

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

*31+1 = 38 TOTAL SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	MCHENRY	37*	1
ILLINOIS			CONTRACT NO. 60M89	

FOR INDEX OF SHEETS, SEE SHEET NO. 2

**PROPOSED
HIGHWAY PLANS**

FAP ROUTE 305 – US 14 (SN 056-0051)
OVER KISHWAUKEE RIVER PROJECT

SECTION 29B-1 PROJ. NO: ACNHPP-0305(049)

BRIDGE JOINT AND DECK REPAIRS,
BRIDGE APPROACH PAVEMENT REPLACEMENT
MCHENRY COUNTY

C-91-195-11

TRAFFIC DATA

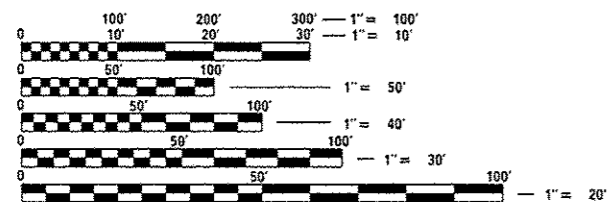
EXISTING ADT = 7400

POSTED SPEED LIMIT = 55 MPH

PROJECT IS LOCATED
IN HARTLAND TOWNSHIP



LOCATION OF SECTION INDICATED THUS: - [black rectangle] -

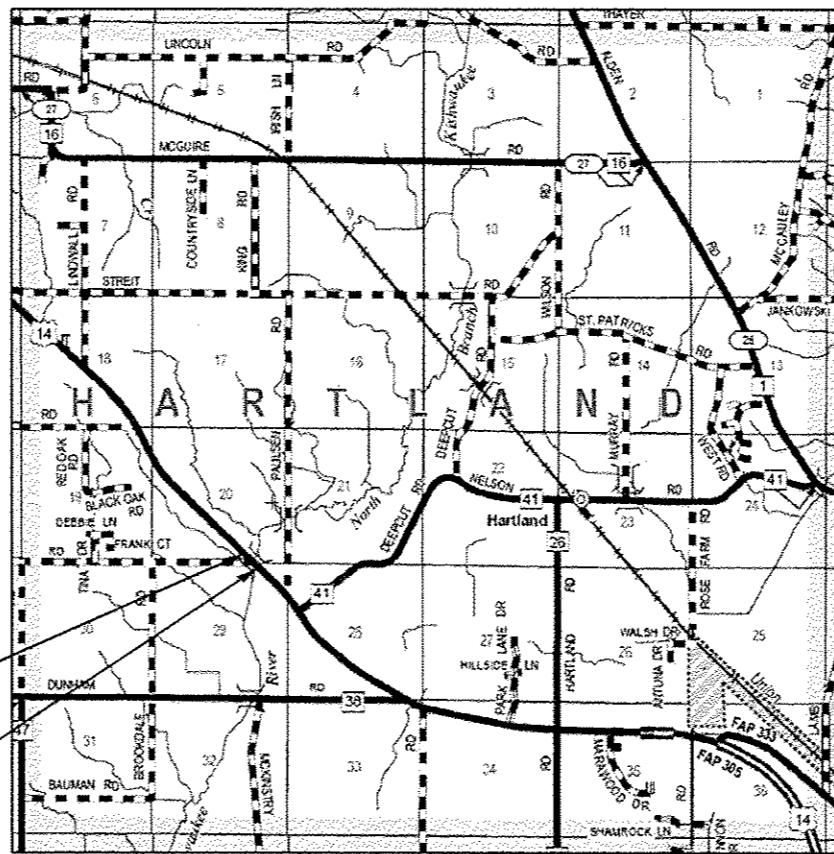


FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123
OR 811

IMPROVEMENT BEGINS
STA. 280 + 42.50

IMPROVEMENT ENDS
STA. 282 + 45.1



T 45 N
LOCATION MAP
NOT TO SCALE

GROSS LENGTH = 202.60 FT. = 0.038 MILE
NET LENGTH = 202.60 FT. = 0.038 MILE

PROJECT ENGINEER: J. ALAIN MIDY (847) 221-3056
PROJECT MANAGER: ISSAM RAYYAN (847) 705-4178

CONTRACT NO. 60M89

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUBMITTED August 23 2016
John F. [Signature] REGIONAL ENGINEER

Sept 20 2016
Maureen M. Addis PE, [Signature] CHIEF ENGINEER OF DESIGN AND ENVIRONMENT

Sept 30 2016
[Signature] 2 DIRECTOR OF PROGRAM DEVELOPMENT

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS

INDEX OF SHEETS

- 1 TITLE SHEET
- 2 INDEX OF SHEETS, GENERAL NOTES AND HIGHWAY STANDARDS
- 3-4 SUMMARY OF QUANTITIES
- 5 MOT - GENERAL NOTES & TYPICAL SECTIONS
- 6 SUGGESTED TRAFFIC CONTROL STAGES 1 & 2
- 7 MAX WIDTH SIGN DETAIL
- 8 TRAFFIC DETOUR FOR STAGE 2
- 9 TEMPORARY LIGHTING AND TRAFFIC SIGNALS
- 10 ROADWAY PLAN AND PAVEMENT MARKING
- 11 GENERAL PLAN AND ELEVATION
- 12 GENERAL NOTES, INDEX OF SHEETS AND TOTAL BILL OF MATERIALS
- 13 STAGE CONSTRUCTION DETAILS
- 14 TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
- 15 BRIDGE DECK REMOVAL AND REPAIR PLAN (1 OF 2)
- 16 BRIDGE DECK REMOVAL AND REPAIR PLAN (2 OF 2)
- * 17 SUPERSTRUCTURE RECONSTRUCTION DETAILS (1 OF 2)
- 18 SUPERSTRUCTURE RECONSTRUCTION DETAILS (2 OF 2)
- 19 APPROACH SLAB DETAILS
- 20 PREFORMED JOINT STRIP SEAL
- 21 BEARING DETAILS
- 22 BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
- 23 EXISTING APPROACH SLAB DETAILS
- 24 EXISTING BRIDGE PLANS (1 OF 4)
- 25 EXISTING BRIDGE PLANS (2 OF 4)
- 26 EXISTING BRIDGE PLANS (3 OF 4)
- 27 EXISTING BRIDGE PLANS (4 OF 4)
- 28 BE-800 TEMPORARY LIGHT POLE DETAILS
- 29 BE-801 TEMPORARY AERIAL CABLE INSTALLATION
- 30-32 BE-805 TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING (1 THRU 3 OF 3)
- 33 TC-11 TYPICAL APPLICATIONS-RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PROOF RESISTANT)
- 34 TC-13 TYPICAL PAVEMENT MARKINGS
- 35 TC-21 DETOUR SIGNING FOR CLOSING STATE HIGHWAYS
- 36 TC-22 ARTERIAL ROAD INFORMATION SIGN
- 37 B0400-04 (B0-22) PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT

* INCLUDES SHEET 17A.

HIGHWAY STANDARDS

- 420401-12 BRIDGE APPROACH PAVEMENT CONNECTOR
- 442201-03 CLASS C AND D PATCHES
- 725001 REFLECTOR AND TERMINAL MARKER PLACEMENT
- 782006 REFLECTOR MARKER AND MOUNTING DETAILS
- 701006-05 OFF-ROAD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24' (600 mm) FROM PAVEMENT EDGE
- 701306-03 LANE CLOSURE 2L, 2W SLOW MOVING OPERATIONS DAY ONLY FOR SPEEDS ≥ 45 MPH
- 701311-03 LANE CLOSURE 2L, 2W MOVING OPERATIONS-DAY ONLY
- 701321-15 LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
- 701901-05 TRAFFIC CONTROL DEVICES
- 704001-08 TEMPORARY CONCRETE BARRIER
- 880001-01 SPAN WIRE MOUNTED SIGNALS AND FLASHING BEACON INSTALLATION

GENERAL NOTES

- 1 THESE PLANS HAVE BEEN PREPARED FROM INFORMATION ACQUIRED FROM EXISTING PLANS AND NOTES RECEIVED FROM IDOT FIELD MAINTENANCE ENGINEERS.
- 2 IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY ALL DIMENSIONS AND CONDITIONS EXISTING IN THE FIELD PRIOR TO CONSTRUCTION AND ORDERING OF MATERIALS.
- 3 QUANTITIES OF DECK SLAB REPAIR ARE APPROXIMATE. LOCATIONS WILL BE DETERMINED BY THE ENGINEER FOLLOWING THE HYDRO-SCARIFICATIONS. ACTUAL REPAIR LOCATIONS SHALL BE SHOWN ON THE AS-BUILT PLANS.
- 4 FORTY-EIGHT HOURS BEFORE STARTING EXCAVATION, THE CONTRACTOR WILL CALL J.U.L.I.E. (1-800-892-0123) OR 811 FOR LOCATION OF THE EXISTING UTILITIES.
- 5 THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES, AND THE HARTLAND TOWNSHIP.
- 6 THE CONTRACTOR WILL NOT BE ALLOWED TO SET UP A YARD OR FIELD OFFICE ON STATE PROPERTY WITHOUT WRITTEN PERMISSION FROM THE DEPARTMENT.
- 7 SAW CUTTING REMOVAL ITEMS NOTED ON THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE CONSIDERED INCLUDED IN THE COST OF THE ITEMS BEING REMOVED.
- 8 DO NOT SCALE PLANS FOR CONSTRUCTION DIMENSIONS.
- 9 THE CONTRACTOR SHALL USE CARE IN REMOVING OR EXCAVATING NEAR ALL EXISTING ITEMS WHICH WILL REMAIN. ANY DAMAGE DONE TO EXISTING ITEMS BY THE CONTRACTOR SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 10 WHEN ARTIFICIAL LIGHTING IS UTILIZED IN NIGHT OPERATIONS, THE CONTRACTOR SHALL EXERCISE THE UTMOST PRECAUTIONS IN PREVENTING ADVERSE VISIBILITY TO THE MOTORING PUBLIC AS WELL AS ADJOINING RESIDENTIAL AREAS.
- 11 THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS, AS REQUIRED, PRIOR TO COMMENCING WITH CONSTRUCTION AT NO ADDITIONAL COST.
- 12 THE CONTRACTOR SHALL TAKE ALL NECESSARY MEASURES TO ASSURE THAT NO DEBRIS FALLS INTO THE RIVER. THE COST OF THIS WORK SHALL BE INCLUDED IN THE RESPECTIVE PAY ITEMS FOR DEMOLITION AND CONSTRUCTION.
- 13 THE CONTRACTOR SHALL CONTACT THE TRAFFIC CONTROL SUPERVISOR AT (847) 438-2300 A MINIMUM OF 72 HOURS PRIOR TO STARTING WORK.
- 14 ALL DAMAGE TO EXISTING PAVEMENT MARKINGS OUTSIDE THE REMOVAL LINE SHOWN ON THE PLANS SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
- 15 THE CONTRACTOR'S OPERATIONS AND TEMPORARY STORAGE ACTIVITIES SHALL BE LIMITED TO THE WORK AREA AND/OR CONSTRUCTION LIMITS, AND THE AREA IMMEDIATELY ADJACENT TO PROPOSED CURB LINES. ANY ADDITIONAL STAGING AREAS ADJACENT TO THE PROJECT ARE SUBJECT TO PRIOR APPROVAL BY THE ENGINEER. NO ADDITIONAL COMPENSATION WILL BE ALLOWED TO THE CONTRACTOR FOR COMPLIANCE WITH THE ABOVE REQUIREMENTS.
- 16 THE CONTRACTOR'S PERSONNEL SHALL NOT BE ALLOWED TO PARK PERSONAL VEHICLES IN THE WORK AREA AND/OR CONSTRUCTION LIMITS.
- 17 THE CONTRACTOR WILL BE REQUIRED TO COMPLY WITH STATE OR LOCAL REGULATIONS REGARDING AIR, WATER, AND NOISE POLLUTION.
- 18 THE LOCATION AND TYPE OF CLASS D PATCHES WILL BE DETERMINED BY THE ENGINEER. THE ACTUAL LOCATIONS SHALL BE SHOWN ON THE AS-BUILT PLANS.

NOTES FOR TEMPORARY TRAFFIC SIGNALS

- 1 ALL CONTROL EQUIPMENT INCLUDING EMERGENCY PRE-EMPTION AND COMMUNICATION DEVICES FOR THE TEMPORARY TRAFFIC SIGNAL(S) SHALL BE FURNISHED BY THE CONTRACTOR.
- 2 ONLY CONTROLLERS SUPPLIED BY ONE OF THE DISTRICT APPROVED CLOSED LOOP EQUIPMENT MANUFACTURERS WILL BE APPROVED FOR USE AT TEMPORARY SIGNAL LOCATIONS. ALL CONTROLLERS USED FOR TEMPORARY TRAFFIC SIGNALS SHALL BE FULLY ACTUATED NEMA MICROPROCESSOR BASED WITH RS232 DATA ENTRY PORTS COMPATIBLE WITH EXISTING MONITORING SOFTWARE APPROVED BY IDOT DISTRICT 1, INSTALLED IN A NEMA TS2 CABINET. ONLY ONE BRAND OF CONTROLLER WILL BE ACCEPTED FOR ANY ONE CONTRACT.
- 3 ALL TRAFFIC SIGNAL SECTIONS AND PEDESTRIAN SIGNAL SECTIONS SHALL BE LED AND 12" (300mm) DIAMETER. HEADS SHALL BE PLACED AS INDICATED ON THE TEMPORARY TRAFFIC SIGNAL PLAN OR AS DIRECTED BY THE ENGINEER. PEDESTRIAN SIGNALS SHALL INCLUDE SOLID INTERNATIONAL SYMBOLS. PEDESTRIAN SIGNALS WITH COUNTDOWN TIMERS SHALL BE USED WHEN THE EXISTING INSTALLATION UTILIZES COUNTDOWN TYPE OR AS DIRECTED BY THE ENGINEER. COUNTDOWN TYPE PEDESTRIAN SIGNALS ARE NOT TO BE INSTALLED AT A RAILROAD INTERSECTION. THE CONTRACTOR SHALL FURNISH ENOUGH CABLE SLACK TO RELOCATE HEADS TO ANY POSITION ON THE SPAN WIRE OR AT LOCATIONS ILLUSTRATED ON THE PLANS FOR CONSTRUCTION STAGING. THE TEMPORARY TRAFFIC SIGNAL SHALL REMAIN IN OPERATION DURING ALL SIGNAL HEAD RELOCATIONS. EACH TEMPORARY TRAFFIC SIGNAL HEAD SHALL HAVE ITS OWN CABLE FROM THE CONTROLLER CABINET TO THE SIGNAL HEAD.
- 4 ALL EXISTING STREET NAME AND INTERSECTION REGULATORY SIGNS SHALL BE REMOVED FROM EXISTING POLES, RELOCATED AND SECURELY FASTENED TO THE SPAN WIRE OR WOOD POLE AS DIRECTED BY THE ENGINEER.
- 5 ANY TEMPORARY SIGNAL WITHIN AN EXISTING CLOSED LOOP TRAFFIC SIGNAL SYSTEM SHALL BE INTERCONNECTED TO THAT SYSTEM USING SIMILAR BRAND CONTROL EQUIPMENT.
- 6 THE TEMPORARY TRAFFIC SIGNAL SHALL HAVE THE SIGNAL HEAD DISPLAYS, SIGNAL HEAD PLACEMENTS AND CONTROLLER PHASING MATCH THE EXISTING TRAFFIC SIGNAL, AT THE TIME OF THE TURN ON, IF NO TRAFFIC STAGING IS IN PLACE OR WILL NOT BE STAGED ON THE DAY OF THE TURN ON.
- 7 UNINTERRUPTIBLE POWER SUPPLY (UPS) SYSTEMS SHALL BE INSTALLED AND MADE OPERATIONAL AT TEMPORARY TRAFFIC SIGNAL INSTALLATIONS WHERE UPS IS INSTALLED AT THE EXISTING TRAFFIC SIGNAL, TEMPORARY TRAFFIC SIGNALS AT RAILROAD INTERSECTIONS, AND TEMPORARY TRAFFIC SIGNALS AT INTERSECTIONS WITH FIRE STATION ACTUATED EMERGENCY VEHICLE PRE-EMPTION, OR WHEN INDICATED ON THE PLANS.
- 8 TRAFFIC SIGNAL MANAGEMENT SYSTEMS SHALL BE MAINTAINED IN OPERATION AS INDICATED ON THE PLANS OR AS DIRECTED BY THE ENGINEER. REQUIRED EQUIPMENT SHALL BE AS SHOWN ON THE PLANS AND THE CONTRACTOR SHALL PLACE THE EQUIPMENT IN OPERATION TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE TRAFFIC SIGNAL MANAGEMENT SYSTEM.
- 9 DETECTION AT TEMPORARY TRAFFIC SIGNALS SHALL BE INCLUDED FOR ALL APPROACHES OF THE INTERSECTION UNLESS INDICATED OTHERWISE ON THE PLANS. THE DETECTION SYSTEM MUST MEET THE SPECIFICATIONS OF DISTRICT 1 AND THE CONTRACTOR SHALL PLACE THE DETECTORS INTO OPERATION TO THE SATISFACTION OF THE ENGINEER.
- 10 WHEN PAN, TILT, ZOOM CAMERAS ARE INSTALLED AT THE EXISTING INTERSECTION OR ARE CALLED FOR IN THE PLANS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING THE CAMERAS TO THE SATISFACTION OF THE ENGINEER AND THE AGENCY RESPONSIBLE FOR THE CAMERAS.
- 11 24" WHITE STOP BAR TO BE INSTALLED AFTER THE INSTALLATION AND IMPLEMENTATION OF THE TEMPORARY TRAFFIC SIGNALS.
- 12 CONTROLLER WITH STEEL BASE CABINET AND BATTERY BACK-UP CABINET SHALL BE MOUNTED ON A WOOD STAND.
- 13 UN-INTERRUPTIBLE POWER SUPPLY (UPS) SHALL BE INCLUDED IN TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION PAY ITEM.
- 14 1) WOOD POLES INSTALLED BY THE TRAFFIC CONTRACTOR (SEE TEMPORARY TRAFFIC SIGNAL PLANS).
- 15 PROPOSED WOOD POLES FOR ROADWAY LIGHTING SHALL UTILIZE A COMBINATION ELECTRIC SERVICE BOX. (SEE DETAIL)
- 16 TRAFFIC SIGNAL AND ROADWAY LIGHTING SHALL UTILIZE A COMBINATION ELECTRIC SERVICE BOX. (SEE DETAIL)
- 17 ALL SIGNAL HEADS SHALL BE L.E.D.

Rev.

USER NAME : hardmetbr PLOT SCALE : 100.0000' / 1" = 100' PLOT DATE : 0/26/2016	DESIGNED - RAD DRAWN - WHI CHECKED - RAD DATE - 02/03/2012	REVISED - REVISED - REVISED - REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 14 OVER KISHWAUKEE RIVER INDEX OF SHEETS, GENERAL NOTE & HIGHWAY STANDARDS	F.A.P. RTE. 305	SECTION 298-1	COUNTY MCHENRY	TOTAL SHEETS 37	SHEET NO. 2	CONTRACT NO. 60M89 ILLINOIS FED. AID PROJECT
SCALE: SHEET NO. OF SHEETS STA. TO STA.										

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE				SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE			
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY	BRIDGE			CODE NO	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY	BRIDGE		
				0004	0014							0004	0014		
31102100	SUBBASE GRANULAR MATERIAL, TYPE C 4"	SO YD	540	540				* 63301210	REMOVE AND REERECT STEEL PLATE BEAM GUARDRAIL, TYPE A	FOOT	100	100			
20200100	EARTH EXCAVATION	CU YD	60	60				* 63100085	TRAFFIC BARRIER TERMINAL, TYPE 6	EACH	4		4		
42000080	PAVEMENT CONNECTOR (PCC) FOR BRIDGE APPROACH SLAB	SO YD	247	247				* 63302700	REMOVE AND REERECT TRAFFIC BARRIER TERMINALS, TYPE 6	EACH	4	4			
44000100	PAVEMENT REMOVAL	SO YD	635	635				64200110	SHOULDER RUMBLE STRIPS, 16 INCH	FOOT	470	470			
44201765	CLASS D PATCHES, TYPE II, 10 INCH	SO YD	10	10				67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	4	4			
44201769	CLASS D PATCHES, TYPE III, 10 INCH	SO YD	20	20				67100100	MOBILIZATION	LSUM	1	1			
44201771	CLASS D PATCHES, TYPE IV, 10 INCH	SO YD	30	30				70100460	TRAFFIC CONTROL AND PROTECTION, STANDARD 701306	LSUM	1	1			
48203037	HOT-MIX ASPHALT SHOULDERS, 10"	SO YD	458	458				70106700	TEMPORARY RUMBLE STRIPS	EACH	6	6			
50102400	CONCRETE REMOVAL	CU YD	24.8		24.8			70106800	CHANGEABLE MESSAGE SIGN	CAL MO	3	3			
50300255	CONCRETE SUPERSTRUCTURE	CU YD	30.4		30.4			70400100	TEMPORARY CONCRETE BARRIER	FOOT	562.5	562.5			
50300225	CONCRETE STRUCTURES	CU YD	36.5		36.5			70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	563	563			
50300260	BRIDGE DECK GROOVING	SO YD	727		727			70600250	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
50300300	PROTECTIVE COAT	SO YD	359		359			70600350	IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE), TEST LEVEL 3	EACH	2	2			
50301350	CONCRETE SUPERSTRUCTURE (APPROACH SLAB)	CU YD	116.2		116.2			* 78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	3123	3123			
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	52,590		52,590			* 78008270	POLYUREA PAVEMENT MARKING TYPE I - LINE 24"	FOOT	12	12			
50800515	BAR SPLICERS	EACH	256		256			* 78100100	RAISED REFLECTIVE PAVEMENT MARKER	EACH	12	12			
52000110	PREFORMED JOINT STRIP SEAL	FOOT	61		61			* 78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	4		4		
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	1		1			* 78200011	BARRIER WALL REFLECTORS, TYPE C	EACH	8		8		
								16 X0327980	PAVEMENT MARKING REMOVAL - WATER BLASTING	SO FT	1065	1065			

SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE						SUMMARY OF QUANTITIES				CONSTRUCTION TYPE CODE						
CODE NO	ITEM	UNIT	TOTAL QUANTITIES	ROADWAY 0004	BRIDGE 0014					CODE NO	ITEM	UNIT	TOTAL QUANTITIES							
78300200	RAISED REFLECTIVE PAVEMENT MARKER REMOVAL	EACH	16	16																
89000050	TEMPORARY BRIDGE TRAFFIC SIGNAL INSTALLATION	EACH	1	1																
X0326276	TEMPORARY LIGHTING FOR SINGLE LANE STAGING	LSUM	1	1																
X4810200	AGGREGATE SHOULDER REMOVAL	CU YD	100	100																
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	LSUM	1	1																
X7030030	WET REFLECTIVE TEMPORARY TAPE TYPE III, 4 INCH	FOOT	2604	2604																
X7030055	WET REFLECTIVE TEMPORARY TAPE TYPE III, 24 INCH	FOOT	12	12																
Z0004552	APPROACH SLAB REMOVAL	SO YD	254		254															
Z0006014	BRIDGE DECK LATEX CONCRETE OVERLAY, 2 1/2 INCHES	SO YD	453		453															
Z0012130	BRIDGE DECK SCARIFICATION 3/4"	SO YD	453		453															
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SO YD	6		6															
Z0030850	TEMPORARY INFORMATION SIGNING	SO FT	77.1	77.1																
Z0073510	TEMPORARY TRAFFIC SIGNAL TIMING	EACH	1	1																

13

213 4 5 011

GENERAL NOTES -- TRAFFIC CONTROL

MAINTENANCE OF TRAFFIC DEVICES TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARDS 701321 AND DISTRICT ONE STANDARDS BE-805, TC-11 AND TC-13. ADDITIONAL SIGNAGE MAY BE REQUIRED BY THE RESIDENT ENGINEER. THIS WORK AND SIGNAGE IS INCLUDED IN THE PAY ITEM FOR TRAFFIC CONTROL AND PROTECTION, (SPECIAL).

THE MAINTENANCE OF TRAFFIC CONTROL PLANS SHALL SERVE AS A GUIDE FOR SAFE DIVERSION OF TRAFFIC DURING EXECUTION OF THIS CONTRACT. HOWEVER, THE CONTRACTOR MAY MODIFY THE MOT PLANS TO MEET CONSTRUCTION NEEDS BUT NOT AT THE EXPENSE OF THE PUBLIC SAFETY OR CONVENIENCE. ANY CHANGES TO THE MOT PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

THE ENGINEER SHALL BE INFORMED 48 HOURS IN ADVANCE OF ANY CHANGE TO THE MOT PLANS.

EXISTING CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED. THIS WORK SHALL BE PAID FOR AS PAVEMENT MARKING REMOVAL, WATER BLASTING.

THE EXISTING PAVEMENT MARKINGS THAT HAVE BEEN REMOVED SHALL BE REPLACED IN-KIND.

THE TEMPORARY TRAFFIC SIGNALS WILL REQUIRE TIMING AND OPTIMIZATION AND WILL BE PAID FOR AS TEMPORARY TRAFFIC SIGNAL TIMING.

THE CONTRACTOR SHALL NOT MOUNT SIGNS ON EXISTING SIGNS.

TEMPORARY OFF-PEAK HOUR LANE CLOSURES MUST BE REQUESTED THROUGH THE ENGINEER AND AS SPECIFIED IN THE SPECIAL PROVISIONS.

THE CONTRACTOR SHALL PLACE A TEMPORARY INFORMATION SIGN AT EACH END OF THE PROJECT AND/OR AS DIRECTED BY THE ENGINEER TO INFORM MOTORISTS OF UPCOMING CONSTRUCTION ACTIVITIES. THE MESSAGE SIGNS WITH THE APPROPRIATE INFORMATION SHALL BE IN PLACE TWO WEEKS BEFORE THE START OF CONSTRUCTION ACTIVITY. THIS WORK IS TO BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT, TEMPORARY INFORMATION SIGNING.

CONFLICTING EXISTING SIGNS SHOULD BE COVERED OR REMOVED IN A MANNER WHICH DOES NOT DAMAGE ANY SIGN OR POST. ANY SIGN OR POST WHICH THE ENGINEER DETERMINES HAS BEEN DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED AT THE CONTRACTOR'S OWN EXPENSE.

SUGGESTED CONSTRUCTION SEQUENCING

PRE-STAGE

REMOVE AGGREGATE SHOULDER AND PLACE HOT-MIX ASPHALT SHOULDER, 10" AS SHOWN ON THE STAGING PLAN. PATCH EXISTING HMA SHOULDER AS NEEDED. THIS WORK TO BE INSTALLED IN ACCORDANCE WITH THE APPLICABLE PORTIONS OF STANDARDS 701006 AND 701306 AND PAID FOR AS TRAFFIC CONTROL AND PROTECTION, STANDARD 701306. IMPLEMENT STAGE 1 MOT PAVEMENT MARKING IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARD 701311. IMPLEMENT TRAFFIC CONTROL. INSTALL TEMPORARY CONCRETE BARRIER AND TEMPORARY IMPACT ATTENUATORS. INSTALL TEMPORARY TRAFFIC SIGNALS. SEE STANDARD 701321 FOR ADDITIONAL INFORMATION.

STAGE 1

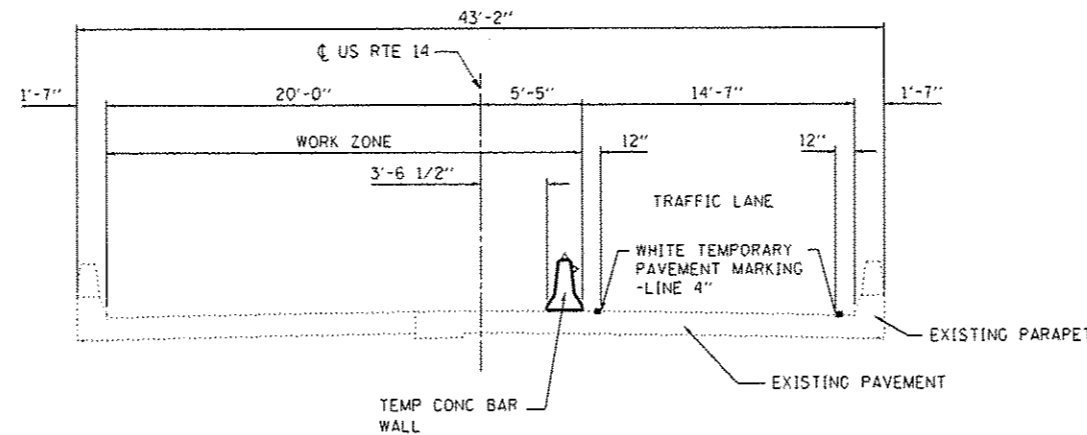
HYDROSCARIFY CONCRETE SLAB SURFACE, PERFORM STRUCTURAL REPAIRS. PLACE LATEX CONCRETE OVERLAY. CONSTRUCT APPROACH PAVEMENT AND CONNECTOR PAVEMENT.

STAGE 2

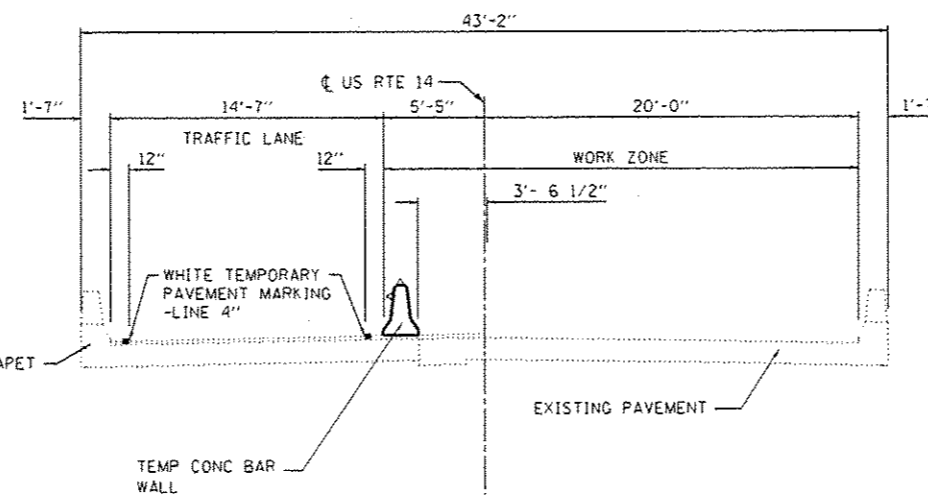
IMPLEMENT STAGE 2 MOT PAVEMENT MARKING IN ACCORDANCE WITH APPLICABLE PORTIONS OF STANDARD 701311. IMPLEMENT TRAFFIC CONTROL INCLUDING THE RELOCATION OF TEMPORARY CONCRETE BARRIER, TEMPORARY IMPACT ATTENUATORS AND TEMPORARY TRAFFIC SIGNAL HEADS AND INSTALL A TEMPORARY DETOUR FOR BUNKER HILL RD. HYDROSCARIFY CONCRETE SLAB SURFACE, PERFORM STRUCTURAL REPAIRS, PLACE LATEX CONCRETE OVERLAY, CONSTRUCT APPROACH PAVEMENT AND CONNECTOR PAVEMENT.

STAGE 3

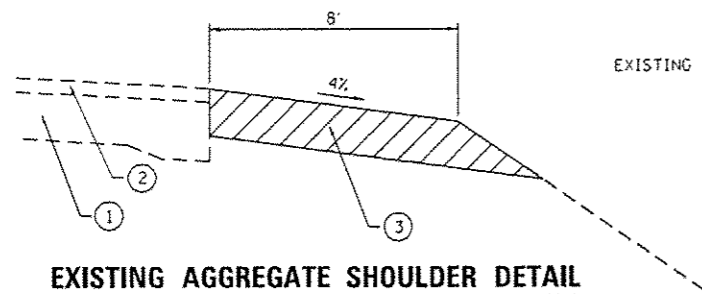
PLACE FINAL PAVEMENT MARKINGS AND RAISED REFLECTIVE MARKERS UTILIZING HIGHWAY STANDARD 701311.



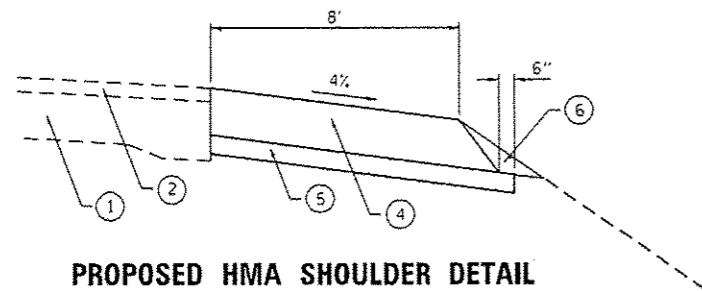
STAGE 1
(LOOKING EAST)



STAGE 2
(LOOKING EAST)



EXISTING AGGREGATE SHOULDER DETAIL
STA. 278+11 TO STA. 279+15 AND STA. 283+30 TO STA. 284+59 LT. & RT.



PROPOSED HMA SHOULDER DETAIL
STA. 278+11 TO STA. 279+15 AND STA. 283+30 TO STA. 284+59 LT. & RT.

LEGEND

- ① EXISTING ± 10" PCC PAVEMENT
- ② EXISTING ± 3" HMA SURFACE & BINDER COURSES
- ③ EXISTING ± 10" AGGREGATE SHOULDER REMOVAL
- ④ PROPOSED HOT-MIX ASPHALT SHOULDER, 10"
- ⑤ SUBBASE GRANULAR MATERIAL, TYPE C, 4"
- ⑥ AGGREGATE SHOULDER (USE EXISTING MATERIAL)

HOT-MIX ASPHALT MIXTURE REQUIREMENTS			
MIXTURE TYPE	AIR VOIDS	Ndes	QUALITY MANAGEMENT PROGRAM (QMP)
CLASS D PATCHES, 10 INCH			
HMA REPLACEMENT OVER PATCHES (HMA BINDER IL-19 mm)	4% ± TO CYRATIONS		QC/OA
HMA SURFACE COURSE, MIX D, N70, 2"	4% ± TO CYRATIONS		QC/OA
HMA BINDER COURSE, IL-19.0, N70, 8"	4% ± TO CYRATIONS		QC/OA
HOT-MIX ASPHALT SHOULDER, 10"			
HMA SHOULDER (HMA BINDER IL-19 mm)	4% ± TO CYRATIONS		QC/OA
HMA SURFACE COURSE, MIX D, N70, 2"	4% ± TO CYRATIONS		QC/OA
HMA BINDER COURSE, IL-19.0, N70, 8"	4% ± TO CYRATIONS		QC/OA
QMP DESIGNATION: QUALITY CONTROL/ QUALITY ASSURANCE (QC/OA)			

NOTE:

THE UNIT WEIGHT USED TO CALCULATE ALL HOT-MIX ASPHALT MIXTURES IS 112 LBS/SQ.YD./IN.

FOR NON-POLYMERIZED HMA THE "AC TYPE" SHALL BE "PG 64 -22" UNLESS MODIFIED BY DISTRICT ONE SPECIAL PROVISIONS. FOR USE OF RECYCLED MATERIALS SEE SPECIAL PROVISIONS. QUALITY MANAGEMENT PROGRAM (QMP) IDENTIFIES THE PARTICULAR QUALITY CONTROL SPECIFICATION THAT APPLIES TO THE HMA MIXTURE.

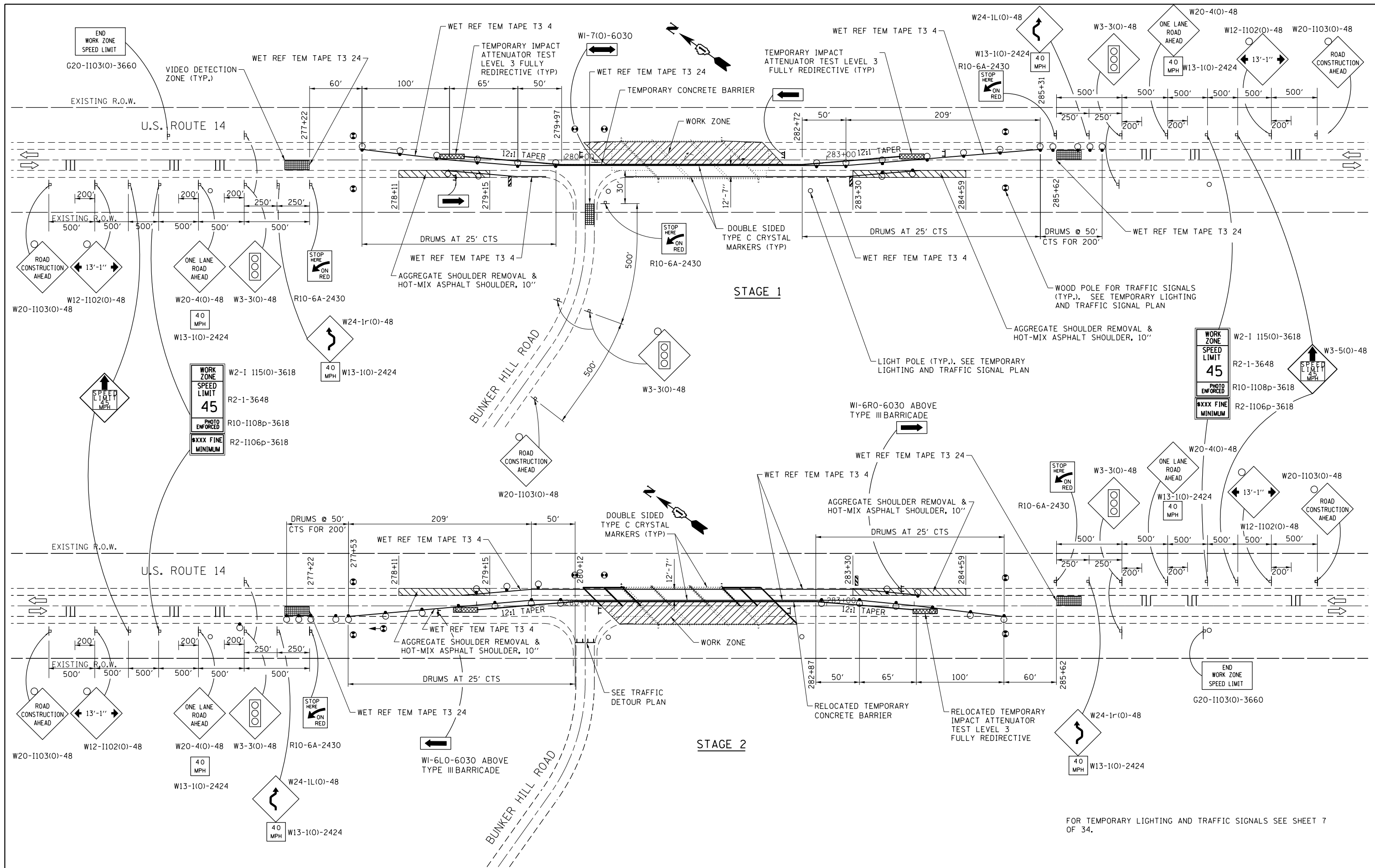
USER NAME : hardnetbr	DESIGNED - WHI	REVISED -
PLOT SCALE = 100.0000' / in.	DRAWN - WHI	REVISED -
PLOT DATE = 9/12/2016	CHECKED - RAD	REVISED -
	DATE - 02/03/2012	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

US 14 OVER KISHWAUKEE RIVER
MOT GENERAL NOTES AND TYPICAL SECTIONS

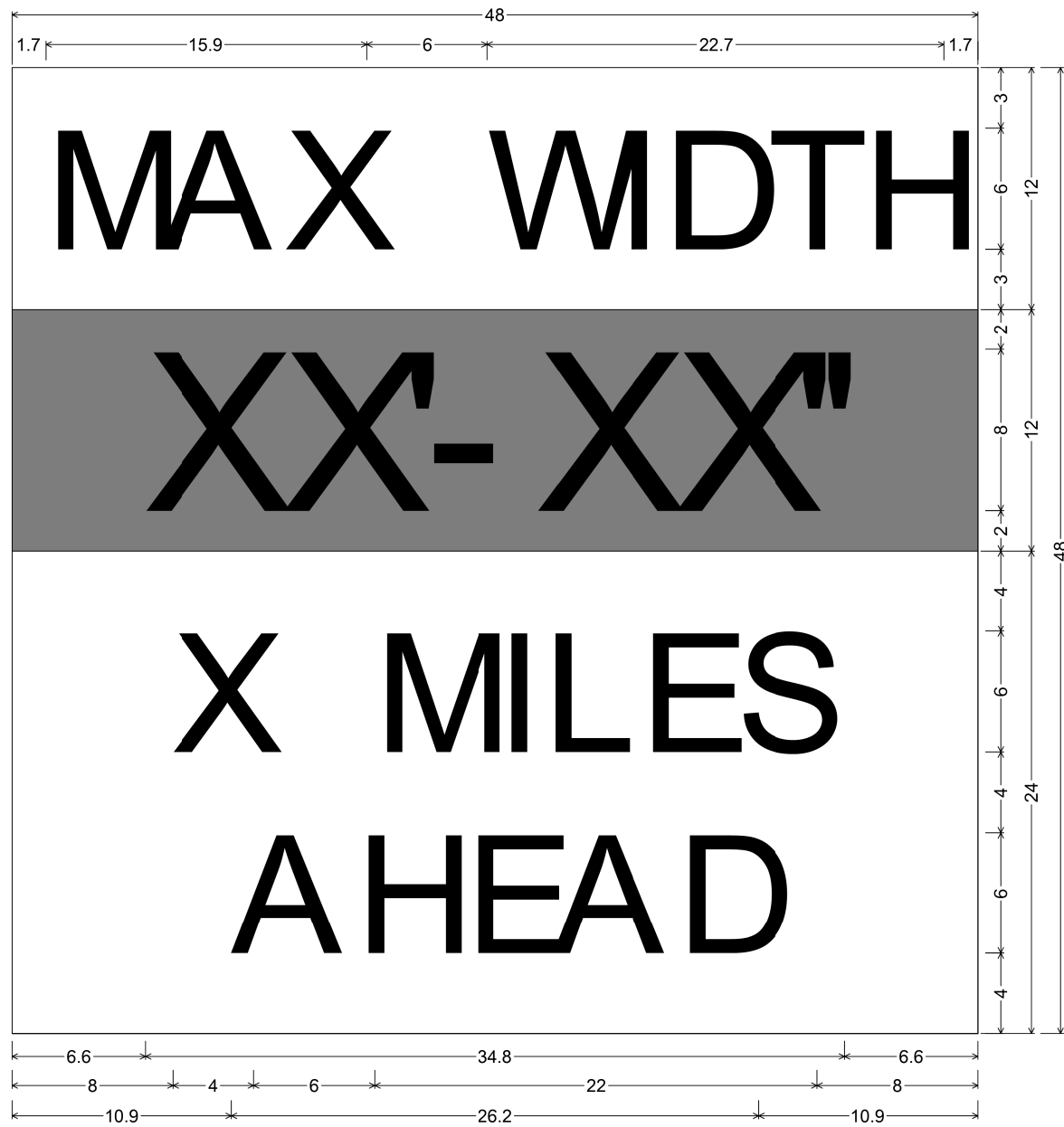
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-1	MCHENRY	37	5
CONTRACT NO. 60M89				
ILLINOIS FED. AID PROJECT				

SCALE: SHEET NO. OF SHEETS STA. TO STA.



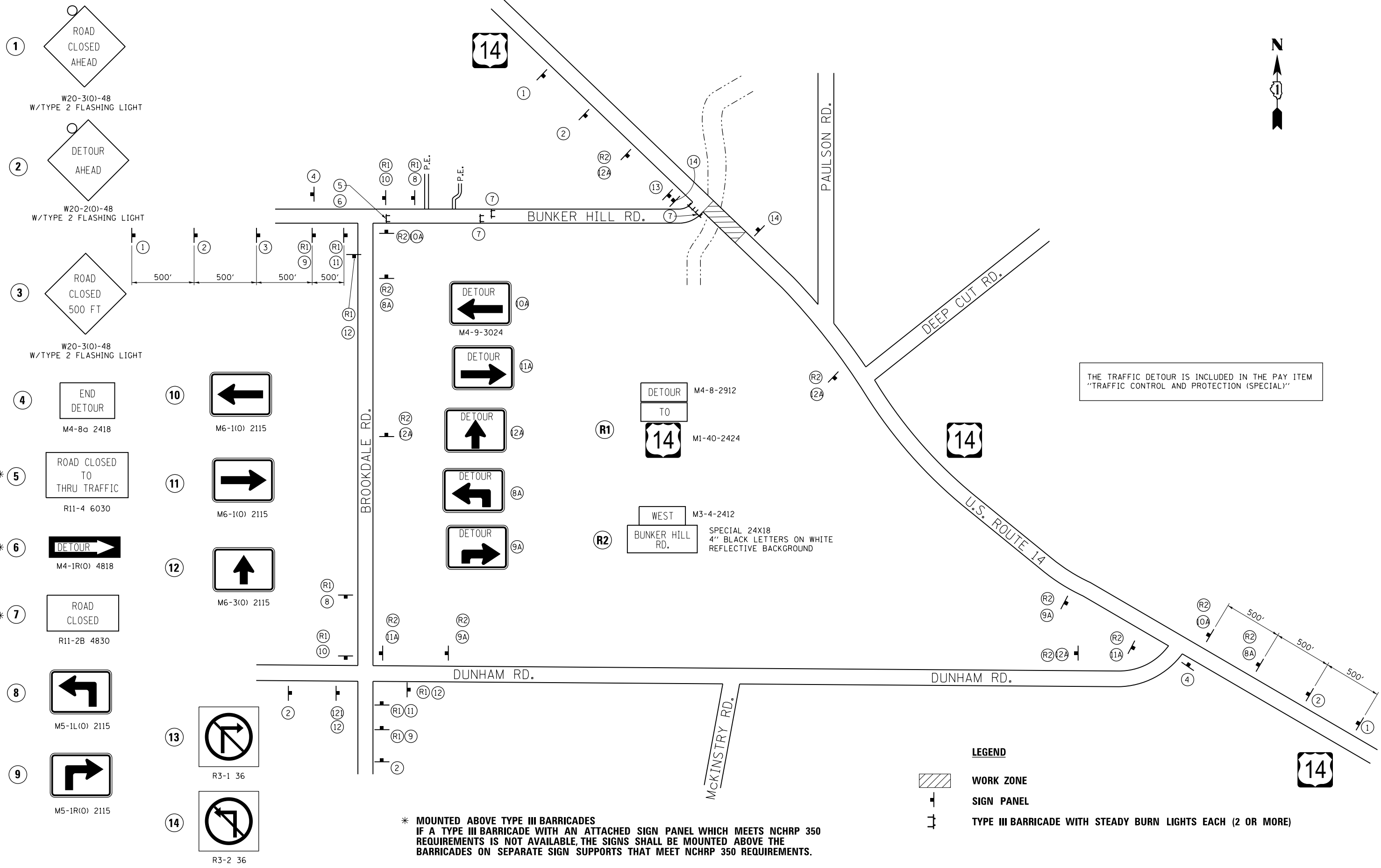
FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS SEE SHEET 7 OF 34.

USER NAME = hardnetbr PLOT SCALE = 250.0000' / in. PLOT DATE = 8/26/2016	DESIGNED - WHI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 14 OVER KISHWAUKEE RIVER SUGGESTED TRAFFIC CONTROL STAGES 1 & 2		F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	DRAWN - WHI	REVISED -		305	29B-1	MCHENRY	37	6		
	CHECKED - RAD	REVISED -		CONTRACT NO. 60M89						
	DATE - 02/03/2012	REVISED -		ILLINOIS FED. AID PROJECT						
SCALE: SHEET NO. OF SHEETS STA. TO STA.										



W12-I103 (Width is 8D);
 No border, Black on White;
 "MAX WIDTH" D;
 No border, Black on Orange;
 "XX'-XX'" D;
 No border, Black on White;
 "X MILES" D; "AHEAD" D;

FILE NAME = p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI1951\DRAMA\Design\Di\xxxx-sht-plan.dgn	USER NAME = hardnettbr	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	MAX WIDTH SIGN DETAIL			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 200.0000' / in.	CHECKED -	REVISED -					305	29B-1	MCHENRY	37	7
Default	PLOT DATE = 8/26/2016	DATE -	REVISED -	SCALE: SHEET OF SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT CONTRACT NO. 60M89					



THE TRAFFIC DETOUR IS INCLUDED IN THE PAY ITEM "TRAFFIC CONTROL AND PROTECTION (SPECIAL)"

1 ROAD CLOSED AHEAD
W20-310)-48
W/TYPE 2 FLASHING LIGHT

2 DETOUR AHEAD
W20-210)-48
W/TYPE 2 FLASHING LIGHT

3 ROAD CLOSED 500 FT
W20-310)-48
W/TYPE 2 FLASHING LIGHT

4 END DETOUR
M4-8a 2418

* 5 ROAD CLOSED TO THRU TRAFFIC
R11-4 6030

* 6 DETOUR
M4-1R(0) 4818

* 7 ROAD CLOSED
R11-2B 4830

8
M5-1L(0) 2115

9
M5-1R(0) 2115

10
M6-1(0) 2115

11
M6-1(0) 2115

12
M6-3(0) 2115

13
R3-1 36

14
R3-2 36

DETOUR
M4-9-3024

DETOUR
M4-8-2912

DETOUR
M1-40-2424




DETOUR
M3-4-2412

DETOUR
SPECIAL 24X18
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

DETOUR TO
14
M1-40-2424

WEST
BUNKER HILL RD.
M3-4-2412
SPECIAL 24X18
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

LEGEND

-  WORK ZONE
-  SIGN PANEL
-  TYPE III BARRICADE WITH STEADY BURN LIGHTS EACH (2 OR MORE)

* MOUNTED ABOVE TYPE III BARRICADES
IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350
REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED ABOVE THE
BARRICADES ON SEPARATE SIGN SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

USER NAME = hardnettbr PLOT SCALE = 250,0000' / in. PLOT DATE = 8/26/2016	DESIGNED - WHI	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	US 14 OVER KISHWAUKEE RIVER TRAFFIC DETOUR FOR STAGE 2			F.A.P. RTE. 305	SECTION 29B-1	COUNTY MCHENRY	TOTAL SHEETS 37	SHEET NO. 8
	DRAWN - WHI	REVISED -					CONTRACT NO. 60M89				
	CHECKED - RAD	REVISED -					ILLINOIS FED. AID PROJECT				
DATE - 02/03/2012	REVISED -	SCALE:	SHEET NO. OF SHEETS	STA. TO STA.							

Existing Structure: S.N. 056-0051 was built in 1928 and widened in 1954 as S.B.I. Route 19 Section 298R. The three-span structure was rebuilt in 1984 as F.A. Route 9 Section 29B-R(82) and consists of a 14 1/2-inch concrete slab deck, abutments on steel and precast concrete piles, and piers on precast concrete piles.

Traffic to be maintained using stage construction.

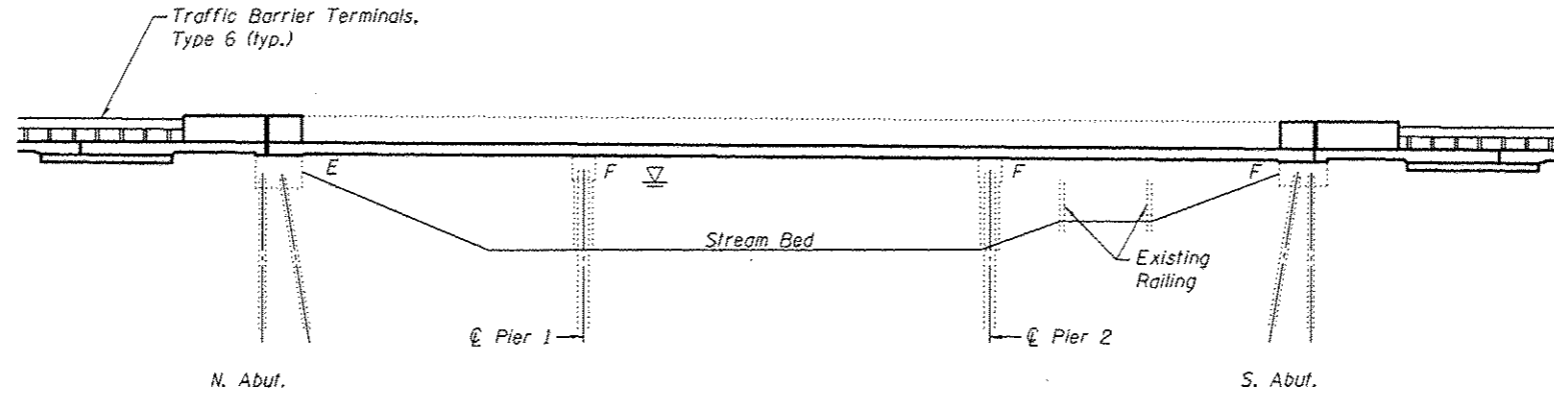
No Salvage.

SCOPE OF WORK

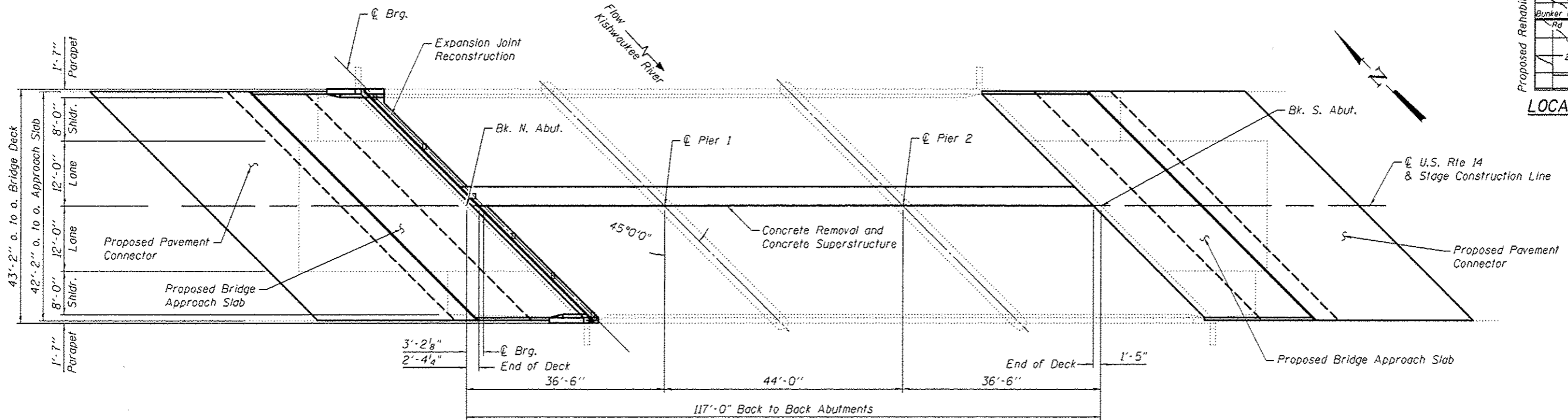
1. Scarify 3/4 inch deck slab surface
2. Full depth deck repair
3. Remove and Replace Deck Closure Strip.
4. Remove existing Elastomeric Expansion Joint and replace with Strip Seal Joint
5. Place 2 1/2 inch latex concrete overlay on bridge deck
6. Reconstruct approach slabs
7. Apply protective coat to parapets, approach slabs and new concrete at joint.

DESIGN SPECIFICATIONS

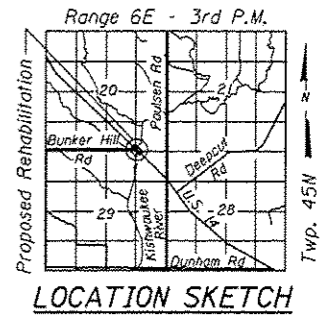
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition



ELEVATION



PLAN



LOCATION SKETCH



Expires: November 30, 2018

DESIGNED -	DATE -	SEPTEMBER 27, 2016
CHECKED - <i>Abraham J. Hallaway</i>	REVISED	
DRAWN - <i>Kyle M. Stoffan</i>	REVISED	
CHECKED - <i>ATH</i>	ACTING ENGINEER OF BRIDGES AND STRUCTURES	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
U.S. ROUTE 14 OVER THE KISHWAUKEE RIVER
SN 056-0051

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	McHENRY	34	9
			CONTRACT NO. 60M89	
ILLINOIS FED. AID PROJECT				

SHEET NO. S1 OF S17 SHEETS

GENERAL NOTES

Reinforcement bars designated (E) shall be epoxy coated.

Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The Contractor shall exercise care during removal of the existing joint to ensure that the slab integrity will not be detrimentally impacted. The contractor shall repair any damage to the slab caused by his operation as directed by the Engineer at no additional cost to the Department.

Existing reinforcement bars extending into the removal area shall be cleaned and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with Concrete Removal.

Stage Construction shall be utilized to maintain traffic during construction.

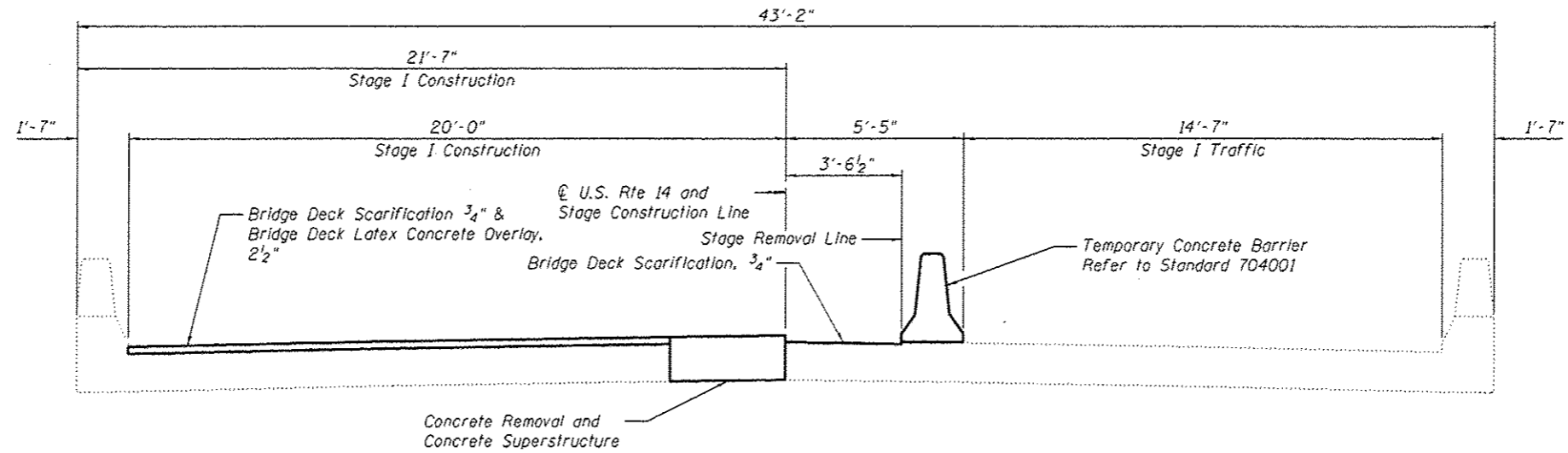
INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. General Notes, Index of Sheets, and Total Bill of Materials
- S3. Stage Construction Details
- S4. Temporary Concrete Barrier For Stage Construction
- S5. Bridge Deck Removal and Repair Plan (1 of 2)
- S6. Bridge Deck Removal and Repair Plan (2 of 2)
- S7. Superstructure Reconstruction Details (1 of 2)
- S8. Superstructure Reconstruction Details (2 of 2)
- S9. Approach Slab Details
- S10. Prefomed Joint Strip Seal
- S11. Bearing Details
- S12. Bar Splicer Assembly and Mechanical Splicer Details
- S13. Existing Approach Slab Details
- S14. Existing Bridge Plans (1 of 4)
- S15. Existing Bridge Plans (2 of 4)
- S16. Existing Bridge Plans (3 of 4)
- S17. Existing Bridge Plans (4 of 4)

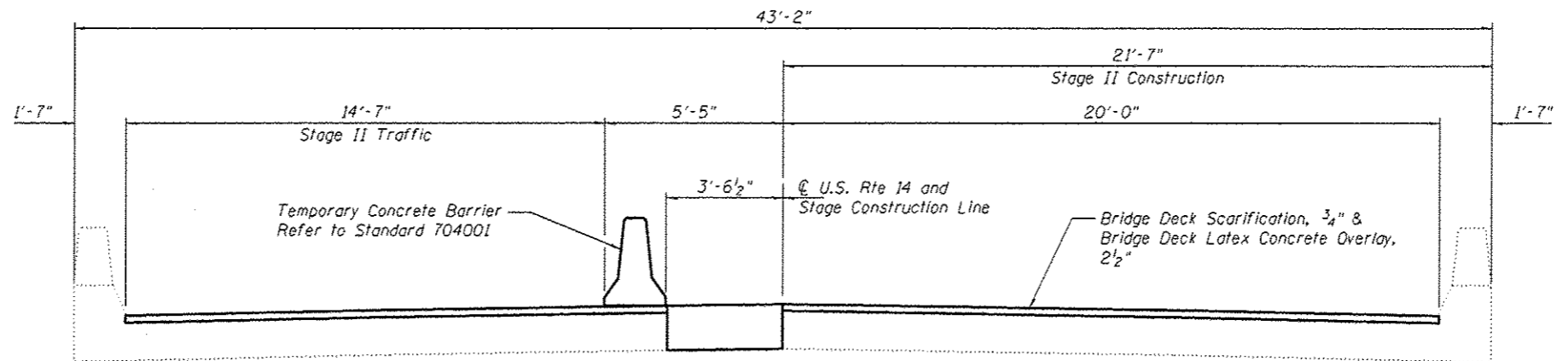
TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Concrete Removal	Cu. Yd.	24.8
Concrete Superstructure	Cu. Yd.	30.4
** Bridge Deck Grooving	Sq. Yd.	727
* Protective Coat	Sq. Yd.	359
Reinforcement Bars, Epoxy Coated	Pound	52,590
Bar Splicers	Each	256
Prefomed Joint Strip Seal	Foot	61
Approach Slab Removal	Sq. Yd.	254
Bridge Deck Latex Concrete Overlay, 2 1/2 inches	Sq. Yd.	453
Bridge Deck Scarification 3/4"	Sq. Yd.	453
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	6
Elastomeric Bearing Assembly Type I	Each	1
Traffic Barrier Terminal, Type 6	Each	4
Concrete Superstructure (Approach Slab)	Cu. Yd.	116.2
Concrete Structures	Cu. Yd.	36.5

* Apply to new concrete superstructure areas of deck, approach slabs, and top & front face of new parapets only.
 ** Includes approach slabs.



STAGE I CROSS SECTION
(Looking East)



STAGE II CROSS SECTION
(Looking East)

DESIGNED - JGY
 CHECKED - ATH
 DRAWN - Kyle M. Stoffan
 CHECKED - JGY ATH

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 27, 2016

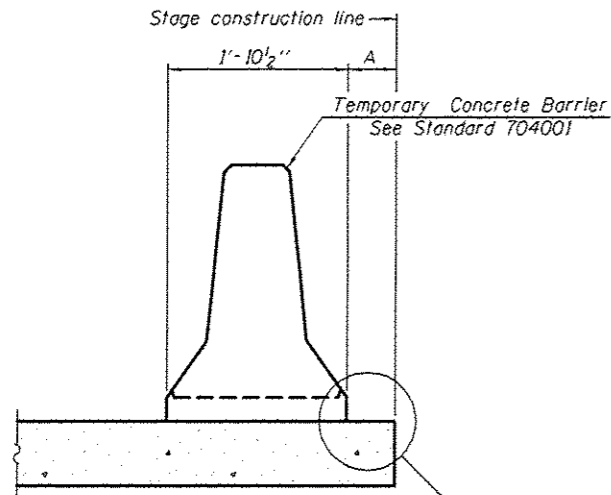
REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
 SN 056-0051

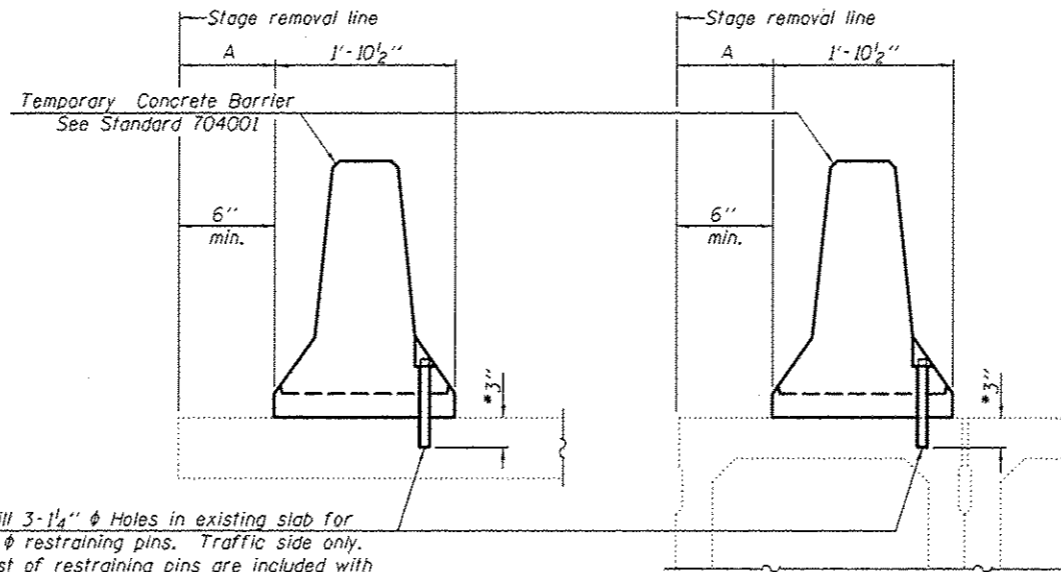
SHEET NO. 53 OF 517 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	McHENRY	34	11
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M89	



When "A" is 3'-1" or less, the temporary concrete barrier shall be restrained to the new slab according to Detail I, II or III. No restraint is required when "A" is greater than 3'-1".

NEW SLAB OR NEW DECK BEAM



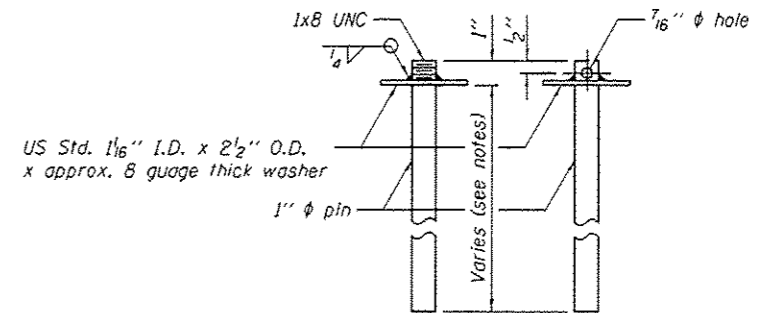
Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ restraining pins. Traffic side only. Cost of restraining pins are included with Temporary Concrete Barrier. No restraint is required when "A" is greater than 3'-1".

* When hot-mix asphalt wearing surface is present, embedment shall be 3" plus the wearing surface depth.

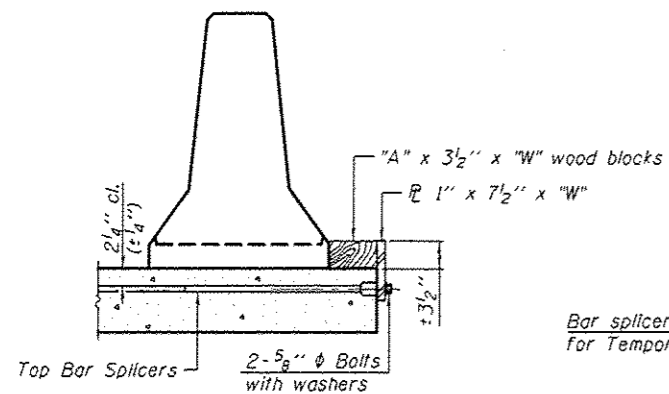
EXISTING SLAB

EXISTING DECK BEAM

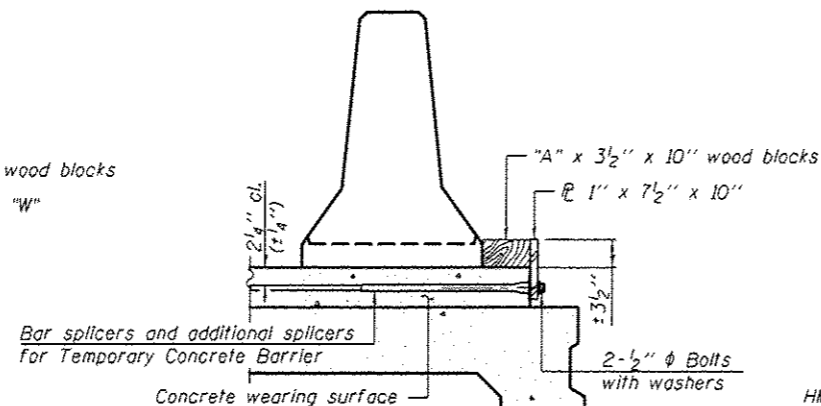
SECTIONS THRU SLAB OR DECK BEAM



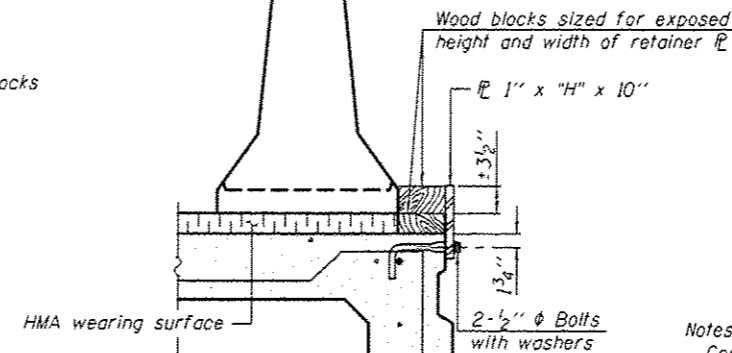
RESTRAINING PIN



DETAIL I

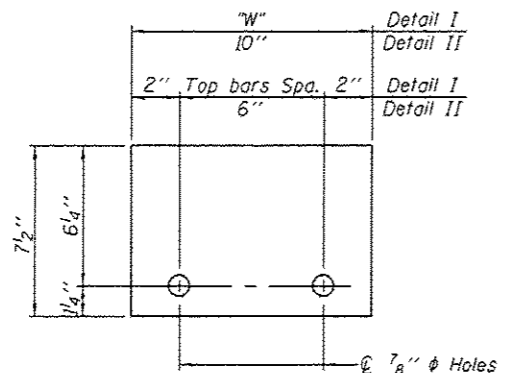


DETAIL II

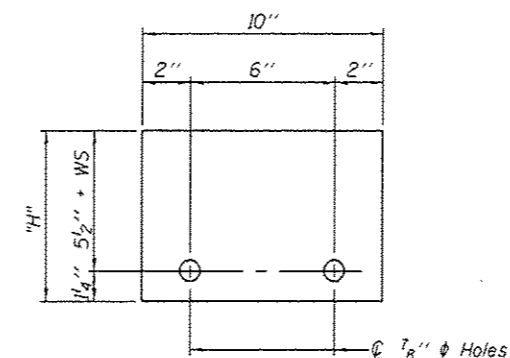


DETAIL III

BAR SPLICER FOR #4 BAR - DETAIL III



STEEL RETAINER 1" x 7 1/2" x "W"
(Detail I and II)



STEEL RETAINER 1" x "H" x 10"
(Detail III)

Notes:
 Cost of retainer assembly is included with Temporary Concrete Barrier.
 A retainer assembly shall be located at the approximate ϕ of each temporary concrete barrier.
 The retainer plate shall not be removed until the concrete on the adjacent stage is ready to be poured. For Detail III applications the retainer plate shall not be removed until just prior to placing the adjacent beam.
 When the 'A' dimension is less than 1'2", the wood block shall be omitted and the barrier shall be placed in direct contact with the steel retainer plate. For deck beam applications the minimum required 'A' distance is 6" to accommodate the shear key clamping device.

Detail I - Installation for a new bridge deck or bridge slab.
Detail II - Installation for a new deck beam with an initial concrete wearing surface. Additional bar splicers shall be provided at 6'-0" centers and paired with the bar splicers of the concrete wearing surface reinforcement to accommodate the installation of the retainer assemblies. The cost of the additional bar splicers is included with the concrete wearing surface.
Detail III - Installation for a new deck beam with no initial wearing surface or with an initial hot-mix asphalt (HMA) wearing surface present. The deck beam directly beneath the temporary concrete barrier shall be fabricated with bar splicer inserts in the side of the beam, as detailed, to accommodate the installation of the retainer assemblies. A pair of bar splicers, 6" apart, shall be placed at 6'-0" centers along the length of the beam. The cost of the bar splicers is included with the deck beam.

R-27 07-22-16

DESIGNED - JGY	PASSED
CHECKED - ATH	
DRAWN - Kyle M. Steffen	
CHECKED - JGY ATH	

DATE - SEPTEMBER 27, 2016	 ACTING ENGINEER OF BRIDGES AND STRUCTURES
REVISED	
REVISED	
REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION


TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
SN 056-0051

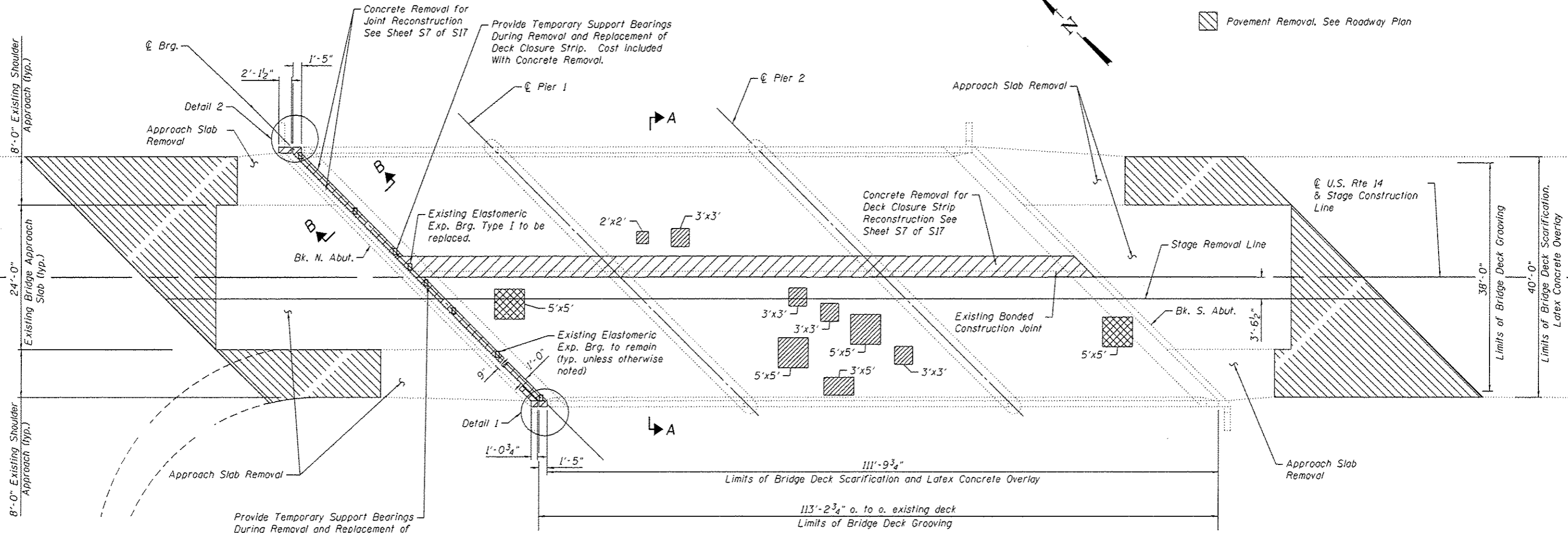
F.A.P. RTE. 305	SECTION 29B-1	COUNTY McHENRY	TOTAL SHEETS 34	SHEET NO. 12
CONTRACT NO. 60M89			ILLINOIS FED. AID PROJECT	

SHEET NO. 54 OF 517 SHEETS

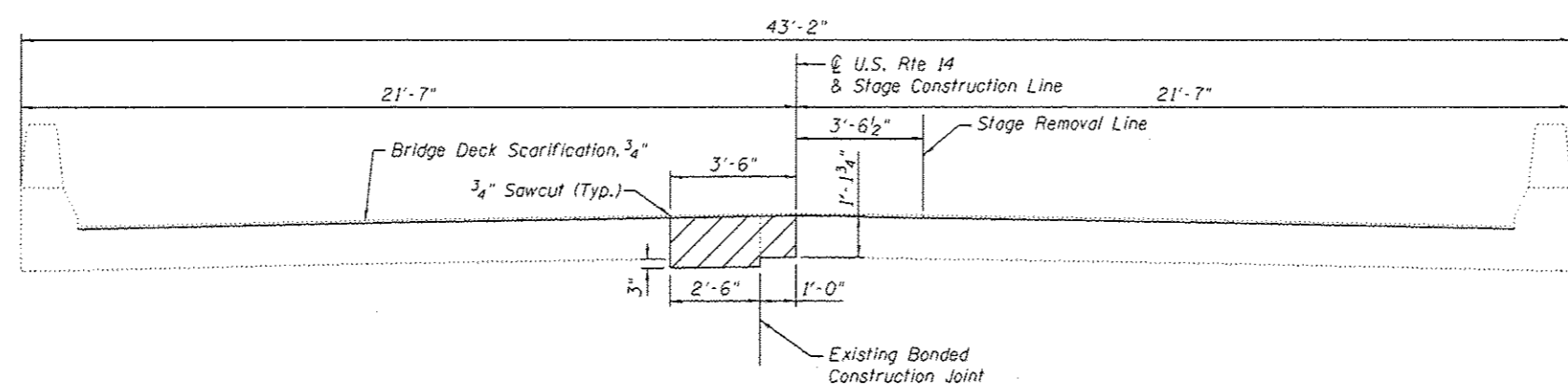
Notes:
 Protective Coat shall be applied to the inside faces, top faces, exposed ends of the parapets, and new concrete at joint.

For Section B-B, Detail 1, and Detail 2, see Sheet S6.

 Pavement Removal. See Roadway Plan




PLAN



SECTION A-A

DESIGNED - JGY
 CHECKED - ATH
 DRAWN - Kyle M. Steffen
 CHECKED - JCY ATH

DATE - SEPTEMBER 27, 2016
 PASSED  ACTING ENGINEER OF BRIDGES AND STRUCTURES
 REVISED
 REVISED

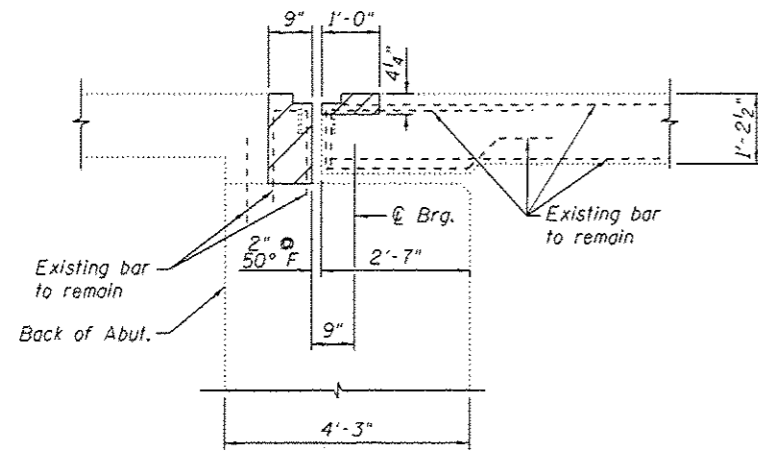
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE DECK REMOVAL AND REPAIR PLAN (1 OF 2)
 SN 056-0051

SHEET NO. 55 OF 517 SHEETS

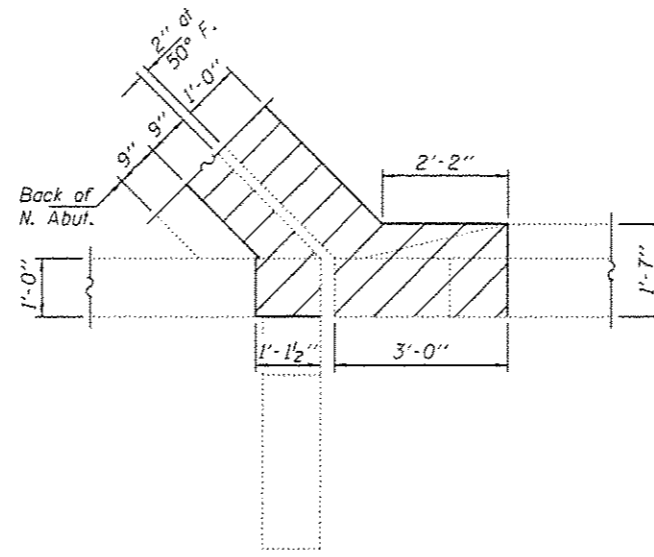
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-1	McHENRY	34	13

CONTRACT NO. 60M89
 ILLINOIS FED. AID PROJECT

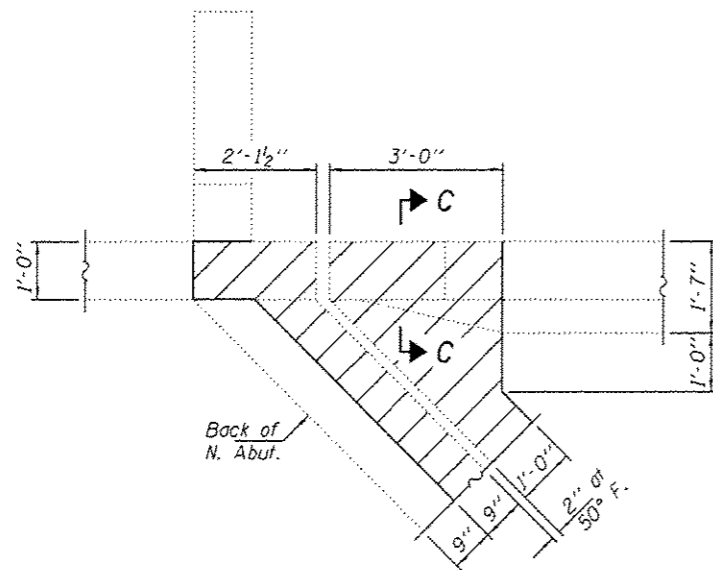


SECTION B-B

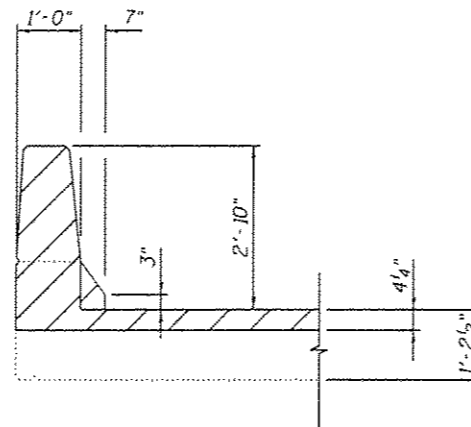
Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost included with "Concrete Removal"



DETAIL 1



DETAIL 2



SECTION C-C

BILL OF MATERIAL

Symbol	Item Description	Unit	Quantity
	Concrete Removal	Cu. Yd.	24.8
	Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	6
	Deck Slab Repair (Partial Depth)	Sq. Yd.	12
	Approach Slab Removal	Sq. Yd.	254

* For Information Only
 ** Includes Approach Slabs, Approach shoulders

DESIGNED - JGY
 CHECKED - ATH
 DRAWN - Kyle M. Steffen
 CHECKED - JGY ATH

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 27, 2016

REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BRIDGE DECK REMOVAL AND REPAIR PLAN (2 OF 2)
 SN 056-0051

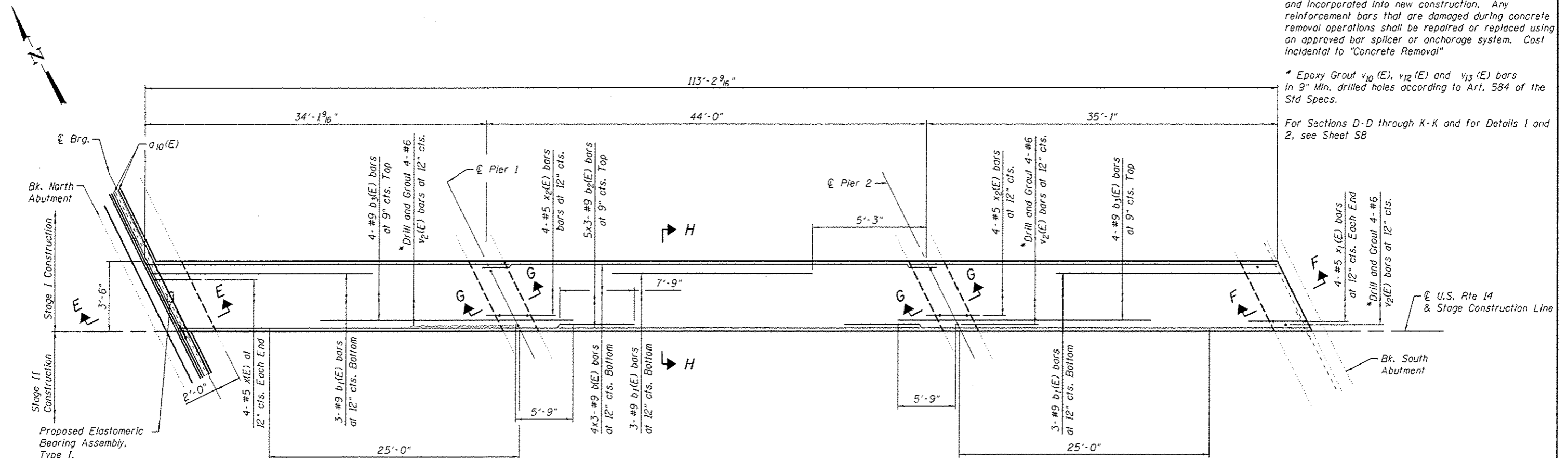
SHEET NO. 56 OF 517 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-1	McHENRY	34	14
			CONTRACT NO. 60M89	
ILLINOIS FED. AID PROJECT				

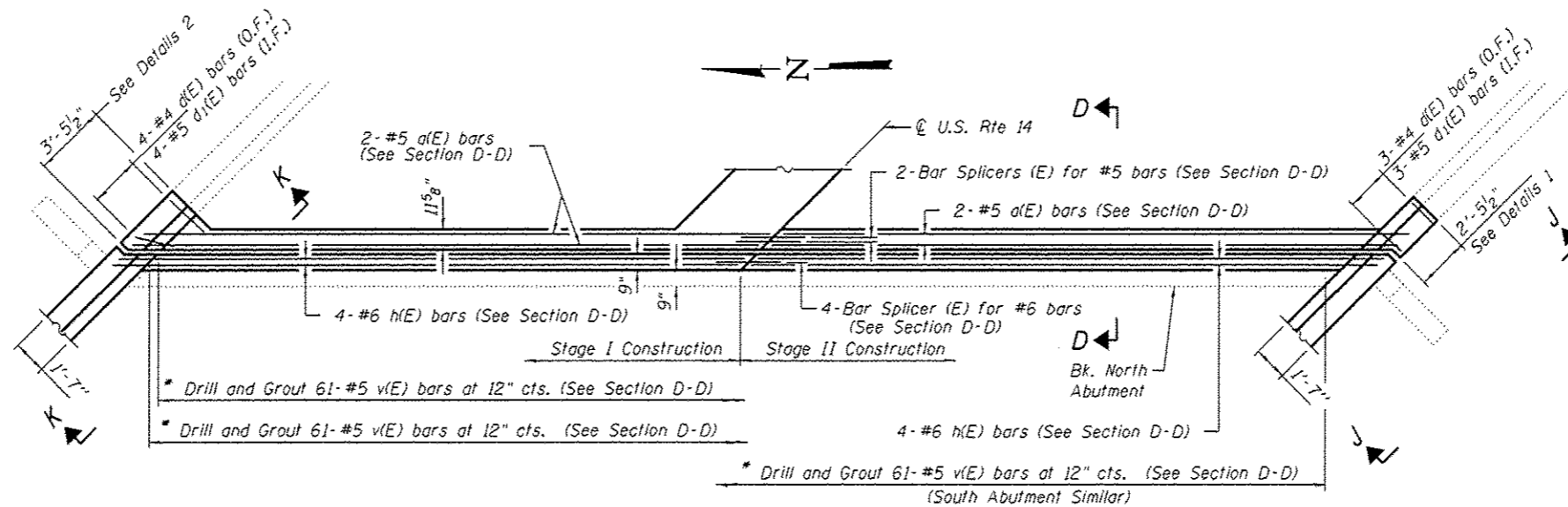
Notes:
 All existing reinforcement bars shall be cleaned and incorporated into new construction. Any reinforcement bars that are damaged during concrete removal operations shall be repaired or replaced using an approved bar splicer or anchorage system. Cost incidental to "Concrete Removal"

* Epoxy Grout v_{10} (E), v_{12} (E) and v_{13} (E) bars in 9" Min. drilled holes according to Art. 584 of the Std Specs.

For Sections D-D through K-K and for Details 1 and 2, see Sheet S8



PLAN - DECK CLOSURE STRIP



PLAN - EXPANSION JOINT RECONSTRUCTION

DESIGNED - JGY
 CHECKED - ATH
 DRAWN - Kyle M. Steffan
 CHECKED - JGY ATH

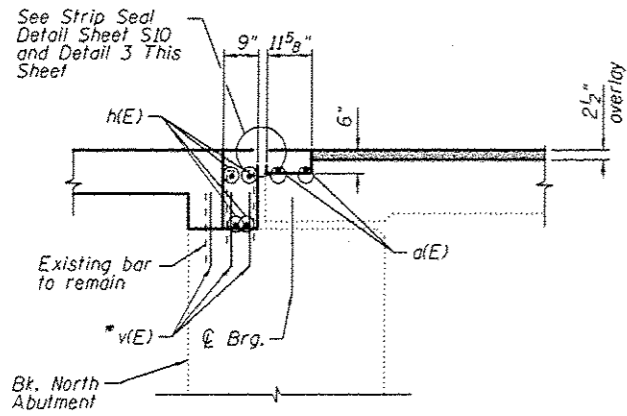
DATE - SEPTEMBER 27, 2016
 PASSED
 ACTING ENGINEER OF BRIDGES AND STRUCTURES
 REVISED
 REVISED

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

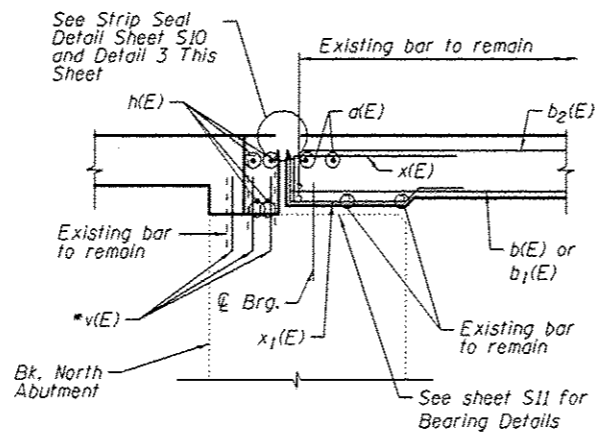
SUPERSTRUCTURE RECONSTRUCTION DETAILS (1 OF 2)
 SN 056-0051

SHEET NO. 57 OF 517 SHEETS

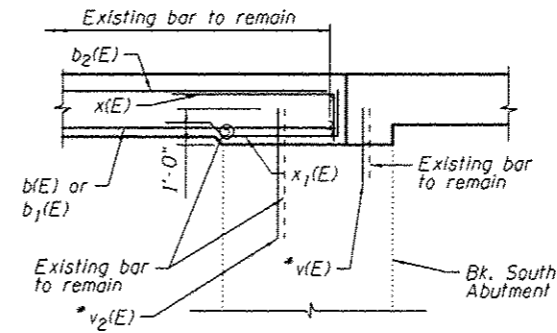
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	McHENRY	34	15
CONTRACT NO. 60M89				
ILLINOIS FED. AID PROJECT				



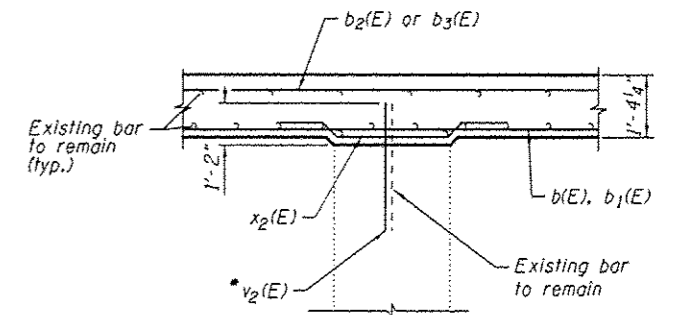
SECTION D-D



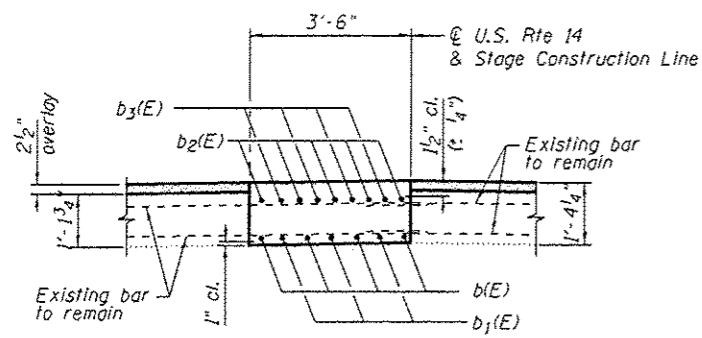
SECTION E-E



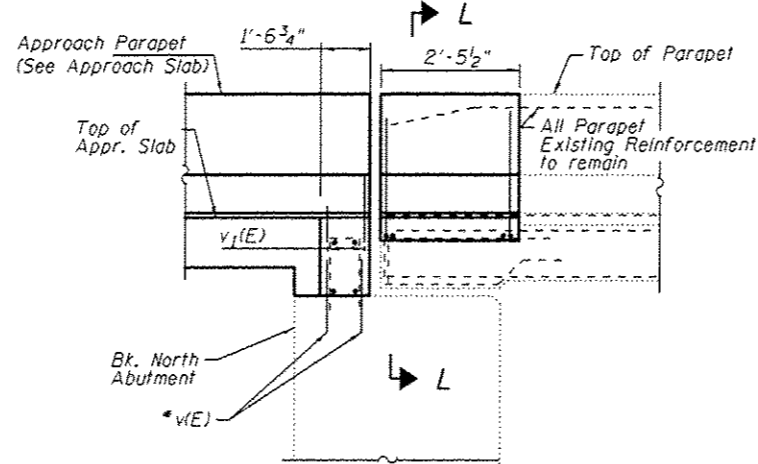
SECTION F-F



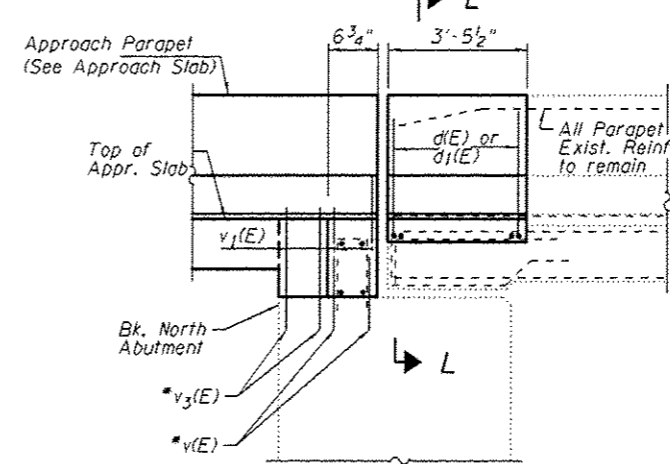
SECTION G-G



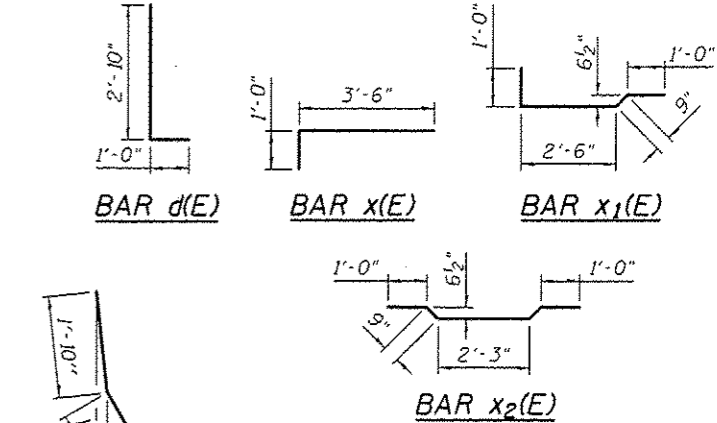
SECTION H-H



VIEW J-J

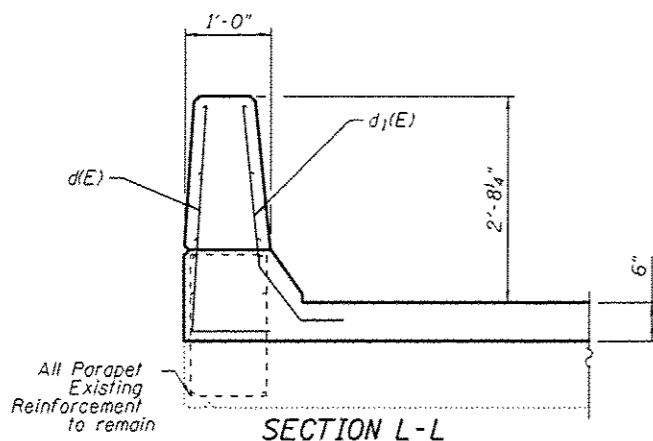


VIEW K-K

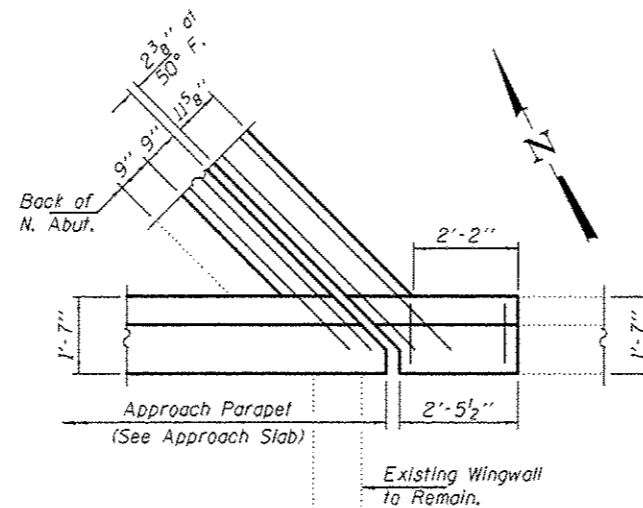


BILL OF MATERIALS

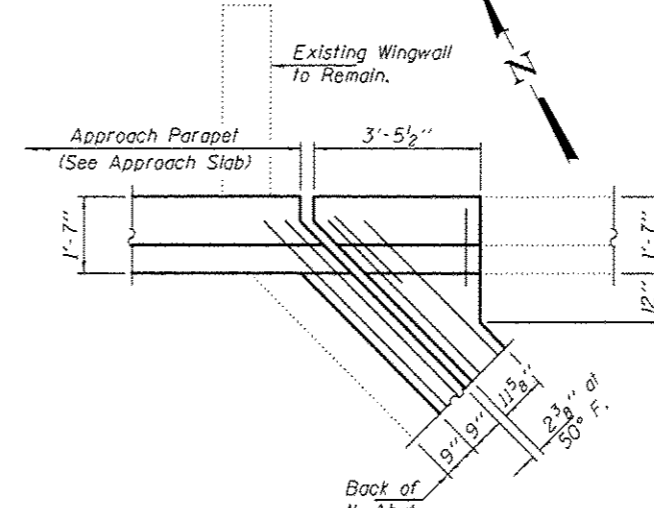
Bar	No.	Size	Length	Shape
a(E)	4	# 5	29'-6"	—
b(E)	12	# 9	42'-3"	—
b1(E)	9	# 9	33'-6"	—
b2(E)	15	# 9	36'-6"	—
b3(E)	8	# 9	25'-3"	—
d(E)	7	# 4	3'-10"	—
d1(E)	7	# 5	3'-11"	—
h(E)	8	# 6	29'-1"	—
v(E)	244	# 5	1'-9"	—
v1(E)	8	# 5	2'-0"	—
v2(E)	12	# 6	1'-11"	—
v3(E)	2	# 5	2'-6"	—
x(E)	8	# 5	4'-6"	—
x1(E)	8	# 5	5'-3"	—
x2(E)	8	# 5	5'-9"	—
Bar Splicers		Each	6	
Reinforcement Bars, Epoxy Coated		Pound	6,750	
Concrete Superstructure		Cu. Yd.	23.7	



SECTION L-L



DETAIL 1



DETAIL 2

MINIMUM BAR LAP
#9 bar = 6'-10"

Bars indicated thus 1x2 #8 etc indicates 1 line of bars with 2 lengths per line.

DESIGNED - JCY
CHECKED - ATH
DRAWN - Kyle M. Staffen
CHECKED - JCY ATH

PASSED

ACTING ENGINEER OF BRIDGES AND STRUCTURES

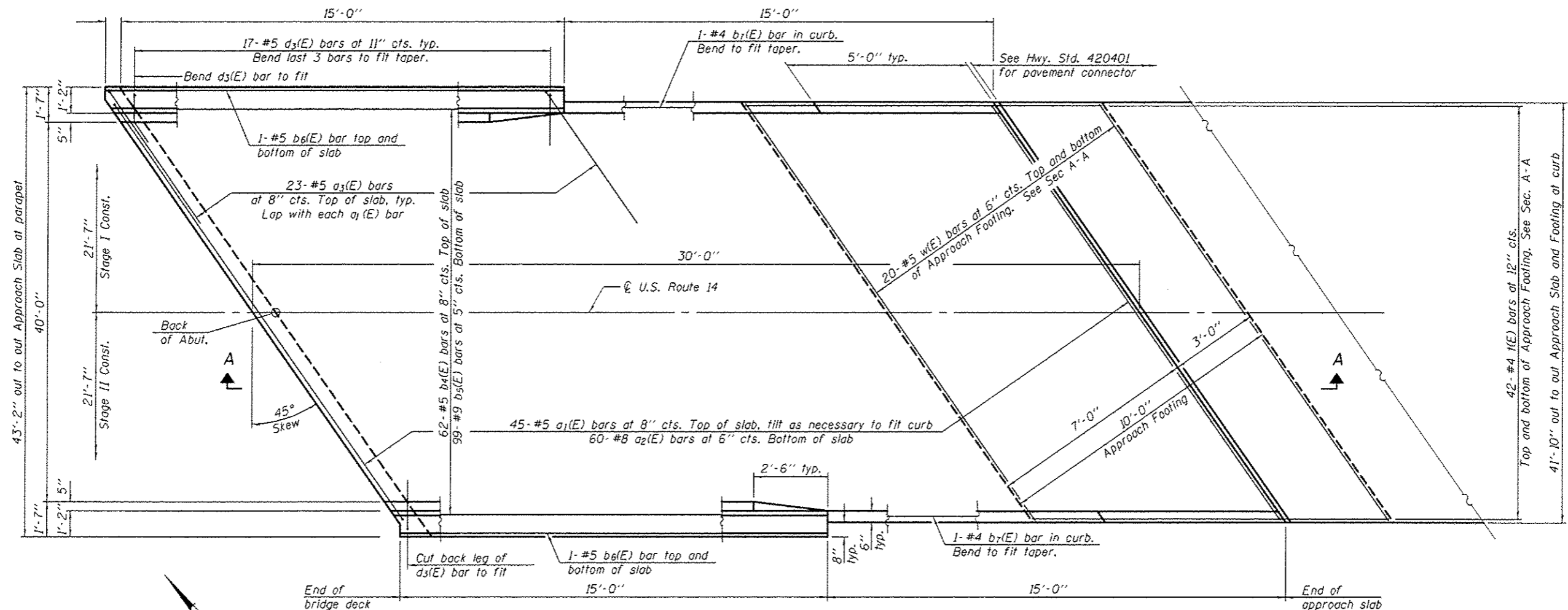
DATE - SEPTEMBER 27, 2016
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

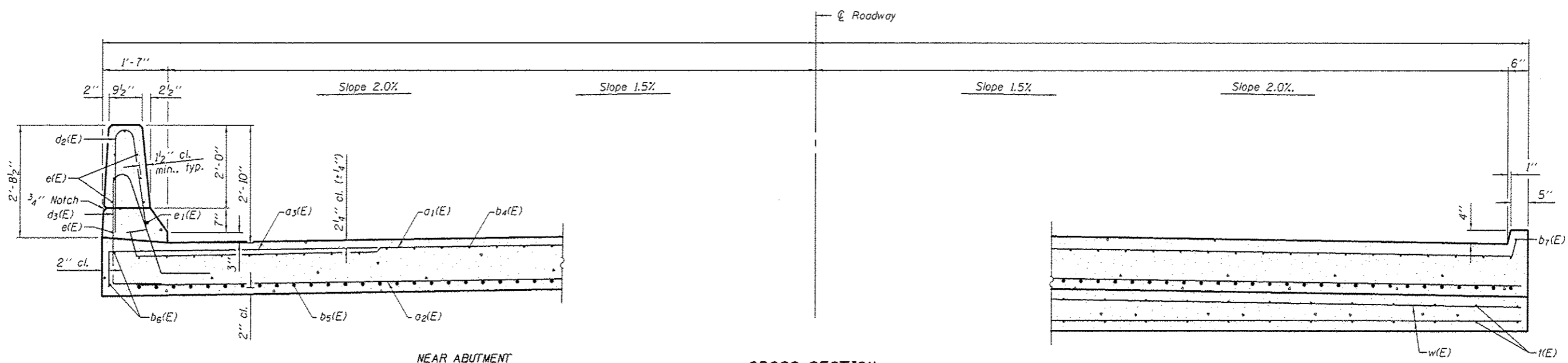
SUPERSTRUCTURE RECONSTRUCTION DETAILS (2 OF 2)
SN 056-0051

SHEET NO. 58 OF 517 SHEETS

F.A.P. RTE. 305
SECTION 29B-1
COUNTY McHENRY
TOTAL SHEETS 34
SHEET NO. 16
CONTRACT NO. 60M89
ILLINOIS FED. AID PROJECT



PLAN



BAIA-CIP-34FS-R(>30°) 07-22-16

(Sheet 1 of 2)

DESIGNED - JGY
CHECKED - ATH
DRAWN - Kyle M. Stoffon
CHECKED - JGY ATH

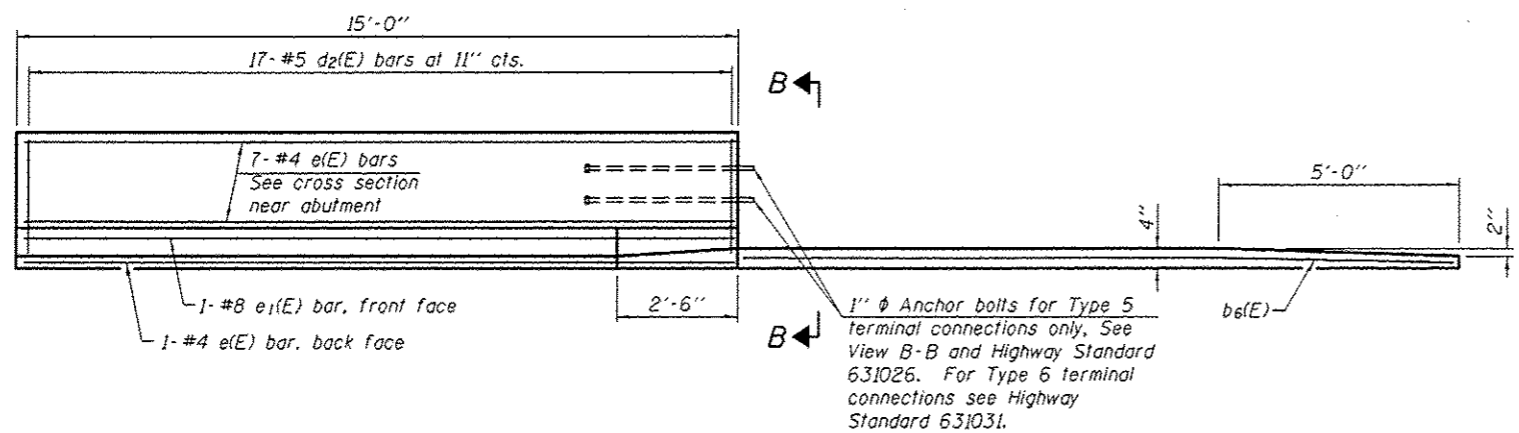
PASSED	DATE - SEPTEMBER 22, 2016
<i>Carl Perry</i>	REVIS
ACTING ENGINEER OF BRIDGES AND STRUCTURES	REVIS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

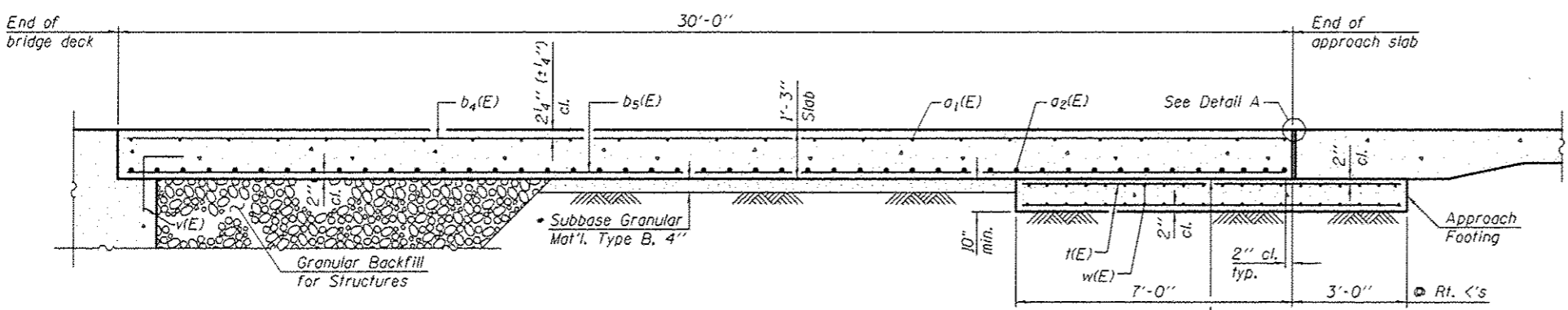
BRIDGE APPROACH SLAB DETAILS
SN 056-0051

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-1	McHENRY	34	17
CONTRACT NO. 60M89			ILLINOIS FED. AID PROJECT	

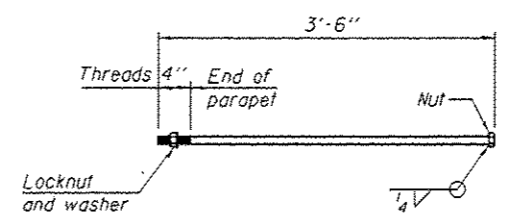
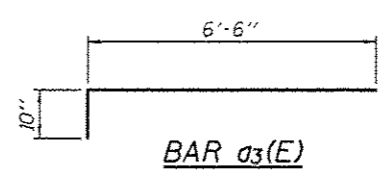
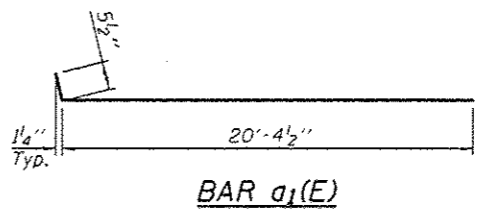
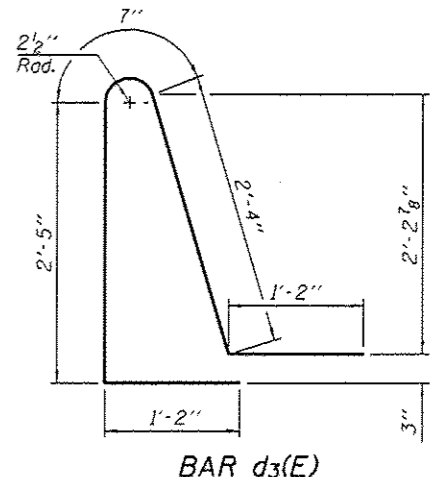
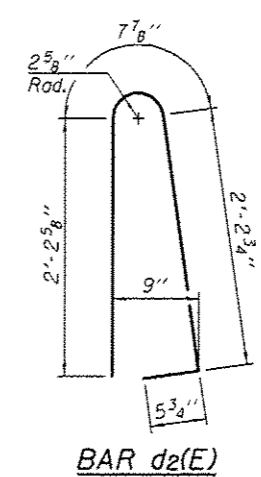
Notes:
 The joint opening shall be adjusted for temperature per Article 520.04 of the Standard Specifications. However, since this detail is for jointless structures, the length of bridge used to calculate the adjustment shall be equal to half the total bridge length plus the length of the bridge approach pavement.
 Parapet concrete shall be paid for as Concrete Superstructure.
 Approach slab shall be paid for as Concrete Superstructure (Approach Slab).
 Approach footing concrete shall be paid for as Concrete Structures.
 The approach footing maximum applied service bearing pressure (Omax) = 2.0 ksf.
 Cost of excavation for approach footing included with Concrete Structures.
 For Granular Backfill for Structures and drainage treatment details, see sheet of



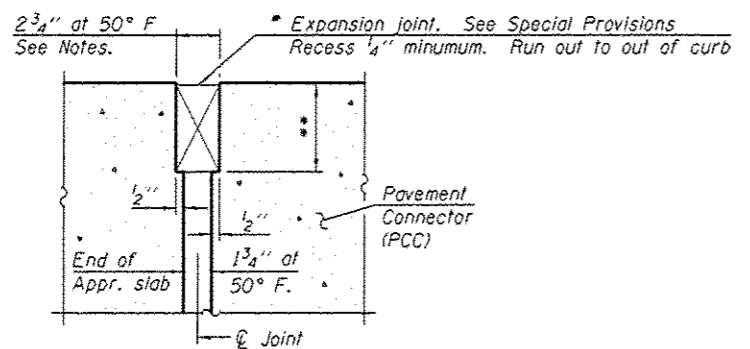
INSIDE ELEVATION OF PARAPET AND CURB



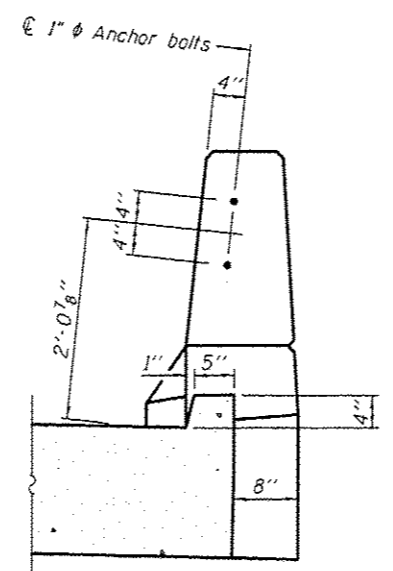
SECTION A-A



***1" diameter ANCHOR BOLT**
 (Anchor bolt assemblies shall be galvanized according to Article 1006.09 of the Standard Specifications)



DETAIL A
 (Rt. <'s)



VIEW B-B

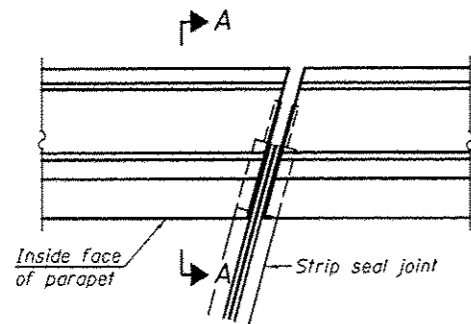
TWO APPROACHES
 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	180	#5	20'-10"	—
a2(E)	240	#8	20'-10"	—
a3(E)	92	#5	7'-4"	—
b4(E)	124	#5	29'-8"	—
b5(E)	198	#9	29'-8"	—
b6(E)	8	#5	14'-8"	—
b7(E)	4	#4	14'-8"	—
d2(E)	68	#5	5'-7"	U
d3(E)	68	#5	7'-8"	U
e(E)	32	#4	14'-8"	—
e1(E)	4	#8	14'-8"	—
k(E)	-	#4	13'-10"	—
w(E)	80	#5	22'-3"	—
Concrete Superstructure		Cu. Yd.	6.7	
Concrete Superstructure (Approach Slab)		Cu. Yd.	116.2	
Concrete Structures		Cu. Yd.	36.5	
Reinforcement Bars, Epoxy Coated		Pound	45,840	
Bar Splicers		Each	250	

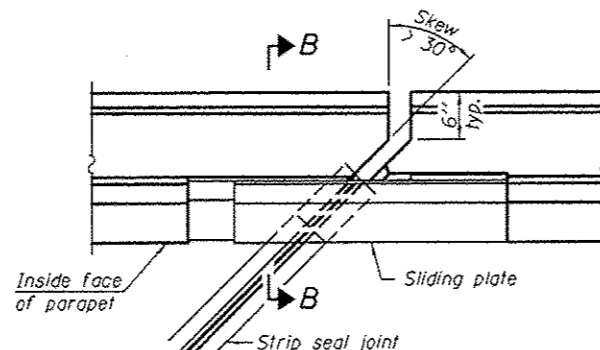
* Cost included with Concrete Superstructure (Approach Slab).
 ** Per manufacturer recommendations

BAIA-CIP-34FS-R(>30°) 07-22-16

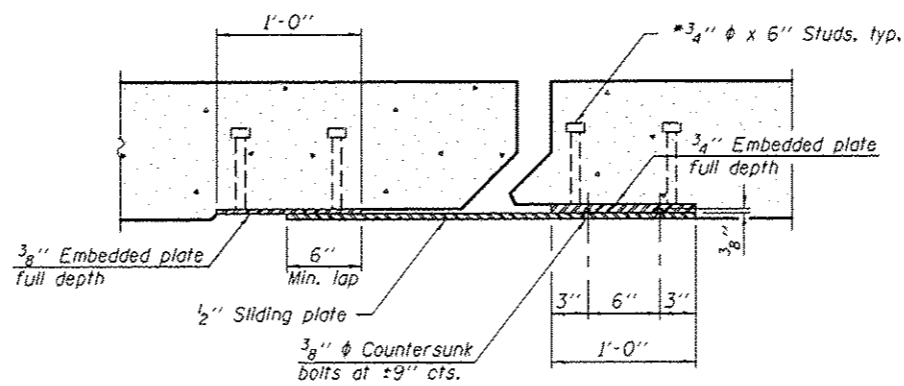
(Sheet 2 of 2)



PLAN
(For skews $\leq 30^\circ$)

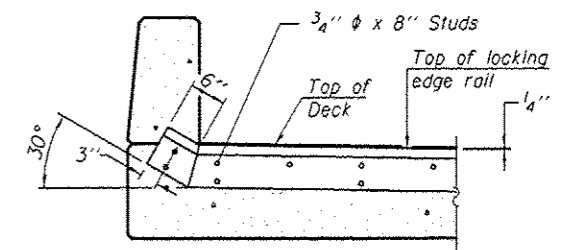


PLAN
(For skews $> 30^\circ$)
Showing point block

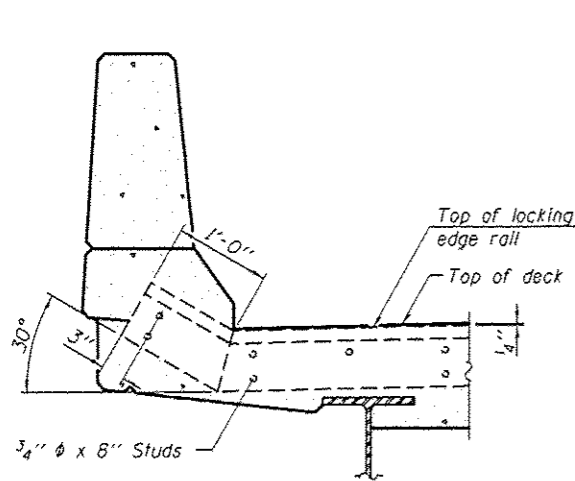


SECTION C-C

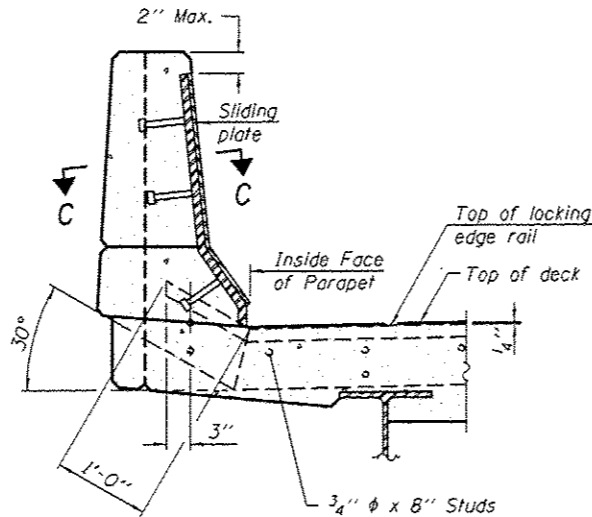
* Granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded.



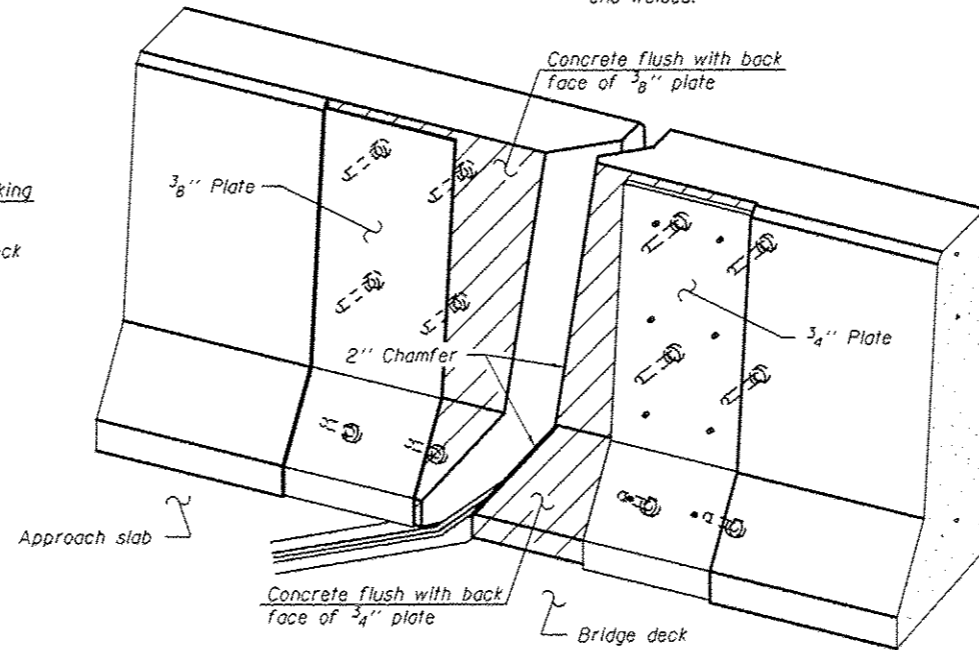
TYPICAL END TREATMENT AT PARAPET



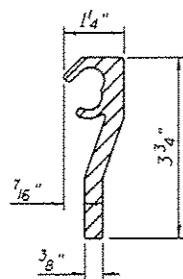
SECTION A-A



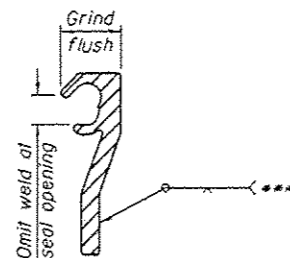
SECTION B-B



TRIMETRIC VIEW
(Showing back plates only)



LOCKING EDGE RAIL



LOCKING EDGE RAIL SPLICE

Notes:

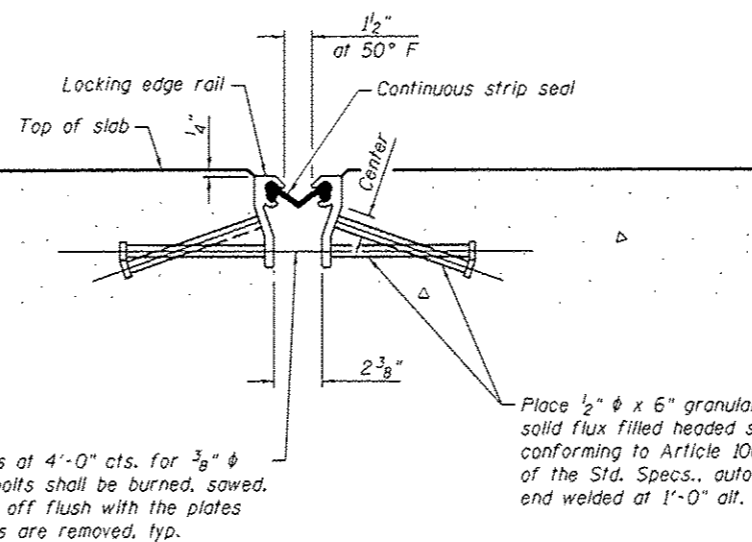
The strip seal shall be made continuous and shall have a minimum thickness of $1/4$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails.

The height and thickness of the Locking Edge Rails shown are minimum dimensions. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed.

The inside of the Locking Edge Rail groove shall be free of weld residue. Locking Edge Rails may be spliced at slope discontinuities and stage construction joints.

The manufacturer's recommended installation methods shall be followed.

*** Back gouge not required if complete joint penetration is verified by mock-up.



SECTION THRU STRIP SEAL JOINT

$7/16$ " ϕ holes at 4'-0" cts. for $3/8$ " ϕ bolts. All bolts shall be burned, sawed, or chipped off flush with the plates after forms are removed, typ.

Place $1/2$ " ϕ x 6" granular or solid flux filled headed studs conforming to Article 1006.32 of the Std. Specs., automatically end welded at 1'-0" all. cts.

Notes:

The strip seal shall be made continuous and shall have a minimum thickness of $1/4$ ". The configuration of the strip seal shall match the configuration of the Locking Edge Rails. Open or "webbed" strip seal gland configurations are not permitted. The gland shall be sized for a maximum rated movement of 4 inches.

The Locking Edge Rails depicted are conceptual only, except for the minimum dimensions shown. The actual configuration of the Locking Edge Rails and matching strip seal may vary from manufacturer to manufacturer. Flanged edge rails will not be allowed. Locking Edge Rails may be spliced at slope discontinuities.

The manufacturer's recommended installation methods shall be followed.

The joint opening and deck dimensions detailed on the superstructure are based on a rolled rail expansion joint. If the Contractor elects to use the welded rail expansion joint, the opening and deck dimensions shall be modified according to the dimensions detailed on this sheet. Required modifications shall be made at no additional cost to the State.

All steel components shall be galvanized after fabrication according to Article 520.03 of the Standard Specifications. Maximum space between rail segments at stage lines shall be $3/16$ ", sealed with a suitable sealant.

Parapet plates and anchorage studs for skews $> 30^\circ$ included in the cost of Preformed Joint Strip Seal.

BILL OF MATERIAL

Item	Unit	Total
Preformed Joint Strip Seal	Foot	61

DESIGNED - JGY
CHECKED - ATH
DRAWN - Kyle M. Steffen
CHECKED - JGY ATH

PASSED

Carl Perry
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 27, 2016

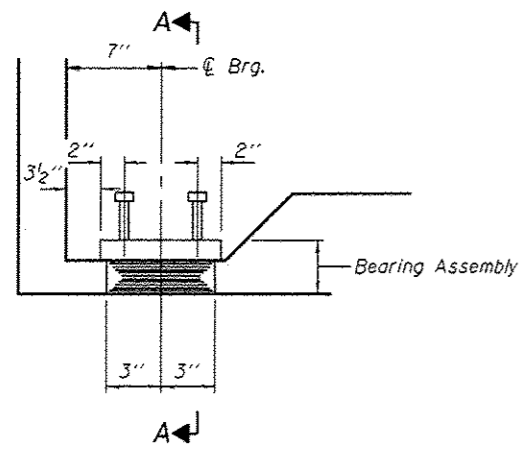
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

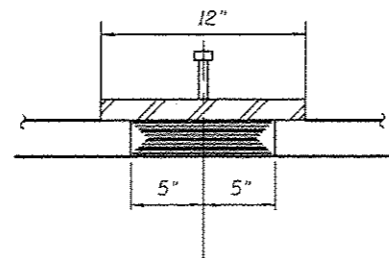
PREFORMED JOINT STRIP SEAL
SN 056-0051

SHEET NO. S10 OF S17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-I	McHENRY	34	18
				CONTRACT NO. 60M89
ILLINOIS FED. AID PROJECT				

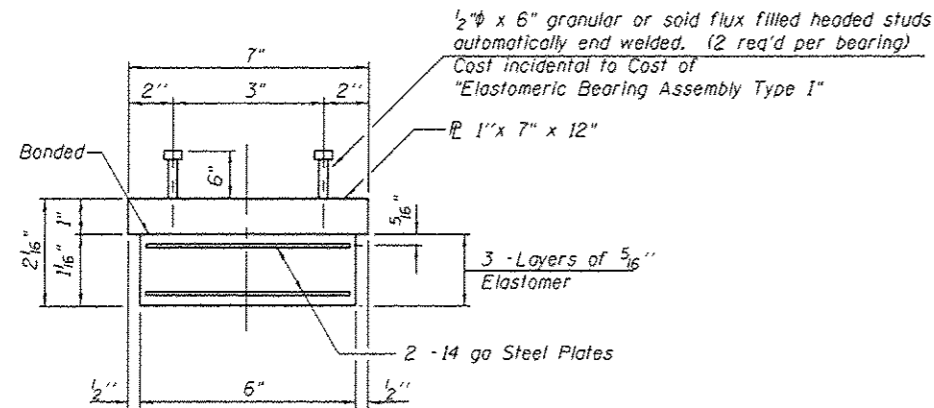


ELEVATION AT ABUT.



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

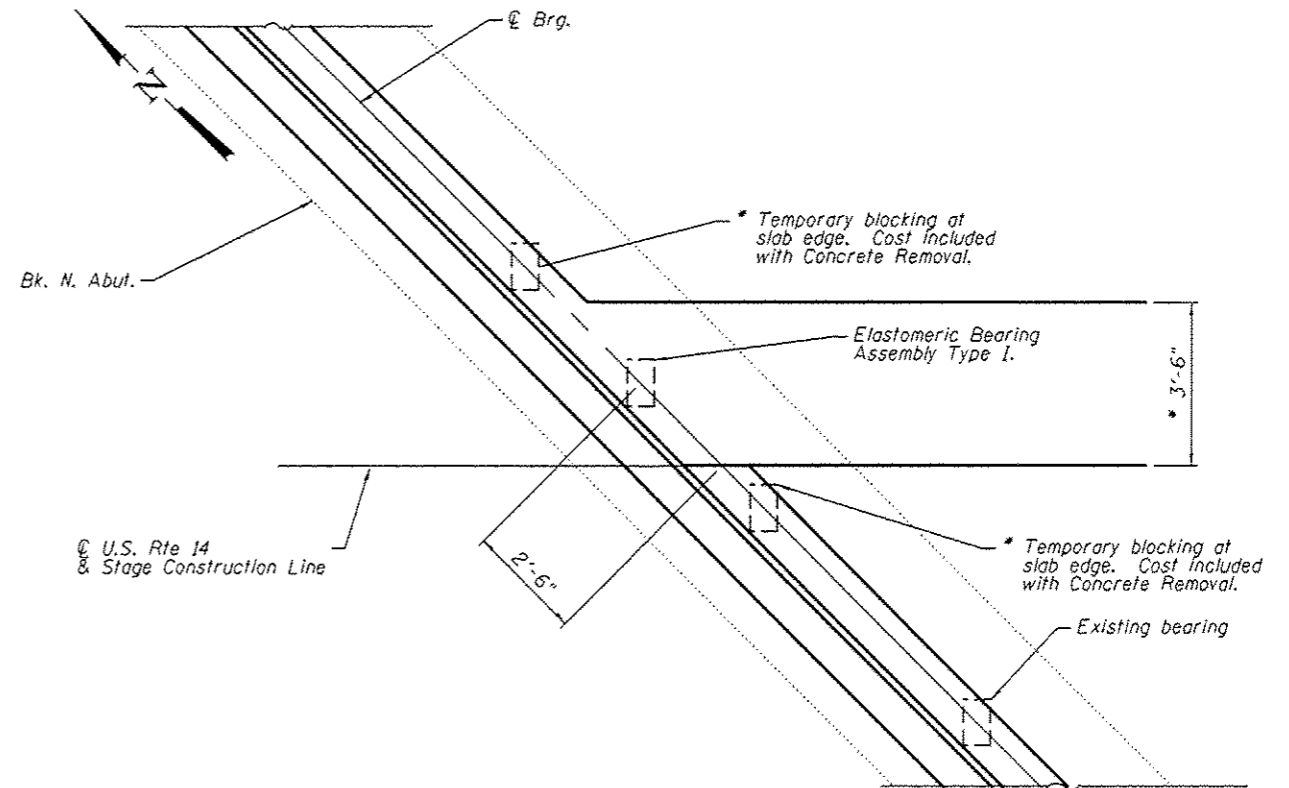


BEARING ASSEMBLY

Note:
Shim plates shall not be placed under Bearing Assembly.

Notes:
Steel members required for the elastomeric bearing assembly shall be included in the cost of Elastomeric Bearing Assembly, Type I.

Removal of Existing Elastomeric Bearing Pad at deck closure strip to be included with cost of Concrete Removal.



**PLAN
N. ABUT.**

* Temporary blocking shall be installed prior to any Concrete Removal and shall remain in place until concrete is cured. Care shall be taken no to damage the existing structures during placement and removal.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	1

DESIGNED - JCY
CHECKED - ATH
DRAWN - Kyle M. Steffan
CHECKED - JCY ATH

PASSED

Carl Perry
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 27, 2016

REVISED
REVISED

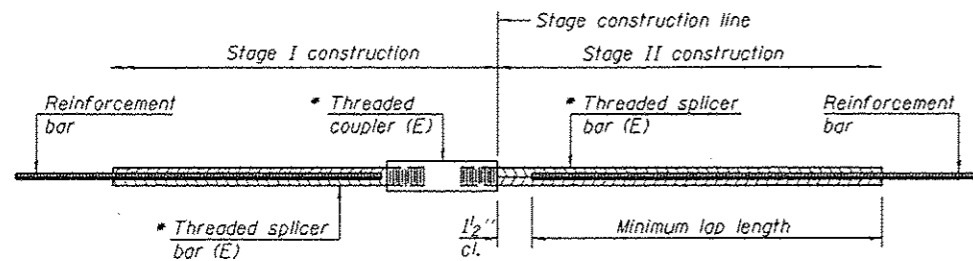
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BEARING DETAILS
SN 056-0051

SHEET NO. S11 OF S17 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-1	McHENRY	34	19

CONTRACT NO. 60M89
ILLINOIS FED. AID PROJECT

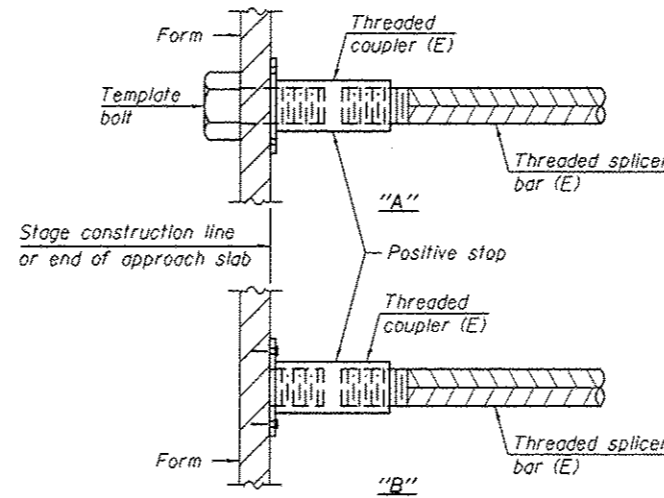


STANDARD BAR SPLICER ASSEMBLY

Threaded splicer bar length = min. lap length + 1/2" + thread length

* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Minimum lap length
Approach Slab	#5	130	3'-6"
Approach Slab	#8	120	4'-9"
Deck Ends	#5	2	3'-6"
Abutment Backwall	#6	4	4'-0"

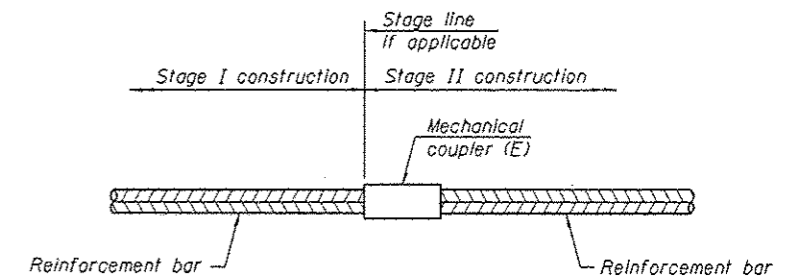


INSTALLATION AND SETTING METHODS

"A" : Set bar splicer assembly by means of a template bolt.

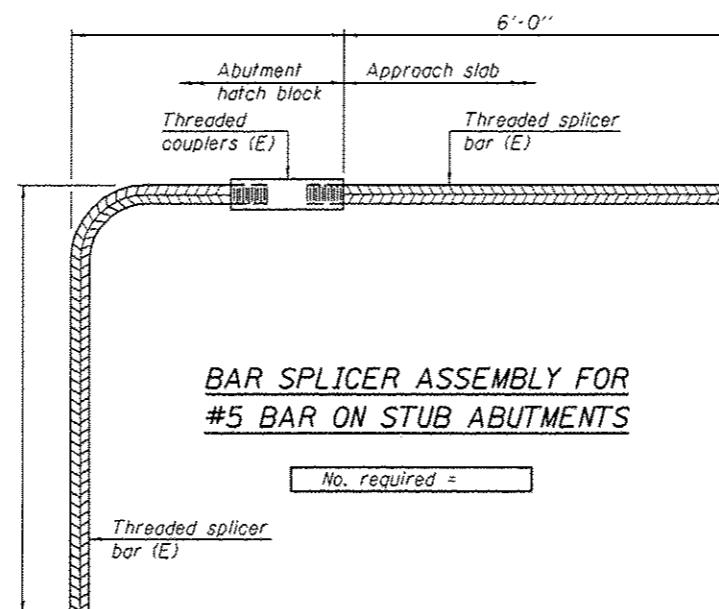
"B" : Set bar splicer assembly by nailing to wood forms or cementing to steel forms.

(E) : Indicates epoxy coating.



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =

NOTES

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.

All reinforcement shall be lapped and tied to the splicer bars.

Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.

See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 6-8-15

DESIGNED - JGY
 CHECKED - ATH
 DRAWN - Kyle M. Stoffan
 CHECKED - JGY ATH

PASSED

Carl Perry
 ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 27, 2016

REVISED
 REVISED

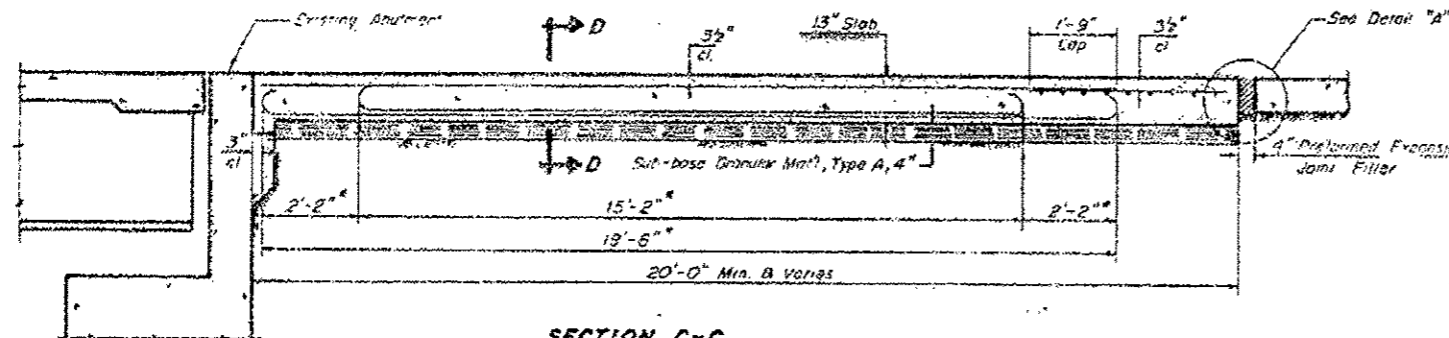
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
 SN 056-0051

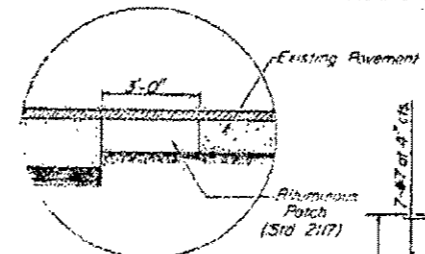
SHEET NO. 512 OF 517 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	298-I	McHENRY	34	20

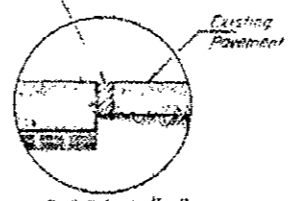
CONTRACT NO. 60M89
 ILLINOIS FED. AID PROJECT



SECTION C-C
 *Stagger alternate #7 bars as shown on plan - full width.

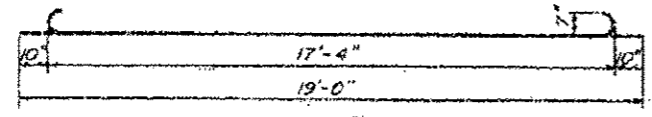


DETAIL "A"
 (When bituminous surface is being placed)



DETAIL "A"
 (P.C.C. Pavement Construction)

Keyed Longitudinal Construction Joint in accordance with details shown on Standard 2323.



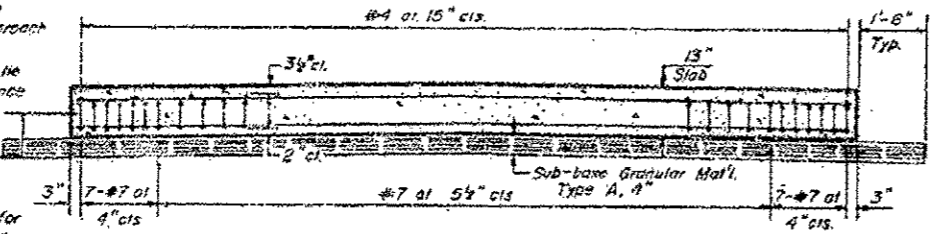
#7 BARS



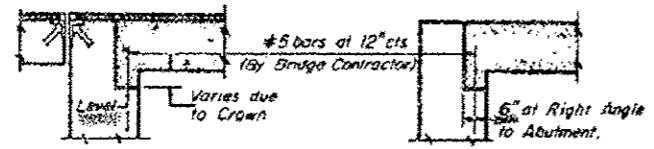
OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the width of pour by use of the Optional Longitudinal Construction Joint shown. Joints shall be located at the edge of a traffic lane.

When the road plans show curb and gutter, gutter, or bridge approach shoulder pavement adjacent to approach slabs, place 5" steel tie bars at 2'-6" centers in accordance with the detail for Bulkhead Longitudinal Construction Joint shown on Standard 2323. Cost of the tie bars will be included in the contract unit price for the adjacent item. Transitions for curb and gutter or gutter shall be as shown on the plans.



SECTION D-D



SECTION E-E

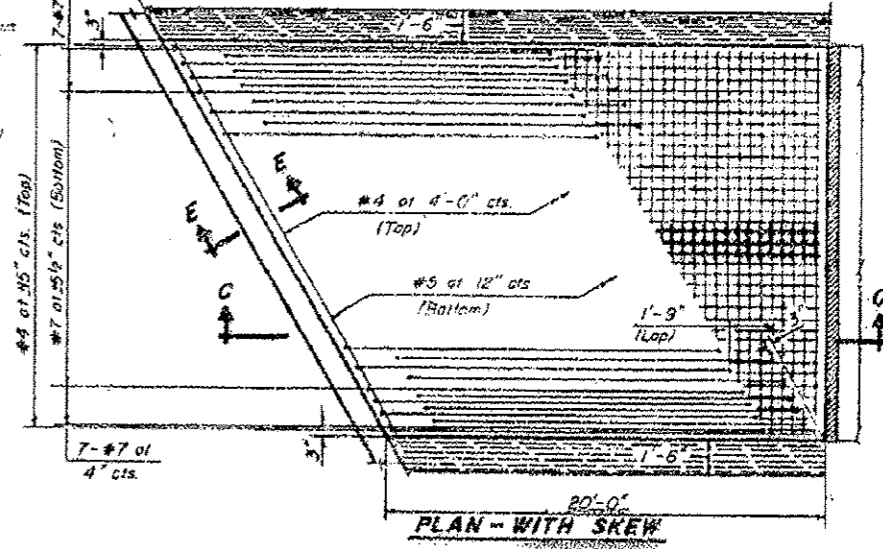
Notes:
 For skews of less than 10° omit wire fabric. For skews of 10° or more use Welded Wire Fabric, 6" x 6" - W5.5 x W5.5, placed 3/4" below top of slab. Expanded Metal weighing not less than 75 Pounds per 100 Sq Ft. or a welded bar mat weighing not less than 75 Pounds per 100 Sq Ft. having members of equal size in both directions and spaced not over 8" apart may be used instead of the Welded Wire Fabric, 6" x 6" - W5.5 x W5.5, provided the expanded metal or bar mat is furnished at no additional cost to the State. Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 53, Grade 60.

DESIGN NOTES
 This Standard should be used where an existing approach pavement is being replaced and the pavement within 20 ft. of the structure is in good condition.
 This Standard should not be used with mainline structures on Interstates or Supplemental Freeways.
 Design Notes will not appear in the contract plans.

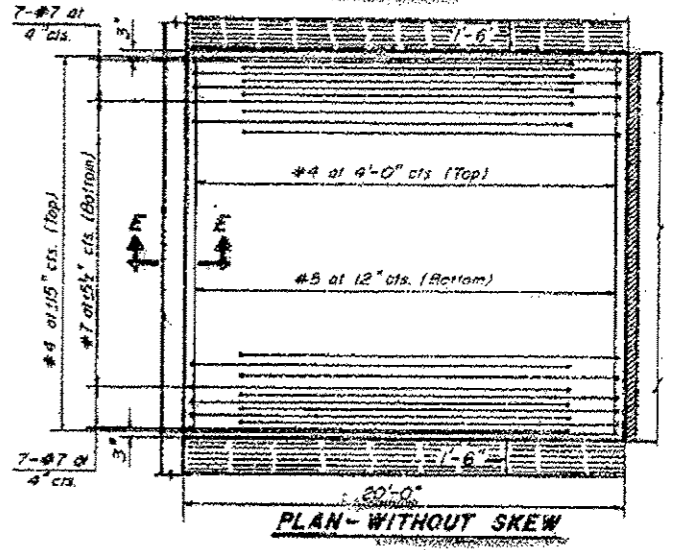
DESIGN STRESSES
 $f_y = 60,000 \text{ psi}$
 $f_c = 3,500 \text{ psi}$
 $n = 8.5$

GENERAL NOTES

The cost of tie bars, expansion joint filler, sub-base, welded wire fabric and bituminous prime when required shall be considered as included in the unit cost of the Bridge Approach Pavement.
 Prefabricated Expansion Joint Filler shall conform to Section 715 of the Standard Specifications. Width of Bridge Approach Slab shall be determined before the reinforcement bars are fabricated.
 The bituminous patch, when required, will be paid for in accordance with Section 620 of the Standard Specifications.



PLAN - WITH SKEW



PLAN - WITHOUT SKEW

FOR INFORMATION ONLY

Illinois Department of Transportation
 PASSED: [Signature] 10/29/16
 APPROVED: [Signature] 10/29/16

BRIDGE APPROACH PAVEMENT
 Sheet 1 of 2
STANDARD 2382-1

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

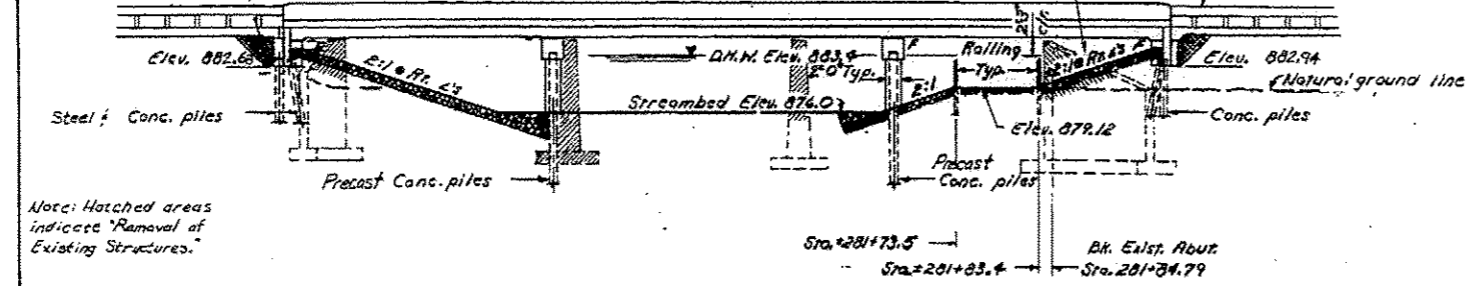
FOR INFORMATION ONLY

PROJECT NO.	298-R(82)	SECTION	26	SHEET NO.	1
TOTAL SHEETS	13 SHEETS				

Bench Mark: Chiseled square in N.W. wingwall at Elev. 886.37.
Existing Structure: 056-0001, The existing three span reinforced concrete slab bridge built in 1928 and widened in 1954 as S.B.T. 19 section 2781 is 92'-6" back to back of abutment and 36'-4" out to out. Stage construction to be utilized. No salvage.

This portion of embankment backfill by bridge contractor after abutment is in place. Typ.

For Excavation Pav't Removal behind exist. abut. see roadway plans. (Typ.)



Note: Hatched areas indicate Removal of Existing Structures.

SHEET PILING DATA
 Spacing = 10.87 m
 Top Elev. 888.67
 Bottom Elev. 883.17
 Depth = 25'-6"
 Length = 15'-0" N. Abut.
 24'-0" S. Abut.
 from back of existing abutment wall

GENERAL NOTES

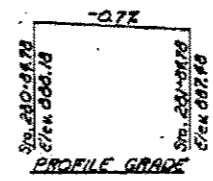
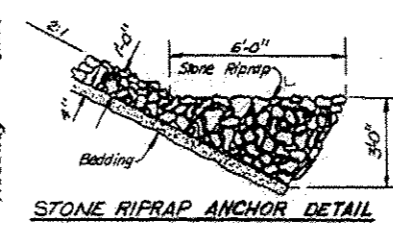
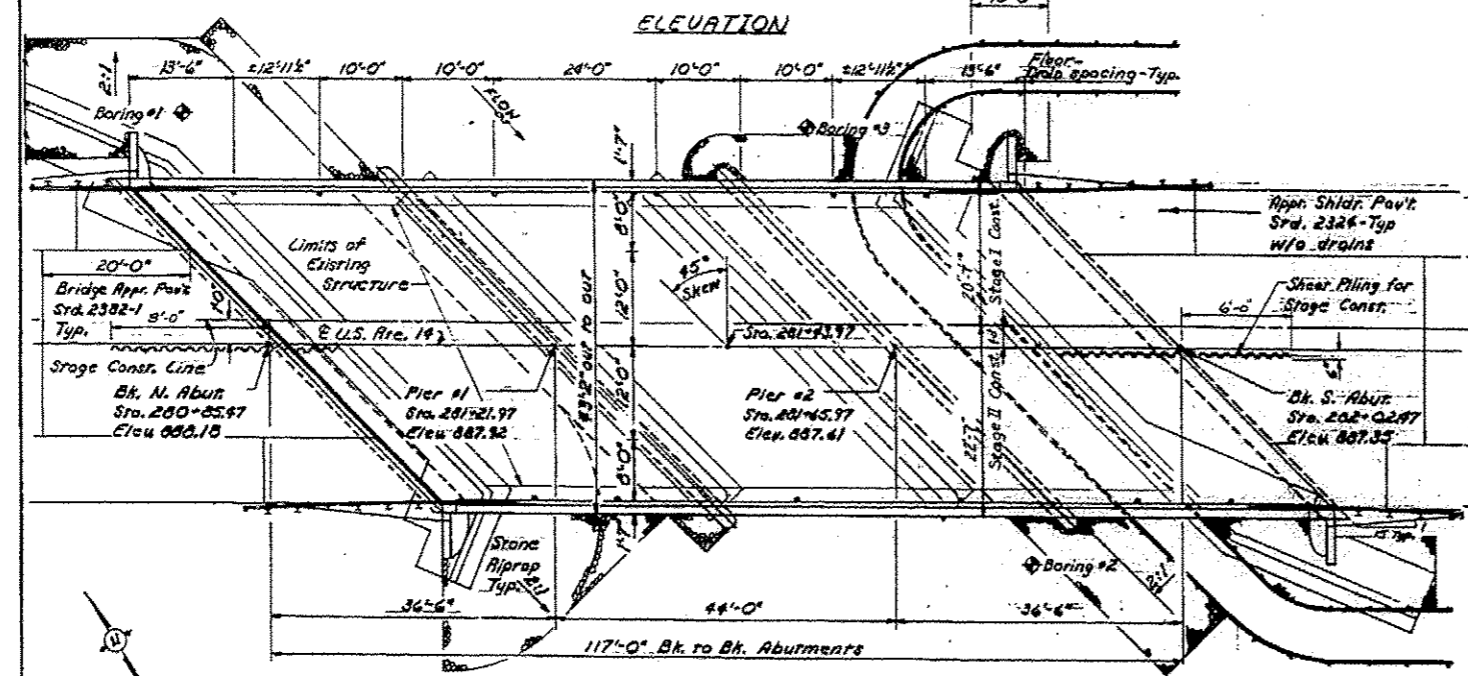
See Proposal for Boring Data.
 Reinforcement bars shall conform to the requirements of A.S.T.M. A-36 or M-53 Grade 60.
 Layout of stone riprap may be varied to suit local ground conditions as directed by the Engineer.
 The embankment configuration shown shall be the minimum requirement that must be constructed prior to construction of the structure.
 The Contractor shall make allowance for the settlement of the embankment and settlement of falsework, in addition to allowance for settlement of foundation.
 The contractor shall drive 1 concrete test pile in a permanent location at the North Abutment and 1 precast concrete test pile in a permanent location at Pier #2 as directed by the Engineer before ordering the remainder of piles.

Contractor to anchor sheeting to existing abutment wall. Connection to be approved by Engineer.
 Sheet piling within limits of footing shall have their tip Elev. @ top of footings.

TOTAL BILL OF MATERIAL

ITEM	UNIT	QUANTITY	TOTAL
Removal Existing Structure	Each	1	1
Structure Excavation	Cu. Yds.	128	128
Protective Coat	Sq. Yds.	596	596
Class X Concrete	Cu. Yds.	267.3	407.2
Reinforcement Bars	Lbs.	37270	57530
Reinforcement Bars (Epoxy Coated)	Lbs.	3635	3635
Concrete Piles	Lin. Ft.	510	510
Test Piles (Concrete)	Each	1	1
Temporary Sheet Piling	Sq. Ft.	995	995
Name Plates	Each	1	1
Stone Riprap	Sq. Yds.	730	730
Neoprene Expansion Joint (2")	Lin. Ft.	59	59
Elastomeric Bearing Assembly (type 1)	Each	6	6
Floor Drains	Each	12	12
Precast Concrete Piles 14"	Lin. Ft.	683	683
Test Piles (Precast Concrete)	Each	1	1
Furnishing Steel Piles HP8x36	Lin. Ft.	66	66

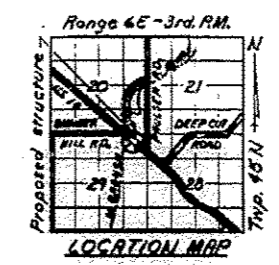
See Roadway Plans for Temporary Concrete Barrier quantities.



DESIGN STRESSES
 Field Units
 F_c = 4,300 p.s.i.
 F_y = 60,000 p.s.i. (reinf.)

STATION 201+43.97
 BUILT BY
 STATE OF ILLINOIS
 F.A. RT. 9 SEC. 29B-R(82)
 F.A. PROJ. IX-9(125)
 LOADING HS20
 STR. NO. 056-0051

NAME PLATE
 (See Std. 2113)



GENERAL PLAN
 U.S. ROUTE 14 OVER NORTH BRANCH
 OF KISHWAUKEE RIVER
 E.A. ROUTE 9 SECTION 29B-R(82)
 McHENRY COUNTY
 STATION 201+43.97

WATERWAY INFORMATION

Drainage Area		Low Grade Elev. 886.37		@ Sta. 205+00		
Flood	Freq. Yr.	Q C.R.S.	Opening Sq. Ft. Exist. Prop.	Nat. H.M.E.	Head - Ft. Exist. Prop.	Headwater El. Exist. Prop.
Design	100	1716	367 392	888.6 883.7	0.02 0	883.72 883.7
Overtopping	500	2,212	624 434	884.3 884.3	0.04 0	884.38 884.3

LOADING HS20-16
 Design Specifications: 1977
 A.R.S.H.T.O. 1 1978 thru 1983
 Interim specifications.
 Allow 25% / sq. ft. for future wearing surface.

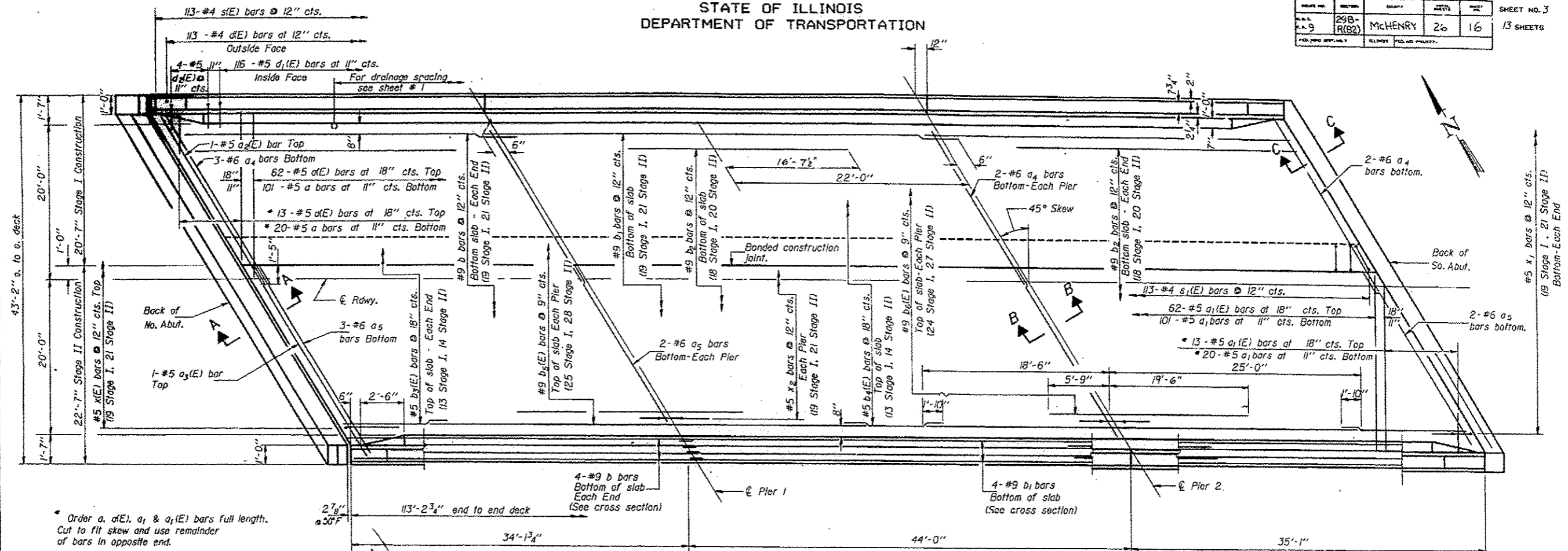
DESIGNED: [Signature]
 CHECKED: [Signature]
 DRAWN: [Signature]
 CHECKED: [Signature]

DATE: May 15, 1984
 EXAMINED: [Signature]
 APPROVED: [Signature]

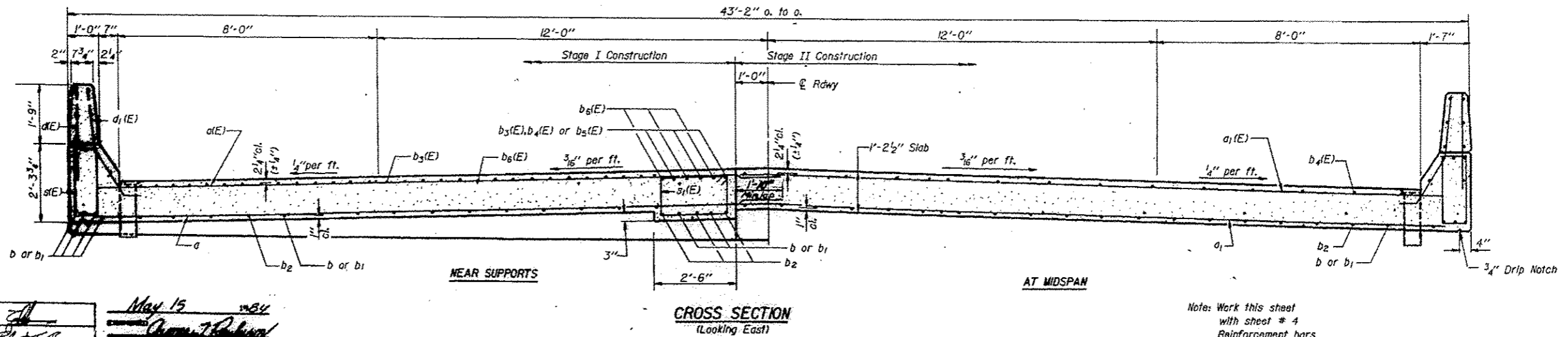


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SCALE	SECTION	COUNTY	SHEETS	SHEET NO.
1"=10'	29B-R(82)	McHENRY	26	16
PROJECT				13 SHEETS



PLAN



CROSS SECTION
(Looking East)

Note: Work this sheet with sheet # 4. Reinforcement bars designated (E) shall be epoxy coated.

FOR INFORMATION ONLY

SUPERSTRUCTURE
F.A. RTE. 9 SEC. 29B-R(82)
McHENRY COUNTY
STA. 281+43.97

DESIGNED	<i>[Signature]</i>
CHECKED	Robert T. Bono
DRAWN	Mercado
CHECKED	R.T.B.

May 15 1984
[Signature]
DIRECTOR OF TRANSPORTATION

DESIGNED	JGY
CHECKED	ATH
DRAWN	Kyla M. Staffen
CHECKED	JGY ATH

PASSED
[Signature]
ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE	SEPTEMBER 27, 2016
REVISED	
REVISED	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

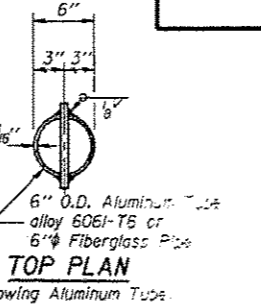
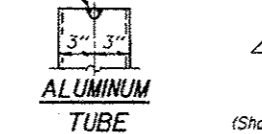
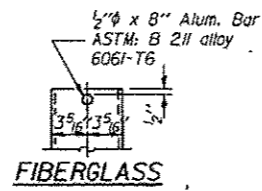
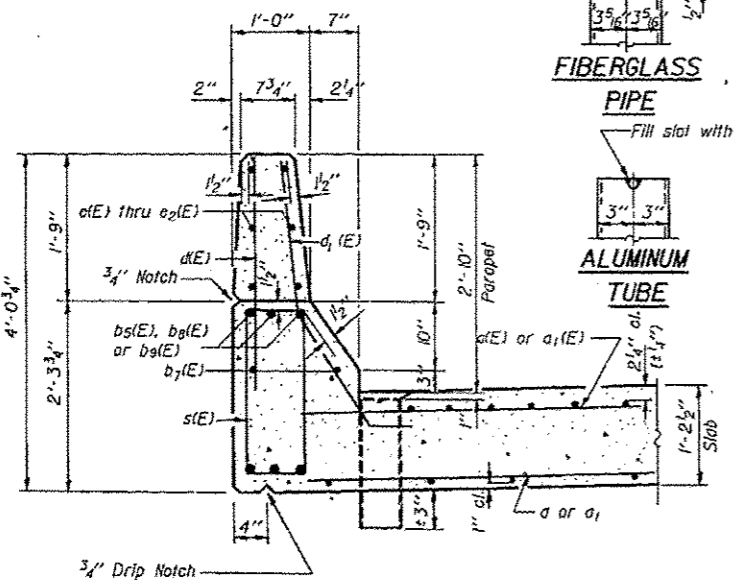
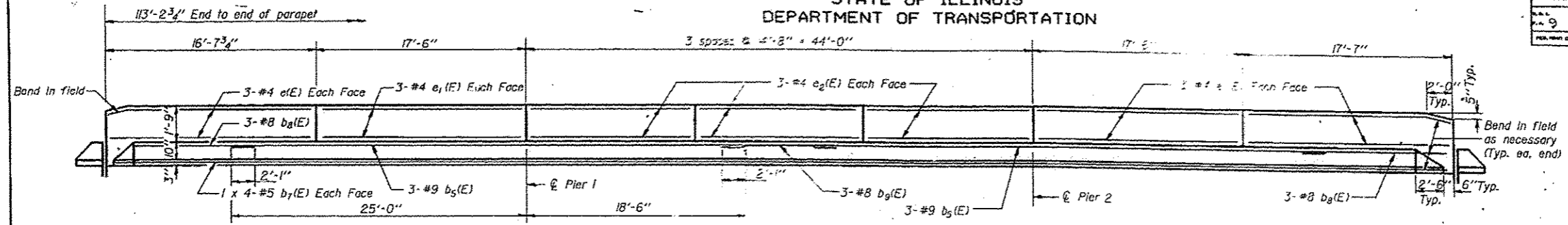
EXISTING BRIDGE PLANS (2 OF 4)
SN 056-0051

SHEET NO. 515 OF 517 SHEETS

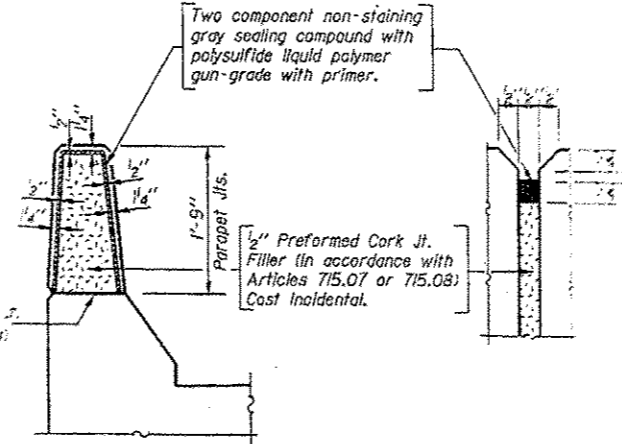
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	McHENRY	34	23
CONTRACT NO. 60M89				
ILLINOIS FED. AID PROJECT				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

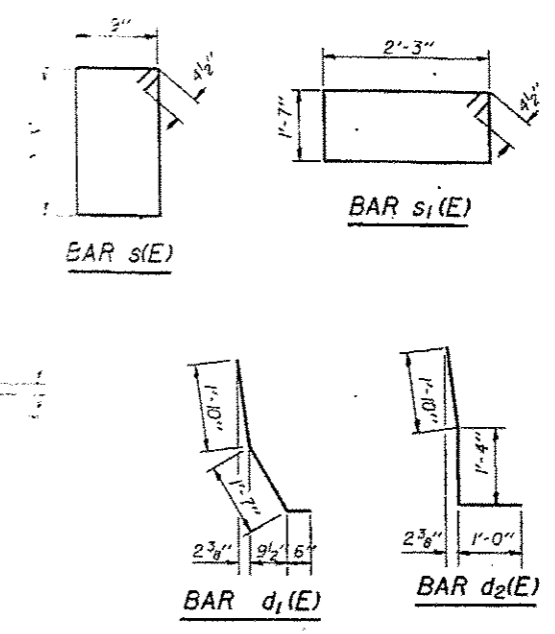
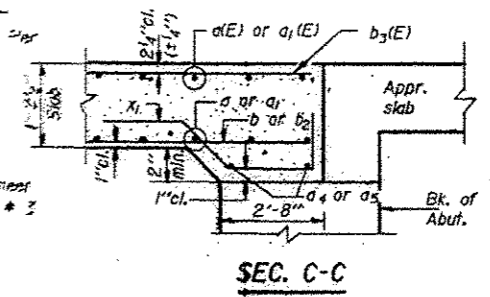
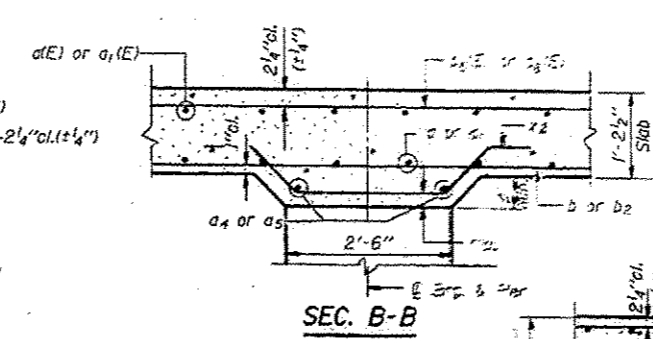
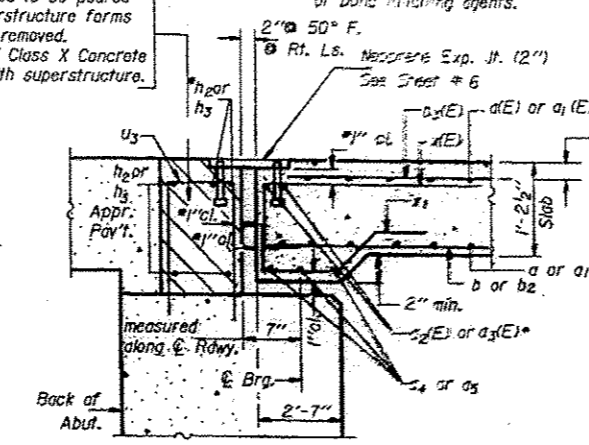
SECTION	COUNTY	SHEETS	POST	SHEET NO. 4
29B-R(82)	MCHENRY	26	17	13 SHEETS



FOR INFORMATION ONLY



Notes:
The exterior surfaces of the Fiberglass Floor Drains shall be painted with one coat of Aluminum paint. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete slab.
Fiberglass pipe shall conform to ASTM D2996, with short-time rupture strength: tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.



SUPERSTRUCTURE BILL OF MATERIAL

Box	No.	Size	Length	Shape
a	121	#5	21'-10"	
a(E)	75	#5	21'-10"	
a1	121	#5	22'-5"	
a1(E)	75	#5	22'-5"	
a2(E)	1	#5	28'-2"	
a3(E)	1	#5	29'-8"	
a4	9	#6	28'-2"	
a5	9	#6	29'-8"	
b	96	#9	36'-0"	
b1	48	#9	45'-0"	
b2	114	#9	33'-3"	
b3(E)	54	#5	13'-6"	
b4(E)	27	#5	11'-0"	
b5(E)	118	#9	43'-6"	
b6(E)	102	#9	25'-3"	
b7(E)	16	#5	29'-8"	
b8(E)	12	#8	13'-9"	
b9(E)	6	#8	11'-6"	
d(E)	226	#4	3'-0"	
d1(E)	116	#5	3'-11"	
d2(E)	16	#5	4'-2"	
e(E)	12	#4	16'-4"	
e1(E)	36	#4	17'-3"	
e2(E)	36	#4	14'-5"	
g(E)	226	#4	9'-11"	
g1(E)	113	#4	8'-5"	
x(E)	40	#5	4'-6"	
x1	80	#5	5'-3"	
x2	80	#5	5'-9"	
Reinforcement Bars (Epoxy Coated)				Lbs. 36130
Class X Concrete				Cu. Yds. 261.3
Reinforcement Bars				Lbs. 39270

Reinforcement bars designated (E) shall be epoxy coated.
Bars designated thus 1 x 4 - #5 etc., indicates 1 line of bars 4 lengths per line.

SUPERSTRUCTURE DETAILS
F.A. RTE. 9 SEC. 29B-R(82)
MCHENRY COUNTY
STA. 281+43.97

DESIGNED *[Signature]*
CHECKED *[Signature]*
DRAWN Mercado
CHECKED *[Signature]*
S-I-D 12-1-83
DATE - SEPTEMBER 27, 2016
REVISOR
REVISOR

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

FOR INFORMATION ONLY

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	DATE	SHEET NO.
29B-R(82)	McHENRY	26	19	1/3 SHEETS

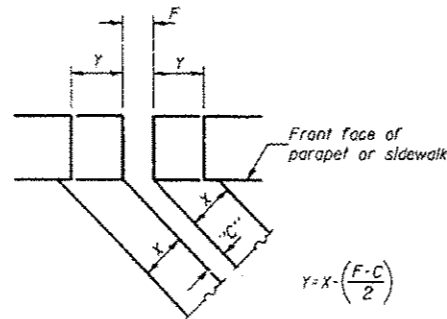
INSTALLATION NOTES

1. Note sponge mandrels into positions shown to form top distribution.
2. Note parapet or sidewalk piece trim roadway flap 1/2" before applying epoxy.
3. Note continuous seal in roadway.
4. Note anchor blocks as indicated.

NOTE: Minimum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

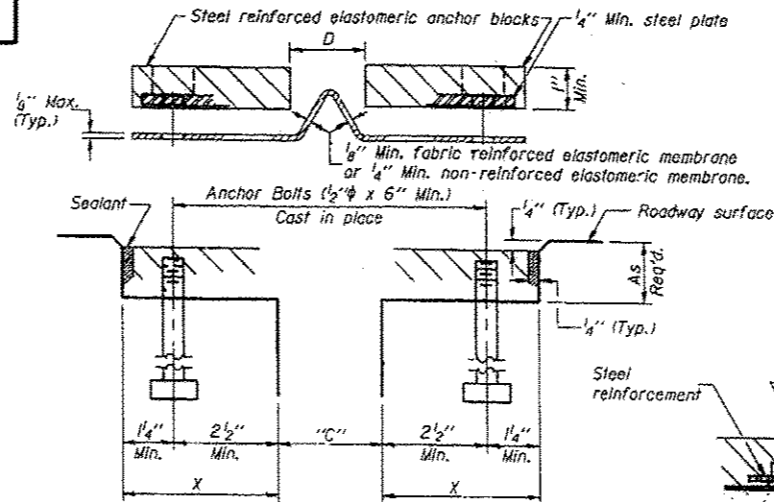
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "C", might require modifications to insure a minimum clearance of 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at 12" cts.



$$Y = X \cdot \left(\frac{F - C}{2} \right)$$

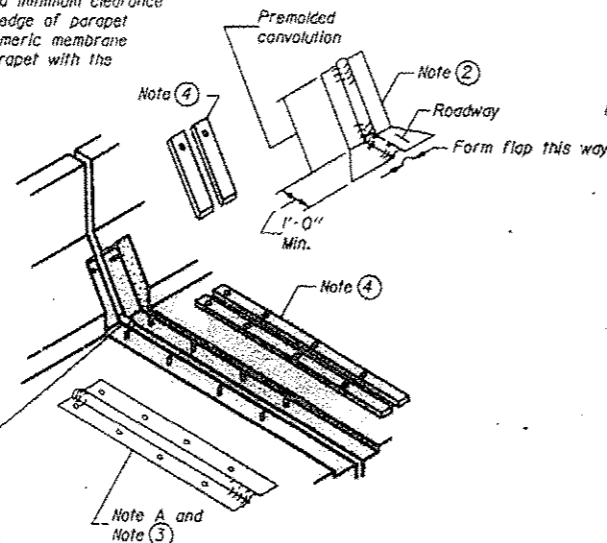
For dimension "F" see sheet # 3

FORMING BLOCKOUT SKETCH

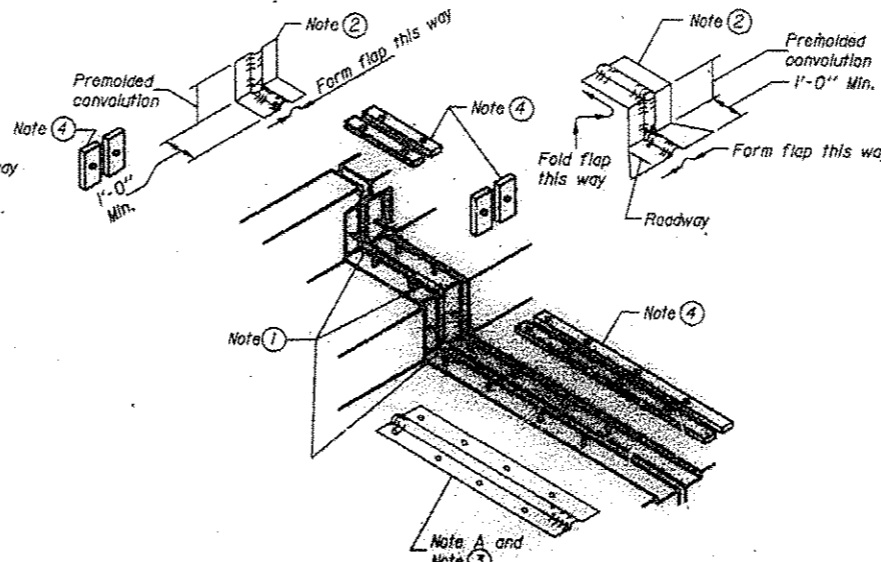


CROSS SECTION

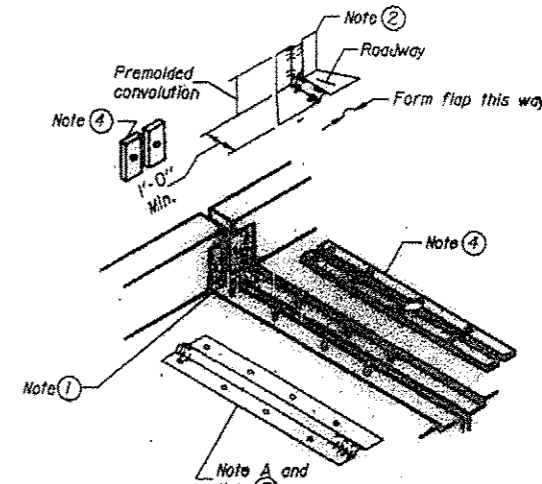
ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE



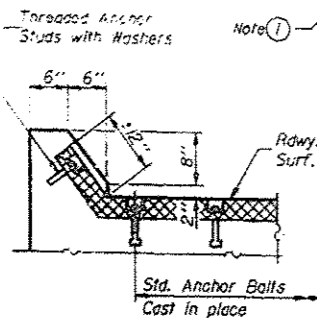
AT PARAPET



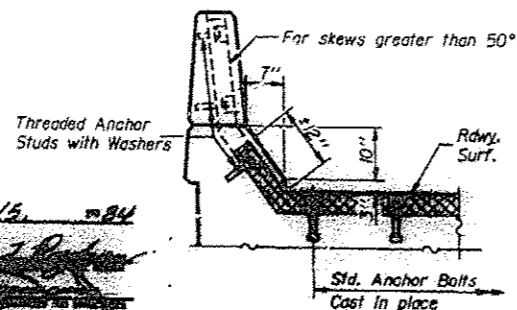
AT SIDEWALK OR MEDIAN



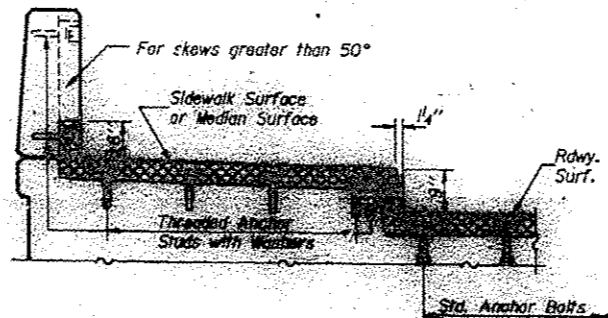
AT WALL



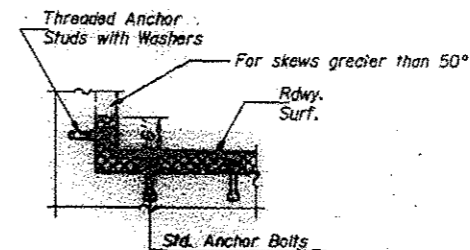
AT CURB



AT PARAPET



AT SIDEWALK OR MEDIAN TYPICAL END TREATMENTS



AT WALL

DESIGNED	<i>JCY</i>
CHECKED	<i>Robert T. Bras</i>
DRAWN	<i>Z.A.U.</i>
CHECKED	<i>R.T.C.</i>

EJ-CS 12-1-83

APPROVED	<i>[Signature]</i>
DATE	<i>May 15, 1984</i>
TITLE	<i>[Signature]</i>
APPROVED	<i>[Signature]</i>

ACTING ENGINEER OF BRIDGES AND STRUCTURES

DATE - SEPTEMBER 27, 2016

REVISED

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

EXISTING BRIDGE PLANS (4 OF 4)
SN 056-0051

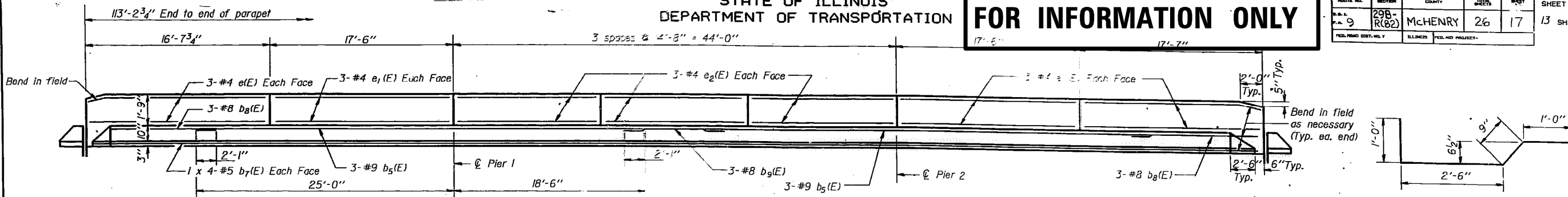
SHEET NO. 517 OF 517 SHEETS

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	McHENRY	34	25

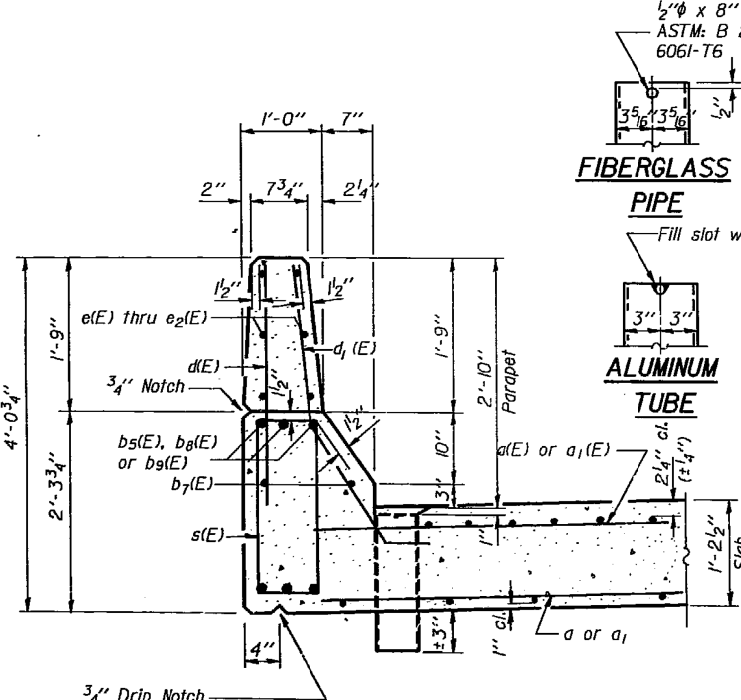
CONTRACT NO. 60M89
ILLINOIS FED. AID PROJECT

CONTINUOUS SEAL TYPE
NEOPRENE EXPANSION JOINTS
For 2", 2 1/2" and 4" Gaskets

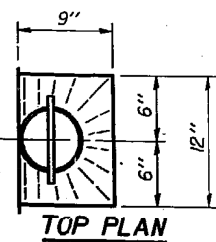
F.A. 2 SEC. 29B-R(82)
McHENRY COUNTY
STA. 281+43.97



Min. lap #5 bar : 1'-10"

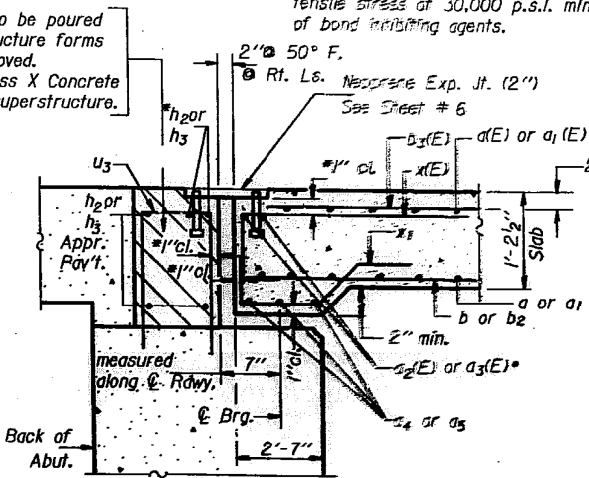


SECTION THRU PARAPET



TOP PLAN

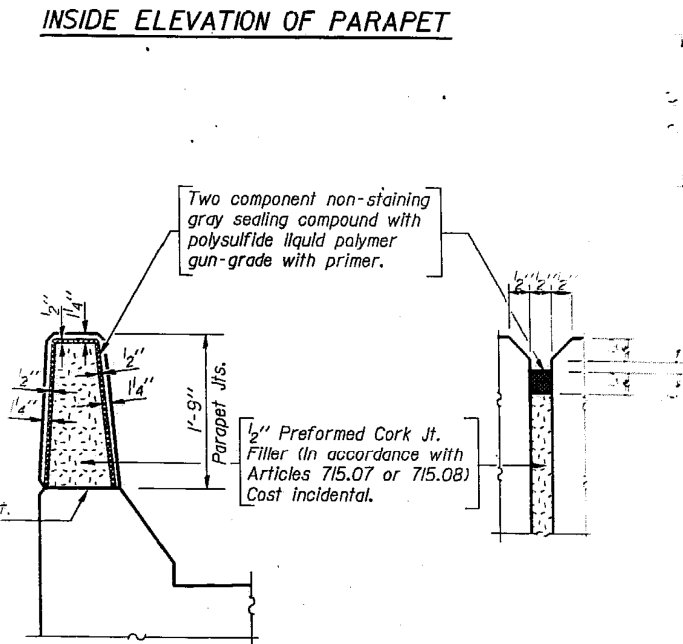
Hatched area to be poured after superstructure forms have been removed. Quantity of Class X Concrete included with superstructure.



SECTION A-A

*Place a2(E), a3(E), h2 or h3 bars in back of anchor bolts as shown if required to maintain 1" cl. (±0-1/2"). Anchor bolts should be tied to a2(E), a3(E), h2 or h3 bars

INSIDE ELEVATION OF PARAPET

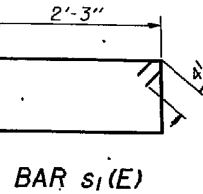


PARAPET JOINT DETAILS

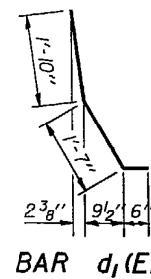
Notes:
The exterior surfaces of the Fiberglass Floor Drains shall be painted with one coat of Aluminum paint. Painting of the Fiberglass Floor Drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with silver pigment or a pigment that matches the color of the concrete slab.
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength 1000 tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.



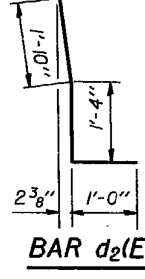
BAR s(E)



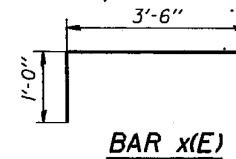
BAR s1(E)



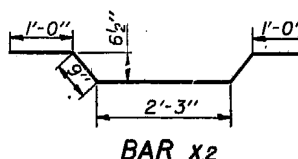
BAR d1(E)



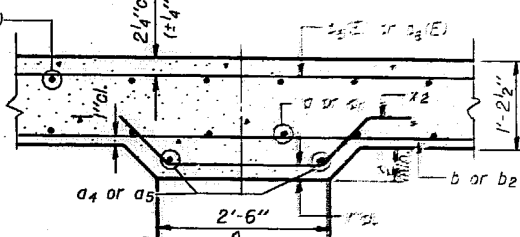
BAR d2(E)



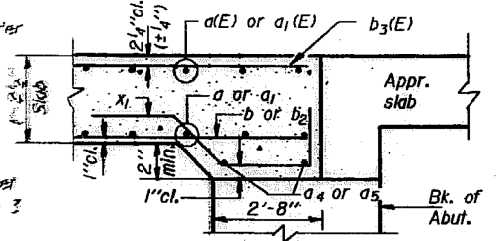
BAR x(E)



BAR x2



SEC. B-B



SEC. C-C

Note: Work this sheet with sheet # 3

SUPERSTRUCTURE
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a	121	#5	21'-10"	
a(E)	75	#5	21'-10"	
a1	121	#5	22'-5"	
a1(E)	75	#5	22'-5"	
a2(E)	7	#5	28'-2"	
a3(E)	1	#5	29'-8"	
a4	9	#6	28'-2"	
a5	9	#6	29'-8"	
b	96	#9	36'-0"	
b1	48	#9	45'-0"	
b2	114	#9	33'-3"	
b3(E)	54	#5	13'-6"	
b4(E)	27	#5	11'-0"	
b5(E)	118	#9	43'-6"	
b6(E)	102	#9	25'-3"	
b7(E)	16	#5	29'-8"	
b8(E)	12	#8	13'-9"	
b9(E)	6	#8	11'-6"	
d(E)	226	#4	3'-0"	
d1(E)	116	#5	3'-11"	
d2(E)	16	#5	4'-2"	
e(E)	12	#4	16'-4"	
e1(E)	36	#4	17'-3"	
e2(E)	36	#4	14'-5"	
s(E)	226	#4	9'-11"	
s1(E)	113	#4	8'-5"	
x(E)	40	#5	4'-6"	
x1	80	#5	5'-3"	
x2	80	#5	5'-9"	
Reinforcement Bars (Epoxy Coated)	Lbs.		36130	
Class X Concrete	Cu. Yds.		261.3	
Reinforcement Bars	Lbs.		39270	

Reinforcement bars designated (E) shall be epoxy coated.
Bars designated thus 1 x 4 - #5 etc., indicates 1 line of bars 4 lengths per line.

SUPERSTRUCTURE DETAILS
F.A. RTE. 9 SEC. 29B-R(82)
McHENRY COUNTY
STA. 281+43.97

DESIGNED	Zelner
CHECKED	Robert T. Bono
DRAWN	Mercado
CHECKED	R.T.B.

S-1-D 12-1-83

EXAMINED	May 15, 1984
PASSED	[Signature]
APPROVED	[Signature]

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROJECT NO.	SECTION	COUNTY	STA.	SHEET NO.
29B-R(82)	McHENRY	26	19	13 SHEETS

Joint Size	"C" at 50°F	"D" at 50°F
2"	2"	1 1/2" Min.
2 1/2"	2 1/2"	1 3/4" Min.
4"	3"	2 1/2" Min.

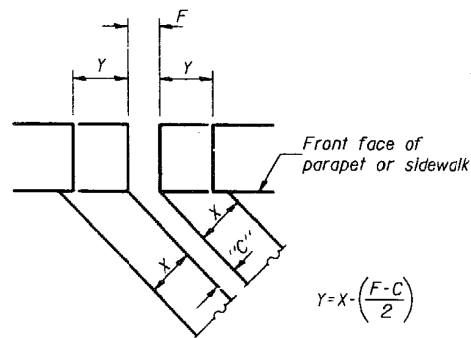
INSTALLATION NOTES

1. Install sponge mandrels into positions shown to form top convolution.
2. Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
3. Install continuous seal in roadway.
4. Install anchor blocks as indicated.

NOTE A: Maximum spacing of anchor bolts shall be 12" centers.

SKREW LIMITATIONS

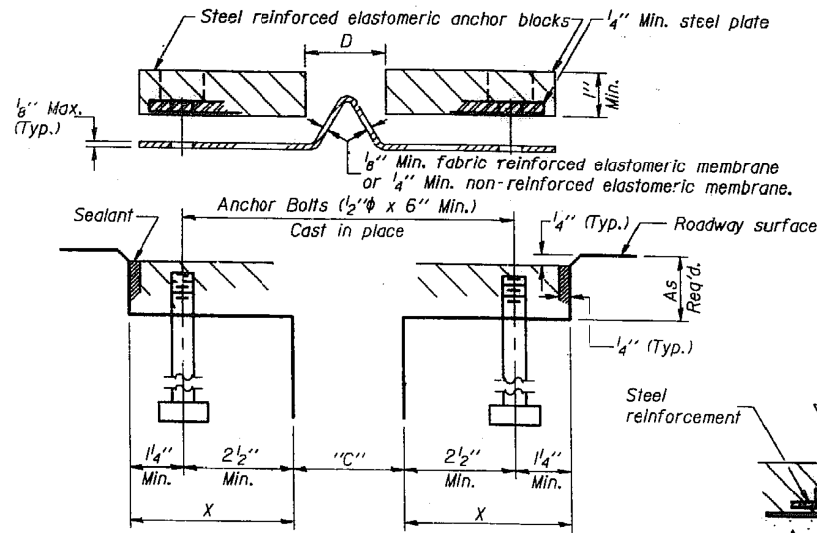
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews. For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed in accordance with dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening. The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at 12" cts.



$$Y = X - \left(\frac{F-C}{2} \right)$$

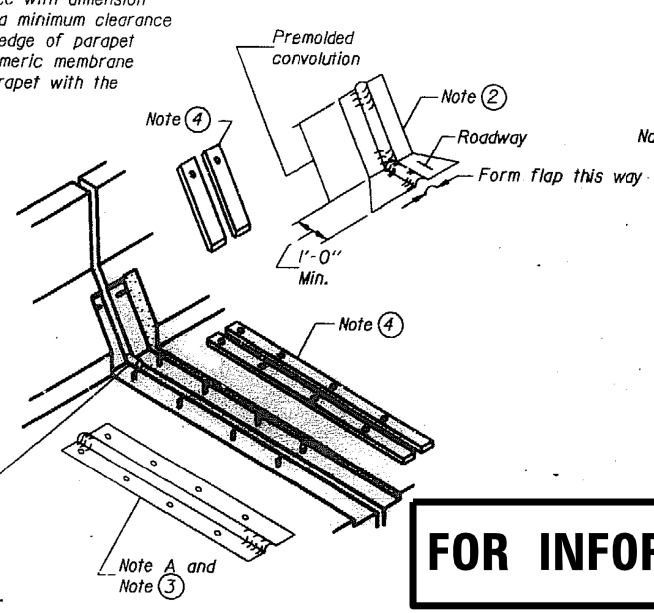
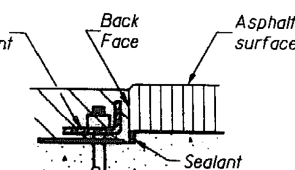
For dimension "F" see sheet # 3

FORMING BLOCKOUT SKETCH

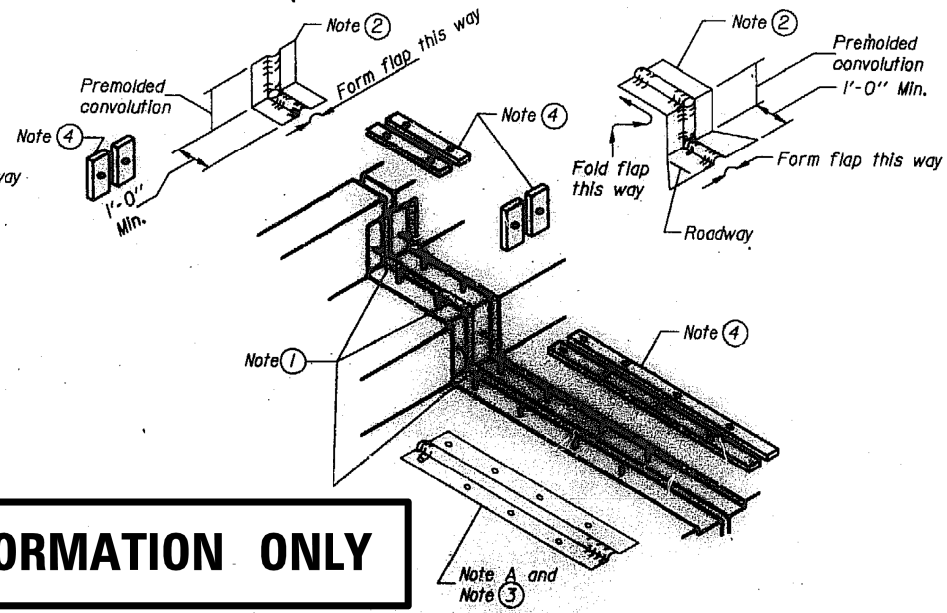


CROSS SECTION

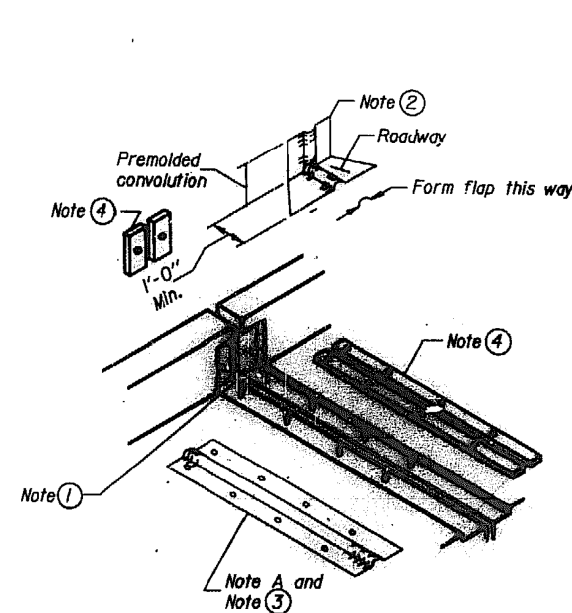
ANCHOR BLOCK REINFORCEMENT WITH ASPHALT SURFACE



AT PARAPET

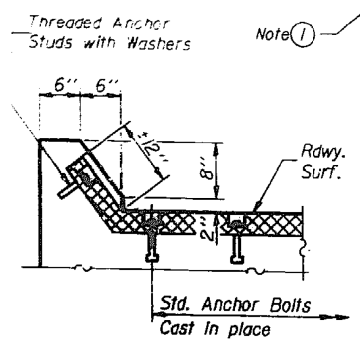


AT SIDEWALK OR MEDIAN

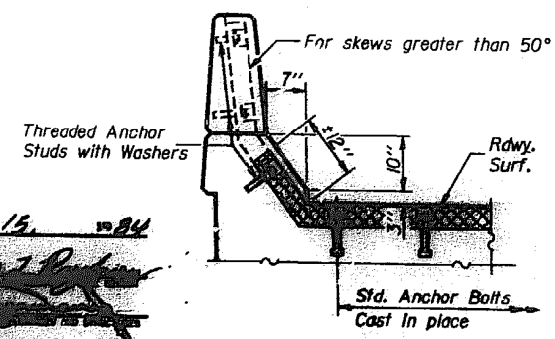


AT WALL

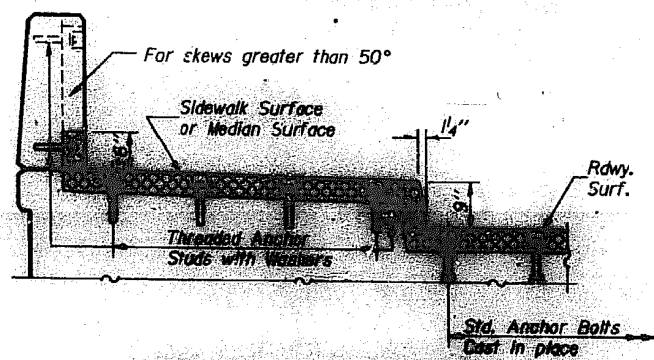
FOR INFORMATION ONLY



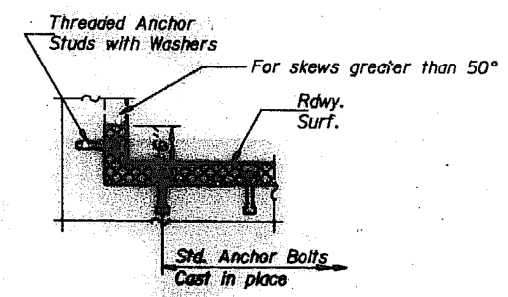
AT CURB



AT PARAPET



**AT SIDEWALK OR MEDIAN
TYPICAL END TREATMENTS**



AT WALL

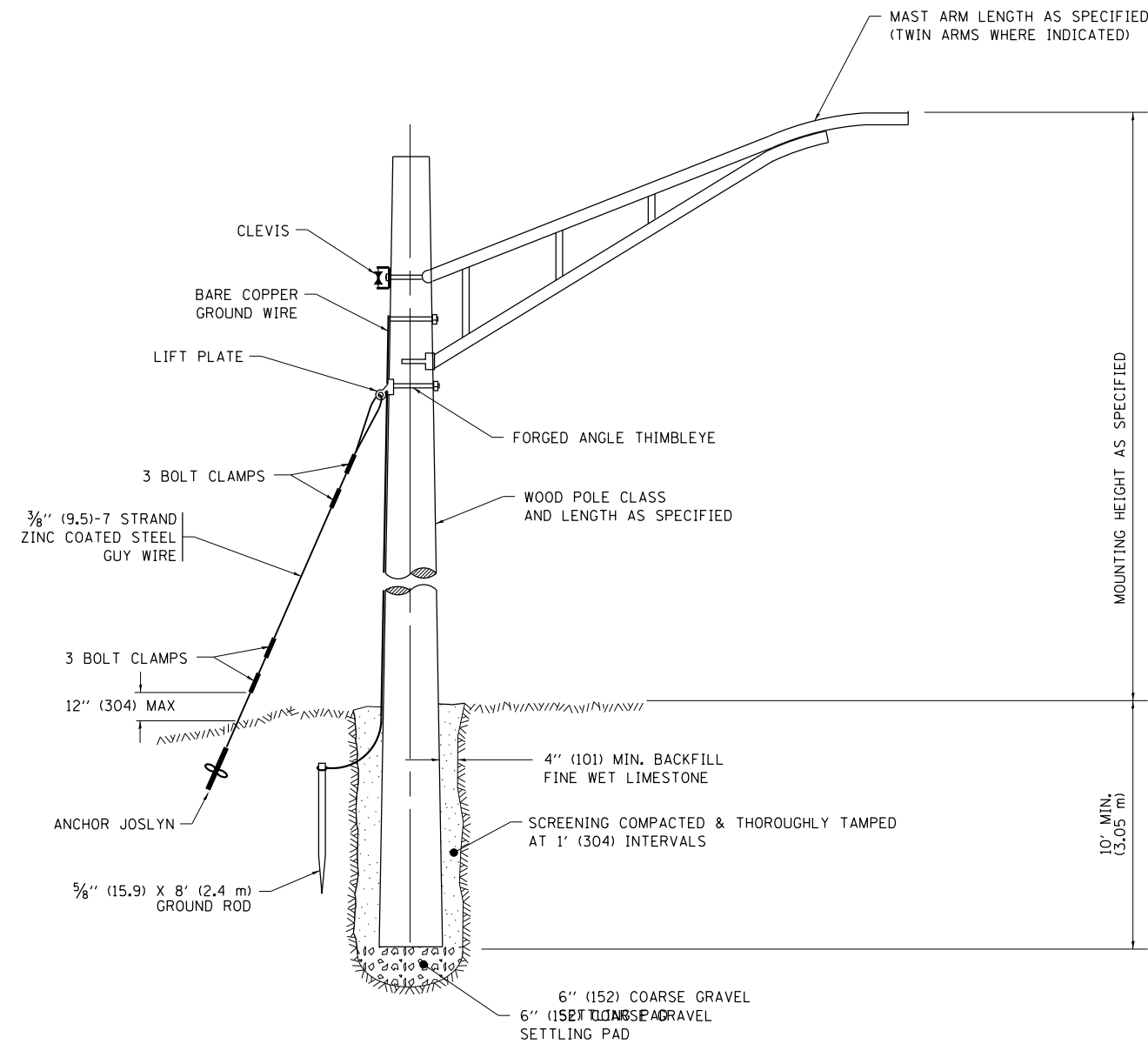
DESIGNED	EJCS
CHECKED	Robert T. Bran
DATE	2.28.83
APPROVED	R.T.C.

May 15, 1984
APPROVED
DIRECTOR OF HIGHWAYS

EJ-CS 12-1-83

CONTINUOUS SEAL TYPE NEOPRENE EXPANSION JOINTS
For 2", 2 1/2" and 4" Joints

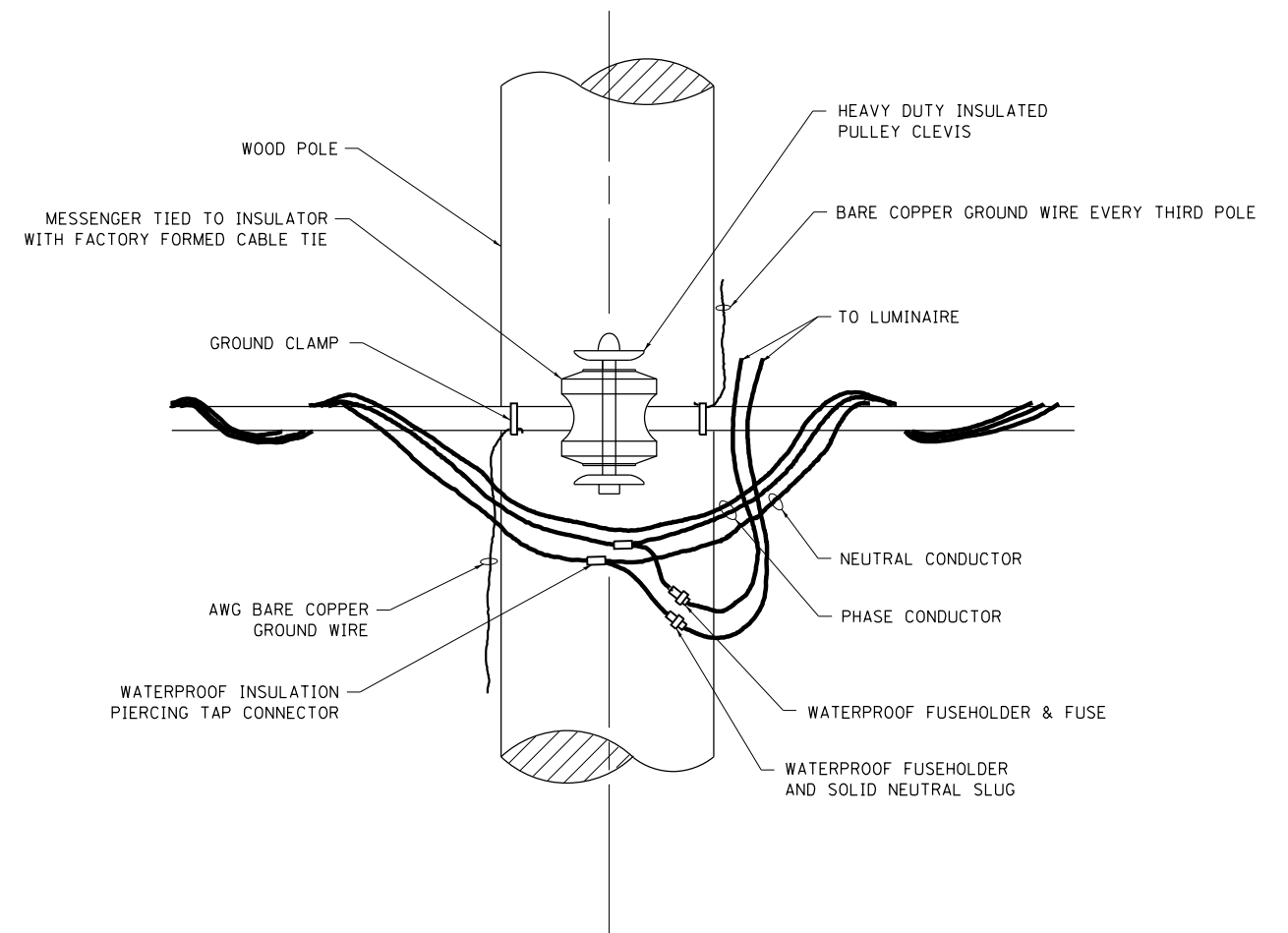
F.A. 29 SEC. 29B-R(82)
McHENRY COUNTY
STA. 261+43.5



TEMPORARY LIGHT POLE DETAIL

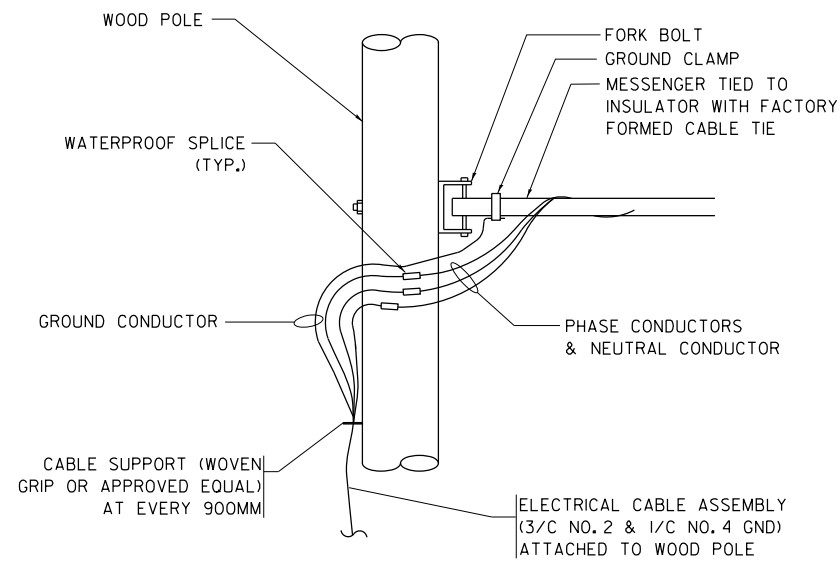
NOTE:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. MAST ARM SHALL BE RATED FOR THE SPECIFIED MOUNTING HEIGHT.

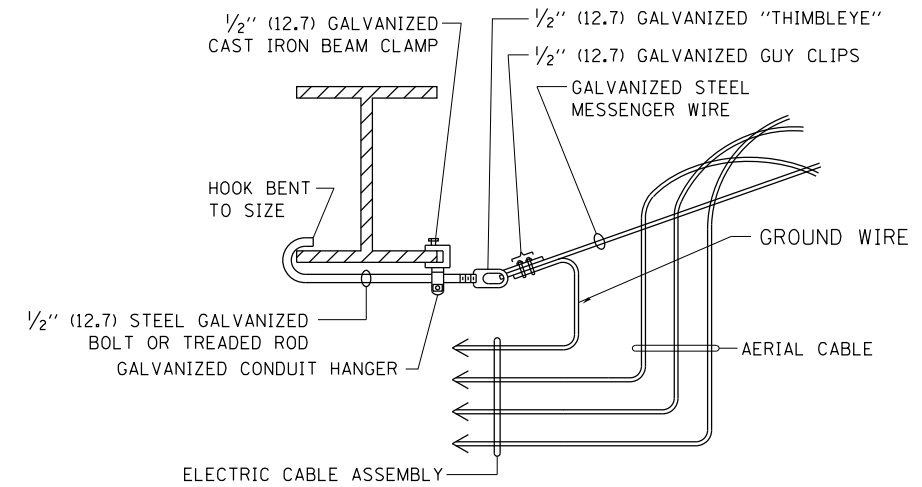


TEMPORARY LIGHT POLE ATTACHMENT DETAIL

FILE NAME =	USER NAME = hardnettbr	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHT POLE DETAILS			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\11084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI1951\DRAMA\Design\Di\xxxx-sht-plan.dgn	DRAMA	REVISED - R.T. 07-26-16	305					29B-1	MCHENRY	37	28	
Default	PLOT SCALE = 100.0000' / in.	CHECKED -	REVISED -		BE-800			CONTRACT NO. 60M89				
	PLOT DATE = 8/26/2016	DATE -	REVISED -		SCALE: NONE	SHEET 1 OF 1 SHEETS	STA. TO STA.	ILLINOIS FED. AID PROJECT				



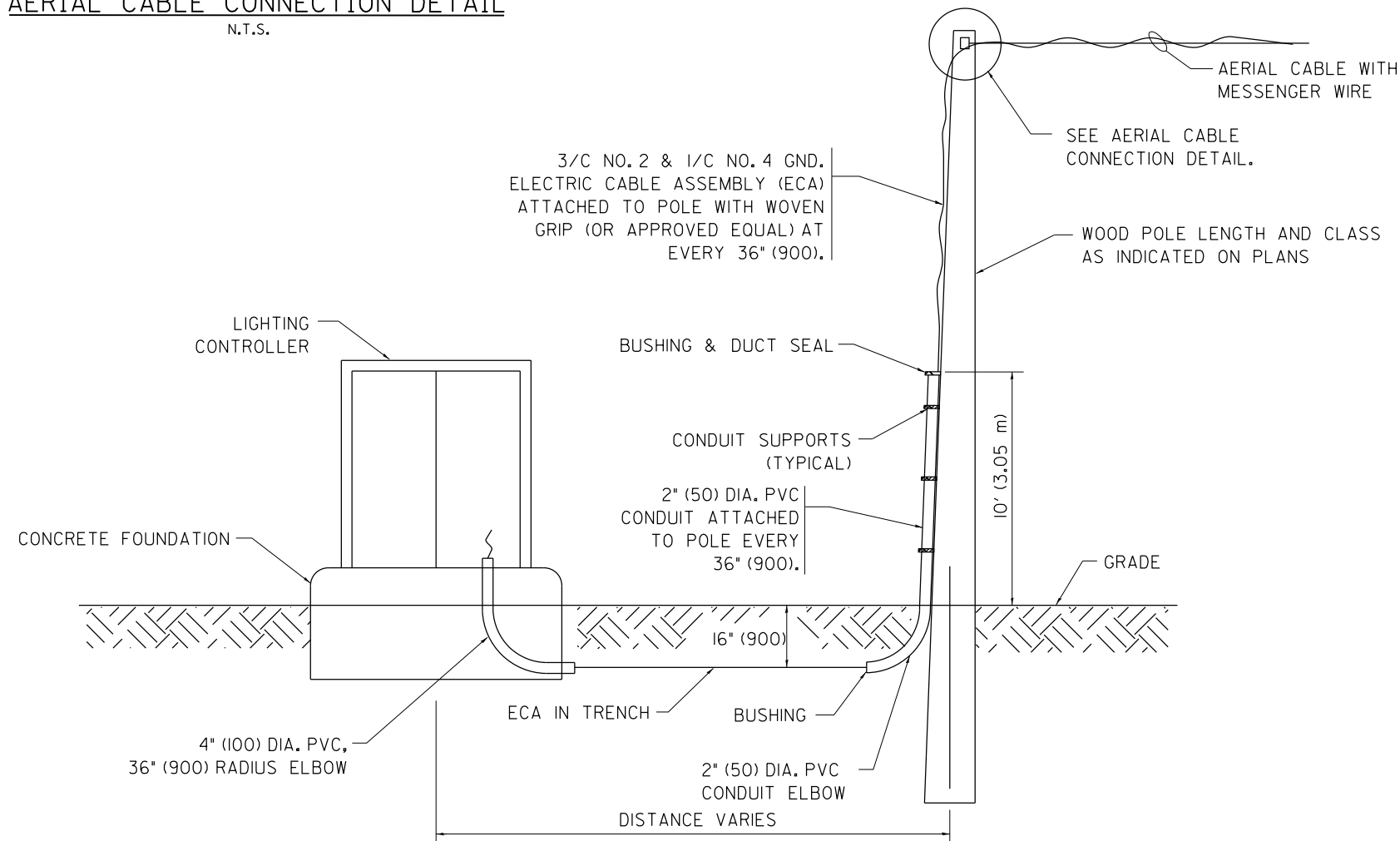
AERIAL CABLE CONNECTION DETAIL
N.T.S.



AERIAL CABLE ATTACHED TO STRUCTURE
NOT TO SCALE

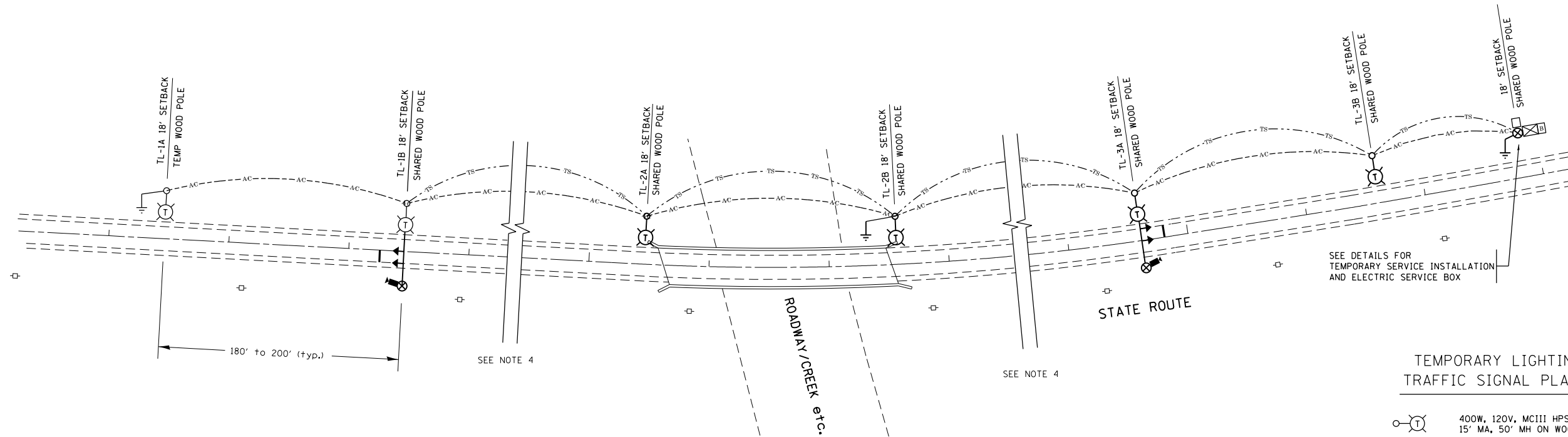
NOTES:

1. ALL DIMENSIONS IN INCHES (MILLIMETERS) UNLESS OTHERWISE INDICATED.
2. SEE PROPOSED LIGHTING PLAN FOR CONDUIT, CABLE AND ROUTING.
3. THE CONTRACTOR SHALL PROVIDE INTERMEDIATE SUPPORTS TO MAINTAIN MINIMUM CLEARANCES. REFER TO AERIAL AERIAL CABLE ATTACHED TO STRUCTURE DETAIL.
4. COST OF SPLICES AND MOUNTING HARDWARE SHALL BE INCLUDED IN THE UNIT PRICE FOR AERIAL CABLE.



WOOD POLE TO LIGHTING CONTROLLER WIRING CONNECTION DETAIL
N.T.S.

FILE NAME =	USER NAME = hardnettr	DESIGNED -	REVISED - 08-08-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY AERIAL CABLE INSTALLATION			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\11\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI195\DRAMA\Design\DIxxxx-sht-plan.dgn		REVISOR -	REVISOR -		305	29B-1	MCHENRY	37	29			
PLOT SCALE = 100.0000' / 1in.	CHECKED -	REVISOR -	REVISOR -		BE-801			CONTRACT NO. 60M89				
PLOT DATE = 8/26/2016	DATE -	REVISOR -	REVISOR -		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



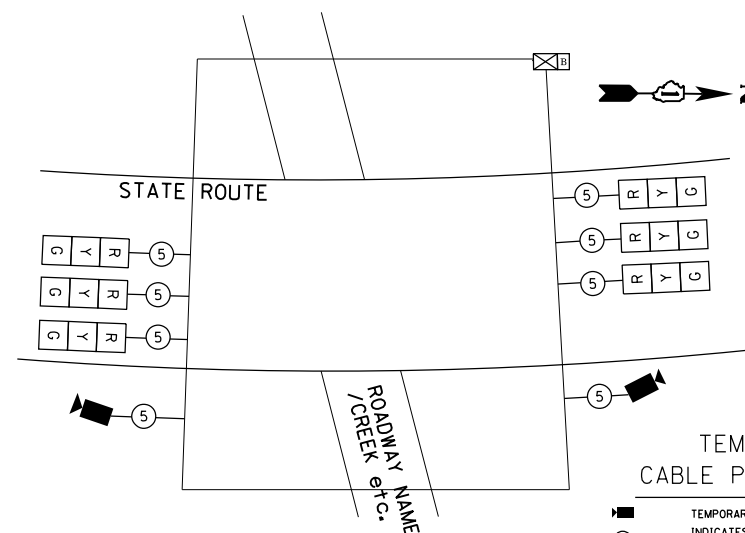
TYPICAL LAYOUT FOR TEMPORARY LIGHTING AND TRAFFIC SIGNALS
NOT TO SCALE

GENERAL NOTES:

- CONTACT TO THE ELECTRIC UTILITY SHALL BE INITIATED BEFORE THE PRECONSTRUCTION MEETING, AND DOCUMENTATION OF CONTACT SHALL BE PRESENTED AT THAT MEETING. NO PLACEMENT OF POLES WILL BE ALLOWED WITHOUT EVIDENCE OF A SIGNED AGREEMENT WITH THE ELECTRIC UTILITY, FURNISHED TO THE ENGINEER.
- UNLESS OTHERWISE INDICATED, AND EXCEPT AS OTHERWISE NOTED, THIS STANDARDIZED LAYOUT SHALL APPLY FOR BRIDGES NOT EXCEEDING A 250-FOOT SPAN. FOR BRIDGE SPANS IN EXCESS OF 250 FEET, THE POLES IMMEDIATELY ADJACENT TO THE BRIDGE SHALL BE 100-FOOT POLES (90-FOOT MOUNTING HEIGHT), WITH 750-WATT TYPE III HIGH PRESSURE SODIUM HIGH-MAST LUMINAIRES AS APPROVED BY THE ENGINEER.
- THE LAYOUT OF THE TEMPORARY EQUIPMENT WILL VARY BASED ON FIELD CONDITIONS, STAGING, UTILITY IMPACTS, AND THE ELECTRIC SERVICE LOCATION AS COORDINATED WITH THE ELECTRIC UTILITY. THE CONTRACTOR SHALL SUBMIT A PLAN INDICATING THE SETTING OF POLES, TRAFFIC SIGNALS, AND COMBINED SERVICE. THIS PLAN MUST BE APPROVED BY THE ENGINEER BEFORE ANY POLES ARE PLACED
- THE ELECTRIC SERVICE SHALL BE 240/120V. WHERE 240V SERVICE IS NOT AVAILABLE, THE CONTRACTOR MAY SUBMIT A PROPOSAL FOR 120V SERVICE, DROP CABLE, MAIN BREAKER, AND ALL OTHER SERVICE APPURTENANCES SHALL BE APPROPRIATELY RATED AND INCLUDED REGARDLESS OF THE SERVICE VOLTAGE APPLIED
- THE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATION SHALL SHARE ANY COMMON ELEMENTS SUCH AS WOOD POLES, ELECTRICAL SERVICE, ELECTRIC SERVICE BOX, ETC. THE CONTRACTOR SHALL COORDINATE TEMPORARY LIGHTING AND TRAFFIC SIGNAL INSTALLATIONS.
- THE LIGHT POLE SETBACK FROM THE EDGE OF TRAVEL PAVEMENT SHALL BE 18 FT. UNLESS THE LIGHT POLE IS BEHIND GUARDRAIL. THE LIGHT POLES INSTALLED BEHIND THE GUARDRAIL OR BARRIER WALL SHOULD HAVE AT LEAST 8 FT. SETBACK FROM THE BACK OF THE SHOULDER AND OR AS DIRECTED BY THE ENGINEER.
- EACH LIGHTING UNIT SHALL BE CONTROLLED BY A PHOTO CELL MOUNTED ON EACH LUMINAIRE WITH THE LIGHTING CIRCUIT FED FROM THE TEMPORARY SERVICE DISCONNECT BOX. OTHER MEANS OF LUMINAIRE CONTROL CAN BE CONSIDERED IF APPROVED BY THE ENGINEER.
- THE CONTRACTOR SHALL SPLICE AERIAL CABLE AT THE LIGHT POLE USING HEAT SHRINKABLE CAPS WITH THE FACTORY APPLIED WATERPROOF SEALANT OR AN APPROVED UL LISTED AERIAL TAP DEVICE.
- ALL AREAS DISTURBED UNDER THIS CONTRACT SHALL BE RESTORED TO THE ORIGINAL CONDITION OR BETTER, TO THE SATISFACTION OF THE ENGINEER.

TEMPORARY LIGHTING AND TRAFFIC SIGNAL PLAN LEGEND

- 400W, 120V, MCIII HPS. WITH PHOTO CELL 15' MA, 50' MH ON WOOD POLE, CLASS 4
- 3-1/2" #2, AERIAL CABLE WITH MESSENGER WIRE UNLESS OTHERWISE NOTED
- TL-1A TEMPORARY LIGHTING UNIT NUMBER - ONE CIRCUIT A
- GROUND ROD 5/8" DIA. x 10'
- COMBINATION LIGHTING AND TRAFFIC POLE MOUNTED ELECTRICAL SERVICE BOX
- TEMPORARY WOOD POLE - NOMINAL 60 FT., CLASS 4
- TEMPORARY LED TRAFFIC SIGNAL HEAD, NUMBER OF SECTION AND DISPLAY AS REQUIRED.
- TEMPORARY TRAFFIC SIGNAL SPAN WIRE, NUMBER OF CONDUCTORS AS REQUIRED.
- TEMPORARY TRAFFIC CONTROLLER WITH UPS AND BOTTOM PLATE MOUNTED TO WOOD POLE
- TEMPORARY VIDEO DETECTOR



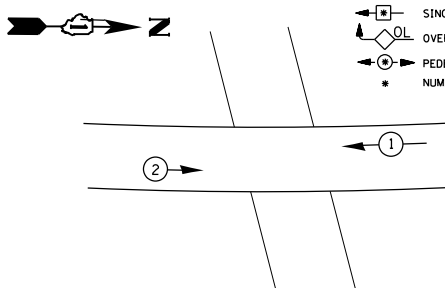
TEMPORARY CABLE PLAN (TYPICAL)
NOT TO SCALE

TEMPORARY CABLE PLAN LEGEND

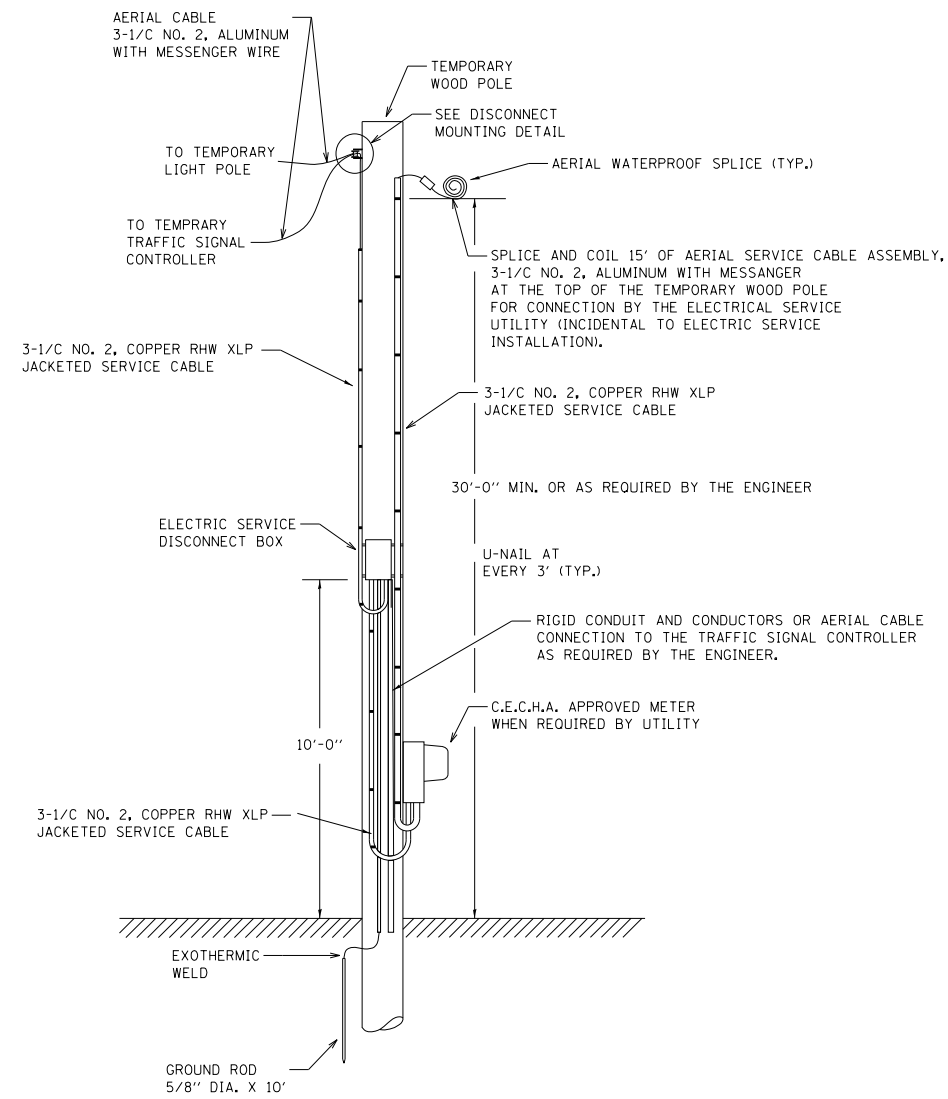
- TEMPORARY VIDEO DETECTOR
- INDICATES NUMBER OF CONDUCTORS IN CABLE. ALL CONDUCTORS TO BE NUMBER 14 AWG WIRE UNLESS OTHERWISE NOTED.
- TEMPORARY TRAFFIC SIGNAL SECTION OR PEDESTRIAN SIGNAL SECTION, 12" (300 mm)

TEMPORARY PHASE DESIGNATION DIAGRAM LEGEND

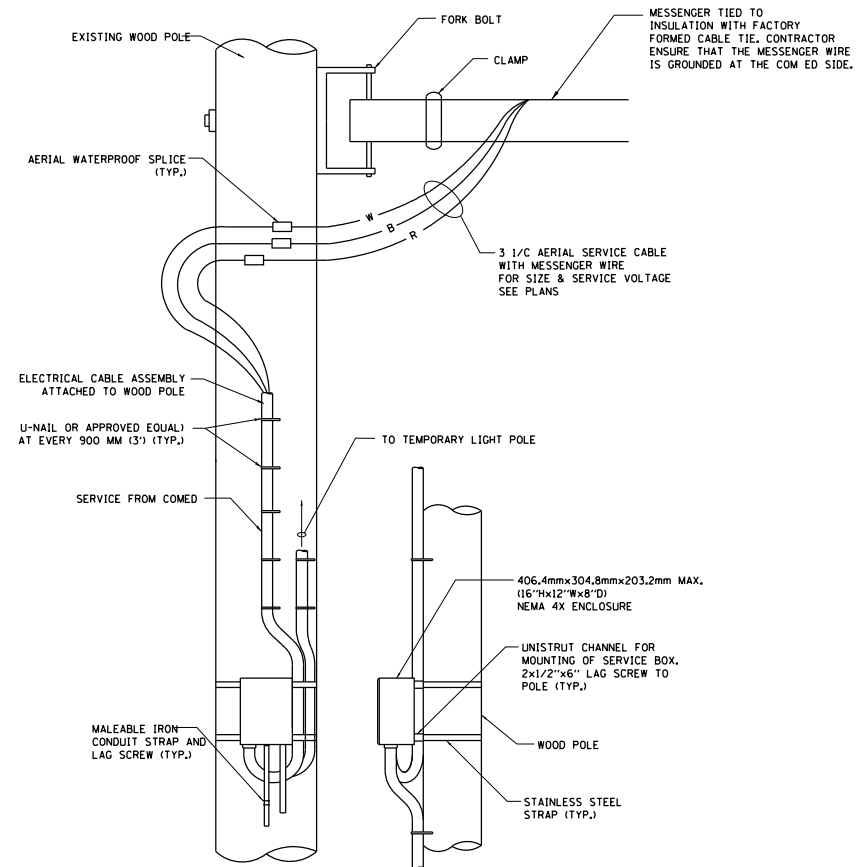
- DUAL ENTRY PHASE
- SINGLE ENTRY PHASE
- OVERLAP
- PEDESTRIAN PHASE
- NUMBER REFERS TO ASSOCIATED PHASE



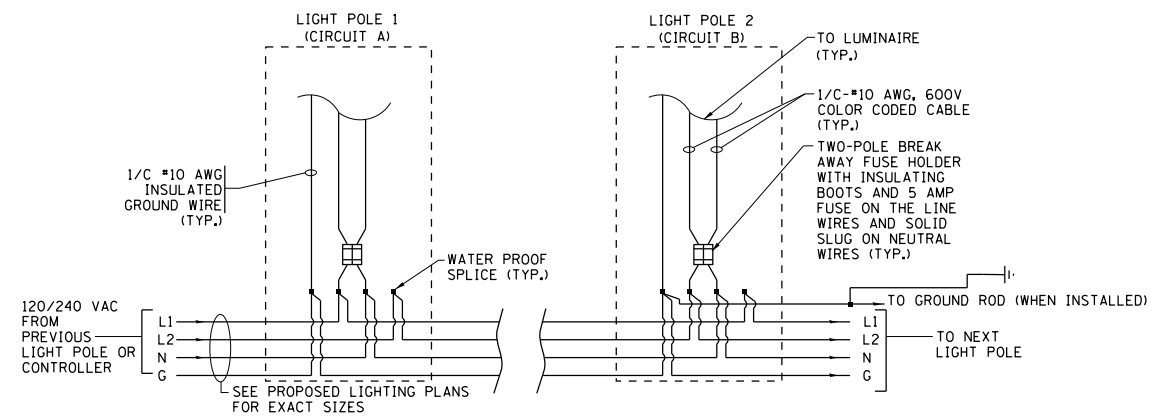
TEMPORARY PHASE DESIGNATION DIAGRAM (TYPICAL)
NOT TO SCALE



TEMPORARY SERVICE INSTALLATION DETAIL
NOT TO SCALE



DISCONNECT MOUNTING DETAIL
NOT TO SCALE



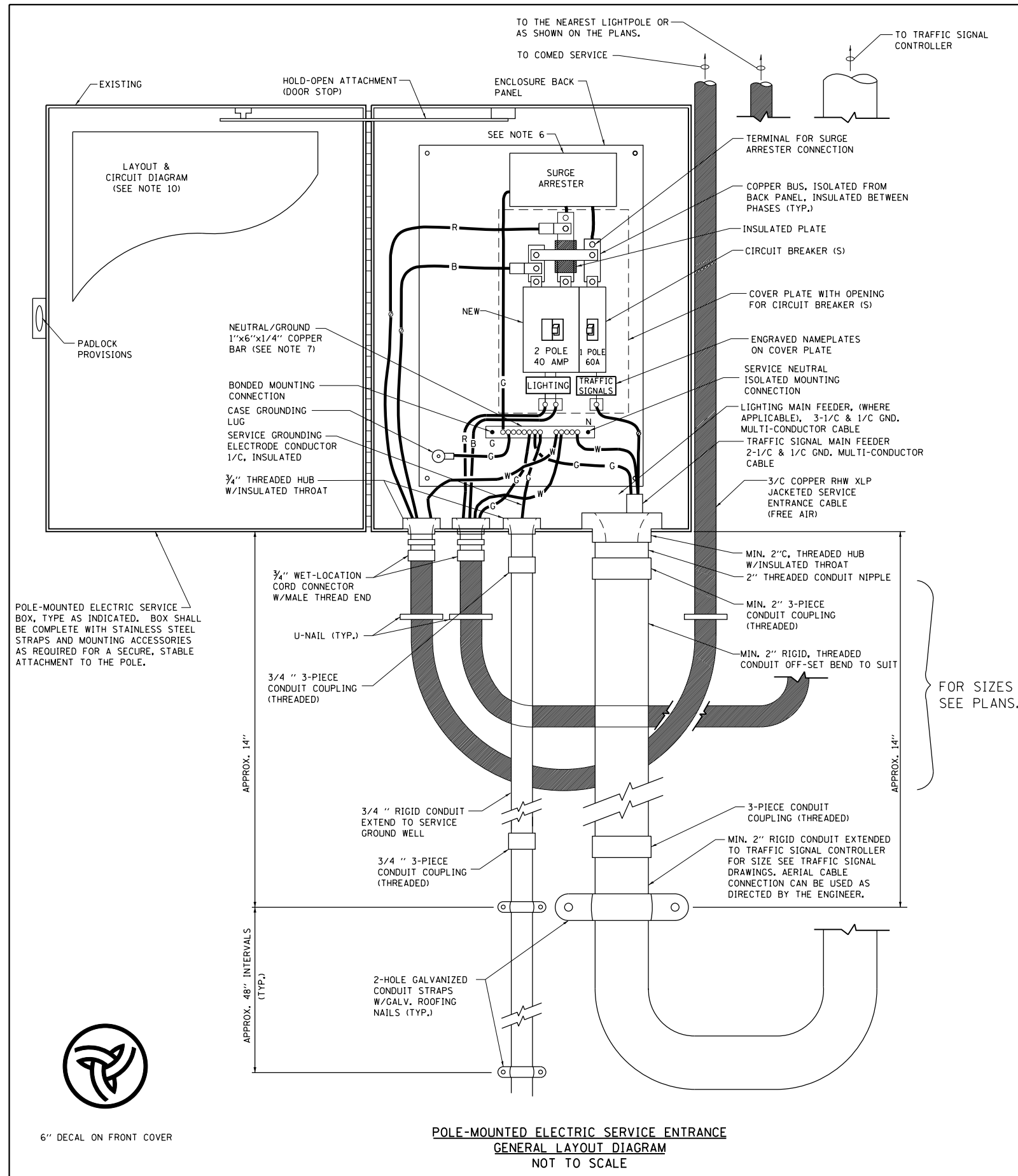
LIGHT POLE WIRING DETAIL
NOT TO SCALE

FILE NAME =	USER NAME = hardnetbr	DESIGNED - MP	REVISED -
pw\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI195\DRAMA\Design\Dixxxx-sh1-plan.dgn		CHECKED -	REVISED -
PLOT SCALE = 100.0000' / 1in.		DATE - 01/14/10	REVISED -
PLOT DATE = 8/26/2016			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

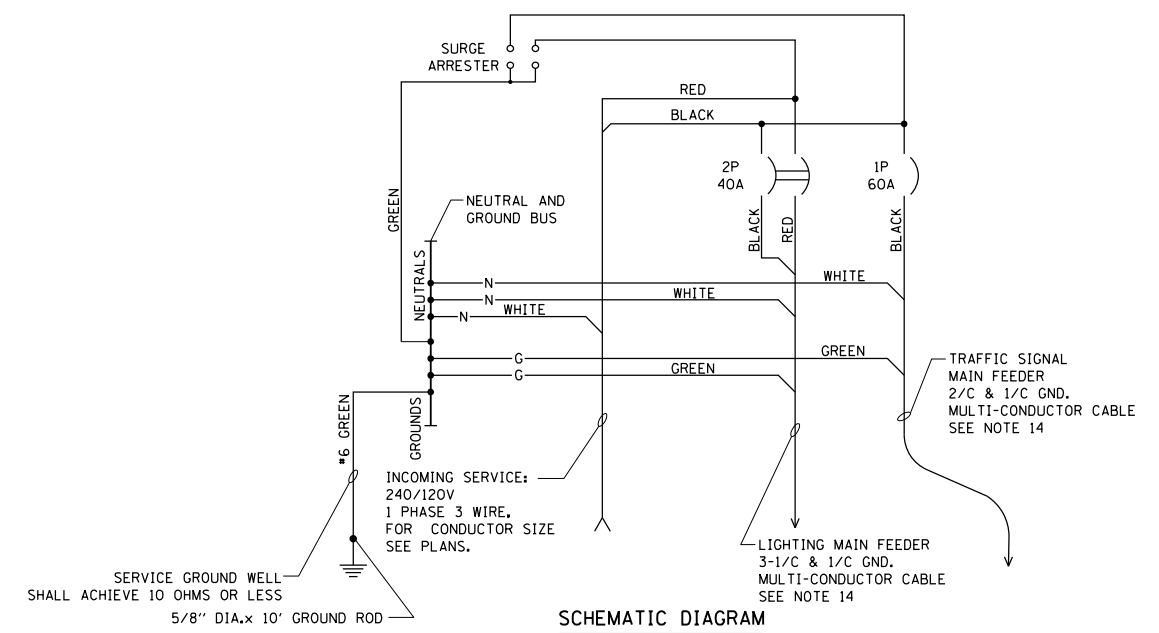
TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING			
SCALE: NONE	SHEET NO. 2 OF 3 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	MCHENRY	37	31
BE-805		CONTRACT NO. 60M89		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

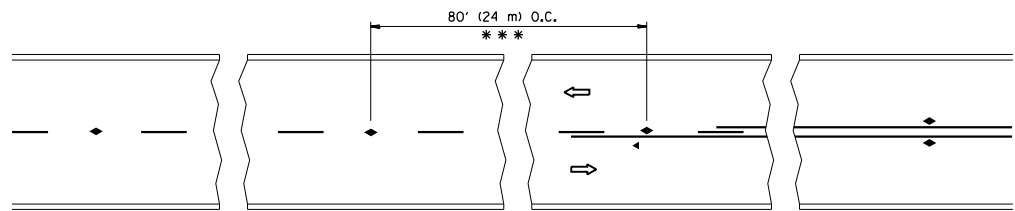


NOTES:

- ELECTRIC SERVICE SHALL BE OF THE VOLTAGE INDICATED OR DESIGNATED BY THE ENGINEER, AND SERVICE DROP CABLE SHALL BE COMPATIBLE WITH THE SERVICE ACCORDINGLY. SOME INSTALLATIONS MAY CALL FOR SERVICE ENTRANCE EQUIPMENT SUITABLE FOR 3-WIRE SERVICE EVEN THOUGH INITIALLY WIRED FOR 2-WIRE SERVICE.
- THE POLE-MOUNTED ELECTRIC SERVICE BOX SHALL BE CONFIGURED AND FULLY EQUIPPED FOR 240/120V 3W SERVICE, COMPLETE WITH LIGHTING MAIN BREAKER AND TRAFFIC SIGNALS MAIN BREAKER AS REQUIRED.
- THE ELECTRIC SERVICE EQUIPMENT ASSEMBLY SHALL BE UL LISTED AS SUITABLE FOR USE AS SERVICE ENTRANCE EQUIPMENT.
- THE ELECTRIC SERVICE EQUIPMENT ENCLOSURE SHALL BE NEMA 4X STAINLESS STEEL, NOMINALLY 12"W X 16"H X 8"D, WITH A PIANO-HINGED DOOR, STEEL BACK PANEL, FAST-ACTING STAINLESS STEEL ENCLOSURE CLAMPS, PADLOCK PROVISIONS AND DOOR STOP, HOFFMAN CATALOG NO. A-16H1208SS6LP/A-16 P12/A-DSTOPK/C-PMK12, OR APPROVED EQUAL.
- CIRCUIT BREAKERS SHALL BE THERMAL MAGNETIC BOLT-ON TYPE WITH A MINIMUM INTERRUPTING CAPACITY OF 25,000 SYMMETRICAL AMPERES AT 240 VOLTS. THEY SHALL BE LOCKABLE IN THE "OFF" POSITION FOR COMPLIANCE WITH OSHA LOCK-OUT/TAG-OUT REQUIREMENTS. HANDLES SHALL BE TRIP FREE.
- THE SURGE PROTECTOR SHALL BE SUITABLE FOR THE SERVICE VOLTAGE SINGLE PHASE 60HZ AC, WITH A SURGE ENERGY CAPABILITY OF 2160 JOULES OR BETTER AT 8/20 MICRO-SECONDS, RATED -40 TO 60 DEGREES C., WITH LED OPERATING INDICATORS, AND SHALL BE UL LISTED PER UL 1449, CUTLER-HAMMER CMOV230L065XST OR APPROVED EQUAL.
- BUS BARS, CONNECTORS, AND LUGS SHALL BE COPPER, INSULATED AND ISOLATED, AND CONFIGURED TO PREVENT SHORTED CONDITIONS FROM TIGHTENING TERMINATIONS, ETC. THE OVERALL BUS SECTION SHALL BE CONFIGURED BEHIND AN INSULATING BARRIER SHIELD WHICH IS REMOVABLE FOR ACCESS TO CONNECTIONS, OR THE ASSEMBLY SHALL BE A MANUFACTURED SPECIALTY PANELBOARD, CUTLER-HAMMER PRL2A OR APPROVED EQUAL.
- THE COMBINATION GROUND AND NEUTRAL BAR SHALL BE CONFIGURED WITH SEPARATE GROUND AND NEUTRAL SECTIONS AND SPARE TERMINALS AS INDICATED. THE HEADS OF GROUND SCREWS SHALL BE PAINTED GREEN. THE HEADS OF NEUTRAL SCREWS SHALL BE PAINTED WHITE. THE SERVICE NEUTRAL AND SERVICE GROUNDING ELECTRODE CONDUCTOR SHALL BE TERMINATED ADJACENT TO EACH OTHER AT THE DIVIDE BETWEEN THE SECTIONS AND WIRING SHALL BE TERMINATED ONLY UPON THE APPROPRIATE SECTION.
- THE WIRING TERMINALS, INCLUDING THE GROUND/NEUTRAL BAR SHALL BE ARRANGED TO PROVIDE ADEQUATE ROOM FOR PERFORMING FIELD TERMINATIONS.
- A PLASTIC LAMINATED LAYOUT AND CIRCUIT DIAGRAM SHALL BE MECHANICALLY SECURED TO THE INTERIOR SIDE OF THE ENCLOSURE DOOR.
- A 2-COLOR ENGRAVED PLASTIC NAMEPLATE, ATTACHED WITH SCREWS, AND ENGRAVED AS INDICATED, SHALL BE PROVIDED FOR EACH MAIN BREAKER.
- LUGS AND CONNECTORS SHALL BE RATED FOR 75 C CONDUCTOR.
- THE EXACT MOUNTING HEIGHT OF THE BOX SHALL BE FIELD DETERMINED TO AVOID OBSTRUCTIONS AND PUBLIC ACCESS. TYPICAL HEIGHT SHALL BE APPROXIMATELY 10 FEET ABOVE GRADE.

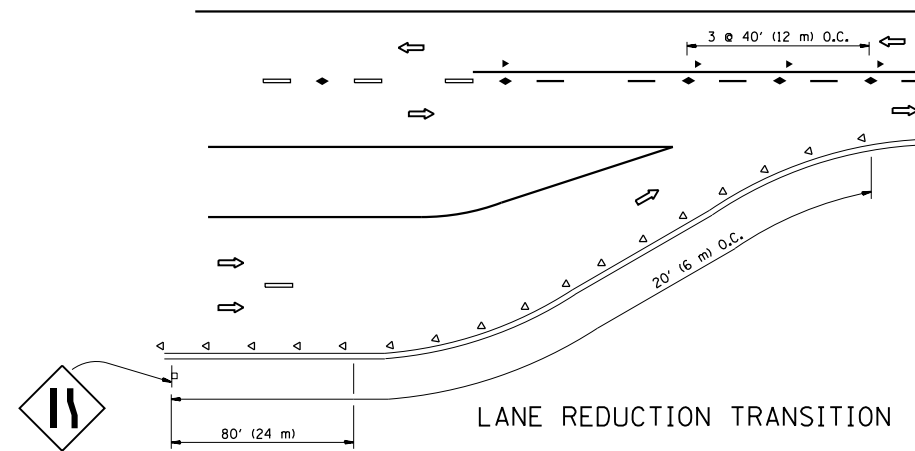


FILE NAME =	USER NAME = hardnetbr	DESIGNED - MP	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY LIGHTING AND TRAFFIC SIGNALS FOR SINGLE LANE STAGING			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
p:\1\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI195\DRAMA\Design\DIxxxx-sht-plan.dgn	PLOT SCALE = 100.0000' / 1" =	CHECKED -	REVISED -					305	29B-1	MCHENRY	37	32
PLOT DATE = 8/26/2016	DATE = 01/14/10	REVISED -	REVISED -		BE-805			CONTRACT NO. 60M89				
					SCALE: NONE	SHEET NO. 3 OF 3 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

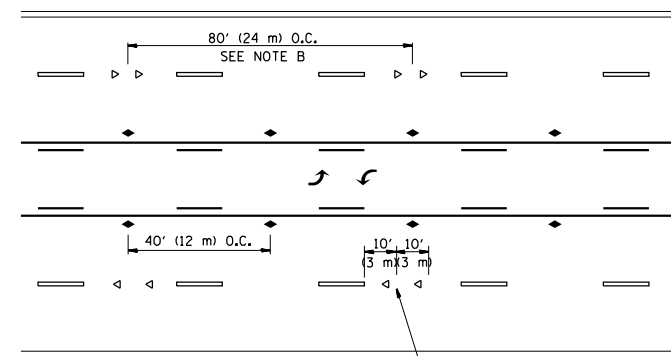


*** REDUCE TO 40' (12 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEED 45 M.P.H. (70 km/h) OR LESS.

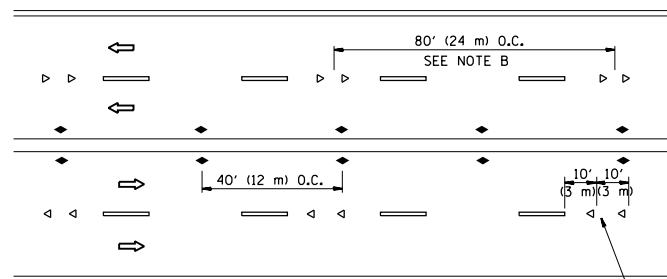
TWO-LANE/TWO-WAY



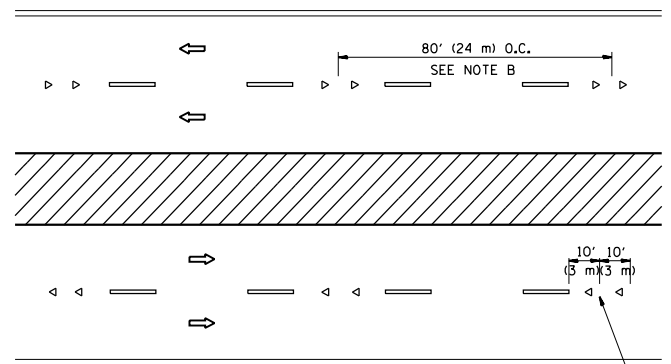
LANE REDUCTION TRANSITION



TWO-WAY LEFT TURN



MULTI-LANE/UNDIVIDED



MULTI-LANE/DIVIDED

GENERAL NOTES

1. MARKERS USED WITH DASHED LINES SHALL BE CENTERED IN THE GAP BETWEEN SEGMENTS.
2. MARKERS USED ADJACENT TO SOLID LINES SHALL BE OFFSET 2 TO 3 (50 TO 75) TOWARD TRAFFIC AS SHOWN.
3. MARKERS THROUGH TANGENTS LESS THAN 500' (150 m) IN LENGTH BETWEEN CURVES SHALL BE INSTALLED AT THE LESSER OF THE TWO CURVE SPACINGS.

SYMBOLS

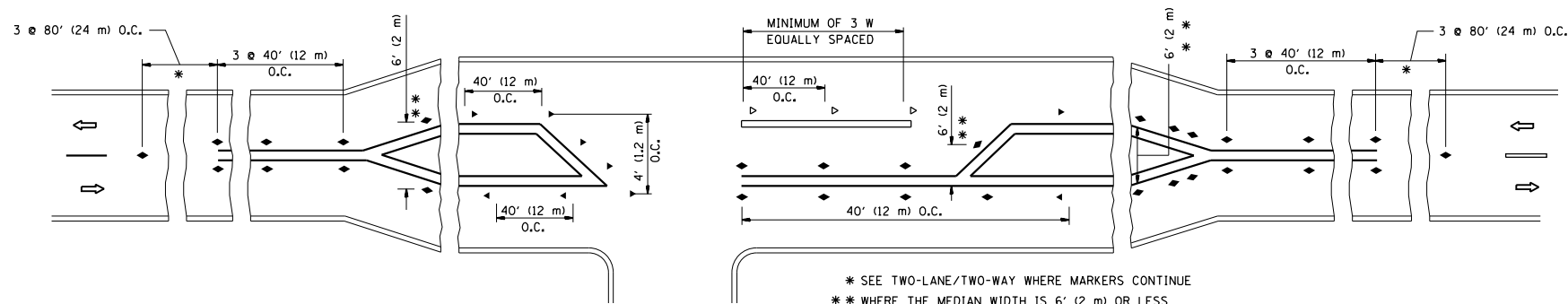
- YELLOW STRIPE
- WHITE STRIPE
- ◀ ONE-WAY AMBER MARKER
- ◁ ONE-WAY CRYSTAL MARKER (W/O)
- ◆ TWO-WAY AMBER MARKER

LANE MARKER NOTES

- A. USE DOUBLE LANE LINE MARKERS SPACED AS SHOWN.
- B. REDUCE TO 40' (12 m) O.C. ON CURVES WHERE ADVISORY SPEEDS ARE 10 M.P.H (20 km/h) LOWER THAN POSTED SPEEDS.

DESIGN NOTES

1. DOUBLE LANE LINE MARKERS SHALL BE USED UNLESS SPECIFIED OTHERWISE.
2. EXCEPT AS SHOWN ON THE LANE REDUCTION TRANSITION AND FREEWAY EXIT RAMP DETAIL, MARKERS ARE NOT TO BE SPECIFIED ON RIGHT EDGE LINES.
3. THE EXACT MARKER LIMITS, SPACING, AND COLOR SHALL BE INCLUDED IN THE PLANS WHEN STANDARD SPECIFICATIONS ARE NOT BEING USED.
4. MARKERS SHOULD NOT BE USED ALONGSIDE CURBS EXCEPT FOR EXTREMELY SHORT SECTIONS OF CURBS WHERE NOT MORE THAN TWO MARKERS WOULD BE INVOLVED.

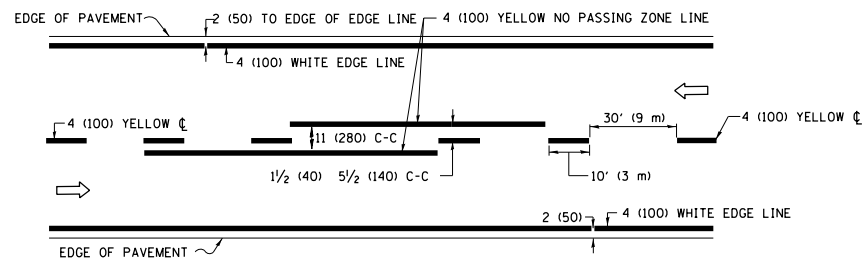


LEFT TURN

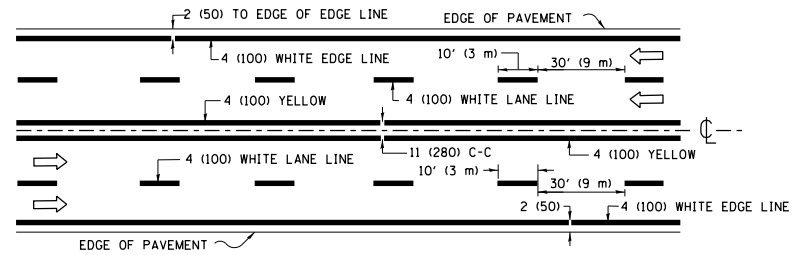
* SEE TWO-LANE/TWO-WAY WHERE MARKERS CONTINUE
 ** WHERE THE MEDIAN WIDTH IS 6' (2 m) OR LESS USE TWO-WAY MARKERS.

All dimensions are in inches (millimeters) unless otherwise shown.

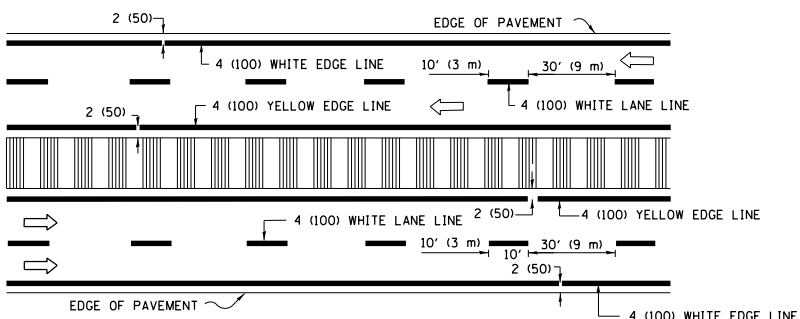
FILE NAME =	USER NAME = hardnettr	DESIGNED -	REVISED - T. RAMMACHER 09-19-94	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS (SNOW-PLOW RESISTANT)			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\11084EBIDINTEG.illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI1951\DRAMA\Design\DIxxxx-shr-plan.dgn		CHECKED -	REVISED - T. RAMMACHER 03-12-99		305	29B-1	MCHENRY	37	33			
PLOT SCALE = 100.0000' / 1in.		DATE -	REVISED - T. RAMMACHER 01-06-00		TC-11				CONTRACT NO. 60M89			
PLOT DATE = 8/26/2016			REVISED - C. JUCIUS 09-09-09		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



2-LANE ROADWAY

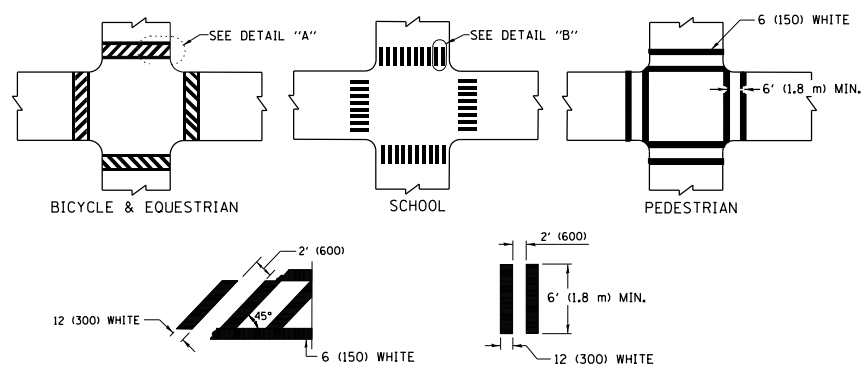


MULTI-LANE UNDIVIDED



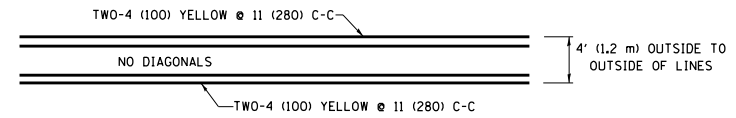
MULTI-LANE DIVIDED WITH MEDIAN

TYPICAL LANE AND EDGE LINE MARKING

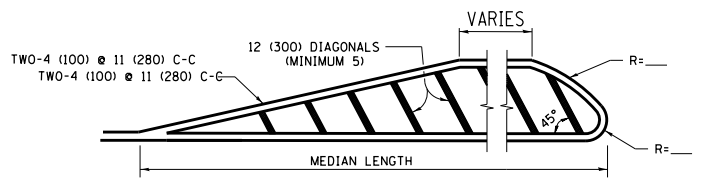


TYPICAL CROSSWALK MARKING

* MARKINGS SHALL BE INSTALLED PARALLEL TO THE CENTERLINE OF THE ROAD WHICH IT CROSSES

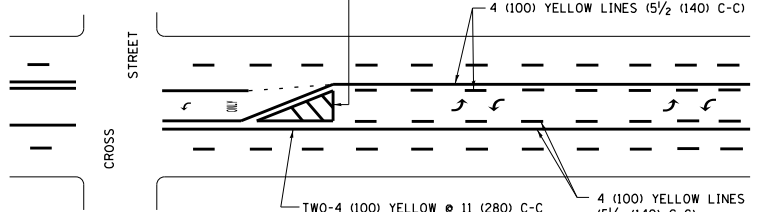


4' (1.2 m) WIDE MEDIANS ONLY



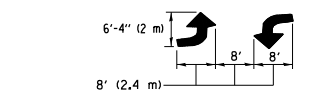
MEDIANS OVER 4' (1.2 m) WIDE

DIAGONAL LINE SPACING: 50' (15 m) C-C (LESS THAN 30MPH (50 km/h))
75' (25 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h)
150' (45 m) C-C (MORE THAN 45MPH (70 km/h))



MEDIAN WITH TWO-WAY LEFT TURN LANE TYPICAL PAINTED MEDIAN MARKING

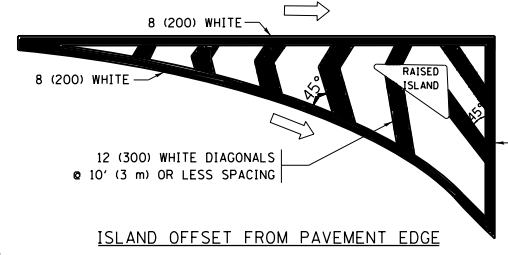
A MINIMUM OF TWO PAIRS OF TURN ARROWS SHALL BE USED, WHITE IN COLOR. ADDITIONAL PAIRS SHALL BE PLACED AT 200' (60 m) TO 300' (90 m) INTERVALS.



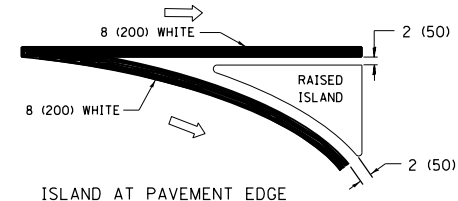
TYPICAL LEFT (OR RIGHT) TURN LANE

TYPICAL TURN LANE MARKING

FULL SIZE LETTERS 8' (2.4 m) AND ARROWS SHALL BE USED.
AREA = 15.6 SQ. FT. (1.5 m²) ONLY AREA = 20.8 SQ. FT. (1.9 m²)
* TURN LANES IN EXCESS OF 400' (120 m) IN LENGTH MAY HAVE AN ADDITIONAL SET OF ARROW - "ONLY" INSTALLED MIDWAY BETWEEN THE OTHER TWO SETS OF ARROW - "ONLY".

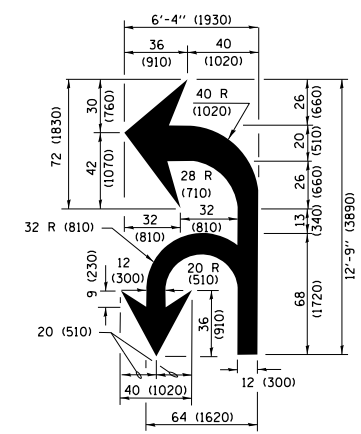


ISLAND OFFSET FROM PAVEMENT EDGE

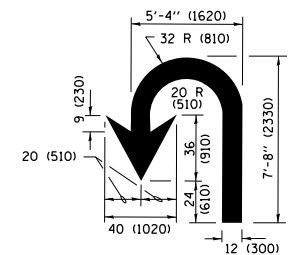


ISLAND AT PAVEMENT EDGE

TYPICAL ISLAND MARKING



COMBINATION LEFT AND U-TURN



U-TURN

LANE REDUCTION TRANSITION
* LANE REDUCTION ARROWS REQUIRED AT SPEEDS OF 45 MPH OR GREATER OR WHEN SPECIFIED IN PLANS.

D(FT)	SPEED LIMIT
345	30
425	35
500	40
580	45
665	50
750	55

TYPE OF MARKING	WIDTH OF LINE	PATTERN	COLOR	SPACING /REMARKS
CENTERLINE ON 2 LANE PAVEMENT	4 (100)	SKIP-DASH	YELLOW	10' (3 m) LINE WITH 30' (9 m) SPACE
CENTERLINE ON MULTI-LANE UNDIVIDED PAVEMENT	2 @ 4 (100)	SOLID	YELLOW	11 (280) C-C
NO PASSING ZONE LINES FOR ONE DIRECTION FOR BOTH DIRECTIONS	4 (100) 2 @ 4 (100)	SOLID SOLID	YELLOW YELLOW	5 1/2 (140) C-C FROM SKIP-DASH CENTERLINE 11 (280) C-C OMIT SKIP-DASH CENTERLINE BETWEEN
LANE LINES	4 (100) 5 (125) ON FREEWAYS	SKIP-DASH SKIP-DASH	WHITE WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE
DOTTED LINES (EXTENSIONS OF CENTER, LANE OR TURN LANE MARKINGS)	SAME AS LINE BEING EXTENDED	SKIP-DASH	SAME AS LINE BEING EXTENDED	2' (600) LINE WITH 6' (1.8 m) SPACE
EDGE LINES	4 (100)	SOLID	YELLOW-LEFT WHITE-RIGHT	OUTLINE MEDIANS IN YELLOW
TURN LANE MARKINGS	6 (150) LINE; FULL SIZE LETTERS & SYMBOLS (8' (2.4m))	SOLID	WHITE	SEE TYPICAL TURN LANE MARKING DETAIL
TWO WAY LEFT TURN MARKING	2 @ 4 (100) EACH DIRECTION 8' (2.4m) LEFT ARROW	SKIP-DASH AND SOLID IN PAIRS	YELLOW WHITE	10' (3 m) LINE WITH 30' (9 m) SPACE FOR SKIP-DASH; 5 1/2 (140) C-C BETWEEN SOLID LINE AND SKIP-DASH LINE SEE TYPICAL TWO-WAY LEFT TURN MARKING DETAIL
CROSSWALK LINES (PEDESTRIAN) A. DIAGONALS (BIKE & EQUESTRIAN) B. LONGITUDINAL BARS (SCHOOL)	2 @ 6 (150) 12 (300) @ 45° 12 (300) @ 90°	SOLID SOLID SOLID	WHITE WHITE WHITE	NOT LESS THAN 6' (1.8 m) APART 2' (600) APART SEE TYPICAL CROSSWALK MARKING DETAILS.
STOP LINES	24 (600)	SOLID	WHITE	PLACE 4' (1.2 m) IN ADVANCE OF AND PARALLEL TO CROSSWALK, IF PRESENT, OTHERWISE, PLACE AT DESIRED STOPPING POINT, PARALLEL TO CROSSROAD CENTERLINE, WHERE POSSIBLE
PAINTED MEDIANS	2 @ 4 (100) WITH 12 (300) DIAGONALS @ 45° NO DIAGONALS USED FOR 4' (1.2 m) WIDE MEDIANS	SOLID	YELLOW; TWO WAY TRAFFIC WHITE; ONE WAY TRAFFIC	11 (280) C-C FOR THE DOUBLE LINE SEE TYPICAL PAINTED MEDIAN MARKING.
GORE MARKING AND CHANNELIZING LINES	8 (200) WITH 12 (300) DIAGONALS @ 45°	SOLID	WHITE	DIAGONALS: 15' (4.5 m) C-C (LESS THAN 30MPH (50 km/h)) 20' (6 m) C-C 30MPH (50 km/h) TO 45MPH (70 km/h) 30' (9 m) C-C (OVER 45MPH (70 km/h))
RAILROAD CROSSING	24 (600) TRANSVERSE LINES; "RR" IS 6' (1.8 m) LETTERS; 16 (400) LINE FOR "X"	SOLID	WHITE	SEE STATE STANDARD 780001 AREA OF: "R"=3.6 SQ. FT. (0.33 m ²) EACH "X"=54.0 SQ. FT. (5.0 m ²)
SHOULDER DIAGONALS (REQUIRED FOR SHOULDERS ≥ 8')	12 (300) @ 45°	SOLID	WHITE - RIGHT YELLOW - LEFT	50' (15 m) C-C (LESS THAN 30MPH (50 km/h)) 75' (25 m) C-C (30 MPH (50 km/h) TO 45MPH (70 km/h)) 150' (45 m) C-C (OVER 45MPH (70 km/h))
U TURN ARROW	SEE DETAIL	SOLID	WHITE	16.3 SF
2 ARROW COMBINATION LEFT AND U TURN	SEE DETAIL	SOLID	WHITE	30.4 SF

FOR FURTHER DETAILS ON PAVEMENT MARKING REFER TO STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND STATE STANDARD 780001.

All dimensions are in inches (millimeters) unless otherwise shown.

FILE NAME =	USER NAME = hardnetbr	DESIGNED - EVERS	REVISED - C. JUCIUS 09-09-09
pw\1\084EBIDINTEG\illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\0119\DRAMA\Design\1\xxxxx-sh1-plan.dgn		CHECKED -	REVISED - C. JUCIUS 07-01-13
Default	PLOT SCALE = 100.0000' / in.	DATE - 03-19-90	REVISED - C. JUCIUS 12-21-15
	PLOT DATE = 8/26/2016		REVISED - C. JUCIUS 04-12-16

STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

DISTRICT ONE TYPICAL PAVEMENT MARKINGS			
SCALE: NONE	SHEET 1	OF 1 SHEETS	STA. TO STA.

F.A.P. R.T.E.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	MCHENRY	37	34
TC-13		CONTRACT NO. 60M89		
ILLINOIS FED. AID PROJECT				

ROUTE MARKERS

FOR U.S. ROUTES
M1-40-2424

FOR ILLINOIS ROUTES
M1-50-2424

R.R., UNMARKED ROUTES
SPECIAL 24" x 18" VARIABLE
4" BLACK LETTERS ON WHITE
REFLECTIVE BACKGROUND

ARROWS SIGNS

M5-1L-2115

M5-1R-2115

M6-1-2115

M6-1-2115

M6-3-2115

CARDINAL DIRECTION & DETOUR SIGNS

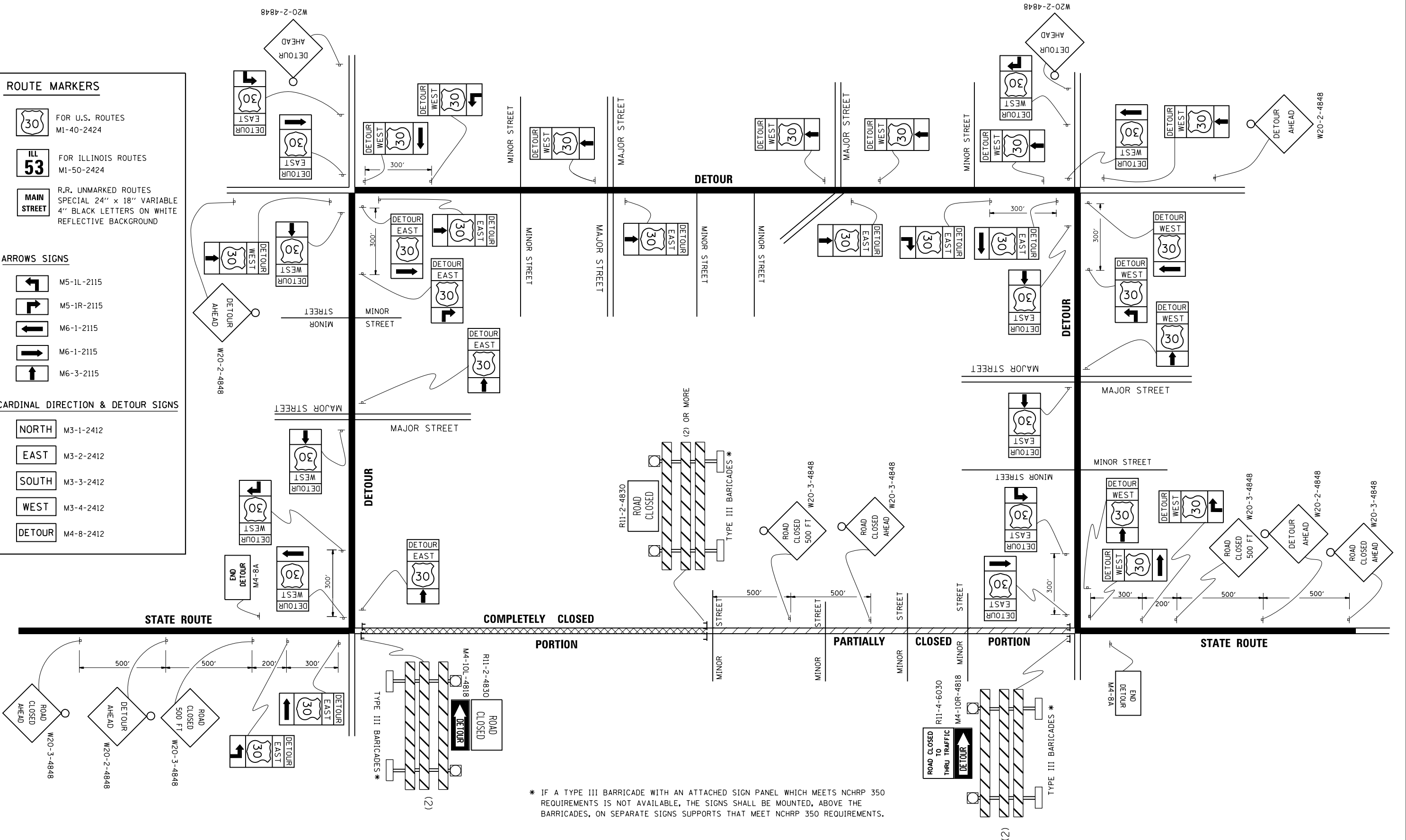
NORTH M3-1-2412

EAST M3-2-2412

SOUTH M3-3-2412

WEST M3-4-2412

DETOUR M4-8-2412



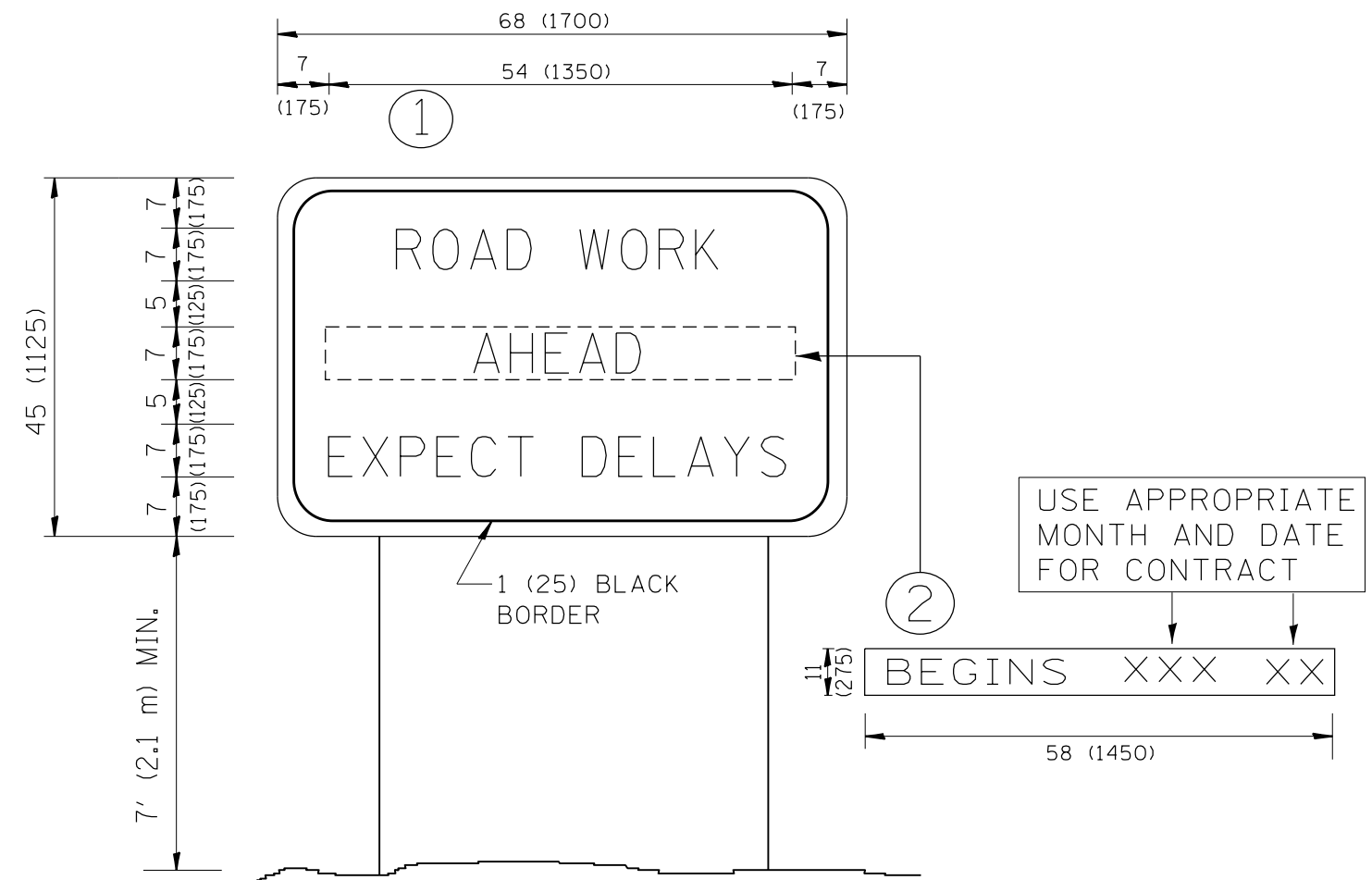
* IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 REQUIREMENTS IS NOT AVAILABLE, THE SIGNS SHALL BE MOUNTED, ABOVE THE BARRICADES, ON SEPARATE SIGNS SUPPORTS THAT MEET NCHRP 350 REQUIREMENTS.

FILE NAME =	USER NAME = hardnetbr	DESIGNED -	REVISED - 10-18-02
p:\1\084EBID\INTEG\illinois.gov\PIWIDOT\Documents\IDOT Offices\District 1\Projects\DI1951\DRAMA\Design\DIxxxx-sht-plan.dgn		CHECKED -	REVISED - R. BORO 09-14-09
PLOT SCALE = 100.0000' / in.		DATE -	REVISED -
PLOT DATE = 8/26/2016			

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

DETOUR SIGNING FOR CLOSING STATE HIGHWAYS			
SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	MCHENRY	37	35
TC-21		CONTRACT NO. 60M89		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



NOTES:

1. USE BLACK LETTERING ON ORANGE BACKGROUND.
2. ERECT SIGNS IN ADVANCE OF THE LOCATION FOR THE "ROAD CONSTRUCTION AHEAD" SIGN AT LOCATIONS AS DIRECTED BY THE ENGINEER.
3. ERECT SIGN ① WITH INSTALLED PANEL ② ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
4. REMOVE PANEL ② SOON AFTER THE START OF CONSTRUCTION.
5. SEE SPECIAL PROVISION FOR "TEMPORARY INFORMATION SIGNING" FOR ADDITIONAL INFORMATION.
6. ONE SIGN ASSEMBLY EQUALS 25.70 SQ. FT. (2.3 SQ. M.)
7. SHALL BE PAID FOR AS TEMPORARY INFORMATION SIGNING.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

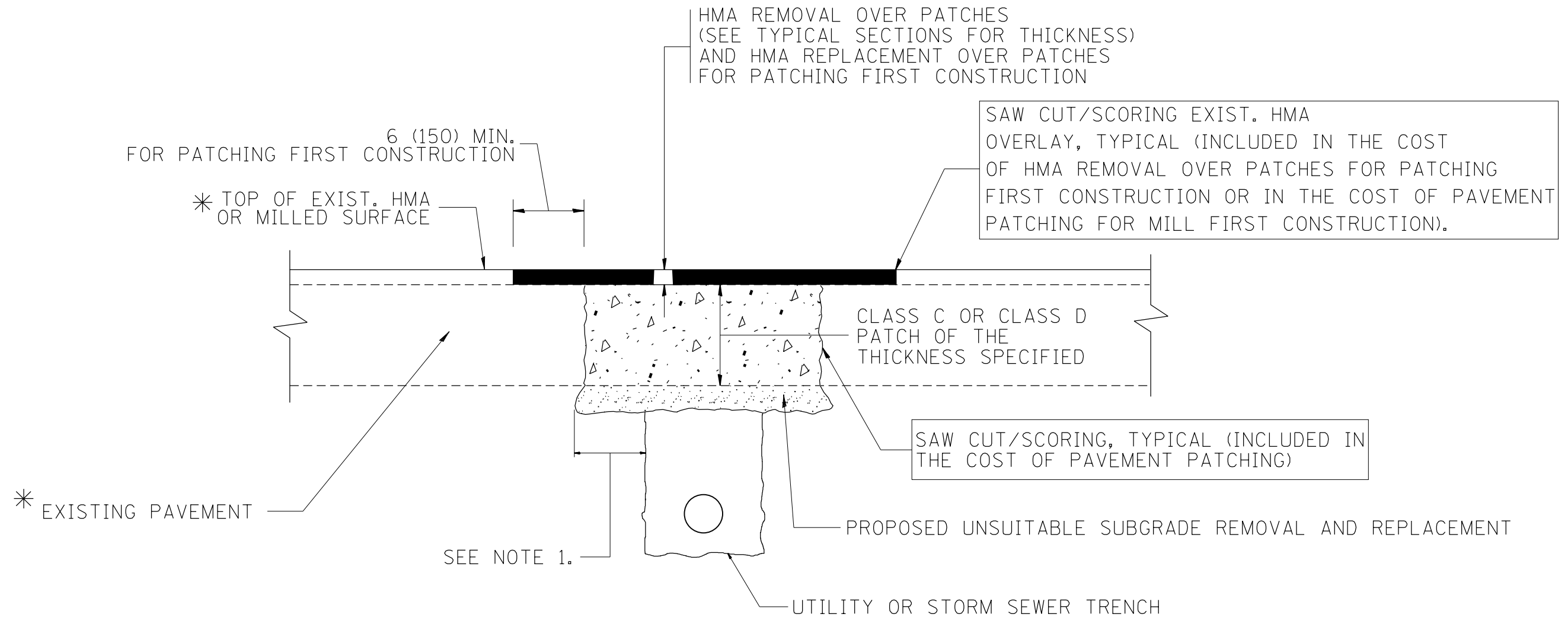
FILE NAME =	USER NAME = hardnettbr	DESIGNED -	REVISED - R. MIRS 09-15-97
p:\11\084EBIDINTEG.illinois.gov\PIWIDOT\Documents\DOT Offices\District 1\Projects\DI1915\DRAMA\Design\Di\xxxx-sht-plan.dgn		CHECKED -	REVISED - R. MIRS 12-11-97
		DATE -	REVISED - T. RAMMACHER 02-02-99
			REVISED - C. JUCIUS 01-31-07

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**ARTERIAL ROAD
INFORMATION SIGN**

SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
305	29B-1	MCHENRY	37	36
TC-22		CONTRACT NO. 60M89		
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

1. THE WIDTH OF THE FULL DEPTH PATCH OVER A TRENCH SHALL BE 12 (300) WIDER ON EACH SIDE OF THE TRENCH.
2. FOR METHOD OF MEASUREMENT AND BASIS OF PAYMENT, SEE RECURRING SPECIAL PROVISION "PATCHING WITH HOT-MIX ASPHALT OVERLAY REMOVAL".

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN.

FILE NAME =	USER NAME = hardnettbr	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
pw\11084EBIDINTEG.illinois.gov\PWIDOT\Documents\DOT Offices\District 1\Projects\DI1951\DRAMA\Design\Dixxxx-sh1-plan.dgn		CHECKED -	REVISED - R. BORO 01-01-07					305	29B-1	MCHENRY	37	37
PLOT SCALE = 100.0000' / 1in.		DATE - 10-25-94	REVISED - R. BORO 09-04-07		BD400-04 (BD-22)			CONTRACT NO. 60M89				
PLOT DATE = 8/26/2016			REVISED - K. ENG 10-27-08		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			