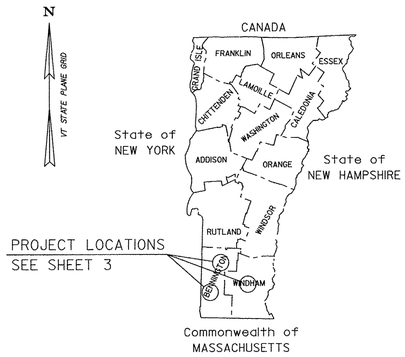
INDEX OF SHEETS

SEE SHEET 2

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWNS OF ARLINGTON, DORSET, JAMAICA AND SUNDERLAND
COUNTIES OF BENNINGTON AND WINDHAM
PROJECT BHF MEMB(20)

ROUTE NO.: US 7, VT 7A, VT 313, VT 30, TH3, TH4

BRIDGE NO.: 29 AND 40 ON VT 30
54 ON US7, 15 ON VT 7A, 5 AND 6 ON VT 313
21 ON TH3 OVER US 7
23 ON TH4 OVER US 7

PROJECT LOCATION:
BR 5 OVER BATTENKILL (VT 313 - MM 6.44), ARLINGTON
BR 6 OVER BATTENKILL BACKWATER (VT 313 - MM 6.49), ARLINGTON
BR 15 OVER ROARING BROOK (VT 7A - MM 4.75), ARLINGTON
BR 29 OVER WEST RIVER (VT 30 - MM 1.92), JAMAICA
BR 40 OVER WINHALL RIVER (VT 30 - MM 9.22), JAMAICA
BR 54 OVER VERMONT RAILWAY (US 7 - MM 5.02), DORSET
BR 21 OVER US 7 (TH3 - US 7 - MM 2.36), SUNDERLAND
BR 23 OVER US 7 (TH4 - US 7 - MM 4.25), SUNDERLAND

PROJECT DESCRIPTION: THIS PROJECT INVOLVES REMOVING AND REPLACING THE SHEET MEMBRANE WATERPROOFING AND BITUMINOUS CONCRETE PAVEMENT ON THE BRIDGE AND ITS APPROACHES AND INCIDENTAL ITEMS.

LENGTH OF STRUCTURES:

BR 5	78.26'
BR 6	84.06'
BR15	158.00'
BR 29	210.43'
BR 40	98.85'
BR 54	230.00'
BR 21	107.50'
BR 23	143.86'

TOTAL LENGTH OF STRUCTURES: 1110.96'

RECORD PLANS

CONTRACTOR: KUBRICKY CONSTURCTION CORP. - GLENS FALLS, NY

RESIDENT ENGINEER: ERIC FOSTER

CONSTRUCTION BEGAN: JUNE 5, 2009

CONSTRUCTION COMPLETE: JUNE 26, 2010

RECORD PLANS BY: ERIC FOSTER & AMOS KEMPTON

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

BY Eric Foster RESIDENT ENGINEER

DATE 1.26.12

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.

CONVENTIONAL SYMBOLS

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

STATE OF VERMONT
RODNEY A. BOSCO
No. 6581
CIVIL
LICENSED
PROFESSIONAL ENGINEER

PLANS PREPARED BY

Rodney A Bosco

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THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JUNE 15, 2006 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED Kirk D Fisher DATE 3-10-09

PROJECT MANAGER : SHERWARD FARNSWORTH

PROJECT NAME : STATEWIDE - SOUTHWEST REGION
PROJECT NUMBER : BHF MEMB(20)

SHEET 1 OF 47 SHEETS

FILE NAME = K:\19547\CADD\MSTN\COVER.dgn
DATE/TIME = 3/9/2009
USER = 2552

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* REFERENCES TO BRIDGES 21 AND 23 HAVE NOT BEEN UPDATED.

VAOT STANDARD SHEETS

E-100	01-02-04
E-100A	01-02-04
E-101	05-30-03
E-102	06-30-03
E-106	03-01-04
E-107	06-30-03
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E-110	08-08-95
E-121	08-08-95

PROJECT NOTES

GENERAL

1. ALL MATERIALS AND CONSTRUCTION SHALL CONFORM TO STATE OF VERMONT, AGENCY OF TRANSPORTATION, 2006 STANDARD SPECIFICATIONS FOR CONSTRUCTION, AND ITS LATEST REVISIONS, AND THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DATED 2002, AND ITS LATEST REVISIONS.

2. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS.

3. ALL COSTS ASSOCIATED WITH PROTECTION OF TRAFFIC DURING REMOVAL OF THE BRIDGE PAVEMENT WILL BE INCIDENTAL TO ITEM 529.10.

4. WATER REPELLENT, SILANE SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE PIERS AND THE UNDERSIDE OF THE DECK. THIS WORK WILL BE PAID FOR UNDER ITEM 514.10 WATER REPELLENT, SILANE.

5. FOLLOWING THE COMPLETION OF ALL OTHER CONSTRUCTION ACTIVITIES, ALL FABRIC DRAIN TROUGHS, DOWNSPOUTS AND SCUPPERS WITHIN THE LIMITS OF CONSTRUCTION AS SHOWN ON THE BITUMINOUS CONCRETE REMOVAL PLAN, SHALL BE THOROUGHLY FLUSHED BY THE CONTRACTOR. COST FOR FLUSHING THE FABRIC DRAIN TROUGHS, DOWNSPOUTS AND SCUPPERS WILL BE INCIDENTAL TO ALL OTHER ITEMS IN THE CONTRACT.

6. ALL SIDEWALK JOINTS AT BRIDGES 5 AND 6 AND ALL CURB JOINTS AT BRIDGE 15 SHALL HAVE EXISTING JOINT SEALER REMOVED AND REPLACED WITH JOINT SEALER, POLYURETHANE, TO BE PAID FOR UNDER ITEM 524.21.

7. NEW CONCRETE HEADERS AT BRIDGE 54 SHALL BE CONSTRUCTED PRIOR TO COLD PLANING OF BITUMINOUS PAVEMENT.

TRAFFIC CONTROL

8. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS, ALL COSTS FOR WORK SHOWN ON SHEETS 5, 6 AND 7 FOR TEMPORARY TRAFFIC CONTROL DEVICES INCLUDING TRAFFIC BARRIERS, RETROREFLECTIVE DRUMS, SIGNS, AND SIGN POSTS WILL BE CONSIDERED TO BE INCLUDED IN THE CONTRACT LUMP SUM PRICE FOR ITEM 641.10 TRAFFIC CONTROL.

9. TRAFFIC SHALL BE ALLOWED TO DRIVE ON THE BARE CONCRETE BRIDGE DECK AFTER THE REMOVAL OF THE BARRIER MEMBRANE AND PRIOR TO THE DECK BEING CLEANED AND PREPARED FOR THE NEW SHEET MEMBRANE. ONCE THE CONCRETE BRIDGE DECK IS PREPARED FOR THE NEW SHEET MEMBRANE, NO TRAFFIC SHALL BE ALLOWED ON THE DECK UNTIL THE FIRST LIFT OF BITUMINOUS CONCRETE PAVEMENT IS IN PLACE OVER THE ENTIRE LENGTH OF THE BRIDGE.

10. PAINTING WORK IS SCHEDULED FOR BRIDGE 54 ON US 7 (MM 5.02) IN DORSET. IF THIS WORK IS IN PROGRESS WHEN WORK COMMENCES ON BRIDGE 54 THE CONTRACTOR SHALL COORDINATE THEIR TRAFFIC CONTROL (LANE CLOSURE) WITH THE PAINTING CONTRACTOR'S TRAFFIC CONTROL (LANE CLOSURE). THE COST OF COORDINATING THE TRAFFIC CONTROL WILL BE INCIDENTAL TO ITEM 641.10.

11. DUE TO THE PROXIMITY OF BRIDGES 5 AND 6, THE TRAFFIC CONTROL FOR THESE BRIDGES WILL BE PAID FOR UNDER ONE TRAFFIC CONTROL ITEM FOR BRIDGES 5 AND 6.

PAVEMENT REMOVAL NOTES

12. THE FINAL ONE HALF INCH OF PAVEMENT ON THE CONCRETE BRIDGE DECK AND APPROACH SLABS SHALL BE REMOVED BY LOADER, GRADER OR EQUIPMENT APPROVED BY THE ENGINEER. COLD PLANING TO REMOVE BRIDGE PAVEMENT WILL BE INCIDENTAL TO ITEM 529.10 REMOVAL OF BRIDGE PAVEMENT.

13. DURING BRIDGE AND APPROACH SLAB PAVEMENT REMOVAL, THE CONTRACTOR SHALL EXERCISE CARE TO ENSURE THAT NO DAMAGE OCCURS TO THE EXISTING CONCRETE BRIDGE DECK AND THE EXISTING APPROACH SLABS. ANY DAMAGE TO THE CONCRETE BRIDGE DECK OR APPROACH SLABS SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE. REPAIRS SHALL BE MADE IN ACCORDANCE WITH SECTION 580.

14. CARE SHALL BE TAKEN TO PROTECT ANY SCUPPERS OR DROP INLETS AT ALL STAGES OF CONSTRUCTION. ANY DAMAGE TO THESE STRUCTURES SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND AT THE CONTRACTOR'S EXPENSE.

15. AFTER THE REMOVAL OF THE BRIDGE PAVEMENT, THE BARRIER MEMBRANE SHALL BE REMOVED AND THE CONCRETE BRIDGE DECK SHALL BE CLEANED AND PREPARED IN ACCORDANCE WITH SUBSECTION 580.04 AND TO THE SATISFACTION OF THE ENGINEER. REMOVAL OF THE BARRIER MEMBRANE AND THE CLEANING AND PREPARATION OF THE CONCRETE BRIDGE DECK WILL BE PAID FOR UNDER ITEM 580.16 SURFACE PREPARATION FOR MEMBRANE.

16. ONCE THE BARRIER MEMBRANE IS REMOVED, ANY AREAS ON THE CONCRETE BRIDGE DECK THAT ARE FOUND TO BE UNSOUND SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER. THE ENGINEER SHALL MAKE A DETERMINATION AS TO HOW TO REPAIR THE DETERIORATED PORTION OF THE CONCRETE BRIDGE DECK AND THE LIMITS OF THE REPAIR.

17. UPON THE ENGINEER'S APPROVAL OF THE CONCRETE BRIDGE DECK'S CONDITION, ITEM 519.20 SHEET MEMBRANE WATERPROOFING, TORCH APPLIED SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 519.

PAVEMENT NOTES

18. FOLLOWING THE INSTALLATION OF THE NEW SHEET MEMBRANE WATERPROOFING ON THE CONCRETE BRIDGE DECK, THE CONCRETE BRIDGE DECK AND THE AT-GRADE APPROACH SLABS SHALL BE PAVED CURB TO CURB WITH ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT IN TWO 1½" LIFTS (SEE TYPICAL APPROACH SECTION ON SHEET 9). THE PAVEMENT SHALL BE TYPE IV FOR BOTH LIFTS, NO EXCEPTIONS.

19. CARE SHALL BE EXERCISED TO SMOOTHLY TRANSITION THE NEW BRIDGE PAVEMENT INTO THE EXISTING PAVEMENT. ANY COLD PLANING NECESSARY FOR SHAPING BRIDGE APPROACHES SHALL BE PAID FOR UNDER ITEM 210.10 COLD PLANING, BITUMINOUS PAVEMENT.

20. TESTING FOR PAVEMENT DENSITY WILL REQUIRE CORES OF THE PAVEMENT ON THE BRIDGE. THE COST FOR THIS WORK WILL BE INCIDENTAL TO ITEM 406.27 MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT. ANY DAMAGE TO THE NEW SHEET MEMBRANE CAUSED BY CORING THE PAVEMENT SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND AT THE CONTRACTOR'S EXPENSE.

PAVEMENT MARKING NOTES

21. THE CONTRACTOR SHALL INSTALL TEMPORARY PAVEMENT MARKINGS ON ALL PAVED SURFACES THAT WILL NOT HAVE THE PERMANENT MARKINGS APPLIED WITHIN 14 CALENDAR DAYS OF THE FINAL PAVING OPERATIONS AS DIRECTED BY THE RESIDENT ENGINEER.

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PROJECT NAME: STATEWIDE - SOUTHWEST REGION

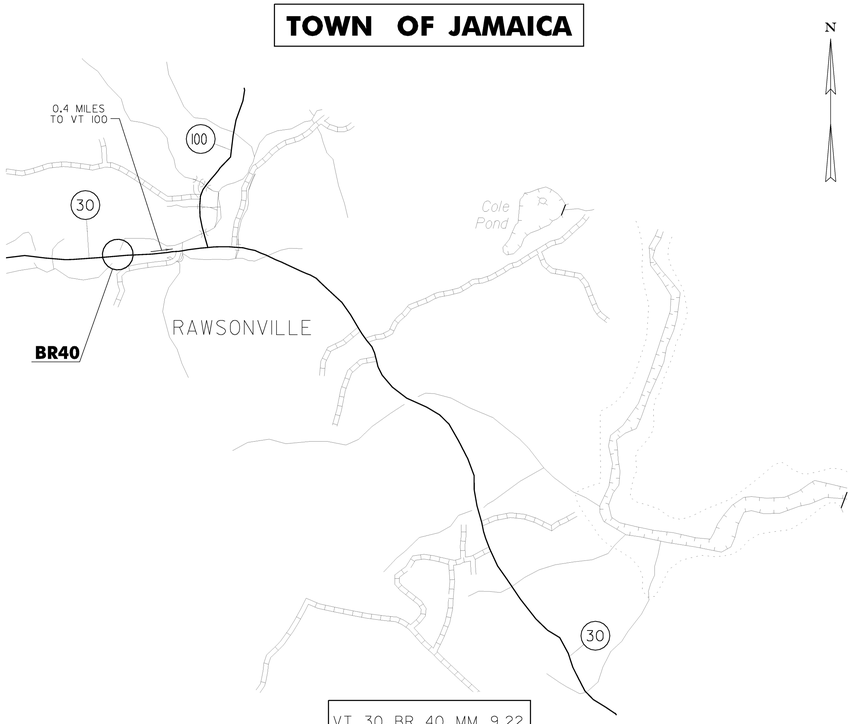
PROJECT NUMBER: BHF MEMB(20)

FILE NAME: INDEX.DGN
PROJECT LEADER: P. PIERCE
DESIGNED BY: C. AYERS
INDEX OF SHEETS AND PROJECT NOTES

PLOT DATE: 3/11/2009
DRAWN BY: C. KAHLBAUGH
CHECKED BY: P. PIERCE
SHEET 2 OF 47

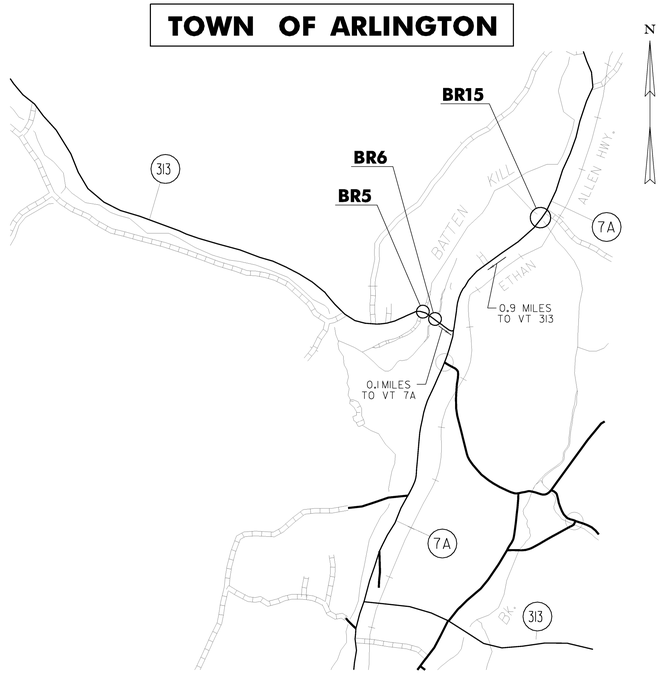
FILE NAME = K:\19547\CADD\MSTN\INDEX.dgn
DATE/TIME = 3/11/2009
USER = 1459

TOWN OF JAMAICA



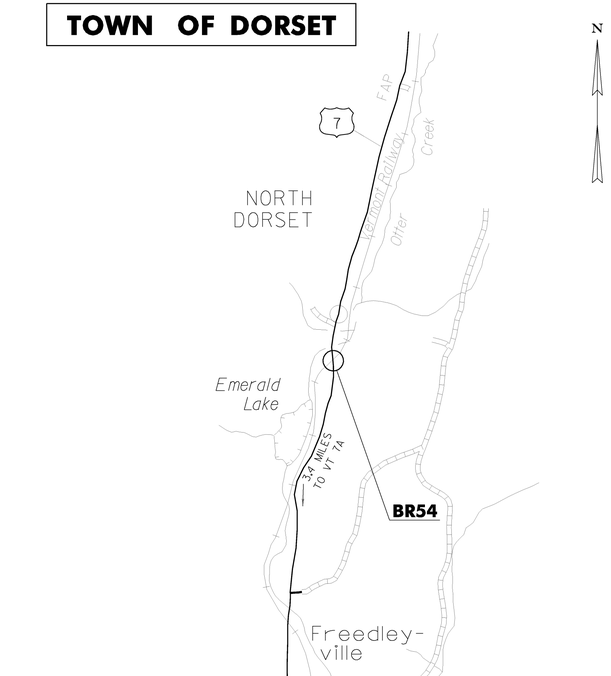
VT 30, BR 40, MM 9.22

TOWN OF ARLINGTON



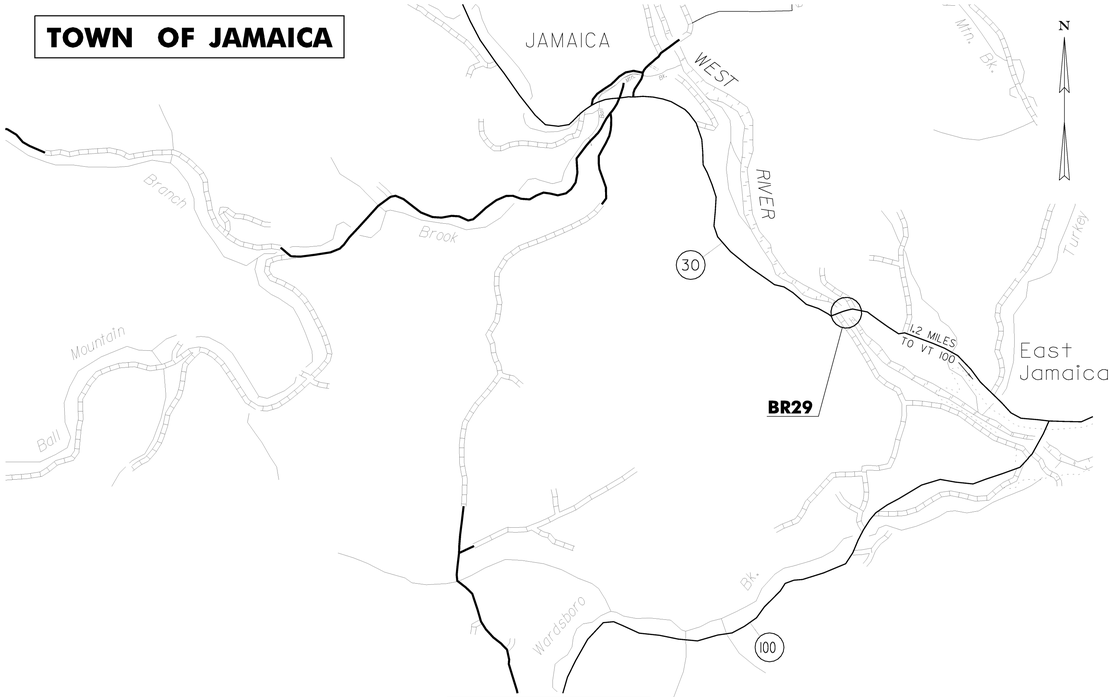
VT 313, BR 5, MM 6.44
VT 313, BR 6, MM 6.49
VT 7A, BR 15, MM 4.75

TOWN OF DORSET



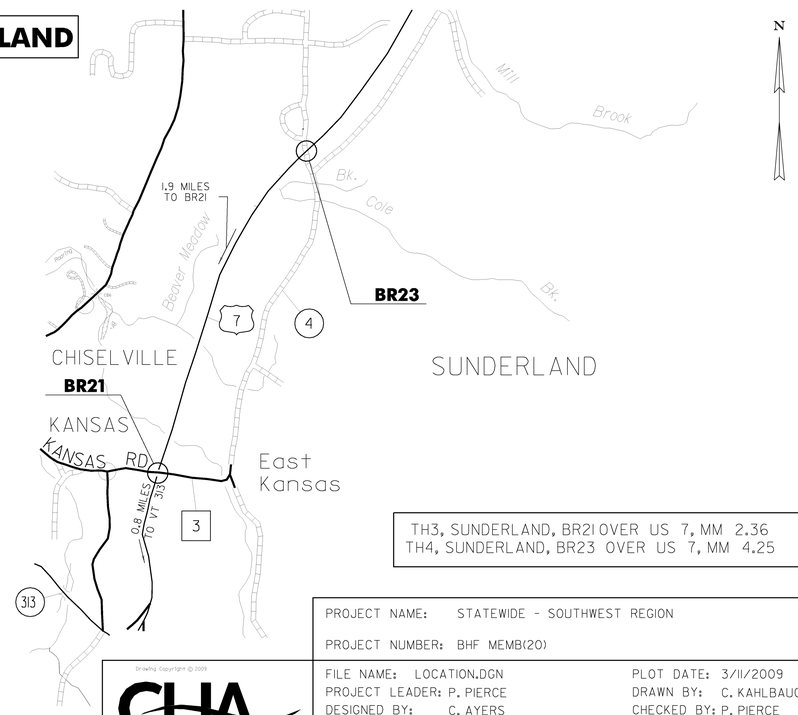
UR 7, BR 54, MM 5.02

TOWN OF JAMAICA



VT 30, BR 29, MM 1.92

TOWN OF SUNDERLAND



TH3, SUNDERLAND, BR21 OVER US 7, MM 2.36
TH4, SUNDERLAND, BR23 OVER US 7, MM 4.25

PROJECT NAME: STATEWIDE - SOUTHWEST REGION

PROJECT NUMBER: BHF MEMB(20)

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FILE NAME: FILE NAME = K:\19547\CADD\MSTN\LOCATION.dgn
DATE/TIME: DATE/TIME = 3/11/2009
USER: USER = 1459

FILE NAME: LOCATION.DGN	PLOT DATE: 3/11/2009
PROJECT LEADER: P. PIERCE	DRAWN BY: C. KAHLBAUGH
DESIGNED BY: C. AYERS	CHECKED BY: P. PIERCE
PROJECT LOCATION SHEET	SHEET 3 OF 47

STATE OF VERMONT
AGENCY OF TRANSPORTATION

QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES

ROADWAY	VT 313 - BRIDGE NO. 5	VT 313 - BRIDGE NO. 6	VT 7A - BRIDGE NO. 15	VT 30 - BRIDGE NO. 29	VT 30 - BRIDGE NO. 40	U.S. 7 - BRIDGE NO. 54	TH 3 - BRIDGE NO. 21	TH 4 - BRIDGE NO. 23	FULL C.E.
1									
	205	445	220	520	220	270	295	505	
	1	1.5	1.3	2.5	1	1.7	1.2	1.8	
	80	126	133	241	95	175	113	159	
	1	1	1	1	1	1	1	1	
1									
	13	14	19	29	20	32	22	29	
	70	68	66	96	84	30	68	62	
	290	312	574	905	359	767	391	437	
						60			
	25	25	50						
	290	312	574	905	359	767	391	437	
	2610	2808	5166	8145	3231	6903	3519	3933	
	10	10	10	10	10	88	10	10	
	40	40	80	80	50	110	50	80	
	60	60	120	120	80	160	80	120	
									1
									1
1									
							1		
								1	
						1			
				1					
					1				
	0.5	0.5							
			1						
	2	1	2	2	2	2	2	2	
	375	650	555	900	440	780	535	950	
	375	650	555	900	280	780	535	950	
	375	650	555	900	440	780			
	375	650	555	900	280	780			
	24	18	18	27	15	27	6	9	
1									

TOTALS

GRAND TOTAL	FINAL
1	
2680	
12	
1122	
8	
1	
178	
544	
4035	
60	
100	
4035	
36315	
158	
530	
800	
1	
1	
1	
1	
1	
1	
1	
1	
1	
1	
15	
5185	
5025	
3700	
3540	
144	
1	

DESCRIPTIONS

UNIT	ITEMS	ITEM NUMBER	ROUND
CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)	204.22	
SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	-
CWT	EMULSIFIED ASPHALT	404.65	-
TON	MEDIUM DUTY BITUMINOUS CONCRETE PAVEMENT	406.27	
LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)	406.29	
LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)	406.50	-
GAL	WATER REPELLENT, SILANE	514.10	-
LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	516.10	-
SY	SHEET MEMBRANE WATERPROOFING, TORCH APPLIED	519.20	-
LF	JOINT SEALER, HOT POURED	524.11	-
LF	JOINT SEALER, POLYURETHANE	524.21	-
SY	REMOVAL OF BRIDGE PAVEMENT	529.10	-
SF	SURFACE PREPARATION FOR MEMBRANE	580.16	-
CF	RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE	580.20	-
HR	UNIFORMED TRAFFIC OFFICERS	630.10	-
HR	FLAGGERS	630.15	-
LS	TESTING EQUIPMENT, CONCRETE	631.16	-
LS	TESTING EQUIPMENT, BITUMINOUS	631.17	-
LS	MOBILIZATION/DEMOBILIZATION	635.11	-
LS	TRAFFIC CONTROL (TH 3 - BRIDGE NO. 21)	641.10	
LS	TRAFFIC CONTROL (TH 4 - BRIDGE NO. 23)	641.10	
LS	TRAFFIC CONTROL (U.S. 7 - BRIDGE NO. 54)	641.10	-
LS	TRAFFIC CONTROL (VT 30 - BRIDGE NO. 29)	641.10	-
LS	TRAFFIC CONTROL (VT 30 - BRIDGE NO. 40)	641.10	-
LS	TRAFFIC CONTROL (VT 313 - BRIDGE NO. 5 & 6)	641.10	-
LS	TRAFFIC CONTROL (VT 7A - BRIDGE NO. 15)	641.10	-
EACH	PORTABLE CHANGEABLE MESSAGE SIGN	641.15	-
LF	4 INCH WHITE LINE	646.20	
LF	4 INCH YELLOW LINE	646.21	
LF	TEMPORARY 4 INCH WHITE LINE, PAINT	646.602	-
LF	TEMPORARY 4 INCH YELLOW LINE, PAINT	646.612	-
EACH	LINE STRIPING TARGETS	646.76	-
LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)	690.50	-

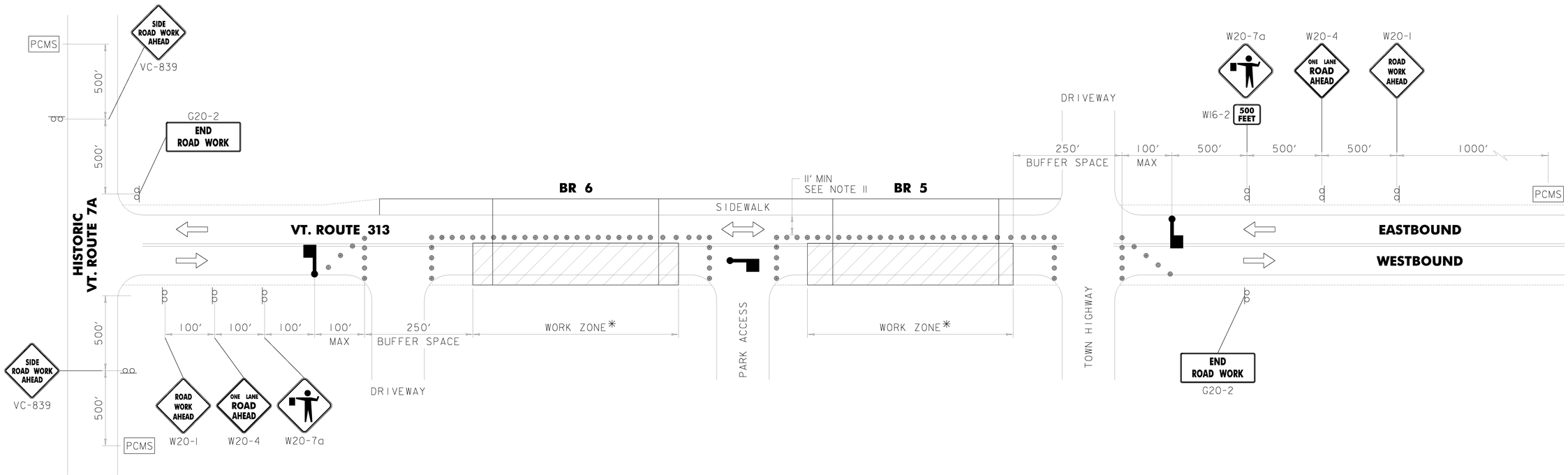
DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS

PROJECT NAME: STATEWIDE - SOUTHWEST REGION
PROJECT NUMBER: BHF MEMB(20)

FILE NAME: QUAN.DGN
PROJECT LEADER: P. PIERCE
DESIGNED BY: C. AYERS
QUANTITY SHEET #1

PLOT DATE: 03/10/2009
DRAWN BY: C. KAHLBAUGH
CHECKED BY: P. PIERCE
SHEET 4 OF 47



* - ACTUAL DIMENSION SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL BE SHOWN ON TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR.

TRAFFIC CONTROL PLAN A
(SEE ALSO SHEET 6)

NOT TO SCALE

BR 5 & BR 6 VT ROUTE 313 TOWN OF ARLINGTON

TRAFFIC CONTROL NOTES:

1. THE TRAFFIC CONTROL PLANS SHOWN ARE SCHEMATIC ONLY AND SHOULD BE USED AS A REFERENCE. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN FOR ALL BRIDGES TO THE ENGINEER FOR APPROVAL. PAYMENT FOR PREPARING AND SUBMITTING THE TRAFFIC CONTROL PLAN FOR EACH BRIDGE, AND MAKING ANY NECESSARY REVISIONS TO THE PLAN(S) WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10 TRAFFIC CONTROL FOR THAT BRIDGE AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL ALLOW TWO WEEKS FOR APPROVAL OF THE TRAFFIC CONTROL PLAN. NO WORK SHALL COMMENCE UNTIL THE CONTRACTOR HAS AN APPROVED TRAFFIC CONTROL PLAN AS DIRECTED BY THE ENGINEER.
2. ALL PARKING AREAS AND/OR DRIVES LOCATED WITHIN THE WORK ZONE SHALL HAVE THAT ENTRANCE/EXIT DELINEATED WITH CONES OR DRUMS, AND MAY REQUIRE AN ADDITIONAL FLAGGER AS DIRECTED BY THE ENGINEER.
3. ANY PUBLIC HIGHWAYS LOCATED WITHIN THE WORK ZONE SHALL REQUIRE AN ADDITIONAL FLAGGER TO MAINTAIN TRAFFIC CONTROL FOR THE PUBLIC HIGHWAY AS DIRECTED BY THE ENGINEER.
4. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
5. SIGNS SHALL BE ERECTED BEFORE THE START OF ANY WORK AND SHALL BE COVERED UNTIL WORK COMMENCES, DURING PERIODS OF INACTIVITY OR UPON COMPLETION OF THE WORK. EACH SIGN SHALL BE ERECTED IN A NEAT AND WORKMANLIKE MANNER. THE CONTRACTOR SHALL REMOVE OR COVER SIGNS AS DIRECTED BY THE ENGINEER.
6. FIXED SIGNS SHALL BE SET SECURELY IN THE GROUND. THE BOTTOM OF A SIGN SHALL BE AT LEAST SEVEN FEET ABOVE THE EDGE OF PAVEMENT.
7. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AT A MINIMUM OF ONE FOOT ABOVE THE TRAVELED WAY. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
8. FIXED SIGNS SHALL BE PLACED FROM THE NEAREST EDGE OF A SIGN FACE A MINIMUM OF SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE THE FACE OF GUARDRAIL. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED AS DIRECTED BY THE ENGINEER.
9. THE NUMBER OF CHANNELIZING DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY, THE ACTUAL NUMBER REQUIRED SHALL BE DETERMINED BY THE CONTRACTOR IN CONJUNCTION WITH THE MUTCD AND SHOWN ON THE TRAFFIC CONTROL PLAN SUBMITTED BY THE CONTRACTOR. WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
10. PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE USED AT THE DISCRETION OF THE ENGINEER. THE PCMS SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD. THE PCMS SHALL READ "ONE WAY TRAFFIC AHEAD BE PREPARED TO STOP" OR AS DIRECTED BY THE ENGINEER.
11. THE CONTRACTOR SHALL MAINTAIN ONE 11' UNOBSTRUCTED TRAVEL LANE DURING WORKING HOURS IN ACCORDANCE WITH AN APPROVED TRAFFIC CONTROL PLAN. ALL EQUIPMENT SHALL BE MOVED TO A LOCATION OFF PAVED SHOULDERS DURING NON-WORK PERIODS AND PROTECTED BY BARRELS OR CONES AS DIRECTED BY THE ENGINEER. NORMAL TRAFFIC LANES SHALL BE RESTORED DURING NON-WORK PERIODS AND TEMPORARY TRAFFIC SIGNS REMOVED OR COVERED AS DIRECTED BY THE ENGINEER.
12. IN AREAS WHERE SIDEWALKS OR OTHER BICYCLE & PEDESTRIAN TRAFFIC ROUTES MUST BE CLOSED DUE TO CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL PROVIDE A SAFE ROUTE THROUGH THE PROJECT AREA AT ALL TIMES IN ACCORDANCE WITH THE CURRENT AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHALL INSTALL "SIDEWALK CLOSED" SIGNS (R9-9) ON TYPE III BARRICADES WHERE SIDEWALKS ARE CLOSED DUE TO CONSTRUCTION ACTIVITIES.

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- WORK AREA
- FLAGGER
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 10)

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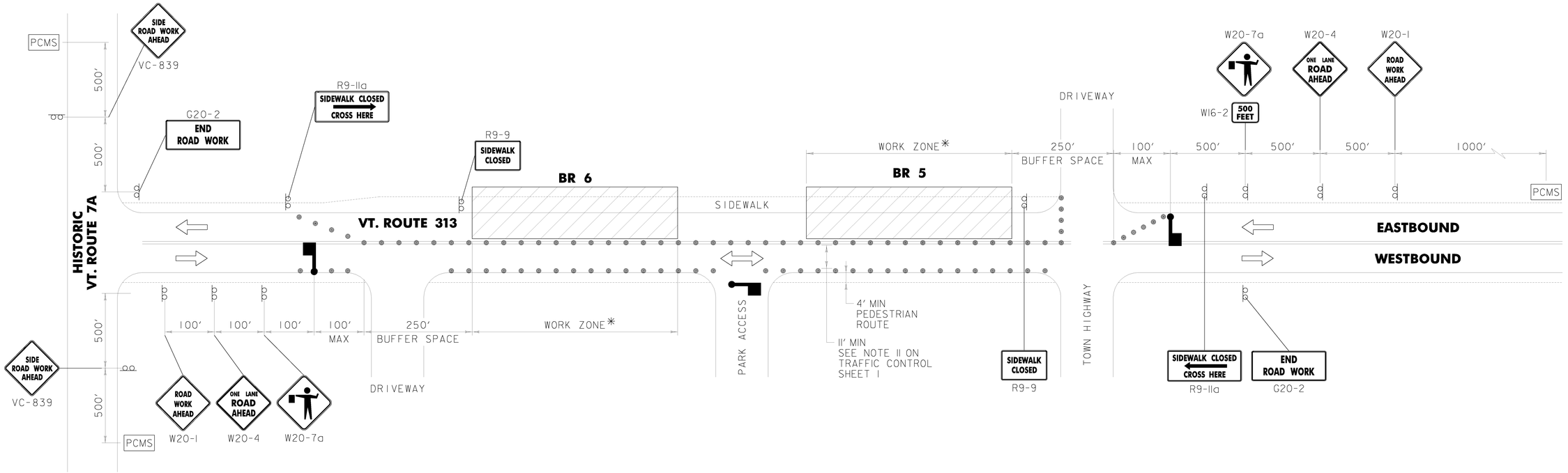
PROJECT NAME: STATEWIDE - SOUTHWEST REGION

PROJECT NUMBER: BHF MEMB(20)

FILE NAME: TCP 1.DGN | PLOT DATE: 3/11/2009
PROJECT LEADER: P. PIERCE | DRAWN BY: C. KAHLBAUGH
DESIGNED BY: D. EMERICH | CHECKED BY: P. PIERCE
TRAFFIC CONTROL SHEET 1 | SHEET 5 OF 47

FILE NAME = K:\19547\CADD\MSTN\TCP_1.dgn
DATE/TIME = 3/11/2009
USER = 1459



* - ACTUAL DIMENSION SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL BE SHOWN ON TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR.

TRAFFIC CONTROL PLAN A

NOT TO SCALE

BR 5 & BR 6 VT ROUTE 313 TOWN OF ARLINGTON

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- WORK AREA
- FLAGGER
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 10 ON TRAFFIC CONTROL SHEET 1)

PROJECT NAME: STATEWIDE - SOUTHWEST REGION

PROJECT NUMBER: BHF MEMB(20)

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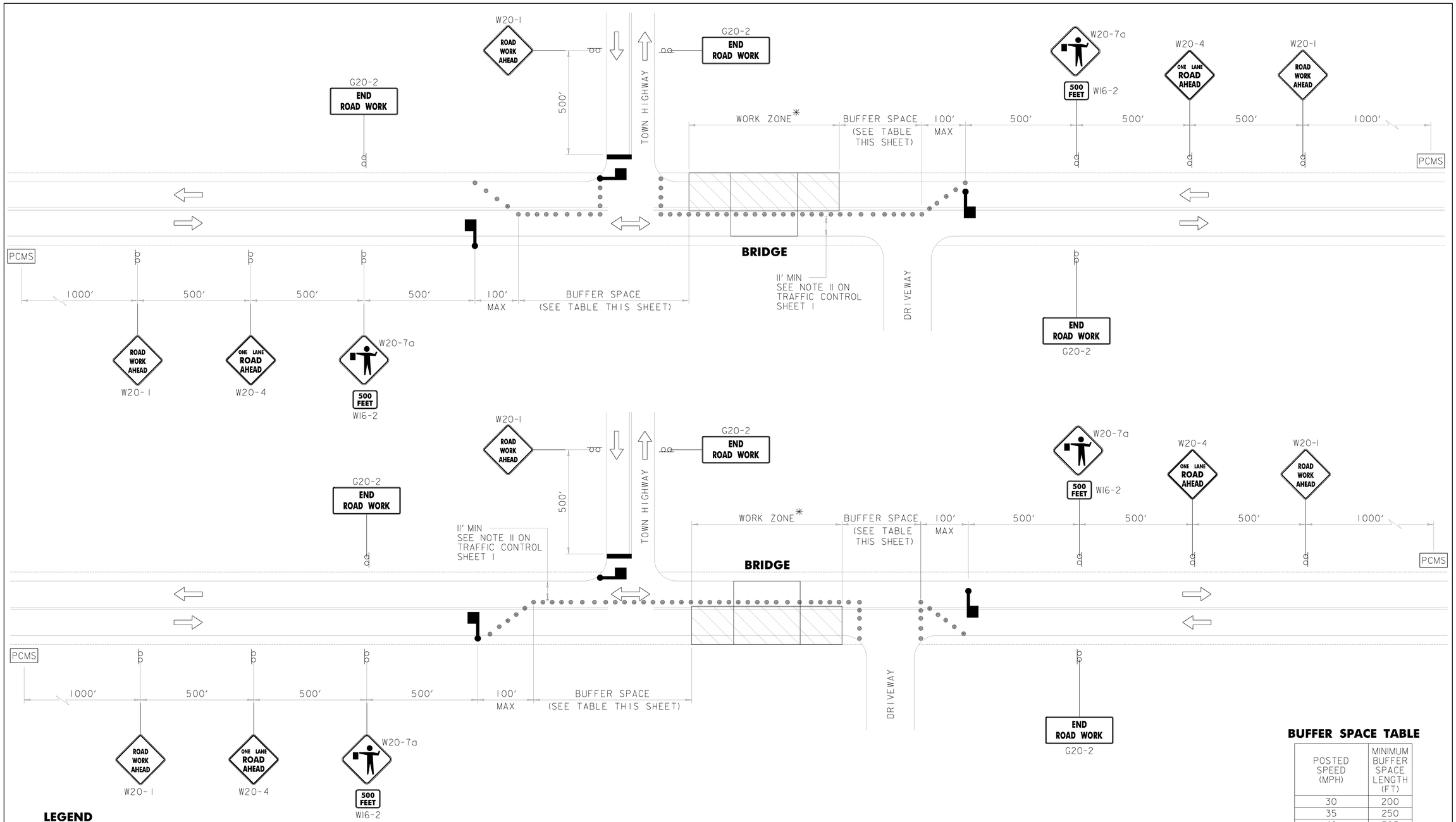
FILE NAME: TCP 2.DGN PLOT DATE: 3/11/2009
PROJECT LEADER: P. PIERCE DRAWN BY: C. KAHLBAUGH
DESIGNED BY: D. EMERICH CHECKED BY: P. PIERCE
TRAFFIC CONTROL SHEET 2 SHEET 6 OF 47

FILE NAME = K:\19547\CADD\MSTN\TCP-2.dgn
DATE/TIME = 3/11/2009
USER = 1454



LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- WORK AREA
- FLAGGER
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 10 ON TRAFFIC CONTROL SHEET 1)

* ACTUAL DIMENSION SHALL BE DETERMINED BY THE CONTRACTOR AND SHALL BE SHOWN ON TRAFFIC CONTROL PLANS SUBMITTED BY THE CONTRACTOR.

BUFFER SPACE TABLE

POSTED SPEED (MPH)	MINIMUM BUFFER SPACE LENGTH (FT)
30	200
35	250
40	305
45	360
50	425

TRAFFIC CONTROL PLAN B

NOT TO SCALE

BR 15 VT ROUTE 7A TOWN OF ARLINGTON
BR 29 VT ROUTE 30 TOWN OF JAMAICA
BR 40 VT ROUTE 30 TOWN OF JAMAICA
BR 54 U.S. ROUTE 7 TOWN OF DORSET
BR 21 U.S. ROUTE 7 TOWN OF SUNDERLAND
BR 23 U.S. ROUTE 7 TOWN OF SUNDERLAND

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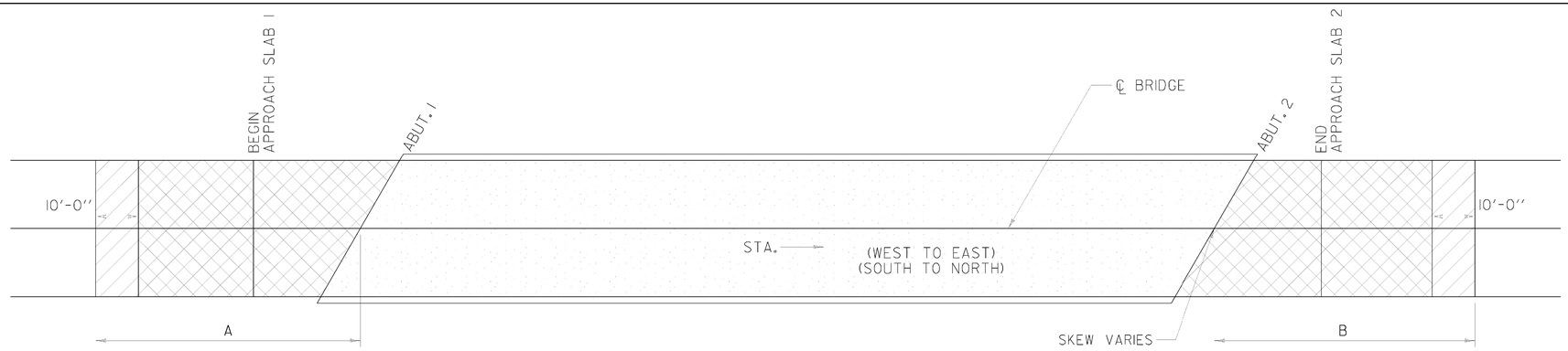
PROJECT NAME: STATEWIDE - SOUTHWEST REGION
PROJECT NUMBER: BHF MEMB(20)
FILE NAME: TCP 3.DGN
PROJECT LEADER: P. PIERCE
DESIGNED BY: D. EMERICH
TRAFFIC CONTROL SHEET 3
PLOT DATE: 3/11/2009
DRAWN BY: C. KAHLBAUGH
CHECKED BY: P. PIERCE
SHEET 7 OF 47

FILE NAME = K:\19547\CADD\MSTN\TCP_3.dgn
DATE/TIME = 3/11/2009
USER = 1459

BRIDGE NO.	A (FT)	B (FT)	
5	~~35.0~~	~~20.0~~	60.0
6	60.0	60.0	
15	~~30.0~~	~~30.0~~	60.0
29	60.0	60.0	
40	~~30.0~~	~~30.0~~	60.0
54	~~40.0~~	~~40.0~~	60.0
21	~~40.0~~	~~40.0~~	60.0
23	100.0	65.0	

ALL APPROACHES EXTENDED OUT TO 60 FT TO PROVIDE ADEQUATE DISTANCE FOR PROPER PAVING OPERATIONS.



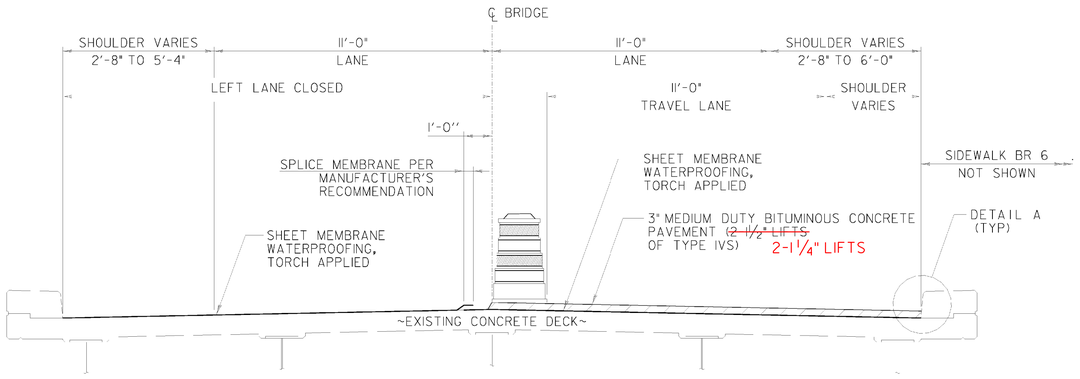
COLD PLANE - 1½"

COLD PLANE - TO WITHIN ½" FROM THE TOP OF THE APPROACH SLABS FOR BRIDGE 54 AND COLD PLANE 3" ON BRIDGES 5, 6, 15, 29, 40, 21 AND 23.

COLD PLANE - TO WITHIN ½" FROM THE TOP OF THE CONCRETE BRIDGE DECK AND REMOVE THE BARRIER MEMBRANE (SEE NOTE 12, SHEET 2).
REMOVAL OF THE BIT. CONC. PAV'T. WILL BE PAID FOR UNDER ITEM 529.10.
REMOVAL OF THE BARRIER MEMBRANE WILL BE PAID FOR UNDER ITEM 580.16.

BITUMINOUS CONCRETE REMOVAL & REPLACEMENT PLAN

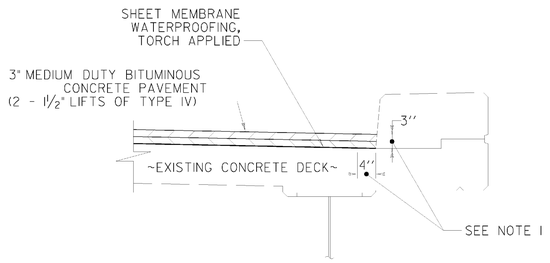
NOT TO SCALE
TYPICAL ALL BRIDGES. BRIDGES MAY BE SKEWED OR NOT.



NOTE: LEFT LANE CLOSURE AND LEFT SIDE MEMBRANE SPLICE SHOWN. RIGHT LANE CLOSURE AND RIGHT SIDE MEMBRANE SPLICE SIMILAR. CONTRACTOR TO DETERMINE WHICH LANE THE MEMBRANE SPLICE SHALL OCCUR IN UNLESS THE BRIDGE IS SUPERELEVATED. BRIDGES WITH SUPERELEVATION SHALL HAVE THE MEMBRANE PLACED AS SHOWN ON THE MEMBRANE SPLICE DETAIL BRIDGES 5, 15, 29 & 54.

MEMBRANE SPLICE DETAIL BRIDGES 6, 40, 21 & 23

NOT TO SCALE

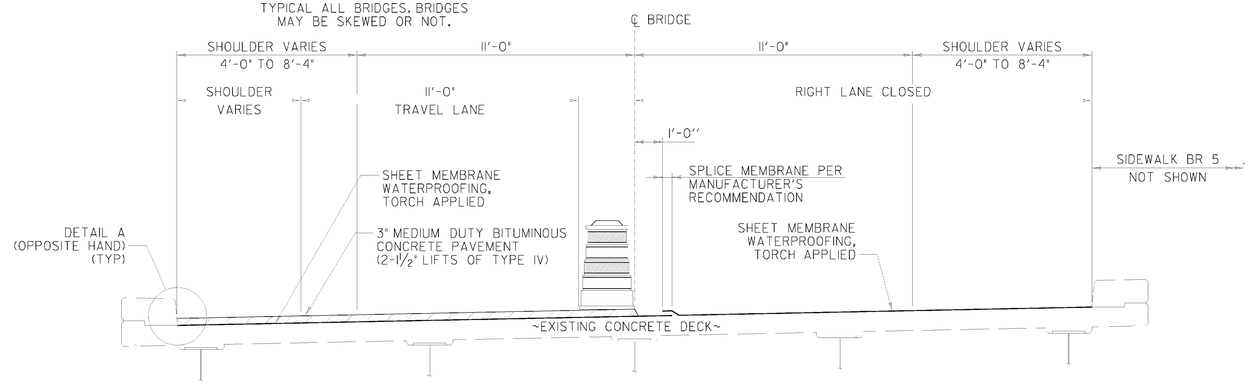


DETAIL A

NOT TO SCALE

DETAIL A NOTES:

1. INDICATES AREA ALONG DECK AND UP FACE OF CURB FOR PLACEMENT OF TWO COATS OF POLYURETHANE MEMBRANE.
2. POLYURETHANE MEMBRANE AND BLAST CLEANING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SHEET MEMBRANE WATERPROOFING, TORCH APPLIED, ITEM 519.20.
3. SHEET MEMBRANE WATERPROOFING SHALL EXTEND TO FACE OF CURB AS SHOWN.
4. IN ADDITION TO THE REQUIREMENTS OF SUBSECTION 519.04, BLAST CLEAN 3" UP THE FACE OF CURB PRIOR TO PLACING THE MEMBRANE.



NOTE: RIGHT LANE CLOSURE AND RIGHT SIDE MEMBRANE SPLICE SHOWN. LEFT LANE CLOSURE AND LEFT SIDE MEMBRANE SPLICE SIMILAR. PLACEMENT OF THE MEMBRANE SHALL START AT THE LOW SIDE OF THE BRIDGE. THE SPLICE SHALL BE AS SHOWN ABOVE, WITH THE HIGH SIDE OVERLAPPING THE LOW SIDE.

MEMBRANE SPLICE DETAIL BRIDGES 5, 15, 29 & 54

NOT TO SCALE

NOTE:

FOR PG BINDER GRADE SEE SECTION 406 OF THE GENERAL SPECIAL PROVISIONS.

BRIDGE LENGTH AND WIDTH (CURB TO CURB)

BRIDGE NO.	WIDTH (CURB TO CURB) (FEET)	LENGTH (FEET)
5	33.33	78.26
6	33.33	84.06
15	32.67	158.00
29	38.67	210.43
40	32.67	98.85
54	30.00	230.00
21	32.67	107.50
23	27.33	143.86

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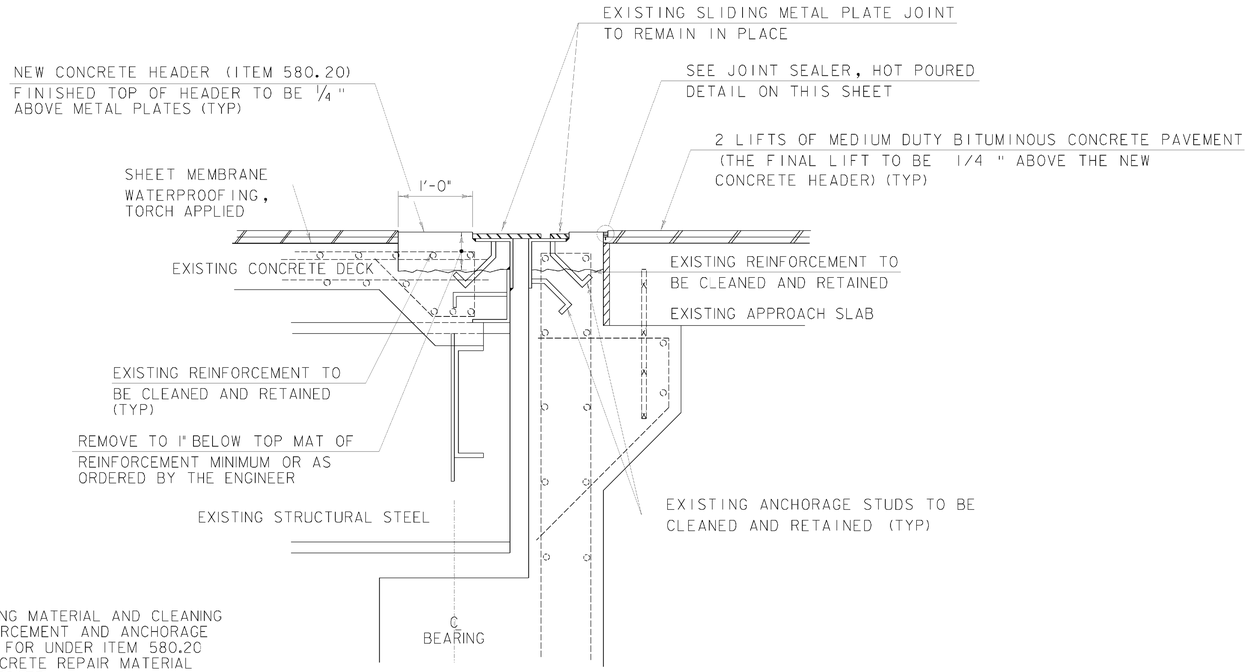
PROJECT NAME: STATEWIDE - SOUTHWEST REGION

PROJECT NUMBER: BHF MEMB(20)

FILE NAME: MDT 2.DGN
PROJECT LEADER: P. PIERCE
DESIGNED BY: C. AYERS
BITUMINOUS CONCRETE DETAILS SHEET 1

PLOT DATE: 3/11/2009
DRAWN BY: C. KAHLBAUGH
CHECKED BY: P. PIERCE
SHEET 8 OF 47

FILE NAME = K:\19547\CADD\MSTN\MDT_2.dgn
DATE/TIME = 3/11/2009
USER = 1459

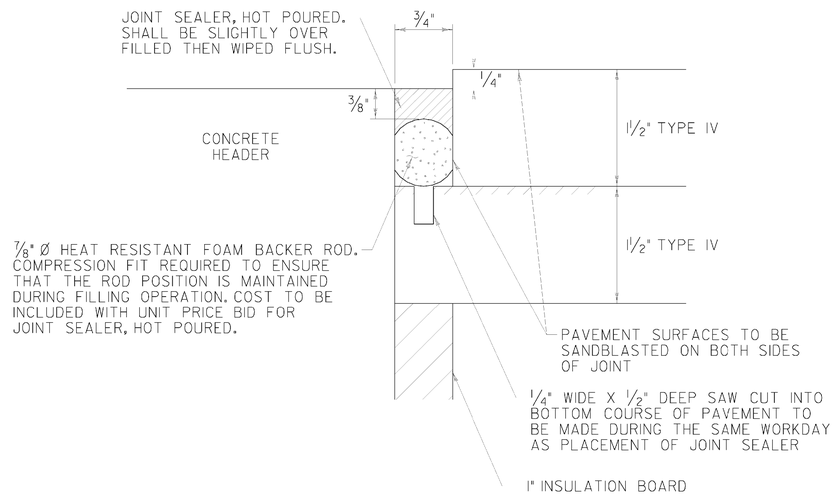


NOTE

REMOVAL OF EXISTING MATERIAL AND CLEANING OF EXISTING REINFORCEMENT AND ANCHORAGE STUDS TO BE PAID FOR UNDER ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.

SLIDING PLATE JOINT DETAIL, BRIDGE 54 (BOTH ENDS)

NOT TO SCALE

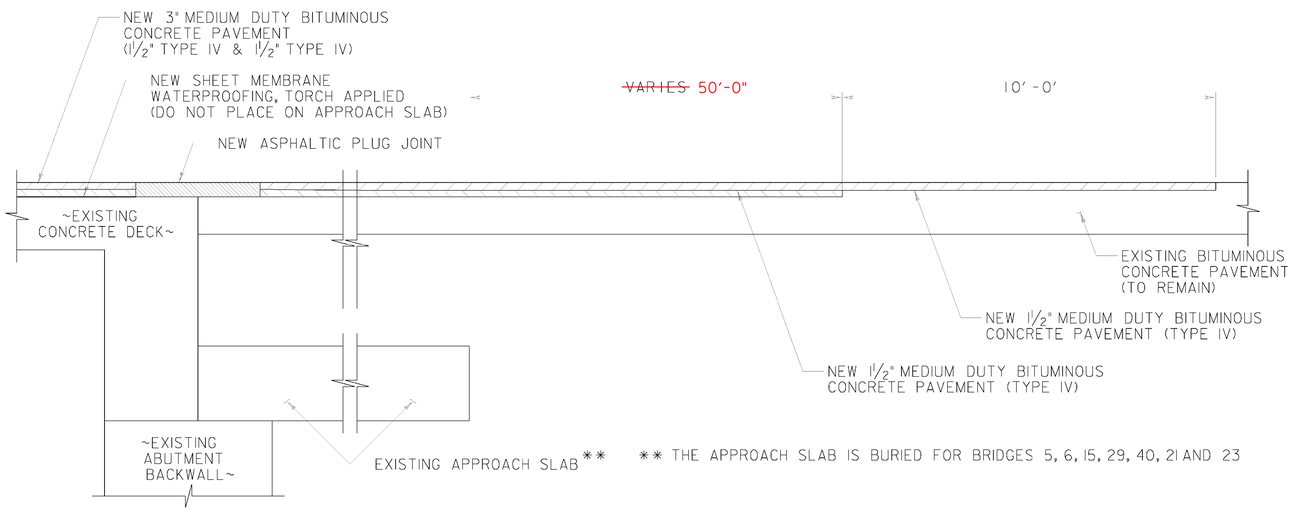


NOTE:

1. CLEAN SAWING DUST AND OTHER FOREIGN MATERIAL FROM THE SAWED JOINT BEFORE APPLYING THE HOT POURED JOINT SEALER IN ACCORDANCE WITH SUBSECTION 524.05.

JOINT SEALER, HOT POURED DETAIL

NOT TO SCALE



** THE APPROACH SLAB IS BURIED FOR BRIDGES 5, 6, 15, 29, 40, 21 AND 23

TYPICAL APPROACH SECTION

NOT TO SCALE

ALL APPROACHES EXTENDED TO 60 FT.

PROJECT NAME: STATEWIDE - SOUTHWEST REGION	
PROJECT NUMBER: BHF MEMB(20)	
FILE NAME: MDT 3.DGN	PLOT DATE: 3/11/2009
PROJECT LEADER: P. PIERCE	DRAWN BY: C. KAHLBAUGH
DESIGNED BY: C. AYERS	CHECKED BY: P. PIERCE
BITUMINOUS CONCRETE DETAILS SHEET 2	SHEET 9 OF 47

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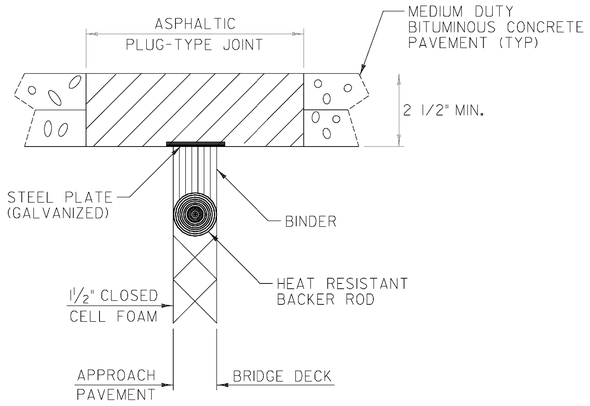
FILE NAME = K:\19547\CADD\MSTN\MDT_3.dgn
DATE/TIME = 3/11/2009
USER = 1459



ASPHALTIC PLUG-TYPE JOINT DETAIL

NOTES:

1. THE JOINT SHALL BE LOCATED CENTRALLY OVER THE DECK EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. THE JOINT SHALL BE EXCAVATED AS SHOWN ON THE PLANS BY USE OF SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.
3. THE JOINT AREA SHALL BE BLAST CLEANED OF DEBRIS AND ASPHALT. THE JOINT AREA SHALL BE THOROUGHLY DRIED USING HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. SPALLED AND DEFECTIVE CONCRETE SHALL BE REPAIRED WITH AN APPROVED MATERIAL AS AGREED UPON BY THE RESIDENT ENGINEER.
5. PROPERLY SIZED HEAT RESISTANT BACKER ROD SHALL BE PLACED IN THE MOVEMENT GAP ALLOWING FOR 1INCH +/- OF BINDER ABOVE THE ROD.
6. THE BINDER MATERIAL SHALL BE HEATED AND PLACED AS RECOMMENDED BY THE MANUFACTURER.
7. PLACE 1/4 INCH THICK BY 8 INCH WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER.
   A. THE STEEL PLATES MAY BE OMITTED WHERE THE APPROACH SLAB IS COVERED WITH A STONE BASE OR BITUMINOUS PAVEMENT AND VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
8. THE BINDER MATERIAL AND AGGREGATE SHALL BE HEATED AND MIXED AS RECOMMENDED BY THE MANUFACTURER.
9. THE INSTALLATION OF MATERIAL, COMPACTION, AND TOPCOATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
10. IMMEDIATELY AFTER TOPCOATING, AN ANTI-SKID MATERIAL SHALL BE CAST OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
11. JOINT SHALL BE PROTECTED FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 125°F±.

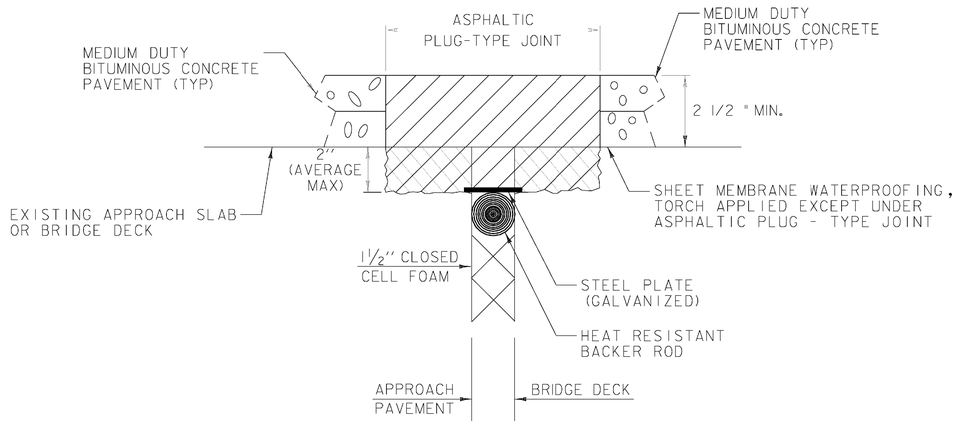
WEATHER LIMITATIONS

BINDER MATERIAL SHALL BE APPLIED ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL:

A. THE AMBIENT AIR TEMPERATURE IS AT LEAST 50° F AND RISING.

B. THE ROAD SURFACE IS SUFFICIENTLY DRY.

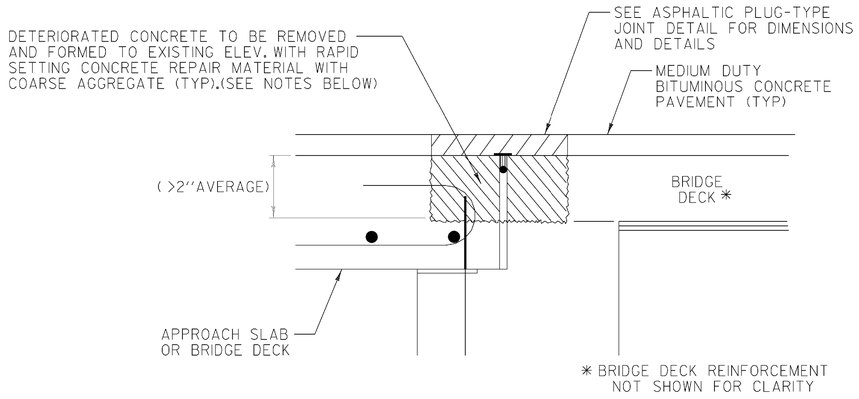
C. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



ASPHALTIC PLUG-TYPE JOINT DETAIL REMOVAL OF UP TO 2" DETERIORATED CONCRETE

NOTES:

1. UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 516.10. THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH REQUIRED TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10.
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.



ASPHALTIC PLUG-TYPE JOINT DETAIL REMOVAL OF >2" DETERIORATED CONCRETE

NOTES:

1. UPON ENCOUNTERING GREATER THAN 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 580.20 "RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE".
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.

ASPHALTIC PLUG JOINT REPLACEMENT SCHEDULE

BRIDGE NO.	ABUT. 1	PIER 2	ABUT. 2
* 5	35 FT	--	35 FT
* 6	34 FT	--	34 FT
* 15	33 FT	--	33 FT
* 29	48 FT	--	48 FT
* 40	42 FT	--	42 FT
54	--30	30 FT	--30
* 21	34 FT	--	34 FT
* 23	31 FT	--	31 FT

* - BURIED APPROACH SLAB, GALVANIZED STEEL PLATE NOT REQUIRED.

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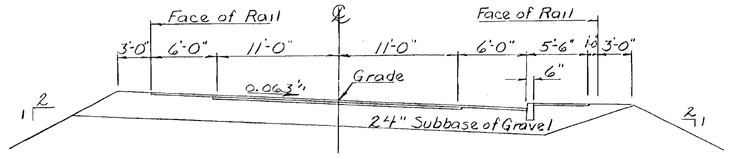
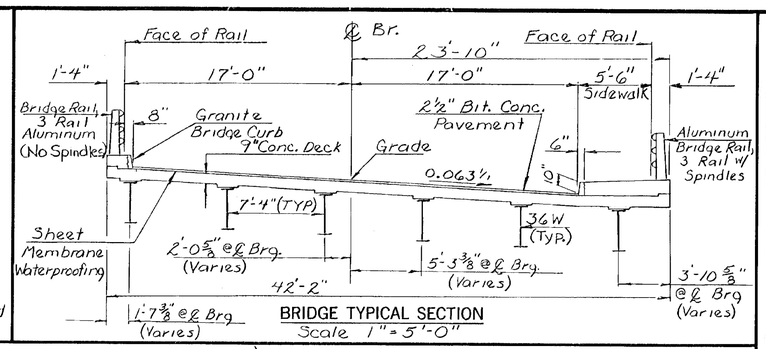
PROJECT NAME: STATEWIDE - SOUTHWEST REGION	
PROJECT NUMBER: BHF MEMB(20)	
FILE NAME: MDT 1.DGN	PLOT DATE: 3/11/2009
PROJECT LEADER: P. PIERCE	DRAWN BY: C. KAHLBAUGH
DESIGNED BY: C. AYERS	CHECKED BY: P. PIERCE
ASPHALTIC PLUG JOINT DETAILS SHEET	SHEET 10 OF 47

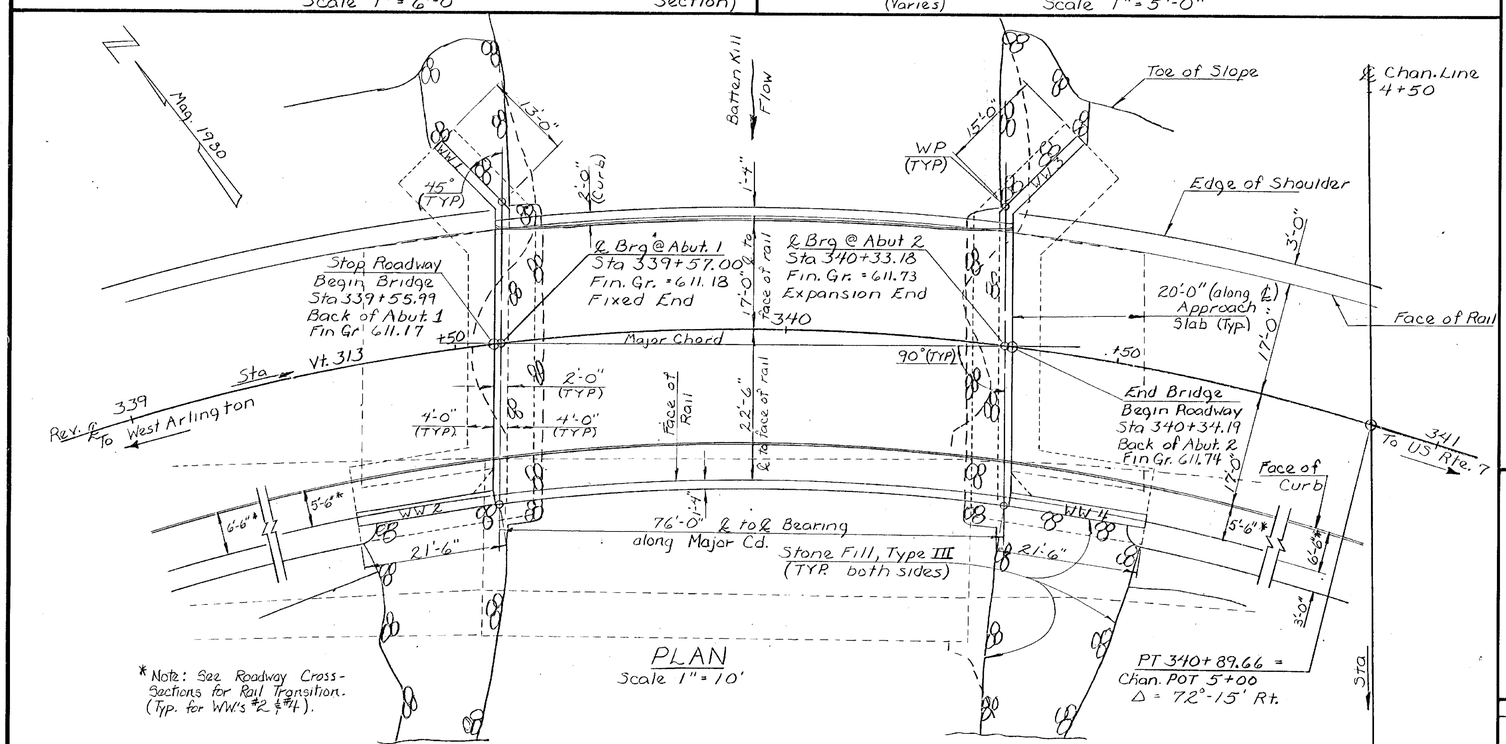
FILE NAME = K:\19547\CADD\MSTN\MDT 1.dgn
DATE/TIME = 3/11/2009
USER = 1459



NEW HIGHWAY SECTION — BRIDGE APPROACHES (Maximum Banked Section)
Scale 1" = 6'-0"



BRIDGE TYPICAL SECTION
Scale 1" = 5'-0"



PLAN
Scale 1" = 10'

* Note: See Roadway Cross-Sections for Rail Transition. (Typ. for WW's #2 & #4).

ELEVATION
Scale 1" = 10'

EXISTING STRUCTURE

1. STRUCTURE TYPE Single Span Steel Slide Girder Br. OVERALL LENGTH 73' INVENTORY RATING H-10
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 70.
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 67.
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 556. S.F. VERTICAL CLEARANCE ABOVE STREAMBED 8'
5. WATER SURFACE ELEVATION @ Q 2.33 605.0 WATER SURFACE ELEVATION @ Q 50 608.4
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD 610 ± YEAR 1927 ESTIMATED DISCHARGE Unknown
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? No IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? Q5± 605. ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF 688 S.F.
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL Gravel & Cobbles
9. DISPOSITION OF STRUCTURE Remove

NEW STRUCTURE

STRUCTURE GEOMETRY:
1. STRUCTURE TYPE Single Span Steel Beam Br. OVERALL LENGTH 78.20'
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 76.00
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 10.'
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 74
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 648. SF
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? —

HYDRAULIC DATA:

1. Q 2.33	3280 cfs	WATER ELEVATION	604.8	VELOCITY	5.9 fps
Q 10	5750 cfs	WATER ELEVATION	606.7	VELOCITY	7.4 fps
Q 25	7200 cfs	WATER ELEVATION	607.6	VELOCITY	8.3 fps
Q 50	8350 cfs	WATER ELEVATION	608.2	VELOCITY	9.1 fps
Q 100	9600 cfs	WATER ELEVATION	608.8	VELOCITY	9.9 fps

2. DRAINAGE AREA 132 S. Mi. CHARACTER OF TERRAIN Rolling to Mountainous
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? Yes
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No IS ORDINARY RISE RAPID? No
5. NATURE OF NATURAL STREAMBED Gravel & Cobbles
6. ESTIMATED SCOUR DEPTH 2 to 6 COMMENT ON: DRIFT Moderate ICE Moderate
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? No IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? Q5± 605 ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF 688 S.F.
8. VERTICAL CLEARANCE ABOVE Q 2.33 4.7'
9. ALLOWABLE WATER SURFACE ELEVATION 607. LIMITED BY No increase in existing flood levels.
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No IF YES, DESCRIBE N/A
11. AVERAGE DAILY LOW FLOW 120 CFS DEPTH 2.1' AVERAGE DAILY HIGH FLOW 400. CFS DEPTH 4.7'
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED Stone Fill Type III
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 3000.' SPAN 38.5' WATERWAY AREA OF FULL OPENING ____ Q ____
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 10,000.' SPAN 77' WATERWAY AREA OF FULL OPENING ____ Q ____

ALLOWABLE STRESSES:
1. DESIGN LIVE LOAD AASHTO HS 25-44
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4.0 KSF ON LEDGE N/A
3. ALLOWABLE LOAD FOR PILING N/A TYPE — ESTIMATED LENGTH —
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 24,000 PSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI COMPRESSION 20,000 PSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3500 PSI f_c 1400 PSI
   CLASS B f_c 3500 PSI f_c 1400 PSI

TRAFFIC MAINTENANCE:
1. IS TRAFFIC TO BE MAINTAINED? Yes IF YES, ON EXISTING STRUCTURE No OR ON TEMPORARY BRIDGE Yes
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY ONE-Way TRAFFIC CONTROL SIGNALS REQUIRED YES
   MINIMUM CLEAR SPAN 20 Ft * MINIMUM CLEAR HEIGHT 8.0 Ft * MINIMUM WATERWAY AREA 560 SF
   ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE? —

* See General Notes #10, #13, and #20.

ADDITIONAL DESIGN CONSIDERATIONS

Horizontal Curve Data
PI = 339+33.74 = 338+92.42
Δ = 63° 34'-10" Rt.
D = 18°-00'-00"
R = 318.31'
T = 197.24'
L = 353.16'
E = 56.16'

VERTICAL CURVE DATA
PVI STA = 339+00
EL = 610.77
L = 120.0'
E = -.3190
K = 56
G_1 = +2.8467 %
G_2 = +.7200 %

(General Notes Appear on Sheet BR505)

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	43	50					
POSTED 0.67 Fy =	66		94		69	71	84
OPERATING 0.75 Fy =			113	139			

RECOMMENDED FOR APPROVAL Warren B. Tyson STRUCTURES ENGINEER 5/24/84 DATE
RECOMMENDED FOR APPROVAL Arthur Ross CHIEF OF DESIGN 6/7/84 DATE
APPROVED BY J. J. Gage PE 6/8/84 DIRECTOR OF ENGINEERING & CONSTRUCTION DATE

REVISIONS

NO.	DESCRIPTION	BY & DATE

SHEET INDEX

BR	501	PRELIMINARY INFORMATION
BR	502	BRIDGE QUANTITY SHEET
BR	503	BORING LOGS
BR	504	SUPERSTRUCTURE DETAILS
BR	505	GENERAL NOTES, DECK, CURTAINWALL AND APPROACH SLAB REBARS
BR	506	APPROACH SLAB DETAILS
BR	507	BEARING AND SOLE PLATE DETAILS
BR	508	ABUTMENT NO. 1 DETAILS
BR	509	ABUTMENT NO. 2 DETAILS
BR	510	FOOTING REINFORCEMENT PLAN
BR	511	WINGWALL DETAILS
BR	512	REINFORCING STEEL SCHEDULE
BR	513-516	CHANNEL X-SECTIONS

REFERENCE SHEETS

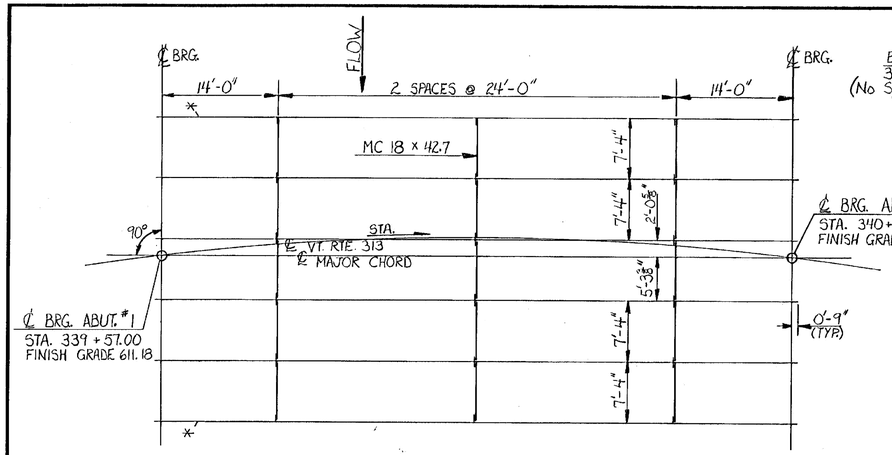
VT 313	PLAN STA. 337+00 TO 344+00 (1 SHEET)
VT 313	PROFILE STA. 337+00 TO 344+00 (1 SHEET)
VT 313	X-SECTIONS STA. 338+12 to 341+00 (2 SHEETS)

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 15 OF 47
BRIDGE 5
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF Arlington	Bridge No. 5
HIGHWAY NO. Vt. Rte. 313	Log Sta: 339+96 Surv. Sta. 339+95.09
Vt. Rte. 313 over the Batten Kill	
Preliminary Information	
Designed by E. Blodgett	Drawn by E. Blodgett
Checked by S. Farnsworth date 3/82	Bridge Design Supervisor F.W. Balkum date 8/84
PROJECT Arlington	PROJECT NO. BRS 0108(2)
Bridge Sheet No. BR 501	Sheet 21 of 105

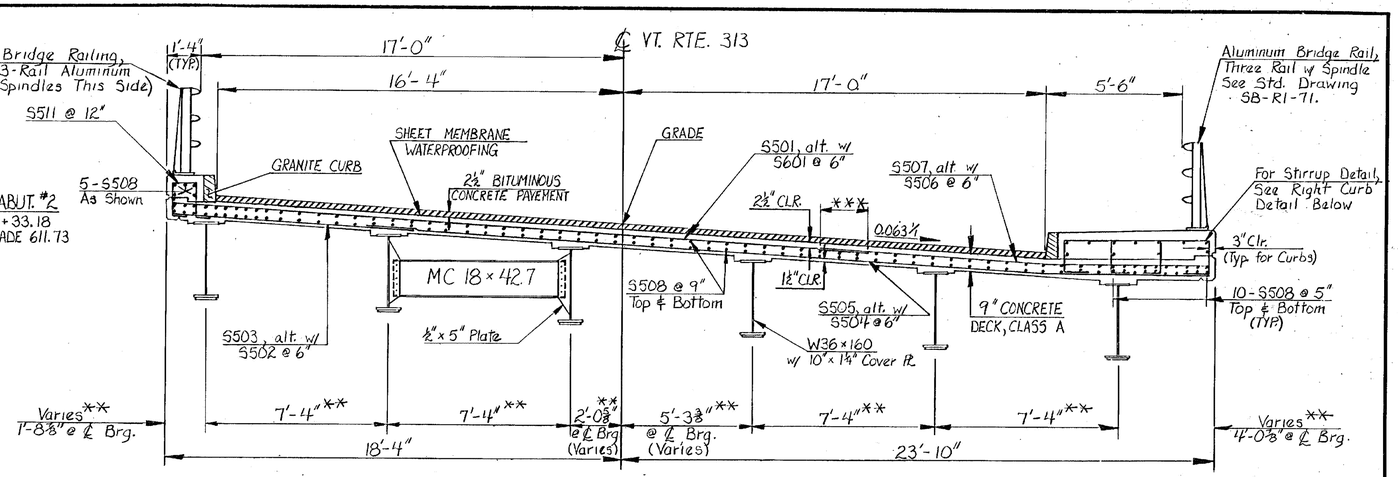
BRUNING 44-131 40151
BR-2



*-Drip Plate on Beams 1+6

FRAMING PLAN
SCALE: ⅛" = 1'-0"

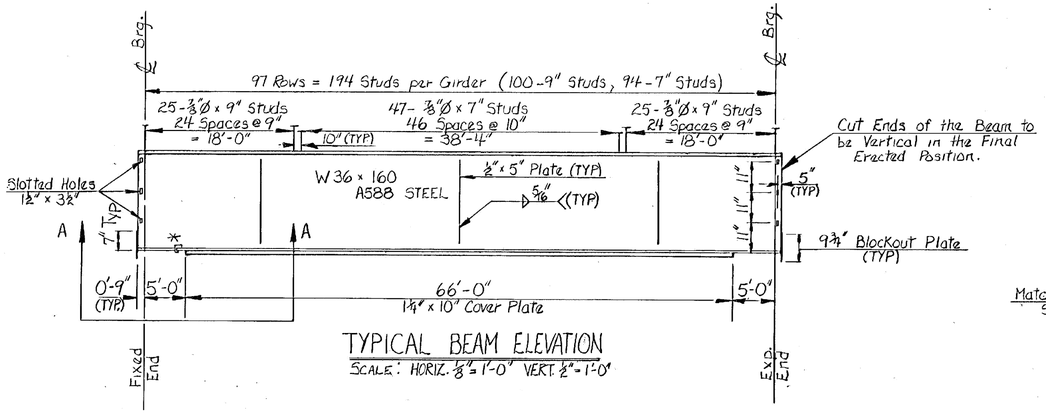
Note: See Std. Dwg. SCB-D7-71, Details C and D for Drip Plate and Diaphragm Connection Details.



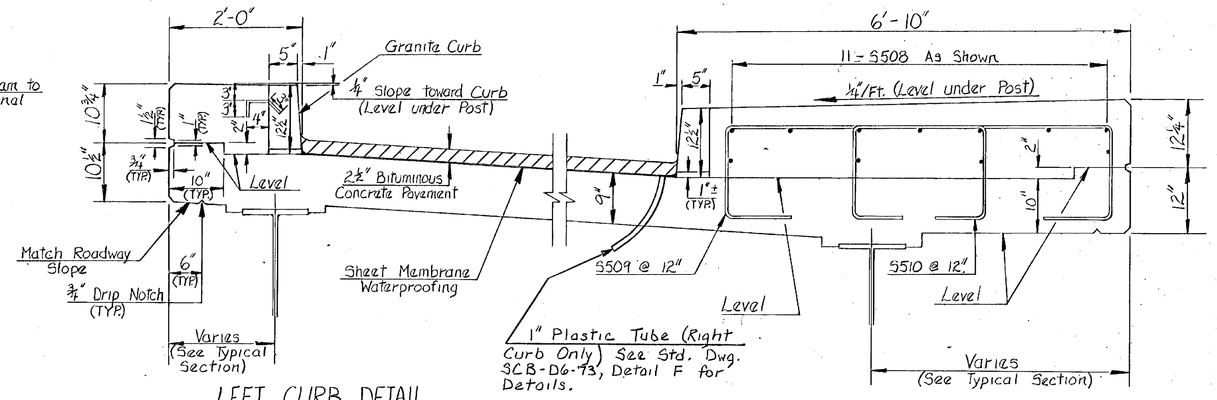
**-These Dimensions are Given Normal to Beams.

TYPICAL SECTION
SCALE: ⅜" = 1'-0"

***-For Splice Lengths and Detailed Deck Reinforcing Information, See "Deck Reinforcing Plan" - Br. Sheet #505.

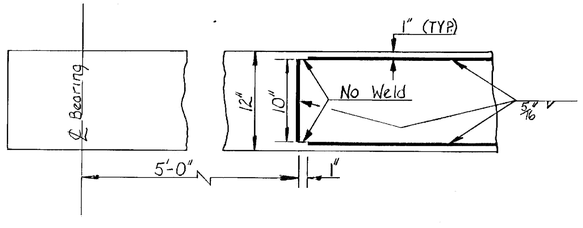


TYPICAL BEAM ELEVATION
SCALE: HORIZ. ⅛"=1'-0" VERT ½"=1'-0"

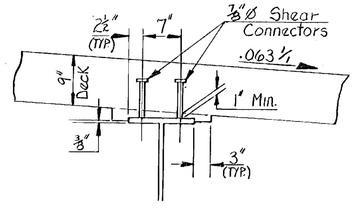


LEFT CURB DETAIL
SCALE: 1"=1'-0"

RIGHT CURB DETAIL
SCALE:



SECTION A-A
SCALE: 1½" = 1'-0"



HAUNCH DETAIL
SCALE: 1"=1'-0"

CAMBER INFORMATION

Option #1 (W36x160 w/ 1¼"x10" Cover Pl.) - Beams 1-5 Shall Be Cambered 3½" Total, Beam 6 Shall Be Cambered 4⅜" Total.

Option #2 (W36x245 w/o Cover Pl.) - Beams 1-5 Shall Be Cambered 3¼" Total, Beam 6 Shall Be Cambered 3⅜" Total.

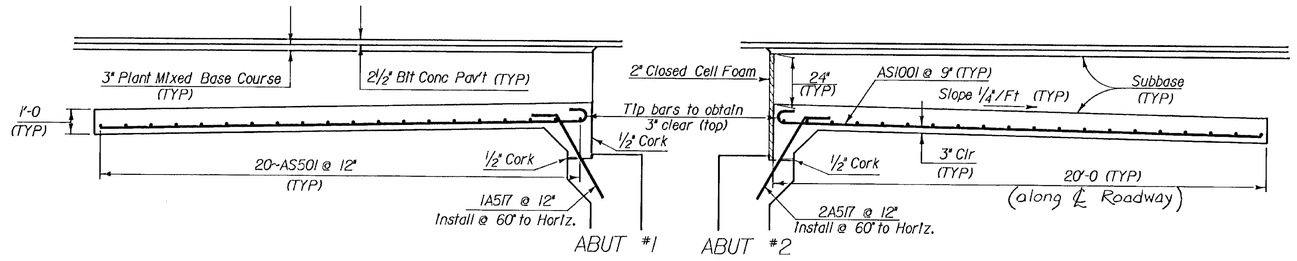
Total Camber Includes Dead Load Deflections and 1" Residual Camber. The Camber Shall Approximate a Circular Curve.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 16 OF 47
BRIDGE 5
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

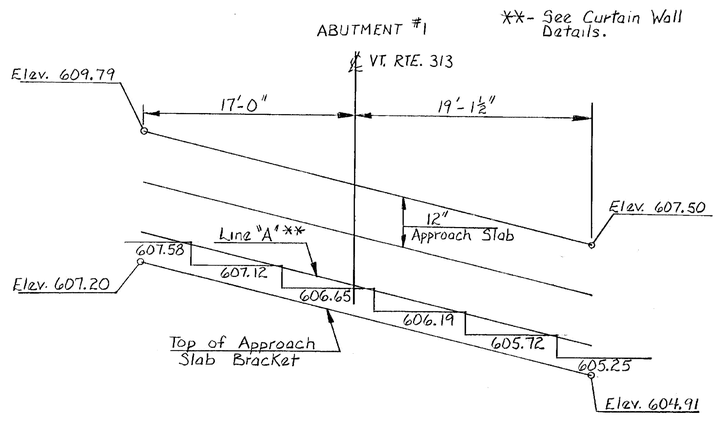
TOWN OF ARLINGTON	Bridge No. 5
	Log Sta. 339+96
HIGHWAY NO. VT. RTE. 313	Surv. Sta. 339+95.09
VT. RTE. 313 OVER THE BATTEN KILL	
SUPERSTRUCTURE DETAILS	
Designed by S.G. FARNSWORTH	Drawn by K.R. SIKORA
Checked by T. PAGE date 3/84	Bridge Design Supervisor F.W. Bolkum date 8/84
PROJECT ARLINGTON	PROJECT NO. BRS 0108(2)
Bridge Sheet No. BR504 Sheet 24 of 105	

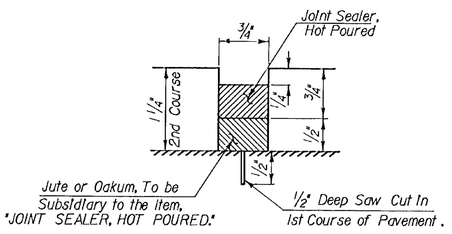
BRUNING 44-131 58384
BR-6-'83



APPROACH SLAB SECTIONS

Scale 3/8" = 1'-0"

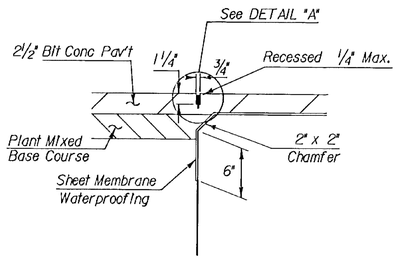




DETAIL "A"

Scale 1" = 1"

NOTE: See STD DWG SCB - D9 - 71, Detail B, for additional details, except as noted.

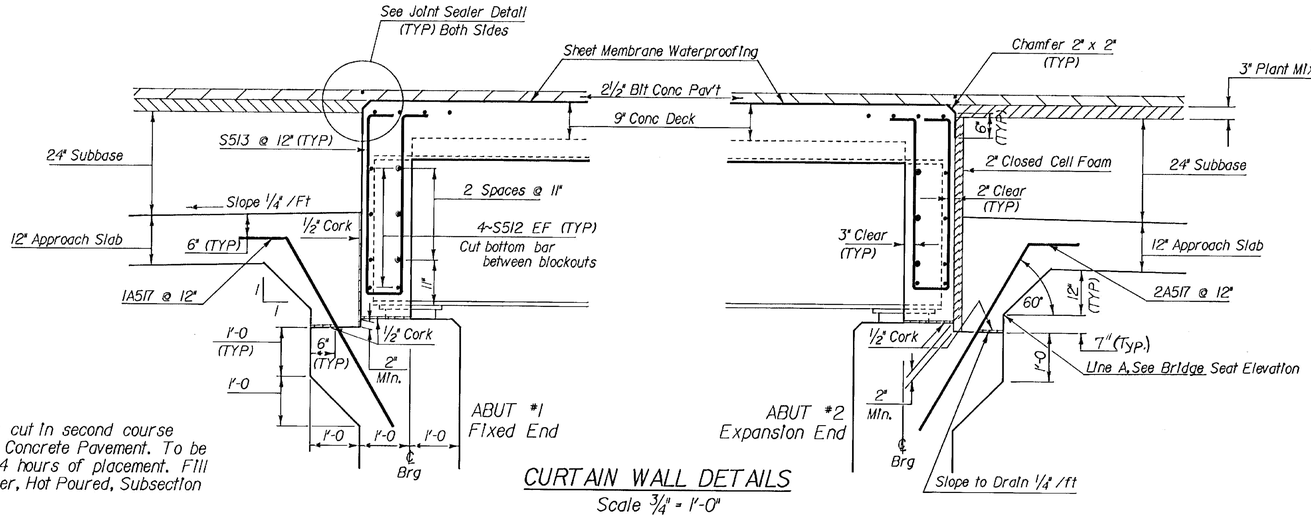


JOINT SEALER DETAIL

Scale 1½" = 1'-0"

BRIDGE SEAT 1

SCALE: Horiz. 3/16" = 1'-0"



CURTAIN WALL DETAILS

Scale 3/4" = 1'-0"

1¼" x ¾" saw cut in second course of Bituminous Concrete Pavement. To be made within 24 hours of placement. Fill with Joint Sealer, Hot Poured, Subsection 614.06.

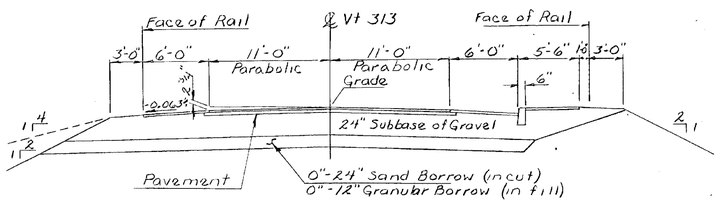
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 17 OF 47
BRIDGE 5
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

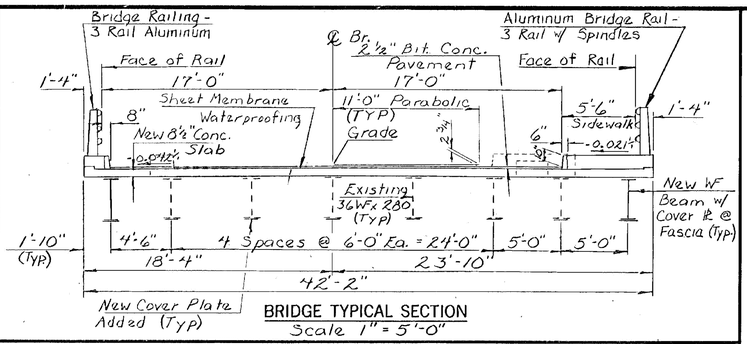
Town Of Arlington	Bridge No. 5
Highway No. Vt Rte 313	Log Sta. 339 + 96
	Surv. Sta. 339 + 95.09
Vt Rte 313 over the Batten Kill	
Approach Slab Details	
Designed By S. Farnsworth	Drawn By E. Blodgett
Checked By K.R. Sikora Date 2/84	Bridge Design Supervisor F. W. Bolkum Date 8/84
PROJECT Arlington	PROJECT NO. BRS 0108(2)
L.G.C. Info.	GSA:E30,23178F160AS.DGN
Bridge Sheet No. BR506	Sheet 26 of 105

BRUNING 62105

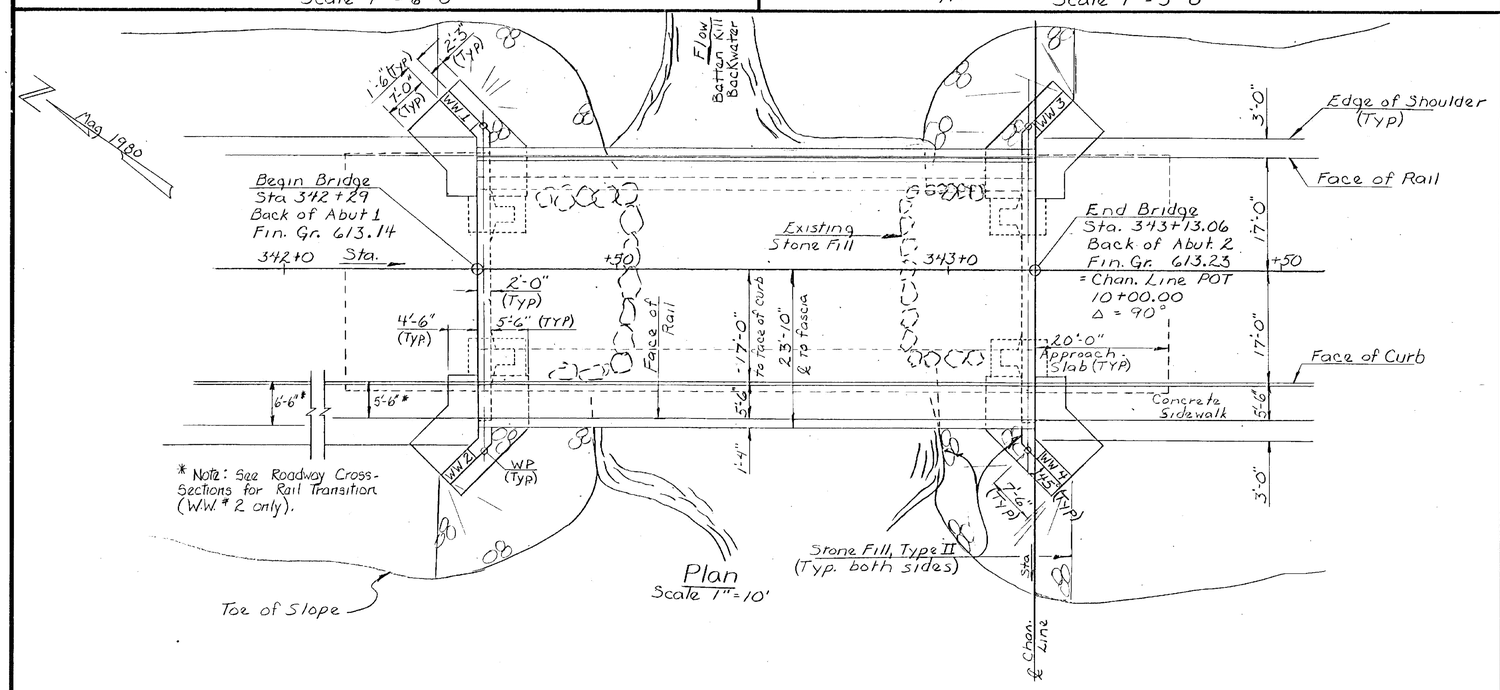
BR-6



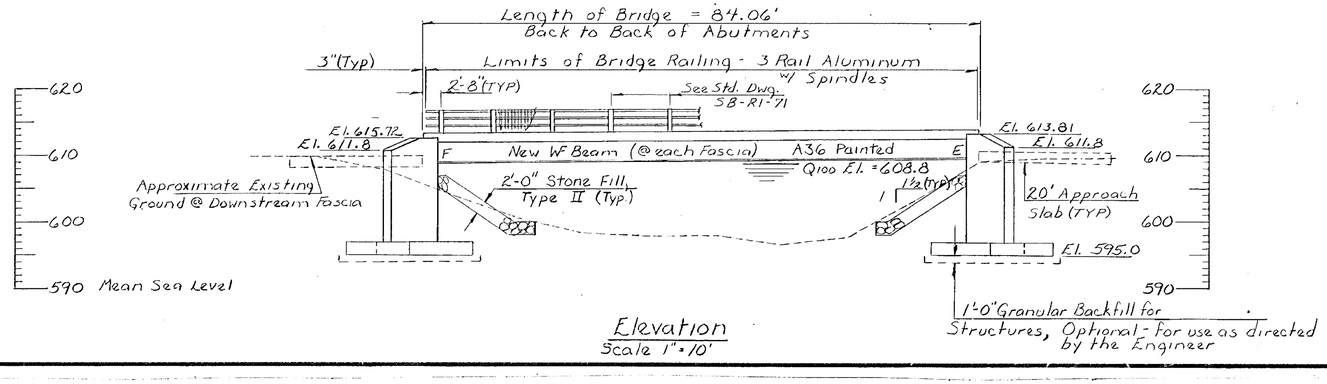
NEW HIGHWAY SECTION — BRIDGE APPROACHES (@ Normal Section)
Scale 1" = 6'-0"



BRIDGE TYPICAL SECTION
Scale 1" = 5'-0"



Plan
Scale 1" = 10'



Elevation
Scale 1" = 10'

EXISTING STRUCTURE *

1. STRUCTURE TYPE Single Span Steel Beam Br. OVERALL LENGTH 84' INVENTORY RATING HS-15
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 83'
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 80'
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 605 S.F. VERTICAL CLEARANCE ABOVE STREAMBED 11'
5. WATER SURFACE ELEVATION @ Q 2.33 N/A WATER SURFACE ELEVATION @ Q 50 608.2
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD YEAR ESTIMATED DISCHARGE
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? No IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF N/A
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL Gravel + Cobbles
9. DISPOSITION OF STRUCTURE N/A

NEW STRUCTURE *

STRUCTURE GEOMETRY:
1. STRUCTURE TYPE Widen Existing Structure OVERALL LENGTH 84'
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 83'
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 11'
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 80'
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 688. S.F.
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES?

HYDRAULIC DATA: **

1. Q 2.33	0	WATER ELEVATION	N/A	VELOCITY	N/A
Q 10	1950 cfs	WATER ELEVATION	606.7	VELOCITY	1.8 fps
Q 25	1970 cfs	WATER ELEVATION	607.6	VELOCITY	2.8 fps
Q 50	2160 cfs	WATER ELEVATION	608.2	VELOCITY	3.2 fps
Q 100	2560 cfs	WATER ELEVATION	608.8	VELOCITY	3.4 fps

2. DRAINAGE AREA 152 Sq. Mi. CHARACTER OF TERRAIN Rolling to Mountainous
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? Yes
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? No IS ORDINARY RISE RAPID? No
5. NATURE OF NATURAL STREAMBED N/A
6. ESTIMATED SCOUR DEPTH 2'-6" COMMENT ON: DRIFT Moderate ICE Moderate
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? No IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF
8. VERTICAL CLEARANCE ABOVE Q 50 0.6 Ft Below Low Bridge Seat
9. ALLOWABLE WATER SURFACE ELEVATION ~ LIMITED BY ~
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? No IF YES, DESCRIBE
11. AVERAGE DAILY LOW FLOW None DEPTH ~ AVERAGE DAILY HIGH FLOW None DEPTH ~
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED Stone Fill Type II
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 3000' SPAN 3@ 5' WATERWAY AREA OF FULL OPENING Q
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 10,000' SPAN 77 WATERWAY AREA OF FULL OPENING 556 S.F. Q 50

ALLOWABLE STRESSES:
1. DESIGN LIVE LOAD AASHTO HS 25-44
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4.0 KSF ON LEDGE N/A
3. ALLOWABLE LOAD FOR PILING N/A TYPE — ESTIMATED LENGTH —
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27,000 PSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI COMPRESSION 20,000 PSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f'_c 3500 PSI f_c 1400 PSI
   CLASS B f'_c 3500 PSI f_c 1400 PSI

TRAFFIC MAINTENANCE:
1. IS TRAFFIC TO BE MAINTAINED? Yes IF YES, ON EXISTING STRUCTURE No OR ON TEMPORARY BRIDGE Yes
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY ONE TRAFFIC CONTROL SIGNALS REQUIRED YES
   MINIMUM CLEAR SPAN 25 @ Elev. 601.0 MINIMUM CLEAR HEIGHT 4 feet MINIMUM WATERWAY AREA ~
   ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE? ~

* This structure is an overflow relief structure for bridge #5. Overbank flow from bridge #5 starts at Q5. Flow over the highway occurs at a frequency of 25 years.
** These discharges are only the portion of the Batten Kill which flows through Br 6 when the banks overflow.

ADDITIONAL DESIGN CONSIDERATIONS

See Sheet BR603 for General Notes, Sheet Index, Reference Sheets, and Standard Drawings.
See Sheet BR510 for Limits of Fill and Excavation.

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	46	54					
POSTED 0.67 Fy =	69		96		73	74	87
OPERATING 0.75 Fy =			116	139			

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 18 OF 47
BRIDGE 6
FOR REFERENCE ONLY

RECOMMENDED FOR APPROVAL Warren B Tinus STRUCTURES ENGINEER 5/29/84 DATE
RECOMMENDED FOR APPROVAL Arthur Ross CHIEF OF DESIGN 6/4/84 DATE
APPROVED BY A. J. Ogne PE DIRECTOR OF ENGINEERING & CONSTRUCTION 6-4-84 DATE

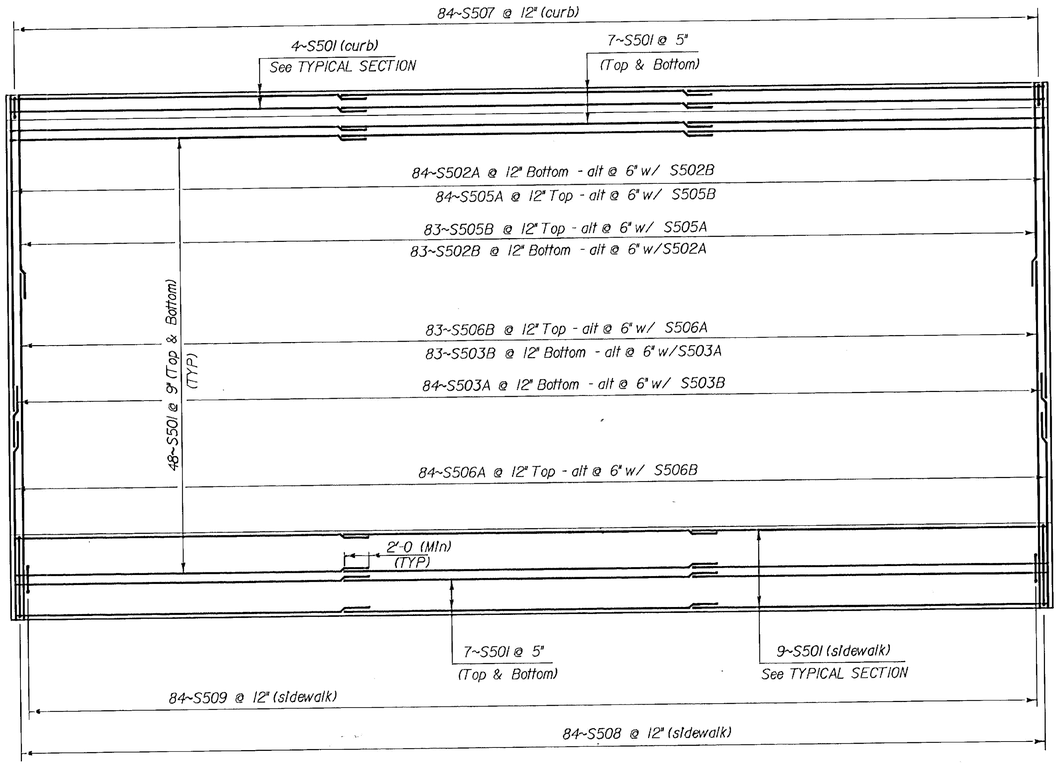
REVISIONS

NO.	DESCRIPTION	BY & DATE

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF Arlington	Bridge No. 6
HIGHWAY NO. Vt Rte 313	Log Sta. 342+71
Vt Rte 313 over the Batten Kill Backwater	Surv. Sta. 342+71.11
Preliminary Information	
Designed by E. Blodgett	Drawn by E. Blodgett
Checked by S. Farnsworth date 3/82	Bridge Design Supervisor F.W. Balkum date 8/84
PROJECT Arlington	PROJECT NO. BRS 0108(2)
Bridge Sheet No. BR601	Sheet 33 of 105

BRUNING 44-131 40151
BR-2

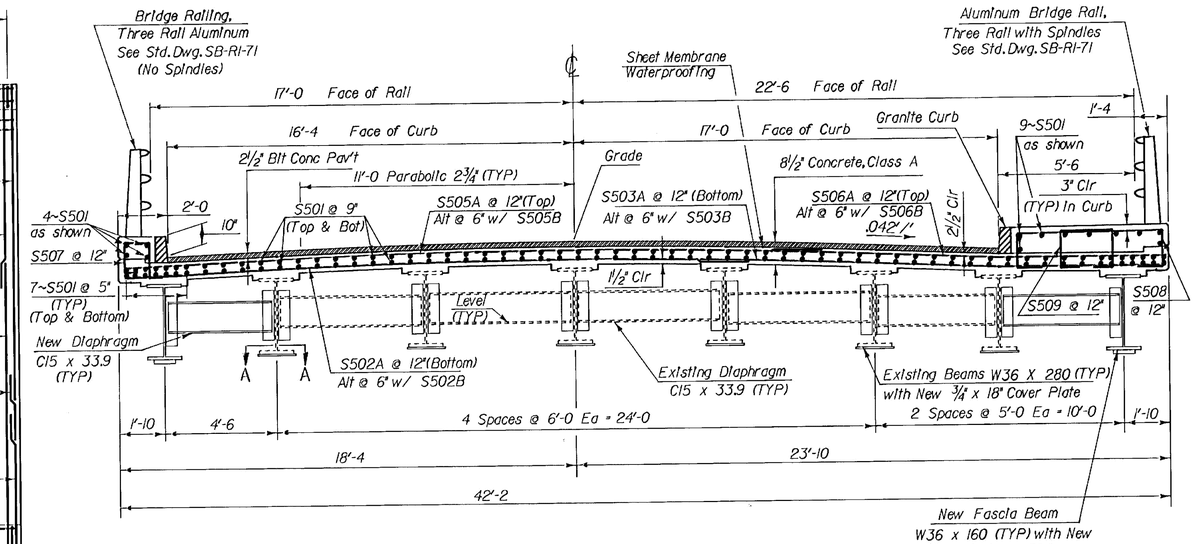


DECK REINFORCING PLAN

Scale 3/16" = 1'-0"

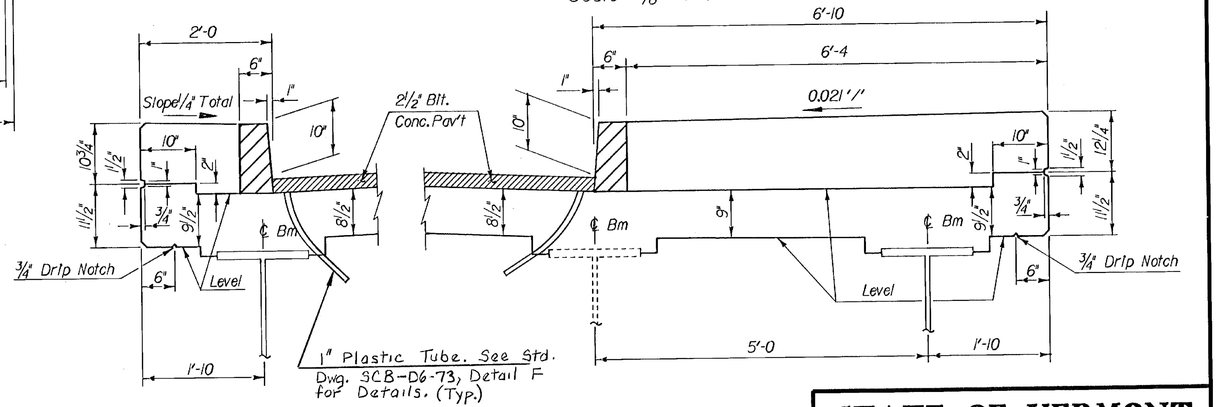
SECTION A-A

Scale: 1½" = 1'-0"



BRIDGE TYPICAL SECTION

Scale 3/8" = 1'-0"



CURB & SIDEWALK DETAIL

Scale 1" = 1'-0"

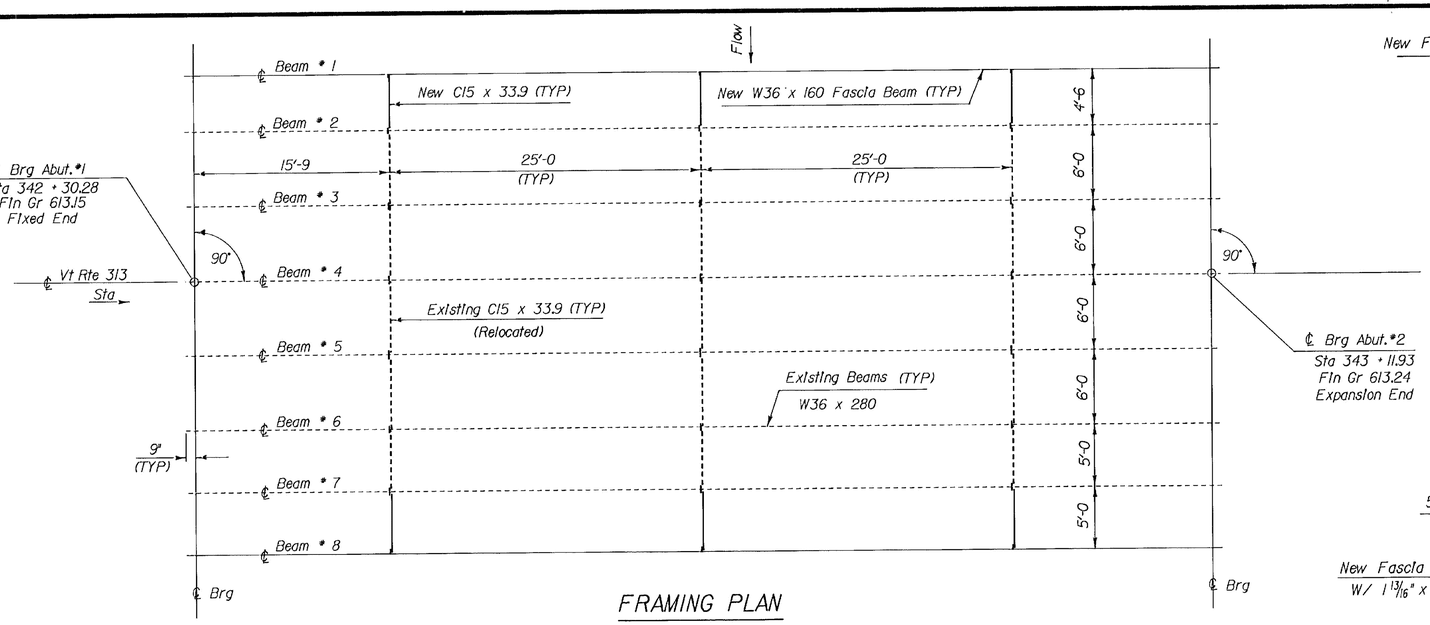
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 19 OF 47
BRIDGE 6
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ARLINGTON	Bridge No. 6
	Log Sta. 342+71
Highway No. VT RTE 313	Surv. Sta. 342+71.11
VT RTE 313 over the BATTEN KILL BACKWATER	
SUPERSTRUCTURE DETAILS	
Designed By S. FARNSWORTH	Drawn By E. BLODGETT
Checked By K.R. Sikora Date 5/84	Bridge Design Supervisor F.W. Bolkum Date 8/84
PROJECT ARLINGTON	PROJECT NO. BRS 0108(2)
I.G.C. Info.	OSA\130237.78F\60556.DGN
Bridge Sheet No. BR604	Sheet 36 of 105

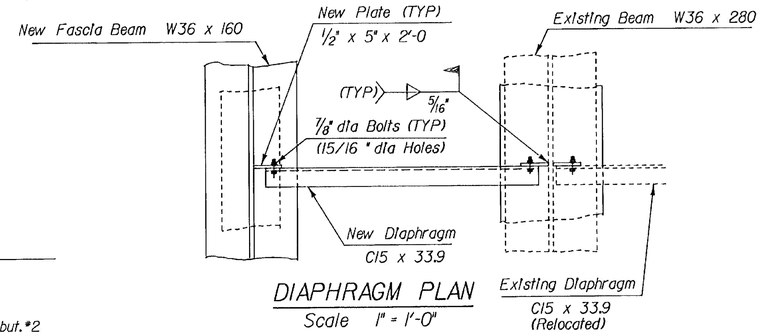
BRUNING 62165

BR-6



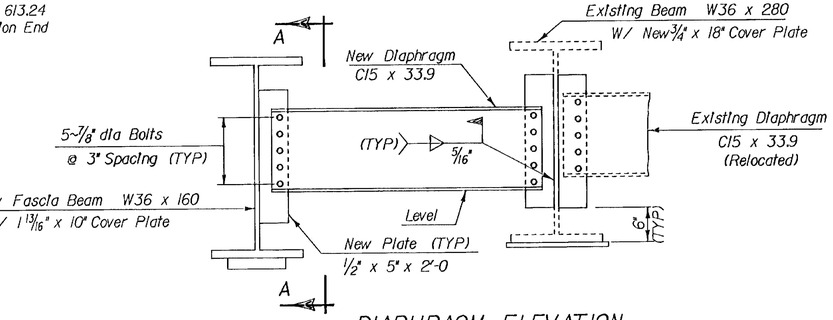
FRAMING PLAN

Scale 3/16" = 1'-0"



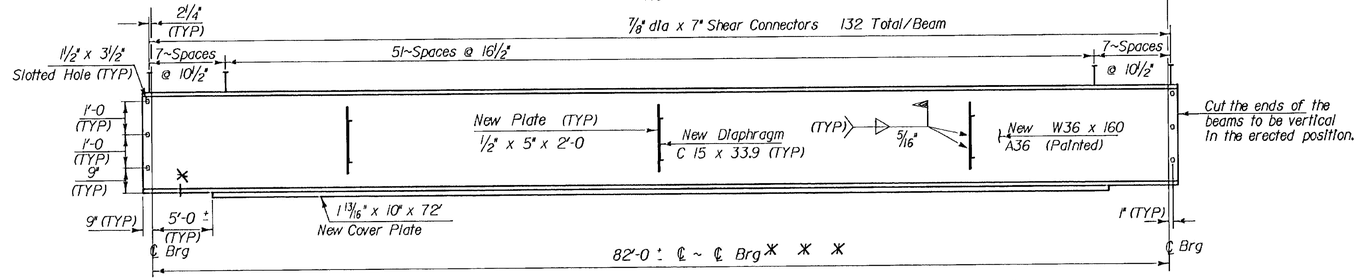
DIAPHRAGM PLAN

Scale 1" = 1'-0"



DIAPHRAGM ELEVATION

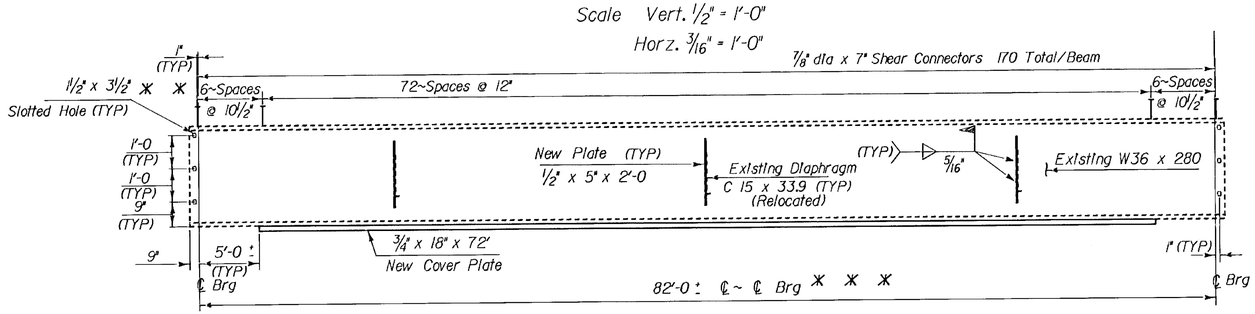
Scale 1" = 1'-0"



NEW BEAM ELEVATION (Beam's * 1 & 8)

Scale Vert. 1/2" = 1'-0"
Horz. 3/16" = 1'-0"

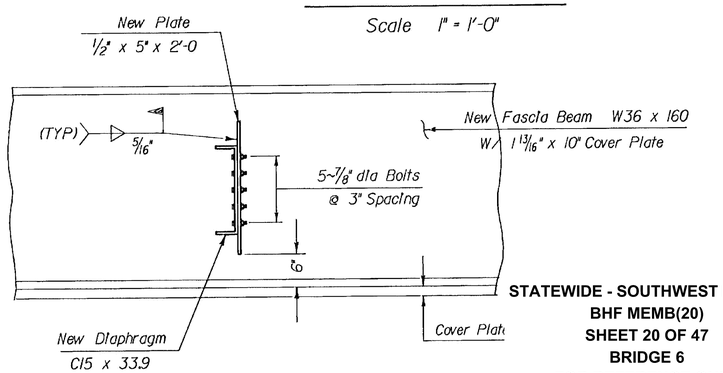
* Drip Plate on Beams 1 & 8. See Detail C on Std. Dwg. SCB-07-71



EXISTING BEAM ELEVATION

Scale Vert. 1/2" = 1'-0" (Beam *'s 2 thru 7)
Horz. 3/16" = 1'-0"

* * CUT HOLES IN FIELD



SECTION A-A

Scale 1" = 1'-0"

* * * ACTUAL DISTANCE TO BE DETERMINED IN THE FIELD

Note: New Beams shall be cambered 4 1/2" total, 2 3/8 for dead load deflection and 2 1/8" for roadway vertical grade. The camber shall approximate a circular curve.

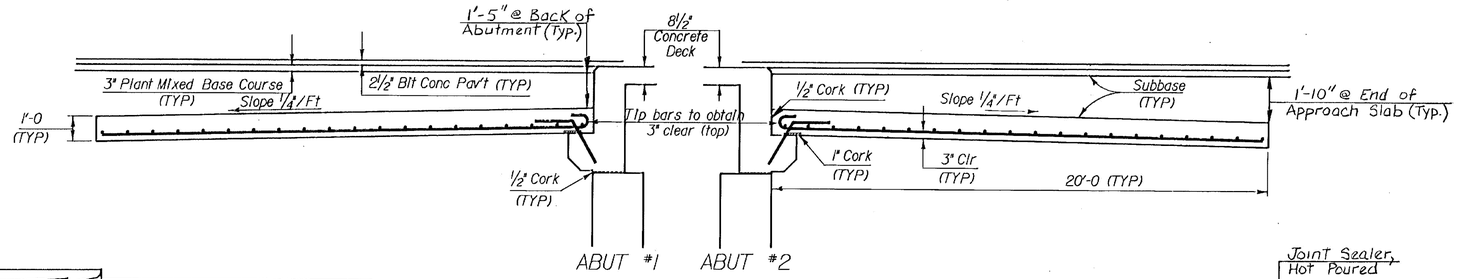
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 20 OF 47
BRIDGE 6
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of ARLINGTON	Bridge No. 6
Highway No. VT RTE 313	Log Sta. 342 + 71
	Surv. Sta. 342 + 71.11
VT RTE 313 over the BATTEN KILL BACKWATER	
FRAMING PLAN	
Designed By S. FARNSWORTH	Drawn By E. BLODGETT
Checked By K.R. Sikora	Date 5/84
	Bridge Design Supervisor F.W. Bolkum, Date 8/84
PROJECT ARLINGTON	PROJECT NO. BRS 0108(2)
I.G.C. Info. OSA:E30237BF160SS6.DGN	
Bridge Sheet No. BR605	Sheet 37 of 105

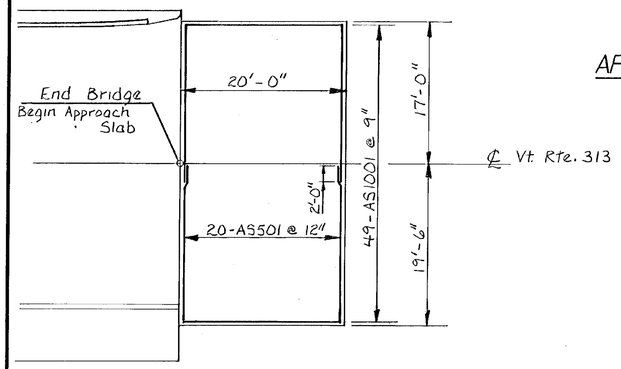
BRIDWING 62165

BR-6



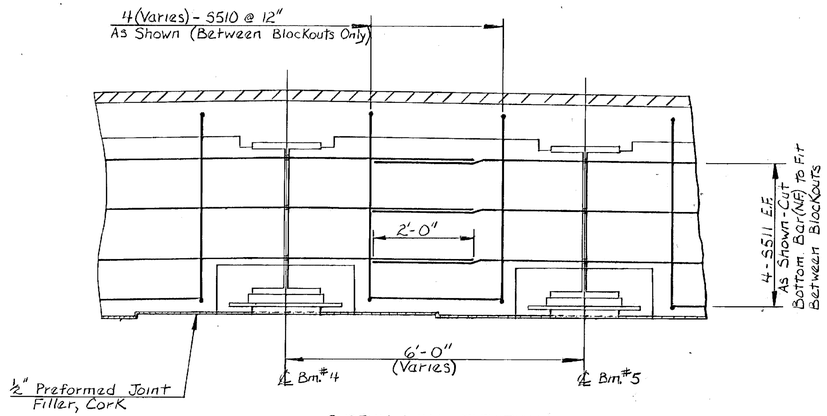
APPROACH SLAB SECTIONS

Scale 3/8" = 1'-0"



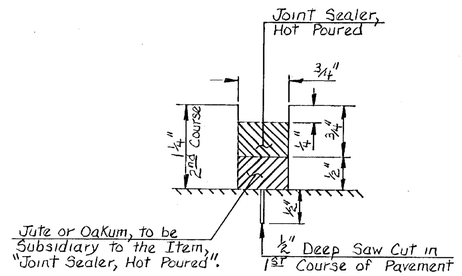
APPROACH SLAB PLAN (TYPICAL BOTH ENDS)

SCALE : ⅛" = 1'-0"



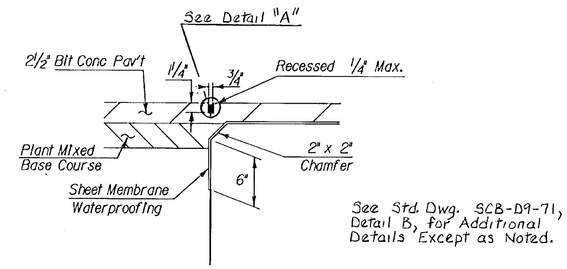
CURTAIN WALL ELEVATION

SCALE : ¾" = 1'-0"



DETAIL "A"

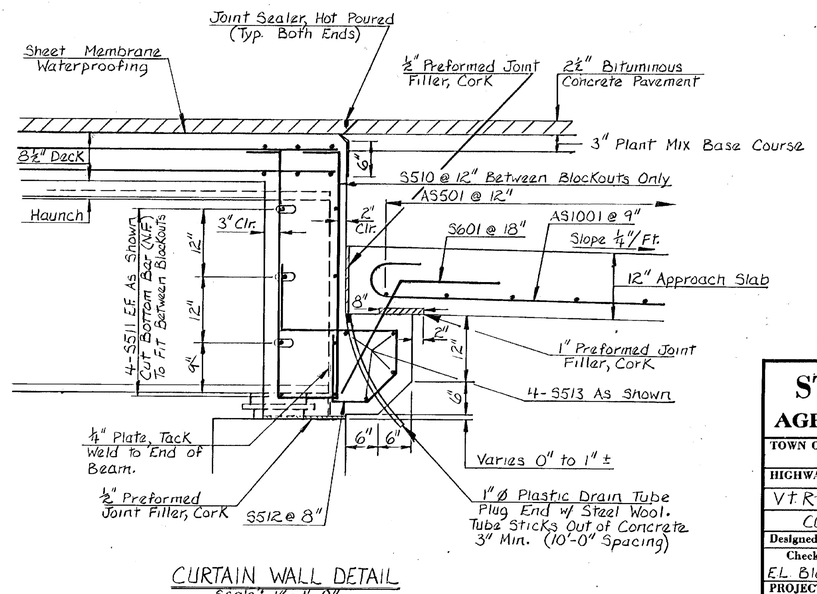
Scale: 1" = 1"



See Std. Dwg. SCB-D9-71, Detail B, for Additional Details Except as Noted.

JOINT SEALER DETAIL

Scale 1½" = 1'-0"



CURTAIN WALL DETAIL

Scale: 1" = 1'-0"

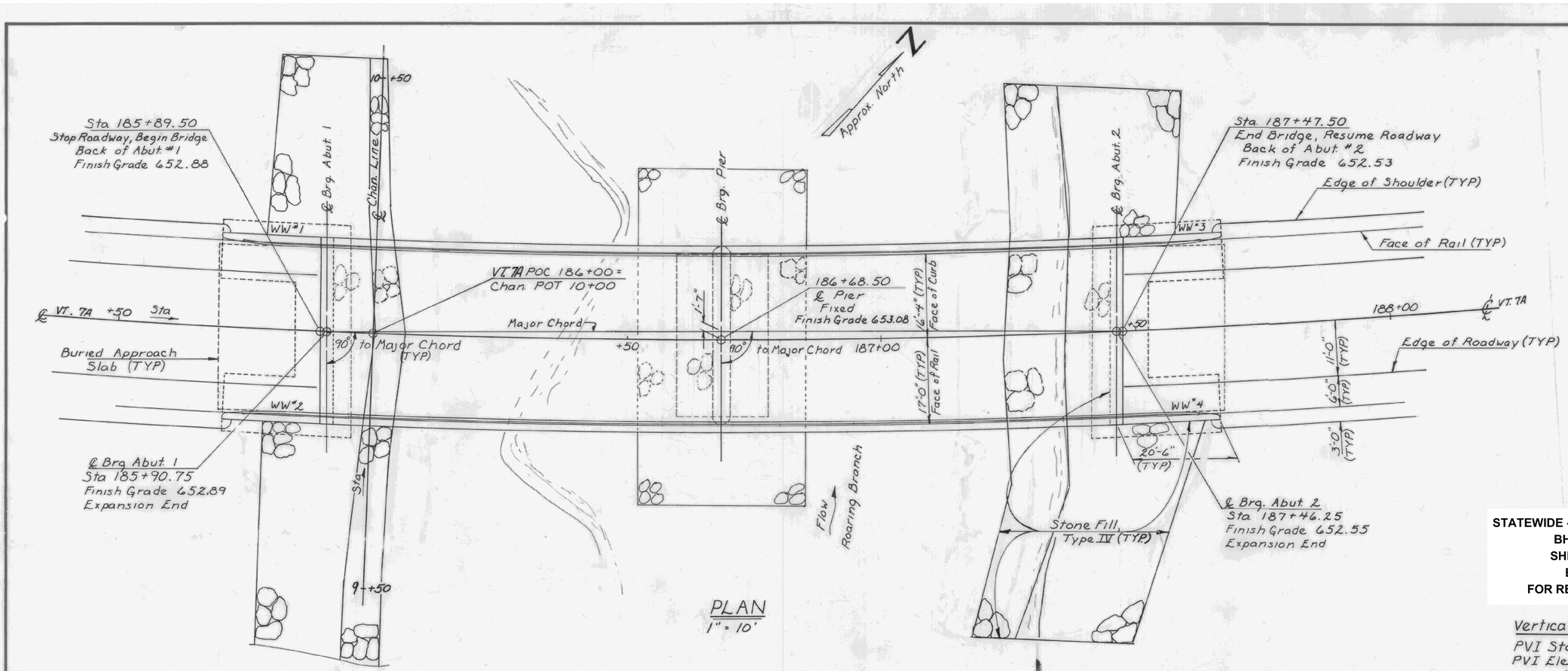
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 21 OF 47
BRIDGE 6
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

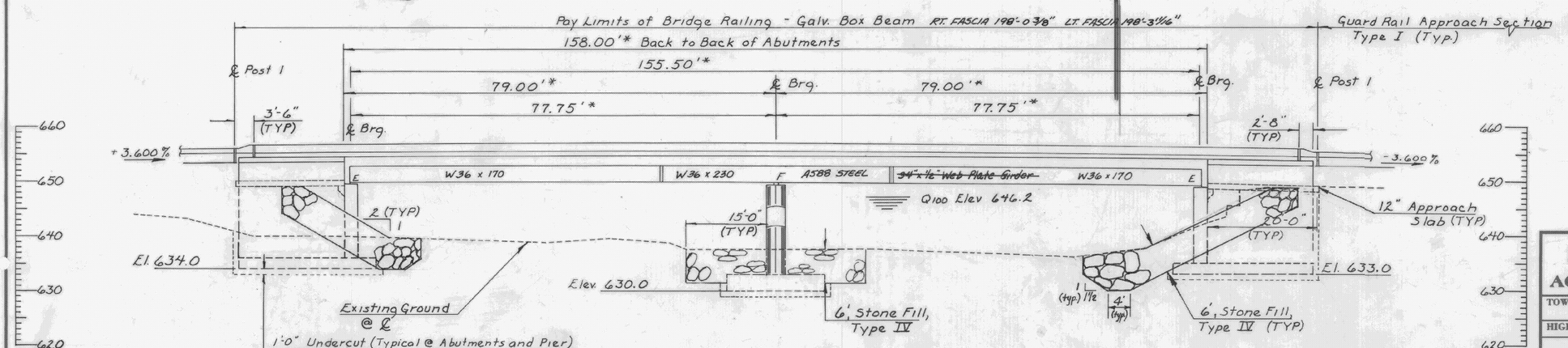
TOWN OF ARLINGTON	Bridge No. 6
HIGHWAY NO. VT. RTE. 313	Log Sta. 342+71 / Surv. Sta. 342+71.11
Vt Rte 313 over the Batten Kill Backwater	
CURTAIN WALL & APPROACH SLAB DETAILS	
Designed by K.R. Sikora	Drawn by K.R. SIKORA
Checked by E.L. Blodgett date 5/84	Bridge Design Supervisor F.W. Bolkum date 8/84
PROJECT ARLINGTON	PROJECT NO. BRS 0108(2)
Bridge Sheet No. BR608	Sheet 40 of 105

BRUNING 44-131 52304

BR-6-'83



PLAN
1" = 10'



ELEVATION (@ Upstream Fascia)
1" = 10'

* Horizontal Distance Along Center Line of Roadway.

Vertical Curve Data

PVI Sta.	= 186+50
PVI Elev.	= 658.50
L	= 600.00'
E	= -5.400
G_1	= 3.600%
G_2	= -3.600%
K	= 83

Horizontal Curve Data

PI Sta	187+50.66
Δ	= 27°-41'-50"
D	= 3°-00'
R	= 1909.86'
T	= 470.82'
L	= 923.24'
E	= 57.18'

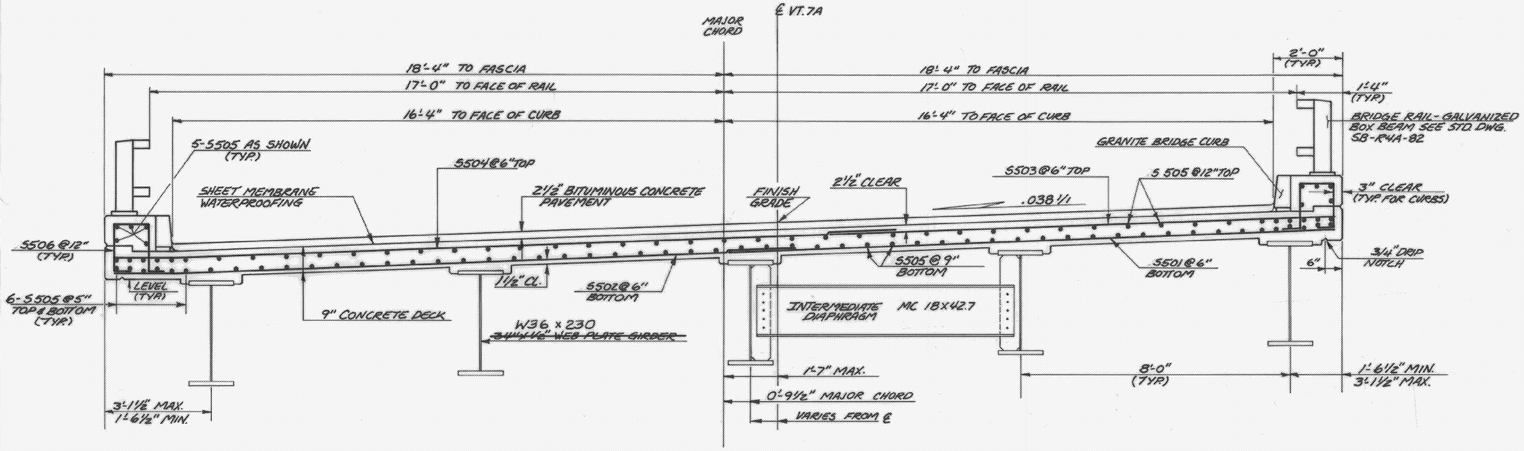
REVISIONS
NOVEMBER 1984
CONTRACTOR SELECTED OPTION 2 UNDER THE ITEM, STRUCTURAL STEEL

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 22 OF 47
BRIDGE 15
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

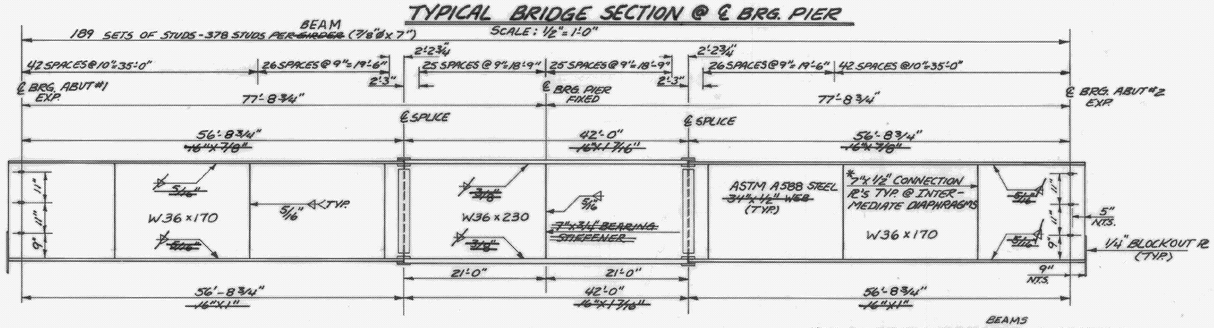
TOWN OF Arlington	Bridge No. 15
HIGHWAY NO. VT. Rte. 7A	Log Sta. 250+43
	Surv. Sta. 186+68.50
VT. Rte. 7A over Roaring Branch	
Plan & Elevation	
Designed by G.S. ROGERS	Drawn by E. Blodgett
Checked by J. Farnsworth date 7/82	Bridge Design Supervisor F.W. Bolkum date 2/84
PROJECT Arlington	PROJECT NO. BRS0137(7)
Bridge Sheet No. BR 104	Sheet 23 of 83

BR-6



TYPICAL BRIDGE SECTION @ ℄ BRG. PIER

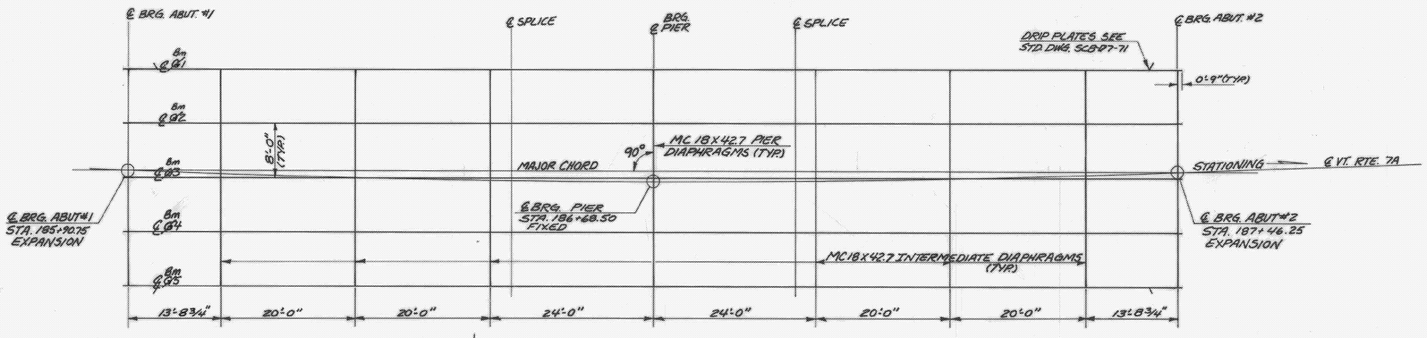
SCALE: ½"=1'-0"



BEAM
TYPICAL ~~GIRDER~~ ELEVATION (OPTION 2)
SCALE: ½"=1'-0" VERT.
SCALE: 1"=10'-0" HORZ.

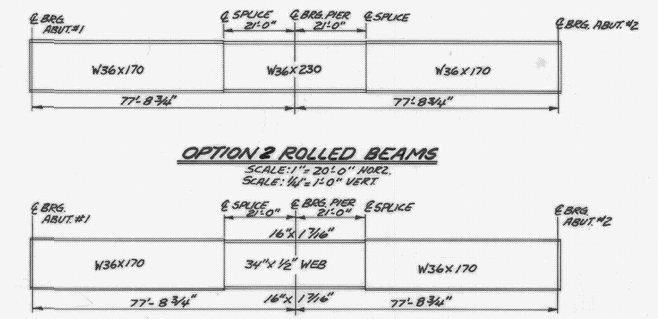
NOTE: CUT THE ENDS OF THE ~~GIRDERS~~ BEAMS TO BE VERTICAL IN THE ERECTED POSITION.

* THE CONTRACTOR HAS THE OPTION OF USING THE CONNECTION PLATE DETAILS SHOWN ON STD. DWG. SCB-DT-71, DETAIL D, INTERMEDIATE DIAPHRAGMS, IN LIEU OF THOSE SHOWN ON THESE SHEETS.



FRAMING PLAN

SCALE: 1"=10'-0"



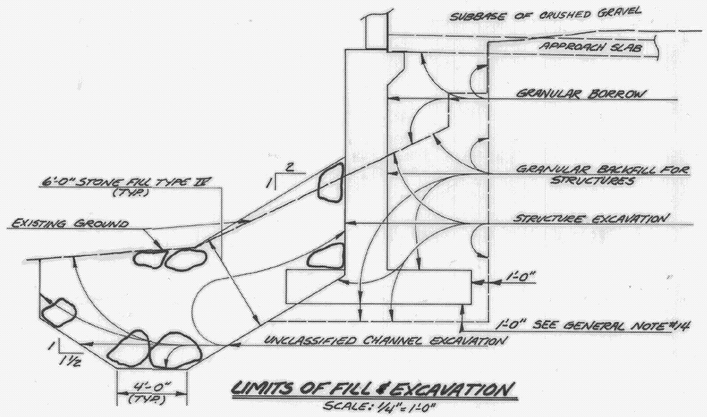
OPTION 2 ROLLED BEAMS

SCALE: 1"=20'-0" HORZ.
SCALE: ¼"=1'-0" VERT.

OPTION 3 ROLLED BEAMS W/R GIRDER

SCALE: 1"=20'-0" HORZ.
SCALE: ¼"=1'-0" VERT.

NOTE: THE CONTRACTOR WILL BE ALLOWED EITHER OF THE OPTIONS AS APPROXIMATELY DETAILED ABOVE IN LIEU OF FABRICATION OF THE WELDED PLATE GIRDER (OPTION 1) AS DETAILED IN THESE PLANS. IN THE EVENT THE CONTRACTOR CHOOSES ONE OF THESE OPTIONS, HE SHALL CONTACT THE STRUCTURES ENGINEER IMMEDIATELY AND REQUEST, IN WRITING THE NECESSARY DETAILS BEFORE ANY FABRICATION DRAWINGS ARE BEGUN. PAYMENT FOR THESE OPTIONS SHALL BE MADE AT THE UNIT BID PRICE FOR THE ITEM "STRUCTURAL STEEL" (LUMP SUM). THE ESTIMATED WEIGHT OF STRUCTURAL STEEL IN OPTION 1 IS 151,710 , OPTION 2 IS 160,920, & OPTION 3 IS 148,730.



LIMITS OF FILL & EXCAVATION

SCALE: ¼"=1'-0"

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 23 OF 47
BRIDGE 15
FOR REFERENCE ONLY

REVISIONS
NOVEMBER 1984
CONTRACTOR SELECTED OPTION 2 UNDER THE ITEM, STRUCTURAL STEEL

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ARLINGTON	Bridge No. 15
HIGHWAY NO. VT. RTE. 7A	Log Sta. 250+43
	Surv. Sta. 186+68.5

VT. 7A OVER ROARING BRANCH
SUPERSTRUCTURE DETAILS

Designed by G.S. ROGERS	Drawn by L.C. GATES
Checked by G.S. ROGERS date 11/84	Bridge Design Supervisor F.W. Bolkum date 2/84
PROJECT ARLINGTON	PROJECT NO. BRS-0137(7)
Bridge Sheet No. BR 105	Sheet 24 of 83

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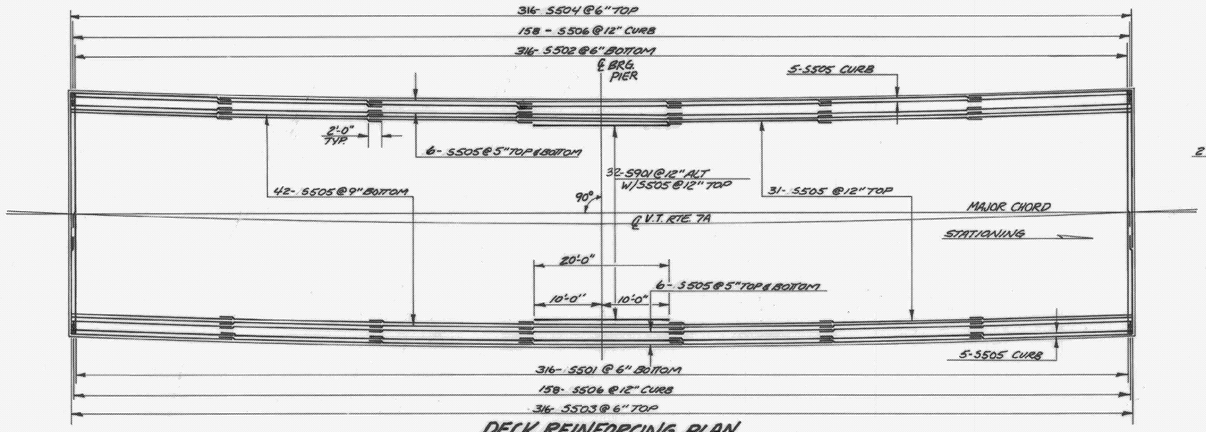
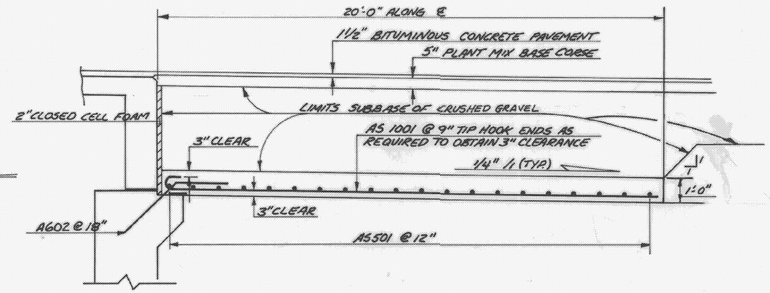
BR-6-'83



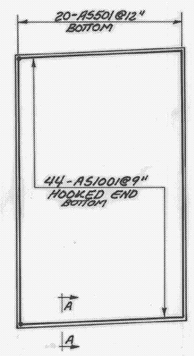
DECK REINFORCING PLAN

SCALE: 1" = 10'-0"



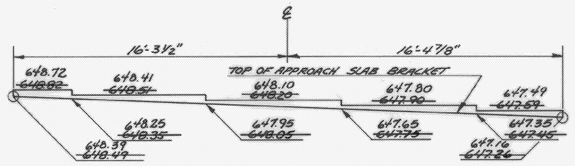
APPROACH SLAB TYPICAL SECTION

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



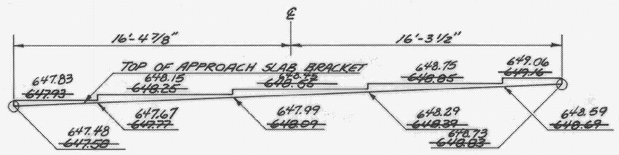
APPROACH SLAB REINFORCING PLAN

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



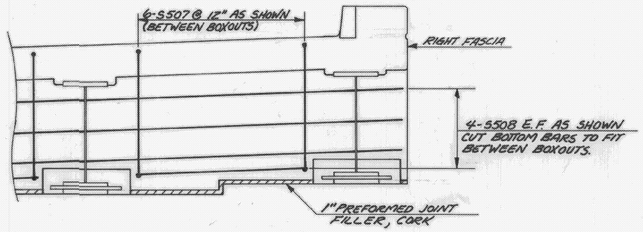
FACING BACK OF ABUTMENT #2

SCALE: 1/4" = 1'-0"



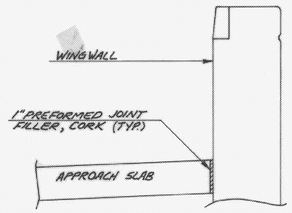
FACING BACK OF ABUTMENT #1

SCALE: 1/4" = 1'-0"



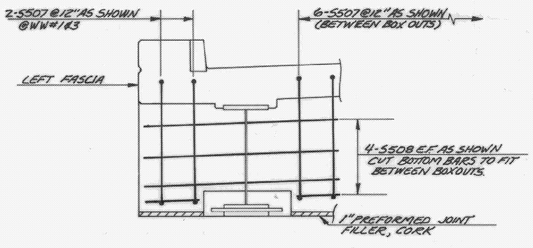
CURTAIN WALL ELEVATION

SCALE: 1/2" = 1'-0"



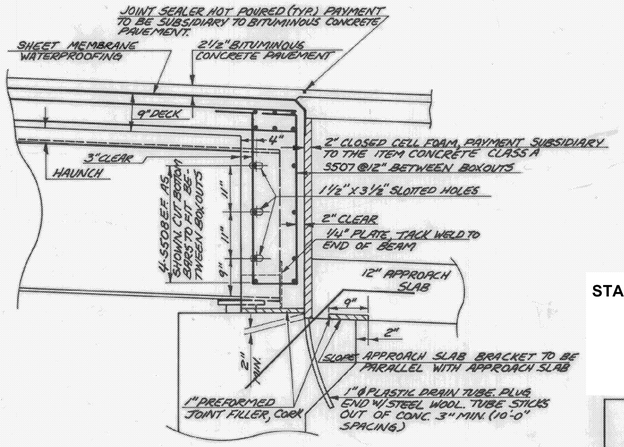
SECTION A-A

SCALE: 1/2" = 1'-0"



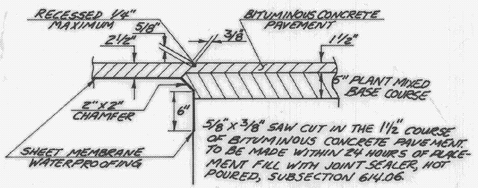
CURTAIN WALL ELEVATION @ LT. FASCIA

SCALE: 1/2" = 1'-0"



CURTAIN WALL DETAIL

SCALE: 3/4" = 1'-0"



JOINT SEALER DETAIL

SCALE: 3/32" = 1"

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 24 OF 47
BRIDGE 15
FOR REFERENCE ONLY

REVISIONS

NOVEMBER 1984

CONTRACTOR SELECTED OPTION 2 UNDER THE ITEM, STRUCTURAL STEEL

STATE OF VERMONT
AGENCY OF TRANSPORTATION

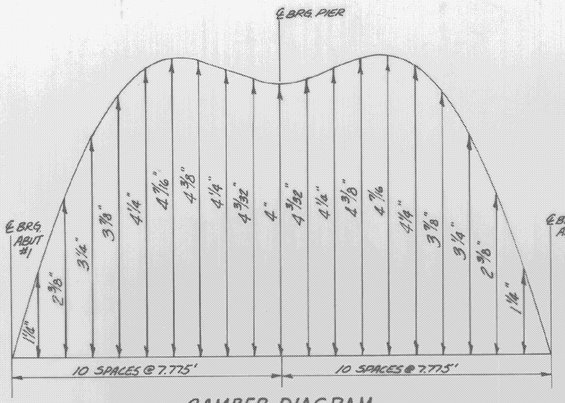
TOWN OF ARLINGTON	Bridge No. 15
HIGHWAY NO. VT. RTE. 7A	Log Sta. 250+43
	Surv. Sta. 186+6850

VT. 7A OVER ROARING BRANCH
DECK, CURTAIN WALLS & APPROACH SLABS

Designed by G. S. ROGERS	Drawn by L. C. GATES
Checked by G.S. ROGERS date 11/84	Bridge Design Supervisor F. W. Bolkum date 2/84
PROJECT ARLINGTON	PROJECT NO. BRS-0137(7)
Bridge Sheet No. BR 106	Sheet 25 of 83

BRUNING 44-131 58384

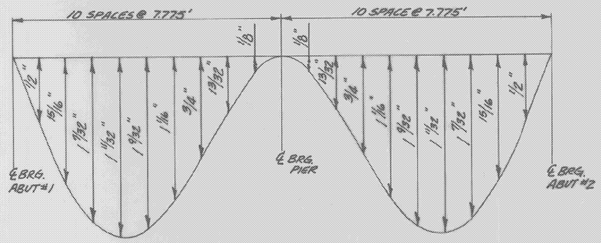
BR-6-'83



CAMBER DIAGRAM

SCALE: 1" = 1' VERTICAL
1" = 20' HORIZONTAL

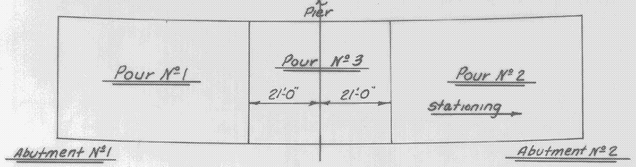
NOTE: CAMBER TOLERANCE AT ANY POINT SHALL BE PER AISC HANDBOOK FOR ROLLED BEAMS.



DEAD LOAD DEFLECTION DIAGRAM

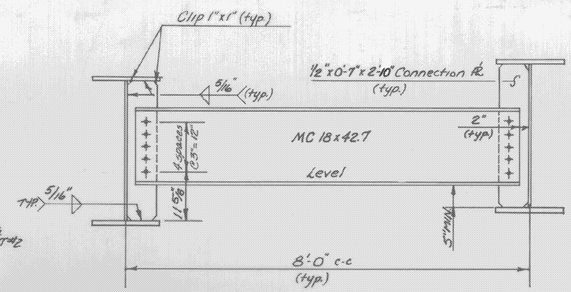
SCALE: 1" = 1/2" VERTICAL
1" = 20' HORIZONTAL

NOTE: 1. THE SEQUENCE OF POURS 1 & 2 MAYBE INTERCHANGED. A MINIMUM OF 96 HOURS BETWEEN POURS IS REQUIRED. SEE NOTE 15, SCB-DI-75.
2. IF APPROVED BY THE ENGINEER, ALL SECTIONS MAY BE POURED THE SAME DAY, PROVIDED THE INDICATED POURING SEQUENCE IS FOLLOWED AND THAT A RETARDING ADMIXTURE IS USED SO THAT THE DECK CONCRETE WILL NOT SET UP UNTIL ALL THE DECK CONCRETE HAS BEEN PLACED AND THE TOTAL TIME OF POUR WILL NOT BE GREATER THAN 6 HOURS. THE RETARDING ADMIXTURE SHALL BE SUBSIDIARY TO THE ITEM CONCRETE, CLASS A.
3. IF ALL SECTIONS ARE NOT POURED IN THE SAME DAY, USE BRIDGE SLAB CONSTRUCTION JOINTS BETWEEN POURS. SEE STD DWG SCB-DG-73, DETAIL D. JOINTS SHALL BE PARALLEL TO THE ℄ BRG.



POUR SEQUENCE DIAGRAM

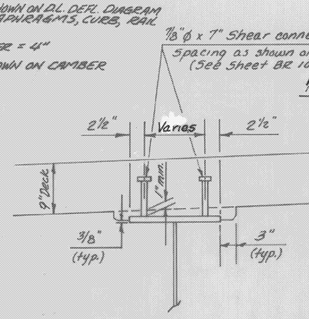
1" = 20'-0"



INTERMEDIATE DIAPHRAGM DETAILS *

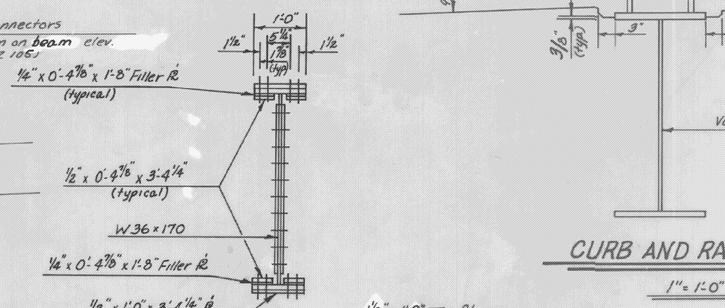
3/4" = 1'-0"

NOTES: 1. LIVE LOAD DEFLECTION (MAX.) = 5/8"
2. DEAD LOAD DEFLECTION = AS SHOWN ON DL. DEFL. DIAGRAM (DUE TO BEAMS, DECK, DIAPHRAGMS, CURB, RAIL & PAVEMENT.)
3. VERTICAL CURVE CAMBER = 4"
4. TOTAL CAMBER = AS SHOWN ON CAMBER DIAGRAM.



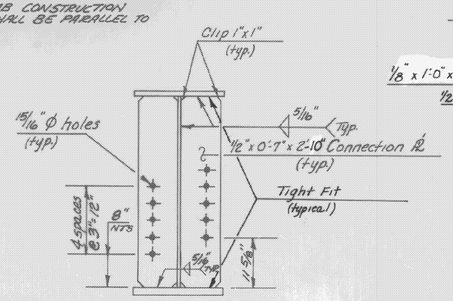
HAUNCH DETAIL

1" = 1'-0"



SPLICE DETAILS

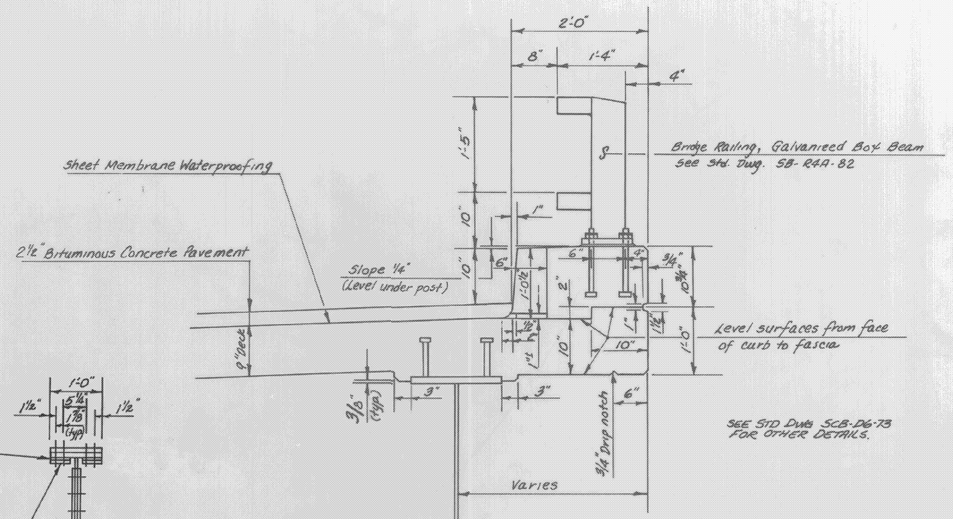
3/4" = 1'-0"



INTERMEDIATE CONNECTION PLATE *

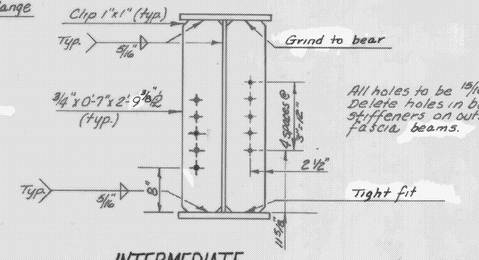
1" = 1'-0"

* CONNECTION PLATES SHOWN ON STD. DWG. SCB-DT-71, DETAIL D FOR INTERMEDIATE DIAPHRAGMS, MAY BE USED IN LIEU OF THOSE SHOWN ON THESE PLANS.



CURB AND RAIL DETAIL

1" = 1'-0"



INTERMEDIATE TYPICAL ~~BEARING~~ STIFFENER AT PIER *

1" = 1'-0"

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 25 OF 47
BRIDGE 15
FOR REFERENCE ONLY

REVISIONS

NOVEMBER 1984

CONTRACTOR SELECTED OPTION 2 UNDER THE ITEM, STRUCTURAL STEEL

SHEET BR 107A ADDED

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF ARLINGTON	Bridge No. 15
HIGHWAY NO. VT. RTE. 7A	Log Sta. 250+43
	Surv. Sta. 186+68.50
VT. RTE. 7A OVER ROARING BRANCH	
DIAPHRAGM, CURB, SPLICE, DETAILS	
Designed by G.S. ROGERS	Drawn by D.W. NEWTON
Checked by G.S. ROGERS date 11/84	Bridge Design Supervisor F.W. Balkum date 2/84
PROJECT ARLINGTON	PROJECT NO. BRS-0137(7)
Bridge Sheet No. BR 107A Sheet 26 of 83	

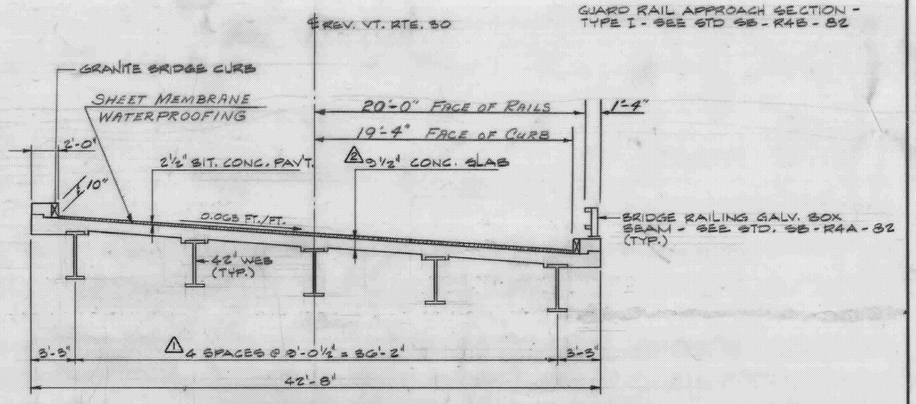
BRUNING 44-131 56384
BR-6-'83

LIST OF BRIDGE SHEETS

BR 100	PRELIMINARY INFORMATION SHEET
BR 101	PLAN
BR 102	BRIDGE QUANTITY SHEET
BR 103	BORING INFORMATION SHEET
BR 104	BORING LOGS
BR 105	TYPICAL BRIDGE SECTION
BR 106	DECK REINFORCING PLAN
BR 107	CURB AND RAILING DETAILS
BR 108	FRAMING PLAN AND GIRDER SPLICE
BR 109	GIRDER ELEVATIONS
BR 110	STRUCTURAL STEEL DETAILS I
BR 111	STRUCTURAL STEEL DETAILS II
BR 112	BEARING DETAILS
BR 113	SCUPPER DETAILS
BR 114	ABUTMENT NO. 1 DETAILS
BR 115	WINGWALLS NO. 1 AND NO. 2 DETAILS
BR 116	ABUTMENT NO. 2 DETAILS
BR 117	WINGWALLS NO. 3 AND NO. 4 DETAILS
BR 118	PIER DETAILS
BR 119	APPROACH SLAB DETAILS
BR 120	REINFORCING STEEL SCHEDULE
BR 121	REINFORCING STEEL SCHEDULE
BR 122	CHANNEL SECTIONS
BR 123	CHANNEL SECTIONS
BR 124	CHANNEL SECTIONS
BR 125	CHANNEL SECTIONS
BR 126	CHANNEL SECTIONS
BR 127	CHANNEL SECTIONS
BR 128	CHANNEL SECTIONS

LIST OF STANDARD DRAWINGS *

DRAWING NO.	DATE
SB - R4A - 82	R 12 - 13 - 84
SB - R4B - 82	R 12 - 13 - 84
SCB - D1 - 75	R 9 - 14 - 81
SCB - D4 - 76	R 10 - 12 - 83
SCB - DG - 78	R 1 - 3 - 79
SCB - D7 - 71	R 12 - 15 - 76



BRIDGE TYPICAL SECTION
SCALE 1"=5'-0"

GENERAL NOTES:

1. ALL THE GENERAL NOTES, EXCEPT #2, FROM STANDARD DRAWING SCB - D1 - 75 APPLY TO THIS PROJECT.
2. THE EXISTING STEEL BRIDGE AND ITS ABUTMENT AND PIERS SHALL BE REMOVED UNDER THE ITEM REMOVAL OF STRUCTURE. FOR ADDITIONAL INFORMATION SEE THE SPECIAL PROVISIONS.
3. ALL STRUCTURAL STEEL SHALL BE AASHTO M 270 UNPAINTED UNLESS OTHERWISE NOTED.
4. THE GIRDERS MAY BE HEAT CURVED TO OBTAIN HORIZONTAL CURVATURE. VERTICAL CAMBER SHALL BE ADJUSTED FOR THE EFFECTS OF HEAT CURVING.
5. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES EXCEPT THE UNDERSIDE OF THE DECK BETWEEN FACIA GIRDERS.
6. ALL REINFORCEMENT BARS SHALL BE GRADE 60.
7. A COFFERDAM SHALL BE USED TO FACILITATE PIER AND ABUTMENT NO. 2 CONSTRUCTION. THE PRICE BID FOR COFFERDAM SHALL INCLUDE THE COST OF PLACING COFFERDAM SEALS IF NECESSARY. FOR ADDITIONAL INFORMATION SEE THE COFFERDAM NOTES, BR. SHEETS 117 & 118.

EXISTING STRUCTURE

1. STRUCTURE TYPE STEEL TRUSS OVERALL LENGTH 182' INVENTORY RATING
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS SIMPLE SPAN 176'
3. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 152'
4. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) 3100 SQ.FT. VERTICAL CLEARANCE ABOVE STREAMBED 24'
5. WATER SURFACE ELEVATION @ Q 2.33 579.2 WATER SURFACE ELEVATION @ Q 50 582.7
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD UNKNOWN YEAR 1869 ESTIMATED DISCHARGE
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? YES IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL LEDGE EAST ABUT. - SPREAD FOOTING ON SOIL WEST ABUT.
9. DISPOSITION OF STRUCTURE REMOVE SUPERSTRUCTURE - REMOVE ABUTS. TO ELEVATIONS SHOWN

NEW STRUCTURE

STRUCTURE GEOMETRY:
1. STRUCTURE TYPE CONTINUOUS COMPOSITE PLATE GIRDER OVERALL LENGTH 210.43
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 2 SPANS 102' & 102'
3. VERTICAL CLEARANCE ABOVE STREAMBED ~~OR ROAD UNDER~~ 19'
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM 80'-5" (24.4 M.) - 75'-5" (22.9 M.)
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) ± 2450 SQ.FT. (227.6 SQ.M.)
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

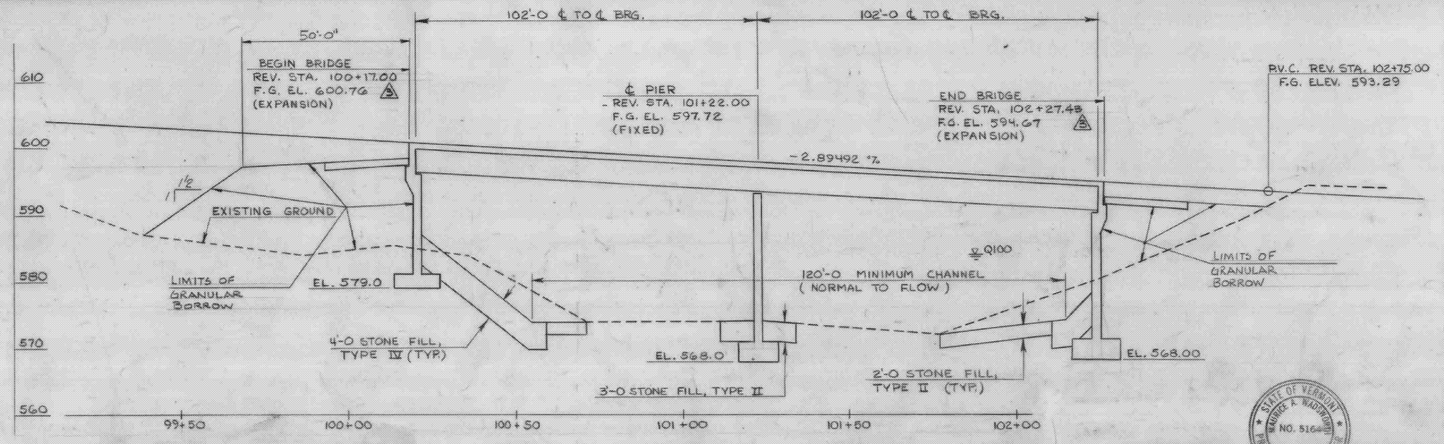
1.	Q 2.33	5000 CFS	WATER ELEVATION 578.9	VELOCITY 8.0 FPS. (2.4 MPS.)
	Q 10	9000 CFS	WATER ELEVATION 581.0	VELOCITY 10.0 FPS. (3.0 MPS.)
	Q 25	11000 CFS	WATER ELEVATION 581.8	VELOCITY 10.5 FPS. (3.3 MPS.)
	Q 50	13000 CFS	WATER ELEVATION 582.6	VELOCITY 11.4 FPS. (3.5 MPS.)
	Q 100	15000 CFS	WATER ELEVATION 583.3	VELOCITY 12.2 FPS. (3.7 MPS.)

2. DRAINAGE AREA 217.1 SQ.MI. (562.3 SQ.KM.) CHARACTER OF TERRAIN ROLLING TO MOUNTAINOUS
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? NO
4. DOES STREAM REACH ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? NO IS ORDINARY RISE RAPID? NO
5. NATURE OF NATURAL STREAMBED GRAVEL
6. ESTIMATED SCOUR DEPTH 3'-4" (0.6 M.-1.2 M.) COMMENT ON: DRIFT MODERATE ICE HEAVY
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? YES IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF N/A
8. VERTICAL CLEARANCE ABOVE Q 50 = 8.5' (2.6 M.)
9. ALLOWABLE WATER SURFACE ELEVATION ± 581.1 LIMITED BY AVERAGE LOW BEAM ELEV.
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? YES IF YES, DESCRIBE ICE LEVELS EFFECTED BY BACKUP DOWNSTREAM
11. AVERAGE DAILY LOW FLOW 200 CFS DEPTH 1.5' AVERAGE DAILY HIGH FLOW 700 CFS DEPTH 2.5'
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED TYPE IV STONE ON BANKS, TYPE II ON STREAM BED
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE 1.9 MI. SPAN 118' WATERWAY AREA OF FULL OPENING Q
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE 1.2 MI. SPAN 288' WATERWAY AREA OF FULL OPENING Q

ALLOWABLE STRESSES:
1. DESIGN LIVE LOAD AASHTO HS 25
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 5.0 KSF ON LEDGE
3. ALLOWABLE LOAD FOR PILING TYPE ESTIMATED LENGTH
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL AASHTO M 270 GR 36 TENSION 27 KSI COMPRESSION 20 KSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24 KSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f'_c 3500 PSI f_c 1400 PSI
   CLASS B f'_c 3000 PSI f_c 1400 PSI

TRAFFIC MAINTENANCE:
1. IS TRAFFIC TO BE MAINTAINED? YES IF YES, ON EXISTING STRUCTURE YES OR ON TEMPORARY BRIDGE
2. TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY TRAFFIC CONTROL SIGNALS REQUIRED NO
   MINIMUM CLEAR SPAN MINIMUM CLEAR HEIGHT MINIMUM WATERWAY AREA
   ARE SIDEWALKS REQUIRED? NO IF SO, ON WHAT SIDE?

ADDITIONAL DESIGN CONSIDERATIONS



ROADWAY PROFILE
(AT REVISED ℄)
SCALE: HORZ. 1"=20'
VERT. 1"=10'

STATE OF VERMONT MARJORIE A. WADSWORTH NO. 5164 REGISTERED PROFESSIONAL ENGINEER
Ma. Wadsworth
3-6-86

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy =	44	50					
POSTED 0.67 Fy =	67		88		69	71	81
OPERATING 0.75 Fy =			106	125			

RECOMMENDED FOR APPROVAL Warren B. Tripp STRUCTURES ENGINEER 7/16/85 DATE
RECOMMENDED FOR APPROVAL Arthur Tripp CHIEF OF DESIGN 7/16/85 DATE
APPROVED BY Frank E. Patrick DIRECTOR OF ENGINEERING & CONSTRUCTION 7/16/85 DATE

REVISIONS

NO.	DESCRIPTION	BY & DATE
1	CHANGED FROM 5 SPACES TO 4 GANNETT FLEMING PRELIMINARY DESIGN REPORT	P.G. NORTON 3-28-85
2	INCREASED DUE TO GIRDER SPACING.	P.G. NORTON 3-28-85
3	CHANGED DUE TO FINAL DESIGN DIMENSIONS.	P.G. NORTON 12-30-85

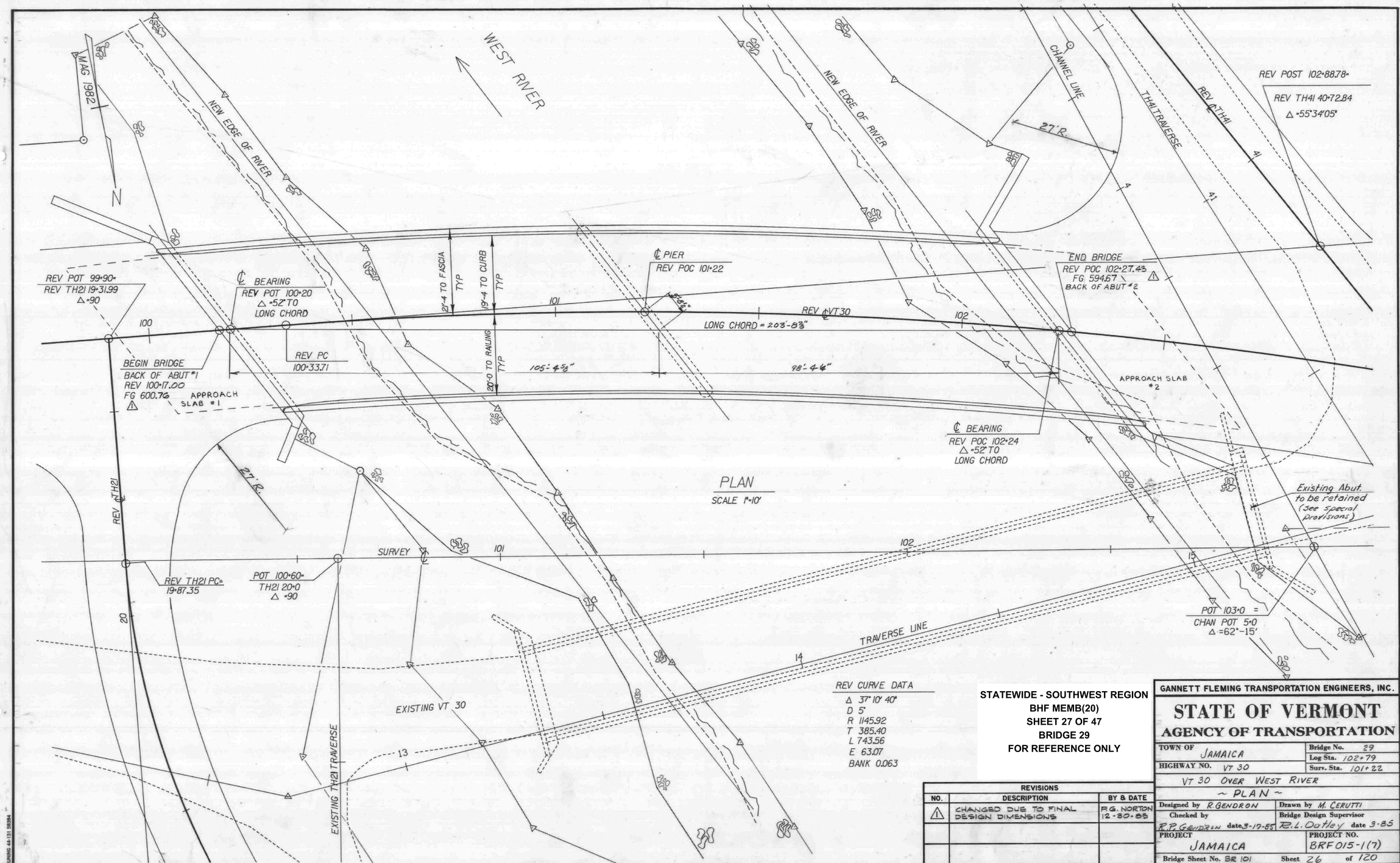
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 26 OF 47
BRIDGE 29
FOR REFERENCE ONLY

GANNETT FLEMING TRANSPORTATION ENGINEERS, INC.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF JAMAICA	Bridge No. 29
	Log Sta. 102+79
HIGHWAY NO. VT. RTE. 30	Surv. Sta. 101+22
PRELIMINARY INFORMATION SHEET	
VT. RTE. 30, B29 OVER WEST RIVER	
Designed by R.P. GENDRON	Drawn by G. SCHELLEY
Checked by R.P. GENDRON date 3-17-85	Bridge Design Supervisor R.L. Dorfley date 3-85
PROJECT JAMAICA	PROJECT NO. BRF 015-1(7)
Bridge Sheet No. BR 100	Sheet 25 of 120

MARKDOB P-4652



REV CURVE DATA
Δ 37° 10' 40"
D 5°
R 1145.92
T 385.40
L 743.56
E 63.07
BANK 0.063

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 27 OF 47
BRIDGE 29
FOR REFERENCE ONLY

REVISIONS		
NO.	DESCRIPTION	BY & DATE
⚠	CHANGED DUE TO FINAL DESIGN DIMENSIONS	R.G. NORTON 12-30-85

GANNETT FLEMING TRANSPORTATION ENGINEERS, INC.

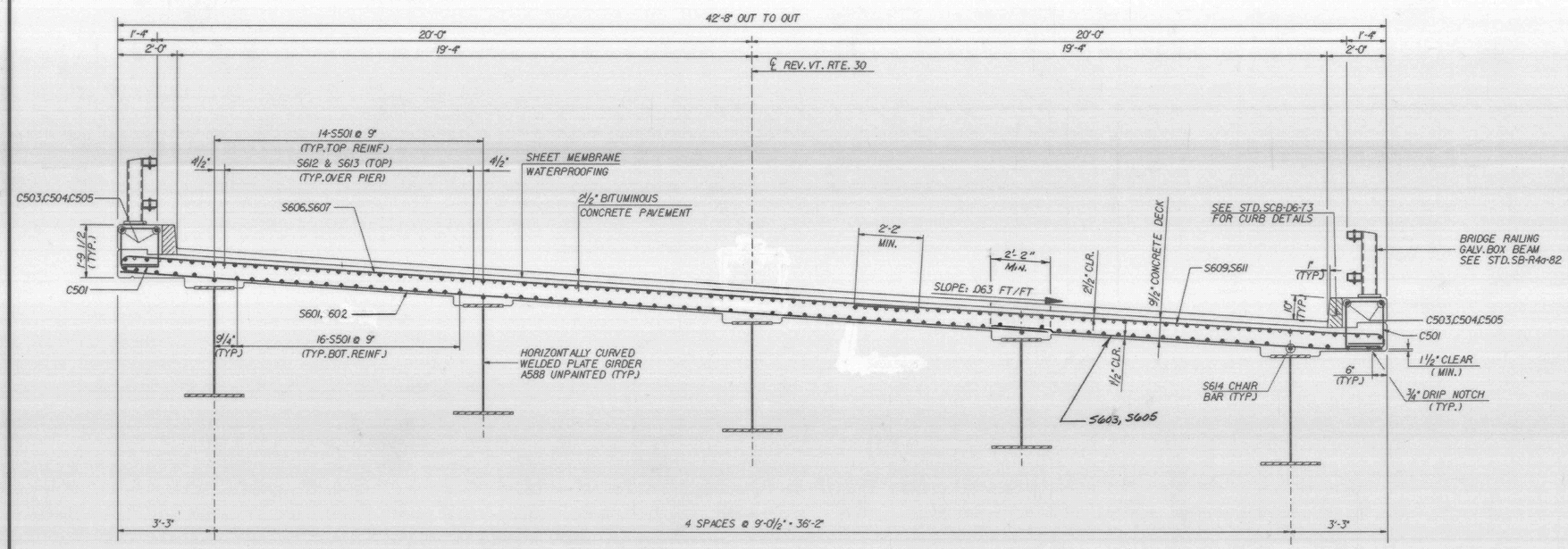
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF JAMAICA	Bridge No. 29
HIGHWAY NO. VT 30	Log Sta. 102+79
	Surv. Sta. 101+22

VT 30 OVER WEST RIVER
~ PLAN ~

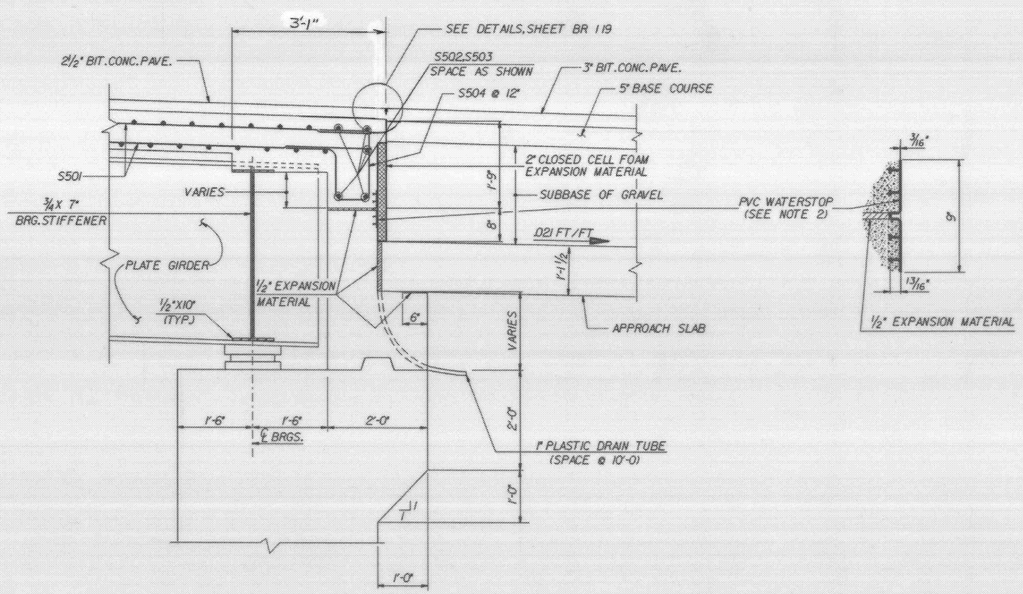
Designed by R. GENDRON	Drawn by M. CERUTTI
Checked by R.P. GENDRON date 3-17-85	Bridge Design Supervisor R.L. Dalley date 3-85
PROJECT JAMAICA	PROJECT NO. BRF 015-1(7)
Bridge Sheet No. BR 101	Sheet 26 of 120

BR-6-'83 Q3A1:[30,24]78F173.PE
BRUNING 44-131 58384



TYPICAL SECTION

SCALE: ½" = 1'-0"



TYPICAL SECTION AT END OF BRIDGE

SCALE: ¾" = 1'-0"

NOTES

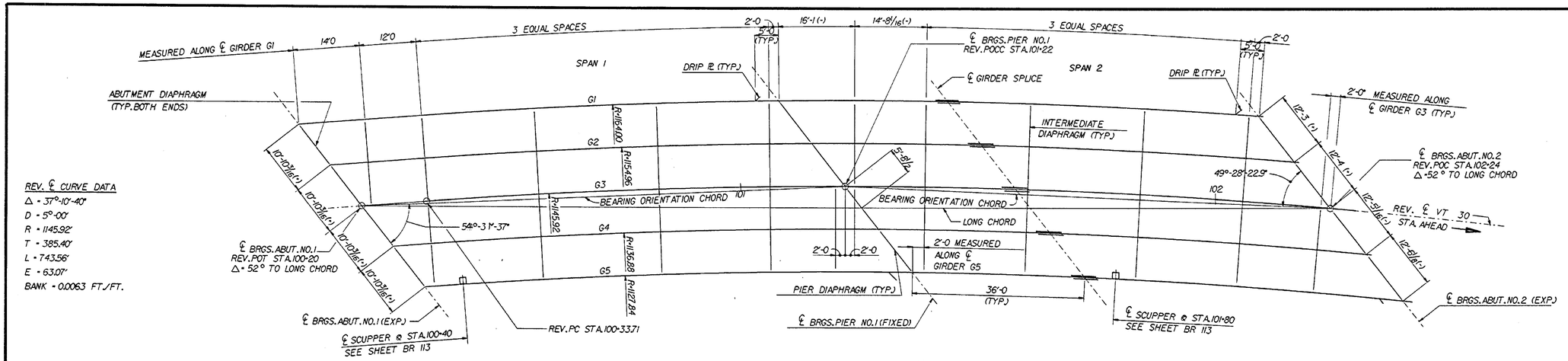
1. PAYMENT FOR ALL MATERIALS AND LABOR FOR PLACEMENT OF HOT POURED JOINT SEALER, AS DETAILED ON THIS SHEET, SHALL BE SUBSIDIARY TO ITEM 406.25, "BITUMINOUS CONCRETE PAVEMENT".
2. COST FOR INSTALLING P.V.C. WATERSTOP, AS SHOWN ON THIS SHEET, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE, CLASS A. OTHER SIMILAR P.V.C. WATERSTOP CONFIGURATIONS MAY BE SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
3. SEE SECTION 707.09 OF THE STANDARD SPECIFICATIONS FOR DETAILS OF CLOSED CELL FOAM EXPANSION MATERIAL.
4. FOR DECK REINFORCING PLAN, SEE SHEET BR 106 .
5. FOR CURB AND RAILING DETAILS, SEE SHEET BR 107 .
6. FOR REINFORCING STEEL SCHEDULE, SEE SHEET BR 120 .
7. All reinforcing bars in the deck and curb shall be Epoxy Coated.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 28 OF 47
BRIDGE 29
FOR REFERENCE ONLY

GANNETT FLEMING TRANSPORTATION ENGINEERS, INC.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

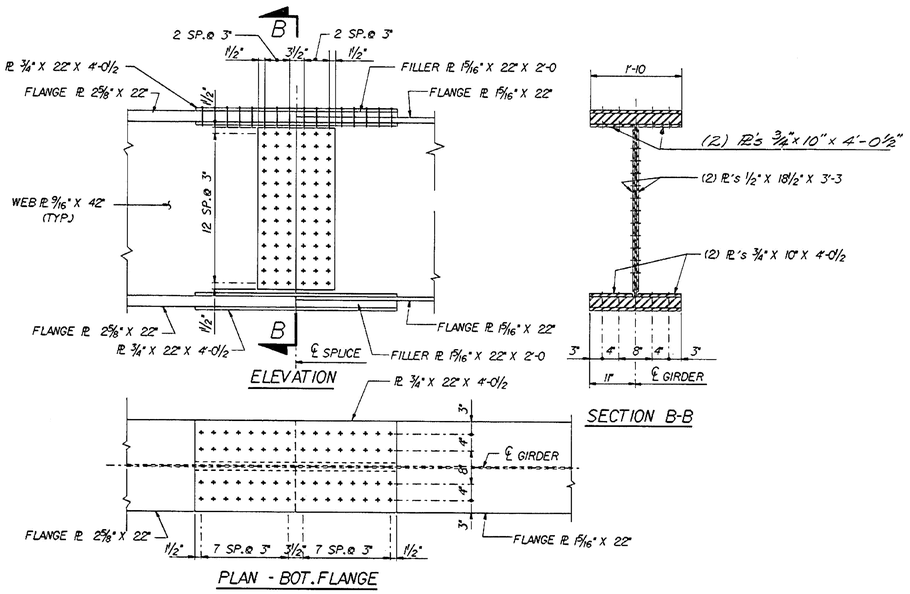
TOWN OF JAMAICA	Bridge No. 29
	Leg Sta. 102 + 79
HIGHWAY NO. VT 30	Surv. Sta. 101 + 22
VT 30 OVER WEST RIVER	
TYPICAL SECTION	
Designed by P.G. NORTON	Drawn by G.P. MILAKOVIC
Checked by M.J. WALSH DATE: 2-86	Bridge Design Supervisor P.G. NORTON DATE: 3-86
PROJECT JAMAICA	PROJECT NO. BRF 015-1(7)
Bridge Sheet No. BR 105	Sheet 30 of 120



REV. ℄ CURVE DATA
Δ = 37°-10'-40"
D = 5°-00'
R = 1145.92'
T = 385.40'
L = 743.56'
E = 63.07'
BANK = 0.0063 FT./FT.

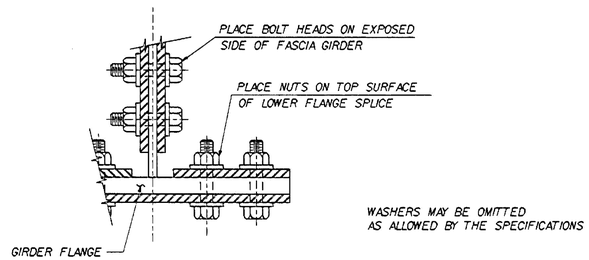
FRAMING PLAN

SCALE: 3/32" = 1'-0



GIRDER SPLICE

SCALE: 3/4" = 1'-0



BOLTED SPLICE DETAIL

N.T.S.

NOTES

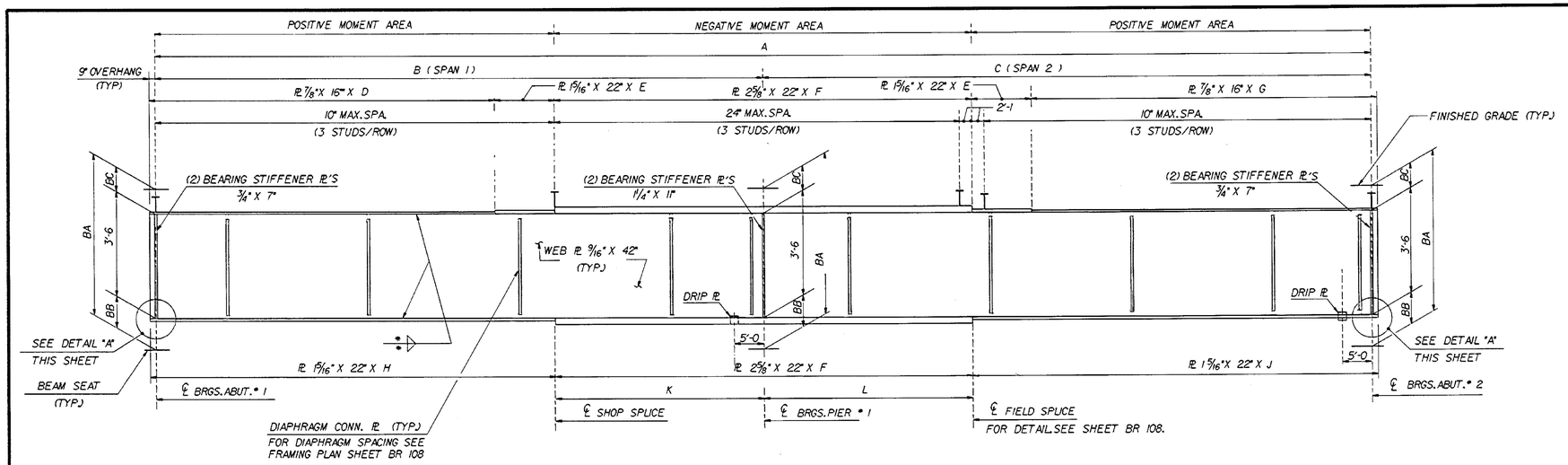
1. FOR GENERAL NOTES, SEE SHEET BR 100.
2. ALL INTERMEDIATE DIAPHRAGMS ARE LOCATED ON RADIAL LINES FROM THE CENTER OF CURVE FOR THE REV. ℄ OF VT 30.
3. GIRDER DIMENSIONS SHOWN ARE HORIZONTAL ARC LENGTHS MEASURED ALONG ℄ OF GIRDERS.
4. ALL FIELD CONNECTIONS SHALL BE MADE WITH 7/8" Ø H.S. A325 BOLTS IN 15/16" Ø HOLES, UNLESS NOTED OTHERWISE.
5. ALL SPLICE PLATES AND FILLER PLATES SHALL BE A588 STEEL.
6. FOR GIRDER ELEVATION, SEE SHEET BR 109.
7. FOR CAMBER AND DEAD LOAD DEFLECTION DIAGRAMS, SEE SHEET BR 110.
8. FOR ABUTMENT, PIER AND INTERMEDIATE DIAPHRAGM DETAILS, SEE SHEET BR 111.
9. FOR BEARING DETAILS, SEE SHEET BR 112.
10. SEE STD. SCB-07-71 FOR DETAILS OF THE DRIP PLATE.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 29 OF 47
BRIDGE 29
FOR REFERENCE ONLY

GANNETT FLEMING TRANSPORTATION ENGINEERS, INC.

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF JAMAICA	Bridge No. 29
	Log Sta. 102+79
HIGHWAY NO. VT 30	Surv. Sta. 101+22
VT 30 OVER WEST RIVER	
FRAMING PLAN AND GIRDER SPLICE	
Designed by P.G.NORTON	Drawn by G.P.MILAKOVIC
Checked by M.J.WALSH DATE: 2-86	Bridge Design Supervisor P.G.NORTON DATE: 3-86
PROJECT JAMAICA	PROJECT NO. BRF 015-1(7)
Bridge Sheet No. BR 108	Sheet 33 of 120

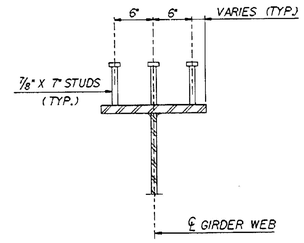


GIRDER ELEVATION

SCALE: VERT. 1/2" = 1'-0
HORIZ. 1" = 10'-0

* SIZE OF FILLET WELD

FLANGE THICKNESS	WELD
OVER 3/4" TO 1 1/2"	5/16"
OVER 2 1/4"	7/16"

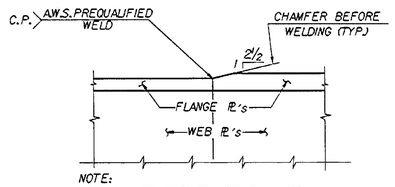


SHEAR CONNECTOR DETAIL

N.T.S.

GIRDER	TABLE OF LINEAR DIMENSIONS										
	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"
G1	202'-2 1/2(+)	101'-4 1/16(+)	100'-10 7/16(+)	56'-11/16(+)	10'-0	72'-0	55'-7 7/16(+)	66'-1 11/16(+)	65'-7 7/16(+)	36'-0	36'-0
G2	202'-0 5/16(+)	101'-7 5/16(-)	101'-5 1/16(-)	56'-4 5/16(-)	10'-0	72'-0	56'-2 1/16(-)	66'-4 5/16(-)	66'-2 1/16(-)	36'-0	36'-0
G3	204'-0	102'-0	102'-0	56'-9	10'-0	72'-0	56'-9	66'-9	66'-9	36'-0	36'-0
G4	204'-11 3/4(+)	102'-4 9/16(-)	102'-7 3/16(+)	57'-1 9/16(-)	10'-0	72'-0	57'-4 3/16(+)	67'-1 9/16(-)	67'-4 3/16(+)	36'-0	36'-0
G5	206'-0 1/4(-)	102'-9 1/2(-)	103'-2 3/4(+)	57'-6 1/2(-)	10'-0	72'-0	57'-11 3/4(+)	67'-6 1/2(-)	67'-11 3/4(+)	36'-0	36'-0

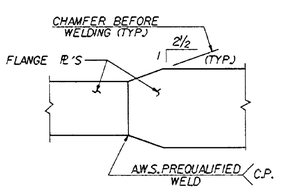
	TABLE OF VERTICAL DIMENSIONS		
	℄ BRGS. ABUT. # 1	℄ BRGS. PIER # 1	℄ BRGS. ABUT. # 2
BA	5'-6 9/16	5'-8 3/4	5'-6 9/16
BB	7 9/16"	9 3/4"	7 9/16"
BC	1'-5	1'-5	1'-5



NOTE:
GRINDING OF THE SPLICES SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS.

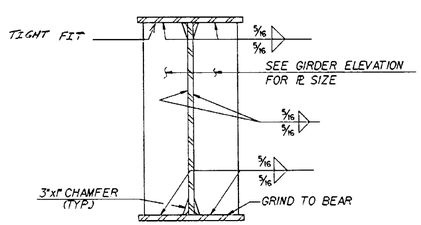
FLANGE SPLICE DETAIL

N.T.S.



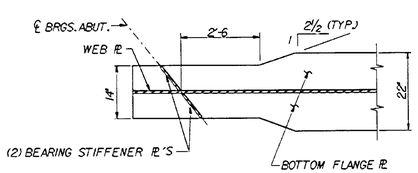
FLANGE BUTT SPLICE PLAN

N.T.S.



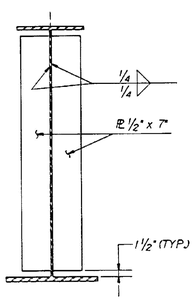
BEARING STIFFENER DETAIL

N.T.S.



DETAIL "A"

N.T.S.



DIAPHRAGM CONNECTION PLATE DETAIL

N.T.S.

NOTES

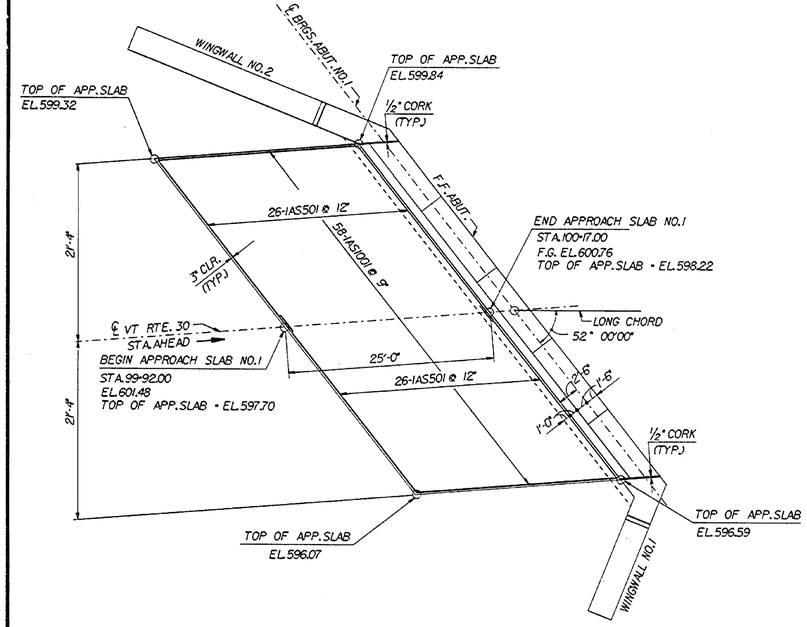
1. FOR GENERAL NOTES, SEE SHEET BR 100.
2. GIRDER DIMENSIONS SHOWN ARE HORIZONTAL ARC DISTANCES MEASURED ALONG ℄ OF GIRDERS.
3. ALL STEEL IN WEBS, FLANGES AND DIAPHRAGMS REQUIRES CHARPY V-NOTCH TEST AS SPECIFIED IN SUBSECTION 714.01.
4. ALL BEARING STIFFENERS SHALL BE PLACED SKEWED ALONG ℄ OF BEARINGS, AND BE TRULY VERTICAL WHEN THE GIRDERS ARE IN THEIR FINAL POSITION.
5. ALL DIAPHRAGM CONNECTION PLATES SHALL BE AT 90° TO THE TOP FLANGE.
6. FOR CAMBER AND DEAD LOAD DEFLECTION DIAGRAMS, SEE SHEET BR 110.
7. FOR DIAPHRAGM DETAILS, SEE SHEET BR 111.
8. FOR BEARING DETAILS, SEE SHEET BR 112.
9. SEE STD. SCB-D7-71 FOR DETAILS OF THE DRIP PLATE. DRIP PLATES ARE TO BE USED ON FASCIA GIRDERS ONLY.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 30 OF 47
BRIDGE 29
FOR REFERENCE ONLY

GANNETT FLEMING TRANSPORTATION ENGINEERS, INC.

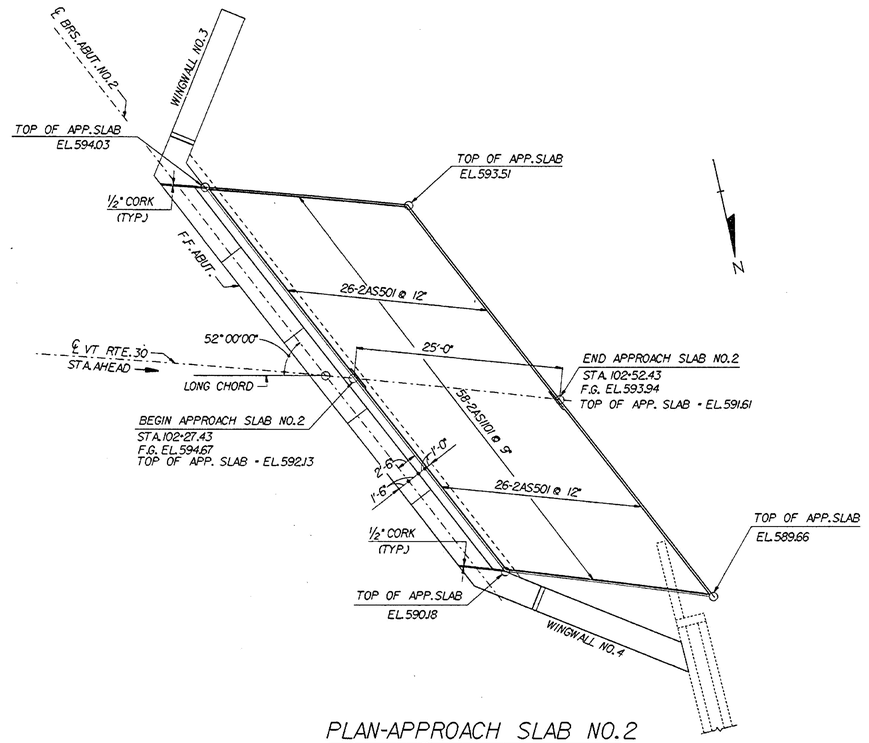
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF JAMAICA	Bridge No. 29
	Log Sta. 102 +79
HIGHWAY NO. VT 30	Surv. Sta. 101 + 22
VT 30 OVER WEST RIVER	
GIRDER ELEVATION	
Designed by P.G. NORTON	Drawn by G.P. MILAKOVIC
Checked by M.J. WALSH DATE: 2-86	Bridge Design Supervisor P.G. NORTON DATE: 3-86
PROJECT JAMAICA	PROJECT NO. BRF 015-1(7)
Bridge Sheet No. BR 109	Sheet 34 of 120



PLAN-APPROACH SLAB NO.1

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

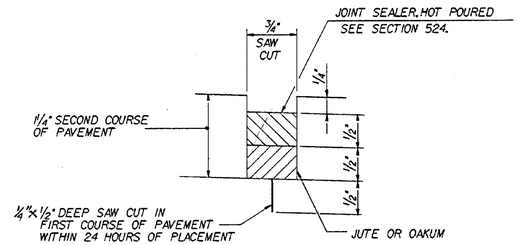


PLAN-APPROACH SLAB NO.2

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

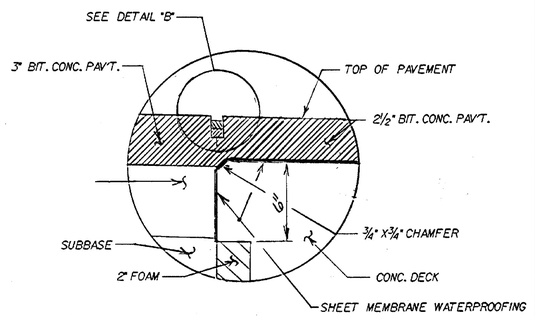
NOTES

1. THE COST FOR INSTALLING ALL PREFORMED JOINT FILLER CORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE CLASS B.
2. PAYMENT FOR ALL MATERIALS AND LABOR FOR PLACEMENT OF HOT POURED JOINT SEALER, AS DETAILED ON THIS SHEET, SHALL BE INCLUDED IN ITEM 406.25.
3. THE 1/4" X 3/4" SAW CUT IN SECOND COURSE OF BITUMIOUS CONCRETE PAVEMENT TO BE MADE WITHIN 24 HOURS OF PLACEMENT, AND FILLED AS SHOWN.
4. THE JOINT IS TO BE ACCURATELY LOCATED BY STRING LINING OR OTHER MEANS PRIOR TO PAVING, SO THAT THE SAW CUT WILL BE MADE DIRECTLY OVER THE JOINT.
5. FOR ADDITIONAL DETAILS, SEE THE TYPICAL SECTION AT END OF BRIDGE, SHEET BR 105.
6. FOR REINFORCING STEEL SCHEDULE, SEE SHEET BR 120.



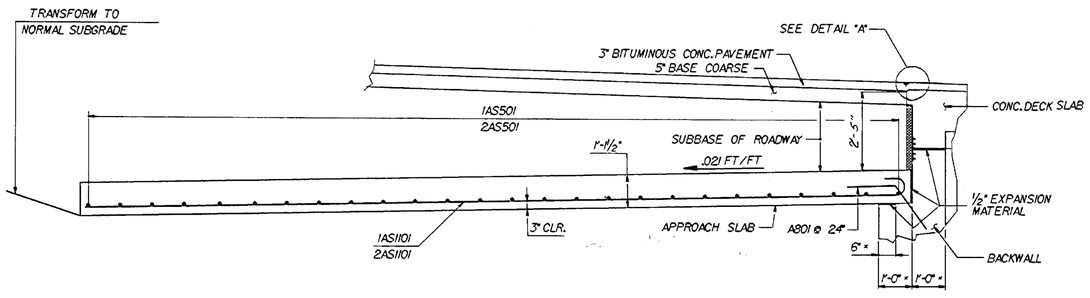
DETAIL "B"

SCALE: 1"=1"



DETAIL "A"

SCALE: 3"=1'-0"



TYPICAL ELEVATION APPROACH SLAB NO.1

SCALE: 1/2"=1'-0"

NOTE:

* NORMAL TO ABUTMENT

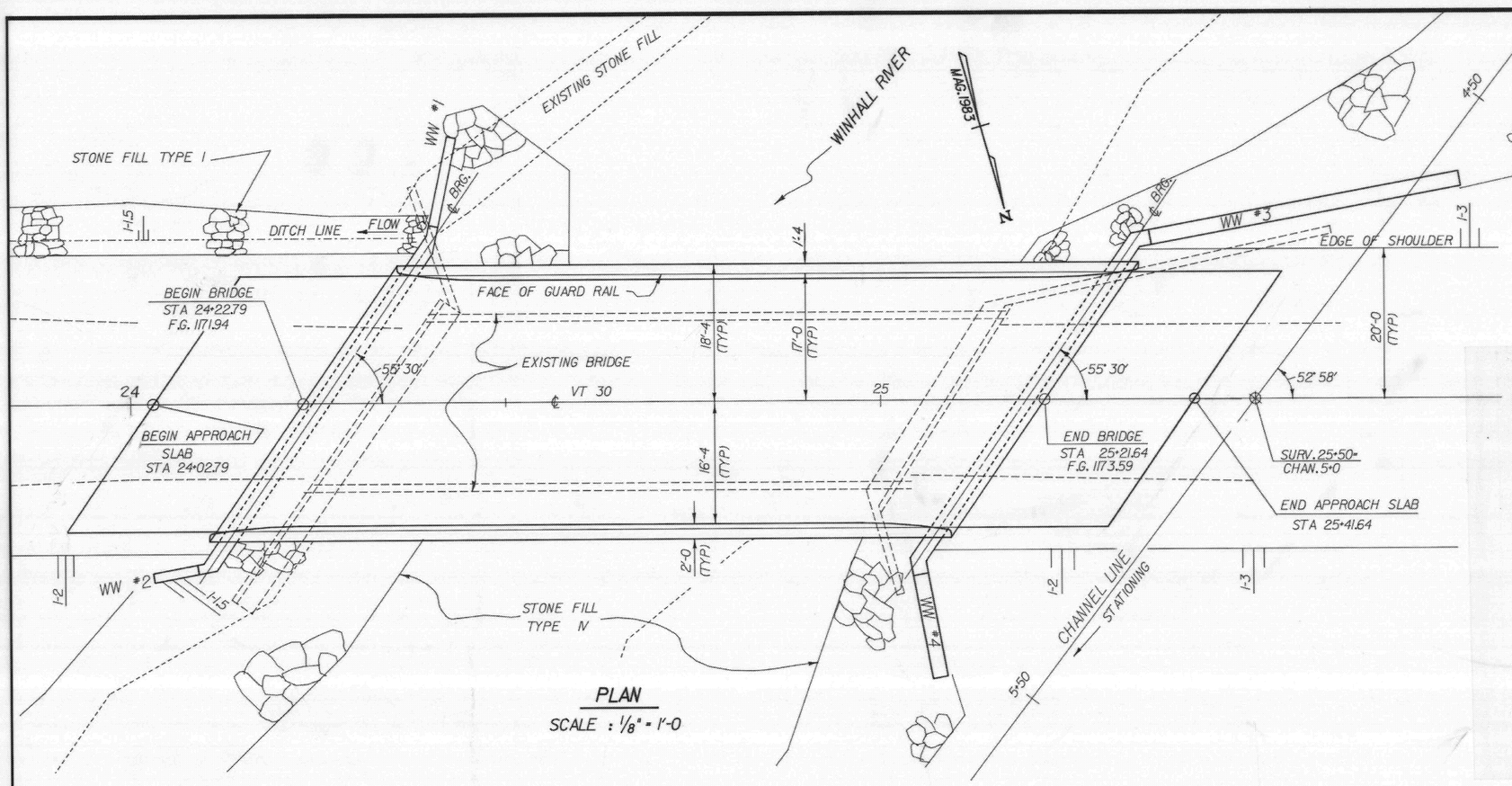
** NOTE: SLANT IN FIELD TO MAINTAIN CLEARANCE ON HOOK.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 31 OF 47
BRIDGE 29
FOR REFERENCE ONLY

GANNETT FLEMING TRANSPORTATION ENGINEERS, INC.

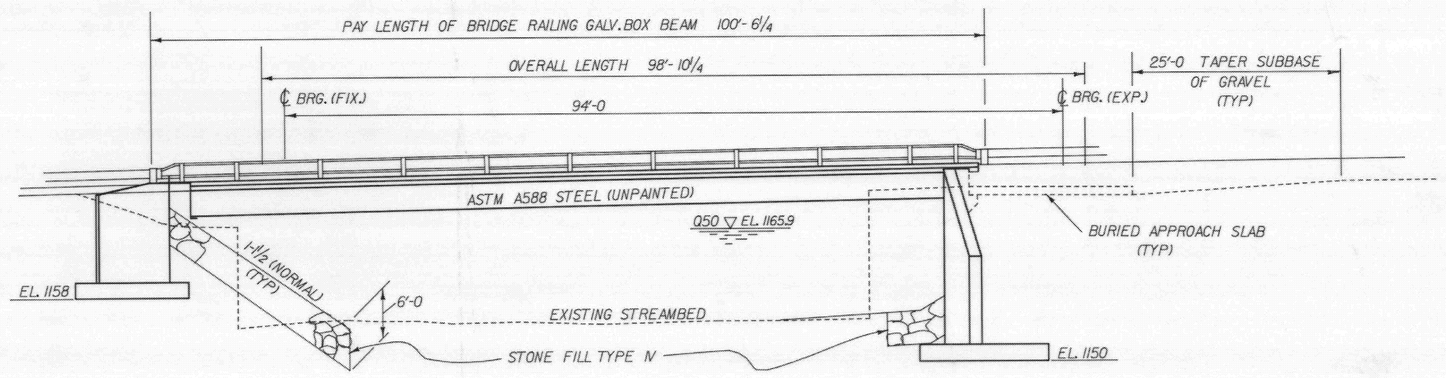
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF JAMAICA	Bridge No. 29
	Log Sta. 102+79
HIGHWAY NO. VT 30	Surv. Sta. 101+22
VT 30 OVER WEST RIVER	
APPROACH SLAB DETAILS	
Designed by P.G.NORTON	Drawn by G.P.MILAKOVIC
Checked by P.G.NORTON DATE: 2-86	Bridge Design Supervisor P.G.NORTON DATE: 3-86
PROJECT JAMAICA	PROJECT NO. BRF 015-1(7)
Bridge Sheet No. BR 119	Sheet 44 of 120



PLAN

SCALE : 1/8" = 1'-0



ELEVATION ALONG RIGHT FASCIA

SCALE : 1/8" = 1'-0

GENERAL NOTES

1. THE GENERAL NOTE PERTAINING TO SPECIFICATIONS, MATERIALS, AND CONSTRUCTION IS SHOWN ON STANDARD DRAWING SCB-D1-75. OTHER GENERAL NOTES ON THE STANDARD, NOT OTHERWISE SHOWN OR MODIFIED ON THESE PLANS, ARE NOTES 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, & 15.

2. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE ON BOTH SUBSTRUCTURE AND SUPERSTRUCTURE, EXCEPT THE UNDERSIDE OF THE SLAB BETWEEN DRIP BEADS.

3. IN ALL HORIZONTAL CONSTRUCTION JOINTS, SHEAR KEYS SHALL BE FORMED AS DETAILED ON STANDARD DRAWING SCB-D6-73, DETAIL "B", AND THEY SHALL BE CONTINUOUS FOR THE FULL LENGTH OF THE JOINT. ANY UPWARD KEY SHALL BE PLACED INTEGRALLY WITH THE CONCRETE BELOW THE JOINT.

4. ALL "UNCLASSIFIED CHANNEL EXCAVATION", "STRUCTURE EXCAVATION", AND "COMMON EXCAVATION", WHICH IS DETERMINED BY THE ENGINEER TO BE UNSUITABLE FOR ROADWAY EMBANKMENT MATERIAL, SHALL BE REMOVED FROM THE PROJECT TO A DESIGNATED WASTE AREA. SEE SPECIAL PROVISIONS.

5. THE SUPERSTRUCTURE WILL BE REMOVED UNDER THE ITEM "REMOVAL OF EXISTING SUPERSTRUCTURE", AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

6. THE EXISTING ABUTMENTS AND WINGWALLS SHALL BE REMOVED TO THE LIMITS SHOWN ON THESE PLANS UNDER THE ITEMS "STRUCTURE EXCAVATION" AND "UNCLASSIFIED CHANNEL EXCAVATION".

7. THE STRUCTURE IS DESIGNED FOR AN HS-25-44 LIVE LOAD.

8. IN-STREAM CONSTRUCTION SHALL BE RESTRICTED TO JUNE 15 THRU OCTOBER 1 UNLESS THE CONTRACTOR OBTAINS PERMISSION FROM THE AGENCY OF ENVIRONMENTAL CONSERVATION TO DO WORK OUTSIDE THIS TIME FRAME.

9. THE ABUTMENTS AND WINGWALLS ARE DESIGNED FOR A MAXIMUM FOOTING PRESSURE OF FOUR (4) KSF.

10. TWO-WAY THRU TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE TEMPORARY BRIDGE SHALL BE CONSTRUCTED IN ACCORDANCE WITH RECOMMENDATIONS ON SHEET BR 101 AND SECTION 638 - "TEMPORARY BRIDGE".

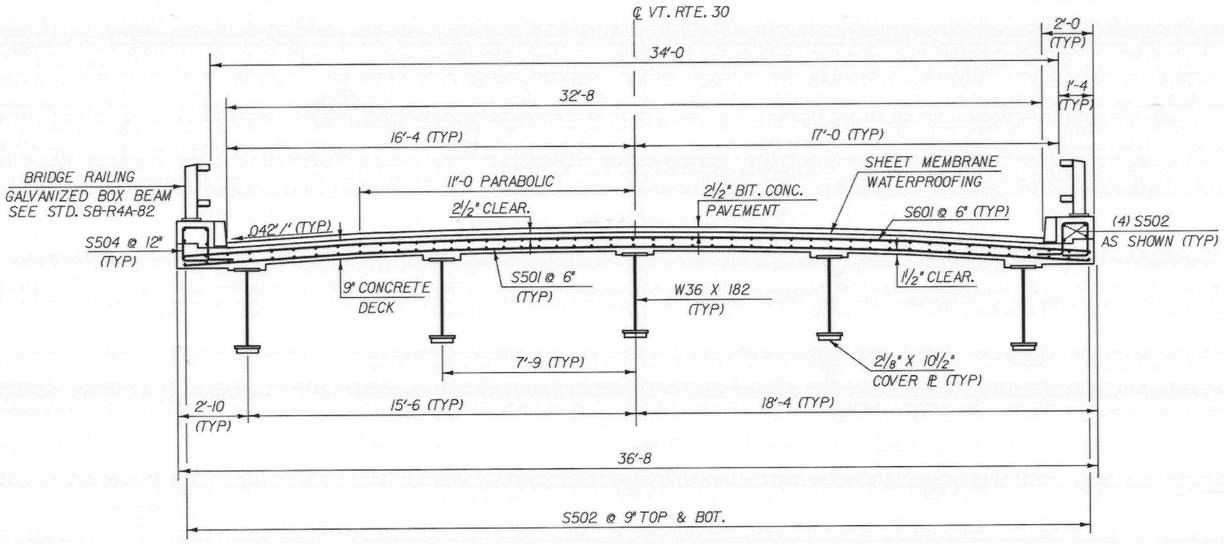
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 32 OF 47
BRIDGE 40
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

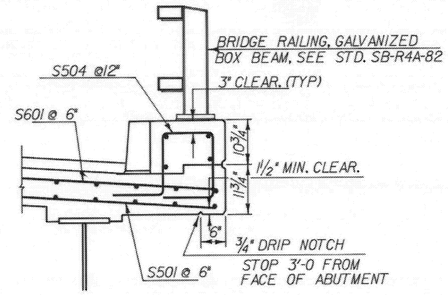
Town Of JAMAICA	Bridge No. 40
Highway No. VT 30	Log Sta. 481+16 / Surv. Sta. 25+0
VT 30 OVER WINHALL RIVER	
PLAN & ELEVATION	
Designed By M. EVANS MONGEON	Drawn By M. CERUTTI
Checked By M.E-M. Date 6/85	Bridge Design Supervisor R.L. Ootley Date 9-85
PROJECT JAMAICA	PROJECT NO. BRF 015-1(16)S
I.G.C. Info.	OSTA:30241?8F210PLADGN
Bridge Sheet No. BR104	Sheet 20 of 78

BRUNING 44-232 64442

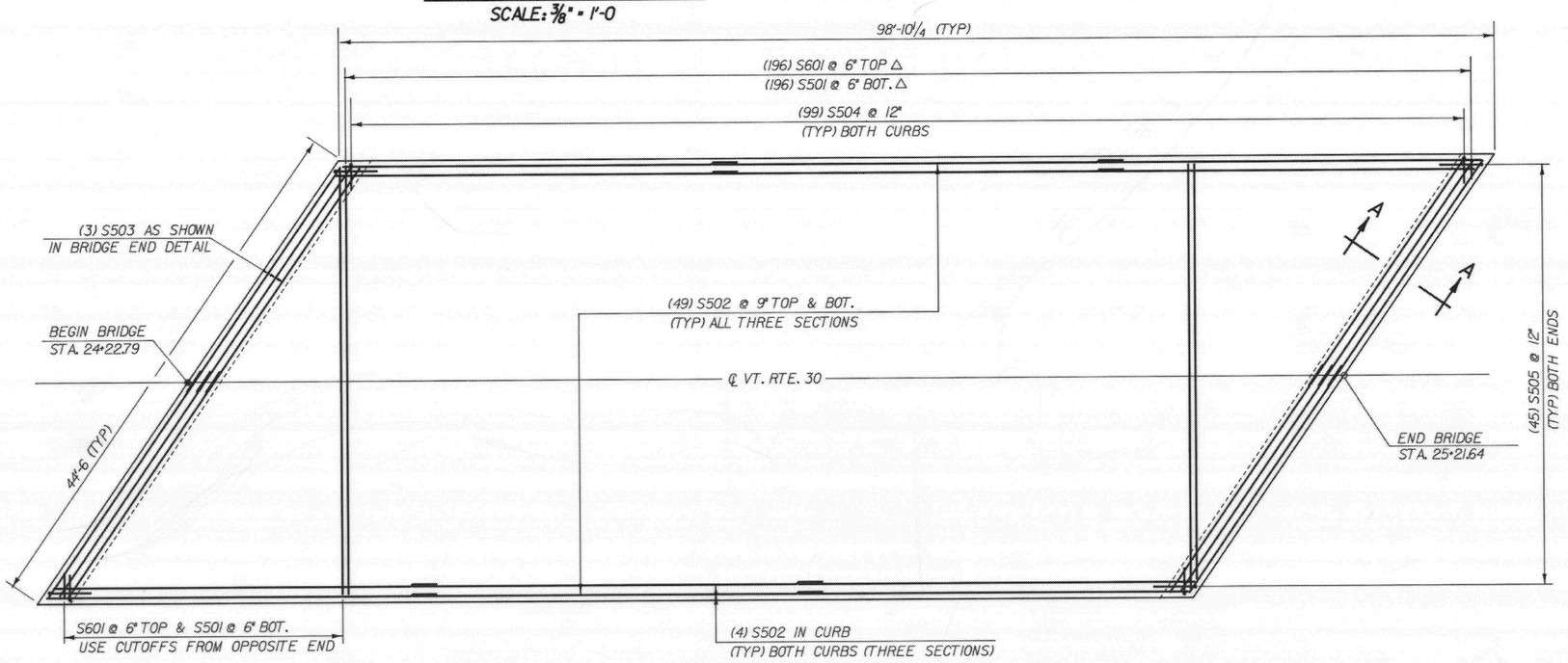
BR-6



TYPICAL BRIDGE SECTION
SCALE: ⅜" = 1'-0



TYPICAL CURB DETAIL
SCALE: ¾" = 1'-0



DECK REINFORCING PLAN
SCALE: 3/16" = 1'-0

△ CUT TO FIT IN FIELD TO FIT SKEW. USE CUTOFFS ON OPPOSITE END.

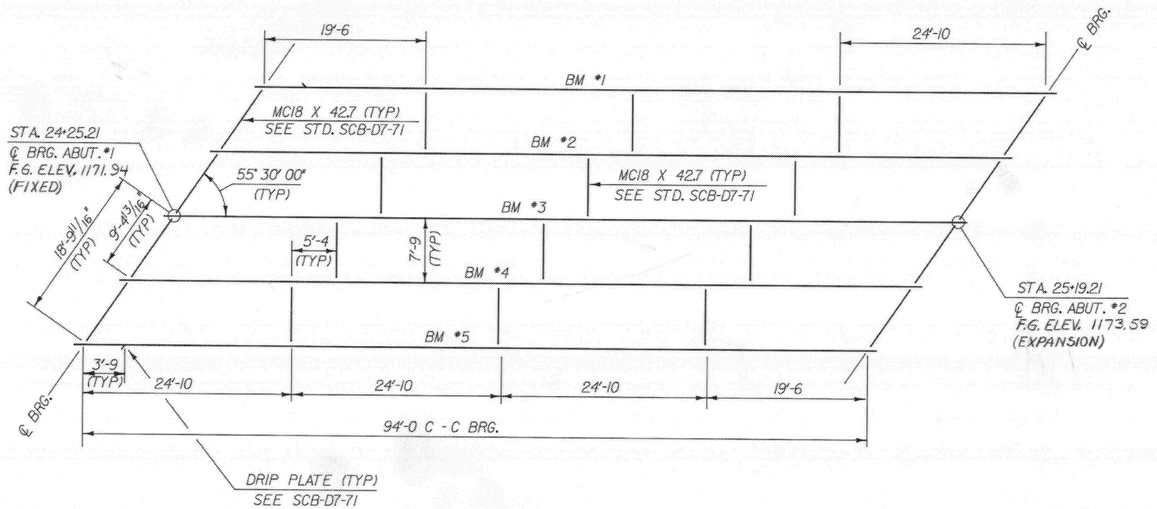
NOTES
1. SEE SHEET 106 OF 121 FOR SECTION A - A.
2. SEE STD. SCB-07-71 FOR SHEAR CONNECTOR AND BEAM HAUNCH DETAILS.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 33 OF 47
BRIDGE 40
FOR REFERENCE ONLY

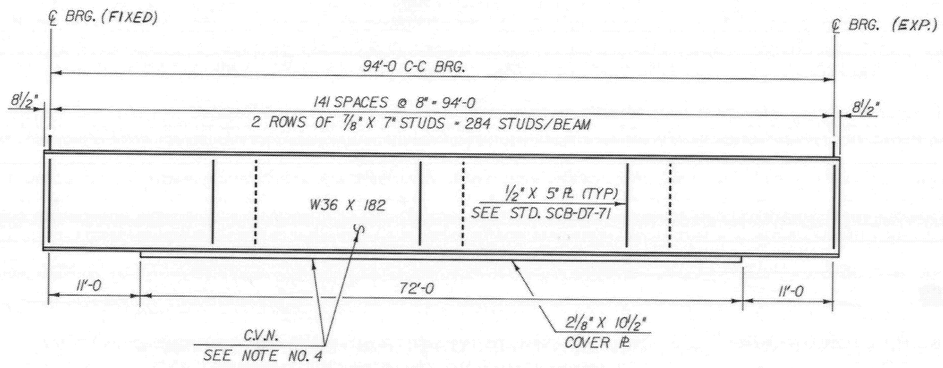
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 40
Highway No. VT. RTE. 30	Log Sta. / Surv. Sta. 24+24
VT. RTE. 30 OVER WINHALL RIVER	
SUPERSTRUCTURE DETAILS	
Designed By M. EVANS-MONGEON	Drawn By G. SCHELLEY
Checked By M. CERUTTI Date 8/85	Bridge Design Supervisor R.L. Ootley Date 9-85
PROJECT JAMAICA	PROJECT NO. BRF 015-1(61)S
I.G.C. Info. USA:L 30,33,178F 210SUP	
Bridge Sheet No. BR 165	Sheet 21 of 78

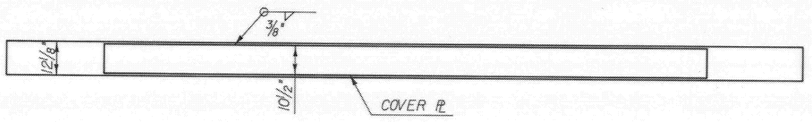
BRUNING 62185
BR-6



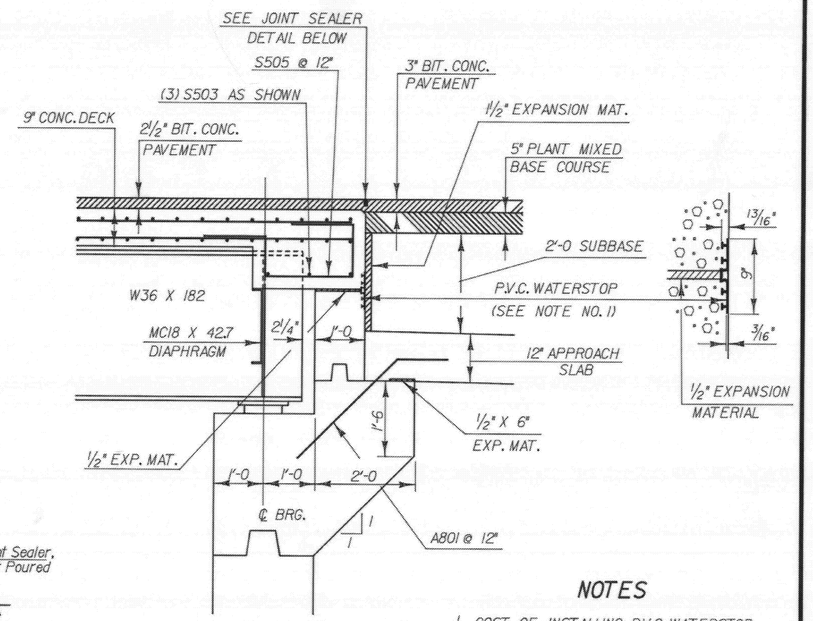
FRAMING PLAN
SCALE : 1/8" = 1'-0



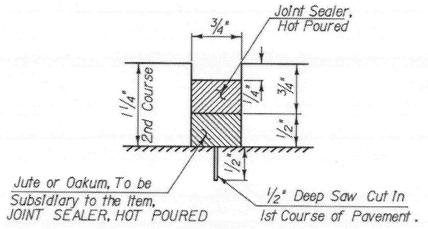
TYPICAL INTERIOR BEAM ELEVATION
SCALE: HORZ. 1/8" = 1'-0
VERT. 1/2" = 1'-0



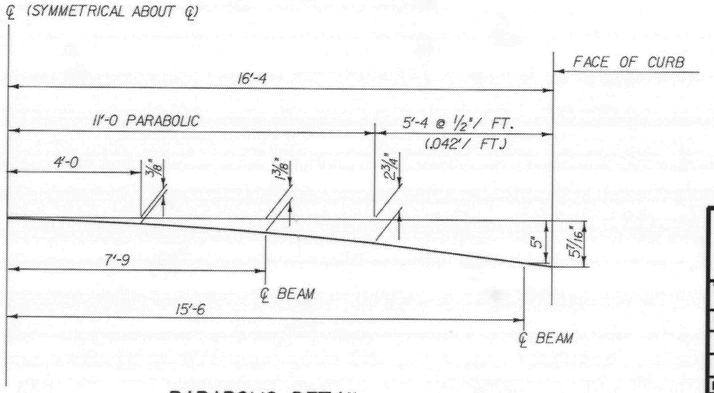
VIEW OF BOTTOM FLANGE
SCALE: HORZ. 1/8" = 1'-0
VERT. 1/2" = 1'-0



SECTION A - A *
SCALE: 3/4" = 1'-0



JOINT SEALER DETAIL
Scale 1" = 1"



PARABOLIC DETAIL
SCALE: HORZ. 1/2" = 1'-0
VERT. 1 1/2" = 1'-0

* SEE SHEET BR105 FOR LOCATION OF A-A.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 34 OF 47
BRIDGE 40
FOR REFERENCE ONLY

NOTES

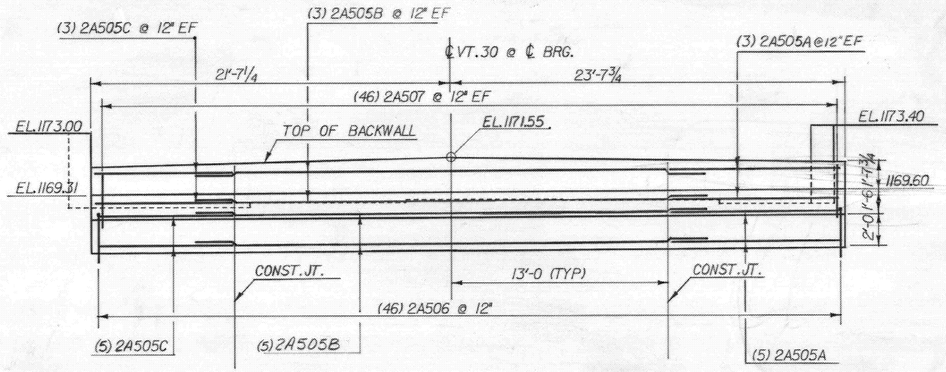
1. COST OF INSTALLING P.V.C. WATERSTOP AS SHOWN ON THIS SHEET, SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE, CLASS A. OTHER SIMILAR P.V.C. WATERSTOP CONFIGURATIONS MAY BE SUBMITTED TO THE STRUCTURES ENGINEER FOR APPROVAL.
2. COST FOR INSTALLING ALL PREFORMED JOINT FILLING MATERIALS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR CONCRETE, CLASS A.
3. SEE GENERAL SPECIAL PROVISION 707.23 FOR DETAILS OF CLOSED CELL FOAM EXPANSION MATERIAL.
4. ALL LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS REQUIRE CHARPY V NOTCH TEST (CVN) AS SPECIFIED IN SUB-SECTION 714.03.
5. BEAMS SHALL BE CAMBERED A TOTAL OF 6/8". CAMBER SHALL APPROXIMATE A CIRCULAR CURVE. DEAD LOAD DEFLECTION IS 4/8".

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 40
Highway No. VT. RTE. 30	Log Sta. / Surv. Sta. 2424
VT. RTE. 30 OVER WINHALL RIVER	
STEEL DETAILS & BRIDGE END DETAIL	
Designed By M. EVANS-WONGEUN	Drawn By G. SCHELLEY
Checked By M. CERUTTI Date 8/85	Bridge Design Supervisor R. L. Dailey Date 9-85
PROJECT JAMAICA	PROJECT NO. BRF 015-1(6)S
L.G.C. Info. OSA#: 30,33178F2105UP	
Bridge Sheet No. BR106	Sheet 22 of 78

BR-6

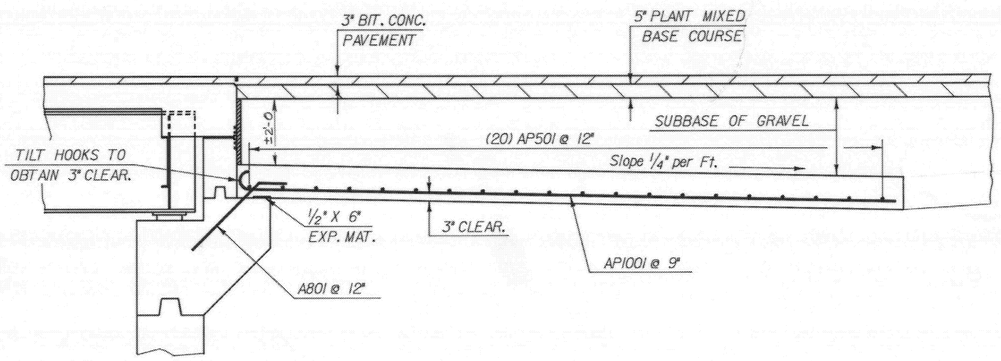
BRUNING 44-232 64442



VIEW B - B

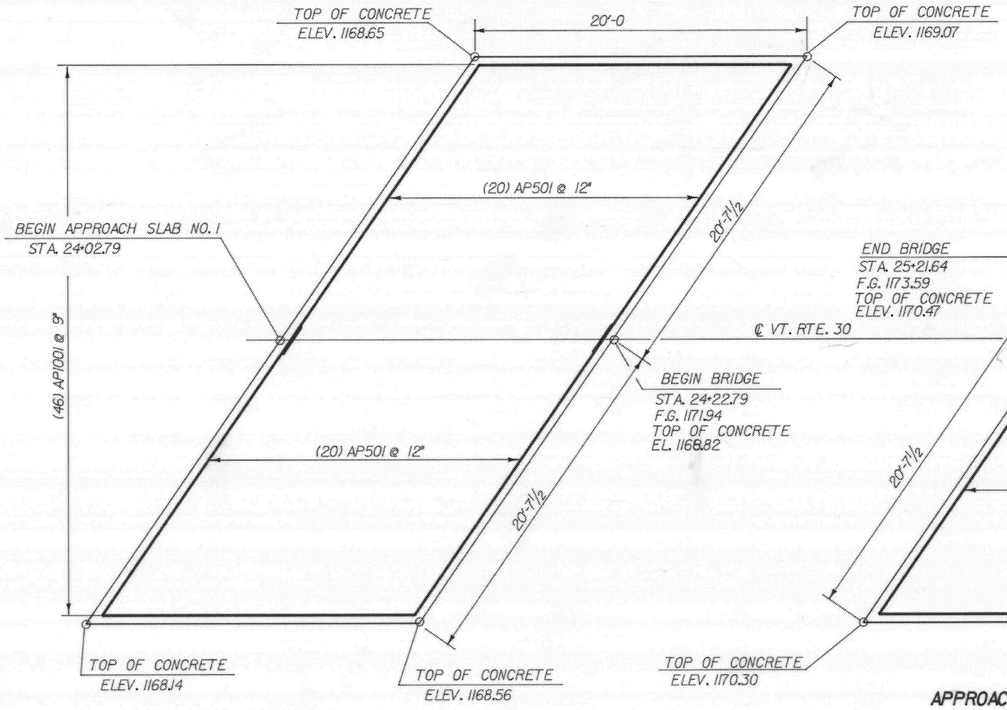
SCALE: 1/4" = 1'-0

FOR LOCATION OF VIEW B-B SEE SHEET 111 OF 121.

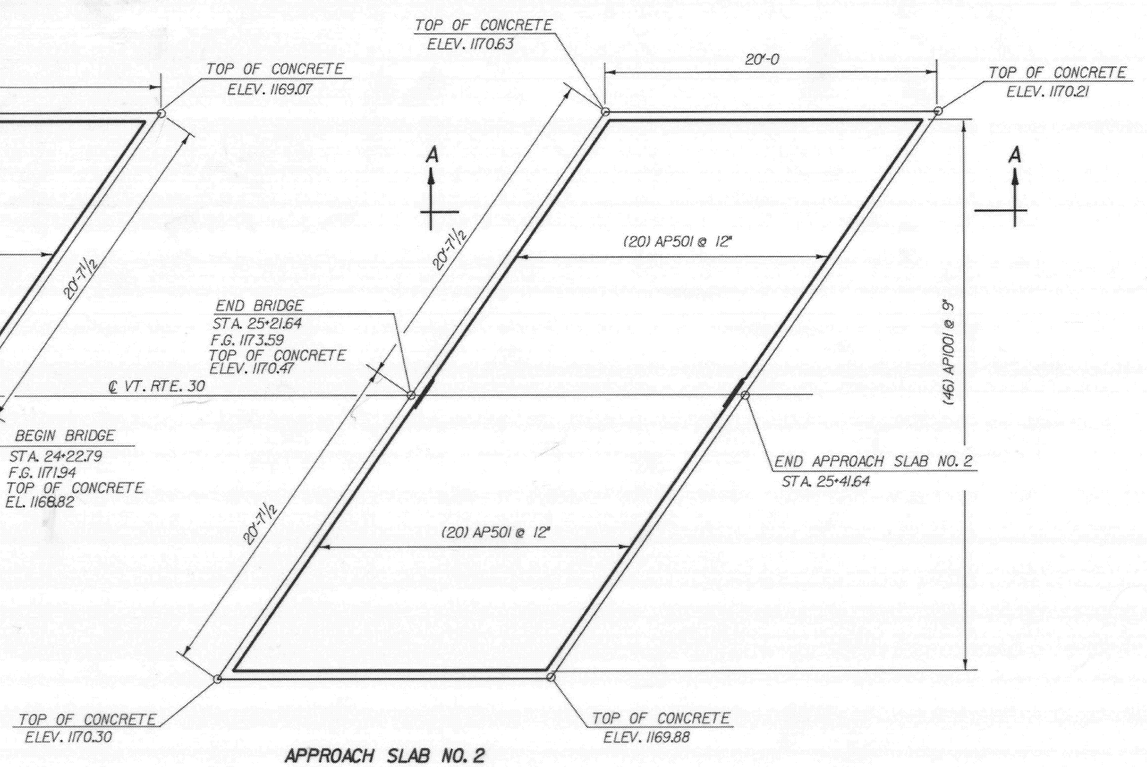


SECTION A - A

SCALE: 1/2" = 1'-0



APPROACH SLAB NO. 1



APPROACH SLAB NO. 2

APPROACH SLAB PLAN

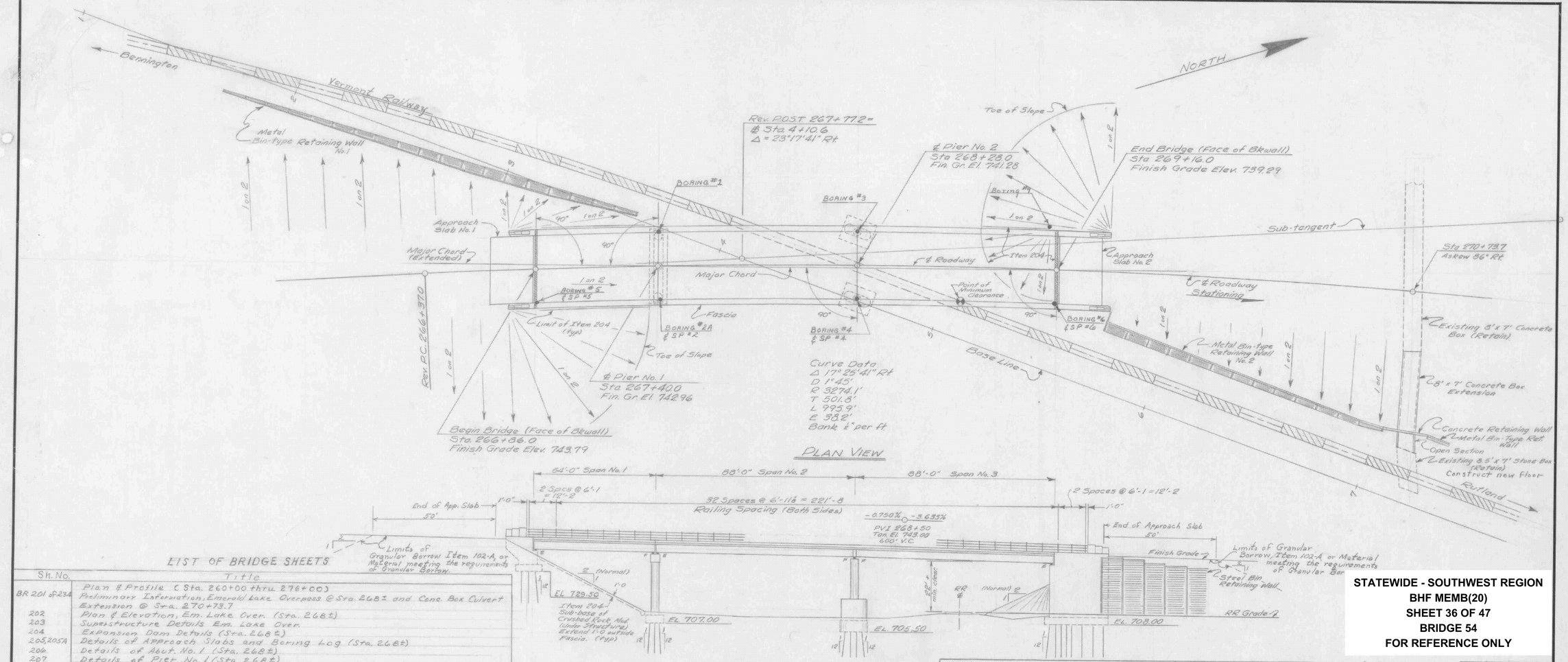
SCALE: 1/4" = 1'-0

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 35 OF 47
BRIDGE 40
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of JAMAICA	Bridge No. 40
Highway No. VT. RTE. 30	Log Sta. / Surv. Sta. 24+72.22
VT. RTE. 30 OVER WINHALL RIVER	
APPROACH SLAB DETAILS	
Designed By M. EVANS-MONGEON	Drawn By G. SCHELLEY
Checked By M. CERUTTI Date 9/85	Bridge Design Supervisor R. L. Oatley Date 3-85
PROJECT JAMAICA	PROJECT NO. BRF 015-1(16)S
L.G.C. Info. OSA:L(30,33)78F210APP	
Bridge Sheet No. BR108	Sheet 24 of 78

BR-6



PLAN VIEW

ELEVATION VIEW

LIST OF BRIDGE SHEETS

Sh. No.	Title
BR 201 of 234	Plan & Profile (Sta. 260+00 thru 276+00)
	Preliminary Information, Emerald Lake Overpass @ Sta. 268± and Conc. Box Culvert Extension @ Sta. 270+73.7
202	Plan & Elevation, Em. Lake Over. (Sta. 268±)
203	Superstructure Details Em. Lake Over.
204	Expansion Dam Details (Sta. 268±)
205, 205A	Details of Approach Slabs and Boring Log (Sta. 268±)
206	Details of Abut. No. 1 (Sta. 268±)
207	Details of Pier No. 1 (Sta. 268±)
208	Details of Pier No. 2 (Sta. 268±)
209	Details of Abut. No. 2 (Sta. 268±)
210	Reinforcing Details - Abut. No. 2 (Sta. 268±)
211	Reinforcing Steel Schedule, Emerald Lake Overpass @ Sta. 268±
212	Metal Bin-Type Retaining Wall No. 1 (Sta. 268±)
213	Metal Bin-Type Retaining Wall No. 2 (Sta. 268±)
214	Plan and Elevation, Box Culvert Extension (Sta. 270+73.7)
215	Inlet Details, Box Culvert Extension (Sta. 270+73.7)
216	Outlet Details, Box Culvert Ext. (Sta 270+73.7)
217	Reinforcing Steel Schedule, Box Culv. Ext (Sta. 270+73.7)
218	Det. of Existing Abut @ Sta. 266+95±
219	Details of Existing Piers @ Sta. 267+79.2± and Sta. 268+72.4±
220	Details of Ex. Abut @ Sta. 269+70±
R 221 to 234A of 234	Base Line Sections for Emerald Lake Overpass @ Sta. 268±

Reference Sheets

Std. Sh.	H-12 Metal Bin-Type Retaining Wall, Item 592
Std. Sh.	H-16
Std. Sh.	SCB-30-62
Std. Sh.	SCB-D1-62
Std. Sh.	SCB-D2-62
Std. Sh.	SCB-D3-62
Std. Sh.	SCB-D4-62
Std. Sh.	SCB-D5-62
Std. Sh.	SCB-D6-62
Std. Sh.	SCB-D7-62
Std. Sh.	SCB-D8-62
Std. Sh.	SCB-D9-62
Std. Sh.	SB-56-62 Sheets 1 and 2 of 2
Std. Sh.	SC-21

GENERAL NOTES

1. Superstructure to be as per Std. Sh. SCB-30-62 and SCB-D1 through D9-62, modified as follows:

   (a) No. concrete curtain wall at abutments - use Pier diaphragm scheme instead (See Sect. C-C, Expansion Dam Detail sheet); (b) Special beam framing at Pier No. 2.

2. Bridge railing ... curb as per Std. Sheet SCB-06-62 Detail A
3. For addition General Notes see Std. Sh. SCB-D1-62
4. Bearing devices (at abutments and Pier No.1) as per Std. Sh. SCB-D8-62 detail B. Bearing device for Pier No. 2 as per detail on Superstructure Detail sheet.
5. For modification of Item No. 109, Maintenance of Traffic for Bridge Project @ Sta. 268±, see Special Provisions.

TOTAL QUANTITIES

No.	Item	Unit	Bridge Net	Bridge Final	Retn. Wall & Box Extension Net	Retn. Wall & Box Extension Final
101-B	Solid Rock Excavation	C.Y.		159	*18	
106-C	Unclassified Channel Excavation	C.Y.		1043	*562	
107	Structure Excavation	C.Y.		890	*1130	
109	Maint. of Traffic for Br. Proj. Mod.	L.S.	1	1		
204	Sub-base at Cr. Rock, Mod. (Under Str.)	C.Y.	101	101		
222	Gravel Backfill	C.Y.	492	492	*2748	
518	Tar Emulsion for Bridge Floors	GAL.	365	*		
861-B	Bituminous Concrete Pave. Mod.	TON	76	*		
401-B	Concrete Class B, Mod.	C.Y.	46	46	*129	
401-D	Concrete Class D, Mod.	C.Y.		597		
602	Reinforcing Steel	LB.		154,743	*12550	
603	Spiral Reinforcement #32D"	L.S.	1	1		
604-A	Structural Steel	LB.		327,207		
607	Asphaltic-Asbestos Coating	S.Y.	33	33		
612	Removal of Present Superstr.	L.S.	1	1		
801	Furn. Equip. for Driving Piles	L.S.	1	1		
502-B	Treated Timber Piling (In Place)	L.F.		5,999		
502-B	Treated Timber Piling "Cut-Offs"	L.F.	0	1,028		
504-A	Permanent Steel Sheet Piling	S.F.		882		
522	Stone Fill for Slope Protection	C.Y.			* 82	
556-C	Granite Bridge Curb Mod.	L.F.		536		
572	Bridge Railing	L.F.	495	495		
592	Metal Bin-type Retaining Wall	S.F.			*6400	

* Roadway Items *

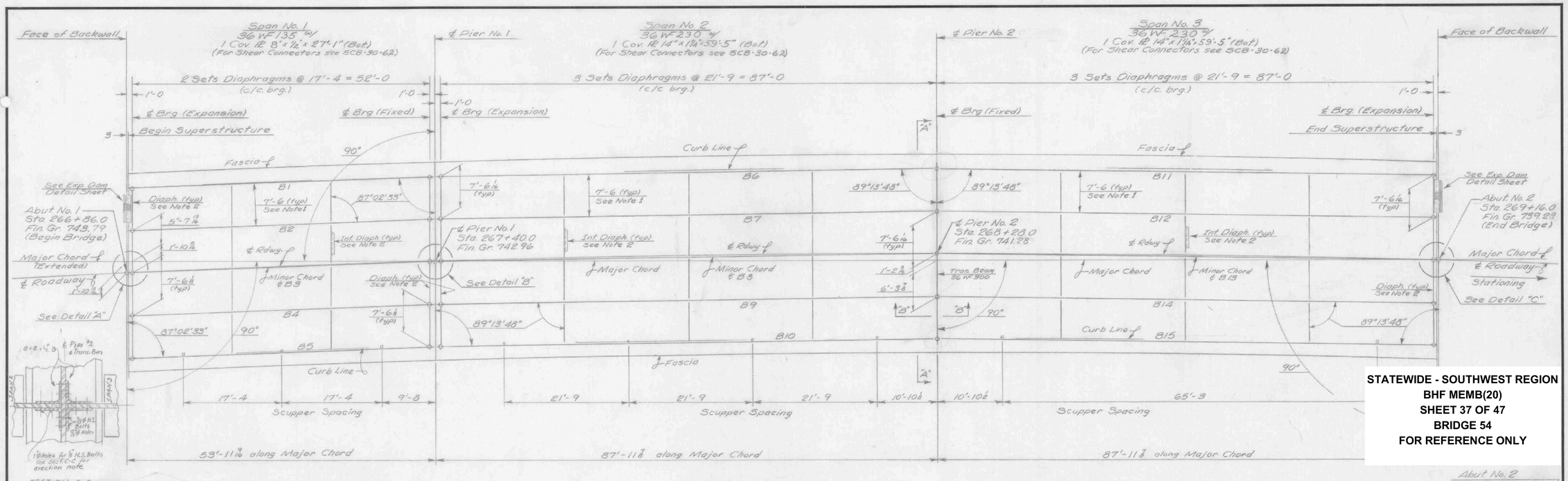
	Final		Net
373-Rubber Joint Material	124	L.F.	175
512-A Joint Sealer, Hot Poured		L.F.	152
401-AA Concrete Class AA Mod.		C.Y.	246

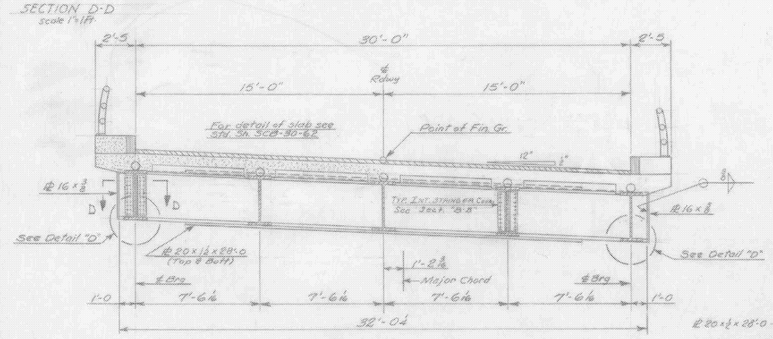
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 36 OF 47
BRIDGE 54
FOR REFERENCE ONLY

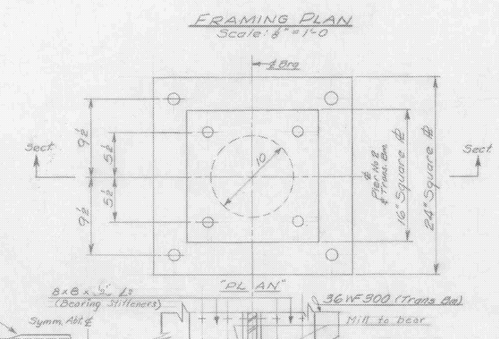
CONTRACT #2
BR 202 of 234

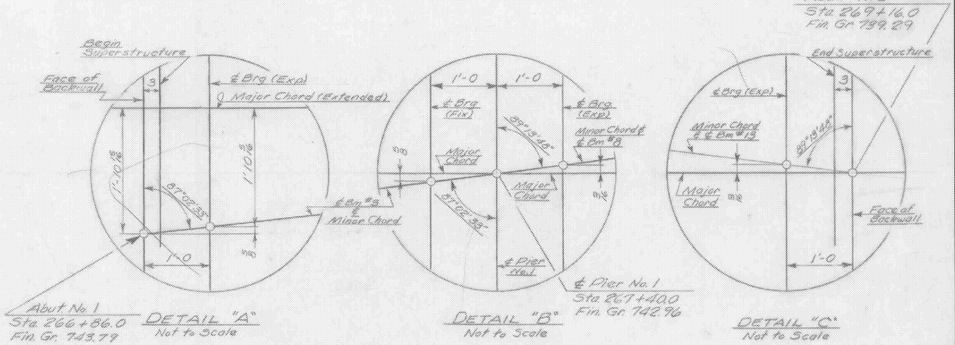
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

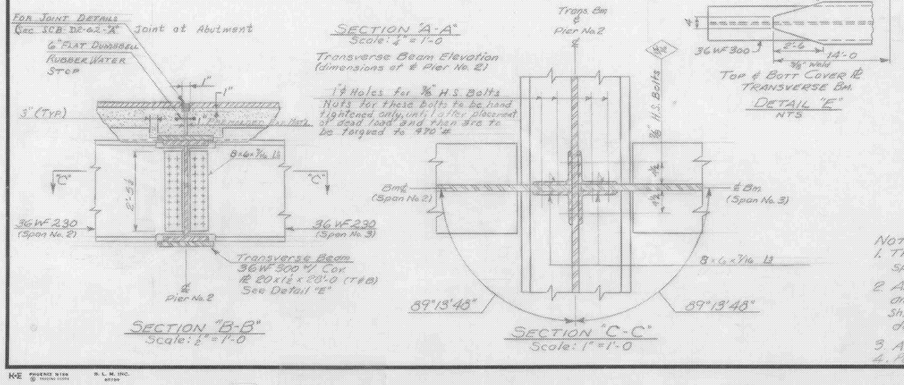
TOWN OF DORSET
ROUTE NO. US 7 LOG STA. 264+78
PLAN & ELEVATION VIEWS
EMERALD LAKE OVERPASS (STA 268±)
SCALE 1" = 20'-0"
SURVEYED BY JEWETT
DRAWN BY AHS CHECKED BY RWK
PROJECT NO. FOI9-2(12)
SHEET 34 OF 109











NOTES:
1. The center beam in each span is at the minor chord of that span. All beams in each span are parallel.
2. All diaphragms to be 18 LJ 427 and parallel to the abutments and piers. Diaphragms at abutments and Pier No. 1 as per Std. Sh SCB-DT-62-"D". Note: no diaphragms at Pier No. 2. Interior diaphragms as per Std. Sh SCB-DT-62, det D ℄ E.
3. Additional notes on "Plan ℄ Elevation" sheet.
4. Payment for rubber water steps to be included in unit price bid for Concrete Class AA

SUPERSTRUCTURE QUANTITIES

	ITEM NO.	ITEM	UNIT	NET			FINAL
	515	Tar Emulsion for Bridge Floors	GAL	310			
*	561-B	Bituminous Concrete Pave. Mod.	TON	65			*
	401-AA	Concrete Class AA, Mod.	C.Y.	[illegible]			250
	102	Reinforcing Steel	LB.	(See Schedule)			
	403	Spiral Reinforcement (6320 lbs)	L.S.	1			1
	401-A	Structural Steel	LB.	[illegible]			322,207
	442	Removal of Present Superstr.	L.S.	1			1
	556-C	Granite Bridge Curb Mod	L.F.	457			457
	512	Bridge Railing	L.F.	495			495
*	372-A	Joint Sealer Hot Poured	L.F.	152			*
	373	Rubber Joint Material	L.F.	[illegible]			124
*		Roadway Items					

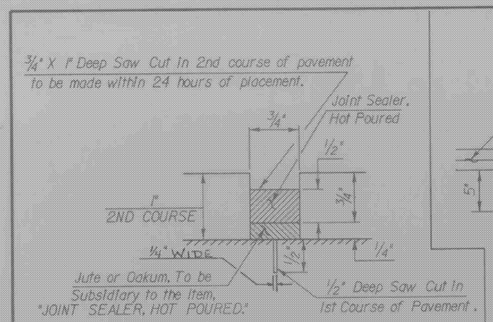
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 37 OF 47
BRIDGE 54
FOR REFERENCE ONLY

CONTRACT #2

BR 203 of 234

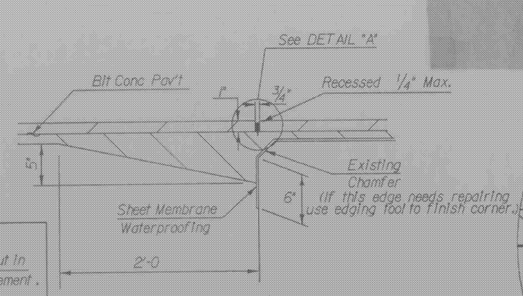
STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

TOWN OF DORSET
ROUTE NO. US 7 LOG STA. 264+78
SUPERSTRUCTURE DETAILS
EMERALD LAKE OVERPASS (Sta 268+28)
SCALE AS SHOWN
SURVEYED BY JEWETT
DRAWN BY AHS CHECKED BY RWK
PROJECT NO. F 019-2(12)
SHEET 35 OF 109



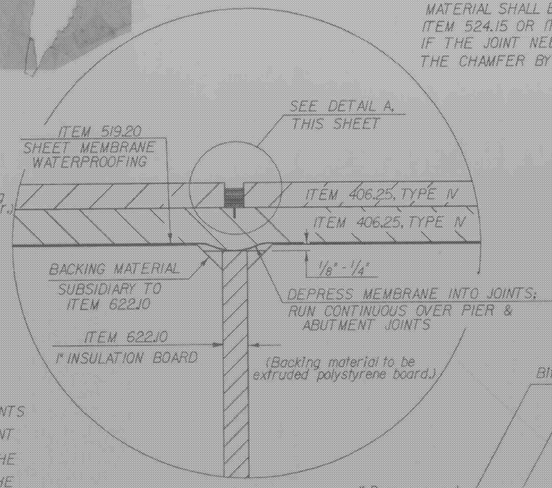
DETAIL "A"
Scale 1" = 1"

Note: Clean sawing dust and other foreign material from the sawed joint before applying the Hot Poured Joint Sealer. See VT. SPEC. 524.05 (1)

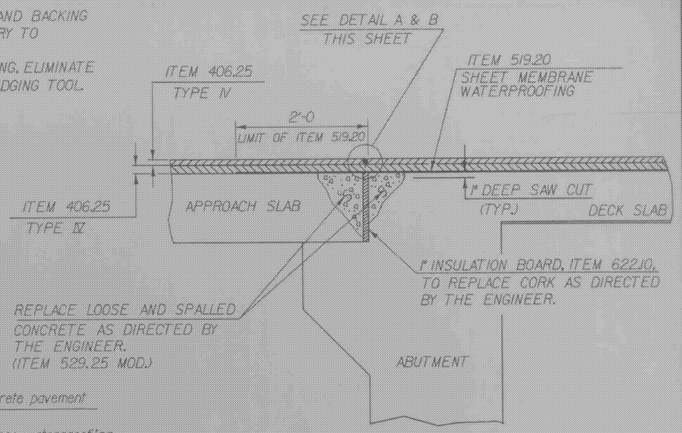


JOINT SEALER DETAIL
WITHOUT SURFACE APPROACH SLAB
Scale 1 1/2" = 1'-0"

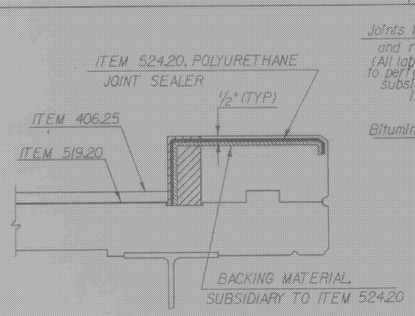
MEMBRANE WILL BE DEPRESSED INTO DECK JOINTS AND RUN CONTINUOUS OVER PIER AND ABUTMENT JOINTS. ON BRIDGES WITH APPROACH SLABS, THE MEMBRANE WILL EXTEND TWO (2) FEET ONTO THE SLAB FROM THE END OF THE BRIDGE.



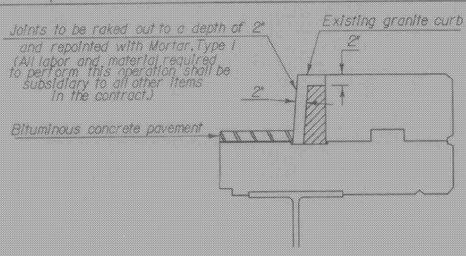
DETAIL B
NTS

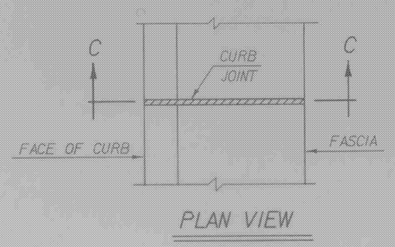


TYPICAL ABUTMENT JOINT DETAIL
(WITH SURFACE APPROACH SLAB)



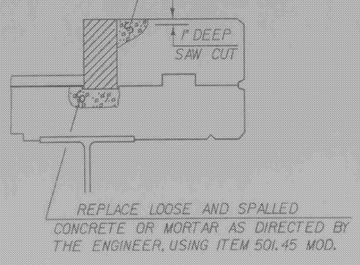
SECTION C - C



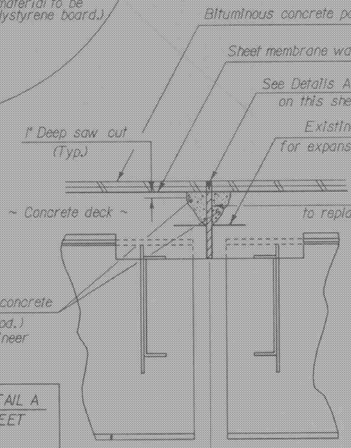


PLAN VIEW

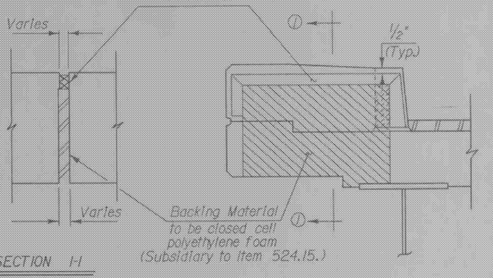
REPLACE LOOSE AND SPALLED CONCRETE AS DIRECTED BY THE ENGINEER. USING ITEM 529.25 MOD.



CURB JOINT DETAIL
NTS (3)



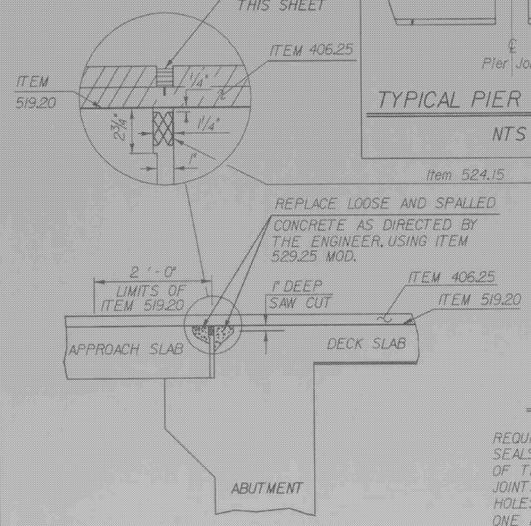
TYPICAL PIER JOINT DETAIL
NTS



SECTION H-H

Any existing Joint Sealer, Preformed Neoprene, if removed, shall not be reused but shall be replaced with new material.

CURB JOINT DETAIL A
NTS (5)



COMPRESSION SEAL DETAILS
NTS

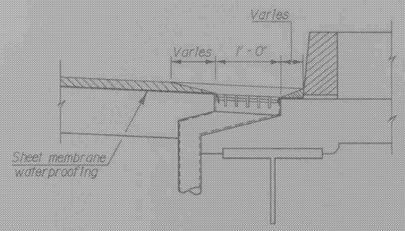
ADHESIVE SPECIFICATION

REQUIRED ADHESIVE FOR STRUCTURAL JOINT SEALS SERVES AS A LUBRICANT FOR INSERTION OF THE COMPRESSION SEALS IN STEEL AND CONCRETE JOINTS; PRIMES THE JOINT FACES; SEALS SMALL HOLES AND IMPERFECTIONS IN CONCRETE WALLS. ONE PART MOISTURE CURING POLYURETHANE AND AROMATIC HYDROCARBON SOLVENT MIXTURE. SOLID CONTENT 72% ± 3% BY WEIGHT. APPROXIMATE WEIGHT 8 1/2 ± POUNDS PER GALLON. COLOR, CONCRETE GRAY. (4)

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 38 OF 47
BRIDGE 54
FOR REFERENCE ONLY

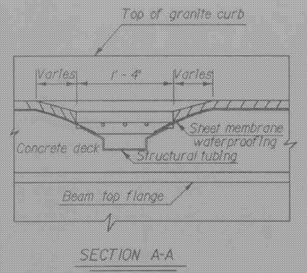
STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of DORSET ~ MT. TABOR	Bridge No. 52, 54, 56C
Highway No. US 7	Log Sta. / Surv. Sta.
TYPICAL DETAILS	
Designed By G.S. Rogers	Drawn By G. Schelley / D. Newton
Checked By G.S. Rogers Date 6/87	Bridge Design Supervisor R.L. OATLEY Date 6/87
PROJECT DORSET ~ MT. TABOR	PROJECT NO. F-DECK(21)S
I.G.C. Info.	OSAI:(30,33)DECKREHAB
Bridge Sheet No.	Sheet 9 of 29



SECTION B-B

N.T.S.



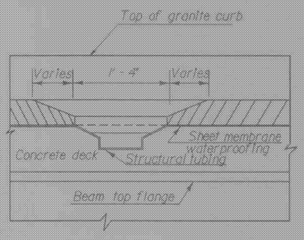
SECTION A-A

N.T.S.

Note: Mark location of scupper; install membrane; make a "X" incision on diagonals of scupper; trim, seal, and wrap into scupper.

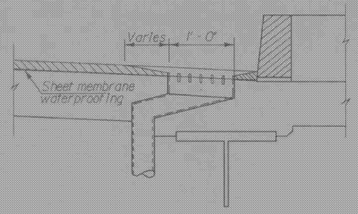
MEMBRANE DETAIL FOR SCUPPERS FLUSH WITH DECK

(1)



SECTION A-A

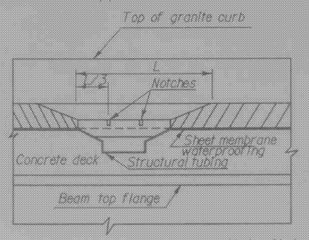
N.T.S.



SECTION B-B

N.T.S.

Fit membrane to outside perimeter of scupper.



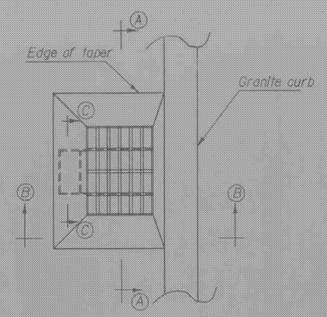
SECTION C-C

N.T.S.

Note: Notch scupper 1/2" wide to top of concrete on three sides. This work to be subsidiary to the Item 519.20

MEMBRANE DETAIL FOR RAISED SCUPPERS

(2)



PLAN VIEW

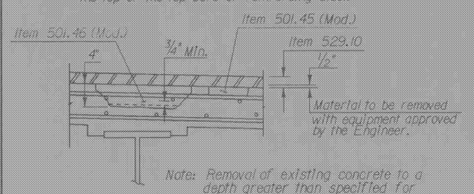
(TYP. FOR DETAILS NO. 1 & 2)

N.T.S.

(3)

Note: All edges of repair areas are to be saw cut square and a minimum of one (1) inch deep.

Note: Item 501.45 (Mod.) shall include removal of concrete to a maximum depth as determined by the top of the top bars of reinforcing steel.



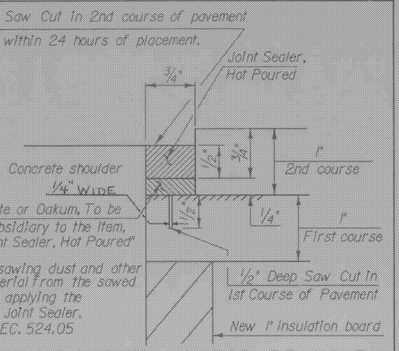
Note: Removal of existing concrete to a depth greater than specified for Item 501.46 (Mod.) shall be paid under the item 529.25 (Mod.).

TYPICAL LIMITS FOR REMOVAL ITEMS

N T S

(4)

3/4" X 1" Deep Saw Cut in 2nd course of pavement to be made within 24 hours of placement.



Note: Clean sawing dust and other foreign material from the sawed joint before applying the Hot Poured Joint Sealer. See VT. SPEC. 524.05

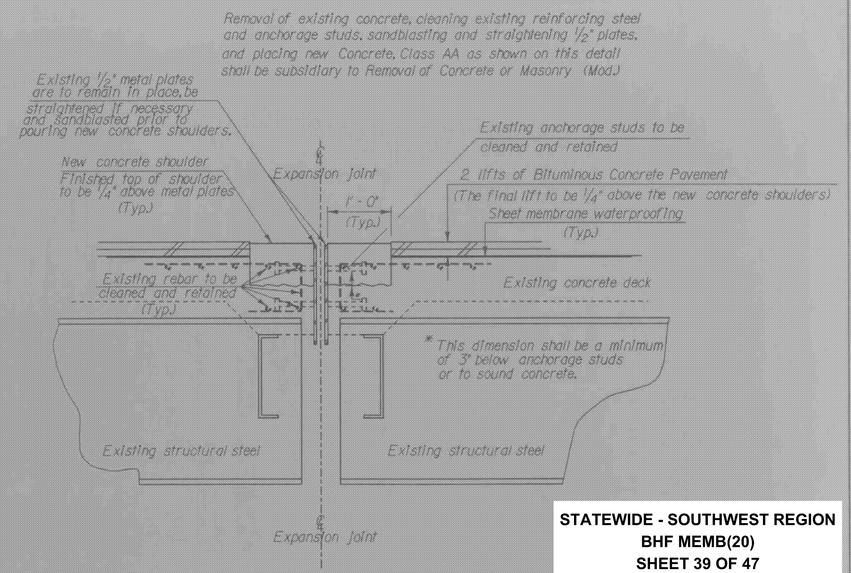
JOINT SEALER DETAILS FOR BR. NO. 54

(THIS DETAIL TO BE USED AT ABUTMENTS ONLY)

SCALE: 1" = 1"

(5)

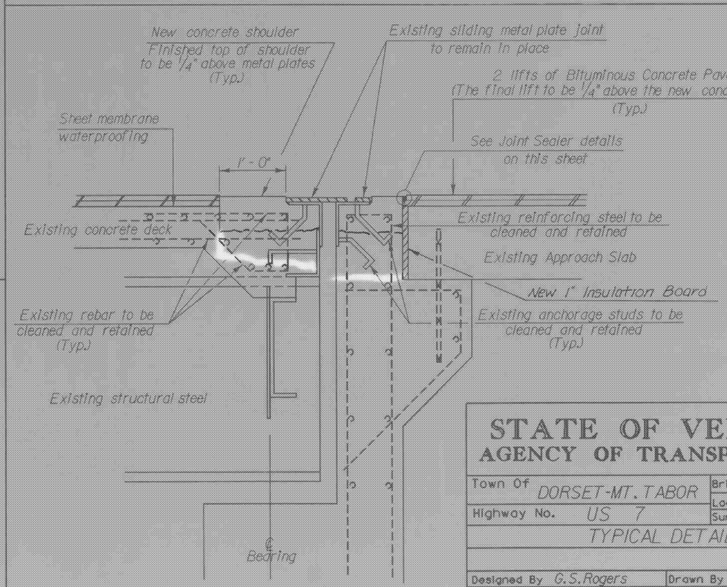
Removal of existing concrete, cleaning existing reinforcing steel and anchorage studs, sandblasting and straightening 1/2" plates, and placing new Concrete, Class AA as shown on this detail shall be subsidiary to Removal of Concrete or Masonry (Mod.)



METAL PLATE JOINT DETAILS AT PIERS

NTS

(6)



SLIDING PLATE JOINT DETAILS AT BRIDGE NO. 54

N T S

(7)

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 39 OF 47
BRIDGE 54
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of DORSET-MT. TABOR	Bridge No. 52 54 56C
Highway No. US 7	Log Sta. / Surv. Sta.
TYPICAL DETAILS	
Designed By G.S. Rogers	Drawn By D.W. Newton
Checked By G.S. Rogers Date 6/87	Bridge Design Supervisor R.L. Oatley Date 6/87
PROJECT DORSET-MT. TABOR	PROJECT NO. F - DECK (21)S
I.G.C. Info. OSA:[30,32]SCUPREHAB.DGN	PRF: DORSTBR21
Bridge Sheet No.	Sheet 10 of 29

US 7 OVER VERMONT RAILWAY BR52

SPECIFIC NOTES

1. THERE ARE NO SCUPPERS ON THIS BRIDGE.

2. ALL WEEP PIPES SHALL BE SEALED OVER WITH SHEET MEMBRANE WATERPROOFING.

3. THERE ARE CONCRETE SHOULDERS AT THE CURBS WHICH SHALL BE REMOVED IN THEIR ENTIRETY. THIS WORK WILL BE PAID AS "PREPARATION OF CONCRETE SURFACE, CLASS I OR CLASS II" AS APPROPRIATE. THE CONCRETE SHOULDERS ARE BOTH APPROXIMATELY 3'-0" WIDE.

4. THE EXISTING JOINTS AT BOTH ABUTMENTS SHALL BE REPAIRED AS PER SHEET 9, DETAIL 2.

5. CONCRETE SHOULDERS SHALL BE ADDED AT THE METAL PLATE EXPANSION JOINTS AT THE PIERS AS SHOWN ON SHEET 10, DETAIL 6 WITH PAYMENT AS SHOWN. THE METAL DRAIN TROUGHS AT THE METAL PLATE EXPANSION JOINTS AT BOTH PIERS SHALL BE REPLACED WITH FABRIC TROUGHS AS PER SHEET 11. NO WORK, OTHER THAN THAT SHOWN, SHALL BE DONE ON THE METAL PLATE EXPANSION JOINT, UNLESS THE ENGINEER CONTACTS THE STRUCTURES DIVISION.

6. THE FINAL LIFT OF PAVEMENT SHALL BE 1/4 INCH HIGHER THAN THE TOP OF THE NEW CONCRETE SHOULDERS. CARE SHALL BE USED DURING THE PAVING OPERATIONS TO MAKE SURE NO BITUMINOUS CONCRETE PAVEMENT BECOMES LODGED IN THE EXPANSION JOINTS NOR ENTERS THE FABRIC TROUGHS.

7. THIS BRIDGE IS TO BE PAVED CURB TO CURB WITH 2 +/- INCHES OF BITUMINOUS CONCRETE PAVEMENT IN TWO COURSES. THE BOTTOM COURSE SHALL BE 1" +/- OF TYPE IV MIX AND THE TOP COURSE SHALL BE 1" +/- OF TYPE IV MIX. THE TOTAL THICKNESS OF EACH COURSE SHALL BE DETERMINED BY THE ENGINEER.

8. THE FOLLOWING GENERAL NOTES DO NOT APPLY TO THIS STRUCTURE: NOTES 29,30 AND 31.

9. SHEET 9, DETAILS 4&5 DO NOT APPLY TO THIS STRUCTURE.

US 7 OVER VERMONT RAILWAY BR54

SPECIFIC NOTES

1. THERE ARE SCUPPERS ON THE LOW SIDE OF THIS BRIDGE. SEE SHEET 10, DETAIL 12,3 FOR SCUPPER TREATMENT.

2. THERE ARE NO WEEP PIPES ON THIS BRIDGE.

3. THERE ARE CONCRETE SHOULDERS AT THE CURBS WHICH SHALL BE REMOVED IN THEIR ENTIRETY. THIS WORK WILL BE PAID AS "PREPARATION OF CONCRETE SURFACE, CLASS I OR CLASS II" AS APPROPRIATE. CONCRETE SHOULDERS ARE 3' WIDE ON THE HIGH SIDE AND 4' WIDE ON THE LOW SIDE.

4. THE EXISTING JOINT AT PIER #2 SHALL BE REPAIRED AS PER REPAIR DETAILS SHOWN ON THIS SHEET.

5. CONCRETE SHOULDERS SHALL BE ADDED AT THE METAL PLATE EXPANSION JOINT AT PIER #1 AS SHOWN ON SHEET 10, DETAIL 6 WITH PAYMENT AS SHOWN. THE METAL DRAIN TROUGH AT PIER #1 WILL BE REPLACED WITH A FABRIC TROUGH AS PER SHEET 11. NO WORK, OTHER THAN THAT SHOWN, SHALL BE DONE ON THE METAL PLATE EXPANSION JOINT UNLESS THE ENGINEER CONTACTS THE STRUCTURES DIVISION.

6. CONCRETE SHOULDERS SHALL BE ADDED AT THE SLIDING PLATE EXPANSION JOINTS AT BOTH ABUTMENTS AS SHOWN ON SHEET 10, DETAIL 7 WITH PAYMENT AS SHOWN. NO WORK, OTHER THAN THAT SHOWN, SHALL BE DONE ON THE SLIDING PLATE EXPANSION JOINTS UNLESS THE ENGINEER CONTACTS THE STRUCTURES DIVISION.

7. THE FINAL LIFT OF PAVEMENT SHALL BE 1/4 INCH HIGHER THAN THE TOP OF THE NEW CONCRETE SHOULDEPS. CARE SHALL BE USED DURING THE PAVING OPERATIONS TO MAKE SURE NO BITUMINOUS CONCRETE PAVEMENT BECOMES LODGED IN THE EXPANSION JOINTS NOR ENTERS THE FABRIC TROUGHS.

8. THIS BRIDGE IS TO PAVED CURB TO CURB WITH 2+/- INCHES OF BITUMINOUS CONCRETE PAVEMENT IN TWO COURSES. THE BOTTOM COURSE SHALL BE 1"+/- OF TYPE IV MIX AND THE TOP COURSE SHALL BE 1"+/- OF TYPE IV MIX. THE TOTAL THICKNESS AND THE THICKNESS OF EACH COURSE SHALL BE DETERMINED BY THE ENGINEER.

9. THE FOLLOWING GENERAL NOTES DO NOT APPLY TO THIS STRUCTURE: NOTES 29,30, AND 31.

10. SHEET 9, DETAILS 2,4,AND 5 DO NOT APPLY TO THIS STRUCTURE.

11. THE ABUTMENTS SHALL BE PATCHED AS FOLLOWS:

A. CRACKS OR SPALLED AREAS WITH A DEPTH OF LESS THAN 1" ARE TO BE FILLED WITH CONCRETE, CLASS AA (QUICK SETTING). THIS WORK TO BE PAID AS CONCRETE, CLASS AA(QUICK SETTING.)

B. CRACKS OR SPALLED AREAS WITH A DEPTH GREATER THAN 1" ARE TO HAVE THEIR EDGES SAW CUT A MINIMUM DEPTH OF 1". THE CONCRETE WILL BE REMOVED TO A DEPTH OF 3/4" BELOW THE REINFORCING STEEL AND THE REBARS SHALL BE SAND BLASTED.

THIS WORK SHALL BE PAID AS "PREPARATION OF CONCRETE SURFACE, CLASS II"(MODIFIED). AN ESTIMATED 60 SQUARE YARDS HAS BEEN INCLUDED IN THE QUANTITIES FOR THIS WORK.

US 7 OVER MILL BROOK BR 56C

SPECIFIC NOTES

1. THERE ARE SCUPPERS ON BOTH SIDES OF THIS BRIDGE. SEE SHEET 10, DETAIL 12,3 FOR SCUPPER TREATMENT.

2. THERE ARE NO WEEP PIPES ON THIS BRIDGE.

3. THE EXISTING JOINTS AT BOTH ABUTMENTS SHALL BE REPAIRED AS PER SHEET 9, DETAIL 2.

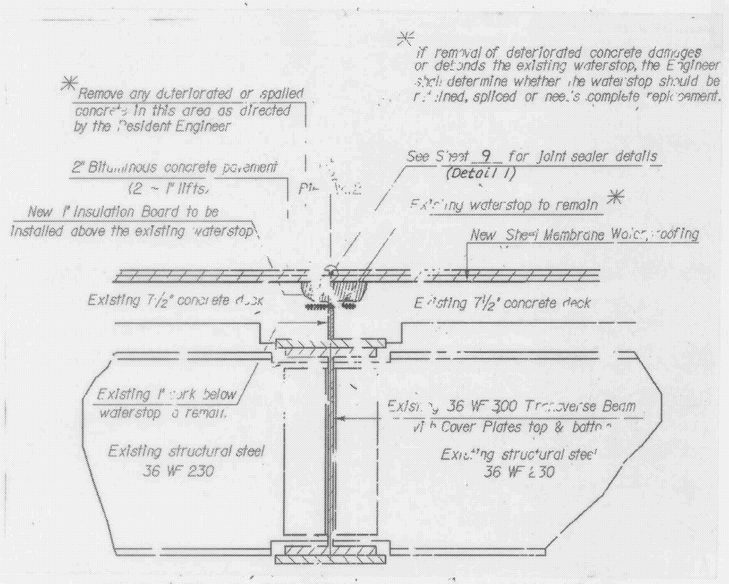
4. THERE ARE CONCRETE SHOULDERS AT THE CURBS WHICH WILL BE REMOVED IN THEIR ENTIRETY. THIS WORK WILL BE PAID AS "PREPARATION OF CONCRETE SURFACE, CLASS I OR CLASS II", AS APPROPRIATE. THE CONCRETE SHOULDERS ARE APPROXIMATELY 3'-0" WIDE DOWNSTREAM AND 2'-8" WIDE UPSTREAM.

5. THIS BRIDGE DECK IS TO BE PAVED CURB TO CURB WITH 2-1/2 INCHES OF BITUMINOUS CONCRETE PAVEMENT IN TWO COURSES. THE BOTTOM COURSE SHALL BE 1-1/2 INCHES OF TYPE IV MIX AND THE TOP COURSE SHALL BE 1 INCH OF TYPE IV MIX.

6. THERE ARE NO DRAIN TROUGHS OR DOWNSPOUTS ON THIS BRIDGE.

7. SHEET 9, DETAILS 4&5 DO NOT APPLY TO THIS STRUCTURE.

8. THE FOLLOWING GENERAL NOTES DO NOT APPLY TO THIS STRUCTURE: NOTES 29,30,AND 31.



REPAIR DETAILS FOR PIER Nº2 AT BRIDGE 54

NTS

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 40 OF 47
BRIDGE 54
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

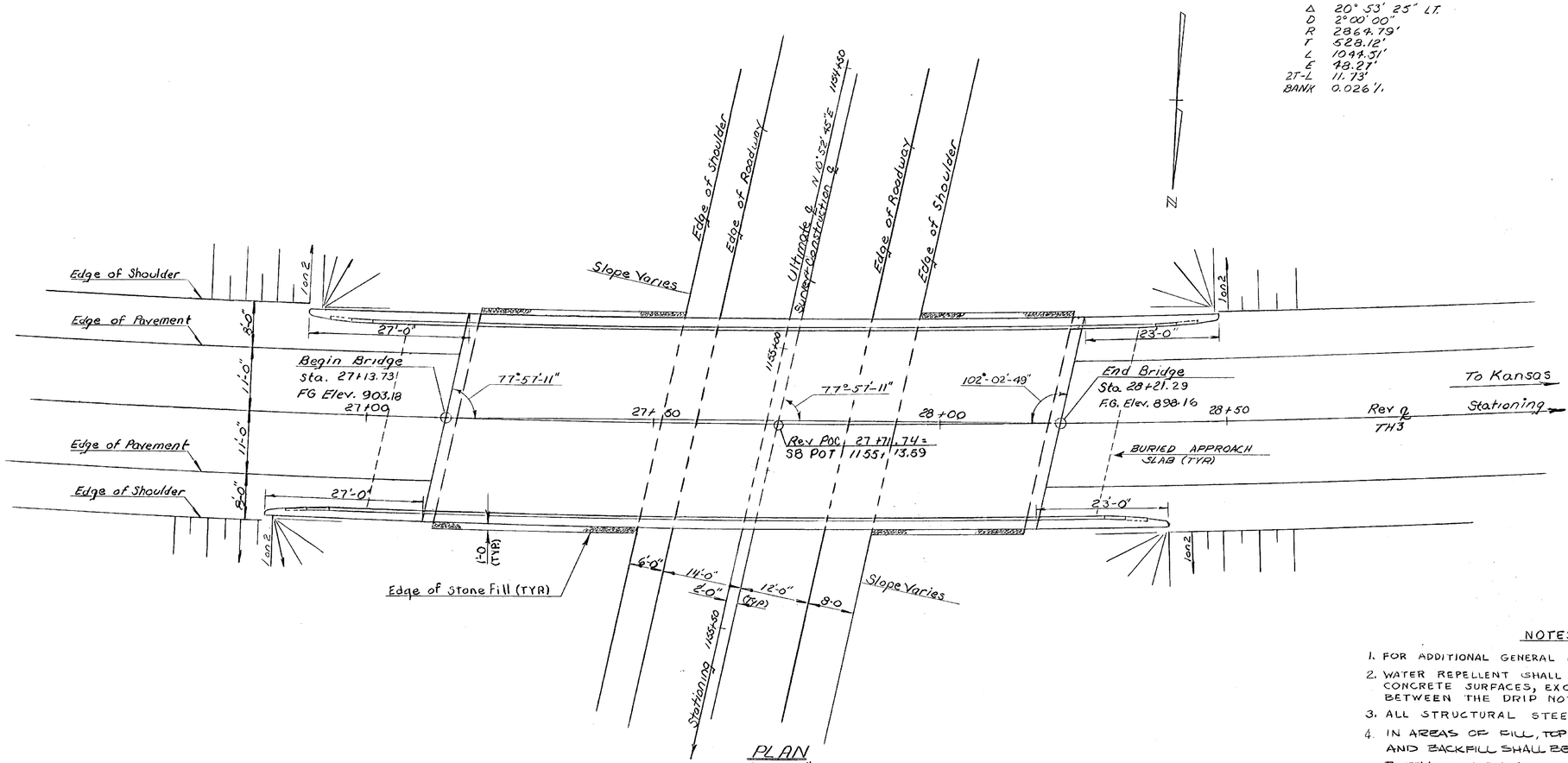
Town Of DORSET~MT. TABOR	Bridge No. 52, 54, 56C
Highway No. US 7	Log Sta. / Surv. Sta.
SPECIFIC NOTES	
Designed By G.S. Rogers	Drawn By D.W. Newton
Checked By G.S. Rogers Date June '87	Bridge Design Supervisor R.L. Oatley Date 6/87
PROJECT DORSET~MT. TABOR	PROJECT NO. F-DECK(21)S
L.G.C. Info.	
Bridge Sheet No.	Sheet 12 of 29

BR-6

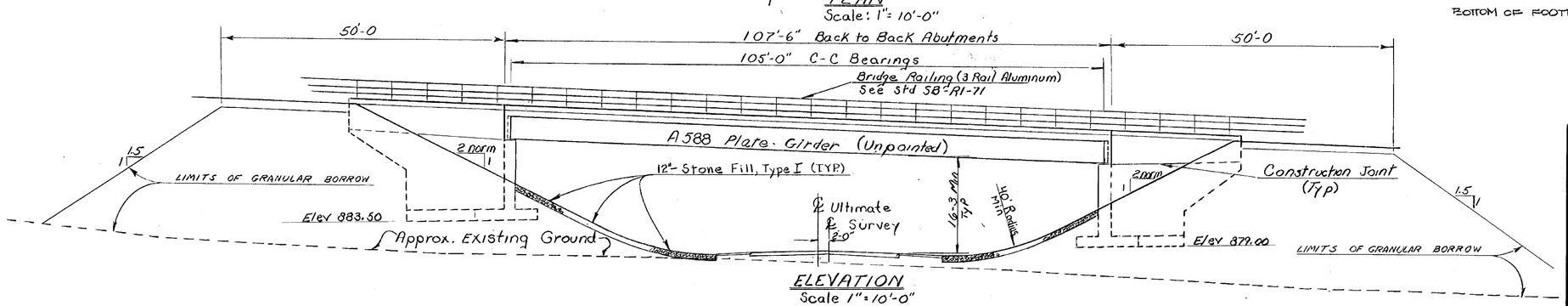
BRUNING 44-232 64A42

REVISED CURVE

Δ	20° 53' 25" LT.
D	2° 00' 00"
R	2864.79'
T	528.12'
L	1044.31'
E	98.27'
2T-L	11.73'
BANK	0.026'/.



PLAN
Scale: 1"= 10'-0"



ELEVATION
Scale 1"=10'-0"

NOTES

1. FOR ADDITIONAL GENERAL NOTES, SEE SCB-D1-75.
2. WATER REPELLENT SHALL BE APPLIED TO ALL EXPOSED CONCRETE SURFACES, EXCEPT BENEATH THE BRIDGE BETWEEN THE DRIP NOTCHS.
3. ALL STRUCTURAL STEEL SHALL BE A588, UNPAINTED.
4. IN AREAS OF FILL, TOP SOIL SHALL BE REMOVED AND BACKFILL SHALL BE COMPACTED IN LIFTS UP TO THE BOTTOM OF FOOTINGS.

STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 41 OF 47
BRIDGE D21
FOR REFERENCE ONLY

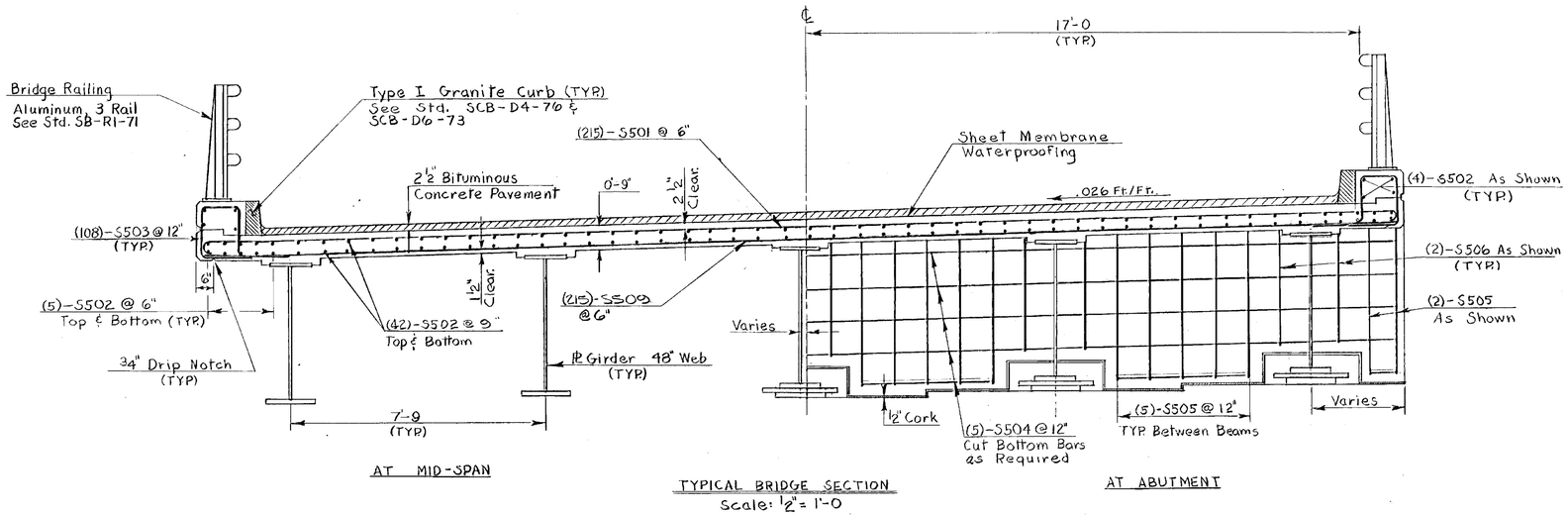
STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF SUNDERLAND	Bridge No. 23
HIGHWAY NO. ART U.S. RTE 7	Log Sta.
	Surv. Sta. SB 1135+13.36

TH 3 OVER ART. U.S. ROUTE 7 S.B.
PLAN & ELEVATION

Designed by C. BENDA	Drawn by R. Aldrich
Checked by G. SCHELLEY date 4/80	Bridge Design Supervisor R.L. Dotley date 8-80
PROJECT SUNDERLAND-MANCHESTER	PROJECT NO. F019-1(9)Cont "1
Bridge Sheet No. BR2303	Sheet 135 of 429

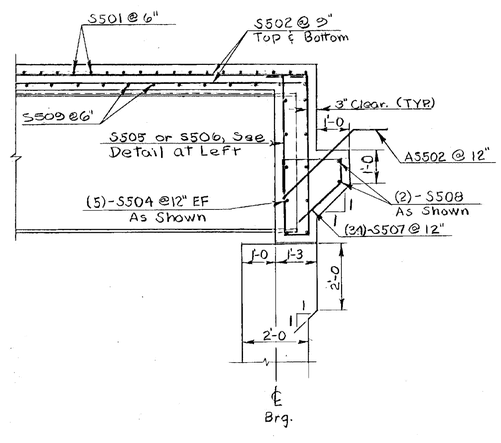
BR 6



AT MID-SPAN

TYPICAL BRIDGE SECTION
Scale: ½" = 1'-0

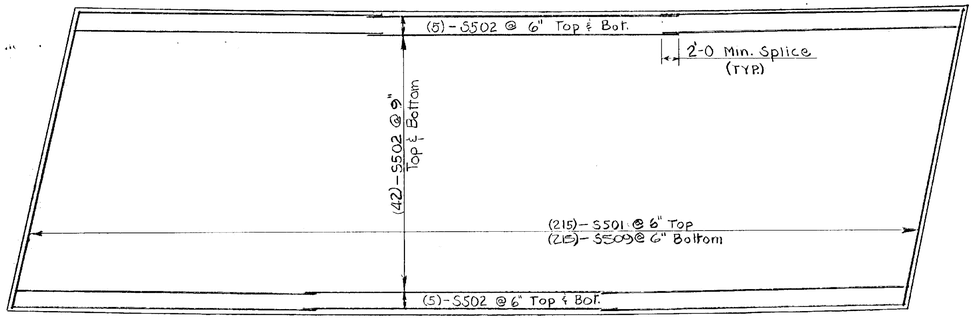
AT ABUTMENT



CURTAIN WALL DETAILS
Scale: ½" = 1'-0

NOTE

1. FOR GRANITE CURB JOINT DETAILS SEE SCB-D6-73 AND SCB-D4-76



DECK REINFORCEMENT PLAN
Scale: ⅛" = 1'-0

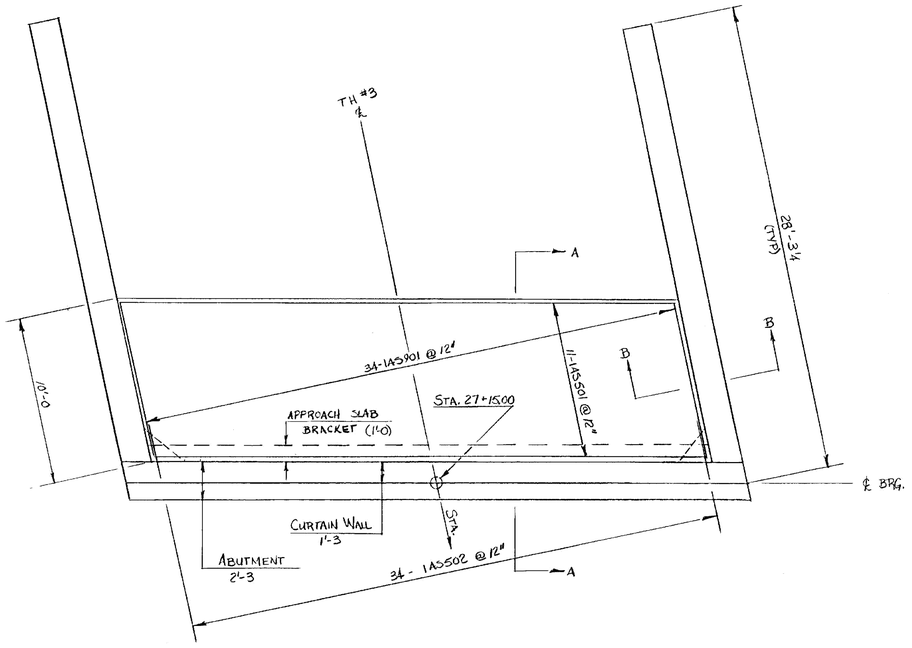
STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 42 OF 47
BRIDGE D21
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

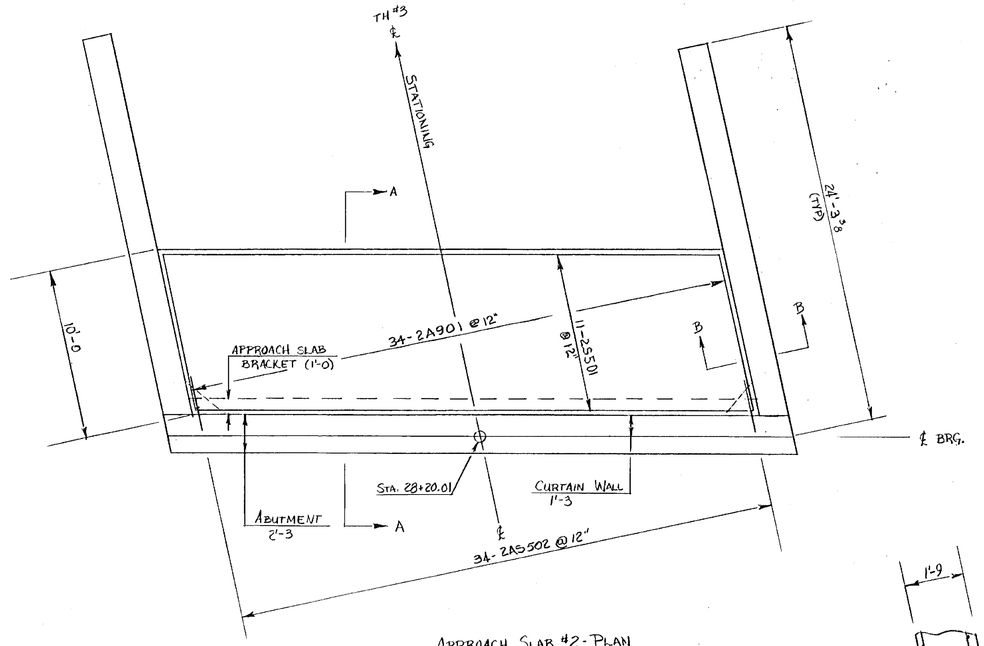
TOWN OF SUNDERLAND	Bridge No. 23
HIGHWAY NO. ART. U.S. RT. 7	Log Sta. / Surv. Sta.
T. H. #3 OVER ART. U.S. RT. 7 SOUTHBOUND	
SUPERSTRUCTURE DETAILS	
Designed by C. BENDA	Drawn by G. SCHELLEY
Checked by C. BENDA date 4/80	Bridge Design Supervisor R.L. Dolley date 9-80
PROJECT SUNDERLAND-MANCHESTER	PROJECT NO. F019-1(9) Cont. #1
Bridge Sheet No. BR2305 Sheet 183 of 429	

BRUNING 44-151 40151

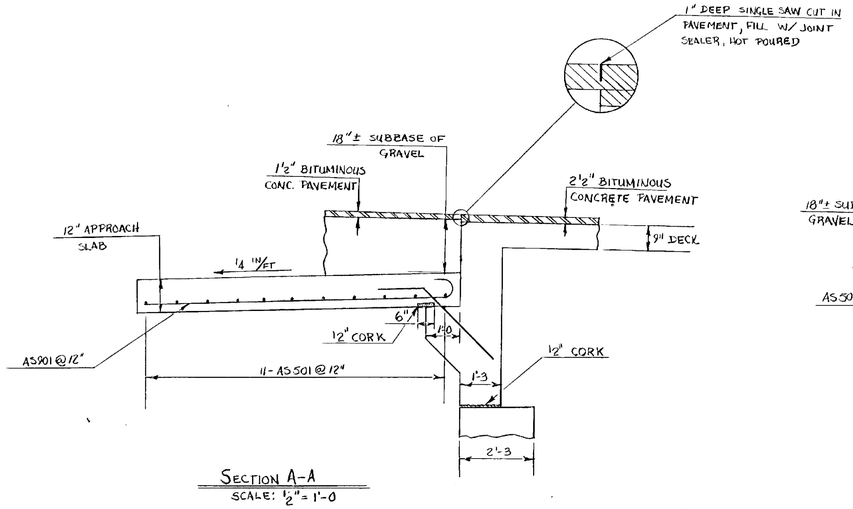
BR-6



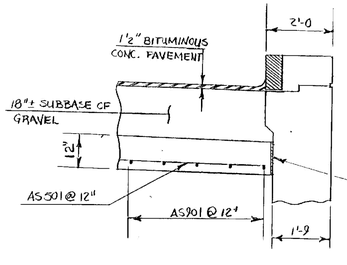
APPROACH SLAB #1 - PLAN
SCALE: ¼" = 1'-0



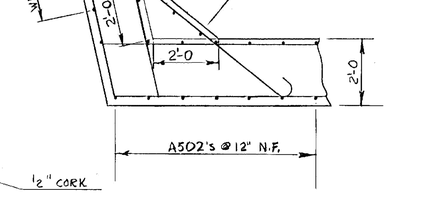
APPROACH SLAB #2 - PLAN
SCALE: ¼" = 1'-0



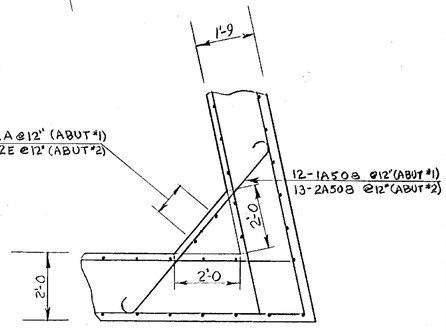
SECTION A-A
SCALE: ½" = 1'-0



SECTION B-B
SCALE: ½"=1'-0



ABUT. #1 RT. FILLET DETAIL (ABUT #2 LT. - SIMILAR)
SCALE: ½" = 1'-0



ABUT #1 LT. FILLET DETAIL (ABUT #2 RT. SIMILAR)
SCALE: ½" = 1'-0

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BHF MEMB(20)
SHEET 43 OF 47
BRIDGE D21
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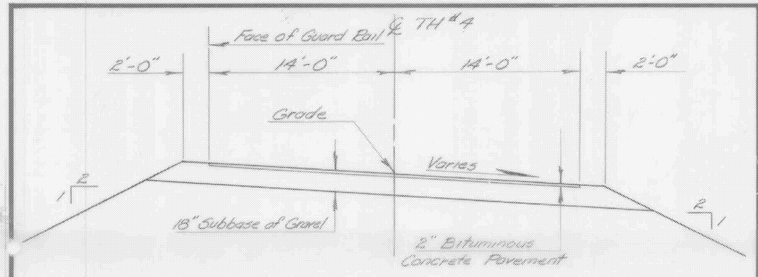
STATE OF VERMONT
AGENCY OF TRANSPORTATION

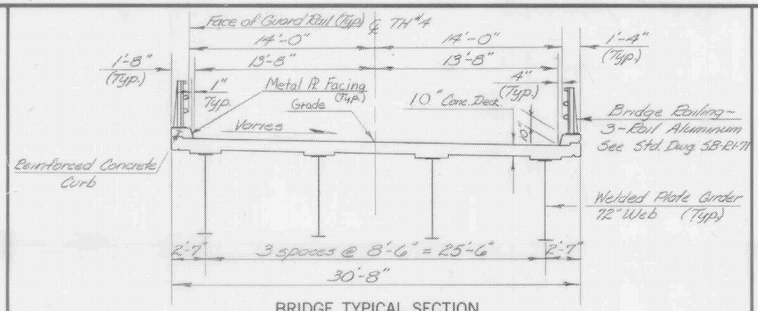
TOWN OF SUNDERLAND	Bridge No. 23
	Log Sta.
HIGHWAY NO. ART. U.S. RTE. 7	Surv. Sta. SB 1155+13.35
TH 3 OVER ART. U.S. RTE. 7 SB	
APPROACH SLAB DETAILS	
Designed by C. BENDA	Drawn by R.D. GRAY
Checked by G. SCHELLEY date 4-11-80	Bridge Design Supervisor R.L. Ouellet date 9-80
PROJECT SUNDERLAND - MANCHESTER	PROJECT NO. F019-1(9) C/1
Bridge Sheet No. BR2310	Sheet 132 of 429

BRUNING 44-1311-40151
BR-6



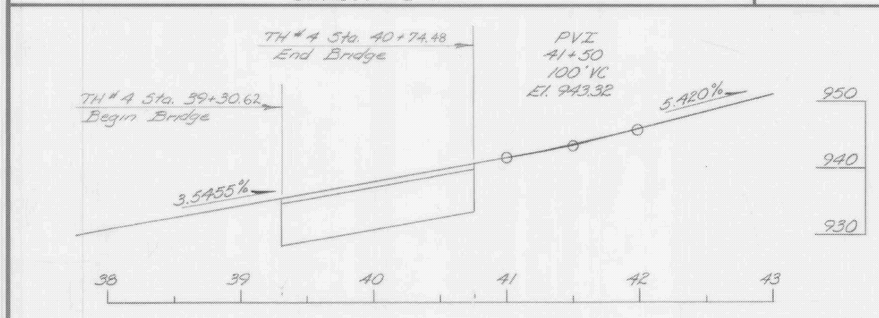
NEW HIGHWAY SECTION — BRIDGE APPROACHES

SCALE: 1" = 5'-0"



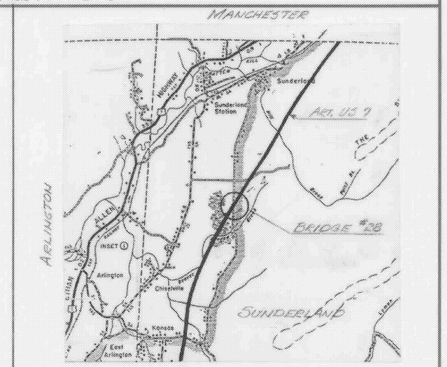
BRIDGE TYPICAL SECTION

SCALE: 1" = 5'-0"



TH #4 PROFILE

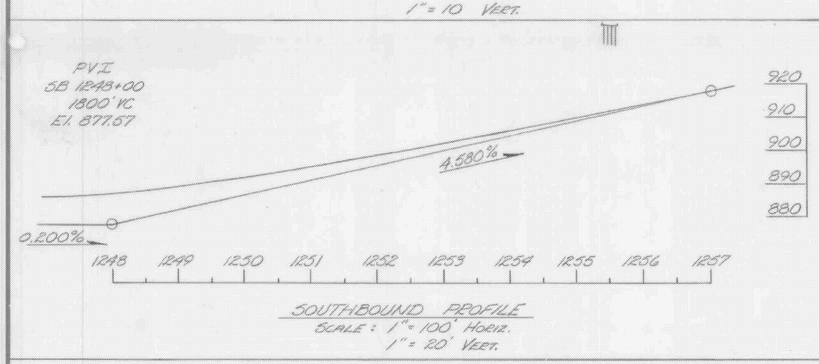
SCALE: 1" = 50' HORIZ.
1" = 10 VERT.



LOCATION MAP

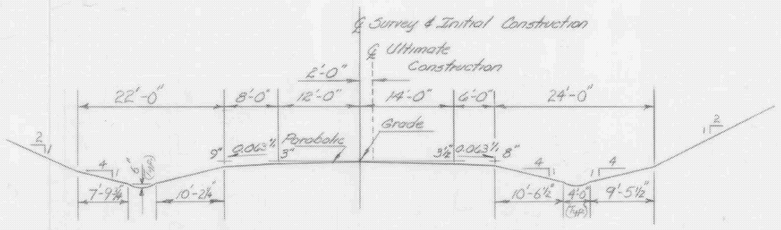
0 1.0 2.0

SCALE IN MILES



SOUTHBOUND PROFILE

SCALE: 1" = 100' HORIZ.
1" = 20' VERT.



SOUTHBOUND TYPICAL SECTION

SCALE: 1" = 1'-0"

EXISTING STRUCTURE

1. STRUCTURE TYPE _____ OVERALL LENGTH _____ INVENTORY RATING _____
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS _____
3. CLEAR SPAN/LENGTH(S) NORMAL TO STREAM _____
4. WATERWAY/AREA OF FULL OPENING (NORMAL TO STREAM) _____ VERTICAL CLEARANCE ABOVE STREAMBED _____
5. WATER SURFACE ELEVATION @ Q 2.33 _____ WATER SURFACE ELEVATION @ Q _____
6. WATER SURFACE ELEVATION AT FLOOD OF RECORD _____ YEAR _____ ESTIMATED DISCHARGE _____
7. DOES ALL WATER PASS THROUGH EXISTING STRUCTURE? _____ IF NOT, AT WHAT FREQUENCY AND ELEVATION DOES RELIEF OCCUR? _____
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF _____
8. TYPE OF SUBSTRUCTURE FOUNDATION MATERIAL _____
9. DISPOSITION OF STRUCTURE _____

NEW STRUCTURE

STRUCTURE GEOMETRY:

1. STRUCTURE TYPE Single Span Comp. Welded ℄ Girder OVERALL LENGTH 143.86'
2. SPAN LENGTH(S) CENTER TO CENTER OF BEARINGS 140'-0"
3. VERTICAL CLEARANCE ABOVE STREAMBED OR ROAD UNDER 18.83'
4. CLEAR SPAN LENGTH(S) NORMAL TO STREAM N/A
5. WATERWAY AREA OF FULL OPENING (NORMAL TO STREAM) N/A
6. ARE PROVISIONS TO BE MADE FOR PUBLIC UTILITIES? NO

HYDRAULIC DATA:

1. Q 2.33 _____ WATER ELEVATION _____ VELOCITY _____
   Q 10 _____ WATER ELEVATION _____ VELOCITY _____
   Q 25 _____ WATER ELEVATION _____ VELOCITY _____
   Q 50 _____ WATER ELEVATION _____ VELOCITY _____
   Q 100 _____ WATER ELEVATION _____ VELOCITY _____
2. DRAINAGE AREA _____ CHARACTER OF TERRAIN _____
3. ARE THERE OBJECTIONS TO A PIER IN THE STREAM? _____
4. DOES STREAM REACH/ITS MAXIMUM HIGH WATER ELEVATION RAPIDLY? _____ IS ORDINARY RISE RAPID? _____
5. NATURE OF NATURAL STREAMBED _____
6. ESTIMATED SCOUR DEPTH _____ / _____ COMMENT ON: DRIFT _____ ICE _____
7. WILL ALL WATER PASS THROUGH NEW STRUCTURE? _____ IF NOT, WHAT FREQUENCY AND ELEVATION WILL RELIEF OCCUR? _____
   ADDITIONAL WATERWAY AREA PROVIDED BY RELIEF _____
8. VERTICAL CLEARANCE ABOVE Q _____
9. ALLOWABLE WATER SURFACE ELEVATION _____ LIMITED BY _____
10. IS DESIGN STAGE AFFECTED BY UPSTREAM OR DOWNSTREAM CONDITIONS? _____ IF YES, DESCRIBE _____
11. / AVERAGE DAILY LOW FLOW _____ DEPTH _____ AVERAGE DAILY HIGH FLOW _____ DEPTH _____
12. STREAMBANK OR CHANNEL PROTECTION REQUIRED _____
13. DISTANCE TO EXISTING UPSTREAM STRUCTURE _____ SPAN _____ WATERWAY AREA OF FULL OPENING _____ Q _____
14. DISTANCE TO EXISTING DOWNSTREAM STRUCTURE _____ SPAN _____ WATERWAY AREA OF FULL OPENING _____ Q _____

ALLOWABLE STRESSES:

1. DESIGN LIVE LOAD AASHTO H 15-20-44
2. ALLOWABLE LOAD FOR SPREAD FOOTINGS ON SOIL 4 K.S.F. ON LEDGE N/A
3. ALLOWABLE LOAD FOR PILING N/A TYPE N/A ESTIMATED LENGTH N/A
4. ALLOWABLE STRESS FOR STRUCTURAL STEEL ASTM A 588 TENSION 27,000 PSI COMPRESSION 20,000 PSI
5. ALLOWABLE STRESS FOR REINFORCING STEEL GRADE 60 TENSION 24,000 PSI
6. ALLOWABLE STRESS FOR CONCRETE CLASS A f_c 3500 f_c 1750
   CLASS B f_c 3500 f_c 1400

TRAFFIC MAINTENANCE:

1. IS TRAFFIC TO BE MAINTAINED? _____ IF YES, ON EXISTING STRUCTURE _____ OR ON TEMPORARY BRIDGE _____
2. / TEMPORARY BRIDGE REQUIREMENTS: ONE OR TWO WAY / / TRAFFIC CONTROL SIGNALS REQUIRED / /
   MINIMUM CLEAR SPAN / / MINIMUM CLEAR HEIGHT / / MINIMUM WATERWAY AREA / /
   ARE SIDEWALKS REQUIRED? _____ IF SO, ON WHAT SIDE? / / / /

STANDARD SHEETS

G-1	R 5-28-79	SCB-D9-71	R1-27-73
G-1d	R 12-16-80		
G-8a	R 7-1-78		
SB-R1-71	R 7-1-77		
SCB-D1-75	R 4-3-78		
SCB-D4-76	A 1-8-75		
SCB-D6-73	R 1-3-79		
SCB-D7-71	R 12-15-76		
SCB-D8-71	R 6-1-77		

INDEX OF SHEETS

BR100 PRELIMINARY INFORMATION
BR101 PLAN & ELEVATION
BR102 BRIDGE QUANTITIES
BR103 BORING SHEET
BR104 TYPICAL SECTION & GIRDER DETAILS
BR105 CURB & CURTAIN WALL DETAILS
BR106 DECK & APPROACH SLAB REINFORCING
BR107 FRAMING PLAN & CROSSFRAME DETAILS

STATEWIDE - SOUTHWEST REGION
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BRIDGE D23
FOR REFERENCE ONLY

LOAD RATING (TONS)

STRESS LEVELS	TRUCK H	HS	3S2	6 AXLE	3A. STR.	4A. STR.	5A. SEMI
INVENTORY 0.55 Fy = 27.00 KSI	35	38					
POSTED 0.67 Fy = 33.50 KSI	64		76		66	67	73
OPERATING 0.75 Fy = 37.50 KSI			98	108			

RECOMMENDED FOR APPROVAL W. M. Smith STRUCTURES ENGINEER 5-7-80 DATE

RECOMMENDED FOR APPROVAL Arthur Jones CHIEF OF DESIGN 5-12-80 DATE

APPROVED BY S. J. Ange DIRECTOR OF ENGINEERING & CONSTRUCTION 5-12-80 DATE

REVISIONS

NO.	DESCRIPTION	BY & DATE
1	Changed Modified Typical Section to Arterial U.S. Rte #7 Southbound Typical Section.	R. Rianaldo 8/12/80

STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF SUNDERLAND — Bridge No. 28 — Log Sta.

HIGHWAY NO. TOWN HIGHWAY #4 — Surv. Sta. 1255+50.0

TH #4 OVER ARTERIAL U.S. RTE #7

PRELIMINARY INFORMATION

Designed by M. GARCIA — Drawn by M. GARCIA

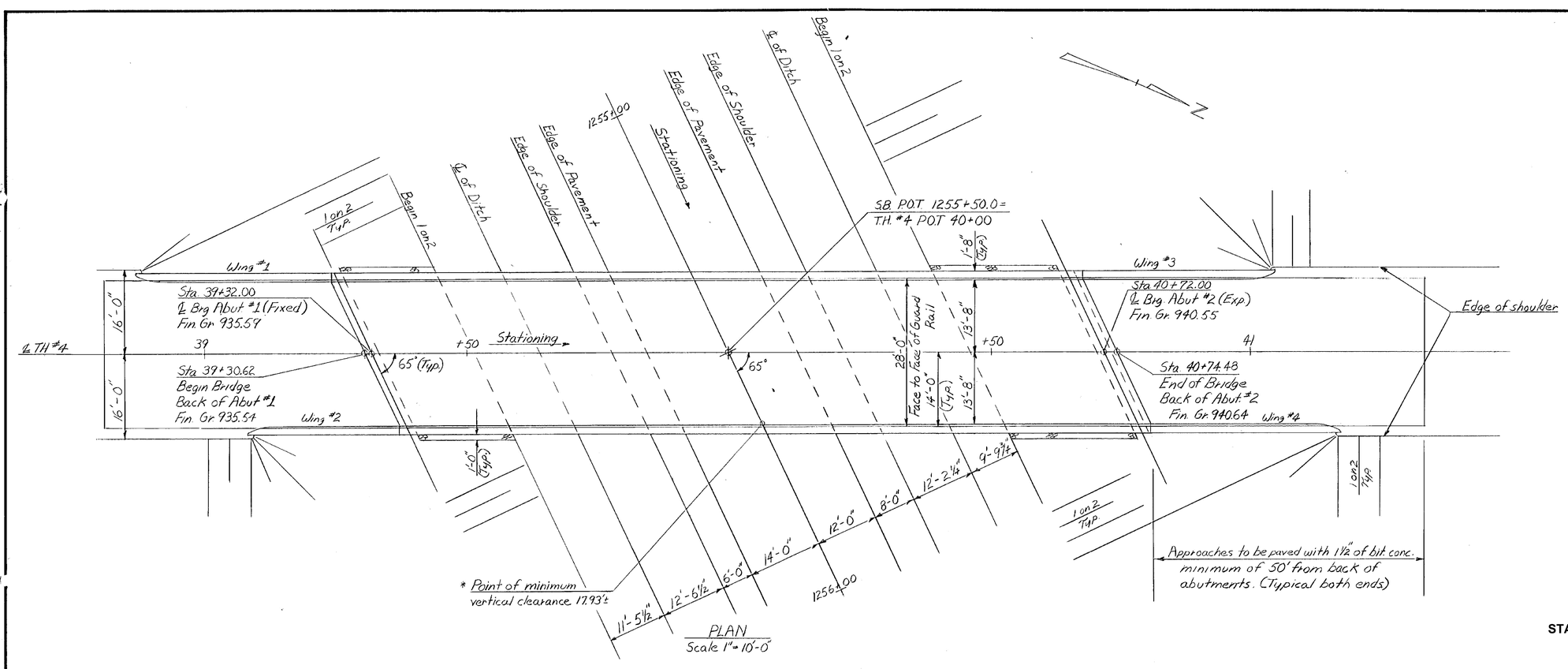
Checked by A.W.E. date 9-80 — Bridge Design Supervisor F.W. Balkum date 5/80

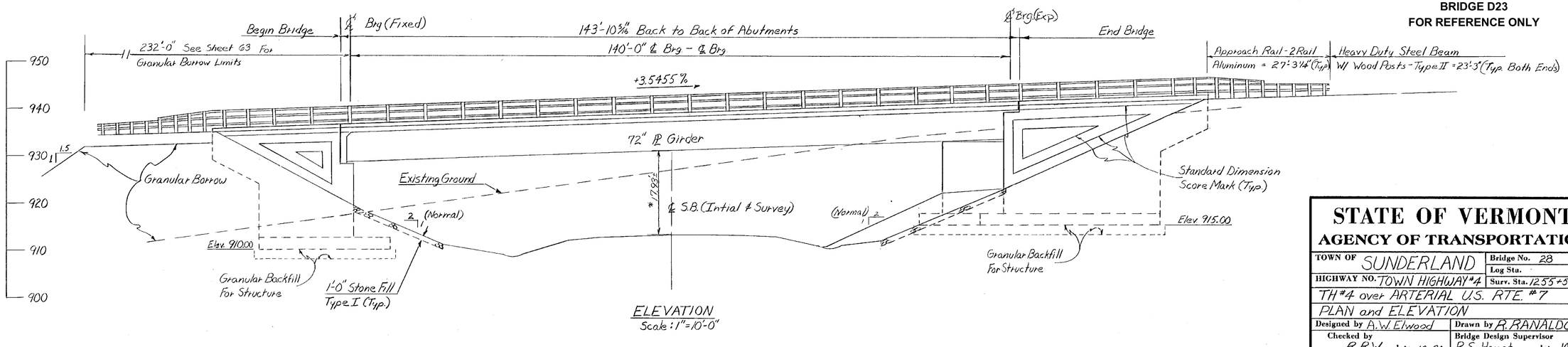
PROJECT SUNDERLAND-MANCHESTER — PROJECT NO. F 019-1(9) C-1

Bridge Sheet No. BR100 — Sheet 94 of 429

BRUNING 44-131 40151

BR-2





STATEWIDE - SOUTHWEST REGION
BHF MEMB(20)
SHEET 45 OF 47
BRIDGE D23
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STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF SUNDERLAND	Bridge No. 28
	Log Sta.
HIGHWAY NO. TOWN HIGHWAY #4	Surv. Sta. 1255+50.0
TH #4 over ARTERIAL U.S. RTE. #7	
PLAN and ELEVATION	
Designed by A.W. Elwood	Drawn by R. RANALDO
Checked by R.R.W. date 10-80	Bridge Design Supervisor R.S. Haupt date 10-80
PROJECT SUNDERLAND-MANCHESTER	PROJECT NO. FO19-1(9) C-1
Bridge Sheet No. BR101	Sheet 95 95 of 429

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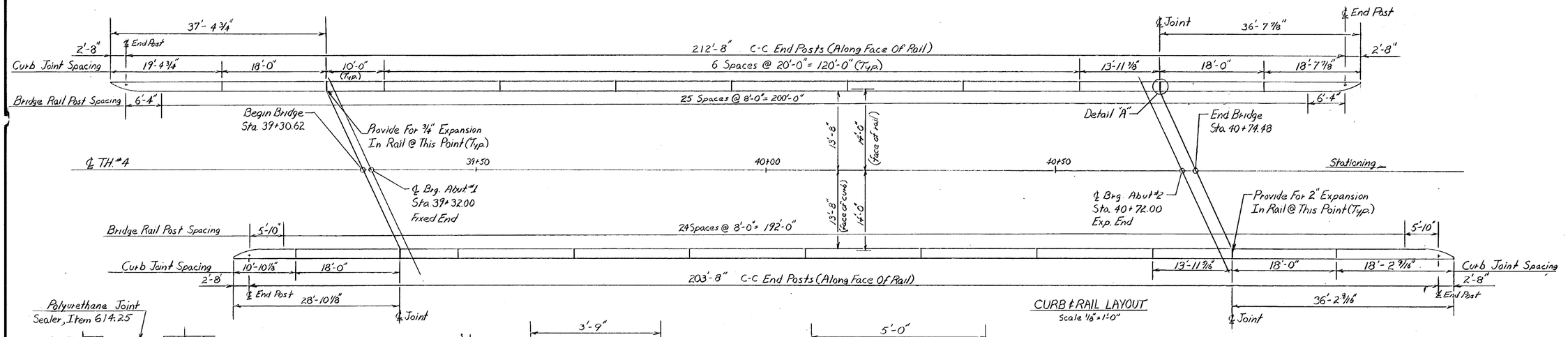
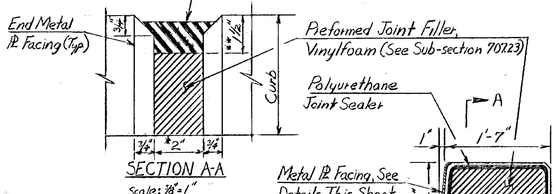
BR-6



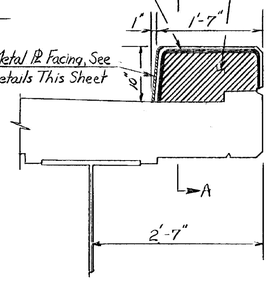
CURB & RAIL LAYOUT
Scale 1/8" = 1'-0"



SECTION A-A
Scale: 1/8" = 1"

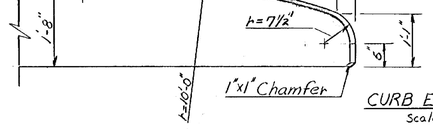
* 2" @ Expansion End
1" @ Fixed End

** 1 1/2" @ Expansion End
1 1/4" @ Fixed End



DETAIL - A
N.T.S.

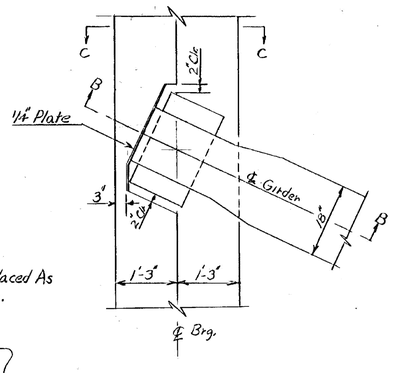
Note: If Straps Are Welded To Epoxy Coated Bars All Damaged Areas Of Bars Shall Be Cleaned And Re-epoxy Coated.



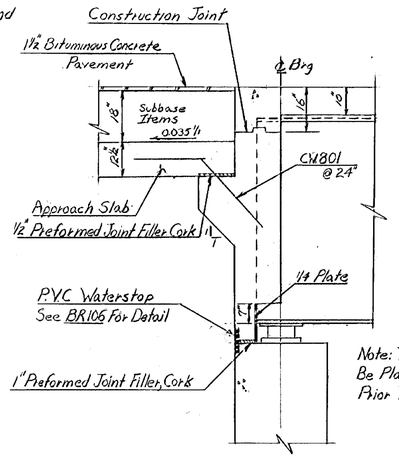
CURB END DETAIL
Scale: 3/4" = 1'-0"

CURB END DETAIL
Scale: 1/4" = 1'-0"

Note: End Sections Shall Have 5 Sets Of Straps And One Longitudinal Tie Top & Bottom.

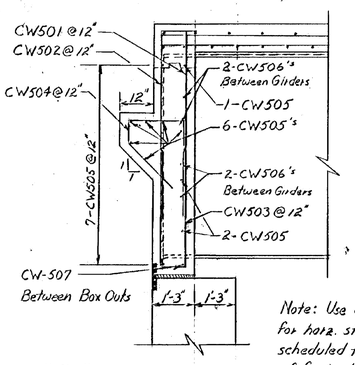


PLAN OF FIXED END BEARING
Scale: 3/4" = 1'-0"



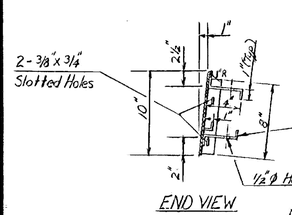
SECTION B-B
Scale: 1/2" = 1'-0"

Note: The Curtainwall Shall Be Placed A Min. Of 24 Hrs. Prior To Deck Placement.

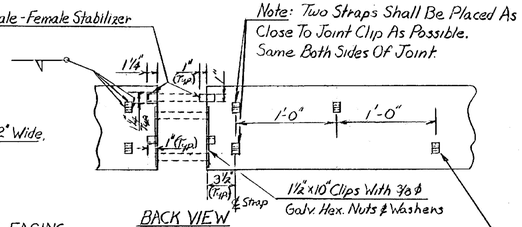


SECTION C-C
Scale: 1/2" = 1'-0"

Note: Use extra CW506's for horz. steel not scheduled for outside of facia beams. Cut & bend to fit.



END VIEW



BACK VIEW

Note: Two Straps Shall Be Placed As Close To Joint Clip As Possible. Same Both Sides Of Joint.

METAL PLATE FACING FOR CURB
Scale: 1 1/2" = 1"

Prior To Fabrication, Shop Drawings Shall Be Submitted To The Structures Division For Approval In Accordance With Section 105.03

NOTES

1. For 3-Rail Aluminum Bridge Rail details see SB-R1-71, Sheets 1 & 2. For details of approach railing see BR Sheet #12
2. The Metal Plate Facing for the curb shall be fabricated using A.S.T.M. A-569, galvanized, with a maximum length of 10 Ft. Sections shall be bolted together with 3/8" ∅ x 3/4" long A.S.T.M. A-307 bolts, galvanized. (AASHTO M-232) All elements shall be 10 ga. thickness.

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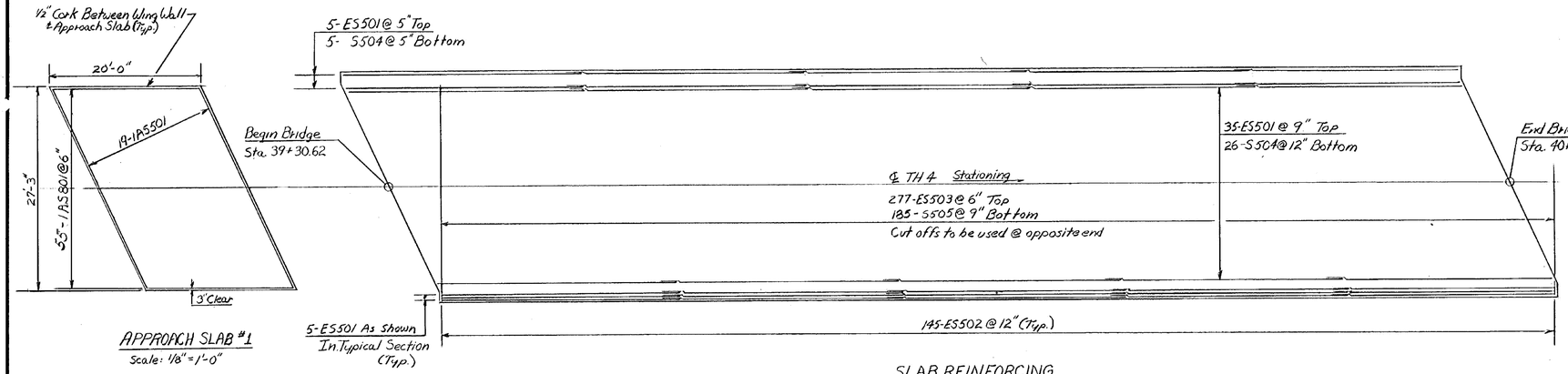
BRIDGE D23
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

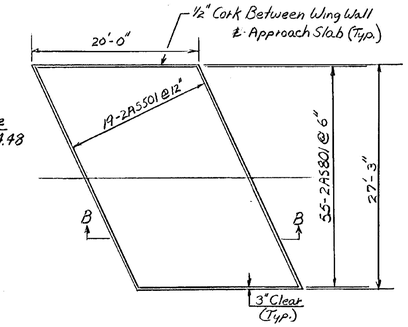
TOWN OF SUNDERLAND	Bridge No. 28
HIGHWAY NO. TOWN HIGHWAY #4	Log Sta. / Surv. Sta. 1255+50.00
TH #4 over ARTERIAL U.S. RTE. 7	
CURB & CURTAIN WALL DETAILS.	
Designed by A.W. Elwood	Drawn by R. Pianko
Checked by A.W.E. date 10-80	Bridge Design Supervisor R.S. Haupt date 10-80
PROJECT SUNDERLAND-MANCHESTER	PROJECT NO. F019-1(9) C-1
Bridge Sheet No. BR105	Sheet 99 of 429

BRUNING 44-131-40151
BR-5



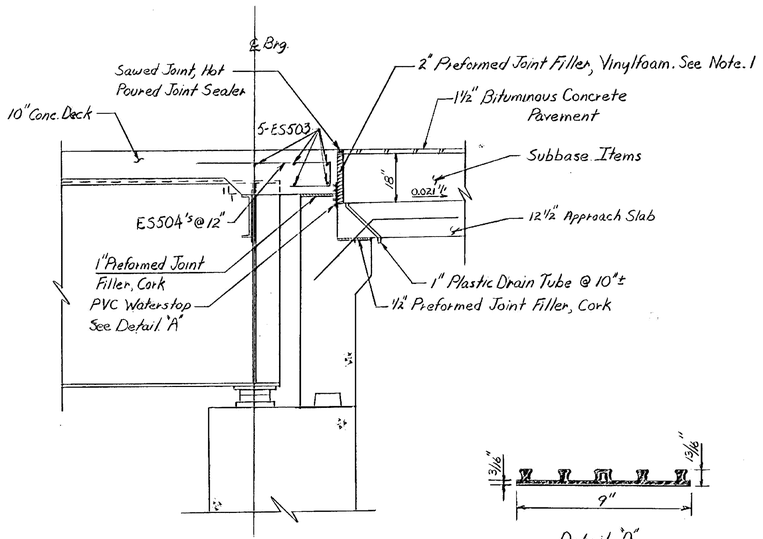
APPROACH SLAB #1
Scale: 1/8"=1'-0"

SLAB REINFORCING
Scale: 1/8"=1'-0"



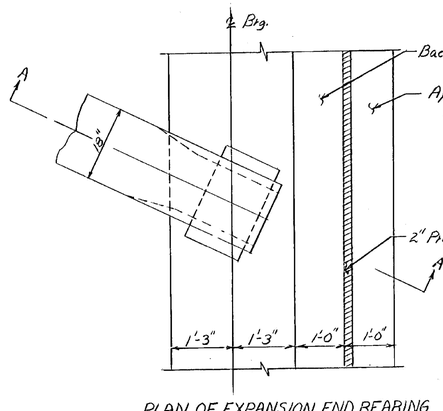
APPROACH SLAB #2
Scale: 1/8"=1'-0"

Note: Placement Of Deck Concrete Must Precede From Abut. 1 Toward Abut. 2. Placement Shall Be Continuous.

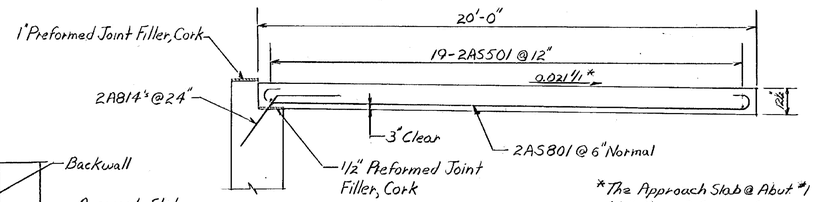


SECTION A-A
Scale: 1½"=1'-0"

Detail 'A'
N.T.S.



PLAN OF EXPANSION END BEARING
Scale: 3/4"=1'-0"



SECTION B-B
Scale: 3/8"=1'-0"

*The Approach Slab @ Abut #1 Will Have A Slope of +0.035½

NOTES

1. The Preformed Joint Filler, Vinylfoam shall be semi-rigid grade and shall meet the requirements of Sub-section 707.23. Payment shall be included in the unit bid price for Concrete Class A.
2. The P.V.C. Waterstop shall be as specified in Sub-section 707.30. Payment shall be included in the unit bid price for Concrete Class A.

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

TOWN OF SUNDERLAND	Bridge No. 28
	Log Sta.
HIGHWAY NO. Town Highway #4	Surv. Sta. 1255+50.00
T.H.4 over ARTERIAL U.S. RTE. #7	
DECK & APPROACH SLAB REINFORCING	
Designed by A. Elwood	Drawn by R. Panaldo
Checked by A.W.E. date 10-80	Bridge Design Supervisor R.S. Haupt date 10-80
PROJECT SUNDERLAND-MANCHESTER	PROJECT NO. F019-1(9) C-1
Bridge Sheet No. BRIC6	Sheet 100 of 429

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BR-5