

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	1
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

• 82-3HVB-3R-5
CONTRACT NO. 76985

**THIS CONTRACT
CONSISTS OF 2 SETS**

SET 1 of 2
STRUCTURE No. 082-0141 (ROADWAY A)
SET 2 of 2
STRUCTURE No. 082-0146 (RAMP T)

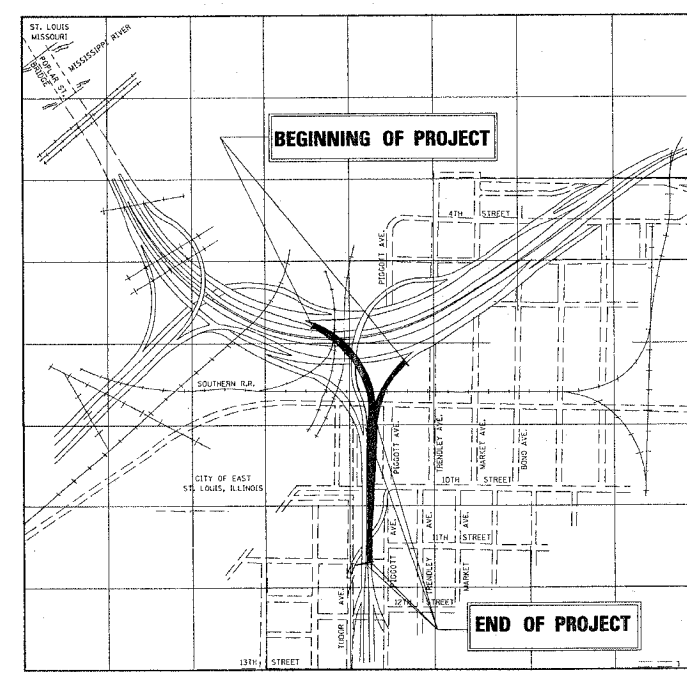
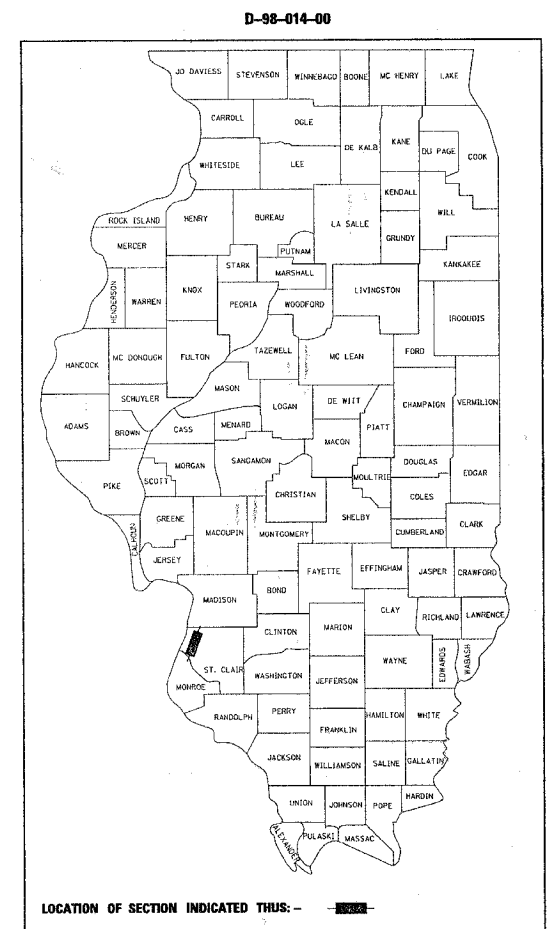
AVERAGE DAILY TRAFFIC (ADT) - 2005

ROADWAY A	4,300
RAMP T	910

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FAI ROUTE 70 (I-55/64/70)
POPLAR STREET BRIDGE APPROACHES
SECTION 82-3HVB-3R-5
PROJECT: MA-070-1(182)002**

**PLANS FOR PROPOSED
ROADWAY REHABILITATION**

**ST. CLAIR COUNTY
D-98-014-00
C-98-013-06**



PROJECT NET LENGTH: 0.56 MI. = 2,966 FT.
PROJECT GROSS LENGTH: 0.56 MI. = 2,966 FT.

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Feb 1 20 07
May C. Lomis
DISTRICT ENGINEER

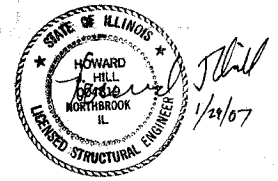
ENGINEER OF PROJECT DEVELOPMENT AND IMPLEMENTATION
March 23 20 07
Eric E. Haran
ENGINEER OF DESIGN AND ENVIRONMENT

March 23 20 07
Milton R. Sees, P.E.
DIRECTOR, DIVISION OF HIGHWAYS

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION (J.U.L.I.E.)
CALL TOLL FREE: 1-800-892-0123

CONTRACT NO. 76985

Howard J. Hill, Ph.D., SE
Illinois Licensed Structural Engineer
License No. 081-004819
License Expires: 11/30/08



WJE WISS, JANNEY, ELSTNER ASSOCIATES, INC.
Engineers, Architects, Material Scientists
330 PFINGSTEN ROAD
NORTHBROOK, ILLINOIS 60062
(847) 272-7400 FAX: (847) 291-4813

DATE: 1/24/2007
FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\COVER, INDEX, AND STAGING\AT_Cover.dgn
PROJECT ENGINEER: Patti LeBeau (618)346-3179
SQUAD LEADER: Cheryl Kepler (618)346-3186

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	2
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-5
CONTRACT NO. 76985

INDEX OF DRAWINGS

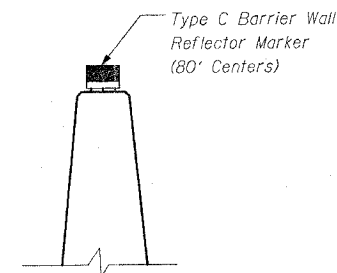
INTRODUCTORY SHEETS		SET 2 OF 2 - Ramp T	
SHEET(S)	TITLE	SHEET(S)	TITLE
1	COVER SHEET	78	TITLE SHEET
2	INDEX OF DRAWINGS	79	GENERAL NOTES
3 - 4	SUMMARY OF QUANTITIES	80	SCOPE OF WORK
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17 - 20	STRIPING PLAN - ROADWAY A	82	TOTAL BILL OF MATERIAL
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		86	TABLES OF ROADWAY ELEVATIONS
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		96 - 97	DECK DRAINAGE DETAILS
		98	BRIDGE PAINTING DETAILS
		99	FATIGUE RETROFIT DETAILS
SET 1 OF 2 - ROADWAY A			
SHEET(S)	TITLE		
22	TITLE SHEET		
23	GENERAL NOTES		
24	SCOPE OF WORK		
25	KEY PLAN		
26	TOTAL BILL OF MATERIAL		
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74 - 77	SEISMIC ISOLATION DETAILS		

The Contractor is advised that the order of the staging will be reversed from what is detailed herein. Areas designated for repair in Stage II will be addressed first, and areas designated for repair in Stage I will be addressed last. As such, minor modifications to the traffic control signing may be required, as directed by the Engineer. Such modifications will not be paid for separately, but will be included in the pay item for "Traffic Control and Protection (Special)".

NOTES:

- No lane closure between December 1 and April 1 unless approved by the Engineer.
- An estimated quantity of Two (2) Portable Changeable Message Signs has been included in the plans for advanced notice of detours and Ramp Closures, the exact locations will be determined by the Engineer.
- Use of New Jersey Shaped Barrier is permitted on this project. State owned concrete barrier is located near the intersection of Il. Route 111 and FAI 55/70. The Contractor is responsible for pick up and return of State owned barrier.
- Pavement marking removal shall be by the water-blast method.
- One-way traffic in and out of access openings.
- Warning signs reading "Trucks Entering and Leaving Highway" shall be placed in advance of access openings.
- Bridge deck microsilica concrete overlay shall require the direct bond method.
- If any section or sub-section monuments are encountered, the Engineer shall be notified before such monuments are removed or disturbed. The Contractor shall protect and carefully preserve all property markers and monuments until the owner, and authorized Surveyor, or agent has witnessed or otherwise referenced their location.
- Illinois State Law requires a 48-Hours notice be given to utilities before digging. Field marking of facilities may be obtained by contacting J.U.L.I.E., or for Non-members, the utility Company directly. Agencies known to have facilities within the project area are as follows: AMERNIP (Gas), AMERENUE (Electric), Centerpoint Energy (Gas Transmission), Charter Communications (Communications), City of East St. Louis (Sewer), Explorer Pipeline (Gas), Illinois American Water (Water), LACLEDE Pipeline (Gas), Level 3 Communications (Communications), MCLEOD Communications (Communications) 360 Networks (Communications), AT&T Illinois (Communications), MCI Network Services, Inc. (Communications). All the above Utilities are members of J.U.L.I.E. The J.U.L.I.E. system phone number is 1-800-892-0123.
- All temporary pavement markings will be placed in such a manner so as not to interfere with the placement of permanent pavement markings.
- The approach ends of temporary barrier shall be protected with NCHRP test level 3 approach device such as a multiple array of sand filled plastic barrels or a type 3, Special Terminal.
- The following mixture requirements are applicable for this project:

Mixture Use	Surface
AC/PG	PG 64-22
RAP % (Max.)	10%
Design Air Voids	4% @ Ndes=90
Mix Composition (Gradation Mixture)	
Friction Agg	Mixture "C"



See Standard 635011

TYPICAL MOUNTING DETAILS FOR BARRIER WALL REFLECTOR

- Standards:**
000001-04
635006-02
635011-01
701401-03
701411-03
701426-02
701501-03
702001-06
704001-02
780001-01
781001-02
701400-02

REVISIONS	
NAME	DATE

INDEX OF DRAWINGS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/24/2007
FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\COVER, INDEX, AND STAGING\AT INDEX.DGN

DESIGNED	JEL
CHECKED	MJS
DRAWN	CLK
CHECKED	JEL

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
TO	82-34VB-38-5	SI, CL&B	99	3
STA.		TO STA.		
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		

SUMMARY OF QUANTITIES

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		90%FED/10%ST ROADWAY JO00	90%FED/10%ST SN 082-0141 ROADWAY A X531-2A	90%FED/10%ST SN 082-0146 RAMP T X531-2A
44000915	HOT-MIX ASPHALT SURFACE REMOVAL (DECK)	SQ YD	9629		8227	1402
44000157	HOT-MIX ASPHALT SURFACE REMOVAL, 2"	SQ YD	141	141		
40800050	INCIDENTAL HOT-MIX ASPHALT SURFACING	TON	16	16		
44000910	BITUMINOUS CONCRETE REMOVAL (DECK)	SQ YD	9629		8227	1402
44002400	CURB REMOVAL (SPECIAL)	FOOT	15		7.5	7.5
50102400	CONCRETE REMOVAL	CU YD	1413		1126	287
50157300	PROTECTIVE SHIELD	SQ YD	2894		2574	320
50300225	CONCRETE STRUCTURES	CU YD	10		10	
50300255	CONCRETE SUPERSTRUCTURE	CU YD	1286		1026	260
50300260	BRIDGE DECK GROOVING	SQ YD	10557		8969	1588
50300300	PROTECTIVE COAT	SQ YD	14897		12372	2525
50500105	FURNISHING AND ERECTING STRUCTURAL STEEL	L SUM	1		1	
50500715	JACK AND REMOVE EXISTING BEARINGS	EACH	15		15	
50600600	CLEANING AND PAINTING STEEL BRIDGE NO. 1	L SUM	1		1	
50600700	CLEANING AND PAINTING STEEL BRIDGE NO. 2	L SUM	1			1
50606401	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 1	L SUM	1		1	
50606402	CONTAINMENT AND DISPOSAL OF LEAD PAINT CLEANING RESIDUES NO. 2	L SUM	1			1
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	203080		165240	37840
50800515	BAR SPLICERS	EACH	533		533	
52000208	FINGER PLATE EXPANSION JOINT, 3"	FOOT	78		78	
52000216	FINGER PLATE EXPANSION JOINT, 5"	FOOT	33		33	
52000340	NEOPRENE EXPANSION JOINT 4"	FOOT	26			26
52000600	FABRIC REINFORCED ELASTOMERIC TROUGH	FOOT	129		129	
52100010	ELASTOMERIC BEARING ASSEMBLY, TYPE I	EACH	5		5	
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	24	24		
67000600	ENGINEER'S FIELD LABORATORY	CAL MO	24	24		
67100100	MOBILIZATION	L SUM	1	1		
70100205	TRAFFIC CONTROL AND PROTECTION, STANDARD 701401	EACH	4	4		

SUMMARY OF QUANTITIES			TOTAL QUANTITIES	CONSTRUCTION TYPE CODE		
CODE NO	ITEM	UNIT		90%FED/10%ST ROADWAY JO00	90%FED/10%ST SN 082-0141 ROADWAY A X531-2A	90%FED/10%ST SN 082-0146 RAMP T X531-2A
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	2		
70101800	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	L SUM	1	1		
70102620	TRAFFIC CONTROL AND PROTECTION, STANDARD 701501	L SUM	1	1		
70106800	CHANGEABLE MESSAGE SIGN	CAL MO	24	24		
70300220	TEMPORARY PAVEMENT MARKING - LINE 4"	FOOT	8950	8950		
70300240	TEMPORARY PAVEMENT MARKING - LINE 6"	FOOT	2200	2200		
70301000	WORK ZONE PAVEMENT MARKING REMOVAL	SQ FT	4100	4100		
70400500	TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	1100	1100		
70400600	RELOCATE TEMPORARY CONCRETE BARRIER (STATE OWNED)	FOOT	3400	3400		
*78008210	POLYUREA PAVEMENT MARKING TYPE I - LINE 4"	FOOT	7100	7100		
*78008240	POLYUREA PAVEMENT MARKING TYPE I - LINE 8"	FOOT	2100	2100		
*78008250	POLYUREA PAVEMENT MARKING TYPE I - LINE 12"	FOOT	1300	1300		
*78100105	RAISED REFLECTIVE PAVEMENT MARKER (BRIDGE)	EACH	40	40		
*78200100	MONODIRECTIONAL PRISMATIC BARRIER REFLECTOR	EACH	100	100		
78300100	PAVEMENT MARKING REMOVAL	SQ FT	1750	1750		
X0320887	POLYMER CONCRETE	CU FT	42		32	10
X0321744	SILICONE JOINT SEALER, 2"	FOOT	171		171	
X0321781	MECHANICAL SPLICE	EACH	72		72	
X0322556	STIFFENER INTERSECTION MODIFICATION	EACH	1176		896	280
X0322559	BOLT REPLACEMENT	EACH	201		201	
X0322560	CRACK EXTENSION MODIFICATION	EACH	25		20	5

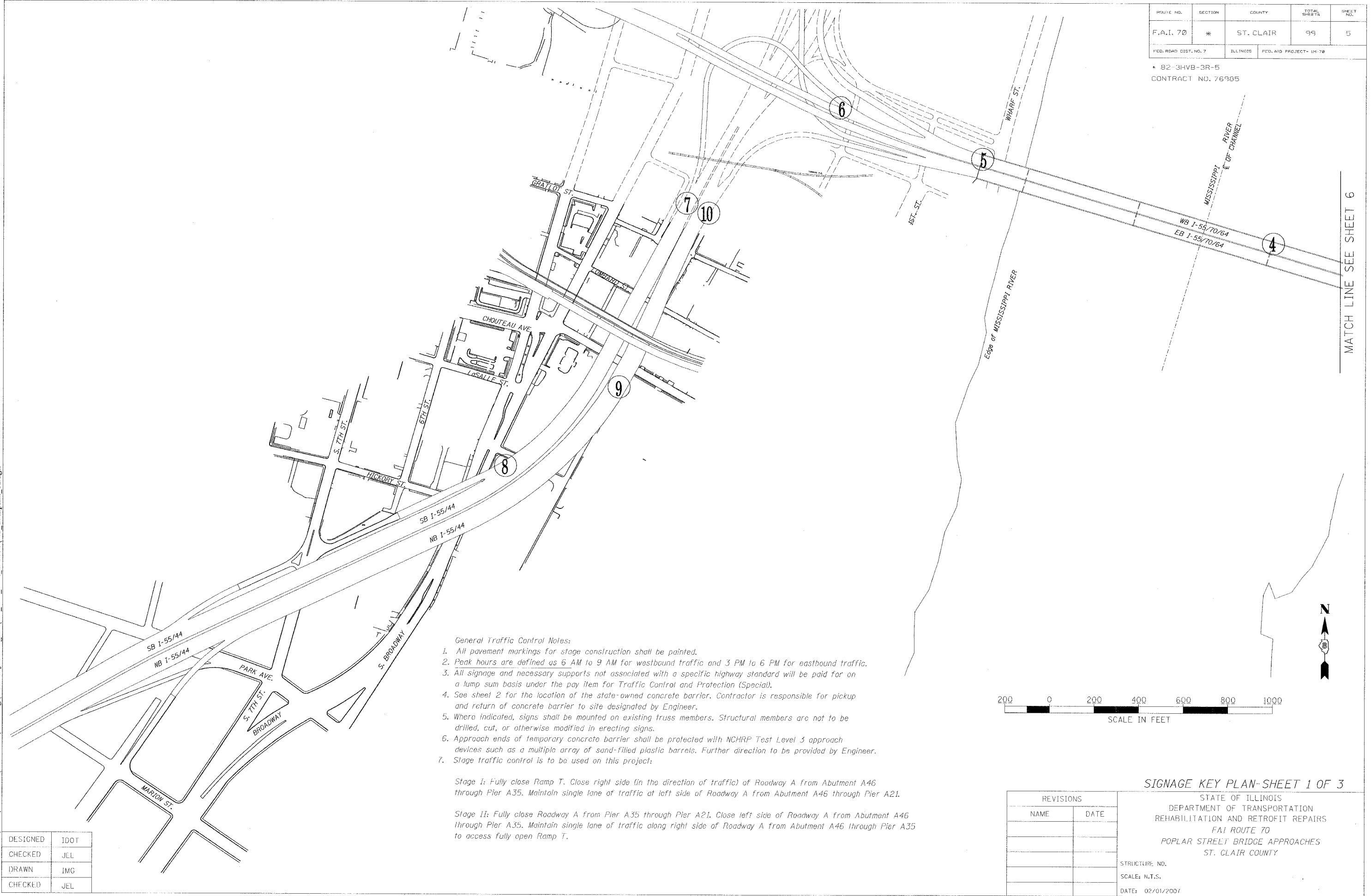
* SPECIALTY ITEMS

Rex

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 REFERENCE = REF#

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	5
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- ILL-70		

* 82-3HVB-3R-5
CONTRACT NO. 76985

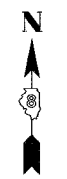


MATCH LINE SEE SHEET 6

- General Traffic Control Notes:*
- All pavement markings for stage construction shall be painted.
 - Peak hours are defined as 6 AM to 9 AM for westbound traffic and 3 PM to 6 PM for eastbound traffic.
 - All signage and necessary supports not associated with a specific highway standard will be paid for on a lump sum basis under the pay item for Traffic Control and Protection (Special).
 - See sheet 2 for the location of the state-owned concrete barrier. Contractor is responsible for pickup and return of concrete barrier to site designated by Engineer.
 - Where indicated, signs shall be mounted on existing truss members. Structural members are not to be drilled, cut, or otherwise modified in erecting signs.
 - Approach ends of temporary concrete barrier shall be protected with NCHRP Test Level 3 approach devices such as a multiple array of sand-filled plastic barrels. Further direction to be provided by Engineer.
 - Stage traffic control is to be used on this project:

Stage I: Fully close Ramp T. Close right side (in the direction of traffic) of Roadway A from Abutment A46 through Pier A35. Maintain single lane of traffic at left side of Roadway A from Abutment A46 through Pier A21.

Stage II: Fully close Roadway A from Pier A35 through Pier A21. Close left side of Roadway A from Abutment A46 through Pier A35. Maintain single lane of traffic along right side of Roadway A from Abutment A46 through Pier A35 to access fully open Ramp T.



DATE: 12/2/2007
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DRAWN	IMG
CHECKED	JEL

REVISIONS	
NAME	DATE

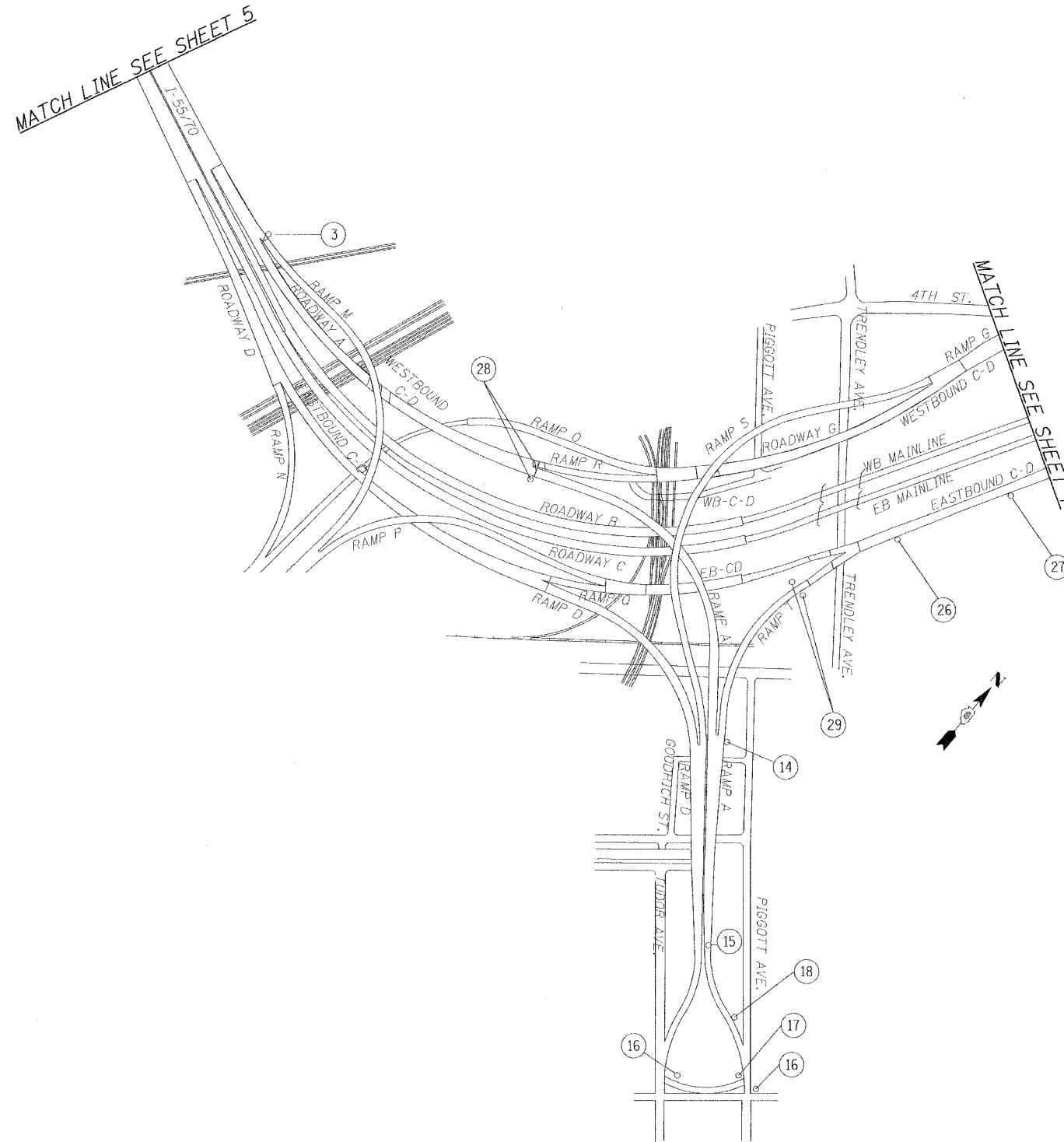
SIGNAGE KEY PLAN-SHEET 1 OF 3

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

* 82-3HVB-3R-5
CONTRACT NO. 76985



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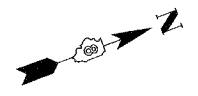
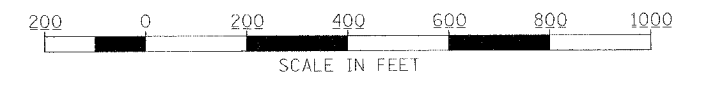
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SIGNAGE KEY PLAN SHEET 2 OF 3

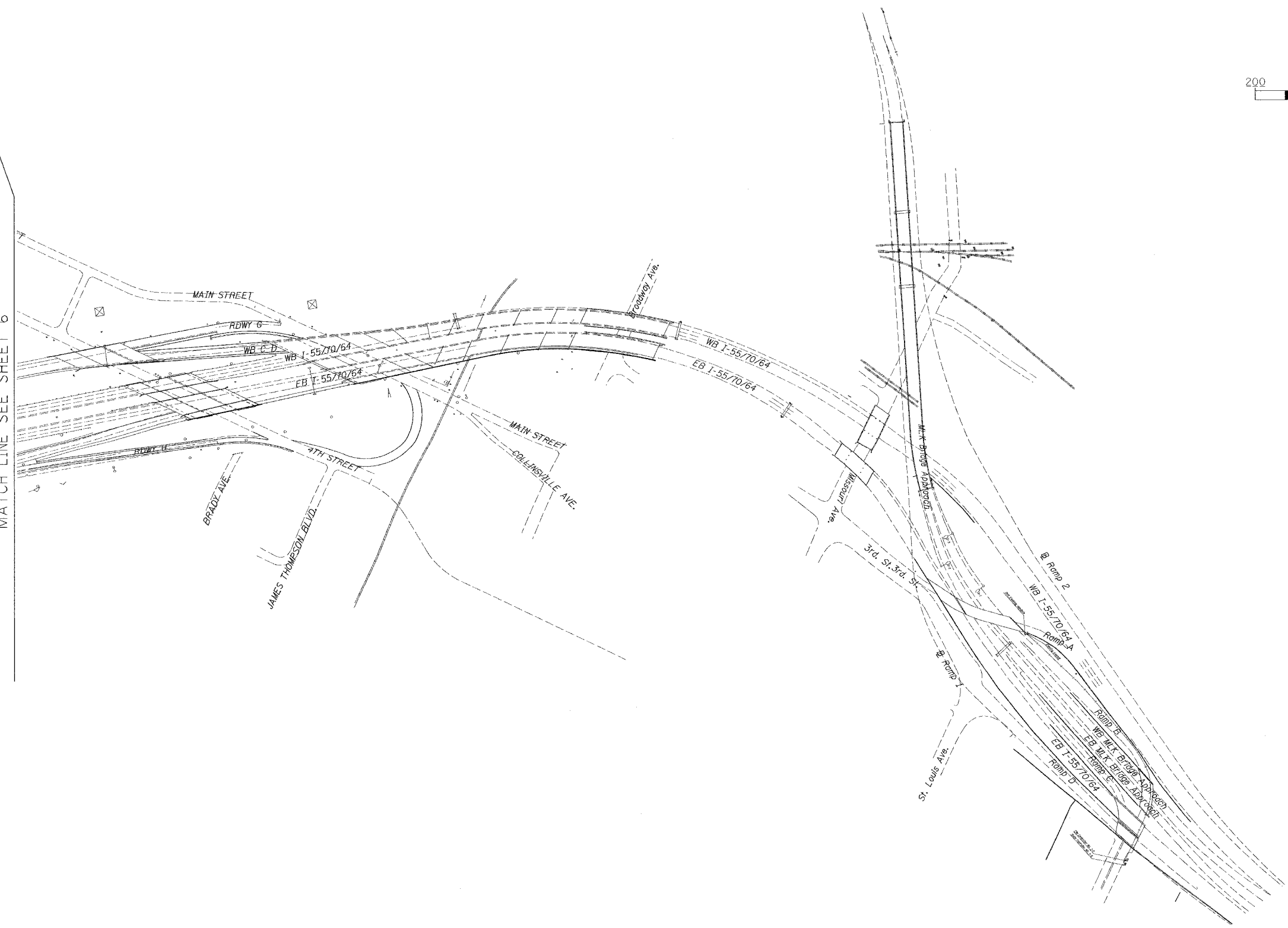
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NAME	DATE	
		STRUCTURE NO.
		SCALE: N.T.S.
		DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	7

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT - IM-70
 * 82-3HVB-3R-5
 CONTRACT NO. 76985



MATCH LINE SEE SHEET 6



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REVISIONS	
NAME	DATE

SIGNAGE KEY PLAN SHEET 3 OF 3

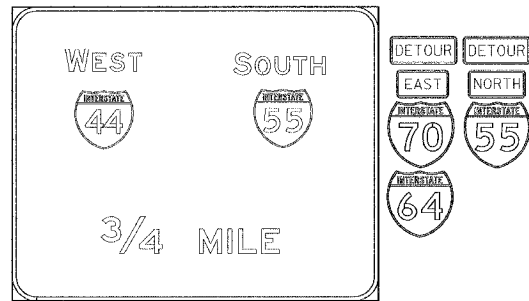
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO.
 SCALE: N.T.S.
 DATE: 02/01/2007

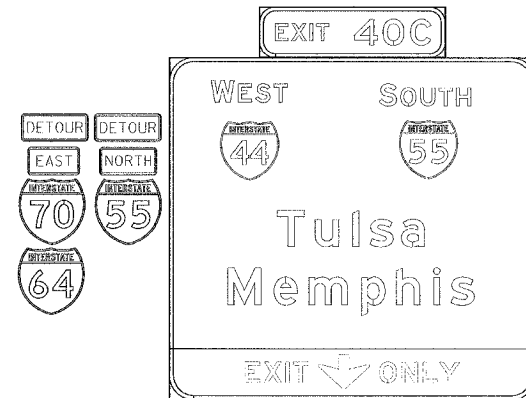
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F.A.I. 70	*	ST. CLAIR	99	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-78		

* 82-3HVB-3R-5
CONTRACT NO. 76985

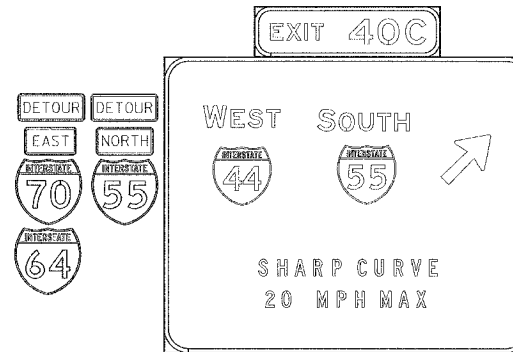
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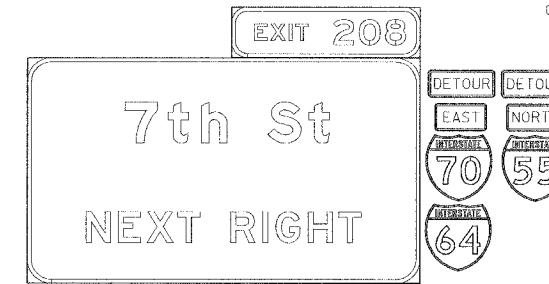
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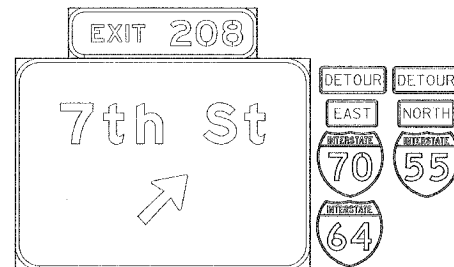
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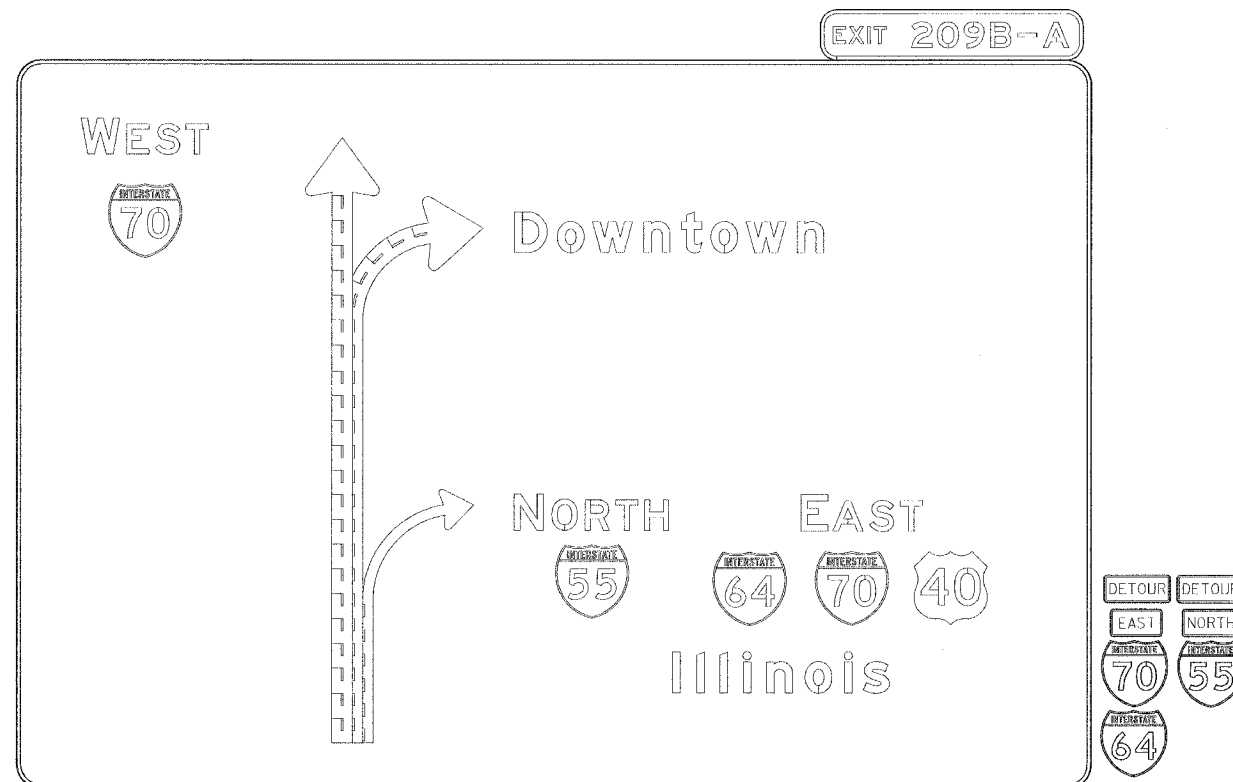
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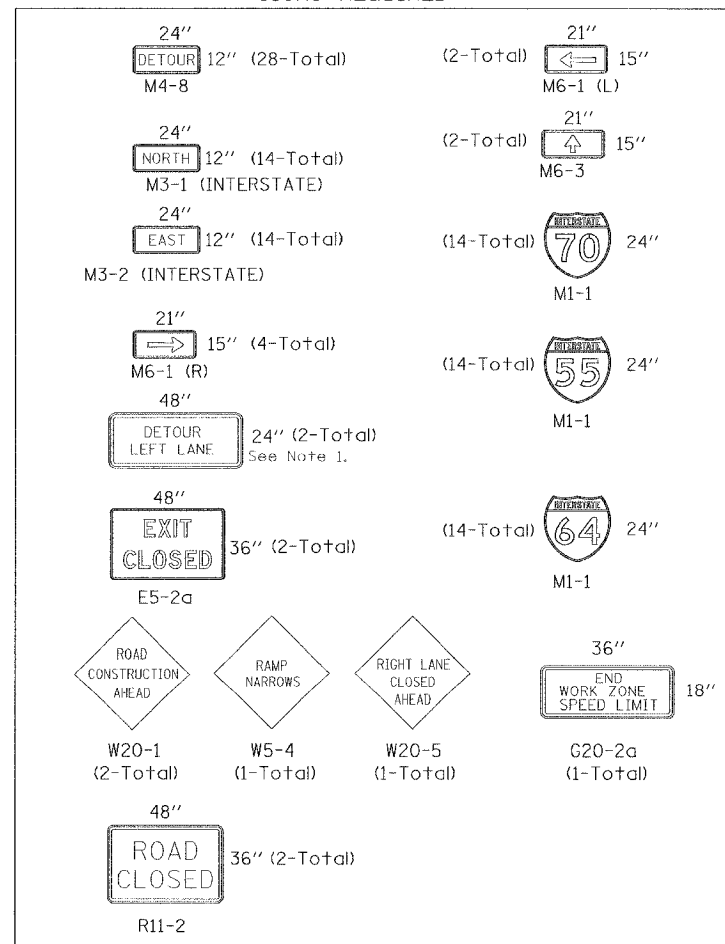
9



NOTES:

- CONTRACTOR SHALL SUPPLY ALL DETOUR AND CONSTRUCTION RELATED SIGNS.
- ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND
- CONTRACTOR SHALL COVER ALL TRUSS SIGNS AS INDICATED HEREIN. IN ADDITION, AS DIRECTED BY ENGINEER, CONTRACTOR SHALL COVER ALL EXISTING SPEED LIMIT SIGNS IN THE WORK ZONE.
- CONTRACTOR WILL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
- UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE THE SIGNS AND POSTS. THE SIGNS AND POSTS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
- THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.

SIGNS REQUIRED



Note 1. Sign to have black letters on orange background similar in size to M4-8 Sign.

SIGNS-STAGE I

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
F.A.I. ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

REVISIONS	
NAME	DATE

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

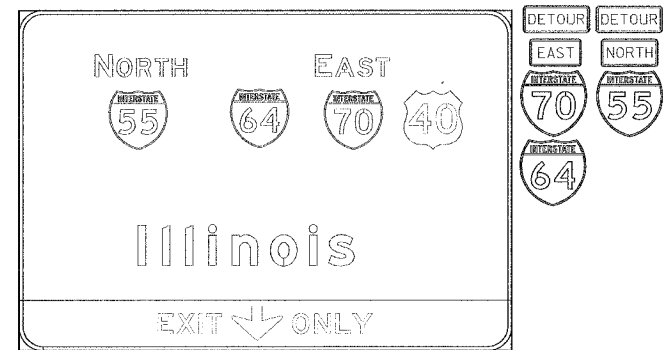
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DRAWN	IMC
CHECKED	JEL

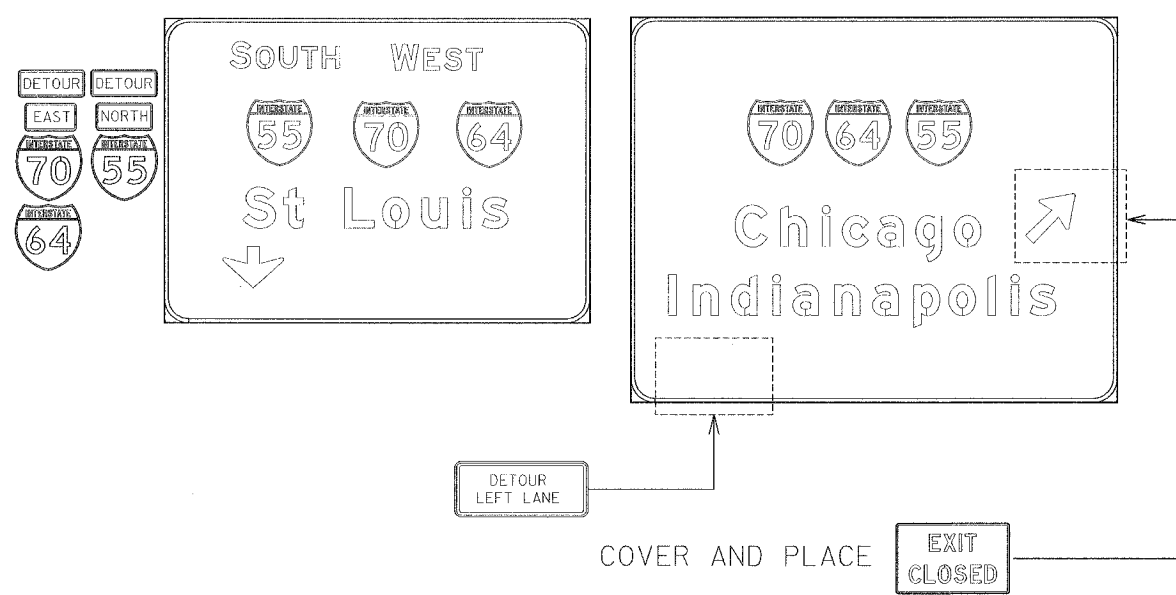
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

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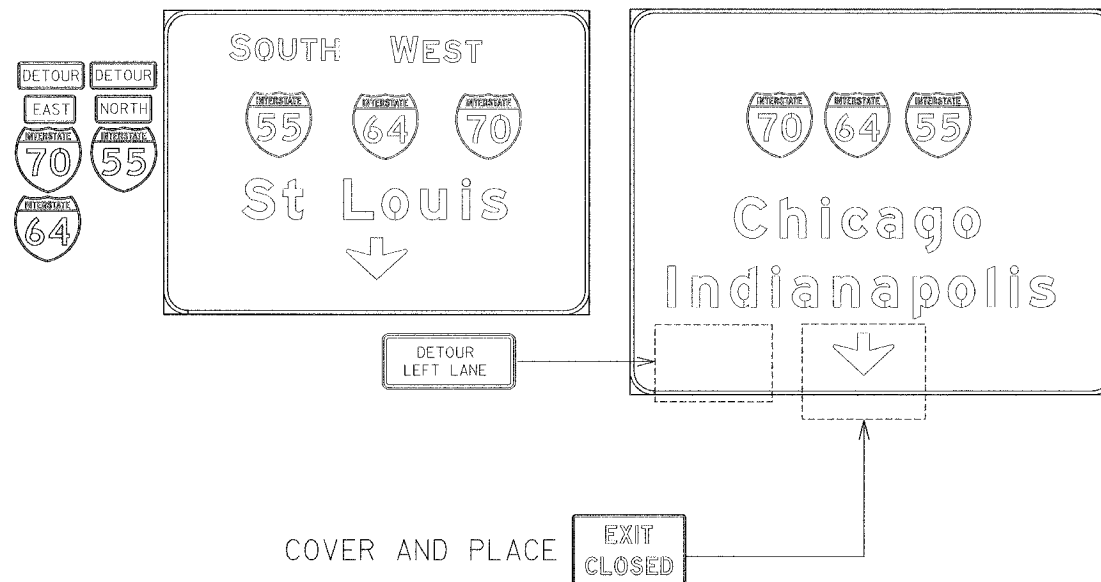
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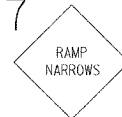


- NOTES:
1. CONTRACTOR SHALL SUPPLY ALL DETOUR AND CONSTRUCTION RELATED SIGNS.
 2. ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND
 3. CONTRACTOR SHALL COVER ALL TRUSS SIGNS AS INDICATED HEREIN. IN ADDITION, AS DIRECTED BY ENGINEER, CONTRACTOR SHALL COVER ALL EXISTING SPEED LIMIT SIGNS IN THE WORK ZONE.
 4. CONTRACTOR WILL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
 5. UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE THE SIGNS AND POSTS. THE SIGNS AND POSTS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
 6. THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.
 7. SIGNS 16, 17, 18, AND 28 ARE TO BE FREE-STANDING SIGNS.

16



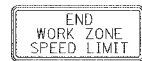
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18



28



DATE: 1/24/2007
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DESIGNED	IDOT
CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

REVISIONS	
NAME	DATE

SIGNS-STAGE I

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

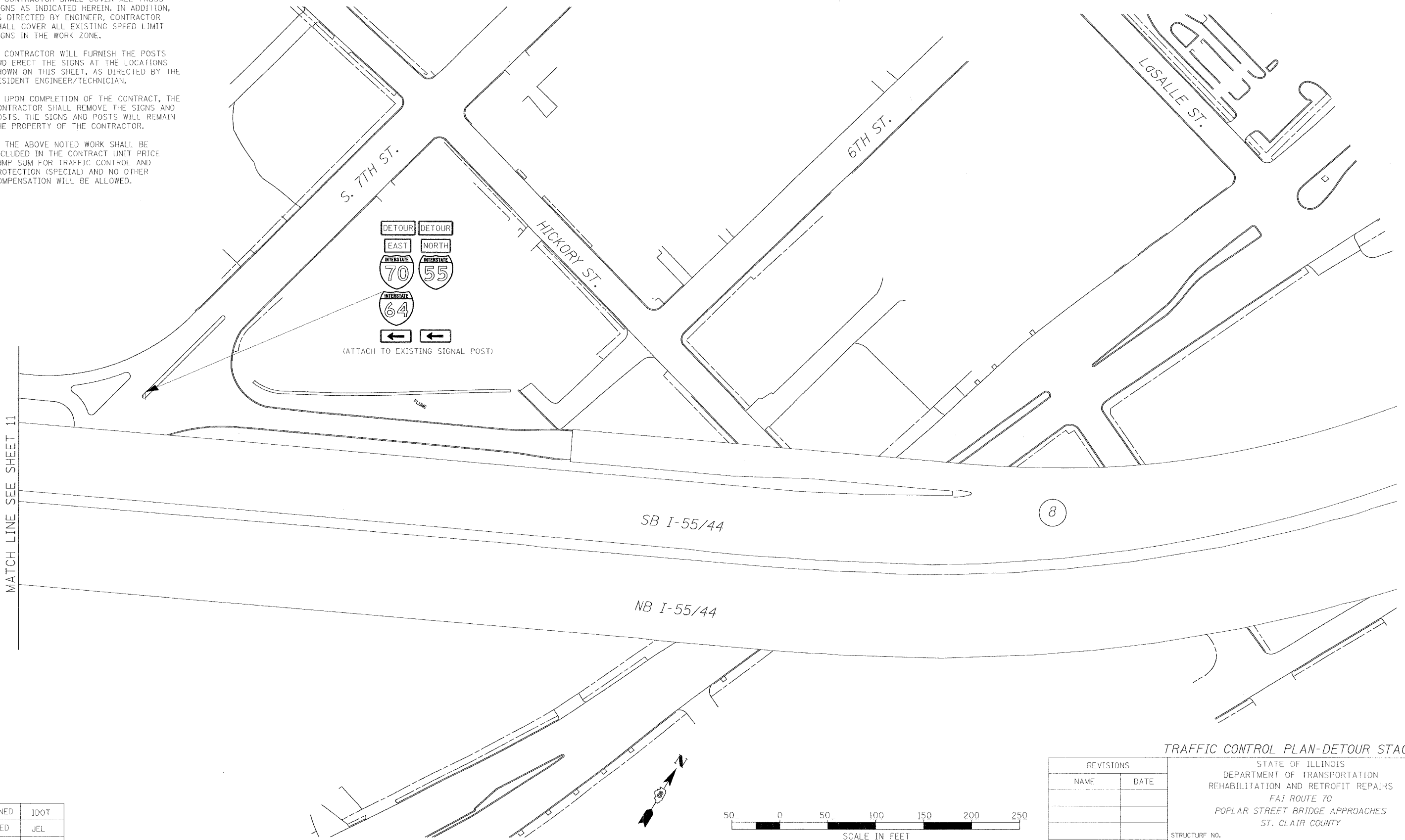
STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

NOTES:

1. CONTRACTOR SHALL SUPPLY ALL DETOUR AND CONSTRUCTION RELATED SIGNS.
2. ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND
3. CONTRACTOR SHALL COVER ALL TRUSS SIGNS AS INDICATED HEREIN. IN ADDITION, AS DIRECTED BY ENGINEER, CONTRACTOR SHALL COVER ALL EXISTING SPEED LIMIT SIGNS IN THE WORK ZONE.
4. CONTRACTOR WILL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
5. UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE THE SIGNS AND POSTS. THE SIGNS AND POSTS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
6. THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- UM-70		

• 82-3HVB-3R-5
CONTRACT NO. 76985



MATCH LINE SEE SHEET 11

8

DATE: 12/24/2007
FILENAME: P:\2001\1201-1300\2001.1240\Drafting\Roadway\Rehab_AT\AT traf cont_010806\AT_STG1_DET_01.dgn

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CHECKED	JEL
DRAWN	IMG
CHECKED	JFL

TRAFFIC CONTROL PLAN-DETOUR STAGE I

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURF NO.
SCALE: N.T.S.
DATE: 02/01/2007

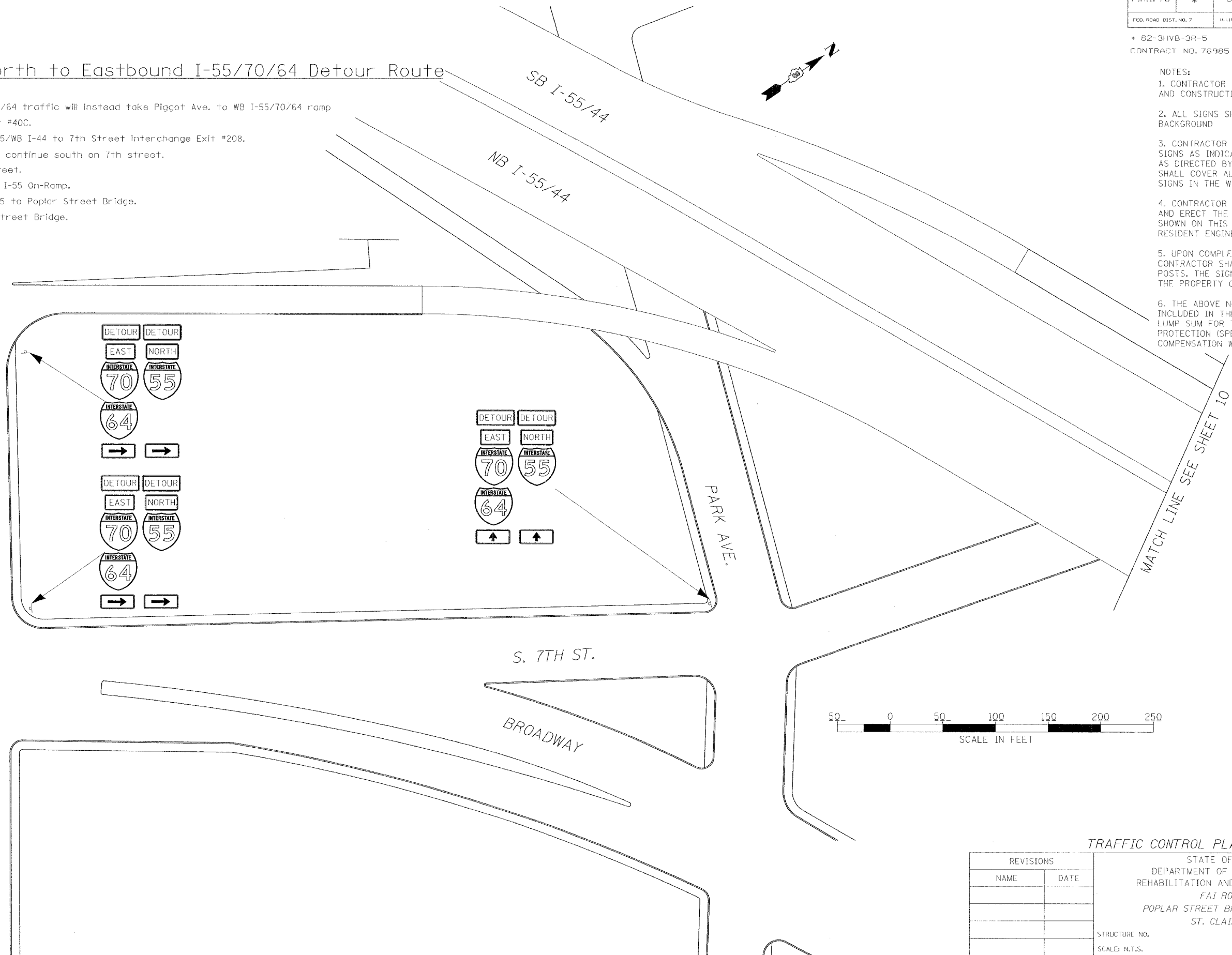
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F.A.I. 70	*	ST. CLAIR	99	11
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-5
CONTRACT NO. 76985

- NOTES:
1. CONTRACTOR SHALL SUPPLY ALL DETOUR AND CONSTRUCTION RELATED SIGNS.
 2. ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND
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 6. THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.

Piggot Ave. North to Eastbound I-55/70/64 Detour Route

1. Piggot Ave. to EB I-55/70/64 traffic will instead take Piggot Ave. to WB I-55/70/64 ramp
2. Take SB I 55/WB I 44 Exit #40C.
3. Continue travelling SB I-55/WB I-44 to 7th Street interchange Exit #208.
4. Turn left at 7th street; continue south on 7th street.
5. Turn right on Marion Street.
6. Turn right to access NB I-55 On-Ramp.
7. Continue travelling NB I-55 to Poplar Street Bridge.
8. Continue across Poplar Street Bridge.



DATE: 12/4/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\Roadway\Rehab_AT\AT_traf cont_010306\AT_STG1_DET_02.dgn

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CHECKED	JEL

REVISIONS	
NAME	DATE

TRAFFIC CONTROL PLAN-DETOUR STAGE I

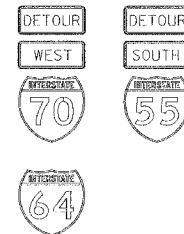
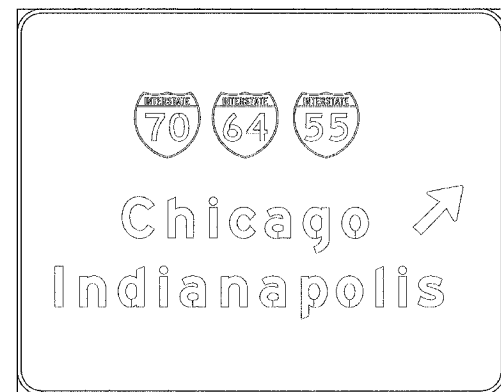
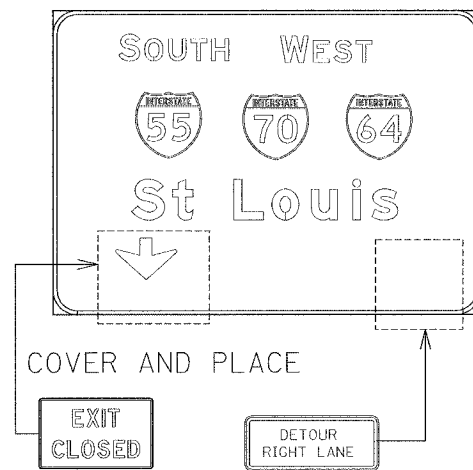
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

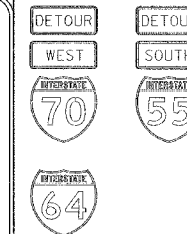
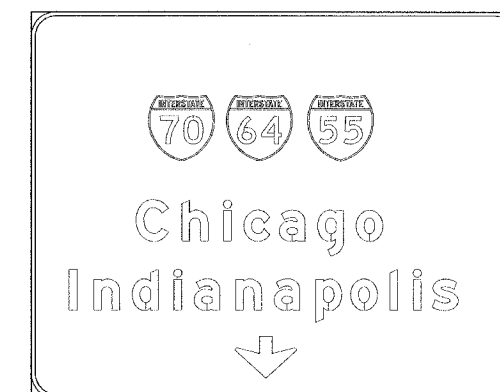
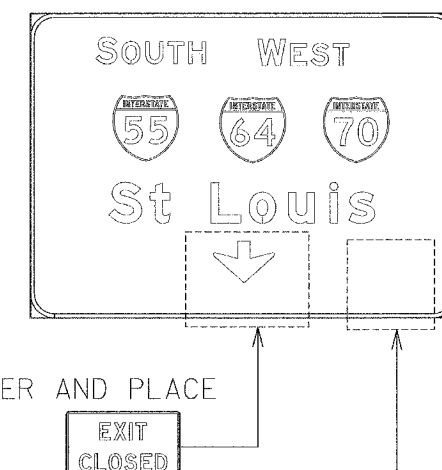
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F.A.I. 70	*	ST. CLAIR	99	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

• 82-3HVB-3R-5
CONTRACT NO. 76485

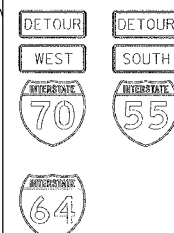
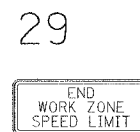
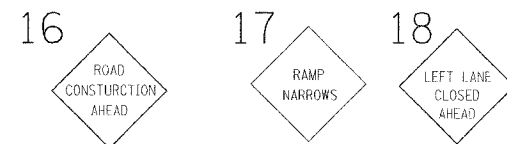
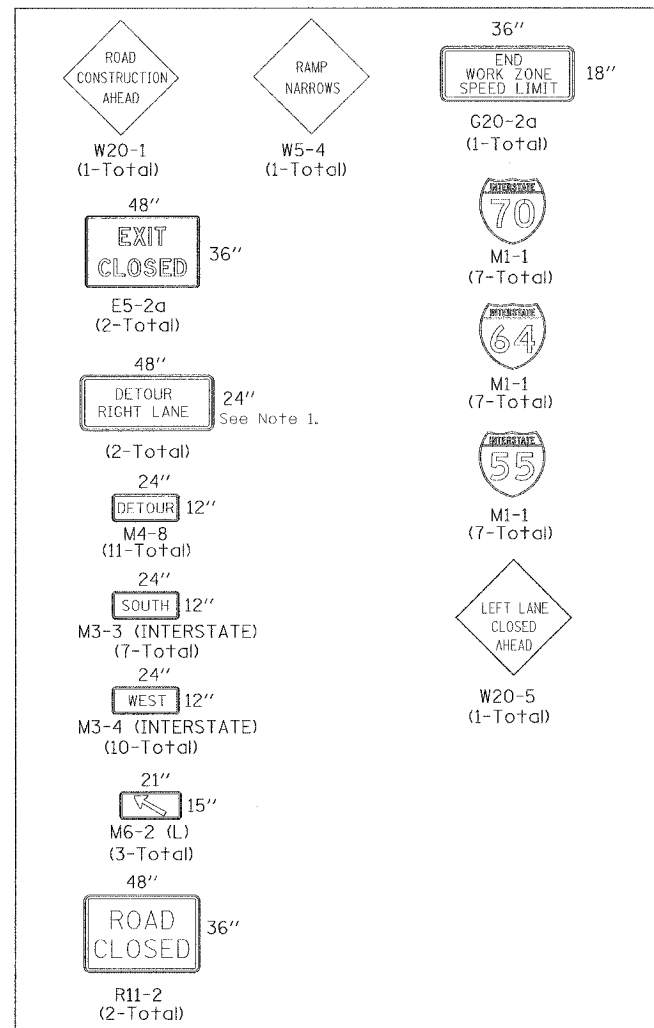
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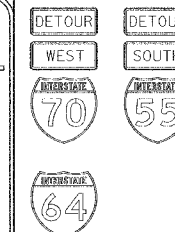
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SIGNS REQUIRED



27



NOTES:

- CONTRACTOR SHALL SUPPLY ALL DETOUR AND CONSTRUCTION RELATED SIGNS.
- ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND
- CONTRACTOR SHALL COVER ALL TRUSS SIGNS AS INDICATED HEREIN. IN ADDITION, AS DIRECTED BY ENGINEER, CONTRACTOR SHALL COVER ALL EXISTING SPEED LIMIT SIGNS IN THE WORK ZONE.
- CONTRACTOR WILL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
- UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE THE SIGNS AND POSTS. THE SIGNS AND POSTS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
- THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.
- SIGNS 16, 17, 18 AND 29 ARE TO BE FREE-STANDING SIGNS.

SIGNS-STAGE II

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

REVISIONS	
NAME	DATE

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/24/2007 FILENAME: P:\2001\1201-1800\2001.12.24\Drafting\Roadway\Rehab_AIT\AT traf cont_010906\AT_SIGN_SIGN_01.dgn

DESIGNED	IDOT
CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

Note 1: Sign to have black letters on Orange background, Similar in Size to Sign M4-8.

Piggot Avenue to Westbound I-55/64/70 Detour Route

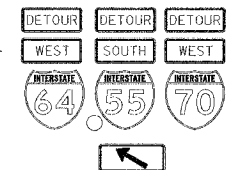
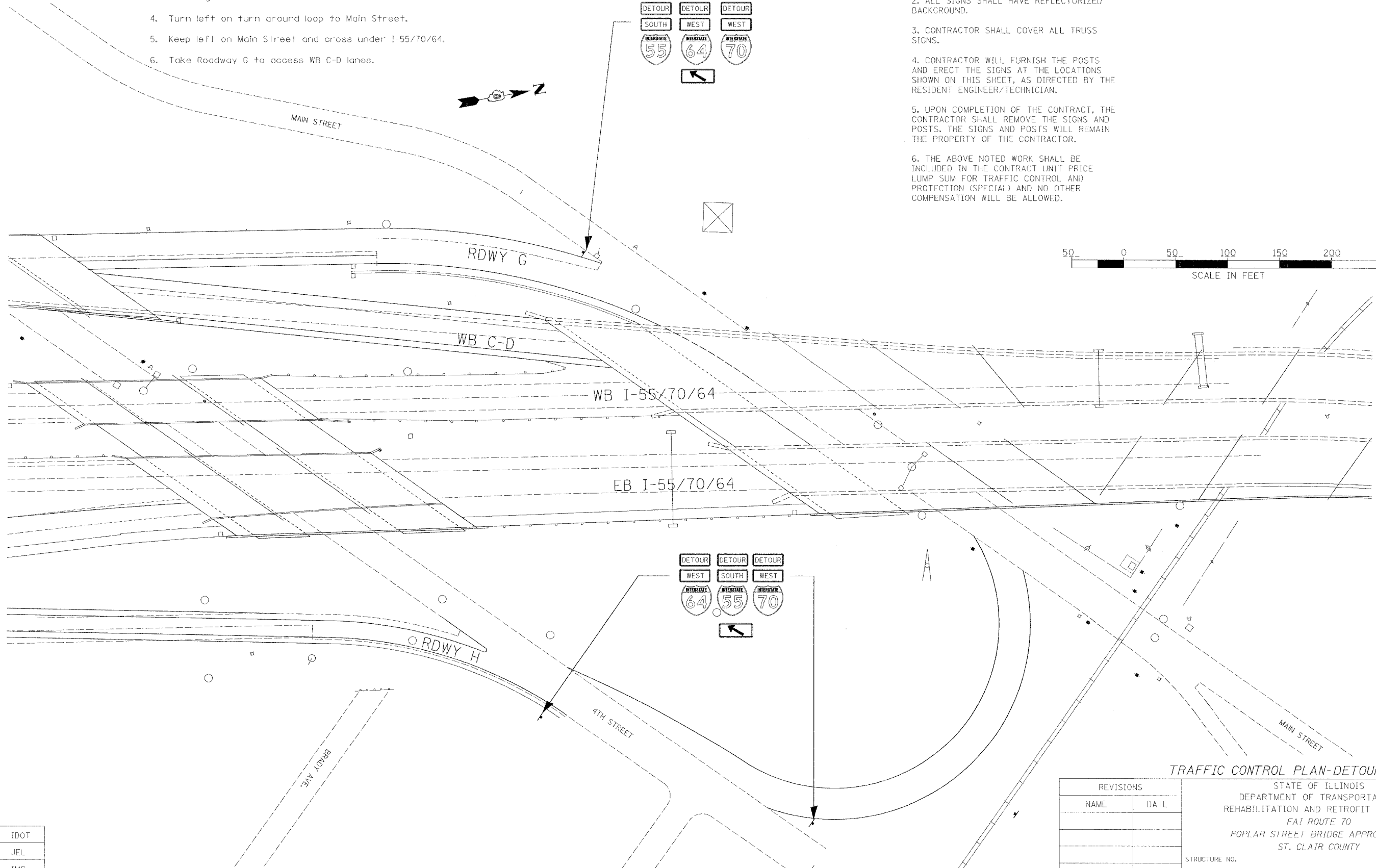
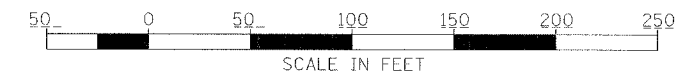
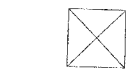
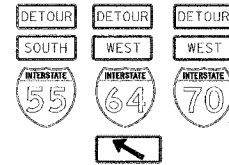
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 1M-70		

1. Outbound Piggot Ave. traffic will bypass Westbound exit ramp and continue on EB C-D lanes.
2. Take 4th Street East St. Louis Exit.
3. Turn right on 4th Street.
4. Turn left on turn around loop to Main Street.
5. Keep left on Main Street and cross under I-55/70/64.
6. Take Roadway G to access WB C-D lanes.

NOTES:

1. CONTRACTOR SHALL SUPPLY ALL DETOUR SIGNS.
2. ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND.
3. CONTRACTOR SHALL COVER ALL TRUSS SIGNS.
4. CONTRACTOR WILL FURNISH THE POSTS AND ERECT THE SIGNS AT THE LOCATIONS SHOWN ON THIS SHEET, AS DIRECTED BY THE RESIDENT ENGINEER/TECHNICIAN.
5. UPON COMPLETION OF THE CONTRACT, THE CONTRACTOR SHALL REMOVE THE SIGNS AND POSTS. THE SIGNS AND POSTS WILL REMAIN THE PROPERTY OF THE CONTRACTOR.
6. THE ABOVE NOTED WORK SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE LUMP SUM FOR TRAFFIC CONTROL AND PROTECTION (SPECIAL) AND NO OTHER COMPENSATION WILL BE ALLOWED.

* 82-3HVB-3R-5
CONTRACT NO. 76985



TRAFFIC CONTROL PLAN-DETOUR STAGE II

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

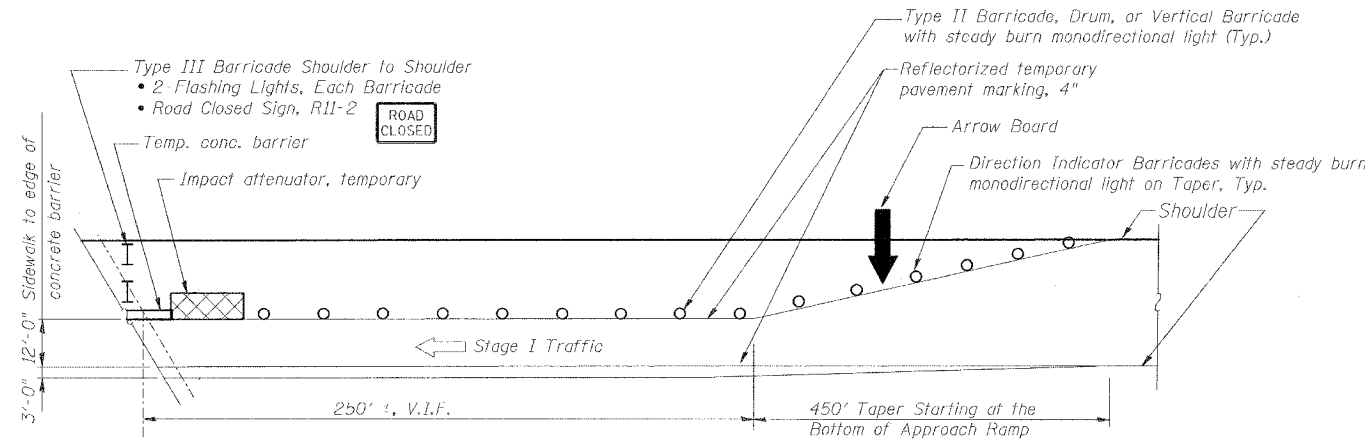
STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007
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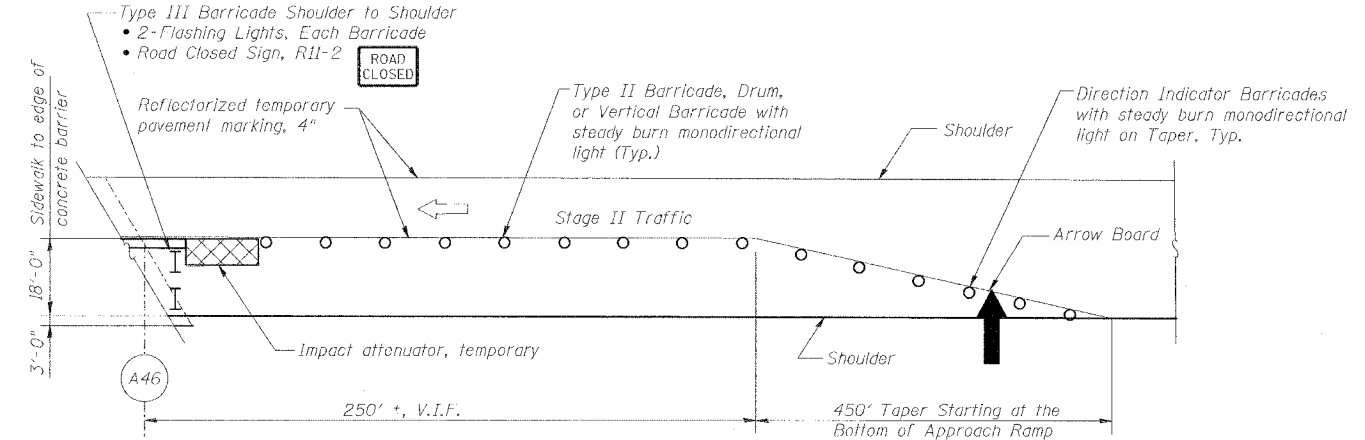
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CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

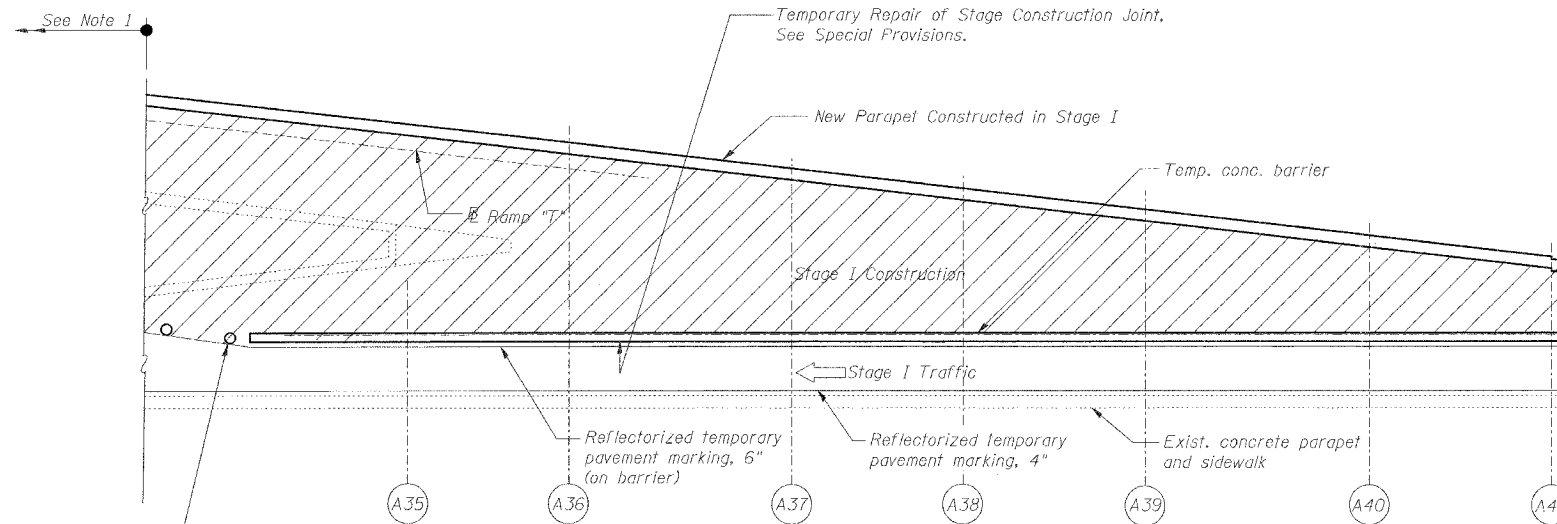
• 82-3HVB-3R-5
CONTRACT NO. 76985



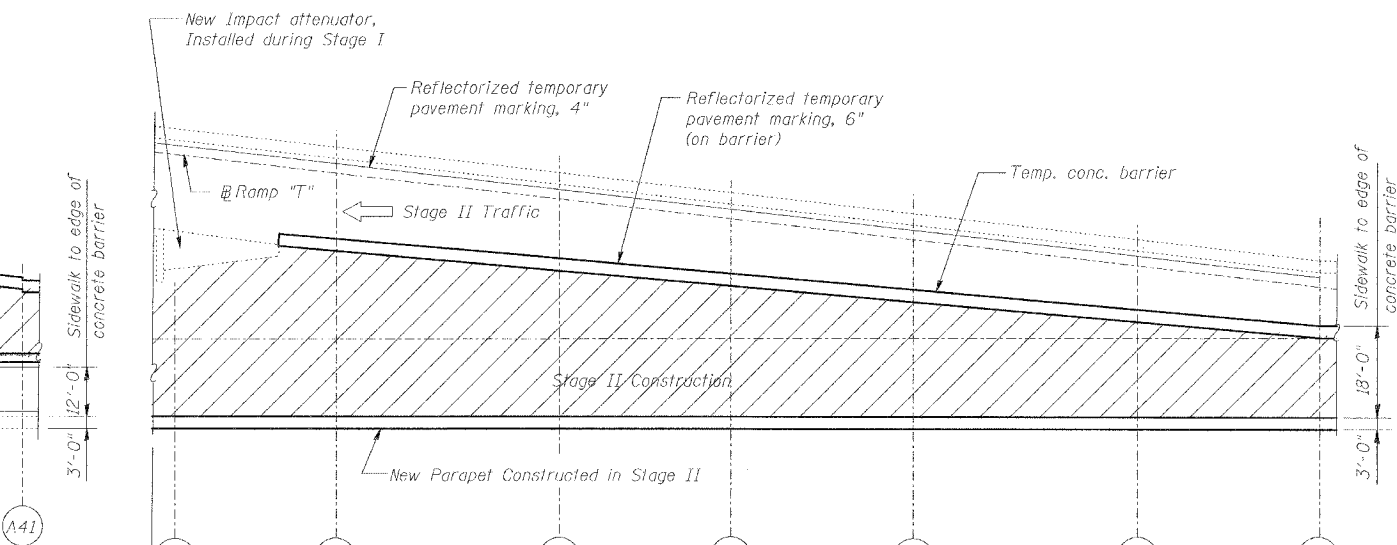
1 PLAN-RAMP A APPROACH STAGE I
Note: See Special Traffic Control Standard, Sheet 16, for additional transition and work area details.



3 PLAN-RAMP A APPROACH STAGE II
Note: See Special Traffic Control Standard, Sheet 16, for additional transition and work area details.



2 PLAN-RAMP A STAGE I
Note: See Special Traffic Control Standard, Sheet 16, for additional transition and work area details.



4 PLAN-RAMP A STAGE II
Note: See Special Traffic Control Standard, Sheet 16, for additional transition and work area details.

Notes:

1. Provide barricades or drums on Ramp T at Pier T6 to block off work area, as directed by Engineer.
2. Provide barricades or drums at Pier A21 to block off work area, as directed by Engineer.

DATE: 12/4/2007
FILENAME: P:\2001\1201-1300\20011240\Drafting\RoadwayRehab_AT\AT_traf_cont_010806\AT_PLAN.dgn

DESIGNED	JEL
CHECKED	JPD
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REVISIONS	
NAME	DATE

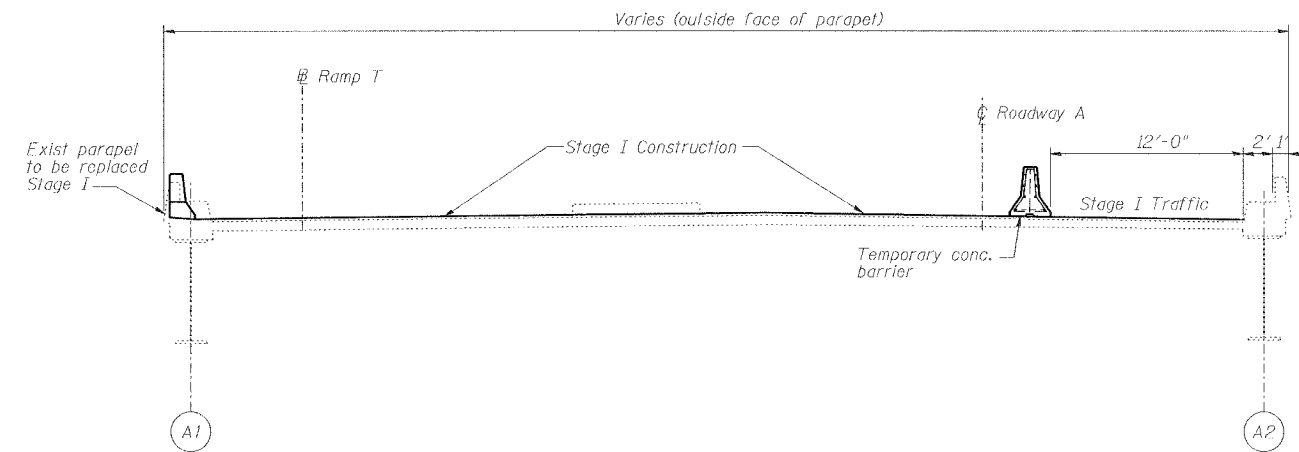
STAGES I AND II PLAN & APPROACH

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND REIROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

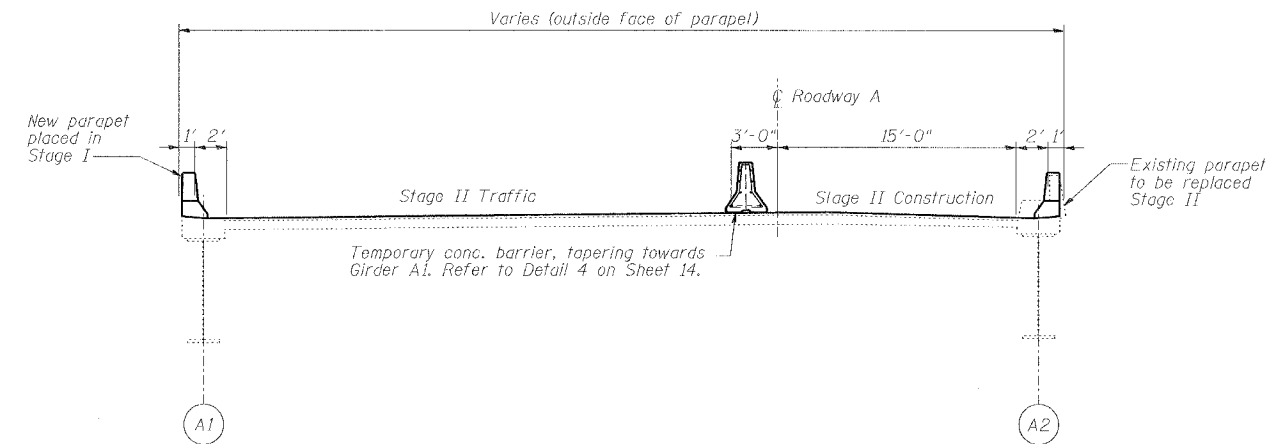
STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-70		

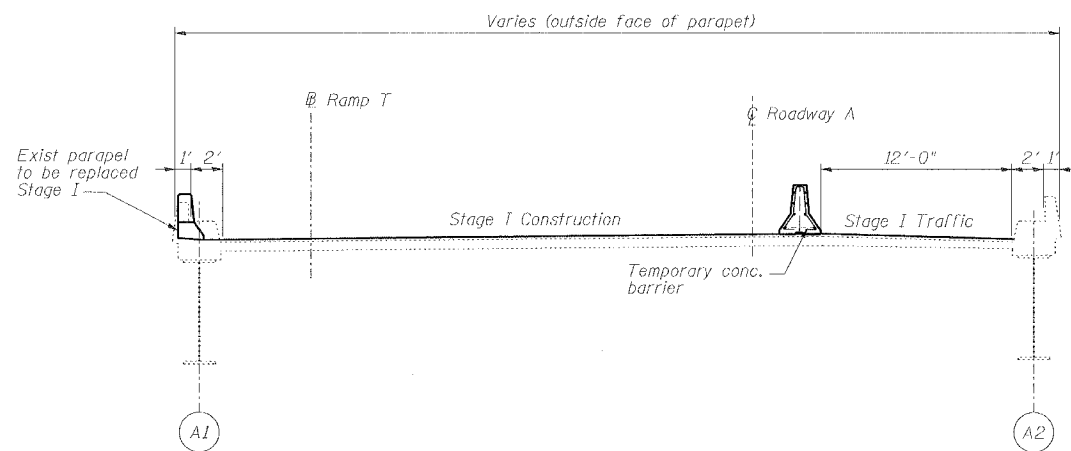
* 82-3HVB-3R-0
 CONTRACT NO. 76805



1 STAGE I RAMP A @ SPAN A36
 Looking South



3 STAGE II RAMP A @ SPAN A41
 Looking South



2 STAGE I RAMP A @ SPAN A41
 Looking South

DATE: 1/24/2007
 FILENAME: P:\2001\2001-1300\2001.1240\Drafting\Roadway\Rehab_A1\A1_trf_cont_010806\A1_SECTS.dgn

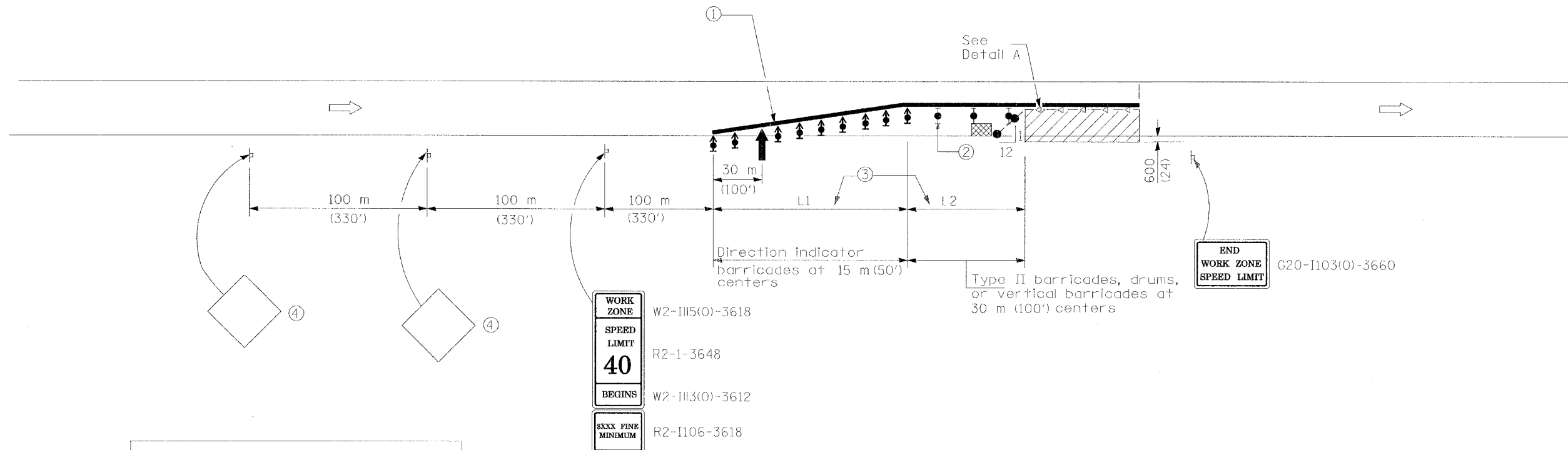
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DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

STAGES I AND II SECTIONS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO.
 SCALE: N.T.S.
 DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

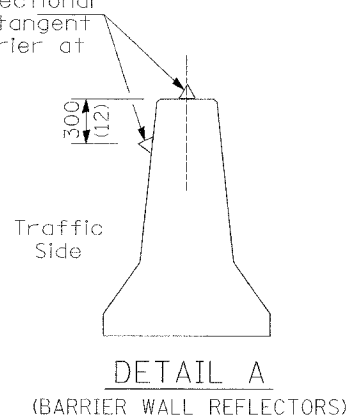
* 82-3HVB-3R-5
CONTRACT NO. 76985



L = lane width X taper ratio

Normal Posted Speed		Taper Ratio
km/h	mph	
90	55	55/1
80	45	45/1

Type C monodirectional reflectors on tangent portion of barrier at 15 m (50') cts.



SYMBOLS

- Arrow board
- Work area
- Sign
- Direction Indicator barricade with steady burn monodirectional light
- Type II barricade, drum, or vertical barricade with steady burn monodirectional light
- Temporary concrete barrier
- Type C Monodirectional reflector
- Vertical panel with steady burn monodirectional light
- Impact attenuator

- ① Reflectorized temporary paint pavement marking shall be placed throughout the taper and work area as indicated on the plan sheets. In addition, the bottom 6" of the temporary concrete barrier shall be painted white for right lane closures and yellow for left lane closures. The edge line shall be white for right lane closures and yellow for left lane closures.
- ② Vertical panels at 7.6 m (25') centers with steady burn monodirectional lights.
- ③ See traffic control plan sheet for geometry approaching work zone and values for L1 and L2.
- ④ See Signage Key Plan Sheets for sign type.

GENERAL NOTES

This standard is used where at any time a ramp tapers from its original width for day light operation exceeding one day and where temporary concrete barrier is utilized.

This standard also applies when work is being performed on the left side of the ramp.

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

TRAFFIC CONTROL AND PROTECTION-SPECIAL

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY	
NAME	DATE		

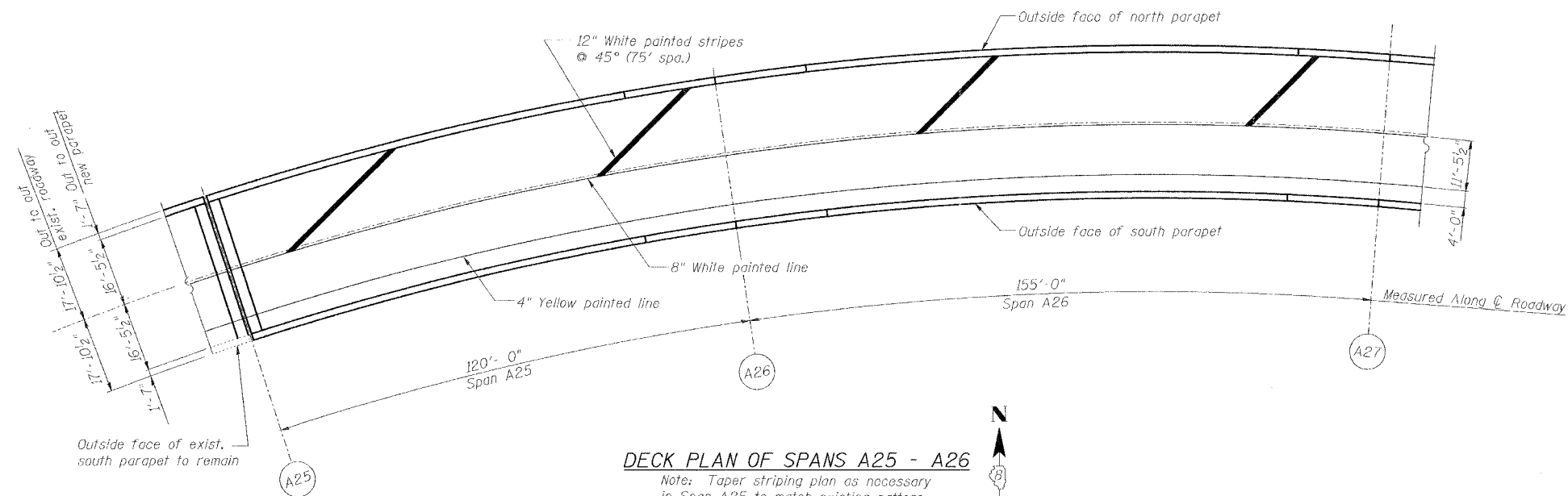
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SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\AT_traf_cont_010906.dgn

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CHECKED	JEL

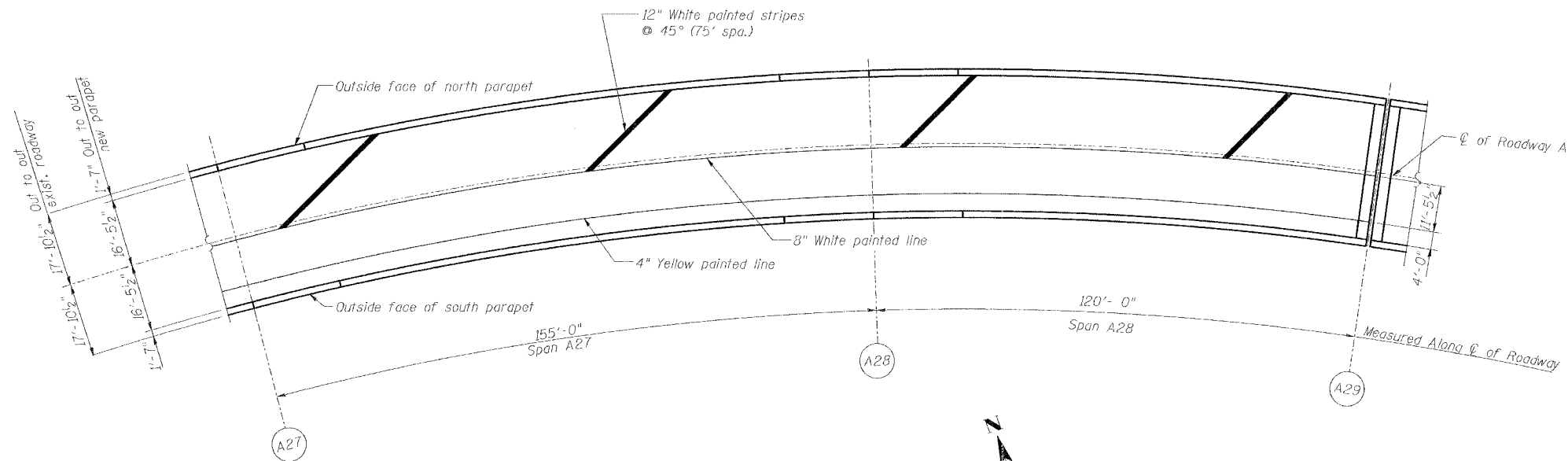
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F.A.I. 70	*	ST. CLAIR	99	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-78		

* 82-3HVB-3R-5
CONTRACT NO. 76985



DECK PLAN OF SPANS A25 - A26

Note: Taper striping plan as necessary in Span A25 to match existing pattern beyond Pier A25.



DECK PLAN OF SPANS A27 - A28

STRIPING SPANS A25 - A28

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

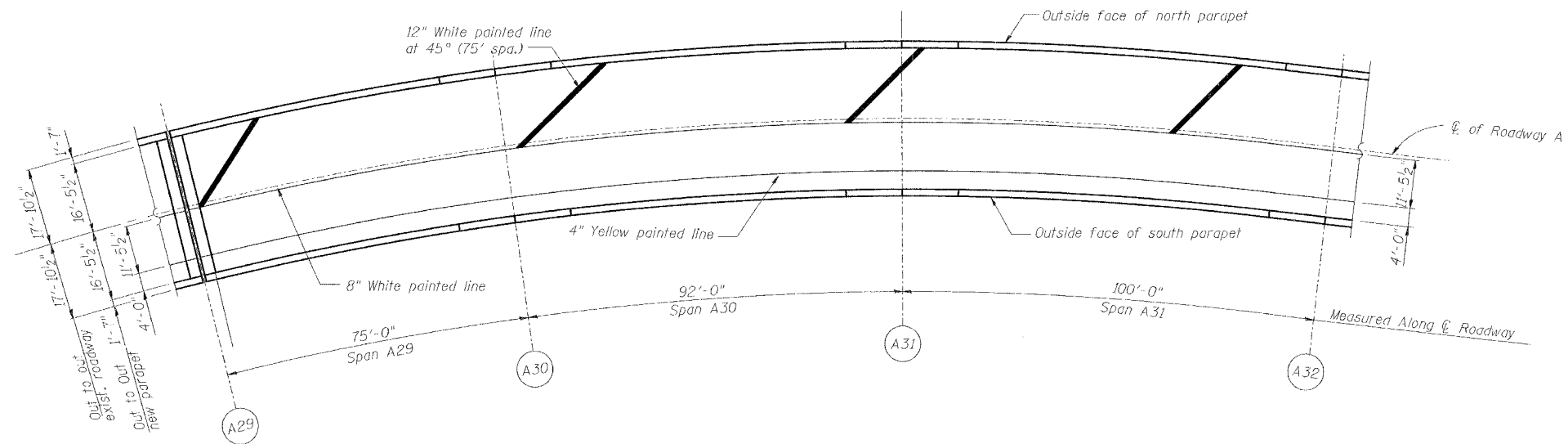
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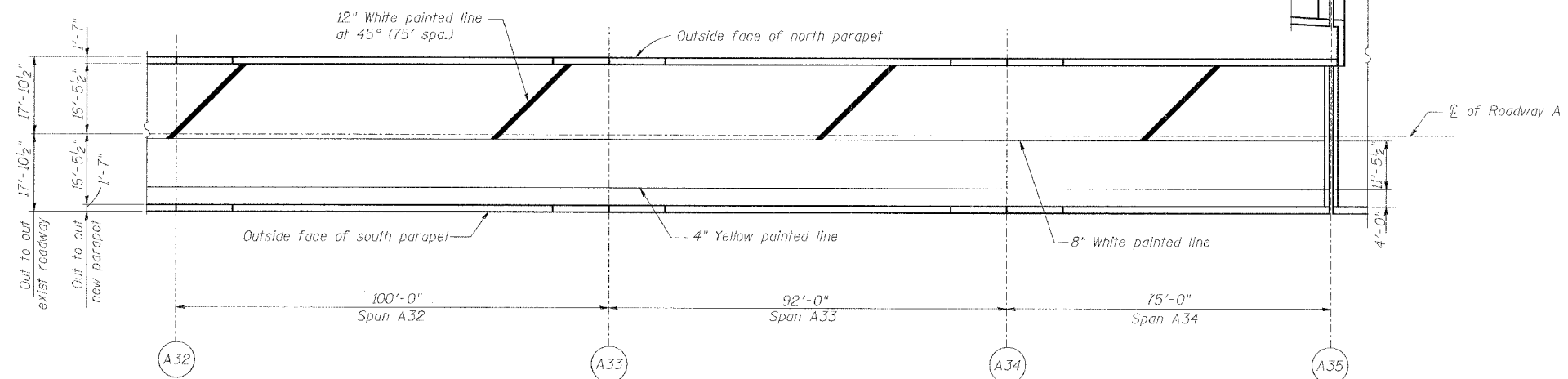
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

• 82-3HVB-3R-5
 CONTRACT NO. 76985



DECK PLAN OF SPANS A29 - A31



DECK PLAN OF SPANS A32 - A34

DATE: 12/4/2007
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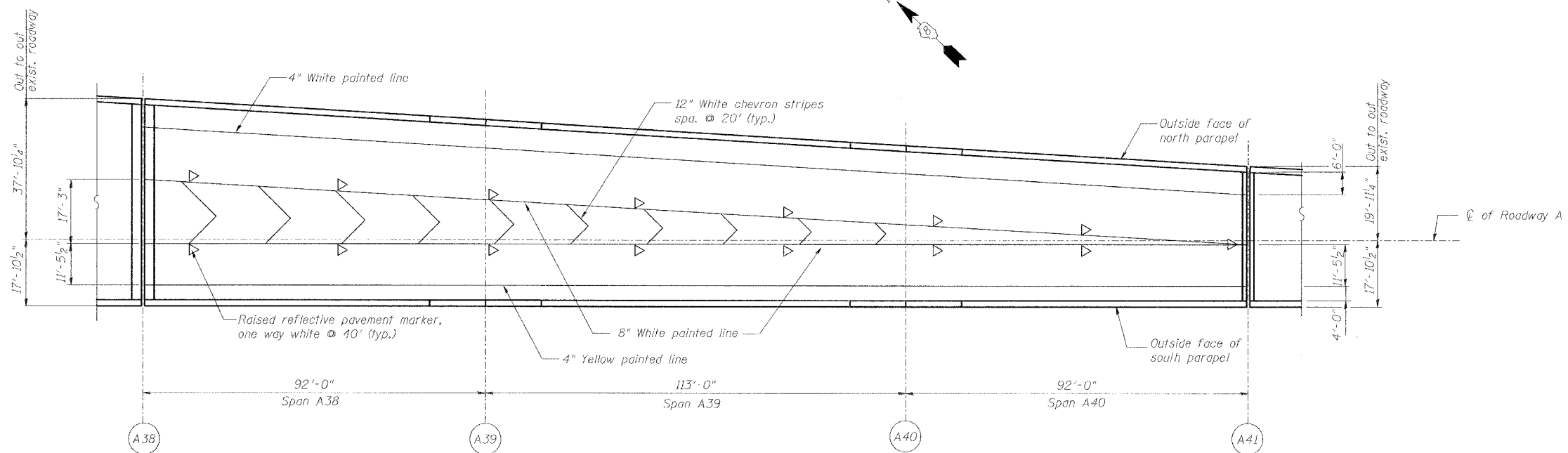
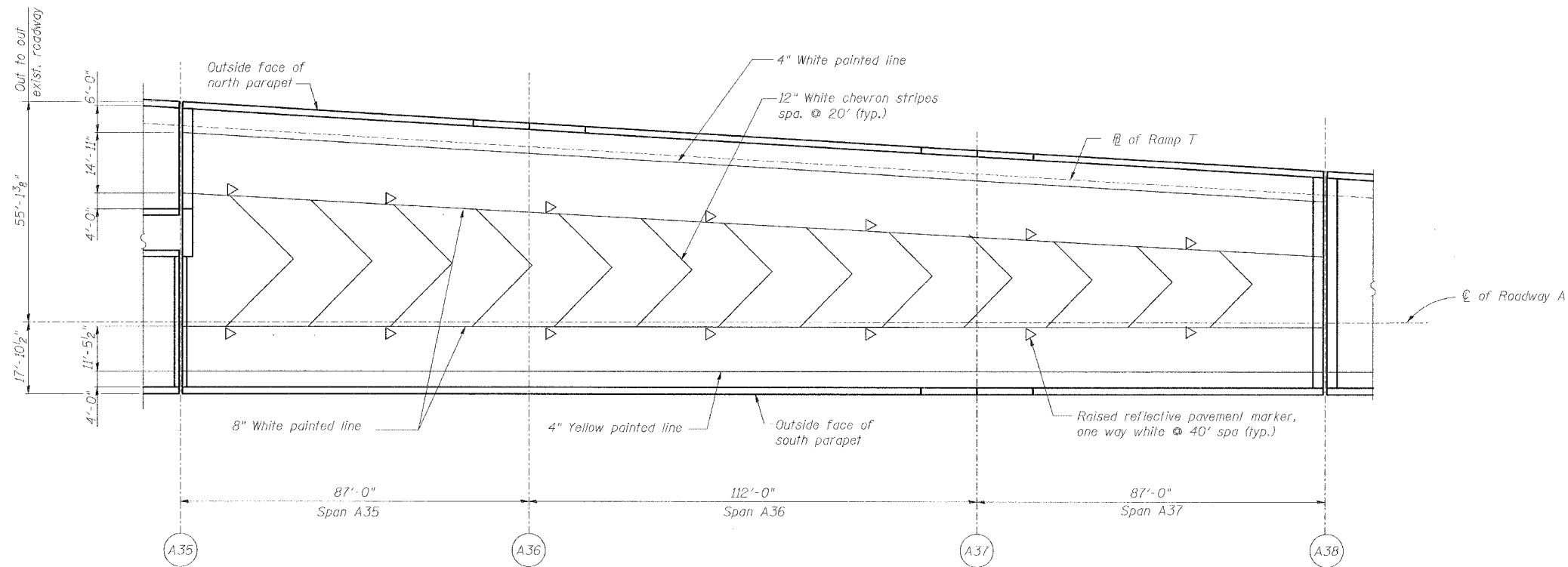
REVISIONS	
NAME	DATE

STRIPING SPANS A29 - A34
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO.
 SCALE: N.T.S.
 DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-70		

• 82-3HVB-3R-5
CONTRACT NO. 76985



DATE: 12/4/2007
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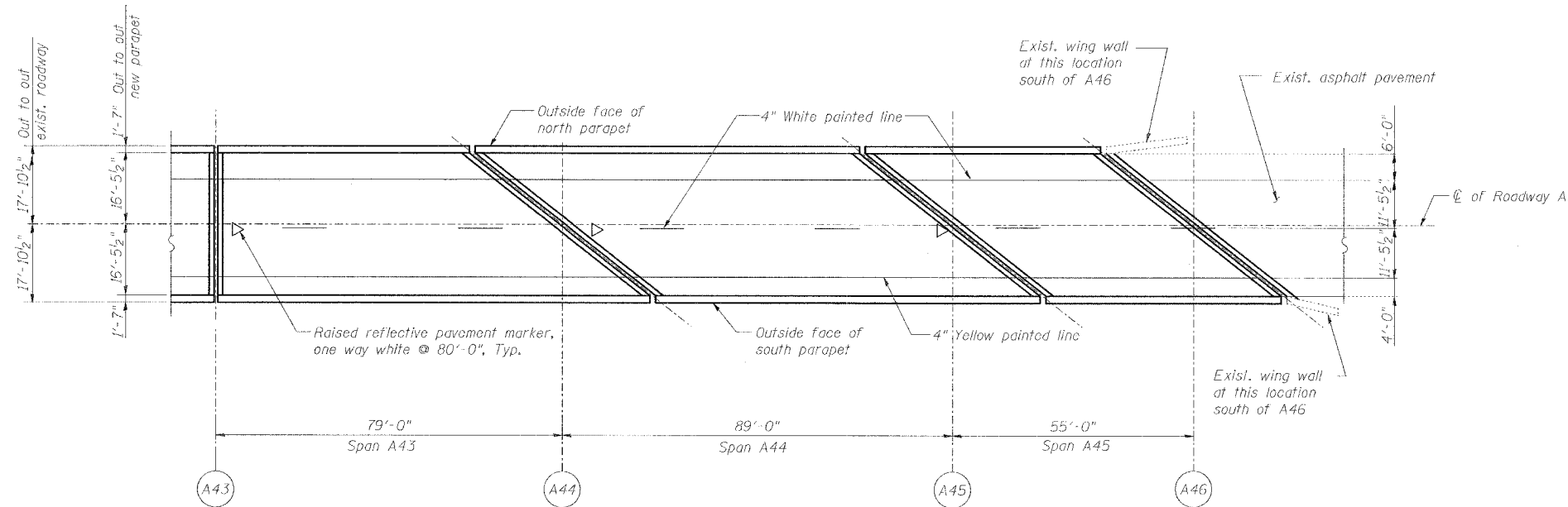
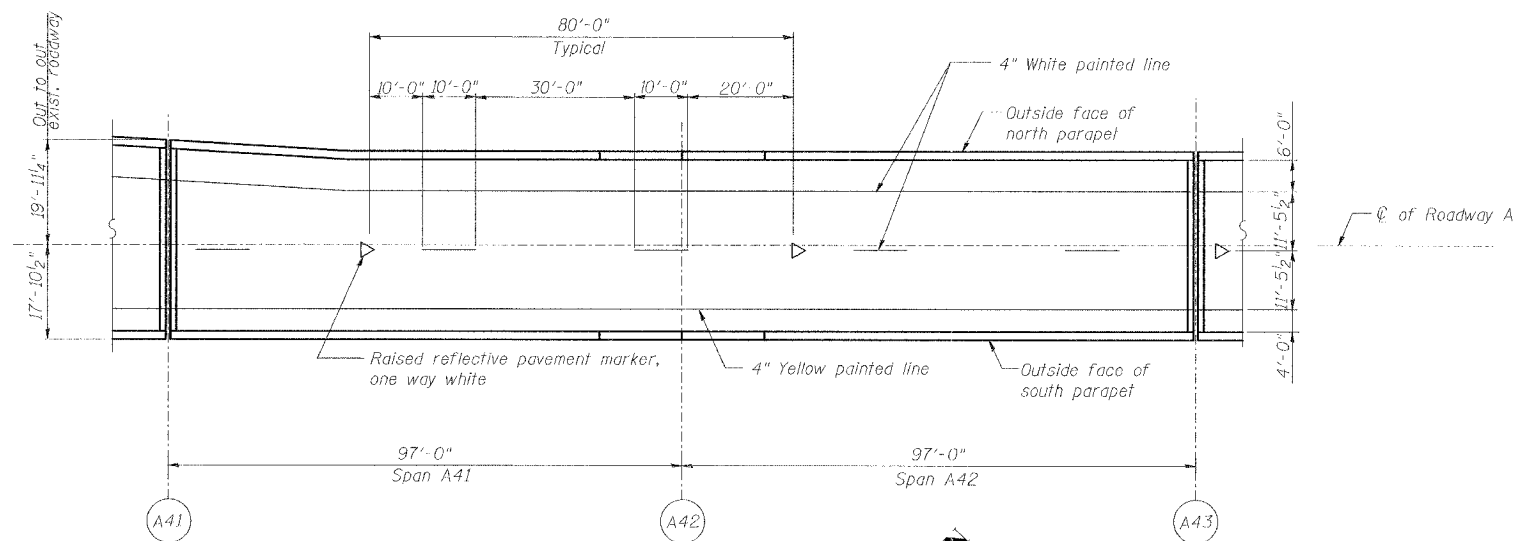
REVISIONS	
NAME	DATE

STRIPING SPANS A35 - A40
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* B2-3HVB-3R-5
CONTRACT NO. 76985



Note: Taper striping pattern as necessary to match existing pattern beyond Abutment at A46

REVISIONS	
NAME	DATE

STRIPING SPANS A41 - A45
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

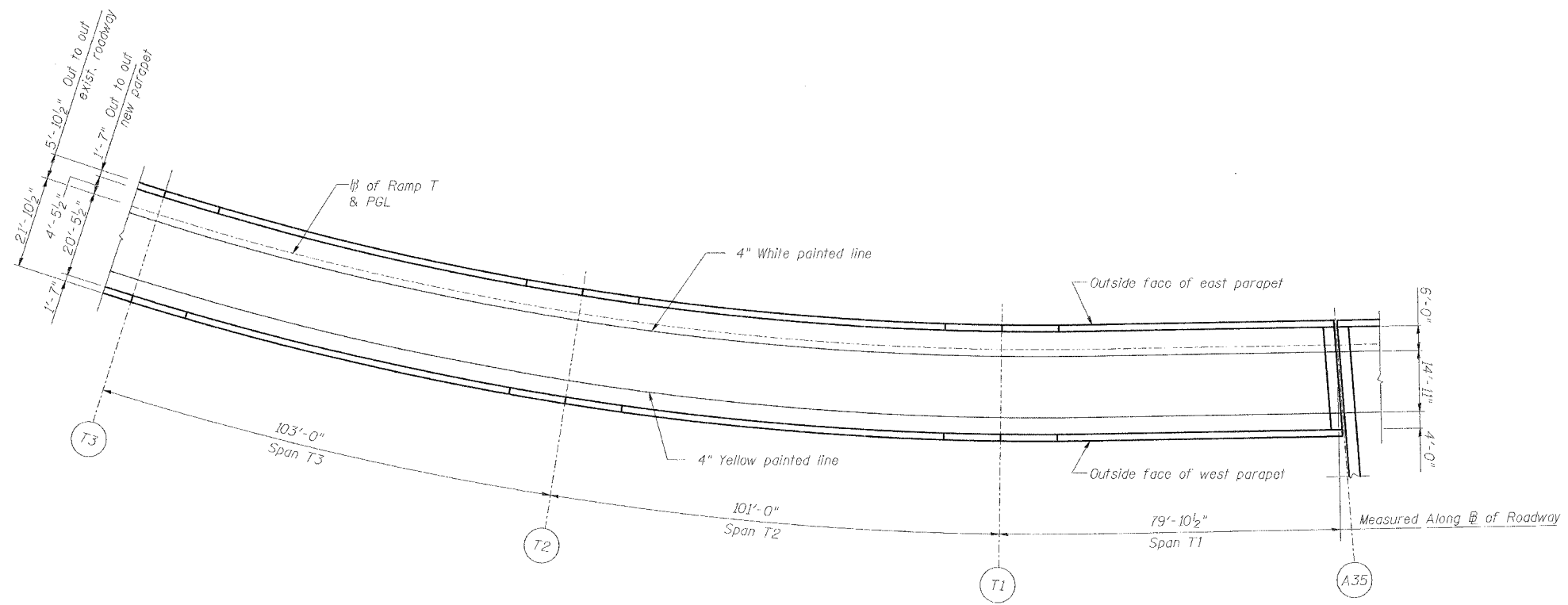
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SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007
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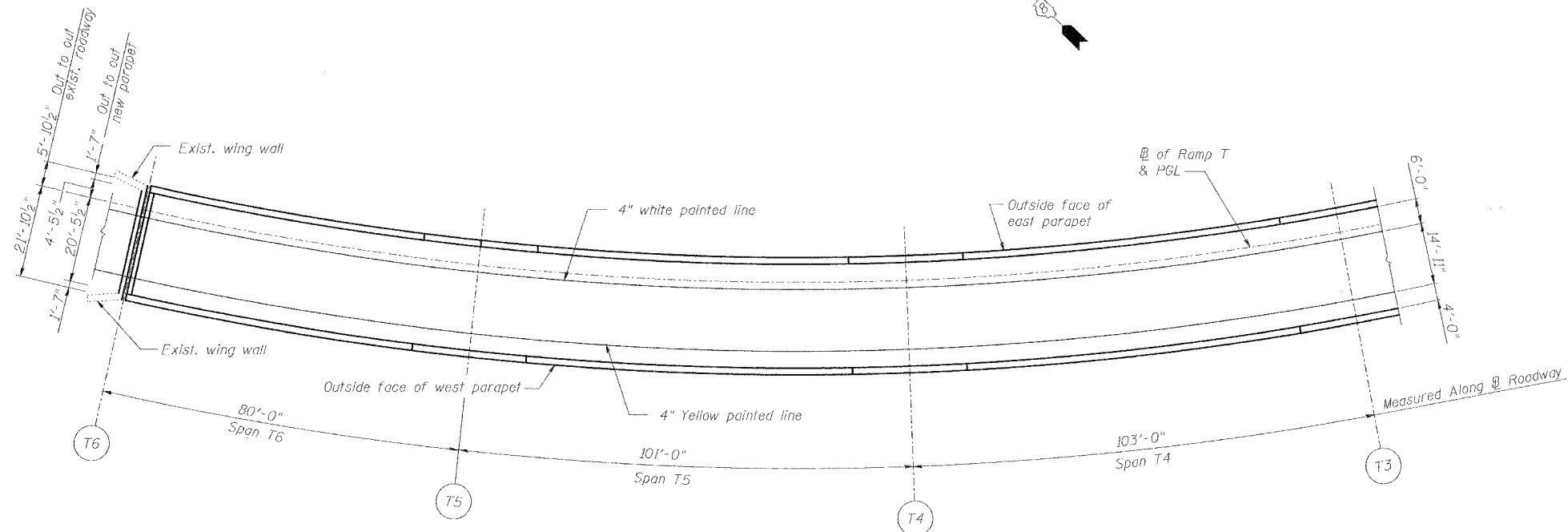
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-5
 CONTRACT NO. 76985



DECK PLAN OF SPANS T3 - T1



DECK PLAN OF SPANS T6 - T4

Note:
 Taper striping pattern as necessary to match existing pattern beyond ℄ T6

REVISIONS	
NAME	DATE

STRIPING SPANS T1 - T6

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO.
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 DATE: 02/01/2007

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DESIGNED	JEL
CHECKED	JPD
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		
* 82-3HVB-3R-5			SHEET S-1 OF S-56	
CONTRACT NO. 76985				

**SET 1 OF
2 SETS**

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FAI ROUTE 70 (I-55/64/70)
POPLAR STREET BRIDGE APPROACHES
SECTION 82-3HVB-3R-5
PROJECT IM-70
PLANS FOR PROPOSED
ROADWAY REHABILITATION
ST. CLAIR COUNTY

ENCOMPASSING THE FOLLOWING ROADWAYS
• SN-082-0141 (ROADWAY A)

LOADING HS20-44

SEISMIC DATA

Seismic Performance Category (SPC) = B
Bedrock Acceleration Coefficient (A) = 0.12g
Site Coefficient (S) = 1

DESIGN STRESSES

FIELD UNITS (ORIGINAL)

fc = 1,400 psi
(Super- and Sub-structures)
fs = 20,000 psi (A36 Structural Steel)
fs = 20,000 psi (Reinforcement)
fy = 40,000 psi (Reinforcement)

DESIGN SPECIFICATIONS

2002 AASHTO
1995 Seismic Retrofitting Manual for
Highway Bridges FHWA-RD-94-052

FIELD UNITS (Previous Repair)

fc = 3,500 psi
fy = Varies, 36,000 - 50,000 psi
(Structural Steel)
fy = 60,000 psi (Reinforcement)

HIGHWAY CLASSIFICATION

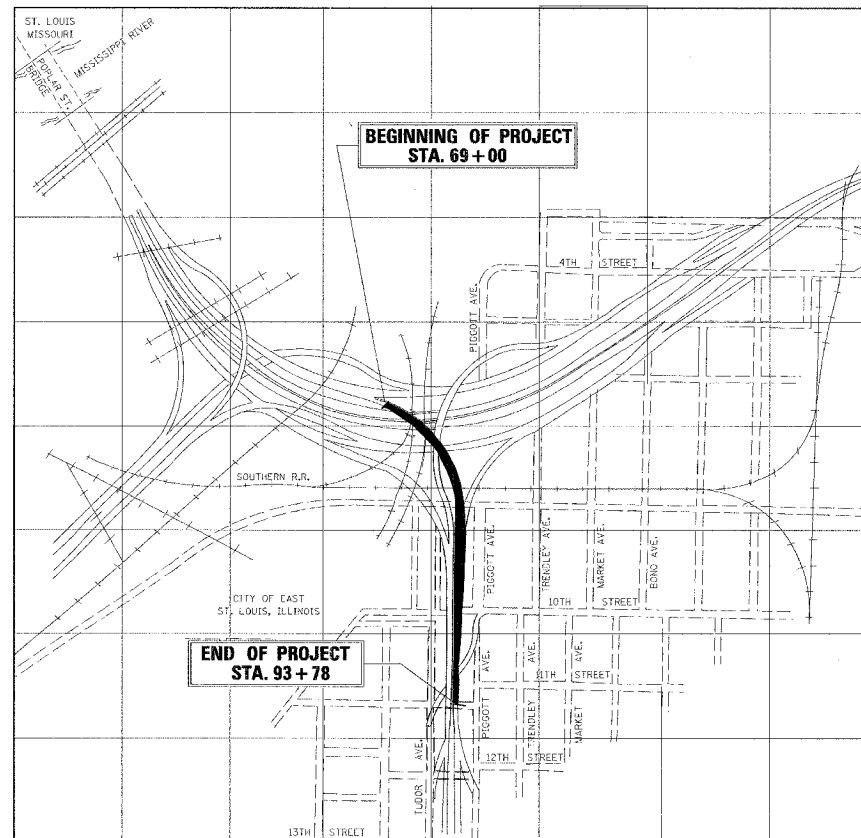
F.A.I. Route 70 - Poplar Street Complex
Functional Class: Collector - Distributor
Roadways
A.D.T.: 4,300 (2005)
D.H.V.: 100
Design Speed: 50 mph
Posted Speed: 50 mph

FIELD UNITS (NEW)

fc = 4,000 psi
fy = 36,000 psi (M270 Grade 36)
fy = 50,000 psi (M270 Grade 50)
fy = 70,000 psi (M270 Grade HPS TOW)
fy = 60,000 psi (Reinforcement)

INDEX OF DRAWINGS

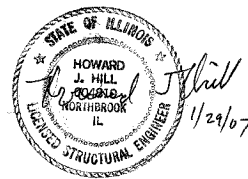
SHEET(S)	TITLE
S1	TITLE SHEET-ROADWAY A
S2	GENERAL NOTES
S3	SCOPE OF WORK
S4	KEY PLAN
S5	TOTAL BILL OF MATERIAL
S6 - S9	PROJECT PLAN, ELEVATION, AND SECTIONS
S10 - S16	TABLES OF ROADWAY ELEVATIONS
S17 - S24	DECK AND PARAPET REPAIR PLANS
S25 - S32	INFRARED THERMOGRAPHIC MAPPING RESULTS
S33 - S36	CONCRETE PARAPET DETAILS
S37 - S38	CONCRETE REPAIR DETAILS
S39 - S44	EXPANSION JOINT REPAIR DETAILS
S45 - S47	DECK DRAINAGE DETAILS
S48	STEEL PAINTING DETAILS
S49 - S50	ELASTOMERIC BEARING REPLACEMENT
S51 - S52	FATIGUE RETROFIT DETAILS
S53 - S56	SEISMIC ISOLATION DETAILS AND PIER ELEVATION



LOCATION PLAN

CONTRACT NO. 76985

Howard J. Hill, Ph.D, SE
Illinois Licensed Structural Engineer
License No. 081-004819
License Expires: 11/30/08



WJE **WISS, JANNEY, ELSTNER ASSOCIATES, INC.**
Engineers, Architects, Material Scientists
330 FRINKSTEN ROAD
NORTHBROOK, ILLINOIS 60062
(847) 272-7400 FAX: (847) 291-4813

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____ 20 _____

DISTRICT ENGINEER

_____ 20 _____

ENGINEER OF PROJECT DEVELOPMENT AND IMPLEMENTATION

_____ 20 _____

ENGINEER OF DESIGN AND ENVIRONMENT

_____ 20 _____

DIRECTOR, DIVISION OF HIGHWAYS

DATE: 1/26/2007
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		
* 82-3HVB-3R-5		SHEET S-2 OF S-56		
CONTRACT NO. 76985				

GENERAL NOTES:

- Plan dimensions and details relative to existing plans are subject to routine 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- Contractor shall be responsible for furnishing and installing all parts and materials necessary to complete the repairs indicated herein. Contractor shall also provide any tools, equipment, and machinery as necessary to complete the repairs indicated herein.
- Contractor shall locate all active and abandoned utilities, traffic signs, traffic observation cameras, and other traffic control devices and appurtenances that may interfere with the installation of repairs. The contractor shall either protect or temporarily relocate and restore all active utilities, signs, cameras, and other devices to the satisfaction of the Engineer. If abandoned utilities interfere with installation of repairs, contractor shall coordinate with Engineer, and shall remove and dispose of such utilities if so directed by Engineer.
- Calculated weight of Structural Steel, Grade 50W: 15,650 Lbs.
Calculated weight of Structural Steel, Grade 36W: 7,790 Lbs.
- Unless noted otherwise, Fasteners shall be high strength bolts. All threaded rods and dowels shall conform to the mechanical properties and thread configuration of AASHTO M164 bolts. In bolted applications, threads shall not be permitted in shear planes, unless noted otherwise.
- Threads on all bolts, rods, and dowels not installed per AISC specifications shall be peened with a hammer.
- Welding electrodes shall be low hydrogen E70XX, unless noted otherwise. Weld metal shall have a minimum CVN of 25 Ft.-Lb. at 20°F.
- All turnbuckles, clevises, and pins shall be galvanized and capable of developing the ultimate strengths of the corresponding assemblies.
- No field welding is permitted except as specified in the contract documents.
- Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
- The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Interstate Green, Munshell No. 7.5 G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures."
- 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 Area of Existing Steel Structure".
- 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 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.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Any additional microsilica concrete, beyond the quantities shown in the plans, needed to fill partial depth repair areas or other depressions (e.g. due to previous milling of the bridge deck) shall be paid for at the Contractor's actual material cost for the microsilica concrete per cubic yard plus 15 percent. Refer to special provision "Bridge Deck Microsilica Concrete Overlay.
- Prior to initiating staged traffic control, the Contractor shall remove all debris and protruding reinforcing steel from all sections of existing sidewalks and parapets exposed to traffic. Associated cost shall be included with the pay item for "Concrete Removal)
- The Contractor shall remove stay-in-place forms in the vicinity of each existing floor drain as directed by the Engineer. Area of removal will be approximately 5 square feet at each existing floor drain and shall be considered included with the pay item for "Concrete Removal". There are approximately 325 existing floor drains on Roadway A.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (II Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\Rehnp\A_GENERAL.dgn

DESIGNED	VARIOUS
CHECKED	HH
DRAWN	CLK
CHECKED	JEL

GENERAL NOTES & INDEX OF DRAWINGS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	24
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT# 1M-78	

* 82-3HVB-3R-5 SHEET S-3 OF S-56
 CONTRACT NO. 76985

BRIDGE REHABILITATION AND RETROFIT:

1. Remove existing deck parapet, sidewalk and outermost 3' to 4' of concrete deck as required at the following locations and replace with new deck slab edge and parapet (21 spans):
Spans A25 through A45
2. Per Sheet S37, remove existing hot mix asphalt overlay, scarify top 1/2" of existing concrete deck, and add new microsilica concrete overlay at the following locations (15 spans):
Spans A25 through A39
3. Per Sheet S38, remove existing hot mix asphalt overlay, scarify top 2" of concrete deck, and add new microsilica concrete overlay at the following locations (6 spans):
Spans A40 through A45
4. Install new drainage scuppers as indicated at the following spans (18 spans):
Spans A25 through A45, excluding A26, A29 and A44
5. Remove existing bridge deck joints and replace with new silicone joint seals at the following piers: (5 locations):
A35 A41 A43 A44 A45 A46
6. Remove existing bridge deck joints and replace with new finger joints and drainage trough at the following piers (3 locations):
A29 A35 A38
7. Remove existing concrete divider and crash attenuator and replace with a new crash attenuator system at the following location (1 location):
Span A35
8. Resurface adjacent hot mix asphalt concrete roadway surface at the following location (1 location)
A46
9. Clean and paint selected portions of the steel superstructure, including bottom portions of girders and all steel in the vicinity of deck joints.
Spans A21 through A45
10. Replace deteriorated bottom flange splice bolts in the following spans
Spans A29 A33 A35 A37 A38 A39 A41 A42
11. Install seismic isolation bearings and/or miscellaneous shear and tension links at the following piers (3-Locations)
A42 A44 A45
12. Replace existing elastomeric bearings at the following abutment (1-Location)
A46
13. Perform vertical stiffener intersection modifications on the following spans (15-location)
Spans A21 through A24, A29 through A34, A38 through A42
14. Perform long span floor beam retrofit on the following spans (3-spans)
Spans A35 through A37

DATE: 12/4/2007
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CHECKED	JEL

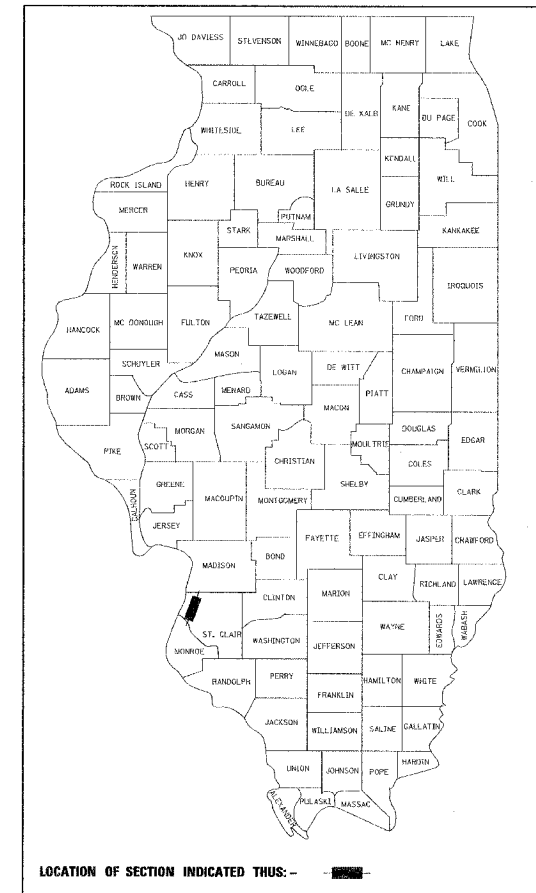
SCOPE OF WORK

REVISIONS	
NAME	DATE

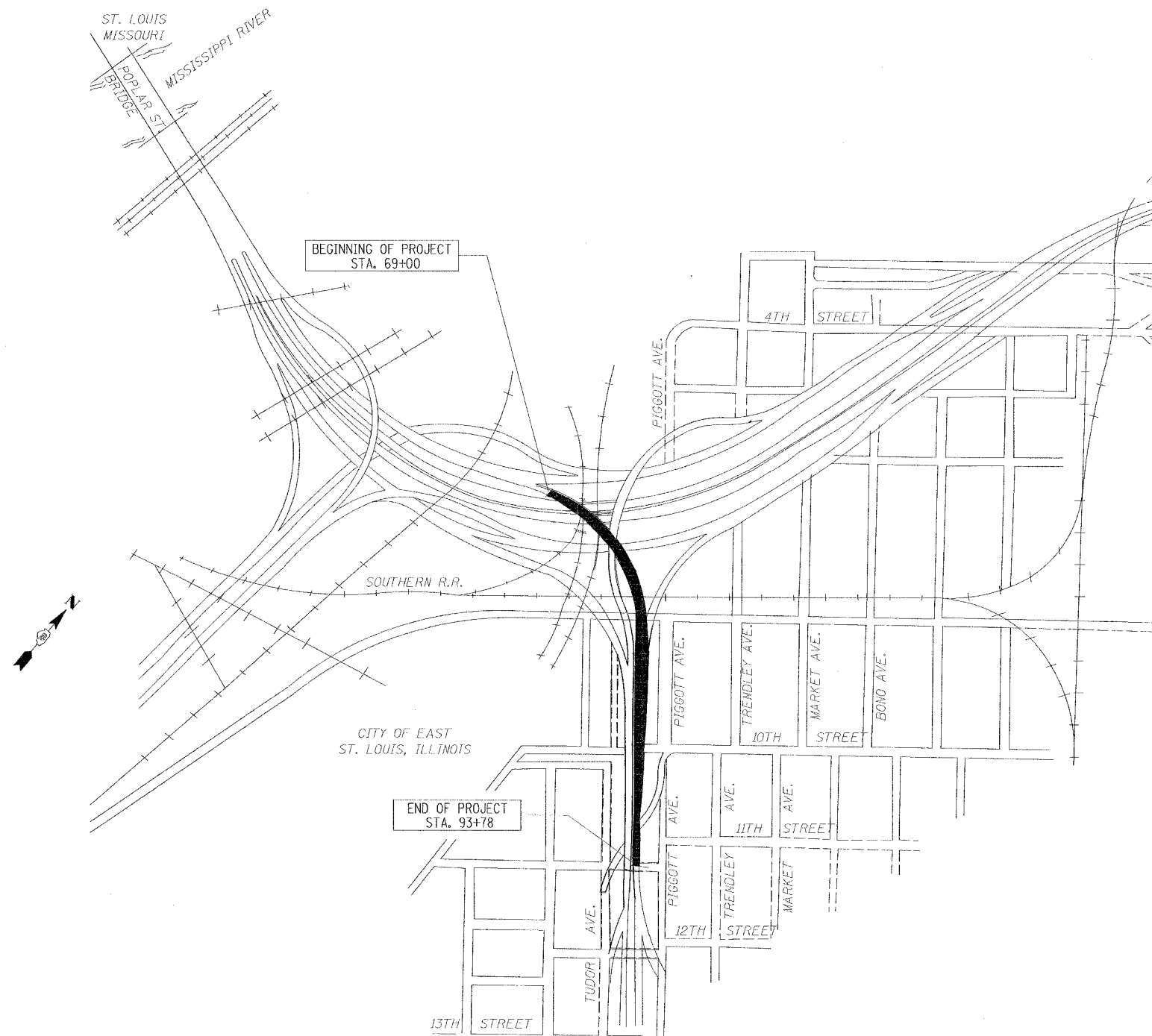
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IM-70		
• 82-3HVB-3R-5			SHEET S-4 OF S-56	
CONTRACT NO. 76985				

D-98-014-00



LOCATION OF SECTION INDICATED THUS: [Symbol] LOCATION SKETCH



OVERALL PROJECT PLAN

Roadway / Ramp	Segment / Pier No.	Structure No.	Year / Structure Type
A	A21-A43	082-0141	1967 Two Girder System
A	A43-A46	082-0141	1967 Multi-Beam System

KEY PLAN

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		
* 82-3HVB-3R-5			SHEET S-5 OF S-56	
CONTRACT NO. 76985				

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
Concrete Removal	CU YD	1,126	---	1,126
Concrete Superstructure	CU YD	1,026	---	1,026
Reinforcement Bars, Epoxy coated	POUND	161,720	3,520	165,240
Bridge Deck Hydro-Scarification-2"	SQ YD	1,750	---	1,750
Bridge Deck Hydro-Scarification-1/2"	SQ YD	6,477	---	6,477
Bridge Deck Microsilica Concrete Overlay-2 1/2"	SQ YD	7,043	---	7,043
Bridge Deck Microsilica Concrete Overlay-4"	SQ YD	1,926	---	1,926
Bridge Deck Grooving	SQ YD	8,969	---	8,969
Protective Coat	SQ YD	12,372	---	12,372
Polymer Concrete	CU FT	32	---	32
Silicone Joint Sealer-3"	FOOT	38	---	38
Silicone Joint Sealer-2"	FOOT	171	---	171
Silicone Joint Sealer-2.5"	FOOT	75	---	75
Hot Mix Asphalt Surface Removal (Deck)	SO YD	8,227	---	8,227
Bar Splicers	EACH	533	---	533
Drainage Scuppers, DS12	EACH	44	---	44
Drainage System	L SUM	1.0	---	1.0
Fabric Reinforced Elastomeric Trough	FOOT	129	---	129
Protective Shield	SQ YD	2,574	---	2,574
Curb Removal (Special)	FOOT	7.5	---	7.5
Furnishing and Erecting Structural Steel	L SUM	1.0	---	1.0
Mechanical Splice	EACH	---	72	72
Cleaning and Painting Steel Bridge, No. 1	L SUM	1	---	1
Containment and Disposal of Lead Paint Cleaning Residues, No. 1	L SUM	1	---	1
Bolt Replacement	EACH	201	---	201
Stiffener Intersection Modification	EACH	896	---	896
Long Span Floor Beam Retrofit	EACH	8	---	8
Jack and Remove Existing Bearings	EACH	15	---	15
Elastomeric Bearing Assembly, Type I	EACH	5	---	5
Seismic Isolation Bearing Assembly, Type A	EACH	10	---	10
Concrete Structures	CU YD	---	10	10
Crack Extension Modification	EACH	20	---	20
Finger Plate Expansion Joint, 3"	FOOT	78	---	78
Finger Plate Expansion Joint, 5"	FOOT	33	---	33

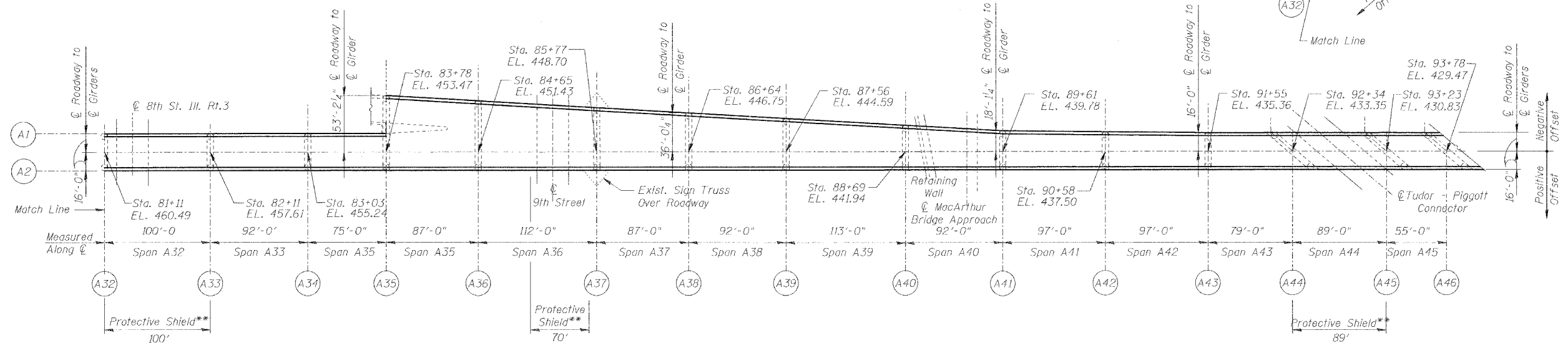
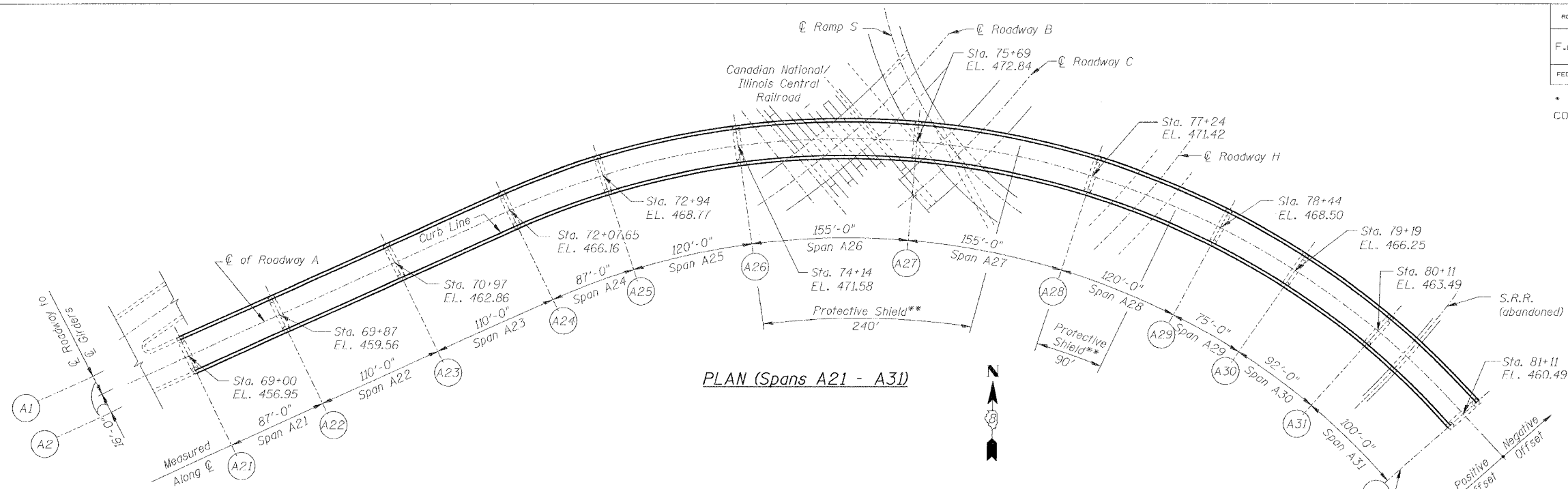
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BILL OF MATERIAL

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	27
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 14-70	
* 82-3HYB-3R-5			SHEET 3-6 OF 3-56	
CONTRACT NO. 76985				



ELEVATIONS TOP OF GIRDER FLANGE			
PIER	STATION	GIRDER A1	GIRDER A2
A26	7414.000	472.013	469.453
A27	7569.000	473.273	470.713
A28	7724.000	471.853	469.293
A30	7919.000	466.654	464.094
A31	8011.000	463.873	461.348
A32	8111.000	460.292	458.790
A33	8211.000	456.580	456.396
A34	8303.000	454.113	454.113
A36	8465.000	449.717	450.394
A37	8577.000	447.217	447.742
A39	8756.000	443.298	443.600
A40	8869.000	440.758	440.914
A42	9058.000	436.443	436.443
Abut. A46	9378.000	428.977	427.792

- Notes:
- These elevations provided to assist in determination of top of slab elevations.
 - Elevations taken from original design drawings and shall be field verified by Contractor.
 - Piers at expansion joints not shown.

Notes:
 **Provide protective shield underneath full roadway width for the length indicated.
 Roadway elevations are theoretical top of new concrete overlay.

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CHECKED	JEL

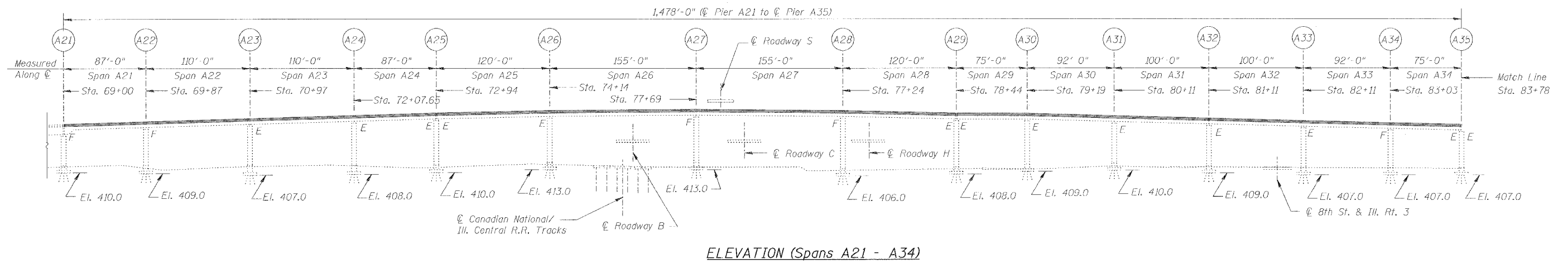
REVISIONS	
NAME	DATE

PROJECT PLAN
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

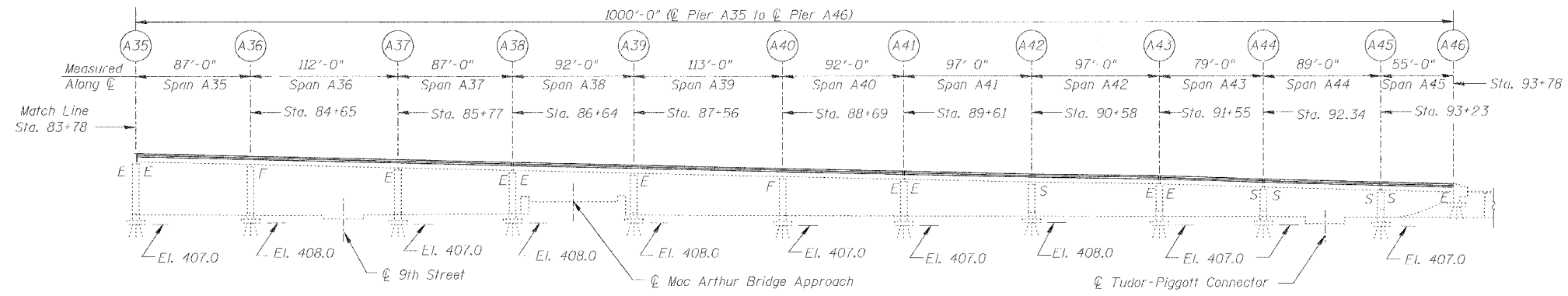
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 DATE: 02/01/2007

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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IN-70		
* 82-3HVB-3R-5			SHEET S-7 OF S-56	
CONTRACT NO. 76985				



ELEVATION (Spans A21 - A34)



ELEVATION (Spans A35 - A45)

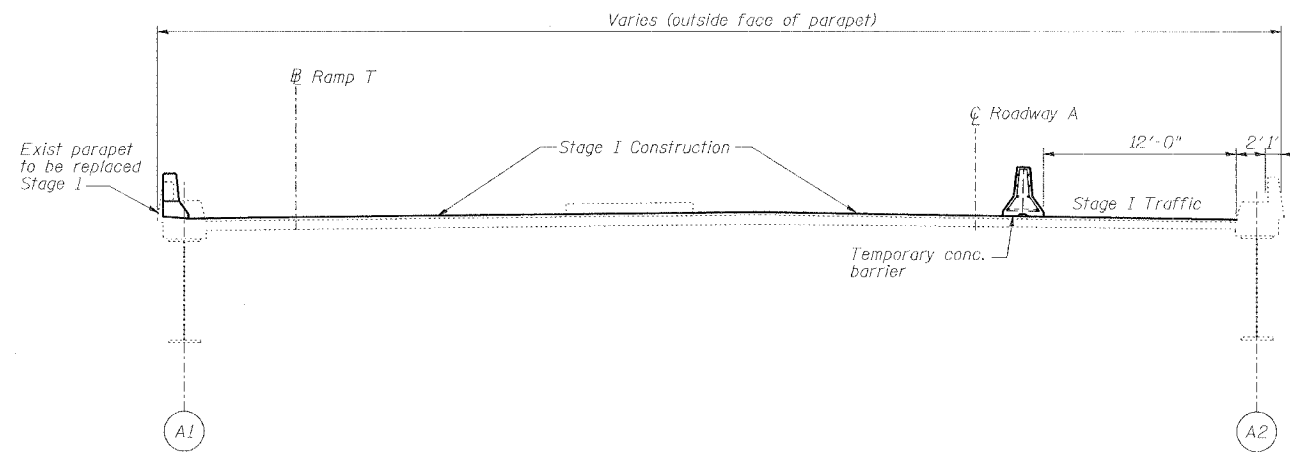
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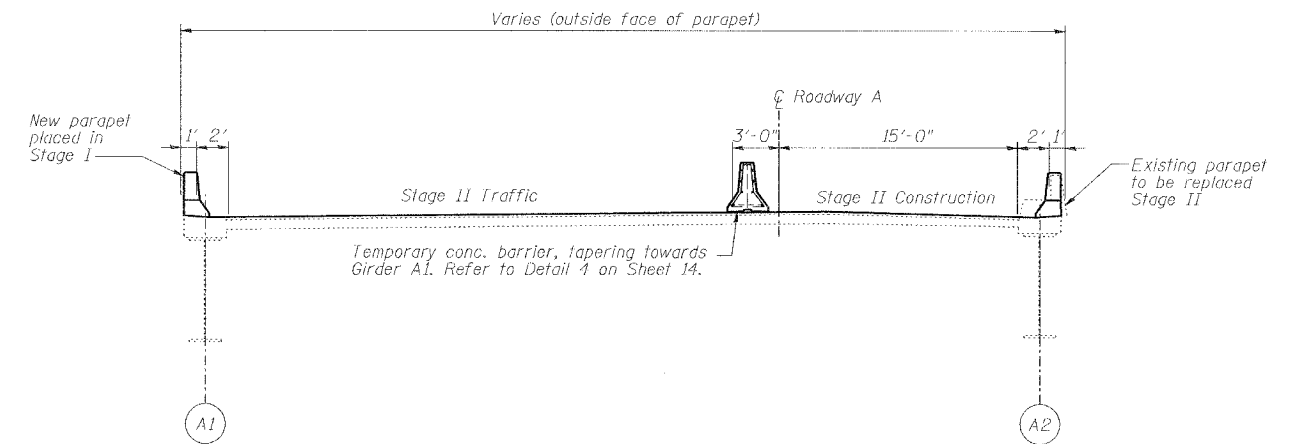
REVISIONS	
NAME	DATE

PROJECT ELEVATION
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

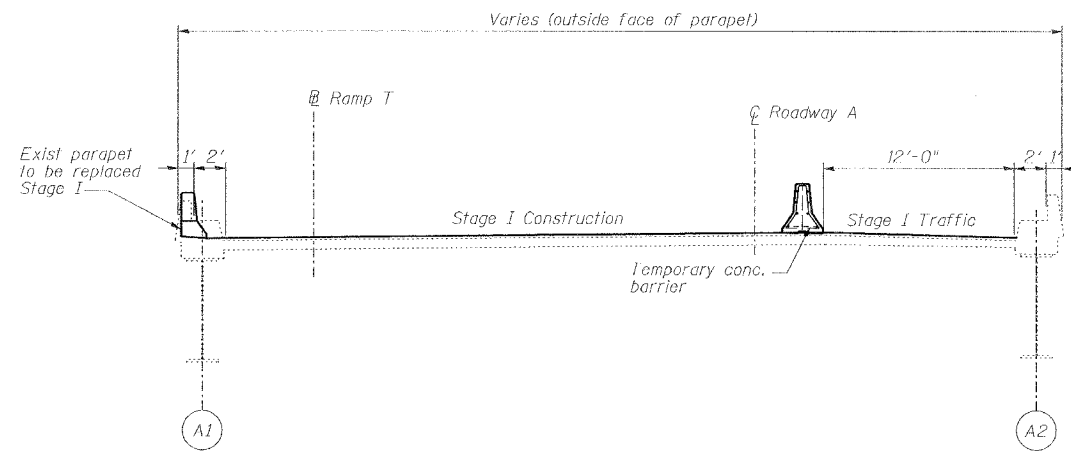
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-78		
82-3HVB-3R-5			SHEET S-8 OF S-56	
CONTRACT NO. 76985				



1
S8 STAGE I RAMP A @ SPAN A36
Looking South



3
S8 STAGE II RAMP A @ SPAN A41
Looking South



2
S8 STAGE I RAMP A @ SPAN A41
Looking South

REVISIONS	
NAME	DATE

STAGES I AND II SECTIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

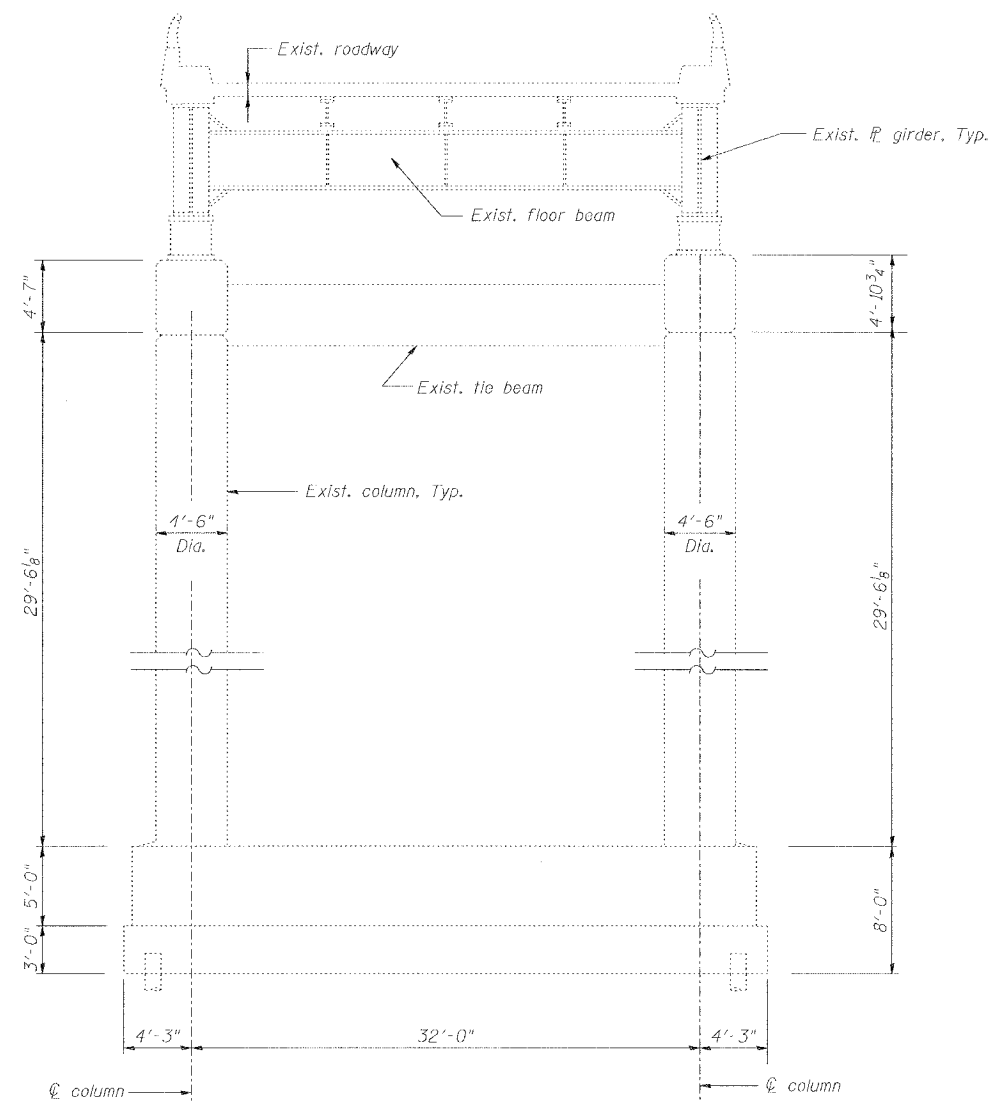
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DRAWN	CLK
CHECKED	JEL

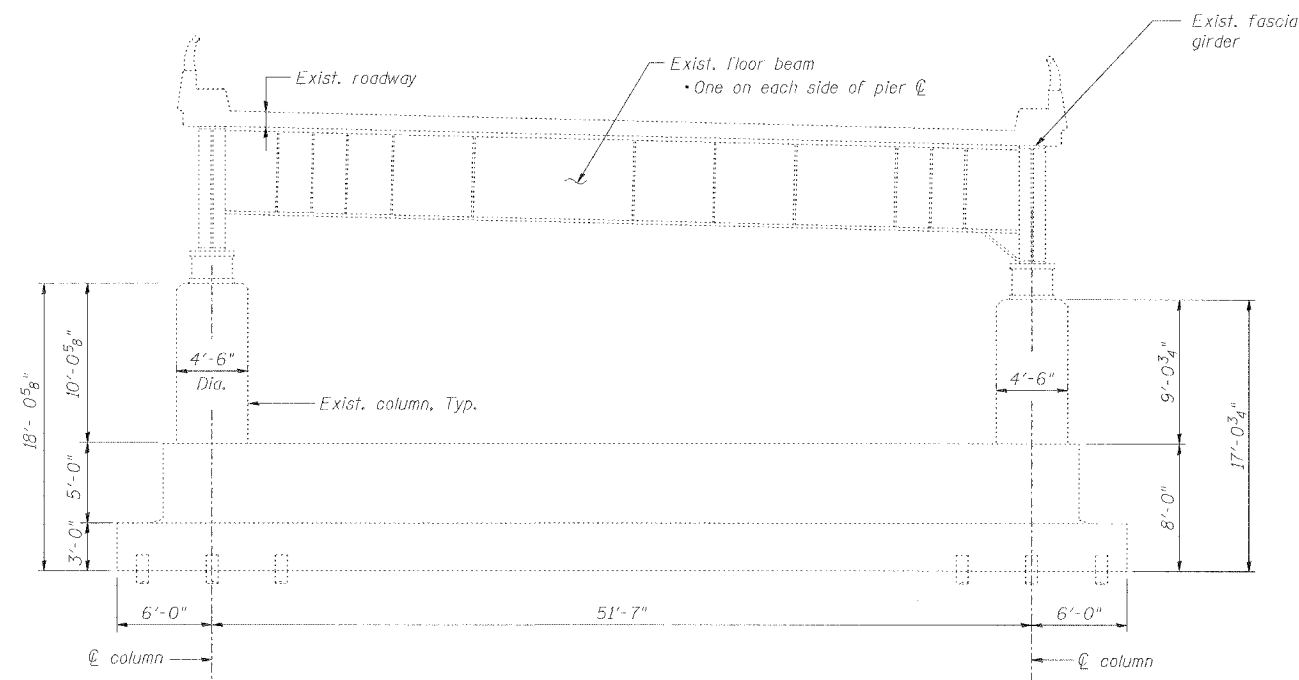
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	30

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT- 14-70

82-3HVB-3R-5 SHEET S-9 OF S-56
CONTRACT NO. 76985



TYPICAL SECTION THROUGH TWO - GIRDER ROADWAY (PIER A22 SHOWN)



TYPICAL SECTION THROUGH TWO - GIRDER ROADWAY (PIER A44 SHOWN)

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_A1\Reamp\demo\A-demo1.dgn

DESIGNED	JEL
CHECKED	HH
DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

TYPICAL STRUCTURAL DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	31
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 1H-70	
* 02-3HVB-3R-5			SHEET S-10 OF S-56	
CONTRACT NO. 76985				

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ
7295.333	-16.000	470.099	470.099	7414.000	-16.000	472.866	472.866	7539.836	-16.000	474.091	474.097	7665.922	-16.000	473.553	473.572
7295.333	-8.000	469.459	469.459	7414.000	-8.000	472.222	472.222	7539.836	-8.000	473.446	473.452	7665.922	-8.000	472.909	472.929
7295.333	0.000	468.819	468.819	7414.000	0.000	471.582	471.582	7539.836	0.000	472.806	472.812	7665.922	0.000	472.270	472.289
7295.333	8.000	468.179	468.179	7414.000	8.000	470.942	470.942	7539.836	8.000	472.166	472.172	7665.922	8.000	471.630	471.649
7295.333	16.000	467.539	467.539	7414.000	16.000	470.306	470.306	7539.836	16.000	471.531	471.537	7665.922	16.000	470.993	471.012
7303.285	-16.000	470.334	470.338	7423.680	-16.000	473.023	473.024	7549.515	-16.000	474.112	474.115	7675.602	-16.000	473.439	473.455
7303.285	-8.000	469.688	469.692	7423.680	-8.000	472.378	472.379	7549.515	-8.000	473.468	473.471	7675.602	-8.000	472.794	472.810
7303.285	0.000	469.048	469.052	7423.680	0.000	471.738	471.739	7549.515	0.000	472.829	472.832	7675.602	0.000	472.154	472.170
7303.285	8.000	468.408	468.412	7423.680	8.000	471.098	471.099	7549.515	8.000	472.189	472.192	7675.602	8.000	471.514	471.530
7303.285	16.000	467.774	467.778	7423.680	16.000	470.463	470.464	7549.515	16.000	471.552	471.555	7675.602	16.000	470.879	470.895
7311.240	-16.000	470.561	470.572	7433.359	-16.000	473.169	473.172	7559.258	-16.000	474.123	474.123	7685.281	-16.000	473.314	473.325
7311.240	-8.000	469.917	469.928	7433.359	-8.000	472.525	472.528	7559.258	-8.000	473.478	473.479	7685.281	-8.000	472.670	472.681
7311.240	0.000	469.277	469.288	7433.359	0.000	471.886	471.889	7559.258	0.000	472.839	472.839	7685.281	0.000	472.031	472.042
7311.240	8.000	468.637	468.648	7433.359	8.000	471.246	471.249	7559.258	8.000	472.199	472.199	7685.281	8.000	471.391	471.402
7311.240	16.000	468.001	468.012	7433.359	16.000	470.609	470.612	7559.258	16.000	471.563	471.563	7685.281	16.000	470.754	470.765
7321.516	-16.000	470.844	470.860	7443.039	-16.000	473.305	473.312	7569.000	-16.000	474.123	474.123	7694.961	-16.000	473.179	473.186
7321.516	-8.000	470.199	470.215	7443.039	-8.000	472.660	472.667	7569.000	-8.000	473.480	473.480	7694.961	-8.000	472.534	472.541
7321.516	0.000	469.559	469.575	7443.039	0.000	472.021	472.028	7569.000	0.000	472.840	472.840	7694.961	0.000	471.895	471.902
7321.516	8.000	468.919	468.935	7443.039	8.000	471.381	471.388	7569.000	8.000	472.200	472.200	7694.961	8.000	471.255	471.262
7321.516	16.000	468.284	468.300	7443.039	16.000	470.745	470.752	7569.000	16.000	471.563	471.563	7694.961	16.000	470.619	470.626
7331.792	-16.000	471.116	471.135	7452.718	-16.000	473.430	473.441	7579.742	-16.000	474.113	474.114	7704.641	-16.000	473.033	473.036
7331.792	-8.000	470.472	470.491	7452.718	-8.000	472.787	472.798	7579.742	-8.000	473.469	473.469	7704.641	-8.000	472.390	472.393
7331.792	0.000	469.822	469.845	7452.718	0.000	472.147	472.158	7579.742	0.000	472.719	472.722	7704.641	0.000	471.750	471.753
7331.792	8.000	469.192	469.200	7452.718	8.000	471.507	471.518	7579.742	8.000	472.189	472.189	7704.641	8.000	471.110	471.113
7331.792	16.000	468.556	468.574	7452.718	16.000	470.870	470.881	7579.742	16.000	471.553	471.554	7704.641	16.000	470.473	470.476
7342.068	-16.000	471.376	471.397	7462.398	-16.000	473.545	473.561	7588.484	-16.000	474.093	474.096	7714.321	-16.000	472.877	472.878
7342.068	-8.000	470.731	470.752	7462.398	-8.000	472.901	472.917	7588.484	-8.000	473.449	473.452	7714.321	-8.000	472.233	472.234
7342.068	0.000	470.091	470.112	7462.398	0.000	472.261	472.277	7588.484	0.000	472.809	472.812	7714.321	0.000	471.593	471.594
7342.068	8.000	469.451	469.472	7462.398	8.000	471.621	471.637	7588.484	8.000	472.169	472.172	7714.321	8.000	470.953	470.954
7342.068	16.000	468.816	468.837	7462.398	16.000	470.985	471.001	7588.484	16.000	471.533	471.536	7714.321	16.000	470.317	470.318
7352.344	-16.000	471.624	471.643	7472.078	-16.000	473.650	473.669	7598.164	-16.000	474.062	474.068	7724.000	-16.000	472.711	472.711
7352.344	-8.000	470.980	470.999	7472.078	-8.000	473.006	473.026	7598.164	-8.000	473.417	473.423	7724.000	-8.000	472.067	472.067
7352.344	0.000	470.340	470.359	7472.078	0.000	472.366	472.386	7598.164	0.000	472.777	472.783	7724.000	0.000	471.427	471.427
7352.344	8.000	469.700	469.719	7472.078	8.000	471.727	471.746	7598.164	8.000	472.137	472.143	7724.000	8.000	470.787	470.787
7352.344	16.000	469.064	469.083	7472.078	16.000	471.090	471.110	7598.164	16.000	471.502	471.508	7724.000	16.000	470.151	470.151
7362.620	-16.000	471.860	471.876	7481.758	-16.000	473.744	473.766	7607.844	-16.000	474.020	474.031	7734.276	-16.000	472.523	472.523
7362.620	-8.000	471.215	471.231	7481.758	-8.000	473.100	473.122	7607.844	-8.000	473.378	473.387	7734.276	-8.000	471.878	471.878
7362.620	0.000	470.575	470.591	7481.758	0.000	472.460	472.482	7607.844	0.000	472.737	472.740	7734.276	0.000	471.238	471.238
7362.620	8.000	469.935	469.951	7481.758	8.000	471.820	471.842	7607.844	8.000	471.997	472.008	7734.276	8.000	470.598	470.598
7362.620	16.000	469.300	469.316	7481.758	16.000	471.184	471.206	7607.844	16.000	471.460	471.471	7734.276	16.000	469.963	469.963
7372.896	-16.000	472.085	472.096	7491.437	-16.000	473.828	473.851	7617.524	-16.000	473.968	473.984	7744.552	-16.000	472.323	472.326
7372.896	-8.000	471.441	471.452	7491.437	-8.000	473.184	473.207	7617.524	-8.000	473.324	473.339	7744.552	-8.000	471.679	471.682
7372.896	0.000	470.801	470.812	7491.437	0.000	472.544	472.567	7617.524	0.000	472.684	472.699	7744.552	0.000	471.039	471.042
7372.896	8.000	470.161	470.172	7491.437	8.000	471.904	471.927	7617.524	8.000	472.044	472.045	7744.552	8.000	470.400	470.402
7372.896	16.000	469.526	469.537	7491.437	16.000	471.268	471.291	7617.524	16.000	471.408	471.423	7744.552	16.000	469.764	469.766
7383.172	-16.000	472.298	472.305	7501.117	-16.000	473.901	473.923	7627.203	-16.000	473.906	473.925	7754.828	16.000	472.112	472.119
7383.172	-8.000	471.653	471.660	7501.117	-8.000	473.257	473.279	7627.203	-8.000	473.262	473.279	7754.828	-8.000	471.467	471.474
7383.172	0.000	471.013	471.020	7501.117	0.000	472.617	472.639	7627.203	0.000	472.625	472.642	7754.828	0.000	470.827	470.834
7383.172	8.000	470.373	470.380	7501.117	8.000	471.977	471.999	7627.203	8.000	471.983	472.002	7754.828	8.000	470.187	470.194
7383.172	16.000	469.738	469.745	7501.117	16.000	471.341	471.363	7627.203	16.000	471.346	471.365	7754.828	16.000	469.552	469.559
7393.448	-16.000	472.499	472.501	7510.797	-16.000	473.964	473.983	7636.883	-16.000	473.823	473.848	7765.104	-16.000	471.889	471.900
7393.448	-8.000	471.855	471.857	7510.797	-8.000	473.321	473.340	7636.883	-8.000	473.189	473.211	7765.104	-8.000	471.245	471.256
7393.448	0.000	471.215	471.217	7510.797	0.000	472.681	472.700	7636.883	0.000	472.549	472.568	7765.104	0.000	470.605	470.616
7393.448	8.000	470.575	470.578	7510.797	8.000	472.041	472.060	7636.883	8.000	471.910	471.933	7765.104	8.000	469.965	469.976
7393.448	16.000	469.939	469.942	7510.797	16.000	471.404	471.423	7636.883	16.000	471.273	471.281	7765.104	16.000	469.329	469.340
7403.724	-16.000	472.688	472.688	7520.477	-16.000	474.017	474.032	7646.562	-16.000	473.750	473.773				
7403.724	-8.000	472.043	472.043	7520.477	-8.000	473.372	473.387	7646.562	-8.000	473.110	473.133				
7403.724	0.000	471.404	471.404	7520.477	0.000	472.732	472.747	7646.562	0.000	472.467	472.490				
7403.724	8.000	470.764	470.764	7520.477	8.000	472.093	472.108	7646.562	8.000	471.821	471.846				
7403.724	16.000	470.128	470.128	7520.477	16.000	471.457	471.472	7646.562	16.000	471.190	471.212				
				7530.156	-16.000	474.059	474.070	7656.242	-16.000	473.657	473.679				
				7530.156	-8.000	473.415	473.426	7656.242	-8.000	472.712	472.734				
				7530.156	0.000	472.775	472.786	7656.242	0.000	472.373	472.395				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-5 SHEET S-11 OF S-56
CONTRACT NO. 76985

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ
7845.304	-16.000	469.751	469.751	7946.600	-16.000	466.712	466.717	8051.000	-16.000	463.416	463.427
7845.319	-8.000	469.110	469.110	7946.600	-7.911	466.065	466.070	8051.000	-7.954	462.860	462.871
7845.334	0.000	468.470	468.470	7946.600	0.088	465.425	465.430	8051.000	0.046	462.297	462.308
7845.350	8.000	467.830	467.830	7946.600	8.087	464.785	464.790	8051.000	8.045	461.721	461.732
7845.366	16.000	467.189	467.189	7946.600	16.000	464.152	464.157	8051.000	16.000	461.138	461.149
7853.667	-16.000	469.500	469.503	7955.800	-16.000	466.436	466.443	8061.000	-16.000	463.038	463.050
7853.667	-7.926	468.854	468.857	7955.800	-7.850	465.784	465.791	8061.000	-7.939	462.523	462.535
7853.667	0.073	468.214	468.217	7955.800	0.148	465.144	465.151	8061.000	0.060	461.996	462.008
7853.667	8.072	467.574	467.577	7955.800	8.146	464.504	464.511	8061.000	8.059	461.451	461.463
7853.667	16.000	466.940	466.943	7955.800	16.000	463.876	463.883	8061.000	16.000	460.894	460.906
7862.000	-16.000	469.250	469.256	7965.000	-16.000	466.160	466.168	8071.000	-16.000	462.661	462.672
7862.000	-7.932	468.606	468.612	7965.000	-7.911	465.513	465.521	8071.000	-7.954	462.188	462.199
7862.000	0.048	467.966	467.972	7965.000	0.088	464.873	464.881	8071.000	0.046	461.697	461.708
7862.000	8.047	467.326	467.332	7965.000	8.087	464.233	464.241	8071.000	8.045	461.182	461.193
7862.000	16.000	466.690	466.696	7965.000	16.000	463.600	463.608	8071.000	16.000	460.650	460.661
7871.500	-16.000	468.965	468.973	7974.200	-16.000	465.884	465.891	8081.000	-16.000	462.283	462.291
7871.500	-7.946	468.321	468.328	7974.200	-7.958	465.241	465.248	8081.000	-7.974	461.853	461.861
7871.500	0.053	467.681	467.689	7974.200	0.041	464.601	464.608	8081.000	0.026	461.399	461.407
7871.500	8.052	467.041	467.049	7974.200	8.041	463.961	463.968	8081.000	8.025	460.914	460.922
7871.500	16.000	466.405	466.413	7974.200	16.000	463.324	463.331	8081.000	16.000	460.406	460.414
7881.000	-16.000	468.680	468.688	7983.400	-16.000	465.608	465.613	8091.000	-16.000	461.906	461.911
7881.000	-7.957	468.037	468.045	7983.400	-7.950	464.964	464.969	8091.000	-7.975	461.517	461.522
7881.000	0.043	467.397	467.405	7983.400	0.049	464.324	464.329	8091.000	0.025	461.099	461.104
7881.000	8.042	466.757	466.765	7983.400	8.048	463.684	463.689	8091.000	8.024	460.645	460.650
7881.000	16.000	466.120	466.128	7983.400	16.000	463.048	463.053	8091.000	16.000	460.162	460.167
7890.500	-16.000	468.395	468.401	7992.600	-16.000	465.332	465.335	8101.000	-16.000	461.528	461.530
7890.500	-7.978	467.753	467.759	7992.600	-7.935	464.687	464.690	8101.000	-7.976	461.181	461.183
7890.500	0.022	467.113	467.119	7992.600	0.064	464.047	464.050	8101.000	0.029	460.799	460.801
7890.500	8.021	466.472	466.479	7992.600	8.063	463.407	463.410	8101.000	8.023	460.375	460.377
7890.500	16.000	465.835	465.841	7992.600	16.000	462.772	462.775	8101.000	16.000	459.917	459.919
7900.000	-16.000	468.110	468.114	8001.800	-16.000	465.056	465.057				
7900.000	-7.934	467.465	467.469	8001.800	-7.874	464.406	464.407				
7900.000	0.066	466.825	466.829	8001.800	0.124	463.766	463.767				
7900.000	8.065	466.185	466.189	8001.800	8.123	463.126	463.127				
7900.000	16.000	465.550	465.554	8001.800	16.000	462.496	462.497				
7909.500	-16.000	467.825	467.826	8011.000	-16.000	464.780	464.780				
7909.500	-7.868	467.174	467.175	8011.000	-7.935	464.135	464.135				
7909.500	0.130	466.535	466.536	8011.000	0.064	463.495	463.495				
7909.500	8.129	465.895	465.896	8011.000	8.063	462.855	462.855				
7909.500	16.000	465.265	465.266	8011.000	16.000	462.220	462.220				
7919.000	-16.000	467.540	467.540	8021.000	-16.000	464.480	464.482				
7919.000	-7.934	466.895	466.895	8021.000	-7.939	463.835	463.837				
7919.000	0.066	466.255	466.255	8021.000	0.060	463.195	463.197				
7919.000	8.065	465.615	465.615	8021.000	8.059	462.555	462.557				
7919.000	16.000	464.980	464.980	8021.000	16.000	461.920	461.922				
7928.200	-16.000	467.264	467.265	8031.000	-16.000	464.171	464.176				
7928.200	-7.950	466.620	466.621	8031.000	-7.954	463.532	463.537				
7928.200	0.049	465.980	465.981	8031.000	0.046	462.896	462.901				
7928.200	8.048	465.340	465.341	8031.000	8.045	462.260	462.265				
7928.200	16.000	464.704	464.705	8031.000	16.000	461.627	461.632				
7937.400	-16.000	466.988	466.991	8041.000	-16.000	463.793	463.802				
7937.400	-7.958	466.345	466.348	8041.000	-7.939	463.195	463.204				
7937.400	0.041	465.705	465.708	8041.000	0.060	462.595	462.604				
7937.400	8.041	465.065	465.068	8041.000	8.059	461.990	461.998				
7937.400	16.000	464.428	464.431	8041.000	16.000	461.382	461.391				

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S37
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS A29 - A31

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

DATE: 1/24/2007 FILENAME: P:\2001\201-1300\2001.1240\Drafting\RoadwayRehab_AT\RampA\elevations\A_EL2931.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	33
ILL. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - IM-70	

* 82-3HVB-3R-5 SHEET S-12 OF S-56
CONTRACT NO. 76985

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for ϕ
8111.000	-16.000	461.151	461.151	8220.200	-16.000	457.173	457.174	8322.000	-16.000	454.587	454.592
8111.000	-7.983	460.845	460.845	8220.200	-8.000	457.319	457.320	8322.000	-8.000	454.740	454.745
8111.000	0.016	460.499	460.499	8220.200	0.000	457.368	457.369	8322.000	0.000	454.795	454.800
8111.000	8.016	460.106	460.106	8220.200	8.000	457.308	457.309	8322.000	8.000	454.740	454.745
8111.000	16.000	459.673	459.673	8220.200	16.000	457.151	457.152	8322.000	16.000	454.587	454.592
8121.000	-16.000	460.773	460.776	8229.400	-16.000	456.914	456.918	8331.500	-16.000	454.364	454.371
8121.000	-7.990	460.509	460.512	8229.400	-8.000	457.067	457.070	8331.500	-8.000	454.516	454.524
8121.000	0.010	460.200	460.203	8229.400	0.000	457.122	457.126	8331.500	0.000	454.572	454.579
8121.000	8.010	459.837	459.840	8229.400	8.000	457.067	457.070	8331.500	8.000	454.516	454.524
8121.000	16.000	459.429	459.432	8229.400	16.000	456.914	456.918	8331.500	16.000	454.364	454.371
8131.000	-16.000	460.396	460.403	8238.600	-16.000	456.670	456.677	8341.000	-16.000	454.141	454.150
8131.000	-7.997	460.174	460.181	8238.600	-8.000	456.823	456.830	8341.000	-8.000	454.293	454.302
8131.000	0.003	459.900	459.907	8238.600	0.000	456.878	456.885	8341.000	0.000	454.349	454.358
8131.000	8.003	459.568	459.575	8238.600	8.000	456.823	456.830	8341.000	8.000	454.293	454.302
8131.000	16.000	459.185	459.192	8238.600	16.000	456.670	456.677	8341.000	16.000	454.141	454.150
8141.000	-16.000	460.022	460.033	8247.800	-16.000	456.429	456.438	8350.500	-16.000	453.918	453.927
8141.000	8.000	459.841	459.852	8247.800	-8.000	456.582	456.591	8350.500	-8.000	454.070	454.079
8141.000	0.000	459.604	459.615	8247.800	0.000	456.637	456.646	8350.500	0.000	454.126	454.135
8141.000	8.000	459.302	459.313	8247.800	8.000	456.582	456.591	8350.500	8.000	454.070	454.079
8141.000	16.000	458.944	458.955	8247.800	16.000	456.429	456.438	8350.500	16.000	453.918	453.927
8151.000	-16.000	459.651	459.666	8257.000	-16.000	456.191	456.201	8360.000	-16.000	453.694	453.701
8151.000	-8.000	459.511	459.526	8257.000	-8.000	456.344	456.354	8360.000	-8.000	453.847	453.854
8151.000	0.000	459.310	459.325	8257.000	0.000	456.399	456.409	8360.000	0.000	453.902	453.909
8151.000	8.000	459.039	459.054	8257.000	8.000	456.344	456.354	8360.000	8.000	453.847	453.854
8151.000	16.000	458.707	458.722	8257.000	16.000	456.191	456.201	8360.000	16.000	453.694	453.701
8161.000	-16.000	459.283	459.299	8266.200	-16.000	455.956	455.965	8368.333	-16.000	453.499	453.502
8161.000	-8.000	459.185	459.201	8266.200	-8.000	456.108	456.117	8368.333	-8.000	453.651	453.655
8161.000	0.000	459.020	459.036	8266.200	0.000	456.164	456.173	8368.333	0.000	453.707	453.711
8161.000	8.000	458.779	458.795	8266.200	8.000	456.108	456.117	8368.333	8.000	453.651	453.655
8161.000	16.000	458.472	458.488	8266.200	16.000	455.956	455.965	8368.333	16.000	453.499	453.502
8171.000	-16.000	458.919	458.934	8275.400	-16.000	455.723	455.730	8376.666	-16.000	453.303	453.303
8171.000	-8.000	458.862	458.877	8275.400	-8.000	455.876	455.883	8376.666	-8.000	453.455	453.455
8171.000	0.000	458.733	458.748	8275.400	0.000	455.931	455.938	8376.666	0.000	453.511	453.511
8171.000	8.000	458.523	458.538	8275.400	8.000	455.876	455.883	8376.666	8.000	453.455	453.455
8171.000	16.000	458.241	458.256	8275.400	16.000	455.723	455.730	8376.666	16.000	453.303	453.303
8181.000	-16.000	458.558	458.570	8284.600	-16.000	455.493	455.497				
8181.000	-8.000	458.542	458.551	8284.600	-8.000	455.646	455.650				
8181.000	0.000	458.449	458.461	8284.600	0.000	455.701	455.705				
8181.000	8.000	458.270	458.282	8284.600	8.000	455.646	455.650				
8181.000	16.000	458.013	458.025	8284.600	16.000	455.493	455.497				
8191.000	-16.000	458.200	458.207	8293.800	-16.000	455.266	455.267				
8191.000	-8.000	458.225	458.232	8293.800	-8.000	455.419	455.420				
8191.000	0.000	458.169	458.176	8293.800	0.000	455.474	455.475				
8191.000	8.000	458.020	458.027	8293.800	8.000	455.419	455.420				
8191.000	16.000	457.789	457.796	8293.800	16.000	455.266	455.267				
8201.000	-16.000	457.845	457.848	8303.000	-16.000	455.042	455.042				
8201.000	-8.000	457.911	457.914	8303.000	-8.000	455.194	455.194				
8201.000	0.000	457.892	457.895	8303.000	0.000	455.250	455.250				
8201.000	8.000	457.773	457.776	8303.000	8.000	455.194	455.194				
8201.000	16.000	457.567	457.570	8303.000	16.000	455.042	455.042				
8211.000	-16.000	457.493	457.493	8312.500	-16.000	454.813	454.815				
8211.000	-8.000	457.601	457.601	8312.500	-8.000	454.966	454.968				
8211.000	0.000	457.618	457.618	8312.500	0.000	455.021	455.023				
8211.000	8.000	457.529	457.529	8312.500	8.000	454.966	454.968				
8211.000	16.000	457.349	457.349	8312.500	16.000	454.813	454.815				

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S37
 - See Sht. 56 for station numbers and offsets
 - All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS A32 - A34

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007

DATE: 1/24/2007
FILENAME: P:\2001\2001-1800\2001.1240\Drafting\RoadwayRehab_AT\ RampA\elevations\A_EL3284.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	34
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-7B		

* 82-3HVB-3R-5 SHEET S-13 OF S-56
CONTRACT NO. 76985

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ
8379.334	-53.151	452.011	452.011	8427.667	-50.235	451.322	451.336	8474.333	-47.419	450.355	450.355
8379.334	-45.467	452.277	452.277	8427.667	-42.875	451.467	451.481	8474.333	-40.373	450.502	450.502
8379.334	-37.784	452.539	452.539	8427.667	-35.516	451.612	451.626	8474.333	-33.326	450.648	450.648
8379.334	-30.100	452.799	452.799	8427.667	-28.157	451.756	451.770	8474.333	-26.280	450.795	450.795
8379.334	-22.417	453.107	453.107	8427.667	-20.797	452.005	452.019	8474.333	-19.233	450.941	450.941
8379.334	-14.734	453.267	453.267	8427.667	-13.438	452.158	452.172	8474.333	-12.186	451.088	451.088
8379.334	-7.050	453.405	453.405	8427.667	-6.078	452.281	452.295	8474.333	-5.140	451.194	451.194
8379.334	0.633	453.448	453.448	8427.667	1.281	452.311	452.325	8474.333	1.907	451.214	451.214
8379.334	8.317	453.388	453.388	8427.667	8.641	452.248	452.262	8474.333	8.953	451.147	451.147
8379.334	16.000	453.240	453.240	8427.667	16.000	452.105	452.119	8474.333	16.000	451.009	451.009
8384.833	-52.819	451.948	451.952	8437.000	-49.672	451.148	451.157	8483.667	-46.856	450.148	450.150
8384.833	-45.172	452.195	452.199	8437.000	-42.375	451.291	451.300	8483.667	-39.872	450.293	450.295
8384.833	-37.526	452.439	452.443	8437.000	-35.078	451.434	451.443	8483.667	-32.888	450.438	450.440
8384.833	-29.879	452.680	452.684	8437.000	-27.781	451.577	451.586	8483.667	-25.904	450.583	450.586
8384.833	-22.233	452.981	452.985	8437.000	-20.484	451.720	451.802	8483.667	-18.920	450.729	450.731
8384.833	-14.586	453.140	453.144	8437.000	-13.187	451.944	451.954	8483.667	-11.936	450.874	450.876
8384.833	-6.940	453.277	453.281	8437.000	-5.891	452.064	452.073	8483.667	-4.952	450.976	450.978
8384.833	0.707	453.319	453.323	8437.000	1.406	452.092	452.101	8483.667	2.032	450.994	450.996
8384.833	8.353	453.259	453.263	8437.000	8.703	452.028	452.037	8483.667	9.016	450.927	450.929
8384.833	16.000	453.111	453.115	8437.000	16.000	451.886	451.895	8483.667	16.000	450.789	450.792
8390.333	-52.487	451.882	451.890	8446.333	-49.109	450.964	450.969	8493.000	-46.293	449.940	449.946
8390.333	-44.877	452.110	452.118	8446.333	-41.874	451.105	451.110	8493.000	-39.372	450.084	450.090
8390.333	-37.268	452.335	452.343	8446.333	-34.640	451.227	451.238	8493.000	-32.450	450.228	450.234
8390.333	-29.658	452.557	452.565	8446.333	-27.406	451.388	451.393	8493.000	-25.529	450.372	450.378
8390.333	-22.048	452.856	452.864	8446.333	-20.171	451.580	451.585	8493.000	-18.607	450.516	450.522
8390.333	-14.439	453.014	453.022	8446.333	-12.937	451.730	451.735	8493.000	-11.686	450.660	450.666
8390.333	-6.829	453.149	453.157	8446.333	-5.703	451.846	451.851	8493.000	-4.764	450.759	450.765
8390.333	0.781	453.189	453.197	8446.333	1.531	451.872	451.877	8493.000	2.157	450.774	450.780
8390.333	8.390	453.129	453.137	8446.333	8.766	451.808	451.813	8493.000	9.079	450.707	450.713
8390.333	16.000	452.982	452.990	8446.333	16.000	451.666	451.671	8493.000	16.000	450.570	450.576
8399.667	-51.924	451.762	451.775	8455.667	-48.546	450.770	450.771	8502.333	-45.730	449.733	449.743
8399.667	-44.377	451.958	451.971	8455.667	-41.374	450.910	450.911	8502.333	-38.871	449.875	449.885
8399.667	-36.830	452.152	452.165	8455.667	-34.202	451.050	451.051	8502.333	-32.012	450.018	450.028
8399.667	-29.283	452.342	452.355	8455.667	-27.030	451.189	451.190	8502.333	-25.153	450.161	450.171
8399.667	-21.736	452.643	452.656	8455.667	-19.859	451.367	451.368	8502.333	-18.295	450.303	450.313
8399.667	-14.188	452.800	452.813	8455.667	-12.687	451.516	451.517	8502.333	-11.436	450.446	450.456
8399.667	-6.641	452.932	452.945	8455.667	-5.515	451.629	451.630	8502.333	-4.577	450.541	450.551
8399.667	0.906	452.970	452.983	8455.667	1.657	451.653	451.654	8502.333	2.282	450.554	450.565
8399.667	8.453	452.909	452.922	8455.667	8.828	451.588	451.589	8502.333	9.141	450.487	450.497
8399.667	16.000	452.763	452.776	8455.667	16.000	451.447	451.448	8502.333	16.000	450.351	450.361
8409.000	-51.361	451.632	451.648	8465.000	-47.982	450.563	450.563	8511.667	-45.167	449.525	449.539
8409.000	-43.876	451.797	451.813	8465.000	-40.873	450.711	450.711	8511.667	-38.371	449.666	449.680
8409.000	-36.392	451.960	451.976	8465.000	-33.764	450.858	450.858	8511.667	-31.574	449.808	449.821
8409.000	-28.907	452.119	452.135	8465.000	-26.655	451.006	451.006	8511.667	-24.778	449.949	449.963
8409.000	-21.423	452.431	452.447	8465.000	-19.546	451.154	451.154	8511.667	-17.982	450.091	450.104
8409.000	-13.938	452.586	452.602	8465.000	-12.437	451.302	451.302	8511.667	-11.185	450.231	450.245
8409.000	-6.454	452.715	452.731	8465.000	-5.327	451.411	451.411	8511.667	-4.389	450.323	450.337
8409.000	1.031	452.750	452.766	8465.000	1.782	451.433	451.433	8511.667	2.407	450.335	450.348
8409.000	8.515	452.689	452.705	8465.000	8.891	451.367	451.367	8511.667	9.204	450.266	450.280
8409.000	16.000	452.543	452.559	8465.000	16.000	451.228	451.228	8511.667	16.000	450.132	450.145
8418.333	-50.798	451.487	451.503								
8418.333	-43.376	451.633	451.649								
8418.333	-35.954	451.780	451.796								
8418.333	-28.532	451.926	451.942								
8418.333	-21.110	452.218	452.234								
8418.333	-13.688	452.372	452.388								
8418.333	-6.266	452.498	452.514								
8418.333	1.156	452.531	452.547								
8418.333	8.578	452.468	452.484								
8418.333	16.000	452.324	452.340								

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S37
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS A35 - A36

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAT ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.12.40\Drafting\Roadway\Rehab ATT\ RampA\ elevations A_EI_3536.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	35
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - IM-70	

* 82-3HVB-3R-5 SHEET S-14 OF S-56
CONTRACT NO. 76985

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ
8521.000	-44.604	449.318	449.333	8567.667	-41.789	448.280	448.282	8623.667	-38.410	447.035	447.043
8521.000	-37.870	449.458	449.473	8567.667	-35.368	448.413	448.415	8623.667	-32.364	447.161	447.169
8521.000	-31.136	449.598	449.613	8567.667	-28.947	448.547	448.549	8623.667	-26.319	447.286	447.294
8521.000	-24.403	449.738	449.753	8567.667	-22.526	448.681	448.682	8623.667	-20.273	447.412	447.420
8521.000	-17.669	449.878	449.893	8567.667	-16.105	448.814	448.816	8623.667	-14.228	447.538	447.546
8521.000	-10.935	450.017	450.032	8567.667	-9.684	448.943	448.945	8623.667	-8.182	447.651	447.659
8521.000	-4.201	450.105	450.120	8567.667	-3.263	449.015	449.017	8623.667	-2.137	447.705	447.713
8521.000	2.532	450.115	450.130	8567.667	3.158	449.016	449.018	8623.667	3.909	447.696	447.704
8521.000	9.266	450.046	450.061	8567.667	9.579	448.945	448.947	8623.667	9.954	447.623	447.631
8521.000	16.000	449.913	449.928	8567.667	16.000	448.816	448.818	8623.667	16.000	447.501	447.509
8530.333	-44.041	449.110	449.125	8577.000	-41.225	448.072	448.072	8633.000	-37.847	446.827	446.836
8530.333	-37.370	449.249	449.264	8577.000	-34.867	448.205	448.205	8633.000	-31.864	446.952	446.960
8530.333	-30.698	449.388	449.403	8577.000	-28.509	448.337	448.337	8633.000	-25.881	447.076	447.085
8530.333	-24.027	449.526	449.541	8577.000	-22.150	448.469	448.469	8633.000	-19.898	447.201	447.209
8530.333	-17.356	449.665	449.680	8577.000	-15.792	448.601	448.601	8633.000	-13.915	447.325	447.334
8530.333	-10.685	449.802	449.817	8577.000	-9.434	448.728	448.728	8633.000	-7.932	447.435	447.444
8530.333	-4.014	449.887	449.902	8577.000	-3.075	448.797	448.797	8633.000	-1.949	447.486	447.495
8530.333	2.658	449.895	449.910	8577.000	3.283	448.796	448.796	8633.000	4.034	447.476	447.484
8530.333	9.329	449.826	449.841	8577.000	9.642	448.725	448.725	8633.000	10.017	447.403	447.411
8530.333	16.000	449.693	449.708	8577.000	16.000	448.597	448.597	8633.000	16.000	447.282	447.290
8539.667	-43.478	448.903	448.916	8586.333	-40.662	447.865	447.864	8642.333	-37.284	446.620	446.627
8539.667	-36.869	449.040	449.053	8586.333	-34.367	447.996	447.995	8642.333	-31.363	446.743	446.750
8539.667	-30.260	449.177	449.190	8586.333	-28.071	448.127	448.126	8642.333	-25.443	446.866	446.873
8539.667	-23.652	449.315	449.328	8586.333	-21.775	448.258	448.257	8642.333	-19.523	446.989	446.996
8539.667	-17.043	449.452	449.465	8586.333	-15.479	448.389	448.388	8642.333	-13.602	447.112	447.119
8539.667	-10.435	449.588	449.601	8586.333	-9.183	448.513	448.512	8642.333	-7.682	447.219	447.226
8539.667	-3.826	449.669	449.682	8586.333	-2.887	448.579	448.578	8642.333	-1.761	447.268	447.275
8539.667	2.783	449.675	449.688	8586.333	3.408	448.576	448.575	8642.333	4.159	447.255	447.262
8539.667	9.391	449.606	449.619	8586.333	9.704	448.504	448.503	8642.333	10.080	447.182	447.189
8539.667	16.000	449.474	449.487	8586.333	16.000	448.378	448.377	8642.333	16.000	447.062	447.069
8549.000	-42.915	448.695	448.704	8595.667	-40.099	447.657	447.658	8651.667	-36.721	446.412	446.417
8549.000	-36.369	448.831	448.840	8595.667	-33.866	447.787	447.788	8651.667	-30.863	446.534	446.538
8549.000	-29.823	448.967	448.976	8595.667	-27.633	447.917	447.918	8651.667	-25.005	446.656	446.660
8549.000	-23.276	449.103	449.112	8595.667	-21.400	448.046	448.047	8651.667	-19.147	446.778	446.782
8549.000	-16.730	449.240	449.249	8595.667	-15.166	448.176	448.177	8651.667	-13.289	446.900	446.904
8549.000	-10.184	449.373	449.382	8595.667	-8.933	448.297	448.298	8651.667	-7.431	447.003	447.008
8549.000	-3.638	449.451	449.460	8595.667	-2.700	448.360	448.361	8651.667	-1.574	447.049	447.053
8549.000	2.908	449.455	449.464	8595.667	3.533	448.356	448.357	8651.667	4.284	447.035	447.040
8549.000	9.454	449.385	449.394	8595.667	9.767	448.284	448.285	8651.667	10.142	446.962	446.966
8549.000	16.000	449.255	449.264	8595.667	16.000	448.159	448.160	8651.667	16.000	446.843	446.848
8558.333	-42.352	448.487	448.492	8605.000	-39.536	447.450	447.453	8657.167	-36.389	446.290	446.292
8558.333	-35.868	448.622	448.627	8605.000	-33.365	447.578	447.581	8657.167	-30.568	446.411	446.413
8558.333	-29.385	448.757	448.762	8605.000	-27.195	447.707	447.710	8657.167	-24.747	446.532	446.534
8558.333	-22.901	448.892	448.897	8605.000	-21.024	447.835	447.838	8657.167	-18.926	446.653	446.655
8558.333	-16.418	449.027	449.032	8605.000	-14.853	447.963	447.966	8657.167	-13.105	446.774	446.776
8558.333	-9.934	449.158	449.163	8605.000	-8.683	448.082	448.085	8657.167	-7.284	446.876	446.878
8558.333	-3.451	449.233	449.238	8605.000	-2.512	448.142	448.145	8657.167	-1.463	446.920	446.922
8558.333	3.033	449.236	449.241	8605.000	3.659	448.136	448.139	8657.167	4.358	446.906	446.908
8558.333	9.516	449.165	449.170	8605.000	9.829	448.064	448.067	8657.167	10.179	446.832	446.834
8558.333	16.000	449.036	449.041	8605.000	16.000	447.939	447.942	8657.167	16.000	446.714	446.716
8614.333	-38.973	447.242	447.248	8662.666	-36.057	446.168	446.168	8662.666	-30.273	446.288	446.288
8614.333	-32.865	447.369	447.375	8662.666	-24.489	446.408	446.408	8662.666	-18.705	446.529	446.529
8614.333	-26.757	447.496	447.502	8662.666	-12.921	446.649	446.649	8662.666	-7.137	446.749	446.749
8614.333	-20.649	447.623	447.629	8662.666	-1.352	446.791	446.791	8662.666	4.432	446.776	446.776
8614.333	-14.541	447.751	447.757	8662.666	10.216	446.702	446.702	8662.666	16.000	446.585	446.585
8614.333	-8.432	447.867	447.873	8662.666	16.000	446.585	446.585				
8614.333	-2.324	447.923	447.929								
8614.333	3.784	447.916	447.922								
8614.333	9.892	447.843	447.849								
8614.333	16.000	447.720	447.726								

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S37
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS A36 - A37

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\20011240\Drafting\Roadway\Rehab_A\T\RampA\elevations_A_EL3637.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

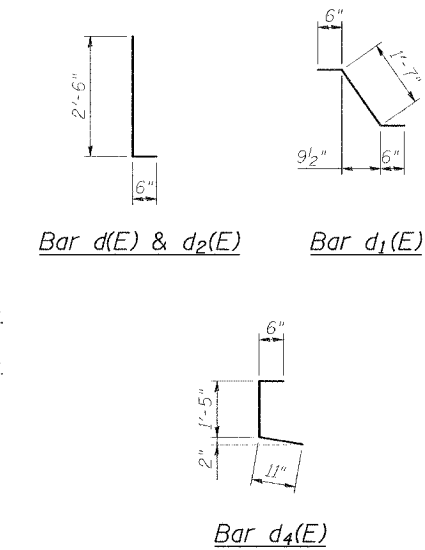
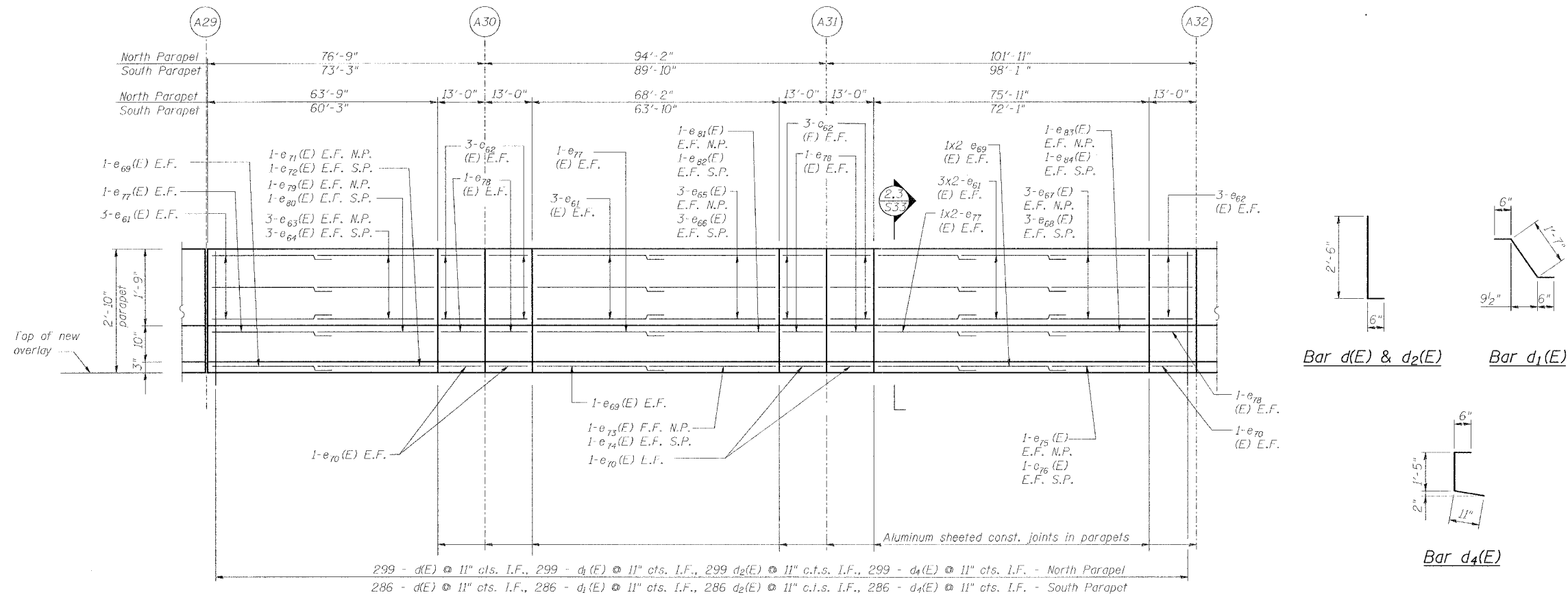
Station	Offset	Theo. Elev.	Adj. for	Theo. Elev.	Adj. for	Station	Offset	Theo. Elev.	Adj. for	Theo. Elev.	Adj. for	Station	Offset	Theo. Elev.	Adj. for	Theo. Elev.	Adj. for	Station	Offset	Theo. Elev.	Adj. for	Theo. Elev.	Adj. for
			℄		℄				℄		℄				℄		℄				℄		℄
8665.334	-35.896	446.108		446.108		8727.750	-32.131	444.720		444.727		8803.083	-27.586	443.045		443.055		8878.417	-23.041	441.370		441.371	
8665.334	-28.482	446.263		446.263		8727.750	-25.255	444.864		444.871		8803.083	-21.359	443.175		443.185		8878.417	-17.454	441.486		441.487	
8665.334	-21.069	446.417		446.417		8727.750	-18.379	445.007		445.014		8803.083	-15.133	443.304		443.314		8878.417	-11.886	441.602		441.603	
8665.334	-13.655	446.571		446.571		8727.750	-11.503	445.149		445.156		8803.083	-8.906	443.426		443.436		8878.417	-6.309	441.690		441.691	
8665.334	-6.241	446.696		446.696		8727.750	-4.627	445.245		445.252		8803.083	-2.680	443.488		443.498		8878.417	-0.732	441.724		441.725	
8665.334	1.173	446.729		446.729		8727.750	2.248	445.260		445.267		8803.083	3.547	443.484		443.494		8878.417	4.845	441.705		441.705	
8665.334	8.586	446.666		446.666		8727.750	9.124	445.192		445.199		8803.083	9.773	443.412		443.422		8878.417	10.423	441.631		441.632	
8665.334	16.000	446.522		446.522		8727.750	16.000	445.056		445.063		8803.083	16.000	443.286		443.296		8878.417	16.000	441.517		441.518	
8673.000	-35.434	445.938		445.942		8737.167	-31.562	444.511		444.515		8812.500	-27.018	442.836		442.847		8887.833	-22.473	441.161		441.164	
8673.000	-28.086	446.091		446.095		8737.167	-24.768	444.652		444.656		8812.500	-20.872	442.964		442.975		8887.833	-16.977	441.275		441.278	
8673.000	-20.736	446.244		446.248		8737.167	-17.973	444.794		444.797		8812.500	-14.727	443.092		443.103		8887.833	-11.480	441.389		441.392	
8673.000	-13.391	446.396		446.400		8737.167	-11.179	444.935		444.938		8812.500	-8.581	443.209		443.220		8887.833	-5.984	441.473		441.476	
8673.000	-6.043	446.518		446.522		8737.167	-4.384	445.026		445.030		8812.500	-2.436	443.268		443.279		8887.833	-0.488	441.503		441.506	
8673.000	1.305	446.549		446.553		8737.167	2.411	445.038		445.041		8812.500	3.709	443.261		443.272		8887.833	5.008	441.482		441.485	
8673.000	8.652	446.485		446.489		8737.167	9.205	444.969		444.973		8812.500	9.855	443.189		443.200		8887.833	10.504	441.408		441.411	
8673.000	16.000	446.342		446.346		8737.167	16.000	444.835		444.838		8812.500	16.000	443.065		443.076		8887.833	16.000	441.296		441.299	
8680.667	-34.971	445.767		445.775		8746.583	-30.994	444.302		444.303		8821.917	-26.449	442.627		442.638		8897.250	-21.905	440.952		440.958	
8680.667	-27.690	445.919		445.927		8746.583	-24.281	444.441		444.442		8821.917	-20.385	442.753		442.764		8897.250	-16.490	441.064		441.070	
8680.667	-20.408	446.070		446.078		8746.583	-17.567	444.581		444.582		8821.917	-14.321	442.879		442.890		8897.250	-11.075	441.176		441.182	
8680.667	-13.126	446.222		446.230		8746.583	-10.854	444.720		444.721		8821.917	-8.257	442.993		443.004		8897.250	-5.660	441.255		441.261	
8680.667	-5.845	446.340		446.348		8746.583	-4.140	444.807		444.808		8821.917	-2.193	443.048		443.059		8897.250	-0.245	441.282		441.289	
8680.667	1.437	446.368		446.376		8746.583	2.573	444.816		444.817		8821.917	3.872	443.039		443.050		8897.250	5.170	441.259		441.265	
8680.667	8.718	446.304		446.312		8746.583	9.287	444.747		444.748		8821.917	9.936	442.967		442.978		8897.250	10.585	441.185		441.191	
8680.667	16.000	446.162		446.170		8746.583	16.000	444.614		444.615		8821.917	16.000	442.844		442.855		8897.250	16.000	441.075		441.081	
8690.083	-34.403	445.558		445.569		8756.000	-30.426	444.092		444.092		8831.333	-25.881	442.417		442.426		8906.667	-21.336	440.742		440.752	
8690.083	-27.203	445.708		445.719		8756.000	-23.794	444.230		444.230		8831.333	-19.898	442.542		442.551		8906.667	-16.003	440.853		440.863	
8690.083	-20.002	445.858		445.869		8756.000	-17.162	444.368		444.368		8831.333	-13.915	442.666		442.675		8906.667	-10.669	440.963		440.972	
8690.083	-12.802	446.007		446.018		8756.000	-10.529	444.504		444.504		8831.333	-7.932	442.776		442.785		8906.667	-5.335	441.037		441.046	
8690.083	-5.601	446.122		446.133		8756.000	-3.897	444.587		444.587		8831.333	-1.949	442.828		442.837		8906.667	-0.001	441.061		441.071	
8690.083	1.599	446.147		446.158		8756.000	2.735	444.594		444.594		8831.333	4.034	442.817		442.826		8906.667	5.332	441.037		441.046	
8690.083	8.800	446.082		446.093		8756.000	9.368	444.524		444.524		8831.333	10.017	442.744		442.753		8906.667	10.666	440.963		440.973	
8690.083	16.000	445.941		445.952		8756.000	16.000	444.392		444.392		8831.333	16.000	442.623		442.632		8906.667	16.000	440.853		440.863	
8699.500	-33.835	445.349		445.362		8765.417	-29.858	443.883		443.883		8840.750	-25.313	442.208		442.213		8916.083	-20.768	440.533		440.545	
8699.500	-26.716	445.497		445.510		8765.417	-23.307	444.019		444.019		8840.750	-19.411	442.331		442.336		8916.083	-15.516	440.642		440.654	
8699.500	-19.596	445.645		445.658		8765.417	-16.756	444.156		444.156		8840.750	-13.509	442.453		442.459		8916.083	-10.263	440.749		440.761	
8699.500	-12.477	445.793		445.806		8765.417	-10.205	444.289		444.289		8840.750	-7.608	442.560		442.565		8916.083	-5.010	440.818		440.830	
8699.500	-5.358	445.903		445.916		8765.417	-3.653	444.368		444.368		8840.750	-1.706	442.607		442.613		8916.083	0.242	440.840		440.852	
8699.500	1.761	445.925		445.938		8765.417	2.898	444.372		444.372		8840.750	4.196	442.594		442.600		8916.083	5.495	440.814		440.826	
8699.500	8.881	445.859		445.872		8765.417	9.449	444.302		444.302		8840.750	10.098	442.521		442.527		8916.083	10.747	440.740		440.752	
8699.500	16.000	445.720		445.733		8765.417	16.000	444.171		444.171		8840.750	16.000	442.402		442.407		8916.083	16.000	440.632		440.644	
8708.917	-33.267	445.139		445.152		8774.833	-29.290	443.674		443.676		8850.167	-24.745	441.999		442.001		8925.500	-20.700	440.324		440.336	
8708.917	-26.229	445.286		445.298		8774.833	-22.820	443.808		443.810		8850.167	-18.924	442.120		442.122		8925.500	-15.029	440.431		440.443	
8708.917	-19.191	445.432		445.445		8774.833	-16.350	443.943		443.945		8850.167	-13.104	442.241		442.243		8925.500	-9.857	440.535		440.547	
8708.917	-12.152	445.578		445.591		8774.833	-9.880	444.073		444.075		8850.167	-7.283	442.343		442.345		8925.500	-4.586	440.600		440.612	
8708.917	-5.114	445.684		445.696		8774.833	-3.410	444.148		444.150		8850.167	-1.462	442.387		442.389		8925.500	0.486	440.619		440.631	
8708.917	1.924	445.703		445.716		8774.833	3.060	444.150		444.152		8850.167	4.359	442.372		442.375		8925.500	5.657	440.591		440.603	
8708.917	8.962	445.637		445.650		8774.833	9.530	444.079		444.081		8850.167	10.179	442.299		442.301		8925.500	10.829	440.517		440.529	
8708.917	16.000	445.498		445.511		8774.833	16.000	443.950		443.952		8850.167	16.000	442.180		442.183		8925.500	16.000	440.411		440.423	
8718.333	-32.699	444.930		444.940		8784.250	-28.722	443.464		443.469		8859.583	-24.177	441.789		441.789		8934.917	-19.632	440.114		440.119	
8718.333	-25.742	445.075		445.085		8784.250	-22.333	443.597		443.602		8859.583	-18.437	441.909		441.909		8934.917	-14.542	440.220		440.228	
8718.333	-18.785	445.219		445.230		8784.250	-15.944	443.730		443.735		8859.583	-12.698	442.028		442.028		8934.917	-9.452	440.320		440.331	
8718.333	-11.828	445.364		445.375		8784.250	-9.555	443.858		443.863		8859.583	-6.958	442.125									

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	37
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-5 SHEET S-16 OF S-56
CONTRACT NO. 76985

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for
8962.334	-17.978	439.505	439.505	9058.000	-16.000	437.299	437.299	9153.666	-16.000	435.051	435.051	9235.914	-16.000	433.098	433.144	9334.914	-16.000	430.498	430.513
8962.334	-11.183	439.645	439.645	9058.000	-9.600	437.427	437.427	9153.666	-9.600	435.179	435.179	9246.032	-8.000	433.000	433.033	9345.032	-8.000	430.366	430.377
8962.334	-4.387	439.737	439.737	9058.000	-3.200	437.498	437.498	9153.666	-3.200	435.250	435.250	9256.150	0.000	432.801	432.834	9355.150	0.000	430.135	430.146
8962.334	2.408	439.749	439.749	9058.000	3.200	437.498	437.498	9153.666	3.200	435.250	435.250	9266.267	8.000	432.487	432.520	9365.267	8.000	429.789	429.800
8962.334	9.204	439.680	439.680	9058.000	9.600	437.427	437.427	9153.666	9.600	435.179	435.179	9276.385	16.000	432.074	432.120	9375.385	16.000	429.343	429.358
8962.334	16.000	439.546	439.546	9058.000	16.000	437.299	437.299	9153.666	16.000	435.051	435.051	9285.914	-16.000	432.850	432.911	9384.914	-16.000	430.217	430.227
8970.167	-17.538	439.330	439.335	9068.000	-16.000	437.064	437.065	9156.334	-16.000	434.989	434.989	9296.032	-8.000	432.748	432.792	9395.032	-8.000	430.083	430.090
8970.167	-10.897	439.467	439.472	9068.000	-9.600	437.192	437.193	9156.334	-8.000	435.141	435.141	9266.150	0.000	432.546	432.590	9365.150	0.000	429.848	429.855
8970.167	-4.173	439.555	439.560	9068.000	-3.200	437.263	437.264	9156.334	0.000	435.197	435.197	9276.267	8.000	432.229	432.273	9375.267	8.000	429.499	429.506
8970.167	2.552	439.564	439.569	9068.000	3.200	437.263	437.264	9156.334	8.000	435.141	435.141	9286.385	16.000	431.812	431.873	9385.385	16.000	429.049	429.059
8970.167	9.276	439.495	439.500	9068.000	9.600	437.192	437.193	9156.334	16.000	434.989	434.989	9295.914	-16.000	432.599	432.666	9395.914	-16.000	429.934	429.935
8970.167	16.000	439.362	439.367	9068.000	16.000	437.064	437.065	9166.333	-16.000	434.754	434.756	9266.032	-8.000	432.493	432.542	9365.032	-8.000	429.796	429.797
8978.000	-17.152	439.154	439.163	9078.000	-16.000	436.829	436.832	9166.333	-8.000	434.906	434.921	9276.150	0.000	432.288	432.337	9375.150	0.000	429.558	429.559
8978.000	-10.611	439.288	439.297	9078.000	-9.600	436.957	436.960	9166.333	0.000	434.962	434.976	9286.267	8.000	431.968	432.017	9385.267	8.000	429.205	429.206
8978.000	-3.958	439.372	439.381	9078.000	-3.200	437.028	437.031	9166.333	8.000	434.906	434.918	9296.385	16.000	431.548	431.615	9395.385	16.000	428.752	428.753
8978.000	2.694	439.379	439.388	9078.000	3.200	437.028	437.031	9166.333	16.000	434.754	434.770	9265.914	-16.000	432.344	432.409	9357.764	-16.000	429.852	429.852
8978.000	9.347	439.310	439.319	9078.000	9.600	436.957	436.960	9176.333	-16.000	434.519	434.524	9276.032	-8.000	432.235	432.282	9367.882	-8.000	429.714	429.714
8978.000	16.000	439.178	439.187	9078.000	16.000	436.829	436.832	9176.333	-8.000	434.671	434.691	9286.150	0.000	432.027	432.074	9377.999	0.000	429.475	429.475
8988.000	-16.741	438.927	438.940	9088.000	-16.000	436.594	436.601	9176.333	8.000	434.727	434.752	9296.267	8.000	431.703	431.750	9388.117	8.000	429.122	429.122
8988.000	-10.247	439.060	439.073	9088.000	-9.600	436.722	436.729	9176.333	8.000	434.671	434.699	9306.385	16.000	431.280	431.345	9398.235	16.000	428.667	428.667
8988.000	-3.685	439.139	439.152	9088.000	-3.200	436.793	436.800	9176.333	16.000	434.519	434.550	9275.914	-16.000	432.086	432.140				
8988.000	2.877	439.144	439.157	9088.000	3.200	436.793	436.800	9186.333	-16.000	434.284	434.289	9286.032	-8.000	431.974	432.013				
8988.000	9.438	439.074	439.087	9088.000	9.600	436.722	436.729	9186.333	-8.000	434.437	434.460	9296.150	0.000	431.762	431.801				
8988.000	16.000	438.943	438.956	9088.000	16.000	436.594	436.601	9186.333	0.000	434.492	434.523	9306.267	8.000	431.436	431.475				
8998.000	-16.421	438.699	438.714	9098.000	-16.000	436.359	436.370	9186.333	8.000	434.437	434.482	9316.385	16.000	431.009	431.063				
8998.000	-9.990	438.829	438.844	9098.000	-9.600	436.487	436.498	9186.333	16.000	434.284	434.326	9285.914	-16.000	431.825	431.861				
8998.000	-3.493	438.905	438.920	9098.000	-3.200	436.558	436.569	9196.333	-16.000	434.049	434.056	9296.032	-8.000	431.710	431.735				
8998.000	3.005	438.908	438.922	9098.000	3.200	436.558	436.569	9196.333	-8.000	434.202	434.225	9306.150	0.000	431.494	431.520				
8998.000	9.502	438.838	438.852	9098.000	9.600	436.487	436.498	9196.333	0.000	434.257	434.294	9316.267	8.000	431.164	431.190				
8998.000	16.000	438.708	438.722	9098.000	16.000	436.359	436.370	9196.333	8.000	434.202	434.250	9326.385	16.000	430.734	430.770				
9008.000	-16.190	438.469	438.483	9108.000	-16.000	436.124	436.137	9196.333	16.000	434.049	434.098	9295.914	-16.000	431.467	431.502				
9008.000	-9.881	438.596	438.610	9108.000	-9.600	436.252	436.265	9206.333	-16.000	433.814	433.816	9306.032	-8.000	431.442	431.450				
9008.000	-3.411	438.671	438.685	9108.000	-3.200	436.323	436.336	9206.333	-8.000	433.966	433.969	9316.150	0.000	431.223	431.232				
9008.000	3.058	438.673	438.687	9108.000	3.200	436.323	436.336	9206.333	0.000	434.022	434.053	9326.267	8.000	430.890	430.899				
9008.000	9.530	438.602	438.616	9108.000	9.600	436.252	436.265	9206.333	8.000	433.966	434.014	9336.385	16.000	430.457	430.465				
9008.000	16.000	438.473	438.487	9108.000	16.000	436.124	436.137	9206.333	16.000	433.814	433.864	9300.614	-16.000	431.435	431.435				
9018.000	-16.050	438.237	438.249	9118.000	-16.000	435.889	435.903	9216.333	-8.000	433.728	433.733	9310.732	-8.000	431.315	431.315				
9018.000	-9.772	438.363	438.375	9118.000	-9.600	436.017	436.031	9216.333	0.000	433.783	433.808	9320.849	0.000	431.095	431.095				
9018.000	-3.329	438.437	438.448	9118.000	-3.200	436.088	436.102	9216.333	8.000	433.728	433.773	9330.967	8.000	430.760	430.760				
9018.000	3.114	438.438	438.450	9118.000	3.200	436.088	436.102	9216.333	16.000	433.575	433.621	9341.085	16.000	430.325	430.325				
9018.000	9.557	438.367	438.379	9118.000	9.600	436.017	436.031	9226.333	0.000	433.541	433.549	9304.915	-16.000	431.319	431.319				
9018.000	16.000	438.238	438.250	9118.000	16.000	435.889	435.903	9226.333	8.000	433.486	433.517	9315.033	-8.000	431.198	431.198				
9028.000	-16.000	438.003	438.011	9128.000	-16.000	435.654	435.666	9226.333	16.000	433.335	433.363	9325.150	0.000	430.976	430.976				
9028.000	-9.663	438.130	438.138	9128.000	-9.600	435.782	435.794	9236.333	8.000	433.241	433.255	9335.268	8.000	430.640	430.640				
9028.000	-3.247	438.202	438.210	9128.000	-3.200	435.853	435.865	9236.333	16.000	433.088	433.111	9345.386	16.000	430.204	430.204				
9028.000	3.169	438.203	438.211	9128.000	3.200	435.853	435.865	9246.333	16.000	432.840	432.849	9314.914	-16.000	431.049	431.055				
9028.000	9.584	438.132	438.140	9128.000	9.600	435.782	435.794	9211.615	-16.000	433.688	433.688	9325.032	-8.000	430.924	430.930				
9028.000	16.000	438.003	438.011	9128.000	16.000	435.654	435.666	9221.733	-8.000	433.597	433.597	9335.150	0.000	430.699	430.705				
9038.000	-16.000	437.768	437.772	9138.000	-16.000	435.419	435.428	9231.850	0.000	433.406	433.406	9345.267	8.000	430.360	430.366				
9038.000	-9.600	437.896	437.900	9138.000	-9.600	435.547	435.556	9241.968	8.000	433.101	433.101	9355.385	16.000	429.920	429.926				
9038.000	-3.200	437.967	437.971	9138.000	-3.200	435.618	435.627	9252.086	16.000	432.695	432.695	9324.914	-16.000	430.775	430.785				
9038.000	3.200	437.967	437.971	9138.000	3.200	435.618	435.627	9215.915	-16.000	433.585	433.585	9335.032	-8.000	430.647	430.657				
9038.000	9.600	437.896	437.900	9138.000	9.600	435.547	435.556	9226.033	-8.000	433.493	433.493	9345.150	0.000	430.419	430.429				
9038.000	16.000	437.768	437.772	9138.000	16.000	435.419	435.428												

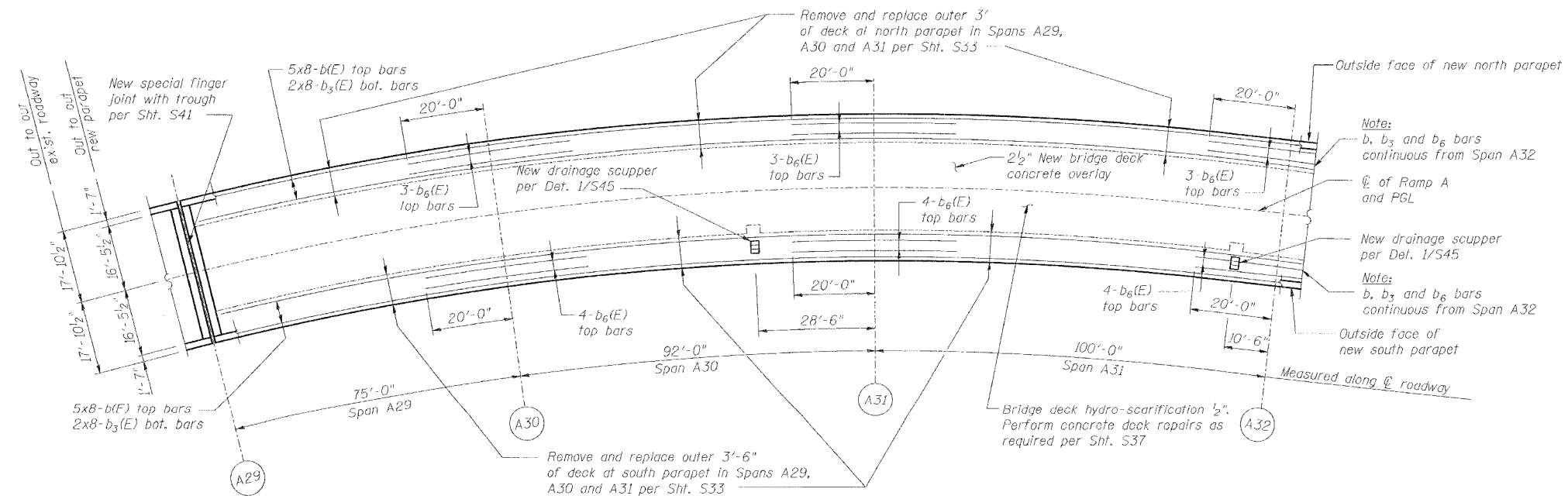
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	40
FED. ROAD DIST. NO. 7	ILL. INTS.	FED. AID PROJECT - 1M-70		
* 82-3HVB-3R-5		SHEET S-19 OF S-56		
CONTRACT NO. 76985				



INSIDE ELEVATION OF NORTH PARAPET

South parapet similar except as noted
 All dimensions measured along bottom of inside face of parapet
 E.F. Indicates each face
 I.F. Indicates inside face
 O.F. Indicates outside face

Min Bar Laps	
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"



DECK PLAN OF SPANS A29 - A31

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a59(E)	8	#5	2'-0"	
a55(E)	8	#5	3'-0"	
b(E)	80	#5	40'-0"	
b3(E)	32	#5	40'-0"	
b6(E)	21	#6	40'-0"	
d(E)	585	#5	3'-0"	
d1(E)	585	#5	2'-7"	
d2(E)	585	#4	3'-0"	
d4(E)	585	#4	2'-10"	
e61(E)	48	#4	35'-0"	
e62(E)	60	#4	12'-9"	
e63(E)	6	#4	30'-0"	
e64(E)	6	#4	26'-4"	
e65(E)	6	#4	34'-9"	
e66(E)	6	#4	30'-2"	
e67(E)	6	#4	9'-2"	
e68(E)	6	#4	5'-0"	
e69(E)	16	#5	35'-0"	
e70(E)	20	#5	12'-9"	
e71(E)	2	#5	30'-6"	
e72(E)	2	#5	26'-10"	
e73(E)	2	#5	35'-3"	
e74(E)	2	#5	30'-8"	
e75(E)	2	#5	10'-2"	
e76(E)	2	#5	6'-0"	
e77(E)	16	#8	35'-0"	
e78(E)	20	#8	12'-9"	
e79(E)	2	#8	32'-10"	
e80(E)	2	#8	29'-2"	
e81(E)	2	#8	37'-7"	
e82(E)	2	#8	33'-0"	
e83(E)	2	#8	14'-10"	
e84(E)	2	#8	10'-8"	
Reinforcement Bars, Epoxy Coated	Pound	18,000		
Concrete Removal	Cu. Yd.	134.1		
Concrete Superstructure	Cu. Yd.	121.6		
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.	890		
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	890		
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	977		
Drainage Scuppers - DS12	Ea.	2		
Protective Coat	Sq. Yd.	1,412		
Bridge Deck Grooving	Sq. Yd.	977		

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS A29 - A31

REVISIONS	
NAME	DATE

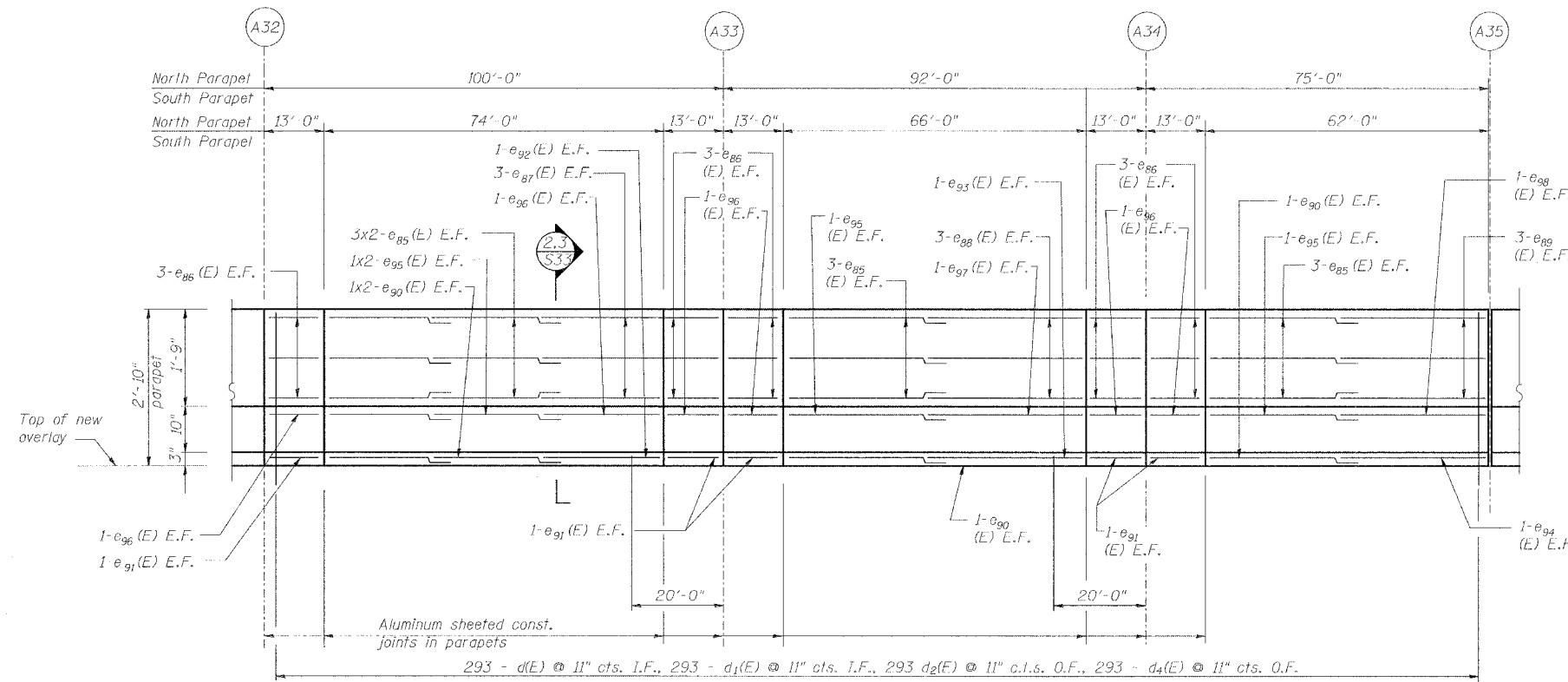
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

DATE: 12/22/07
 FILENAME: P:\2001\1201-1800\12011240\Drafting\Roadway\Rehab_A1\RempA\parapet-deck_A.DWG.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.1. 70	*	ST. CLAIR	99	41
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- 1M-70	
82-3HYB-3R-5		SHEET S-20 OF S-56		
CONTRACT NO. 76985				

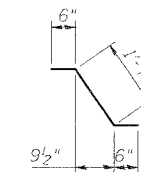


INSIDE ELEVATION OF NORTH PARAPET

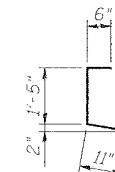
South parapet similar except as noted
 All dimensions measured along bottom of inside face of parapet
 E.F. indicates each face
 I.F. indicates inside face
 O.F. indicates outside face

Min Bar Laps	
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"

Bar d(E) & d2(E)



Bar d1(E)

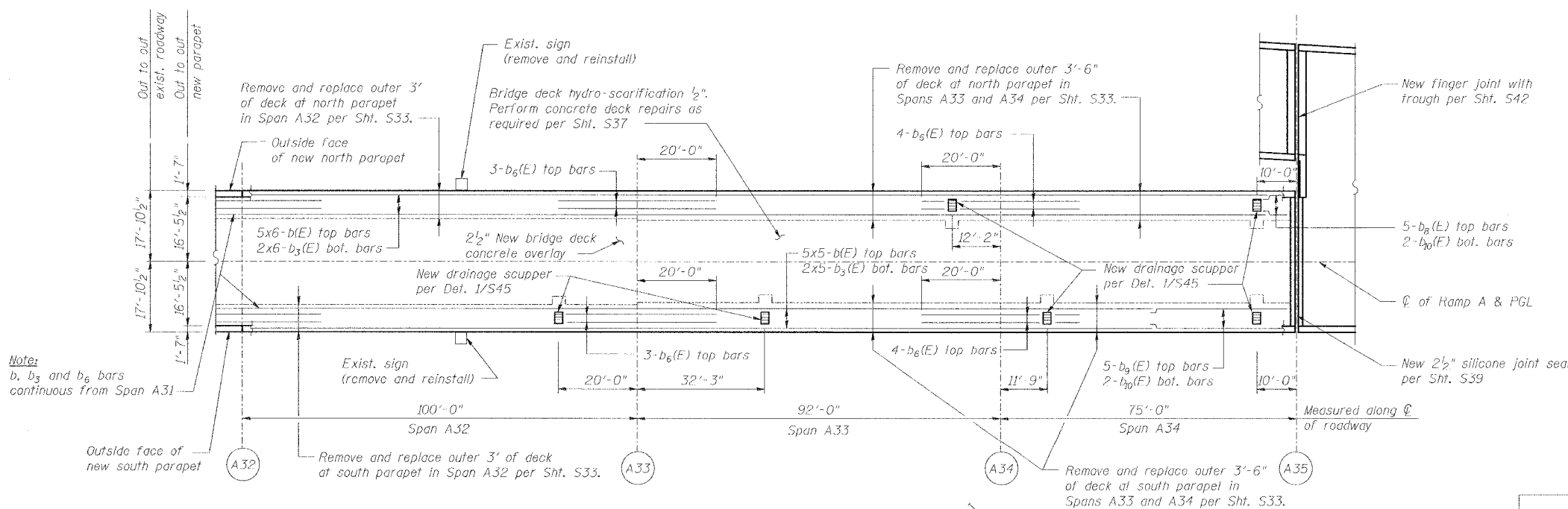


Bar d4(E)

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a50(E)	24	#5	2'-0"	—
a55(E)	24	#5	3'-0"	—
b(F)	55	#5	40'-0"	—
b3(F)	22	#5	40'-0"	—
b6(E)	14	#6	40'-0"	—
b8(E)	5	#5	9'-5"	—
b9(E)	5	#5	35'-7"	—
b0(E)	2	#5	9'-5"	—
b1(E)	2	#5	35'-7"	—
d(E)	586	#5	3'-0"	—
d1(F)	586	#5	2'-7"	—
d2(E)	586	#4	3'-0"	—
d4(E)	586	#4	2'-10"	—
e85(E)	18	#4	35'-0"	—
e86(E)	60	#4	12'-9"	—
e87(F)	12	#4	7'-1"	—
e88(E)	12	#4	32'-5"	—
e89(E)	12	#4	28'-4"	—
e90(E)	16	#5	35'-0"	—
e91(E)	20	#5	12'-9"	—
e92(E)	4	#5	8'-1"	—
e93(E)	4	#5	32'-11"	—
e94(E)	4	#5	28'-10"	—
e95(E)	16	#8	35'-0"	—
e96(E)	24	#8	12'-9"	—
e97(E)	4	#8	35'-3"	—
e98(E)	4	#8	31'-2"	—
Reinforcement Bars, Epoxy Coated		Pound	16,510	
Concrete Removal		Cu. Yd.	138.9	
Concrete Superstructure		Cu. Yd.	126.4	
Hot Mix Asphalt Surface Removal (Deck)		Sq. Yd.	890	
Concrete Bridge Deck Hydro-Scarification - 1/2"		Sq. Yd.	890	
Bridge Deck Microsilica Concrete Overlay 2 1/2"		Sq. Yd.	977	
Drainage Scuppers - DS12		Ea.	6	
Protective Coat		Sq. Yd.	1,412	
Bridge Deck Grooving		Sq. Yd.	977	
Protective Shield		Sq. Yd.	400	

Reinforcement bars designated (E) shall be epoxy coated.



DECK PLAN OF SPANS A32 - A34

DECK & PARAPET REPAIRS - SPANS A32 - A34

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

DATE: 1/26/2007 FILENAME: P:\2001\1201-1300\20011240\Drafting\Roadway\Rehab_A1\RampA\parapet-deck_A_DP8284.dgn

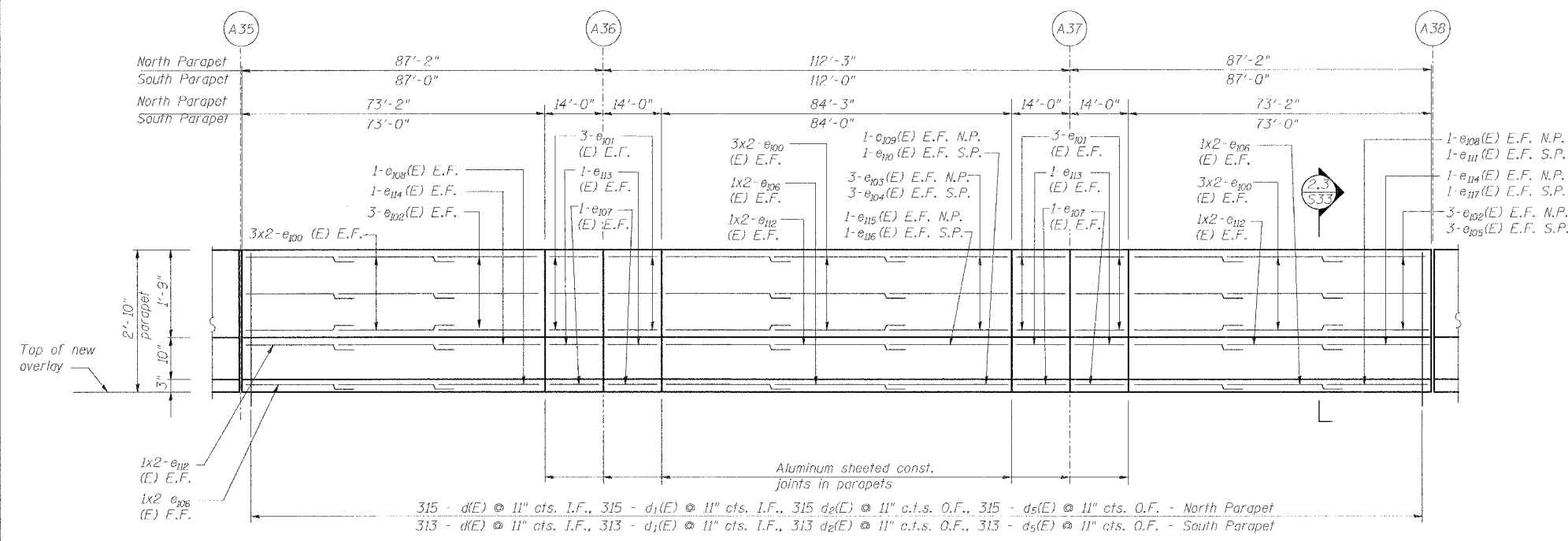
DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₄₀ (E)	76	#5	2'-9"	
a ₃₅₀ (E)	48	#5	2'-0"	
a ₃₅₁ (E)	48	#5	3'-0"	
b(E)	70	#5	40'-0"	
b ₃ (E)	42	#5	40'-0"	
b ₆ (E)	16	#6	40'-0"	
b ₁₂ (E)	5	#5	21'-0"	
b ₁₃ (E)	6	#5	20'-5"	
b ₁₄ (E)	3	#5	21'-0"	
b ₁₅ (E)	3	#5	20'-5"	
d(E)	628	#5	3'-0"	
d ₁ (E)	628	#5	2'-7"	
d ₂ (E)	628	#4	3'-0"	
d ₅ (E)	628	#4	2'-7"	
e ₁₀₀ (E)	72	#4	35'-0"	
e ₁₀₁ (E)	48	#4	13'-9"	
e ₁₀₂ (E)	18	#4	6'-0"	
e ₁₀₃ (E)	6	#4	17'-3"	
e ₁₀₄ (E)	6	#4	18'-1"	
e ₁₀₅ (E)	6	#4	5'-10"	
e ₁₀₆ (E)	24	#5	35'-0"	
e ₁₀₇ (E)	16	#5	13'-9"	
e ₁₀₈ (E)	6	#5	7'-0"	
e ₁₀₉ (E)	2	#5	18'-3"	
e ₁₁₀ (E)	2	#5	19'-1"	
e ₁₁₁ (E)	2	#5	6'-10"	
e ₁₁₂ (E)	24	#8	35'-0"	
e ₁₁₃ (E)	16	#8	13'-9"	
e ₁₁₄ (E)	6	#8	11'-8"	
e ₁₁₅ (E)	2	#8	22'-11"	
e ₁₁₆ (E)	2	#8	23'-9"	
e ₁₁₇ (E)	2	#8	11'-6"	

Reinforcement Bars, Epoxy Coated	Pound	19,400
Concrete Removal	Cu. Yd.	161.1
Concrete Superstructure	Cu. Yd.	147.5
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1,864
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	1,864
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	1,989
Drainage Scuppers - DS12	Ea.	12
Impact Attenuator Removal	Ea.	1
Impact Attenuator	Ea.	1
Protective Coat	Sq. Yd.	2,456
Bridge Deck Grooving	Sq. Yd.	1,989
Protective Shield	Sq. Yd.	390

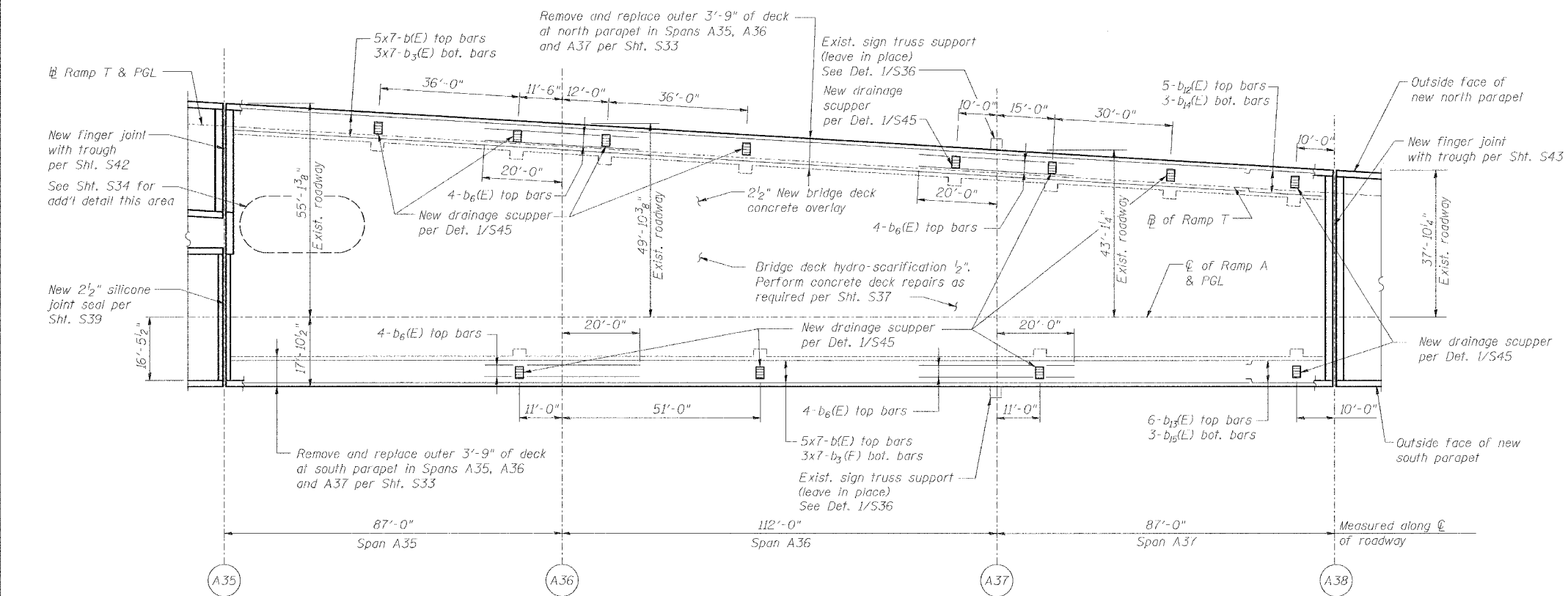
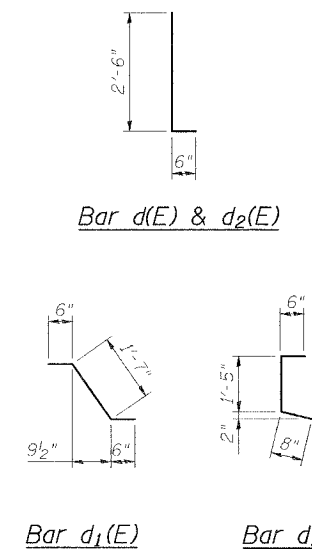
Reinforcement bars designated (E) shall be epoxy coated.



INSIDE ELEVATION OF NORTH PARAPET

South parapet similar except as noted
All dimensions measured along bottom of inside face of parapet
E.F. indicates each face
I.F. indicates inside face
O.F. indicates outside face

#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"



DECK PLAN OF SPANS A35 - A37

DECK & PARAPET REPAIRS - SPANS A35 - A37

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/22/2007 FILENAME: P:\2001\1901-1900\2001.1240\Drafting\Roadway\Rehab_A\1\Roadway\Parapet\Rehab_A_DP8537.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.1. 70	*	ST. CLAIR	99	43
FED. ROAD DIST. NO. 7	S. 11N01S	FED. AID PROJECT- 1M-78		

* 62-3HVB-3R-5 SHEET S-22 OF S-56
 CONTRACT NO. 76985

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a(E)	92	#4	17'-2"	
a ₁ (E)	92	#4	23'-0"	
a ₃₅₀ (E)	28	#5	2'-0"	
a ₃₅₁ (E)	28	#5	3'-0"	
b(E)	70	#5	40'-0"	
b ₃ (E)	28	#5	40'-0"	
b ₆ (E)	14	#6	40'-0"	
b ₁₆ (E)	5	#5	32'-3"	
b ₁₇ (E)	5	#5	31'-5"	
b ₁₈ (E)	2	#5	32'-3"	
b ₁₉ (E)	2	#5	31'-5"	
b ₄₀ (E)	120	#4	31'-10"	
d(E)	650	#5	3'-0"	
d ₁ (E)	650	#5	2'-7"	
d ₂ (E)	650	#4	3'-0"	
d ₄ (E)	650	#4	2'-10"	
e ₁₂₀ (E)	72	#4	35'-0"	
e ₁₂₁ (E)	48	#4	14'-9"	
e ₁₂₂ (E)	12	#4	10'-0"	
e ₁₂₃ (E)	6	#4	9'-10"	
e ₁₂₄ (E)	6	#4	16'-3"	
e ₁₂₅ (E)	6	#4	16'-1"	
e ₁₂₆ (E)	6	#4	10'-2"	
e ₁₂₇ (E)	24	#5	35'-0"	
e ₁₂₈ (E)	16	#5	14'-9"	
e ₁₂₉ (E)	4	#5	11'-0"	
e ₁₃₀ (E)	2	#5	10'-10"	
e ₁₃₁ (E)	2	#5	17'-3"	
e ₁₃₂ (E)	2	#5	17'-1"	
e ₁₃₃ (E)	2	#5	11'-2"	
e ₁₃₄ (E)	24	#8	35'-0"	
e ₁₃₅ (E)	16	#8	14'-9"	
e ₁₃₆ (E)	4	#8	15'-8"	
e ₁₃₇ (E)	2	#8	15'-6"	
e ₁₃₈ (E)	2	#8	21'-11"	
e ₁₃₉ (E)	2	#8	21'-9"	
e ₁₄₀ (E)	2	#8	15'-10"	
Reinforcement Bars, Epoxy Coated	Pound		24,050	
Bar Splicer	Ea.		92	
Concrete Removal	Cu. Yd.		163.7	
Concrete Superstructure	Cu. Yd.		151.5	
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.		1,355	
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.		999	
Bridge Deck Hydro-Scarification - 2"	Sq. Yd.		356	
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.		1,088	
Bridge Deck Microsilica Concrete Overlay - 4"	Sq. Yd.		397	
Drainage Scuppers - DS12	Ea.		7	
Protective Coat	Sq. Yd.		1,969	
Bridge Deck Grooving	Sq. Yd.		1,485	

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS A38 - A40

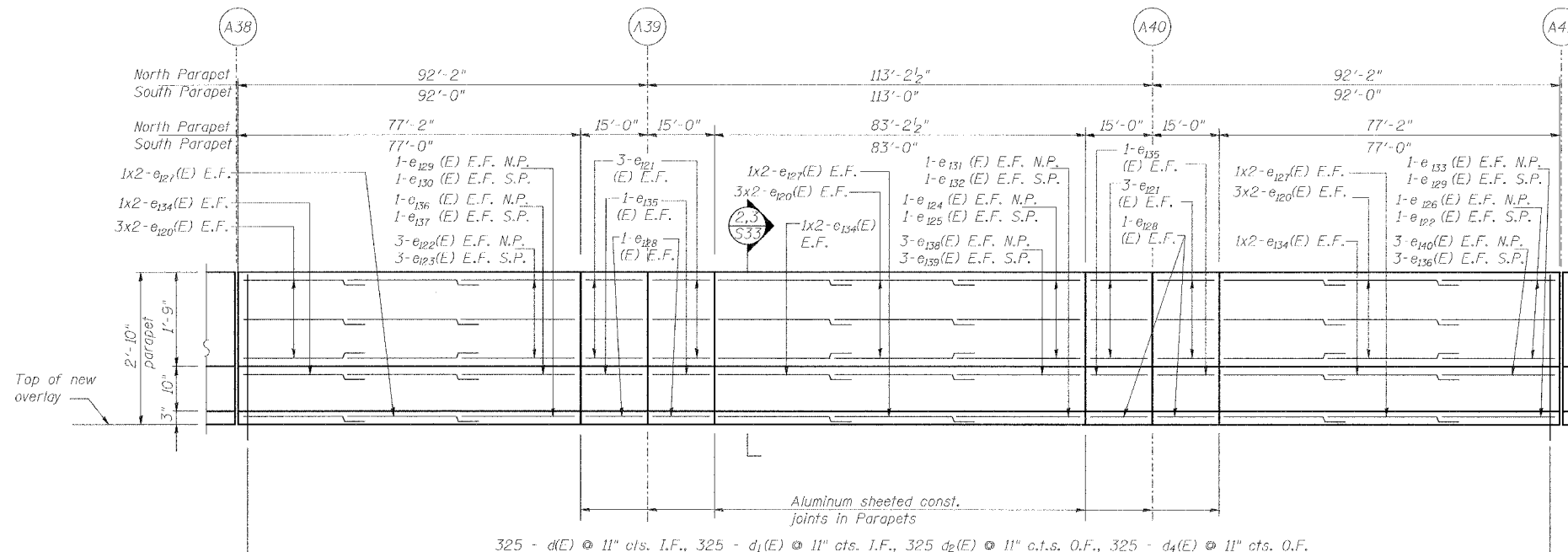
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO. 082 0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

Note:
 Cut bars in field to fit variable width of deck

Reinforcement bars designated (E) shall be epoxy coated.



INSIDE ELEVATION OF NORTH PARAPET

South parapet similar except as noted
 All dimensions measured along bottom of inside face of parapet
 E.F. indicates each face
 I.F. indicates inside face
 O.F. indicates outside face

Min Bar Laps	
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"

Remove and replace outer 3'-0" of deck at north parapet in Span A40 and easternmost 8' of Span A39 per S33

4" New bridge deck concrete overlay. See Det. B on Sht. S38 for overlay reinforcement details.

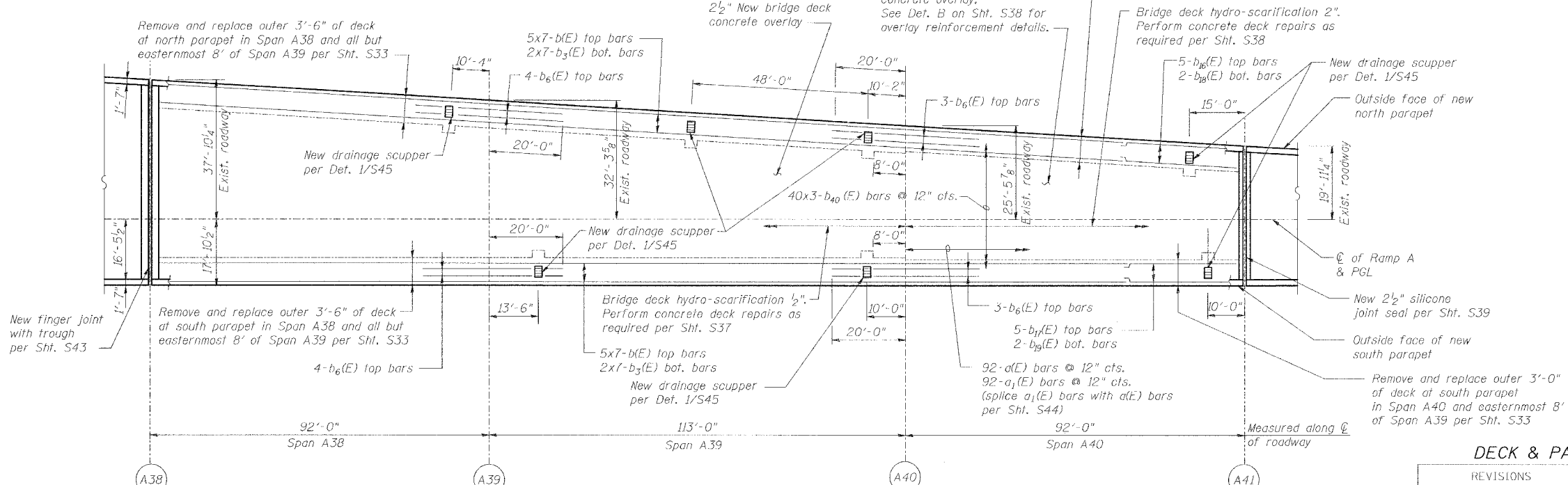
Bridge deck hydro-scarification 2". Perform concrete deck repairs as required per Sht. S38

Remove and replace outer 3'-6" of deck at north parapet in Span A38 and all but easternmost 8' of Span A39 per Sht. S33

Remove and replace outer 3'-6" of deck at south parapet in Span A38 and all but easternmost 8' of Span A39 per Sht. S33

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

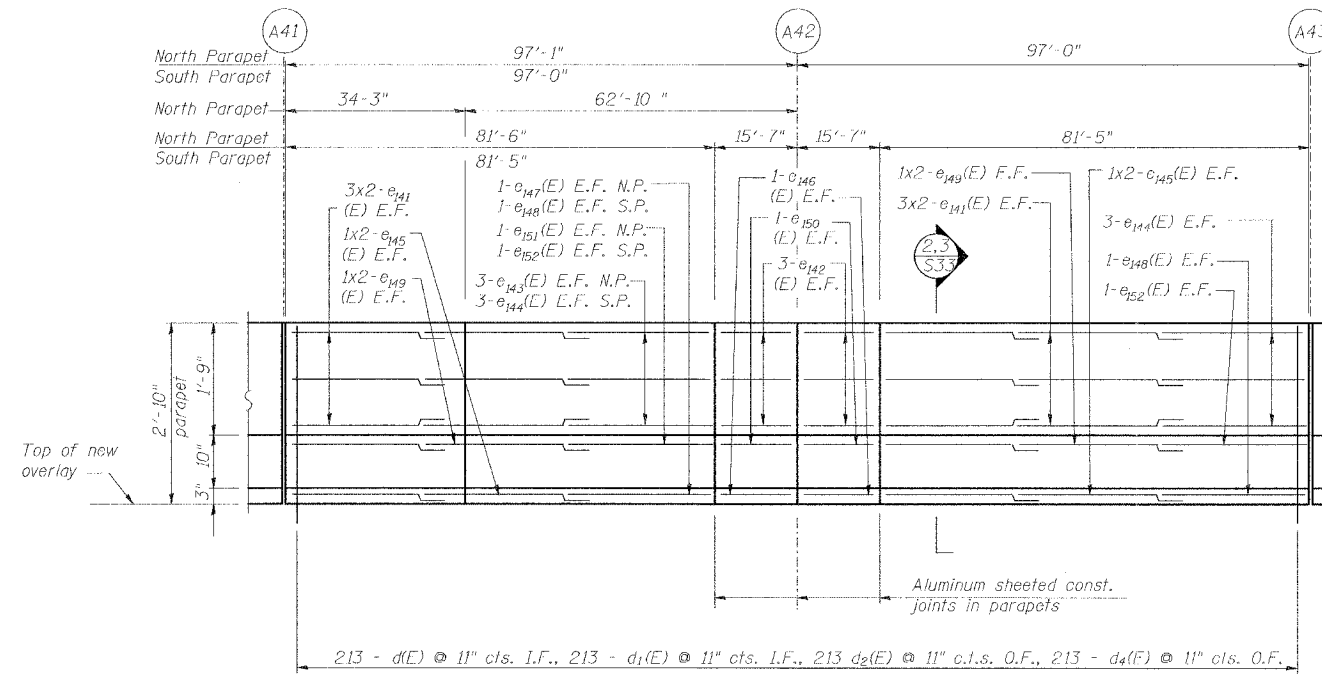
DECK PLAN OF SPANS A38 - A40



DATE: 1/26/2007
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1H-78		

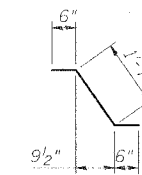
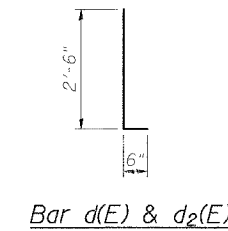
* 82-3HVB-3R-5 SHEET S-23 OF S-56
CONTRACT NO. 76985



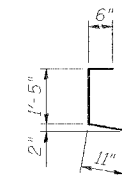
INSIDE ELEVATION OF NORTH PARAPET

South parapet similar except as noted
All dimensions measured along bottom of inside face of parapet
E.F. indicates each face,
I.F. indicates inside face
O.F. indicates outside face

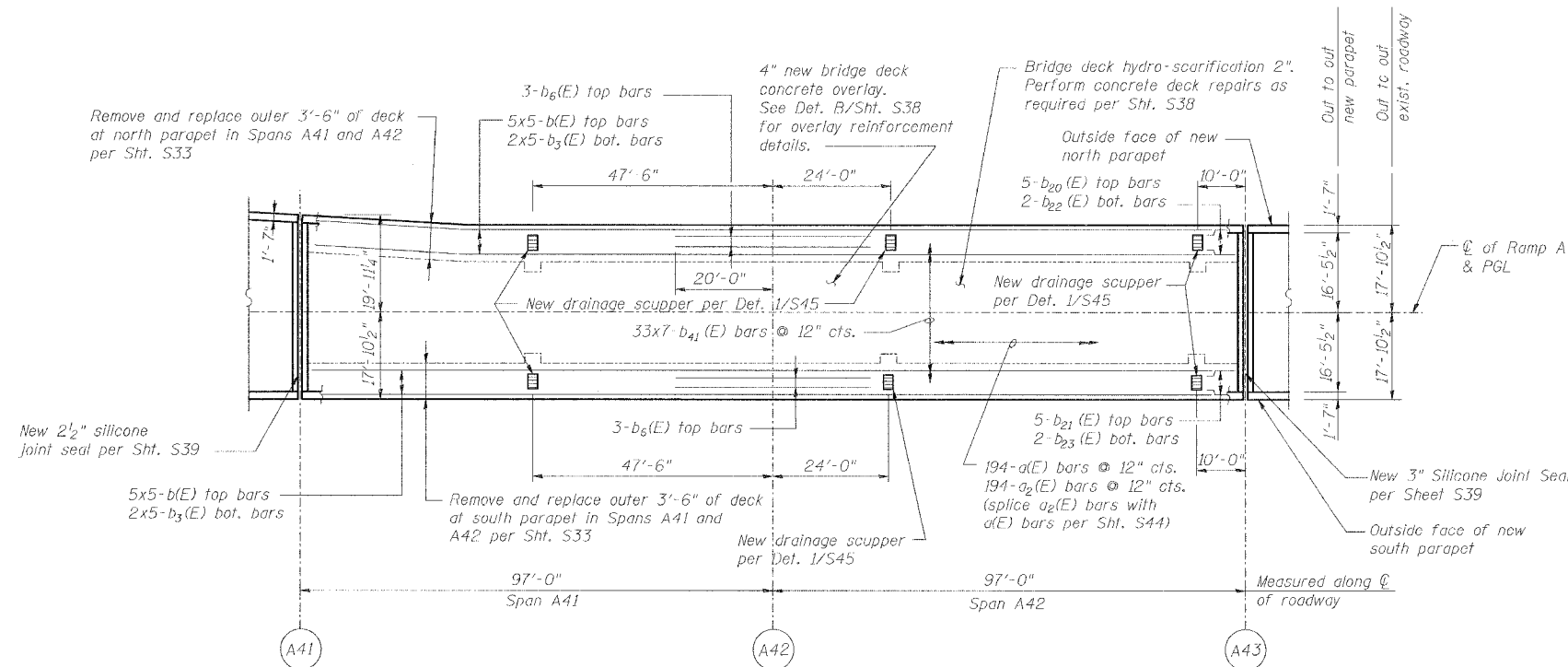
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"



Bar d₁(E)



Bar d₄(E)



DECK PLAN OF SPANS A41 - A42

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	194	#4	17'-2"	
d ₁ (E)	194	#4	20'-6"	
d ₂ (E)	24	#5	2'-0"	
d ₃ (E)	24	#5	3'-0"	
b(E)	50	#5	40'-0"	
b ₃ (E)	20	#5	40'-0"	
b ₆ (E)	6	#6	40'-0"	
b ₂₀ (E)	5	#5	4'-2"	
b ₂₁ (E)	5	#5	4'-1"	
b ₂₂ (E)	2	#5	4'-2"	
b ₂₃ (E)	2	#5	4'-1"	
b ₄₁ (E)	175	#4	29'-2"	
d(E)	426	#5	3'-0"	
d ₁ (E)	426	#5	2'-7"	
d ₂ (E)	426	#4	3'-0"	
d ₃ (E)	426	#4	2'-10"	
e ₁₄₁ (E)	48	#4	35'-0"	
e ₁₄₂ (E)	24	#4	15'-4"	
e ₁₄₃ (E)	6	#4	14'-6"	
e ₁₄₄ (E)	18	#4	14'-5"	
e ₁₄₅ (E)	16	#5	35'-0"	
e ₁₄₆ (E)	8	#5	15'-4"	
e ₁₄₇ (E)	2	#5	15'-6"	
e ₁₄₈ (E)	6	#5	15'-5"	
e ₁₄₉ (E)	16	#8	35'-0"	
e ₁₅₀ (E)	8	#8	15'-4"	
e ₁₅₁ (E)	2	#8	20'-2"	
e ₁₅₂ (E)	6	#8	20'-1"	
Reinforcement Bars, Epoxy Coated	Pound		20,590	
Bar Splicer	Ea.		194	
Concrete Removal	Cu. Yd.		112.4	
Concrete Superstructure	Cu. Yd.		106.8	
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.		651	
Bridge Deck Hydro-Scarification - 2"	Sq. Yd.		651	
Bridge Deck Microsilica Concrete Overlay - 4"	Sq. Yd.		714	
Drainage Scuppers - DS12	Ea.		6	
Protective Coat	Sq. Yd.		1,030	
Bridge Deck Grooving	Sq. Yd.		714	

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS A41 - A42

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0141 (ROADWAY A)
		SCALE: N.T.S.
		DATE: 02/01/2007

Note:
Cut bars in field to fit variable width of deck

DATE: 1/26/2007 FILENAME: P:\2001\1201-1806\20011201\20011201\Drawings\Roadway\Rehab_A41\Rehab_A41\parapet-deck_A_DP4142.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	45
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- 1M-78	

82-3HVB-3R-5 SHEET S-24 OF S-56
CONTRACT NO. 76985

SUPERSTRUCTURE BILL OF MATERIAL

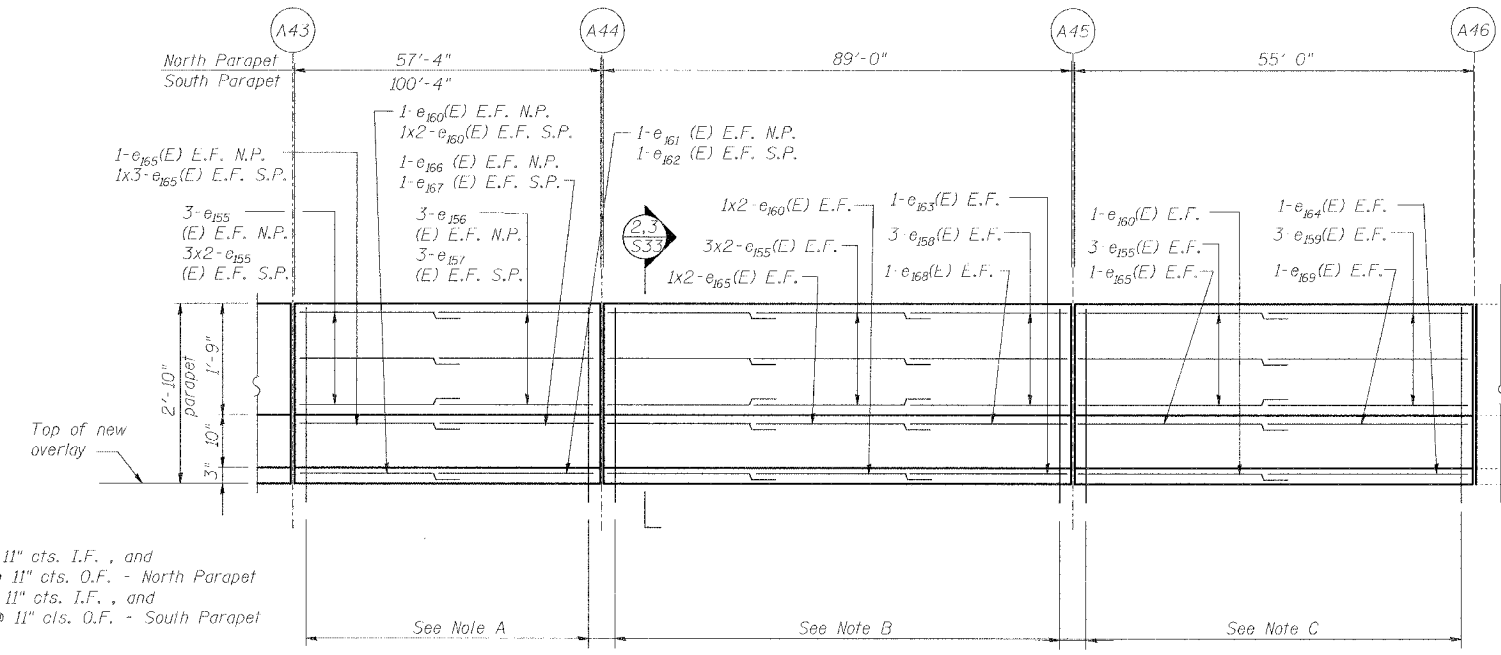
Bar	No.	Size	Length	Shape
a(E)	223	#4	17'-2"	
a ₃ (E)	223	#4	18'-5"	
a ₅₀ (E)	28	#5	2'-0"	
a ₃₅ (E)	28	#5	3'-0"	
b(E)	45	#5	40'-0"	
b ₃ (E)	27	#5	40'-0"	
b ₂₄ (E)	5	#5	19'-0"	
b ₂₅ (E)	5	#5	24'-2"	
b ₂₆ (E)	10	#5	12'-10"	
b ₂₇ (E)	10	#5	16'-8"	
b ₂₈ (E)	3	#5	19'-0"	
b ₂₉ (E)	3	#5	24'-2"	
b ₃₀ (E)	6	#5	12'-10"	
b ₃₁ (E)	6	#5	16'-8"	
b ₄₂ (E)	99	#4	28'-0"	
b ₄₃ (E)	99	#4	30'-10"	
b ₄₄ (E)	66	#4	28'-4"	
d(E)	491	#5	3'-0"	
d ₁ (E)	491	#5	2'-7"	
d ₂ (E)	491	#4	3'-0"	
d ₃ (E)	381	#4	3'-4"	
d ₇ (E)	110	#4	3'-2"	
e ₁₅₅ (E)	54	#4	35'-0"	
e ₁₅₆ (E)	6	#4	23'-9"	
e ₁₅₇ (E)	6	#4	33'-5"	
e ₁₅₈ (E)	12	#4	21'-11"	
e ₁₅₉ (E)	12	#4	23'-0"	
e ₁₆₀ (E)	18	#5	35'-0"	
e ₁₆₁ (E)	2	#5	24'-3"	
e ₁₆₂ (E)	2	#5	34'-5"	
e ₁₆₃ (E)	4	#5	22'-11"	
e ₁₆₄ (E)	4	#5	23'-6"	
e ₁₆₅ (E)	20	#8	35'-0"	
e ₁₆₆ (E)	2	#8	26'-7"	
e ₁₆₇ (E)	2	#8	8'-7"	
e ₁₆₈ (E)	4	#8	27'-7"	
e ₁₆₉ (E)	4	#8	25'-10"	
Reinforcement Bars, Epoxy Coated		Pound	24,820	
Bar Splicer		Ea.	223	
Concrete Removal		Cu. Yd.	115.8	
Concrete Superstructure		Cu. Yd.	109.4	
Hot Mix Asphalt Surface Removal (Deck)		Sq. Yd.	743	
Bridge Deck Hydro-Scarification - 2"		Sq. Yd.	743	
Bridge Deck Microsilica Concrete Overlay - 4"		Sq. Yd.	815	
Drainage Scuppers - DS12		Ea.	7	
Protective Coat		Sq. Yd.	1,179	
Bridge Deck Grooving		Sq. Yd.	815	
Curb Removal (Special)		Foot	4.0	
Protective Shield		Sq. Yd.	464	

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS A43 - A45

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007



Note A:
63 - d(E) and d₁(E) @ 11" cts. I.F., and
63 - d₂(E) and d₆(E) @ 11" cts. O.F. - North Parapet
110 - d(E) and d₁(E) @ 11" cts. I.F., and
110 - d₂(E) and d₇(E) @ 11" cts. O.F. - South Parapet

Note B:
98 - d(E) and d₁(E) @ 11" cts. I.F., and
98 - d₂(E) and d₆(E) @ 11" cts. O.F.

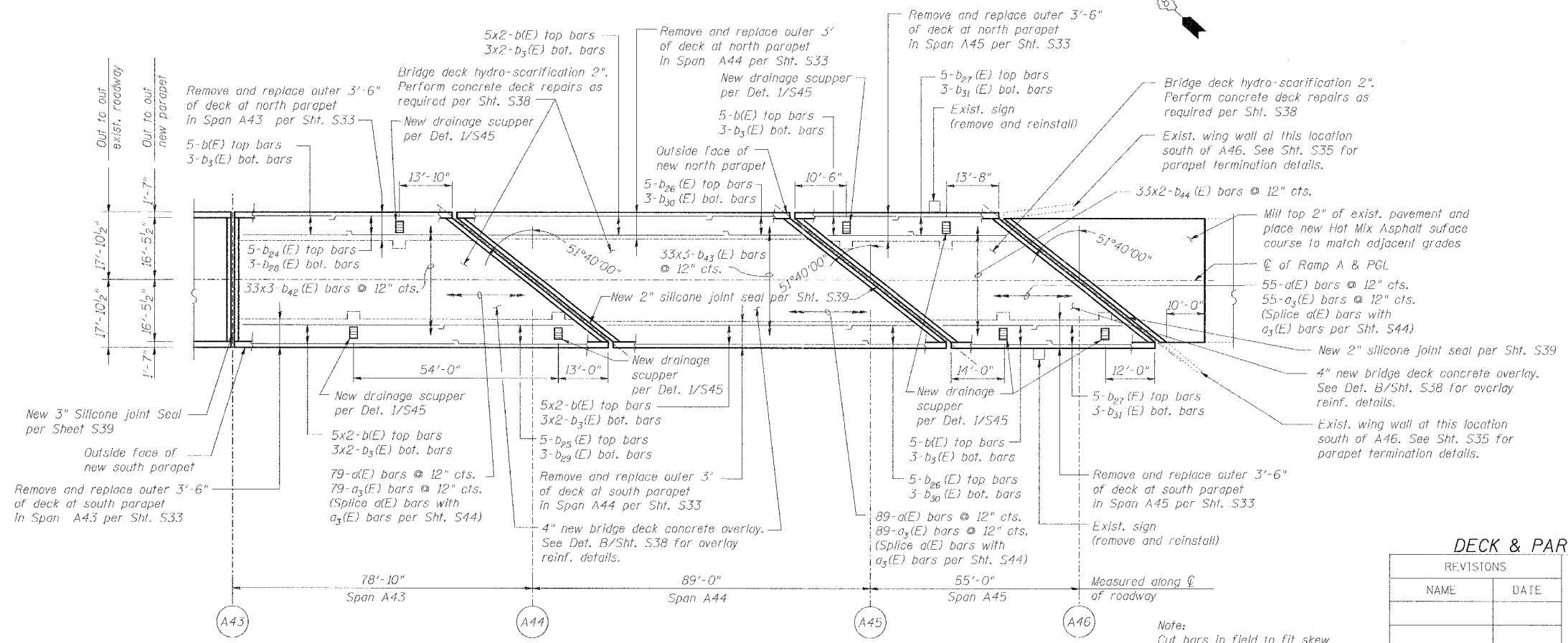
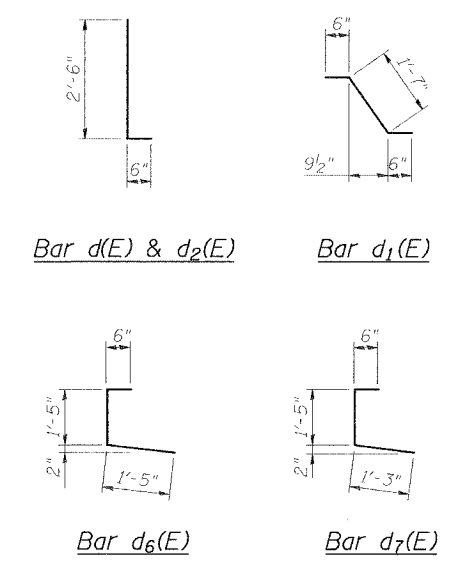
Note C:
61 - d(E) and d₁(E) @ 11" cts. I.F., and
61 - d₂(E) and d₆(E) @ 11" cts. O.F.

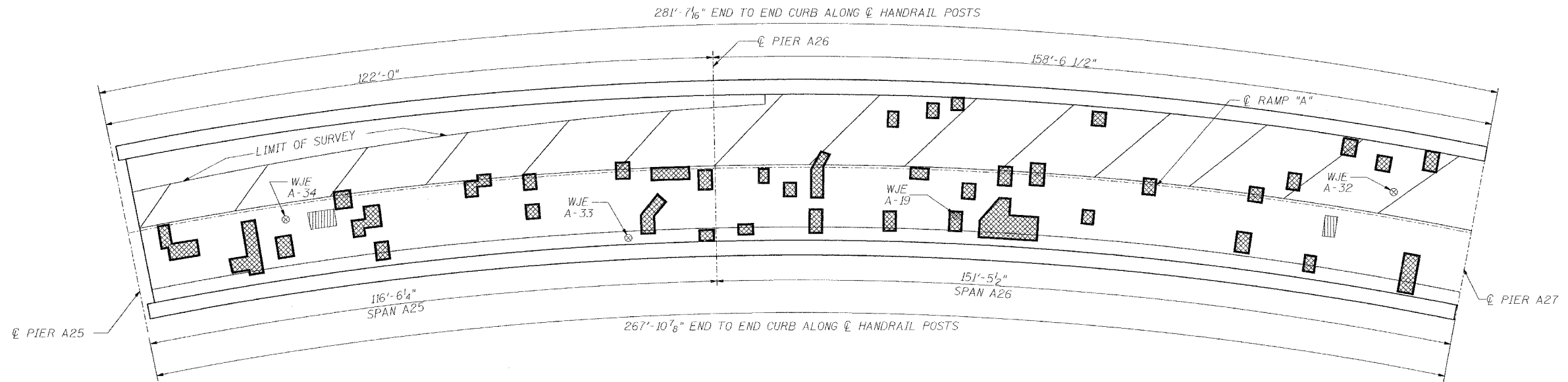
INSIDE ELEVATION OF NORTH PARAPET

South parapet similar except as noted
All dimensions measured along bottom of inside face of parapet
E.F. indicates each face
I.F. indicates inside face
O.F. indicates outside face

Min Bar Laps

#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"





PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY	UNIT	TOPSIDE		LEGEND	
		QUANT.	%		
TOTAL AREA	ft ²	7588		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	97	1.3	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	0	0	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	30	0.4		

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
A25	360	500
A26	460	640

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

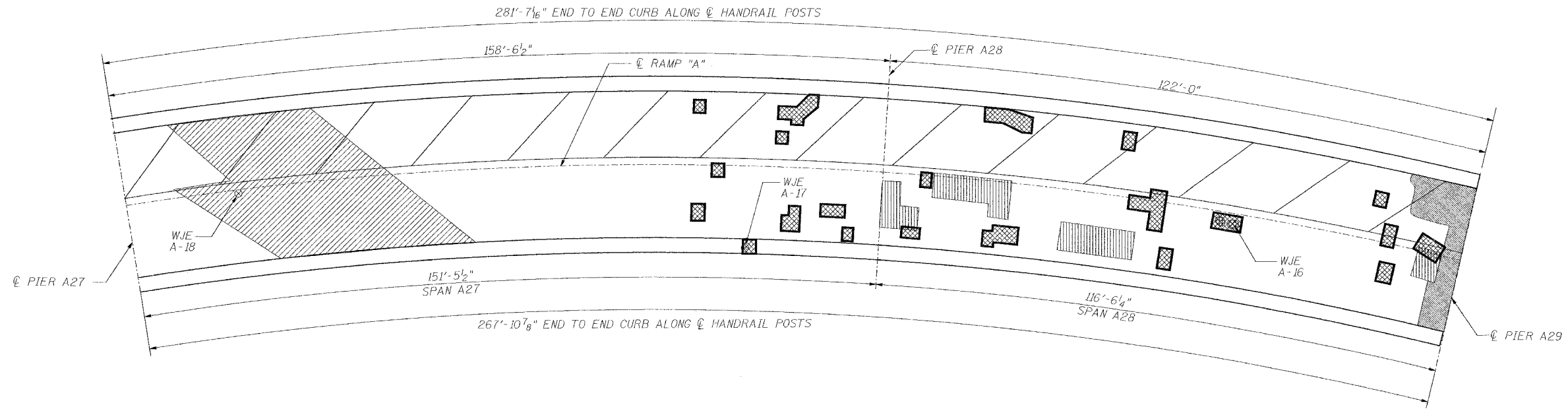
INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS

	REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
	NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG		STRUCTURE NO. 082-0141 (ROADWAY A)
ANALYSIS: TC	CHECKED: DU		SCALE: N.T.S.
			DATE: 02/01/2007

DATE: 12/4/2007 FILENAME: P:\2001\1201-1800\20011240\Drafting\RoadwayRehab\AT\ Ramps\Earth Tech\A_ET2526.dgn

DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	8232		DELAMINATION	
SHADE/DEBRIS	ft ²	1095		SPALL	
DELAMINATION	ft ²	61	0.9	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	207	2.9	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	5	<0.1	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	268	3.8		

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
A27	260	360
A28	200	290

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

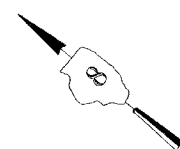
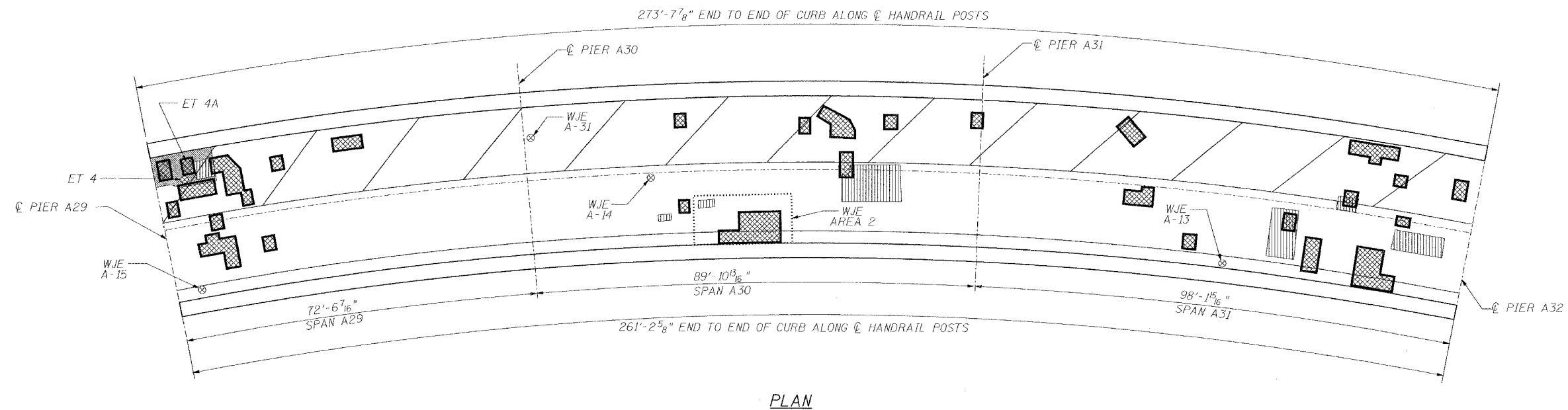
INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS

		REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
		NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG			
ANALYSIS: IC	CHECKED: DU			

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_A1\Reampa\Earth_Tech\A_ET2728.dgn

DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	8026		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	99	1.2	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	83	1.0	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	218	2.7		

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
A29	210	300
A30	250	350
A31	280	390

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS



INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD DS/EG
CHECKED: DU

REVISIONS	
NAME	DATE

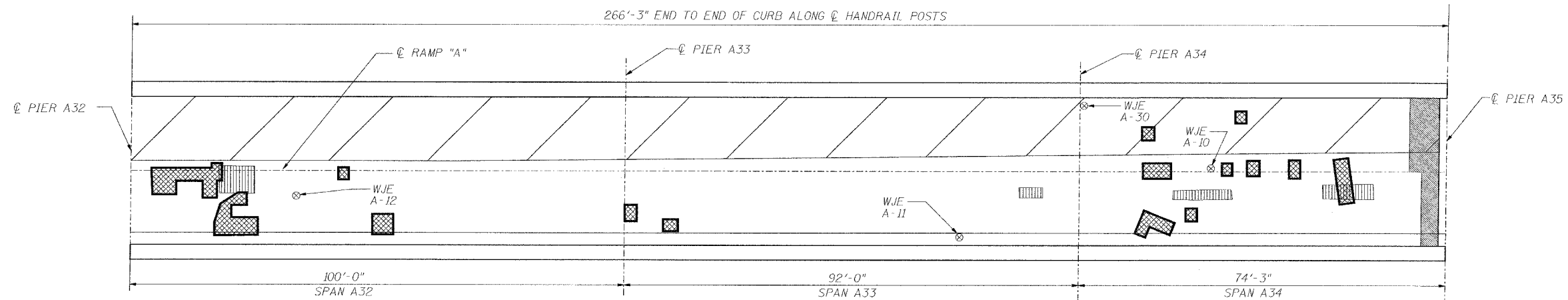
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.I.S.
DATE: 02/01/2007

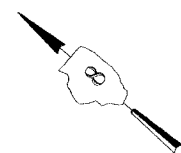
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DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-78		
* 82-3HVB-3R-5			SHEET S-28 OF S-56	
CONTRACT NO. 76985				



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	7943		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	51	0.6	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	143	1.8	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	104	1.3		

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
A32	150	210
A33	140	200
A34	110	150

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS



INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD
DS/EG
CHECKED: DU

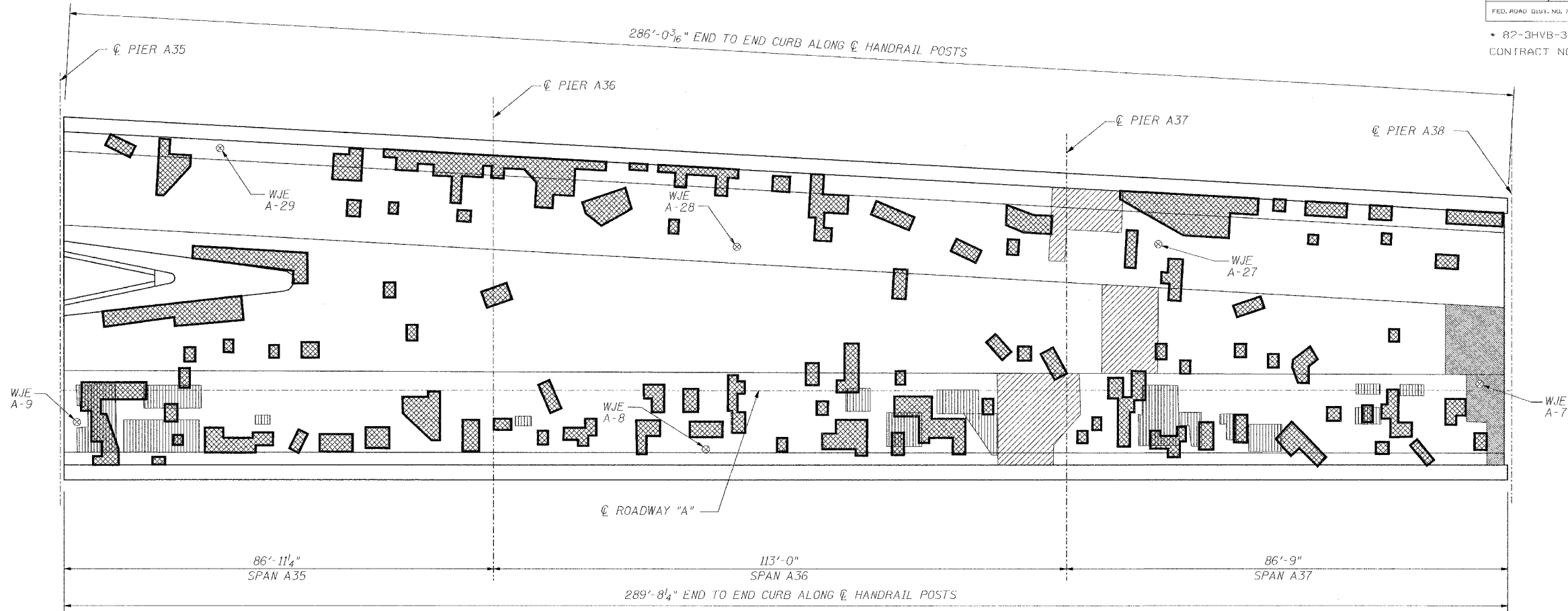
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

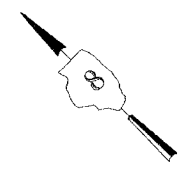
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DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	50
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IM-70		
82-3HVB-3R-5			SHEET S-29 OF S-56	
CONTRACT NO. 76985				



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	16981		DELAMINATION	
SHADE/DEBRIS	ft ²	588		SPALL	
DELAMINATION	ft ²	590	3.6	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	270	1.6	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	587	3.6		

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
A35	570	800
A36	670	940
A37	470	650

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:
 WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE".
 EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".
 AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.
 INFRARED INSPECTION DATE: 7/24/00-7/26/00
 SURFACE TYPE: CONCRETE OVERLAY

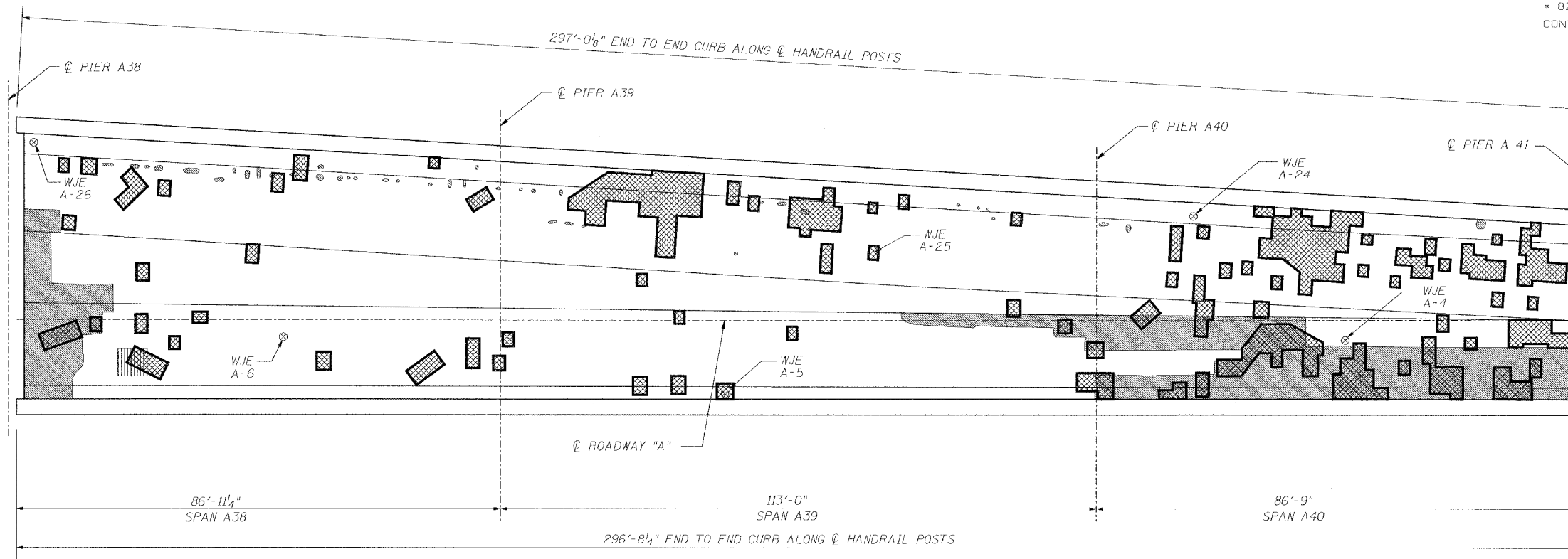
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DESIGNED	---/WJC
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

	REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE TO POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
	NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG		
ANALYSIS: TC	CHECKED: DU		

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-5 SHEET S-30 OF S-56
CONTRACT NO. 76985



PLAN

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)
(SPANS A38 AND A39)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
A38	550	760
A39	600	840

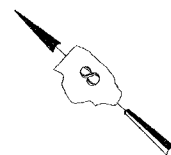
QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICRO-SILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

ANTICIPATED QUANTITY OF DELAMINATIONS (ft.²)
(SPAN A40)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED AREAS OF DEEPER REMOVAL
A40	940	1300

INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	12311		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	297	2.4	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	1537	12.5	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	28	0.2		



NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

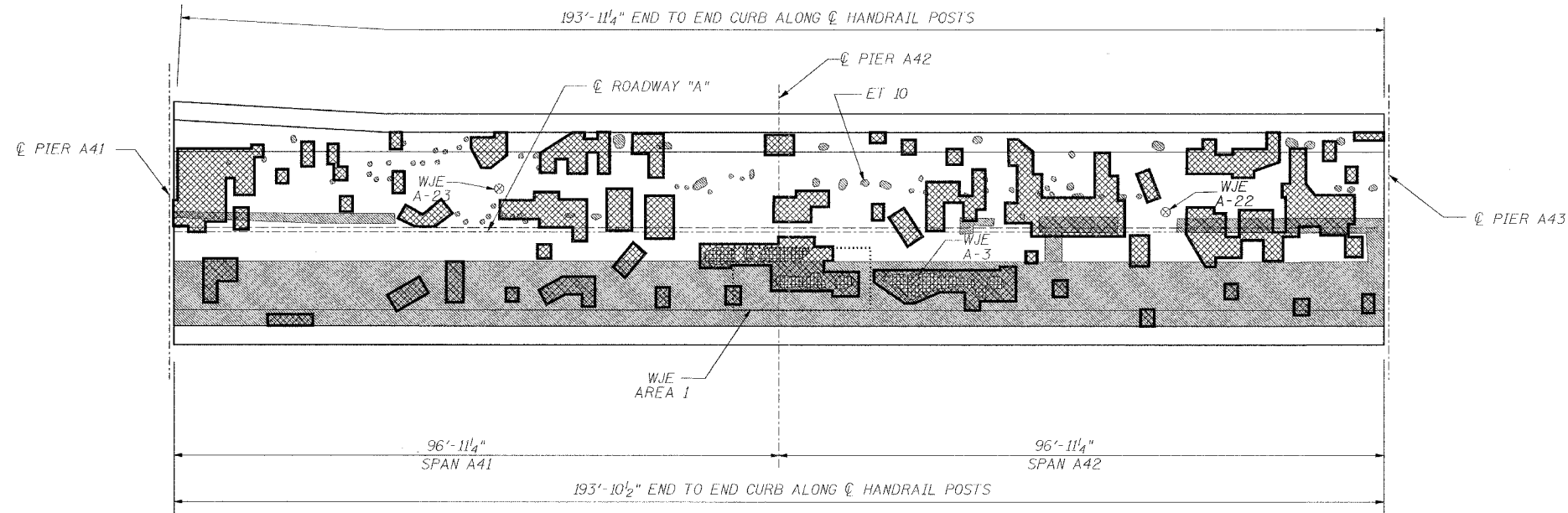
INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: CONCRETE OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS

	REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
	NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG		STRUCTURE NO. 082-0141 (ROADWAY A)
ANALYSIS: TC	CHECKED: DU		SCALE: N.T.S.
			DATE: 02/01/2007

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\Roadway\Rehab_A1\Temp\Earth_Tech\A_ET3840.dgn

DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED QUANTITY OF DELAMINATIONS (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	6044		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	305	5.0	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	2198	36.4	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	105	1.7	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	0	0		

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED AREAS OF DEEPER REMOVAL
A41	870	1210
A42	870	1210

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: CONCRETE OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS



INSPECTED: TC
ANALYSIS: TC

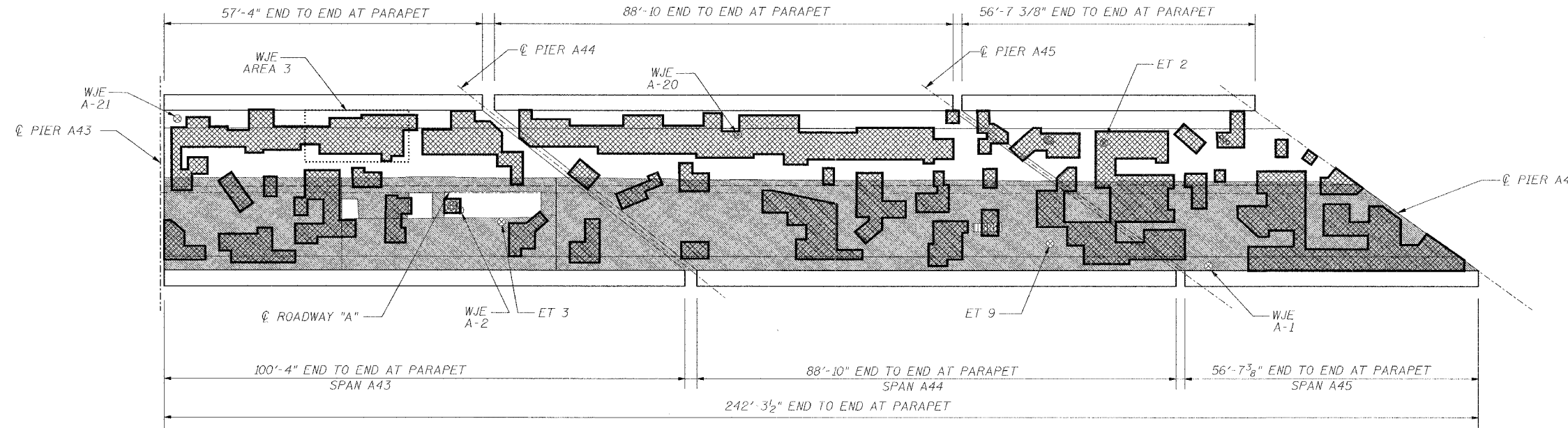
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CHECKED: DU

REVISIONS	
NAME	DATE

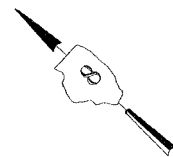
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007
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DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED QUANTITY OF DELAMINATIONS (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	7186		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	741	10.3	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	4005	55.7	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	4	<0.1	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	8	0.1		

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED AREAS OF DEEPER REMOVAL
A43	850	1170
A44	960	1340
A45	610	850

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

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WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: CONCRETE OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS

EARTH TECH

INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD DS/EG
CHECKED: DU

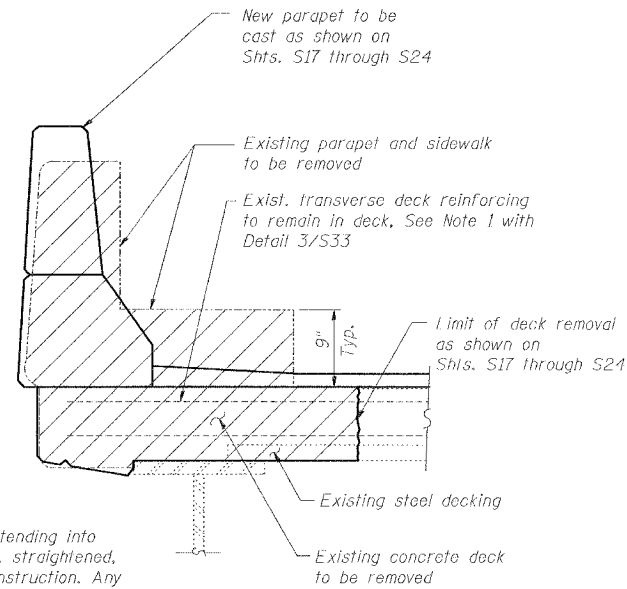
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

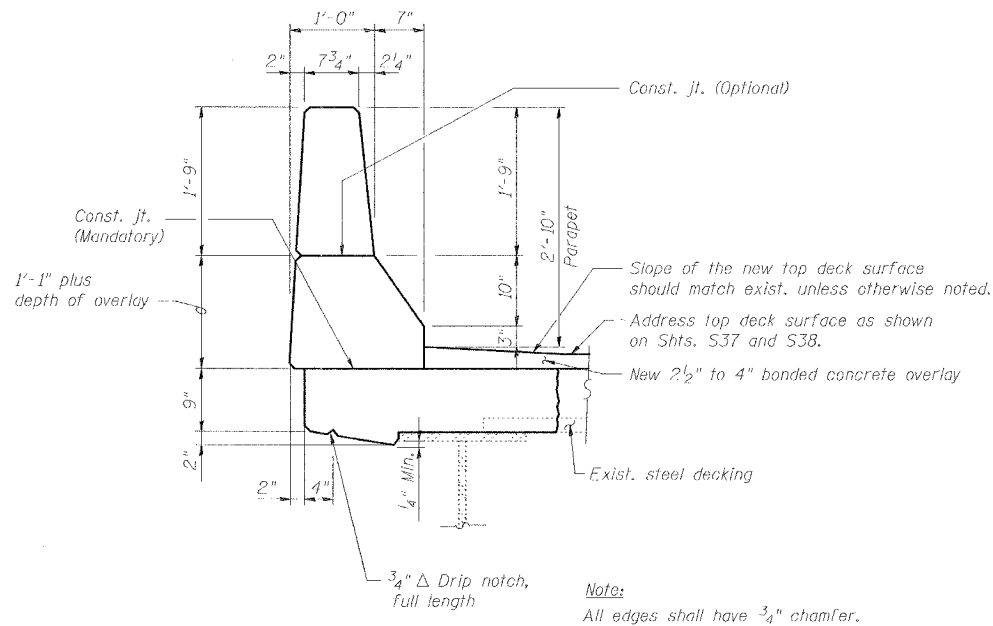
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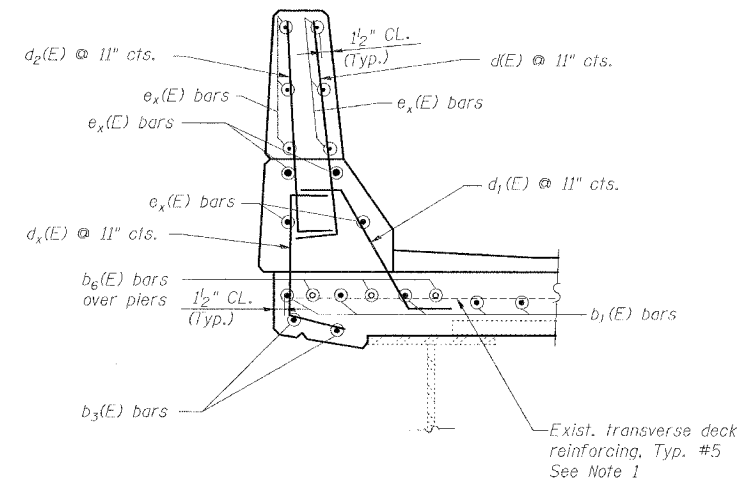


Note:
Existing deck reinforcing bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcing bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with concrete removal.

1 PARAPET DEMOLITION PLAN
S33

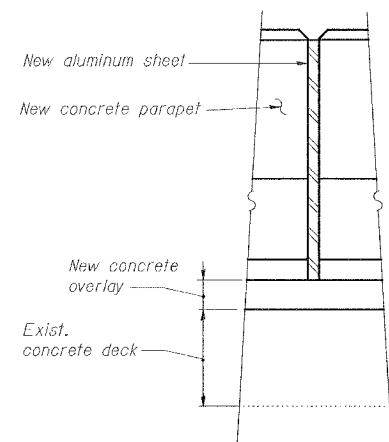


2 TYPICAL NEW PARAPET CROSS SECTION
S33

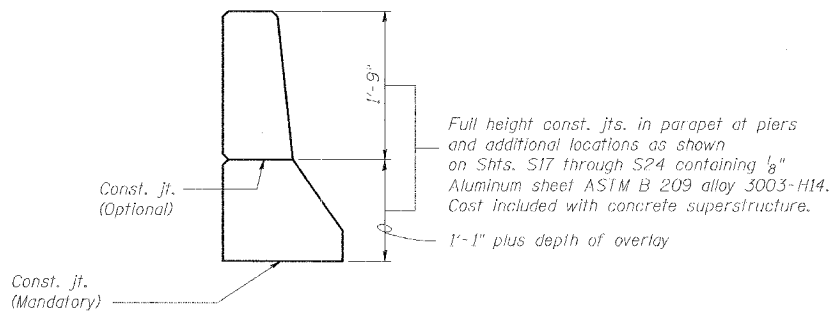


3 TYPICAL REINFORCEMENT FOR NEW PARAPET
S33

Note 1. Existing transverse reinforcement terminates at locations of existing floor drains and does not extend across the full width of the deck at those locations. It is not necessary to extend these bars via mechanical Splices.



4 PARAPET CONSTRUCTION JOINT
S33



5 PARAPET JOINT DETAILS
S33

Note:
ex(E) bars shall not pass thru aluminum sheets.

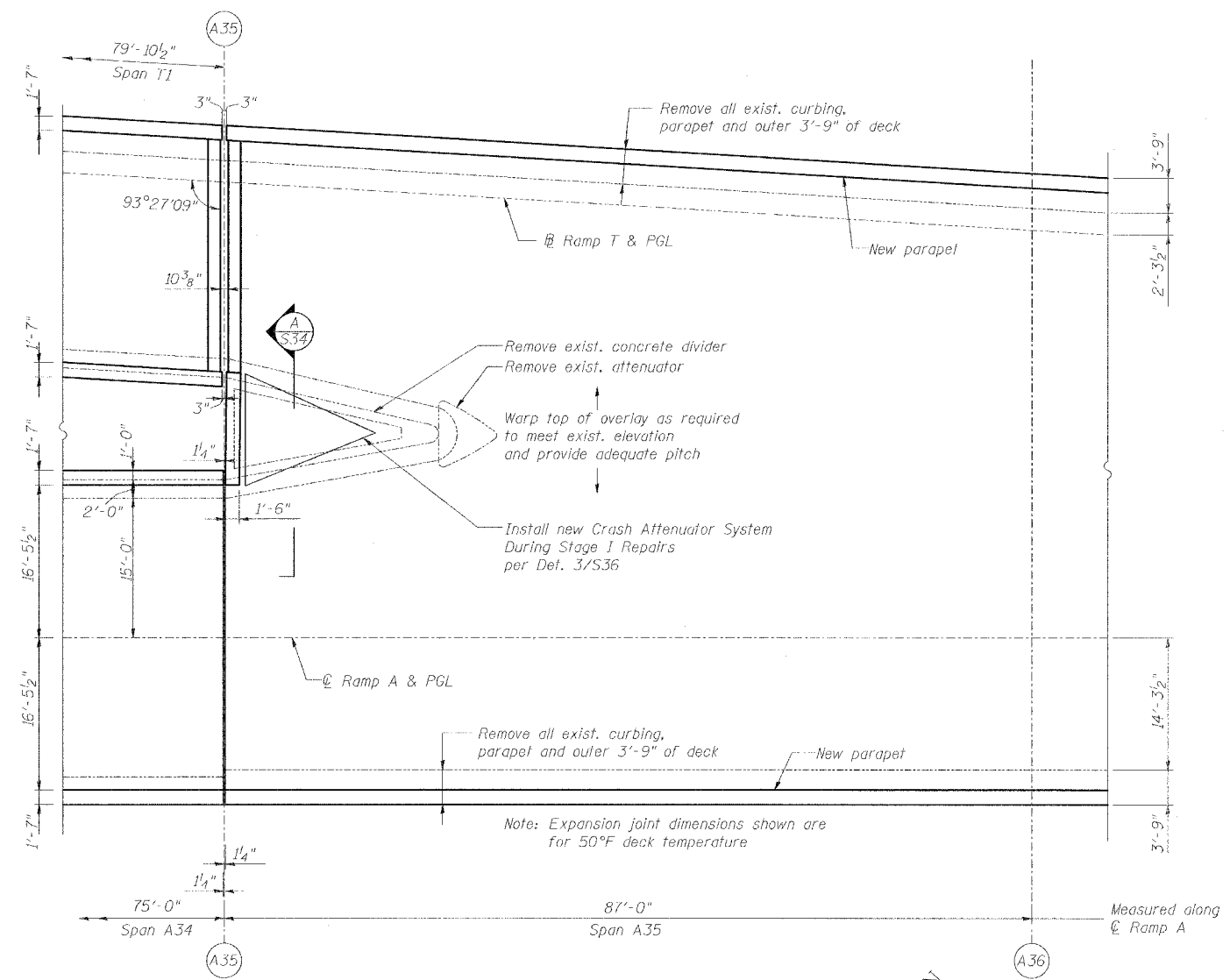
REVISIONS	
NAME	DATE

TYPICAL PARAPET DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/24/2007
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DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	55
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 14-70	SHEET S-34 OF S-56	
* 82-3HVB-3R-5		CONTRACT NO. 76985		

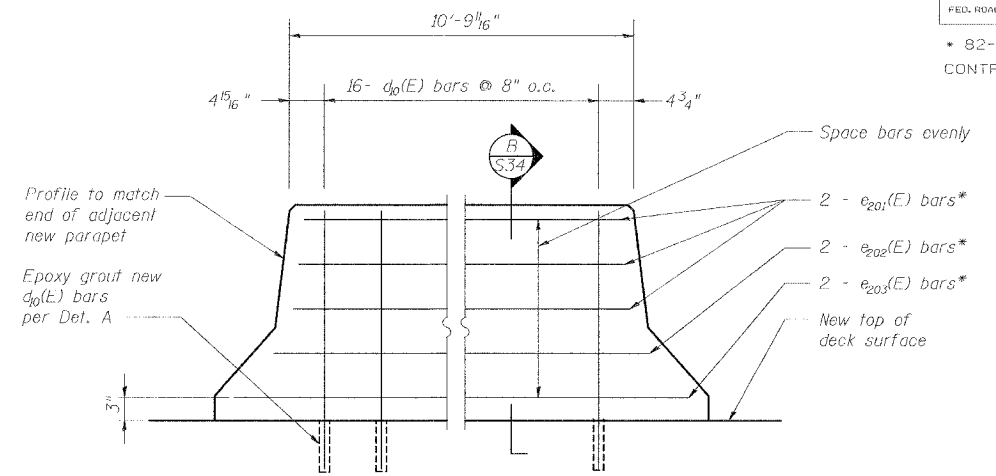


PLAN OF NEW PARAPET AT RAMP A/RAMP T SPLIT

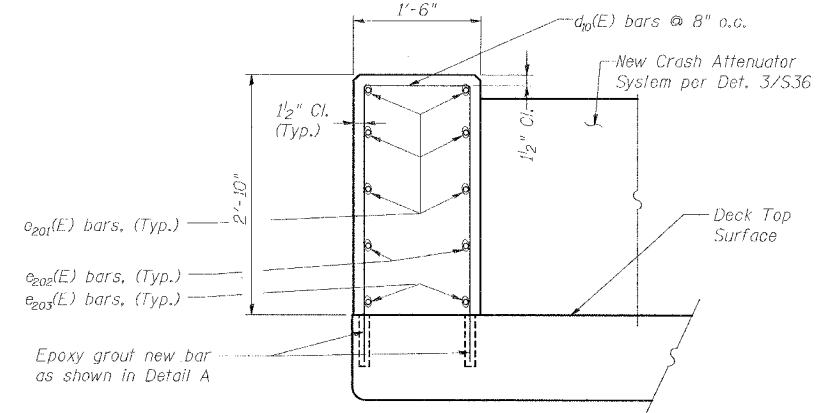
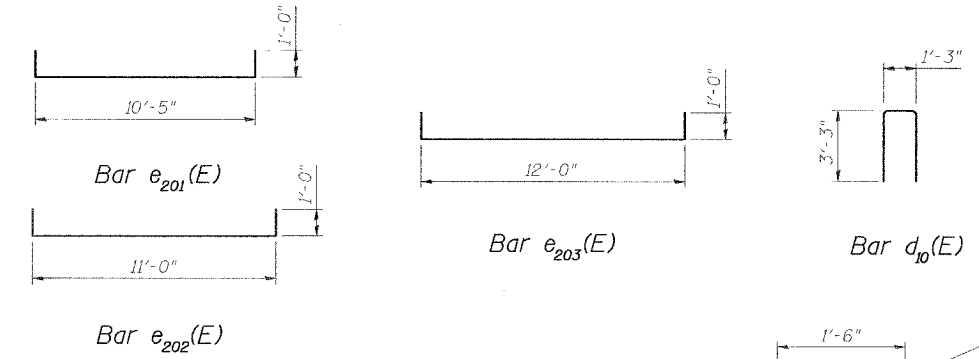
BILL OF MATERIAL

Bar List - End Wall @ A/T Split				
Bar	No.	Size	Length	Shape
e ₂₀₁ (E)	6	#5	12'-5"	U
e ₂₀₂ (E)	2	#5	13'-8"	U
e ₂₀₃ (E)	2	#5	14'-0"	U
d ₁₀ (E)	16	#5	7'-8"	U
Concrete Superstructure		Cu. Yd.	1.8	
Reinforcement Bars (Epoxy Coated)		Pound	270	
Concrete Removal		Cu. Yd.	13.1	
Protective Coat		Sq. Yd.	3.6	

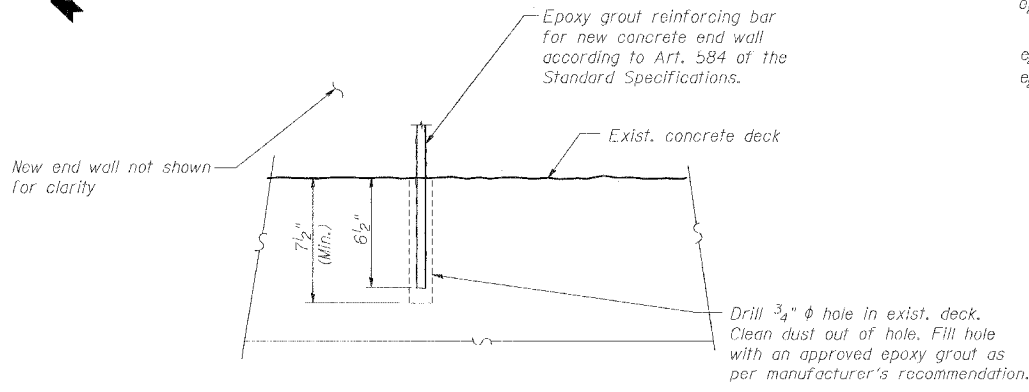
Reinforcement bars designated (E) shall be epoxy coated.



SECTION A
END WALL AT RAMP A/RAMP T SPLIT



SECTION B
END WALL AT RAMP A/RAMP T SPLIT



DETAIL A - EPOXY GROUTING OF REINFORCING BARS

Note:
The Contractor shall test 10% of the embedded No. 5 bars to meet a minimum certified pull out load of 23.25 kips. For every bar that fails to meet the pull out load of 23.25 kips, the Contractor shall test two additional bars and regrout an additional No. 5 bar +4" either side of the failed bar. The cost of testing and furnishing and installing additional bars shall be included with "Reinforcing Bars (Epoxy-Coated)".

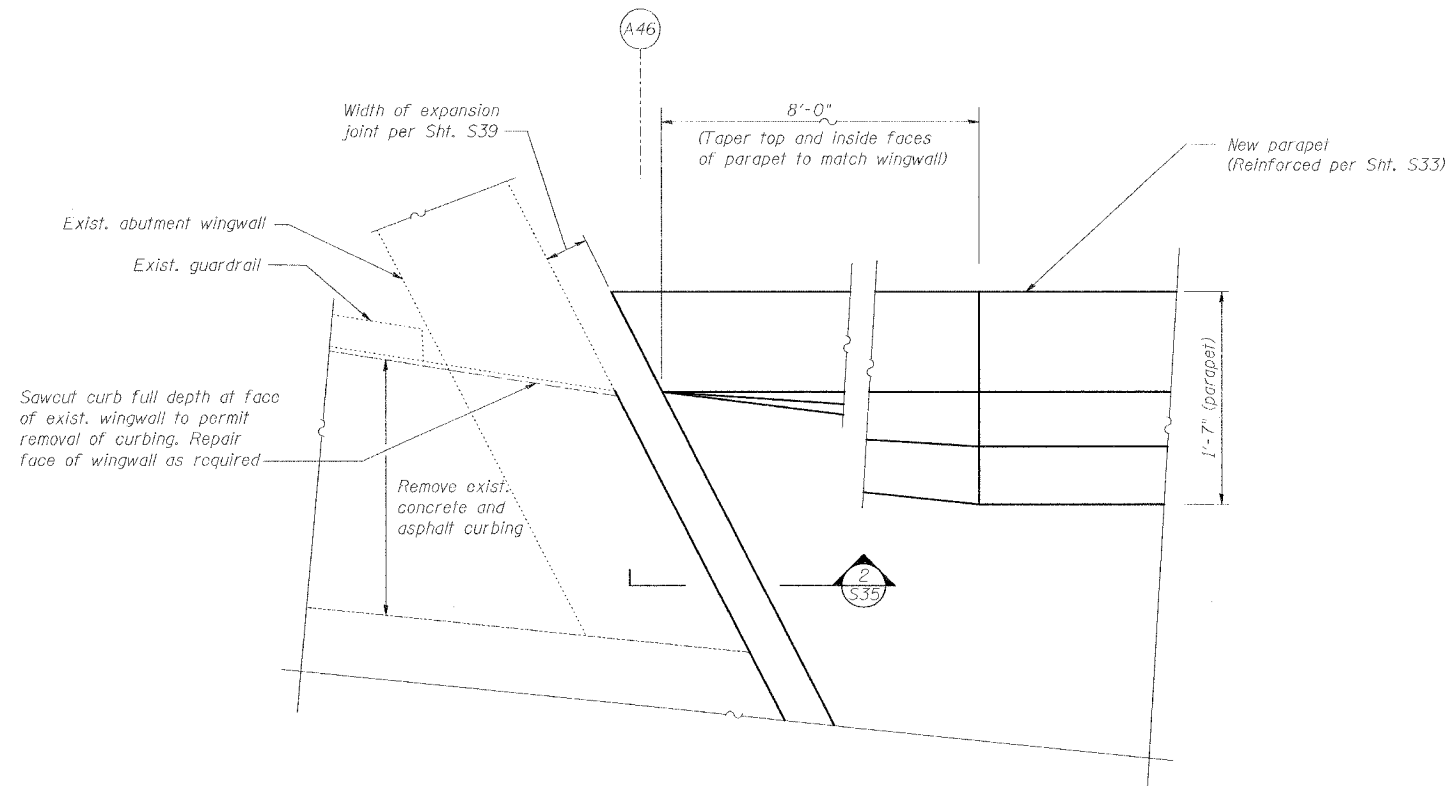
SPECIAL PARAPET DETAILS

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

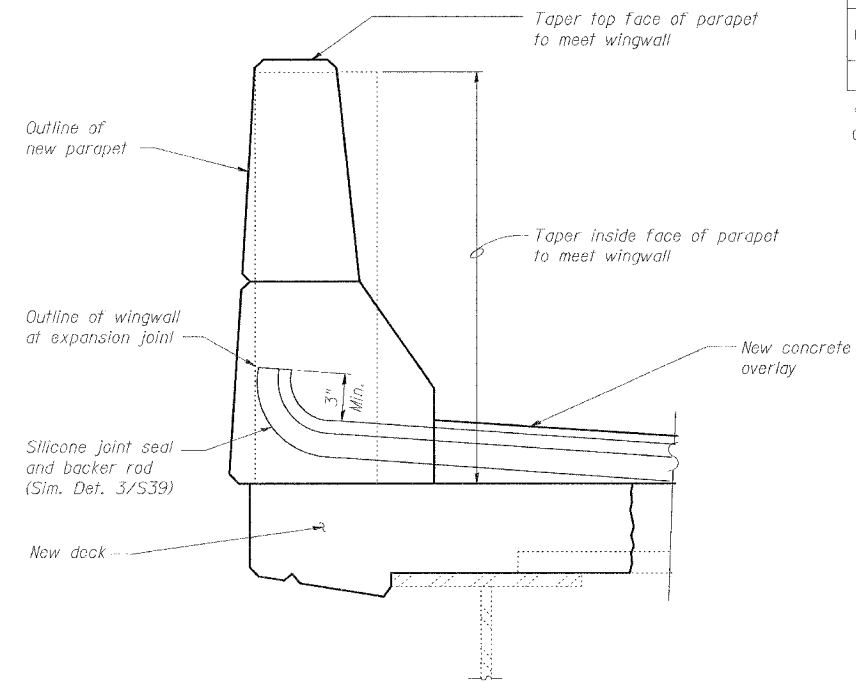
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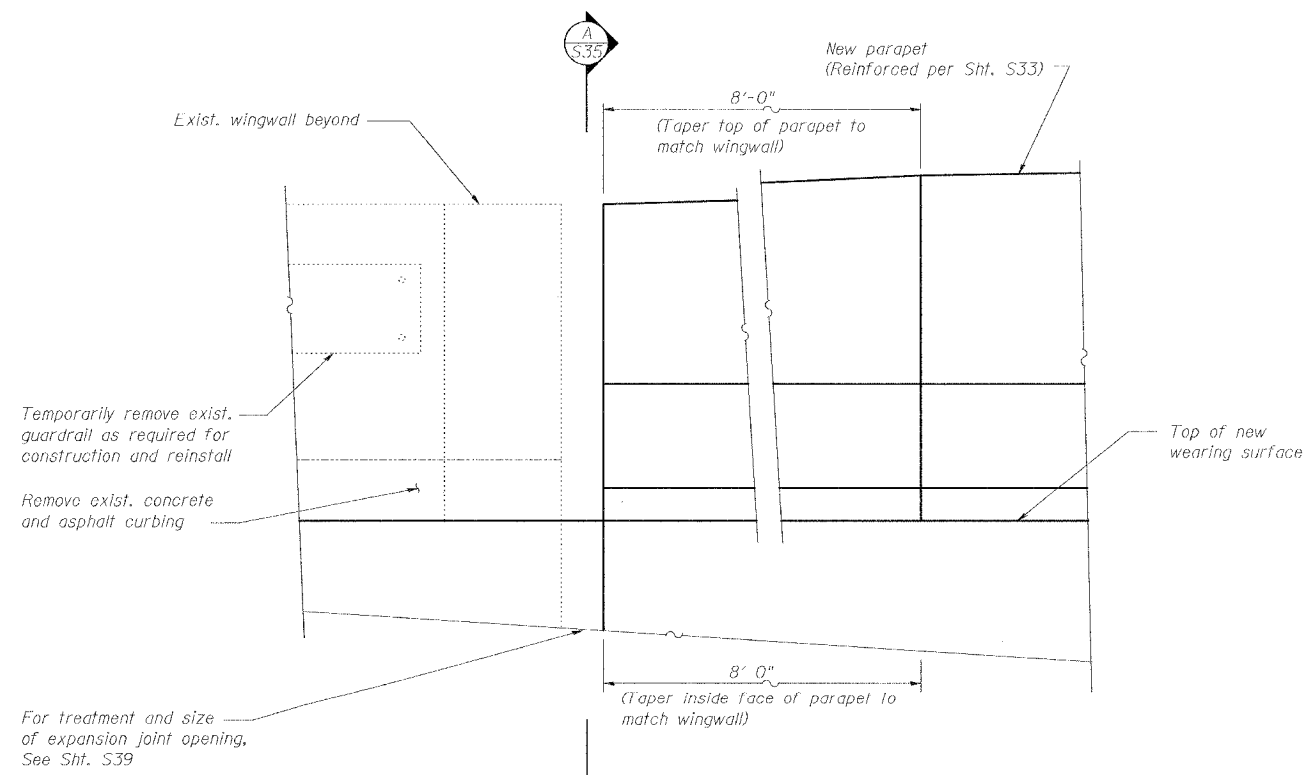
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78		
* 82-3HVB-3R-5			SHEET S-35 OF S-56	
CONTRACT NO. 76985				



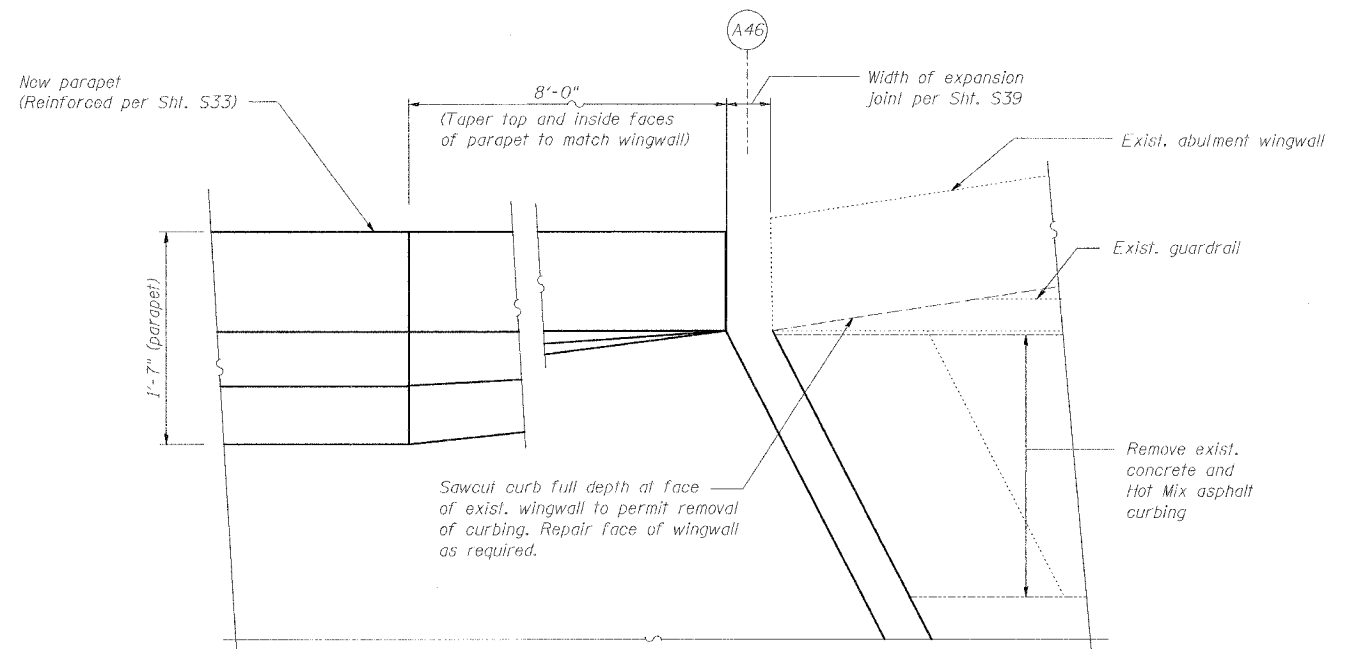
1 PLAN-SOUTH PARAPET END TREATMENT @ A46
S35



A SECTION A - PARAPET END TREATMENT @ A46
S35



2 ELEVATION-SOUTH PARAPET END TREATMENT @ A46
S35 (North Parapet similar, Opp. hand)



3 PLAN-NORTH PARAPET END TREATMENT @ A46
S35

SPECIAL PARAPET TERMINATION DETAILS

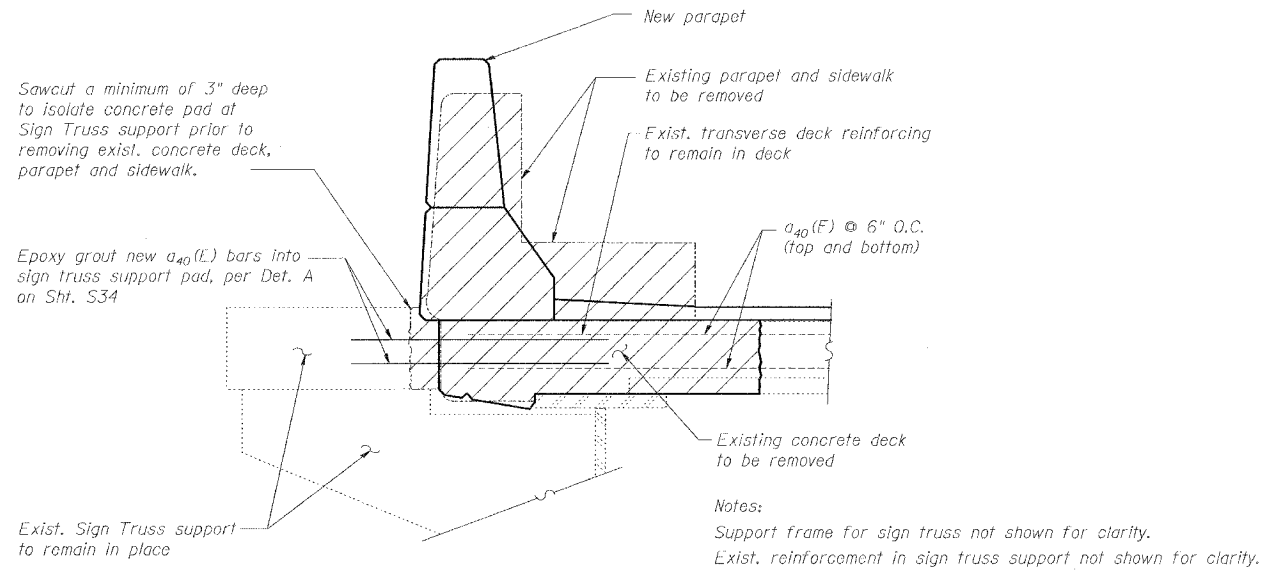
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

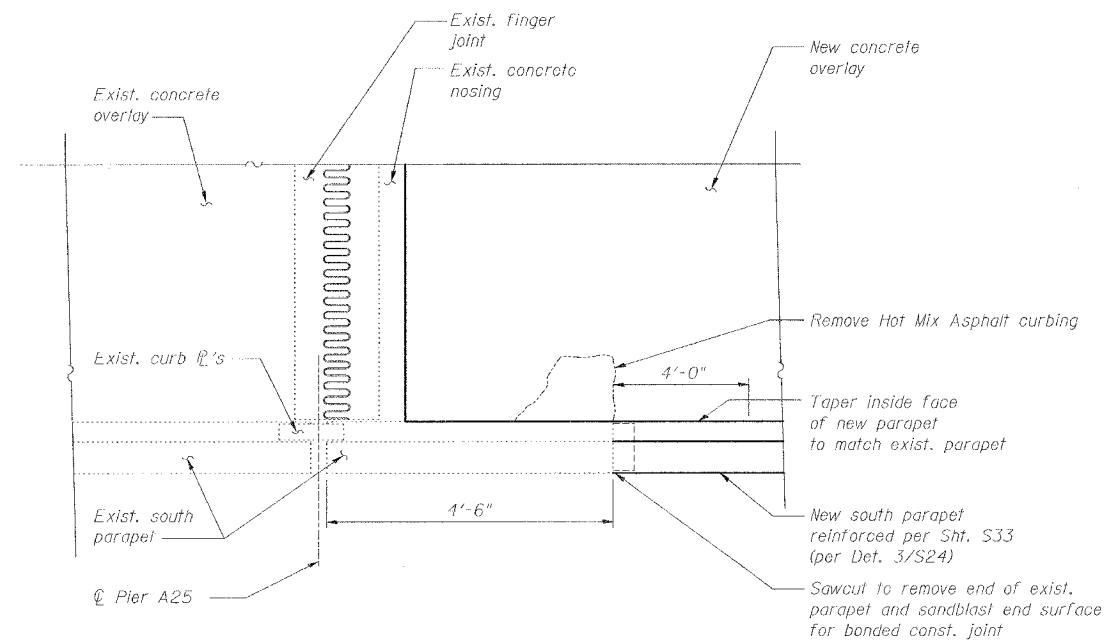
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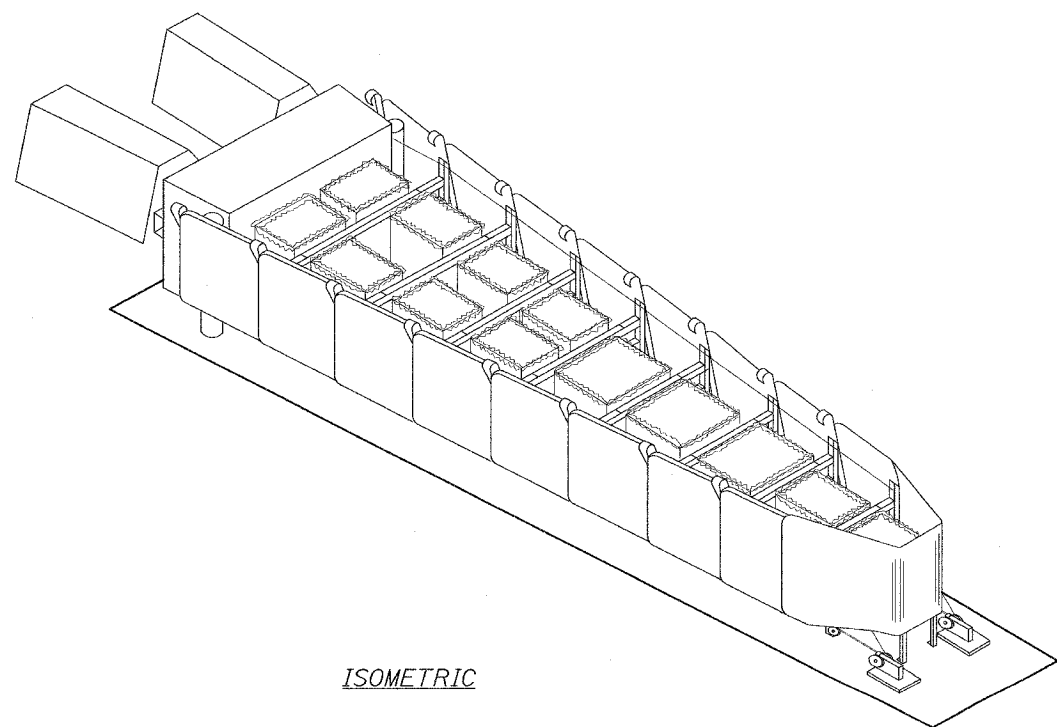
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		
* 82-3HVB-3R-5			SHEET 5-36 OF 5-56	
CONTRACT NO. 76985				



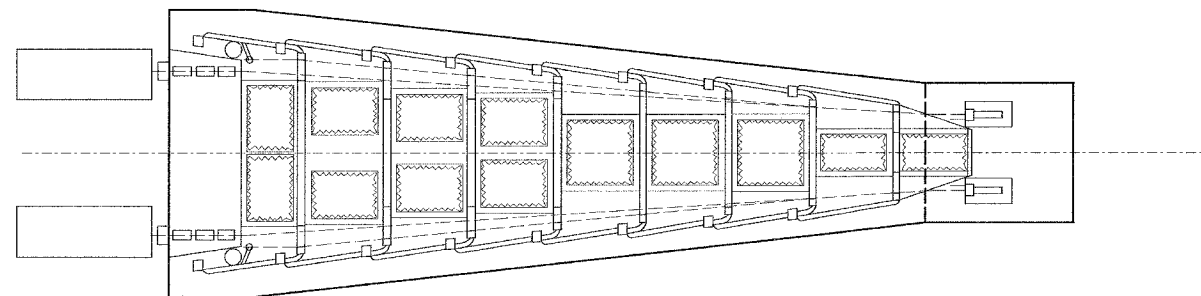
1 SECTION - DECK MODIFICATIONS AT SIGN TRUSS SUPPORT
S36



2 PLAN - TERMINATION OF SOUTH PARAPET AT A25
S36 (North Parapet similar, Opp. hand)



ISOMETRIC



PLAN

- Notes:
- This work shall consist of furnishing and installing a crash attenuator system at the Ramp A/Ramp T split, and shall be in accordance with the special provision for Impact Attenuators, the Standard Specifications, and these details. This work shall be paid for at the contract unit price per each for Impact Attenuators, and Impact Attenuator Removal, which shall include all labor, equipment, and materials necessary to complete the work as specified and as shown in these plans.
 - Crash attenuator system shall be a hex foam sandwich system (shown) or approved equal. Selected system shall be designed to withstand multiple impacts without requiring replacement of energy absorbing components and shall perform as a redirective, non-gating crash cushion as defined by NCHRP 350. Design, selection and placement of crash cushions shall conform to current IDOT requirements and AASHTO "Roadside Design Guide."

3 CRASH ATTENUATOR SYSTEM DETAILS
S36 (Hex Foam Sandwich System shown)

SPECIAL PARAPET DETAILS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

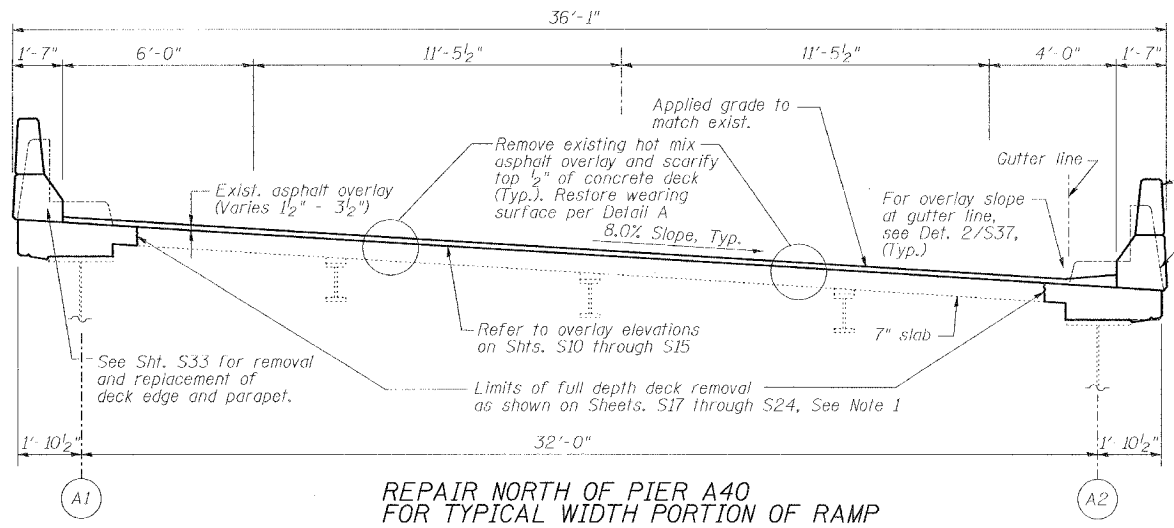
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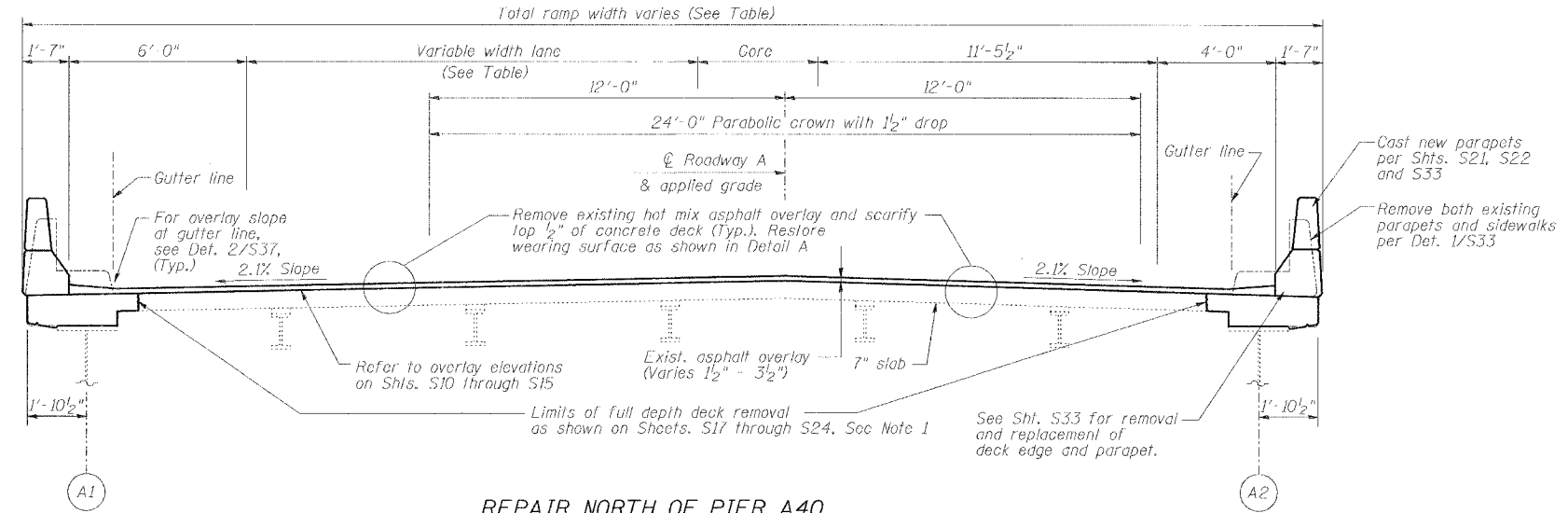
VARIABLE RAMP WIDTHS - NORTH OF PIER A40

Pier	Lane Width	Core	Total Ramp Width
A35	14'-11"	33'-9 ³ / ₈ "	73'-3 ⁷ / ₈ "
A40	13'-9"	5'-3 ⁷ / ₈ "	43'-8 ³ / ₈ "

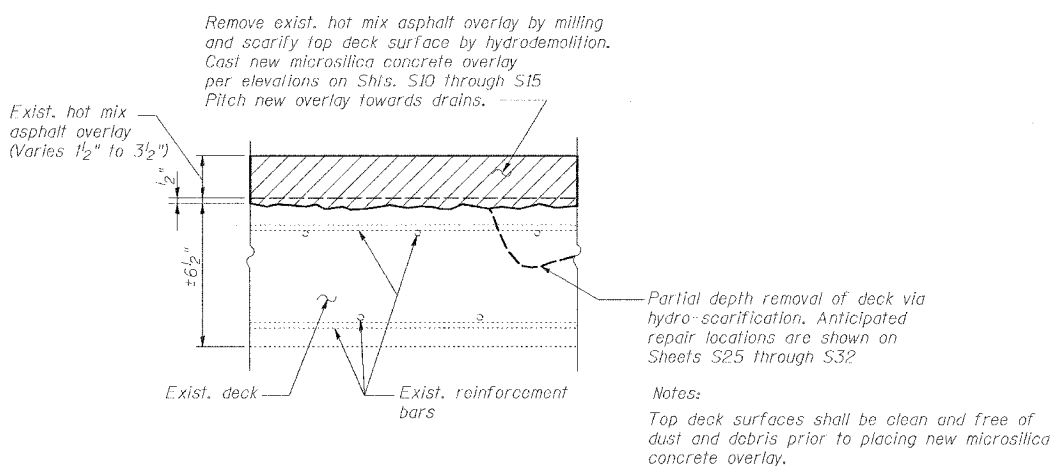
Variable lane and total ramp widths vary between those shown.



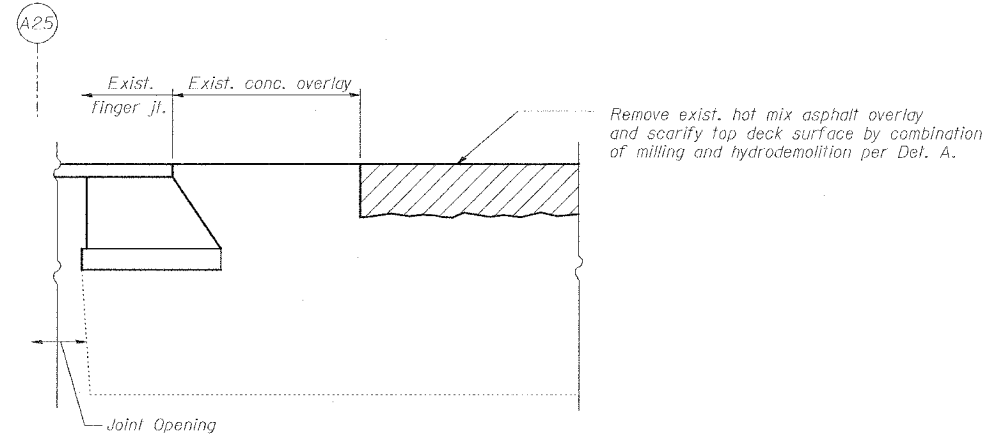
REPAIR NORTH OF PIER A40 FOR TYPICAL WIDTH PORTION OF RAMP
(Looking toward higher numbered pier)



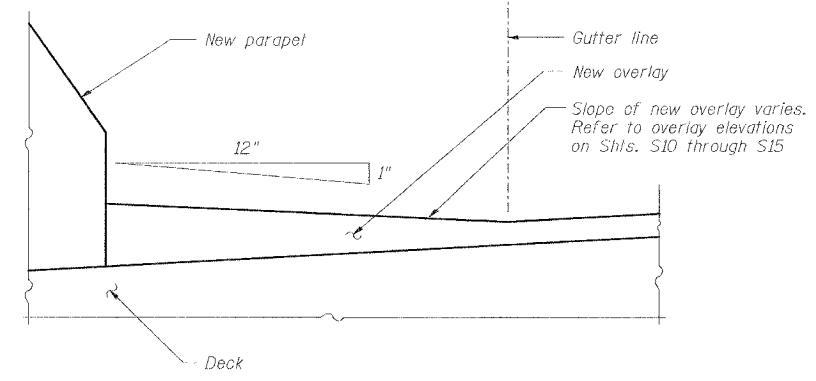
REPAIR NORTH OF PIER A40 IN VARIABLE WIDTH PORTION OF RAMP
(Looking toward higher numbered pier)



DETAIL A - SCHEMATIC DIAGRAM OF REPAIR NORTH OF PIER A40



1 S37 TERMINATION OF DECK REHABILITATION @ A25



2 S37 OVERLAY SLOPE AT GUTTER LINE

Note 1: Additional full depth removal (due to deterioration) may be required at locations of existing floor drains, as directed by Engineer. Anticipated removal and replacement quantities included in pay items for "Concrete Removal" and "Concrete Superstructure".

DECK REHABILITATION DETAILS - NORTH OF PIER A40

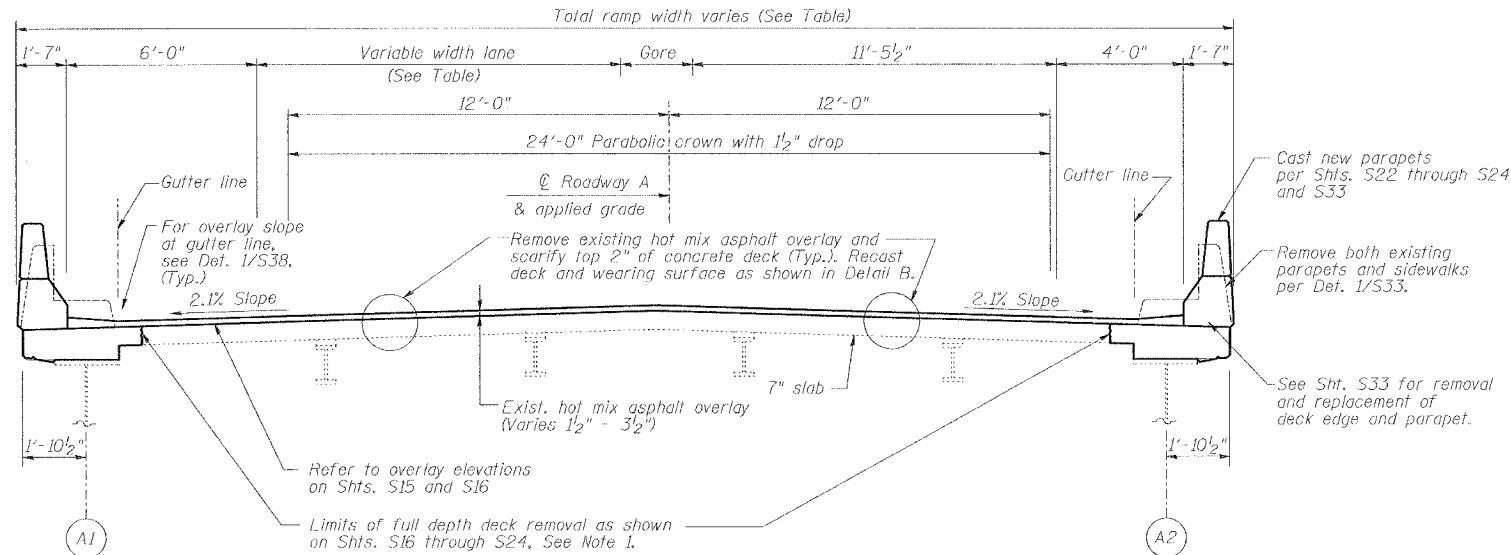
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082 0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/24/2007
FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\ RampA\conc\A-CONC01.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



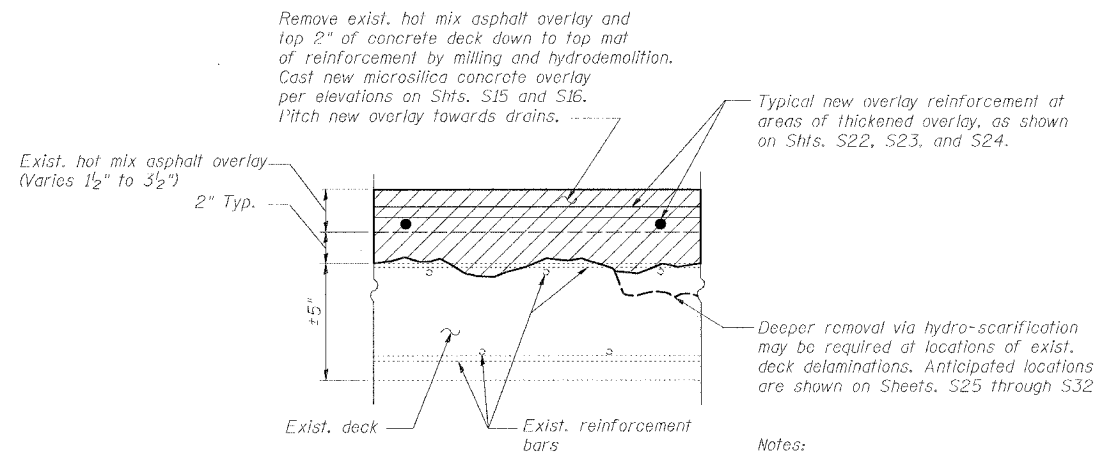
Pier	Lane Width	Gore	Total Ramp Width
A40	13'-9"	5'-3 7/8"	43'-8 3/8"
A46	11'-5 1/2"	0'-0"	36'-1"

Variable lane and total ramp widths vary between those shown.

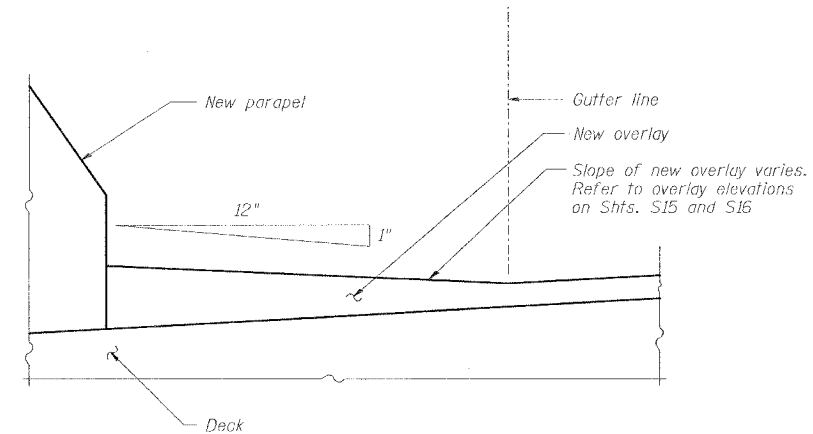
REPAIR SOUTH OF PIER A40 FOR SOUTH PORTION OF RAMP

(Looking toward higher numbered pier)

Note 1: Additional full depth removal (due to deterioration) may be required at locations of existing floor drains, as directed by Engineer. Anticipated removal and replacement quantities included in pay items for "Concrete Removal" and "Concrete Superstructure".



DETAIL B - SCHEMATIC DIAGRAM OF REPAIR OF SOUTH PIER A40



1 OVERLAY SLOPE AT GUTTER LINE

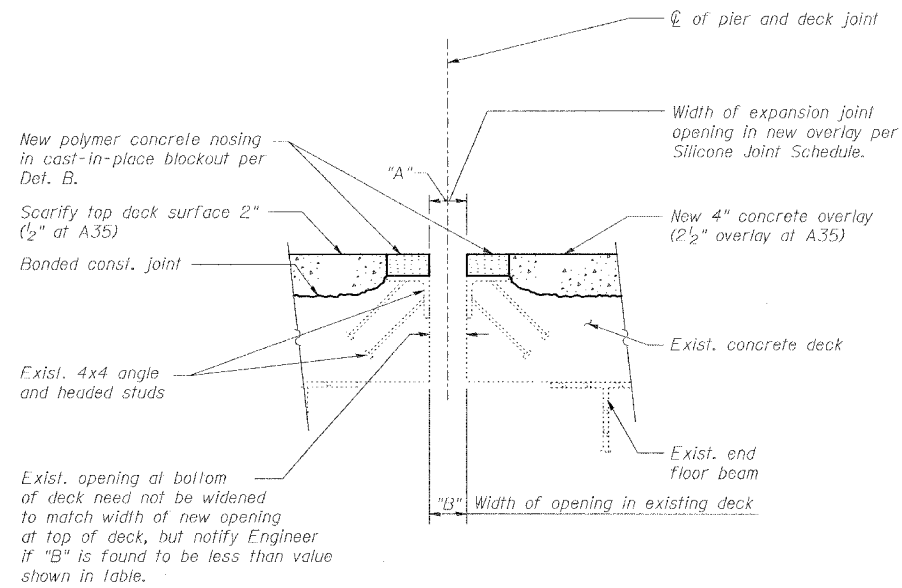
DECK REHABILITATION DETAILS - SOUTH OF PIER A40

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

DATE: 12/4/2007 FILENAME: P:\2001\1201-1800\2001.1240\Drafting RoadwayRehab_AT\ RampA\conc\A-CONC02.dgn

DESIGNED	JPD
CHECKED	CSU
DRAWN	CLK
CHECKED	JPD



1 DECK REPAIR @ TYPICAL EXPANSION JOINTS
(Includes A35, A41, A43, A44 and A45 on Ramp A)

Notes: Remove entire exist. expansion joint seal system, including anchor bolts. Existing angle, headed studs, and surrounding concrete to remain.

BILL OF MATERIAL

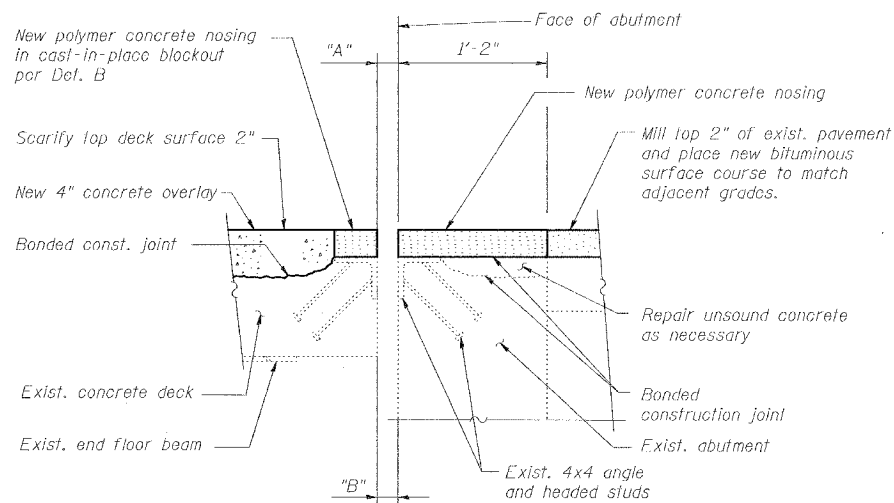
Item	Unit	Quantity
Silicone Joint Sealer - 2"	Fl.	171
Silicone Joint Sealer - 2 1/2"	Fl.	75
Silicone Joint Sealer - 3"	Fl.	38
Polymer Concrete	Cu. Ft.	32

SILICONE JOINT SCHEDULE - RAMP A

Location	Type of Joint Seal	Joint Opening in new overlay - "A" (Inches)					Existing deck opening @ 50° F "B" (Inches)
		@ -30°F	@ 10°F	@ 50°F	@ 90°F	@ 130°F	
A35**	2 1/2" Silicone	3 1/2"	3"	2 1/2"	2"	1 1/2"	1 1/2"
A41**	2 1/2" Silicone	3 3/4"	3 1/8"	2 1/2"	1 7/8"	1 1/4"	1 1/2"
A43**	3" Silicone	4 5/8"	3 15/16"	3"	2 3/16"	1 3/8"	1 1/2"
A44*	2" Silicone	---	---	2"	---	---	1 1/2"
A45*	2" Silicone	---	---	2"	---	---	1"
A46**	2" Silicone	2 5/8"	2 5/16"	2"	1 1/16"	1 3/8"	1 1/2"

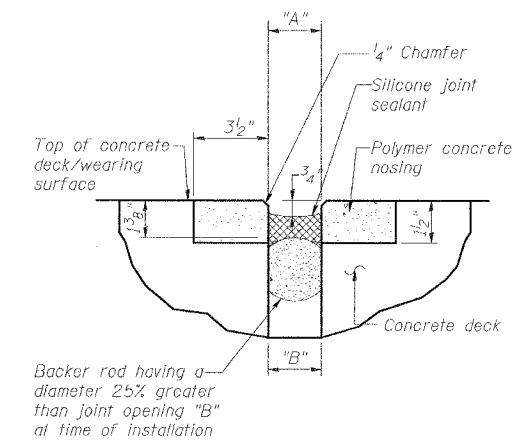
Note: For deck temperatures between those shown, width of joint opening can be interpolated.

- * - Joint at isolation bearing (no significant movement anticipated)
- ** - Notify Engineer if joint opening in existing deck is less than value "B"

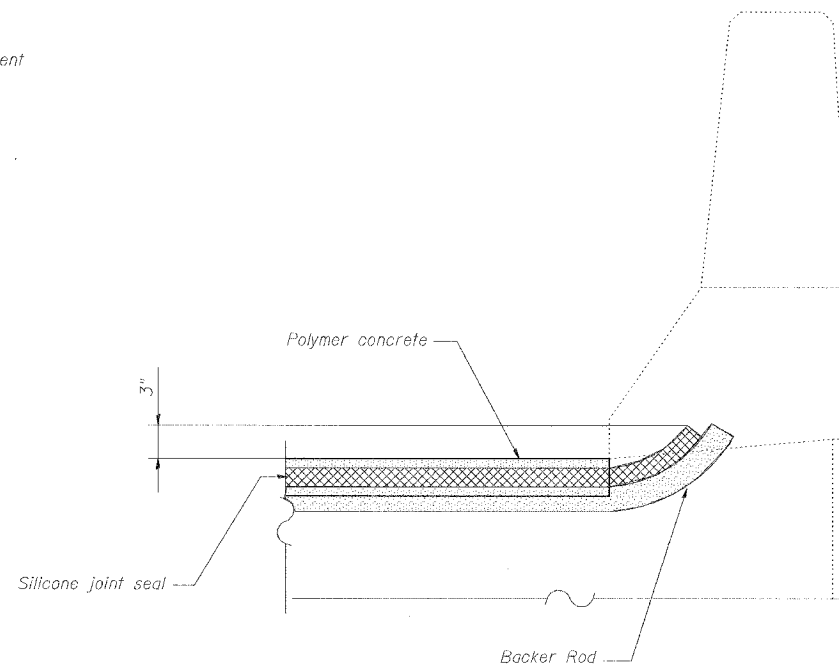


2 DECK REPAIR @ A46 ABUTMENT EXPANSION JOINT

Notes: Remove entire exist. expansion joint seal system, including anchor bolts. Existing angle, headed studs, and surrounding concrete to remain.



DETAIL B - SILICONE JOINT SEAL
See Silicone Joint Schedule for movement requirements



3 SILICONE JOINT SEAL @ PARAPET

REVISIONS	
NAME	DATE

TYPICAL JOINT DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/24/2007
FILENAME: p:\2001\1201-1800\2001.1240\Drafting\RoadwayRehab_AT\RampA\join_A-4JOIN01.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

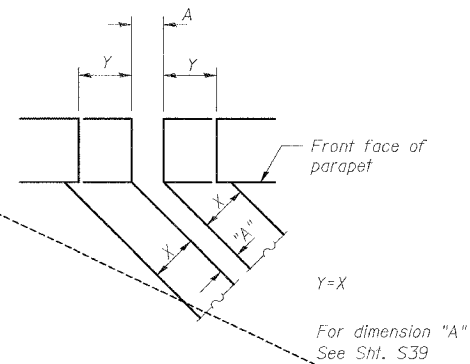
VOID

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

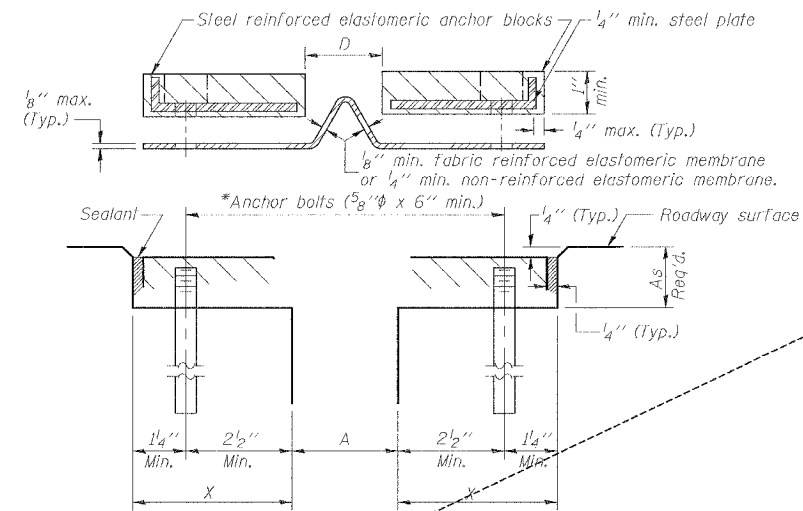
INSTALLATION NOTES

- Install continuous seal in roadway and parapet.
- Install anchor blocks as indicated.

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



FORMING BLOCKOUT SKETCH



CROSS SECTION

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

Where existing steel edge angle is present, the contractor shall stud weld new threaded stud to existing joint edge angle.

The cost of epoxy grouting or welding anchor bolts shall be included with Neoprene Expansion Joint.

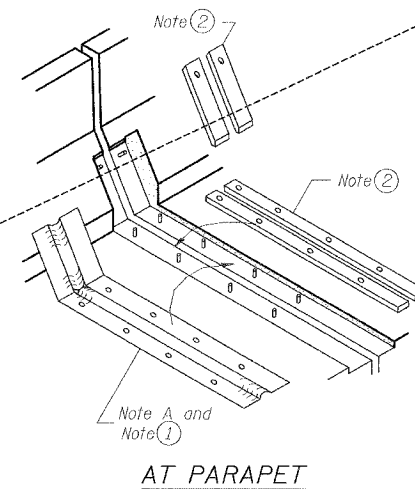
*Epoxy grout 5/8" threaded stainless steel rods in accordance with Section 584 of the Standard Specifications. Space to miss existing studs.

SKREW LIMITATIONS

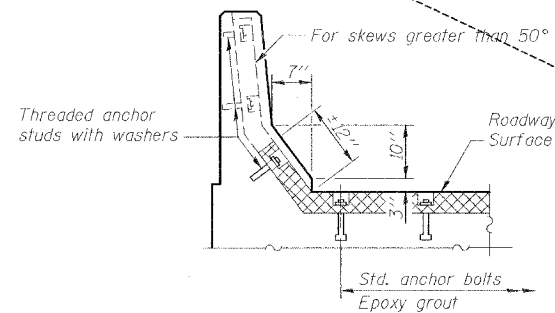
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

For skews greater than 50°, the anchor blocks and the elastomeric membrane, installed according to dimension "D", might require modifications to insure a minimum clearance of 1 1/2" from centerline of anchor studs to edge of parapet opening.

The anchor blocks and the elastomeric membrane shall also be installed to the top of the parapet with the anchor studs spaced at ±12" cts.



AT PARAPET



AT PARAPET

TYPICAL NEOPRENE JOINT DETAILS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)

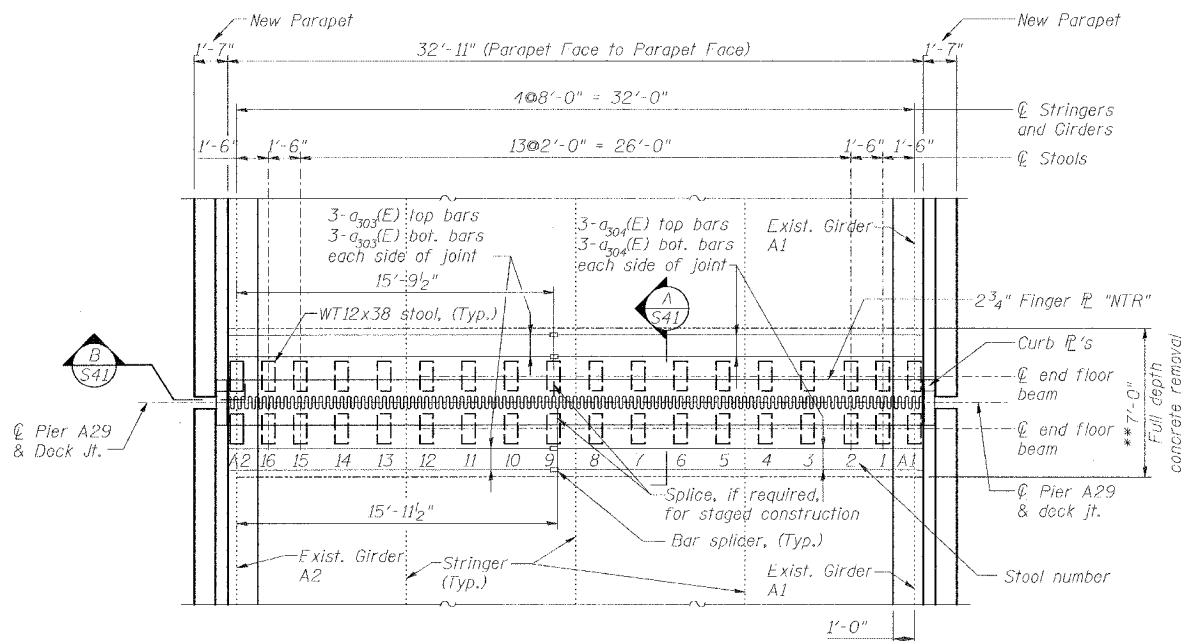
SCALE: N.T.S.

DATE: 02/01/2007

DATE: 1/24/2007 FILENAME: F:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\RampA\join_A-JOIN02.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	62
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- IM-78	
* 82-3HVB-3R-5		SHEET S-41 OF S-56		
CONTRACT NO. 76985				



PLAN
FINGER JT. @ PIER A29
 8.0% Cross Slope Towards Girder A2

** -At 50° F

Notes:

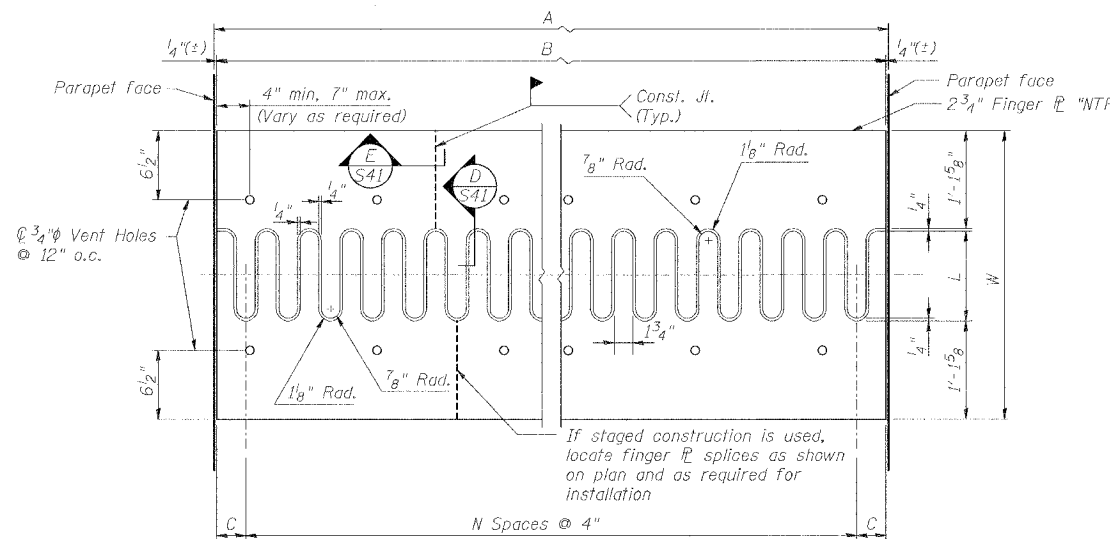
All steel for finger plate joint shall be M270 Grade 50.
 Curb plates and parapet not shown for clarity.
 Slope trough 1"/ft towards GIRDER A2
 Details of trough per Sht. S47

Adjust height of stool as required by shimming.
 Shims to be 1/8", 1/4", 1/2", or 3/4" as required.
 Standard shim pack to include 1/2", 1/4", 1/8" and (2) 1/16" shims

Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.

Min Bar Laps	d			f		
	@ 30°F	@ 50°F	@ 130°F	@ 30°F	@ 50°F	@ 130°F
#4 1'-8"	22 1/4"	17 5/8"	13"	7 3/8"	5"	2 5/8"

A (Roadway Width)	B (Finger Pl Length)	C	L (Finger Length)	N	W (Finger Pl Width)
32'-11"	32'-10 1/2"	3 1/4"	11 1/2"	97	3'-3"

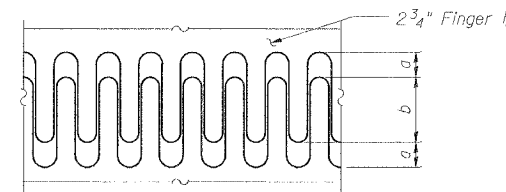


Note: Finger Plate shall be flame cut as provided in article 505.04(k) of IDOT Standard Specifications using a 1/4" wide cut.

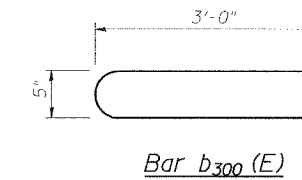
FINGER PLATE CUTTING DETAIL

a		b	
-30°F	50°F	130°F	-30°F
10"	5 3/8"	3 3/4"	1 1/2"
			6 1/8"
			10 3/4"

Note: For deck temperatures between those shown, interpolate between dimensions given above.

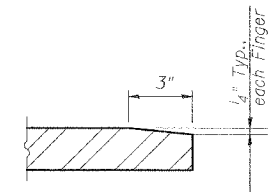


FINGER PLATE SETTING DIAGRAM

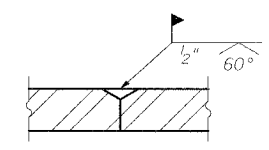


BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a303(E)	12	#5	17'-8"	—
a304(E)	12	#5	18'-0"	—
b300(E)	66	#4	6'-5"	U
Reinforcing Bars, Epoxy Coated			Pound	730
Bar Splicers			Ea.	12
Fabric Reinforced Elastomeric Trough			Foot	40
Concrete Removal			Cu. Yd.	7.0
Concrete Superstructure			Cu. Yd.	7.0
Finger Plate Expansion Joint, 5"			Foot	33



SECTION D

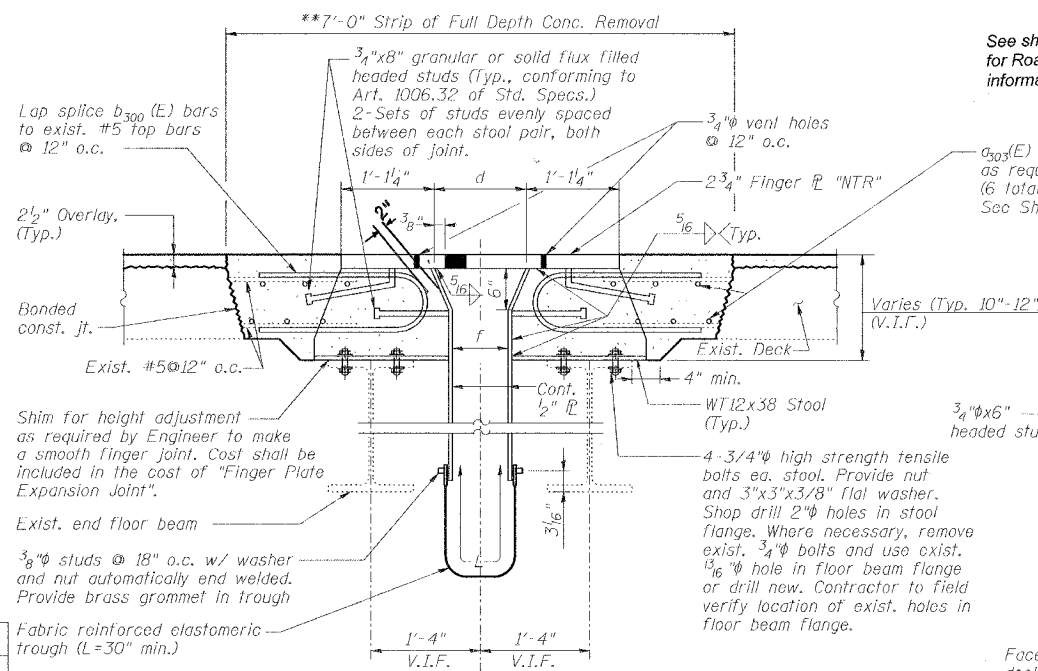


SECTION E

THEORETICAL STOOL HEIGHTS*

Stools	Span A28	Span A29
1-16	8 7/8"	8 3/4"
A1	8 1/8"	8 1/4"
A2	10 3/8"	10 1/2"

*Must be field verified prior to fabrication.

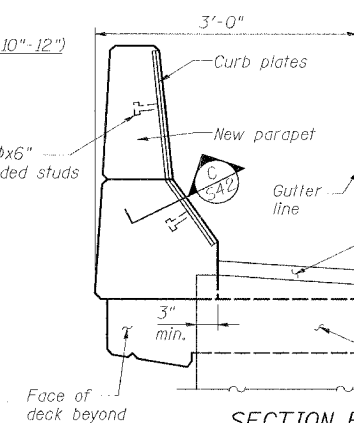


SECTION A

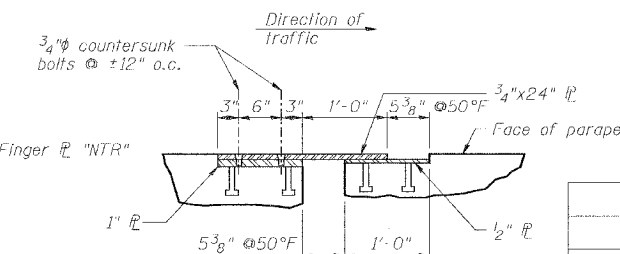
** -At 50° F

See sheet S37 of 56 (variable width) for Roadway crown and cross-slope information.

a303(E) spliced to a304(E) as required for staged construction. (6 total each side of jt., Typ.) See Sht. S32 for bar splicer details.



SECTION B



SECTION C

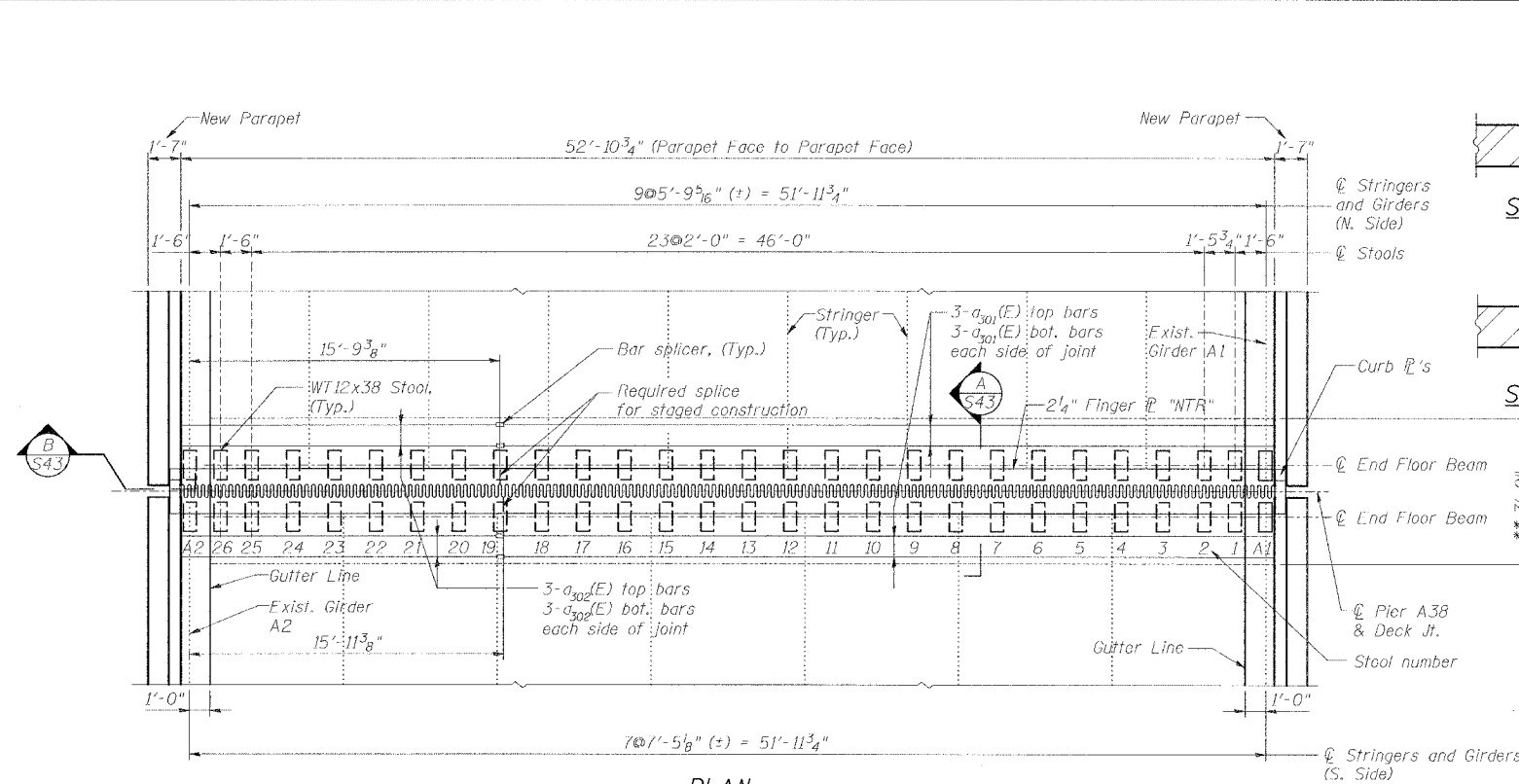
REVISIONS	
NAME	DATE

SPECIAL JOINT DETAILS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

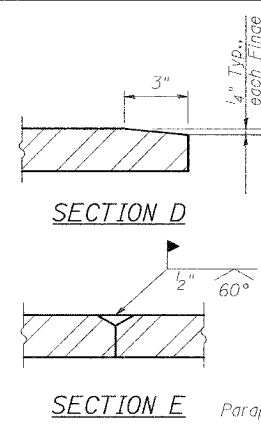
STRUCTURE NO. 082-0141 (ROADWAY A1)
 SCALE: N.T.S.
 DATE: 02/01/2007

DATE: 1/24/2007
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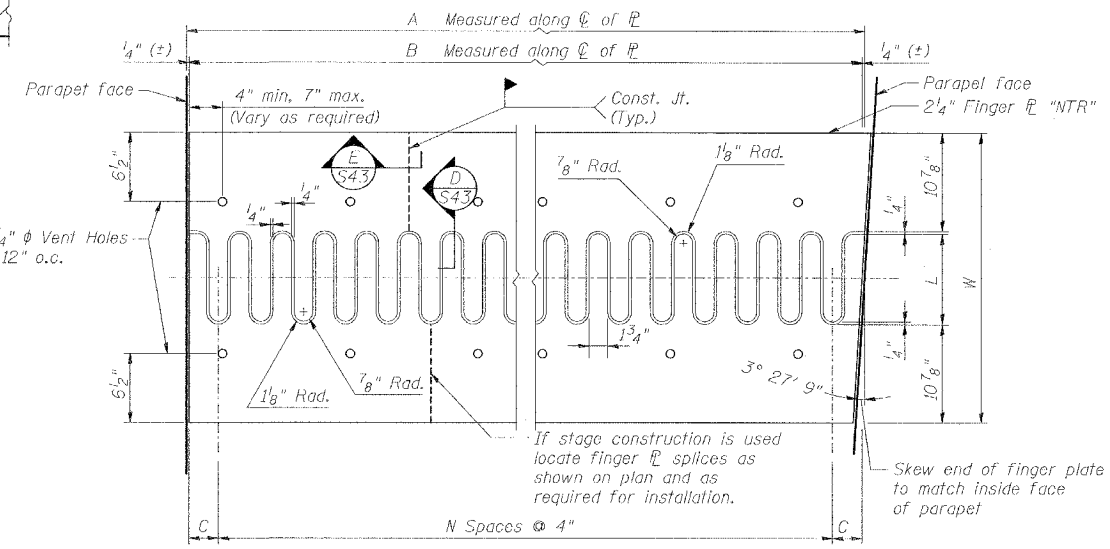
DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



PLAN
FINGER JT. @ PIER A38
 See Sheet S-37 For Cross Slope at Finger Joint



A (Roadway Width)	B (Finger P Length)	C	L (Finger Length)	N (Finger P Width)	W (Finger P Width)
52'-10 3/4"	52'-10 1/4"	3 1/8"	7 1/4"	157	2'-5 1/4"



Note: Finger Plate shall be flame cut as provided in article 505.04(k) of IDOT Standard Specifications using a 1/4" wide cut.

THEORETICAL STOOL HEIGHTS*

Stool	Span A37	Span A38
1	8 1/2	8 3/8
2	8 5/8	8 5/8
3	8 7/8	8 3/4
4	9 1/8	9
5	9 3/8	9 1/4
6	9 5/8	9 3/8
7	9 7/8	9 1/2
8	10 1/8	9 5/8
9	10 3/8	9 3/4
10	10 5/8	10
11	10 7/8	10 1/4
12	11 1/8	10 3/8
13	11 3/8	10 5/8
14	11 5/8	10 7/8
15	11 7/8	11 1/8
16	12 1/8	11 3/8
17	12 3/8	11 5/8
18	12 5/8	11 7/8
19	12 7/8	12 1/8
20	13 1/8	12 3/8
21	13 3/8	12 5/8
22	13 5/8	12 7/8
23	13 7/8	13 1/8
24	14 1/8	13 3/8
25	14 3/8	13 5/8
26	14 5/8	13 7/8
A1	14 7/8	14 1/8
A2	15 1/8	14 3/8

* Must be Field Verified Prior to Fabrication*

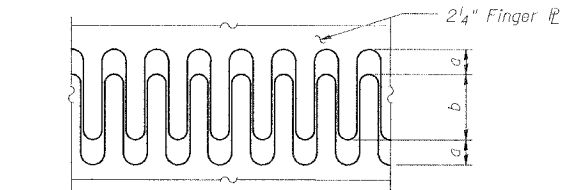
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₃₀₁ (E)	12	#5	38'-3"	---
a ₃₀₂ (E)	12	#5	17'-8"	---
b ₃₀₀ (E)	106	#4	6'-5"	C
Reinforcing Bars, Epoxy Coated		Pound	1150	
Bar Splicers		Ea.	12	
Fabric Reinforced Elastomeric Trough		Foot	60	
Concrete Removal		Cu. Yd.	13.2	
Concrete Superstructure		Cu. Yd.	13.2	
Finger Plate Expansion Joint, 3"		Foot	53	

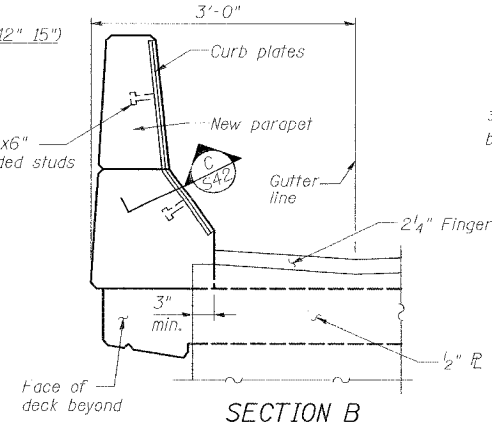
FINGER PLATE CUTTING DETAIL

a			b		
-30°F	50°F	130°F	-30°F	50°F	130°F
5 3/4"	3 1/4"	3 1/4"	1 1/2"	4"	6 1/2"

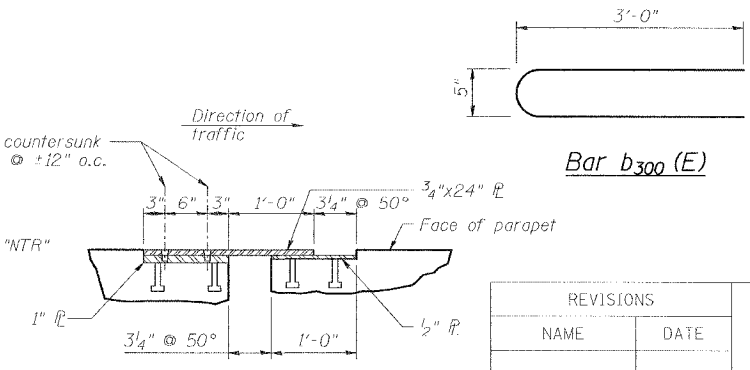
Note: For deck temperatures between those shown, interpolate between dimensions given above.



FINGER PLATE SETTING DIAGRAM



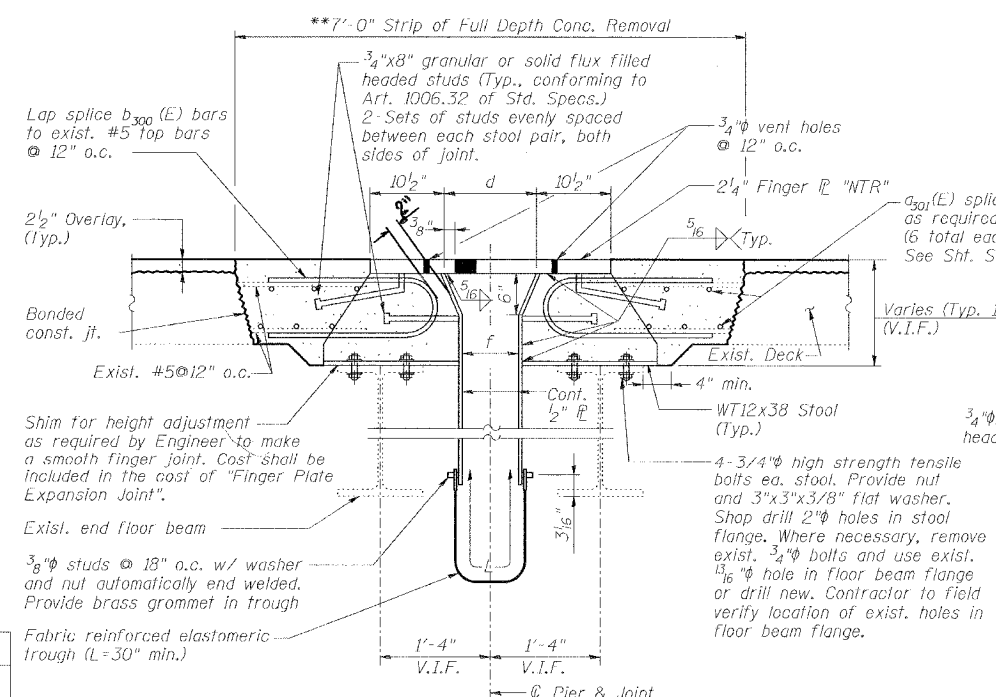
SECTION B



SECTION C

Min Bar Laps	d			f		
#4	-30°F	50°F	130°F	-30°F	50°F	130°F
1'-8"	13 3/4"	11 1/4"	8 3/4"	7 3/8"	5"	2 5/8"

Notes:
 All steel for finger plate joint shall be M270 Grade 50. Curb plates and parapet not shown for clarity.
 Slope trough 1" / ft towards outside from center of ramp cross-section. Details of trough at center splice and at both ends per Sht. S47
 Adjust height of stool as required by shimming. Shims to be 1/8", 1/4", or 1/2" as required. Standard shim pack to include 1/2", 1/4", 1/8" and (2) 1/16" shims
 Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



SECTION A
 ** -At 50° F

REVISIONS	
NAME	DATE

SPECIAL JOINT DETAILS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE TO
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

DATE: 1/25/2007
 FILENAME: p:\2001\1201-1800\2001.1240\Drafting\RoadwayRehab_AT_RampA\join\A-JOIN04.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

NOTES

Bar splicer assemblies shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
 Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.
 All reinforcement bars shall be lapped and tied to the splicer rods or dowel bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars.
 Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed bar splicer assembly satisfies the following requirements:

- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
 - ② Minimum *Pull-out Strength (Tension in kips) = $0.66 \times f_y \times A_t$
- Where f_y = Yield strength of lapped reinforcement bars in ksi.
 A_t = Tensile stress area of lapped reinforcement bars.
 * = 28 day concrete

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	7.9
#5	2'-0"	23.0	12.3
#6	2'-7"	33.1	17.4
#7	3'-5"	45.1	23.8
#8	4'-6"	58.9	31.3
#9	5'-9"	75.0	39.6
#10	7'-3"	95.0	50.3
#11	9'-0"	117.4	61.8

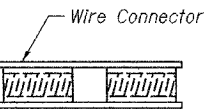
The diameter of this part is the same as the diameter of the bar spliced.

The diameter of this part is equal or larger than the diameter of bar spliced.

ROLLED THREAD DOWEL BAR



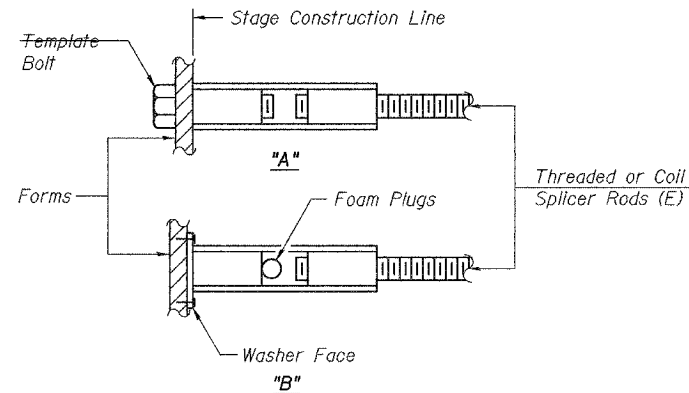
**** ONE PIECE**



WELDED SECTIONS

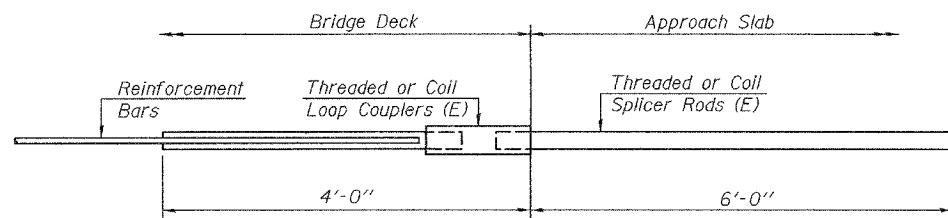
BAR SPLICER ASSEMBLY ALTERNATIVES

** Heavy Hex Nuts conforming to ASTM A 563, Grade C, D or DH may be used.



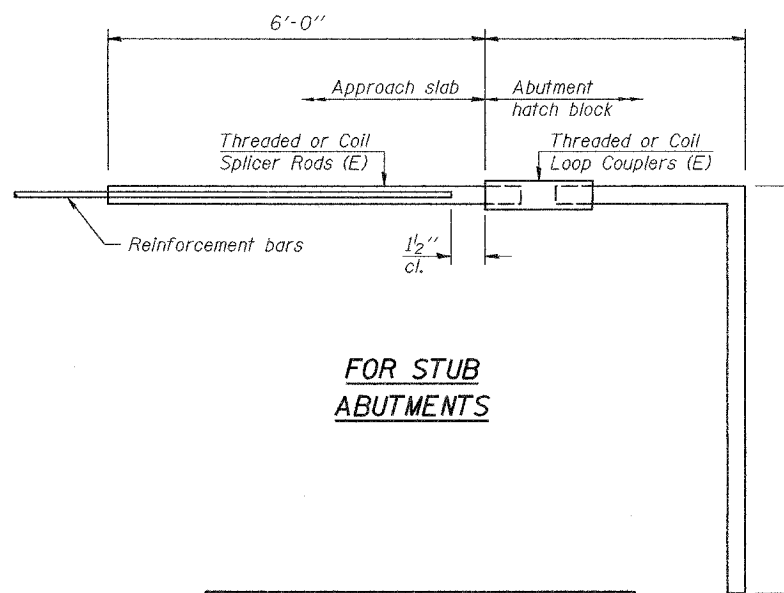
INSTALLATION AND SETTING METHODS

"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.



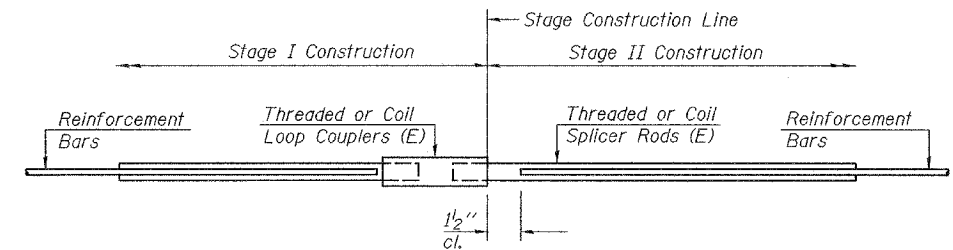
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



FOR STUB ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 12.3 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#4	92	Deck, Span A40
#4	97	Deck, Span A41
#4	97	Deck, Span A42
#4	79	Deck, Span A43
#4	89	Deck, Span A44
#4	55	Deck, Span A45
#4	12	Deck, Pier A29
#4	12	Deck, Pier A38

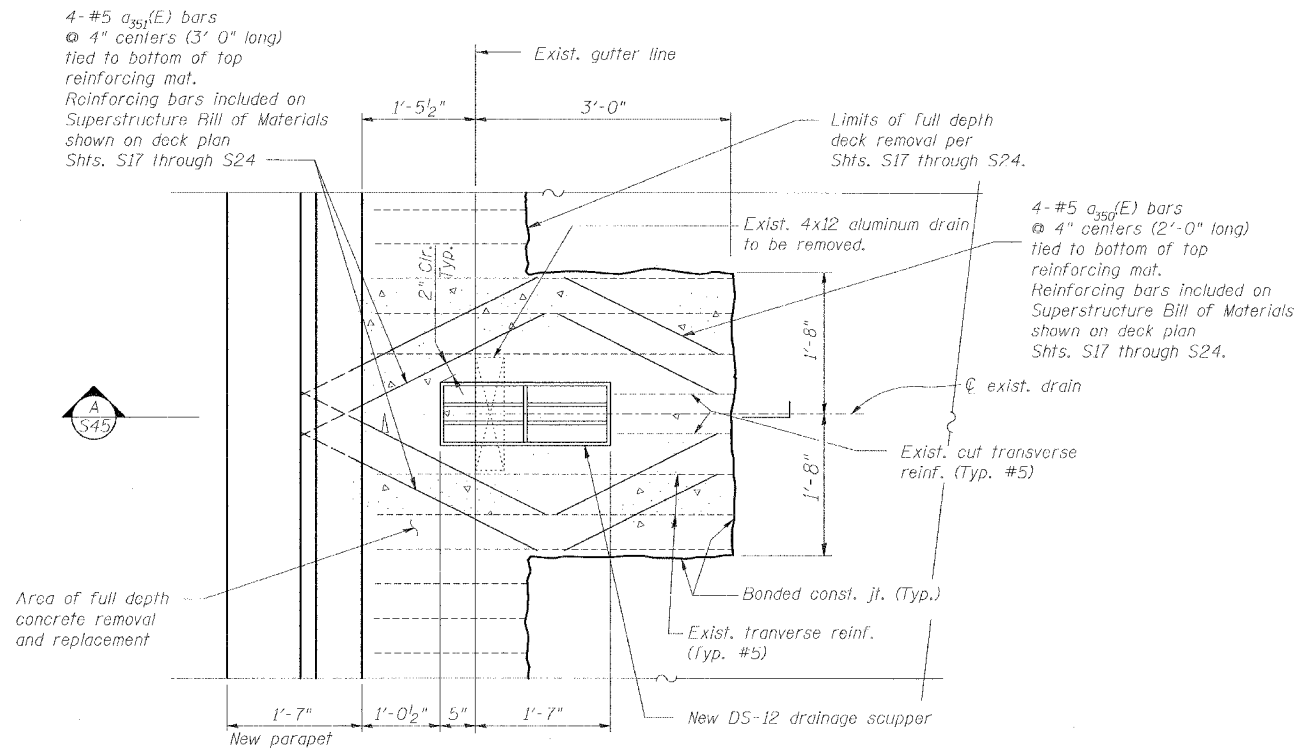
BAR SPLICER ASSEMBLY DETAILS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST CLAIR COUNTY
 STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

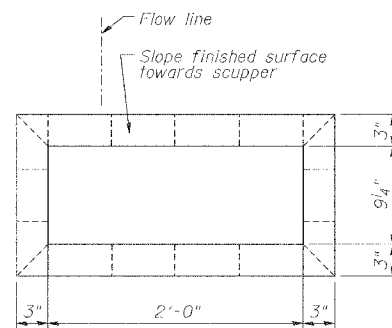
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F.A.T. 70	*	ST. CLAIR	99	66
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-5 SHEET S-45 OF S-56
 CONTRACT NO. 76985

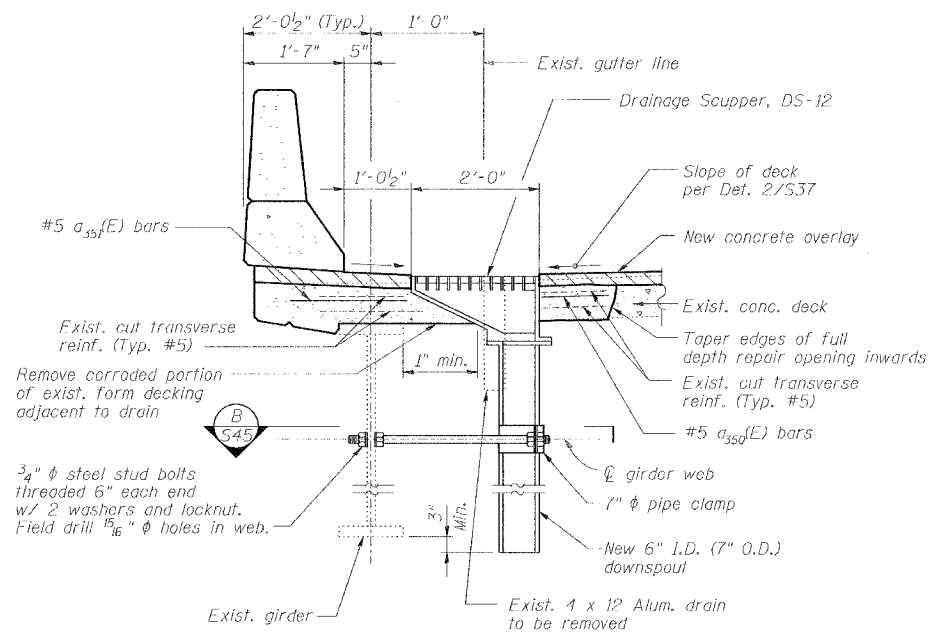


1 NEW DRAINAGE SCUPPER
 S45

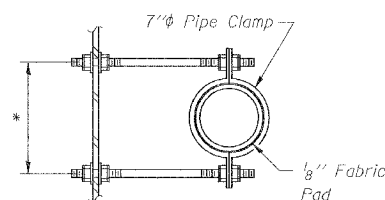
Note:
 Exist. and new longitudinal reinforcement not shown for clarity. Cut exist. longitudinal reinforcement as necessary to clear new scupper.



TOP PLAN



SECTION A



SECTION B

TYPICAL DRAINAGE DETAILS

REVISIONS	
NAME	DATE

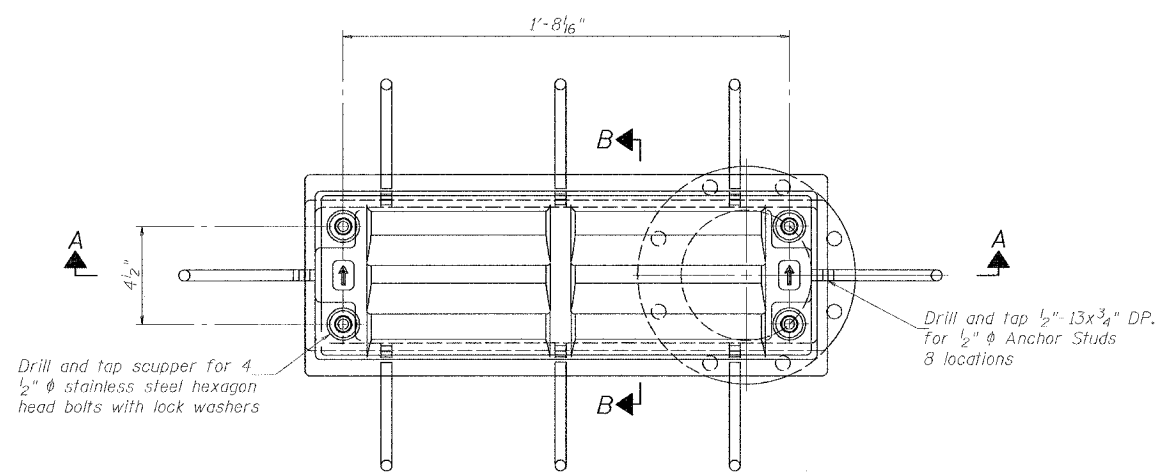
STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

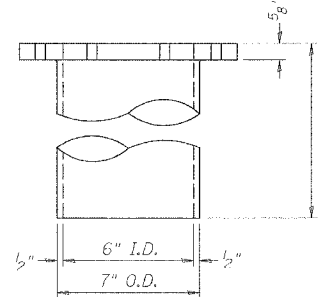
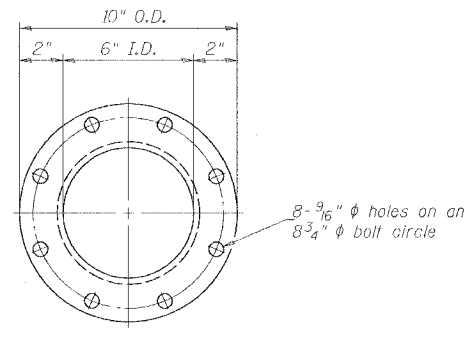
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DRAWN	CLK
CHECKED	JPD

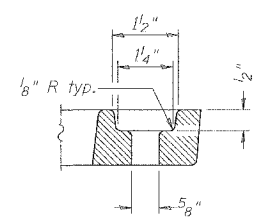
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	67
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 1M-70		
* 82-3HVB-3R-5			SHEET S-46 OF S-56	
CONTRACT NO. 76985				



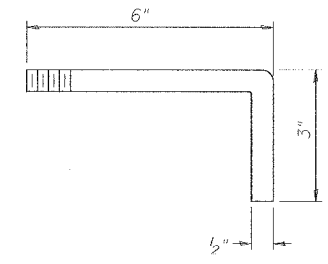
PLAN



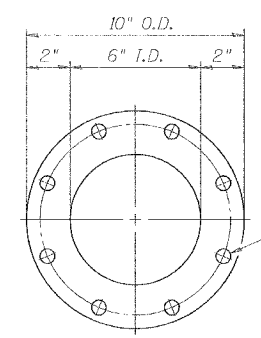
DOWNSPOUT



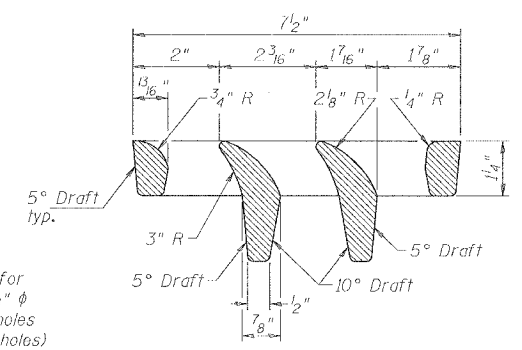
BOLT HOLE DETAIL



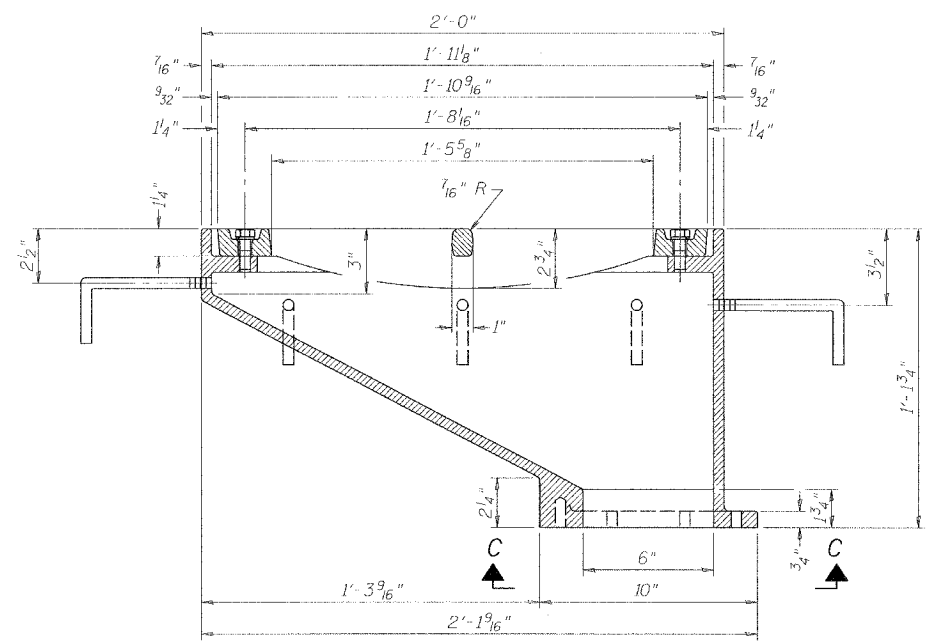
ANCHOR STUD DETAIL



VIEW C-C

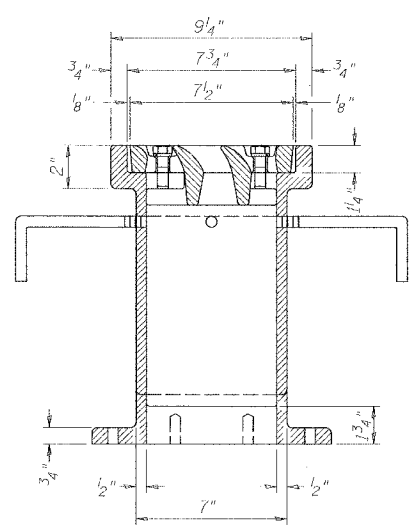


VANE GRATE DETAIL



SECTION A-A

See Sht. S45 for scupper location relative to parapet.



SECTION B-B

Notes:

- All cast iron parts shall be gray iron conforming to the requirements of AASHTO M 105, Class 35B.
- Bolts, anchor studs, washers and nuts shall conform to the requirements of ASTM A 307 and shall be galvanized according to AASHTO M 232.
- The grate, frame and downspout shall be galvanized according to AASHTO M 111 and ASTM A 385. Downspouts located on the exterior side of a painted steel fascia beam shall be painted with the finish coat specified for the exterior side of the fascia beam.
- As an alternate, bolts, anchor studs, washers and nuts may be stainless steel according to Article 1006.29(d) of the Standard Specifications.
- Structural steel weldments of equal sections and of the same configuration may be substituted for cast iron. Fillet or full penetration welds shall be used for the weldments. Details shall be submitted to the Engineer for approval.
- The Contractor shall take appropriate measures to assure that Protective Coat is not applied to the scupper.
- Cost of the Grate, Frame, Downspout, Anchor Studs, Bolts, Washers and Nuts including complete installation of the scupper shall be paid for at the contract unit price each for Drainage Scupper, DS-12.

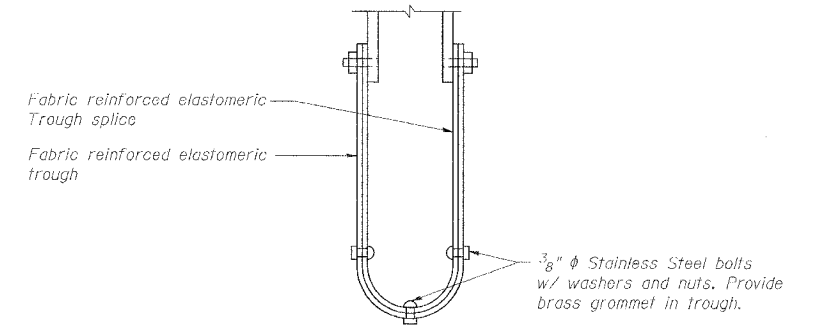
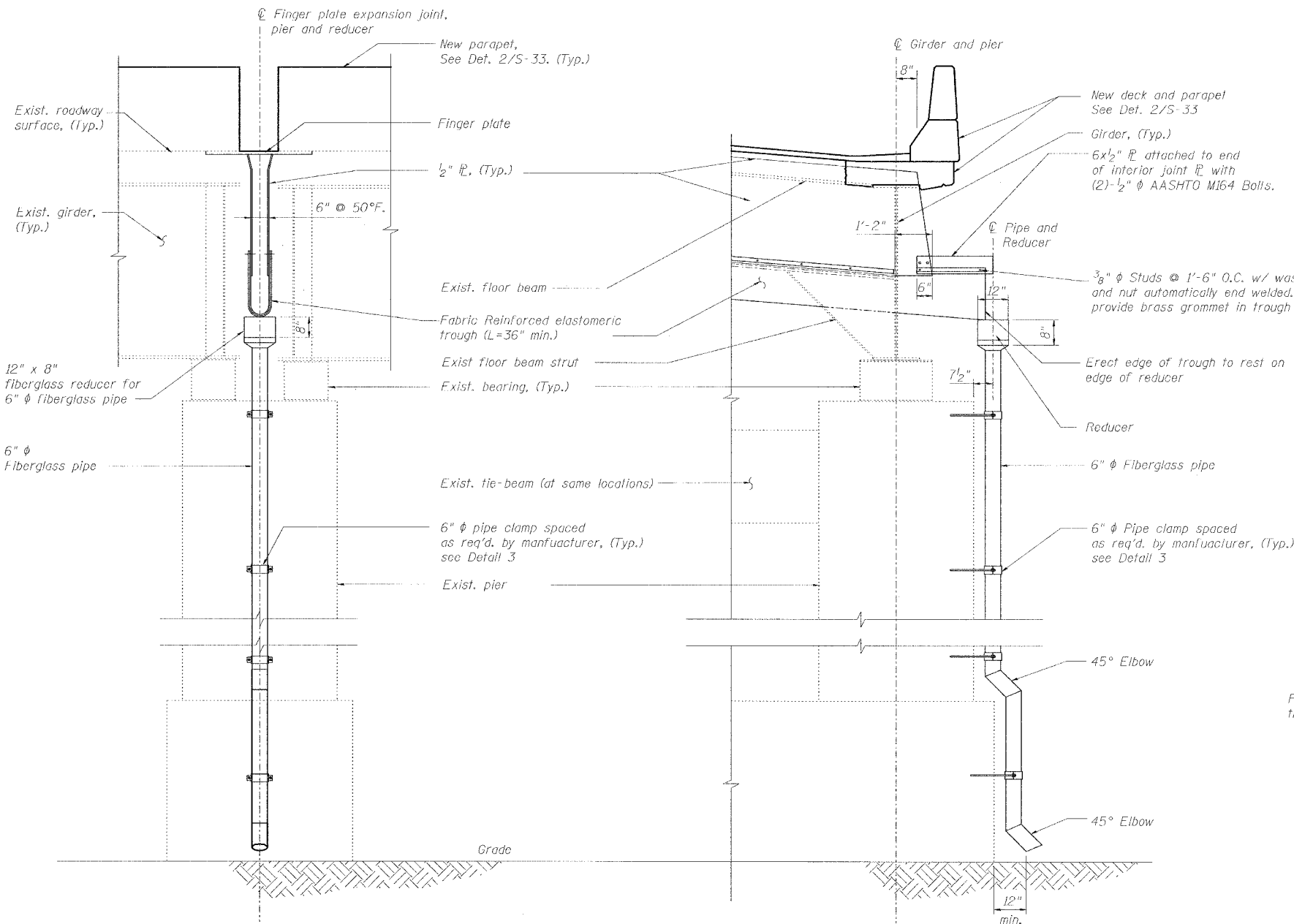
DRAINAGE SCUPPER - DS-12

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0141 (ROADWAY A) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

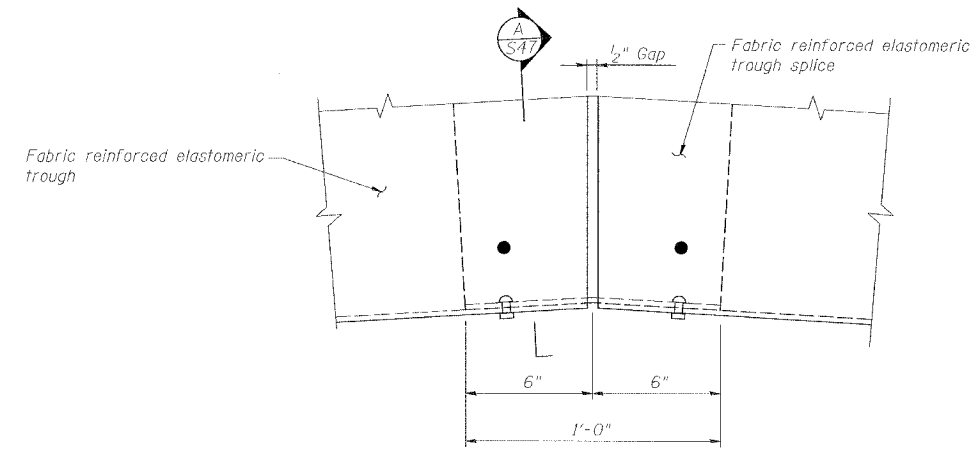
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	68
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		
* 82-3HVB-3R-5			SHEET S-47 OF S-56	
CONTRACT NO. 76985				



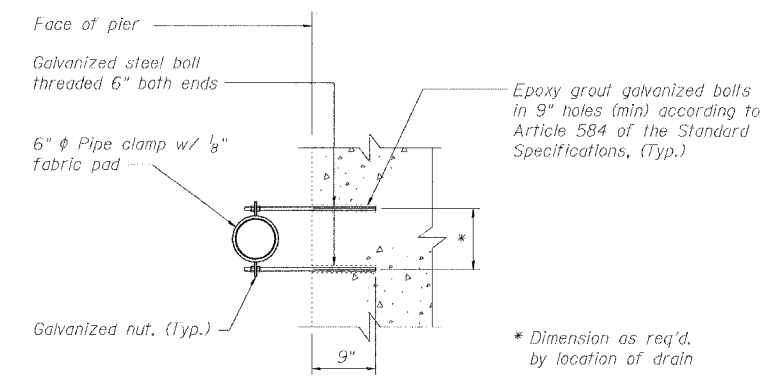
SECTION A-A



4 TROUGH SPLICE DETAIL
S47

1 FINGER JOINT MAT DRAINAGE DETAIL - END VIEW
S47

2 FINGER JOINT MAT DRAINAGE DETAIL - ELEVATION
S47



3 PIPE CLAMP DETAIL
S41

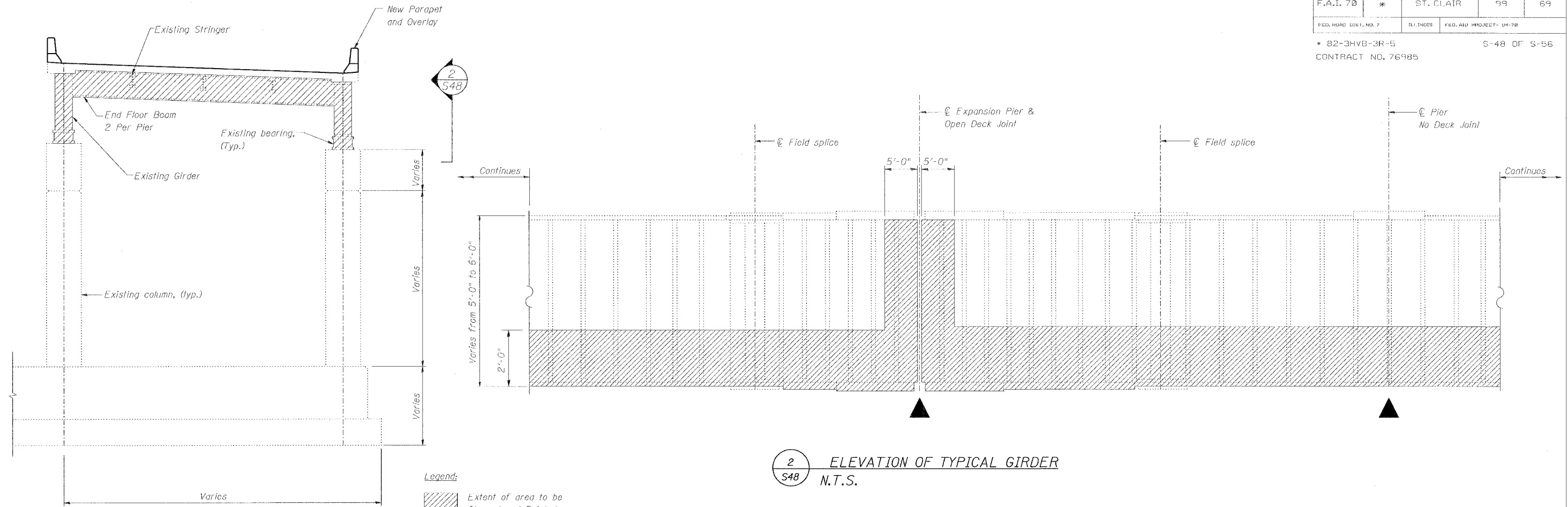
- Notes:
- The exterior surfaces of the furnished fiberglass pipe shall be colored or pigmented by the manufacturer with a color that matches the color of concrete.
 - Fiberglass pipe shall conform to ASTM D2996 with short-time rupture strength hoop tensile stress of 29,000 psi minimum. The surface of the fiberglass pipe shall be free of bond inhibiting agents.
 - The clamping device and inserts shall be galvanized according to AASHTO M232.
 - Space drilled holes in existing concrete to miss existing reinforcement.

REVISIONS	
NAME	DATE

SPECIAL DRAINAGE DETAILS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 F.A.I. ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_A1\RampA\drai A-DRA103.dgn

DESIGNED	JPD
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2
 S48 **ELEVATION OF TYPICAL GIRDER**
 N.T.S.

1
 S48 **ELEVATION AT TYPICAL EXPANSION PIER**

NOTES:

- Cleaning and painting of the structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures." At each deck joint, all exposed surfaces of the following steel elements shall be cleaned per Near White Blast Cleaning - SSPC-SP10: both end floor beams, all bearings, and both girders within 5 ft (measured along the girder) of either side of the joint. Elsewhere, the bottom two feet on the exterior and interior surfaces of the two girders, as well as both girder bottom flanges, shall be cleaned per Power Tool Cleaning Commercial Grade.
- The designated areas cleaned per Near White Blast Cleaning - SSPC-SP10 and per Power Tool Cleaned - Commercial Grade shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the finish coat for all surfaces shall be Interstate Green, Munsell No. 7.5 G 4/8.
- The contractor shall submit calculations and details demonstrating the structural integrity of the bridge is maintained under the additional imposed loads of the containment system, see special provisions.
- A minimum of 4 air monitors may be required to monitor abrasive blasting operations at the site, see special provision for "Containment and Disposal of Lead Painting Cleaning Residues."
- Area to be cleaned and painted as indicated above extends from Pier A21 to Pier A46

SPAN (Pier to Pier)	GIRDER	LOCATION**	BOLTS
A29 - A30	A2	Btwn. FB2 & FB3	6
A33 - A34	A1	Btwn. FB3 & FB4	10
A35 - A36	A1	Btwn. FB3 & FB4	34
A35 - A36	A2	Btwn. FB3 & FB4	34
A37 - A38	A2	Btwn. FB1 & FB2	34
A38 - A39	A1	Btwn. FB3 & FB4	10
A39 - A40	A1	Btwn. FB4 & FB5	15
A39 - A40	A2	Btwn. FB1 & FB2	6
A41 - A42	A1	Btwn. FB3 & FB4	24
A41 - A42	A2	Btwn. FB3 & FB4	6
A42 - A43	A1	Btwn. FB1 & FB2	10
A42 - A43	A2	Btwn. FB1 & FB2	12

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Cleaning and Painting Steel Bridge, No. 1	L. Sum	1
Containment and Disposal of Lead Paint Cleaning Residues, No. 1	L. Sum	1
Bolt Replacement	Each	201

Note:
 If additional loose, broken, severely corroded or missing bolts not listed in the above table are identified, the contractor shall also replace these bolts, as approved by the Engineer. Bolts are located at bottom flange splice plates.
 See Special Provisions.
 **Floor beams are numbered starting with "FB0" at lower numbered pier listed

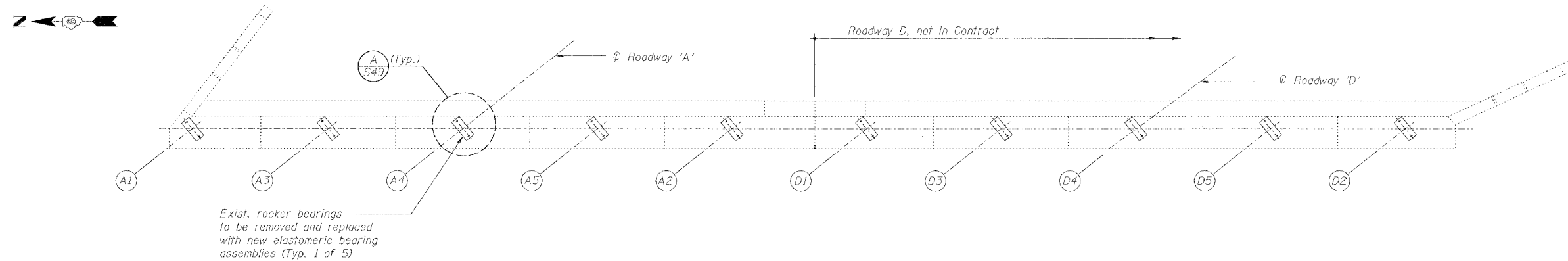
REVISIONS	
NAME	DATE

CLEANING AND PAINTING STRUCTURAL STEEL
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0141 (ROADWAY A)
 SCALE: N.T.S.
 DATE: 02/01/2007

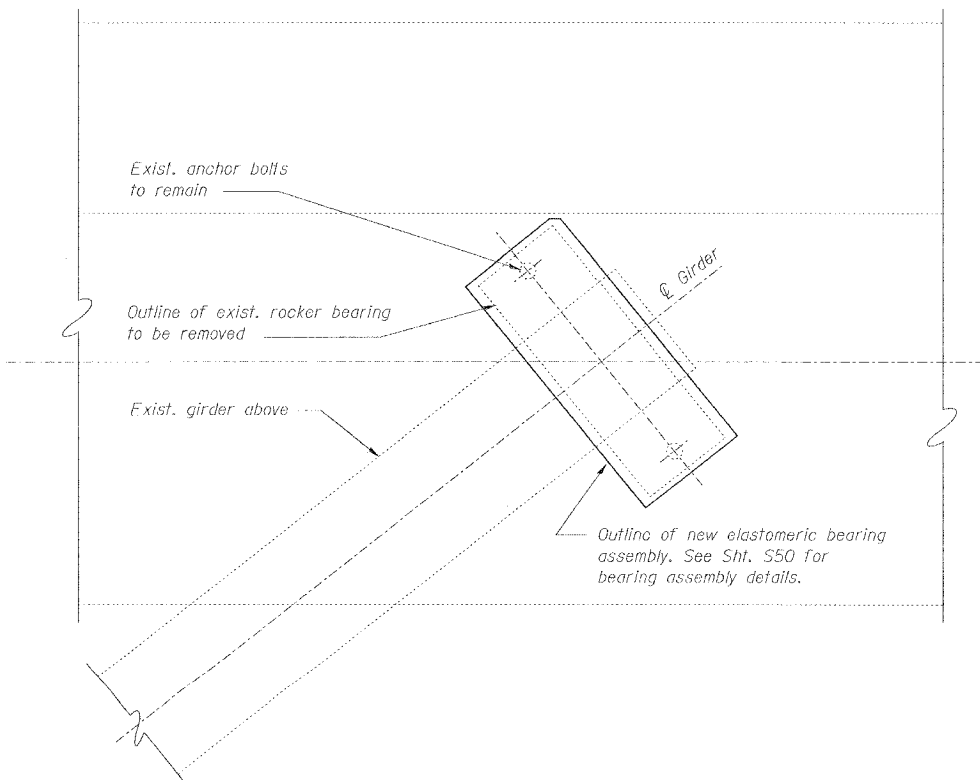
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DRAWN	CLK
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	70
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IM-70		
* 82-3HVB-3R-5			SHEET S-49 OF S-56	
CONTRACT NO. 76985				



1
S49 TOP VIEW OF ABUTMENT A46



A
S49 TYPICAL DETAIL OF NEW BEARING

BILL OF MATERIAL - BEARINGS @ A46		
Item	Unit	Quantity
Jack and remove existing bearings	Ea.	5
Elastomeric bearing assembly, Type 1	Ea.	5

BEARING REACTION TABLE
ABUTMENT A46

Load*	Stringers A1-A5
R _D (K)	41
R _L (K)	29
Imp. (K)	9
R (Total) (K)	70

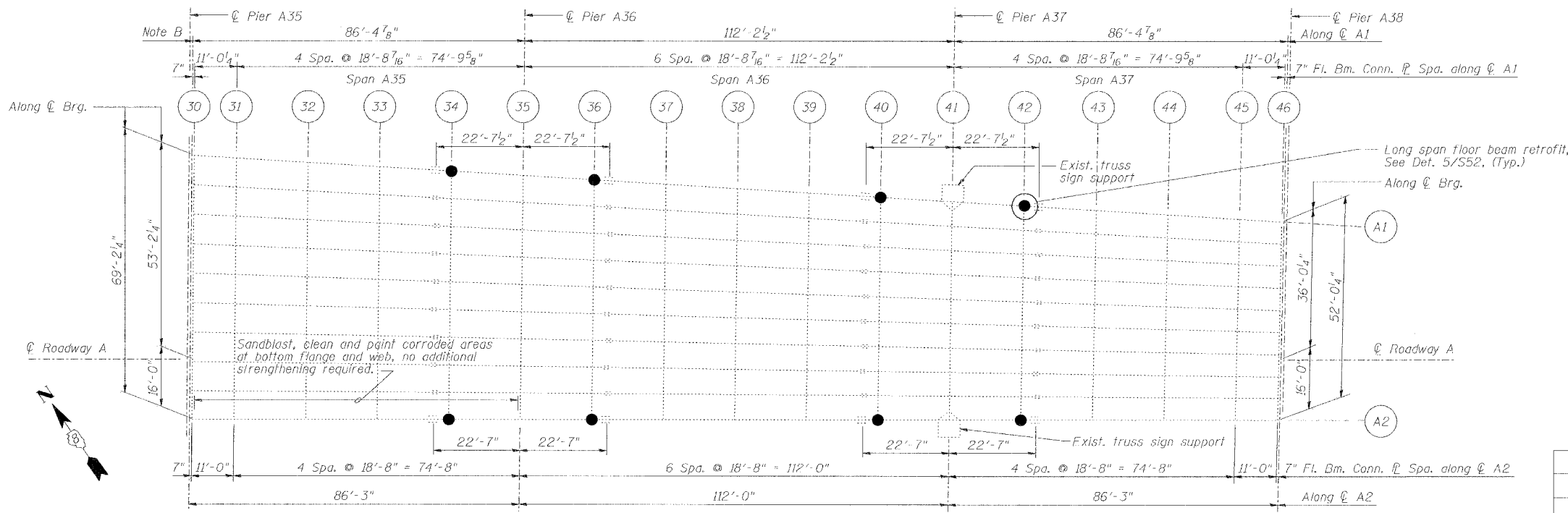
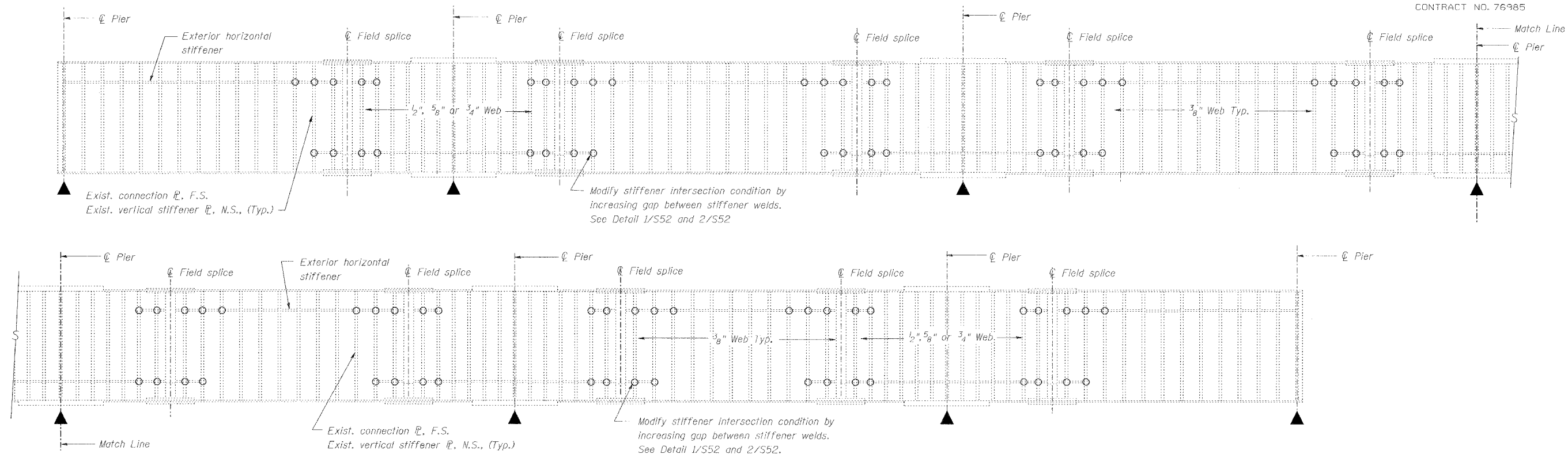
*Gravity Service Loads
*Minimum Jack Size: 70 Ton

BEARING REPLACEMENT DETAILS

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0141 (ROADWAY A)
		SCALE: N.T.S.
		DATE: 02/01/2007

DATE: 1/24/2007
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CHECKED	JEL
DRAWN	CLK
CHECKED	APJ



BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Stiffener intersection modification	Ea.	896
Long span floor beam retrofit	Ea.	8
Crack Extension Modification	Ea.	20

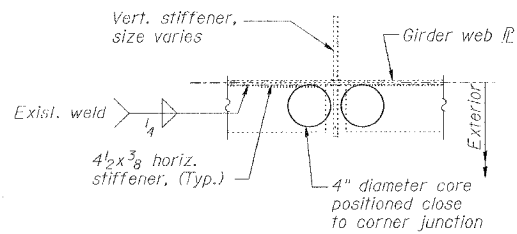
REVISIONS	
NAME	DATE

FATIGUE RETROFIT
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

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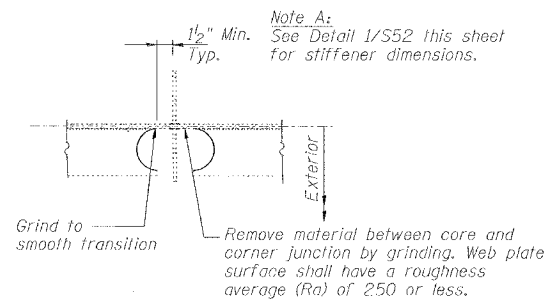
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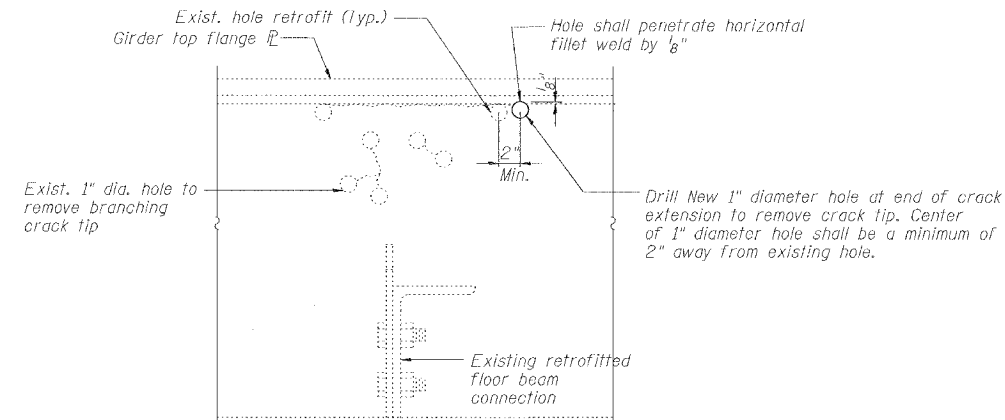
1
STIFFENER INTERSECTION MODIFICATION DETAIL
S52

Procedure - Detail 1/S52 and 2/S52:

1. Core 4" diameter holes positioned close to corner junction through 3/8" thick horizontal stiffener.
2. Remove material between core and intersection junction by grinding with carbide tools and a die grinder as shown in Detail 2/S52. Web plate surface shall have a roughness average (Ra) 250 or less.
3. Remove all burrs from cut edge and check for irregularities. Cored surface shall have an Ra equal to 500 or less.
4. After burr removal the modification shall be inspected using magnetic particle (MT) methods. Notify Engineer if a crack is detected (Cost included with stiffener intersection modification).
5. Obtain approval of Engineer.
6. Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.



2
STIFFENER INTERSECTION MODIFICATION DETAIL
S52

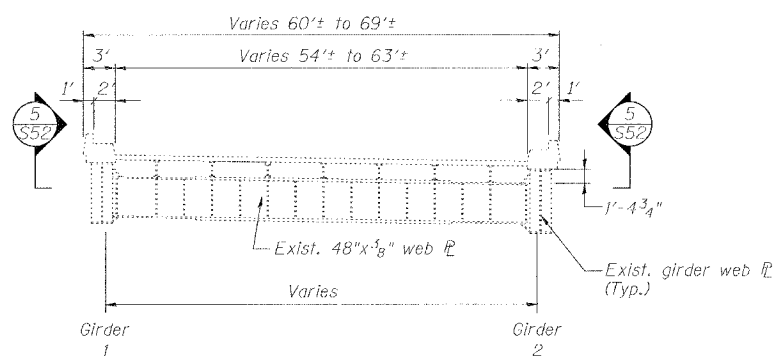


3
CRACK EXTENSION RETROFIT AT FIRST INTERIOR FLOOR BEAMS
S52

Note A: No crack extension retrofits identified at this time. An allowance of 20 retrofits have been included in the Contract for Roadway A.

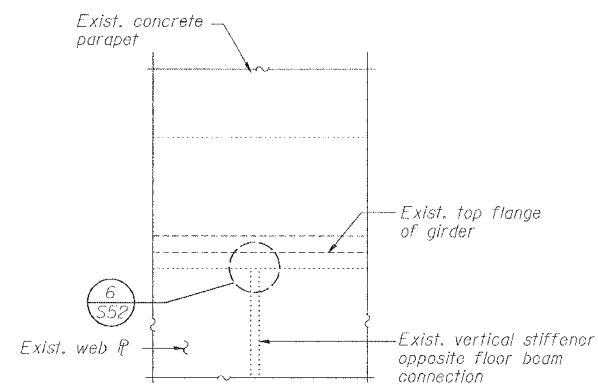
Procedure - Detail 3/S52:

1. Inspect girder web plate in region of existing retrofits to determine location of crack extension at locations directed by the Engineer, and crack tip using magnetic particle inspection (MT) methods (Cost included with crack extension retrofit at first interior floor beams).
2. Drill 1" diameter hole at end of crack extension to remove crack tip. Center of 1" diameter hole shall be positioned in accordance with Detail 3/S52.
3. Cored surfaces shall have a Roughness Average (Ra) of 500 or less.
4. Re-inspect area using MT methods to verify crack does not extend past the newly drilled holes.
5. Obtain approval of Engineer.
6. Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

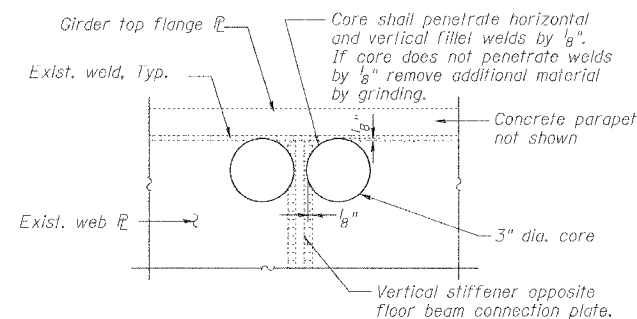


4
LONG SPAN FLOOR BEAMS (> 50')
S52

Note B: Two repair locations shown



5
EXTERIOR ELEVATION OF GIRDER AT FLOOR BEAM CONNECTION
S52



Procedure Detail 6/S52:

1. Inspect using magnetic particle (MT) methods. Notify Engineer if a crack is detected (Cost included with long span floor beam retrofit).
2. Remove parapet concrete, as required, for equipment access.
3. Core 3" diameter holes through web plate adjacent to the top flange as positioned in Detail 6/S52. Core holes shall penetrate the horizontal and vertical fillet welds approximately 1/8". If core does not penetrate weld by 1/8", remove additional material by grinding. Remove all burrs from cored or ground surface. Surface shall have a roughness average (Ra) of 500 or less.
4. Obtain approval of Engineer.
5. Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

6
LONG SPAN FLOOR BEAM RETROFIT
S52

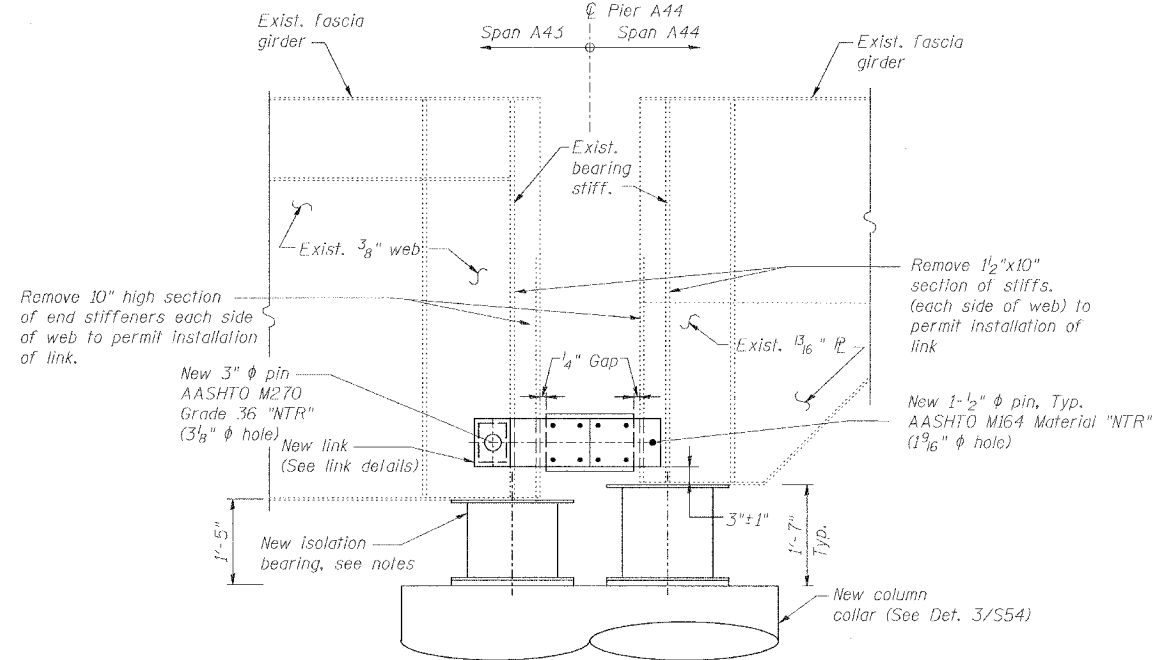
Note C: One repair location shown

REVISIONS	
NAME	DATE

FATIGUE RETROFIT DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

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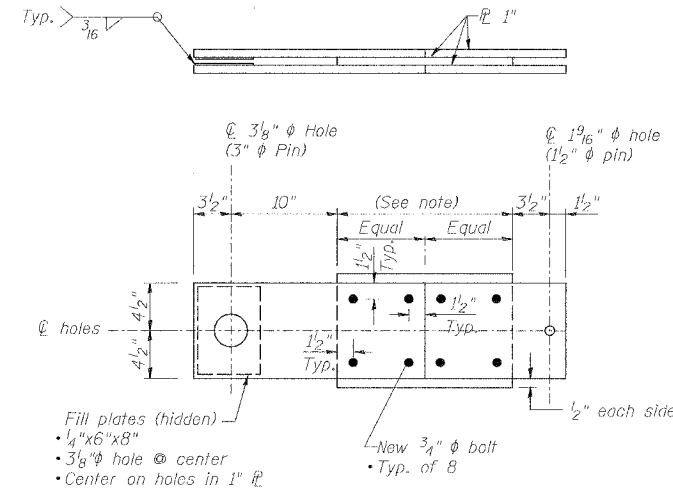
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F.A.I. 70	*	ST. CLAIR	99	74
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 144-70		
* 82-3HVB-3R-5			SHEET S-53 OF S-56	
CONTRACT NO. 76985				



1 DETAIL - LINKS AND BEARINGS
S53

Notes:

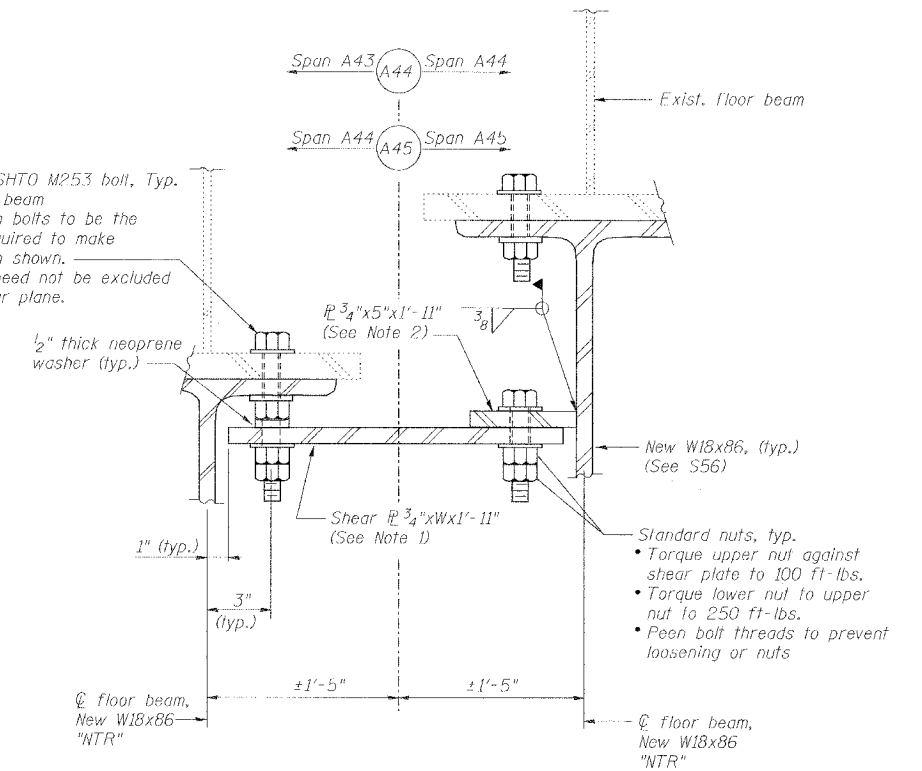
- Center bearings on existing bearing stiffeners.
- Design of bearings, connections to girders and columns, and any pedestals, fill plates, or other items needed to satisfy the bearing performance requirement given in the special provisions, is the responsibility of the contractor. For additional requirements, See Sheet S56.



3 CONNECTOR LINK DETAIL - PIER A44
S53

Note:
This dimension to be 1/2" less than clear distance between ends of girders at time of erection.

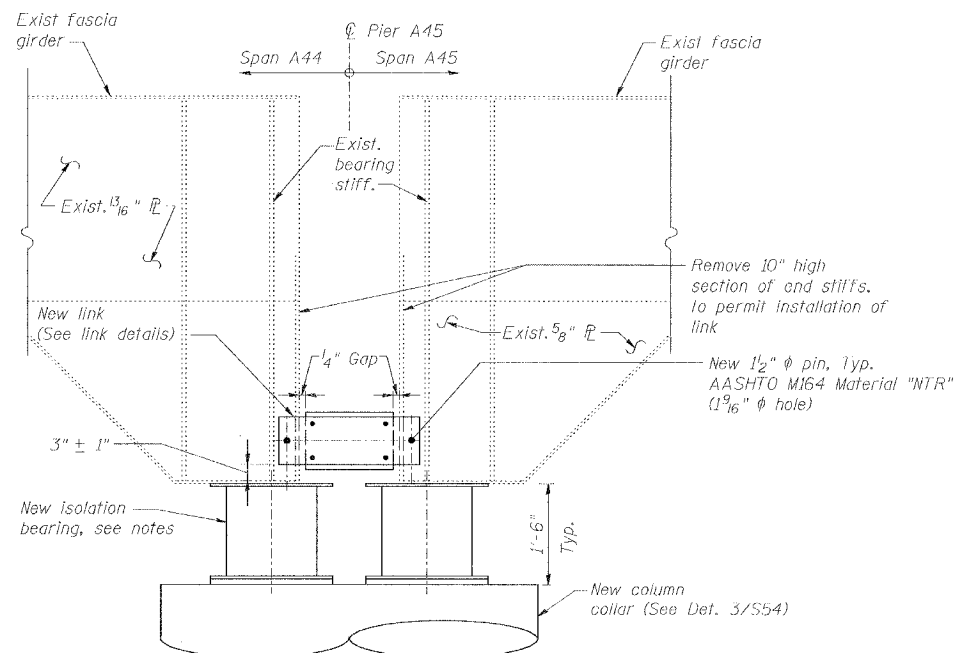
7/8" ϕ AASHTO M253 bolt, Typ. W18/floor beam connection bolts to be the length required to make connection shown. Threads need not be excluded from shear plane.



5 SHEAR LINK DETAILS - PIERS A44 AND A45
S53

Notes:

- Plate width (W) shall be 2" less than the distance between floor beam centerlines at the time of installation.
- Connection plate shall be centered on shear plate, which in turn, shall be centered on a group of 4. W18 connection bolts on the opposite side of the pier centerline. The connection plate shall be connected to the shear plate with 4 - 7/8" ϕ AASHTO M164 bolts @ 6" o.c., with 2" minimum edge distance on each plate.
- Two such links at Pier A44 (one on each side of roadway). One such link at Pier A45.
- Locate links within 10' of column.
- Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Notch Toughness, Zone 2.



2 DETAIL - LINKS AND BEARINGS
S53

Notes:

- Center bearings on existing bearing stiffeners.
- Design of bearings, connections to girders and columns, and any pedestals, fill plates, or other items needed to satisfy the bearing performance requirement given in the special provisions, is the responsibility of the contractor. For additional requirements, See Sheet S56.

4 CONNECTOR LINK DETAIL - PIER A45
S53

Note:
This dimension to be 1/2" less than clear distance between ends of girders at time of erection.

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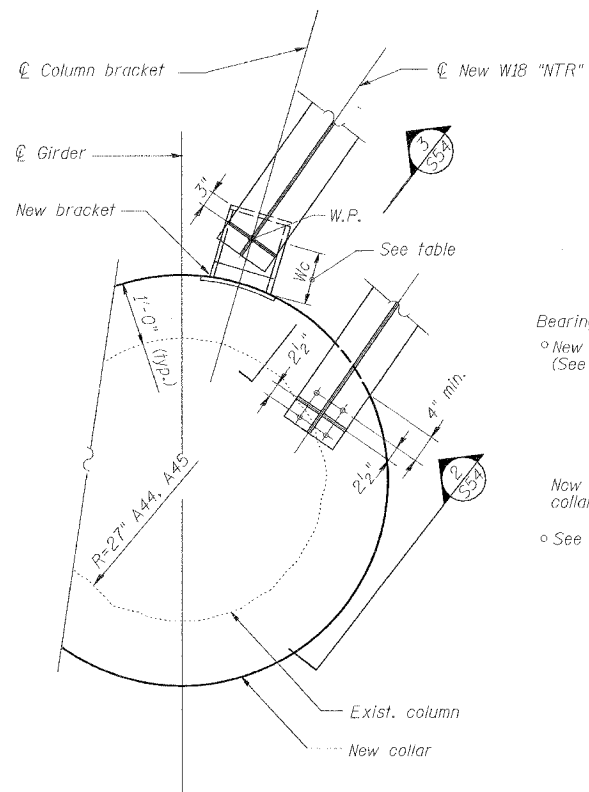
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REVISIONS	
NAME	DATE

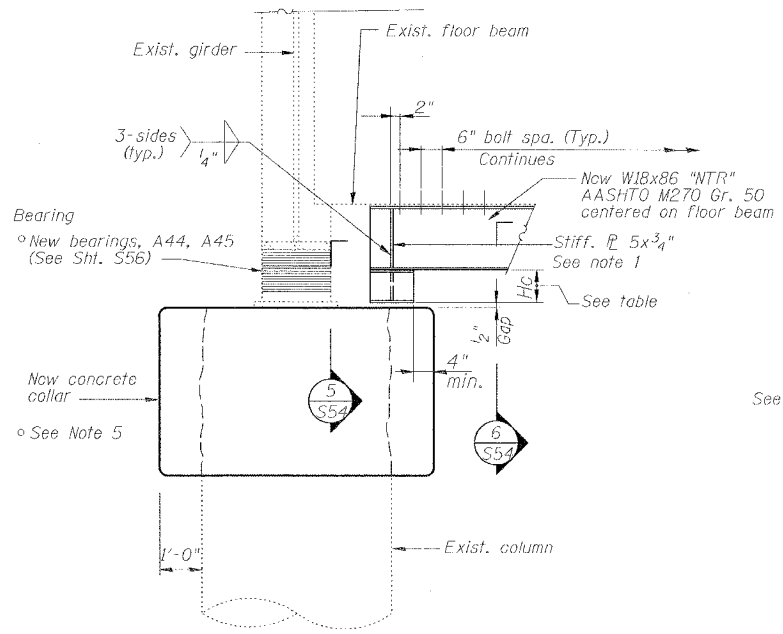
SEISMIC ISOLATION DETAILS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

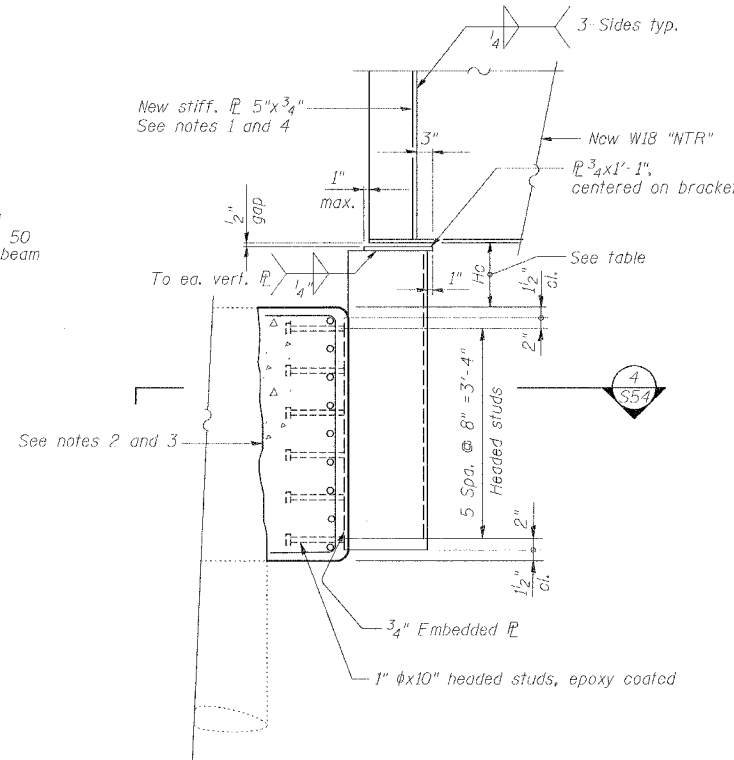
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SCALE: N.T.S.
DATE: 02/01/2007



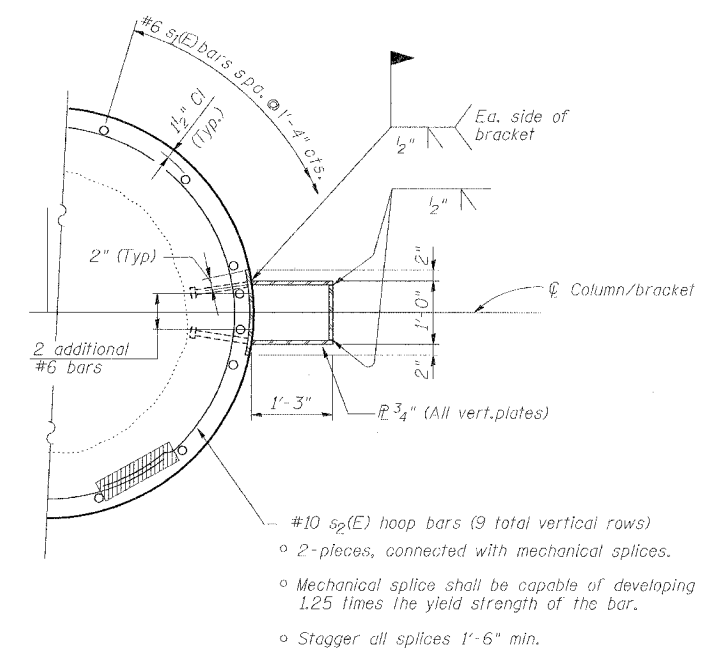
1 SECTION
S54



2 ELEVATION
S54

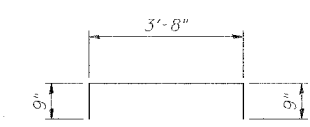


3 SECTION
S54

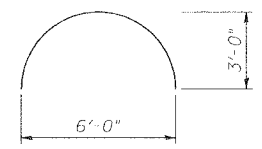


4 SECTION
S54 Reinforcing bars designated (E) shall be epoxy coated

Note:
Exist. girder and floor beam not shown for clarity.



Bar s1(E)



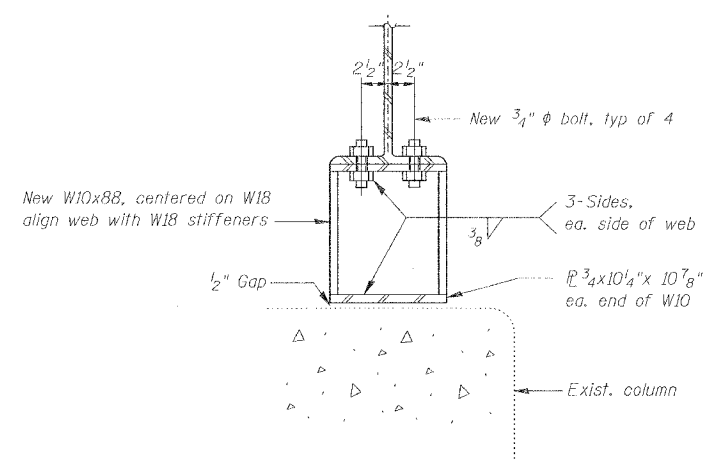
Bar s2(E)

- Notes:
1. Full height stiffener; each side of web; cope 3/4" max to clear beam fillets.
 2. Roughen existing column surface to 1/4" min. amplitude prior to placing collar.
 3. Remove any deteriorated concrete at location of new column collar.
 4. Align with end most stiffener on floor beam above.
 5. Remove existing column wraps at area of new collar.
 6. Load carrying components designated "NTR" shall conform to the Supplemental Requirements for Match T...

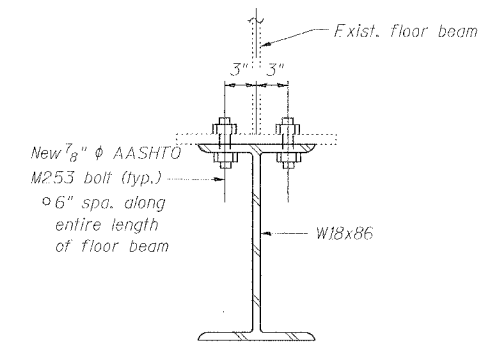
APPROXIMATE CLEARANCES
(Hc, Wc)

Pier	Floor Beam	Hc (in.)	Wc (in.)
A44	West	11	8
A44	East	13	6
A45	West	10	9
A45	East	14	10

Notes:
o Wc Applicable only at bracket locations
o Hc applies at both ends of floor beam



5 SECTION
S54



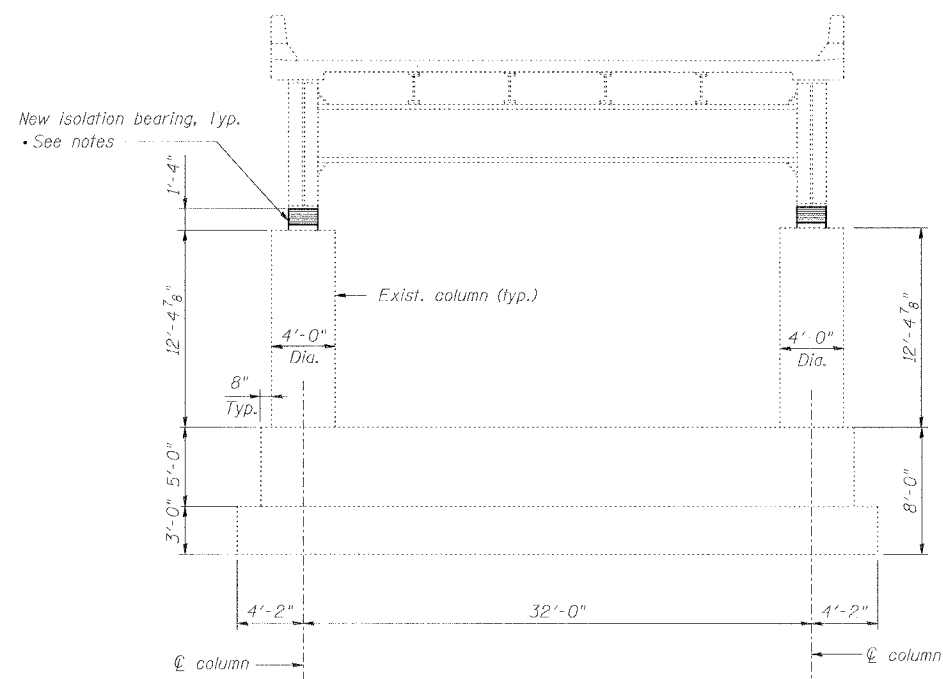
6 SECTION
S54

DATE: 12/2/2007 FILENAME: P:\2001\1901-1800\2001.1240\Drafting\Roadway\Rehab_Art\BampA\ISOLA-A-REED\06.dgn

DESIGNED	HH
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

SEISMIC RETROFIT DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007



WEST ELEVATION PIER A42

BEARING REACTION TABLE - PIER A42

Load*	Girder A1	Girder A2
R _D (k)	431	431
R _L (k)	104	104
Impact (k)	16	16
Total (k)	551	551

*Service loads
Minimum Jack Size: 500 Tons

BILL OF MATERIAL - PIER A42

SUBSTRUCTURE		
ITEM	UNIT	QUANTITY
Seismic isolation bearing assembly, Type A	Ea.	2
Jack and remove existing bearings	Ea.	2

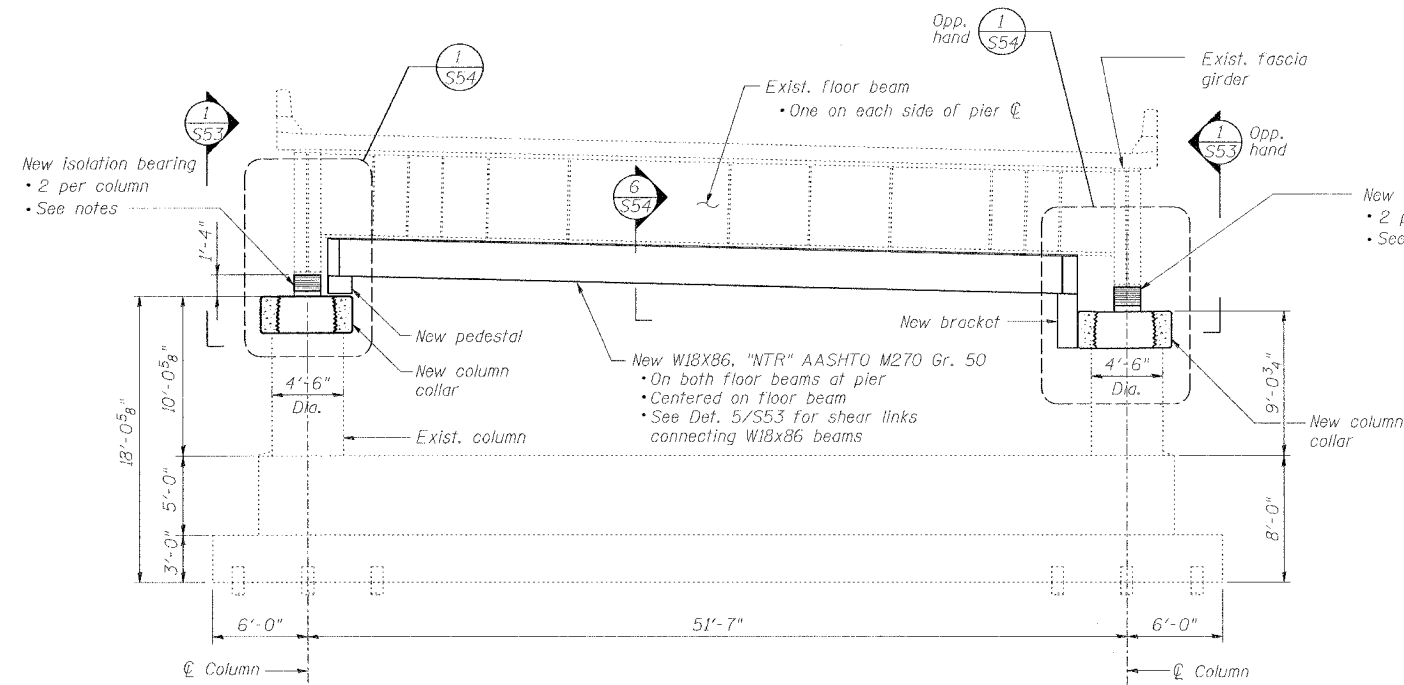
ISOLATION BEARING NOTES - PIER A42

- Each bearing shall be capable of sustaining service gravity load of 550 kips min.
- Each bearing shall have elastic lateral load capacity of at least 40 kips, but not greater than 45 kips.
- Each bearing shall have post yield stiffness between 5 kips/in. and 10 kips/in.
- Each bearing shall be centered on existing bearing stiffener.
- Each bearing shall be capable of sustaining a minimum of 3 inch lateral deformation between top and bottom plates.
- Contractor is responsible for designing, furnishing and installing bearings and all related connections, shims, pedestals and any other elements necessary to achieve performance specifications outlined above. All such elements shall be capable of sustaining the demands associated with specified bearing deformation.

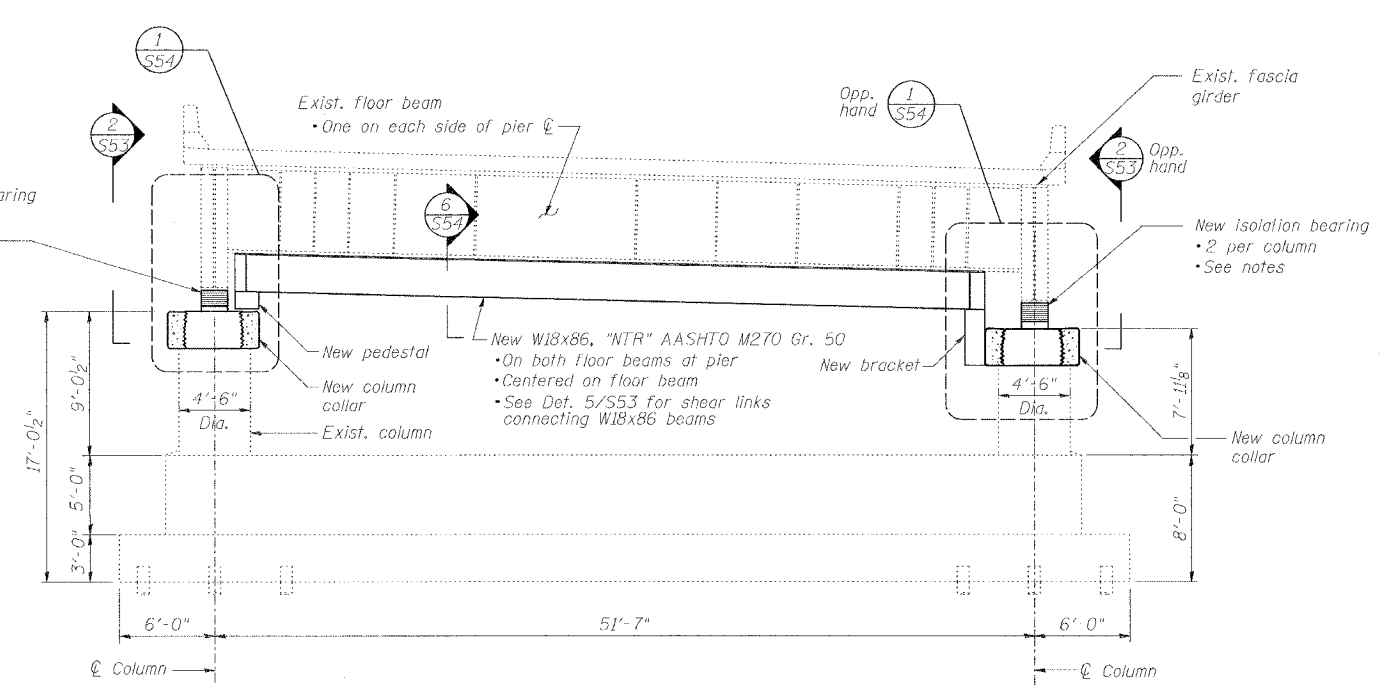
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DESIGNED	VARIOUS
CHECKED	JEL/HH
DRAWN	CLK
CHECKED	JEL

REVISIONS		PIER ELEVATIONS
NAME	DATE	
		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE TO POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
		STRUCTURE NO. 082-0141 (ROADWAY A)
		SCALE: N.T.S.
		DATE: 02/01/2007



WEST ELEVATION PIER A44



WEST ELEVATION PIER A45

BEARING REACTION TABLE - PIER A44

Load*	Span A43		Span A44	
	A1	A2	A1	A2
R _⊥ (k)	132	160	161	161
R _∥ (k)	72	72	72	72
Impact (k)	18	18	17	17
Total (k)	222	250	250	250

*Gravity service loads
Minimum Jack Size: 200 Tons

ISOLATION BEARING NOTES - PIERS A44 AND A45

- Each bearing shall be capable of sustaining a service gravity load of 250 kips min.
- Each bearing shall have elastic lateral load capacity of at least 20 kips, but not greater than 25 kips.
- Each bearing shall have post yield stiffness of 10 kips/in ± 2 kips./in.
- Each bearing shall be centered on existing bearing stiffener.
- Each bearing shall be capable of sustaining a minimum of 3 inch lateral deformation between top and bottom plates.
- Contractor is responsible for designing, furnishing and installing bearings and all related connections, shims, pedestals and any other elements necessary to achieve performance specifications outlined above. All such elements shall be capable of sustaining the demands associated with specified bearing deformation.

BEARING REACTION TABLE - PIER A45

Load*	Span A44		Span A45	
	A1	A2	A1	A2
R _⊥ (k)	161	161	104	104
R _∥ (k)	72	72	43	43
Impact (k)	17	17	12	12
Total (k)	250	250	159	159

*Gravity service loads
Minimum Jack Size: 200 Tons

BILL OF MATERIAL - PIER A45

SUBSTRUCTURE					
BAR	NO.	SIZE	LENGTH	SHAPE	
s ₁ (E)	38	#6	5'-2"	□	
s ₂ (E)	36	#10	9'-5"	⌢	
ITEM				UNIT	QUANTITY
Reinforcing bars, epoxy coated				Pound	1,760
Concrete structures				Cu. Yd.	5
Seismic isolation bearing assembly, Type A				Ea.	4
Jack and remove existing bearings				Ea.	4
Mechanical Splice				Ea.	36

BILL OF MATERIAL - PIER A44					
SUBSTRUCTURE					
BAR	NO.	SIZE	LENGTH	SHAPE	
s ₁ (E)	38	#6	5'-2"	□	
s ₂ (E)	36	#10	9'-5"	⌢	
ITEM				UNIT	QUANTITY
Reinforcing bars, epoxy coated				Pound	1,760
Concrete structures				Cu. Yd.	5
Seismic isolation bearing assembly, Type A				Ea.	4
Jack and remove existing bearings				Ea.	4
Mechanical Splice				Ea.	36

PIER ELEVATIONS

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0141 (ROADWAY A)
SCALE: N.T.S.
DATE: 02/01/2007

REVISIONS	
NAME	DATE

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\20011210\Drafting\Roadway\Rehab\AT\RampA\ISOL\A_PB4445.dgn

DESIGNED	VARIOUS
CHECKED	HH/JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	78
FED. ROAD DIST. NO. 7	F.LINES	FED. AID PROJECT - IM-70		
* 82-3HVB-3R-5			SHEET S-1 OF S-22	
CONTRACT NO. 76305				

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
FAI ROUTE 70 (I-55/64/70)
POPLAR STREET BRIDGE APPROACHES
SECTION 82-3HVB-3R-5
PROJECT IM-70
PLANS FOR PROPOSED
ROADWAY REHABILITATION
ST. CLAIR COUNTY

SET 2 OF
2 SETS

ENCOMPASSING THE FOLLOWING ROADWAYS
 • SN-082-0146 (RAMP T)

LOADING HS20-44

SEISMIC DATA

Seismic Performance Category (SPC) = B
 Bedrock Acceleration Coefficient (A) = 0.12g
 Site Coefficient (S) = 1

DESIGN SPECIFICATIONS

2002 AASHTO
 1995 Seismic Retrofitting Manual for
 Highway Bridges FHWA-RD-94-052

HIGHWAY CLASSIFICATION

F.A.I. Route 70 - Poplar Street Complex
 Functional Class: Collector - Distributor
 Roadways
 A.D.T.: 910 (2005)
 D.H.V.: 100
 Design Speed: 50 mph
 Posted Speed: 50 mph

DESIGN STRESSES

FIELD UNITS (ORIGINAL)

f_c = 1,400 psi
 (Super-, and Sub-structures)
 f_s = 20,000 psi (A36 Structural Steel)
 f_s = 20,000 psi (Reinforcement)
 f_y = 40,000 psi (Reinforcement)

FIELD UNITS (Previous Repair)

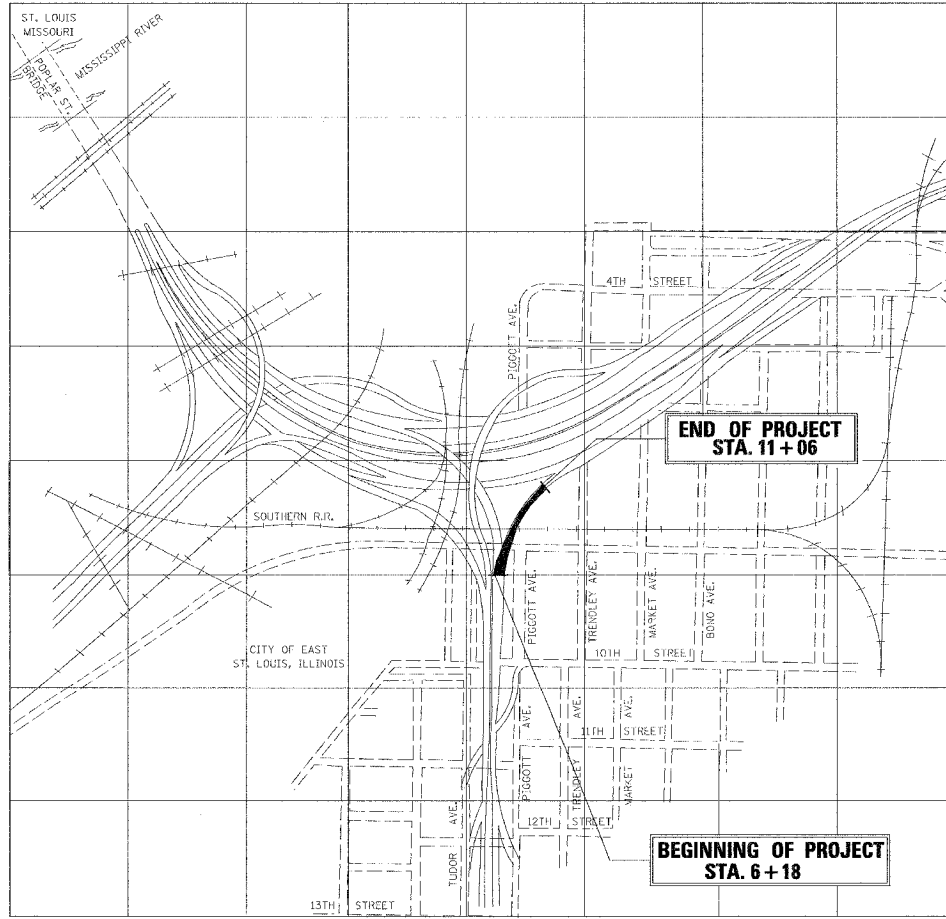
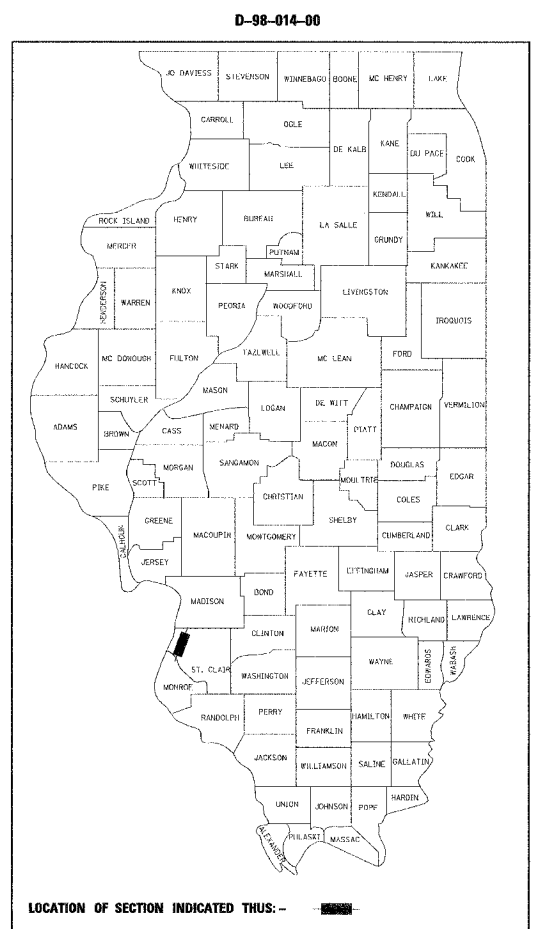
f_c = 3,500 psi
 f_y = Various, 36,000 - 50,000 psi
 (Structural Steel)
 f_y = 60,000 psi (Reinforcement)

FIELD UNITS (NEW)

f_c = 4,000 psi
 f_y = 36,000 psi (M270 Grade 36)
 f_y = 50,000 psi (M270 Grade 50)
 f_y = 70,000 psi (M270 Grade HPS 70W)
 f_y = 60,000 psi (Reinforcement)

INDEX OF DRAWINGS

SHEET(S)	TITLE
S1	TITLE SHEET - RAMP T
S2	GENERAL NOTES
S3	SCOPE OF WORK
S4	KEY PLAN
S5	TOTAL BILL OF MATERIAL
S6 - S8	PROJECT PLAN, ELEVATION, AND SECTIONS
S9	TABLES OF ROADWAY ELEVATIONS
S10 - S11	DECK AND PARAPET REPAIR PLANS
S12 - S14	INFRARED THERMOGRAPHIC MAPPING RESULTS
S15 - S16	CONCRETE PARAPET DETAILS
S17	CONCRETE REPAIR DETAILS
S18	EXPANSION JOINT REPAIR DETAILS
S19 - S20	DECK DRAINAGE DETAILS
S21	STEEL PAINTING DETAILS
S22	FATIGUE RETROFIT DETAILS



LOCATION PLAN

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED _____ 20 _____

DISTRICT ENGINEER

_____ 20 _____

ENGINEER OF PROJECT DEVELOPMENT AND IMPLEMENTATION

_____ 20 _____

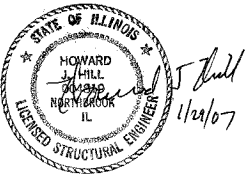
ENGINEER OF DESIGN AND ENVIRONMENT

_____ 20 _____

DIRECTOR, DIVISION OF HIGHWAYS

CONTRACT NO. 76985

Howard J. Hill, Ph.D, SE
 Illinois Licensed Structural Engineer
 License No. 081-004819
 License Expires: 11/30/08



WJE WISS, JANNEY, ELSTNER ASSOCIATES, INC.
 Engineers, Architects, Material Scientists
 330 PRINGSTEN ROAD
 NORTHBROOK, ILLINOIS 60062
 (847) 272-7400 FAX: (847) 291-4813

DATE: 1/24/2007
 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\Reamp\T_T\Title.dgn

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	79
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-70		

* 82-3HVB-3R-5 SHEET S-2 OF S-22
CONTRACT NO. 76985

GENERAL NOTES:

- Plan dimensions and details relative to existing plans are subject to routine 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 the scope of the work, however, the Contractor will be paid for the quantity actually furnished based upon the unit price bid for the work.
- Contractor shall be responsible for furnishing and installing all parts and materials necessary to complete the repairs indicated herein. Contractor shall also provide any tools, equipment, and machinery as necessary to complete the repairs indicated herein.
- Contractor shall locate all active and abandoned utilities, traffic signs, traffic observation cameras, and other traffic control devices and appurtenances that may interfere with the installation of repairs. The contractor shall either protect or temporarily relocate and restore all active utilities, signs, cameras, and other devices to the satisfaction of the Engineer. If abandoned utilities interfere with installation of repairs, contractor shall coordinate with Engineer, and shall remove and dispose of such utilities if so directed by Engineer.
- Calculated weight of Structural Steel, Grade 50W: 0 Lbs.
Calculated weight of Structural Steel, Grade 36W: 0 Lbs.
- Unless noted otherwise, Fasteners shall be high strength bolts. All threaded rods and dowels shall conform to the mechanical properties and thread configuration of AASHTO M164 bolts. In bolted applications, threads shall not be permitted in shear planes, unless noted otherwise.
- Threads on all bolts, rods, and dowels not installed per AISC specifications shall be peened with a hammer.
- Welding electrodes shall be low hydrogen E70XX, unless noted otherwise. Weld metal shall have a minimum CVN of 25 Ft.-Lb. at 20°F.
- All turnbuckles, clevises, and pins shall be galvanized and capable of developing the ultimate strengths of the corresponding assemblies.
- No field welding is permitted except as specified in the contract documents.
- Finger plate expansion joints shall be assembled in their final relative position with the ends in place for shop inspection and acceptance.
- The inorganic zinc rich primer/acrylic/acrylic paint system shall be used for shop and field painting of new structural steel except where otherwise noted. The color of the final finish coat shall be Interstate Green, Munsell No. 7.5 G 4/8. See Special Provision for "Cleaning and Painting New Metal Structures."
- 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 Area of Existing Steel Structure".
- 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 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.

As directed by the Engineer, existing construction accessories welded to the top flange of beams and girders shall be removed. The weld areas shall be ground flush and inspected for cracks using magnetic particle testing (MT) or dye penetrant testing (PT) by an individual acceptable to the Engineer. Any cracks that can not be removed by grinding 1/4 in. deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of removing welded accessories, grinding and inspecting weld areas and grinding cracks will be paid for according to Article 109.04 of the Standard Specifications.
- The existing structural steel coating contains lead. The contractor shall take appropriate precautions to deal with the presence of lead on this project.
- Any additional microsilica concrete, beyond the quantities shown in the plans, needed to fill partial depth repair areas or other depressions (e.g. due to previous milling of the bridge deck) shall be paid for at the Contractor's actual material cost for the microsilica concrete per cubic yard plus 15 percent. Refer to special provision "Bridge Deck Microsilica Concrete Overlay.
- Prior to initiating staged traffic control, the Contractor shall remove all debris and protruding reinforcing steel from all sections of existing sidewalks and parapets exposed to traffic. Associated cost shall be included with the pay item for "Concrete Removal)
- The Contractor shall remove stay-in-place forms in the vicinity of each existing floor drain as directed by the Engineer. Area of removal will be approximately 5 square feet at each existing floor drain and shall be considered included with the pay item for "Concrete Removal". There are approximately 325 existing floor drains on Roadway A.
- Reinforcement bars shall conform to the requirements of ASTM A 706 Gr 60 (1 Modified). See Special Provisions.
- Reinforcement bars designated (E) shall be epoxy coated.

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DESIGNED	VARIOUS
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DRAWN	CLK
CHECKED	JEL

GENERAL NOTES & INDEX OF DRAWINGS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0146 (Hamp 1)
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	80
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		
* 82-3HVB-3R-5			SHEET S-3 OF S-22	
CONTRACT NO. 76985				

BRIDGE REHABILITATION AND RETROFIT:

1. Remove existing deck parapet, sidewalk and outermost 3' to 4' of concrete deck as required at the following locations and replace with new parapet (6 spans):
Spans T1 through T6
2. Per Sheet S17, remove existing hot mix asphalt bituminous overlay, perform concrete deck repairs (partial depth) as necessary, scarify top 1/2" of existing concrete deck, and add new microsilica concrete overlay at the following locations (6 spans):
Spans T1 through T6
3. Install new drainage scuppers as indicated at the following spans (5 spans):
T1 T2 T4 T5 T6
4. Remove existing bridge deck joints and replace with new neoprene joint at the following abutment (1 location):
T6
5. Resurface adjacent hot mix asphalt roadway surface at the following abutment (1 location):
T6
6. Clean and paint selected portions of the steel superstructure including bottom portions of girders and all steel in the vicinity of deck joints.
Spans T1 through T6
7. Perform vertical stiffener intersection modifications on the following spans (6 spans)
Spans T1 through T6

DATE: 1/24/2007
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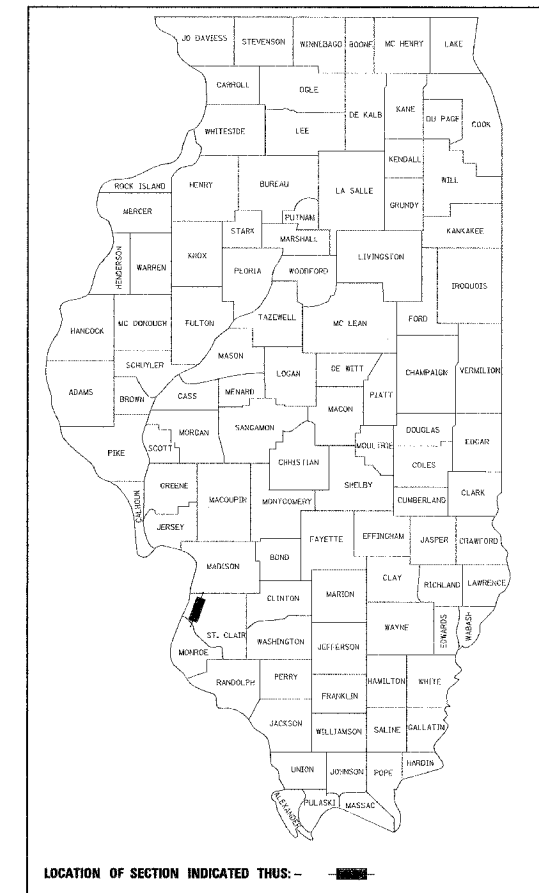
SCOPE OF WORK

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0146 (Ramp T) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	81
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

* 82-3HVB-3R-5 SHEET S-4 OF S-22
CONTRACT NO. 76985

D-98-014-00



LOCATION OF SECTION INDICATED THIS: — [black rectangle] —

LOCATION SKETCH

OVERALL PROJECT PLAN

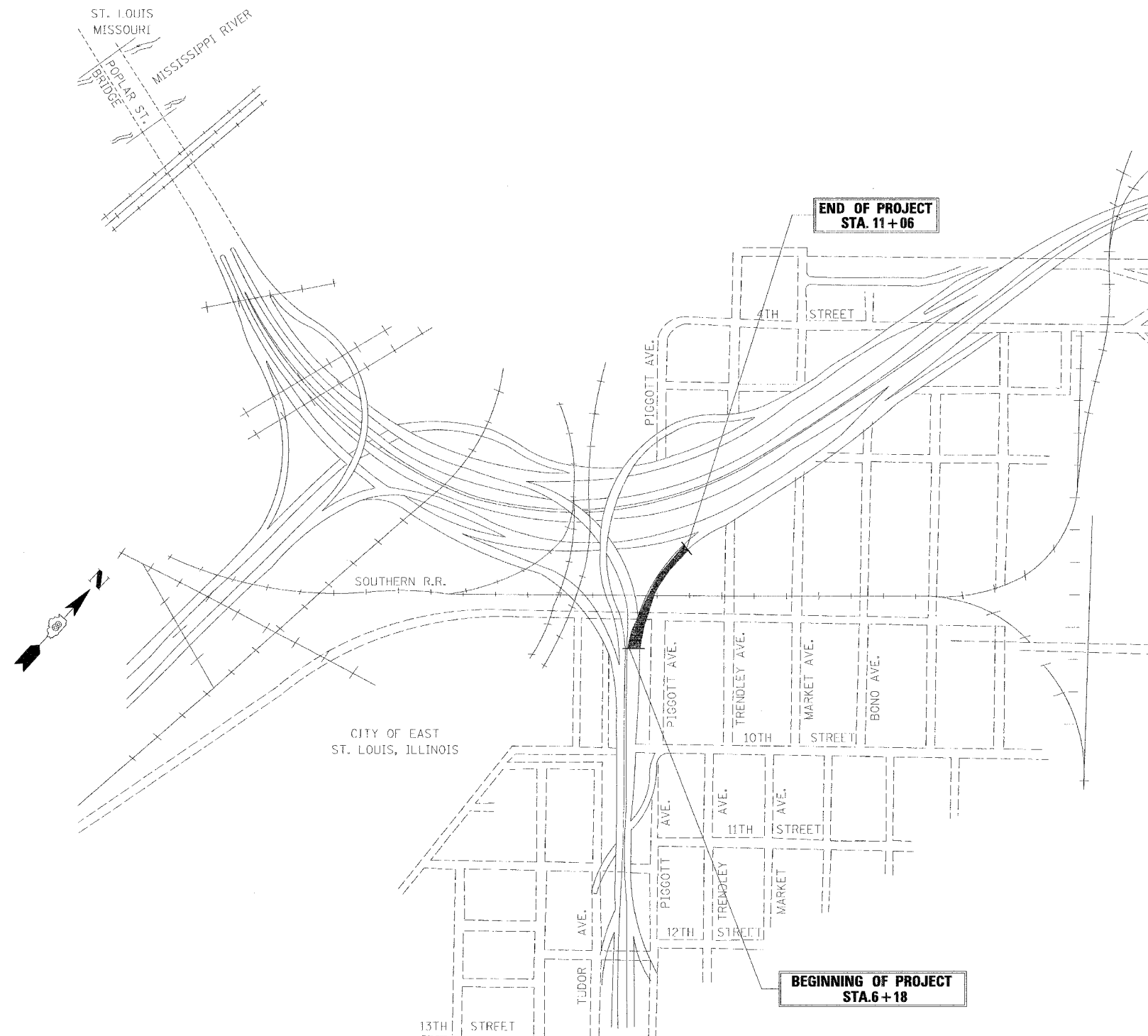
Roadway / Ramp	Segment / Pier No.	Structure No.	Year / Structure Type
T	A35-16	082-0146	1967 Two Girder System

KEY PLAN

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007



DATE: 1/24/2007
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	82
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

* 82-3HVB-3R-5 SHEET S-5 OF S-22
 CONTRACT NO. 76985

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
Concrete Removal	CU YD	287	---	287
Concrete Superstructure	CU YD	260	---	260
Reinforcement Bars, Epoxy coated	POUND	37,840	---	37,840
Bridge Deck Hydro-Scarification-1/2"	SQ YD	1,402	---	1,402
Bridge Deck Microsilica Concrete Overlay-2 1/2"	SQ YD	1,588	---	1,588
Bridge Deck Grooving	SQ YD	1,588	---	1,588
Protective Coat	SQ YD	2,525	---	2,525
Polymer Concrete	CU FT	10	---	10
Neoprene Expansion Joint, 4"	FOOT	26	---	26
Hot Mix Asphalt Surface Removal (Deck)	SQ YD	1,402	---	1,402
Drainage Scuppers, DS12	EACH	5	---	5
Protective Shield	SQ YD	320	---	320
Curb Removal (Special)	FOOT	7.5	---	7.5
Cleaning and Painting Steel Bridge, No. 2	L SUM	1	---	1
Containment & Disposal of Lead Paint Cleaning Residues, No. 2	L SUM	1	---	1
Stiffener Intersection Modification	EACH	280	---	280
Crack Extension Modifications	EACH	5	---	5

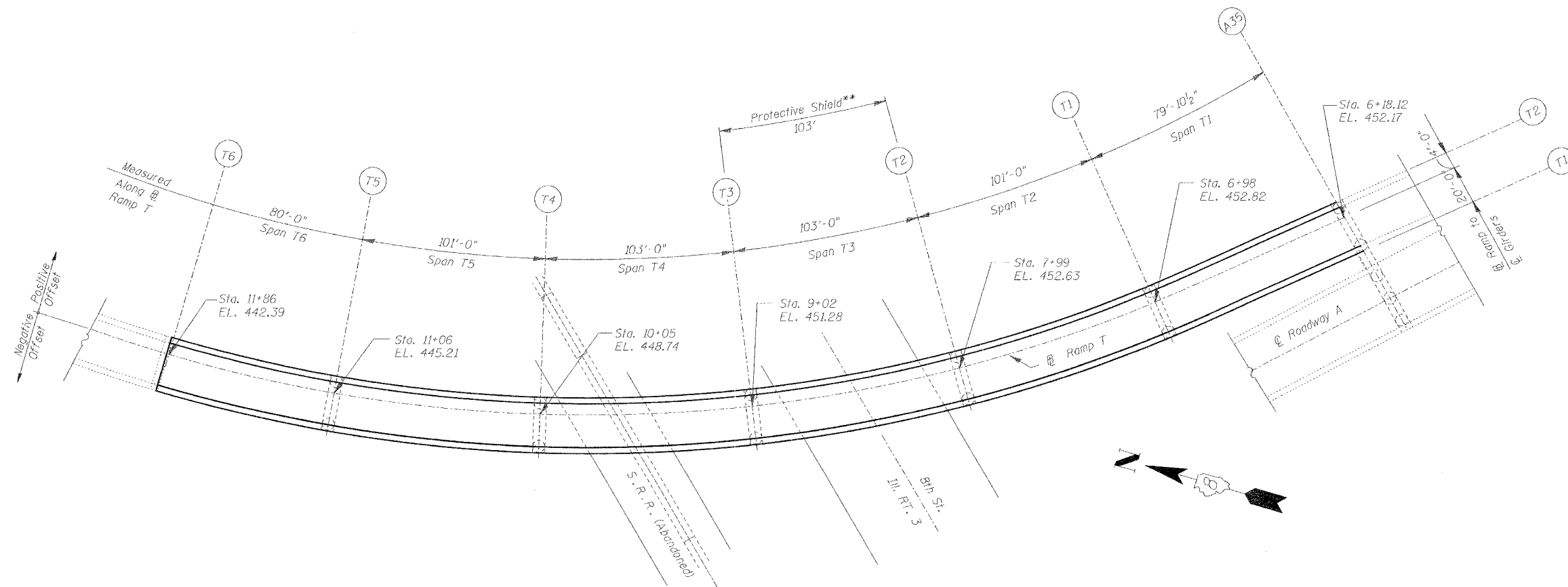
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DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

BILL OF MATERIAL
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)
 SCALE: N.T.S.
 DATE: 02/01/2007



PLAN (Spans T1 - T5)

*Provide protective shield underneath full roadway width for the length indicated

Roadway elevations are theoretical top of new concrete overlay.

ELEVATIONS TOP OF GIRDER FLANGE			
PIER	STATION	GIRDER T1	GIRDER T2
T1	698.000	453.254	451.592
T2	799.000	453.281	451.361
T3	902.000	451.920	450.000
T4	1005.000	449.391	447.471
T5	1106.000	445.890	443.970

Notes:

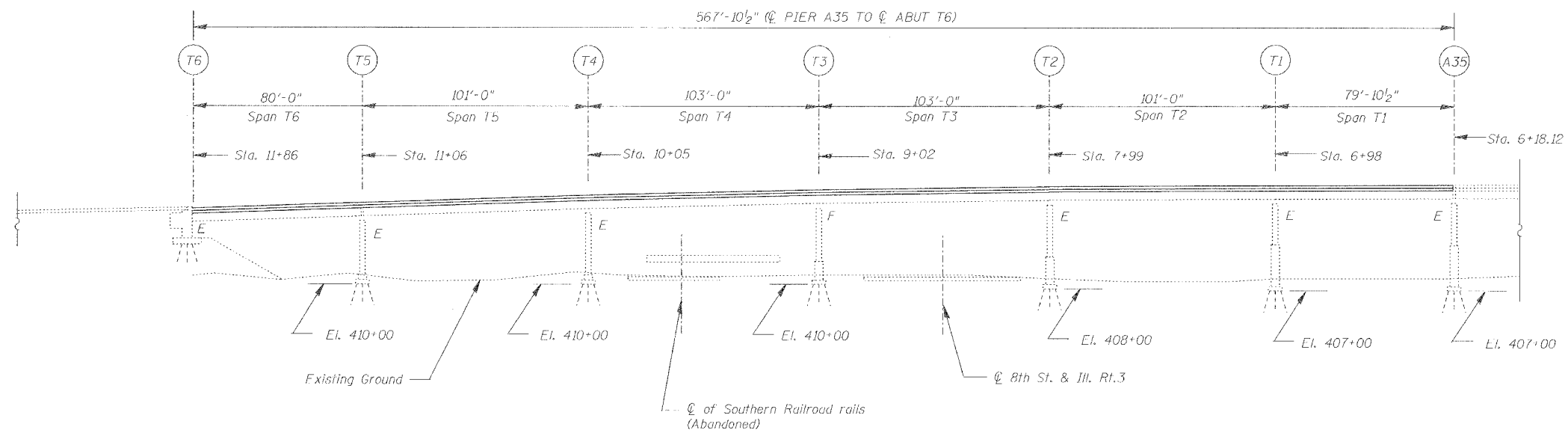
1. These elevations provided to assist in determination of top of slab elevations.
2. Elevations taken from original design drawings and shall be field verified by Contractor.
3. Piers at expansion joints not shown.

REVISIONS	
NAME	DATE

PROJECT PLAN
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0146 (Ramp 1)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007 FILENAME: P:\2001\1201-1800\2001.12.40\Drafting\Roadway\Bajah_A.T\Ramp T\T_PROPL.DGN

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL



ELEVATION (Spans T1 - T5)

DATE: 1/24/2007
FILENAME: P:\2001\1201-1300\20011240\Drafting\RoadwayRehab_A1\Ramp\T_PROEL.dgn

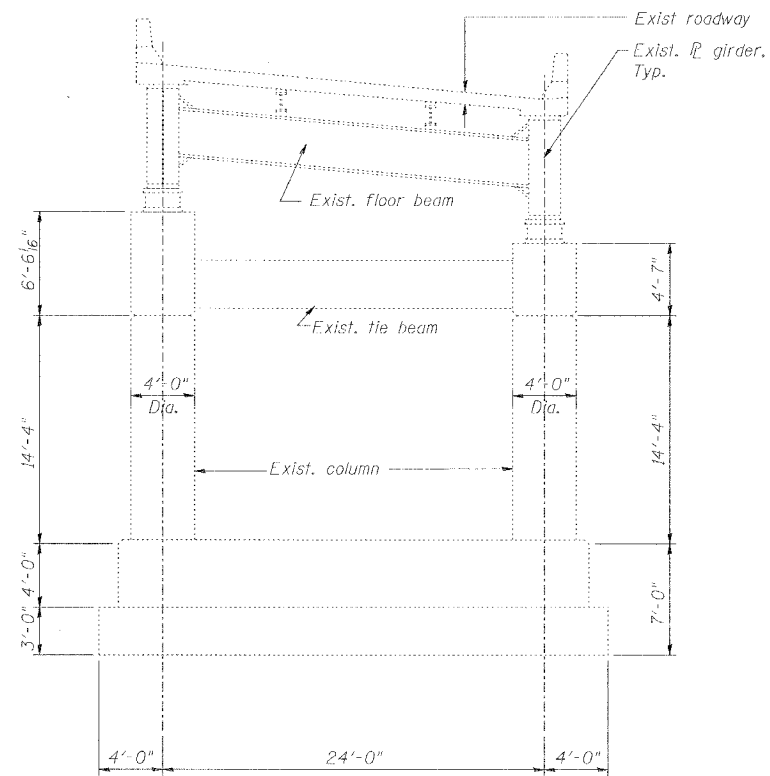
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DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

PROJECT ELEVATION
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007

ROUTE NO.	SECTION	COUNTY	JULIA SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	85
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

• 82-3HVB-3R-5 SHEET S-8 OF S-22
CONTRACT NO. 76985



TYPICAL SECTION THROUGH TWO - GIRDER ROADWAY (PIER T5 SHOWN)

TYPICAL STRUCTURAL DETAILS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007
FILENAME: P:\2001\1201-1300\20011240\Drafting\RoadwayRehab_AT\ Ramp T\ demo\ t-demo1.dgn

DESIGNED	JEL
CHECKED	HH
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	86

FED. ROAD DIST. NO. 7 I-1 (MIS) FED. AID PROJECT- 1H-78
 * 82-3HVB-3R-5 SHEET 86 OF 99
 CONTRACT NO. 76985

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ϕ
618.250	-20.000	452.889	452.889	768.700	-20.000	454.407	454.414	932.900	-20.000	452.234	452.244	1095.900	-20.000	447.178	447.179
618.733	-12.000	452.609	452.609	768.700	-11.976	453.765	453.772	932.900	-11.936	451.589	451.599	1095.900	-11.849	446.526	446.527
619.215	-4.000	452.326	452.326	768.700	-3.976	453.125	453.132	932.900	-3.937	450.949	450.959	1095.900	-3.851	445.886	445.887
619.689	4.000	452.040	452.040	768.700	4.000	452.487	452.494	932.900	4.000	450.314	450.324	1095.900	4.000	445.258	445.259
627.828	-20.000	453.084	453.087	778.800	-20.000	454.360	454.364	943.200	-20.000	451.998	452.010	1106.000	-20.000	446.807	446.807
627.828	-12.000	452.764	452.767	778.800	-11.923	453.714	453.718	943.200	-11.949	451.354	451.366	1106.000	-11.923	446.161	446.161
627.828	-4.000	452.444	452.447	778.800	-3.924	453.074	453.078	943.200	-3.950	450.714	450.726	1106.000	-3.924	445.521	445.521
627.828	4.000	452.124	452.127	778.800	4.000	452.440	452.444	943.200	4.000	450.078	450.090	1106.000	4.000	444.887	444.887
636.200	-20.000	453.247	453.255	786.900	-20.000	454.302	454.303	953.500	-20.000	451.750	451.763	1116.300	-20.000	446.429	446.433
636.200	-12.000	452.899	452.905	786.900	-11.849	453.649	453.650	953.500	-11.936	451.105	451.118	1116.300	-11.936	445.784	445.788
636.200	-4.000	452.551	452.557	786.900	-3.851	453.010	453.011	953.500	-3.937	450.465	450.478	1116.300	-3.967	445.144	445.148
636.200	4.000	452.202	452.208	786.900	4.000	452.382	452.383	953.500	4.000	449.830	449.843	1116.300	4.000	444.509	444.513
646.500	-20.000	453.436	453.444	799.000	-20.000	454.232	454.232	963.800	-20.000	451.491	451.503	1126.600	-20.000	446.051	446.058
646.500	-12.000	453.054	453.061	799.000	-11.923	453.586	453.586	963.800	-11.949	450.846	450.858	1126.600	-11.949	445.407	445.414
646.500	-4.000	452.671	452.678	799.000	-3.924	452.946	452.946	963.800	-3.950	450.206	450.218	1126.600	-3.950	444.767	444.774
646.500	4.000	452.289	452.296	799.000	4.000	452.312	452.312	963.800	4.000	449.571	449.583	1126.600	4.000	444.131	444.138
656.800	-20.000	453.614	453.621	805.300	-20.000	454.149	454.151	974.100	-20.000	451.219	451.228	1136.900	-20.000	445.673	445.681
656.800	-12.000	453.197	453.204	805.300	-11.936	453.504	453.506	974.100	-11.000	450.577	450.586	1136.900	-11.938	445.028	445.036
656.800	-4.000	452.780	452.787	805.300	-3.937	452.864	452.865	974.100	-3.974	449.937	449.946	1136.900	-3.937	444.388	444.396
656.800	4.000	452.363	452.370	805.300	4.000	452.229	452.231	974.100	4.000	449.299	449.308	1136.900	4.000	443.753	443.761
667.100	-20.000	453.779	453.784	819.600	-20.000	454.054	454.060	984.400	-20.000	450.936	450.941	1147.200	-20.000	445.296	445.303
667.100	-12.000	453.328	453.333	819.600	-11.949	453.410	453.416	984.400	-11.922	450.289	450.295	1147.200	-11.949	444.652	444.659
667.100	-4.000	452.877	452.882	819.600	-3.950	452.770	452.776	984.400	-3.923	449.650	449.655	1147.200	-3.950	444.012	444.019
667.100	4.000	452.426	452.431	819.600	4.000	452.134	452.140	984.400	4.000	449.016	449.021	1147.200	4.000	443.376	443.383
677.400	-20.000	453.933	453.936	829.900	-20.000	453.948	453.957	994.700	-20.000	450.641	450.643	1157.500	-20.000	444.929	444.934
677.400	-12.000	453.443	453.446	829.900	-11.936	453.303	453.312	994.700	-11.875	449.988	449.990	1157.500	-11.971	444.286	444.291
677.400	-4.000	452.958	452.961	829.900	-3.937	452.663	452.672	994.700	-4.000	448.721	448.723	1157.500	-3.972	443.645	443.650
677.400	4.000	452.477	452.480	829.900	4.000	452.028	452.037	994.700	-3.847	448.078	448.084	1157.500	4.000	443.009	443.014
687.700	-20.000	454.075	454.076	840.200	-20.000	453.829	453.841	1005.000	-20.000	450.334	450.334	1167.800	-20.000	444.575	444.577
687.700	-12.000	453.546	453.546	840.200	-11.949	453.185	453.197	1005.000	-11.922	449.687	449.687	1167.800	-11.953	443.931	443.933
687.700	-4.000	453.026	453.027	840.200	-3.950	452.545	452.557	1005.000	-3.923	449.048	449.048	1167.800	-3.953	443.291	443.293
687.700	4.000	452.516	452.517	840.200	4.000	451.909	451.921	1005.000	4.000	448.414	448.414	1167.800	4.000	442.649	442.651
698.000	-20.000	454.206	454.206	850.500	-20.000	453.699	453.712	1015.100	-20.000	450.021	450.022	1176.600	-20.000	444.283	444.284
698.000	-12.000	453.646	453.646	850.500	-11.936	453.054	453.067	1015.100	-11.939	449.376	449.377	1176.600	-11.920	443.637	443.637
698.000	-4.000	453.092	453.092	850.500	-3.937	452.414	452.427	1015.100	-3.940	448.737	448.738	1176.600	-3.921	442.997	442.997
698.000	4.000	452.543	452.543	850.500	4.000	451.779	451.792	1015.100	4.000	448.101	448.102	1176.600	4.000	442.363	442.363
708.100	-20.000	454.326	454.326	860.800	-20.000	453.557	453.569	1025.200	-20.000	449.698	449.701	1185.426	-20.000	444.001	444.001
708.100	-11.393	453.730	453.731	860.800	-11.949	452.913	452.925	1025.200	-11.950	449.054	449.057	1185.426	-12.000	443.361	443.361
708.100	-3.940	453.142	453.143	860.800	-3.950	452.273	452.285	1025.200	-3.951	448.414	448.417	1185.419	-4.000	442.721	442.721
708.100	4.000	452.558	452.559	860.800	4.000	451.637	451.649	1025.200	4.000	447.778	447.781	1185.412	4.000	442.081	442.081
718.200	-20.000	454.427	454.430	871.100	-20.000	453.404	453.413	1035.300	-20.000	449.363	449.369				
718.200	-11.950	453.802	453.805	871.100	-11.974	452.762	452.771	1035.300	-11.939	448.718	448.724				
718.200	-3.951	453.180	453.183	871.100	-3.974	452.122	452.131	1035.300	-3.940	448.078	448.084				
718.200	4.000	452.562	452.565	871.100	4.000	451.484	451.493	1035.300	4.000	447.443	447.449				
728.300	-20.000	454.483	454.489	881.400	-20.000	453.238	453.244	1045.400	-20.000	449.016	449.025				
728.300	-11.939	453.838	453.844	881.400	-11.922	452.592	452.598	1045.400	-11.950	448.372	448.381				
728.300	-3.940	453.198	453.204	881.400	-3.923	451.952	451.958	1045.400	-3.951	447.732	447.741				
728.300	4.000	452.563	452.568	881.400	4.000	451.318	451.324	1045.400	4.000	447.096	447.105				
738.400	-20.000	454.481	454.489	891.700	-20.000	453.061	453.063	1055.500	-20.000	448.658	448.668				
738.400	-11.950	453.837	453.845	891.700	-11.845	452.409	452.411	1055.500	-11.939	448.014	448.023				
738.400	-3.951	453.197	453.205	891.700	-3.847	451.769	451.771	1055.500	-3.940	447.374	447.383				
738.400	4.000	452.561	452.569	891.700	4.000	451.141	451.143	1055.500	4.000	446.738	446.748				
748.500	-20.000	454.468	454.477	902.000	-20.000	452.872	452.872	1065.500	-20.000	448.290	448.299				
748.500	-11.939	453.823	453.832	902.000	-11.922	452.226	452.226	1065.500	-11.950	447.646	447.655				
748.500	-3.940	453.183	453.192	902.000	-3.923	451.586	451.586	1065.500	-3.951	447.006	447.015				
748.500	4.000	452.548	452.557	902.000	4.000	450.952	450.952	1065.500	4.000	446.370	446.379				
758.600	-20.000	454.443	454.452	912.300	-20.000	452.671	452.673	1075.700	-20.000	447.919	447.926				
758.600	-11.950	453.799	453.808	912.300	-11.936	452.026	452.028	1075.700	-11.976	447.277	447.284				
758.600	-3.951	453.159	453.168	912.300	-3.937	451.386	451.388	1075.700	-3.976	446.638	446.644				
758.600	4.000	452.523	452.532	912.300	4.000	450.751	450.752	1075.700	4.000	445.999	446.006				
				922.600	-20.000	452.459	452.465	1085.800	-20.000	447.549	447.553				
				922.600	-11.949	451.815	451.821	1085.800	-11.923	446.903	446.907				
				922.600	-3.950	451.170	451.175	1085.800	-3.924	446.263	446.267				
				922.600	4.000	450.539	450.545	1085.800	4.000	445.629	445.633				

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 1/S-17.
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet
 - Adjust elevations in Span T6 as necessary to match existing roadway elevations beyond Abutment T6.

TOP OF ROADWAY ELEVATIONS - SPANS T1 - T6

REVISONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0146 (Ramp T) SCALE: N.T.S. DATE: 02/01/2007
NAME	DATE	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	87
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

* 82-3HVB-3R-5 SHEET S-10 OF S-22
CONTRACT NO. 76985

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₅₀ (E)	8	#5	2'-0"	
a ₅₅ (E)	8	#5	3'-0"	
b ₁ (E)	70	#5	40'-0"	
b ₃ (E)	28	#5	40'-0"	
b ₆ (E)	18	#6	40'-0"	
d(E)	626	#5	3'-0"	
d ₁ (E)	626	#5	2'-7"	
d ₂ (E)	626	#4	3'-0"	
d ₄ (E)	626	#4	2'-10"	
e(E)	60	#4	35'-0"	
e ₁ (E)	60	#4	13'-3"	
e ₂ (E)	6	#4	32'-8"	
e ₃ (E)	6	#4	33'-6"	
e ₄ (E)	6	#4	6'-6"	
e ₅ (E)	6	#4	10'-2"	
e ₆ (E)	6	#4	8'-5"	
e ₇ (E)	6	#4	12'-3"	
e ₈ (E)	22	#5	35'-0"	
e ₉ (E)	22	#5	13'-3"	
e ₁₀ (E)	2	#5	33'-2"	
e ₁₁ (E)	2	#5	7'-6"	
e ₁₂ (E)	2	#5	11'-2"	
e ₁₃ (E)	2	#5	9'-5"	
e ₁₄ (E)	20	#8	35'-0"	
e ₁₅ (E)	20	#8	13'-3"	
e ₁₆ (E)	2	#8	35'-6"	
e ₁₇ (E)	2	#8	36'-3"	
e ₁₈ (E)	2	#8	12'-2"	
e ₁₉ (E)	2	#8	15'-10"	
e ₂₀ (E)	2	#8	14'-1"	
e ₂₁ (E)	2	#8	17'-11"	
Reinforcement Bars, Epoxy Coated			Pound	18,160
Concrete Removal			Cu. Yd.	140.2
Concrete Superstructure			Cu. Yd.	126.8
Hot Mix Asphalt Surface (Removal) (Deck)			Sq. Yd.	700
Bridge Deck Hydro-Scarification - 1/2"			Sq. Yd.	700
Bridge Deck Microsilica Concrete Overlay - 2 1/2"			Sq. Yd.	793
Drainage Scuppers - DS12			Ea.	2
Protective Coat			Sq. Yd.	1,261
Bridge Deck Grooving			Sq. Yd.	793
Protective Shield			Sq. Yd.	320
Mechanical Splice			Ea.	58

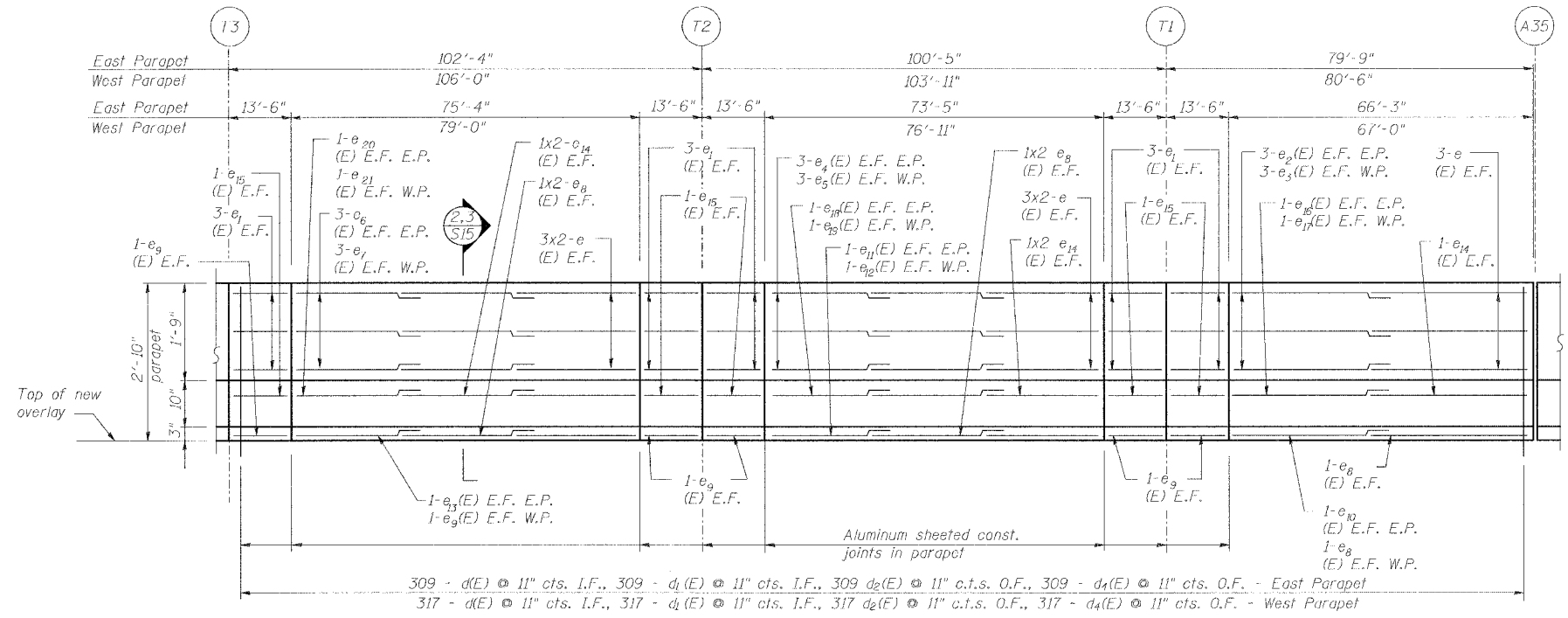
Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS T3 - T1

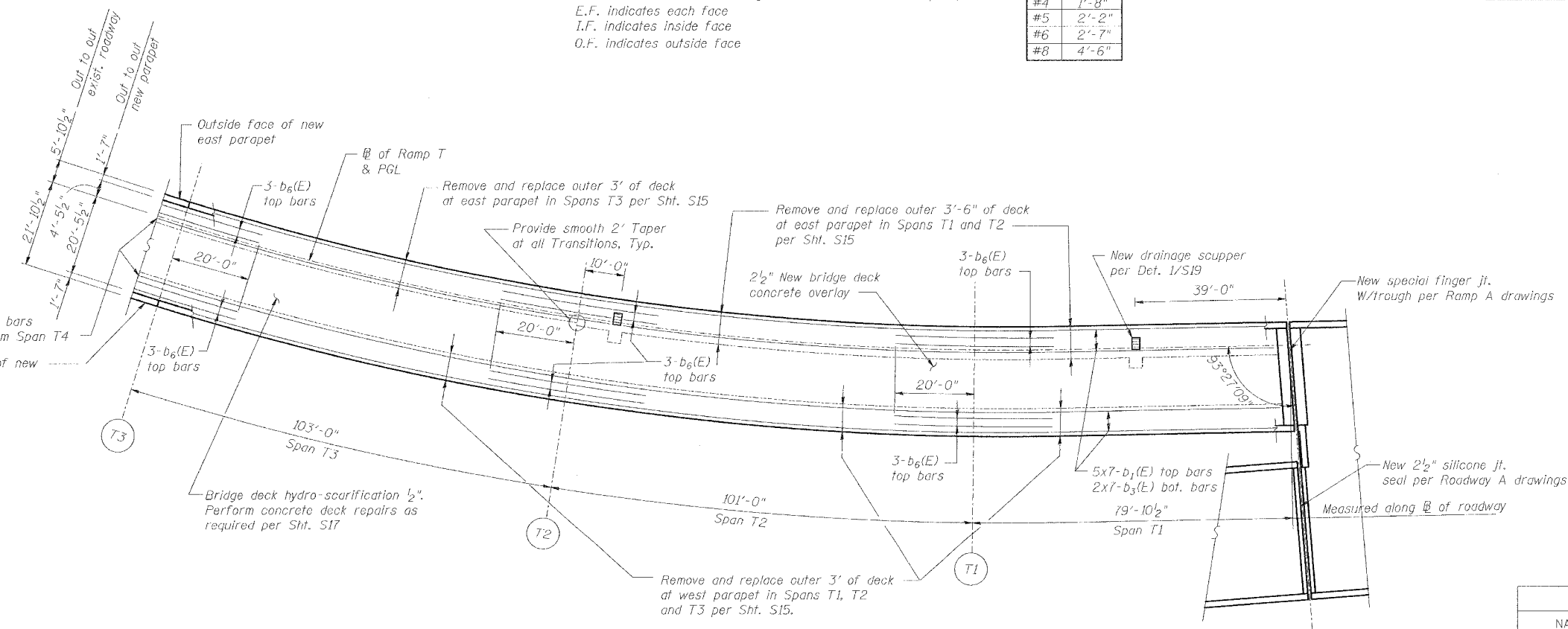
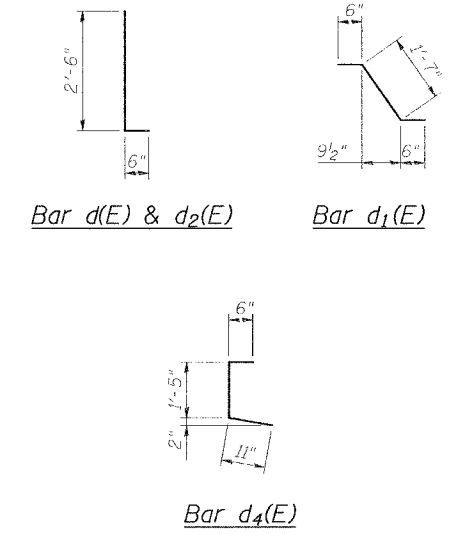
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007



Min Bar Laps	
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"



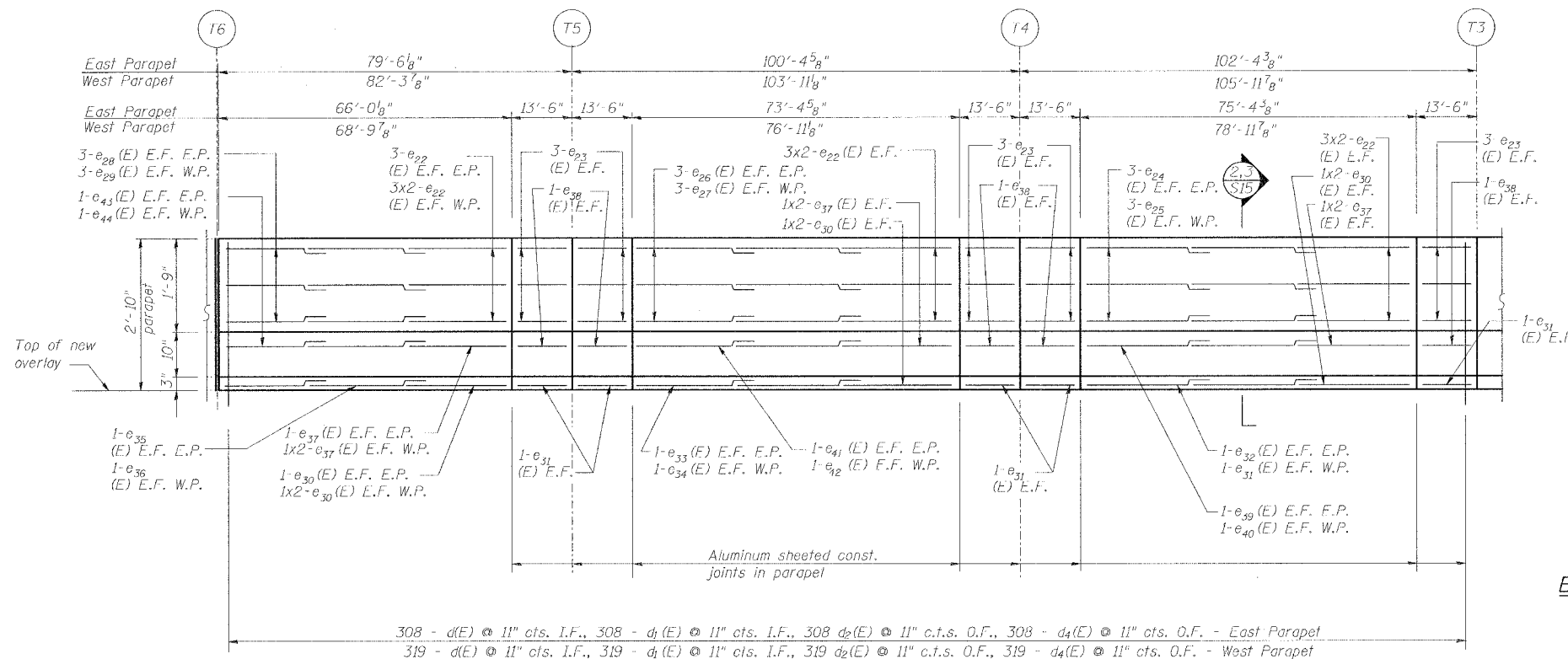
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DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD/JEL

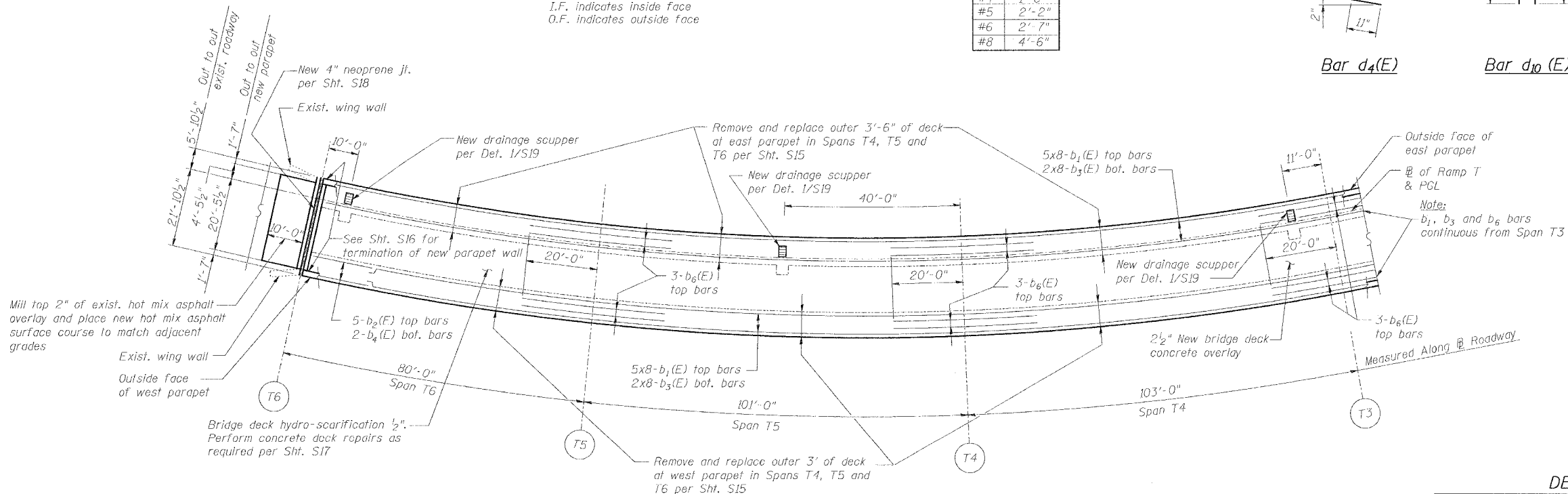
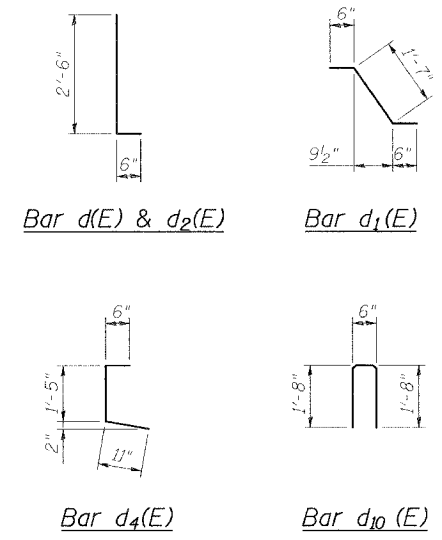
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	88
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- 1M-70	
* 82-3HVB-3R-5			SHEET S-11 OF S-22	
CONTRACT NO. 76985				

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₂₂ (E)	12	#5	2'-0"	
a ₂₃ (E)	12	#5	3'-0"	
b ₁ (E)	80	#5	40'-0"	
b ₂ (E)	5	#5	17'-0"	
b ₃ (E)	32	#5	40'-0"	
b ₄ (E)	2	#5	17'-0"	
b ₆ (E)	12	#6	40'-0"	
d(E)	627	#5	3'-0"	
d ₁ (E)	627	#5	2'-5"	
d ₂ (E)	627	#4	3'-0"	
d ₃ (E)	627	#4	2'-7"	
d ₄ (E)	1	#3	3'-10"	
e ₂₂ (E)	66	#4	35'-0"	
e ₂₃ (E)	60	#4	13'-3"	
e ₂₄ (E)	6	#4	8'-6"	
e ₂₅ (E)	6	#4	12'-3"	
e ₂₆ (E)	6	#4	6'-6"	
e ₂₇ (E)	6	#4	10'-2"	
e ₂₈ (E)	6	#4	32'-9"	
e ₂₉ (E)	6	#4	2'-7"	
e ₃₀ (E)	22	#5	35'-0"	
e ₃₁ (E)	22	#5	13'-3"	
e ₃₂ (E)	2	#5	9'-6"	
e ₃₃ (E)	2	#5	7'-6"	
e ₃₄ (E)	2	#5	11'-2"	
e ₃₅ (E)	2	#5	33'-3"	
e ₃₆ (E)	2	#5	3'-0"	
e ₃₇ (E)	24	#8	35'-0"	
e ₃₈ (E)	20	#8	13'-3"	
e ₃₉ (E)	2	#8	14'-1"	
e ₄₀ (E)	2	#8	17'-11"	
e ₄₁ (E)	2	#8	12'-2"	
e ₄₂ (E)	2	#8	15'-10"	
e ₄₃ (E)	2	#8	35'-3"	
e ₄₄ (E)	2	#8	7'-6"	
Reinforcement Bars, Epoxy Coated	Pound		18,570	
Concrete Removal	Cu. Yd.		143.9	
Concrete Superstructure	Cu. Yd.		130.5	
Hot Mix Asphalt Surface Removal (Deck)	Sq. Yd.		702	
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.		702	
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.		795	
Drainage Scuppers - DS12	Ea.		3	
Protective Coat	Sq. Yd.		1,264	
Bridge Deck Grooving	Sq. Yd.		795	
Curb Removal (Special)	Foot		7.5	
Mechanical Splice	Ea.		68	



#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"



DECK & PARAPET REPAIRS - SPANS T6 - T4

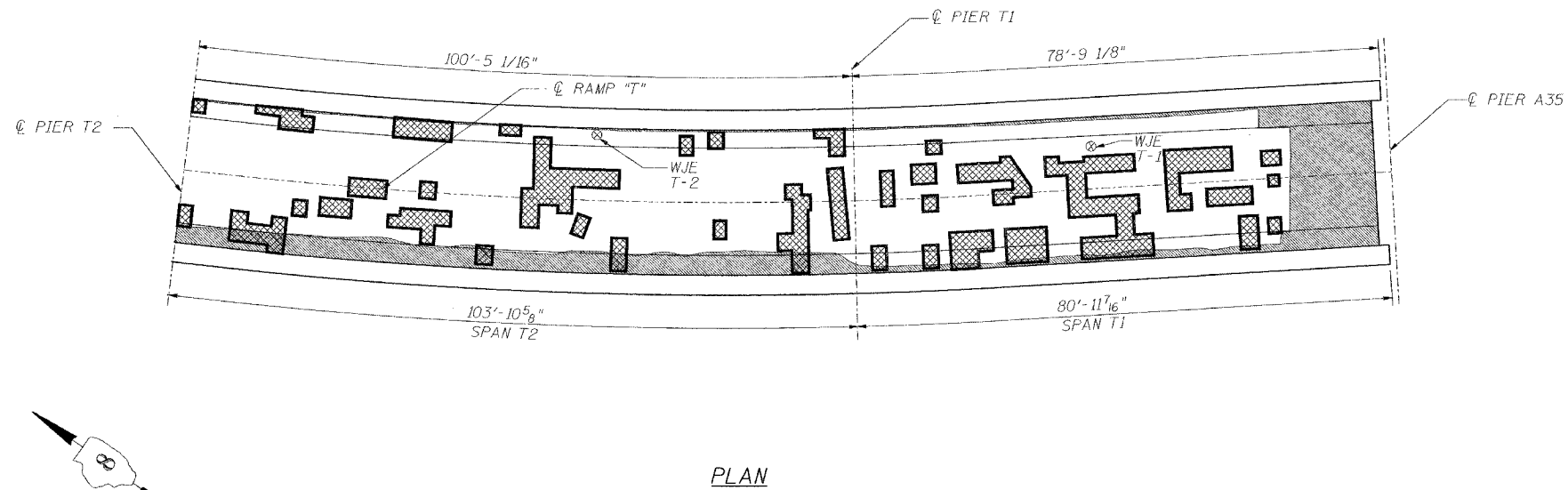
REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0146 (Ramp T) SCALE: N.T.S. DATE: 02/01/2007

DECK PLAN OF SPANS T6 - T4

Reinforcement bars designated (E) shall be epoxy coated.

DATE: 1/26/2007 FILENAME: P:\2001\201-1300\2001.1240\Drafting\Roadway\Rehab_AT\ Ramp T parapet-deck_T_DP0406.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD/JEL



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ff ²	3976		DELAMINATION	
SHADE/DEBRIS	ff ²	0		SPALL	
DELAMINATION	ff ²	199	5.0	DEBOND	
SPALL	ff ²	0	0	ASPHALT PATCH	
DEBOND	ff ²	739	18.6	SUBSURFACE PATCH	
ASPHALT PATCH	ff ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ff ²	0	0		

ANTICIPATED DECK REPAIR QUANTITIES (ff²)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
T1	340	480
T2	440	610

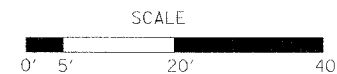
QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE".
EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY



INFRARED THERMOGRAPHIC INSPECTION RESULTS



INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD DS/EG
CHECKED: DU

REVISIONS	
NAME	DATE

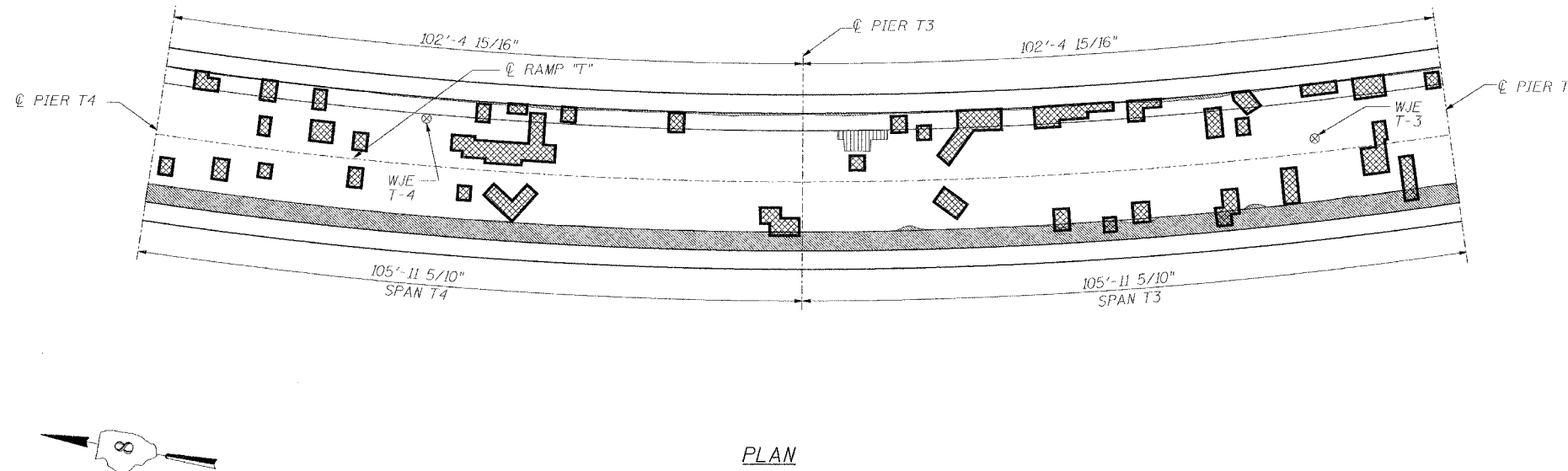
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 1/24/2007
FILENAME: P:\2001\1201-1300\2001.1240\Drafting\Roadway\Rehab_AT\ Ramp T\ Earth Tech\T_ET\10102.dgn

DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	90
F.L.D. ROAD DIST. NO. 7	ILLINOIS	F.L.D. AID PROJECT- IM-70		
* 82-3HVB-3R-5			SHEET S-13 OF S-22	
CONTRACT NO. 76985				



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	4569		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	145	3.2	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	687	15.0	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	20	0.4		

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
T3	440	620
T4	280	390

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY



INFRARED THERMOGRAPHIC INSPECTION RESULTS

DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD DS/EG
CHECKED: DU

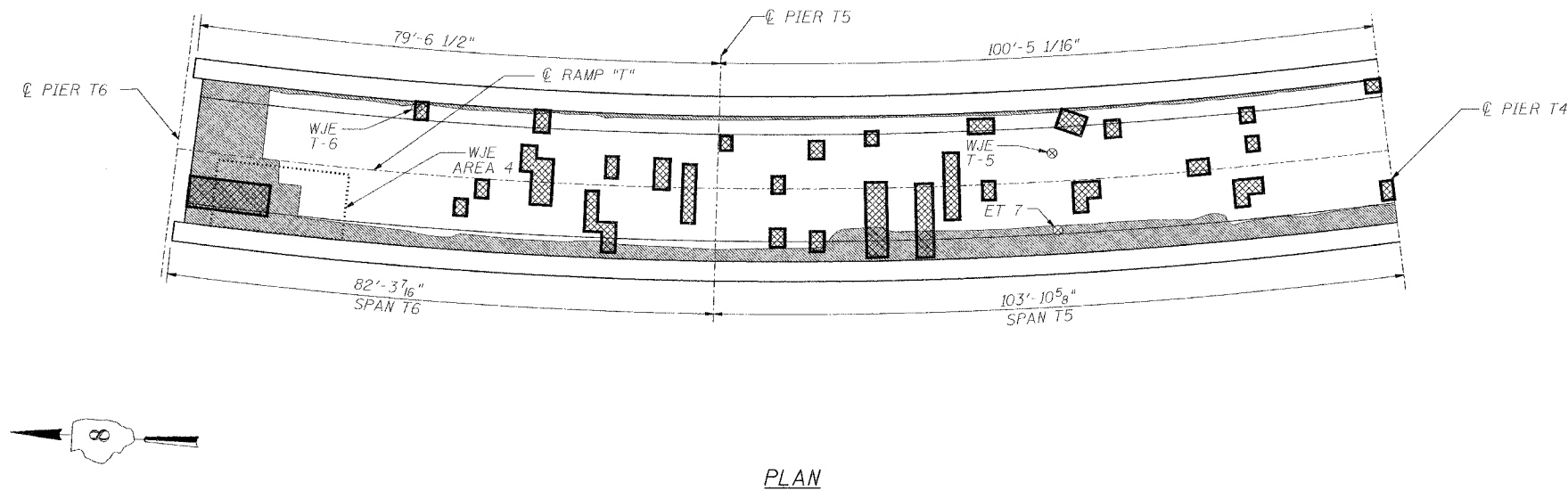
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007

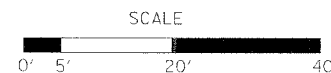
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	91
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 04-70		
82-3HVB-3R-5			SHEET S-14 OF S-22	
CONTRACT NO. 76985				



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	3981		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	108	2.7	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	872	21.9	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	0	0		



ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

SPAN	2000 SURVEY RESULTS	2007 ANTICIPATED PARTIAL DEPTH REPAIRS
T5	270	380
T6	220	300

QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

WISS, JANNEY, ELSTNER ASSOCIATES, INC. CORE LOCATIONS DESIGNATED AS "WJE". EARTH TECH, INC. CORE LOCATIONS DESIGNATED AS "ET".

AREAS OF DECK DELAMINATIONS AND SPALLS SHOWN REQUIRING REPAIR ARE ESTIMATED. ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED INSPECTION DATE: 7/24/00-7/26/00
SURFACE TYPE: ASPHALT OVERLAY

INFRARED THERMOGRAPHIC INSPECTION RESULTS

EARTH TECH

INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD DS/EG
CHECKED: DU

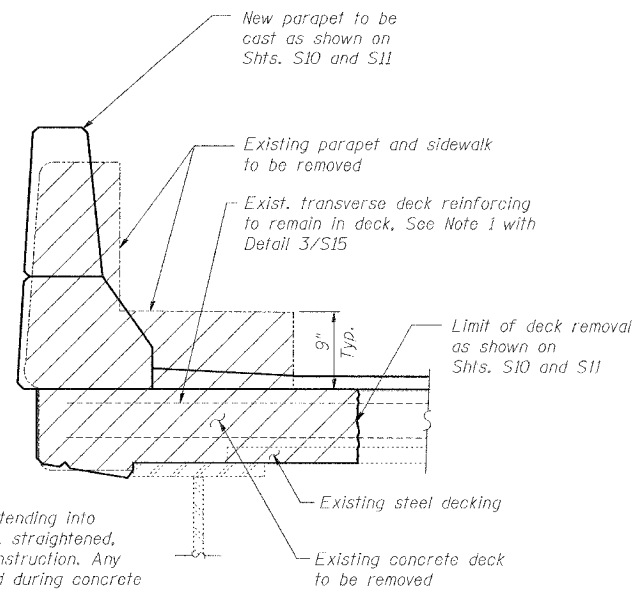
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp 1)
SCALE: N.T.S.
DATE: 02/01/2007

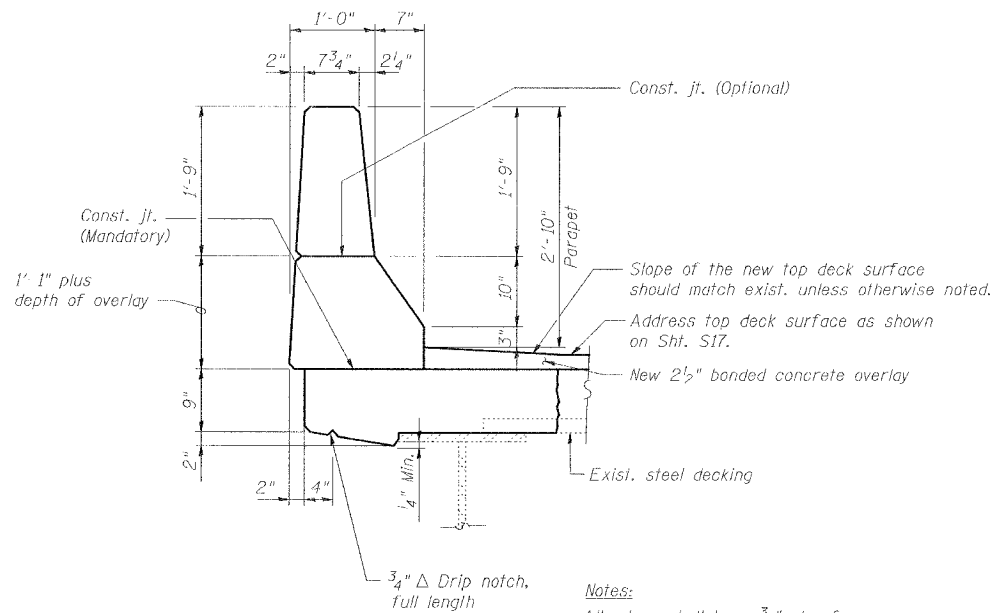
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DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



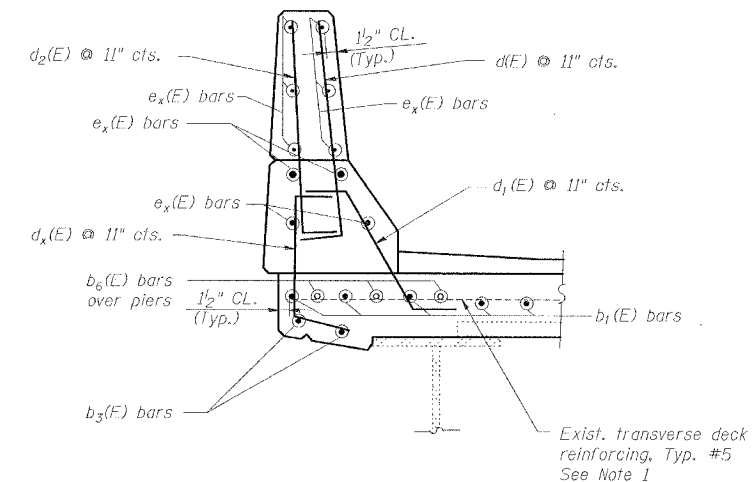
Note:
Existing deck reinforcing bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcing bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with concrete removal.

1 PARAPET DEMOLITION PLAN
S15



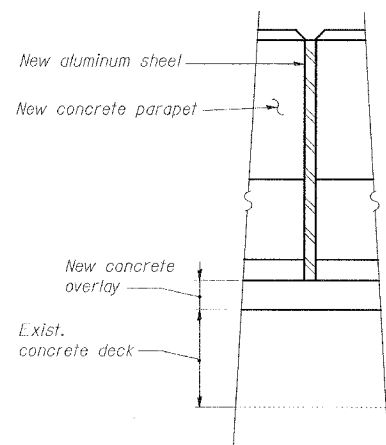
Notes:
All edges shall have 3/4" chamfer.

2 TYPICAL NEW PARAPET CROSS SECTION
S15

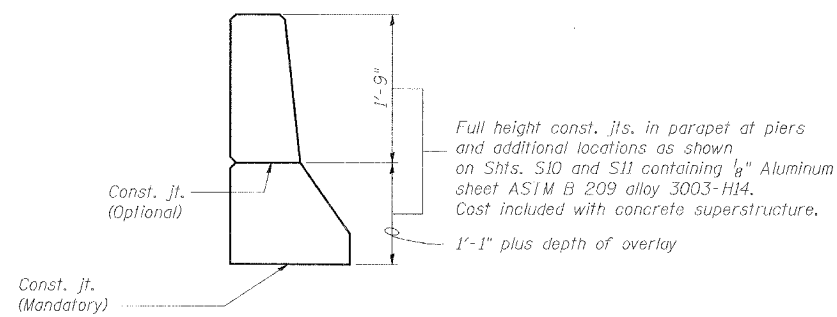


Note 1. Existing transverse reinforcement terminates at locations of existing floor drains and does not extend across the full width of the deck at those locations. It is not necessary to extend these bars via mechanical splices.

3 TYPICAL REINFORCEMENT FOR NEW PARAPET
S15



4 PARAPET CONSTRUCTION JOINT
S15



Notes:
e_x(E) bars shall not pass thru aluminum sheets.

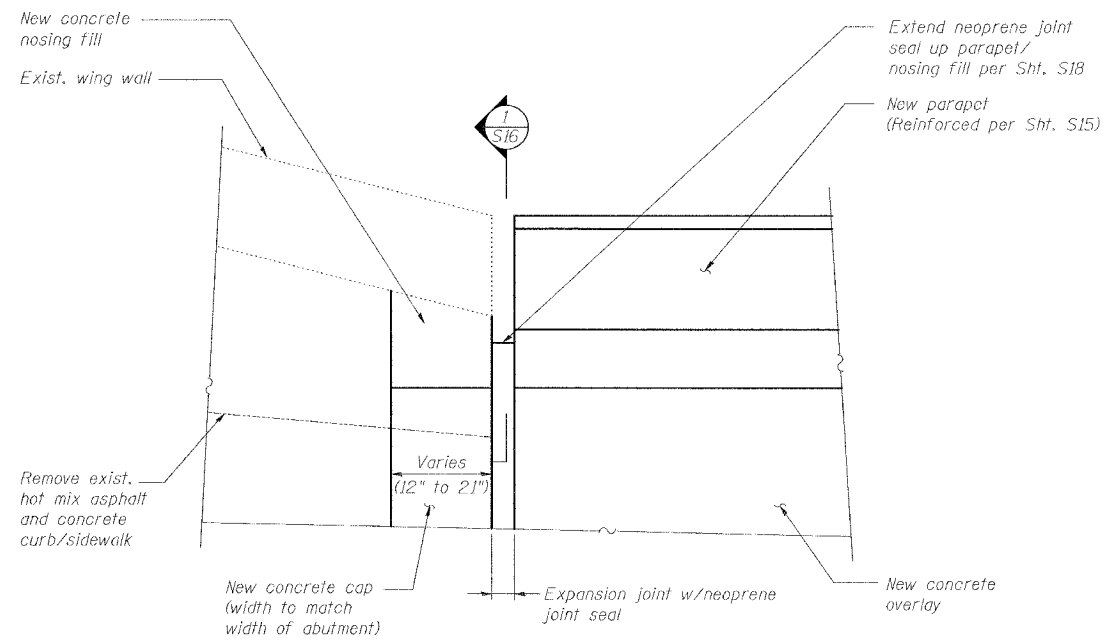
5 PARAPET JOINT DETAILS
S15

DATE: 1/24/2007 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\Roadway\Rehab_AT\Ramp\T_PARA01.dgn

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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

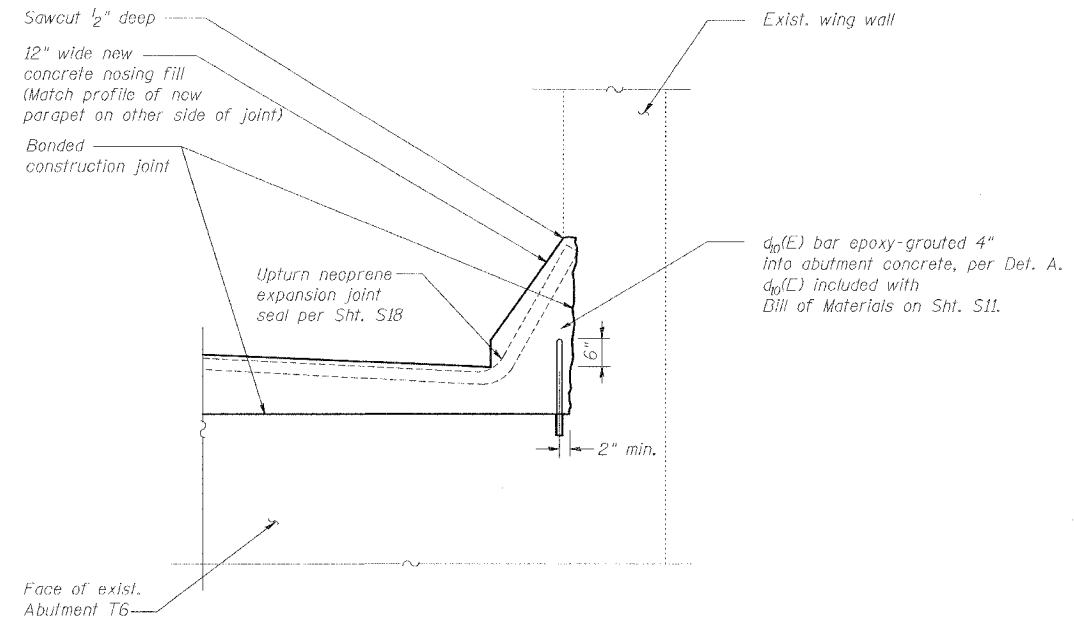
REVISIONS	
NAME	DATE

TYPICAL PARAPET DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007



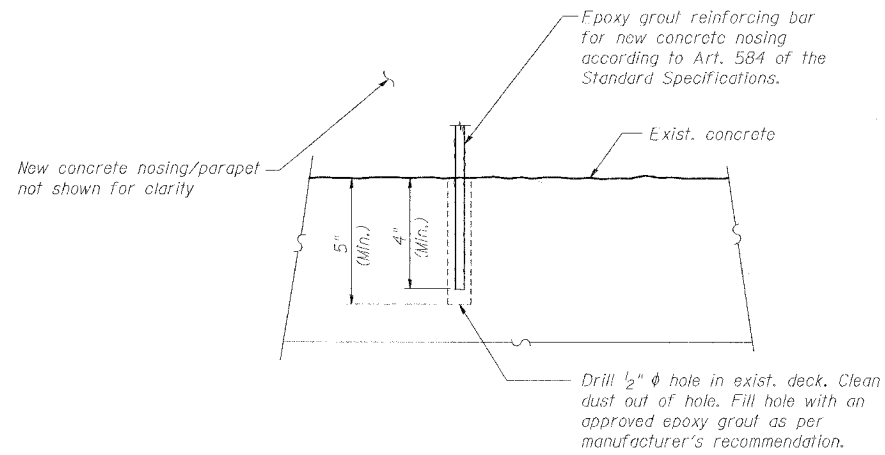
PLAN-PARAPET END TREATMENT (@ T6 ABUTMENT)

(East parapet shown, west parapet Sim. opp. hand)



1 DETAIL AT EDGES OF T6 EXPANSION JOINT

S16



DETAIL A - EPOXY GROUTING OF REINFORCING BARS

SPECIAL PARAPET TERMINATION DETAILS

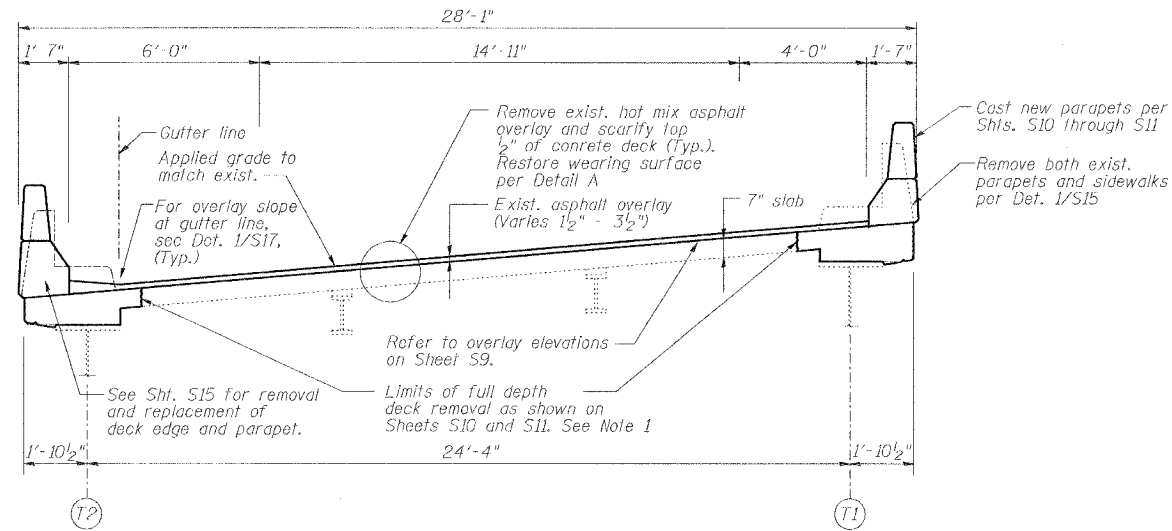
REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

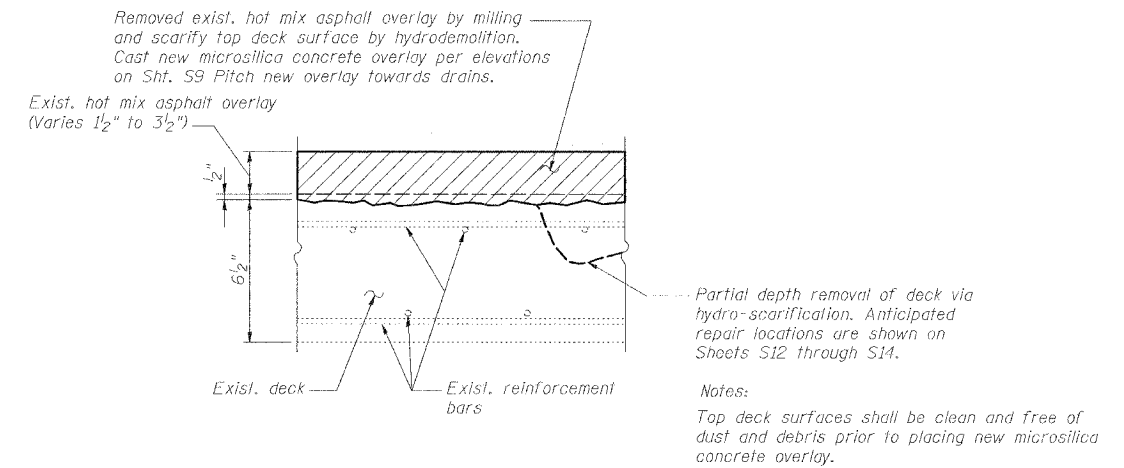
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F.A.I. 70	*	ST. CLAIR	99	94
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-70		
* 82-3HVB-3R-5			SHEET S-17 OF S-22	
CONTRACT NO. 76985				



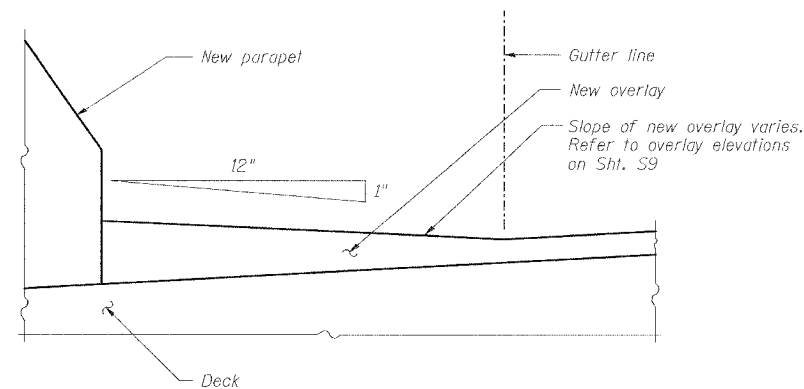
TYP. RAMP REHABILITATION

(Looking toward lower numbered T Pier)

Note 1: Additional full depth removal (due to deterioration) may be required at locations of existing floor drains, as directed by Engineer. Anticipated removal and replacement quantities included in pay items for "Concrete Removal" and "Concrete Superstructure".



DETAIL A-SCHEMATIC DIAGRAM OF REPAIR



1 OVERLAY SLOPE AT GUTTER LINE

S17

DECK REHABILITATION DETAILS

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAT ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)

SCALE: N.T.S.

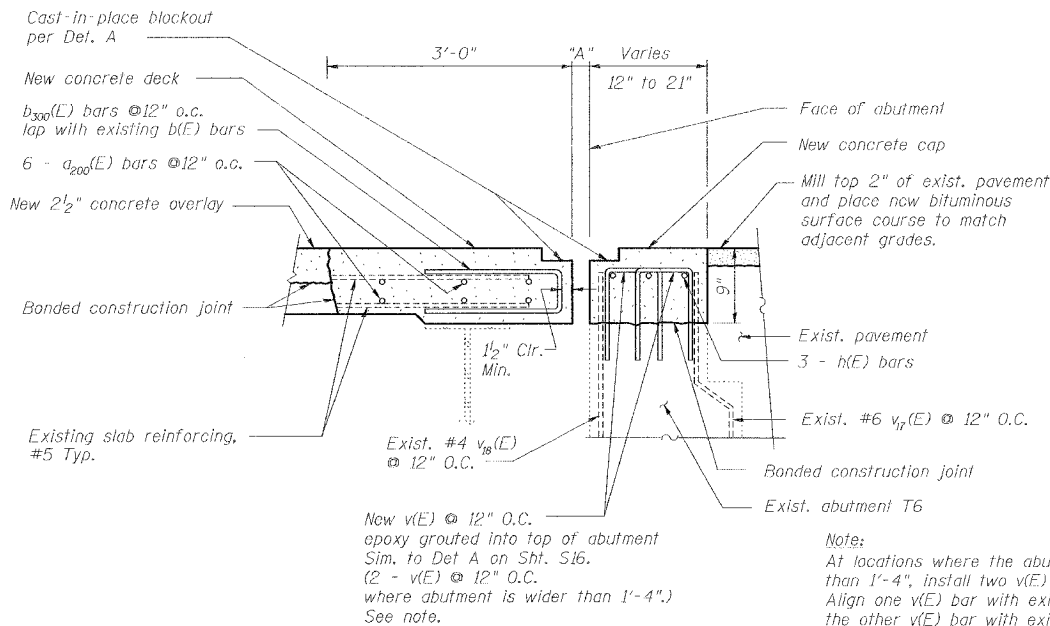
DATE: 02/01/2007

DATE: 12/4/2007
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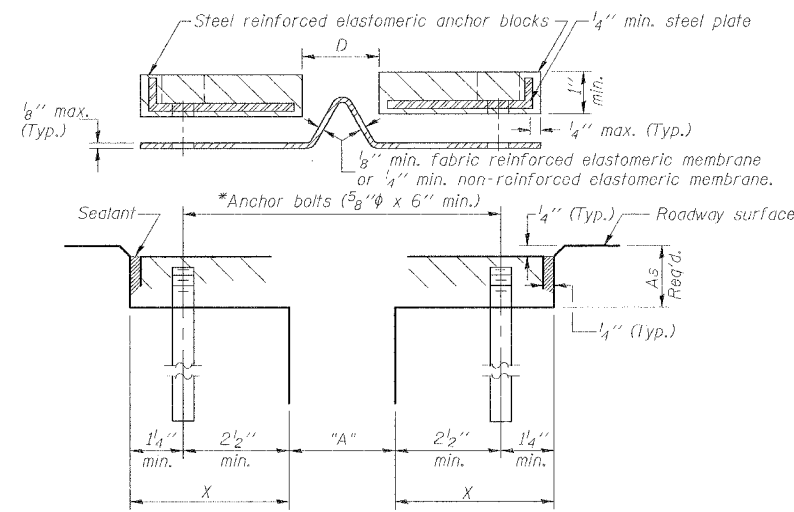
DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	95
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

* 82-3HVB-3R-5 SHEET S-18 OF S-22
CONTRACT NO. 76985



1 DECK REPAIR @ T6 EXPANSION JOINT
S18 Note: For joint seal installation, see Detail A



CROSS SECTION

Note:
At locations where the abutment cap is wider than 1'-4", install two v(E) bars @ 12" O.C. Align one v(E) bar with existing bar v18(E) and the other v(E) bar with existing bar v17(E).

BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	6	#5	25'-7"	—
b300(E)	162	#5	4'-5"	C
h(E)	3	#5	25'-7"	—
v(E)	42	#5	2'-10"	U
Reinforcing Bars, Epoxy Coated			Pound	1,110
Neoprene Expansion Joint - 4"			Foot	26
Polymer Concrete			Cu. Ft.	10
Concrete Removal			Cu. Yd.	3.1
Concrete Superstructure			Cu. Yd.	3.1

GENERAL NOTES

Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.

The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded position upon joint closure.

The convolution length shall be such that the extended length will not be greater than the manufactured length when the joint is fully expanded in its design range and will not protrude above the anchor blocks when the joint is fully compressed.

Joint openings shall be adjusted according to Article 503.10(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50° F.

The parapet and roadway membrane shall be made continuous by an approved vulcanizing process. Lapping will not be permitted.

Where existing steel edge angle is present, the contractor shall stud weld new threaded stud to existing joint edge angle.

The cost of epoxy grouting or welding anchor bolts shall be included with Neoprene Expansion Joint.

*Epoxy grout 5/8" phi threaded stainless steel rods in accordance with Section 584 of the Standard Specifications. Space to miss existing studs.

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

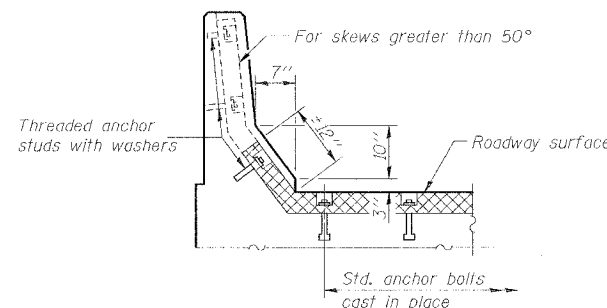
INSTALLATION NOTES

- Install continuous seal in roadway and parapet.
- Install anchor blocks as indicated.

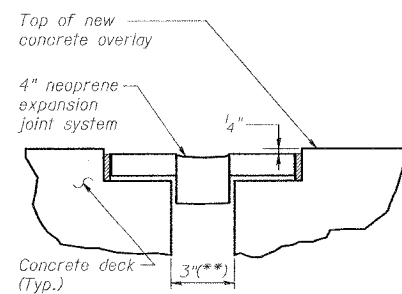
Note A: Maximum spacing of anchor bolts shall be 12" centers.

SKEW LIMITATIONS

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

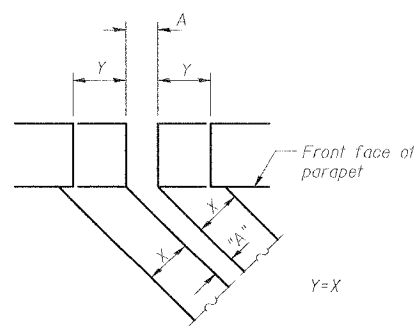


AT PARAPET



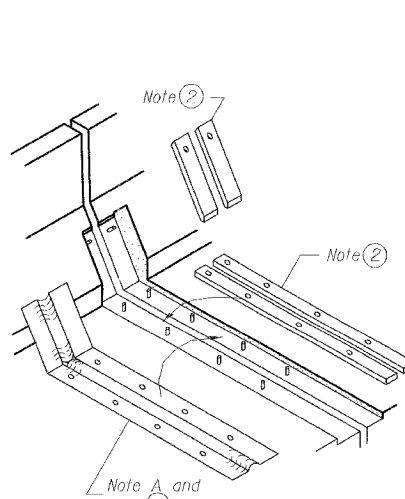
** at 50°F. See Neoprene Joint Schedule for required movement

DETAIL A - NEOPRENE EXPANSION JOINT

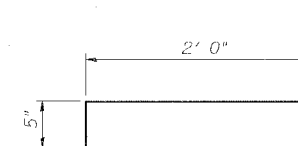


FORMING BLOCKOUT SKETCH

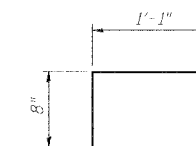
For dimension "A" see Neoprene Joint Schedule



AT PARAPET



Bar b300 (E)



Bar v(E)

REVISIONS	
NAME	DATE

TYPICAL JOINT DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)

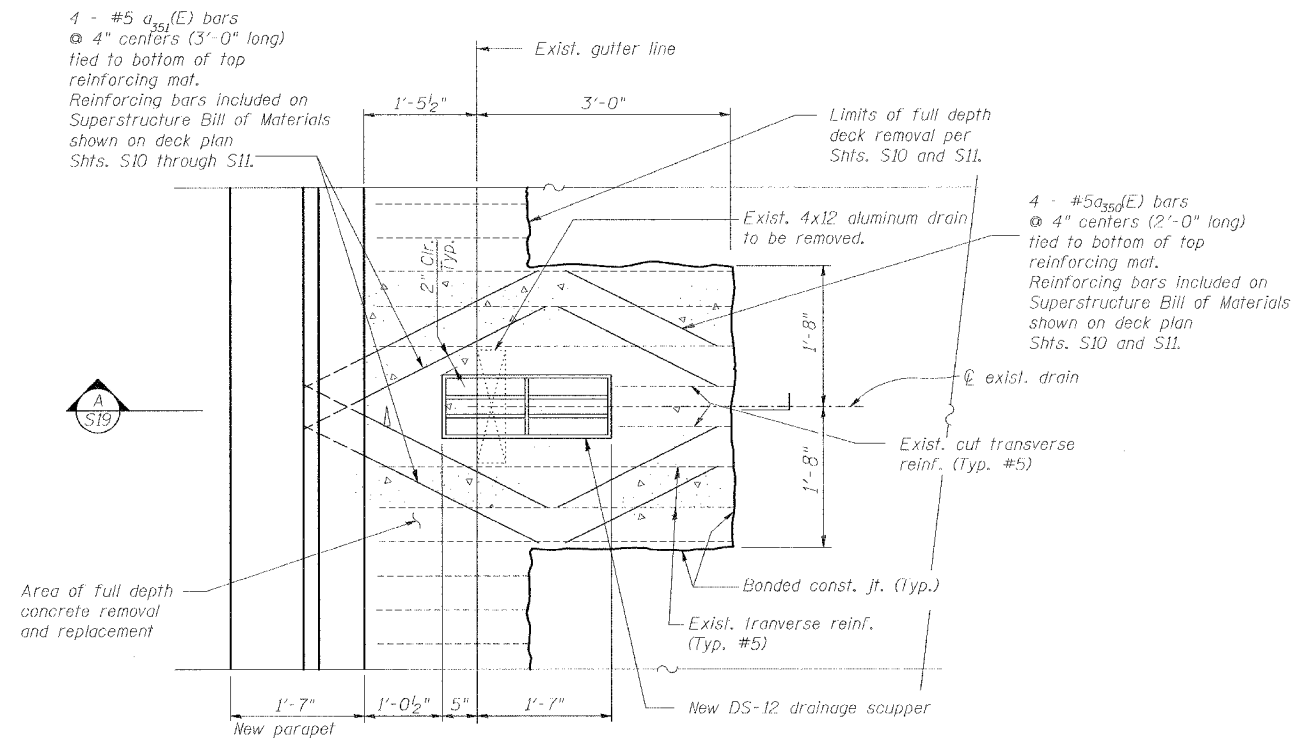
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DATE: 02/01/2007

DATE: 12/24/2007 FILENAME: F:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AT\ Ramp\Join\T-JOIN01.dgn

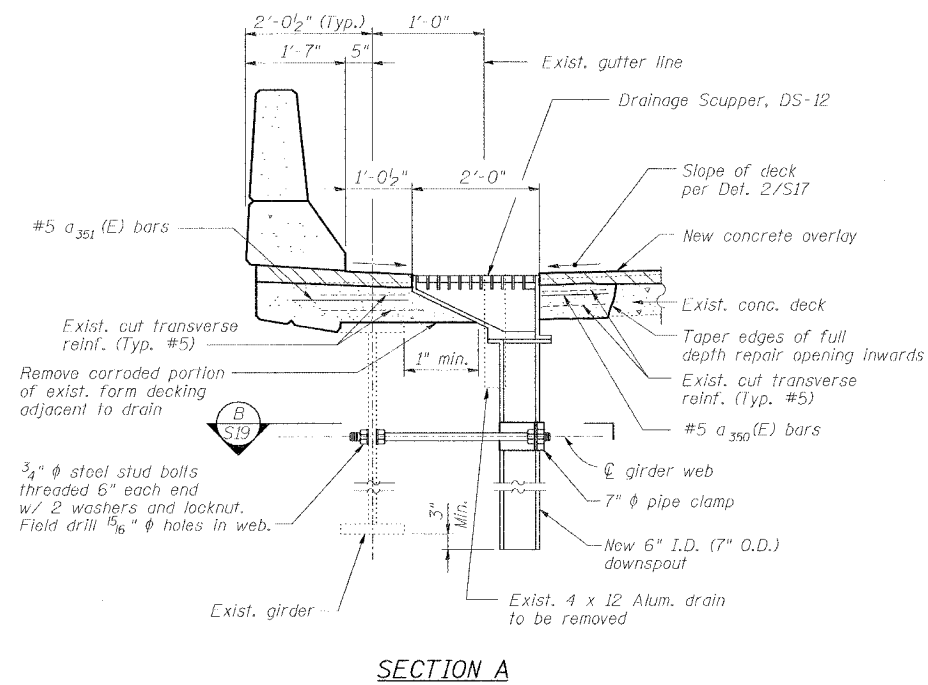
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	96
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78		
* 82-3HVB-3R-5			SHEET S-19 OF S-22	
CONTRACT NO. 76985				

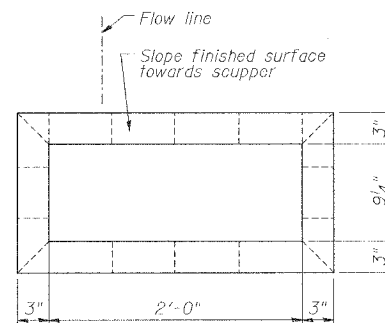


1
S19 **NEW DRAINAGE SCUPPER**

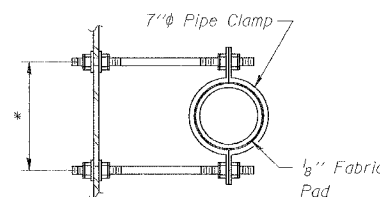
Note:
Exist. and new longitudinal reinforcement not shown for clarity. Cut exist. longitudinal reinforcement as necessary to clear new scupper.



SECTION A



TOP PLAN



SECTION B

* Dimension as required by Pipe Clamp

REVISIONS	
NAME	DATE

TYPICAL DRAINAGE DETAILS

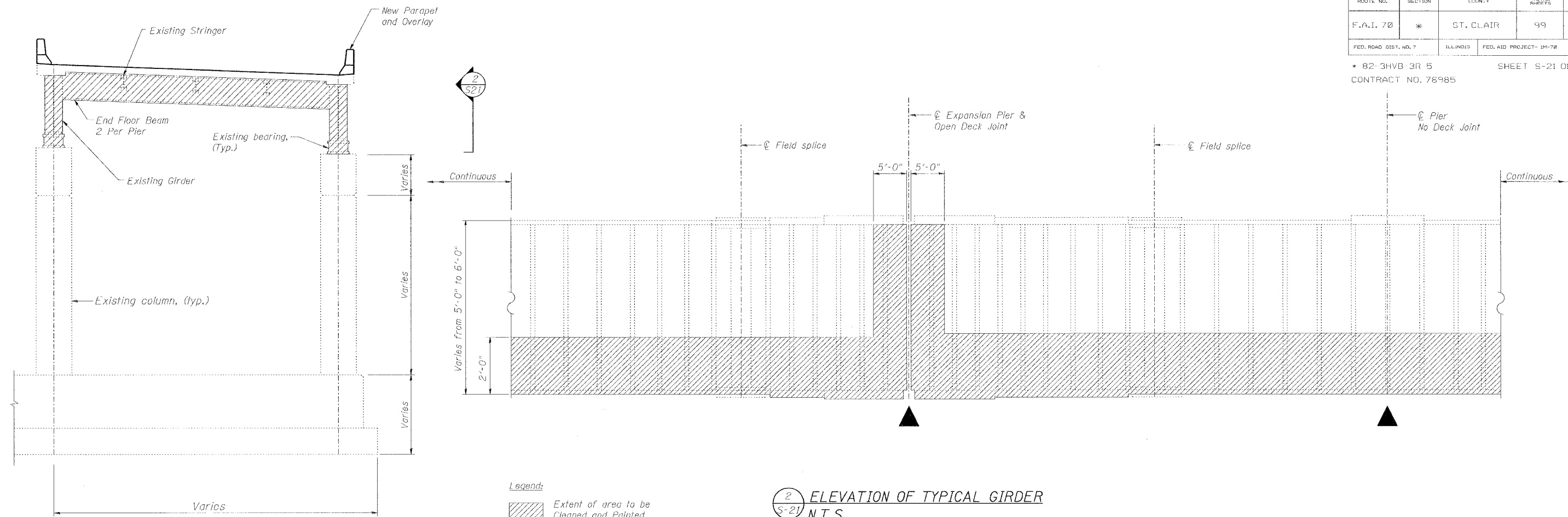
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0146 (Ramp T)
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/4/2007
FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_AVI\RampFl.dra\T-DRAI02.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	99	98
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-78		
* 82-3HVB-3R-5			SHEET S-21 OF S-22	
CONTRACT NO. 76985				



2
S-21 ELEVATION OF TYPICAL GIRDER
N.T.S.

1
S-21 ELEVATION AT TYPICAL EXPANSION PIER

Legend:
 Extent of area to be Cleaned and Painted
 See Note 1 thru 5

Notes:

- Cleaning and painting of the structural steel shall be as specified in the special provision for "Cleaning and Painting Existing Steel Structures." At each deck joint, all exposed surfaces of the following steel elements shall be cleaned per Near White Blast Cleaning- SSPC-SPI0: both end floor beams, all bearings, and both girders within 5 ft (measured along the girder) of either side of the joint. Elsewhere, the bottom two feet on the exterior and interior surfaces of the two girders, as well as both girders bottom flanges, shall be cleaned per Power Tool Cleaning-Commercial Grade.
- The designated areas cleaned per Near White Blast Cleaning - SSPC-SPI0 and per Power Tool Cleaned- Commercial Grade shall be painted according to the requirements of Paint System 1 - OZ/E/U. The color of the finish coat for all surfaces shall be Interstate Green, Munsell No. 7.5 G 4/8.
- The contractor shall submit calculations and details demonstrating the structural integrity of the bridge is maintained under the additional imposed loads of the containment system, see special provisions.
- A minimum of 4 air monitors may be required to monitor abrasive blasting operations at the site, see special provision for "Containment and Disposal of Lead Painting Cleaning Residues."
- Area to be cleaned and painted as indicated above extends from Pier A35 to Pier T6.

BILL OF MATERIAL

Item	Unit	Quantity
Cleaning and Painting Steel Bridge, No. 2	L. Sum	1
Containment and Disposal of Lead Paint Cleaning Residues, No. 2	L. Sum	1

CLEANING AND PAINTING STRUCTURAL STEEL

REVISIONS	
NAME	DATE

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE TO
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY

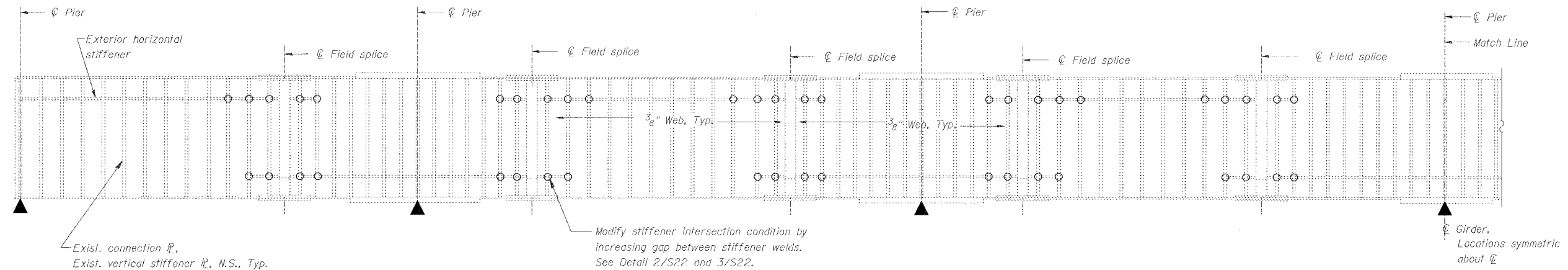
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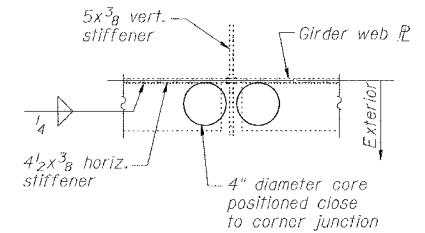
DATE: 02/01/2007

DATE: 12/2/2007
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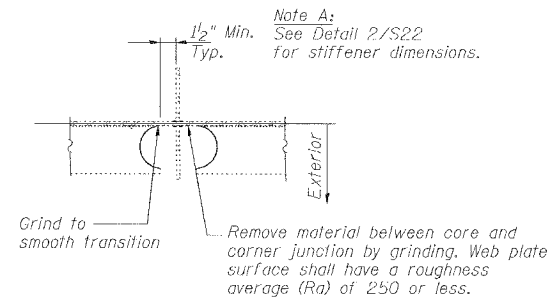
DESIGNED	
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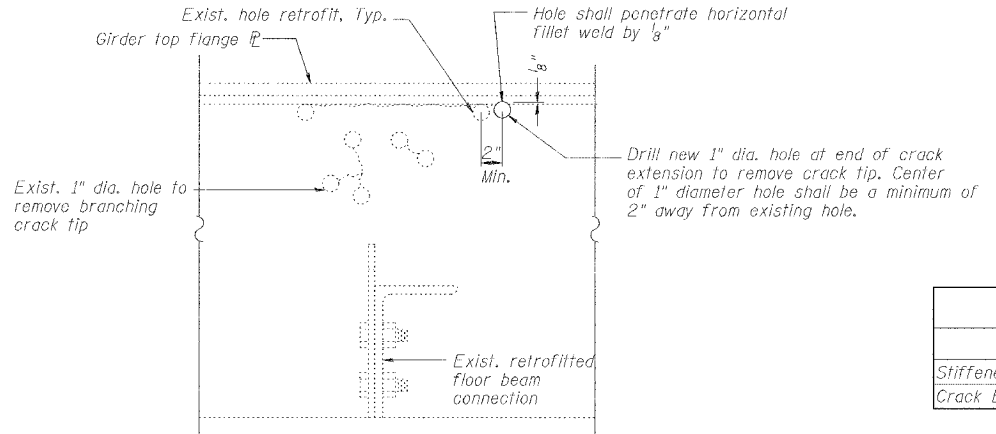
1 GIRDER 2 ELEVATION INDICATING TYPICAL FATIGUE RETROFIT LOCATIONS
S22 GIRDER 1 - OPPOSITE HAND



2 STIFFENER INTERSECTION MODIFICATION DETAIL
S22



3 STIFFENER INTERSECTION MODIFICATION DETAIL
S22



4 CRACK EXTENSION RETROFIT AT FIRST INTERIOR FLOOR BEAMS
S22 Note A: No crack extension retrofits identified at this time. An allowance of 5 retrofits for Ramp T have been included in the Contract.

BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Stiffener intersection modification	Each	280
Crack Extension Modifications	Each	5

- Procedure - Detail 2/S22 and 3/S22:
1. Core 4" diameter holes positioned close to corner junction through 3/8" thick horizontal stiffener.
 2. Remove material between core and intersection junction by grinding with carbide tools and a die grinder as shown in Detail 3/S22. Web plate surface shall have a roughness average (Ra) of 250 or less.
 3. Remove all burrs from cut edge and check for irregularities. Cored surface shall have an (Ra) equal to 500 or less.
 4. After burr removal the modification shall be inspected using magnetic particle (MT) methods. Notify Engineer if a crack is detected (Cost included with stiffener intersection modification).
 5. Obtain approval of Engineer.
 6. Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

- Procedure - Detail 4/S22:
1. At location directed by the Engineer, inspect girder web plate in region of existing retrofits to determine location of crack extension and crack tip using magnetic particle inspection (MT) methods (Cost included with crack extension retrofit at first interior floor beam).
 2. Drill 1" diameter hole at end of crack extension to remove crack tip. Center of 1" diameter hole shall be positioned in accordance with Detail 4/S22.
 3. Cored surfaces shall have a roughness average (Ra) of 500 or less.
 4. Re-inspect area using MT methods to verify crack does not extend past the newly drilled holes.
 5. Obtain approval of Engineer.
 6. Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

REVISIONS	
NAME	DATE

FATIGUE RETROFIT
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/01/2007

DATE: 12/6/2007
FILENAME: P:\2001\1201-1800\2001.1240\Drafting\RoadwayRehab AT Ramp T\Fatigue T-FAT101.dgn

DESIGNED	DDC
CHECKED	JCM
DRAWN	CLK
CHECKED	DDC