03-06-15 LETTING ITEM 075

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	12	1
	ILLINOIS	CONTRACT NO. 70A75		

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

F.A.P. ROUTE 741 (IL ROUTE 105)
SECTION (7BR)I
PROJECT ACNHPP-0741 (310)
BRIDGE DECK REPAIRS
ILLINOIS 105 OVER F.A.I. RTE. 72
NORTH OF MONTICELLO
ILLINOIS 105 AT CAMP CREEK
PIATT COUNTY

C-95-030-14

FOR INDEX OF SHEETS, SEE SHEET NO. 2
FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 4-7

CURRENT TRAFFIC DATA STR. 074-0072

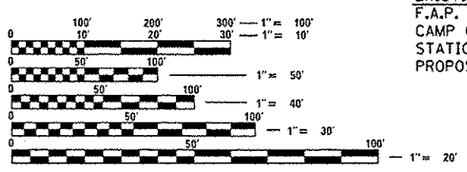
2014 ADT = 6,300
2034 ADT = 6,900
PU+PC % = 92.1
SU % = 5.1
MU% = 2.8

DESIGN DESIGNATION
OTHER PRINCIPAL ARTERIAL

CURRENT TRAFFIC DATA STR. 074-0071

2013 ADT = 4,900
2033 ADT = 5,600
PU+PC % = 88.7
SU % = 8.8
MU% = 2.5

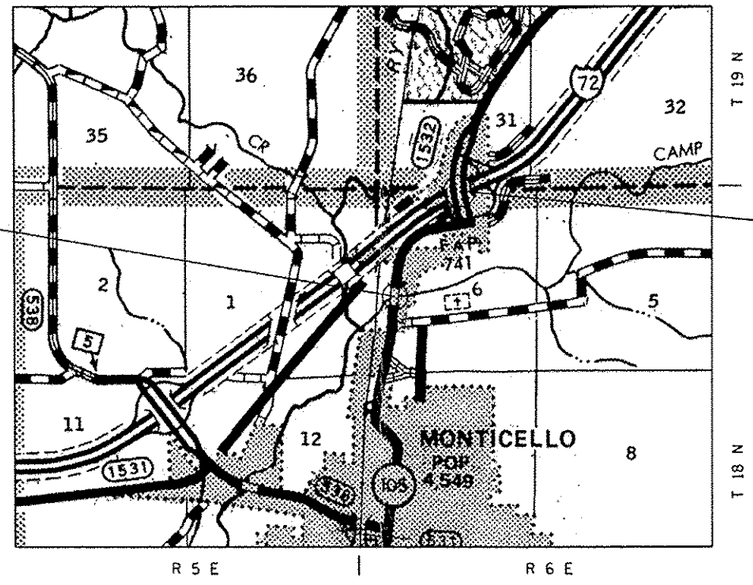
DESIGN DESIGNATION
OTHER PRINCIPAL ARTERIAL / MINOR ARTERIAL



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

EXISTING S.N. 074-0072
F.A.P. 741 (IL-105) OVER CAMP CREEK
STATION 999+52.38
PROPOSED STRUCTURE REPAIRS



EXISTING S.N. 074-0071
F.A.P. 741 (IL-105) OVER F.A.I. 72
STATION 50+00 = 1464+71.70
PROPOSED STRUCTURE REPAIRS

GROSS LENGTH = 460.000 FT. = 0.0871 MILE
NET LENGTH = 460.000 FT. = 0.0871 MILE

D-95-030-14

LOCATION OF SECTION INDICATED THUS: —

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED DECEMBER 3 20 14
Kenail A. Garnett
DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER
Jan 30 20 15
John D. Baranzelli, PE
acting ENGINEER OF DESIGN AND ENVIRONMENT
Jan 30 20 15
Omer Osman, PE
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT ENGINEER: TIM BRANDENBURG
PROJECT MANAGER: ERIC SHAWLER
217-465-4181

CONTRACT NO. 70A75

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

INDEX OF SHEETS

SHEET NO.	ITEM
1	COVER SHEET
2	INDEX OF SHEETS
2	LIST OF STANDARDS
2-3	GENERAL NOTES
4-7	SUMMARY OF QUANTITIES
8-47	STRUCTURE PLANS S.N. 074-0071
48-68	STRUCTURE PLANS S.N. 074-0072
69-72	DESIGN DETAILS

LIST OF HIGHWAY STANDARDS

STANDARD NO.	DESCRIPTION
000001-06	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001-02	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND FOOT
701006-05	OFF ROAD OPERATION, 2L,2W, 15' TO 24" FROM PAVEMENT EDGE
701101-04	OFF ROAD OPERATION, MULTILANE, 15 FT FROM PAVEMENT EDGE
701311-03	LANE CLOSURE, 2L, 2W,MOVING OPERATIONS-DAY ONLY
701316-09	LANE CLOSURE, 2L,2W, BRIDGE REPAIR, FOR SPEEDS > 45 MPH
701321-14	LANE CLOSURE, 2L,2W, BRIDGE REPAIR WITH BARRIER
701400-08	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-09	LANE CLOSURE FREEWAY/EXPRESSWAY DAY OPERATIONS ONLY
701411-09	LANE CLOSURE, MULTILANE, AT ENTRANCE OR EXIT RAMPS
	FOR SPEEDS > 45 MPH
701501-06	URBAN LANE CLOSURE, 2L,2W, UNDIVIDED
701901-04	TRAFFIC CONTROL DEVICES
704001-07	TEMPORARY CONCRETE BARRIER
781001-03	TYPICAL APPLICATIONS RAISED REFLECTIVE PAVEMENT MARKERS

GENERAL NOTES

G.N.-100

ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G.N.-100A
ELECTRONIC FILES AND/OR ELECTRONIC SURVEY INFORMATION INCLUDING CADD FILES WILL NOT BE AVAILABLE TO THE CONTRACTOR.

G.N.-105.09A

ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988, (NAVD 88)

G.N.-105.07B

EXISTING STATE-OWNED AND MAINTAINED UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL SECURE AN APPROVED LOCATING FIRM TO LOCATE STATE-OWNED UTILITIES PRIOR TO COMMENCING ANY EXCAVATION IN THE VICINITY OF THESE LINES IN ACCORDANCE TO SECTION 803 OF THE STANDARD SPECIFICATIONS. SHOULD ANY OF THE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE STATE.

ALSO THERE MAY BE UTILITIES PRESENT WHICH WERE INSTALLED BY THE STATE BUT ARE MAINTAINED BY OTHERS (CITY, TOWN, ETC.) THE APPROXIMATE LOCATIONS OF THESE LINES ARE ALSO SHOWN ON THE PLANS ALONG WITH THE NAME OF THE MAINTAINING AGENCY. THE CONTRACTOR SHALL COORDINATE THE LOCATION OF THESE LINES WITH THE LOCAL AGENCY PRIOR TO COMMENCING ANY EXCAVATION OR BORING IN THEIR VICINITY. SHOULD THESE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF, AND AT NO COST TO, THE LOCAL AGENCY AND THE STATE.

G.N.-406H

THE QUANTITIES INCLUDED IN THE PLANS FOR HOT-MIX ASPHALT RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE HOT-MIX ASPHALT MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT.

FILE NAME = c:\pw_work\pwidot\shawleras\d0412844\D070A75_sht-index.dgn	USER NAME = shawleras	DESIGNED -	REVISED -
		DRAWN -	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

INDEX OF SHEETS & HIGHWAY STANDARDS

SCALE: | SHEET 1 OF 2 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	47BRII	PIATT	72	2
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		

GENERAL NOTES

G.N.-406H Mixture Requirements Contract: 70A75

Location	IL 105
Mixture Use	Surface
AC/PG	PG 64-22
Design Air Voids	4.0% @ Ndes=50
Mix Comp(Gradation)	IL 9.5
Friction Aggregate	Mix D
Mixture Weight	112
Quality Management Program	QC/QA
Sublot Size	N.A.

G.N.-501A

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHOULD FOLLOW THE GUIDE BRIDGE SPECIAL PROVISIONS FOR CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

G.N.-609

PRIOR TO ROUTING TRAFFIC ONTO THE SHOULDERS AS SHOWN IN THE STAGING PLANS, THE CONTRACTOR SHALL SECURE THE GRATINGS ON SHOULDER INLETS AS DIRECTED BY THE ENGINEER. THIS WORK WILL BE PAID FOR ACCORDING TO ARTICLE 109.04.

G.N.-781

RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED IN ACCORDANCE WITH STANDARD 781001, AND THE DETAILS SHOWN IN THE PLANS. IF THERE IS ANY DISCREPANCY BETWEEN THE STANDARD AND THE DETAILS IN THE PLANS, THE DETAILS IN THE PLANS SHALL GOVERN. THE FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING THE RAISED REFLECTIVE PAVEMENT MARKERS AND THE RAISED REFLECTIVE PAVEMENT MARKERS SHALL BE PLACED MIDWAY IN THE 30 FOOT (9 m) SPACE BETWEEN THE DASHED CENTERLINE STRIPES (WHEN APPLICABLE).

G.N.-1004.01
COARSE AGGREGATE GRADATION CA-10 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

THERE ARE NO COMMITMENTS ASSOCIATED WITH THIS PROJECT.

FILE NAME = c:\pw_work\pwidot\shawleres\d2412844\D[illegible]70A75_sht-index.dgn	USER NAME = shawleres	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL NOTES	F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 40.2000 ' / in.	CHECKED -	REVISED -			741	(7BR)1	PIATT	72	3
$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED -		SCALE: SHEET 2 OF 2 SHEETS STA. TO STA.			CONTRACT NO. 70A75		
							ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

CONSTRUCTION CODE:	
PIATT CO.	
URBAN	
80% FED / 20% STATE	
TWO LANE	
S.N. 074-0071	S.N. 074-0072
STATION	
50+00	999+52.38

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0014 BRIDGE	
31101200	SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ YD	261.0	261.0	0.0
35400300	PORTLAND CEMENT CONCRETE BASE COURSE WIDENING 8"	SQ YD	490.0	490.0	0.0
40603335	HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	196.0	114.0	82.0
42001300	PROTECTIVE COAT	SQ YD	403.0	403.0	0.0
44003100	MEDIAN REMOVAL	SQ FT	4,514.0	4,514.0	0.0
44213204	TIE BARS 3/4"	EACH	392.0	392.0	0.0
50102400	CONCRETE REMOVAL	CU YD	60.6	52.4	8.2
50157300	PROTECTIVE SHIELD	SQ YD	630.0	630.0	0.0
50300100	FLOOR DRAINS	EACH	8.0	8.0	0.0
50300225	CONCRETE STRUCTURES	CU YD	20.6	20.6	0.0
50300255	CONCRETE SUPERSTRUCTURE	CU YD	45.6	37.0	8.6
50300300	PROTECTIVE COAT	SQ YD	293.0	293.0	0.0
50500405	FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3,320.0	3,320.0	0.0
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	4,570.0	3,740.0	830.0

* SPECIALTY ITEM

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		DRAWN -	REVISED -
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$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SUMMARY OF QUANTITIES

SCALE: | SHEET 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	4
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

SUMMARY OF QUANTITIES

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	CONSTRUCTION CODE: PIATT CO. URBAN 80% FED / 20% STATE TWO LANE S.N. 074-0071 STATION 50+00	CONSTRUCTION CODE: PIATT CO. URBAN 80% FED / 20% STATE TWO LANE S.N. 074-0072 STATION 999+52.38
				0014 BRIDGE	
50800515	BAR SPLICERS	EACH	32.0	20.0	12.0
52000110	PREFORMED JOINT STRIP SEAL	FOOT	96.0	0.0	96.0
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	18.0	18.0	0.0
52100530	ANCHOR BOLTS, 1 1/4"	EACH	36.0	36.0	0.0
58100200	WATERPROOFING MEMBRANE SYSTEM	SQ YD	2,344.0	1,367.0	977.0
67000500	ENGINEER'S FIELD OFFICE, TYPE B	CAL MO	6.0	3.0	3.0
67100100	MOBILIZATION	L SUM	1.0	0.5	0.5
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1.0	0.0	1.0
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2.0	2.0	0.0
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1.0	0.0	1.0
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1.0	0.0	1.0
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	2.0	1.0	1.0
70400100	TEMPORARY CONCRETE BARRIER	FOOT	437.5	0.0	437.5
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	437.5	0.0	437.5

* SPECIALTY ITEM

FILE NAME = c:\pw_work\pwidot\shawleras\d2412844\D52A75_sht-SQQ.dgn	USER NAME = shawleras	DESIGNED -	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SUMMARY OF QUANTITIES	F.A.P. RTE. 741	SECTION (7BR)I
		DRAWN -	REVISED -				COUNTY PIATT
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -				TOTAL SHEETS 72
$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED -		SCALE: SHEET 2 OF 4 SHEETS STA. TO STA.		SHEET NO. 5
							CONTRACT NO. 70A75
							ILLINOIS FED. AID PROJECT

SUMMARY OF QUANTITIES

CONSTRUCTION CODE:	
PIATT CO.	
URBAN	
80% FED / 20% STATE	
TWO LANE	
S.N. 074-0071	S.N. 074-0072
STATION	
50+00	999+52.38

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	0014 BRIDGE	
70600250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2.0	0.0	2.0
70600350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	2.0	0.0	2.0
78009004	MODIFIED URETHANE PAVEMENT MARKING - LINE 4"	FOOT	2,493.0	1,826.0	667.0
78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	3.0	0.0	3.0
81603035	UNIT DUCT, 600V, 2-1C NO.6 1/C NO. 6 GROUND (XLP-TYPE USE) 1" DIA. POLYETHYLENE	FOOT	875.0	875.0	0.0
X0322194	POLYMER MODIFIED PORTLAND CEMENT MORTAR	SQ FT	1.8	0.0	1.8
X0325682	PUMPABLE CONCRETE MIX	CU FT	3.0	0.0	3.0
X6061702	CONCRETE MEDIAN, TYPE SM (DOWELLED)	SQ FT	3,619.0	3,619.0	0.0
X7010200	TRAFFIC CONTROL AND PROTECTION, STANDARD 701316 (SPECIAL)	EACH	1.0	1.0	0.0
X7010410	SPEED DISPLAY TRAILER	CAL MO	3.0	3.0	0.0
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	28.0	28.0	0.0
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1.0	0.0	1.0
X7830070	GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	2,493.0	1,826.0	667.0
Z0001899	JACK AND REMOVE EXISTING BEARINGS	EACH	18.0	18.0	0.0

* SPECIALTY ITEM

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	PLOT SCALE = 40.2020 ' / in.	DRAWN -	REVISED -			741	(78RI)	PIATT	72	6
$MODELNAME$	PLOT DATE = 12/2/2014	CHECKED -	REVISED -		SCALE:	SHEET 3 OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 70A75	
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT	

SUMMARY OF QUANTITIES

CONSTRUCTION CODE:	
PIATT CO.	
URBAN	
80% FED / 20% STATE	
TWO LANE	
S.N. 074-0071	S.N. 074-0072
STATION	
50+00	999+52.38
0014	
BRIDGE	

CODE NO.	ITEM	UNIT	TOTAL QUANTITY	URBAN	URBAN
Z0004556	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	2,338.0	1,372.0	966.0
Z0012754	STRUCTURAL REPAIR OF CONCRETE (DEPTH EQUAL TO OR LESS THAN 5 INCHES)	SQ FT	239.0	231.0	8.0
Z0016001	DECK SLAB REPAIR (FULL DEPTH, TYPE I)	SQ YD	9.0	9.0	0.0
Z0016002	DECK SLAB REPAIR (FULL DEPTH, TYPE II)	SQ YD	58.0	58.0	0.0
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	213.0	68.0	145.0
Z0021914	SILICONE JOINT SEALER, 2.75"	FOOT	136.0	136.0	0.0
Z0041895	POLYMER CONCRETE	CU FT	8.1	8.1	0.0

• SPECIALTY ITEM

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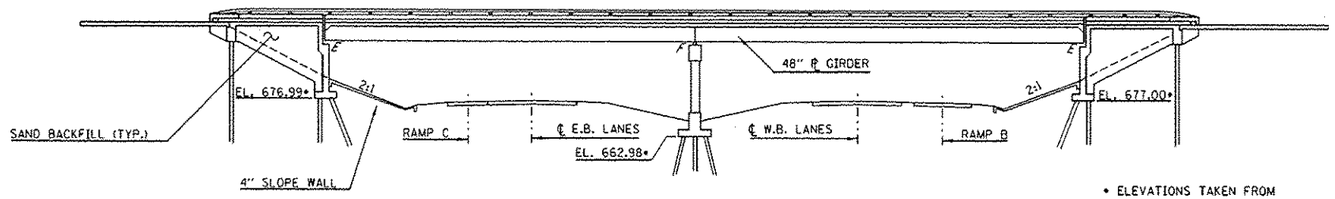
	PLOT SCALE = 40.0000 ' / in.	DRAWN -	REVISED -			741	(7BR)I	PIATT	72	7
$MODELNAME$	PLOT DATE = 12/2/2014	CHECKED -	REVISED -		SCALE:	SHEET 4 OF 4 SHEETS	STA.	TO STA.	CONTRACT NO. 70A75	
		DATE -	REVISED -						ILLINOIS FED. AID PROJECT	

THE EXISTING OVERHEAD STRUCTURE WAS BUILT IN 1975 BY THE STATE OF ILLINOIS AS FAI ROUTE 72, SECTION 74-68HB-3 AT STATION 1464+71.70 AT MONTICELLO IN PIATT COUNTY. THE SUPERSTRUCTURE CONSISTS OF NINE 48" STEEL PLATE GIRDERS SUPPORTING AN 8" R.C. DECK WITH A WATERPROOFING MEMBRANE AND 1½" H.M.A. WEARING SURFACE. THE SUPERSTRUCTURE IS SUPPORTED BY TWO SAND-FILLED, VAULTED ABUTMENTS ON SPREAD FOOTINGS WITH CONCRETE PILES AND ONE MULTI-COLUMN TRAPEZOIDAL PIER ON A SPREAD FOOTING WITH CONCRETE PILES. THE EXISTING STRUCTURE MEASURES 255'-3" FROM BACK TO BACK OF APPROACH BENTS AND 68'-0" OUT TO OUT OF DECK. THE HORIZONTAL CLEARANCE IS 64'-6" FROM FACE TO FACE OF PARAPET INCLUDING 24'-3" OF CLEAR ROADWAY FOR EACH DIRECTION AND A 16'-0" VAULTED MEDIAN.

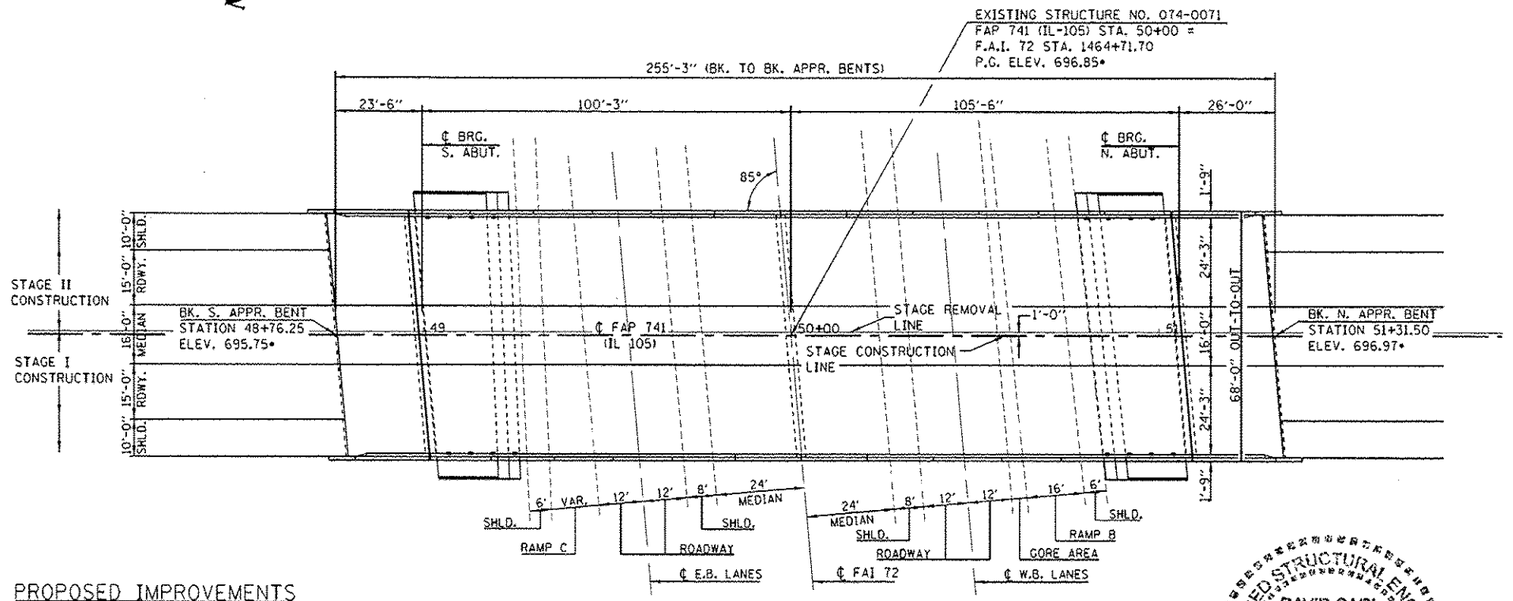
SEE LIST OF PROPOSED IMPROVEMENTS ON THIS SHEET.

WORK SHALL BE COMPLETED WITH STAGED CONSTRUCTION.



* ELEVATIONS TAKEN FROM AS-BUILT PLANS AND ARE SHOWN FOR PERSPECTIVE ONLY.

ELEVATION



PLAN VIEW

PROPOSED IMPROVEMENTS

1. REMOVE EXISTING WEARING SURFACE AND WATERPROOFING MEMBRANE.
2. PARTICAL DEPTH, FULL-DEPTH DECK PATCHING, REMOVE OR REPLACE DECK DRAINS, VAULTED-MEDIAN CURB REMOVAL AND REPLACEMENT ALONG WITH DECK END REPAIRS.
3. STRUCTURAL REPAIR OF CONCRETE ON PARAPETS AND ABUTMENT BACK WALL.
4. PLACEMENT OF PROPOSED WATER PROOFING MEMBRANE SYSTEM, H.M.A. WEARING SURFACE AND SILICONE JOINT SEALER.
5. REPLACE EXISTING STEEL ROCKER BEARINGS WITH ELASTOMERIC BEARING ASSEMBLIES.
6. CONCRETE STRUCTURE REPAIRS ON ABUTMENT FACES.

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

David Carl Puzey 1/22/15
Expires 11/30/16

BILL OF MATERIALS

ITEM	UNIT	TOTAL
H.M.A. SURFACE COURSE, MIX "D", N50	TON	114.0
HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	1372.0
WATERPROOFING MEMBRANE SYSTEM	SQ YD	1367.0
CONCRETE REMOVAL	CU YD	52.4
PROTECTIVE SHIELD	SQ YD	630.0
FLOOR DRAINS	EACH	8.0
CONCRETE STRUCTURES	CU YD	20.6
CONCRETE SUPERSTRUCTURES	CU YD	37.0
PROTECTIVE COAT	SQ YD	293.0
FURNISHING AND ERECTING STRUCTURAL STEEL	POUND	3320.0
REINFORCEMENT BARS (EPOXY COATED)	POUND	3740.0
BAR SPLICERS	EACH	20.0
DECK SLAB REPAIR (FULL-DEPTH, TY I)	SQ YD	9.0
DECK SLAB REPAIR (FULL-DEPTH, TY II)	SQ YD	58.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	68.0
STRUCTURAL REPAIR OF CONCRETE (DEPTH <= 5")	SQ FT	231.0
ELASTOMERIC BEARING ASSEMBLY, TYPE 1	EACH	18.0
ANCHOR BOLTS, 1¼"	EACH	36.0
JACK AND REMOVE EXISTING BEARINGS	EACH	18.0
SILICONE JOINT SEALER, 2.75"	FOOT	136.0
POLYMER CONCRETE	CU FT	8.1

GENERAL NOTES

PLAN DIMENSIONS AND DETAILS RELATIVE TO THE 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 WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

SEE SPECIAL PROVISION "DECK SLAB REPAIR" FOR ADDITIONAL REQUIREMENTS PERTAINING TO DECK SLAB REPAIR AND H.M.A. SURFACE REMOVAL (DECK).

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO CLASSIFICATION M-270, GR. 36, UNLESS OTHERWISE NOTED.

PRIOR TO POURING THE NEW CONCRETE DECK, ALL HEAVY OR LOOSE RUST, LOOSE MILL SCALE, AND OTHER LOOSE OR POTENTIALLY DETRIMENTAL FOREIGN MATERIAL SHALL BE REMOVED FROM THE SURFACES IN CONTACT WITH THE CONCRETE. TIGHTLY ADHERED PAINT MAY REMAIN UNLESS OTHERWISE NOTED. REMOVAL SHALL BE ACCOMPLISHED BY METHODS THAT WILL NOT DAMAGE THE STEEL AND THE COST WILL BE INCLUDED IN THE PAY ITEM COVERING REMOVAL OF THE EXISTING CONCRETE.

EXISTING STRUCTURAL STEEL THAT WILL BE IN CONTACT WITH NEW STRUCTURAL STEEL SHALL BE CLEANED AND PAINTED PRIOR TO ERECTION AS REQUIRED BY THE SPECIAL PROVISION "CLEANING AND PAINTING CONTACT SURFACE AREAS OF EXISTING STEEL STRUCTURES".

ALL STRUCTURAL STEEL SHALL BE SHOP PAINTED WITH THE INORGANIC ZINC RICH PRIMER PER AASHTO M300, TYPE I. COST INCLUDED WITH FURNISHING AND ERECTING STRUCTURAL STEEL.

IF THE ANALYSIS SUBMITTED TO THE CONTRACTOR FOR THE JACKING/TEMPORARY SUPPORT SYSTEM TO BE USED SHOWS TEMPORARY STIFFENERS ARE REQUIRED TO PREVENT WEB CRIPPLING OR BUCKLING, THE STIFFENERS SHALL BE STEEL AND BOLTED TO THE WEB. IF STIFFENERS ARE NOT REQUIRED, HARDWOOD TIMBERS SHALL BE INSTALLED TIGHTLY BETWEEN THE TOP AND BOTTOM FLANGE TO PREVENT FLANGE ROTATION.

JOINT OPENINGS SHALL BE ADJUSTED ACCORDING TO ARTICLE 520.04 OF THE STD. SPECS. WHEN THE DECK IS POURED AT AN AMBIENT TEMPERATURE OTHER THAN 50°F.

S.N. 074-0071 HAVE BEEN DETERMINED, THROUGH TESTING, NOT TO INVOLVE ASBESTOS IN A BITUMINOUS BRIDGE DECK WEARING SURFACE OR WATERPROOFING MEMBRANE. AS CERTIFIED WITH BBS FORM 2536, OCTOBER 19, 2001.

THE EXISTING STRUCTURAL STEEL COATING CONTAINS LEAD. THE CONTRACTOR SHALL TAKE APPROPRIATE PRECAUTIONS TO DEAL WITH THE PRESENCE OF LEAD ON THIS PROJECT.

AREAS OF DECK REPAIRS SHOWN ARE ESTIMATED. THE ENGINEER SHALL SHOW ACTUAL LOCATIONS OF DECK REPAIRS ON AS-BUILT PLANS.

THE RAIL POSTS WITHIN THE PARAPET REPAIR AND REMOVAL AND REPLACEMENT LIMITS SHALL BE REMOVED TO ALLOW FOR THE REPAIR WORK TO BE COMPLETED. FOLLOWING COMPLETION OF THE PARAPET ENDS, THE CONTRACTOR TO EITHER SAVE AND REUSE THE EXISTING CAST-IN-PLACE ANCHOR SYSTEM OR USE EPOXY-GROUTED THREADED RODS. THE COST OF THIS WORK SHALL BE INCLUDED IN THE CONCRETE SUPERSTRUCTURES. SEE AS-BUILT PLANS FOR ALUMINUM RAILING DETAIL.

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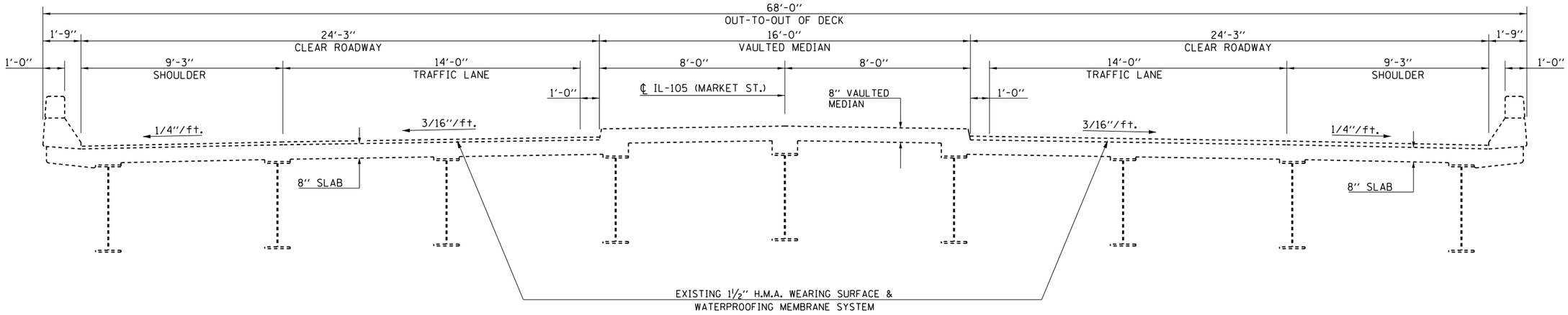
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
S.N. 074-0071
FAP 741 (IL-105 – MARKET STREET) OVER FAI-72

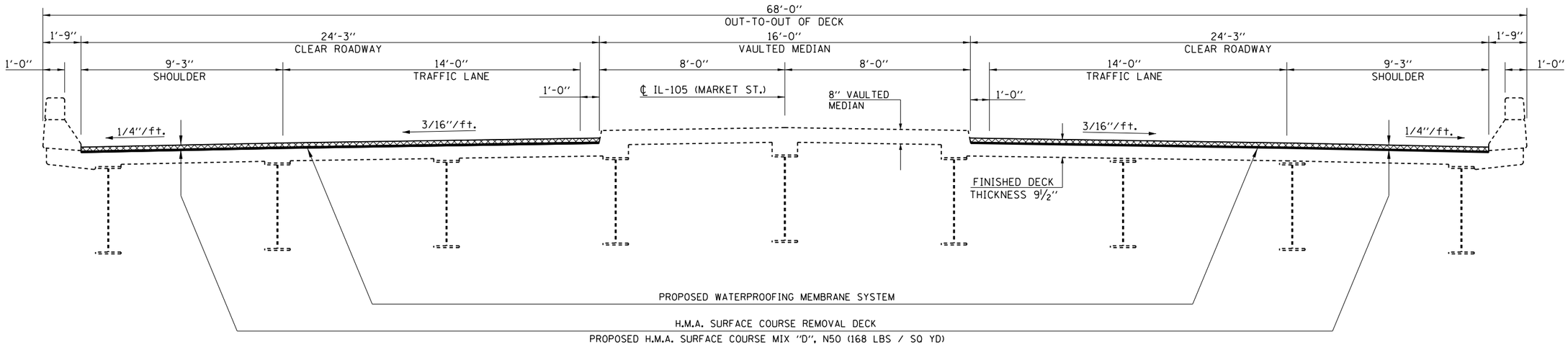
SCALE: 20 | SHEET NO. 1 OF 40 SHEETS | STA. 48+76.25 TO STA. 51+31.50

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	8
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

EXISTING DECK CROSS SECTIONS
S.N. 074–0071



PROPOSED DECK CROSS SECTIONS
S.N. 074–0071



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	PLOT SCALE = 40.0002 ' / in.	CHECKED -	REVISED -
	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

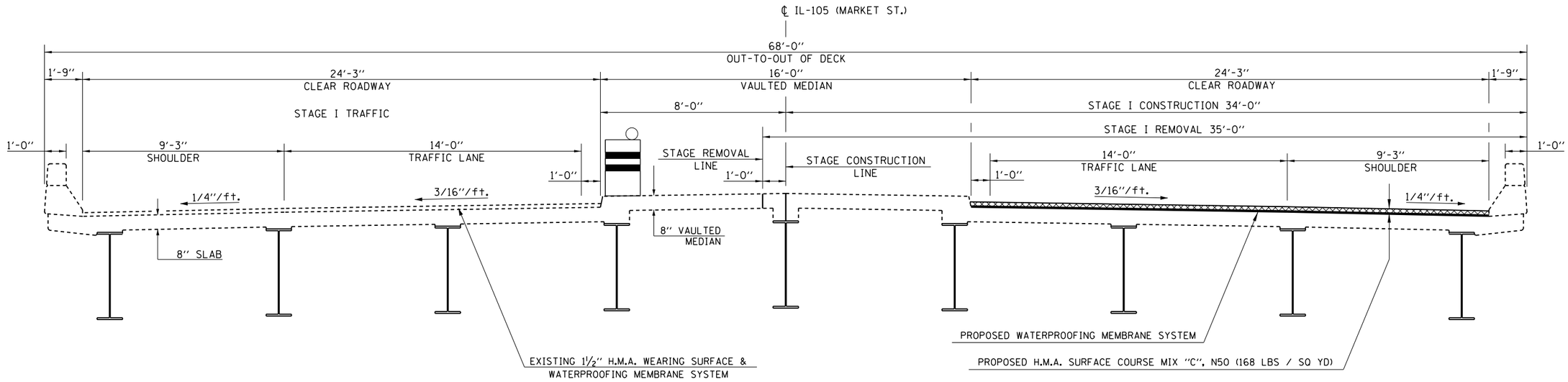
DECK CROSS SECTIONS
S.N. 074–0071

SCALE: | SHEET NO. 2 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	9
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

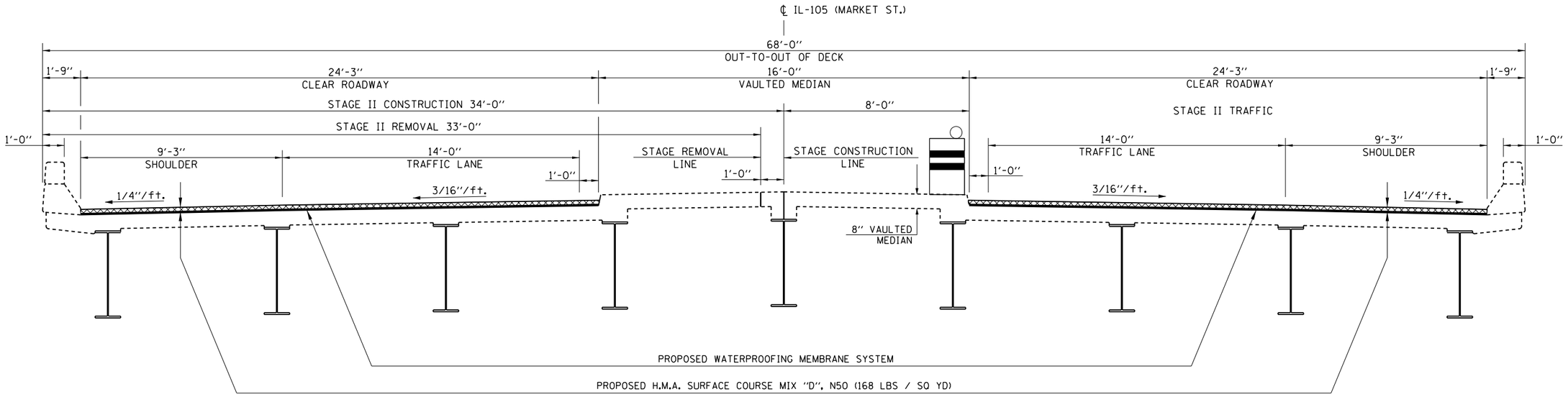
STAGE I CONSTRUCTION DETAILS
S.N. 074–0071

LOOKING NORTH



STAGE II CONSTRUCTION DETAILS
S.N. 074–0071

LOOKING NORTH



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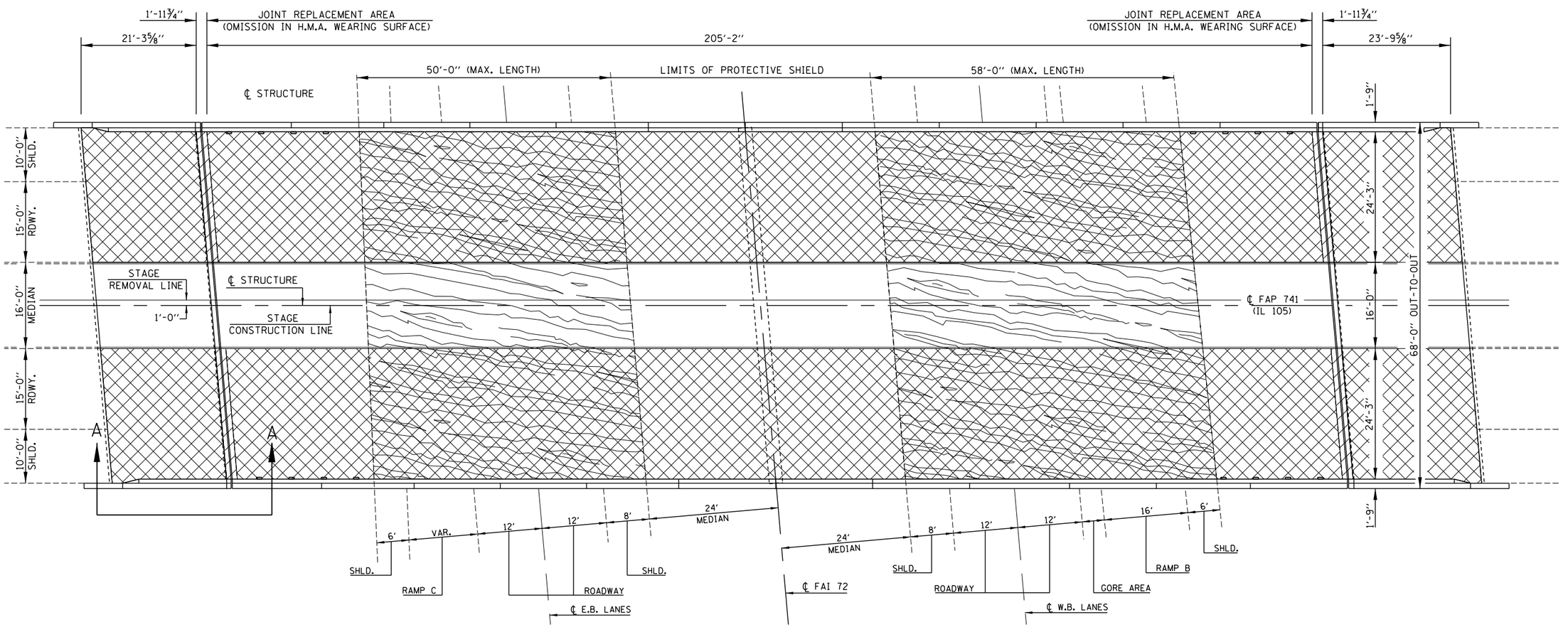
	PLOT DATE = 12/2/2014	DATE -	REVISED - 7-19-2013

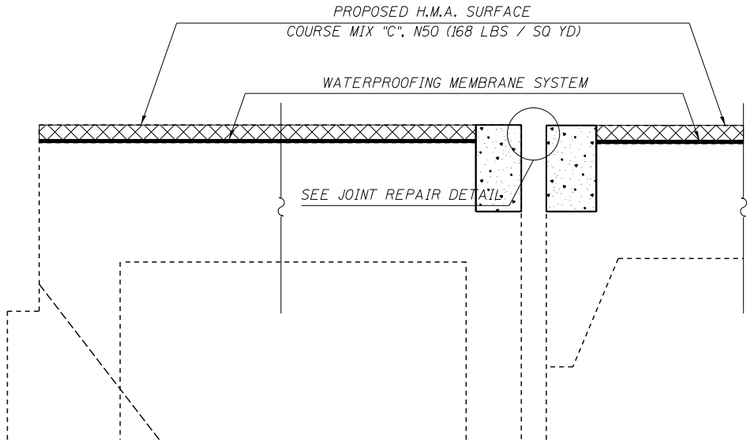
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAIL
S.N. 074–0071

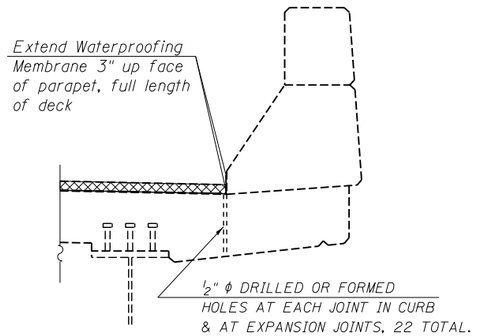
SCALE: | SHEET NO. 3 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	10
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		





SECTION A-A



DETAIL OF DRAIN HOLES AT CURB JOINTS

(TO BE PLUGGED)- SEE NOTES, THIS SHEET

NOTE:

EXISTING PROTETCTIVE SHIELD WAS INSTALLED BY THE DISTRICT 5 BRIDGE CREW ON APRIL, 23 2009 OVER CENTER TWO BAYS ON BOTH EASTBOUND AND WESTBOUND SIDES. THE EXISTING PROTECTIVE SHIELD QUANTITY HAS BEEN DEDUCTED FROM THE AREA OVER TRAFFIC. HOWEVER, THE R.E.'S DESCRETION OF CONDITION, AT THE TIME OF CONSTRUCTION WILL DETERMINE FINAL PLAN QUANTITY.

AT COMPLETION OF THE PROJECT THE PROTECTIVE SHIELD WILL BE REMOVED AND STORED AT THE JOB SITE TO BE SALVAGED BY THE STATE. CONTACT JEFF CARR AT (217) 836-8253.

ALL (QTY. 22) 1/2" Ø DRAIN HOLES AT CURB JOINTS SHALL BE FILLED WITH A TWO COMPONENT NON-STAINING GRAY SEALING COMPOUND WITH POLYSULFIDE LIQUID POLYMERS - GUN GRADE WITH PRIMER. COST TO BE INCLUDED WITH WATERPROOFING MEMBRANE SYSTEM.

LEGEND

- BRIDGE DECK WEARING SURFACE, REMOVAL
- BRIDGE DECK WEARING SURFACE, REMOVAL AND REPLACEMENT
- PROTECTIVE SHIELD

BILL OF MATERIALS

ITEM	UNIT	TOTAL
PROTECTIVE SHIELD	SQ YD	630.0
H.M.A. SURFACE REMOVAL (DECK)	SQ YD	1372.0
H.M.A. SURFACE COURSE, MIX C, N-50	TON	114.0
WATERPROOFING MEMBRAINE SYSTEM	SQ YD	1367.0

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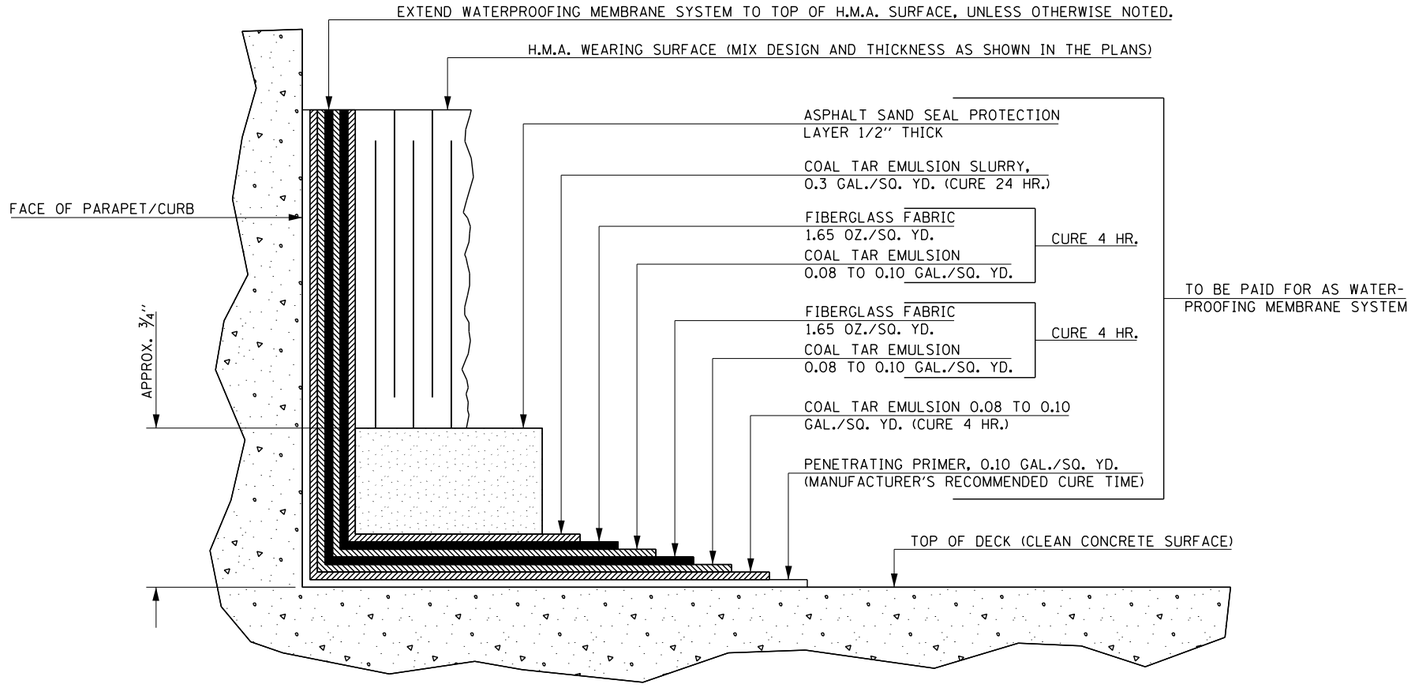
$MODELNAME$	PLOT DATE = 12/2/2014	DATE - 10-17-12	REVISED - 5-22-2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BRIDGE DECK WEARING SURFACE PLAN
S.N. 074-0071

SCALE: | SHEET 4 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	11
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		



NOTES

THIS DETAIL HAS BEEN INCLUDED TO ILLUSTRATE THE ASSOCIATED LAYERS AND CURE TIMES NECESSARY FOR THE PLACEMENT OF THE WATERPROOFING MEMBRANE SYSTEM. THIS DETAIL SHALL SUPPLEMENT, NOT SUPERSEDE, SECTION 581 OF THE STANDARD SPECIFICATIONS.

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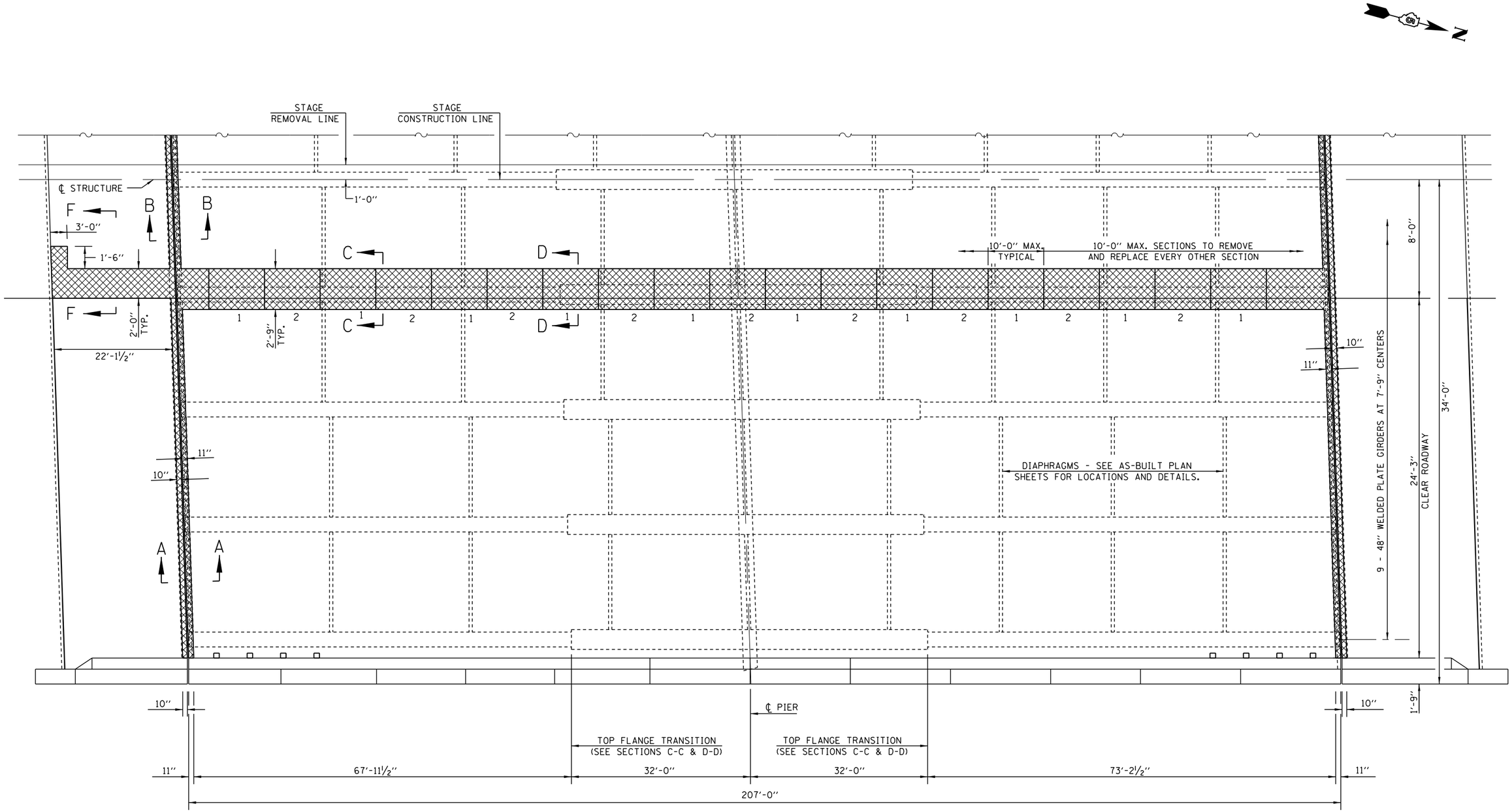
	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATERPROOFING MEMBRANE SYSTEM
S.N. 074-0071

SCALE: | SHEET 5 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	12
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



SOUTH ABUTMENT

NORTH ABUTMENT

NOTES:

SEE SHEET 8 FOR SECTION DETAILS, NOTES AND BILL OF MATERIALS FOR CONCRETE REMOVAL.

LEGEND

CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE

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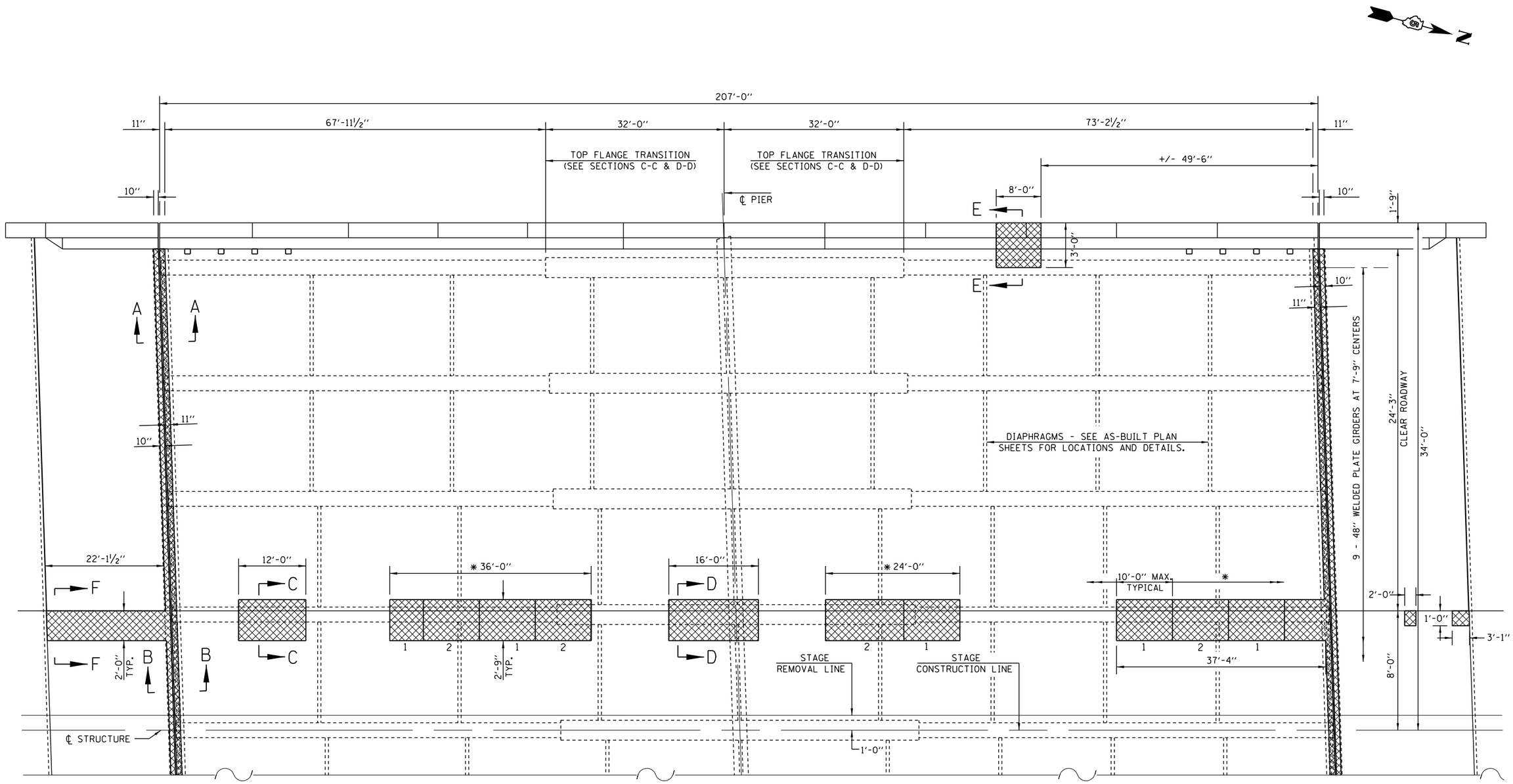
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE ONE CONCRETE REMOVAL PLAN
S.N. 074-0071

SCALE: | SHEET 6 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	13
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		



SOUTH ABUTMENT

NORTH ABUTMENT

NOTES:

SEE SHEET 8 FOR SECTION DETAILS, NOTES AND BILL OF MATERIALS FOR CONCRETE REMOVAL.

LEGEND

CONCRETE REMOVAL AND CONCRETE SUPERSTRUCTURE

* 10'-0" MAX. SECTIONS TO REMOVE AND REPLACE EVERY OTHER SECTION

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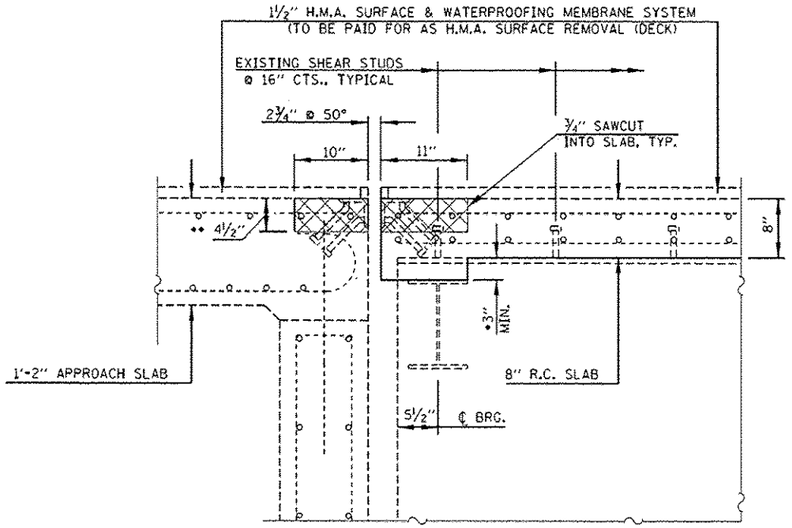
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE TWO CONCRETE REMOVAL PLAN
S.N. 074-0071

SCALE: | SHEET 7 OF 40 SHEETS | STA. | TO STA.

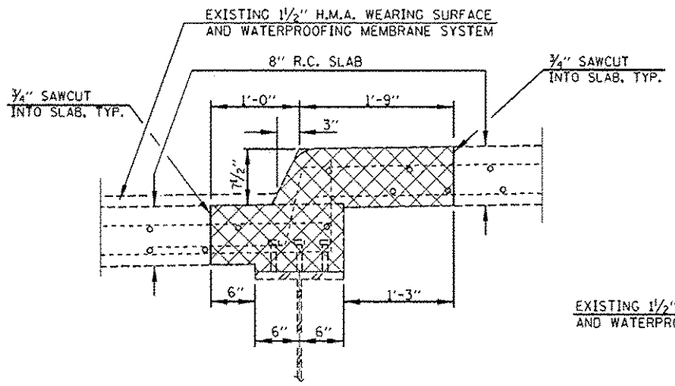
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	14
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		



• MINIMUM AT EDGE OF DECK/SLAB
(INCREASES WITH CROSS SLOPE TOWARDS ℄ BRIDGE)
•• EXISTING STEEL ¾" Ø × 8" @ 1'-0" CTS. STUDS
SHALL BE CUT OFF AT THE CONCRETE REMOVAL LINE.

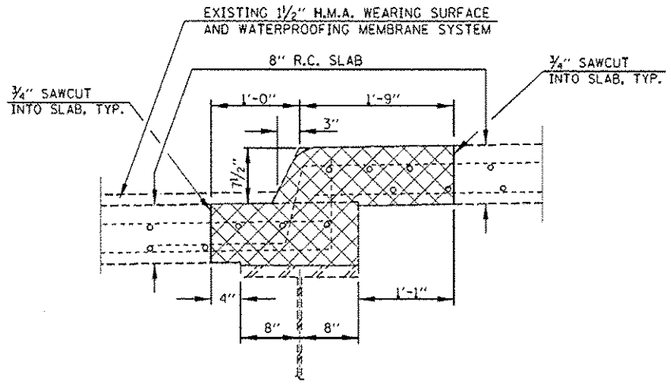
SECTION A-A

SHOWING CONCRETE REMOVAL LIMITS
AT ABUTMENT / DECK END



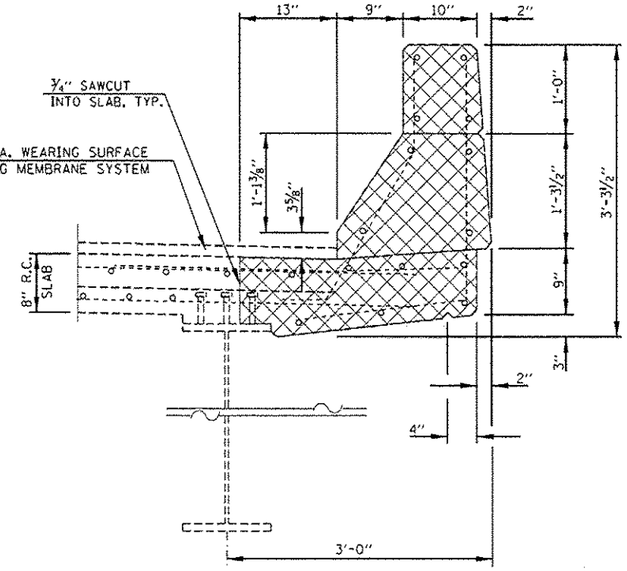
SECTION C-C

SHOWING REMOVAL LIMITS FOR VAULTED
MEDIAN CURB LINE NEAR ABUTMENTS



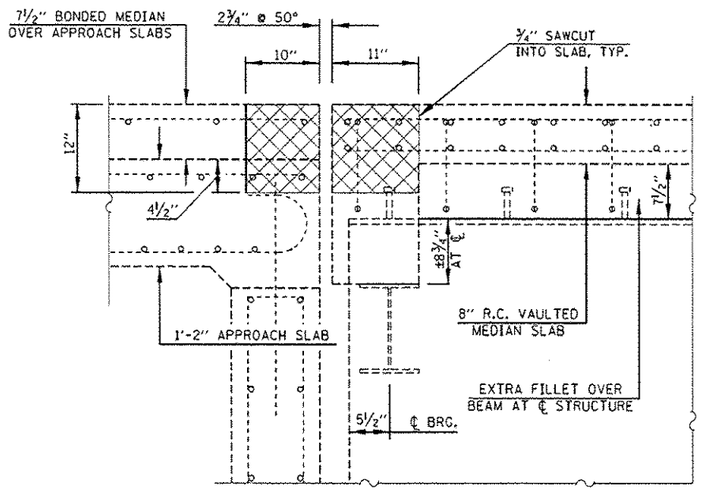
SECTION D-D

SHOWING REMOVAL LIMITS FOR VAULTED
MEDIAN CURB LINE NEAR PIER



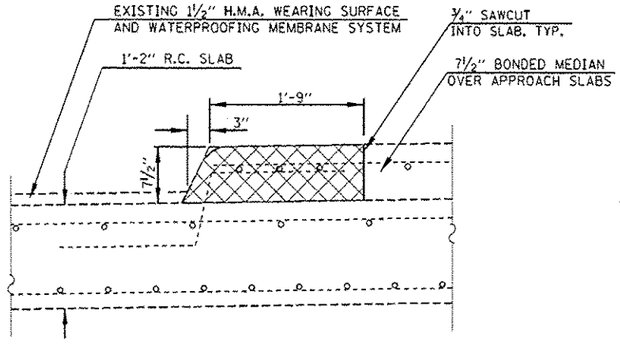
SECTION E-E

SHOWING CONCRETE REMOVAL
LIMITS AT PARAPET



SECTION B-B

SHOWING CONCRETE REMOVAL LIMITS
AT ABUTMENT / DECK END AT MEDIAN



SECTION F-F

SHOWING REMOVAL LIMITS FOR MEDIAN
CURB LINE OVER APPROACH SPAN

NOTES:

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED 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.

THE EXISTING EXPANSION JOINT SYSTEMS SHALL BE REMOVED COMPLETELY, AS WELL AS ANY FOREIGN MATERIAL THAT HAS ACCUMULATED OR BEEN PLACED IN THE JOINT OPENINGS. THE COST FOR THIS WORK IS INCLUDED IN CONCRETE REMOVAL AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
CONCRETE REMOVAL	CU YD	37.0

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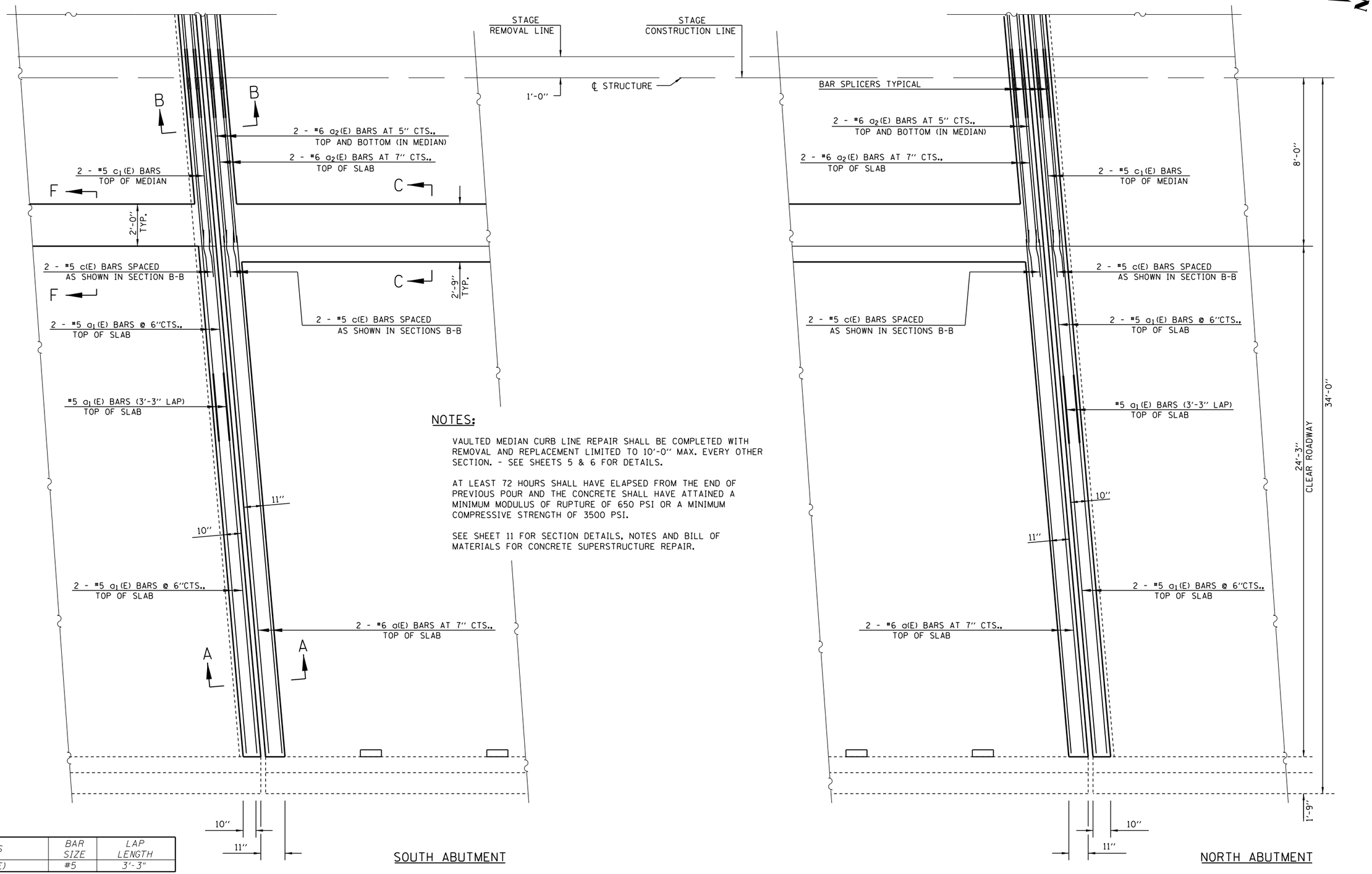
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE REMOVAL DETAILS
S.N. 074-0071

SCALE: | SHEET 8 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	15
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



NOTES:

VAULTED MEDIAN CURB LINE REPAIR SHALL BE COMPLETED WITH REMOVAL AND REPLACEMENT LIMITED TO 10'-0" MAX. EVERY OTHER SECTION. - SEE SHEETS 5 & 6 FOR DETAILS.

AT LEAST 72 HOURS SHALL HAVE ELAPSED FROM THE END OF PREVIOUS POUR AND THE CONCRETE SHALL HAVE ATTAINED A MINIMUM MODULUS OF RUPTURE OF 650 PSI OR A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI.

SEE SHEET 11 FOR SECTION DETAILS, NOTES AND BILL OF MATERIALS FOR CONCRETE SUPERSTRUCTURE REPAIR.

BARS	BAR SIZE	LAP LENGTH
$a_1(E)$	#5	3'-3"

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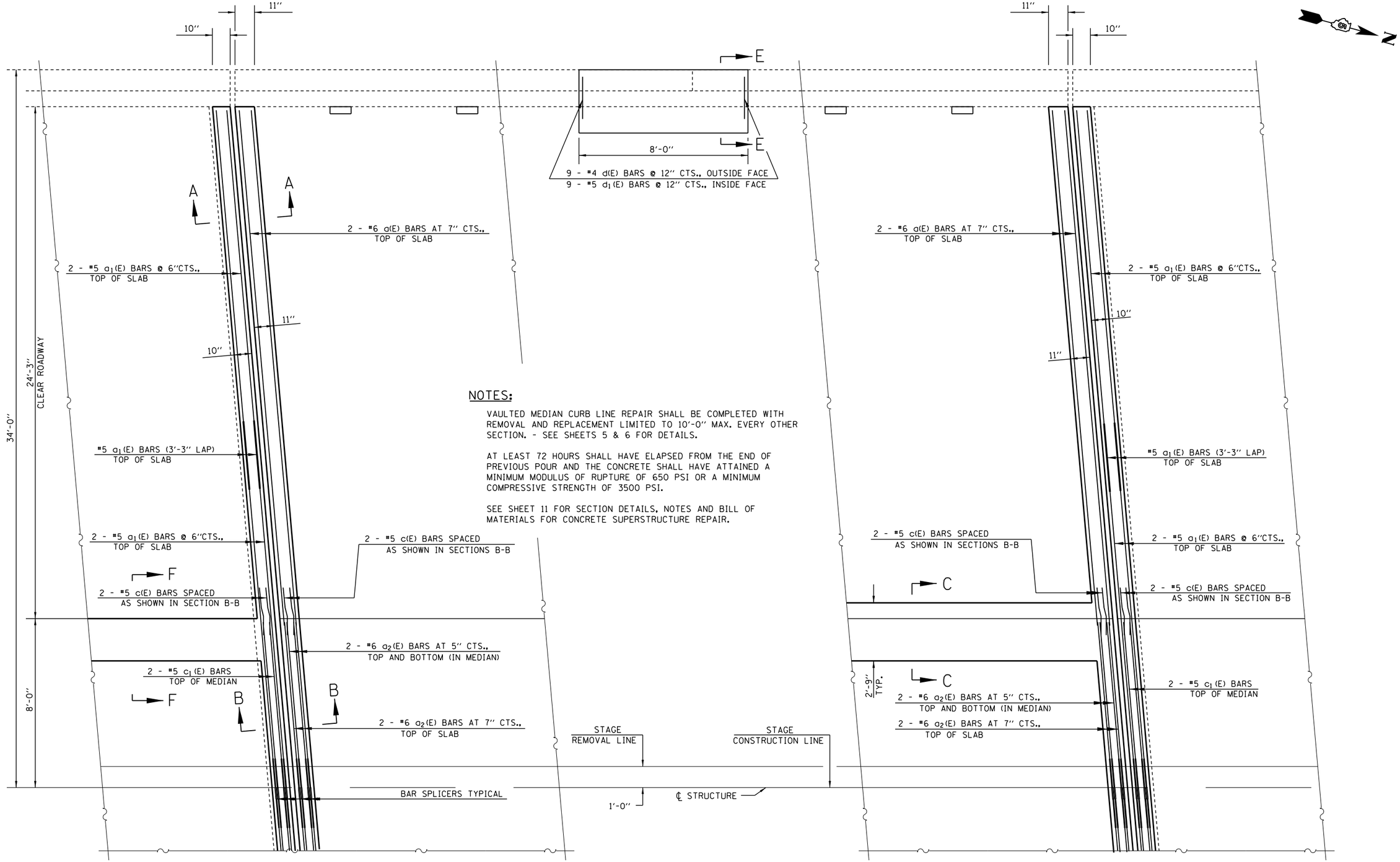
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE ONE SUPERSTRUCTURE REPAIR PLAN
S.N. 074-0071

SCALE: | SHEET 9 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)1	PIATT	72	16
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



NOTES:

VAULTED MEDIAN CURB LINE REPAIR SHALL BE COMPLETED WITH REMOVAL AND REPLACEMENT LIMITED TO 10'-0'' MAX. EVERY OTHER SECTION. - SEE SHEETS 5 & 6 FOR DETAILS.

AT LEAST 72 HOURS SHALL HAVE ELAPSED FROM THE END OF PREVIOUS POUR AND THE CONCRETE SHALL HAVE ATTAINED A MINIMUM MODULUS OF RUPTURE OF 650 PSI OR A MINIMUM COMPRESSIVE STRENGTH OF 3500 PSI.

SEE SHEET 11 FOR SECTION DETAILS, NOTES AND BILL OF MATERIALS FOR CONCRETE SUPERSTRUCTURE REPAIR.

BARS	BAR SIZE	LAP LENGTH
a_1(E)	#5	3'-3"

SOUTH ABUTMENT

NORTH ABUTMENT

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED - ESS	REVISED -
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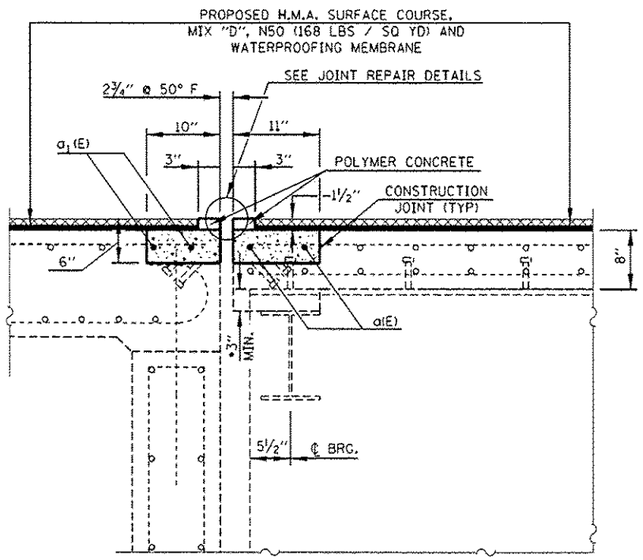
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE TWO SUPERSTRUCTURE REPAIR PLAN
S.N. 074-0071

SCALE: | SHEET 10 OF 40 SHEETS | STA. | TO STA.

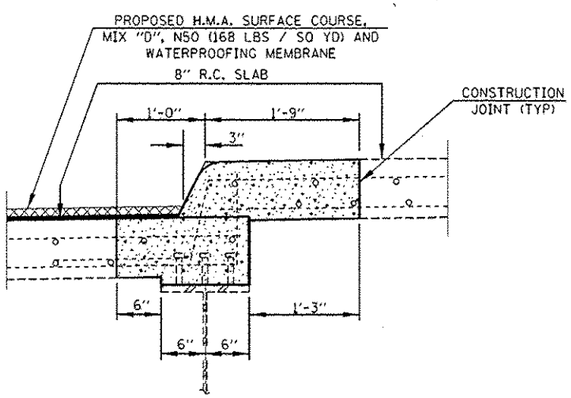
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	17
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



* MINIMUM AT EDGE OF DECK/SLAB (INCREASES WITH CROSS SLOPE TOWARDS ℄ BRIDGE)

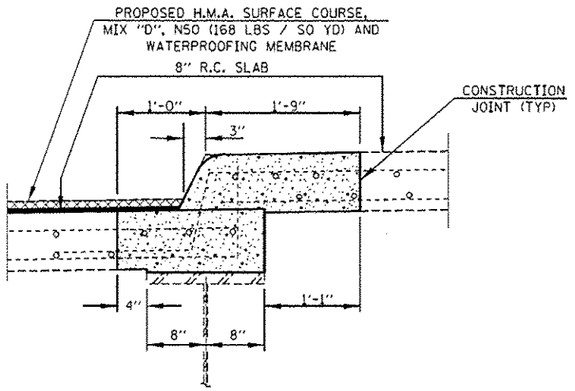
SECTION A-A

SHOWING CONCRETE SUPERSTRUCTURE LIMITS AND REINFORCEMENT AT ABUTMENT / DECK END



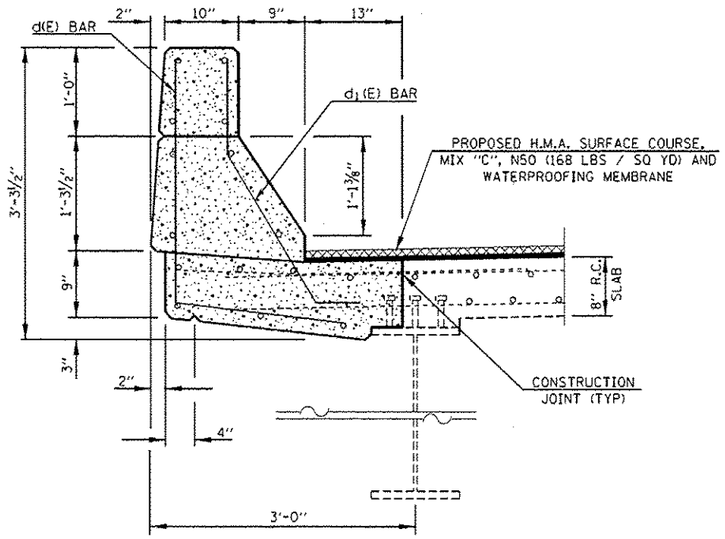
SECTION C-C

SHOWING CONCRETE SUPEERSTRUCTURE LIMITS FOR VAULTED MEDIAN CURB LINE NEAR ABUTMENTS



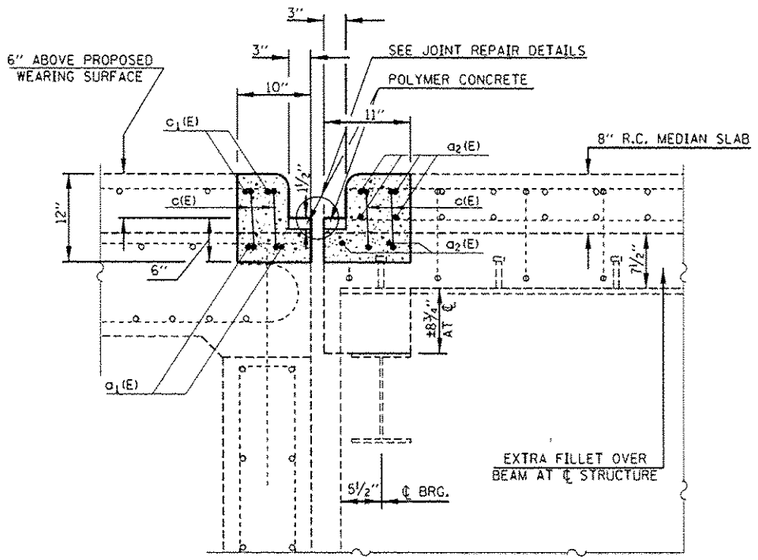
SECTION D-D

SHOWING CONCRETE SUPERSTRUCTURE LIMITS FOR VAULTED MEDIAN CURB LINE NEAR PIER



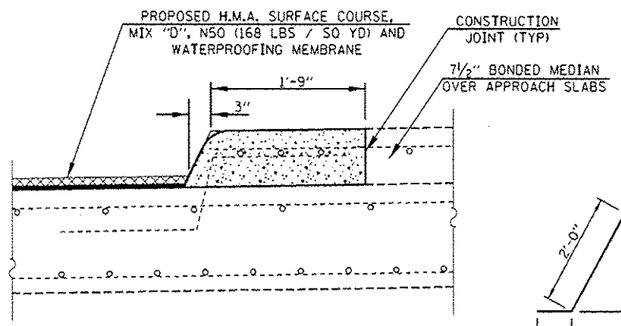
SECTION E-E

SHOWING CONCRETE SUPERSTRUCTURE LIMITS AT PARAPET



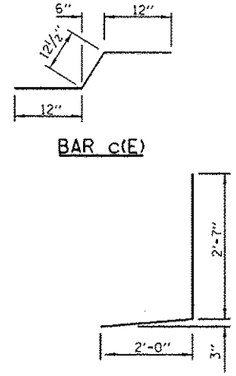
SECTION B-B

SHOWING CONCRETE SUPERSTRUCTURE LIMITS AT ABUTMENT / DECK END AT MEDIAN



SECTION F-F

SHOWING CONCRETE SUPERSTRUCTURE LIMITS FOR MEDIAN CURB LINE OVER APPROACH SPAN



BAR c(E)

BAR d_1(E)

BAR d(E)

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
d(E)	8	#6	26'-0"	
a_1(E)	16	#5	19'-10"	
a_2(E)	24	#6	7'-6"	
c(E)	16	#5	3'-½"	
c_1(E)	8	#5	7'-6"	
d(E)	9	#4	4'-7"	
d_1(E)	9	#5	3'-7"	

REINFORCEMENT BARS (EPOXY COATED)	POUND	1205.0
CONCRETE SUPERSTRUCTURE	CU YD	37.0
PROTECTIVE COAT	SQ YD	136.0
BAR SPLICERS	EACH	20.0

NOTES

EXISTING REINFORCEMENT BARS EXTENDING INTO THE REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED 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.

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

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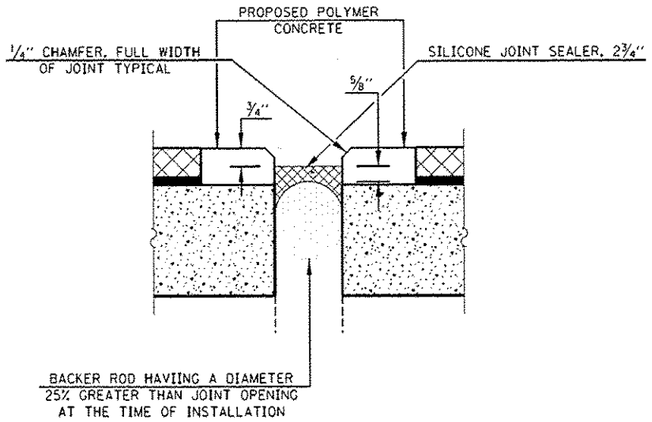
		DRAWN - ESS	REVISED -
	PLOT SCALE = 48.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 1/22/2015	DATE - 5-28-2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

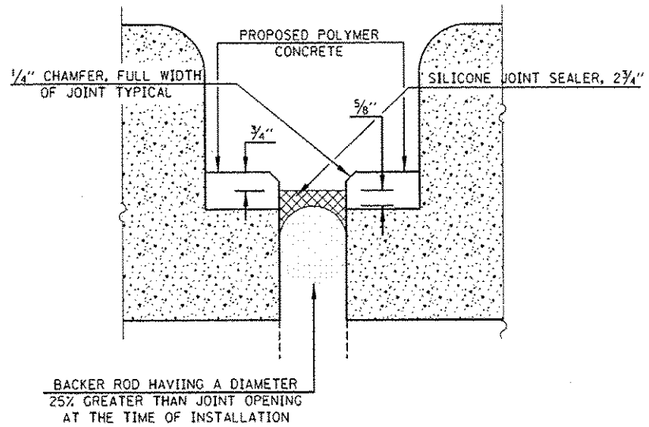
SUPERSTRUCTURE REPAIR DETAILS
S.N. 074-0071

SCALE: | SHEET 11 OF 40 SHEETS | STA. | TO STA.

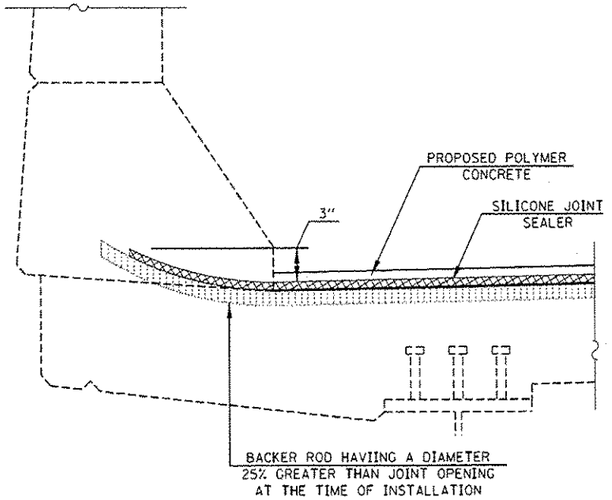
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(78RI)	PIATT	72	18
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



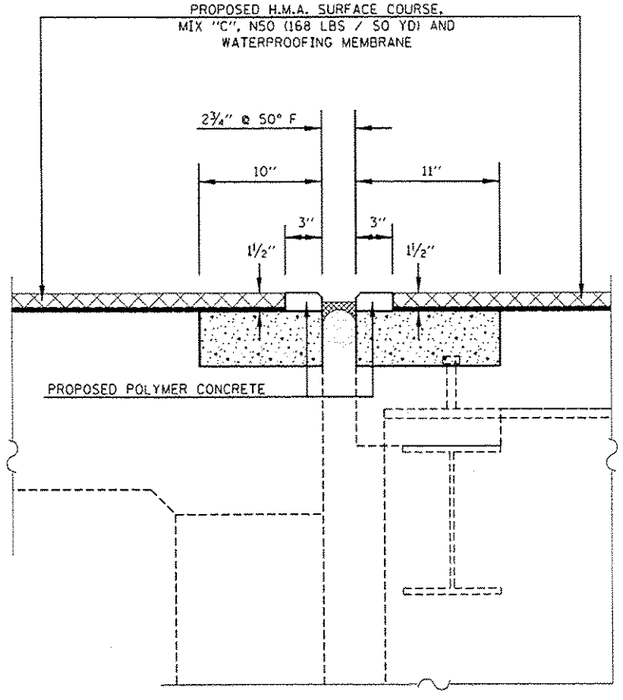
JOINT REPAIR DETAIL



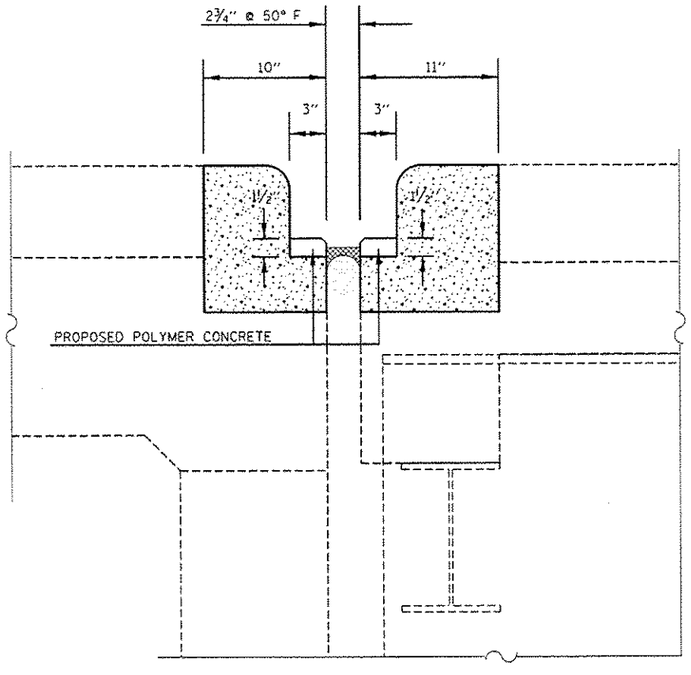
JOINT REPAIR DETAIL THROUGH MEDIAN



SECTION THRU PARAPET



SECTION A-A



SECTION B-B

NOTES:

SEE SUPERSTRUCTURE REPAIR DETAILS FOR REINFORCEMENT REQUIRED.

BILL OF MATERIALS

ITEM	UNIT	TOTAL
SILICONE JOINT SEALER, 2.75"	FOOT	136.0
POLYMER CONCRETE	CU FT	8.1

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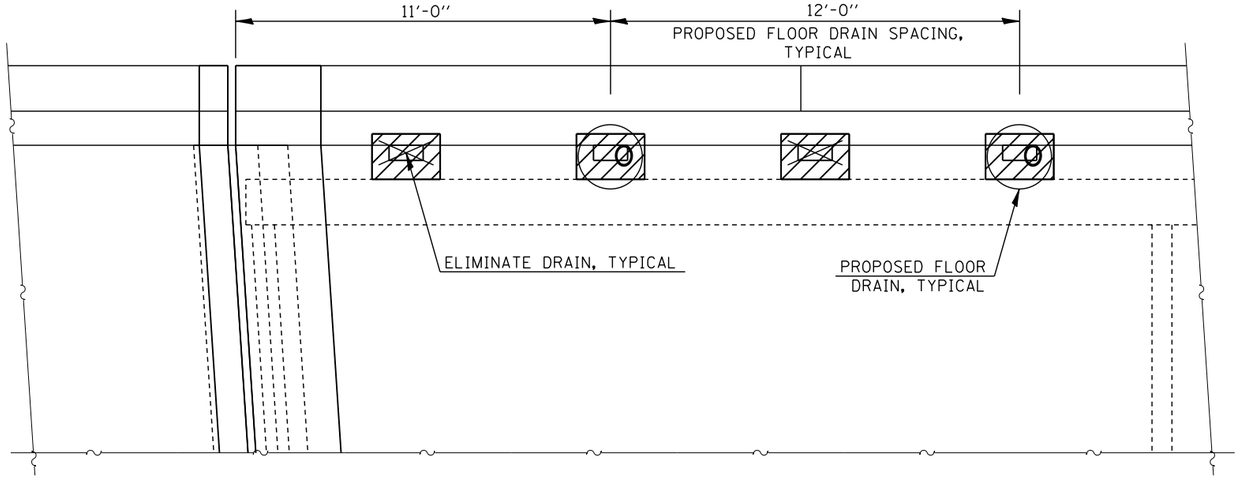
		DRAWN - ESS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 1/22/2015	DATE - 5-30-14	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SILICONE JOINT SEAL DETAILS
S.N. 074-0071

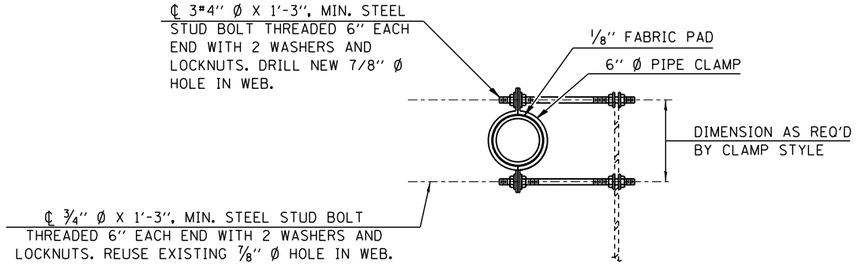
SCALE: | SHEET 12 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	19
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		



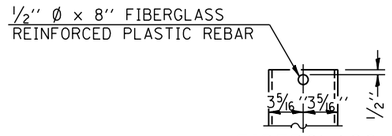
PLAN VIEW OF DRAINS

(TYPICAL EACH END - BOTH SIDES)

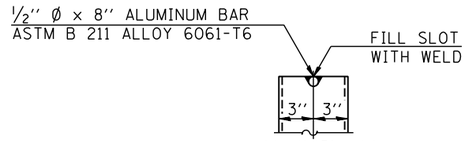


SECTION A-A

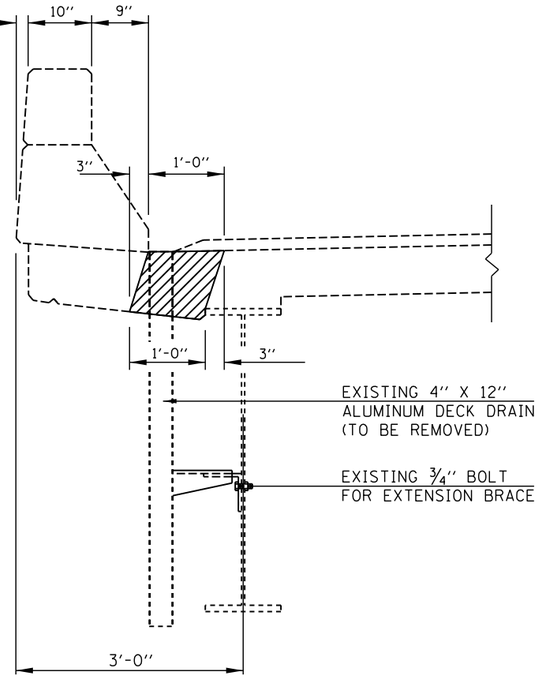
SHOWING PIPE CLAMP ANCHORAGE STYLE



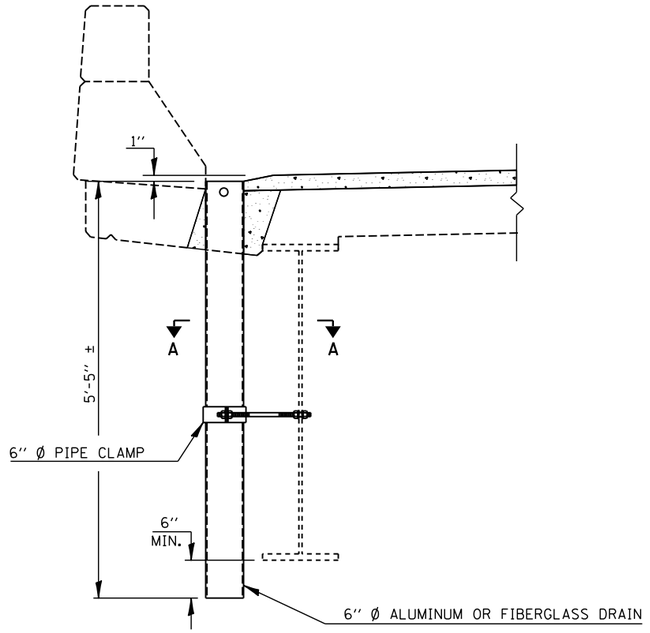
FIBERGLASS PIPE



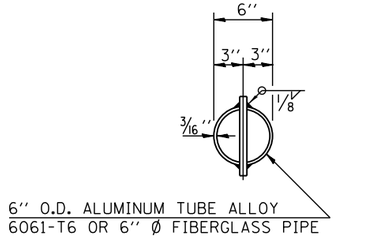
ALUMINUM TUBE



SECTION AT EXISTING DRAIN



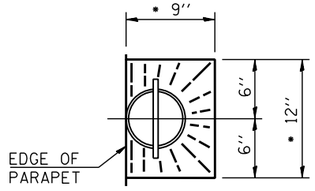
SECTION AT PROPOSED DRAIN



6'' O.D. ALUMINUM TUBE ALLOY 6061-T6 OR 6'' Ø FIBERGLASS PIPE

TOP PLAN

(ALUMINUM TUBE SHOWN)



TOP PLAN

* SLOPE TO DRAIN

LEGEND

- EXISTING DECK DRAINS (TO BE REPLACED WITH FLOOR DRAINS)
- EXISTING DECK DRAINS (TO BE ELIMINATED)
- DECK SLAB REPAIR (FULL DEPTH, TYPE I)

NOTES:

THE EXTERIOR SURFACES OF THE FLOOR DRAINS SHALL BE PAINTED WITH THE FINISH COAT AS SPECIFIED IN THE SPECIAL PROVISIONS FOR CLEANING AND PAINTING NEW METAL STRUCTURES. THE EXTERIOR SURFACES OF THE DRAINS SHALL BE CLEANED ACCORDING TO SOCIETY OF PROTECTIVE COATING'S SPEC. SSPC-SP1 PRIOR TO PAINTING. FIBERGLASS PIPE SHALL CONFORM TO ASTM D 2996, WITH SHORT-TIME RUPTURE STRENGTH HOOP TENSILE STRESS OF 30,000 P.S.I. MINIMUM. GALVANIZE CLAMPING DEVICE ACCORDING TO AASHTO M232. COST OF CLAMPING DEVICE AND GALVANIZING INCLUDED WITH FLOOR DRAINS.

PROPOSED FLOOR DRAIN LOCATIONS HAVE BEEN ADJUSTED APPROXIMATELY 5'' TO ALLOW FOR THE REUSE OF THE EXISTING HOLES IN THE STEEL GIRDER WEBS.

ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO ORDERING OF MATERIALS.

COST OF REMOVAL OF EXISTING DRAINS IS INCLUDED IN DECK SLAB REPAIR. SEE SHEETS 18-19 FOR QUANTITES OF DECK SLAB REPAIRS AT DRAINS.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
FLOOR DRAINS	EACH	8

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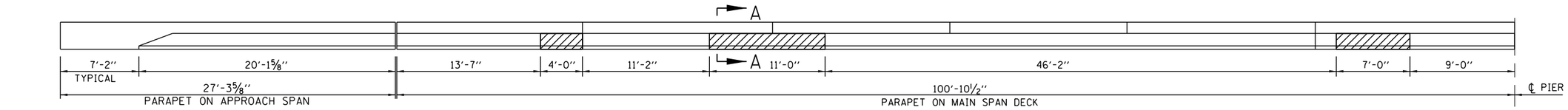
$MODELNAME$	PLOT DATE = 12/2/2014	DATE - 7-25-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

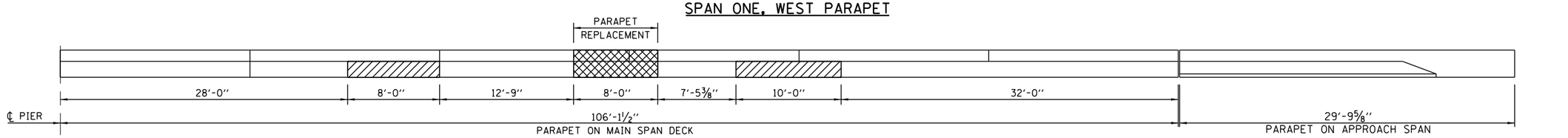
FLOOR DRAIN DETAILS
S.N. 074-0071

SCALE: | SHEET 13 OF 40 SHEETS | STA. | TO STA.

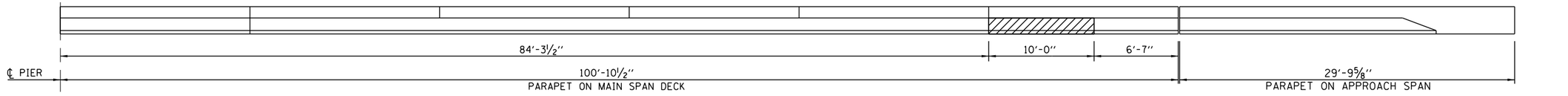
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)1	PIATT	72	20
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



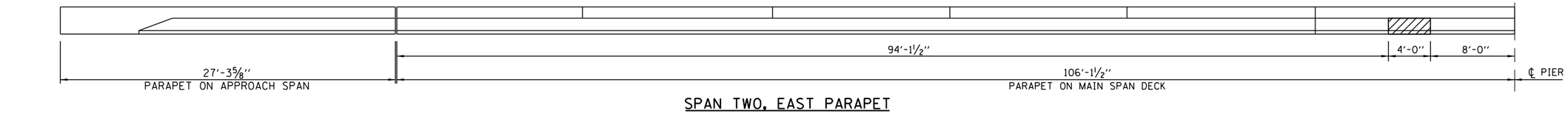
SPAN ONE, WEST PARAPET



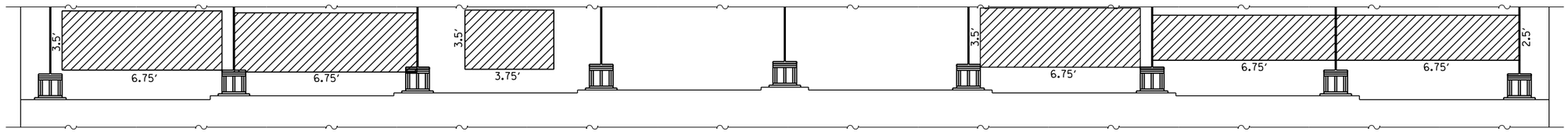
SPAN TWO, WEST PARAPET



SPAN ONE, EAST PARAPET

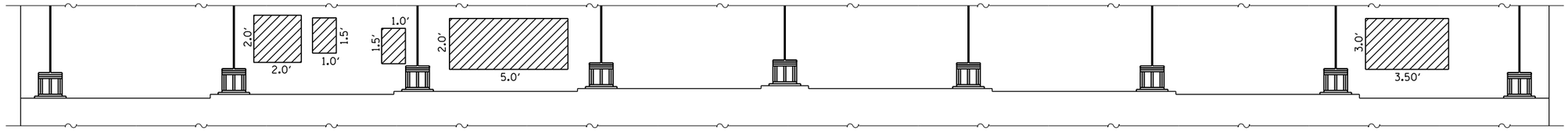


SPAN TWO, EAST PARAPET



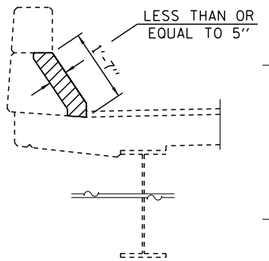
ELEVATION - NORTH ABUTMENT

(LOOKING NORTH)



ELEVATION - SOUTH ABUTMENT

(LOOKING SOUTH)



SECTION A-A

SHOWING TYPICAL REMOVAL LIMITS FOR STRUCTURAL REPAIR OF CONCRETE ON PARAPETS

NOTE:

SEE SPECIAL PROVISION FOR STRUCTURAL REPAIR OF CONCRETE.

COST OF PARAPET REPLACEMENT INCLUDED WITH CONCRETE REMOVAL AND SUPERSTRUCTURE CONCRETE.

LEGEND

STRUCTURAL REPAIR OF CONCRETE, DEPTH EQUAL TO OR LESS THAN 5"

BILL OF MATERIALS

ITEM	UNIT	TOTAL
STRUCTURAL REPAIR OF CONCRETE (DEPTH LESS THAN OR EQUAL TO 5")	SQ FT	231.0
PROTECTIVE COAT	SQ YD	25.7

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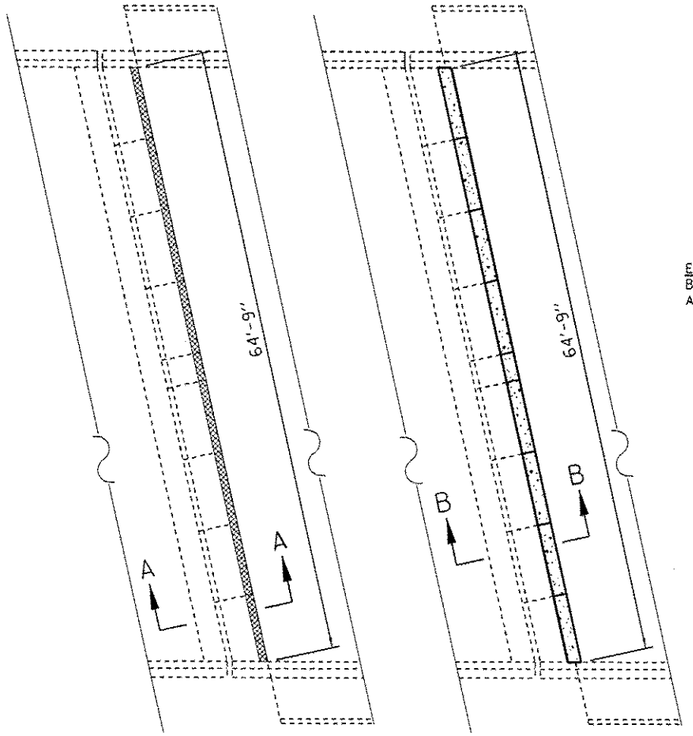
	PLOT DATE = 12/2/2014	DATE - 10-17-12	REVISED - 7-29-2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PLAN FOR STRUCTURAL REPAIR OF CONCRETE
S.N. 074-0071

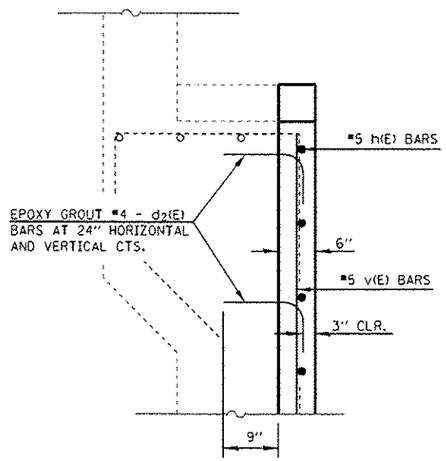
SCALE: | SHEET 14 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	21
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		



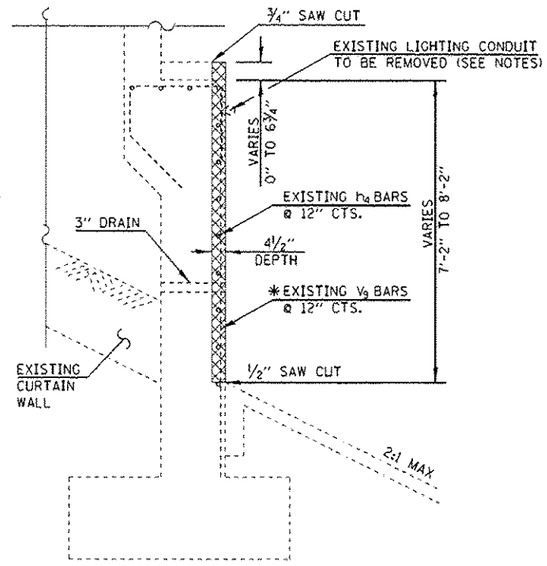
REMOVAL PLAN
SOUTH ABUTMENT

PROPOSED PLAN
SOUTH ABUTMENT

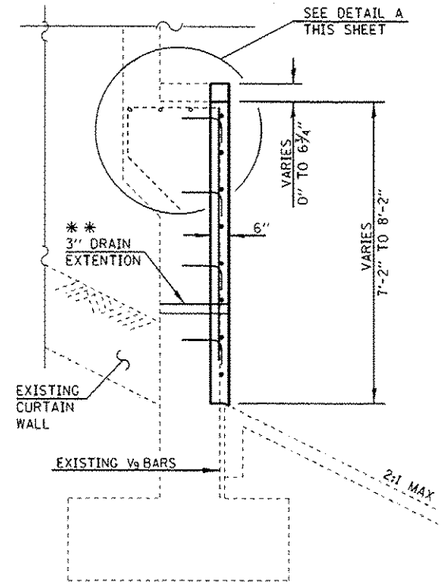


DETAIL A

EPOXY GROUT BARS IN 9" MIN. HOLES ACCORDING TO ARTICLE 584 OF THE STANDARD SPECIFICATIONS.



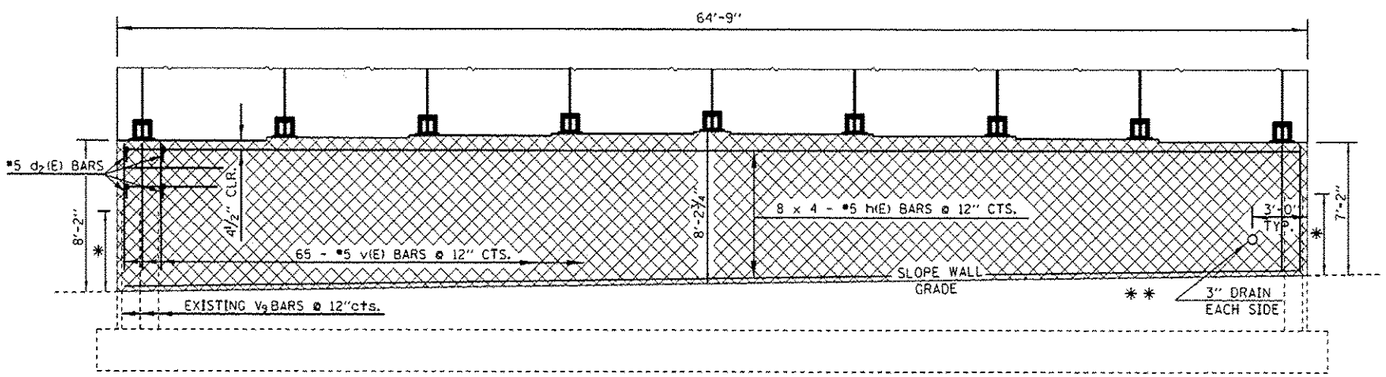
SECTION A-A



SECTION B-B

** EXISTING ABUTMENT DRAINS SHALL BE EXTENDED THRU PROPOSED ABUTMENT FACE WITH PVC. ESTIMATED PIPE LENGTH 2'-3" TO EXTEND THRU THE EXISTING ABUTMENT FACE INTO THE VAULTED ABUTMENT. PIPE DRAIN COST INCLUDED WITH CONCRETE STRUCTURES.

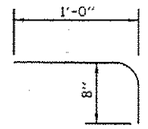
CONCRETE REMOVAL



ELEVATION
SOUTH ABUTMENT

BARS	BAR SIZE	LAP LENGTH
h(E)	#5	2'-7"
v(E)	#5	2'-7" Min.

* CUTOFF HEIGHT OF EXISTING V9 BARS ABOVE CONCRETE REMOVAL LINE IS 4'-4"



BAR d2(E)

BILL OF MATERIAL
(FOR SOUTH ABUTMENT)

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	32	#5	18'-0"	
d2(E)	132	#4	1'-8"	
v(E)	65	#5	6'-6"	
REINFORCEMENT BARS (EPOXY COATED)			POUND	1194.0
CONCRETE REMOVAL			CU YD	7.2
CONCRETE STRUCTURES			CU YD	9.6
PROTECTIVE COAT			SQ YD	61.0

NOTES

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 WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

COST FOR REMOVAL OF ELECTRICAL CONDUIT WILL BE INCLUDED WITH CONCRETE REMOVAL.

THE COST OF EPOXY GROUTING BARS SHALL BE INCLUDED WITH REINFORCEMENT BARS (EPOXY COATED).

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

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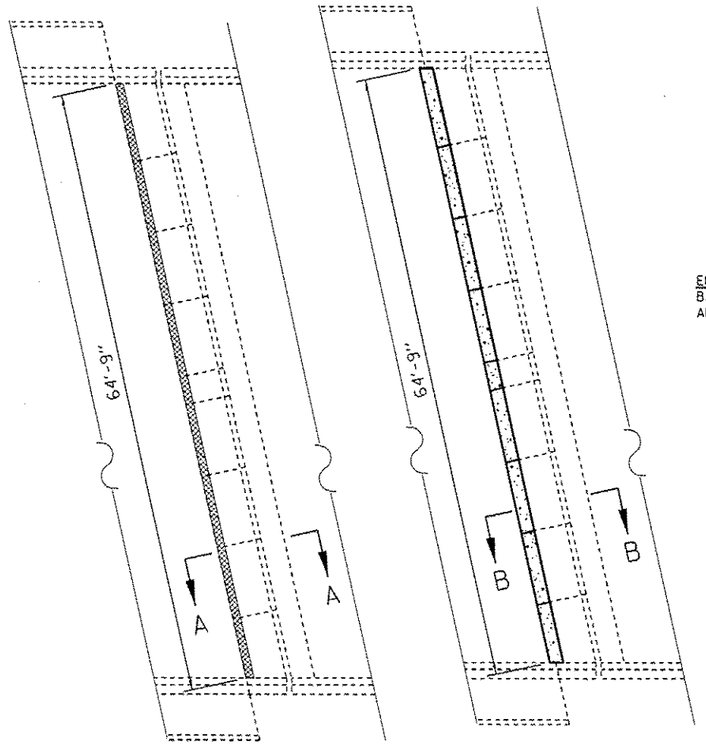
$MODELNAME$	PLOT DATE = 12/2/2014	DATE - 8-5-2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SOUTH ABUTMENT REPAIRS
S.N. 074-0071

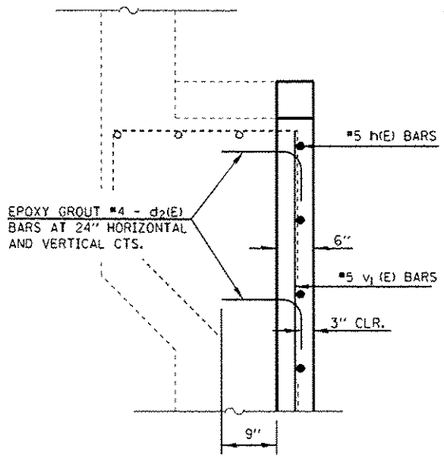
SCALE: | SHEET 15 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BRI)	PIATT	72	22
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		



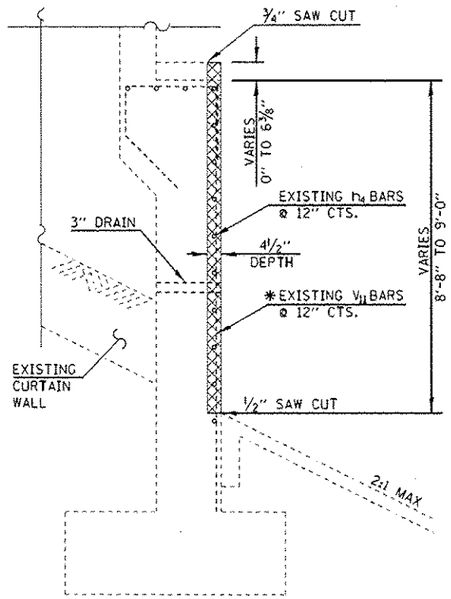
REMOVAL PLAN
SOUTH ABUTMENT

PROPOSED PLAN
SOUTH ABUTMENT

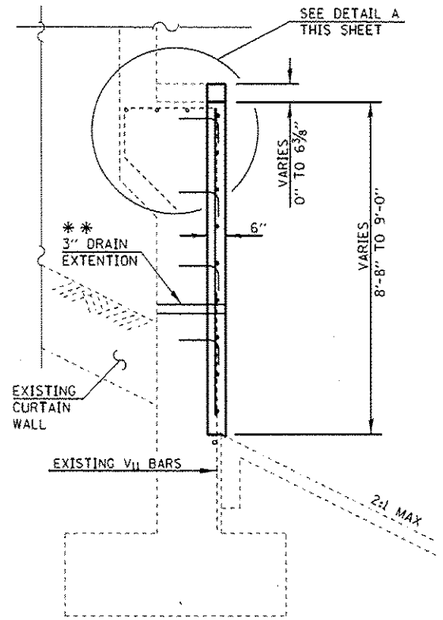


DETAIL A

EPOXY GROUT BARS IN 9" MIN. HOLES ACCORDING TO ARTICLE 584 OF THE STANDARD SPECIFICATIONS.



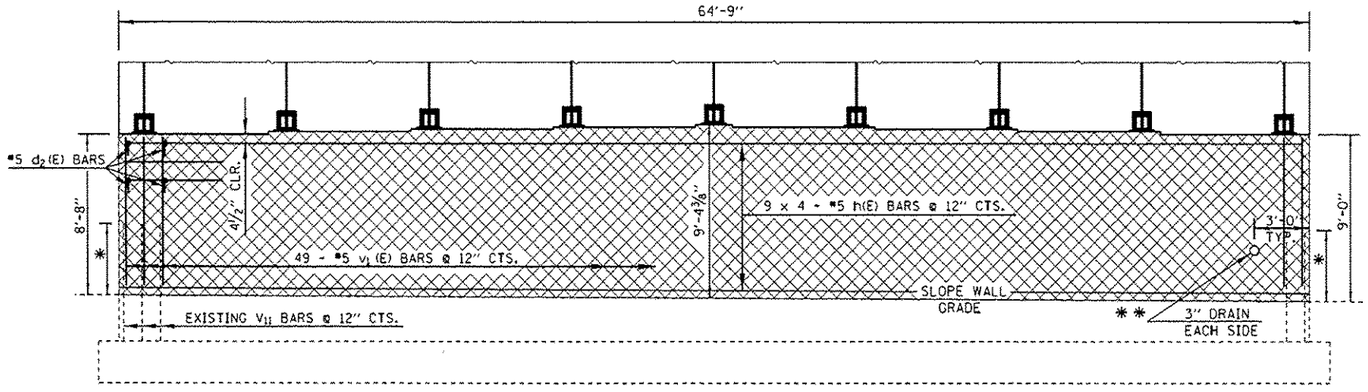
SECTION A-A



SECTION B-B

** EXISTING ABUTMENT DRAINS SHALL BE EXTENDED THRU PROPOSED ABUTMENT FACE WITH PVC. ESTIMATED PIPE LENGTH 2'-3" TO EXTEND THRU THE EXISTING ABUTMENT FACE INTO THE VAULTED ABUTMENT. PIPE DRAIN COST INCLUDED WITH CONCRETE STRUCTURES.

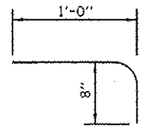
CONCRETE REMOVAL



BARS	BAR SIZE	LAP LENGTH
h(E)	#5	2'-7"
v1(E)	#5	2'-7" Min.

ELEVATION
NORTH ABUTMENT

* CUTOFF HEIGHT OF EXISTING V11 BARS ABOVE CONCRETE REMOVAL LINE IS 3'-10"



BAR d2(E)

BILL OF MATERIAL
(FOR NORTH ABUTMENT)

BAR	NO.	SIZE	LENGTH	SHAPE
h(E)	36	#5	18'-0"	——
d2(E)	132	#4	1'-8"	⌐
v1 (E)	65	#5	7'-6"	——
REINFORCEMENT BARS (EPOXY COATED)		POUND	1336.0	
CONCRETE REMOVAL		CU YD	8.2	
CONCRETE STRUCTURES		CU YD	11.0	
PROTECTIVE COAT		SQ YD	70.0	

NOTES

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 WORK, HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.

THE COST OF EPOXY GROUTING BARS SHALL BE INCLUDED WITH REINFORCEMENT BARS (EPOXY COATED).

REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

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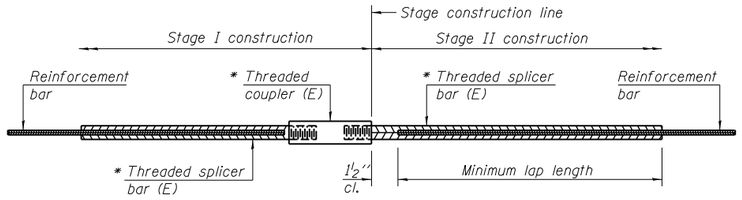
		DRAWN - ESS	REVISED -
	PLOT SCALE = 40.0024 ' / in.	CHECKED - TJB	REVISED -
MODELNAME	PLOT DATE = 12/2/2014	DATE - 8-8-2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

NORTH ABUTMENT REPAIRS
S.N. 074-0071

SCALE: | SHEET 16 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BRI)	PIATT	72	23
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

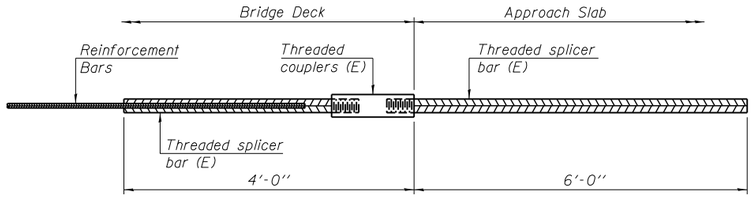
Minimum Lap Lengths						
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5	Table 6
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-7"	2'-11"
5	1'-9"	2'-5"	2'-7"	2'-11"	3'-3"	3'-8"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-10"	4'-5"
7	2'-9"	3'-10"	4'-2"	4'-8"	5'-2"	5'-10"
8	3'-8"	5'-1"	5'-5"	6'-2"	6'-9"	7'-8"
9	4'-7"	6'-5"	6'-10"	7'-9"	8'-7"	9'-8"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Class C
Table 6: Epoxy bar, Top bar top, Class C

Threaded splicer bar length = min. lap length + 1½" + thread length

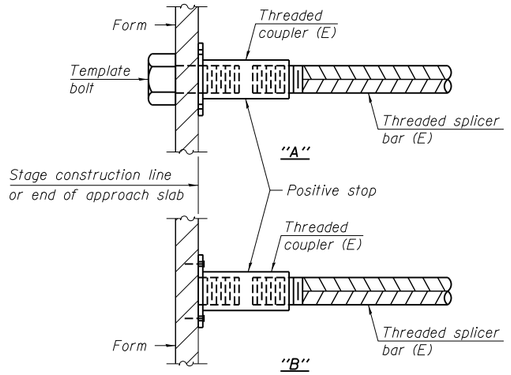
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Structure No.	Location	Bar size	No. assemblies required	Table for minimum lap length
074-0071	HATCH BLOCK	#5	8	3
	DECK END	#6	12	3



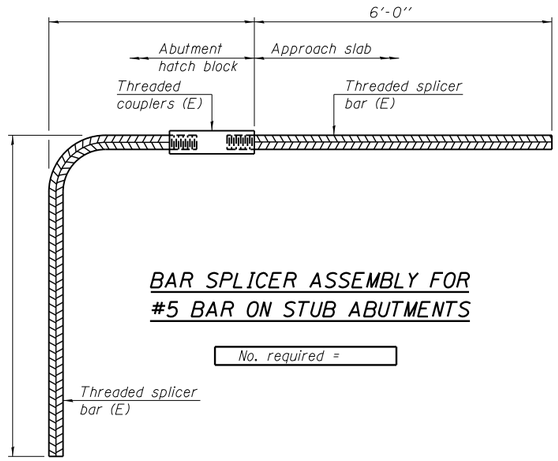
BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. required =



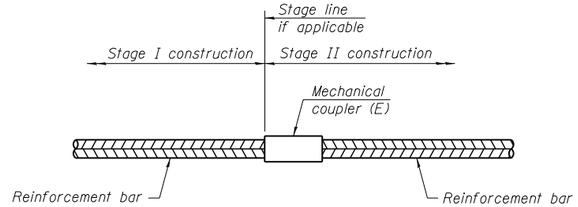
INSTALLATION AND SETTING METHODS

"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.



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required =



STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies 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 1-27-12

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	PLOT DATE = 12/2/2014	DATE -	REVISED -

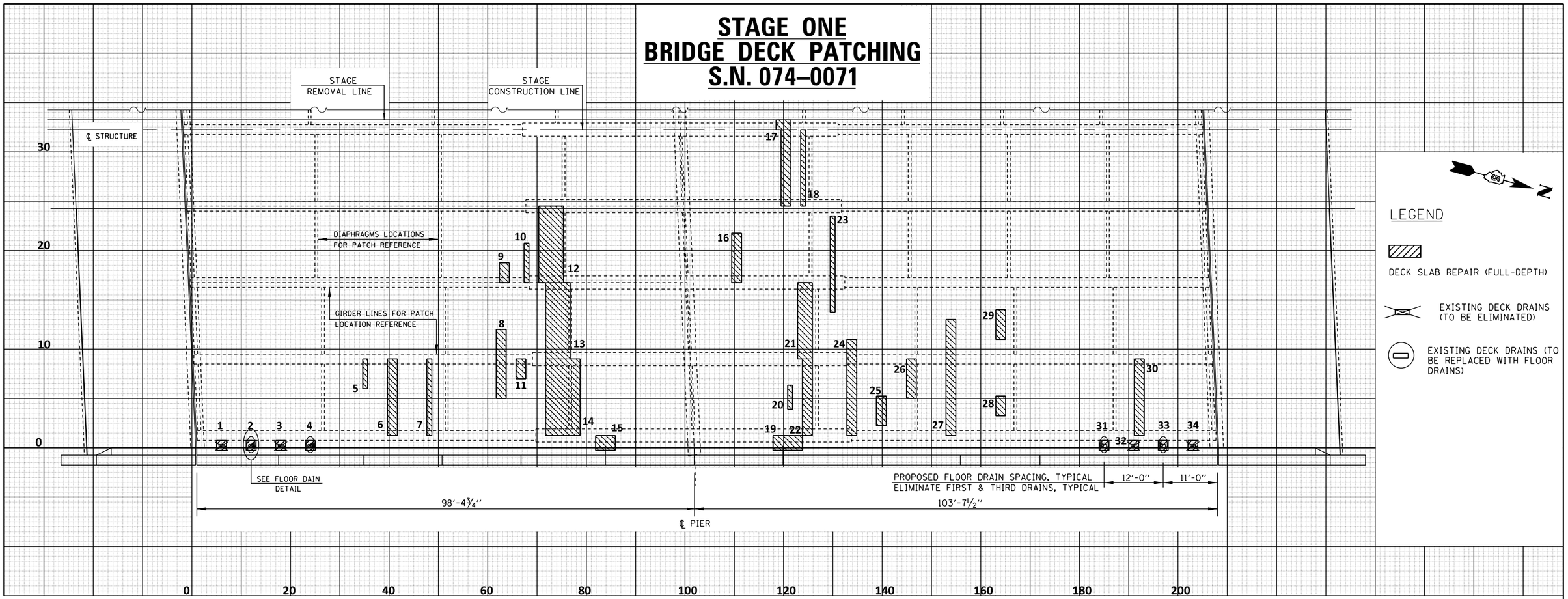
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
S.N. 074-0071

SCALE: | SHEET 17 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	24
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

STAGE ONE
BRIDGE DECK PATCHING
S.N. 074–0071



PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH) SQ FT	DECK SLAB REPAIR (FD TY 1) SQ FT	DECK SLAB REPAIR (FD TY 2) SQ FT	
1	1.00 * 2.00		2.00		
2	1.00 * 2.00		2.00		
3	1.00 * 2.00		2.00		
4	1.00 * 2.00		2.00		
5	3.00 * 1.00		3.00		
6	7.75 * 2.00			15.50	
7	7.75 * 1.00			7.75	
8	7.00 * 2.00			14.00	
9	2.00 * 2.00		4.00		
10	4.00 * 1.00		4.00		
11	2.00 * 2.00		4.00		
12	7.75 * 5.00			38.75	
13	7.75 * 5.00			38.75	
14	7.75 * 7.00			54.25	
15	1.50 * 4.00			6.00	
16	5.00 * 2.00			10.00	
17	8.25 * 2.60			21.45	
18	7.75 * 1.00			7.75	

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH) SQ FT	DECK SLAB REPAIR (FD TY 1) SQ FT	DECK SLAB REPAIR (FD TY 2) SQ FT	
19	1.50 * 6.00			9.00	
20	2.50 * 1.00		2.50		
21	7.75 * 3.00			23.25	
22	7.75 * 2.00			15.50	
23	9.75 * 1.00			9.75	
24	9.75 * 2.00			19.50	
25	3.00 * 2.00			6.00	
26	4.00 * 2.00			8.00	
27	11.75 * 2.00			23.50	
28	2.00 * 2.00		4.00		
29	3.00 * 2.00			6.00	
30	7.75 * 2.00			15.50	
31	1.00 * 2.00		2.00		
32	1.00 * 2.00		2.00		
33	1.00 * 2.00		2.00		
34	1.00 * 2.00		2.00		

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH) SQ FT	DECK SLAB REPAIR (FD TY 1) SQ FT	DECK SLAB REPAIR (FD TY 2) SQ FT	
	STAGE ONE PATCHING TOTALS				
	PARTIAL DEPTH				
	ESTIMATED				
	USE 34 SQ YD				
	FULL DEPTH, TYPE 1				
	37.5 / 9 = 4.2				
	USE 5.0 SQ YD				
	FULL DEPTH, TYPE 2				
	350.2 / 9 = 38.9				
	USE 42. 0 SQ YD				

DECK SURVEY PERFORMED ON SEPTEMBER 13, 2012. THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

DECK SLAB REPAIR (PARTIAL) IS AN ESTIMATED QUANTITY

PATCHS ACTUAL SIZE AND LOCATION SHOULD BE SHOWN ON THIS SHEET.

STAGE ONE
BILL OF MATERIALS

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (FULL DEPTH, TY I)	SQ YD	5.0
DECK SLAB REPAIR (FULL DEPTH, TY II)	SQ YD	42.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	34.0

0071

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	PLOT DATE = 12/2/2014	DATE - 7-22-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

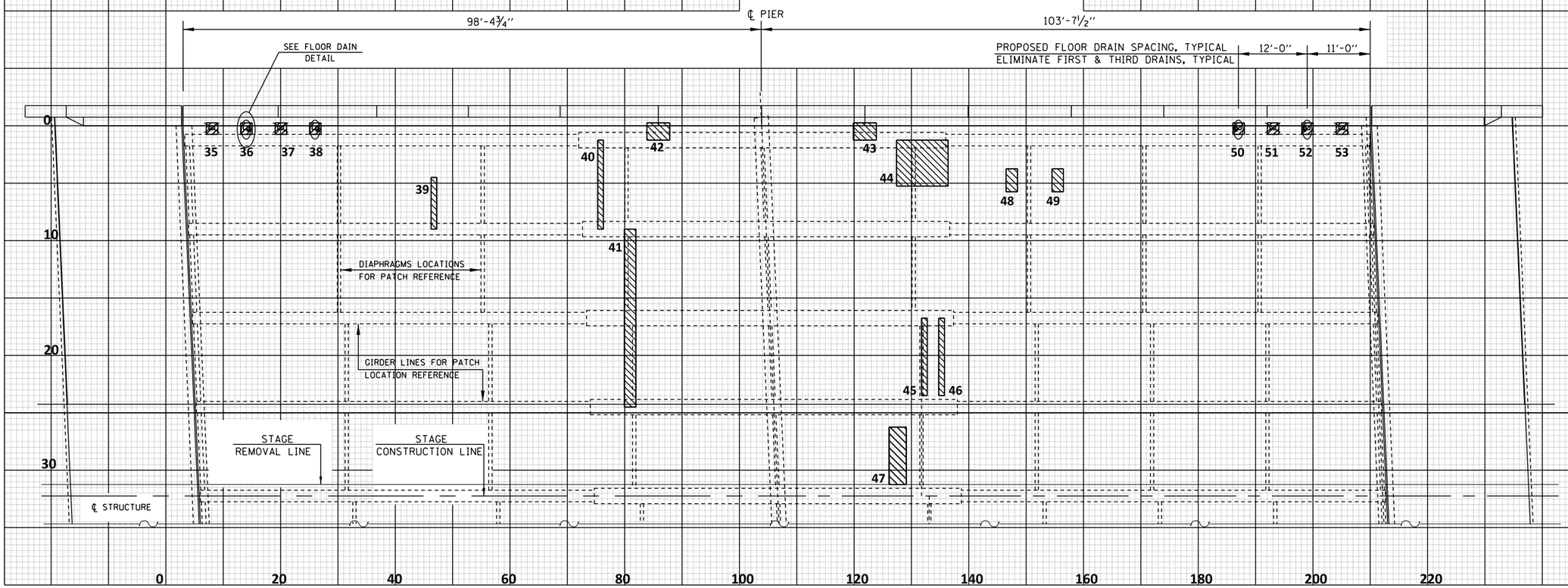
STAGE ONE BRIDGE DECK PATCHING
S.N. 074–0071

SCALE: | SHEET NO. 18 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	25
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

BRIDGE DECK PATCHING

STAGE TWO
BRIDGE DECK PATCHING
S.N. 074–0071



LEGEND

DECK SLAB REPAIR (FULL-DEPTH)

EXISTING DECK DRAINS (TO BE ELIMINATED)

EXISTING DECK DRAINS (TO BE REPLACED WITH FLOOR DRAINS)

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH) SQ FT	DECK SLAB REPAIR (FD TY 1) SQ FT	DECK SLAB REPAIR (FD TY 2) SQ FT	
35	1.00 * 2.00		2.00		
36	1.00 * 2.00		2.00		
37	1.00 * 2.00		2.00		
38	1.00 * 2.00		2.00		
39	4.50 * 1.00		4.50		
40	7.75 * 1.00			7.75	
41	15.50 * 2.00			31.00	
42	1.50 * 4.00			6.00	
43	1.50 * 4.00			6.00	
44	4.00 * 9.00			36.00	

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH) SQ FT	DECK SLAB REPAIR (FD TY 1) SQ FT	DECK SLAB REPAIR (FD TY 2) SQ FT	
45	6.75 * 1.00			6.75	
46	6.75 * 1.00			6.75	
47	5.00 * 3.00			15.00	
48	2.00 * 2.00		4.00		
49	2.00 * 2.00		4.00		
50	1.00 * 2.00		2.00		
51	1.00 * 2.00		2.00		
52	1.00 * 2.00		2.00		
53	1.00 * 2.00		2.00		

PATCH NO.	SIZE	DECK SLAB REPAIR (PART DEPTH) SQ FT	DECK SLAB REPAIR (FD TY 1) SQ FT	DECK SLAB REPAIR (FD TY 2) SQ FT	
	STAGE ONE PATCHING TOTALS				
	PARTIAL DEPTH				
	ESTIMATED				
	USE 34 SQ YD				
	FULL DEPTH, TYPE 1				
	28.5 / 9 = 3.2				
	USE 4.0 SQ YD				
	FULL DEPTH, TYPE 2				
	115.3 / 9 = 12.8				
	USE 16.0 SQ YD				

DECK SURVEY PERFORMED ON SEPTEMBER 13, 2012. THE LOCATIONS AND SIZES SHOWN GRAPHICALLY ABOVE ARE APPROXIMATE. SEE THIS TABLE FOR ACTUAL SIZES.

DECK SLAB REPAIR (PARTIAL) IS AN ESTIMATED QUANTITY

PATCHS ACTUAL SIZE AND LOCATION SHOULD BE SHOWN ON THIS SHEET.

STAGE TWO
BILL OF MATERIALS

ITEM	UNIT	TOTAL
DECK SLAB REPAIR (FULL DEPTH, TY I)	SQ YD	4.0
DECK SLAB REPAIR (FULL DEPTH, TY II)	SQ YD	16.0
DECK SLAB REPAIR (PARTIAL)	SQ YD	34.0

0071

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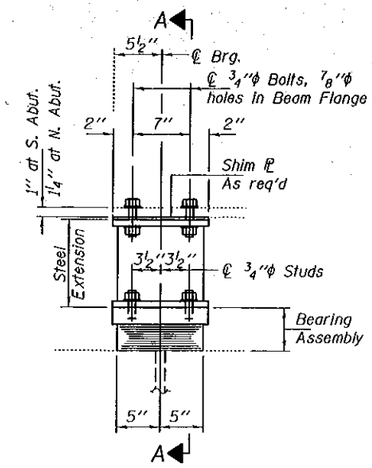
	PLOT DATE = 12/2/2014	DATE - 7-22-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

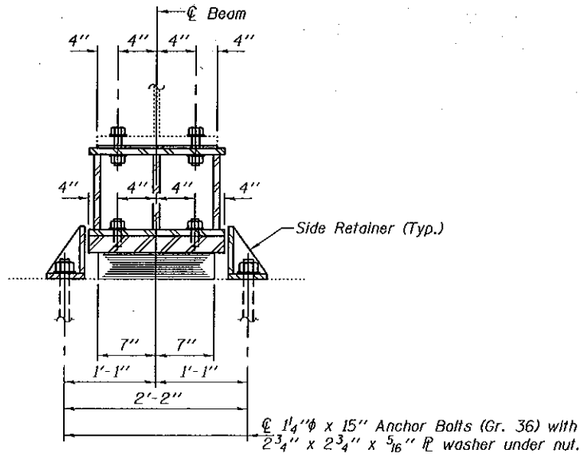
STAGE TWO BRIDGE DECK PATCHING
S.N. 074–0071

SCALE: | SHEET NO. 19 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	26
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



ELEVATION AT ABUTMENT



SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.

BEAM REACTIONS

RP	(K)	51.9
R℄	(K)	50.9
Imp.	(K)	11.0
R (Total)	(K)	113.8

Notes:

Diaphragm removal and reinstallation may be required to facilitate drilling holes. Cost included with Furnishing and Erecting Structural Steel.

New steel extensions, shim plates and connection bolts are included with Furnishing and Erecting Structural Steel.

Prior to ordering any material, the Contractor shall verify in the field all bearing height and shim thickness dimensions.

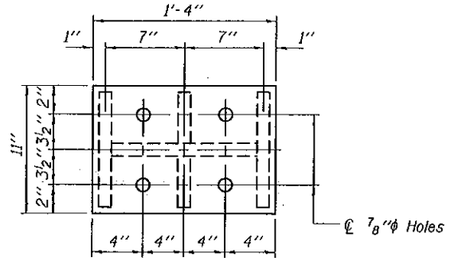
Min. jack capacity = 65 Tons.

Anchor bolts shall be ASTM F1554 all-thread (or an Engineer-approved alternate material) of the grade(s) and diameter(s) specified. ASTM A307 Grade C anchor bolts may be used in lieu of ASTM F1554 Grade 36 (Fy=36ksi). The corresponding specified grade of AASHTO M314 anchor bolts may be used in lieu of ASTM F1554.

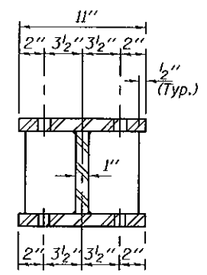
Anchor bolts at fixed bearings may be either cast in place or installed in holes drilled after the supported member is in place.

Drilled and set anchor bolts shall be installed according to Article 521.06 of the Standard Specifications.

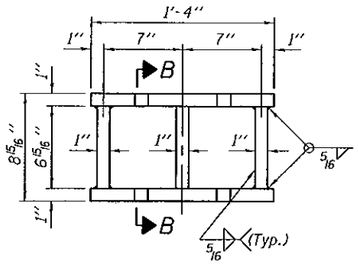
Side retainers shall be included in the cost of Elastomeric Bearing Assembly, Type I.



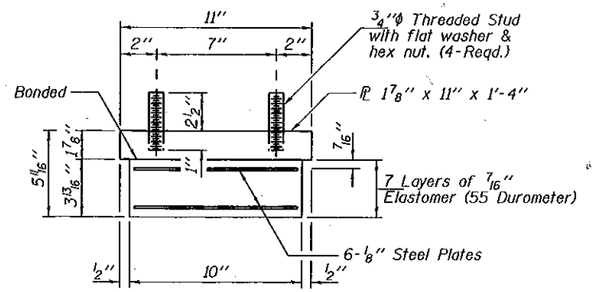
PLAN TOP AND BOTTOM PLATE



SECTION B-B

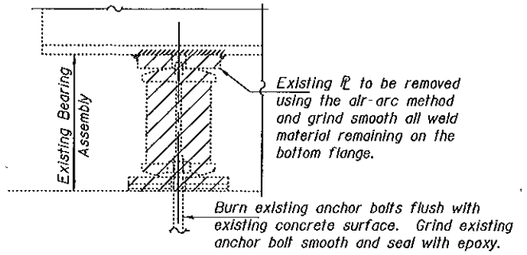


STEEL EXTENSION DETAIL



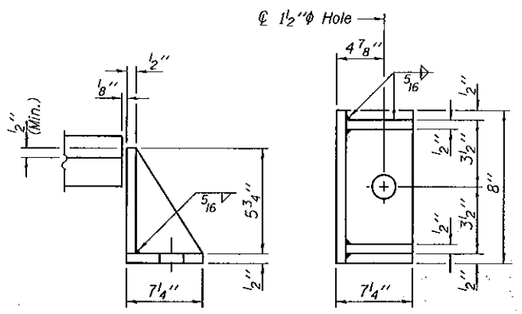
BEARING ASSEMBLY

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



EXISTING BEARING REMOVAL DETAIL

Cost included with Jack and Remove Existing Bearings.



SIDE RETAINER

Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

BILL OF MATERIAL (2 ABUTMENTS)

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	18
Jack and Remove Existing Bearings	Each	18
Furnishing and Erecting Structural Steel	Pound	3320
Anchor Bolts 1¼"ϕ	Each	36

PRE-FINAL

DATE: 11/1/2012

TYI/REPS 12-03-2008

DESIGNED	VHV
CHECKED	DAB
DRAWN	baliva
CHECKED	VHV DAB

EXAMINED — ACTING ENGINEER OF STRUCTURAL SERVICES

PASSED — ACTING ENGINEER OF BRIDGES AND STRUCTURES

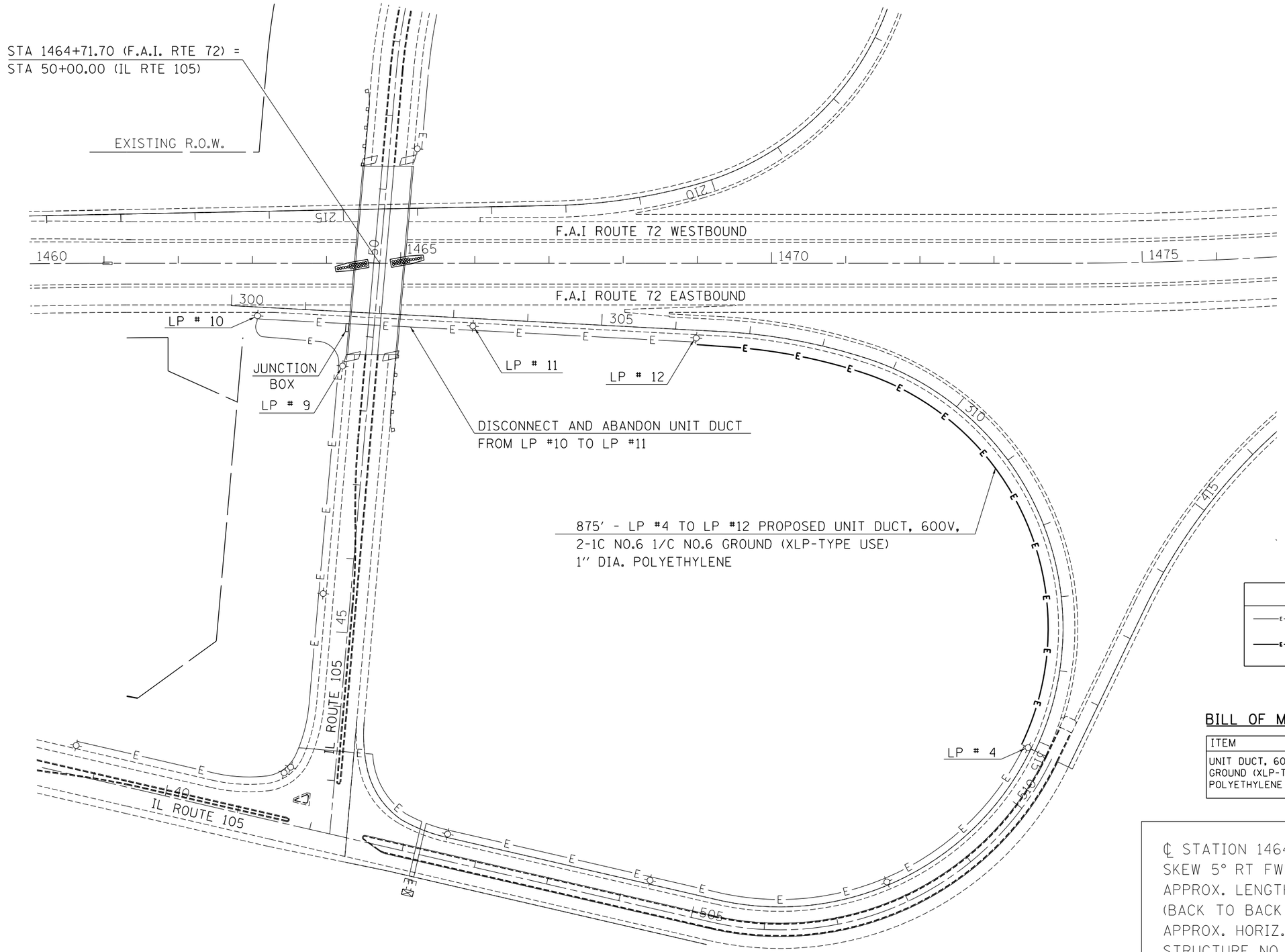
DATE - NOVEMBER 1, 2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT BEARING REPLACEMENT DETAILS
SN 074-0071

SHEET NO. OF SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
72	-	PIATT	-	-
		CONTRACT NO.		
	ILLINOIS FED. AID PROJECT			



SYMBOLS	
E E	EXISTING UNIT DUCT
E E	PROPOSED UNIT DUCT

BILL OF MATERIALS

ITEM	UNIT	TOTAL
UNIT DUCT, 600V, 2-1C NO.6 1/C NO.6 GROUND (XLP-TYPE USE) 1" DIA. POLYETHYLENE	FOOT	875.0

℄ STATION 1464+71.70 (F.A.I. ROUTE 72)
SKEW 5° RT FWD
APPROX. LENGTH 255'-3"
(BACK TO BACK APPR. BENTS)
APPROX. HORIZ. CLEARANCE 68'-0"
STRUCTURE NO. 074-0071

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED -	REVISED -
		DRAWN - CADD	REVISED - ESS
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$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED - 10-29-2014

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

UNIT DUCT LAYOUT

SCALE: | SHEET NO. 21 OF 40 SHEETS | STA. | TO STA.

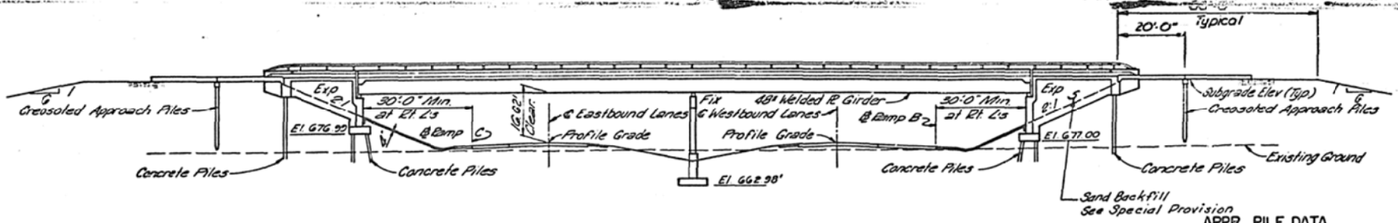
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	28
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		

AS–BUILT PLANS
FOR INFORMATION ONLY

STATE OF ILLINOIS

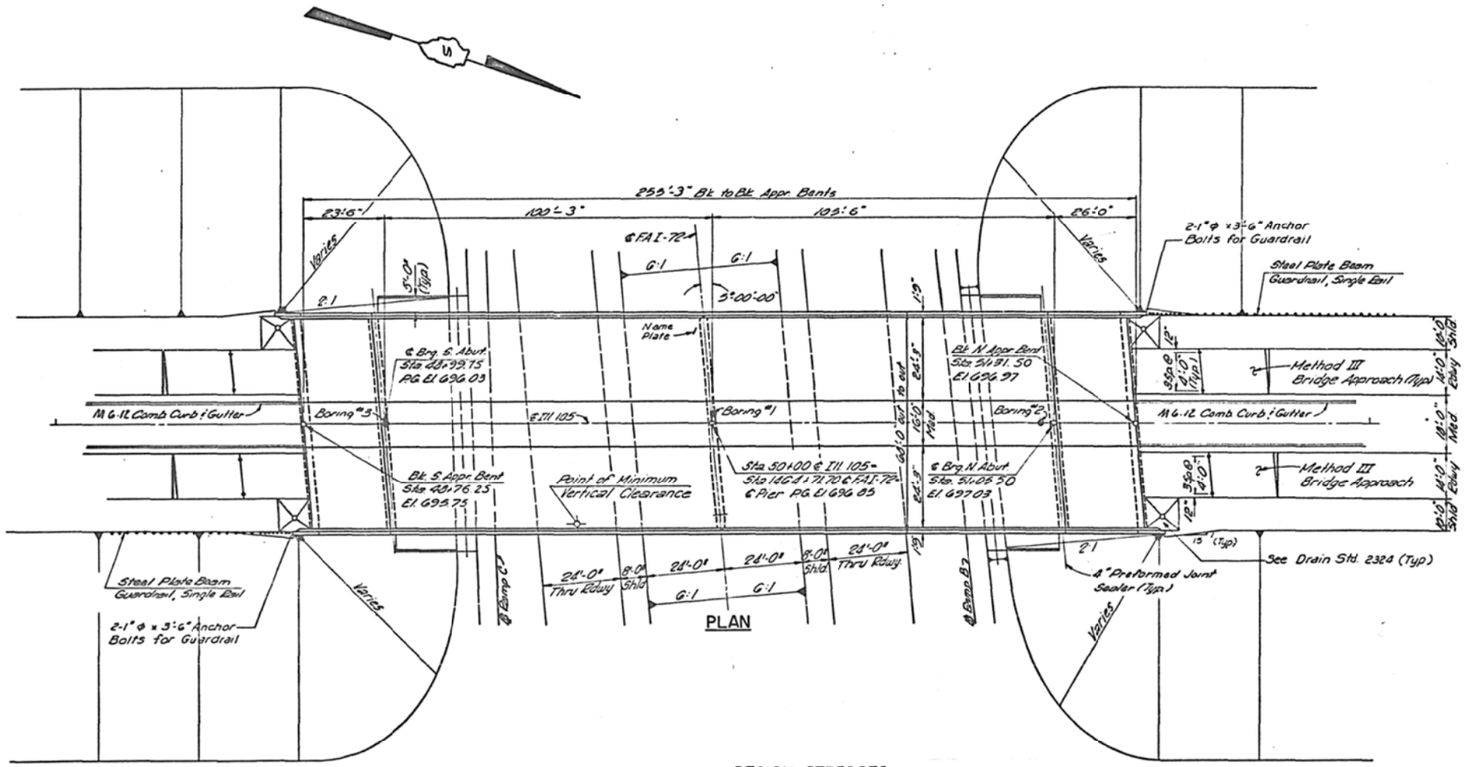
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I.-72	74-68 HB-3	PIATT	33	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
SHEETS 17

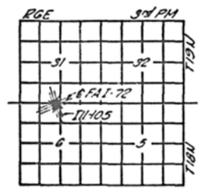


ELEVATION

APPR. PILE DATA
Type: Creosoted
Req'd Length: 22'
No. Req'd. 16



PLAN



LOCATION SKETCH

DESIGN STRESSES
f'c = 1400 psi Curb, Parapet, Substructure & Approaches
fc = 1200 psi Superstructure, Main Spans
Vc = 75 psi Footing
fs = 20,000 psi Reinforcing
fs = 20,000 psi Structural (A 36)
n = 10
LL Deflection = 1/800 (Composite)

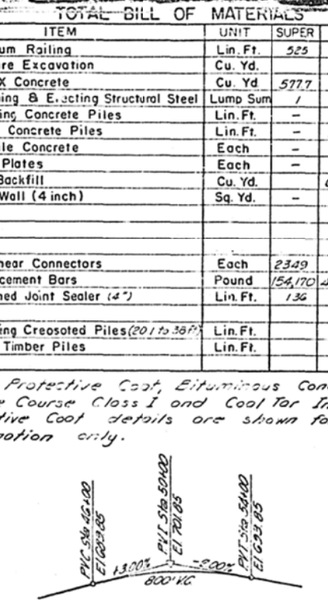
Loading: H S20-44
Allow 25#/S.F. for Future Wearing Surface
Allowable Footing Soil Pressure = 7T/S.F.

BENCHMARK
Division of Highways Monument - Top of Std. Bronze Cap set in concrete at P.T. of existing curve in I-72. Sta 1463+65, Elev 671.16.

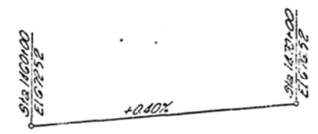
TOTAL BILL OF MATERIALS

ITEM	UNIT	SUPER	SUB	TOTAL
Aluminum Railing	Lin. Ft.	525	–	525
Structure Excavation	Cu. Yd.		250	250
Class X Concrete	Cu. Yd	577.7	406.6	984.3
Furnishing & Erecting Structural Steel	Lump Sum	1	–	1
Furnishing Concrete Piles	Lin. Ft.	–	2186	2186
Driving Concrete Piles	Lin. Ft.	–	2186	2186
Test Pile Concrete	Each	–	2	2
Name Plates	Each	–	1	1
Sand Backfill	Cu. Yd.		675	675
Slope Wall (4 inch)	Sq. Yd.	–	441	441
Stud Shear Connectors	Each	2349	–	2349
Reinforcement Bars	Pound	154,170	49,070	203,240
Preformed Joint Sealer (4")	Lin. Ft.	136	–	136
Furnishing Creosoted Piles (20' to 38')	Lin. Ft.		352	352
Driving Timber Piles	Lin. Ft.		352	352

Note: Protective Coat, Bituminous Concrete Surface Course Class I and Coal Tar Interlayer Protective Coat details are shown for information only.



PROFILE ILL.-105



PROFILE FAI 72

LOUIS PAUL MOECK
3259
REGISTERED STRUCTURAL ENGINEER
OF
ILLINOIS

APPROVED
FOR STRUCTURAL ADEQUACY ONLY
Engineer of Design & Plans

DESIGNED	O.M.
CHECKED	
DRAWN	C.S.
CHECKED	S.T./L.P.M. 8-72

GENERAL PLAN & ELEVATION
PROJ. I-72-2(53)63
F.A.I. 72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I. 72)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 22 OF 40 SHEETS | STA. | TO STA.

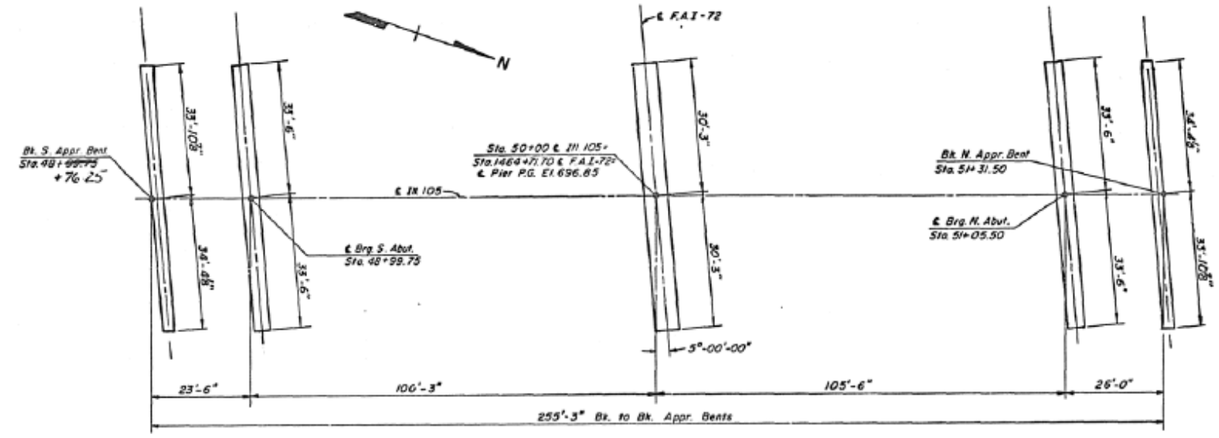
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	29
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

AS–BUILT PLANS
FOR INFORMATION ONLY

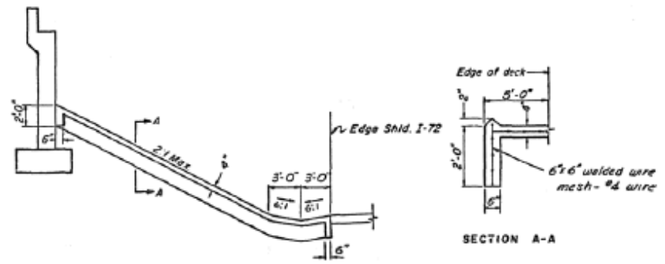
STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.	74-68			
F.A.S.-72	HB-3	PIATT	33	12
FED. ROAD FUND SEC. #	ILLINOIS	FED. AID PROJECT		

SHEET NO. 2
SHEETS 17



FOOTING LAYOUT



SLOPE WALL DETAIL

STATION 1464+72
BUILT 197 BY
STATE OF ILLINOIS
F.A.I. RT. 72 SEC. 74-68-HB-3
F.A. PROJ. I-74-2(53)
LOADING HS 20

BRIDGE NAME PLATE
SEE STD. DWG. 2113

GENERAL NOTES

(1)- All reinforcement bars shall be lapped 24 diameters unless otherwise shown.

(2)- Fasteners shall be high strength bolts. Bolts ¾"ø; open holes 1 3/16"ø, unless otherwise noted.

(3)- Calculated weight of structural steel = 409200 Lbs.

(4)- The basic lead silico chromate paint system shall be used for shop & field painting of structural steel.

(5)- Field welding of construction accessories will not be permitted to the bottom flange of beams or girders nor to the top flange for a distance equal to one-fourth the span length each way from the Pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

(6)- Anchor bolts shall be set before bolting diaphragms over supports.

(7)- Slope wall shall be reinforced with welded wire fabric, 6" x 6" mesh, weighing 58# per 100 Sq. Ft.

(8)- The contractor shall drive 2 concrete test piles in a permanent location-one at south abutment & one at north abutment, & one timber test pile in a permanent location at interior pier as directed by the Engineer before ordering the remainder of piles.

* (9)- Protective coat shall not be applied to surfaces to which coal tar interlayer protective is applied.

(10)- The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

(11)- The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of class X concrete, except the aggregates shall conform to the requirements of handrail concrete.

(12)- Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of ± ⅛ inch. Adjustment shall be made either by grinding the surface or by shimming the bearing. Two ⅛" adjusting shims, of the dimensions of the bottom bearing plate, shall be provided for each bearing in addition to all other plates or shims.

The main load carrying member components subject to the Supplemental Requirements for Notch Toughness are the flanges, webs, and splice plates of the steel girders or wide flange beams.

* For information only.

DESIGNED	RWW
CHECKED	wbc
DRAWN	GAS
CHECKED	RWW 14 AUG 12

SUBSTRUCTURE LAYOUT
F.A.I-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I.-72)

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	PLOT DATE = 12/3/2014	DATE - 10-17-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 23 OF 40 SHEETS | STA. | TO STA.

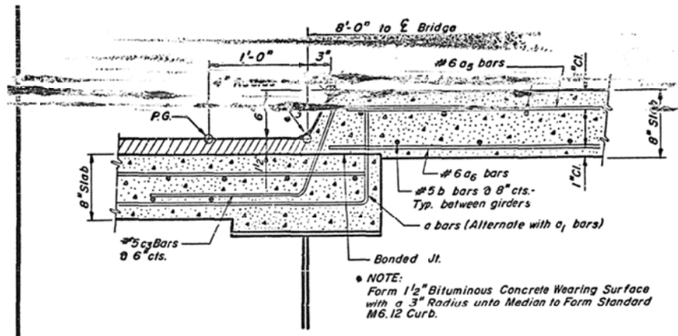
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	30
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS–BUILT PLANS
FOR INFORMATION ONLY

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I.-72	74-6-D 168-3	PIATT	33	16
CONTRACT NO. 1	ILLINOIS	FED. AID PROJECT		

SHEET NO. 6
SHEETS 17

STATE OF ILLINOIS

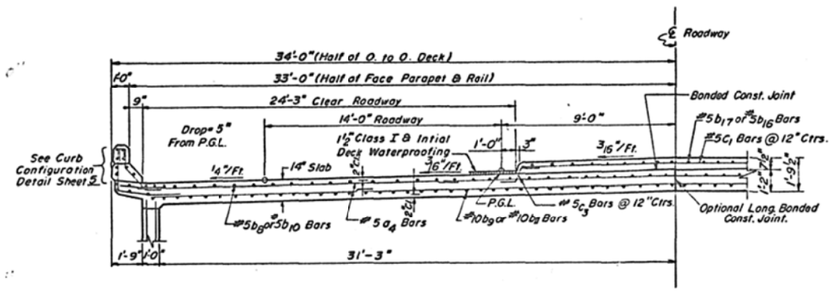


MEDIAN DETAIL (MAIN SPAN)

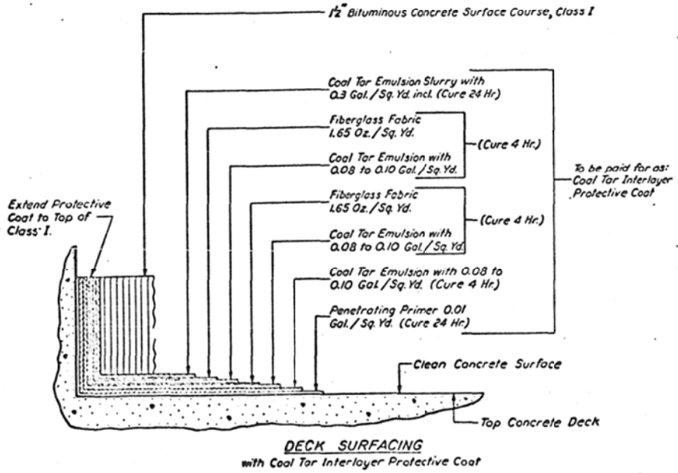
APPROACH SPAN
BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a_2	84	#6	4'-0"	—
a_4	372	#5	22'-4"	—
b_8	65	#5	21'-8"	—
b_9	119	#10	24'-6"	⌒
b_{10}	65	#5	24'-6"	—
b_{11}	141	#10	26'-6"	⌒
b_{12}	2	#5	17'-0"	—
b_{13}	10	#5	19'-8"	—
b_{14}	2	#5	19'-6"	—
b_{15}	10	#5	22'-2"	—
b_{16}	15	#5	21'-8"	—
b_{17}	15	#5	24'-2"	—
b_{18}	4	#8	19'-8"	—
b_{19}	4	#8	22'-2"	—
c_3	88	#5	2'-10"	⌐
c_1	44	#5	13'-6"	—
d_1	74	#5	3'-3"	L
d_3	86	#4	6'-8"	L
Reinforcement Bars		Lb.	44,110	
Class X Concrete		Cu. Yd.	169.4	

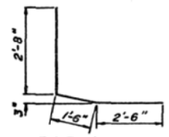
Parapet Reinforcement and Class X Concrete are billed on Sheet # 9.



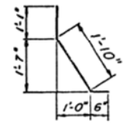
HALF CROSS SECTION
APPROACH SPAN



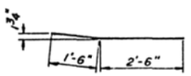
DECK SURFACING
with Coal Tar Interlayer Protective Coat



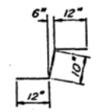
BAR d_3



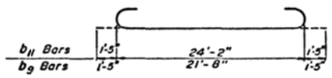
BAR d_1



BAR a_2



BAR c_3



BAR b_9 & b_{11}

DESIGNED	R.W.W.
CHECKED	W.B.C.
DRAWN	G.A.S. & A.G.
CHECKED	W.B.C. 8/12/72

SLAB DETAILS
F.A.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I.-72)

For Information Only

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	PLOT DATE = 12/3/2014	DATE - 10-17-12	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 24 OF 40 SHEETS | STA. | TO STA.

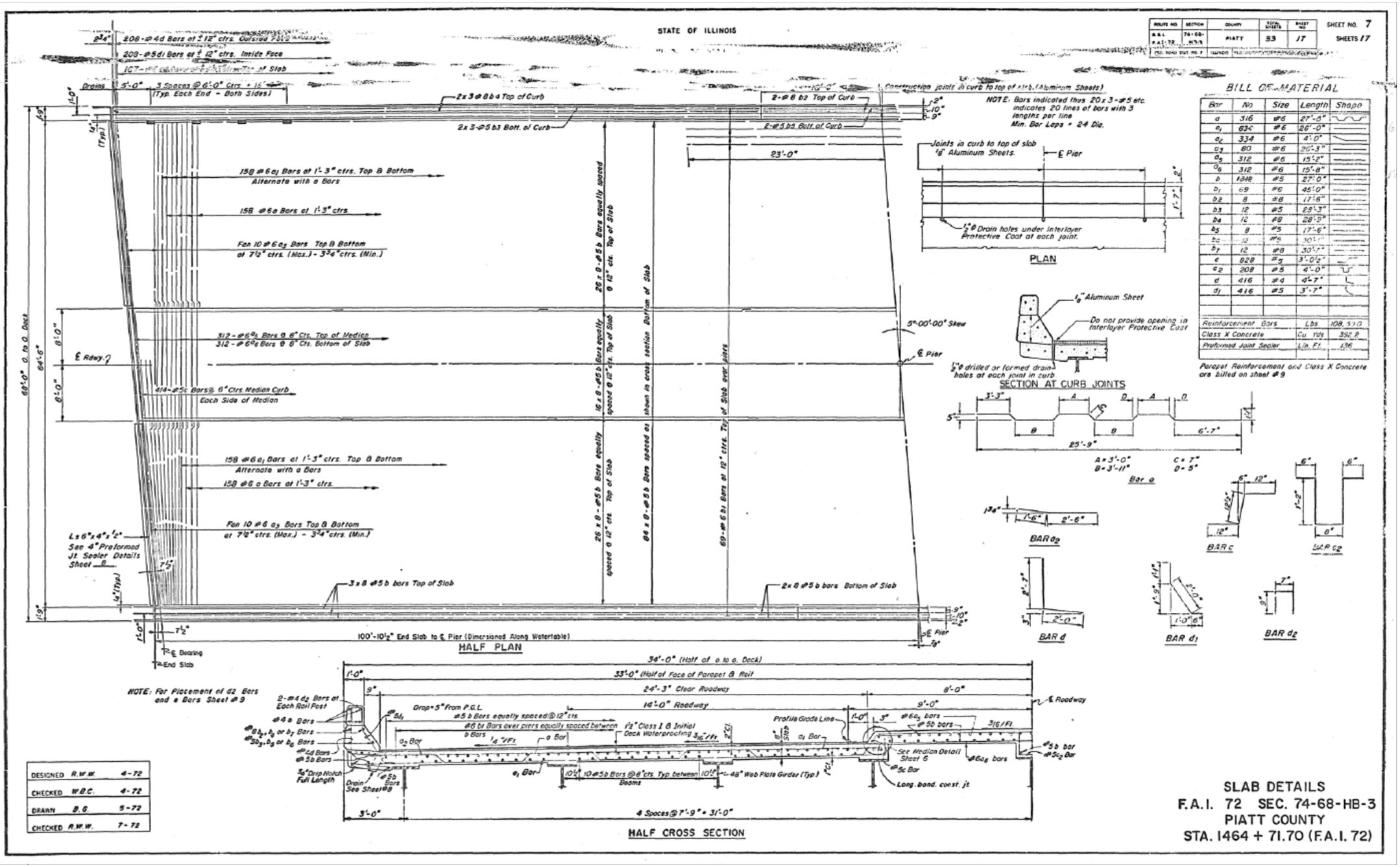
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	31
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS–BUILT PLANS
FOR INFORMATION ONLY

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
R.B.I. 72	74-68-HB/S	PIATT	33	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 7
SHEETS 17



DESIGNED	R.W.W.	4-72
CHECKED	W.B.C.	4-72
DRAWN	B.G.	5-72
CHECKED	R.W.W.	7-72

Joints in curb to top of slab 1/8" Aluminum Sheets.

PLAN

SECTION AT CURB JOINTS

NOTE: Bars indicated thus 20 x 3 - #5 etc. indicates 20 lines of bars with 3 lengths per line
Min. Bar Laps = 24 Dia.

BILL OF MATERIAL

Bar	No	Size	Length	Shape
a	316	#6	27'-6"	
a1	634	#6	26'-0"	
a2	334	#6	4'-0"	
a3	80	#6	20'-3"	
a5	312	#6	15'-2"	
a6	312	#6	15'-8"	
b	1318	#5	27'-0"	
b1	69	#6	45'-0"	
b2	8	#8	17'-6"	
b3	12	#5	29'-3"	
b4	12	#8	28'-9"	
b5	8	#5	17'-6"	
b6	12	#5	30'-1"	
b7	12	#8	30'-7"	
c	928	#4	3'-0 1/2"	
c2	208	#5	4'-0"	
d	416	#4	4'-7"	
d1	416	#5	3'-7"	
Reinforcement Bars			Lbs.	108,330
Class X Concrete			Cu. Yds.	392.2
Preformed Joint Sealer			Lin. Ft.	136

Parapet Reinforcement and Class X Concrete are billed on sheet #9

SLAB DETAILS
F.A.I. 72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464 + 71.70 (F.A.I. 72)

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		DATE - 10-17-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 25 OF 40 SHEETS | STA. | TO STA.

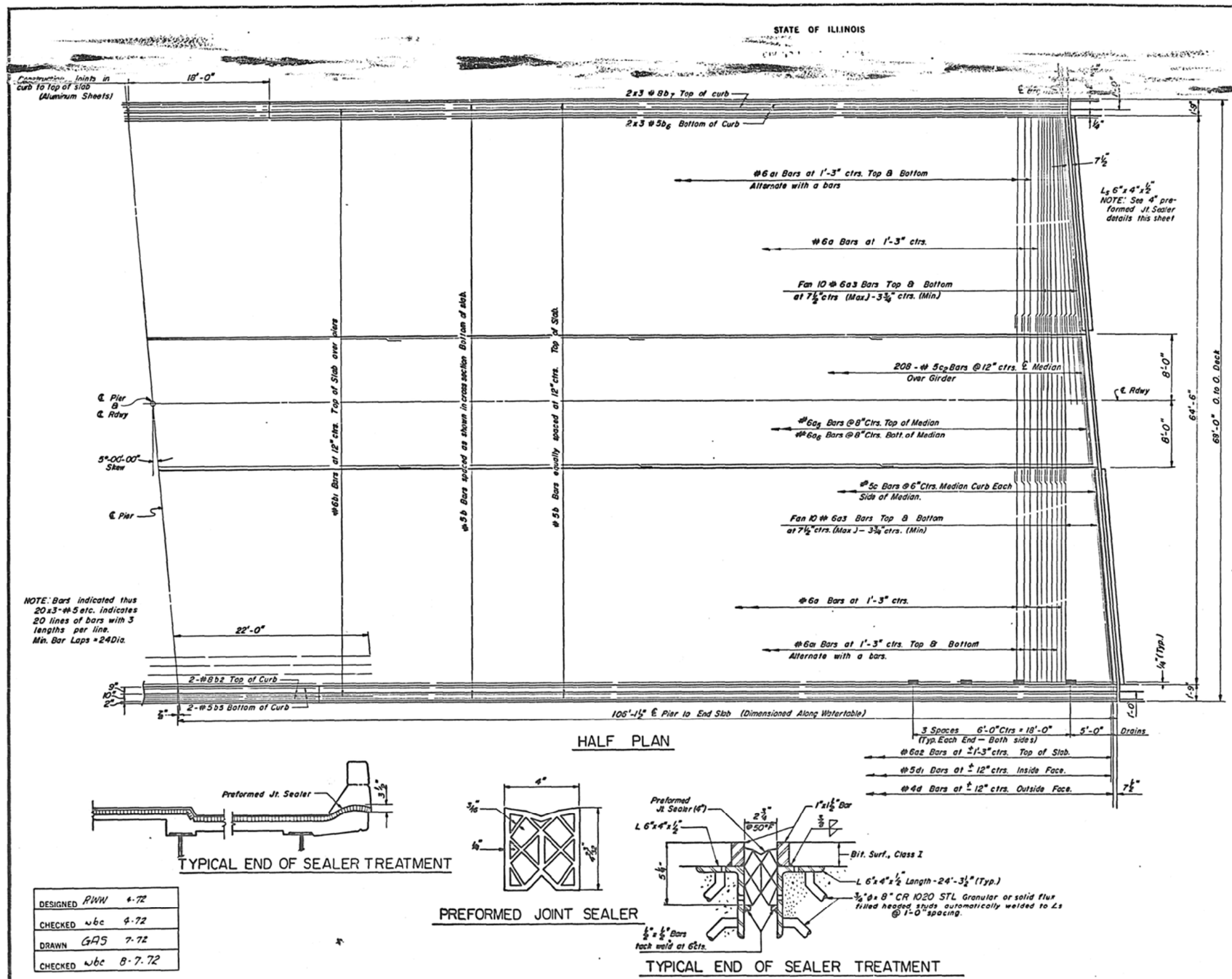
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	32
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS–BUILT PLANS
FOR INFORMATION ONLY

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I.	74-68	PIATT	33	18
F.A.I.-72	HB-3			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 8
SHEETS 17

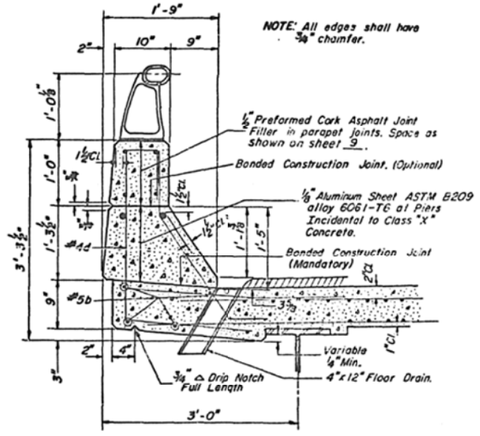


HALF PLAN

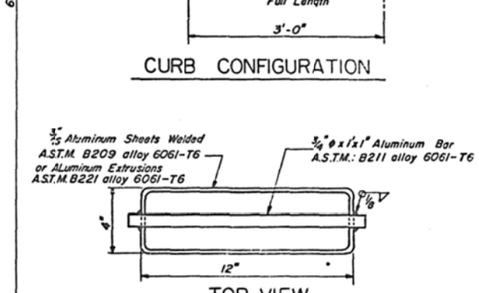
TYPICAL END OF SEALER TREATMENT

PREFORMED JOINT SEALER

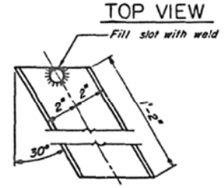
TYPICAL END OF SEALER TREATMENT



CURB CONFIGURATION



TOP VIEW



END VIEW

DECK DRAIN DETAILS
Cost Incidental to Class "X" Concrete

SLAB DETAILS
FA.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I.-72)

DESIGNED	RWW	4-72	
CHECKED	wbc	4-72	
DRAWN	GAS	7-72	
CHECKED	wbc	8-7-72	

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		DATE - 10-17-12	REVISED -		SCALE: SHEET NO. 26 OF 40 SHEETS STA. TO STA.

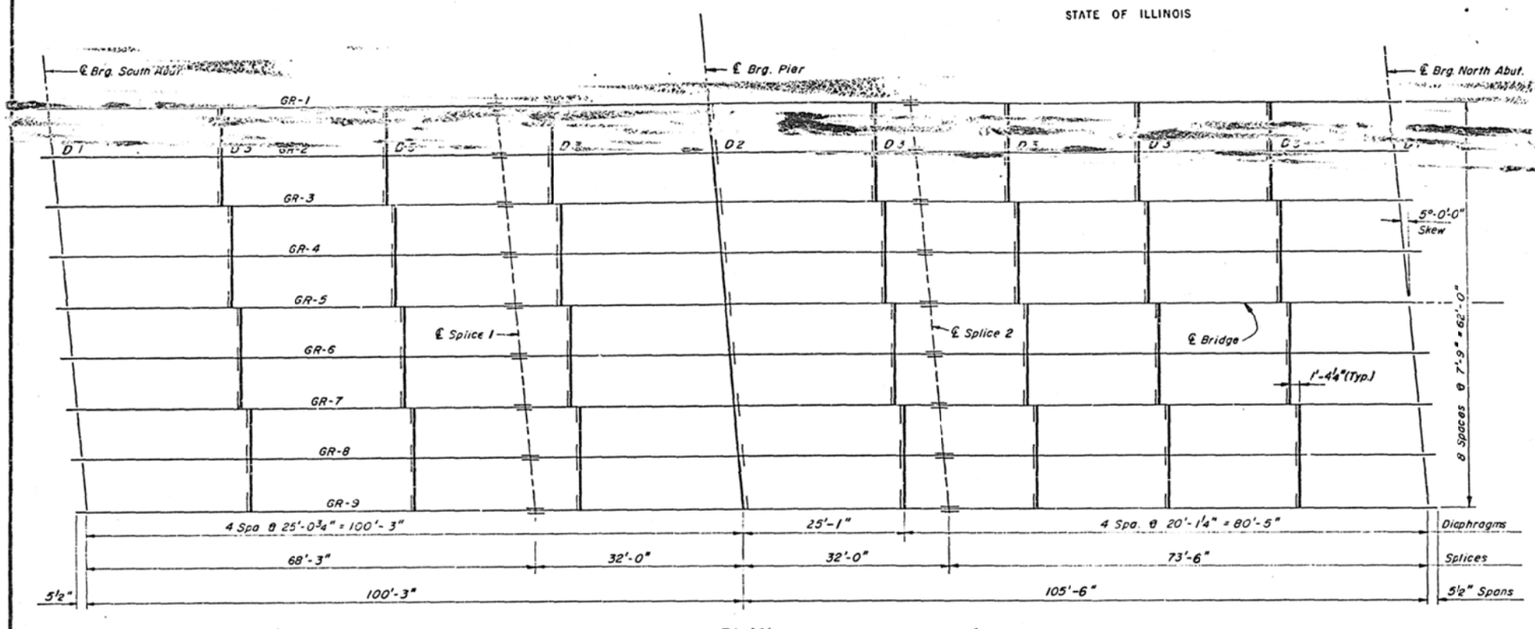
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	33
		CONTRACT NO. 70A75		
		ILLINOIS	FED. AID PROJECT	

AS–BUILT PLANS
FOR INFORMATION ONLY

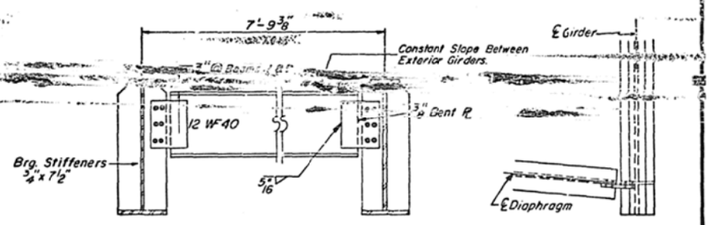
ROUTE FAI	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I. F.A.I.-72	74-68 HB-3	PIATT	33	20
FED. ROAD DIST. NO. 7	ILLINOIS FED. AID PROJECT			

SHEET NO. 10
SHEETS 17

STATE OF ILLINOIS

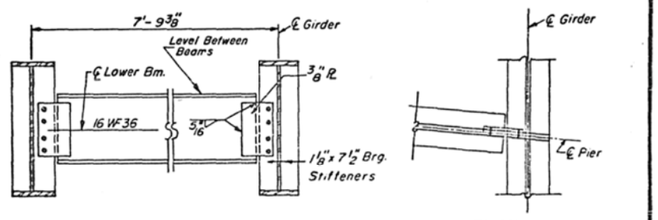


PLAN



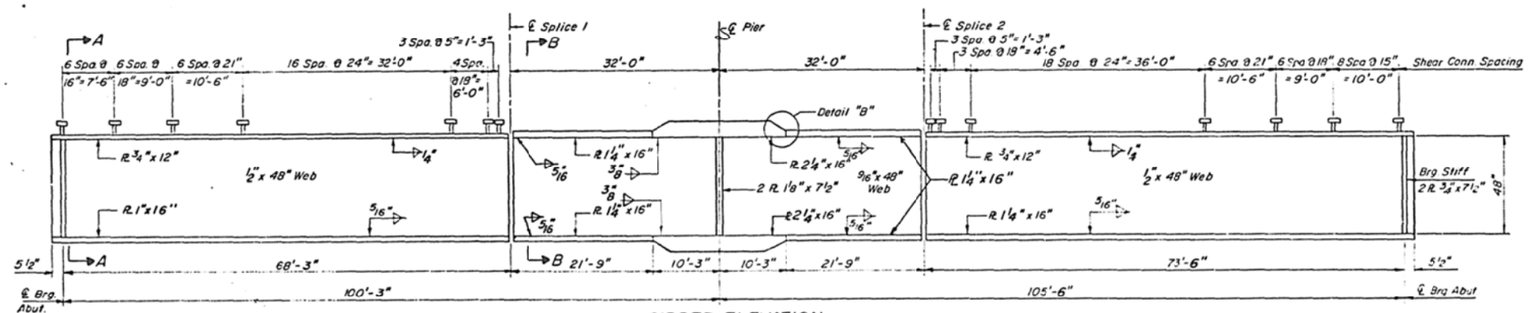
ELEVATION PLAN

DIAPHRAGM D1
16 Req'd.

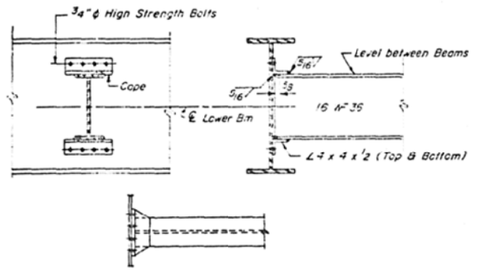


ELEVATION PLAN

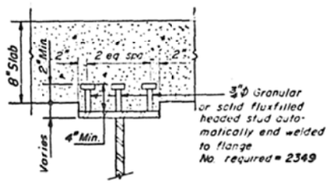
DIAPHRAGM D2
8 Req'd



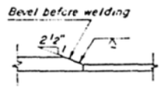
GIRDER ELEVATION



DIAPHRAGM D3
56 Req'd



TYP. SHEAR CONNECTOR



DETAIL "B"

DESIGNED	R.N.W.
CHECKED	
DRAWN	B.G.
CHECKED	

FRAMING DETAILS
F.A.I.-72 SEC.74-68-HB-3
PIATT COUNTY
STA.1464+71.70(F.A.I.-72)

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 27 OF 40 SHEETS | STA. | TO STA.

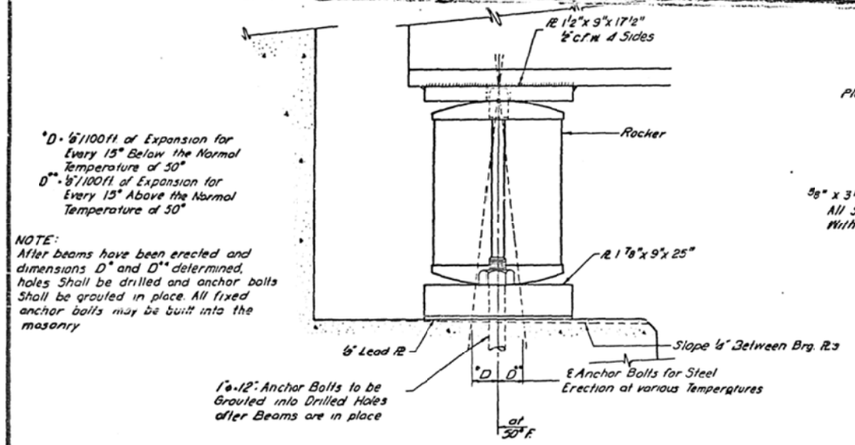
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	34
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

AS–BUILT PLANS
FOR INFORMATION ONLY

STATE OF ILLINOIS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
S.B.I.	74-68	PIATT	33	22
F.A.I.-72	HB-3			
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

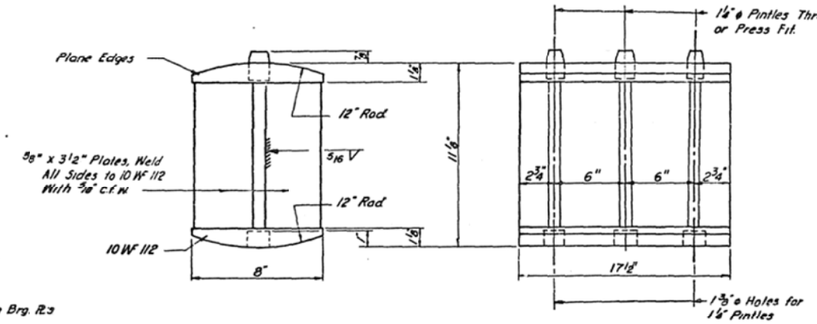
SHEET NO. 12
SHEETS 17



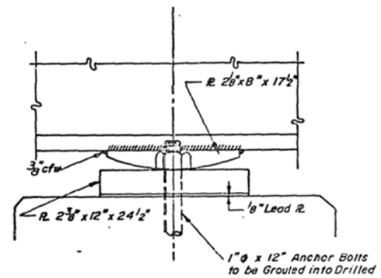
"D" - .6"/100 ft. of Expansion for Every 15° Below the Normal Temperature of 50°
D"" - .8"/100 ft. of Expansion for Every 15° Above the Normal Temperature of 50°

NOTE:
After beams have been erected and dimensions D" and D"" determined, holes Shall be drilled and anchor bolts Shall be grouted in place. All fixed anchor bolts may be built into the masonry

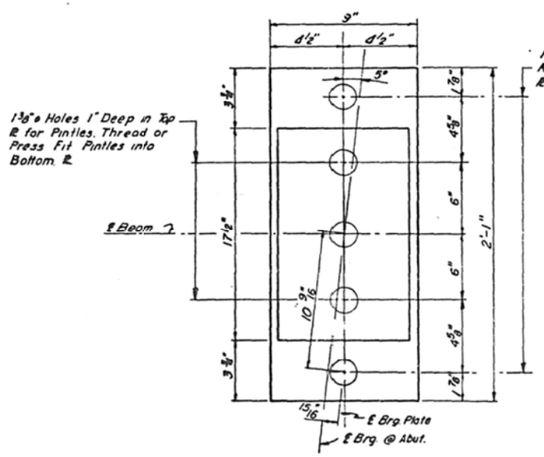
SECTION AT ABUTMENT



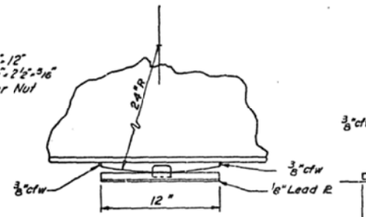
DETAIL OF ROCKER AT ABUTMENT



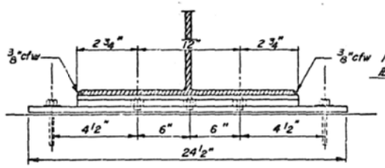
SECTION AT PIER

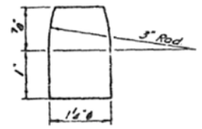


PLAN AT ABUTMENT

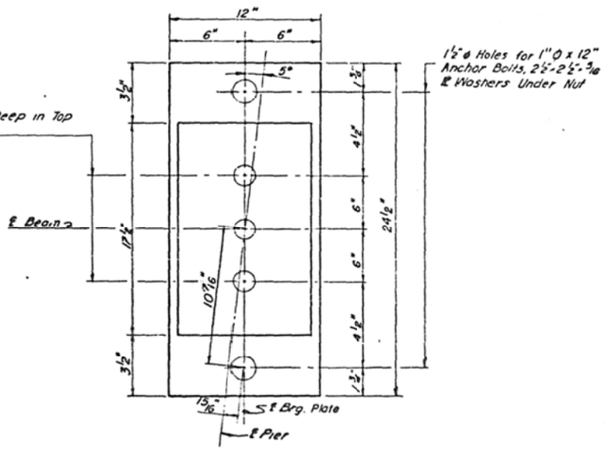


DETAIL OF BOLSTER AT PIER





DETAIL OF PINTLE



PLAN AT PIER

DESIGNED	RWW 5-72
CHECKED	WBC 7-72
DRAWN	MAP/GAS 8-72
CHECKED	WBC 8-13-72

BEARING DETAILS
F.A.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70(F.A.I.-72)

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED - GMS	REVISED -
		DRAWN - GMS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 12/3/2014	DATE - 10-17-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 28 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	35
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS–BUILT PLANS
FOR INFORMATION ONLY

STATE OF ILLINOIS

SECTION NO.	SECTION	COUNTY	TOTAL SHEETS NO.	SHEET NO.
B.R.S. F.A.I.-72	74-68 HB-3	PIATT	33	24

SHEET NO. 14
SHEETS 17

1"ϕ Anchor Bolts
7'-2"
End Post shall be poured after bridge parapet is in place. Form top surface to match parapet grade.
* 2"ϕ Galv. Conduit shall be SCH 40 Pipe. Extend to clear end of wing wall and terminate at a point outside of shoulder. Thread and cap each end. Cost incidental.
Bonded Const. Jt. with ¾" Notch on outside face
Level
17-#4 v3 bars at 12" cts.
2"ϕ Galv. Conduit* for future lighting
2-#4 v3 bars
1½" E.F.
5-#5 hor. br. at 12" cts. E.F.
5-#4 h9 bars at 12" cts. E.F.
1'-6½"
Exterior Ground Line
2'-0" min
1-#6 h10 bar E.F.
Gravel Deposit
Bonded Const. Jt.
h6 or h7
8'-0½"
8-#4 h8 bars at 12" cts.
Rdwy Face
VIEW F-F
SIDE ELEVATION
2-#5 n3 bars E.F.
17'-7½"
Galv. Locknut & Washer
3'-6"
4" Threads
Nut
8" Galvanized
1"ϕ ANCHOR BOLT
(Cost incidental to Bridge Structure)

8-#6 v8 bars at ± 12" cts
3-#4 n10 E.F.
6-#6 n11 at ± 12" cts E.F.
Bend in field (Typ.)
4-v7
4-v6
8-#6 bars at ± 12" cts E.F.
WING WALL REINFORCEMENT

3a" Notch
h11
h9
v5 or v7
h8
12" cl.
4'-0"
End Post
SECTION D-D

65-#5 v3 bars at 12" cts.
Elev 689.76
SECTION B-B

Bk of Abut.
n or v
n3 or v4
n or v10
SECTION E-E

ABUT - PILE DATA
Type Concrete
Design Capacity 45 Tons
Est Length 27'
No Reqd. 23 & 1 TEST PILE

APPR BENT PILE DATA
Type Concrete
Design Capacity 35 Tons
Est Length 35'
No Reqd. 10

DESIGNED	AWW
CHECKED	wbc
DRAWN	GAS & AG
CHECKED	AWW

VAF-R 3-23-71

Ck. S. Appr Dent Sta. 48+76.25
31'-7¼"
31'-4¾"
5-#7 p4 bars E.F. See Sec. B-B
End of Slab
1-#4 s1 bar
8" 8-#4 s1 bars Typ. betwn. piles
9 Pile spaces at 7'-0" = 63'-0"
Note: Interior of vault to be sand filled to bottom of slab.
Inserts & Approved Clamps, at 6'-0" max. cts.
20'-1½" Curtain Wall
22'-6¾"
81-#6 t1 bars (7 between piles + 2 E.F.) Space to miss piles
Bonded Const. Jts.
Bk. S. Abut Sta 48+98.90
11 Pile spaces at 5'-10½" = 64'-2"
4-#5 s5 w bars
℄ Brg.
℄ Girder # 3
1"ϕ Anchor Bolt See Sheet 11 (Typ.)
1'-6" (Typ.)
31'-2 5/16"
31'-0½"
8 SPA @ 7'-9 3/16" (-) = 62'-2 1/16"
32'-4½"
33'-6"
PLAN

Bk. Abut
℄ Brg.
Elev 693.76
63-#5 v3 bars at 12" cts.
5-#5 h9 bars at 12" cts. E.F.
El. 689.58
Bonded Const. Jt. El. 689.41
El. 689.47
El. 689.74
El. 689.63
El. 689.85
El. 689.94
El. 689.71
4-#5 h9 bars Top
63-#5 v4 bars at 12" cts
65-#5 v9 bars at 12" cts. F.F.
98-#8 v10 bars at 8" cts. B.F.
11-Pairs #5 h8 bars at 12" cts
11-#5 h8 bars at 12" cts F.F.
11-#5 h8 bars at 12" cts B.F.
3"ϕ Drain Hole Each Side
3'-0" Typ.
65-#5 n3 bars at 12" cts. F.F.
98-#8 n4 bars at 8" cts. B.F.
Batter 2/12
Elev 676.99
SECTION A-A
VIEW C-C

9½"
7 bars @ 8½"
9½" Typical Spacing for t1 bars

16 h8 bars
34 v5 bars
Cut Line
18'-0"
15'-7"
2'-0"
3'-10 11/16"
FIELD CUTTING DIAGRAM
*Order h8 & v5 bars full length. Cut to fit as shown and use remainder of bars in other face.

2'-6"
1'-5"
2'-0"
1'-5"
BAR v1.

9"
5'-8"
2'-0"
BARS v2 & v8.

4'-2"
5"
BAR h6.

4'-2"
5"
BAR h7.

3'-8"
2'-2"
BAR s

3'-0"
4'-0"
1'-3"
BAR n3 & n4

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h4	52	#5	32'-10"	
h5	20	#5	30'-0"	
h6	42	#5	4'-8"	L
h7	42	#5	4'-8"	L
h8	16	#4	18'-0"	
h9	20	#4	19'-9"	
h10	4	#6	22'-2"	
h11	36	#4	6'-10"	
n3	73	#5	3'-7"	
n4	98	#9	5'-3"	
p2	30	#7	23'-10"	
s7	74	#4	12'-4"	
t1	81	#5	5'-8"	
v1	63	#5	7'-10"	
v2	63	#5	12'-1"	
v3	128	#5	2'-3"	
v4	8	#4	14'-8"	
v5	34	#4	15'-7"	
v6	16	#6	6'-10"	
v7	16	#6	5'-6"	
v8	32	#6	4'-9"	
v9	65	#5	10'-0"	
v10	98	#8	10'-0"	
w1	4	#5	33'-10"	
Reinforcement Bars			Lbs	14350
Class X Concrete			Cu Yds	132.2
Concrete Piles			Lin. Ft.	971
Test Piles			Each	1

SOUTH ABUTMENT DETAILS
F.A.I-72 SEC-74-68-HB-3
PIATT COUNTY
STA. 1464+71.70 (F.A.I.-72)

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED - GMS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	DRAWN - GMS	REVISED -
$MODELNAME$	PLOT DATE = 12/3/2014	CHECKED -	REVISED -
		DATE - 10-17-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 29 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	36
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		

AS–BUILT PLANS
FOR INFORMATION ONLY

STATE OF ILLINOIS

	78-68	PIATT	33	25	SHEET NO. 15
	H12-3				SHEETS 17

1"ϕ Anchor Bolts
End Post shall be poured after bridge parapet is in place. Form top surface to conform with grade.
End Post
Elev. 695.00
Level
Bonded Const. Jt. with ¾" Notch on outside face
"20-#4 v_5 bars at 12" cts.
2"ϕ Galv. Conduit ⁹ for future lighting
5-#5 h_2 or h_7 at 12" cts. E.F.
5-#4 h_3 bars at 12" cts. E.F.
2-#4 v_4 bars
1½" E.F.
3"
1'-7"
Exterior Ground Line
2'-0" min.
Gravel Deposit
1-#6 h_{14} bar E.F.
9-#4 h_3 bars at 12" cts.
Bonded Const. Jt.
h_8 or h_7
20'-1½"
2'-6½"
2-#5 n_3 bars E.F.
Rdwy Face
VIEW F-F
SIDE ELEVATION
Galv. Locknut & Washer
3'-6"
4" Threads
Nut
8" Galvanized
1"ϕ ANCHOR BOLT
(Cost incidental to Bridge Structure)

⁹ 2"ϕ Galv. Conduit shall be SCH 40 Pipe. Extend to clear end of wing wall and terminate at a point outside of shoulder. Terminate with Cap each end. Cost incidental.

8-#6 v_8 bars at ± 12" cts.
3-#4 h_{11} at ± 12" cts. E.F.
6-#4 h_{11} at ± 12" cts. E.F.
Bend in field (Typ.)
4-v_7
4-v_6
8-#6 bars at ± 12" cts E.F.
WING WALL REINFORCEMENT

1'-0"
v_8
1½" cl.
h_{11}
3/4" Notch
v_6 or v_7
h_{13}
v_5
h_{12}
2'-3½" End Post
1'-6¾"
4'-0"
1'-9"
1'-0"
SECTION D-D

65-#5 v_3 bars at 12" cts
p_8
p_4
s_7
Elev. 691.00
2'-6"
1'-3"
SECTION B-B

ABUT - PILE DATA
Type Concrete
Design Capacity 45 Tons
Est Length 33'
No. Reqd. 24

APPR. BENT PILE DATA
Type Concrete
Design Capacity 35 Tons
Est Length 47'
No Reqd. 9 ℄ 1 Test Pile

h_{12}
v_5
n_3 or v_4
Bk. of Abut.
n_3 or v_{11}
h_8
h_7
1'-9"
n_3 or v_{10}
h_4
SECTION E-E

DESIGNED	R.W.W.	7/72
CHECKED	W.B.C.	7/72
DRAWN	G.A.S. & A.G.	7/72
CHECKED	W.B.C.	8/72

VAF-R 3-23-71

Bk. N Abut Bent Sta. 31+31.50
34'-4½"
31'-7⅛"
33'-10⅞"
31'-4⅜"
7½"
7'-2" Wing
1-#4 s_7 bar
5-#7 p_8 bars E.F. See Sec. B-B
End of Slab
8 @ 8-#4 s_7 bars Typ. betwn. piles
1'-9"
1'-0"
D
1½"
1'-3"
9 Pile spaces at 7'-0" = 63'-0"
2'-2½"
25'-1¾"
22'-7⅛" (Curtain Wall)
25'-0⅝"
Inserts & Approved Clamps at 6'-0" max. cts.
Note: Interior of vault to be sand filled to bottom of slab.
81 -# 6l_1 bars at 8½" cts (7 between piles + 2 E.F.)
Space to miss piles
12"
A
Bonded Const Jts.
Bk. N Abut Sta 51+06.35
11 Pile spaces at 5'-10" = 64'-2"
1'-5"
4-#5 w bars
1'-0"
2'-6"
1'-9"
10⅜"
℄ Brg.
1'-3"
3'-6"
6'-0"
1'-6" 1'-6" Typ.
7/8" Anchor Bolt (See Sheet III)
10⅜16" (Typ.)
31'-2 5/16"
31'-0½"
8 SPA @ 7'-9 3/8"(-) = 62'-2 13/16"
32'-4½"
32'-4½"
33'-6"
33'-6"
1'-1½"
1'-1½"
PLAN

18 h_{13} bars
2'-11"
3'-8"
21'-1"
19'-9"
Cut Line
2'-1" h_{12}
3-8 h_{13} bars
FIELD CUTTING DIAGRAM
#Order h_{12} & v_5 bars full length. Cut to fit as shown and use remainder of bars in other face.

2'-6"
1'-5"
2'-4"
2'-0"
1'-5"
BAR v_1

9"
6'-0"
2'-0"
BARS v_2 & v_8

BILL OF MATERIAL

Bar	No	Size	Length	Shape
h_4	52	#5	32'-10"	
h_5	20	#5	30'-0"	
h_6	42	#5	4'-5"	
h_7	42	#5	4'-8"	
h_{11}	36	#4	6'-10"	
h_{12}	18	#4	21'-11"	
h_{13}	20	#4	22'-4"	
h_{14}	4	#6	25'-3"	
n_3	73	#5	3'-7"	
n_4	98	#9	5'-3"	
p_8	30	#7	23'-10"	
s_7	74	#4	12'-4"	
t_1	81	#6	5'-8"	
v_1	63	#5	7'-10"	
v_2	63	#5	12'-9"	
v_3	128	#5	2'-3"	
v_4	8	#4	15'-11"	
v_5	40	#4	16'-9"	
v_6	16	#6	6'-10"	
v_7	16	#6	5'-6"	
v_8	16	#6	4'-9"	
v_{10}	98	#8	10'-0"	
v_{11}	65	#5	11'-0"	
w_1	4	#5	33'-10"	
Reinforcement Bars			Lbs.	14580
Class X Concrete			Cu Yds.	139.6
Concrete Piles			Lin Ft	1215
Test Piles			Each	1

½"
4'-2"
5"
BAR h_6

½"
4'-2"
5"
BAR h_7

3'-8"
2'-2"
BAR s

3'-0"
4'-0"
1'-3"
BAR n_3 & n_4

Elev. 695.00
Bk. Abut
℄ Brg.
1'-0"
1'-9"
v_3
Slope ½" Between Brgs.
Varies 4'-0⅜" to 4'-7"
16'-0"
6'-3"
h_5
h_4
h_6
1'-0"
Bk. Abut
1½" cl
v_1
Varies 11'-2" to 11'-8⅛"
8'-6"
2'-6"
v_{11}
1'-9"
1'-9"
2'-3"
h_{13}
n_4
n_3
2'-3"
1'-0"
6½"
Batter 2:12"
1'-3"
3'-6"
1'-3"
6'-0"
Elev. 677.00
SECTION A-A

63 -#5 v_3 bars at 12" cts.
63 -#5 v_2 bars at 12" cts.
5-#5 h_2 bars at 12" cts. E.F.
El. 690.94
5-#5 h_2 bars at 12" cts. E.F.
El. 690.57
Bonded Const Jt
El. 690.42
El. 690.58
El. 690.70
El. 690.82
El. 690.82
El. 690.70
El. 690.41
5-#5 h_2 bars at 12" cts E.F.
4-#5 h_4 bars Top
11-Pairs #5 h_2 bars at 12" cts
63-#5 w bars at 12" cts
65-#5 v_{11} bars at 12" cts N.F
98-#8 v_{10} bars at 8" cts. F.F.
11-#5 h_2 bars at 12" cts F.F.
11-#5 h_2 bars at 12" cts B.F.
11-Pairs #5 h_2 bars at 12" cts
3"ϕ Drain Hole Each Side
3'-0" Typ.
65-#5 n_3 bars at 12" cts NF
98-#9 n_4 bars at 8" cts FF
w_1
t_1
9½"
7 bars t_1 at 8½"
9½" Typical Spacing for t_1 bars
VIEW C-C

NORTH ABUTMENT DETAILS
F.A.I.-72 SEC. 74-68-HB-3
PIATT COUNTY
STA. 1464+71.70(F.A.I.-72)

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED - GMS	REVISED -
		DRAWN - GMS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 12/3/2014	DATE - 10-17-12	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

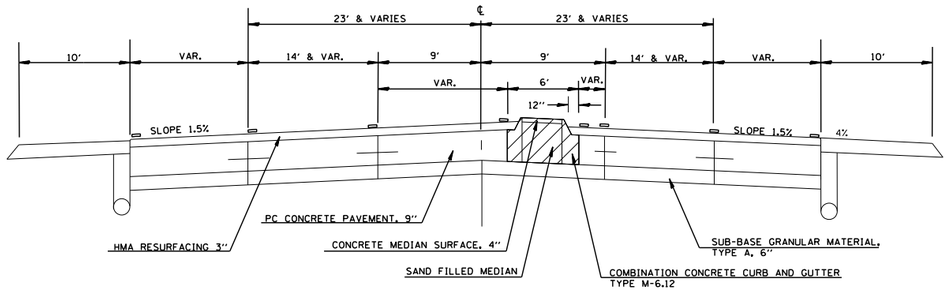
AS–BUILT PLANS
FOR INFORMATION ONLY

SCALE: | SHEET NO. 30 OF 40 SHEETS | STA. | TO STA.

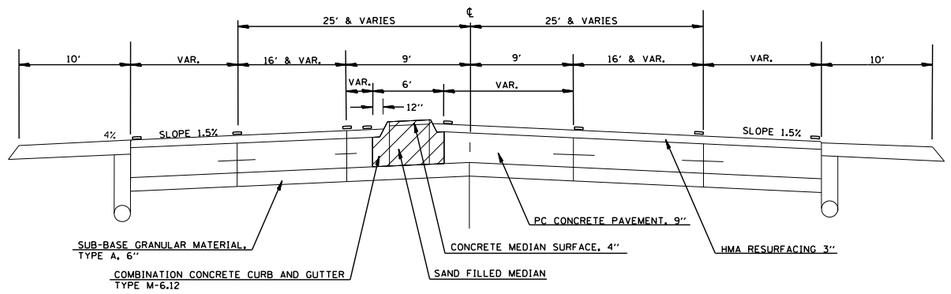
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	37
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

REMOVAL /REPLACEMENT OF MEDIANS FOR S.N. 074–0071 STAGE CONSTRUCTION

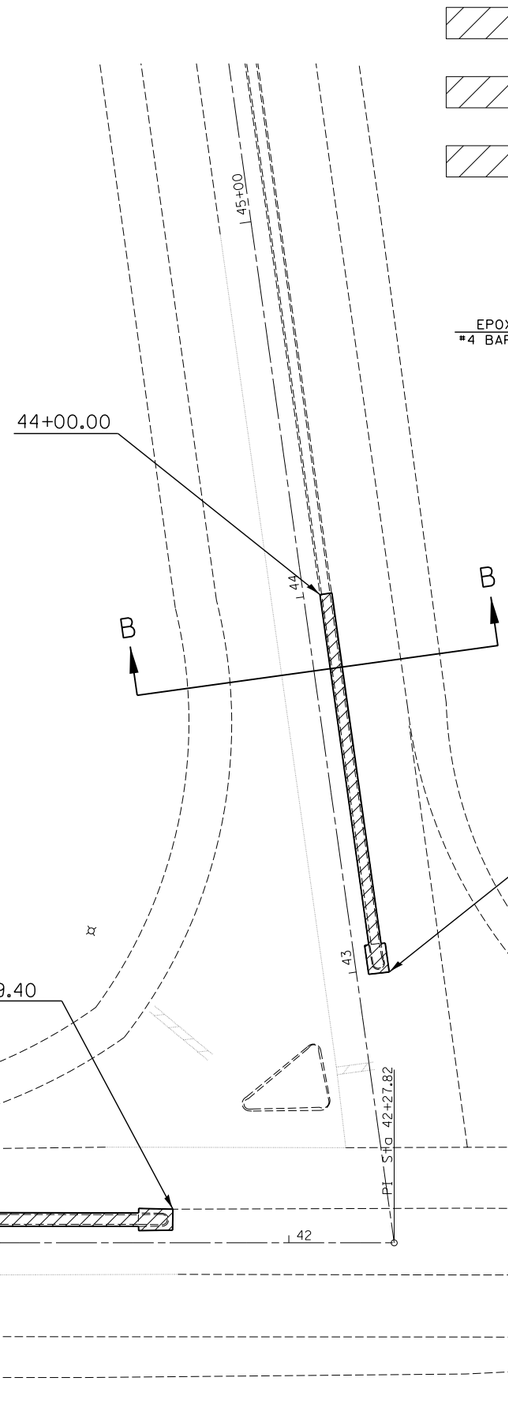
PAY ITEM	UNIT	INTERSECTION
SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ. Y.D.	135.0
MEDIAN REMOVAL	SQ. FT.	1288.0
CONCRETE MEDIAN, TYPE SM (DOWELLED)	SQ. FT.	811.0
PCC BASE COURSE WIDENING 8"	SQ. YD.	135.0
PROTECTIVE COAT	SQ. YD.	91.0
TIE BARS $\frac{3}{4}$"	EACH	203.0

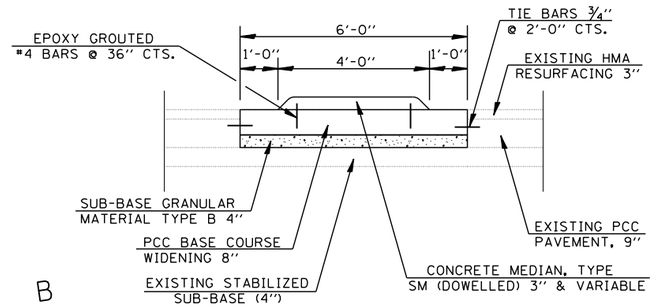


EXISTING SECTION B-B



EXISTING SECTION A-A





PROPOSED SECTION A-A & B-B

SEE SHEET 32 FOR MEDIAN DETAILS

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED - ESS	REVISED -
		DRAWN - ESS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
$MODELNAME$	PLOT DATE = 12/2/2014	DATE - 10-18-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

REMOVAL /REPLACEMENT OF MEDIANS
STR. 074–0071

SCALE: | SHEET NO. 31 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	38
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

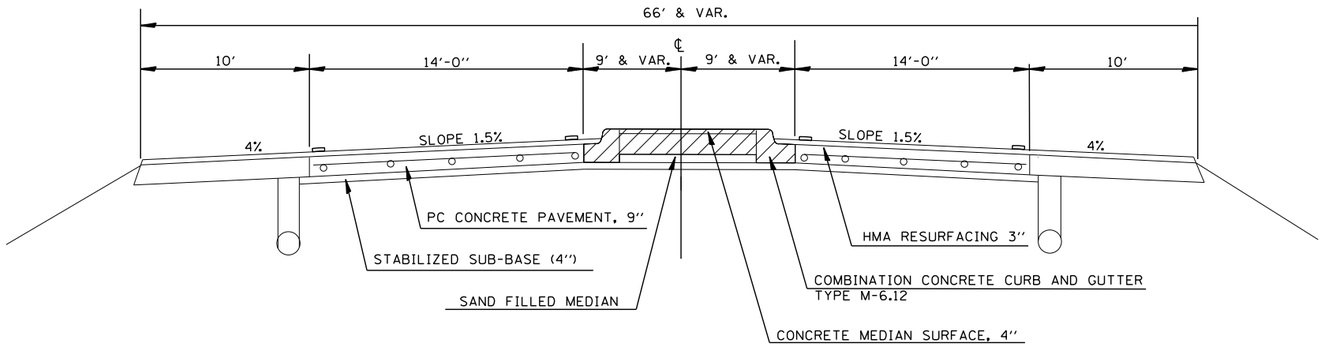
REMOVAL /REPLACEMENT OF MEDIANS FOR S.N. 074–0071 STAGE CONSTRUCTION

PAY ITEM	UNIT	INTERSECTION
SUBBASE GRANULAR MATERIAL, TYPE B 4"	SQ. Y.D.	126.0
MEDIAN REMOVAL	SQ. FT.	3226.0
CONCRETE MEDIAN, TYPE SM (DOWELLED)	SQ. FT.	2808.0
PCC BASE COURSE WIDENING 8"	SQ. YD.	355.0
PROTECTIVE COAT	SQ. YD.	312.0
TIE BARS ¾"	EACH	189.0

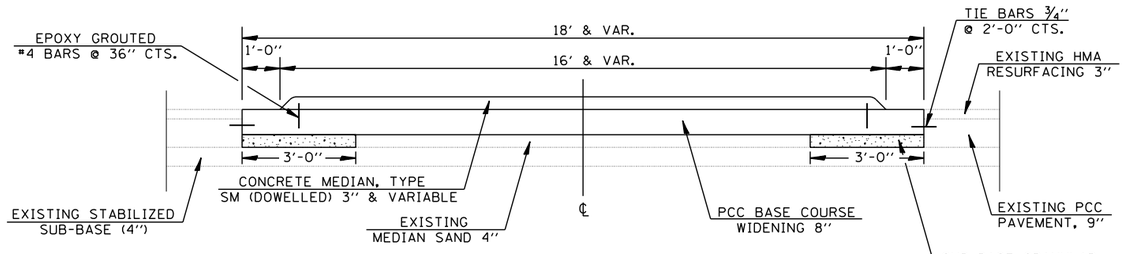
MEDIAN REMOVAL

PCC BASE COURSE WIDENING 8''

CONCRETE MEDIAN, TYPE SM (DOWELLED)

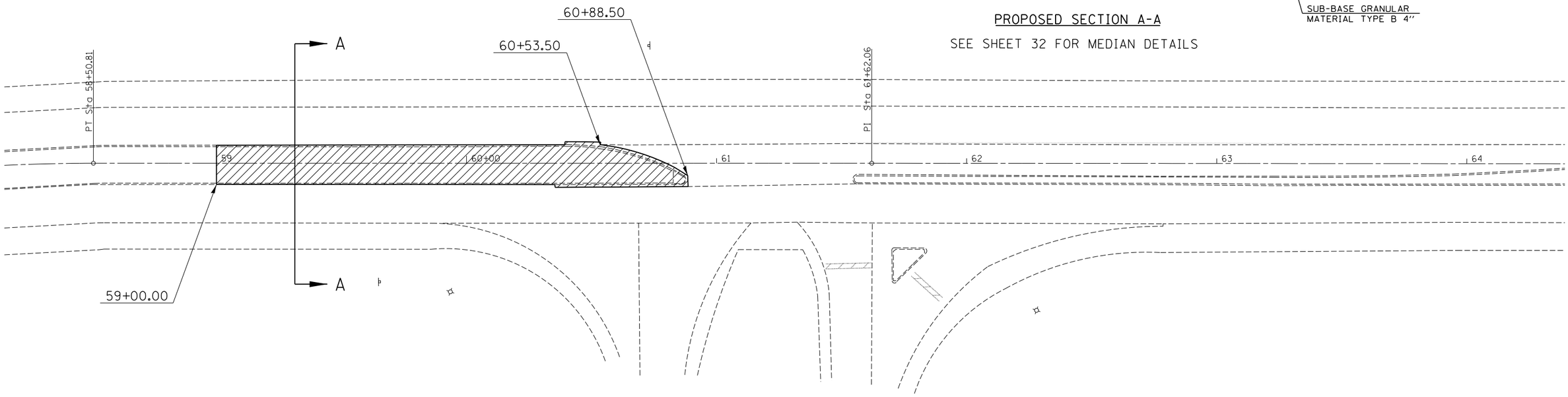


EXISTING SECTION A-A



PROPOSED SECTION A-A

SEE SHEET 32 FOR MEDIAN DETAILS



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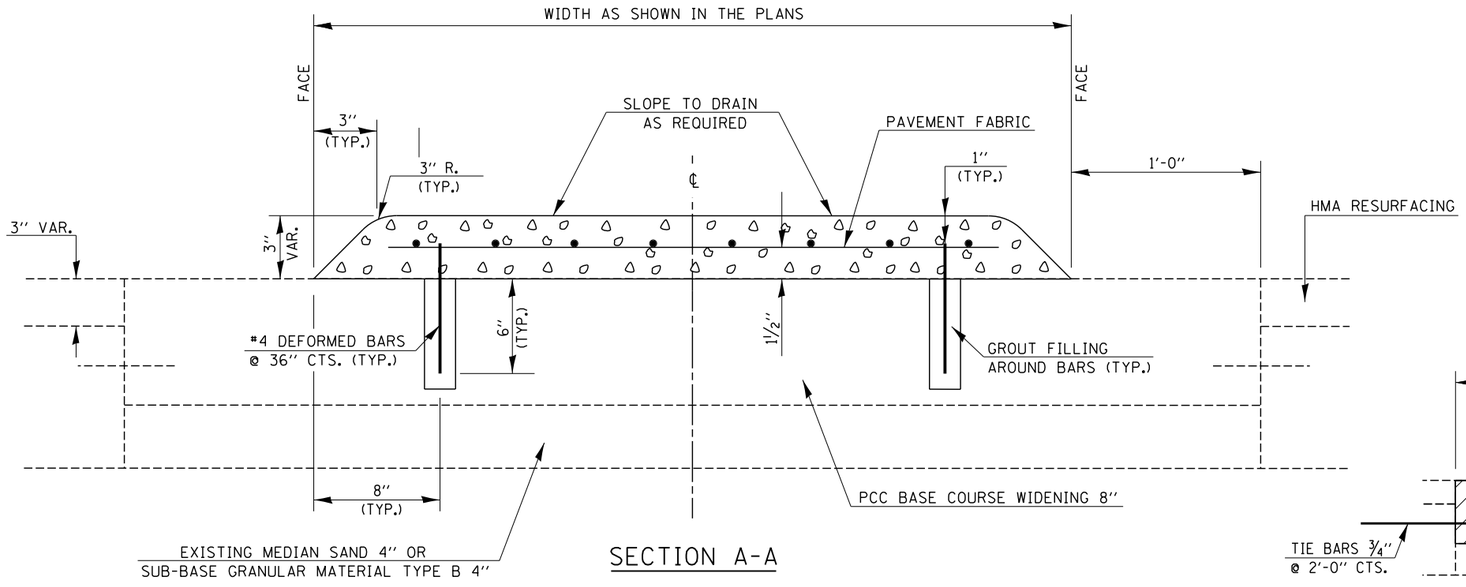
		DRAWN - ESS	REVISED -				741	(7BR)I	PIATT	72	39
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -						CONTRACT NO. 70A75		
$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED -		SCALE:	SHEET NO. 32 OF 40 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

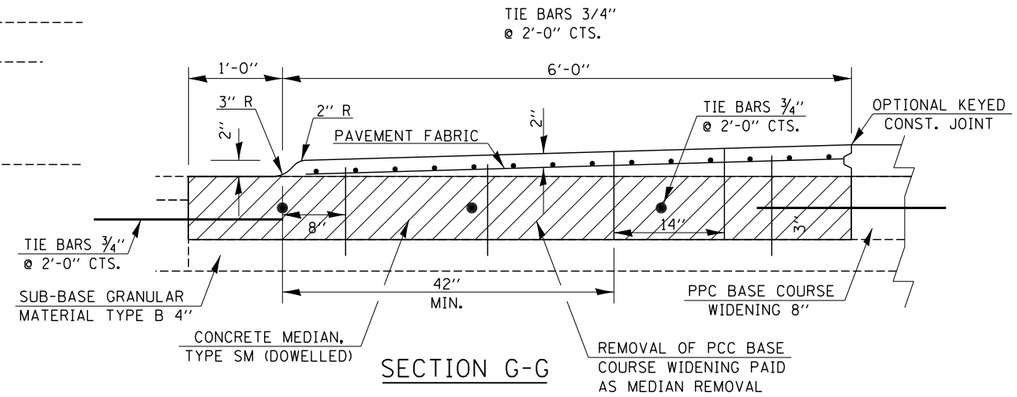
GENERAL NOTES

1. DEFORMED BARS @ 36" CTS. OR AS DIRECTED BY THE ENGINEER. EPOXY GROUT BARS IN 6" MIN. HOLES ACCORDING TO ARTICLE 584 OF THE STANDARD SPECIFICATIONS.

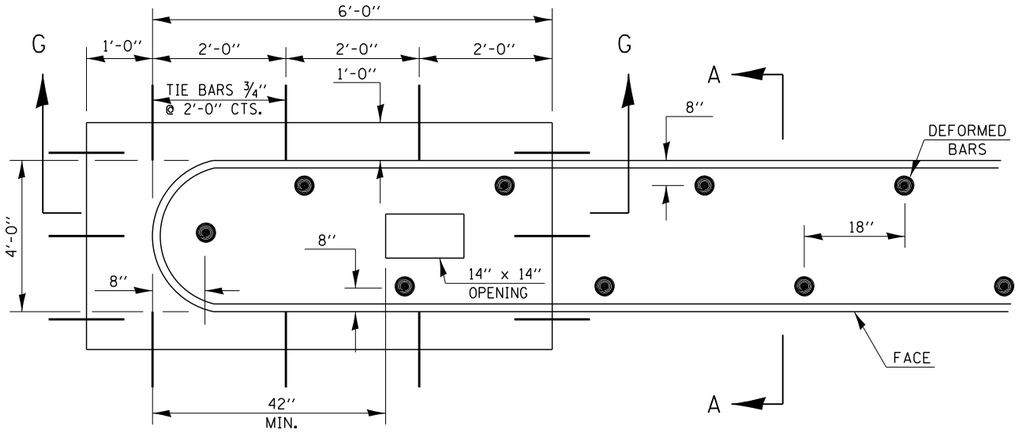
2. CONCRETE MEDIAN, TYPE SM (DOWELLED), SHALL INCLUDE THE COST OF FURNISHING AND INSTALLING THE DEFORMED BARS, TIE BARS, EPOXY GROUT, PAVEMENT FABRIC, AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.



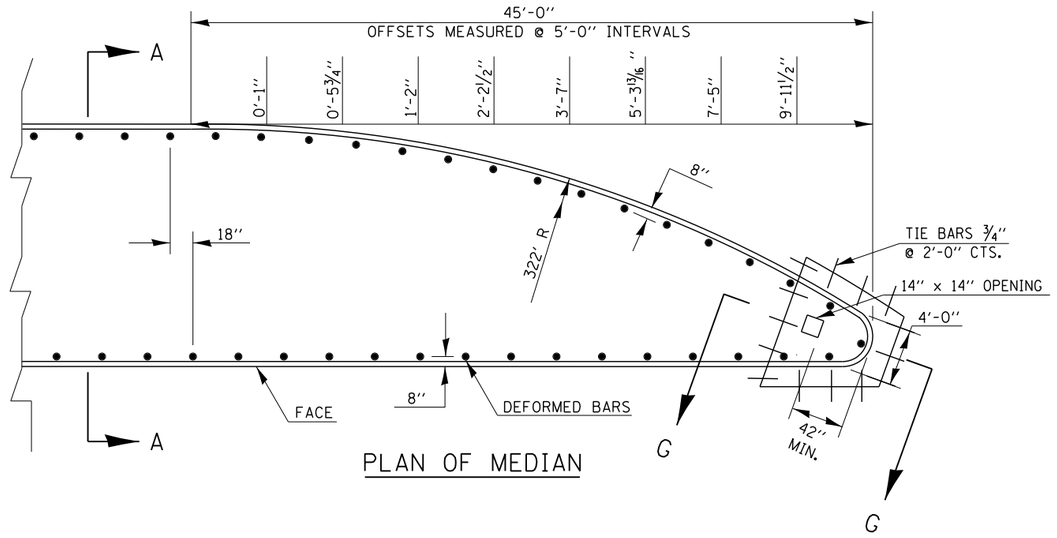
SECTION A-A



SECTION G-G



PLAN OF MEDIAN



PLAN OF MEDIAN

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	PLOT DATE = 12/2/2014	DATE - 10-3-2014	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONCRETE MEDIAN, TYPE SM (DOWELLED)

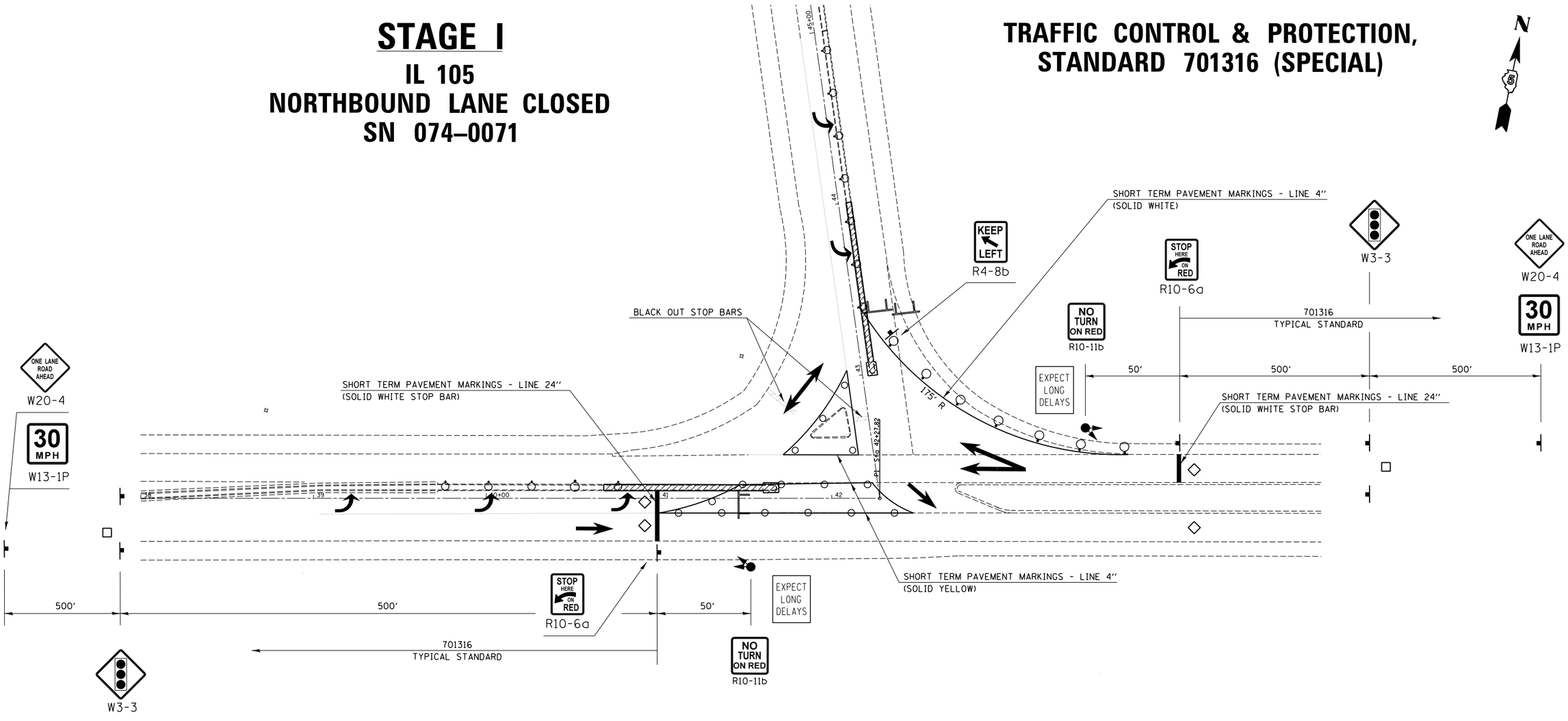
SCALE: | SHEET NO. 33 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	40
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

STAGE I

IL 105
NORTHBOUND LANE CLOSED
SN 074–0071

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)



SYMBOLS	
	MEDIAN REMOVAL
	SIGN
	LIGHTED VERTICAL BARRICADE, DOUBLE FACED @ 25' CTS.
	DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
	TYPE III BARRICADE WITH FLASHING LIGHTS
	TEMPORARY SIGNALS

PLAN NOTES:

REFLECTORIZED SHORT-TERM MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, ALONGSIDE THE WORK AREA, ON BOTH SIDES OF THE WORK AREA FROM STOP BAR TO STOP BAR. ALSO, ANY EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE BLACKED OUT. COST OF BLACKING OUT EXISTING MARKINGS AND FOR PLACEMENT AND REMOVAL OF SHORT-TERM MARKINGS SHALL BE INCLUDED IN COST FOR TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

SIGNS SHALL BE FURNISHED, PLACED, AND MAINTAINED BY THE CONTRACTOR. COST SHALL BE INCLUDED WITH TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER.

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	PLOT DATE = 12/2/2014	DATE - 9-18-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)

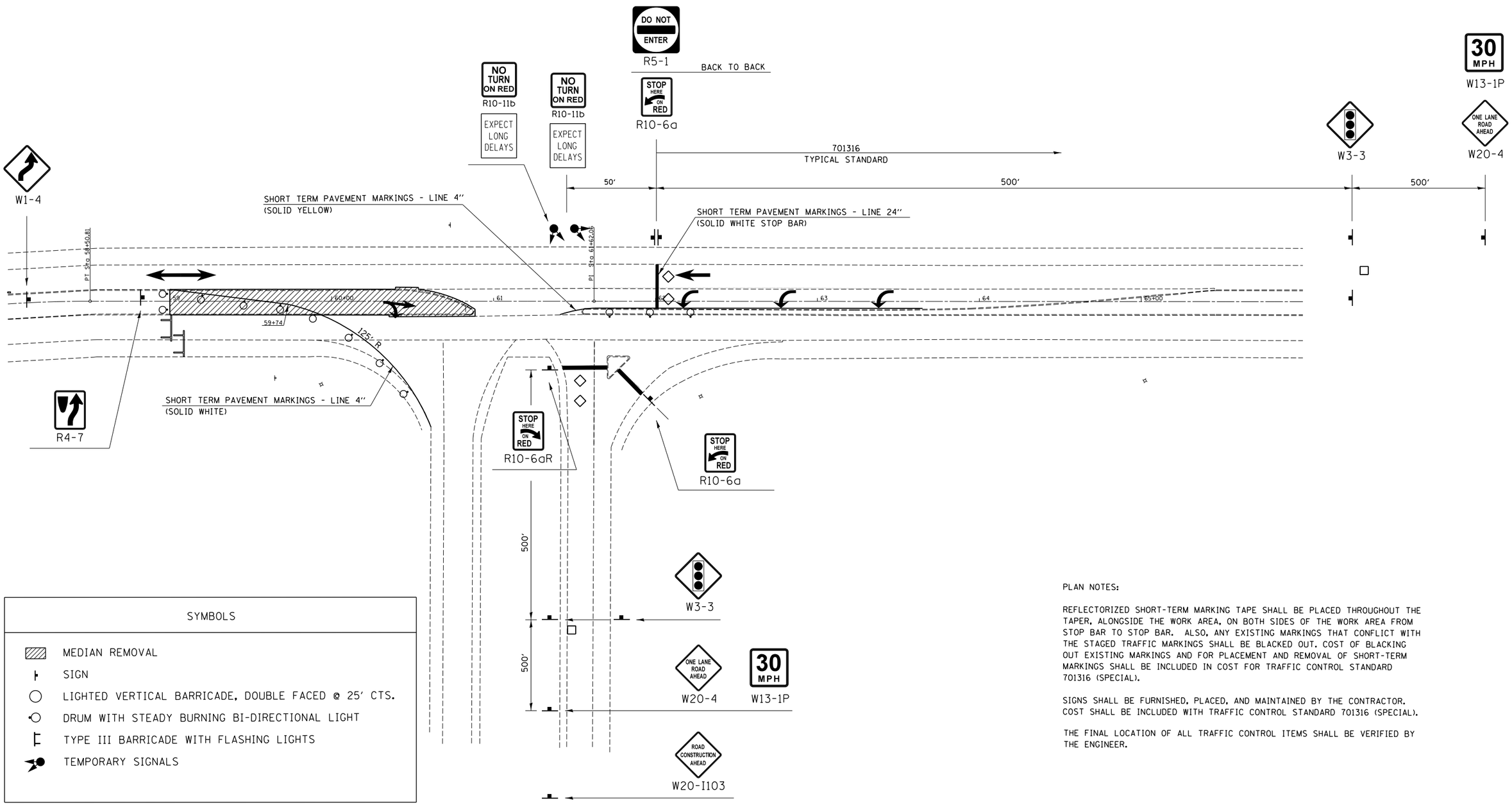
SCALE: | SHEET NO. 34 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	41
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

STAGE I

IL 105
NORTHBOUND LANE CLOSED
SN 074–0071

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)



SYMBOLS

- MEDIAN REMOVAL
- SIGN
- LIGHTED VERTICAL BARRICADE, DOUBLE FACED @ 25' CTS.
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- TEMPORARY SIGNALS

PLAN NOTES:

REFLECTORIZED SHORT-TERM MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, ALONGSIDE THE WORK AREA, ON BOTH SIDES OF THE WORK AREA FROM STOP BAR TO STOP BAR. ALSO, ANY EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE BLACKED OUT. COST OF BLACKING OUT EXISTING MARKINGS AND FOR PLACEMENT AND REMOVAL OF SHORT-TERM MARKINGS SHALL BE INCLUDED IN COST FOR TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

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THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER.

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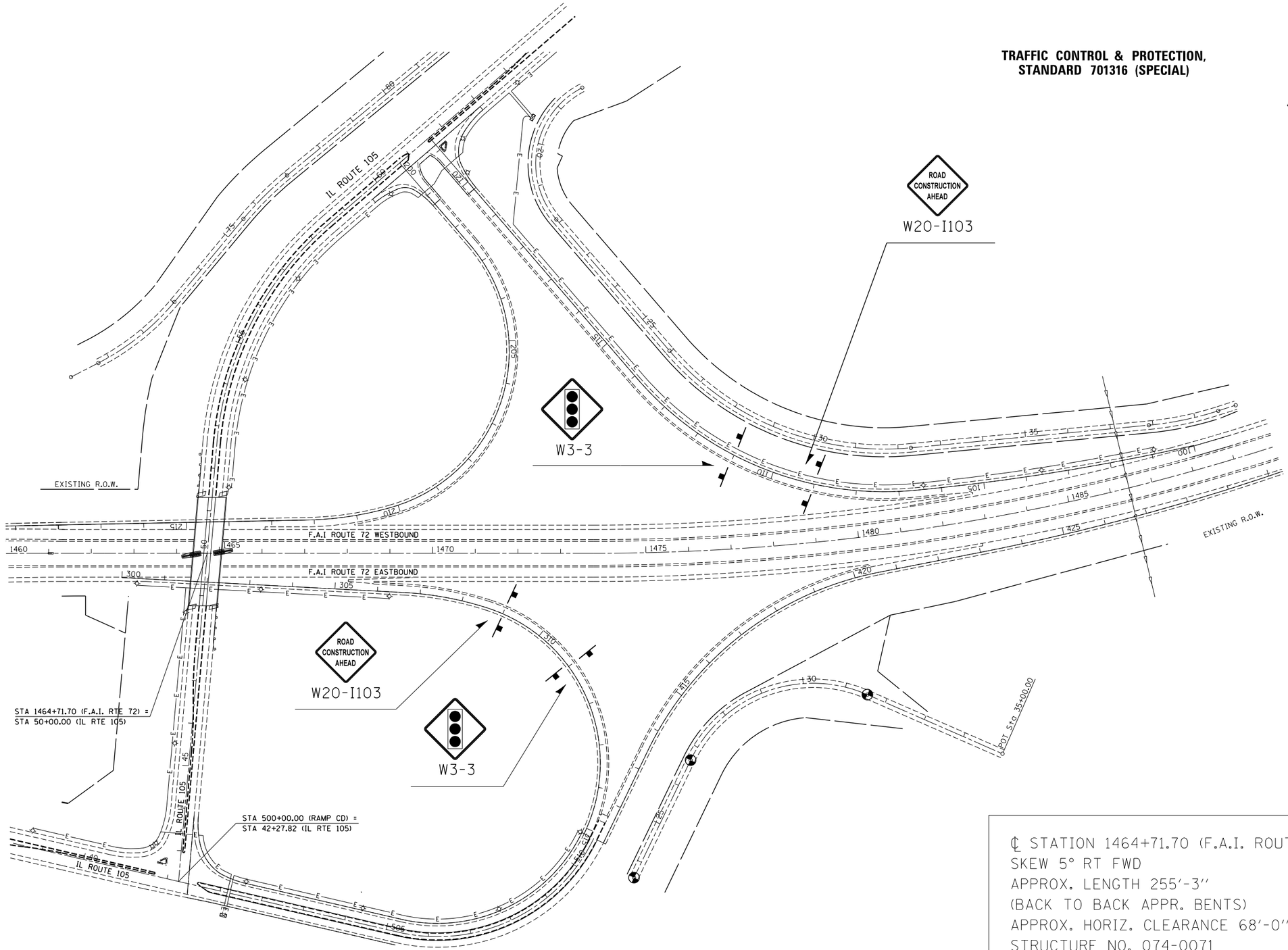
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)

SCALE: | SHEET NO. 35 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	42
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)



℄ STATION 1464+71.70 (F.A.I. ROUTE 72)
SKEW 5° RT FWD
APPROX. LENGTH 255'-3"
(BACK TO BACK APPR. BENTS)
APPROX. HORIZ. CLEARANCE 68'-0"
STRUCTURE NO. 074-0071

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$MODELNAME$	PLOT DATE = 12/2/2014	DATE -	REVISED - 10-24-2013

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)

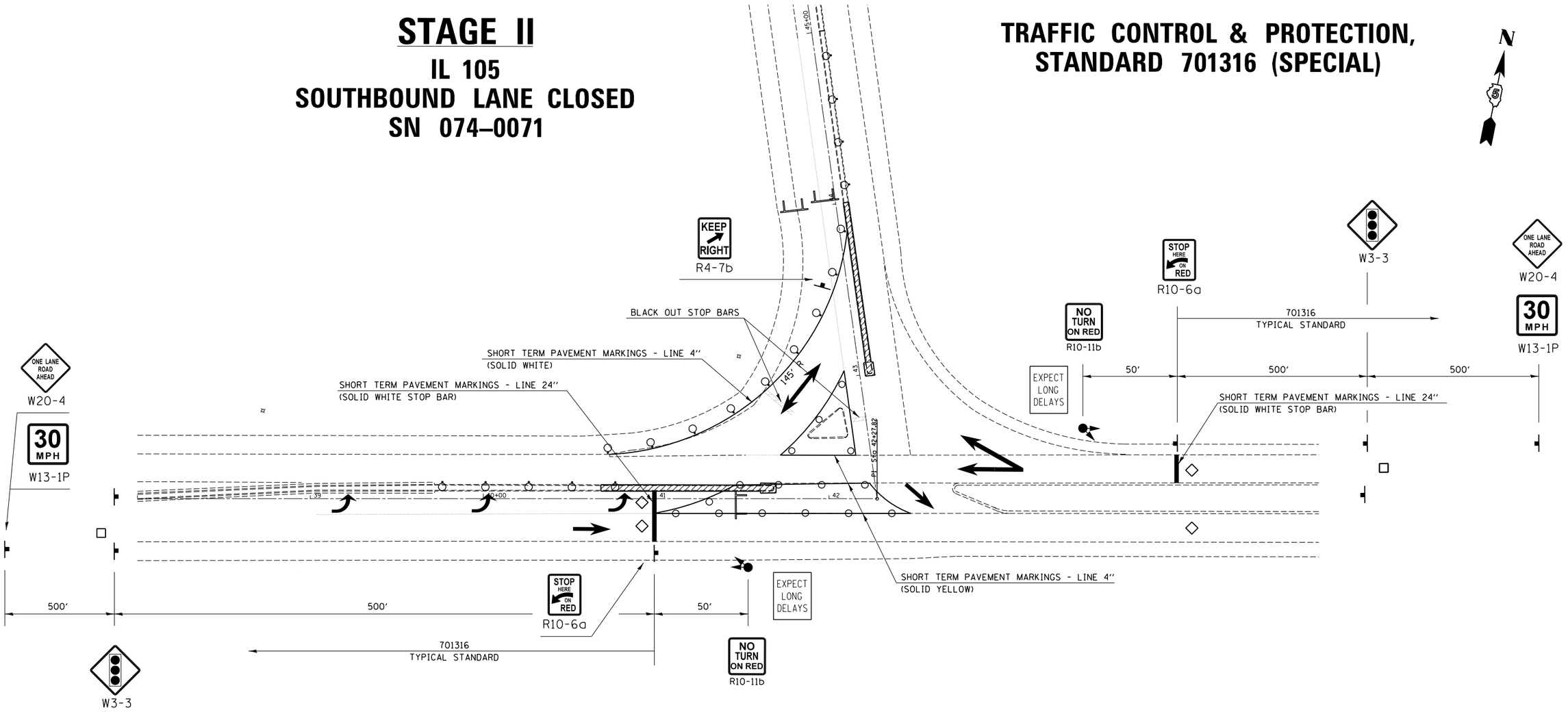
SCALE: | SHEET NO. 36 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	43
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

STAGE II

IL 105
SOUTHBOUND LANE CLOSED
SN 074–0071

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)



SYMBOLS

- MEDIAN REMOVAL
- SIGN
- LIGHTED VERTICAL BARRICADE, DOUBLE FACED @ 25' CTS.
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- TEMPORARY SIGNALS

PLAN NOTES:

REFLECTORIZED SHORT-TERM MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, ALONGSIDE THE WORK AREA, ON BOTH SIDES OF THE WORK AREA FROM STOP BAR TO STOP BAR. ALSO, ANY EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE BLACKED OUT. COST OF BLACKING OUT EXISTING MARKINGS AND FOR PLACEMENT AND REMOVAL OF SHORT-TERM MARKINGS SHALL BE INCLUDED IN COST FOR TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

SIGNS SHALL BE FURNISHED, PLACED, AND MAINTAINED BY THE CONTRACTOR. COST SHALL BE INCLUDED WITH TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER.

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	PLOT DATE = 12/2/2014	DATE - 9-18-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)

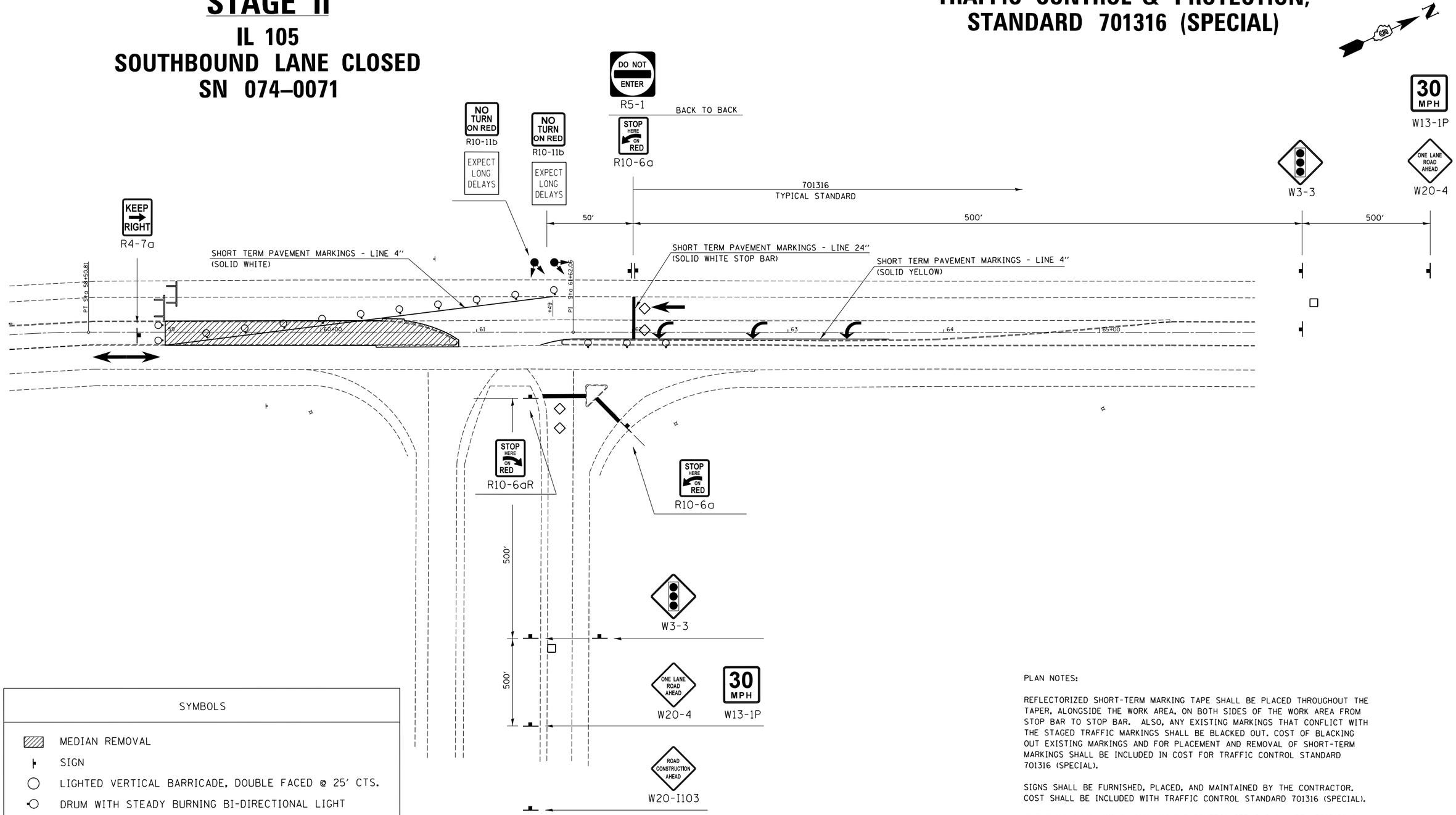
SCALE: | SHEET NO. 37 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	44
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

STAGE II

IL 105
SOUTHBOUND LANE CLOSED
SN 074–0071

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)



SYMBOLS

- MEDIAN REMOVAL
- SIGN
- LIGHTED VERTICAL BARRICADE, DOUBLE FACED @ 25' CTS.
- DRUM WITH STEADY BURNING BI-DIRECTIONAL LIGHT
- TYPE III BARRICADE WITH FLASHING LIGHTS
- TEMPORARY SIGNALS

PLAN NOTES:

REFLECTORIZED SHORT-TERM MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, ALONGSIDE THE WORK AREA, ON BOTH SIDES OF THE WORK AREA FROM STOP BAR TO STOP BAR. ALSO, ANY EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE BLACKED OUT. COST OF BLACKING OUT EXISTING MARKINGS AND FOR PLACEMENT AND REMOVAL OF SHORT-TERM MARKINGS SHALL BE INCLUDED IN COST FOR TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

SIGNS SHALL BE FURNISHED, PLACED, AND MAINTAINED BY THE CONTRACTOR. COST SHALL BE INCLUDED WITH TRAFFIC CONTROL STANDARD 701316 (SPECIAL).

THE FINAL LOCATION OF ALL TRAFFIC CONTROL ITEMS SHALL BE VERIFIED BY THE ENGINEER.

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$MODELNAME$	PLOT DATE = 12/2/2014	DATE - 10-16-2013	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TRAFFIC CONTROL & PROTECTION, STANDARD 701316 (SPECIAL)

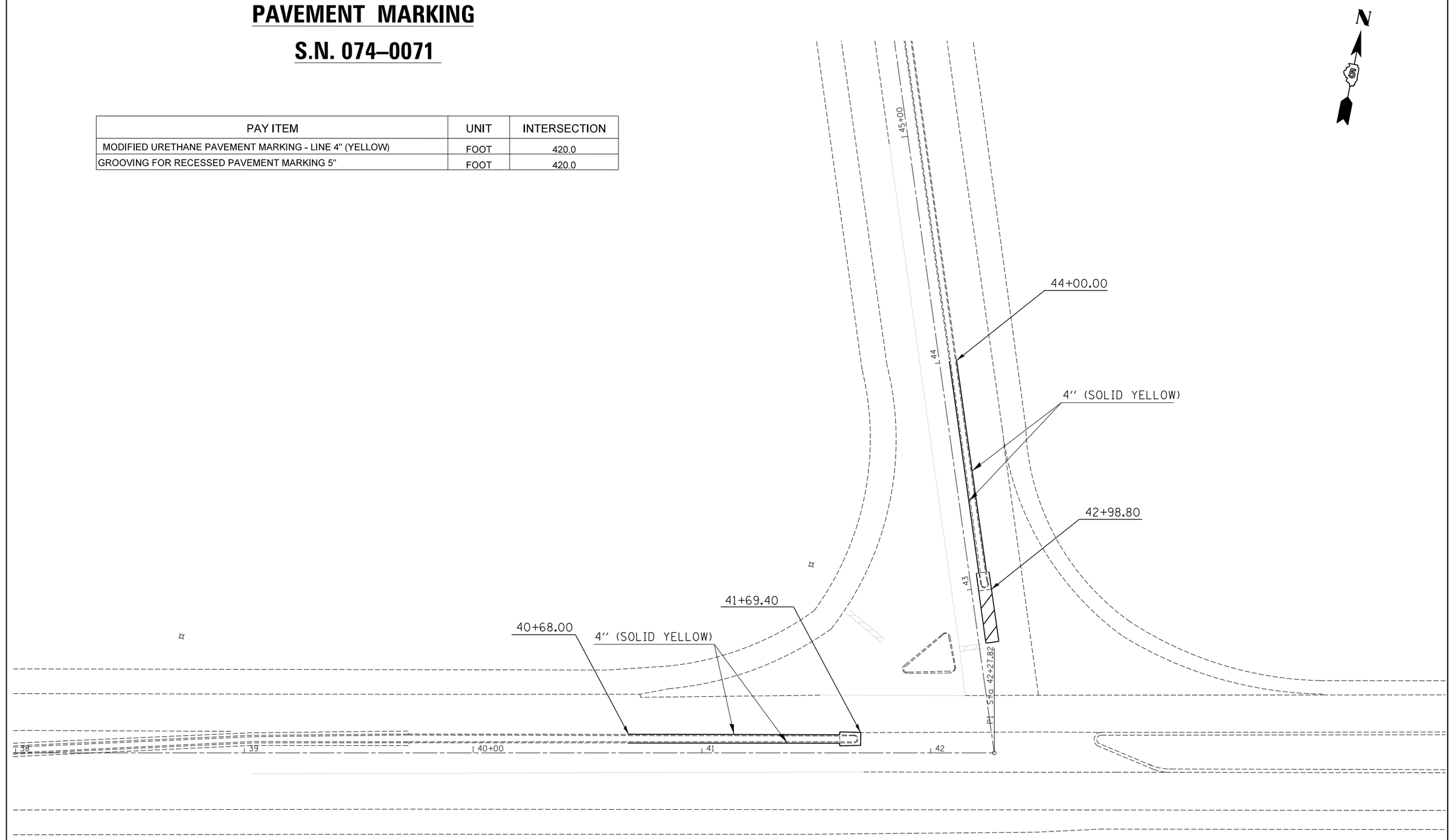
SCALE: | SHEET NO. 38 OF 40 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	45
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

PAVEMENT MARKING

S.N. 074–0071

PAY ITEM	UNIT	INTERSECTION
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (YELLOW)	FOOT	420.0
GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	420.0



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		DRAWN - ESS	REVISED -				741	(7BR)I	PIATT	72	46
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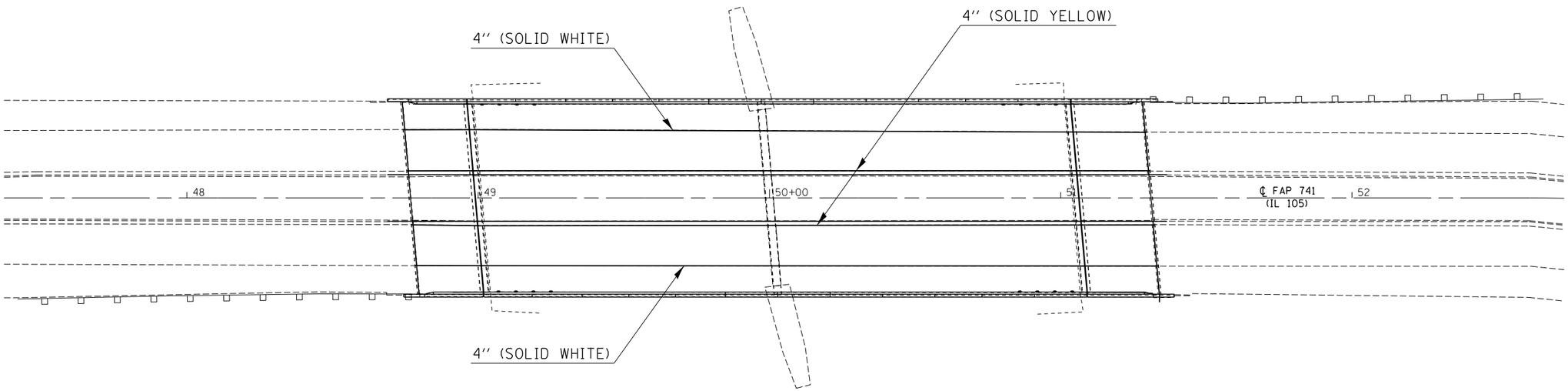
	PLOT DATE = 12/2/2014	DATE - 10-18-2013	REVISED -		SCALE:	SHEET NO. 39 OF 40 SHEETS STA. TO STA.			ILLINOIS FED. AID PROJECT		

PAVEMENT MARKING

S.N. 074–0071

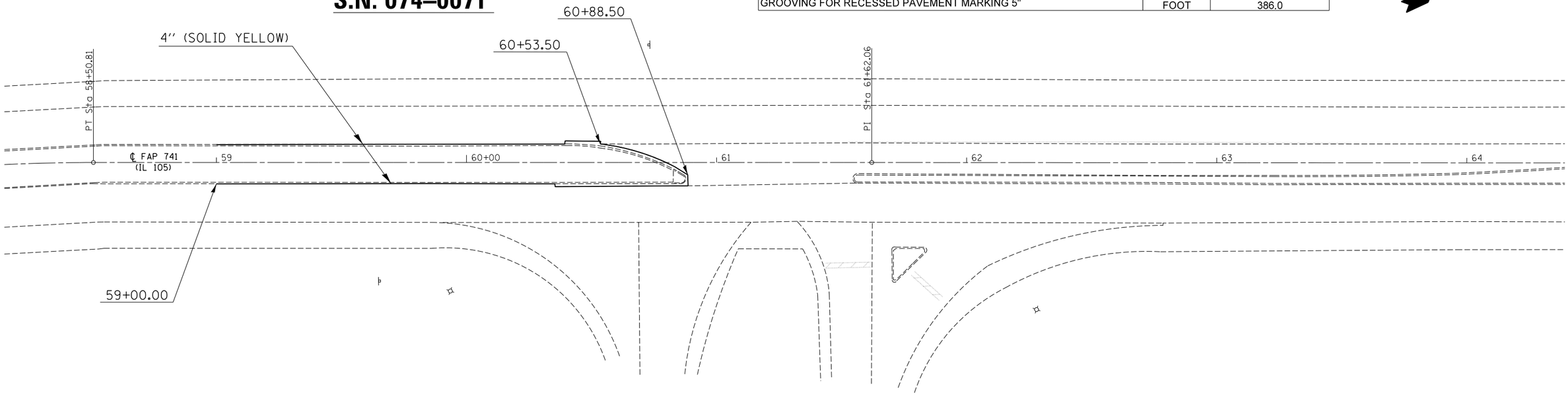
PAY ITEM	UNIT	INTERSECTION
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (YELLOW)	FOOT	510.0
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (WHITE)	FOOT	510.0
GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	1020.0



PAVEMENT MARKING

S.N. 074–0071

PAY ITEM	UNIT	INTERSECTION
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (YELLOW)	FOOT	386.0
GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	386.0



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		DRAWN - ESS	REVISED -			741	(7BR)I	PIATT	72	47
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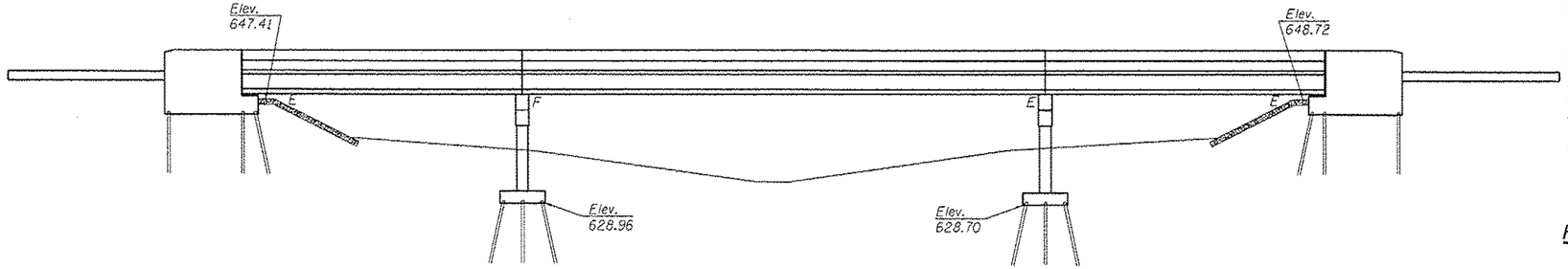
	PLOT DATE = 12/2/2014	DATE -	REVISED -		SCALE: SHEET NO. 40 OF 40 SHEETS STA. TO STA.		ILLINOIS	FED. AID PROJECT		

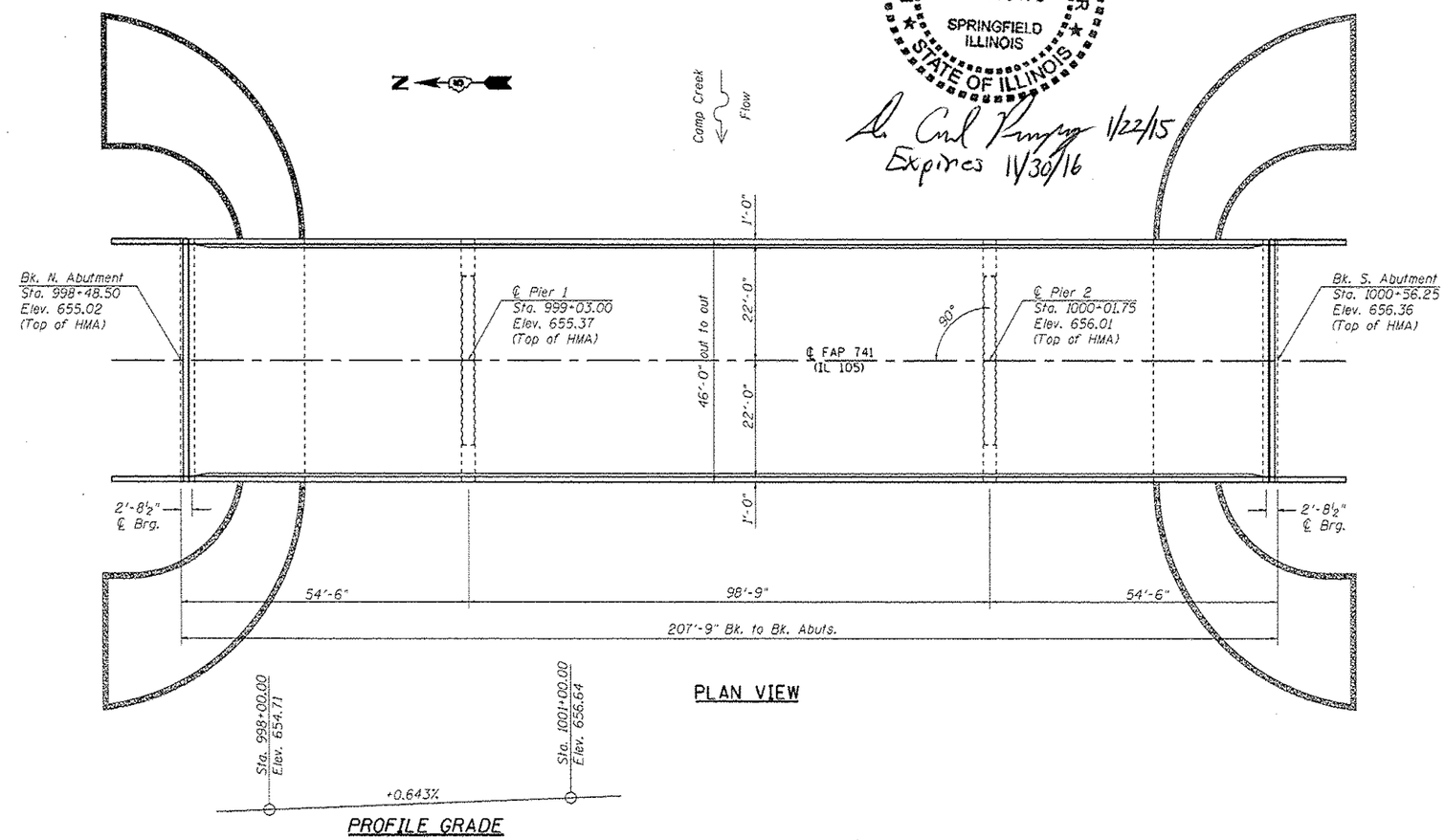
GENERAL PLAN & ELEVATION
S.N. 074–0072



ELEVATION VIEW

LICENSED STRUCTURAL ENGINEER
DAVID CARL PUZEY
081-005470
SPRINGFIELD
ILLINOIS
STATE OF ILLINOIS

D. Carl Puzey 1/22/15
Expires 11/30/16



PLAN VIEW

PROFILE GRADE

S.N. 074-0072 was built in 1977 as FAS 540, Section 7BR at Station 999+52.38. The structure carries IL 105 over Camp Creek. The original joints were replaced with polymer nosing and silicone joint sealer by District 5 Bridge Crew personnel in the Fall of 2006.

The three span structure measures 207'-9" back to back of abutment, with the spans measuring 54'-6", 98'-9", and 54'-6". The structure has an out to out width of 46'-0", a face to face of parapet width of 44'-0", and a clear width of 42'-6". The superstructure consists of a 7 1/2" concrete slab with an 1½" HMA wearing surface and waterproofing membrane supported by six 54" PPC I-beams. The open abutments and piers are supported by concrete piles.

Method of Construction: Stage Construction

PROPOSED WORK

1. Removal of existing Waterproofing Membrane System and H.M.A. Wearing Surface.
2. Removal of existing Polymer Concrete Nosing and Silicone Joints at both abutments.
3. Removal of Hatch Blocks at both abutments.
4. Partial removal of Deck Ends, Parapets, and Wingwalls at both abutments.
5. Perform Partial Depth Patching.
6. Place Reinforcement Bars, Locking Edge Rail, and Studs.
7. Construct proposed Hatch Blocks, Deck Ends, and Wingwalls.
8. Insert Rubber Strip Seal into Locking Edge Rails.
9. Construct Parapet Ends.
10. Place proposed Waterproofing Membrane System and proposed H.M.A. Wearing Surface.
11. Perform Structural Concrete Repairs.

BILL OF MATERIAL

Item	Unit	Total
H.M.A. Surface Removal (Deck)	Sq Yd	966.0
Deck Slab Repair (Partial Depth)	Sq Yd	145.0
Concrete Removal	Cu Yd	8.2
Reinforcement Bars, Epoxy Coated	Pound	830.0
Bar Splicers	Each	12.0
Concrete Superstructure	Cu Yd	8.6
Waterproofing Membrane System	Sq Yd	977.0
H.M.A. Surface Course, Mix D, N50	Ton	82.0
Preformed Joint Strip Seal	Foot	96.0
Polymer Modified Portland Cement Mortar	Sq Ft	1.8
Pumpable Concrete Mix	Cu Ft	3.0
Structural Repair of Concrete, Depth =< 5"	Sq Ft	8.0

GENERAL NOTES

Plan dimensions and details relative to the 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 work, however, the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

See special provision "Deck Slab Repair" for additional requirements pertaining to Deck Slab Repair and H.M.A. Surface Removal (Deck).

S.N. 074-0072 have been determined, through testing, not to involve asbestos in a Bituminous Bridge Deck wearing surface or Waterproofing Membrane. As Certified with BBS Form 2536, August 22, 2001.

FILE NAME = c:\pw_work\pwidot\shawleres\d0412044\D530475_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED - RTC	REVISED -
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	PLOT DATE = 12/2/2014	DATE -	REVISED -

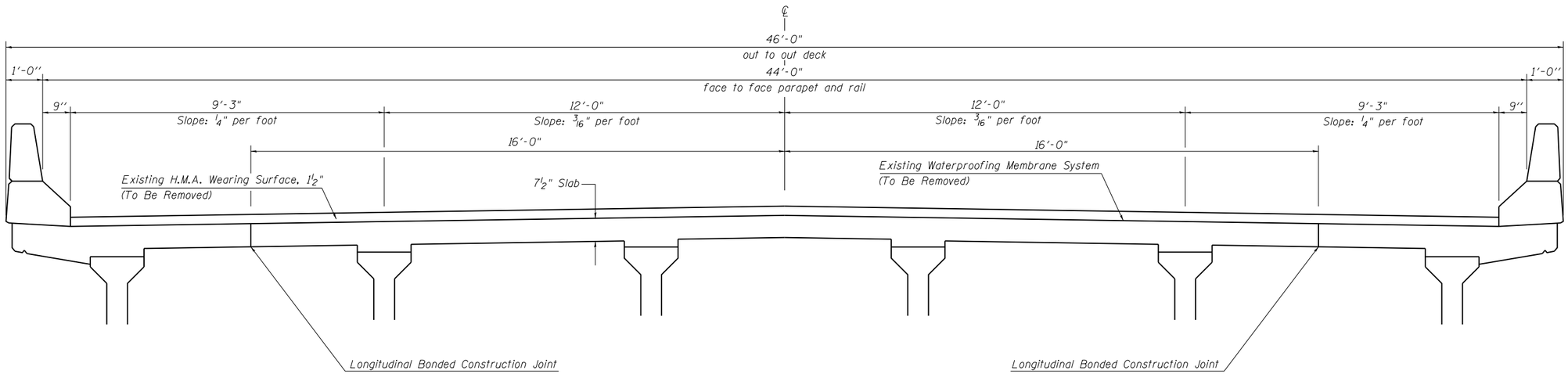
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
S.N. 074–0072

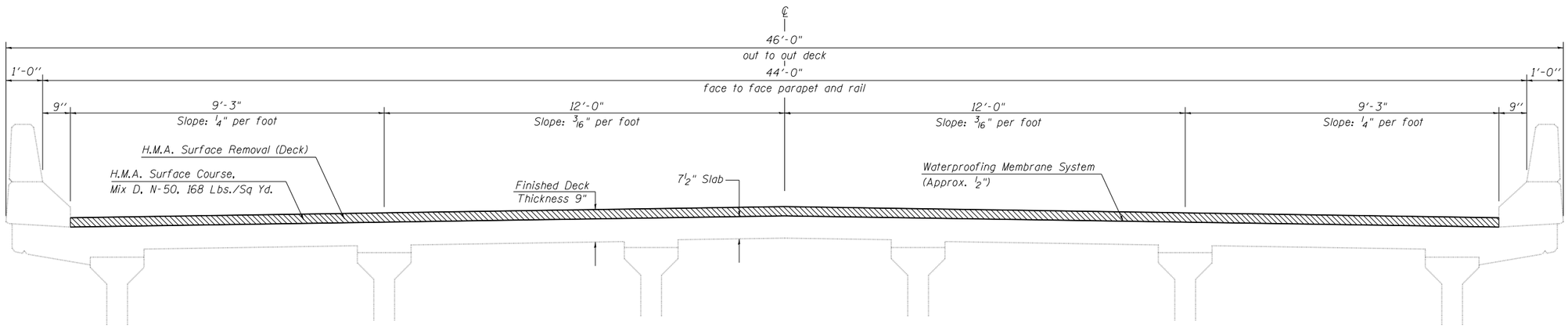
SCALE: | SHEET 1 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BRI)	PIATT	72	48
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

EXISTING CROSS SECTION
S.N. 074–0072



PROPOSED CROSS SECTION
S.N. 074–0072



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	PLOT DATE = 12/2/2014	DATE -	REVISED -

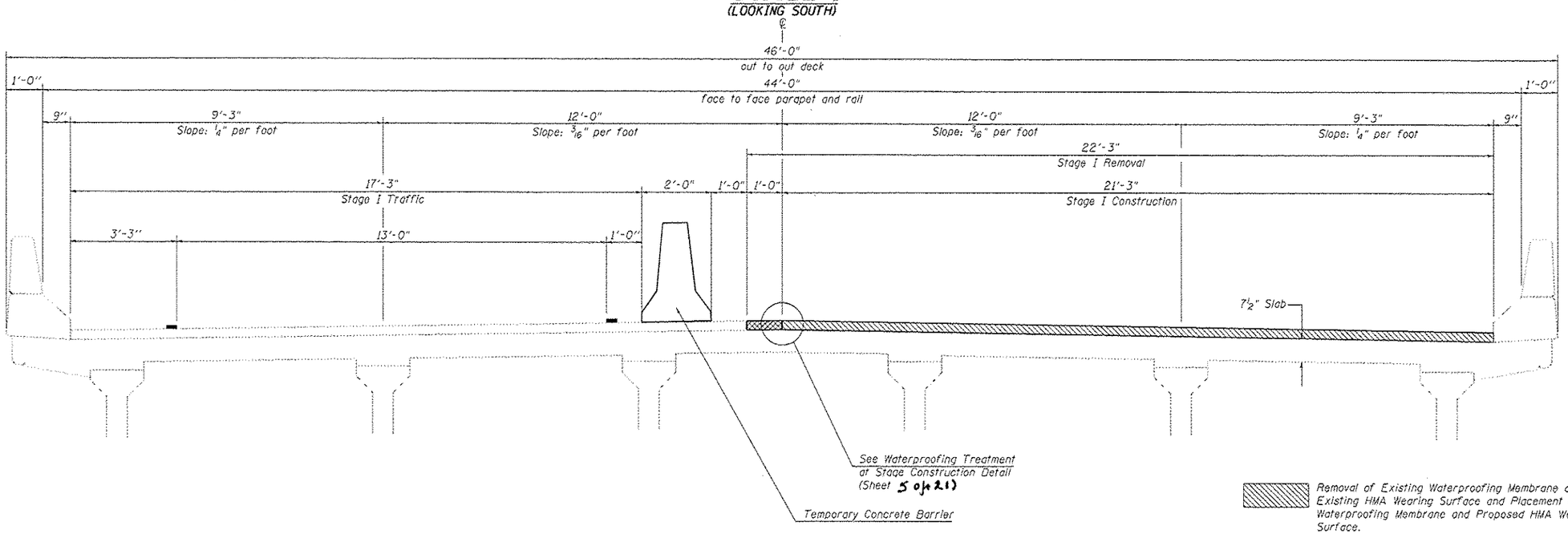
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS
S.N. 074–0072

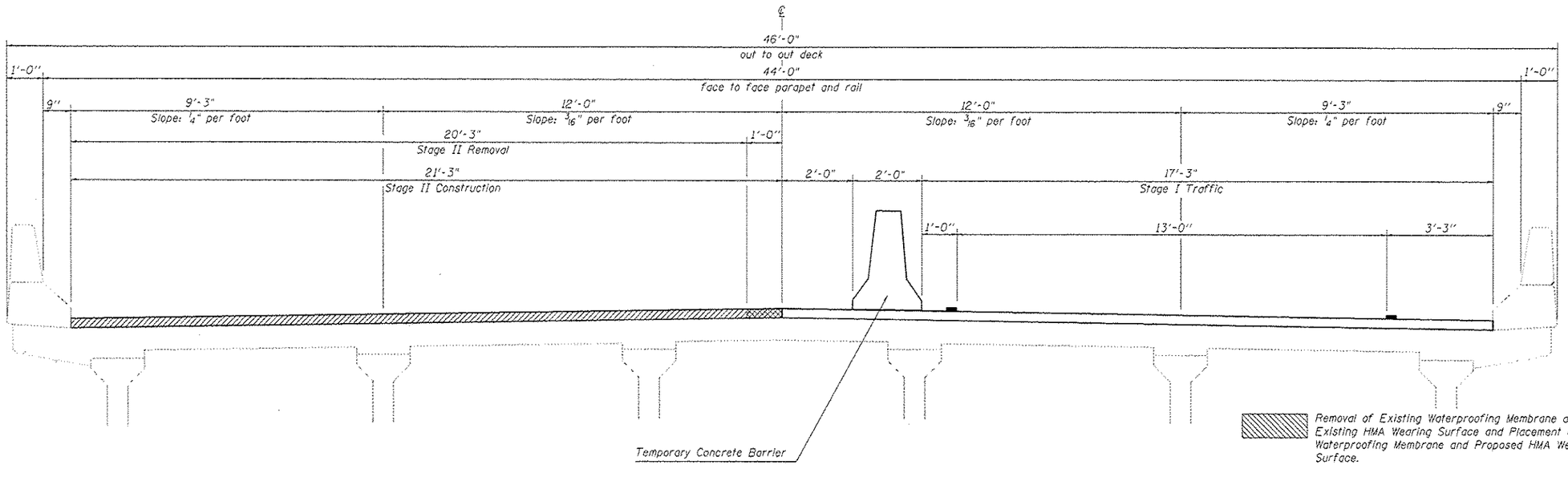
SCALE: | SHEET 2 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	49
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

STAGE I
(LOOKING SOUTH)



STAGE II
(LOOKING SOUTH)



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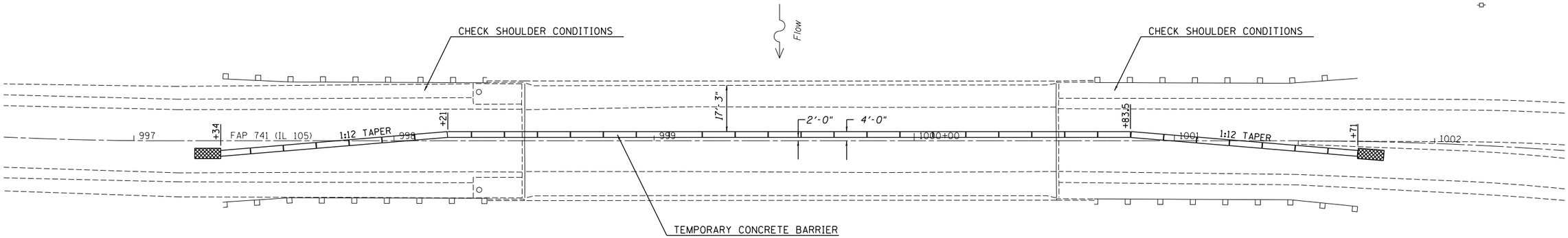
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STAGE CONSTRUCTION DETAILS
S.N. 074-0072

SCALE: | SHEET 3 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(78R)I	PIATT	72	50
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

TEMPORARY CONCRETE BARRIER LAYOUT – STAGE I SN 074–0072



PLAN NOTES:

ALL STAGING DETAILS SET UP IN ACCORDANCE WITH TRAFFIC CONTROL AND PROTECTION 701321.

PRIOR TO BARRIER PLACEMENT TRAFFIC CONTROL SHALL BE SET UP IN ACCORDANCE WITH STANDARD 701201.

FOR ADDITIONAL DETAILS ASSOCIATED WITH TEMPORARY CONCRETE BARRIER, SEE STANDARD 704001.

THE CONTRACTOR SHALL PROVIDE AND MAINTAIN ACCESS TO COMMERCIAL AND PRIVATE PROPERTIES ABUTTING THE HIGHWAY BEING IMPROVED IN ACCORDANCE WITH ARTICLE 107.09 OF THE STANDARD SPECIFICATIONS.

REFLECTORS AND VERTICAL PANELS FOR BARRIER WALL, BRIDGE RAIL AND GUARDRAIL SHALL BE INCLUDED IN THE COST FOR THE APPLICABLE TRAFFIC CONTROL PAY ITEMS.

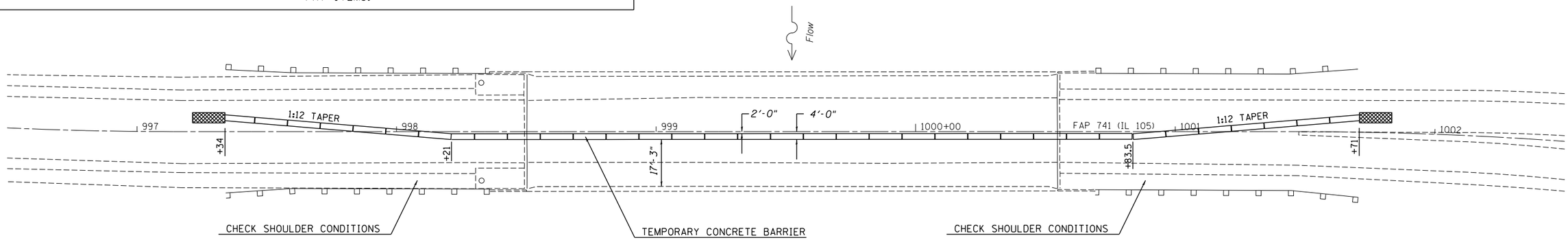
ATTACH VERTICAL PANELS TO THE GUARDRAIL AT 25 FOOT CENTERS. THIS COST WILL BE INCIDENTAL TO STANDARD 701321.

REFLECTORIZED SHORT-TERM MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER, ALONGSIDE THE WORK AREA, ON BOTH SIDES OF THE WORK AREA FROM STOP BAR TO STOP BAR. ALSO, ANY EXISTING MARKINGS THAT CONFLICT WITH THE STAGED TRAFFIC MARKINGS SHALL BE BLACKED OUT. COST OF BLACKING OUT EXISTING MARKINGS AND FOR THE PLACEMENT AND REMOVAL OF SHORT-TERM MARKINGS SHALL BE INCLUDED IN COST FOR APPLICABLE TRAFFIC CONTROL PAY ITEMS.

SYMBOLS

- TEMPORARY CONCRETE BARRIER
- IMPACT ATTENUATOR

TEMPORARY CONCRETE BARRIER LAYOUT – STAGE II SN 074–0072



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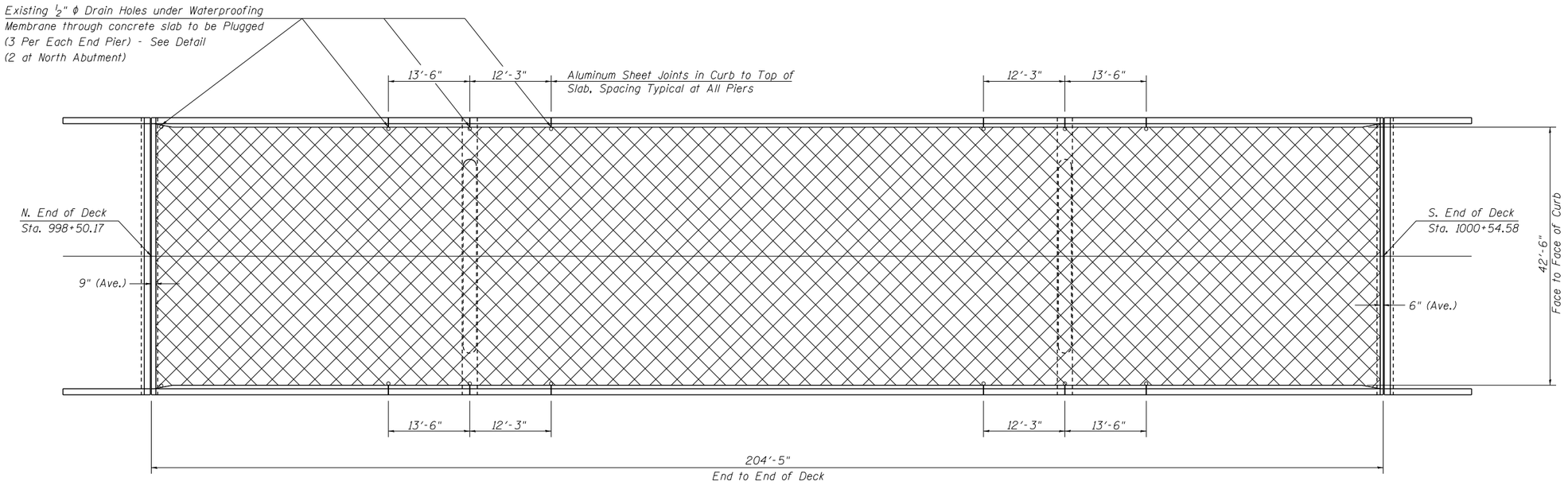
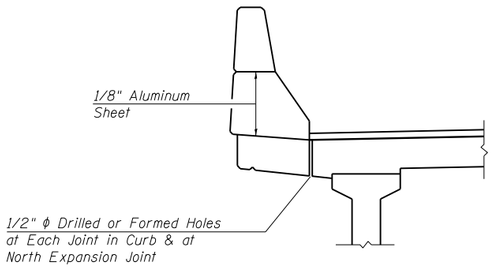
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER LAYOUT
S.N. 074–0072

SCALE: | SHEET 4 OF 21 SHEETS | STA. | TO STA.

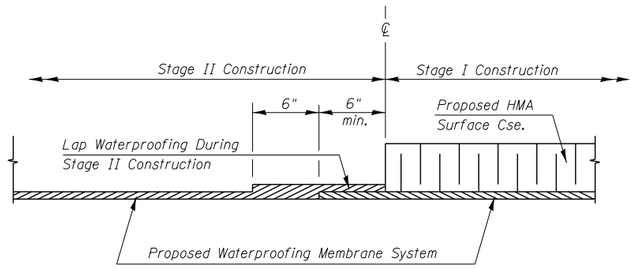
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	51
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		





DETAIL OF DRAIN HOLES AT CURB JOINTS

(TO BE PLUGGED) - SEE NOTES, THIS SHEET



WATERPROOFING TREATMENT AT STAGE CONSTRUCTION

LEGEND

H.M.A. SURFACE REMOVAL (DECK) & PROPOSED H.M.A. WEARING SURFACE AND WATERPROOFING MEMBRANE SYSTEM

BILL OF MATERIAL

Item	Unit	Total
H.M.A. Surface Removal (Deck)	Sq Yd	966.0
Waterproofing Membrane System	Sq Yd	977.0
H.M.A. Surface Course, Mix D, N50	Ton	82.0
Deck Slab Repair (Partial)	Sq Yd	145.0

NOTES

Area of Deck Slab Repair has been estimated at 15% of the total deck area. The actual quantity and locations shall be determined by the Engineer after the existing H.M.A. Wearing Surface and Waterproofing Membrane are removed. The Engineer shall show the actual locations of the Deck Repairs on this sheet.

All (qty. 14) 1/2" ϕ drain holes at curb joints & the north abutment shall be filled with a two component non-staining gray sealing compound with polysulfide liquid polymers - gun grade with primer. Cost to be included with Deck Slab Repair.

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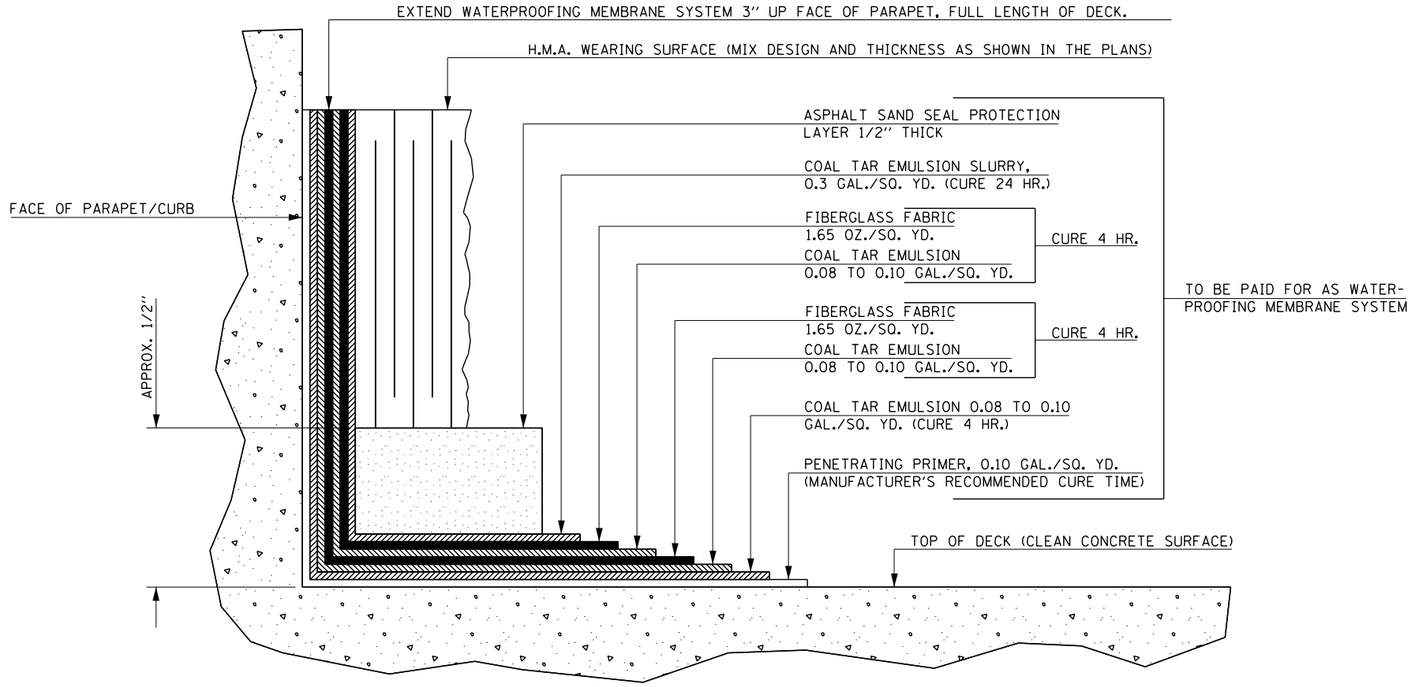
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WEARING SURFACE & PATCHING DETAILS
S.N. 074-0072

SCALE: | SHEET 5 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	52
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		



NOTES

THIS DETAIL HAS BEEN INCLUDED TO ILLUSTRATE THE ASSOCIATED LAYERS AND CURE TIMES NECESSARY FOR THE PLACEMENT OF THE WATERPROOFING MEMBRANE SYSTEM. THIS DETAIL SHALL SUPPLEMENT, NOT SUPERSEDE, SECTION 581 OF THE STANDARD SPECIFICATIONS.

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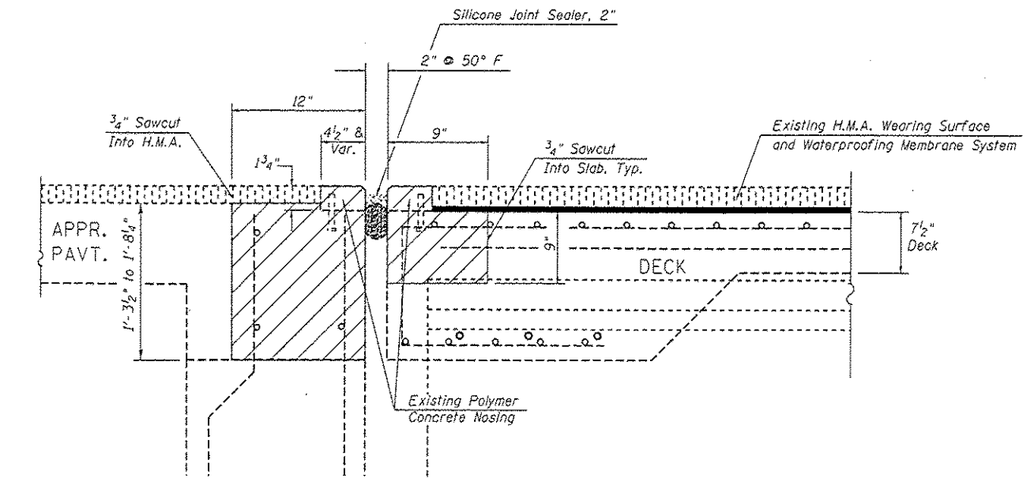
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WATERPROOFING MEMBRANE SYSTEM
S.N. 074-0072

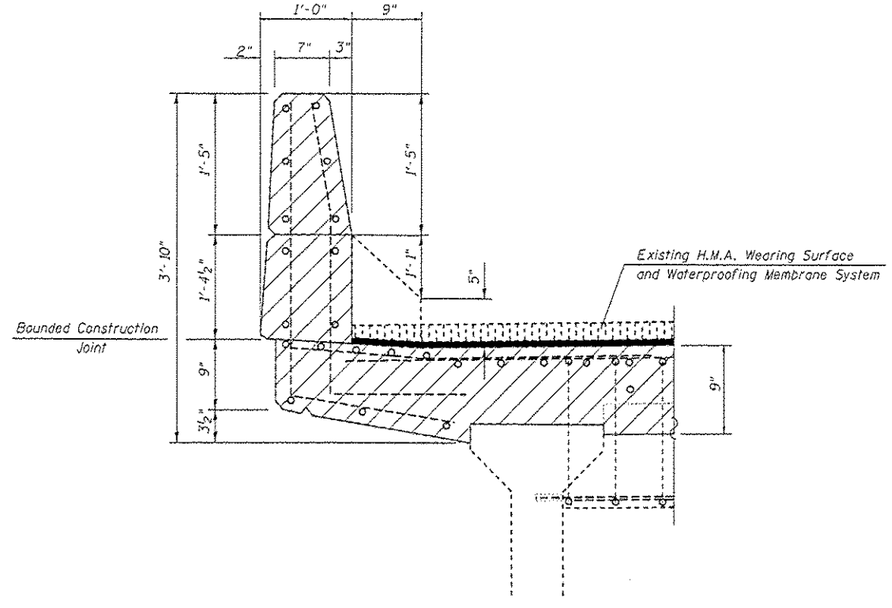
SCALE: | SHEET 6 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	53
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



SECTION A-A

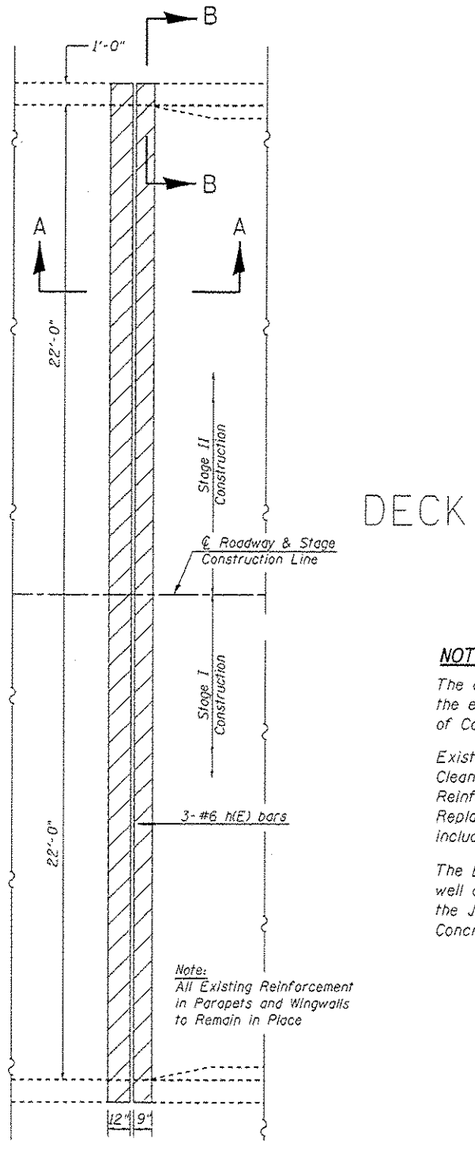
Showing Concrete Removal limits at Abutment / Deck



SECTION B-B

Showing Concrete Removal limits Limits at Parapet

APPR. PAVT. DECK



PLAN AT JOINT

SHOWING CONCRETE REMOVAL AT HATCH BLOCK & DECK END (SAME AT OPPOSITE JOINT)

NOTES

The cost of the removal of the existing polymer concrete nosing at the expansion joints at both abutments shall be included in the cost of Concrete Removal.

Existing Reinforcement Bars Extending into the Removal Area Shall Be Cleaned, Straightened 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.

The Existing Expansion Joint Systems Shall be Removed Completely, As well as Any Foreign Material that has Accumulated or Been Placed in the Joint Openings. The Cost for this Work is Included In the Concrete Removal and No Additional Compensation Will Be Allowed.

BILL OF MATERIAL

ITEM $\frac{1}{3}$	UNIT	TOTAL
Concrete Removal	Cu Yd	8.2

Extreme care must be exercised during concrete removal operations, any damage done to the PPC I beams shall be repaired by the contractor, at his expense, to the satisfaction of the Engineer.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

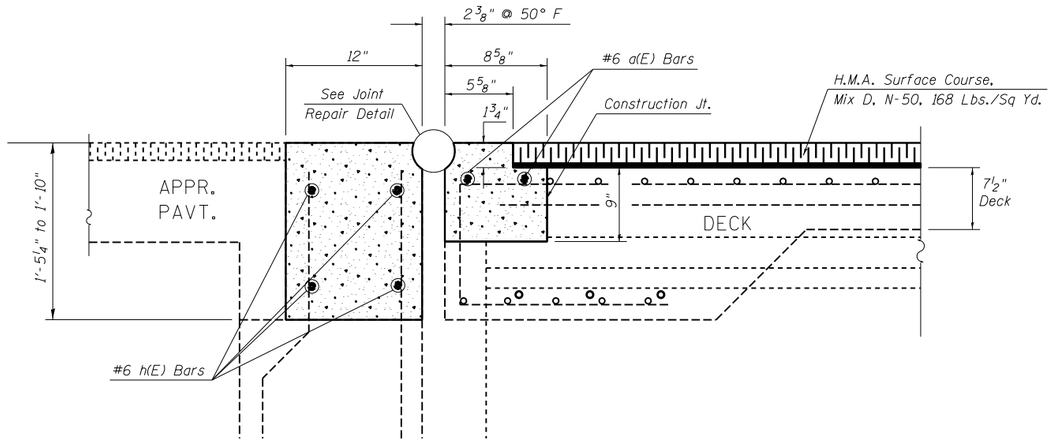
CONCRETE REMOVAL DETAIL
S.N. 074-0072

SCALE: | SHEET 7 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	54

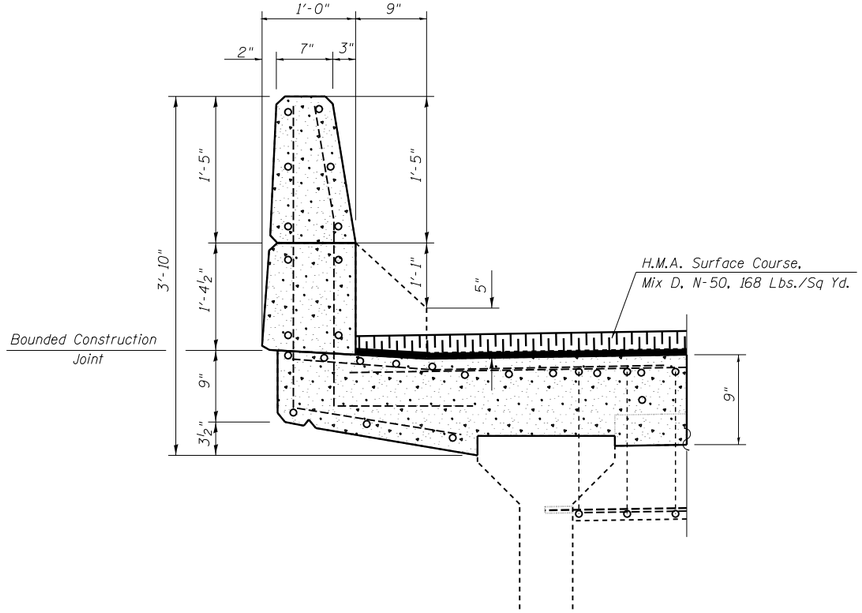
CONTRACT NO. 70A75

ILLINOIS FED. AID PROJECT



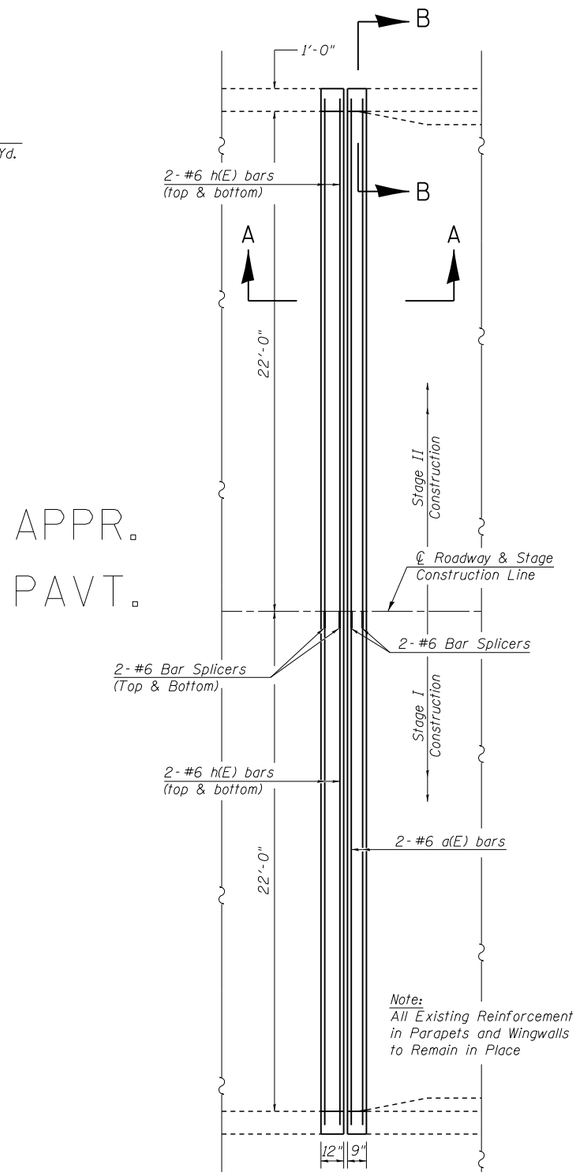
SECTION A-A

Showing Concrete Superstructure
limits at Abutment / Deck



SECTION B-B

Showing Concrete Superstructure
Limits at Parapet



PLAN AT JOINT

SHOWING REINFORCEMENT
AT HATCH BLOCK & DECK END
(SAME AT OPPOSITE JOINT)

NOTES

Existing Reinforcement Bars Extending into the Removal Area Shall Be Cleaned, Straightened 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.

Reinforcement Bars Designated (E) shall Be Expoxy Coated.

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	8	#6	22'-9"	———
h(E)	16	#6	22'-9"	———
Reinforcement Bars, Epoxy Coated			Pound	830.0
Bar Splicers			Each	12.0
Concrete Superstructures			Cu Yd	8.6
Preformed Joint Strip Seal			Foot	96.0

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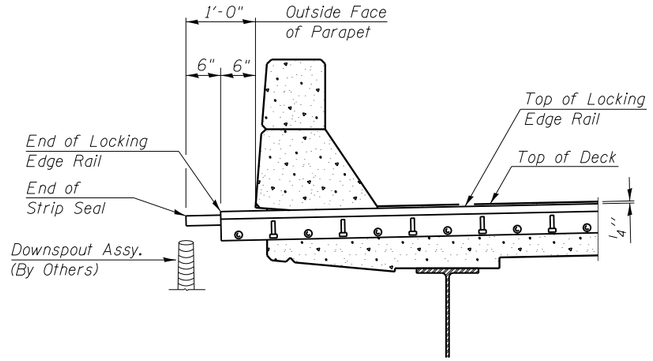
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

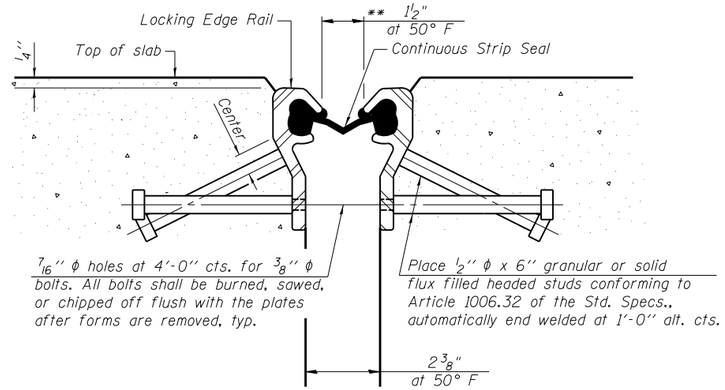
SUPERSTRUCTURE REPAIR DETAIL
S.N. 074-0072

SCALE: | SHEET 8 OF 21 SHEETS | STA. | TO STA.

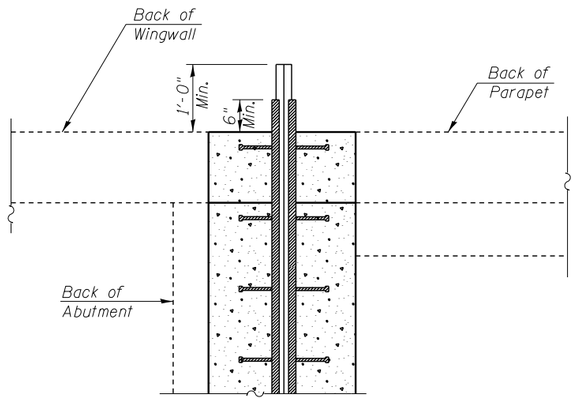
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	55
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



SECTION AT PROPOSED JOINT



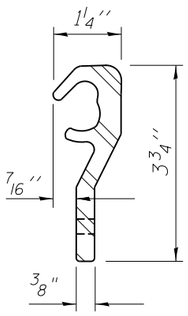
SECTION THRU EXPANSION STRIP SEAL JOINT



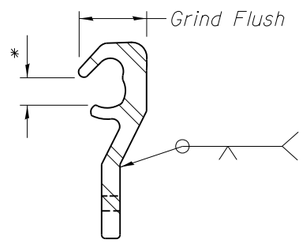
* OMIT WELD AT SEAL OPENING.

** THE MINIMUM DIMENSION SHALL BE 1½" FOR INSTALLATION PURPOSES.

PLAN VIEW AT PARAPET



ROLLED (EXTRUDED) 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 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 AND STAGE CONSTRUCTION JOINTS. THE INSIDE OF THE LOCKING EDGE RAIL GROVE SHALL BE FREE OF WELD RESIDUE.

THE MANUFACTURER'S RECOMMENDED INSTALLATION METHODS SHALL BE FOLLOWED.

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. JOINTS IN RAILS WITHIN 10 FT. OF CURBS SHALL BE WELDED.

SEE SUPERSTRUCTURE REPAIR DETAILS FOR REINFORCEMENT REQUIRED.

BILL OF MATERIAL

Structure	Item	Unit	Total
N. Abut.	Preformed Joint Strip Seal	Foot	48.0
S. Abut.	Preformed Joint Strip Seal	Foot	48.0

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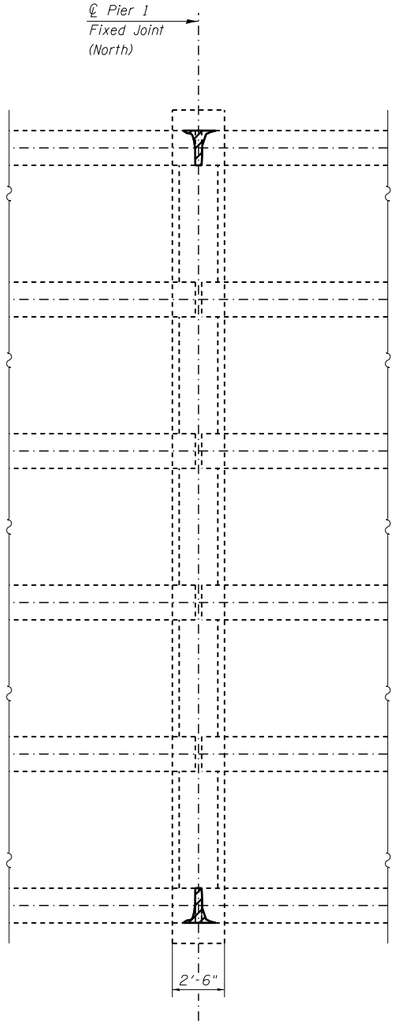
	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

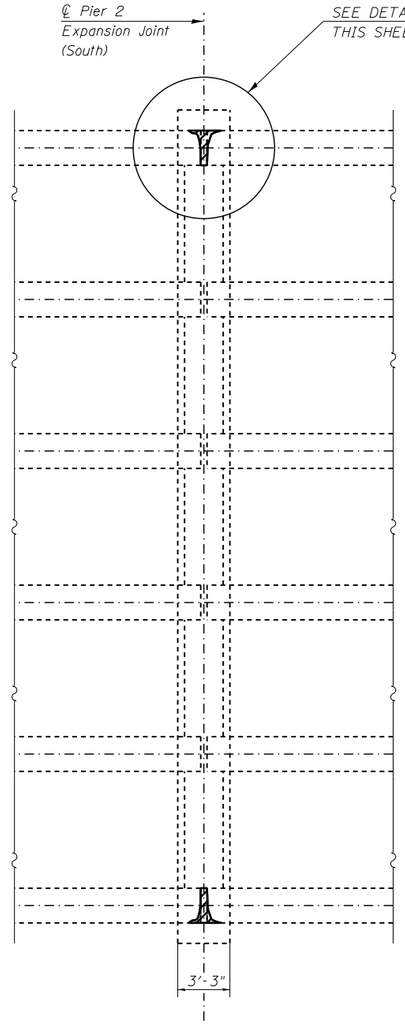
JOINT REPAIRS DETAIL
S.N. 074-0072

SCALE: | SHEET 9 OF 21 SHEETS | STA. | TO STA.

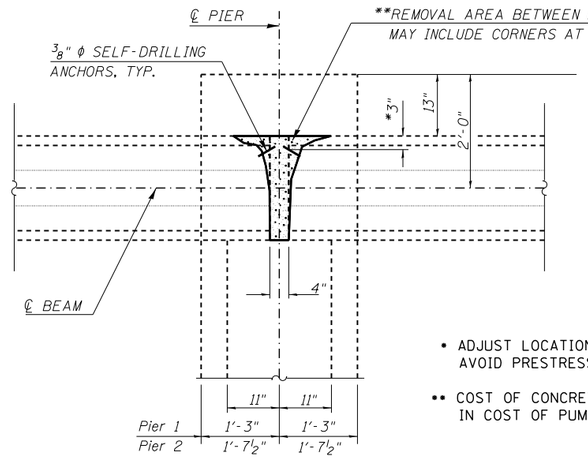
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	56
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



PLAN AT PIER 1
(SHOWING REPAIR LOCATIONS)

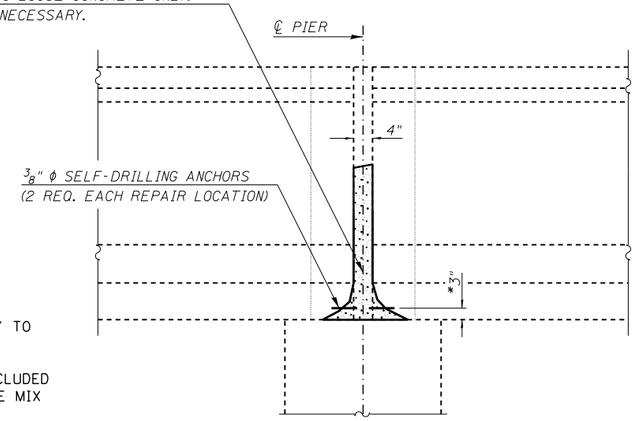


PLAN AT PIER 2
(SHOWING REPAIR LOCATIONS)

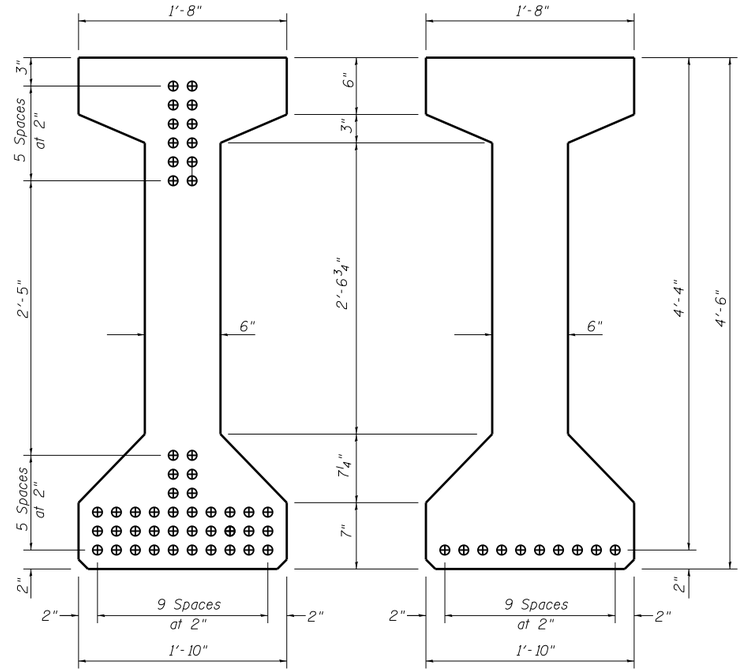


PLAN
(COMPRESSION BLOCK REPAIR)

- ADJUST LOCATION AS NECESSARY TO AVOID PRESTRESSING STRANDS
- ** COST OF CONCRETE REMOVAL INCLUDED IN COST OF PUMPABLE CONCRETE MIX



ELEVATION
(COMPRESSION BLOCK REPAIR)



SECTION OF P.P.C. I-BEAM
SPAN 2
(SHOWING PRE-STRESSING STRANDS)

SECTION OF P.P.C. I-BEAM
SPANS 1 & 3
(SHOWING PRE-STRESSING STRANDS)

NOTES

The removal of the existing concrete at the compression block repair locations shall be limited to all loose or delaminated concrete only. The contractor shall use extreme care during this removal process to prevent any damage to the existing pre-stressing strands. Special attention shall also be given when using self-drilling anchors in the patch areas. The anchors should not make contact with any of the pre-stressing strands.

The contractor shall use a pumpable concrete mix for the repair. See special provision for pumpable concrete mix for mix requirements. Costs for all work and materials necessary to complete the repairs as shown on this sheet shall be included in cost of Pumpable Concrete Mix.

BILL OF MATERIAL

Item	Unit	Total
Pumpable Concrete Mix	Cu Ft	3.0

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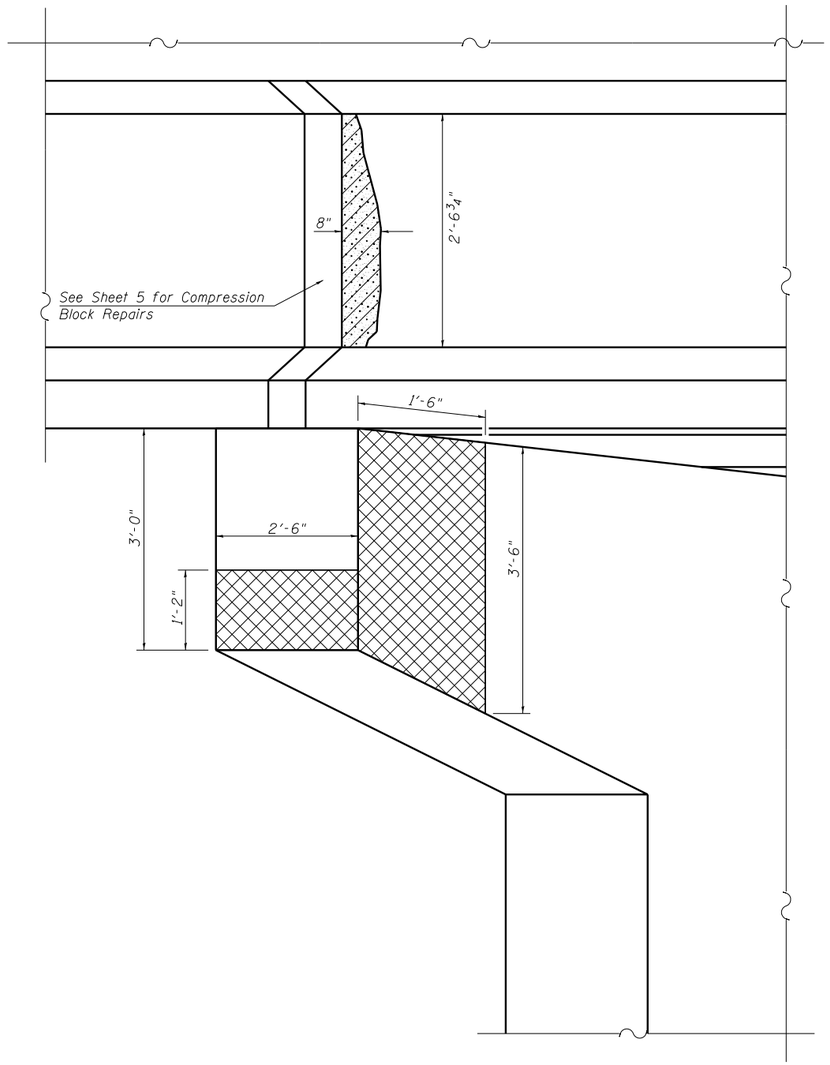
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

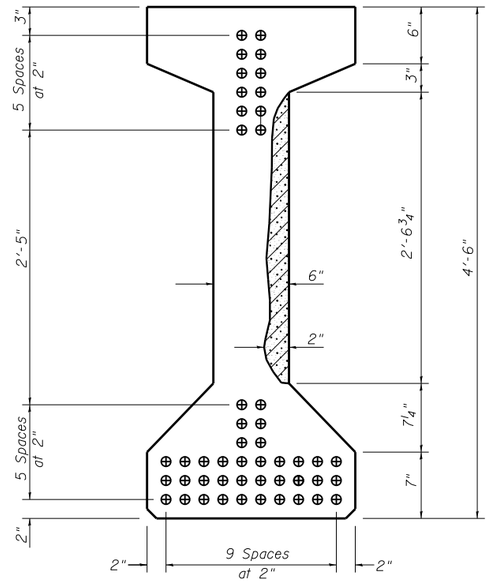
COMPRESSION BLOCK REPAIRS
S.N. 074-0072

SCALE: | SHEET 10 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	57
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



ISOMETRIC VIEW AT PIER 1
WEST FACE OF STRUCTURE



SECTION OF P.P.C. I-BEAM
SPAN 2
(SHOWING PRE-STRESSING
STRANDS)

LEGEND

Polymer Modified Portland Cement Mortar

Structural Repair of Concrete, Depth Equal to or Less Than 5"

NOTE:

See Special Provision for Structural Repair of Concrete & Polymer Modified Portland Cement Mortar.

BILL OF MATERIAL

Structure	Item	Unit	Total
074-0072	Structural Repair of Concrete, Depth Equal to or Less than 5"	Sq. Ft.	8.0
	Polymer Modified Portland Cement Mortar	Sq. Ft.	1.8

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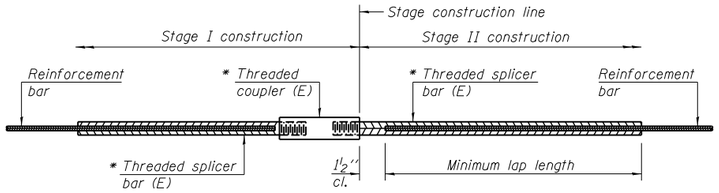
		DRAWN - RTC	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - TJB	REVISED -
	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR AND PPC I-BEAM REPAIRS
S.N. 074-0072

SCALE: | SHEET 11 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	58
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



STANDARD BAR SPLICER ASSEMBLY

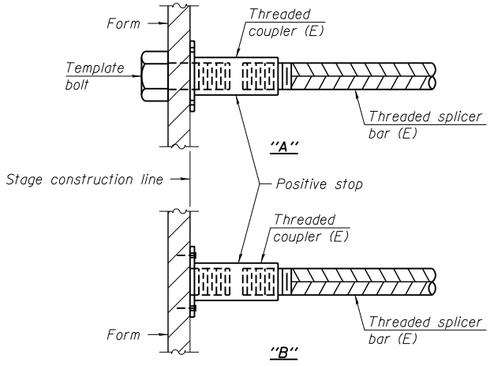
Minimum Lap Lengths					
Bar size to be spliced	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

Table 1: Black bar, 0.8 Class C
Table 2: Black bar, Top bar lap, 0.8 Class C
Table 3: Epoxy bar, 0.8 Class C
Table 4: Epoxy bar, Top bar lap, 0.8 Class C
Table 5: Epoxy bar, Top bar lap, Class B

Threaded splicer bar length = min. lap length + 1½" + thread length

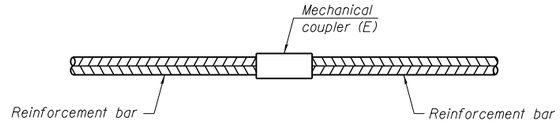
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
N. Hatch Block	6	4	Table 3
S. Hatch Block	6	4	Table 3
N. Deck End	6	2	Table 3
S. Deck End	6	2	Table 3



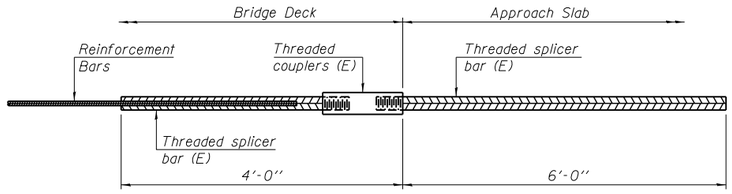
INSTALLATION AND SETTING METHODS

"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.



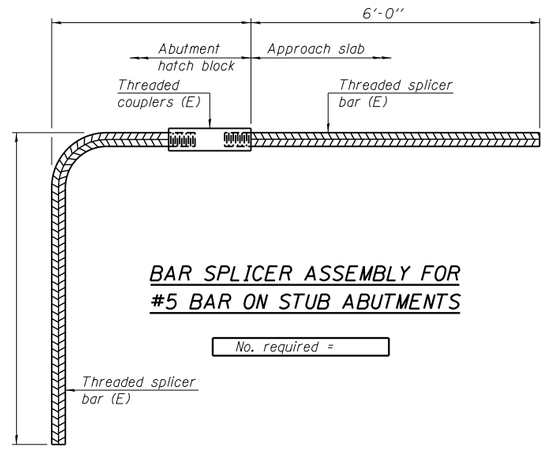
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required



BAR SPLICER ASSEMBLY FOR #5 BAR ON INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

No. 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 special provision for Mechanical Splicers.

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

BSD-1 7-1-10

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	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY AND MECHANICAL SPLICER DETAILS
S.N. 074-0072

SCALE: | SHEET 12 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	59
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

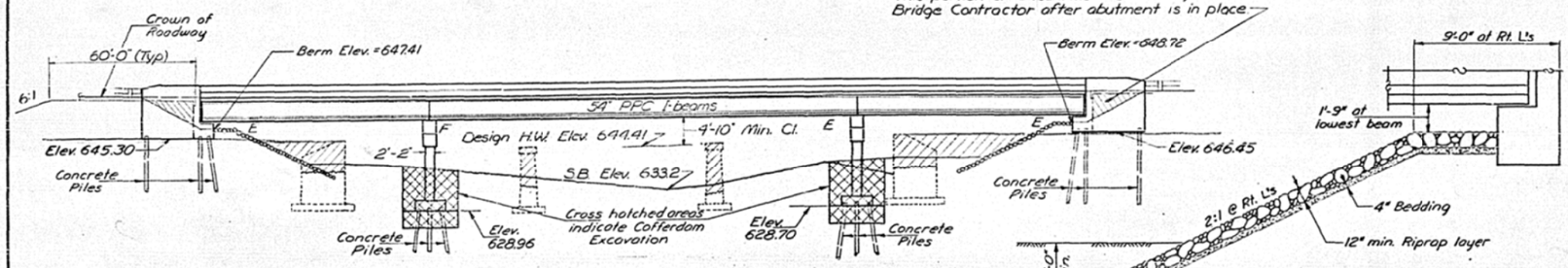
BENCHMARK: Chiseled "O" on top of wingwall, NE corner of bridge at Sta. 999+10. Elev. 645.07

EXISTING STRUCTURE: #074-0031 Built in 1921 as SBI 10, Sec. 7B at Sta. 999+10. Consists of 3 RC slab spans on RC closed abutments and concrete piers. Contractor shall remove existing structure as shown during construction. No salvage. Traffic to be detoured over state marked routes.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

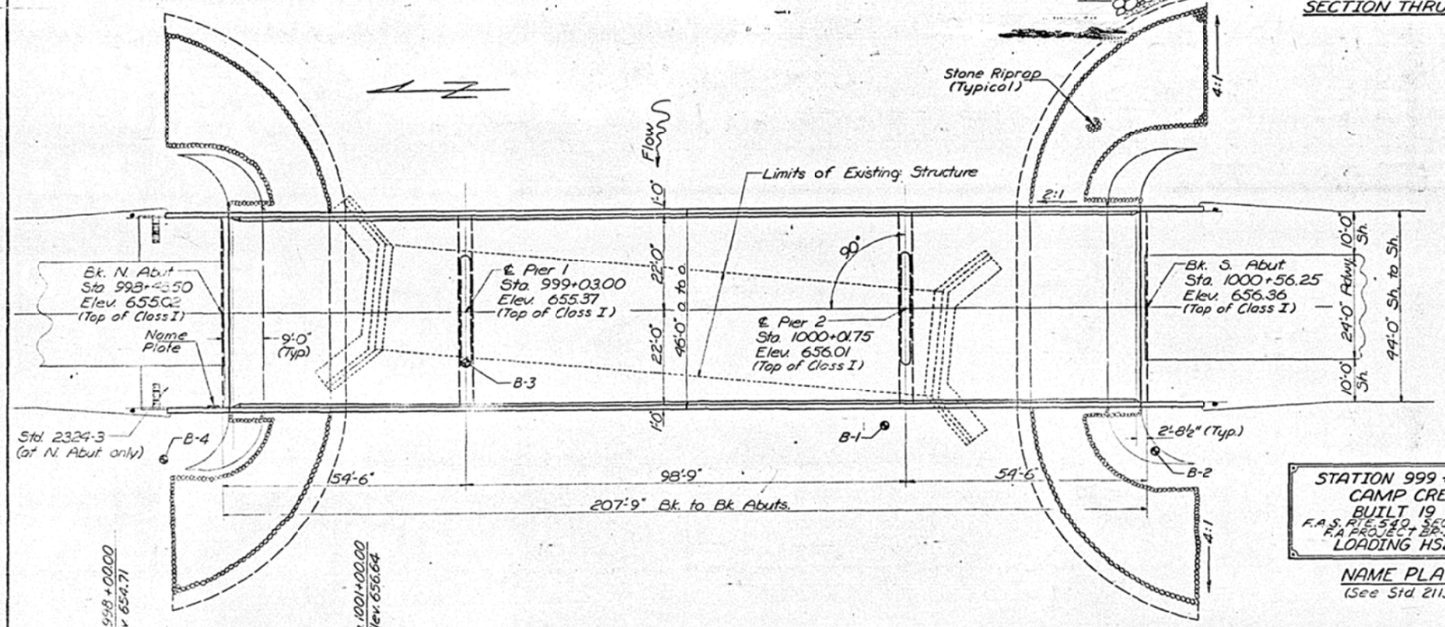
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 540	7BR	Piatt	34	12
PROJ. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT		

SHEET NO. 1
16 SHEETS



ELEVATION

SECTION THRU RIPRAP



PROFILE GRADE

STATION 999 + 52.38
CAMP CREEK
BUILT 19
F.A.S. RTE. 540 SEC. 7BR
F.A. PROJECT BR-S-540(102)
LOADING HS20

NAME PLATE
(See Std 2113)

GENERAL NOTES

The basic lead silico chromate paint system shall be used for shop and field painting of structural steel and exposed portions of bearing plates.

The Contractor shall drive one each concrete test piles at Pier 1 and South Abutment in a permanent location as directed by the Engineer before ordering the remainder of the piles.

Protective Coat shall not be applied to surfaces to which Waterproofing Membrane System is applied.

The concrete rail section above the mandatory construction joint at the top of the slab shall be constructed of Class X Concrete, except the aggregates shall conform to the requirements of Handrail Concrete.

For Boring Data see the Proposal.

The embankment configuration shown shall be the minimum embankment that must be constructed prior to construction of the abutments.

TOTAL BILL OF MATERIAL

	Item	Unit	Super	Sub	Total
	Bituminous Concrete Surface Course, Class I	Tons	53		53
	Removal of Existing Structures	Each	1		1
	Cofferdam Excavation	Cu.Yds.		407	407
	Protective Coat	Sq.Yds.	190		190
	Class X Concrete	Cu.Yds.	324.7	253.5	578.2
	Furnishing & Erecting Precast Prestressed Concrete I-Beams (54")	Lin.Ft.	1221		1221
	Structural Steel	Lbs.	340		340
	Reinforcement Bars	Lbs.	75,610	22,140	97,750
	Concrete Piles	Lin.Ft.		1849	1849
	Test Piles Concrete	Each		2	2
	Stone Riprap	Sq.Yds.		1680	1680
	Neoprene Expansion Joint (2")	Lin.Ft.	90		90
*	Waterproofing Membrane System	Sq.Yds.	965		965
	Name Plates	Each	1		1
	Seal Coat Concrete	Cu.Yds.		86	86
	Cofferdams	Each		2	2

*See Special Provisions

DESIGN STRESSES

FIELD UNITS
fc = 1200 psi - Deck Slab
fc = 1400 psi - Curb, Parapet
fs = 20,000 psi - Struct., Reinf. for Parapet & Transverse Slab

PRECAST PRESTRESSED UNITS
fc = 6000 psi
fci = 5380 psi (Span 2 Bms.); 4000 psi (Span 1 & 3 Bms.)
fs = 270,000 psi - ½" ϕ strands
fsi = 189,000 psi - ½" ϕ strands

SUBSTRUCTURE - Load Factor Design
fc' = 3500 psi - Substruct.
fy = 60,000 psi (Grade 60) - Substruct. & Long. Slab

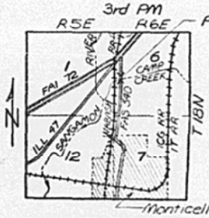
DESIGN LOADING: HS20-44
Design to current AASHTO

Allow 25 PSF for future wearing surface

WATERWAY INFORMATION

Drainage Area	335.40 acres
Present Opening	858 sq. ft.
Required Opening	1125 sq. ft.
Proposed Opening	1125 sq. ft.
Design Q(50)	5120 cfs
Q(100)	6160 cfs
Created Head (50)	0.56'
Created Head (100)	0.67'
100 year Headwater Elev.	649.96
50 year Backwater Elev.	649.96
100 year Backwater Elev.	647.03

DESIGNED	J. Paul C. Klinger	February 9 1976
CHECKED	[illegible]	
DRAWN	G.M.R.	
CHECKED	G.M.	
EXAMINED	[illegible]	
PASSED		
APPROVED		



LOCATION SKETCH

GENERAL PLAN AND ELEVATION
FAS RTE 540 OVER CAMP CREEK
FAS RTE 540, SEC 7BR
PIATT COUNTY
STATION 999+52.38

510. 14

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	PLOT DATE = 12/3/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

SCALE: | SHEET 13 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)1	PIATT	72	60
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

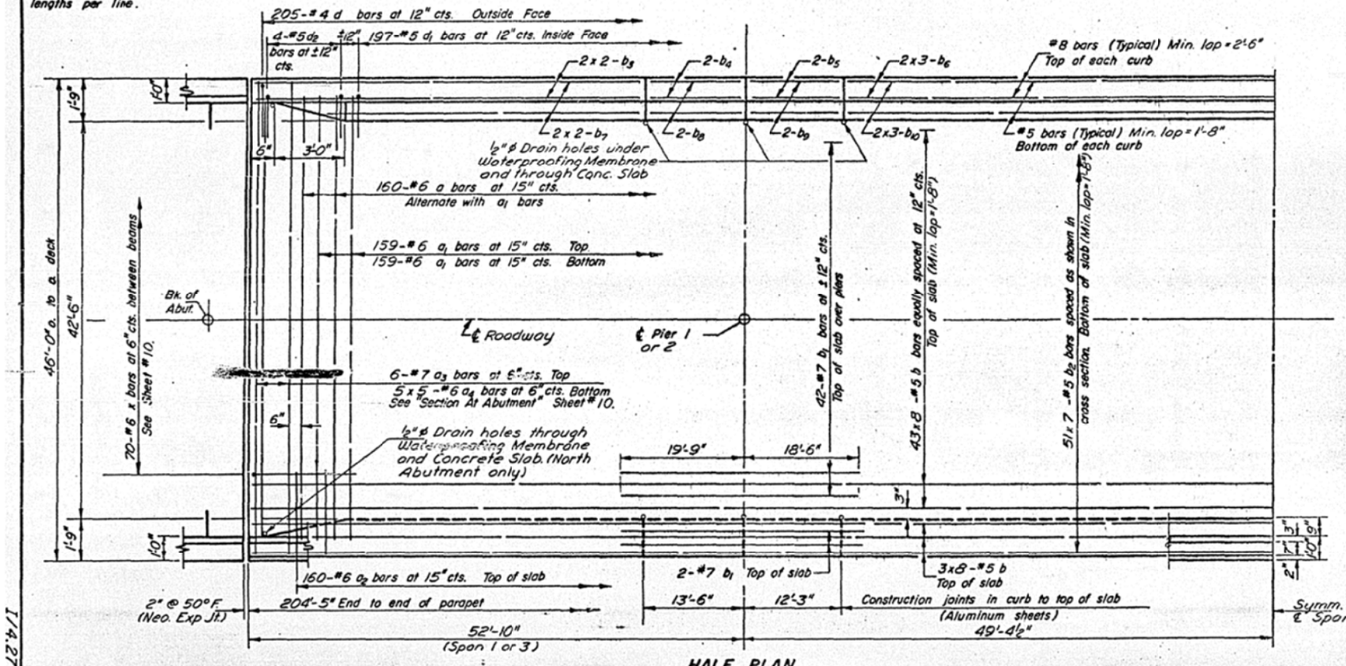
AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 540	7BR	Piatt	34	15

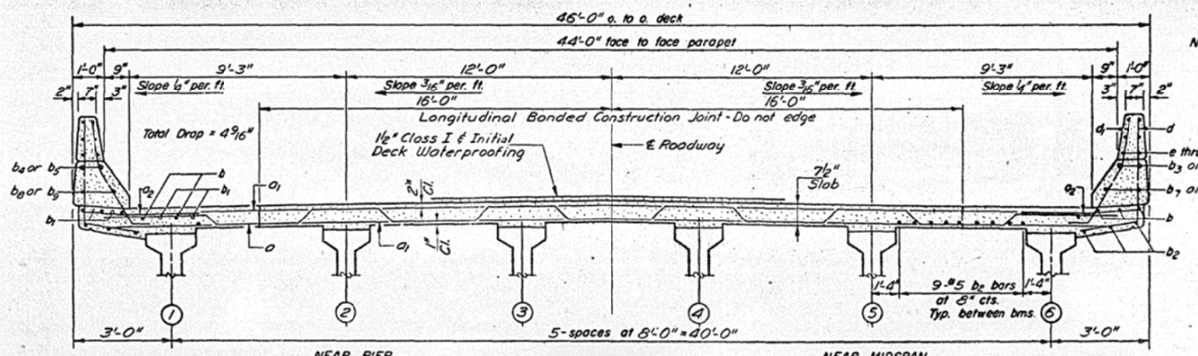
SHEET NO. 4
16 SHEETS

Note:
Bars indicated thus 20 x 3-#5 etc. indicates 20 lines of bars with 3 lengths per line.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

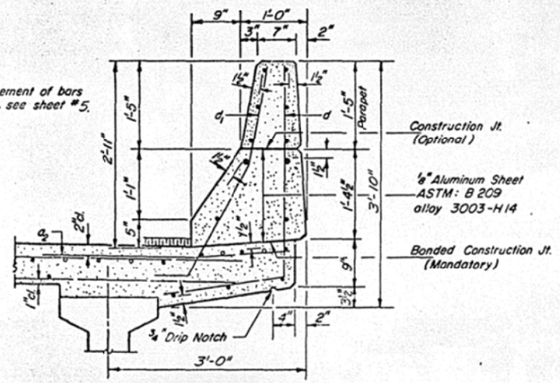


HALF PLAN

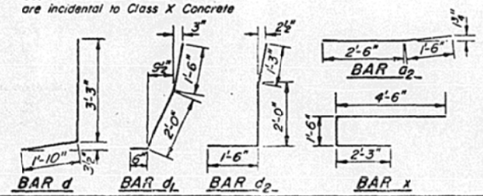


CROSS SECTION
LOOKING SOUTH

Note: For placement of bars e thru e_3 see sheet #5.



CURB SECTION
Cost of Aluminum Sheets are incidental to Class X Concrete



BILL OF MATERIAL

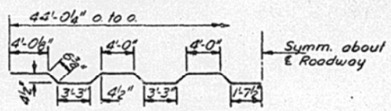
Bar	No.	Size	Length	Shape
a	160	#6	45'-7"	
a_1	318	#6	44'-0"	
a_2	320	#6	4'-0"	
a_3	12	#7	45'-5"	
a_4	50	#6	7'-3"	
b	392	#5	27'-0"	
b_1	92	#7	38'-3"	
b_2	357	#5	30'-8"	
b_3	16	#8	20'-9"	
b_4	8	#8	13'-3"	
b_5	8	#8	12'-0"	
b_6	12	#8	26'-6"	
b_7	16	#5	20'-6"	
b_8	8	#5	13'-3"	
b_9	8	#5	12'-0"	
b_{10}	12	#5	26'-0"	
d	410	#4	5'-1"	
d_1	394	#5	6'-0"	
d_2	16	#5	6'-9"	
m	40	#4	7'-3"	
m_1	20	#6	5'-11"	
s_{10}	50	#4	12'-8"	
x	140	#6	8'-3"	
Reinforcement Bars			Lbs.	74,000
Class X Concrete			Cu. Yds.	308.6

Parapet reinforcement and Class X Concrete are billed on sheet #5

For placement and details of bars m, m_1 and s_{10} see sheet #5.

DESIGNED	Thos A. Meyer
CHECKED	Dan Whitten
DRAWN	G. M. Ritchie
CHECKED	DJB

EXAMINED Feb 9 1976
PASSED
APPROVED
DIRECTOR OF HIGHWAYS



BAR a

SUPERSTRUCTURE
F.A.S. RT. 540 – SEC. 7BR
PIATT COUNTY
STA. 999+52[illegible]

PI-5-0 7-15-75

1/4/27

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

SCALE: | SHEET 14 OF 21 SHEETS | STA. | TO STA.

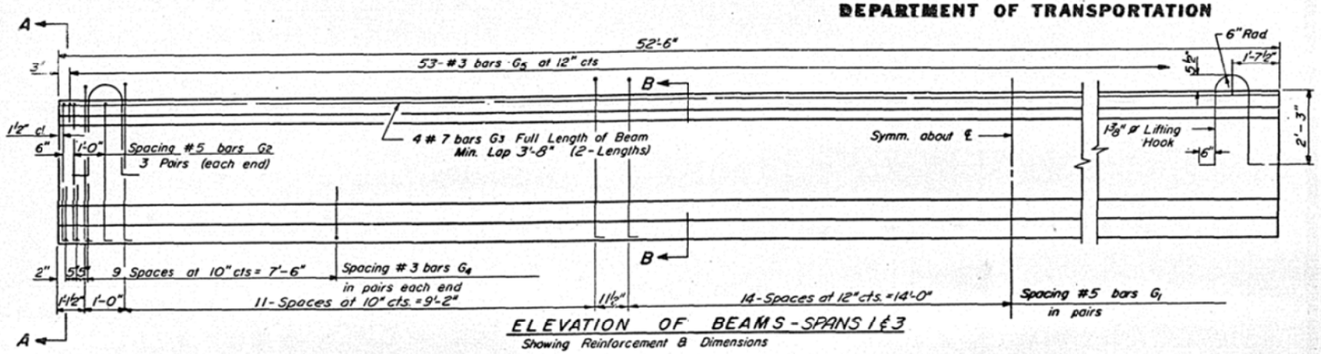
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	61
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

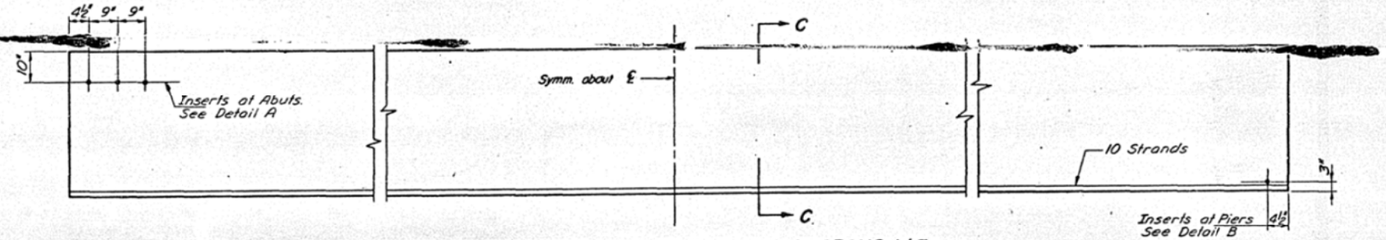
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7BR	Piatt	34	19

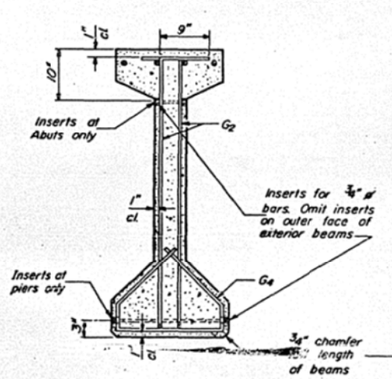
SHEET NO. 8
16 SHEETS



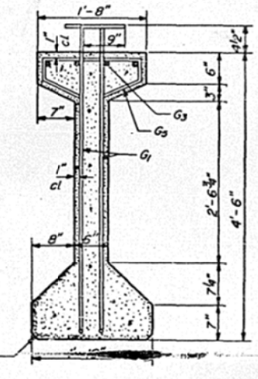
ELEVATION OF BEAMS - SPANS 1 & 3
Showing Reinforcement & Dimensions



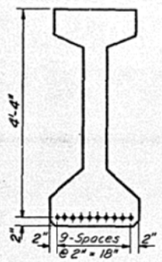
ELEVATION OF BEAMS - SPANS 1 & 3
Showing Prestressing Steel



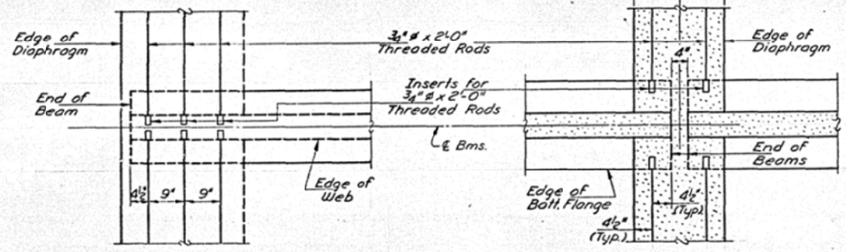
SECTION A-A



SECTION B-B

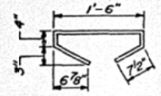


SECTION C-C

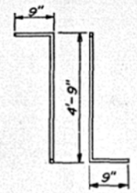


DETAIL A
(Typical location of inserts at Abuts.)

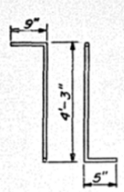
DETAIL B
(Typical location of inserts at Piers)



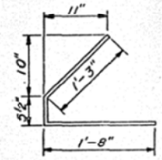
BAR G5



BAR G1



BAR G2



BAR G4

*BAR LIST

Bar	No.	Size	Length	Shape
G1	110	#5	6'-3"	7L
G2	12	#5	5'-5"	7L
G3	8	#7	28'-0"	—
G4	48	#3	3'-4½"	L
G5	53	#3	3'-5"	▭

* For one beam only

BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 54"	Lin. Ft.	630

NOTES

All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressed Concrete I-Beams, 54 in."

Prestressing Steel shall have a nominal diameter of ½"

Inserts for ¾" ø threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

Steel for lifting hooks shall be non-deformed bars f_y = 40,000 psi.

DESIGNED	Steve A. Meyer	
CHECKED	Van Albritton	
DRAWN	G. M. P.	
CHECKED	D.J.C.	

Feb 5 19 74
EXAMINED
PASSED
APPROVED
DIRECTOR OF HIGHWAYS

PI-4-54 9-15-72

P.P.C. I-BEAM DETAILS
SPANS 1 & 3
F.A.S. RT. 540 - SEC. 7BR
PIATT COUNTY
STA. 999+52.38

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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

SCALE: | SHEET 15 OF 21 SHEETS | STA. | TO STA.

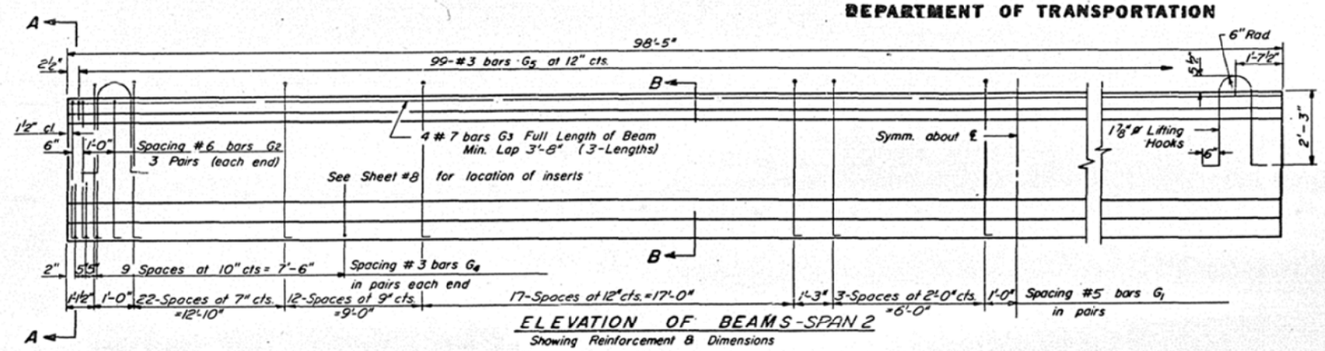
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	62
		CONTRACT NO. 70A75		
		ILLINOIS FED. AID PROJECT		

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

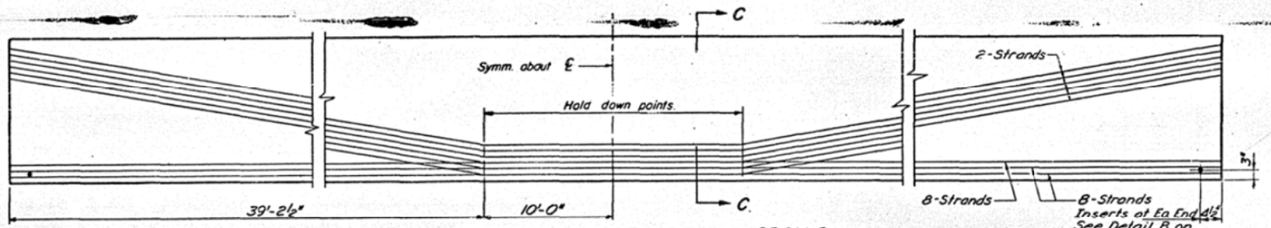
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.S. 540	7BR	Piatt	34	20
PROJ. ROAD DIST. NO. 7	ILLINOIS	FED. A.ID PROJECT		

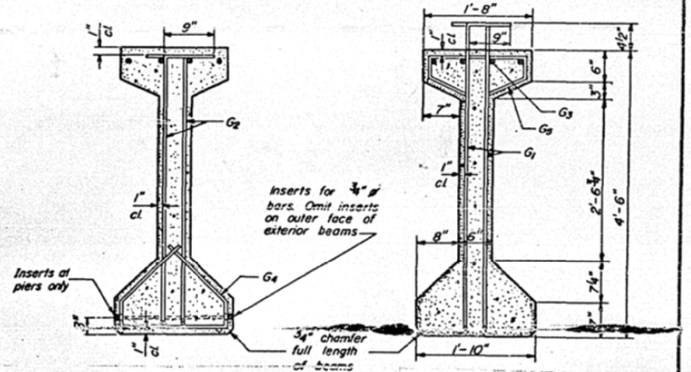
SHEET NO. 9
16 SHEETS



ELEVATION OF BEAMS - SPAN 2
Showing Reinforcement & Dimensions

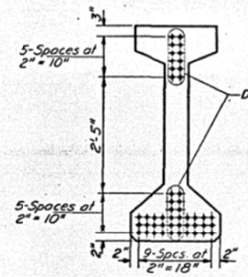


ELEVATION OF BEAMS - SPAN 2
Showing Prestressing Steel

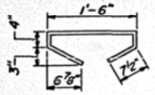


SECTION A-A

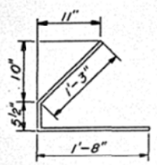
SECTION B-B



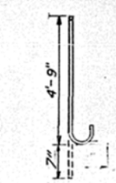
SECTION C-C



BAR G_5



BAR G_4



BAR G_1

BAR G_2

***BAR LIST**

Bar	No.	Size	Length	Shape
G1	228	#5	6'-1"	L
G2	12	#6	5'-5"	7L
G3	12	#7	35'-2"	—
G4	48	#3	3'-4½"	L
G5	99	#3	3'-5"	□

* For one beam only

BILL OF MATERIAL

Item	Unit	Total
Furnishing & Erecting Precast Prestressed Concrete I-Beams, 54"	Lin. Ft.	591

NOTES

All inserts and threaded rods for inserts, reinforcing and Prestressing Steel, and other items which are cast into the Precast Concrete I-Beams shall be included in the contract unit price per lineal foot of "Furnishing And Erecting Precast Prestressted Concrete I-Beams, 54 in"

Prestressing Steel shall have a nominal diameter of ½"

Inserts for ¾" ø threaded rods are to be two strut, coil type for interior I-Beams and single coil, flared loop type for exterior I-Beams.

Steel for lifting hooks shall be non-deformed bars f_y = 40,000 psi.

DESIGNED	Steve A. Meyer	
CHECKED	Dan Shelton	
DRAWN	G.M.R.	
CHECKED	G.L.L.	

Feb 9 1976
EXAMINED
BUREAU OF BRIDGES AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
APPROVED
DIRECTOR OF HIGHWAYS

PI-4-54 9-15-72

P.P.C. I-BEAM DETAILS
SPAN 2
F.A.S. RT. 540 – SEC. 7BR
PIATT COUNTY
STA. 999+52.38

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570075_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED -	REVISED -	
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	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED -	
	PLOT DATE = 12/3/2014	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

SCALE: | SHEET 16 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	63
		CONTRACT NO. 70A75		
	ILLINOIS	FED. AID PROJECT		

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
7BR	Piatt	34	25

SHEET NO. 14
16 SHEETS

F.A.S. Rte. 540 Sec. 7BR Dist. 7

PILE DATA

Type: Concrete
Capacity: 45 Ton
Est. Length: 19'
No. Req'd.: 20 plus one Perm. test pile

TOP PLAN

Symm about ℄ Pier & Rdwy.
Sta. 999+03.00
℄ Brg. Span 2
℄ Brg. Span 1
℄ Bm. 1
℄ Bm. 6
10"(Typ.)
3"(Typ.)
6'-0" 8'-0" 8'-0" 8'-0" 8'-0" 6'-0"
20'-0" 20'-0"
5-Brg. Spaces at 8'-0" cts. = 40'-0"
44'-0"
2'-6"
7'-8"
u_1
s_2
p_2

NOTE:
All edges shall have standard ¾" chamfers except as noted.
Pour steps monolithically with cap.
Bars indicated thus 3x2-#5 etc. indicates 3 lines of bars with 2 lengths per line.

SECTION A-A

2" 2'-2" 2"
p_2
s_2 thru s_5
h_7
h_6
s_2 thru s_4
p_3
2" cl.

ELEVATION (LOOKING SOUTH)

Elev. 649.62
Elev. 649.75
Elev. 649.62
Elev. 649.46
26-#5 s_5 bars at 12" cts.
9" 4-s_4 6-s_3 3-s_2
8½" 8½" 2"
3½" 3½"
2½"
7-#11 p_2 bars Top of Cap
2x2-#5 h_7 bars Ea. Face (Min. lap = 2'-5")
3x2-#5 h_6 bars Ea. Face (Min. lap = 2'-5")
4-#6 u_1 Each End
3-#6 p_3 bars Batt. of Cap Ea. End
Bend in field
Bonded Const. Jt.
2" Typ.
9'-0" Typ.
13'-0" 13'-0"
8½" 8½"
4-s_4 6-s_3 3-s_2
13-Pairs #5 bars @ 8½" cts.
25-#5 v_5 bars at 12" cts. Each Face
3-#6 v bars Each End
13-#5 h_5 bars @ 12" cts. Each Face
13-#5 h_4 bars at 12" cts. Each End
2'-6"
2" 2'-2" 2"
Elev. 649.46
s_2 thru s_5
3'-0" 3'-0" 3'-0"
20'-6"
12'-3"
2" 2"
h_4
v_5
2" cl. 2" cl.
℄ Sheet Piling
℄ Sheet Piling
2'-0" 3'-2" 2'-2" 3'-2" 2'-0"
6"
26'-0"
℄ Sheet Piling
2'-0" Typ.
2'-7"
2'-3"
12"
3" Cl.
2'-3"
Elev. 628.96
3'-0" Conc. Seal Coat
n_1 w t
w t
25-#6 bars n_1 at 12" cts. (Each Face)
3-#6 bars n_1 Each End
Batter piles 2" per Ft.
1'-3" 3'-0" 3'-0" 1'-3"
8'-6"

NOTE: Cofferdam shall not be dewatered if water Elevation exceeds 640.21.

END VIEW

FOOTING PLAN

℄ Rdwy.
13'-6" 13'-6"
1'-6" 6-Pile Spaces at 4'-0" cts. = 24'-0"
6-#6 bars t at 6" cts. Typ Btwn. Piles
9" 9" 9"
2-#6 bars t Each End
1'-3" 3'-0" 3'-0" 1'-3"
8'-6"
1'-1" Rod.
℄ Battered Piles
Sta. 999+03.00
h_5 h_4
℄ Pile
℄ Battered Piles
℄ Vertical Piles
u_1 ℄ Bm.
6-#5 bars w Batt. Spaced as shown in End View
27'-0"

A & B DIMENSIONS

A
B

Bar	A	B
s_2	2'-2"	2'-9"
s_3	2'-2"	3'-5"
s_4	2'-2"	3'-10"
s_5	2'-2"	5'-3"

BARS s_2 s_3 s_4 s_5

3'-0"
2'-1"
BAR u_1

4'-7" 8"
BAR n_1

2'-5"
10-3/8"
2'-9"
2'-5"
BAR h_4

PIER 1 BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h_4	26	#5	7'-7"	
h_5	26	#5	23'-10"	
h_6	12	#5	22'-0"	
h_7	8	#5	23'-0"	
n_1	56	#6	5'-3"	
p_2	7	#11	43'-8"	
p_3	6	#6	11'-0"	
s_2	12	#5	7'-8"	
s_3	24	#5	9'-0"	
s_4	16	#5	9'-10"	
s_5	26	#5	12'-8"	
t	40	#6	8'-2"	
u_1	8	#6	8'-1"	
v_5	56	#6	15'-0"	
w	6	#5	26'-8"	
Class X Concrete			Cu. Yds.	66.2
Reinforcement Bars			Lbs.	6330
Concrete Piles			Lin. Ft.	380
Test Piles Concrete			Each	1
Seal Coat Concrete			Cu. Yds.	43

PIER 1
F.A.S. RT. 540 – SEC. 7BR
PIATT COUNTY
STA. 999+52.38

DESIGNED	Steven R. Heiser	
CHECKED	Dan Ahlstrom	
DRAWN	G.H.R./J.H.E.	
CHECKED	D.L.L.	

Feb-9 1976
EXAMINED Carl E. Tennison
ENGINEER OF BRIDGES AND TRAFFIC STRUCTURES
PASSED
ENGINEER OF BRIDGES
APPROVED
DIRECTOR OF HIGHWAYS

P-10; f'_c=2.0 6-1-73

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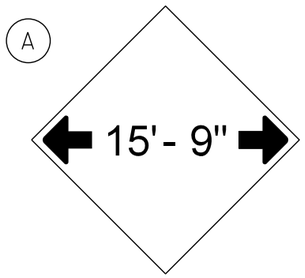
	PLOT DATE = 12/3/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

AS BUILTS (FOR INFORMATION ONLY)
S.N. 074–0072

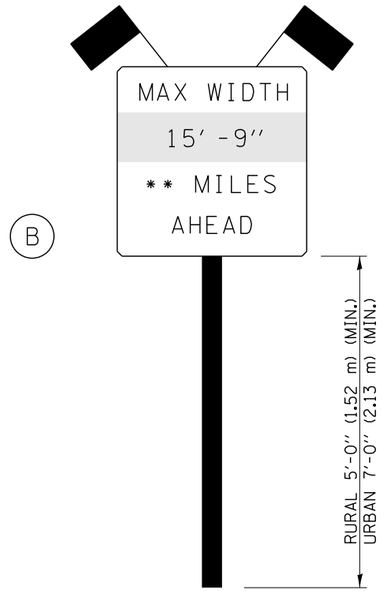
SCALE: | SHEET 17 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	64
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			

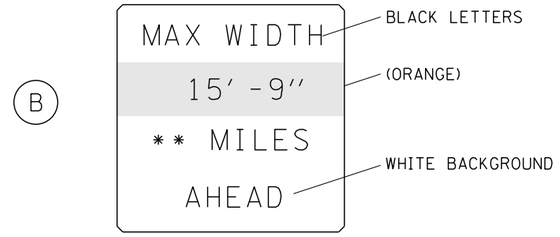


W12-2(0)-48"x48"(1200x1200)

SIGN (A) 2 SIGNS - W12-2(0)-48"x48"(1200x1200) ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.



SIGN PANEL, TYPE II



W12-I103(0)-48"x48"(1200x1200)
"D" LETTERS/NUMBERS

SIGN (B) 2 SIGNS - (SIGN PANEL, TYPE II) AS SHOWN ARE TO BE PLACED AS SHOWN IN THE PLANS OR AS DIRECTED BY THE ENGINEER.

** SEE DETAILS AND DESCRIPTIONS ON NEXT 2 SHEETS

STAGE WIDTHS:

STAGE 1 WIDTH = 17'-3" actual; 15'-9" posted; REQUIRED

STAGE 2 WIDTH = 17'-3" actual; 15'-9" posted; REQUIRED

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE FURNISHED, ERECTED AND MAINTAINED BY THE CONTRACTOR.
2. ALL (B) SIGNS SHALL HAVE FLAGS INSTALLED UNLESS OTHERWISE DIRECTED.
3. LOCATIONS OF TRAFFIC CONTROL DEVICES MAY BE ADJUSTED BY THE ENGINEER.
4. ALL TRAFFIC CONTROL SHOWN ON THIS SHEET SHALL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR WIDTH RESTRICTION SIGNING.
5. ALL SIGNS SHALL BE POST MOUNTED UNLESS OTHERWISE DIRECTED.
6. ALL SIGNS SHOWN ORANGE (O) SHALL BE FLUORESCENT ORANGE.
7. ALL SIGNS SHOWN SHALL CONSIST OF THE CURRENT RETROREFLECTIVE SHEETING REQUIREMENTS AS OUTLINED IN SECTION 1106.01 OF THE STANDARD SPECIFICATIONS.

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	PLOT DATE = 12/2/2014	DATE -	REVISED - -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING
S.N. 074-0072

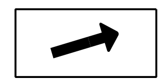
SCALE: | SHEET NO. 18 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	65
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WIDTH RESTRICTION SIGNING FOR IL 105 WESTBOUND TRAFFIC

AT FAI 72 INTERCHANGE

A1 EAST OF IL 105 INTERCHANGE FOR IL 105 WB
ERECT OFF SHOULDER BY GREENBOARD JUST PRIOR TO RAMP
INCLUDE DIRECTION ARROW SIGN



21" X 15" (O)

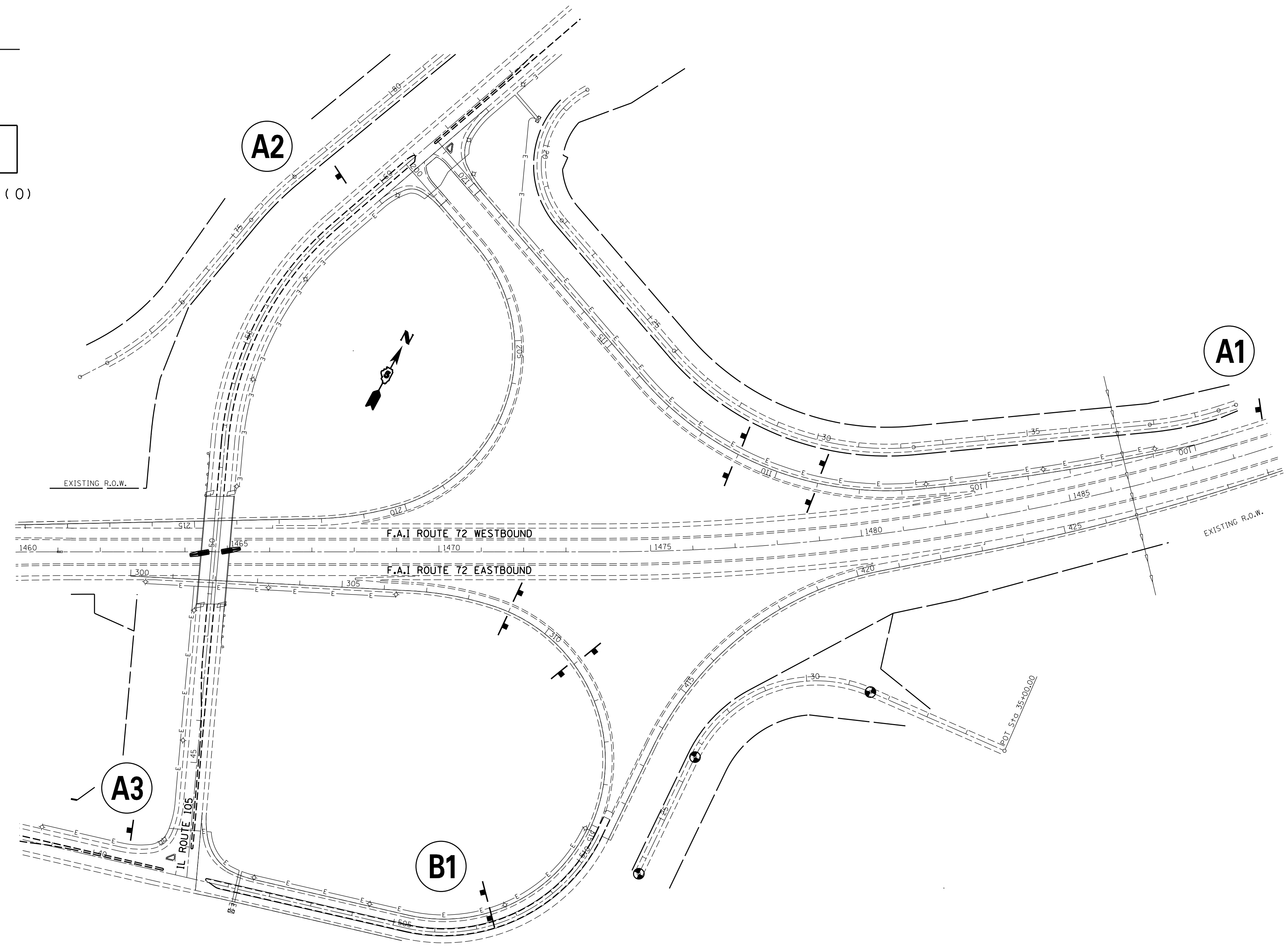
A2 AT IL 105 INTERCHANGE FOR IL 105 WB
ERECT 50' +/- SOUTH OF GREENBOARD
INCLUDE 6 MILES AHEAD

1.5 MILE

B1 EAST OF IL 105 INTERCHANGE FOR IL 105 WB
ERECT BY LIGHT POLE 37/104
DUAL DISPLAY; 1.5 MILES AHEAD

A3 AT IL 105 INTERCHANGE FOR IL 105 WB
ERECT 75 FROM INTERSECTION
INCLUDE 1 MILES AHEAD

1 MILE



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	PLOT DATE = 12/2/2014	DATE -	REVISED - -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

WIDTH RESTRICTION SIGNING
S.N. 074–0072

SCALE: | SHEET NO. 19 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	66
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

WIDTH RESTRICTION SIGNING FOR IL 105 EASTBOUND TRAFFIC

INTERSECTION OF BRIDGE ST. & IL 105 (MARKET ST.) IN MONTICELLO

A4 AT BRIDGE ST. & IL 105 IN MONTICELLO
ERECT NORTH OF THE EAST IL 105 SIGN
INCLUDE 0.5 MILES AHEAD

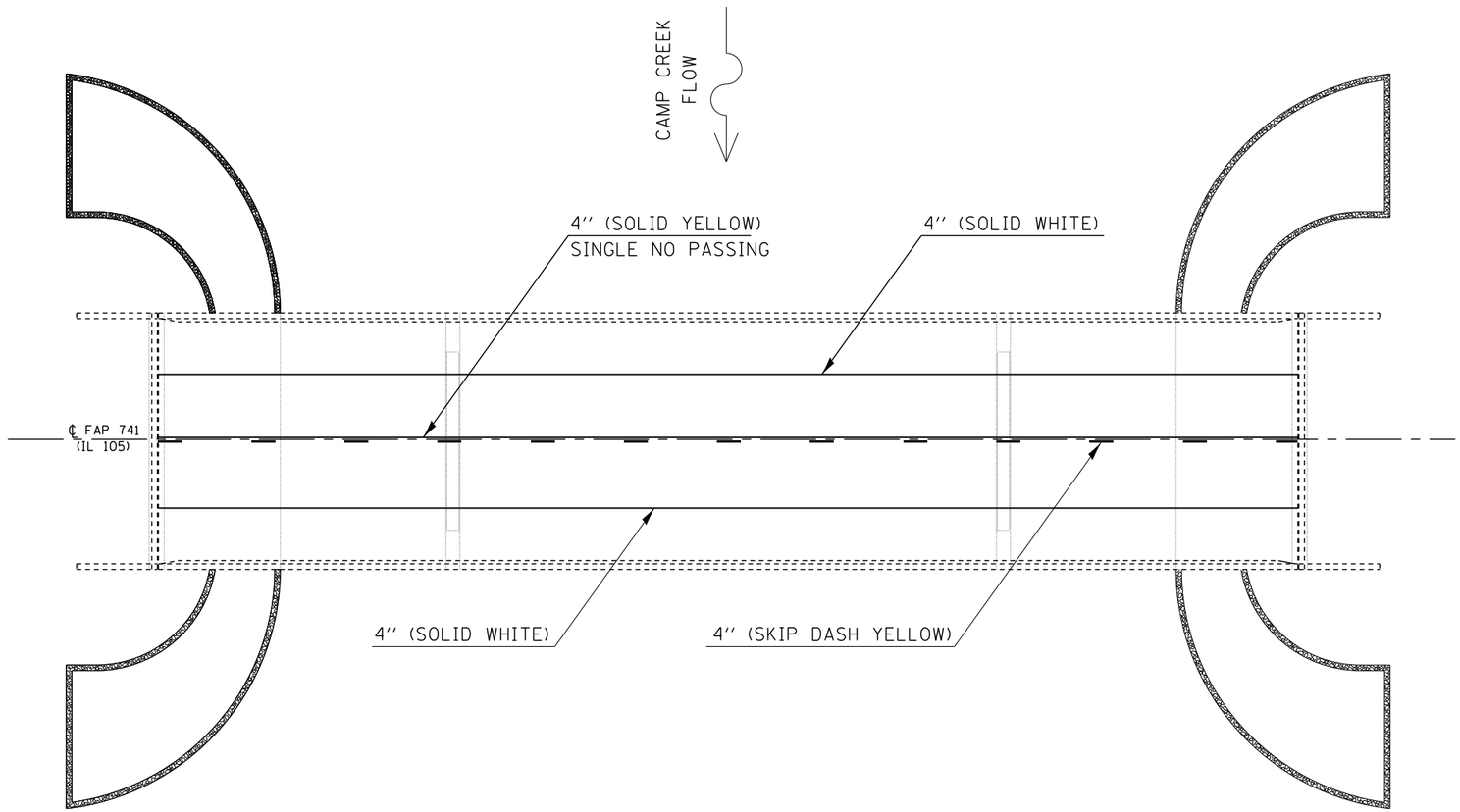
0.5 MILE

B2 AT LIVINGSTON ST. & IL 105 IN MONTICELLO
ERECT NORTH OF LIVINGSTON ST.
0.5 MILES AHEAD

N

5

FILE NAME = c:\pw_work\pwidot\shawleres\d0412844\D570A75_sht-Repair Plans.dgn	USER NAME = shawleres	DESIGNED -	REVISED - /	**STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION**	**WIDTH RESTRICTION SIGNING S.N. 074-0072**			F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
		DRAWN -	REVISED - /					741	(7BR)I	PIATT	72	67
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED - /							CONTRACT NO. 70A75		
	PLOT DATE = 12/2/2014	DATE -	REVISED - /		SCALE:	SHEET NO. 20 OF 21 SHEETS	STA. TO STA.	FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



PAY ITEM	UNIT	INTERSECTION
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (YELLOW)	FOOT	205.0
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (WHITE)	FOOT	410.0
MODIFIED URETHANE PAVEMENT MARKING - LINE 4" (SKIP DASH YELLOW)	FOOT	52.0
GROOVING FOR RECESSED PAVEMENT MARKING 5"	FOOT	667.0

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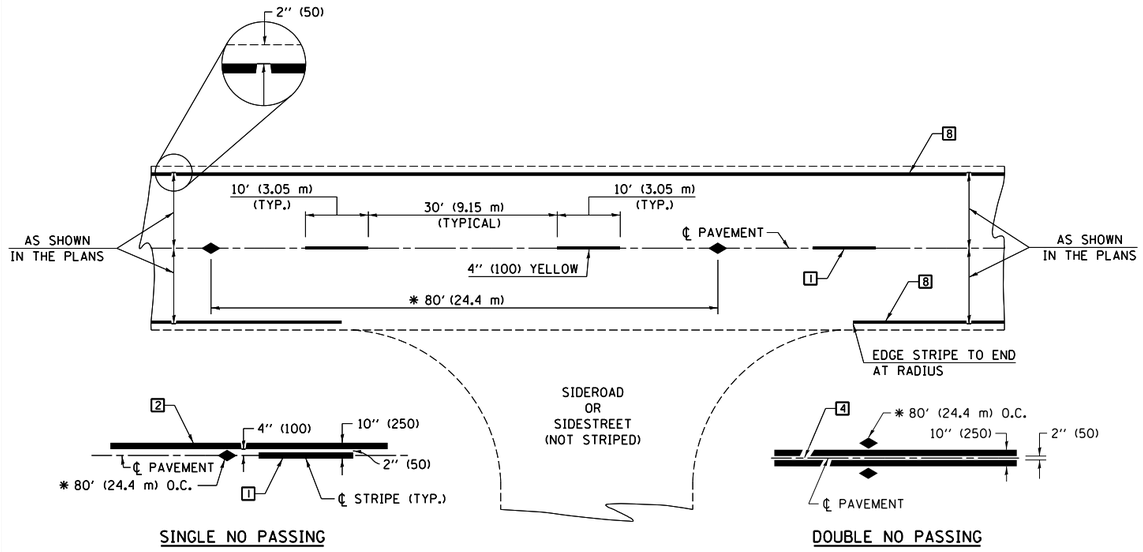
		DRAWN - ESS	REVISED -
	PLOT SCALE = 40.0000 ' / in.	CHECKED - -	REVISED -
	PLOT DATE = 12/2/2014	DATE -	REVISED -

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKINGS
S.N. 074-0072

SCALE: | SHEET 21 OF 21 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	68
		CONTRACT NO. 70A75		
	ILLINOIS FED. AID PROJECT			



SINGLE NO PASSING

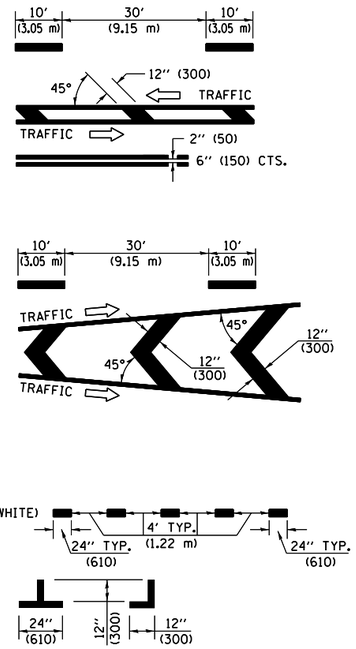
DOUBLE NO PASSING

* REDUCE TO 40' (12.2 m) O.C. ON CURVES WITH POSTED OR ADVISORY SPEEDS OF 45 mph (70 km/h) OR LESS.

TWO LANE/TWO WAY

TYPICAL PAVEMENT MARKING LEGEND

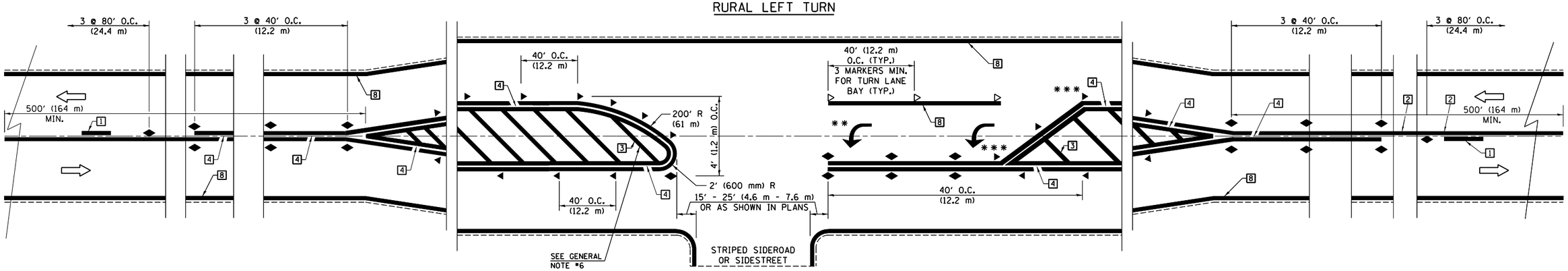
1. 4" (100) SKIP-DASH (YELLOW)
2. 4" (100) SOLID (YELLOW)
3. 12" (300) DIAGONAL (YELLOW)
4. 4" (100) DOUBLE YELLOW (NARROW)
5. RESERVED
6. RESERVED
7. 4" (100) SKIP-DASH (WHITE)
8. 4" (100) SOLID (WHITE)
9. 12" (300) DIAGONAL (WHITE)
10. 6" (150) SOLID (WHITE)
11. 24" (600) STOP BAR (WHITE)
12. 8" (200) SOLID (WHITE)
13. 4" (100) LANE LINE EXTENSIONS (WHITE)
14. 4" (100) PARKING WHITE



TYPICAL PAVEMENT MARKERS LEGEND

- TWO-WAY AMBER MARKER
- ONE-WAY AMBER MARKER
- ONE-WAY CRYSTAL MARKER

RURAL LEFT TURN



*** REDUCE SPACING IF NECESSARY TO ASSURE MARKERS AT CORNER POINTS.

** TURN ARROWS SHALL BE PLACED AS SHOWN ON SHEET #2.

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

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		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED - 04/14 - JLA
	PLOT DATE = 12/2/2014	DATE -	REVISED -

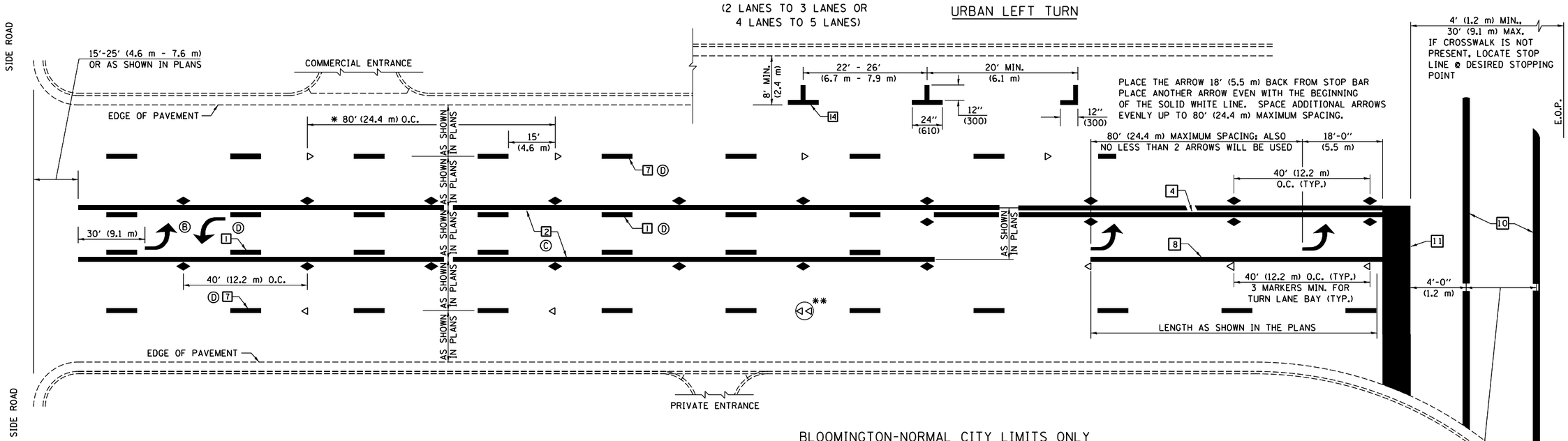
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 1 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	69
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

URBAN LEFT TURN



* REDUCE TO 40 FEET (12.2 METERS) ON CENTER ON CURVES WHERE ADVISORY SPEEDS ARE 10 MPH (15 km/h) LOWER THAN POSTED SPEEDS.

** DOUBLE LANE LINE MARKERS SHALL BE SPECIFIED AND SPACED AS SHOWN IN HIGHWAY STANDARD 781001 FOR MULTI-LANE DIVIDED AND UNDIVIDED HIGHWAYS.

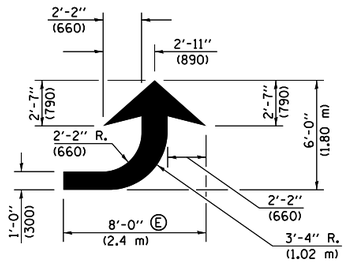
GENERAL NOTES:

Ⓑ TURN ARROW PAIRS SHALL BE PLACED AT 250' (75 m) INTERVALS AND SHALL BE EVENLY SPACED BETWEEN BOTH ENDS OF THE BIDIRECTIONAL LEFT TURN LANE.

Ⓒ THE SOLID YELLOW PAVEMENT MARKINGS [2] SHOULD GENERALLY START OR END NEAR THE RADIUS POINT OF EACH STREET RETURN EXCEPT WHERE ONE OR BOTH ENDS WOULD INCLUDE STOP BARS.

Ⓓ THE SKIP-DASH PAVEMENT MARKINGS [1] OR [7] SHOULD BE CENTERED BETWEEN BOTH ENDS OF EACH CITY BLOCK AND SHALL BE PLACED SO THEY LINE UP ACROSS FROM EACH OTHER. SEE EXAMPLE ON SHEET 2 OF 3.

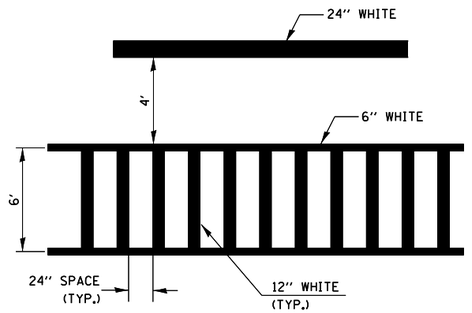
Ⓔ USE LARGE ARROW SIZE FOR BOTH RURAL AND URBAN LOCATIONS. (SEE LAST PAGE OF SECTION 780x FOR SYMBOLS TABLE)



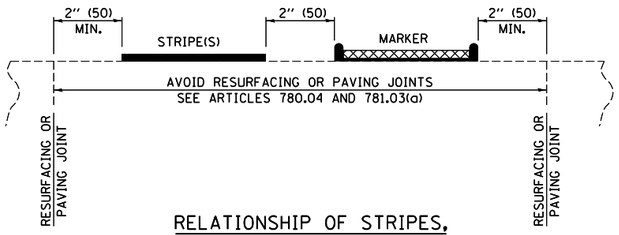
LEFT ARROW

REVERSE FOR RIGHT ARROW
AREA = 15.6 SQ. FT. (1.47 m^2)
(WHITE)

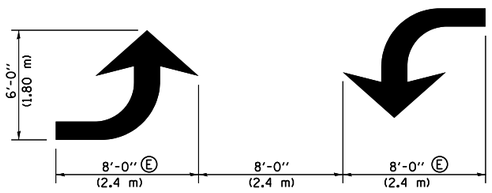
BLOOMINGTON-NORMAL CITY LIMITS ONLY



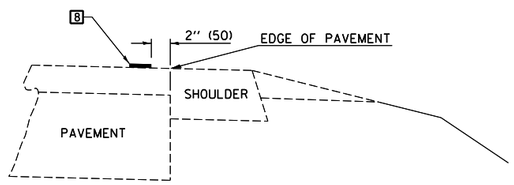
TYPICAL SPACING FOR
CROSSWALKS & STOP BARS



RELATIONSHIP OF STRIPES,
MARKERS AND JOINTS



TYPICAL DOUBLE
TURN ARROWS (WHITE)



RELATIONSHIP OF EDGE LINE TO EDGE OF PAVEMENT

(SAFETY SHOULDER OR PAVED SURFACE)
SEE ARTICLE 780.04

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

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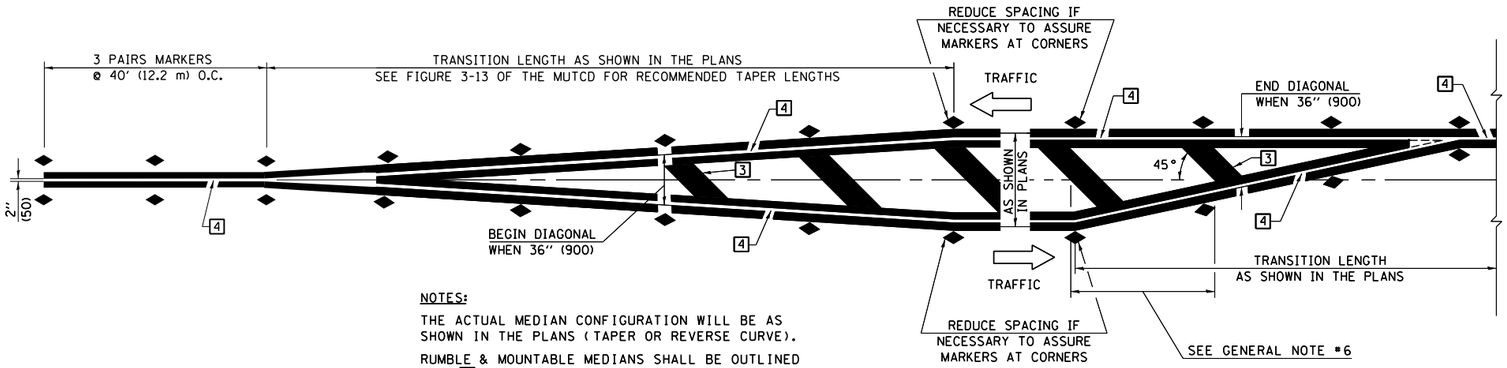
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED - 04/14 - JLA	
	PLOT DATE = 12/2/2014	DATE -	REVISED -	

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 2 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	70
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



NOTES:

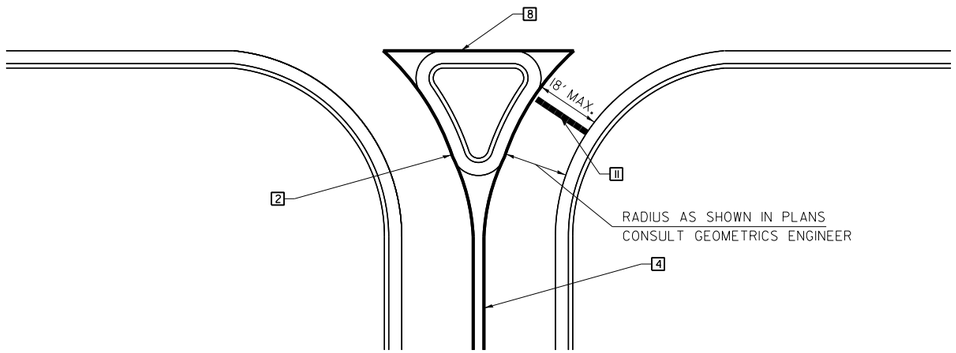
THE ACTUAL MEDIAN CONFIGURATION WILL BE AS SHOWN IN THE PLANS (TAPER OR REVERSE CURVE).

RUMBLE & MOUNTABLE MEDIANS SHALL BE OUTLINED WITH [2].

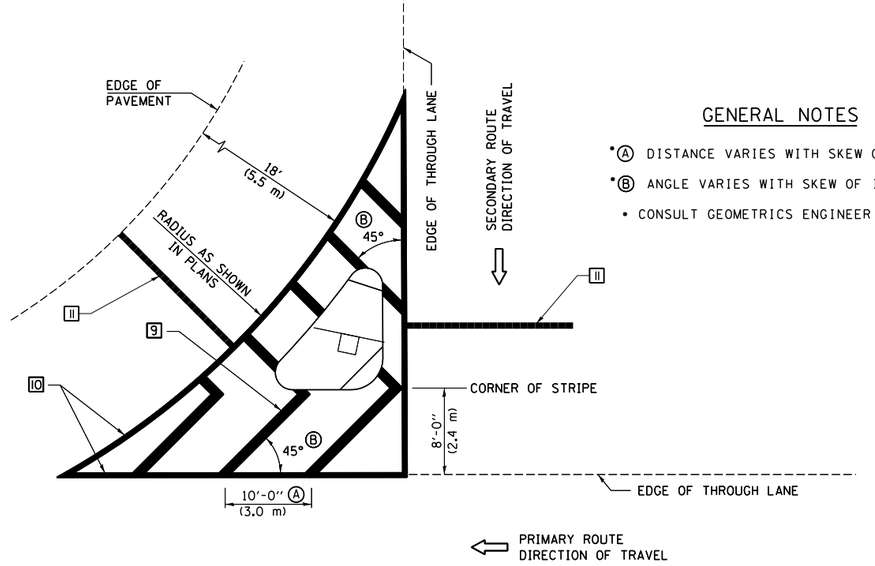
TYPICAL MEDIAN TRANSITIONS

GENERAL NOTES

1. WHEN MEDIANS ARE PRESENT, PAVEMENT MARKINGS ARE TO BE PLACED ADJACENT TO MEDIANS.
2. SOME OF THE INFORMATION INCLUDED WITH THIS DETAIL MAY NOT BE APPLICABLE TO THIS IMPROVEMENT.
3. PAVEMENT MARKINGS ARE TO BE EXTENDED THROUGH OMISSIONS WHEN APPLICABLE.
4. A STRIPING KEY IS AVAILABLE ELSEWHERE AND SHALL BE SHOWN WHERE THE QUANTITIES ARE LISTED.
5. FINAL PAVEMENT MARKINGS SHALL BE IN PLACE PRIOR TO PLACING ANY RAISED REFLECTIVE PAVEMENT MARKERS.
6. THE FOLLOWING CRITERIA SHALL BE USED FOR SELECTING THE DIAGONAL PAVEMENT MARKING SPACING,
   < 30 MPH USE 15' (< 50 km/h USE 4.5 m)
   30-45 MPH USE 20' (50-75 km/h USE 6.0 m)
   >45 MPH USE 30' (>75 km/h USE 9.0 m)



RIGHT IN - RIGHT OUT ACCESS



ISLAND

GENERAL NOTES

*Ⓐ DISTANCE VARIES WITH SKEW OF INTERSECTION.

*Ⓑ ANGLE VARIES WITH SKEW OF INTERSECTION.

• CONSULT GEOMETRICS ENGINEER

Note: All dimensions are in INCHES (millimeters) unless otherwise shown.

DISTRICT 5 DETAIL NO. 7800AAAA

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		DRAWN -	REVISED - 09/2009 - KJT
	PLOT SCALE = 40.0000 ' / in.	CHECKED -	REVISED - 04/14 - JLA
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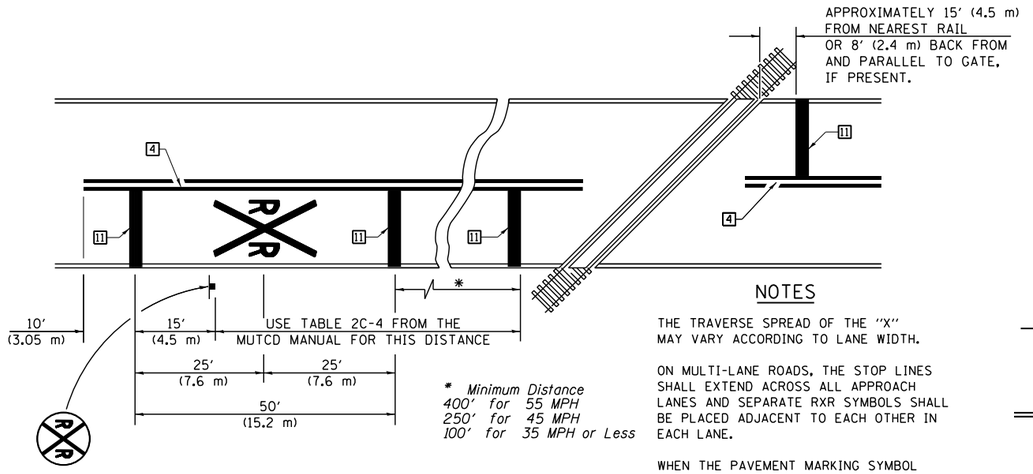
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS (RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 3 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	71
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		



* *Minimum Distance*
400′ for 55 MPH
250′ for 45 MPH
100′ for 35 MPH or Less

PAVEMENT MARKINGS AT RAILROAD-HIGHWAY GRADE CROSSING

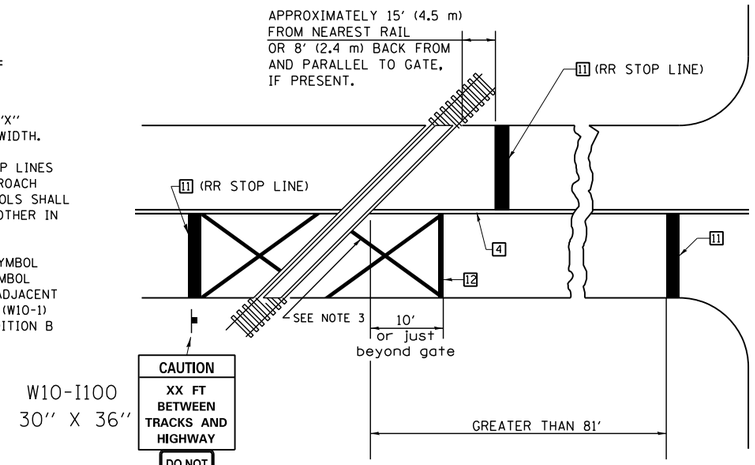
NOTES

THE TRAVERSE SPREAD OF THE "X" MAY VARY ACCORDING TO LANE WIDTH.

ON MULTI-LANE ROADS, THE STOP LINES SHALL EXTEND ACROSS ALL APPROACH LANES AND SEPARATE RXR SYMBOLS SHALL BE PLACED ADJACENT TO EACH OTHER IN EACH LANE.

WHEN THE PAVEMENT MARKING SYMBOL IS USED, A PORTION OF THE SYMBOL SHOULD BE LOCATED DIRECTLY ADJACENT TO THE ADVANCE WARNING SIGN (W10-1) AS PLACED BY TABLE II-1, CONDITION B OF THE MUTCD.

RAILROAD CROSSING WITH INTERCONNECT ONLY



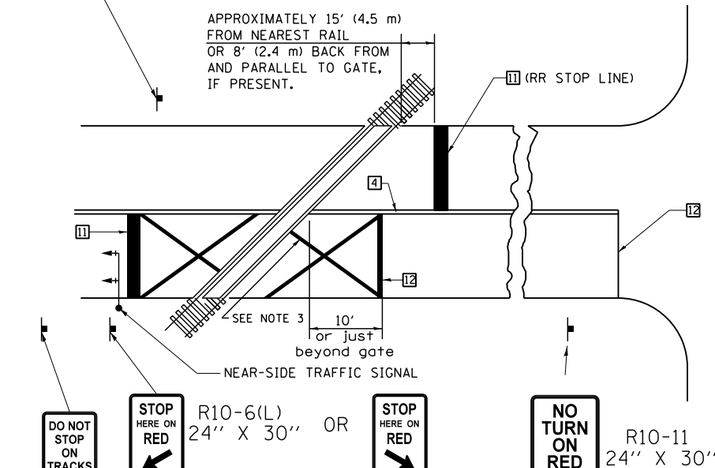
W10-I100
30″ X 36″

CAUTION
XX FT
BETWEEN
TRACKS AND
HIGHWAY
DO NOT
STOP
ON
TRACKS

R8-8
24″ X 30″

RAILROAD CROSSING WITH INTERCONNECT AND PRE-SIGNALS

DO NOT STOP ON TRACKS (R8-8) 24″ x 30″ — ONLY IF SIGNAL HEAD CANNOT BE LOCATED IN MEDIAN



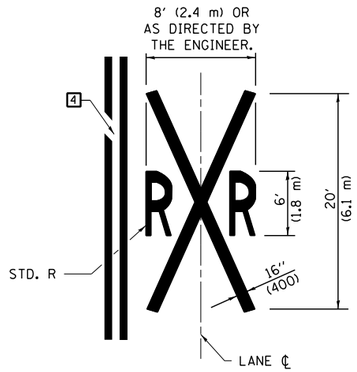
DO NOT STOP ON TRACKS
R8-8
24″ X 30″

STOP HERE ON RED
NO TURN ON RED
R10-6(L)
24″ X 30″
OR
R10-11
24″ X 30″

STOP HERE ON RED
R10-6(R)
24″ X 30″
IF IN MEDIAN

NO TURN ON RED
DO NOT STOP ON TRACKS
R10-11
24″ X 30″
R8-8
24″ X 30″

SUPPLEMENTAL PAVEMENT MARKING TREATMENT FOR RAILROAD-HIGHWAY GRADE CROSSING



ALTERNATE SIGNS

STOP HERE ON RED
R10-6a(L)
24″ X 30″

STOP HERE ON RED
R10-6a(R)
24″ X 30″

GENERAL NOTES

1. SUPPLEMENTAL PAVEMENT MARKINGS TO BE INSTALLED ONLY ON APPROACHES TO INTERSECTIONS CONTROLLED BY TRAFFIC SIGNALS WHICH ARE INTERCONNECTED WITH THE RAILROAD WARNING SIGNALS.
2. EXTEND PAVEMENT MARKINGS TO THE INTERSECTION ONLY WHERE NEAR-SIDE TRAFFIC SIGNALS ARE USED.
3. 6″ WHITE PAVEMENT MARKINGS AT 45° TO PAVEMENT, 8′ CENTER TO CENTER.
4. XX DISTANCE TO BE SHOWN ON SIGN MEASURED FROM A POINT 6 FEET FROM THE RAIL CLOSEST TO THE INTERSECTION OR FROM THE CLOSEST POINT ALONG THE EXIT GATE IF PRESENT OVER THE ROADWAY WHEN IN THE LOWERED POSITION TO THE STOP BAR OR CROSSWALK, WHICH EVER IS CLOSEST, ROUNDED DOWN TO NEAREST 5 FEET. WHERE THERE IS NO STOP LINE, MEASURE TO POINT WHERE DRIVER HAS A VIEW OF APPROACHING TRAFFIC.
5. THE CLEARANCE SIGN IS ALSO TO BE USED AS AN INTERIM MEASURE AT LOCATIONS WITH INTERCONNECTED INTERSECTION TRAFFIC SIGNALS WHERE IT IS PLANNED TO CHANGE THEM TO NEAR-SIDE SIGNALS AT A FUTURE TIME. IN THIS CASE, THE DISTANCE TO BE SHOWN ON THE SIGN IS MEASURED FROM THE EDGE OF THE STRIPED-OUT AREA INSTEAD OF 6 FEET FROM THE RAIL. THE SIGN IS TO BE REMOVED WHEN THE NEAR-SIDE SIGNALS ARE INSTALLED AND THE PAVEMENT MARKINGS EXTENDED TO THE INTERSECTION.

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DISTRICT 5 DETAIL NO. 7800AAAA

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PAVEMENT MARKING AND MARKERS
(RURAL & URBAN APPLICATIONS)

SCALE: | SHEET NO. 4 OF 4 SHEETS | STA. | TO STA.

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
741	(7BR)I	PIATT	72	72
		CONTRACT NO. 70A75		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		