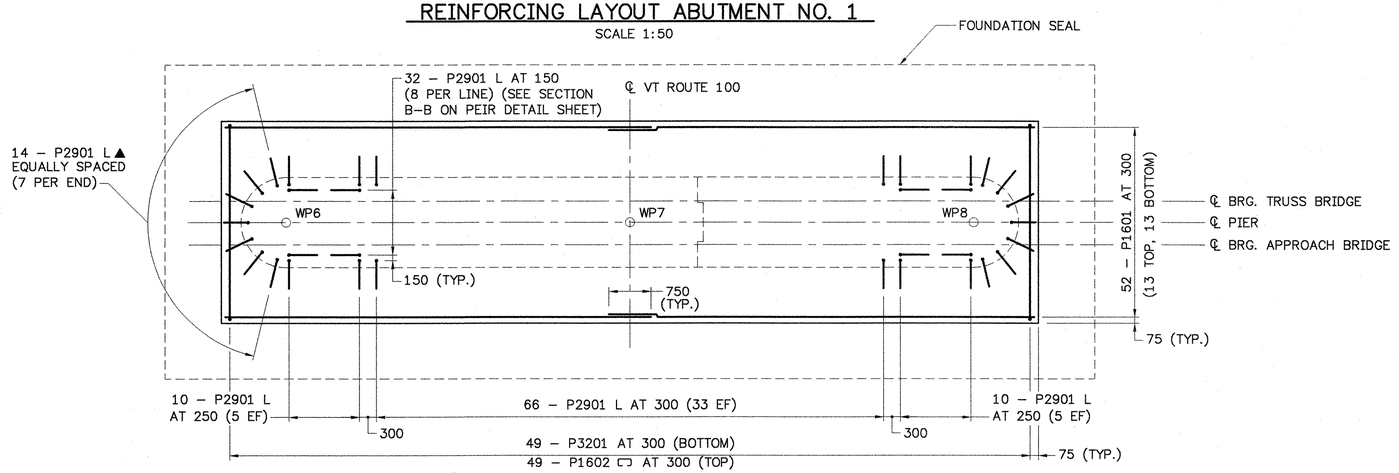
Designed By JH	Drawn By. MWS
Checked By RMR Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 91 Of 116

90284PIER.dwg (1=1)



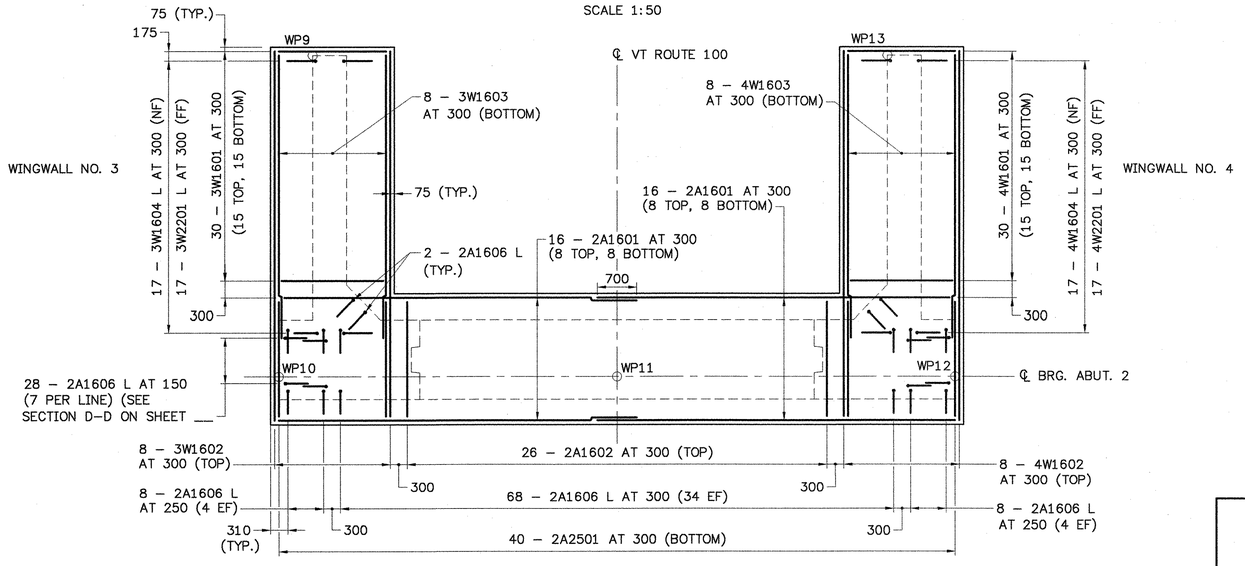
REINFORCING LAYOUT ABUTMENT NO. 1

SCALE 1:50



REINFORCING LAYOUT PIER

SCALE 1:50



REINFORCING LAYOUT ABUTMENT NO. 2

SCALE 1:50

NOTE

NF = NEAR FACE
FF = FAR FACE
EF = EACH FACE
▲ = FIELD CUT

CONSULTING ENGINEERS
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PH: (603) 668-8223
FAX: (603) 668-8802
E-MAIL: CLD@CLDENGINEERS.COM

STATE OF VERMONT
AGENCY OF TRANSPORTATION

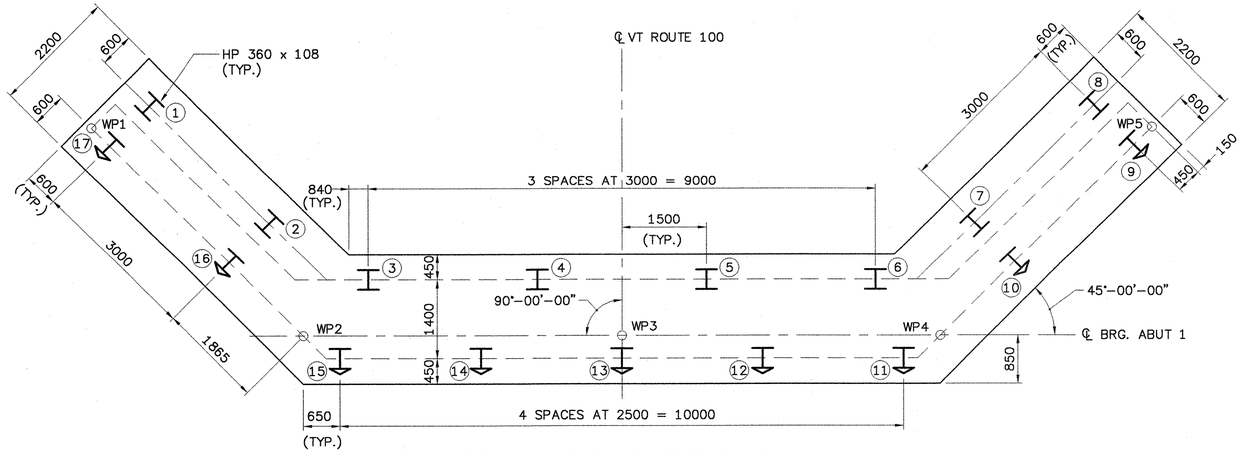
Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

FOOTING REINFORCING PLAN

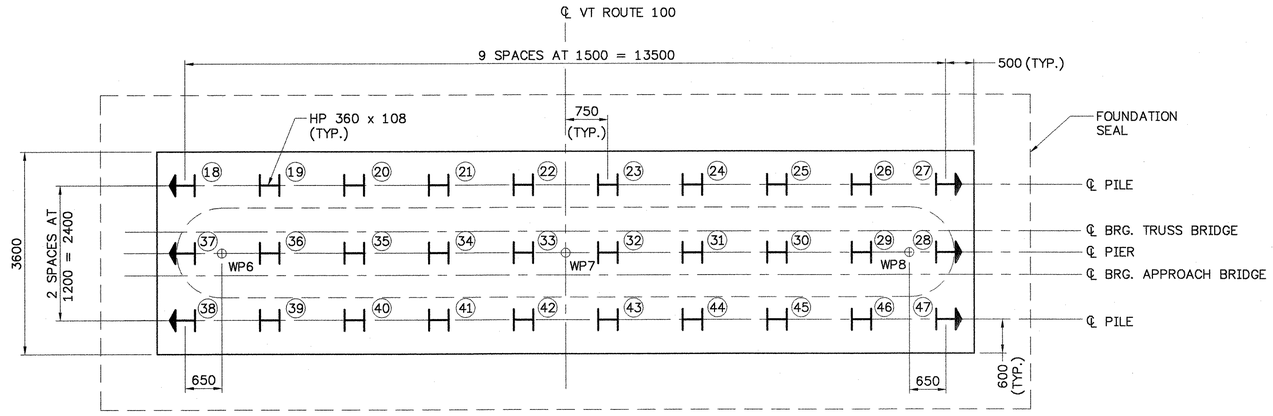
Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 92 Of 116

90284FOOT.dwg



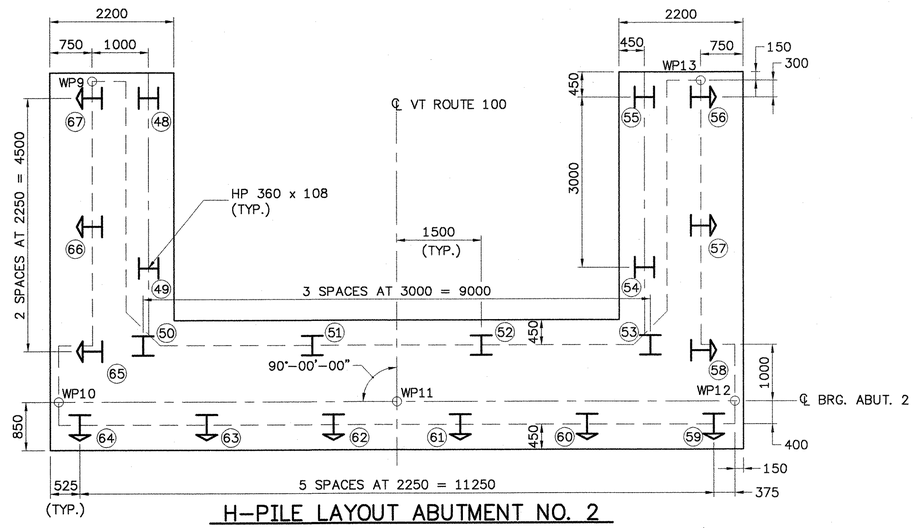
H–PILE LAYOUT ABUTMENT NO. 1

SCALE 1:50



H–PILE LAYOUT PIER

SCALE 1:50



H–PILE LAYOUT ABUTMENT NO. 2

SCALE 1:50

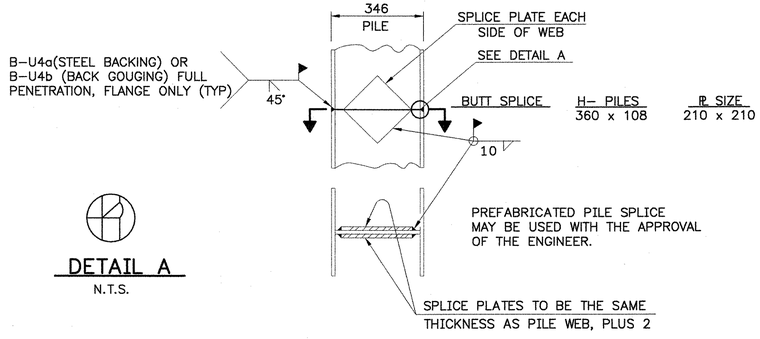
PILE NOTES

1. PILES UNDER 6 METERS SHALL NOT BE SPLICED.
2. PILE CUT OFF ELEVATION:
   ABUTMENT NO. 1 = 169.200
   ABUTMENT NO. 2 = 168.500
   PIER = 162.600
3. SEE SHEET 63 FOR GENERAL PILE NOTES.

I – INDICATES VERTICAL HP360x108 PILE W/ REINF. TIP DRIVEN TO LEDGE. ALLOWABLE LOAD PER PILE = 858 kN. REQUIRED ULTIMATE CAPACITY = 1930 kN PER PILE

I – INDICATES PILE BATTERED AT 2 ON 12

I – INDICATES PILE BATTERED AT 3 ON 12



DETAIL A

N.T.S.

DETAIL OF PILE SPLICE

N.T.S.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.
VT. ROUTE 100 OVER THE WEST RIVER	
PILE LAYOUT	
Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013–1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 93 Of 116

CLD CONSULTING ENGINEERS
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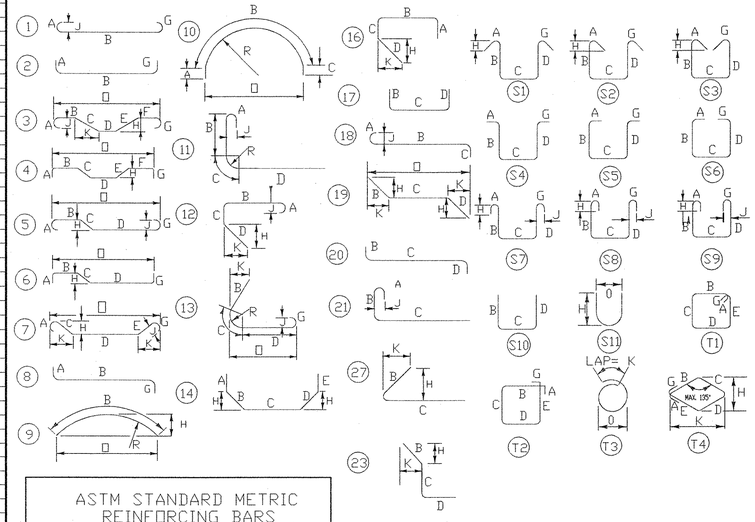
90284PIL.dwg

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				DECK													
	285	16	11075	ES1601	STR												
	476	16	10475	ES1602	STR	*											
	1106	16	10675	ES1603	STR	▲											
	794	16	1600	ES1604	S5	250	350	400	350			250					
	32	16	2650	ES1605	S5	650	300	750	300			650					
	32	16	1625	ES1606	S5	675	300	375	275			0					
	23	16	2575	ES1607	S5	650	225	825	225			650					
	23	16	1600	ES1608	S5	675	225	500	200			0					
				APPROACH SLAB NO. 1													
	21	16	9450	1EAS1601	STR												
	17	25	900	1EAS2501	19		400	500	0				212		212		762
	39	29	6100	1EAS2901	1	365	5735	*				0		230			
				APPROACH SLAB NO. 2													
	21	16	9450	2EAS1601	STR												
	18	25	900	2EAS2501	19	*	400	500	0				212		212		762
	38	29	6100	2EAS2901	1	365	5735					0		230			
				ABUTMENT NO. 1													
	16	16	11300	1A1601	STR												
	38	16	2150	1A1602	STR												
	22	16	2200	1A1603	STR	▲											
	10	16	1575	1A1604	STR												
	16	16	8675	1A1605	STR												
				1A1606		BLANK											
	36	16	2900	1A1607	17		825	1250	825								
	2	16	2650	1A1608	17		825	1000	825								
	2	16	2400	1A1609	17		825	750	825								
	82	16	2225	1A1610	17		400	1825	0								
	22	16	2375	1EA1611	STR												
	11	16	8675	1EA1612	STR												
	38	16	3750	1EA1613	17		1650	450	1650								
	38	16	1750	1EA1614	17		800	150	800								
	39	22	2150	1A2201	STR	*											
				WINGWALL NO. 1													
	43	16	2050	1W1601	STR	*											
	16	16	5975	1W1602	STR												
	10	16	5725	1W1603	STR												
	12	16	4600	1W1604	STR	▲											
	35	16	4025	1W1605	17	▲	0	3625	400								
	16	16	1700	1W1606	17		625	450	625								
	1	16	1600	1W1607	17		625	350	625								
	15	16	1250	1W1608	19	▲	0	625	625				442		442		1067
	18	16	2075	1W1609	19		0	1400	675				477		477		1877
	2	16	4950	1W1610	19		0	4725	225				83		209		4934
				WINGWALL NO. 2													
	42	16	2050	2W1601	STR												
	17	16	5975	2W1602	STR	*											
	10	16	5725	2W1603	STR												
	12	16	4600	2W1604	STR	▲											
	35	16	4025	2W1605	17	▲	0	3625	400								
	16	16	1700	2W1606	17		625	450	625								
	1	16	1600	2W1607	17		625	350	625								
	15	16	1250	2W1608	19	▲	0	625	625				442		442		1067
	18	16	2075	2W1609	19		0	1400	675				477		477		1877
	2	16	4950	2W1610	19		0	4725	225				83		209		4934

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D	E	F	G	H	J	K	R	O
				ABUTMENT NO. 2													
	9	13	4300	2A1301	T2	150	750	1250	750	1250	*	150					
	8	13	1000	2A1302	16	125	750	0	125				88		88		
	32	16	6425	2A1601	STR												
	26	16	2150	2A1602	STR												
	26	16	2350	2A1603	STR												
	13	16	8475	2A1604	STR												
	42	16	2650	2A1605	STR												
	116	16	2100	2A1606	17		0	1700	400								
	26	16	1750	2EA1607	STR												
	13	16	8475	2EA1608	STR												
	37	16	4150	2EA1609	17		1850	450	1850								
	37	16	1750	2EA1610	17		800	150	800								
	42	25	2150	2A2501	STR												
				WINGWALL NO. 3													
	30	16	2050	3W1601	STR												
	8	16	6550	3W1602	STR												
	8	16	5075	3W1603	STR												
	17	16	3725	3W1604	17		400	3325	0								
	8	16	5950	3W1605	STR												
	12	16	5150	3W1606	STR	▲											
	4	16	3025	3W1607	19		625	2400	0				442		442		2842
	4	16	4850	3EW1608	STR												
	23	16	2150	3EW1609	17		850	450	850								
	6	16	1250	3EW1610	17		625	625	0								
	4	16	2025	3W1611	19		625	1400	0				442		442		1842
	18	22	3725	3W2201	17	*	400	3325	0								
				WINGWALL NO. 4													
	30	16	2050	4W1601	STR												
	8	16	6550	4W1602	STR												
	8	16	5075	4W1603	STR												
	17	16	3725	4W1604	17		400	3325	0								
	8	16	5950	4W1605	STR												
	12	16	5150	4W1606	STR	▲											
	4	16	3025	4W1607	19		625	2400	0				442		442		2842
	5	16	4850	4EW1608	STR	*											
	23	16	2150	4EW1609	17		850	450	850								
	6	16	1250	4EW1610	17		625	625	0								
	4	16	2025	4W1611	19		625	1400	0				442		442		1842
	17	22	3725	4W2201	17		400	3325	0								
				PIER													
	50	13	5100	P1301	T2	150	1000	1400	1000	1400		150					
	50	13	1250	P1302	16	125	1000	0	125				88		88		
	264	13	1650	P1303	16	125	1400	0	125				88		88		
	52	16	7550	P1601	STR												
	49	16	6300	P1602	S6	675	750	3450	750			675					
	52	16	8075	P1603	STR												
	52	16	4800	P1604	STR												
	43	16	2650	P1605	17		625	1400	625								
	24	16	1850	P1606	17		625	600	625								
	6	16	2200	P1607	STR												
	50	16	3550	P1608	S11								1375				1400
	132	29	3150	P2901	17	▲	0	2650	500								
	132	29	7100	P2902	STR												
	50	32	3400	P3201	STR	*											

NOTES:

1. UNLESS OTHERWISE DESIGNATED, ALL BAR REINFORCEMENT FOR CONCRETE IN SIZES UP TO AND INCLUDING NO. 18 SHALL CONFORM TO THE REQUIREMENTS OF THE "SPECIFICATIONS FOR DEFORMED BILLET-STEEL BARS FOR CONCRETE REINFORCEMENT", AASHTO M 31 (ASTM A 615-S1). ALL BARS SHALL BE GRADE 420, UNLESS OTHERWISE DESIGNATED.
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. * ASTERISKS DENOTE EXTRA BARS ADDED FOR TESTING PURPOSES. (NUMBER OF ASTERISKS = NUMBER OF EXTRA BARS.)
10. "E" IN PREFIX DENOTES EPOXY COATED REINFORCING STEEL.



ASTM STANDARD METRIC REINFORCING BARS

BAR SIZE DESIGNATION	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

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 80
	Log Sta.
Highway No. VT. ROUTE 100	Surv. Sta.

VT. ROUTE 100 OVER THE WEST RIVER

REINFORCING SCHEDULE

Designed By JH	Drawn By. MWS
Checked By LMM Date 2/02	Bridge Design Supervisor LMM Date 2/02
PROJECT JAMAICA	PROJECT NO. BRF 013-1(8)
I.G.C. Info.	
Bridge Sheet No.	Sheet 94 Of 116

90284SCH.dwg (1=1)

Metric

FINAL SURVEY	BY	DATE
NOTEBOOK		
NO.		
SURFACED		
PLOTTED		
TRAVERSE		
AREAS CHECKED		

1.5 3.3 3.3 1.5

1.5

0.6

0.6 3.3 3.3

PLAN TRANSITION

5+360

5+345

5+340

5+320

5+300

5+280

5+260

℄

180.000

E. WOODS

1:4

1:12

+289. 450 PINE
W/LIGHT. & SIGN.

180+

175+

185+

SCALE
IN METERS

10 m

10 m

SCALE 5 m

FROM STA.	5+260	TO STA.	5+300
PROJECT NAME	JAMAICA		MAIN LINE
NO.	BRF 013-1(8)		PLOTTED 11/06/97
SURVEYED BY	CLD		OCT. 1995

SHEET 95 OF 116 SHEETS

ORIGINAL SURVEY	BY	DATE
NOTEBOOK		
NO.		
SURFACED		
PLOTTED		
TRAVERSE		
AREAS CHECKED		

Metric

RT SIDE
RT SIDE
RT SIDE & RT SHOULDER
RT SHOULDER
RT SHOULDER
+0.027
+0.042
+0.056
+0.071
E WOODS
℄ 176.361
CVPS # 7/9
+349 NET #9 W/TELE
1:4
-0.071
+0.071
1:2
180+
175+
SEE TH 56 SECTIONS
5+345

LT SIDE & LT SHOULDER
LT SIDE & LT SHOULDER
-0.057
-0.057
-0.071
SCALE
0.050
20 m
5+280
5+300
5+320
+330
5+340
5+360
BANKING TRANSITION
℄ 176.702
E WOODS
-0.071
+0.071
180+
175+
+333 450 PINE
W/ELECTRIC METER
5+340

℄ 178.234
E WOODS
E WOODS
1:4
-0.057
+0.056
1:2
180+
175+
5+320

40 BCP TYPE III
50 BCP TYPE II
65 BCP TYPE I
460 SUBBASE OF DENSE GRADED CRUSHED STONE
600 SAND BORROW
+342.5
5+340
25
1
DEPTH TRANSITION
SCALE IN METERS
5
0.5
5+320
AREA TO BE COLD PLANED
EXISTING PAVEMENT ±
EXISTING SUBBASE±
5+300

SCALE 5 m

FROM STA. 5+320 TO STA. 5+345
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 96 OF 116 SHEETS

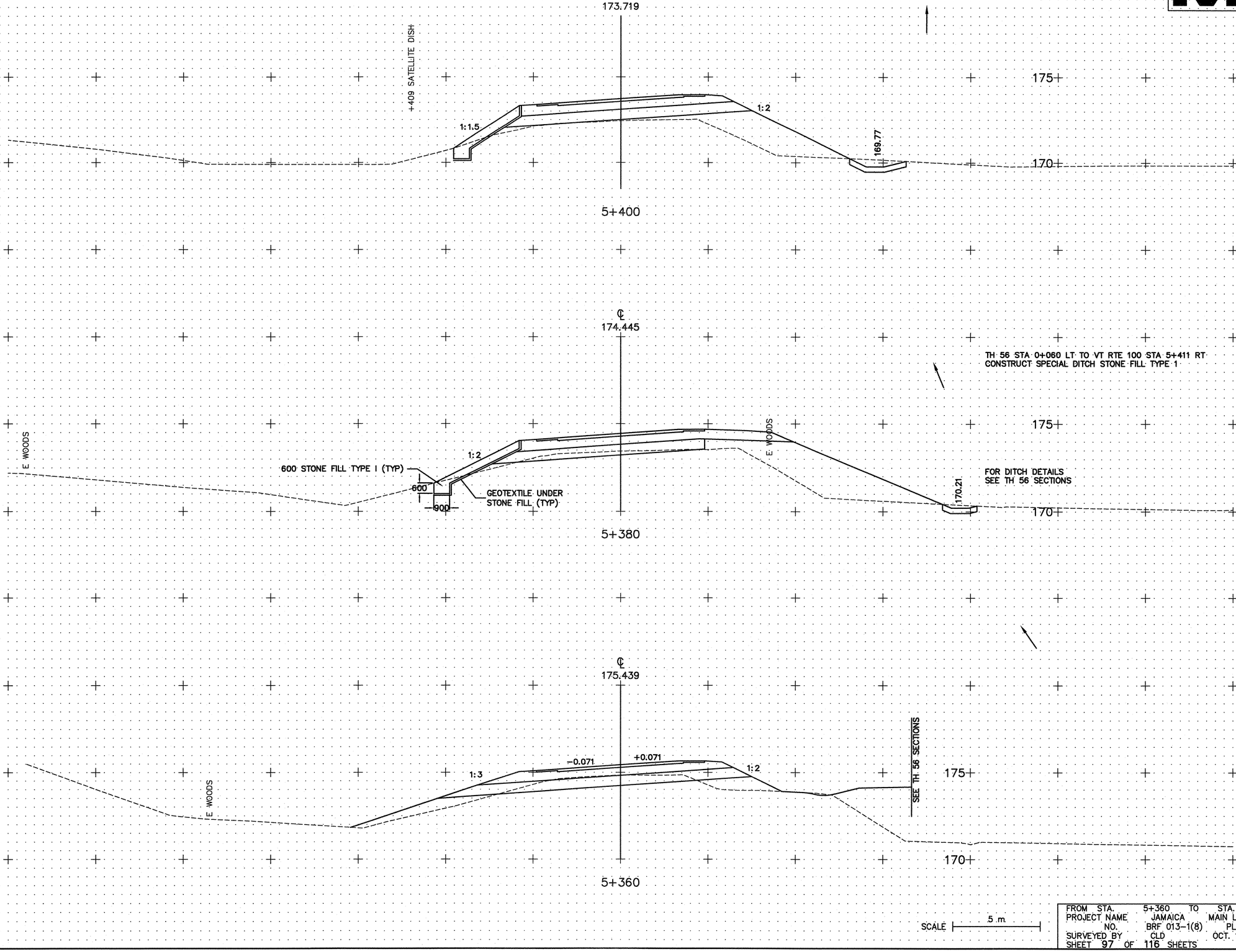
FINAL SURVEY
NOTEBOOK
NO.
SURVEYED
PLOTTED
FIELD DATE
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO.
SURVEYED
PLOTTED
FIELD DATE
AREAS CHECKED
BY
DATE

Metric

FINAL SURVEY	BY	DATE
SURFACED (WIDTH)		
UNPAVED		
NOTEBOOK		
NO.		

ORIGINAL SURVEY	BY	DATE
SURFACED (WIDTH)		
UNPAVED		
NOTEBOOK		
NO.		



FROM STA. 5+360 TO STA. 5+400
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 97 OF 116 SHEETS

Metric

℄ 172.851

SEE TH 41 SECTIONS

SEE TH 43 SECTIONS

-0.020 +0.007

175+

170+

5+460

SCALE

0.050

20 m

RT SIDE

RT SHOULDER

LT SIDE

LT & RT SIDE

LT & RT SHOULDER

LT SIDE & LT SHOULDER

+0.071 +0.062 +0.044 PT = 5+442.312 +0.026 +0.007 -0.011 -0.020

-0.071 -0.062 -0.044 -0.026 -0.020 +425

5+400 5+420 5+440 5+460 5+480 5+500

BANKING TRANSITION

℄ 173.040

-0.044 +0.044

1:1.5

1:2

5+440

℄ 173.262

-0.071 +0.071

1:2

600 STONE FILL TYPE I (TYP)

1:1.5

600

900

GEOTEXTILE UNDER STONE FILL (TYP)

5+420

E GUY WIRE

+418 CVPS # 7/8 NET #8

SCALE 5 m

FROM STA. 5+420 TO STA. 5+460
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 98 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK NO.
SURFACED PLOTTED TEMPLATE AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK NO.
SURFACED PLOTTED TEMPLATE AREAS CHECKED
BY
DATE

Metric

FINAL SURVEY	BY	DATE
NOTEBOOK	SURVEYED	
NO	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

℄
172.286

170
165

5+520

℄
172.474

170
165

5+500

ORIGINAL SURVEY	BY	DATE
NOTEBOOK	SURVEYED	
NO	PLOTTED	
	TEMPLATE	
	AREAS	
	AREAS CHECKED	

℄
172.663

175
170

1200 STONE FILL

1:2

E GUY WIRE

+475 NET 1620/4

+478 UP #5 W/LIGHT, W/TRANSFORMER

E GUY WIRE

GEOTEXTILE UNDER STONE (TYP)

5+480

SCALE .5 m

FROM STA. 5+480 TO STA. 5+520
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 99 OF 116 SHEETS

VDOT Metric

℄ 171.720

−0.020 +0.017

1:3 1:3

+587 UP

E GUY WIRE

175+ 170+

5+580

−0.001 +0.017 +0.036 +0.045

PC = 5+585.990

RT SIDE

RT SIDE

℄

LT & RT SIDE LT SIDE

RT SHOULDER

LT SIDE

LT & RT SHOULDER LT SHOULDER

℄ 171.909

CVPS #4A W/SIGNAL BOX & LIGHT

−0.020 −0.020

E WOODS

UP #3

GUY WIRE

1200 STONE FILL

1:2

1:2

1200 STONE FILL

+556 UP #4

GEOTEXTILE UNDER STONE (TYP).

GEOTEXTILE UNDER STONE (TYP)

+175 +170

5+540 5+560 5+580 +595 5+600

−0.020 −0.020 −0.020 −0.036 −0.045

BANKING TRANSITION

SCALE

0.050

20 m

5+560

℄ 172.097

+170

+165

5+540

SCALE 5 m

FROM STA. 5+540 TO STA. 5+580
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 100 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS CHECKED
BY
DATE

Metric

℄
171.249

10 m ROUNDING

20 m ROUNDING

A

+0.045

−0.030

−0.100

170

165

SECTION TAKEN ALONG CENTERLINE OF PROPOSED DRIVE

A

5+630

4200

50 BCP

450 SUBBASE

1:4

1:4

SECTION A–A

℄
171.343

−0.045

+0.045

1:4

1:4

5+620

℄
171.531

−0.045

+0.045

1:4

1:4

5+600

SCALE 5 m

FROM STA. 5+600 TO STA. 5+630
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 101 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK
NO
SURVEYED
PLOTTED
TRIPLICATE
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO
SURVEYED
PLOTTED
TRIPLICATE
AREAS CHECKED
BY
DATE

FINAL SURVEY
NOTEBOOK
NO.____
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO.____
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

℄
170.777

+682 UP STUB

−0.045 +0.045

1:4 1:4

E WOODS

175+ 170+

5+680

℄
170.966

−0.045 +0.045

1:4 1:4

+652 UP # 7/2

175+ 170+

5+660

℄
171.154

−0.045 +0.045

1:4 1:4

+638 UP # 2

+638 E GUY WIRE

175+ 170+

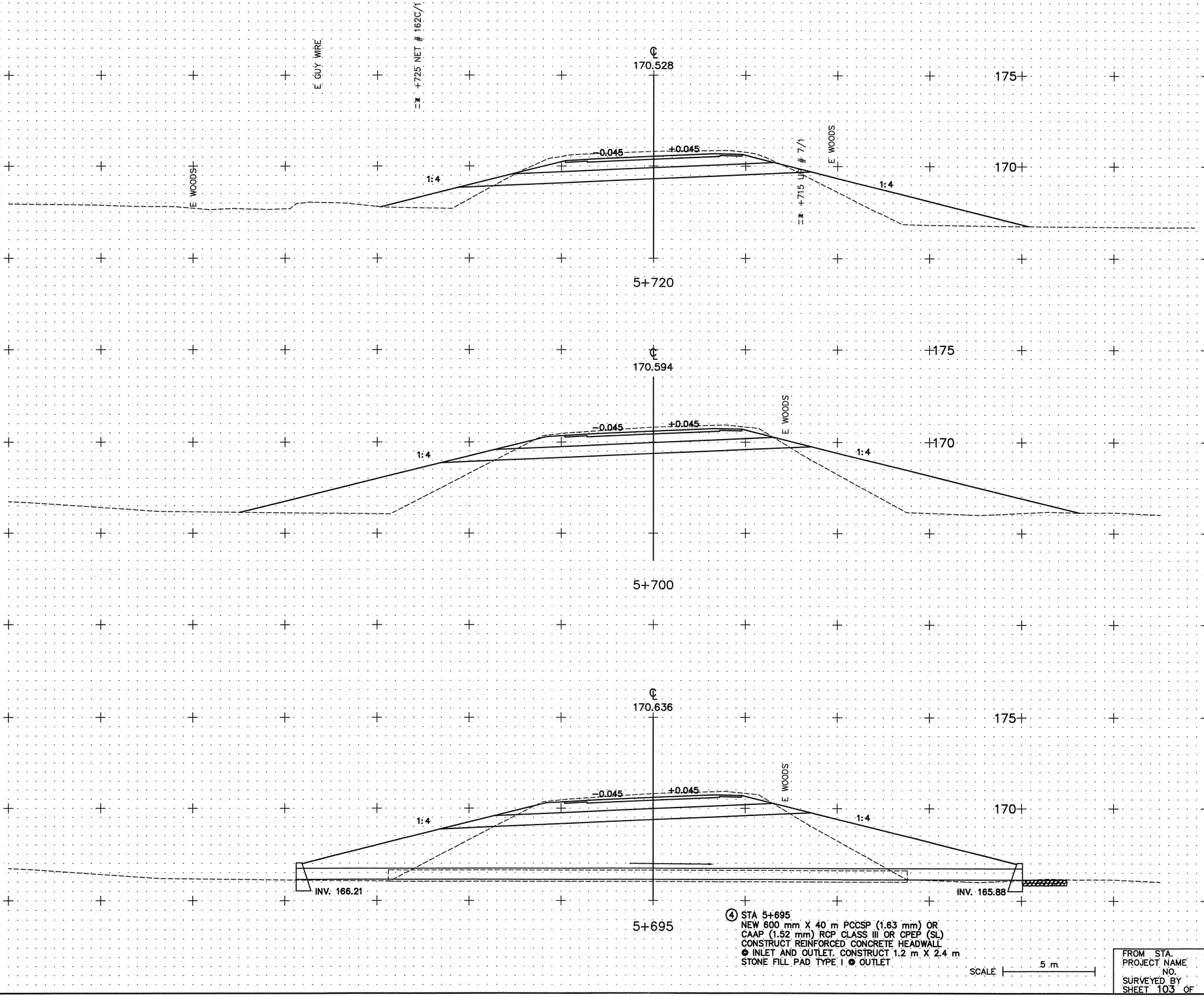
5+640

SCALE 5 m

FROM STA. 5+640 TO STA. 5+680
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 102 OF 116 SHEETS

Metric

FINAL SURVEY	BY	DATE
NOTEBOOK NO.	SURVEYED PLOTTED TRACED AREAS CHECKED	



ORIGINAL SURVEY	BY	DATE
NOTEBOOK NO.	SURVEYED PLOTTED TRACED AREAS CHECKED	

④ STA 5+695
NEW 600 mm X 40 m PCCSP (1.63 mm) OR
CAAP (1.52 mm) RCP CLASS III OR CPEP (SL)
CONSTRUCT REINFORCED CONCRETE HEADWALL
◘ INLET AND OUTLET. CONSTRUCT 1.2 m X 2.4 m
STONE FILL PAD TYPE I ◘ OUTLET

SCALE 5 m

FROM STA. 5+695 TO STA. 5+720
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 103 OF 116 SHEETS

Metric

℄
170.842

175

EXCAVATION OF SURFACES & PAVEMENTS

170

5+760

+0.045 +0.045 +0.045 +0.029 +0.012 +0.004

PT = 5+749.703

RT SIDE

℄

RT SHOULDER

LT SIDE

LT SHOULDER

-0.045 -0.045 -0.045 -0.030 -0.015 -0.007

5+720 5+740 5+760 +765.2

BANKING TRANSITION

℄
170.626

175+

SCALE

0.050

20 m

-0.045 +0.045

1:4 1:4

170+

5+740

SCALE 5 m

FROM STA. 5+740 TO STA. 5+760
PROJECT NAME JAMAICA MAIN LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 104 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK
NO
SURVEYED
PLOTTED
TRAPEZATE
LOG
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO
SURVEYED
PLOTTED
TRAPEZATE
LOG
AREAS CHECKED
BY
DATE

Metric

℄ 173.769

180

SEE ROUTE 100 SECTIONS

E WOODS

E WOODS

1:4

1:4

1:2

+037 CVPS # 7/9
NET #9 W/TELE

0+040

℄ 174.478

SEE ROUTE 100 SECTIONS

175

-0.020

-0.020

169.77

1:2

E WOODS

E WOODS

170

0+020

℄ 174.440

175

170

0+000

1 m

1:4

VARIES

EXISTING GROUND

GEOTEXTILE UNDER STONE FILL

300m

STONE FILL TYPE I

SPECIAL DITCH

SCALE .5 m

TOWN HIGHWAY 56

FROM STA. 0+000 TO STA. 0+040
PROJECT NAME JAMAICA TH 56
NO. BRF 013-1(8) PLOTTED 11/07/97
SURVEYED BY CLD OCT. 1995
SHEET 105 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK
NO.
SURVEYED
PLOTTED
TRIPLICATE
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO.
SURVEYED
PLOTTED
TRIPLICATE
AREAS CHECKED
BY
DATE

Metric

℄
173.722

E WOODS
/E LEDGE

180
175

0+097.00

℄
173.430

E WOODS

1:4

1:4

E WOODS

1:2

INV. 171.83

180
175

0+080

① STA 0+080 RT TO 0+060 LT (TH 56)
NEW 600 mm X 28 m CSP (1.63 mm) W/ CSPES ⊙ INLET
OR RCP CLASS III W/ RCPES ⊙ INLET OR CPEP (SL)
W/ CPEPES ⊙ INLET

℄
173.419

E WOODS

−0.020

−0.020

1:4

1:4

E WOODS

1:2

INV. 171.42

180
175

SEE ROUTE 100 SECTIONS

0+060

TOWN HIGHWAY 56

SCALE 5 m

FROM STA. 0+060 TO STA. 0+097.00
PROJECT NAME JAMAICA TH 56
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 106 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK
NO
SURVEYED
PLOTTED
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO
SURVEYED
PLOTTED
AREAS CHECKED
BY
DATE

VAOT Metric

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
COMPUTED		
NOTEBOOK		
NO.	AREAS CHECKED	

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
COMPUTED		
NOTEBOOK		
NO.	AREAS CHECKED	

℄

180+

175+

0+140

℄

180+

175+

0+120

℄

173.800

180+

175+

0+100

TOWN HIGHWAY 56

SCALE 5 m

FROM STA. 0+100 TO STA. 0+140
PROJECT NAME JAMAICA TH 56
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 107 OF 116 SHEETS

VTrans Metric

FINAL SURVEY	BY	DATE
NOTEBOOK	SURVEYED	
NO	PLOTTED	
	TRIPLICATE	
	AREAS CHECKED	

℄
171.818

E WOODS

1:4

1:3

INV. 169.52

INV. 168.96

175

170

② STA 0+122 (TH 41)
NEW 600 mm X 24 m CSP (1.63 mm) W/ CSPES @ INLET
OR RCP CLASS III W/ RCPES @ INLET OR CPEP (SL)
W/ CPEPES @ INLET

0+122

℄
171.967

E WOODS

600 STONE FILL TYPE I (TYP)

600

900

GEOTEXTILE UNDER
STONE FILL (TYP)

1:4

-0.020

-0.020

1:3

175

170

0+120

ORIGINAL SURVEY	BY	DATE
NOTEBOOK	SURVEYED	
NO	PLOTTED	
	TRIPLICATE	
	AREAS CHECKED	

℄
172.800

175

170

0+100

TOWN HIGHWAY 41

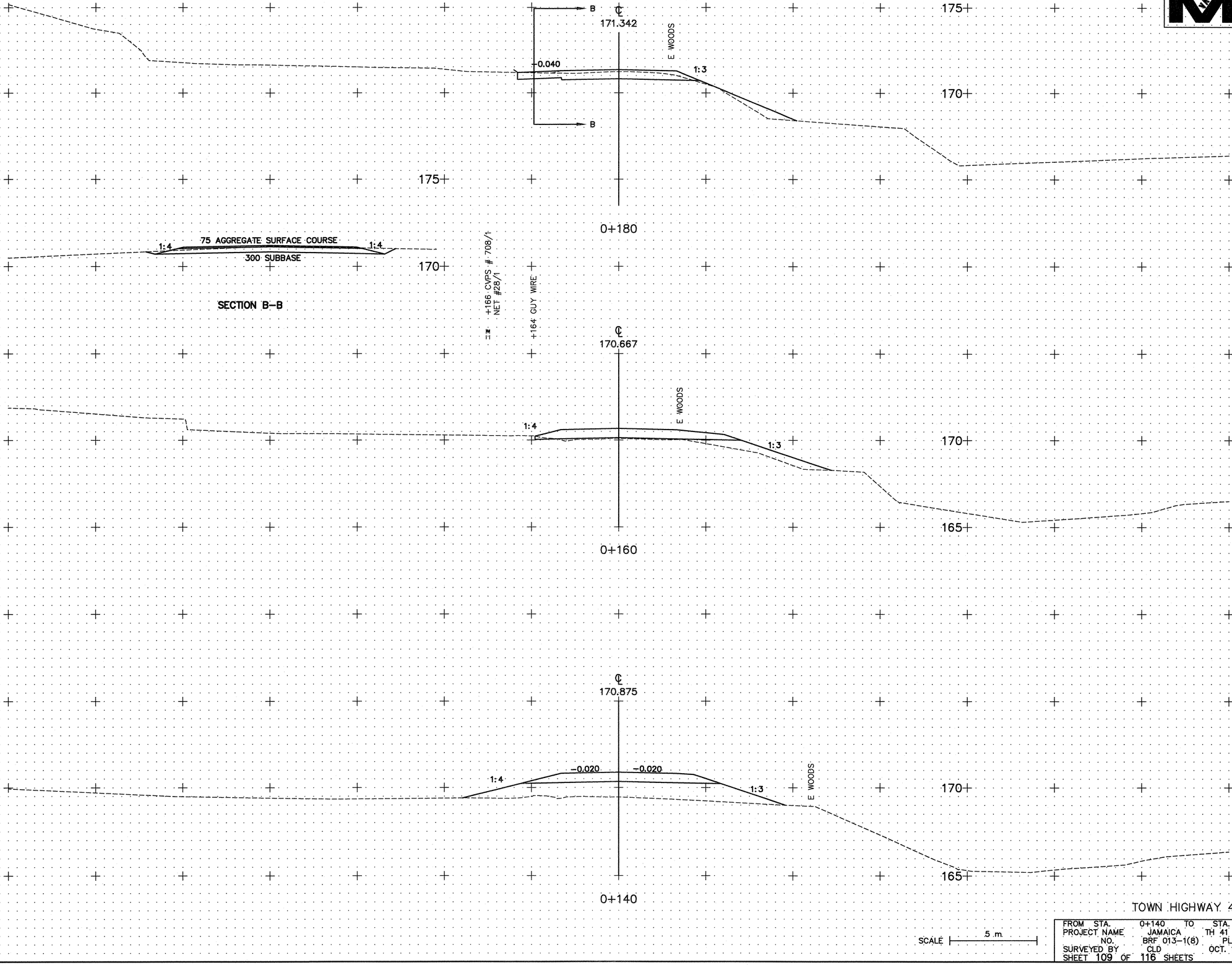
SCALE 5 m

FROM STA.	0+100	TO STA.	0+122.00
PROJECT NAME	JAMAICA		TH 41
NO.	BRF 013-1(8)		PLOTTED 11/06/97
SURVEYED BY	CLD		OCT. 1995
SHEET 108 OF 116 SHEETS			

Metric

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTEBOOK		
NO.		
TRAPEZE		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
NOTEBOOK		
NO.		
TRAPEZE		
AREAS CHECKED		



TOWN HIGHWAY 41

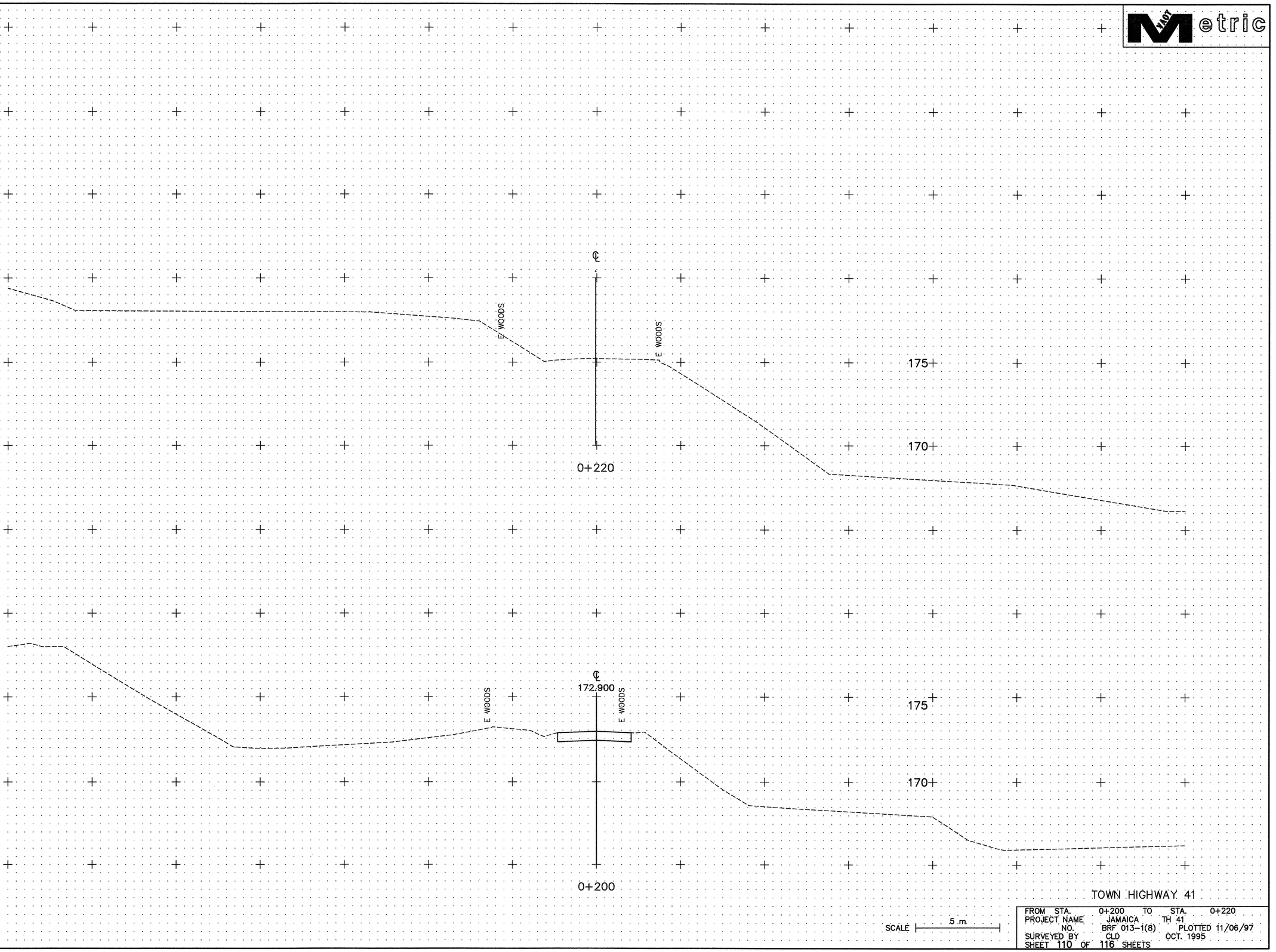
SCALE 5 m

FROM STA.	0+140	TO STA.	0+180
PROJECT NAME	JAMAICA		TH 41
NO.	BRF 013-1(8)		PLOTTED 11/06/97
SURVEYED BY	CLD		OCT. 1995
SHEET 109 OF 116 SHEETS			

VAOT Metric

FINAL SURVEY	SURVEYED BY:
NOTEBOOK NO.	PLOTTED BY:
	DATE:
	AREAS CHECKED BY:

BY	DATE

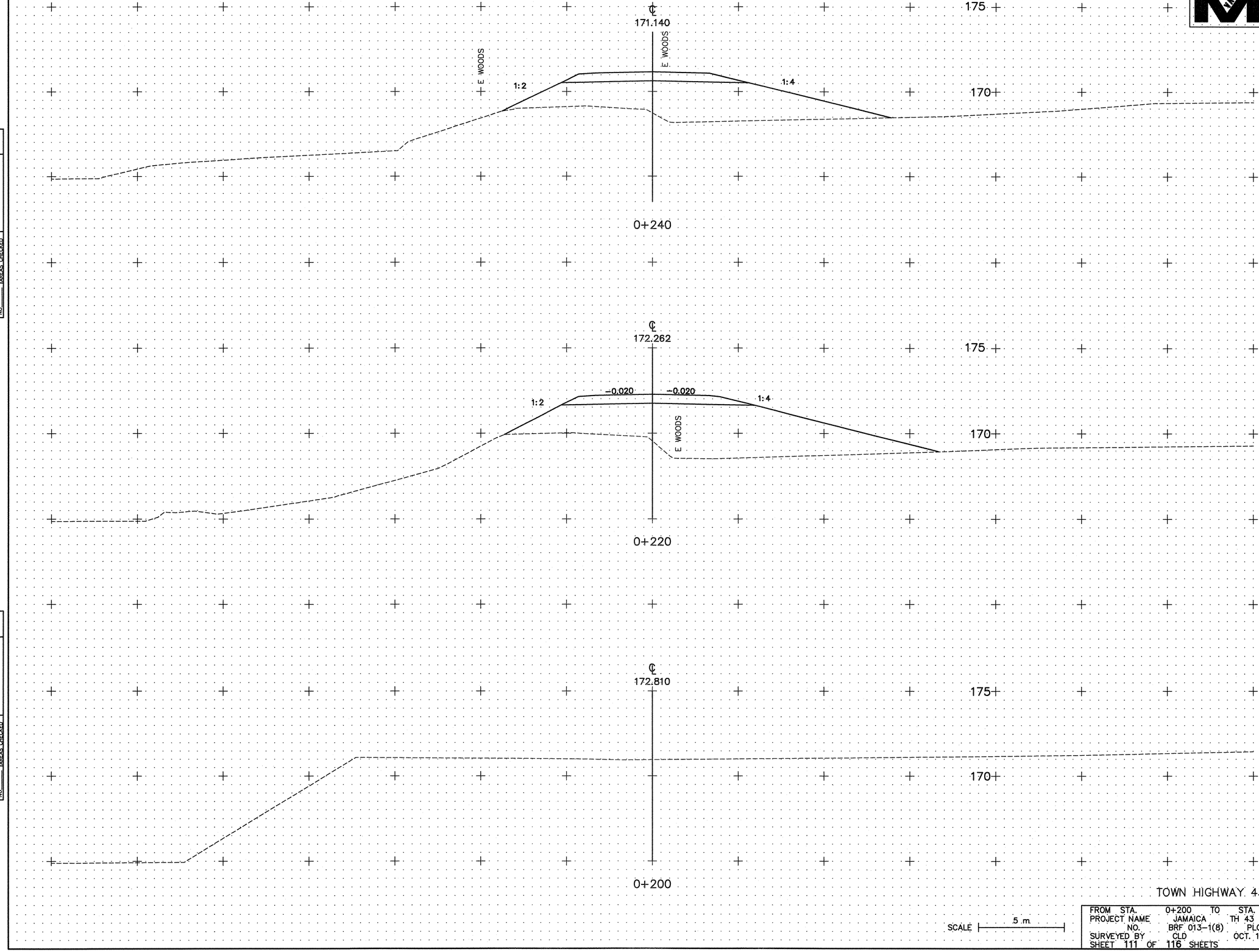


TOWN HIGHWAY 41

FROM STA. 0+200 TO STA. 0+220
PROJECT NAME JAMAICA TH 41
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 110 OF 116 SHEETS

ORIGINAL SURVEY	SURVEYED BY:
NOTEBOOK NO.	PLOTTED BY:
	DATE:
	AREAS CHECKED BY:

BY	DATE



Metric

FINAL SURVEY
NOTEBOOK NO.
SURVEYED BY
PLOTTED BY
TRACED BY
AREAS BY
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK NO.
SURVEYED BY
PLOTTED BY
TRACED BY
AREAS BY
AREAS CHECKED
BY
DATE

SCALE 5 m

TOWN HIGHWAY 43

FROM STA. 0+200 TO STA. 0+240
PROJECT NAME JAMAICA TH 43
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 111 OF 116 SHEETS

Metric

℄
169.660

E. WOODS

E. WOODS

1:2

1:4

170

165

0+280

℄
170.190

E. WOODS

E. WOODS

−0.020

−0.020

1:2

1:4

E. WOODS

170

165

0+260

℄
170.613

③ STA 0+250 (TH 43)
NEW 450 mm X 23 m CSP (1.63 mm) W/ CSPES @ INLET
OR RCP CLASS III W/ RCPES @ INLET OR CPEP (SL)
W/ CPEPES @ INLET
CONSTRUCT 0.9 m X 1.8 m STONE FILL PAD
TYPE II @ OUTLET

E. WOODS

−0.020

−0.020

1:2

1:4

E. WOODS

INV. 167.44

INV. 167.93

170

165

0+250

TOWN HIGHWAY 43

SCALE 5 m

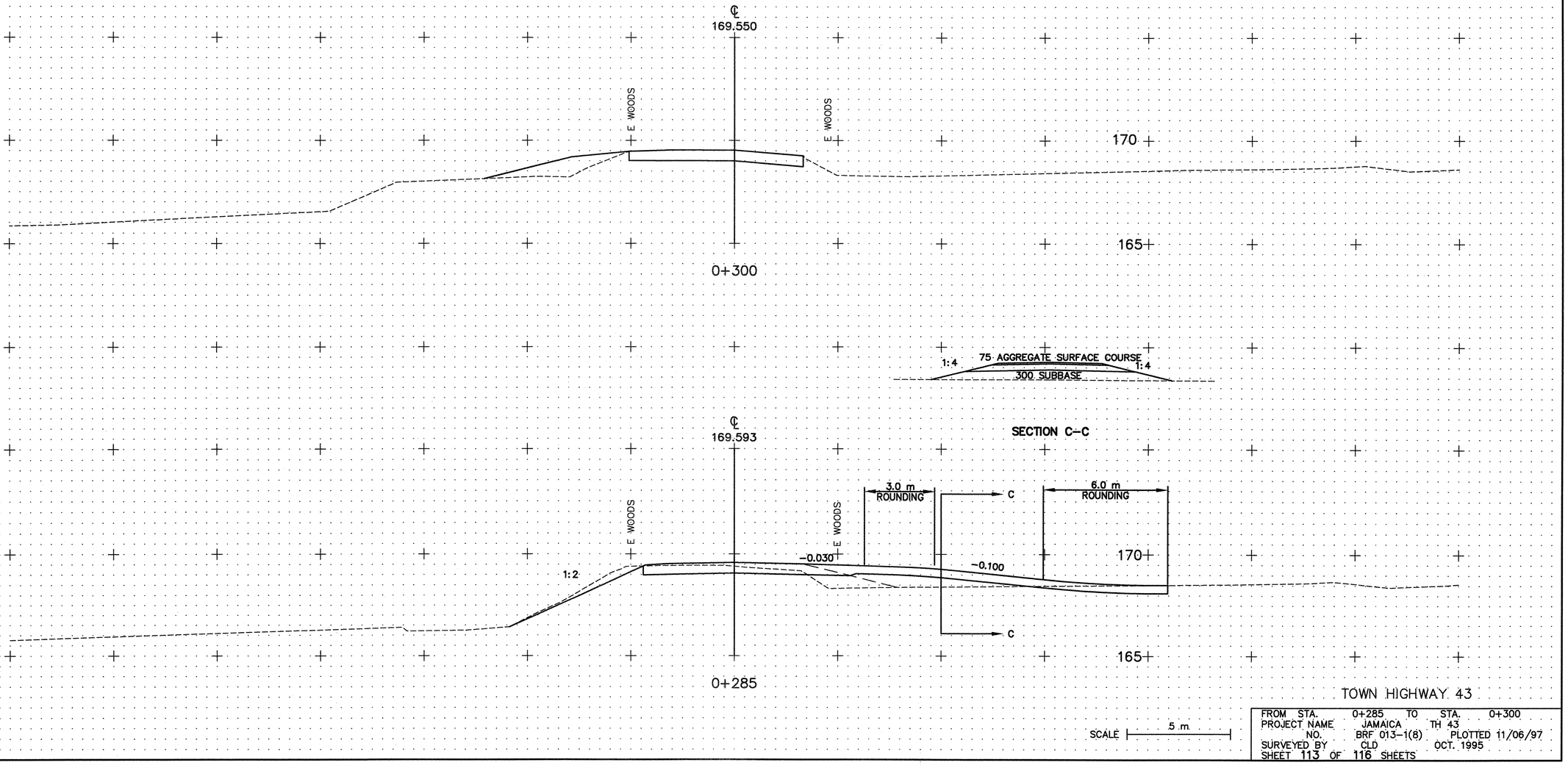
FROM STA. 0+260 TO STA. 0+280
PROJECT NAME JAMAICA TH 43
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 112 OF 116 SHEETS

FINAL SURVEY
NOTEBOOK
NO
SURFACED
PAINTED
PLOTTED
TRAPEZE
AREAS CHECKED
BY
DATE

ORIGINAL SURVEY
NOTEBOOK
NO
SURFACED
PAINTED
PLOTTED
TRAPEZE
AREAS CHECKED
BY
DATE

FINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TRIPLICATE		
NOTEBOOK		
NO		
AREAS CHECKED		

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PLOTTED		
TRIPLICATE		
NOTEBOOK		
NO		
AREAS CHECKED		



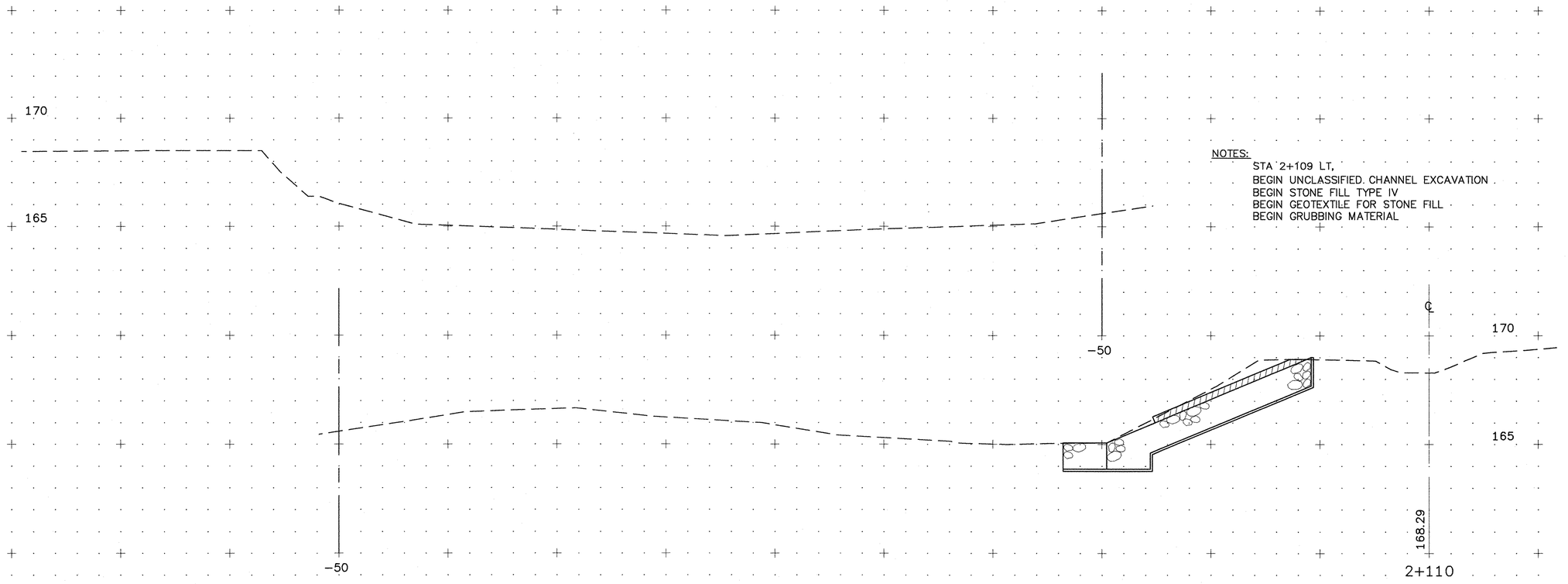
TOWN HIGHWAY 43

SCALE 5 m

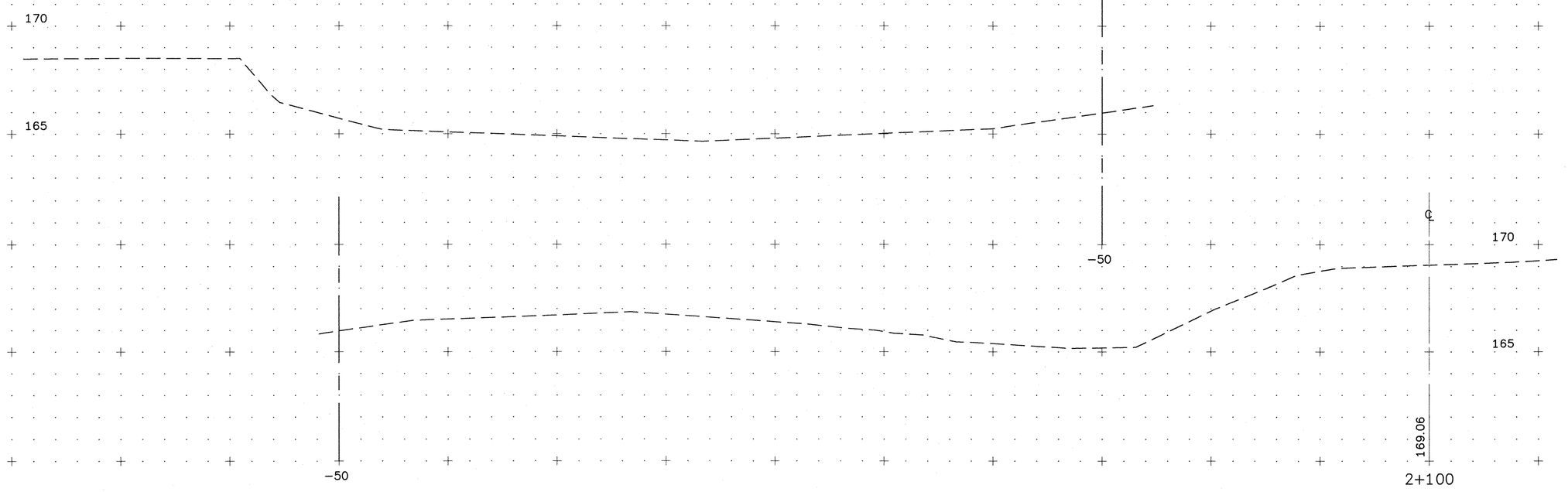
FROM STA.	0+285	TO STA.	0+300
PROJECT NAME	JAMAICA		TH 43
NO.	BRF 013-1(8)		PLOTTED 11/06/97
SURVEYED BY	CLD		OCT. 1995
SHEET 113 OF 116 SHEETS			

FINAL SURVEY
NOTEBOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE

NOTES:
STA 2+109 LT,
BEGIN UNCLASSIFIED. CHANNEL EXCAVATION
BEGIN STONE FILL TYPE IV
BEGIN GEOTEXTILE FOR STONE FILL
BEGIN GRUBBING MATERIAL



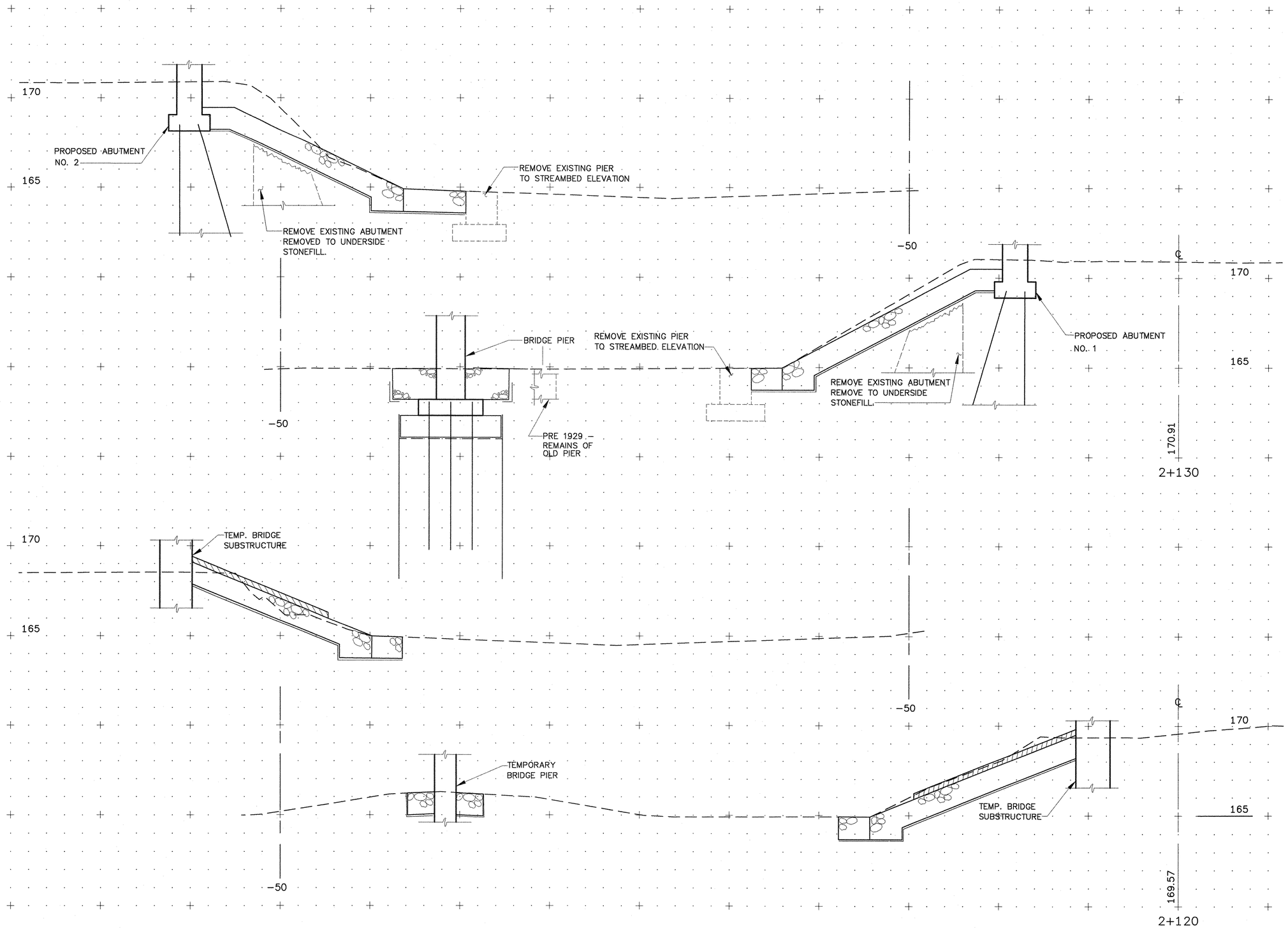
ORIGINAL SURVEY
NOTEBOOK NO.
SURVEYED
PLOTTED
TEMPLATE
AREAS
AREAS CHECKED
BY
DATE



SCALE 5 m

FROM STA. 2+100 TO STA. 2+110
PROJECT NAME JAMAICA CHANNEL LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 114 OF 116 SHEETS

FINAL SURVEY	BY	DATE
SURVEYED BY CLD		
PLOTTED ON TMPLATE		
AREAS CHECKED		
NOTEBOOK NO.		

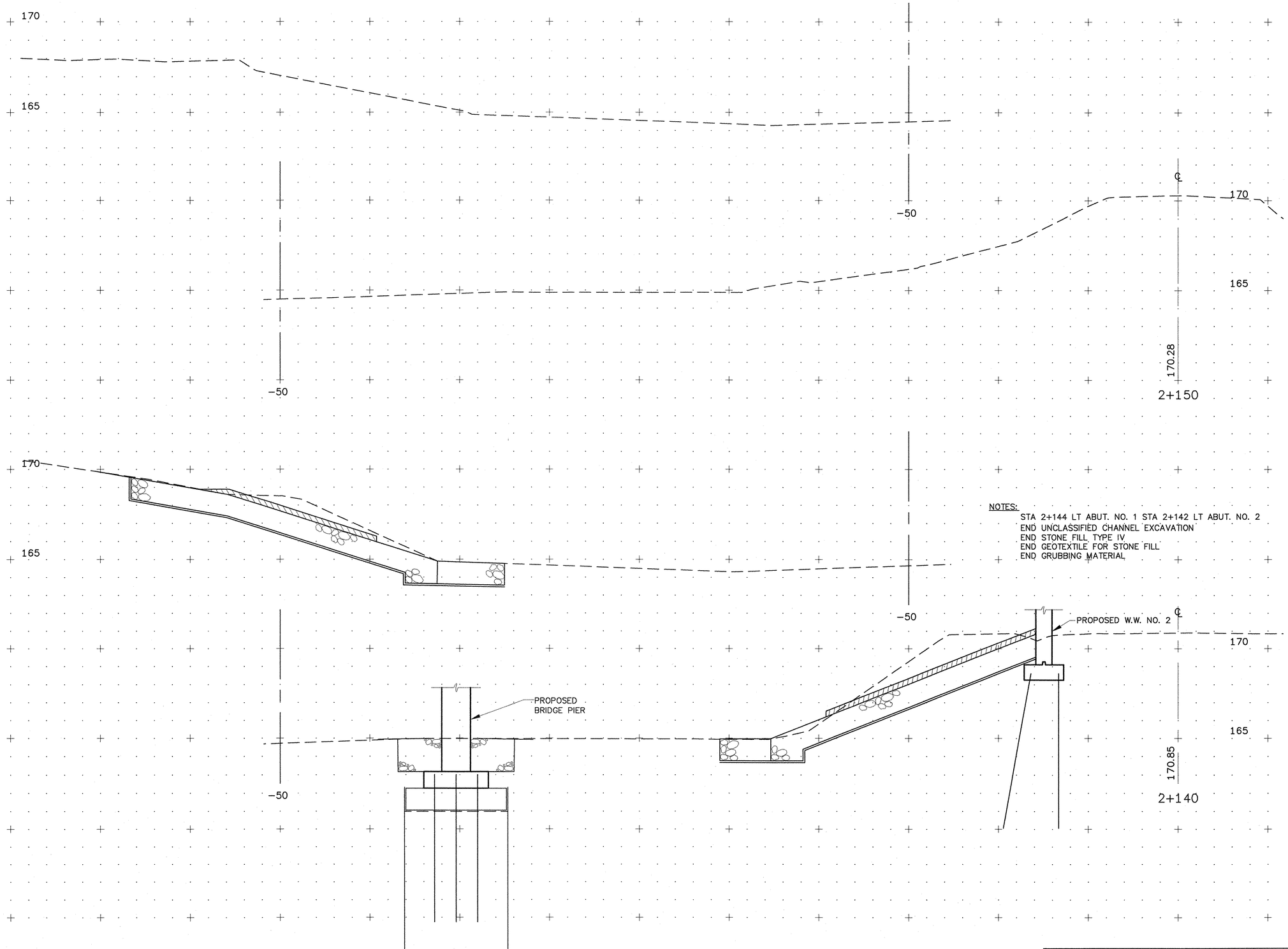


ORIGINAL SURVEY	BY	DATE
SURVEYED BY CLD		
PLOTTED ON TMPLATE		
AREAS CHECKED		
NOTEBOOK NO.		

SCALE 5 m

FROM STA. 2+120 TO STA. 2+130
PROJECT NAME JAMAICA CHANNEL LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 115 OF 116 SHEETS

FINAL SURVEY	BY	DATE
SURVEYED		
PROFILE		
TEMPLATE		
AREAS		
NOTEBOOK AREAS CHECKED		
NO.		



NOTES:
STA 2+144 LT ABUT. NO. 1 STA 2+142 LT ABUT. NO. 2
END UNCLASSIFIED CHANNEL EXCAVATION
END STONE FILL TYPE IV
END GEOTEXTILE FOR STONE FILL
END GRUBBING MATERIAL

ORIGINAL SURVEY	BY	DATE
SURVEYED		
PROFILE		
TEMPLATE		
AREAS		
NOTEBOOK AREAS CHECKED		
NO.		

SCALE 5 m

FROM STA. 2+140 TO STA. 2+150
PROJECT NAME JAMAICA CHANNEL LINE
NO. BRF 013-1(8) PLOTTED 11/06/97
SURVEYED BY CLD OCT. 1995
SHEET 116 OF 116 SHEETS

State of Vermont
Agency of
Transportation
1 National Life Drive
Drawer 33
Montpelier, Vermont

VTrans *Working to Get You There*

Program Development
Structures Design Section
Phone: (802) 828-2621 – FAX: (802) 828-3566

Cosmec, Inc.
70 South Street
Walpole, MA 02081

DATE: May 23, 2005

Project Name: Jamaica Project #: BRF 013-1 (8)

Structure Identification: Bridge # 80 on VT 100, over the West River

The following Elastomeric Bearing details Item 531.10, Bearing Device Assembly (Approach), for the above project Vendor's Job #4400 have been reviewed and are being returned herewith.

Sheets: 1 and 2 of 2 **are approved as noted**

Welding and bonding procedures are approved.

You must provide written notice to this office as to the date fabrication represented by these drawings will begin. That notice must be received at least seven days prior to that date, as per Specification 506.30. Any material fabricated prior to the notification date is subject to rejection without further cause.

Sincerely,

Martha Evans-Mongeon
Project Manager

Attachments
cc: [x] Resident Engineer w/prints, Paul Perry
[x] Shop Inspector w/prints Jeff Clark
[x] Contractor w/prints FW Whitcomb Construction
[ ] Subcontractor – letter only _____
[x] Construction Divison – letter only
[x] Materials & Research Section (C&IA Unit) – letter only
[x] Files (Structures & Central)

117 66

VT A.O.T.
BRF-013-1(8)
TOWN OF JAMAICA

EMS-QC-110

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

VTRANS
RECEIVED
CK'D BY _____ CK'D BY JWC
APR 08 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 4-11-05

ENGINEERING AND MANUFACTURING STANDARD
PTFE 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 ½ 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.

71866

VT A.O.T.

BRF-013-1(8)

TOWN OF JAMAICA

COSMEC INC.

WELDING PROCEDURE SPECIFICATION

VTRANS RECEIVED
CK'D BY_____ CK'D BY JWC
APR 08 2005
RESUBMIT_____ APPROVED ✓
BY DATE 4-11-05

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 CLASSIFICATION: A5.9
MANUFACTURER: HARRIS WELCO TRADENAME:
FLUX-------- INTERNAL
SHIELDING GAS----------ARGON FLOW RATE 45 CFH
SINGLE OR MULTIPLE PAS S 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 IMPUT MIN.---------- MAX.----

WELDING PROCEDURE

PASS NO.	ELECTRODE SIZE	WELDING CURRENT AMPERES	VOLTS	TRAVEL SPEED	JOINT DETAIL
ALL	3/32"	130--155	23--27	6.75--8.5	LAP JOINT
		16 GA THRU 10 GA BM THICKNESS			

PREHEAT TEMPS. ***PREHEAT UNTIL NO MOSITURE PRESENT

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

THIS PROCEURE 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
REVISION NO.

CONTRACTOR: PA. D.O.T.
AUTHORIZED BY: DONALD VOSE
CWI#:01100651 Donald Vose

DATE:--- 2/1/2005

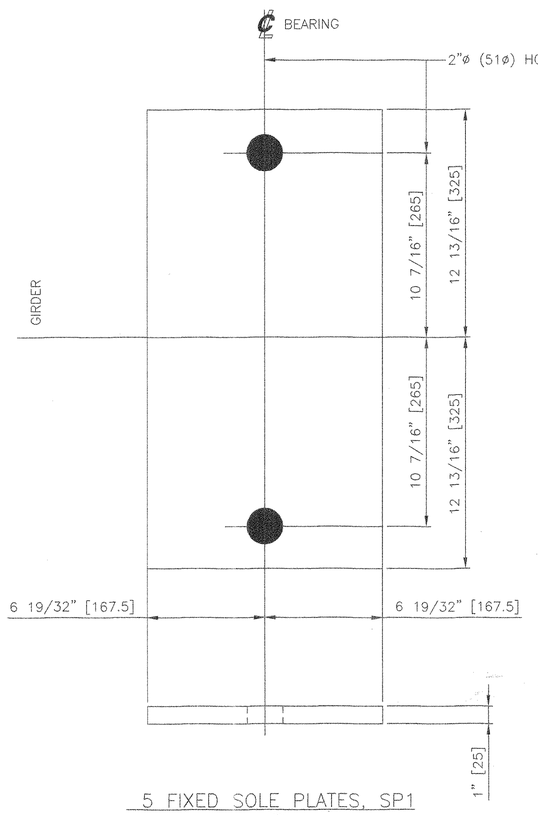
AWS QC 1 DONALD E VOSE 01100651 CWI

119 bb

MARK	QTY	DESCRIPTION	FT	IN	16ths	FAB MARK	MILL MARK	WEIGHT
SP1	5	PL 1" (25) x 13 3/16" (335)	·	25 (650)	10	·	METALLIZED	481
SP2	5	PL 1 3/16" (30) x 13 3/16" (335)	·	25 (650)	10	·	METALLIZED	481
·	5	STAINLESS PL 16ga (1.6) x 12 5/8" (320)	·	17 (440)	5	ssa1	A240 TYPE 304	20
AB1	10	RD 1 1/2"ø (38ø)	·	21 (530)	0	GALV.	F1554 GR55	105
AB2	10	RD 1 1/2"ø (38ø)	·	21 (530)	0	GALV.	F1554 GR55	105
W1	10	PL 3/8" (10) x 3" (75)	·	3 (75)	0	·	GALV.	10
W2	10	PL 3/8" (10) x 3" (75)	·	6 (175)	14	·	GALV.	22
·	20	1 1/2" (38ø) HVY HEX NUTS	·	·	·	GALV.	A194-2H	19

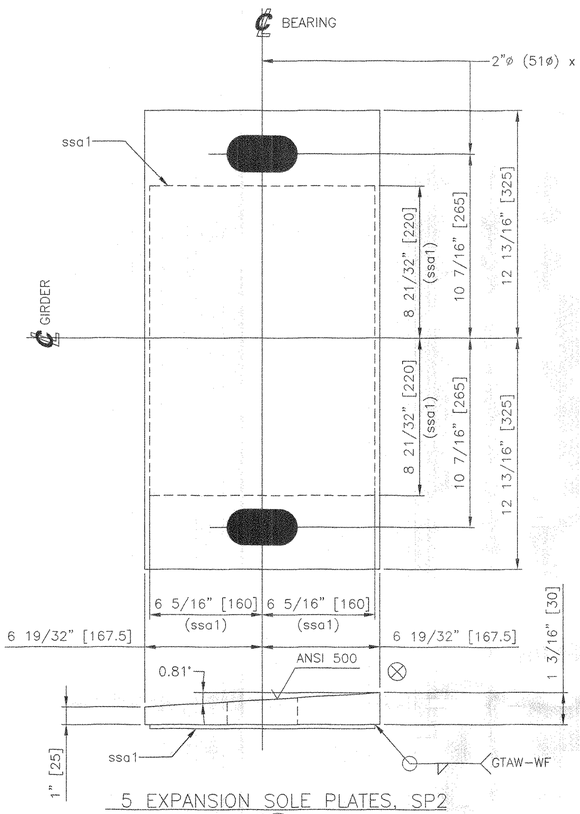
INCORRECT THICKNESS 14.93

TOTAL = 1243



5 FIXED SOLE PLATES, SP1

PL 1" (25) x 13 3/16" (335) x 25 5/8" (650)
(METALLIZED)
LOCATE AT
ABUTMENT 1



5 EXPANSION SOLE PLATES, SP2

PL 1 3/16" (30) x 13 3/16" (335) x 25 5/8" (650)
(METALLIZED)
LOCATE AT PIER

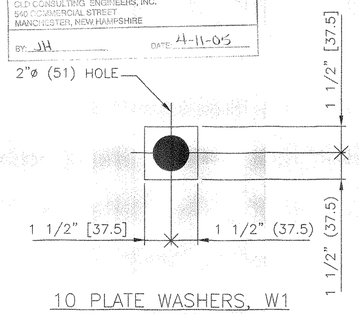
SHOP DRAWING REVIEW
REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT

☐ PROVIDE AS SUBMITTED
☒ PROVIDE AS CORRECTED
☐ REVISE AND RESUBMIT
☐ REJECTED - SEE REMARKS
☐ SUBMITTAL NOT REQUIRED - RETURNED WITHOUT REVIEW

THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION, CORRECTIONS OR COMMENTS SHOWN AND/OR NOTED ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR: DETERMINING THE ACCURACY AND COMPLETENESS OF DETAILS, SUCH AS DIMENSIONS AND QUANTITIES; SUBSTANTIATING INSTRUCTIONS FOR INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS; THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION, INCLUDING SAFETY PRECAUTIONS AND PROCEDURES; AND THE SELECTION OF FABRICATION PROCESSES. ENGINEER'S APPROVAL OF A SPECIFIC ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. FURTHER, ENGINEER'S REVIEW OF CONTRACTOR'S SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR OF ITS OBLIGATIONS UNDER THE CONTRACT DOCUMENTS WITH RESPECT TO THE PREPARATION AND/OR APPROVAL OF SUCH SUBMITTALS

OLD CONSULTING ENGINEERS, INC.
540 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE

BY: JH DATE: 4-11-05



10 PLATE WASHERS, W1

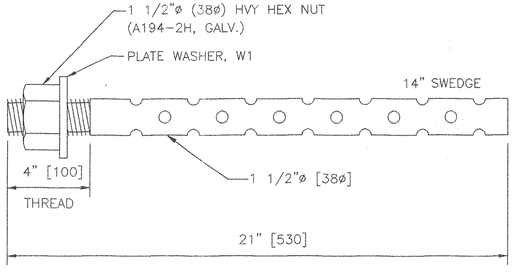
PL 3/8" (10) x 3" (75) x 3" (75)
(GALV.)
USE WITH AB1

ENGLISH EQUIVALENT MATERIAL FURNISHED.
METRIC EQUIVALENT IN PARENTHESIS.

SHOP NOTES:

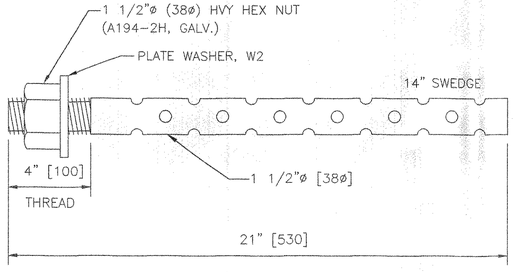
1. MATERIAL NOTED AS AASHTO M270 GR.250 MAY BE EITHER AASHTO M250 GR. 250, A709 GR.36 OR A36.
2. STAINLESS STEEL: ASTM A240 TYPE 304, #8 MIRROR FINISH.
3. PTFE SHALL BE ASTM D1457, UNFILLED.
4. ELASTOMER: 50 DUROMETER, GR. 4, NATURAL RUBBER, CONFORMING TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIV. II, SECTION 18.
5. MATERIAL NOTED SHALL BE METALIZED OR GALVANIZED IN ACCORDANCE WITH SUBSECTIONS 606.15(a) AND (b), AND 531.04(b) OF THE 2001 STANDARD SPECIFICATIONS.
6. ANCHOR BOLTS: ASTM F1554, GR.55, GALVANIZED.
7. ANCHOR BOLTS AND ASSOCIATED HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123 (AASHTO M111) OR ASTM 153 (AASHTO M232) AS APPLICABLE.
8. BEARINGS SHALL CONFORM TO AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, AND ITS LATEST REVISIONS.
9. ALL SOLE PLATES SHALL BE SMOOTH AND STRAIGHT.
10. ⊗ SHOP TO MARK HIGH SIDE OF PLATE.
11. PRIOR TO GALVANIZING OR METALIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC. SHALL BE GROUND TO A 1/16" RADIUS

RECEIVED
CK'D BY _____ OK'D BY _____
APR 05 2005
RESUBMIT _____ APPROVED _____
BY _____ DATE _____



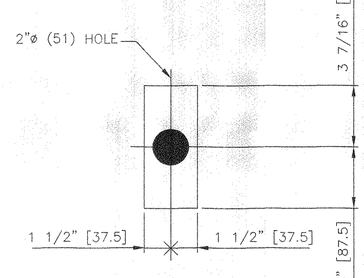
10 ANCHOR BOLTS, AB1

RD 1 1/2"ø (38ø) x 21" (530)
(F1554 GR.55, GALV.)
MIN. EMBED. 15" (380)
USE WITH
SOLE PLATE SP1



10 ANCHOR BOLTS, AB2

RD 1 1/2"ø (38ø) x 21" (530)
(F1554 GR.55, GALV.)
MIN. EMBED. 15" (380)
USE WITH
SOLE PLATE SP2



10 PLATE WASHERS, W2

PL 3/8" (10) x 3" (75) x 6 7/8" (175)
(GALV.)
USE WITH AB2

STATE OF VERMONT
AGENCY OF TRANSPORTATION

VERMONT ROUTE 100
BRIDGE OVER WEST RIVER

TOWN OF JAMAICA
PROJECT NO. BRF 013-1(8)

--- ---

COSMEC, INC. 70 SOUTH STREET WALPOLE, MA. 02081

SCALE: 1/4"=1"	DRAWN BY: JEP	CHECKED BY: PJM
SHEET 1 OF 2	DATE: 03/05	DATE: 03/05

COSMEC BEARING 12066

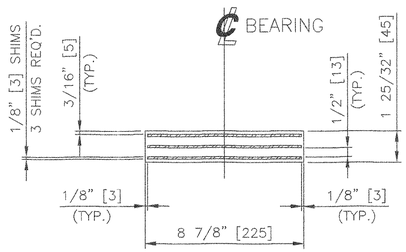
REV.		BY:	DATE	CK'D BY:	DATE
--		---	---	---	---

CUSTOMER	S.O. NUMBER	DRAWING NUMBER	REV.
FRANK W. WHITCOMB CONST. CORP.	60264	4400	0

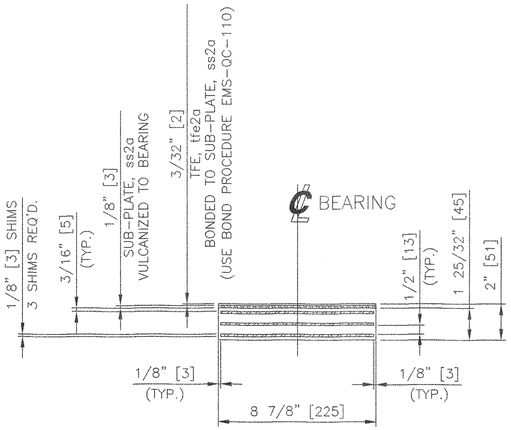
MARK	QTY	DESCRIPTION	FT	IN	16ths	FAB MARK	MILL MARK	WEIGHT
EB1	5	LAM. ELAST. BRG. PAD 1 25/32" (45) x 8 7/8" (225)	·	16 (410)	2	·	50 DURO.	123
EB2	5	LAM. ELAST. BRG. PAD 1 25/32" (45) x 8 7/8" (225)	·	16 (410)	2	·	50 DURO.	123
·	5	STAINLESS PL 1/8" (1.6) x 8 7/8" (225)	·	16 (410)	2	ss2a	A240 TYPE 304	28
·	5	PTFE 3/32" (2.4) x 8 7/8" (225)	·	16 (410)	2	tfe2a	D1457	5

TOTAL = 1556

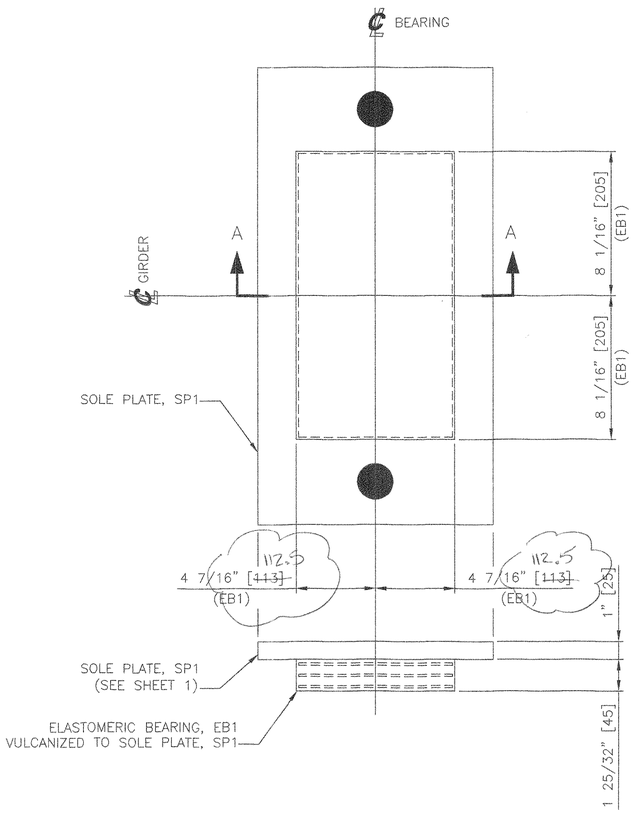
ENGLISH EQUIVALENT MATERIAL FURNISHED.
METRIC EQUIVALENT IN PARENTHESIS.



SECTION A–A

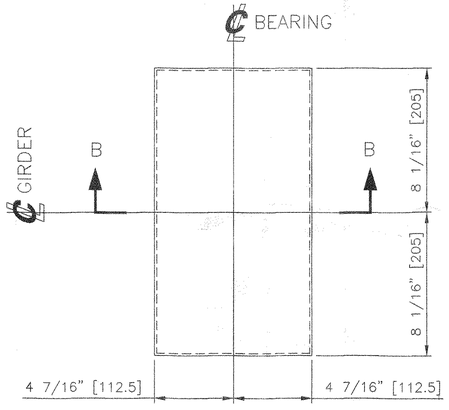


SECTION B–B



5 ELASTOMERIC BEARINGS, EB1

LAMINATED ELASTOMERIC BEARINGS
1 25/32" (45) x 8 7/8" (225) x 16 1/8" (410)
SHIMS – 1/8" (3) CONFORMING TO
AASHTO M251 SPECIFICATIONS
VULCANIZED TO SOLE PLATE, SP1
ELASTOMER – 50 DUROMETER, GRADE 4 NATURAL RUBBER
CONFORMING TO AASHTO STANDARD SPECIFICATIONS FOR
HIGHWAY BRIDGES, DIV. II, SECTION 18
LOCATE AT ABUTMENT 1



5 ELASTOMERIC BEARINGS, EB2

LAMINATED ELASTOMERIC BEARINGS
1 25/32" (45) x 8 7/8" (225) x 16 1/8" (410)
SHIMS – 1/8" (3) CONFORMING TO
AASHTO M251 SPECIFICATIONS
SUB-PLATE – 1/8" (3) STAINLESS
A240 TYPE 304, 2B FINISH
TFE – 3/32" (2) UNFILLED
CONFORMING TO THE REQUIREMENTS OF
DIV. 1, SEC. 14 & DIV. II SEC. 18.8 OF THE
AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES
ELASTOMER – 50 DUROMETER, GRADE 4 NATURAL RUBBER
CONFORMING TO AASHTO STANDARD SPECIFICATIONS FOR
HIGHWAY BRIDGES, DIV. II, SECTION 18
LOCATE AT PIER

RECEIVED
CK'D BY_____ OK'D BY_____
APR 05 2005
RESUBMIT_____ APPROVED_____
BY DATE

SEE SHEET 1 FOR SHOP NOTES.

STATE OF VERMONT
AGENCY OF TRANSPORTATION
VERMONT ROUTE 100
BRIDGE OVER WEST RIVER
TOWN OF JAMAICA
PROJECT NO. BRF 013-1(8)

COSMEC, INC. 70 SOUTH STREET WALPOLE, MA. 02081

SCALE: 1/4"=1"	DRAWN BY: JEP	CHECKED BY: PJM
SHEET 2 OF 2	DATE: 03/05	DATE: 03/05

COSMEC BEARING 12/66

CUSTOMER	S.O. NUMBER	DRAWING NUMBER	REV.
FRANK W. WHITCOMB CONST. CORP.	60264	4401	0

REV.		BY:	DATE	CK'D BY:	DATE
–					

VT A.O.T.
BRF-013-1(8)
TOWN OF JAMAICA

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

EMS-QC-110 VTRANS
RECEIVED
CK'D BY____ OK'D BY JWC
APR 11 2005
RESUBMIT____ APPROVED ✓
BY DATE 4-13-05

ENGINEERING AND MANUFACTURING STANDARD
PTFE 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 ½ 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.

122 66

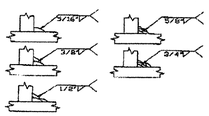
COSMEC INC.

WELDING PROCEDURE SPECIFICATION

SPECIFICATIONS AND CODE: AASHTO--AWS D1.5
MATERIAL SPECIFICATION ASTM A709 GR 50W, GR 50, GR 36
WELDING PROCESS---------- FCAW-G
MANUAL OR MACHINE------- SEMI-AUTOMATIC
POSITION OF WELDING----- 1F & 2F
FILLER METAL SPECIFICATION AWS 5.20 — CLASSIFICATION: E71T
MANUFACTURER: LINCOLN ELECTRIC — TRADENAME: E71T OUTERSHIELD
FLUX------- INTERNAL
SHIELDING GAS---------- CO2 — FLOW RATE 45 CFH
SINGLE OR MULTIPLE PAS S MULTIPLE
SINGLE OR MULTIPLE ARC SINGLE
WELDING CURRENT---------- DC
POLARITY: REVERSE (EP)
WELDING PROGRESSION----------
ROOT TREATMENT---------- CLEANED & PREPARED BRIGHT METAL
PREHEAT AND INTERPASS TEMPERATURE---------- SEE BELOW
POSTHEAT TEMPERATURE N/A
HEAT IMPUT MIN.---------- MAX.----

WELDING PROCEDURE

PASS NO.	ELECTRODE SIZE	WELDING CURRENT AMPERES	VOLTS	TRAVEL SPEED	JOINT DETAIL
ALL	0.045	190-230	27-29	8-9	



PREHEAT TEMPS.

THICKNESS	T TEMP.
UP TO 3/4"	50 DEG. F
OVER 3/4" TO 1 1/2"	70 DEG. F
OVER 1 1/2" TO 2 1/2"	150 DEG. F
OVER 2 1/2"	225 DEG. F
INTERPASS TEMP:	400 DEG. F

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

PROCEDURE NO. FCAW-FILLET
SUPPORTING PQR: FCAW-1.0-05
REVISION NO.

CONTRACTOR: COSMEC INC.
AUTHORIZED BY:DONALD VOSE
DATE:--- 1/31/2005

AWS QC 1 — DONALD E VOSE 01100651 — CWI

VTRANS
RECEIVED
OK'D BY _____ OK'D BY JWC
APR 11 2005
RESUBMIT _____ APPROVED ✓
BY DATE 4-13-05

123 66

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 CLASSIFICATION: A5.9
MANUFACTURER: HARRIS WELCO TRADENAME:
FLUX------- INTERNAL
SHIELDING GAS---------- ARGON FLOW RATE 45 CFH
SINGLE OR MULTIPLE PAS S 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 IMPUT MIN.---------- MAX.----

WELDING PROCEDURE

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

PREHEAT TEMPS. ***PREHEAT UNTIL NO MOSITURE PRESENT

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

THIS PROCEURE 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
REVISION NO. 1

CONTRACTOR: COSMEC INC.
AUTHORIZED BY: DONALD VOSE
CWI#:01100651 Donald Vose

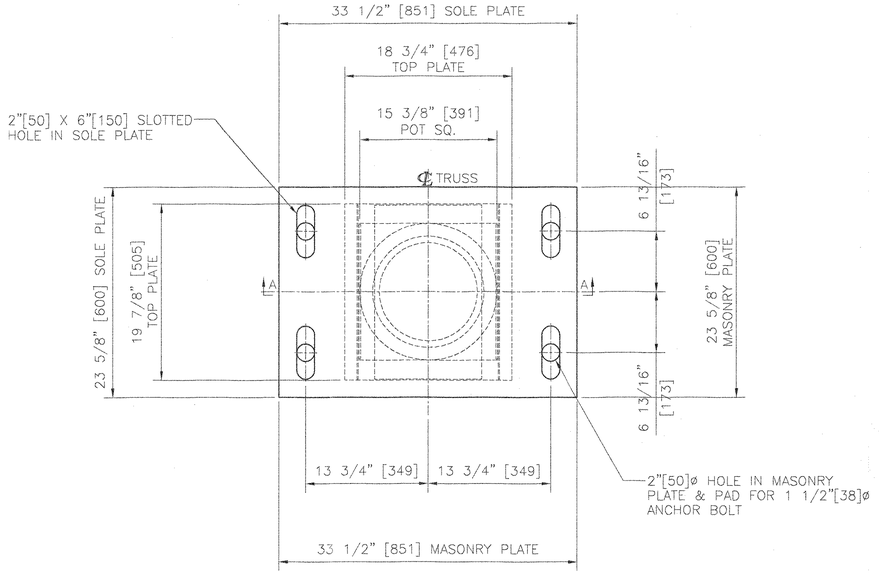
DATE:--- 2/1/2005

AWS QC 1 DONALD VOSE 01100651 CWI

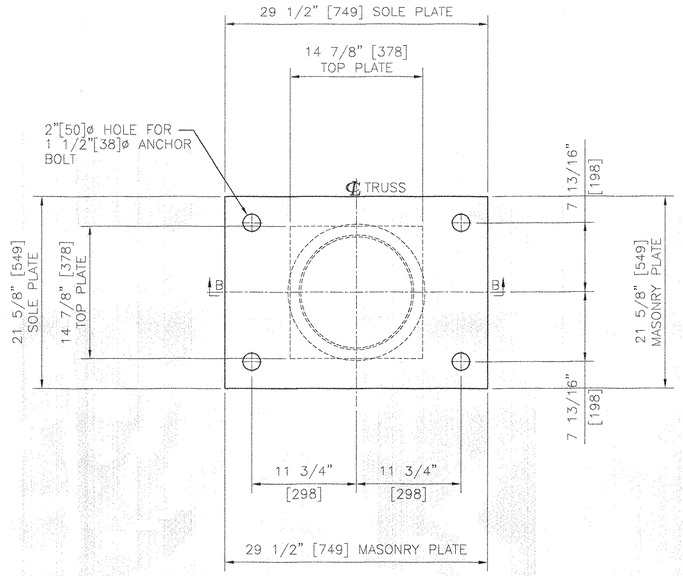
VTRANS RECEIVED
APR 11 2005
OK'D BY _____ OK'D BY JWC
RESUBMIT _____ APPROVED ✓
BY DATE 4-13-05

TOTAL P.01

124bb



PLAN



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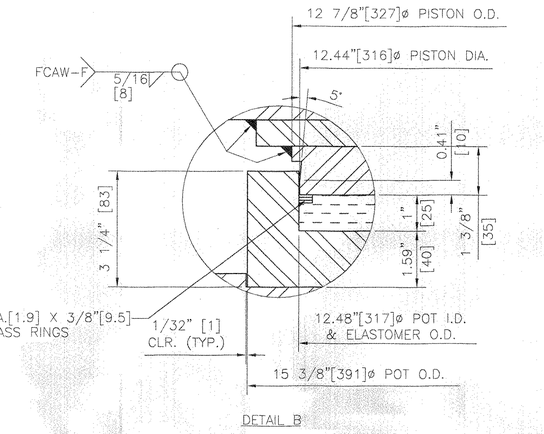
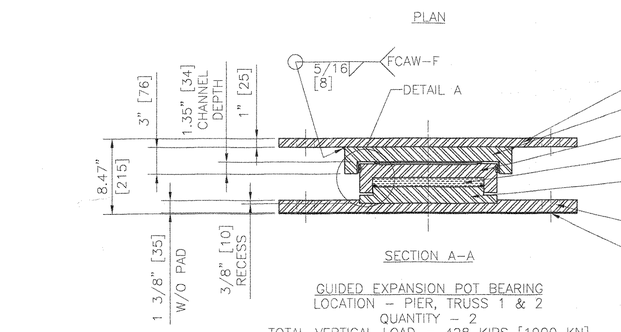


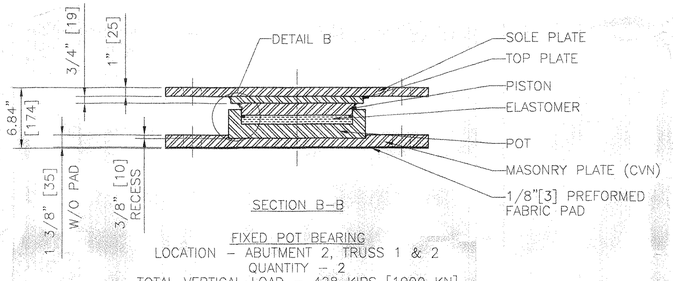
DETAIL B



SECTION A–A

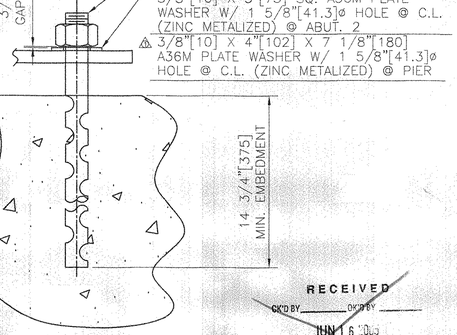
GUIDED EXPANSION POT BEARING
LOCATION – PIER, TRUSS 1 & 2
QUANTITY – 2
TOTAL VERTICAL LOAD – 428 KIPS [1900 KN]
TOTAL HORIZONTAL LOAD – 74 KIPS [325 KN]
TOTAL LONGITUDINAL MOVEMENT – 4 1/2"[114mm]
TOTAL TRANSVERSE MOVEMENT – 1/8"[3mm]

NOTE:
OVERALL HEIGHTS DIFFER FROM THOSE SHOWN ON THE CONTRACT PLANS. CONTRACTOR SHALL ADJUST PEDESTAL HEIGHTS TO ACCURATELY REFLECT THE HEIGHTS OF BEARINGS SUPPLIED.



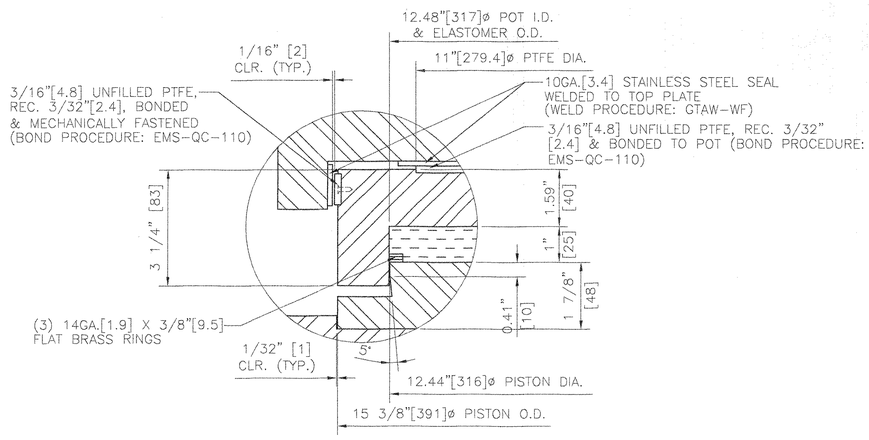
SECTION B–B

FIXED POT BEARING
LOCATION – ABUTMENT 2, TRUSS 1 & 2
QUANTITY – 2
TOTAL VERTICAL LOAD – 428 KIPS [1900 KN]
TOTAL HORIZONTAL LOAD – 74 KIPS [325 KN]



ANCHOR BOLT DETAIL
N.T.S.

1 1/2"[38]ø X 23 5/8"[600] LONG ASTM F1554M GR. 55 SWEDGED ANCHOR BOLT WITH 4"[102] OF THREADS ONE END & ONE ASTM A563M HEAVY HEX NUT. ALL GALVANIZED.



DETAIL A

MATERIAL:
STEEL – ASTM A709M GR. 250 ZINC METALIZED & SEALED WITH AN APPROVED SEALER (STEEL FOR MASONRY PLATES SHALL HAVE CVN CERTIFICATIONS)
ELASTOMER – AASHTO 50 DUROMETER NEOPRENE
FLAT BRASS RINGS – ASTM B36 HALF HARD
PREFORMED FABRIC PAD – AASHTO 18.4.9.1 DIV. II
⚠4 STAINLESS STEEL – ASTM A240 TYPE 304, 10 RMS FINISH OR LESS
PTFE – ASTM D4894 VIRGIN UNFILLED

NOTES:
1. UNITS: INCH[mm]
2. DESIGN ROTATION – 0.024 RADIANS
3. BEARINGS MUST NOT BE DISASSEMBLED
4. ALL BEARINGS SHALL BE METALIZED AS PER SECTION 531.04(b) & 506.15 (a) & (b). AREAS OF METALIZED DAMAGED BY FIELD WELDS OR HANDLING SHALL BE REPAIRED PER SUPPLEMENTAL SPECIFICATION 513.06(f).
5. LOCATION OF FABRICATION PLANT – 70 SOUTH ST., WALPOLE, MA 02081
6. COSMEC INC. REPRESENTATIVE – MR. MATT McANDREWS (508-668-6600)
7. PROTECT PTFE & S.S. SURFACES FROM DIRT, WELD SPATTER, & ANY OTHER FOREIGN SUBSTANCES.
8. PRIOR TO METALLIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC. SHALL BE GROUND TO A 1/16"[1.6] RADIUS.

REV.		BY	DATE	CK'D	DATE
⚠4	ADDED DIA. HOLE IN WASHERS. REVISED 20 RMS TO 10 RMS & REMOVED TACK WELD WASHER TO PLATE	NH	6.13.05		

RECEIVED
CK'D BY ____ CK'D BY ____
JUN 16 2005
RESUBMIT ____ APPROVED ____
BY ____ DATE ____

RECEIVED
CK'D BY ____ CK'D BY ____
JUN 16 2005
RESUBMIT ____ APPROVED ____
BY MCM DATE 6/24/05

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROJECT NO. BRF 013-1(8)
BRIDGE NO. 80
VT RTE 100 OVER THE WEST RIVER
TOWN OF JAMAICA

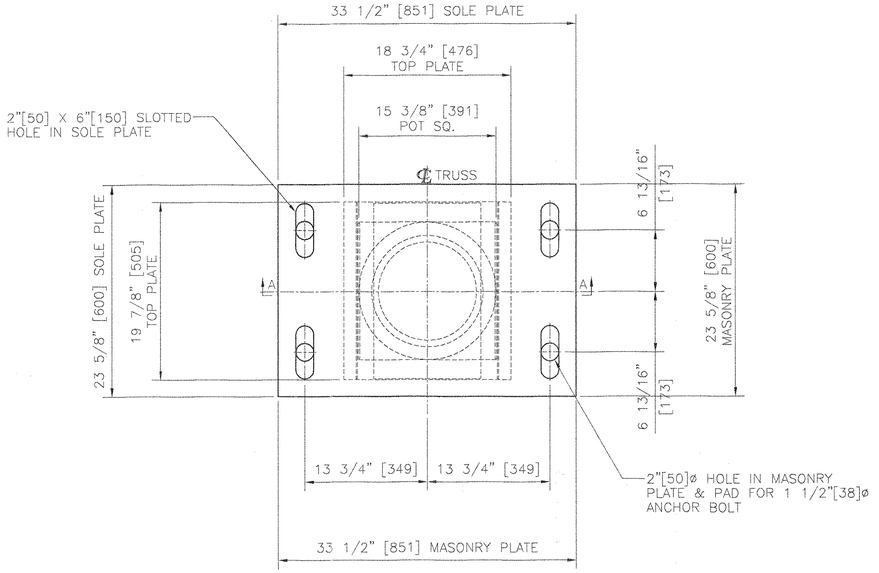
COSMEC, INC.
70 SOUTH STREET
WALPOLE, MA. 02081

SCALE: 1/8"=1"	DRAWN BY: NH	CHECKED BY: MCM
	DATE: 4.4.05	DATE: 4.6.05

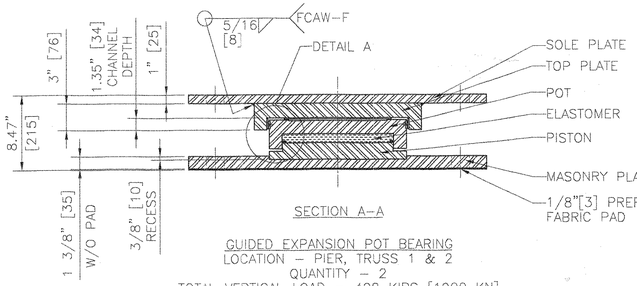
COSMEC POT BEARINGS

CUSTOMER	S.O. NUMBER	DRAWING NUMBER	REV.
F.W. WHITCOMB	60264	4407	1

12566



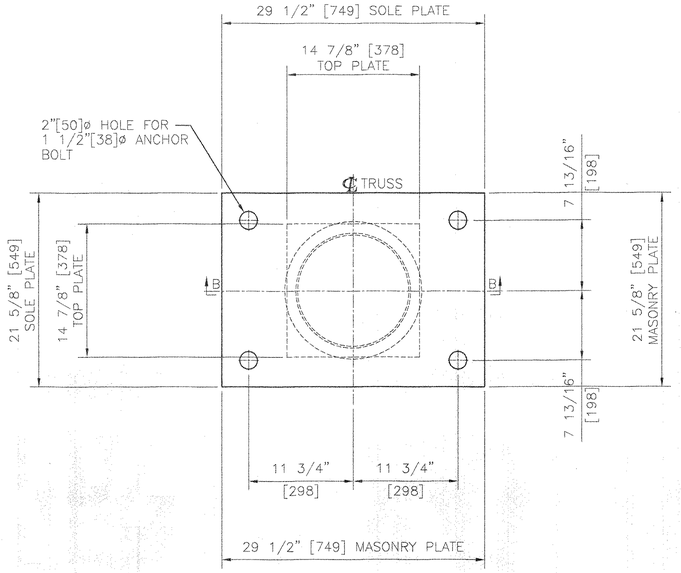
PLAN



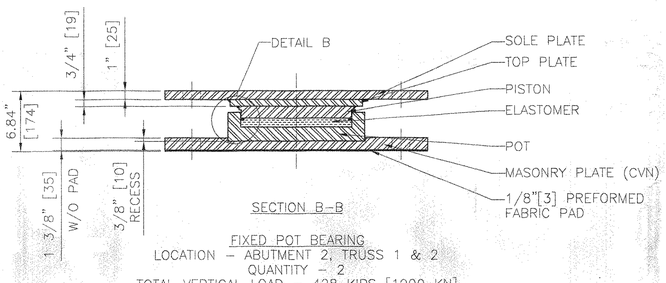
SECTION A–A

GUIDED EXPANSION POT BEARING
LOCATION – PIER, TRUSS 1 & 2
QUANTITY – 2
TOTAL VERTICAL LOAD – 428 KIPS [1900 KN]
TOTAL HORIZONTAL LOAD – 74 KIPS [325 KN]
TOTAL LONGITUDINAL MOVEMENT – 4 1/2"[114mm]
TOTAL TRANSVERSE MOVEMENT – 1/8"[3mm]

NOTE:
OVERALL HEIGHTS DIFFER FROM THOSE SHOWN ON THE CONTRACT PLANS. CONTRACTOR SHALL ADJUST PEDESTAL HEIGHTS TO ACCURATELY REFLECT THE HEIGHTS OF BEARINGS SUPPLIED.

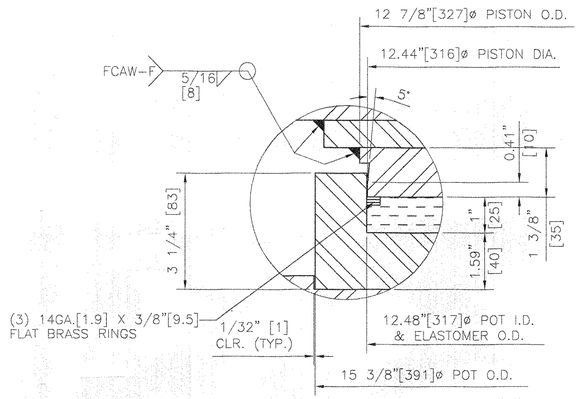


PLAN

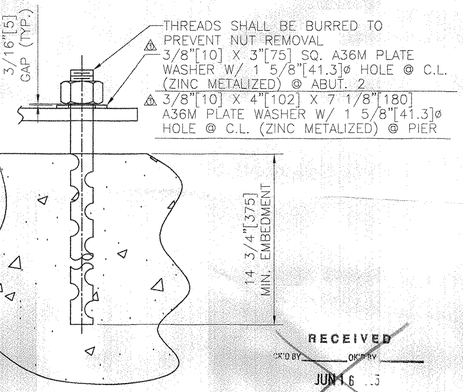


SECTION B–B

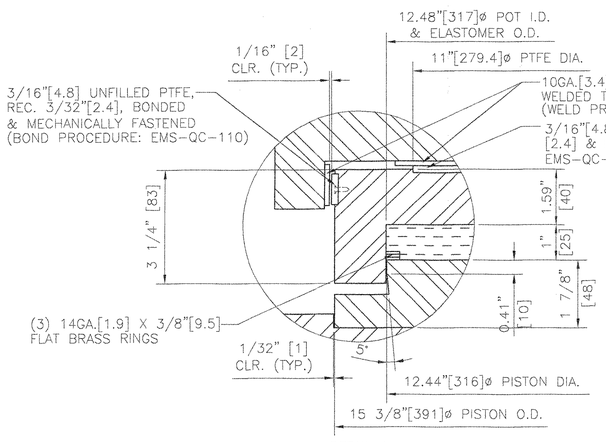
FIXED POT BEARING
LOCATION – ABUTMENT 2, TRUSS 1 & 2
QUANTITY – 2
TOTAL VERTICAL LOAD – 428 KIPS [1900 KN]
TOTAL HORIZONTAL LOAD – 74 KIPS [325 KN]



DETAIL B



ANCHOR BOLT DETAIL
N.T.S.
1 1/2"[38]ø X 23 5/8"[600] LONG ASTM F1554M GR. 55 SWEDGED ANCHOR BOLT WITH 4"[102] OF THREADS ONE END & ONE ASTM A563M HEAVY HEX NUT. ALL GALVANIZED.



DETAIL A

MATERIAL:
STEEL – ASTM A709M GR. 250 ZINC METALIZED & SEALED WITH AN APPROVED SEALER (STEEL FOR MASONRY PLATES SHALL HAVE CVN CERTIFICATIONS)
ELASTOMER – AASHTO 50 DUROMETER NEOPRENE
FLAT BRASS RINGS – ASTM B36 HALF HARD
PREFORMED FABRIC PAD – AASHTO 18.4.9.1 DIV. II
⚠STAINLESS STEEL – ASTM A240 TYPE 304, 10 RMS FINISH OR LESS
PTFE – ASTM D4894 VIRGIN UNFILLED

NOTES:
1. UNITS: INCH[mm]
2. DESIGN ROTATION – 0.024 RADIANS
3. BEARINGS MUST NOT BE DISASSEMBLED
4. ALL BEARINGS SHALL BE METALIZED AS PER SECTION 531.04(b) & 506.15 (a) & (b). AREAS OF METALIZED DAMAGED BY FIELD WELDS OR HANDLING SHALL BE REPAIRED PER SUPPLEMENTAL SPECIFICATION 513.06(f).
5. LOCATION OF FABRICATION PLANT – 70 SOUTH ST., WALPOLE, MA 02081
6. COSMEC INC. REPRESENTATIVE – MR. MATT McANDREWS (508-668-6600)
7. PROTECT PTFE & S.S. SURFACES FROM DIRT, WELD SPATTER, & ANY OTHER FOREIGN SUBSTANCES.
8. PRIOR TO METALLIZING, ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC. SHALL BE GROUND TO A 1/16"[1.6] RADIUS.

REV.		BY	DATE	CK'D	DATE
⚠	ADDED DIA. HOLE IN WASHERS. REVISED 20 RMS TO 10 RMS & REMOVED TACK WELD WASHER TO PLATE	NH	6.13.05		

RECEIVED
CK'D BY ____ CK'D BY ____
JUN 16 ..5
SUBMIT ____ APPROVED ____
BY ____ DATE ____

RECEIVED
CK'D BY ____ CK'D BY ____
JUN 16 2005
RESUBMIT ____ APPROVED ✓
BY MCM DATE 6/24/05

STATE OF VERMONT
AGENCY OF TRANSPORTATION

PROJECT NO. BRF 013-1(8)
BRIDGE NO. 80
VT RTE 100 OVER THE WEST RIVER
TOWN OF JAMAICA

COSMEC, INC. — 70 SOUTH STREET WALPOLE, MA. 02081

SCALE: 1/8"=1"	DRAWN BY: NH	CHECKED BY: MCM
	DATE: 4.4.05	DATE: 4.6.05

COSMEC POT BEARINGS

CUSTOMER	S.O. NUMBER	DRAWING NUMBER	REV.
F.W. WHITCOMB	60264	4407	1

12668

State of Vermont
Agency of Transportation
National Life Building
Drawer 33
Montpelier, VT
05633-5001

VTrans Working to Get You There

Eastern Bridge
Rural Route 2, Box 302
Claremont, NH, 03743

DATE: September 23, 2005

Project Name: Jamaica **Project #: BRF 013-1 (8)**

Structure Identification: VT 100 BR. 80 over West River
The following Structural Steel details Item # 506.60, Structural Steel (Truss) for the above project (Vendor's Job #5075) have been reviewed and are being returned herewith.

Sheets: GN101, 102-105, 108-110, 112-114, 116-118, X150, X151, X158, X160, and X162 **are approved [X] as revised**

Sheets: 111 is approved as noted.

We still need revised sheets for sheets 122, 123, and 124, to reflect that the holes in the floor beam for the floorbeam to truss connection will be 1 1/16" and the bolts 1" diameter.

Sincerely,

Martha Evans-Mongeon
Project Manager

Attachments
cc: [X] Resident Engineer w/prints , Paul Perry IV
[X] Shop Inspector w/prints, Jeff Clark
[X] Contractor w/prints, F. W. Whitcomb Construction
[X] Subcontractor – letter only, Contractors Crane
[X] Construction Division – letter only
[X] Materials & Research Section (C&IA Unit) – letter only
[X] Files (Structures & Central)

CLD CONSULTING ENGINEERS
540 Commercial Street Manchester, NH 03101
(603) 668-8223 • Fax: (603) 668-8802
cld@cldengineers.com • www.cldengineers.com
New Hampshire • Vermont • Maine

TO: Martha Evans-Mongeon

FROM: John Byatt

DATE: June 2, 2005

RE: Attachment to review truss steel shop drawings
Jamaica
BRF 013-1(8)
CLD Reference No. 90-0284

A review of the truss shop drawing submittal has been completed. The drawings are stamped "Provide as Corrected"; however, the details of the top strut connection to the top chord (sheets 130B and 131B) must be resubmitted to eliminate the bent angles as currently shown.

At the conclusion of the prefabrication meeting it was our understanding that the fabricator would submit plans, for approval, indicating the connections that would be exempt from the 0.5 slip coefficient criteria. The fabricator no longer intends to make this submission, and therefore all the truss connections must meet the 0.5 slip coefficient requirement.

my copy
to keep. Martha

12855

GENERAL NOTES

1 CONSTRUCTION SPECIFICATIONS:

ALL MATERIAL AND WORKMANSHIP TO BE IN ACCORDANCE WITH THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001 WITH LATEST REVISIONS AND THE SPECIAL PROVISIONS.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (A.A.S.H.T.O.) STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17 TH EDITION DATED 2002, WITH LATEST REVISIONS.

2 MATERIAL SPECIFICATIONS:

UNLESS NOTED, ALL STEEL TO BE AASHTO M270M GRADE 345W (ASTM A709M-345W)

MATERIAL NOTED "CVN" ON DETAIL DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF VERMONT STANDARD SPECIFICATIONS.

HIGH STRENGTH BOLTS: AASHTO M164 (ASTM A325M) 7/8" (22mm) DIA. IN 15/16" (24mm) DIAMETER HOLES (U.N).
TYPE 3 SHALL BE USED FOR UNPAINTED CONNECTIONS.
TYPE 1 (GALV.) SHALL BE USED FOR PAINTED CONNECTIONS.

3. FABRICATION:

ALL HOLES SHALL BE PUNCHED OR DRILLED FULL SIZE.

STUDS ARE FURNISHED AND FIELD APPLIED BY OTHERS.

4 WELDING:

THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D.1.5-02 BRIDGE WELDING CODE AND ADDITION TO SPECIFICATIONS SHOWN ABOVE. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.

WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESS. ALL WELDS ARE CONTINUOUS U.N.

NON DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.

5 CLEANING:

ALL STEEL SHALL BE BLAST CLEANED AS PER SSPC SP-10 PER SPEC. 506.14(a)

2mm RADIUS ON ALL EDGES OF PAINTED SURFACES.

6 PAINTED:

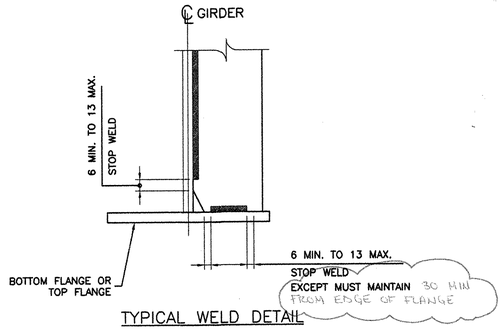
ALL STEEL COMPONENTS WITHIN A DISTANCE OF 2200 mm FROM THE EXPANSION END OF GIRDERS SHALL BE COATED WITH THE PROTECTIVE SYSTEM ACCORDING TO SECTION 513 OF THE SPECIFICATION. THE PAINT COLOR SHALL BE BROWN. PAINT SYSTEM MUST BE SYSTEM LISTED ON THE QUALIFIED PRODUCT LIST SECTION 513.02 BROWN COLOR CHIP NO.20059.
PROTECTIVE GREASE SHALL LBE APPLIED IN THE FIELD BY OTHERS.

7 FIELD CONNETIONS:

ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8"(22mm) DIAMETER HIGH STRENGTH A-325 BOLTS TYPE 3, IN 15/16"(24mm) DIAMETER HOLES UNLESS OTHERWISE NOTED. INSTALLED PER 506.19(c) AND SPECIAL PROVISIONS.

BOLTS SHALL HAVE HEAVY HEX. NUT, HEX. HEAD & ONE FLAT WASHER EACH (WASHER TO BE PLACED UNDER TURNED ELEMENT).

PIECE MARKS WILL BE LOCATED AS SHOWN ON ERECTION DRAWING.



TYPICAL WELD DETAIL

SHOP DRAWING REVIEW

REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH DESIGN CONCEPT

- ☐ PROVIDE AS SUBMITTED
- ☒ PROVIDE AS CORRECTED
- ☐ REVISE AND RESUBMIT
- ☐ REJECTED - SEE REMARKS
- ☐ SUBMITTAL NOT REQUIRED - RETURNED WITHOUT REVIEW

THIS REVIEW IS ONLY FOR GENERAL CONFORMANCE WITH THE DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. ANY ACTION, CORRECTIONS OR COMMENTS SHOWN AND/OR NOTED ARE SUBJECT TO THE REQUIREMENTS OF THE CONTRACT DOCUMENTS. CONTRACTOR IS RESPONSIBLE FOR: DETERMINING THE ACCURACY AND COMPLETENESS OF DETAILS, SUCH AS DIMENSIONS AND QUANTITIES; SUBSTANTIATING INSTRUCTIONS FOR INSTALLATION OR PERFORMANCE OF EQUIPMENT OR SYSTEMS; THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND PROCEDURES OF CONSTRUCTION, INCLUDING SAFETY PRECAUTIONS AND PROCEDURES; AND THE SELECTION OF FABRICATION PROCESSES. ENGINEER'S APPROVAL OF A SPECIFIC ITEM SHALL NOT INDICATE APPROVAL OF AN ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. FURTHER, ENGINEER'S REVIEW OF CONTRACTOR'S SUBMITTALS SHALL NOT RELIEVE THE CONTRACTOR OF ITS OBLIGATIONS UNDER THE CONTRACT DOCUMENTS WITH RESPECT TO THE PREPARATION AND/OR APPROVAL OF SUCH SUBMITTALS.

CLD CONSULTING ENGINEERS, INC.
540 COMMERCIAL STREET
MANCHESTER, NEW HAMPSHIRE

BY: JH DATE: 12-29-04

RECEIVED
DEC - 7 2004
FRANK W. WHITCOMB CONSTRUCTION CORP.

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This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	FW Whitcomb	Approval

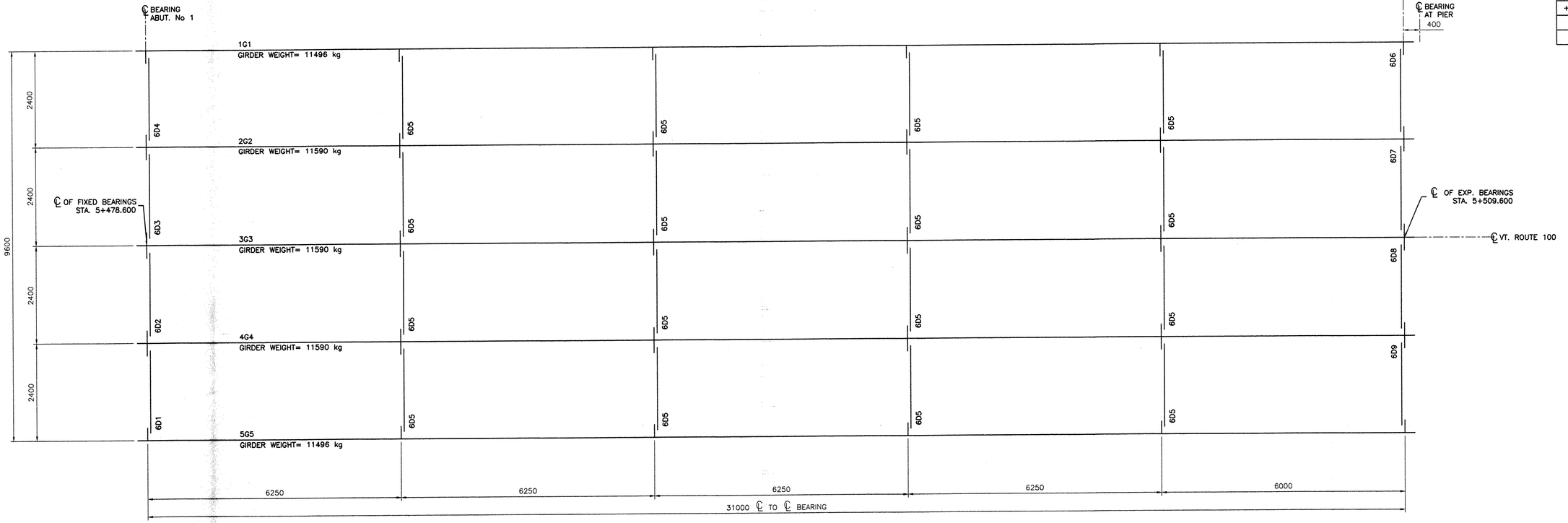
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: GENERAL NOTES			
DRAWN BY: BR	11/26/04	JOB NUMBER: 5075	SHEET NUMBER: GN1
CHECKED BY: GG	11/30/04		

BILL OF MATERIAL

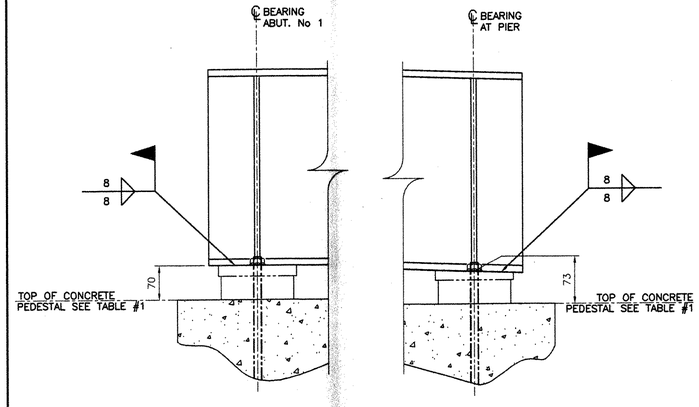
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
E1				256	H.S. BOLT	7/8ø	A325-TYPE 3	2 1/2"		
E1				128	H.S. BOLT	7/8ø	A325-TYPE 3	2 3/4"		
E1				128	H.S. BOLT	7/8ø	A325-TYPE 1	2 3/4"		
E1				384	H. HEX. NUT	7/8ø	A563 GRADE DH3			
E1				384	WASHER	7/8ø	F436-TYPE 3			
E1				128	H. HEX. NUT	7/8ø	A563 GRADE DH			
E1				128	WASHER	7/8ø	F436			

TOTAL WEIGHT	–
–CUTS	–
+FIELD BOLTS	199 kg
+WELD	–
NET TOTAL	199 kg

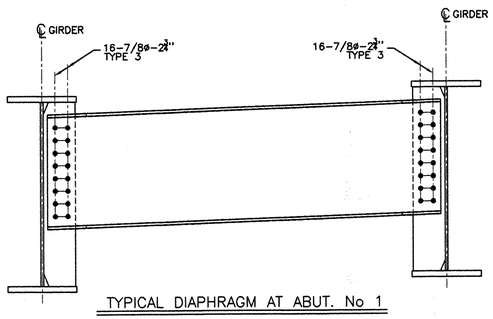


BRIDGE FRAMING PLAN
NTS

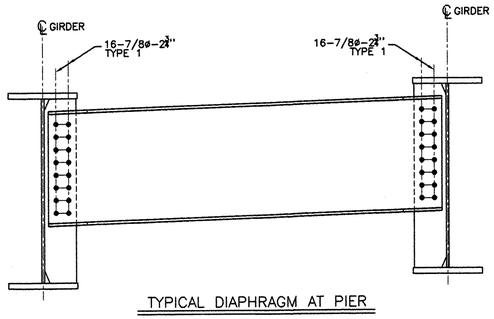
TABLE #1 CONCRETE PAD ELEVATIONS (DIMENSIONS ARE IN METERS)		
GIRDER LINE	ABUT. No.1 FIX. BRG	AT PIER EXP. BRG
1G1	170.939	170.647
2G2	171.017	170.725
3G3	171.065	170.773
4G4	171.017	170.725
5G5	170.939	170.647



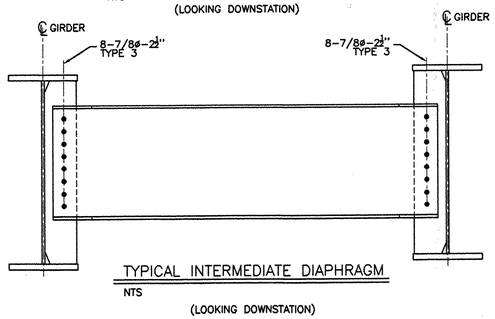
NOTE: BEARING PADS, SOLE PLATES, MASONRY PLATES AND ANCHOR BOLTS ARE BY OTHERS.



TYPICAL DIAPHRAGM AT ABUT. No 1
NTS
(LOOKING DOWNSTATION)



TYPICAL DIAPHRAGM AT PIER
NTS
(LOOKING UPSTATION)



TYPICAL INTERMEDIATE DIAPHRAGM
NTS
(LOOKING DOWNSTATION)

NOTES:
1- GENERAL NOTES: SEE GN1
2- PAINT: SEE GN1
3- HOLES: 15/16ø (24ø) (U.N.O.)
4- CONTRACT DWG'S: 63

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	F.W. Whitcomb	Approval

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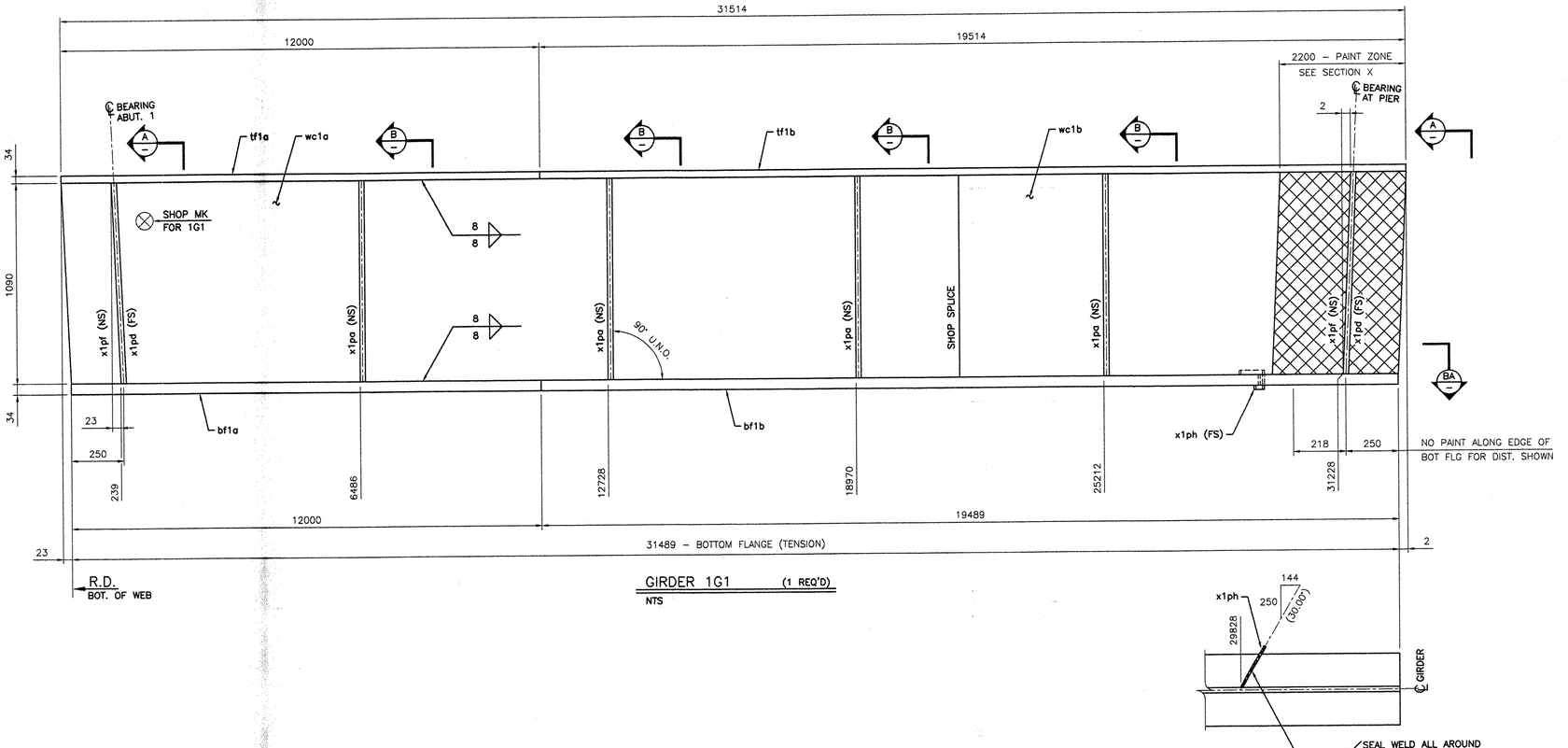
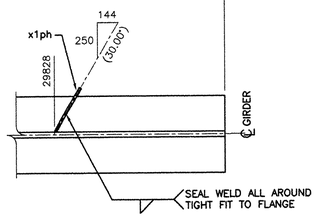
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	BRIDGE FRAMING PLAN
DRAWN BY: BR 11/26/04	JOB NUMBER: 5075
CHECKED BY: GG 11/30/04	SHEET NUMBER: E1

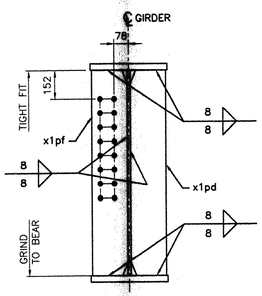
13055



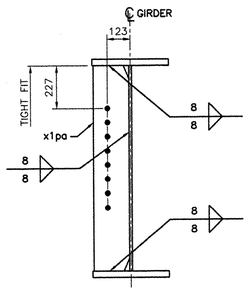
GIRDER 1G1 (1 REQ'D)
NTS



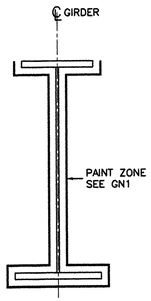
SECTION BA
NTS



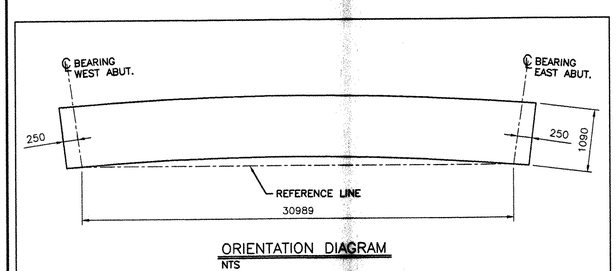
SECTION A
NTS



SECTION B
NTS



SECTION X
NTS



ORIENTATION DIAGRAM
NTS

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
1		1G1		1			Total weight:		11444 kg	
1		1G1	wc1a	1	PL Plate	16x1090	M270M-GR345W	20023	CVN	2
1		1G1	wc1b	1	PL Plate	16x1090	M270M-GR345W	11502	CVN	9
1		1G1	tf1a	1	PL Plate	34x410	M270M-GR345W	12000		1
1		1G1	tf1b	1	PL Plate	34x410	M270M-GR345W	19514		8
1		1G1	bf1a	1	PL Plate	34x410	M270M-GR345W	12000	CVN	3
1		1G1	bf1b	1	PL Plate	34x410	M270M-GR345W	19489	CVN	10
1		1G1	x1pa	4	PL Plate	14x190	M270M-GR345W	1090		5
1		1G1	x1pd	2	PL Plate	22x190	M270M-GR345W	1090		4
1		1G1	x1pf	2	PL Plate	22x190	M270M-GR345W	1090		4
1		1G1	x1ph	1	PL Plate	6x84	M270M-GR345W	277		7

TOTAL WEIGHT	11444 kg
-CUTS	2 kg
+FIELD BOLTS	REFER TO 'E' DWG
+WELD	54 kg
NET TOTAL	11496 kg

NOTES:

1- GENERAL NOTES: SEE GN1
2- PAINT: SEE GN1
3- HOLES: 15/16ø (24ø) (U.N.O.)
4- REF. SHOP DWG'S: WC1

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	F W Whitcomb	Approval

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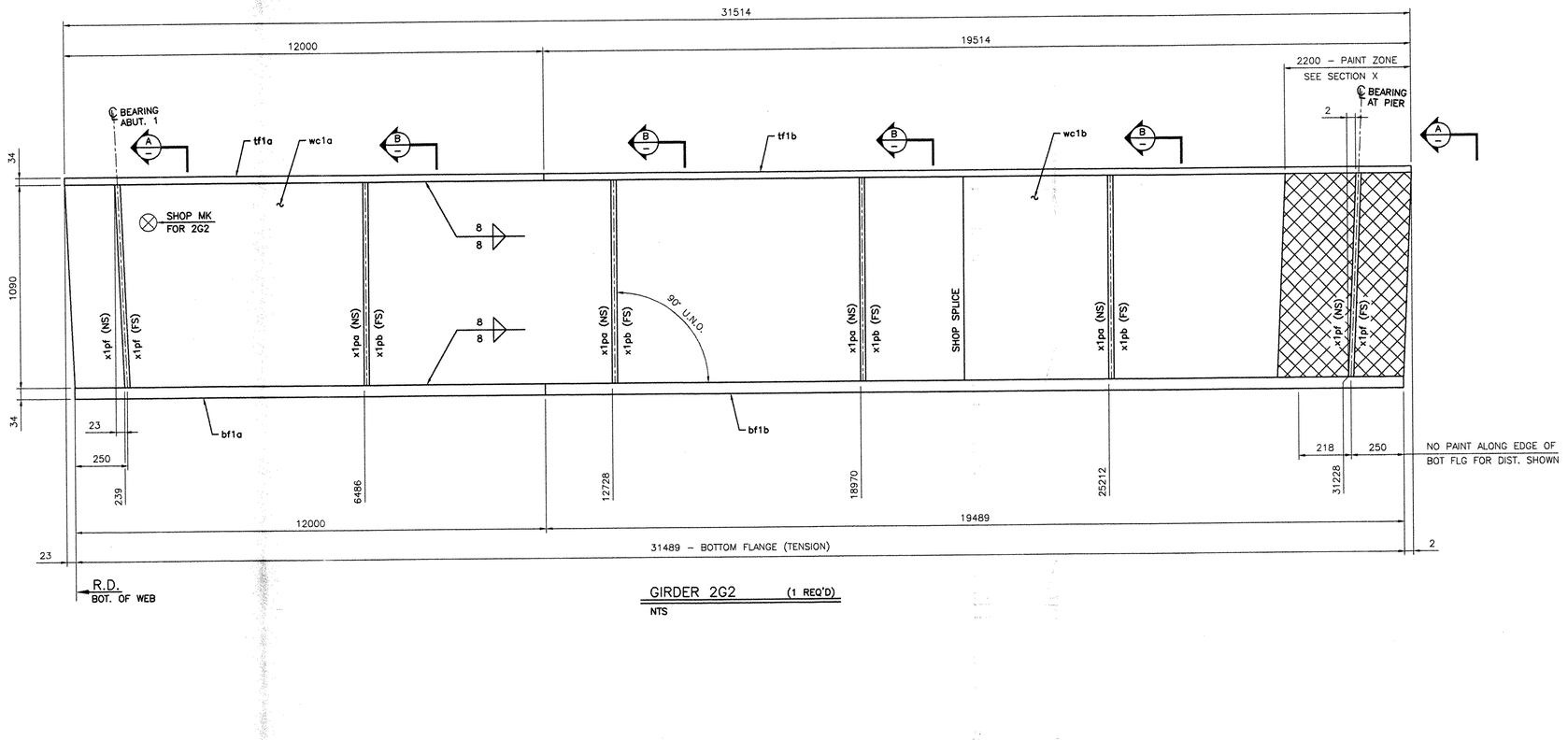
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	GIRDER 1G1
DRAWN BY: BR	11/26/04
CHECKED BY: GG	11/30/04
JOB NUMBER:	5075
SHEET NUMBER:	1

13155

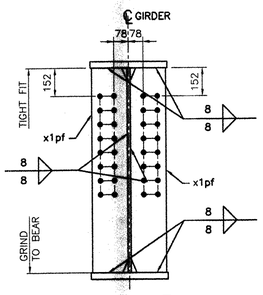


GIRDER 2G2 (1 REQ'D)
NTS

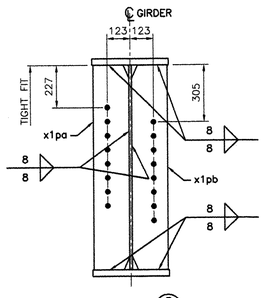
BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
2		2G2		1			Total weight:		11533 kg	
2		2G2	wc1a	1	PL Plate	16x1090	M270M–GR345W	20023	CVN	2
2		2G2	wc1b	1	PL Plate	16x1090	M270M–GR345W	11502	CVN	9
2		2G2	tf1a	1	PL Plate	34x410	M270M–GR345W	12000		1
2		2G2	tf1b	1	PL Plate	34x410	M270M–GR345W	19514		8
2		2G2	bf1a	1	PL Plate	34x410	M270M–GR345W	12000	CVN	3
2		2G2	bf1b	1	PL Plate	34x410	M270M–GR345W	19489	CVN	10
2		2G2	x1pa	4	PL Plate	14x190	M270M–GR345W	1090		5
2		2G2	x1pb	4	PL Plate	14x190	M270M–GR345W	1090		5
2		2G2	x1pf	4	PL Plate	22x190	M270M–GR345W	1090		4

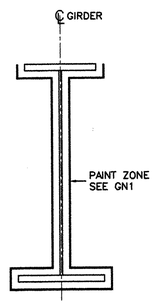
TOTAL WEIGHT	11533 kg
–CUTS	2 kg
+FIELD BOLTS	REFER TO 'E' DWG
+WELD	59 kg
NET TOTAL	11590 kg



SECTION A
NTS



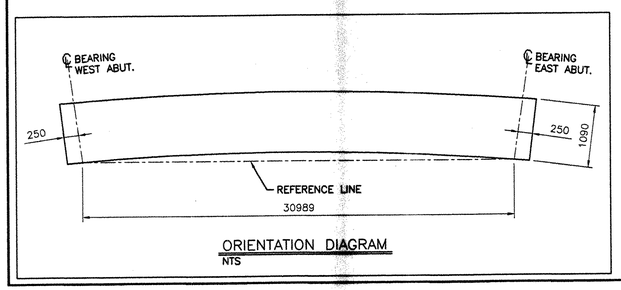
SECTION B
NTS



SECTION X
NTS

NOTES:

1– GENERAL NOTES: SEE GN1
2– PAINT: SEE GN1
3– HOLES: 15/16ø (24ø) (U.N.O.)
4– REF. SHOP DWG'S: WC1



ORIENTATION DIAGRAM
NTS

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
1	-	-

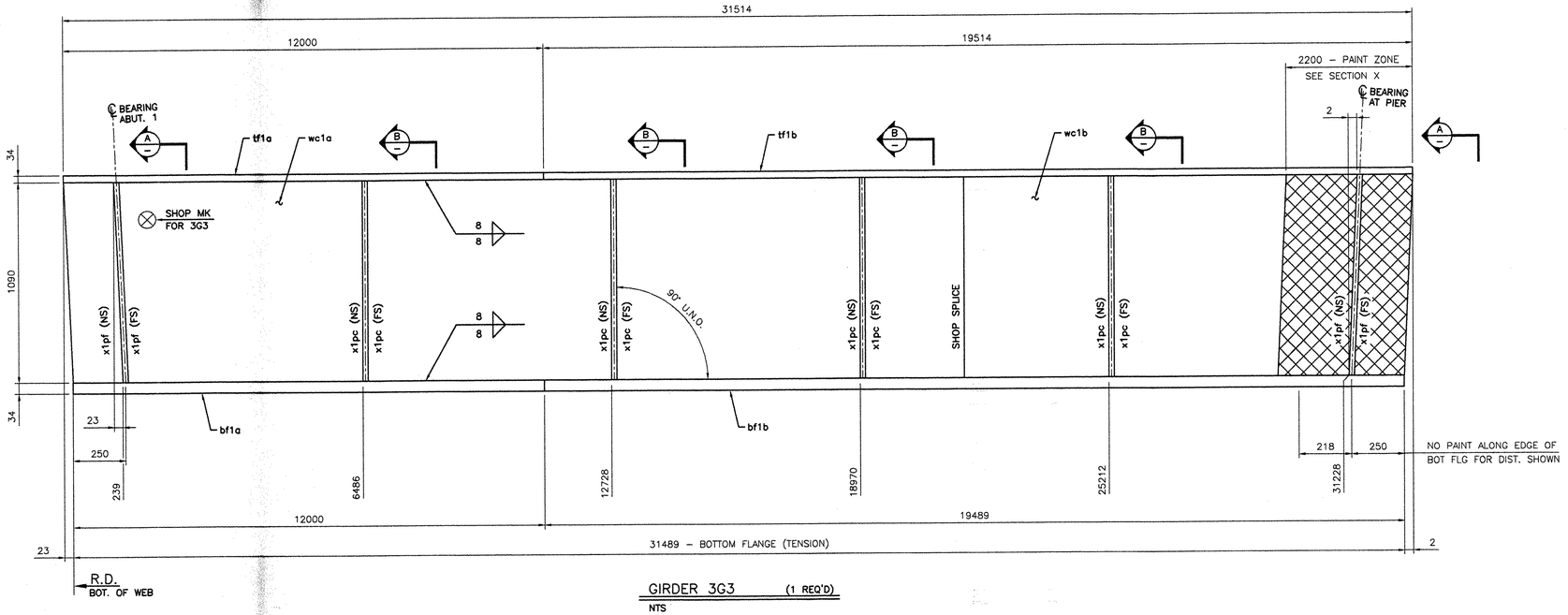
QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	F W Whitcomb	Approval

NOTICE
This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

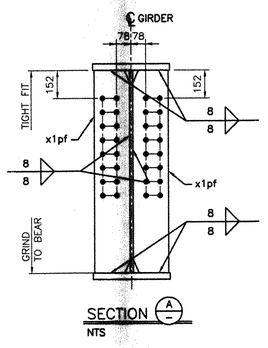
PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: GIRDER 2G2			
DRAWN BY: BR	11/26/04	JOB NUMBER: 5075	SHEET NUMBER: 2
CHECKED BY: GG	11/30/04		

132 ss



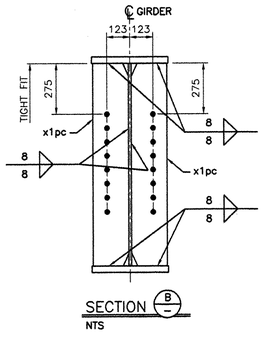
GIRDER 3G3 (1 REQ'D)

NTS



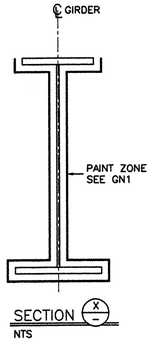
SECTION (A)

NTS



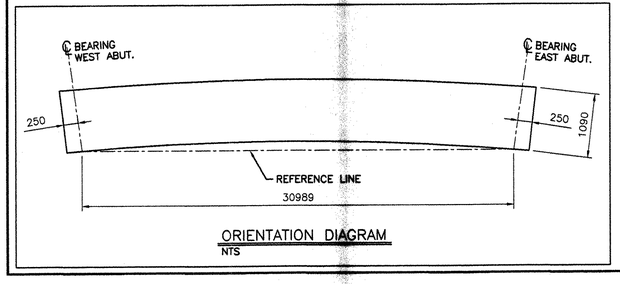
SECTION (B)

NTS



SECTION (X)

NTS



ORIENTATION DIAGRAM

NTS

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
3		3G3		1			Total weight:		11533 kg	
3		3G3	wc1a	1	PL Plate	16x1090	M270M–GR345W	20023	CVN	2
3		3G3	wc1b	1	PL Plate	16x1090	M270M–GR345W	11502	CVN	9
3		3G3	tf1a	1	PL Plate	34x410	M270M–GR345W	12000		1
3		3G3	tf1b	1	PL Plate	34x410	M270M–GR345W	19514		8
3		3G3	bf1a	1	PL Plate	34x410	M270M–GR345W	12000	CVN	3
3		3G3	bf1b	1	PL Plate	34x410	M270M–GR345W	19489	CVN	10
3		3G3	x1pc	8	PL Plate	14x190	M270M–GR345W	1090		5
3		3G3	x1pf	4	PL Plate	22x190	M270M–GR345W	1090		4

TOTAL WEIGHT	11533 kg
–CUTS	2 kg
+FIELD BOLTS	REFER TO 'E' DWG
+WELD	59 kg
NET TOTAL	11590 kg

NOTES:

1– GENERAL NOTES: SEE GN1
2– PAINT: SEE GN1
3– HOLES: 15/16ø (24ø) (U.N.O.)
4– REF. SHOP DWG'S: WC1

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
8 -	12/6/04	FW Whitcomb

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	FW Whitcomb	Approval

NOTICE
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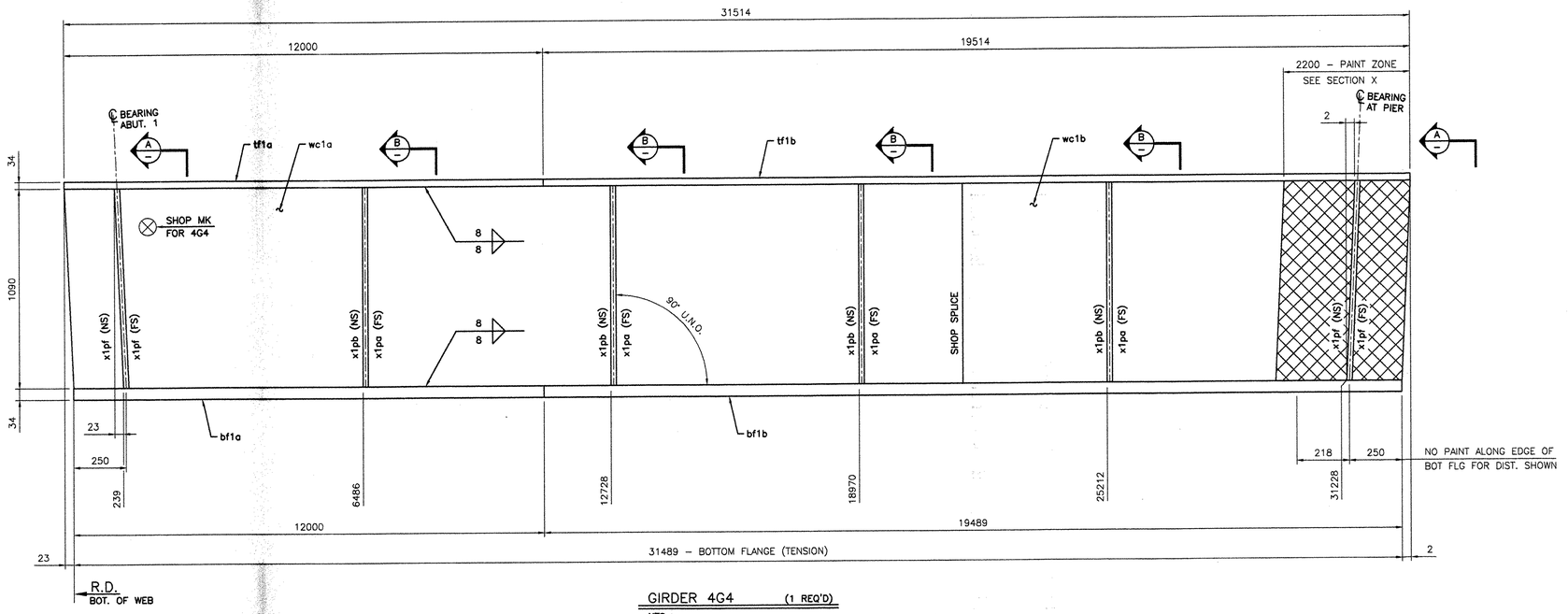
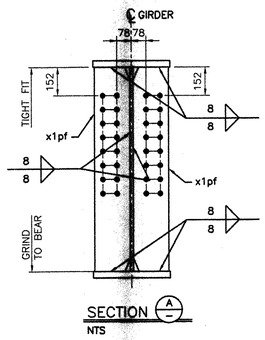
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	GIRDER 3G3
DRAWN BY:	BR 11/26/04
CHECKED BY:	GG 11/30/04
JOB NUMBER:	5075
SHEET NUMBER:	3

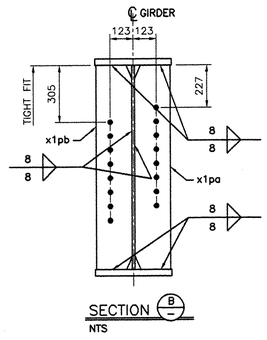
133 ss



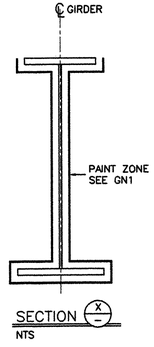
GIRDER 4G4 (1 REQ'D)
NTS



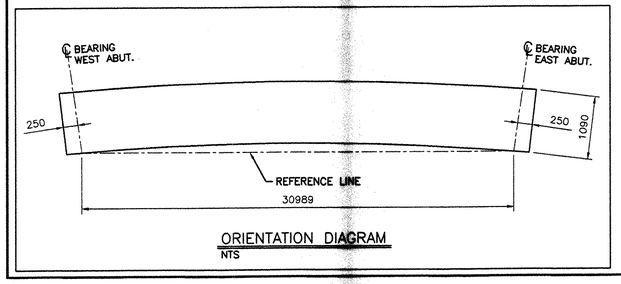
SECTION A
NTS



SECTION B
NTS



SECTION X
NTS



ORIENTATION DIAGRAM
NTS

SIZE OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
4		4G4		1			Total weight:		11533 kg	
4		4G4	wc1a	1	PL Plate	16x1090	M270M–GR345W	20023	CVN	2
4		4G4	wc1b	1	PL Plate	16x1090	M270M–GR345W	11502	CVN	9
4		4G4	tf1a	1	PL Plate	34x410	M270M–GR345W	12000		1
4		4G4	tf1b	1	PL Plate	34x410	M270M–GR345W	19514		8
4		4G4	bf1a	1	PL Plate	34x410	M270M–GR345W	12000	CVN	3
4		4G4	bf1b	1	PL Plate	34x410	M270M–GR345W	19489	CVN	10
4		4G4	x1pa	4	PL Plate	14x190	M270M–GR345W	1090		5
4		4G4	x1pb	4	PL Plate	14x190	M270M–GR345W	1090		5
4		4G4	x1pf	4	PL Plate	22x190	M270M–GR345W	1090		4

TOTAL WEIGHT	11533 kg
–CUTS	2 kg
+FIELD BOLTS	REFER TO 'E' DWG
+WELD	59 kg
NET TOTAL	11590 kg

NOTES:

1– GENERAL NOTES: SEE GN1
2– PAINT: SEE GN1
3– HOLES: 15/16ø (24ø) (U.N.O.)
4– REF. SHOP DWG'S: WC1

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	FW Whitcomb	Approval

NOTICE
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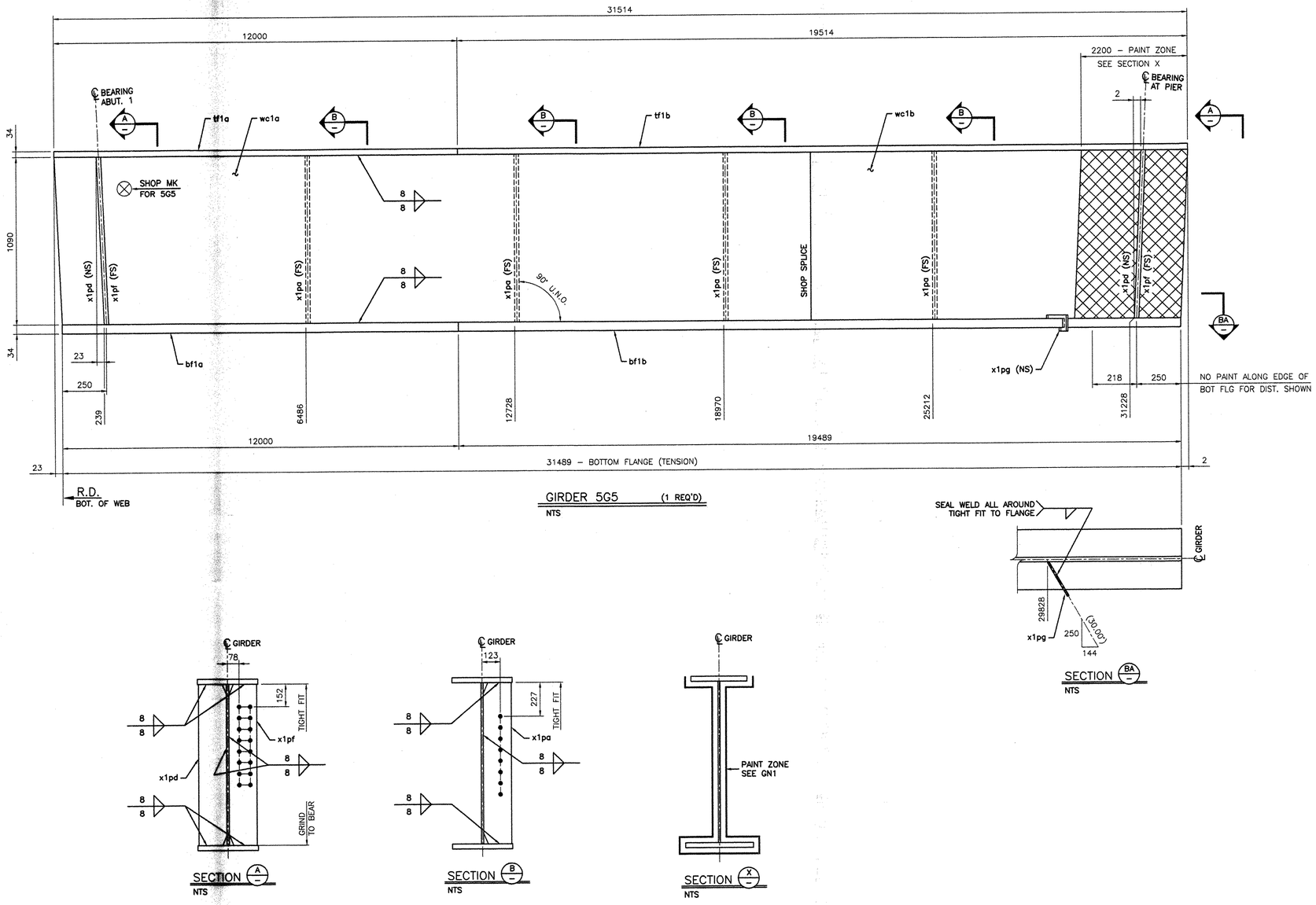
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: GIRDER 4G4	
DRAWN BY: BR 11/26/04	JOB NUMBER: 5075 / SHEET NUMBER: 4
CHECKED BY: GG 11/30/04	



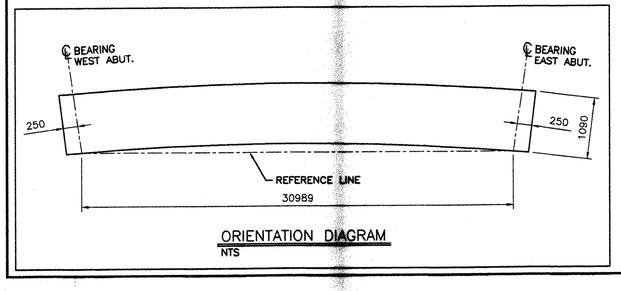
GIRDER 5G5 (1 REQ'D)
NTS

SECTION BA
NTS

SECTION A
NTS

SECTION B
NTS

SECTION X
NTS



ORIENTATION DIAGRAM
NTS

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
5		5G5		1			Total weight:		11444 kg	
5		5G5	wc1a	1	PL Plate	16x1090	M270M–GR345W	20023	CVN	2
5		5G5	wc1b	1	PL Plate	16x1090	M270M–GR345W	11502	CVN	9
5		5G5	tf1a	1	PL Plate	34x410	M270M–GR345W	12000		1
5		5G5	tf1b	1	PL Plate	34x410	M270M–GR345W	19514		8
5		5G5	bf1a	1	PL Plate	34x410	M270M–GR345W	12000	CVN	3
5		5G5	bf1b	1	PL Plate	34x410	M270M–GR345W	19489	CVN	10
5		5G5	x1pa	4	PL Plate	14x190	M270M–GR345W	1090		5
5		5G5	x1pd	2	PL Plate	22x190	M270M–GR345W	1090		4
5		5G5	x1pf	2	PL Plate	22x190	M270M–GR345W	1090		4
5		5G5	x1pg	1	PL Plate	6x84	M270M–GR345W	277		7

TOTAL WEIGHT	11444 kg
–CUTS	2 kg
+FIELD BOLTS	REFER TO 'E' DWG
+WELD	54 kg
NET TOTAL	11496 kg

NOTES:

1– GENERAL NOTES: SEE GN1
2– PAINT: SEE GN1
3– HOLES: 15/16ø (24ø) (U.N.O.)
4– REF. SHOP DWG'S: WC1

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	F W Whitcomb	Approval

NOTICE
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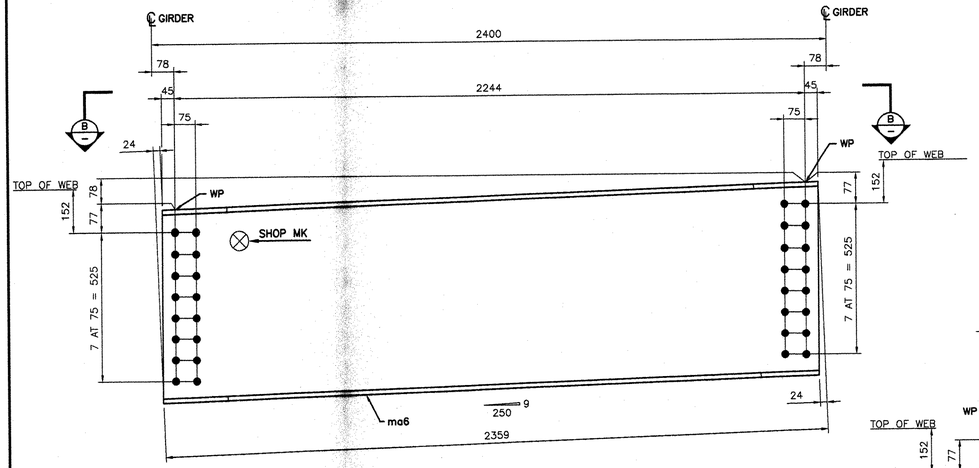
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

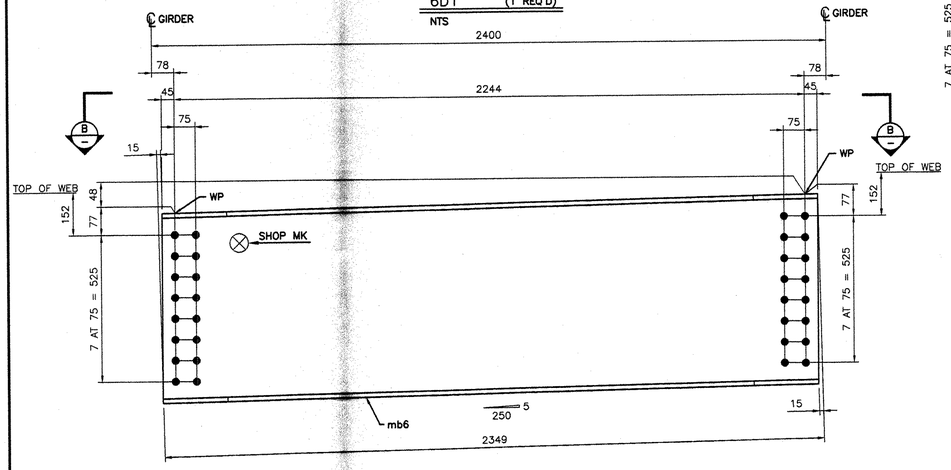
PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: GIRDER 5G5
DRAWN BY: BR 11/26/04
CHECKED BY: GG 11/30/04
JOB NUMBER: 5075
SHEET NUMBER: 5

13555



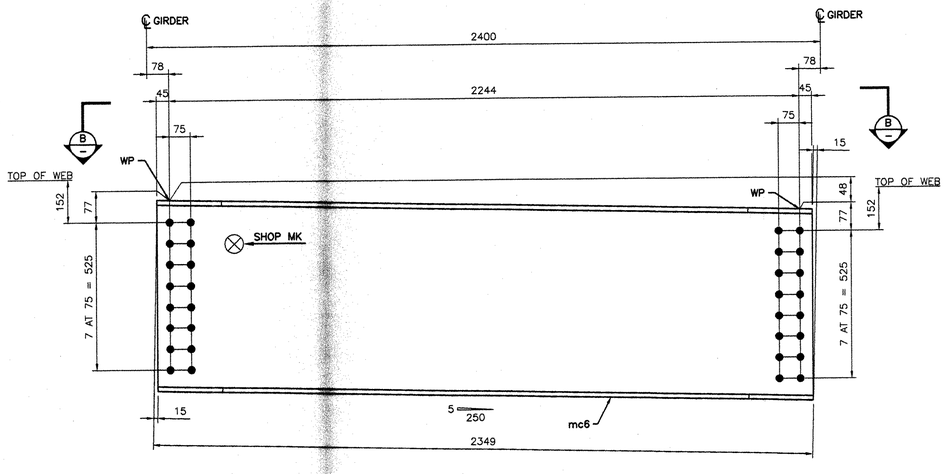
TO BE PAINT — 6D6 (1 REQ'D)
6D1 (1 REQ'D)

NTS



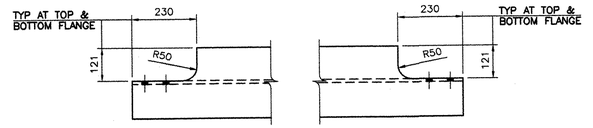
TO BE PAINT — 6D7 (1 REQ'D)
6D2 (1 REQ'D)

NTS

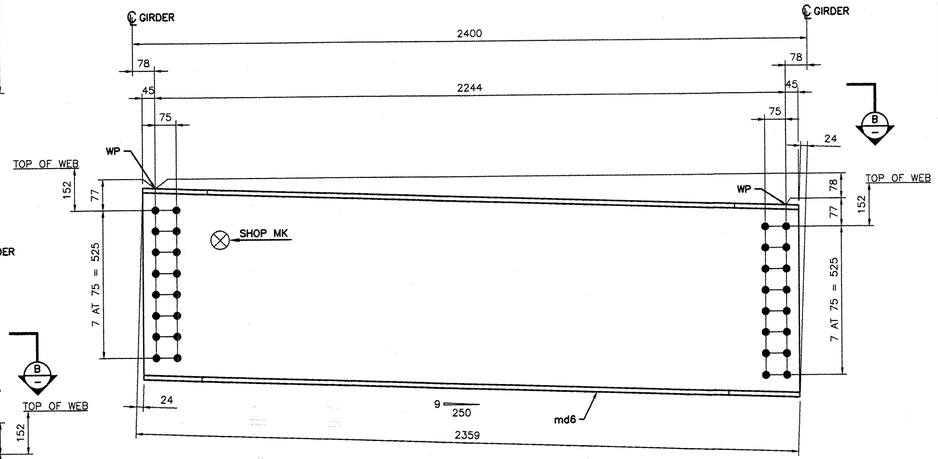


TO BE PAINT — 6D8 (1 REQ'D)
6D3 (1 REQ'D)

NTS

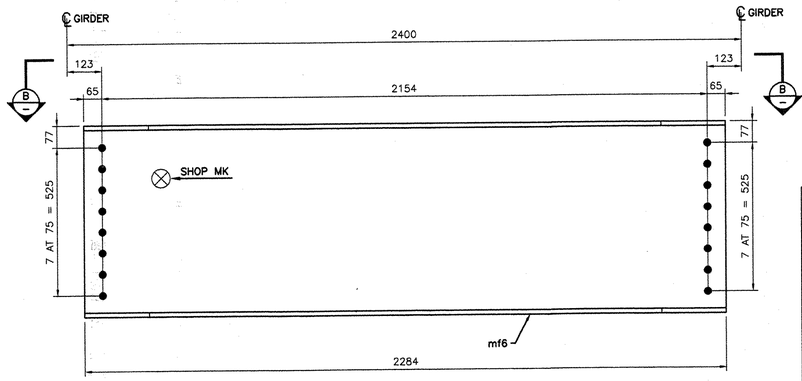


SECTION B
NTS



TO BE PAINT — 6D9 (1 REQ'D)
6D4 (1 REQ'D)

NTS



6D5 (16 REQ'D)

NTS

NOTES:

1- GENERAL NOTES: SEE GN1
2- PAINT: SEE GN1
2- HOLES: 15/16ø (24ø) (U.N.O.)
3- REF. SHOP DWG'S:

RESERVED FOR STAMPS

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
6		6D1	ma6	1	W Wide Flng	690x125	A709M-GR345W	2359		6
								weight:	295 kg	
6		6D2	mb6	1	W Wide Flng	690x125	A709M-GR345W	2349		6
								weight:	294 kg	
6		6D3	mc6	1	W Wide Flng	690x125	A709M-GR345W	2349		6
								weight:	294 kg	
6		6D4	md6	1	W Wide Flng	690x125	A709M-GR345W	2359		6
								weight:	295 kg	
6		6D5	mf6	16	W Wide Flng	690x125	A709M-GR345W	2284		6
								weight:	4568 kg	
6		6D6	ma6	1	W Wide Flng	690x125	A709M-GR345W	2359		6
								weight:	295 kg	
6		6D7	mb6	1	W Wide Flng	690x125	A709M-GR345W	2349		6
								weight:	294 kg	
6		6D8	mc6	1	W Wide Flng	690x125	A709M-GR345W	2349		6
								weight:	294 kg	
6		6D9	md6	1	W Wide Flng	690x125	A709M-GR345W	2359		6
								weight:	295 kg	

TOTAL WEIGHT	6924 kg
-CUTS	336 kg
+FIELD BOLTS	REFER TO 'E' DWG
+WELD	0
NET TOTAL	6588 kg

REV	DATE	DESCRIPTION
1		

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	Fw Whitcomb	Approval

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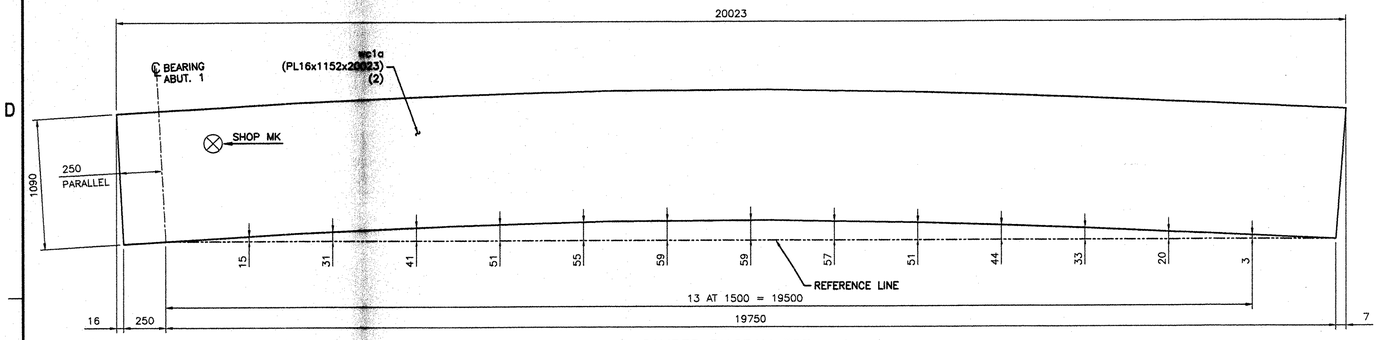
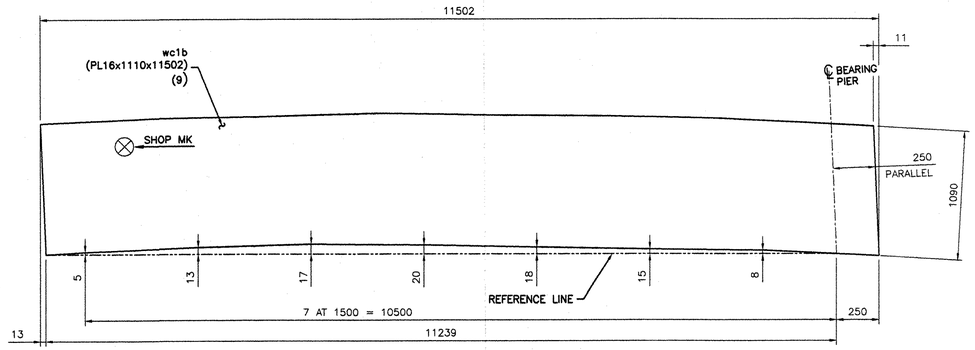
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	DIAPHRAGMS
DRAWN BY: BR	11/26/04
CHECKED BY: GG	11/30/04
JOB NUMBER:	5075
SHEET NUMBER:	6



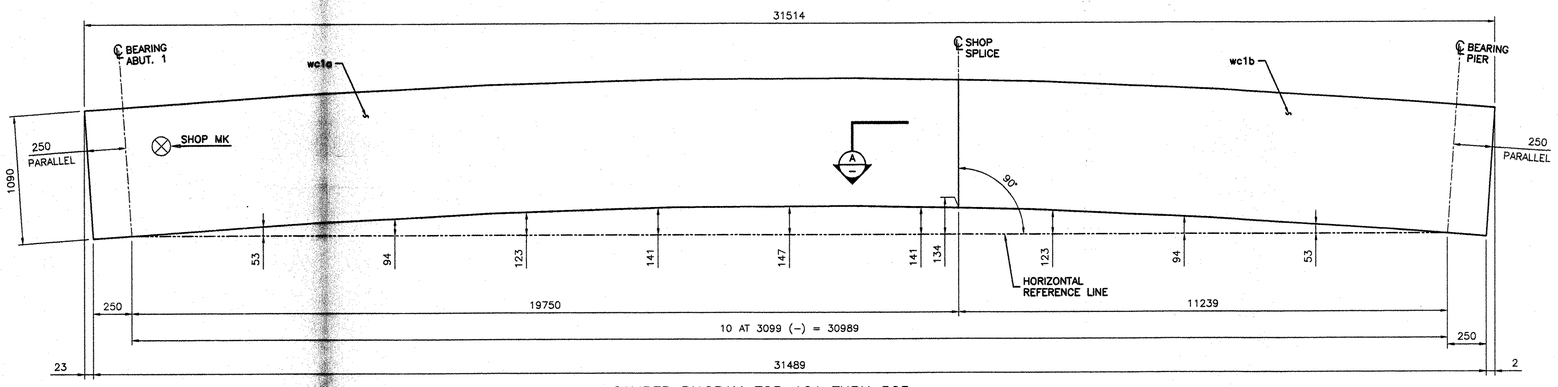
CAMBER DIAGRAM FOR wc1a

NTS



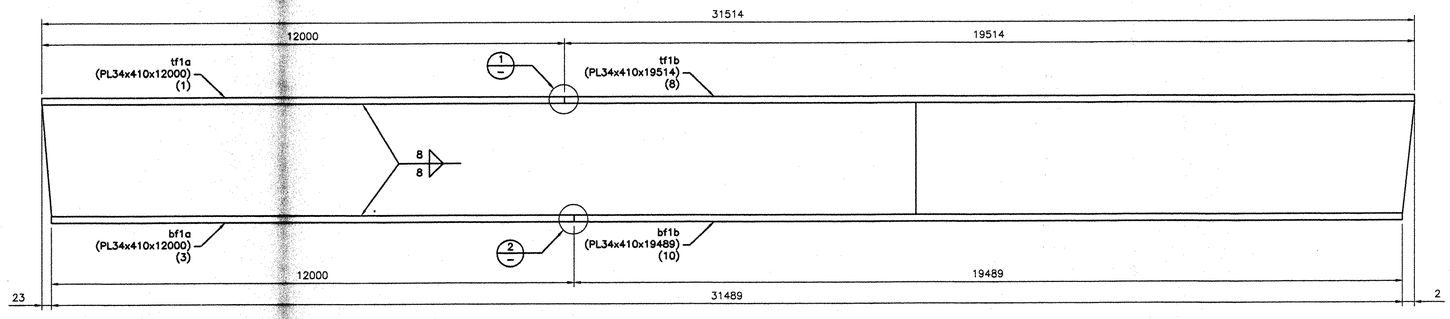
CAMBER DIAGRAM FOR wc1b

NTS



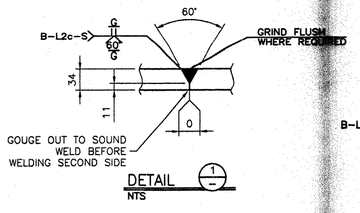
CAMBER DIAGRAM FOR 1G1 THRU 5G5

NTS



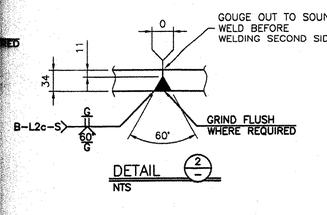
FLANGE DIAGRAM FOR 1G1 THRU 5G5

NTS



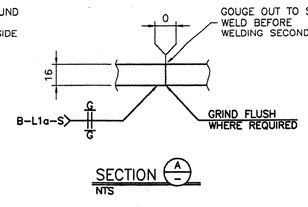
DETAIL 1

NTS



DETAIL 2

NTS



SECTION A

NTS

NOTES:

1– GENERAL NOTES: SEE GN1

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
1	-	-

QTY	DATE	ISSUED TO	FOR
8 -	12/6/04	FW Whitcomb	Approval

NOTICE
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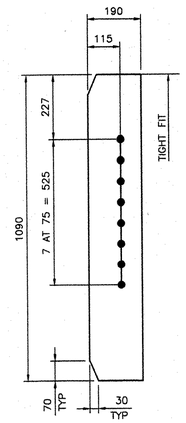
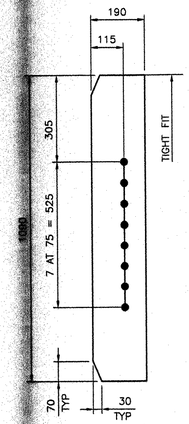
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	WEB CAMBER AND FLANGE DIAGRAMS
DRAWN BY: BR	11/26/04
CHECKED BY: GG	11/30/04
JOB NUMBER:	5075
SHEET NUMBER:	WC1



ITEM x1pa (16 REQ'D)

SCALE: 1:10 (PL14 x 190 x 1090)
(M270M GR345W)



ITEM x1pb (8 REQ'D)

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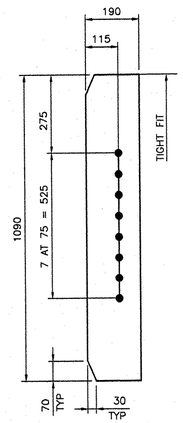
(M270M GR345W)



ITEM x1pc (8 REQ'D)

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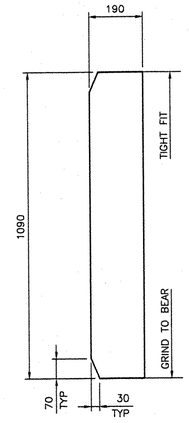
(M270M GR345W)



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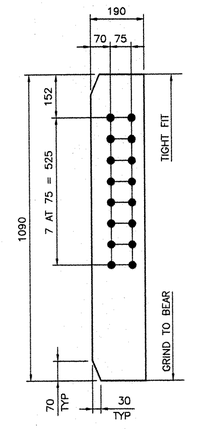
(M270M GR345W)



ITEM x1pf (16 REQ'D)

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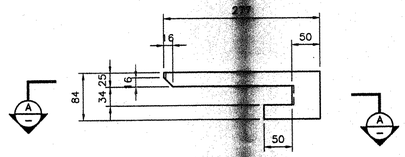
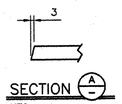
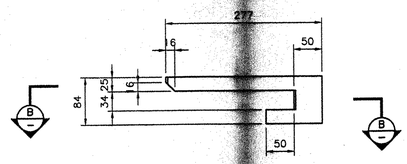
(M270M GR345W)



ITEM x1pg (1 REQ'D)

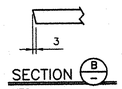
SCALE: 1:5 (PL3 x 84 x 277)
(M270M GR345W)





ITEM x1ph (1 REQ'D)

SCALE: 1:5 (PL3 x 84 x 277)
(M270M GR345W)



NOTES:

1- GENERAL NOTES: SEE GN1
2- HOLES: 15/16ø (24ø)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
8 -	12/6/04	FW Whitcomb

QTY	DATE	ISSUED TO	FOR
			Approval

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EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	DETAILS
DRAWN BY: BR	11/26/04
CHECKED BY: GG	11/30/04
JOB NUMBER:	5075
SHEET NUMBER:	X1

13855

GENERAL NOTES

1 CONSTRUCTION SPECIFICATIONS:

ALL MATERIAL AND WORKMANSHIP TO BE IN ACCORDANCE WITH THE STATE OF VERMONT AGENCY OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2001 WITH LATEST REVISIONS AND THE SPECIAL PROVISIONS.

AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (A.A.S.H.T.O.) STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17 TH EDITION DATED 2002, WITH LATEST REVISIONS.

2 MATERIAL SPECIFICATIONS:

UNLESS NOTED, ALL STEEL TO BE AASHTO M270M GRADE 345 (ASTM A709M-345)

MATERIAL NOTED "CVN" ON DETAIL DRAWINGS SHALL BE CHARPY V-NOTCH TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF VERMONT STANDARD SPECIFICATIONS.

HIGH STRENGTH BOLTS: AASHTO M164 (ASTM A325M) 7/8" (22mm) DIA.
IN 15/16" (24mm) DIAMETER HOLES (U.N).
ALL BOLTS SHALL BE TYPE 1 (GALVANIZED).
HEAVY HEXAGONAL NUTS: ASTM A563 GRADE DH (GALVANIZED).
HARDENED FLAT WASHERS: ASTM F436 (GALVANIZED).
BEVELED WASHERS: (GALVANIZED).

JOINTS WITH BOLTS THREADS EXCLUDED FROM THE SHEAR PLANE.

ALL MATERIAL REQUIREMENTS, CERTIFICATIONS, FABRICATIONS AND ASSEMBLY SHALL BE IN ACCORDANCE WITH SECTION 506 OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND RELATED SPECIAL PROVISIONS.

3. FABRICATION:

ALL HOLES SHALL BE PUNCHED OR DRILLED FULL SIZE.
GRIND BURRS AT HOLES SMOOTH.

4 WELDING:

THE CONFIGURATION OF THE WELD JOINTS AND ALL WELDING PROCEDURES SHALL BE IN ACCORDANCE WITH AASHTO/AWS D.1.5-02 BRIDGE WELDING CODE AND ADDITION TO SPECIFICATIONS SHOWN ABOVE. ALL WELDING WILL BE DETAILED TO PRE-QUALIFIED JOINTS, UNLESS PROHIBITED BY THE DESIGNER.

WELDING OF MAIN LOAD CARRYING MEMBERS AND ATTACHMENTS SHALL BE PERFORMED USING THE AUTOMATIC SUBMERGED ARC & SHIELDED METAL ARC PROCESS. ALL WELDS ARE CONTINUOUS U.N.

NON DESTRUCTIVE TESTING OF WELDS SHALL BE IN ACCORDANCE WITH THE REFERENCED SPECIFICATION.

5 CLEANING:

ALL STEEL SHALL BE CLEANED TO BE AT LEAST EQUIVALENT TO SURFACE PREPARATION GRADE SSPC SP-8 PER SPEC. 506.14(b)

6 GALVANIZING:

ALL CORNERS AND EDGES OF STEEL PLATES, SHAPES, ETC., SHALL BE GROUND TO A 1.6mm RADIUS PRIOR TO GALVANIZING.

ALL STEEL COMPONENTS OF THE TRUSS BRIDGE SHALL BE GALVANIZED IN ACCORDANCE WITH SUBSECTION 506.15 AND ALL RELATED SPECIAL PROVISIONS.

7 FIELD CONNECTIONS:

ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8"(22mm) DIAMETER HIGH STRENGTH A325 BOLTS TYPE 1, IN 15/16"(24mm) DIAMETER HOLES UNLESS OTHERWISE NOTED. INSTALLED PER 506.19(c) AND SPECIAL PROVISIONS.

PIECE MARKS WILL BE LOCATED AS SHOWN ON ERECTION DRAWINGS.

8 GALVANIZED CONNECTIONS TREATMENT

PRIMARY MEMBER TRUSS CONNECTIONS, FIELD SPLICES IN TENSION, FLOORBEAM TO TRUSS, AND FLOORBEAM TO STRINGER CONNECTIONS SHALL BE SLIP CRITICAL, CLASS 'C', SLIP COEFFICIENT .33.

THE PRIMARY MEMBER TRUSS CONNECTIONS AND FIELD SPLICES IN TENSION ARE: TRUSS BOTTOM CHORD CONNECTIONS, TRUSS BOTTOM CHORD FIELD SPLICES, TRUSS VERTICAL AND DIAGONAL CONNECTIONS AT THE TRUSS TOP CHORD END AND THE TRUSS BOTTOM CHORD END.

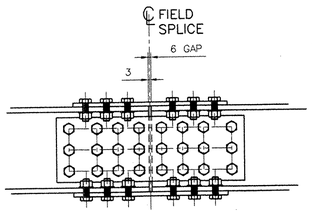
FAYING SURFACES OF SLIP CRITICAL BOLTED PARTS WILL BE ROUGHENEDBY HAND WIRE BRUSHING, BY THE FABRICATOR, AFTER GALVANIZING.

CONNECTIONS REQUIRING MODIFICATION TO MEET THE REVISED DESIGN CRITERIA WILL BE ACCOMPLISHED AT OR FOLLOWING TRUSS ASSEMBLY.

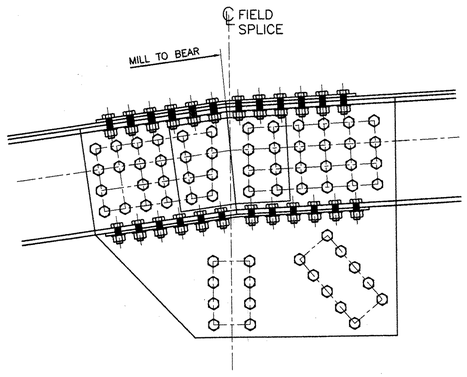
CONNECTION MODIFICATIONS REQUIRING USE OF A 1" BOLT (1 1/16" HOLE) IN PLACE OF ORIGINAL 7/8" BOLT (15/16" HOLE) WILL BE REAMED TO SIZE AT TRUSS ASSEMBLY, WITH ALL CONNECTING PARTS ASSEMBLED.

CONNECTION MODIFICATIONS REQUIRING DRILLING OF ADDITIONAL, NEW HOLES WILL BE ACCOMPLISHED PRIOR TO OR AT TRUSS ASSEMBLY.

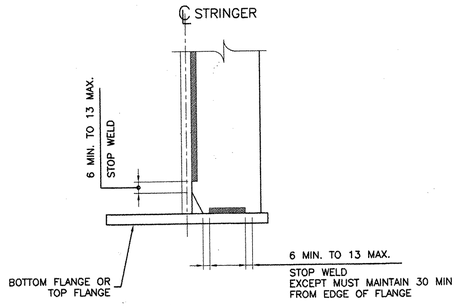
REAMED OR NEW HOLES WILL BE REPAIR GALVANIZED IN ACCORDANCE WITH ASTM A780, BY APPLICATION OF A COLD GALVANIZING COMPOUND.



TYPICAL FIELD SPLICE DETAIL AT BOTTOM CHORD



TYPICAL FIELD SPLICE DETAIL AT TOP CHORD



TYPICAL WELD DETAIL

RESERVED FOR STAMPS

RECEIVED
OK'D BY _____ OK'D BY MGM
SEP 2 3 2005
RESUBMIT _____ APPROVED V
BY _____ DATE 9/23/05

REV	DATE	DESCRIPTION
3	9/06/05	AS PER COMMENTS
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
B	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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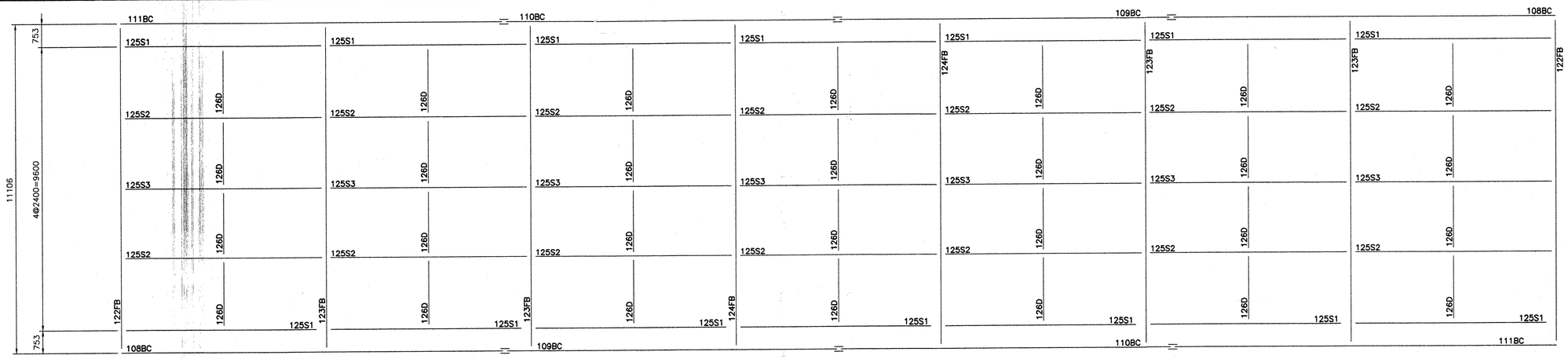
tenca 1010

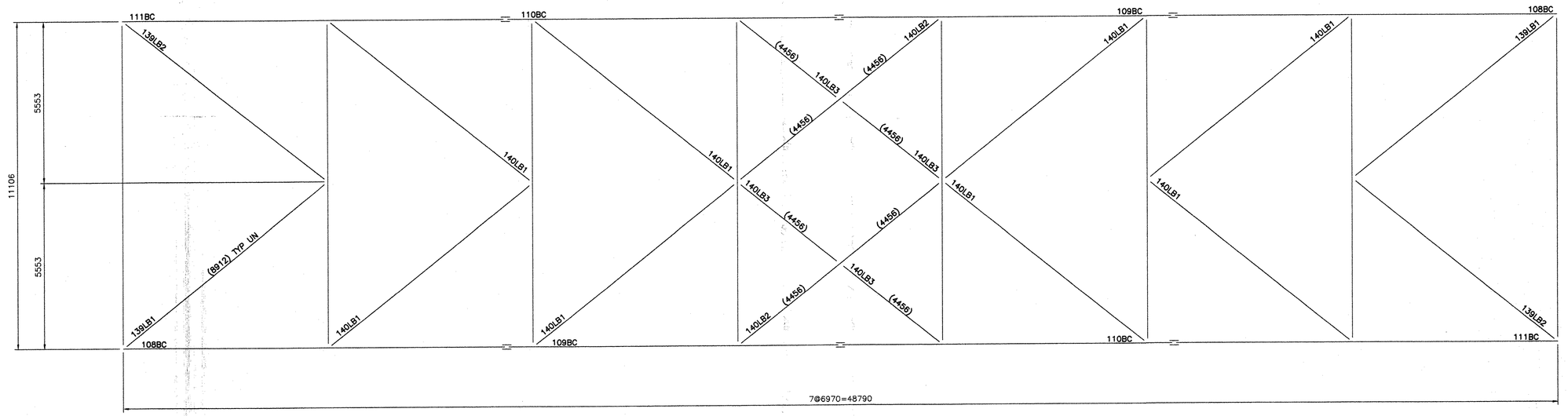
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: GENERAL NOTES			
DRAWN BY: YT	03/16/05	JOB NUMBER: 5075	SHEET NUMBER: GN101
CHECKED BY: GG	03/23/05		

13755



FLOOR – ERECTION PLAN



BOTTOM LATERAL BRACING – ERECTION PLAN

RESERVED FOR STAMPS

NOTES:

1– GENERAL NOTES: SEE GN101
2– DIMENSIONS GIVEN THUS: (8912) ARE WP/WP LENGTHS ALONG THE MEMBERS FOR THE FINAL GEOMETRY OF THE BRIDGE (AFTER ALL DEAD LOADS ARE APPLIED).

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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WORK THIS DWG WITH DWGS E102, E103 & E104.

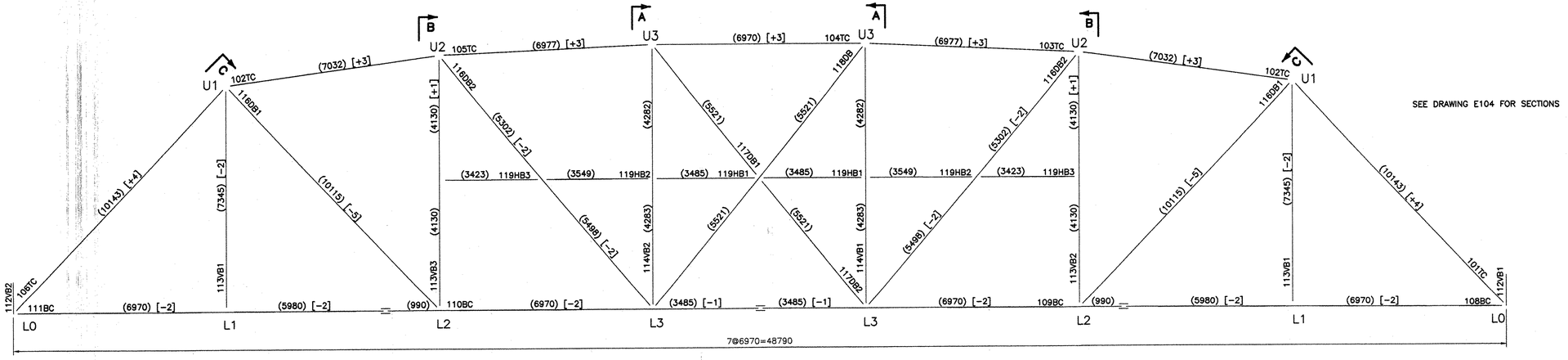
tenca 1010

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TRUSS FLOOR – ERECTION PLAN
DRAWN BY: YT	02/23/05
CHECKED BY: GG	03/23/05

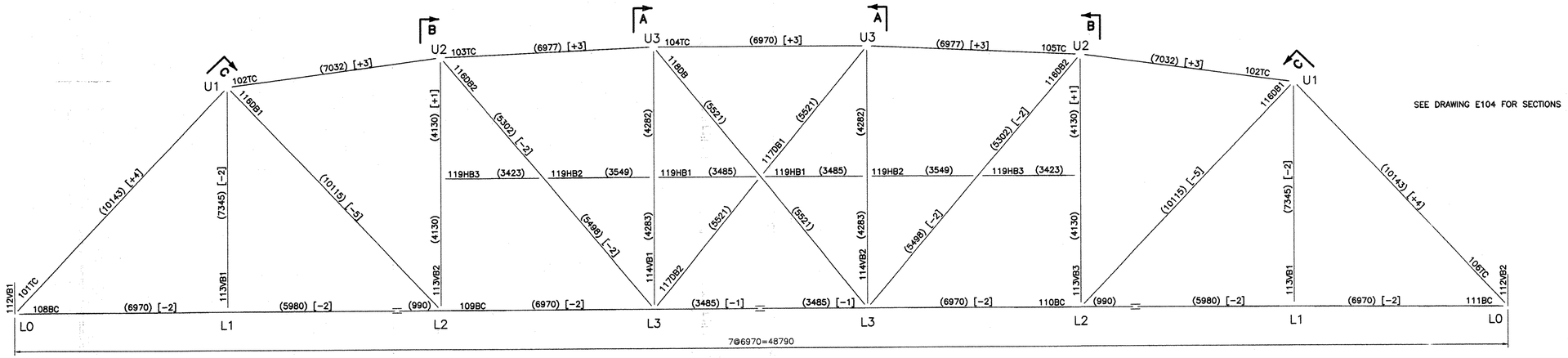
JOB NUMBER: 5075
SHEET NUMBER: E101

140 ss



SEE DRAWING E104 FOR SECTIONS

TRUSS NORTH ELEVATION – LOOKING NORTH



SEE DRAWING E104 FOR SECTIONS

TRUSS SOUTH ELEVATION – LOOKING NORTH

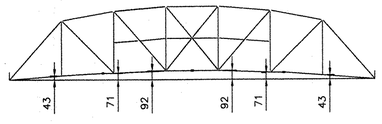


DIAGRAM FOR FULLY CAMBERED GEOMETRY

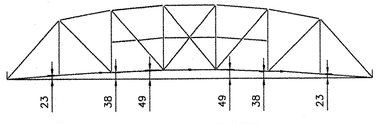


DIAGRAM FOR FINAL GEOMETRY

NOTES:

1– GENERAL NOTES: SEE GN101
2– DIMENSIONS GIVEN THUS: (6970) ARE WP/WP LENGTHS ALONG THE MEMBERS FOR THE FINAL GEOMETRY OF THE BRIDGE (AFTER ALL DEAD LOADS ARE APPLIED).
3– DIMENSIONS GIVEN THUS: [–2] ARE THE MEMBER LENGTH ADJUSTMENTS NEEDED FOR THE FULLY CAMBERED GEOMETRY OF THE BRIDGE.

RECEIVED
OK'D BY_____ OK'D BY_____
APR 1 3 2005
RESUBMIT_____ APPROVED_____
BY DATE

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Constructor	Approval

NOTICE

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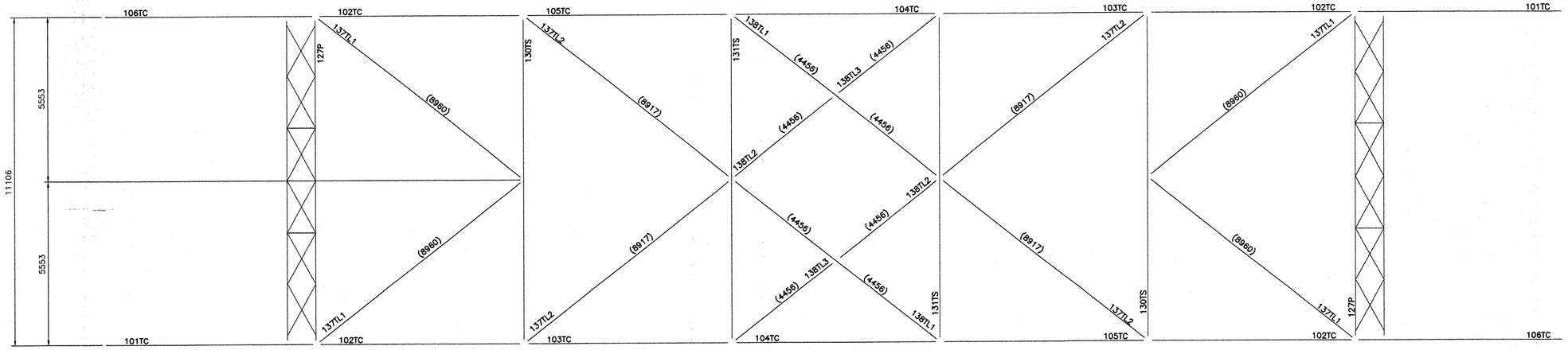
WORK THIS DWG WITH DWGS E101, E103 & E104.

tenca 1010

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: TRUSS ELEVATIONS – ERECTION PLAN			
DRAWN BY: YT	02/23/05	JOB NUMBER: 5075	SHEET NUMBER: E102
CHECKED BY: GG	03/23/05		



TOP LATERAL BRACING – ERECTION PLAN

NOTES:

1– GENERAL NOTES: SEE GN101
2– DIMENSIONS GIVEN THUS: (8960) ARE WP/WP LENGTHS ALONG THE MEMBERS FOR THE FINAL GEOMETRY OF THE BRIDGE (AFTER ALL DEAD LOADS ARE APPLIED).

RECEIVED
OK'D BY _____ OK'D BY _____
APR 13 2005
RESUBMIT _____ APPROVED _____
BY DATE

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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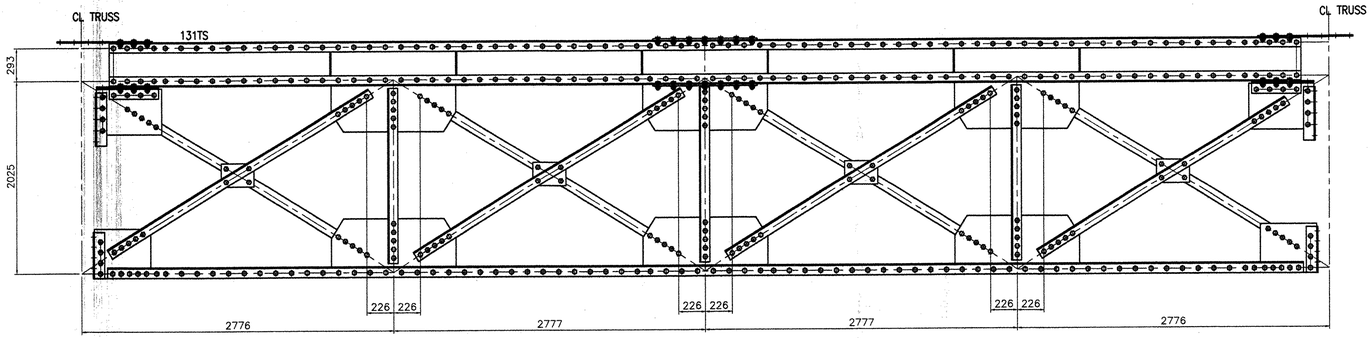
WORK THIS DWG WITH DWGS E101, E102 & E104.

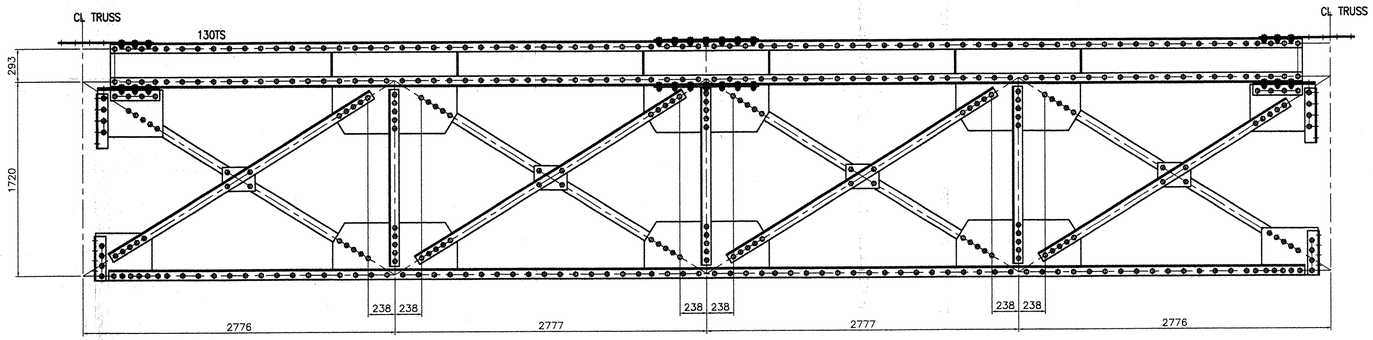
tenca 1010
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: TRUSS TOP VIEW – ERECTION PLAN	
DRAWN BY: YT 02/23/05	JOB NUMBER: 5075 / SHEET NUMBER: E103
CHECKED BY: GG 03/23/05	

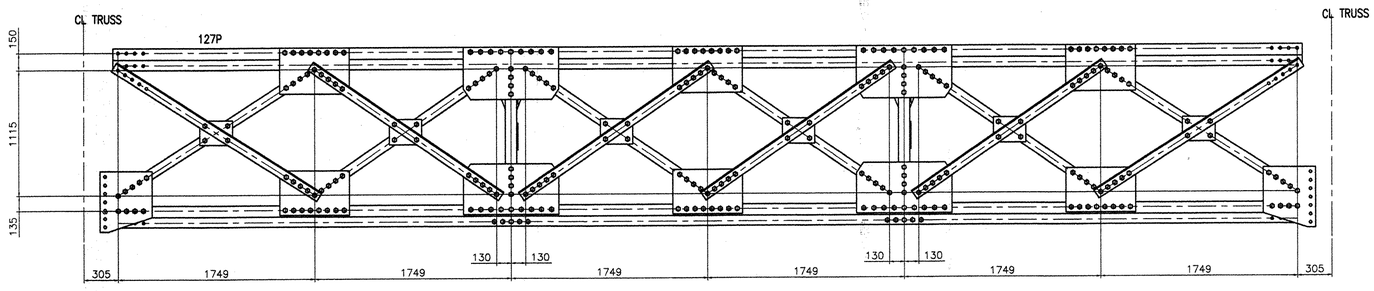
142 ss



SECTION A



SECTION B



SECTION C

NOTES:

1– GENERAL NOTES: SEE GN101

RECEIVED
APR 1 3 2005
BY DATE

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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WORK THIS DWG WITH DWGS E101, E102 & E103.

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TRUSS SECTIONS – ERECTION PLAN
DRAWN BY: YT	02/23/05
CHECKED BY: GG	03/23/05
JOB NUMBER:	5075
SHEET NUMBER:	E104

14355

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
101		101BC1		2			Total weight:		4281 kg	
101		101BC1	ma101	2	C Channel	380x74	M270M-GR345	9886	CVN	11
101		101BC1	mb101	2	C Channel	380x74	M270M-GR345	9886	CVN	11
101		101BC1	x157pa	2	PL Plate	12x434	M270M-GR345	8940	CVN	12
101		101BC1	x157pb	4	PL Plate	10x434	M270M-GR345	480		53
101		101BC1	x157pc	24	PL Plate	10x280	M270M-GR345	434		54
101		101BC1	x157pd	2	PL Plate	10x390	M270M-GR345	792		80
101		101BC1	x157pf	2	PL Plate	10x825	M270M-GR345	1507	CVN	77
101		101BC1	x157pg	2	PL Plate	10x475	M270M-GR345	991	CVN	78
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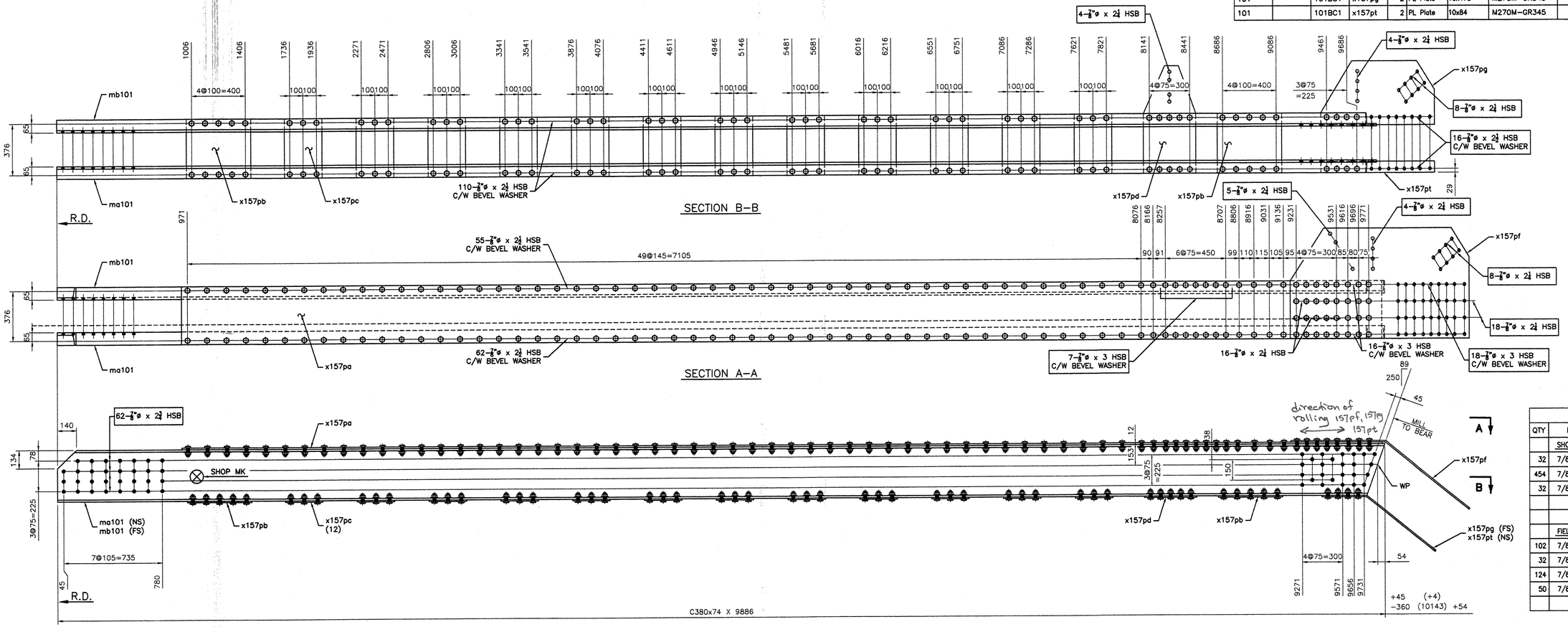


BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
32	7/8"ø HSB	2 1/4
454	7/8"ø HSB	2 1/2
32	7/8"ø HSB	3
	FIELD BOLTS LIST	
102	7/8"ø HSB	2 1/4
32	7/8"ø HSB	2 1/2
124	7/8"ø HSB	2 3/4
50	7/8"ø HSB	3

2 – TOP CHORD ASSEMBLY – 101TC

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

NOTICE
This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

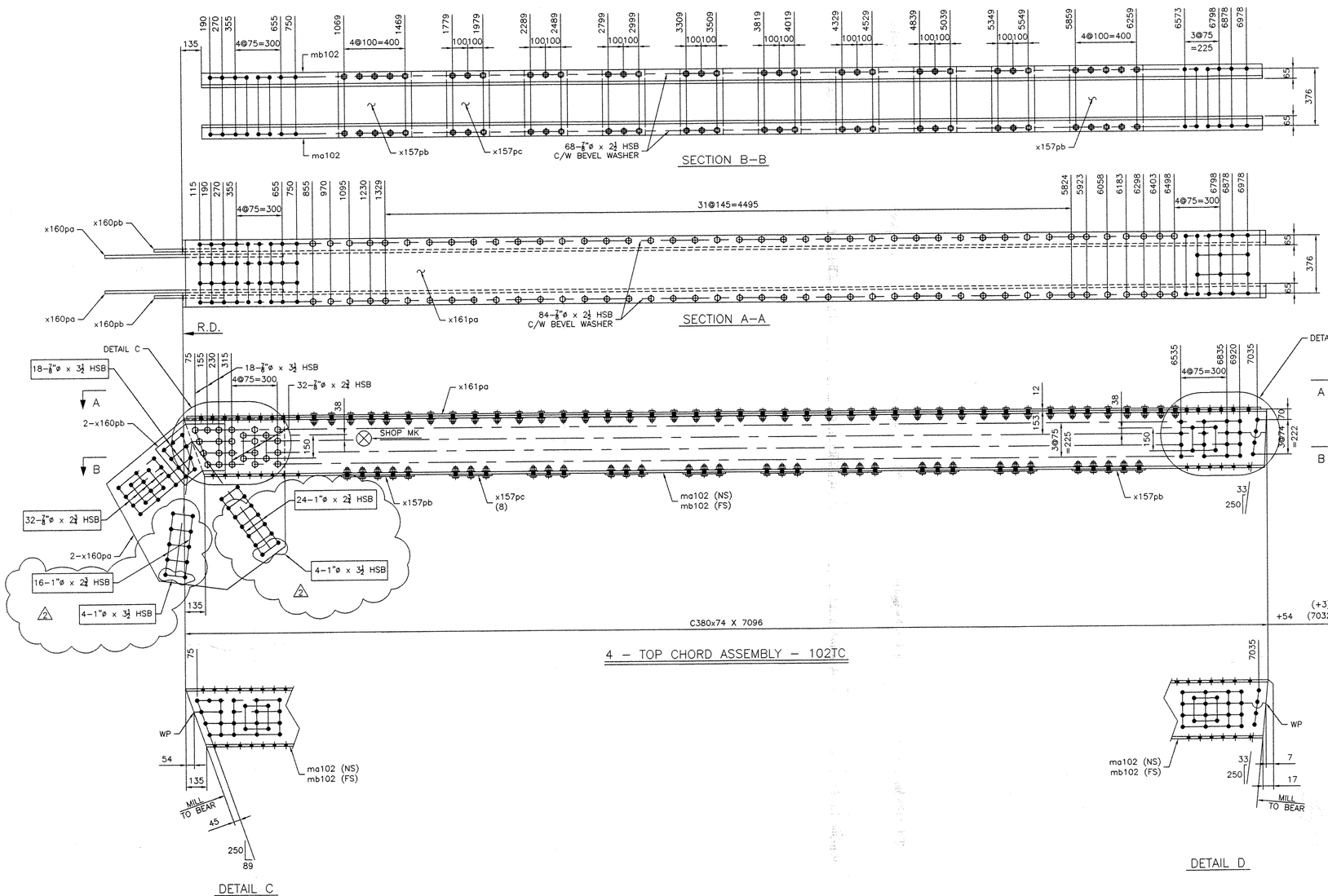
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TOP CHORD ASSEMBLIES
DRAWN BY: BR 03/04/05	JOB NUMBER: 5075
CHECKED BY: GG 03/29/05	SHEET NUMBER: 101

14455

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
102		102BC		4			Total weight:		7456 kg	
102		102BC	ma102	4	C Channel	380x74	M270M-GR345	7096	CVN	13
102		102BC	mb102	4	C Channel	380x74	M270M-GR345	7096	CVN	13
102		102BC	x157pb	8	PL Plate	10x434	M270M-GR345	480		53
102		102BC	x157pc	32	PL Plate	10x280	M270M-GR345	434		54
102		102BC	x160pa	8	PL Plate	18x1109	M270M-GR345	1168	CVN	66
102		102BC	x160pb	8	PL Plate	18x398	M270M-GR345	456	CVN	58
102		102BC	x161pa	4	PL Plate	12x434	M270M-GR345	7038	CVN	14



BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
608	7/8"ø HSB	2 1/2
128	7/8"ø HSB	2 3/4
72	7/8"ø HSB	3 1/2
1 608	BEVEL WASHER 7/8"ø	
	FIELD BOLTS LIST	
2 128	7/8"ø HSB	2 3/4
72	7/8"ø HSB	3 1/2
2 160	1"ø HSB	2 3/4
2 32	1"ø HSB	3 1/2

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RECEIVED
CK'D BY _____ OK'D BY MGM
AUG 24 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 9/23/05
RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
B	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

NOTICE
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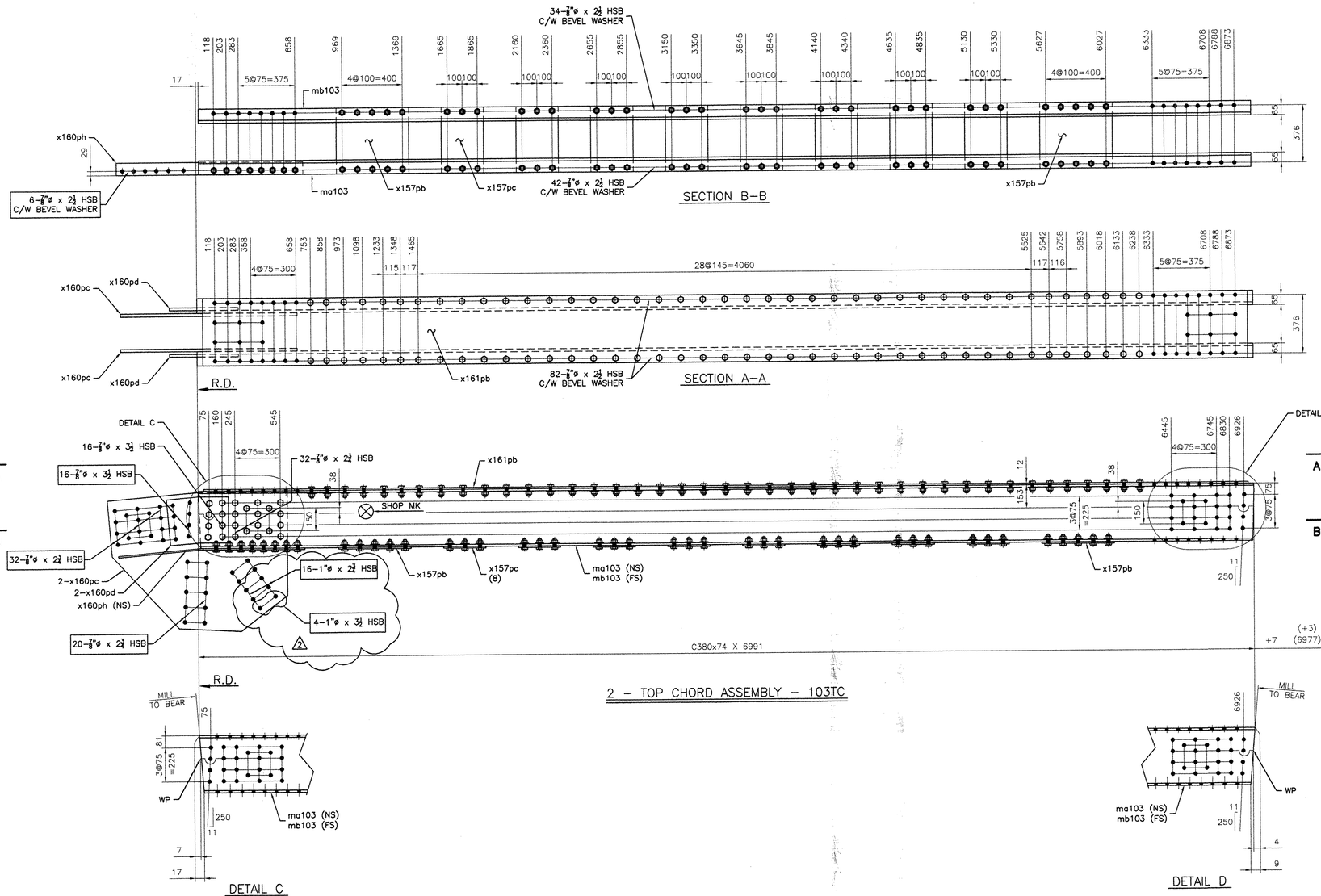
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: TOP CHORD ASSEMBLIES			
DRAWN BY: BR	03/04/05	JOB NUMBER: 5075	SHEET NUMBER: 102
CHECKED BY: GG	03/29/05		

14555



BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
103		103BC		2			Total weight:		3566 kg	
103		103BC	ma103	2	C Channel	380x74	M270M–GR345	6991	CVN	13
103		103BC	mb103	2	C Channel	380x74	M270M–GR345	6991	CVN	13
103		103BC	x157pb	4	PL Plate	10x434	M270M–GR345	480		53
103		103BC	x157pc	16	PL Plate	10x280	M270M–GR345	434		54
103		103BC	x160pc	4	PL Plate	18x923	M270M–GR345	1193	CVN	67
103		103BC	x160pd	4	PL Plate	18x323	M270M–GR345	412	CVN	58
103		103BC	x160ph	2	PL Plate	10x84	M270M–GR345	1236	CVN	59
103		103BC	x161pb	2	PL Plate	12x434	M270M–GR345	6916	CVN	14

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
316	7/8"ø HSB	2 1/2
64	7/8"ø HSB	2 3/4
32	7/8"ø HSB	3 1/2
⚠1 316	BEVEL WASHER 7/8"ø	
	FIELD BOLTS LIST	
12	7/8"ø HSB	2 1/2
⚠2 104	7/8"ø HSB	2 3/4
32	7/8"ø HSB	3 1/2
⚠2 32	1"ø HSB	2 3/4
⚠2 8	1"ø HSB	3 1/2
⚠1 12	BEVEL WASHER 7/8"ø	

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

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OK'D BY _____ OK'D BY MGM
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RESUBMIT _____ APPROVED ✓
BY DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
⚠2	8/17/05	AS PER REVISED DESIGN
⚠1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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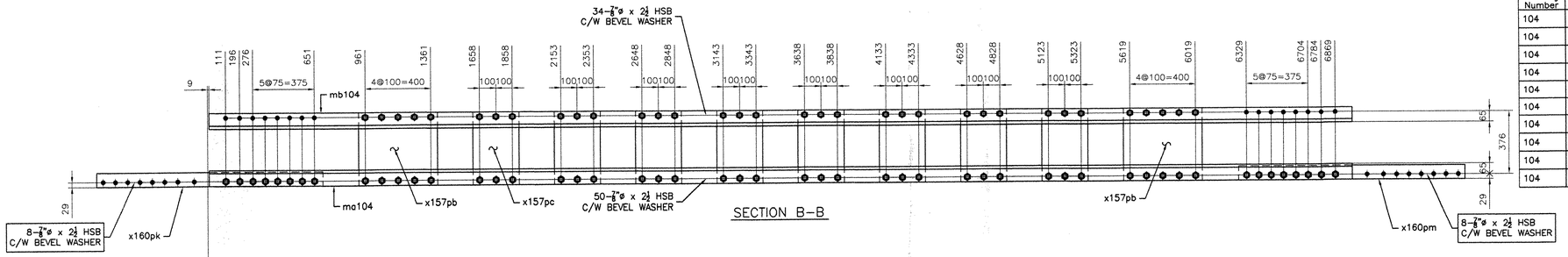
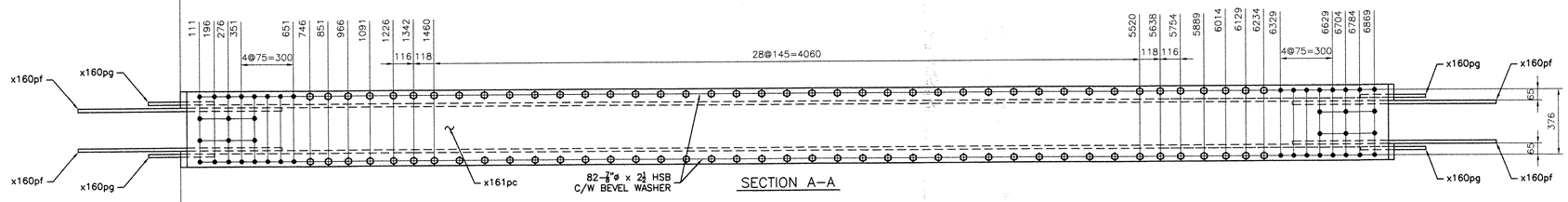
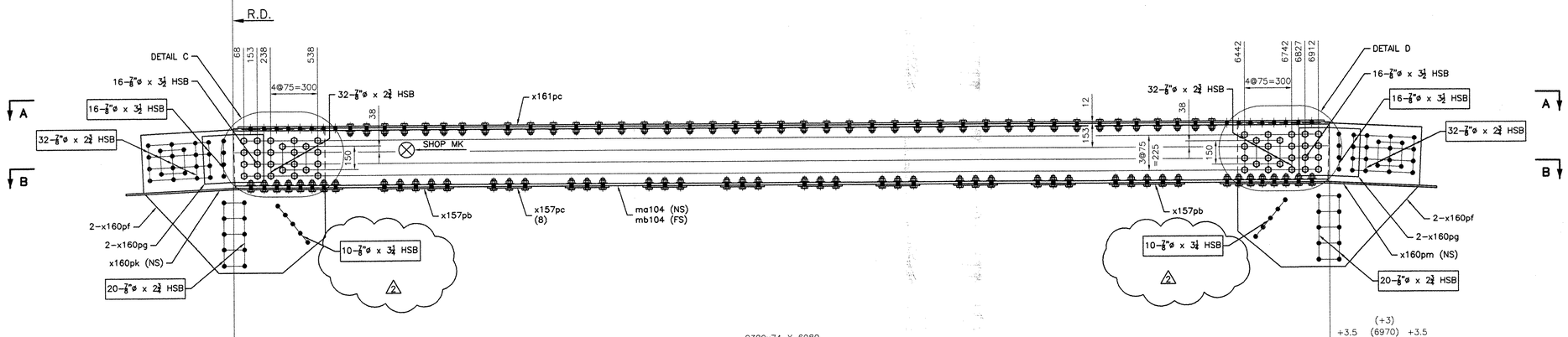
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: TOP CHORD ASSEMBLIES
DRAWN BY: BR 03/04/05 | JOB NUMBER: 5075 | SHEET NUMBER: 103
CHECKED BY: GG 03/29/05

146 55







NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
104		104BC		2			Total weight:		4232 kg	
104		104BC	ma104	2	C Channel	380x74	M270M–GR345	6980	CVN	13
104		104BC	mb104	2	C Channel	380x74	M270M–GR345	6980	CVN	13
104		104BC	x157pb	4	PL Plate	10x434	M270M–GR345	480		53
104		104BC	x157pc	16	PL Plate	10x280	M270M–GR345	434		54
104		104BC	x160pf	8	PL Plate	18x910	M270M–GR345	1173	CVN	68
104		104BC	x160pg	8	PL Plate	18x314	M270M–GR345	391	CVN	58
104		104BC	x160pk	2	PL Plate	10x84	M270M–GR345	1381	CVN	59
104		104BC	x160pm	2	PL Plate	10x84	M270M–GR345	1381	CVN	59
104		104BC	x161pc	2	PL Plate	12x434	M270M–GR345	6918	CVN	14

BOLTS LIST

	QTY	DESCRIPTION	LENGTH
		SHOP BOLTS LIST	
	332	7/8"ø HSB	2 1/2
	128	7/8"ø HSB	2 3/4
	64	7/8"ø HSB	3 1/2
1	332	BEVEL WASHER 7/8"ø	
		FIELD BOLTS LIST	
2	32	7/8"ø HSB	2 1/2
	208	7/8"ø HSB	2 3/4
2	40	7/8"ø HSB	3 1/4
	64	7/8"ø HSB	3 1/2
1	32	BEVEL WASHER 7/8"ø	

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RESUBMIT _____ APPROVED ✓
BY DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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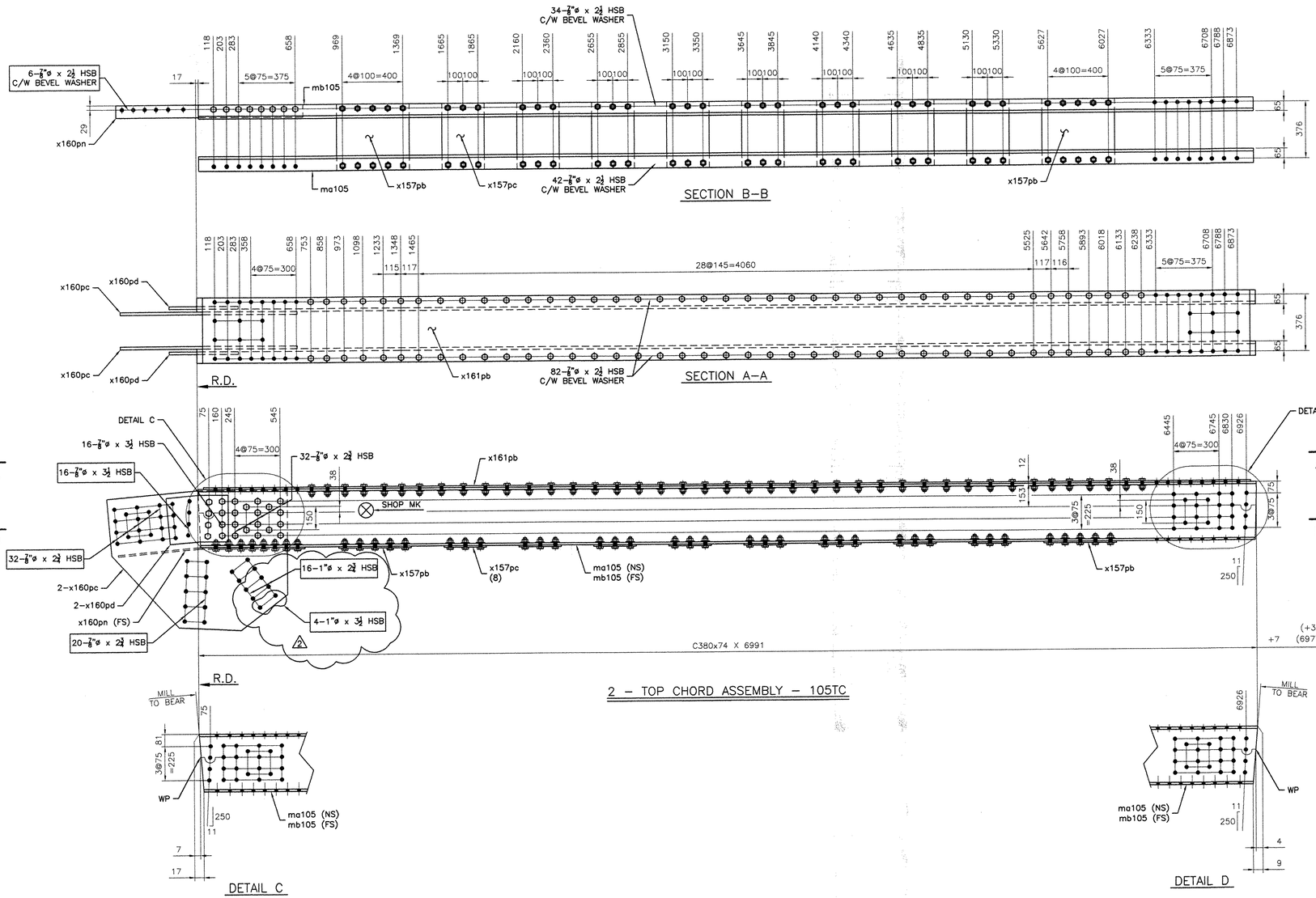
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: TOP CHORD ASSEMBLIES
DRAWN BY: BR 03/04/05
CHECKED BY: GG 03/29/05
JOB NUMBER: 5075
SHEET NUMBER: 104

147 55

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
105		105BC		2			Total weight:		3566 kg	
105		105BC	ma105	2	C Channel	380x74	M270M-GR345	6991	CVN	13
105		105BC	mb105	2	C Channel	380x74	M270M-GR345	6991	CVN	13
105		105BC	x157pb	4	PL Plate	10x434	M270M-GR345	480		53
105		105BC	x157pc	16	PL Plate	10x280	M270M-GR345	434		54
105		105BC	x160pc	4	PL Plate	18x923	M270M-GR345	1193	CVN	67
105		105BC	x160pd	4	PL Plate	18x323	M270M-GR345	412	CVN	58
105		105BC	x160pn	2	PL Plate	10x84	M270M-GR345	1236	CVN	59
105		105BC	x161pb	2	PL Plate	12x434	M270M-GR345	6916	CVN	14



BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
316	7/8"ø HSB	2 1/2
64	7/8"ø HSB	2 3/4
32	7/8"ø HSB	3 1/2
1 316	BEVEL WASHER 7/8"ø	
	FIELD BOLTS LIST	
12	7/8"ø HSB	2 1/2
2 104	7/8"ø HSB	2 3/4
32	7/8"ø HSB	3 1/2
2 32	1"ø HSB	2 3/4
2 8	1"ø HSB	3 1/2
1 12	BEVEL WASHER 7/8"ø	

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

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AUG 24 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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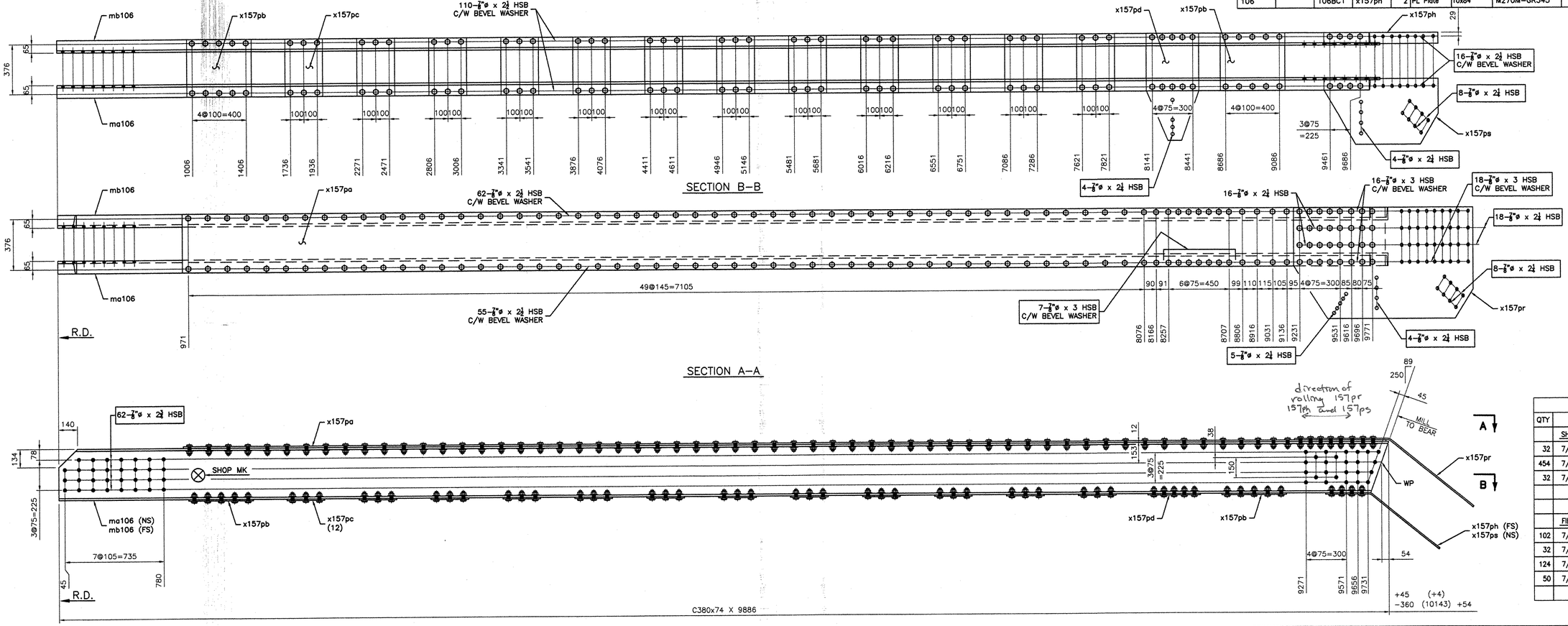
tenca 1010
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: TOP CHORD ASSEMBLIES
DRAWN BY: BR 03/04/05 | JOB NUMBER: 5075 | SHEET NUMBER: 105
CHECKED BY: GG 03/29/05

14855

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
106		106BC1		2			Total weight:		4281 kg	
106		106BC1	ma106	2	C Channel	380x74	M270M-GR345	9886	CVN	11
106		106BC1	mb106	2	C Channel	380x74	M270M-GR345	9886	CVN	11
106		106BC1	x157pa	2	PL Plate	12x434	M270M-GR345	8940	CVN	12
106		106BC1	x157pb	4	PL Plate	10x434	M270M-GR345	480		53
106		106BC1	x157pc	24	PL Plate	10x280	M270M-GR345	434		54
106		106BC1	x157pd	2	PL Plate	10x390	M270M-GR345	792		80
106		106BC1	x157pr	2	PL Plate	10x825	M270M-GR345	1507	CVN	77
106		106BC1	x157ps	2	PL Plate	10x475	M270M-GR345	991	CVN	78
106		106BC1	x157ph	2	PL Plate	10x84	M270M-GR345	991	CVN	59



BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
32	7/8"ø HSB	2 1/4
454	7/8"ø HSB	2 1/2
32	7/8"ø HSB	3
	FIELD BOLTS LIST	
102	7/8"ø HSB	2 1/4
32	7/8"ø HSB	2 1/2
124	7/8"ø HSB	2 3/4
50	7/8"ø HSB	3

2 – TOP CHORD ASSEMBLY – 106TC

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TOP CHORD ASSEMBLIES
DRAWN BY: BR 03/04/05	JOB NUMBER: 5075
CHECKED BY: GG 03/29/05	SHEET NUMBER: 106

14955

BOLTS LIST

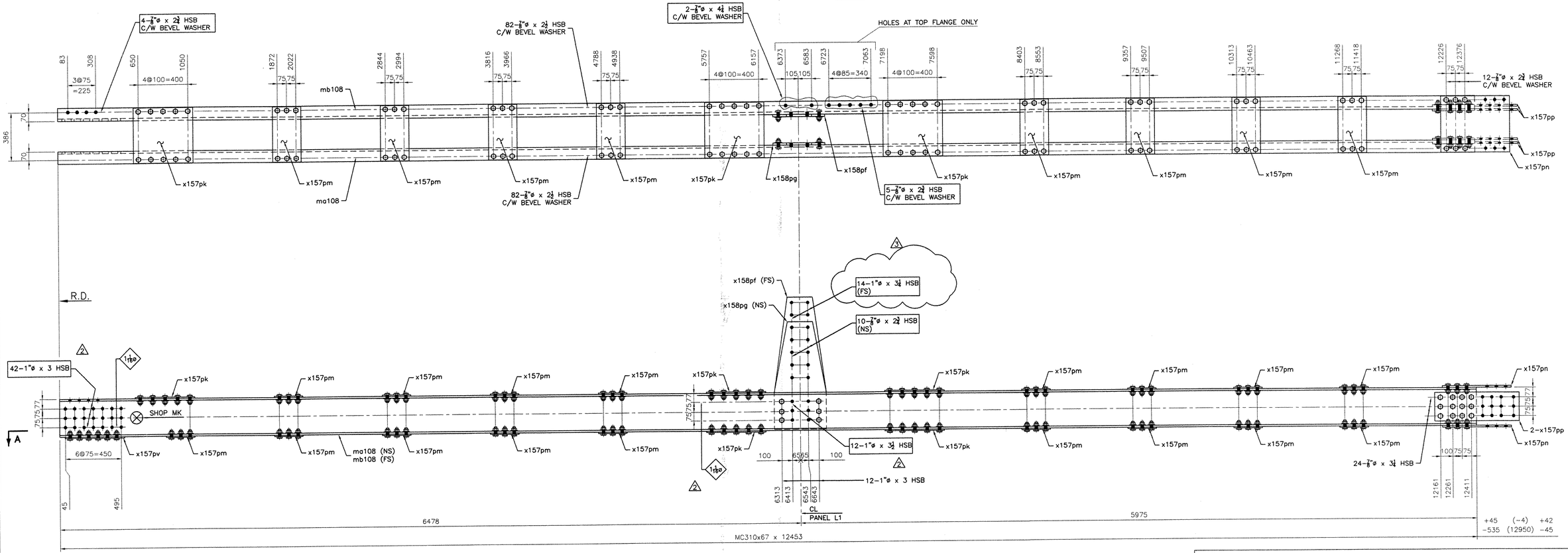
QTY	DESCRIPTION	LENGTH
	FIELD BOLTS LIST	
2 38	7/8"ø HSB	2 3/4
3 2		
4	7/8"ø HSB	4 1/4
2 84	1"ø HSB	3
3 28	1"ø HSB	3 1/4
2 24	1"ø HSB	3 1/2
1 22	BEVEL WASHER 7/8"ø	

BOLTS LIST

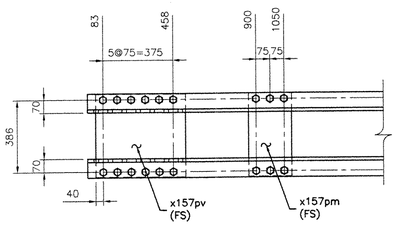
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
328	7/8"ø HSB	2 1/2
2 24	7/8"ø HSB	2 3/4
48	7/8"ø HSB	3 1/4
2 24	1"ø HSB	3
1 352	BEVEL WASHER 7/8"ø	

BILL OF MATERIAL

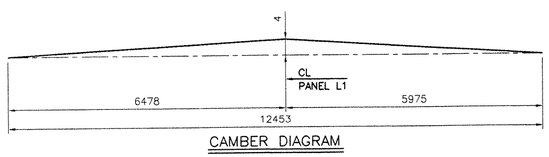
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
108		108BC		2			Total weight:		4283 kg	
108		108BC	ma108	2	MC Channel	310x67	M270M-GR345	12453	CVN	9
108		108BC	mb108	2	MC Channel	310x67	M270M-GR345	12453	CVN	9
108		108BC	x157pk	10	PL Plate	10x446	M270M-GR345	480		51
108		108BC	x157pm	34	PL Plate	10x230	M270M-GR345	446		52
108		108BC	x157pn	4	PL Plate	14x446	M270M-GR345	550	CVN	57
108		108BC	x157pp	8	PL Plate	14x230	M270M-GR345	670	CVN	55
108		108BC	x157pv	2	PL Plate	10x446	M270M-GR345	480		51
108		108BC	x158pf	2	PL Plate	18x420	M270M-GR345	1059	CVN	63
108		108BC	x158pg	2	PL Plate	18x420	M270M-GR345	859	CVN	63



2 – BOTTOM CHORD ASSEMBLY – 108BC



SECTION A



CAMBER DIAGRAM

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

RECEIVED
CK'D BY _____ OK'D BY MGM
SEP 23 2005
RESUBMIT _____ APPROVED
BY _____ DATE 9/23/05

REV	DATE	DESCRIPTION
3	9/06/05	AS PER REVISED DESIGN
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	9/19/05	FW Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	BOTTOM CHORD ASSEMBLIES
DRAWN BY: YT 03/15/05	JOB NUMBER: 5075
CHECKED BY: GG 03/24/05	SHEET NUMBER: 108

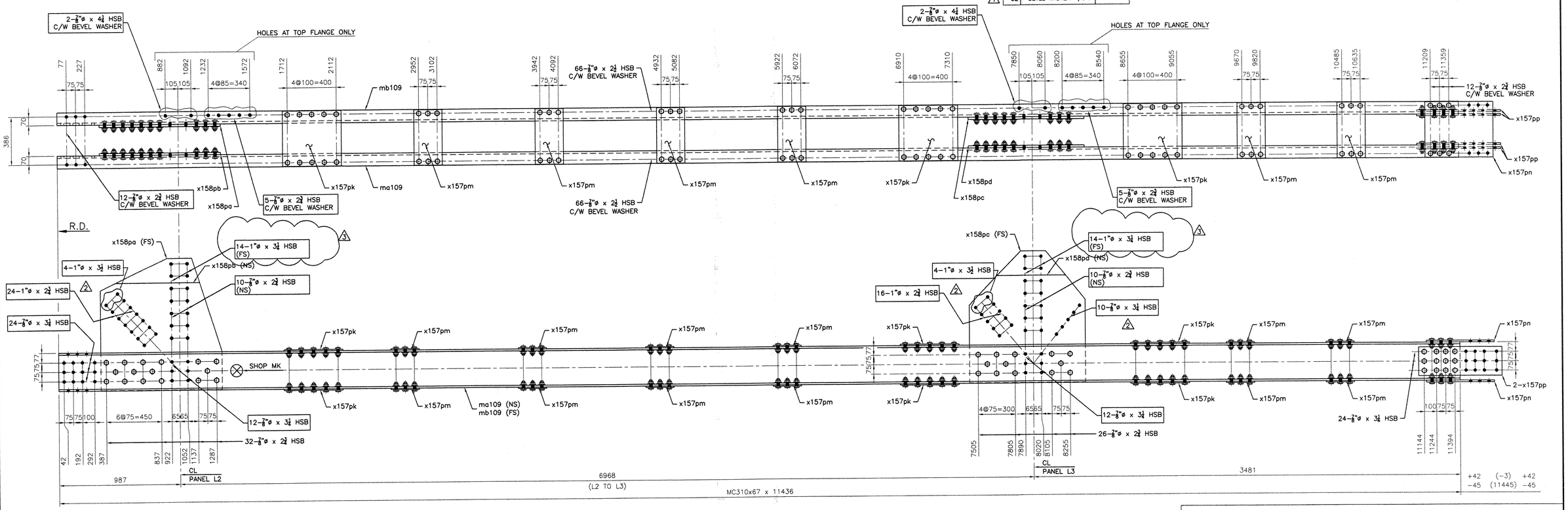
150 ss

BOLTS LIST

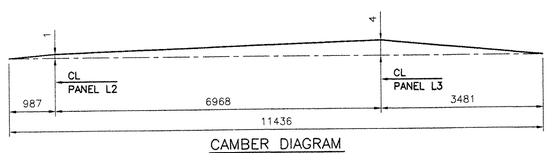
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
264	7/8"ø HSB	2 1/2
140	7/8"ø HSB	2 3/4
48	7/8"ø HSB	3 1/4
1 288	BEVEL WASHER 7/8"ø	
	FIELD BOLTS LIST	
2		
2 84	7/8"ø HSB	2 3/4
3 2 116	7/8"ø HSB	3 1/4
8	7/8"ø HSB	4 1/4
2 80	1"ø HSB	2 3/4
3 56	1"ø HSB	3 1/4
2 16	1"ø HSB	3 1/2
1 52	BEVEL WASHER 7/8"ø	

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
109		109BC		2			Total weight:		4750 kg	
109		109BC	ma109	2	MC Channel	310x67	M270M-GR345	11436	CVN	10
109		109BC	mb109	2	MC Channel	310x67	M270M-GR345	11436	CVN	10
109		109BC	x157pk	12	PL Plate	10x446	M270M-GR345	480		51
109		109BC	x157pm	24	PL Plate	10x230	M270M-GR345	446		52
109		109BC	x157pn	4	PL Plate	14x446	M270M-GR345	550	CVN	57
109		109BC	x157pp	8	PL Plate	14x230	M270M-GR345	670	CVN	55
109		109BC	x158pa	2	PL Plate	18x990	M270M-GR345	1059	CVN	64
109		109BC	x158pb	2	PL Plate	18x859	M270M-GR345	990	CVN	64
109		109BC	x158pc	2	PL Plate	18x945	M270M-GR345	1059	CVN	65
109		109BC	x158pd	2	PL Plate	18x859	M270M-GR345	945	CVN	65



2 – BOTTOM CHORD ASSEMBLY – 109BC



CAMBER DIAGRAM

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

RECEIVED
CK'D BY _____ CK'D BY
SEP 23 2005
RESUBMIT _____ APPROVED
BY DATE 9/23/05

REV	DATE	DESCRIPTION
3	9/06/05	AS PER REVISED DESIGN
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

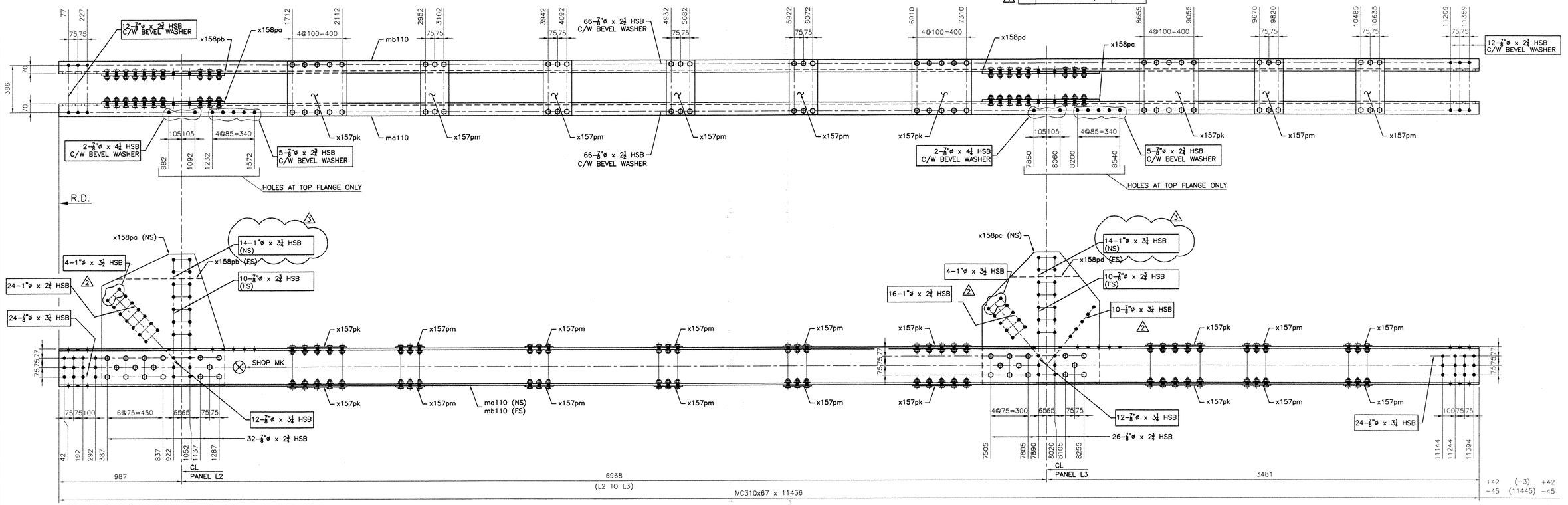
PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	BOTTOM CHORD ASSEMBLIES
DRAWN BY: BR 03/04/05	JOB NUMBER: 5075
CHECKED BY: GG 03/24/05	SHEET NUMBER: 109

BOLTS LIST

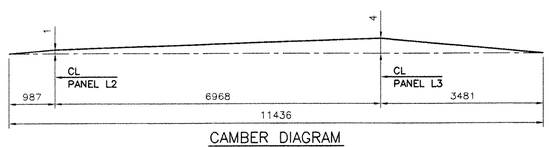
	QTY	DESCRIPTION	LENGTH
		SHOP BOLTS LIST	
	264	7/8"ø HSB	2 1/2
	116	7/8"ø HSB	2 3/4
1	264	BEVEL WASHER 7/8"ø	
		FIELD BOLTS LIST	
2			
2	108	7/8"ø HSB	2 3/4
3 2	164	7/8"ø HSB	3 1/4
	8	7/8"ø HSB	4 1/4
2	80	1"ø HSB	2 3/4
3	56	1"ø HSB	3 1/4
2	16	1"ø HSB	3 1/2
1	76	BEVEL WASHER 7/8"ø	

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
110		110BC		2			Total weight:		4507 kg	
110		110BC	ma110	2	MC Channel	310x67	M270M-GR345	11436	CVN	10
110		110BC	mb110	2	MC Channel	310x67	M270M-GR345	11436	CVN	10
110		110BC	x157pk	12	PL Plate	10x446	M270M-GR345	480		51
110		110BC	x157pm	24	PL Plate	10x230	M270M-GR345	446		52
110		110BC	x158pa	2	PL Plate	18x990	M270M-GR345	1059	CVN	64
110		110BC	x158pb	2	PL Plate	18x859	M270M-GR345	990	CVN	64
110		110BC	x158pc	2	PL Plate	18x945	M270M-GR345	1059	CVN	65
110		110BC	x158pd	2	PL Plate	18x859	M270M-GR345	945	CVN	65



2 – BOTTOM CHORD ASSEMBLY – 110BC



CAMBER DIAGRAM

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

RECEIVED
CK'D BY _____ OK'D BY MGM
SEP 23 2005
RESUBMIT _____ APPROVED
BY _____ DATE 9/23/05

REV	DATE	DESCRIPTION
3	9/06/05	AS PER REVISED DESIGN
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: BOTTOM CHORD ASSEMBLIES	
DRAWN BY: YT 03/16/05	JOB NUMBER: 5075 / SHEET NUMBER: 110
CHECKED BY: GG 03/25/05	

152 55

BOLTS LIST

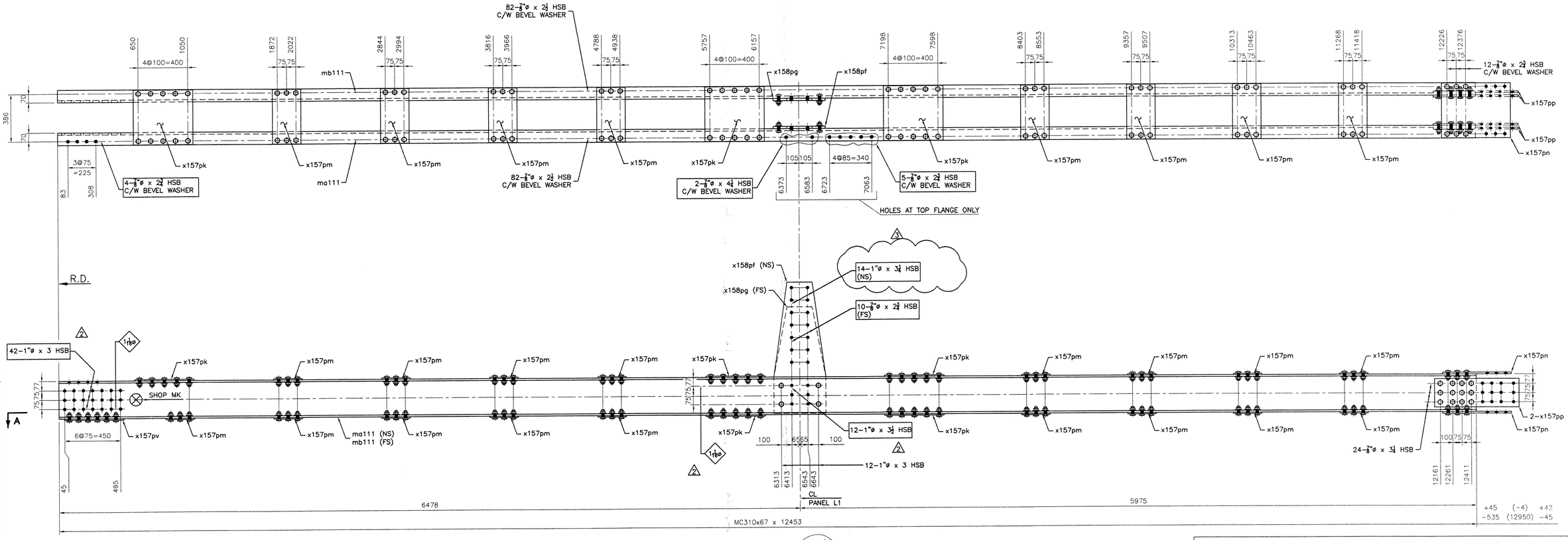
QTY	DESCRIPTION	LENGTH
	FIELD BOLTS LIST	
2 38	7/8"ø HSB	2 3/4
3 2		
4	7/8"ø HSB	4 1/4
2 84	1"ø HSB	3
3 28	1"ø HSB	3 1/4
2 24	1"ø HSB	3 1/2
1 22	BEVEL WASHER 7/8"ø	

BOLTS LIST

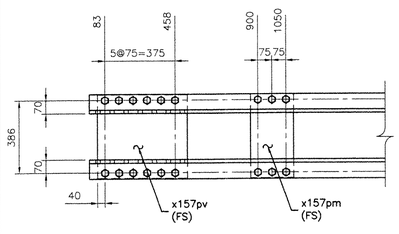
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
328	7/8"ø HSB	2 1/2
2 24	7/8"ø HSB	2 3/4
48	7/8"ø HSB	3 1/4
2 24	1"ø HSB	3
1 352	BEVEL WASHER 7/8"ø	

BILL OF MATERIAL

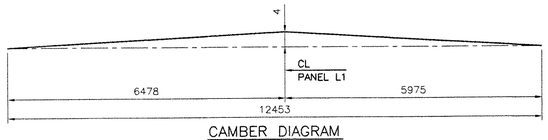
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
111		111BC		2			Total weight:		4283 kg	
111		111BC	ma111	2	MC Channel	310x67	M270M-GR345	12453	CVN	9
111		111BC	mb111	2	MC Channel	310x67	M270M-GR345	12453	CVN	9
111		111BC	x157pk	10	PL Plate	10x446	M270M-GR345	480		51
111		111BC	x157pm	34	PL Plate	10x230	M270M-GR345	446		52
111		111BC	x157pn	4	PL Plate	14x446	M270M-GR345	550	CVN	57
111		111BC	x157pp	8	PL Plate	14x230	M270M-GR345	670	CVN	55
111		111BC	x157pv	2	PL Plate	10x446	M270M-GR345	480		51
111		111BC	x158pf	2	PL Plate	18x420	M270M-GR345	1059	CVN	63
111		111BC	x158pg	2	PL Plate	18x420	M270M-GR345	859	CVN	63



2 – BOTTOM CHORD ASSEMBLY – 108BC 111BC



SECTION A



CAMBER DIAGRAM

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RECEIVED
CK'D BY _____ OK'D BY MJM
SEP 23 2005
RESUBMIT _____ APPROVED As Noted
BY _____ DATE 9/23/05
RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
3	9/06/05	AS PER REVISED DESIGN
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	BEVEL WASHER

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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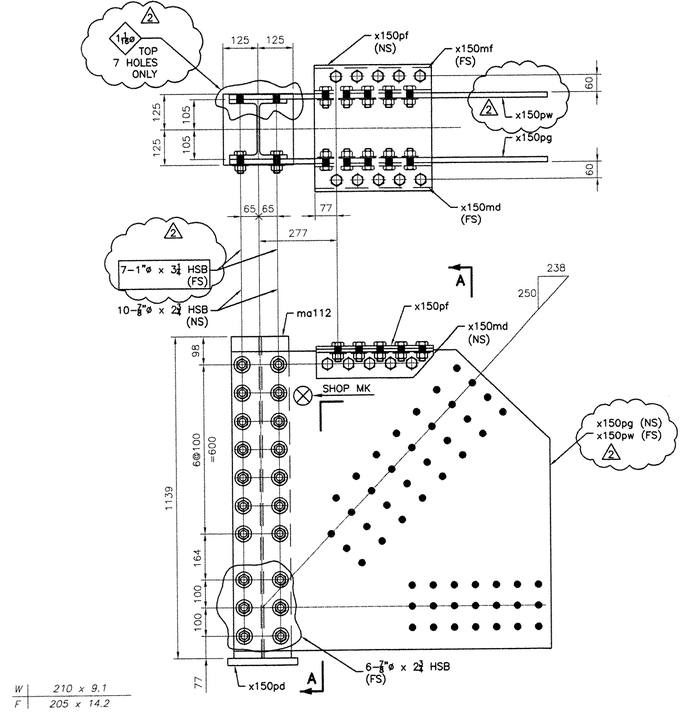
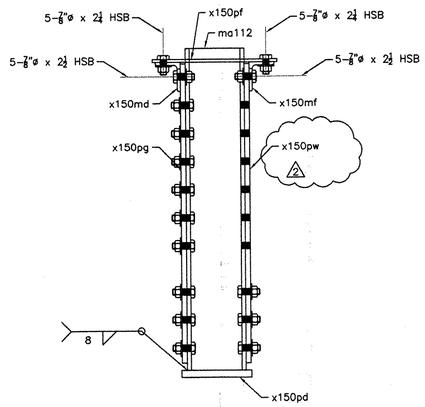
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: BOTTOM CHORD ASSEMBLIES
DRAWN BY: YT 03/16/05 | JOB NUMBER: 5075 | SHEET NUMBER: 111
CHECKED BY: GG 03/24/05

15355



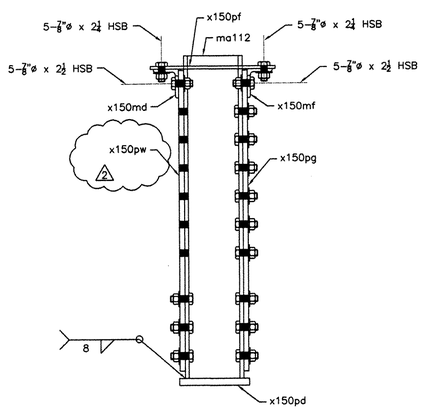
2 – VERTICAL BRACE ASSEMBLIES – 112VB1



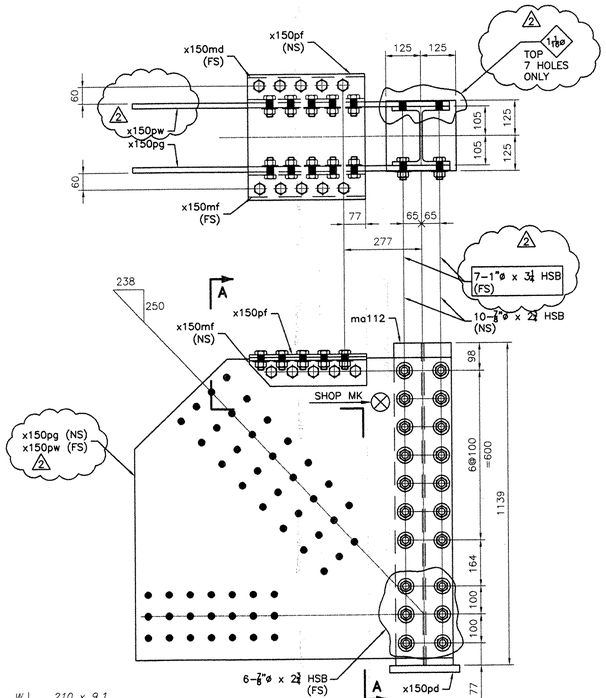
SECTION A–A

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
112		112VB1		2			Total weight:		889 kg	
112		112VB1	ma112	2	W Wide Flng	200x59	M270M–GR345	1139	CVN	15
112		112VB1	x150md	2	L Angles	102x89x9.5	M270M–GR345	418	CVN	27
112		112VB1	x150mf	2	L Angles	102x89x9.5	M270M–GR345	418	CVN	27
112		112VB1	x150pd	2	PL Plate	25x250	M270M–GR345	250		60
112		112VB1	x150pf	2	PL Plate	10x418	M270M–GR345	446		61
112		112VB1	x150pg	2	PL Plate	18x1061	M270M–GR345	1132	CVN	62
2 112		112VB1	x150pw	2	PL Plate	18x1061	M270M–GR345	1132	CVN	62
112		112VB2		2			Total weight:		889 kg	
112		112VB2	ma112	2	W Wide Flng	200x59	M270M–GR345	1139	CVN	15
112		112VB2	x150md	2	L Angles	102x89x9.5	M270M–GR345	418	CVN	27
112		112VB2	x150mf	2	L Angles	102x89x9.5	M270M–GR345	418	CVN	27
112		112VB2	x150pd	2	PL Plate	25x250	M270M–GR345	250		60
112		112VB2	x150pf	2	PL Plate	10x418	M270M–GR345	446		61
112		112VB2	x150pg	2	PL Plate	18x1061	M270M–GR345	1132	CVN	62
2 112		112VB2	x150pw	2	PL Plate	18x1061	M270M–GR345	1132	CVN	62

BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
40	7/8"ø HSB	2 1/4
40	7/8"ø HSB	2 1/2
104	7/8"ø HSB	2 3/4
	FIELD BOLTS LIST	
2 56	1"ø HSB	3 1/4



SECTION A–A



2 – VERTICAL BRACE ASSEMBLIES – 112VB2

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

RECEIVED
CK'D BY _____ CK'D BY
SEP 23 2005
RESUBMIT _____ APPROVED
BY DATE 9/23/05

REV	DATE	DESCRIPTION
2	9/06/05	AS PER REVISED DESIGN
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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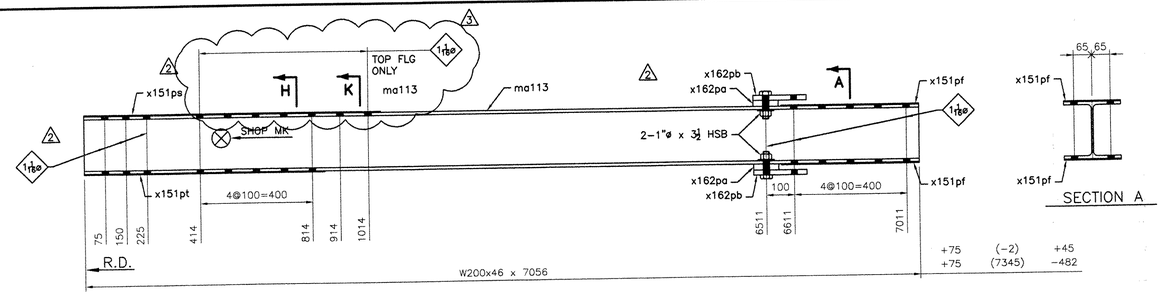
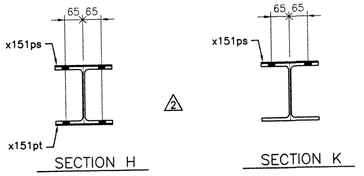
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

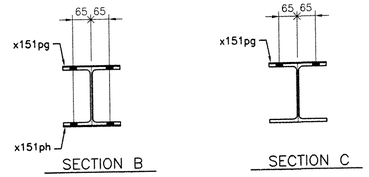
PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: VERTICAL BRACES ASSEMBLIES	
DRAWN BY: YT 02/18/05	JOB NUMBER: 5075
CHECKED BY: GG 03/23/05	SHEET NUMBER: 112

15455

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
2 113		113VB1		4			Total weight:		1423 kg	
113		113VB1	ma113	4	W Wide Flng	200x46	M270M-GR345	7056	CVN	16
113		113VB1	x151pf	8	PL Plate	3x203	M270M-GR345	490		76
2 113		113VB1	x151ps	4	PL Plate	3x203	M270M-GR345	1059		74
2 113		113VB1	x151pt	4	PL Plate	3x203	M270M-GR345	859		75
2 113		113VB1	x162pa	8	PL Plate	21x90	M270M-GR345	210		
2 113		113VB1	x162pb	8	PL Plate	18x190	M270M-GR345	210		
113		113VB2		2			Total weight:		868 kg	
113		113VB2	mb113	2	W Wide Flng	200x46	M270M-GR345	8531	CVN	17
113		113VB2	x150pr	4	PL Plate	10x240	M270M-GR345	640	CVN	69
113		113VB2	x151pg	2	PL Plate	3x203	M270M-GR345	1059		74
113		113VB2	x151ph	2	PL Plate	3x203	M270M-GR345	859		75
113		113VB2	x151pk	4	PL Plate	3x203	M270M-GR345	885		75
113		113VB3		2			Total weight:		868 kg	
113		113VB3	mb113	2	W Wide Flng	200x46	M270M-GR345	8531	CVN	17
113		113VB3	x150pr	4	PL Plate	10x240	M270M-GR345	640	CVN	69
113		113VB3	x151pg	2	PL Plate	3x203	M270M-GR345	1059		74
113		113VB3	x151ph	2	PL Plate	3x203	M270M-GR345	859		75
113		113VB3	x151pk	4	PL Plate	3x203	M270M-GR345	885		75

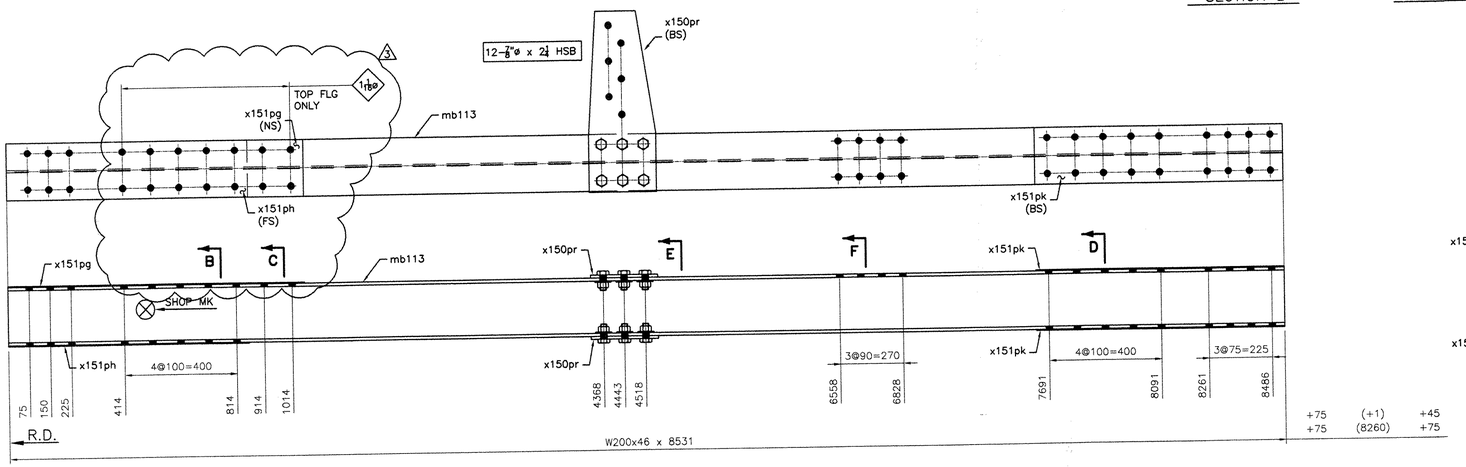


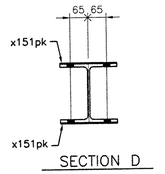


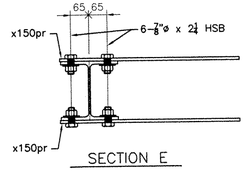


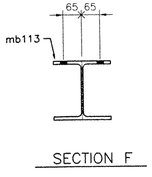
W | 203 x 7.2
F | 203 x 11.0

4 –VERTICAL BRACE ASSEMBLIES – 113VB1





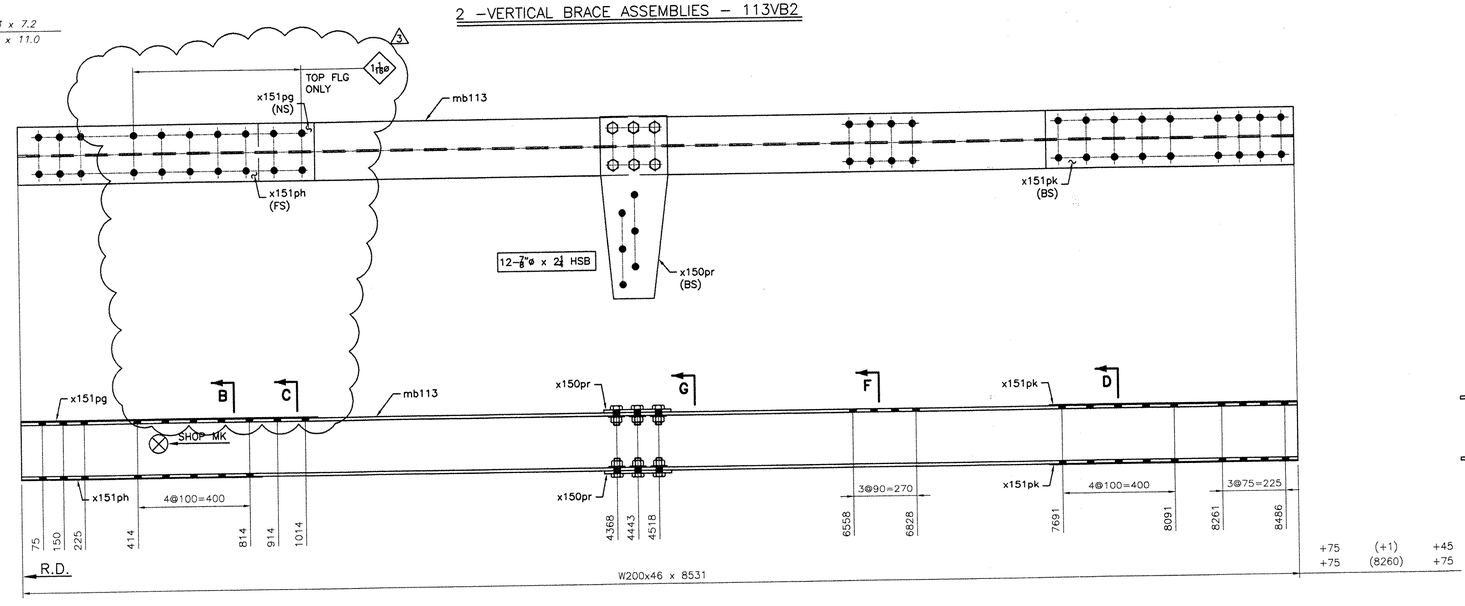


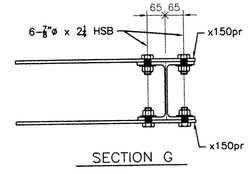


BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
48	7/8"ø HSB	2 1/4
2 16	1"ø HSB	3 1/2
	FIELD BOLTS LIST	
48	7/8"ø HSB	2 1/4

W | 203 x 7.2
F | 203 x 11.0

2 –VERTICAL BRACE ASSEMBLIES – 113VB2





W | 203 x 7.2
F | 203 x 11.0

2 –VERTICAL BRACE ASSEMBLIES – 113VB3

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING
8– ALL FILL PLATES SHALL BE WIRE ATTACHED FOR SHIPPING

RECEIVED
CK'D BY _____ OK'D BY _____
SEP 2 3 2005
RESUBMIT _____ APPROVED
BY _____ DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
3	9/06/05	AS PER REVISED DESIGN
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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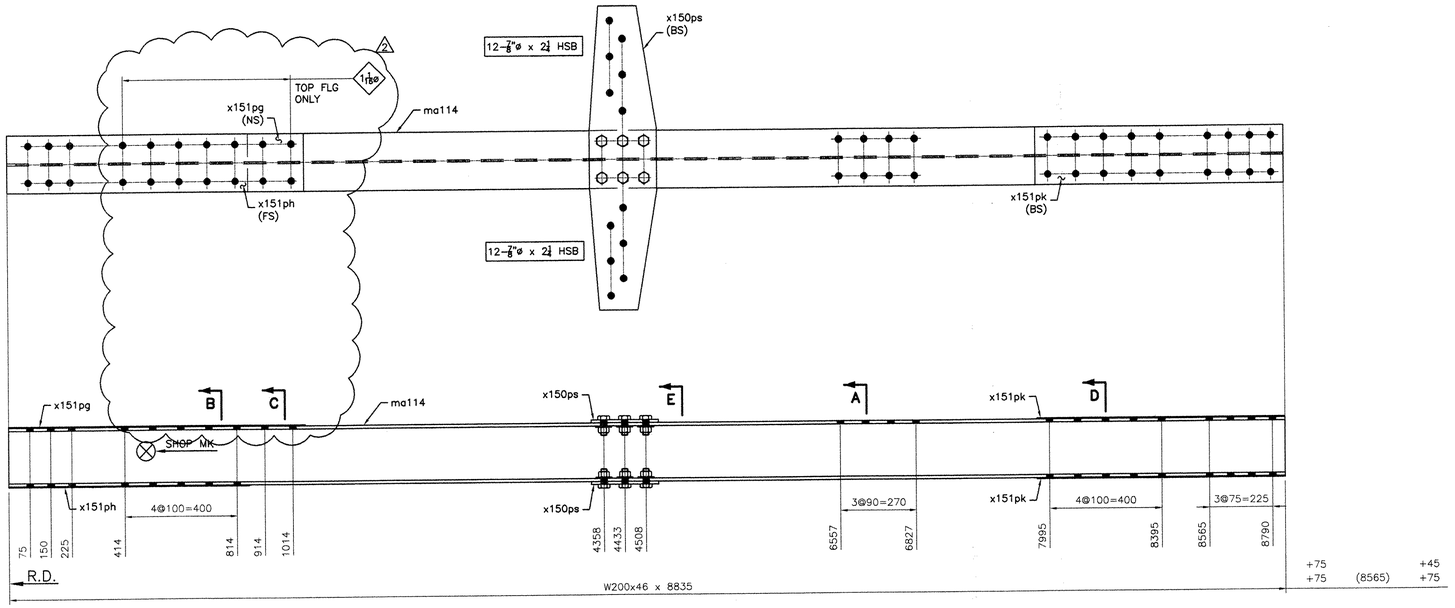
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: VERTICAL BRACES ASSEMBLIES
DRAWN BY: YT 02/23/05
CHECKED BY: GG 03/30/05
JOB NUMBER: 5075
SHEET NUMBER: 113

15555

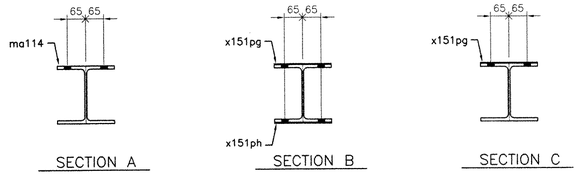
BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
114		114VB1		2			Total weight:		929 kg	
114		114VB1	ma114	2	W Wide Flng	200x46	M270M-GR345	8835	CVN	18
114		114VB1	x150ps	4	PL Plate	10x240	M270M-GR345	1071	CVN	71
114		114VB1	x151pg	2	PL Plate	3x203	M270M-GR345	1059		74
114		114VB1	x151ph	2	PL Plate	3x203	M270M-GR345	859		75
114		114VB1	x151pk	4	PL Plate	3x203	M270M-GR345	885		75
114		114VB2		2			Total weight:		929 kg	
114		114VB2	ma114	2	W Wide Flng	200x46	M270M-GR345	8835	CVN	18
114		114VB2	x150ps	4	PL Plate	10x240	M270M-GR345	1071	CVN	71
114		114VB2	x151pg	2	PL Plate	3x203	M270M-GR345	1059		74
114		114VB2	x151ph	2	PL Plate	3x203	M270M-GR345	859		75
114		114VB2	x151pk	4	PL Plate	3x203	M270M-GR345	885		75

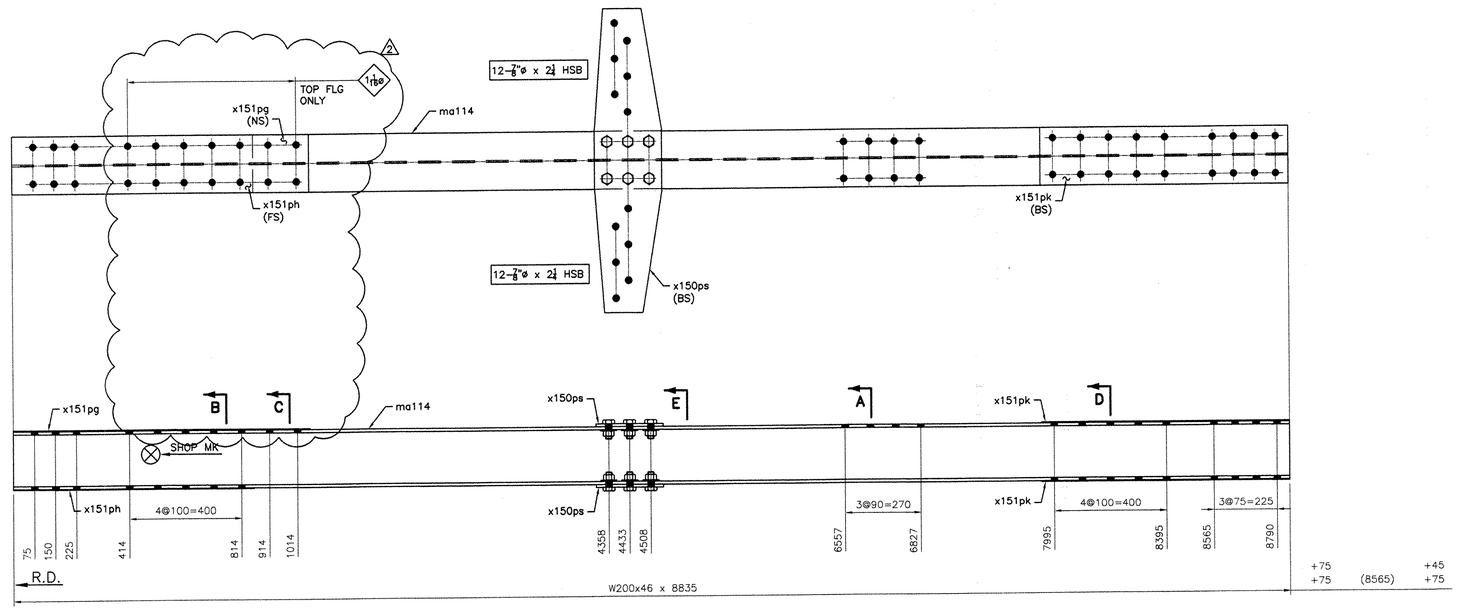


2 –VERTICAL BRACE ASSEMBLIES – 114VB1

W | 203 x 7.2
F | 203 x 11.0



BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
48	7/8"ø HSB	2 1/4
	FIELD BOLTS LIST	
96	7/8"ø HSB	2 1/4



2 –VERTICAL BRACE ASSEMBLIES – 114VB2

W | 203 x 7.2
F | 203 x 11.0

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING
8– ALL FILL PLATES SHALL BE WIRE ATTACHED FOR SHIPPING

RECEIVED
CK'D BY _____ OK'D BY MEM
SEP 23 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 9/23/05
RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
2	9/06/05	AS RECEIVED COMMENTS
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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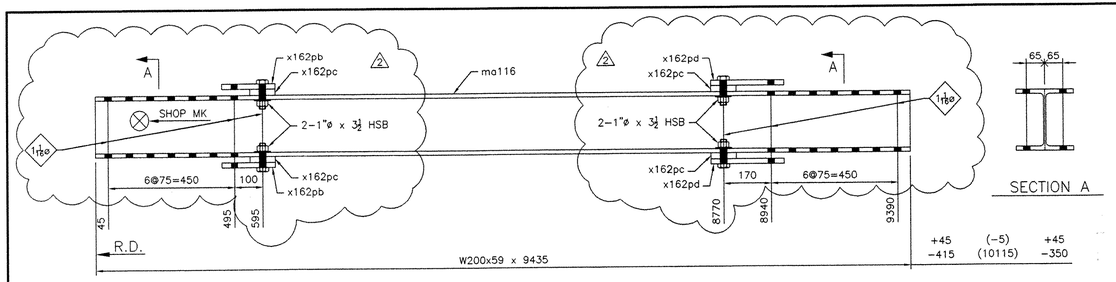
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

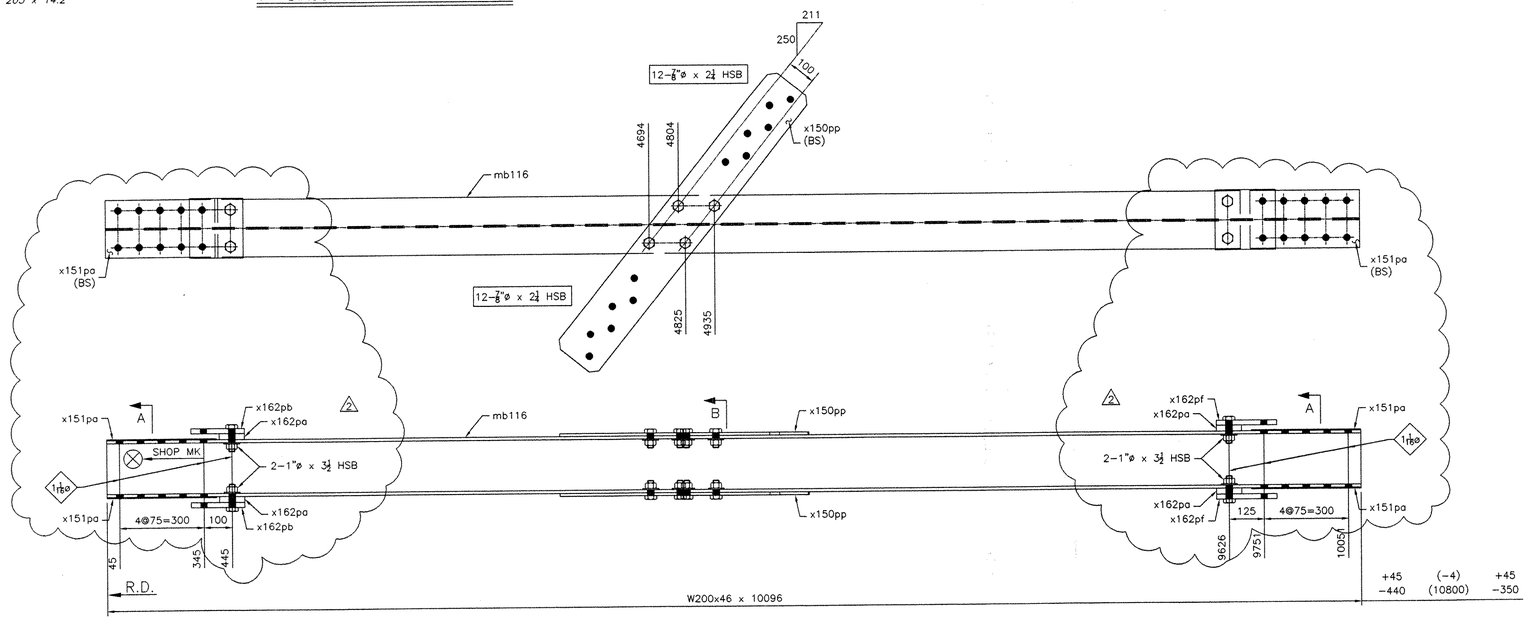
PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: VERTICAL BRACE ASSEMBLIES	
DRAWN BY: YT 02/24/05	JOB NUMBER: 5075 / SHEET NUMBER: 114
CHECKED BY: GG 03/30/05	

156 55



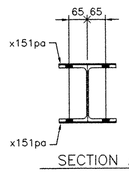
W | 210 x 9.1
F | 205 x 14.2

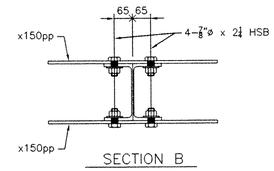
4 –DIAGONAL BRACES – 116DB1



W | 203 x 7.2
F | 203 x 11.0

4 –DIAGONAL BRACES ASSEMBLIES – 116DB2





BILL OF MATERIAL

	Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
2	116		116DB1		4			Total weight:		2377 kg	
	116		116DB1	ma116	4	W Wide Flng	200x59	M270M–GR345	9435	CVN	19
2	116		116DB1	x162pb	8	PL Plate	18x190	M270M–GR345	210		
2	116		116DB1	x162pc	16	PL Plate	18x90	M270M–GR345	210		
2	116		116DB1	x162pd	8	PL Plate	18x210	M270M–GR345	260		
2	116		116DB2		4			Total weight:		2181 kg	
	116		116DB2	mb116	4	W Wide Flng	200x46	M270M–GR345	10096	CVN	20
	116		116DB2	x150pp	8	PL Plate	10x180	M270M–GR345	1330	CVN	70
	116		116DB2	x151pa	16	PL Plate	3x203	M270M–GR345	390		76
2	116		116DB2	x162pa	16	PL Plate	21x90	M270M–GR345	210		
2	116		116DB2	x162pb	8	PL Plate	18x190	M270M–GR345	210		
2	116		116DB2	x162pf	8	PL Plate	18x210	M270M–GR345	215		

BOLTS LIST

	QTY	DESCRIPTION	LENGTH
		SHOP BOLTS LIST	
	32	7/8"ø HSB	2 1/4
2	64	1"ø HSB	3 1/2
		FIELD BOLTS LIST	
	96	7/8"ø HSB	2 1/4

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING
8– ALL FILL PLATES SHALL BE WIRE ATTACHED FOR SHIPPING

RECEIVED
OK'D BY _____ OK'D BY MGM
AUG 24 2005
RESUBMIT _____ APPROVED ✓
BY DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
B	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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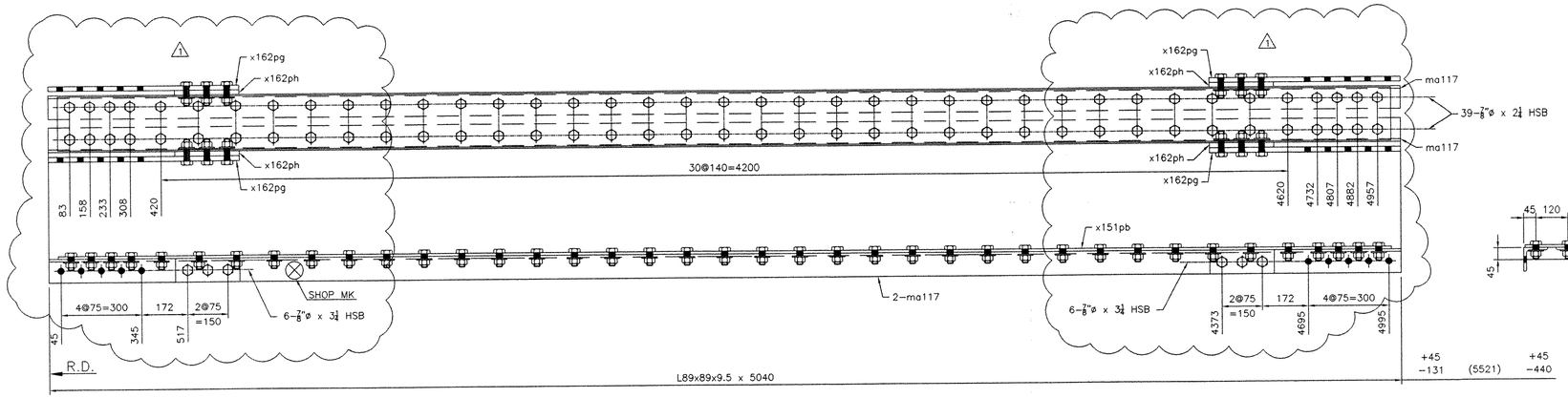
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DIAGONAL BRACINGS
DRAWN BY: YT 02/21/05 | JOB NUMBER: 5075 | SHEET NUMBER: 116
CHECKED BY: GG 03/30/05

15755



2 -DIAGONAL BRACE ASSEMBLIES - 117DB1

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
117		117DB1		2			Total weight:		507 kg	
117		117DB1	ma117	4	L Angles	89x89x9.5	M270M-GR345	5040	CVN	23
117		117DB1	x151pb	2	PL Plate	10x200	M270M-GR345	4970	CVN	24
117		117DB1	x162pg	8	PL Plate	18x90	M270M-GR345	712		
117		117DB1	x162ph	8	PL Plate	18x90	M270M-GR345	240		
117		117DB2		2			Total weight:		518 kg	
117		117DB2	mb117	4	L Angles	89x89x9.5	M270M-GR345	5180	CVN	23
117		117DB2	x151pc	2	PL Plate	10x200	M270M-GR345	5110	CVN	24
117		117DB2	x162pg	8	PL Plate	18x90	M270M-GR345	712		
117		117DB2	x162ph	8	PL Plate	18x90	M270M-GR345	240		

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
316	7/8"ø HSB	2 1/4
48	7/8"ø HSB	3 1/4

2 -DIAGONAL BRACE ASSEMBLIES - 117DB2

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RECEIVED
CK'D BY _____ OK'D BY MGM
AUG 24 2005
RESUBMIT _____ APPROVED ✓
BY DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
1	8/17/05	AS PER REVISED DESIGN

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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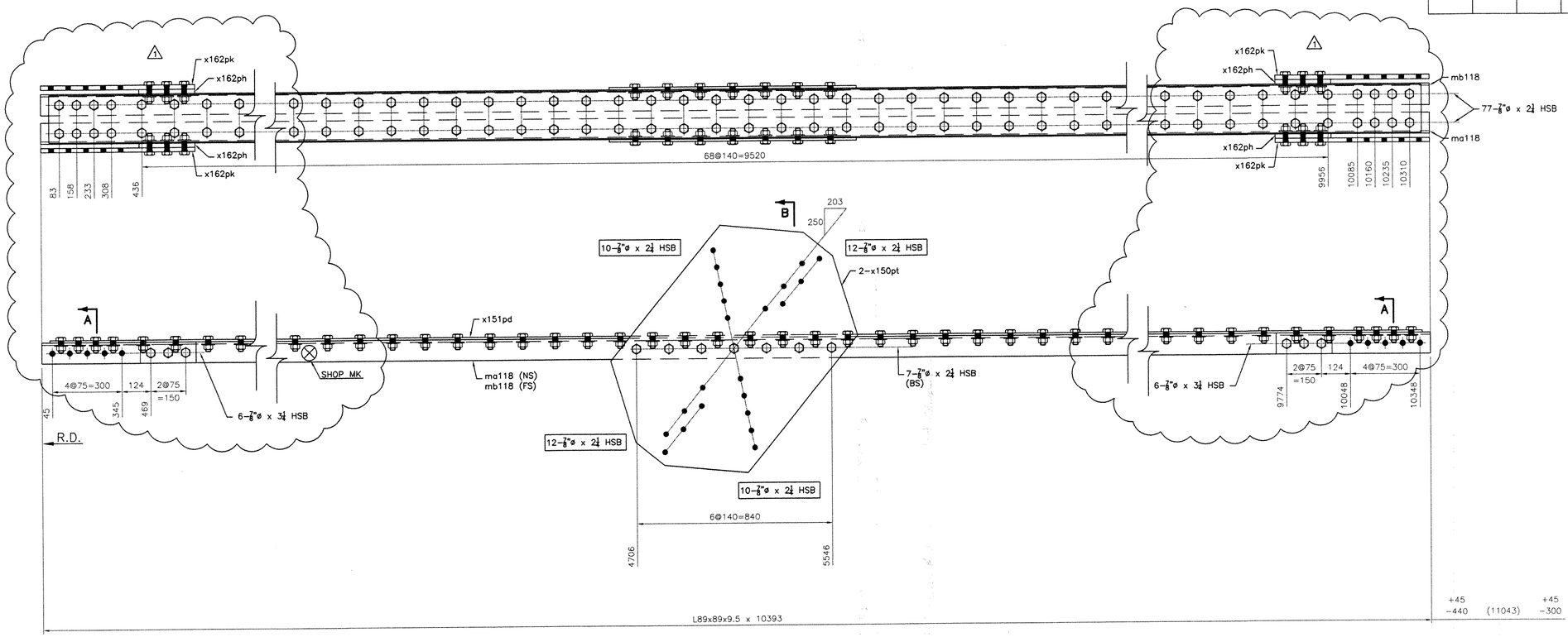
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DIAGONAL BRACINGS
DRAWN BY: YT 02/22/05
CHECKED BY: GG 03/30/05
JOB NUMBER: 5075
SHEET NUMBER: 117

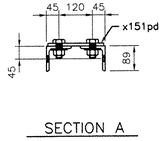
15855

BILL OF MATERIAL

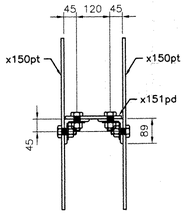
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
118		118DB		2			Total weight:		1214 kg	
118		118DB	ma118	2	L Angles	89x89x9.5	M270M-GR345	10393	CVN	21
118		118DB	mb118	2	L Angles	89x89x9.5	M270M-GR345	10393	CVN	21
118		118DB	x150pt	4	PL Plate	10x760	M270M-GR345	1150	CVN	72
118		118DB	x151pd	2	PL Plate	10x200	M270M-GR345	10323	CVN	22
118		118DB	x162ph	8	PL Plate	18x90	M270M-GR345	240		
118		118DB	x162pk	8	PL Plate	18x90	M270M-GR345	664		



2 -DIAGONAL BRACE ASSEMBLIES - 118DB



SECTION A



SECTION B

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
336	7/8"ø HSB	2 1/4
24	7/8"ø HSB	3 1/4
	FIELD BOLTS LIST	
88	7/8"ø HSB	2 1/4

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RECEIVED
AUG 24 2005

CK'D BY _____ OK'D BY MAM
RESUBMIT _____ APPROVED
BY DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
1	8/17/05	AS PER REVISED DESIGN

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
B	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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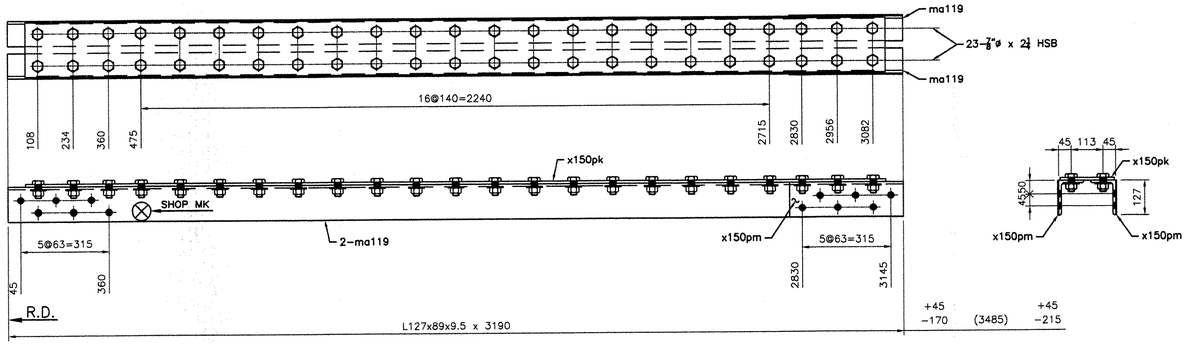
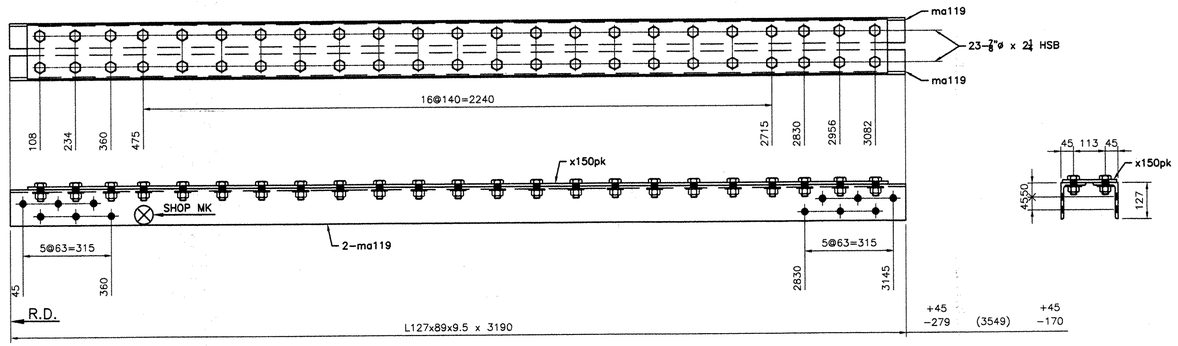
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DIAGONAL BRACINGS
DRAWN BY: YT 02/23/05
CHECKED BY: GG 03/30/05
JOB NUMBER: 5075
SHEET NUMBER: 118

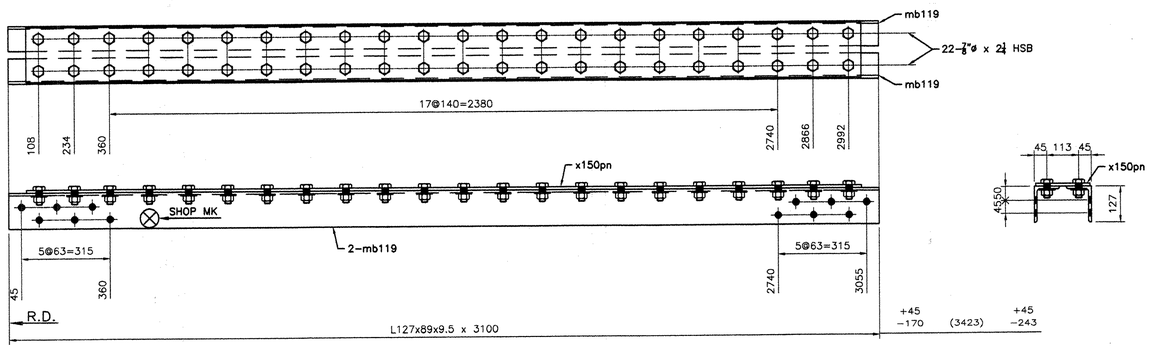
159 ss



4 –HORIZONTAL BRACE ASSEMBLIES – 119HB1



4 –HORIZONTAL BRACE ASSEMBLIES – 119HB2



4 –HORIZONTAL BRACE ASSEMBLIES – 119HB3

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
119		119HB1		4			Total weight:		589 kg	
119		119HB1	ma119	8	L Angles	127x89x9.5	M270M–GR345	3190	CVN	25
119		119HB1	x150pk	4	PL Plate	10x193	M270M–GR345	3064	CVN	26
119		119HB1	x150pm	8	PL Plate	3x127	M270M–GR345	405		73
119		119HB2		4			Total weight:		579 kg	
119		119HB2	ma119	8	L Angles	127x89x9.5	M270M–GR345	3190	CVN	25
119		119HB2	x150pk	4	PL Plate	10x193	M270M–GR345	3064	CVN	26
119		119HB3		4			Total weight:		562 kg	
119		119HB3	mb119	8	L Angles	127x89x9.5	M270M–GR345	3100	CVN	25
119		119HB3	x150pn	4	PL Plate	10x193	M270M–GR345	2974	CVN	26

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
544	7/8"ø HSB	2 1/4

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING
8– ALL FILL PLATES SHALL BE WIRE ATTACHED FOR SHIPPING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	HORIZONTAL BRACINGS
DRAWN BY: YT	02/21/05
CHECKED BY: GG	03/30/05
JOB NUMBER:	5075
SHEET NUMBER:	119

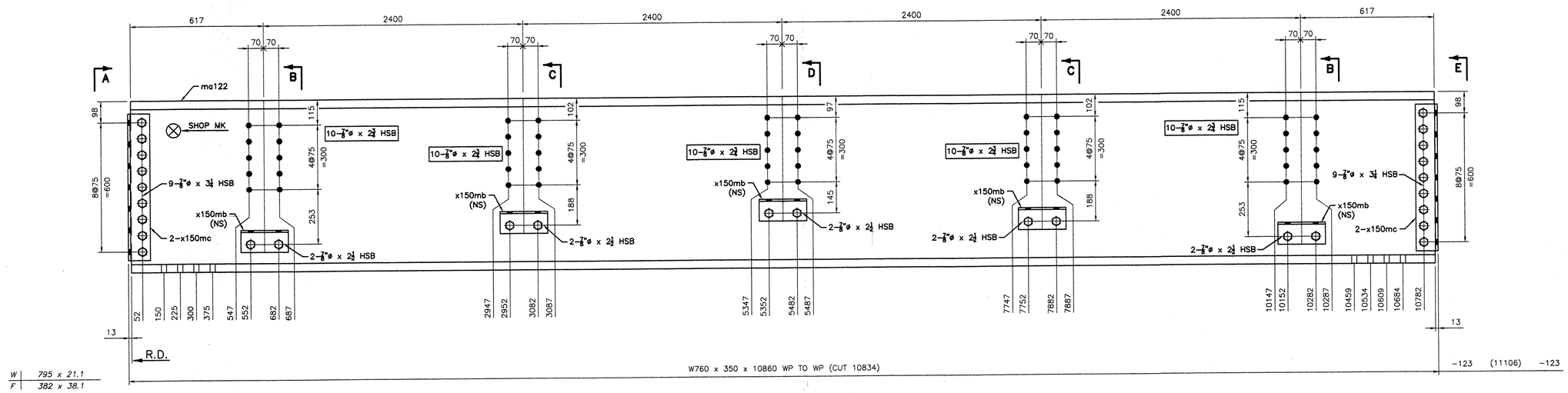
160 55

BILL OF MATERIAL

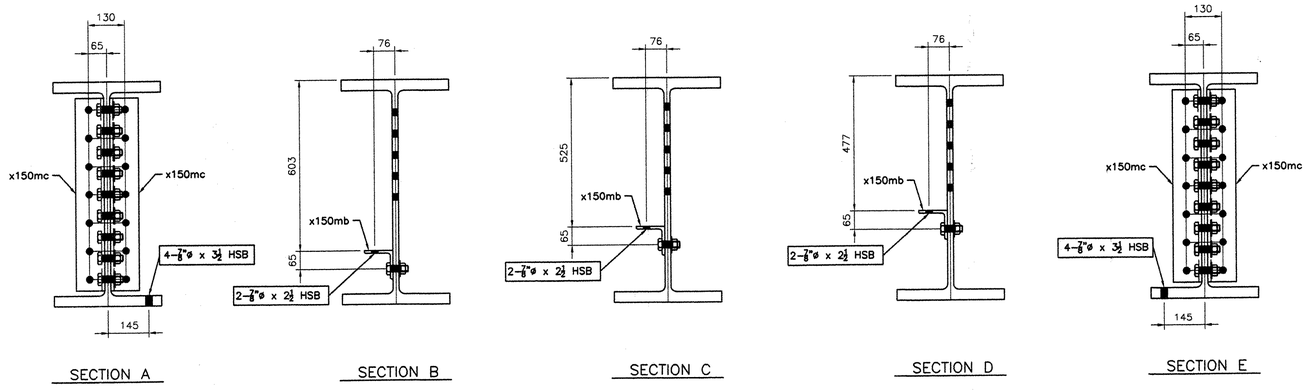
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
122		122FB		2			Total weight:		7720 kg	
122		122FB	ma122	2	W Wide Flng	760x350	M270M-GR345	10834	CVN	1
122		122FB	x150mb	10	L Angles	102x102x9.5	M270M-GR345	220	CVN	5
122		122FB	x150mc	8	L Angles	102x102x13	M270M-GR345	680	CVN	2

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
20	7/8"ø HSB	2 1/2
36	7/8"ø HSB	3 1/4
	FIELD BOLTS LIST	
20	7/8"ø HSB	2 1/2
100	7/8"ø HSB	2 3/4
16	7/8"ø HSB	3 1/2



2 - FLOOR BEAMS - 122FB



NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

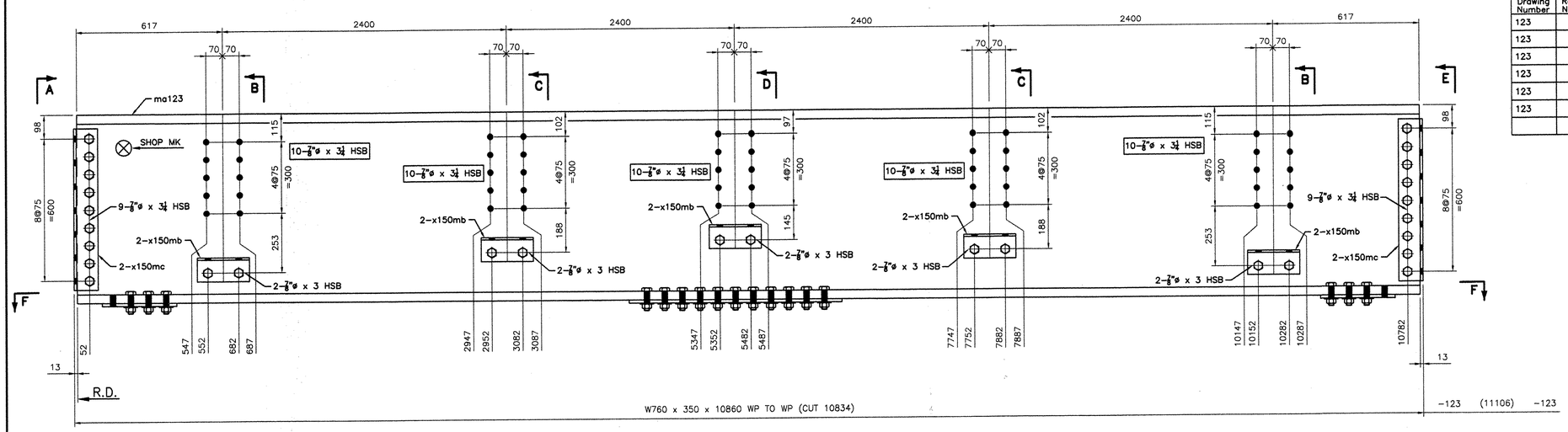
NOTICE
This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	FLOOR BEAMS
DRAWN BY: YT	02/17/05
CHECKED BY: GG	03/24/05
JOB NUMBER:	5075
SHEET NUMBER:	122

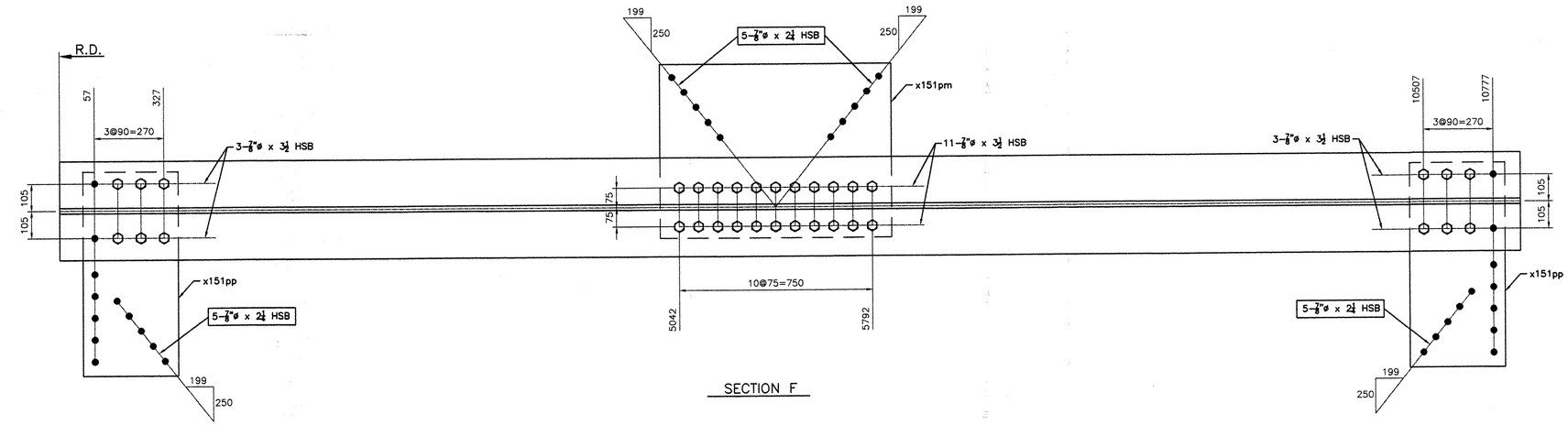
16155

BILL OF MATERIAL										
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
123		123FB		4			Total weight:		16028 kg	
123		123FB	ma123	4	W Wide Flng	760x350	M270M-GR345	10834	CVN	1
123		123FB	x150mb	40	L Angles	102x102x9.5	M270M-GR345	220	CVN	5
123		123FB	x150mc	16	L Angles	102x102x13	M270M-GR345	680	CVN	2
123		123FB	x151pm	4	PL Plate	14x675	M270M-GR345	900		48
123		123FB	x151pp	8	PL Plate	14x370	M270M-GR345	790		47

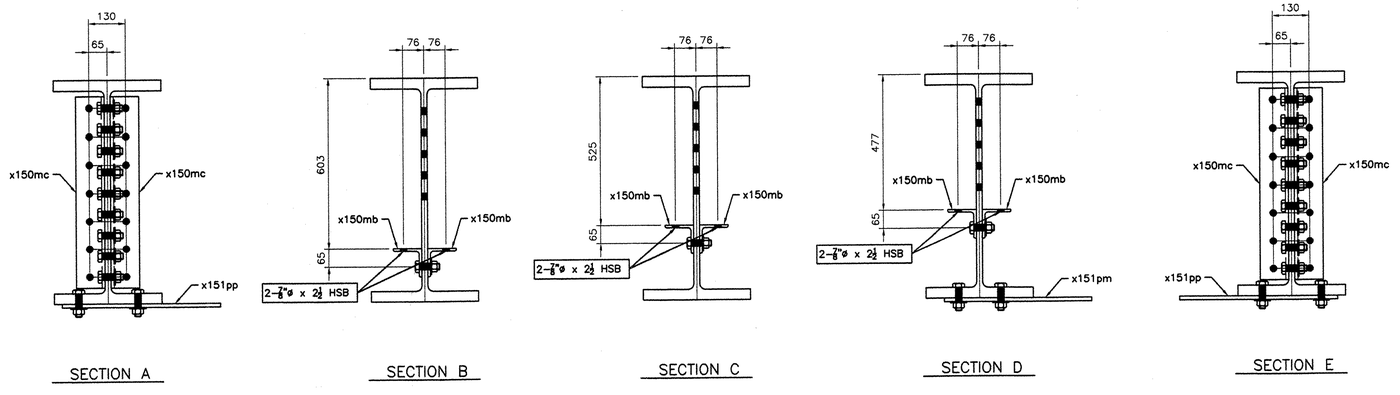


W	795 x 21.1
F	382 x 38.1

4 - FLOOR BEAMS - 123FB



SECTION F



SECTION A SECTION B SECTION C SECTION D SECTION E

BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
40	7/8"ø HSB	3
72	7/8"ø HSB	3 1/4
136	7/8"ø HSB	3 1/2
	FIELD BOLTS LIST	
80	7/8"ø HSB	2 1/4
80	7/8"ø HSB	2 1/2
200	7/8"ø HSB	3 1/4

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

NOTICE
This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

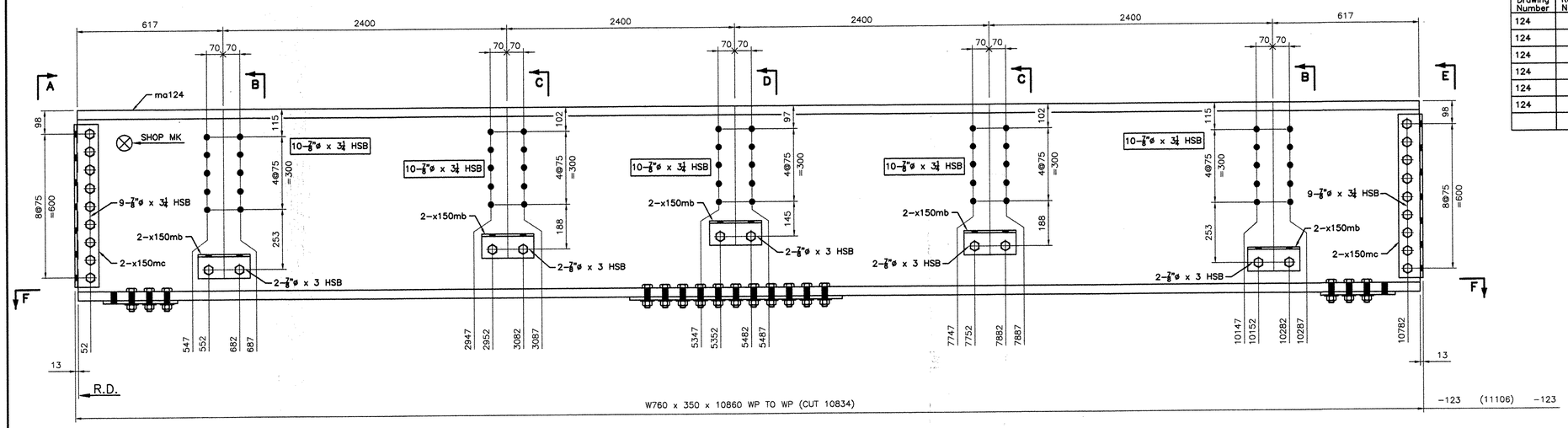
QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: FLOOR BEAMS	
DRAWN BY: YT 03/09/05	JOB NUMBER: 5075 / SHEET NUMBER: 123
CHECKED BY: GG 03/24/05	

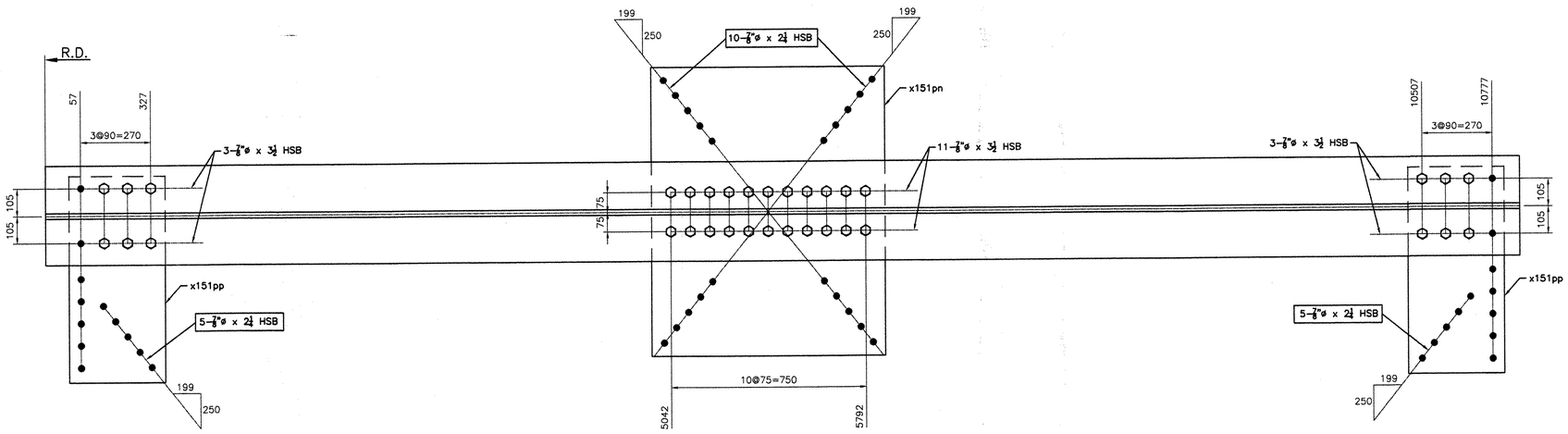
16255

BILL OF MATERIAL										
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
124		124FB		2			Total weight:		8100 kg	
124		124FB	ma124	2	W Wide Flng	760x350	M270M-GR345	10834	CVN	1
124		124FB	x150mb	20	L Angles	102x102x9.5	M270M-GR345	220	CVN	5
124		124FB	x150mc	8	L Angles	102x102x13	M270M-GR345	680	CVN	2
124		124FB	x151pn	2	PL Plate	14x900	M270M-GR345	1110		49
124		124FB	x151pp	4	PL Plate	14x370	M270M-GR345	790		47

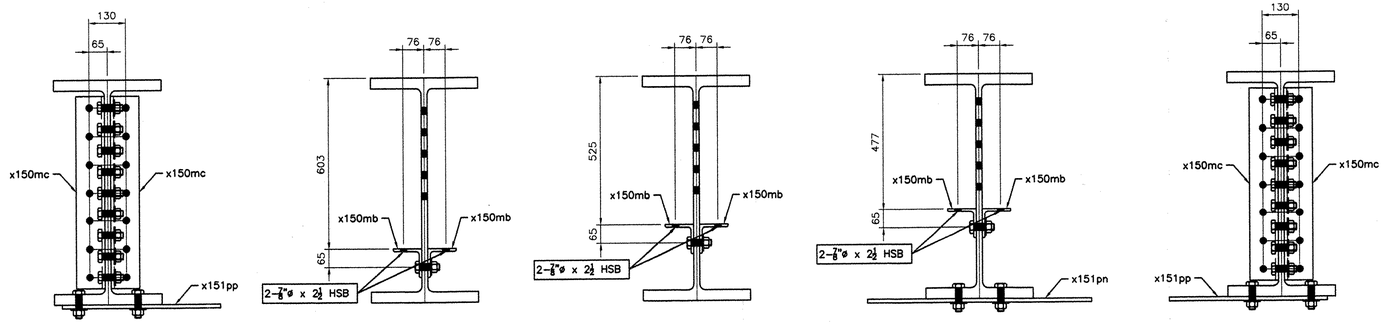


W | 795 x 21.1
F | 382 x 38.1

2 – FLOOR BEAMS – 124FB



SECTION F



NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
20	7/8"ø HSB	3
36	7/8"ø HSB	3 1/4
68	7/8"ø HSB	3 1/2
	FIELD BOLTS LIST	
60	7/8"ø HSB	2 1/4
40	7/8"ø HSB	2 1/2
100	7/8"ø HSB	3 1/4

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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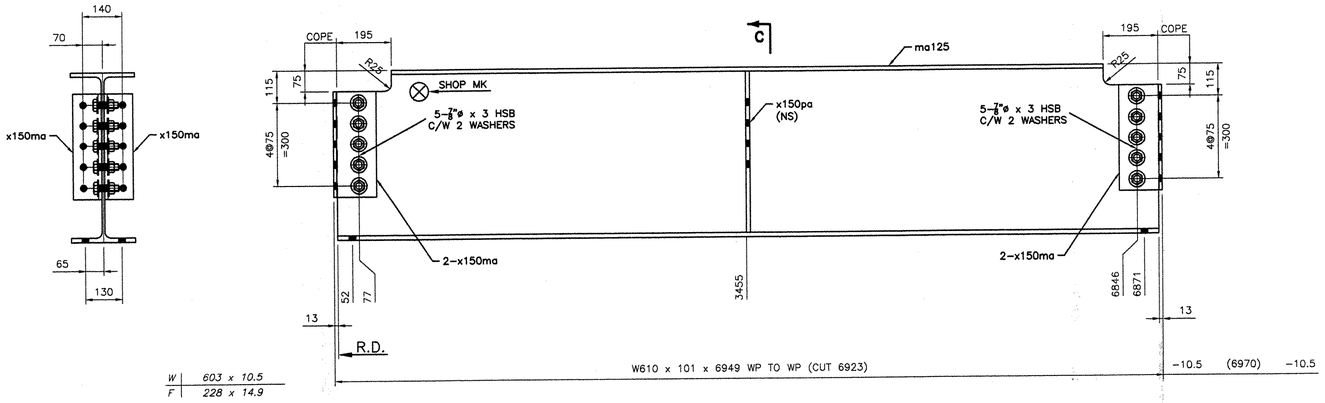
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: FLOOR BEAMS	
DRAWN BY: YT 03/11/05	JOB NUMBER: 5075 / SHEET NUMBER: 124
CHECKED BY: GG 03/24/05	

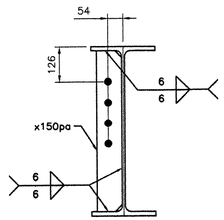
16355

BILL OF MATERIAL

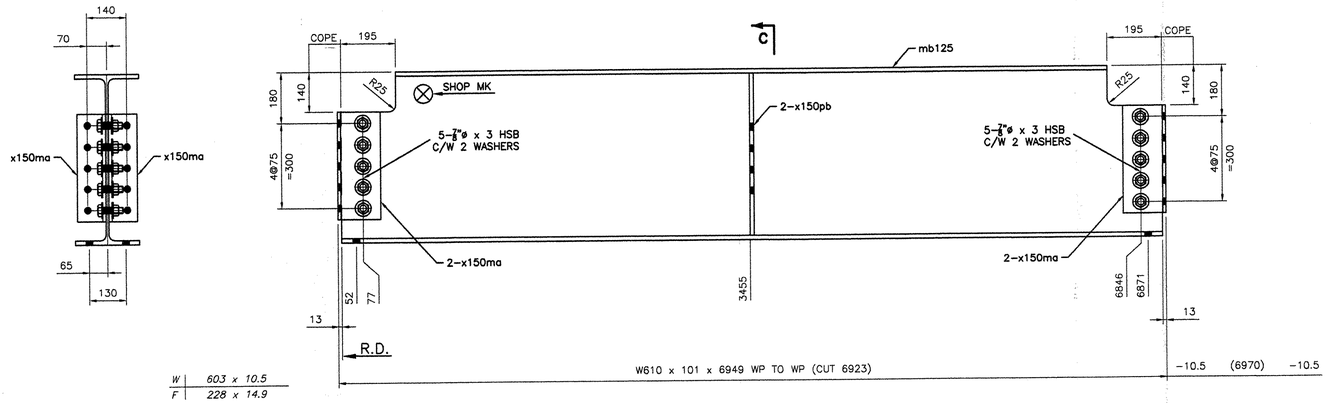
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
125		125S1		14			Total weight:		10382 kg	
125		125S1	ma125	14	W Wide Flng	610x101	M270M-GR345	6923	CVN	3
125		125S1	x150ma	56	L Angles	152x102x13	M270M-GR345	380	CVN	4
125		125S1	x150pa	14	PL Plate	14x89	M270M-GR345	573		45
125		125S2		14			Total weight:		10304 kg	
125		125S2	mb125	14	W Wide Flng	610x101	M270M-GR345	6923	CVN	3
125		125S2	x150ma	56	L Angles	152x102x13	M270M-GR345	380	CVN	4
125		125S2	x150pb	28	PL Plate	14x89	M270M-GR345	573		45
125		125S3		7			Total weight:		5230 kg	
125		125S3	mc125	7	W Wide Flng	610x101	M270M-GR345	6923	CVN	3
125		125S3	x150ma	28	L Angles	152x102x13	M270M-GR345	380	CVN	4
125		125S3	x150pc	14	PL Plate	14x89	M270M-GR345	573		45



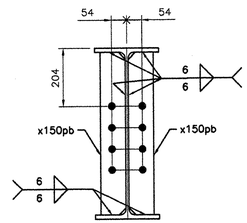
14 – STRINGERS – 125S1



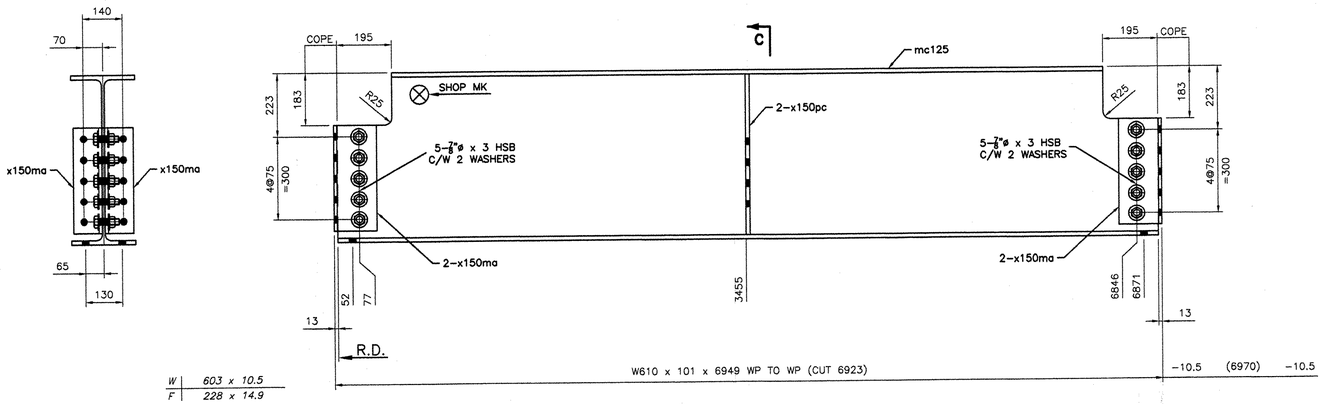
SECTION C–C



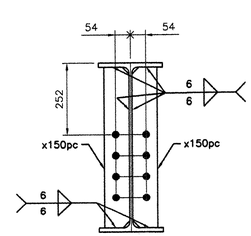
14 – STRINGERS – 125S2



SECTION C–C



7 – STRINGERS – 125S3



SECTION C–C

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
350	7/8"ø HSB	3

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

NOTICE
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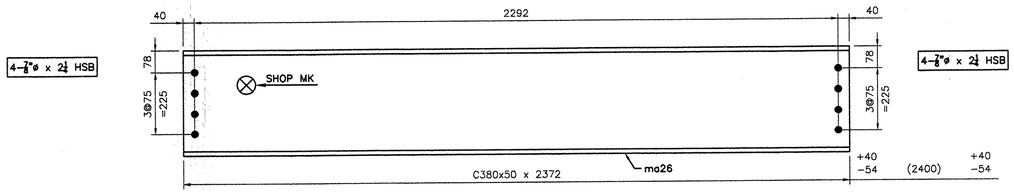
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: STRINGERS			
DRAWN BY: YT	02/16/05	JOB NUMBER: 5075	SHEET NUMBER: 125
CHECKED BY: GG	03/24/05		

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
126		126D		28			Total weight:		3321 kg	
126		126D	ma126	28	C Channels	380x50	M270M-GR345	2372		6



28 - DIAPHRAGMS - 126D

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	FIELD BOLTS LIST	
224	7/8"ø HSB	2 1/4

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

NOTICE
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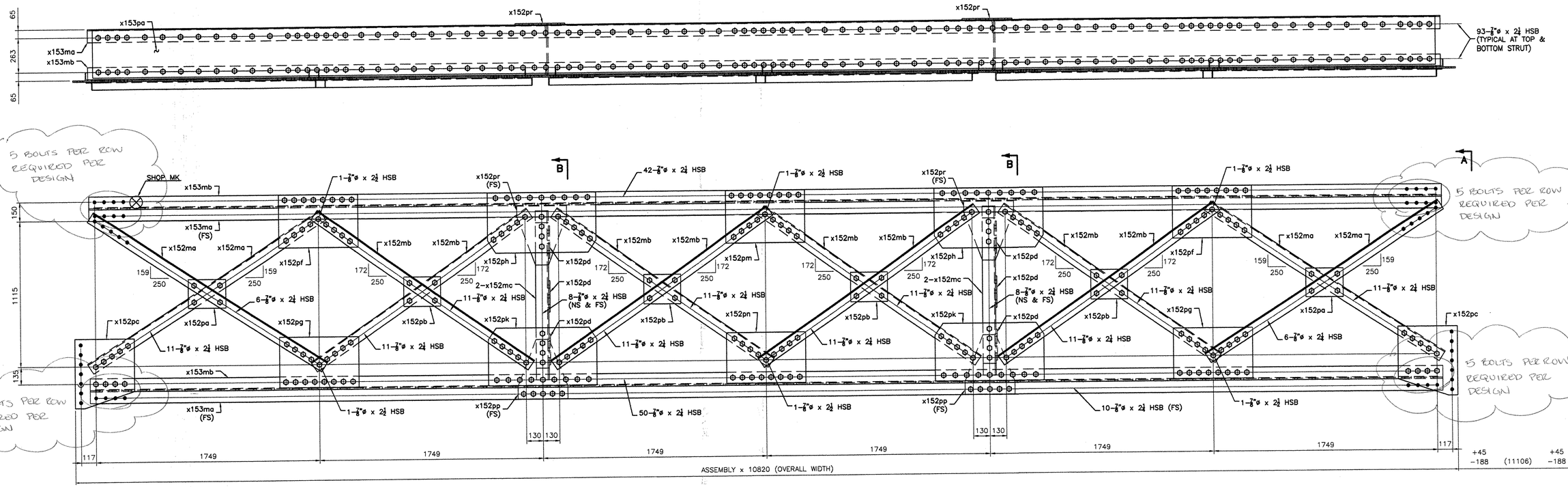
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

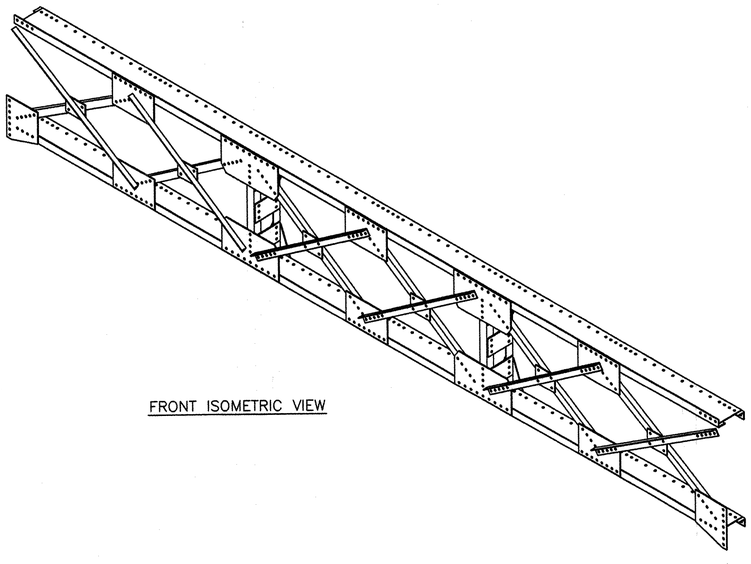
PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: DIAPHRAGMS			
DRAWN BY: YT	02/15/05	JOB NUMBER: 5075	SHEET NUMBER: 126
CHECKED BY: GG	03/24/05		

16555

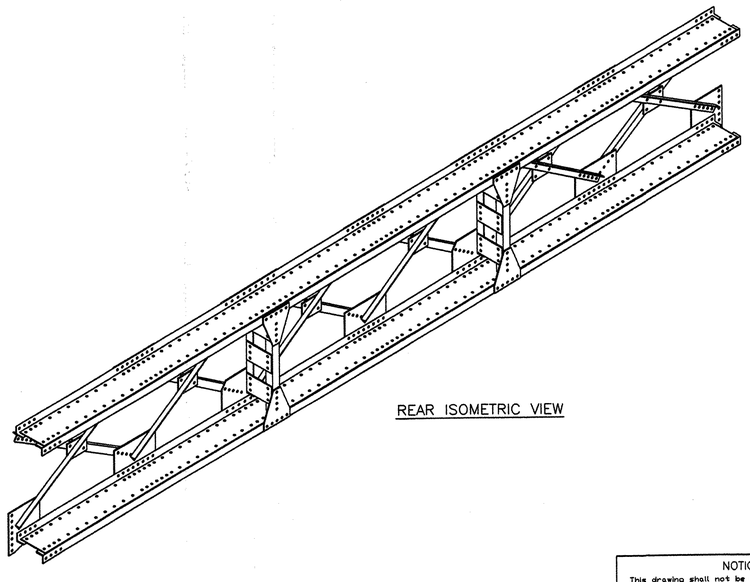


2 –PORTAL ASSEMBLIES – 127P

(FRONT VIEW SHOWN)



FRONT ISOMETRIC VIEW



REAR ISOMETRIC VIEW

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

WORK THIS DRAWING WITH DRAWING 127B

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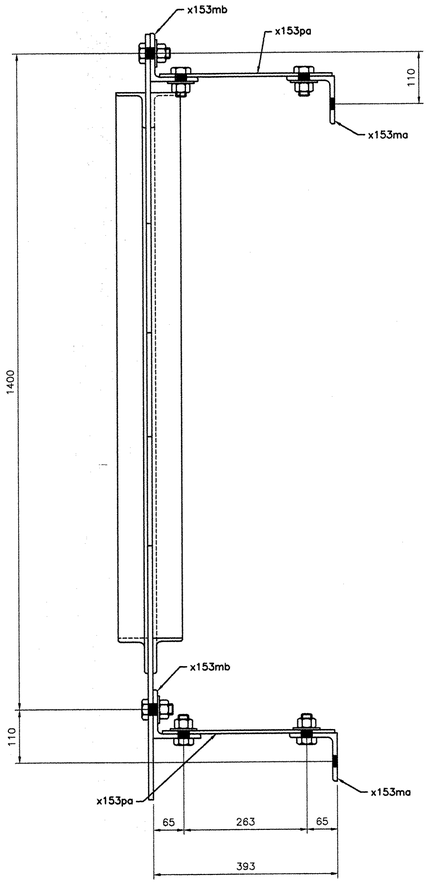
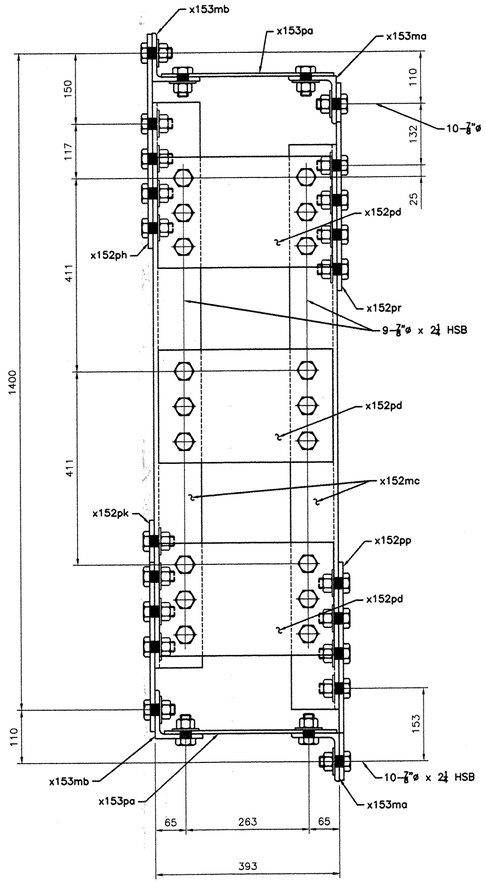
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	PORTAL ASSEMBLIES
DRAWN BY: YT	02/24/05
CHECKED BY: GG	03/31/05
JOB NUMBER:	5075
SHEET NUMBER:	127AB

16655



SECTION A



SECTION B

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
127		127P		2			Total weight:		4033 kg	
127		127P	x152ma	8	L Angles	89x89x9.5	M270M-GR345	2164		30
127		127P	x152mb	16	L Angles	89x89x9.5	M270M-GR345	2056		30
127		127P	x152mc	8	L Angles	102x102x9.5	M270M-GR345	1205		29
127		127P	x153ma	4	L Angles	102x102x9.5	M270M-GR345	10586		28
127		127P	x153mb	4	L Angles	102x102x9.5	M270M-GR345	10586		28
127		127P	x152pa	4	PL Plate	10x219	M270M-GR345	292		83
127		127P	x152pb	8	PL Plate	10x226	M270M-GR345	288		83
127		127P	x152pc	4	PL Plate	10x465	M270M-GR345	540		79
127		127P	x152pd	12	PL Plate	10x240	M270M-GR345	373		84
127		127P	x152pf	4	PL Plate	10x405	M270M-GR345	615		82
127		127P	x152pg	4	PL Plate	10x395	M270M-GR345	615		82
127		127P	x152ph	4	PL Plate	10x460	M270M-GR345	850		81
127		127P	x152pk	4	PL Plate	10x450	M270M-GR345	850		81
127		127P	x152pm	2	PL Plate	10x405	M270M-GR345	615		82
127		127P	x152pn	2	PL Plate	10x395	M270M-GR345	615		82
127		127P	x152pp	4	PL Plate	10x390	M270M-GR345	463		82
127		127P	x152pr	4	PL Plate	10x390	M270M-GR345	447		82
127		127P	x153pa	4	PL Plate	10x368	M270M-GR345	10508		31

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
1348	7/8"ø HSB	2 1/4
12	7/8"ø HSB	2 1/2

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

WORK THIS DRAWING WITH DRAWING 127AB

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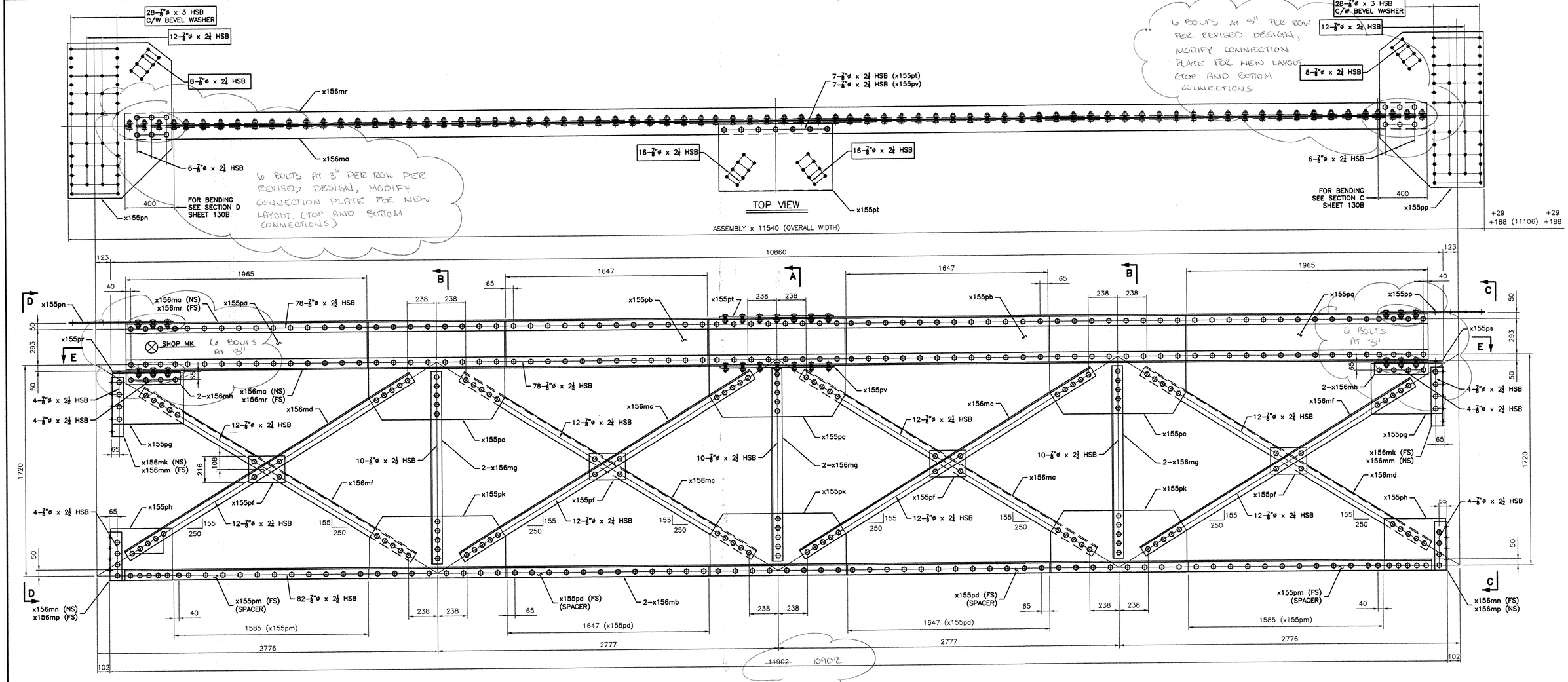
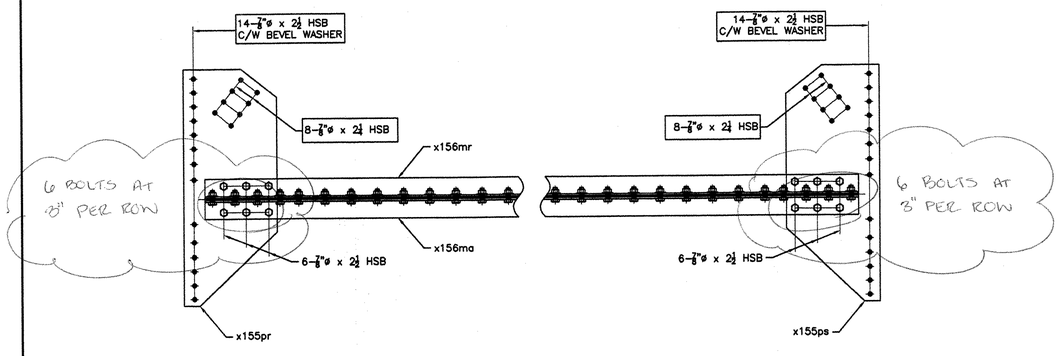
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	PORTAL ASSEMBLIES
DRAWN BY: YT	02/24/05
CHECKED BY: GG	03/31/05
JOB NUMBER:	5075
SHEET NUMBER:	127B

16755



2 –TOP STRUT ASSEMBLY – 130TS



SECTION E–E

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

WORK THIS DRAWING WITH DRAWING 130B

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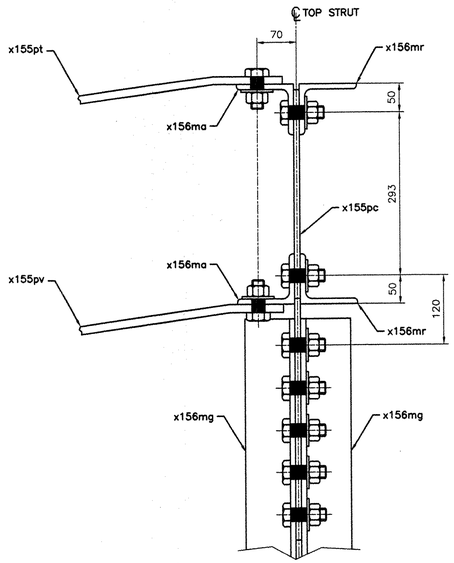
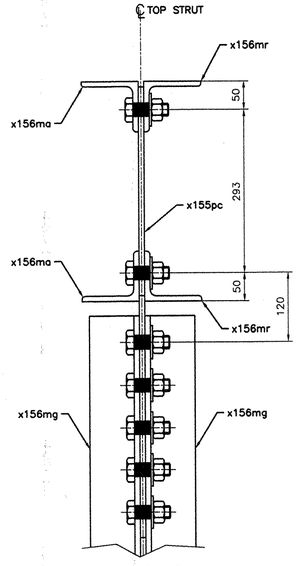
tenca 1010
EBLLC
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TOP STRUT ASSEMBLIES
DRAWN BY: BR	03/02/05
CHECKED BY: GG	04/01/05
JOB NUMBER:	5075
SHEET NUMBER:	130AB

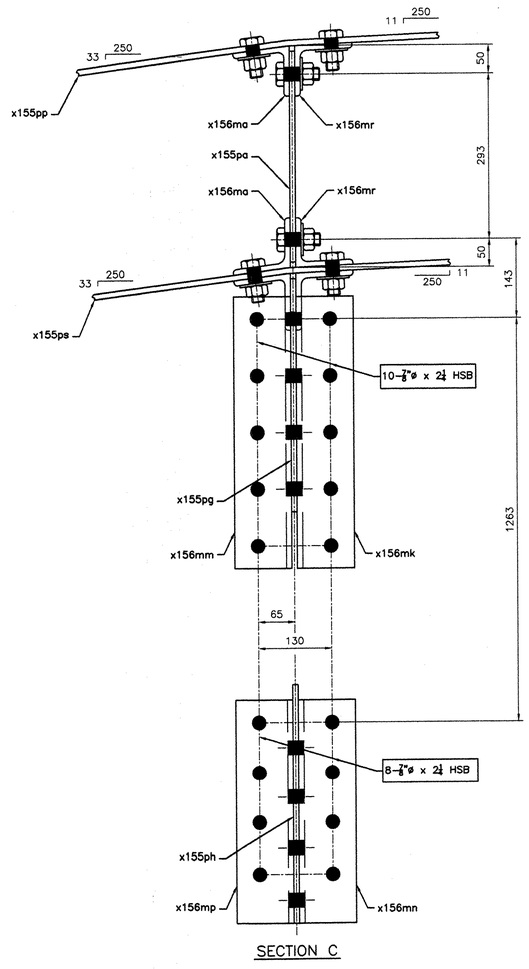
168 55



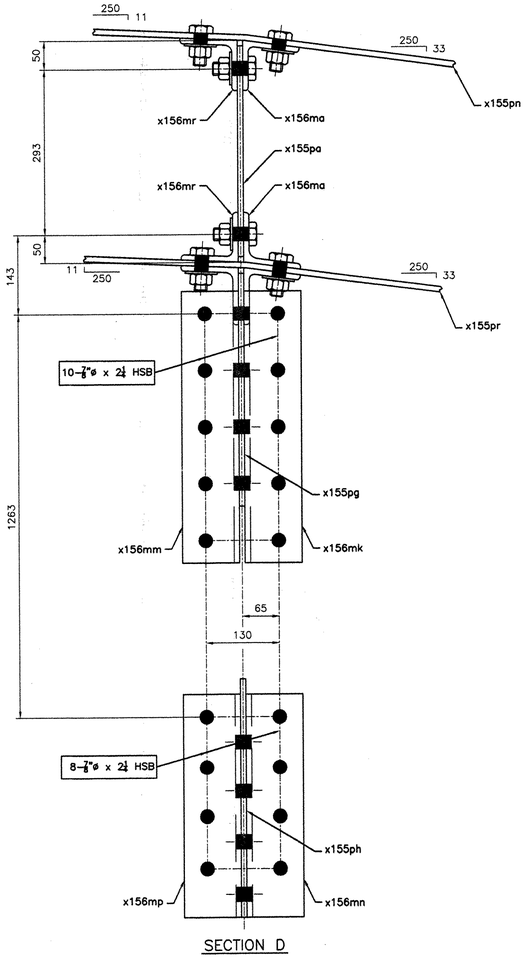
SECTION A



SECTION B



SECTION C



SECTION D

WORK THIS DRAWING WITH DRAWING 130AB

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
130		130TS		2			Total weight:		4771 kg	
130		130TS	x155pa	4	PL Plate	10x373	M270M–GR345	1965		33
130		130TS	x155pb	4	PL Plate	10x373	M270M–GR345	1647		33
130		130TS	x155pc	6	PL Plate	10x800	M270M–GR345	1110		85
130		130TS	x155pd	4	PL Plate	10x80	M270M–GR345	1647		35
130		130TS	x155pf	8	PL Plate	10x216	M270M–GR345	294		86
130		130TS	x155pg	4	PL Plate	10x412	M270M–GR345	580		87
130		130TS	x155ph	4	PL Plate	10x422	M270M–GR345	502		87
130		130TS	x155pk	6	PL Plate	10x505	M270M–GR345	1110		88
130		130TS	x155pm	4	PL Plate	10x80	M270M–GR345	1585		35
130		130TS	x155pn	2	PL Plate	10x848	M270M–GR345	1271	CVN (BENT)	89
130		130TS	x155pp	2	PL Plate	10x848	M270M–GR345	1271	CVN (BENT)	89
130		130TS	x155pr	2	PL Plate	10x499	M270M–GR345	1236	CVN (BENT)	90
130		130TS	x155ps	2	PL Plate	10x499	M270M–GR345	1236	CVN (BENT)	90
130		130TS	x155pt	2	PL Plate	14x537	M270M–GR345	930	(BENT)	91
130		130TS	x155pv	2	PL Plate	14x483	M270M–GR345	930	(BENT)	91
130		130TS	x156ma	4	L Angles	102x89x9.5	M270M–GR345	10613		32
130		130TS	x156mb	4	L Angles	102x89x9.5	M270M–GR345	10648		34
130		130TS	x156mc	8	L Angles	89x89x9.5	M270M–GR345	2796		38
130		130TS	x156md	4	L Angles	89x89x9.5	M270M–GR345	2736		38
130		130TS	x156mf	4	L Angles	89x89x9.5	M270M–GR345	2596		38
130		130TS	x156mg	12	L Angles	89x89x9.5	M270M–GR345	1570		36
130		130TS	x156mh	8	L Angles	102x102x9.5	M270M–GR345	440		40
130		130TS	x156mk	4	L Angles	102x102x9.5	M270M–GR345	480		40
130		130TS	x156mm	4	L Angles	102x102x9.5	M270M–GR345	480		40
130		130TS	x156mn	4	L Angles	102x102x9.5	M270M–GR345	395		40
130		130TS	x156mp	4	L Angles	102x102x9.5	M270M–GR345	395		40
130		130TS	x156mr	4	L Angles	102x89x9.5	M270M–GR345	10613		32

REVISE AND RESUBMIT, ELIMINATE BENT ANGLES

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
244	7/8"ø HSB	2 1/4
608	7/8"ø HSB	2 1/2
	FIELD BOLTS LIST	
248	7/8"ø HSB	2 1/4
56	7/8"ø HSB	2 1/2
112	7/8"ø HSB	3

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL STEEL SHALL BE GALVANIZED, SEE GN101
4– ALL MATERIAL SHALL BE M270M–GR345 (UN)
5– ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

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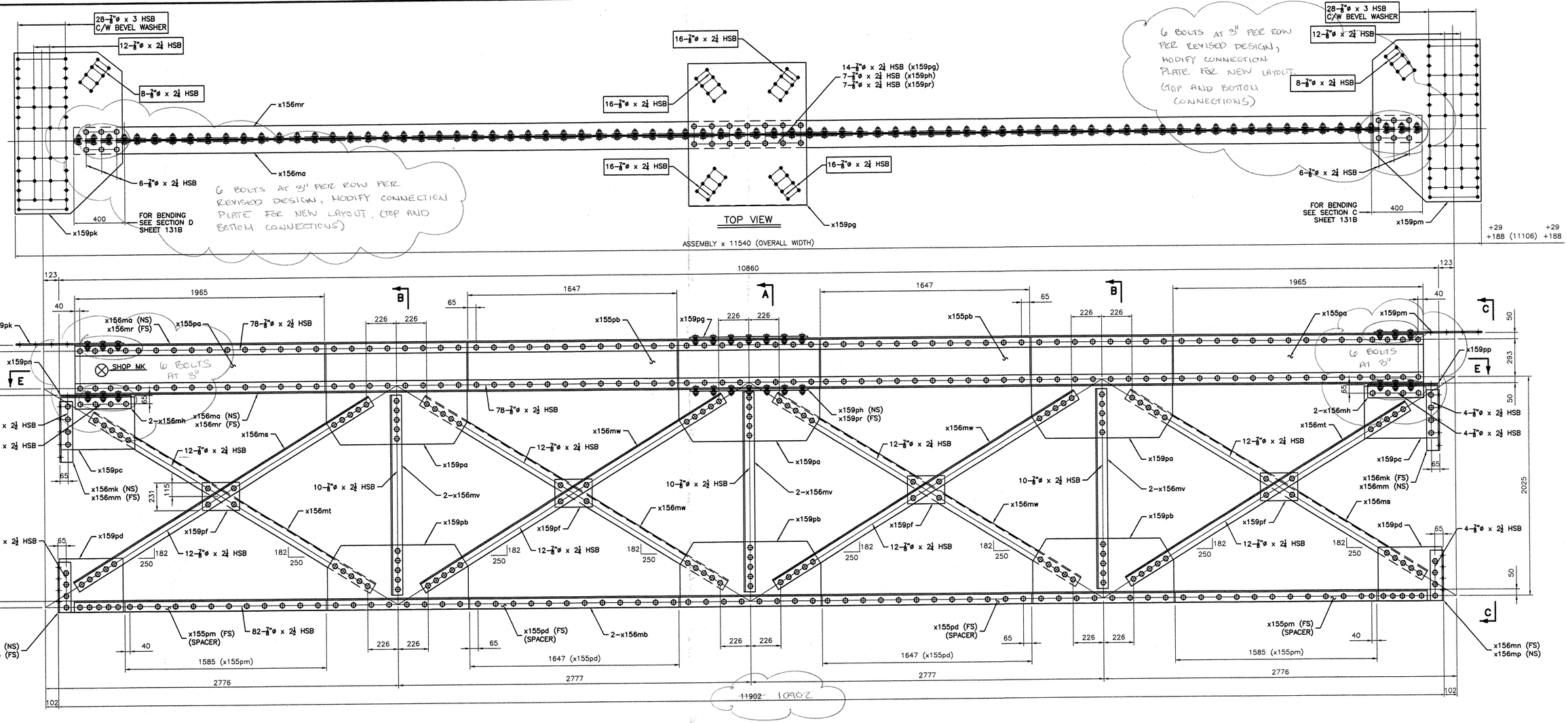
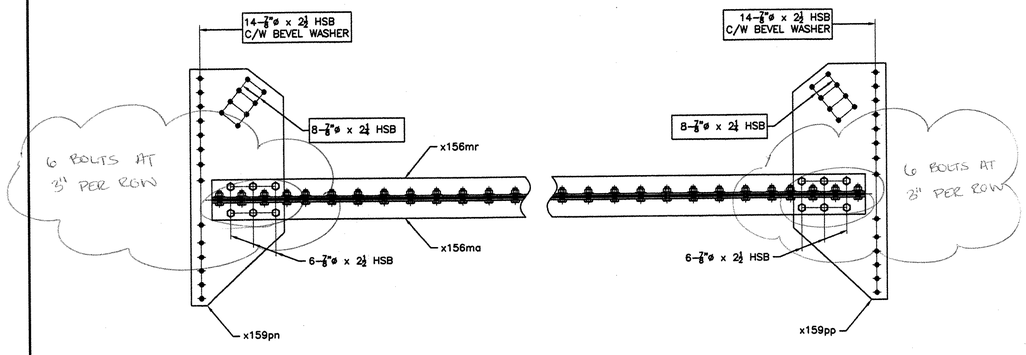
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: TOP STRUT ASSEMBLIES	
DRAWN BY: BR 03/02/05	JOB NUMBER: 5075 / SHEET NUMBER: 130B
CHECKED BY: GG 04/01/05	

16955



2 –TOP STRUT ASSEMBLY – 131TS



SECTION E–E

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	E.W. Whitcomb Construction	Approval

WORK THIS DRAWING WITH DRAWING 131B

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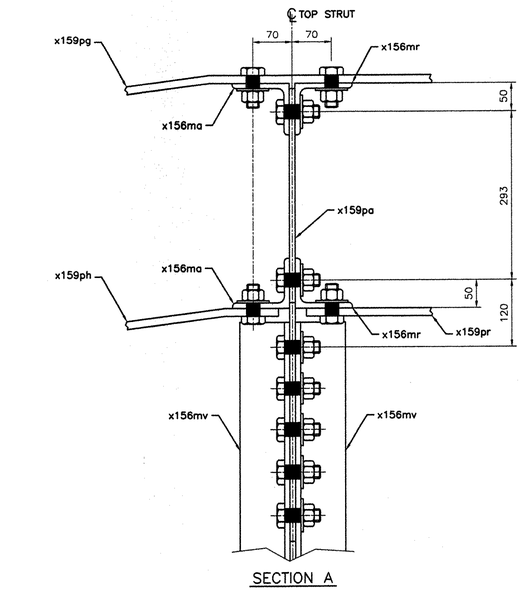
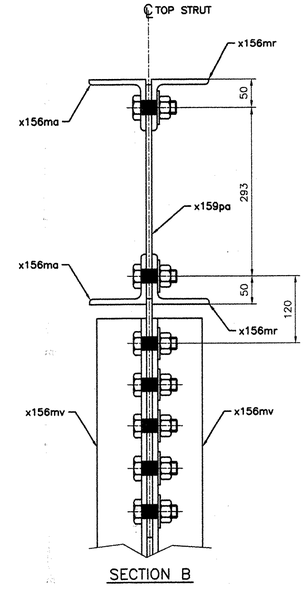
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TOP STRUT ASSEMBLIES
DRAWN BY: BR 03/02/05	JOB NUMBER: 5075
CHECKED BY: GG 04/01/05	SHEET NUMBER: 131AB

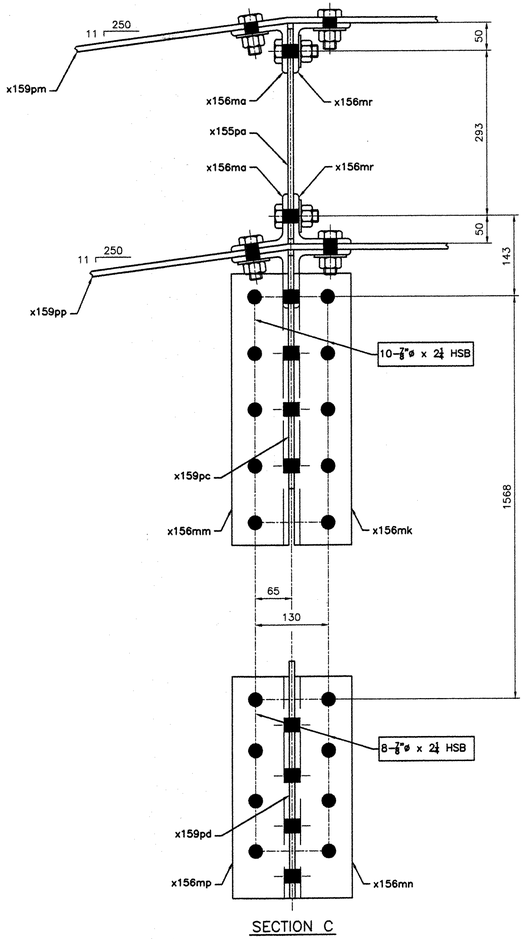
17055



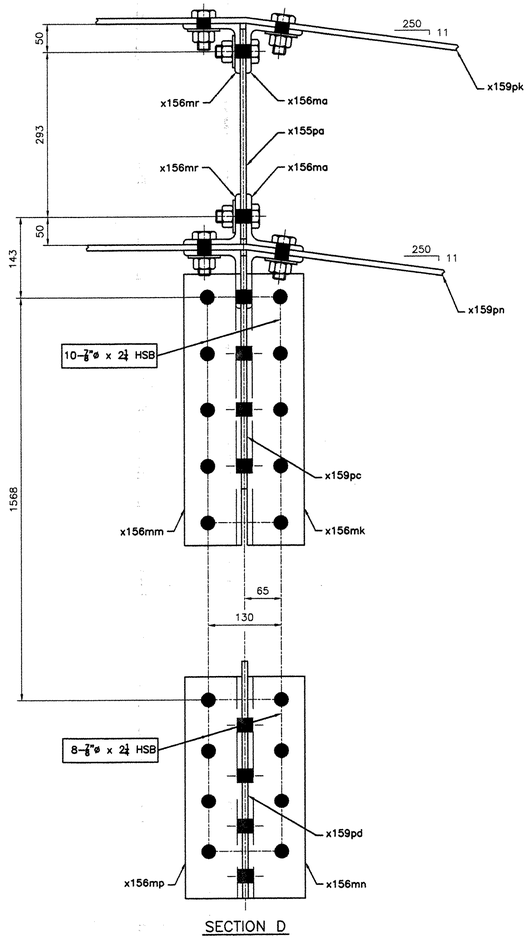
SECTION A



SECTION B



SECTION C



SECTION D

WORK THIS DRAWING WITH DRAWING 131AB

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
131		131TS		2			Total weight:		5103 kg	
131		131TS	x155pa	4	PL Plate	10x373	M270M-GR345	1965		33
131		131TS	x155pb	4	PL Plate	10x373	M270M-GR345	1647		33
131		131TS	x155pd	4	PL Plate	10x80	M270M-GR345	1647		35
131		131TS	x155pm	4	PL Plate	10x80	M270M-GR345	1585		35
131		131TS	x159pa	6	PL Plate	10x800	M270M-GR345	1110		85
131		131TS	x159pb	6	PL Plate	10x505	M270M-GR345	1110		88
131		131TS	x159pc	4	PL Plate	10x412	M270M-GR345	580		87
131		131TS	x159pd	4	PL Plate	10x470	M270M-GR345	502		87
131		131TS	x159pf	8	PL Plate	10x231	M270M-GR345	284		86
131		131TS	x159pg	2	PL Plate	14x930	M270M-GR345	989	(BENT)	92
131		131TS	x159ph	2	PL Plate	14x930	M270M-GR345	456	(BENT)	91
131		131TS	x159pr	2	PL Plate	14x930	M270M-GR345	465	(BENT)	91
131		131TS	x159pk	2	PL Plate	10x848	M270M-GR345	1399	CVN (BENT)	89
131		131TS	x159pm	2	PL Plate	10x848	M270M-GR345	1399	CVN (BENT)	89
131		131TS	x159pn	2	PL Plate	10x499	M270M-GR345	1381	CVN (BENT)	90
131		131TS	x159pp	2	PL Plate	10x499	M270M-GR345	1381	CVN (BENT)	90
131		131TS	x156ma	4	L Angles	102x89x9.5	M270M-GR345	10613		32
131		131TS	x156mb	4	L Angles	102x89x9.5	M270M-GR345	10648		34
131		131TS	x156mw	8	L Angles	89x89x9.5	M270M-GR345	2966		39
131		131TS	x156ms	4	L Angles	89x89x9.5	M270M-GR345	2981		39
131		131TS	x156mt	4	L Angles	89x89x9.5	M270M-GR345	2816		39
131		131TS	x156mv	12	L Angles	89x89x9.5	M270M-GR345	1875		37
131		131TS	x156mh	8	L Angles	102x102x9.5	M270M-GR345	440		40
131		131TS	x156mk	4	L Angles	102x102x9.5	M270M-GR345	480		40
131		131TS	x156mm	4	L Angles	102x102x9.5	M270M-GR345	480		40
131		131TS	x156mn	4	L Angles	102x102x9.5	M270M-GR345	395		40
131		131TS	x156mp	4	L Angles	102x102x9.5	M270M-GR345	395		40
131		131TS	x156mr	4	L Angles	102x89x9.5	M270M-GR345	10613		32

REVISE AND RESUBMIT, ELIMINATE BENT ANGLES

BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
272	7/8"ø HSB	2 1/4
608	7/8"ø HSB	2 1/2
	FIELD BOLTS LIST	
312	7/8"ø HSB	2 1/4
56	7/8"ø HSB	2 1/2
112	7/8"ø HSB	3

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

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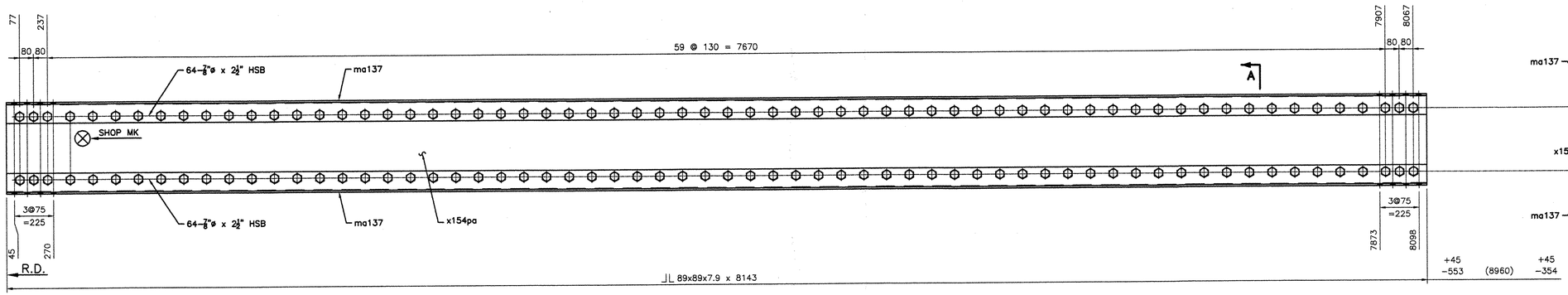
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TOP STRUT ASSEMBLIES
DRAWN BY: BR	03/02/05
CHECKED BY: GG	04/04/05
JOB NUMBER:	5075
SHEET NUMBER:	131B

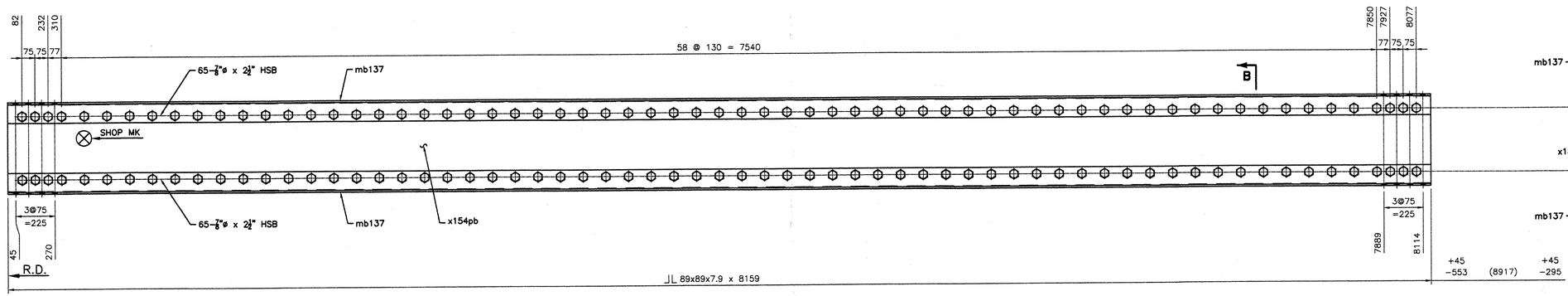
17/55

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
137		137TL1		4			Total weight:		2157 kg	
137		137TL1	ma137	16	L Angles	89x89x7.9	M270M-GR345	8143		41
137		137TL1	x154pa	4	PL Plate	8x373	M270M-GR345	8143		42
137		137TL2		4			Total weight:		2161 kg	
137		137TL2	mb137	16	L Angles	89x89x7.9	M270M-GR345	8159		41
137		137TL2	x154pb	4	PL Plate	8x373	M270M-GR345	8159		42



4 -TOP LATERAL BRACE ASSEMBLIES - 137TL1



4 -TOP LATERAL BRACE ASSEMBLIES - 137TL2

BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
1032	7/8"ø HSB	2 1/2

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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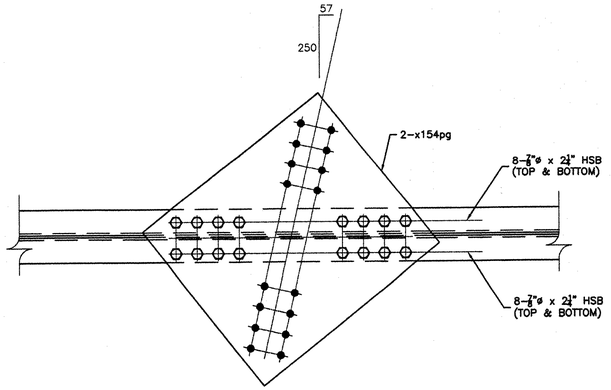
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

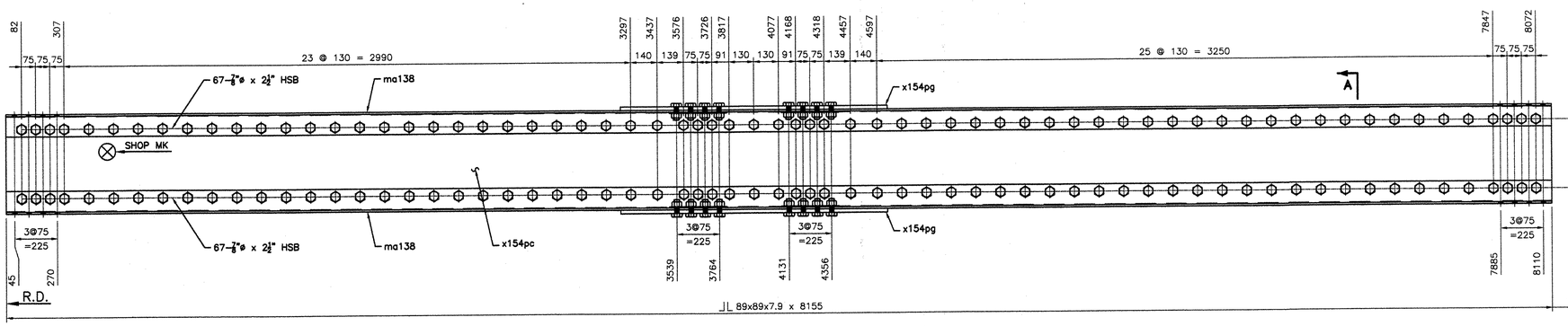
PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: TOP LATERAL BRACINGS			
DRAWN BY: BR	03/01/05	JOB NUMBER: 5075	SHEET NUMBER: 137
CHECKED BY: GG	04/04/05		

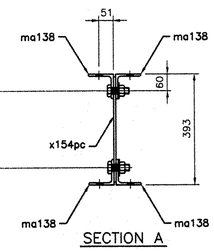
17255

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
138		138TL1		2			Total weight:		1080 kg	
138		138TL1	ma138	8	L Angles	89x89x7.9	M270M-GR345	8155		41
138		138TL1	x154pc	2	PL Plate	8x373	M270M-GR345	8155		42
138		138TL1	x154pg	4	PL Plate	14x690	M270M-GR345	800		93
138		138TL2		2			Total weight:		539 kg	
138		138TL2	mb138	8	L Angles	89x89x7.9	M270M-GR345	4069		43
138		138TL2	x154pd	2	PL Plate	8x373	M270M-GR345	4069		44
138		138TL3		2			Total weight:		504 kg	
138		138TL3	mc138	8	L Angles	89x89x7.9	M270M-GR345	3809		43
138		138TL3	x154pf	2	PL Plate	8x373	M270M-GR345	3809		44



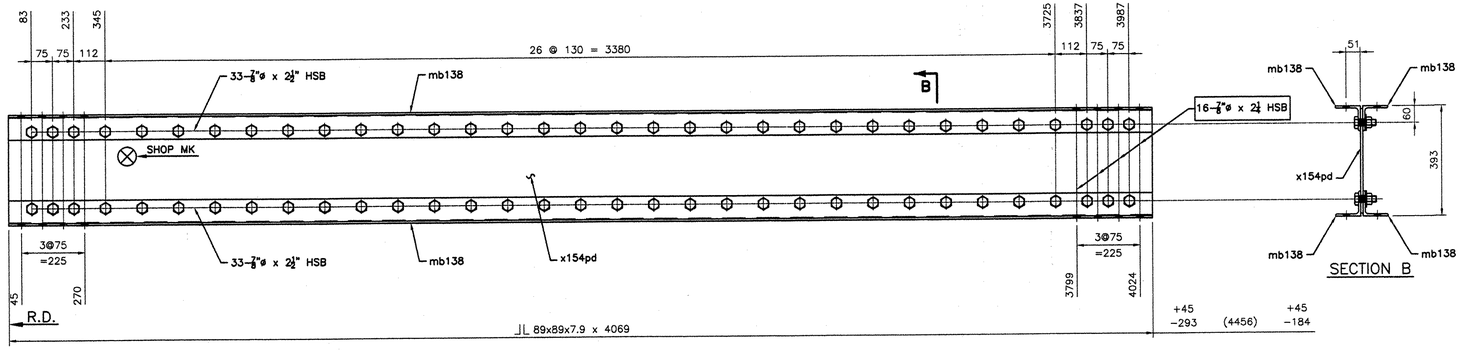




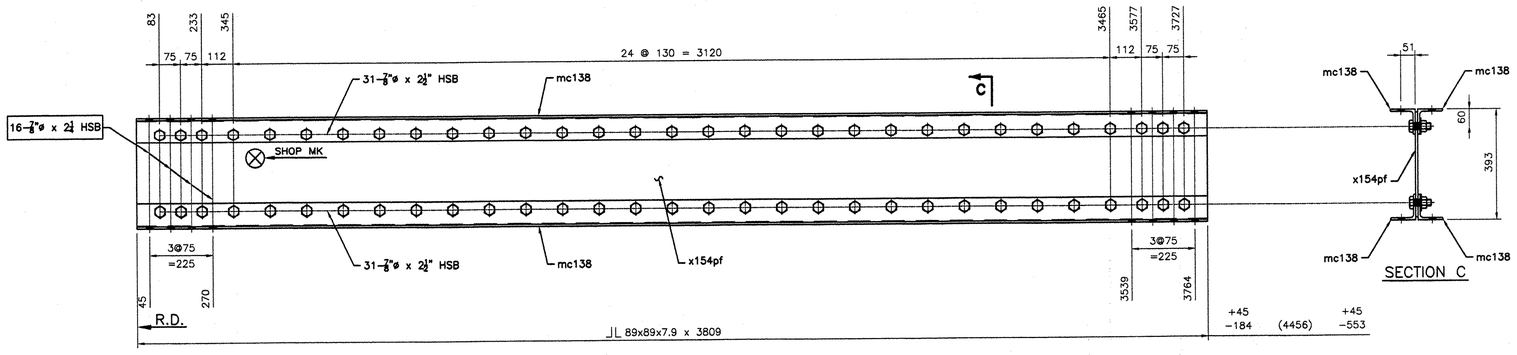
BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
64	7/8"ø HSB	2 1/4
524	7/8"ø HSB	2 1/2
	FIELD BOLTS LIST	
64	7/8"ø HSB	2 1/4

2 -TOP LATERAL BRACE ASSEMBLIES - 138TL1



2 -TOP LATERAL BRACE ASSEMBLIES - 138TL2



2 -TOP LATERAL BRACE ASSEMBLIES - 138TL3

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/8/05	F.W. Whitcomb Construction	Approval

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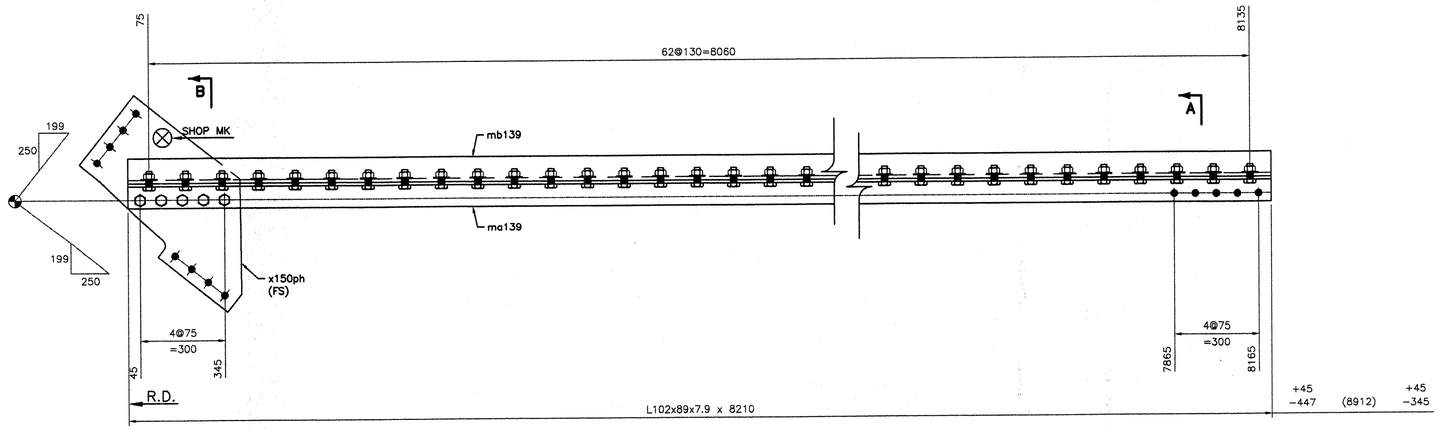
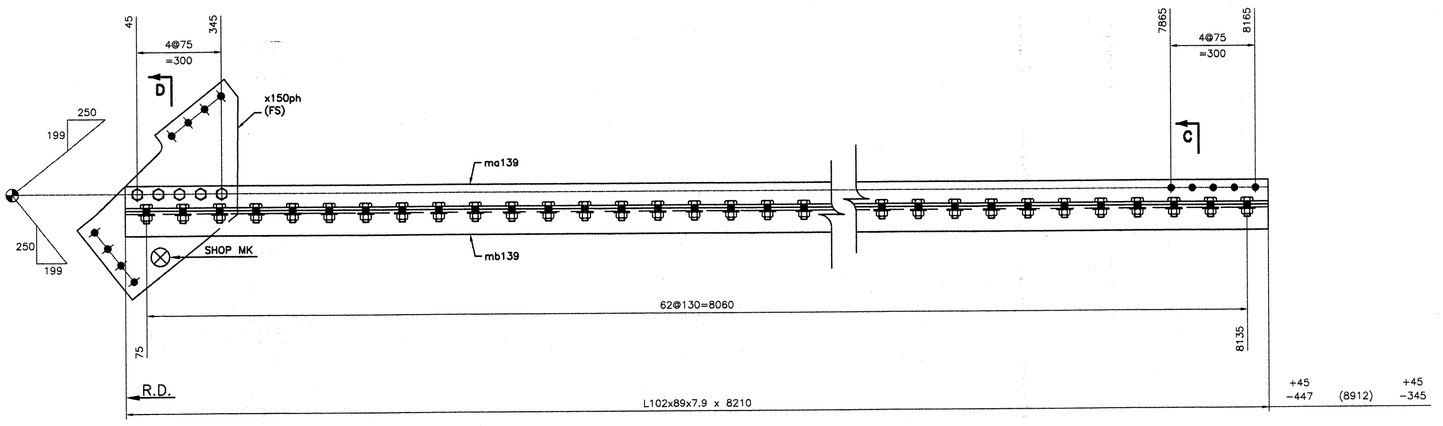
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

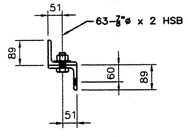
PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	TOP LATERAL BRACINGS
DRAWN BY: BR	03/01/05
CHECKED BY: GG	04/04/05
JOB NUMBER:	5075
SHEET NUMBER:	138



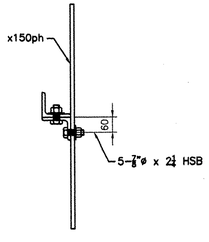
2 –BOTTOM LATERAL BRACE ASSEMBLIES – 139LB1



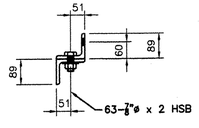
2 –BOTTOM LATERAL BRACE ASSEMBLIES – 139LB2



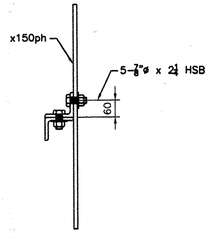
SECTION A



SECTION B



SECTION C



SECTION D

BILL OF MATERIAL

Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
139		139LB1		2			Total weight:		440 kg	
139		139LB1	ma139	2	L Angles	102x89x7.9	M270M–GR345	8210		7
139		139LB1	mb139	2	L Angles	102x89x7.9	M270M–GR345	8210		7
139		139LB1	x150ph	2	PL Plate	14x403	M270M–GR345	743		46
139		139LB2		2			Total weight:		440 kg	
139		139LB2	ma139	2	L Angles	102x89x7.9	M270M–GR345	8210		7
139		139LB2	mb139	2	L Angles	102x89x7.9	M270M–GR345	8210		7
139		139LB2	x150ph	2	PL Plate	14x403	M270M–GR345	743		46

BOLTS LIST

QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
252	7/8"ø HSB	2
20	7/8"ø HSB	2 1/4

NOTES:

1– GENERAL NOTES: SEE GN101
2– HOLES: 15/16ø (24ø) (UN)
3– ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4– ALL STEEL SHALL BE GALVANIZED, SEE GN101
5– ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6– ALL HOLES SHALL BE "CNC" DRILLED (UN)
7– WIRE–BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
9 -	4/8/05	F.W. Whitcomb Construction	Approval

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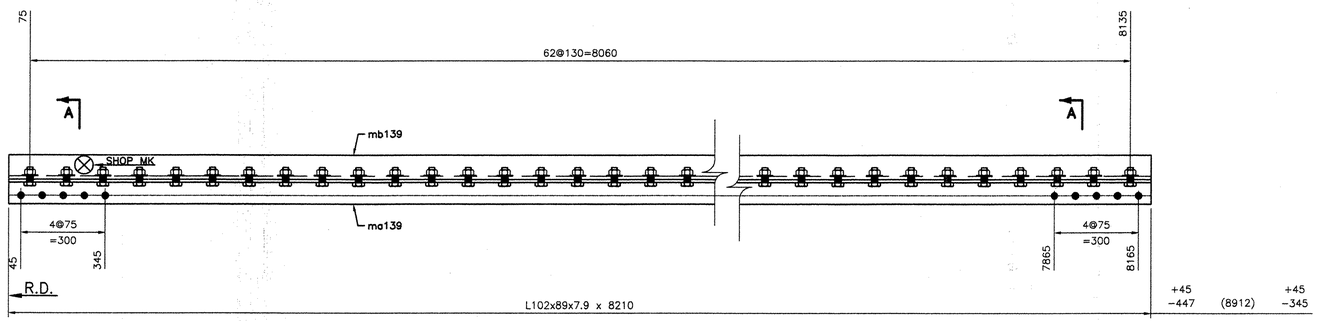
tenca 1010

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603–542–5202

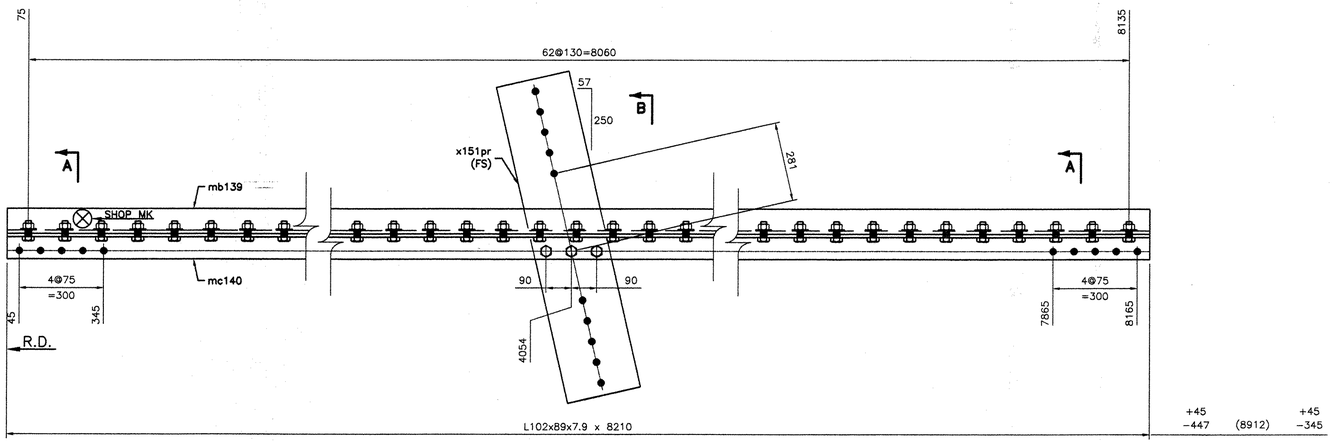
PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: BOTTOM LATERAL BRACINGS
DRAWN BY: YT 02/18/05 | JOB NUMBER: 5075 | SHEET NUMBER: 139
CHECKED BY: GG 03/24/05

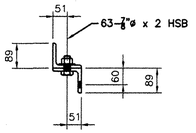
174 55

BILL OF MATERIAL										
Drawing Number	Revision Number	Ship Mark	Piece Mark	Qty	Type of Material	Size of Material	Grade	Length	Finish	Notes
140		140LB1		8			Total weight:		1498 kg	
140		140LB1	ma139	8	L Angles	102x89x7.9	M270M-GR345	8210		7
140		140LB1	mb139	8	L Angles	102x89x7.9	M270M-GR345	8210		7
140		140LB2		2			Total weight:		441 kg	
140		140LB2	mc140	2	L Angles	102x89x7.9	M270M-GR345	8210		7
140		140LB2	mb139	2	L Angles	102x89x7.9	M270M-GR345	8210		7
140		140LB2	x151pr	2	PL Plate	14x265	M270M-GR345	1150		50
140		140LB3		4			Total weight:		358 kg	
140		140LB3	ma140	4	L Angles	102x89x7.9	M270M-GR345	3920		8
140		140LB3	mb140	4	L Angles	102x89x7.9	M270M-GR345	3920		8

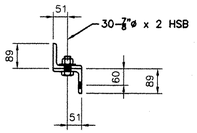


8 -BOTTOM LATERAL BRACE ASSEMBLIES - 140LB1

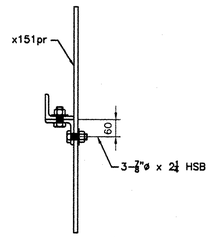




SECTION A



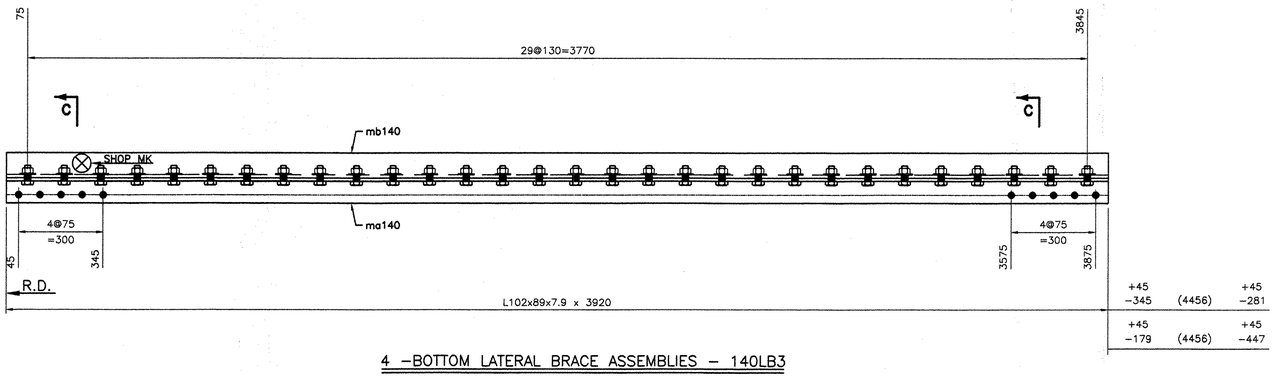
SECTION C



SECTION B

BOLTS LIST		
QTY	DESCRIPTION	LENGTH
	SHOP BOLTS LIST	
750	7/8"ø HSB	2
6	7/8"ø HSB	2 1/4

2 -BOTTOM LATERAL BRACE ASSEMBLIES - 140LB2



4 -BOTTOM LATERAL BRACE ASSEMBLIES - 140LB3

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL HS BOLTS SHALL BE A325 TYPE 1 GALVANIZED C/W 1 NUT & 1 WASHER (UN)
4- ALL STEEL SHALL BE GALVANIZED, SEE GN101
5- ALL SHOP BOLTS SHALL BE HAND TIGHTEN
6- ALL HOLES SHALL BE "CNC" DRILLED (UN)
7- WIRE-BRUSH PREPARATION 3" OF OPEN HOLES FOR FAYING SURFACES PRIOR TO BOLTING

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/5/05	F.W. Whitcomb Construction	Approval

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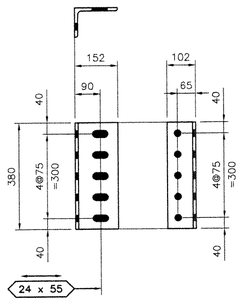
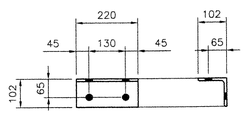
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: BOTTOM LATERAL BRACINGS	
DRAWN BY: YT 02/18/05	JOB NUMBER: 5075
CHECKED BY: GG 03/24/05	SHEET NUMBER: 140

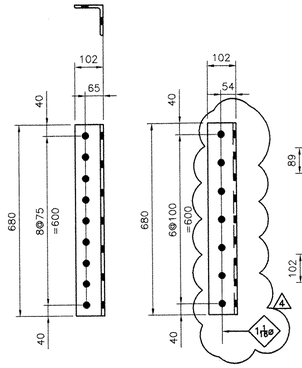
17555



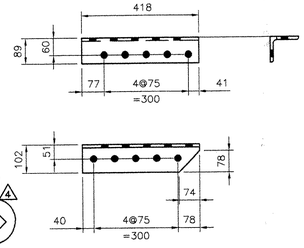
ITEM x150ma(140 REQ'D)
(L152 x 102 x 13 x 380)
M270M-GR345 (CVN) (ABM #4)



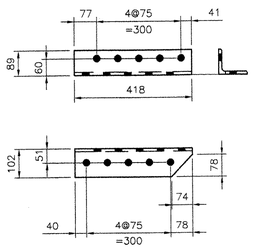
ITEM x150mb (70 REQ'D)
(L102 x 102 x 9.5 x 220)
M270M-GR345 (CVN) (ABM #5)



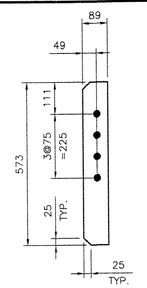
ITEM x150mc (32 REQ'D)
(L102 x 102 x 13 x 680)
M270M-GR345 (CVN) (ABM #2)



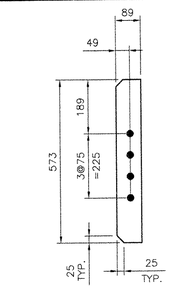
ITEM x150md (4REQ'D)
(L102 x 89 x 9.5 x 418)
M270M-GR345 (CVN) (ABM #27)



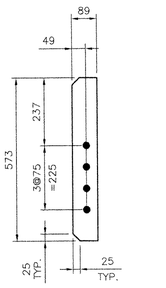
ITEM x150mf (4REQ'D)
(L102 x 89 x 9.5 x 418)
M270M-GR345 (CVN) (ABM #27)



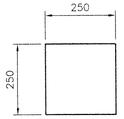
ITEM x150pa (14 REQ'D)
(PL14 x 89 x 573)
(ABM #45)



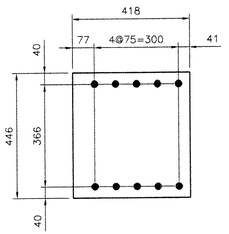
ITEM x150pb (28 REQ'D)
(PL14 x 89 x 573)
(ABM #45)



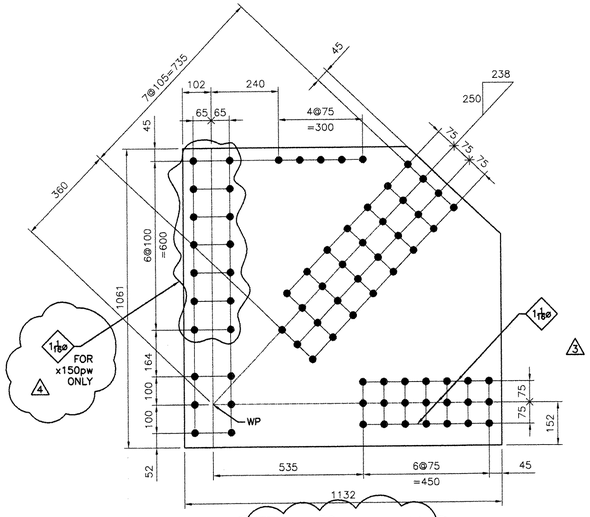
ITEM x150pc (14 REQ'D)
(PL14 x 89 x 573)
(ABM #45)



ITEM x150pd (4 REQ'D)
(PL25 x 250 x 250)
(ABM #60)

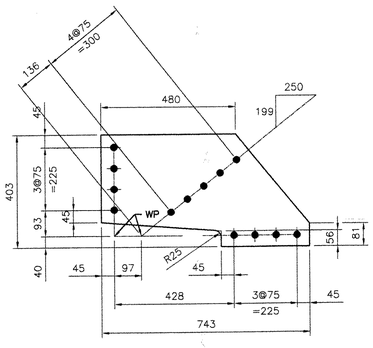


ITEM x150pf (4 REQ'D)
(PL10 x 418 x 446)
(ABM #61)

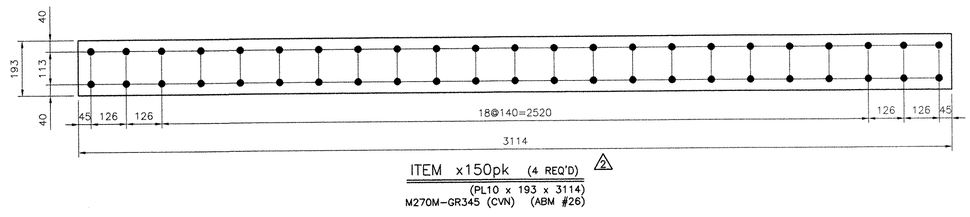


ITEM x150pw (4 REQ'D)

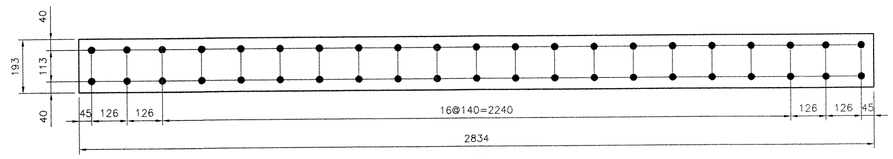
ITEM x150pg (4 REQ'D)
(PL18 x 1061 x 1132)
M270M-GR345 (CVN) (ABM #62)



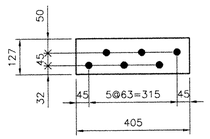
ITEM x150ph (4 REQ'D)
(PL14 x 403 x 743)
(ABM #46)



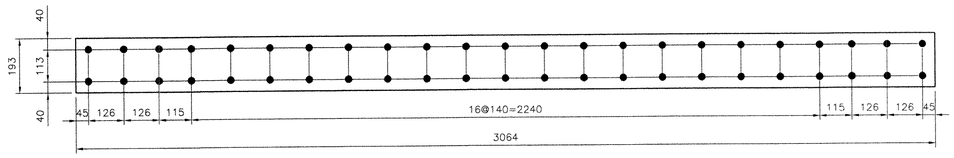
ITEM x150pk (4 REQ'D) 2
(PL10 x 193 x 3114)
M270M-GR345 (CVN) (ABM #26)



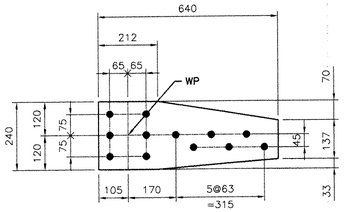
ITEM x150pn (4 REQ'D)
(PL10 x 193 x 2834)
M270M-GR345 (CVN) (ABM #26)



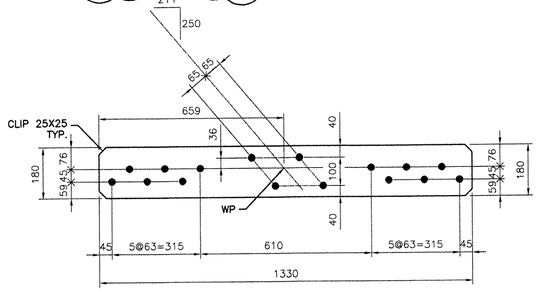
ITEM x150pm (8 REQ'D)
(PL3 x 127 x 405)
(ABM #73)



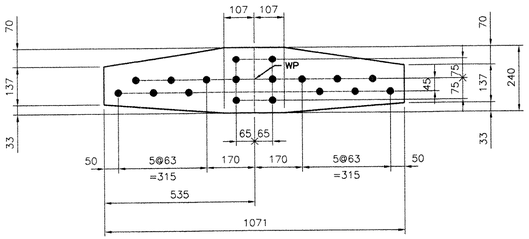
ITEM x150pv (4 REQ'D) 2
(PL10 x 193 x 3064)
M270M-GR345 (CVN) (ABM #26)



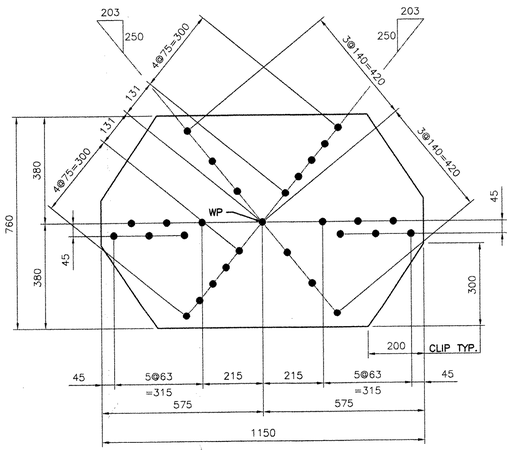
ITEM x150pr (8 REQ'D)
(PL10 x 240 x 640)
M270M-GR345 (CVN) (ABM #69)



ITEM x150pp (8 REQ'D)
(PL10 x 180 x 1330)
M270M-GR345 (CVN) (ABM #70)



ITEM x150ps (8 REQ'D)
(PL10 x 240 x 1071)
M270M-GR345 (CVN) (ABM #71)



ITEM x150pt (4 REQ'D)
(PL10 x 760 x 1150)
M270M-GR345 (CVN) (ABM #72)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

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This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

REV	DATE	DESCRIPTION
4	9/06/05	AS PER REVISED DESIGN
3	8/17/05	AS PER REVISED DESIGN
2	7/06/05	x150pk QTY & x150pv ADDED
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	9/9/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

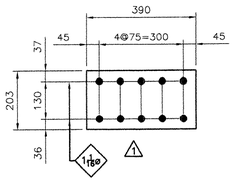
RECEIVED
OK'D BY ____ OK'D BY FWW
SEP 2 3 2005
RESUBMIT ____ APPROVED ____
BY ____ DATE 9/23/05

RESERVED FOR STAMPS

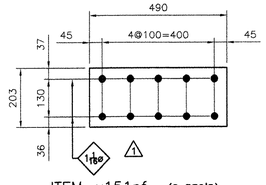
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: YT 02/16/05 | JOB NUMBER: 5075 | SHEET NUMBER: X150
CHECKED BY: GG 03/30/05

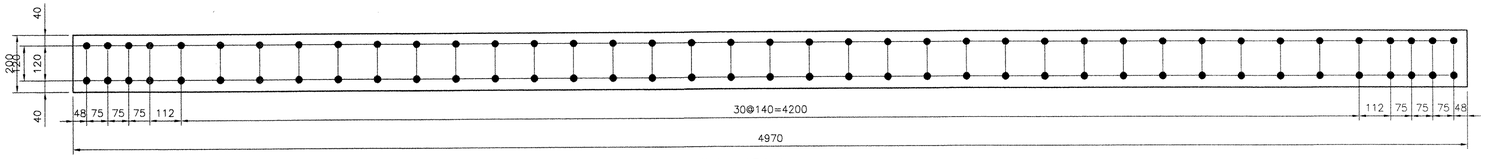
176 SS



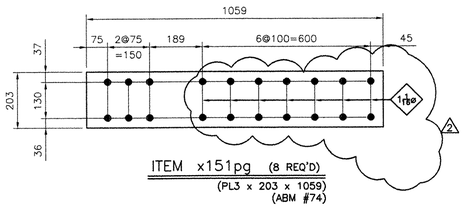
ITEM x151pa (16 REQ'D)
(PL3 x 203 x 390)
(ABM #76)



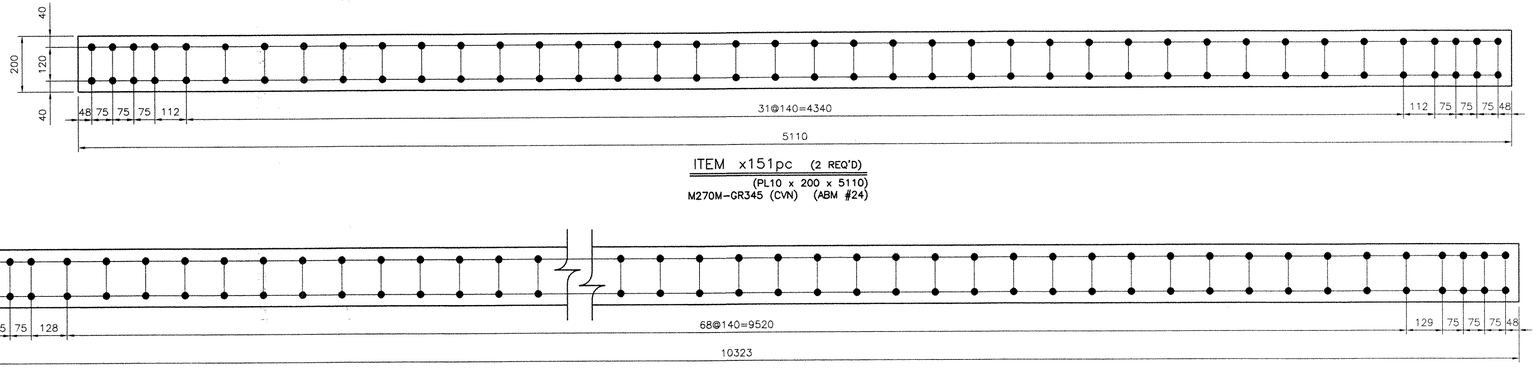
ITEM x151pf (8 REQ'D)
(PL3 x 203 x 490)
(ABM #76)



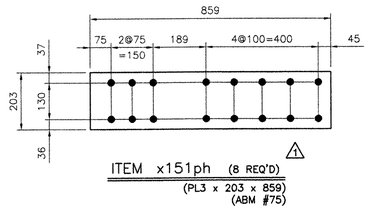
ITEM x151pb (2 REQ'D)
(PL10 x 200 x 4970)
M270M-GR345 (CVN) (ABM #24)



ITEM x151pg (8 REQ'D)
(PL3 x 203 x 1059)
(ABM #74)

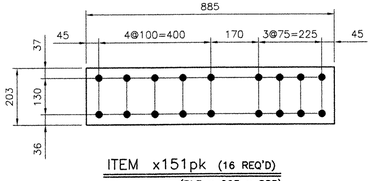


ITEM x151pc (2 REQ'D)
(PL10 x 200 x 5110)
M270M-GR345 (CVN) (ABM #24)

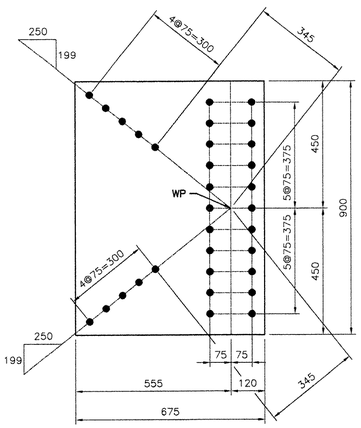


ITEM x151ph (8 REQ'D)
(PL3 x 203 x 859)
(ABM #75)

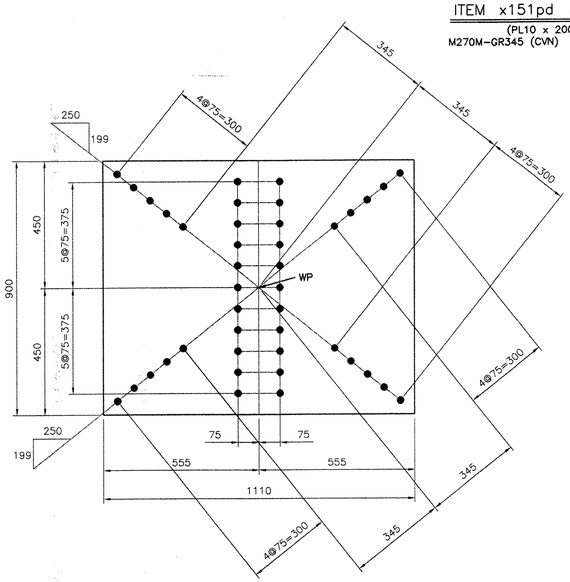
ITEM x151pd (2 REQ'D)
(PL10 x 200 x 10323)
M270M-GR345 (CVN) (ABM #22)



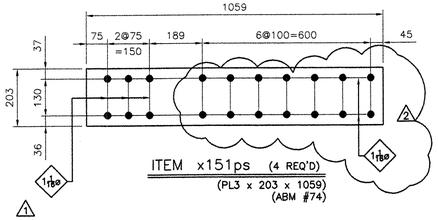
ITEM x151pk (16 REQ'D)
(PL3 x 203 x 885)
(ABM #75)



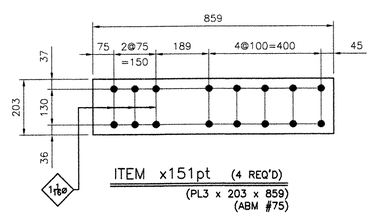
ITEM x151pm (4 REQ'D)
(PL14 x 675 x 900)
(ABM #48)



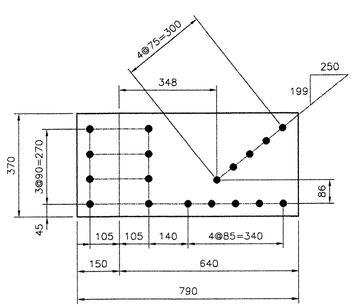
ITEM x151pn (2 REQ'D)
(PL14 x 900 x 1110)
(ABM #49)



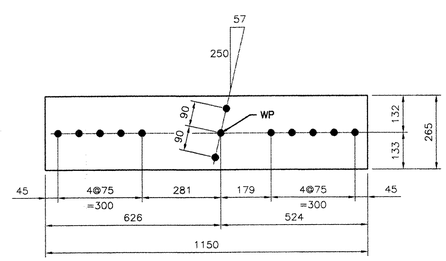
ITEM x151ps (4 REQ'D)
(PL3 x 203 x 1059)
(ABM #74)



ITEM x151pt (4 REQ'D)
(PL3 x 203 x 859)
(ABM #75)



ITEM x151pp (12 REQ'D)
(PL14 x 370 x 790)
(ABM #47)



ITEM x151pr (2 REQ'D)
(PL14 x 265 x 1150)
(ABM #50)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RECEIVED
CK'D BY _____ CK'D BY MAM
SEP 23 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
2	9/06/05	AS PER REVISED DESIGN
1	8/17/05	AS PER REVISED DESIGN

QTY	DATE	ISSUED TO	FOR
8	9/19/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

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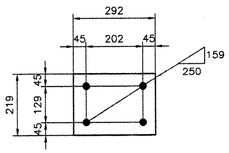
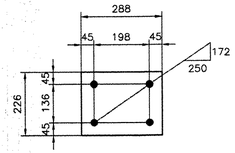
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: YT 02/22/05
CHECKED BY: GG 03/30/05
JOB NUMBER: 5075
SHEET NUMBER: X151

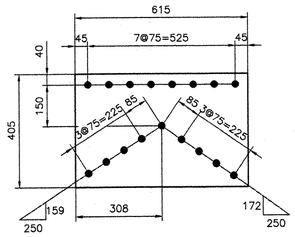
17755



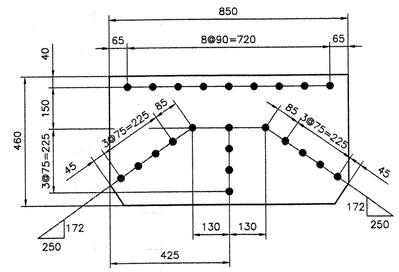
ITEM x152pa (4 REQ'D)
(PL10 x 219 x 292)
(ABM #83)



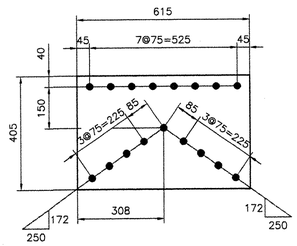
ITEM x152pb (8 REQ'D)
(PL10 x 226 x 288)
(ABM #83)



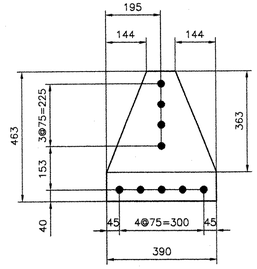
ITEM x152pf (4 REQ'D)
(PL10 x 405 x 615)
(ABM #82)



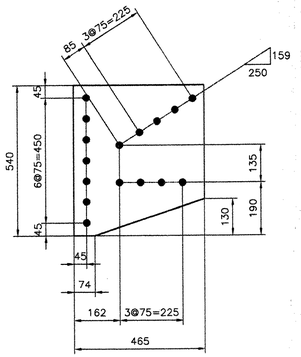
ITEM x152ph (4 REQ'D)
(PL10 x 460 x 850)
(ABM #81)



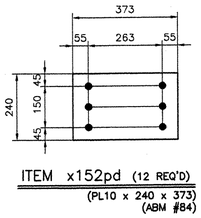
ITEM x152pm (2 REQ'D)
(PL10 x 405 x 615)
(ABM #82)



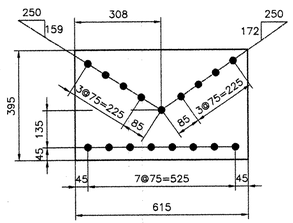
ITEM x152pp (4 REQ'D)
(PL10 x 390 x 463)
(ABM #82)



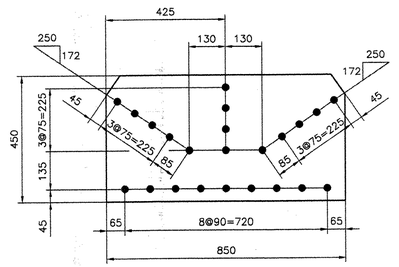
ITEM x152pc (4 REQ'D)
(PL10 x 465 x 540)
(ABM #79)



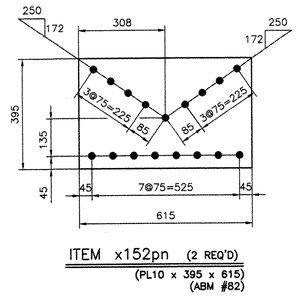
ITEM x152pd (12 REQ'D)
(PL10 x 240 x 373)
(ABM #84)



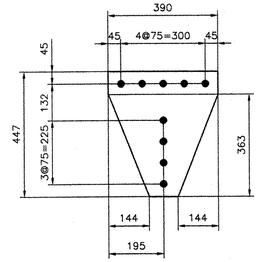
ITEM x152pg (4 REQ'D)
(PL10 x 395 x 615)
(ABM #82)



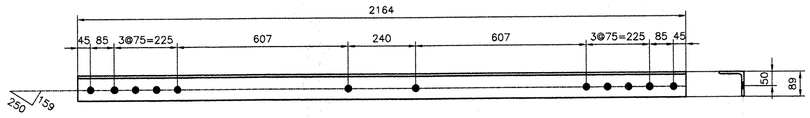
ITEM x152pk (4 REQ'D)
(PL10 x 450 x 850)
(ABM #81)



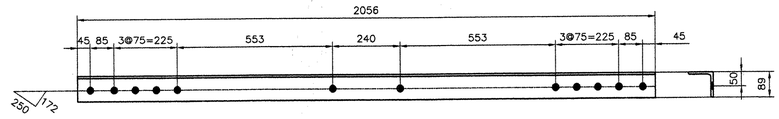
ITEM x152pn (2 REQ'D)
(PL10 x 395 x 615)
(ABM #82)



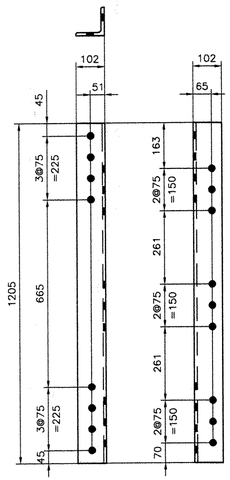
ITEM x152pr (4 REQ'D)
(PL10 x 390 x 447)
(ABM #82)



ITEM x152ma (8 REQ'D)
(L89 x 89 x 9.5 x 2164)
(ABM #30)



ITEM x152mb (16 REQ'D)
(L89 x 89 x 9.5 x 2056)
(ABM #30)



ITEM x152mc (8 REQ'D)
(L102 x 102 x 9.5 x 1205)
(ABM #29)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

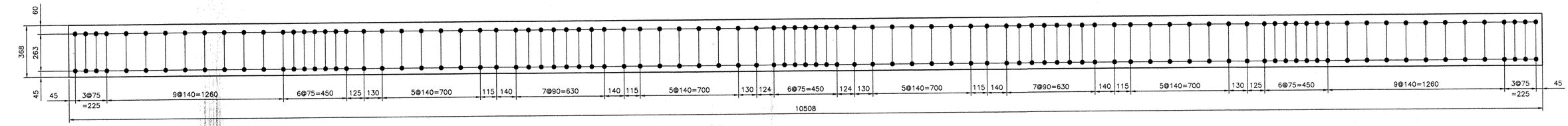
QTY	DATE	ISSUED TO	FOR
8 -	4/5/05	F.W. Whitcomb Construction	Approval

NOTICE
This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC

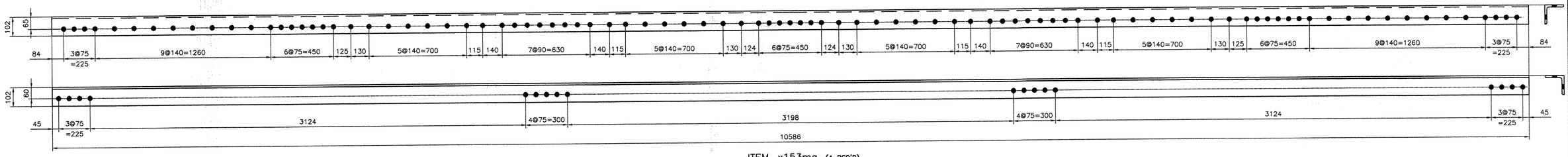
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: YT 02/24/05
CHECKED BY: GG 03/31/05
JOB NUMBER: 5075
SHEET NUMBER: X152

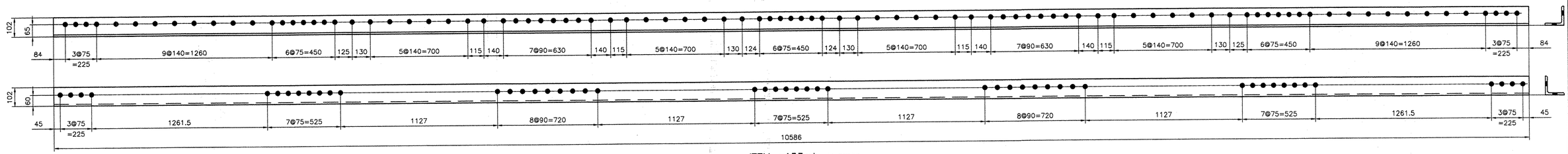
17855



ITEM x153pa (4 REQ'D)
(PL10 x 368 x 10508)
(ABM #31)



ITEM x153ma (4 REQ'D)
(L102x102x9.5 x 10586)
(ABM #28)



ITEM x153mb (4 REQ'D)
(L102x102x9.5 x 10586)
(ABM #28)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	4/5/05	F.W. Whitcomb Construction	Approval

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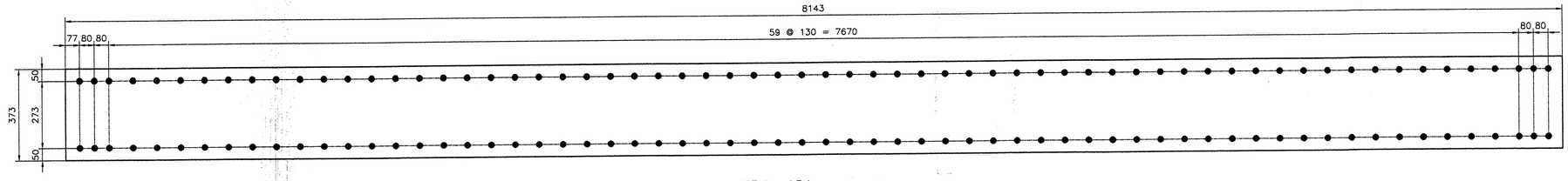
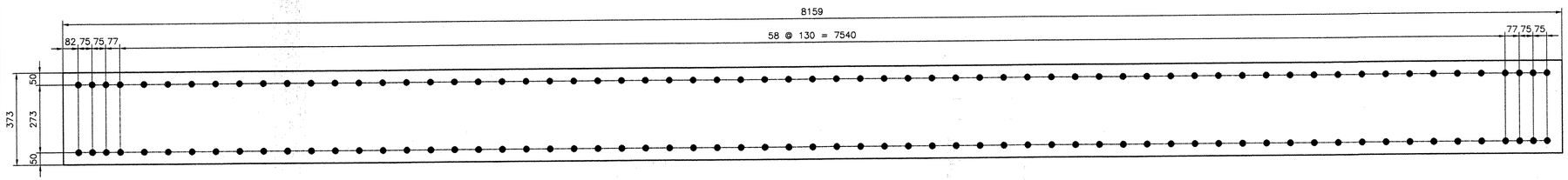
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER			
LOCATION: TOWN OF JAMAICA			
ENGINEER: CLD CONSULTING ENGINEERS			
CUSTOMER: VERMONT A. O. T.			
DRAWING TITLE: DETAILS			
DRAWN BY: YT	02/24/05	JOB NUMBER: 5075	SHEET NUMBER: X153
CHECKED BY: GG	03/31/05		

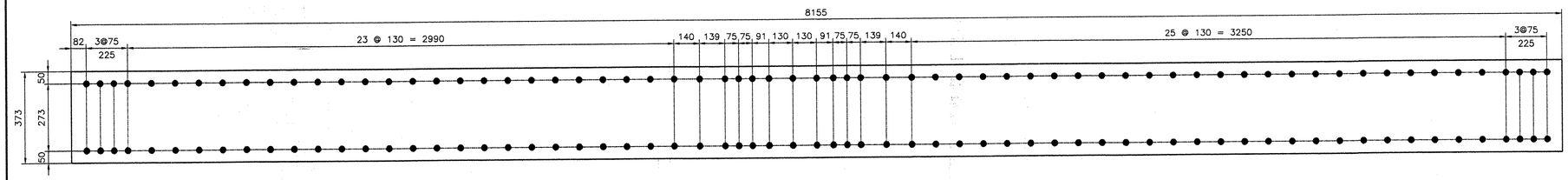
14955



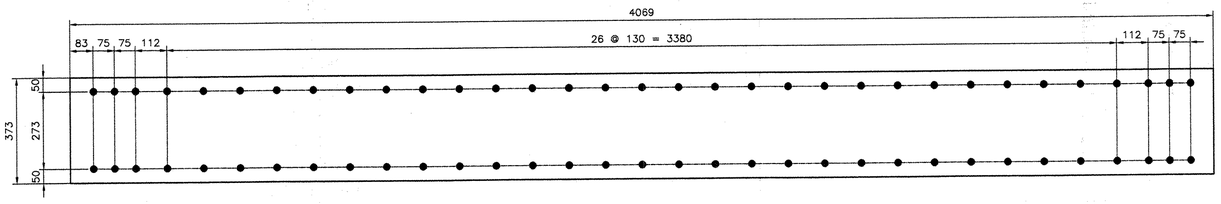
ITEM x154pa (4 REQ'D)
(PL8x373x8143)
(ABM #42)



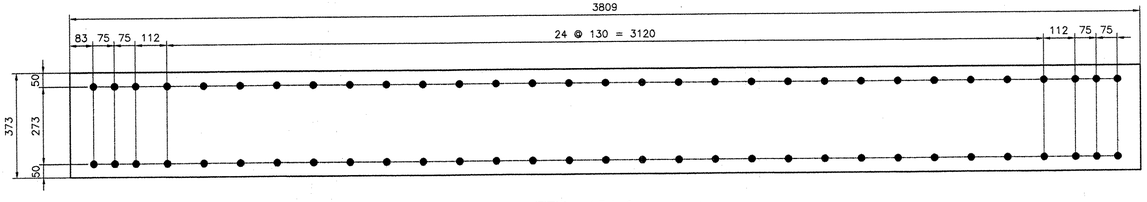
ITEM x154pb (4 REQ'D)
(PL8x373x8159)
(ABM #42)



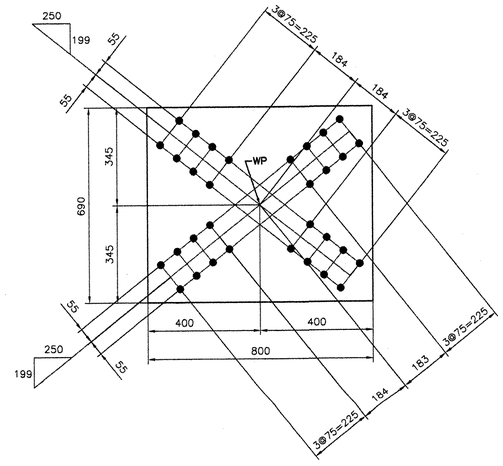
ITEM x154pc (2 REQ'D)
(PL8x373x8155)
(ABM #42)



ITEM x154pd (2 REQ'D)
(PL8x373x4069)
(ABM #44)



ITEM x154pf (2 REQ'D)
(PL8x373x3809)
(ABM #44)



ITEM x154pg (4 REQ'D)
(PL14 x 690 x 800)
(ABM #93)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

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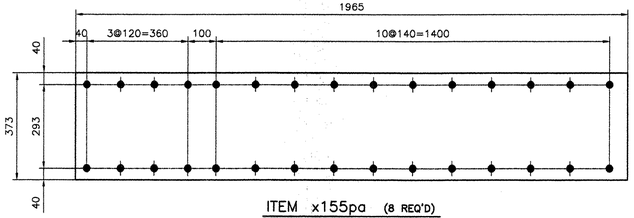
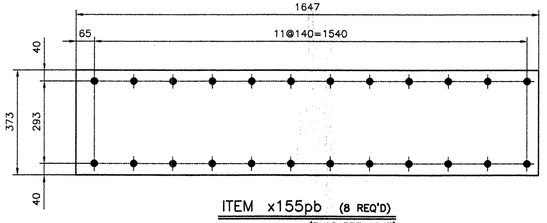
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: BR 03/02/05
CHECKED BY: GG 04/04/05
JOB NUMBER: 5075
SHEET NUMBER: X154

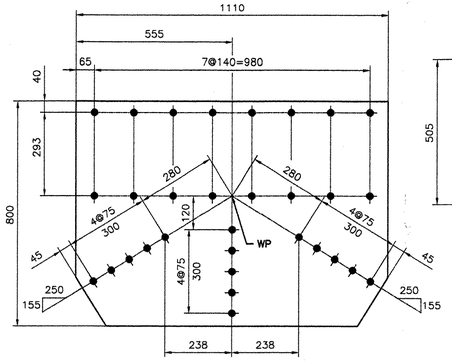
18055



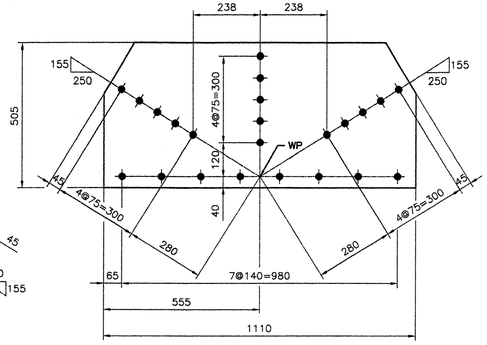
ITEM x155pa (8 REQ'D)
(PL10x373x1965)
(ABM #33)



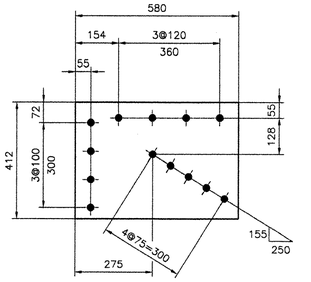
ITEM x155pb (8 REQ'D)
(PL10x373x1647)
(ABM #33)



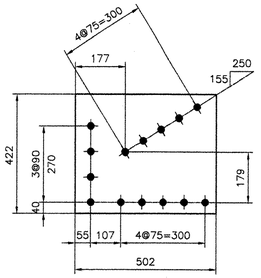
ITEM x155pc (6 REQ'D)
(PL10x800x1110)
(ABM #85)



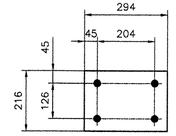
ITEM x155pk (6 REQ'D)
(PL10x505x1110)
(ABM #88)



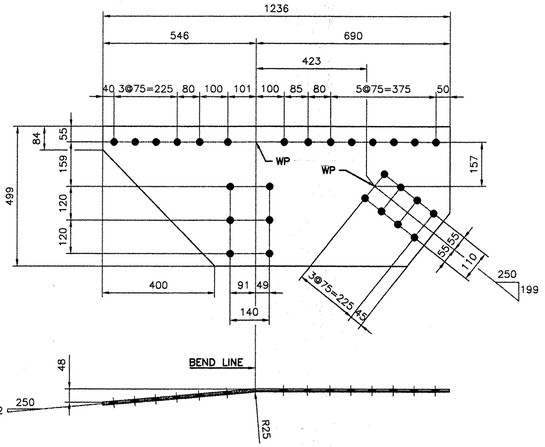
ITEM x155pg (4 REQ'D)
(PL10x412x580)
(ABM #87)



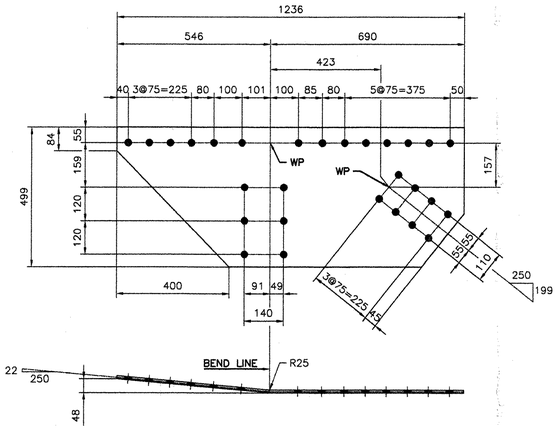
ITEM x155ph (4 REQ'D)
(PL10x422x502)
(ABM #87)



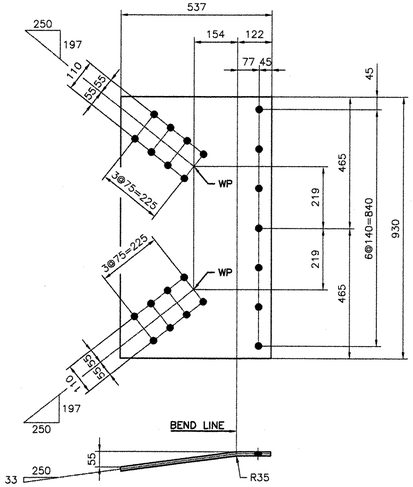
ITEM x155pf (8 REQ'D)
(PL10x216x294)
(ABM #86)



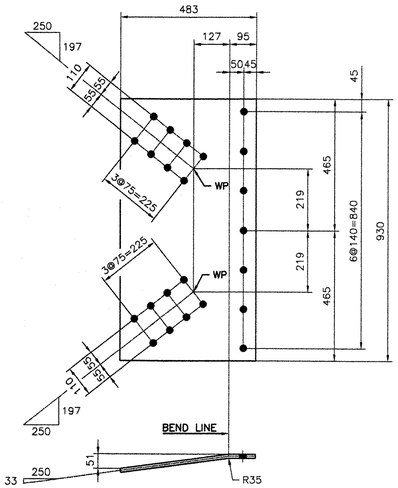
ITEM x155pr (2 REQ'D)
(PL10x499x1236)
M270M-GR345 (CVN) (ABM #90)



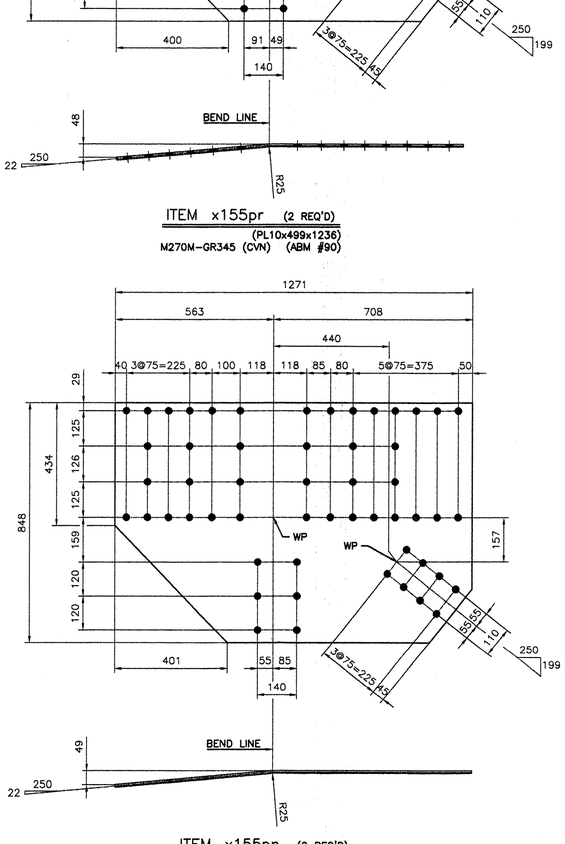
ITEM x155ps (2 REQ'D)
(PL10x499x1236)
M270M-GR345 (CVN) (ABM #90)



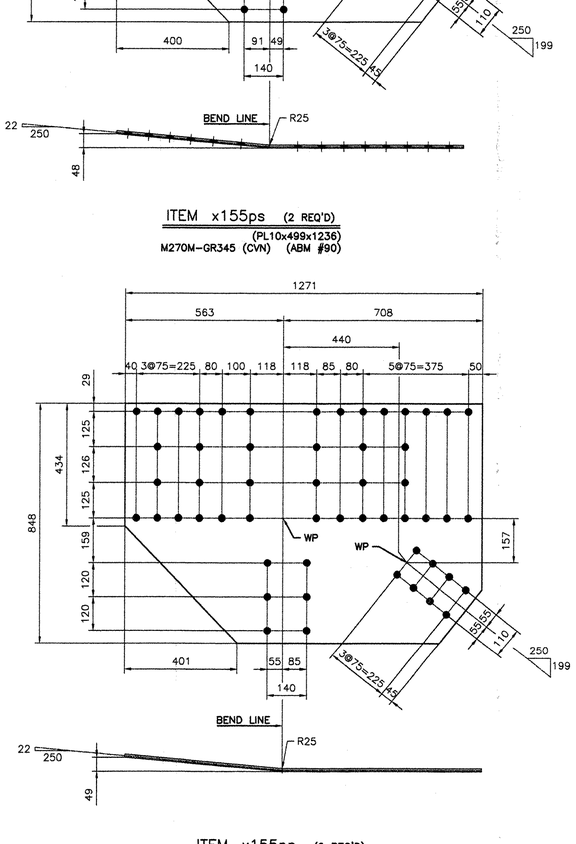
ITEM x155pt (2 REQ'D)
(PL14x537x930)
(ABM #91)



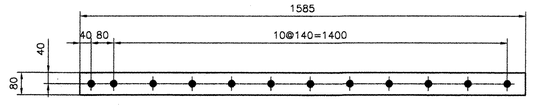
ITEM x155pv (2 REQ'D)
(PL14x483x930)
(ABM #91)



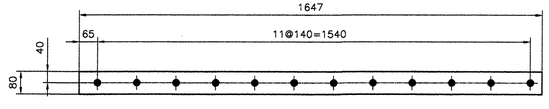
ITEM x155pn (2 REQ'D)
(PL10x848x1271)
M270M-GR345 (CVN) (ABM #89)



ITEM x155pp (2 REQ'D)
(PL10x848x1271)
M270M-GR345 (CVN) (ABM #89)



ITEM x155pm (8 REQ'D)
(PL10x80x1585)
(ABM #35)



ITEM x155pd (8 REQ'D)
(PL10x80x1647)
(ABM #35)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

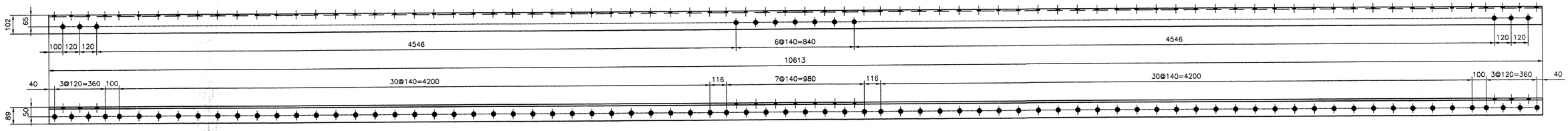
QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

NOTICE
This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

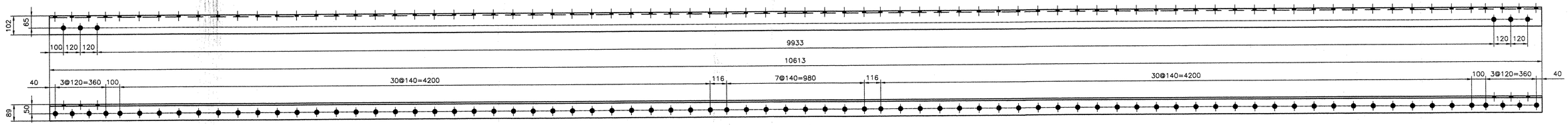
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER	
LOCATION: TOWN OF JAMAICA	
ENGINEER: CLD CONSULTING ENGINEERS	
CUSTOMER: VERMONT A. O. T.	
DRAWING TITLE: DETAILS	
DRAWN BY: BR 03/02/05	JOB NUMBER: 5075
CHECKED BY: GG 04/01/05	SHEET NUMBER: X155

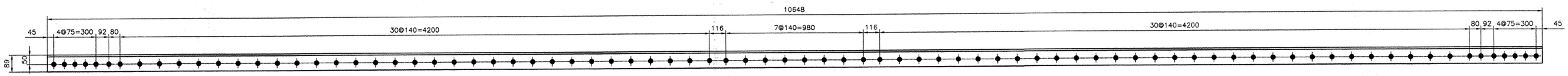
18155



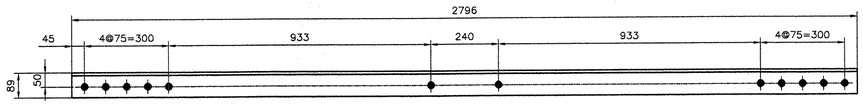
ITEM x156ma (8 REQ'D)
(L102x89x9.5x10613)
(ABM #32)



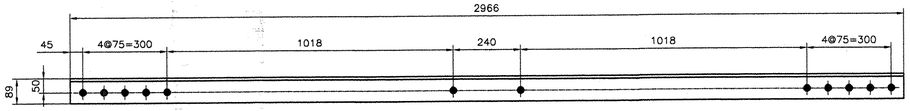
ITEM x156mr (8 REQ'D)
(L102x89x9.5x10613)
(ABM #32)



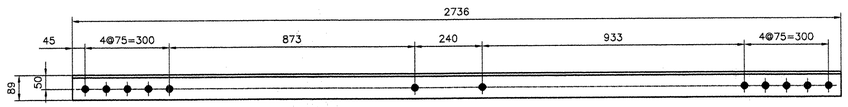
ITEM x156mb (8 REQ'D)
(L102x89x9.5x10648)
(ABM #34)



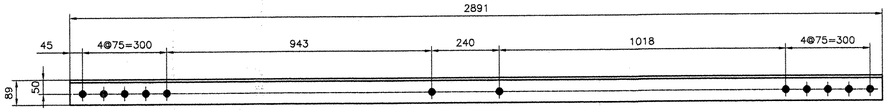
ITEM x156mc (8 REQ'D)
(L89x89x9.5x2796)
(ABM #38)



ITEM x156mw (8 REQ'D)
(L89x89x9.5x2966)
(ABM #39)



ITEM x156md (4 REQ'D)
(L89x89x9.5x2736)
(ABM #38)



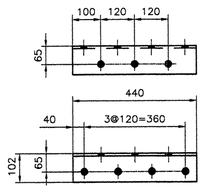
ITEM x156ms (4 REQ'D)
(L89x89x9.5x2891)
(ABM #39)

ITEM x156mf (4 REQ'D)
(L89x89x9.5x2596)
(ABM #38)

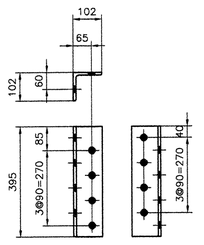
ITEM x156mt (4 REQ'D)
(L89x89x9.5x2816)
(ABM #39)

ITEM x156mg (12 REQ'D)
(L89x89x9.5x1570)
(ABM #36)

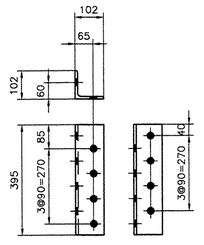
ITEM x156mv (12 REQ'D)
(L89x89x9.5x1875)
(ABM #37)



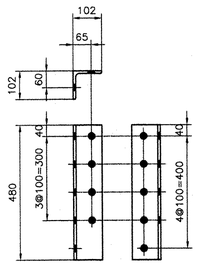
ITEM x156mh (16 REQ'D)
(L102x102x9.5x440)
(ABM #40)



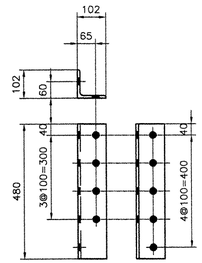
ITEM x156mn (8 REQ'D)
(L102x102x9.5x395)
(ABM #40)



ITEM x156mp (8 REQ'D)
(L102x102x9.5x395)
(ABM #40)



ITEM x156mk (8 REQ'D)
(L102x102x9.5x480)
(ABM #40)



ITEM x156mm (8 REQ'D)
(L102x102x9.5x480)
(ABM #40)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

tenca 1010

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

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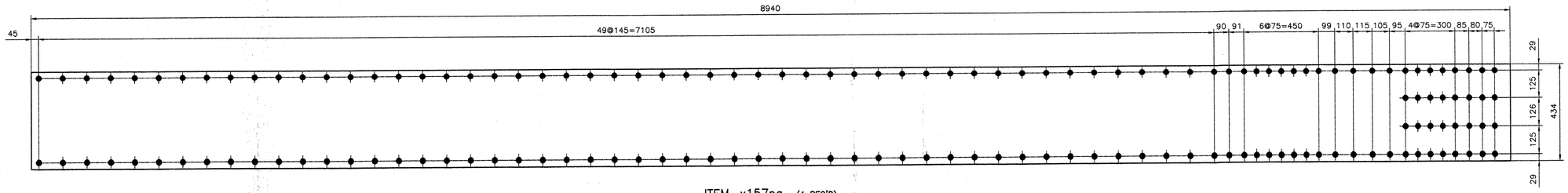
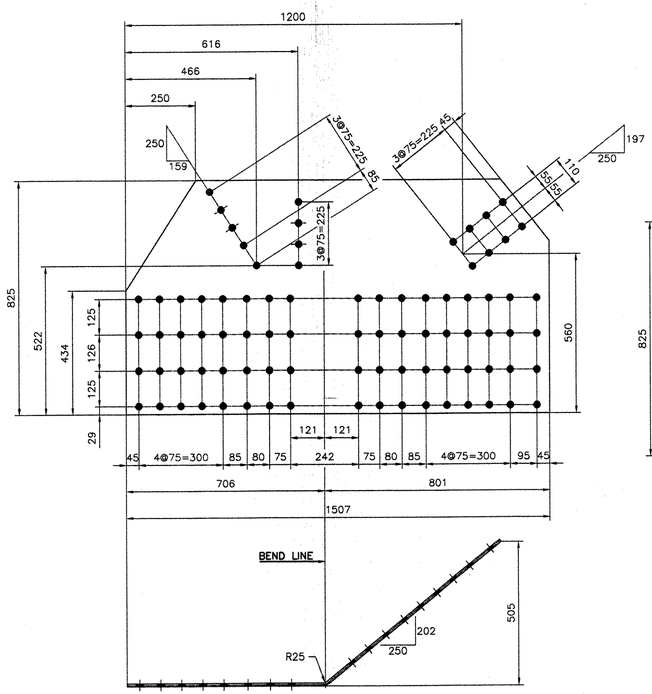
PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	DETAILS
DRAWN BY: BR	03/02/05
CHECKED BY: GG	04/01/05
JOB NUMBER:	5075
SHEET NUMBER:	X156

182 55

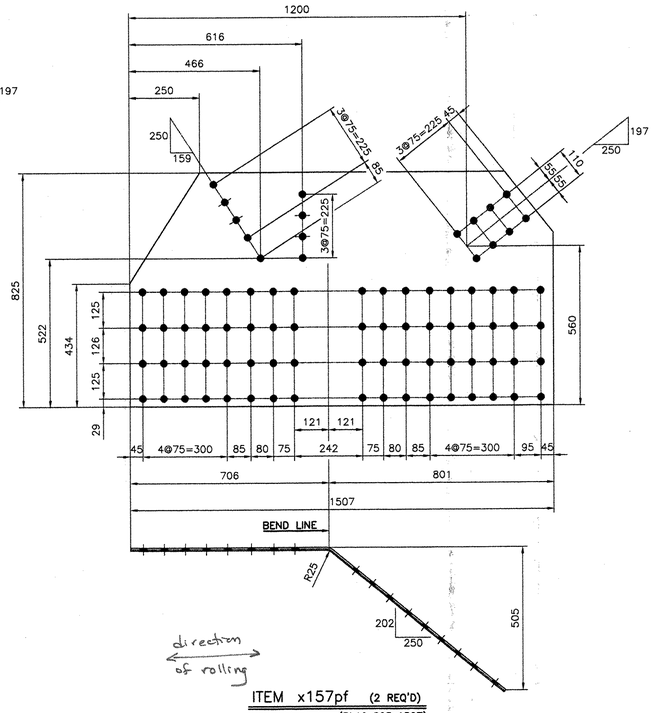


ITEM x157pa (4 REQ'D)
(PL12x434x8940)
M270M-GR345 (CVN) (ABM #12)



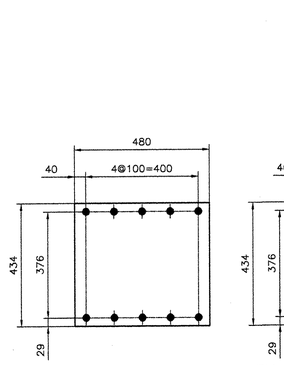
direction of rolling

ITEM x157pr (2 REQ'D)
(PL10x825x1507)
M270M-GR345 (CVN) (ABM #77)

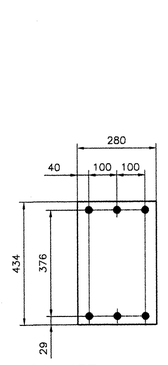


direction of rolling

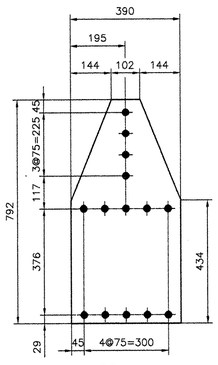
ITEM x157pf (2 REQ'D)
(PL10x825x1507)
M270M-GR345 (CVN) (ABM #77)



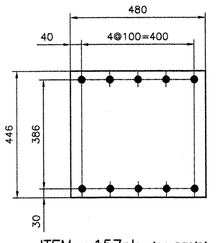
ITEM x157pb (28 REQ'D)
(PL10x434x480)
(ABM #53)



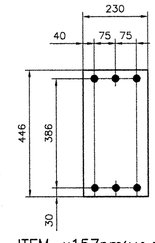
ITEM x157pc (128 REQ'D)
(PL10x280x434)
(ABM #54)



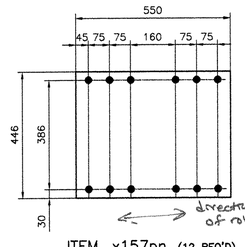
ITEM x157pd (4 REQ'D)
(PL10x390x792)
(ABM #80)



ITEM x157pk (44 REQ'D)
(PL10x446x480)
(ABM #51)

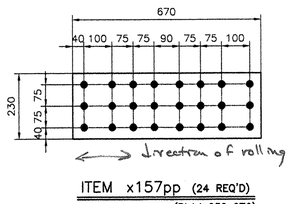


ITEM x157pm(116 REQ'D)
(PL10x230x446)
(ABM #52)

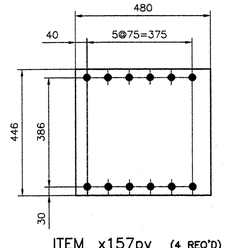


direction of rolling

ITEM x157pn (12 REQ'D)
(PL14x446x550)
M270M-GR345 (CVN) (ABM #57)



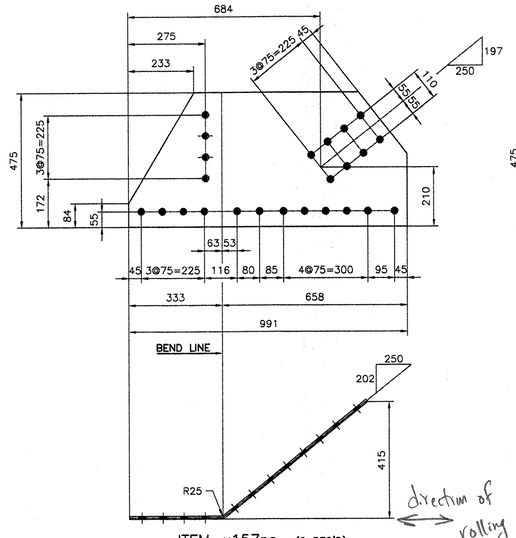
ITEM x157pp (24 REQ'D)
(PL14x230x670)
M270M-GR345 (CVN) (ABM #55)



ITEM x157pv (4 REQ'D)
(PL10x446x480)
(ABM #51)

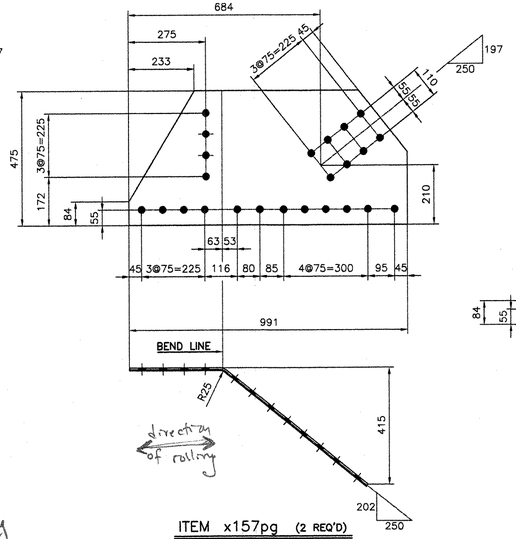
NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)



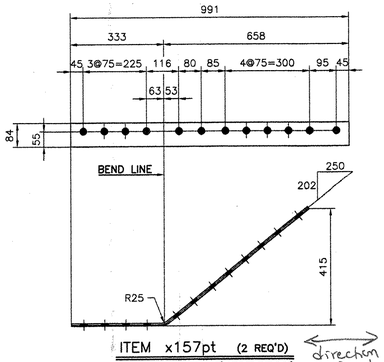
direction of rolling

ITEM x157ps (2 REQ'D)
(PL10x475x991)
M270M-GR345 (CVN) (ABM #78)



direction of rolling

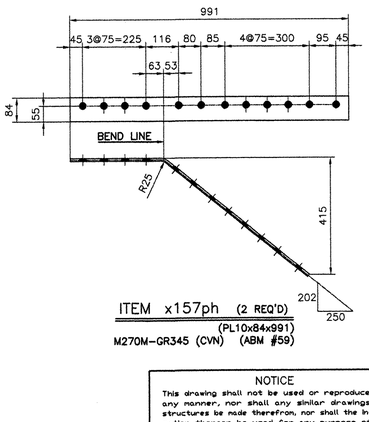
ITEM x157pg (2 REQ'D)
(PL10x475x991)
M270M-GR345 (CVN) (ABM #78)



ITEM x157pt (2 REQ'D)
(PL10x84x991)
M270M-GR345 (CVN) (ABM #59)

direction of rolling

direction of rolling



ITEM x157ph (2 REQ'D)
(PL10x84x991)
M270M-GR345 (CVN) (ABM #59)

NOTICE

This drawing shall not be used or reproduced in any manner, nor shall any similar drawings or structures be made therefrom, nor shall the information thereon be used for any purpose other than that for which it is released without the written consent of an officer of EASTERN BRIDGE LLC.

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

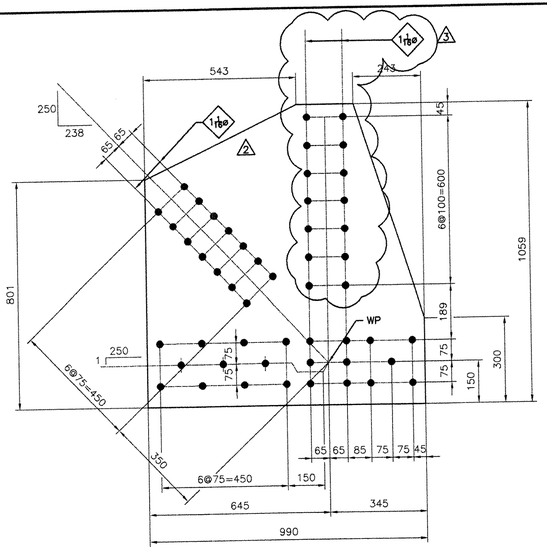
tenca 1010

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

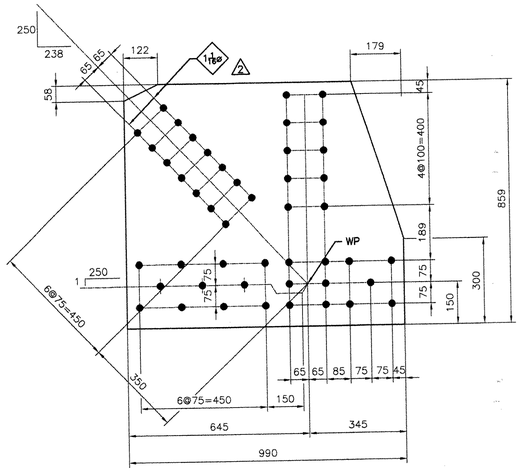
PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS

DRAWN BY: BR	03/04/05	JOB NUMBER: 5075	SHEET NUMBER: X157
CHECKED BY: GG	03/30/05		

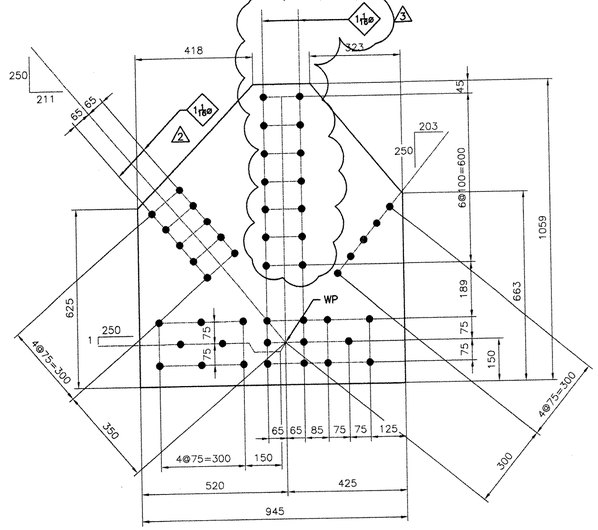
18355



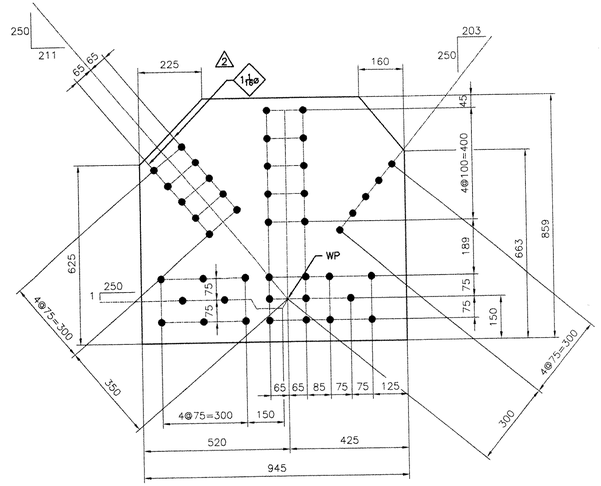
ITEM x158pa (4 REQ'D)
(PL18x990x1059)
M270M-GR345 (CVN) (ABM #64)



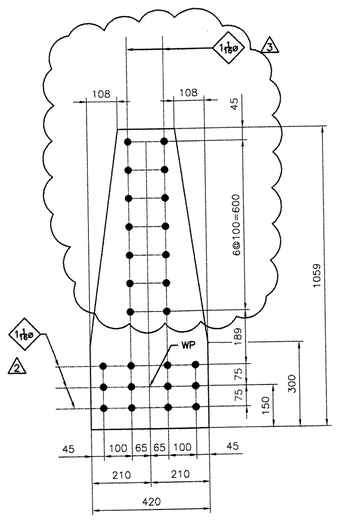
ITEM x158pb (4 REQ'D)
(PL18x859x990)
M270M-GR345 (CVN) (ABM #64)



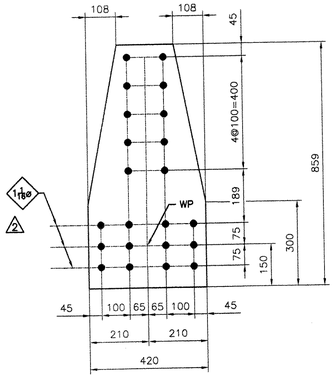
ITEM x158pc (4 REQ'D)
(PL18x945x1059)
M270M-GR345 (CVN) (ABM #65)



ITEM x158pd (4 REQ'D)
(PL18x859x945)
M270M-GR345 (CVN) (ABM #65)



ITEM x158pf (4 REQ'D)
(PL18x420x1059)
M270M-GR345 (CVN) (ABM #63)



ITEM x158pg (4 REQ'D)
(PL18x420x859)
M270M-GR345 (CVN) (ABM #63)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RECEIVED
CK'D BY _____ OK'D BY MRM
SEP 23 2005
RESUBMIT _____ APPROVED _____
BY DATE 9/23/05

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION
3	9/06/05	AS PER REVISED DESIGN
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	9/9/05	F.W. Whitcomb	APPROVAL
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

NOTICE
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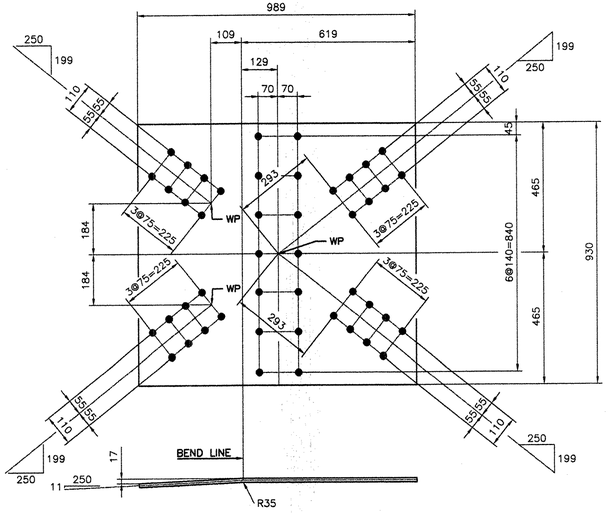
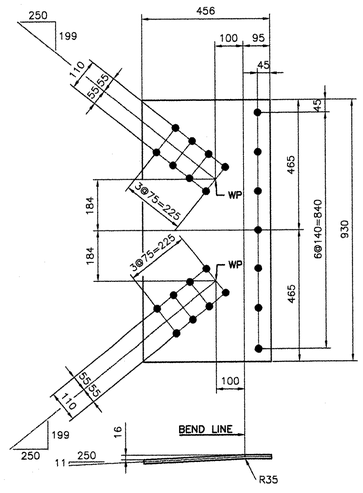
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: BR 03/04/05
CHECKED BY: GG 03/30/05
JOB NUMBER: 5075
SHEET NUMBER: X158

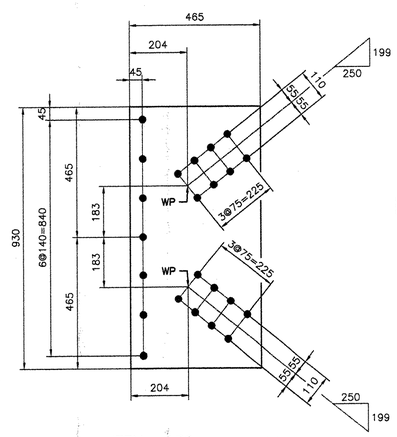
18455



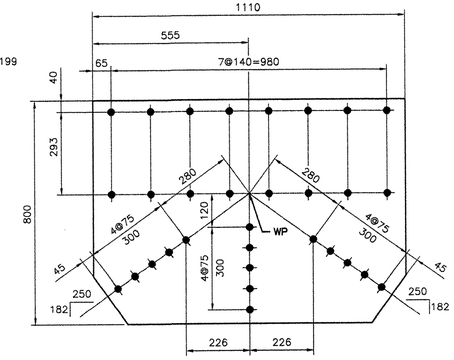
ITEM x159pg (2 REQ'D)
(PL14x930x989)
(ABM #92)



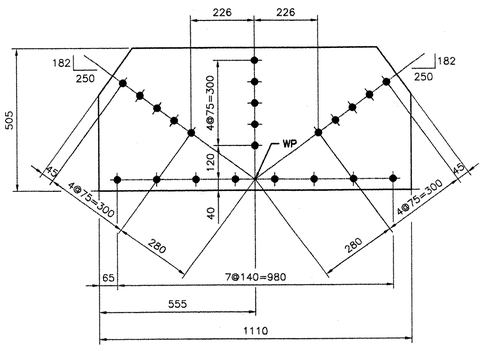
ITEM x159ph (2 REQ'D)
(PL14x930x456)
(ABM #91)



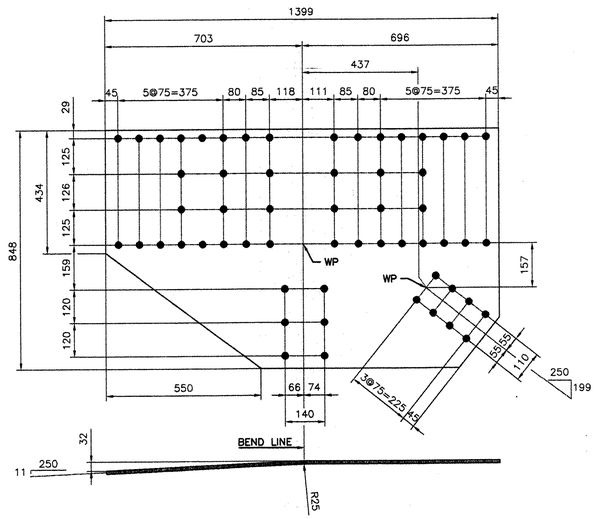
ITEM x159pr (2 REQ'D)
(PL14x930x465)
(ABM #91)



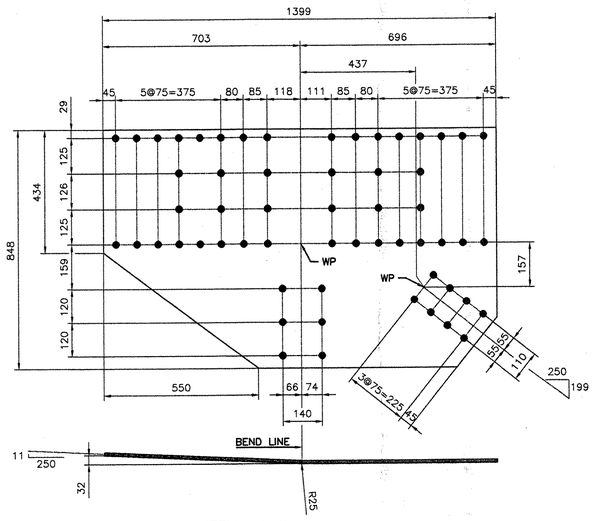
ITEM x159pa (6 REQ'D)
(PL10x800x1110)
(ABM #85)



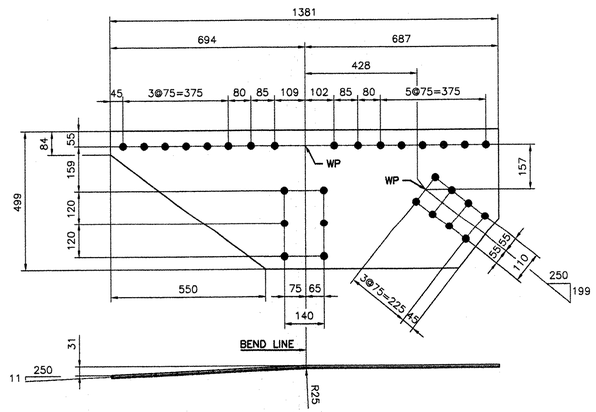
ITEM x159pb (6 REQ'D)
(PL10x505x1110)
(ABM #88)



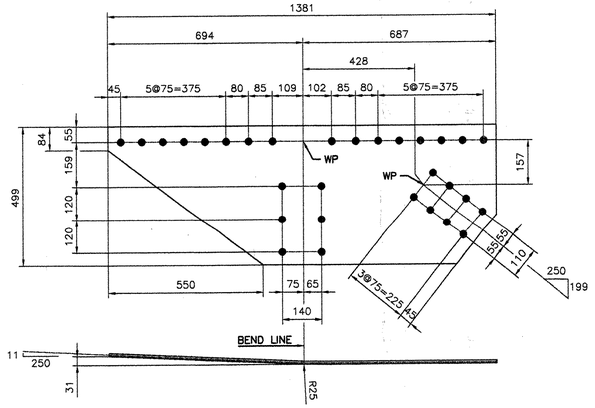
ITEM x159pk (2 REQ'D)
(PL10x848x1399)
M270M-GR345 (CVN) (ABM #89)



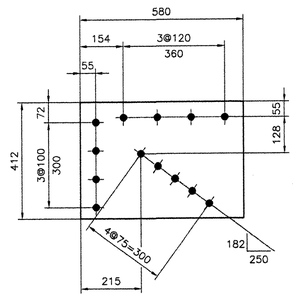
ITEM x159pm (2 REQ'D)
(PL10x848x1399)
M270M-GR345 (CVN) (ABM #89)



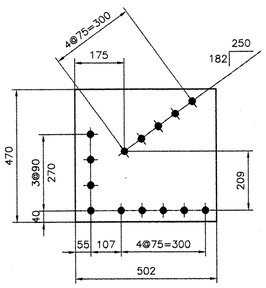
ITEM x159pn (2 REQ'D)
(PL10x499x1381)
M270M-GR345 (CVN) (ABM #90)



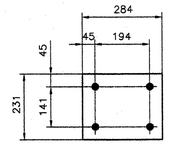
ITEM x159pp (2 REQ'D)
(PL10x499x1381)
M270M-GR345 (CVN) (ABM #90)



ITEM x159pc (4 REQ'D)
(PL10x412x580)
(ABM #87)



ITEM x159pd (4 REQ'D)
(PL10x470x502)
(ABM #87)



ITEM x159pf (8 REQ'D)
(PL10x231x284)
(ABM #86)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RESERVED FOR STAMPS

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

NOTICE
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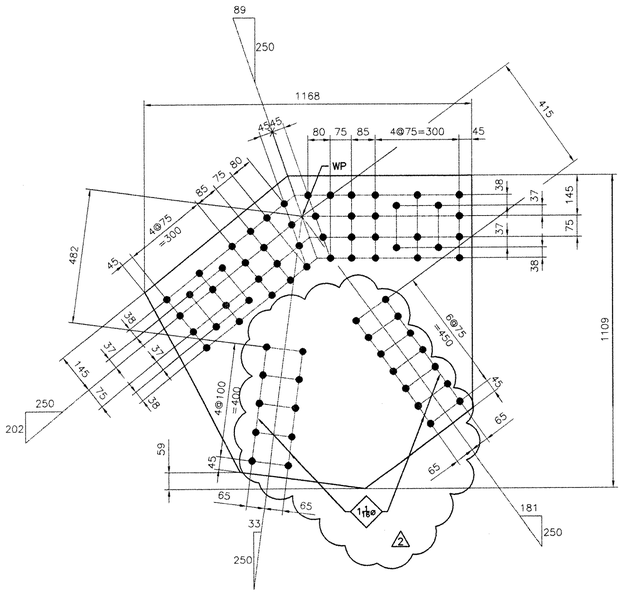
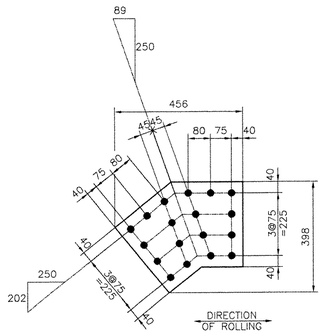
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT:	ROUTE 100 OVER THE WEST RIVER
LOCATION:	TOWN OF JAMAICA
ENGINEER:	CLD CONSULTING ENGINEERS
CUSTOMER:	VERMONT A. O. T.
DRAWING TITLE:	DETAILS
DRAWN BY: BR	03/02/05
CHECKED BY: GG	04/04/05
JOB NUMBER:	5075
SHEET NUMBER:	X159

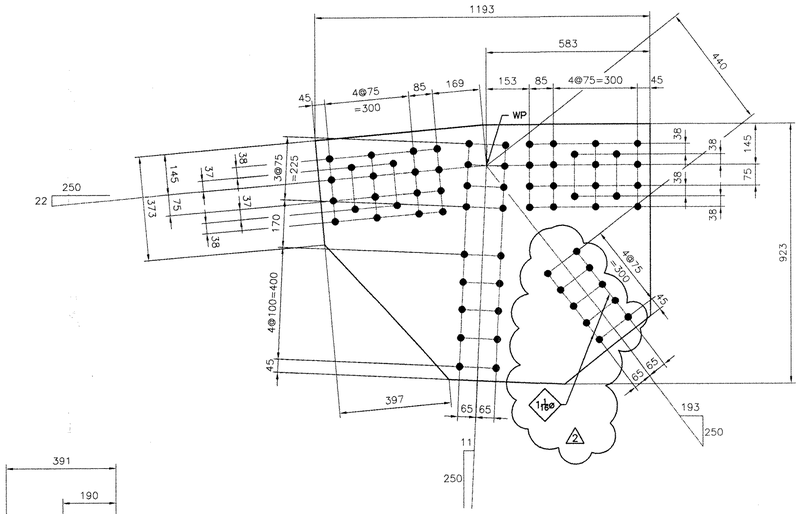
185 55



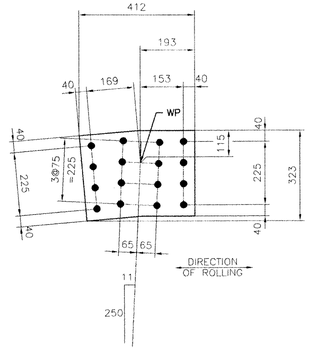
ITEM x160pa (8 REQ'D)
(PL18x1109x1168)
M270M-GR345 (CVN) (ABM #66)



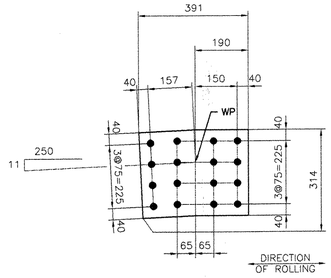
ITEM x160pb (8 REQ'D)
(PL18x398x456)
M270M-GR345 (CVN) (ABM #58)



ITEM x160pc (8 REQ'D)
(PL18x923x1193)
M270M-GR345 (CVN) (ABM #67)

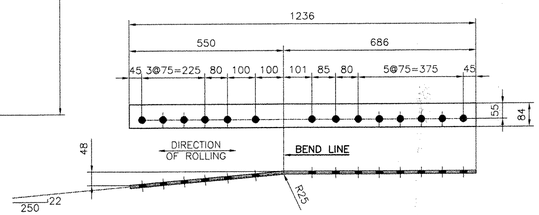


ITEM x160pd (8 REQ'D)
(PL18x323x412)
M270M-GR345 (CVN) (ABM #58)

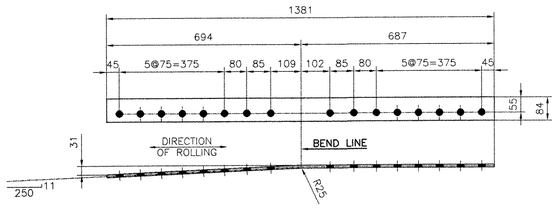


ITEM x160pg (8 REQ'D)
(PL18x314x391)
M270M-GR345 (CVN) (ABM #58)

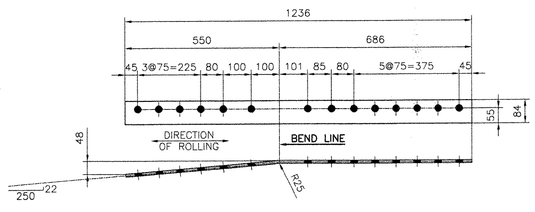
ITEM x160pf (8 REQ'D)
(PL18x910x1173)
M270M-GR345 (CVN) (ABM #68)



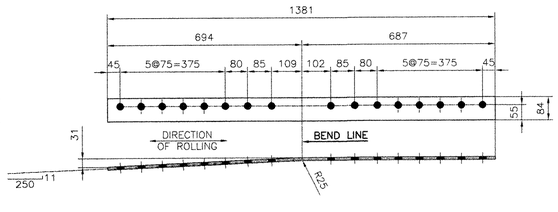
ITEM x160ph (2 REQ'D)
(PL10x84x1236)
M270M-GR345 (CVN) (ABM #59)



ITEM x160pk (2 REQ'D)
(PL10x84x1381)
M270M-GR345 (CVN) (ABM #59)



ITEM x160pn (2 REQ'D)
(PL10x84x1236)
M270M-GR345 (CVN) (ABM #59)



ITEM x160pm (2 REQ'D)
(PL10x84x1381)
M270M-GR345 (CVN) (ABM #59)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

RECEIVED
CK'D BY _____ CK'D BY FWM
AUG 24 2005
RESUBMIT _____ APPROVED _____
BY DATE 9/23/05

RESERVED FOR STAMPS

NOTICE
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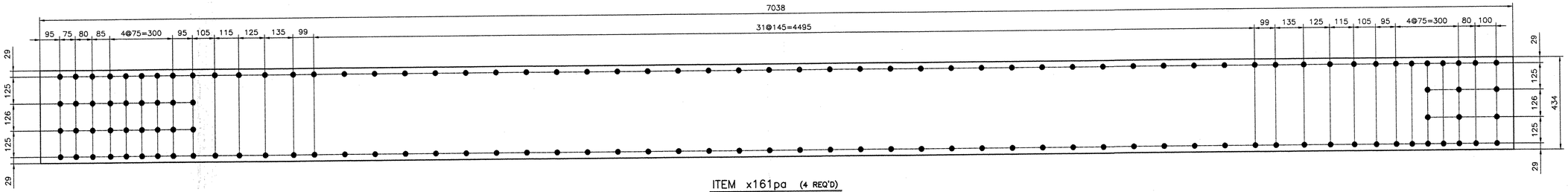
REV	DATE	DESCRIPTION
2	8/17/05	AS PER REVISED DESIGN
1	6/20/05	AS PER APPROVAL COMMENTS

QTY	DATE	ISSUED TO	FOR
8	8/22/05	F.W. Whitcomb	Approval
8	4/8/05	F.W. WHITCOMB CONSTRUCTION	APPROVAL

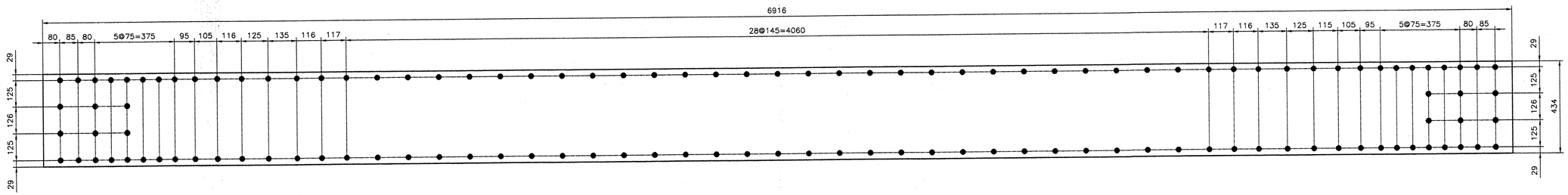
tenca 1010
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: BR 03/04/05 | JOB NUMBER: 5075 | SHEET NUMBER: X160
CHECKED BY: GG 03/30/05

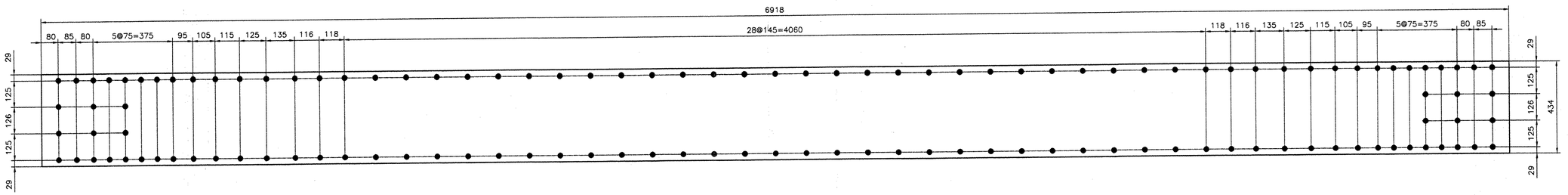
186 53



ITEM x161pa (4 REQ'D)
(PL12x434x7038)
M270M-GR345 (CVN) (ABM #14)



ITEM x161pb (4 REQ'D)
(PL12x434x6916)
M270M-GR345 (CVN) (ABM #14)



ITEM x161pc (2 REQ'D)
(PL12x434x6918)
M270M-GR345 (CVN) (ABM #14)

RESERVED FOR STAMPS

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

REV	DATE	DESCRIPTION

QTY	DATE	ISSUED TO	FOR
8	4/8/05	F.W. Whitcomb Construction	Approval

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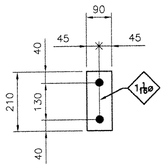
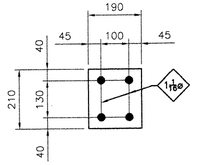
EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS
DRAWN BY: YT 03/15/05
CHECKED BY: GG 03/30/05
JOB NUMBER: 5075
SHEET NUMBER: X161

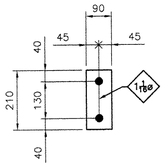
18755



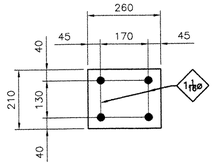
ITEM x162pa (24 REQ'D)
(PL21 x 90 x 210)



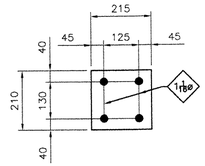
ITEM x162pb (24 REQ'D)
(PL18 x 190 x 210)



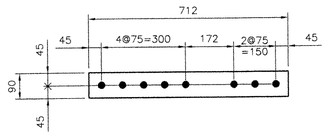
ITEM x162pc (16 REQ'D)
(PL18 x 90 x 210)



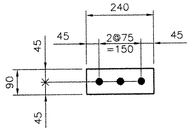
ITEM x162pd (8 REQ'D)
(PL18 x 210 x 260)



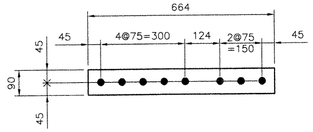
ITEM x162pf (8 REQ'D)
(PL18 x 210 x 215)



ITEM x162pg (16 REQ'D)
(PL18 x 90 x 712)



ITEM x162ph (24 REQ'D)
(PL18 x 90 x 240)



ITEM x162pk (8 REQ'D)
(PL18 x 90 x 664)

NOTES:

1- GENERAL NOTES: SEE GN101
2- HOLES: 15/16ø (24ø) (UN)
3- ALL STEEL SHALL BE GALVANIZED, SEE GN101
4- ALL MATERIAL SHALL BE M270M-GR345 (UN)
5- ALL HOLES SHALL BE "CNC" DRILLED (UN)

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REV	DATE	DESCRIPTION
△	-	-

QTY	DATE	ISSUED TO	FOR
8 -	8/22/05	F.W. Whitcomb	Approval

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tenca 1010

EASTERN BRIDGE LLC
RURAL RTE 2, BOX 302
CLAREMONT, NH 03743
603-542-5202

PROJECT: ROUTE 100 OVER THE WEST RIVER
LOCATION: TOWN OF JAMAICA
ENGINEER: CLD CONSULTING ENGINEERS
CUSTOMER: VERMONT A. O. T.
DRAWING TITLE: DETAILS

DRAWN BY: YT	08/17/05	JOB NUMBER: 5075	SHEET NUMBER: X162
CHECKED BY: GG	08/17/05		

18855

State of Vermont
Agency of
Transportation
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Drawer 33
Montpelier, Vermont

VTrans *Working to Get You There*

Program Development
Structures Design Section
Phone: (802) 828-0514 FAX: (802) 828-3566

Watson Bowman Acme Corporation
95 Pineview Drive
Amherst, NY 14228

DATE: September 2, 2005

Project Name: Jamaica **Project #: BRF 013-1 (8)**

Structure Identification: Vt 100. BR 80 over the West River

The following expansion joint details, Item # 516.10, Bridge Expansion Joint for the above project Vendor's Job #102885, have been reviewed and are being returned herewith.

Sheets: 1 through 4 of 4 are approved

The welding procedures, GMAW 7, 9, 10, and 11 are approved.

You must provide written notice to this office as to the date fabrication represented by these drawings will begin. That notice must be received at least seven days prior to that date, as per Specification 506.30. Any material fabricated prior to the notification date is subject to rejection without further cause.

Sincerely,

Martha Evans-Mongeon
Project Manager

Attachments
cc: [X] Resident Engineer, Paul Perry IV, w/ prints
[X] Shop Inspector, Jeff Clark, w/ prints
[X] Contractor, F. W. Whitcomb, w/ prints
[ ] Subcontractor – letter only
[X] Construction Division – letter only
[X] Materials & Research Section (C&IA Unit) – letter only
[X] Files (Structures & Central)

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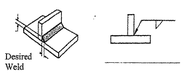
PROCEDURE SPECIFICATION

PQR 3 or 4

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Horizontal
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

Weld Size	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail Fillet
		Amps	Volts		
3/16	.045	225 – 245	27.5 – 29	9 – 11	
1/4	.045	225 – 245	27.5 – 29	9 – 11	
5/16	.045	225 – 245	27.5 – 29	9 – 11	
¾	.045	225 - 245	27.5-29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 11 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev4 – 2/2/01 **AUTHORIZED BY:** T Magliozzi

AWS QC 1 THOMAS A. MAGLIOZZI 01080461 CWI

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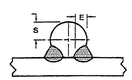
PROCEDURE SPECIFICATION
PQR 3

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** ¾"
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

S	Electrode Size	Welding Current Amps	Welding Current Volts	Travel Speed "/Min	E	Joint Detail BTC=P10-GF
3/16	.045	205 – 245	26.5 – 28.5	9 – 11	5/64	
1/4	.045	205 – 245	26.5 – 28.5	9 – 11	3/32	
5/16	.045	205 – 245	26.5 – 28.5	9 – 11	1/8	

E - Effective Throat .625(S)
S- Radius of Bar

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 10 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev. 3 -2/2/01 **AUTHORIZED BY:** T Muglizzo

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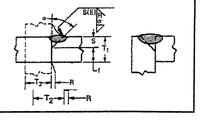
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
WELD METAL GRADE	*
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail TC-P4-GF
		Amps	Volts		
All	.045	225 - 245	27.5 – 29	9 – 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 09 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 3 – 2/2/01 **AUTHORIZED BY:** T Migliozzi

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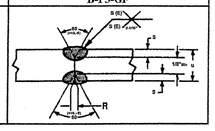
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A.
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail B-P3-GF
		Amps	Volts		
All	.045	225 – 245	27.5 – 29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 07 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 2 – 2/2/01 **AUTHORIZED BY:** T Meglio

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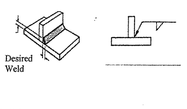
PROCEDURE SPECIFICATION

PQR 3 or 4

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Horizontal
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

Weld Size	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail Fillet
		Amps	Volts		
3/16	.045	225 – 245	27.5 – 29	9 – 11	
1/4	.045	225 – 245	27.5 – 29	9 – 11	
5/16	.045	225 – 245	27.5 – 29	9 – 11	
¾	.045	225 - 245	27.5-29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 11 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev4 – 2/2/01 **AUTHORIZED BY:** T Migliazzo

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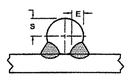
PROCEDURE SPECIFICATION
PQR 3

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** ¾"
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

S	Electrode Size	Welding Current Amps	Welding Current Volts	Travel Speed "/Min	E	Joint Detail BTC=P10-GF
3/16	.045	205 – 245	26.5 – 28.5	9 – 11	5/64	
1/4	.045	205 – 245	26.5 – 28.5	9 – 11	3/32	
5/16	.045	205 – 245	26.5 – 28.5	9 – 11	1/8	

E - Effective Throat .625(S)
S- Radius of Bar

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 10 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev. 3 -2/2/01 **AUTHORIZED BY:** T Mayhugh

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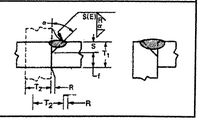
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
WELD METAL GRADE	*
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail TC-P4-GF
		Amps	Volts		
All	.045	225 - 245	27.5 – 29	9 – 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 09 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 3 – 2/2/01 **AUTHORIZED BY:** T Migliozzi

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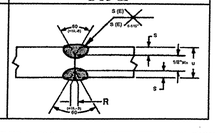
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A.
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail B-P3-GF
		Amps	Volts		
All	.045	225 – 245	27.5 – 29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 07 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 2 – 2/2/01 **AUTHORIZED BY:** T Magliozzo

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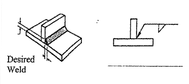
PROCEDURE SPECIFICATION

PQR 3 or 4

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Horizontal
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

Weld Size	Electrode Size	Welding Current Amps	Welding Current Volts	Travel Speed "/Min	Joint Detail Fillet
3/16	.045	225 – 245	27.5 – 29	9 – 11	
1/4	.045	225 – 245	27.5 – 29	9 – 11	
5/16	.045	225 – 245	27.5 – 29	9 – 11	
¾	.045	225 - 245	27.5-29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 11 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev4 – 2/2/01 **AUTHORIZED BY:**

AWS QC 1 THOMAS A. MIGLIAZZO 01080461 CWI

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PROCEDURE SPECIFICATION
PQR 3

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** ¾"
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

S	Electrode Size	Welding Current Amps	Welding Current Volts	Travel Speed "/Min	E	Joint Detail BTC=P10-GF
3/16	.045	205 – 245	26.5 – 28.5	9 – 11	5/64	
1/4	.045	205 – 245	26.5 – 28.5	9 – 11	3/32	
5/16	.045	205 – 245	26.5 – 28.5	9 – 11	1/8	

E - Effective Throat .625(S)
S- Radius of Bar

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 10 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev. 3 -2/2/01 **AUTHORIZED BY:** T Migliozzi

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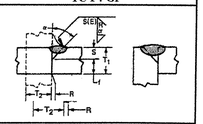
PROCEDURE SPECIFICATION

PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
WELD METAL GRADE	*
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail TC-P4-GF
		Amps	Volts		
All	.045	225 - 245	27.5 – 29	9 – 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 09 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 3 – 2/2/01 **AUTHORIZED BY:** T Myhrup

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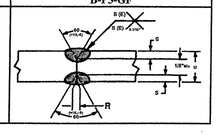
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A.
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail B-P3-GF
		Amps	Volts		
All	.045	225 – 245	27.5 – 29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 07 MANUFACTURER: Watson Bowman Acme Corp.

REVISION NO: 2 – 2/2/01 AUTHORIZED BY:

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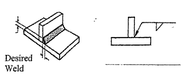
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Horizontal
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

Weld Size	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail Fillet
		Amps	Volts		
3/16	.045	225 – 245	27.5 – 29	9 – 11	
1/4	.045	225 – 245	27.5 – 29	9 – 11	
5/16	.045	225 – 245	27.5 – 29	9 – 11	
¾	.045	225 - 245	27.5-29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 11 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev4 – 2/2/01 **AUTHORIZED BY:**

AWS QC 1
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01080461
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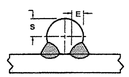
PROCEDURE SPECIFICATION
PQR 3

MATERIAL SPECIFICATION:	A588 to A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi-Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FILLER METAL MANUFACTURER:	Hobart
SHIELDING GAS: AR 98% O 2%	**DEW POINT:** -80°F **FLOW RATE:** 35 CFH
SINGLE OR MULTIPLE PASS:	Single
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** ½"
WELDING CURRENT:	DC+
POLARITY:	Reverse
WELDING PROGRESSION:	Forward (Stringer Bead)
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

S	Electrode Size	Welding Current Amps	Welding Current Volts	Travel Speed "/Min	E	Joint Detail BTC=P10-GF
3/16	.045	205 – 245	26.5 – 28.5	9 – 11	5/64	
1/4	.045	205 – 245	26.5 – 28.5	9 – 11	3/32	
5/16	.045	205 – 245	26.5 – 28.5	9 – 11	1/8	

E - Effective Throat .625(S)
S- Radius of Bar

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 10 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: Rev. 3 -2/2/01 **AUTHORIZED BY:** T Mylroie

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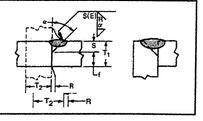
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
WELD METAL GRADE	*
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail TC-P4-GF
		Amps	Volts		
All	.045	225 - 245	27.5 – 29	9 – 11	

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PROCEDURE NO: GMAW 09 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 3 – 2/2/01 **AUTHORIZED BY:** T Migliozzi

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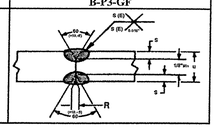
PROCEDURE SPECIFICATION
PQR 3 or 4

MATERIAL SPECIFICATION:	A588
WELDING PROCESS:	GMAW
MANUAL OR MACHINE:	Semi Automatic
POSITION OF WELDING:	Flat
FILLER METAL SPECIFICATION:	A5.18
FILLER METAL CLASSIFICATION:	ER70S-6
FLUX	N/A
SHIELDING GAS: AR98% 0 2%	**DEW POINT:** -80°F **FLOW RATE:** 35CFH
SINGLE OR MULTIPLE PASS:	Multiple
SINGLE OR MULTIPLE ARC:	Single **ELECTRODE STICKOUT:** 3/4"
WELDING CURRENT:	DC
POLARITY:	Reverse
WELDING PROGRESSION:	Forward
ROOT TREATMENT:	N/A.
PREHEAT AND INTERPASS TEMP.	≤ ¾" = 50°F ≤ 1½" = 70°F ≤ 2½" = 150°F (Minimums)
POSTHEAT TREATMENT:	N/A

WELDING PROCEDURE

# PASS	Electrode Size	Welding Current		Travel Speed "/Min	Joint Detail B-P3-GF
		Amps	Volts		
All	.045	225 – 245	27.5 – 29	9 - 11	

THIS PROCEDURE MAY VARY DUE TO THE FABRICATION SEQUENCE, FIT-UP, PASS SIZE, ETC., WITHIN THE LIMITATIONS OF VARIABLES GIVEN IN TABLE 5.3 OF AWS D1.5-95 BRIDGE WELDING CODE.

PROCEDURE NO: GMAW 07 **MANUFACTURER:** Watson Bowman Acme Corp.

REVISION NO: 2 – 2/2/01 **AUTHORIZED BY:** T Migliazzo

AWS QC 1 THOMAS A. MIGLIAZZO 01080461 CWI

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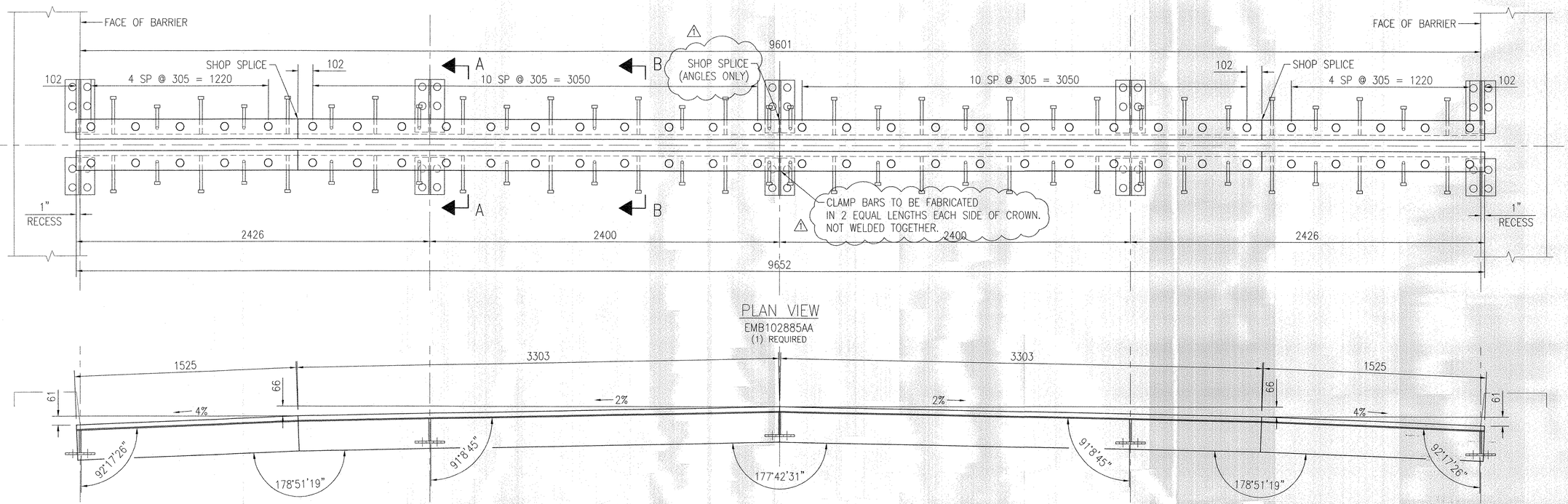


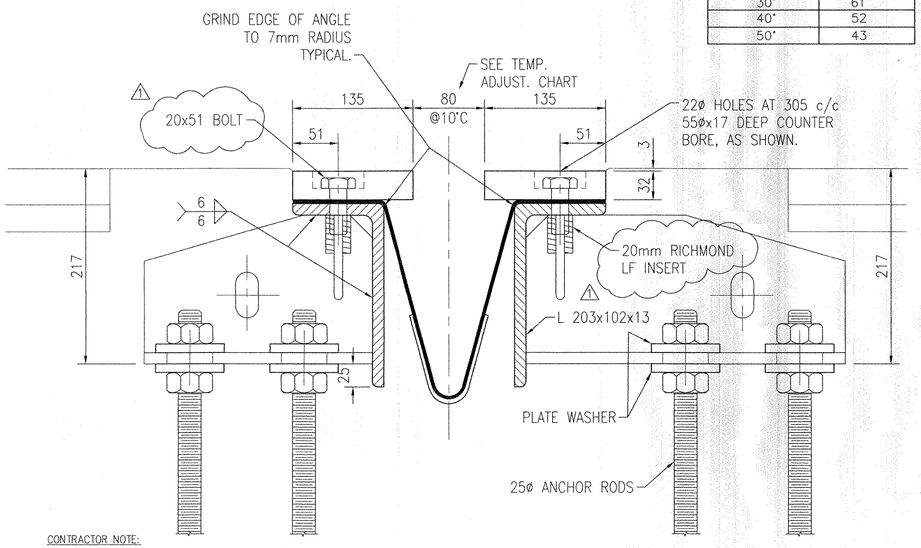
PLAN VIEW

EMB102885AA
(1) REQUIRED

TEMPERATURE ADJUSTMENT CHART	
STRUCTURE TEMPERATURE (°C)	JT. OPENING
−30°	117
−20°	108
−10°	99
0°	89
10°	80
20°	71
30°	61
40°	52
50°	43

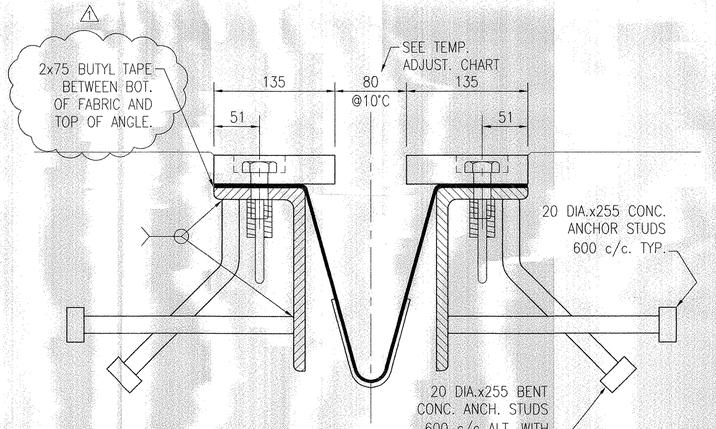
TO SET MINIMUM JOINT OPENING "A"

METRIC "A" = [(MAX STRUCT. TEMP. IN °C)−(ACTUAL STRUCT. TEMP IN °C)]x
[(0.0000108)x(1000)x(CONTRIBUTORY LENGTH(IN METERS)]



CONTRACTOR NOTE:
CONTRACTOR SHALL COORDINATE REBAR DETAILS AT EXPANSION JOINT. BLOCKOUT TO AVOID INTERFERENCE WITH EXPANSION JOINT.

SECTION: A−A



SECTION: B−B

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BY _____ DATE 9-2-2005

GENERAL NOTES

1. THE CONTRACTOR MUST VERIFY ALL DIMENSIONS TO ENSURE ACCURACY OF THE EXPANSION JOINT PRIOR TO FABRICATION.
2. ALL MATERIALS AND FABRICATION SHALL COMPLY WITH THE 2001 STATE OF VERMONT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS. EXCEPT AS NOTED HEREIN.
3. ALL WELDING AND INSPECTION SHALL COMPLY WITH THE ANSI/AASHTO/AWS D1.5−95 BRIDGE WELDING CODE, AS MODIFIED BY THE CONTRACT SPECIAL PROVISIONS.
4. THE EXPANSION JOINT STEEL COMPONENTS SHALL BE AASHTO M270 GR 36 AND BE GALVANIZED OR METALIZED. ALL CORNERS & EDGES SHALL BE GROUND TO A 1.6mm (1/16") RADIUS PRIOR TO GALV. OR METALIZING.
5. EXPANSION JOINT ASSEMBLY SHALL BE SHOP SET TO 80mm AND HELD TOGETHER WITH SHIPPING ANGLES.

SHEET NUMBER.
ITEM DESIGNATION.
ITEM NUMBER.
2e1
MARK SYSTEM

STATE: VERMONT
TOWN: JAMAICA
PROJECT NO.: BRF 013−1 (8)
STATION: − MILE POST: −
EXPANSION JOINT TYPE: EMBEDDED
WBA PRODUCT NO.: EMB102885AA

DRAWING ACTION:
SUBMITTED FOR APPROVAL
DATE:

NO.	DESCRIPTION	NAME	DATE
3			
2			
1	REVISED PER APPROVAL COMMENTS	TEB	8/19/05

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WATSON BOWMAN ACME CORPORATION
95 PINEVIEW DRIVE AMHERST, N.Y. 14228 TEL: (716) 691−7566 FAX (716) 691−9239

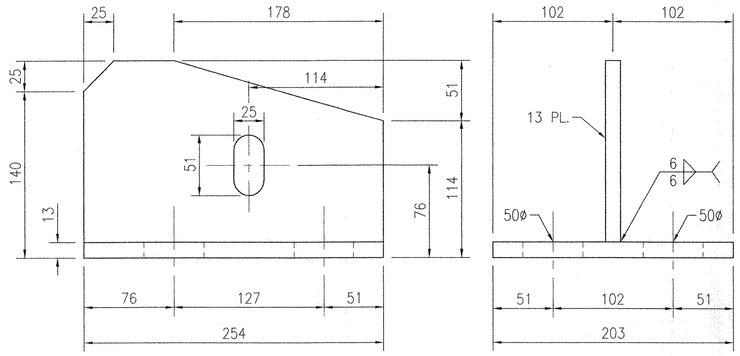
DETAILED BY: TEB	DATE: 4/1/05
CHECKED BY: TEB	DATE: 4/1/05
SCALE: NTS	WBA JOB NO.: 102885
SHEET NO.: 1 OF 4	DRAWING NO.: B−23554

PROJECT:
VT ROUTE 100 OVER THE WEST RIVER

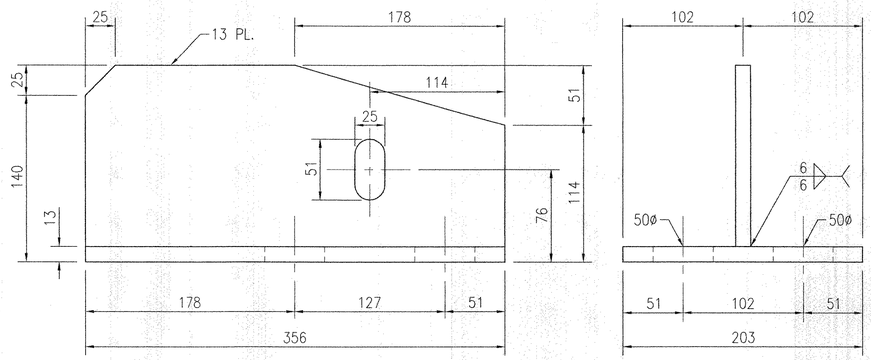
WABO EXPANSION JOINT DETAILS

206 b's

F:\ENGINEER\WBA Projects\102885-Whitcomb-VT Route 100\00-Drawings\B23554d01.dwg, Layout1, 8/19/2005 10:29:58 AM



TIE DOWN – TD1



TIE DOWN – TD2

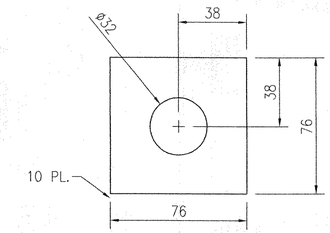
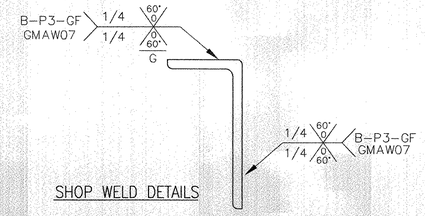
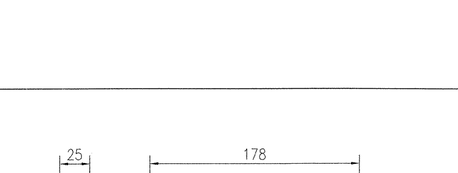


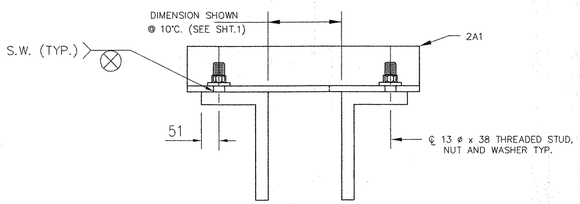
PLATE WASHER – PW1



SHOP WELD DETAILS



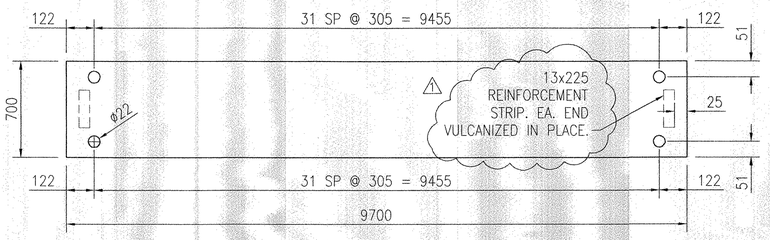
DETAIL – 2A1



SHIPPING DEVICE

(1) CONTRACTOR SHALL REMOVE AFTER JOINT IS SET, GRIND WELDS SMOOTH AND TOUCH UP DAMAGED GALVANIZED AREAS.

(2) SHIPPING ANGLES SHALL BE PLACED 305 FROM MITER LINE AND 1220 O.C. THERE AFTER.



NEOPRENE SHEET

MATERIAL SPECIFICATIONS

ALL STEEL MATERIAL is made in accordance with ASTM A–36 (DOMESTIC).

⚠1 PREFORMED FABRIC MTRL. FOR DRAINAGE TROUGHS PER STANDARD SPECIFICATION SECTION 707.07

PHYSICAL PROPERTIES	SPEC. LIMITS
Min. Mass (weight) per unit area of laminate, kg/m² (lbs/ft²)	4.15 (0.85)
Min. thickness, mm (in)	4.0 (5/32)
Min. Ultimate Tensile Strength of laminate, kN/m (lbs/in) of width	210 (1200)
Max Elongation at ultimate tensile	30%
Max Elongation at 10% of ultimate tensile	3%

CONCRETE ANCHOR STUDS– Studs shall be ASTM – A108.

RECEIVED
AUG 2 4 2005

INSTALLATION PROCEDURE

STEP 1. BLOCKOUT–Blockout in the channel shall be constructed to dimensions shown in section A–A and as directed by the field engineer. Cut expansion joint to required length (if necessary) and touch up damaged galvanized areas.

STEP 2. Place expansion joint over centerline of open joint and adjust to proper grade and elevation.

STEP 3. Check width of open joint and make final adjustments if necessary. (as directed by Engineer). Complete field splice (If required).

STEP 4. Tie joint to blockout reinforcing or formwork.

STEP 5. Pour concrete into blockout.

STEP 6. Contractor shall remove shipping devices after concrete has set, ⚠1 grind smooth, and touch–up any damaged galvanizing.

MARK SYSTEM

2e1
SHEET NUMBER
ITEM DESIGNATION
ITEM NUMBER

STATE: VERMONT
TOWN: JAMAICA
PROJECT NO.: BRF 013–1 (8)
STATION: – MILE POST: –
EXPANSION JOINT TYPE: EMBEDDED
WBA PRODUCT NO.: EMB102885AA

DRAWING ACTION:

SUBMITTED FOR APPROVAL

DATE:

NO.	DESCRIPTION	NAME	DATE
⚠3			
⚠2			
⚠1	REVISED PER APPROVAL COMMENTS	TEB	8/19/05

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WATSON BOWMAN ACME CORPORATION
95 PINEVIEW DRIVE AMHERST, N.Y. 14228 TEL. (716) 691–7566 FAX (716) 691–9239

PROJECT: VT ROUTE 100 OVER THE WEST RIVER

WABO EXPANSION JOINT DETAILS

DETAILED BY: TEB	DATE: 4/1/05
CHECKED BY: TEB	DATE: 4/1/05
SCALE: NTS	WBA JOB NO.: 102885
SHEET NO.: 2 OF 4	DRAWING NO.: B–23554

207 61

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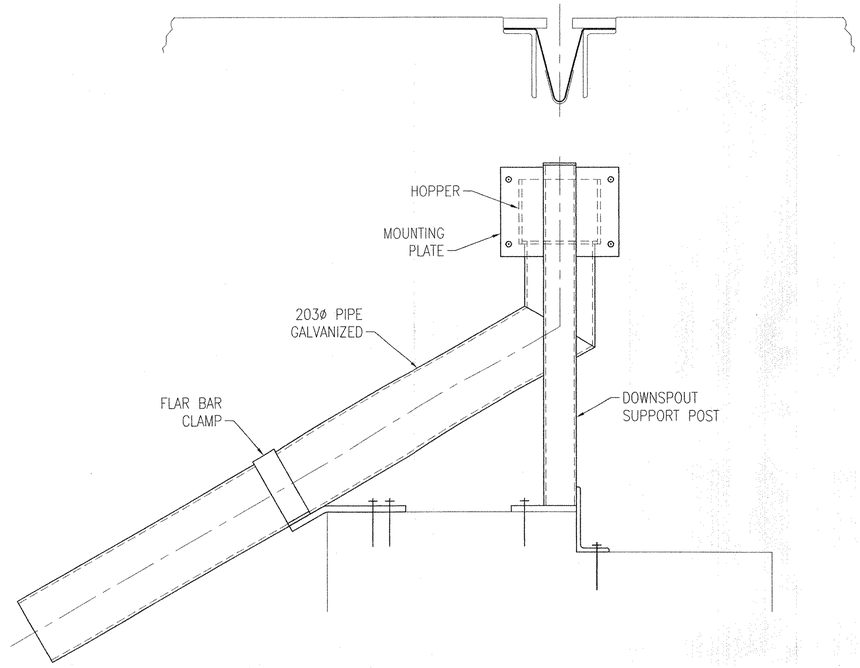
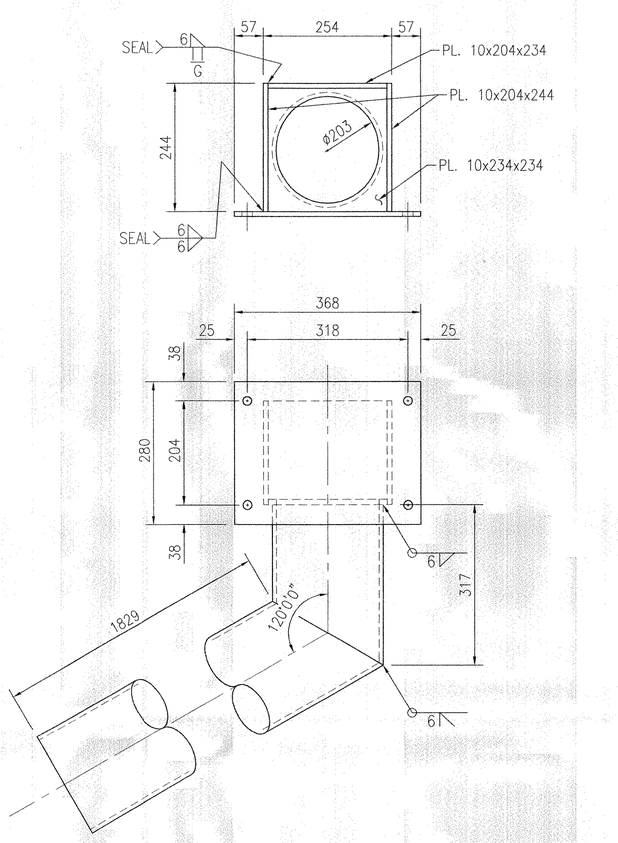
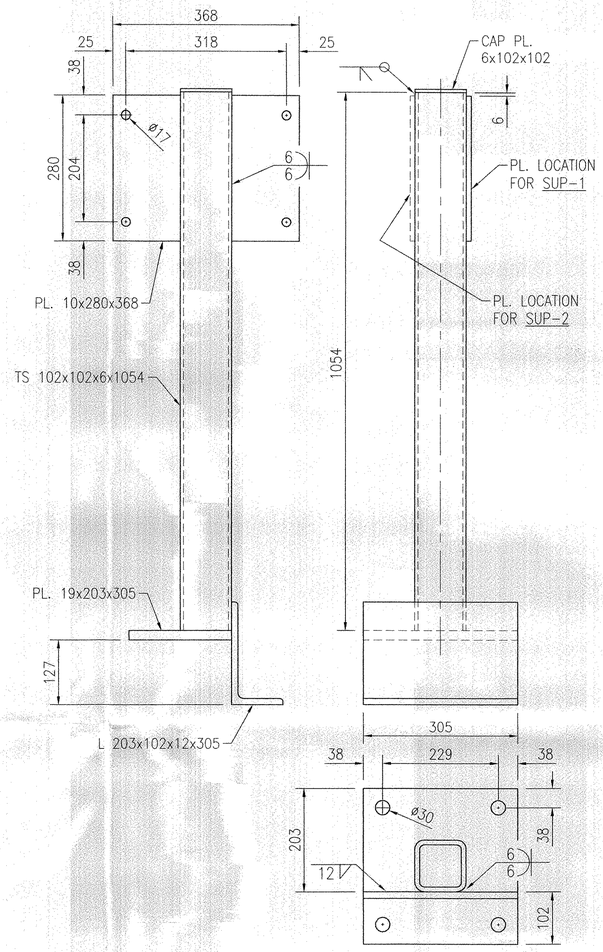


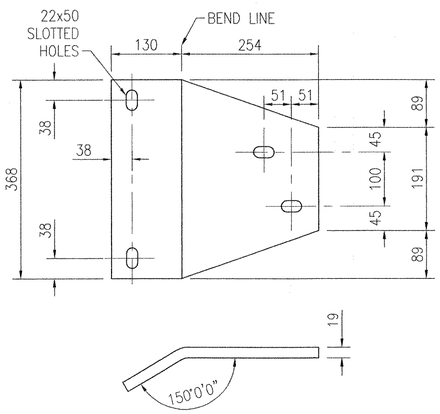
DOWNSPOUT DETAIL



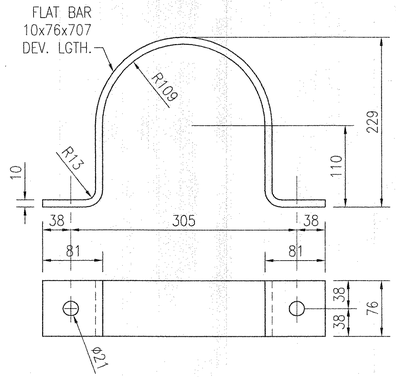
HOPPER DETAIL – HOP–1 (AS SHOWN)
HOPPER DETAIL – HOP–2 (OPP. HAND)



DOWNSPOUT SUPPORT – SUP–1 (AS SHOWN)
DOWNSPOUT SUPPORT – SUP–2 (AS NOTED)



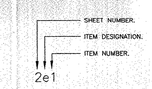
SUPPORT PLATE – SP1



CLAMP – CL1

RECEIVED
CK'D BY _____ CK'D BY MEM
AUG 24 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 8-2-2005

STATE: VERMONT
TOWN: JAMAICA
PROJECT NO.: BRF 013–1 (8)
STATION: – MILE POST: –
EXPANSION JOINT TYPE: EMBEDDED
WBA PRODUCT NO.: EMB102885AA



MARK SYSTEM

DRAWING ACTION:

SUBMITTED FOR APPROVAL

DATE:

NO.	DESCRIPTION	NAME	DATE
3			
2			
1	REVISED PER APPROVAL COMMENTS	TEB	8/19/05

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WATSON BOWMAN ACME CORPORATION
95 PINEVIEW DRIVE AMHERST, N.Y. 14228 TEL. (716) 691–7566 FAX (716) 691–9239

PROJECT: VT ROUTE 100 OVER THE WEST RIVER

WABO EXPANSION JOINT DETAILS

DETAILED BY: TEB	DATE: 4/1/05
CHECKED BY: TEB	DATE: 4/1/05
SCALE: NTS	WBA JOB NO.: 102885
SHEET NO.: 3 OF 4	DRAWING NO.: B–23554

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2086i

EMB102885AA QTY: 1 REQ'D. STRUCTURED BILL OF MATERIALS DWG. NO: B-23554

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REV.
0	EMB102885AA	1.000	EA	EMBEDDED EXPANSION JT; 11.0 M (X	SHIPPING LENGTH= 11.0 M +/-	
1	EMB102885AA01	1.000	PK	EXTRUSION ASSEMBLIES (W		
2	4170	19400.0	MM	ANGLE 203x102x13	A-36	
2	3660	645.0	KG	PLATE 32	A-36	
2	4782	34.0	EA	CONC. ANCH STUD 20x255	A-108	
2	4840	34.0	EA	CONC. BENT ANCH. STUD 20x255	A-108	
1	NTS102885AC	XX	MM	4mm THICK PREFORMED FABRIC MATERIAL		1
1	EMB102885AA02	1.000	EA	PARTS FOR ASSEMBLY		
2	6970	18.0	EA	THRD'D STUD 13x38	SHP'G ANGLE	
2	7512	18.0	EA	13 WASHER	SHP'G ANGLE	
2	7954	18.0	EA	13 NUT	SHP'G ANGLE	
2	EMB102885AA02A	9.0	EA	SHIPPING ANGLE (2A1)		
3	3871	356.0	MM	ANGLE 76x76x8	A-36	
3	5280	64.00	EA	20x51 BOLT HZA	A-325	1
3	6639	64.00	EA	20mm RICHMOND LF INSERTS		1
3	8120	80.0	EA	25 NUT	A-325	1
3	2830	20 000.0	MM	BUTYL TAPE		1
1	EMB102885AA03	5.000	EA	TIE DOWN (TD-1) (X		
2	3560	9.0	KG	PLATE 13	A-36	
1	EMB102885AA04	5.000	EA	TIE DOWN (TD-2) (X		
2	3560	12.7	KG	PLATE 13	A-36	

EMB102885PS QTY: 1 REQ'D. STRUCTURED BILL OF MATERIALS DWG. NO: B-23554

LV	PART NO.	QTY	UM	DESCRIPTION	MATERIAL	REV.
0	EMB102885PS	1.00	EA	PARTS FOR SHIPPING (V	FOR EMB102885AA	
1	EMB102885PS01	80.00	EA	PLATE WASHER (PW1) (X	GALV	
2	3540	0.5	KG	10 PLATE		
1	EMB102885PS02	40.00	EA	THREADED RODS (X	FOR EMB102885AA	
2	7170	305.0	MM	25 THREADED ROD		
1	EMB102885PS03	1.00	EA	HOPPER DETAIL (HOP1) (X	GALV	
2	NTS102885AA	2438.0	MM	203mm SCH.40 PIPE	A-53	
2	3540	23.0	KG	10 PLATE	A-36	
1	EMB102885PS04	1.00	EA	HOPPER DETAIL (HOP2) (X	GALV	
2	NTS102885AA	2438.0	MM	203mm SCH.40 PIPE	A-53	
2	3540	23.0	KG	10 PLATE	A-36	
1	EMB102885PS05	1.00	EA	DOWNSPOUT SUPPORT (SUP1) (X	GALV	
2	NTS102885AB	1054.0	MM	TS 102x102x6	A-500	
2	3540	7.7	KG	10 PLATE	A-36	
2	4170	305.0	MM	ANGLE 203x102x12	A-36	
2	3600	9.3	KG	19 PLATE	A-36	
2	3520	0.6	KG	6 PLATE	A-36	
1	EMB102885PS06	1.00	EA	DOWNSPOUT SUPPORT (SUP2) (X	GALV	
2	NTS102885AB	1054.0	MM	TS 102x102x6	A-500	
2	3540	7.7	KG	10 PLATE	A-36	
2	4170	305.0	MM	ANGLE 203x102x12	A-36	
2	3600	9.3	KG	19 PLATE	A-36	
2	3520	0.6	KG	6 PLATE	A-36	
1	EMB102885PS07	2.00	EA	SUPPORT PLATE (SP1) (X	GALV	
2	3600	21.0	KG	19 PLATE	A-36	
1	EMB102885PS08	2.00	EA	CLAMP (CL1) (X	GALV	
2	5928	707	MM	10x76 FLAT BAR	A-36	
1	4932	8.0	EA	13x38 BOLT HDA	A-325	
1	7901	8.0	EA	13 NUT HD	A-325	
1	5299	4.0	EA	20x57 BOLT HDA	A-325	
1	8070	4.0	EA	20 NUT HD	A-325	

RECEIVED
OK'D BY _____ OK'D BY: MEM
AUG 24 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 9-2-2005

STATE: VERMONT
TOWN: JAMAICA
PROJECT NO.: BRF 013-1 (8)
STATION: - MILE POST: -
EXPANSION JOINT TYPE: EMBEDDED
WBA PRODUCT NO.: EMB102885AA

SHEET NUMBER
ITEM DESIGNATION
ITEM NUMBER
2e1
MARK SYSTEM

DRAWING ACTION:
SUBMITTED FOR APPROVAL
DATE:

NO	DESCRIPTION	NAME	DATE
3			
2			
1	REVISED PER APPROVAL COMMENTS	TEB	8/19/05

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95 PINEVIEW DRIVE AMHERST, N.Y. 14228 TEL. (716) 691-7566 FAX (716) 691-9239

PROJECT: VT ROUTE 100 OVER THE WEST RIVER
WABO EXPANSION JOINT DETAILS

DETAILED BY: TEB	DATE: 4/1/05		
CHECKED BY: TEB	DATE: 4/1/05		
SCALE: NTS	WBA JOB NO.: 102885		
SHEET NO.: 4 OF 4	DRAWING NO.: B-23554		

209bj

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BILL OF MATERIAL (ITEM 563.22)					
	Qty.	Description	Size/Shape	length/qty. per unit	Material
	41	BRIDGE RAIL PED POST 680mm OAH W/ BASE PLATE			
	41	POST UPRIGHT	W6 x 25	2'-03/8"	A709 Gr. 50
	41	POST BASE PLATE	25.4 X 254	355.6	A709 Gr. 50
	41	DROP END APPROACH RAIL			
	2	DRIVEN POST 2.134M OAH	W 150 X 13.5		A709 Gr. 50
	2	DRIVEN POST 1.956M OAH	W 150 X 13.5		A709 Gr. 50
	14	UPPER SPLICE TUBE FOR 8 x 4 RAIL			
	14	TUBE	TS 177.8x76.2x9.525	508	A500 Gr. B
	28	LOCK NUTS	5/8"	2 pcs.	A563 Gr. DH
	14	LOWER SPLICE TUBE FOR 4 x 4 RAIL			
	14	TUBE	TS 3x3x5/16	508	A500 Gr. B
	28	LOCK NUTS	5/8"	2 pcs.	A563 Gr. DH
	11	UPPER RAIL	TS 203.2x101.6x15.875	6.096M	A500 Gr. B
	11	LOWER RAIL	TS 101.6x101.6x6.35	6.096M	A500 Gr. B
	2	UPPER RAIL	TS 203.2x101.6x15.875	7.315M	A500 Gr. B
	2	LOWER RAIL	TS 101.6x101.6x6.35	7.315M	A500 Gr. B
	1	UPPER DROP END TUBE	TS 203.2x101.6x15.875	7.342M	A500 Gr. B
	1	LOWER DROP END TUBE	TS 101.6x101.6x6.35	7.342M	A500 Gr. B
	1	UPPER DROP END TUBE 10m R	TS 203.2x101.6x15.875	2.673M	A500 Gr. B
	1	LOWER DROP END TUBE 10m R	TS 101.6x101.6x6.35	2.673M	A500 Gr. B
	4	W BEAM CONNECTOR SHOE			M180 B2
	4	BACK UP PLATE	301x254x10		A36
	41	BEARING PAD	3.175 X 254 X 355.6		NEOPRENE
	8	SPACER PIPE	M20	13	A53 gr B
	192	SLOTTED HEAD BOLT	M20	152	A449
	192	LOCK NUT	M20		A563 DH
	192	FLAT WASHER	M20		F436
	112	HEX BOLT	M16	44	A325
	112	SMALL WASHER	M16		F436
*	41	ANCHOR			
*	41	ANCHOR PLATE	9.525 x 238.125	330.2	A709 Gr. 36
*	164	ANCHOR STUD	25 DIA.	304.8	A449
*	328	HEX NUT	25 DIA.	- - -	A563 DH
*	164	JAM NUT	25 DIA.	- - -	A563 DH
*	164	WASHER	25 DIA.	- - -	F436

* ANCHORS NOT PROVIDED BY HIGHWAY SAFETY CORP. SHOWN FOR REFERENCE ONLY

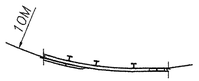
PAY LIMITS

SHEET 1 : 92.20M

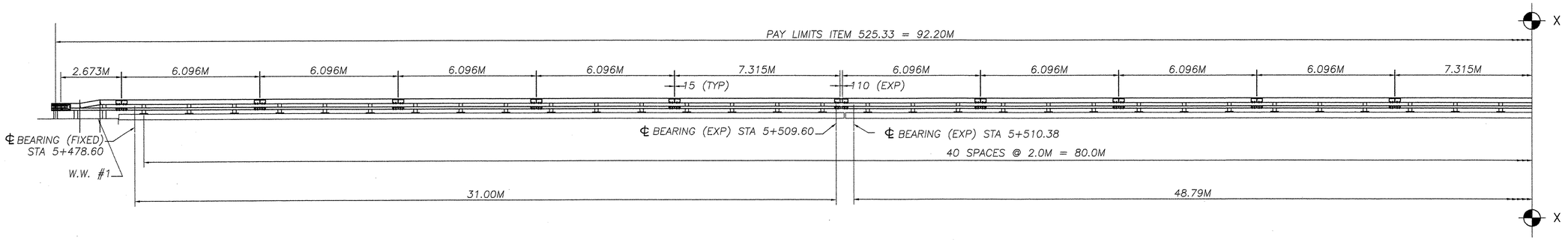
SHEET 2 : 92.20M

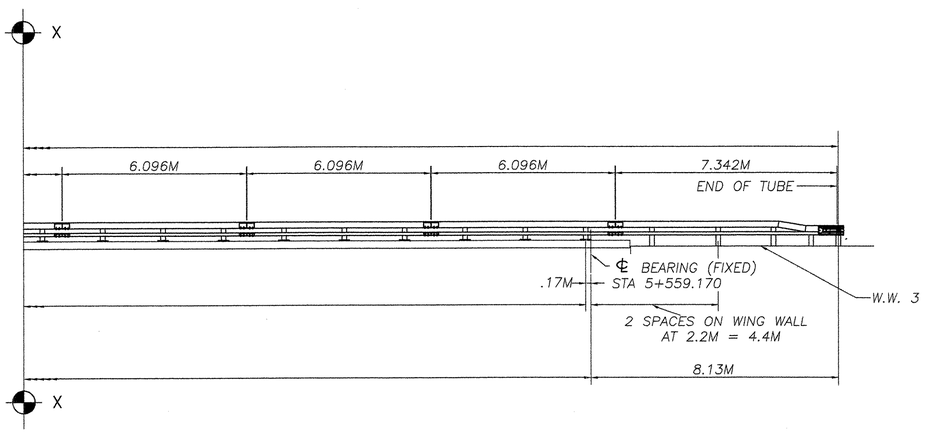
TOTAL _____

184.40M



W.W. #1 PLAN VIEW





N.W. ELEVATION
LOOKING AT RAIL FROM ℄ OF ROAD

LOCATION	ENDPOST DIST TO DOCK END	APPROACH RAIL LENGTH	APPROACH RAIL RADIUS
@ WW #1	1100	7620	10 000
@ WW #2	1100	7620	10 000
@ WW #3	1400	7620	0
@ WW #4	1400	7620	0

ALL DIMENSIONS SHOWN ARE IN MM UNLESS OTHERWISE NOTED

REVISIONS		
No.	Remarks	Date
0	Initial submittal	1-13-05

RECEIVED
OK'D BY _____ OK'D BY MEM
JAN 26 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 2/11/05

HIGHWAY SAFETY CORP.

GLASTONBURY, CT

ITEM 525.33 NETC 2 RAIL BRIDGE RAIL
TOWN OF JAMAICA
COUNTY OF WINDHAM
VT ROUTE 100 OVER WEST RIVER
PROJECT AC BRF 013-1(8)

DRAWN	C CRAMER
CHECKED	
DATE	12-20-04
SCALE	1/8=12
HSC REFERENCE NO.	1488
GENERAL CONTRACTOR	
SIZE	D
REVISION	0
SUB CONTRACTOR	F.R. LAFAYETTE INC.
SHEET NO.	1 of 4

210 BR

BILL OF MATERIAL (ITEM 563.22)

	Qty.	Description	Size/Shape	length/qty. per unit	Material
	41	BRIDGE RAIL PED POST 680mm OAH W/ BASE PLATE			
	41	POST UPRIGHT	W6 x 25	2'-03/8"	A709 Gr. 50
	41	POST BASE PLATE	25.4 X 254	355.6	A709 Gr. 50
	41	DROP END APPROACH POST			
	2	DRIVEN POST 2.134M OAH	W 150 X 13.5		A709 Gr. 50
	2	DRIVEN POST 1.956M OAH	W 150 X 13.5		A709 Gr. 50
	14	UPPER SPLICE TUBE FOR 8 x 4 RAIL			
	14	TUBE	TS 177.8x76.2x9.525	508	A500 Gr. B
	28	LOCK NUTS	5/8"	2 pcs.	A563 Gr. DH
	14	LOWER SPLICE TUBE FOR 4 x 4 RAIL			
	14	TUBE	TS 3x3x5/16	508	A500 Gr. B
	28	LOCK NUTS	5/8"	2 pcs.	A563 Gr. DH
	11	UPPER RAIL	TS 203.2x101.6x15.875	6.096M	A500 Gr. B
	11	LOWER RAIL	TS 101.6x101.6x6.35	6.096M	A500 Gr. B
	2	UPPER RAIL	TS 203.2x101.6x15.875	7.315M	A500 Gr. B
	2	LOWER RAIL	TS 101.6x101.6x6.35	7.315M	A500 Gr. B
	1	UPPER DROP END TUBE	TS 203.2x101.6x15.875	7.342M	A500 Gr. B
	1	LOWER DROP END TUBE	TS 101.6x101.6x6.35	7.342M	A500 Gr. B
	1	UPPER DROP END TUBE 10m R	TS 203.2x101.6x15.875	2.673M	A500 Gr. B
	1	LOWER DROP END TUBE 10m R	TS 101.6x101.6x6.35	2.673M	A500 Gr. B
	4	W BEAM CONNECTOR SHOE			M180 B2
	4	BACK UP PLATE	301x254x10		A36
	41	BEARING PAD	3.175 X 254 X 355.6		NEOPRENE
	8	SPACER PIPE	M20	13	A53 gr B
	192	SLOTTED HEAD BOLT	M20	152	A449
	192	LOCK NUT	M20		A563 DH
	192	FLAT WASHER	M20		F436
	112	HEX BOLT	M16	44	A325
	112	SMALL WASHER	M16		F436
*	41	ANCHOR			
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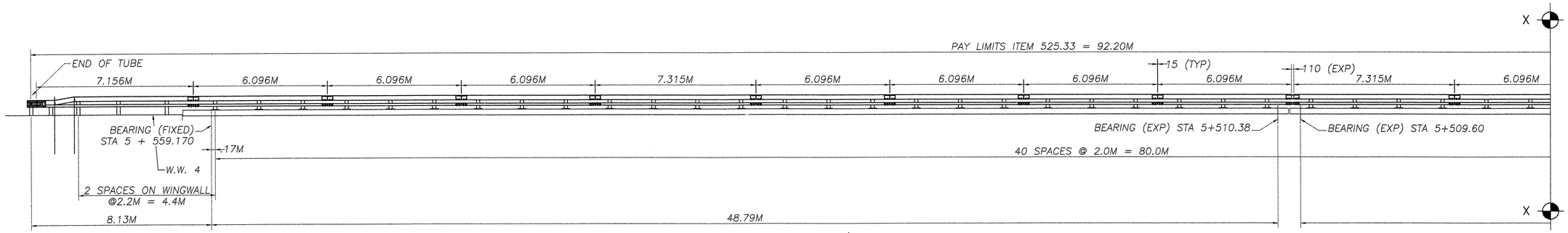
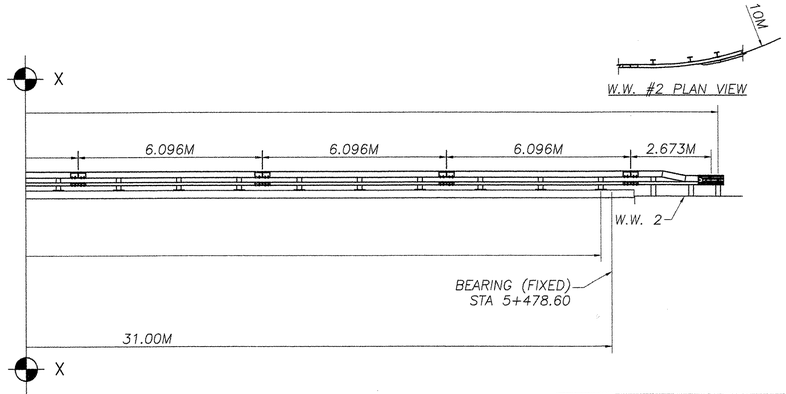
*	164	JAM NUT	25 DIA.	- - -	A563 DH
*	164	WASHER	25 DIA.	- - -	F436

* ANCHORS NOT PROVIDED BY HIGHWAY SAFETY CORP. SHOWN FOR REFERENCE ONLY





S.E. ELEVATION
LOOKING AT RAIL FROM ℄ OF ROAD

ALL DIMENSIONS SHOWN ARE IN MM UNLESS OTHERWISE NOTED

REVISIONS		
No.	Remarks	Date
0	Initial submittal	1-13-05

RECEIVED
CK'D BY _____ OK'D BY MAW
JAN 26 2005
REBUBMIT _____ APPROVED ✓
BY _____ DATE 2/11/05

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

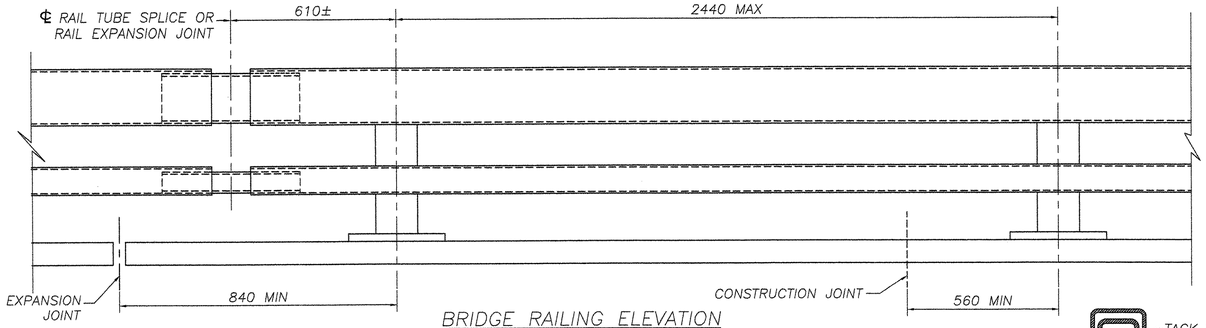
ITEM 525.33 NETC 2 RAIL BRIDGE RAIL
TOWN OF JAMAICA
COUNTY OF WINDHAM
VT ROUTE 100 OVER WEST RIVER
PROJECT AC BRF 013-1(8)

GENERAL CONTRACTOR

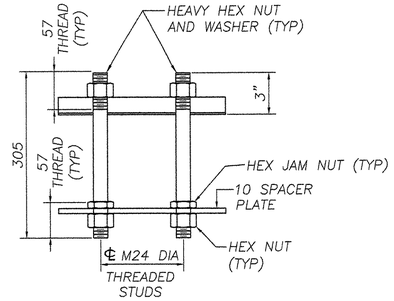
SUB CONTRACTOR F.R. LAFAYETTE INC.

DRAWN C CRAMER
CHECKED
DATE 12-20-04
SCALE 1/8=12
HSC REFERENCE NO. 1488
SIZE D REVISION 0
SHEET NO. 2 of 4

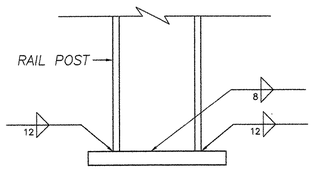
211 BR



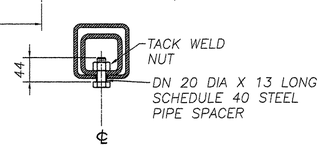
BRIDGE RAILING ELEVATION



RAIL POST ANCHORAGE
(BY OTHERS)



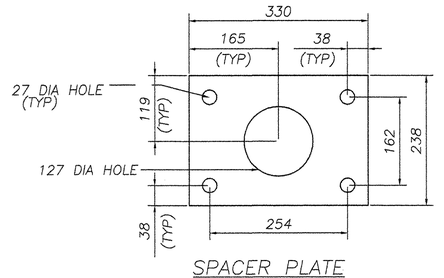
BASE WELD DETAIL



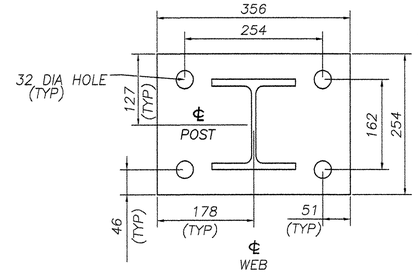
16 DIA TAPERED HOLE IN SPLICE TUBE AND 29 X 'C' SLOT IN RAIL TUBE FOR 5/8" DIA BOLT AND PLAIN HARDENED WASHER

EXPANSION JOINT SECTION

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



SPACER PLATE
(BY OTHERS)



POST AND BASE PLATE

NOTES

1 ALL WORK AND MATERIALS SHALL COMFORM TO THE PROVISIONS OF SECTION 525 "RAILINGS OF THE STANDARD SPECIFICATION FOR CONSTRUCTION".

2 TUBING AND POSTS SHALL MEET THE REQUIREMENTS OF SECTION 732, "RAILING MATERIALS OF THE STANDARD SPECIFICATIONS FOR CONSTRUCTION" EXCEPT THE DROP WEGHT TEAR TEST IN SECTION 72 SHALL NOT APPLY TO THE STRUCTURAL TUBING IN THIS STANDARD.

3 ALL EXPOSED CUT OR SHEARED EDGES SHALL BE ROUNDED TO A 1/16" RADIUS AND BE FREE OF BURRS.

4 RAIL POSTS SHALL BE SET TO NORMAL GRADE.

5 SECTIONS OF RAIL TUBE SHALL BE ATTACHED TO A MINIMUM OF TWO (2) RAIL POSTS AND PREFERABLY TO AT LEAST FOUR (4) POSTS.

6 RAIL TUBE EXPANSION JOINTS SHALL BE PROVIDED IN ANY RAIL BAY SPANNING A SUPERSTRUCTURE EXPANSION JOINT. EXPANSION JOINT WIDTH SHALL BE "X" AT 45°F AND WILL BE ADJUSTED IN THE FIELD BY THE ENGINEER FOR OTHER TEMPERATURES.

7 ALL PARTS SHALL BE GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH AASHTO MIII, EXCEPT THAT HARDWARE SHALL MEET THE REQUIREMENTS OF AASHTO M232.

8 RAIL POSTS ANCHORING NUTS SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL ONE-EIGHTH TURN.

9 RAIL TUBES SHALL BE ATTACHED USING 3/4" FULL DIAMETER BODY AASHTO M164 (TYPE 1) ROUND HEAD BOLTS INSERTED THROUGH THE FACE OF THE TUBE. HOLES IN POSTS SHALL BE 1/16" LARGER THAN THE BOLT SIZE.

10 HOLES IN RAILS FOR RAIL TUBE ATTACHMENT MAY BE FIELD DRILLED. HOLES SHALL BE COATED WITH AN APPROVED ZINC RICH PAINT PRIOR TO ERECTION.

11 IF THERE IS A CONFLICT BETWEEN THESE STANDARD DETAILS AND THE DESIGN, THE REQUIREMENTS OF THE DESIGN DRAWING SHALL BE FOLLOWED.

12 ANY BENDING OF RAIL SHALL BE DONE BY SHOP PROCEDURE ONLY.

13 THE FABRICATIOR SHALL SUBMIT SHOP DRAWINGS INCLUDING WELDING PROCEDURES TO THE STRUCTURES SECTION FOR APPROVAL IN ACCORDANCE WITH THE PROVISION OF 506.04, SHOP DRAWINGS. ALL WELDING SHALL CONFORM WITH SECTION 506.10.

14 RAIL POSTS AND BASE PLATES SHALL BE TESTED FOR IMPACT PROPERTIES IN ACCORDANCE WITH ASTM A-370 CHARPY IMPACT TESTING USING A SPECIMIN.

MATERIALS

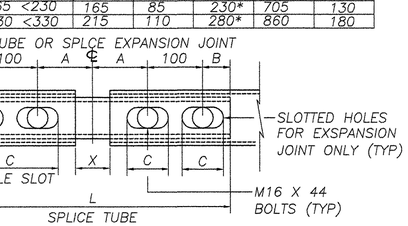
RAIL TUBES.....ASTM A500, GRADE B OR ASTM A501
RAIL POSTS AND BASE PLATES.....ASTM A709A709M, GRADE 50
ALL OTHER SHAPES AND PLATES.....ASTM 1709/A709M, GRADE 36
ANCHOR STUDS.....ASTM A449
ALL OTHER BOLTS (UNLESS NOTED).....AASHTO M164, TYPE 1

NUTS FOR AASHTO M164 (ASTM A325) BOLTS AND FOR ANCHOR STUDS SHALL COMPLY WITH AASHTO M291 (ASTM A563)

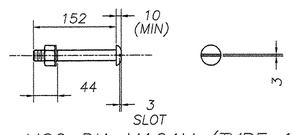
WASHERS SHALL COMPLY WITH AASHTO M293 (ASTM F436) SPECIFICATIONS

1/8" PAD SHALL COMPLY WITH STANDARD SPECIFICATION SUBSECTION 731.01 OR 731.02

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

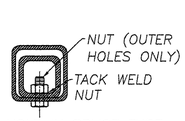


RAIL TUBE SPLICE AND RAIL EXPANSION JOINT DETAIL

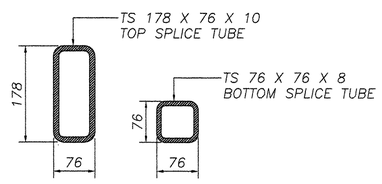


M20 DIA M164M (TYPE 1)
ROUND HEAD BOLT

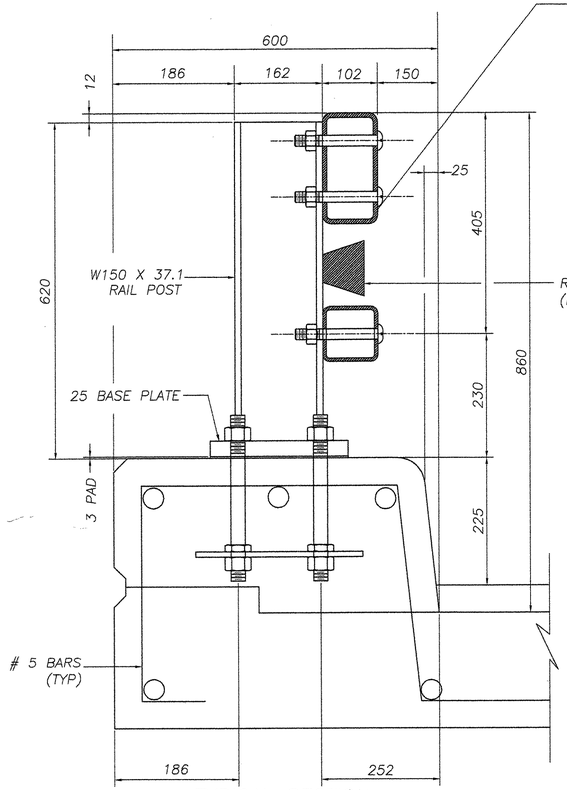
(WITH WASHER AND PREVAILING TORQUE TYPE LOCK NUT)
(SEE NOTE #9)
ONLY FULL DIAMETER BODY BOLTS WILL BE ALLOWED



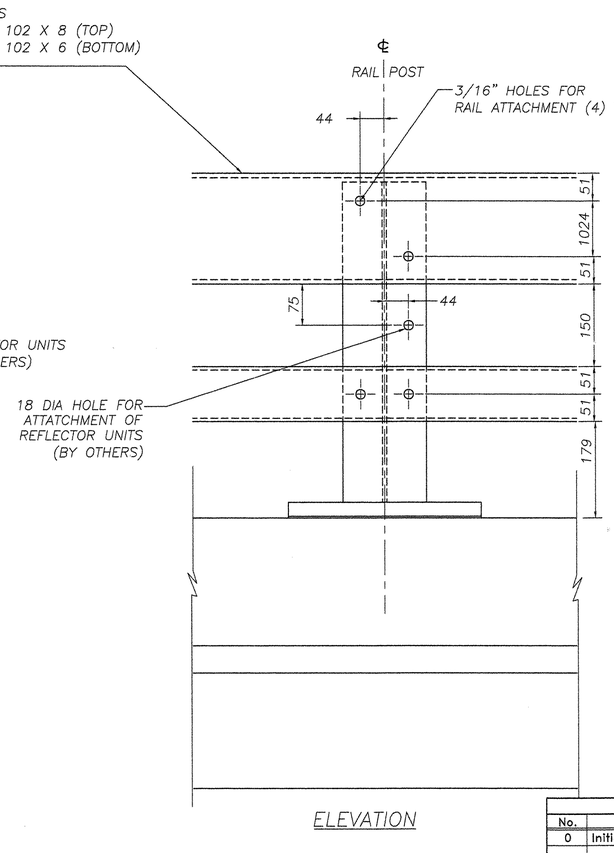
16 DIA TAPPED HOLE IN SPLICE TUBE
19 DIA HOLE IN RAIL TUBE FOR M16 DIA BOLT AND PLAIN HARDENED WASHER



RAIL TUBE SPLICE SECTION



TYPICAL SECTION



ELEVATION

REVISIONS		
No.	Remarks	Date
0	Initial submittal	1-13-05

RECEIVED
OK'D BY _____ OK'D BY MSM
JAN 20 2005
RESUBMIT _____ APPROVED As Noted
BY _____ DATE 2/11/05

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

ITEM 525.33 BRIDGE RAILING – NETC 2 RAIL
TOWN OF JAMAICA
COUNTY OF WINDHAM
PROJECT AC BRF 013-1(8)
VT. ROUTE 100 OVER WEST RIVER

GENERAL CONTRACTOR

SUB CONTRACTOR F.R. LAFAYETTE, INC.

DRAWN CJC
CHECKED
DATE 12/27/04
SCALE 3/16=12
HSC REFERENCE NO. 1488
SIZE D REVISION 0
SHEET NO. 3 of 4

212 BR

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

NOTES

1. REFER TO STANDARD DETAIL BRI–97M FOR ADDITIONAL DETAILS, NOTES AND MATERIAL SPECIFICATIONS

2. TO FACILITATE FIELD FIT–UP OF THE TRANSITION RAILING, POSTS SHALLBE SET LOOSELY INTO FIBER FORM TUBES WHILE TRANSITION PARTS ARE BEING ASSEMBLED. POST HOLES SHALL BE BACKFILLED WITH A CONCRETE MIX APPROVED BY THE ENGINEER. PAYMENT FOR COMPONENTS, INCLUDING BACKUP PLATE AND TERMINAL CONNECTOR FOR GUARD RAIL, AUGERING, FIBER FORM TUBES AND CONCRETE, AND INSTILLATION SHALL BE CONSIDERED INCIDENTAL TO BRIDGE RAILING N.E.T.C. 2 RAIL.

3. THE REFLECTORIZED ALUMINUM DELINEATION IS TO BE ERECTED EVERY 9M (OR CLOSEST POST) WITH A M16 BOLT. DELINEATORS SHALL MEET SPECIFICATION REQUIREMENTS FOR ASTM B209 ALLOY 5052–H32

4. REFLECTIVE MATERIAL SHALL MEET REQUIREMENTS OF SUBSECTION 750.08 AND SHALL BE OF ENCAPSULATED LENS SILVER OR AMBER. AMBER IS TO BE INSTALLED ON THE DRIVERS LEFT AND SILVER ON THEIR RIGHT.

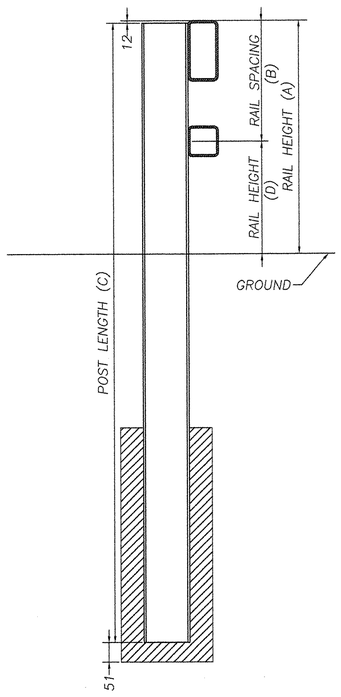
5. ON BRIDGES WITH A SIDEWALK, DELINEATORS ARE NOT TO BE INSTALLED ON THE SIDEWALK SIDE OF THE BRIDGE (I.E. DELINEATORS INSTALLED ONLY ON THE CURB SIDE AND ON THE APPROACH ON THE CURB SIDE). PAYMENT SHALL BE SUBSIDIARY TO ALL OTHER ITEMS.

6. ALL APPROACH RAIL SPLICES SHALL BE LAPPED IN THE DIRECTION OF TRAFFIC FLOW.

7. SEE STANDARD G–ldM FOR ADDITIONAL INFORMATION.

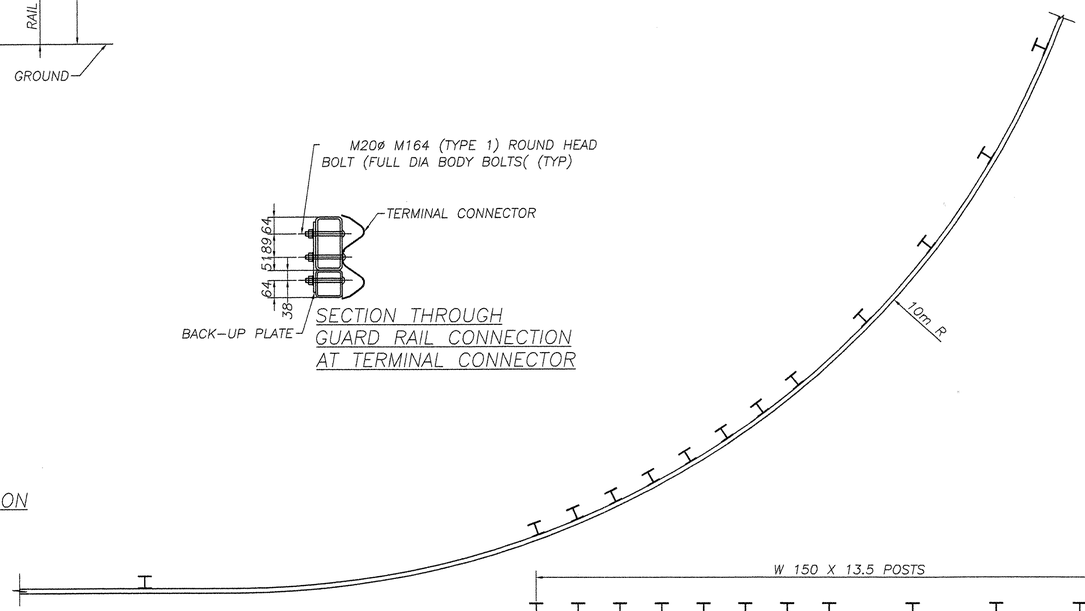
BILL OF MATERIAL (ITEM 621.72)

Qty.	Description	Size/Shape	length/qty. per unit	Material
48	GUIDE RAIL POST 1.835M OAH			
48	POST UPRIGHT	W150 x 13.5	1830	A36M
48	OFFSET BLOCK			
48	WOOD BLOCK	150x200x360		TIMBER
12	GUARD RAIL			
4	STANDARD W BEAM GUARDRAIL	3.810M/476.25		M180 B2
4	STANDARD W BEAM GUARDRAIL SHOP CURVE TO 10mR CONVEX	3.810M/476.25		M180 B2
2	STANDARD W BEAM GUARDRAIL	3.810M/952.5		M180 B2
2	STANDARD W BEAM GUARDRAIL SHOP CURVE TO 10mR CONVEX	3.810M/952.5		M180 B2
64	SPLICE BOLTS	M16	35	A307
112	RECESSED NUT	M16		A563
48	POST BOLTS	M16	255	A307

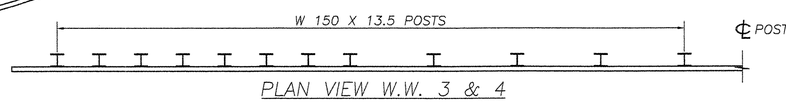


TYPICAL SECTION

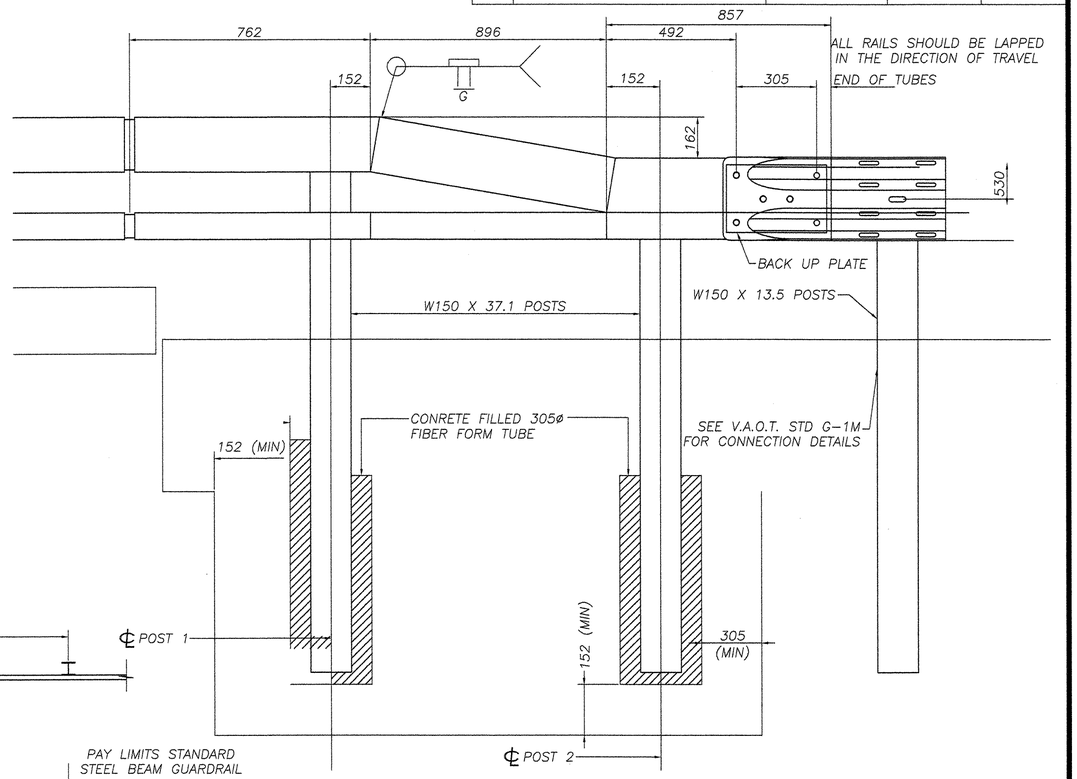
SECTION THROUGH GUARD RAIL CONNECTION AT TERMINAL CONNECTOR



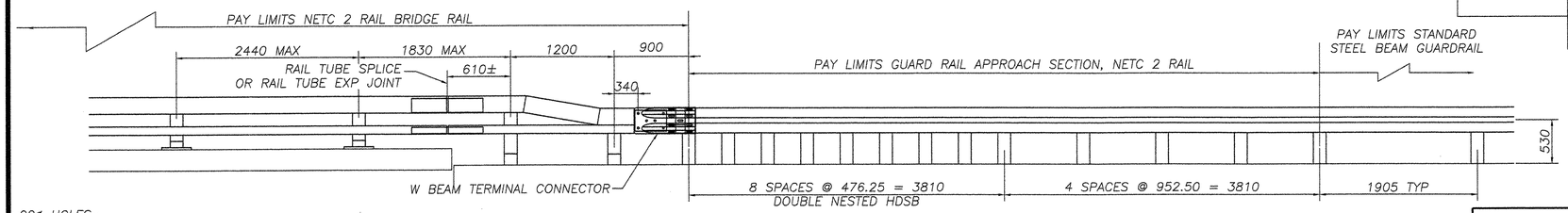
PLAN VIEW W.W. 1 & 2



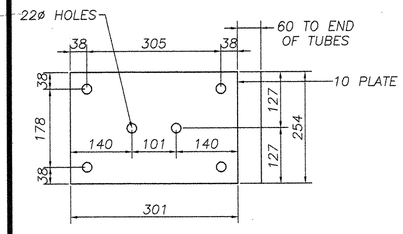
PLAN VIEW W.W. 3 & 4



ELEVATION



RAILING TRANSITION ELEVATION



ALL DIMENSIONS SHOWN ARE IN MM UNLESS OTHERWISE NOTED

REVISIONS		
No.	Remarks	Date
0	Initial submittal	1-13-05

RECEIVED
CK'D BY _____ OK'D BY _____
JAN 20 2005
RESUBMIT _____ APPROVED ✓
BY _____ DATE 2/11/05

HIGHWAY SAFETY CORP.
GLASTONBURY, CT

ITEM 671.72 NETC 2 RAIL BRIDGE RAIL
TOWN OF JAMAICA
COUNTY OF WINDHAM
PROJECT AC BRF 013–1(8)
VT. ROUTE 100 OVER WEST RIVER

GENERAL CONTRACTOR

SUB CONTRACTOR
F.R. LAFAYETTE, INC.

DRAWN C CRAMER
CHECKED
DATE 12–27–04
SCALE none
HSC REFERENCE NO. 1488
SIZE D REVISION 0
SHEET NO. 4 of 4

213 BR