

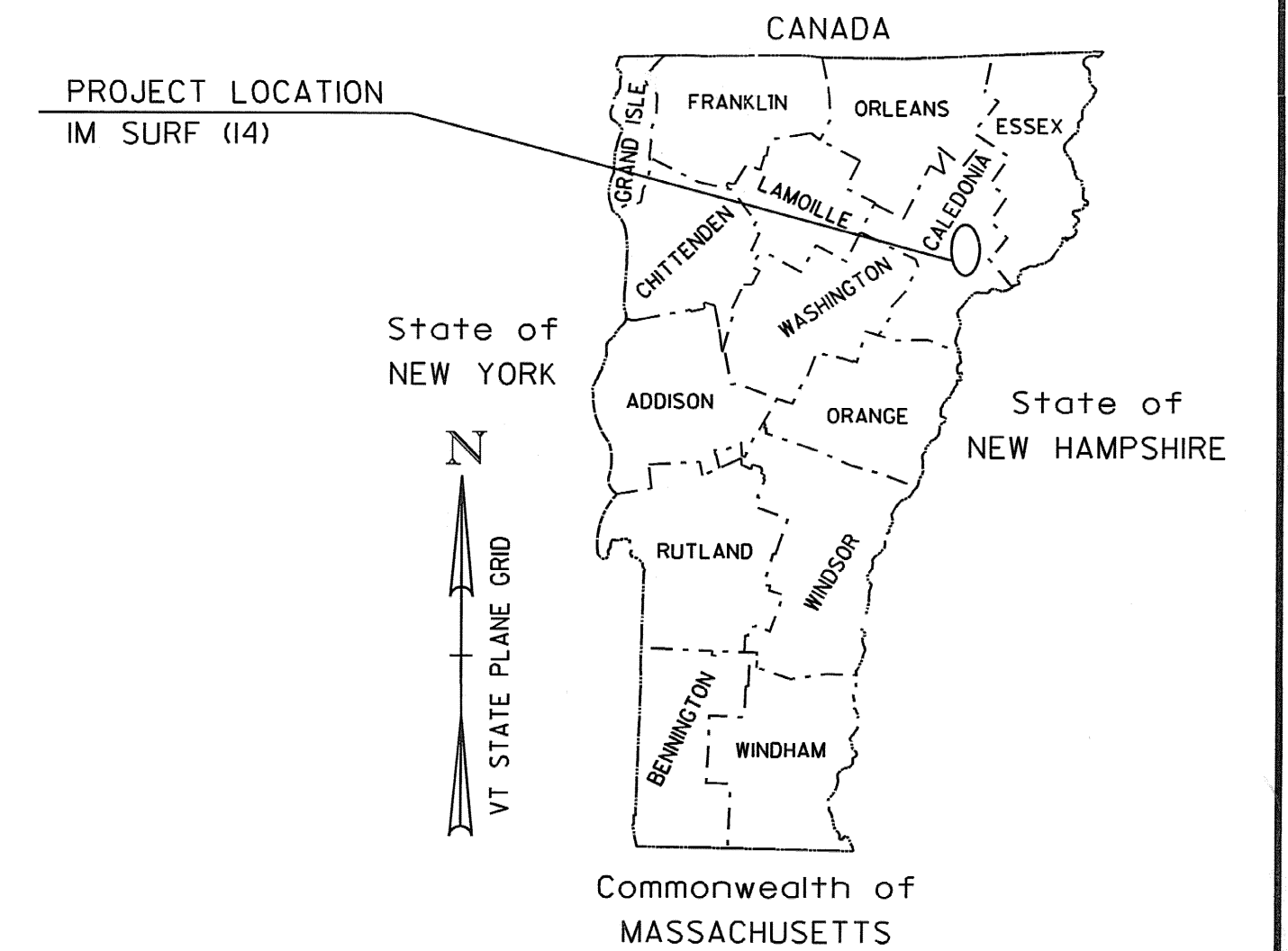
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STATE OF VERMONT AGENCY OF TRANSPORTATION



PROPOSED IMPROVEMENT TOWNS OF WATERFORD, ST. JOHNSBURY & LYNDON COUNTY OF CALEDONIA INTERSTATE ROUTE 91 (NB & SB)



VAOT STANDARDS

E-100	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	08/08/95
E-191	PAVEMENT MARKING DETAILS	02/01/99
E-192	PAVEMENT MARKING DETAILS	10/12/00

IM SURF (14) NORTHBOUND:
BEGINNING IN THE TOWN OF WATERFORD AT MILE MARKER 127.770 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 91 (NORTHBOUND LANE) FOR A DISTANCE OF 49,512.12 FT (9.379 MILES) TO MILE MARKER 137.149 IN THE TOWN OF LYNDON.

NB LENGTH OF ROADWAY = 49,512.12 FT = (9.379 MILES)
NB LENGTH OF PROJECT = 49,512.12 FT = (9.379 MILES)

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

IM SURF (14) SOUTHBOUND:
BEGINNING IN THE TOWN OF WATERFORD AT MILE MARKER 127.980 AND EXTENDING NORTHERLY ALONG INTERSTATE ROUTE 91 (SOUTHBOUND LANE) FOR A DISTANCE OF 48,628.80 FT (9.210 MILES) TO MILE MARKER 137.190 IN THE TOWN OF LYNDON.

SB LENGTH OF ROADWAY = 48,628.80 FT = (9.210 MILES)
SB LENGTH OF PROJECT = 48,628.80 FT = (9.210 MILES)

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

RECORD PLANS

CONTRACTOR: NY BITUMINOUS PRODUCTS, CORP. - CHESTER, NY
RESIDENT ENGINEER: BRIGITTE CODLING
CONSTRUCTION BEGAN: AUGUST 10, 2009
CONSTRUCTION COMPLETE: NOVEMBER 3, 2009
RECORD PLANS BY: BRIGITTE CODLING & C. PIERCE

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

BY *Brigitte Codling* RESIDENT ENGINEER

DATE *March 14, 2010*

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

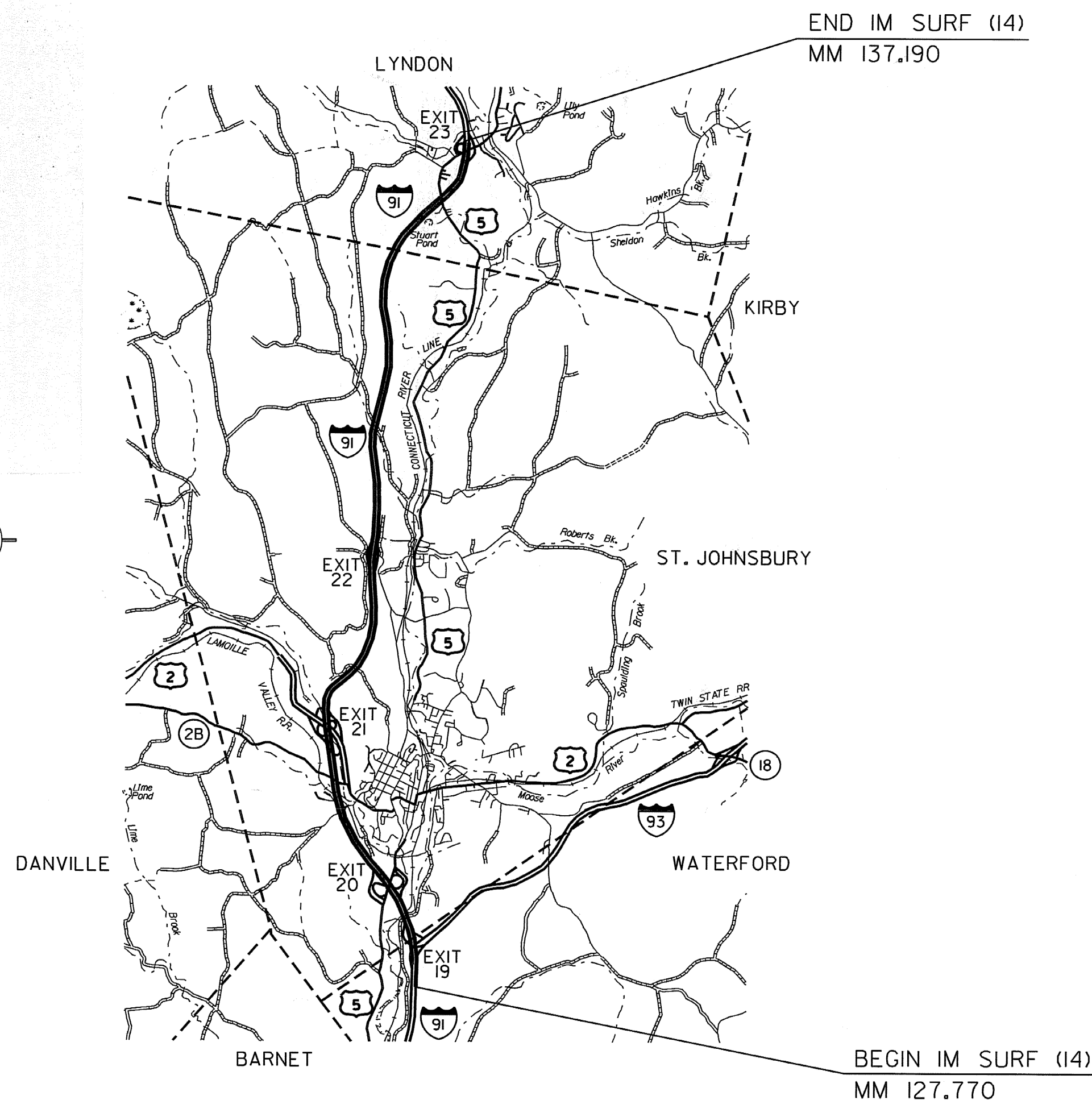
CONVENTIONAL SYMBOLS

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

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.

SURVEYED BY :
SURVEYED DATE :

DATUM
VERTICAL
HORIZONTAL



TRAFFIC DATA

1-91 NORTHBOUND	2009 AADT	2019 AADT	2009 DHV	2019 DHV	FLEXIBLE ESALS (2009-2019)	FLEXIBLE ESALS (2009-2029)
BEGIN PROJECT TO EXIT 19	2,900	3,500	480	580	2,173,000	5,879,000
EXIT 19 TO EXIT 22	5,100	5,900	840	970	1,887,000	5,270,000
EXIT 22 TO END PROJECT	5,700	6,900	940	1,100	5,322,000	14,711,000

1-91 SOUTHBOUND	2009 AADT	2019 AADT	2009 DHV	2019 DHV	FLEXIBLE ESALS (2009-2019)	FLEXIBLE ESALS (2009-2029)
BEGIN PROJECT TO EXIT 19	2,900	3,500	380	460	3,303,000	9,034,000
EXIT 19 TO EXIT 22	5,100	5,900	670	780	1,887,000	5,270,000
EXIT 22 TO END PROJECT	5,700	6,900	780	940	4,685,000	12,994,000

DIRECTOR OF PROGRAM DEVELOPMENT
APPROVED: *[Signature]* DATE 6-12-09
PROJECT MANAGER: TED DOMEY
PROJECT NAME: WATERFORD - LYNDON
PROJECT NUMBER: IM SURF (14)
SHEET 1 OF 17 SHEETS

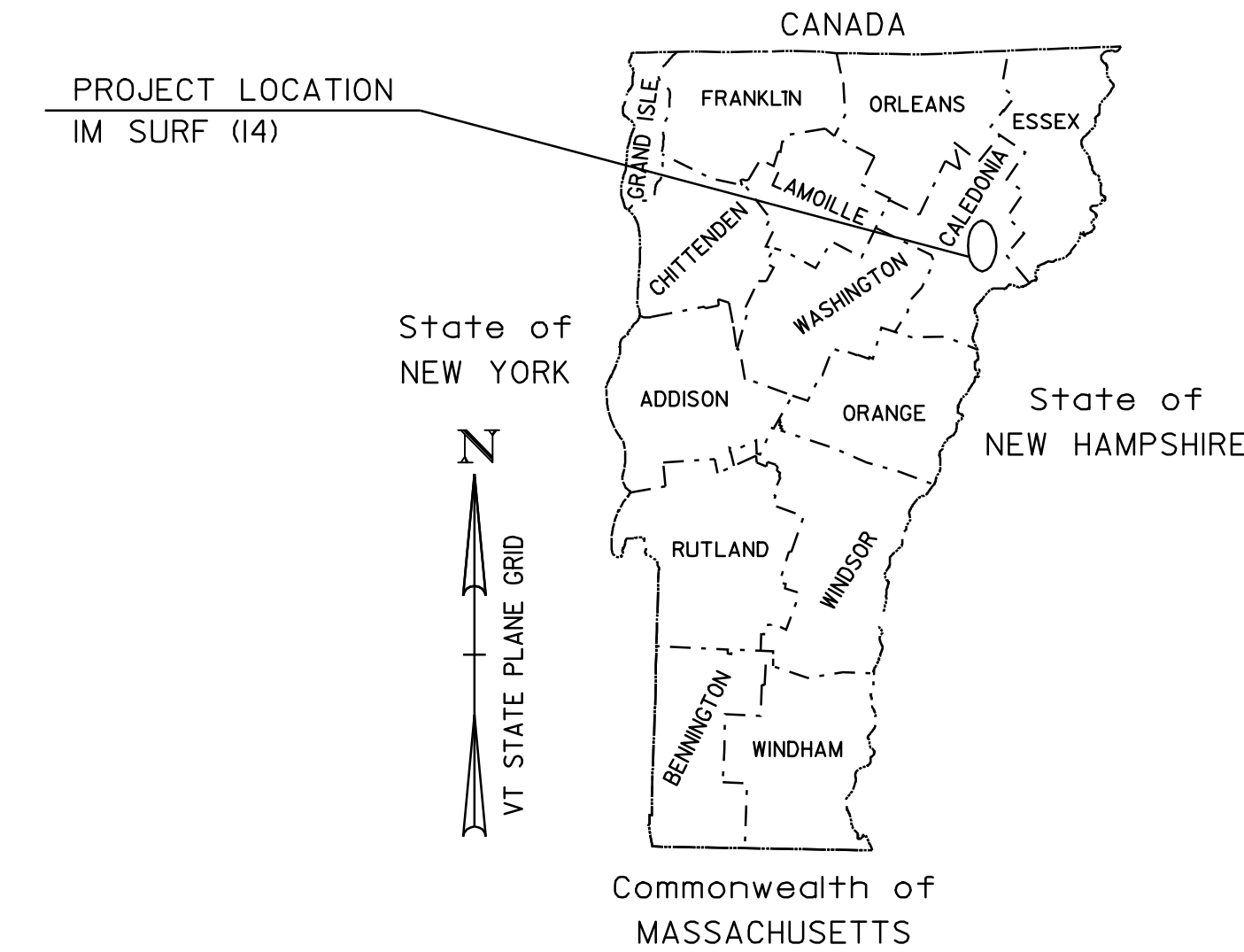
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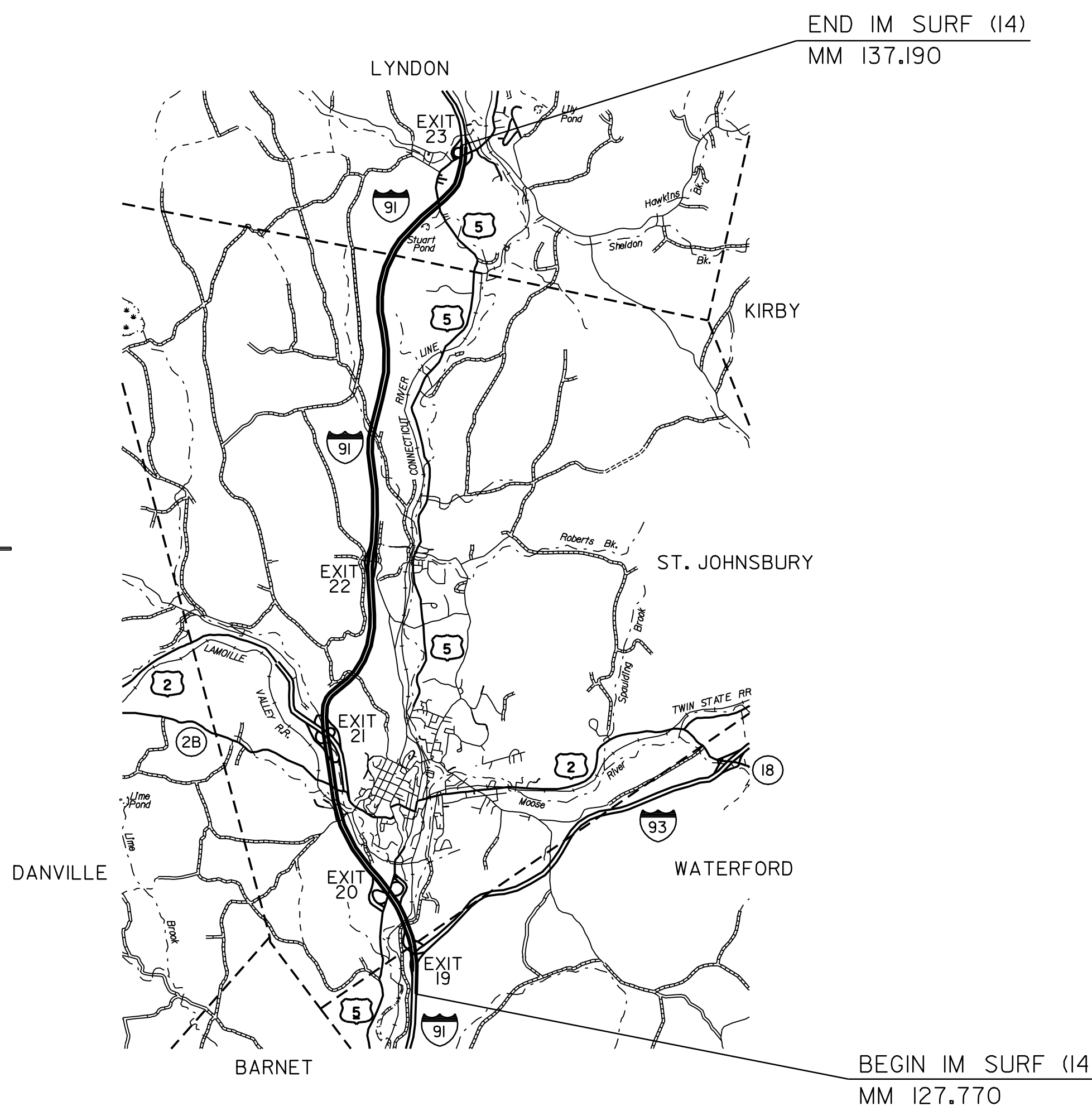
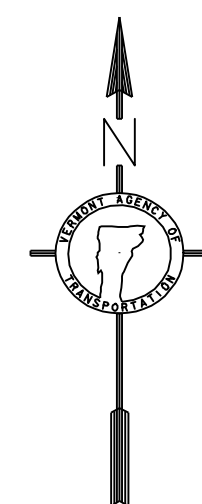
CONVENTIONAL SYMBOLS

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HORIZONTAL



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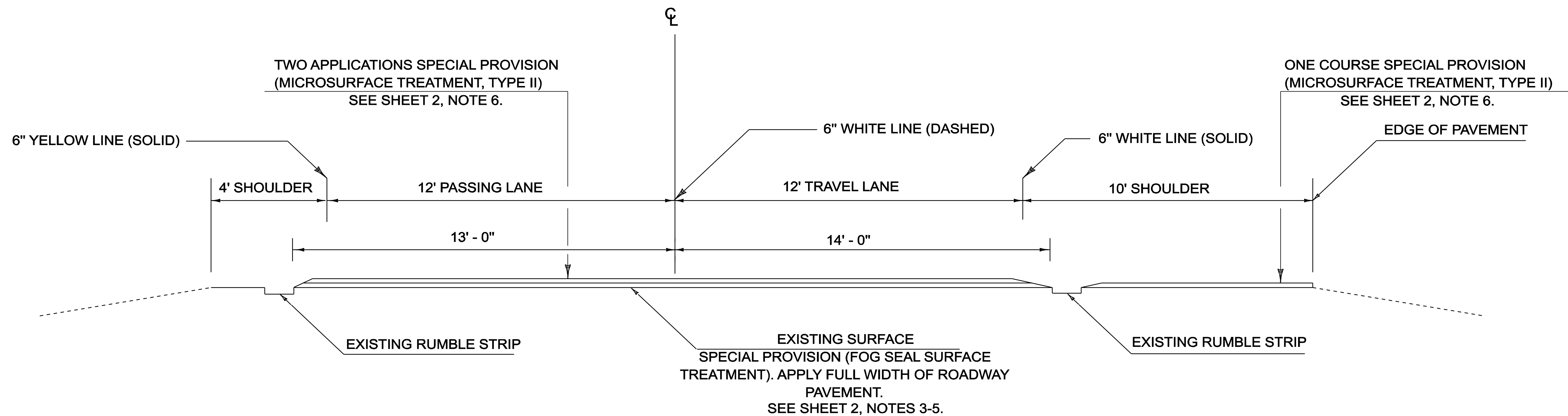
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DIRECTOR OF PROGRAM DEVELOPMENT	
APPROVED _____	DATE _____
PROJECT MANAGER : TED DOMEY	
PROJECT NAME : WATERFORD - LYNDON	
PROJECT NUMBER : IM SURF (14)	
SHEET 1 OF 17 SHEETS	

NOTES:

1. ALL NECESSARY SURFACE PREPARATION INVOLVING PATCHING, POT-HOLE REPAIR, AND CRACK-SEALING SHALL BE PERFORMED PRIOR TO APPLICATION OF THE FOG SEAL TREATMENT. ALL CRACKS GREATER THAN 0.10" AND UP TO 1.0" IN WIDTH SHALL BE FILLED 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. ALL BRIDGE DECKS WITHIN THE PROJECT LIMITS SHALL ALSO RECEIVE CRACK-SEALING AND RELATED SURFACE PREPARATION PRIOR TO APPLYING THE FOG SEAL TREATMENT.
 2. EXISTING SHOULDER PAVEMENT SURFACES BEYOND THE LIMITS OF THE MICROSURFACE TREATMENT SHALL ALSO RECEIVE CRACK-SEALING AND RELATED PATCHING AND POT-HOLE REPAIR TREATMENTS.
 3. AN ESTIMATED QUANTITY OF ITEM 900.680, SPECIAL PROVISION (BITUMINOUS CONCRETE PAVEMENT - SMALL QUANTITY) HAS BEEN INCLUDED IN THE CONTRACT TO SPOT LEVEL AREAS IN THE TRAVEL AND PASSING LANES WHERE THE EXISTING OPEN - GRADED - FRICTION SURFACE HAS BEEN COMPLETELY REMOVED OR SIGNIFICANTLY DAMAGED EXPOSING THE UNDERLYING BITUMINOUS CONCRETE LAYER. THESE AREAS WILL BE IDENTIFIED AND TREATED AS DIRECTED BY THE RESIDENT ENGINEER.
 4. ALL EXISTING PAVEMENT MARKINGS SHALL BE REMOVED PRIOR TO APPLYING THE FOG SEAL 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.
 5. FOG SEAL SHALL BE APPLIED AT THE RATE OF 0.15 GAL./S.Y. (+/- 0.05 GAL./S.Y.).
 6. 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.
 7. FOG SEAL MUST BE ALLOWED TO CURE COMPLETELY BEFORE APPLICATION OF MICROSURFACING TREATMENT, OR AS DIRECTED BY THE ENGINEER.
 8. MAINLINE MICROSURFACING TREATMENT SHALL BE APPLIED IN TWO APPLICATIONS FROM RUMBLE STRIP TO RUMBLE STRIP AS SHOWN ON THE PROJECT TYPICAL SECTION. AN OVERALL APPLICATION RATE OF 38 LB/SY FOR THIS AREA HAS BEEN USED FOR THE PURPOSES OF QUANTITY CALCULATION. THE AREA ON THE 10' SHOULDER FROM THE EDGE OF PAVEMENT TO THE EDGE OF RUMBLE STRIP SHALL RECEIVE ONE APPLICATION OF MICROSURFACE TREATMENT AS SHOWN ON THE PROJECT TYPICAL SECTION. AN APPLICATION RATE OF 18 LB/SY FOR THIS AREA HAS BEEN USED FOR THE PURPOSES OF QUANTITY CALCULATION.
 9. PRIOR TO THE APPLICATION OF FOG SEAL AND MICROSURFACE TREATMENT, 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 WHERE 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.
- II. NO COLD PLANING IS NEEDED UNDER THIS ALTERNATIVE. ALL MICROSURFACING SHALL BE FEATHERED AS DIRECTED BY THE RESIDENT ENGINEER AT THE BEGINNING/END PROJECT LIMITS, THE END OF INTERCHANGE RAMPS AND AT ALL U-TURNS.

MICROSURFACE TREATMENT, TYPE II NOTES	PROJECT NAME: WATERFORD - LYNDON	
	PROJECT NUMBER: IM SURF (14)	
	FILE NAME: 08d172\p08d172.dgn	PLOT DATE: 18-MAR-2010 15:55
	PROJECT LEADER: DOMEY	DRAWN BY: WILDER
DESIGNED BY: WILDER	CHECKED BY: PVMT MGMT	
IPARM FILE NAME: p08d172#2.1	SHEET 2 OF 17	



PROJECT TYPICAL SECTION
I - 91 NORTHBOUND - M.M. 127.770 - M.M. 137.149
MIRROR IMAGE FOR I - 91 SOUTHBOUND - M.M. 127.980 - M.M. 137.190
87
128.280

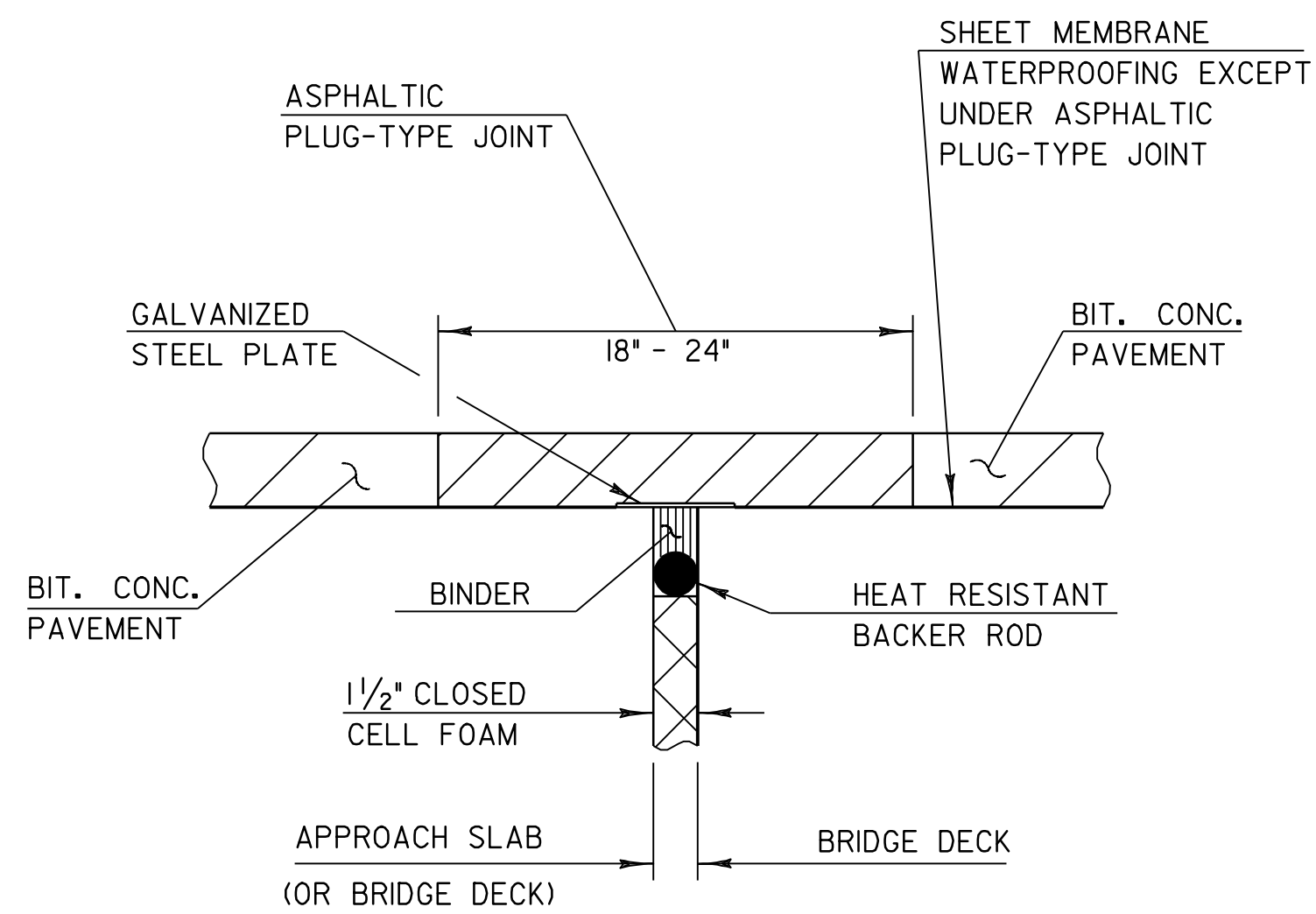
BRIDGES WITHIN THE PROJECT ARE:

BRIDGE NUMBER	82-N	MM 128.592 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	83-N	MM 128.889 (TWO APPLICATIONS MICROSURFACE TREATMENT, TYPE II, REPLACE 2 PLUG JOINTS)
BRIDGE NUMBER	84-N	MM 129.741 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	91-N	MM 133.990 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	92-N	MM 136.526 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	93-N	MM 137.109 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	82-S	MM 128.592 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	83-S	MM 128.889 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	84-S	MM 129.741 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	90-S	MM 132.545 (TWO APPLICATIONS MICROSURFACE TREATMENT, TYPE II, REPLACE 2 PLUG JOINTS)
BRIDGE NUMBER	91-S	MM 133.990 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	92-S	MM 136.526 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	93-S	MM 137.109 (NO TREATMENT NECESSARY)
BRIDGE NUMBER	81-N	MM 128.15 (TWO APPLICATIONS MICROSURFACE TREATMENT, TYPE II, REPLACE 2 PLUG JOINTS)

BRIDGES BEING GAPPED OUT ARE AS FOLLOWS:

BRIDGE NUMBER	82-N	END IM SURF(14) MM 128.531, RESUME IM SURF(14) MM 128.653
BRIDGE NUMBER	84-N	END IM SURF(14) MM 129.722, RESUME IM SURF(14) MM 129.760
BRIDGE NUMBER	91-N	END IM SURF(14) MM 133.961, RESUME IM SURF(14) MM 134.019
BRIDGE NUMBER	92-N	END IM SURF(14) MM 136.495, RESUME IM SURF(14) MM 136.557
BRIDGE NUMBER	93-N	END IM SURF(14) MM 137.089, RESUME IM SURF(14) MM 137.129
BRIDGE NUMBER	82-S	END IM SURF(14) MM 128.526, RESUME IM SURF(14) MM 128.658
BRIDGE NUMBER	83-S	END IM SURF(14) MM 128.859, RESUME IM SURF(14) MM 128.919
BRIDGE NUMBER	84-S	END IM SURF(14) MM 129.724, RESUME IM SURF(14) MM 129.758
BRIDGE NUMBER	91-S	END IM SURF(14) MM 133.960, RESUME IM SURF(14) MM 134.020
BRIDGE NUMBER	92-S	END IM SURF(14) MM 136.489, RESUME IM SURF(14) MM 136.563
BRIDGE NUMBER	93-S	END IM SURF(14) MM 137.088, RESUME IM SURF(14) MM 137.130

TYPICAL SECTION - MICROSURFACE, TYPE II	PROJECT NAME: WATERFORD - LYNDON	
	PROJECT NUMBER: IM SURF (14)	
	FILE NAME: 08d172\p08d172.dgn	PLOT DATE: 18-MAR-2010 15:55
	DESIGNED BY: WILDER	CHECKED BY: PVMT MGMT
	IPARM FILE NAME: p08d172#3.1	SHEET 3 OF 17



ASPHALTIC PLUG TYPE JOINT DETAIL

**ASPHALTIC PLUG BRIDGE JOINT
GENERAL NOTES**

INSTALLATION:

THE JOINT SHALL BE LOCATED CENTRALLY OVER THE DECK EXPANSION GAP OR FIXED JOINT MARKED OUT TO THE MANUFACTURER'S RECOMMENDED WIDTH.

THE JOINT SHALL BE EXCAVATED AS SHOWN ON THE PLANS BY USE OF SAWS AND PNEUMATIC HAMMER OR A HAMMER AND CHISEL.

THE JOINT AREA SHALL BE BLAST CLEANED OF DEBRIS AND ASPHALT. THE JOINT AREA SHALL BE THOROUGHLY DRIED USING HOT COMPRESSED AIR PRIOR TO APPLYING BINDER MATERIAL.

SPALLED AND DEFECTIVE CONCRETE SHALL BE REPAIRED WITH AN APPROVED MATERIAL AS AGREED UPON BY THE ENGINEER.

PROPERLY SIZED HEAT RESISTANT BACKER ROD SHALL BE PLACED IN THE MOVEMENT GAP ALLOWING FOR 25MM (1 INCH) +/- OF BINDER ABOVE THE ROD.

THE BINDER MATERIAL SHALL BE HEATED AND PLACED AS RECOMMENDED BY THE MANUFACTURER.

PLACE 6 MM (1/4 INCH) THICK BY 200 MM (8 INCH) WIDE SECTIONS OF STEEL PLATE OVER THE CENTER OF THE MOVEMENT GAP. SECURE PLATES FROM MOVING BY INSERTING LOCATING PINS THROUGH THE PRESTAMPED HOLES INTO BACKER ROD AND COVER WITH HOT BINDER.

A. THE STEEL PLATES MAY BE OMITTED WHERE THE APPROACH SLAB IS COVERED WITH A STONE BASE OR BITUMINOUS PAVEMENT, AND VERTICAL MOVEMENT OF THE PLATES MIGHT OCCUR.

THE BINDER MATERIAL AND AGGREGATE SHALL BE HEATED AND MIXED AS RECOMMENDED BY THE MANUFACTURER.

THE INSTALLATION OF MATERIAL, COMPACTION, AND TOPCOATING SHALL BE AS RECOMMENDED BY THE MANUFACTURER.

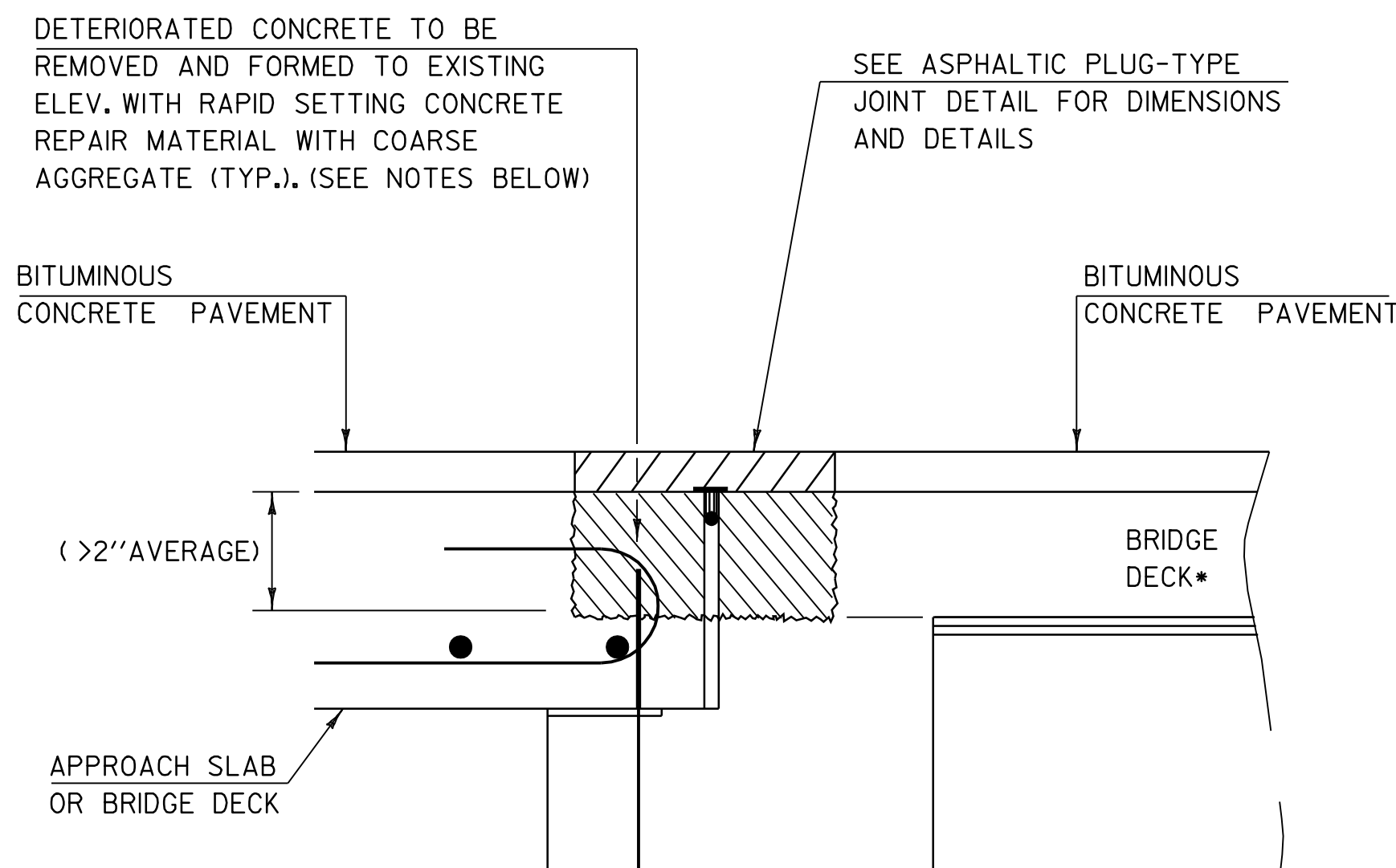
IMMEDIATELY AFTER TOPCOATING, AN ANTI-SKID MATERIAL SHALL BE CAST OVER THE JOINT TO REDUCE THE RISK OF TRACKING.

JOINT SHALL BE PROTECTED FROM TRAFFIC UNTIL THE MATERIAL HAS COOLED TO 52 C +/- (125 F).

WEATHER LIMITATIONS:

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

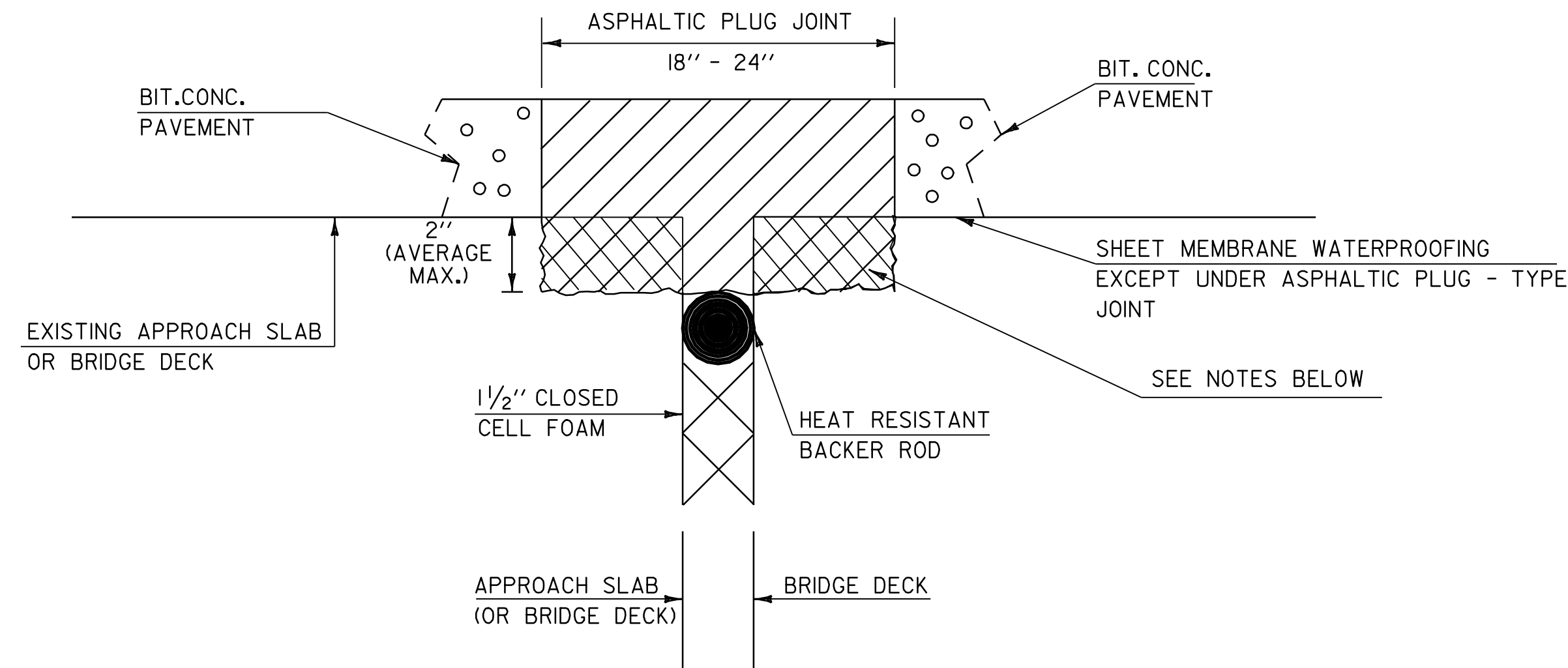
- (A) THE AMBIENT AIR TEMPERATURE IS AT LEAST 10° C (50° F) AND RISING.
- (B) THE ROAD SURFACE IS SUFFICIENTLY DRY.
- (C) WEATHER CONDITIONS OR OTHER CONDITIONS ARE FAVORABLE AND ARE EXPECTED TO REMAIN SO FOR THE PERFORMANCE OF THE SATISFACTORY WORK.



**ASPHALTIC PLUG-TYPE JOINT DETAIL
REMOVAL OF >2\"/>**

NOTES:

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



**ASPHALTIC PLUG-TYPE JOINT DETAIL
REMOVAL OF <2\"/>**

NOTES:

1. UPON ENCOUNTERING UP TO 2\"/>
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.
3. THE STEEL PLATE IN THE ASPHALTIC PLUG JOINT MAY BE OMITTED ONLY IF THE REPAIRED SURFACE IS SO IRREGULAR IT WILL CAUSE VERTICAL MOVEMENT AND IT IS DIRECTED BY THE RESIDENT ENGINEER.

JOINT	STATION	LENGTH	
1	MM 128.869	93'-0"	63'-0"
2	MM 128.909	93'-0"	63'-0"
		BRIDGE #83N	126'-0"

TOTAL LENGTH OF JOINT

**BRIDGE #83N
ROUTE LOG (MM 128.889)**

JOINT	STATION	LENGTH	
1	MM 132.537	45'-0"	39'-6"
2	MM 132.553	45'-0"	39'-6"
		BRIDGE #90S	79'-0"

TOTAL LENGTH OF JOINT

**BRIDGE #90S
ROUTE LOG (MM 132.545)**

JOINT	STATION	LENGTH	
1	MM 128.10	37'-0"	37'-0"
2	MM 128.20	37'-0"	37'-0"
		BRIDGE 8IN	74'-0"

TOTAL LENGTH OF JOINT

BRIDGE 8IN

ROUTE LOG (MM 128.15)

NOTES:

1. REFER TO ASPHALTIC PLUG JOINT AND DETAILS. 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 REGULAR 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.

DETAILS ARE NOT TO SCALE

**ASPHALTIC
PLUG JOINT
AND BRIDGE
DETAIL SHEET**

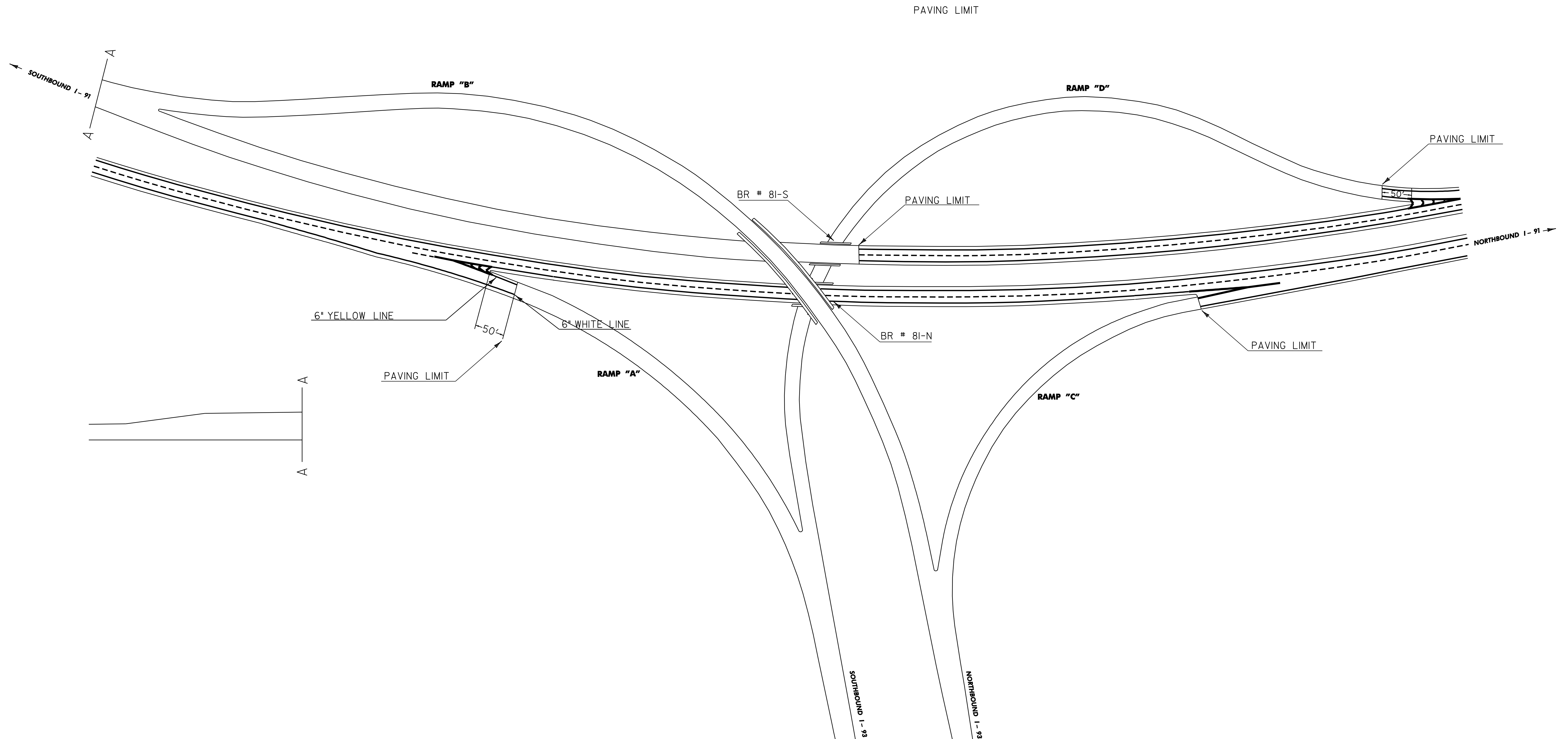
PROJECT NAME: WATERFORD - LYNDON
PROJECT NUMBER: IM SURF(14)

FILE NAME: p08a172.dgn
PROJECT LEADER: DOMEY
DESIGNED BY: LSW
PLOT FILE: p08a172*4.1

PLOT DATE: 18-MAR-2010 15:55
DRAWN BY: LSW
CHECKED BY: KML
SHEET ___ OF 17

PAVEMENT AND MARKING DETAIL

I-91 INTERCHANGE #19

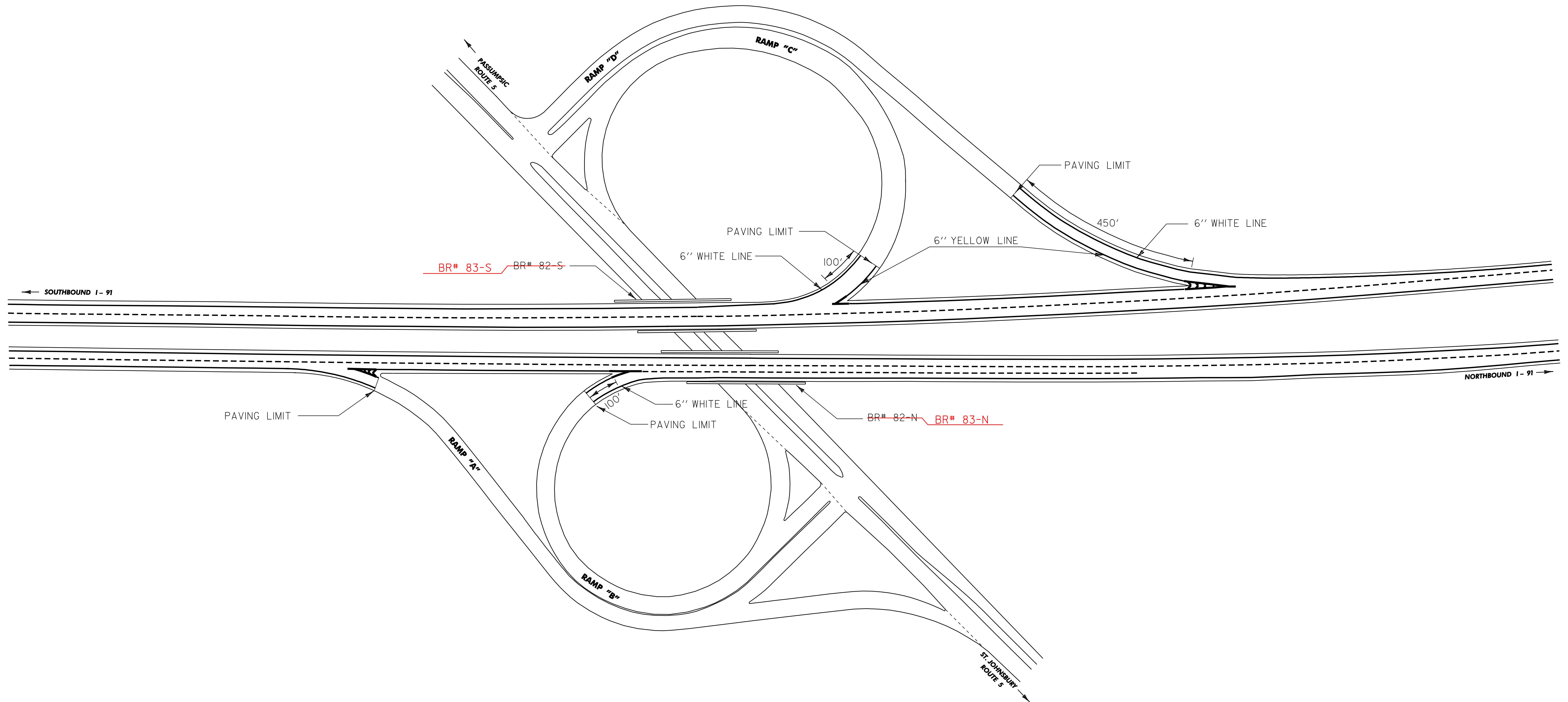


NOT TO SCALE

PROJECT:	WATERFORD-LYNDON	PROJECT NO.:	IM_SURE(14)
DESIGN FILE NAME:	p08q172.dgn	PLOT DATE:	18-MAR-2010 15:5
IPARM FILE NAME:	p08q172*6.l	SURVEY DATE:	N/A
SURVEYED BY:	NZA	DRAWN BY:	WILDER
SQUAD LEADER:	DOMEY	SHEET:	6 OF 17

PAVEMENT AND MARKING DETAIL

INTERCHANGE #20

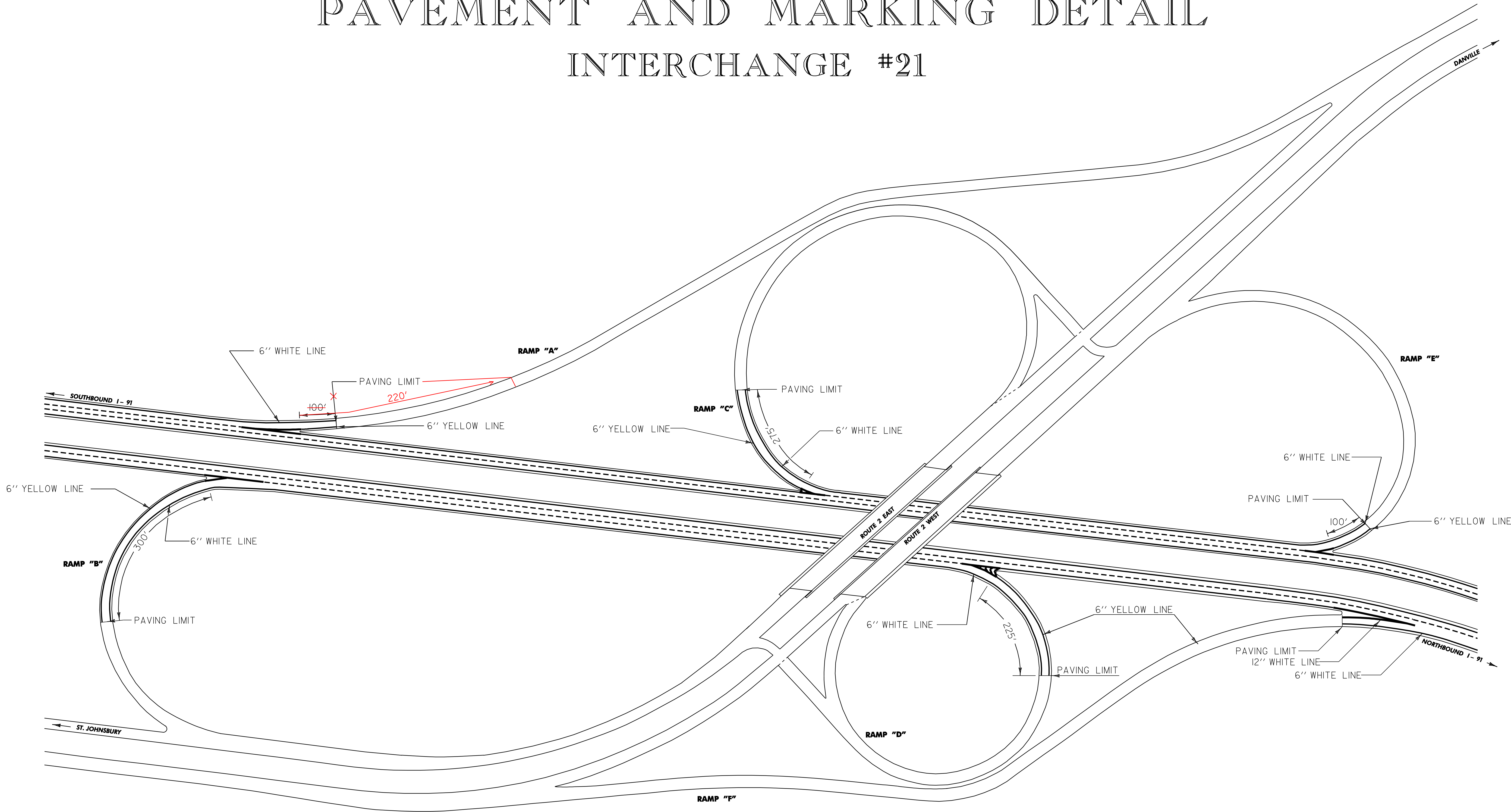


NOT TO SCALE

PROJECT:	WATERFORD - LYNDON	PROJECT NO.:	IM_SURE(14)
DESIGN FILE NAME:	p08al72.dgn	PLOT DATE:	18-MAR-2010 15:5
IPARM FILE NAME:	p08al72*7.l	SURVEY DATE:	N/A
SURVEYED BY:	NZA	DRAWN BY:	WILDER
SQUAD LEADER:	DOMEY	SHEET:	7 OF 17

PAVEMENT AND MARKING DETAIL

INTERCHANGE #21

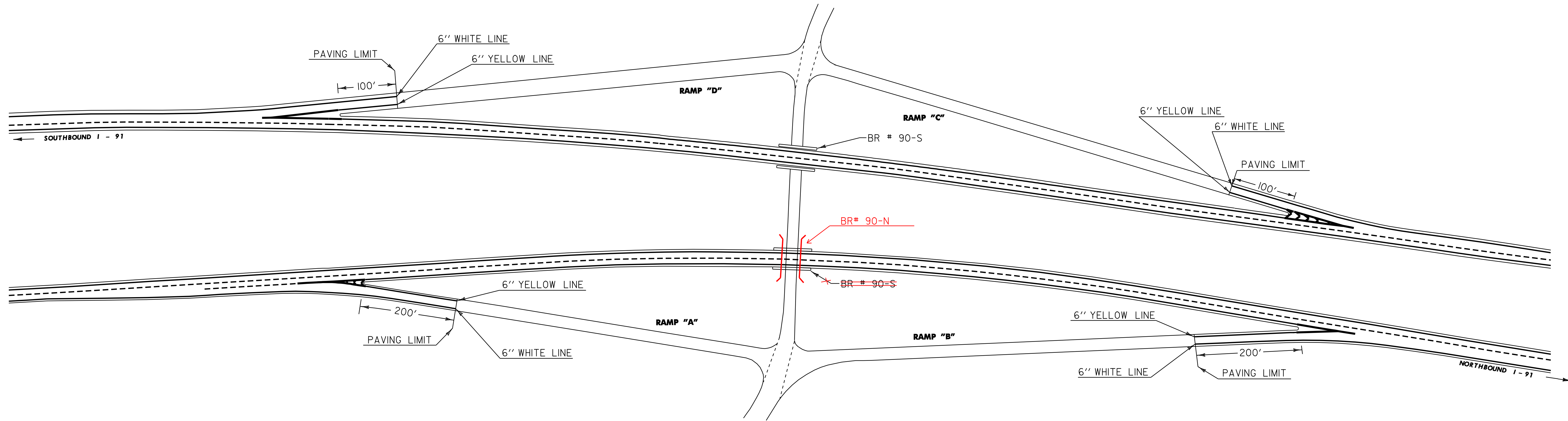


NOT TO SCALE

PROJECT:	WATERFORD - LYNDON	PROJECT NO.:	IM_SURE(14)
DESIGN FILE NAME:	p08al72.dgn	PLOT DATE:	18-MAR-2010 15:5
IPARM FILE NAME:	p08al72#8.1	SURVEY DATE:	N/A
SURVEYED BY:	N/A	DRAWN BY:	WILDER
SQUAD LEADER:	DOMY	SHEET:	8 OF 17

PAVEMENT AND MARKING DETAIL

INTERCHANGE #22

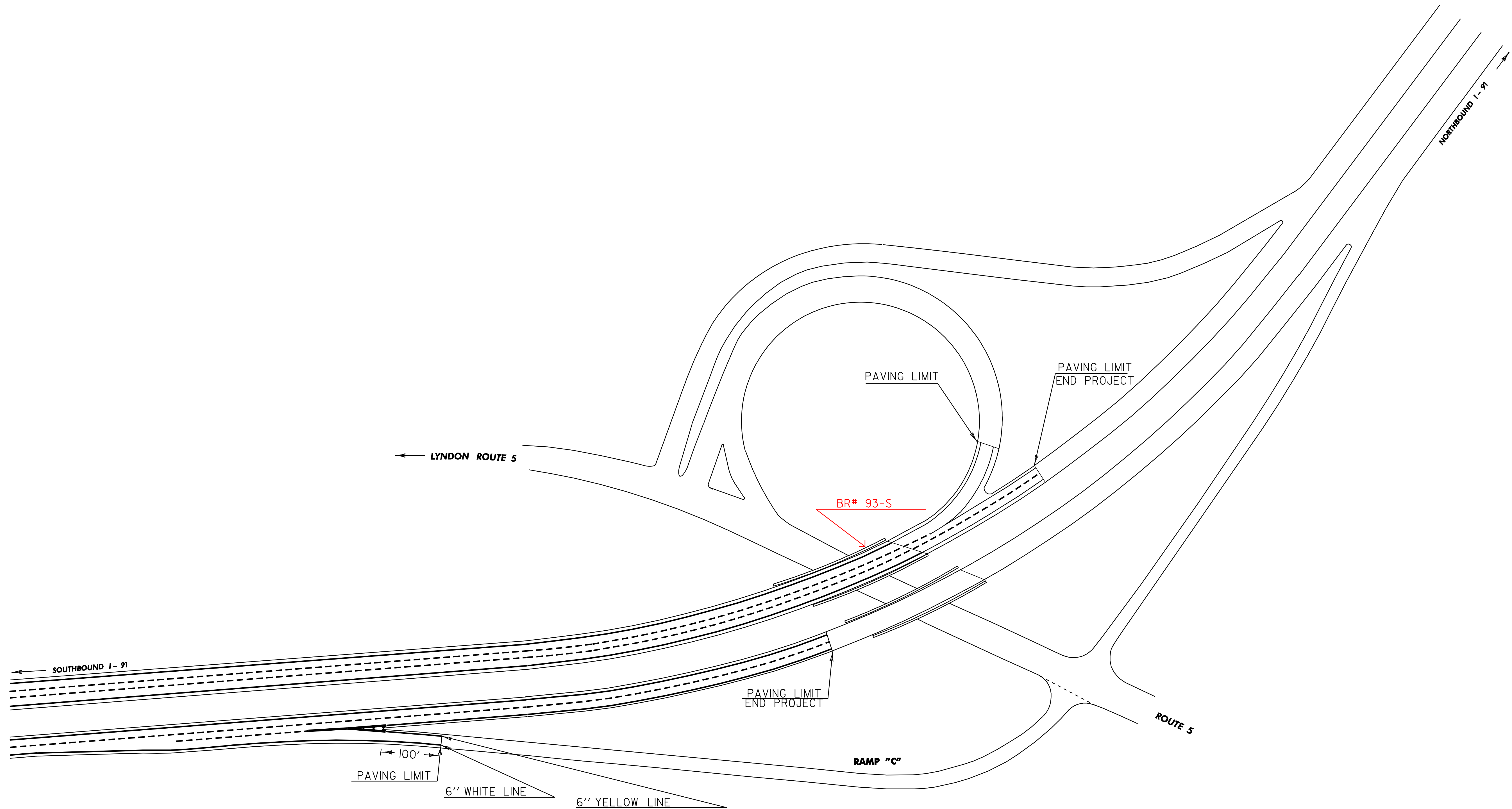


NOT TO SCALE

PROJECT: WATERFORD - LYNDON	PROJECT NO.: IM_SURE(14)
DESIGN FILE NAME: p08al72.dgn	PLOT DATE: 18-MAR-2010 15:5
IPARM FILE NAME: p08al72*9.1	SURVEY DATE: N/A
SURVEYED BY: N/A	DRAWN BY: WILDER
SQUAD LEADER: DOMEY	SHEET: 9 OF 17

PAVEMENT AND MARKING DETAIL

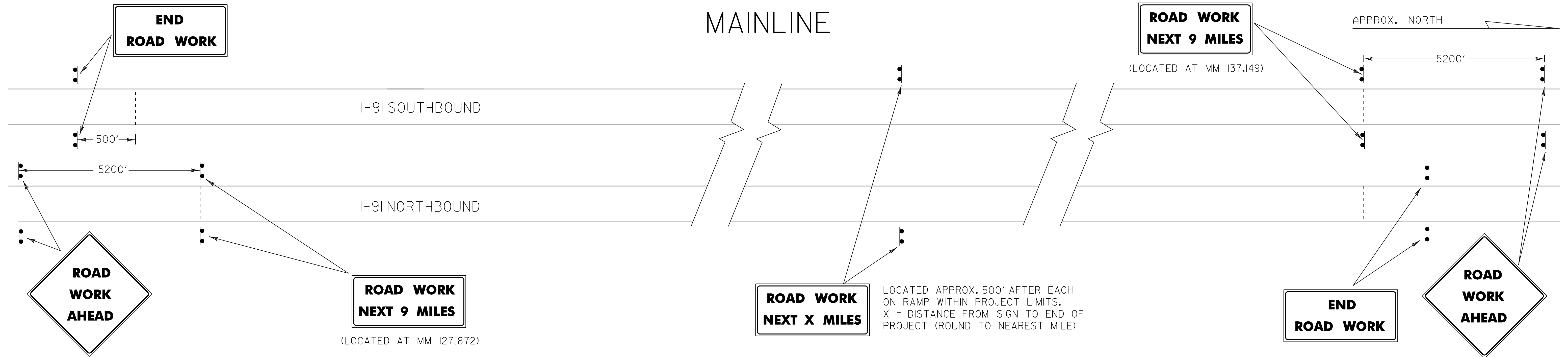
INTERCHANGE #23



NOT TO SCALE

PROJECT:	WATERFORD - LYNDON	PROJECT NO.:	IM_SURE(14)
DESIGN FILE NAME:	p08dl72.dgn	PLOT DATE:	18-MAR-2010 15:5
IPARM FILE NAME:	p08dl72*10.1	SURVEY DATE:	N/A
SURVEYED BY:	N/A	DRAWN BY:	WILDER
SQUAD LEADER:	DOMEY	SHEET:	10 OF 17

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

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".

THE CONTRACTOR SHALL POSITION A PCMS PRIOR TO I-91 INTERCHANGE #19 (WATERFORD) 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.

6. THE LATEST REVISION OF THE 2003 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 ERRECTED OR PLACED OR EXISTING TRAFFIC CONTROL DEVICES ARE REPLACED OR REPAIRED THE EQUIPMENT, DESIGN, METHOD OF INSTALLATION, PLACEMENT OR REPAIR SHALL CONFORM WITH SUCH STANDARDS.

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.

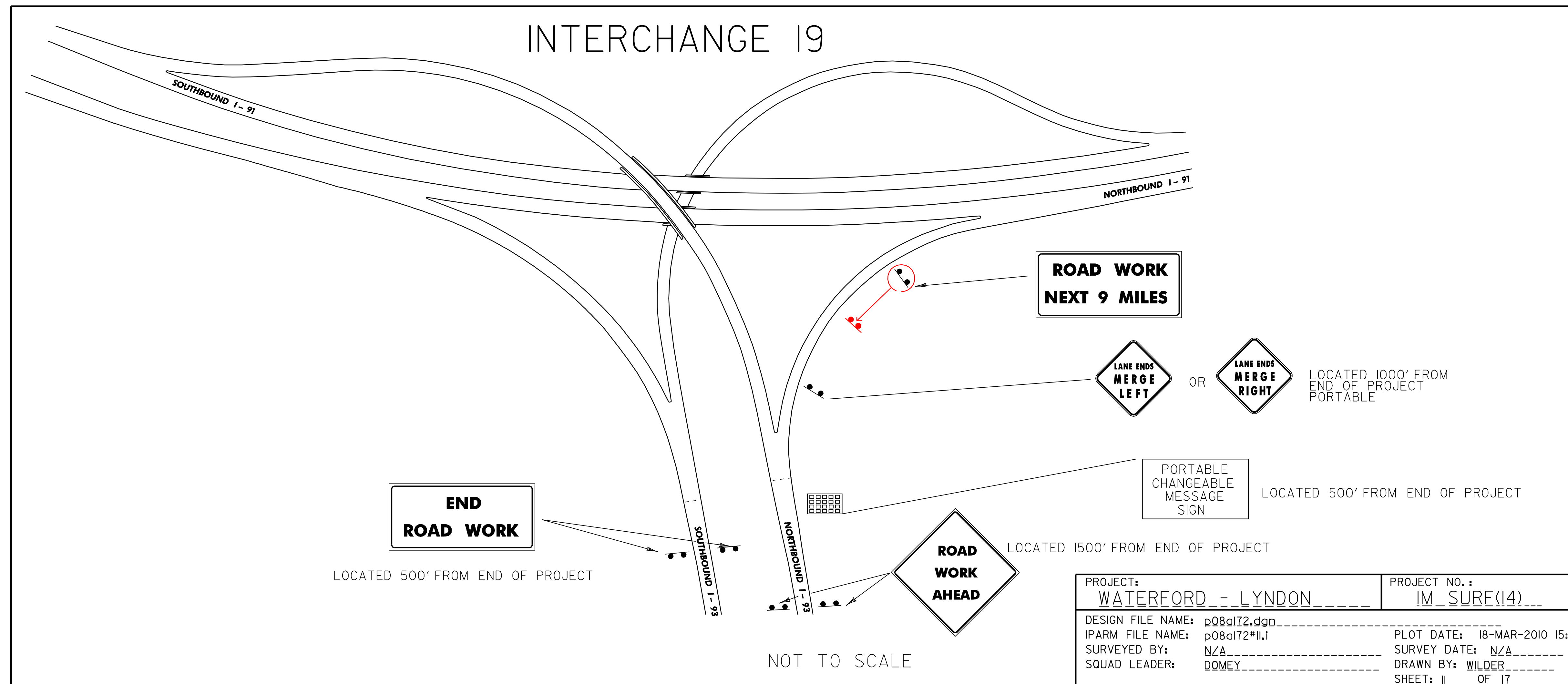
8. REFER TO VT. STATE STANDARDS AND THE MUTCD FOR TEMPORARY TRAFFIC CONTROL SIGN DIMENSIONS AND COLORS.

9. ON VTRANS STANDARD E-103, SIGN W4-2 SHOULD BE REPLACED WITH W9-2:



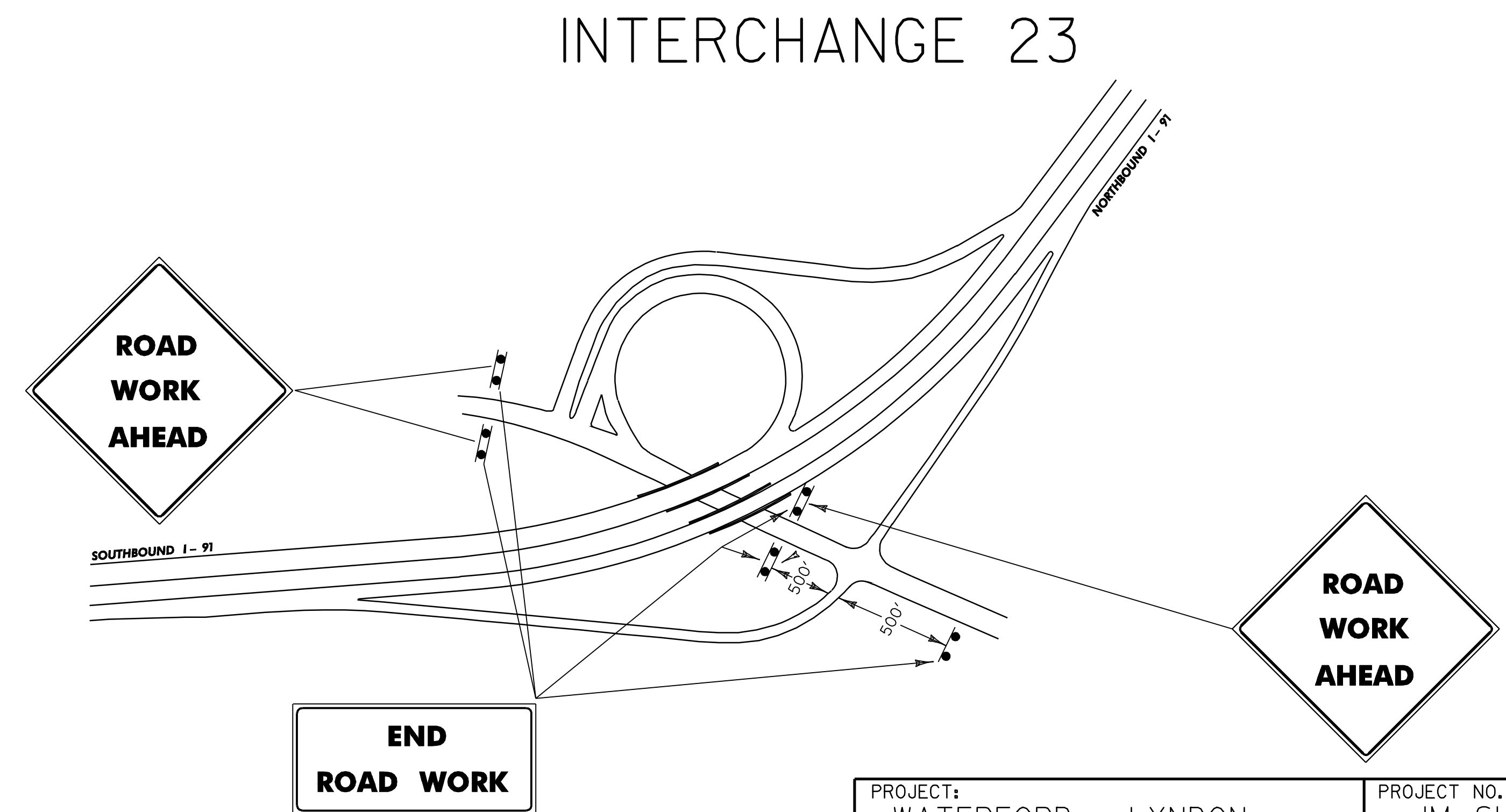
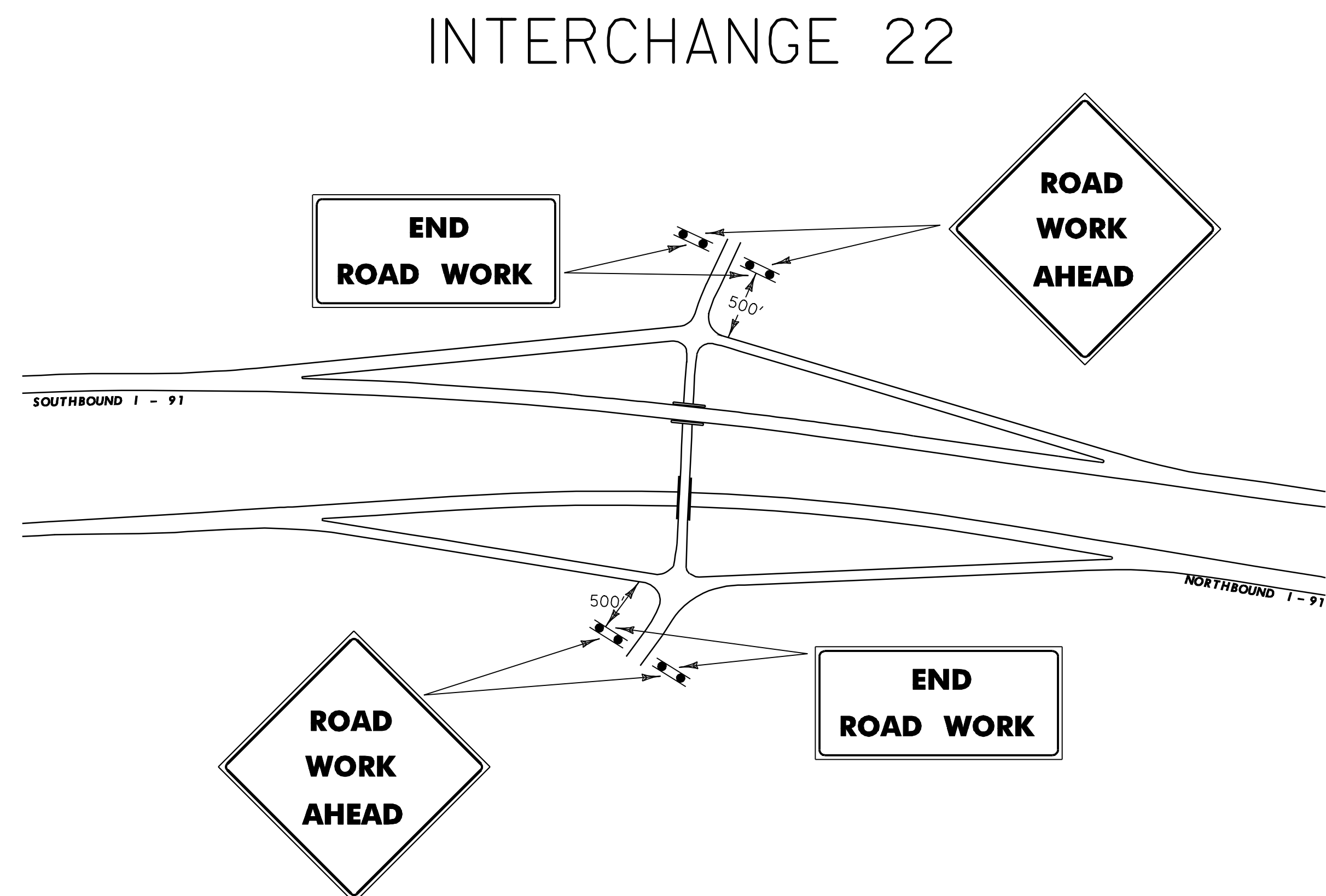
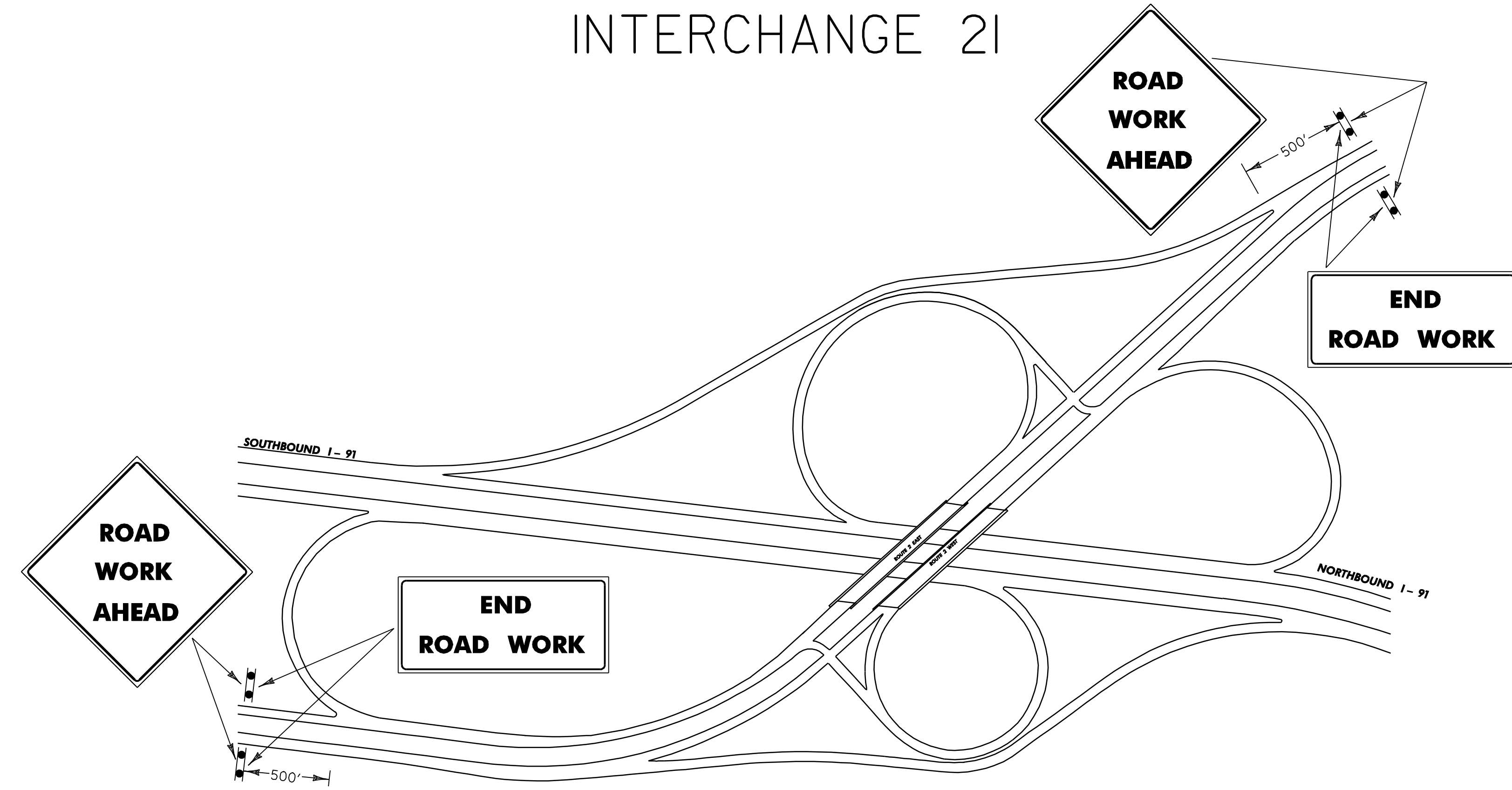
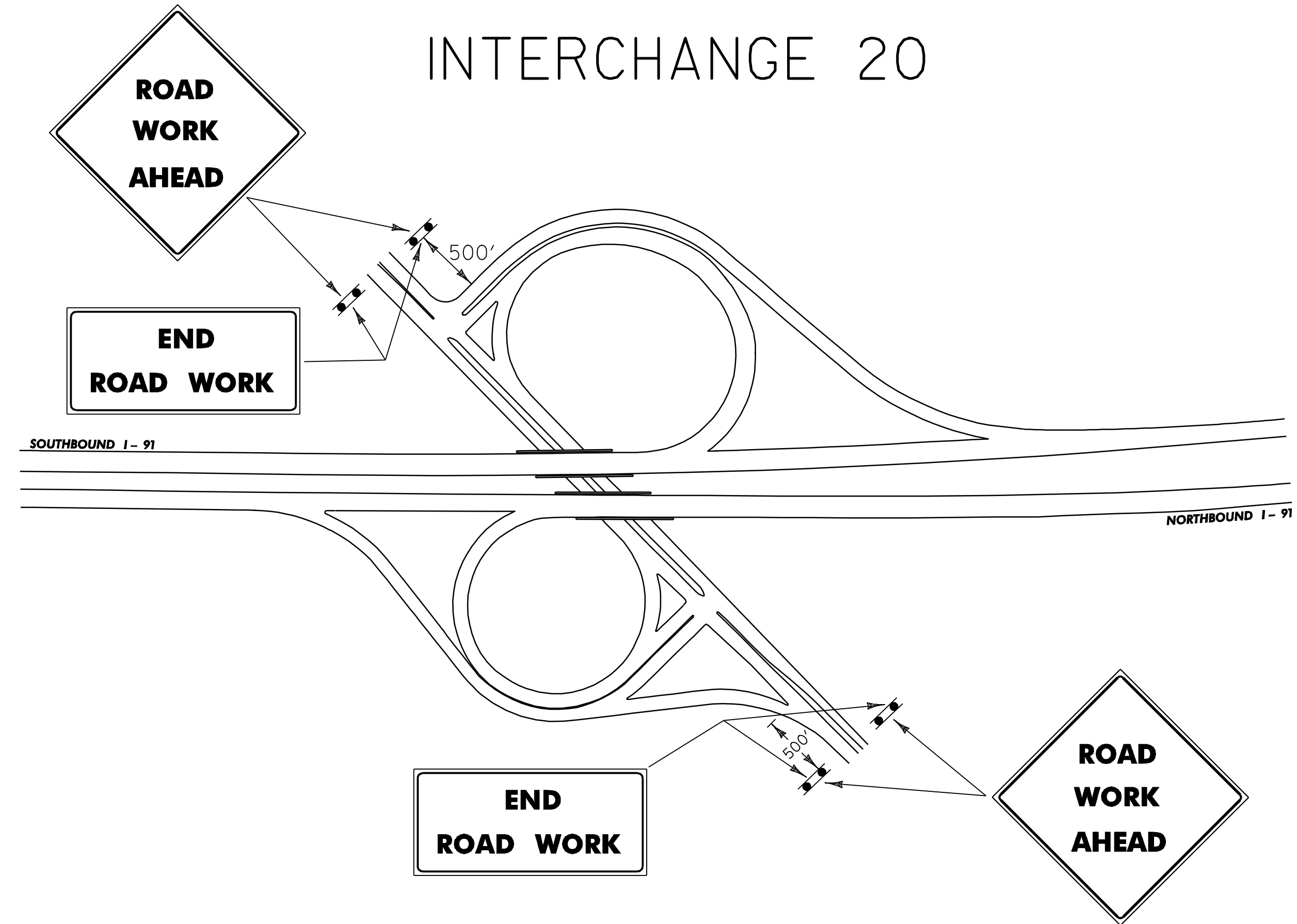
W4-2

W9-2



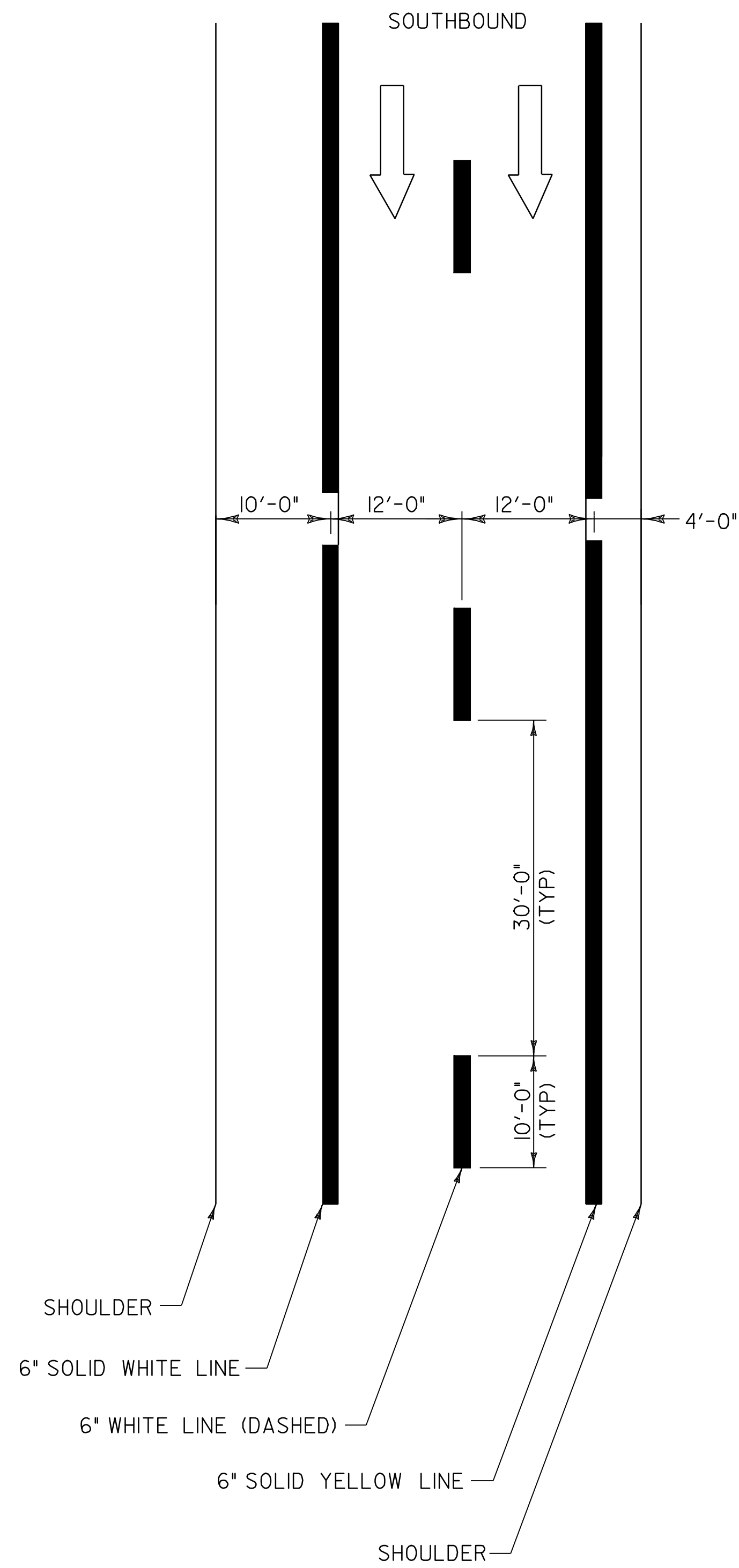
PROJECT:	WATERFORD - LYNDON	PROJECT NO.:	IM_SURE(14)
DESIGN FILE NAME:	p08q172.dgn	PLOT DATE:	18-MAR-2010 15:5
IPARM FILE NAME:	p08q172#11.1	SURVEY DATE:	N/A
SURVEYED BY:	N/A	DRAWN BY:	WILDER
SQUAD LEADER:	DOMY	SHEET:	11 OF 17

CONSTRUCTION APPROACH SIGNING SHEET # 2

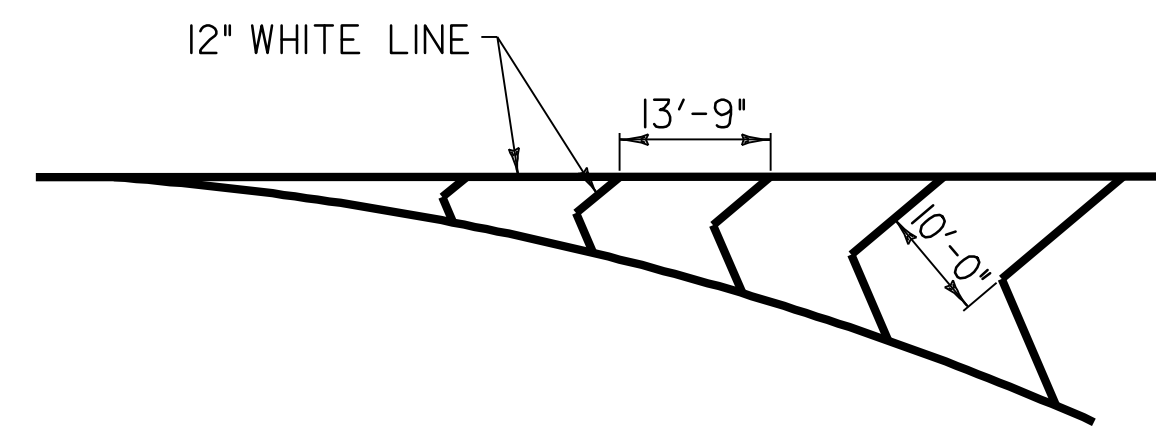


PROJECT:	WATERFORD - LYNDON	PROJECT NO.:	IM_SURE(14)
DESIGN FILE NAME:	p08al72.dgn	PLOT DATE:	18-MAR-2010 15:5
IPARM FILE NAME:	p08al72*12.1	SURVEY DATE:	N/A
SURVEYED BY:	NZA	DRAWN BY:	WILDER
SQUAD LEADER:	DOMEY	SHEET:	12 OF 17

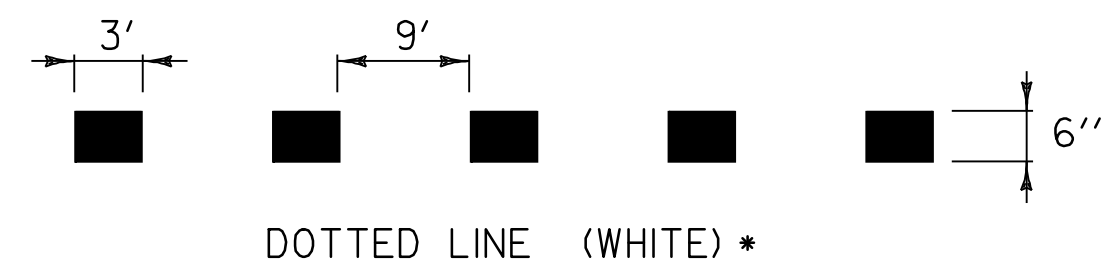
NOT TO SCALE



TYPICAL MAINLINE MARKING PLAN
NOT TO SCALE



GORE MARKING DETAIL
NOT TO SCALE



DOTTED LINE (WHITE) *



SOLID LINE (WHITE OR YELLOW)



CHANNELIZING LINE (WHITE)

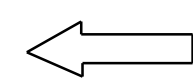
PAVEMENT MARKING LINE DETAILS
NOT TO SCALE

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

NOTES:

1. TWO (2) APPLICATIONS OF FINAL PAVEMENT MARKINGS WILL BE REQUIRED ON BOTH ALTERNATIVE TREATMENTS. 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. 15, 2010.

LEGEND



DIRECTION OF TRAFFIC FLOW

PAVEMENT MARKING DETAIL SHEET

PROJECT NAME: WATERFORD - LYNDON
PROJECT NUMBER: IM SURF (14)

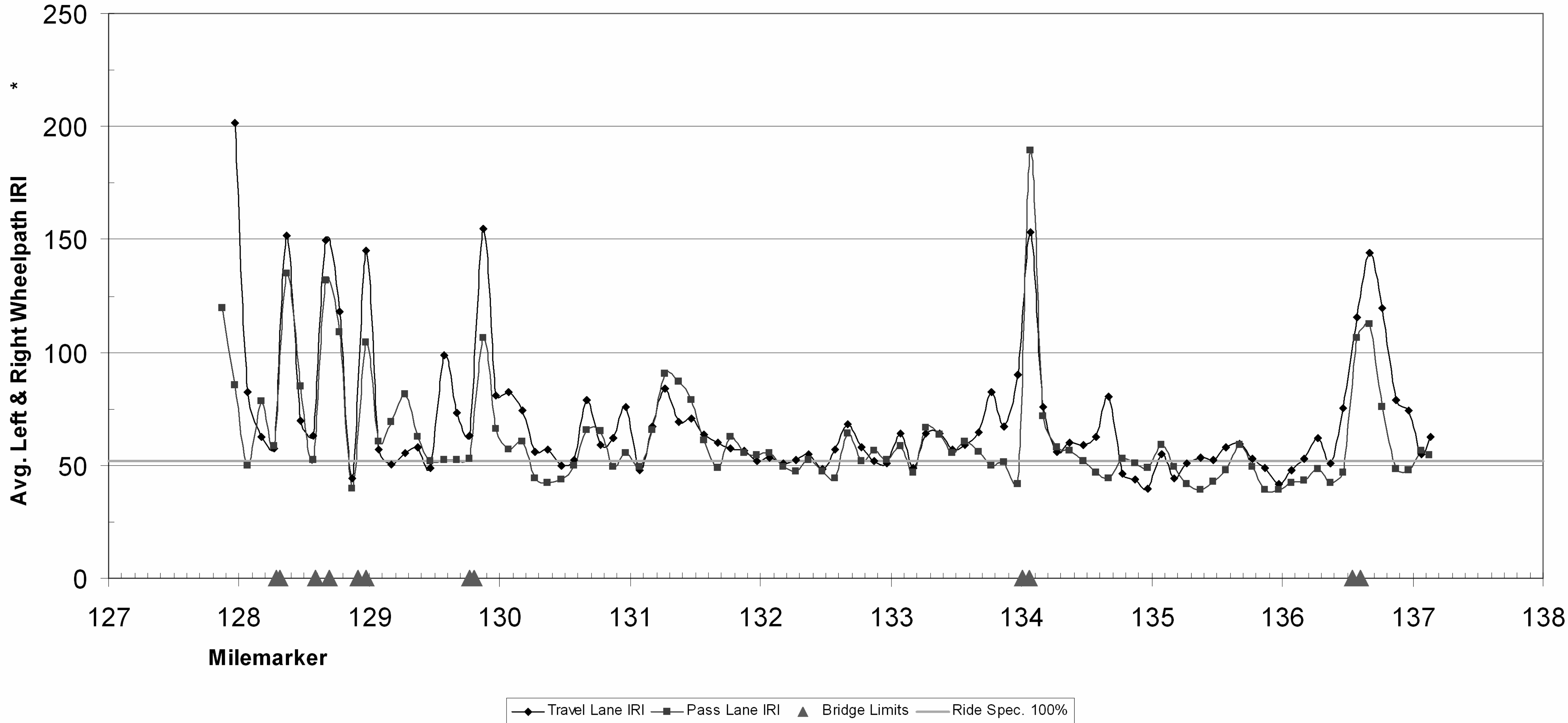
FILE NAME: p08a172.dgn
PROJECT LEADER: DOMEY
DESIGNED BY: WILDER
IPARM FILE NAME: p08a172#13.1

PLOT DATE: 18-MAR-2010 15:55
DRAWN BY: WILDER
CHECKED BY: PAVT MGMT
SHEET 13 OF 17

I91 NB Waterford-St.J-Lyndon IM SURF(14) (2009)

Profiled 11/3/08,12/3/08

Travel Lane Avg. IRI = 70.0 Pass Lane Avg. IRI = 62.0

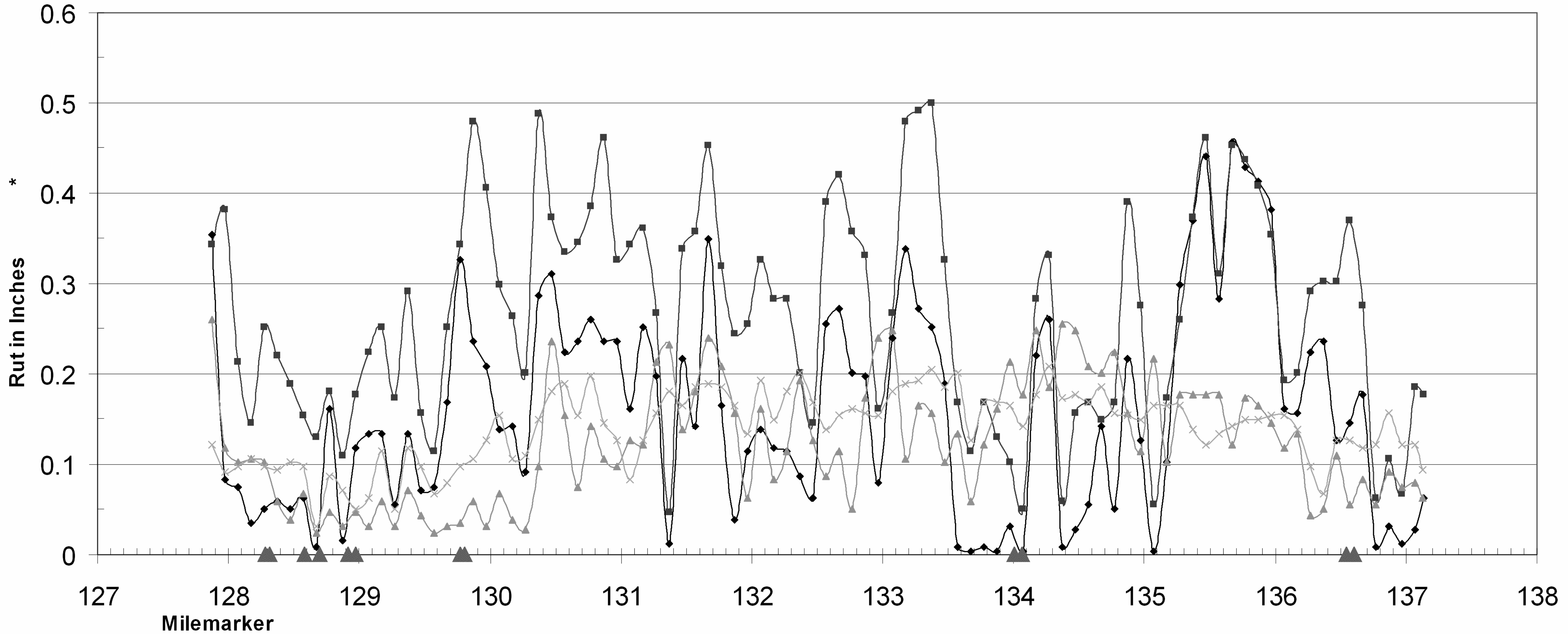


FOR INFORMATIONAL PURPOSES ONLY

ROUGHNESS DATA INFORMATION NORTHBOUND	PROJECT NAME: WATERFORD - LYNDON	
	PROJECT NUMBER: IM SURF (14)	
	FILE NAME: 08a172\p08a172.dgn	PLOT DATE: 18-MAR-2010 15:55
	DESIGNED BY: WILDER	CHECKED BY: PVMT MGMT
IPARM FILE NAME: p08a172*14.i	SHEET 14 OF 17	

I91 NB Waterford-St.J-Lyndon IM SURF(14) (2009)

Profiled 11/3/08,12/3/08



◆ Travel Lane LWP Rut
 ■ Travel Lane RWP Rut
 ▲ Pass Lane LWP Rut
 × Pass Lane RWP Rut
 ▲ Bridge Limits

FOR INFORMATIONAL PURPOSES ONLY

**RUTTING
DATA
INFORMATION
NORTHBOUND**

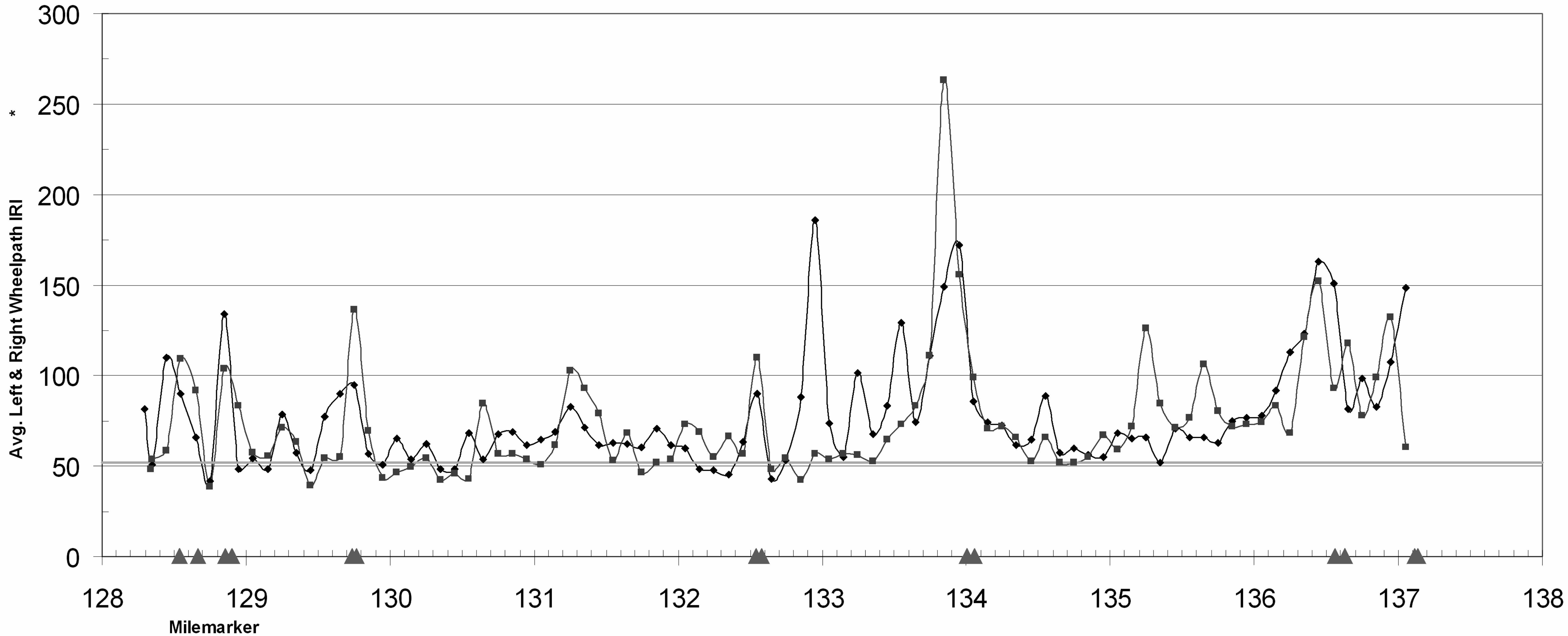
PROJECT NAME: WATERFORD - LYNDON
PROJECT NUMBER: IM SURF (14)

FILE NAME: 08a172\p08a172.dgn PLOT DATE: 18-MAR-2010 15:55
PROJECT LEADER: DOMEY DRAWN BY: WILDER
DESIGNED BY: WILDER CHECKED BY: PVMT MGMT
IPARM FILE NAME: p08a172#15.1 SHEET 15 OF 17

I91 SB Waterford-St.J-Lyndon IM SURF(14) (2009)

Profiled 11/3/08,12/3/08

Travel Lane Avg. IRI = 77.1 Pass Lane Avg. IRI = 73.9



◆ Travel Lane IRI ■ Pass Lane IRI ▲ Bridge Limits — Ride Spec. 100%

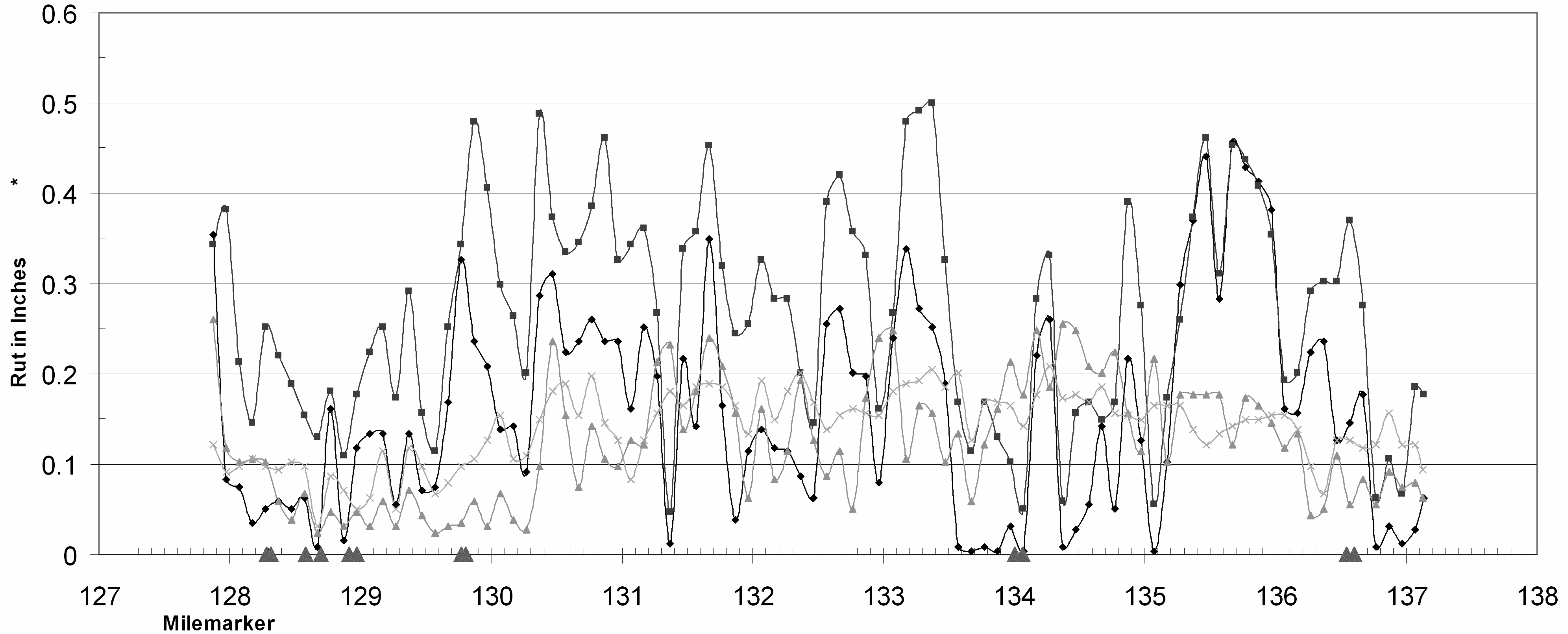
FOR INFORMATIONAL PURPOSES ONLY

**ROUGHNESS
DATA
INFORMATION
SOUTHBOUND**

PROJECT NAME: WATERFORD - LYNDON	PLOT DATE: 18-MAR-2010 15:55
PROJECT NUMBER: IM SURF (14)	DRAWN BY: WILDER
FILE NAME: 08a172\p08a172.dgn	CHECKED BY: PVMT MGMT
DESIGNED BY: WILDER	SHEET 16 OF 17
IPARM FILE NAME: p08a172*16.i	

I91 NB Waterford-St.J-Lyndon IM SURF(14) (2009)

Profiled 11/3/08,12/3/08



◆ Travel Lane LWP Rut
 ■ Travel Lane RWP Rut
 ▲ Pass Lane LWP Rut
 × Pass Lane RWP Rut
 ▲ Bridge Limits

FOR INFORMATIONAL PURPOSES ONLY

**RUTTING
DATA
INFORMATION
SOUTHBOUND**

PROJECT NAME: WATERFORD - LYNDON
PROJECT NUMBER: IM SURF (14)

FILE NAME: 08a172\p08a172.dgn
PROJECT LEADER: DOMEY
DESIGNED BY: WILDER
IPARM FILE NAME: p08a172*17.1

PLOT DATE: 18-MAR-2010 15:55
DRAWN BY: WILDER
CHECKED BY: PVMT MGMT
SHEET 17 OF 17