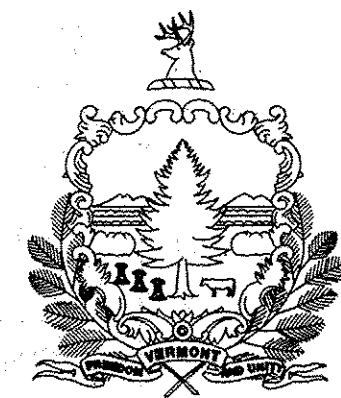


STATE OF VERMONT  
AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT  
TOWNS OF SPRINGFIELD, WEATHERSFIELD & WINDSOR  
COUNTY OF WINDSOR  
INTERSTATE ROUTE 91 (SB)

BEGINNING IN THE TOWN OF SPRINGFIELD AT MILE MARKER 46.600 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 91 (SOUTHBOUND) FOR A DISTANCE OF 56,786.40 FT (10.755 MILES) TO MILE MARKER 57.355 IN THE TOWN OF WINDSOR.

LENGTH OF ROADWAY = 56,786.40 FT = (10.755 MILES)  
LENGTH OF PROJECT = 56,786.40 FT = (10.755 MILES)

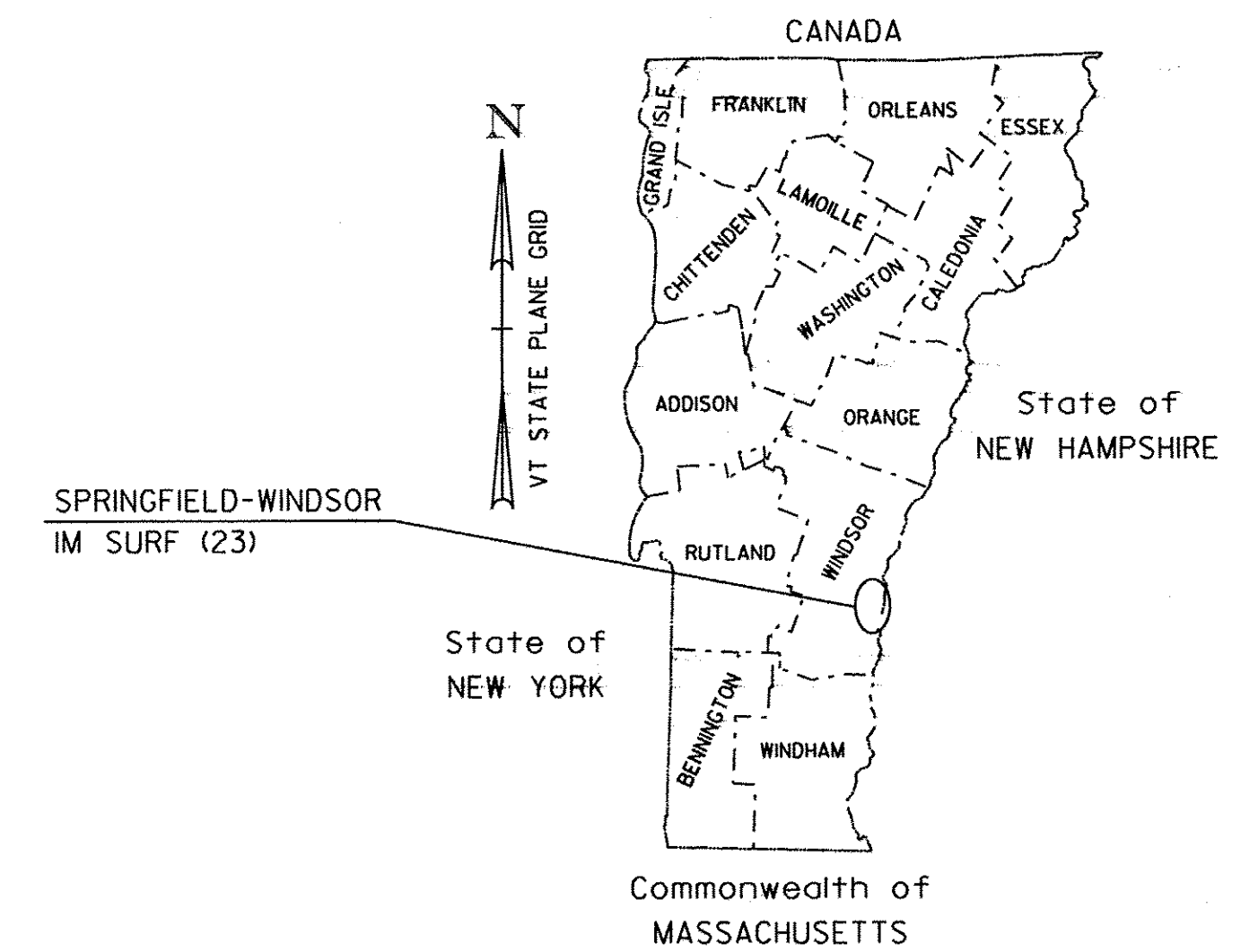
WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SURFACE PREPARATION INVOLVING PATCHING, POTHOLE REPAIR, CRACK-SEALING, AND APPLICABLE PAVEMENT MARKINGS; AND THE CONSTRUCTION OF A MODIFIED BITUMINOUS CONCRETE PAVEMENT, OR COLD PLANE AND PAVE ON THE EXISTING INTERSTATE TYPICAL.

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 ALTERNATE A TYPICAL SECTIONS
- 3 ALTERNATE B TYPICAL SECTIONS
- 4 BRIDGE DETAIL SHEET
- 5 ASPHALTIC PLUG JOINT DETAIL SHEET
- 6 QUANTITY SHEET
- 7 TYPICAL INTERCHANGE #8 CONSTRUCTION DETAILS
- 8 CONSTRUCTION APPROACH SIGNING SHEET
- 9 INTERCHANGE #8 TRAFFIC CONTROL SHEET
- 10 PAVEMENT MARKING DETAIL SHEET
- 11 ROUGHNESS & RUTTING DATA INFORMATION SHEET

STANDARDS

E-100	CONSTRUCTION APPROACH SIGNS	01/02/04
E-100A	SIDE ROAD CONSTRUCTION - APPROACH SIGNS	01/02/04
E-101	CONSTRUCTION SIGN DETAILS	05/30/03
E-102	CONSTRUCTION SIGN DETAILS	06/30/03
E-102A	CONSTRUCTION SIGN DETAILS	05/01/04
E-103	MAINLINE TRAFFIC CONTROL DIVIDED HIGHWAY ONE LANE CLOSED	03/01/04
E-105	TRAFFIC CONTROL FOR CONSTRUCTION VEHICLE U-TURNS ON DIVIDED HIGHWAY	05/01/04
E-106	TRAFFIC CONTROL - MISCELLANEOUS DETAILS	03/01/04
E-107A	BREAKAWAY BARRICADE DETAILS	06/08/09
E-108	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS	06/08/09
E-108A	CONSTRUCTION ZONE LONGITUDINAL DROP OFFS FOR PAVING	06/08/09
E-191	PAVEMENT MARKING DETAILS	02/01/99
E-193	PAVEMENT MARKING DETAILS	08/18/95



RECORD PLANS

CONTRACTOR: GORMAN GROUP, LLC - ALBANY, NY  
RESIDENT ENGINEER: BUTCH COLBY  
CONSTRUCTION BEGAN: MAY 16, 2011  
CONSTRUCTION COMPLETE: OCTOBER 11, 2011  
RECORD PLANS BY: BUTCH COLBY & DARREN CONNOLLY

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

BY: *[Signature]* RESIDENT ENGINEER  
DATE: 2/13/12

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.

TRAFFIC DATA

SECTION	AADT	
	2008	2018
BEGIN PROJECT TO EXIT 8	6,300	7,300
EXIT 8 TO END PROJECT	8,500	10,500

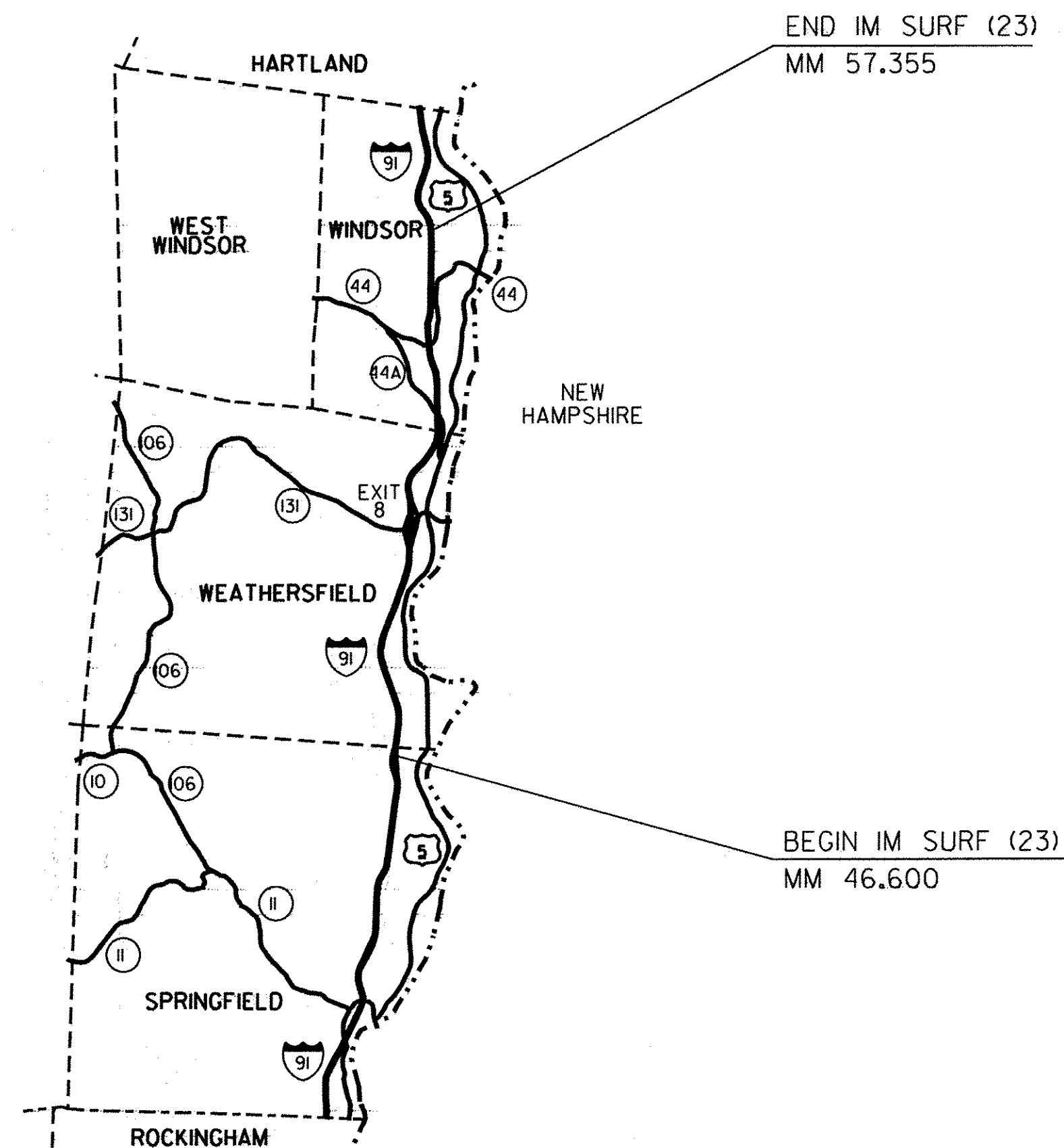
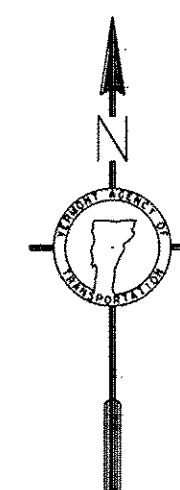
THESE PLANS ARE SUBJECT TO SUCH ENGINEERING CHANGES AS MAY BE REQUIRED BY THE FEDERAL HIGHWAY ADMINISTRATION OR THE DIRECTOR OF PROGRAM DEVELOPMENT.  
CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2006, AS APPROVED BY THE FEDERAL 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.

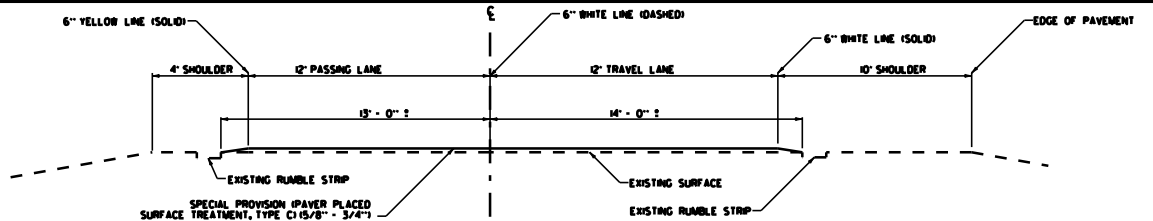
DIRECTOR OF PROGRAM DEVELOPMENT  
APPROVED: *[Signature]* DATE: 8-31-10  
PROJECT MANAGER: MIKE FOWLER  
PROJECT NAME: SPRINGFIELD - WINDSOR  
PROJECT NUMBER: IM SURF (23)  
SHEET 1 OF 11 SHEETS

QUALITY ASSURANCE PROGRAM: LEVEL 1

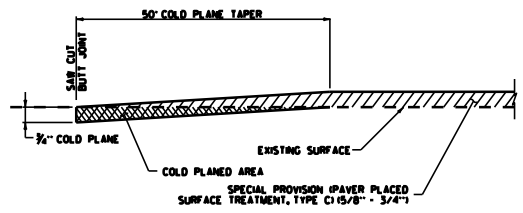
CONVENTIONAL SYMBOLS

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	



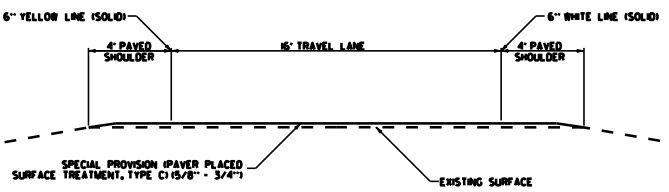


TYPICAL SECTION

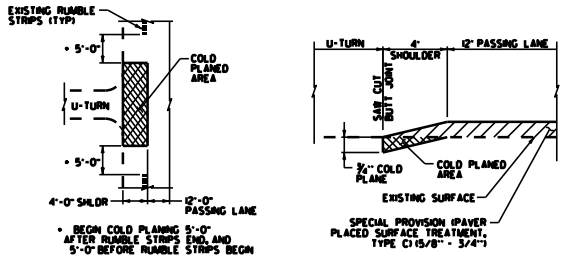


COLD PLANE DETAIL AT BEGIN/END PROJECT & RAMPS

NOTES:  
 1. SURFACE PREPARATION IS REQUIRED ON ALL RAMPS.



TYPICAL RAMP SECTION



COLD PLANE DETAIL AT U-TURNS

MM 4000-L1	48.00
MM 5000-L1	50.50
MM 5200-L1	53.50
MM 5300-L1	53.50
MM 5400-L1	53.50

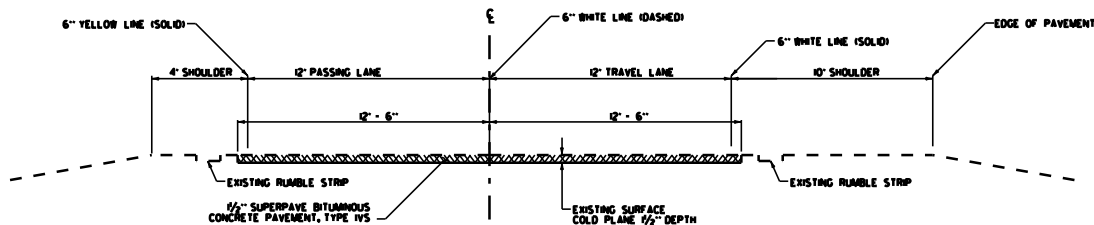
- NOTES:
1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT-HOLE REPAIR, AND CRACK SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF THE PAVER PLACED SURFACE TREATMENT. ALL CRACKS GREATER THAN 1/4" AND UP TO 1/2" IN WIDTH SHALL BE SEALED USING THE "BLOW AND GO" METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID FOR UNDER ITEM 407.00 BITUMINOUS CRACK SEALING, BLOW AND GO METHOD. THE PATCHING OF ALL CRACKS GREATER THAN 1/2" AND ALL OTHER PATCHING AND POT-HOLE REPAIR SHALL BE COMPLETED USING BITUMINOUS CONCRETE PAVEMENT IN ACCORDANCE WITH ITEM 900.800 SPECIAL PROVISION BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION. TYPE II. ALL COLD PLANE BRIDGE DECKS WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK SEALING AND RELATED SURFACE PREPARATION PRIOR TO PAVING. 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 POT-HOLE REPAIR TREATMENTS EXCLUDING RUMBLE STRIP AREAS.
  3. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO ANY CRACK SEALING BEING PERFORMED AND PRIOR TO APPLYING THE PAVER PLACED SURFACE TREATMENT. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION BY THE USE OF LINE STRIPING TARGETS OR TEMPORARY PAINT.
  4. A 50' COLD PLANE WEDGE SHALL BE CONSTRUCTED AT THE PROJECT BEGIN, PROJECT END, AND AT ALL BRIDGE APPROACHES. THE LONGITUDINAL EDGES OF THE SURFACE TREATMENT SHALL BE FEATHERED AS SHOWN ON THE TYPICAL SECTION, OR AS DIRECTED BY THE RESIDENT ENGINEER, ANY SARCUTTING AT BUTT JOINTS SHALL BE PAID INCIDENTAL TO ITEM 203.40 COLD PLANING, BITUMINOUS PAVEMENT.
  5. IF IT IS DETERMINED IN AREAS ALONG THE BASE OF THE QUADRANT THAT WINTER SAND AND OTHER DEBRIS HAS ACCUMULATED SUFFICIENTLY TO AFFECT PROPER CRACK-SEALING AND RELATED PATCHING AND POT-HOLE REPAIR TREATMENTS, THIS MATERIAL SHALL BE REMOVED PRIOR TO CRACK-SEALING, PATCHING, AND POT-HOLE 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.

NOT TO SCALE

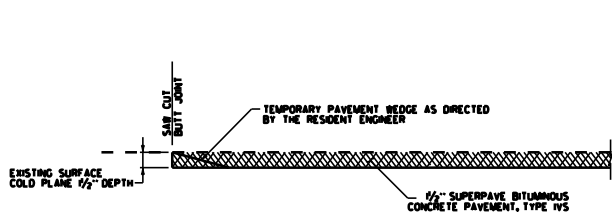
ALTERNATE A  
 TYPICAL  
 SECTIONS

PROJECT NAME: SPRINGFIELD - WINDSOR  
 PROJECT NUMBER: IM SURF (23)

FILE NAME: \\0408\...0408.dgn	PLT DATE: 23-MAY-2008
DESIGNED BY: MUNT	CHECKED BY: PAV
IPAWN FILE NAME: 0408.023	SHEET 2 OF 8

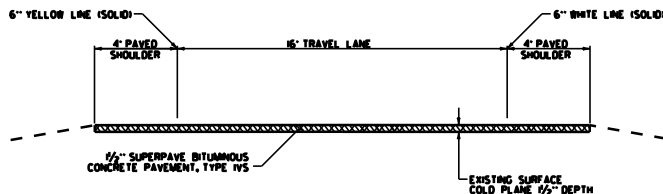


TYPICAL SECTION

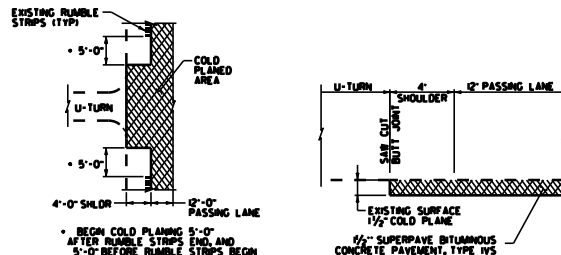


COLD PLANE DETAIL AT BEGIN/END PROJECT & RAMPS

NOTES:  
1. SURFACE PREPARATION IS REQUIRED ON ALL RAMPS.



TYPICAL RAMP SECTION



COLD PLANE DETAIL AT U-TURNS

MM 4820 LT  
MM 5420 LT  
MM 5225S LT  
MM 5354S LT  
MM 5630 LT

NOT TO SCALE

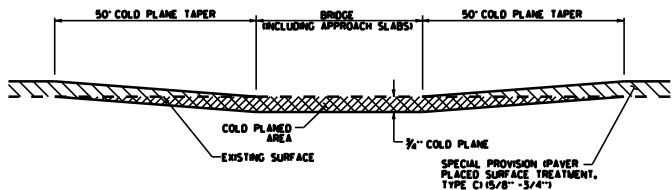
ALTERNATE B  
TYPICAL  
SECTIONS

PROJECT NAME: SPRINGFIELD - WINDSOR  
PROJECT NUMBER: IM SURF (23)

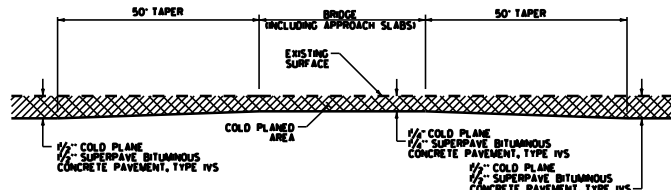
FILE NAME: \\0408\0408.dgn  
PROJECT LEADER: MUNT  
DESIGNED BY: MUNT  
DRAWN BY: MUNT  
CHECKED BY: PAVT MM  
PARR FILE NAME: 0408.03  
PLOT DATE: 23-MAY-2006  
SHEET 3 OF 8

NOTES:

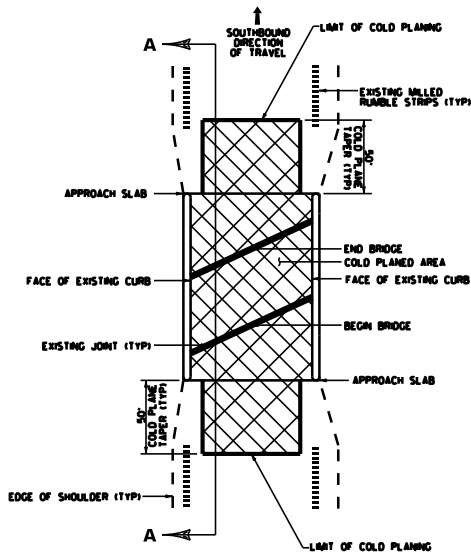
1. THE PAVEMENT BEARING COURSE SHALL BE 80 GYRATION TYPE IVS ON THE ROADWAY AND BRIDGE SURFACES, ITEM 490.30 AS SHOWN ON THE TYPICAL, FOR PG BINDER GRADE SEE SECTION 490 OF THE GENERAL SPECIAL PROVISIONS.
2. SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TOLERANCE =  $\pm 1/2$ " (TOTAL PAVEMENT THICKNESS)
3. EMULSIFIED ASPHALT SHALL BE APPLIED ON ALL COLD PLANNED SURFACES AT A RATE OF 0.080 GAL/SY OR AS DIRECTED BY THE ENGINEER, ASPHALT SHALL BE RS-1H OR CRS-1H PER THE MANUFACTURER'S RECOMMENDATION, AND SHALL BE PAID AS 900.683 SPECIAL PROVISION (EMULSIFIED ASPHALT) RS-1H OR CRS-1H.
4. IN AREAS OF RUTTING THE COLD PLANE DEPTH SHOULD BE MEASURED FROM THE HIGH POINTS OF THE ROADWAY SECTION.
5. COLD PLANNING TO BE COMPLETED ACCORDING TO THE TYPICAL OR AS 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 203.40.
6. THE CONTRACTOR SHALL USE CAUTION WHEN COLD PLANNING 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. IF IT IS DETERMINED IN AREAS ALONG THE BASE OF THE GUARDRAIL WHERE 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. 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 BOTH SHALL BE SEALED 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 POTHOLE REPAIR SHALL BE COMPLETED USING BITUMINOUS CONCRETE PAVEMENT IN ACCORDANCE WITH ITEM 500.680 SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE II), ALL COLD PLANNED BRIDGE DECKS AND SHOULDERS BEYOND THE LIMITS OF COLD PLANNING AND PAVING WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK SEALING AND RELATED SURFACE PREPARATION PRIOR TO PAVING, AN ESTIMATED QUANTITY OF THIS ITEM HAS BEEN INCLUDED TO COVER ALL COSTS ASSOCIATED WITH THIS WORK.



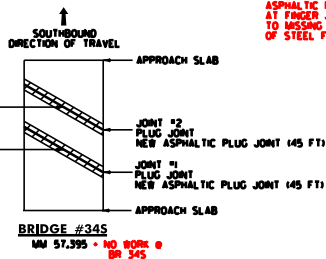
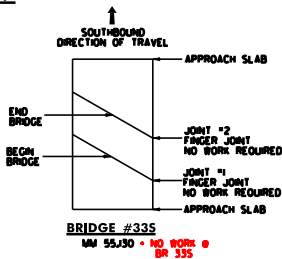
BRIDGE COLD PLANE TYPICAL SECTION A-A - ALTERNATE A



BRIDGE COLD PLANE TYPICAL SECTION A-A - ALTERNATE B

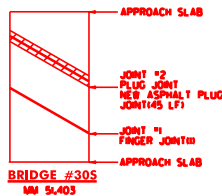


BRIDGE COLD PLANE TYPICAL PLAN

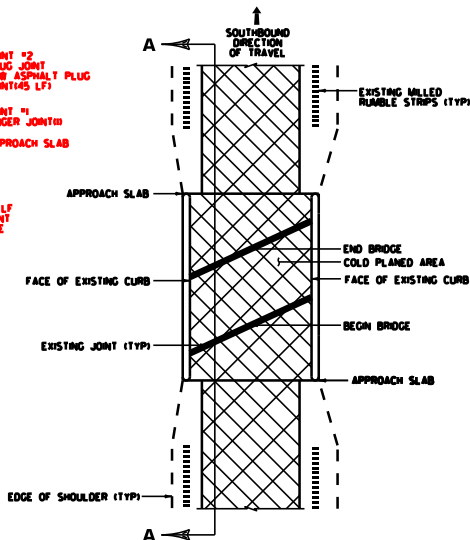


LEGEND

 EXISTING BRIDGE JOINTS TO BE REPAIRED WITH ASPHALT PLUG JOINT



NOTE: INSTALLED 45 FT ASPHALTIC PLUG JOINT AT FINGER JOINT DUE TO MISSING SECTION OF STEEL FINGERS



BRIDGE COLD PLANE TYPICAL PLAN - ALTERNATE B

- NOTES:
1. REFER TO ASPHALTIC PLUG JOINT AND DETAILS. ALL NEW JOINTS TO BE PAID FOR UNDER ITEM 560.0, 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

PROJECT NAME:	SPRINGFIELD - WINDSOR
PROJECT NUMBER:	IM SURF (23)
FILE NAME: 0408...0408.dgn	PLOT DATE: 23-MAY-2002 09:00
DESIGNED BY: HUNT	DRAWN BY: HUNT
IPAWN FILE NAME: 0408.04J	CHECKED BY: PAWT MUM
	SHEET 4 OF 8

## ASPHALTIC PLUG JOINT NOTES

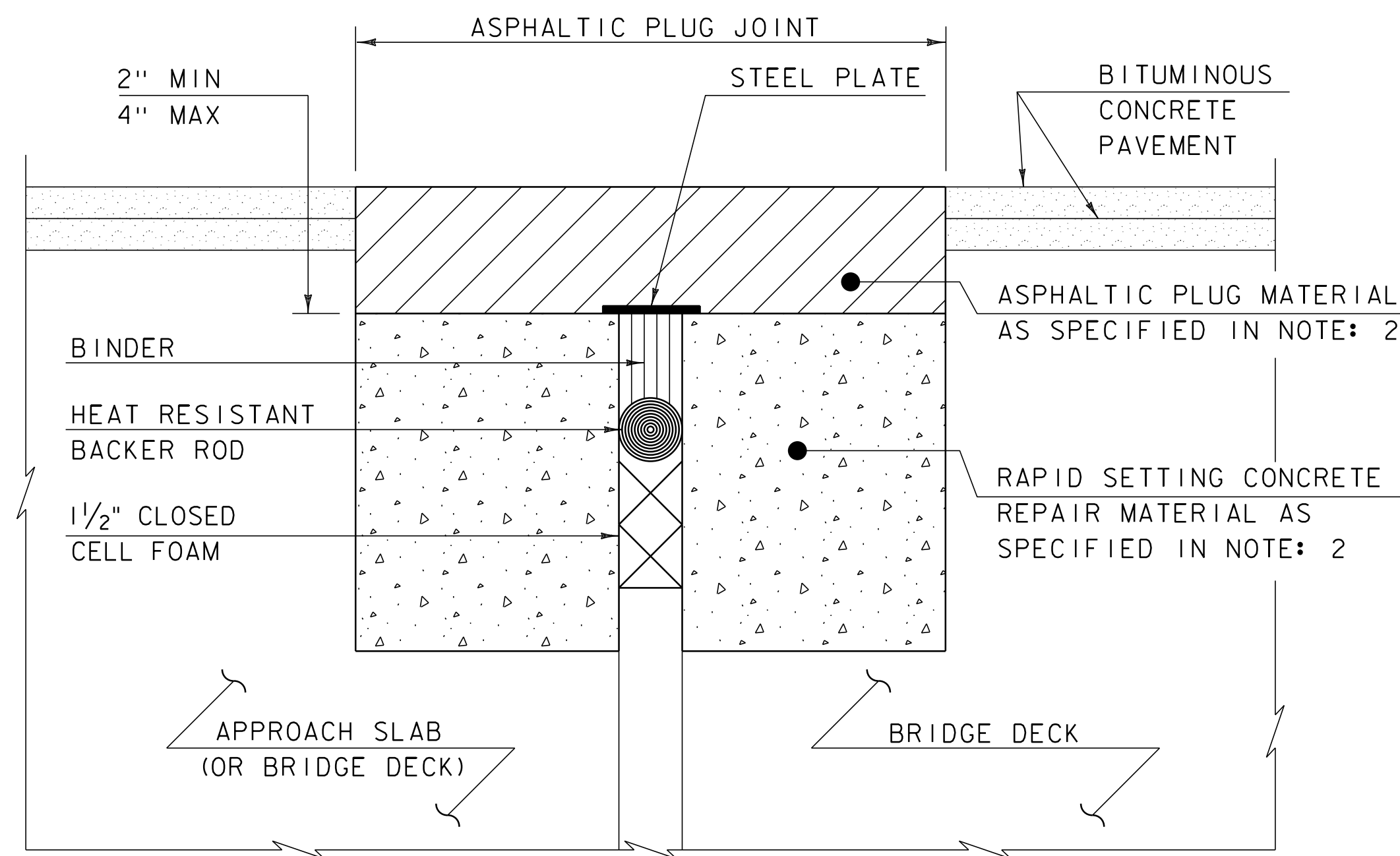
### INSTALLATION:

1. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT, MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
2. 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.
3. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
4. REPAIR MATERIAL GREATER THAN 4 INCHES FROM FINISHED GRADE WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.
5. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
6. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
7. 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 PRE-STAMPED 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.
8. HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
9. INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
10. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
11. ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAY BE USED TO EXPEDITE THE COOLING PROCESS.
12. PROTECT JOINT FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 51 DEG C (125 DEG F) +/-.

### WEATHER LIMITATIONS

APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

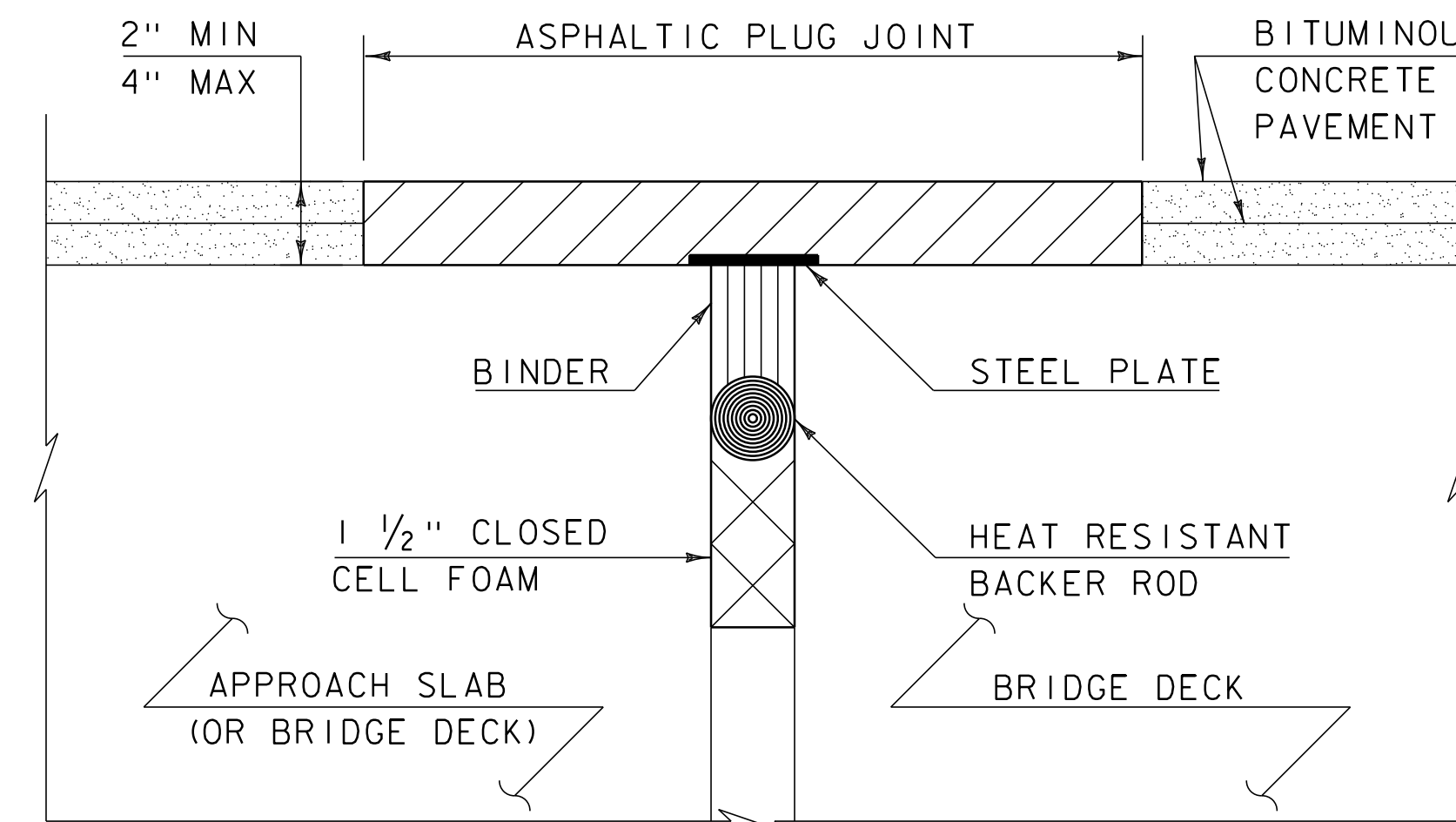
1. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
2. THE ROAD SURFACE IS DRY.
3. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.



### ASPHALTIC PLUG-JOINT DETAIL - REHAB

NOTES: (NOT TO SCALE)

1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL BE INCLUDED IN THE BID PRICE OF ITEM 580.20 RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE.
2. THE CONTRACTOR SHALL REPLACE REMOVED MATERIAL THAT IS LESS THAN 4" FROM FINISHED GRADE WITH ASPHALTIC PLUG JOINT MATERIAL MEETING THE REQUIREMENTS OF SUBSECTION 707.15. ALL REMOVED MATERIAL THAT IS GREATER THAN 4 INCHES FROM FINISHED GRADE SHALL BE REPLACED WITH RAPID SETTING CONCRETE REPAIR MATERIAL WITH COARSE AGGREGATE MEETING THE REQUIREMENTS OF SUBSECTION 780.04.
3. REINFORCING STEEL NOT SHOWN FOR CLARITY.



### ASPHALTIC PLUG-JOINT DETAIL - NEW

(NOT TO SCALE)

**NOT TO SCALE**

**ASPHALTIC  
PLUG JOINT  
DETAIL  
SHEET**

PROJECT NAME: SPRINGFIELD - WINDSOR

PROJECT NUMBER: IM SURF (23)

FILE NAME: ...IOA108\...IOA108.dgn

PROJECT LEADER: HUNT

DESIGNED BY: HUNT

IPARM FILE NAME: IOA108\_05.1

PLOT DATE: 23-MAY-2012

DRAWN BY: HUNT

CHECKED BY: PAVT MGMT

SHEET 5 OF 11

# QUANTITY SHEET

### SUMMARY OF ESTIMATED QUANTITIES

BROG	ROADWAY	FULL C.A.	QUANTITIES (GROSS TOTAL)	UNIT	ITEMS	ITEM NO.	ROUND
	21,780		21,780	LF	BEGN ITEMS COMMON TO ALL ALTERNATES	203.40	EST
	1		1	CV	SHOULDER BERM REMOVAL	204.22	EST
	1		1	LU	TRENCH EXCAVATION OF EARTH, EXPLORATORY (H.A.B.A.J.)	406.50	-
90			90	LF	PRICE ADJUSTMENT, ASPHALT CEMENT (H.A.B.A.J.)	564.50	EST
50			50	CF	BRIDGE EXPANSION JOINT, ASPHALTIC PLUG	580.20	EST
	45		45	HR	RAMP SETTING CONCRETE REPAIR MATERIAL WITH COURSE AGGREGATE	608.30	EST
	100		100	HR	POBER BROOM RENTAL, TYPE 1	630.00	-
	950		950	HR	UNIFORMED TRAFFIC OFFICERS	630.00	-
	1		1	HR	FLAGGERS	630.00	-
	1		1	LS	TESTING EQUIPMENT, BITUMINOUS	637.17	-
	1		1	LS	MOBILIZATION/DEMOBILIZATION	638.17	-
	1		1	LS	TRAFFIC CONTROL	642.00	-
	4		4	EA	PORTABLE CHANGEABLE MESSAGE SIGN	642.00	-
	145,000		145,000	LF	6 INCH WHITE LINE	646.24	L474
	48,000		48,000	LF	6 INCH YELLOW LINE	646.26	L478
	2,350		2,350	LF	12 INCH WHITE LINE	646.24	26
	20		20	EA	LETTER OR SYMBOL	646.30	-
	72,850		72,850	LF	TEMPORARY 6 INCH WHITE LINE	646.620	737
	58,050		58,050	LF	TEMPORARY 6 INCH YELLOW LINE	646.630	569
				L475	TEMPORARY 12 INCH WHITE LINE	646.660	13
	40		40	EA	TEMPORARY LETTER OR SYMBOL	646.690	-
	3.575		3.575	EA	LINE STRIPING TARGETS	646.76	40
	1		1	LU	PRICE ADJUSTMENT, FUEL (H.A.B.A.J.)	690.00	-
					END ITEMS COMMON TO ALL ALTERNATES		
					BEGN ALTERNATE A		
	4.375		4.375	SY	COLD PLANKING, BITUMINOUS PAVEMENT	204.00	60
	5,000		5,000	LB	BITUMINOUS CRACK SEALING, TLOH AND GO-METHOD (ASHSTO MS24 (ASTM D 6690) TYPE II	47.20	EST
	90,300		90,300	SF	REMOVAL OF EXISTING PAVEMENT MARKINGS	646.85	90
	176,900		176,900	SY	SPECIAL PROVISION (PAVER-PLACED SURFACE TREATMENT, TYPE C)	900.675	L782
	5		5	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE II END ALTERNATE A	900.680	EST
					BEGN ALTERNATE B		
	64,350		64,350	SY	COLD PLANKING, BITUMINOUS PAVEMENT	204.00	L670
	25,000		25,000	LB	BITUMINOUS CRACK SEALING, TLOH AND GO-METHOD (ASHSTO MS24 (ASTM D 6690) TYPE II	47.20	EST
	14,400		14,400	TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	490.30	174
	1		1	LU	AIR VOIDS PAY ADJUSTMENT (H.A.B.A.J.)	490.30	-
	1		1	LU	MAT DENSITY PAY ADJUSTMENT (H.A.B.A.J.)	490.32	-
	5		5	TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE II	900.680	EST
	145		145	CBT	SPECIAL PROVISION (EMULSIFIED ASPHALT (H-1) OR CRS-20) END ALTERNATE B	900.683	10

### DETAILED SUMMARY OF QUANTITIES

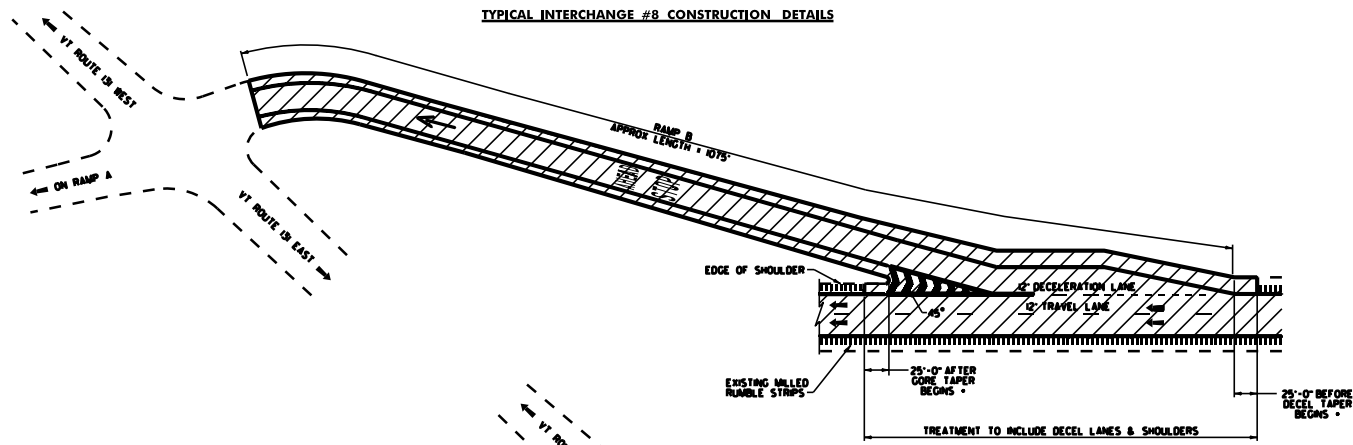
QUANTITIES	UNIT	ITEMS
		ALTERNATE A
		COLD PLANKING, BITUMINOUS PAVEMENT
		BEGN PROJECT
150	SY	END PROJECT
90	SY	END PROJECT
<del>100</del>	SY	BRIDGE 335 @ APPROACHES
<del>240</del>	SY	BRIDGE 345 @ APPROACHES
		2 @ 27' = 50'
		2 @ 27' = 50'
22.2	SY	BRIDGE 305 @ APPROACHES
22.2	SY	U-TURN 48.50
22.2	SY	U-TURN 52.05
22.2	SY	U-TURN 52.05
22.2	SY	U-TURN 53.04
22.2	SY	U-TURN 56.50
		U-TURN 53.625
153	SY	EXIT B OFF RAMP B
28	SY	EXIT B AT DECCEL TAPER
28	SY	EXIT B AT ACCEL TAPER
153	SY	EXIT B ON RAMP A
28	SY	EXIT B AT GORE TAPER
28	SY	EXIT B AT ACCEL TAPER
4.35	SY	SUBTOTAL
60	SY	ROUNDING
4.35	SY	TOTAL
		SPECIAL PROVISION (PAVER-PLACED SURFACE TREATMENT, TYPE C)
47.225	SY	MARKING
22.2	SY	U-TURN 48.50
22.2	SY	U-TURN 52.05
22.2	SY	U-TURN 52.05
22.2	SY	U-TURN 53.04
22.2	SY	U-TURN 56.50
		U-TURN 53.625
2,062	SY	BRIDGE 335 @ APPROACHES
943	SY	BRIDGE 345 @ APPROACHES
		BRIDGE 305
278	SY	EXIT B OFF RAMP B
27.8	SY	EXIT B AT DECCEL TAPER
27.8	SY	EXIT B AT ACCEL TAPER
184	SY	EXIT B ON RAMP A
27.8	SY	EXIT B AT GORE TAPER
27.8	SY	EXIT B AT ACCEL TAPER
176.900	SY	SUBTOTAL
176.300	SY	ROUNDING
176.900	SY	TOTAL
		*AVERAGE PAVED WIDTH = 27.5'

### DETAILED SUMMARY OF QUANTITIES

QUANTITIES	UNIT	ITEMS
		ALTERNATE B
		COLD PLANKING, BITUMINOUS PAVEMENT
155.30	SY	MARKING
2,283	SY	BRIDGE 335
643	SY	BRIDGE 345
19.4	SY	U-TURN 48.50
19.4	SY	U-TURN 52.05
19.4	SY	U-TURN 52.05
19.4	SY	U-TURN 53.04
19.4	SY	U-TURN 56.50
		U-TURN 53.625
2,760	SY	EXIT B OFF RAMP B
27.8	SY	EXIT B AT DECCEL TAPER
27.8	SY	EXIT B AT ACCEL TAPER
1,894	SY	EXIT B ON RAMP A
27.8	SY	EXIT B AT GORE TAPER
27.8	SY	EXIT B AT ACCEL TAPER
43,680	SY	SUBTOTAL
1,670	SY	ROUNDING
45,350	SY	TOTAL
		SUPERPAVE BITUMINOUS CONCRETE PAVEMENT (TYPE H)
15,624	TON	MARKING
2	TON	U-TURN 48.50
2	TON	U-TURN 52.05
2	TON	U-TURN 52.05
2	TON	U-TURN 53.04
2	TON	U-TURN 56.50
		U-TURN 53.625
66	TON	BRIDGE 335
47	TON	BRIDGE 345
28	TON	EXIT B OFF RAMP B
2	TON	EXIT B AT DECCEL TAPER
2	TON	EXIT B AT ACCEL TAPER
180	TON	EXIT B ON RAMP A
2	TON	EXIT B AT GORE TAPER
2	TON	EXIT B AT ACCEL TAPER
14,226	TON	SUBTOTAL
174	TON	ROUNDING
14,400	TON	TOTAL

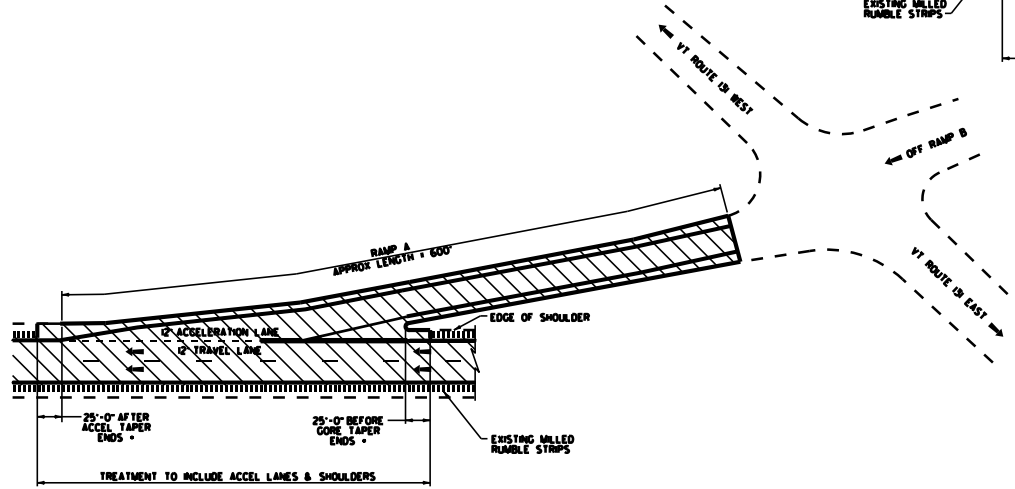
PROJECT NAME: **SPRINGFIELD - WINDSOR**  
 PROJECT NUMBER: **IM SURF (23)**  
 FILE NAME: \\QA08\...QA08.dgn  
 PROJECT LEADER: MURT  
 DESIGNED BY: MURT  
 DRAWN BY: MURT  
 CHECKED BY: PAVY MONT  
 ISM FILE NAME: QA08.06J  
 PLOT DATE: 23-MAY-2004  
 SHEET 6 OF 6

TYPICAL INTERCHANGE #8 CONSTRUCTION DETAILS



EXIT 8 OFF RAMP CONSTRUCTION DETAILS

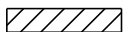
• TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER



EXIT 8 ON RAMP CONSTRUCTION DETAILS

• TO BE USED AS DIRECTED BY THE RESIDENT ENGINEER

LEGEND



AREA OF TREATMENT



DIRECTION OF TRAFFIC FLOW

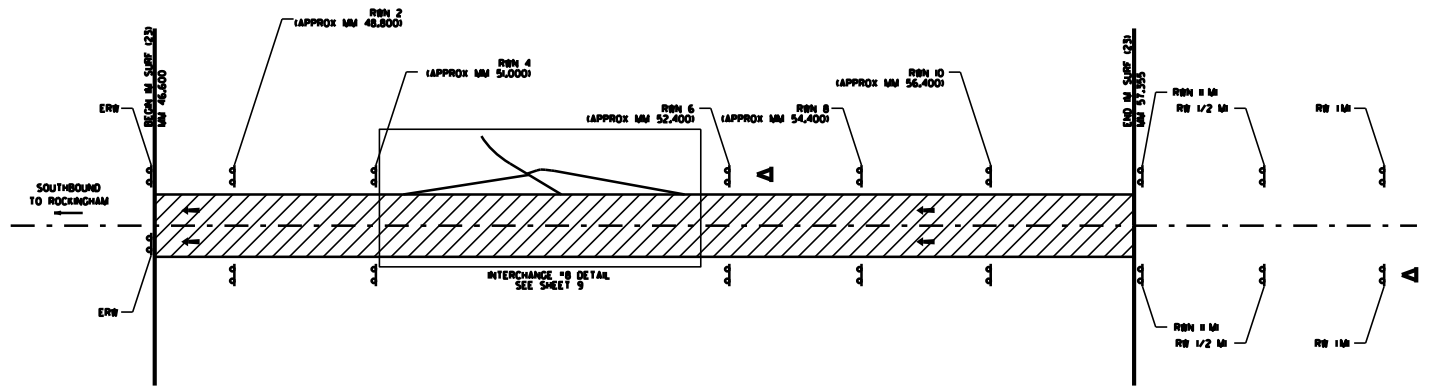
NOT TO SCALE


TYPICAL INTERCHANGE #8 CONSTRUCTION DETAILS

PROJECT NAME: SPRINGFIELD - WINDSOR  
PROJECT NUMBER: IM SURF (23)

FILE NAME: \\QA08\...QA08.dgn  
PROJECT LEADER: MUMT  
DESIGNED BY: MUMT  
DRAWN BY: MUMT  
CHECKED BY: PAVI MUMT  
PLOT DATE: 23-MAY-2002 09:00  
IPAWN FILE NAME: \\QA08.073  
SHEET 7 OF 8

**BEGIN /END PROJECT  
CONSTRUCTION APPROACH SIGNING**



- LEGEND**
- RBN = ROAD WORK NEXT (X MILES)
  - ERW = END ROAD WORK
  - RB 1M = ROAD WORK IN 1 MILE
  - RB 1/2 M = ROAD WORK IN 1/2 MILE
  - ▲ = PORTABLE CHANGEABLE MESSAGE SIGN
  -  = WORK AREA
  - ← = DIRECTION OF TRAFFIC FLOW

NOT TO SCALE

**CONSTRUCTION  
APPROACH  
SIGNING  
SHEET**

PROJECT NAME: **SPRINGFIELD - WINDSOR**  
PROJECT NUMBER: **IM SURF (23)**

FILE NAME: \\QA08\...QA08.dgn      PLOT DATE: 23-MAY-2002 09:00  
PROJECT LEADER: MUNT      DRAWN BY: MUNT  
DESIGNED BY: MUNT      CHECKED BY: PAVI MONT  
PARR FILE NAME: QA08.00J      SHEET 8 OF 8

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 NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 6A00, "TRAFFIC CONTROL".
2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LINE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARD E-103. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 6A00, "TRAFFIC CONTROL". ADD CSD-50P "WORK ZONE" PLATE TO SPEED LIMIT SIGNS (SEE FIG. 07-3 OF MUTCD).
3. ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE RESIDENT ENGINEER.
4. THE BID PRICE FOR "TRAFFIC CONTROL", ITEM 6A00, SHALL INCLUDE ALL APPROACH AND ON-PROJECT CONSTRUCTION SIGNING, PORTABLE ARROW BOARDS, BARRIERS, BARRIERS, CONES, BARRICADES, TEMPORARY REGULATORY AND BARRING 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:
  - 63010 AND 63015 - UNIFORMED TRAFFIC OFFICERS AND FLAGGERS
  - 64010 TEMPORARY 6 INCH WHITE LINE
  - 64015 TEMPORARY 6 INCH YELLOW LINE
  - 64020 TEMPORARY 12 INCH WHITE LINE
  - 64030 TEMPORARY LETTER OR SYMBOL
  - 64075 LINE STRIPING TARGETS
5. 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 6A00, "PORTABLE CHANGEABLE MESSAGE SIGN".
 

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 BARRIERS.

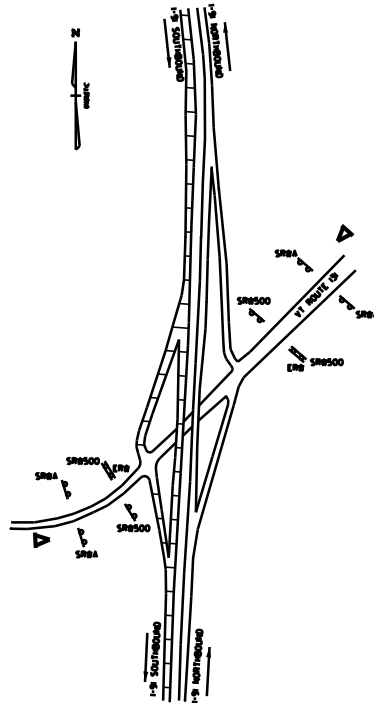
THE PCMS SHOULD COMMUNICATE WHAT INFORMATION MOTORISTS NEED TO KNOW. UNNECESSARY INFORMATION SHOULD BE AVOIDED. MESSAGES SHOULD BE UPDATED PERIODICALLY TO DESCRIBE THE WORK ACTIVITY OCCURRING SO THAT THE PCMS CONTINUES TO COMMAND THE ATTENTION OF MOTORISTS.
6. THE 2009 MUTCD SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SYMBOLS, AND BARRIERS SHALL BE USED UNLESS SUCH AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE DIRECTED OR PLACED ON EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH THE MUTCD.
7. 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 INTERSECTING HIGHWAYS.
8. REFER TO Vt STATE STANDARDS. THE SPECIAL PROVISIONS AND THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN DIMENSIONS AND COLORS.
9. ON VTRANS STANDARD E-103, SIGN 84-2 MAY BE REPLACED WITH 89-2:



84-2



89-2



LEGEND

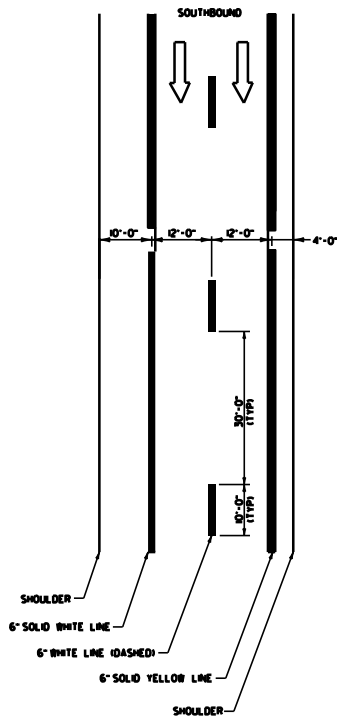
- END ROAD WORK
- SIDE ROAD WORK AHEAD
- SIDE ROAD WORK 500 FT
- PORTABLE CHANGEABLE MESSAGE SIGN
- WORK AREA

NOT TO SCALE

INTERCHANGE  
#8  
TRAFFIC CONTROL  
SHEET

PROJECT NAME: SPRINGFIELD - WINDSOR  
PROJECT NUMBER: IM SURF (23)

FILE NAME: \\04001...04008.dgn  
PROJECT LEADER: MURT  
DESIGNED BY: MURT  
DRAWN BY: MURT  
CHECKED BY: PAVI MOUT  
PURN FILE NAME: \\04008.05J  
PLOT DATE: 23-MAY-2008 10:00  
SHEET 9 OF 8



**TYPICAL MAINLINE MARKING PLAN**



**GORE MARKING DETAIL**



**DOTTED LINE (WHITE)**



**SOLID LINE (WHITE OR YELLOW)**



**CHANNELIZING LINE (WHITE)**

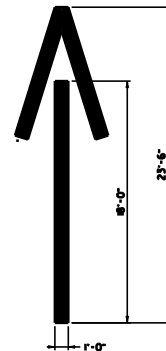
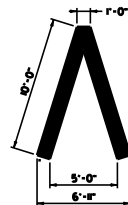
**PAVEMENT MARKING LINE DETAILS**

- TO BE INSTALLED 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 BEARING COURSE. THE SECOND AND FINAL APPLICATION WILL BE APPLIED NO SOONER THAN 14 CALENDAR DAYS AFTER THE FIRST APPLICATION, AND NO LATER THAN OCTOBER 14, 2014.



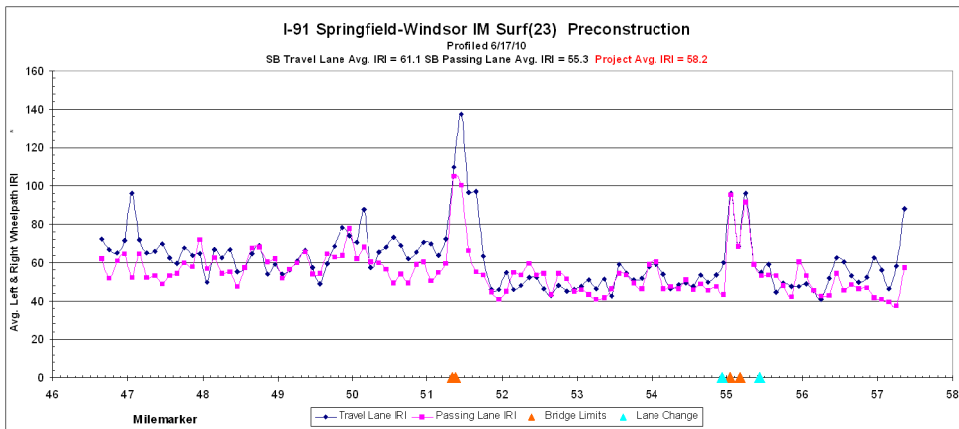
**WRONG WAY ARROW DETAILS**

NOT TO SCALE

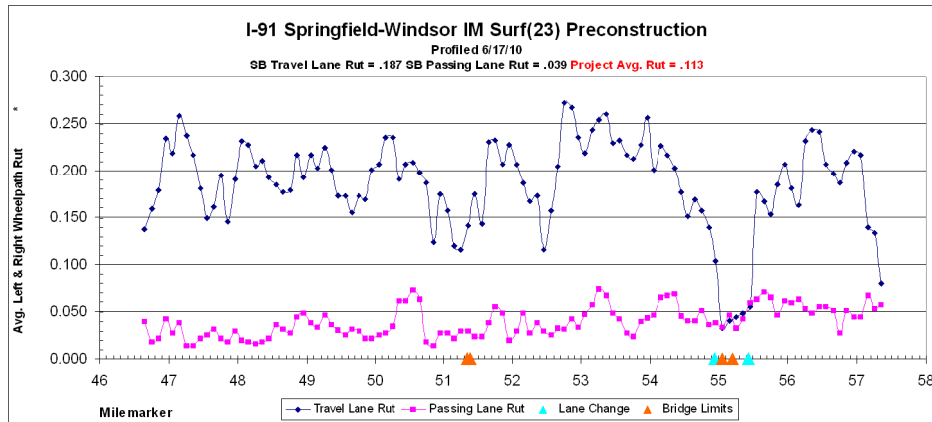
**PAVEMENT MARKING DETAIL SHEET**

PROJECT NAME:	SPRINGFIELD - WINDSOR
PROJECT NUMBER:	IM SURF (23)
FILE NAME: \\04001\04008.dgn	PLOT DATE: 23-MAY-2012 09:40
PROJECT LEADER: MUMT	DRAWN BY: MUMT
DESIGNED BY: MUMT	CHECKED BY: PAVI MUMT
IPAWN FILE NAME: 04008.JULI	SHEET NO OF 8

**ROUGHNESS DATA INFORMATION SHEET**



**RUTTING DATA INFORMATION SHEET**



FOR INFORMATIONAL PURPOSES ONLY

**ROUGHNESS  
& RUTTING  
DATA  
INFORMATION  
SHEET**

PROJECT NAME: **SPRINGFIELD - WINDSOR  
IM SURF (23)**

FILE NAME: \\QA08\...QA08.dgn  
 PROJECT LEADER: MURT  
 DESIGNED BY: MURT  
 DRAWN FILE NAME: QA08.dwg

PLOT DATE: 23-MAY-2012 10:40  
 DRAWN BY: MURT  
 CHECKED BY: PAUL MONT  
 SHEET # OF #