INDEX OF SHEETS

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

RECORD PLANS-MATERIALS

RUTLAND TH 2610 BRIDGE
CONTRACTOR-BRIDGES INC. MONTPELIER, VT.
CONTRACT DATED-12 MAY 1976
CONSTRUCTION BEGAN-7 JUNE 1976
CONSTRUCTION COMPLETED-24 AUGUST 1976
ACCEPTED-31 AUGUST 1976
RES. ENGR.-HOWARD P. BARNES

RECORD PLANS-PAUL E. SINGLETON

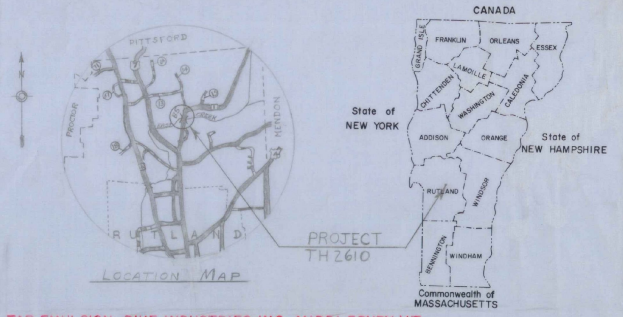
PROPOSED IMPROVEMENT

BRIDGE PROJECT
TOWN OF RUTLAND
COUNTY OF RUTLAND
ROUTE NO TH 1-CL2 BRIDGE NO B5

PROJECT LOCATION BEGINNING AT A POINT ON TH#1 (CL2) APPROX. 0.84 MILE NORTH OF THE TH#1-U.S ROUTE 7 INTERSECTION AND EXTENDING NORTHERLY ALONG TH#1 FOR 0.055 MILES.

PROJECT DESCRIPTION THIS PROJECT CONSISTS OF INSTALLING NEW EXPANSION JOINTS AT THE PIERS, A NEW HEAVY DUTY BRIDGE RAIL, ALSO CLEANING & PAINTING OF STRUCTURAL STEEL, PLUGGING OF WINDSLOTS, LIMITED APPROACH WORK AND OTHER REPAIRS AS INDICATED WITHIN THESE PLANS.

LENGTH OF STRUCTURE:	207	FEET
LENGTH OF PARTICIPATION ROADWAY:	83.74	FEET
LENGTH OF NON-PARTICIPATION ROADWAY:		FEET
LENGTH OF PROJECT:	290.74	FEET



LOCATION MAP

GENERAL NOTES

1. ITEM 637.10 MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS WILL CONSIST OF MAINTAINING A 12'(MIN.) TRAVEL LANE THROUGH THE PROJECT DURING WORKING HOURS. DURING NON-WORKING HOURS THE TRAVELED PORTION OF THE BRIDGE WILL BE 24' OR AS DIRECTED BY THE ENGINEER. ALL FLAGMEN, SIGNS, BARRICADES, AND OTHER ACCESSORIES NECESSARY FOR THE HANDLING OF TRAFFIC WILL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 637.10.

2. ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGE CONSTRUCTION BY THE STATE OF VERMONT DEPARTMENT OF HIGHWAYS, DATED JANUARY 1972.

3. THE CONCRETE REMOVAL AND REPAIR LIMITS SHOWN ON THE PLANS ARE ONLY APPROXIMATE AND ARE SUBJECT TO REVISION BY THE ENGINEER. THE CUT SURFACE WILL BE AIR BLAST CLEANED AND COATED WITH EPOXY BONDING COMPOUND BEFORE PLACING NEW CONCRETE.

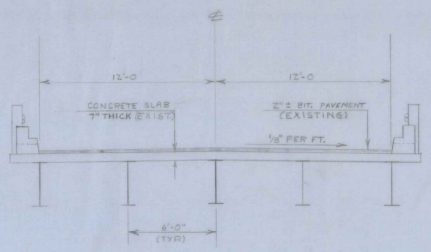
4. THE ENTIRE SURFACE OF ALL FASCIA BEAMS AND ALL BEARINGS WILL BE CLEANED AND PAINTED IN ACCORDANCE WITH ITEM 513.35 PAINTING, BLAST CLEANING. THE LUMP SUM PRICE WILL ALSO INCLUDE SPOT CLEANING OF THE THREE INTERIOR BEAMS AS DIRECTED BY THE ENGINEER. ALL INTERIOR BEAMS WILL ALSO BE PAINTED.

5. THE COST OF EXPANSION BOLTS FOR THE INSTALLATION OF HEAVY DUTY STEEL BEAM BRIDGE RAIL AND EXPANSION DEVICES AT PIER SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THESE TWO ITEMS.

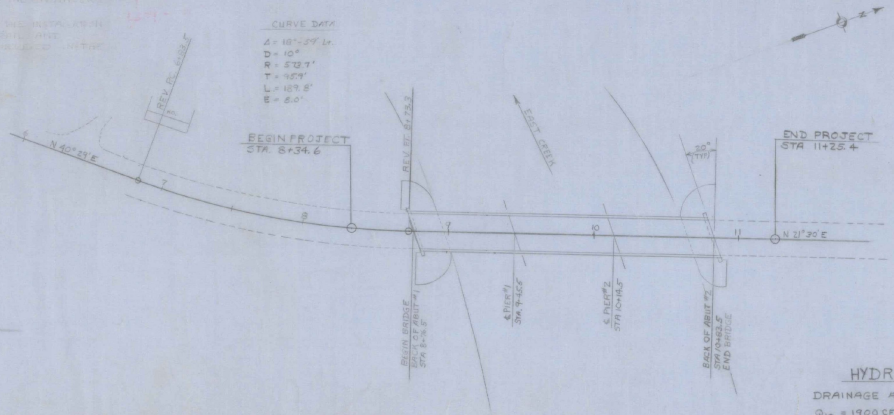
TAR EMULSION-PIKE INDUSTRIES INC. MIDDLEBURY, VT.
BITUMINOUS CONCRETE PAVEMENT-PIKE INDUSTRIES INC. MIDDLEBURY, VT.
CONCRETE-JOSEPH CARRARA AND SONS-NORTH CLARENDON, VT.
STRUCTURAL STEEL-VERMONT STRUCTURAL STEEL-BURLINGTON, VT.
PIONEER STEEL ENGINEERING INC.-GREENFIELD, MASS.
WATER REPELLENT-KIBBY EQUIPMENT CO. WHITE RIVER JCT., VT.
ELASTRMERIC EXPANSION-A.H. HARRIS AND SONS, INC. HYDE PARK, MASS.
EPOXY BONDING COMPOUND-DURAL INTERNATIONAL CORP., DEER PARK, N.Y.
BRIDGE RAILING
GUARD RAIL-HEAVY DUTY } GRISWOLD FENCE CO. WILLISTON, VT.
ANCHOR FOR STEEL BEAM GUARD RAIL

NOTE: ANY FURTHER INFORMATION CONCERNING FINAL QUANTITIES, AMOUNTS OR OTHER DETAILS RELATIVE TO THIS PROJECT MAY BE FOUND IN EITHER THE FIELD BOOKS OR THE ESTIMATE FILE.

TYPICAL BRIDGE SECTION



BUILT AS DESIGNED



CONVENTIONAL SIGNS

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

HYDRAULIC DATA

DRAINAGE AREA	44.8 SQ MI.
Q_{10} = 1900 CFS	H.W. ELEV = 90.5'
Q_{25} = 2800 CFS	= 91.2
Q_{50} = 3500 CFS	= 91.6
Q_{100} = 4200 CFS	= 92.0

TAILWATER EL. @ Q_{25} = 90.7 (BASED ON 1949 PLAN DATUM)
VELOCITY THRU BRIDGE @ Q_{25} = 7.7 F.P.S.

These plans are subject to such engineering changes as may be required by the Federal Highway Administration or the Chief Engineer.

Construction is to be carried on in accordance with these plans and the Standard Specifications for Highway and Bridge Construction dated January 3, 1972 as approved by the Federal Highway Administration on December 28, 1971 for use on this project, including all subsequent revisions and such revised specification and special provisions as are incorporated in these plans.

SUBMITTED BY ORDER OF THE STATE HIGHWAY BOARD
APPROVED E. H. Dickey DATE 3/22/76
CHIEF ENGINEER

PROJECT NO. RUTLAND TH 2610
SHEET 1 OF 7 SHEETS

D-10 S.R.S. 12/17/70

EARTHWORK

GRADES V.C.	% GRD	STATION	ELEVATION ON TAN.	ELEVATION ON V.C.	CORR. V.C.	DIST.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.	AREA	CU. YDS.

BRIDGE QUANTITY SHEET

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS
BRIDGE DIVISION

NO.	ITEM	UNIT	QUANTITY BREAKDOWN BRIDGE	ROADWAY	TOTAL	FINAL
202.16	REMOVAL OF BRIDGE PAVEMENT	S.Y.	60		60	77
202.35	REMOVAL OF EXISTING CONCRETE OR MASONRY	C.Y.	3		3	16.5
202.40	REMOVAL AND DISPOSAL OF EXISTING GUARD RAIL	LF		100	100	0
404.45	TAR EMULSION	GAL	26		26	0
406.25	BITUMINOUS CONCRETE PAVEMENT.	TON	6		6	4.25
501.20	CONCRETE CLASS A	CY	7		7	17.9
506.93	STRUCTURAL STEEL	LB	300		300	260
507.15	REINFORCING STEEL	LB	350		350	1530
513.35	PAINTING, BLAST CLEANING (19,600#)	LS	1		1	1
514.10	WATER REPELLENT	GAL	25		25	26
516.31	ELASTOMERIC EXPANSION DAM (1" MOVEMENT)	LF	54		54	53
615.30	EPOXY BONDING COMPOUND	GAL	3		3	18.5
617.35	BRIDGE RAILING-HEAVY DUTY STEEL BM.	LF	414		414	423
621.36	GUARD RAIL HEAVY DUTY STEEL BEAM W/ STEEL POSTS TYPE II	LF		60	60	128
621.72	ANCHOR FOR ST. BEAM GUARD RAIL W/ ST., LT. ST OR WOOD POSTS	EA		4	4	0
637.10	MAINTENANCE OF TRAFFIC FOR BRIDGE PROJECTS	LS	1		1	1
501.20	Concrete Class A (Mod.) CO #3	LS			0	1

BRIDGE (S) AT STATION (S) TH#1 OVER EAST CREEK
LOCATION (S) RUTLAND

Prepared by D. PERKINS | Checked by Bittell
SUPERVISOR: E. Bete

PROJECT NO. TH 2610
BR ___ OF ___
SHEET NO. 2 OF 7

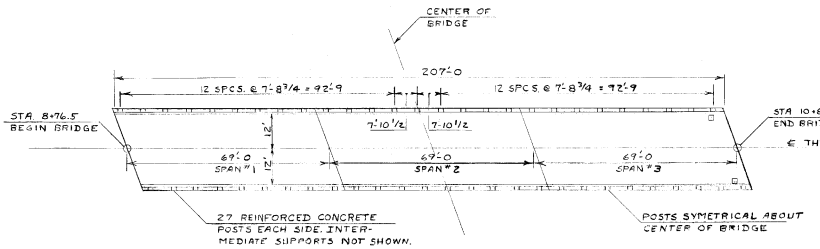
BR-1

ITEM 621.36 – HEAVY DUTY ST. BEAM G.R. W/ST. POSTS (TYPE II) (6'-3 SPC.)

STATION	UNFACTORED LENGTH	F	FACTORED LENGTH
LT. 8+59.6-8+72.1	12.5	1.2	15.0
LT. 10+79.1-10+91.6	12.5	1.2	15.0
RT. 8+68.4-8+80.9	12.5	1.2	15.0
RT. 10+87.9-11+00.4	12.5	1.2	15.0

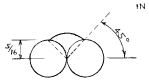
ITEM 621.72 ANCHOR FOR ST. BM. GUARD RAIL W/ST., LIGHT ST., OR WOOD POSTS.

STATION	QUANTITY
LT. 8+59.6	1 EA.
LT. 10+91.6	1 EA.
RT. 8+68.4	1 EA.
RT. 11+00.4	1 EA.

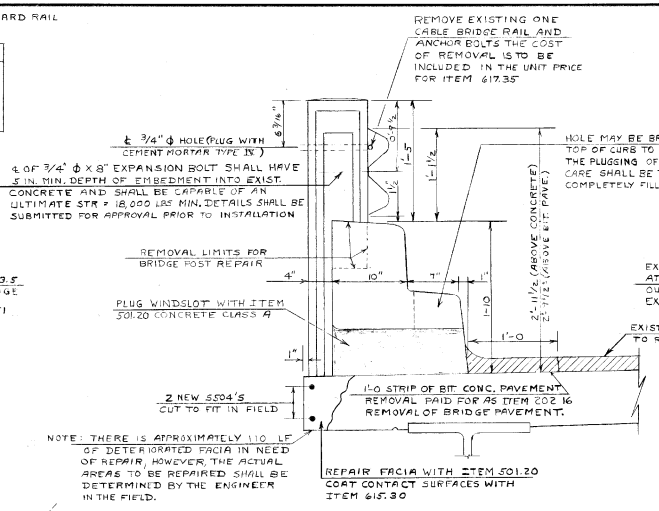


BRIDGE RAIL & DECK PLAN

SCALE - 1" = 20'

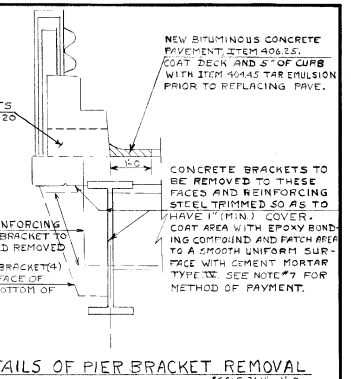


WELDED SPLICE DETAIL FOR BRIDGE RAIL POST REPAIR



SECTION OF CURB SHOWING POST

SCALE 1 1/2" = 1'-0

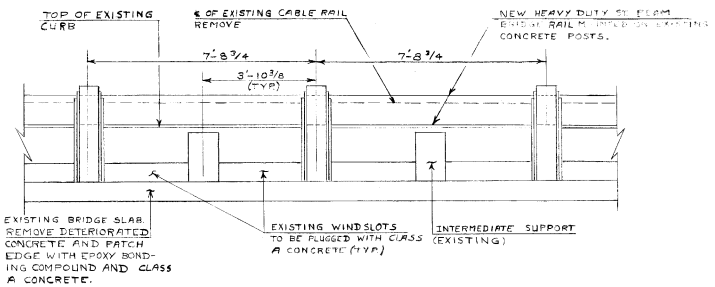


DETAILS OF PIER BRACKET REMOVAL

SCALE 3/4" = 1'-0

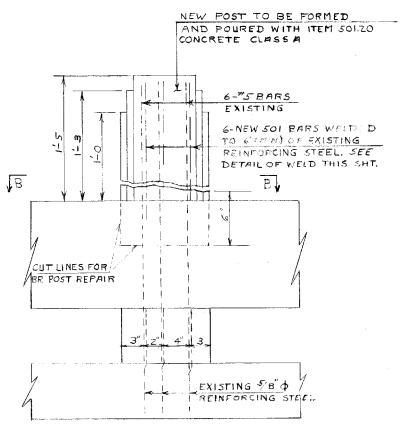
NOTES

1. ALL NEW CONCRETE USED FOR PLUGGING WINDSLOTS, INSTALLING SCUPPERS, REPAIRING THE BRIDGE RAIL POSTS AND THE FACIA EDGE WILL BE CONCRETE CLASS A ITEM 501.20.
2. DIMENSIONS SHOWN ON THE PLANS ARE TAKEN FROM OLD PLANS (RUTLAND ERS 12) AND STANDARDS FOR THIS PROJECT AND SHOULD BE FIELD CHECKED FOR ACCURACY PRIOR TO CONSTRUCTION.
3. REINFORCING STEEL WILL HAVE A 2" CLEARANCE UNLESS SHOWN OTHERWISE ON THE PLANS.
4. ANY CLEANING, BENDING, SPLICING, OR WELDING OF REINFORCING STEEL WILL BE CONSIDERED SUBSIDIARY TO ITEM 507.15 REINFORCING STEEL AND THE COST FOR SAME WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 507.15.
5. GUARD RAIL-HEAVY DUTY STEEL BEAM SHALL INCLUDE THE FURNISHING AND INSTALLATION OF HEAVY DUTY STEEL BEAM RAIL ON THE EXISTING CONCRETE POSTS AND ALL THE INCIDENTAL HARDWARE AND LABOR NECESSARY FOR THE COMPLETION OF THE ITEM.
6. A TRANSFLEX 150AC EXPANSION JOINT IS DEPICTED AS THE NEW JOINT USED AT THE PIERS, HOWEVER AN EQUIVALENT DEVICE MAY BE SUBMITTED TO THE VERMONT HIGHWAY DEPARTMENT BRIDGE ENGINEER FOR APPROVAL.
7. PATCH ENDS OF CONCRETE PIER DIAPHRAGMS WITH MORTAR TYPE IV (SECTION 707.04), THE COST OF THE MORTAR AND LABOR FOR THIS PATCHING WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 202.40. THIS ITEM WILL ALSO BE PAYMENT FOR CLEANING ALL LOOSE MATERIAL FROM THE TOP OF THE PIER CAPS.
8. SCUPPERS ARE TO BE FABRICATED OF A36 STRUCTURAL STEEL AND GALVANIZED IN THEIR ENTIRETY IN ACCORDANCE WITH ASTM 123 SPECIFICATIONS
9. ITEM 514.10, WATER REPELLENT WILL BE PLACED ON ALL EXPOSED CONCRETE IN THE CURB AND FASCIA AREA, INCLUDING THE CONCRETE BRIDGE RAIL POSTS AND ALL FASCIA CONCRETE OUTSIDE OF THE FASCIA BEAM. CARE SHALL BE TAKEN TO PREVENT SPILLAGE ON NEW BIT. PAVE. AREAS.
10. NEW HEAVY DUTY STEEL BEAM GUARD RAIL WITH STEEL POSTS, TYPE II ITEM 621.36 WILL BE INSTALLED AT EACH CORNER OF BRIDGE APPROACHES. ITEM 621.72 ANCHOR FOR STEEL BEAM GUARD RAIL WITH STEEL LIGHT STEEL OR WOOD POSTS WILL BE USED WITH EACH RUN OF GUARD RAIL.



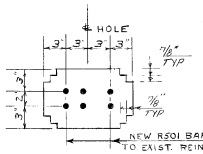
TYPICAL ELEVATION @ BRIDGE RAIL

SCALE 1/2" = 1'-0



ELEVATION AT FRONT OF BRIDGE POST

SCALE 1 1/2" = 1'-0



SECTION B-B

SCALE 1 1/2" = 1'-0

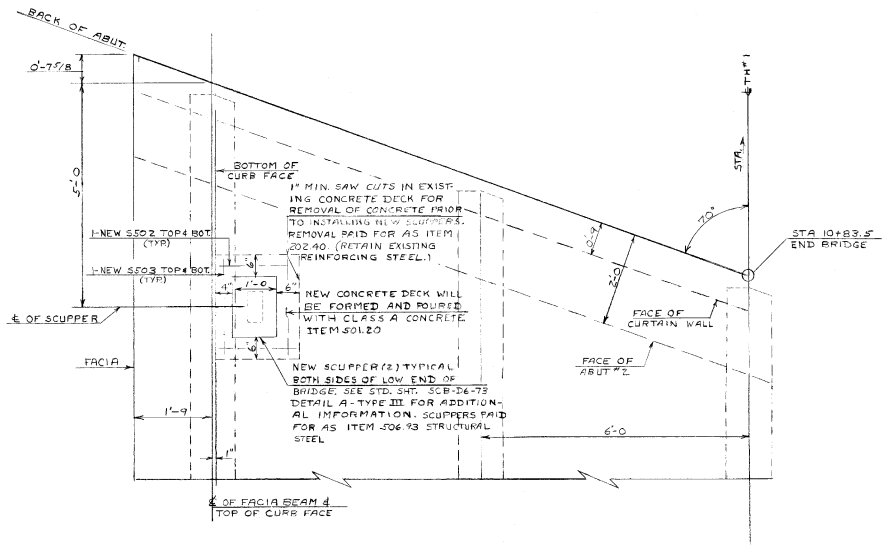
REINFORCING SCHEDULE (AASHTO M31, GRADE 40)				
NO PIECES	SIZE	LENGTH	MARK	TYPE
36	5	1'-9	R501	STR.
8	5	1'-6	5502	STR.
8	5	2'-0	5503	STR.
6	5	40'-0	5504	STR.

NOTE: APPROXIMATELY SIX BRIDGE RAIL POSTS ARE BROKEN AND NEED REPAIR AS DETAILED ABOVE, HOWEVER IT MAY BE NECESSARY (AS DETERMINED BY THE ENGINEER) TO REPAIR ADDITIONAL POSTS. IF THIS IS THE CASE ADDITIONAL R501 BARS WILL BE NEEDED.

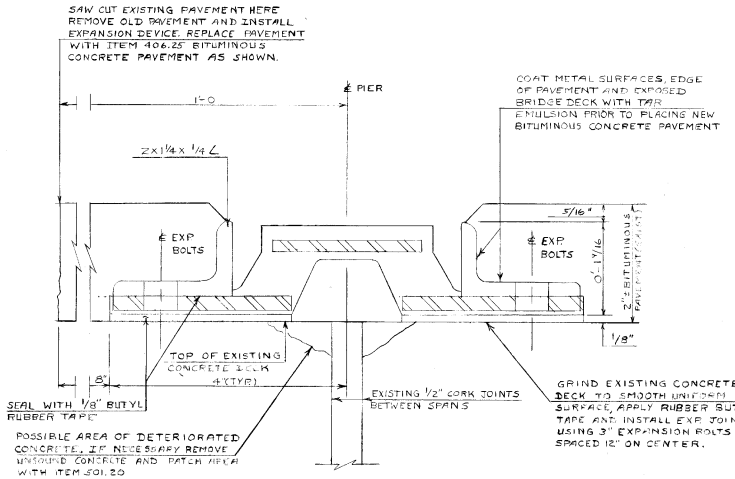
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF RUTLAND	Bridge No. # 5
HIGHWAY NO. TH 1 - CLASS 2	Log Sta.
	Surv. Sta.
TH #1 OVER EAST CREEK	
BRIDGE RAIL & FACIA REPAIRS	
Designed by D. PERKINS	Drawn by D. PERKINS
Checked by K. Hell date Mar 76	Bridge Design Supervisor E. Betz date 3/76
PROJECT RUTLAND	PROJECT NO. TH 2610
Bridge Sheet No.	Sheet 3 of 7

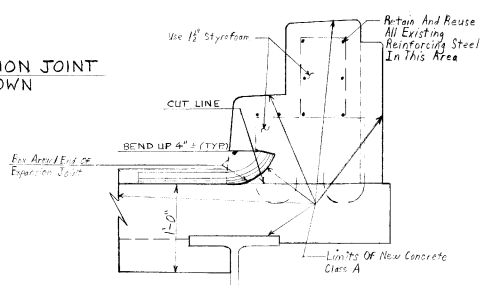
BR-9



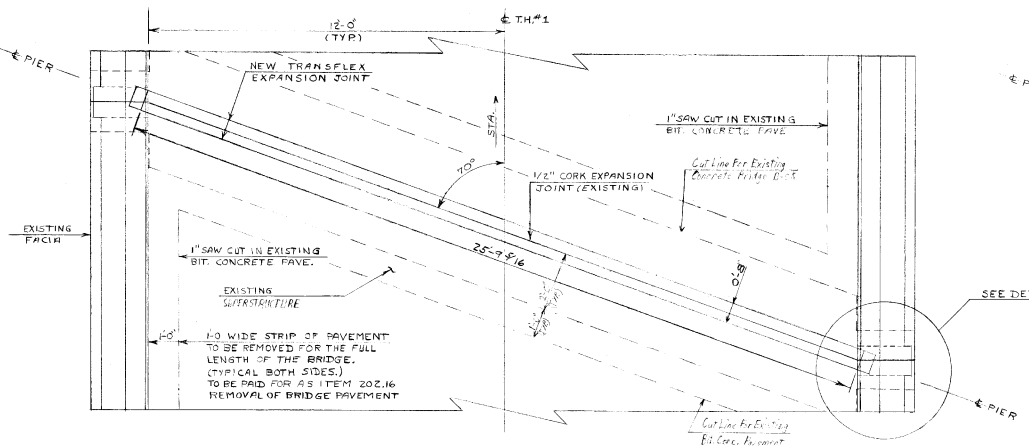
PARTIAL PLAN OF BRIDGE DECK
SHOWING NEW SCUPPER DETAILS
SCALE 3/4"=1'-0



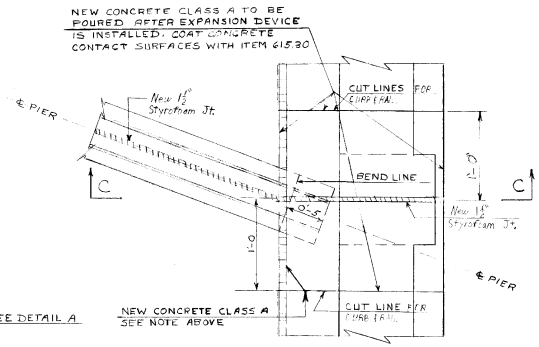
TYPICAL SECTION OF EXPANSION JOINT
TRANSFLEX-150 AC SHOWN



SECTION C-C
SCALE 1 1/2"=1'-0



DECK PLAN SHOWING EXPANSION JT. @ PIER
SCALE 1/2"=1'-0



DETAIL A
SCALE 1"=1'-0

NOTES

1. ALL FIELD WELDING SHALL BE DONE BY SKILLED CERTIFIED WELDERS IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE STRUCTURAL WELDING CODE OF THE AMERICAN WELDING SOC
2. FABRICATORS DRAWINGS OF EXPANSION DAMS WILL BE SUBMITTED TO THE VT. HIGHWAY DEPT BRIDGE ENGINEER FOR APPROVAL

REVISIONS
1. Revised Detail "A" To Show New Styrofoam Joint In Curb Line And Rails.
2. Revised Section C-C Showing Boxing In Of Expansion Joint End.
3. Revised "Deck Plan" Showing New Conc. And Bit. Cut Lines.
D. Perkins & D. Willey June 76

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF RUTLAND	Bridge No. #5
HIGHWAY NO. TH#1 - CLASS 2	Log Sta.
	Surv. Sta.
TH#1 OVER EAST CREEK	
SCUPPER & EXPANSION JOINT DETAILS	
Designed by D. PERKINS	Drawn by D. PERKINS
Checked by K. Hell date Mar 76	Bridge Design Supervisor E. Betz date 3/76
PROJECT RUTLAND	PROJECT NO. TH 2610
Bridge Sheet No.	Sheet 4 of 7

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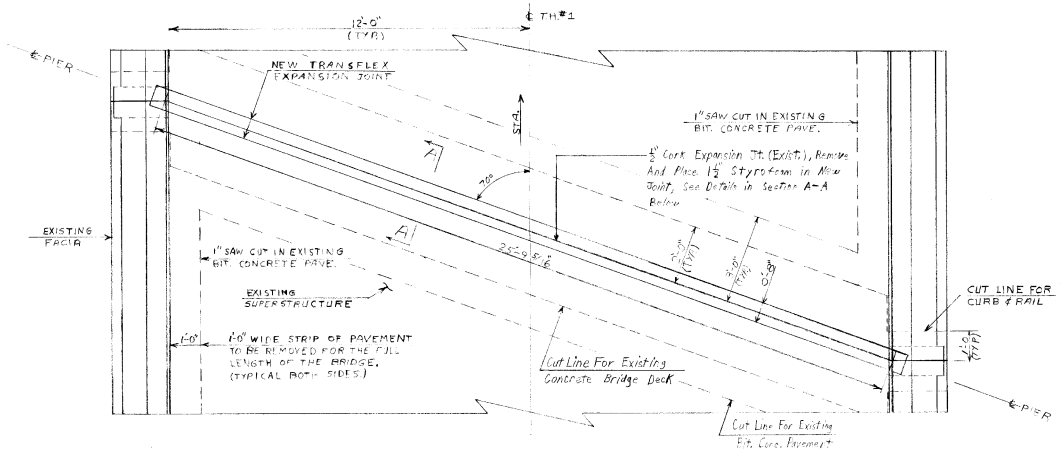
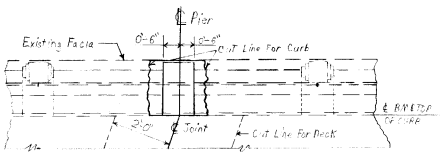


REVISED EXPANSION JT. @ PIERS #1 + #2

Scale ½"=1'-0"

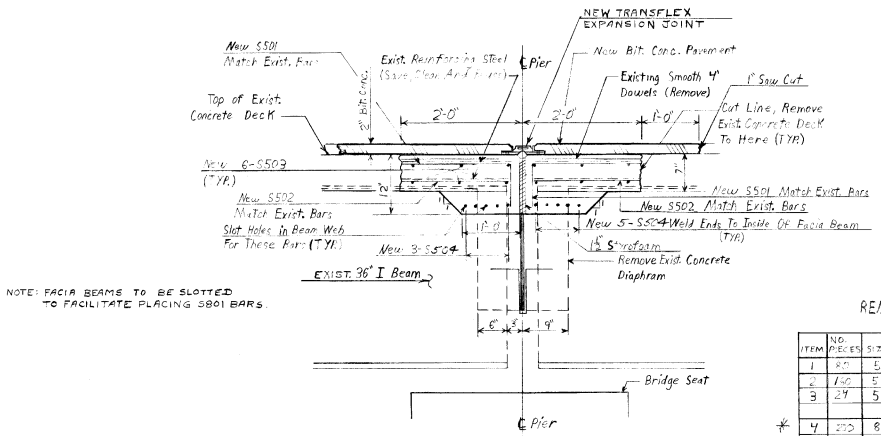
NOTES

1. All Existing Concrete Surfaces To Be In Contact With New Concrete Shall Be Coated With, Item 615.30, Epoxy Bonding Compound.
2. Concrete Removal At PIER Expansion Joints Will Be Paid For As Item 202.35, Removal Of Existing Concrete Or Masonry.
3. Item 501.20, Concrete Class A Will Be Used To Reconstruct The Bridge Deck At The Pier Expansion Joints.
4. Payment For 1½" Styrofoam Expansion Material Used At Piers 1&2 Expansion Joints Shall Be Included In The Lump Sum Price Of Item 501.20, Concrete Class A.



PLAN OF RAIL & CURB AT ℄ OF PIERS 1 & 2

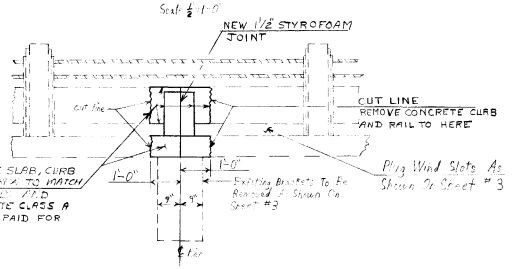
Scale ½"=1'-0"



NOTE: FACIA BEAMS TO BE SLOTTED TO FACILITATE PLACING S801 BARS.

SECTION A-A

Scale ½"=1'-0"



REBUILD THE CONCRETE SLAB, CURB AND RAIL IN THIS AREA TO MATCH THE EXISTING GRADES AND DIMENSIONS. CONCRETE CLASS A WILL BE USED AND PAID FOR AS ITEM 501.20.

ELEVATION OF RAIL & CURB AT ℄ OF PIERS 1 & 2

Scale ½"=1'-0"

REINFORCING STEEL SCHEDULE

AASHTO M31, GRADE 40

ITEM	NO. PIECES	SIZE	LENGTH	MARK	TYPE	A	B	C	D
1	80	5	2'-0"	S501	17		8	1'-9"	—
2	150	5	1'-9"	S502	Str.				
3	24	5	25'-0"	S503	Str.				
4	220	8	26'-0"	S504	Str.				

* S504 BARS REPLACE 3-801'S AS PER W.M.S. 6-28-76 D.E.P.

TYPICAL BAR BENDS

(17) B C D

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF RUTLAND	Bridge No. 5
	Log Sta.
HIGHWAY NO. TH #1 - CLASS 2	Surv. Sta.
TH #1 OVER EAST CREEK	
REVISED EXPANSION JOINT DETAILS	
Designed by W.M.S.	Drawn by D. WILLEY
Checked by J. Couture date 6-76	Bridge Design Supervisor F. Bolkum date 6-76
PROJECT RUTLAND	PROJECT NO. TH 2610
Bridge Sheet No.	Sheet 4A of 7

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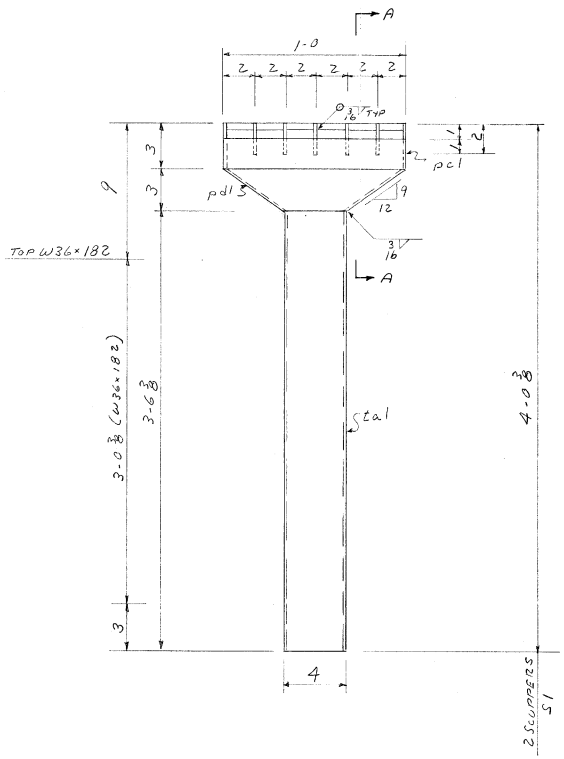

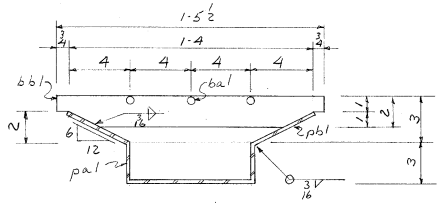

~ SECTION A-A ~

BILL OF MATERIAL

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	CLASSIFICATION FIT	CLASSIFICATION HOLES

JOB NO. SHEET NO.

BILL OF MATERIAL ASTM A36 U.N.

	NO. PIECES	MARK	DESCRIPTION	LENGTH FT.	LENGTH IN.		WEIGHT	CLASSIFICATION FIT	CLASSIFICATION HOLES
			2 SCUPPERS S1						
A500	2	tal	ST 8×4×1/4	3	6 3/8	RES @ 13-6	136		
	6	ba1	2 @ BAR x	0	11 1/2	d= @ 20-0	4		
	10	bb1	BAR 2 x 1/2 x	1	5 1/2	d= @ 20-0	50		
	4	pa1	BAR 3 x 1/4 x	1	0	} STK	10		
	4	pb1	BAR 4 1/2 x 1/4 x	1	0	}	15		
	4	pc1	BAR 3 x 1/4 x	1	4	RES @ 20-0	14		
	4	pd1	BAR 5 x 1/4 x	1	4		23		
							252		
			PLAIN MATERIAL						
	2		L2 x 2 x 5/16	1	0	RES @ 20-0	8		
							260		

VERMONT STRUCTURAL STEEL CORPORATION
BURLINGTON, VERMONT

PRINT AND REVISION RECORD

DATE	FOR	NO.	REV. #	BY	REVISION
5/9	ADD 5'			WA	
5/9	SHOP 3	(1)		TP	
5/13	SHT. 2			TP	

PROJECT BRIDGE PROJ. TH 2610
LOCATION RUTLAND, VT.
CUSTOMER BRIDGES INC
ARCHITECT STATE OF VERMONT
HOLES NONE DRAWN BY WA
BOLTS NONE CHECKED BY T
PAINT GALVANIZED TO ASTM A123 DATE 5/13/76
JOB NO. 89085 SHEET NO. 1

Vermont Agency of
Transportation
PHASE 3-INTERSTATE

Box 3394

INITIALS

DONE

Bridge
1976

Rutland
TH 2610

1976