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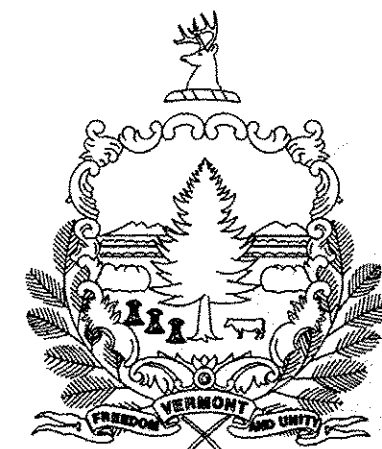
**STRUCTURES DETAIL SHEET**

SD-516.10 BRIDGE JOINT ASPHALTIC PLUG

**VAOT STANDARDS**

E-191	02/01/99
E-192	10/12/00
E-193	08/18/95
T-1	08/06/12
T-10	08/06/12
T-11	08/06/12
T-12	08/06/12
T-13	08/06/12
T-16	08/06/12
T-17	08/06/12
T-22	08/06/12
T-23	08/06/12
T-28	08/06/12
T-29	08/06/12
T-30	08/06/12
T-31	08/06/12
T-33	08/06/12
T-36	08/06/12

# STATE OF VERMONT AGENCY OF TRANSPORTATION

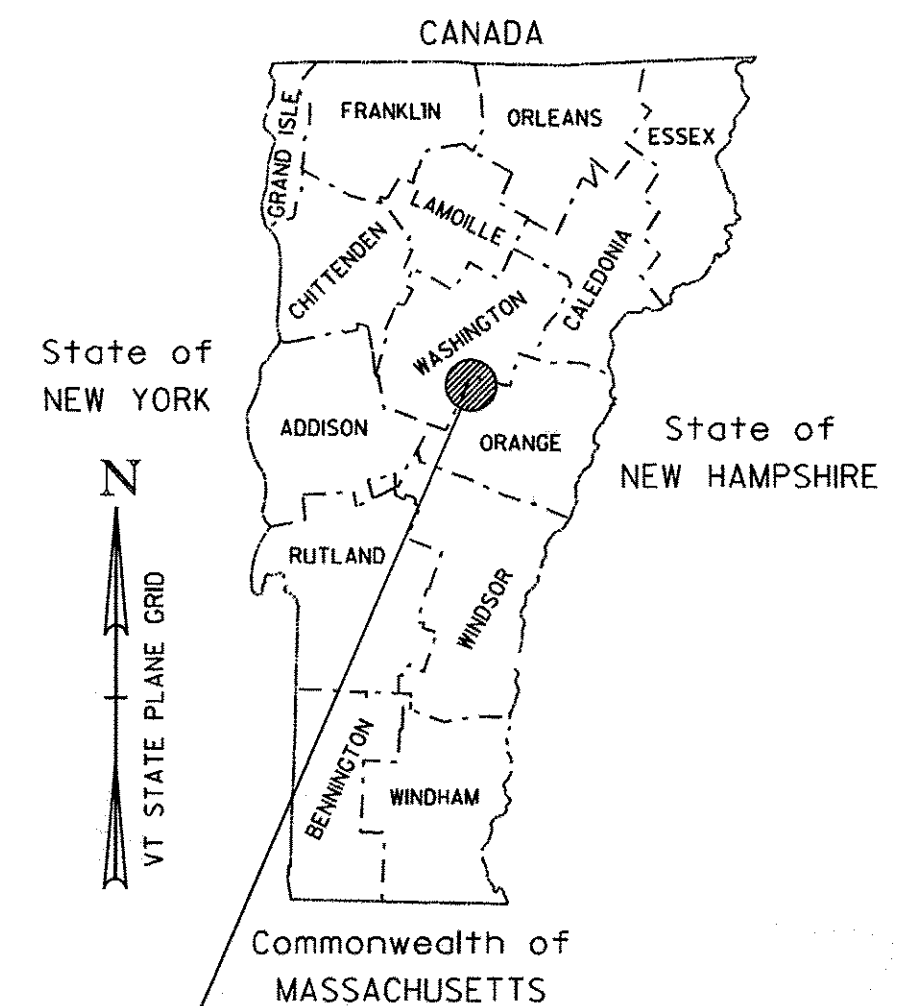


## PROPOSED IMPROVEMENT TOWNS OF BROOKFIELD, WILLIAMSTOWN & BERLIN COUNTIES OF ORANGE & WASHINGTON INTERSTATE ROUTE 89 - NB (PRINCIPAL ARTERIAL - NHS)

BEGINNING IN THE TOWN OF BROOKFIELD AT MILE MARKER 37.729 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 89 (NORTHBOUND) FOR A DISTANCE OF 50,904.48 FT (9.641 MILES) TO MILE MARKER 47.370 IN THE TOWN OF BERLIN.

LENGTH OF ROADWAY = 50,904.48 FEET (9.641 MILES)  
LENGTH OF PROJECT = 50,904.48 FEET (9.641 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES COLD PLANING, SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR, PAVING, TRAFFIC MARKINGS AND OTHER HIGHWAY RELATED ITEMS.



PROJECT LOCATION  
BROOKFIELD-BERLIN

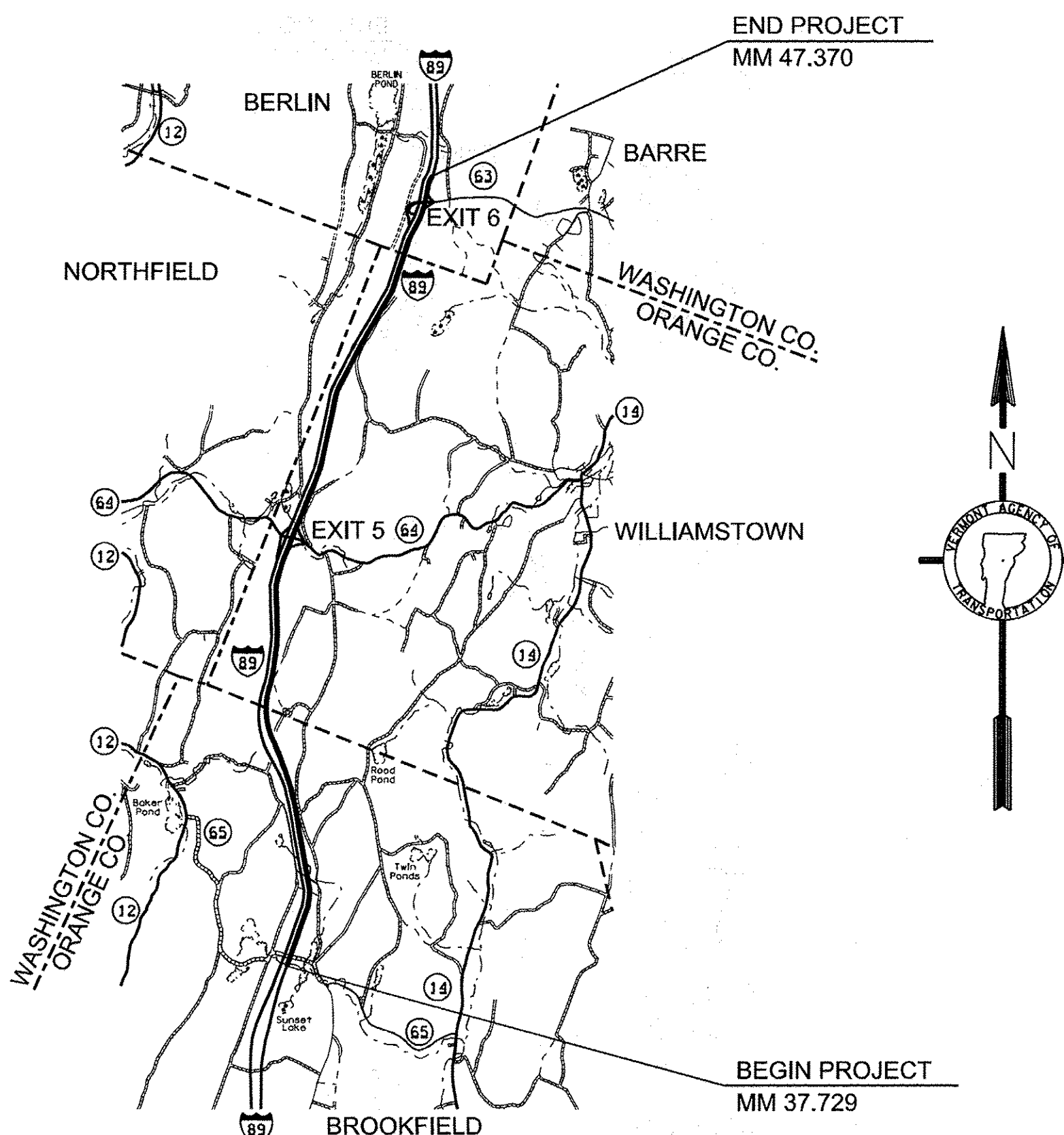
SUPERPAVE BITUMINOUS CONCRETE PAVEMENT MIXTURE DESIGN CRITERIA	
DESIGN LANE/DESIGN LIFE ESAL	6,719,000
DESIGN NUMBER OF GYRATIONS	65
PERFORMANCE GRADED ASPHALT BINDER	SEE SUBSECTION 490.03(b)

CONSTRUCTION IS TO BE CARRIED ON IN ACCORDANCE WITH THESE PLANS AND THE STANDARD SPECIFICATIONS FOR CONSTRUCTION DATED 2011, AS APPROVED BY THE FEDERAL HIGHWAY ADMINISTRATION ON JULY 20, 2011 FOR USE ON THIS PROJECT, INCLUDING ALL SUBSEQUENT REVISIONS AND SUCH REVISED SPECIFICATIONS AND SPECIAL PROVISIONS AS ARE INCORPORATED IN THESE PLANS.

**QUALITY ASSURANCE PROGRAM :**

SURVEYED BY : NA  
SURVEYED DATE : NA

DATUM  
VERTICAL NA  
HORIZONTAL NA



**BUILT AS DESIGNED**

**NOT TO SCALE**

HIGHWAY SECTION	AADT		DHV		ESALs	
	2009	2019	2009	2019	2009 ~ 2019	2009 ~ 2029
MM 37.729 - MM 42.952	6900	8100	840	990	6,690,000	18,000,000
MM 42.952 - MM 46.920	8300	9700	1000	1200	6,719,000	18,388,000
MM 46.920 - MM 47.200	8600	10,000	1000	1200	5,554,000	14,908,000

**RECORD PLANS**

CONTRACTOR: PIKE INDUSTRIES, INC. - BERLIN, VT

RESIDENT ENGINEER: PAUL PERRY

CONSTRUCTION BEGAN: NOVEMBER 2, 2015

CONSTRUCTION COMPLETE: NOVEMBER 9, 2015

RECORD PLANS BY: PAUL PERRY

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

BY *Paul K. Perry* RESIDENT ENGINEER  
DATE **8-8-16**

NOTE: Any further information concerning final quantities, amounts or other details relative to this project may be found by contacting Vtrans Records Management.

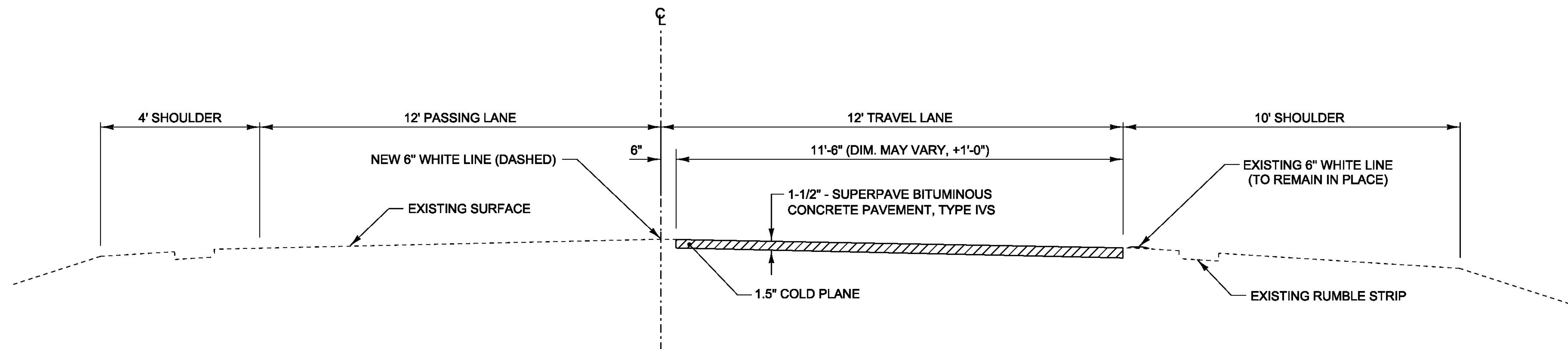
DIRECTOR OF PROJECT DELIVERY:

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_

PROJECT MANAGER : MICHAEL J. FOWLER, P.E.

PROJECT NAME : BROOKFIELD-BERLIN  
PROJECT NUMBER : IM RUTF(14)

SHEET 1 OF 8



**ROADWAY TYPICAL NORMAL SECTION**

NOT TO SCALE  
 I-89 NORTHBOUND  
 MM 37.729 - MM 47.370

PROJECT NAME: BROOKFIELD-BERLIN	
PROJECT NUMBER: IM RUTF(14)	
FILE NAME: pl5v079wrk.dgn	PLOT DATE: 09-SEP-2015
PROJECT LEADER: M. FOWLER	DRAWN BY: B. KIPP
DESIGNED BY: B. KIPP	CHECKED BY: M. FOWLER
TYPICAL SECTION SHEET	SHEET 2 OF 8

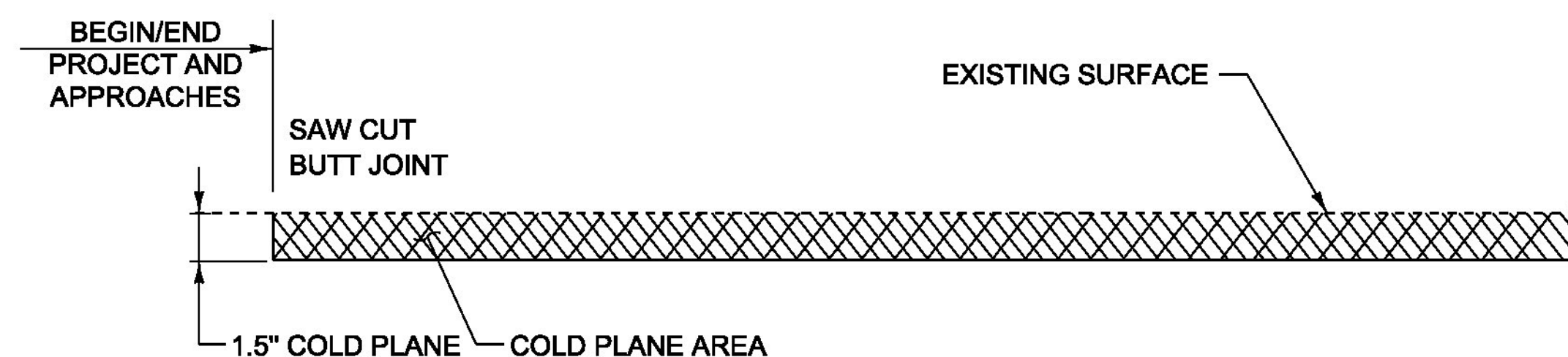
# QUANTITY SHEET 1

SUMMARY OF ESTIMATED QUANTITIES													TOTALS		DESCRIPTIONS				DETAILED SUMMARY OF QUANTITIES		
												ROADWAY	GRAND TOTAL	FINAL	UNIT	ITEMS	ITEM NUMBER	ROUND	QUANTITIES	UNIT	ITEMS
												68000	68000		SY	COLD PLANING, BITUMINOUS PAVEMENT	210.10	127			
																BEGIN OPTION AA					
												450	450		CWT	EMULSIFIED ASPHALT	404.65	EST.			
																END OPTION AA					
												6000	6000		TON	SUPERPAVE BITUMINOUS CONCRETE PAVEMENT	490.30	61			
												300	300		HR	UNIFORMED TRAFFIC OFFICERS	630.10	EST.			
												150	150		HR	FLAGGERS	630.15	EST.			
												1	1		LS	MOBILIZATION/DEMOLITION	635.11	-			
												1	1		LS	TRAFFIC CONTROL	641.10	-			
												69500	69500		LF	DURABLE 6 INCH WHITE LINE, POLYUREA	646.424	274			
												400	400		LF	DURABLE 12 INCH WHITE LINE, POLYUREA	646.464	EST.			
												13000	13000		LF	TEMPORARY 6 INCH WHITE LINE, PAINT	646.622	274			
												5200	5200		EACH	LINE STRIPING TARGETS	646.76	450			
												50	50		TON	SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE, I)	900.680	EST.			
																BEGIN OPTION BB					
												450	450		CWT	SPECIAL PROVISION (EMULSIFIED ASPHALT)(RS-1H OR CRS-1H)	900.683	EST.			
																END OPTION BB					

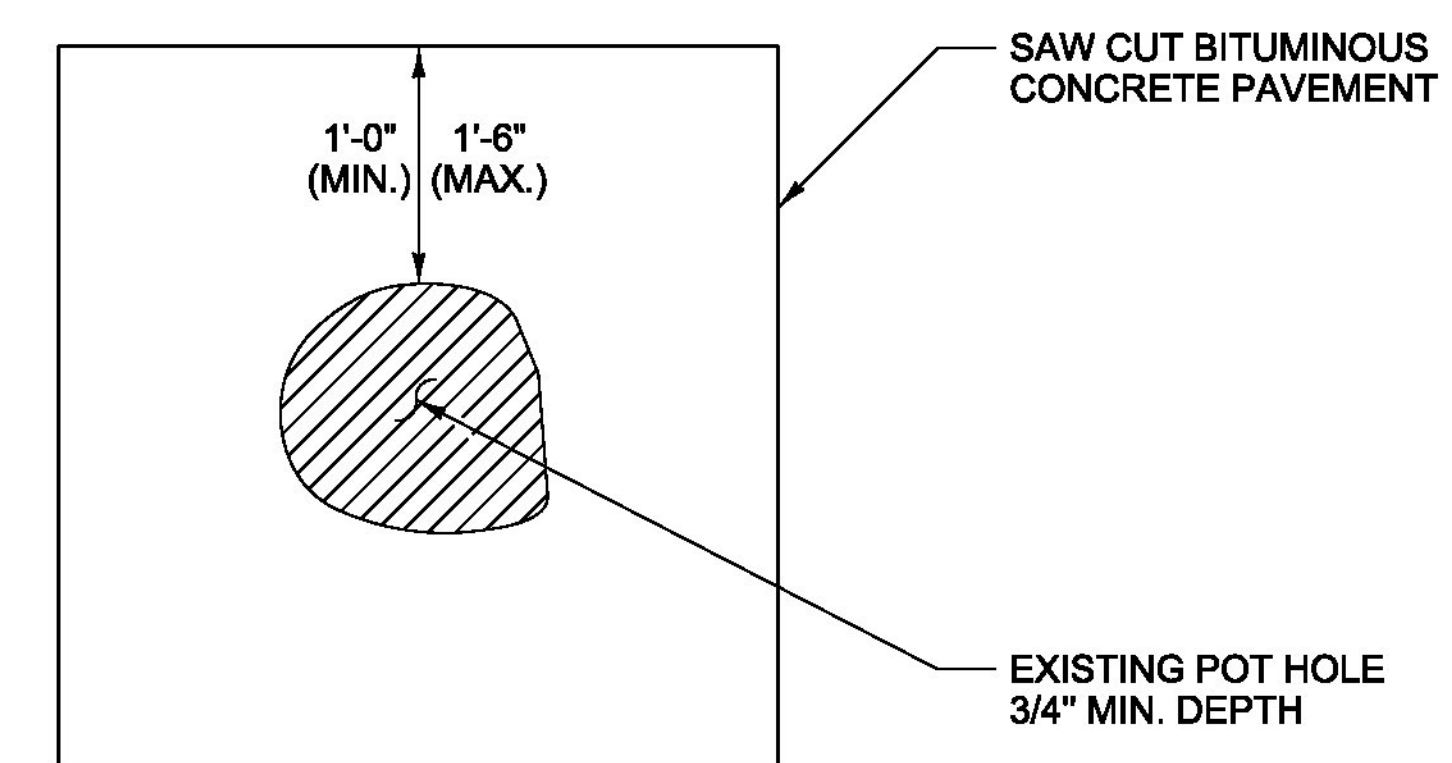
PROJECT NAME: BROOKFIELD-BERLIN  
 PROJECT NUMBER: IM RUTF(14)  
 FILE NAME: pl5v079wrk.dgn  
 PROJECT LEADER: M. FOWLER  
 DESIGNED BY: B. KIPP  
 QUANTITY SHEET  
 PLOT DATE: 09-SEP-2015  
 DRAWN BY: B. KIPP  
 CHECKED BY: M. FOWLER  
 SHEET 3 OF 8

**NOTES:**

1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING AND POT HOLE REPAIR SHALL BE PERFORMED PRIOR TO APPLICATION OF THE FINAL SURFACE TREATMENT. 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. FOLLOWING COMPLETION OF COLD PLANING, THE MILLED SURFACE FOR ALL BRIDGES TO BE MILLED SHALL ALSO RECEIVE PATCHING AND POT HOLE REPAIR TREATMENTS, AS DIRECTED BY THE ENGINEER.
3. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION BY THE USE OF LINE STRIPING TARGETS OR TEMPORARY PAINT IF DEEMED NECESSARY BY VTRANS.
4. THE TRAVEL LANE SHALL BE COLD PLANED TO A DEPTH OF 1.25" AND PAVED WITH 1.25" OF SUPERPAVE BITUMINOUS CONCRETE PAVEMENT TYPE IVS IN ONE PASS ON THE SAME DAY AS COLD PLANING. 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 SUPERPAVE BITUMINOUS CONCRETE PAVEMENT.



**TYPICAL APPROACH AREA DETAIL MAINLINE & RAMPS**



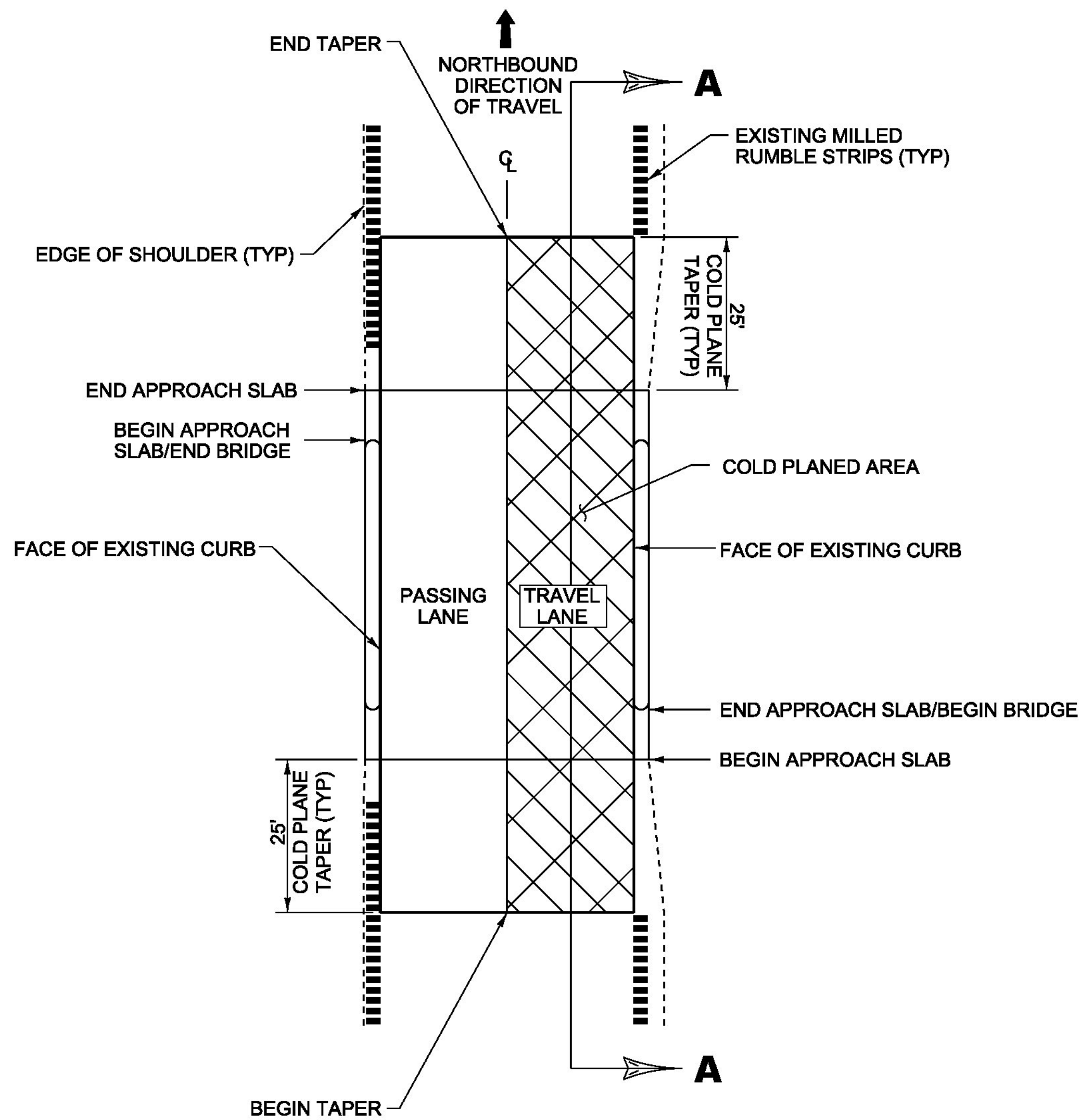
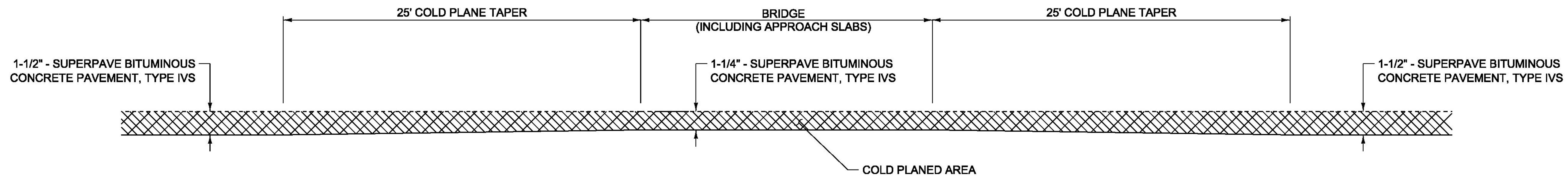
**TYPICAL - POT HOLE REPAIR**

**NOTE:**

EMULSIFIED ASPHALT SHALL BE APPLIED AT ALL PATCH INTERFACES AT A RATE OF 0.25 - 0.50 GAL/SY. EMULSIFIED ASPHALT SHALL MEET THE REQUIREMENTS OF SECTION 404 AND WILL BE CONSIDERED INCIDENTAL TO SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT SURFACE PREPARATION, TYPE I)

**NOT TO SCALE**

PROJECT NAME: BROOKFIELD-BERLIN	
PROJECT NUMBER: IM RUTF(14)	
FILE NAME: pl5v079wrk.dgn	PLOT DATE: 09-SEP-2015
PROJECT LEADER: M. FOWLER	DRAWN BY: B. KIPP
DESIGNED BY: B. KIPP	CHECKED BY: M. FOWLER
DETAIL SHEET	SHEET 4 OF 8



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

**NOTES:**

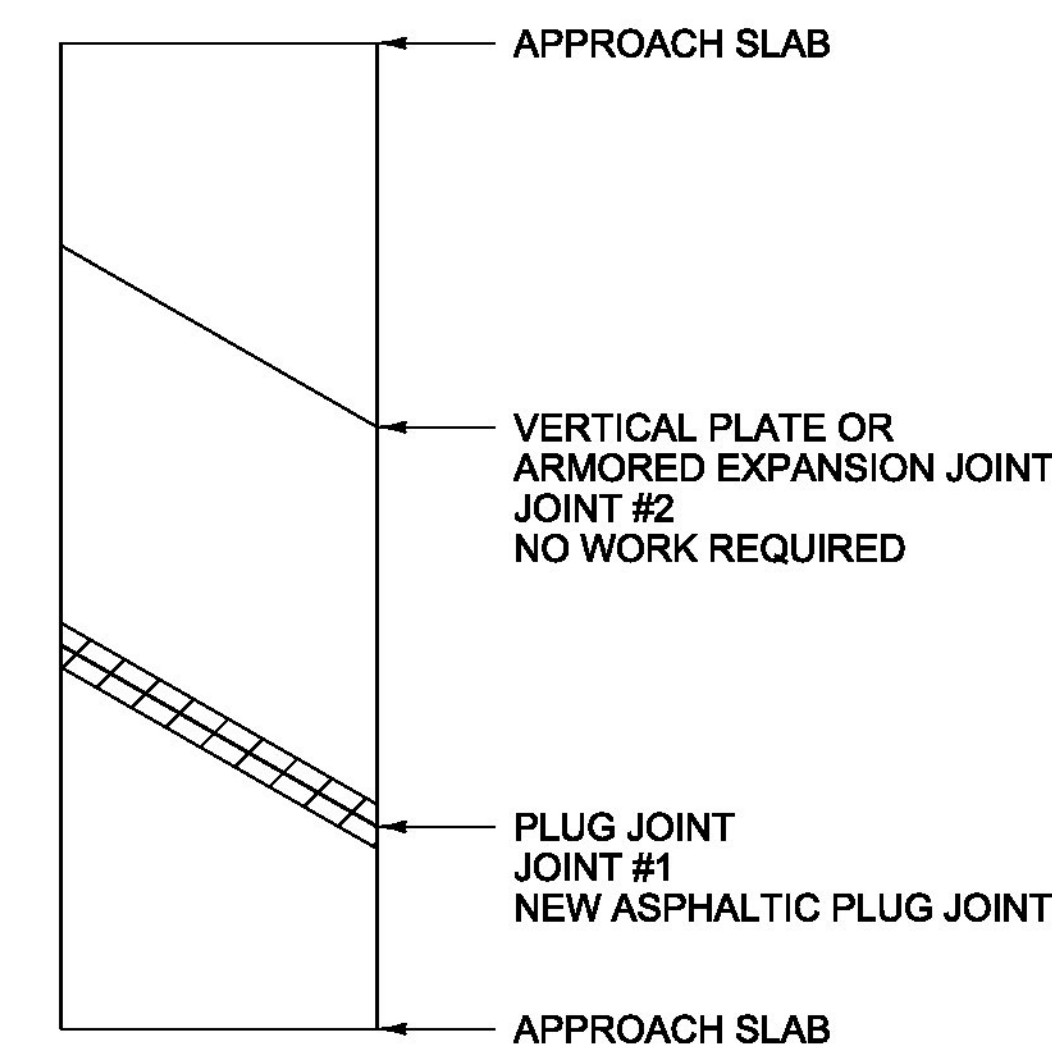
1. REFER TO ASPHALTIC PLUG JOINT AND DETAILS. ALL NEW JOINTS WILL BE INSTALLED BY OTHERS.
2. THE CONTRACTOR SHALL TAKE PRECAUTIONS TO AVOID DAMAGING DRAINAGE STRUCTURES AND EXPANSION JOINTS. ANY DAMAGE CAUSED BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT THE EXPENSE OF THE CONTRACTOR.
3. THE 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.

**BRIDGE COLD PLANE TYPICAL SECTION A-A**

**ALTERNATE A**

BR #34N = MM 38.844  
BR #35N = MM 42.952  
BR #36N = MM 46.920

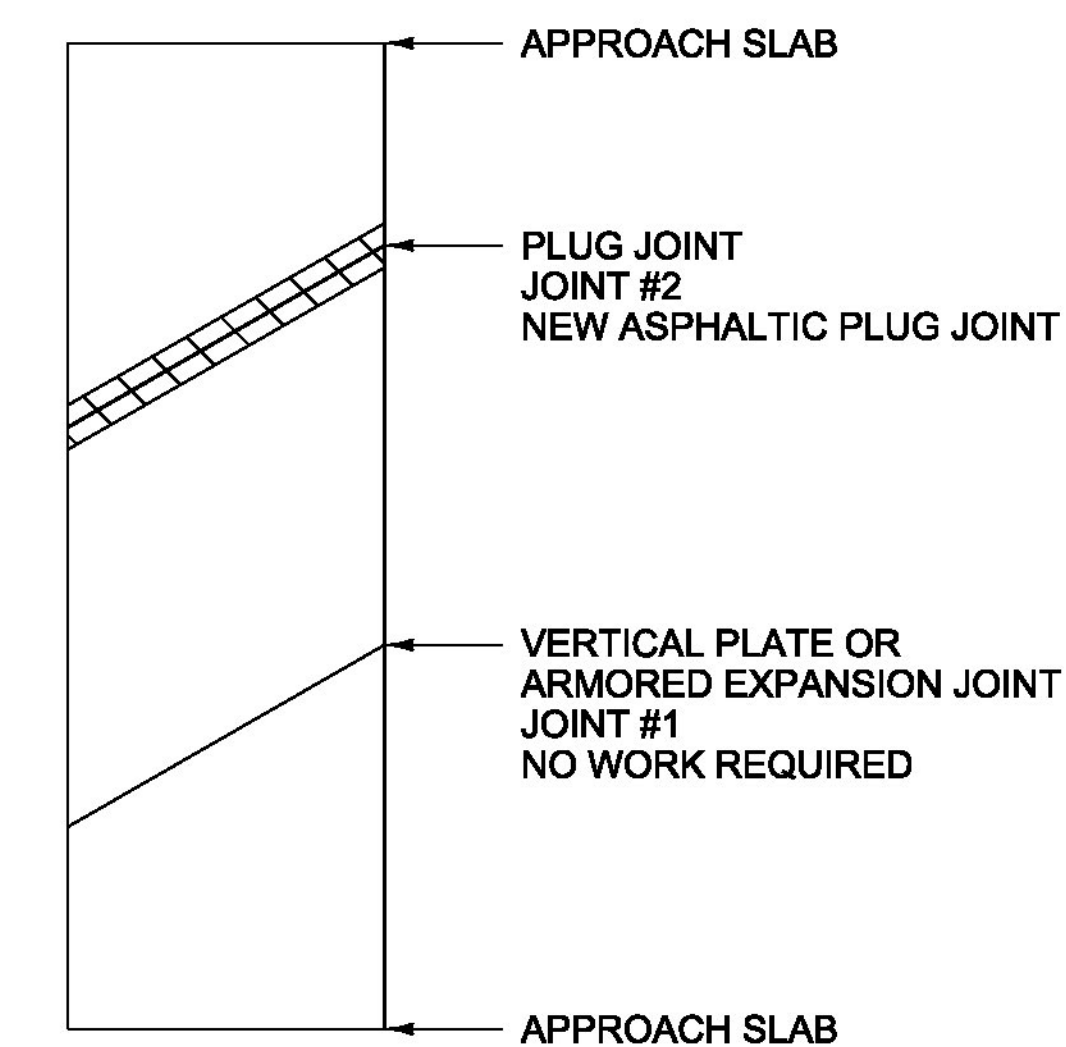
NORTHBOUND  
DIRECTION OF TRAVEL



**BRIDGE #34N**  
MM 38.844

LENGTH OF ASPHALTIC PLUG JOINTS:  
JOINT #1 = 45'  
JOINT #2 = 0'  
TOTAL = 45'

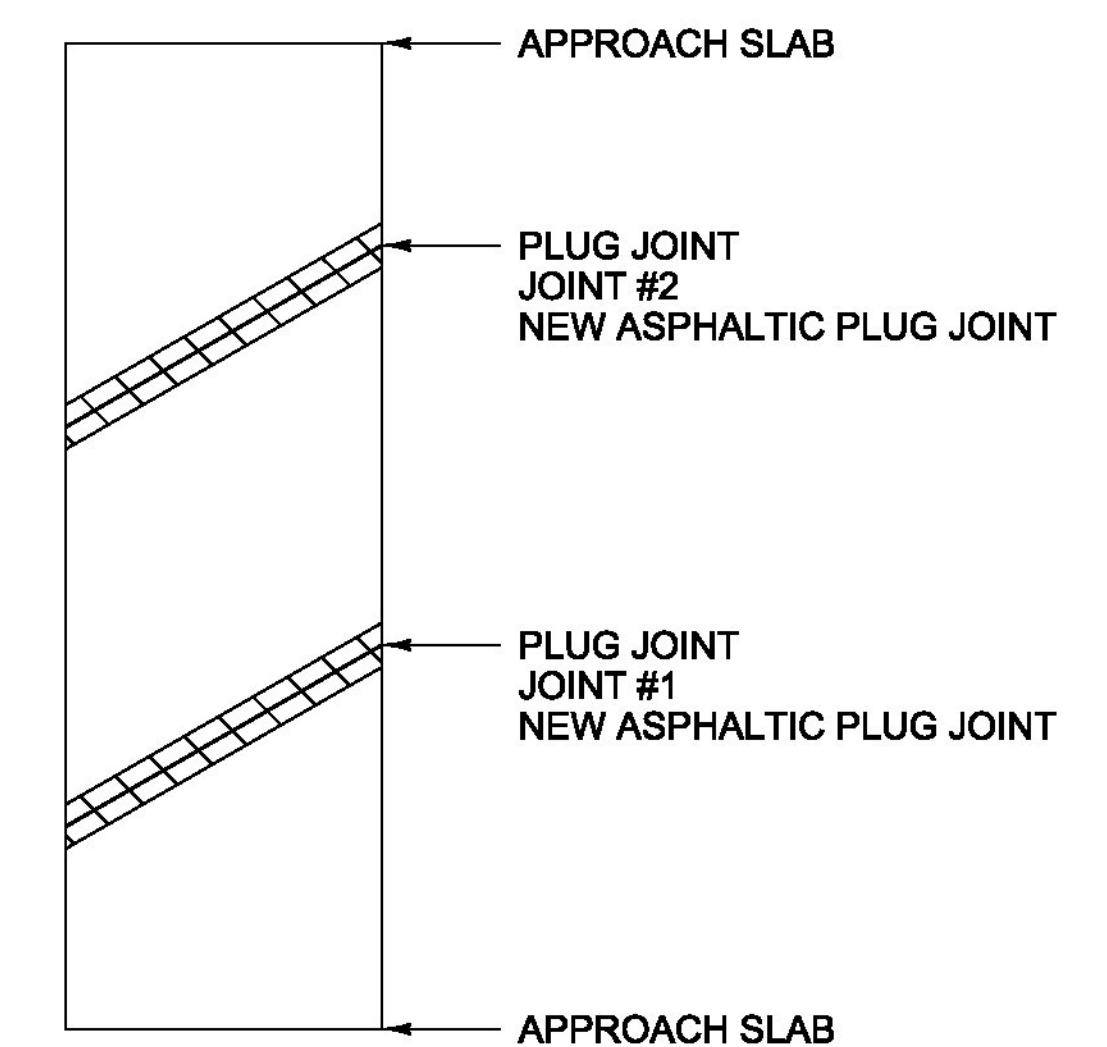
NORTHBOUND  
DIRECTION OF TRAVEL



**BRIDGE #35N**  
MM 42.952

LENGTH OF ASPHALTIC PLUG JOINTS:  
JOINT #1 = 0'  
JOINT #2 = 43'  
TOTAL = 43'

NORTHBOUND  
DIRECTION OF TRAVEL



**BRIDGE #36N**  
MM 46.920

LENGTH OF ASPHALTIC PLUG JOINTS:  
JOINT #1 = 45'  
JOINT #2 = 45'  
TOTAL = 90'

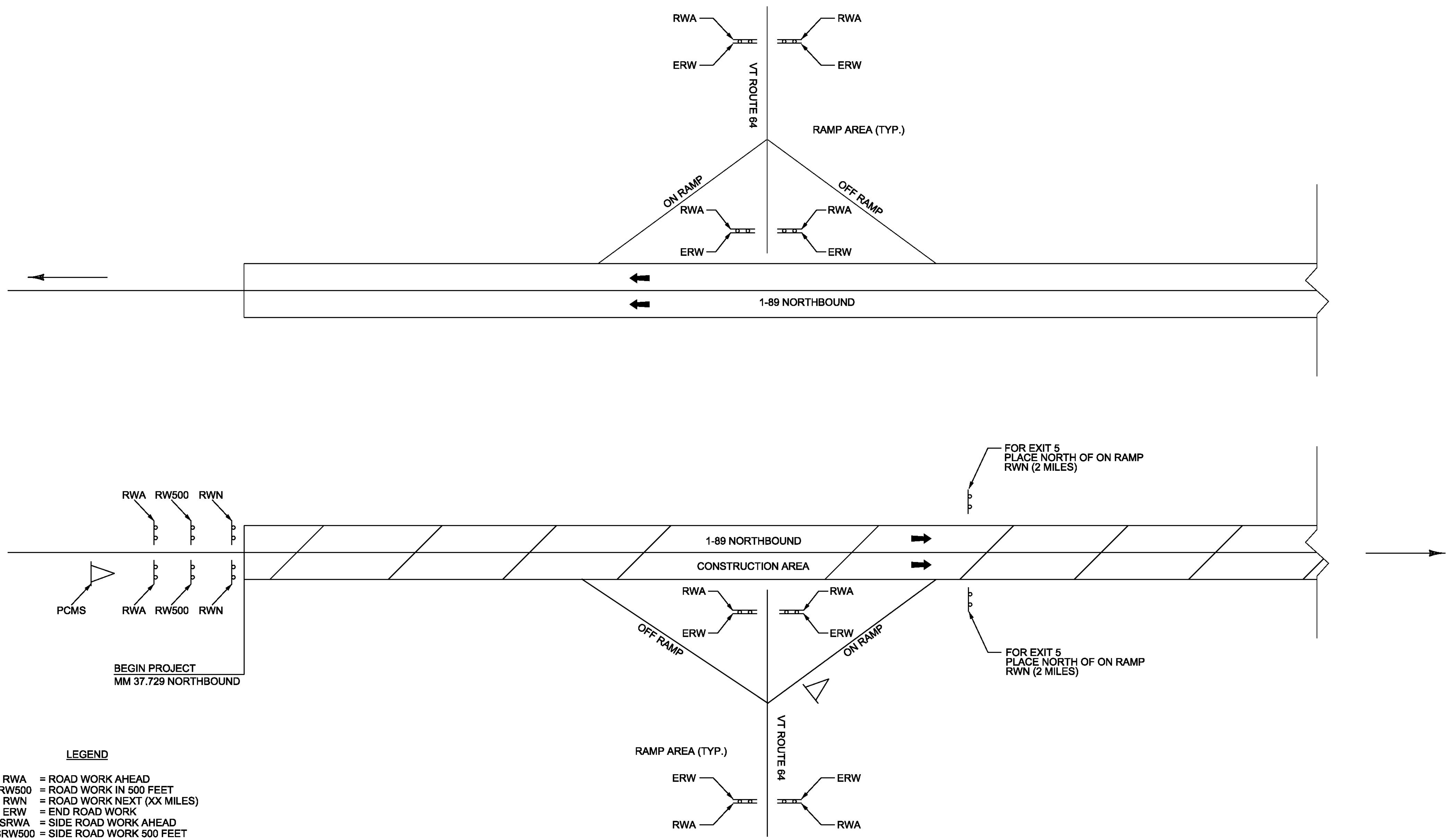
**LEGEND**

 EXISTING BRIDGE JOINTS TO BE REPAIRED WITH ASPHALT PLUG JOINT

PROJECT NAME: BROOKFIELD-BERLIN  
PROJECT NUMBER: IM RUTF(14)

FILE NAME: pl5v079wrk.dgn  
PROJECT LEADER: M. FOWLER  
DESIGNED BY: B. KIPP  
BRIDGE DETAIL SHEET

PLOT DATE: 09-SEP-2015  
DRAWN BY: B. KIPP  
CHECKED BY: M. FOWLER  
SHEET 5 OF 8

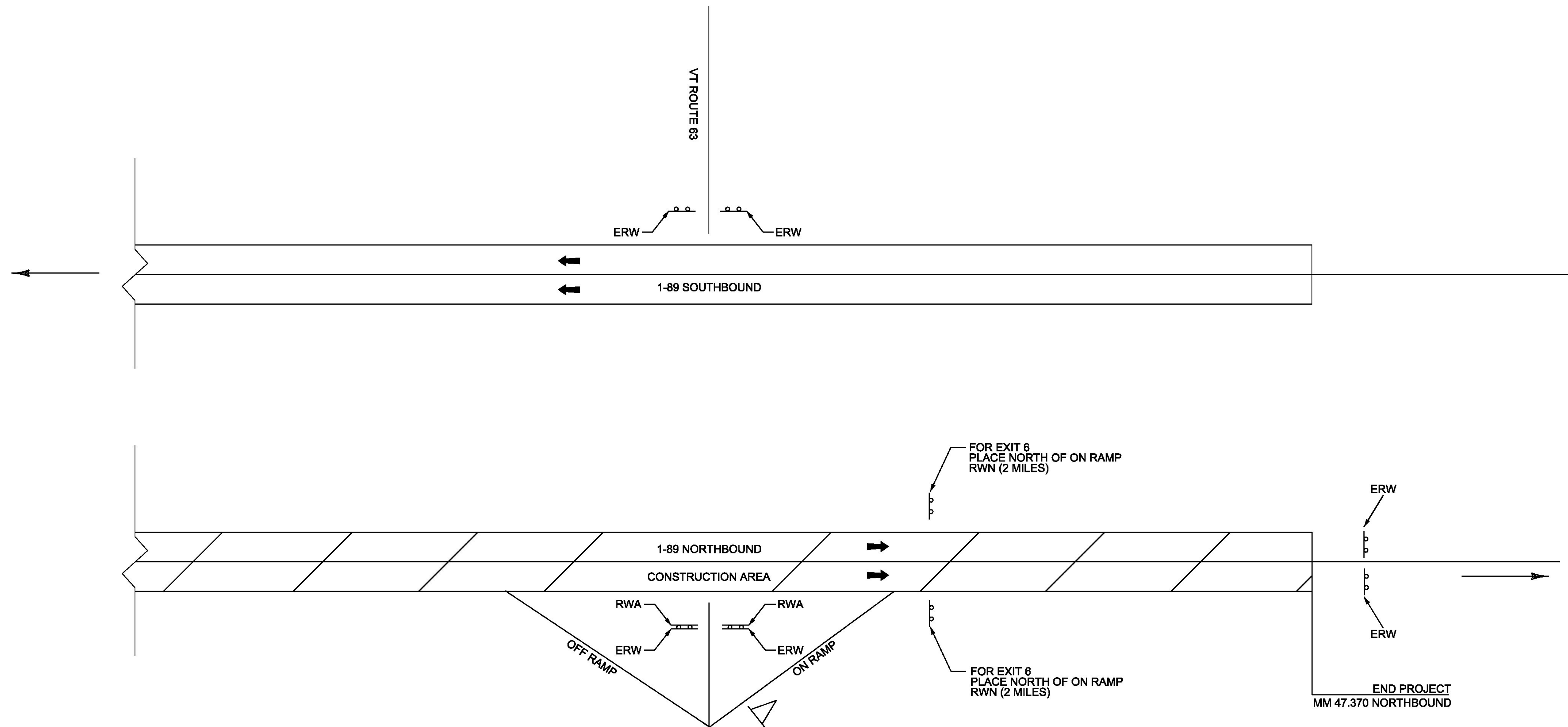


**LEGEND**

- RWA = ROAD WORK AHEAD
- RW500 = ROAD WORK IN 500 FEET
- RWN = ROAD WORK NEXT (XX MILES)
- ERW = END ROAD WORK
- SRWA = SIDE ROAD WORK AHEAD
- SRW500 = SIDE ROAD WORK 500 FEET
- △ = PORTABLE CHANGEABLE MESSAGE SIGN
- ▨ = WORK AREA
- ← = DIRECTION OF TRAFFIC FLOW

SEE VAOT STANDARDS T-1, T-10, T-11 AND T-13 FOR SIGN PLACEMENT.  
 CONSTRUCTION APPROACH SIGNING SHALL BE PLACED AS NOT TO  
 INTERFERE WITH EXISTING TRAFFIC CONTROL DEVICES.  
 SEE CONSTRUCTION APPROACH SIGNING NOTES SHEET.

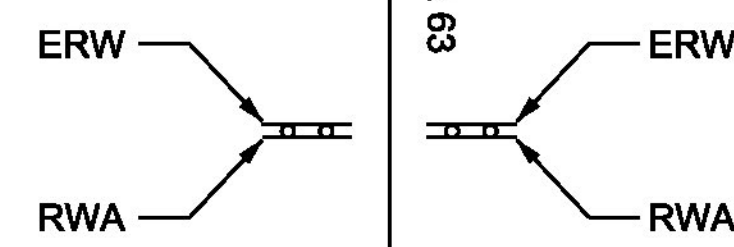
PROJECT NAME: BROOKFIELD-BERLIN	
PROJECT NUMBER: IM RUTF(14)	
FILE NAME: pl5v079wrk.dgn	PLOT DATE: 09-SEP-2015
PROJECT LEADER: M. FOWLER	DRAWN BY: B. KIPP
DESIGNED BY: B. KIPP	CHECKED BY: M. FOWLER
CONSTRUCTION APPROACH SIGNING SHEET 1	SHEET 6 OF 8



**LEGEND**

- RWA = ROAD WORK AHEAD
- RW500 = ROAD WORK IN 500 FEET
- RWN = ROAD WORK NEXT (XX MILES)
- ERW = END ROAD WORK
- SRWA = SIDE ROAD WORK AHEAD
- SRW500 = SIDE ROAD WORK 500 FEET
- △ = PORTABLE CHANGEABLE MESSAGE SIGN
- ▨ = WORK AREA
- ← = DIRECTION OF TRAFFIC FLOW

**RAMP AREA (TYP.)**



SEE VAOT STANDARDS T-1, T-10, T-11 AND T-13 FOR SIGN PLACEMENT.  
 CONSTRUCTION APPROACH SIGNING SHALL BE PLACED AS NOT TO INTERFERE WITH EXISTING TRAFFIC CONTROL DEVICES.  
 SEE CONSTRUCTION APPROACH SIGNING NOTES SHEET.

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FILE NAME: pl5v079wrk.dgn	PLOT DATE: 09-SEP-2015
PROJECT LEADER: M. FOWLER	DRAWN BY: B. KIPP
DESIGNED BY: B. KIPP	CHECKED BY: M. FOWLER
CONSTRUCTION APPROACH SIGNING SHEET 2	SHEET 7 OF 8

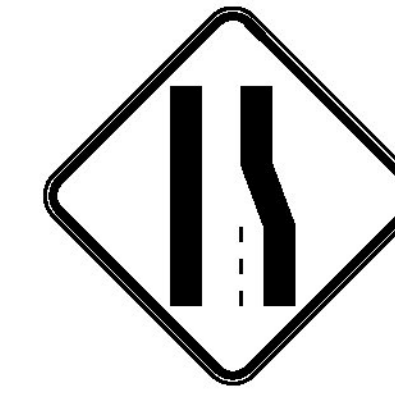
1. THE CONTRACTOR SHALL SUBMIT A SITE SPECIFIC TRAFFIC CONTROL PLAN TO THE ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) WILL NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, "TRAFFIC CONTROL".
2. THE 2009 MUTCD, WITH REVISIONS, SHALL BE THE STANDARD FOR ALL TRAFFIC CONTROL DEVICES. EXISTING SIGNS, SIGNALS AND MARKINGS SHALL BE VALID UNTIL SUCH TIME AS THEY ARE REPLACED OR RECONSTRUCTED. WHEN NEW TRAFFIC CONTROL DEVICES ARE ERECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH THE MUTCD.
3. ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE ENGINEER.
4. THE BID PRICE FOR "TRAFFIC CONTROL", ITEM 641.10, 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 VAOT STANDARDS. ALL ADJUSTING, RELOCATING, AND REMOVING OF THESE DEVICES AS DIRECTED BY THE ENGINEER SHALL ALSO BE INCLUDED. THE FOLLOWING ITEMS WILL BE PAID FOR SEPARATELY:
  - 630.10 AND 630.15 - UNIFORMED TRAFFIC OFFICERS AND FLAGGERS
  - 646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
  - 646.76 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 ENGINEER. THESE SIGNS WILL BE PROVIDED BY OTHERS.
 

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.

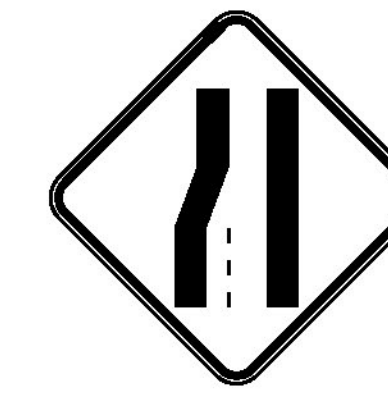
THE PCMS SHALL CONSIST OF EITHER ONE OR TWO PHASES. TYPICALLY, A PHASE SHALL CONSIST OF UP TO THREE LINES OF EIGHT CHARACTERS PER LINE. THE PCMS SHOULD BE USED AS A SUPPLEMENT AND NOT AS A SUBSTITUTE FOR CONVENTIONAL SIGNS AND PAVEMENT MARKINGS.

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.
6. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VAOT STANDARDS. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL". ADD G20-5aP "WORK ZONE" PLAQUE AND R2-6aP "FINES DOUBLED" PLAQUE TO SPEED LIMIT SIGNS (SEE FIG. 6F-3 OF MUTCD). OMIT VR-355 "FINES DOUBLED FOR SPEEDING IN WORK ZONE" SIGN. IF LANE CLOSURES ARE USED THEY SHOULD NOT EXCEED 3 MILES AT ANY GIVEN PERIOD OF TIME. IF LANE CLOSURES REDUCE THE TRAVEL LANE BELOW 12 FEET DMV MUST BE NOTIFIED TO DETOUR WIDE LOAD PERMITTED VEHICLES.
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. SIGN W4-2 MAY BE REPLACED WITH W9-2:



W4-2

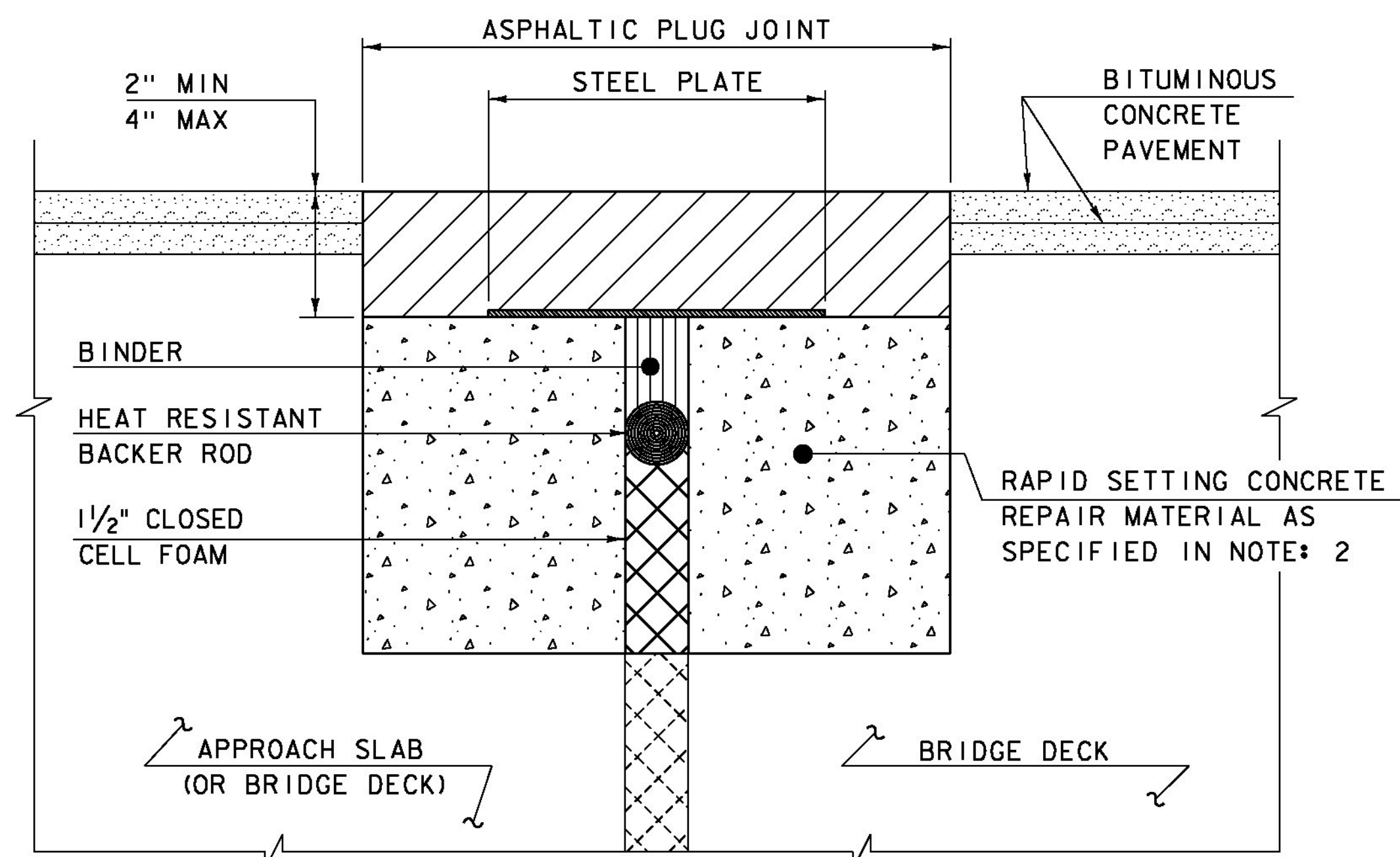


W9-2



10. IN ADVANCE OF ANY PROPOSED INTERCHANGE RAMP CLOSURES THE CONTRACTOR SHALL SUBMIT A PLAN THAT WILL DEPICT HOW ADVANCED WARNING TO THE TRAVELING PUBLIC WILL BE ACCOMMODATED DURING THE CLOSURE. ADVANCED WARNING SHALL BE DEFINED AS PROVIDING ADVANCED WARNING SIGNS, BOTH STATIC AND PCMS, THAT PROVIDE INFORMATION FOR MOTORISTS TO SAFELY UTILIZE THE REGIONALLY ACCEPTABLE OPPORTUNITIES FOR SEEKING AN ALTERNATE ROUTE PRIOR TO APPROACHING THE INTERCHANGE INVOLVING RAMP CLOSURES. THE PLAN WILL NEED TO BE SUBMITTED FOR REVIEW AND COMMENT TO THE PROJECT MANAGER A MINIMUM OF 7 CALENDAR DAYS AHEAD OF ANY PLANNED CLOSURE. APPROVAL OF THE PLAN SHALL BE IN PLACE 72 HOURS BEFORE WORK MAY BEGIN. INSTALLATION OF THE PCMS NETWORK SHALL BE DONE 48 HOURS BEFORE WORK MAY BEGIN. ELEMENTS OF THE PLAN SHALL INCLUDE BUT WILL NOT BE LIMITED TO THE LOCATION OF THE PCMS AND ASSOCIATED MESSAGES, ANY OTHER NECESSARY SIGNAGE, LOCATIONS FOR DEPLOYMENT OF UNIFORMED TRAFFIC OFFICERS AND FLAGGERS, AND SEQUENCING AND DURATION OF CLOSURE FOR EACH RAMP WITHIN THE RESPECTIVE INTERCHANGE. NO MORE THAN ONE INTERCHANGE PER WORK PERIOD MAY HAVE RAMP CLOSURES. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 641.10, TRAFFIC CONTROL.

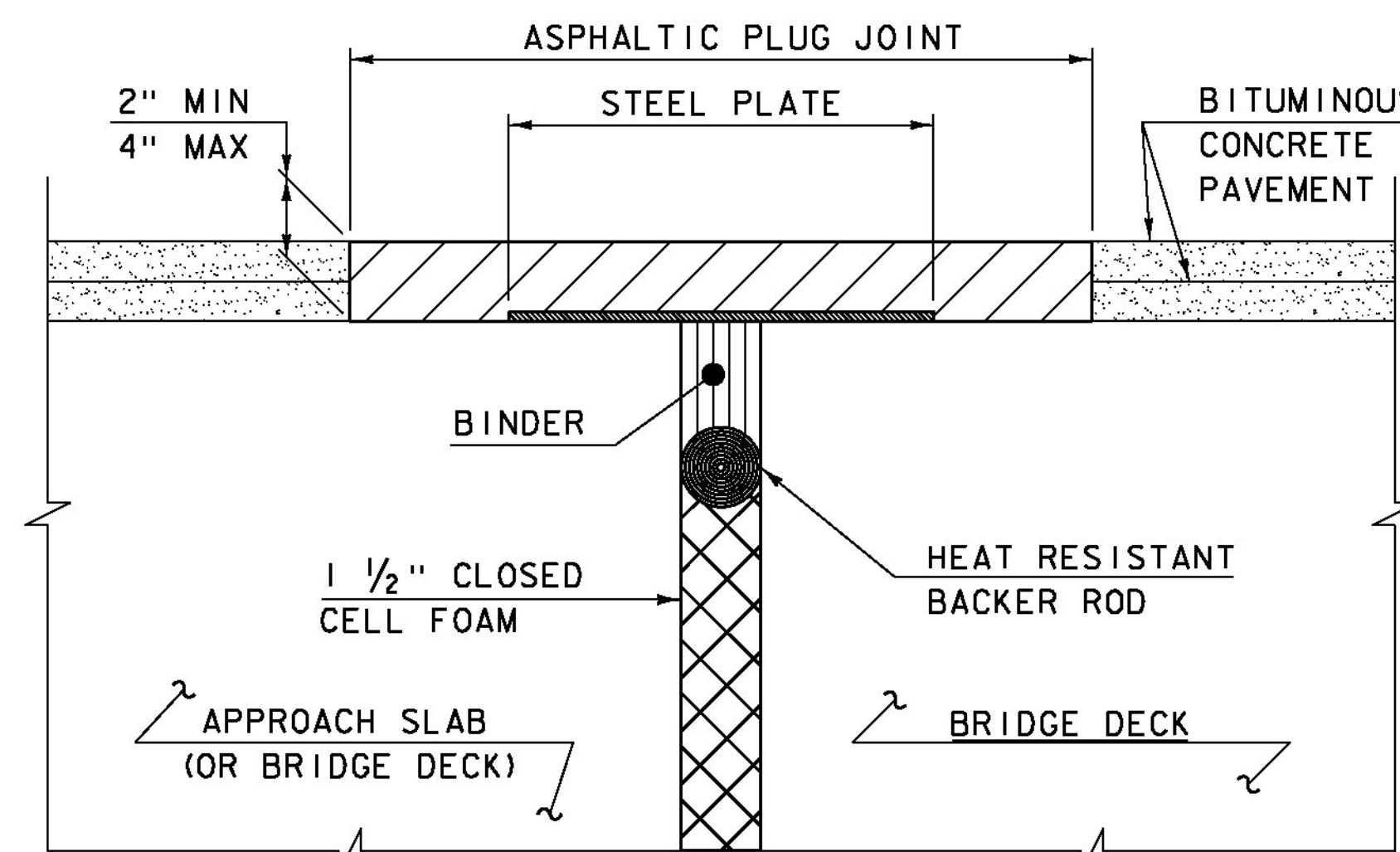
PROJECT NAME: BROOKFIELD-BERLIN	
PROJECT NUMBER: IM RUTF(14)	
FILE NAME: pl5v079wrk.dgn	PLOT DATE: 09-SEP-2015
PROJECT LEADER: M. FOWLER	DRAWN BY: B. KIPP
DESIGNED BY: B. KIPP	CHECKED BY: M. FOWLER
CONSTRUCTION APPROACH SIGNING SHEET NOTES	SHEET 8 OF 8



**ASPHALTIC PLUG JOINT DETAIL - REHAB**

**NOTES:**

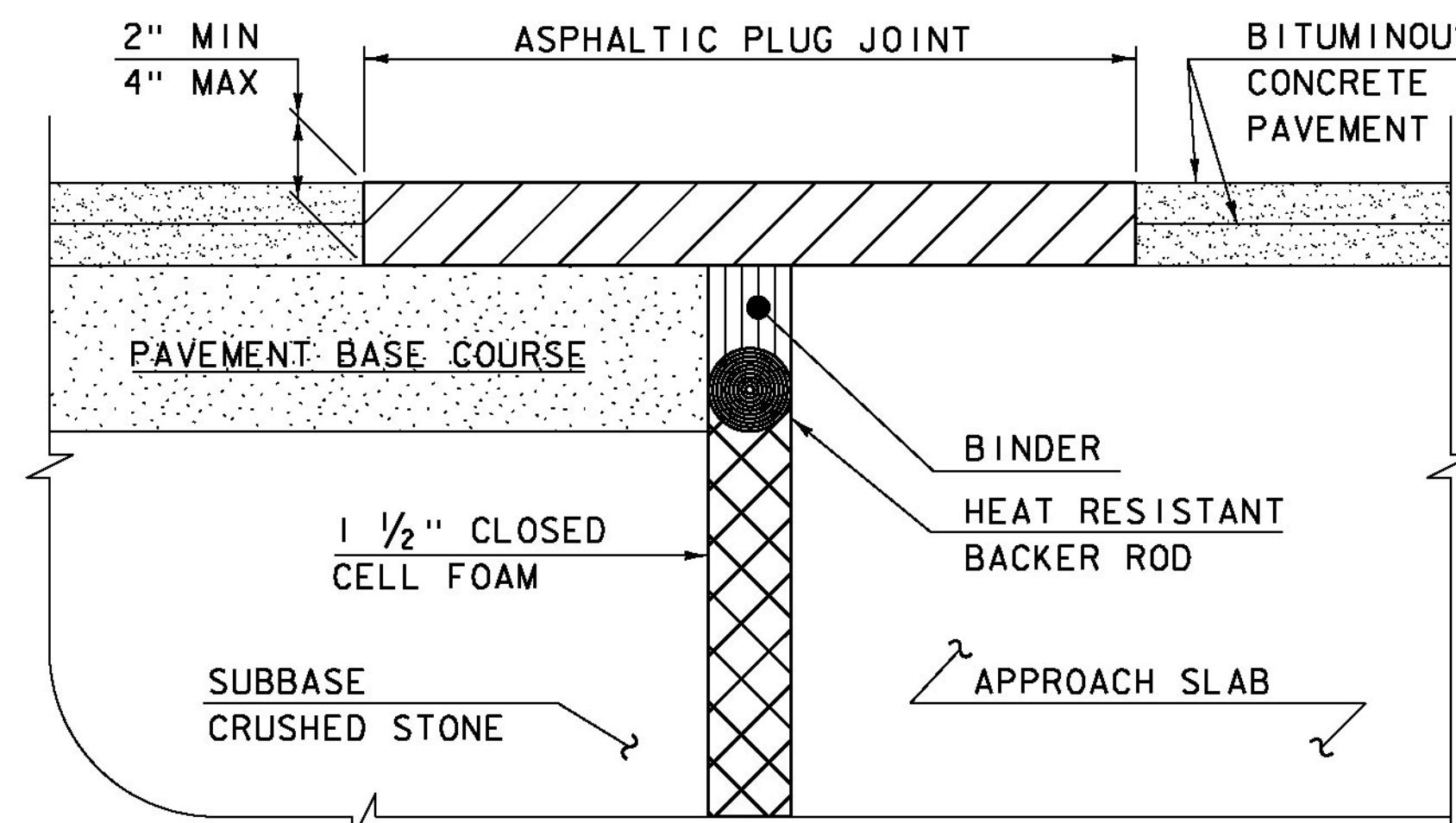
1. THE CONTRACTOR SHALL REMOVE ALL ASPHALTIC PLUG JOINT MATERIAL AND DETERIORATED CONCRETE AS DIRECTED BY THE ENGINEER. REMOVAL OF THE FIRST 4 INCHES OF MATERIAL SHALL BE INCLUDED IN THE BID PRICE FOR ITEM 516.10 BRIDGE EXPANSION JOINT, ASPHALTIC PLUG. ANY REMOVAL OF MATERIAL GREATER THAN 4 INCHES SHALL 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.
4. 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.



**ASPHALTIC PLUG JOINT DETAIL "A" - NEW**

**NOTE:**

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.



**ASPHALTIC PLUG JOINT DETAIL "B" - NEW**

**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. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
5. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
6. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.

**WEATHER LIMITATIONS**

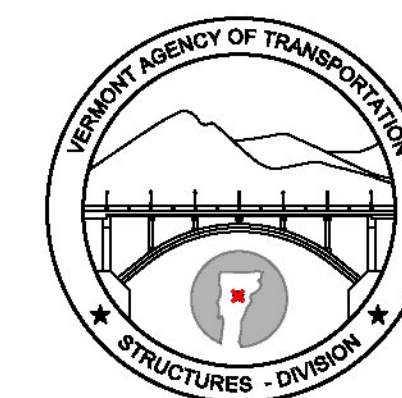
APPLY BINDER MATERIAL ONLY WHEN THE FOLLOWING CONDITIONS PREVAIL OR AS RECOMMENDED BY THE MANUFACTURER:

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.

DETAILS ON THIS SHEET ARE NOT TO SCALE.

REVISIONS	
MAY 7, 2010	APPROVED FOR USE BY VAOT STRUCTURES SECTION
AUGUST 29, 2011	ADD DETAIL "B" AND REV. NOTES

**BRIDGE JOINT  
ASPHALTIC PLUG**



**STRUCTURES  
DETAIL  
SD-516.10**