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**STATE OF VERMONT
AGENCY OF TRANSPORTATION**



**PROPOSED IMPROVEMENT
TOWNS OF GEORGIA, FAIRFAX, FAIRFIELD & ST. ALBANS
COUNTY OF FRANKLIN
INTERSTATE ROUTE 89 (NB & SB)**

IM SURF (2) NORTHBOUND:
BEGINNING IN THE TOWN OF GEORGIA AT MILE MARKER 106.900 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 89 (NORTHBOUND LANE) FOR A DISTANCE OF 38,016.00 FT (7,200 MILES) TO MILE MARKER 114,000 IN THE TOWN OF ST. ALBANS.

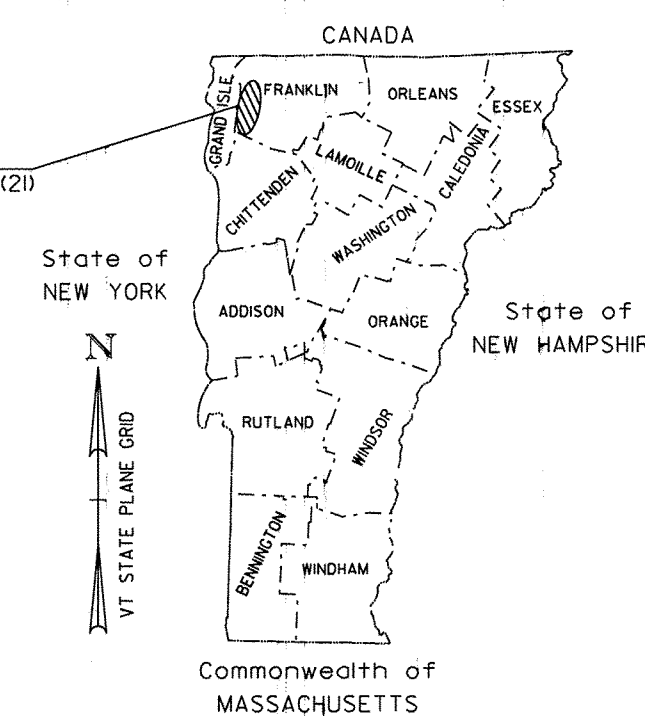
NB LENGTH OF ROADWAY = 38,016.00 FT = (7,200 MILES)
NB LENGTH OF PROJECT = 38,016.00 FT = (7,200 MILES)

IM SURF (2) SOUTHBOUND:
BEGINNING IN THE TOWN OF GEORGIA AT MILE MARKER 106.900 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 89 (SOUTHBOUND LANE) FOR A DISTANCE OF 38,016.00 FT (7,200 MILES) TO MILE MARKER 114,000 IN THE TOWN OF ST. ALBANS.

SB LENGTH OF ROADWAY = 38,016.00 FT = (7,200 MILES)
SB LENGTH OF PROJECT = 38,016.00 FT = (7,200 MILES)

WORK TO BE PERFORMED UNDER THIS PROJECT INCLUDES SURFACE PREPARATION INVOLVING PATCHING, POT HOLE REPAIR AND CRACK SEALING AND OVERLAYING WITH A THIN BITUMINOUS SURFACE TREATMENT, AND TRAFFIC MARKINGS.

PROJECT LOCATION
GEORGIA - ST. ALBANS IM SURF (2)



RECORD PLANS

CONTRACTOR: SEAL COATING, INC. - HINGHAM, MA

RESIDENT ENGINEER: DELVIN WARNER

CONSTRUCTION BEGAN: MAY 23, 2011

CONSTRUCTION COMPLETE: OCTOBER 6, 2011

RECORD PLANS BY: DELVIN WARNER

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

[Signature] RESIDENT ENGINEER

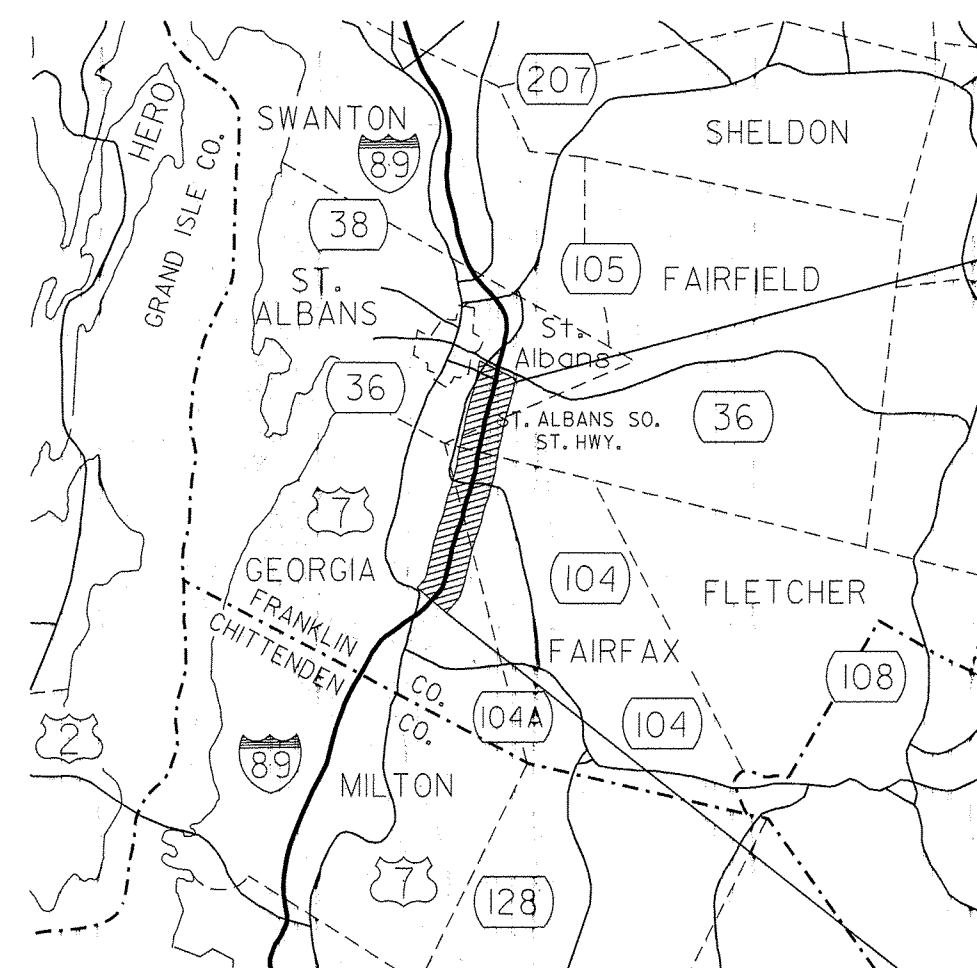
DATE: 03/07/12

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.

QUALITY ASSURANCE PROGRAM LEVEL I

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	



END GEORGIA - ST. ALBANS
IM SURF (2)
MM 114,000

BEGIN GEORGIA - ST. ALBANS
IM SURF (2)
MM 106,900

TRAFFIC DATA

I-89 NB & SB	2011	2012	2013	2014	FLEXIBLE (2011-2020)	FLEXIBLE (2011-2020)
	ADT	ADT	ADT	ADT		
BEGIN PROJECT TO EXIT 19 NB	3,800	1,800	1,300	1,600	4,665,000	12,790,000
BEGIN PROJECT TO EXIT 19 SB	3,800	1,800	1,300	1,300	4,140,000	11,636,000
EXIT 19 TO END PROJECT NB	6,700	8,200	920	1,400	5,724,000	15,945,000
EXIT 19 TO END PROJECT SB	6,700	8,200	730	890	5,082,000	14,304,000

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.

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED: *[Signature]* DATE: 7/17/10

PROJECT MANAGER: MIKE FOWLER

PROJECT NAME: GEORGIA - ST. ALBANS
PROJECT NUMBER: IM SURF (2)

SHEET 1 OF 16 SHEETS

NOTES:

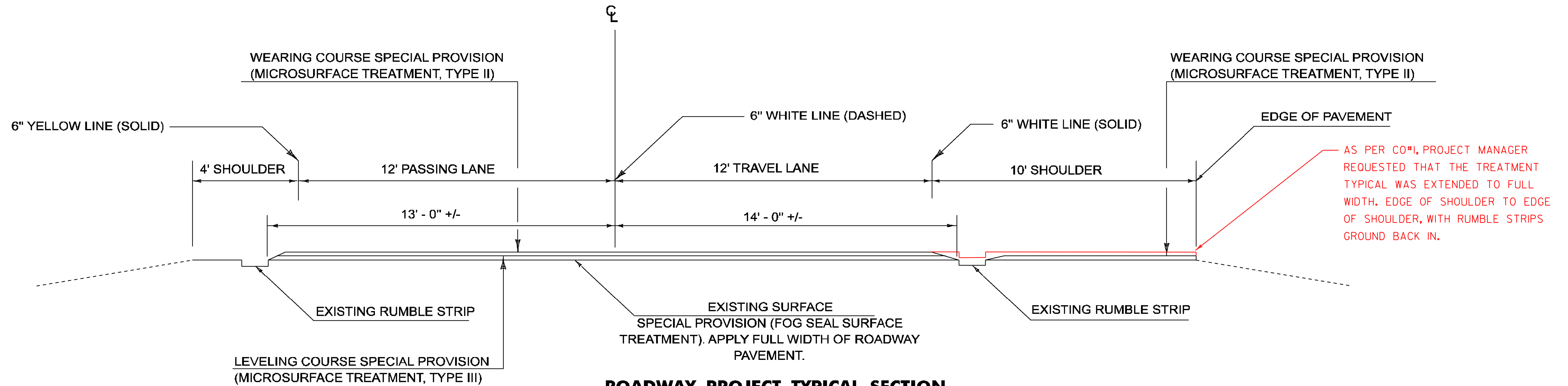
1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POTHOLE REPAIR, AND CRACK-SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF THE FOG SEAL SURFACE TREATMENT. ALL CRACKS GREATER THAN 0.10 INCH AND UP TO 1.0 INCH IN WIDTH SHALL BE SEALED USING THE "BLOW AND GO" METHOD. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE PAID FOR UNDER ITEM 417.20, BITUMINOUS CRACK SEALING, BLOW AND GO METHOD (AASHTO M 324(ASTM D 6690) TYPE II). THE PATCHING OF ALL CRACKS GREATER THAN 1.0 INCH 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. ALL BRIDGE DECKS WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK-SEALING AND RELATED SURFACE PREPARATION PRIOR TO APPLYING THE FOG SEAL SURFACE TREATMENT.
2. EXISTING SHOULDER PAVEMENT SURFACES BEYOND THE LIMITS OF THE MICROSURFACE TREATMENT SHALL ALSO RECEIVE CRACK-SEALING AND RELATED PATCHING AND POTHOLE REPAIR TREATMENTS.
3. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO ANY CRACK SEALING BEING PERFORMED AND PRIOR TO APPLYING THE FOG SEAL SURFACE TREATMENT. ALL LANE DELINEATION IS TO BE MAINTAINED DURING CONSTRUCTION BY THE USE OF LINE STRIPING TARGETS OR TEMPORARY PAINT.
4. FOG SEAL SHALL BE APPLIED AT THE RATE OF 0.15 GAL./S.Y. (+/- 0.05 GAL./S.Y.).
5. FOG SEAL SHALL BE APPLIED PRIOR TO MICROSURFACING APPLICATION WITH THE EXPECTATION THAT THE FIRST MICROSURFACE COURSE WILL BE APPLIED WITHIN 24 TO 48 HOURS OF FOG SEAL APPLICATION OR AS DIRECTED BY THE ENGINEER.
6. FOG SEAL MUST BE ALLOWED TO CURE COMPLETELY BEFORE APPLICATION OF MICROSURFACING TREATMENT, OR AS DIRECTED BY THE ENGINEER.
7. THE MAINLINE LEVELING COURSE SHALL BE SPECIAL PROVISION (MICROSURFACE TREATMENT, TYPE III) AND SHALL BE APPLIED FROM RUMBLE STRIP TO RUMBLE STRIP AS SHOWN ON THE PROJECT TYPICAL SECTION. AN ESTIMATED APPLICATION RATE FOR THIS AREA OF 20 LB/SY HAS BEEN USED FOR THE PURPOSES OF QUANTITY CALCULATION. FOLLOWING COMPLETION OF THIS APPLICATION FOR THE FULL LENGTH OF THE LANES IN ONE DIRECTION (BEGIN PROJECT TO END PROJECT), VTRANS WILL CONDUCT AUTOMATED SURVEYS TO MEASURE THE SURFACE CROSS - SECTION, NOT LESS THAN 7 DAYS AND NOT MORE THAN 14 DAYS FOLLOWING PLACEMENT OF THE LAST DAY'S PRODUCTION. RUT DEPTHS WILL BE REPORTED AT 0.10 MILE INCREMENTS AND ANY SECTIONS REPORTED WITH RUT DEPTHS 0.10 INCHES OR GREATER WILL REQUIRE ADDITIONAL LEVELING SUCH THAT RETESTING AFTER ANOTHER 7 TO 14 DAY CURING PERIOD REVEALS THE AVERAGE RUT DEPTH OVER THAT SECTION RESULTS IN LESS THAN 0.10 INCHES. ANY MATERIAL REQUIRED FOR ADDITIONAL AND SUBSEQUENT LEVELING TO THE FIRST COURSE WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED INCIDENTAL TO THE FIRST PASS LEVELING COURSE. PLACEMENT OF THE WEARING COURSE SHALL NOT PROCEED UNTIL THE FULL LENGTH (BEGIN PROJECT TO END PROJECT) OF THE SURVEYED AREA HAS NO 0.10 MILE SECTION WITH RUT DEPTHS AVERAGING 0.10 INCHES OR GREATER, OR AS DIRECTED BY THE ENGINEER. RAMP PAVING WILL BE EXEMPT FROM THIS REQUIREMENT.
8. THE MAINLINE WEARING COURSE SHALL BE SPECIAL PROVISION (MICROSURFACE TREATMENT, TYPE II) AND SHALL BE APPLIED FROM RUMBLE STRIP TO RUMBLE STRIP AND ON THE 10 FOOT SHOULDER FROM THE EDGE OF PAVEMENT TO THE EDGE OF RUMBLE STRIP AS SHOWN ON THE PROJECT TYPICAL SECTION. AN ESTIMATED APPLICATION RATE FOR THIS AREA OF 16 LB/SY HAS BEEN USED FOR THE PURPOSES OF QUANTITY CALCULATION.
9. PRIOR TO THE APPLICATION OF FOG SEAL AND MICROSURFACE TREATMENT AND AFTER INITIAL SURFACE PREPARATION AS DESCRIBED IN NOTE 1 ABOVE, THE RESIDENT ENGINEER AND THE CONTRACTOR ARE TO INSPECT THE ROADWAY SURFACE FOR THE PRESENCE OF ROAD KILLED ANIMAL CARCASSES, AND OTHER DELETERIOUS MATERIALS. ANY IDENTIFIED AREAS ARE TO BE REMOVED AND CLEANED WITH A MIXTURE OF WATER AND BLEACH IN A 10% SOLUTION ALONG WITH LIQUID DETERGENT. PAYMENT IS INCIDENTAL TO ITEMS 900.680 SPECIAL PROVISION (MICROSURFACE TREATMENT, TYPE II) AND 900.683 SPECIAL PROVISION (FOG SEAL SURFACE TREATMENT).
10. 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.
11. NO COLD PLANING IS NEEDED. ALL MICROSURFACING SHALL BE FEATHERED AS DIRECTED BY THE RESIDENT ENGINEER AT THE BEGINNING/END OF PROJECT LIMITS, EDGE OF TREATMENT AT RUMBLE STRIPS, THE END OF INTERCHANGE RAMP AND AT ALL U-TURNS.
12. THERE ARE R.W.I.S. SENSORS IN THE PAVEMENT AT M.M. III.00 NORTHBOUND AND SOUTHBOUND THAT MAY BE IMPACTED BY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL CONTACT MARK GERRISH, FIBER OPTIC PROJECT MANAGER, VTRANS OPERATIONS DIVISION AT 802-828-2834 48 HOURS PRIOR TO ANY WORK IN THIS AREA SO THAT MARK, OR HIS REPRESENTATIVE CAN REMOVE THESE SENSORS. INSTALLATION OF NEW SENSORS WILL BE PERFORMED BY OTHERS FOLLOWING COMPLETION OF THE PROJECT.

**MICROSURFACE
TREATMENT, TYPE II
& III NOTES**

PROJECT NAME: GEORGIA - ST. ALBANS
PROJECT NUMBER: IM SURF (21)

FILE NAME: I0a092\pi0a092.dgn
PROJECT LEADER: M. FOWLER
DESIGNED BY: LOCKE
IPARM FILE NAME: pi0a092note.i

PLOT DATE: 27-JUL-2010
DRAWN BY: LOCKE
CHECKED BY: PVMT MGMT
SHEET 2 OF 16



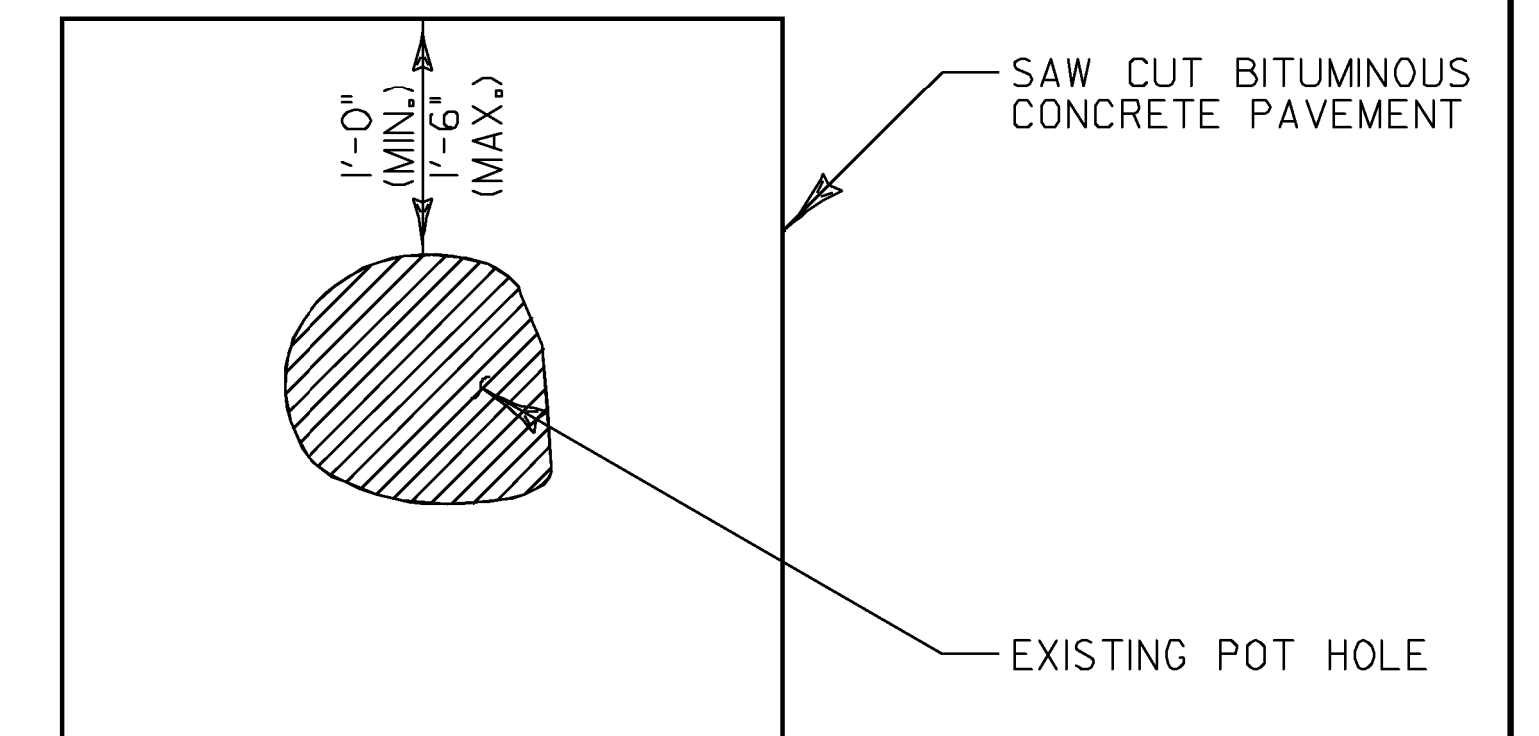
ROADWAY PROJECT TYPICAL SECTION

I - 89 NORTHBOUND - M.M. 106.900 - M.M. 114.100
I - 89 SOUTHBOUND - M.M. 106.900 - M.M. 114.100

NOT TO SCALE

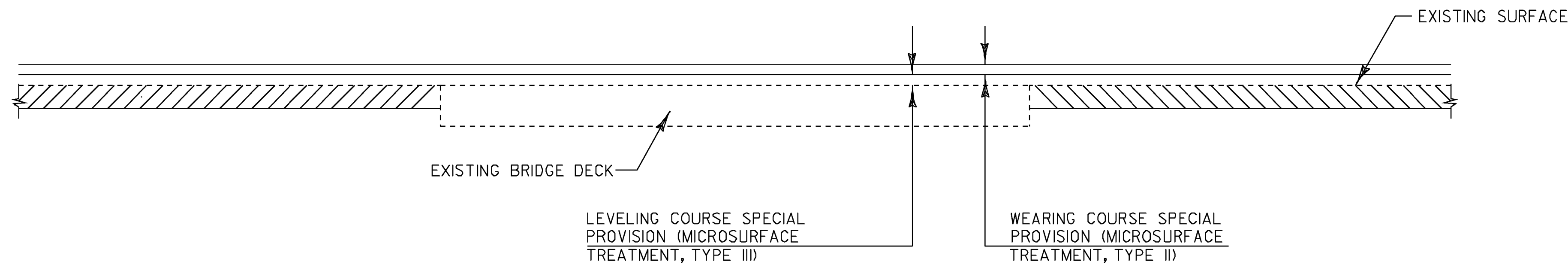
BRIDGES WITHIN THE PROJECT ARE:

- BRIDGE NUMBER 86N MM 107.461 (NO WORK REQUIRED)
- BRIDGE NUMBER 86S MM 107.461 (MICROSURFACE TREATMENT, TYPE III, LEVELING COURSE & MICROSURFACE TREATMENT, TYPE II, WEARING COURSE, REPLACE PLUG JOINTS)
- BRIDGE NUMBER 87N MM 111.351 (MICROSURFACE TREATMENT, TYPE III, LEVELING COURSE & MICROSURFACE TREATMENT, TYPE II, WEARING COURSE, REPLACE PLUG JOINTS)
- BRIDGE NUMBER 87S MM 111.351 (MICROSURFACE TREATMENT, TYPE III, LEVELING COURSE & MICROSURFACE TREATMENT, TYPE II, WEARING COURSE, REPLACE PLUG JOINTS)
- BRIDGE NUMBER 88N MM 113.747 (MICROSURFACE TREATMENT, TYPE III, LEVELING COURSE & MICROSURFACE TREATMENT, TYPE II, WEARING COURSE, REPLACE PLUG JOINTS)
- BRIDGE NUMBER 88S MM 113.747 (MICROSURFACE TREATMENT, TYPE III, LEVELING COURSE & MICROSURFACE TREATMENT, TYPE II, WEARING COURSE, REPLACE PLUG JOINTS)



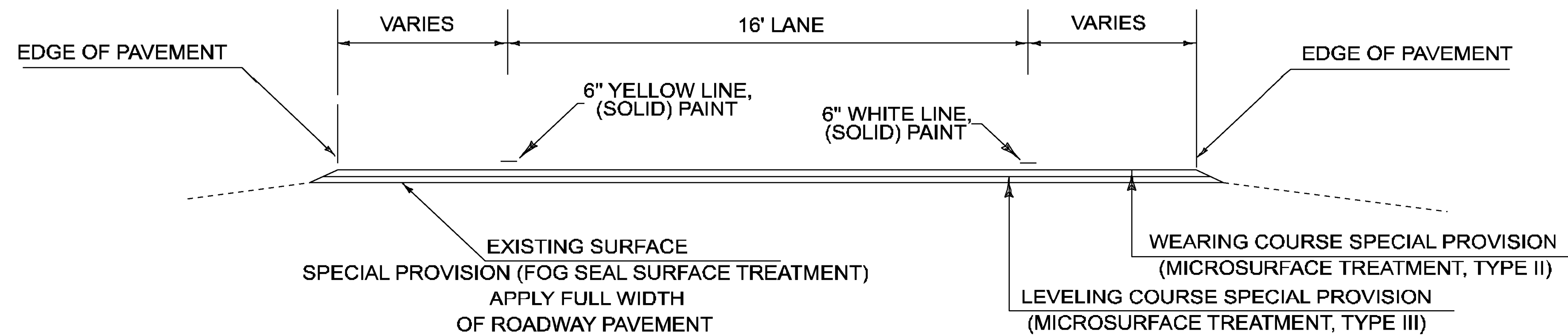
TYPICAL - POT HOLE REPAIR

NOT TO SCALE



BRIDGE OVERLAY DETAIL

NOT TO SCALE



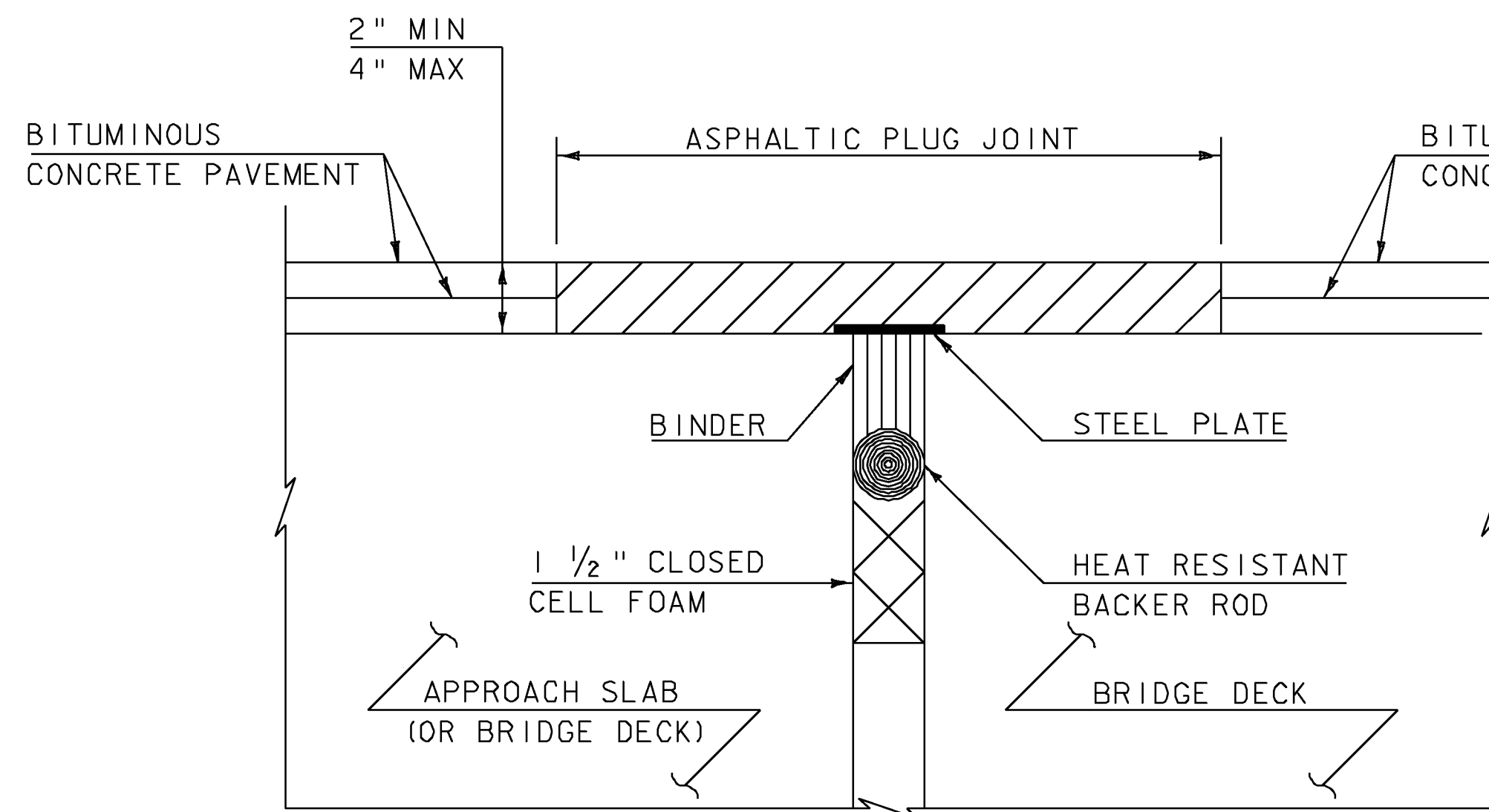
RAMP TYPICAL SECTION

NOT TO SCALE

**TYPICAL SECTION -
MICROSURFACE
TREATMENT,
TYPE II & III**

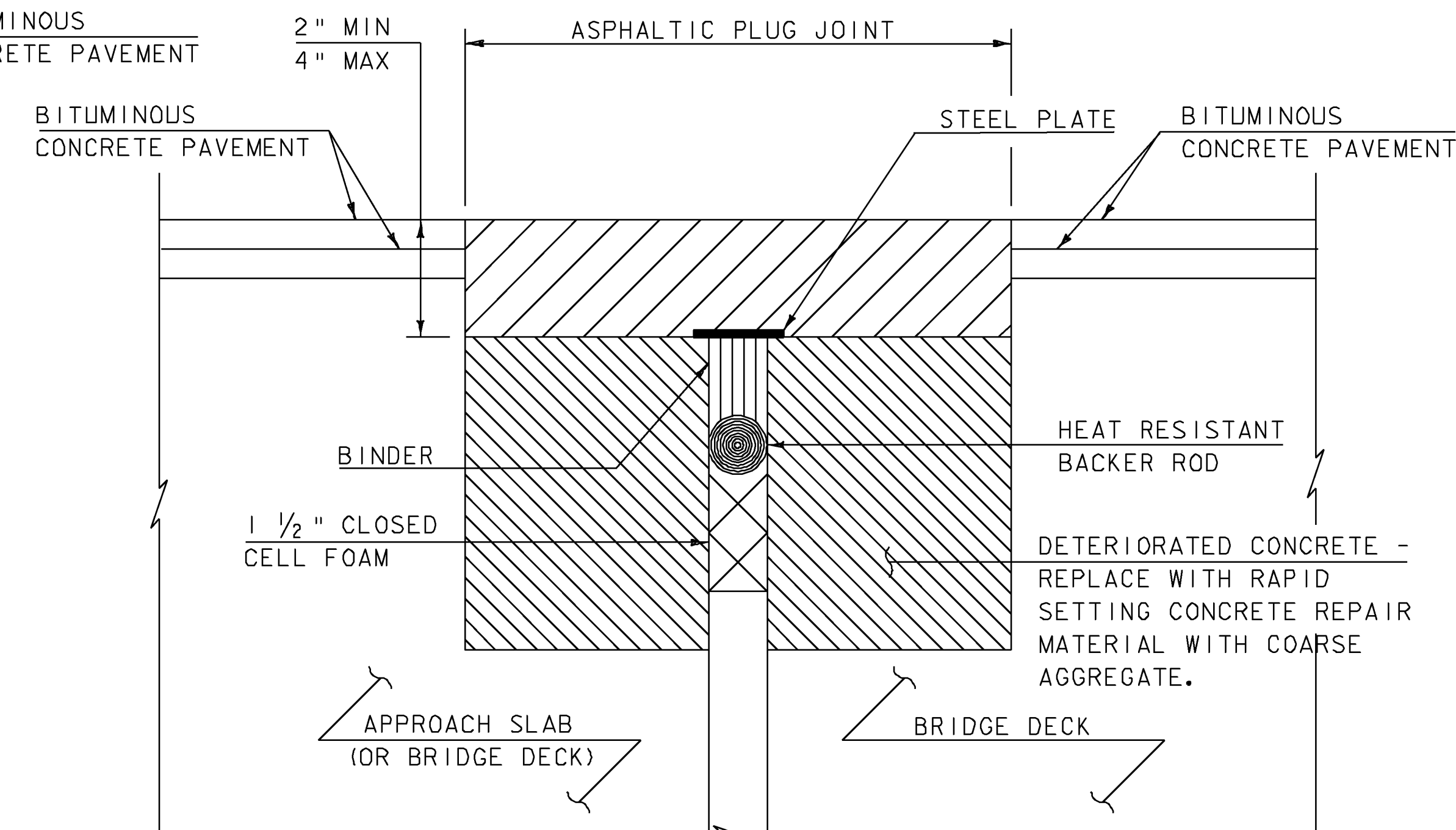
PROJECT NAME: GEORGIA - ST. ALBANS	
PROJECT NUMBER: IM SURF (2I)	
FILE NAME: I0a092\pi0a092.dgn	PLOT DATE: 27-JUL-2010
PROJECT LEADER: M. FOWLER	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PVMT MGMT
IPARM FILE NAME: pi0a092+yp.i	SHEET 3 OF 16

AS PER CO#1, PROJECT MANAGER REQUESTED THAT THE TREATMENT TYPICAL WAS EXTENDED TO FULL WIDTH. EDGE OF SHOULDER TO EDGE OF SHOULDER, WITH RUMBLE STRIPS GROUND BACK IN.



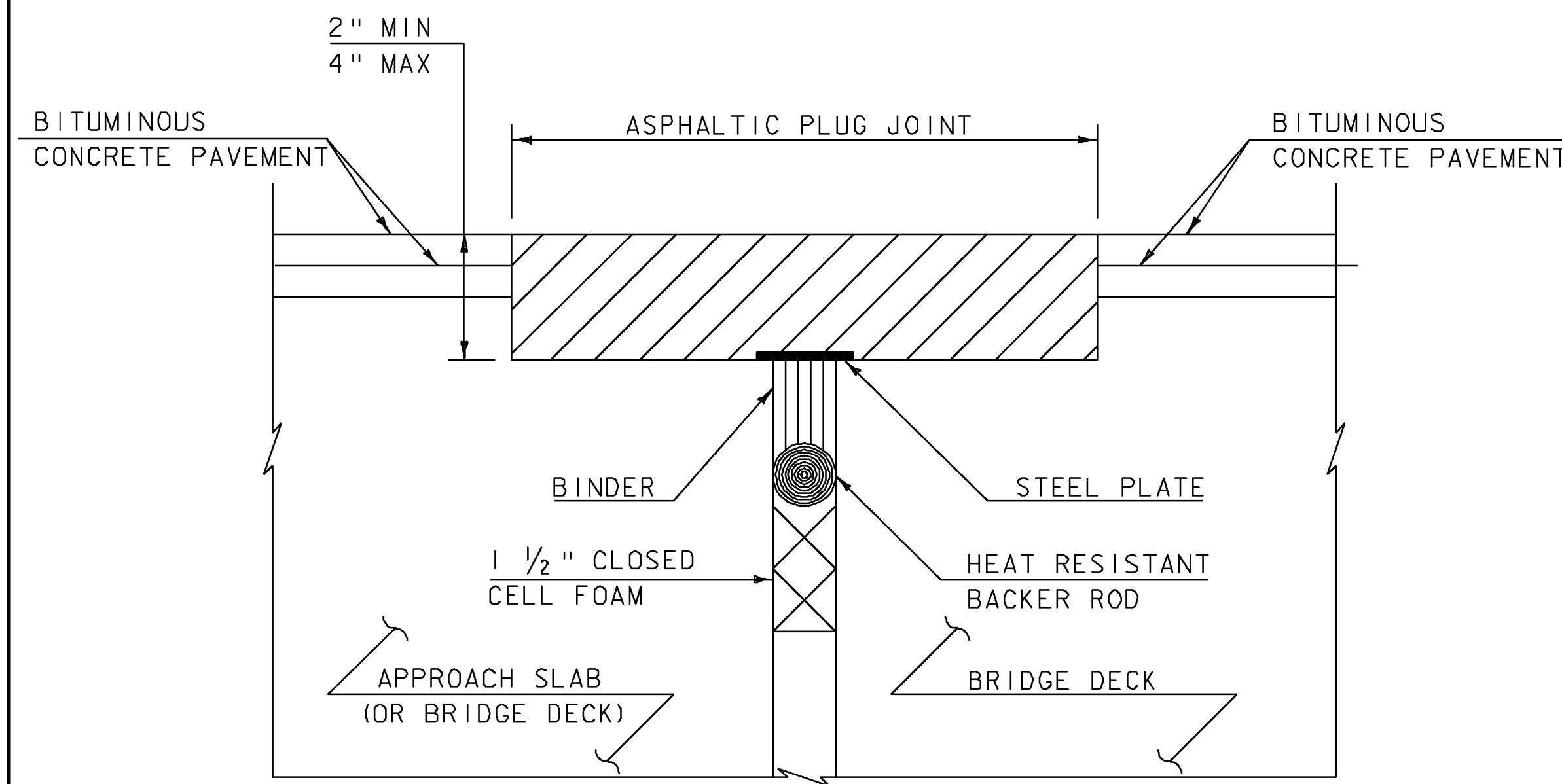
ASPHALTIC PLUG-TYPE JOINT DETAIL

(NOT TO SCALE)



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

(NOT TO SCALE)



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

(NOT TO SCALE)

NOTES:

1. UPON ENCOUNTERING UP TO 2" AVERAGE OF DETERIORATED CONCRETE, THE CONTRACTOR SHALL REMOVE THE DETERIORATED MATERIAL AND REPLACE IT WITH THE ASPHALTIC PLUG JOINT MATERIAL AS DIRECTED BY THE RESIDENT ENGINEER.
2. REMOVAL OF THE DETERIORATED CONCRETE WILL NOT BE PAID SEPARATELY BUT WILL BE CONSIDERED INCIDENTAL TO THE UNIT BID PRICE FOR 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.

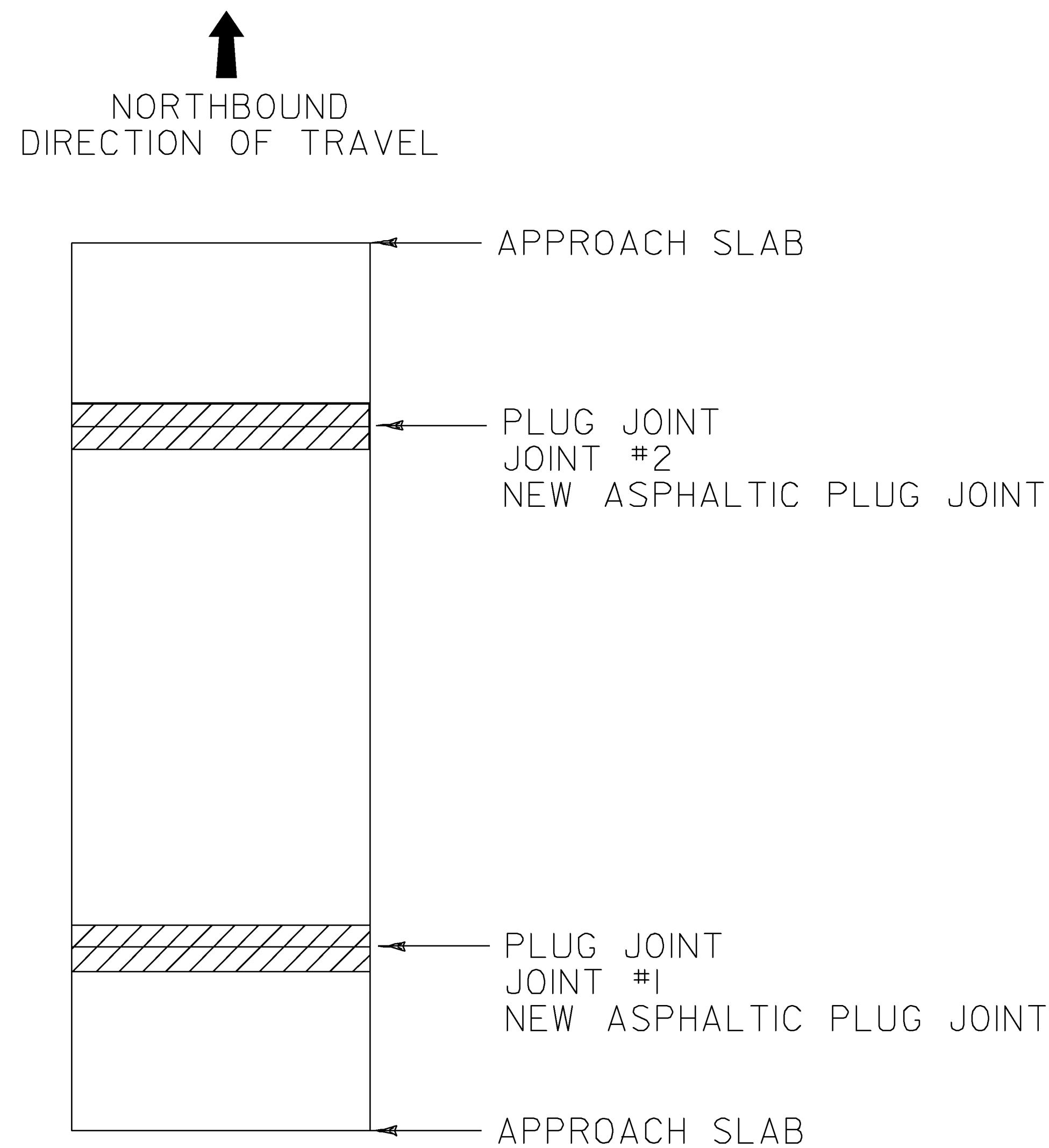
NOT TO SCALE

ASPHALTIC PLUG JOINT NOTES

I. INSTALLATION

- A. LOCATE THE JOINT CENTRALLY OVER THE DECK OVERLAY EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.
 - B. 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.
 - C. BLAST CLEAN THE JOINT AREA OF DEBRIS, ASPHALT AND SHEET MEMBRANE. THOROUGHLY DRY THE JOINT AREA WITH COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.
 - D. REPAIR SPALLED AND DEFECTIVE CONCRETE WITH AN APPROVED MATERIAL AS AGREED UPON BY THE ENGINEER.
 - E. PLACE PROPERLY SIZED HEAT RESISTANT BACKER ROD IN THE MOVEMENT GAP ALLOWING FOR 1" +/- OF BINDER ABOVE THE ROD.
 - F. HEAT AND PLACE THE BINDER MATERIAL AS RECOMMENDED BY THE MANUFACTURER.
 - G. 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.
 - H. HEAT AND MIX THE BINDER MATERIAL AND AGGREGATE AS RECOMMENDED BY THE MANUFACTURER.
 - I. INSTALLATION OF MATERIAL, COMPACTION, AND TOP COATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.
 - J. IMMEDIATELY AFTER TOP COATING, CAST AN ANTI-SKID MATERIAL OVER THE JOINT TO REDUCE THE RISK OF TRACKING.
 - K. ONCE THE JOINT REACHES 82 DEG C (180 DEG F) +/-, WATER MAYBE USED TO EXPEDITE THE COOLING PROCESS.
 - L. PROTECT 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):
- A. THE AMBIENT AIR TEMPERATURE IS AT LEAST 10 DEG C (50 DEG F) AND RISING.
 - B. THE ROAD SURFACE IS DRY.
 - C. WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF SATISFACTORY WORK.

ASPHALTIC PLUG JOINT DETAIL SHEET	PROJECT NAME: GEORGIA - ST. ALBANS	
	PROJECT NUMBER: IM SURF(21)	
FILE NAME: p10a092.dgn	PROJECT LEADER: M. FOWLER	PLOT DATE: 27-JUL-2010
DESIGNED BY: KML	CHECKED BY: KML	DRAWN BY: KML
PLOT FILE: p10a092apjd.i		SHEET 5 OF 16

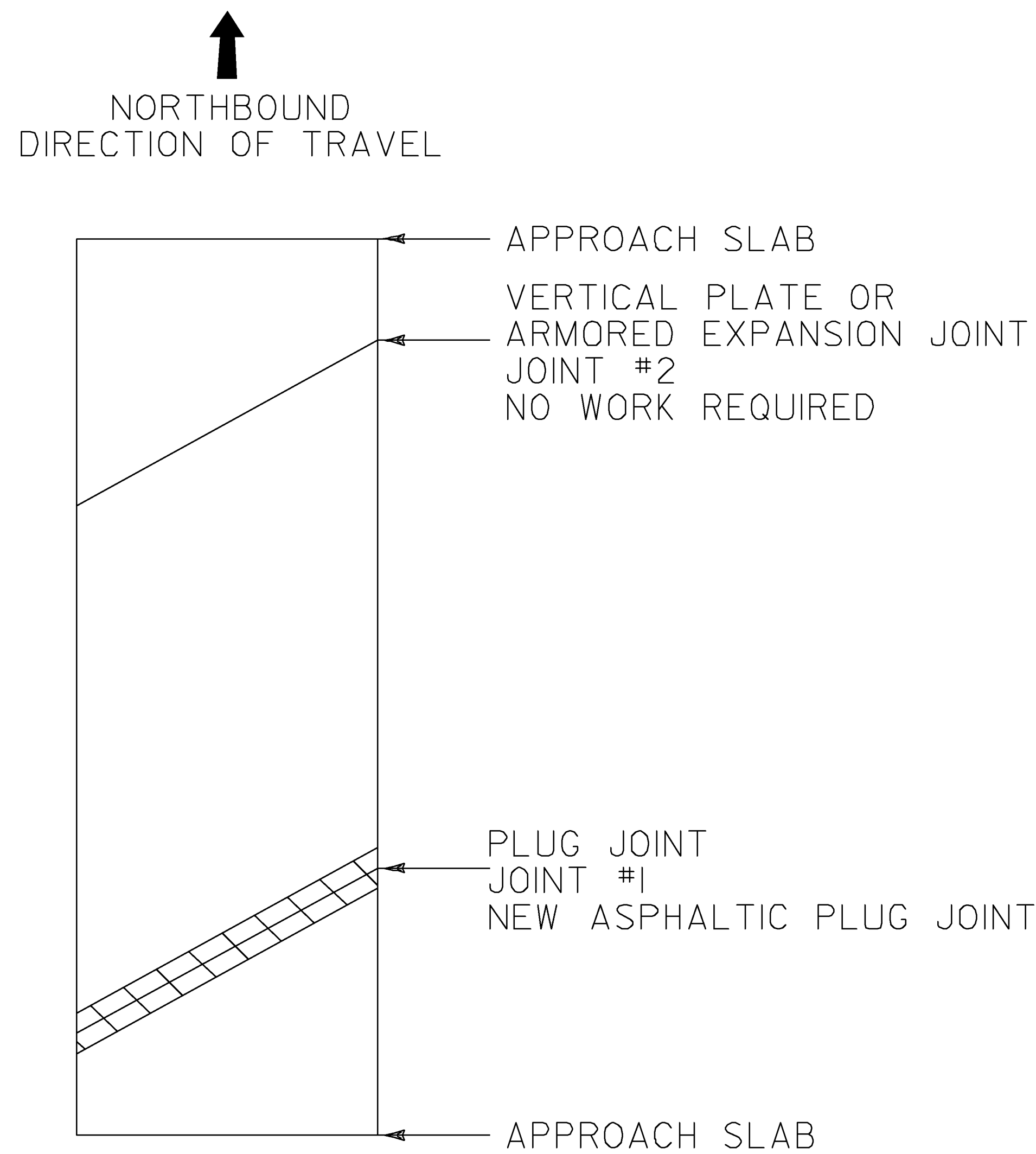


BRIDGE 87N

MM III.351

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 38'
JOINT #2 - 38'

TOTAL = 76'

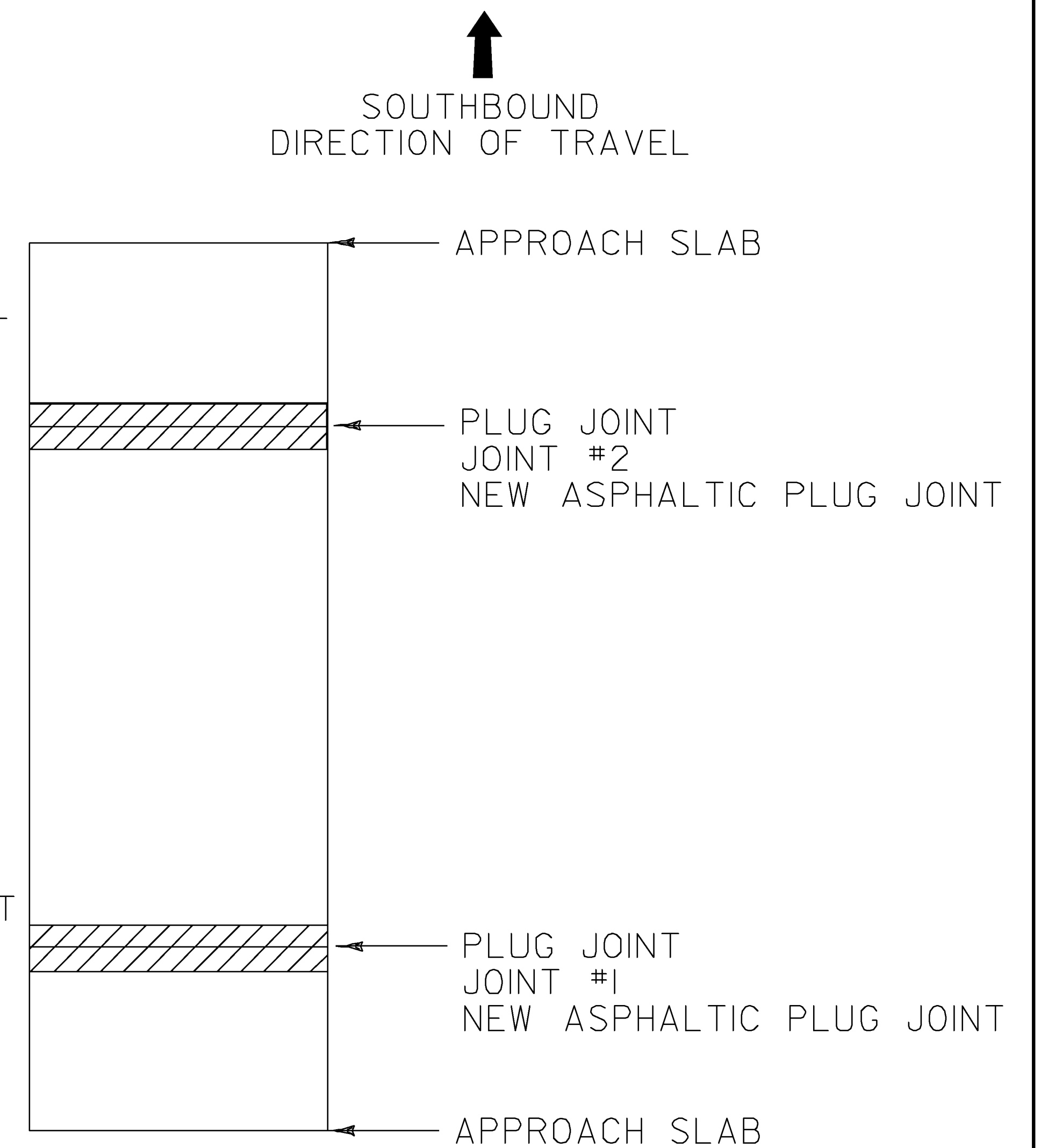


BRIDGE 88N

MM II3.747

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 = 48'

TOTAL = 48'



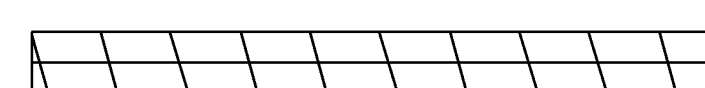
BRIDGE 87S

MM III.351

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 38'
JOINT #2 - 38'

TOTAL = 76'

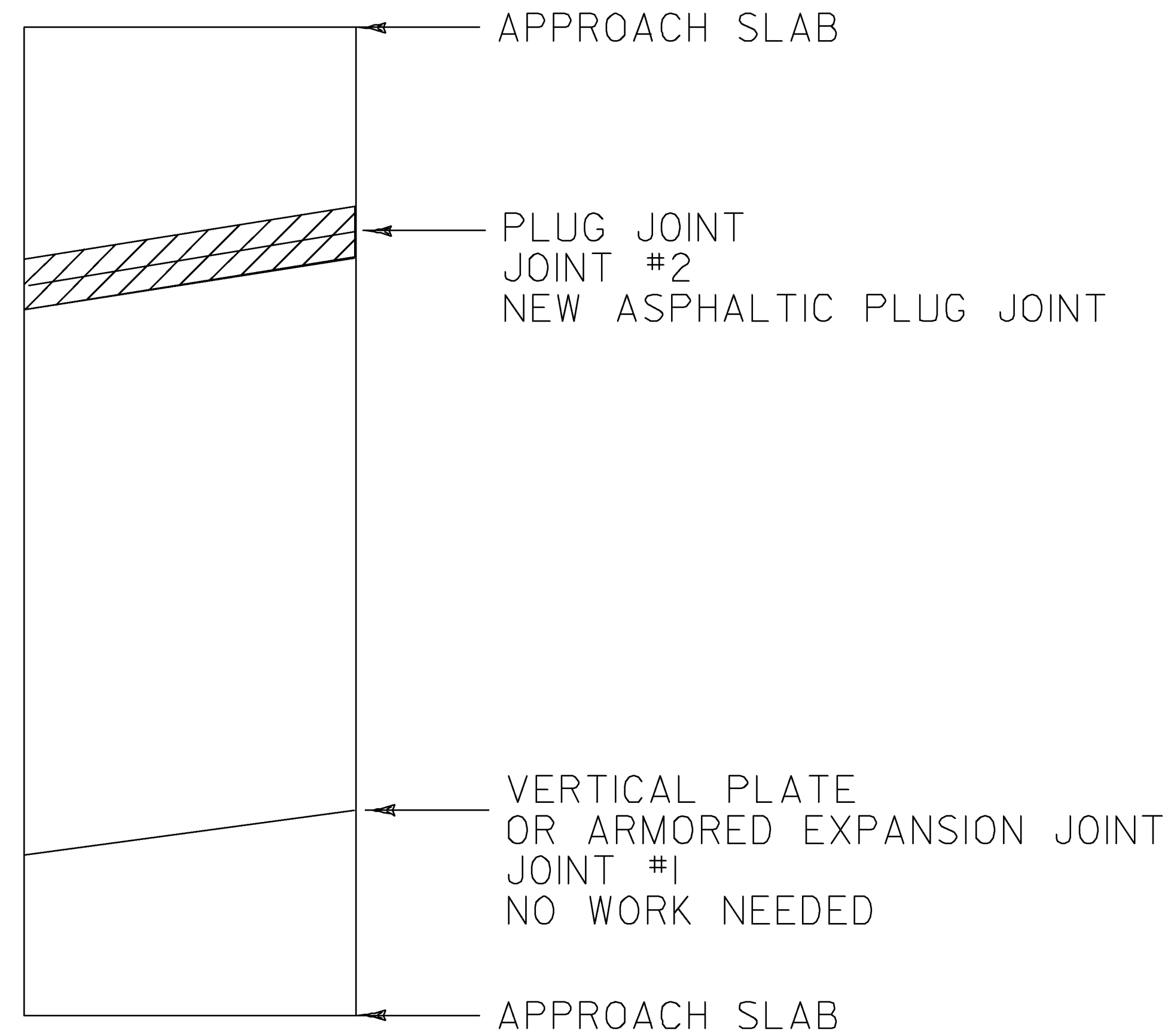
LEGEND



EXISTING BRIDGE JOINTS TO BE
REPAIRED WITH ASPHALTIC PLUG JOINT

BRIDGE DETAIL SHEET # 1	PROJECT NAME: GEORGIA - ST. ALBANS
	PROJECT NUMBER: IM SURF (21)
FILE NAME: pi0a092.dgn	PLOT DATE: 27-JUL-2010
PROJECT LEADER: M. FOWLER	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT
IPARM FILE NAME: pi0a092bds1.1	SHEET 6 OF 16

↑
SOUTHBOUND
DIRECTION OF TRAVEL



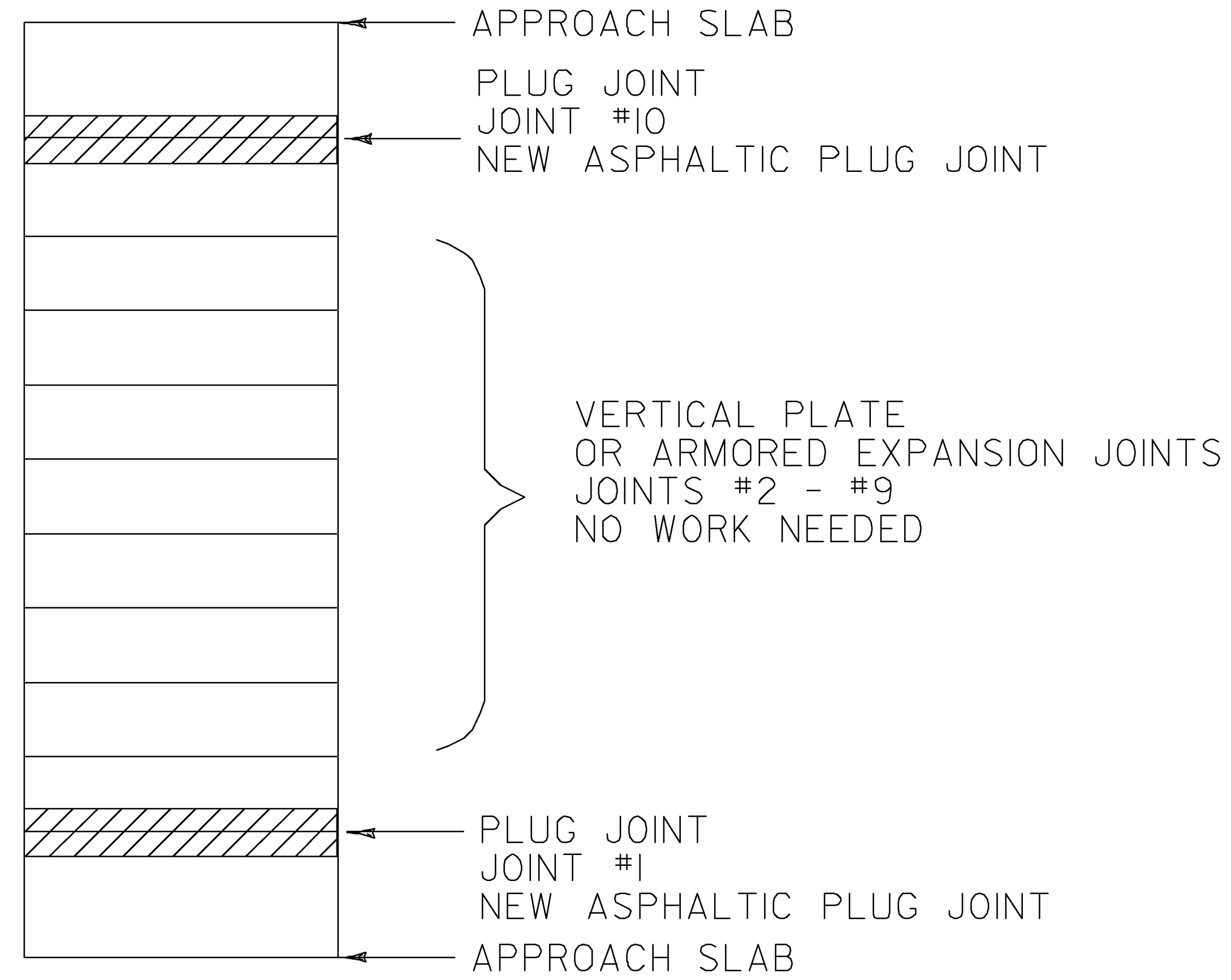
BRIDGE 88S

MM 113.747

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

TOTAL = 40'

↑
SOUTHBOUND
DIRECTION OF TRAVEL



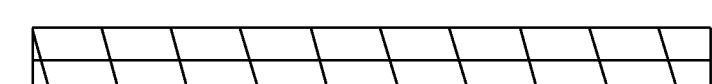
BRIDGE 86S

MM 107.461

LENGTH OF ASPHALTIC PLUG JOINTS:
JOINT #1 - 32'
JOINT #10 - 32'

TOTAL = 64'

LEGEND



EXISTING BRIDGE JOINTS TO BE
REPAIRED WITH ASPHALTIC PLUG JOINT

**BRIDGE
DETAIL SHEET
2**

PROJECT NAME:	GEORGIA - ST. ALBANS
PROJECT NUMBER:	IM SURF (2I)
FILE NAME: pi0a092.dgn	PLOT DATE: 27-JUL-2010
PROJECT LEADER: M. FOWLER	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT
IPARM FILE NAME: pi0a092bds2.i	SHEET 7 OF 16

**INTERSTATE ROUTE 89 NB
(MM 106.900)
BEGIN PROJECT
IM SURF (21)**

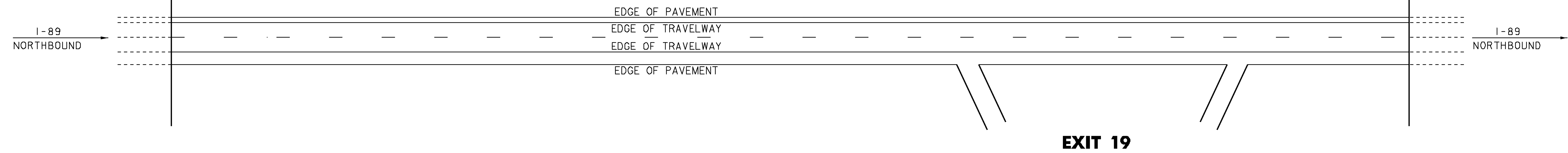
**INTERSTATE ROUTE 89 NB
(MM 114.100)
END PROJECT
IM SURF (21)**

646.622 TEMPORARY 6" WHITE LINE, PAINT
M. M. 106.900 - M. M. 114.100 NB (SOLID RT)
M. M. 106.900 - M. M. 114.100 NB (DASH)

646.632 TEMPORARY 6" YELLOW LINE, PAINT
M. M. 106.900 - M. M. 114.100 NB (SOLID LT)

646.214 6 INCH WHITE LINE
M. M. 106.900 - M. M. 114.100 NB (SOLID RT)
M. M. 106.900 - M. M. 114.100 NB (DASH)

646.215 6 INCH YELLOW LINE
M. M. 106.900 - M. M. 114.100 NB (SOLID LT)



**INTERSTATE ROUTE 89 SB
(MM 106.900)
BEGIN PROJECT
IM SURF (21)**

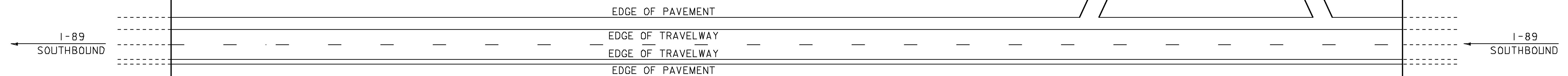
**INTERSTATE ROUTE 89 SB
(MM 114.100)
END PROJECT
IM SURF (21)**

646.622 TEMPORARY 6" WHITE LINE, PAINT
M. M. 106.900 - M. M. 114.100 SB (SOLID LT)
M. M. 106.900 - M. M. 114.100 SB (DASH)

646.632 TEMPORARY 6" YELLOW LINE, PAINT
M. M. 106.900 - M. M. 114.100 SB (SOLID RT)

646.214 6" WHITE LINE
M. M. 106.900 - M. M. 114.100 SB (SOLID LT)
M. M. 106.900 - M. M. 114.100 SB (DASH)

646.215 6" YELLOW LINE
M. M. 106.900 - M. M. 114.100 SB (SOLID RT)

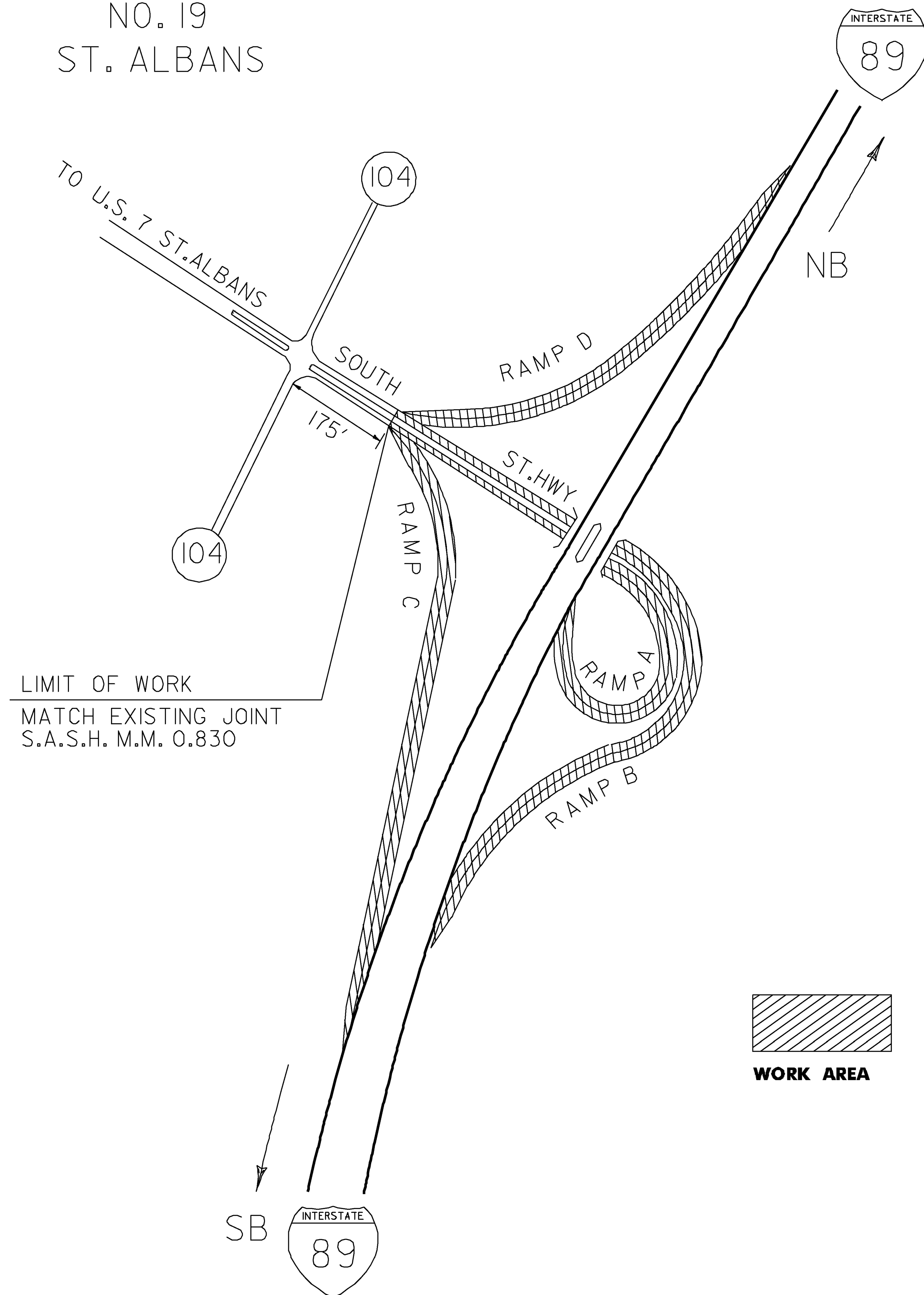


NOTES:

1. TWO (2) APPLICATIONS OF FINAL PAVEMENT MARKINGS WILL BE REQUIRED. THE FIRST APPLICATION WILL BE IMMEDIATELY FOLLOWING PLACEMENT OF THE SURFACE TREATMENT. THE SECOND AND FINAL APPLICATION WILL BE APPLIED NO SOONER THAN 14 CALENDER DAYS AFTER THE FIRST APPLICATION, AND NO LATER THAN OCT. 14, 2011.

PAVEMENT MARKING DETAIL SHEET MAINLINE	PROJECT NAME: GEORGIA - ST. ALBANS	PLOT DATE: 27-JUL-2010
	PROJECT NUMBER: IM SURF (21)	DRAWN BY: LOCKE
	FILE NAME: p10a092.dgn	CHECKED BY: PAVT MGMT
	PROJECT LEADER: M. FOWLER	SHEET 8 OF 16
	DESIGNED BY: LOCKE	
	IPARM FILE NAME: p10a092pmdl1	

ST. ALBANS SOUTH INTERCHANGE
NO. 19
ST. ALBANS



NOTES:

1. TWO (2) APPLICATIONS OF FINAL PAVEMENT MARKINGS WILL BE REQUIRED. THE FIRST APPLICATION WILL BE IMMEDIATELY FOLLOWING PLACEMENT OF THE SURFACE TREATMENT. THE SECOND AND FINAL APPLICATION WILL BE APPLIED NO SOONER THAN 14 CALENDER DAYS AFTER THE FIRST APPLICATION, AND NO LATER THAN OCT. 14, 2011.

646.214 6 INCH WHITE LINE

RAMP A SOLID RT (1204') EDGE LINE
RAMP B SOLID RT (1627') EDGE LINE
RAMP C SOLID RT (2328') EDGE LINE
RAMP D SOLID RT (1725') EDGE LINE
RAMP A DOTTED (265')
RAMP B DOTTED (115')
RAMP C DOTTED (130')
RAMP D DOTTED (125')

646.622 TEMPORARY 6 INCH WHITE LINE, PAINT

RAMP A SOLID RT (1204') EDGE LINE
RAMP B SOLID RT (1627') EDGE LINE
RAMP C SOLID RT (2328') EDGE LINE
RAMP D SOLID RT (1725') EDGE LINE
RAMP A DOTTED (265')
RAMP B DOTTED (115')
RAMP C DOTTED (130')
RAMP D DOTTED (125')

646.215 6 INCH YELLOW LINE

RAMP A SOLID LT (1204') EDGE LINE
RAMP B SOLID LT (1627') EDGE LINE
RAMP C SOLID LT (2328') EDGE LINE
RAMP D SOLID LT (1725') EDGE LINE

646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT

RAMP A SOLID LT (1204') EDGE LINE
RAMP B SOLID LT (1627') EDGE LINE
RAMP C SOLID LT (2328') EDGE LINE
RAMP D SOLID LT (1725') EDGE LINE

646.24 12 INCH WHITE LINE

RAMP A GORE AREA (200')
RAMP B GORE AREA (150')
RAMP C GORE AREA (900')
RAMP D GORE AREA (200')

646.662 TEMPORARY 12 INCH WHITE LINE, PAINT

RAMP A GORE AREA (200')
RAMP B GORE AREA (150')
RAMP C GORE AREA (900')
RAMP D GORE AREA (200')

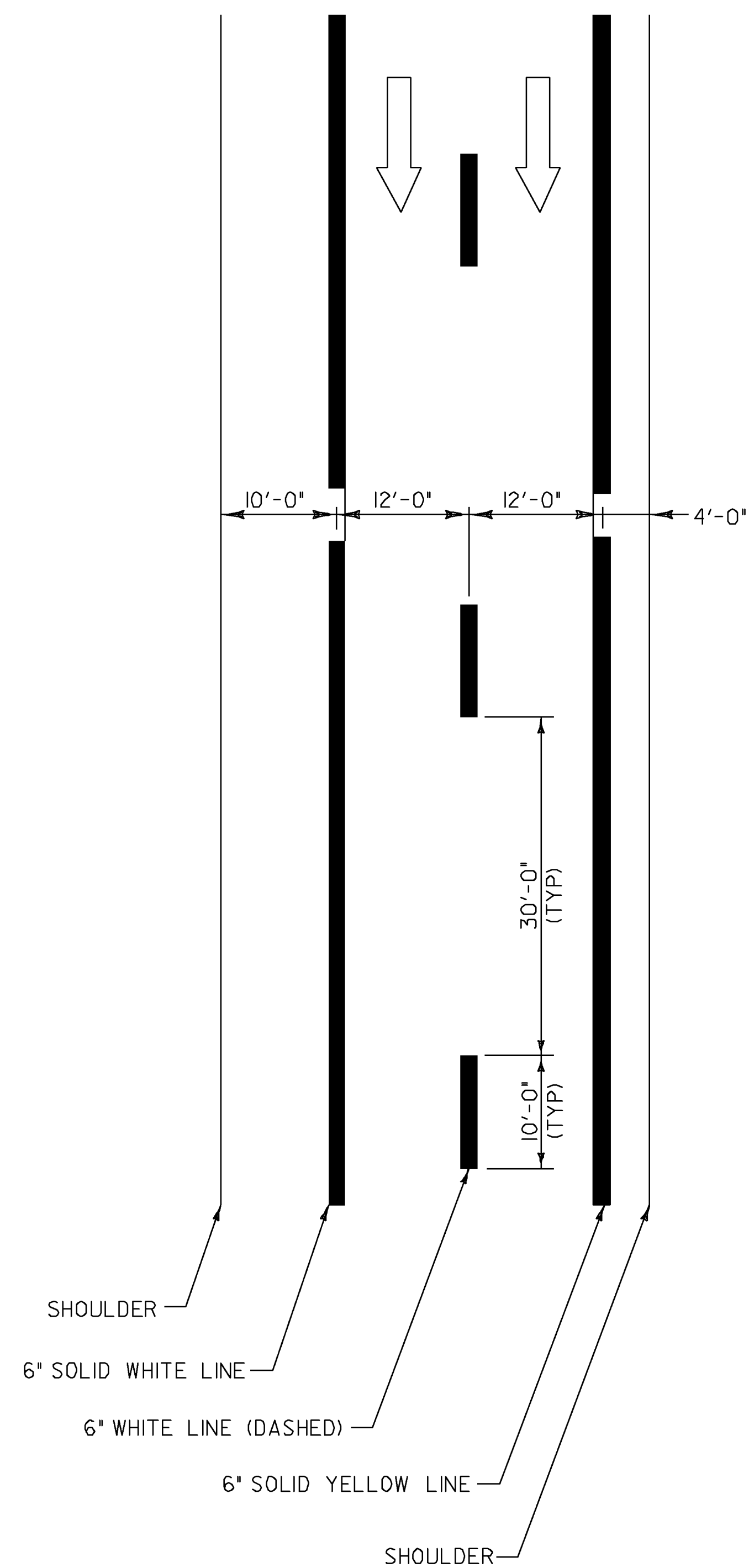
646.30 LETTER OR SYMBOL

RAMP B "SIGNAL AHEAD" (22 EACH)
RAMP D YIELD TRIANGLES (10 EACH)
RAMP D "YIELD AHEAD" (20 EACH)
RAMP B → (2 EACH)
RAMP D → (2 EACH)

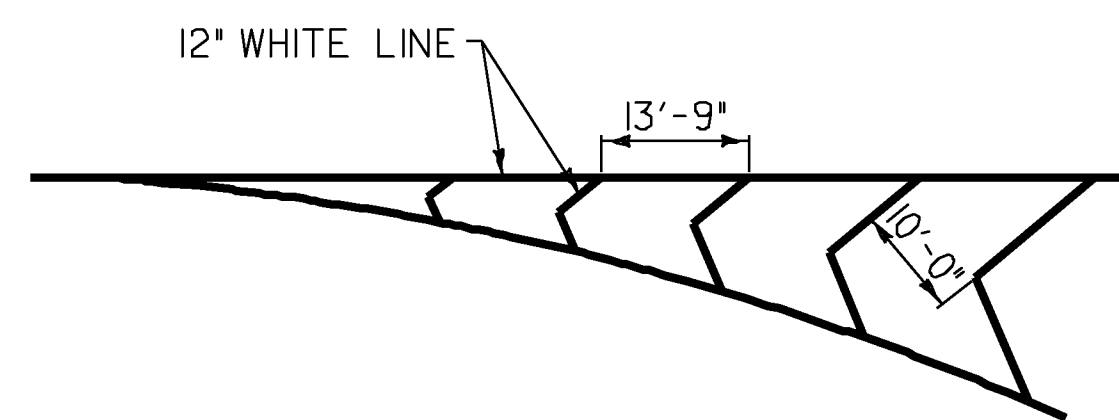
646.692 TEMPORARY LETTER OR SYMBOL, PAINT

RAMP B "SIGNAL AHEAD" (22 EACH)
RAMP D YIELD TRIANGLES (10 EACH)
RAMP D "YIELD AHEAD" (20 EACH)
RAMP B → (2 EACH)
RAMP D → (2 EACH)

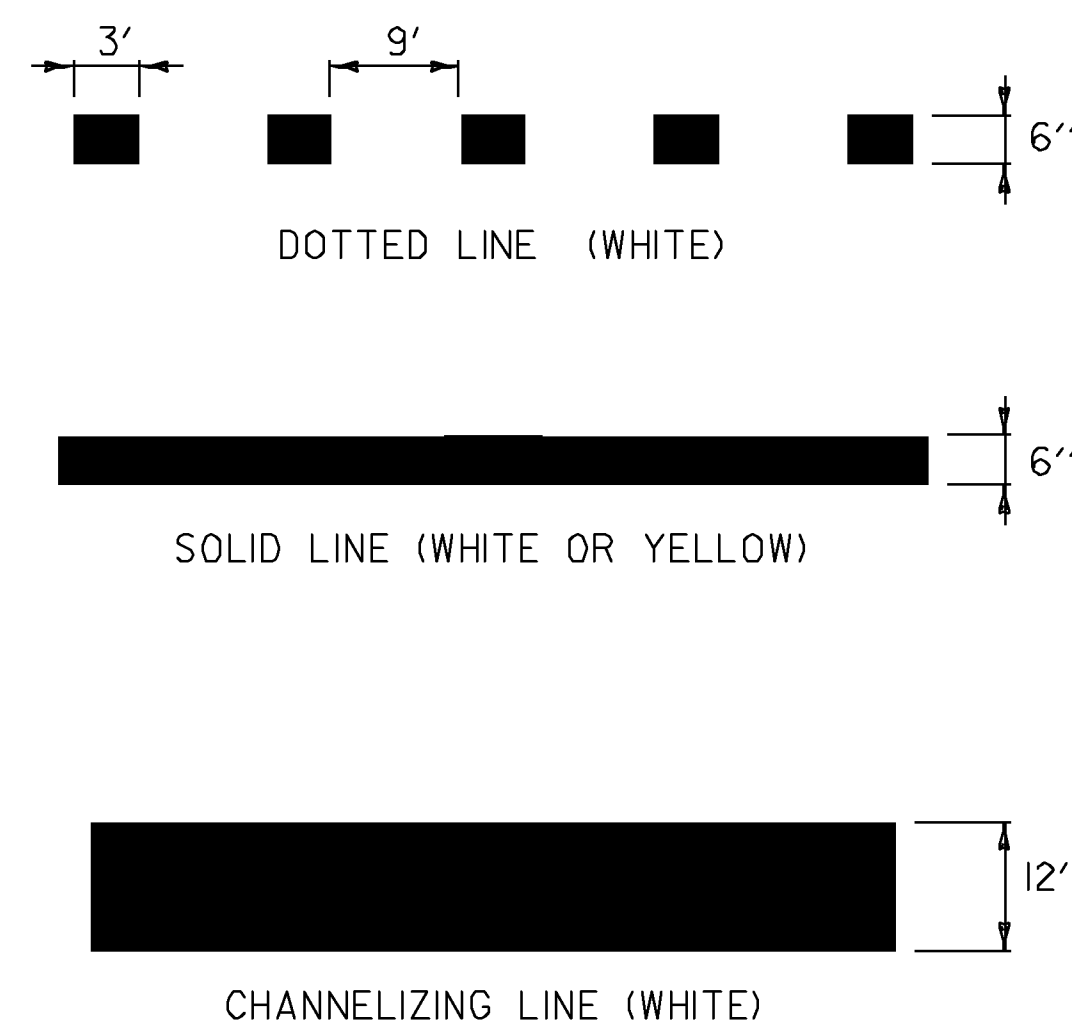
PAVEMENT MARKING DETAIL SHEET EXIT 19	PROJECT NAME: GEORGIA - ST. ALBANS
	PROJECT NUMBER: IM SURF (21)
	FILE NAME: p10a092.dgn
PROJECT LEADER: M. FOWLER	PLOT DATE: 27-JUL-2010
DESIGNED BY: LOCKE	DRAWN BY: LOCKE
IPARM FILE NAME: p10a092pmd2.1	CHECKED BY: PAVT MGMT
	SHEET 9 OF 16



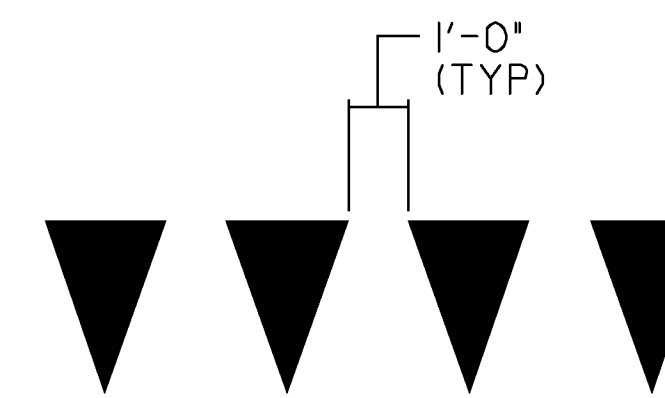
TYPICAL MAINLINE MARKING PLAN
NOT TO SCALE



GORE MARKING DETAIL
NOT TO SCALE



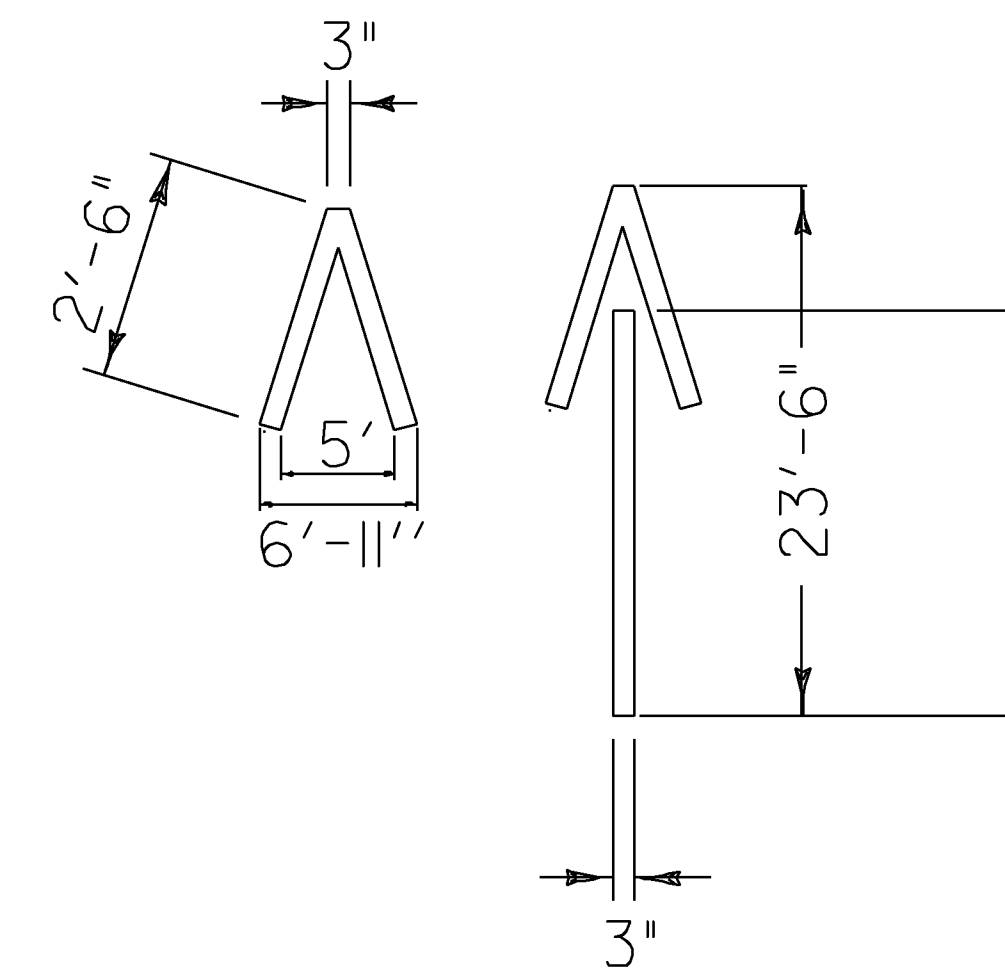
PAVEMENT MARKING LINE DETAILS
NOT TO SCALE



YIELD LINE DETAILS
NOT TO SCALE

NOTE:

- EACH TRIANGLE SHALL BE PAID AS ONE EACH ITEM 646.30 LETTER OR SYMBOL.



WRONG WAY ARROW DETAILS
NOT TO SCALE

LEGEND

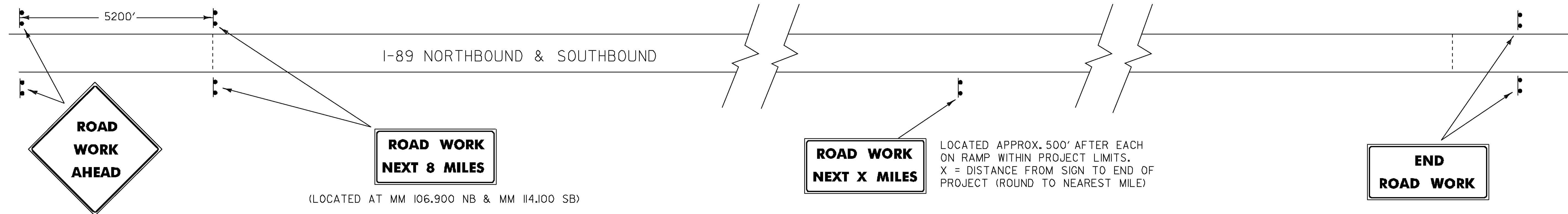


DIRECTION OF TRAFFIC FLOW

PAVEMENT MARKING SHEET

PROJECT NAME:	GEORGIA - ST. ALBANS	
PROJECT NUMBER:	IM SURF (2I)	
FILE NAME: pi0a092.dgn	PROJECT LEADER: M. FOWLER	PLOT DATE: 27-JUL-2010
DESIGNED BY: LOCKE	DRAWN BY: LOCKE	CHECKED BY: PAVT MGMT
IPARM FILE NAME: pi0a092pmd3.1		SHEET 10 OF 16

CONSTRUCTION APPROACH SIGNING SHEET # 1

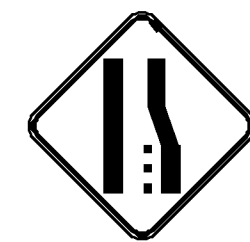


1. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE RESIDENT ENGINEER FOR APPROVAL PRIOR TO THE START OF CONSTRUCTION. THE COST OF PREPARING THIS PLAN (AND MAKING CHANGES IF NECESSARY) SHALL NOT BE PAID SEPARATELY BUT WILL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 641.10, "TRAFFIC CONTROL".
2. THE CONTRACTOR SHALL INCLUDE A CONSTRUCTION SIGN APPROACH PACKAGE FOR EXPECTED LANE CLOSURES AND WORK ZONE SPEED REDUCTIONS IN COMPLIANCE WITH VTRANS STANDARD E-103. PAYMENT FOR PROVIDING THIS PACKAGE SHALL BE INCIDENTAL TO ITEM 641.10, "TRAFFIC CONTROL".
3. ADDITIONAL RAMP SIGNING MAY BE REQUIRED AS DIRECTED BY THE RESIDENT 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 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 AND 630.15 - UNIFORMED TRAFFIC OFFICERS AND FLAGGERS
 - 646.622 TEMPORARY 6 INCH WHITE LINE, PAINT
 - 646.632 TEMPORARY 6 INCH YELLOW LINE, PAINT
 - 646.662 TEMPORARY 12 INCH WHITE LINE, PAINT
 - 646.692 TEMPORARY LETTER OR SYMBOL, 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 RESIDENT ENGINEER. THESE SIGNS WILL BE PAID FOR UNDER ITEM 641.15, "PORTABLE CHANGEABLE MESSAGE SIGN".

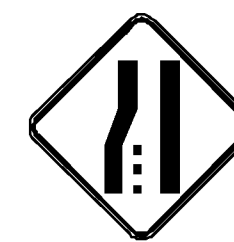
PCMS SHOULD NOT REPLACE ANY OF THE SIGNING DETAILED IN THE MUTCD AND SHOULD NOT BE USED IF STANDARD TRAFFIC CONTROL DEVICES ADEQUATELY PROVIDE THE INFORMATION THE MOTORISTS NEED TO TRAVEL SAFELY.

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 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 2009 MUTCD 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.
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 TOWN HIGHWAYS.
8. REFER TO VT. STATE STANDARDS AND THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN DIMENSIONS AND COLORS.
9. ON VTRANS STANDARD E-103, SIGN W4-2 MAY BE REPLACED WITH W9-2:



W4-2



W9-2

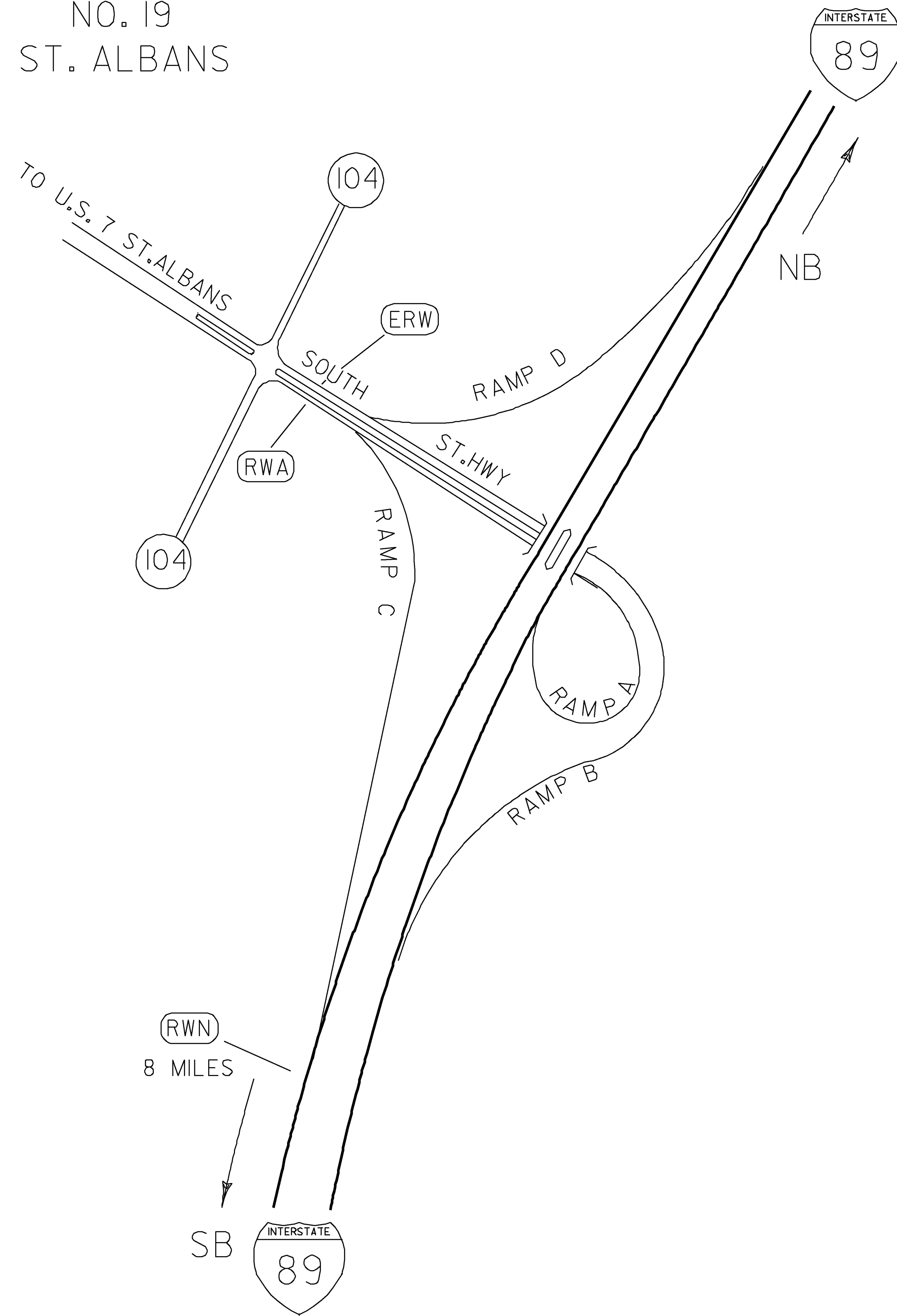


NOT TO SCALE

PROJECT: GEORGIA - ST. ALBANS	PROJECT NO. : IM SURF(21)
DESIGN FILE NAME: p10a092.dgn	PLOT DATE: 27-JUL-2010
IPARM FILE NAME: p10a092cas1.i	SURVEY DATE: N/A
SURVEYED BY: N/A	DRAWN BY: LOCKE
SQUAD LEADER: M. FOWLER	SHEET: 11 OF 16

CONSTRUCTION APPROACH SIGNING SHEET # 2

ST. ALBANS SOUTH INTERCHANGE
 NO. 19
 ST. ALBANS



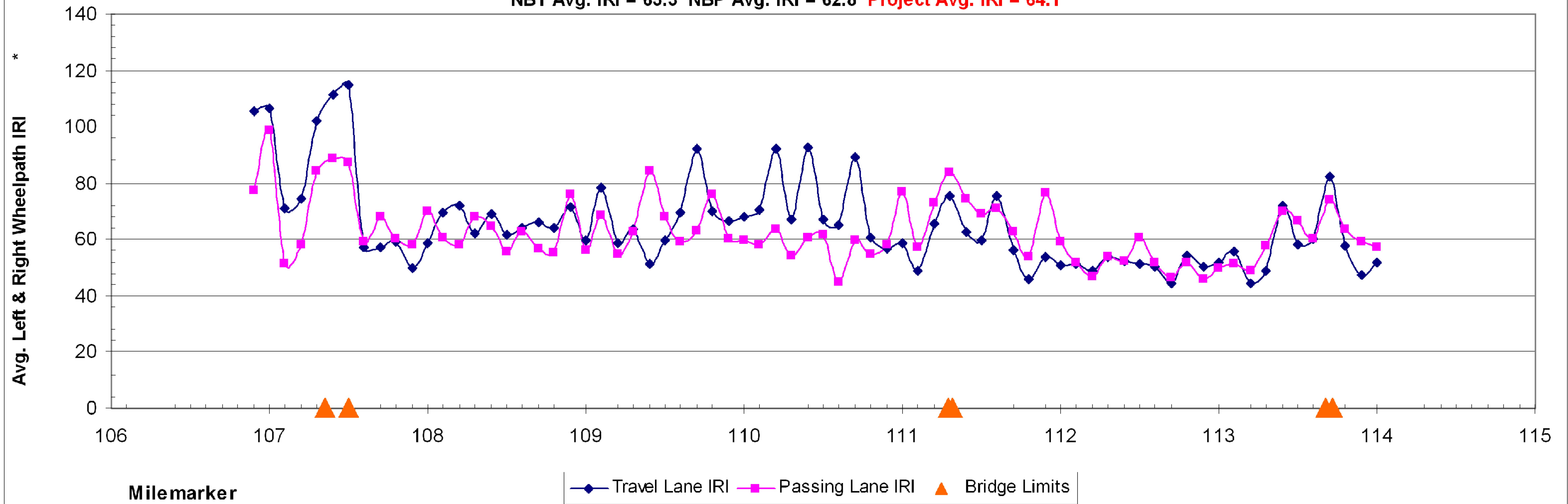
NOT TO SCALE

PROJECT:	GEORGIA - ST. ALBANS	PROJECT NO.:	IM SURF(21)
DESIGN FILE NAME:	p10a092.dgn	PLOT DATE:	27-JUL-2010
IPARM FILE NAME:	p10a092cas2.i	SURVEY DATE:	N/A
SURVEYED BY:	N/A	DRAWN BY:	LOCKE
SQUAD LEADER:	FOWLER	SHEET:	12 OF 16

I-89 Georgia-Fairfax-St. Albans IM Surf(21) Pre-Construction(IRI)

Profiled 6/2/10

NBT Avg. IRI = 65.3 NBP Avg. IRI = 62.8 **Project Avg. IRI = 64.1**



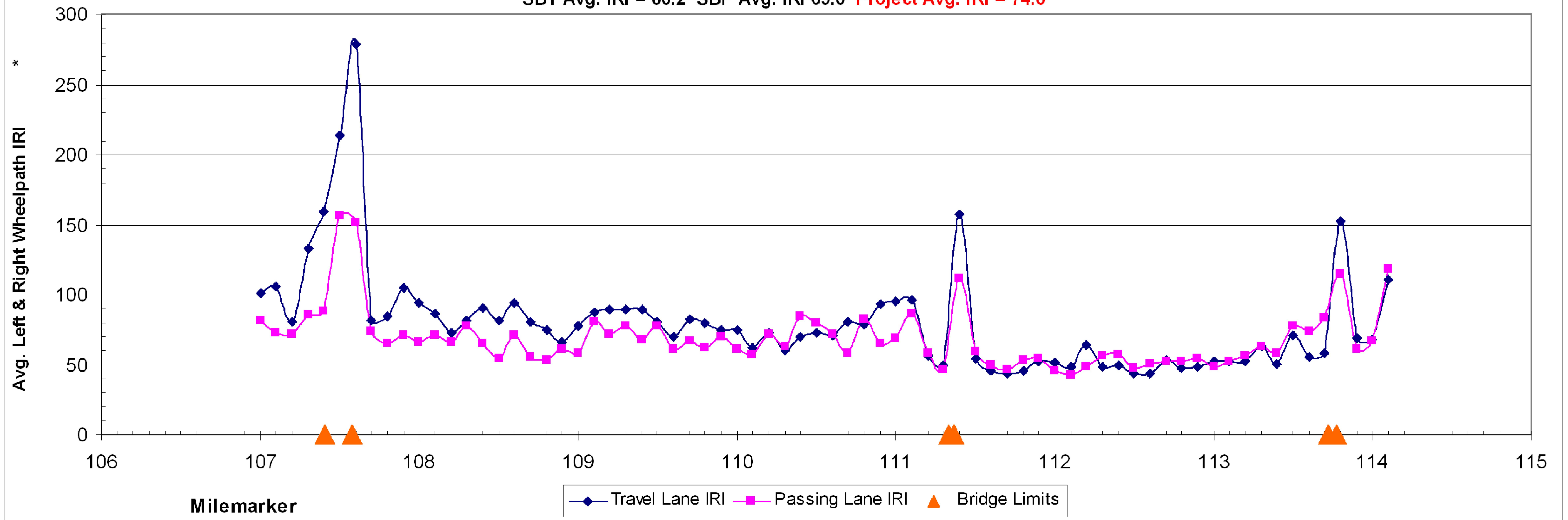
FOR INFORMATIONAL PURPOSES ONLY

ROUGHNESS DATA INFORMATION NB LANE	PROJECT NAME:	GEORGIA - ST. ALBANS	
	PROJECT NUMBER:	IM SURF (21)	
	FILE NAME:	pi0a092.dgn	
	PROJECT LEADER:	M. FOWLER	
DESIGNED BY:	LOCKE	PLOT DATE:	27-JUL-2010
IPARM FILE NAME:	pi0a092rufnb.i	DRAWN BY:	LOCKE
		CHECKED BY:	PAVT MGMT
		SHEET	13 OF 16

I-89 Georgia-Fairfax-St. Albans IM Surf(21) Preconstruction (IRI)

Profiled 6/2/10

SBT Avg. IRI = 80.2 SBP Avg. IRI 69.0 **Project Avg. IRI = 74.6**



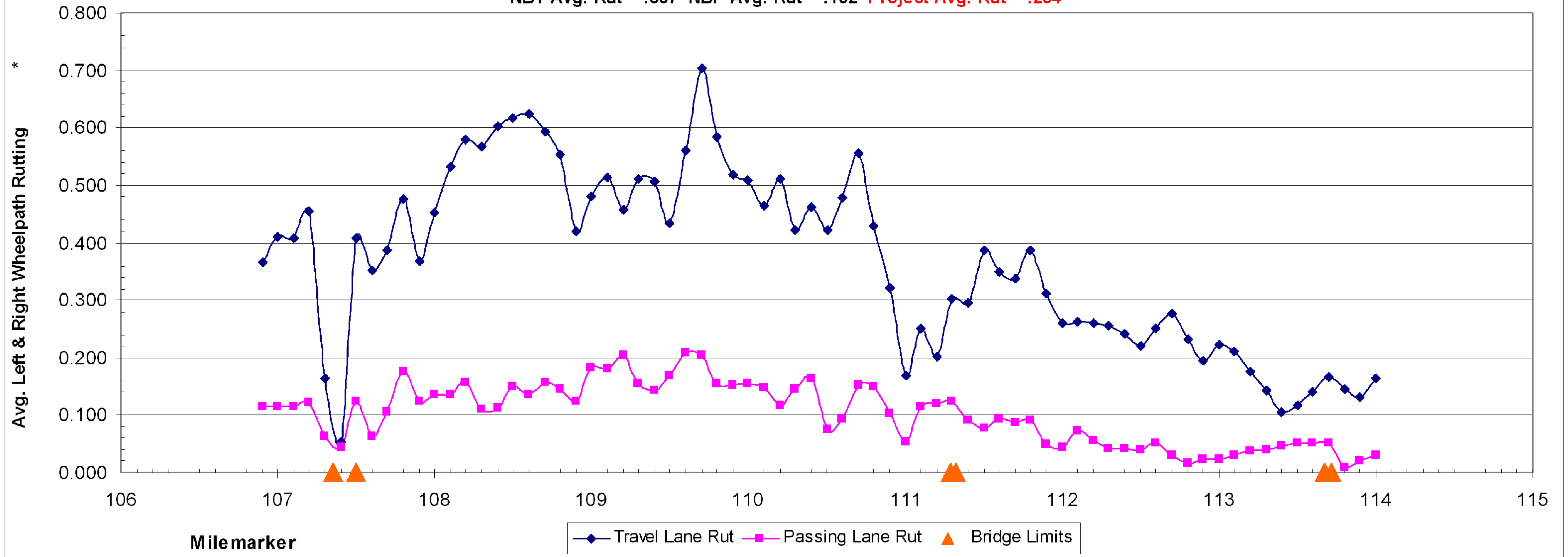
FOR INFORMATIONAL PURPOSES ONLY

ROUGHNESS DATA INFORMATION SB LANE	PROJECT NAME:	GEORGIA - ST. ALBANS	
	PROJECT NUMBER:	IM SURF (21)	
	FILE NAME:	pl0a092.dgn	
	PROJECT LEADER:	M. FOWLER	
DESIGNED BY:	LOCKE	PLOT DATE:	27-JUL-2010
IPARM FILE NAME:	pl0a092rufsb.l	DRAWN BY:	LOCKE
		CHECKED BY:	PAVT MGMT
		SHEET	14 OF 16

I-89 Georgia-Fairfax-St. Albans IM Surf(21) Preconstruction (Rutting)

Profiled 6/2/10

NBT Avg. Rut = .367 NBP Avg. Rut = .102 **Project Avg. Rut = .234**



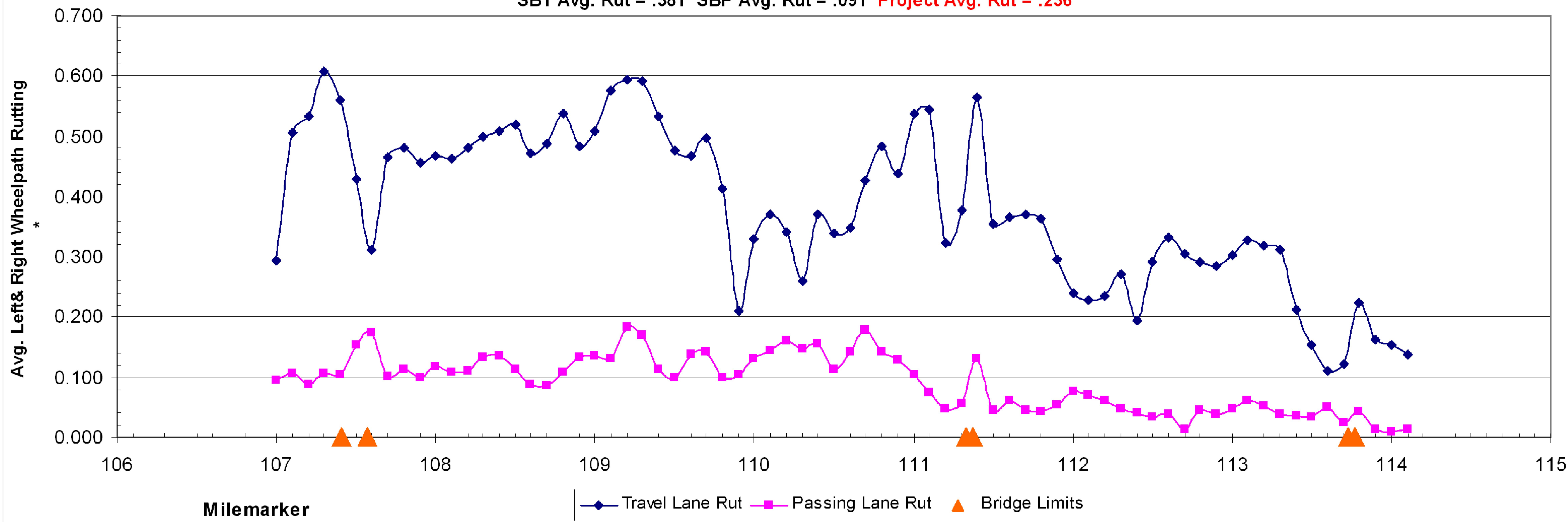
FOR INFORMATIONAL PURPOSES ONLY

RUTTING DATA INFORMATION NB LANE	PROJECT NAME:	GEORGIA - ST. ALBANS
	PROJECT NUMBER:	IM SURF (21)
	FILE NAME: pi0a092.dgn	PLOT DATE: 27-JUL-2010
	PROJECT LEADER: M. FOWLER	DRAWN BY: LOCKE
DESIGNED BY: LOCKE	CHECKED BY: PAVT MGMT	
IPARM FILE NAME: pi0a092rutnb.i	SHEET 15 OF 16	

I-89 Georgia-Fairfax-St. Albans IM Surf(21) Preconstruction (Rutting)

Profiled 6/2/10

SBT Avg. Rut = .381 SBP Avg. Rut = .091 **Project Avg. Rut = .236**



FOR INFORMATIONAL PURPOSES ONLY

RUTTING DATA INFORMATION SB LANE	PROJECT NAME:	GEORGIA - ST. ALBANS	
	PROJECT NUMBER:	IM SURF (21)	
	FILE NAME:	pi0a092.dgn	
	PROJECT LEADER:	M. FOWLER	
DESIGNED BY:	LOCKE	PLOT DATE:	27-JUL-2010
IPARM FILE NAME:	pi0a092rutsb.i	DRAWN BY:	LOCKE
		CHECKED BY:	PAVT MGMT
		SHEET	16 OF 16