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BERLIN - WATERBURY IM SURF(20)
SEE SHEET 5 FOR ADDITIONAL
PROJECT INFORMATION

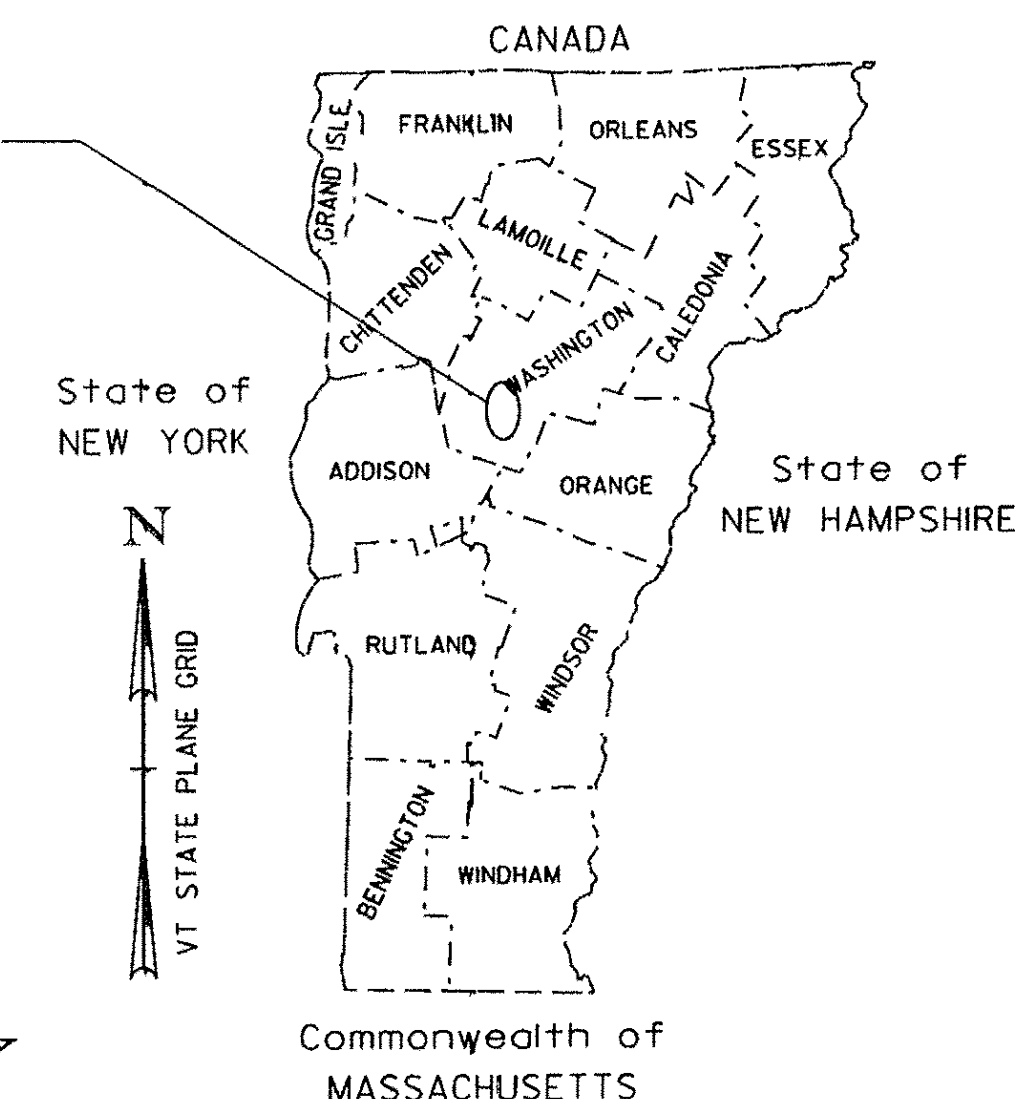
MONTPELIER IM MEMB(23)
SEE SHEET 30 FOR ADDITIONAL
PROJECT INFORMATION

STATE OF VERMONT AGENCY OF TRANSPORTATION

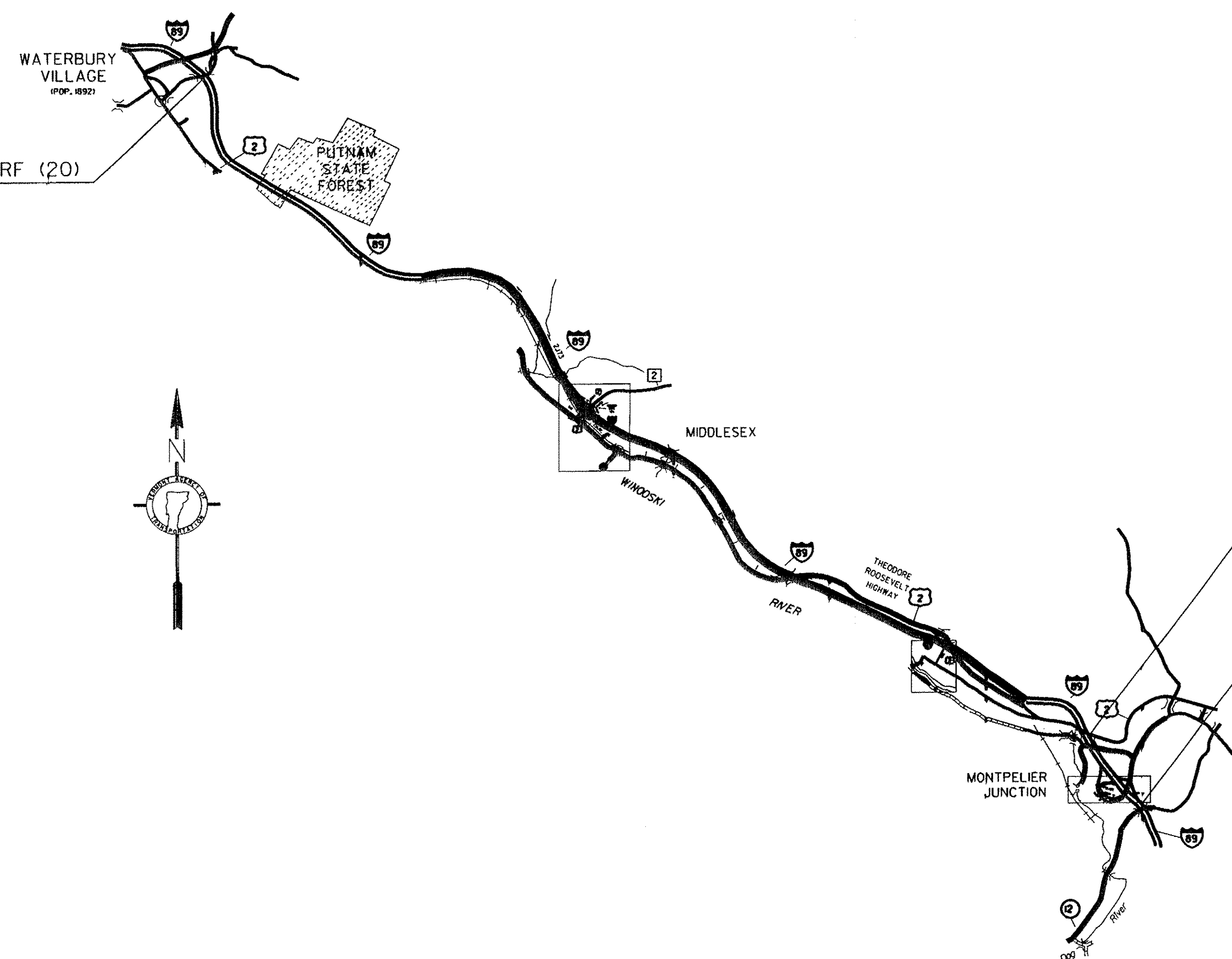


PROPOSED IMPROVEMENT TOWNS OF BERLIN, MONTPELIER, MIDDLESEX AND WATERBURY COUNTY OF WASHINGTON INTERSTATE ROUTE 89 (NB & SB)

PROJECT LOCATION
BERLIN - WATERBURY IM SURF (20)
MONTPELIER IM MEMB (23)



END BERLIN - WATERBURY IM SURF (20)
MM 63.480 NB
MM 63.488 SB



RECORD PLANS	
CONTRACTOR:	F.W. WHITCOMB CONSTRUCTION CORP. - WALPOLE, NH
RESIDENT ENGINEER:	TOM MANCINI
CONSTRUCTION BEGAN:	AUGUST 9, 2010
CONSTRUCTION COMPLETE:	SEPTEMBER 8, 2011
RECORD PLANS BY:	TOM MANCINI & JENNA HYDE
I HEREBY CERTIFY THAT ALL THE CONSTRUCTION REQUIRED BY THIS SET OF DRAWINGS HAS BEEN ACCOMPLISHED AS INDICATED HEREIN.	
BY	<i>[Signature]</i> RESIDENT ENGINEER
DATE	8/7/12
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.	

BEGIN/END MONTPELIER IM MEMB (23)
BR 42N NB
BR 42S SB

BEGIN BERLIN - WATERBURY IM SURF (20)
MM 52.600 NB
MM 52.620 SB

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 <i>[Signature]</i>	DATE 5-20-10
PROJECT MANAGER : MIKE FOWLER	
PROJECT NAME : BERLIN - WATERBURY	MONTPELIER
PROJECT NUMBER : IM SURF (20)	IM MEMB (23)
SHEET 1 OF 63 SHEETS	

/pave/09a382/p09a382.dgn p09a382.01.i

VAOT STANDARDS

E-100	CONSTRUCTION APPROACH SIGNS	1/2/2004
E-100A	SIDE ROAD CONSTRUCTION APPROACH SIGNS	1/2/2004
E-101	CONSTRUCTION SIGN DETAILS	5/30/2003
E-102	CONSTRUCTION SIGN DETAILS	6/30/2003
E-102A	CONSTRUCTION SIGN DETAILS	5/1/2004
E-103	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	3/1/2004
E-105	TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE U-TURNS AND DIVIDED HIGHWAY	5/1/2004
E-106	TRAFFIC CONTROL- MISCELLANEOUS DETAILS	3/1/2004
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	6/08/2009
E-107A	BREAKAWAY BARRICADE DETAILS	6/08/2009
E-108A	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS FOR PAVING	12/8/2008
E-110	MAJOR MAINTENANCE OPERATION LANE CLOSURE	8/8/1995
E-120	STANDARD SIGN PLACEMENT - EXPRESSWAY & FREEWAY	8/8/1995
E-121	STANDARD SIGN PLACEMENT - CONVENTIONAL ROAD	8/8/1995
E-123	GUIDE SIGN PLACEMENT - MISCELLANEOUS DETAILS	3/16/2004
E-135	GUIDE SIGN DETAILS	8/8/1995
E-191	PAVEMENT MARKING DETAILS	2/1/1999
E-192	PAVEMENT MARKING DETAILS	10/12/2000
E-193	PAVEMENT MARKING DETAILS	8/18/1995

WHERE CONFLICTS EXIST WITH THE E-STANDARDS AND THE 2009 EDITION OF THE MUTCD, THE 2009 MUTCD SHALL GOVERN

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COMPOSITE
INDEX OF
SHEETS

PROJECT NAME: BERLIN - WATERBURY MONTPELIER

PROJECT NUMBER: IM SURF (20) IM MEMB (23)

FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 08-JUN-2010
PROJECT LEADER: FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PVMT MGMT
IPARM FILE: p09a382_02.i	SHEET 2 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION

COMPOSITE QUANTITY SHEET # 1

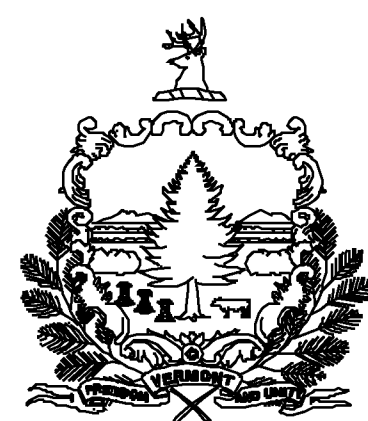
						MONTPELIER IM MEMB (23)				BERLIN -WATERBURY IM SURF (20)				QUANTITIES	DESCRIPTIONS					
						BRIDGE 42N	BRIDGE 42S	ROADWAY	FULL C. E.			BRIDGE	ROADWAY	FULL C. E.	GRAND TOTAL	UNIT	ITEMS	ITEM NO.		
																BEGIN ITEMS COMMON TO ALL ALTERNATES				
												10,000		10,000	LF	SHOULDER BERM REMOVAL		203.40	EST.	
								I				I		2	CY	TRENCH EXCAVATION OF EARTH, EXPLORATORY (N.A.B.I.)		204.22	EST.	
						700	4,043							4,743	SY	COLD PLANING, BITUMINOUS PAVEMENT		210.10	-	
						16	9							25	CWT	EMULSIFIED ASPHALT		404.65	-	
								I				I		2	LU	PRICE ADJUSTMENT, ASPHALT CEMENT (N.A.B.I.)		406.50	-	
												20,000		20,000	LB	BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD		417.20	EST.	
							2,820							2,820	LB	STRUCTURAL STEEL		506.60	-	
						135	140							275	GAL	WATER REPELLANT, SILANE		514.10	-	
						89	89					750		928	LF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG		516.10	10	
						3,159	20							3,179	SY	SHEET MEMBRANE WATERPROOFING ,TORCH APPLIED		519.20	EST.	
						74	74							148	LF	JOINT SEALER, HOT POURED		524.11	-	
						3,159	20							3,179	SY	REMOVAL OF BRIDGE PAVEMENT		529.10	EST.	
						200	50							250	SY	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I		580.10	EST.	
						80	40							120	SY	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS II		580.11	EST.	
						20	20							40	CY	REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS III		580.12	EST.	
						28,432	180							28,612	SF	SURFACE PREPARATION FOR MEMBRANE		580.16	EST.	
						20	20					100		140	SF	RAPID SETTING CONCRETE REPAIR MATERIAL W/COARSE AGGREGATE		580.20	EST.	
						5	5							10	HR	ALL PURPOSE EXCAVATOR RENTAL, TYPE I		608.25	EST.	
												200		200	HR	POWER BROOM RENTAL, TYPE I		608.30	EST.	
						5	5							10	HR	TRUCK RENTAL		608.37	EST.	
						240	240							480	HR	TRUCK MOUNTED ATTENUATOR		608.45	EST.	
						3	3							6	EA	ENERGY ABSORPTION ATTENUATOR		621.56	-	
						1,625	1,450							3,075	LF	TEMPORARY TRAFFIC BARRIER		621.90	-	
						1,500	1,450							2,950	LF	REMOVE AND RESET TEMPORARY TRAFFIC BARRIER		621.95	-	
						800	800					1,000		2,600	HR	UNIFORMED TRAFFIC OFFICERS		630.10	EST.	
												300		300	HR	FLAGGERS		630.15	EST.	
								0.5					0.5	1	LS	TESTING EQUIPMENT, BITUMINOUS		631.17	-	
								0.5					0.5	1	LS	MOBILIZATION/DEMOBILIZATION		635.11	-	
												I		1	LS	TRAFFIC CONTROL (IM SURF (20))		641.10	-	
						I								1	LS	TRAFFIC CONTROL (1-89 BRIDGE NO.42N)		641.10	-	
							I							1	LS	TRAFFIC CONTROL (1-89 BRIDGE NO.42S)		641.10	-	
						4	1					6		11	EA	PORTABLE CHANGEABLE MESSAGE SIGN		641.15	-	
						1	2							3	EA	PORTABLE ARROW BOARD		641.16	-	
																PROJECT NAME: BERLIN - WATERBURY		MONTPELIER		
																PROJECT NUMBER: IM SURF (20)		IM MEMB (23)		
																FILE NAME: /pave/09a382/p09a382.dgn		PLOT DATE: 08-JUN-2010		
																PROJECT LEADER: MIKE FOWLER		DRAWN BY: WILDER		
																DESIGNED BY: WILDER		CHECKED BY: PAVT MGMT		
																IPARM FILE NAME: p09a382_03.1		SHEET 3 OF 63		

COMPOSITE QUANTITY SHEET # 2

						MONTPELIER IM MEMB (23)				BERLIN - WATERBURY IM SURF (20)				QUANTITIES	DESCRIPTIONS							
						BRIDGE 42N	BRIDGE 42S	ROADWAY	FULL C. E.			BRIDGE	ROADWAY	FULL C. E.	GRAND TOTAL	UNIT	ITEMS		ITEM NO.	ROUND		
							1,450						78,750		80,200	LF	6 INCH WHITE LINE		646.214	-		
							1,160						65,500		66,660	LF	6 INCH YELLOW LINE		646.215	-		
													2,250		2,250	LF	12 INCH WHITE LINE		646.24	-		
													25		25	LF	24 INCH STOP BAR		646.26	-		
													14		14	EA	LETTER OR SYMBOL		646.30	-		
						1,380							79,250		80,630	LF	DURABLE 6 INCH WHITE LINE, POLYUREA		646.424	-		
						1,100							62,500		63,600	LF	DURABLE 6 INCH YELLOW LINE, POLYUREA		646.434	-		
													2,000		2,000	LF	DURABLE 12 INCH WHITE LINE, POLYUREA		646.464	-		
													25		25	LF	DURABLE 24 INCH STOP BAR, POLYUREA		646.484	-		
													14		14	EA	DURABLE LETTER OR SYMBOL, POLYUREA		646.494	-		
						5,150	5,250						158,000		168,400	LF	TEMPORARY 6 INCH WHITE LINE		646.620	-		
						5,150	5,250						128,000		138,400	LF	TEMPORARY 6 INCH YELLOW LINE		646.630	-		
													4,250		4,250	LF	TEMPORARY 12 INCH WHITE LINE		646.660	-		
													50		50	LF	TEMPORARY 24 INCH STOP BAR		646.680	-		
													28		28	EA	TEMPORARY LETTER OR SYMBOL		646.690	-		
						90	90						3,500		3,680	EA	LINE STRIPING TARGETS		646.76	EST.		
						1,320	780								2,100	SF	PAVEMENT MARKING MASK		646.86	EST.		
								1					1		2	LU	PRICE ADJUSTMENT, FUEL (N.A.B.I.)		690.50	-		
								1							1	LU	SPECIAL PROVISION (INCENTIVE/DISINCENTIVE) (N.A.B.I.)		900.650	-		
						0.5	0.5								1	LU	SPECIAL PROVISION (MAT DENSITY PAY ADJUSTMENT, BRIDGE DECK RESURFACING) (N.A.B.I.)		900.650	-		
						0.5	0.5								1	LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT, BRIDGE DECK RESURFACING) (N.A.B.I.)		900.650	-		
						530	330								860	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, BRIDGE DECK RESURFACING)		900.680	-		
													15		15	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE 1)		900.680	EST.		
																	END ITEMS COMMON TO ALL ALTERNATES					
																	BEGIN ALTERNATE A					
													18,500		18,500	SY	COLD PLANING, BITUMINOUS PAVEMENT		210.10	-		
													65		65	CWT	EMULSIFIED ASPHALT		404.65	-		
													71,500		71,500	SF	REMOVAL OF EXISTING PAVEMENT MARKINGS		646.85	-		
													1		1	LU	SPECIAL PROVISION (MIXTURE PAY ADJUSTMENT) (N.A.B.I.)		900.650	-		
													354,000		354,000	SY	SPECIAL PROVISION (PAVER PLACED SURFACE TREATMENT, TYPE C)		900.675	-		
													1,000		1,000	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY)		900.680	EST.		
																	END ALTERNATE A BEGIN ALTERNATE B					
													354,000		354,000	SY	COLD PLANING, BITUMINOUS PAVEMENT		210.10	-		
													365		365	CWT	EMULSIFIED ASPHALT		404.65	-		
													31,500		31,500	TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT		490.30	-		
													1		1	LU	AIR VOIDS PAY ADJUSTMENT (N.A.B.I.)		490.31	-		
													1		1	LU	MAT DENSITY PAY ADJUSTMENT (N.A.B.I.)		490.32	-		
																	END ALTERNATE B					
																	PROJECT NAME: BERLIN - WATERBURY				MONTPELIER	
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																	PROJECT LEADER: MIKE FOWLER				DRAWN BY: WILDER	
																	DESIGNED BY: WILDER				CHECKED BY: PAVT MGMT	
																	IPARM FILE NAME: p09a382_04.i				SHEET 4 OF 63	

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STATE OF VERMONT
AGENCY OF TRANSPORTATION

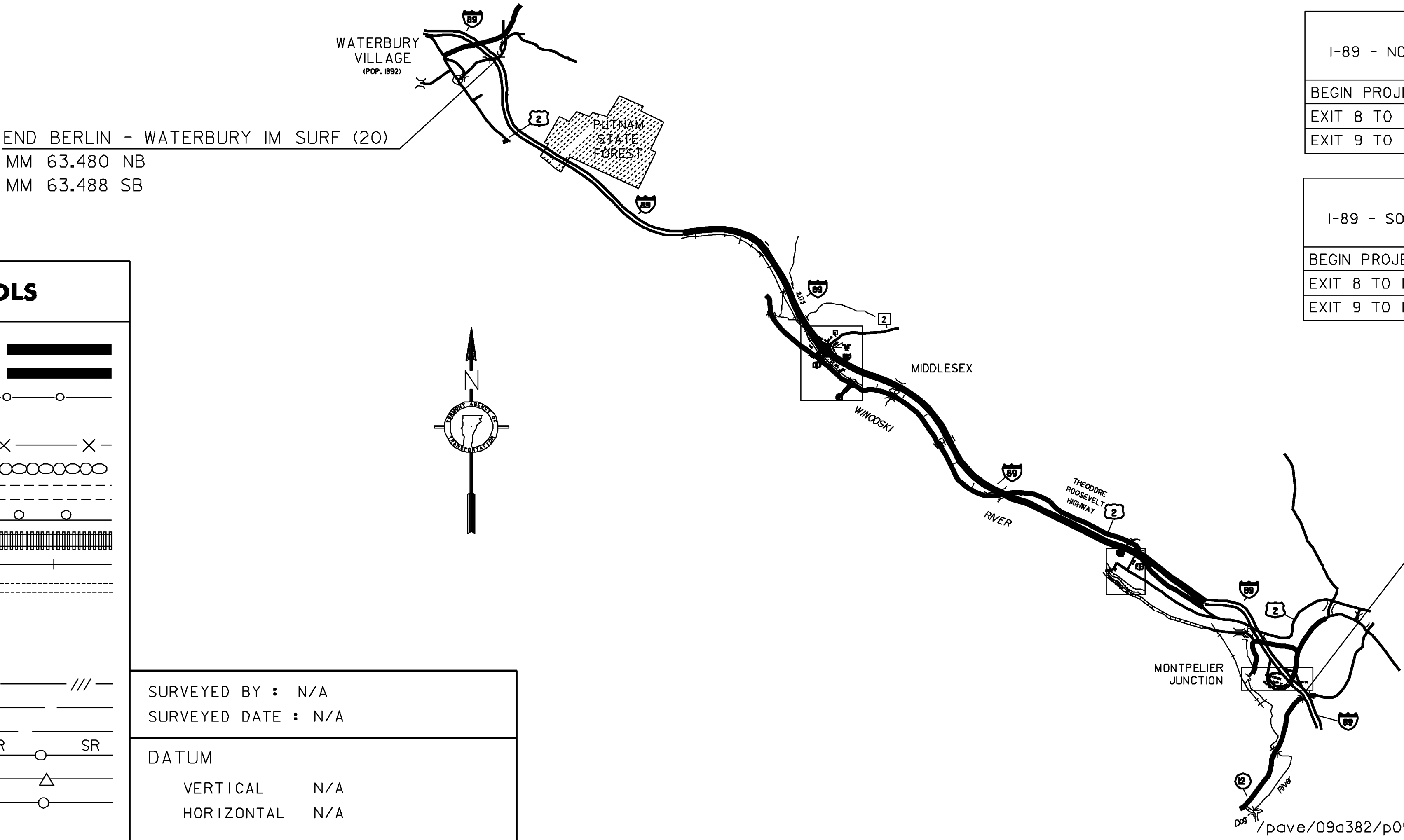
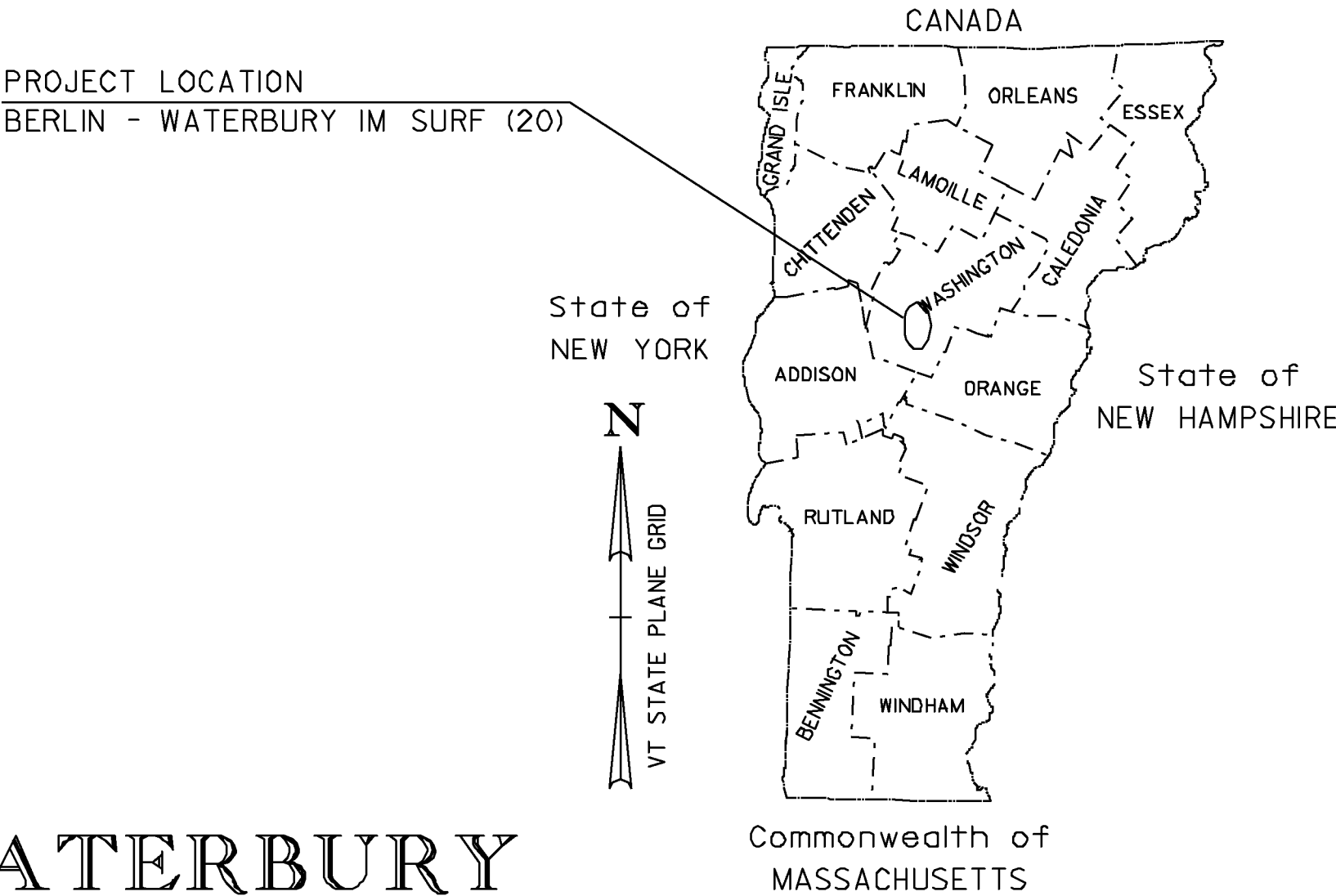


PROPOSED IMPROVEMENT
TOWNS OF BERLIN, MONTPELIER, MIDDLESEX AND WATERBURY
COUNTY OF WASHINGTON
INTERSTATE ROUTE 89 (NB & SB)

BEGINNING IN THE TOWN OF BERLIN AT MILE MARKER 52.600 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 89 (NORTHBOUND) FOR A DISTANCE OF 57,446.40 FT (10.880 MILES) TO MILE MARKER 63.480 IN THE TOWN OF WATERBURY, ALSO BEGINNING IN THE TOWN OF BERLIN AT MILE MARKER 52.620 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 89 (SOUTHBOUND) FOR A DISTANCE OF 57,383.04 FT (10.868 MILES) TO MILE MARKER 63.488 IN THE TOWN OF WATERBURY

LENGTH OF ROADWAY = 57,446.40 FT = (10.880 MILES) (NORTHBOUND LANE)
LENGTH OF PROJECT = 57,446.40 FT = (10.880 MILES) (NORTHBOUND LANE)
LENGTH OF ROADWAY = 57,383.04 FT = (10.868 MILES) (SOUTHBOUND LANE)
LENGTH OF PROJECT = 57,383.04 FT = (10.868 MILES) (SOUTHBOUND LANE)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SURFACE PREPARATION INVOLVING PATCHING, POTHOLE REPAIR, AND CRACK-SEALING; OVERLAYING WITH A PAVER PLACED SURFACE TREATMENT, OR COLD PLANE & PAVE ON THE EXISTING INTERSTATE TYPICAL, AND APPLICABLE PAVEMENT MARKINGS.



TRAFFIC DATA

I-89 - NORTHBOUND	2010 AADT	2020 AADT	2010 DHV	2020 DHV	FLEXIBLE ESALS (2010 - 2020)	FLEXIBLE ESALS (2010 - 2030)
BEGIN PROJECT TO EXIT 8	10,900	12,200	1,300	1,500	5,736,000	15,373,000
EXIT 8 TO EXIT 9	13,000	14,500	1,600	1,800	5,168,000	13,565,000
EXIT 9 TO END PROJECT	12,500	14,400	1,500	1,700	6,545,000	17,437,000

I-89 - SOUTHBOUND	2010 AADT	2020 AADT	2010 DHV	2020 DHV	FLEXIBLE ESALS (2010 - 2020)	FLEXIBLE ESALS (2010 - 2030)
BEGIN PROJECT TO EXIT 8	10,900	12,200	1,500	1,600	5,489,000	14,675,000
EXIT 8 TO EXIT 9	13,000	14,500	1,700	1,900	4,474,000	12,083,000
EXIT 9 TO END PROJECT	12,500	14,400	1,500	1,700	5,849,000	15,465,000

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.

BEGIN BERLIN - WATERBURY IM SURF (20)
MM 52.600 NB
MM 52.620 SB

CONVENTIONAL SYMBOLS

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

SURVEYED BY : N/A
SURVEYED DATE : N/A

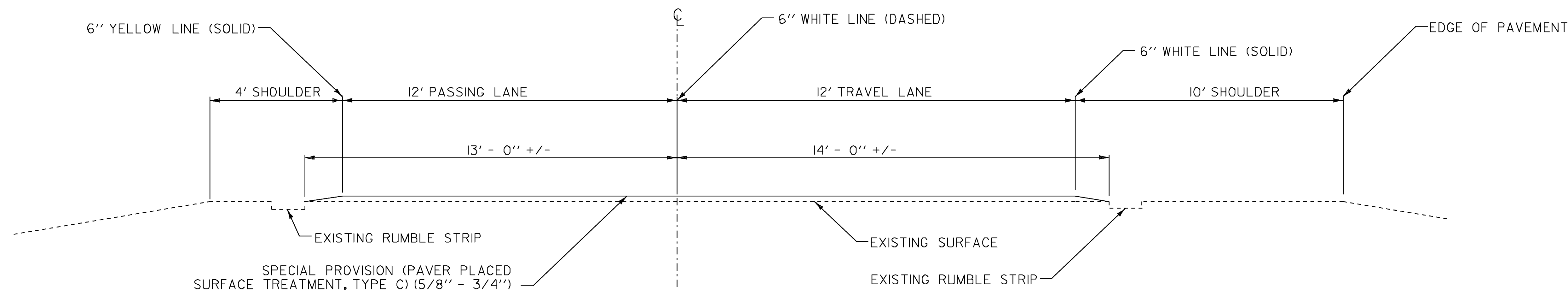
DATUM
VERTICAL N/A
HORIZONTAL N/A

PROJECT MANAGER : MIKE FOWLER

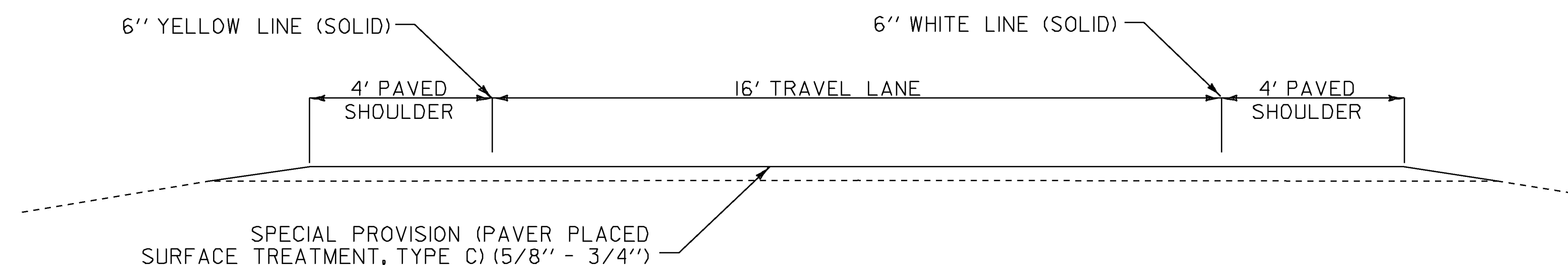
PROJECT NAME : BERLIN - WATERBURY
PROJECT NUMBER : IM SURF (20)

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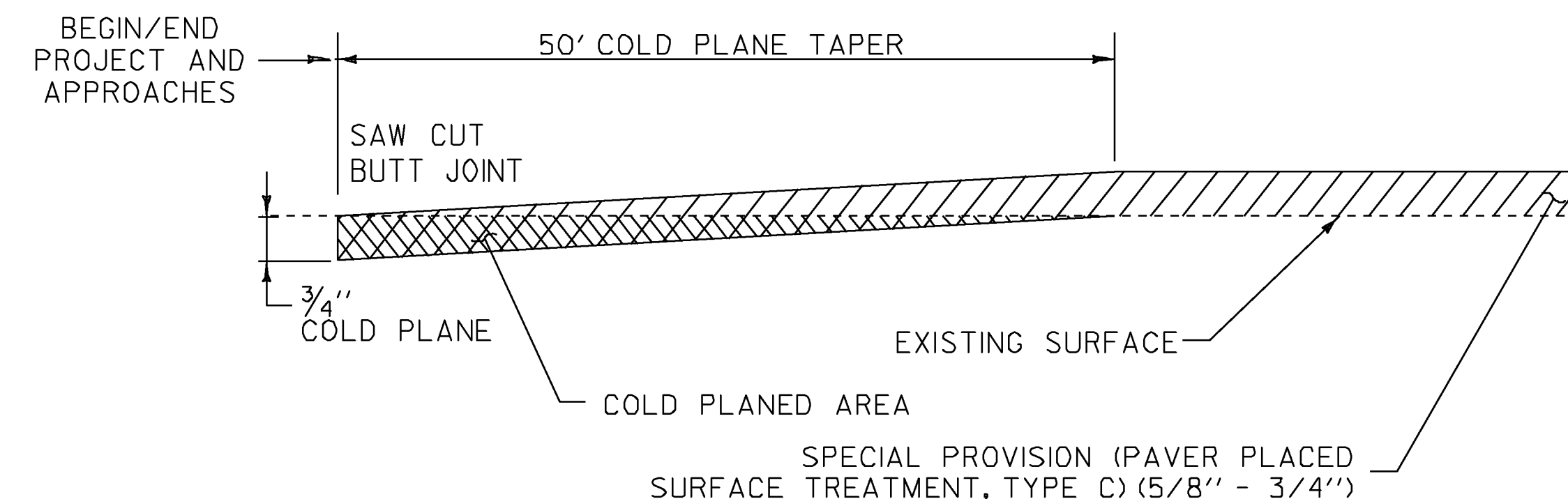
pave/09a382/p09a382.dgn p09a382.01.I



ROADWAY PROJECT TYPICAL SECTION – ALTERNATE A
MIRROR IMAGE FOR SOUTHBOUND LANE



TYPICAL RAMP SECTION
ALTERNATE A



TYPICAL APPROACH AREA DETAIL MAINLINE & RAMPS – ALTERNATE A

NOTES:

1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POTHOLE REPAIR, AND CRACK-SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF THE PAVER PLACED SURFACE TREATMENT. ALL CRACKS GREATER THAN 0.10" AND UP TO 1.0" IN WIDTH SHALL BE SEALED USING THE "BLOW AND GO" FILL METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID FOR UNDER ITEM 417.20, BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD. THE PATCHING OF ALL CRACKS GREATER THAN 1.0" AND ALL OTHER PATCHING AND POT-HOLE REPAIR SHALL BE COMPLETED USING BITUMINOUS CONCRETE PAVEMENT IN ACCORDANCE WITH ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I). AN ESTIMATED QUANTITY FOR THIS ITEM HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK.

2. EXISTING SHOULDER PAVEMENT SURFACES BEYOND THE LIMITS OF THE PAVER PLACED SURFACE TREATMENT SHALL ALSO RECEIVE CRACK-SEALING AND RELATED PATCHING AND POTHOLE REPAIR TREATMENTS.

3. FOLLOWING COMPLETION OF COLD PLANING, THE MILLED SURFACE FOR ALL BRIDGES SHALL ALSO RECEIVE CRACK-SEALING AND RELATED PATCHING AND POTHOLE REPAIR TREATMENTS, AS DIRECTED BY THE RESIDENT ENGINEER.

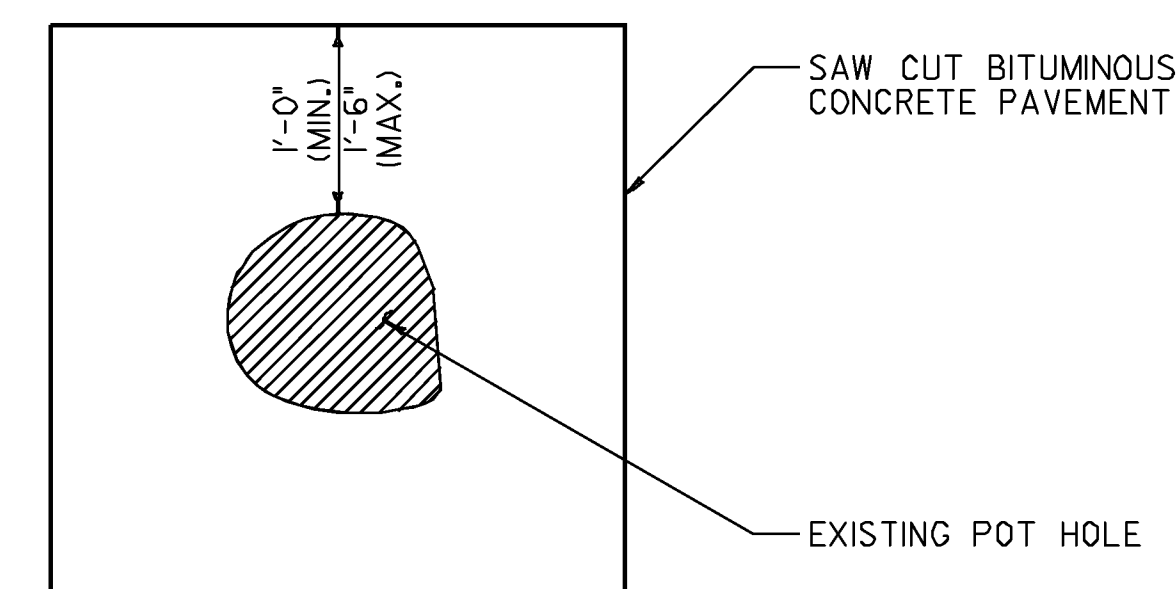
4. SOME SEGMENTS OF THE TRAVEL LANE WITHIN THE PROJECT LIMITS HAVE RUT/WEAR DEPTHS GREATER THAN 1". ESTIMATED QUANTITIES FOR ITEMS, 210.10 COLD PLANING, BITUMINOUS PAVEMENT 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, SMALL QUANTITY) AND 404.65 EMULSIFIED ASPHALT, HAVE BEEN INCLUDED FOR REPAIRING AREAS IDENTIFIED BY THE RESIDENT ENGINEER. THESE AREAS SHALL BE COLD PLANED TO A DEPTH OF 1" AND REPAVED WITH A LEVELING COURSE OF BITUMINOUS CONCRETE PAVEMENT TYPE IVS. FOR MIX DESIGN PURPOSES AND DETERMINING ALLOWABLE MIX TYPE SUBSTITUTIONS, DESIGN ESALS OF 9,000,000 SHALL BE USED. EMULSIFIED ASPHALT FOR TACK COAT SHALL BE APPLIED TO THE COLD PLANED SURFACE AT A MINIMUM RATE OF 0.080 GAL/SY PRIOR TO PLACEMENT OF THE LEVELING COURSE.

5. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO APPLYING THE PAVER PLACED SURFACE TREATMENT. PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO ANY CRACK SEALING BEING PERFORMED. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION BY THE USE OF LINE STRIPING TARGETS OR TEMPORARY PAINT.

6. A 50' COLD PLANED WEDGE SHALL BE CONSTRUCTED AT THE PROJECT BEGIN, PROJECT END, RAMPS, AND AT ALL BRIDGE APPROACHES; 25' COLD PLANED WEDGE AT U-TURNS, OR AS DIRECTED BY THE RESIDENT ENGINEER. THE LONGITUDINAL EDGES OF THE SURFACE TREATMENT SHALL BE FEATHERED AS SHOWN ON THE TYPICAL SECTION, OR AS DIRECTED BY THE RESIDENT ENGINEER. ANY SAWCUTTING AT BUTT JOINTS SHALL BE PAID INCIDENTAL TO ITEM 210.10, COLD PLANING, BITUMINOUS PAVEMENT.

7. IF IT IS DETERMINED IN AREAS ALONG THE BASE OF THE GUARDRAIL THAT WINTER SAND AND OTHER DEBRIS HAS ACCUMULATED SUFFICIENTLY TO AFFECT PROPER CRACK-SEALING AND RELATED PATCHING AND POTHOLE REPAIR TREATMENTS, THIS MATERIAL SHALL BE REMOVED PRIOR TO CRACK-SEALING, PATCHING, AND POTHOLE REPAIR AS DIRECTED BY THE RESIDENT ENGINEER. AN ESTIMATED QUANTITY FOR ITEM 203.40 SHOULDER BERM REMOVAL HAS BEEN INCLUDED TO COVER THE COSTS ASSOCIATED WITH THIS WORK.

8. THERE ARE WEIGH IN MOTION SENSORS IN THE PAVEMENT AT M.M. 57.200 NORTHBOUND AND SOUTHBOUND THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES. INSTALLATION OF NEW SENSORS WILL BE PERFORMED BY OTHERS FOLLOWING COMPLETION OF THE PROJECT.

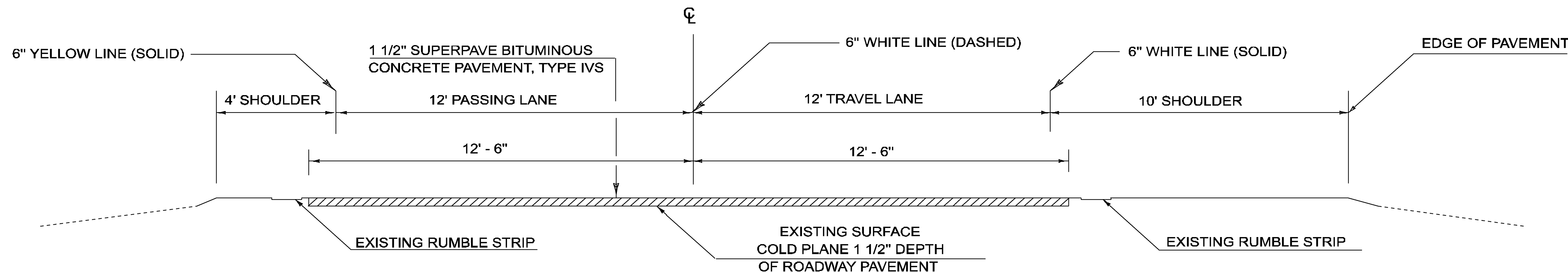


TYPICAL POT HOLE REPAIR
NOT TO SCALE

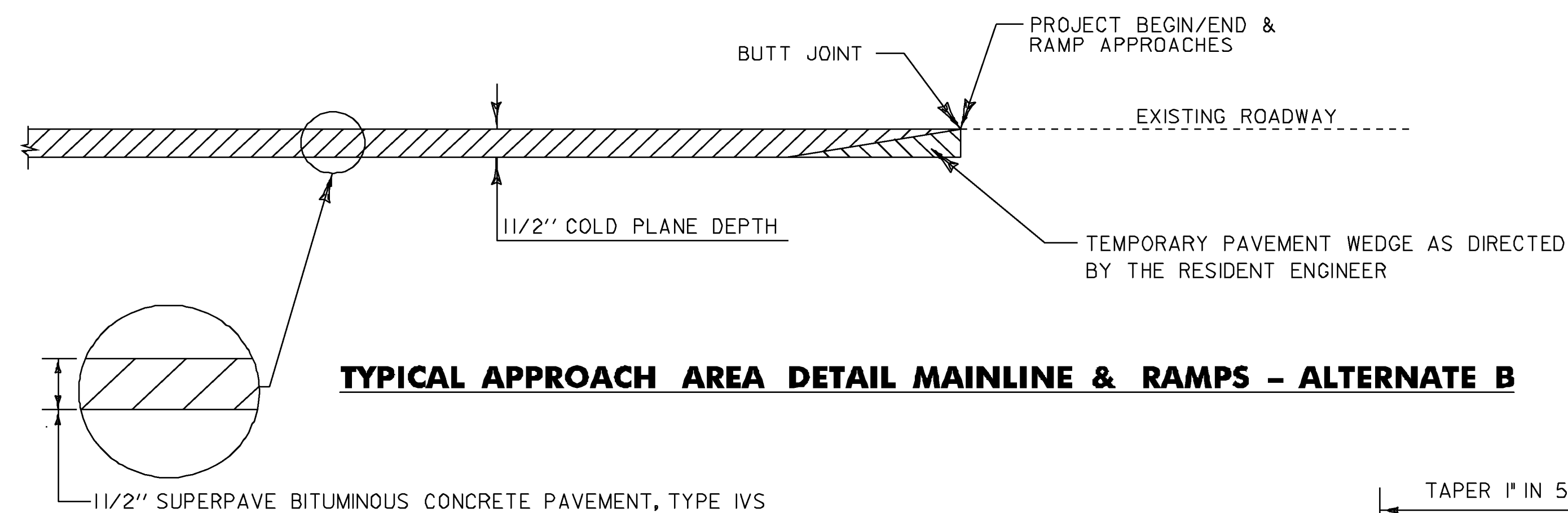
NOT TO SCALE

ALTERNATE A
TYPICAL
SECTION

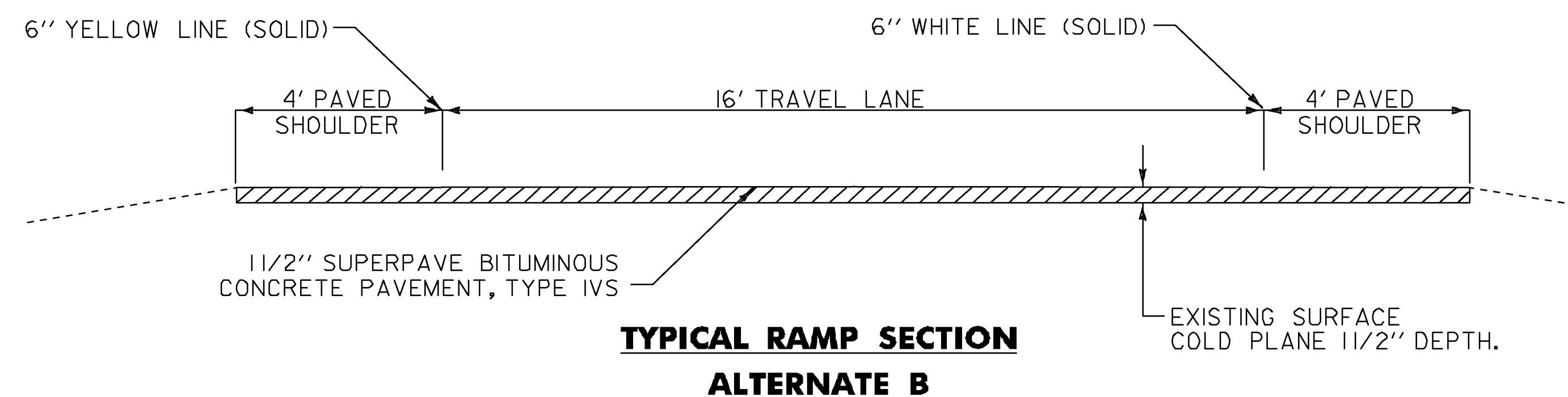
PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 21-MAY-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: HUNT
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_06.1	SHEET 6 OF 63



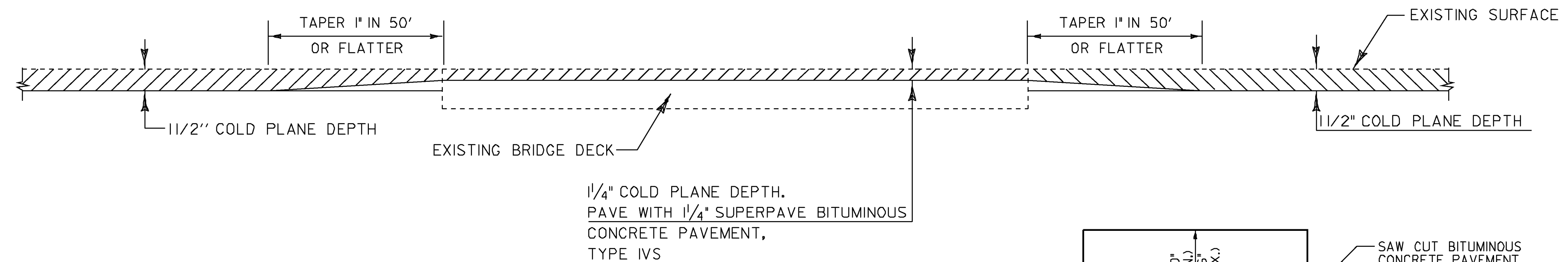
ROADWAY PROJECT TYPICAL SECTION - ALTERNATE B
MIRROR IMAGE FOR SOUTHBOUND LANE



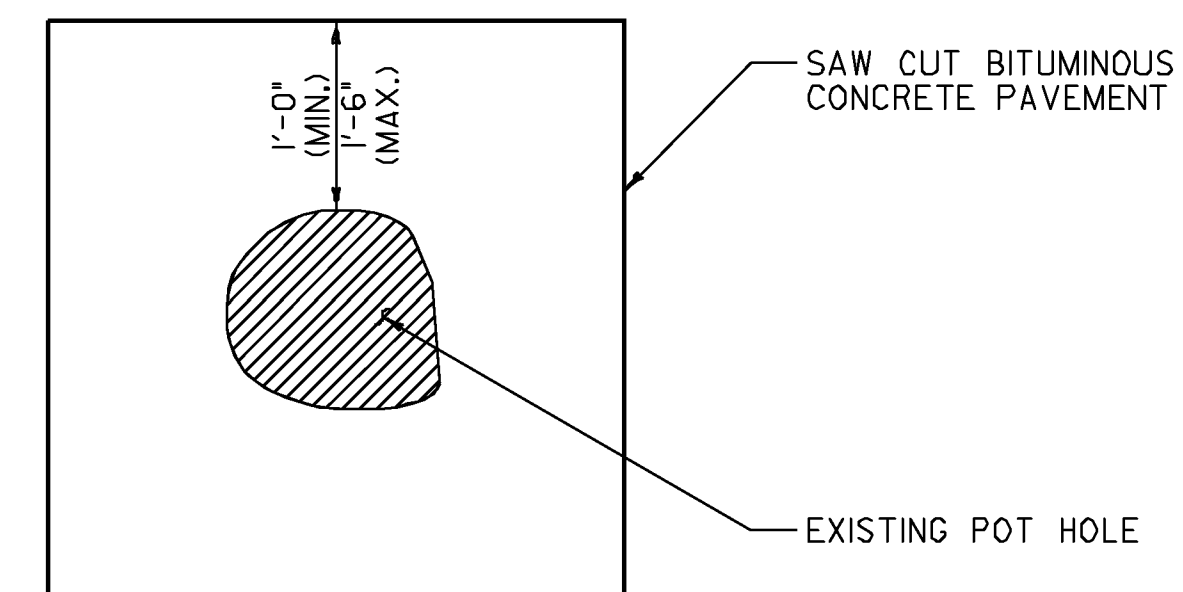
TYPICAL APPROACH AREA DETAIL MAINLINE & RAMPS - ALTERNATE B



TYPICAL RAMP SECTION
ALTERNATE B



BRIDGE COLD PLANE DETAIL - ALTERNATE B
 SEE SHEET 8 & 9 FOR LOCATIONS



TYPICAL POT HOLE REPAIR
 NOT TO SCALE

NOTES

1. THE PAVEMENT WEARING COURSE SHALL BE 80 GYRATION TYPE IVS ON THE ROADWAY AND BRIDGE SURFACES, ITEM 490.30 AS SHOWN ON THE TYPICAL. FOR PG BINDER GRADE SEE SECTION 490 OF THE GENERAL SPECIAL PROVISIONS.
2. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE = +/- 1/4" (TOTAL PAVEMENT THICKNESS)
3. EMULSIFIED ASPHALT SHALL BE APPLIED ON ALL COLD PLANED SURFACES AND BETWEEN ALL COURSES OF PAVEMENT AT A RATE OF 0.040 GAL/SY OR AS DIRECTED BY THE ENGINEER.
4. IN AREAS OF RUTTING THE COLD PLANE DEPTH SHOULD BE MEASURED FROM THE HIGH POINTS OF THE ROADWAY SECTION.
5. COLD PLANING TO BE COMPLETED ACCORDING TO THE TYPICAL OR AS OTHERWISE NOTED ON THE PLANS. A FULL DEPTH BUTT JOINT SHALL BE CONSTRUCTED AT THE PROJECT BEGIN/END AND AT ALL RAMP APPROACHES AS NOTED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. ALL BUTT JOINTS SHALL BE SAW CUT INCIDENTAL TO ITEM 210.10.
6. THE CONTRACTOR SHALL USE CAUTION WHEN COLD PLANING AND PAVING OPERATIONS OCCUR ADJACENT TO EXISTING DROP INLETS OR CATCH BASINS. ANY DAMAGE WHICH OCCURS TO THESE DRAINAGE STRUCTURES OR BRIDGE MEMBRANES AS A RESULT OF THESE OPERATIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE STATE OF VERMONT.
7. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POTHOLE REPAIR, AND CRACK SEALING SHALL BE PERFORMED PRIOR TO PAVING. ALL CRACKS GREATER THAN 0.10" AND UP TO 1.0" IN WIDTH SHALL BE FILLED USING THE "BLOW AND GO" METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID UNDER ITEM 417.20 BITUMINOUS CRACK SEALING, "BLOW AND GO" METHOD. THE PATCHING OF ALL CRACKS GREATER THAN 1.0" AND ALL OTHER PATCHING AND POT-HOLE REPAIR SHALL BE COMPLETED USING BITUMINOUS CONCRETE PAVEMENT IN ACCORDANCE WITH ITEM 900.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I). AN ESTIMATED QUANTITY OF THIS ITEM HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK. ALL BRIDGE DECKS WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK-SEALING AND RELATED SURFACE PREPARATION PRIOR TO PAVING.
8. THERE ARE WEIGH IN MOTION SENSORS IN THE PAVEMENT AT M.M. 57.200 NORTHBOUND AND SOUTHBOUND THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES. INSTALLATION OF NEW SENSORS WILL BE PERFORMED BY OTHERS FOLLOWING COMPLETION OF THE PROJECT.

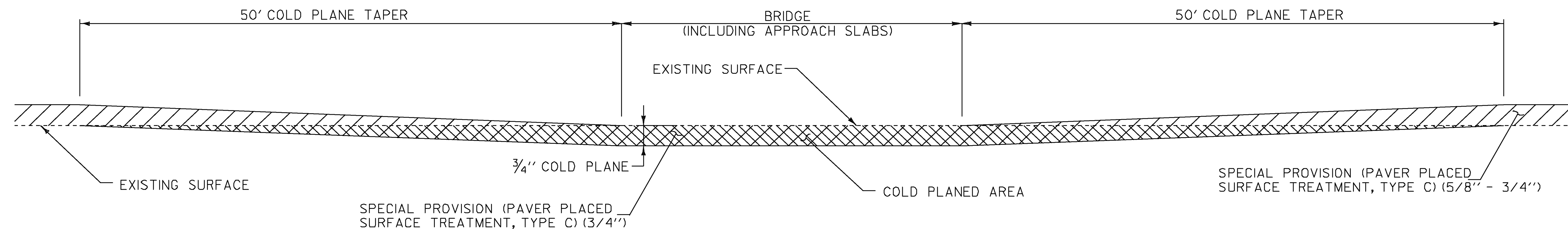
NOT TO SCALE

ALTERNATE B
TYPICAL
SECTION

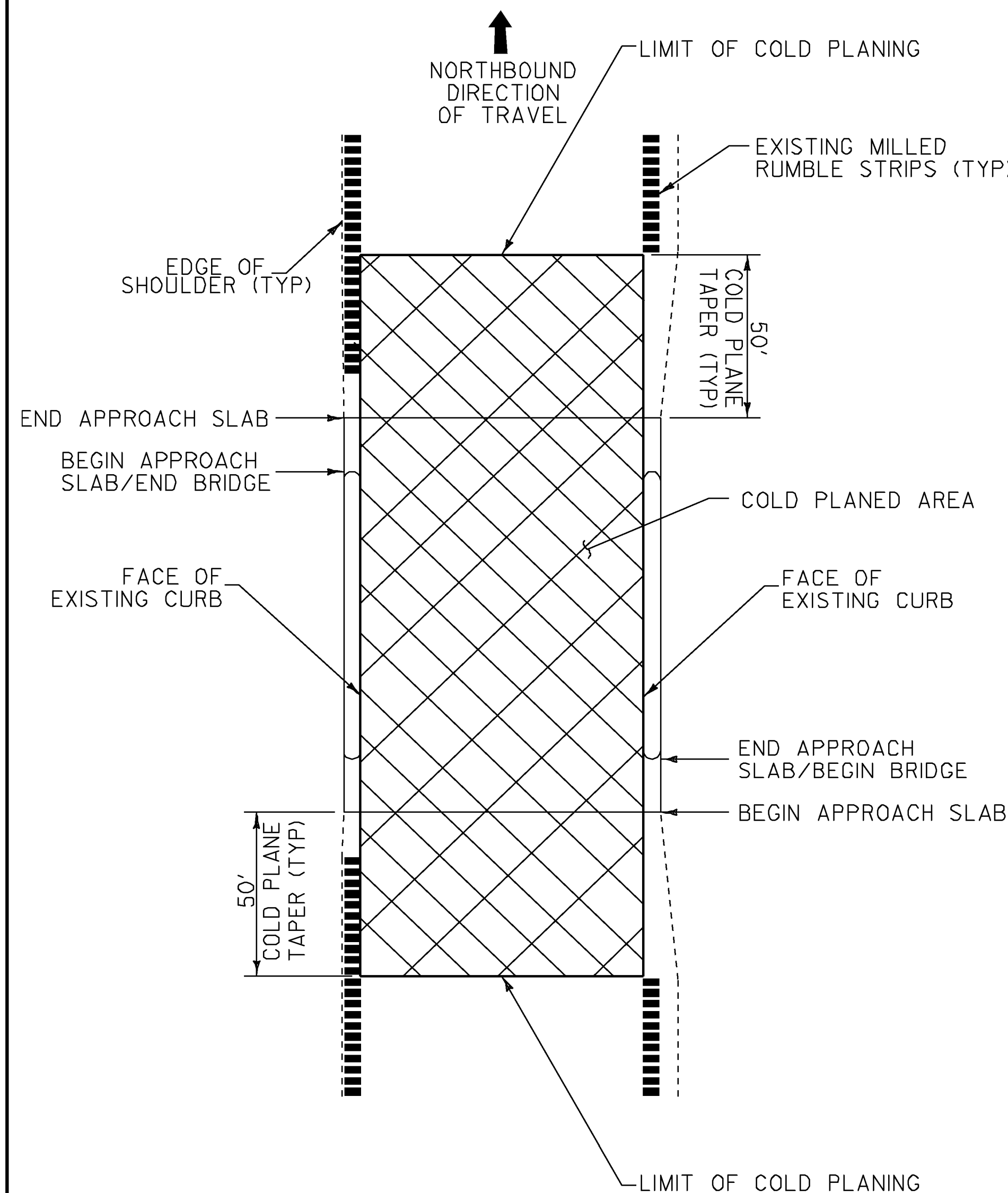
PROJECT NAME: BERLIN - WATERBURY
 PROJECT NUMBER: IM SURF (20)

FILE NAME: /pave/09a382/p09a382.dgn
 PROJECT LEADER: MIKE FOWLER
 DESIGNED BY: WILDER
 IPARM FILE NAME: p09a382_07.i

PLOT DATE: 21-MAY-2010
 DRAWN BY: HUNT
 CHECKED BY: PAVT MGMT
 SHEET 7 OF 63



BRIDGE COLD PLANE DETAIL - ALTERNATE A



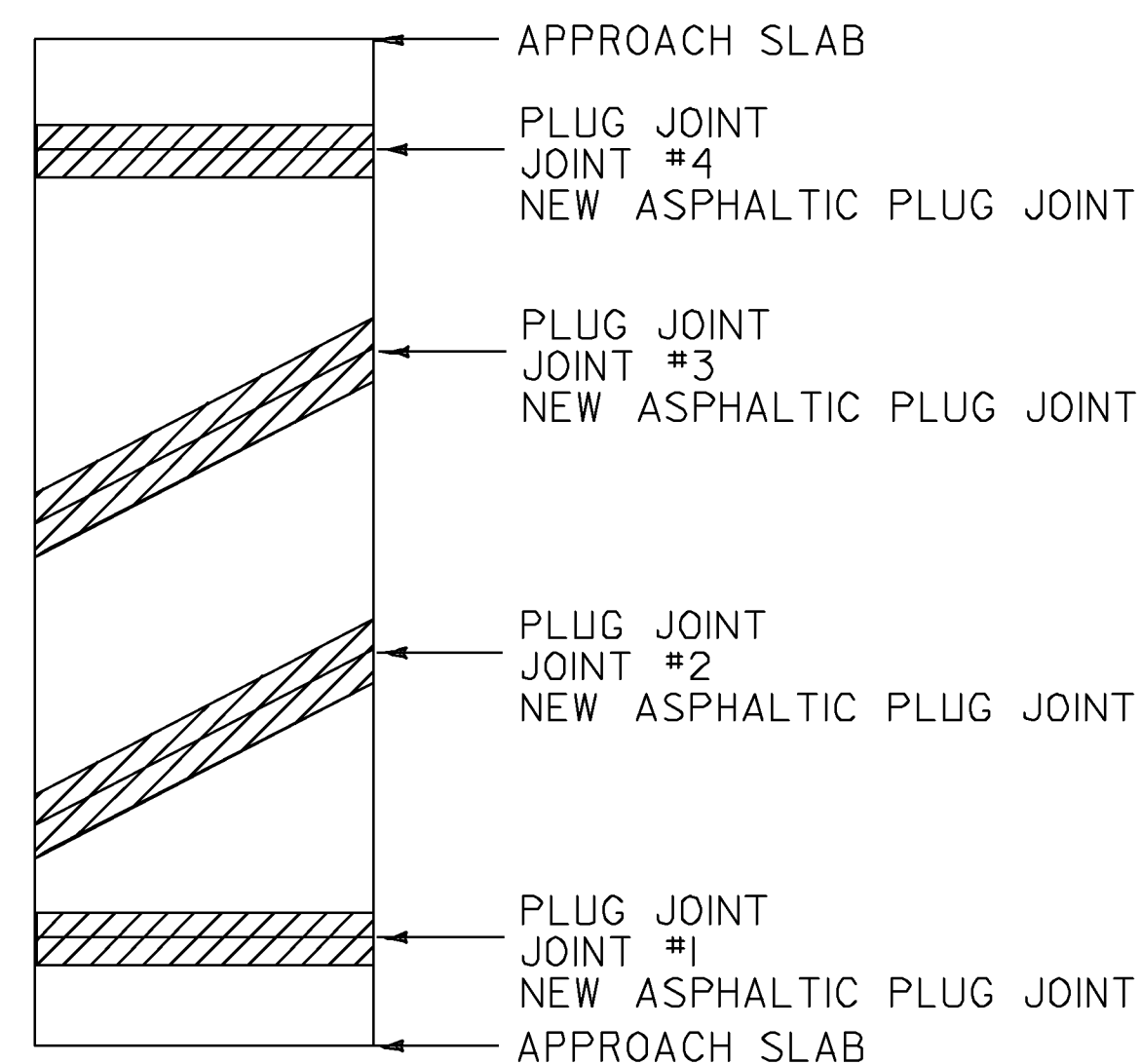
BRIDGE COLD PLANE TYPICAL PLAN

ALTERNATE A & B

NOTES:

1. REFER TO ASPHALTIC PLUG JOINT AND DETAILS ON SHEET 10. ALL NEW JOINTS TO BE PAID FOR UNDER ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
2. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A DAILY BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.

NORTHBOUND
DIRECTION OF TRAVEL



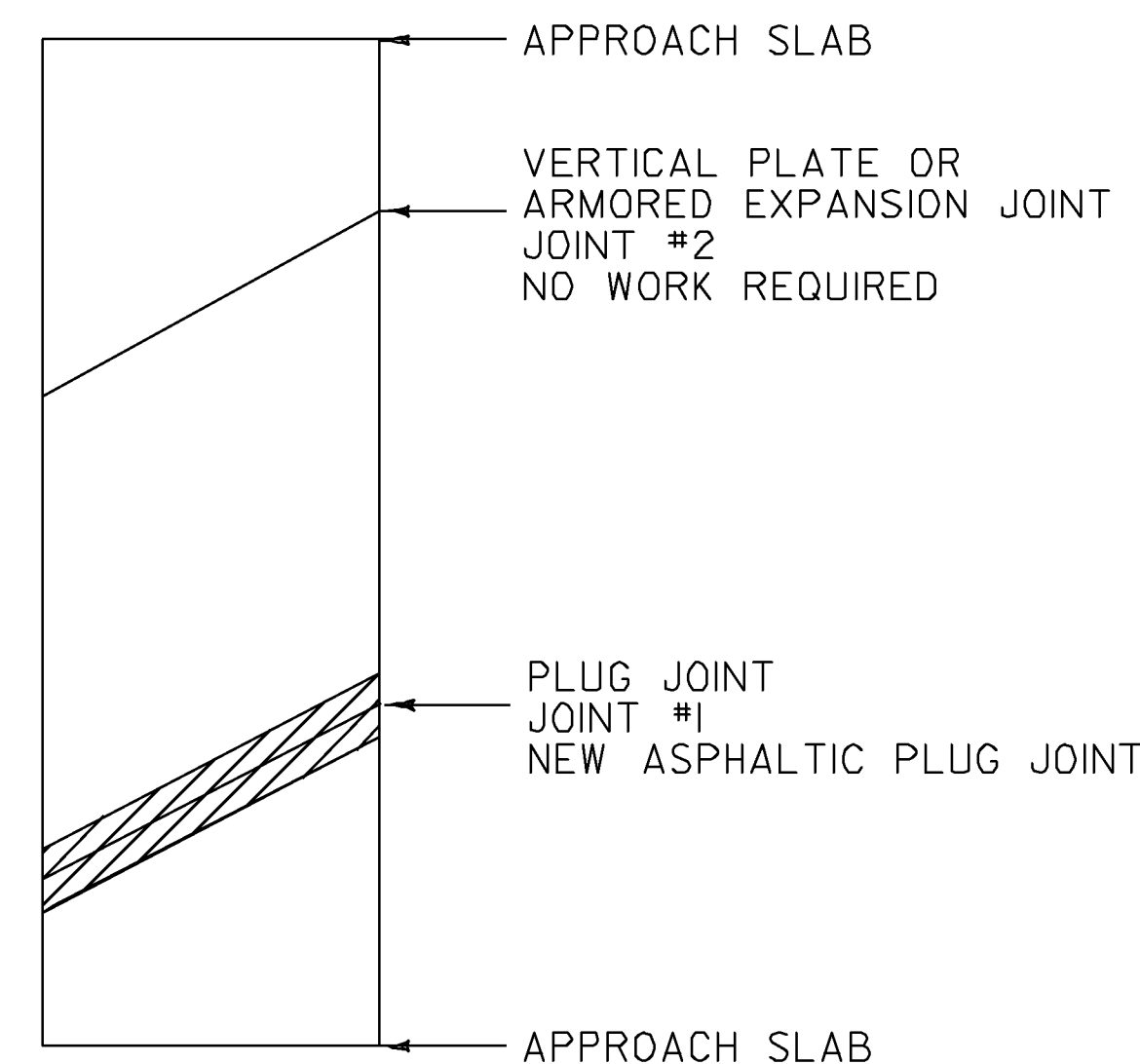
BRIDGE 41N

MM 52.945

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 30'
JOINT #2 - 40'
JOINT #3 - 40'
JOINT #4 - 30'

TOTAL = 140'

NORTHBOUND
DIRECTION OF TRAVEL



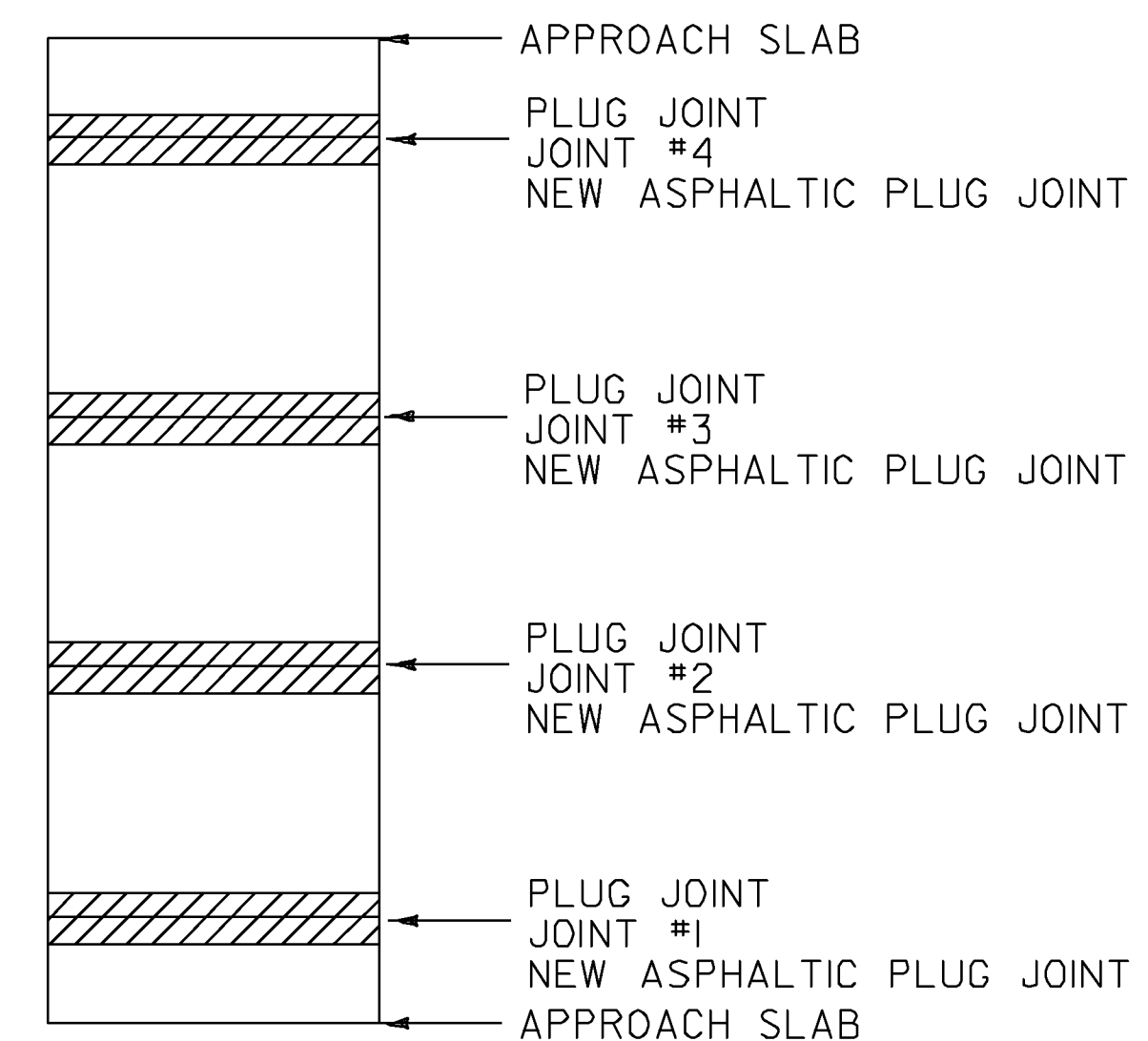
BRIDGE 43N

MM 54.809

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 40'

TOTAL = 40'

NORTHBOUND
DIRECTION OF TRAVEL



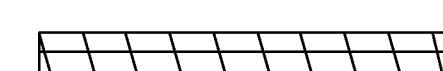
BRIDGE 45N

MM 58.721

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 40'
JOINT #2 - 40'
JOINT #3 - 40'
JOINT #4 - 40'

TOTAL = 160'

LEGEND



EXISTING BRIDGE JOINTS TO BE REPAIRED WITH ASPHALT PLUG JOINT

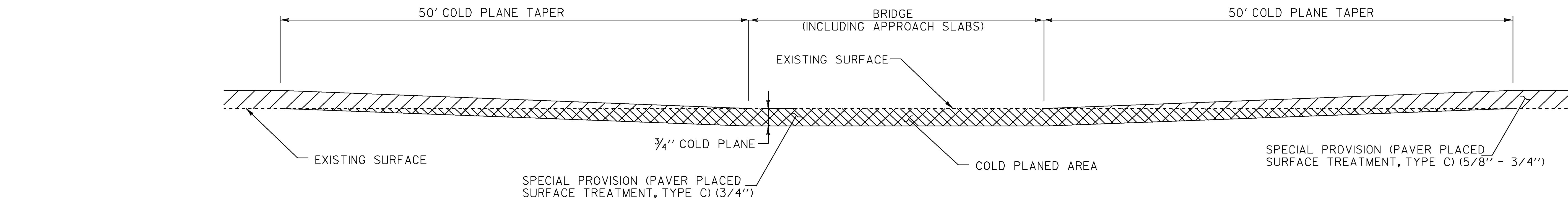
NOT TO SCALE

**BRIDGE
DETAIL SHEET
NORTHBOUND**

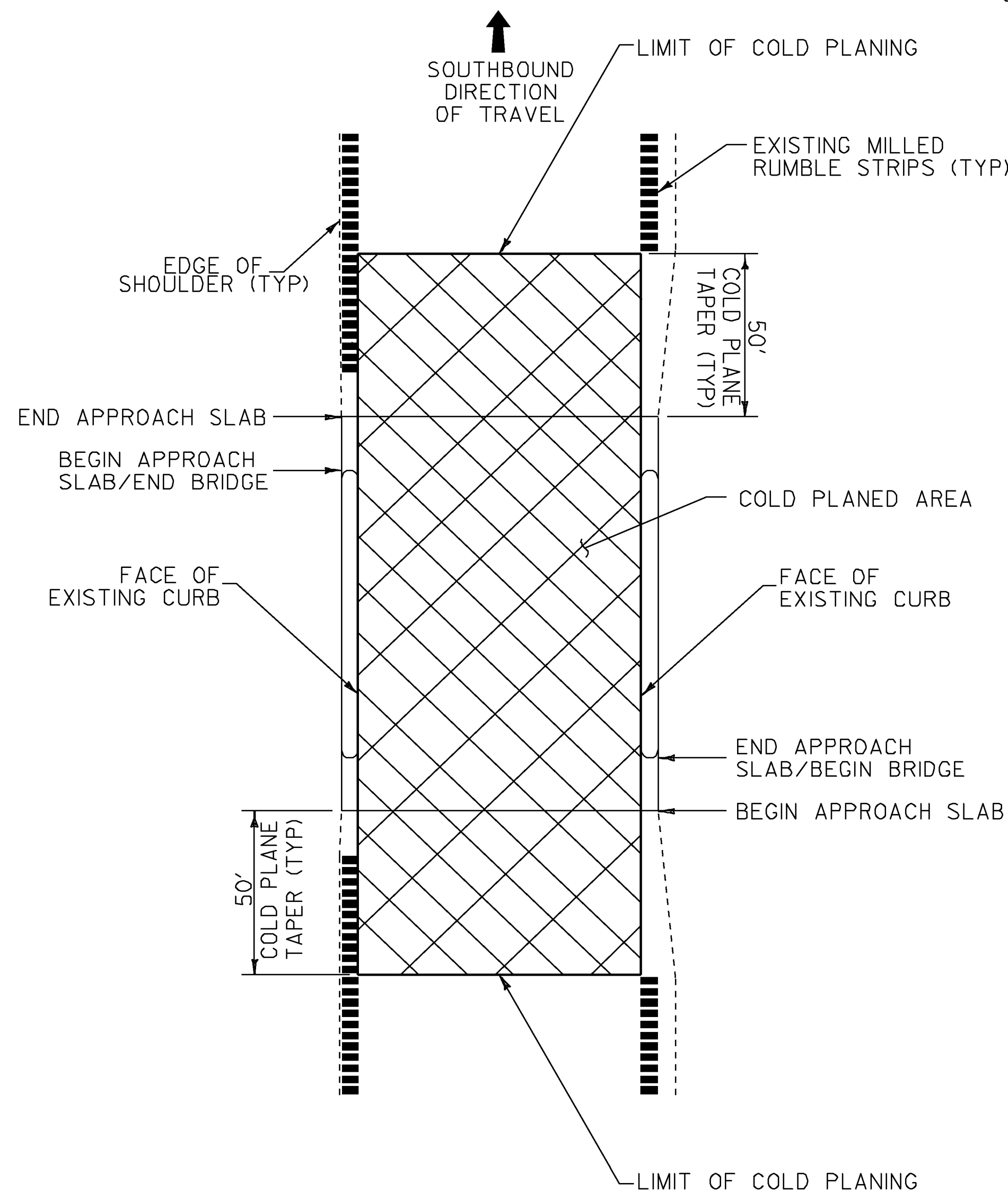
PROJECT NAME: BERLIN - WATERBURY
PROJECT NUMBER: IM SURF (20)

FILE NAME: /pave/09a382/p09a382.dgn
PROJECT LEADER: MIKE FOWLER
DESIGNED BY: WILDER
IPARM FILE NAME: p09a382.08.1

PLOT DATE: 21-MAY-2010
DRAWN BY: WILDER
CHECKED BY: PAVT MGMT
SHEET 8 OF 63

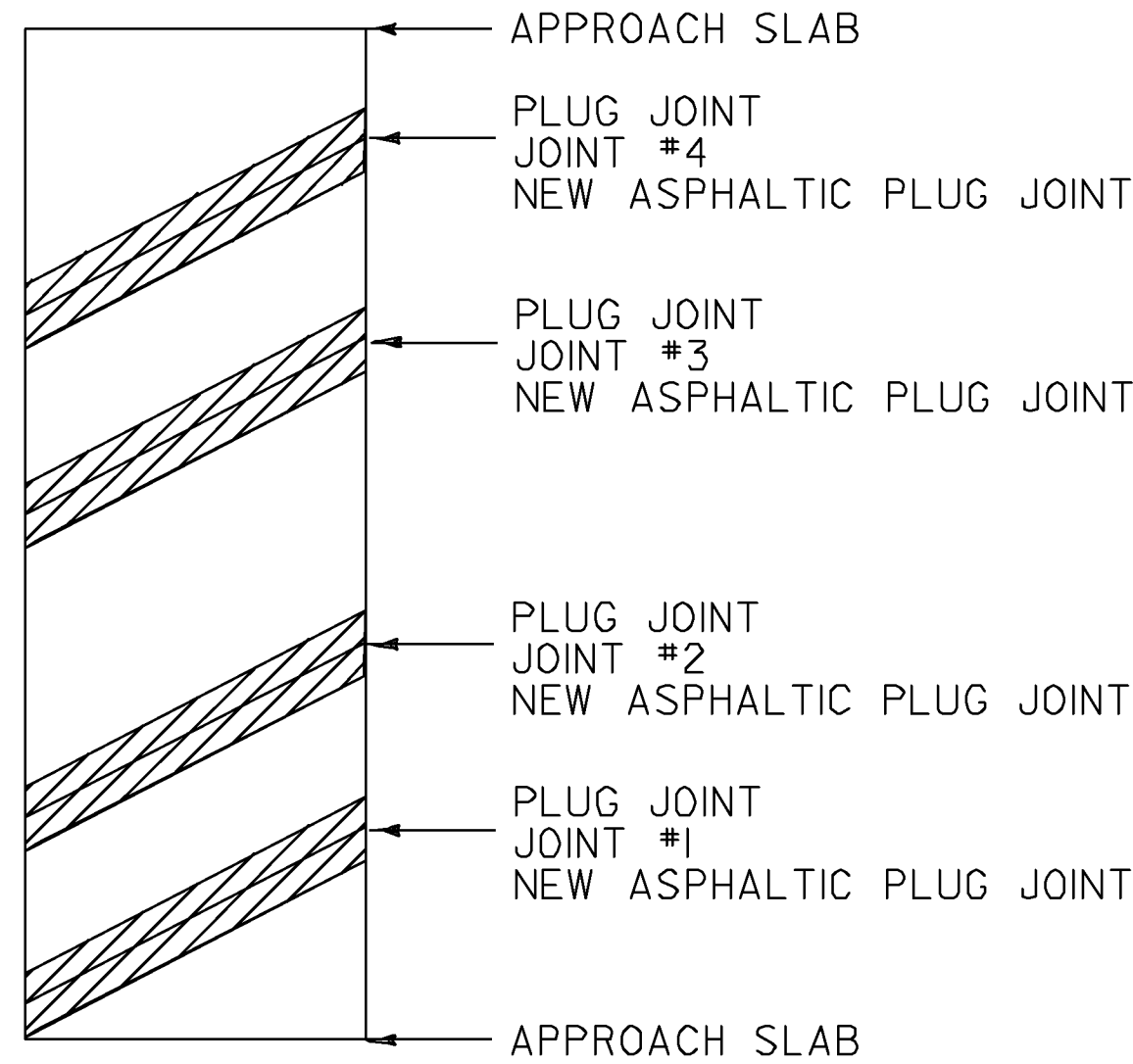


BRIDGE COLD PLANE COLD PLANE DETAIL - ALTERNATE A



**BRIDGE COLD PLANE TYPICAL PLAN
ALTERNATE A & B**

SOUTHBOUND
DIRECTION OF TRAVEL



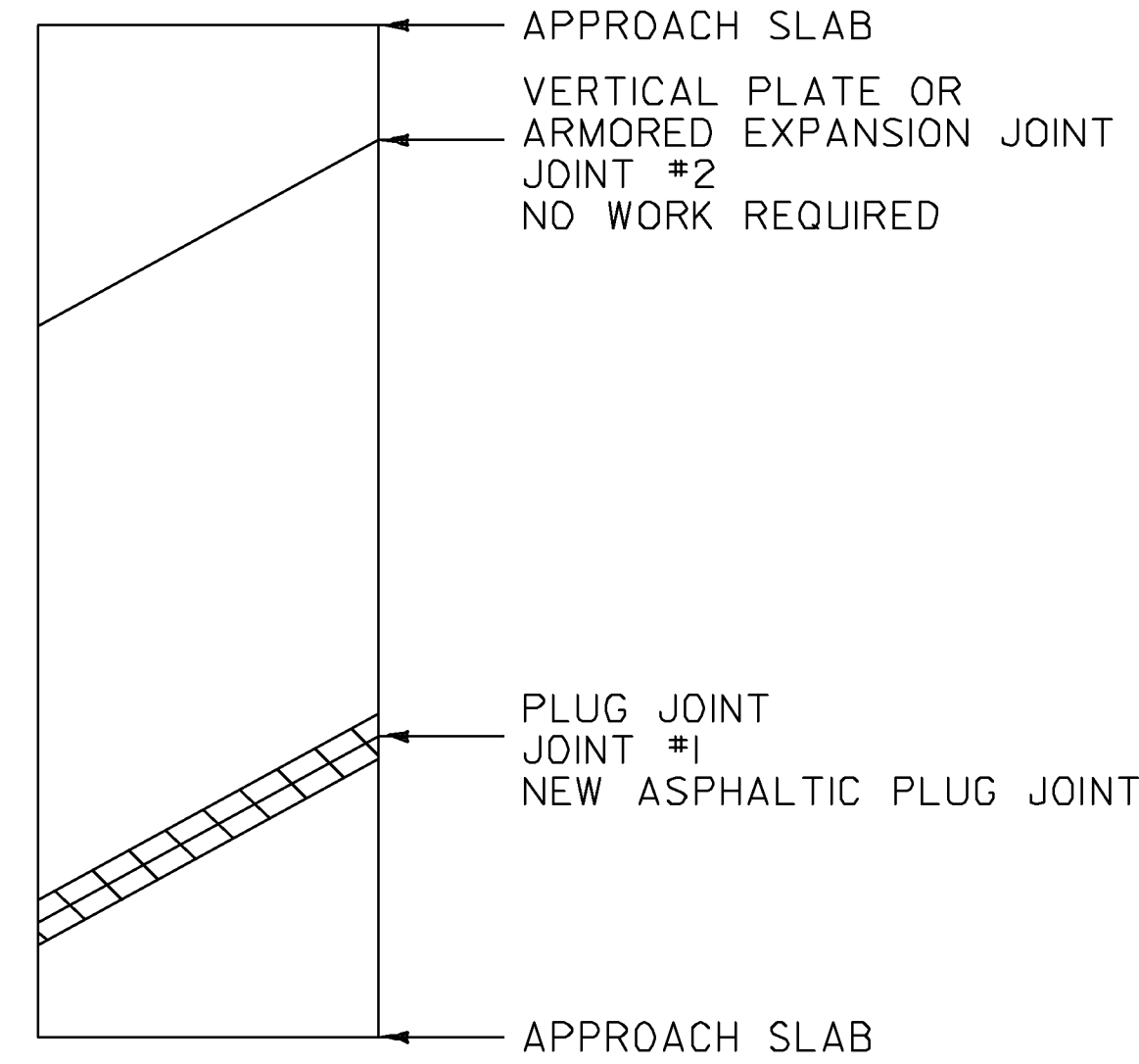
BRIDGE 41S

MM 52.945

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 50'
JOINT #2 - 50'
JOINT #3 - 50'
JOINT #4 - 50'

TOTAL = 200'

SOUTHBOUND
DIRECTION OF TRAVEL



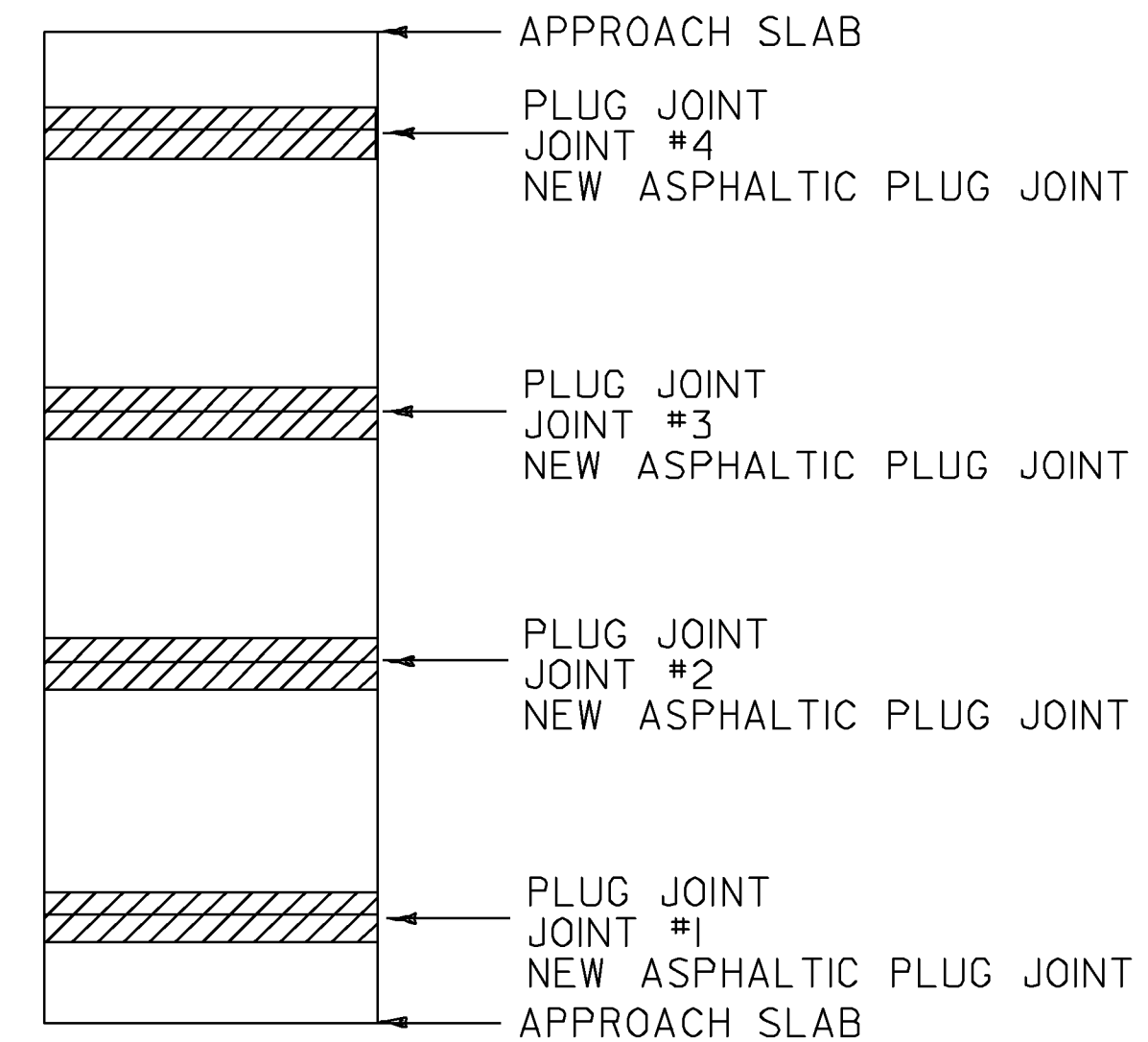
BRIDGE 43S

MM 54.820

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 = 40'

TOTAL = 40'

SOUTHBOUND
DIRECTION OF TRAVEL



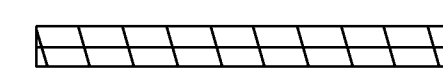
BRIDGE 45S

MM 58.710

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 40'
JOINT #2 - 40'
JOINT #3 - 40'
JOINT #4 - 40'

TOTAL = 160'

LEGEND



EXISTING BRIDGE JOINTS TO BE
REPAIRED WITH ASPHALT PLUG JOINT

NOTES:

1. REFER TO ASPHALTIC PLUG JOINT AND DETAILS ON SHEET 10. ALL NEW JOINTS TO BE PAID FOR UNDER ITEM 516.10, "BRIDGE EXPANSION JOINT, ASPHALTIC PLUG".
2. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
3. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID THE ACCUMULATION OF DEBRIS IN THE DRAINAGE STRUCTURES LOCATED AT CURB LINE AND IN THE EXPANSION JOINTS. THE CONTRACTOR SHALL EXAMINE THESE BRIDGE FEATURES ON A DAILY BASIS TO ENSURE THAT DEBRIS HAS NOT ACCUMULATED. ANY DEBRIS WHICH IS PRESENT SHALL BE REMOVED BY THE CONTRACTOR AT NO COST TO THE STATE.

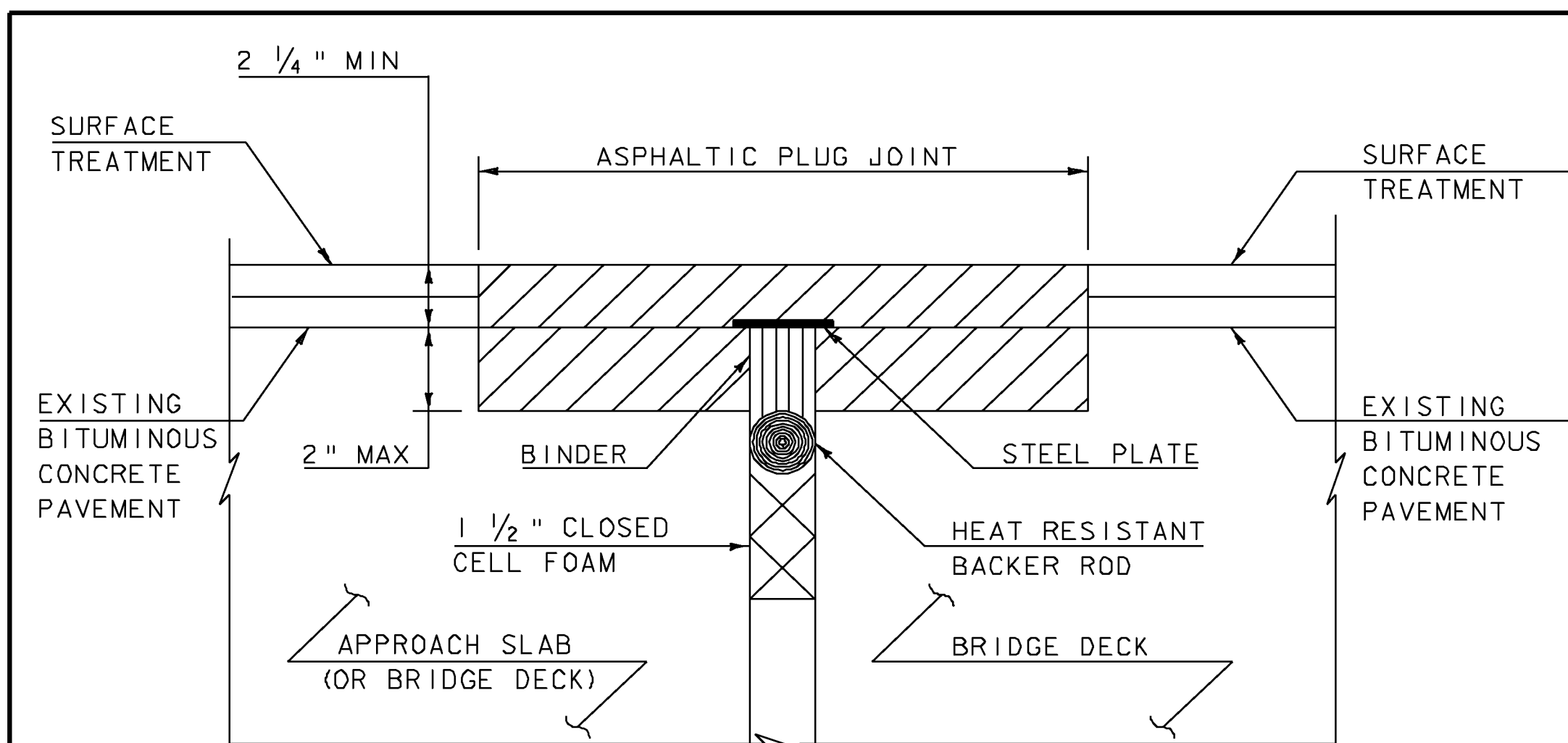
NOT TO SCALE

**BRIDGE
DETAIL SHEET
SOUTHBOUND**

PROJECT NAME: BERLIN - WATERBURY
PROJECT NUMBER: IM SURF (20)

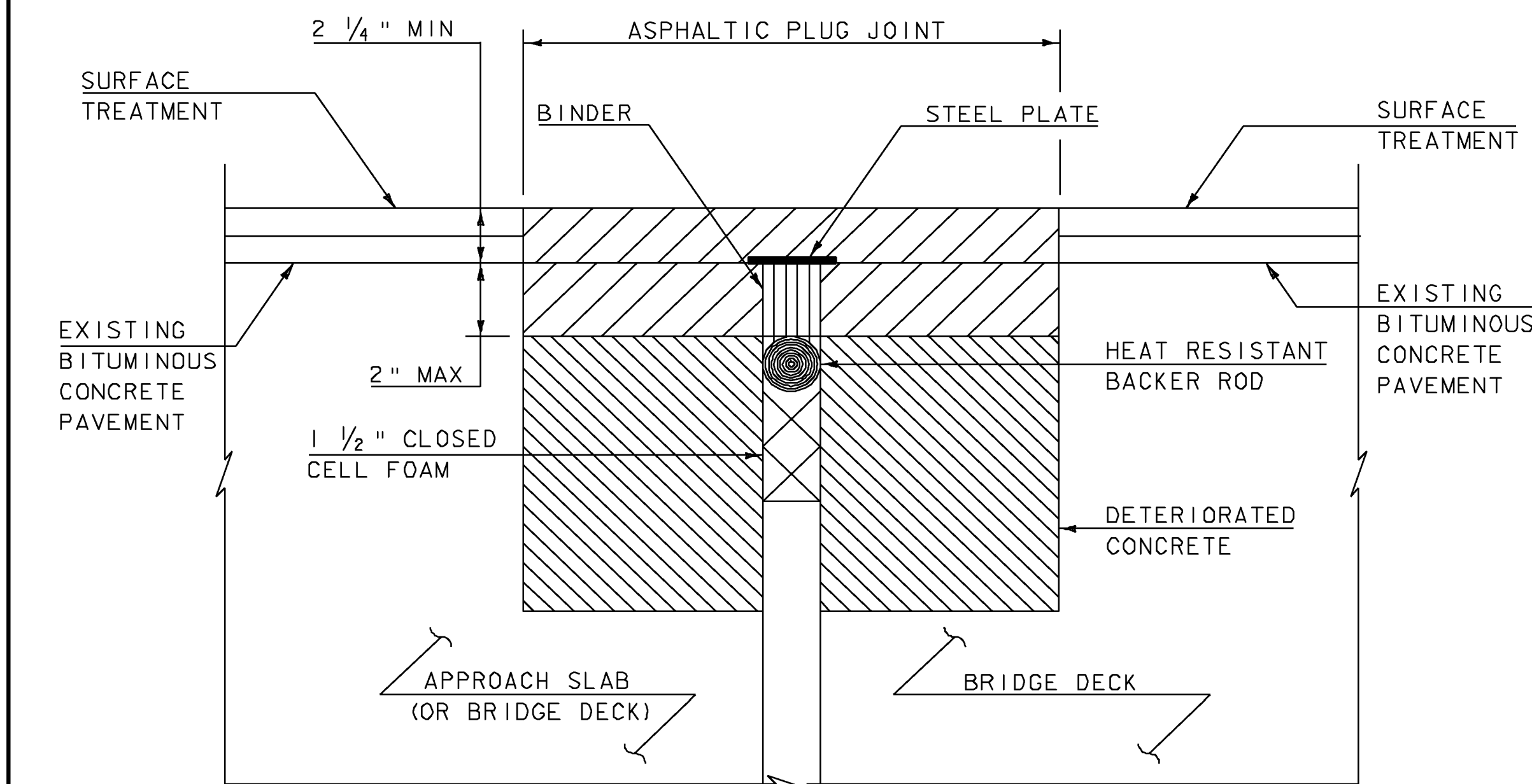
FILE NAME: /pave/09a382/p09a382.dgn
PROJECT LEADER: MIKE FOWLER
DESIGNED BY: WILDER
IPARM FILE NAME: p09a382_09.i

PLOT DATE: 21-MAY-2010
DRAWN BY: WILDER
CHECKED BY: PAVT MGMT
SHEET 9 OF 63



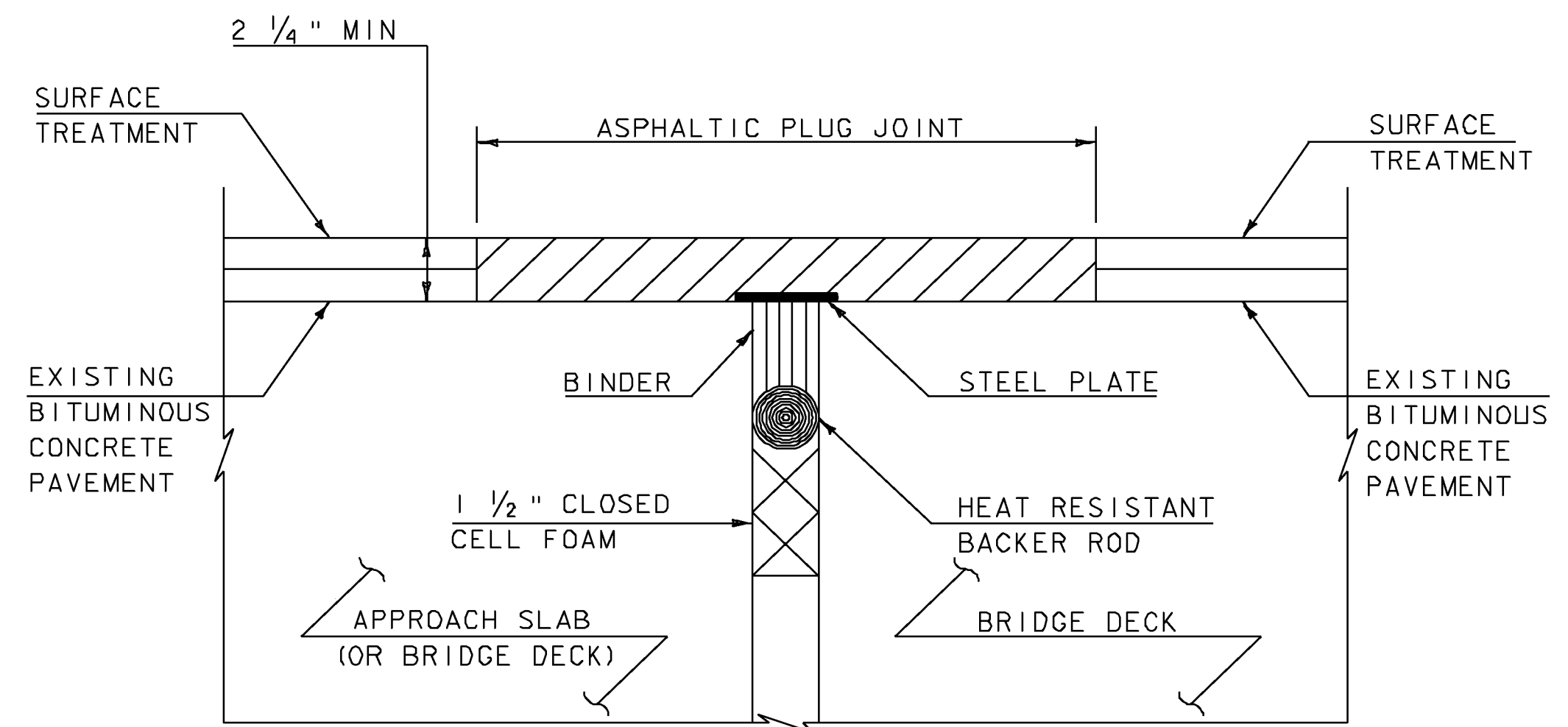
ASPHALTIC PLUG-TYPE JOINT DETAIL
REMOVAL OF < 2" DETERIORATED CONCRETE

- NOTES:
- 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.
 - REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10. THE ADDITIONAL PLUG JOINT MATERIAL BELOW THE DESIGN DEPTH TO REPLACE THE DETERIORATED CONCRETE WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR THE ITEM 516.10.



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

- NOTES:
- 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 FORMED TO EXISTING ELEVATION.
 - 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".
 - REINFORCING STEEL NOT SHOWN FOR CLARITY.



ASPHALTIC PLUG-TYPE
JOINT DETAIL
(NOT TO SCALE)

ASPHALTIC PLUG JOINT NOTES

- INSTALLATION
 - LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
 - REMOVE THE BITUMINOUS CONCRETE PAVEMENT FULL DEPTH AS SHOWN ON THE PLANS. THE PAVEMENT SHALL BE DRY AND SAW CUT TO THE LIMITS REQUIRED TO PLACE THE JOINT. A PNEUMATIC HAMMER AND CHISEL MAY BE USED ADJACENT TO THE CURB ONLY WHEN SAW CUTTING IS NOT POSSIBLE.
 - BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
 - REPAIR SPALLED AND DEFECTIVE CONCRETE WITH ITEM 580.20, RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
 - PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
 - HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
 - PLACE 1/4" THICK BY 8" WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE THE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER. THE STEEL PLATES MAY BE OMITTED WHERE THE ENGINEER DETERMINES THAT THE APPROACH SLAB OR BRIDGE DECK WILL PROVIDE INADEQUATE SUPPORT AND WHERE VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.
 - HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
 - INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
 - IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
 - ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAY BE USED TO EXPEDITE THE COOLING PROCESS.
 - PROTECTED JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.
2. WEATHER LIMITATIONS. (APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER):
- THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
 - THE ROAD SURFACE IS DRY.
 - WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.

NOT TO SCALE

ASPHALTIC
PLUG JOINT
DETAIL
SHEET

PROJECT NAME: BERLIN - WATERBURY
PROJECT NUMBER: IM SURF (20)

FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 21-MAY-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: HUNT	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_I0.I	SHEET 10 OF 63

QUANTITY SHEET 1

STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible][illegible][illegible]

QUANTITY SHEET 2

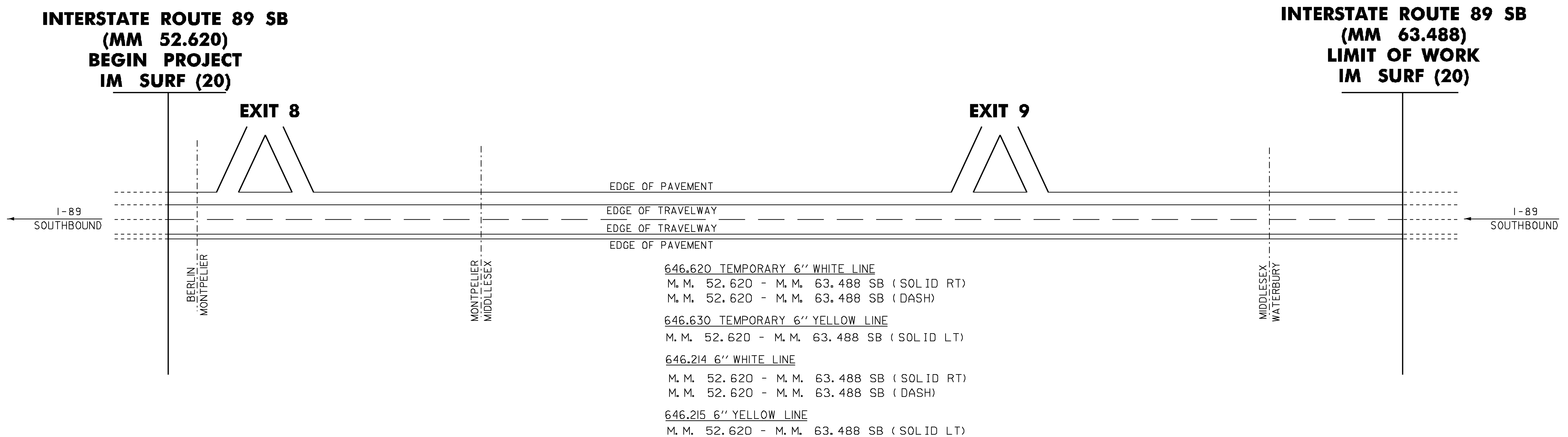
**STATE OF VERMONT
AGENCY OF TRANSPORTATION**

[illegible]

STATE OF VERMONT
AGENCY OF TRANSPORTATION

[illegible]

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 21-MAY-2010
PROJECT MANAGER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382..I3.1	SHEET 13 OF 63



MAINLINE PAVEMENT MARKINGS NB & SB LANES	PROJECT NAME: BERLIN - WATERBURY	
	PROJECT NUMBER: IM SURF (20)	
	FILE NAME: /pave/09a382/p09a382.dgn PROJECT MANAGER: MIKE FOWLER DESIGNED BY: WILDER IPARM FILE NAME: p09a382.l4.1	PLOT DATE: 21-MAY-2010 DRAWN BY: WILDER CHECKED BY: PAVT MGMT SHEET 14 OF 63

646.214 6 INCH WHITE LINE

RAMP 'C' SOLID RT (951')
RAMP 'D' SOLID RT (2640')
RAMP 'D' DASH (40')
RAMP 'D' DOTTED (127')

646.215 6 INCH YELLOW LINE

RAMP 'C' SOLID LT (2691')
RAMP 'D' SOLID LT (2585')

646.24 12 INCH WHITE LINE

RAMP 'C' GORE AREA (520')
RAMP 'D' GORE AREA (420')

646.424 DURABLE 6 INCH WHITE LINE, POLYUREA

RAMP 'A' SOLID RT (2640')
RAMP 'A' DOTTED (142')
RAMP 'B' SOLID RT (951')
RAMP 'B' DASH (60')

646.434 DURABLE 6 INCH YELLOW LINE, POLYUREA

RAMP 'A' SOLID LT (1529')
RAMP 'B' SOLID LT (1085')

646.464 DURABLE 12 INCH WHITE LINE, POLYUREA

RAMP 'A' GORE AREA (500')
RAMP 'B' GORE AREA (432')

SINKHOLE REPAIRS

MM 53.089 TRAVEL LANE 11'X10'

MM 53.311 TRAVEL LANE & PASSING LANE 11'X16'

646.620 TEMPORARY 6 INCH WHITE LINE

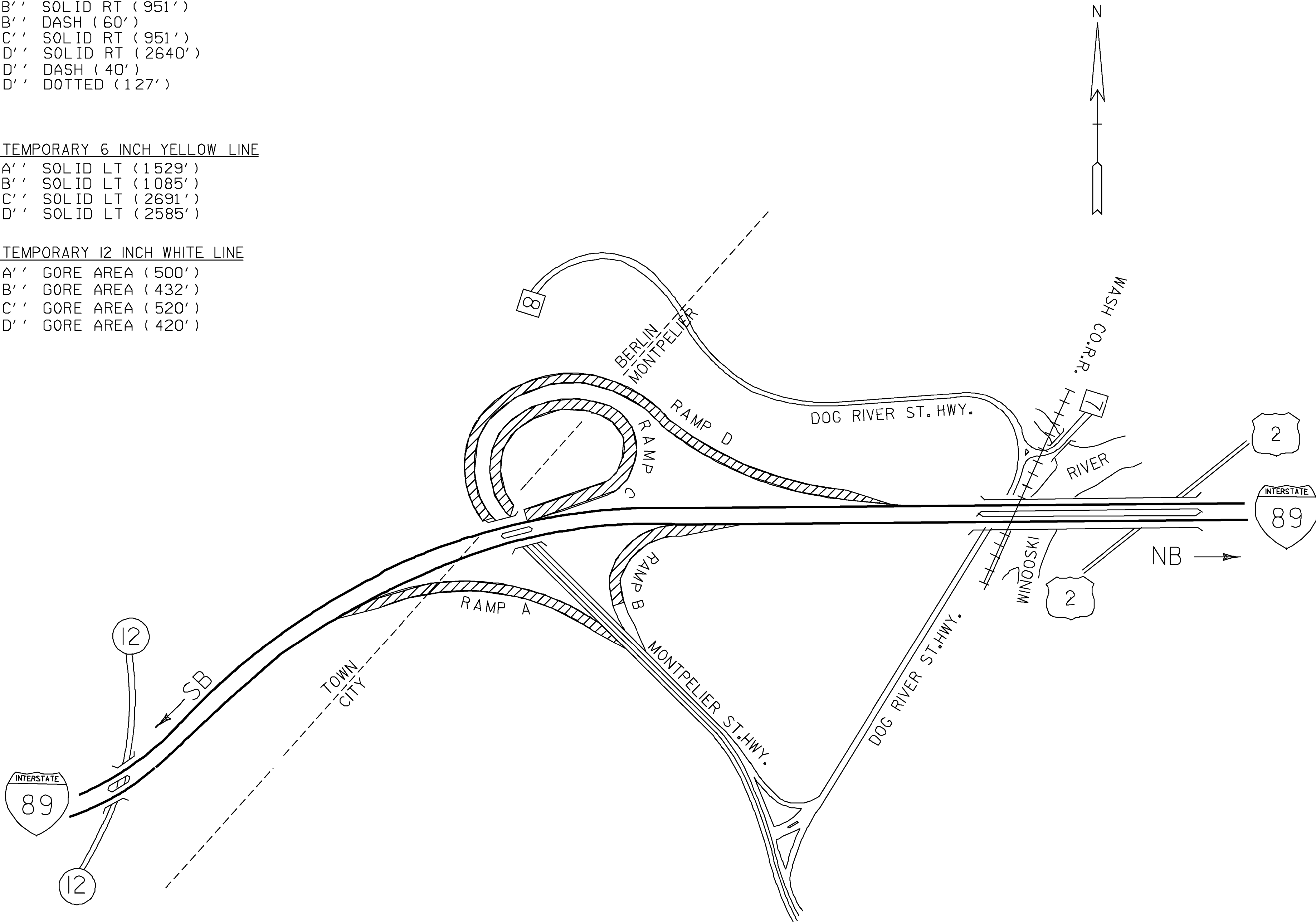
RAMP 'A' SOLID RT (2640')
RAMP 'A' DOTTED (142')
RAMP 'B' SOLID RT (951')
RAMP 'B' DASH (60')
RAMP 'C' SOLID RT (951')
RAMP 'D' SOLID RT (2640')
RAMP 'D' DASH (40')
RAMP 'D' DOTTED (127')

646.630 TEMPORARY 6 INCH YELLOW LINE

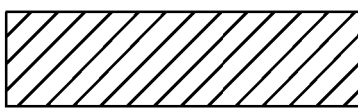
RAMP 'A' SOLID LT (1529')
RAMP 'B' SOLID LT (1085')
RAMP 'C' SOLID LT (2691')
RAMP 'D' SOLID LT (2585')

646.660 TEMPORARY 12 INCH WHITE LINE

RAMP 'A' GORE AREA (500')
RAMP 'B' GORE AREA (432')
RAMP 'C' GORE AREA (520')
RAMP 'D' GORE AREA (420')



NOT TO SCALE

 = WORK AREA

EXIT #8
PAVEMENT MARKINGS

PROJECT NAME: MONTPELIER - WATERBURY

PROJECT NUMBER: IM 089-2(34)

FILE NAME: /pave/09a382/p09a382.dgn

PROJECT MANAGER: MIKE FOWLER

DESIGNED BY: WILDER

IPARM FILE NAME: p09a382_15.i

PLOT DATE: 21-MAY-2010

DRAWN BY: WILDER

CHECKED BY: PAVT MGMT

SHEET 15 OF 63

646.214 6 INCH WHITE LINE
RAMP ''A'' SOLID RT (1537')
RAMP ''A'' DASH (60')
RAMP ''D'' SOLID RT (1320')
RAMP ''D'' DOTTED (111')

646.215 6 INCH YELLOW LINE
RAMP ''A'' SOLID LT (1389')
RAMP ''D'' SOLID LT (1319')

646.24 12 INCH WHITE LINE
RAMP ''A'' GORE AREA (418')
RAMP ''D'' GORE AREA (803')

646.424 DURABLE 6 INCH WHITE LINE, POLYUREA
RAMP ''B'' SOLID RT (1051')
RAMP ''B'' DOTTED (142')
RAMP ''B' DASH (30')
RAMP ''C'' SOLID RT (1138')
RAMP ''C'' DASH (20')

646.434 DURABLE 6 INCH YELLOW LINE, POLYUREA
RAMP ''B'' SOLID LT (1053')
RAMP ''C'' SOLID RT (1138')

646.464 DURABLE 12 INCH WHITE LINE, POLYUREA
RAMP ''B'' GORE AREA (331')
RAMP ''C'' GORE AREA (200')

646.484 DURABLE 24 INCH STOP BAR, POLYUREA
RAMP ''B'' (25')

646.494 DURABLE LETTER OR SYMBOL, POLYUREA
RAMP ''B'' (S, T, O, P), (S, T, O, P)
(A, H, E, A, D) (13 EA.)
← (1 EA.)

646.30 LETTER OR SYMBOL
RAMP ''D'' (S, T, O, P), (S, T, O, P)
(A, H, E, A, D) (13 EA.)
← (1 EA.)

646.26 24 INCH STOP BAR
RAMP ''D'' (25')

646.620 TEMPORARY 6 INCH WHITE LINE
RAMP ''A'' SOLID RT (1537')
RAMP ''A'' DASH (60')
RAMP ''B'' SOLID RT (1051')
RAMP ''B'' DOTTED (142')
RAMP ''B' DASH (30')
RAMP ''C'' SOLID RT (1138')
RAMP ''C'' DASH (20')
RAMP ''D'' SOLID RT (1320')
RAMP ''D'' DOTTED (111')

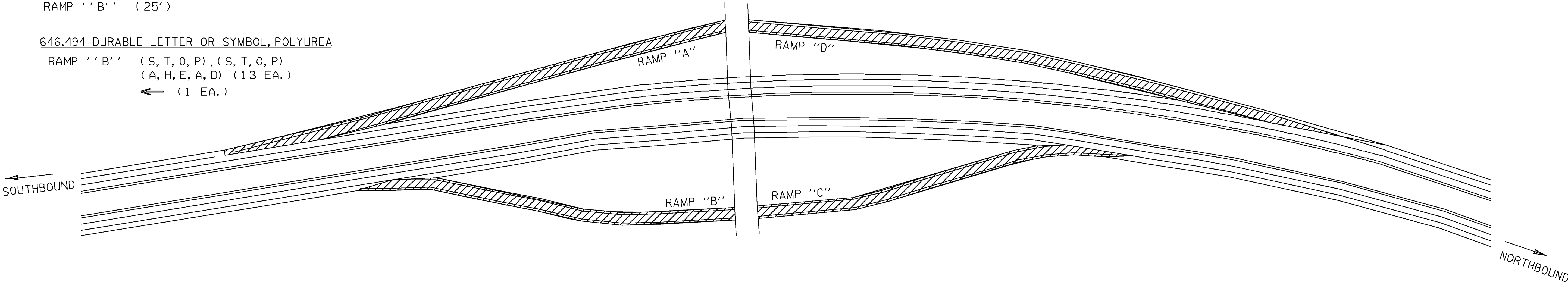
646.630 TEMPORARY 6 INCH YELLOW LINE
RAMP ''A'' SOLID LT (1389')
RAMP ''B'' SOLID LT (1053')
RAMP ''C'' SOLID RT (1138')
RAMP ''D'' SOLID LT (1319')

646.660 TEMPORARY 12 INCH WHITE LINE
RAMP ''A'' GORE AREA (418')
RAMP ''B'' GORE AREA (331')
RAMP ''C'' GORE AREA (200')
RAMP ''D'' GORE AREA (803')

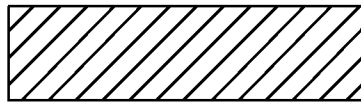
646.690 TEMPORARY LETTER OR SYMBOL
RAMP ''B'' (S, T, O, P), (S, T, O, P)
(A, H, E, A, D) (13 EA.)
← (1 EA.)

RAMP ''D'' (S, T, O, P), (S, T, O, P)
(A, H, E, A, D) (13 EA.)
← (1 EA.)

646.680 TEMPORARY 24 INCH STOP BAR
RAMP ''B'' (25')
RAMP ''D'' (25')

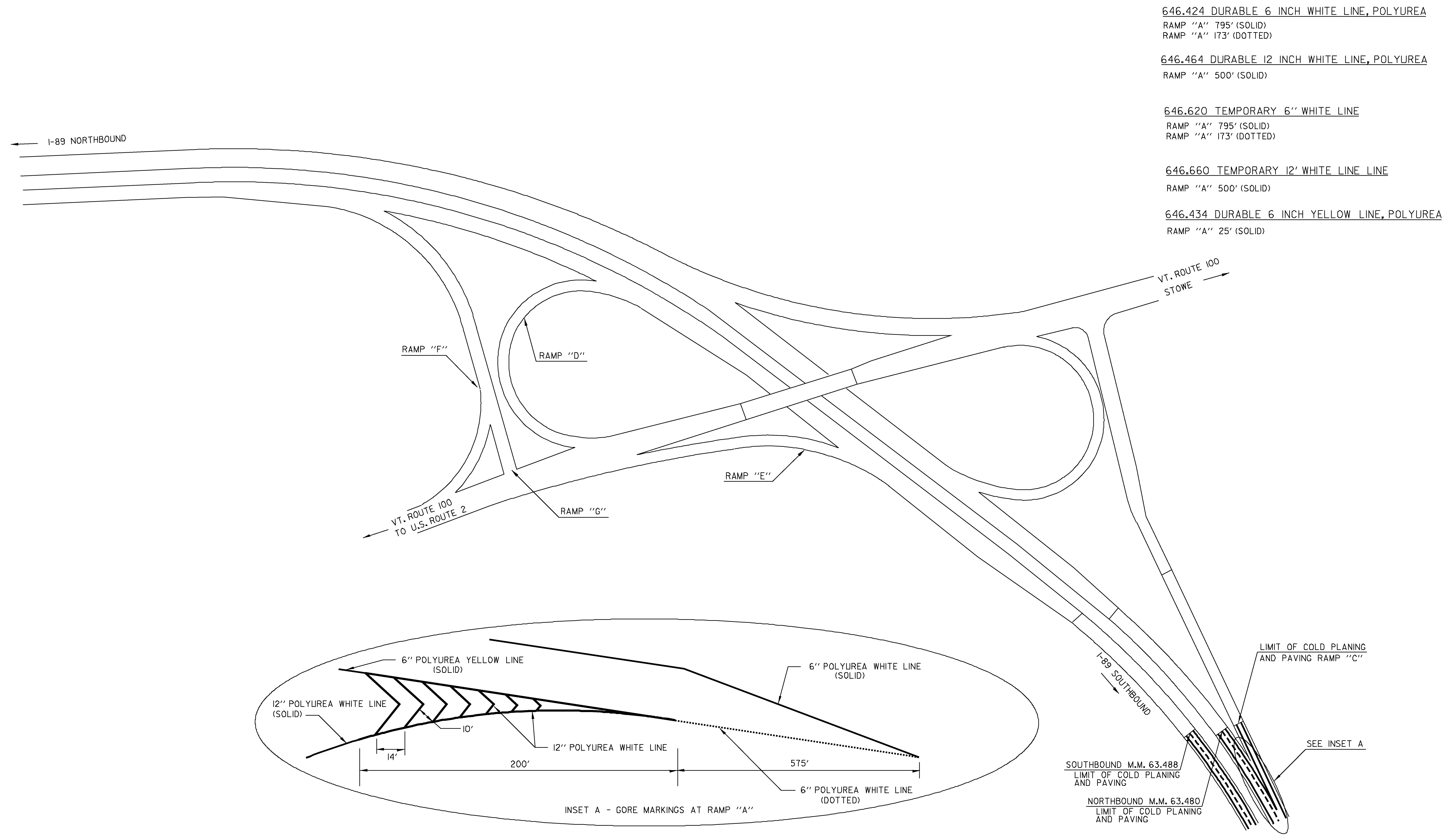


NOT TO SCALE

 = WORK AREA

**INTERCHANGE #9
PAVEMENT MARKINGS**

PROJECT NAME:	BERLIN - WATERBURY		
PROJECT NUMBER:	IM SURF (20)		
FILE NAME:	/pave/09a382/p09a382.dgn	PLOT DATE:	21-MAY-2010
PROJECT MANAGER:	MIKE FOWLER	DRAWN BY:	WILDER
DESIGNED BY:	WILDER	CHECKED BY:	PAVT MGMT
IPARM FILE NAME:	p09a382_16.i	SHEET	16 OF 63



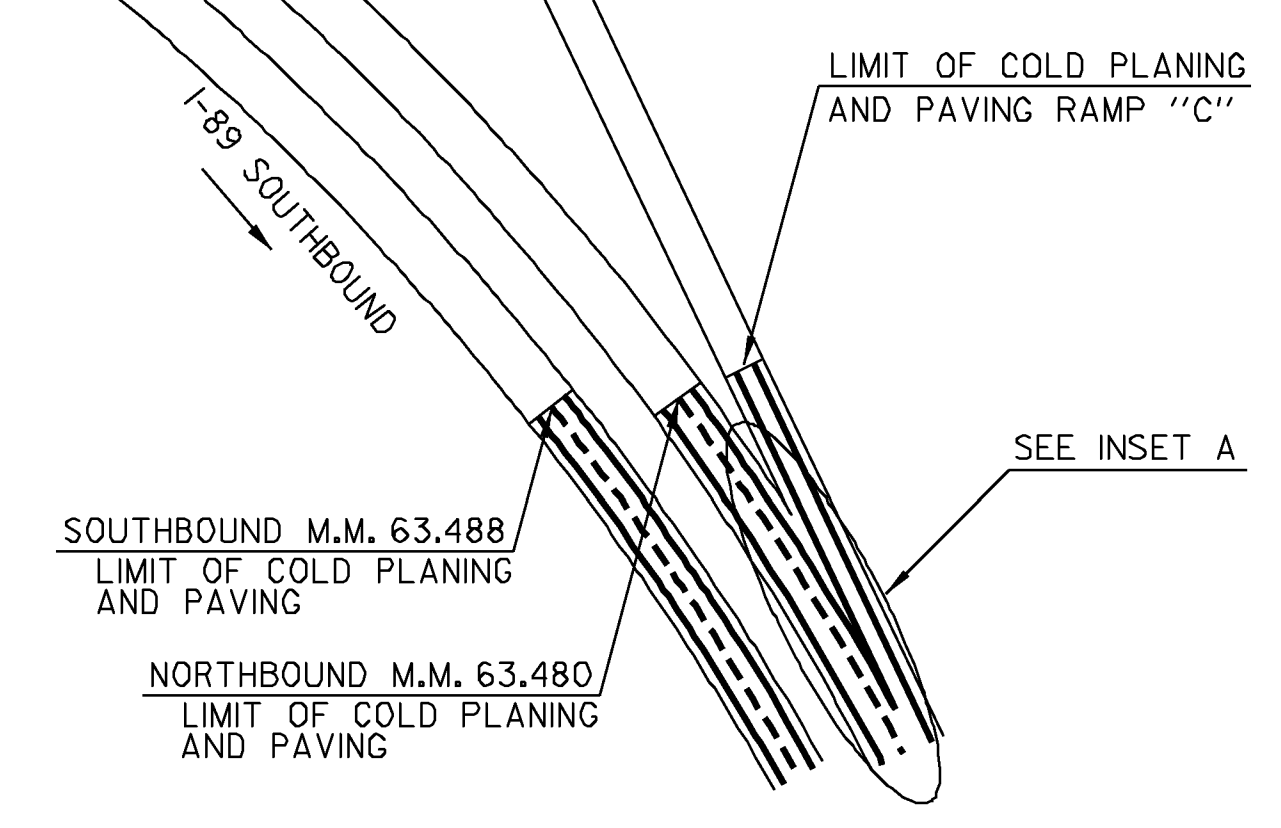
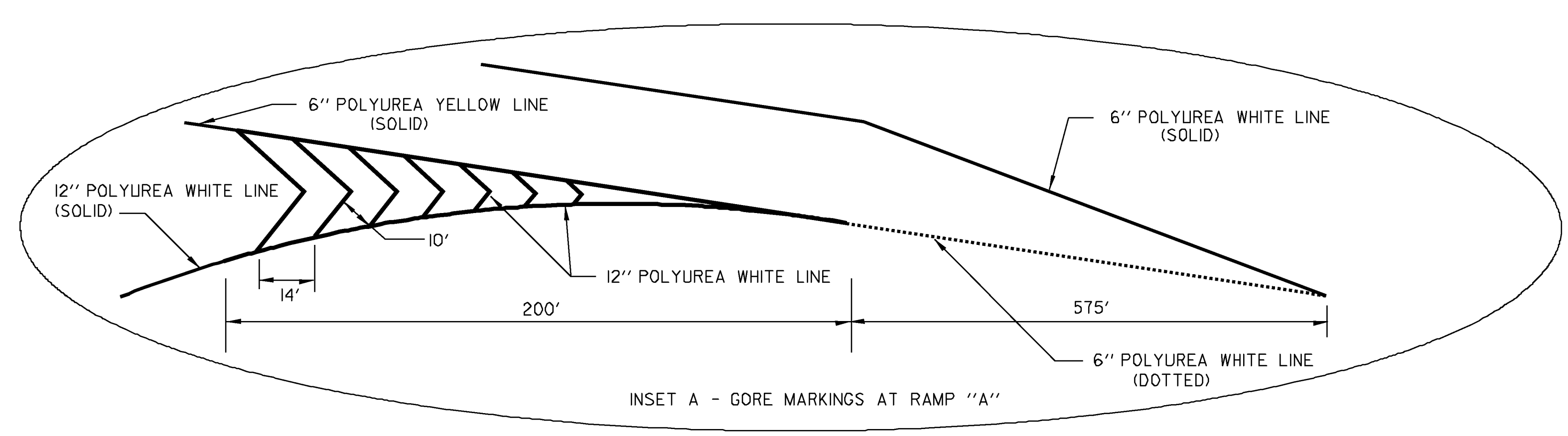
646.424 DURABLE 6 INCH WHITE LINE, POLYUREA
RAMP "A" 795' (SOLID)
RAMP "A" 173' (DOTTED)

646.464 DURABLE 12 INCH WHITE LINE, POLYUREA
RAMP "A" 500' (SOLID)

646.620 TEMPORARY 6" WHITE LINE
RAMP "A" 795' (SOLID)
RAMP "A" 173' (DOTTED)

646.660 TEMPORARY 12' WHITE LINE LINE
RAMP "A" 500' (SOLID)

646.434 DURABLE 6 INCH YELLOW LINE, POLYUREA
RAMP "A" 25' (SOLID)

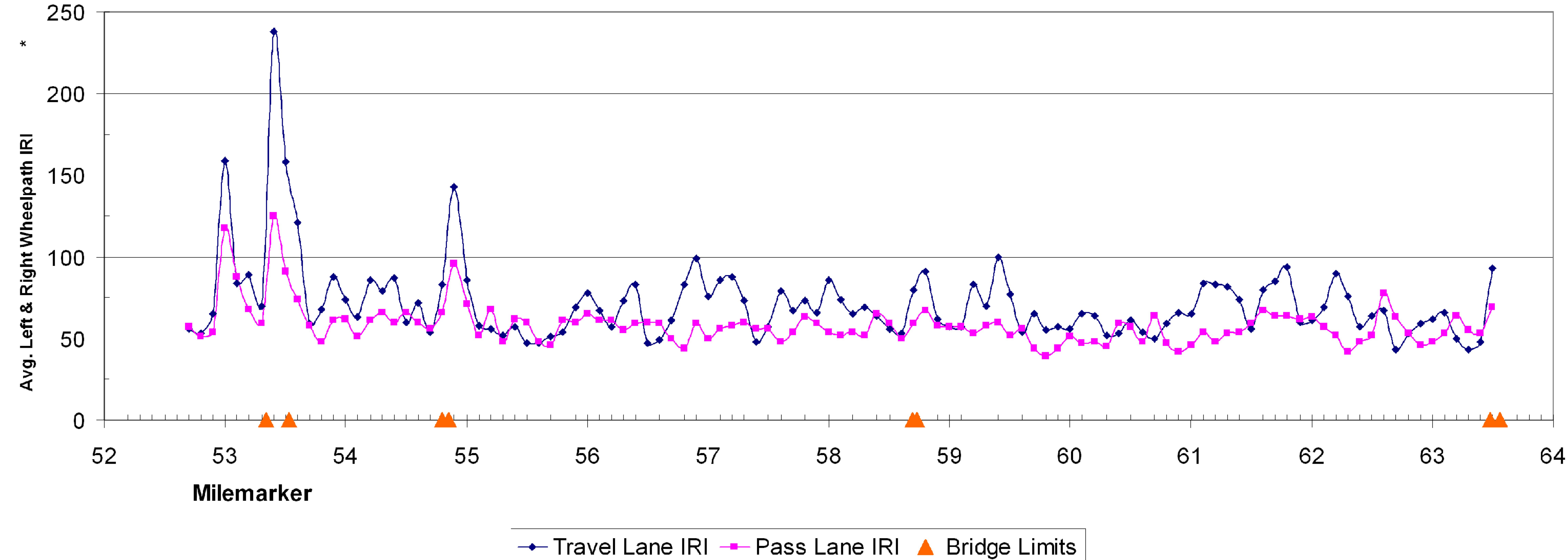


EXIT #10 PAVEMENT MARKINGS

DESIGNED BY	LSW	DATE	4-21-10
DRAWN BY	LSW	DATE	14-21-10
DESIGN FILE NO.	/pave/09a382/p09a382.dgn		
PRF FILE	p09a382_17.1	DATE PLOTTED	08-JUN-2010
PROJ. NAME	BERLIN - WATERBURY		
PROJ. NO.	IM SURF (20)		
SHEET	17	OF	63 SHEETS

I89 NB MM 52.6 to 63.5 IRI

Profiled 7/23/09



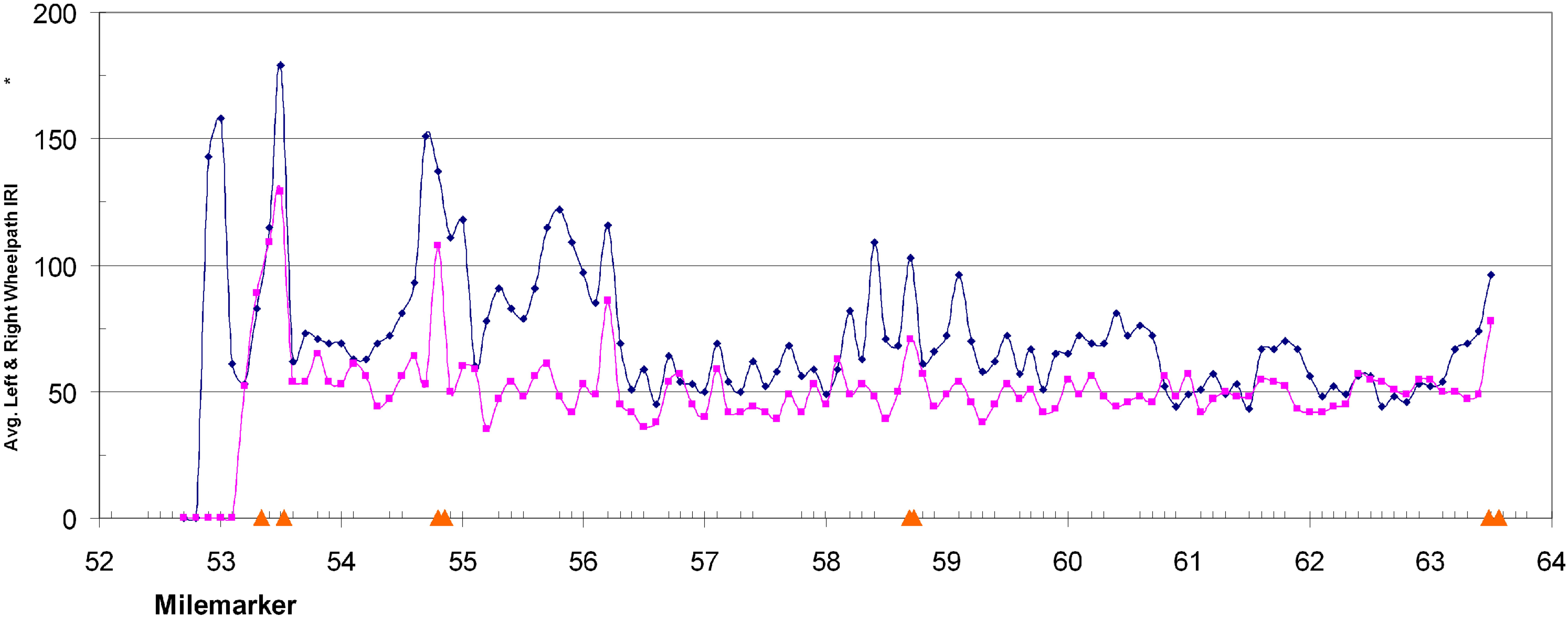
FOR INFORMATIONAL PURPOSES ONLY

**ROUGHNESS
DATA
INFORMATION
NB LANE SHEET**

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 08-JUN-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_l8.1	SHEET 18 OF 63

I89 SB MM 52.6 to 63.5 IRI

Profiled 7/25/09



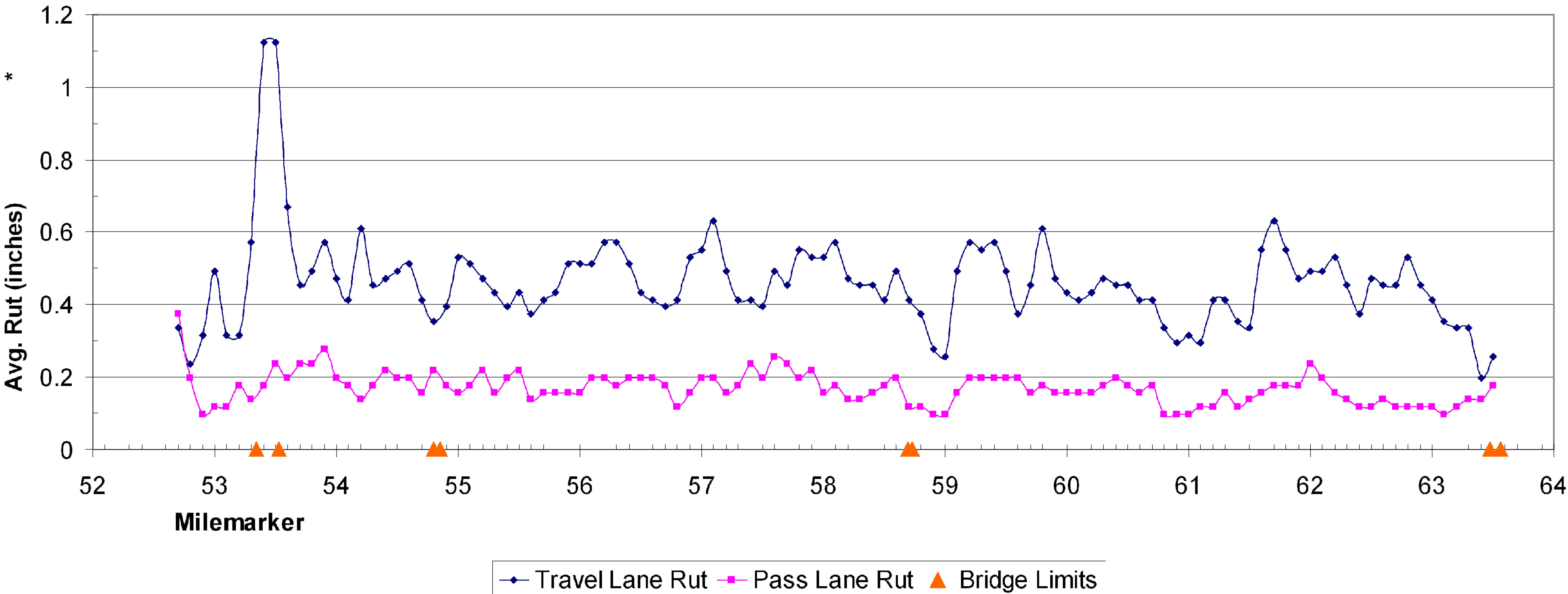
FOR INFORMATIONAL PURPOSES ONLY

**ROUGHNESS
DATA
INFORMATION
SB LANE SHEET**

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 08-JUN-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_l9.1	SHEET 19 OF 63

189 NB MM 52.6 to 63.5 Rutting

Profiled 7/23/09



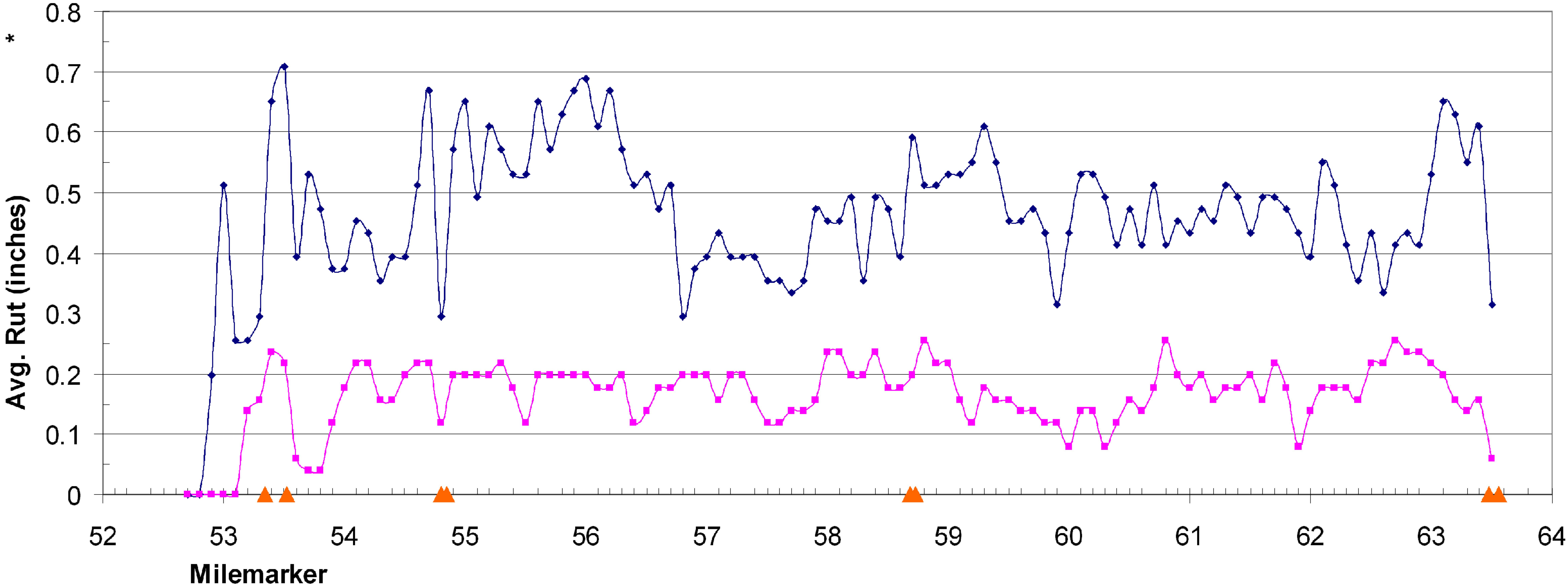
FOR INFORMATIONAL PURPOSES ONLY

RUTTING DATA INFORMATION NB LANE SHEET

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 08-JUN-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382.20.1	SHEET 20 OF 63

I89 SB MM 52.6 to 63.5 Rutting

Profiled 7/25/09



FOR INFORMATIONAL PURPOSES ONLY

RUTTING DATA INFORMATION SB LANE SHEET

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 14-JUN-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_21.i	SHEET 21 OF 63

NOTES:

1. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR ITEM 64I.10, TRAFFIC CONTROL.

2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARDS E-103, E-106 AND THE LATEST REVISION OF THE 2009 MUTCD. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 64I.10, TRAFFIC CONTROL.

3. THE BID PRICE FOR TRAFFIC CONTROL, ITEM 64I.10, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN VTRANS STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY:
630.10 - UNIFORMED TRAFFIC OFFICERS
630.15 - FLAGGERS
646.620 - TEMPORARY 6 INCH WHITE LINE
646.630 - TEMPORARY 6 INCH YELLOW LINE
646.660 - TEMPORARY 12 INCH WHITE LINE
646.680 - TEMPORARY 24 INCH STOP BAR
646.690 - TEMPORARY LETTER OR SYMBOL

4. PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE RESIDENT ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 64I.15, PORTABLE CHANGEABLE MESSAGE SIGN.

FOR THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL POSITION A PCMS PRIOR TO I-89 EXITS 8 AND 10 SB WARNING NORTHBOUND MOTORISTS OF EXPECTED ROADWAY CONDITIONS AND REDUCED ROADWAY WIDTHS.

PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.

5. NO CONSTRUCTION SIGNS SHALL BE INSTALLED AS TO INTERFERE OR OBSTRUCT THE VIEW OF EXISTING TRAFFIC CONTROL DEVICES, STOPPING SIGHT DISTANCE, AND CORNER SIGHT DISTANCE FROM DRIVES AND TOWN HIGHWAYS.

6. REFER TO VT. STATE STANDARDS AND THE 2009 MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN COLORS.

7. DURING CONSTRUCTION IT WILL BE NECESSARY FOR THE CONTRACTOR TO MAINTAIN ONE-LANE TRAFFIC FOR EXTENDED PERIODS OF TIME. IN NO CASE SHALL THE PAVED WIDTH FOR ONE-LANE TRAFFIC, INCLUDING SHOULDERS, BE REDUCED TO LESS THEN 15 FEET IN WIDTH. THIS PAVED WIDTH SHALL REMAIN FREE OF OBSTRUCTIONS AND OBSTACLES AT ALL TIMES.

8. ADDITIONAL RAMP SIGNING MAY BE REQUIRED, AS DIRECTED BY THE RESIDENT ENGINEER.

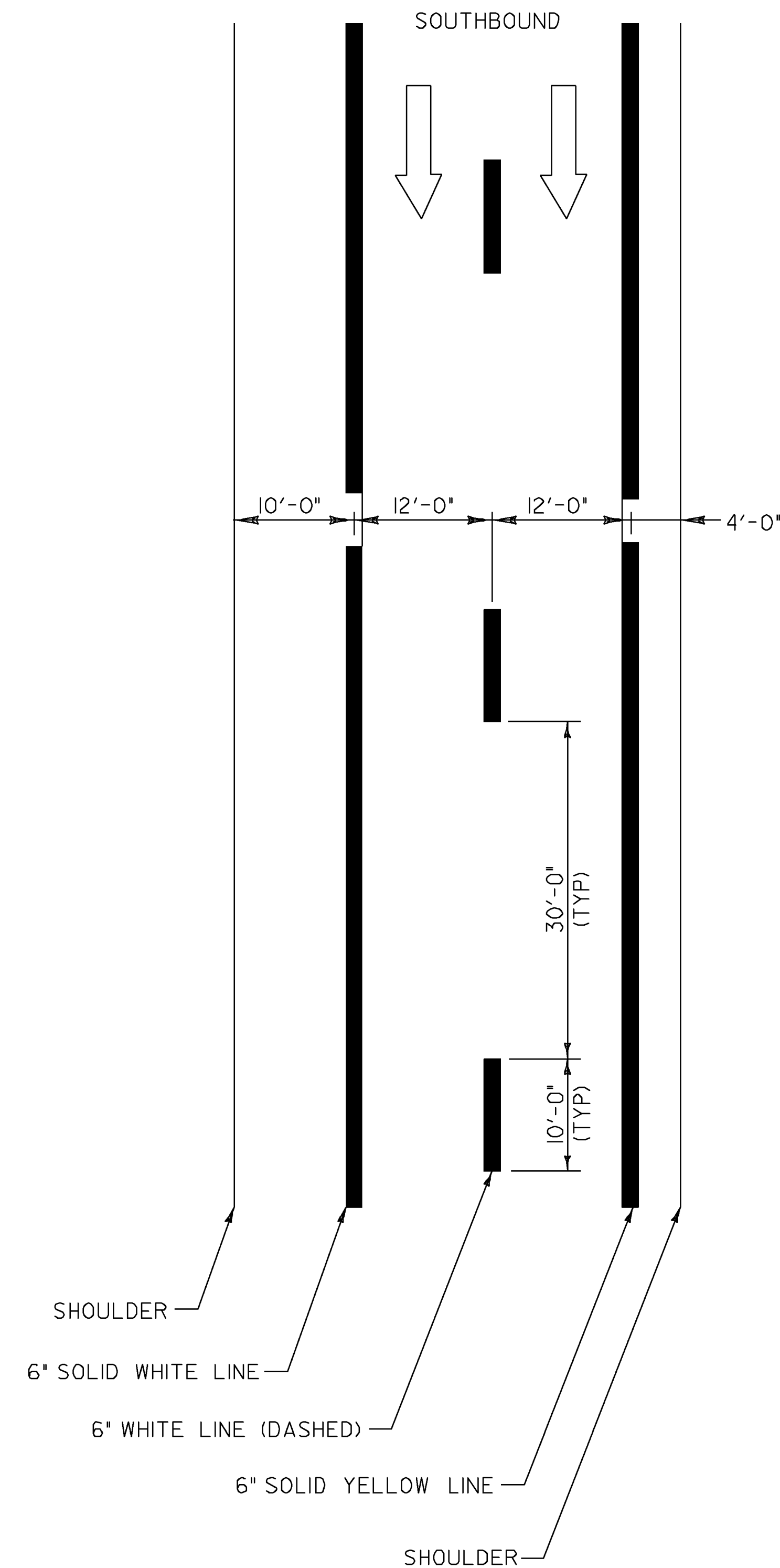
9. THE DISTANCE SHOWN ON THE "ROAD WORK NEXT 6 1/4 MILES" (G20-1) SIGN SHALL BE STATED TO THE NEAREST 1/4 MILE. PLEASE REFER TO PART 6 OF THE 2009 MUTCD SECTION 6F.5I. THESE SIGNS SHOULD BE SPACED APPROXIMATELY EVERY 2-3 MILES ALONG THE PROJECT AS A REMINDER TO THE TRAVELLING MOTORIST.

10. EXISTING SPEED LIMIT SIGNS SHALL BE COVERED WHEN REDUCED SPEED SIGNS ARE POSTED. KEEP RECORDS WHEN POSTING THE WORK ZONE SPEED LIMIT FOR LEGAL PURPOSES; DOCUMENTING DATES, TIMES, AND LOCATIONS OF SIGNS. WHEN WORK ZONE SPEED LIMIT IS NOT IN USE ALL ASSOCIATED SIGNS SHALL BE COVERED, TURNED AND OR LAID FLAT SO AS THE MOTORING PUBLIC CANNOT READ THESE SIGNS.

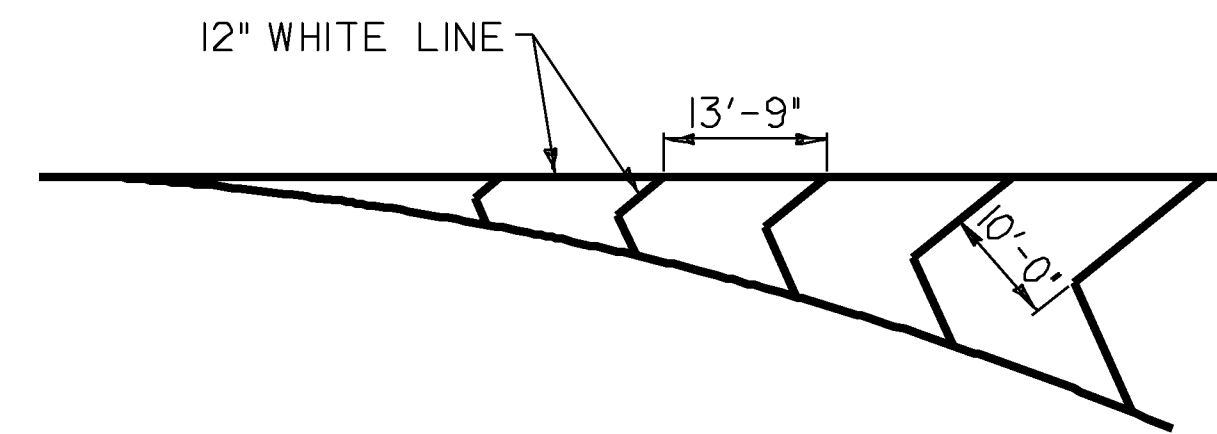
11. PORTABLE OR STATIONARY WORK ZONE SPEED LIMIT SIGNS SHOULD BE SPACED EVERY 1.5 TO 2 MILES WHERE APPLICABLE AS A REMINDER TO THE MOTORIST TRAVELING THROUGH THE WORK ZONE WHAT SPEED THEY SHOULD BE TRAVELLING.

12. WHEN REDUCED REGULATORY SPEED LIMIT SIGNS ARE USED, THE RESUMPTION OF THE USUAL SPEED LIMIT SHALL BE INDICATED BY AN APPROPRIATE SPEED LIMIT SIGN AT THE END OF THE WORK ZONE.

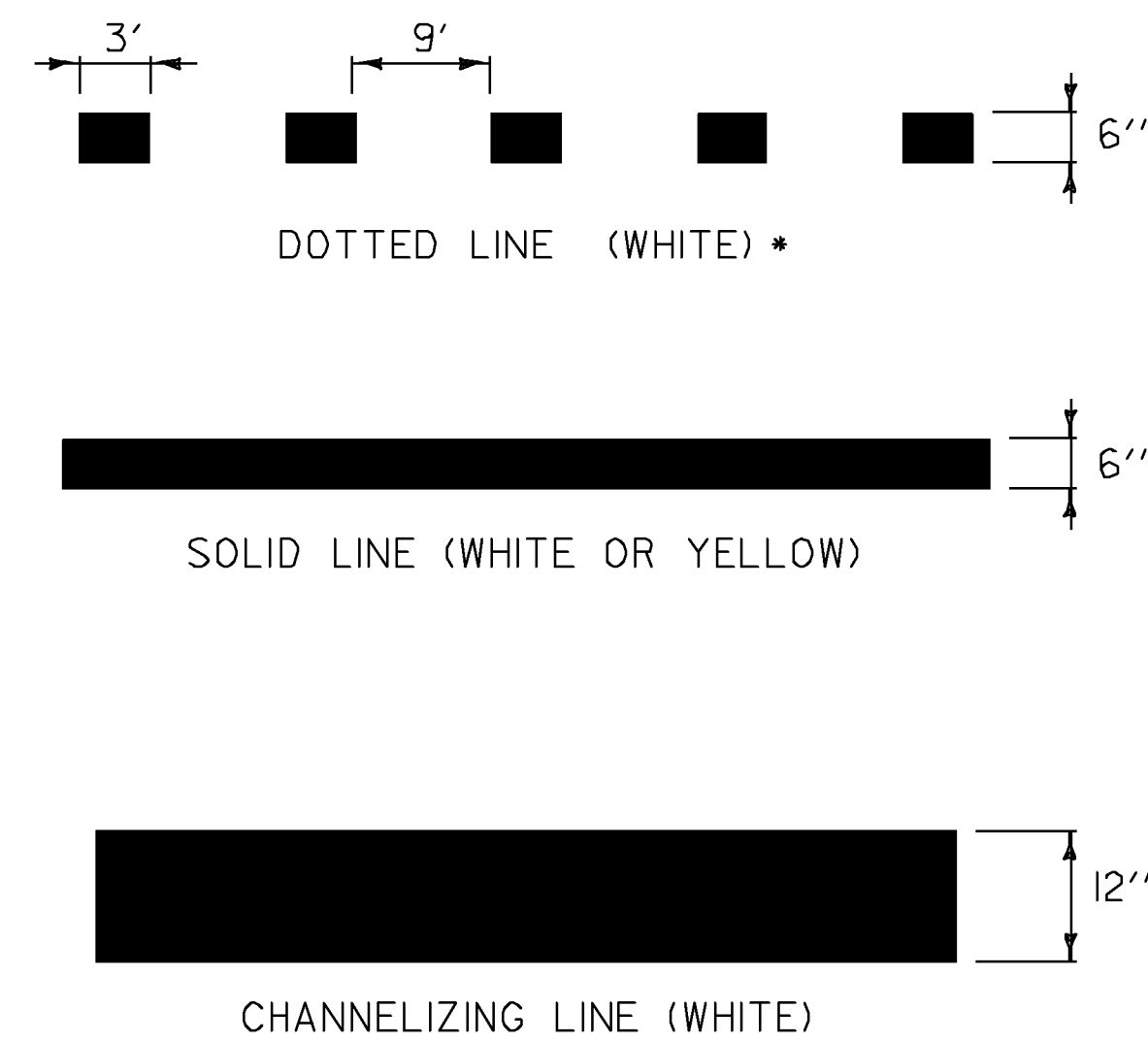
TRAFFIC CONTROL NOTE SHEET	PROJECT NAME: BERLIN - WATERBURY	
	PROJECT NUMBER: IM SURF (20)	
	FILE NAME: /pave/09a382/p09a382.dgn PROJECT LEADER: MIKE FOWLER DESIGNED BY: WILDER IPARM FILE NAME: p09a382_22.1	PLOT DATE: 21-MAY-2010 DRAWN BY: WILDER CHECKED BY: PAVT MGMT SHEET 22 OF 63



TYPICAL MAINLINE MARKING PLAN

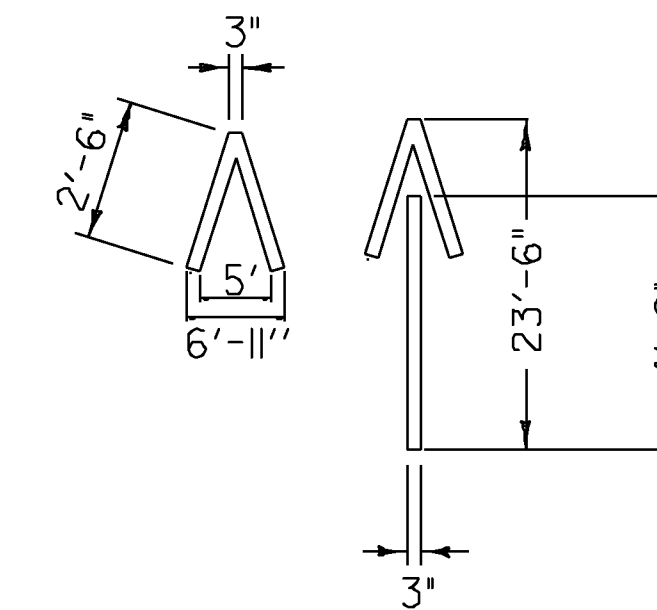


GORE MARKING DETAIL



PAVEMENT MARKING LINE DETAILS

* TO BE INSTALLED ONLY AT THE DIRECTION OF THE RESIDENT ENGINEER



LEGEND

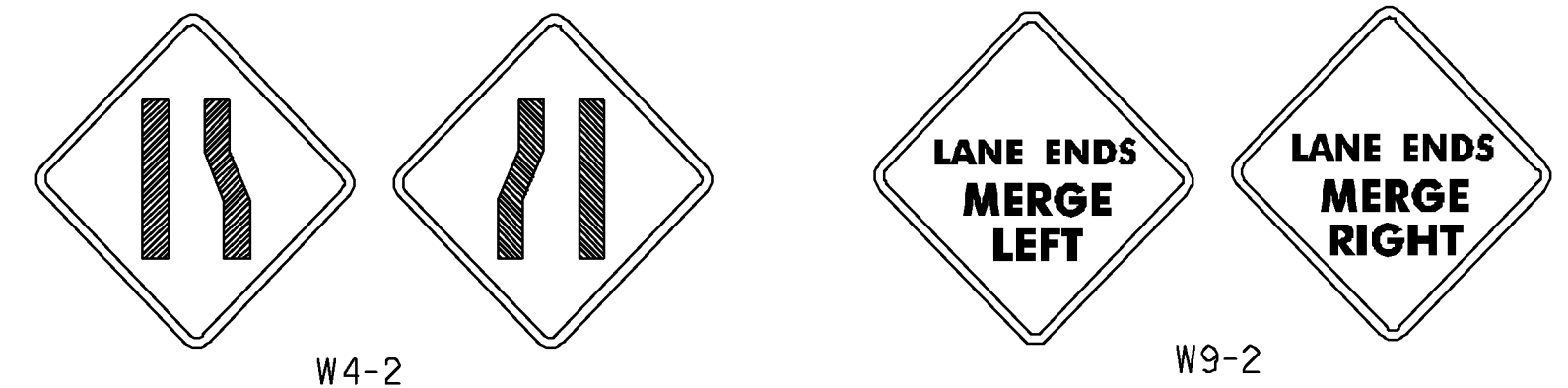
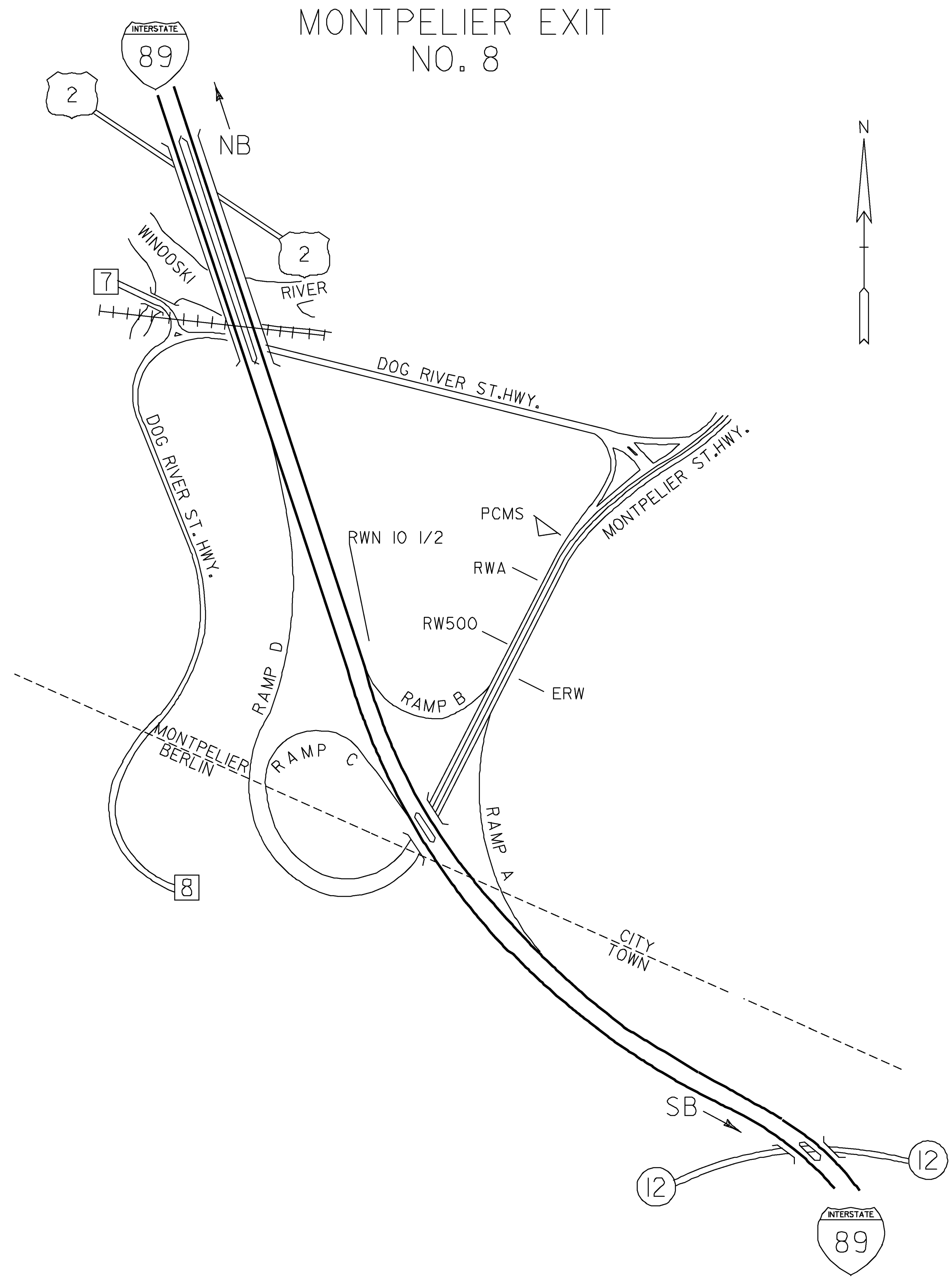
NOTES:

1. TWO (2) APPLICATIONS OF FINAL PAVEMENT MARKINGS WILL BE REQUIRED ON ALL ALTERNATIVE TREATMENTS. THE FIRST APPLICATION WILL BE IMMEDIATELY FOLLOWING PLACEMENT OF THE WEARING COURSE. THE SECOND AND FINAL APPLICATION WILL BE APPLIED NO SOONER THAN 14 CALENDER DAYS AFTER THE FIRST APPLICATION, AND NO LATER THAN OCTOBER 30, 2010.
2. NOTE 115 APPLICABLE TO THE FINAL PAVEMENT MARKINGS FOR THE SOUTHBOUND LANES ONLY WHICH ARE USING PERMANENT PAINT FOR THE MARKINGS.

NOT TO SCALE

PAVEMENT MARKING DETAIL SHEET

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 21-MAY-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_23.i	SHEET 23 OF 63



NOTE:
1. ON STANDARD E-103, REPLACE SIGN #W4-2 WITH #W9-2:

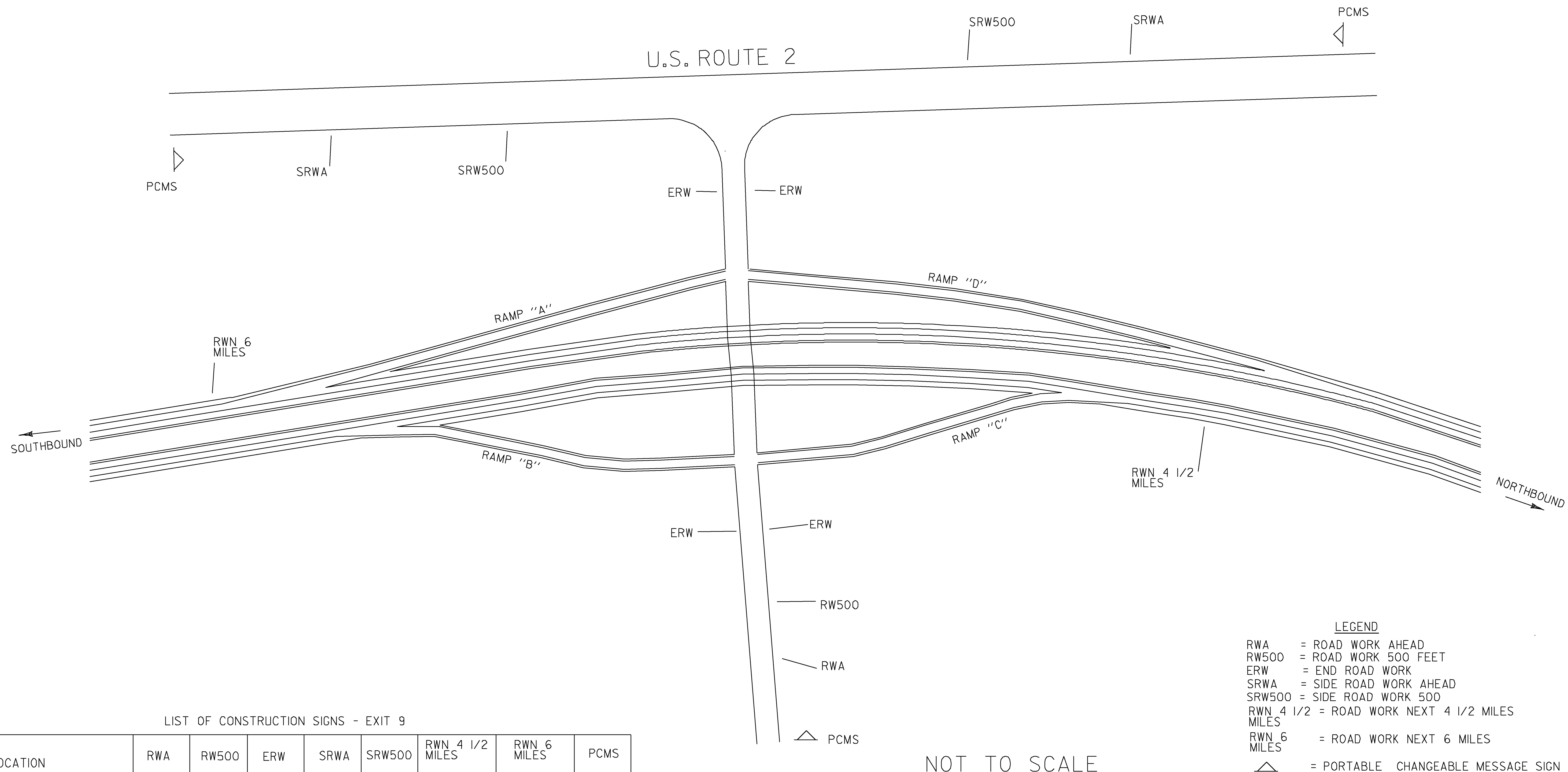
- LEGEND**
- RWA = ROAD WORK AHEAD
 - RW500 = ROAD WORK 500 FEET
 - RWN = ROAD WORK NEXT 10 1/2 MILES
 - ERW = END ROAD WORK
 - △ = PORTABLE CHANGEABLE MESSAGE SIGN

LIST OF CONSTRUCTION SIGNS - EXIT 8

LOCATION	RWA	RW500	ERW	RWN 10 1/2	PCMS
MONTPELIER STATE HIGHWAY					
RAMP B					
TOTALS					

**CONSTRUCTION APPROACH
SIGNING
EXIT 8**

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: IM SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 21-MAY-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_24.i	SHEET 24 OF 63



LIST OF CONSTRUCTION SIGNS - EXIT 9

LOCATION	RWA	RW500	ERW	SRWA	SRW500	RWN 4 1/2 MILES	RWN 6 MILES	PCMS
U.S. ROUTE 2				4	4			2
RAMP A							1	
RAMP C						1		
MIDDLESEX ST. HGHY.	2	2	4					1
TOTALS	2	2	4	4	4	1	1	3

NOT TO SCALE

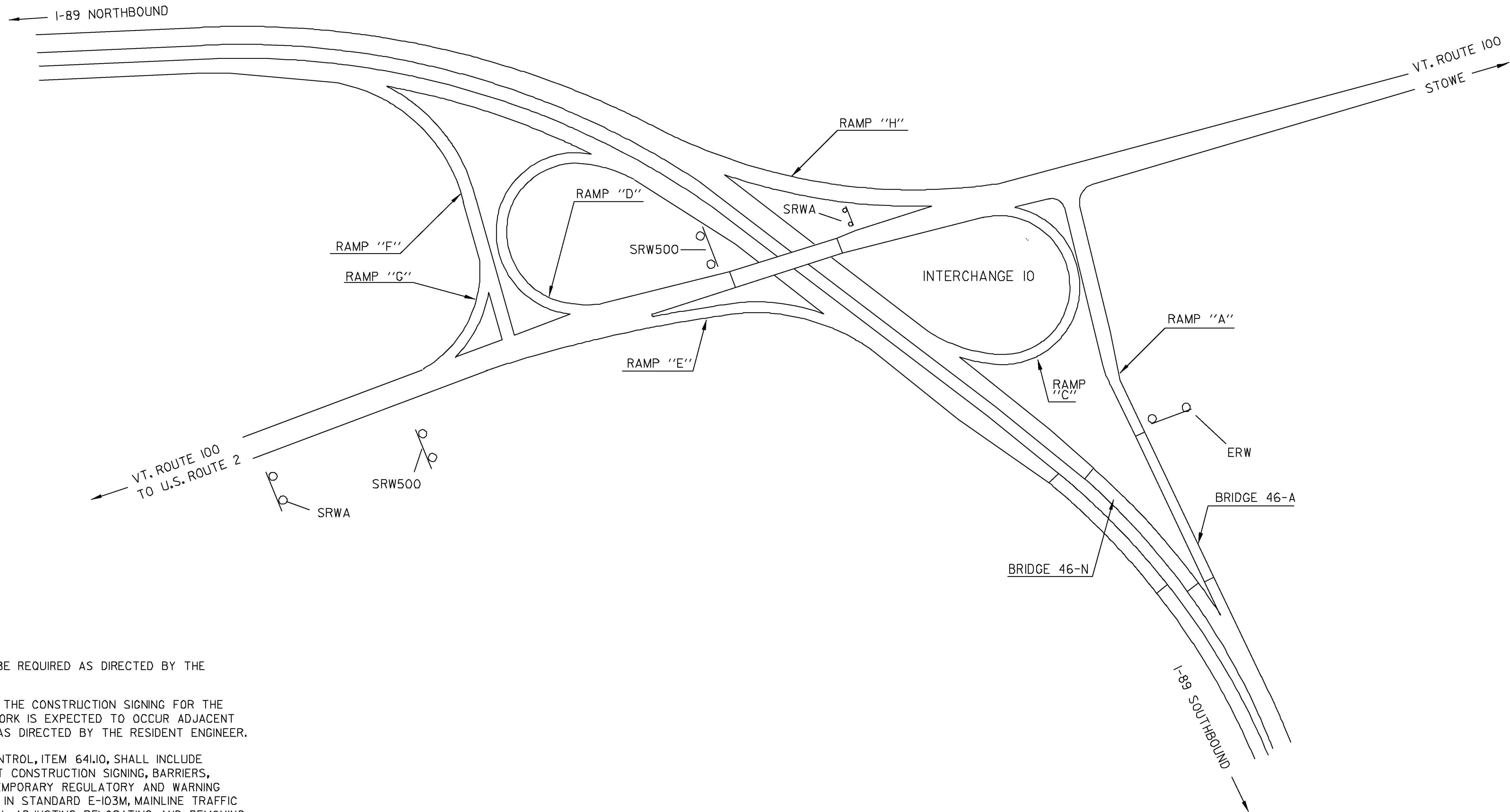
- LEGEND**
- RWA = ROAD WORK AHEAD
 - RW500 = ROAD WORK 500 FEET
 - ERW = END ROAD WORK
 - SRWA = SIDE ROAD WORK AHEAD
 - SRW500 = SIDE ROAD WORK 500
 - RWN 4 1/2 = ROAD WORK NEXT 4 1/2 MILES
 - RWN 6 MILES = ROAD WORK NEXT 6 MILES
 - △ = PORTABLE CHANGEABLE MESSAGE SIGN

CONSTRUCTION APPROACH SIGNING EXIT 9

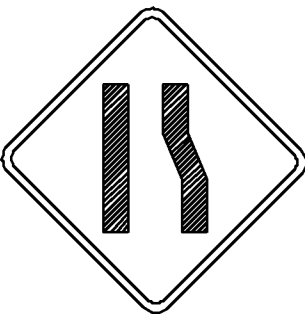
PROJECT NAME: BERLIN - WATERBURY
 PROJECT NUMBER: IM SURF (20)
 FILE NAME: /pave/09a382/p09a382.dgn
 PROJECT LEADER: FOWLER
 DESIGNED BY: WILDER
 IPARM NAME: p09a382_25.1
 PLOT DATE: 21-MAY-2010
 DRAWN BY: WILDER
 CHECKED BY: PAVT MGMT
 SHEET 25 OF 63

CONSTRUCTION APPROACH SIGNING

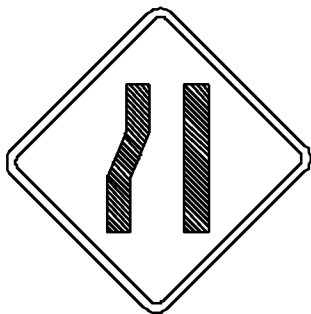
SEE STD. E-100M FOR SIGN PLACEMENT



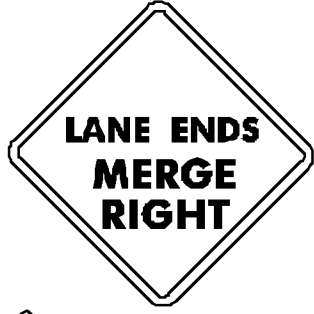
- NOTES:
1. ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE RESIDENT ENGINEER.
 2. THE CONTRACTOR SHALL COVER THE CONSTRUCTION SIGNING FOR THE SOUTHBOUND LANES WHEN NO WORK IS EXPECTED TO OCCUR ADJACENT TO THE 4 FOOT SHOULDER, OR AS DIRECTED BY THE RESIDENT ENGINEER.
 3. THE BID PRICE FOR TRAFFIC CONTROL, ITEM 641.10, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, BARRIERS, BARRELS, CONES, BARRICADES, TEMPORARY REGULATORY AND WARNING SIGNS, AND POSTS AS DETAILED IN STANDARD E-103M, MAINLINE TRAFFIC CONTROL - DIVIDED HIGHWAY. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE RESIDENT ENGINEER, SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID UNDER THEIR SPECIFIC BID PRICES:
646.614, 646.615 AND 646.64 - TEMPORARY PAVEMENT MARKINGS
630.10, AND 630.15 - UNIFORMED TRAFFIC OFFICERS AND FLAGGERS
 4. PORTABLE CHANGEABLE MESSAGE SIGNS AND PORTABLE ARROW BOARDS WILL BE PROVIDED FOR USE ALONG THIS PROJECT. THE PLACEMENT OF THESE PORTABLE UNITS AS WELL AS THE MESSAGE WILL BE APPROVED BY THE RESIDENT ENGINEER. THESE QUANTITIES WILL BE PAID UNDER ITEMS 641.15, PORTABLE CHANGEABLE MESSAGE SIGN AND 641.16, PORTABLE ARROW BOARD.
 5. ON STANDARD E-103M, REPLACE SIGN "W4-2 WITH "W9-2:



W4-2



W9-2



LIST OF CONSTRUCTION SIGNS

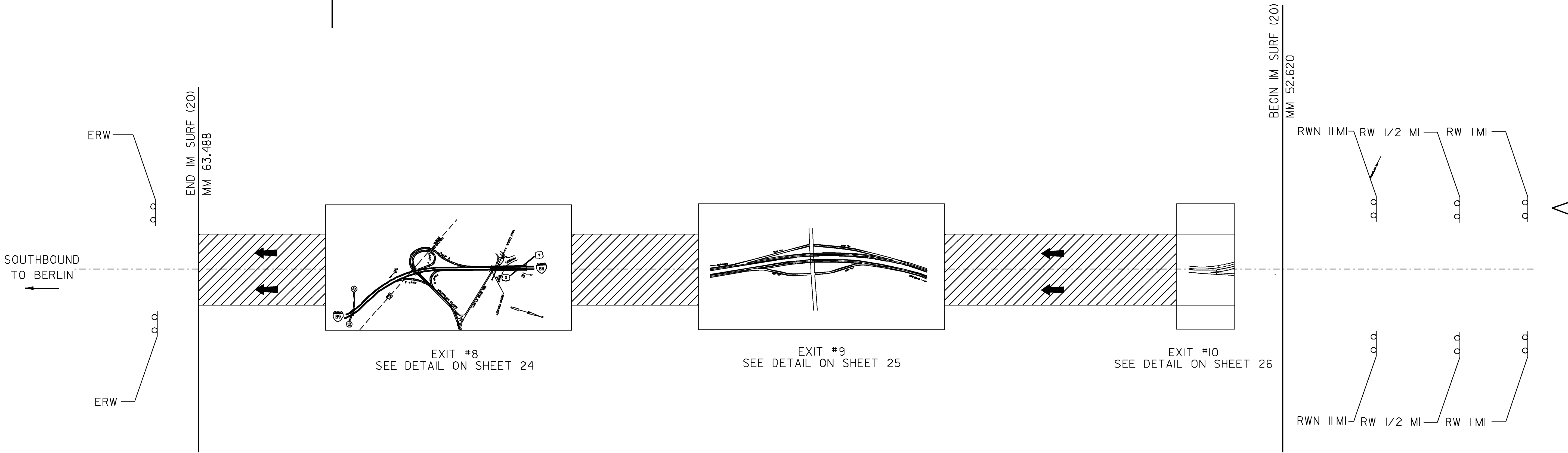
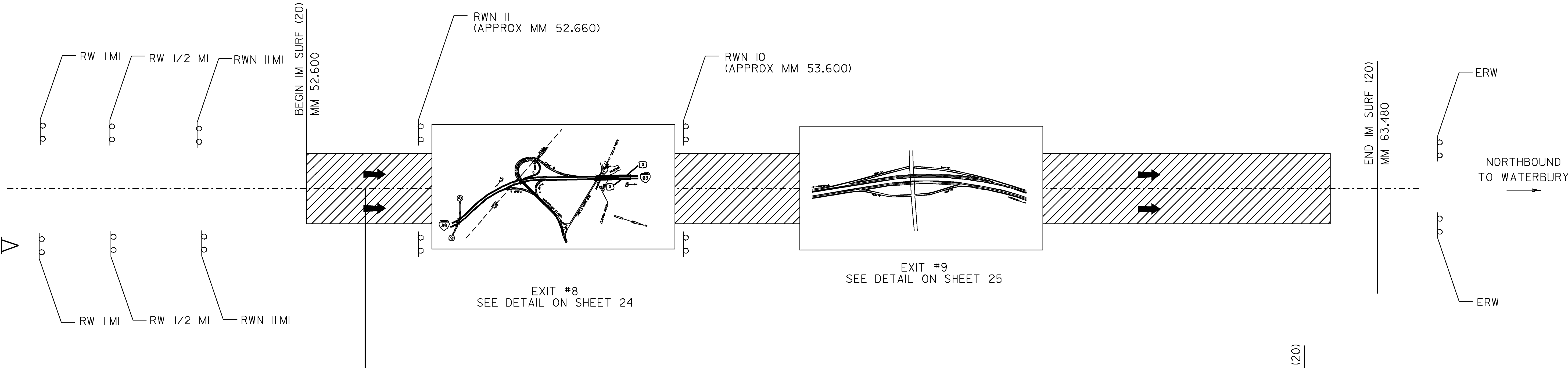
LOCATION	SRWA	SRW500	ERW
RAMP "A"			1
RAMP "D"			
VT. RTE. 100			
TOTALS	2	2	

ERW = END ROAD WORK
SRWA = SIDE ROAD WORK AHEAD
SRW500 = SIDE ROAD WORK 500 FEET

CONSTRUCTION APPROACH
SIGNING EXIT 10

DESIGNED BY LSW DATE 4-20-10
DRAWN BY LSW DATE 4-20-10
DESIGN FILE N0:/pave/09a382/p09a382.dgn
PRF FILE p09a382_26.i DATE 21-MAY-2010
PROJ. NAME **BERLIN - WATERBURY**
PROJ. NO. **IM SURF (20)**
SHEET 26 OF 63 SHEETS

BEGIN /END PROJECT
CONSTRUCTION APPROACH SIGNING



LEGEND

- RWN 11MILES = ROAD WORK NEXT 11MILES
ERW = END ROAD WORK
RW 1MI = ROAD WORK IN 1 MILE
RW 1/2 MI = ROAD WORK IN 1/2 MILE
 = PORTABLE CHANGEABLE MESSAGE SIGN
 = DIRECTION OF TRAFFIC FLOW

 = WORK AREA

LIST OF CONSTRUCTION SIGNS - MAINLINE NB & SB

LOCATION	RW 1MI	RW 1/2 MI	RWN 11 MILES	ERW	PCMS
I-89 NORTHBOUND	2	2	2	2	1
I-89 SOUTHBOUND	2	2	2	2	1
TOTALS	4	4	4	4	2

NOT TO SCALE

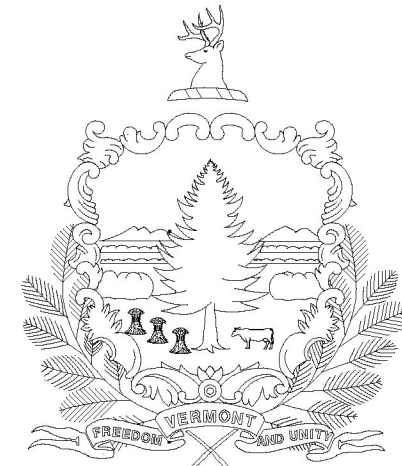
CONSTRUCTION
APPROACH
MAINLINE
SIGNING SHEET

PROJECT NAME: BERLIN - WATERBURY	
PROJECT NUMBER: 1M SURF (20)	
FILE NAME: /pave/09a382/p09a382.dgn	PLOT DATE: 21-MAY-2010
PROJECT LEADER: MIKE FOWLER	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PAVT MGMT
IPARM FILE NAME: p09a382_27.1	SHEET 27 OF 63

INDEX OF SHEETS

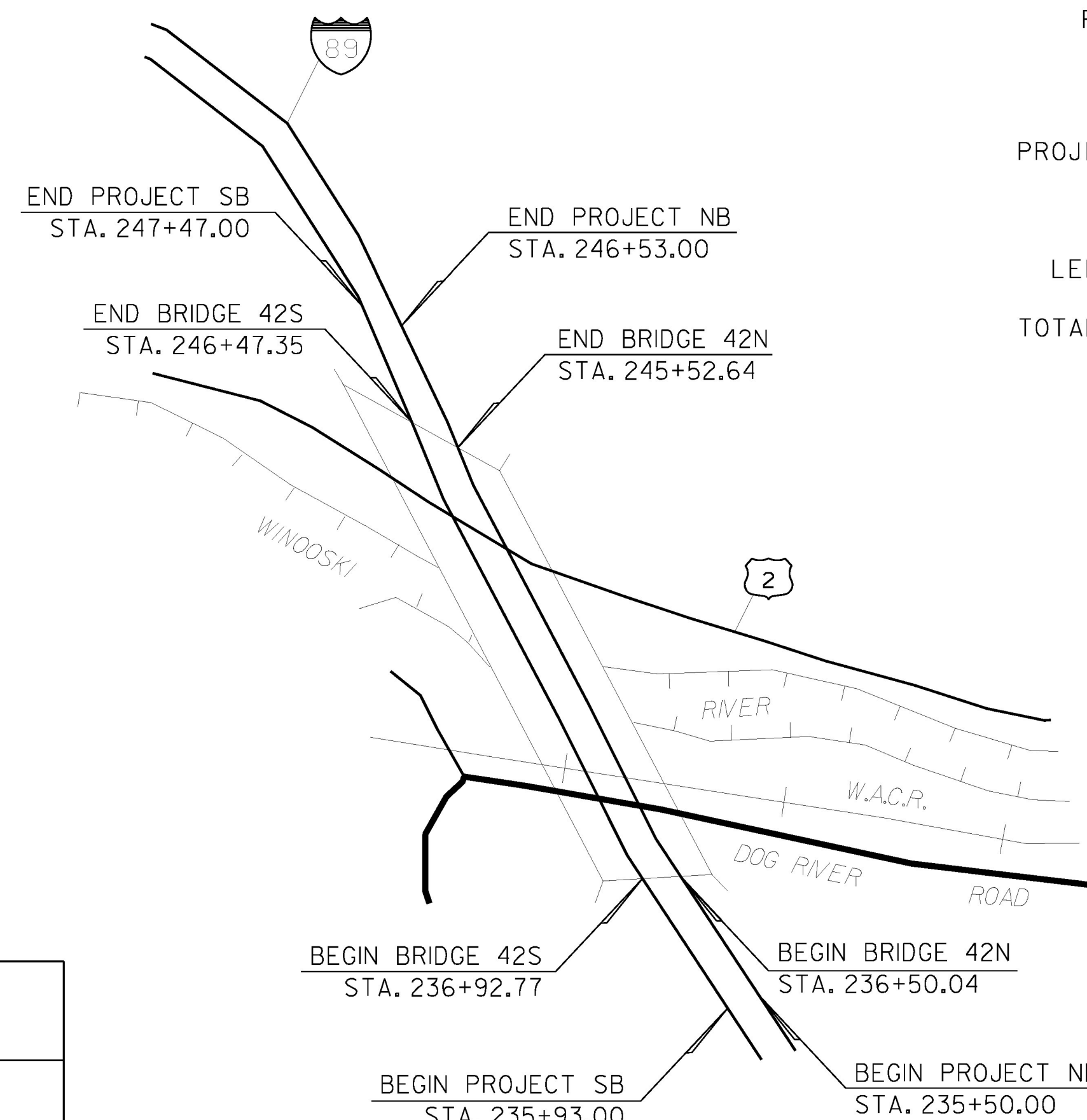
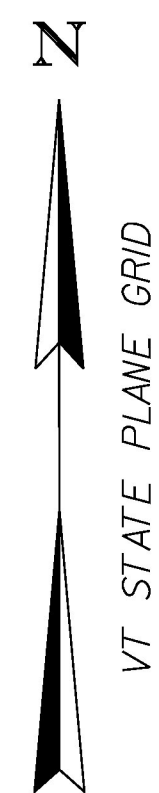
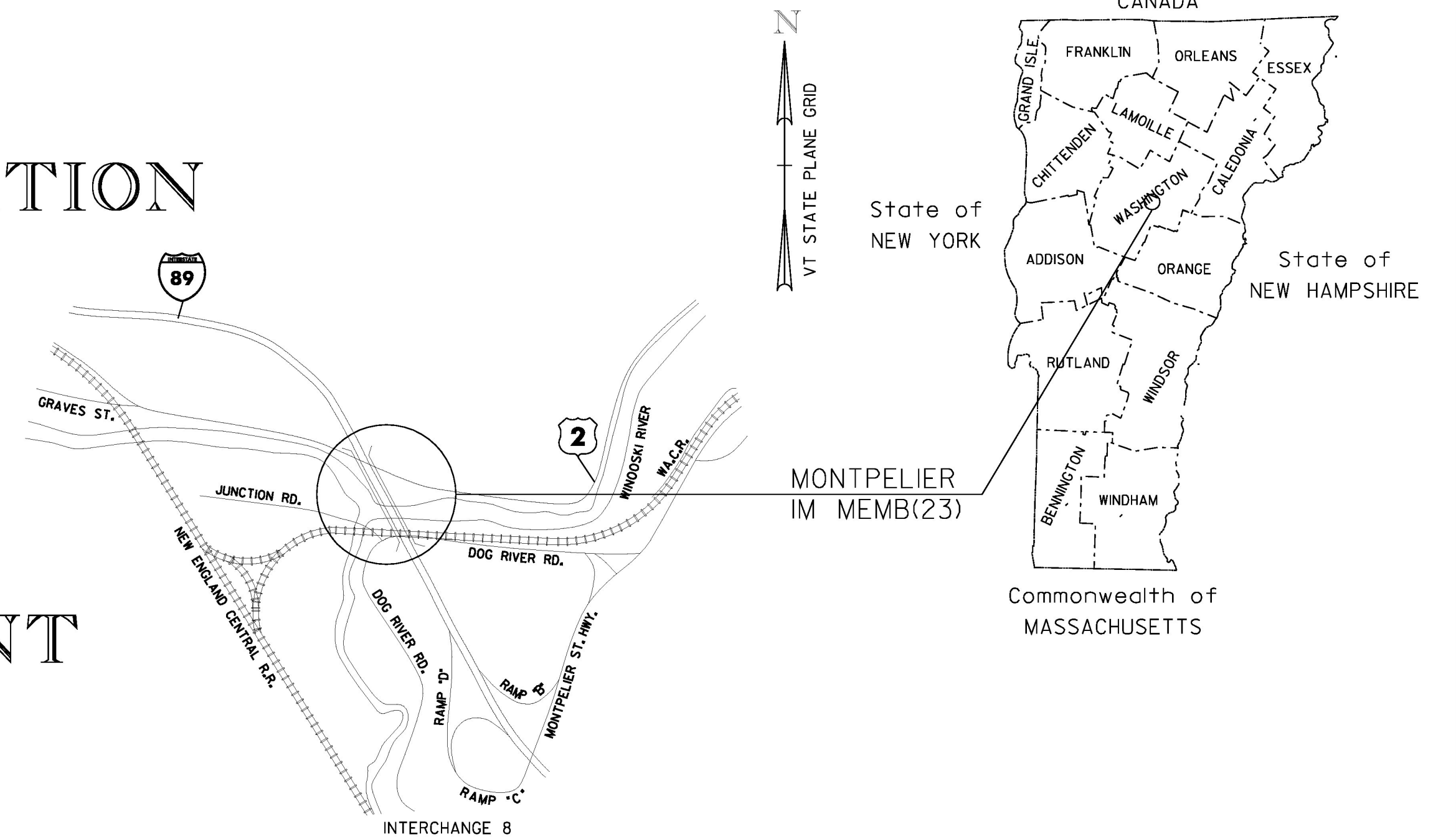
SEE SHEET 31

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT

TOWN OF MONTPELIER
COUNTY OF WASHINGTON
BRIDGES NO.42 NORTH AND 42 SOUTH ON INTERSTATE 89



PROJECT LOCATIONS: BRIDGES NO. 42N&S ARE LOCATED ON I-89 (MM 53.436) OVER US ROUTE 2, WINOOSKI RIVER, WASHINGTON COUNTY RAILROAD AND DOG RIVER ROAD

PROJECT DESCRIPTION: REMOVAL AND REPLACEMENT OF BITUMINOUS CONCRETE WEARING SURFACE AND MEMBRANE ON BRIDGE 42N. REMOVAL AND REPLACEMENT OF BITUMINOUS CONCRETE WEARING SURFACE ON BRIDGE 42S.

LENGTH OF BRIDGES: 42N 902 FEET, 42S 955 FEET

TOTAL LENGTH OF BRIDGES: 1857 FEET

CONVENTIONAL SYMBOLS

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

SURVEYED BY : N/A
SURVEYED DATE : N/A

DATUM
VERTICAL N/A
HORIZONTAL N/A

NOT TO SCALE



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.

PROJECT MANAGER : SHERWARD G. FARNSWORTH

PROJECT NAME : MONTPELIER

PROJECT NUMBER : IM MEMB (23)

SHEET 30 OF 63 SHEETS

INDEX OF SHEETS

30	TITLE SHEET
31	INDEX OF SHEETS AND PROJECT NOTES
32	QUANTITY SHEET 1
32A	QUANTITY SHEET 2
33	TRAFFIC CONTROL SHEET 1
34	TRAFFIC CONTROL SHEET 2
35	DETOUR SHEET 1
36	DETOUR SHEET 2
37	RAMP CLOSURE DETAILS
38	CONSTRUCTION SIGN DETAILS
39-46	TRAFFIC SIGN SUMMARY SHEETS
47	BIT. CONCRETE REMOVAL PLAN
48	BITUMINOUS CONCRETE DETAILS 1
49	BITUMINOUS CONCRETE DETAILS 2
50	PAVEMENT JOINT DETAILS
51-63	REFERENCE PLANS - BRIDGE 42 N&S

VAOT STANDARD SHEETS

E-100	01/02/04
E-100A	01/02/04
E-101	05/30/03
E-102	06/30/03
E-102A	05/01/04
E-106	03/01/04
E-107	06/30/03
E-107A	06/08/09
E-110	08/08/95
E-120	08/08/95
E-121	08/08/95
E-123	03/16/04
E-135	08/18/95

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. 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".
3. ALL WORK AND ANY ASSOCIATED ACTIVITY ON THIS PROJECT SHALL BE PERFORMED WITHIN THE EXISTING RIGHT-OF-WAY LIMITS.
4. 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.

TRAFFIC CONTROL

5. TEMPORARY TRAFFIC CONTROL DETAILS PROVIDED IN THE PLANS ARE INTENDED FOR DAYTIME USE ONLY. ANY COSTS ASSOCIATED WITH PROVIDING AN OVERNIGHT TRAFFIC CONTROL PACKAGE, IF PROPOSED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER, WILL BE INCLUDED IN THE UNIT PRICE BID FOR CONTRACT ITEM 641.10.
6. UNLESS COVERED UNDER INDIVIDUAL PAY ITEMS OR NOTED OTHERWISE, ALL COSTS FOR WORK SHOWN ON THE TRAFFIC CONTROL SHEETS, TEMPORARY DETOUR SHEETS AND 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 TRAFFIC CONTROL, ITEM 641.10.
7. ON BRIDGE 42N, TRAFFIC SHALL BE ALLOWED TO DRIVE ON THE BARE CONCRETE BRIDGE DECK AFTER THE REMOVAL OF THE BARRIER MEMBRANE, BUT 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.
8. LINE STRIPING TARGETS SHALL BE USED TO TEMPORARILY DELINEATE MARKINGS ON FINAL WEARING COURSE OF PAVEMENT PRIOR TO PLACEMENT OF FINAL PAVEMENT MARKINGS. IF FINAL PAVEMENT MARKINGS ARE TO BE APPLIED MORE THAN 14 DAYS AFTER PLACEMENT OF FINAL WEARING COURSE, PAVEMENT MARKING TAPE, TYPE II SHALL BE USED IN LIEU OF LINE STRIPING TARGETS AT NO ADDITIONAL COST TO THE PROJECT. THIS WORK WILL BE PAID FOR UNDER ITEM 646.76, LINE STRIPING TARGETS.

PAVEMENT REMOVAL NOTES

9. ON BRIDGE 42N, 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".
10. DURING BRIDGE AND APPROACH SLAB PAVEMENT REMOVAL, THE CONTRACTOR SHALL EXERCISE CARE TO INSURE 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.
11. 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.

12. ON BRIDGE 42N, 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".
13. ON BRIDGE 42N, 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.
14. ON BRIDGE 42N, 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. SHEET MEMBRANE WATERPROOFING SHALL NOT BE APPLIED WHEN THE DECK CONCRETE AND/OR DECK PATCH AREAS MOISTURE CONTENT IS ABOVE THE SECTION 519 SPECIFICATIONS OR THE MANUFACTURER'S SPECIFICATIONS, WHICHEVER IS LESS.

PAVEMENT NOTES

15. ON BRIDGE 42N, 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 WITH SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, BRIDGE DECK RESURFACING) IN TWO 1/4" LIFTS (SEE TYPICAL APPROACH SECTION ON BITUMINOUS CONCRETE DETAILS I).
16. ON BRIDGE 42S, THE EXISTING WEARING SURFACE WILL BE COLD PLANED AND REPLACED WITH ONE 1/4" LIFT OF ITEM 900.680, SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, BRIDGE DECK RESURFACING).
17. EMULSIFIED ASPHALT SHALL BE APPLIED TO ALL COLD PLANNED SURFACES AND BETWEEN PAVEMENT LIFTS. EMULSIFIED ASPHALT SHALL BE PAID AS ITEM 404.65, EMULSIFIED ASPHALT.
18. THE PAVEMENT THICKNESS AT THE PIER EXPANSION JOINTS SHALL BE 1/8" HIGHER THAN THE DECK CONCRETE AT THE PIER JOINTS. THE PAVEMENT SHALL TAPER FROM THE REQUIRED THICKNESS AS DESCRIBED ABOVE AT THE PIER JOINTS TO 2 1/2' OVER 25 FEET.
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. ANY DAMAGE TO THE SHEET MEMBRANE CAUSED BY CORING THE PAVEMENT SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER AND AT THE CONTRACTOR'S EXPENSE.
21. FOR PG BINDER GRADE SEE SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, BRIDGE DECK RESURFACING).
22. IF COLD PLANING OF THE RIGHT ROADWAY SHOULDERS ALONG BRIDGE APPROACHES EXPOSES GRAVEL SUBBASE, 2" BASE PAVEMENT SHALL BE PLACED ALONG THE SHOULDERS IN ADDITION TO THE 2 1/2" PAVEMENT TO BE PLACED IN ALL OTHER LOCATIONS.

WORK AROUND RAILROAD TRACKS

23. THE CONTRACTOR MUST KEEP ALL EQUIPMENT OVER 25 FEET HORIZONTALLY AWAY FROM THE CENTERLINE OF THE RAILROAD TRACKS, EXCEPT EQUIPMENT THAT IS TRAVELING ON THE BRIDGE DECK.
24. THE CONTRACTOR SHALL NOT APPLY SILANE TO THE FASCIA AREAS OF THE SPAN(S) OVER THE RAILROAD.

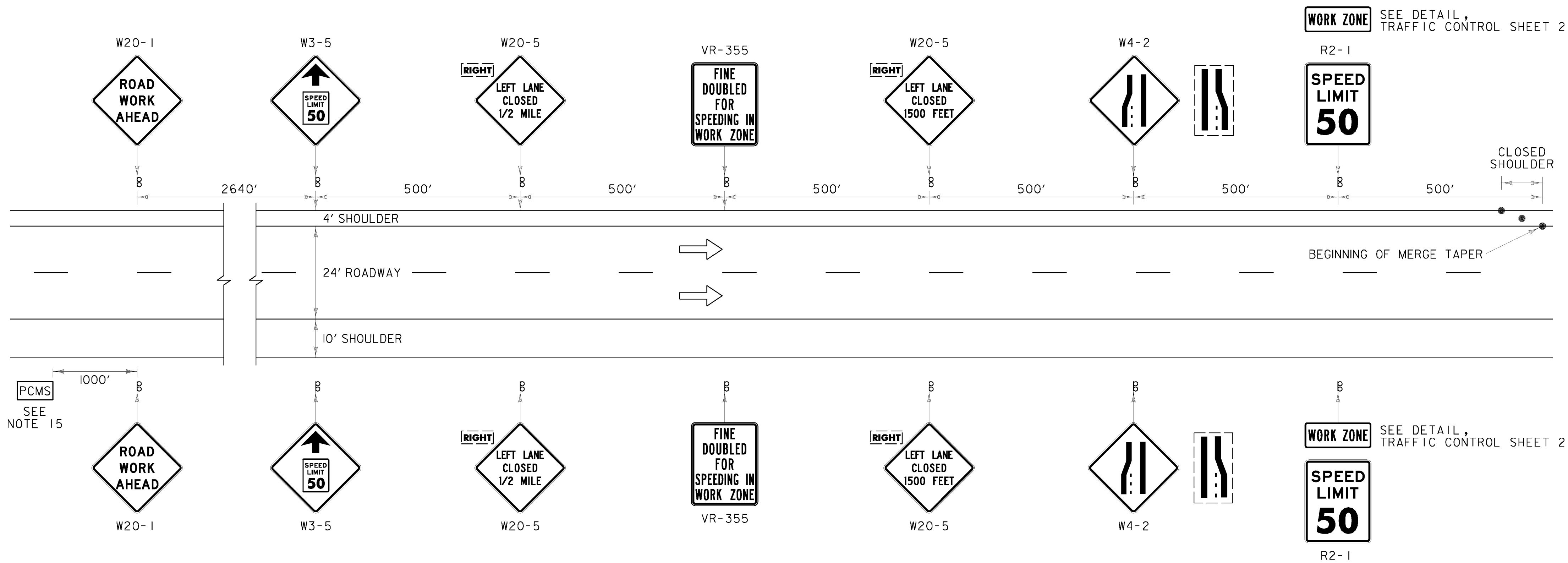


PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	IM MEMB(23)
FILE NAME: ...\\Plot Files\\02_br_notes.ptf	PLOT DATE: 6/8/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: G. GOYETTE	CHECKED BY: G. GOYETTE
INDEX OF SHEETS AND PROJECT NOTES SHEET 31 OF 63	

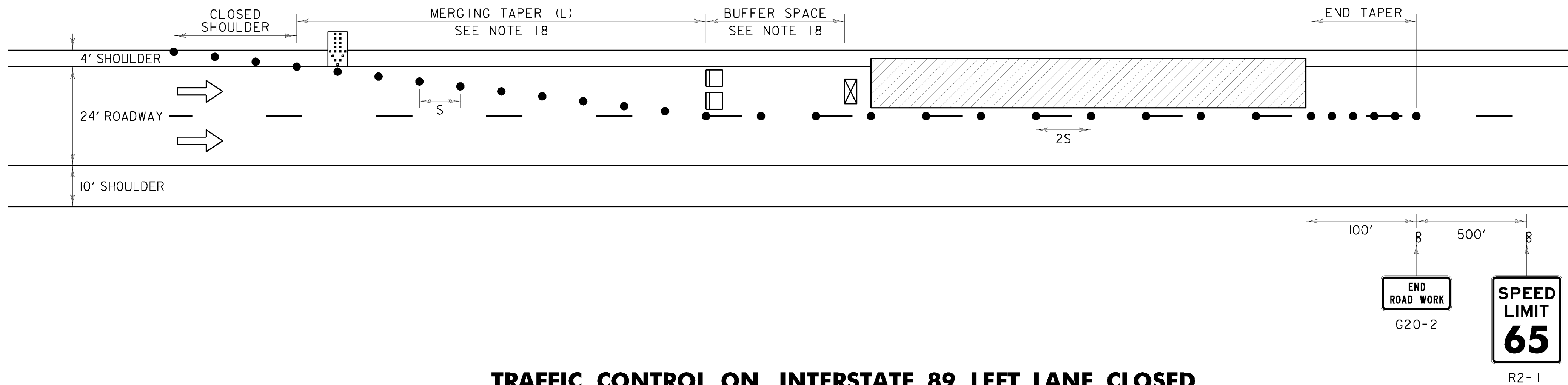
QUANTITY SHEET 1

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PROJECT NUMBER: IM MEMB(23)	
FILE NAME: ...N03_quantity sheet.pdf	PLOT DATE: 6/8/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: G. GOYETTE	CHECKED BY: G. GOYETTE
QUANTITY SHEET 1	SHEET 32 OF 63





**CONSTRUCTION APPROACH SIGNING ON INTERSTATE 89 LEFT LANE CLOSED
(RIGHT LANE CLOSURE SIMILAR - SEE NOTE 1)**



**TRAFFIC CONTROL ON INTERSTATE 89 LEFT LANE CLOSED
(RIGHT LANE CLOSURE SIMILAR - SEE NOTE 1)**

TRAFFIC CONTROL NOTES:

1. THE LEFT LANE CLOSURE IS SHOWN. THE RIGHT LANE APPROACH SIGNING IS SIMILAR. THE RIGHT LANE CLOSURE IS SHOWN ON TRAFFIC CONTROL SHEET 2.
2. THE EXISTING SPEED LIMIT IS 65 MPH. THE SPEED LIMIT WILL BE REDUCED TO 50 MPH IN THE WORK ZONE FOR THIS PROJECT. ANY EXISTING SPEED LIMIT SIGNS WITHIN THE SPEED REDUCTION AREA SHALL BE COMPLETELY COVERED.
3. SIGNS SHALL BE INSTALLED SO AS NOT TO OBSTRUCT EXISTING SIGNS.
4. ALL SIGNS SHALL BE IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND THE "STANDARD HIGHWAY SIGNS" BOOK (SHS) PUBLISHED BY THE FEDERAL HIGHWAY ADMINISTRATION (FHWA).
5. SOLID SUBSTRATE CONSTRUCTION SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING "AMERICAN SOCIETY FOR TESTING AND MATERIALS" (ASTM) TYPE VII, VIII OR IX REQUIREMENTS, UNLESS OTHERWISE NOTED.
6. ROLL UP SIGNS SHALL HAVE RETROREFLECTIVE SHEETING EQUAL TO OR EXCEEDING ASTM TYPE VI.
7. 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. SIGNS SHALL BE REMOVED UPON COMPLETION OF THE WORK AT THE DISCRETION OF THE ENGINEER.
8. 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. THE NEAREST EDGE OF A SIGN SHALL BE AT LEAST SIX FEET OUTSIDE THE SHOULDER POINT OR FOUR FEET OUTSIDE GUARDRAIL.
9. PORTABLE SIGNS SHALL BE PLACED ON THE EDGE OF ROADWAY AND A ONE FOOT MINIMUM ABOVE TRAVELED WAY. ALL VEGETATION THAT INTERFERES WITH VISIBILITY OF THE SIGNS SHALL BE REMOVED. WHEN PLACED BEHIND GUARDRAIL, THE BOTTOM OF THE SIGN FACE SHALL BE ABOVE THE TOP OF THE GUARDRAIL.
10. ALL SIGN STANDS AND POST INSTALLATIONS SHALL BE "NATIONAL COOPERATIVE HIGHWAY RESEARCH PROGRAM" (NCHRP) REPORT 350 COMPLIANT. NO SIGN POSTS SHALL EXTEND OVER THE TOP OF THE SIGN INSTALLED ON SAID POST(S). WHEN ANCHORS ARE INSTALLED STUB SHALL NOT BE GREATER THAN FOUR INCHES ABOVE EXISTING GROUND.
11. THE CONTRACTOR SHALL HAVE SIGNS FOR CLOSURE OF RIGHT AND LEFT LANES ON PROJECT BEFORE WORK COMMENCES.
12. THE NUMBER OF CHANNELIZING DEVICES, TYPE THREE BARRICADE AND OTHER TRAFFIC CONTROL DEVICES SHOWN ARE FOR ILLUSTRATIVE PURPOSES ONLY, THE ACTUAL NUMBER REQUIRED ARE TO BE DETERMINED BASED ON INDIVIDUAL DETOUR CONDITIONS (TAPERS, SPEED LIMITS, LENGTH OF DETOUR, CURVE, ETC.). WARNING LIGHTS SHALL NOT BE USED ON CHANNELIZING DEVICES.
13. PLACE LAST CHANNELIZING DEVICE 100 FEET BEYOND THE ANTICIPATED WORK ZONE TERMINAL POINT EACH DAY AND THEN START THE END TAPER. THE END TAPER SHALL BE CONSTRUCTED OF 5 ADDITIONAL RETROREFLECTIVE DRUMS SPACED AT 20 FEET ON CENTER.
14. THE ARROW BOARD SHALL BE PLACED ON THE SHOULDER OF THE ROADWAY, OR IF PRACTICAL FURTHER FROM THE TRAVELED LANE AT THE END OF THE SHOULDER TAPER. PORTABLE ARROW BOARDS SHALL BE PAID AS ITEM 641J6, PORTABLE ARROW BOARDS.
15. THE PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE USED IN ACCORDANCE WITH SECTION 6F.55 OF THE MUTCD. THE PCMS SHALL READ "LEFT (OR RIGHT) LANE CLOSED AHEAD, PLEASE MERGE EARLY". PCMS BOARDS SHALL BE PAID AS ITEM 641J5, PORTABLE CHANGEABLE MESSAGE SIGN.
16. TRAVEL LANE SHALL BE 12 FEET WIDE.
17. DURING NON-WORK PERIODS, ALL EQUIPMENT SHALL BE MOVED TO A LOCATION OFF PAVED SHOULDERS AND PROTECTED BY BARRELS OR CONES. IF TEMPORARY TRAFFIC BARRIER IS USED FOR LANE CLOSURE (SEE TRAFFIC CONTROL SHEET 2), EQUIPMENT MAY BE PARKED BEHIND THE BARRIER.
18. AT THE DISCRETION OF THE ENGINEER, MERGING TAPER AND BUFFER SPACE LENGTHS MAY BE EXTENDED BEYOND MINIMUM VALUES, ESPECIALLY IN CLOSE PROXIMITY TO INTERCHANGE RAMP, CURVES OR OTHER INFLUENCING FACTORS.
19. SEE SHEET 37 FOR RAMP CLOSURE DETAILS.

LEGEND

- ➔ FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- ▤ PORTABLE ARROW BOARD
- ▣ TYPE III BARRICADE
- ▨ WORK AREA
- ⊗ ENERGY ABSORPTION ATTENUATOR
- ⊠ TRUCK-MOUNTED ATTENUATOR
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15)

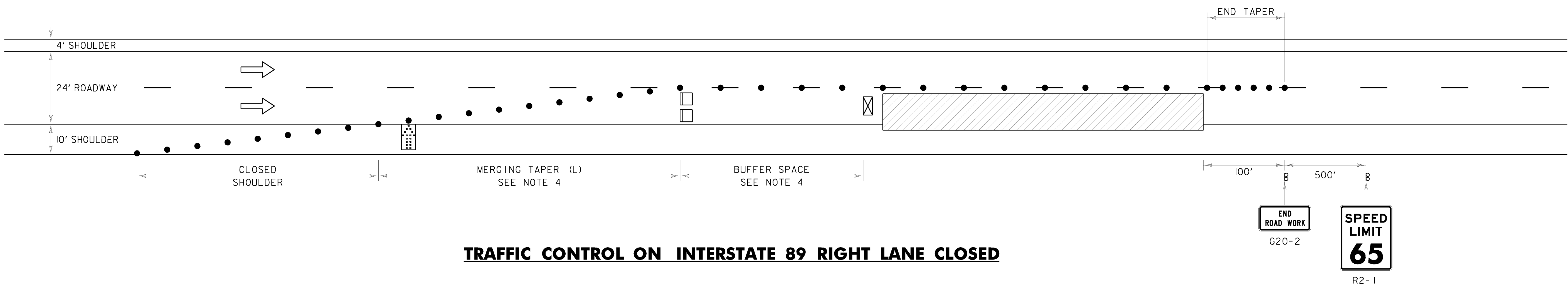
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	SHOULDER W=10 FT (L/3)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	320	160	1:9	305	40	80
45	150	540	270	1:9	360	45	90
50	170	600	300	1:11	425	50	100
55	185	660	330	1:13	495	55	110
60	200	720	360	1:13	570	60	120
65	215	780	390	1:13	645	65	130

TAPER RATES ARE DETERMINED USING THE FOLLOWING EQUATION:
 $L = WS$ FOR POSTED SPEEDS OF 45 MPH OR GREATER
 $L = WS^2/60$ FOR POSTED SPEEDS OF 40 MPH OR LESS

L = MINIMUM LENGTH OF TAPER
W = WIDTH OF OFFSET IN FEET. (TYPICAL)
S = POSTED SPEED IN MPH

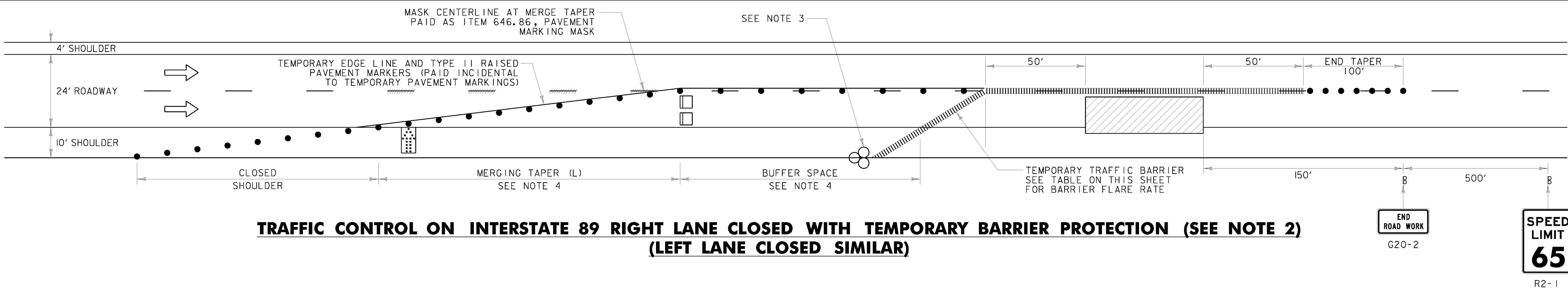


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PROJECT NUMBER:	IM MEMB(23)
FILE NAME: ... \Plot Files\04-TCS 1.ptf	PLOT DATE: 5/24/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: G. GOYETTE	CHECKED BY: G. GOYETTE
TRAFFIC CONTROL SHEET 1	SHEET 33 OF 63

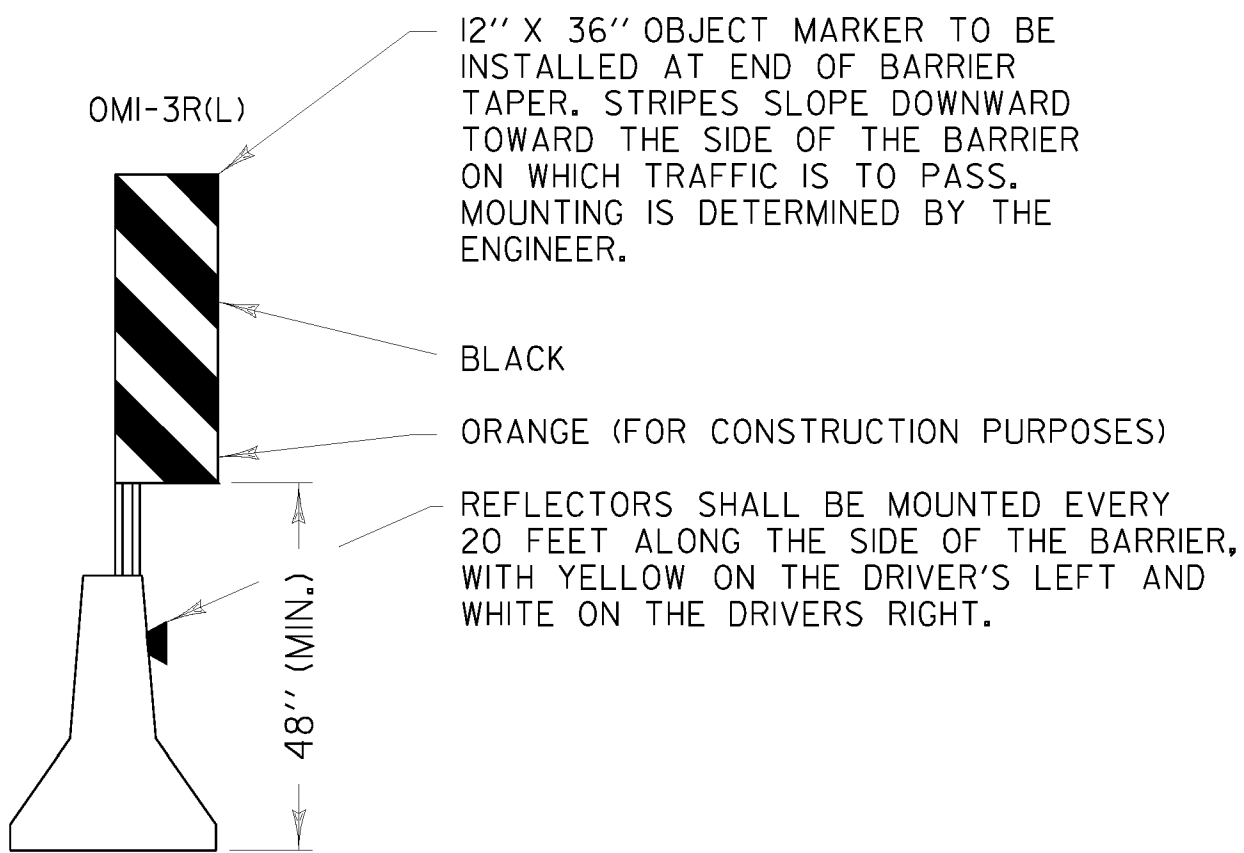


TRAFFIC CONTROL ON INTERSTATE 89 RIGHT LANE CLOSED

NOTE: TRAFFIC CONTROL NOTES ON TRAFFIC CONTROL SHEET 1 APPLY TO THIS DETAIL.



TRAFFIC CONTROL ON INTERSTATE 89 RIGHT LANE CLOSED WITH TEMPORARY BARRIER PROTECTION (SEE NOTE 2)
(LEFT LANE CLOSED SIMILAR)

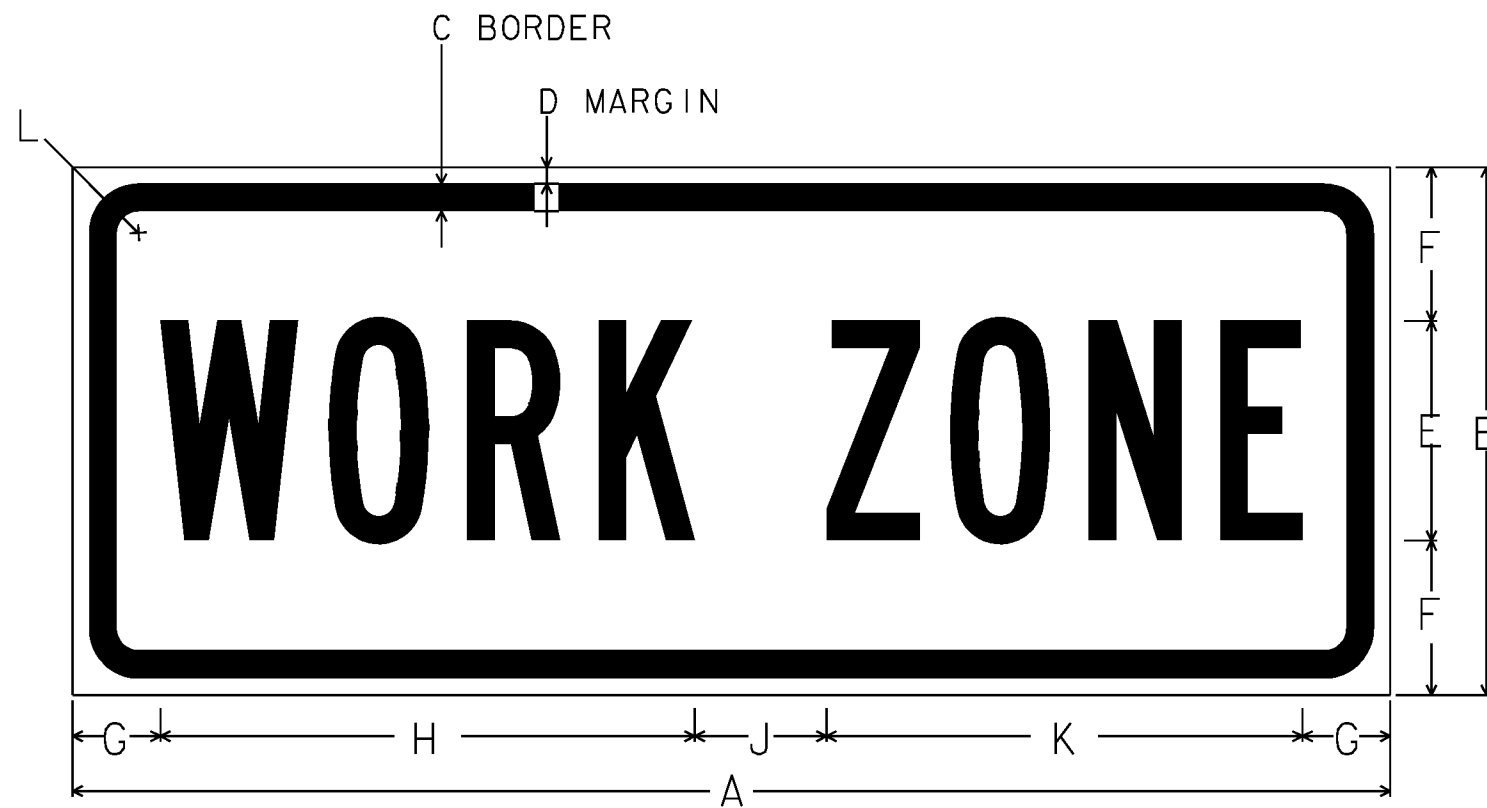


12" X 36" OBJECT MARKER TO BE INSTALLED AT END OF BARRIER TAPER. STRIPES SLOPE DOWNWARD TOWARD THE SIDE OF THE BARRIER ON WHICH TRAFFIC IS TO PASS. MOUNTING IS DETERMINED BY THE ENGINEER.

BLACK

ORANGE (FOR CONSTRUCTION PURPOSES)

REFLECTORS SHALL BE MOUNTED EVERY 20 FEET ALONG THE SIDE OF THE BARRIER, WITH YELLOW ON THE DRIVER'S LEFT AND WHITE ON THE DRIVERS RIGHT.



DIMENSIONS (INCHES)											
	A	B	C	D	E	F	G	H	J	K	L
MIN.	24	8	0.375	0.375	4B	2	2	9.5	2	8.5	1.5
SPEC.	30	12	0.375	0.625	5B	3.5	2	12.2	3	8.5	1.5
EXPWY.	36	12	0.50	0.75	6B	3	2.5	14.8	3	8.5	1.875
FWY.	48	18	0.625	0.875	8B	4	3.5	19.1	4	8.5	2.25

NOTE: THE SIGN IS TO HAVE A BLACK LEGEND ON AN ORANGE RETROREFLECTIVE BACKGROUND THAT IS ASTM TYPE VII MINIMUM.

WORK ZONE SIGN DETAIL
NOT TO SCALE

TRAFFIC CONTROL NOTES:

- SEE TRAFFIC CONTROL SHEET 1 FOR ADDITIONAL NOTES AND APPROACH SIGNING NOT SHOWN.
- IF THE LANE CLOSURE IS TO LAST LONGER THAN 3 DAYS, THE CONTRACTOR SHALL USE TEMPORARY TRAFFIC BARRIER AS SHOWN ON THIS SHEET AND PAID AS 621.90 TEMPORARY TRAFFIC BARRIER. WHEN ONE SIDE OF THE BRIDGE IS COMPLETE, MOVING THE BARRIER TO CLOSE THE OTHER SIDE TO TRAFFIC WILL BE PAID AS 621.95 REMOVE AND RESET TEMPORARY TRAFFIC BARRIER.
- LOCATE THE END OF THE TEMPORARY TRAFFIC BARRIER SO THAT THE EXISTING STEEL BEAM GUARDRAIL CAN BE BOLTED TO THE END OF THE BARRIER. IF IT IS NOT POSSIBLE TO FASTEN THE BARRIER TO THE EXISTING ROADWAY GUARDRAIL, AN ENERGY ABSORPTION ATTENUATOR PAID AS ITEM 621.56, ENERGY ABSORPTION ATTENUATOR, SHALL BE LOCATED AT THE END OF THE BARRIER. COST OF ATTACHING TEMPORARY TRAFFIC BARRIER TO THE STEEL BEAM GUARDRAIL AND COSTS FOR DISMANTLING BARRIER CONNECTION AND RESTORING EXISTING BARRIER TO ORIGINAL CONFIGURATION WILL BE INCIDENTAL TO ITEM 621.90. ANY DAMAGED EXISTING STEEL BEAM GUARDRAIL CAUSED BY CONNECTING IT TO THE BARRIER SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- AT THE DISCRETION OF THE ENGINEER, MERGING TAPER AND BUFFER SPACE LENGTHS MAY BE EXTENDED BEYOND MINIMUM VALUES, ESPECIALLY IN CLOSE PROXIMITY TO INTERCHANGE RAMP, CURVES OR OTHER INFLUENCING FACTORS.
- SEE SHEET 37 FOR RAMP CLOSURE DETAILS.

LEGEND

- FLOW OF TRAFFIC
- RETROREFLECTIVE PLASTIC DRUM
- PORTABLE ARROW BOARD
- TYPE III BARRICADE
- WORK AREA
- ENERGY ABSORPTION ATTENUATOR
- TRUCK-MOUNTED ATTENUATOR
- PORTABLE CHANGEABLE MESSAGE SIGN (SEE NOTE 15 ON TRAFFIC CONTROL SHEET 1)

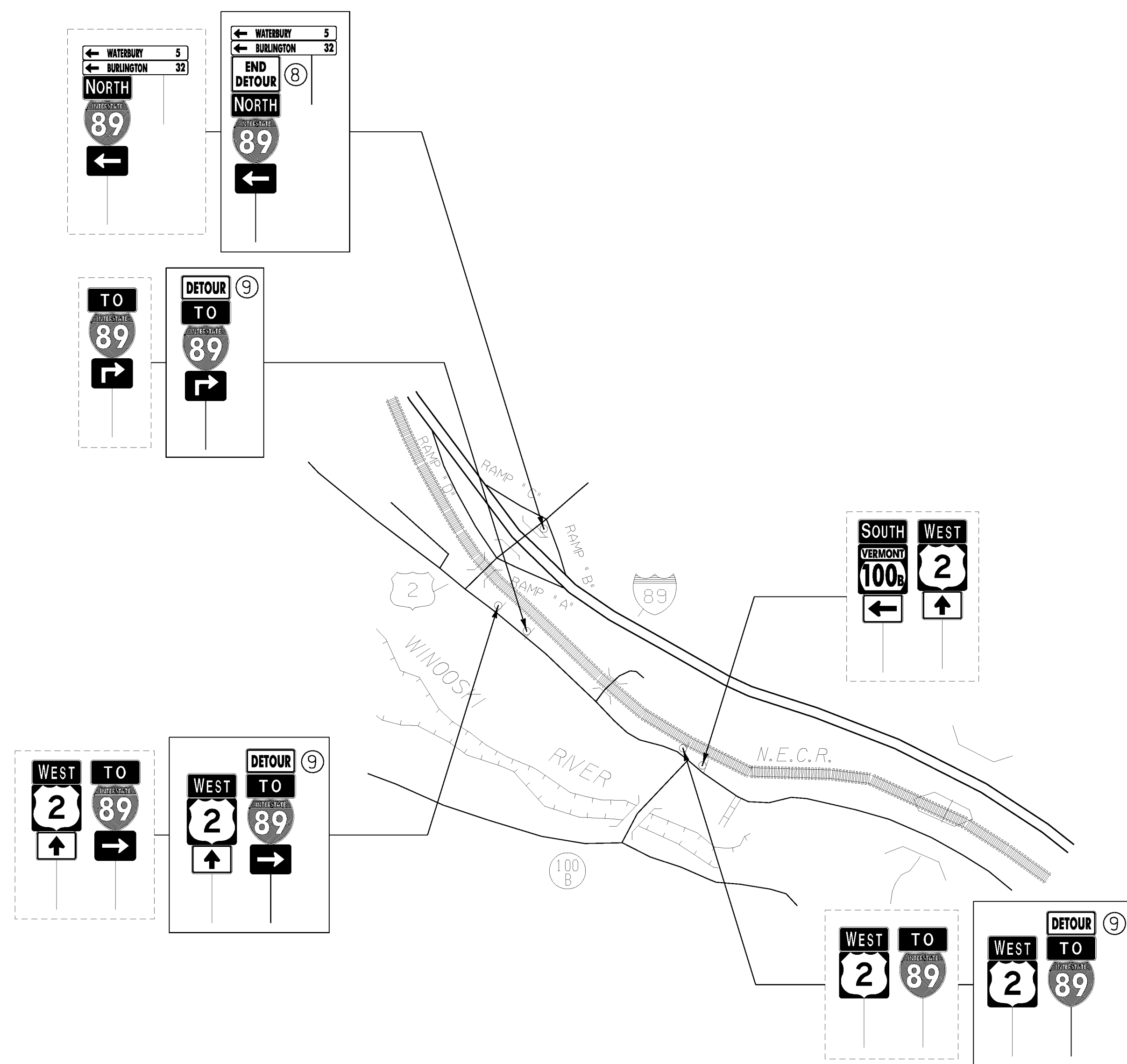
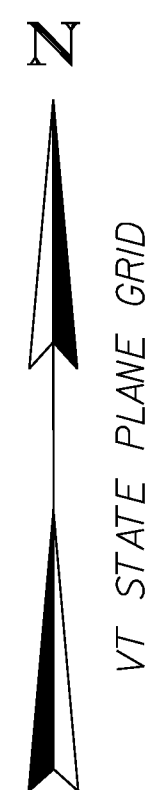
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	SHOULDER W=10 FT (L/3)	MERGING 12 FT LANE (L)				TAPER (S)	TANGENT (2S)
≤40	90	320	160	1:9	305	40	80
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60	200	720	360	1:13	570	60	120
65	215	780	390	1:13	645	65	130

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L = WS FOR POSTED SPEEDS OF 45 MPH OR GREATER
L = WS²/60 FOR POSTED SPEEDS OF 40 MPH OR LESS

L = MINIMUM LENGTH OF TAPER
W = WIDTH OF OFFSET IN FEET, (TYPICAL)
S = POSTED SPEED IN MPH



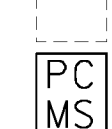
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PROJECT NUMBER:	IM MEMB(23)
FILE NAME: ... \Plot Files\05-TCS 2.prf	PLOT DATE: 5/24/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: G. GOYETTE	CHECKED BY: G. GOYETTE
TRAFFIC CONTROL SHEET 2	SHEET 34 OF 63



MIDDLESEX AND INTERCHANGE 9

NOT TO SCALE

LEGEND:

-  = TEMPORARY SIGN ASSEMBLY
-  = EXISTING SIGN ASSEMBLY
-  = PORTABLE CHANGEABLE MESSAGE SIGN

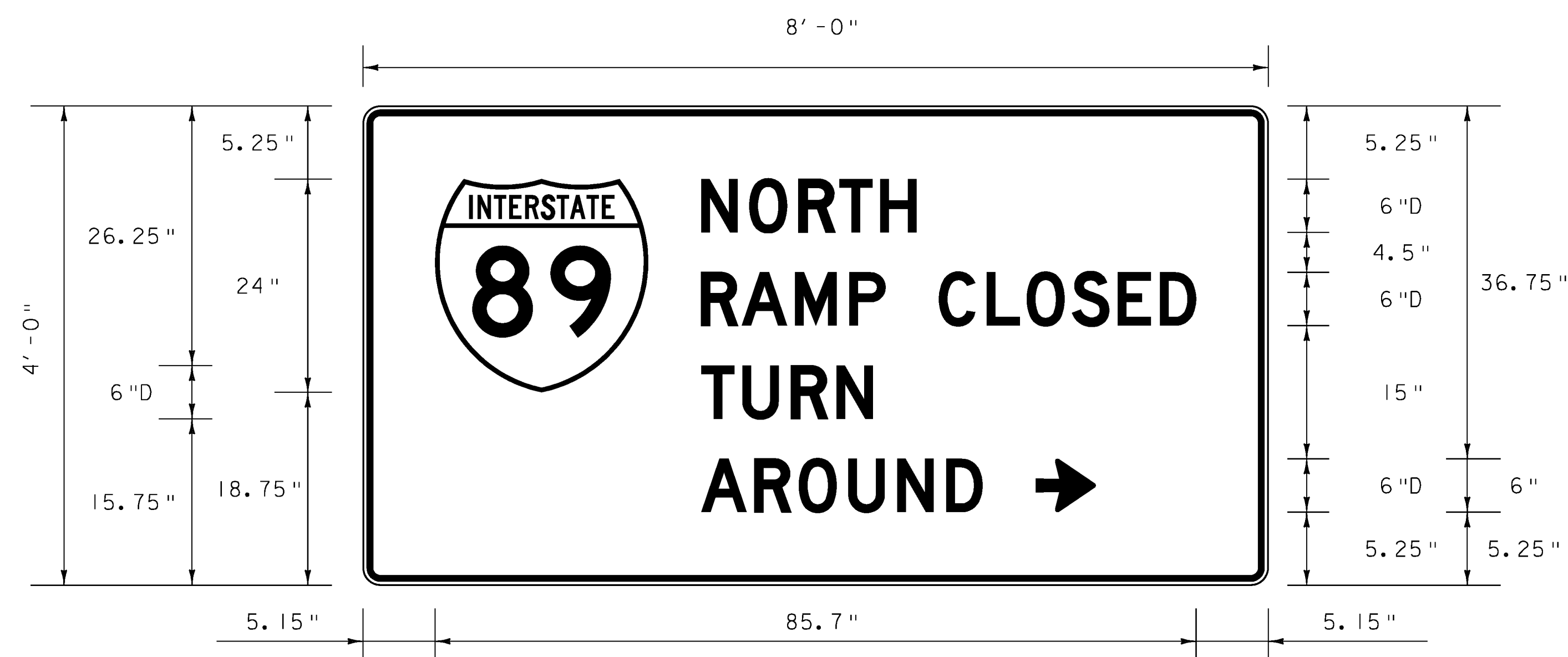
TEMPORARY DETOUR NOTES:

1. IT IS PROJECTED THAT THE TEMPORARY DETOUR WILL LAST 24 DAYS. ONCE THE DETOUR IS NO LONGER REQUIRED, ALL DETOUR SIGNING WILL BE REMOVED, ALL COVERED SIGNS WILL BE UNCOVERED, ALL SIGN ASSEMBLIES WILL BE RETURNED TO EXISTING CONDITIONS, AND THE CLOSED RAMP WILL BE RE-OPENED.
2. THE COMPLETE DETOUR SIGNING PACKAGE MUST BE IN PLACE PRIOR TO CLOSING THE RAMP. PCMS BOARDS FOR THE TEMPORARY DETOUR SHALL BE INSTALLED AND OPERATIONAL 7 DAYS PRIOR TO CLOSING THE RAMP. PCMS BOARDS WILL BE PAID FOR UNDER ITEM 641.15, PORTABLE CHANGEABLE MESSAGE SIGN.
3. COVERS FOR SIGNS SHALL BE WIND AND WEATHER PROOF AND COMPLETELY COVER THE SIGN. NO TAPE OR FASTENINGS OF ANY KIND ARE TO BE APPLIED TO OR DRIVEN THROUGH ANY SIGN FACES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE COVERS THROUGHOUT THE DURATION OF THE PROJECT.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ENTIRE DETOUR SIGNING PACKAGE AND MUST PROMPTLY REPAIR OR REPLACE ANY SIGNS OR POSTS WHICH BECOME DAMAGED OR OTHERWISE INEFFECTIVE.
5. THE DETOUR SIGNING MUST PRESENT THE APPEARANCE OF PERMANENT SIGNING; ALL POSTS VERTICAL AND SECURE AND SIGNS HORIZONTAL. SEE STANDARDS E-121 AND E-123 FOR PLACEMENT AND MOUNTING DETAILS.
6. ALL SIGN ITEMS INCLUDING INSTALLING, REMOVING, AND COVERING SIGNS SHALL BE INCLUDED IN THE CONTRACT BID PRICE FOR ITEM 641.10, TRAFFIC CONTROL (I-89 - BRIDGE NO. 42N).
7. CONTRACTOR SHALL NOTIFY VTRANS OF RAMP CLOSURE AT LEAST 30 DAYS IN ADVANCE TO ENSURE PROPER RETIMING OF SIGNALS AT THE INTERSECTIONS OF BAILEY AVENUE AND MEMORIAL DRIVE AND BAILEY AVENUE AND STATE STREET.
8. SIGN LOCATIONS SHOWN ARE APPROXIMATE AND SHOULD BE USED FOR SCHEMATIC PURPOSES ONLY. REFER TO STANDARD E-121 FOR SIGN PLACEMENT DETAILS.

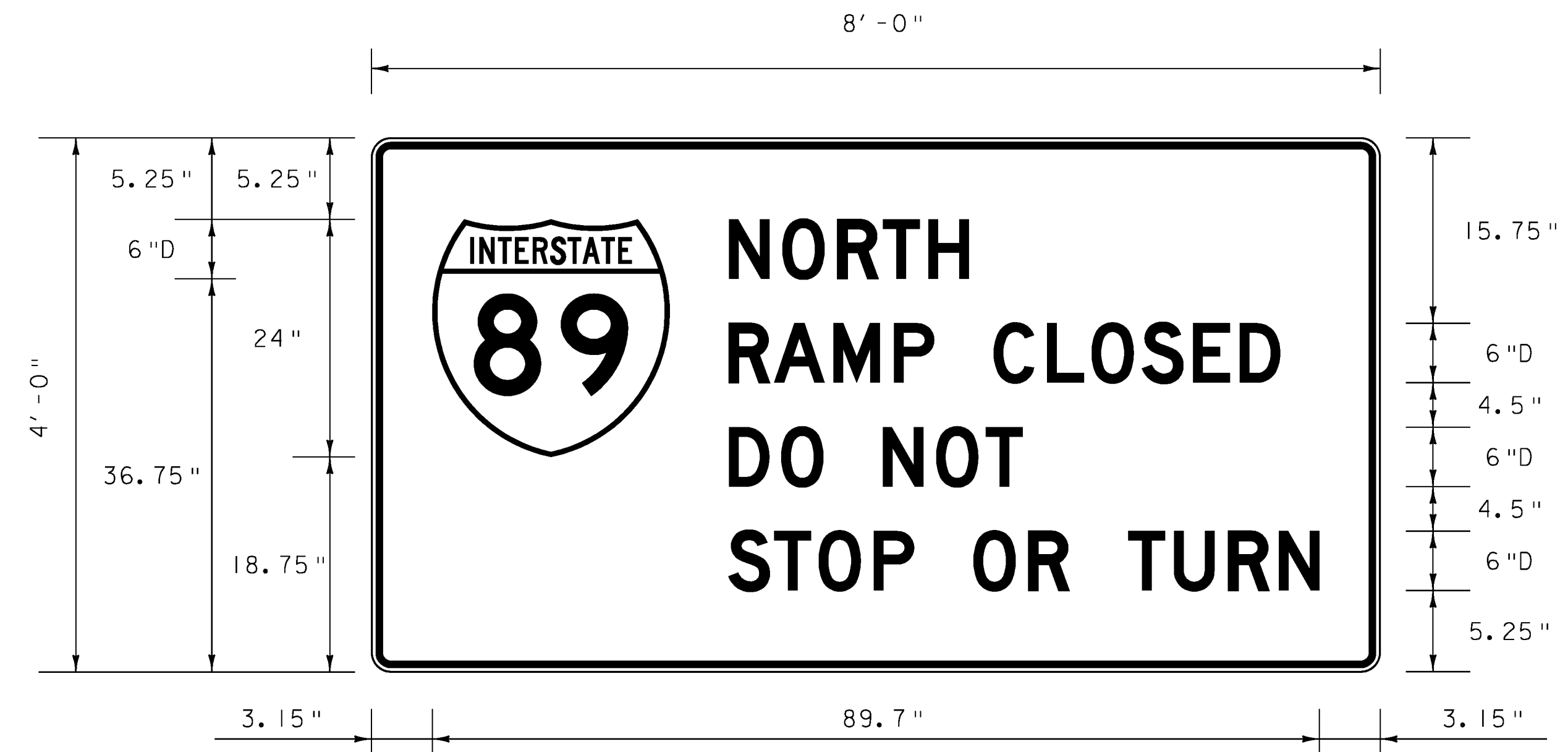


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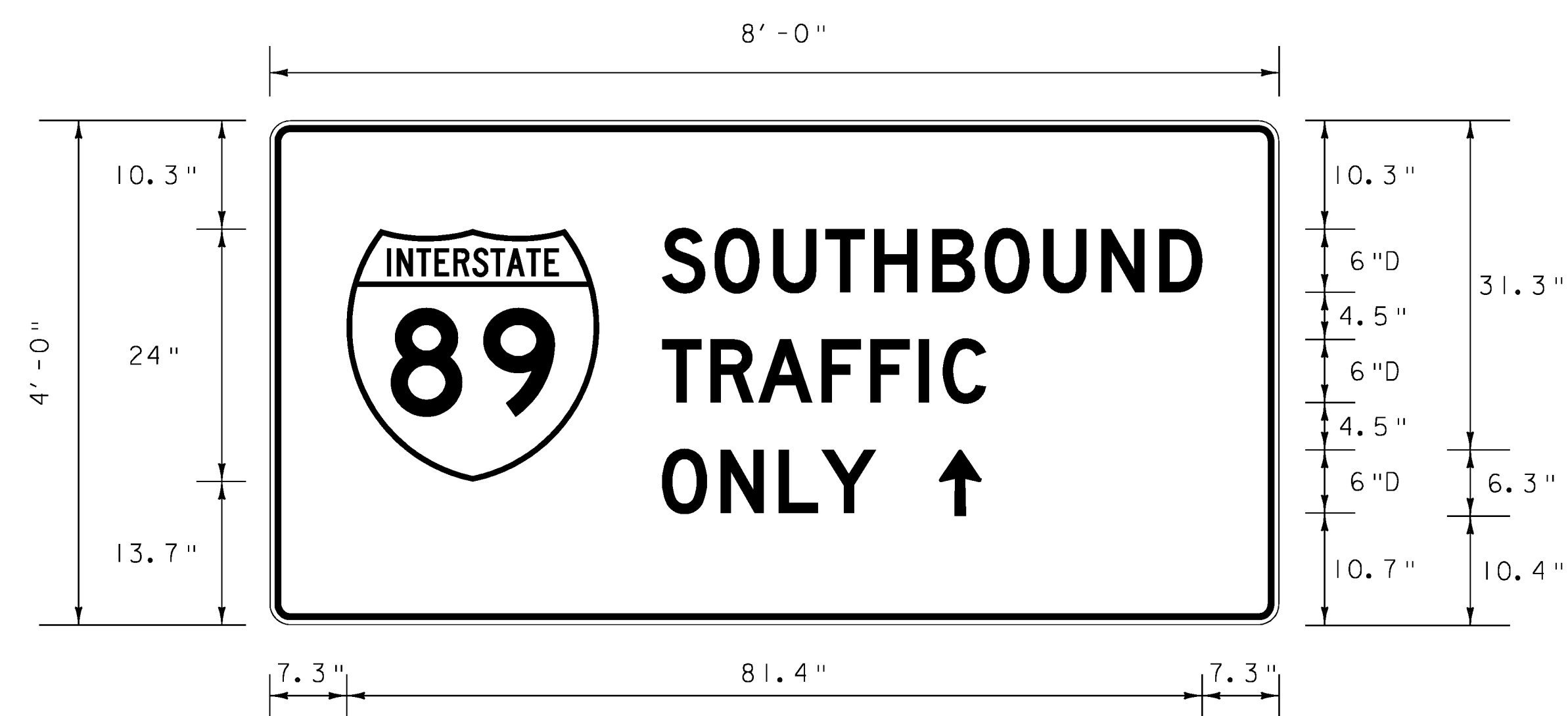
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PROJECT LEADER: G. BOGUE DRAWN BY: E. ALLING
DESIGNED BY: G. GOYETTE CHECKED BY: G. GOYETTE
DETOUR SHEET 2 SHEET 36 OF 63



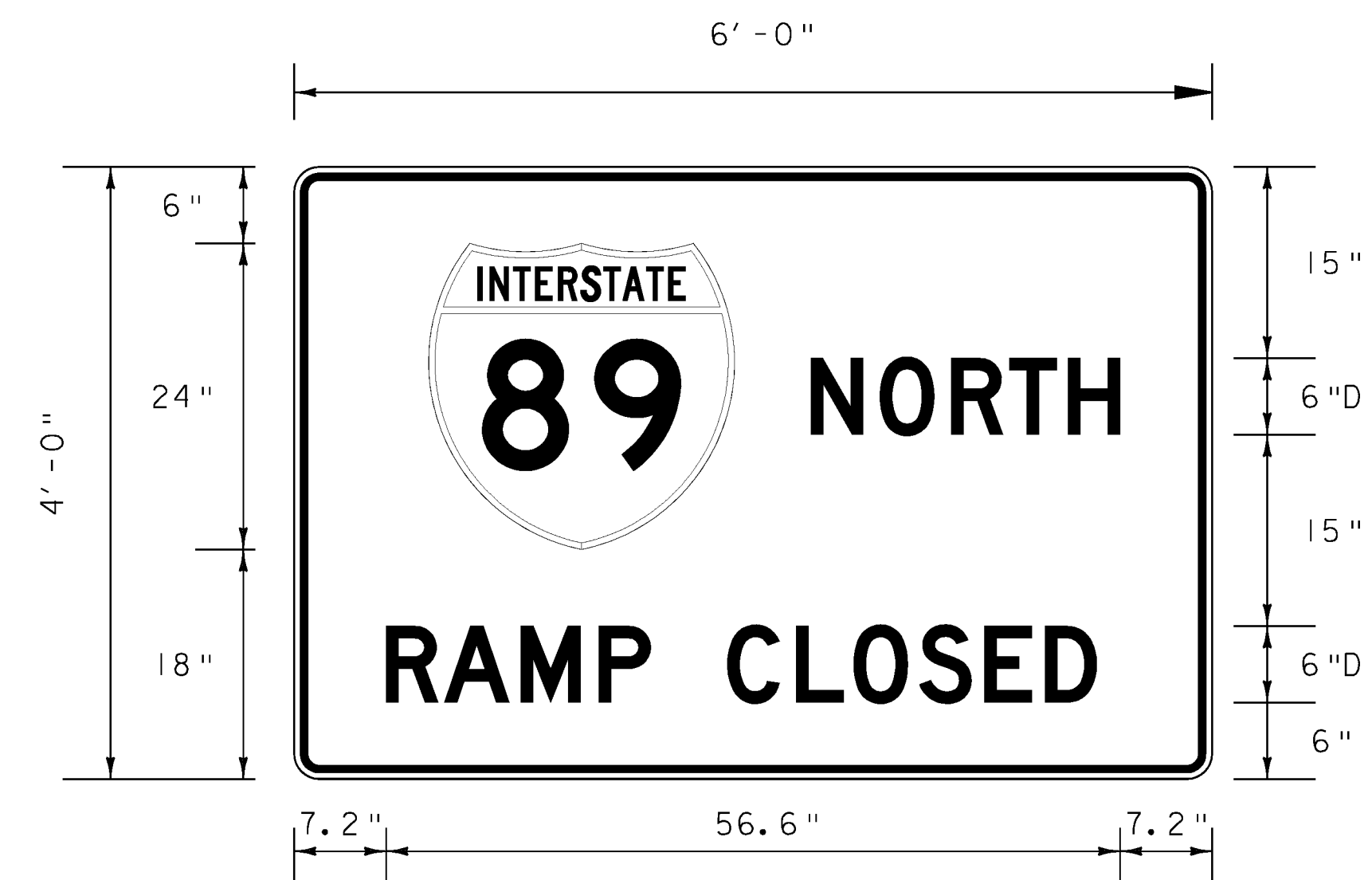
I-89 RAMP CLOSURE CONSTRUCTION SIGN ⑥
NOT TO SCALE



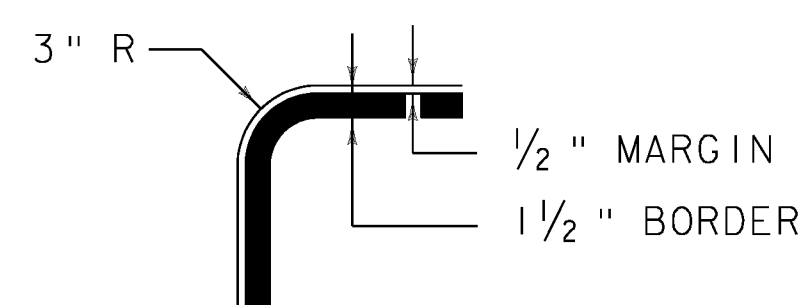
I-89 RAMP CLOSURE CONSTRUCTION SIGN ⑦
NOT TO SCALE



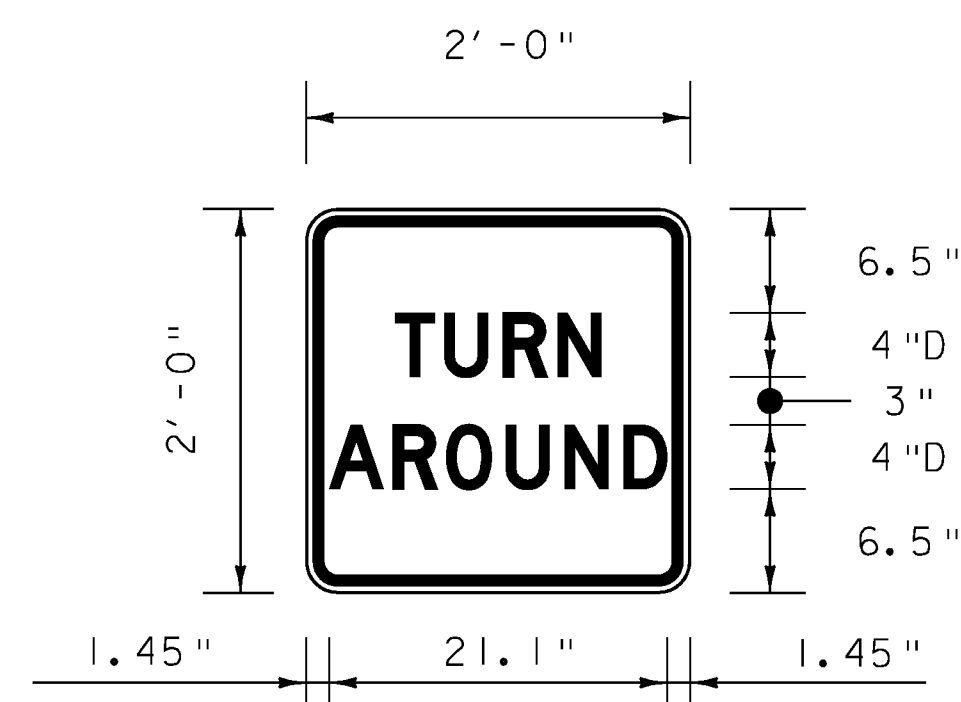
I-89 RAMP CLOSURE CONSTRUCTION SIGN ⑧
NOT TO SCALE



I-89 RAMP CLOSURE CONSTRUCTION SIGN ⑤
NOT TO SCALE



CONSTRUCTION SIGN BORDER
NOT TO SCALE



TURN AROUND SIGN FOR BASIC ASSEMBLY ③
NOT TO SCALE

NOTES:

1. COLORS - ALL SIGNS THIS SHEET SHALL CONFORM WITH THE STANDARD COLORS ADOPTED BY AASHTO AND APPROVED BY FHWA. COLOR SHALL CONSIST OF BLACK TEXT AND BORDER ON A RETROREFLECTORIZED ASTM TYPE VIII ORANGE BACKGROUND.
2. SHIELD SHALL BE STANDARD INTERSTATE SHIELD. SEE STANDARD E-135.
3. SEE STANDARD SHEET E-100 FOR MATERIALS AND OTHER DETAILS.



PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	IM MEMB(23)
FILE NAME: ...\\09.const sign det.s.prf	PLOT DATE: 5/24/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: E. ALLING
DESIGNED BY: G. GOYETTE	CHECKED BY: G. GOYETTE
CONSTRUCTION SIGN DETAILS	SHEET 38 OF 63

TEMPORARY TRAFFIC SIGN SUMMARY SHEET 1



TEMPORARY TRAFFIC SIGN SUMMARY SHEET 2



TEMPORARY TRAFFIC SIGN SUMMARY SHEET 3



TEMPORARY TRAFFIC SIGN SUMMARY SHEET 4



TEMPORARY TRAFFIC SIGN SUMMARY SHEET 5



TEMPORARY TRAFFIC SIGN SUMMARY SHEET 6

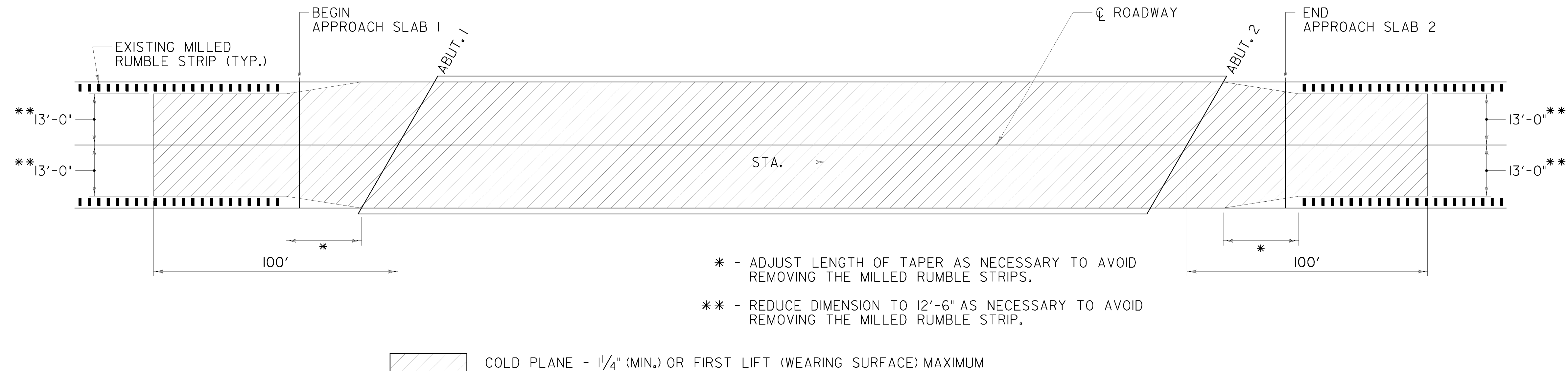
MILEMARKER, STATION, OR SIGN NUMBER	SIGN LEGEND	SIGN DIMENSIONS			TEMP. & EXISTING SIGNS				EXIST POST RETAIN	NO. OF POSTS	NEW SIGN POSTS												REMARKS	SIGN DETAIL											
											FLANGED CHANNEL	SQUARE STEEL (in)			ANCHOR	SLEEVE	TUBULAR ALUMINUM Ø (in)			TUBULAR STEEL Ø (in)				W-SHAPE STEEL			REQUIRED SIGN FRAME	DETAIL ON SHEET NUMBER	STD. SHEET NUMBER						
		1.75	2.0	2.5	3.0	4.0	4.0 MOD	FOUND- ATION				3.0	3.5	4.0			5.0	FTG. SIZE		WEIGHT	POST SIZE														
																		lb/ft	lb/ft			lb/ft		24"	30"										
I-89 SIGN SUMMARY – SEE TRAFFIC CONTROL SHEETS 1 & 2 FOR LOCATIONS												OPTION ITEMS																							
4 LOCATIONS		4	48	18	6.00																										-	TCS 2	-		
4 LOCATIONS		4	48	60	20.00																										R2-I	-	SHS		
2 LOCATIONS		2	36	18	4.50																										G20-2	-	SHS		
2 LOCATIONS		2	48	60	20.00																											R2-I	-	SHS	
2 LOCATIONS		2	12	36	3.00																											OMI3-L	-	SHS	
2 LOCATIONS		2	12	36	3.00																											OMI3-R	-	SHS	
FINAL POST LENGTHS ARE TO BE DETERMINED IN THE FIELD. POST SIZES ARE COMPUTED BASED ON INFORMATION FURNISHED ON THE STANDARD SHEETS AND THE VTRANS "SIGN POST DESIGN GUIDELINE."																																			

TEMPORARY TRAFFIC SIGN SUMMARY SHEET 7



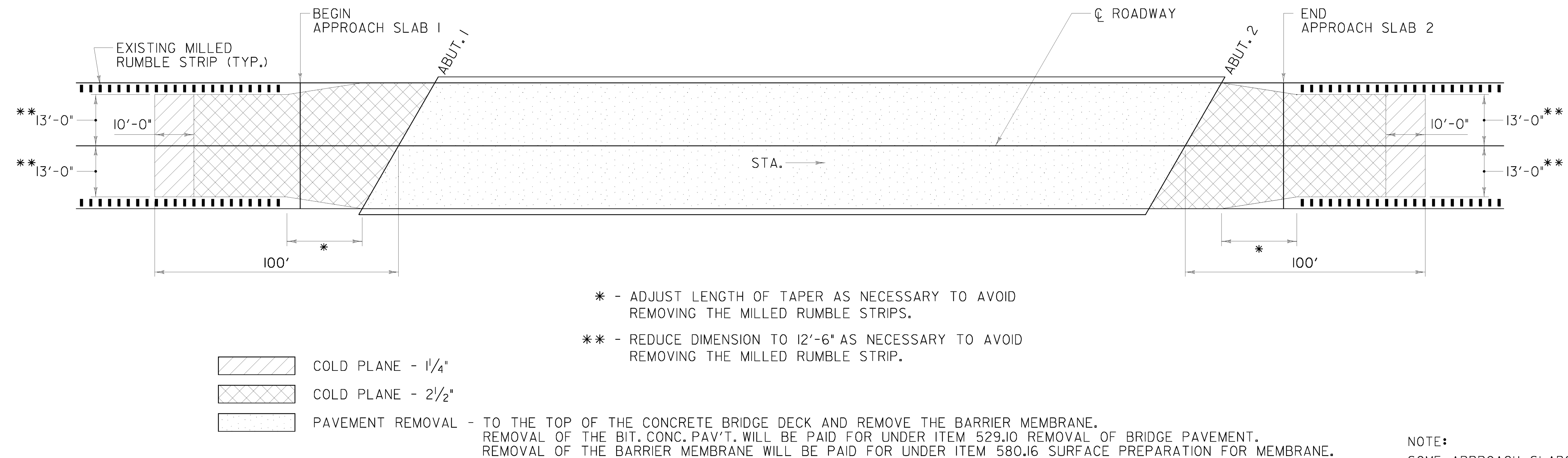
TEMPORARY TRAFFIC SIGN SUMMARY SHEET 8





BITUMINOUS CONCRETE REMOVAL PLAN - BRIDGE 42 S

NOT TO SCALE



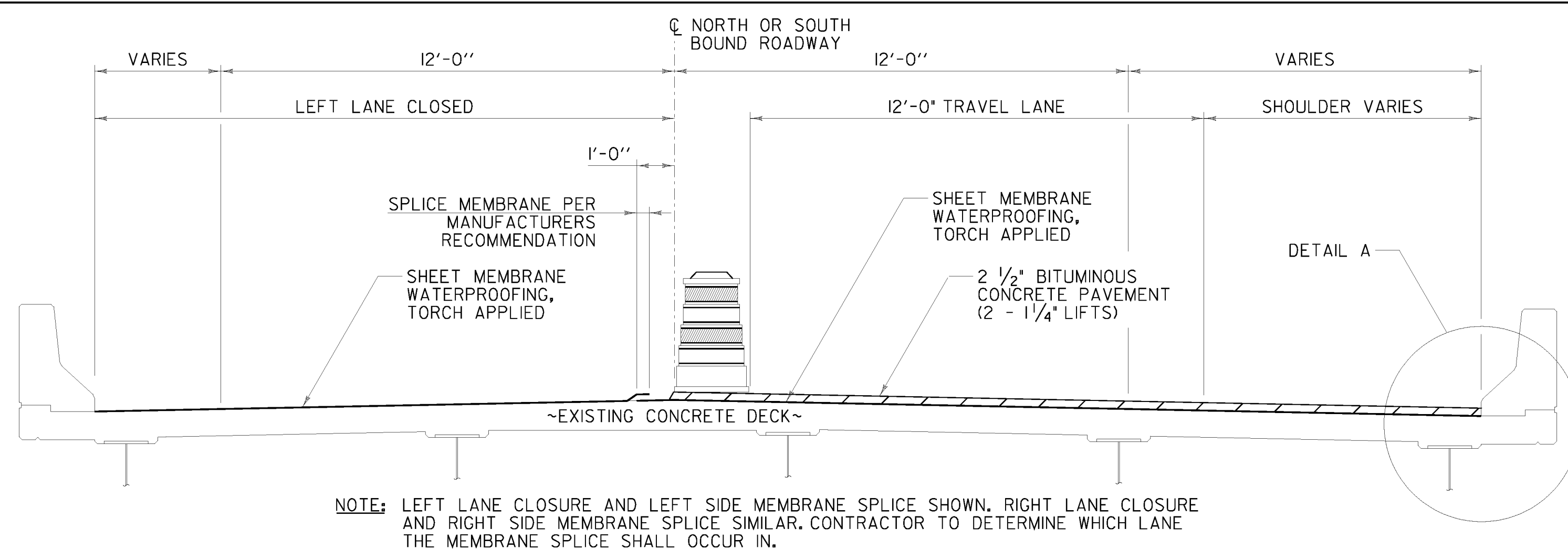
BITUMINOUS CONCRETE REMOVAL PLAN - BRIDGE 42 N

NOT TO SCALE

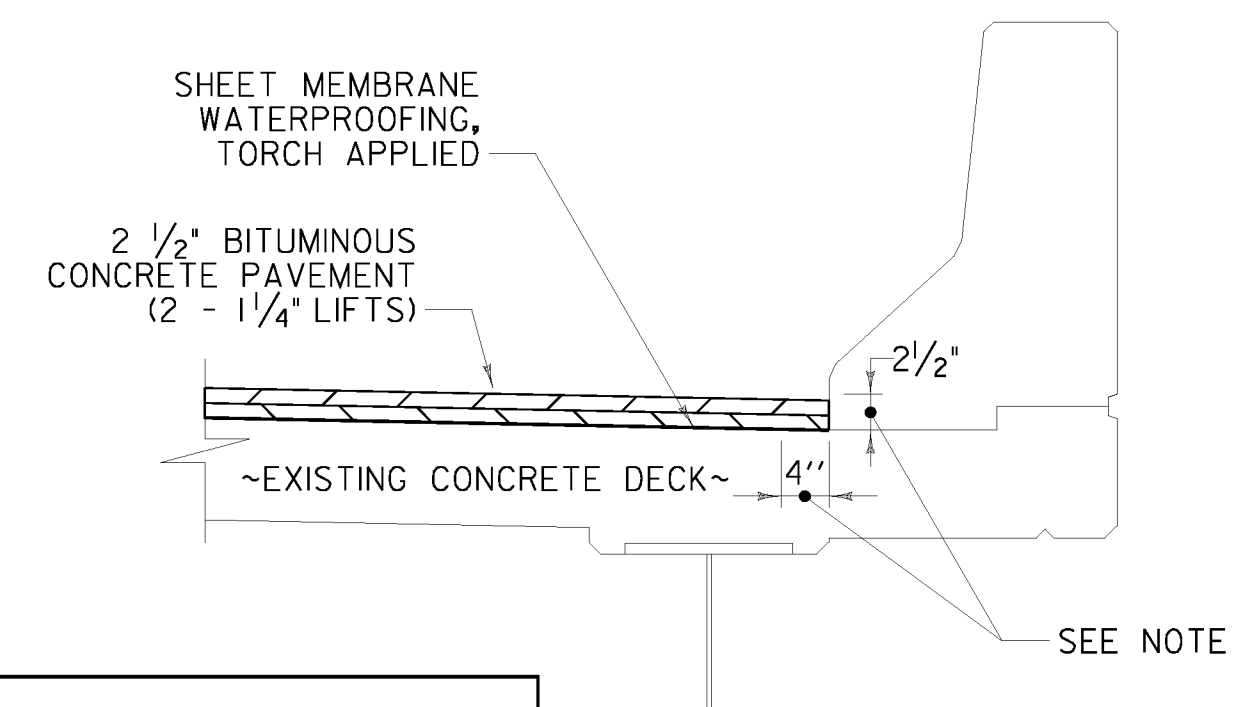
NOTE:
SOME APPROACH SLABS SLOPE DOWNWARD FROM ABUTMENTS.
THE INTENT OF THIS PROJECT IS TO ONLY REMOVE 2 1/2" OF PAVEMENT ON THE APPROACH SLABS.

PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	IM MEMB(23)
FILE NAME: ...\\8.bit conc removal.ptf	PLOT DATE: 5/24/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: T. KNIGHT
DESIGNED BY: T. KNIGHT	CHECKED BY: G. BOGUE
BIT. CONCRETE REMOVAL PLAN	SHEET 47 OF 63





MEMBRANE SPlice DETAIL - BRIDGE 42N
NOT TO SCALE

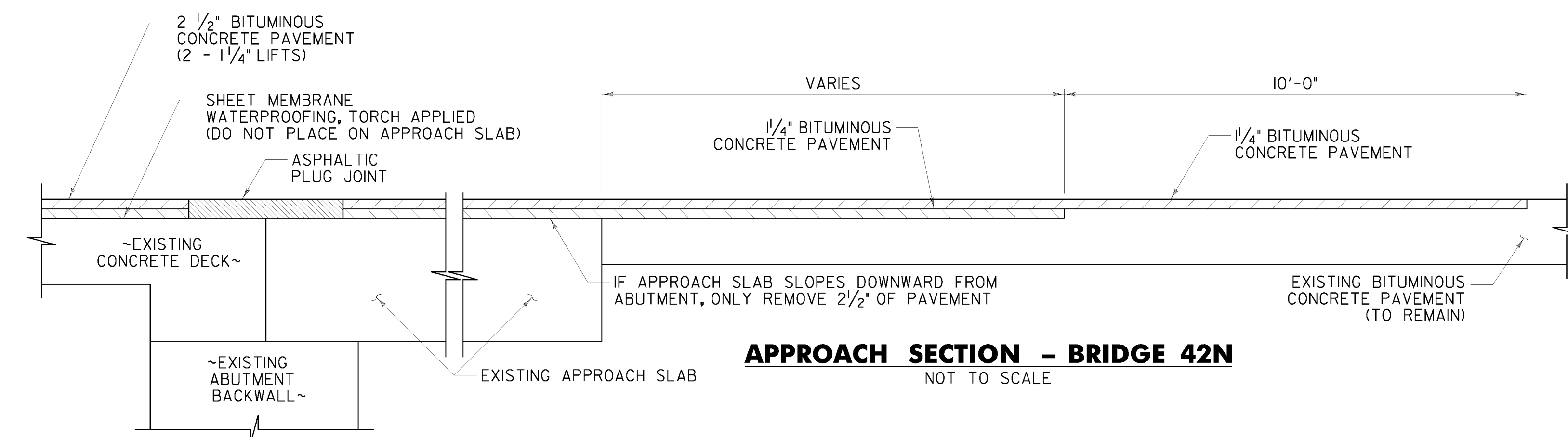


DETAIL A
NOT TO SCALE

NOTE: FOR PG BINDER GRADE SEE SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT, BRIDGE DECK RESURFACING)

DETAIL A NOTES:

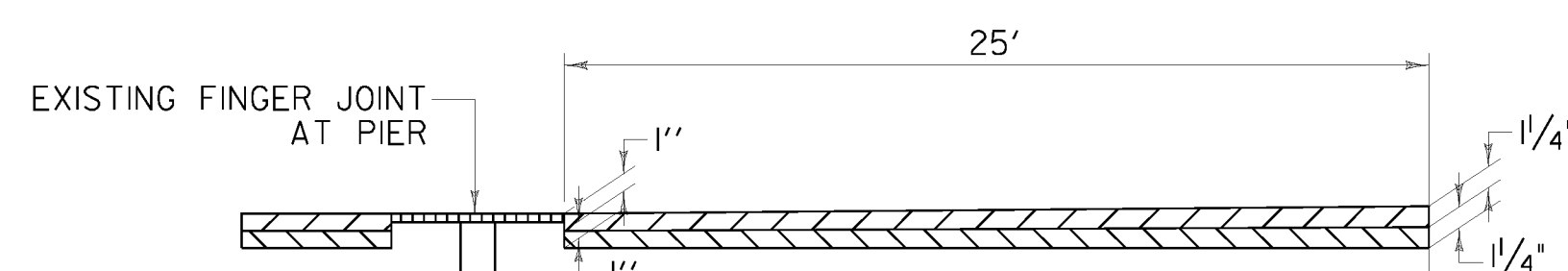
1. INDICATES AREA ALONG DECK AND UP FACE OF CURB FOR PLACEMENT OF TWO COATS OF POLYURETHANE MEMBRANE.
2. POLYURETHANE MEMBRANE AND BLAST CLEANING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR SHEET MEMBRANE WATERPROOFING, TORCH APPLIED.
3. SHEET MEMBRANE WATERPROOFING SHALL EXTEND TO FACE OF CURB AS SHOWN.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



APPROACH SECTION - BRIDGE 42N
NOT TO SCALE

BRIDGE LENGTH AND WIDTH (CURB TO CURB)		
	WIDTH (CURB TO CURB) (FEET)	LENGTH (FEET)
42 NORTH	31.5	902
42 SOUTH	31.5	955

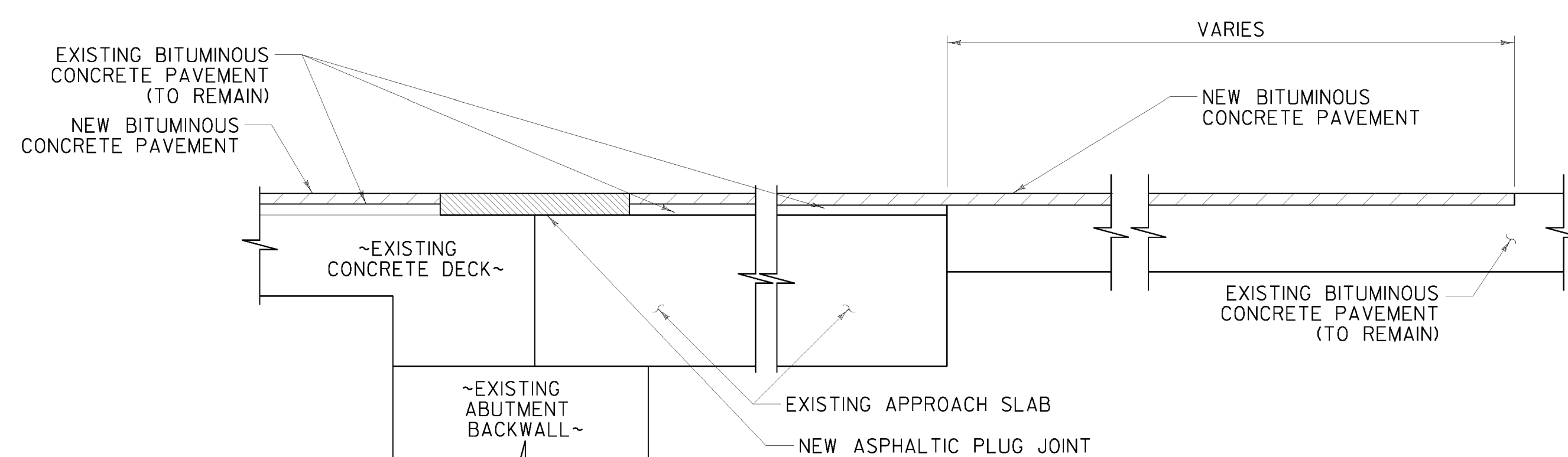
APPROXIMATE LENGTH OF APPROACH SLAB ALONG CENTERLINE		
	ABUTMENT 1 (FEET)	ABUTMENT 2 (FEET)
42 NORTH	45	40
42 SOUTH	45	40



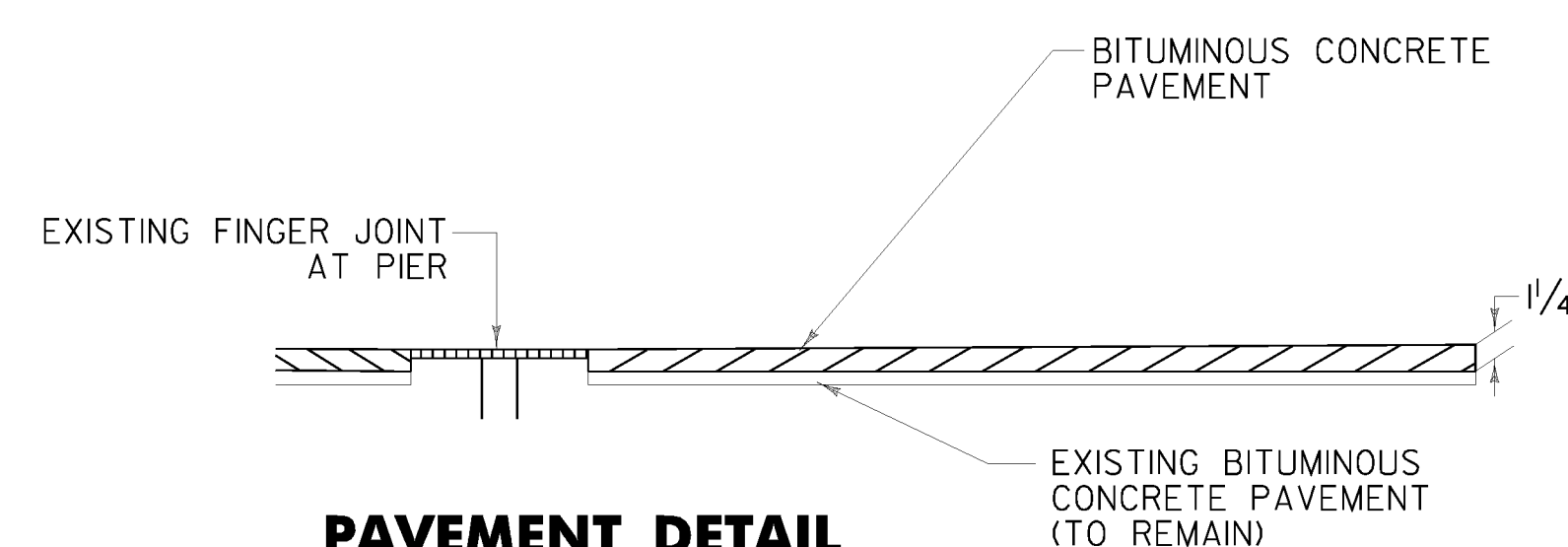
PAVEMENT TAPER DETAIL AT FINGER JOINTS - BRIDGE 42N
NOT TO SCALE

ASPHALTIC PLUG JOINT REPLACEMENT SCHEDULE

BRIDGE NO.	ABUT. 1	ABUT. 2
42 NORTH	37 LF	52 LF
42 SOUTH	37 LF	52 LF



APPROACH SECTION - BRIDGE 42S
NOT TO SCALE

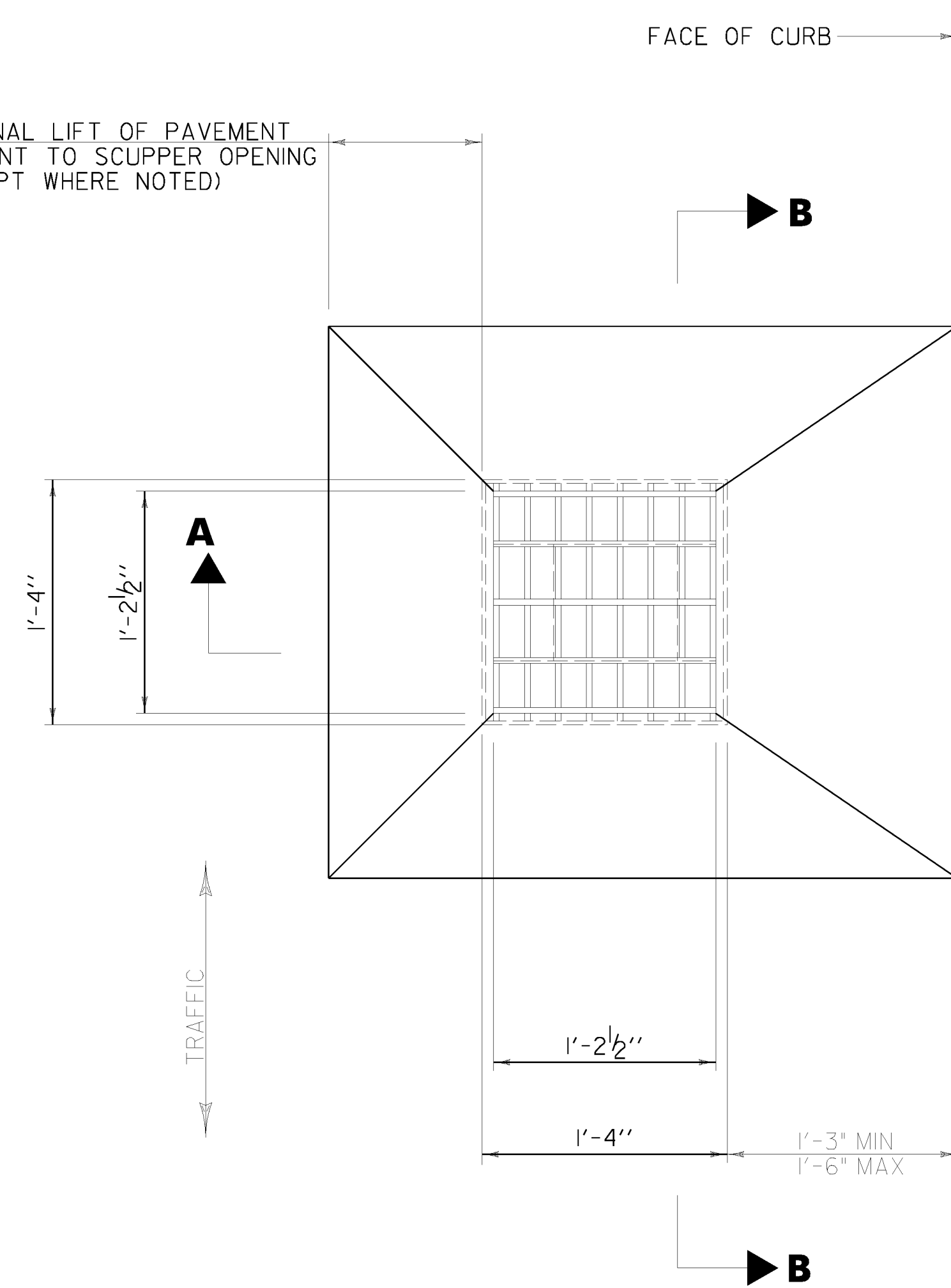


PAVEMENT DETAIL AT FINGER JOINTS - BRIDGE 42S
NOT TO SCALE



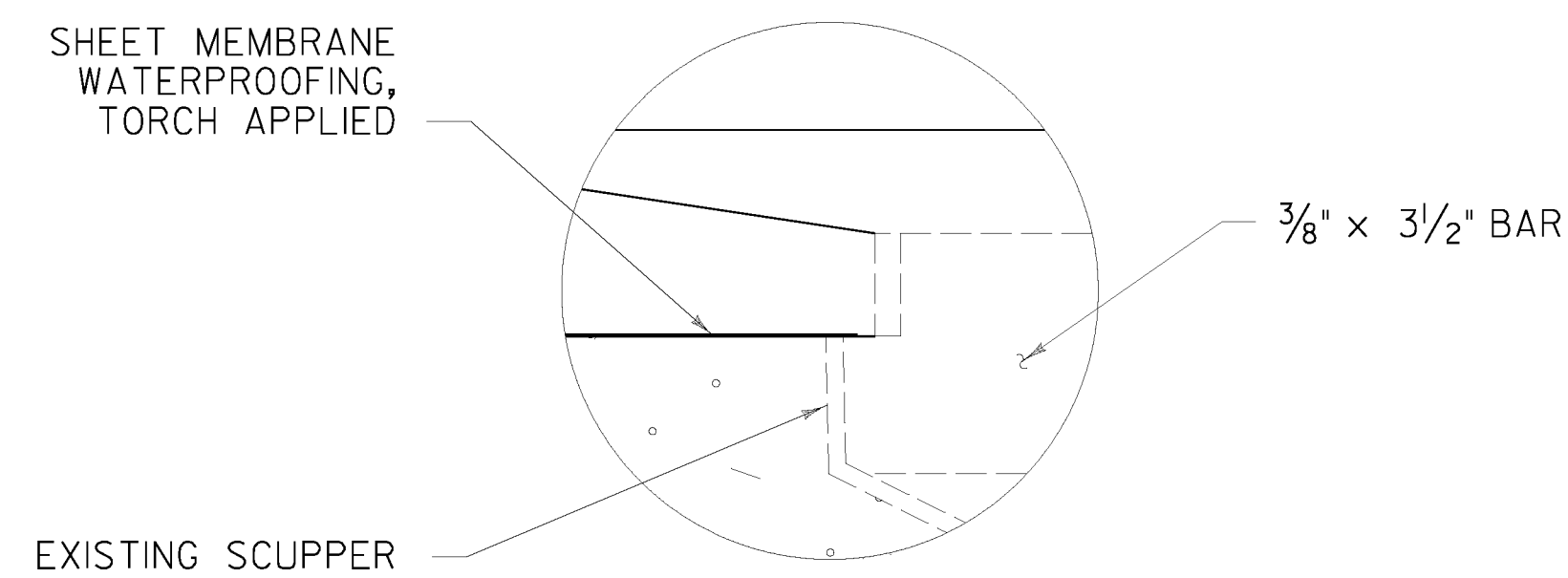
PROJECT NAME:	MONTPELIER
PROJECT NUMBER:	IM MEMB(23)
FILE NAME: ...19.bit conc detls 1.prf	PLOT DATE: 6/8/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: T. KNIGHT
DESIGNED BY: T. KNIGHT	CHECKED BY: G. BOGUE
BITUMINOUS CONCRETE DETAILS 1	SHEET 48 OF 63

10" - TAPER FINAL LIFT OF PAVEMENT
FROM THIS POINT TO SCUPPER OPENING
(TYPICAL EXCEPT WHERE NOTED)



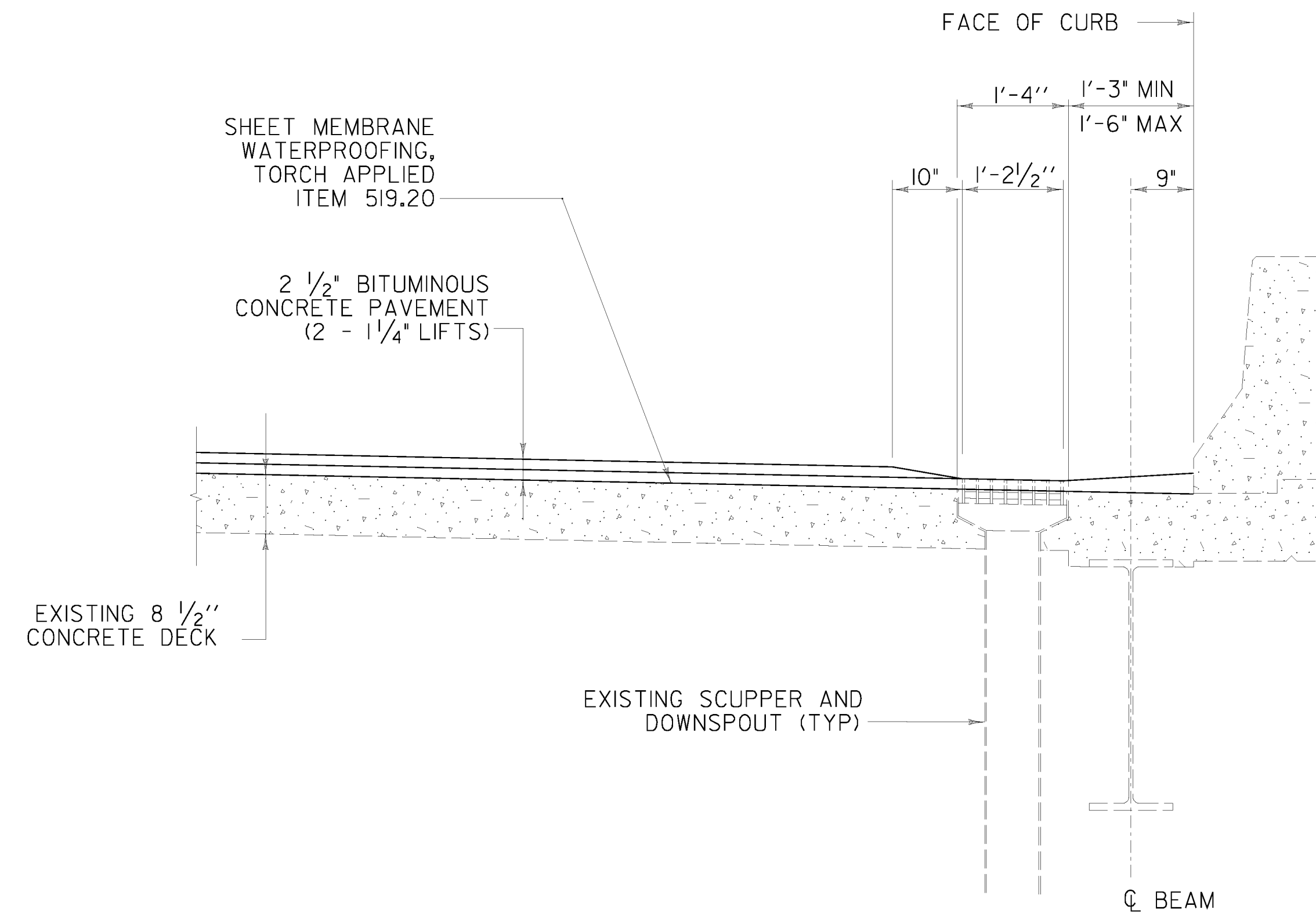
PLAN

1 9 6 3 0
SCALE: 1 1/2" = 1'-0"



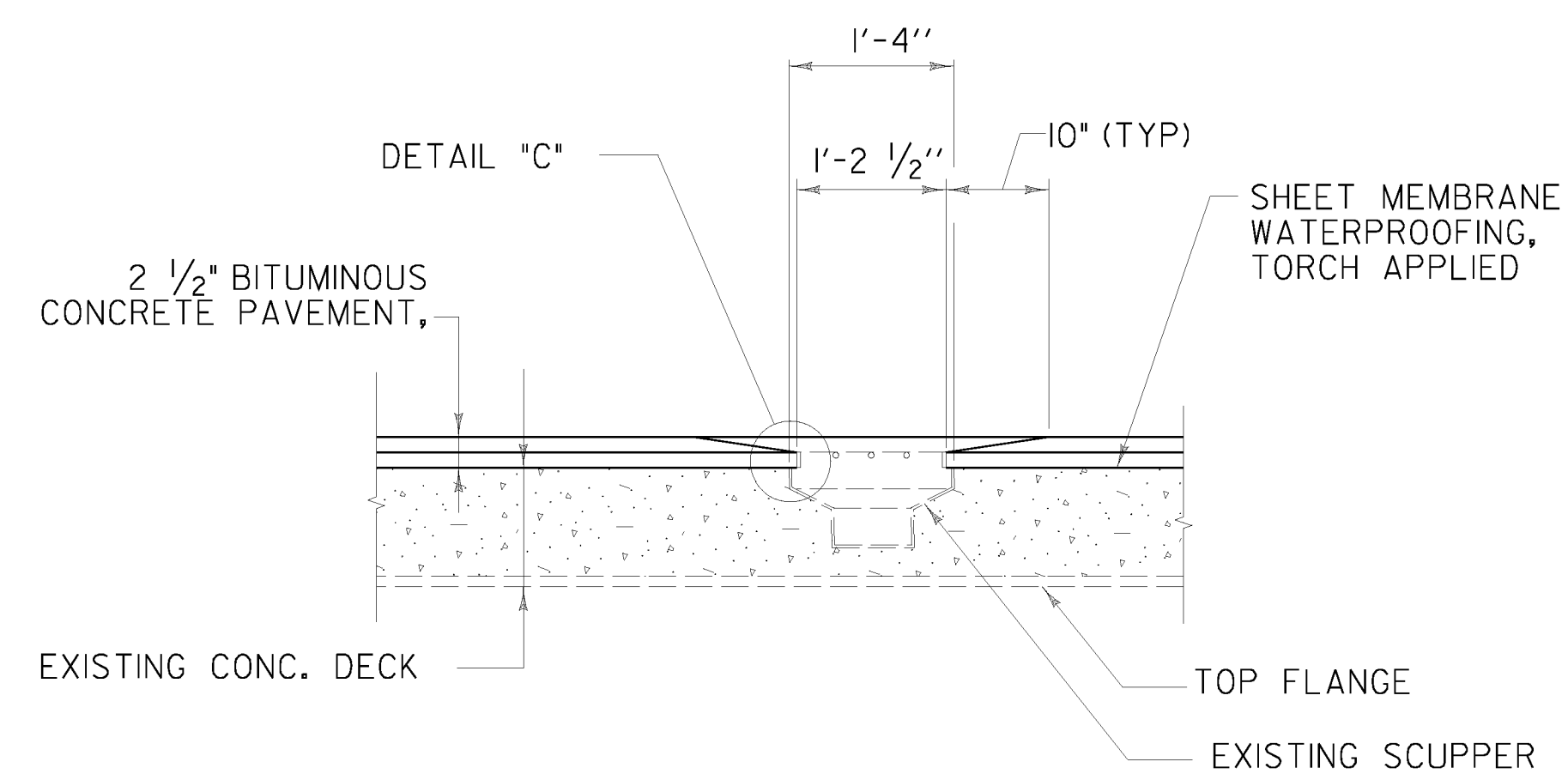
DETAIL "C"

NTS



SECTION A-A

1 0 1 2
SCALE 3/4" = 1'-0"



SECTION B-B

1 0 1 2
SCALE 3/4" = 1'-0"

NOTE:

DETAILS SHOWN ARE FOR BRIDGE
42N. BR 42S INCLUDES REMOVAL
AND REPLACEMENT OF WEARING
COURSE ONLY.

PROJECT NAME: MONTPELIER
PROJECT NUMBER: IM MEMB(23)

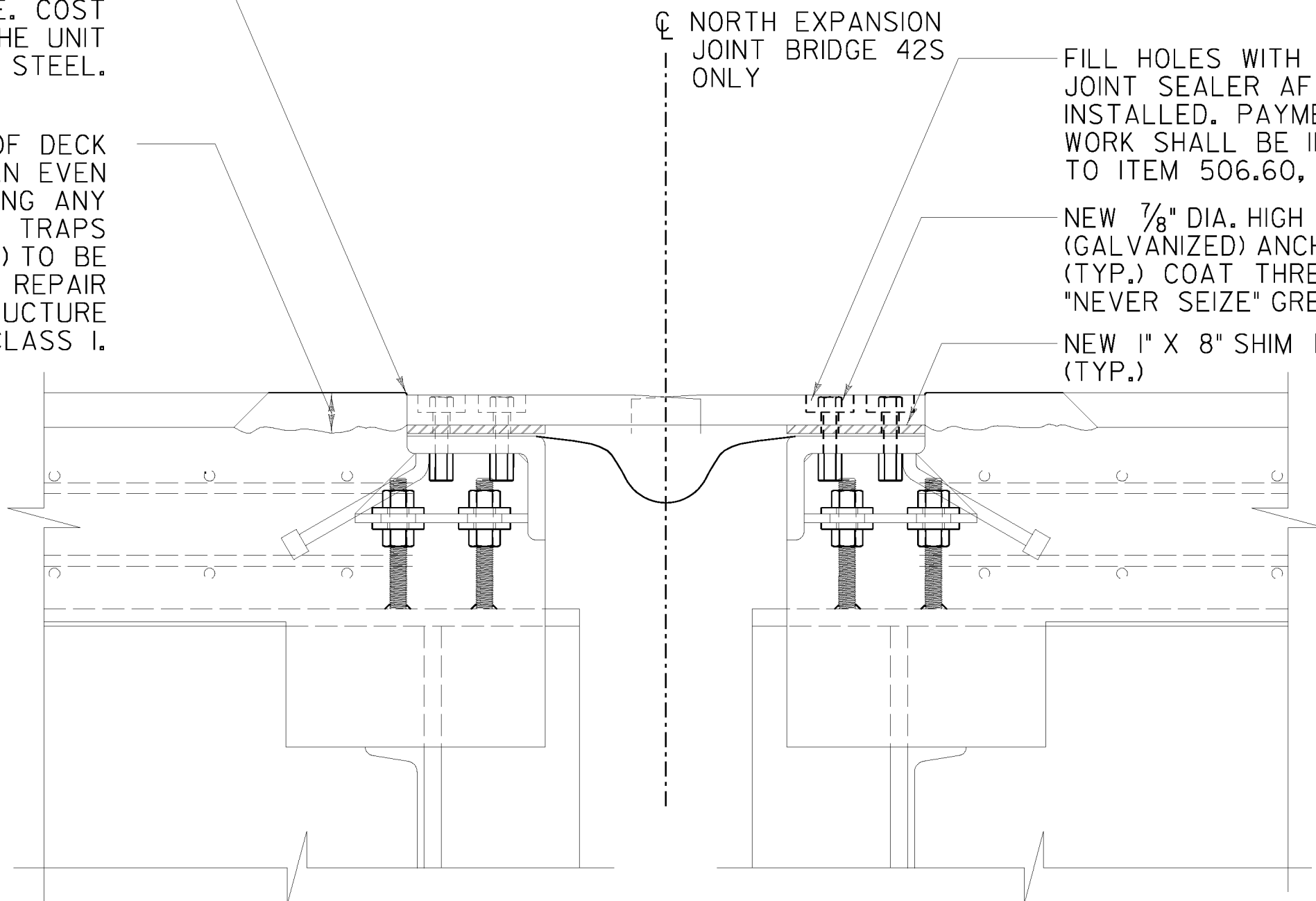
FILE NAME: ...20_bit conc dets 2.pxf
PROJECT LEADER: G. BOGUE
DESIGNED BY: T. KNIGHT
BITUMINOUS CONCRETE DETAILS 2

PLOT DATE: 5/24/2010
DRAWN BY: T. KNIGHT
CHECKED BY: G. BOGUE
SHEET 49 OF 63



SEAL EXPOSED CONCRETE AND JOINT BETWEEN THE DECK AND STEEL PLATES WITH TWO COATS OF POLYURETHANE MEMBRANE. COST TO BE INCIDENTAL TO THE UNIT PRICE FOR STRUCTURAL STEEL.

REMOVE CONCRETE TO TOP OF DECK ELEVATION AND PROVIDE AN EVEN SURFACE FINISH BY REMOVING ANY EXCESSIVE RIDGES, WATER TRAPS AND SHARP ANGLES (TYP.) TO BE PAID UNDER ITEM 580.10 REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE, CLASS I.



**SHIM DETAIL FOR
NORTH EXPANSION JOINT
AT BRIDGE 42S**

NOT TO SCALE

CL NORTH EXPANSION
JOINT BRIDGE 42S
ONLY

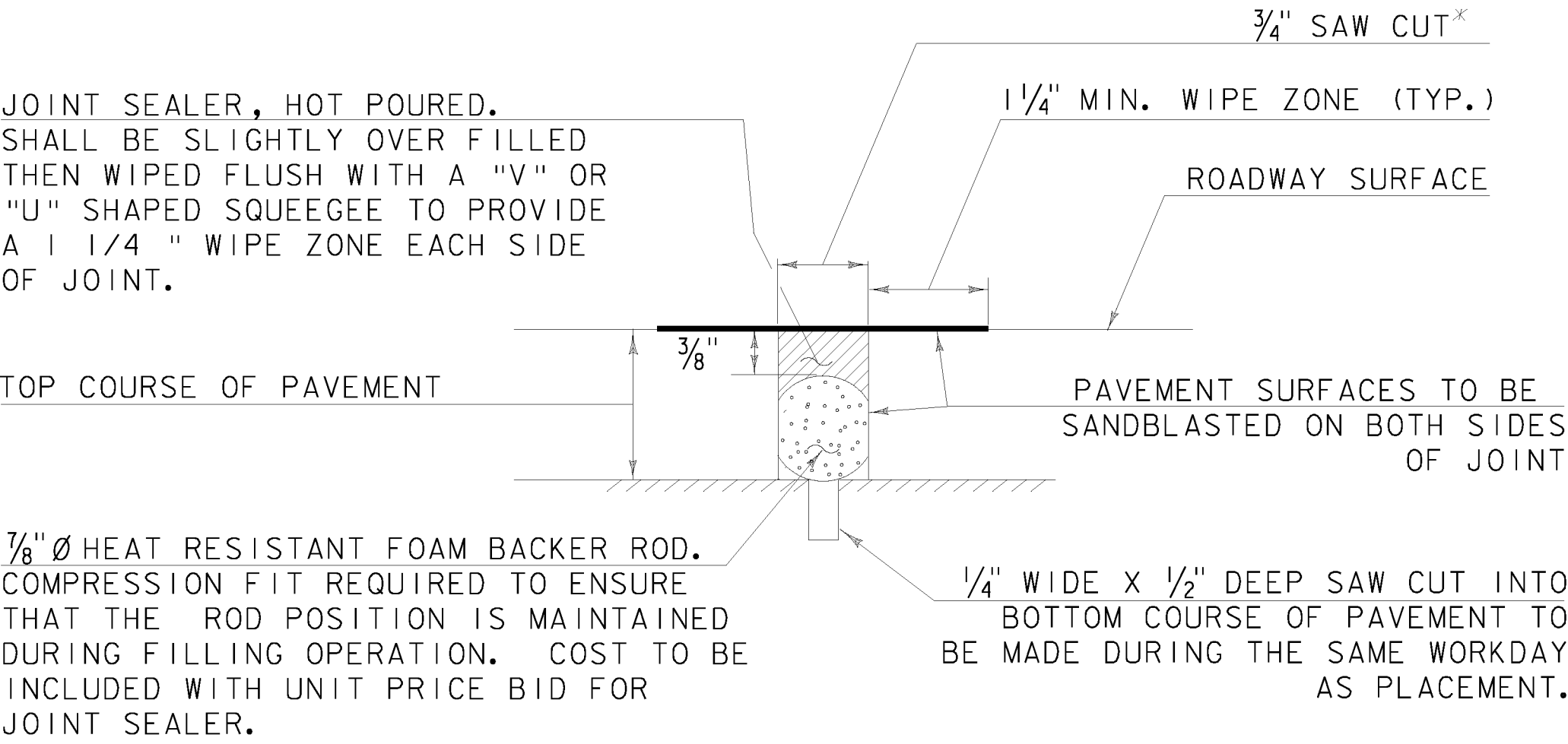
FILL HOLES WITH HOT POURED JOINT SEALER AFTER BOLT INSTALLED. PAYMENT FOR THE WORK SHALL BE INCIDENTAL TO ITEM 506.60, STRUCTURAL STEEL.

NEW 7/8\"/>

NEW 1\"/>

NOTES:

1. THE PURPOSE OF THE SHIM PLATE IS TO RAISE THE EXPANSION JOINT TO PROVIDE A SMOOTH RIDING SURFACE.
2. THICKNESS OF SHIM PLATE TO BE 1"
3. HOLES FOR THE GALVANIZED BOLTS MAY BE FIELD DRILLED TO MATCH HOLES IN FINGER PLATES.
4. SHIM PLATES SHALL BE PROVIDED FOR THE ENTIRE LENGTH OF THE FINGER JOINT. PLATES SHALL BE PROVIDED IN SECTIONS TO MATCH FINGER PLATES. SHIM PLATES AND NEW BOLTS WILL BE PAID FOR UNDER ITEM 506.60 STRUCTURAL STEEL. SEE SHEETS 62 AND 63 OF 63 FOR ADDITIONAL INFORMATION. CONTRACTOR TO FIELD VERIFY LENGTH OF EXISTING PLATES.
5. PAYMENT FOR REMOVAL AND INSTALLATION OF EXISTING FINGER PLATES SHALL BE INCIDENTAL TO ITEM 506.60 STRUCTURAL STEEL.
6. COST OF DRILLING HOLES IN SHIM PLATE TO MATCH EXISTING FINGER PLATE SHALL BE INCIDENTAL TO ITEM 506.60 STRUCTURAL STEEL.



NOTE: PLACE JOINT SEALER, HOT POURED AT THE BEGINNING OF APPROACH SLABS.

SAWED PAVEMENT JOINT DETAIL

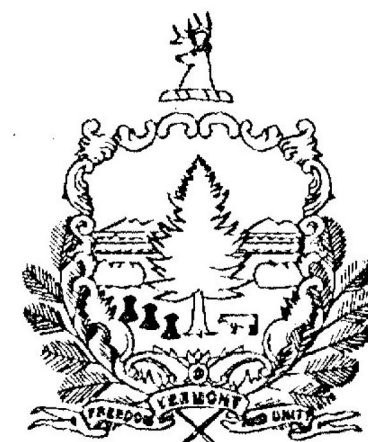
N. T. S.

* JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF CONCRETE DECK. JOINT SHALL BE CUT DRY IN A SINGLE PASS AND BE SEALED WITHIN 24 HOURS OR PRIOR TO EXPOSURE TO TRAFFIC. JOINT SHALL BE CLEANED PRIOR TO APPLYING THE JOINT SEALER.



PROJECT NAME: MONTPELIER	
PROJECT NUMBER: IM MEMB(23)	
FILE NAME: ...\\21.pave joint det.s.ptf	PLOT DATE: 5/24/2010
PROJECT LEADER: G. BOGUE	DRAWN BY: T. KNIGHT
DESIGNED BY: T. KNIGHT	CHECKED BY: G. BOGUE
PAVEMENT JOINT DETAILS	SHEET 50 OF 63

STATE OF VERMONT
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT
BRIDGE PROJECT
CITY OF MONTPELIER
COUNTY OF WASHINGTON

BRIDGE NO.: 42 N&S

LENGTH OF STRUCTURE W/ APPROACH SLABS:
NB 970.45 FT = 0.184 MILES
SB 1023.25 FT = 0.194 MILES
LENGTH OF PROJECT: 1165.00 FT = 0.221 MILES



0 0.2 0.4
SCALE: 1" = 0.2 MILE

RECORD PLANS

3

CONTRACTOR BECK & BELLUCCI
FRANKLIN, N.H.

RESIDENT ENGINEER ROSS CLARK

CONSTRUCTION BEGAN 3/27/90
CONSTRUCTION COMPLETED 11/12/91

RECORD PLANS BY R.P. Russell

I hereby certify that all the construction required by this set of drawings has been accomplished as indicated herein.

By [Signature] Resident Engineer

Date 11-30-94

Date 11-30-74

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

E-100	5-26-89 R	E-131	9-10-87
E-101	10-30-87	E-135	1-23-89 R
E-102	1-23-89 R	E-140	4-25-88 R
E-103	1-23-89 R	E-160	3-1-88 R
E-104	1-23-89 R	E-162	3-1-88 R
E-104A	1-23-89	G-1	10-31-85 R
E-106	1-23-89 R	G-15	4-3-89
E-107	4-29-88 R	G-19	1-19-89
E-107A	9-10-87	E-143	10-30-87
E-110	3-1-88 R	G-13	1-19-88
E-120	4-1-88		
E-121	1-23-89		
E-123	1-23-89 R		
E-130	3-1-88 R		

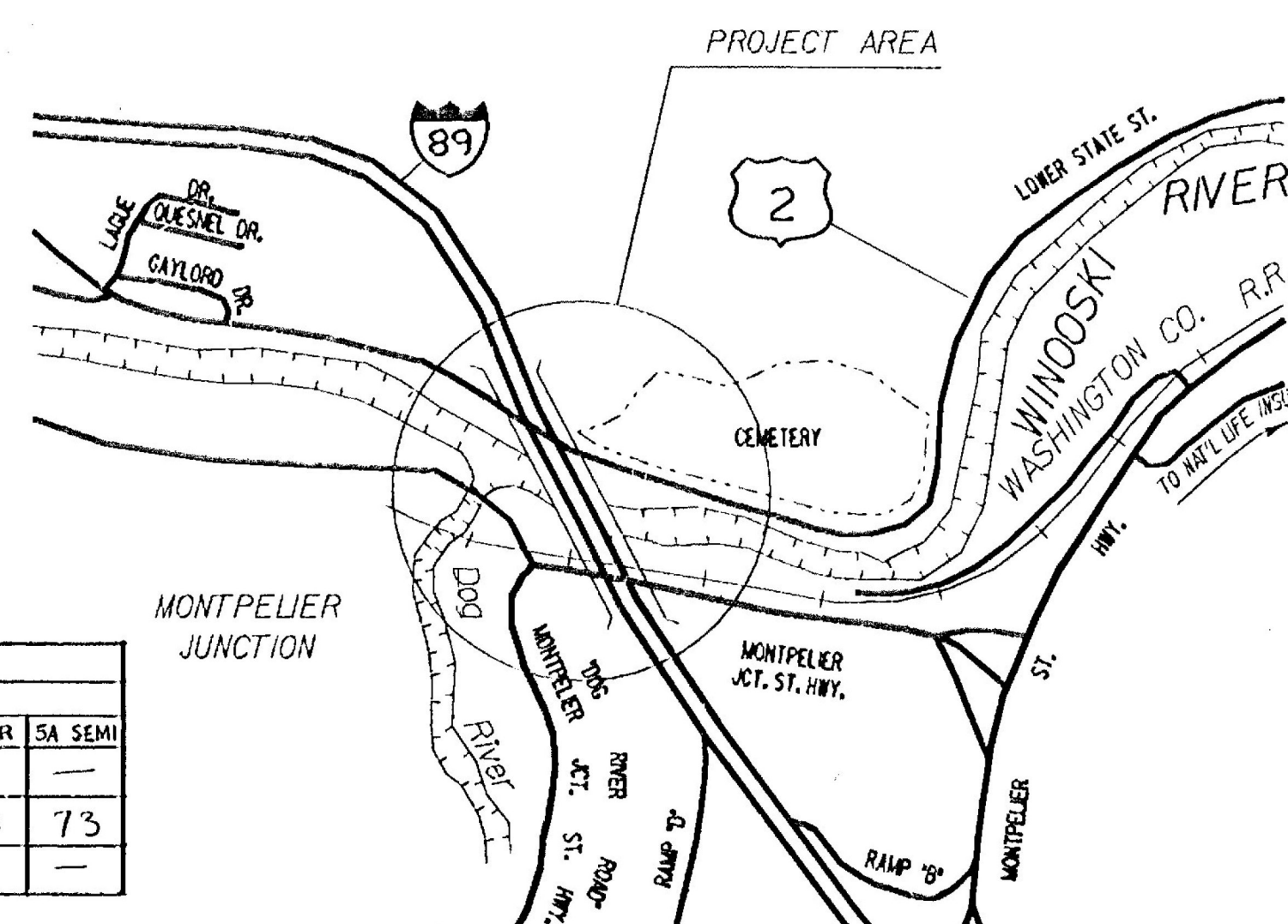
CONTROL OF ACCESS
COUNTY LINE
CULVERT
FENCE LINE
GUARD RAIL
LIMITS OF ACCESS
POINT OF ACCESS
POWER POLE
PROPERTY LINE
RAILROAD
R. O. W. TAKING LINE
SLOPE RIGHTS
STONE WALL
SURVEY LINE
TELEPHONE POLE
TOE OF SLOPE
TOP OF CUT
TOWN LINE
TRAVELED WAY
TREES

1989 A. D. T.	18060
2009 A. D. T.	29280
1989 D. H. V.	2330
2009 D. H. V.	3780

LOAD RATING (TONS)							
STRESS LEVELS	TRUCK						
	H	H3	352	6 AXLE	3A STR	4A STR	5A SEN
INVENTORY 0.55 Fy = 18 KSI	39	50	—	—	—	—	—
POSTED 0.67 Fy = 22 KSI	53	69	76	—	57	58	73
OPERATING 0.75 Fy = 24.15 KSI	—	81	92	96	—	—	—

HORIZONTAL N/A

VERTICAL ASSUMED. (SEE GENERAL NOTE #12)



SCALE: 1"=500'

THESE PLANS ARE SUBJECT TO SUCH
ENGINEERING CHANGES AS MAY BE REQUIRED
BY THE FEDERAL HIGHWAY ADMINISTRATION OR
THE VERMONT AOT

CONSTRUCTION IS TO BE CARRIED ON IN
ACCORDANCE WITH THESE PLANS AND THE
STANDARD SPECIFICATIONS FOR CONSTRUCTION
DATED 1986, AS APPROVED BY THE FEDERAL
HIGHWAY ADMINISTRATION ON NOVEMBER 21,
1985 FOR USE ON THIS PROJECT, INCLUDING
ALL SUBSEQUENT REVISIONS AND SUCH RE-
VISED SPECIFICATIONS AND SPECIAL PROVISIONS
AS ARE INCORPORATED IN THESE PLANS.

SUBMITTED BY ORDER OF THE
STATE TRANSPORTATION BOARD

APPROVED *Arthur G. Gies* DATE *8/1/89*
DIRECTOR OF PLANNING

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

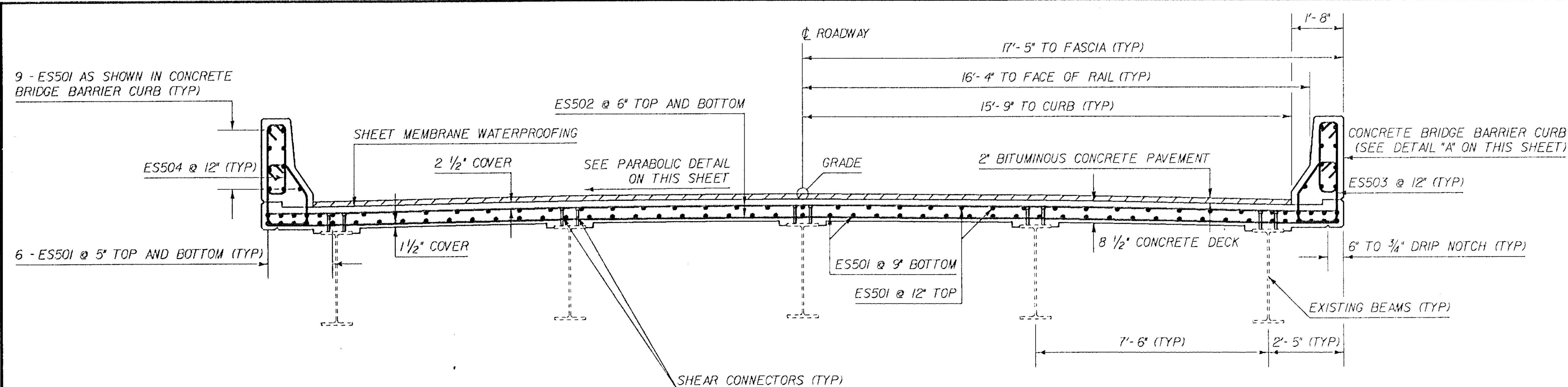
APPROVED *George A. Jensen* DATE *9/12/89*
DIVISION ADMINISTRATOR

PROJECT - MONTPELIER
PROJECT NUMBER - IR 089-2(18)
SHEET 1 OF 45 SHEETS

BY: J. CLARK ZFAI:[30,57] 86A003T1.DGN:1

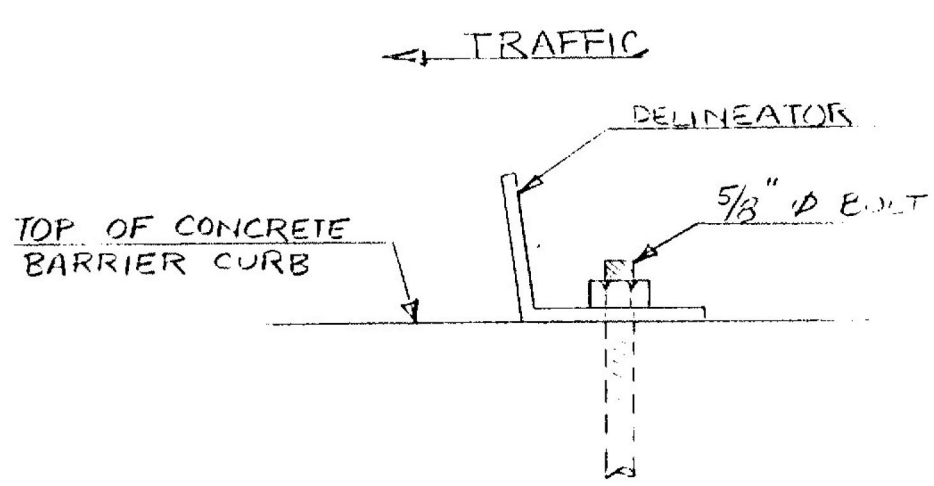
MONTPELIER
IM MEMB(23)

SHEET 51 OF 63
BRIDGE 42N&S
FOR REFERENCE ONLY



TYPICAL SECTION

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

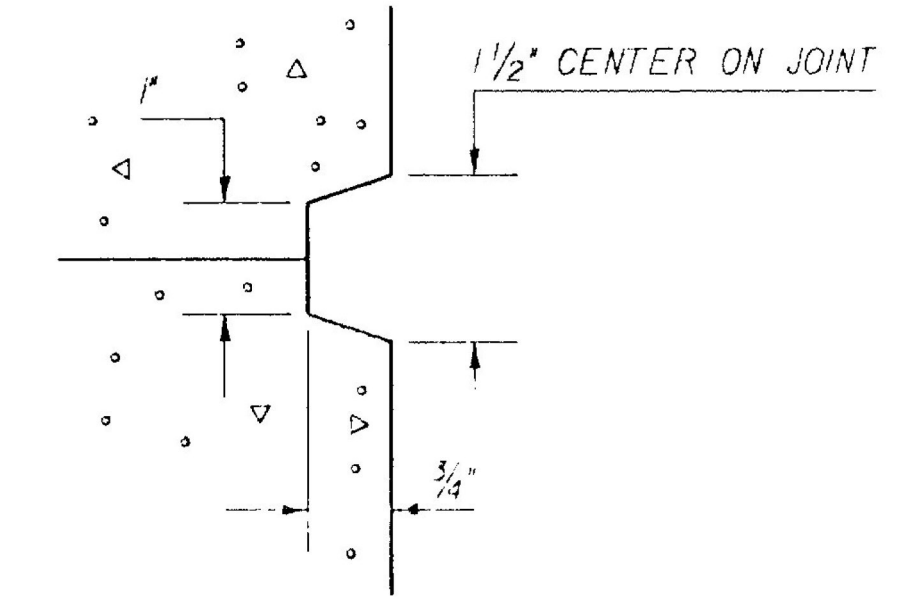


SECTION A-A

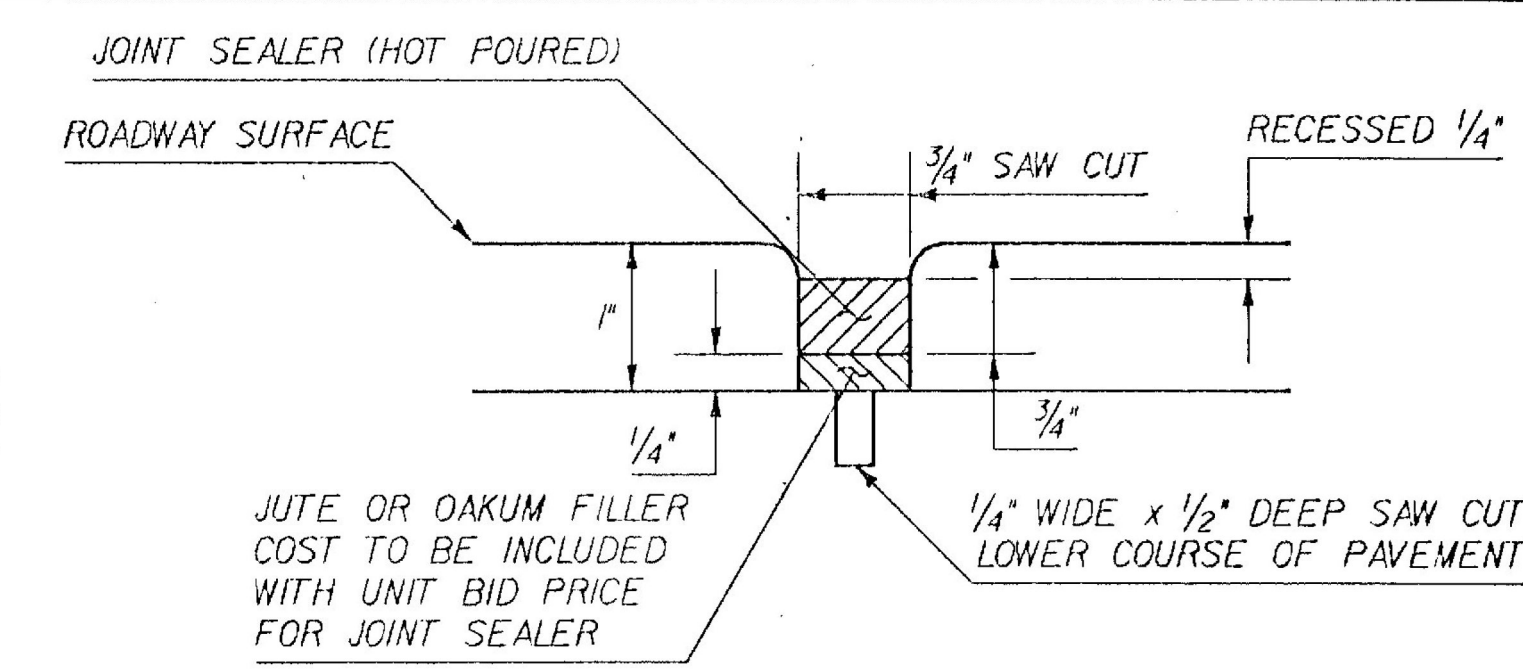
NO SCALE

DELINEATOR NOTES

PAYMENT FOR DELINEATORS SHALL BE SUBSIDIARY TO THE ITEM 'CONCRETE BRIDGE BARRIER CURB'. DELINEATORS SHALL BE SPACED @ 30' MAX. DELINEATORS SHALL BE AMBER OR WHITE w/ AMBER ON THE MEDIAN SIDE. SEE STD DWG. G-1 FOR DETAILS OF DELINEATOR

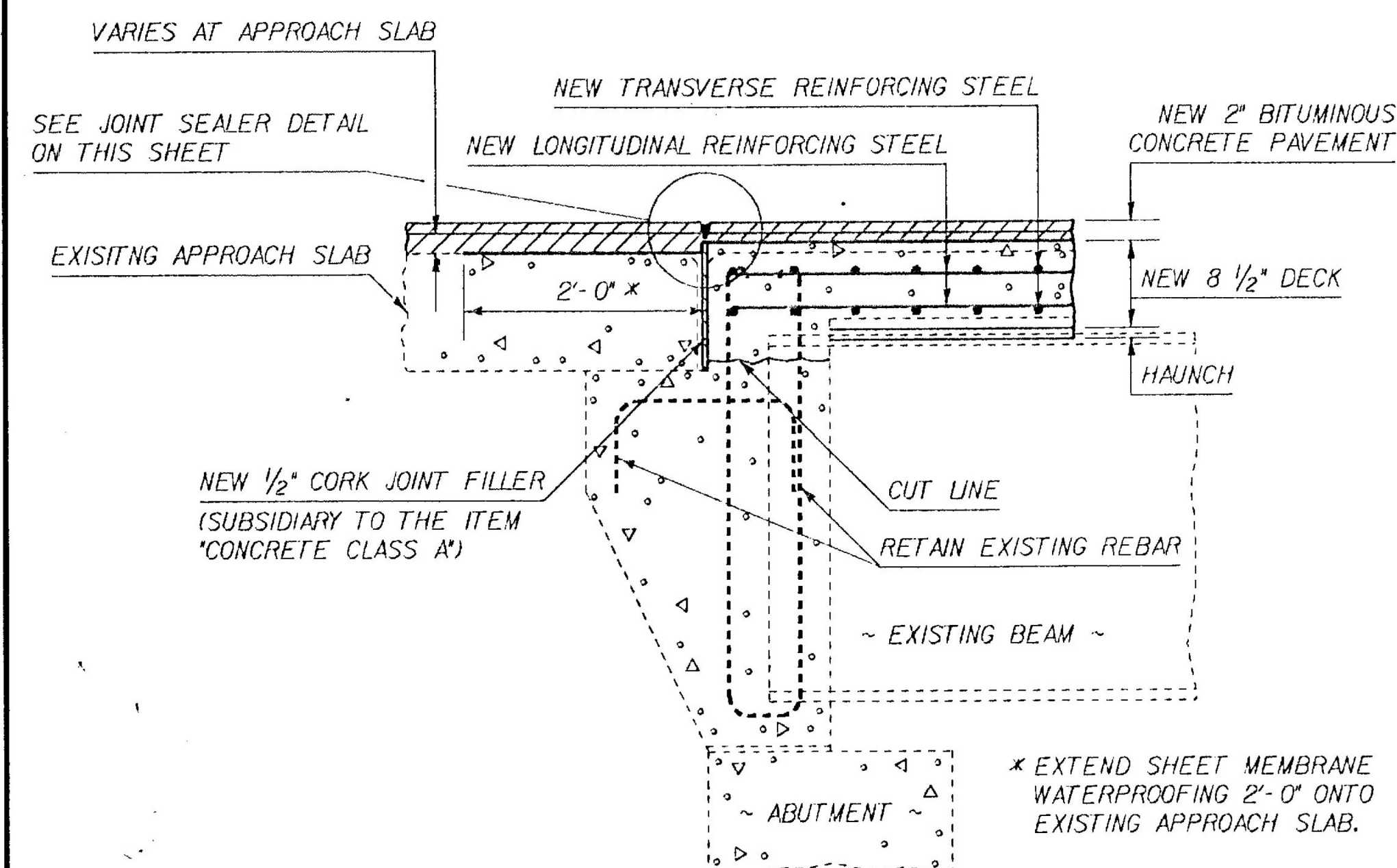


SCORE MARK DETAIL



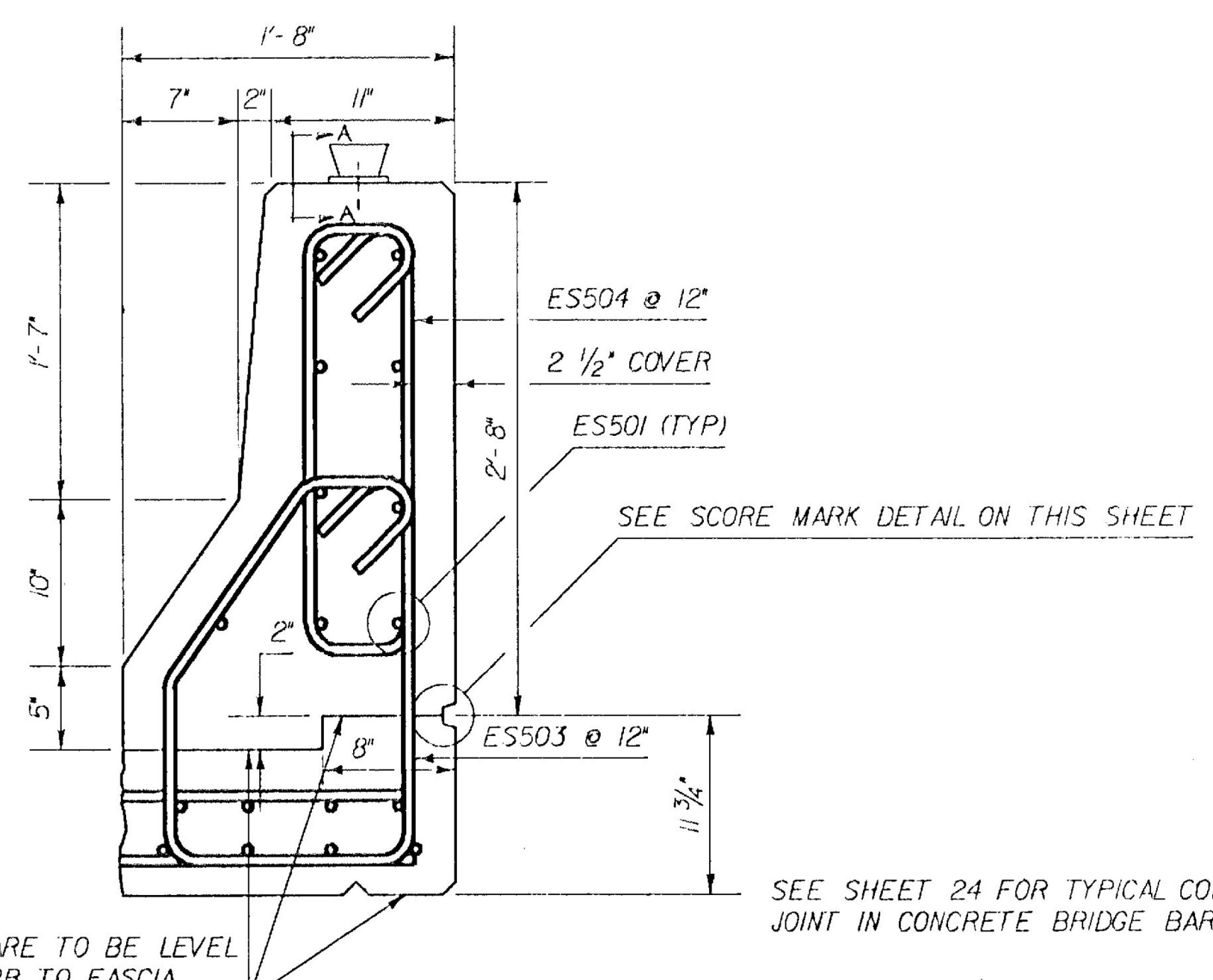
JOINT SEALER DETAIL

THE JOINT IS TO BE LOCATED ACCURATELY BY STRING LING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF THE CONCRETE DECK.



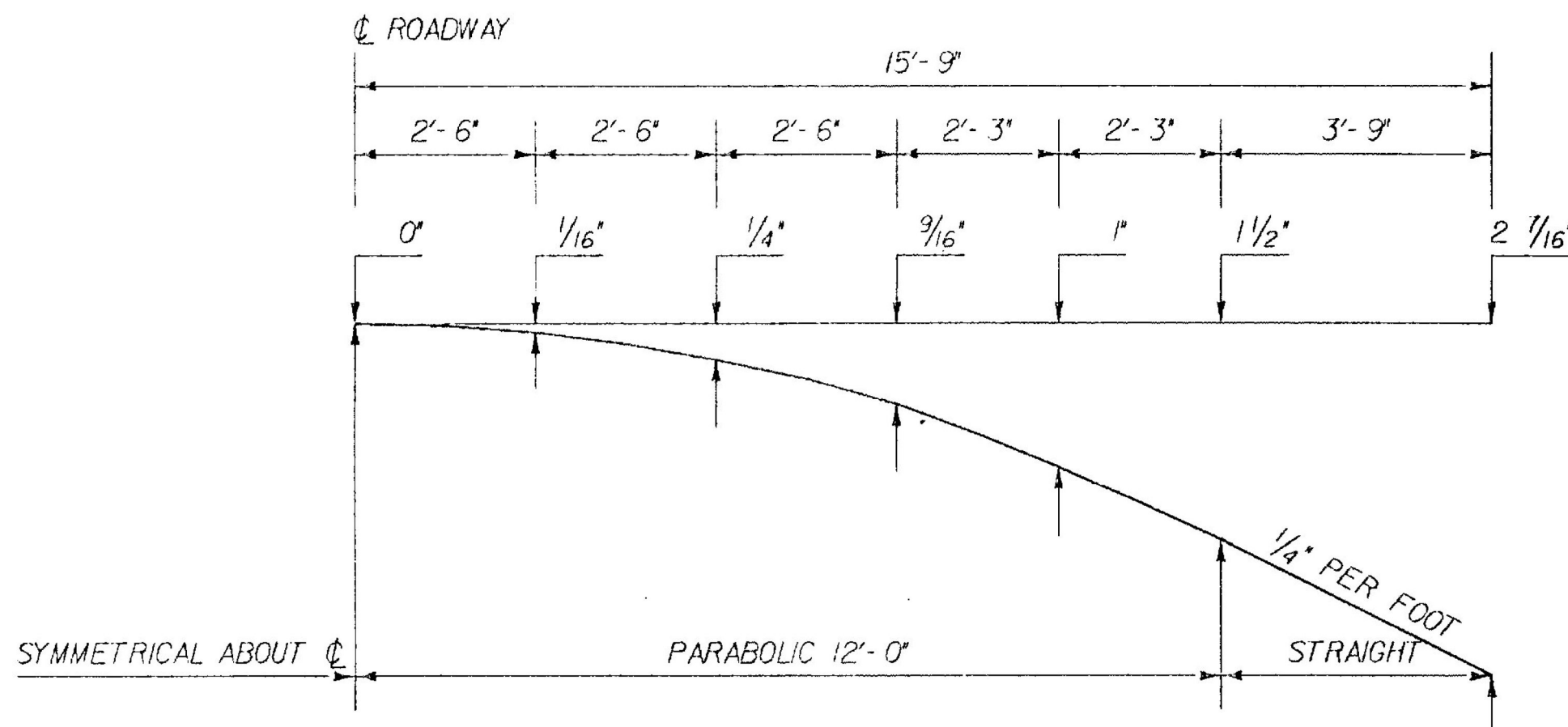
END OF BRIDGE AT ABUTMENTS

SCALE: 1" = 1'-0"



DETAIL "A"

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



DETAIL OF PARTIAL PARABOLIC CROWN OF SLAB

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

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of **MONTPELIER** Bridge No. 42 N & S
Highway No. 1-89 Log Sta. Surv. Sta.

TYPICAL BRIDGE SECTION
INTERSTATE 89 OVER THE WINDOSKI RIVER

Designed By **C. WILLIAMS** Drawn By **K. S. CLARMONT**
Checked By **C. WILLIAMS** Date **6-89** Bridge Design Supervisor

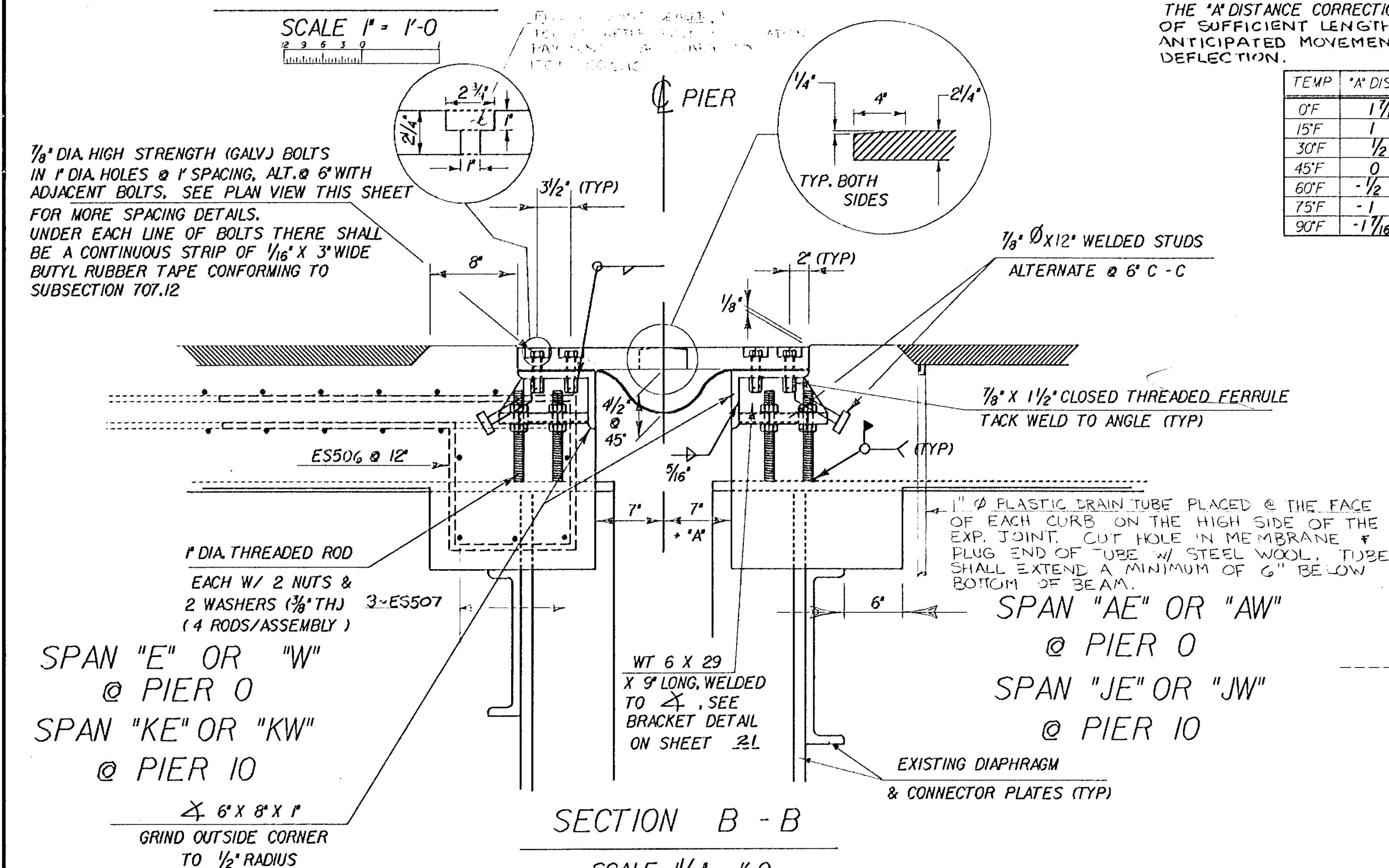
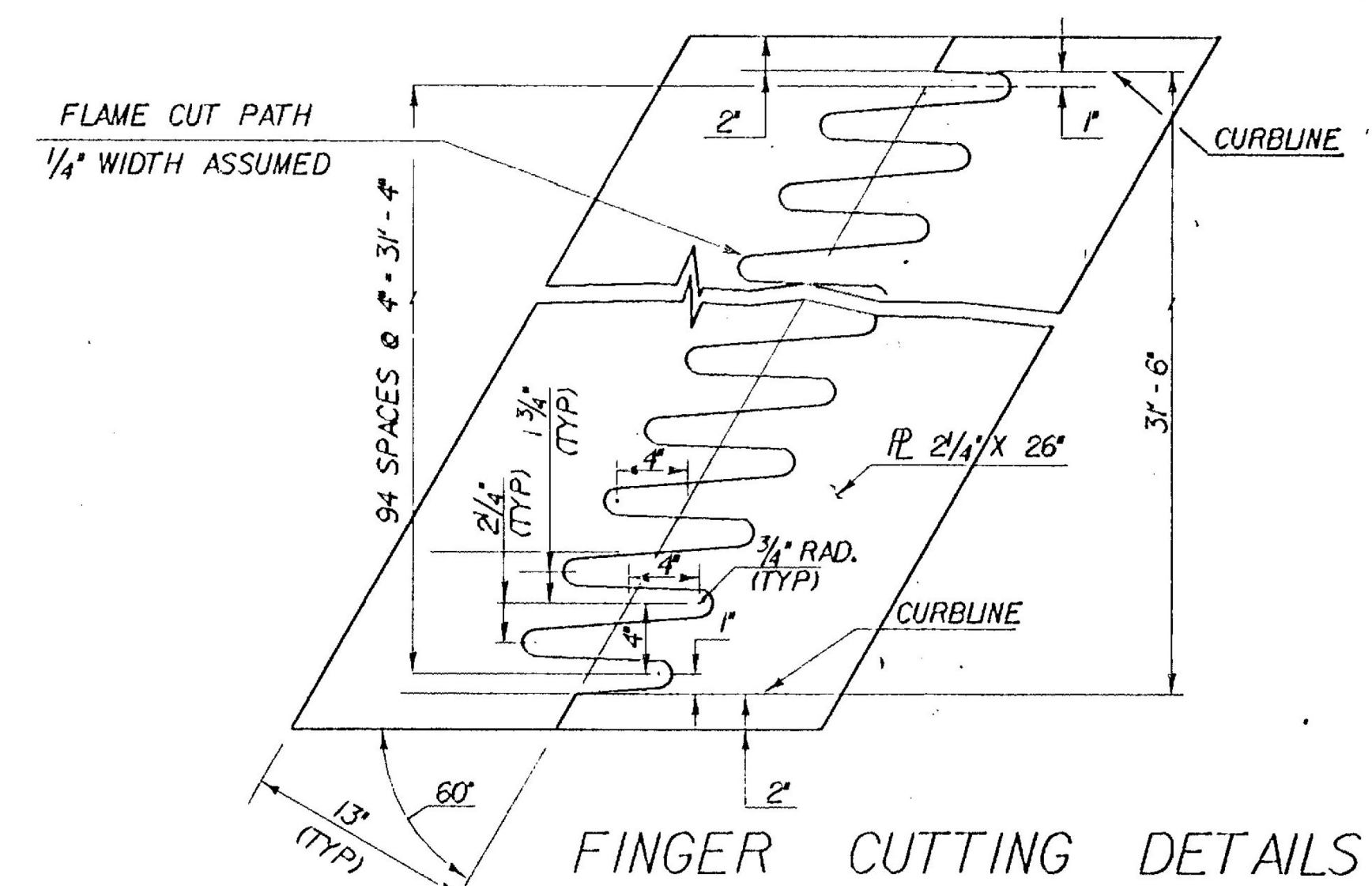
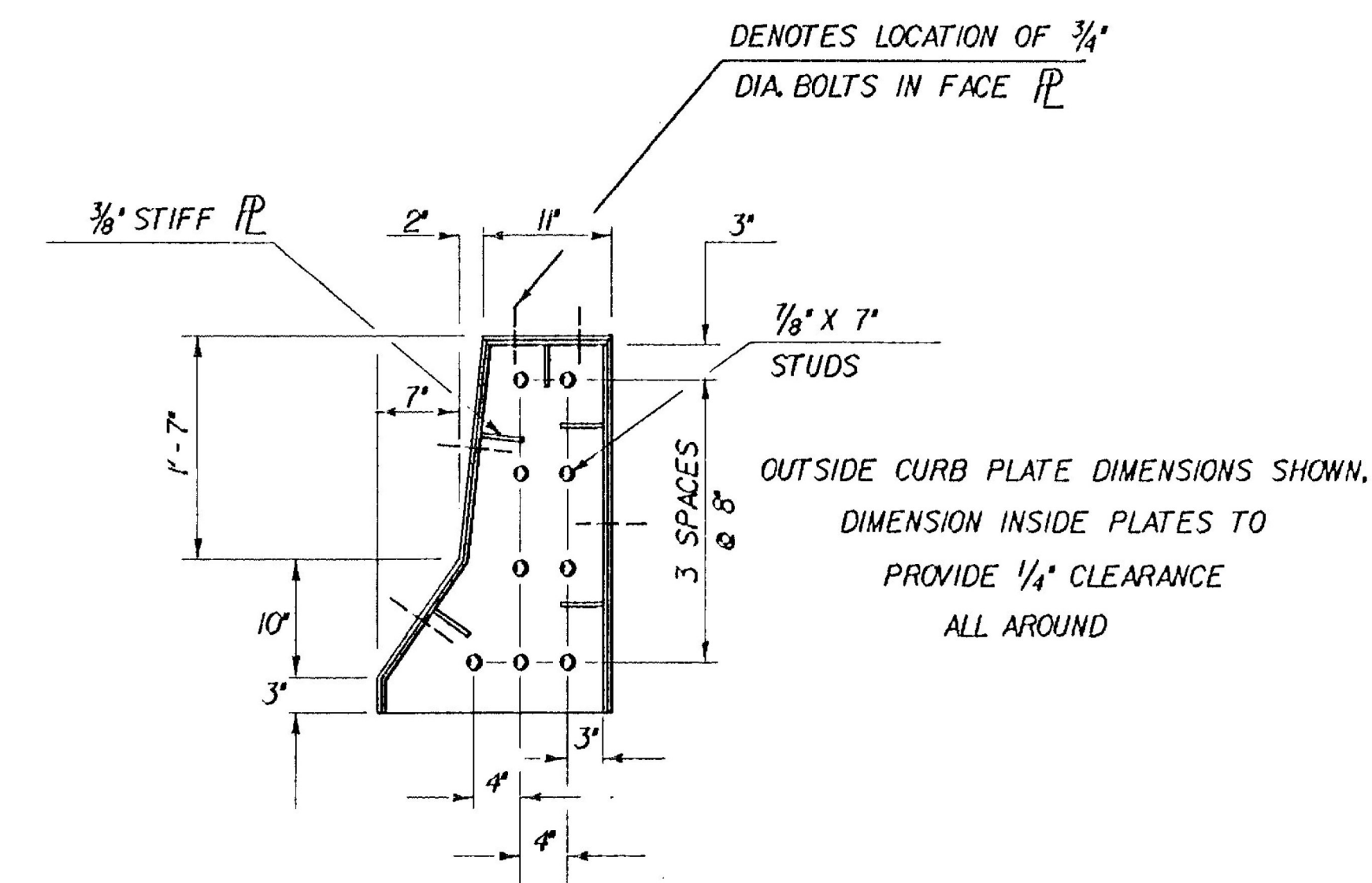
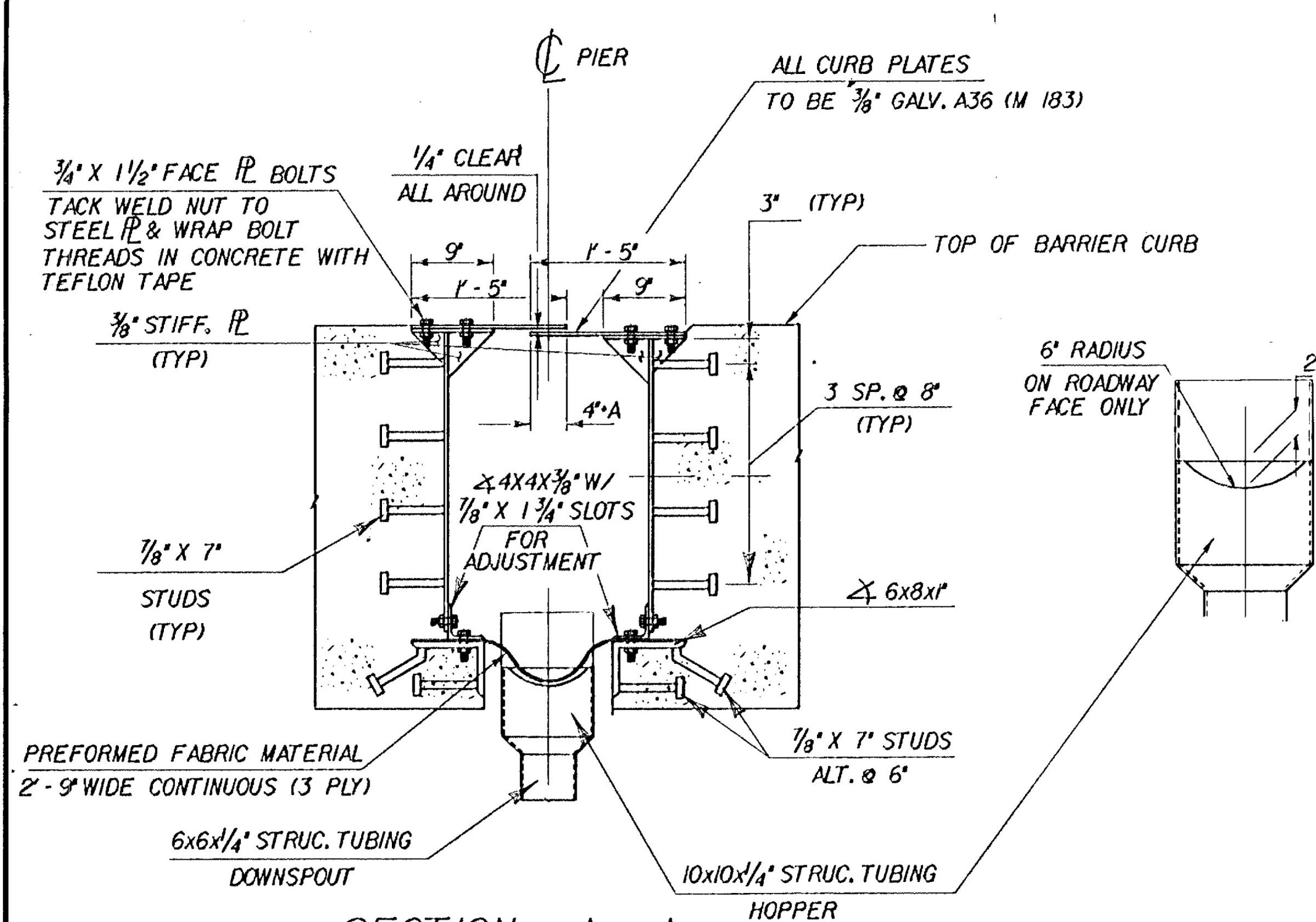
PROJECT **MONTPELIER** PROJECT NO. 1R 089-2(18)
I.G.C. Info. ZFAI: [30, 47] 86A003.DGN: 1

Bridge Sheet No. Sheet 13 of 45

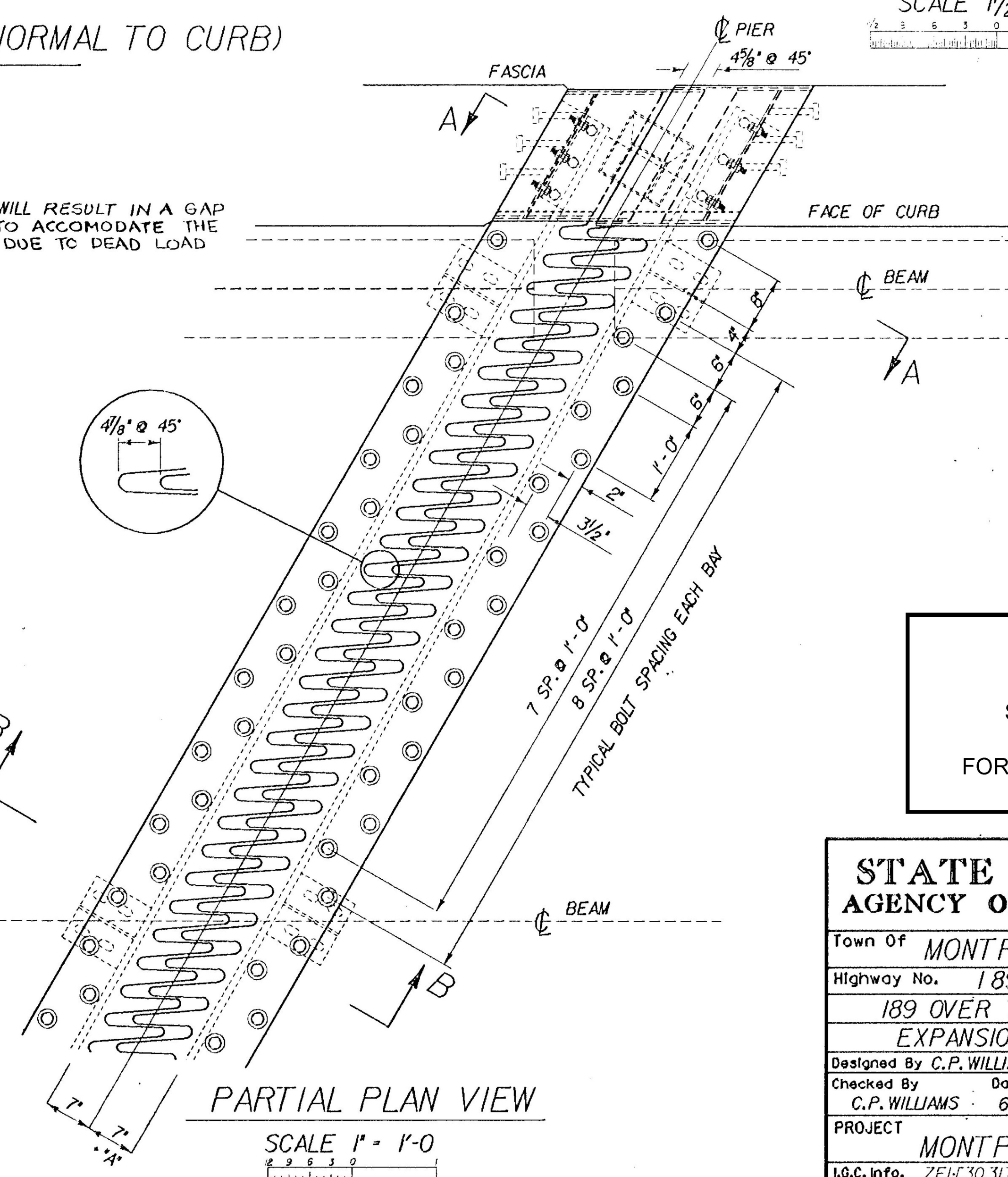
MONTPELIER
IM MEMB(23)
SHEET 52 OF 63
BRIDGE 42N&S
FOR REFERENCE ONLY

THESE SURFACES ARE TO BE LEVEL FROM FACE OF CURB TO FASCIA

SEE SHEET 24 FOR TYPICAL CONSTRUCTION JOINT IN CONCRETE BRIDGE BARRIER CURB.



TEMP	"A" DIST
0°F	1 ⁷ / ₁₆
15°F	1
30°F	¹ / ₂
45°F	0
60°F	- ¹ / ₂
75°F	- 1
90°F	- 1 ⁷ / ₁₆



MONTPELIER
IM MEMB(23)

SHEET 53 OF 63
BRIDGE 42N&S
FOR REFERENCE ONLY

STATE OF VERMONT
AGENCY OF TRANSPORTATION

Town Of	MONTPELIER	Bridge No.	42 N & S
Highway No.	189	Log Sta.	
		Surv. Sta.	
189 OVER THE WINOOSKI RIVER			
EXPANSION JOINT @ PIER 0			
Designed By	C.P. WILLIAMS	Drawn By	R. WHITCOMB
Checked By	Date	Bridge Design Supervisor	
	C.P. WILLIAMS 6-89	F.W.	BOLKUM Date 6-89
PROJECT	PROJECT NO.		
	MONTPELIER	IR089-2(18)	
I.O.C. Info.	ZFI-630,31386A003JT.DGN	PRF:	60JT
Bridge Sheet No.	Sheet 20 of 45		

Town Of	MONTPELIER	Bridge No.	42 N & S
Highway No.	189	Log Sta.	
		Surv. Sta.	
189 OVER THE WINOOSKI RIVER			
EXPANSION JOINT @ PIER 10			
Designed By	C.P. WILLIAMS	Drawn By	R. WHITCOMB
Checked By	Date	Bridge Design Supervisor	
C.P. WILLIAMS	6 - 89	F.W.	BOLKUM Date 6 - 89
PROJECT	PROJECT NO.		
MONTPELIER		1R089-2(18)	
I.O.C. Info.	ZFILE 30, 31JB6A003JT.DGN	PRF: 38JT	
Bridge Sheet No.	Sheet 21 of 45		

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- 2 QUANTITY SHEET
- 3 GENERAL NOTES
- 4-5 TYPICAL BRIDGE SECTION AND DETAILS
- 6 PAVEMENT AND BARRIER DETAILS
- 7 PAVEMENT AT SCUPPER DETAILS
- 8-10 PHASE I TRAFFIC CONTROL PLAN
- 11-13 PHASE II TRAFFIC CONTROL PLAN
- 14-15 ALTERNATE ROUTE SIGNING PLAN
- 16 TRAFFIC SIGN SUMMARY SHEET
- 17 TRAFFIC SIGN DETAIL SHEET

VAOT STANDARDS

E-100	CONSTRUCTION APPROACH SIGNS	01-06-97
E-100A	SIDE ROAD CONSTRUCTION APPROACH SIGNS	01-06-97
E-101	CONSTRUCTION SIGN DETAILS	03-10-97
E-102	CONSTRUCTION SIGN DETAILS	08-08-95
E-102A	CONSTRUCTION SIGN DETAILS	08-08-95
E-103	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	09-23-98
E-106	TRAFFIC CONTROL MISCELLANEOUS DETAILS	08-08-95
E-107	DELINEATION, BARRICADES AND DETOURS FOR CONSTRUCTION AREAS	08-08-95
E-107A	BREAKAWAY BARRICADE DETAILS	08-08-95
E-120	STANDARD SIGN PLACEMENT EXPRESSWAY AND FREEWAY	08-08-95
E-121	STANDARD SIGN PLACEMENT STANDARD ROAD	08-08-95
E-135	INTERSTATE ROUTE MARKER SIGN DETAILS	08-18-95
E-136A	U.S. ROUTE MARKER SIGN DETAILS	08-08-95
E-140	REGULATORY SIGN DETAILS	08-30-96
E-160	FLANGED CHANNEL STEEL SIGN POST	05-20-99
*E-104	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE ROADWAY CLOSED	02-03-99

STATE OF VERMONT AGENCY OF TRANSPORTATION



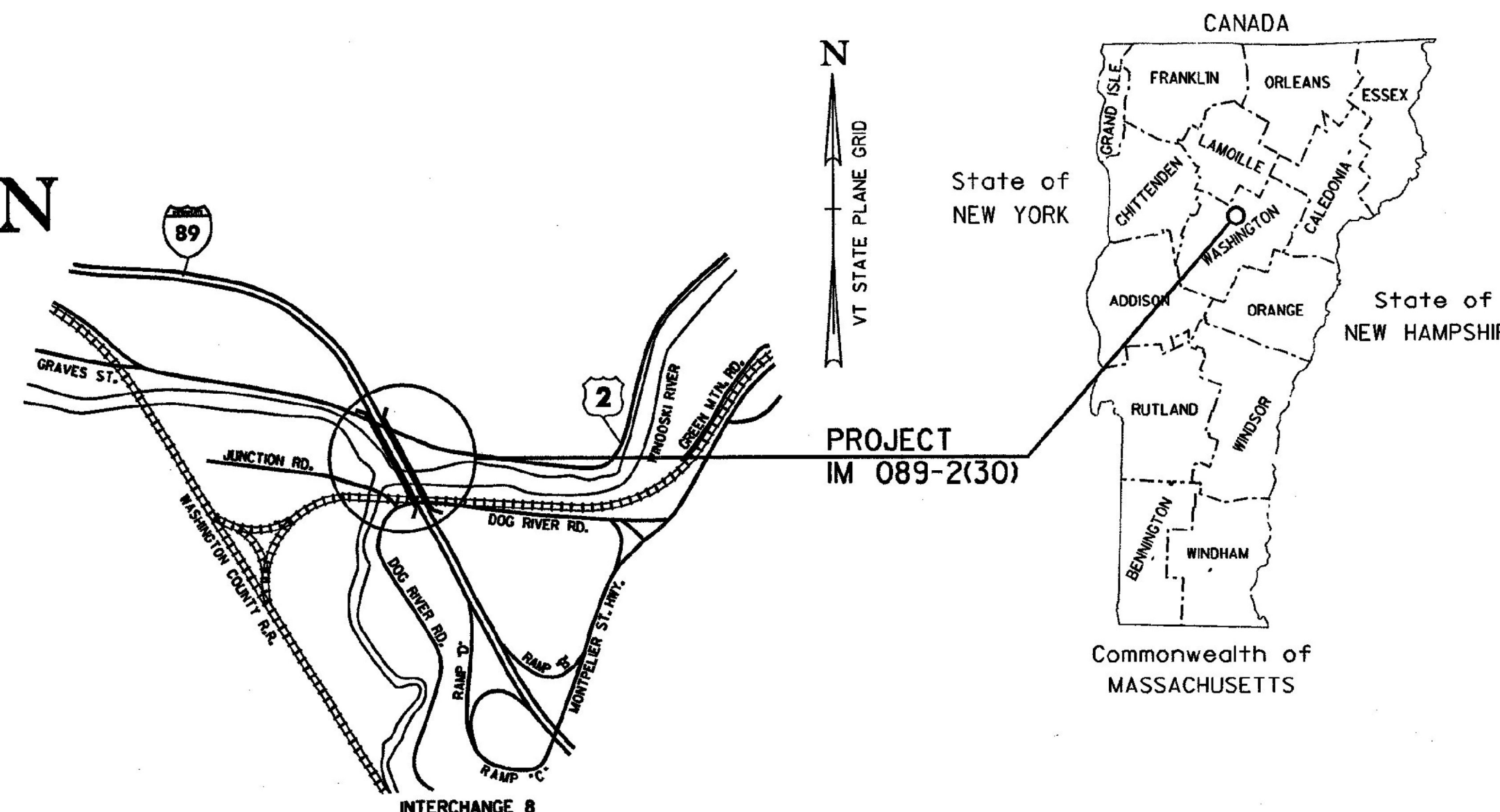
PROPOSED IMPROVEMENT BRIDGE PROJECT CITY OF MONTPELIER COUNTY OF WASHINGTON

PROJECT LOCATION: MONTPELIER I-89 SOUTHBOUND OVER DOG RIVER ROAD, WASHINGTON CO. RAILROAD, WINOOSKI RIVER AND U.S. ROUTE 2 BETWEEN MILE MARKERS 53.334 AND 53.553

PROJECT DESCRIPTION: REMOVAL AND REPLACEMENT OF MEMBRANE AND OVERLAY OF BRIDGE 42 SOUTH

LENGTH OF STRUCTURE: WITH APPROACH SLABS: 1039.59 FT = 0.197 MILE

LENGTH OF PROJECT: 1154.59 FT = 0.219 MILE



TRAFFIC DATA

1999 ADT = 14,500
1999 DHV = 1700

*STANDARD OUT OF ORDER

CONVENTIONAL SYMBOLS

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

PLANS PREPARED BY

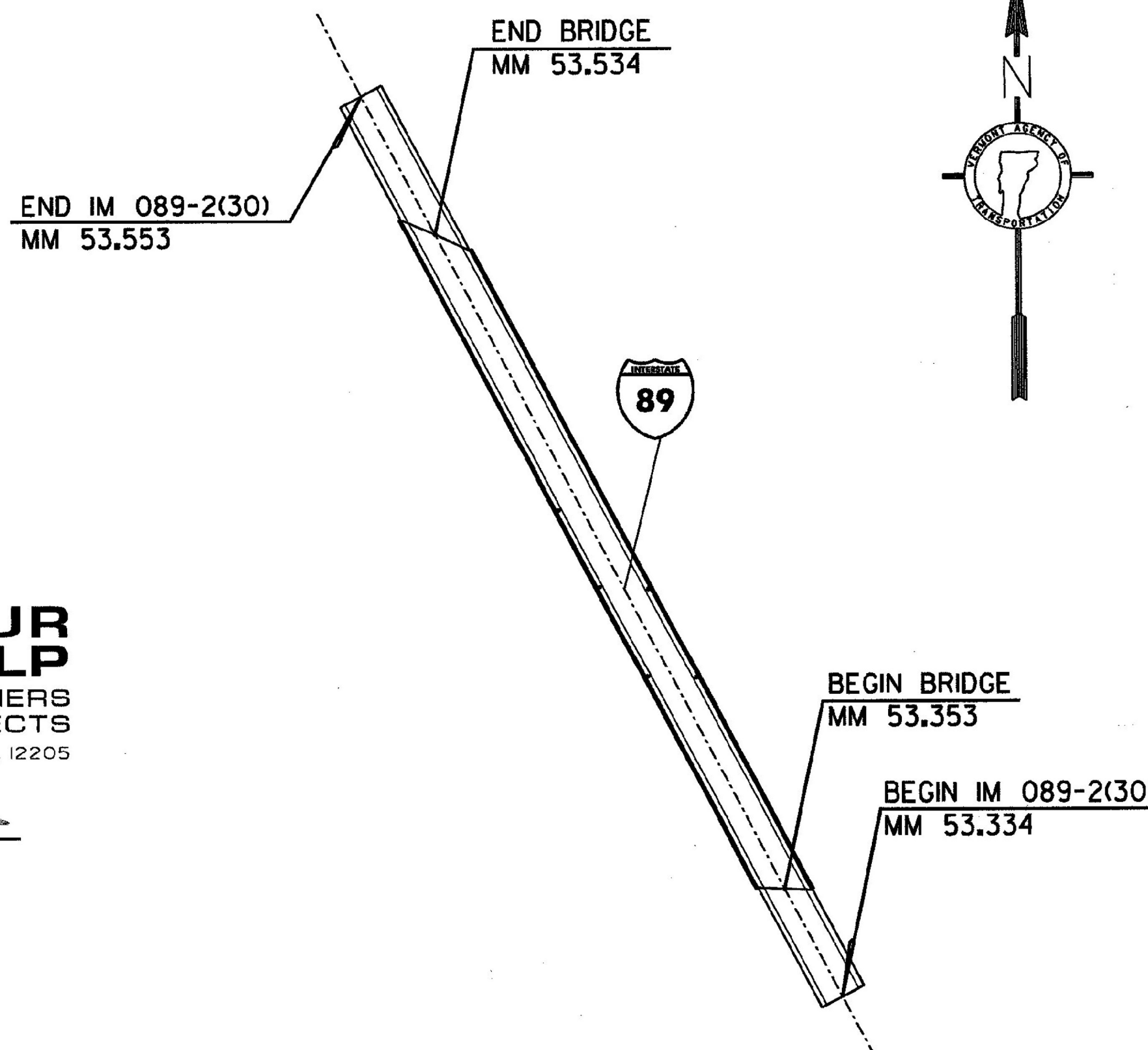
CHA CLOUGH, HARBOUR & ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
111 WINNERS CIRCLE ALBANY, NEW YORK, 12205

BY *[Signature]*

SURVEYED BY : N/A
SURVEYED DATE : N/A

DATUM

VERTICAL N/A
HORIZONTAL N/A



RECORD PLANS

CONTRACTOR: WINTERSET - LYNDONVILLE, VT
RESIDENT ENGINEER: V. DWIRE
CONSTRUCTION BEGAN:
CONSTRUCTION COMPLETE: JUNE 2, 2001
RECORD PLANS BY: CADD FINALS

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

BY *[Signature]* RESIDENT ENGINEER
DATE 4/24/02

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

BUILT AS DESIGNED

THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROJECT DEVELOPMENT.
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 1990, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON MARCH 15, 1990. FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

MONTPELIER
IM MEMB(23)

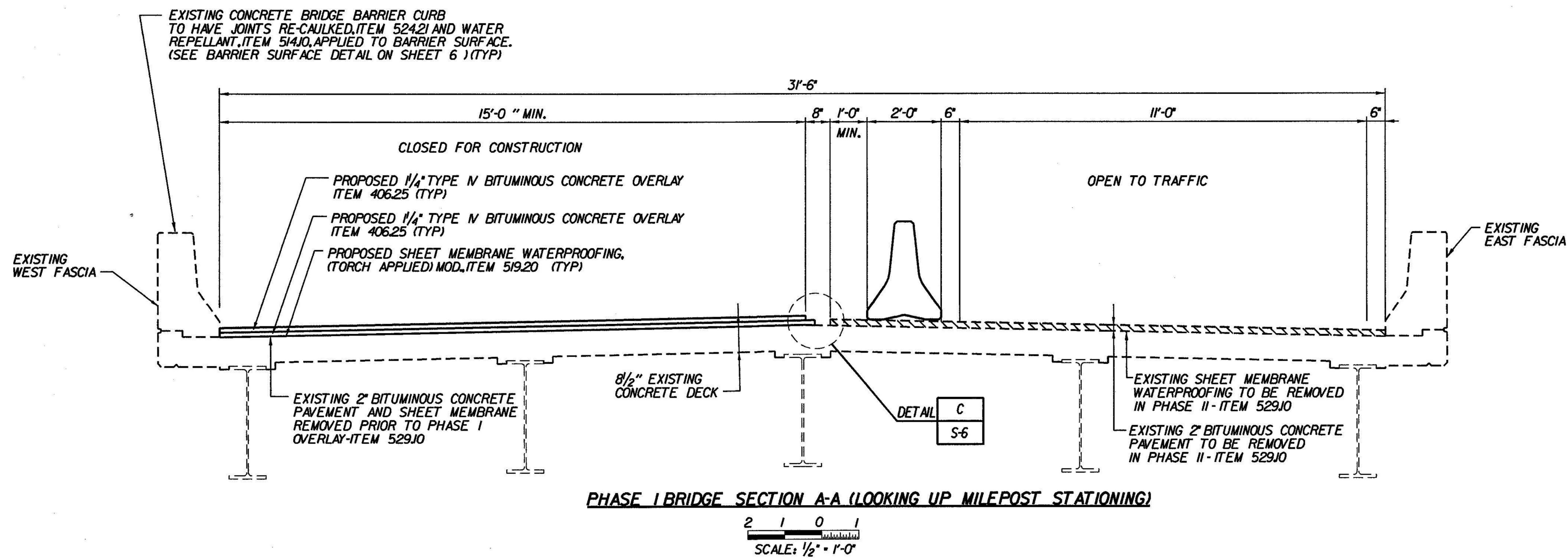
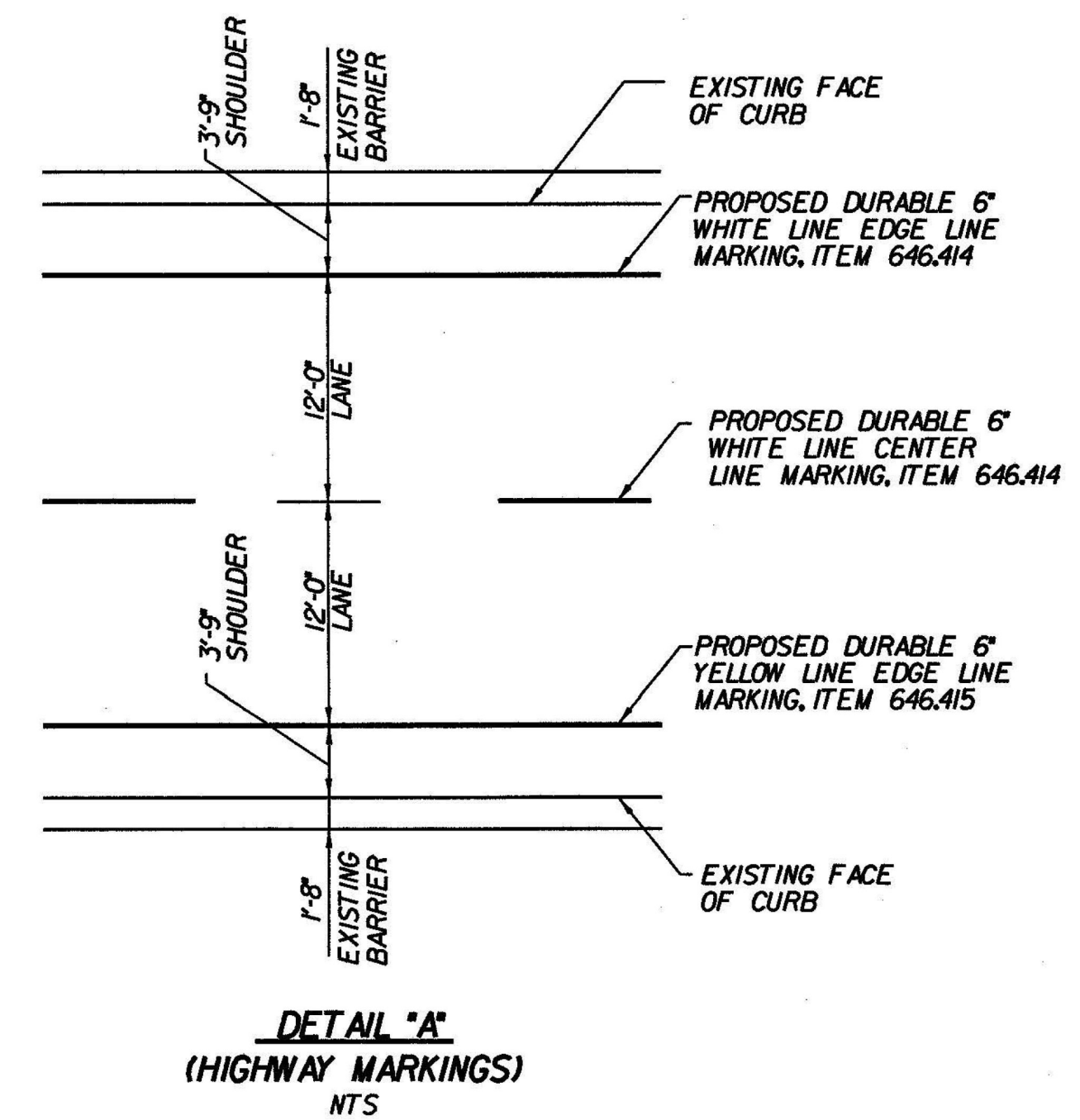
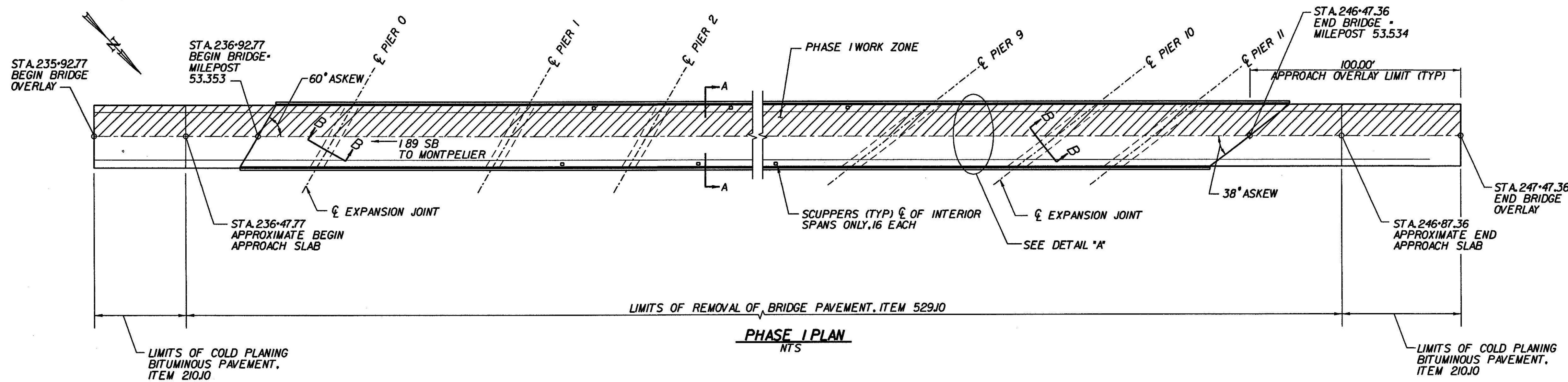
SHEET 55 OF 63
BRIDGE 42S
FOR REFERENCE ONLY

UNLESS OTHERWISE NOTED, ALL DRAWINGS AND DETAILS OF THE PROJECT PLANS ARE NOT TO SCALE

RIGHT OF WAY LIMITS, IF APPLICABLE, ARE PROVIDED SOLELY FOR THE CONVENIENCE OF THE STATE AND ITS CONTRACTOR DURING THE COURSE OF THIS PAVING PROJECT. ANY REFERENCES TO OFFSETS ON THESE PLANS ARE APPROXIMATE AND SHOULD NOT BE RELIED UPON FOR ANY OTHER PURPOSES

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED _____ DATE _____
DIRECTOR OF PROJECT DEVELOPMENT
APPROVED *[Signature]* DATE 8/14/00
PROJECT MANAGER : David J. Hoynes
PROJECT NAME : MONTPELIER
PROJECT NUMBER : IM 089-2(30)
SHEET 1 OF 17 SHEETS



MONTPELIER
IM MEMB(23)

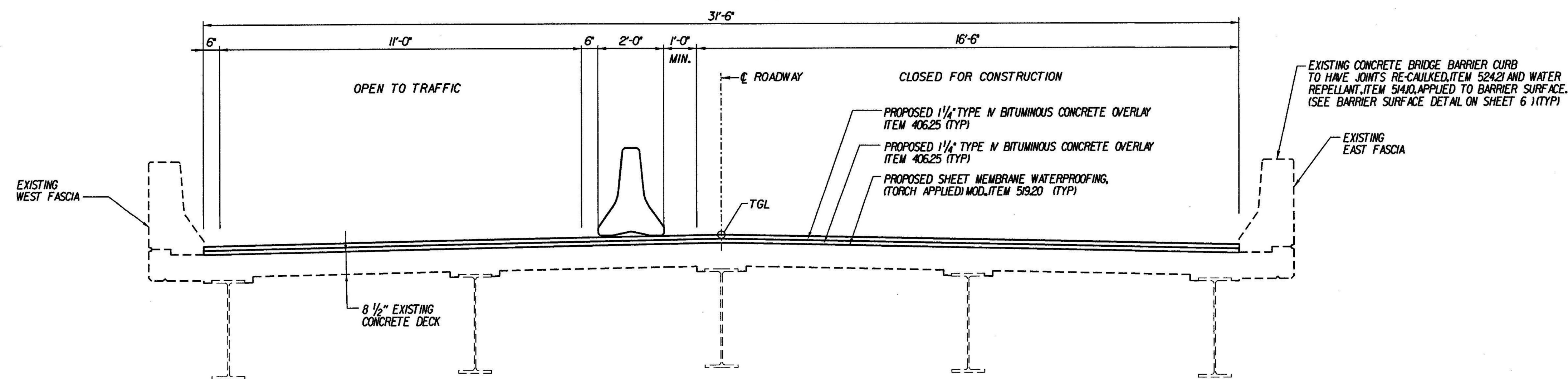
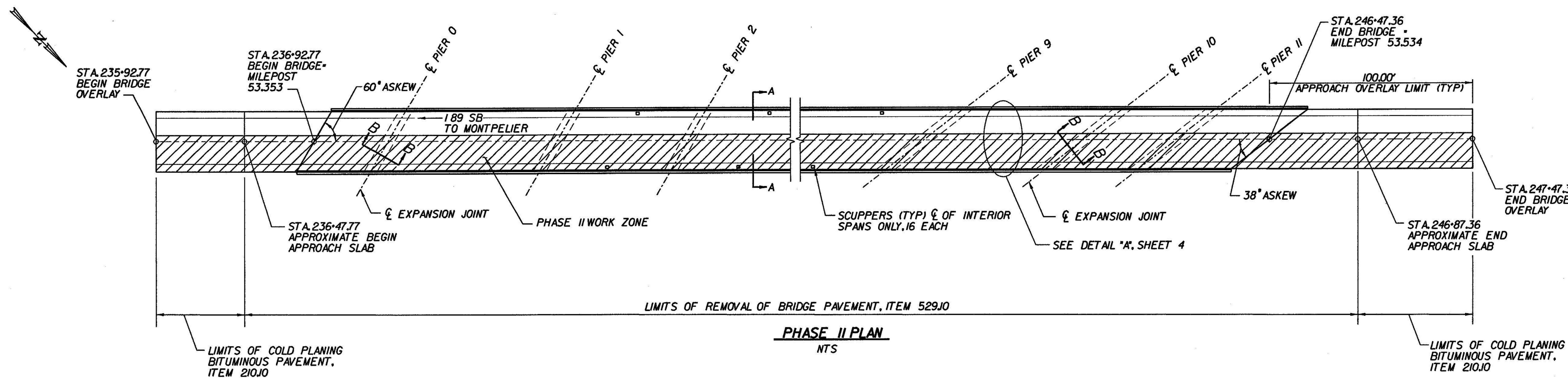
SHEET 56 OF 63
BRIDGE 42S
FOR REFERENCE ONLY

STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MONTPELIER	Bridge No.	42 S
Highway No.	1-89	Log Sta.	
		Surv. Sta.	
TYPICAL BRIDGE SECTION AND DETAILS-I			
INTERSTATE 89 OVER THE WINOOSKI RIVER			
Designed By	DAS	Drawn by	JJL/MMW
Checked By	MWO	Date	08/00
		Bridge Design Supervisor	M.W. OLSTAD Date 08/00
PROJECT	MONTPELIER	PROJECT NO.	IM 089-2(30)
I.C.C. Info.			
Bridge Sheet No.	BR02	Sheet 4	OF 17

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ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
111 WINNERS' CIRCLE ALBANY, NEW YORK, 12205



MONTPELIER
IM MEMB(23)

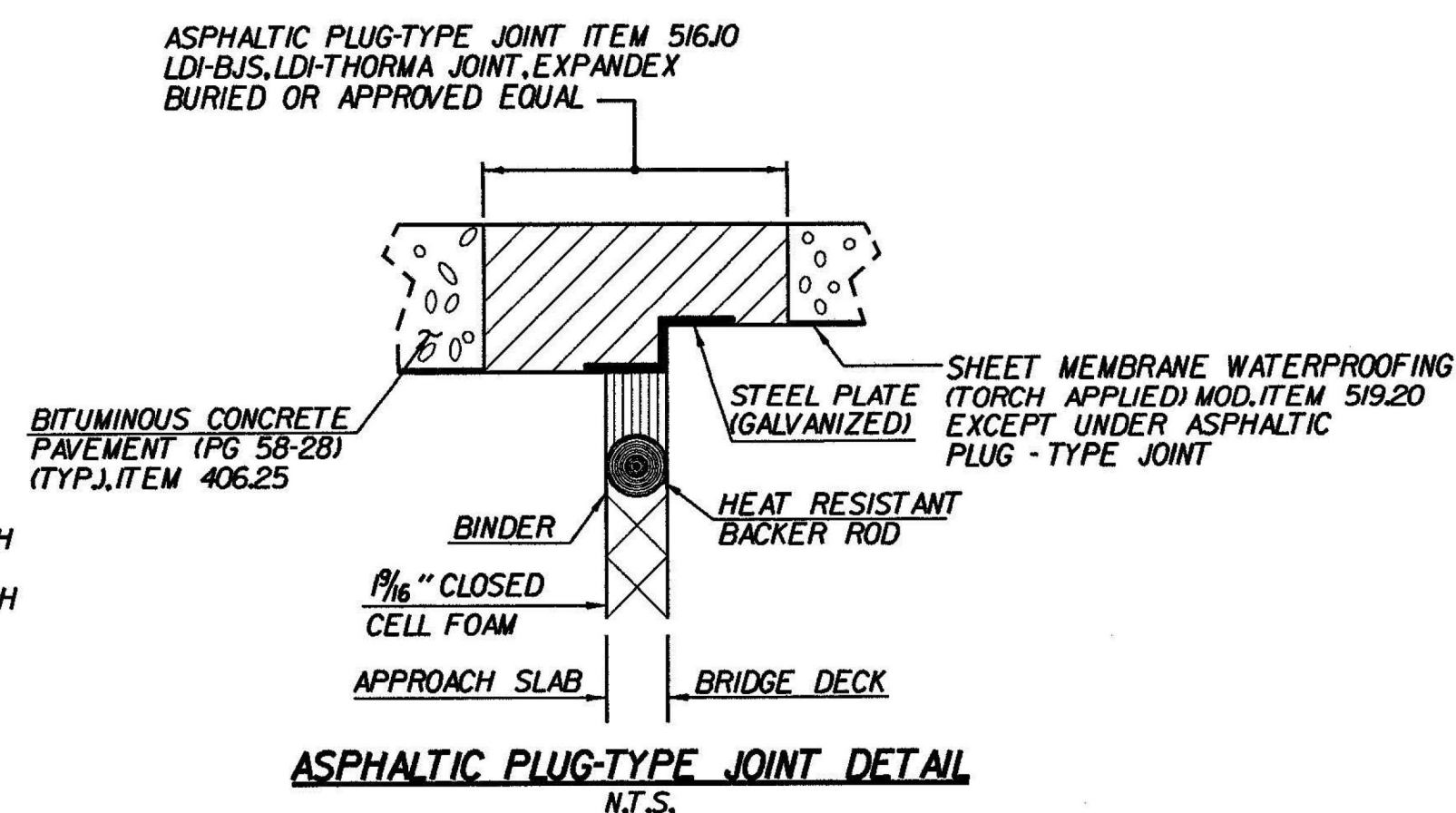
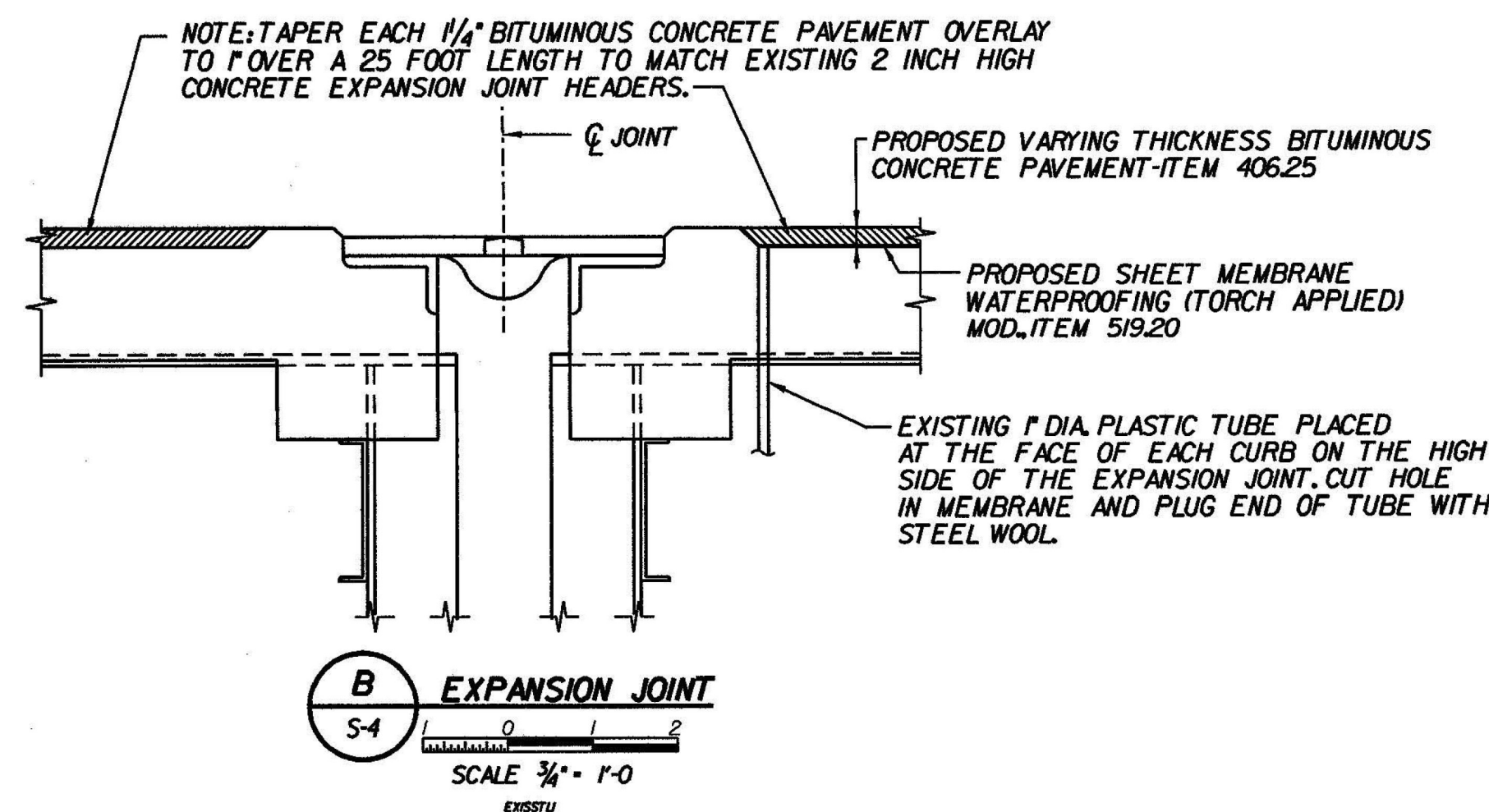
SHEET 57 OF 63
BRIDGE 42S
FOR REFERENCE ONLY

STATE OF VERMONT AGENCY OF TRANSPORTATION

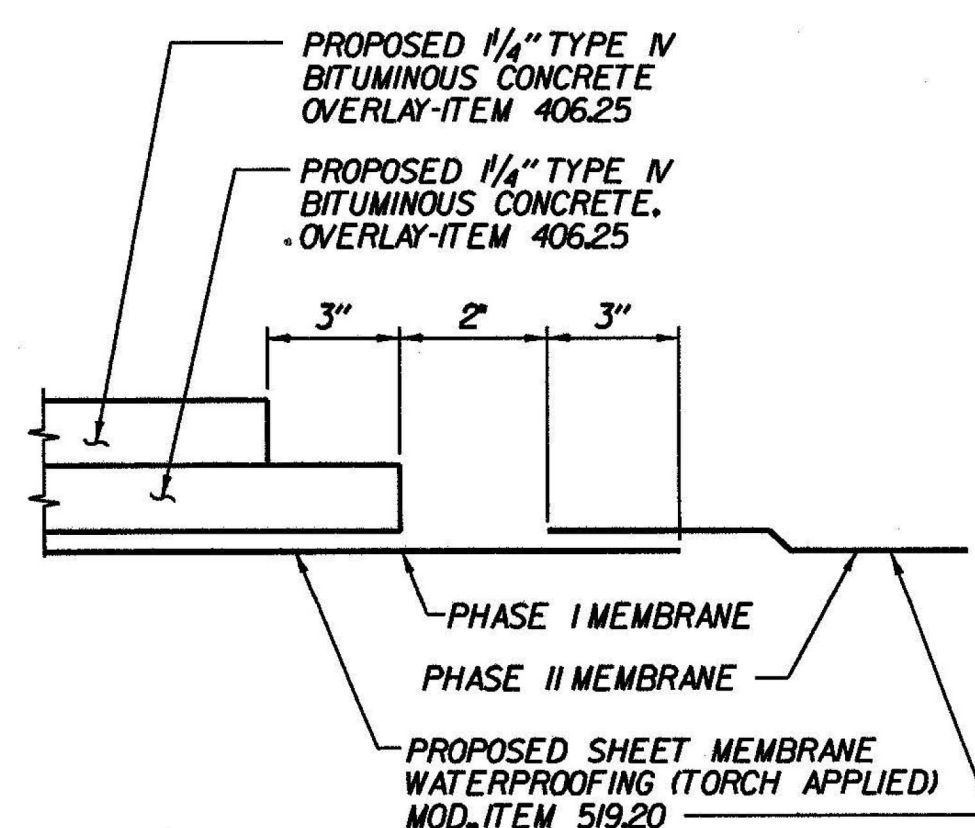
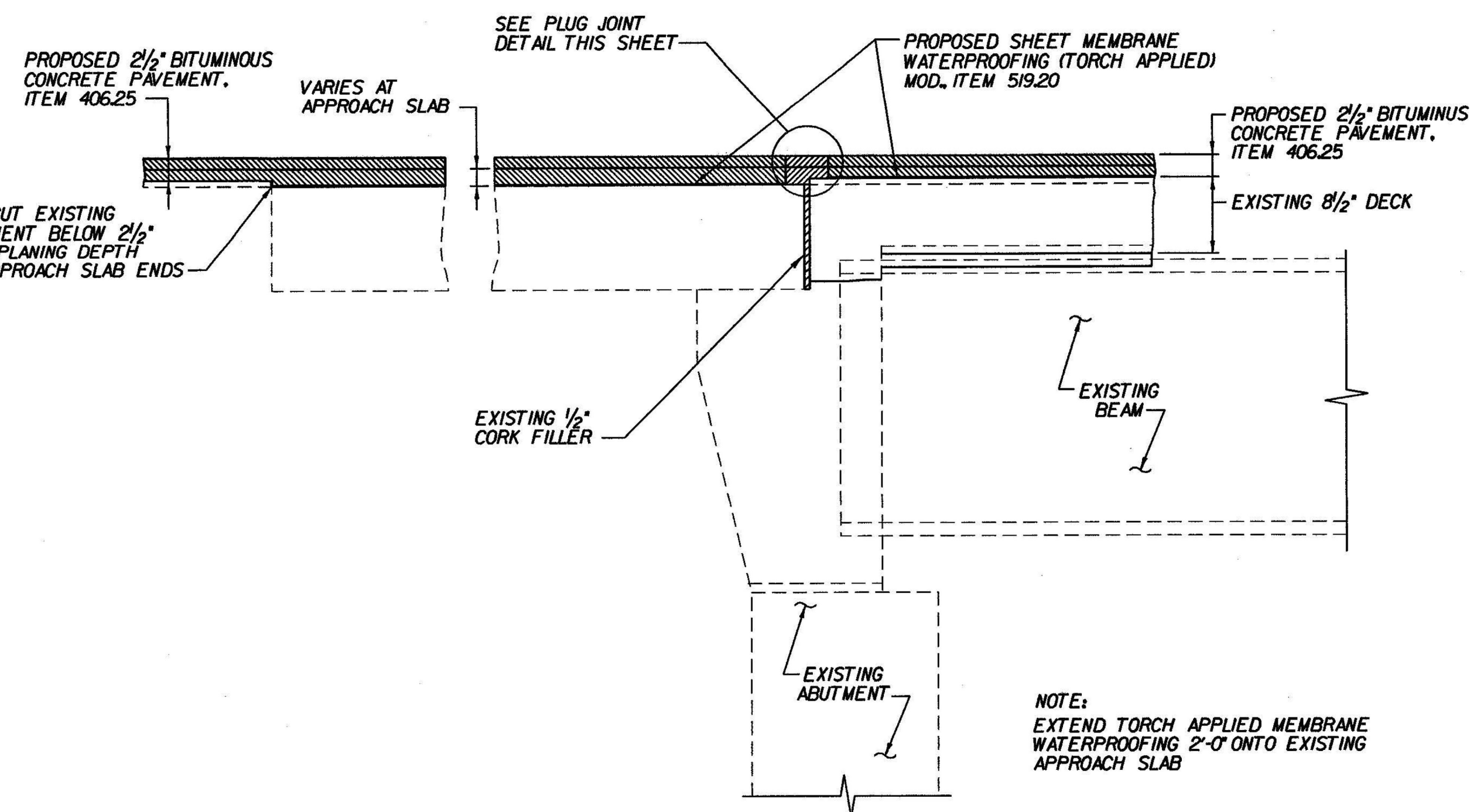
Town Of	MONTPELIER	Bridge No.	42 S
Highway No.	1-89	Log Sta.	
		Surv. Sta.	
TYPICAL BRIDGE SECTION AND DETAILS-2			
INTERSTATE 89 OVER THE WINOOSKI RIVER			
Designed By	DAS	Drawn by	WMW
Checked By	MWO	Bridge Design Supervisor	M.W. OLSTAD
	Date 08/00		Date 08/00
PROJECT	MONTPELIER	PROJECT NO.	IM 089-2(30)
I.G.C. Info.			
Bridge Sheet No.	BR03	Sheet 5	OF 17

ARCHIVED
IN DPR

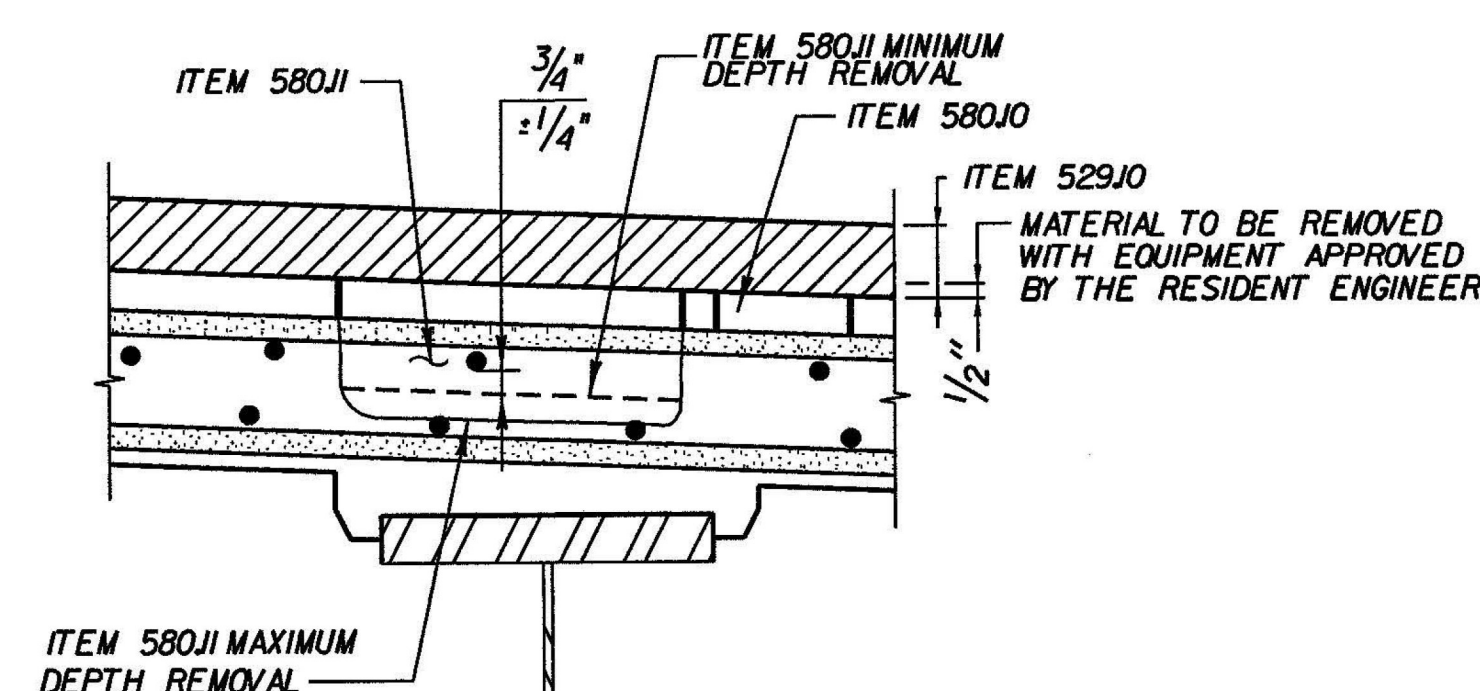
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ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
11 WINNERS CIRCLE ALBANY, NEW YORK, 12208



THE JOINT IS TO BE LOCATED ACCURATELY BY STRING LINING, OR OTHER MEANS, PRIOR TO PAVING, SO THAT THE SAW CUTS WILL BE MADE DIRECTLY OVER THE END OF THE CONCRETE DECK



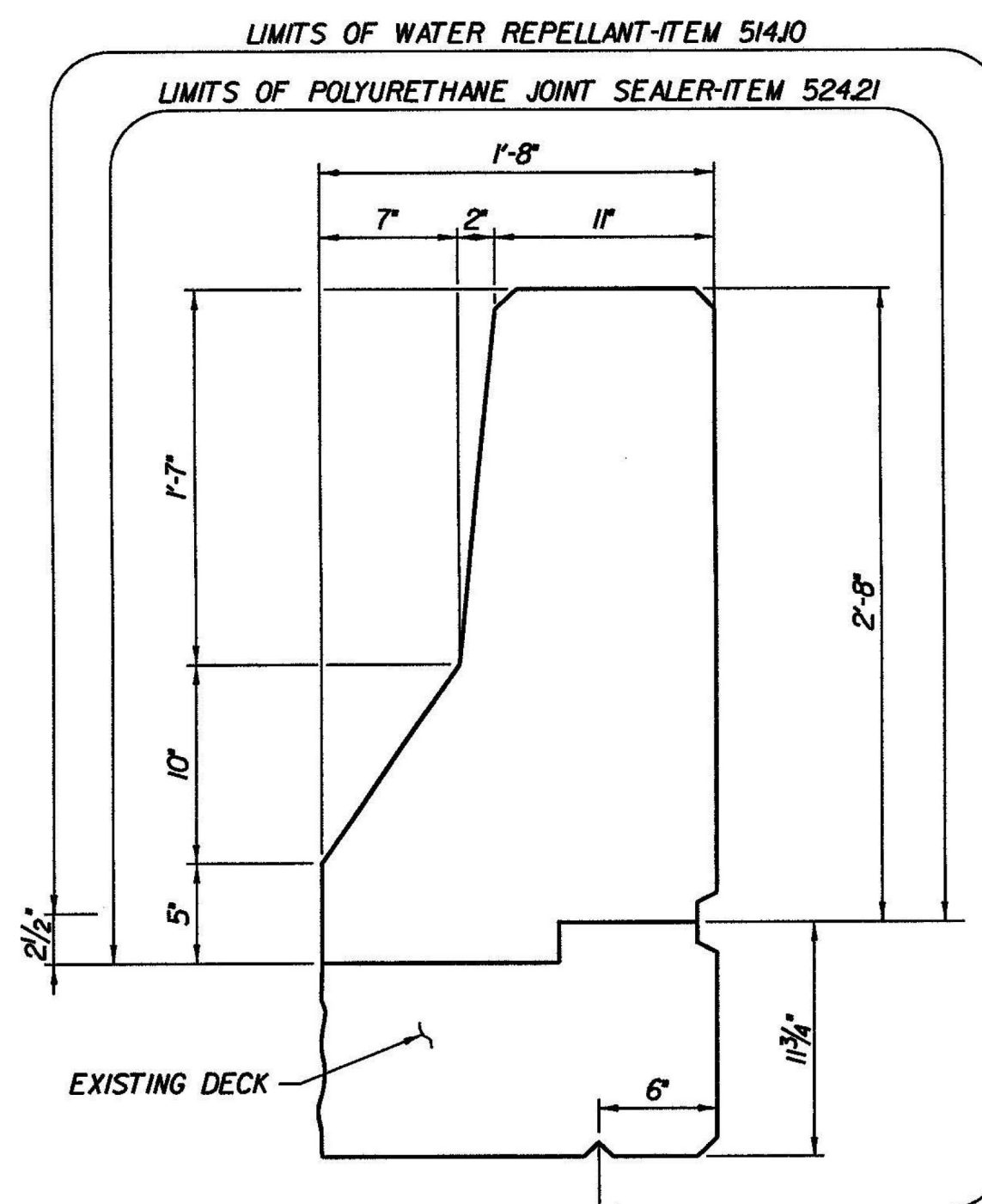
C PHASED CONSTRUCTION PAVEMENT
S-4 EDGE TREATMENT DETAIL
N.T.S.



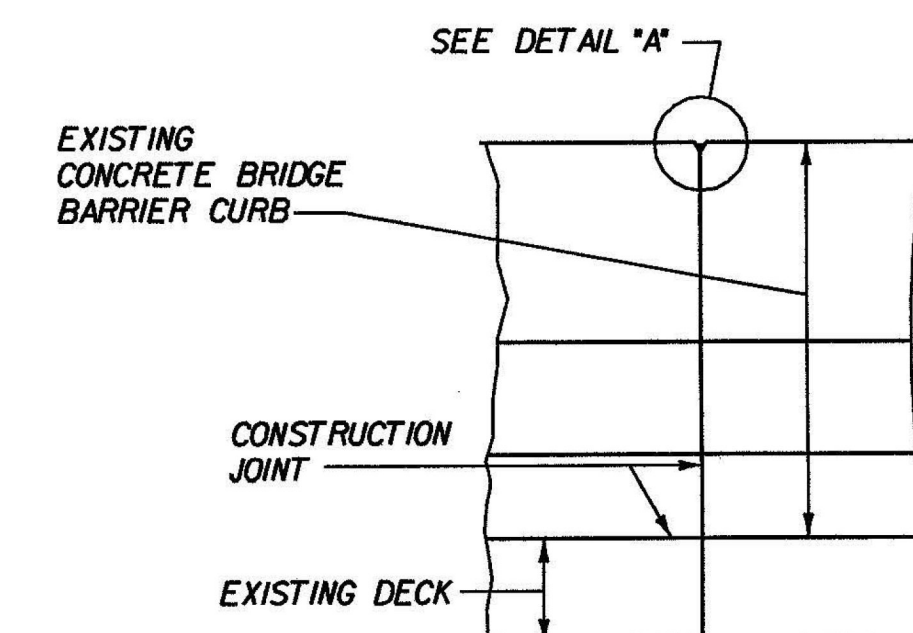
TYPICAL LIMITS FOR REMOVAL ITEMS
N.T.S.

DECK SLAB CONCRETE REMOVAL & REPAIR NOTES:

- ALL EDGES OF REPAIR AREAS ARE TO BE SAW CUT SQUARE AND A MINIMUM OF 1 INCH DEEP.
- ITEM 580.J0 REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS I SHALL INCLUDE REMOVAL OF CONCRETE TO A MAXIMUM DEPTH AS DETERMINED BY THE TOP OF THE TOP BARS OF THE TOP MAT OF REINFORCING STEEL.
- ITEM 580.J1 REPAIR OF CONCRETE SUPERSTRUCTURE CLASS II SHALL INCLUDE REMOVAL OF CONCRETE TO A MAXIMUM DEPTH AS DETERMINED BY THE TOP OF THE TOP BARS OF THE BOTTOM MAT OF REINFORCING STEEL.
- REMOVAL OF EXISTING CONCRETE TO A DEPTH GREATER THAN SPECIFIED FOR ITEM 580.J1 SHALL BE PAID FOR UNDER ITEM 580.J2 REPAIR OF CONCRETE SUPERSTRUCTURE SURFACE CLASS III
- SEE ADDITIONAL NOTES ON BRO1.



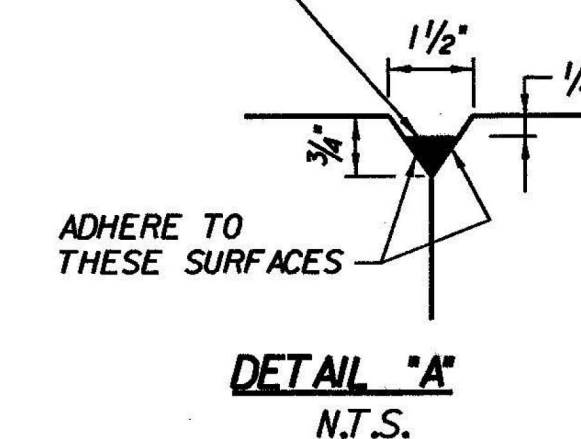
BARRIER SURFACE DETAIL
SCALE 1 1/2" = 1'-0"



JOINT DETAIL AT CURB
N.T.S.

- NOTES:
- CONSTRUCTION JOINTS THROUGH CONCRETE CURBS ARE SPACED AT A MAXIMUM OF 20'-0" CENTER TO CENTER.
 - REMOVAL AND DISPOSAL OF EXISTING JOINT SEALER IS INCLUDED IN ITEM 524.21, POLYURETHANE JOINT SEALER.

POLYURETHANE JOINT SEALER, ITEM 524.21, PER SUBSECTION 524.06C COLOR TO MATCH CONCRETE.



STATE OF VERMONT AGENCY OF TRANSPORTATION

Town Of	MONTPELIER	Bridge No.	42 S
Highway No.	I-89	Log Sta.	
		Surv. Sta.	
PAVEMENT AND BARRIER DETAILS			
INTERSTATE 89 OVER THE WOONSKIRIVER			
Designed By	DAS	Drawn by	WMW
Checked By	MWO	Date	08/00
		Bridge Design Supervisor	M.W. OLSTAD
PROJECT	MONTPELIER	PROJECT NO.	IM 089-2(30)
		IM 089-2(30)	
I.G.C. Info.		Sheet 6 OF 17	
Bridge Sheet No. BR04			

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IN DPR

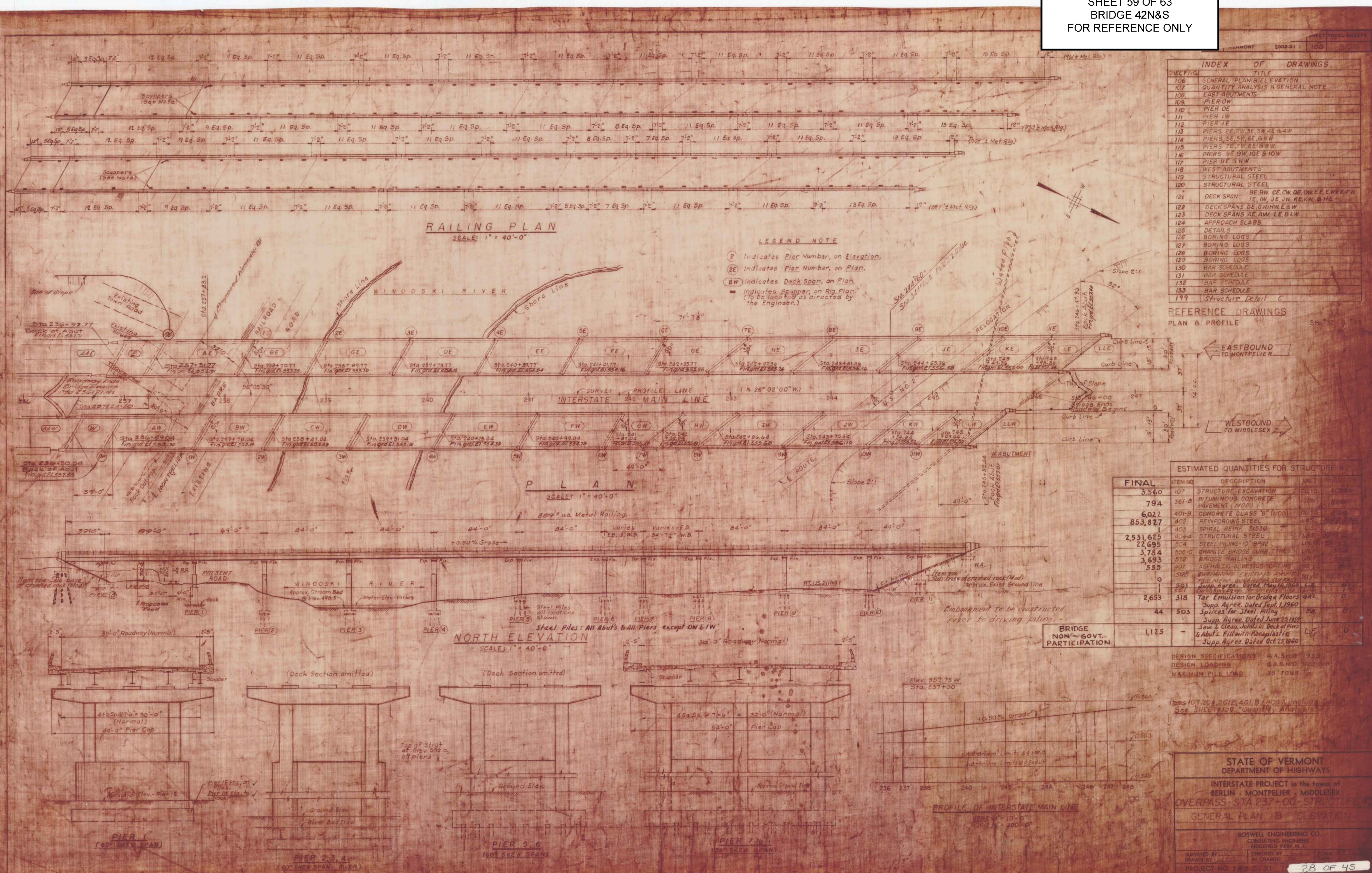
CHA CLOUGH, HARBOUR & ASSOCIATES LLP
ENGINEERS, SURVEYORS, PLANNERS & LANDSCAPE ARCHITECTS
11 WINNERS CIRCLE, ALBANY, NEW YORK, 12209

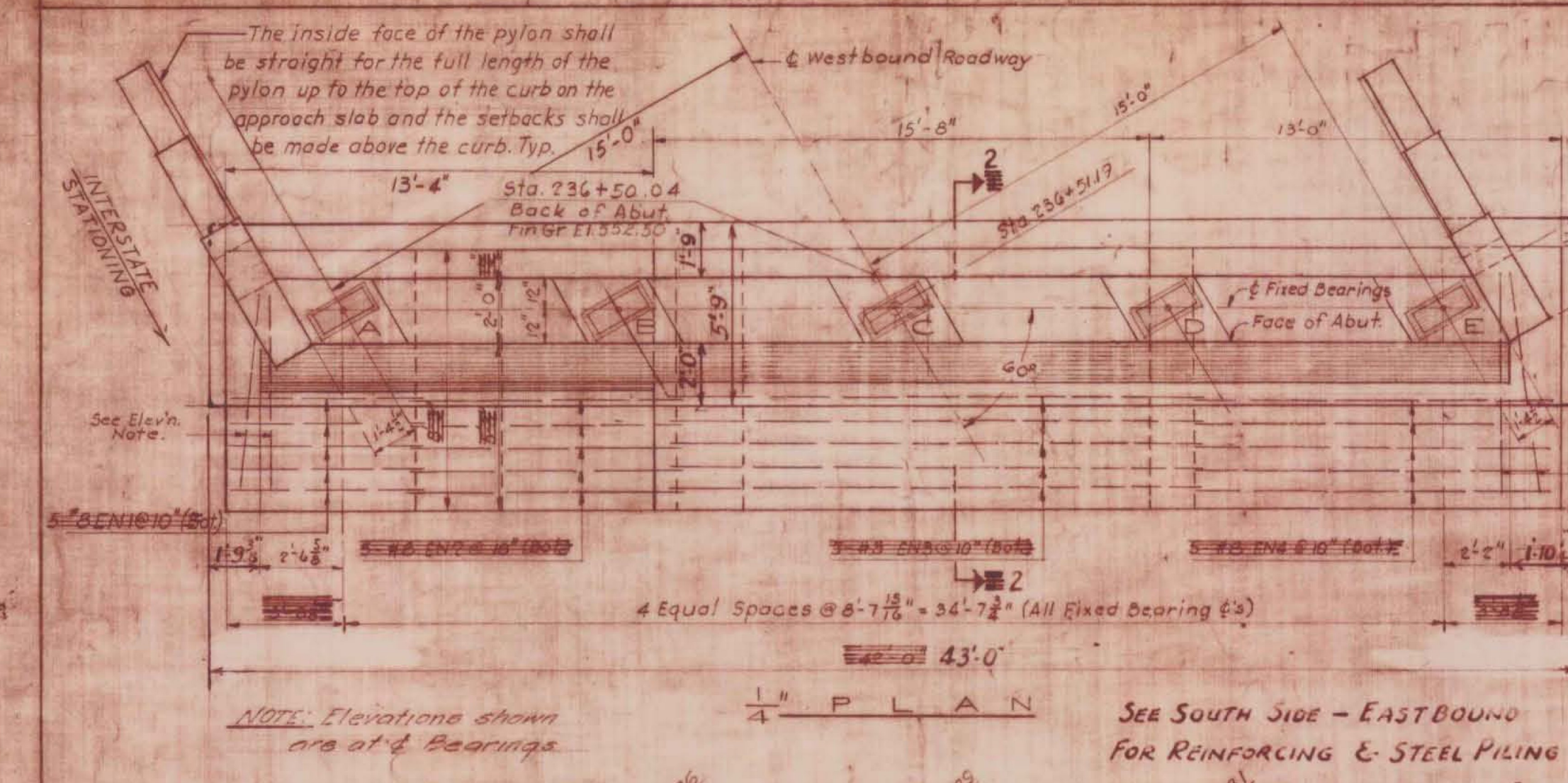
MONTPELIER
IM MEMB(23)

SHEET 58 OF 63
BRIDGE 42S
FOR REFERENCE ONLY

MONTPELIER
IM MEMB(23)

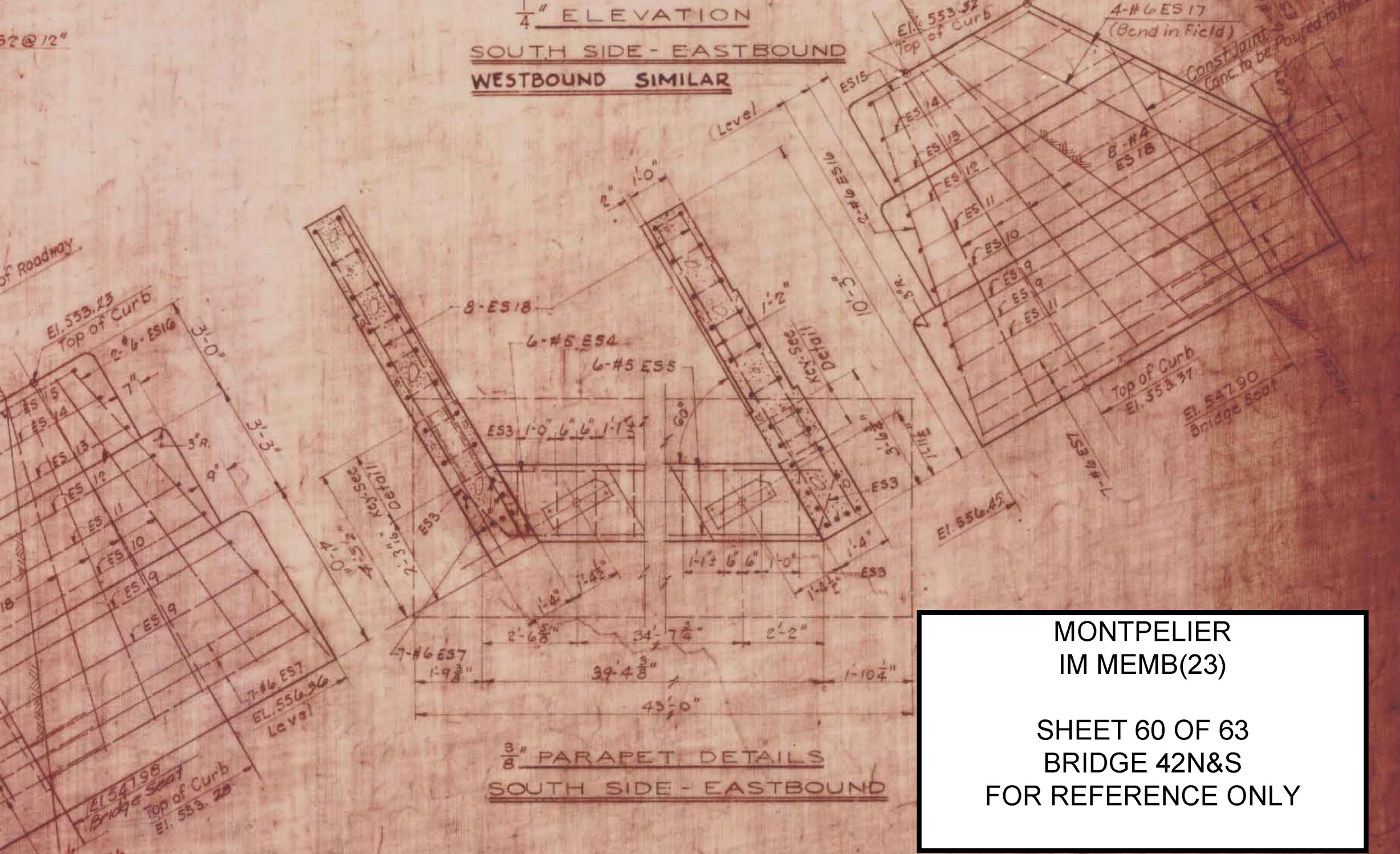
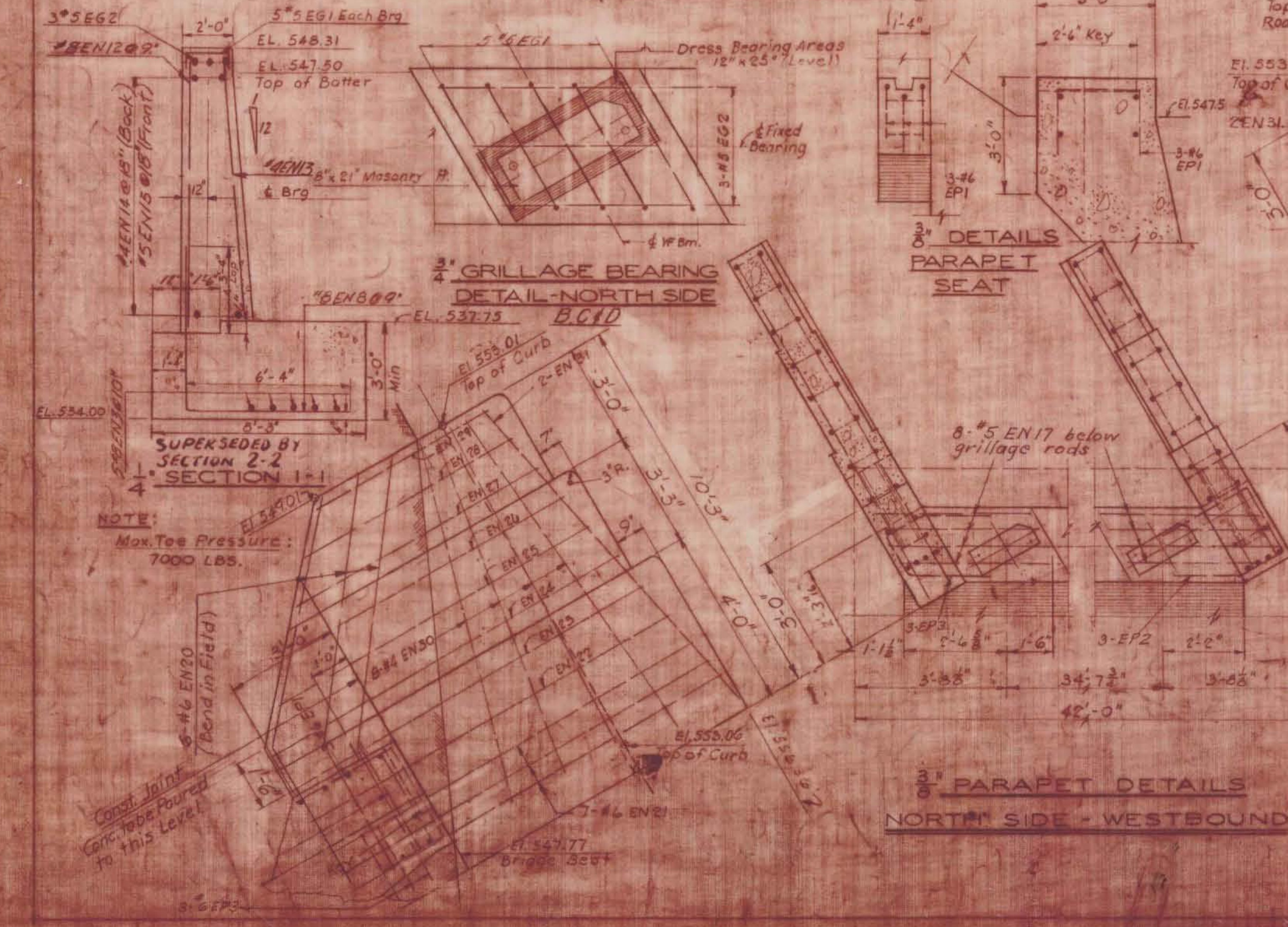
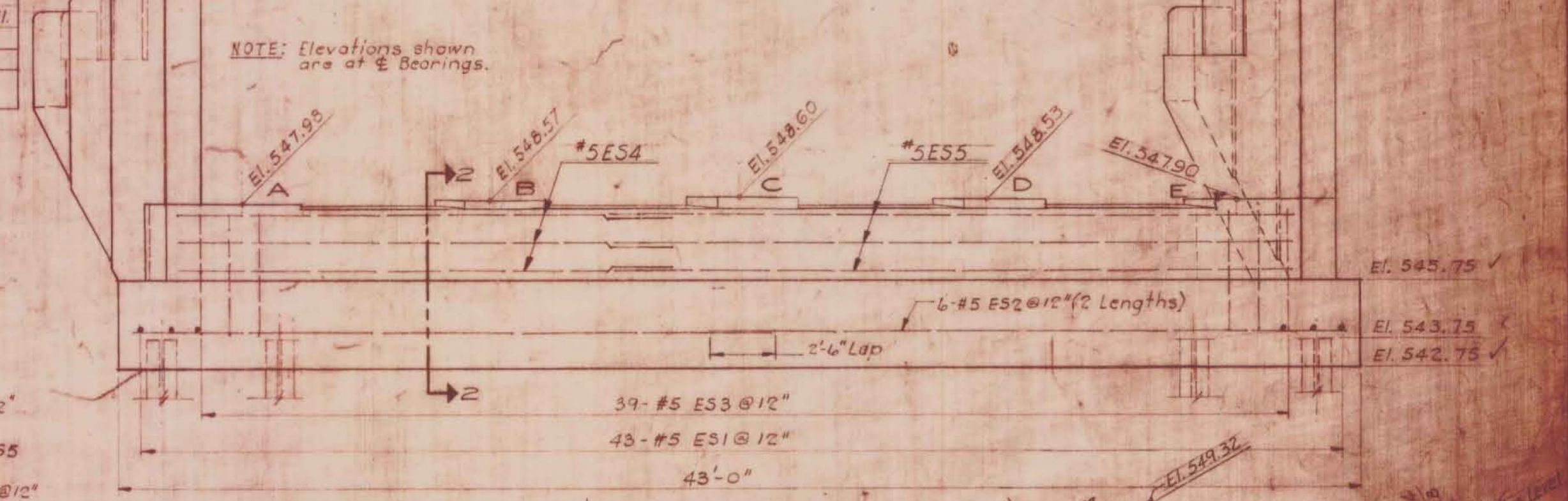
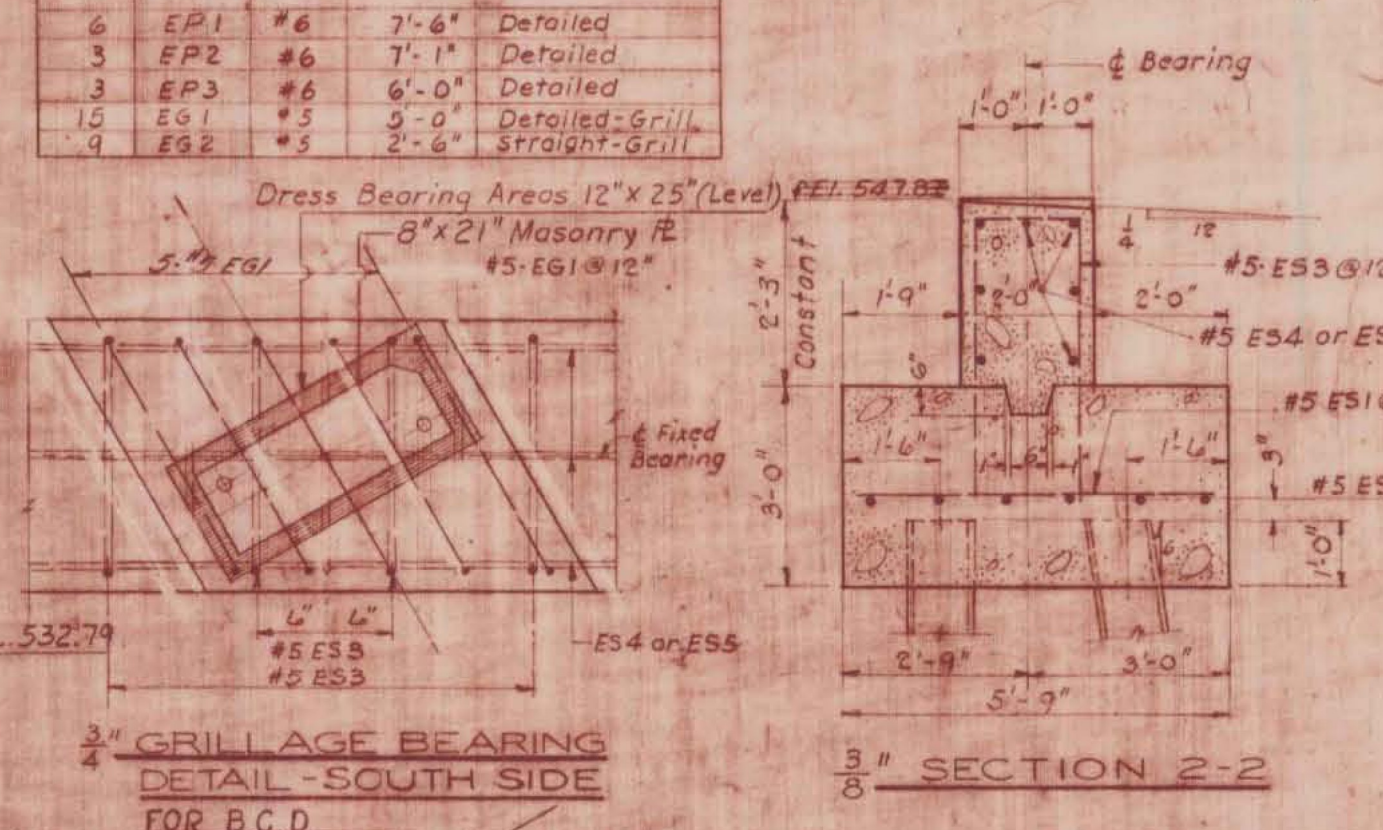
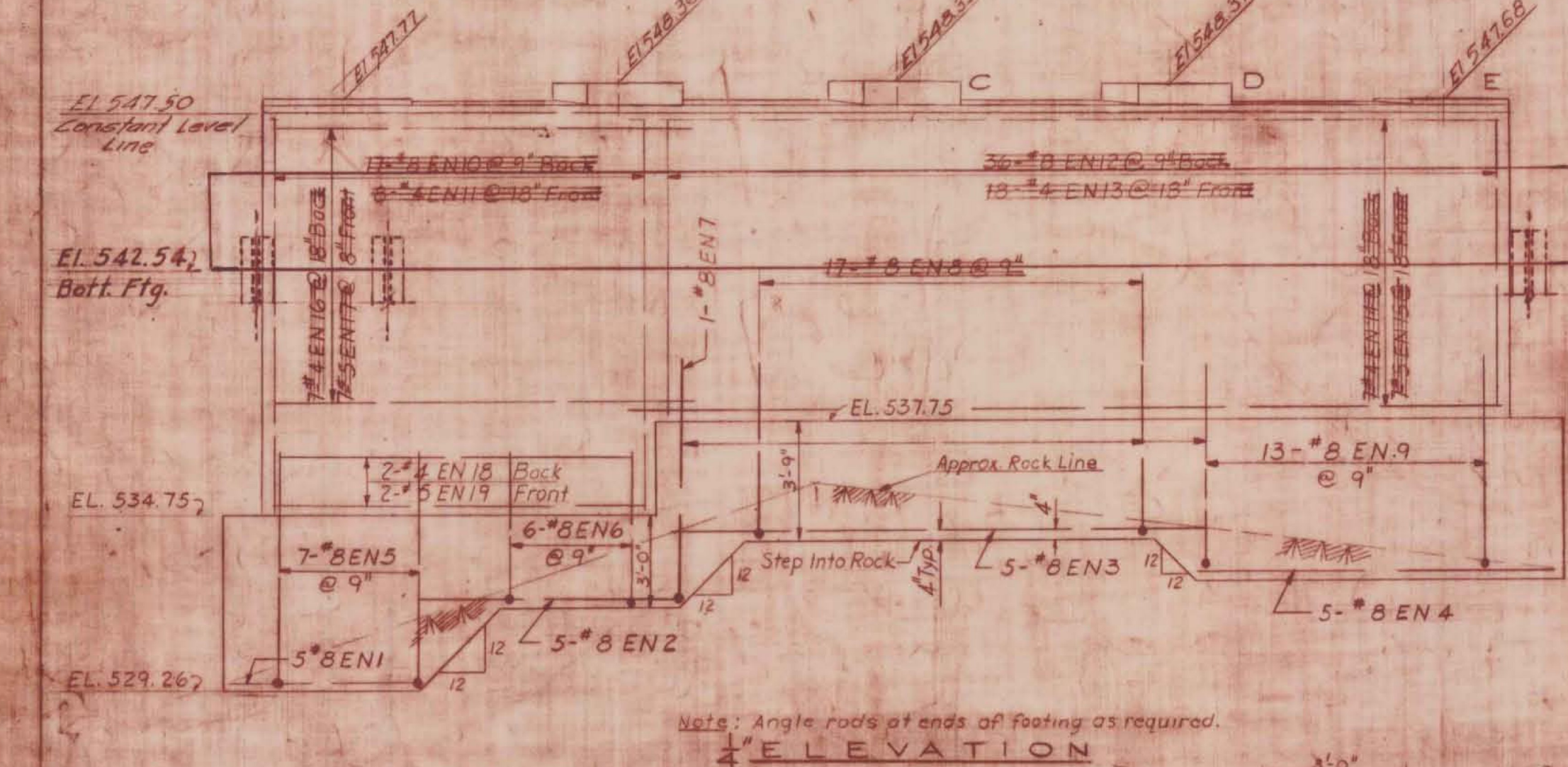
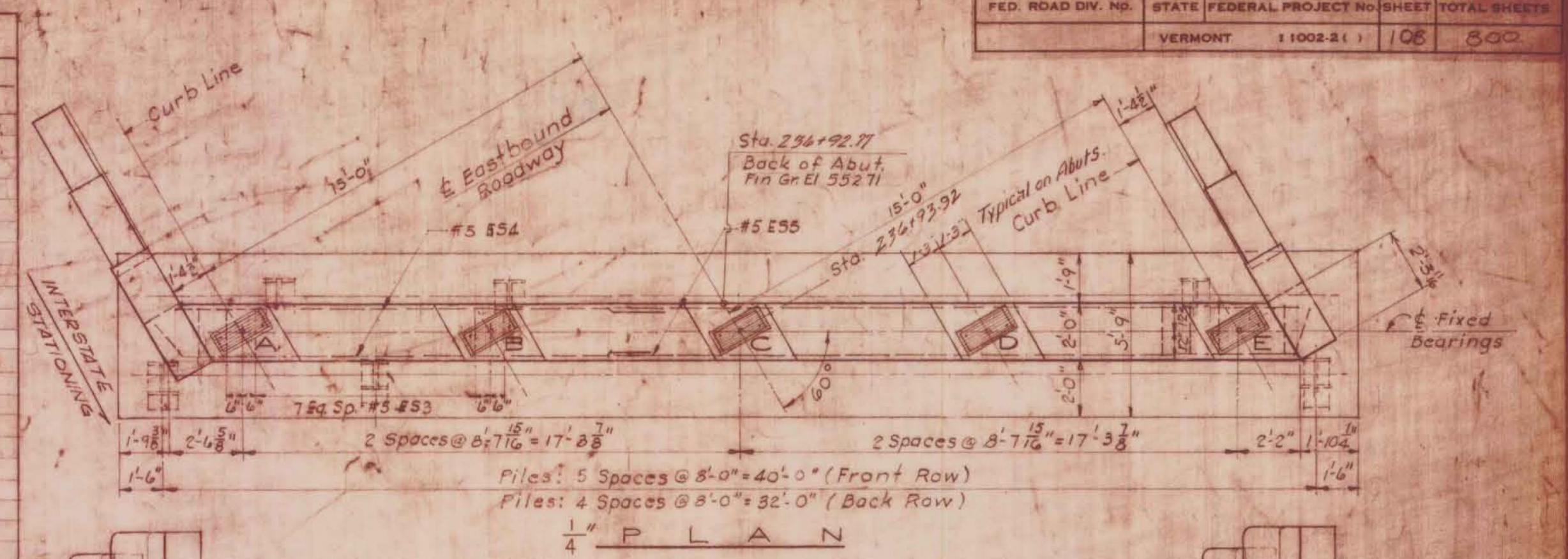
SHEET 59 OF 63
BRIDGE 42N&S
FOR REFERENCE ONLY





ROD LIST

EAST ABUT. - NORTH SIDE				EAST ABUT. - SOUTH SIDE			
No.	Mark	Size	Length	No.	Mark	Size	Length
5	EN1	#8	6'-0"	43	ESV	#5	5'-3"
5	EN2	#8	8'-3"	12	ES2	#5	22'-6"
5	EN3	#8	16'-7"	30	ES3	#5	10'-3"
5	EN4	#8	11'-1"	7	ES4	#5	17'-3"
7	EN5	#8	12'-0"	7	ES5	#5	23'-6"
6	EN6	#8	9'-0"	14	ES6	#6	3'-4"
1	EN7	#8	12'-8"	14	ES7	#6	3'-2"
17	EN8	#8	12'-8"	10	ES8	#4	3'-0"
13	EN9	#8	11'-0"	4	ES9	#4	20'-8"
17	EN10	#8	12'-6"	2	ES10	#4	18'-8"
8	EN11	#4	12'-6"	3	ES11	#4	10'-0"
36	EN12	#8	9'-0"	2	ES12	#4	16'-2"
18	EN13	#4	9'-0"	2	ES13	#4	13'-8"
7	EN14	#4	27'-5"	2	ES14	#4	12'-4"
7	EN15	#5	27'-5"	2	ES15	#4	10'-8"
7	EN16	#4	13'-3"	4	ES16	#6	9'-3"
7	EN17	#5	13'-3"	8	ES17	#6	9'-4"
2	EN18	#4	11'-8"	16	ES18	#4	9'-2"
2	EN19	#5	11'-8"				
12	EN20	#5	10'-6"				
14	EN21	#6	11'-0"				
2	EN22	#4	23'-9"				
2	EN23	#4	23'-2"				
2	EN24	#4	20'-0"				
2	EN25	#4	17'-6"				
2	EN26	#4	14'-8"				
2	EN27	#4	13'-0"				
2	EN28	#4	11'-8"				
16	EN29	#6	10'-8"				
4	EN31	#6	9'-9"				



PILE NOTE
 E. Abut. So Side - E.B. estimated pile length: 35 Ft.
 FINAL: E. Abut. So Side - E.B. 32 Ft.
 E. Abut. No Side - W.B. 20 Ft.

NOTE
 1. For General Notes, see 10/1/77
 2. For Reinforcing Details, see 10/1/77
 3. Reinforcing in the abutments shall be spaced to allow for the maintenance of the structure during construction.

MONTPELIER
IM MEMB(23)

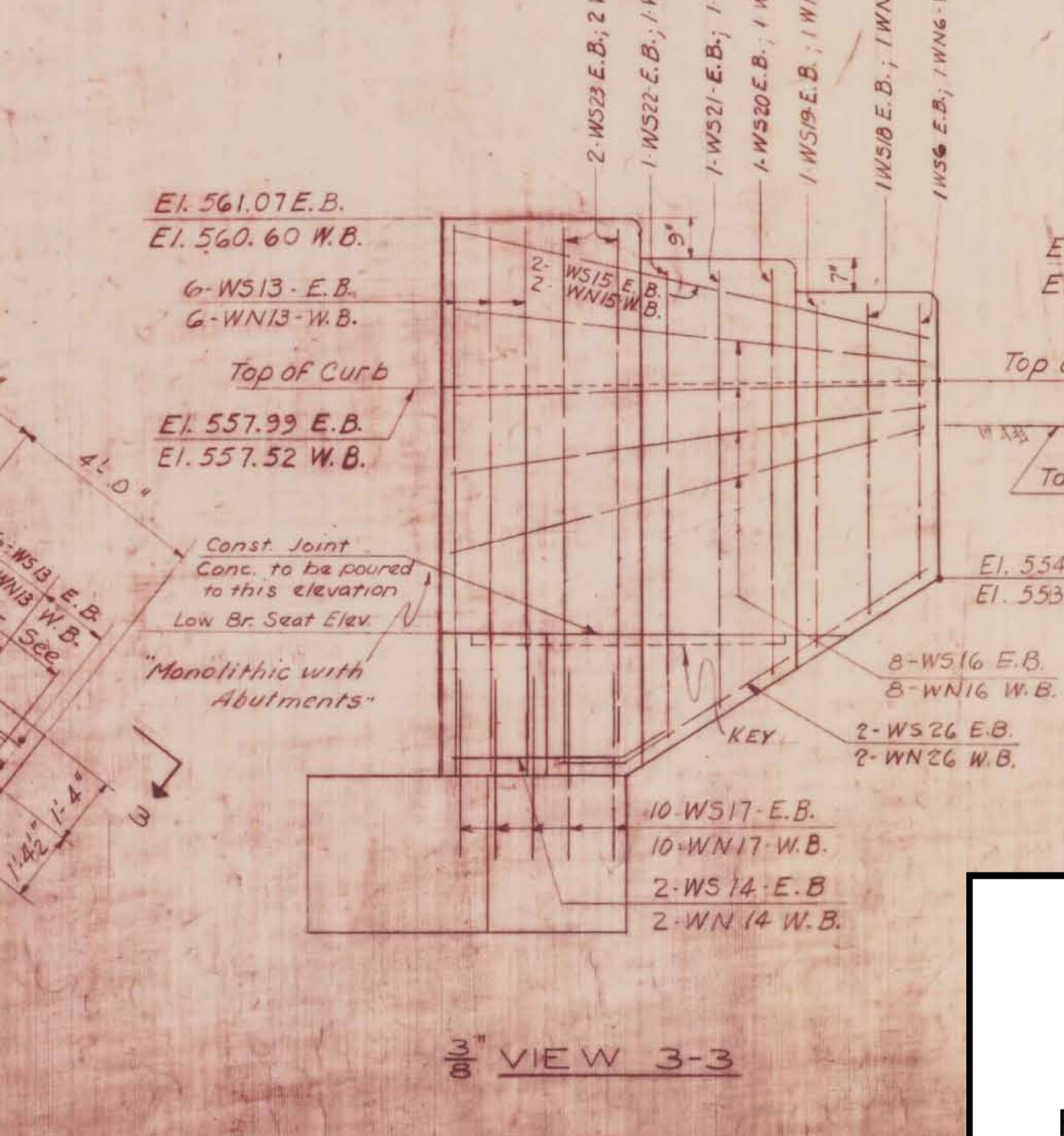
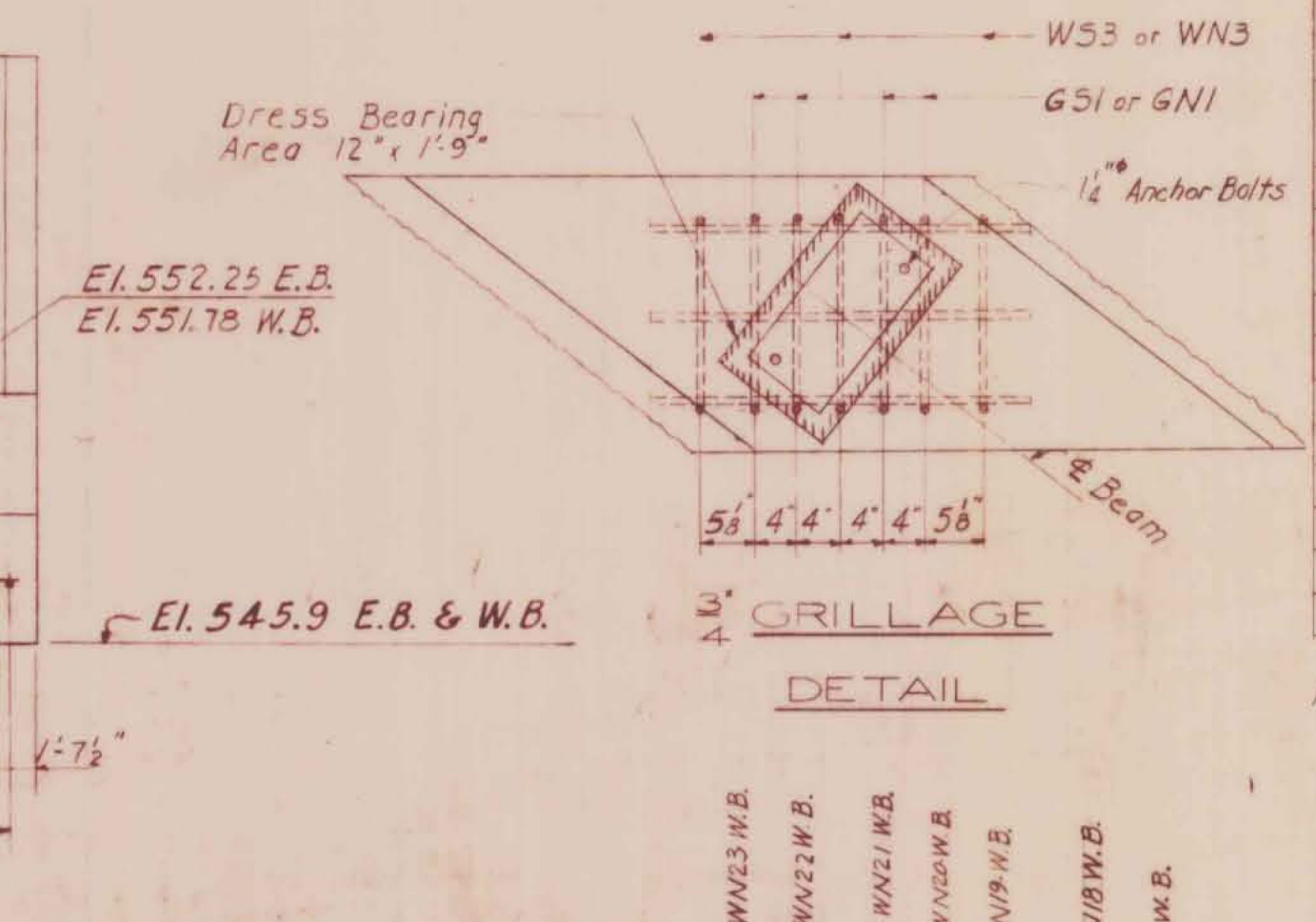
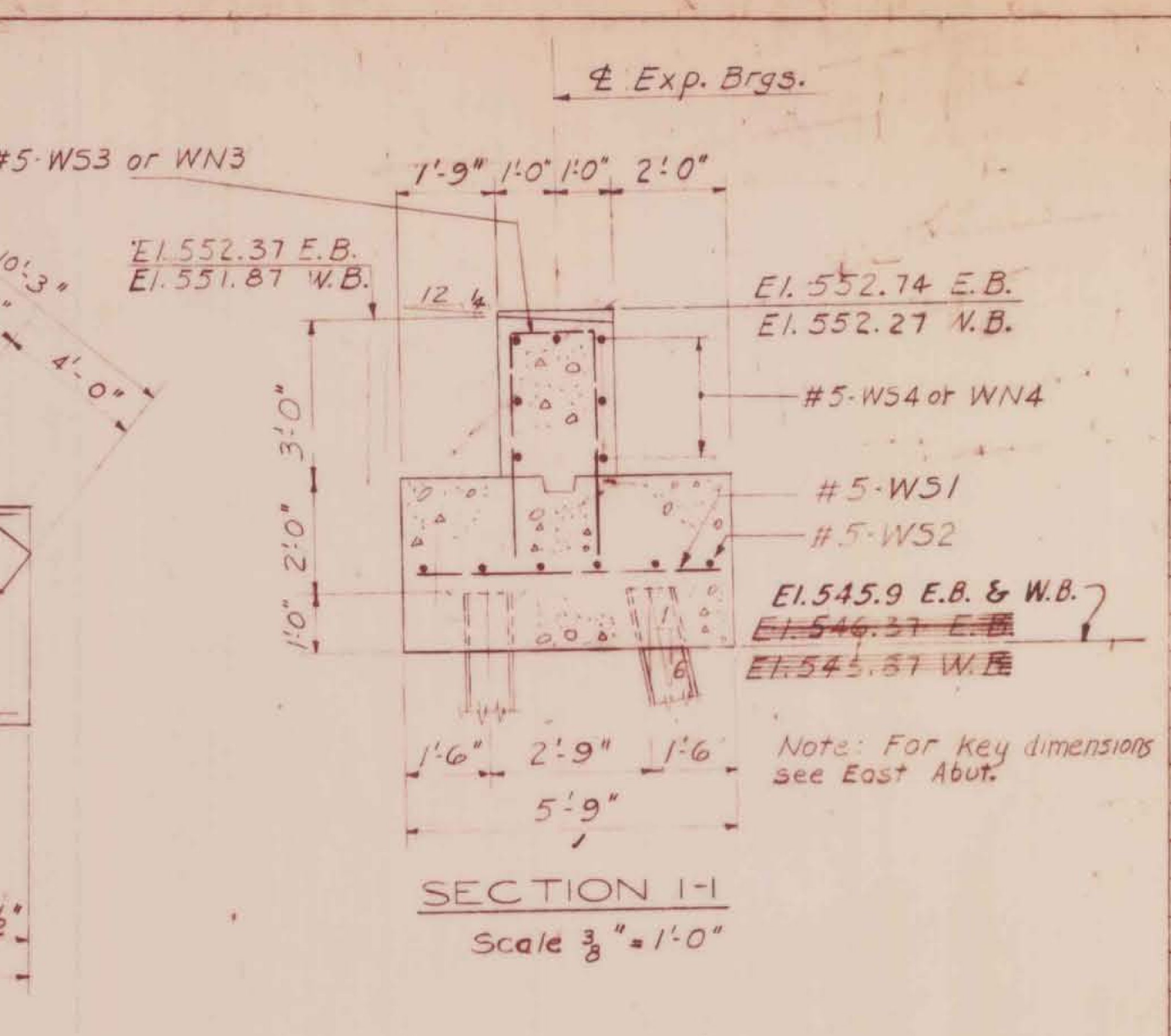
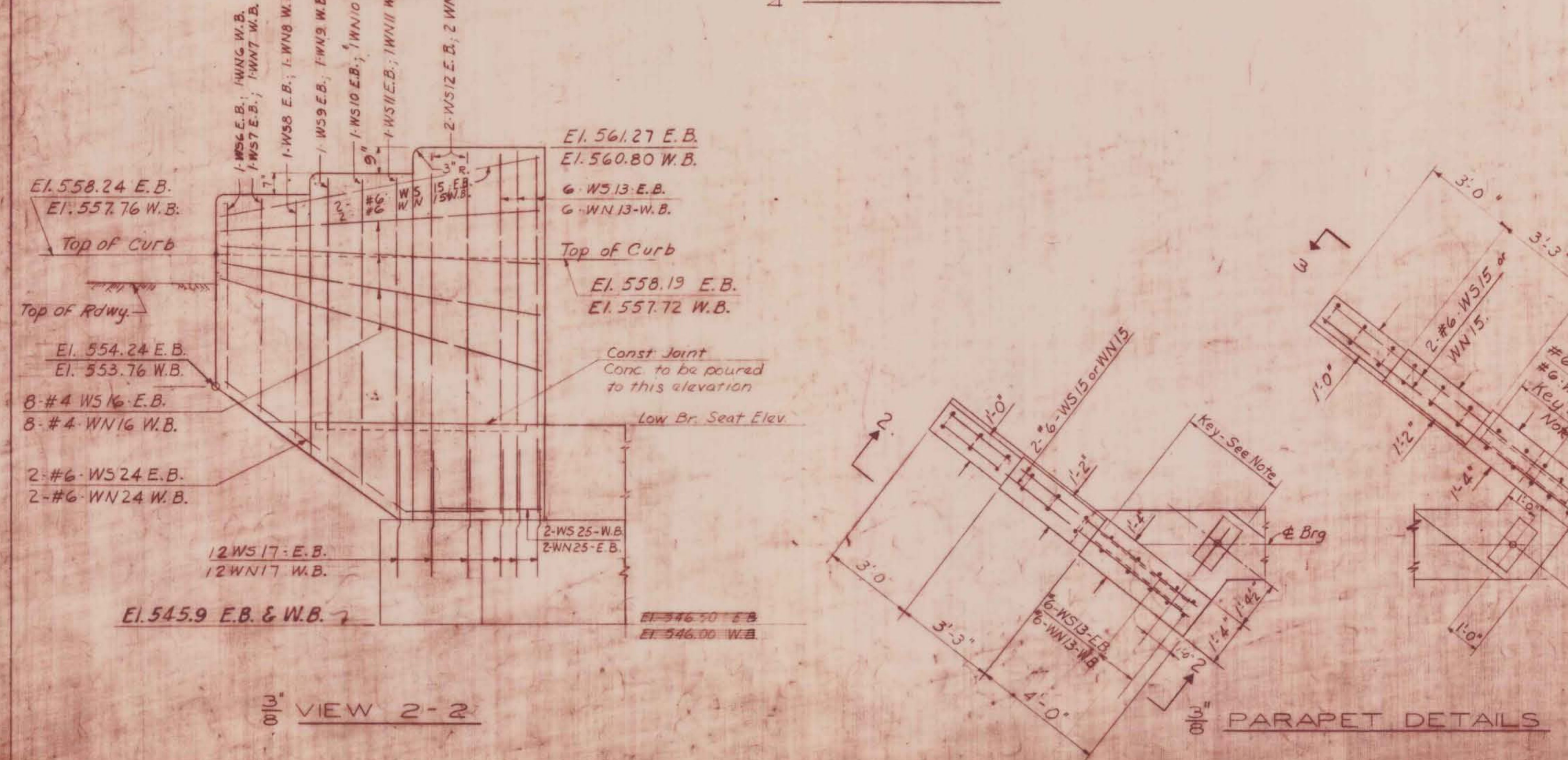
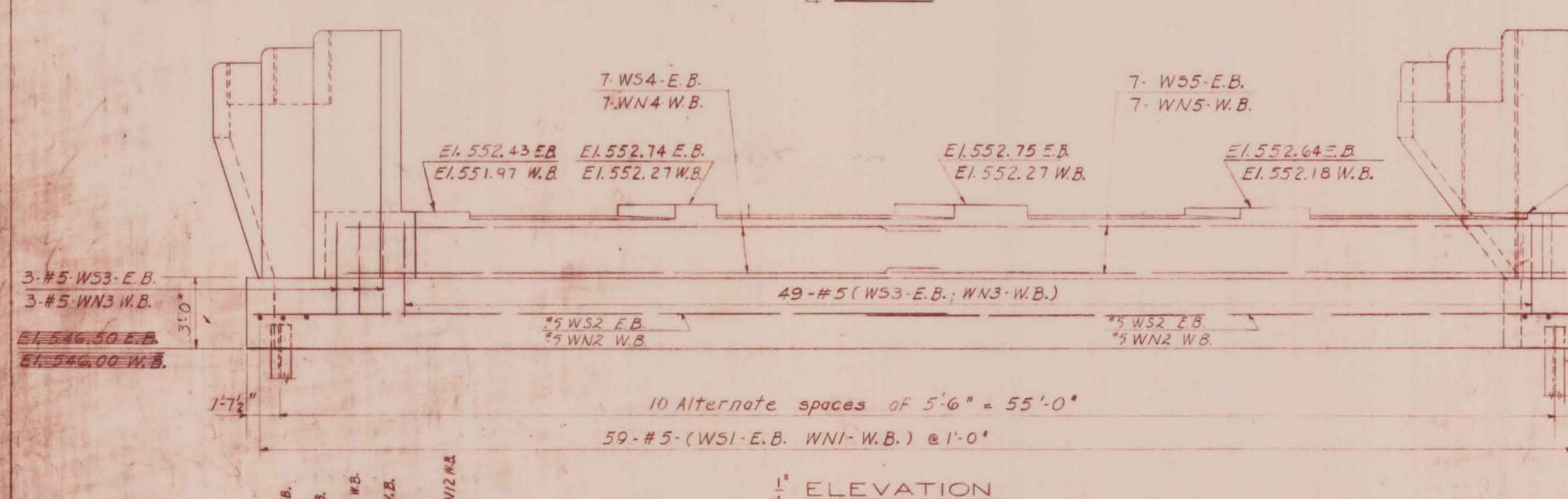
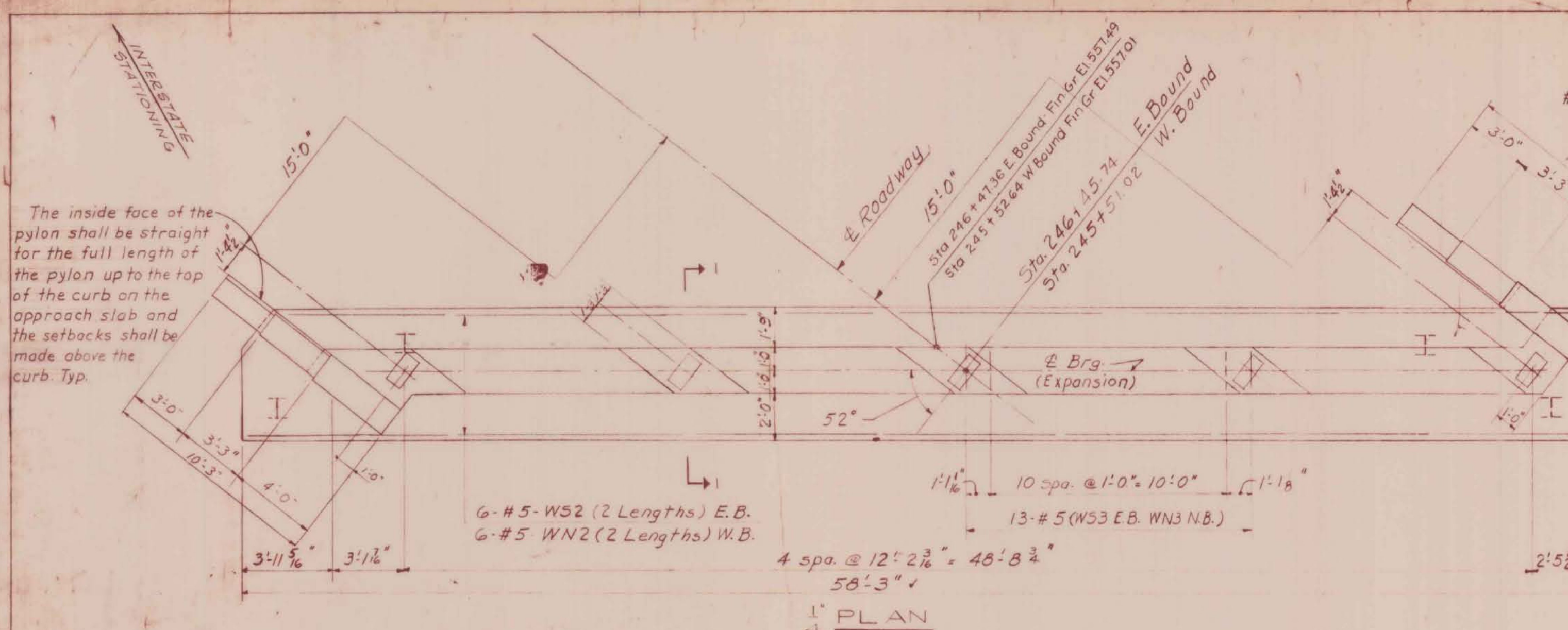
SHEET 60 OF 63
BRIDGE 42N&S
FOR REFERENCE ONLY

STATE OF VERMONT
DEPARTMENT OF HIGHWAYS

INTERSTATE PROJECT in the towns of
BERLIN - MONTPELIER - MIDDLESEX
OVERPASS - STA. 237+00 - STRUCTURE #2
EAST ABUTMENTS

BOSWELL ENGINEERING CO.
CONSULTING ENGINEERS
WINDFORD PARK, N.J.

SURVEYED BY: _____ CHECKED BY: _____
 DRAWN BY: _____ IN CHARGE: _____
 PROJECT NO. 1-89-2(1) 29 OF 45



ROD LIST

SOUTH SIDE - EAST BOUND

NORTH SIDE - WEST BOUND

No. Pieces	Size	Length	Mark	Type	B	C	D	No. Pieces	Size	Length	Mark	Type	B	C	D
59	#5	5'-3"	WS1	S				59	#5	5'-3"	WN1	S			
12	#5	29'-9"	WS2	S				12	#5	29'-9"	WN2	S			
52	#5	10'-6"	WS3	17	4'-5"	1'-7"	4'-5"	52	#5	10'-6"	WN3	17	4'-5"	1'-7"	4'-5"
7	#5	25'-6"	WS4	S				7	#5	25'-6"	WN4	S			
7	#5	27'-6"	WS5	S				7	#5	27'-6"	WN5	S			
2	#4	11'-2"	WS6	17	5'-3"	8"	5'-3"	2	#4	11'-2"	WN6	17	5'-3"	8"	5'-3"
1	#4	12'-8"	WS7	17	6'-0"	8"	6'-0"	1	#4	12'-8"	WN7	17	6'-0"	8"	6'-0"
1	#4	14'-2"	WS8	17	6'-9"	8"	6'-9"	1	#4	14'-2"	WN8	17	6'-9"	8"	6'-9"
1	#4	17'-0"	WS9	17	9'-2"	8"	9'-2"	1	#4	17'-0"	WN9	17	9'-2"	8"	9'-2"
1	#4	18'-8"	WS10	17	9'-0"	8"	9'-0"	1	#4	18'-8"	WN10	17	9'-0"	8"	9'-0"
1	#4	21'-8"	WS11	17	10'-6"	8"	10'-6"	1	#4	21'-8"	WN11	17	10'-6"	8"	10'-6"
2	#4	23'-8"	WS12	17	11'-6"	8"	11'-6"	2	#4	23'-8"	WN12	17	11'-6"	8"	11'-6"
12	#6	11'-6"	WS13	S				12	#6	11'-6"	WN13	S			
2	#6	4'-3"	WS14	S*				2	#6	4'-3"	WN14	S*			
4	#6	9'-3"	WS15	S				4	#6	9'-3"	WN15	S			
16	#4	9'-3"	WS16	S				16	#4	9'-3"	WN16	S			
22	#4	4'-0"	WS17	S				22	#4	4'-0"	WN17	S			
1	#4	12'-8"	WS18	17	6'-0"	8"	6'-0"	1	#4	12'-8"	WN18	17	6'-0"	8"	6'-0"
1	#4	13'-8"	WS19	17	6'-6"	8"	6'-6"	1	#4	13'-8"	WN19	17	6'-6"	8"	6'-6"
1	#4	15'-8"	WS20	17	7'-6"	8"	7'-6"	1	#4	15'-8"	WN20	17	7'-6"	8"	7'-6"
1	#4	17'-2"	WS21	17	8'-3"	8"	8'-3"	1	#4	17'-2"	WN21	17	8'-3"	8"	8'-3"
1	#4	20'-8"	WS22	17	10'-0"	8"	10'-0"	1	#4	20'-8"	WN22	17	10'-0"	8"	10'-0"
2	#4	23'-2"	WS23	17	11'-3"	8"	11'-3"	2	#4	23'-2"	WN23	17	11'-3"	8"	11'-3"
2	#6	9'-0"	WS24	S*				2	#6	9'-0"	WN24	S*			
2	#6	4'-6"	WS25	S				2	#6	4'-6"	WN25	S			
2	#6	8'-0"	WS26	S*				2	#6	8'-0"	WN26	S*			

20	#5	4'-7"	GS1	17	1'-6"	1'-7"	1'-6"	20	#5	4'-7"	GN1	17	1'-6"	1'-7"	1'-6"
----	----	-------	-----	----	-------	-------	-------	----	----	-------	-----	----	-------	-------	-------

Note: Rods marked * are to be bent in field.
For details of Abutment & Parapet Keys and rods see Sheet "East Abutment." Sh # 108

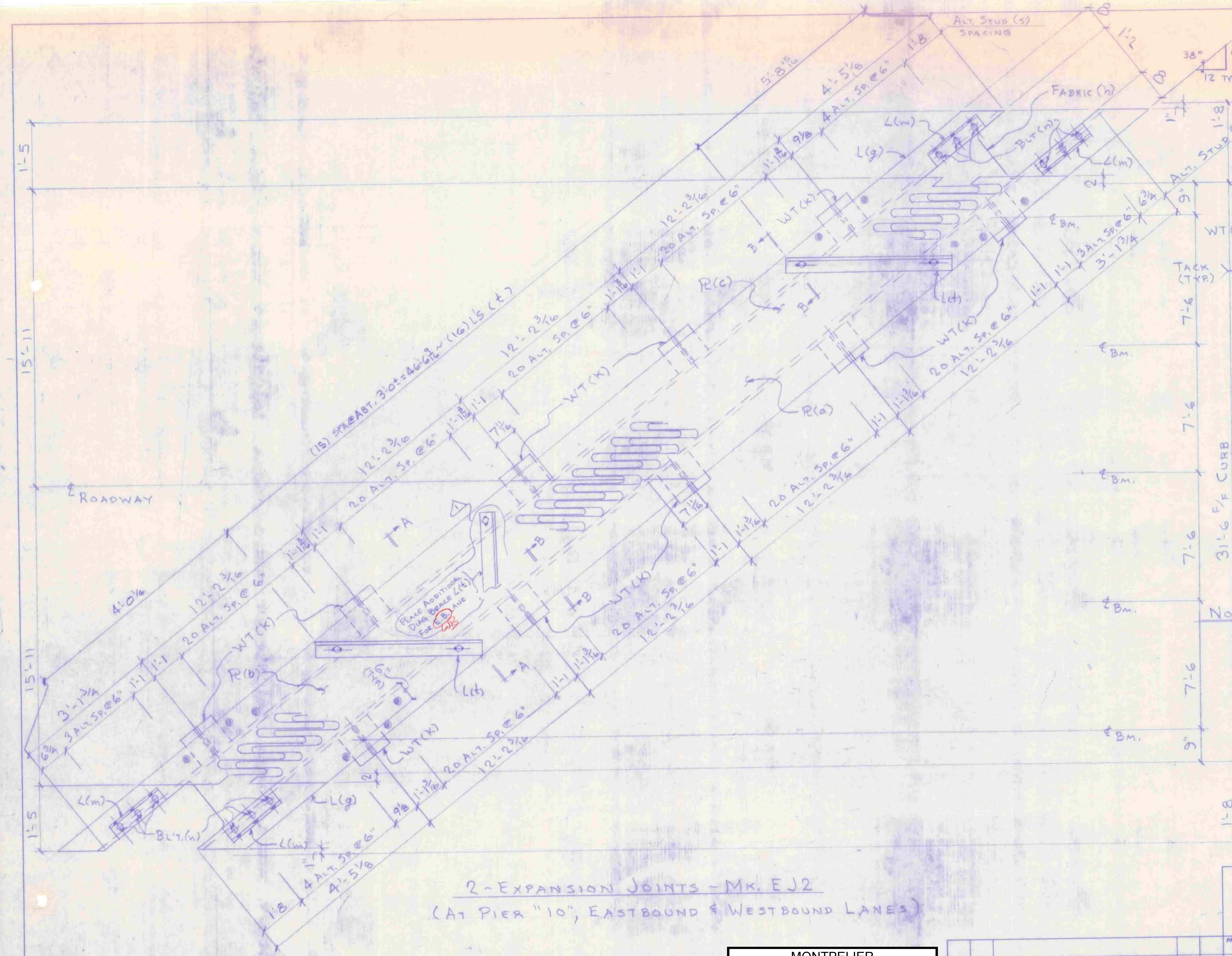
NOTE:
1. For General Notes see Sh # 107
2. For Estimate of Quantities see Sh # 107
3. Reinforcing in top of Abutments shall be spaced to pass anchor bolts maintaining minimum spacing requirements.

PILE NOTE
W. Abut., So Side E.B., estimated pile length: 65 Ft.
N. Abut., No Side W.B., estimated pile length: 65 Ft.

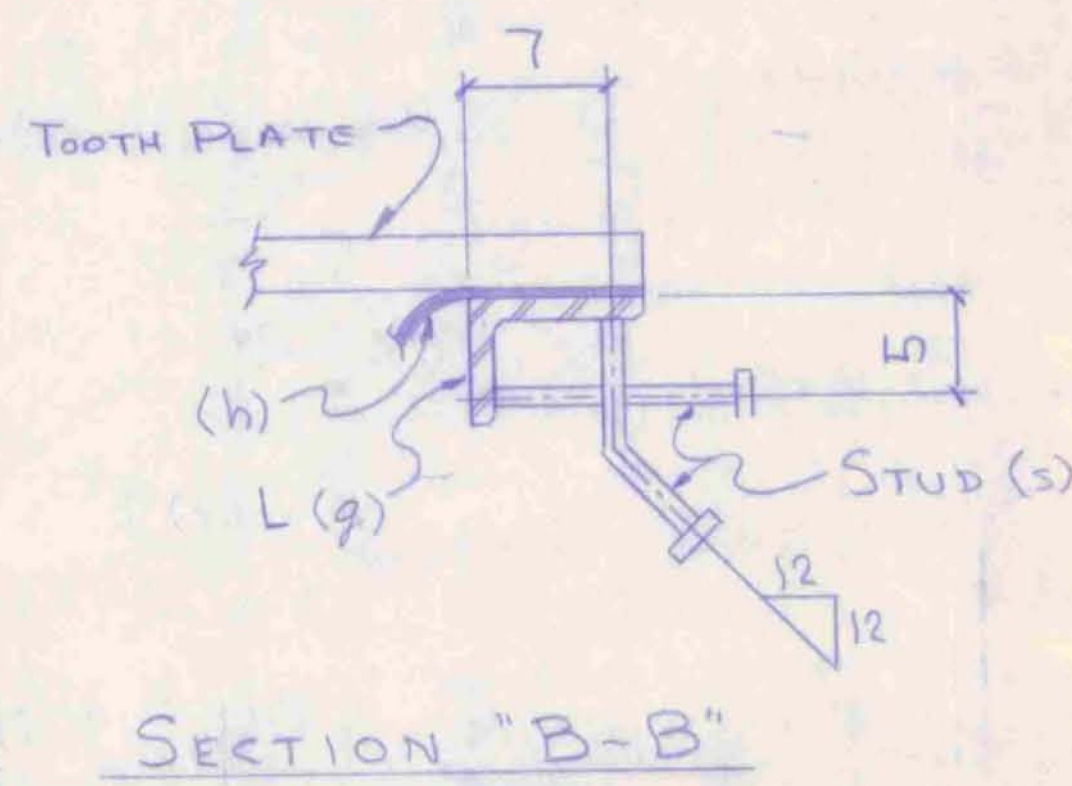
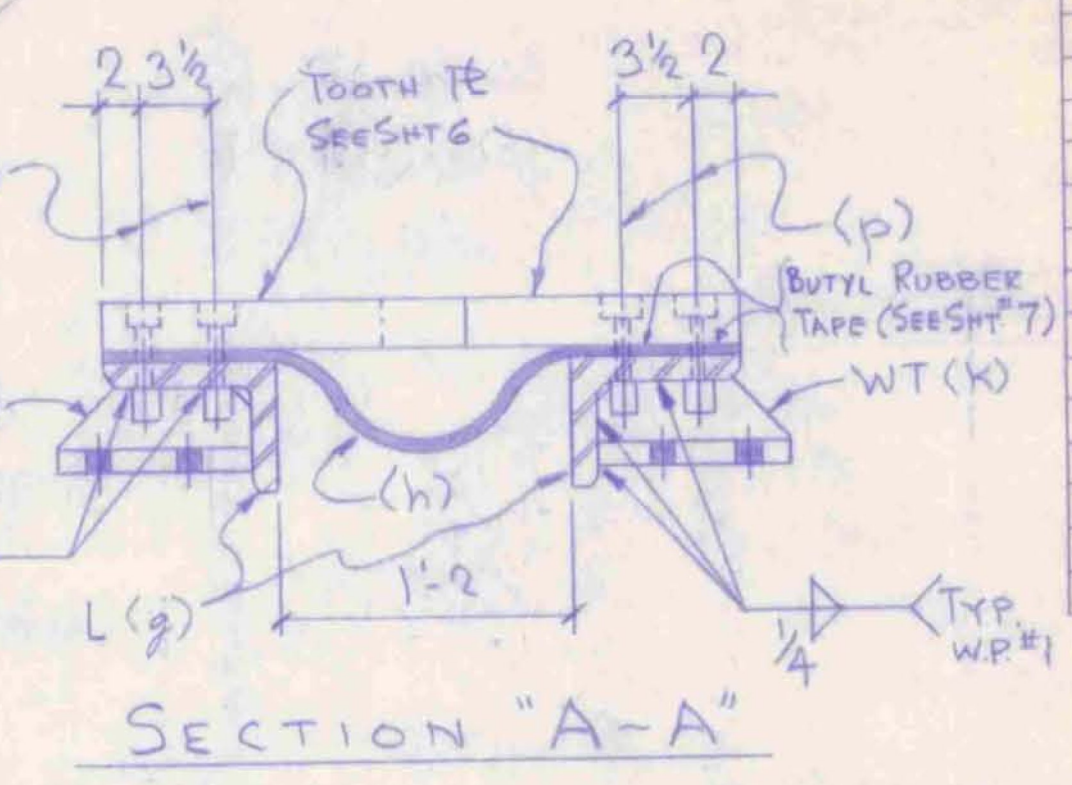
FINAL
61 FT.
61 FT.

MONTPELIER
IM MEMB(23)

SHEET 61 OF 63
BRIDGE 42N&S
FOR REFERENCE ONLY



IDENTIFICATION LETTERS		
a	aa	AA
b	bb	BB
c	cc	CC
d	dd	DD
e	ee	EE
f	ff	FF
g	gg	GG
h	hh	HH
i	ii	II
j	jj	JJ
k	kk	KK
l	ll	LL
m	mm	MM
n	nn	NN
o	oo	OO
p	pp	PP
q	qq	QQ
r	rr	RR
s	ss	SS
t	tt	TT
u	uu	UU
v	vv	VV
w	ww	WW
x	xx	XX
y	yy	YY



NOTES:

1. ALL STEEL TO BE ASTM-A36.
2. COATING: GALVANIZING SHALL CONFORM WITH ASSHTO M111 OR M232 OR: METALLIZING SHALL CONFORM WITH VERMONT SPEC. 506.15C

(SEE SHT. #7 FOR NOTES 3, 4 & 5)

RECEIVED 11/21/90
 CK'D BY CPW OK'D BY
 RESUBMIT APPROVED/E NOTED
 BY DATE 11/27

WORK THIS DRAWING WITH SHT'S 6 & 7 *GuBolham*

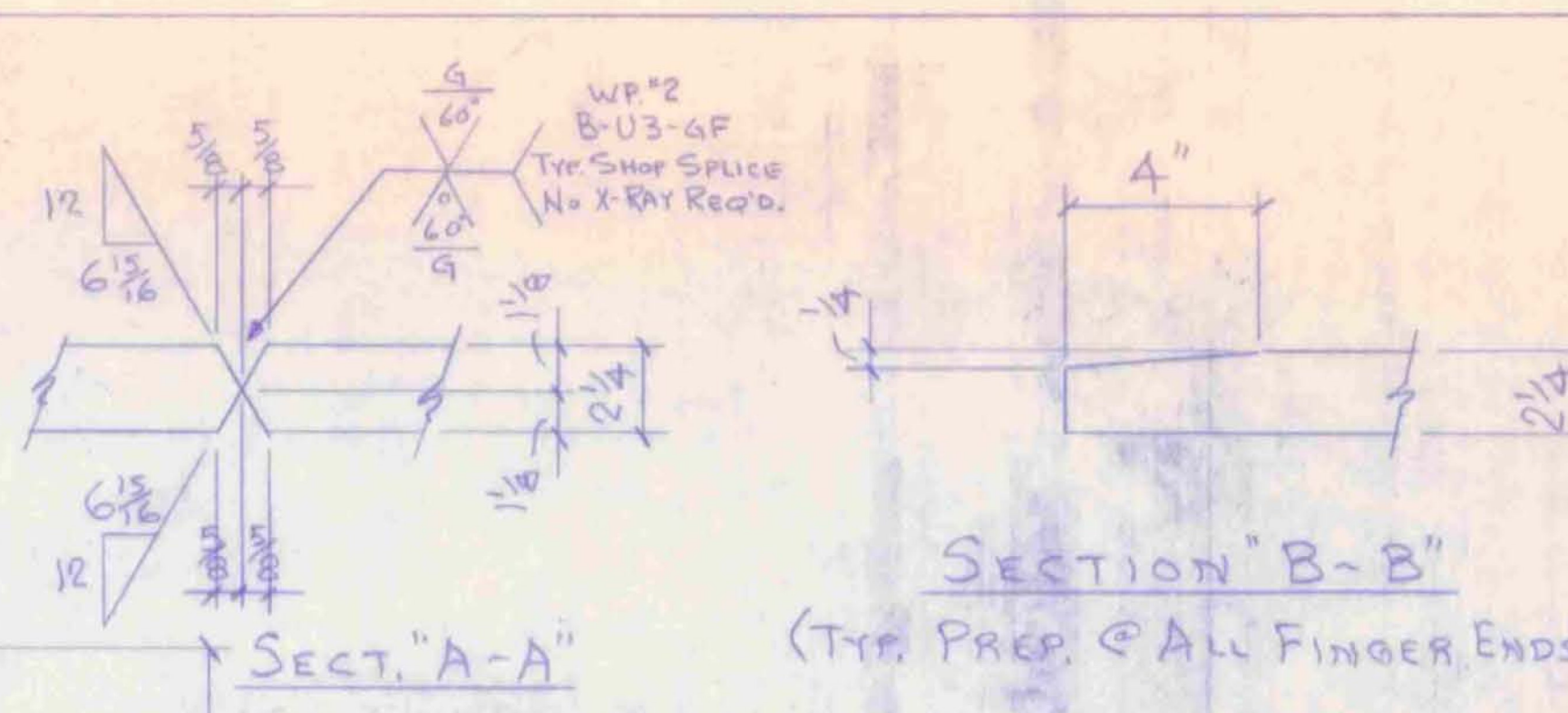
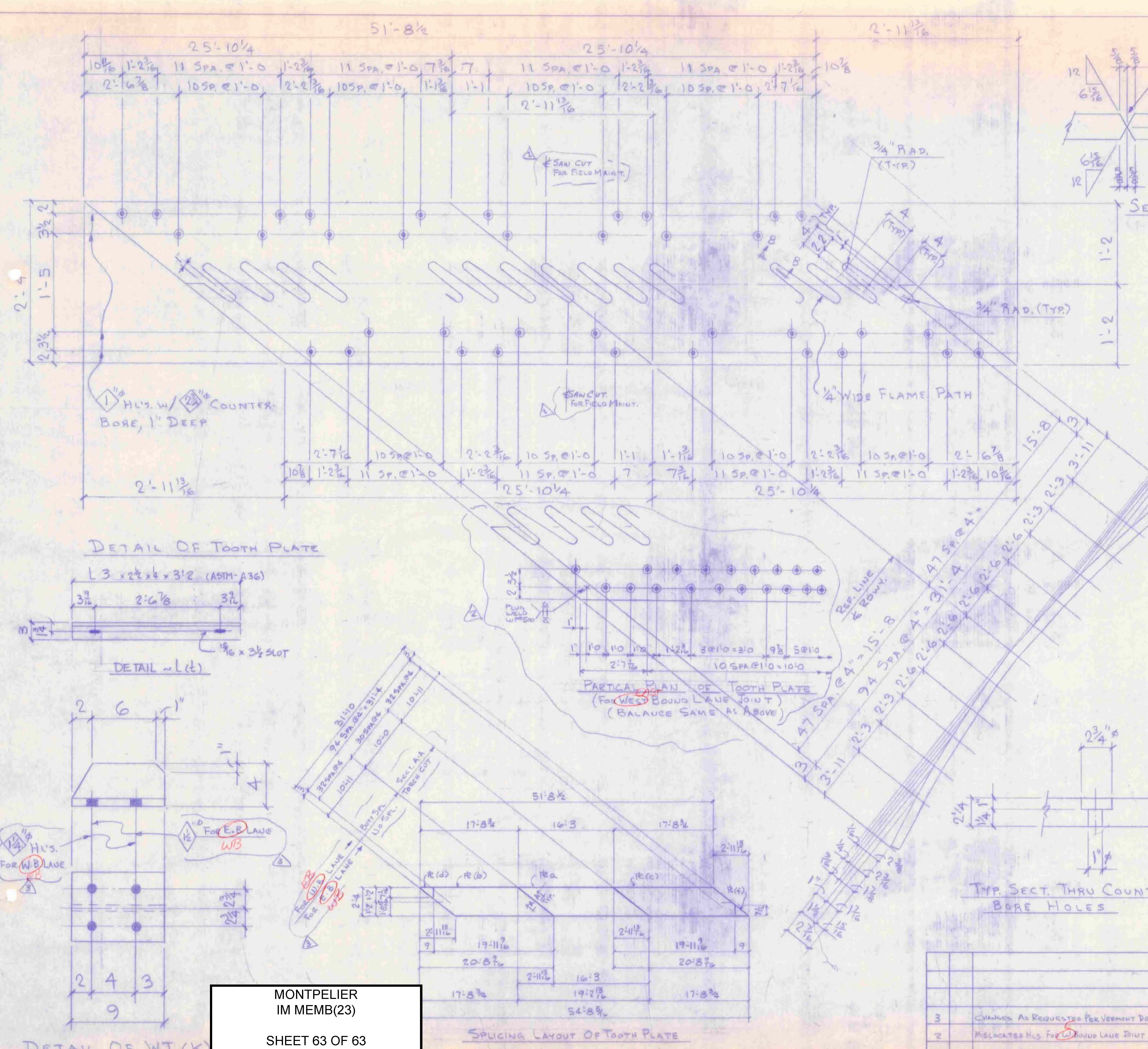
2-EXPANSION JOINTS - MK. EJ2
 (AT PIER "10", EASTBOUND & WESTBOUND LANES)

MONTPELIER
 IM MEMB(23)

SHEET 62 OF 63
 BRIDGE 42N&S
 FOR REFERENCE ONLY

UNITED STEEL FABRICATORS, INC. P.O. BOX 516 SIDNEY, OHIO 45385 TELEPHONE (513) 492-9184		PROJECT: MONTPELIER IROB9-2 (18)	MFG. NO. 8359
		PIER "10" EXPANSION JOINT DETAILS 189 OVER THE WINOOSKI RIVER STATE OF VERMONT	DRAWN C. HAYDEN CHK'D 5/3/90 APP. REF. 516.10
CONTRACTOR: BECK AND BELLUCI		SHEET 5 OF	

REV. NO.	SHEET NO.	REVISIONS	DATE	BY
1	62	ADDED TEMP. L (t) LANE	11/20/90	CPW



IDENTIFICATION LETTERS		
a	aa	AA
b	bb	BB
c	cc	CC
d	dd	DD
e	ee	EE
f	ff	FF
g	gg	GG
h	hh	HH
i	ii	II
j	jj	JJ
k	kk	KK
l	ll	LL
m	mm	MM
n	nn	NN
o	oo	OO
p	pp	PP
q	qq	QQ
r	rr	RR
s	ss	SS
t	tt	TT
u	uu	UU
v	vv	VV
w	ww	WW
x	xx	XX
y	yy	YY
z	zz	ZZ

BILL OF MATERIAL										
MK	QUAN	DESCRIPTION	LENGTH		REMARK	SAW	BURN	SHEAR	PCT'S	WT.
			FT	IN						
EJ2	2	EXPANSION JOINTS								
a	2	# 2 1/2 x 28	19	2 1/2	TOOTH PL. CUTS 2					7366
b	2	# 2 1/2 x 28	19	11 1/2	↓ ↓					7646
c	2	# 2 1/2 x 28	19	11 1/2						7646
d	2	# 2 1/2 x 7 1/2	0	9	FROM DROP R(b)					—
f	2	# 2 1/2 x 7 1/2	0	9	FROM DROP R(c)					—
g	4	L8 x 6 x 1	57	2	SEE DET. SHT. 7					10108
h	2	PRE-FORMED FABRIC (3 PL.) 33 x	57	11	SEE SHT. #7 AND SHOP NOTE #8					115
k	20	WT 6 x 29	0	9	SEE DET. THIS SHT.					435
m	8	L4 x 4 x 3/4	1	4	SEE DET. SHT. #7					105
n	24	3/4" x 11 1/2" x 11 1								

RECEIVED 11/21/90
 CR'D BY CPW OK'D BY
 RESUBMIT APPROVED
 BY DATE 11/27
 LuBalkum

WORK THIS DRAWING W/ SHT'S 5 & 7

UNITED STEEL FABRICATORS, INC. P.O. BOX 516 SIDNEY, OHIO 45365 TELEPHONE (513) 492-9184		PROJECT: MONTPELIER IRO89-2 (18) DRAWN: C. HAYDEN CHK'D: C. HAYDEN APP: C. HAYDEN REF: 516.10 SHEET: 6 OF 6
PIER "10" EXPANSION JOINT DETAILS 189 OVER THE WINGOSKI RIVER STATE OF VERMONT		
CONTRACTOR: BECK & BELLUCI		

MONTPELIER
 IM MEMB(23)

SHEET 63 OF 63
 BRIDGE 42N&S
 FOR REFERENCE ONLY