

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	1

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT- 14-78
 * 82-3HVB-3R-3
 CONTRACT NO. 76305

**THIS CONTRACT
 CONSISTS OF 2 SETS**

SET 1 of 2
 STRUCTURE No. 082-0144 (ROADWAY D)

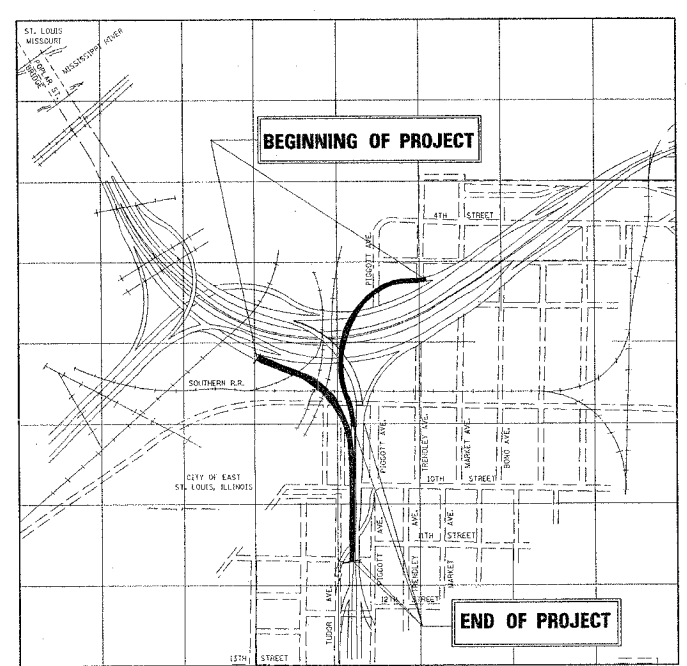
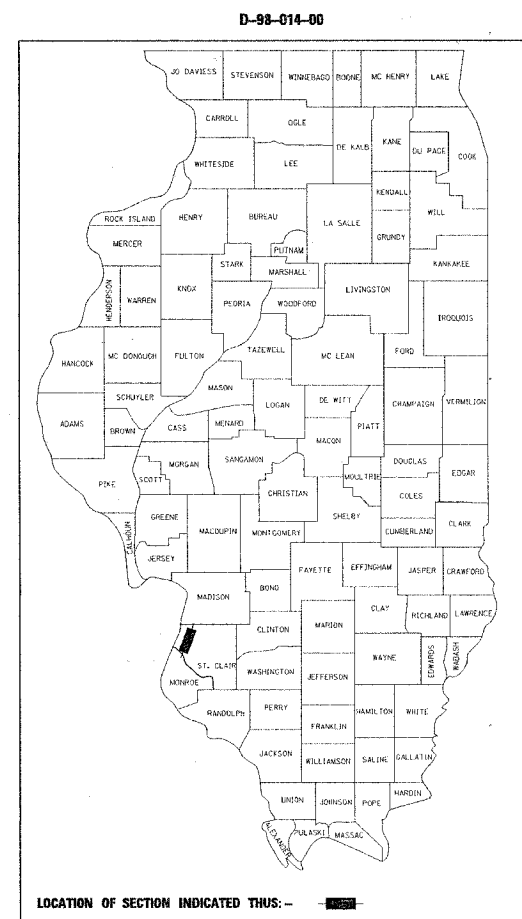
SET 2 of 2
 STRUCTURE No. 082-0142 (RAMP S)
 STRUCTURE No. 082-0254 (ROADWAY G)

AVERAGE DAILY TRAFFIC (ADT) - 2005

ROADWAY D	3,500
Roadway G/ RAMP S	990

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
 FAI ROUTE 70 (I-55/64/70)
 POPLAR STREET BRIDGE APPROACHES
 SECTION 82-3HVB-3R-3
 PROJECT IM-070-1(180)002
 PLANS FOR PROPOSED
 ROADWAY REHABILITATION**

**ST. CLAIR COUNTY
 D-98-014-00
 C-98-073-03**



LOCATION PLAN

DATE: 4/18/2006 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab_ds\cover_index_and_stagi_ads_cover.dgn PROJECT ENGINEER: GREG HANCOCK (618) 346-3195 SQUAD LEADER: WENDA SOUTHERLAND (618) 346-3159

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

CONTRACT NO. 76305

Howard J. Hill, Ph.D., SE
 Illinois Licensed Structural Engineer
 License No. 081-004819
 License Expires: 11/30/06



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

**PROJECT NET LENGTH: 0.84 MI. = 4,410 FT.
 PROJECT GROSS LENGTH: 0.84 MI. = 4,410 FT.**

**STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS**

SUBMITTED April 27 2006
May 12 2006
May 12 2006
May 12 2006

**DEPUTY DIRECTOR OF HIGHWAYS
 REGION FIVE ENGINEER**
ENGINEER OF DESIGN AND ENVIRONMENT
DIRECTOR, DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	2
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- 11-70	

* 82-3HVB-3R-3
CONTRACT NO. 76305

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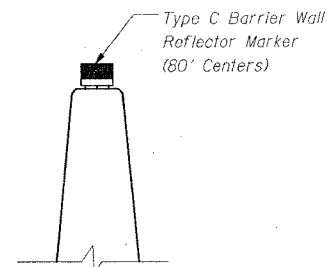
NOTES:

- 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.
- 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.
- Paint pavement marking removal shall be 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), AMERENCIPS (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) Networks 360 (Communications), SBC (Communications). All the above Utilities are members of J.U.L.I.E.
- 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"

Standards:

- 000001-04
- 635006-02
- 635011-01
- 701411-03
- 701421-01
- 701426-02
- 702001-06
- 704001-02
- 780001-01
- 780001-02
- 701401-03
- 701501-03
- 701406-02



See Standard 635011

TYPICAL MOUNTING DETAILS FOR BARRIER WALL REFLECTOR

DESIGNED	JEL
CHECKED	MJS
DRAWN	IMC
CHECKED	JEL

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: 2/28/2006

Rev.

DATE: 4/18/2006
FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab\s\cover.index.and.staging\ds.index.dgn

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	3
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- 1M-70	

* 82-3HVB-3R-3
CONTRACT NO. 76305

SUMMARY OF QUANTITIES			90% FEDERAL 10% STATE URBAN				
CODE NO.	CONSTRUCTION CODE TYPE ITEM	UNIT	TOTAL	QUANTITIES			
				ROADWAY J000	SN 082-0144 ROADWAY D X131-5B	SN 082-0142 RAMP S X531-5B	SN 082-0254 Roadway G X231-2A
4400007	Bituminous Surface Removal-2"	Sq. Yd.	140	140	---	---	---
44000800	Bituminous Concrete Curb Removal	Foot	15	---	15	---	---
44000910	Bituminous Concrete Removal (Deck)	Sq. Yd.	10,972	---	5,019	5,737	216
50102400	Concrete Removal	Cu. Yd.	1,847.2	---	629	1,174	44.2
50300160	Neoprene Expansion Joint-4"	Foot	96	---	45	28	23
50300225	Concrete Structures	Cu. Yd.	10.0	---	10.0	---	---
50300255	Concrete Superstructure	Cu. Yd.	1,677.6	---	570	1,067	40.6
50300260	Bridge Deck Grooving	Sq. Yd.	11,750	---	5,090	6,456	204
50300300	Protective Coat	Sq. Yd.	17,718	---	7,214	10,250	254
50300310	Elastomeric Bearing Assembly, Type I	Each	5	---	5	---	---
50300320	Elastomeric Bearing Assembly, Type II	Each	4	---	---	4	---
50500105	Furnishing and Erecting Structural Steel	L Sum	1	---	0.49	0.51	---
50500715	Jack and Remove Existing Bearings	Each	17	---	13	4	---
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	246,910	---	89,880	152,080	4,950
* 63000000	Steel Plate Beam Guard Rail, Type A	Foot	10	10	---	---	---
* 63200710	Steel Plate Beam Guard Rail Removal, Type A	Foot	28	28	---	---	---
* 63300730	Steel Plate Beam Guard Rail, Steel Post	Each	1	1	---	---	---
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	---	---	---
70100420	Traffic Control and Protection, Standard 701411	Each	2	2	---	---	---
70101800	Traffic Control and Protection (Special)	L Sum	1	1	---	---	---
70300220	Temporary Pavement Marking-Line, 4"	Foot	13,000	13,000	---	---	---
70300240	Temporary Pavement Marking-Line, 6"	Foot	6,000	6,000	---	---	---
70301000	Work Zone Pavement Marking Removal	Sq. Ft.	7,400	7,400	---	---	---
70400500	Temporary Concrete Barrier (State Owned)	Foot	1,600	1,600	---	---	---
70400600	Relocate Temporary Concrete Barrier (State Owned)	Foot	3,200	3,200	---	---	---
* 78001110	Paint Pavement Marking-Line 4"	Foot	9,450	9,450	---	---	---
* 78001140	Paint Pavement Marking-Line 8"	Foot	1,060	1,060	---	---	---
* 78001150	Paint Pavement Marking-Line 12"	Foot	250	250	---	---	---
* 78100105	Raised Reflective Pavement Marker (Bridge)	Each	29	29	---	---	---
78200100	Unidirectional Prismatic Barrier Reflector	Each	120	120	---	---	---
78300100	Pavement Marking Removal	Sq. Ft.	2,150	2,150	---	---	---
70102020	Traffic Control and Protection Standard 701501	L-Sum	1	1	---	---	---

Note: Summary of quantities continued on next sheet.

* SPECIALTY ITEMS

DATE: 4/29/2006 FILENAME: P:\2001\1201\1300\2001\240\drafting\roadwayrehab_da\ver, index, and staging\ds_sq1.dgn

DESIGNED	JEL
CHECKED	MJS
DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

SUMMARY OF QUANTITIES
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: 2/28/2006

Rev.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	4

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT- 111-78

82-3HVB-3R-3
CONTRACT NO. 76305

SUMMARY OF QUANTITIES (CONTINUED)			90% FEDERAL 10% STATE URBAN				
CODE NO.	CONSTRUCTION CODE TYPE ITEM	UNIT	TOTAL	QUANTITIES			
				ROADWAY J000	SN 082-0144 ROADWAY D X131-5B	SN 082-0142 RAMP S X531-5B	SN 082-0254 ROADWAY G X231-2A
X0321744	Silicone Joint Sealer-2"	Foot	190	---	190	---	---
X0321781	Mechanical Splice	Each	1,008	---	514	458	36
X0322556	Stiffener Intersection Modification	Each	432	---	432	---	---
X0325397	Long Span Floor Beam Retrofit	Each	10	---	10	---	---
X0322559	Bolt Replacement	Each	116	---	72	44	---
X0322560	Crack Extension Modifications	Each	45	---	20	20	5
Xx004814	Silicone Joint Sealer -3"	Foot	120	---	64	56	---
X0320887	Polymer Concrete	Cu. Ft.	46.3	---	37.0	3.1	6.2
X0323080	Drainage Scuppers, DS12	Each	58	---	31	22	5
X4066418	Bituminous Concrete Surface Course, Superpave, Mix "C" N90	Ton	16	16	---	---	---
X7015000	Changeable Message Sign	CAL M0	24	24	---	---	---
XZ191200	Bridge Deck Microsilica Concrete Overlay-2 1/2"	Sq. Yd.	10,815	---	4,155	6,456	204
Z0002600	Bar Splicers	Each	322	---	322	---	---
XZ191215	Bridge Deck Microsilica Concrete Overlay-4"	Sq. Yd.	1,205	---	1,205	---	---
Z0006215	Bridge Deck Hydro-Scarification-2"	Sq. Yd.	1,125	---	1,125	---	---
Z0006204	Bridge Deck Hydro-Scarification-1/2"	Sq. Yd.	9,847	---	3,894	5,737	216
Z0016002	Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	4	---	4	---	---
Z0022400	Fabric Reinforced Elastomeric Trough	Foot	170	---	54	116	---
Δ Z0030250	Impact Attenuator, Temporary (Non-Redirective), Test Level 3	Each	1	1	---	---	---
Δ Z0030350	Impact Attenuator, Relocate (Non-Redirective), Test Level 3	Each	1	1	---	---	---
Z0047300	Protective Shield	Sq. Yd.	3,350	---	1,780	1,570	---
Z0048665	Railroad Protective Liability Insurance	L Sum	1	1	---	---	---
Z0050000	Removal and Reinstallation of Existing Impact Attenuators	Each	1	1	---	---	---
z0018800	Drainage System	L Sum	1	---	0.33	0.67	---
x0323102	Seismic Isolation Bearing Assembly, Type A	Each	8	---	8	---	---
X0325396	Temporary Repair of Staged Construction Joint	Foot	1,200	1,200	---	---	---
⊙ Z0076600	TRAINEES	Hour	1,500	1,500			

Note: Summary of Quantities continued from Previous Sheet.

Δ - SFTY-3N
⊙ Y080

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DESIGNED	JEL
CHECKED	MJS
DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

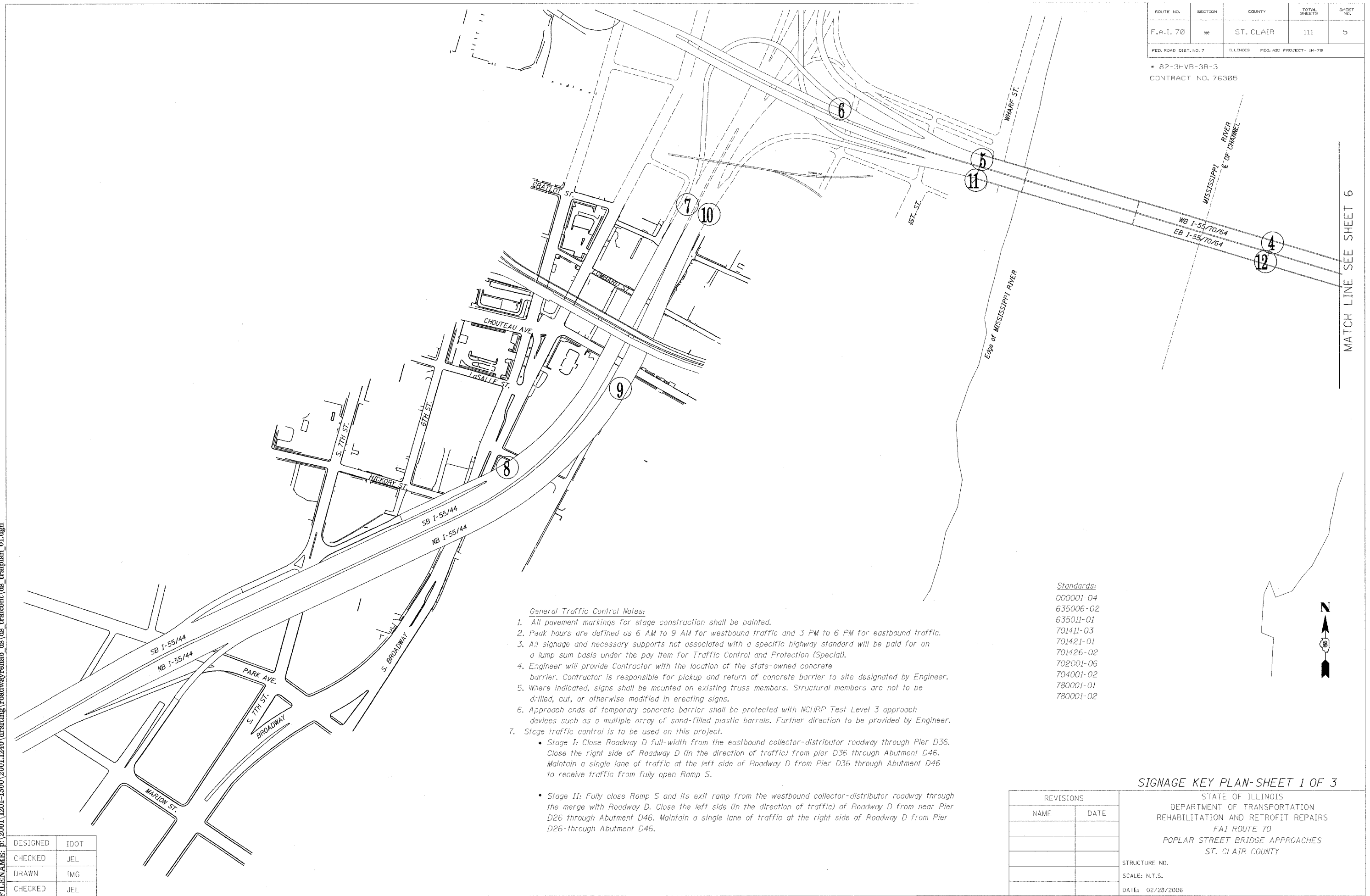
SUMMARY OF QUANTITIES II

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: 2/28/2006

Rev.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	5
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 3H-70	
* 82-3HV-3R-3				
CONTRACT NO. 76305				



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).
 - Engineer will provide Contractor with 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: Close Roadway D full-width from the eastbound collector-distributor roadway through Pier D36. Close the right side of Roadway D (in the direction of traffic) from pier D36 through Abutment D46. Maintain a single lane of traffic at the left side of Roadway D from Pier D36 through Abutment D46 to receive traffic from fully open Ramp S.
 - Stage II: Fully close Ramp S and its exit ramp from the westbound collector-distributor roadway through the merge with Roadway D. Close the left side (in the direction of traffic) of Roadway D from near Pier D26 through Abutment D46. Maintain a single lane of traffic at the right side of Roadway D from Pier D26 through Abutment D46.

- Standards:**
- 000001-04
 - 635006-02
 - 635011-01
 - 701411-03
 - 701421-01
 - 701426-02
 - 702001-06
 - 704001-02
 - 780001-01
 - 780001-02



SIGNAGE KEY PLAN-SHEET 1 OF 3

REVISIONS	
NAME	DATE

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

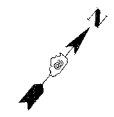
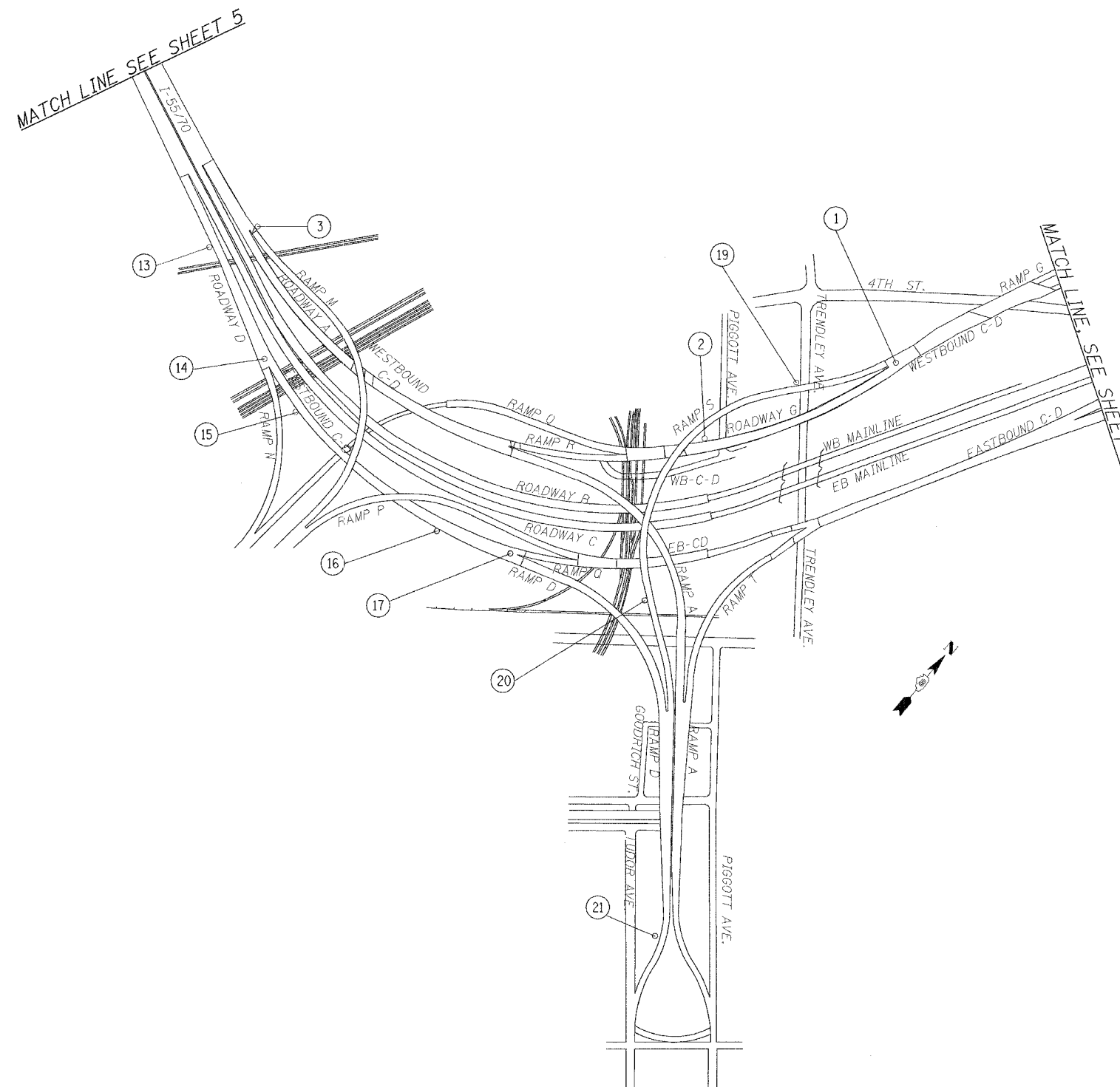
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DESIGNED	IDOT
CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	6
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-3
CONTRACT NO. 76305



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DRAWN	IMG
CHECKED	JEL

SIGNAGE KEY PLAN SHEET 2 OF 3

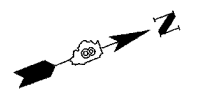
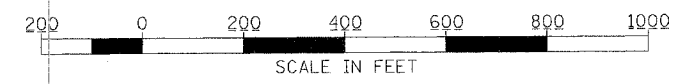
REVISIONS	
NAME	DATE

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

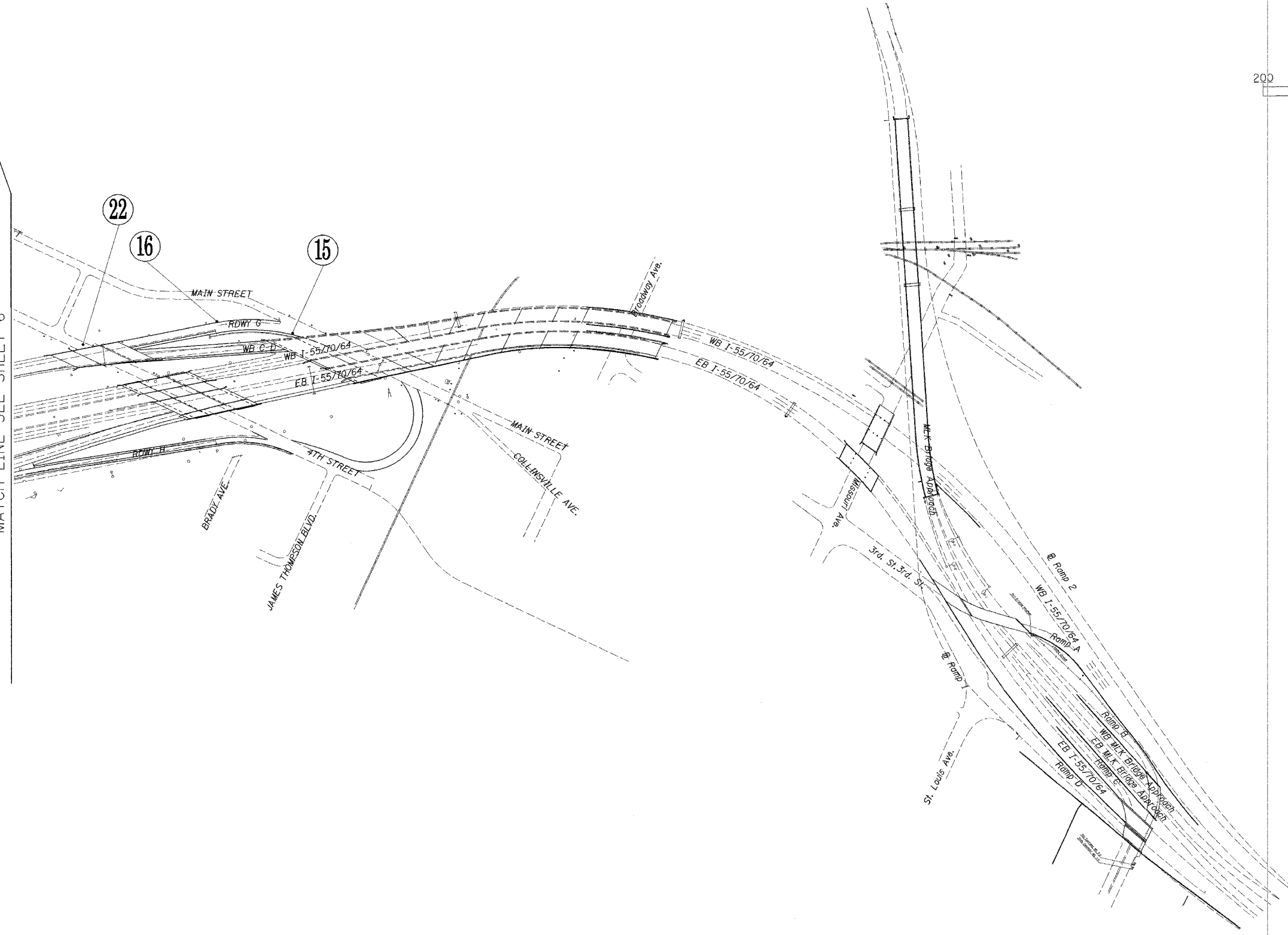
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SCALE: N.T.S.
DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	7
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 194-70		

* 82-3HVB-3R-3
CONTRACT NO. 76305



MATCH LINE SEE SHEET 6



DATE: 4/18/2006
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DESIGNED	IDOT
CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

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

REVISIONS	
NAME	DATE

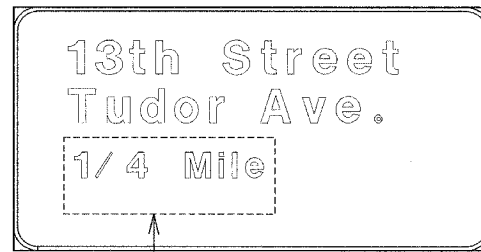
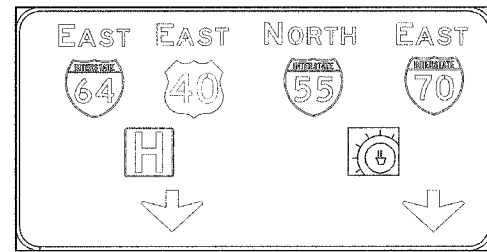
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SCALE: N.T.S.
DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	8
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-3
CONTRACT NO. 76305

14

DETOUR
TUDOR AVE

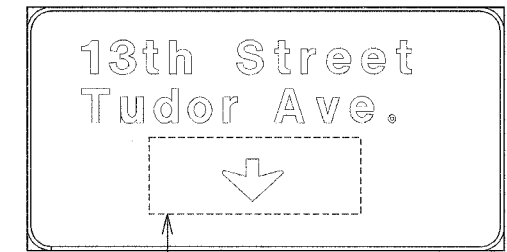
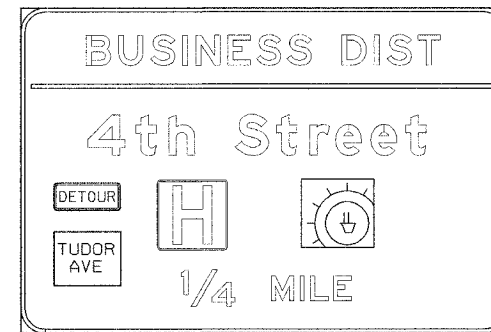
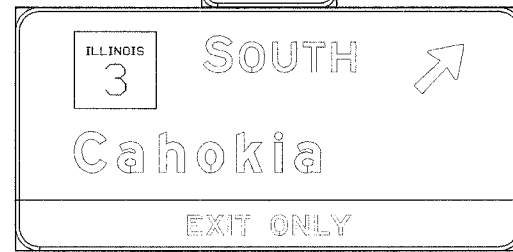


COVER AND PLACE

EXIT
CLOSED

17

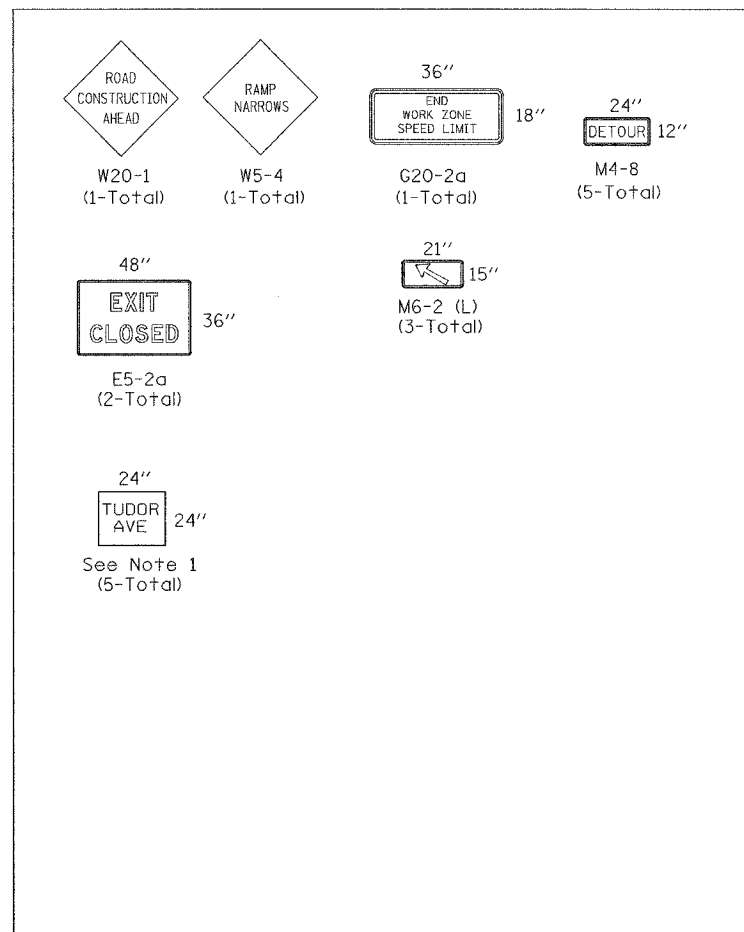
EXIT 1



COVER AND PLACE

EXIT
CLOSED

SIGNS REQUIRED

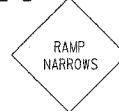


Note 1: Sign to have black letters on orange background, similar in size to Sign m4-8

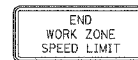
19



20



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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. UNLESS DIRECTED OTHERWISE BY ENGINEER, SIGNS 19, 20, 21 TO BE FREE STANDING SIGNS.

SIGNS-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

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.12.40\Drafting\Roadway\Rehab_DS\DS_tracomb\DS_Stage01_Sign_01.dgn

DESIGNED	IDOT
CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

Eastbound I/55/64/70 to Tudor Ave. Detour Route

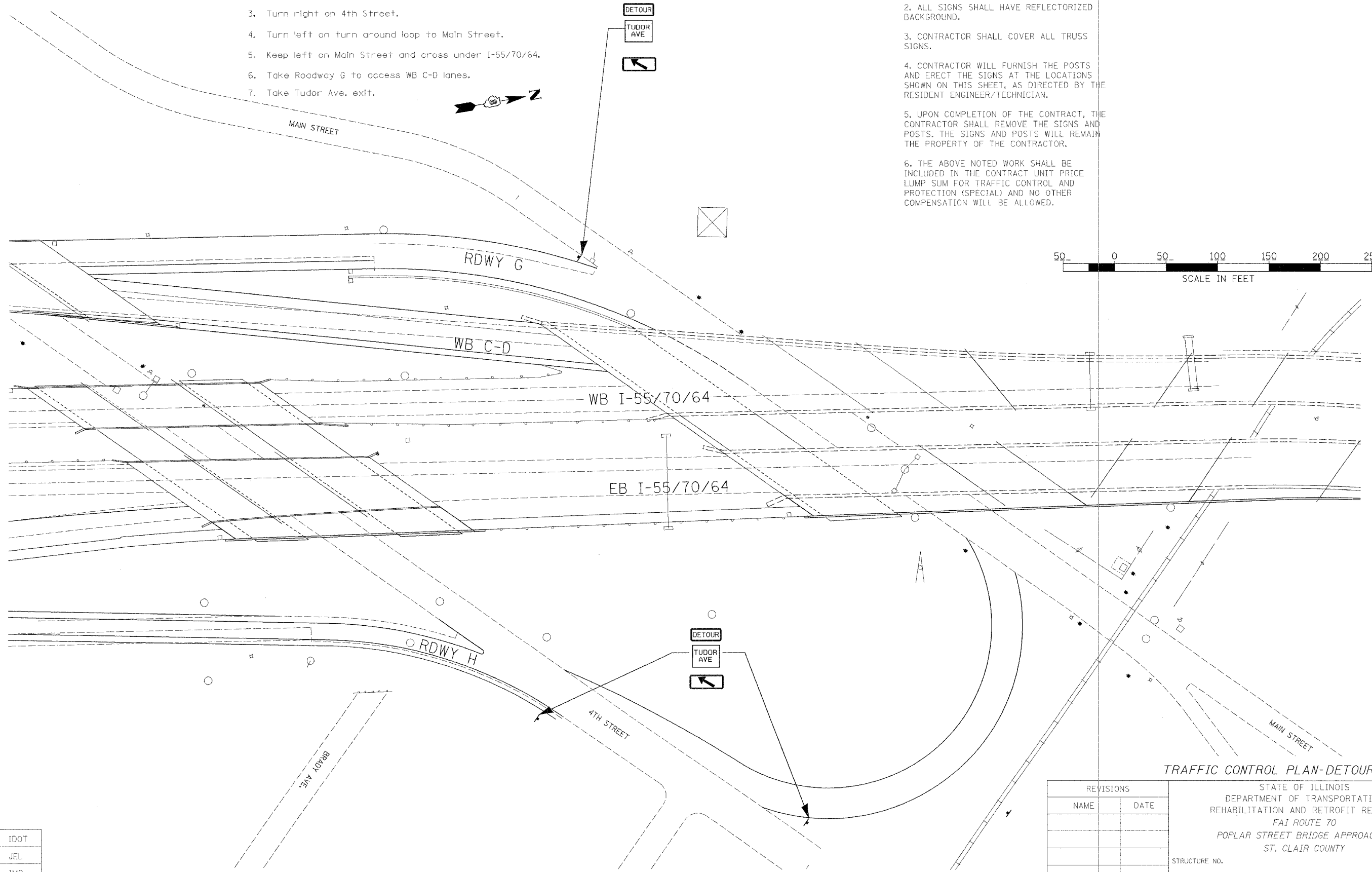
1. Eastbound traffic will bypass Tudor Ave. exit ramp and continue on EB C-D lanes.
2. Take 4th Street East St. Louis Exit.
3. Turn right on 4th Street.
4. Turn left on turn around loop to Main Street.
5. Keep left on Main Street and cross under I-55/70/64.
6. Take Roadway G to access WB C-D lanes.
7.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

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.
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	9
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 34-78		

* B2-3HVB-3R-3
CONTRACT NO. 76305



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

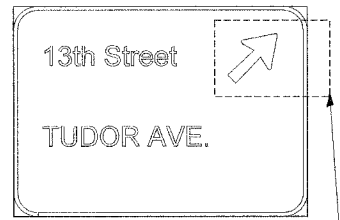
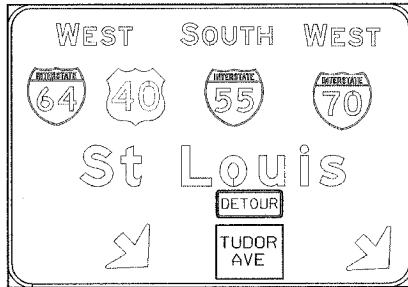
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SCALE: N.T.S.
DATE: 02/28/2006

DATE: 4/18/2006
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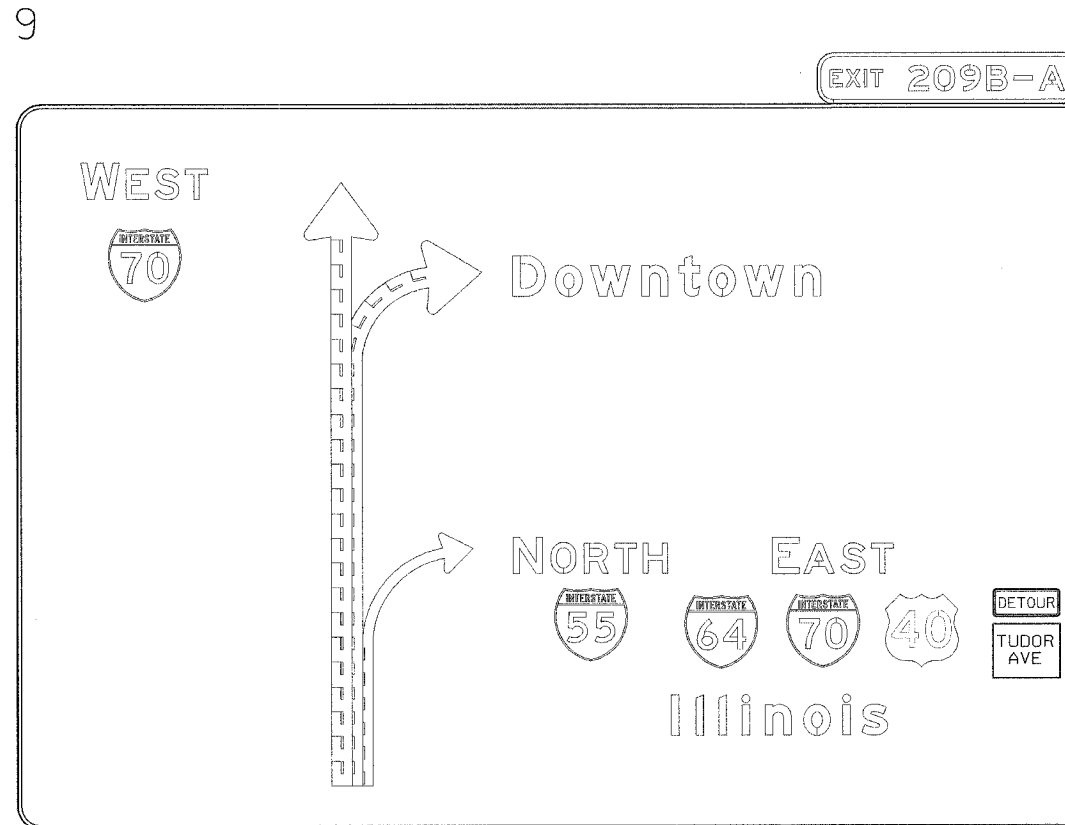
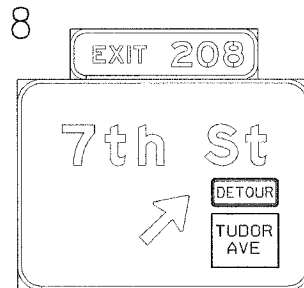
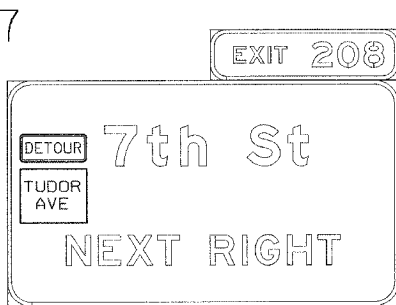
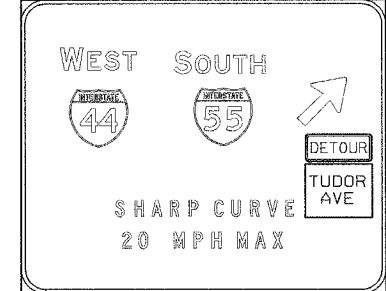
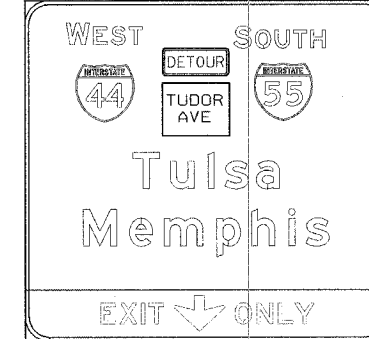
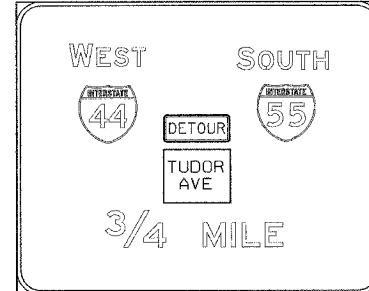
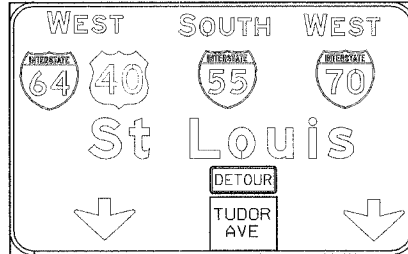
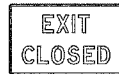
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CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	10
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

• 82-3HVB-3R-3
CONTRACT NO. 76305



COVER AND PLACE



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.

SIGNS-STAGE II

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

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/28/2006

REVISIONS	
NAME	DATE

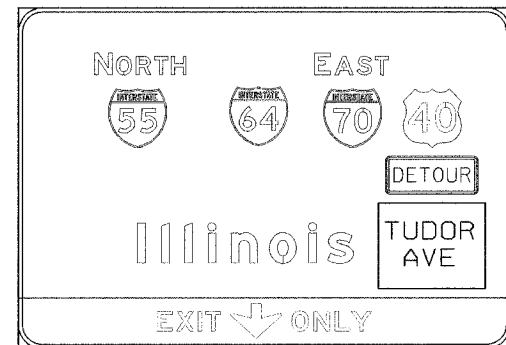
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DRAWN	IMG
CHECKED	JEL

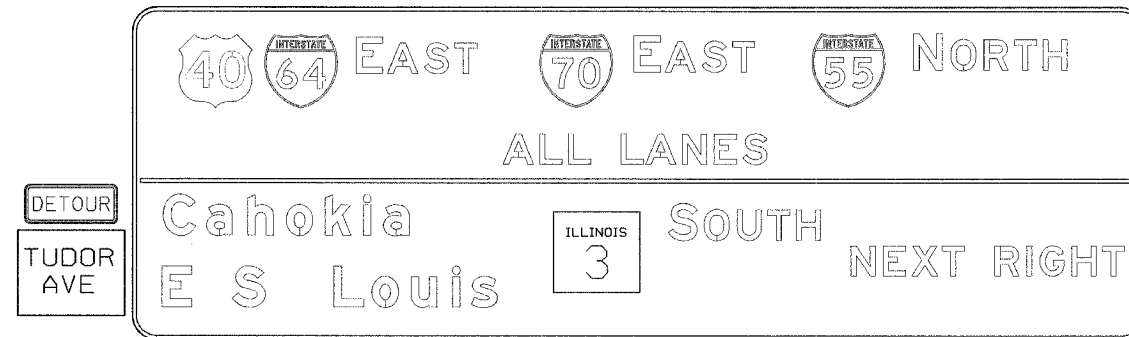
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	11
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 11-78	

* 82-3HYB-3R-3
CONTRACT NO. 76305

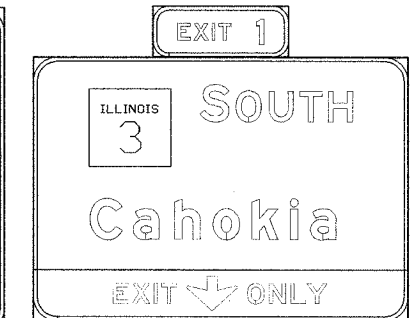
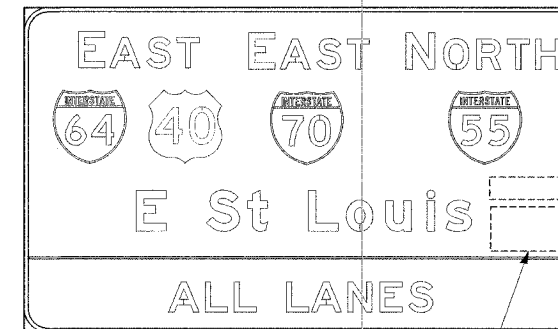
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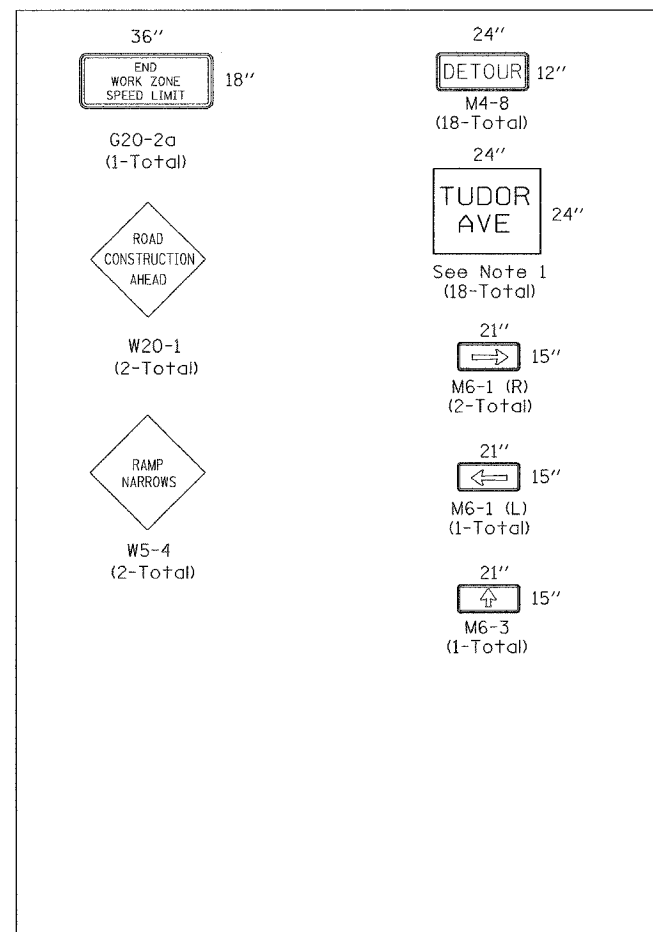
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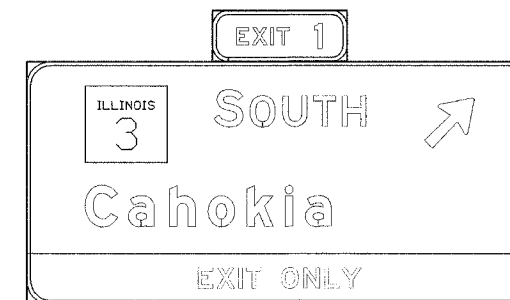
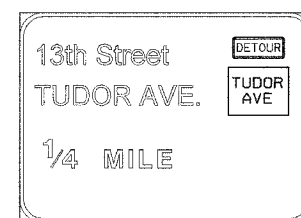
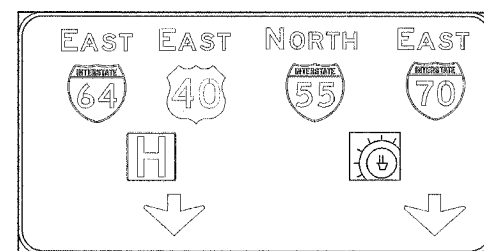
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SIGNS REQUIRED



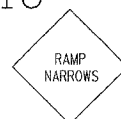
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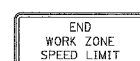
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16



21



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 15, 16 AND 21 ARE TO BE FREE-STANDING SIGNS.

SIGNS-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: 02/28/2006

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

DESIGNED	IDOT
CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

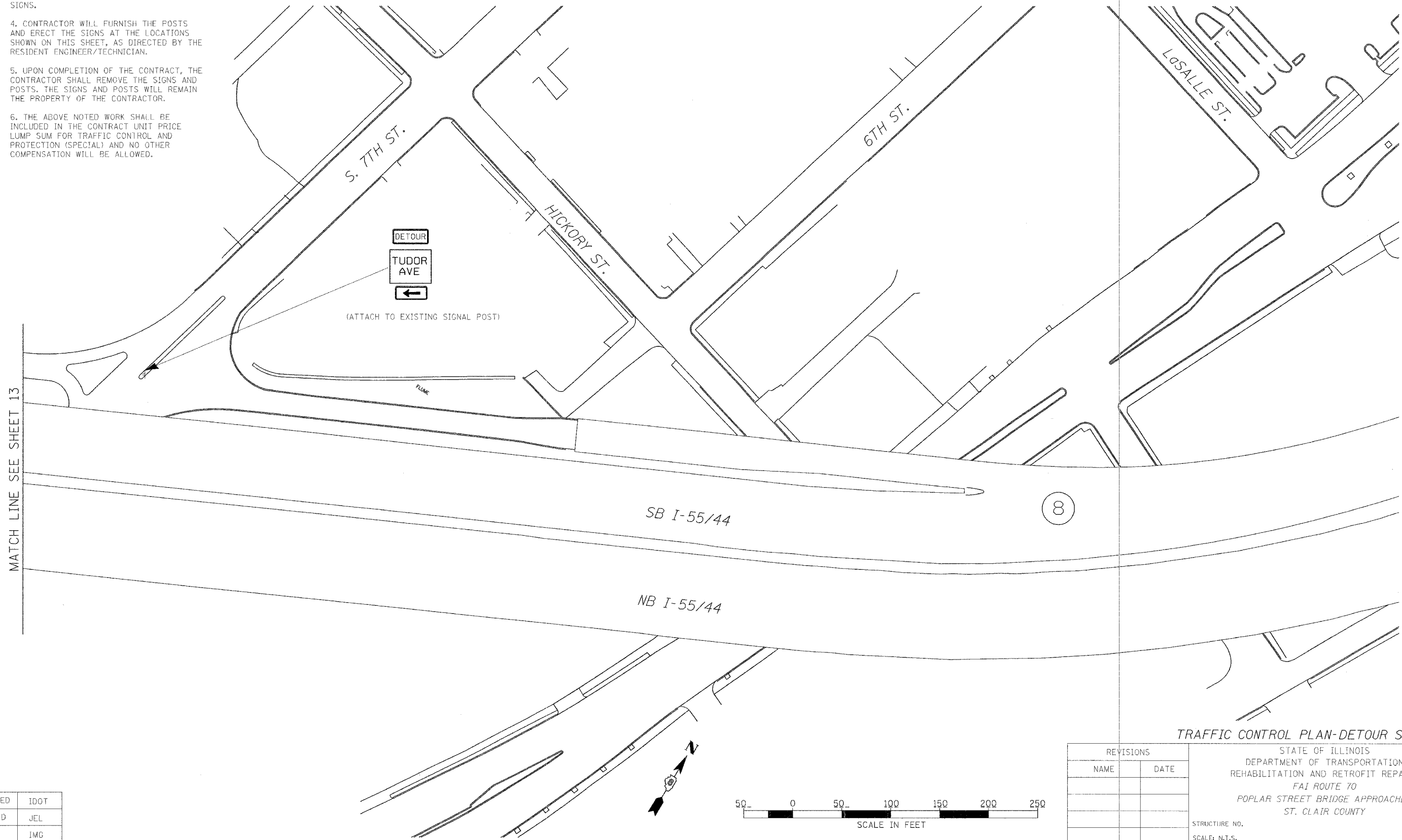
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	12
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		

• 82-3HVB-3R-3
CONTRACT NO. 76305

NOTES:

1. CONTRACTOR SHALL SUPPLY ALL DETOUR SIGNS.
2. ALL SIGNS SHALL HAVE REFLECTORIZED BACKGROUND.
3. CONTRACTOR SHALL COVER ALL TRUSS SIGNS.
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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.
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MATCH LINE SEE SHEET 13

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: 02/28/2006

DATE: 4/18/2006
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CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	13
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		

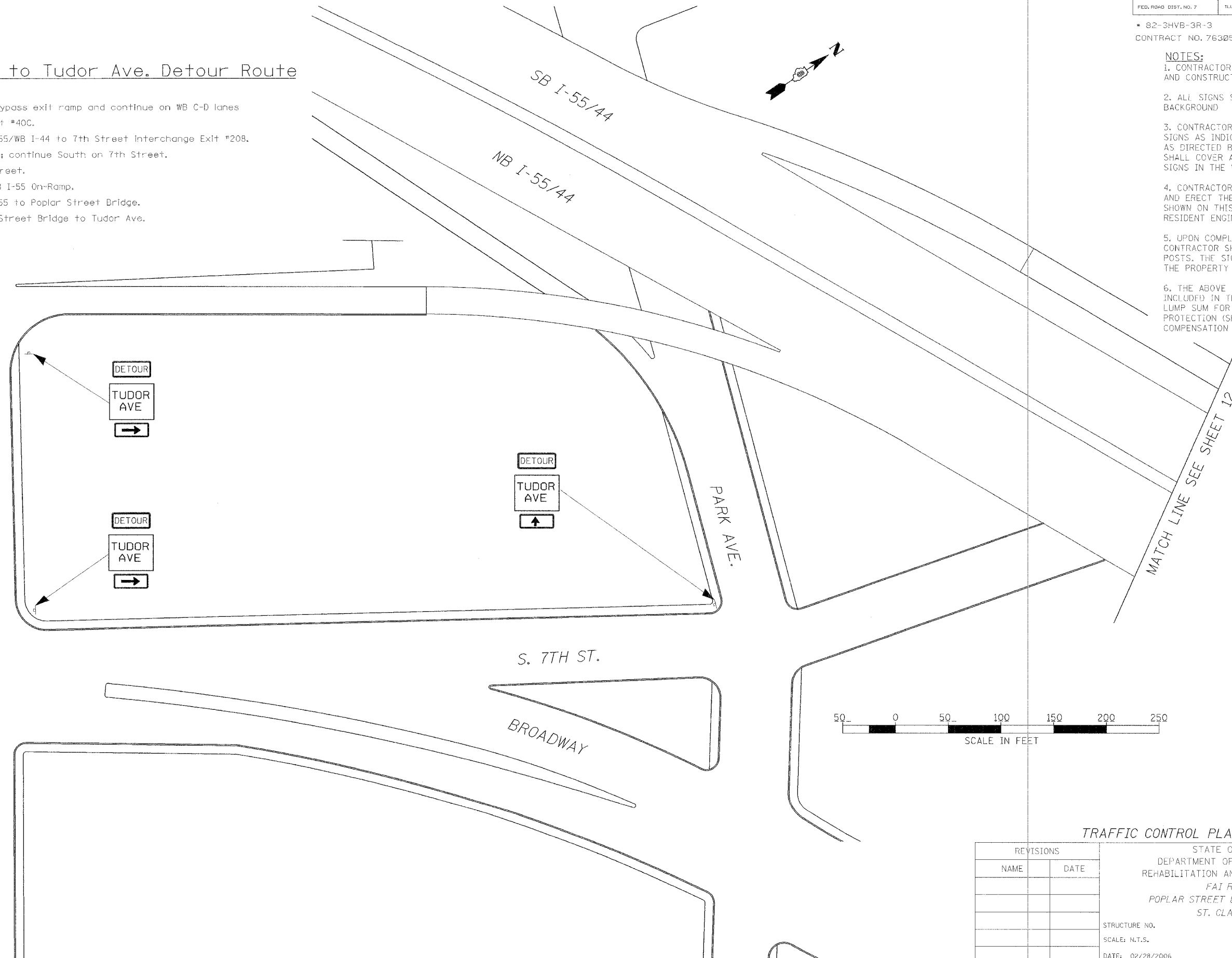
* B2-3HV8-3R-3
CONTRACT NO. 76305

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.
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- 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.

WB I-70/55/64 to Tudor Ave. Detour Route

- Tudor Ave. traffic will bypass exit ramp and continue on WB C-D lanes
- Take SB I-55/WB I-44 Exit #40C.
- Continue traveling SB I-55/WB I-44 to 7th Street interchange Exit #208.
- Turn left at 7th Street; continue South on 7th Street.
- Turn right on Marion Street.
- Turn right to access NB I-55 On-Ramp.
- Continue traveling NB I-55 to Poplar Street Bridge.
- Continue across Poplar Street Bridge to Tudor Ave.



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DRAWN	IMG
CHECKED	JEL

REVISIONS	
NAME	DATE

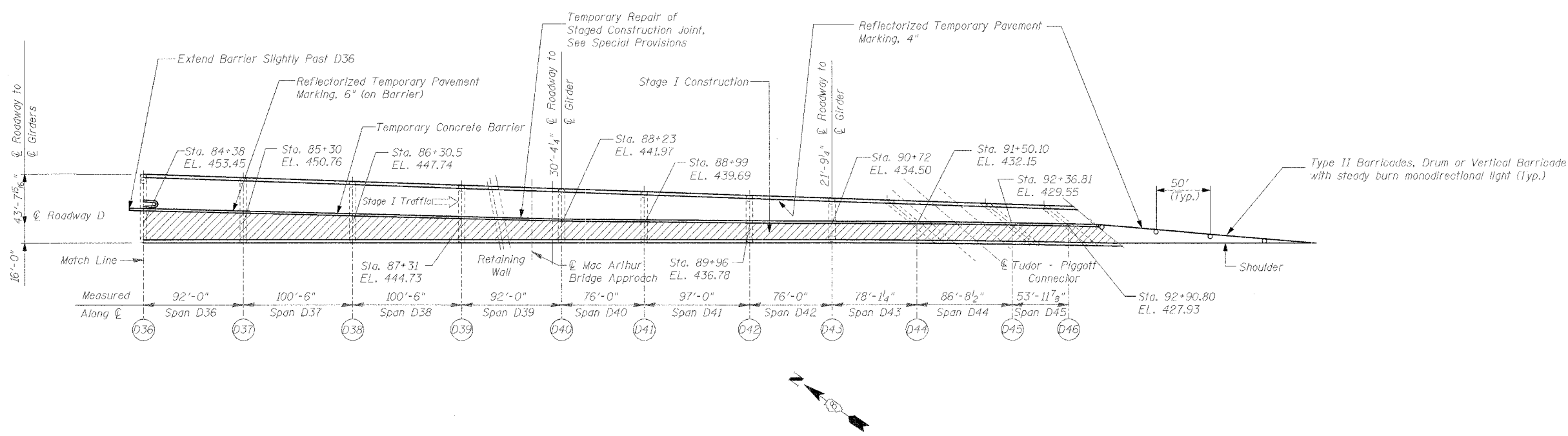
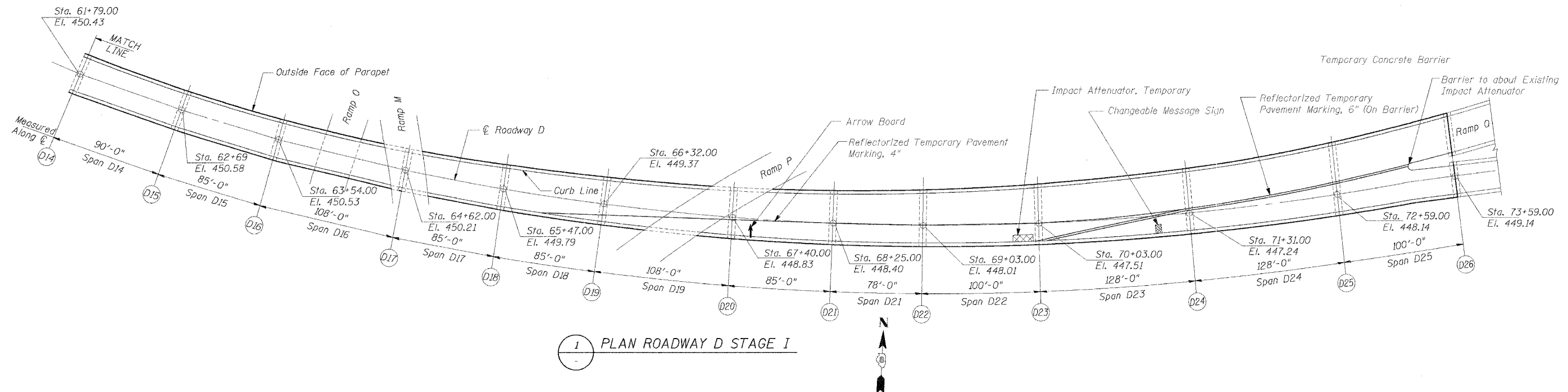
TRAFFIC CONTROL PLAN-DETOUR STAGE II

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

STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	14
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		

* 82-3HVB-3R-3
CONTRACT NO. 76305



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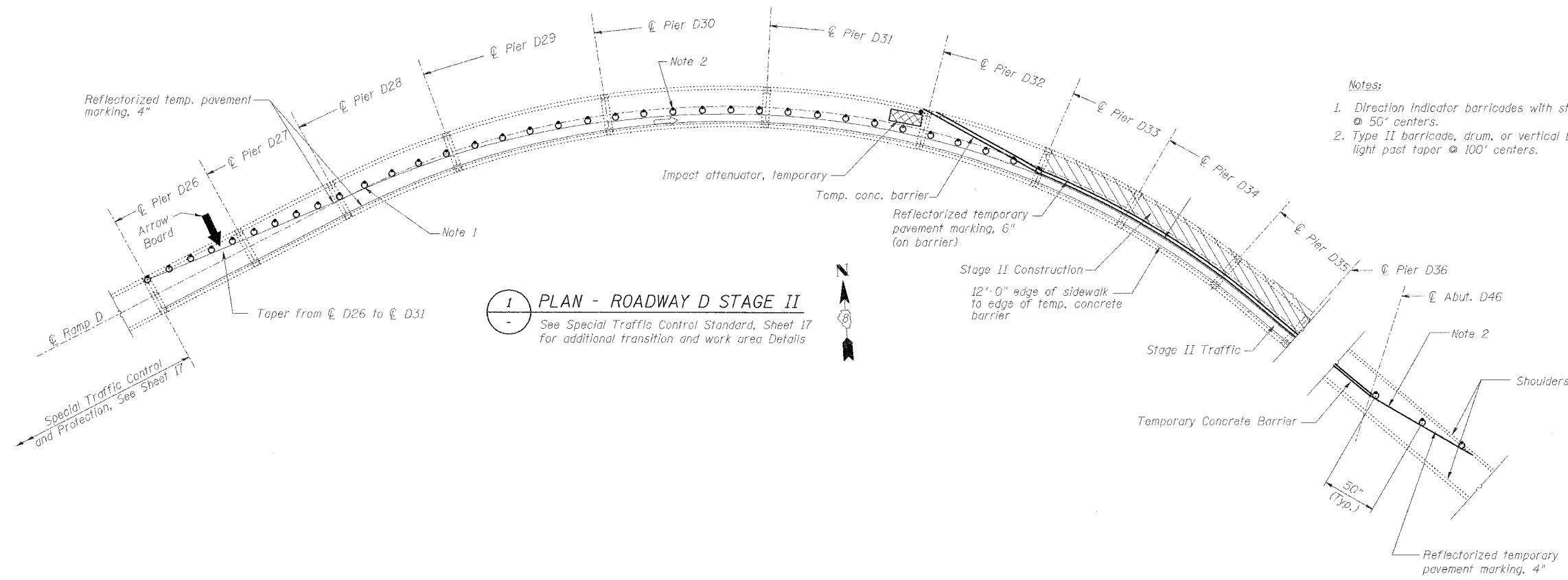
REVISIONS	
NAME	DATE

STAGE I PLAN
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: 02/28/2006

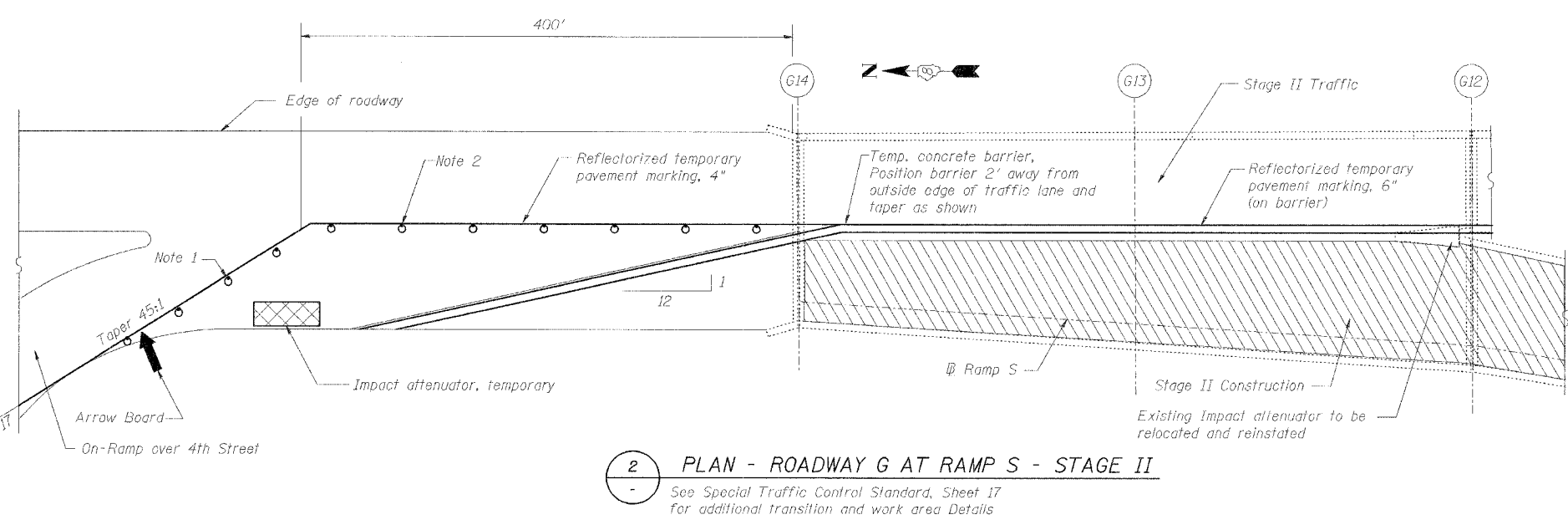
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F.A.I. 70	*	ST. CLAIR	111	15
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 31-70		

* 82-3HVB-3R-3
CONTRACT NO. 76305



- Notes:
1. Direction indicator barricades with steady burn monodirectional light on taper @ 50' centers.
 2. Type II barricade, drum, or vertical barrier with steady burn monodirectional light past taper @ 100' centers.

1 PLAN - ROADWAY D STAGE II
See Special Traffic Control Standard, Sheet 17 for additional transition and work area Details



2 PLAN - ROADWAY G AT RAMP S - STAGE II
See Special Traffic Control Standard, Sheet 17 for additional transition and work area Details

REVISIONS	
NAME	DATE

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

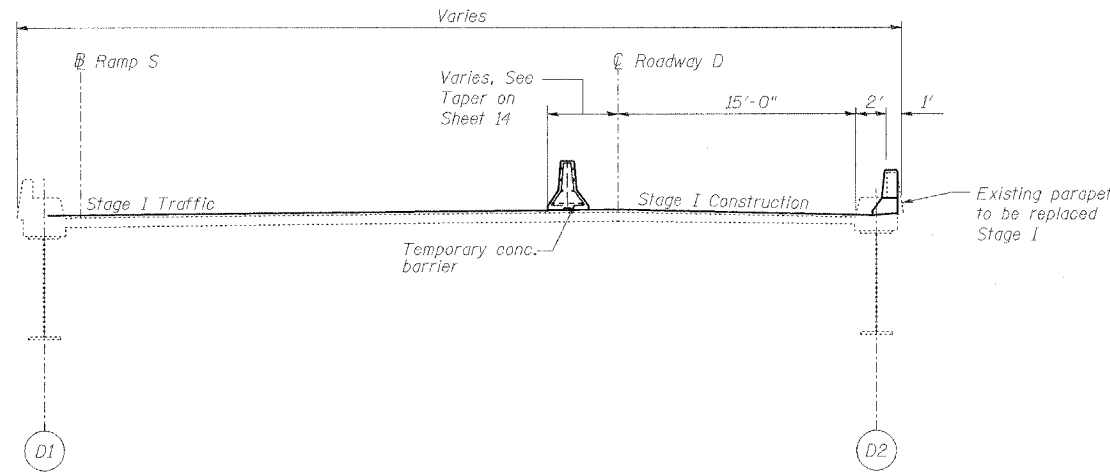
STRUCTURE NO.
SCALE: N.T.S.
DATE: 02/28/2006

DATE: 4/18/2006
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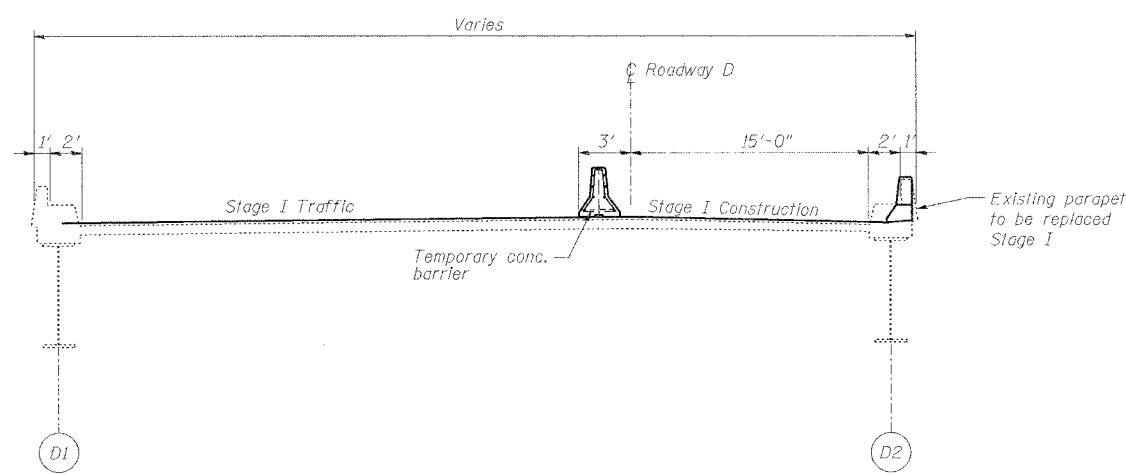
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CHECKED	JEL
DRAWN	IMG
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	16
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 115-70		

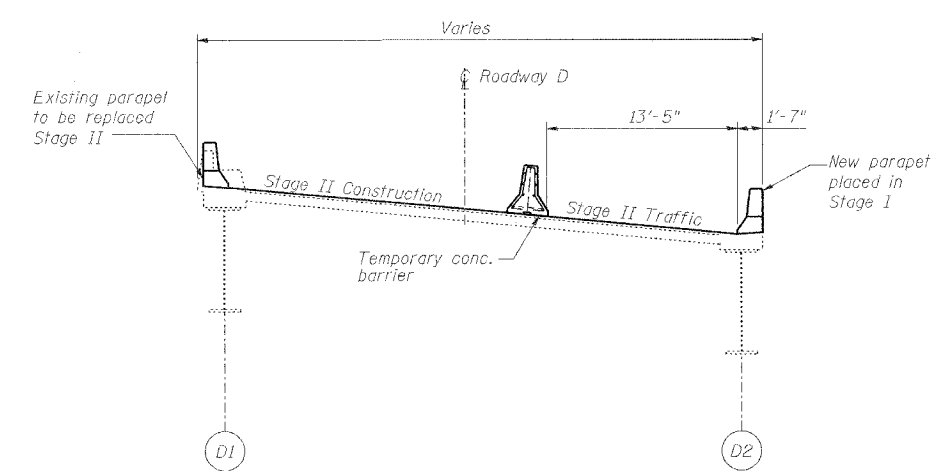
* 82-3HVB-3R-3
CONTRACT NO. 76305



1 STAGE I RAMP D @ SPAN D39
(Looking South)



2 STAGE I RAMP D @ SPAN D40-D45
(Looking South)



3 STAGE II RAMP D TYPICAL SECTION
(Looking South)

DATE: 4/2/2006
FILENAME: F:\2001\1901-1900\20011240\drafting\roadway\rehab_ds\ds_traffic\ds_sections\ds_sections.dgn

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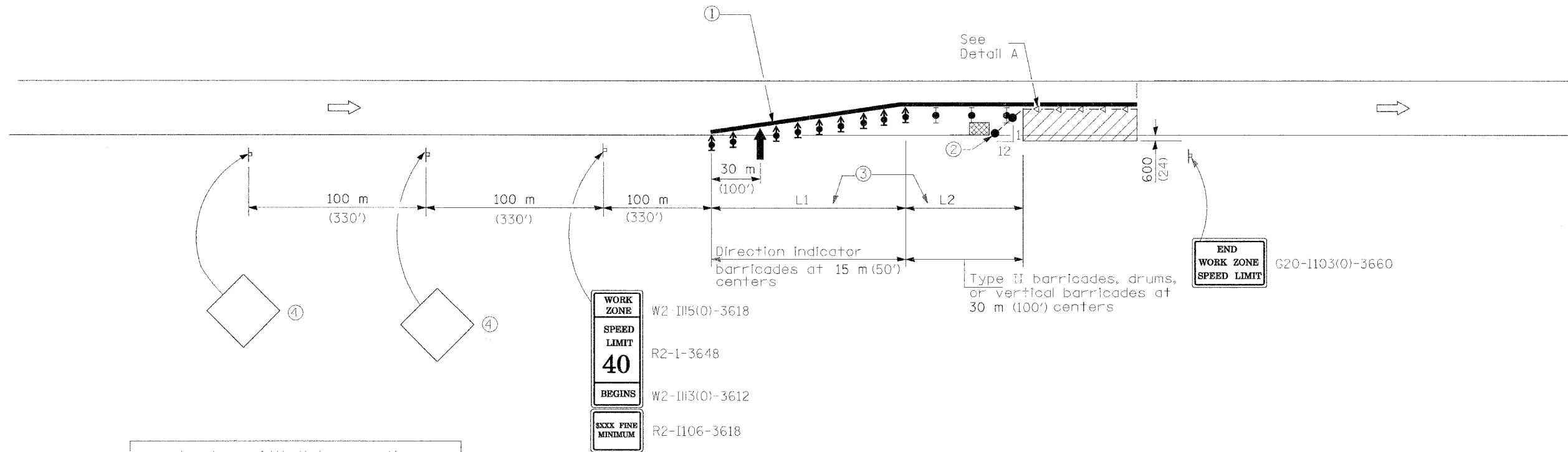
REVISIONS	
NAME	DATE

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: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	17
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 24-72		

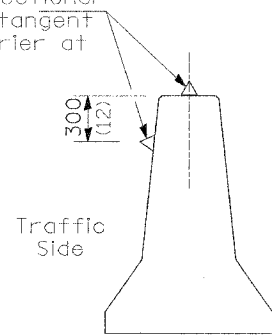
* 82-3HVB-3R-3
CONTRACT NO. 76305



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.



DETAIL A
(BARRIER WALL REFLECTORS)

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 pavement marking tape 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

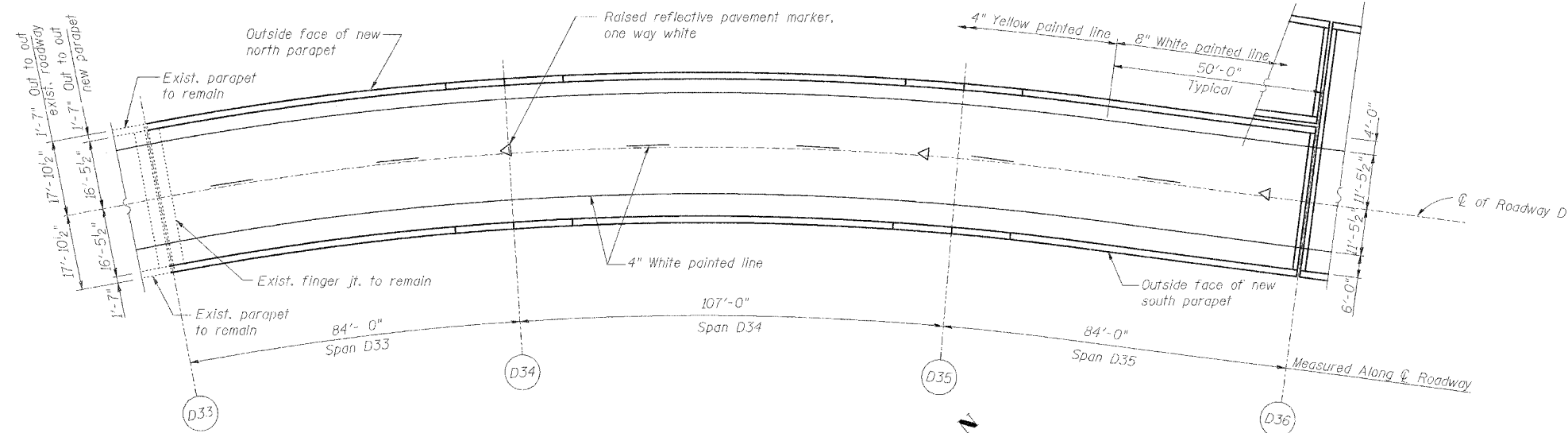
REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. SCALE: N.T.S. DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\2001-1300\2001.1240\drafting\roadwayrehab.ds\trafcont\ds\trafspecial.dgn

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DRAWN	IMG
CHECKED	JEL

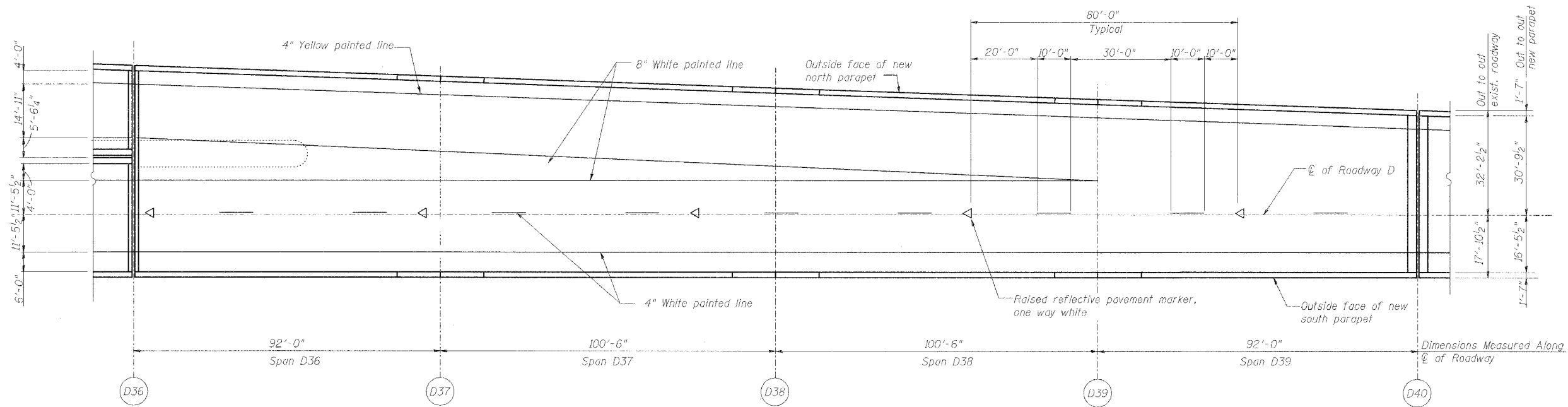
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	18
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

* 82-3HVB-3R-3
CONTRACT NO. 76305



DECK PLAN OF SPANS D33 - D35

Note:
Taper striping pattern as necessary to match existing pattern beyond Pier D33



DECK PLAN OF SPANS D36 - D39

STRIPING SPANS D33 - D39

REVISIONS	
NAME	DATE

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

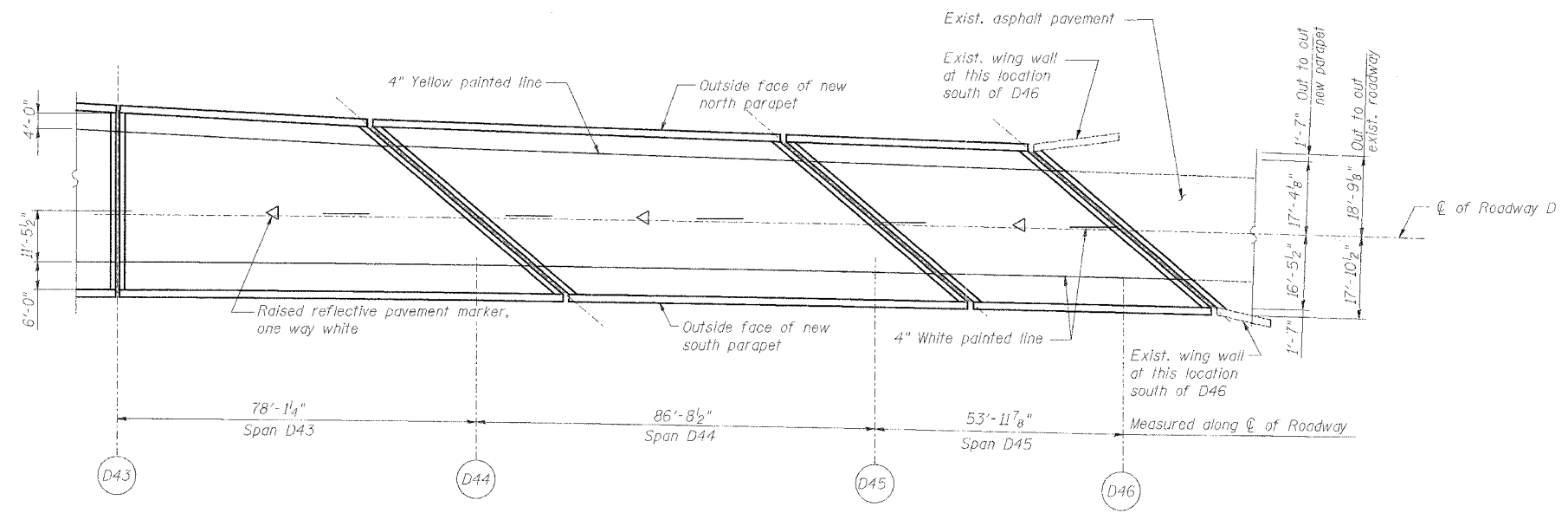
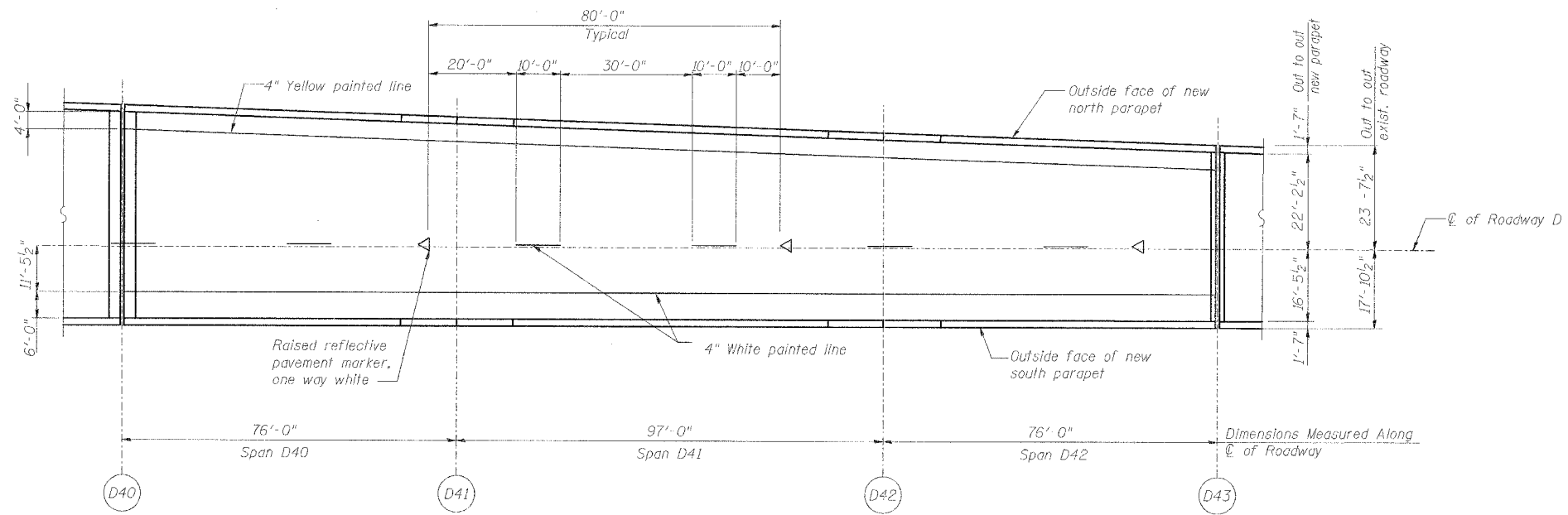
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SCALE: N.T.S.
DATE: 02/28/2006

DATE: 4/8/2006
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	19
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-70		

* 82-3HVB-3R-3
 CONTRACT NO. 76305



DECK PLAN OF SPANS D43 - D45

Note:
 Taper striping pattern as necessary to match existing pattern beyond abutment at D46

DATE: 4/28/2006
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REVISIONS	
NAME	DATE

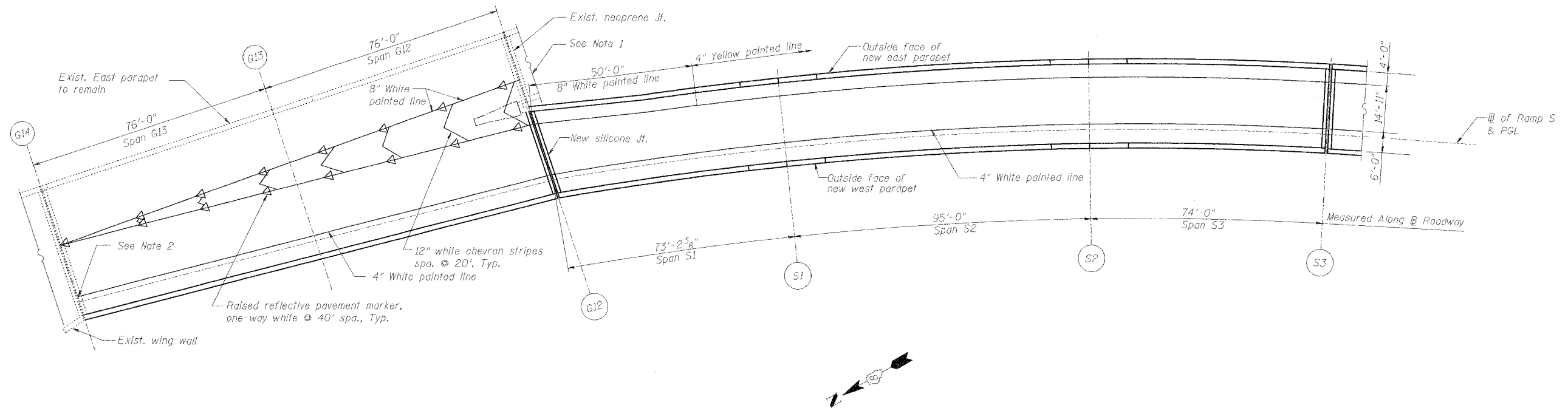
STRIPING SPANS D40 - D45

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

STRUCTURE NO. 082-0144 (ROADWAY D)
 SCALE: N.T.S.
 DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	20
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

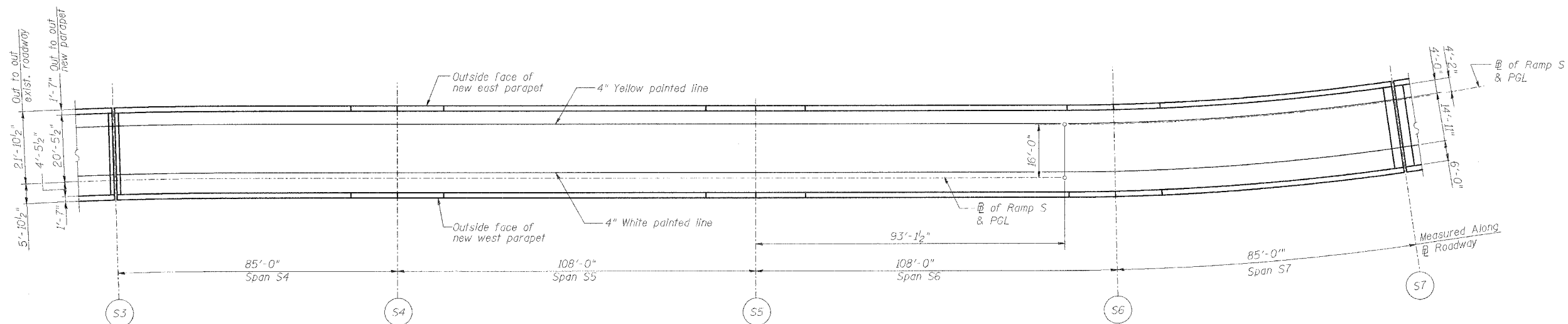
* 82-3HVB-3R-3
CONTRACT NO. 76305



DECK PLAN OF SPANS G14 - S3

Notes:

1. Taper striping pattern as necessary to match existing pattern beyond Pier G12
2. Taper striping pattern as necessary to match existing pattern beyond Pier G14



DECK PLAN OF SPANS S4 - S7

STRIPING SPANS G14 - S7

REVISIONS	
NAME	DATE

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

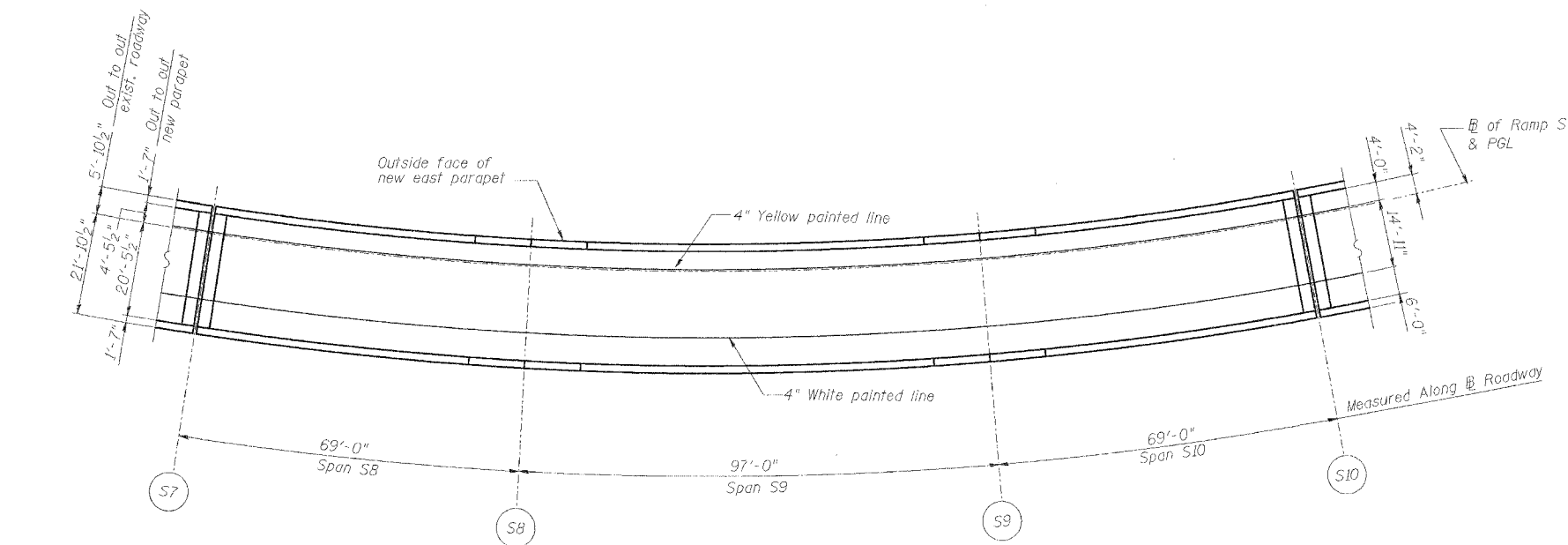
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DATE: 2/28/2006

DATE: 4/18/2006
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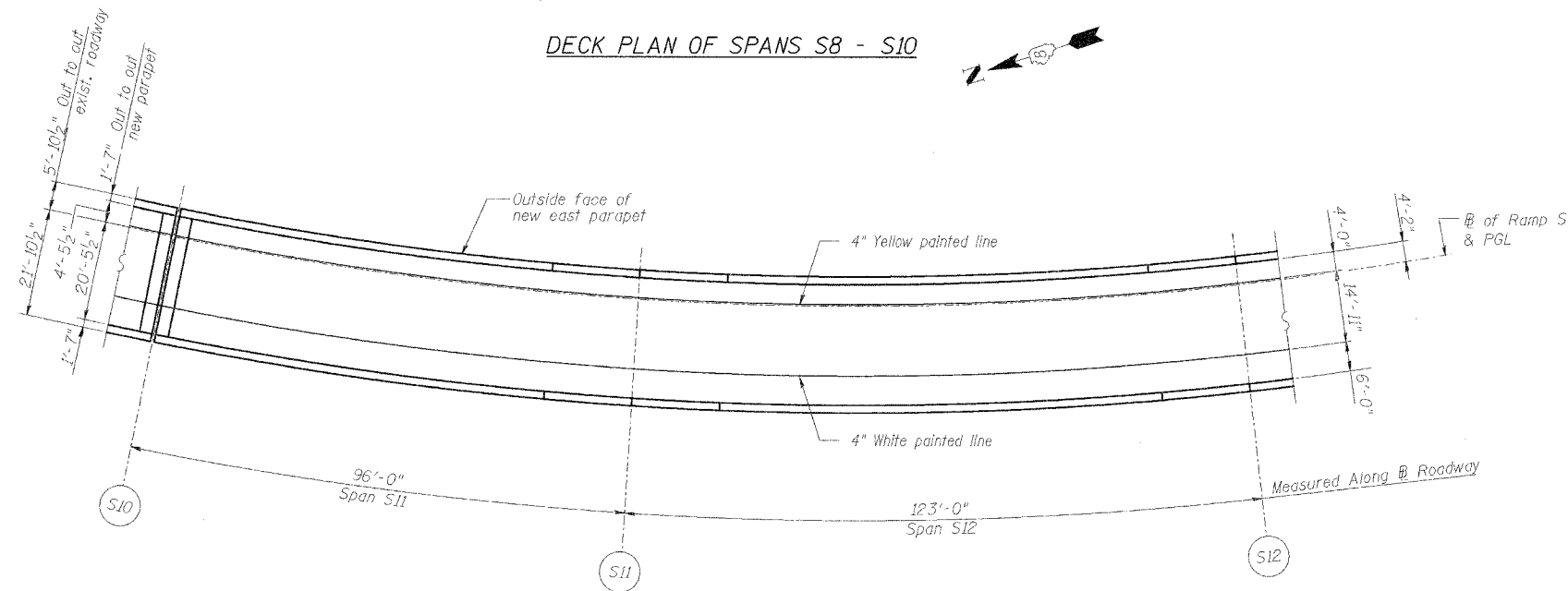
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	21
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IP-70		

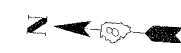
* 82-3HVB-3R-3
CONTRACT NO. 76305



DECK PLAN OF SPANS S8 - S10



DECK PLAN OF SPANS S11 - S12



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REVISIONS	
NAME	DATE

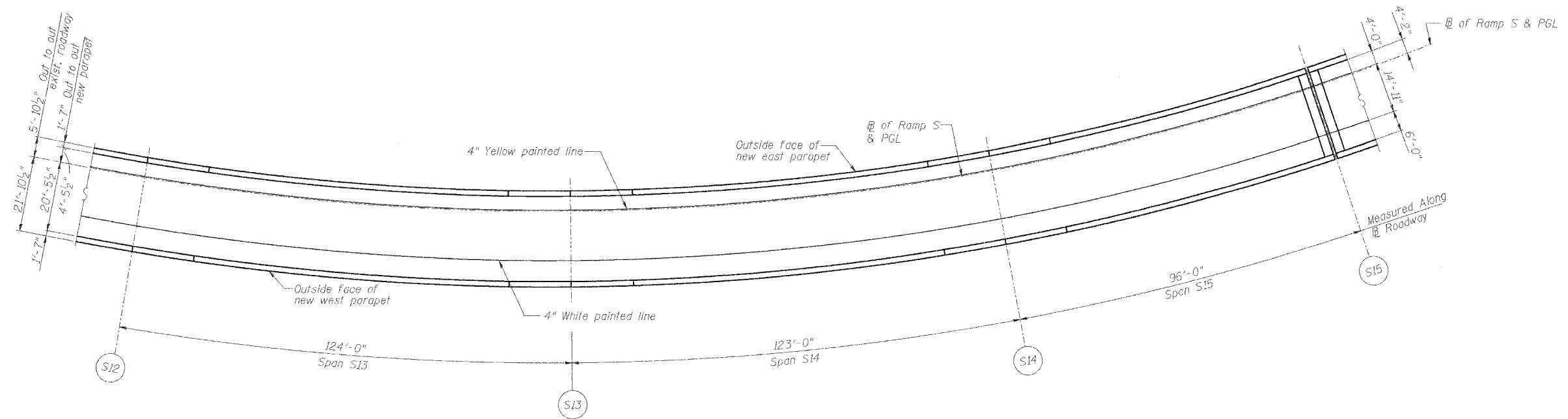
STRIPING SPANS S8 - S12

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

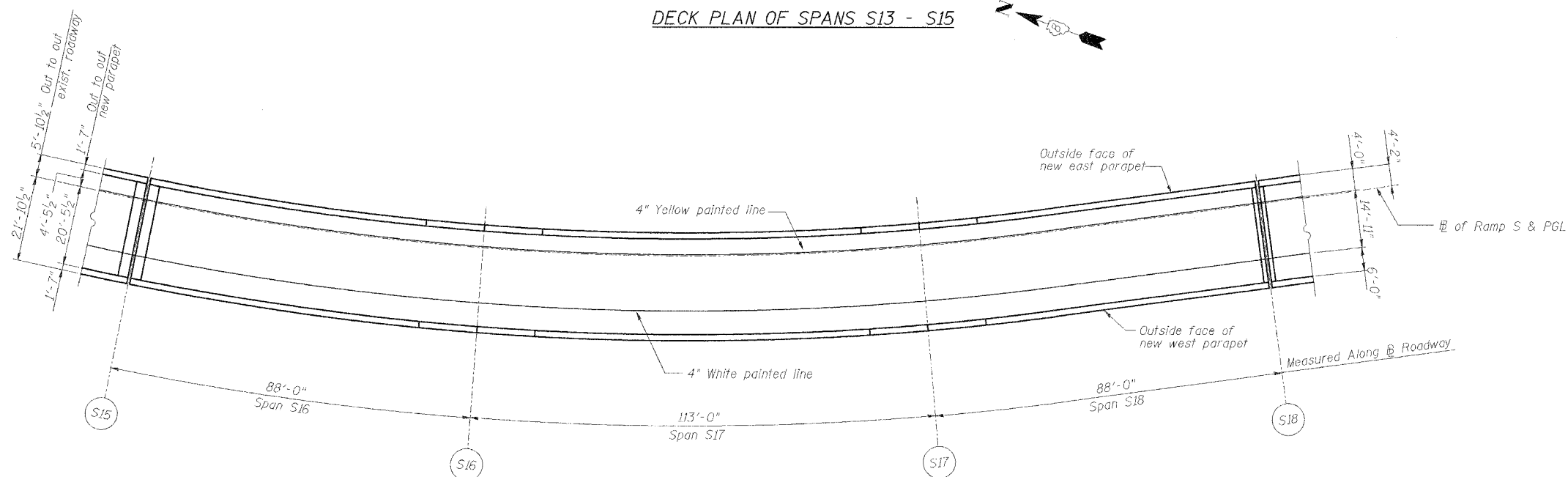
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SCALE: N.T.S.
DATE: 2/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	22
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

• 82-3HVB-3R-3
CONTRACT NO. 76305



DECK PLAN OF SPANS S13 - S15



DECK PLAN OF SPANS S16 - S18

DATE: 4/18/2006
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REVISIONS	
NAME	DATE

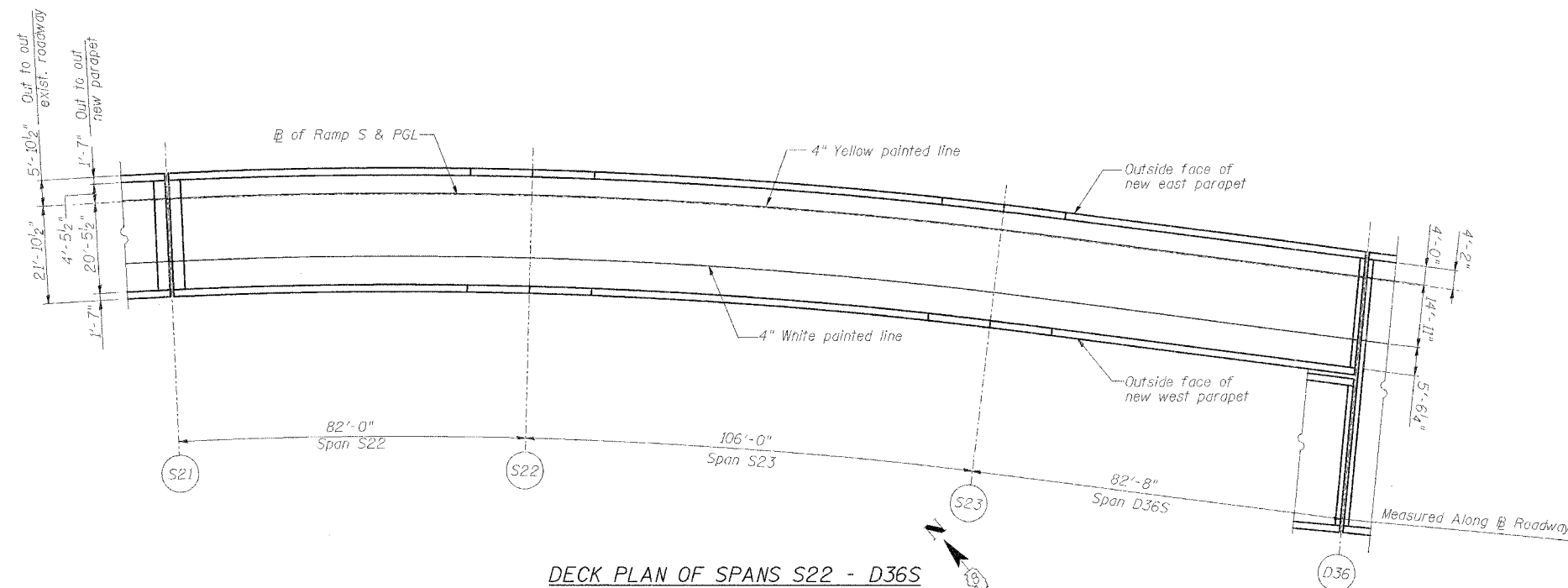
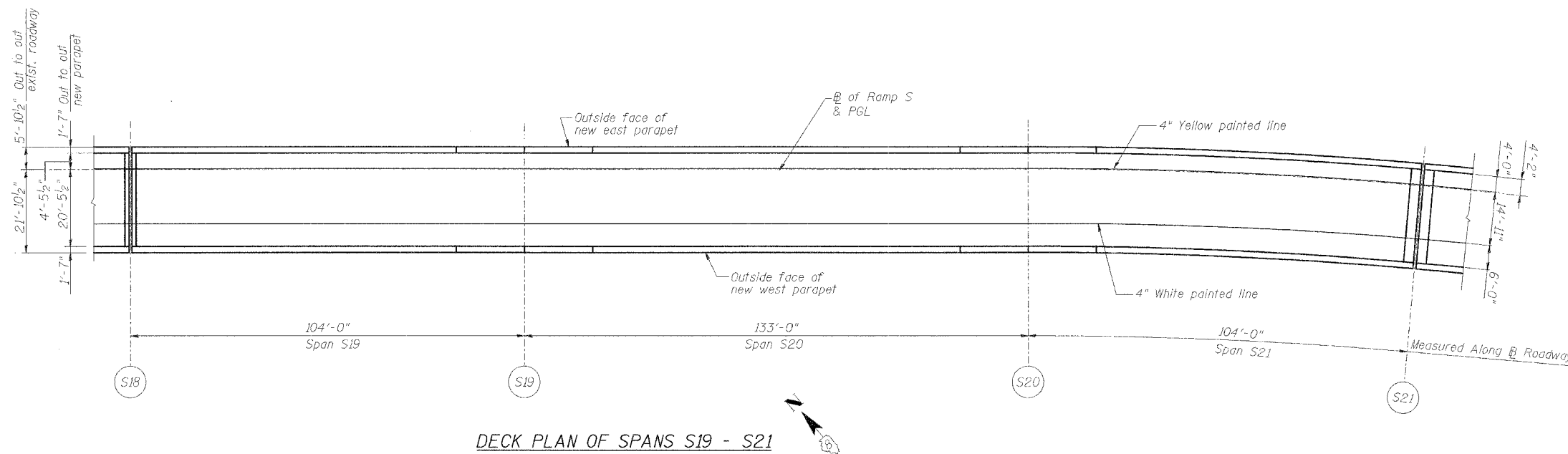
STRIPING SPANS S13 - S18

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

STRUCTURE NO.
SCALE: N.T.S.
DATE: 2/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	23
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-3
 CONTRACT NO. 76385



Note:
 Taper 4" white line as necessary in Span D36S to meet pattern in Span D36

STRIPING SPANS S19 - D36S

REVISIONS	
NAME	DATE

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

STRUCTURE NO.
 SCALE: N.T.S.
 DATE: 2/28/2006

DATE: 4/8/2006
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**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

**FAI ROUTE 70 (I-55/64/70)
POPLAR STREET BRIDGE APPROACHES
SECTION 82-3HVB-3R-3
PROJECT IM-70
PLANS FOR PROPOSED
ROADWAY REHABILITATION
ST. CLAIR COUNTY**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	24
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		
		* 82-3HVB-3R-3	SHEET S-1 OF S-44	
CONTRACT NO. 76305				

**SET 1 OF
2 SETS**

ENCOMPASSING THE FOLLOWING ROADWAYS
• SN-082-0144 (ROADWAY D)

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.: 3,500 (2,005)
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)

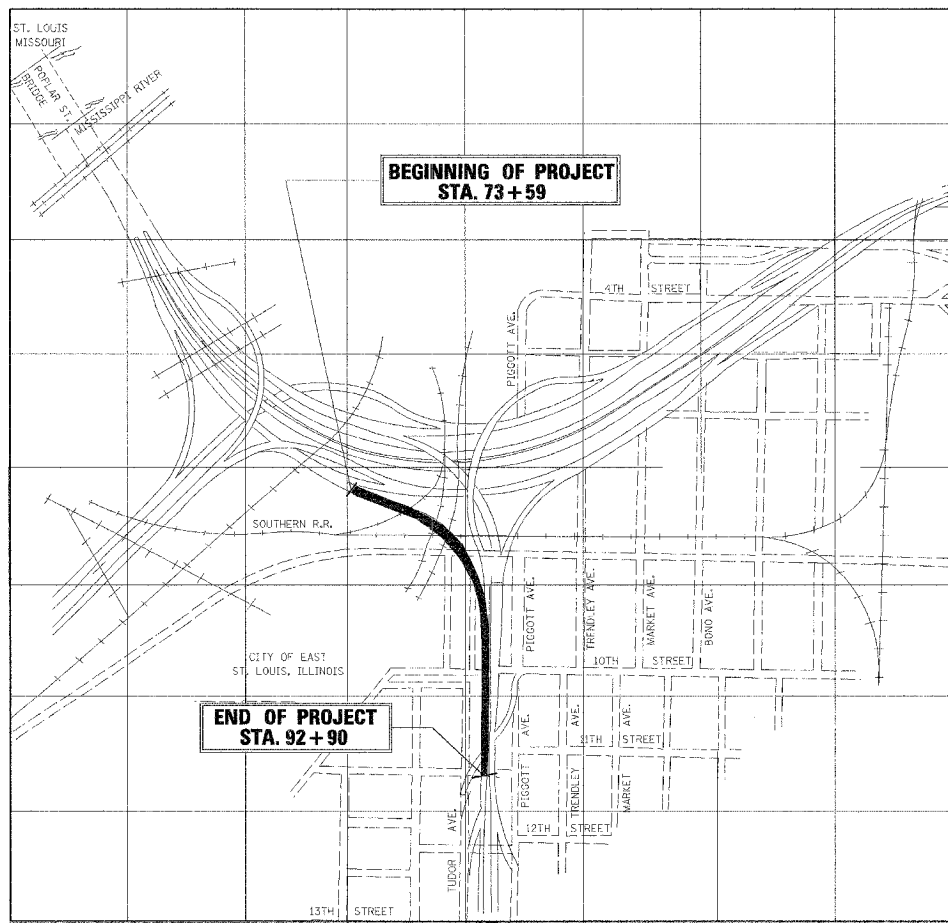
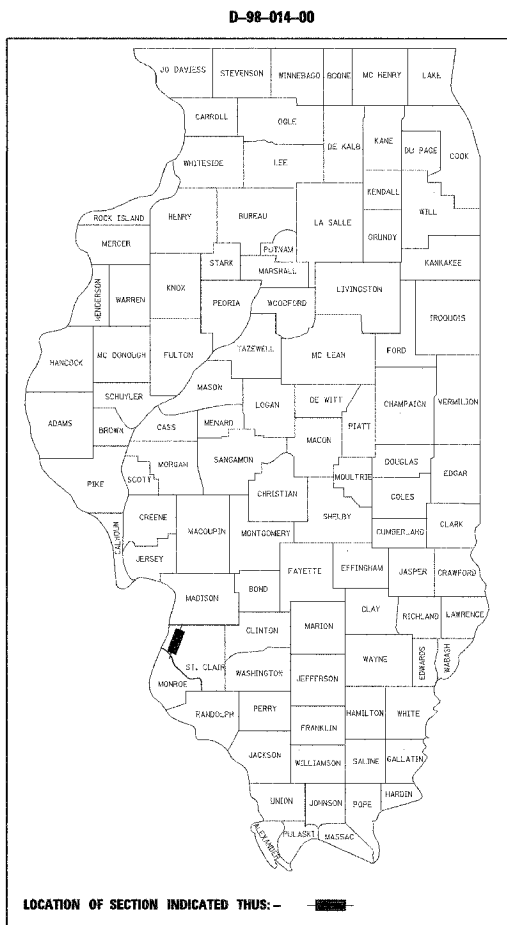
f_c = 3,500 psi
 f_y = Varies, 36,000 - 50,000 psi (Structural Steel)
 f_y = 60,000 psi (Reinforcement)

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
S-1	TITLE SHEET - ROADWAY D
S-2	GENERAL NOTES
S-3	SCOPE OF WORK
S-4	KEY PLAN
S-5	TOTAL BILL OF MATERIAL
S-6 - S-9	PROJECT PLAN, ELEVATION, AND SECTIONS
S-10 - S-14	TABLES OF ROADWAY ELEVATIONS
S-15 - S-18	DECK AND PARAPET REPAIR PLANS
S-19 - S-23	INFRARED THERMOGRAPHIC MAPPING RESULTS
S-24 - S-26	CONCRETE PARAPET DETAILS
S-27 - S-28	CONCRETE REPAIR DETAILS
S-29 - S-32	EXPANSION JOINT REPAIR DETAILS
S-33 - S-36	DECK DRAINAGE DETAILS
S-37	STEEL PAINTING DETAILS
S-38 - S-39	ELASTOMERIC BEARING REPLACEMENT
S-40 - S-41	FATIGUE RETROFIT DETAILS
S-42 - S-44	SEISMIC ISOLATION DETAILS AND PIER ELEVATIONS



LOCATION PLAN

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS**

SUBMITTED _____ 20 _____

DISTRICT ENGINEER

_____ 20 _____

ENGINEER OF PROJECT DEVELOPMENT AND IMPLEMENTATION

_____ 20 _____

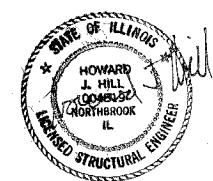
ENGINEER OF DESIGN AND ENVIRONMENT

_____ 20 _____

DIRECTOR, DIVISION OF HIGHWAYS

CONTRACT NO. 76305

Howard J. Hill, Ph.D., SE
Illinois Licensed Structural Engineer
License No. 081-004819
License Expires: 11/30/06



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

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\Roadway\Rehab_DS\Reamp\D_Title.dgn

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	25
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		

* 82-3HVB-3R-3 SHEET S-2 OF S-44
CONTRACT NO. 76305

GENERAL NOTES:

- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at 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: 40,540 Lbs.
Calculated weight of Structural Steel, Grade 36W: 7,940 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. All bolts, threaded rods, wire rope, and hardware shall be galvanized according to IDOT galvanized bolt provisions. 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.
- 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.
- Field welding of construction accessories will not be permitted to beams or girders.
- Roadway expansion guards shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection.
- The roadway expansion plates shall be flame cut as provided in Article 505.04(k) of the Standard Specifications.
- Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
- All construction joints shall be bonded.
- 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 acrylic finish coat shall be Interstate Green, Munsell No. 7.5 G 4/B. See Special Provision "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 loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.
- All existing construction accessories welded to the top flange over the pier(s) between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any crack that can not be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.
- The existing structural steel coating contains lead. The contractor should 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 220 existing floor drains on Roadway D.

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REVISIONS	
NAME	DATE

GENERAL NOTES

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

STRUCTURE NO. 082-0142 (RAMP S)

SCALE:

DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	26
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		

* 82-3HVB-3R-3 SHEET S-3 OF S-44
CONTRACT NO. 76305

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 (13 spans):
Spans D33 through D45
2. Per Sheet S27, remove existing bituminous overlay, scarify top 1/2" of existing concrete deck, and add new microsilica concrete overlay at the following locations (9 spans):
Spans D33 through D41
3. Per Sheet S28, remove existing bituminous overlay, scarify top 2 in. of concrete deck, and add new microsilica concrete overlay at the following locations (4 spans):
Spans D42 through D45
4. Remove existing deck drains as indicated at the following span (1 span):
D36
5. Install new drainage scuppers as indicated at the following spans (13 spans):
Spans D33 through D45
6. Remove existing bridge deck joints and replace with new silicone joint seals at the following piers: (4 locations):
D36 D44 D45 D46
7. Remove existing bridge deck joints and replace with new neoprene joint at the following pier (1 location):
D43
8. Remove existing bridge deck joints and replace with new finger joints and drainage trough at the following pier (1 location):
D40
9. Remove existing concrete divider at the following location (1 location):
Span D36
10. Resurface adjacent bituminous concrete roadway surface at the following abutment (1 location):
D46
11. Clean and paint selected portions of the steel superstructure, including bottom portions of girders and all steel in the vicinity of deck joints.
Spans D26 through D45
12. Replace deteriorated bottom flange splice bolts on the following spans.
Spans D27 D33 D34 D36 D38 D40 D41 D42
13. Install seismic isolation bearings and miscellaneous shear and tension links at the following piers (2-locations):
D44 D45
14. Replace existing elastomeric bearings at the following abutment (1-location):
D46
15. Perform vertical stiffener intersection modifications on the following spans (17-spans):
Spans D26 through D42
16. Perform long span floor beam retrofits on the following spans (4-spans):
Spans D36 through D39

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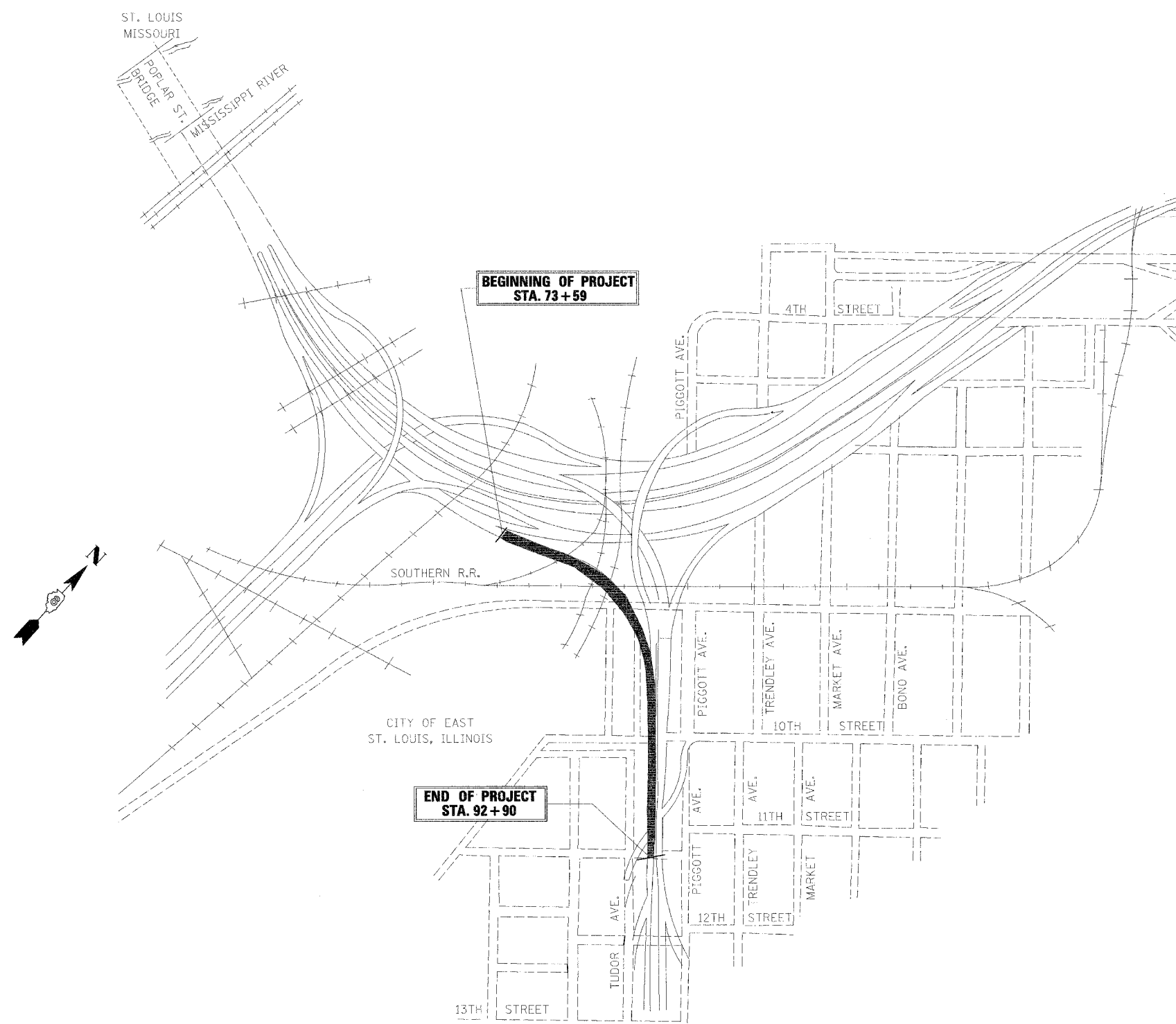
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SCOPE OF WORK

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE TO POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	27
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78		

* 82-3HVB-3R-3 SHEET S-4 OF S-44
CONTRACT NO. 76305



LOCATION SKETCH

OVERALL PROJECT PLAN

Roadway / Ramp	Segment / Pier No.	Structure No.	Year / Structure Type
D	D26-D43	082-0144	1967 Two Girder System
D	D43-D46	082-0144	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. 082-0142 (RAMP S1)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	28
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-3 SHEET S-5 OF S-44
CONTRACT NO. 76305

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
Concrete Removal	CU YD	629	---	629
Concrete Superstructure	CU YD	570	---	570
Reinforcement Bars, Epoxy coated	POUND	86,360	3,520	89,880
Bridge Deck Hydro-Scarification-2"	SQ YD	1,125	---	1,125
Bridge Deck Hydro-Scarification-1/2"	SQ YD	3,894	---	3,894
Deck Slab Repair (Full Depth, Type II)	SQ YD	4	---	4
Bridge Deck Microsilica Concrete Overlay-2 1/2"	SQ YD	4,155	---	4,155
Bridge Deck Microsilica Concrete Overlay-4"	SQ YD	1,205	---	1,205
Bridge Deck Grooving	SQ YD	5,090	---	5,090
Protective Coat	SQ YD	7,214	---	7,214
Polymer Concrete	CU FT	37	---	37
Neoprene Expansion Joint--4"	FOOT	45	---	45
Silicone Joint Sealer--2"	FOOT	190	---	190
Silicone Joint Sealer--3"	FOOT	64	---	64
Bituminous Concrete Removal (Deck)	SQ YD	5,019	---	5,019
Bar Splicers	EACH	322	---	322
Drainage Scuppers, DS12	EACH	31	---	31
Drainage System	L SUM	0.33	---	0.33
Fabric Reinforced Elastomeric Trough	FOOT	54	---	54
Protective Shield	SQ YD	1,780	---	1,780
Bituminous Concrete Curb Removal	FOOT	15	---	15
Furnishing and Erecting Structural Steel	L SUM	0.49	---	0.49
Mechanical Splice	EACH	442	72	514
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	72	---	72
Stiffener Intersection Modification	EACH	432	---	432
Long Span Floor Beam Retrofit	EACH	10	---	10
Jack and Remove Existing Bearings	EACH	13	---	13
Elastomeric Bearing Assembly, Type I	EACH	5	---	5
Seismic Isolation Bearing Assembly, Type A	EACH	8	---	8
Concrete Structures	Cu. Yd.	---	10	10
Crack Extension Modifications	Each	20	---	20

DATE: 4/19/2006
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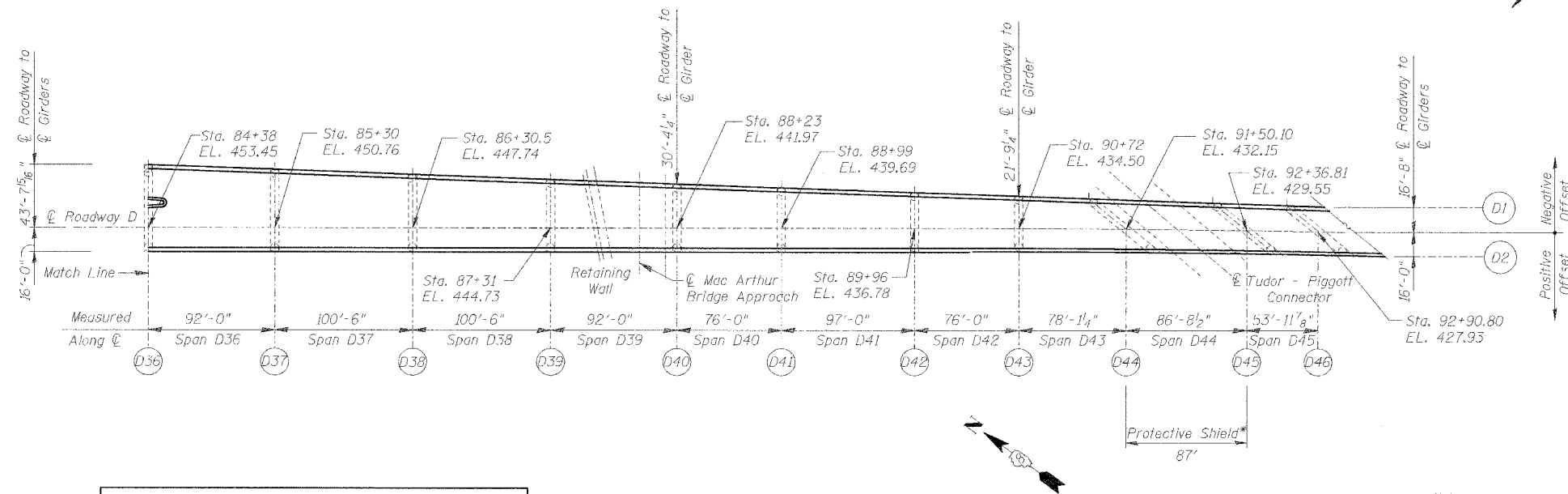
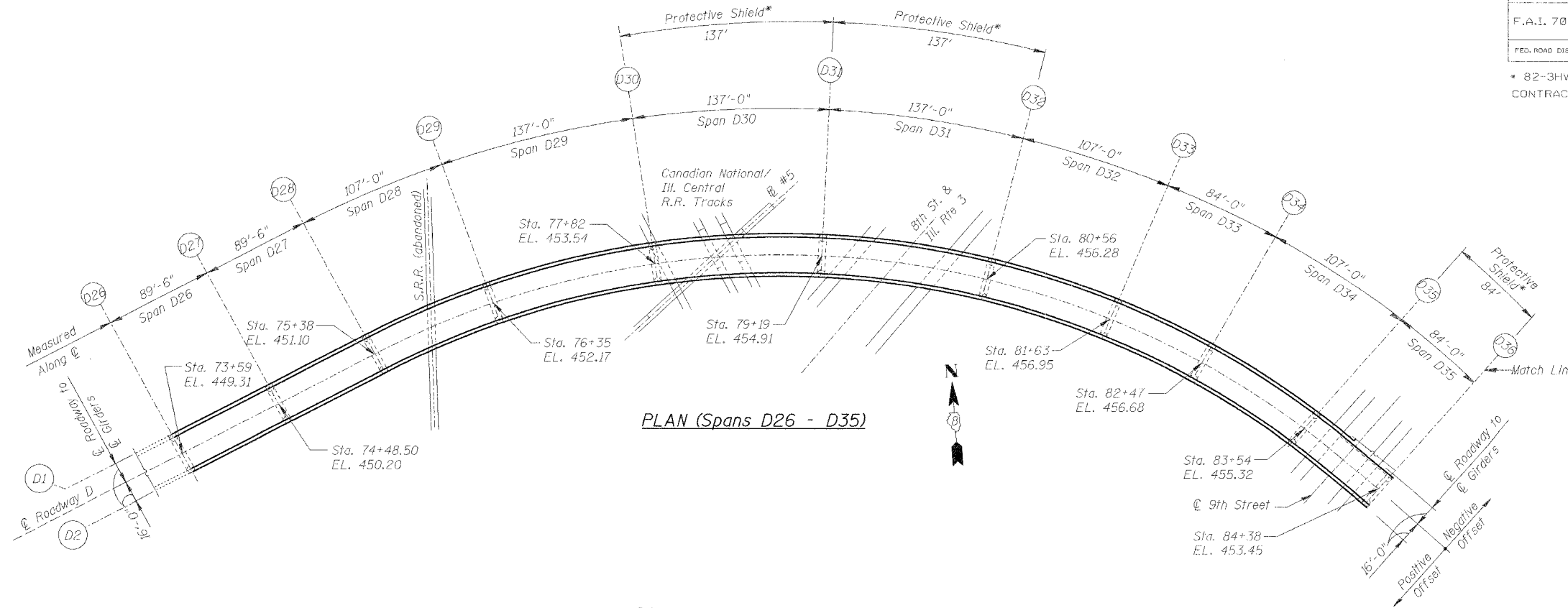
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DRAWN	CLK
CHECKED	JEL

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. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	29
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

* 82-3HVB 3R-3 SHEET S-6 OF S-44
CONTRACT NO. 76305



ELEVATIONS TOP OF GIRDER FLANGE			
PIER	STATION	GIRDER D1	GIRDER D2
D34	8247.000	457.060	454.500
D35	8354.000	455.452	453.334
D37	8530.000	449.250	449.728
D38	8630.500	446.218	446.656
D39	8731.000	443.308	443.673
D41	8899.000	438.326	438.569
D42	8996.000	435.486	435.659
Abut. D46	9290.800	472.448	426.264

- 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 2" overlay.

REVISIONS	
NAME	DATE

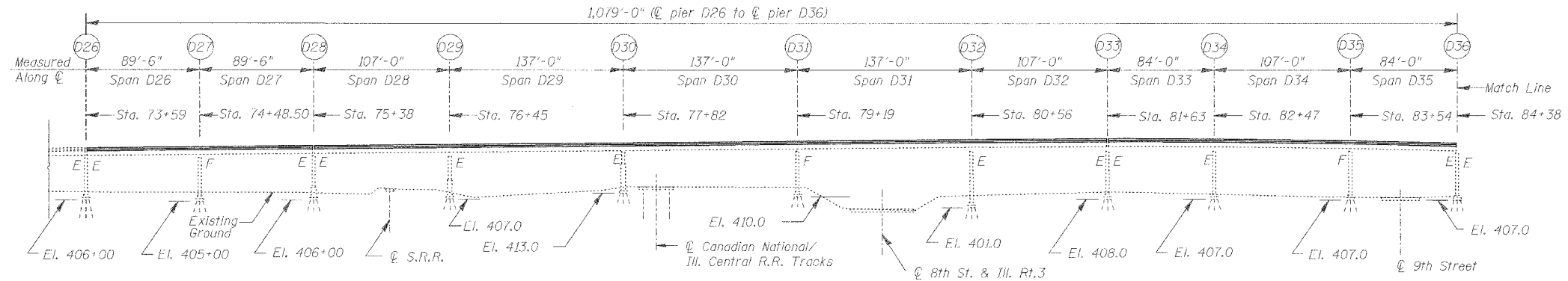
PROJECT PLAN
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

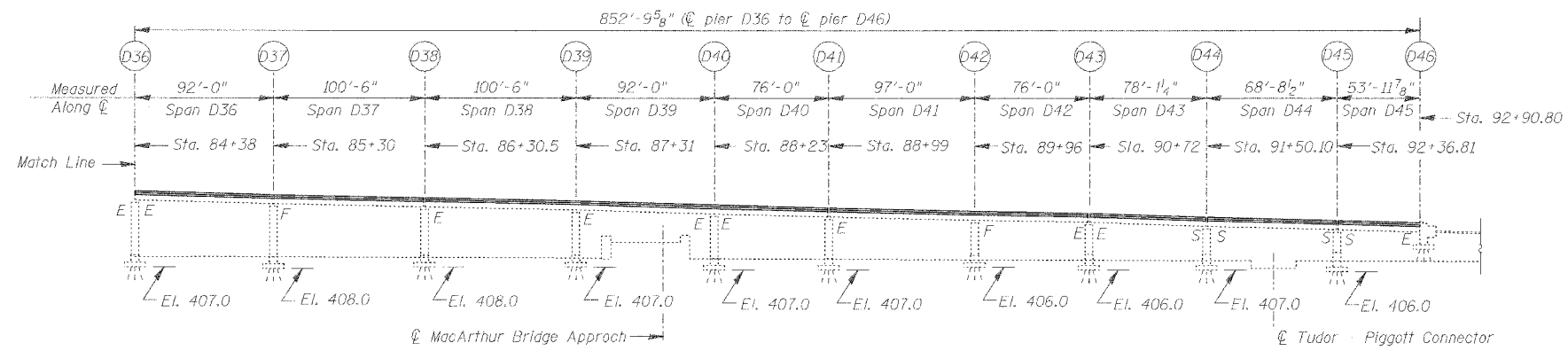
DATE: 4/19/2006
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DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	30
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 14-70	
* B2-3HVB-3R-3			SHEET S-7 OF S-44	
CONTRACT NO. 76305				



ELEVATION (Spans D26 - D35)



ELEVATION (Spans D36 - D46)

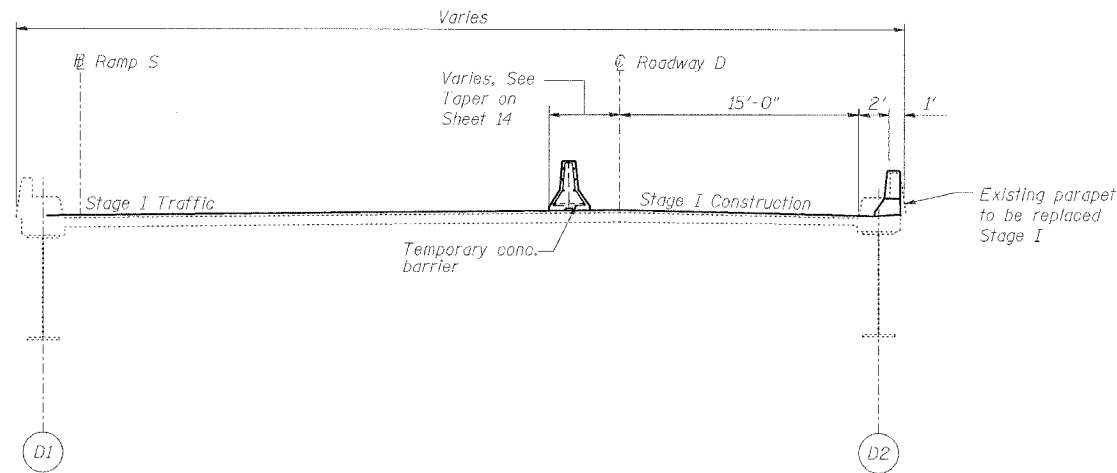
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DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

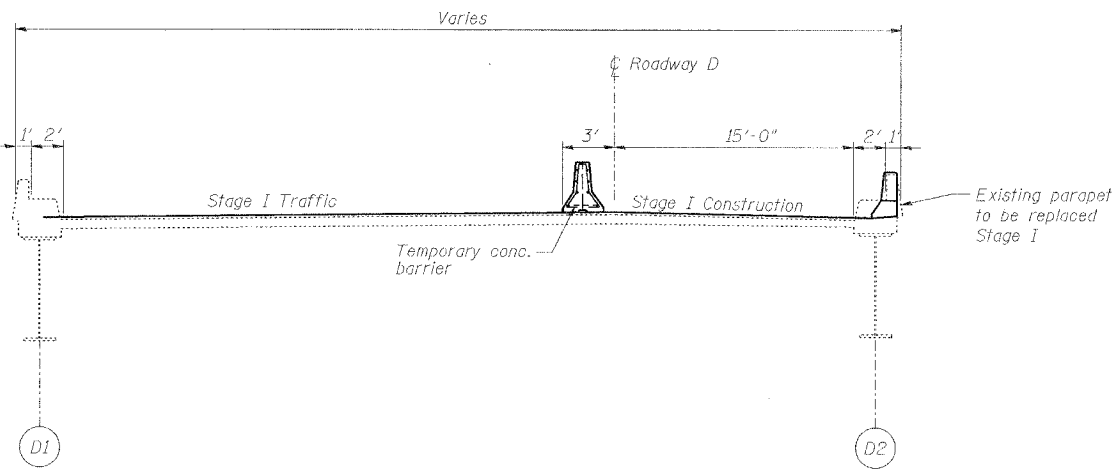
REVISIONS	
NAME	DATE

PROJECT ELEVATION
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

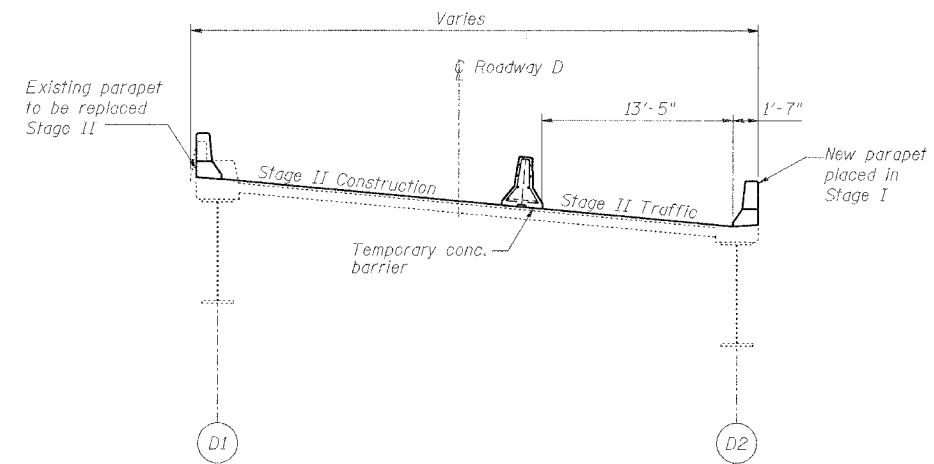
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	31
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		
* B2-3HVB-3R-3			SHEET 5-8 OF 5-44	
CONTRACT NO. 76305				



1 STAGE I RAMP D @ SPAN D39
S8 (Looking South)



2 STAGE I RAMP D @ SPAN D40-D45
S8 (Looking South)



3 STAGE II RAMP D TYPICAL SECTION
S8 (Looking South)

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. 082-0142 (RAMP S)

SCALE:

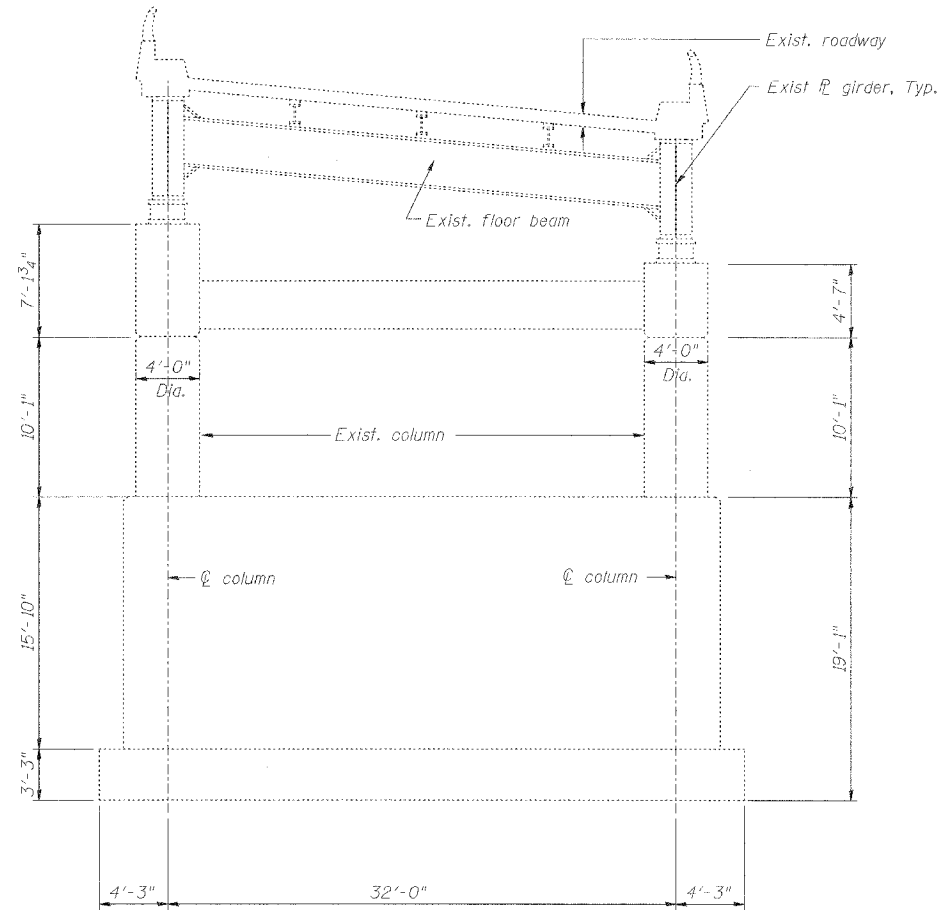
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REVISIONS	
NAME	DATE

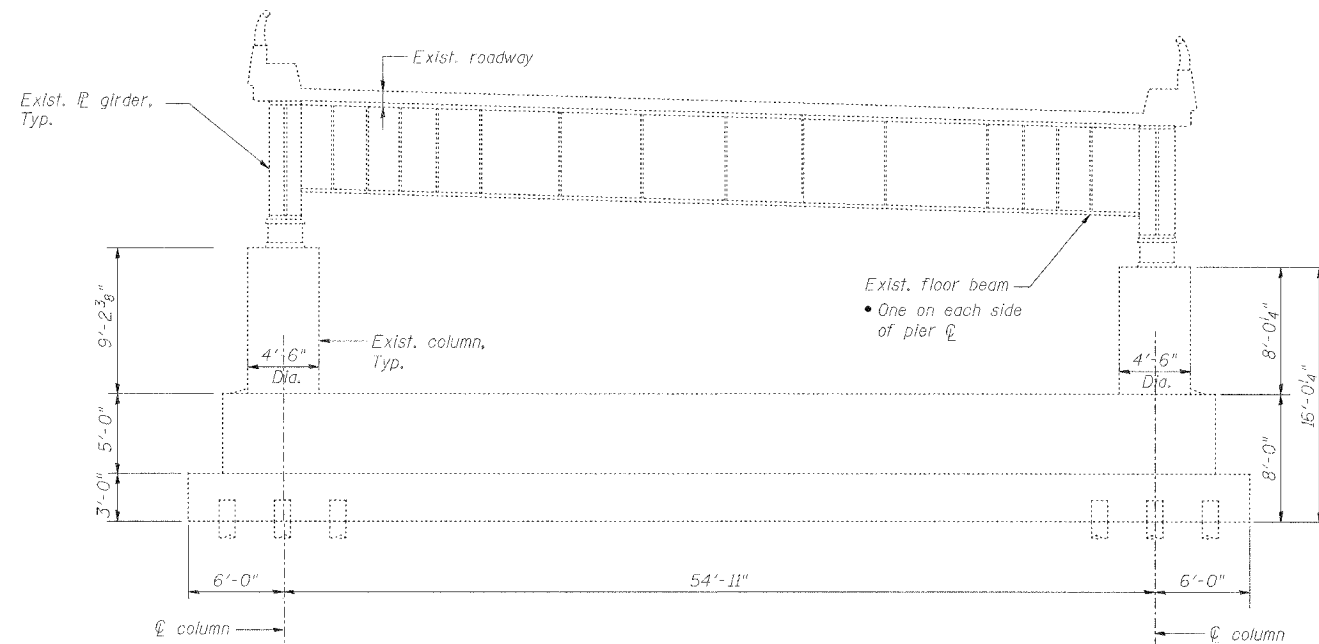
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DESIGNED	JEL
CHECKED	JPD
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	32
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		
• 82-3HVB-3R-3			SHEET S-9 OF S-44	
CONTRACT NO. 76305				



TYPICAL SECTION THROUGH TWO - GIRDER ROADWAY (PIER D29 SHOWN)



TYPICAL SECTION THROUGH TWO - GIRDER ROADWAY (PIER D44 SHOWN)

DATE: 4/9/2006 FILENAME: P:\2001\201-1300\2001.1240\drafting\roadwayrehab_ds\roadwayrehab_demo(d-demol.dgn

DESIGNED	HH
CHECKED	JEL
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. 082-0142 (RAMP 5)
SCALE:
DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	33
FED. ROAD DIST. NO. 7	ILLINOIS		FED. AID PROJECT - IM-70	

* B2-3HV8-3R-3 SHEET S-10 OF S-44
CONTRACT NO. 76305

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for Δ
8164.304	-16.000	458.226	458.226	8255.917	-16.000	457.890	457.895	8371.833	-16.000	455.880	455.887
8164.319	-8.000	457.586	457.586	8255.917	-7.885	457.241	457.245	8371.833	-7.942	455.428	455.437
8164.334	0.000	456.946	456.946	8255.917	0.114	456.601	456.605	8371.833	0.057	454.980	454.989
8164.350	8.000	456.306	456.306	8255.917	8.113	455.961	455.966	8371.833	8.057	454.487	454.496
8164.366	16.000	455.666	455.666	8255.917	16.000	455.330	455.335	8371.833	16.000	453.999	454.006
8170.000	-16.000	458.229	458.240	8264.833	-16.000	457.813	457.827	8380.750	-16.000	455.632	455.650
8170.000	-7.919	457.583	457.593	8264.833	-7.942	457.168	457.182	8380.750	-7.968	455.215	455.234
8170.000	0.080	456.943	456.953	8264.833	0.057	456.528	456.542	8380.750	0.031	454.801	454.819
8170.000	8.078	456.303	456.313	8264.833	8.057	455.888	455.902	8380.750	8.031	454.334	454.353
8170.000	16.000	455.669	455.680	8264.833	16.000	455.253	455.267	8380.750	16.000	453.869	453.888
8175.667	-16.000	458.230	458.249	8273.750	-16.000	457.728	457.753	8389.667	-16.000	455.376	455.403
8175.667	-7.885	457.581	457.600	8273.750	-7.953	457.084	457.109	8389.667	-7.987	454.994	455.022
8175.667	0.114	456.941	456.960	8273.750	0.046	456.444	456.469	8389.667	0.013	454.613	454.641
8175.667	8.112	456.301	456.320	8273.750	8.046	455.804	455.829	8389.667	8.013	454.172	454.200
8175.667	16.000	455.670	455.689	8273.750	16.000	455.168	455.193	8389.667	16.000	453.732	453.760
8184.583	-16.000	458.224	458.255	8282.667	-16.000	457.634	457.672	8398.583	-16.000	455.112	455.145
8184.583	-7.925	457.578	457.609	8282.667	-7.962	456.991	457.028	8398.583	0.000	454.417	454.450
8184.583	0.074	456.938	456.969	8282.667	0.037	456.351	456.389	8398.583	8.000	454.764	454.798
8184.583	8.073	456.298	456.330	8282.667	8.037	455.711	455.749	8398.583	8.000	454.002	454.035
8184.583	16.000	455.664	455.695	8282.667	16.000	455.074	455.112	8398.583	16.000	453.587	453.621
8193.500	-16.000	458.210	458.247	8291.583	-16.000	457.533	457.579	8407.500	-16.000	454.840	454.874
8193.500	-7.962	457.567	457.604	8291.583	-7.915	456.886	456.932	8407.500	-8.000	454.526	454.560
8193.500	0.037	456.927	456.964	8291.583	0.084	456.246	456.292	8407.500	0.000	454.212	454.246
8193.500	8.037	456.287	456.324	8291.583	8.083	455.606	455.652	8407.500	8.000	453.823	453.857
8193.500	16.000	455.650	455.687	8291.583	16.000	454.973	455.019	8407.500	16.000	453.434	453.468
8202.417	-16.000	458.188	458.225	8300.500	-16.000	457.424	457.473	8416.417	-16.000	454.560	454.589
8202.417	-7.953	457.544	457.581	8300.500	-7.857	456.772	456.821	8416.417	-8.000	454.280	454.309
8202.417	0.046	456.904	456.941	8300.500	0.141	456.132	456.181	8416.417	0.000	454.000	454.028
8202.417	8.046	456.265	456.301	8300.500	8.140	455.492	455.542	8416.417	8.000	453.637	453.665
8202.417	16.000	455.628	455.665	8300.500	16.000	454.864	454.913	8416.417	16.000	453.273	453.302
8211.333	-16.000	458.158	458.189	8309.417	-16.000	457.306	457.352	8425.333	-16.000	454.272	454.291
8211.333	-7.962	457.515	457.546	8309.417	-7.915	456.659	456.705	8425.333	-8.000	454.026	454.044
8211.333	0.037	456.875	456.906	8309.417	0.084	456.020	456.066	8425.333	0.000	453.779	453.797
8211.333	8.037	456.235	456.266	8309.417	8.083	455.380	455.426	8425.333	8.000	453.442	453.460
8211.333	16.000	455.598	455.629	8309.417	16.000	454.746	454.792	8425.333	16.000	453.105	453.123
8220.250	-16.000	458.121	458.141	8318.333	-16.000	457.181	457.219	8431.000	-16.000	454.085	454.095
8220.250	-7.953	457.477	457.497	8318.333	-7.962	456.538	456.576	8431.000	-8.000	453.860	453.870
8220.250	0.046	456.837	456.857	8318.333	0.037	455.898	455.936	8431.000	0.000	453.635	453.644
8220.250	8.046	456.197	456.217	8318.333	8.037	455.258	455.296	8431.000	8.000	453.314	453.324
8220.250	16.000	455.561	455.581	8318.333	16.000	454.621	454.659	8431.000	16.000	452.993	453.003
8229.167	-16.000	458.075	458.085	8327.250	-16.000	457.000	457.027	8436.666	-16.000	453.895	453.895
8229.167	-7.962	457.432	457.442	8327.250	-7.953	456.380	456.407	8436.666	-8.000	453.691	453.691
8229.167	0.037	456.792	456.802	8327.250	0.046	455.764	455.791	8436.666	0.000	453.487	453.487
8229.167	8.037	456.152	456.162	8327.250	8.046	455.143	455.170	8436.666	8.000	453.183	453.183
8229.167	16.000	455.515	455.525	8327.250	16.000	454.525	454.552	8436.666	16.000	452.878	452.878
8238.083	-16.000	458.021	458.023	8336.167	-16.000	456.792	456.806				
8238.083	-7.953	457.378	457.380	8336.167	-7.962	456.207	456.221				
8238.083	0.046	456.738	456.740	8336.167	0.037	455.624	455.638				
8238.083	8.046	456.098	456.100	8336.167	8.037	455.029	455.043				
8238.083	16.000	455.461	455.463	8336.167	16.000	454.436	454.450				
8247.000	-16.000	457.960	457.960	8345.083	-16.000	456.576	456.580				
8247.000	-7.942	457.315	457.315	8345.083	-7.953	456.024	456.028				
8247.000	0.057	456.675	456.675	8345.083	0.046	455.475	455.479				
8247.000	8.057	456.035	456.035	8345.083	8.046	454.905	454.909				
8247.000	16.000	455.400	455.400	8345.083	16.000	454.338	454.343				
				8354.000	-16.000	456.352	456.352				
				8354.000	-7.942	455.833	455.833				
				8354.000	0.057	455.317	455.317				
				8354.000	8.057	454.773	454.773				
				8354.000	16.000	454.233	454.233				
				8362.917	-16.000	456.120	456.121				
				8362.917	-7.885	455.631	455.632				
				8362.917	0.114	455.149	455.150				
				8362.917	8.113	454.631	454.632				
				8362.917	16.000	454.120	454.121				

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S27.
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet
 - Adjust elevations in Span D33 as necessary to match existing roadway elevations in Span D32.

TOP OF ROADWAY ELEVATIONS - SPANS D33 - D35

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006
NAME	DATE	

DATE: 4/19/2006
FILENAME: p:\2001\1201-1800\20011240\drafting\roadway\ehab_ds\amppd\elevations\d_el3335.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	34

FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78
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* 82-3HVB-3R-3 SHEET S-11 OF S-44
CONTRACT NO. 76305

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
8439.334	-43.639	454.196	454.196	8489.800	-41.888	451.785	451.800	8560.150	-39.448	449.155	449.157
8439.334	-36.184	454.063	454.063	8489.800	-34.652	451.820	451.835	8560.150	-32.517	449.299	449.301
8439.334	-28.729	453.931	453.931	8489.800	-27.416	451.856	451.871	8560.150	-25.586	449.443	449.445
8439.334	-21.274	453.876	453.876	8489.800	-20.180	451.909	451.924	8560.150	-18.655	449.587	449.590
8439.334	-13.819	453.752	453.752	8489.800	-12.944	451.966	451.981	8560.150	-11.724	449.731	449.734
8439.334	-6.385	453.571	453.571	8489.800	1.528	451.934	451.949	8560.150	-4.793	449.830	449.833
8439.334	1.090	453.376	453.376	8489.800	5.708	451.968	451.983	8560.150	2.138	449.846	449.849
8439.334	8.545	453.100	453.100	8489.800	8.764	451.800	451.815	8560.150	9.069	449.779	449.782
8439.334	16.000	452.823	452.823	8489.800	16.000	451.655	451.670	8560.150	16.000	449.642	449.645
8446.167	-43.402	453.855	453.860	8499.850	-41.540	451.308	451.319	8570.200	-39.100	448.860	448.865
8446.167	-35.977	453.744	453.748	8499.850	-34.347	451.372	451.383	8570.200	-32.212	449.004	449.009
8446.167	-28.551	453.634	453.638	8499.850	-27.155	451.436	451.447	8570.200	-25.325	449.147	449.152
8446.167	-21.126	453.619	453.624	8499.850	-19.962	451.514	451.525	8570.200	-18.437	449.290	449.295
8446.167	-13.701	453.521	453.525	8499.850	-12.770	451.601	451.612	8570.200	-11.550	449.433	449.438
8446.167	-6.276	453.365	453.369	8499.850	-5.577	451.652	451.663	8570.200	-4.662	449.530	449.535
8446.167	1.150	453.193	453.197	8499.850	1.615	451.642	451.653	8570.200	2.225	449.545	449.550
8446.167	8.575	452.936	452.940	8499.850	8.808	451.539	451.550	8570.200	3.113	449.477	449.482
8446.167	16.000	452.679	452.684	8499.850	16.000	451.396	451.407	8570.200	16.000	449.341	449.346
8453.000	-43.165	453.520	453.529	8509.900	-41.191	450.831	450.838	8580.250	-38.751	448.566	448.573
8453.000	-35.769	453.430	453.439	8509.900	-34.042	450.923	450.930	8580.250	-31.907	448.708	448.715
8453.000	-28.374	453.341	453.350	8509.900	-26.893	451.016	451.023	8580.250	-25.063	448.851	448.858
8453.000	-20.978	453.358	453.367	8509.900	-19.745	451.118	451.125	8580.250	-18.219	448.993	449.000
8453.000	-13.582	453.286	453.295	8509.900	-12.596	451.239	451.246	8580.250	-11.375	449.135	449.142
8453.000	-6.187	453.154	453.163	8509.900	-5.447	451.336	451.343	8580.250	-4.532	449.230	449.236
8453.000	1.209	453.005	453.014	8509.900	1.702	451.352	451.359	8580.250	2.312	449.243	449.249
8453.000	8.604	452.767	452.776	8509.900	8.851	451.278	451.285	8580.250	9.156	449.175	449.181
8453.000	16.000	452.530	452.539	8509.900	16.000	451.137	451.144	8580.250	16.000	449.039	449.045
8461.350	-42.875	453.116	453.129	8519.950	-40.843	450.413	450.415	8590.300	-38.402	448.272	448.278
8461.350	-35.516	453.053	453.066	8519.950	-33.737	450.535	450.538	8590.300	-31.602	448.413	448.419
8461.350	-28.155	452.991	453.004	8519.950	-26.632	450.659	450.662	8590.300	-24.802	448.555	448.561
8461.350	-20.797	453.034	453.047	8519.950	-16.000	450.923	450.926	8590.300	-18.001	448.696	448.702
8461.350	-13.438	452.994	453.007	8519.950	-7.915	451.032	451.035	8590.300	-11.201	448.837	448.843
8461.350	-6.078	452.891	452.904	8519.950	0.084	451.054	451.056	8590.300	-4.401	448.929	448.935
8461.350	1.281	452.770	452.783	8519.950	8.083	450.988	450.991	8590.300	2.399	448.941	448.947
8461.350	8.641	452.556	452.569	8519.950	16.000	450.787	450.789	8590.300	9.200	448.872	448.879
8461.350	16.000	452.341	452.354	8519.950	16.000	450.848	450.851	8590.300	16.000	448.738	448.744
8469.700	-42.586	452.721	452.736	8530.000	-40.494	450.037	450.037	8600.350	-38.054	447.978	447.983
8469.700	-35.262	452.683	452.698	8530.000	-33.432	450.184	450.184	8600.350	-31.297	448.118	448.123
8469.700	-27.939	452.647	452.662	8530.000	-26.371	450.331	450.331	8600.350	-24.540	448.259	448.264
8469.700	-20.616	452.705	452.720	8530.000	-19.309	450.478	450.478	8600.350	-17.784	448.399	448.404
8469.700	-13.293	452.696	452.711	8530.000	-12.247	450.625	450.625	8600.350	-11.027	448.539	448.544
8469.700	-5.970	452.623	452.638	8530.000	-5.185	450.732	450.732	8600.350	-4.270	448.629	448.634
8469.700	1.354	452.528	452.543	8530.000	1.876	450.752	450.752	8600.350	2.487	448.639	448.644
8469.700	8.677	452.337	452.352	8530.000	8.938	450.686	450.686	8600.350	9.243	448.570	448.575
8469.700	16.000	452.146	452.161	8530.000	16.000	450.547	450.547	8600.350	16.000	448.436	448.441
8479.750	-42.237	452.255	452.271	8540.000	-40.145	449.743	449.742	8610.400	-37.705	447.683	447.686
8479.750	-34.957	452.249	452.265	8540.000	-33.127	449.889	449.888	8610.400	-30.992	447.823	447.825
8479.750	-27.678	452.244	452.260	8540.000	-26.109	450.035	450.034	8610.400	-24.279	447.963	447.965
8479.750	-20.398	452.304	452.320	8540.000	-19.097	450.181	450.180	8610.400	-17.566	448.102	448.105
8479.750	-13.119	452.331	452.347	8540.000	-12.073	450.327	450.326	8610.400	-10.853	448.241	448.243
8479.750	1.441	452.230	452.246	8540.000	-5.055	450.431	450.430	8610.400	-4.139	448.328	448.330
8479.750	8.839	452.293	452.309	8540.000	1.964	450.450	450.449	8610.400	2.574	448.337	448.340
8479.750	16.000	452.067	452.083	8540.000	8.982	450.383	450.382	8610.400	9.287	448.268	448.271
8479.750	16.000	451.903	451.919	8540.000	16.000	450.245	450.244	8610.400	16.000	448.135	448.137
				8550.100	-39.797	449.449	449.449	8620.450	-37.356	447.389	447.390
				8550.100	-32.822	449.594	449.594	8620.450	-30.687	447.528	447.528
				8550.100	-25.848	449.739	449.739	8620.450	-24.017	447.667	447.667
				8550.100	-18.873	449.884	449.884	8620.450	-17.348	447.805	447.806
				8550.100	-11.898	450.029	450.029	8620.450	-10.678	447.942	447.943
				8550.100	-4.924	450.131	450.131	8620.450	-4.009	448.027	448.028
				8550.100	2.051	450.148	450.148	8620.450	2.661	448.035	448.036
				8550.100	9.025	450.081	450.081	8620.450	9.330	447.966	447.966
				8550.100	16.000	449.944	449.944	8620.450	16.000	447.833	447.834

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S27.
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS D36 - D37

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006	
NAME	DATE		

DATE: 4/19/2006 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab.dwg\rampelevations\d_e13687.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

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
8630.500	-37.008	447.095	447.095	8690.800	-34.916	445.329	445.336	8761.150	-32.476	443.270	443.279	8821.666	-30.377	441.498	441.498
8630.500	-30.382	447.233	447.233	8690.800	-28.552	445.462	445.469	8761.150	-26.416	443.396	443.405	8821.666	-24.580	441.618	441.618
8630.500	-23.756	447.370	447.370	8690.800	-22.187	445.594	445.601	8761.150	-20.357	443.522	443.531	8821.666	-18.783	441.739	441.739
8630.500	-17.130	447.508	447.508	8690.800	-15.823	445.717	445.727	8761.150	-14.297	443.648	443.657	8821.666	-12.985	441.859	441.859
8630.500	-10.504	447.644	447.644	8690.800	-9.458	445.853	445.860	8761.150	-8.238	443.761	443.770	8821.666	-7.188	441.960	441.960
8630.500	-3.878	447.727	447.727	8690.800	-3.094	445.922	445.929	8761.150	-2.178	443.810	443.821	8821.666	-1.391	442.003	442.003
8630.500	2.748	447.733	447.733	8690.800	3.271	445.922	445.929	8761.150	3.881	443.807	443.816	8821.666	4.406	441.988	441.988
8630.500	9.374	447.664	447.664	8690.800	9.635	445.830	445.843	8761.150	9.941	443.737	443.746	8821.666	10.203	441.915	441.915
8630.500	16.000	447.532	447.532	8690.800	16.000	445.723	445.730	8761.150	16.000	443.612	443.621	8821.666	16.000	441.797	441.797
8640.500	-36.659	446.801	446.802	8700.850	-34.558	445.035	445.039	8771.200	-32.127	442.975	442.988				
8640.500	-30.077	446.938	446.939	8700.850	-28.247	445.167	445.171	8771.200	-26.111	443.100	443.113				
8640.500	-23.494	447.074	447.075	8700.850	-21.926	445.298	445.302	8771.200	-20.095	443.226	443.238				
8640.500	-16.912	447.211	447.212	8700.850	-15.605	445.429	445.434	8771.200	-14.080	443.351	443.363				
8640.500	-10.330	447.346	447.347	8700.850	-9.284	445.555	445.559	8771.200	-8.064	443.462	443.475				
8640.500	-3.747	447.426	447.427	8700.850	-2.963	445.622	445.626	8771.200	-2.048	443.515	443.528				
8640.500	2.835	447.431	447.432	8700.850	3.358	445.620	445.624	8771.200	3.968	443.505	443.518				
8640.500	9.418	447.361	447.362	8700.850	9.679	445.548	445.552	8771.200	9.984	443.432	443.445				
8640.500	16.000	447.230	447.231	8700.850	16.000	445.421	445.426	8771.200	16.000	443.311	443.323				
8650.600	-36.311	446.506	446.509	8710.900	-34.219	444.741	444.742	8781.250	-31.779	442.681	442.695				
8650.600	-29.772	446.642	446.645	8710.900	-27.942	444.871	444.873	8781.250	-25.806	442.805	442.819				
8650.600	-23.233	446.778	446.781	8710.900	-21.664	445.002	445.004	8781.250	-19.834	442.929	442.943				
8650.600	-16.694	446.914	446.917	8710.900	-15.387	445.133	445.134	8781.250	-13.862	443.054	443.068				
8650.600	-10.155	447.047	447.050	8710.900	-9.109	445.256	445.257	8781.250	-7.889	443.163	443.177				
8650.600	-3.616	447.125	447.128	8710.900	-2.832	445.321	445.322	8781.250	-1.917	443.214	443.228				
8650.600	2.922	447.129	447.132	8710.900	3.445	445.317	445.319	8781.250	4.055	443.203	443.217				
8650.600	9.461	447.059	447.062	8710.900	9.723	445.246	445.247	8781.250	10.028	443.130	443.144				
8650.600	16.000	446.929	446.932	8710.900	16.000	445.120	445.121	8781.250	16.000	443.009	443.023				
8660.650	-35.962	446.212	446.218	8720.950	-33.870	444.447	444.447	8791.300	-31.430	442.387	442.400				
8660.650	-29.467	446.347	446.353	8720.950	-29.637	444.576	444.576	8791.300	-25.501	442.510	442.524				
8660.650	-22.972	446.482	446.488	8720.950	-21.406	444.706	444.706	8791.300	-19.573	442.633	442.647				
8660.650	-16.476	446.617	446.623	8720.950	-15.169	444.836	444.836	8791.300	-13.644	442.757	442.770				
8660.650	-9.981	446.749	446.755	8720.950	-8.835	444.957	444.957	8791.300	-7.715	442.864	442.878				
8660.650	-3.486	446.825	446.831	8720.950	-2.701	445.020	445.020	8791.300	-1.786	442.913	442.926				
8660.650	3.009	446.827	446.833	8720.950	3.532	445.015	445.015	8791.300	4.142	442.901	442.914				
8660.650	9.505	446.757	446.763	8720.950	9.756	444.944	444.944	8791.300	10.071	442.848	442.856				
8660.650	16.000	446.627	446.633	8720.950	16.000	444.818	444.818	8791.300	16.000	442.708	442.721				
8670.700	-35.613	445.918	445.926	8731.000	-33.522	444.152	444.152	8799.650	-31.140	442.142	442.153				
8670.700	-29.162	446.052	446.060	8731.000	-27.332	444.281	444.281	8799.650	-25.248	442.265	442.276				
8670.700	-22.710	446.186	446.194	8731.000	-21.141	444.410	444.410	8799.650	-19.355	442.387	442.396				
8670.700	-16.258	446.320	446.328	8731.000	-14.951	444.539	444.539	8799.650	-13.463	442.510	442.521				
8670.700	-9.807	446.450	446.458	8731.000	-8.761	444.658	444.658	8799.650	-7.570	442.616	442.627				
8670.700	-3.350	446.524	446.532	8731.000	-2.571	444.719	444.719	8799.650	-1.678	442.663	442.674				
8670.700	3.097	446.525	446.533	8731.000	3.620	444.713	444.713	8799.650	4.215	442.650	442.661				
8670.700	9.548	446.455	446.463	8731.000	9.810	444.641	444.641	8799.650	10.107	442.577	442.588				
8670.700	16.000	446.326	446.334	8731.000	16.000	444.517	444.517	8799.650	16.000	442.457	442.468				
8680.750	-35.265	445.624	445.632	8741.050	-33.173	443.858	443.860	8808.000	-30.851	441.898	441.906				
8680.750	-28.857	445.757	445.765	8741.050	-27.027	443.986	443.988	8808.000	-24.994	442.020	442.027				
8680.750	-22.449	445.890	445.898	8741.050	-20.880	444.114	444.116	8808.000	-19.138	442.141	442.149				
8680.750	-16.041	446.023	446.031	8741.050	-14.733	444.242	444.244	8808.000	-13.282	442.263	442.271				
8680.750	-9.632	446.152	446.160	8741.050	-8.587	444.359	444.361	8808.000	-7.425	442.367	442.375				
8680.750	-3.224	446.223	446.231	8741.050	-2.440	444.418	444.420	8808.000	-1.569	442.413	442.420				
8680.750	3.184	446.223	446.231	8741.050	3.707	444.411	444.413	8808.000	4.287	442.399	442.407				
8680.750	9.592	446.153	446.161	8741.050	9.853	444.339	444.341	8808.000	10.144	442.326	442.333				
8680.750	16.000	446.024	446.032	8741.050	16.000	444.215	444.217	8808.000	16.000	442.207	442.215				
				8751.100	-32.825	443.564	443.569	8814.833	-30.614	441.698	441.702				
				8751.100	-26.721	443.691	443.696	8814.833	-24.787	441.819	441.823				
				8751.100	-20.618	443.818	443.823	8814.833	-18.960	441.940	441.944				
				8751.100	-14.515	443.945	443.950	8814.833	-13.134	442.061	442.065				
				8751.100	-8.412	444.060	444.065	8814.833	-7.307	442.163	442.167				
				8751.100	-2.309	444.117	444.122	8814.833	-1.480	442.208	442.212				
				8751.100	3.794	444.109	444.114	8814.833	4.347	442.192	442.196				
				8751.100	9.897	444.037	444.042	8814.833	10.173	442.120	442.124				
				8751.100	16.000	443.914	443.919	8814.833	16.000	442.002	442.006				

Notes:

- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S27.
- See Sht. S6 for station numbers and offsets
- All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS D38 - D39

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. 082-0142 (RAMP 5)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadway\rah_d\rampl_elevations_d_el3839.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ψ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ψ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for ψ
9073.334	-21.593	434.128	434.128	9138.663	-19.336	432.247	432.262	9227.500	-17.384	429.593	429.600
9073.334	-14.144	434.285	434.285	9147.014	-12.369	432.112	432.127	9237.464	-9.207	429.457	429.464
9073.334	-6.594	434.417	434.417	9155.376	-5.410	431.968	431.983	9247.442	-1.038	429.230	429.237
9073.334	0.935	434.454	434.454	9163.747	1.562	431.740	431.755	9257.433	7.122	428.888	428.895
9073.334	8.505	434.392	434.392	9172.126	8.489	431.428	431.443	9267.439	15.273	428.438	428.445
9073.334	15.999	434.247	434.247	9180.584	15.482	431.040	431.061	9237.484	-17.207	429.297	429.312
9083.341	-21.292	433.837	433.839	9148.643	-19.080	431.923	431.967	9247.455	-9.039	429.160	429.171
9083.341	-13.743	433.994	434.001	9157.001	-12.123	431.817	431.845	9257.440	-0.879	428.931	428.942
9083.341	-6.193	434.122	434.132	9165.368	-5.172	431.670	431.699	9267.439	7.272	428.585	428.596
9083.341	1.356	434.153	434.163	9173.746	1.774	431.439	431.468	9277.452	15.414	428.135	428.150
9083.341	9.906	434.086	434.101	9182.133	8.713	431.125	431.153	9247.468	-17.040	429.001	429.017
9083.341	15.983	433.947	433.957	9190.304	15.548	430.749	430.787	9257.446	-8.880	428.863	428.874
9093.278	-20.980	433.546	433.549	9158.624	-18.836	431.629	431.687	9267.438	-0.729	428.631	428.642
9093.292	-13.350	433.703	433.715	9166.988	-11.886	431.522	431.560	9277.444	7.414	428.284	428.295
9093.306	-5.001	433.826	433.845	9175.361	-4.941	431.373	431.410	9287.464	15.547	427.832	427.848
9093.320	1.749	433.852	433.871	9183.745	1.996	431.139	431.176	9257.548	-16.879	428.702	428.713
9093.334	9.298	433.782	433.809	9192.139	8.928	430.821	430.858	9267.533	-8.728	428.562	428.570
9093.346	15.959	433.647	433.673	9200.023	15.427	430.458	430.508	9277.532	-0.586	428.328	428.336
9103.253	-20.516	433.253	433.258	9168.605	-18.500	431.334	431.398	9287.546	7.548	427.979	427.986
9103.273	-12.966	433.411	433.428	9176.975	-11.657	431.228	431.269	9297.573	15.673	427.526	427.537
9103.294	-5.417	433.535	433.559	9185.355	-4.720	431.075	431.116	9267.436	-16.731	428.408	428.409
9103.314	2.133	433.531	433.568	9193.744	2.211	430.838	430.879	9277.429	-9.588	428.268	428.269
9103.335	9.682	433.473	433.510	9202.144	9.135	430.518	430.559	9287.435	-0.454	427.831	427.832
9103.352	15.927	433.348	433.382	9209.743	15.387	430.167	430.223	9297.456	7.671	427.680	427.681
9113.228	-20.140	432.964	432.969	9178.587	-18.372	431.140	431.173	9307.490	15.787	427.226	427.227
9113.255	-12.591	433.125	433.142	9186.963	-11.437	430.932	430.972	9270.281	-16.689	428.323	428.323
9113.262	-5.041	433.234	433.263	9195.348	-4.507	430.776	430.816	9280.276	-8.554	428.182	428.182
9113.309	2.500	433.250	433.285	9203.744	2.416	430.537	430.577	9290.284	-0.428	427.945	427.945
9113.336	10.058	433.167	433.208	9212.150	9.333	430.214	430.254	9300.307	7.698	427.593	427.593
9113.357	15.885	433.048	433.087	9219.462	15.338	429.870	429.926	9310.344	15.818	427.139	427.139
9123.236	-12.224	440.085	440.091	9188.569	-18.154	430.745	430.796				
9123.271	-4.675	440.240	440.246	9196.951	-11.225	430.637	430.670				
9123.305	2.875	440.395	440.401	9205.343	-4.303	430.478	430.511				
9123.339	10.424	440.523	440.528	9213.745	2.613	430.236	430.269				
9123.363	15.835	440.557	440.562	9222.157	9.523	429.911	429.944				
9133.261	-4.317	432.641	432.666	9229.181	15.282	429.586	429.631				
9133.301	3.233	432.646	432.677	9198.551	-17.944	430.450	430.484				
9133.341	10.792	432.554	432.591	9206.939	-11.023	430.341	430.363				
9133.368	15.776	432.450	432.484	9215.337	-4.108	430.180	430.201				
9143.296	3.582	432.344	432.363	9223.745	2.801	429.935	429.957				
9143.345	11.131	432.247	432.274	9232.164	9.704	429.608	429.630				
9143.373	15.709	432.151	432.177	9238.900	15.217	429.296	429.325				
9153.349	11.472	431.940	431.955	9208.533	-17.742	430.154	430.165				
9153.376	15.633	431.853	431.867	9216.926	-10.829	430.045	430.052				
9163.383	15.548	431.554	431.554	9225.332	-3.921	429.881	429.888				
9124.367	-19.731	432.638	432.638	9233.746	2.981	429.634	429.641				
9133.200	-11.846	432.519	432.519	9242.171	9.876	429.305	429.312				
9143.246	-3.968	432.344	432.344	9248.619	15.144	429.006	429.016				
9152.704	3.903	432.060	432.060	9213.224	-17.651	430.015	430.015				
9162.176	11.765	431.669	431.669	9221.621	-10.740	429.906	429.906				
9166.704	15.518	431.455	431.455	9230.028	-3.836	429.741	429.741				
9128.684	-19.595	432.511	432.517	9238.446	3.062	429.493	429.493				
9137.029	-12.624	432.406	432.406	9246.873	9.954	429.162	429.162				
9145.384	-5.654	432.265	432.265	9253.186	15.107	428.869	428.869				
9153.749	1.302	432.041	432.041	9217.518	-17.569	429.888	429.888				
9162.125	8.256	431.732	431.732	9227.475	-9.383	429.754	429.754				
9170.866	15.498	431.331	431.331	9237.430	-1.206	429.530	429.530				
				9247.430	6.963	429.190	429.190				
				9257.428	15.123	428.742	428.742				

Notes:

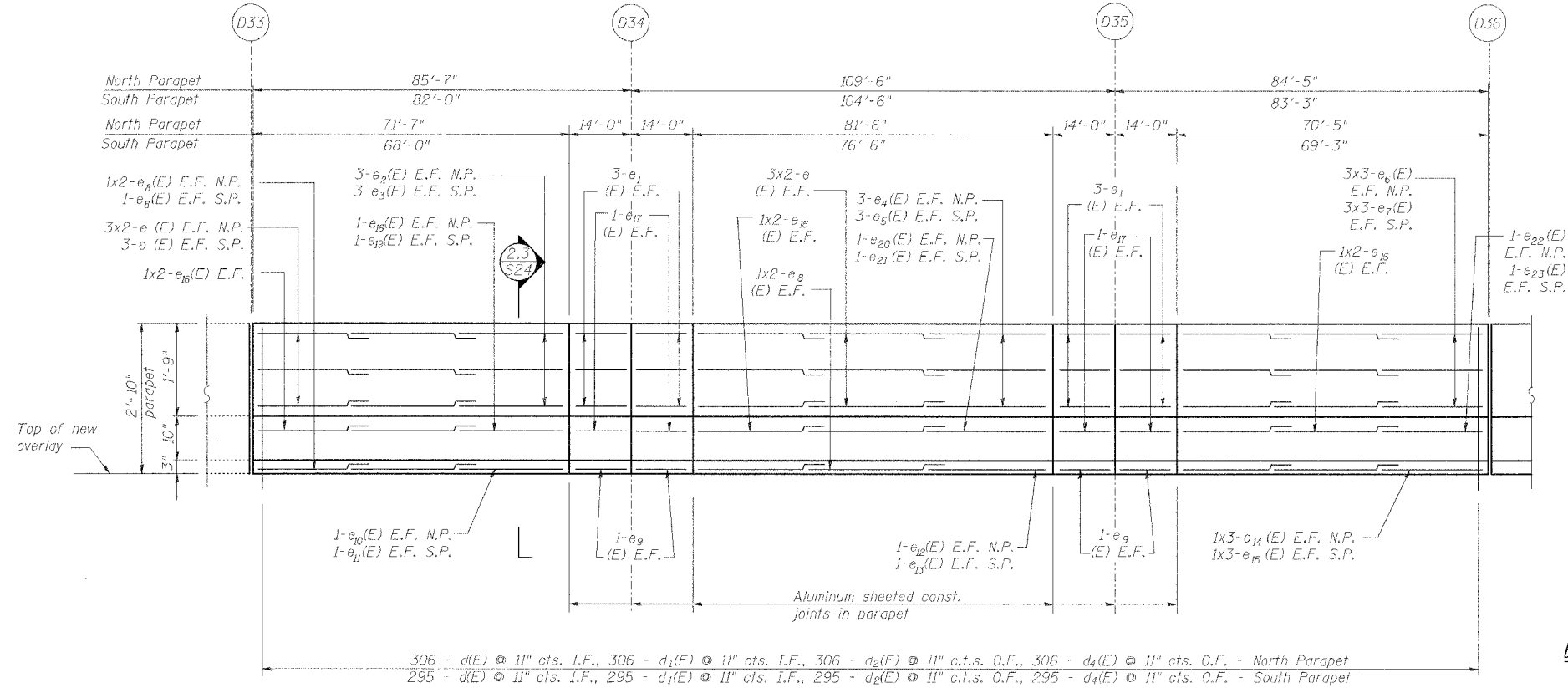
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 2/S27.
- See Sht. S6 for station numbers and offsets
- All numbers this sheet are given in feet
- Adjust elevations in Span D45 as necessary to match existing roadway elevations beyond Abutment D46.

TOP OF ROADWAY ELEVATIONS - SPANS D43 - D45

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006
NAME	DATE	

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\20011240\drafting\roadwayrehab_dsl\amppd\elevations_d_e14945.dgn

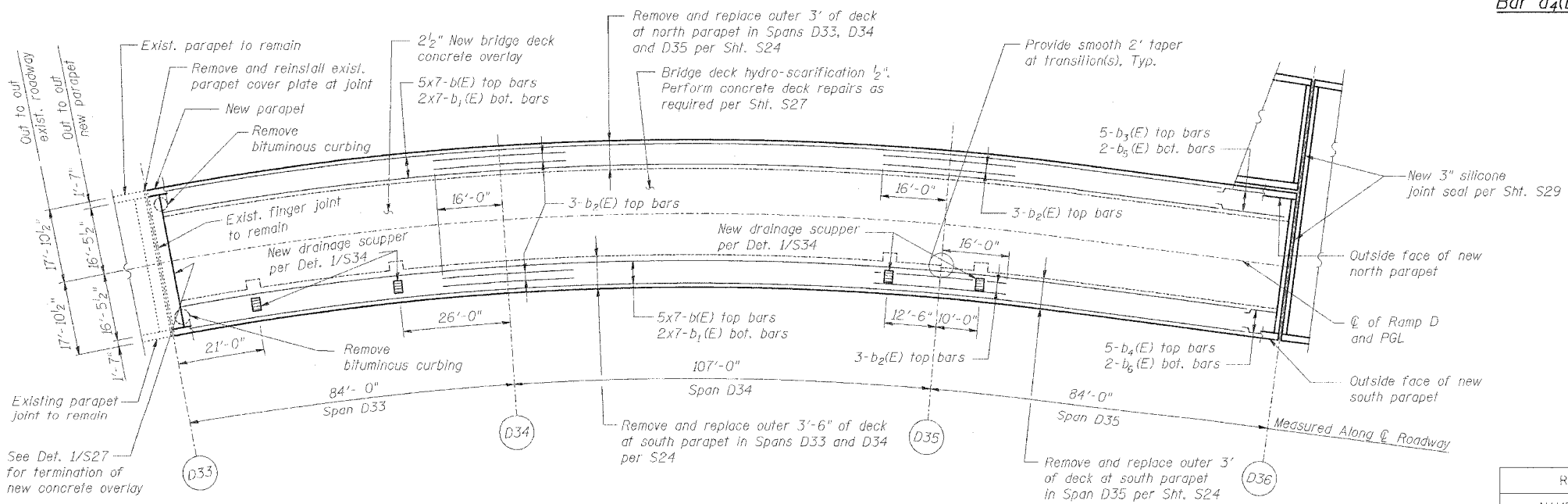
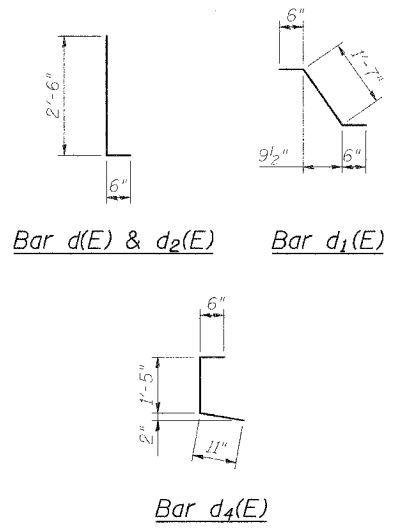
DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL



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 D33 - D35

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a _{35d} (E)	16	#5	2'-0"	
a _{35s} (E)	70	#5	3'-0"	
b(E)	70	#5	40'-0"	
b ₁ (E)	28	#5	40'-0"	
b ₂ (E)	12	#6	32'-0"	
b ₃ (E)	5	#5	13'-11"	
b ₄ (E)	5	#5	4'-2"	
b ₅ (E)	2	#5	13'-11"	
b ₆ (E)	2	#5	4'-2"	
d(E)	601	#5	3'-0"	
d ₁ (E)	601	#5	2'-7"	
d ₂ (E)	601	#4	3'-0"	
d ₄ (E)	501	#4	2'-10"	
e(E)	42	#4	35'-0"	
e ₁ (E)	48	#4	13'-9"	
e ₂ (E)	6	#4	4'-11"	
e ₃ (E)	6	#4	34'-6"	
e ₄ (E)	6	#4	14'-9"	
e ₅ (E)	6	#4	9'-7"	
e ₆ (E)	18	#4	24'-6"	
e ₇ (E)	18	#4	24'-3"	
e ₈ (E)	14	#5	35'-0"	
e ₉ (E)	16	#5	13'-9"	
e ₁₀ (E)	2	#5	5'-11"	
e ₁₁ (E)	2	#5	34'-9"	
e ₁₂ (E)	2	#5	15'-9"	
e ₁₃ (E)	2	#5	10'-8"	
e ₁₄ (E)	6	#5	24'-10"	
e ₁₅ (E)	6	#5	24'-6"	
e ₁₆ (E)	24	#8	35'-0"	
e ₁₇ (E)	16	#8	13'-9"	
e ₁₈ (E)	2	#8	10'-7"	
e ₁₉ (E)	2	#8	6'-9"	
e ₂₀ (E)	2	#8	20'-7"	
e ₂₁ (E)	2	#8	15'-1"	
e ₂₂ (E)	2	#8	9'-4"	
e ₂₃ (E)	2	#8	8'-0"	
Reinforcement Bars, Epoxy Coated		Pound	17,490	
Concrete Removal		Cu. Yd.	135.8	
Concrete Superstructure		Cu. Yd.	123.0	
Bituminous Concrete Removal - (Deck)		Sq. Yd.	915	
Bridge Deck Hydro-Scarification - 1/2"		Sq. Yd.	916	
Bridge Deck Microsilica Concrete Overlay - 2 1/2"		Sq. Yd.	1,004	
Drainage Scuppers - DS12		Ea.	4	
Protective Coat		Sq. Yd.	1,453	
Bridge Deck Grooving		Sq. Yd.	1,004	
Bituminous Concrete Curb Removal		Foot	7.5	
Protective Shield		Sq. Yd.	340	
Mechanical Splice		Ea.	54	

DECK & PARAPET REPAIRS - SPANS D33 - D35

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. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/9/2006 FILENAME: P:\2001\1201\1300\2001\1240\drafting\roadwayrehab_de\ramppd\parapet-deck_d_dp3835.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	39
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

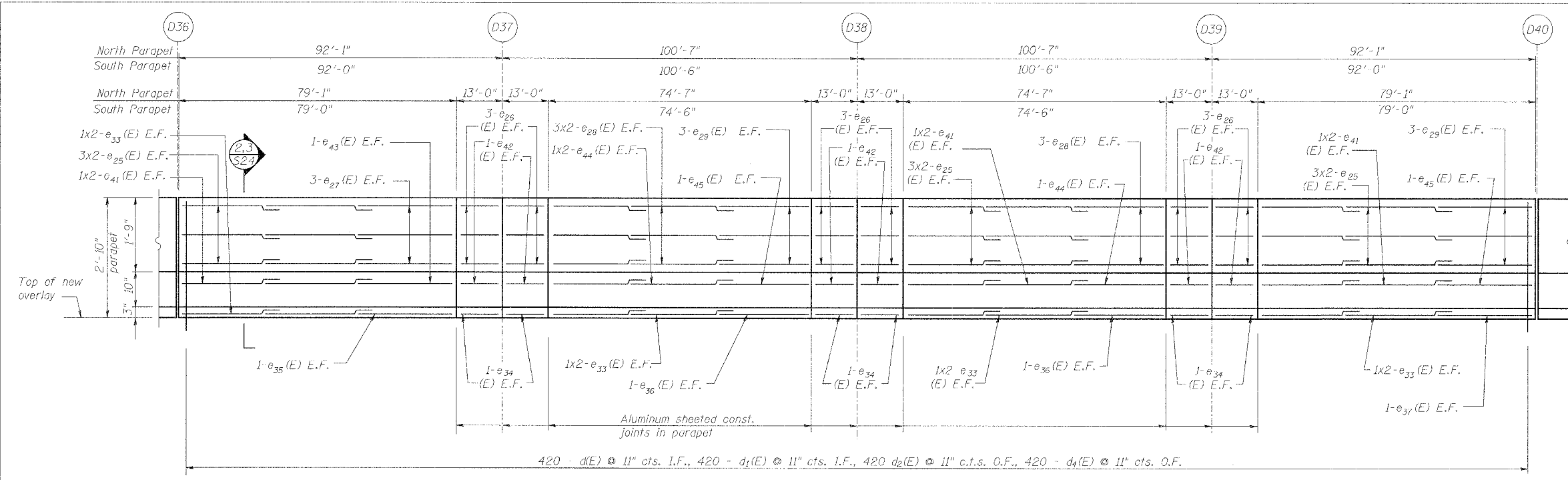
* 82-3HVB-3R-3 SHEET S-16 OF S-44
CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₂₀ (E)	12	#5	2'-6"	
a ₂₅ (E)	56	#5	2'-0"	
a ₂₅ (E)	222	#5	3'-0"	
b(E)	100	#5	40'-0"	
b ₁ (E)	40	#5	40'-0"	
b ₁₁ (E)	10	#5	6'-3"	
b ₁₂ (E)	4	#5	6'-3"	
b ₁₃ (E)	18	#6	40'-0"	
d(E)	840	#5	3'-0"	
d ₁ (E)	840	#5	2'-7"	
d ₂ (E)	840	#4	3'-0"	
d ₄ (E)	840	#4	2'-10"	
e ₂₅ (E)	96	#4	35'-0"	
e ₂₆ (E)	72	#4	12'-9"	
e ₂₇ (E)	12	#4	12'-1"	
e ₂₈ (E)	24	#4	7'-8"	
e ₂₉ (E)	12	#4	11'-11"	
e ₃₃ (E)	32	#5	35'-0"	
e ₃₄ (E)	24	#5	12'-9"	
e ₃₅ (E)	4	#5	13'-1"	
e ₃₆ (E)	8	#5	8'-8"	
e ₃₇ (E)	4	#5	12'-11"	
e ₄₁ (E)	32	#8	35'-0"	
e ₄₂ (E)	24	#8	12'-9"	
e ₄₃ (E)	4	#8	17'-9"	
e ₄₄ (E)	8	#8	13'-4"	
e ₄₅ (E)	4	#8	17'-7"	

Reinforcement Bars, Epoxy Coated	Pound	22,820
Concrete Removal	Cu. Yd.	225.3
Concrete Superstructure	Cu. Yd.	195.7
Bituminous Concrete Removal - (Deck)	Sq. Yd.	2,183
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	2,183
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	2,308
Drainage Scuppers - DS12	Ea.	14
Protective Coat	Sq. Yd.	2,936
Bridge Deck Grooving	Sq. Yd.	2,308
Deck Slab Repair (Type II - Full Depth)	Sq. Yd.	4
Mechanical Splice	Ea.	166

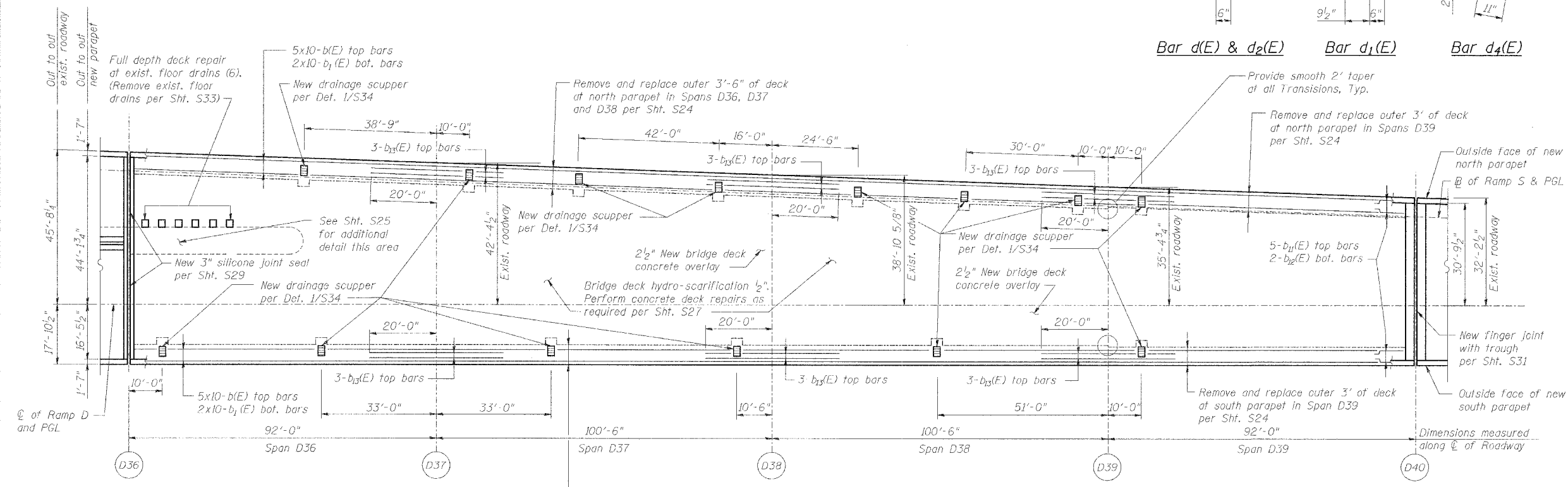
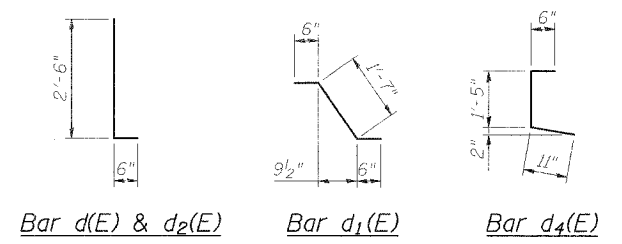
Reinforcement bars designated (E) shall be epoxy coated.



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



DECK PLAN OF SPANS D36 - D39

DECK & PARAPET REPAIRS - SPANS D36 - D39

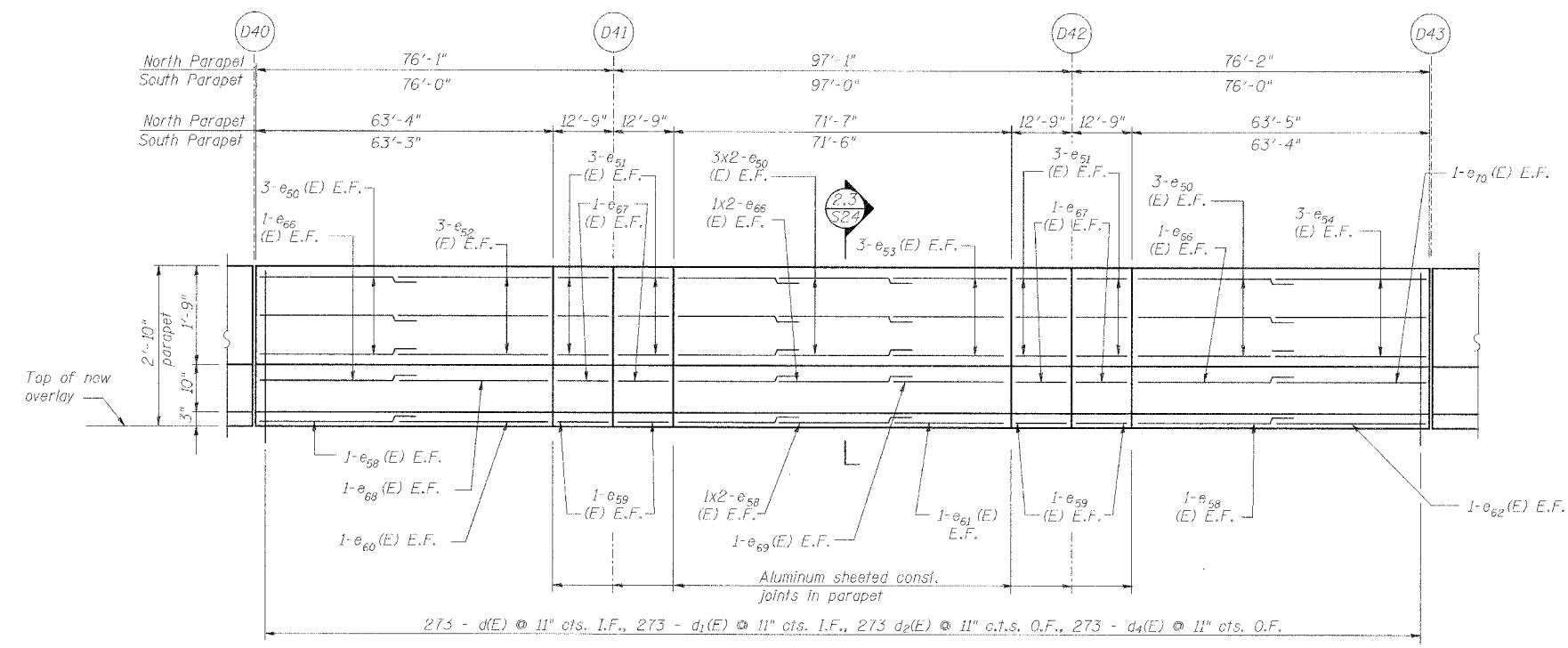
REVISIONS	
NAME	DATE

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

STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab_da\rampl\parapet-deck.d_dp3639.dgn

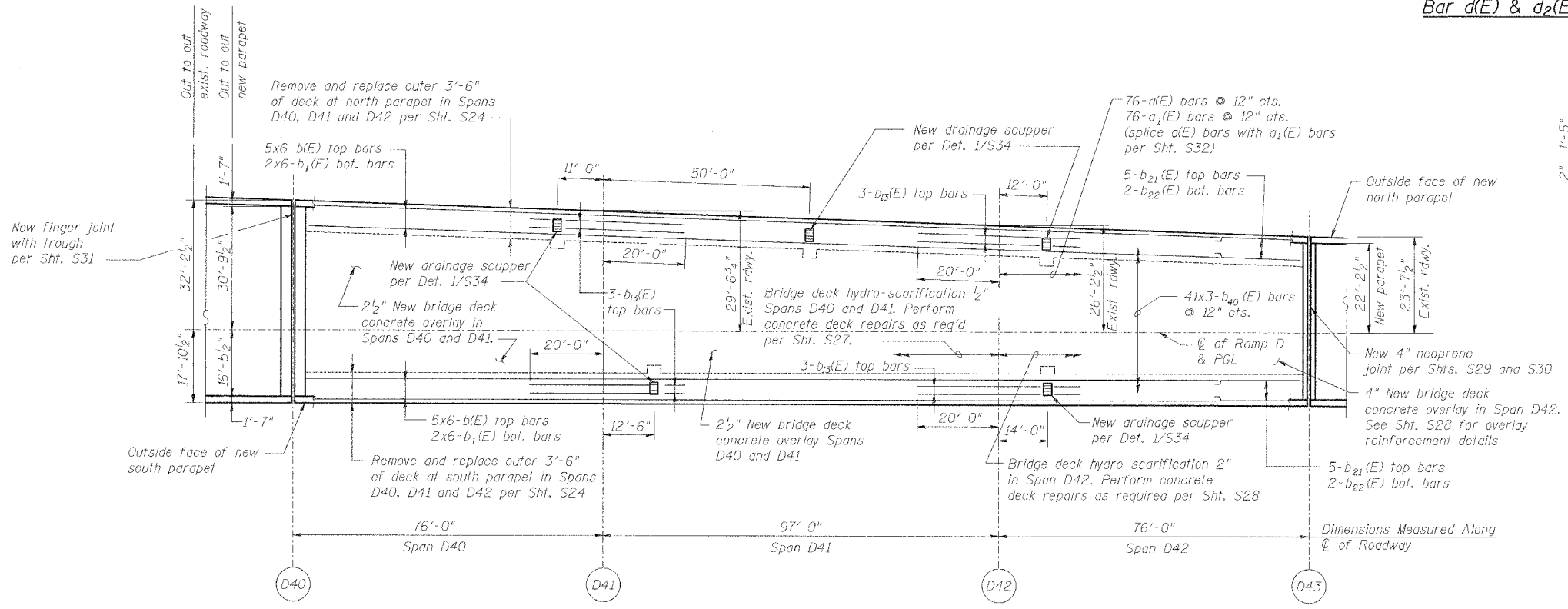
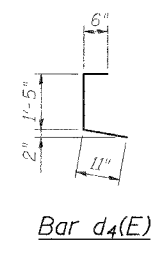
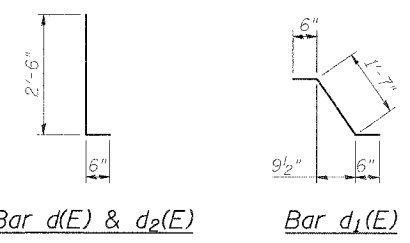
DESIGNED	
CHECKED	
DRAWN	
CHECKED	



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 D40 - D42

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a1(E)	76	#4	17'-2"	
a1(E)	76	#4	26'-9"	
a350(E)	20	#5	2'-0"	
a351(E)	172	#5	3'-0"	
b(E)	60	#5	40'-0"	
b1(E)	24	#5	40'-0"	
b2(E)	12	#6	40'-0"	
b21(E)	10	#5	21'-7"	
b22(E)	4	#5	21'-7"	
b40(E)	123	#4	26'-4"	
d(E)	546	#5	3'-0"	
d1(E)	546	#5	2'-7"	
d2(E)	546	#4	3'-0"	
d4(E)	546	#4	2'-10"	
e50(E)	48	#4	35'-0"	
e51(E)	48	#4	12'-6"	
e52(E)	12	#4	29'-6"	
e53(E)	12	#4	4'-8"	
e54(E)	12	#4	29'-9"	
e58(E)	16	#5	35'-0"	
e59(E)	16	#5	12'-6"	
e60(E)	4	#5	30'-0"	
e61(E)	4	#5	5'-8"	
e62(E)	4	#5	30'-3"	
e66(E)	16	#8	35'-0"	
e67(E)	16	#8	12'-6"	
e68(E)	4	#8	32'-4"	
e69(E)	4	#8	10'-4"	
e70(E)	4	#8	32'-7"	
Reinforcement Bars, Epoxy Coated	Pound	21,060		
Bar Splicer	Ea.	76		
Concrete Removal	Cu. Yd.	144.9		
Concrete Superstructure	Cu. Yd.	134.6		
Bituminous Concrete Removal - (Deck)	Sq. Yd.	1,109		
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	795		
Bridge Deck Hydro-Scarification - 2"	Sq. Yd.	313		
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	843		
Bridge Deck Microsilica Concrete Overlay - 4"	Sq. Yd.	334		
Drainage Scuppers - DS12	Ea.	5		
Protective Coat	Sq. Yd.	1,596		
Bridge Deck Grooving	Sq. Yd.	1,177		
Mechanical Splice	Ea.	152		

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS D40 - D42

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. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

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

DATE: 4/19/2006 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab\ds\rampl\parapet-deck.d_dp4042.dgn

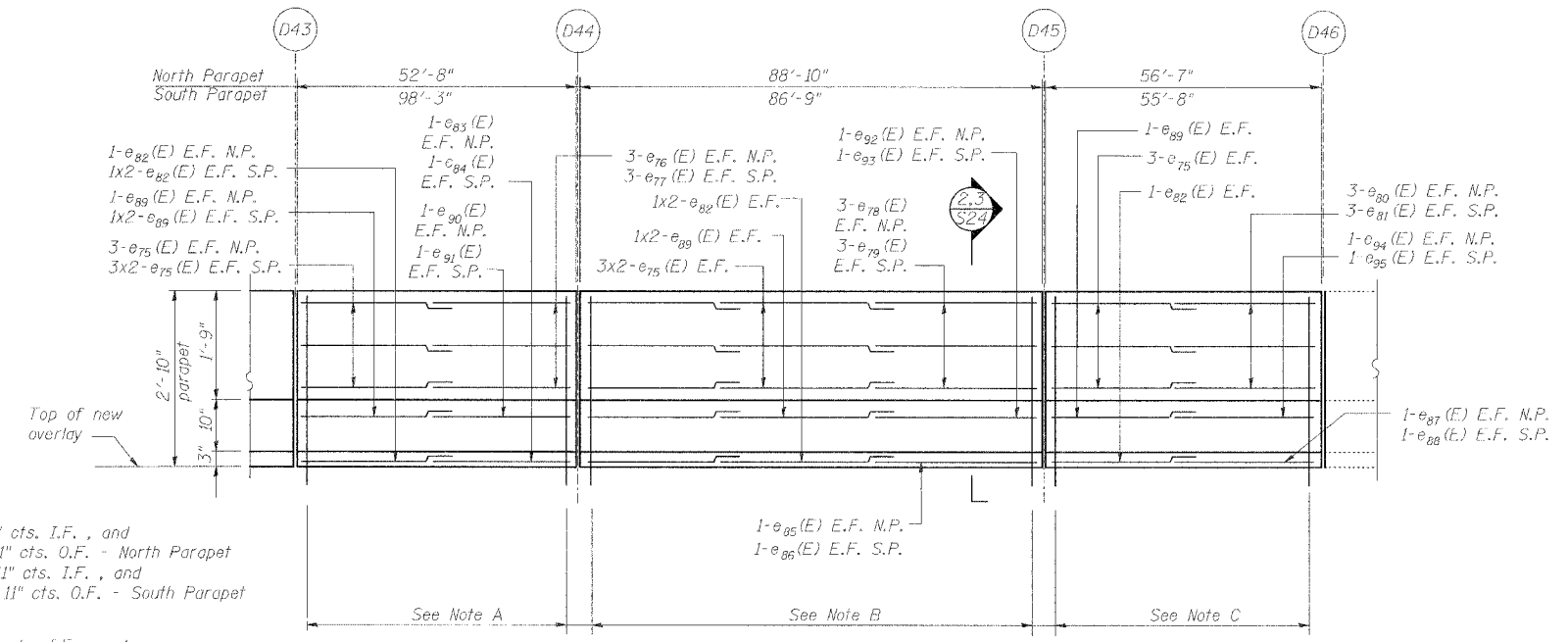
DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	41
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-79		

* 82-3HV8-3R-3 SHEET S-18 OF S-44
 CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₃₀ (E)	32	#5	2'-0"	
a ₃₅ (E)	102	#5	3'-0"	
d(E)	218	#4	17'-2"	
a ₁ (E)	78	#4	23'-2"	
a ₂ (E)	86	#4	22'-2"	
a ₄ (E)	54	#4	20'-4"	
b ₃₀ (E)	10	#5	27'-4"	
b ₃₁ (E)	4	#5	27'-4"	
b ₃₂ (E)	15	#5	34'-2"	
b ₃₃ (E)	6	#5	34'-2"	
b ₃₄ (E)	30	#5	31'-0"	
b ₃₅ (E)	12	#5	31'-0"	
b ₃₆ (E)	20	#5	29'-3"	
b ₃₇ (E)	8	#5	29'-3"	
b ₄₁ (E)	111	#4	27'-0"	
b ₄₂ (E)	108	#4	29'-10"	
b ₄₃ (E)	68	#4	27'-10"	
d(E)	482	#5	3'-0"	
d ₁ (E)	482	#5	2'-7"	
d ₂ (E)	482	#4	3'-0"	
d ₆ (E)	58	#4	3'-4"	
d ₇ (E)	424	#4	3'-2"	
e ₇₅ (E)	54	#4	35'-0"	
e ₇₆ (E)	6	#4	19'-1"	
e ₇₇ (E)	6	#4	31'-4"	
e ₇₈ (E)	6	#4	21'-11"	
e ₇₉ (E)	6	#4	19'-10"	
e ₈₀ (E)	6	#4	23'-0"	
e ₈₁ (E)	5	#4	22'-1"	
e ₈₂ (E)	18	#5	35'-0"	
e ₈₃ (E)	2	#5	19'-7"	
e ₈₄ (E)	2	#5	32'-4"	
e ₈₅ (E)	2	#5	22'-11"	
e ₈₆ (E)	2	#5	20'-10"	
e ₈₇ (E)	2	#5	23'-6"	
e ₈₈ (E)	2	#5	22'-7"	
e ₈₉ (E)	18	#8	35'-0"	
e ₉₀ (E)	2	#8	37'-0"	
e ₉₁ (E)	2	#8	6'-6"	
e ₉₂ (E)	2	#8	27'-7"	
e ₉₃ (E)	2	#8	25'-6"	
e ₉₄ (E)	2	#8	25'-10"	
e ₉₅ (E)	2	#8	24'-11"	
Reinforcement Bars, Epoxy Coated			Pound	24,120
Bar Splicer			Ea.	218
Concrete Removal			Cu. Yd.	114.7
Concrete Superstructure			Cu. Yd.	108.4
Bituminous Concrete Removal - (Deck)			Sq. Yd.	812
Bridge Deck Hydro-Scarification - 2"			Sq. Yd.	812
Bridge Deck Microsilica Concrete Overlay - 4"			Sq. Yd.	871
Drainage Scuppers - DS12			Ea.	8
Protective Coat			Sq. Yd.	1,229
Bridge Deck Grooving			Sq. Yd.	871
Bituminous Concrete Curb Removal			Foot	7.5
Protective Shield			Sq. Yd.	370
Mechanical Splice			Ea.	70



Note A:
 58 - d(E) and 58 - d₁(E) @ 11" cts. I.F., and
 58 - d₂(E) and 58 - d₆(E) @ 11" cts. O.F. - North Parapet
 108 - d(E) and 108 - d₁(E) @ 11" cts. I.F., and
 108 - d₂(E) and 108 - d₇(E) @ 11" cts. O.F. - South Parapet

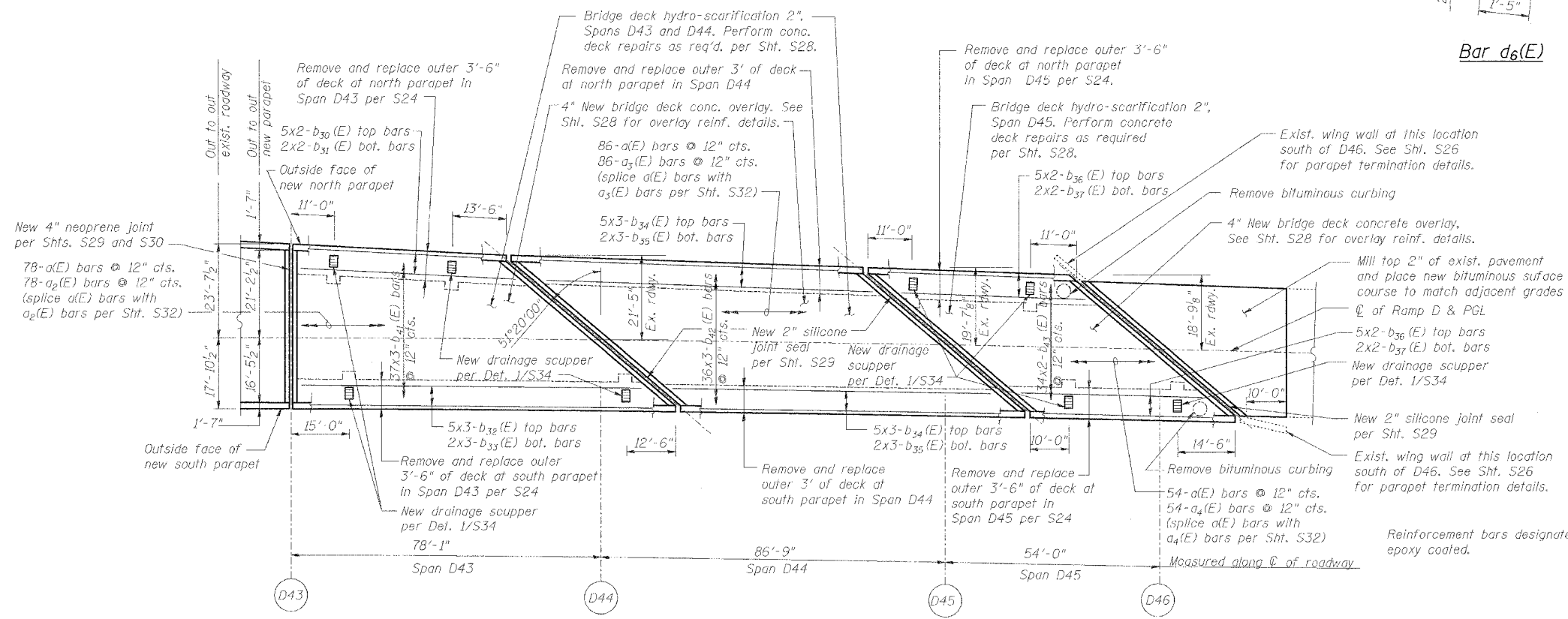
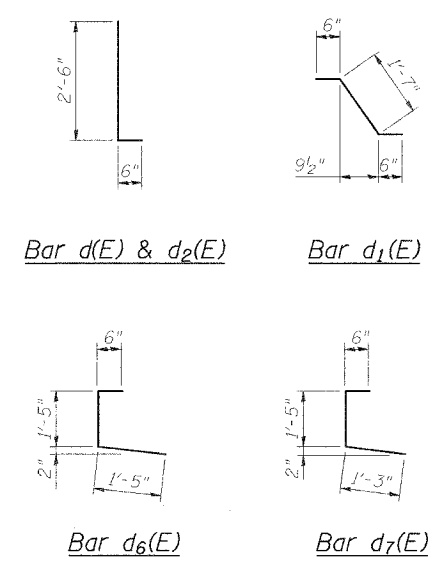
Note B:
 97 - d(E) and 97 - d₁(E) @ 11" cts. I.F., and
 97 - d₂(E) and 97 - d₇(E) @ 11" cts. O.F. - North Parapet
 95 - d(E) and 95 - d₁(E) @ 11" cts. I.F., and
 95 - d₂(E) and 95 - d₇(E) @ 11" cts. O.F. - South Parapet

Note C:
 62 - d(E) and 62 - d₁(E) @ 11" cts. I.F., and
 62 - d₂(E) and 62 - d₇(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

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



DECK PLAN OF SPANS D43 - D45

DECK & PARAPET REPAIRS - SPANS D43 - D45

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. 082-0142 (RAMP) S1
 SCALE:
 DATE: 02/28/2006

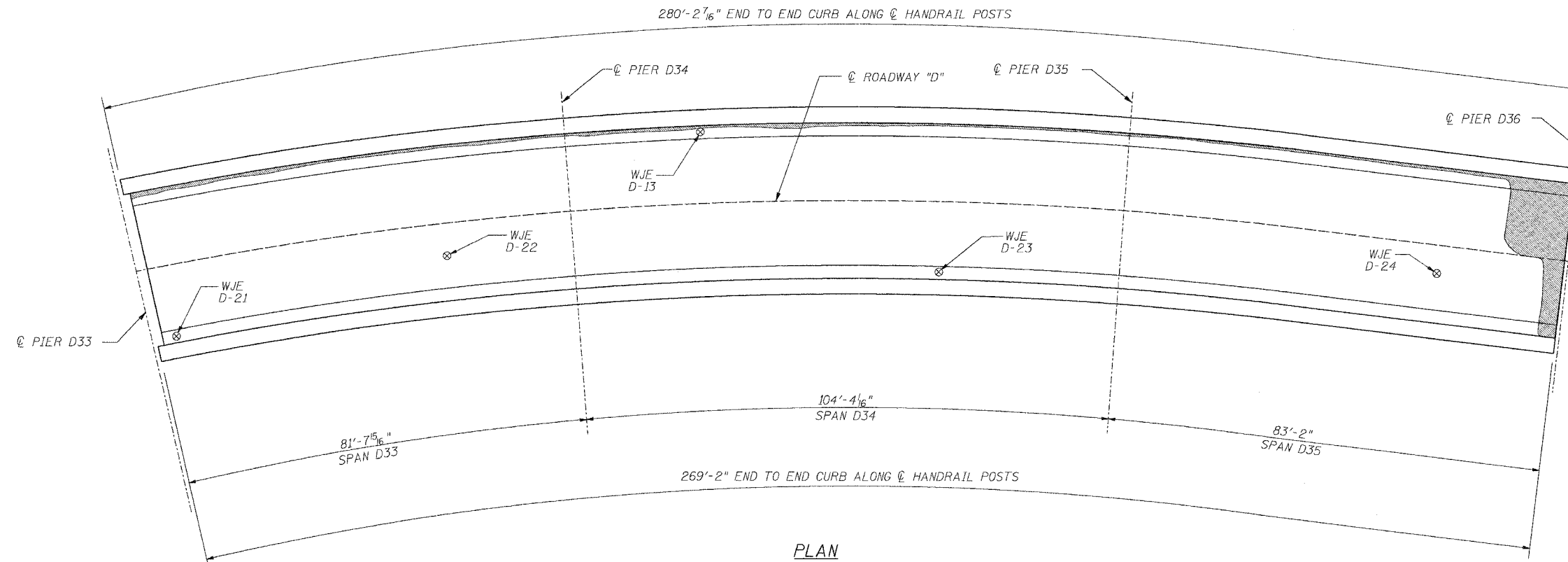
Note:
 Cut bars in field to fit skew and use the remainder of bars at other end of deck.
 Reinforcement bars designated (E) shall be epoxy coated.

DATE: 4/9/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadway\rehab_dsl\ramp\rd\parapet-deck.d dp4345.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	42
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78		

* 82-3HVB-3R-3 SHEET S-19 OF S-44
CONTRACT NO. 76395



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	8245		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	0	0	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	370	4.5	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	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
D33	20	30
D34	20	30
D35	20	30

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

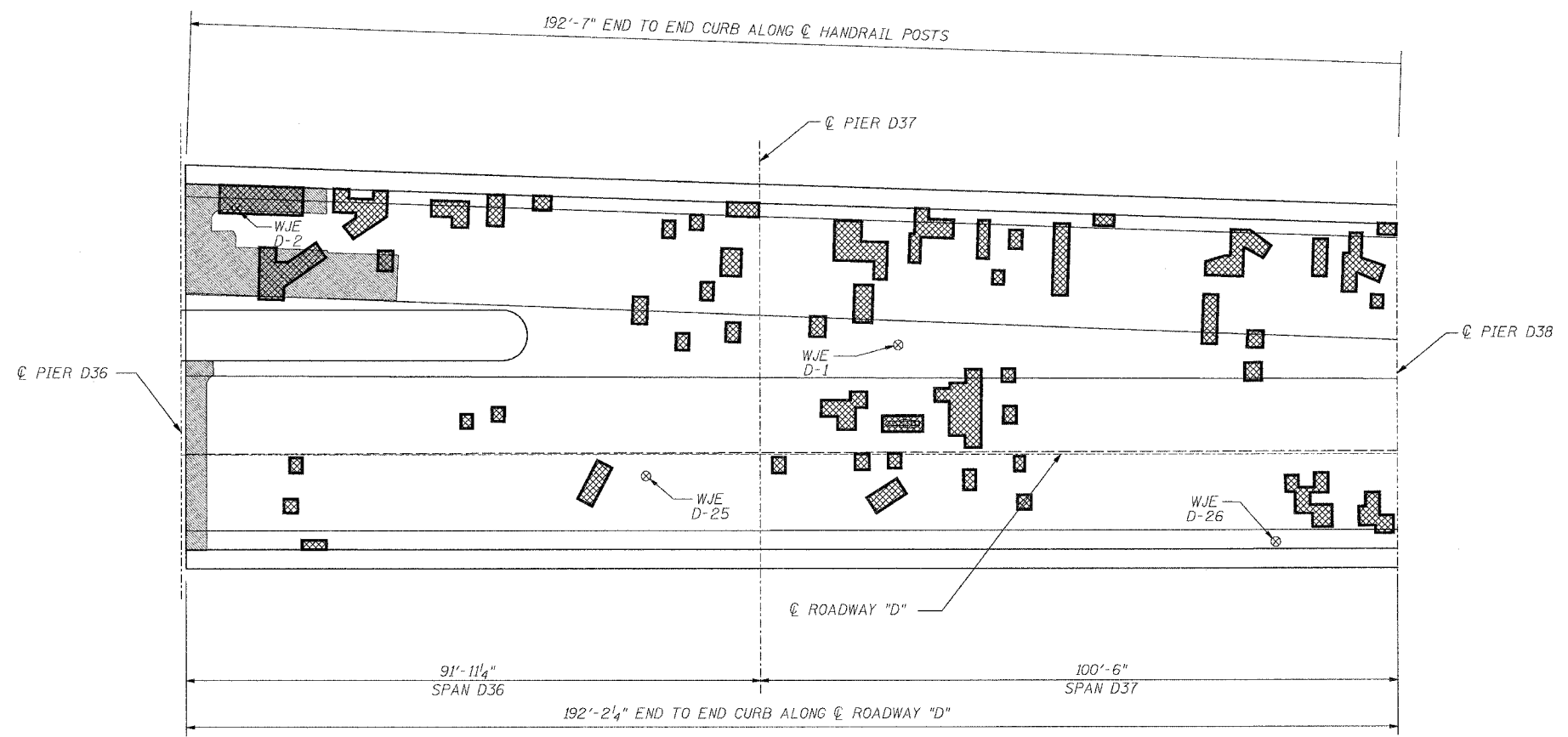
		REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006
		NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG			
ANALYSIS: TC	CHECKED: DU			

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab.dwg\tramp\earth_tech.dwg\3335.dgn

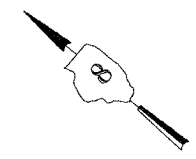
DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	43
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 3M-70		

* 82-3HVB-3R-3 SHEET S-20 OF S-44
CONTRACT NO. 76305



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	10124		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	149	1.5	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	478	4.7	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	8	<0.1	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	0	0		

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
D36	230	290
D37	230	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

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

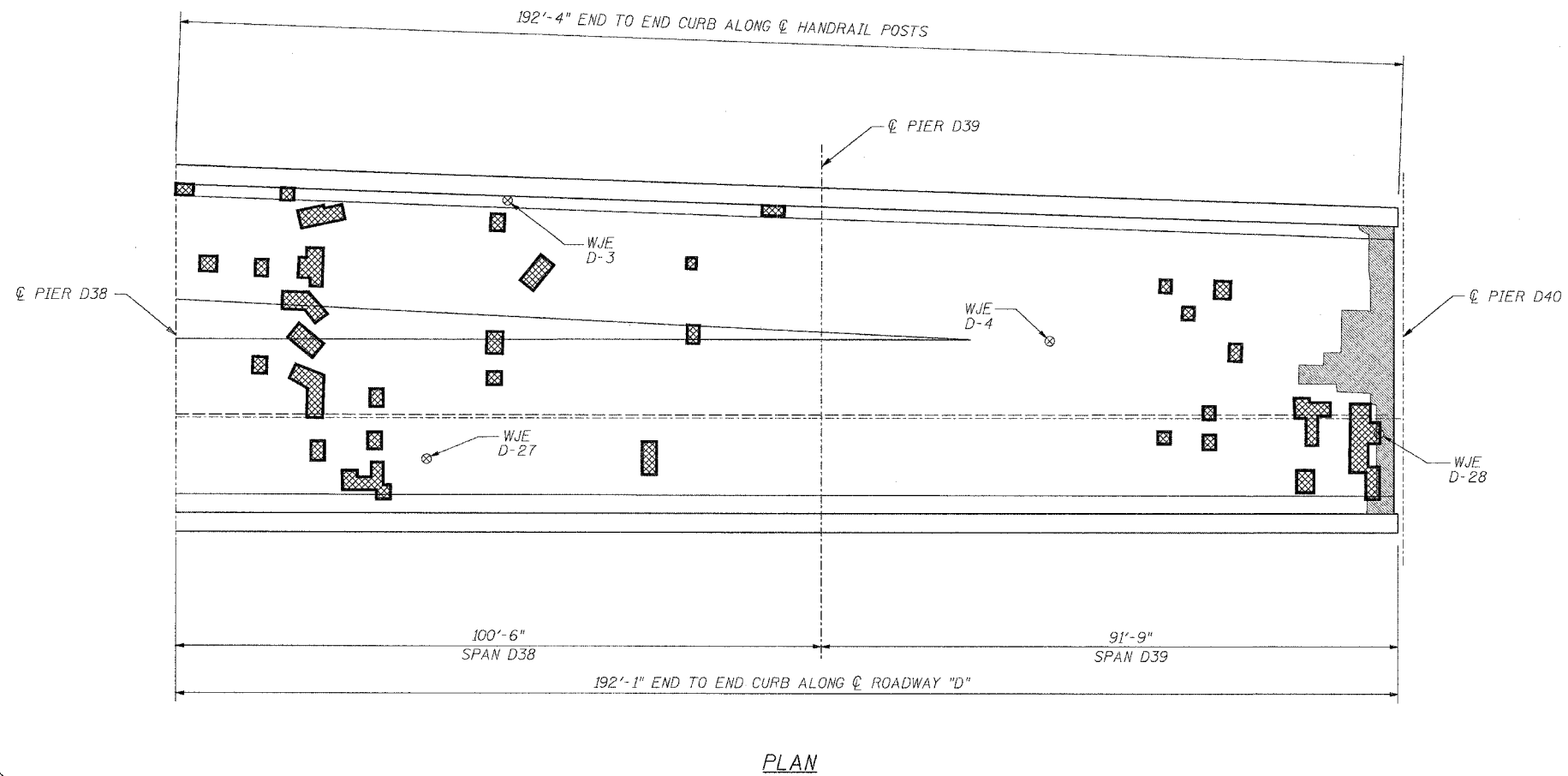
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
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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	111	44
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-70		

* 02-3HVB-3R-3 SHEET S-21 OF S-44
CONTRACT NO. 76305



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	9227		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	56	0.6	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	242	2.6	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	0	0		

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
D38	220	280
D39	190	240

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

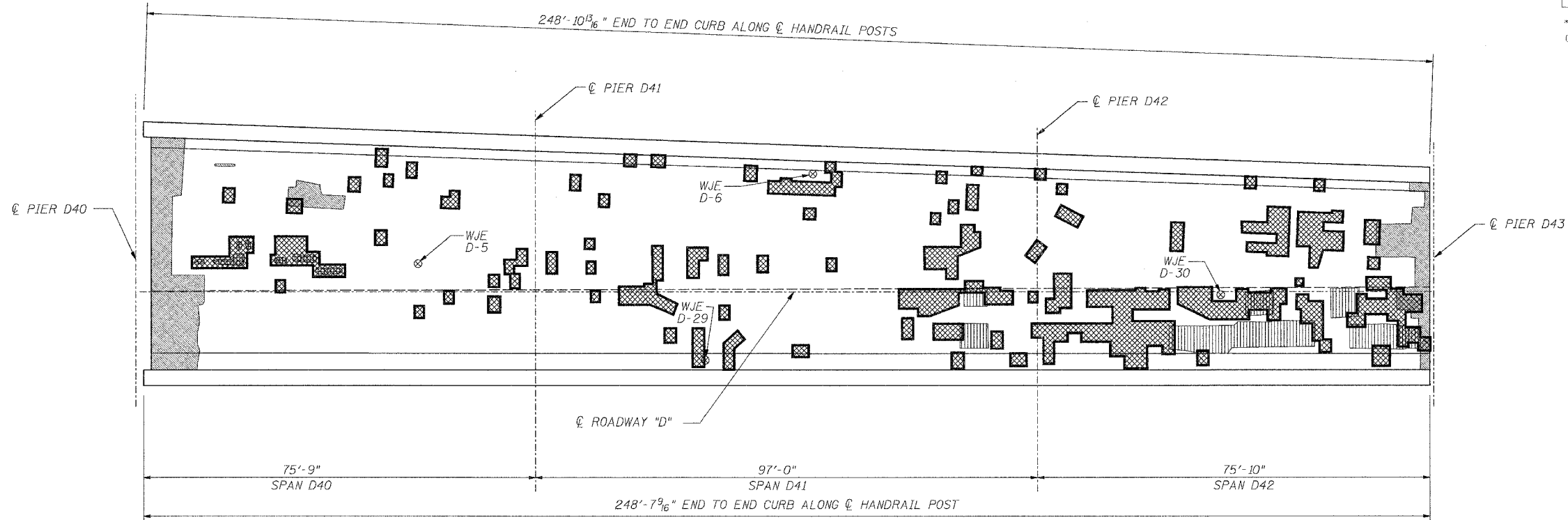


INFRARED THERMOGRAPHIC INSPECTION RESULTS

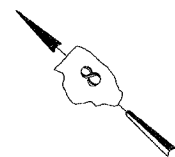
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	NAME	DATE	
INSPECTED: TC	CADD: MA/WD DS/EG		
ANALYSIS: TC	CHECKED: DU		

DATE: 4/19/2006 FILENAME: p:\2001\1201-1800\2001.1240\drafting\roadwayrehab_ds\rampd\earth_tech\d_ef3839.dgn

DESIGNED	---/WJE
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DRAWN	CLK
CHECKED	JPD

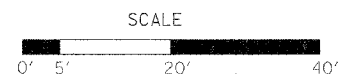


PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	10007		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	270	2.7	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	517	5.2	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	30	0.3	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	306	3.1		



ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

(SPANS D40 AND D41)

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
D40	330	420
D41	390	500

ANTICIPATED QUANTITY OF DELAMINATIONS (ft.²)

(SPAN D42)

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED AREAS OF DEEPER REMOVAL
D42	290	370

QUANTITIES IN THESE TABLES 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

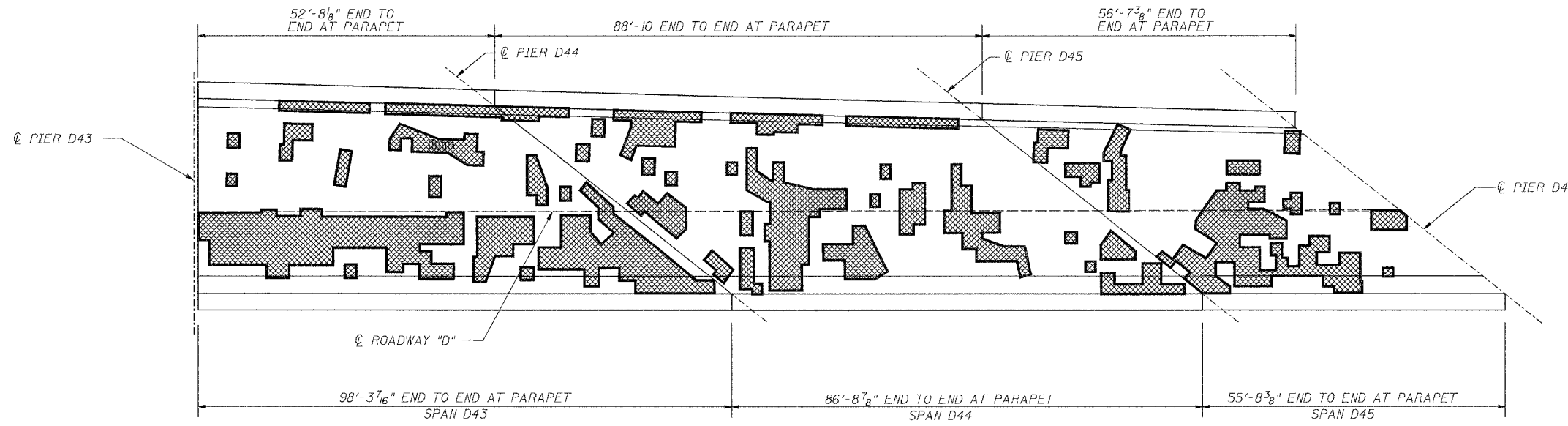
INFRARED THERMOGRAPHIC INSPECTION RESULTS

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INSPECTED: TC	CADD: MA/MB DS/EG			
ANALYSIS: TC	CHECKED: DU			

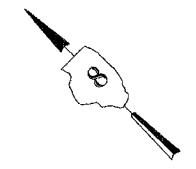
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DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	46
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-78		
* 82-3HV8-3R-3			SHEET S-23 OF S-44	
CONTRACT NO. 76305				



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED QUANTITY OF DELAMINATIONS (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	7310		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	568	7.8	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	2074	28.4	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	6	<0.1	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	281	3.8		

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED AREAS OF DEEPER REMOVAL
D43	760	970
D44	830	1060
D45	520	660

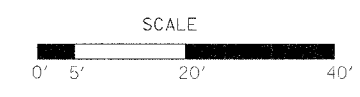
QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICRO-SILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

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

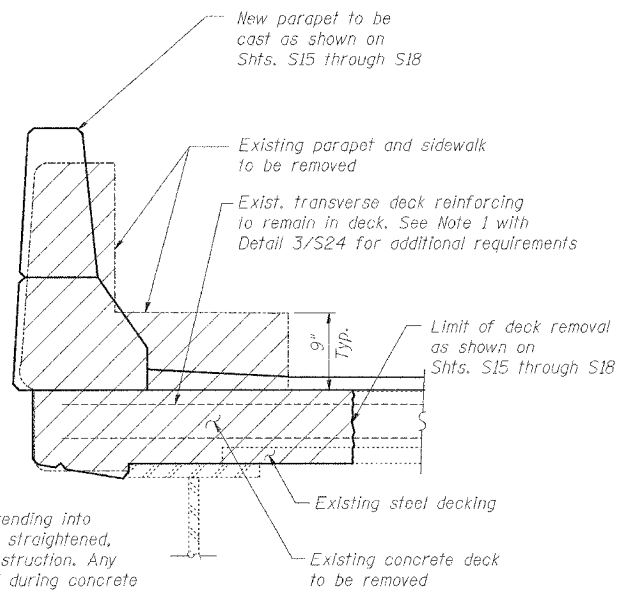


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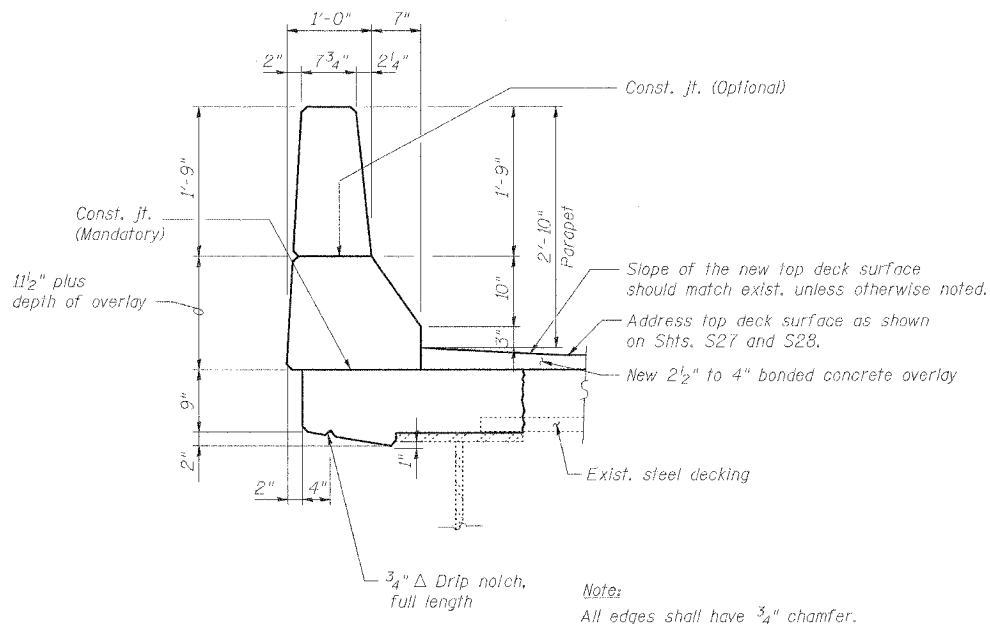
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CHECKED	JPD

INFRARED THERMOGRAPHIC INSPECTION RESULTS

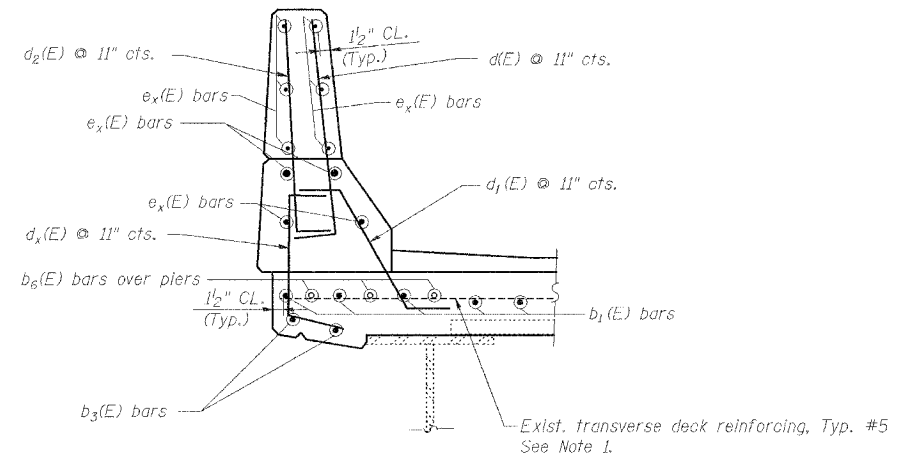
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		NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG			
ANALYSIS: TC	CHECKED: DU			



1 PARAPET DEMOLITION PLAN
S24

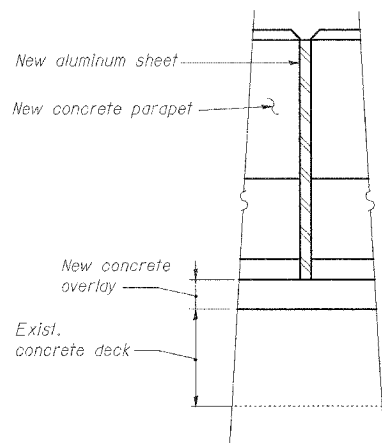


2 TYPICAL NEW PARAPET CROSS SECTION
S24

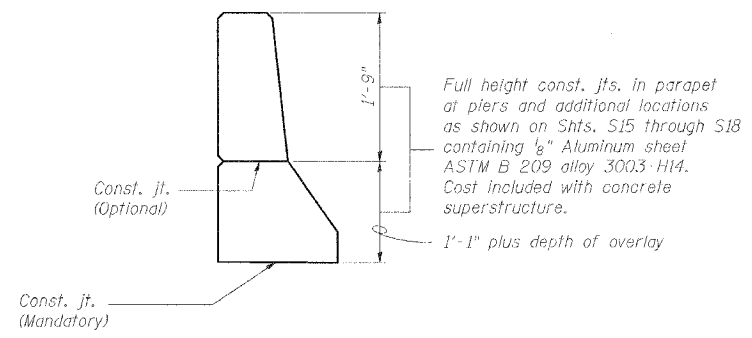


3 TYPICAL REINFORCEMENT FOR NEW PARAPET
S24

Note 1: Existing transverse reinforcement was terminated at locations of existing floor drains and does not extend across the full width of the deck at these locations. Contractor shall provide #5 $a_{351}(E)$ bars connected to existing transverse bars via mechanical splice at these locations. See deck plan sheet for quantities.



4 PARAPET CONSTRUCTION JOINT
S24



5 PARAPET JOINT DETAILS
S24

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

REVISIONS		NAME	DATE
NO.	DESCRIPTION		

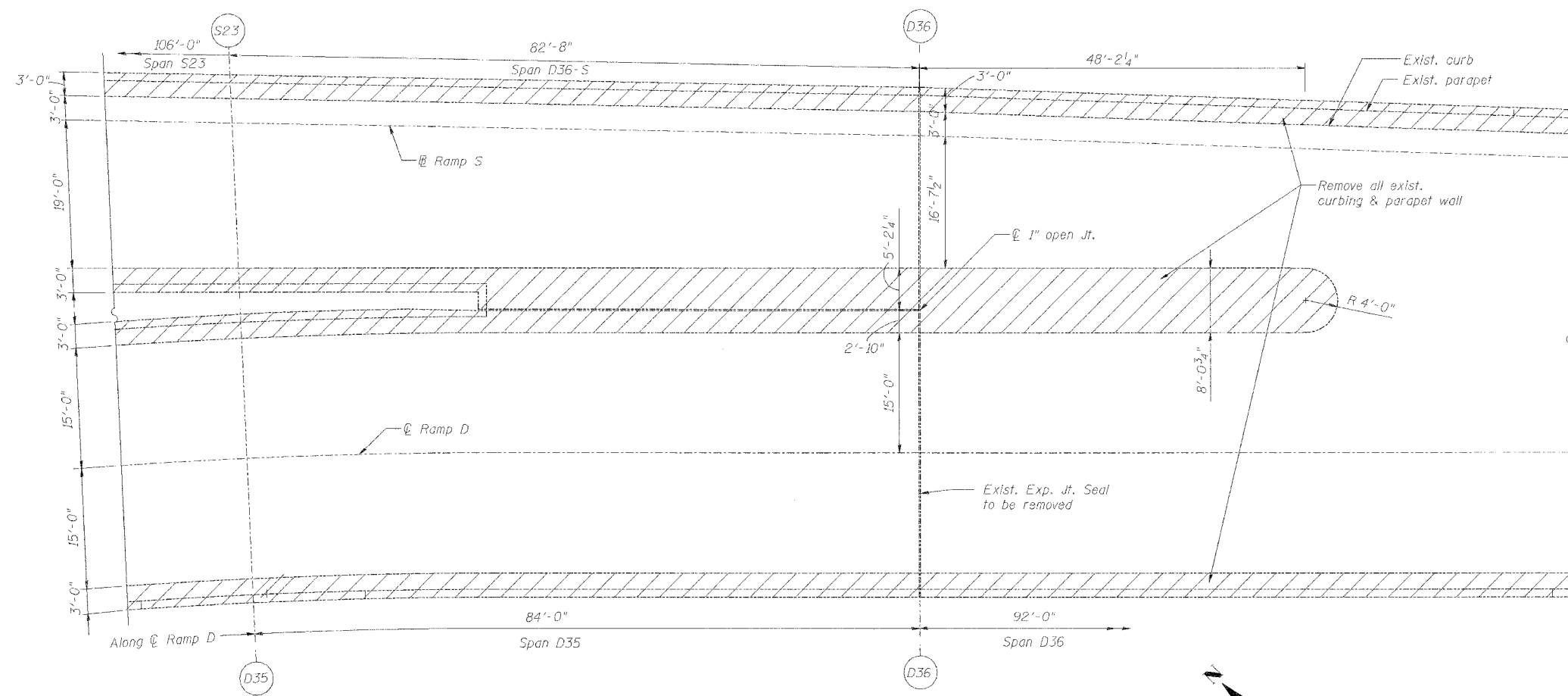
TYPICAL PARAPET DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/9/2006
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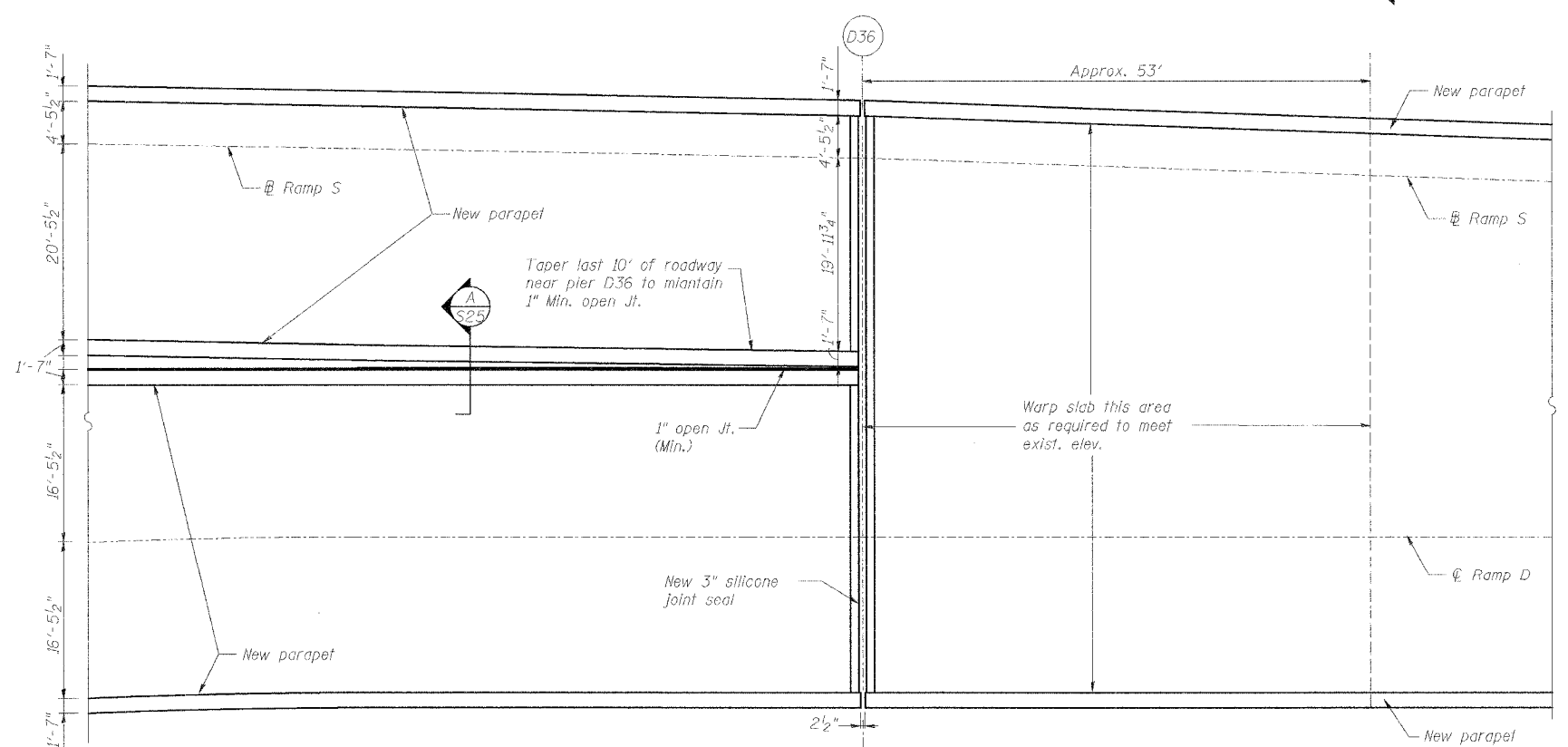
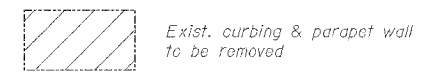
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	48
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IH-70		

82-3HVB-3R-3 SHEET S-25 OF S-44
CONTRACT NO. 76305



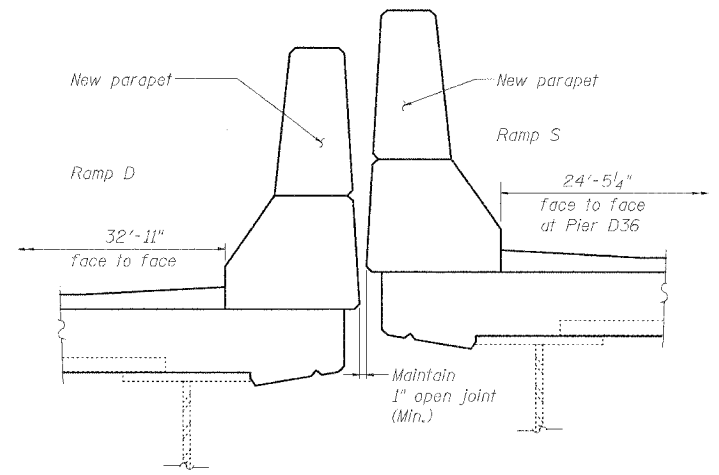
DEMOLITION PLAN AT ROADWAY D/RAMP S MERGE

LEGEND:



PLAN OF NEW PARAPET AT ROADWAY D/RAMP S MERGE

See Shts. S15 through S18 for new parapets and treatment of deck



SECTION A

SPECIAL PARAPET DETAILS

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

STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

REVISIONS	
NAME	DATE

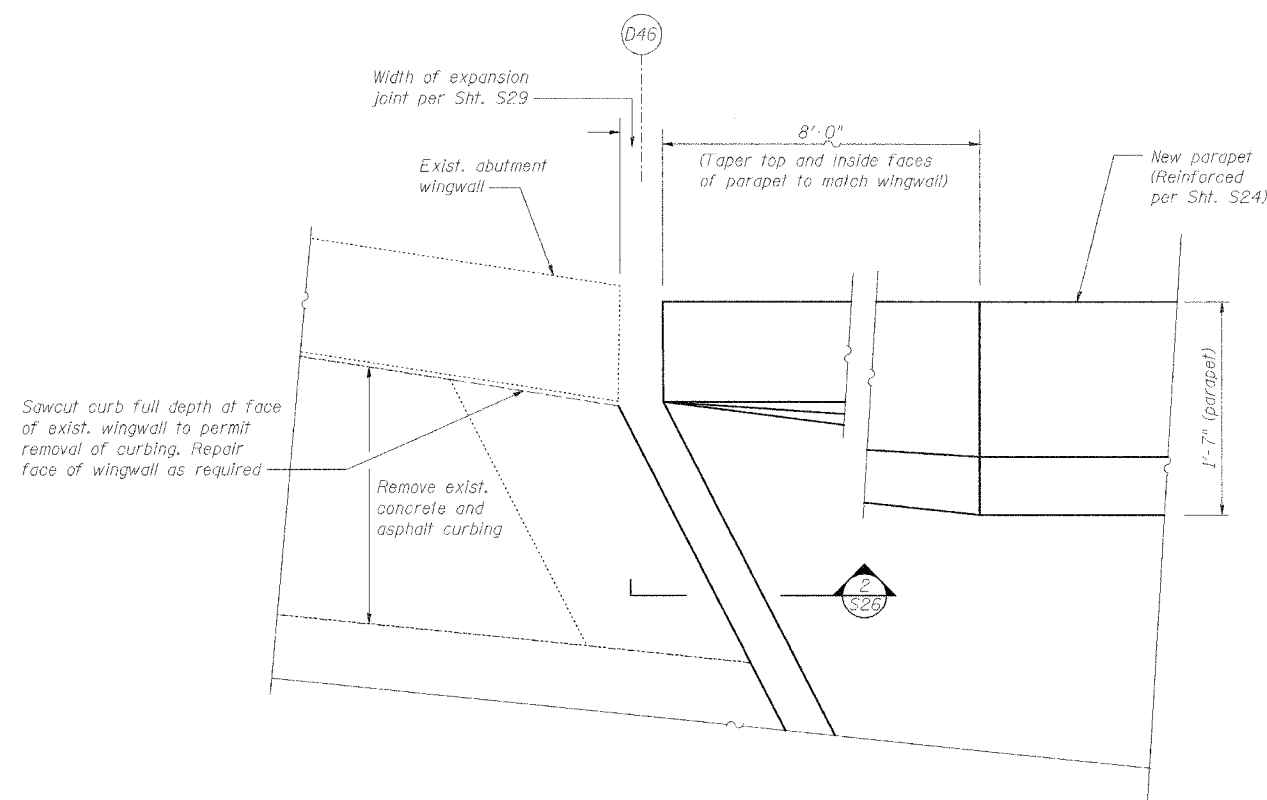
Note:
Expansion joint dimensions shown
are for 50°F deck temperature

DATE: 4/19/2006
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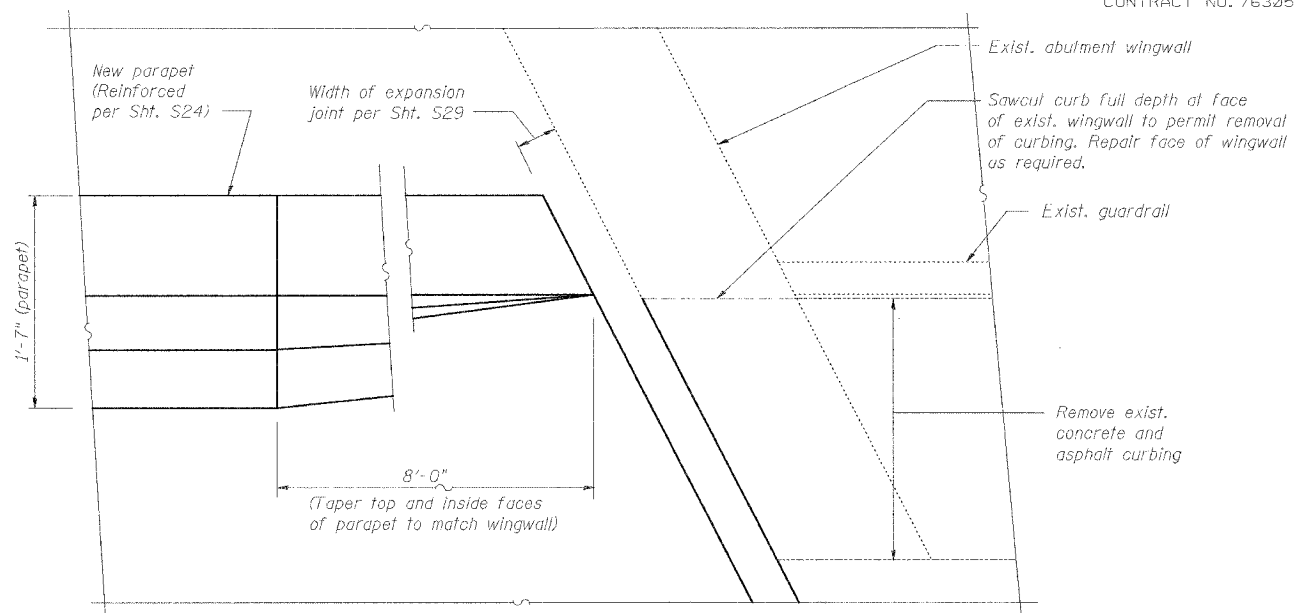
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DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	49
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

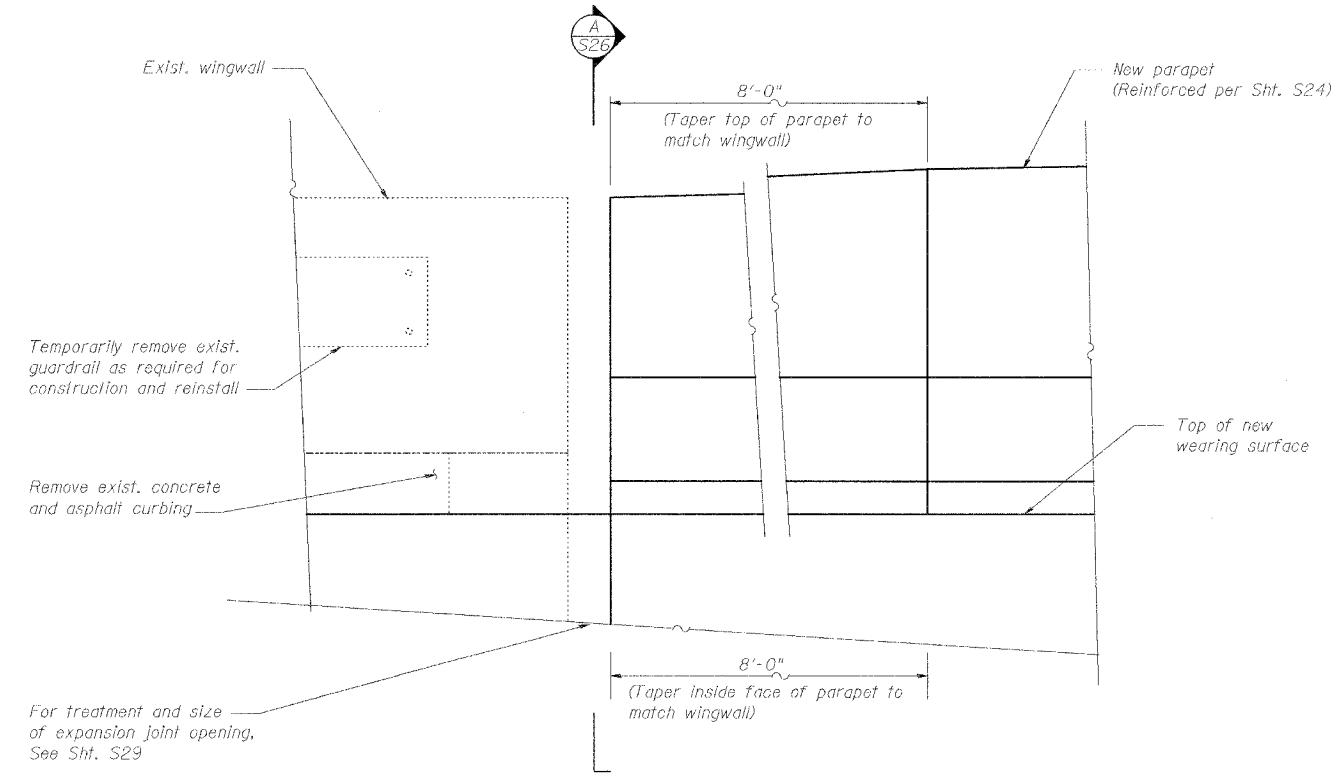
* 82-3HVB-3R-3 SHEET S-26 OF S-44
CONTRACT NO. 76305



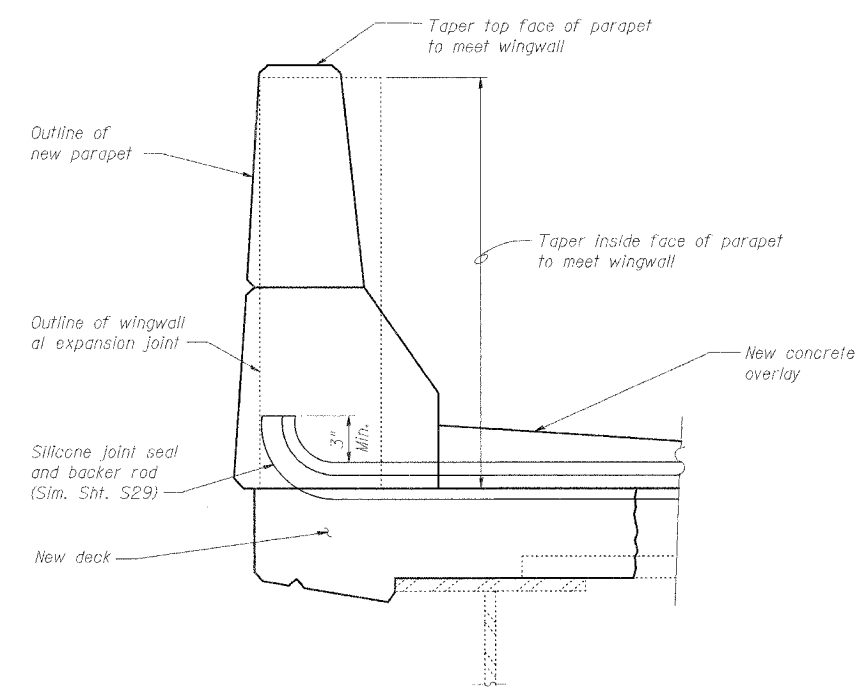
1 PLAN-SOUTH PARAPET END TREATMENT @ D46
S26



3 PLAN-NORTH PARAPET END TREATMENT @ D46
S26



2 ELEVATION-SOUTH PARAPET END TREATMENT @ D46
S26 (North Parapet similar, Opp. hand)



SECTION A-PARAPET END TREATMENT @ D46

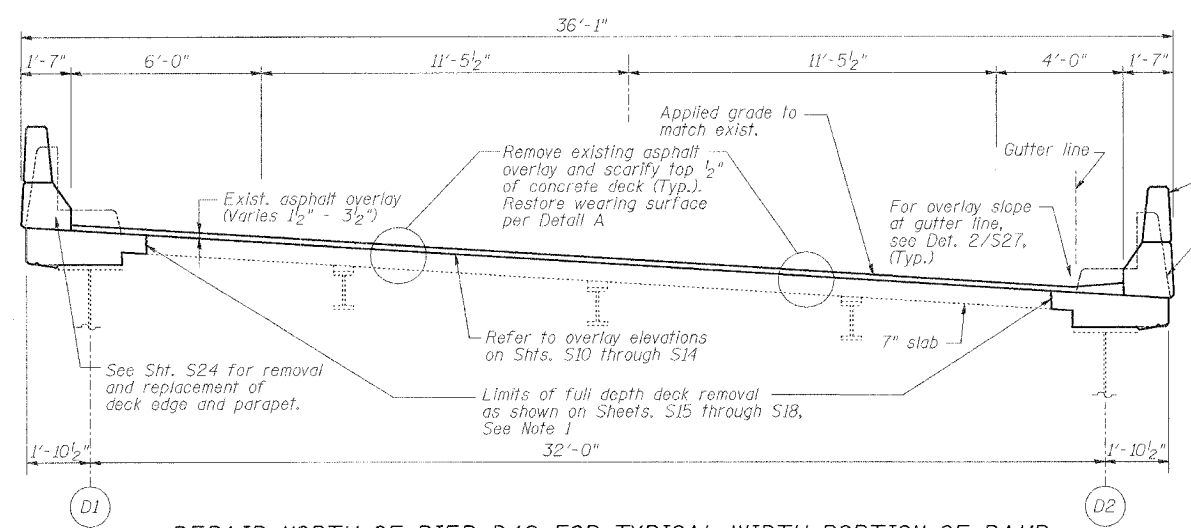
SPECIAL PARAPET TERMINATION DETAILS

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. 082-0142 (RAMP 5)
SCALE:
DATE: 02/28/2006

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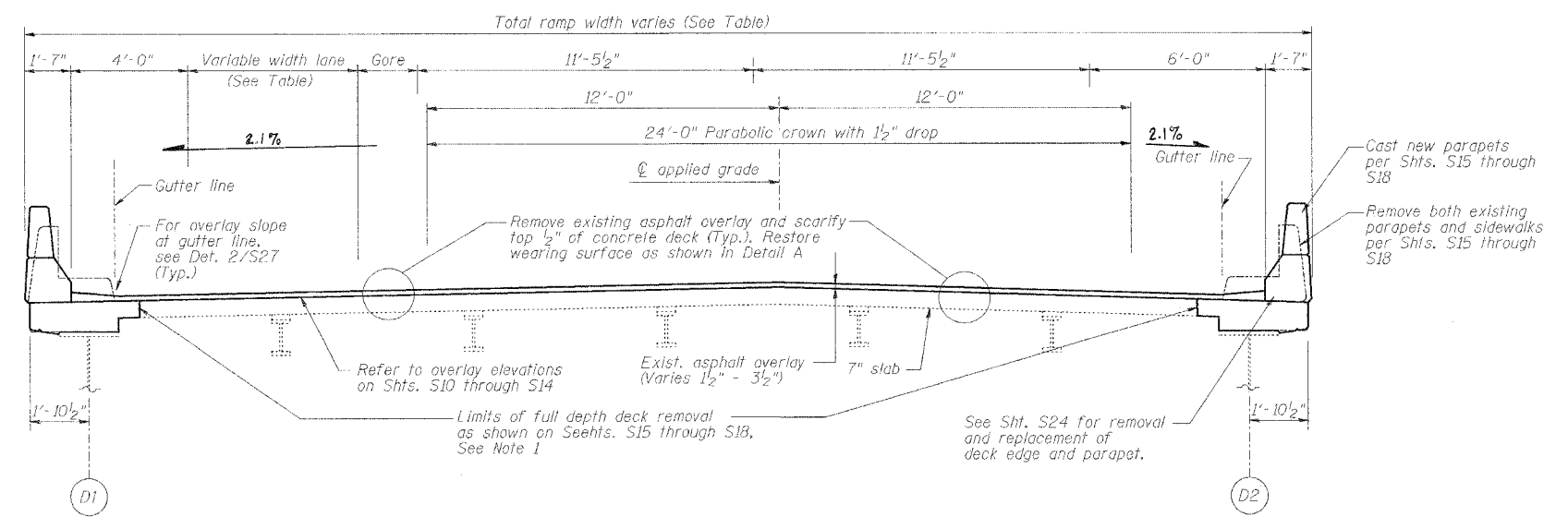
REPAIR NORTH OF PIER D42 FOR TYPICAL WIDTH PORTION OF RAMP
(Looking toward higher numbered pier)

Note 1. Additional full depth removal 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".

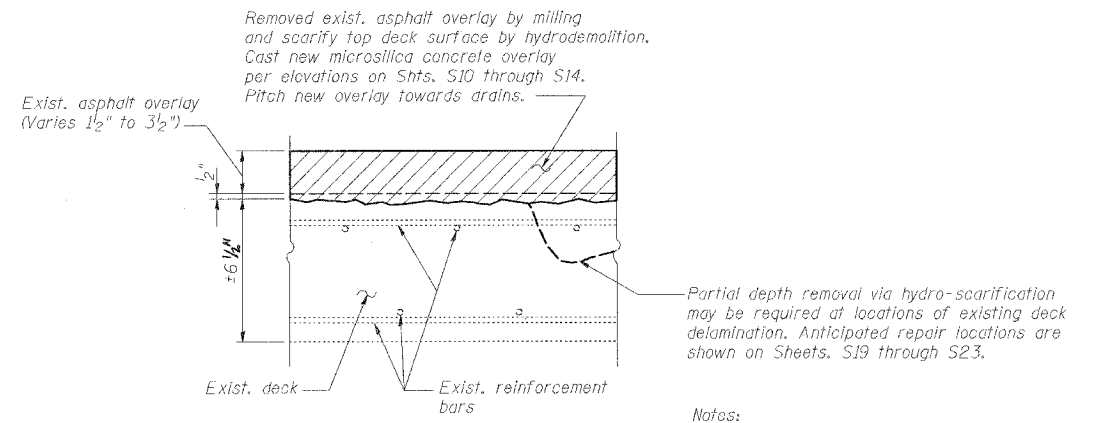
VARIABLE RAMP WIDTHS - NORTH OF PIER D42

Pier	Variable Width Lane	Gore	Total Ramp Width
D36	14'-11"	12'-9 1/4"	63'-9 1/4"
D42	5'-9"	0	41'-10"

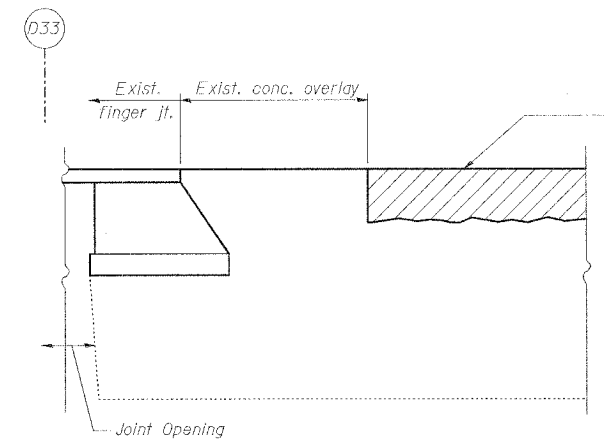
Variable lane and total ramp widths vary between those shown.



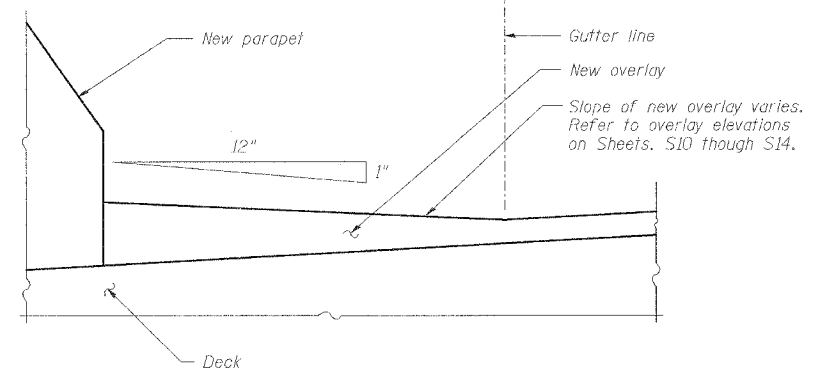
REPAIR NORTH OF PIER D42 IN VARIABLE WIDTH PORTION OF RAMP
(Looking toward higher numbered pier)



DETAIL A - SCHEMATIC DIAGRAM OF REPAIR NORTH OF PIER D43



1 TERMINATION OF DECK REHABILITATION @ D33



2 OVERLAY SLOPE AT GUTTER LINE

DECK REHABILITATION DETAILS - NORTH OF PIER D42

REVISIONS	
NAME	DATE

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

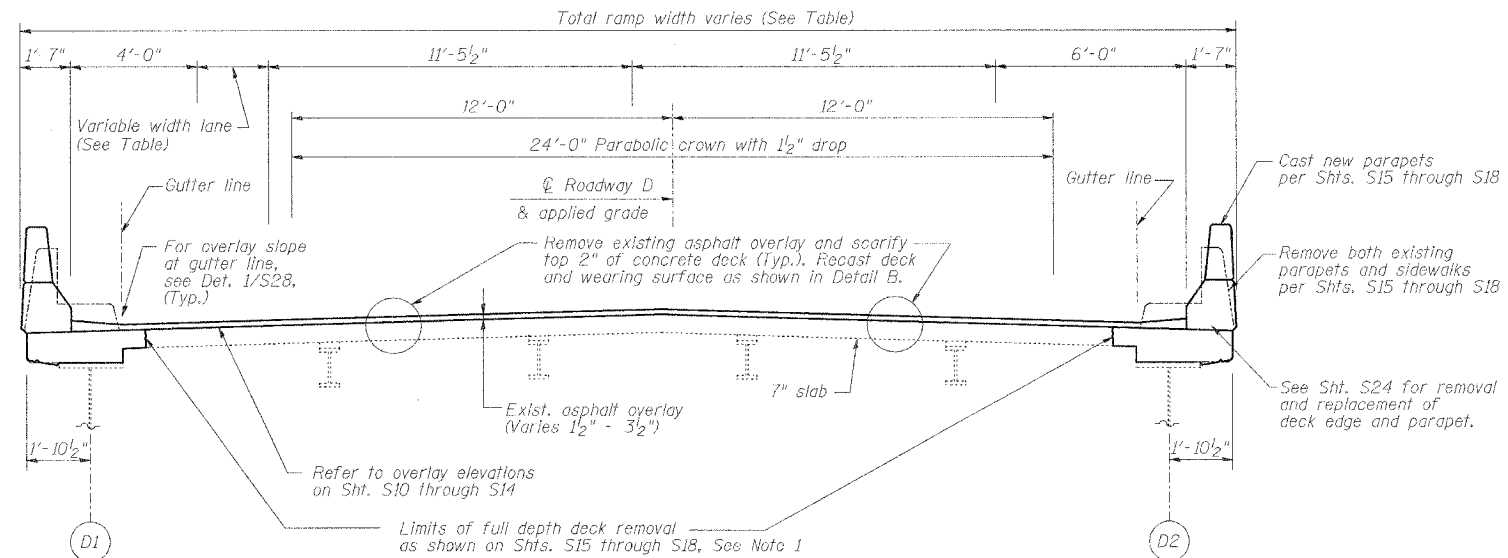
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DATE: 02/28/2006

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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	51
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 114-70		

* 82-3HVB-3R-3 SHEET S-28 OF S-44
CONTRACT NO. 76305

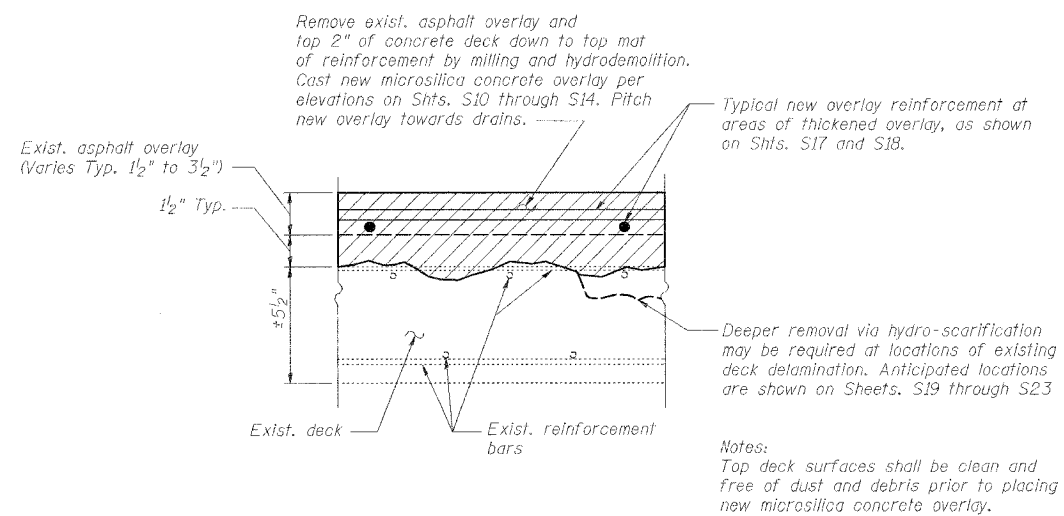


Pier	Variable Width Lane	Total Ramp Width
D42	5'-9"	41'-10"
D46	0'-10 ⁵ / ₈ "	36'-11 ⁵ / ₈ "

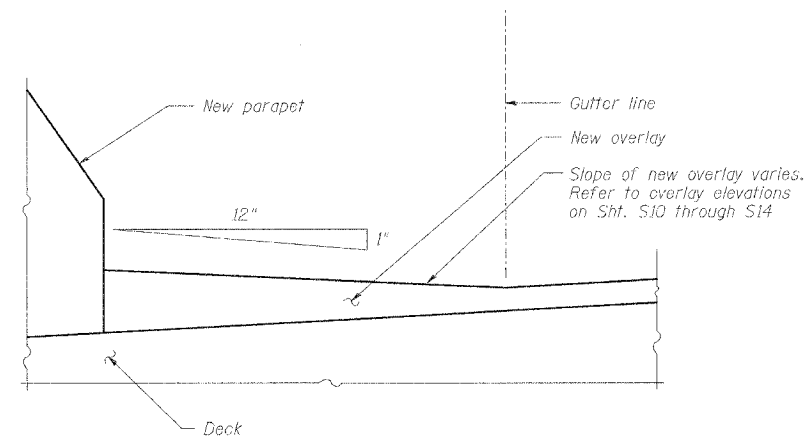
Variable lane and total ramp widths vary between those shown.

REPAIR SOUTH OF PIER D42 FOR SOUTH PORTION OF RAMP

(Looking toward higher numbered pier)



DETAIL B - SCHEMATIC DIAGRAM OF REPAIR SOUTH OF PIER D42



1 OVERLAY SLOPE AT GUTTER LINE

Note 1. Additional full depth removal 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 Superstructures".

DECK REHABILITATION DETAILS - SOUTH OF PIER D42

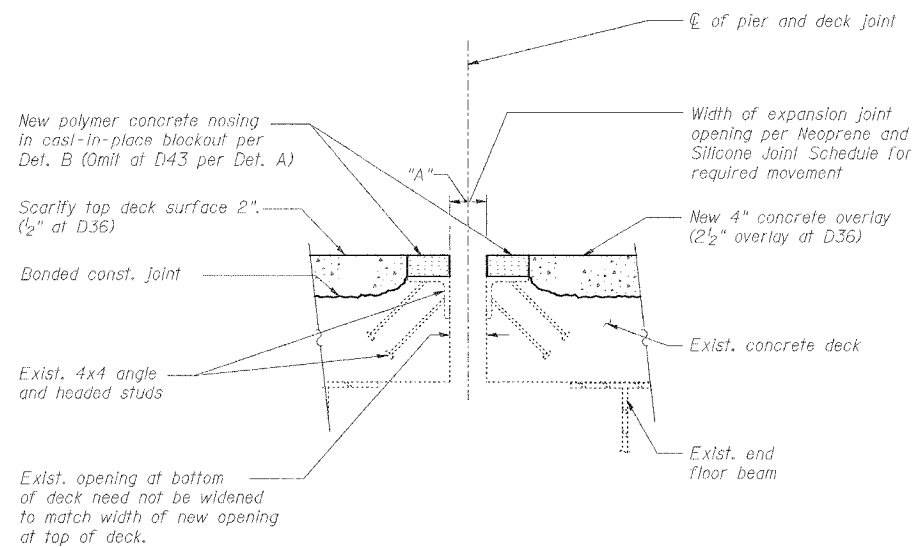
REVISIONS	
NAME	DATE

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

STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: F:\2001\1201-1300\2001.1240\drafting\roadwayrehab_as\rampl\conc_d-conc02.dgn

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DRAWN	CLK
CHECKED	JPD



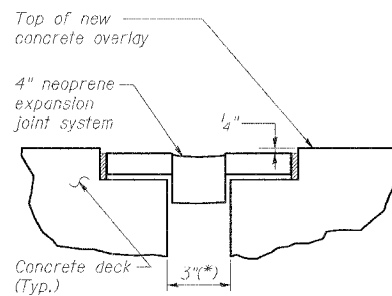
DECK REPAIR @ TYPICAL EXPANSION JOINTS
(Includes D36, D43, D44 and D45 on Ramp D)

Notes: For Joint Seal Installation, see Detail A for Pier D43, and Detail B for all others.

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

BILL OF MATERIAL

Item	Unit	Quantity
Silicone Joint Sealer - 2"	Ft.	190
Silicone Joint Sealer - 3"	Ft.	64
Neoprene Expansion Joint - 4"	Ft.	45
Polymer Concrete	Cu. Ft.	37



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

DETAIL A - NEOPRENE EXPANSION JOINT

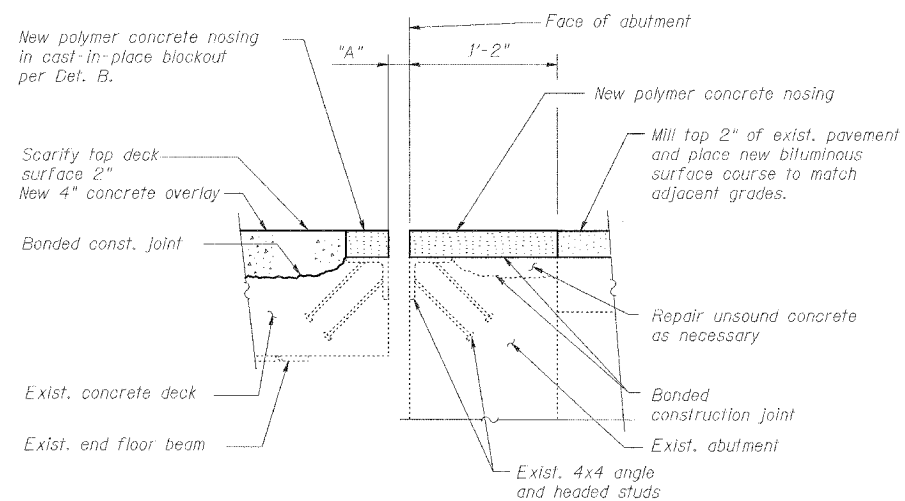
Note: See Sheet, S30 for additional installation dimensions and details

NEOPRENE AND SILICONE JOINT SCHEDULE - RAMP D

Location	Type of Joint Seal	Joint Opening - "A" (Inches)				
		@ -30°F	@ 10°F	@ 50°F	@ 90°F	@ 130°F
D36	3" Silicone	4 1/8"	3 9/16"	3"	2 7/16"	1 7/8"
D43	4" Neoprene	4 1/2"	3 3/4"	3"	2 1/4"	1 1/2"
D44*	2" Silicone	—	—	2"	—	—
D45*	2" Silicone	—	—	2"	—	—
D46	2" Silicone	2 5/8"	2 5/16"	2"	1 11/16"	1 3/8"

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

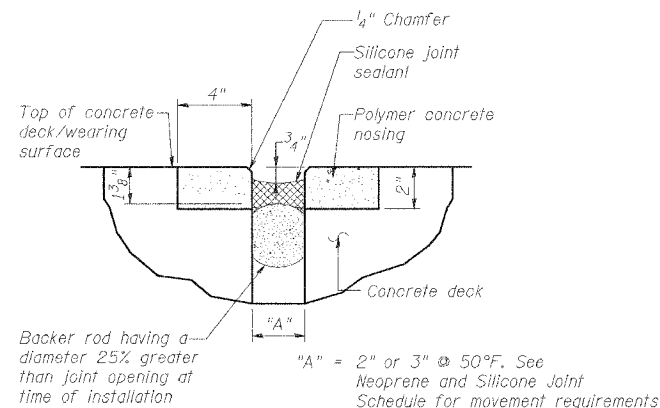
* - Joint at seismic Isolation bearing (no significant movement anticipated)



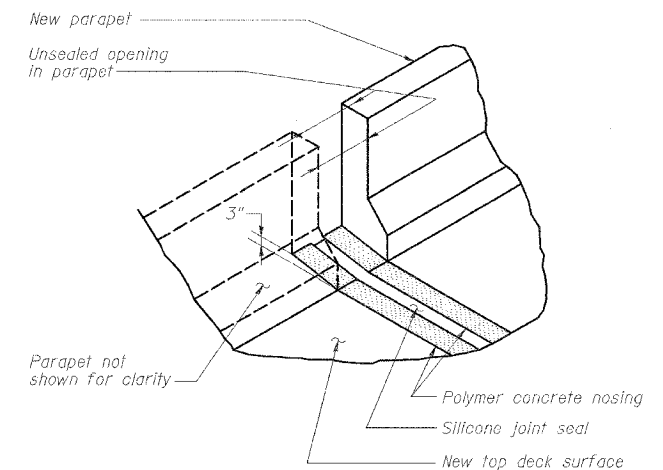
DECK REPAIR @ D46 ABUTMENT EXPANSION JOINT

Notes: See Detail B for joint installation.

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



DETAIL B - SILICONE JOINT SEAL



SILICONE JOINT SEAL @ PARAPET

TYPICAL JOINT 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. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\1201-1800\2001.1240\drafting\roadwayrehab_ds\rampd\join_d-join01.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	53
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IM-78		

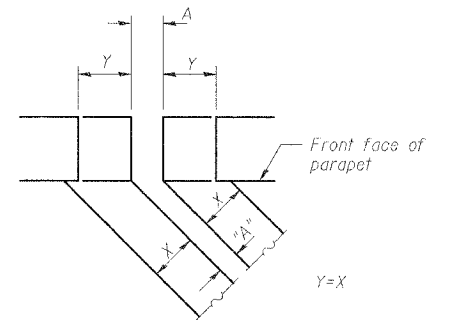
* 82-3HVB-3R-3 SHEET 5-30 OF 5-44
CONTRACT NO. 76385

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

INSTALLATION NOTES

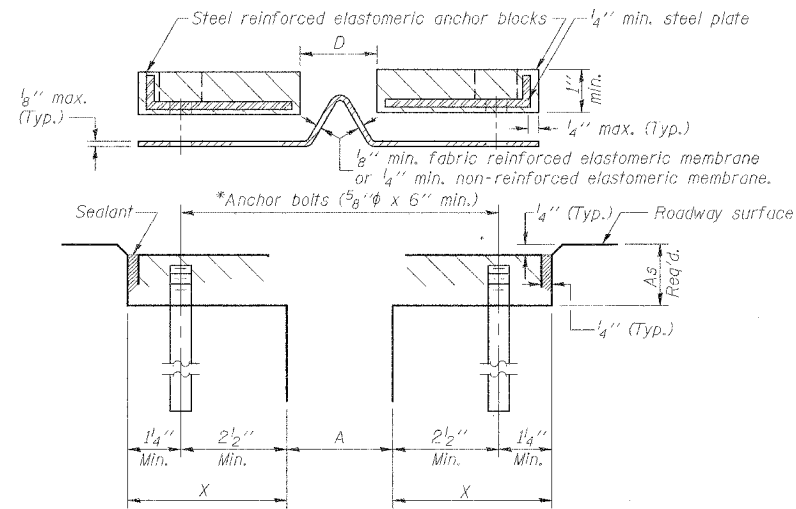
- Install continuous seal in roadway and parapet.
- Install anchor blocks as indicated.

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



FORMING BLOCKOUT SKETCH

For dimension "A" See Smt. S-38



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.

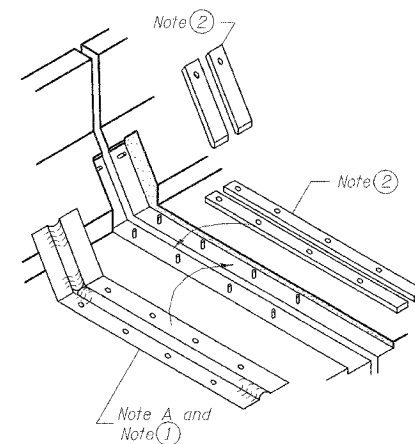
*Epoxy grout 5/8" ϕ threaded stainless steel rods in accordance with Section 584 of the Standard Specifications. Space to miss existing studs.

SKEW LIMITATIONS

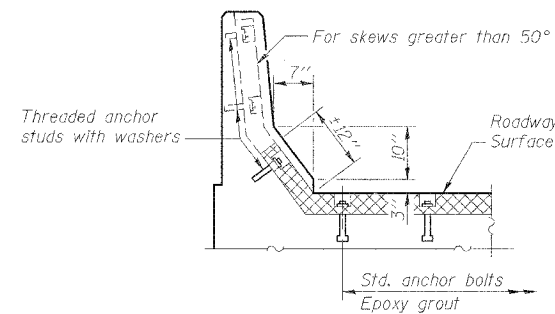
The details of the anchor blocks and the elastomeric membrane in the parapet, as shown, are for up to 50° skews.

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 $\pm 12"$ 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

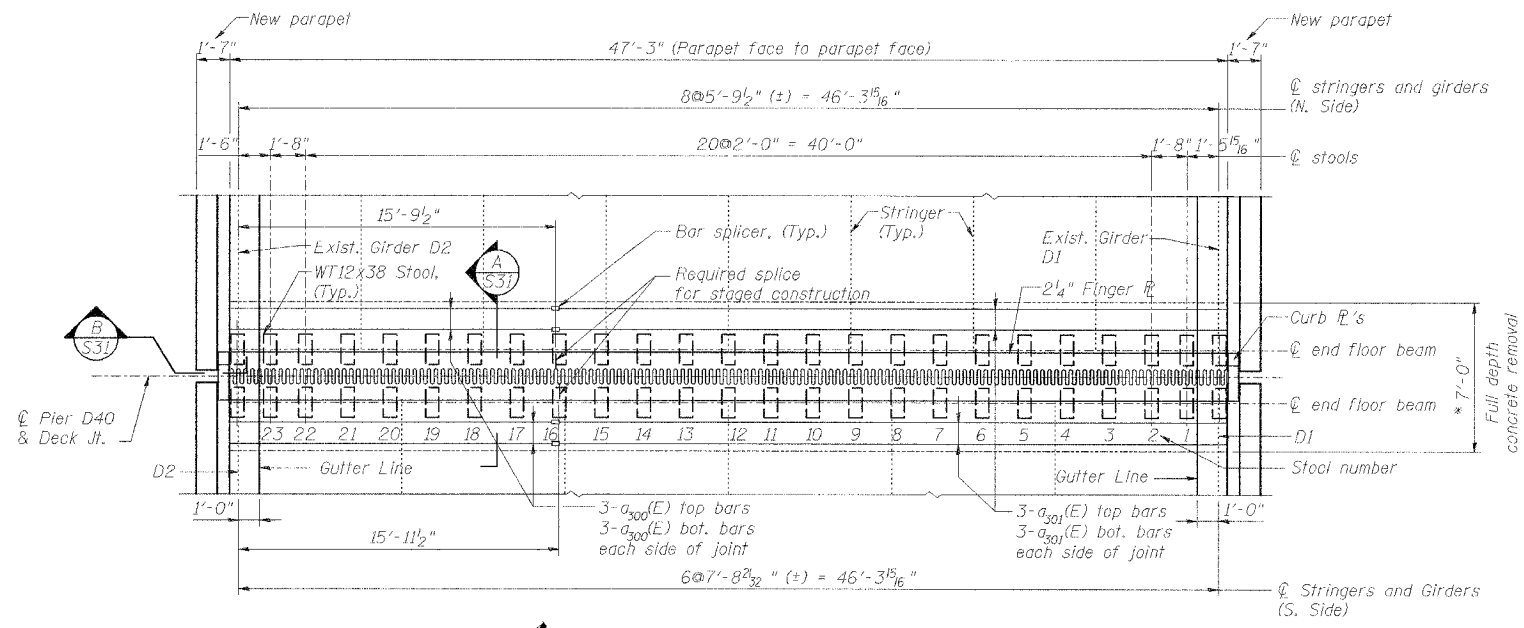
STRUCTURE NO. 082-0142 (RAMP 5)

SCALE:

DATE: 02/28/2006

DATE: 4/9/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab_ds\rampd\join_d-join02.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



PLAN
FINGER JT. @ PIER D40
* - At 50° F

CROSS SLOPE

Location	Span D39	Span D40
Crown to D1	-1.74%	-1.63%
Crown to D2	-1.18%	-1.34%

Min Bar Laps	d			f		
	-30°F	50°F	130°F	-30°F	50°F	130°F
#4 1'-8"	15 3/4"	12 3/4"	9 3/4"	8"	5"	2"

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. S36.
Adjust height of stool as required by shimming. Shim 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.
See sheet S-27 of 44 (variable width) for roadway crown & cross-slope information.

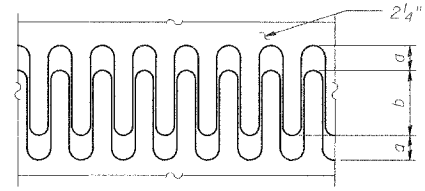
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₃₀₀ (E)	12	#5	15'-6"	—
a ₃₀₁ (E)	12	#5	31'-6"	—
b ₃₀₀ (E)	94	#4	4'-5"	C
Reinforcing Bars, Epoxy Coated			Pound	870
Bar Splicer			Ea.	12
Fabric Reinforced Elastomeric Trough			Foot	54
Concrete Removal			Cu. Yd.	8.7
Concrete Superstructure			Cu. Yd.	8.7

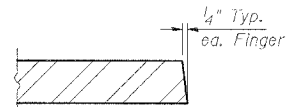
FINGER PLATE CUTTING DETAIL

a	b		
	-30°F	50°F	130°F
6 3/4"	3 3/4"	3/4"	1 1/2"
			4 1/2"
			7 1/2"

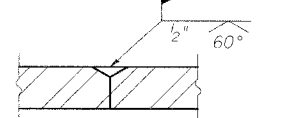
Note: For deck temperatures between those shown, interpolate between dimensions given above.



FINGER PLATE SETTING DIAGRAM



SECTION D

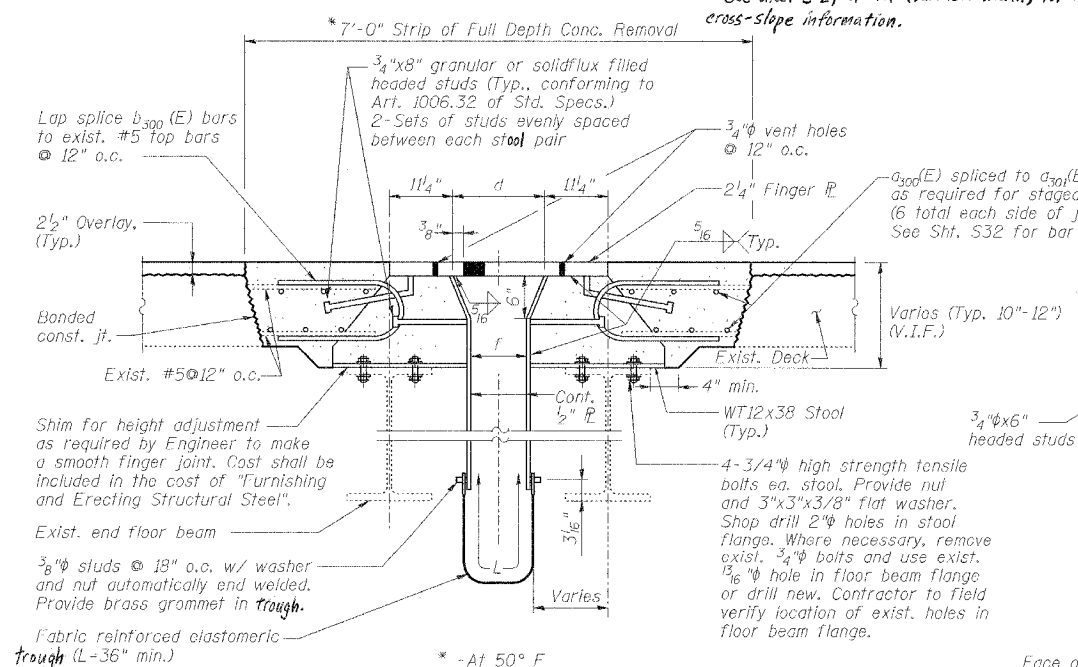


SECTION E

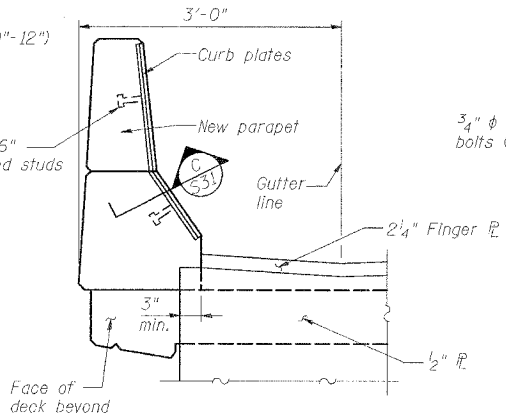
THEORETICAL STOOL HEIGHTS*

Stool No.	Span D39	Span D40
1-5	8 1/2"	8 3/4"
6-7	8 1/2"	8"
8-16	8 1/8"	8"
17-18	8 1/8"	8"
19-23	8 1/2"	8 3/4"
D1	12 3/8"	10"
D2	10"	9 1/8"

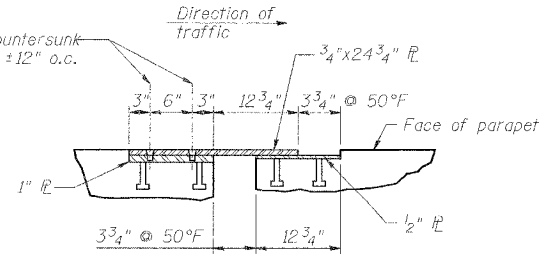
*Must be field verified prior to fabrication



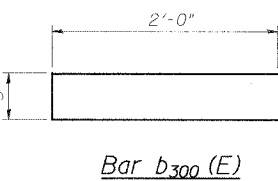
SECTION A



SECTION B



SECTION C



Bar b₃₀₀ (E)

SPECIAL 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. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\1201-1240\drafting\roadwayrehab.dwg\rampl\join_d-joint08.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:

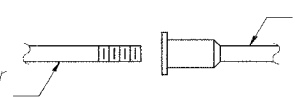
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_l$
- ② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times f_{sallow} \times A_l$

Where f_y = Yield strength of lapped reinforcement bars in ksi.
 f_{sallow} = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_l = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

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	5.9
#5	2'-0"	23.0	9.2
#6	2'-7"	33.1	13.3
#7	3'-5"	45.1	18.0
#8	4'-6"	58.9	23.6
#9	5'-9"	75.0	30.0
#10	7'-3"	95.0	38.0
#11	9'-0"	117.4	46.8

Bar splicer assemblies shall be according to Section 508 of the Standard Specifications, except as noted. The furnishing and installation of bar splicer assemblies will be measured and paid for at the contract unit price each for "BAR SPLICERS."

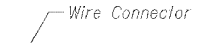
The diameter of this part is the same as the diameter of the bar spliced.



ROLLED THREAD DOWEL BAR



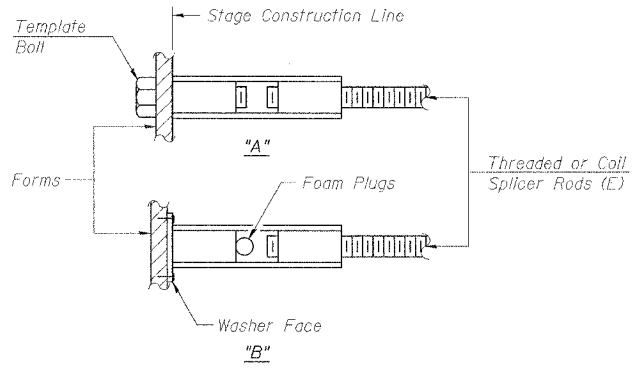
** ONE PIECE



WELDED SECTIONS

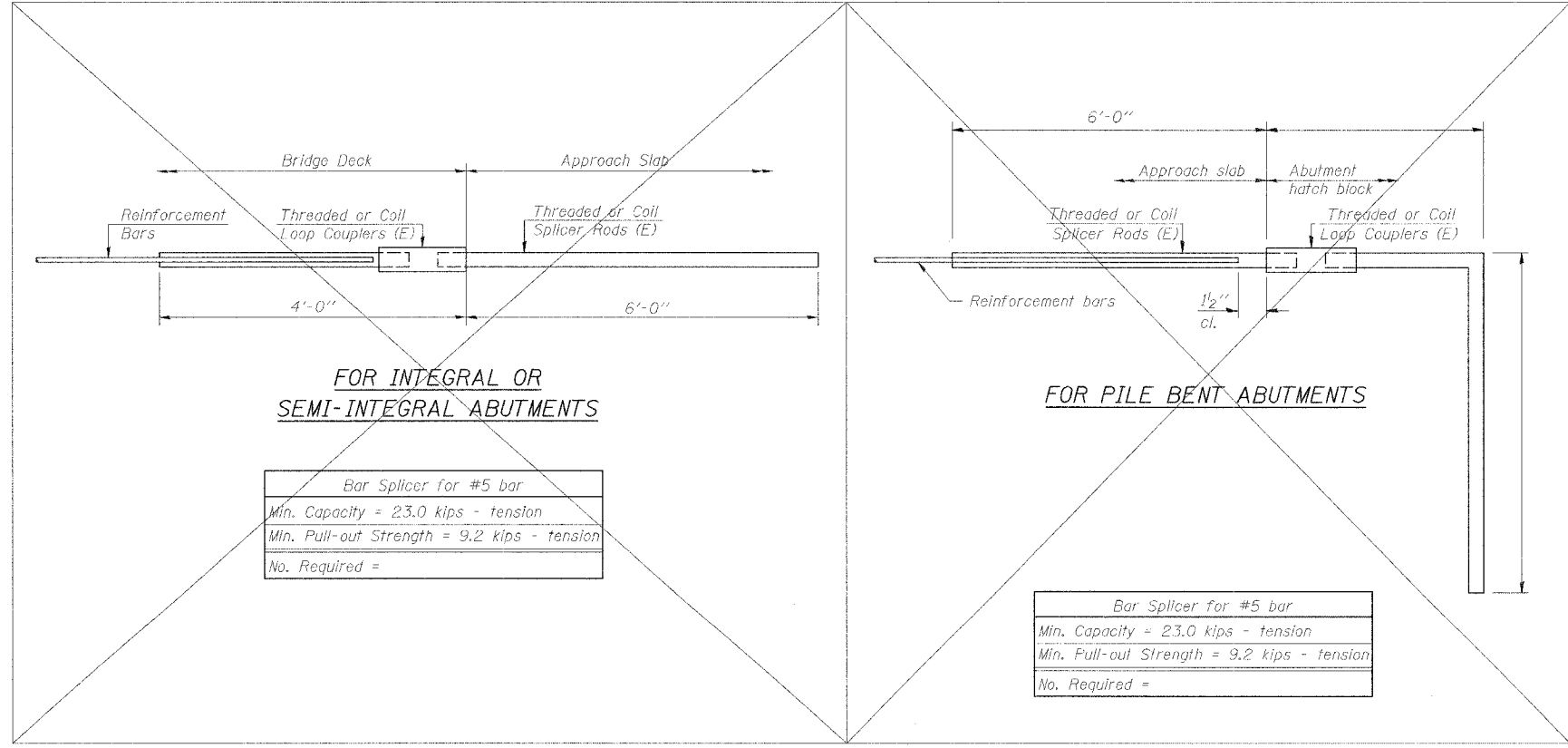
BAR SPLICER ASSEMBLY ALTERNATIVES

** 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.

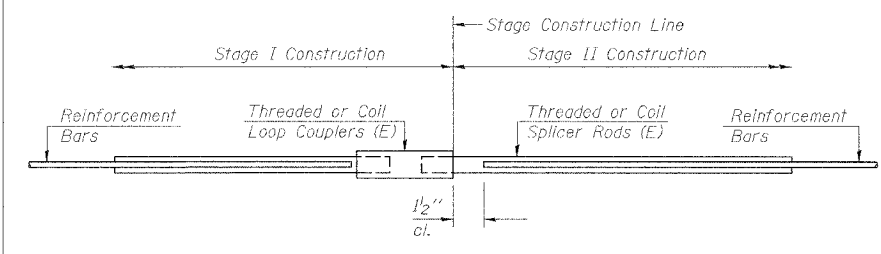


FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =

FOR PILE BENT ABUTMENTS

Bar Splicer for #5 bar
Min. Capacity = 23.0 kips - tension
Min. Pull-out Strength = 9.2 kips - tension
No. Required =



STANDARD

Bar Size	No. Assemblies Required	Location
#4	76	Deck, Span D42
#4	78	Deck, Span D43
#4	86	Deck, Span D44
#4	54	Deck, Span D45
#5	12	Deck, Pier D40

BAR SPLICER ASSEMBLY DETAILS

REVISIONS	
NAME	DATE

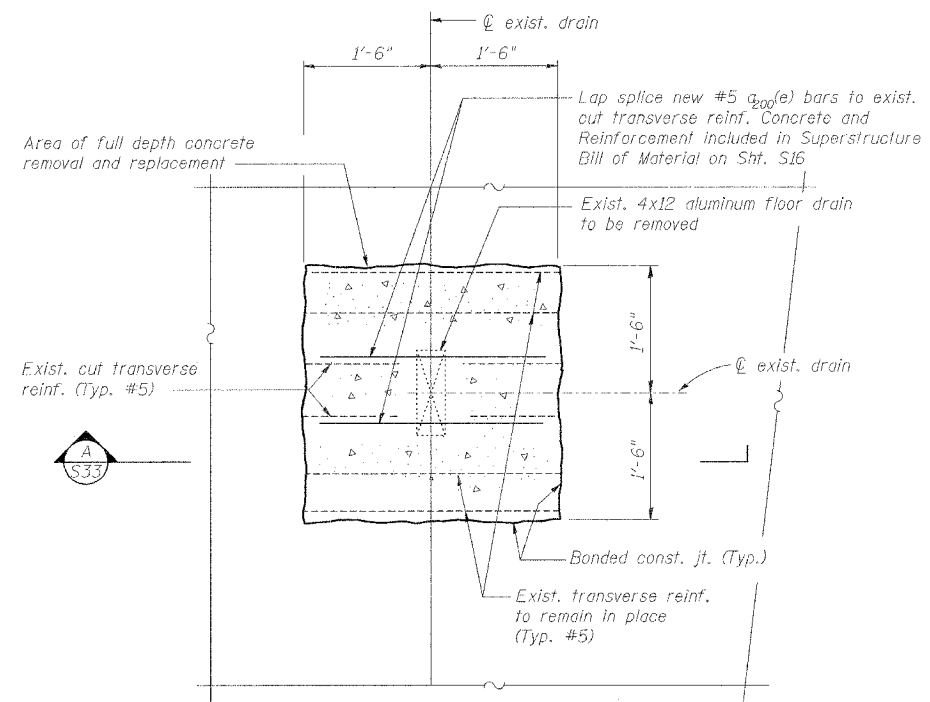
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0142 (RAMP 5)
SCALE:
DATE: 02/28/2006

DATE: 4/9/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab_dsl\rampd\join_d-join04.dgn

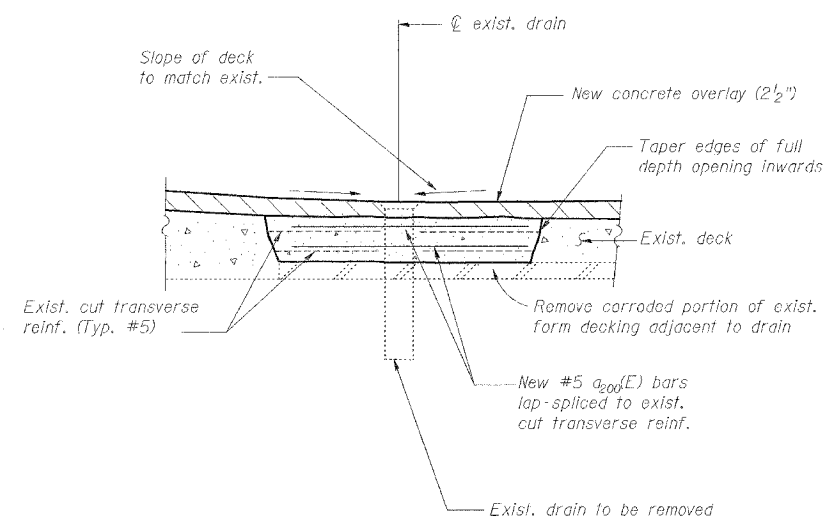
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	56
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-3 SHEET S-33 OF S-44
 CONTRACT NO. 76305



1 ELIMINATION OF EXISTING DRAIN
 S33



SECTION A

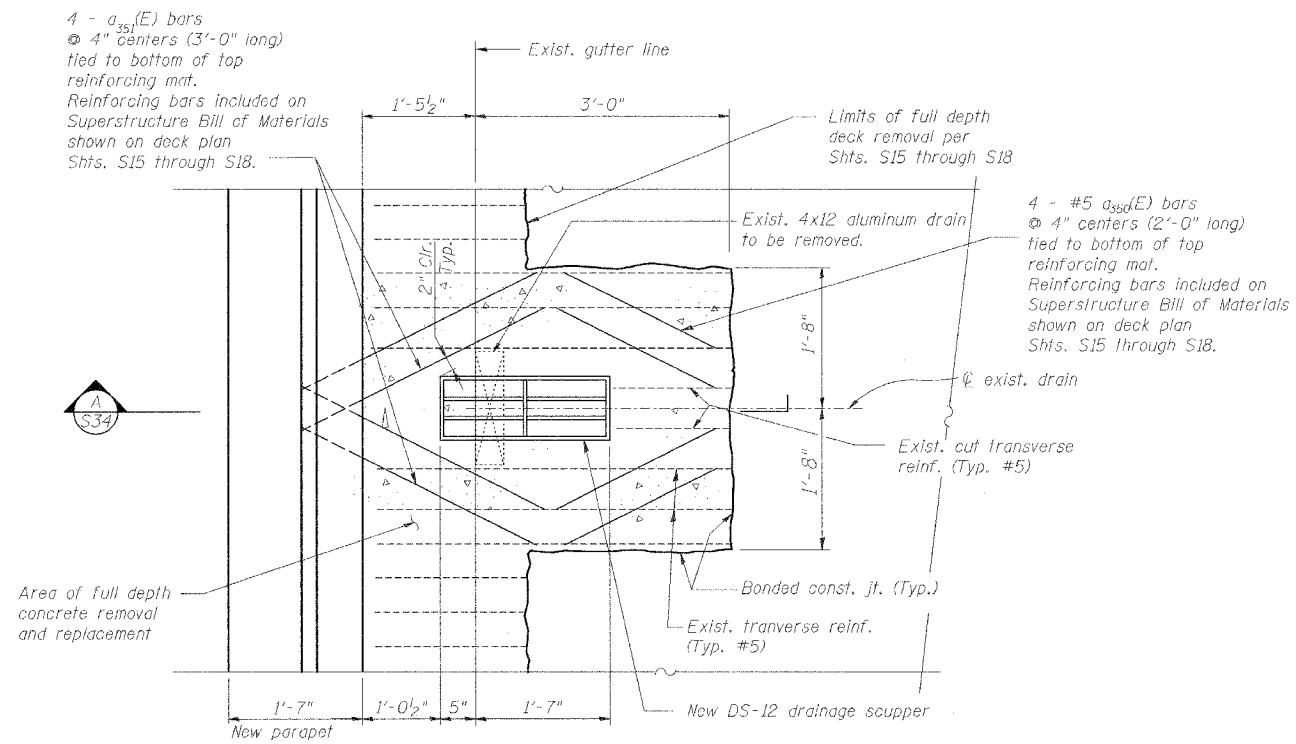
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REVISIONS	
NAME	DATE

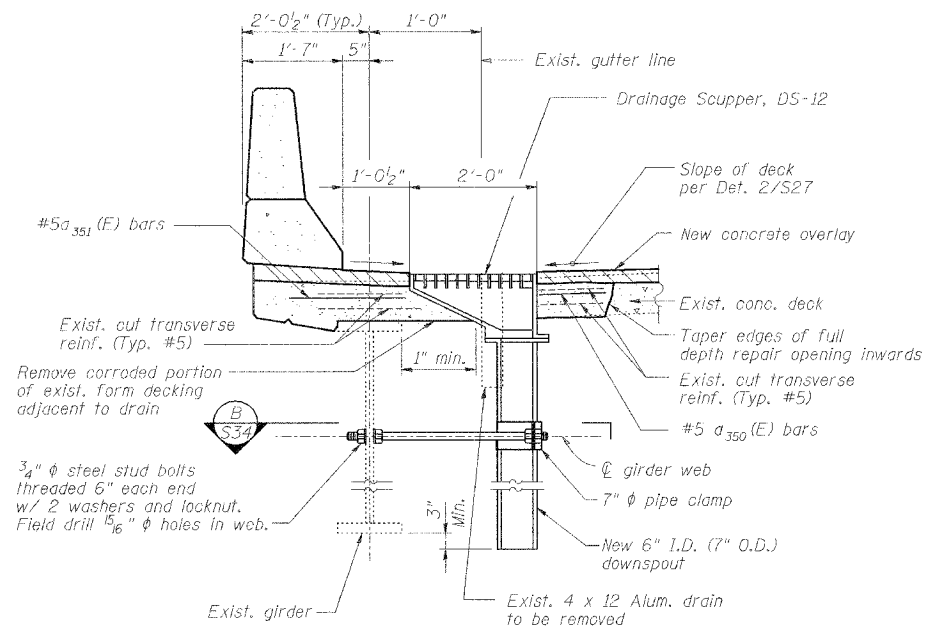
TYPICAL DRAINAGE DETAILS
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0142 (RAMP S)
 SCALE:
 DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	57
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-78		
* 82-3HVB-3R-3			SHEET S-34 OF S-44	
CONTRACT NO. 76305				

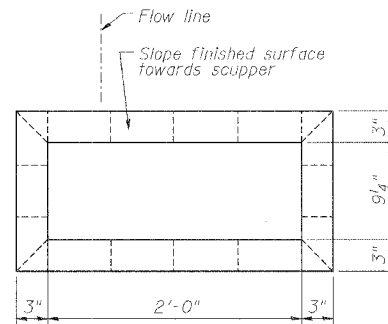


1 NEW DRAINAGE SCUPPER
S34

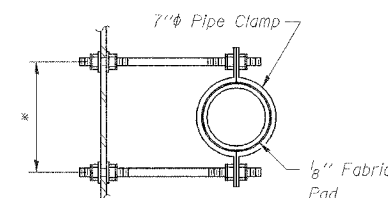
Note:
Exist. and new longitudinal reinforcement not shown for clarity. Cut exist. longitudinal reinforcement as necessary to clear new scupper.



SECTION A



TOP PLAN



SECTION B

* Dimension as required by Pipe Clamp

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

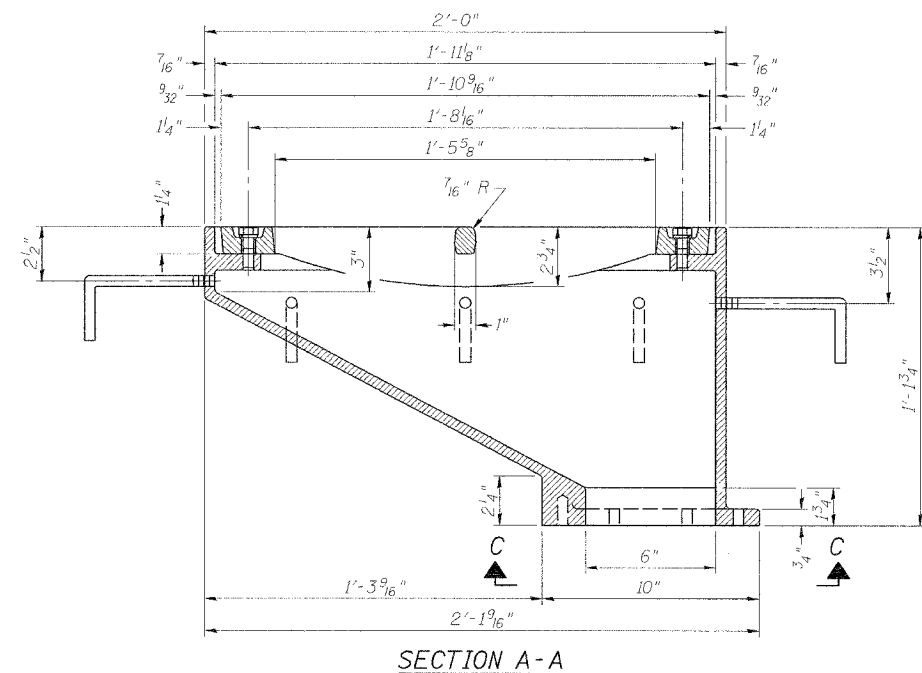
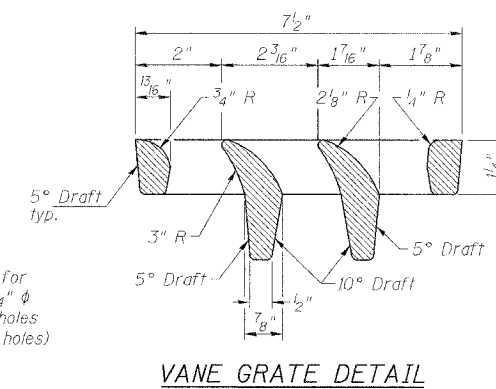
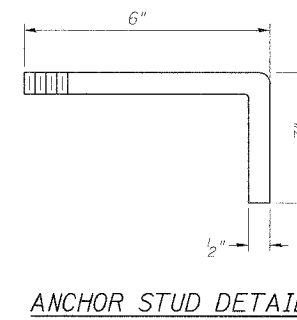
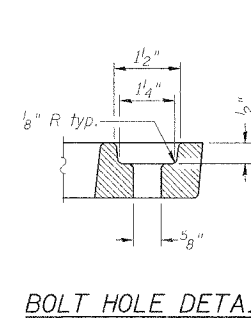
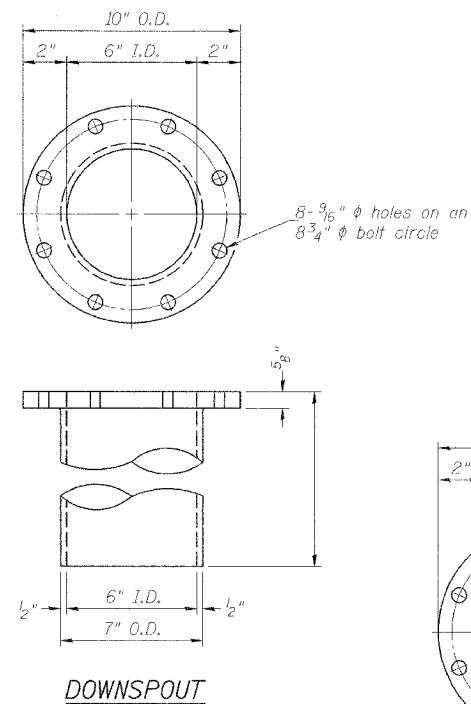
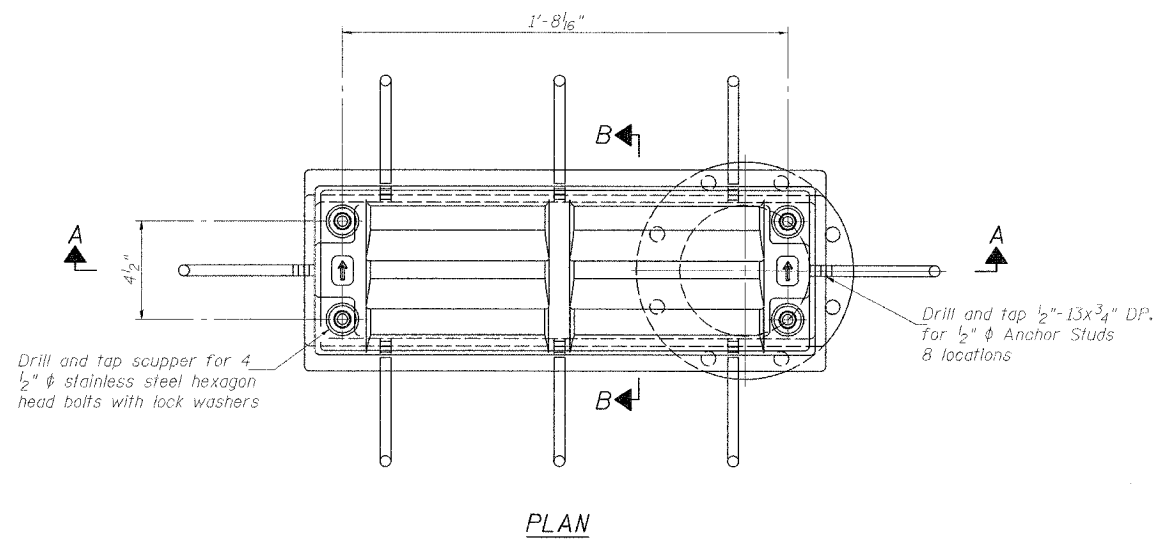
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\200112140\drafting\roadway\rehab\ds\parapet\drain\drain02.dgn

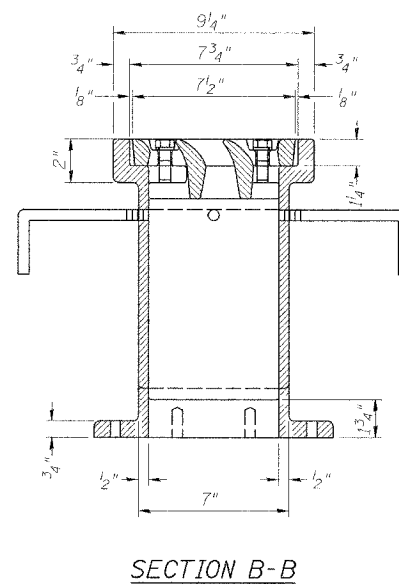
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CHECKED	CSD
DRAWN	CLK
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	58
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IM-70		

* B2-3HV8-3R-3 SHEET S-35 OF S-44
CONTRACT NO. 76305



See Sht. S34 for scupper location relative to parapet.



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	
NAME	DATE

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

STRUCTURE NO. 082-0142 (RAMP S)

SCALE:

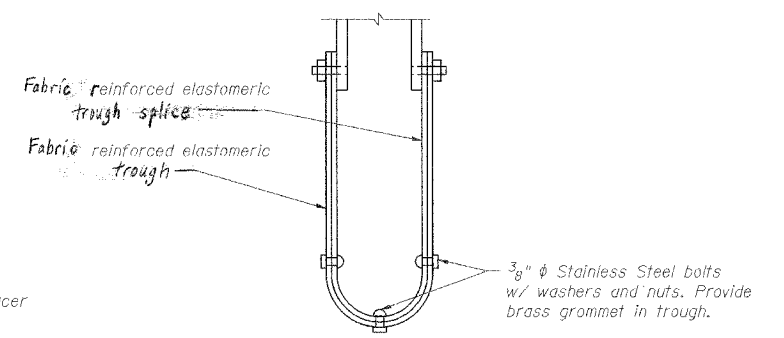
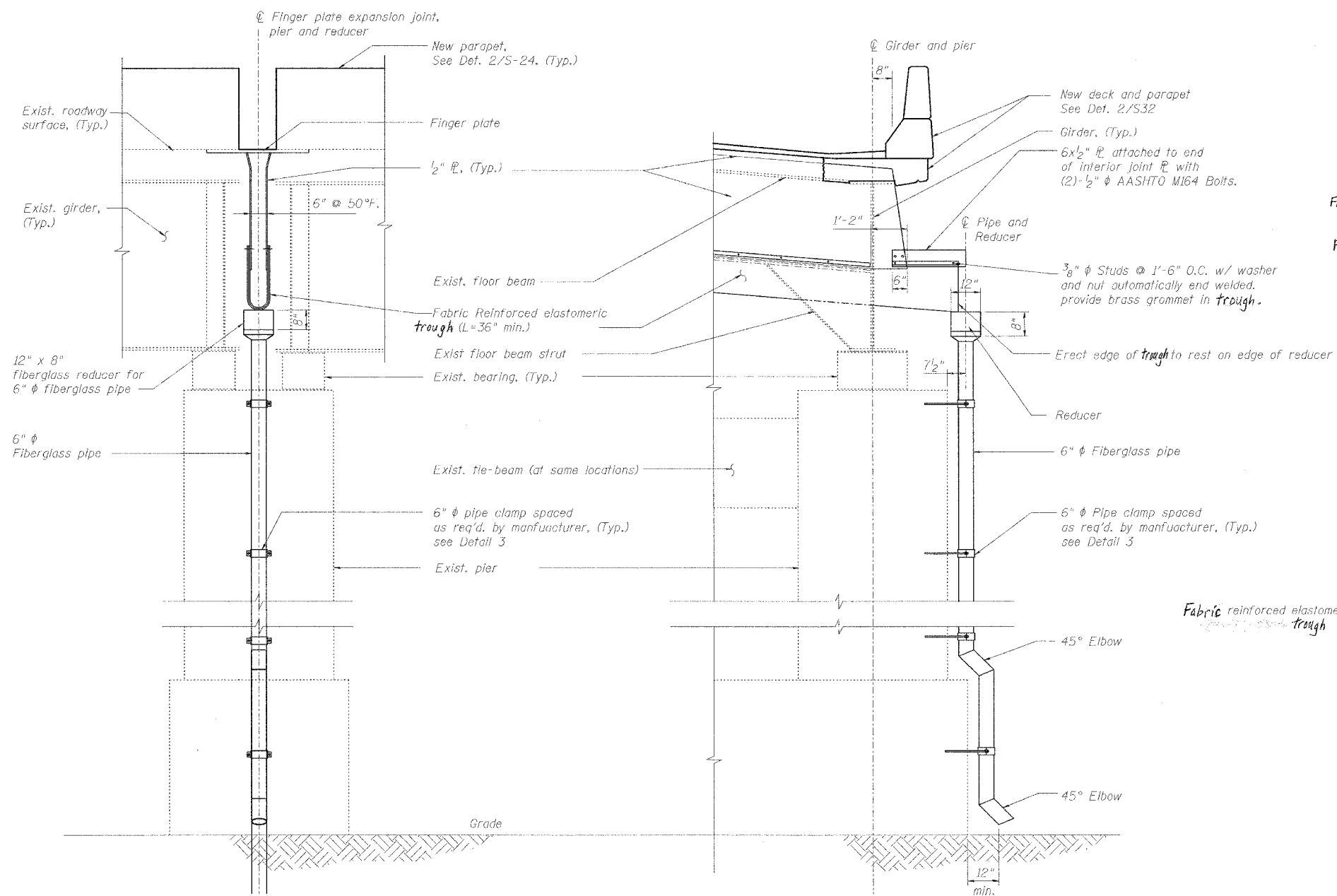
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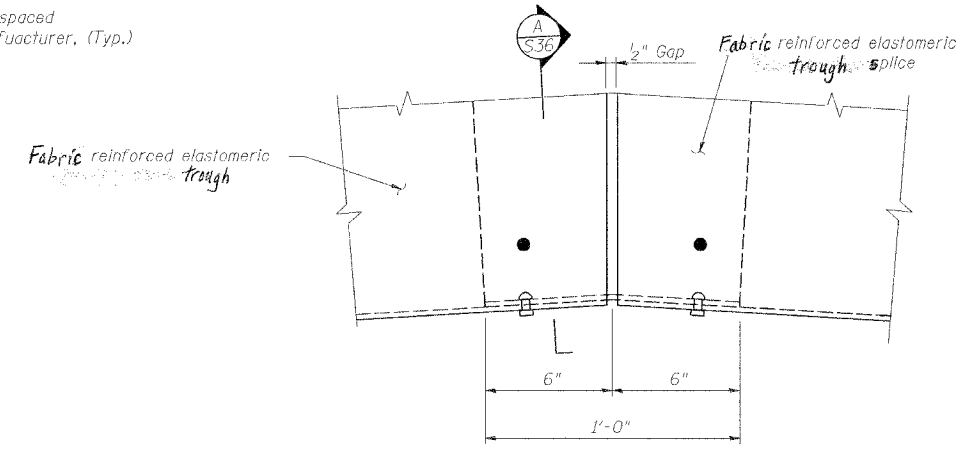
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	59
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 114-70		

* 82-3HVR-3R-3 SHEET S-36 OF S-44
CONTRACT NO. 76305



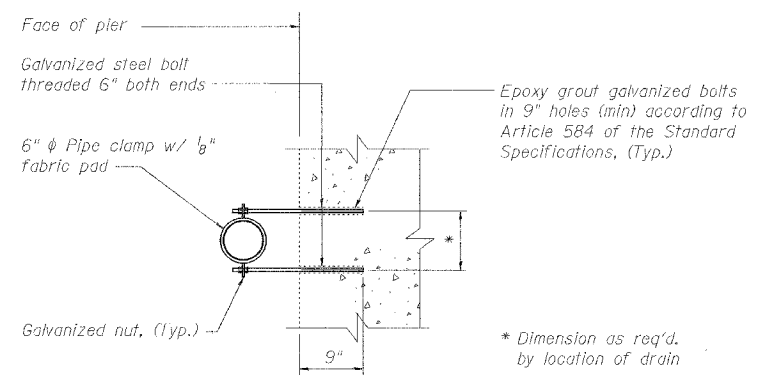
SECTION A-A



4 TROUGH SPLICE DETAIL

1 FINGER JOINT MAT DRAINAGE DETAIL - END VIEW

2 FINGER JOINT MAT DRAINAGE DETAIL - ELEVATION



3 PIPE CLAMP DETAIL

- 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.
 - Fiberglass drainage system is included in the Bill of Materials on Sht. S31.

SPECIAL DRAINAGE DETAILS

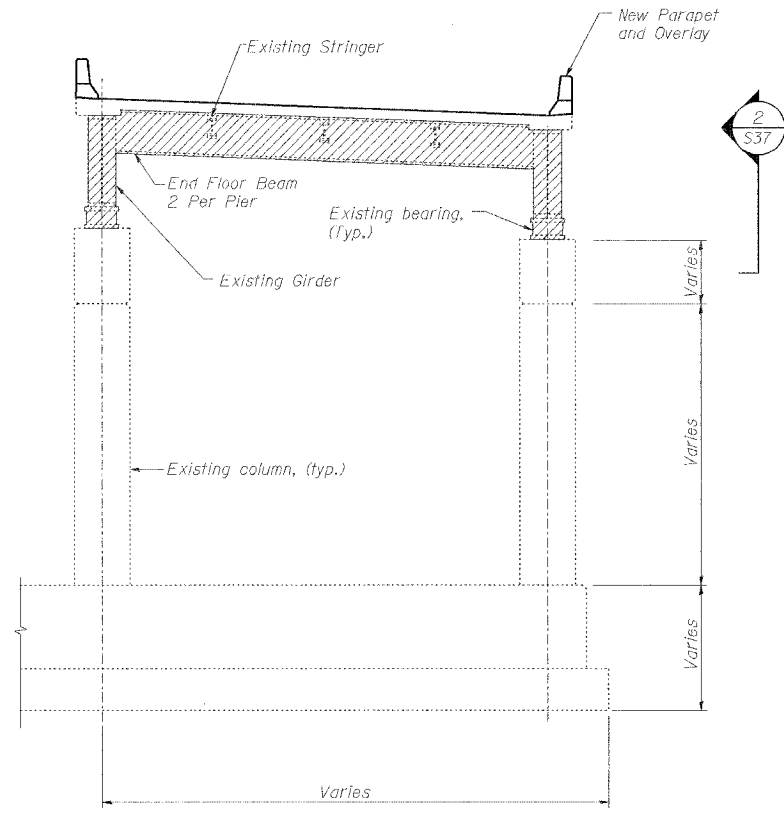
REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0144 (ROADWAY D) SCALE: N.T.S. DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.12.40\drafting\roadwayrehab_de\parapet\drain\drai04.dgn

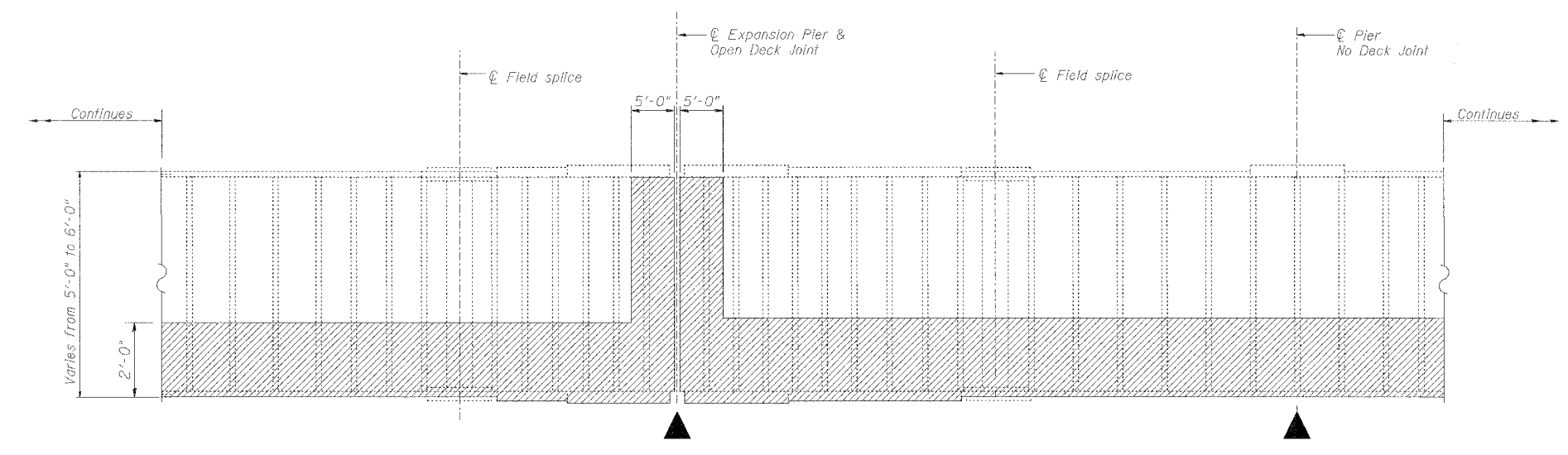
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	60
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 15-78		

* 82-3HVB-3R-3 SHEET S-37 OF S-44
CONTRACT NO. 76305



1 S37 ELEVATION AT TYPICAL EXPANSION PIER



2 S37 ELEVATION OF TYPICAL GIRDER
N.T.S.

Legends:
Extent of area to be Cleaned and Painted
See Notes 1 thru 5

Span (Pier to Pier)	Girder	Location*	Bolts
D27 - D28	D1	FB Connection	2
D33 - D34	D2	Btwn. FB3 & FB4	8
D34 - D35	D2	Btwn. FB1 & FB2	4
D36 - D37	D1	Btwn. FB3 & FB4	12
D36 - D37	D2	Btwn. FB3 & FB4	2
D38 - D39	D1	Btwn. FB3 & FB4	6
D38 - D39	D2	Btwn. FB3 & FB4	10
D40 - D41	D1	Btwn. FB2 & FB3	4
D40 - D41	D2	Btwn. FB2 & FB3	4
D41 - D42	D1	Btwn. FB3 & FB4	8
D42 - D43	D1	Btwn. FB1 & FB2	12

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	72

- 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 Paint Cleaning Residues."
 - Area to be cleaned and painted as indicated above extends from Pier D26 to Pier D46.

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.
*Floor beams are numbered starting with "FB0" at lower numbered pier listed

NAME	DATE

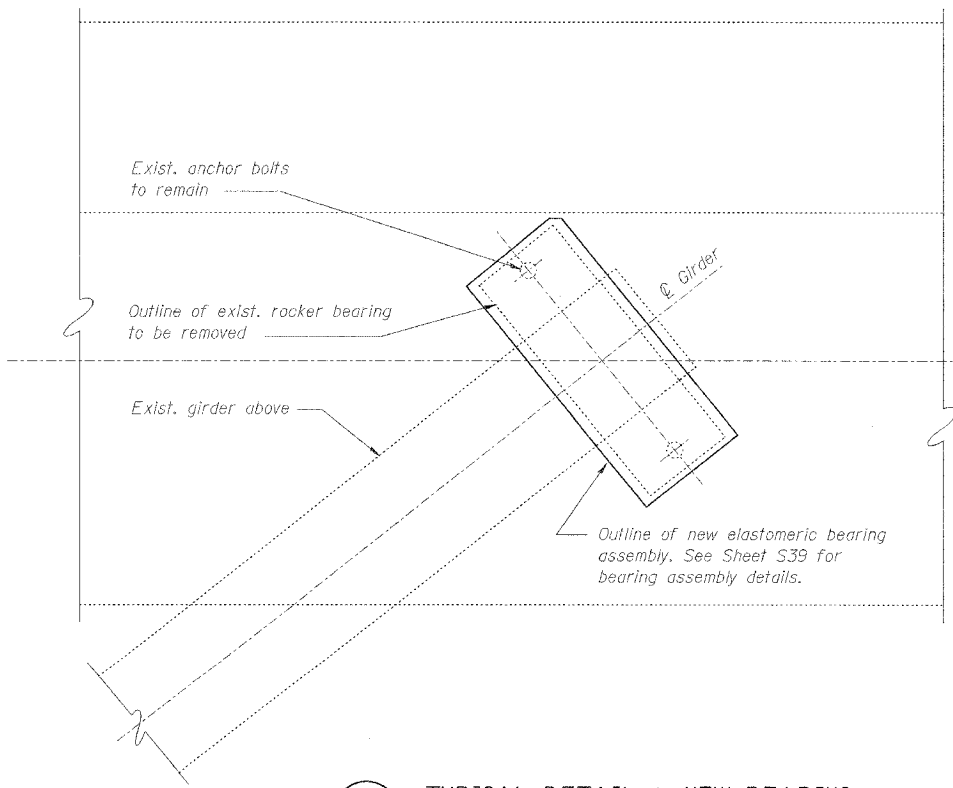
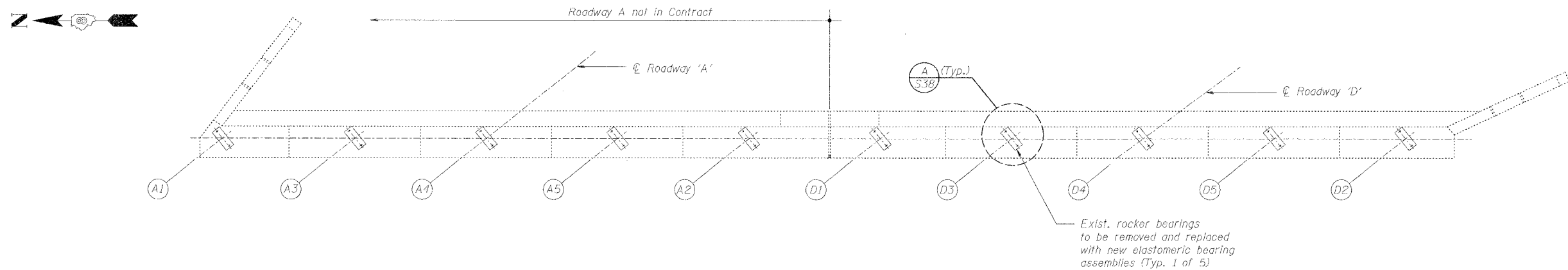
CLEANING AND PAINTING STRUCTURAL STEEL
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0142 (RAMP S1)
SCALE:
DATE: 02/28/2006

DATE: 4/9/2006
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DESIGNED	JEL
CHECKED	JPD
DRAWN	IMG
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	61
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-70		

• 02-3HVB-3R-3 SHEET 9-38 OF S-44
CONTRACT NO. 76305



BILL OF MATERIAL - BEARINGS @ D46

Item	Unit	Quantity
Jack and remove existing bearings	Ea.	5
Elastomeric bearing assembly, Type 1	Ea.	5

**BEARING REACTION TABLE
ABUTMENT D46**

Load*	Stringers D1-D5
R _D (K)	45
R _L (K)	29
Imp. (K)	9
R (Total) (K)	74

*Gravity Service Loads
* Minimum jack size: 70 Ton

REVISIONS	
NAME	DATE

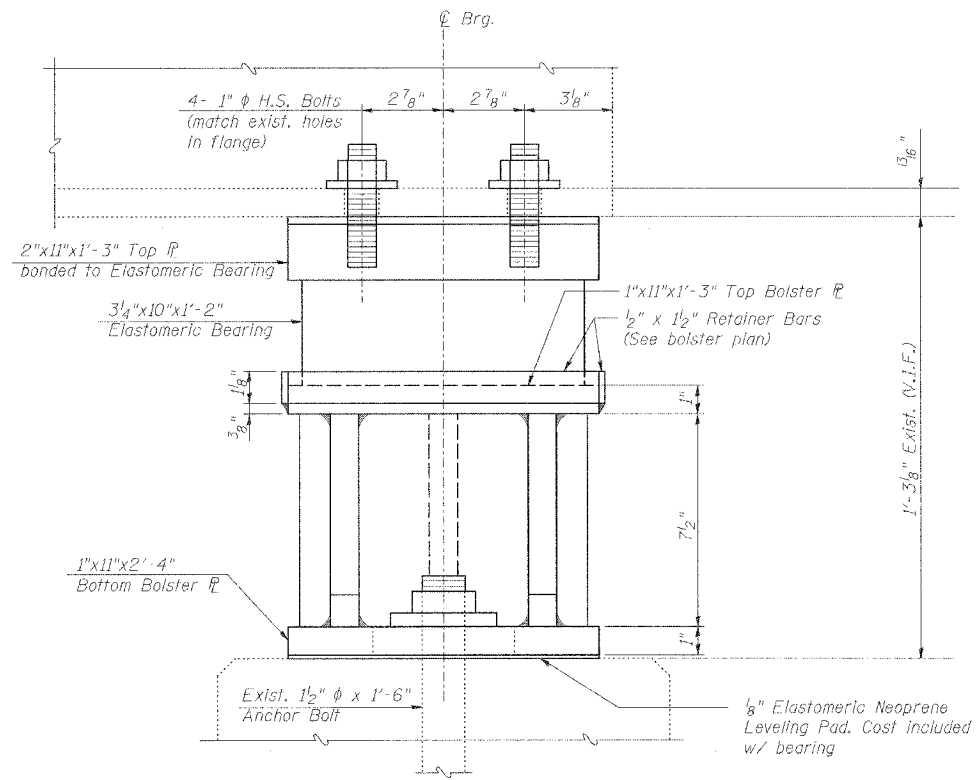
BEARING REPLACEMENT DETAILS

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

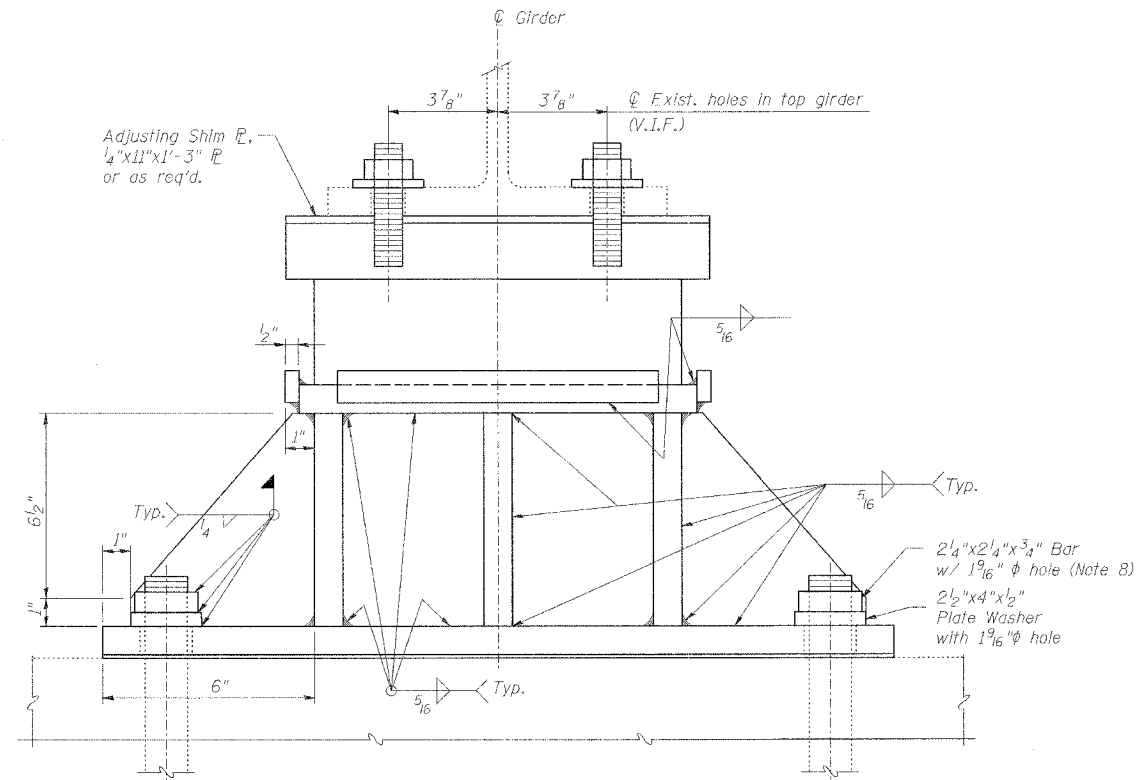
STRUCTURE NO. 082-0144 (ROADWAY 'D')
SCALE: N.T.S.
DATE: 02/28/2006

DATE: 4/19/2006
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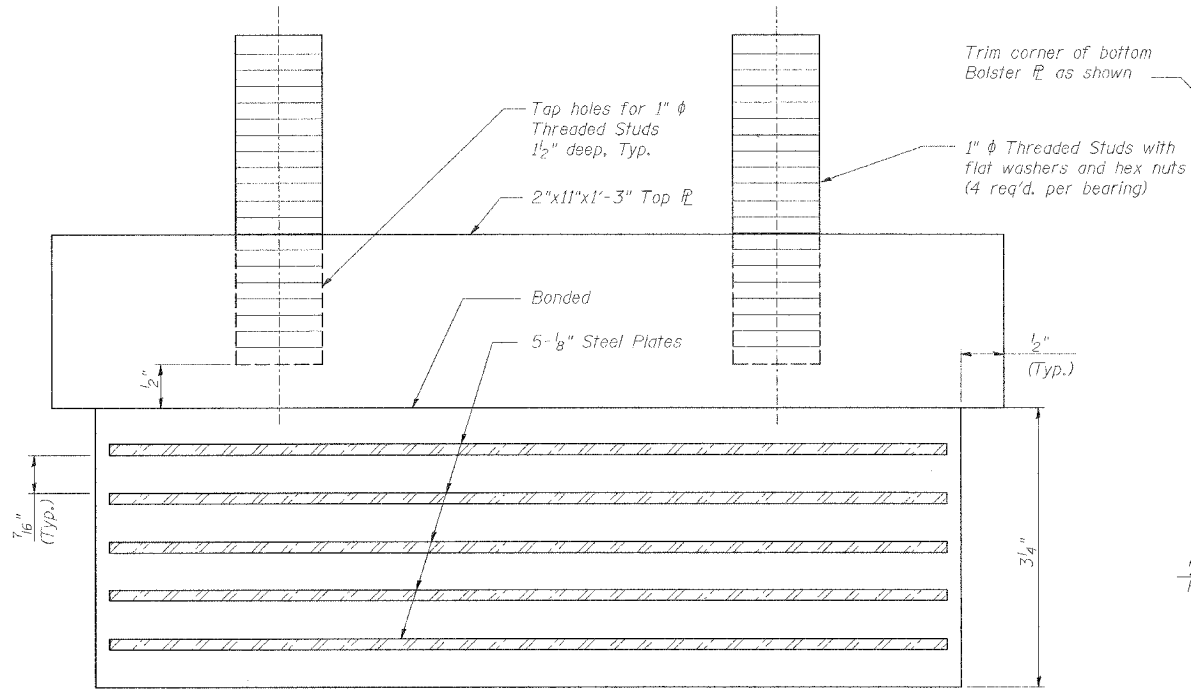
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CHECKED	JEL
DRAWN	CLK
CHECKED	APJ



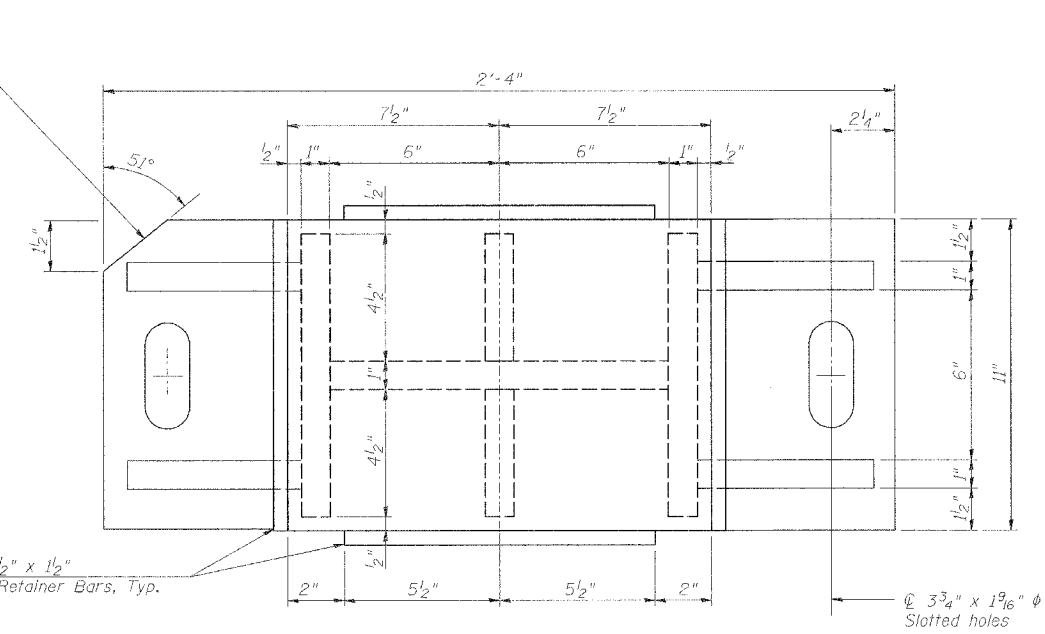
1 BEARING ELEVATION
S39



2 BEARING ELEVATION
S39



3 ELASTOMERIC BEARING DETAIL
S39 (Type 1)



4 BOLSTER PLAN
S39

- Notes:**
- Bearings to be replaced are 5 exist. Rocker Bearings at D46.
 - Exist. anchor bolts to be reused. Regrout in place where necessary.
 - Air temperature at time of setting the Elastomeric Bearing shall not be lower than 35° or higher than 65°F.
 - Area between Retainer Bars and Elastomeric Bearing to be filled with sealer 1" thick, sloped to drain. (Elastomeric Polymer Type Sealer)
 - The cost of the 2" Top Plate is included in the unit bid for "Elastomeric Bearing, Type I".
 - Shoring shall be included with bearing replacement.
 - Exist. anchor bolts shall be cut off 1/2" above the 3/4" bar.
 - May use standard nut if full engagement of threads is achieved.

BEARING DETAILS

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

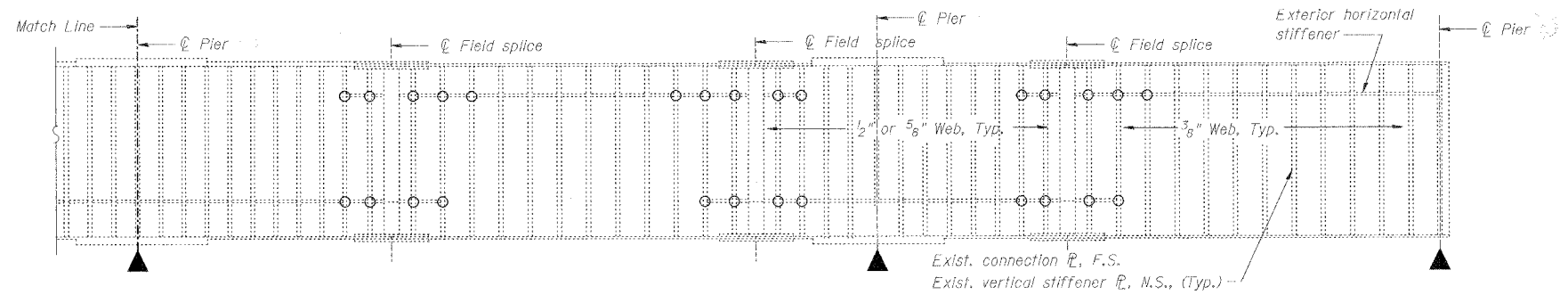
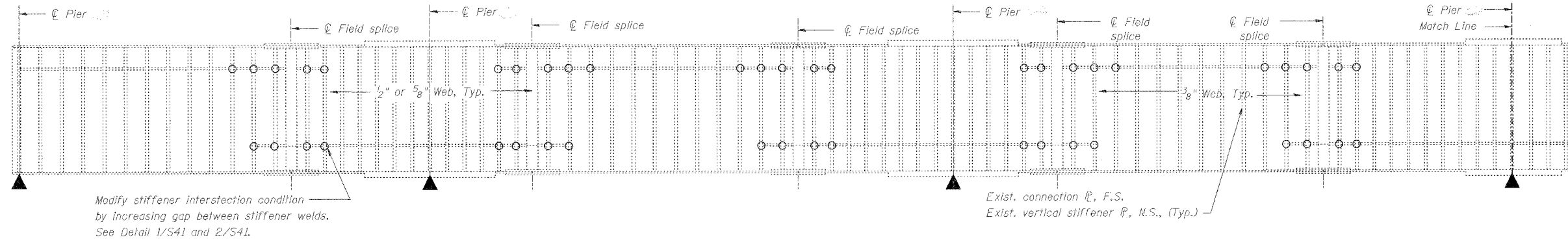
STRUCTURE NO. 082-0144 (ROADWAY D)
SCALE: N.T.S.
DATE: 02/28/2006

REVISIONS	
NAME	DATE

DATE: 4/19/2006
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CHECKED	JEL
DRAWN	CLK
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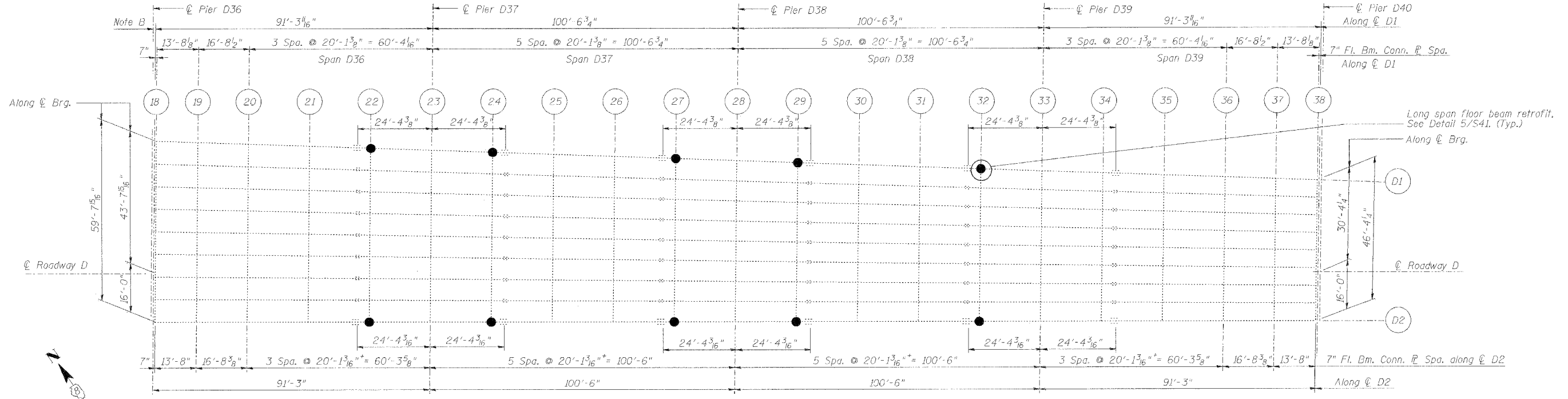
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	63
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		
* 82-3HVB-3R-3			SHEET S-40 OF S-44	
CONTRACT NO. 76305				



BILL OF MATERIAL		
ITEM	UNIT	QUANTITY
Stiffener intersection modification	Ea.	432
Long span floor beam retrofit	Ea.	10
Crack Extension Modifications	Ea.	20

1
S40 GIRDER 2 ELEVATION INDICATING TYPICAL FATIGUE RETROFIT LOCATIONS FOR FIVE-SPAN CONTINUOUS UNIT
GIRDER 1 - OPPOSITE HAND

Note A: Fatigue retrofit locations also apply to two, three, and four-span continuous units.



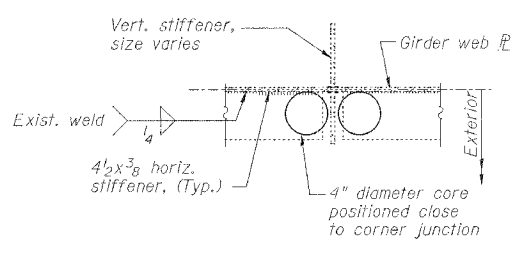
Note B: Dimensions shown are along length of girder

2
S40 FRAMING PLAN OF SPANS D36 - D39
SHOWING LONG SPAN FLOOR BEAM RETROFIT LOCATIONS

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. 082-0144 (ROADWAY D)
SCALE: N.T.S.
DATE: 02/28/2006

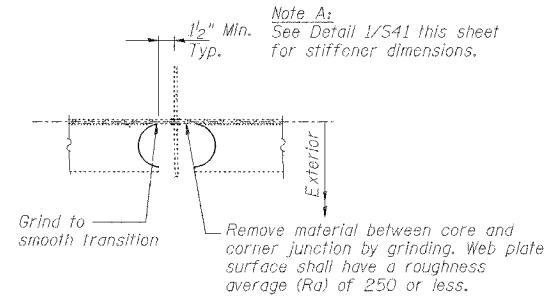
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CHECKED: JCM
DRAWN: CLK
CHECKED: DDC



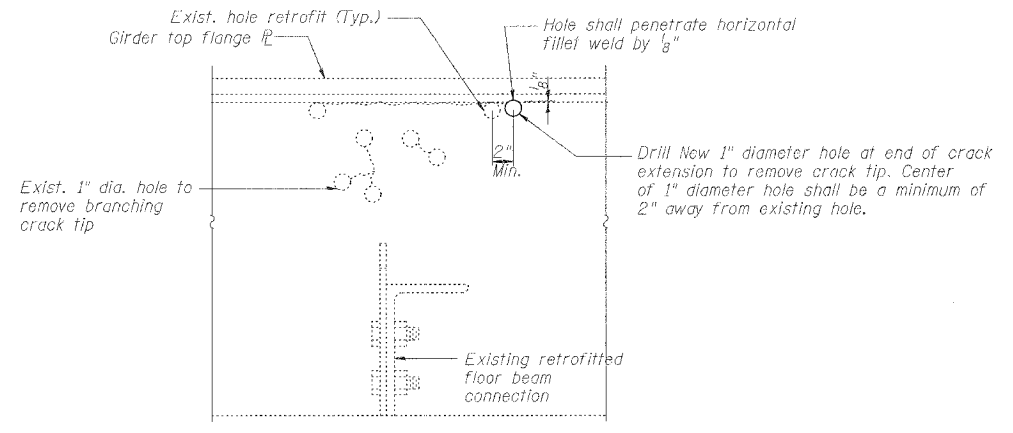
1
S41
STIFFENER INTERSECTION MODIFICATION DETAIL

Procedure - Detail 1/S41 and 2/S41:

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/S41. 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
S41
STIFFENER INTERSECTION MODIFICATION DETAIL

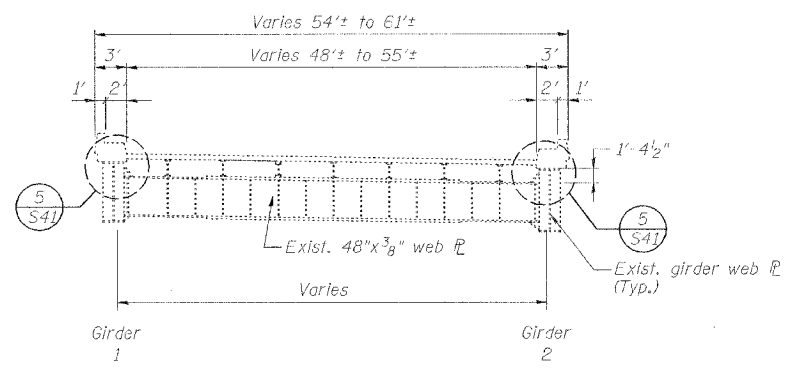


3
S41
CRACK EXTENSION RETROFIT AT FIRST INTERIOR FLOOR BEAMS

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

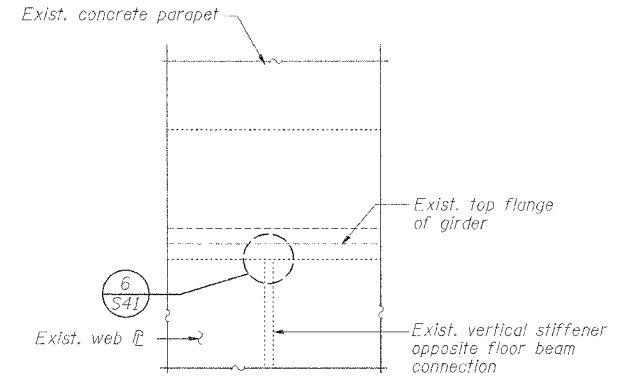
Procedure - Detail 3/S41:

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/S41.
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.

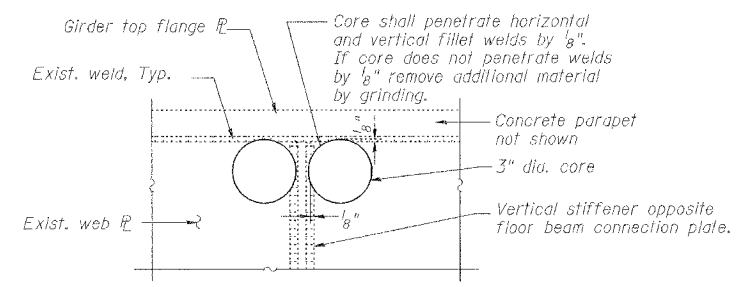


4
S41
LONG SPAN FLOOR BEAMS (> 50')

Note B: Two repair locations shown



5
S41
EXTERIOR ELEVATION OF GIRDER AT FLOOR BEAM CONNECTION



Procedure - Detail 6/S41:

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/S41. 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
S41
LONG SPAN FLOOR BEAM RETROFIT

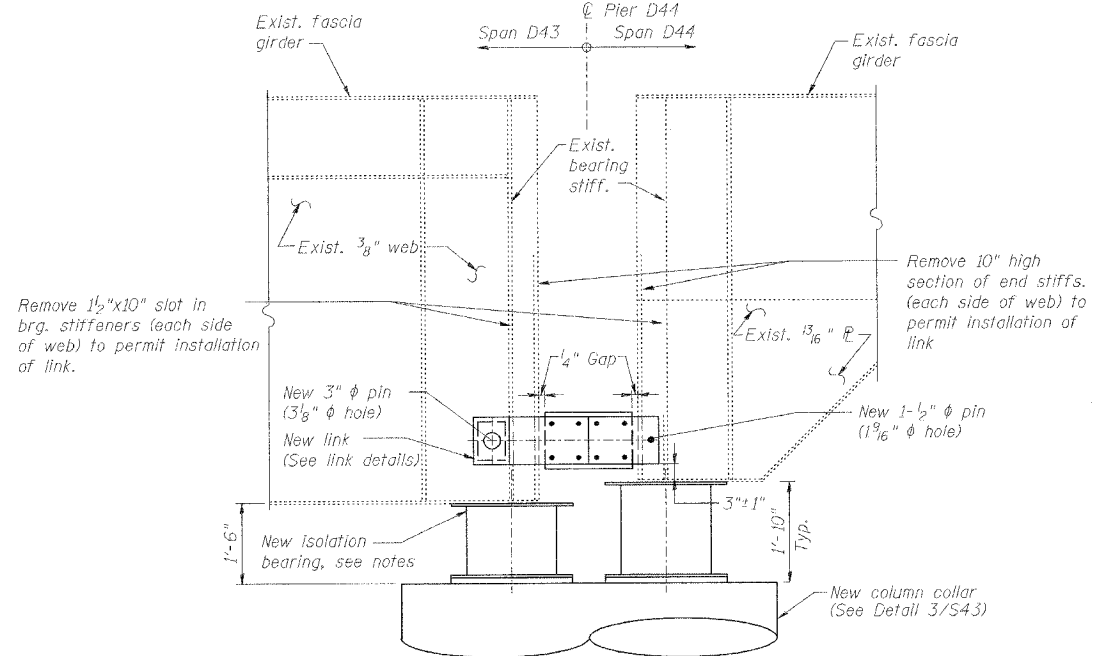
Note C: One repair location shown

DATE: 4/19/2006 FILENAME: P:\2001\2001-1300\2001.1240\drafting\roadwayrehab.dwg rampd\fatigue\4-fat02.dwg

DESIGNED	DDC
CHECKED	JCM
DRAWN	CLK
CHECKED	DDC

REVISIONS	
NAME	DATE

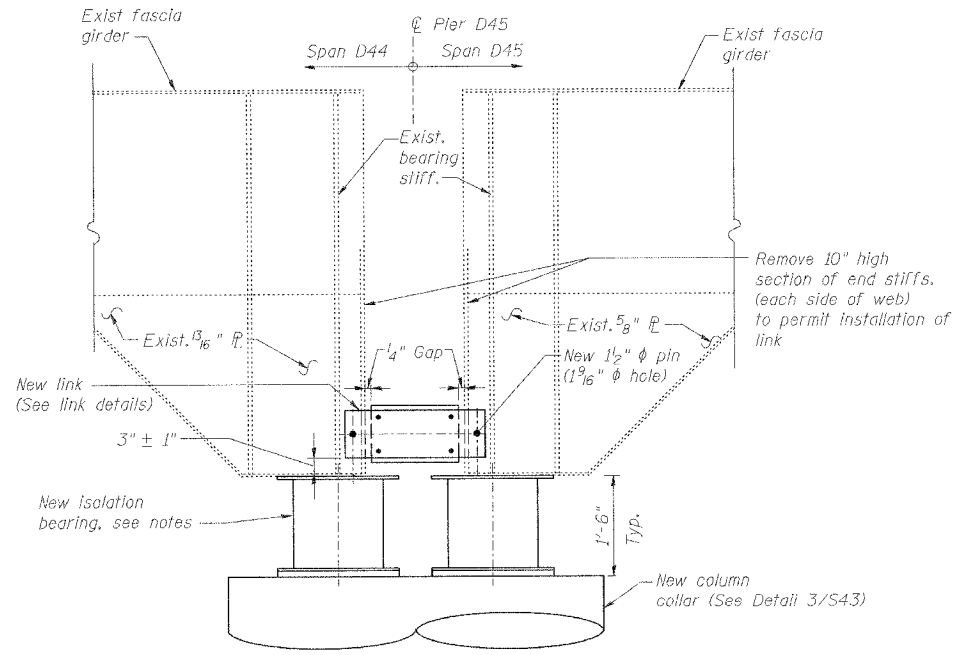
FATIGUE RETROFIT DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0144 (ROADWAY D)
SCALE: N.T.S.
DATE: 02/28/2006



1
S42
DETAIL - LINKS AND BEARINGS

Notes:

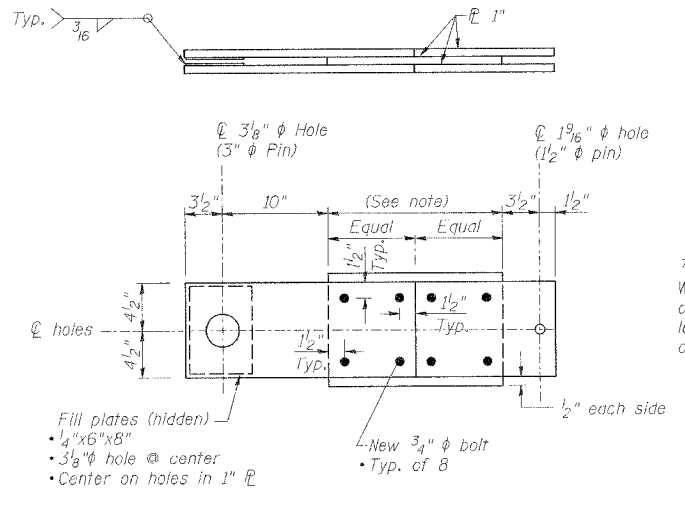
- Center bearings on existing bearing stiffeners.
- Design of bearings, connections to girders and columns, and any pedestals, fill plates, or other items needed to satisfy the bearing performance requirement given in the special provisions, is the responsibility of the contractor.
- For additional requirements, See Sheet S-44



2
S42
DETAIL - LINKS AND BEARINGS

Notes:

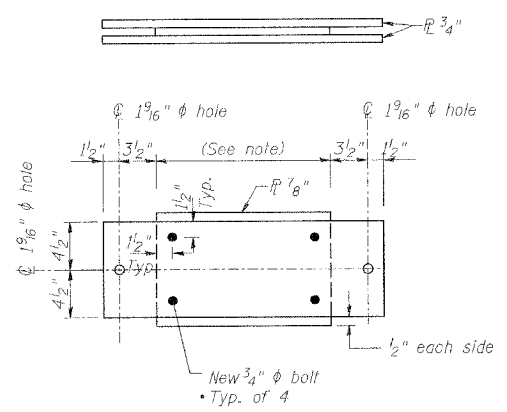
- Center bearings on existing bearing stiffeners.
- Design of bearings, connections to girders and columns, and any pedestals, fill plates, or other items needed to satisfy the bearing performance requirement given in the special provisions, is the responsibility of the contractor.
- For additional requirements, See Sheet S-44



3
S42
CONNECTOR LINK DETAIL - PIER D44

Total 2 such links

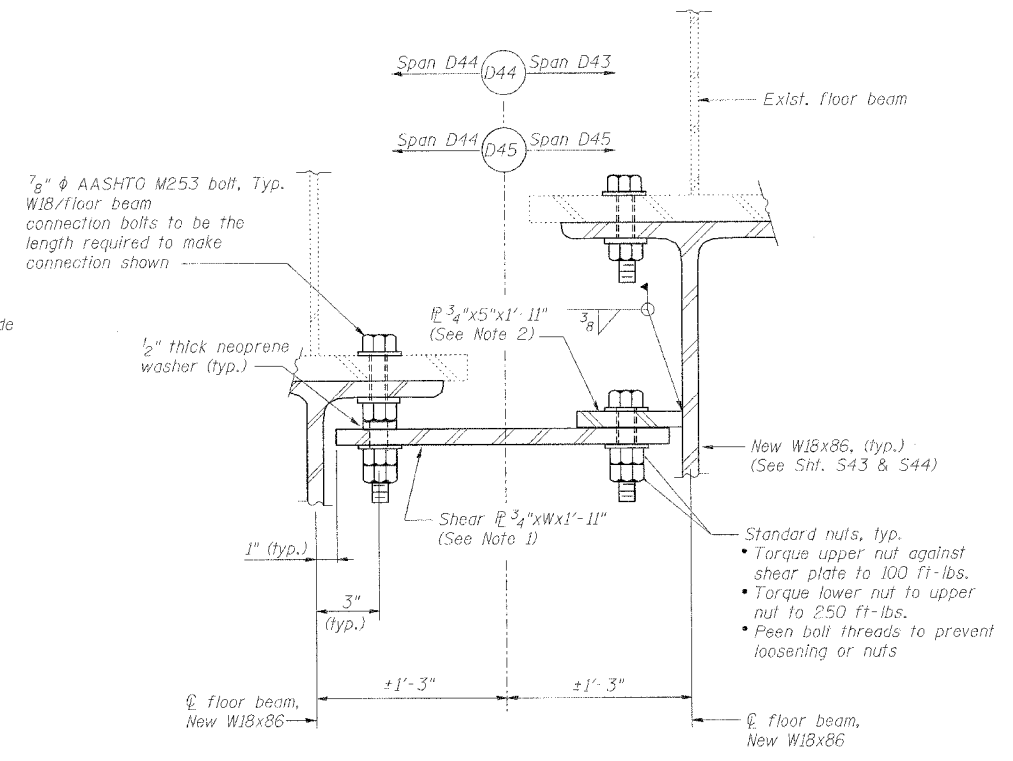
Note:
This dimension to be 1/2" less than clear distance between ends of girders at time of erection.



4
S42
CONNECTOR LINK DETAIL - PIER D45

Total 2 such links

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



5
S42
SHEAR LINK DETAILS - PIERS D44 AND D45

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" AASHTO M164 bolts @ 6" o.c., with 2" minimum edge distance on each plate.
- Three such links at Pier D44 (at least one link each side of Roadway) Two such links at Pier D45 (at least one link each side of Roadway)
- Locate link within 10' of column.

DATE: 4/19/2006 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab_dbs\randp\isol\1-d-isol01.dgn

DESIGNED	HH
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

REVISIONS	
NAME	DATE

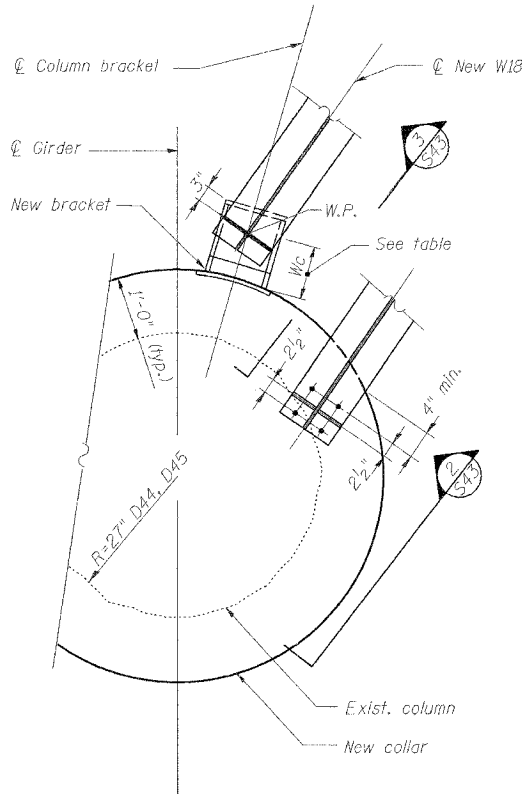
SEISMIC ISOLATION DETAILS

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

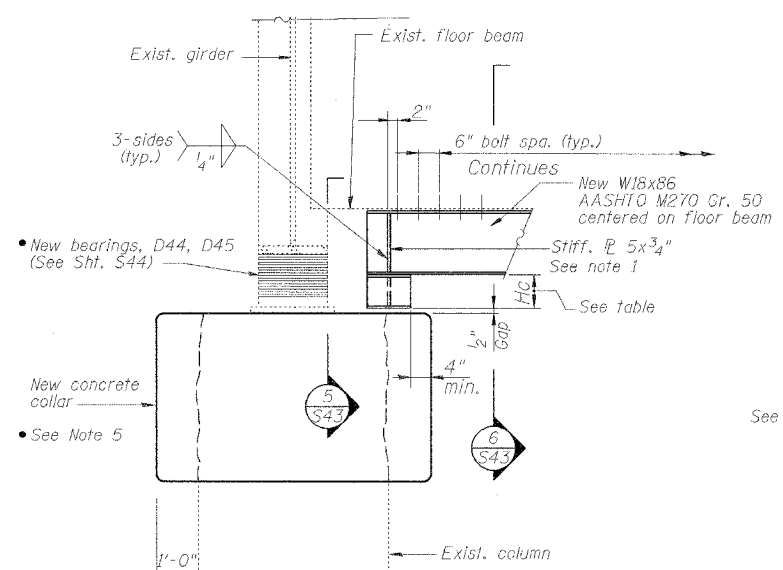
STRUCTURE NO. 082-0144 (ROADWAY D)
SCALE: N.T.S.
DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	66
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

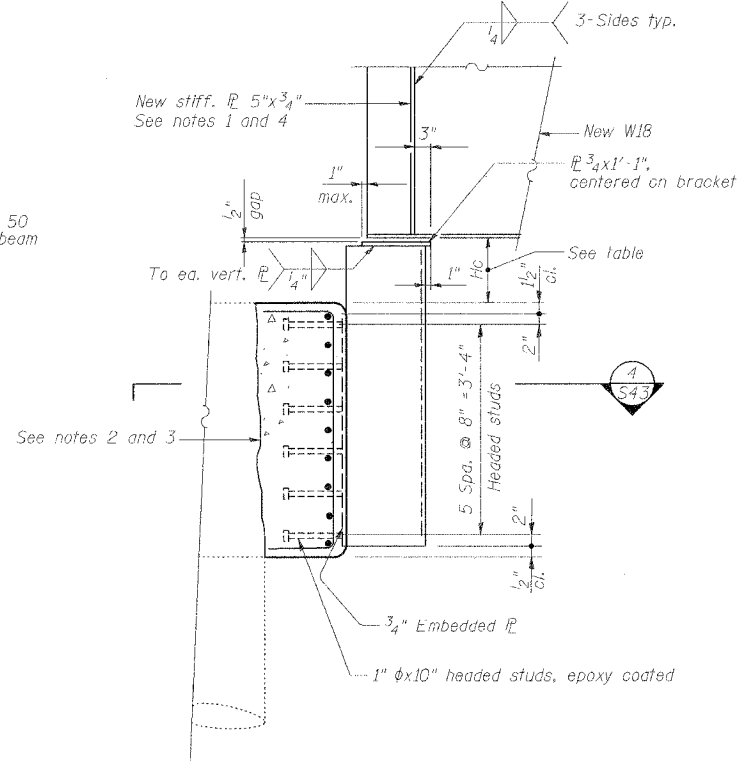
* 82-3HV8-3R-3 SHEET S-43 OF S-44
CONTRACT NO. 76305



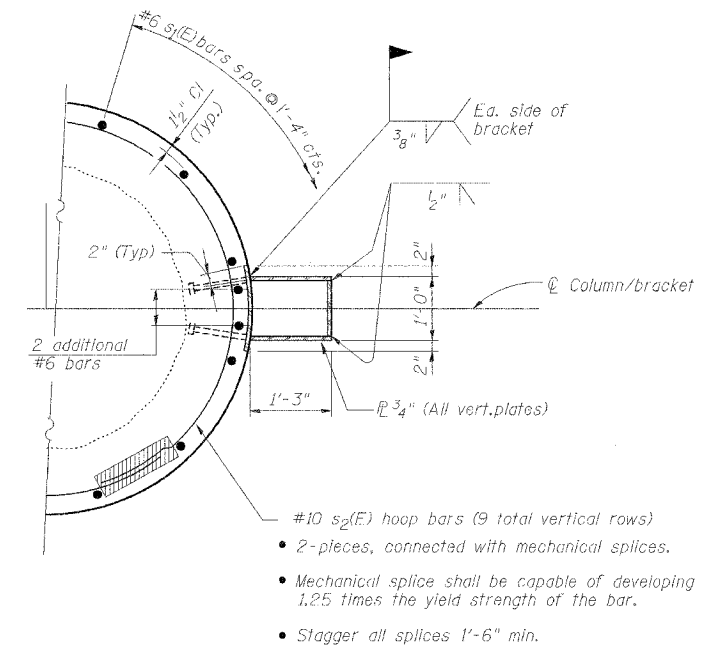
1 SECTION
S43



2 ELEVATION
S43

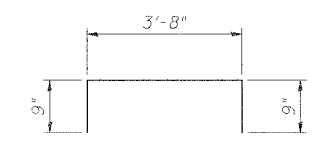


3 SECTION
S43

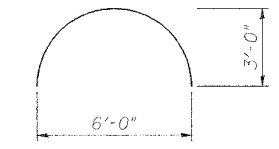


4 SECTION
S43 Reinforcing bars designated (E) shall be epoxy coated

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



Bar s1(E)



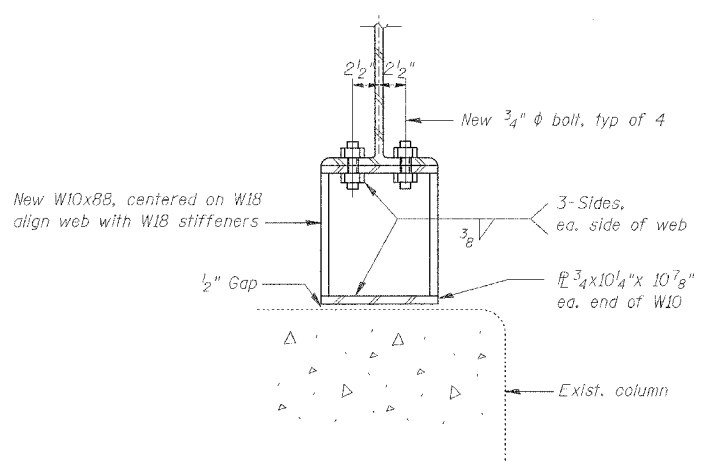
Bar s2(E)

APPROXIMATE CLEARANCES (Hc, Wc)

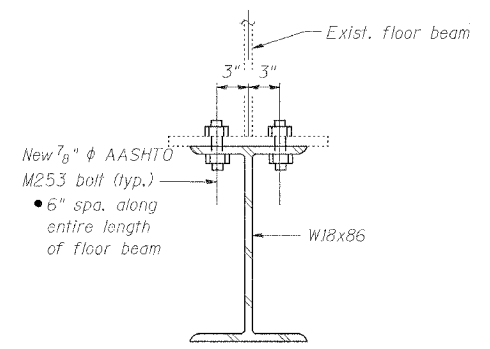
Pier	Floor Beam	Hc (in.)	Wc (in.)
D44	West	11	4
D44	East	6	5
D45	West	10	6
D45	East	15	10

Notes:
• Wc applicable only at bracket locations
• Hc applies at both ends of floor beam

- 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.



5 SECTION
S43



6 SECTION
S43

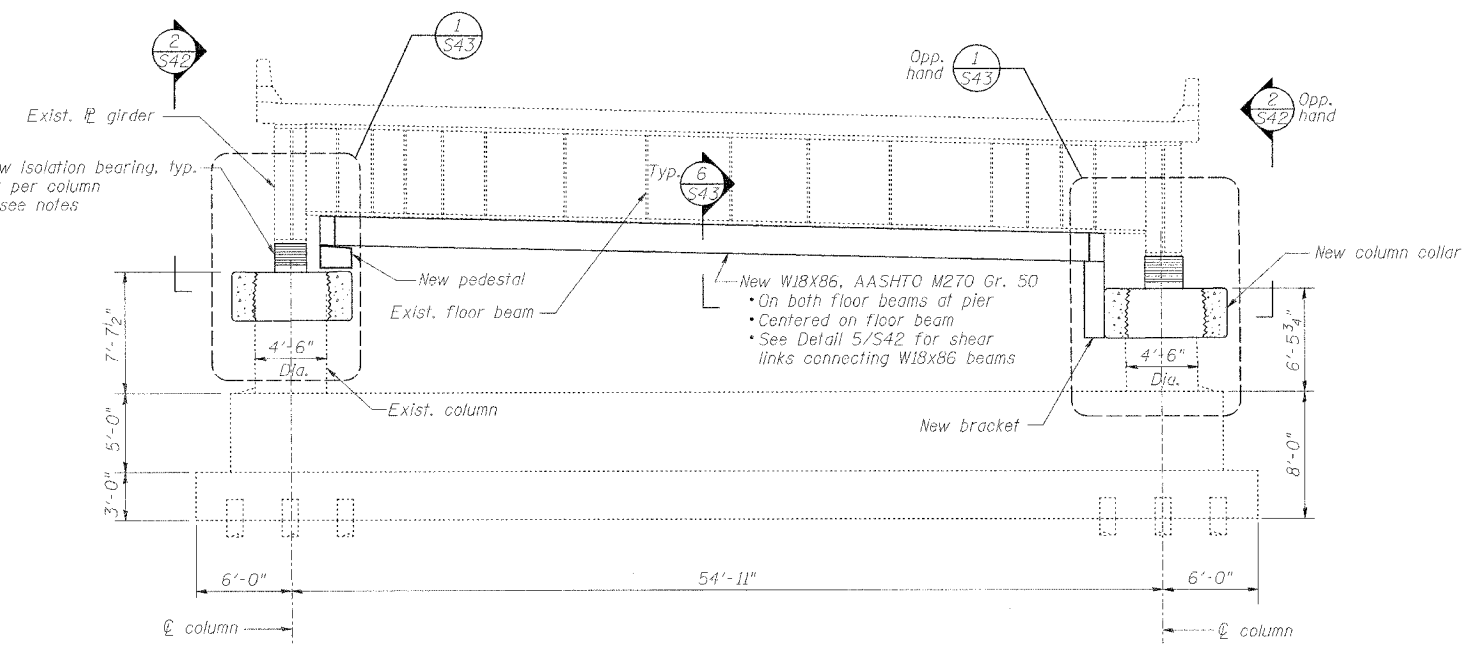
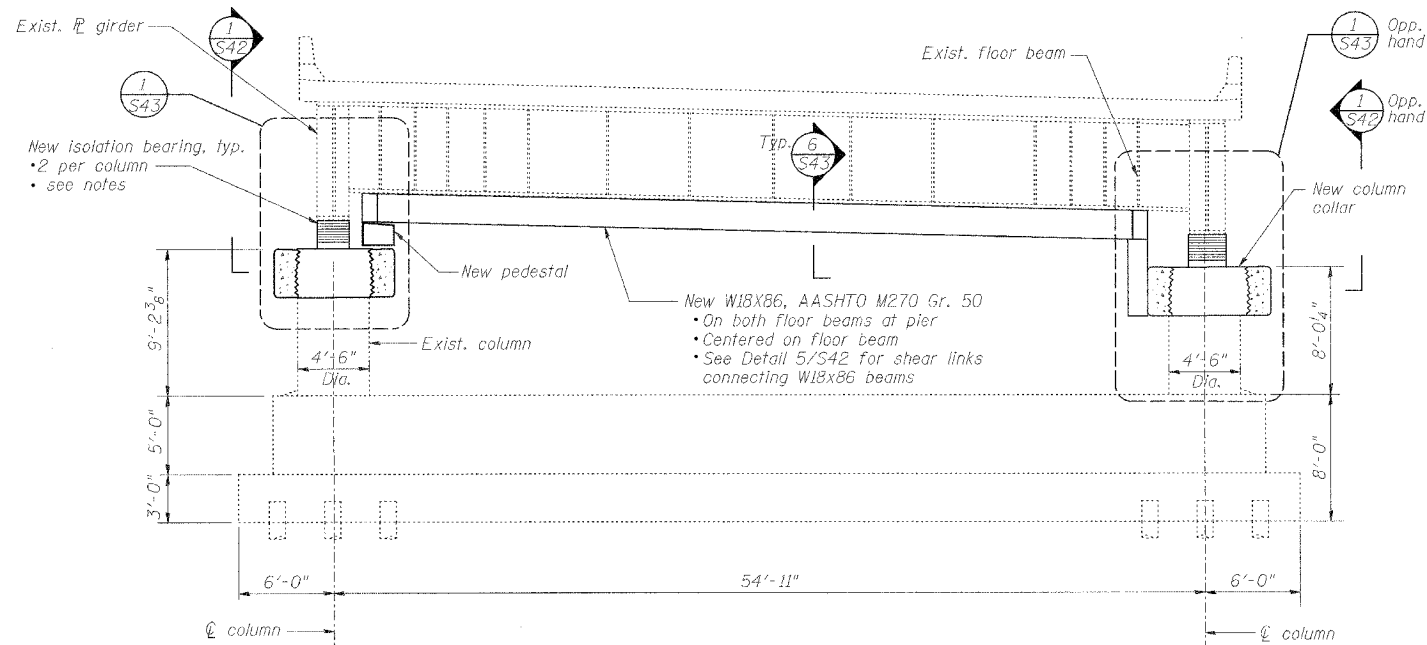
REVISIONS	
NAME	DATE

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

STRUCTURE NO. 082-0144 (ROADWAY D)
SCALE: N.T.S.
DATE: 02/28/2006

DATE: 4/9/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab_de\rampd\isof\d-redu05.dgn

DESIGNED	HH
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL



WEST ELEVATION PIER D44

WEST ELEVATION PIER D45

BEARING REACTION TABLE - PIER D44

Load*	Span D43		Span D44	
	D1	D2	D1	D2
R _Q (k)	155	183	185	185
R _± (k)	72	72	72	72
Impact (k)	18	18	17	17
Total (k)	245	273	274	274

*Gravity service loads.
Minimum jack size: 250 Tons

BEARING REACTION TABLE - PIER D45

Load*	Span D44		Span D45	
	D1	D2	D1	D2
R _Q (k)	185	185	112	112
R _± (k)	72	72	43	43
Impact (k)	17	17	12	12
Total (k)	274	274	167	167

*Gravity service loads.
Minimum jack size: 250 Tons

BILL OF MATERIAL - PIER D45

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				Each	4
Jack and remove existing bearings				Each	4
Mechanical Splice				Each	36

BILL OF MATERIAL - PIER D44					
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				Each	4
Jack and remove existing bearings				Each	4
Mechanical Splice				Each	36

ISOLATION BEARING NOTES,
PIERS D44 AND D45

- Each bearing shall be capable of sustaining service gravity load of 275 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.

PIER ELEVATIONS

REVISIONS	
NAME	DATE

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

STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	68
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-3 SHEET S-1 OF S-44
 CONTRACT NO. 76305

**SET 2 OF
2 SETS**

ENCOMPASSING THE FOLLOWING ROADWAYS

- SN-082-0142 (RAMP S)
- SN-082-0254 (ROADWAY G)

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.: 990 (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)

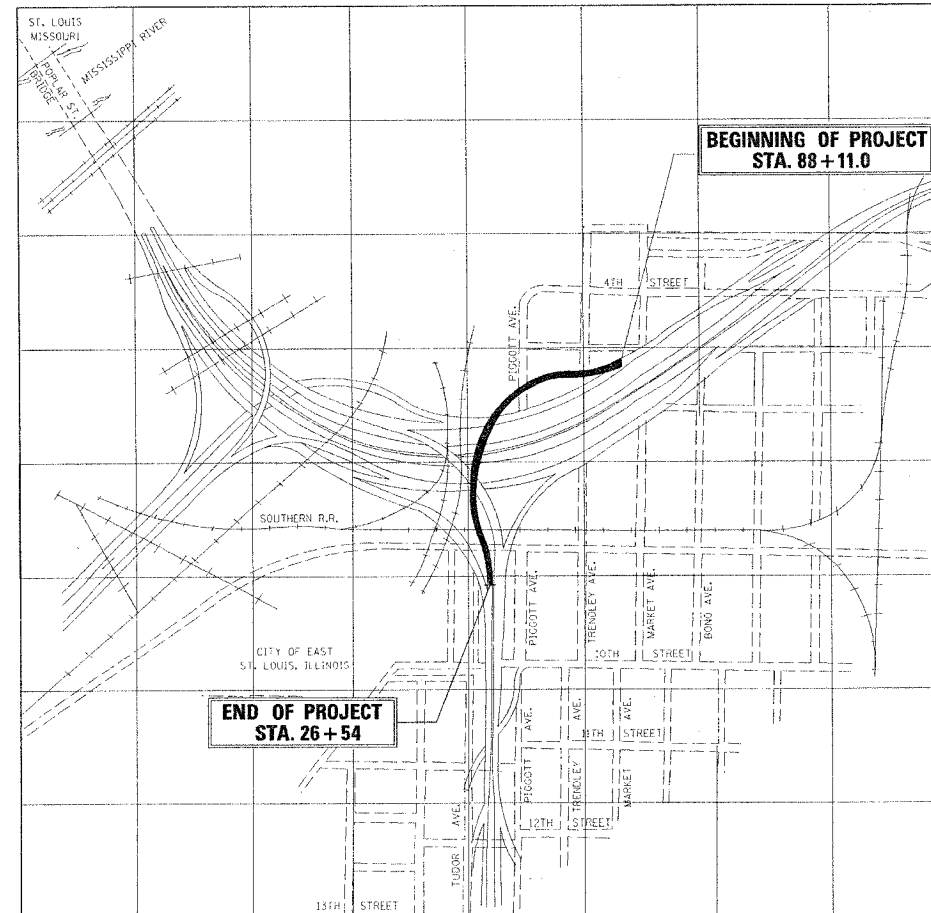
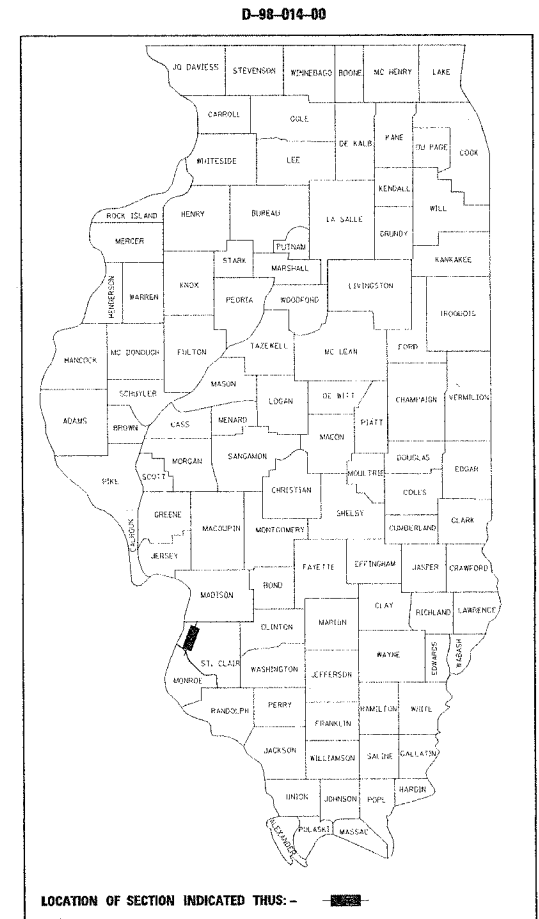
f_c = 3,500 psi
 f_y = Varies, 36,000 - 50,000 psi
 (Structural Steel)
 f_y = 60,000 psi (Reinforcement)

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

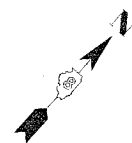
SHEET(S)	TITLE
S1	TITLE SHEET - RAMP S AND ROADWAY G
S2	GENERAL NOTES
S3	SCOPE OF WORK
S4	KEY PLAN
S5	TOTAL BILL OF MATERIAL
S6 - S8	PROJECT PLAN, ELEVATION, AND SECTIONS
S9 - S13	TABLES OF ROADWAY ELEVATIONS
S14 - S22	DECK AND PARAPET REPAIR PLANS
S23 - S31	INFRARED THERMOGRAPHIC MAPPING RESULTS
S32 - S34	CONCRETE PARAPET DETAILS
S35	CONCRETE REPAIR DETAILS
S36 - S38	EXPANSION JOINT REPAIR DETAILS
S39 - S41	DECK DRAINAGE DETAILS
S42	STEEL PAINTING DETAILS
S43	BEARING REPLACEMENT DETAILS
S44	FATIGUE RETROFIT DETAILS



LOCATION PLAN

CONTRACT NO. 76305

Howard J. Hill, Ph.D., SE
 Illinois Licensed Structural Engineer
 License No. 081-004819
 License Expires: 11/30/06



WJE MISS, JANNEY, ELSTNER ASSOCIATES, INC.
 Engineers, Architects, Material Scientists
 330 PINGSTEN ROAD
 NORTHBROOK, ILLINOIS 60062
 (847) 272-7400 FAX: (847) 291-4613

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED April 27, 2006
May Chornie
 DEPUTY DIRECTOR OF HIGHWAYS
 REGION FIVE ENGINEER

 20
 ENGINEER OF DESIGN AND ENVIRONMENT

 20
 DIRECTOR, DIVISION OF HIGHWAYS

DATE: 4/19/2006
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	69
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-70		

* 82-3HVB-3R-3 SHEET S-2 OF S-44
 CONTRACT NO. 76305

GENERAL NOTES:

- Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.

 Contractor shall be responsible for furnishing 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: 50,700 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. All bolts, threaded rods, wire rope, and hardware shall be galvanized according to IDOT galvanized bolt provisions. 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.
- Welding electrodes shall be low hydrogen E70XX, unless noted otherwise. Weld metal shall have a minimum CVM 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.
- Field welding of construction accessories will not be permitted to beams or girders.
- Roadway expansion guards shall be assembled in the proper position with the ends in place and shall be left assembled for shop inspection.
- The roadway expansion plates shall be flame cut as provided in Article 505.04(k) of the Standard Specifications.
- Expansion joint plates and attached bars shall be shop painted with the inorganic zinc rich primer.
- All construction joints shall be bonded.
- 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 acrylic finish coat shall be Interstate Green, Munsell No. 7.5 G 4/8. See Special Provision "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 loose rust, loose mill scale, and other loose potentially detrimental foreign material shall be removed from the surfaces of the beams or girders in contact with concrete. The cost of this work will be included in the pay item covering removal of the existing concrete. All heavy rust and other tightly adhered potentially detrimental foreign matter shall also be removed from the surfaces of the beams or girders in contact with concrete. Tightly adhered paint may remain unless otherwise noted. This removal shall be accomplished by methods that will not damage the steel. The cost of this work will be paid for according to Article 109.04.

 All existing construction accessories welded to the top flange over the pier(s) between the quarter points of the beams or girders shall be removed. The remaining weld shall be ground smooth and inspected for cracks using magnetic particle testing. Any crack that can not be removed by grinding approximately 1/4 inch deep shall be identified and reported to the Bureau of Bridges and Structures for further disposition. The cost of this work will be paid for according to Article 109.04.
- The existing structural steel coating contains lead. The contractor should 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 250 existing floor drains on Ramp S/Roadway G.

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GENERAL NOTES & INDEX OF DRAWINGS

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. 082-0142 (RAMP S) SCALE: DATE: 07/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	※	ST. CLAIR	111	70

FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-70
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* 92-3HVB-3R-3 SHEET S-3 OF S-44
 CONTRACT NO. 76305

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 (26 spans):
 Spans G12, G13, and S1 through D36-S
2. Per Sheet S35, remove existing bituminous overlay, scarify top 1/2" of existing concrete deck, and add new microsilica concrete overlay at the following spans (26 spans):
 Spans G12, G13, and S1 through D36-S
3. Install new drainage scuppers as indicated at the following spans (19 spans):
 Spans G12, G13, and S1 through D36-S except S3, S5, S7, S10, S12, S15 and S22
4. Remove existing bridge deck joints and replace with new silicone joint seals at the following piers: (2 locations):
 G12 S3
5. Remove existing bridge deck joints and replace with new neoprene joint at the following piers (2 locations):
 G14 S18
6. Remove existing bridge deck joints and replace with new finger joints and drainage trough at the following piers (4 locations):
 S7, S10, S15, S21
7. Remove and reinstall existing crash attenuator as necessary to complete deck rehabilitation at the following location (1 location):
 Span G12
8. Resurface adjacent bituminous concrete roadway surface at the following abutment (1 location):
 G14
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 S1 through D36S
10. Replace deteriorated bottom flange splice bolts in the following spans
 Spans S1, S2, S3, S17
11. Replace four elastomeric bearing assemblies at pier S21 with new Elastomeric Bearing Assemblies, Type II

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SCOPE OF WORK

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

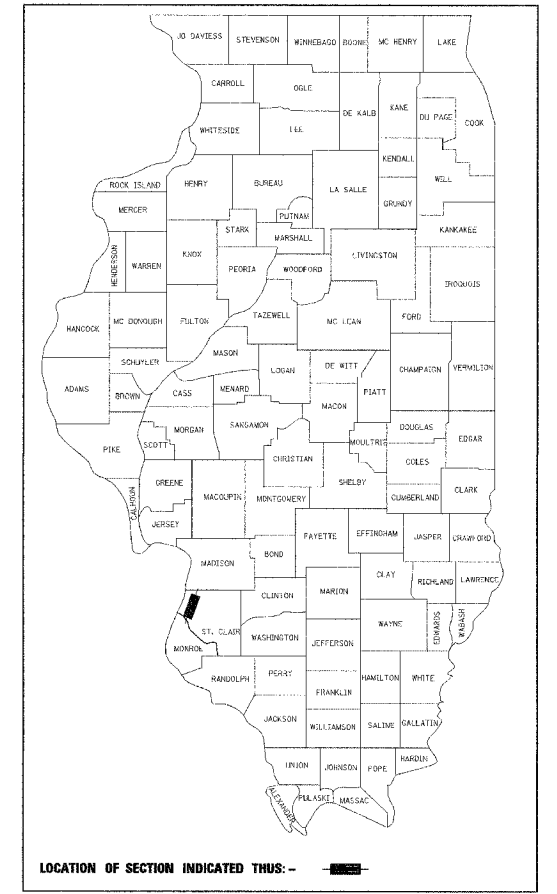
REVISIONS	
NAME	DATE

STRUCTURE NO. 082-0142 (RAMP S)
 SCALE:
 DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	71
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IH-70		

* 82-3HVB-3R-3 SHEET S-4 OF S-44
CONTRACT NO. 76305

D-98-014-00



LOCATION OF SECTION INDICATED THUS: - [rectangle] -

LOCATION SKETCH

OVERALL PROJECT PLAN

Roadway / Ramp	Segment / Pier No.	Structure No.	Year / Structure Type
S	G12-S23	082-0142	1967 Two Girder System
G	G14-G12	082-0254	1967 Two Girder System

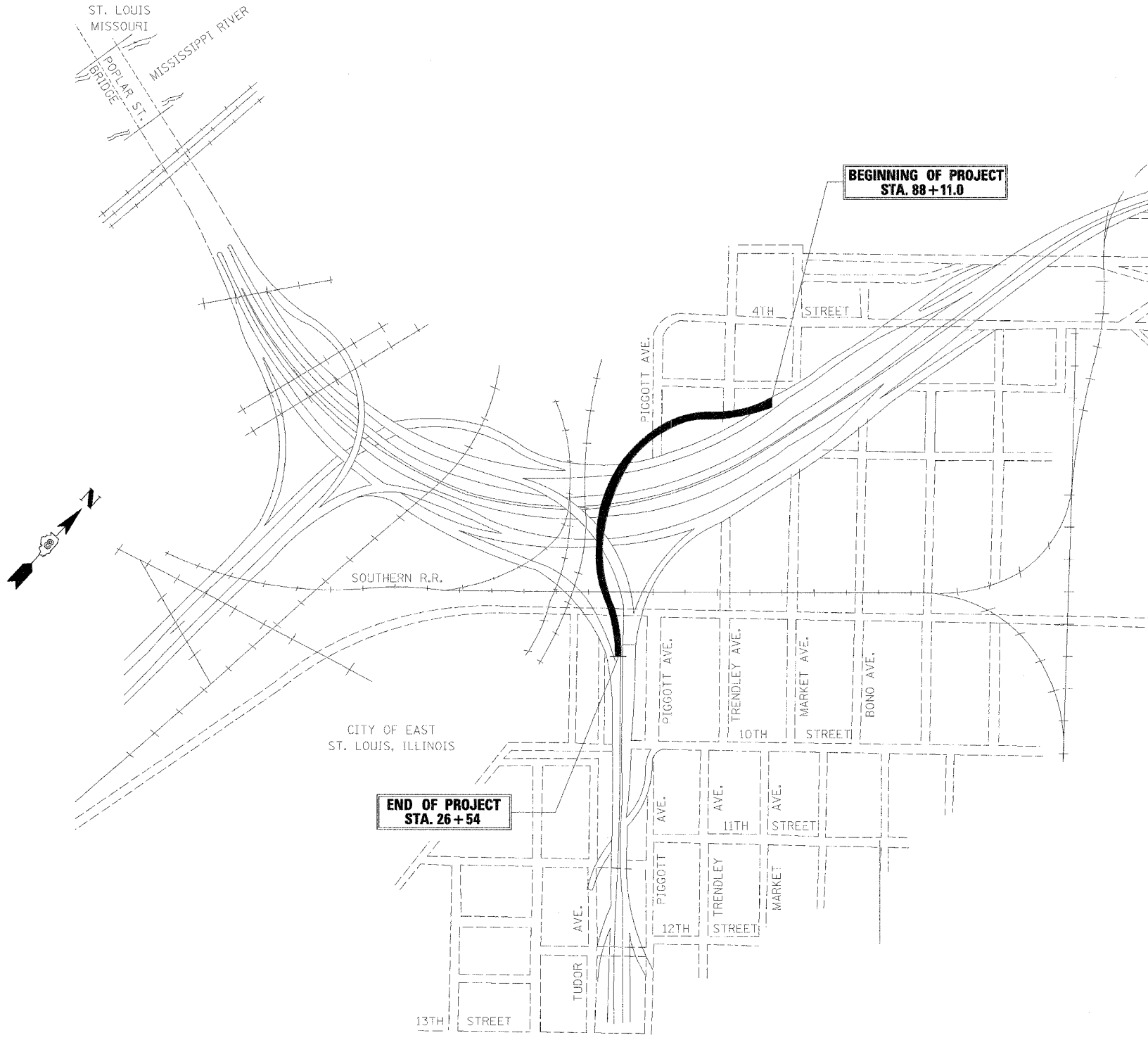
KEY PLAN

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

STRUCTURE NO. 082-0142 (RAMP S)

SCALE:

DATE: 02/28/2006



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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	72
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 24-78		

* 82-3HVB-3R-3 SHEET S-5 OF S-44
CONTRACT NO. 76305

TOTAL BILL OF MATERIAL - RAMP S

ITEM	UNIT	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
Concrete Removal	CU YD	1,174	---	1,174
Concrete Superstructure	CU YD	1,067	---	1,067
Reinforcement Bars, Epoxy coated	POUND	152,080	---	152,080
Bridge Deck Hydro-Scarification-1/2"	SQ YD	5,737	---	5,737
Bridge Deck Microsilica Concrete Overlay-2 1/2"	SQ YD	6,456	---	6,456
Bridge Deck Grooving	SQ YD	6,456	---	6,456
Protective Coat	SQ YD	10,250	---	10,250
Polymer Concrete	CU FT	3.1	---	3.1
Neoprene Expansion Joint--4"	FOOT	28	---	28
Silicone Joint Sealer--3"	FOOT	56	---	56
Bituminous Concrete Removal- (Deck)	SQ YD	5,737	---	5,737
Drainage Scuppers	L Sum	22	---	22
Drainage System	L Sum	0.67	---	0.67
Fabric Reinforced Elastomeric Trough	FOOT	116	---	116
Protective Shield	SQ YD	1,570	---	1,570
Elastomeric Bearing Assembly, Type II	EACH	4	---	4
Furnishing and Erecting Structural Steel	L Sum	0.51	---	0.51
Jack and Remove Existing Bearings	EACH	4	---	4
Mechanical Splice	EACH	458	---	458
Cleaning and painting Steel Bridge, No. 2	L Sum	1	---	1
Containment & Disposal of Lead Paint Cleaning Residues, No. 2	L Sum	1	---	1
Bolt Replacement	EACH	44	---	44
Crack Extension Modifications	EACH	20	---	20

TOTAL BILL OF MATERIAL - ROADWAY G

ITEM	UNIT	SUPERSTRUCTURE	SUBSTRUCTURE	TOTAL
Concrete Removal	CU YD	44.2	---	44.2
Concrete Superstructure	CU YD	40.6	---	40.6
Reinforcement Bars, Epoxy Coated	POUND	4,950	---	4,950
Bridge Deck Hydro-Scarification -1/2"	SQ YD	216	---	216
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	SQ YD	204	---	204
Bridge Deck Grooving	SQ YD	204	---	204
Protective Coat	SQ YD	254	---	254
Polymer Concrete	CU FT	6.2	---	6.2
Bituminous Concrete Removal (Deck)	SQ YD	216	---	216
Drainage Scuppers, DS12	EACH	5	---	5
Mechanical Splice	EACH	36	---	36
Crack Extension Modifications	EACH	5	---	5
Neoprene Expansion Joint, 4"	FOOT	23	---	23

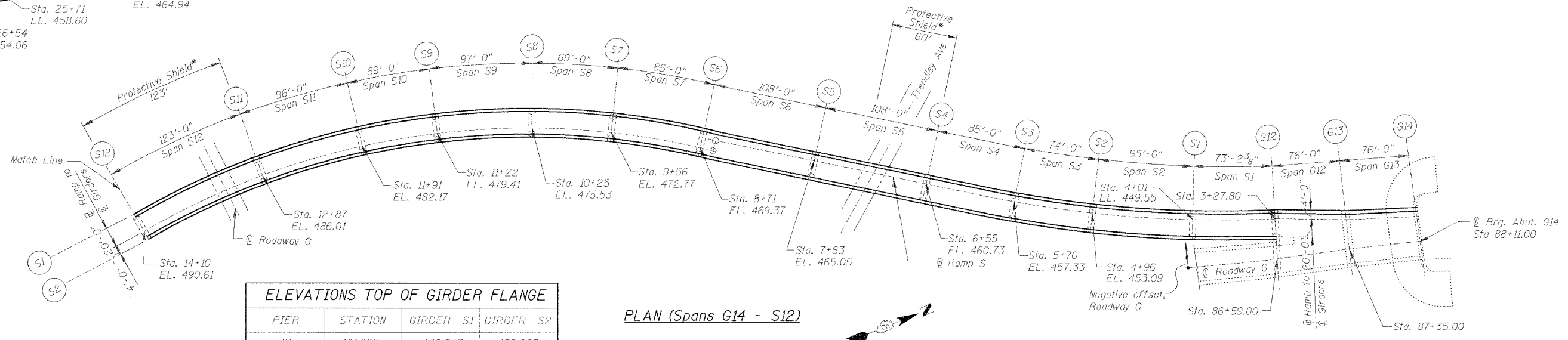
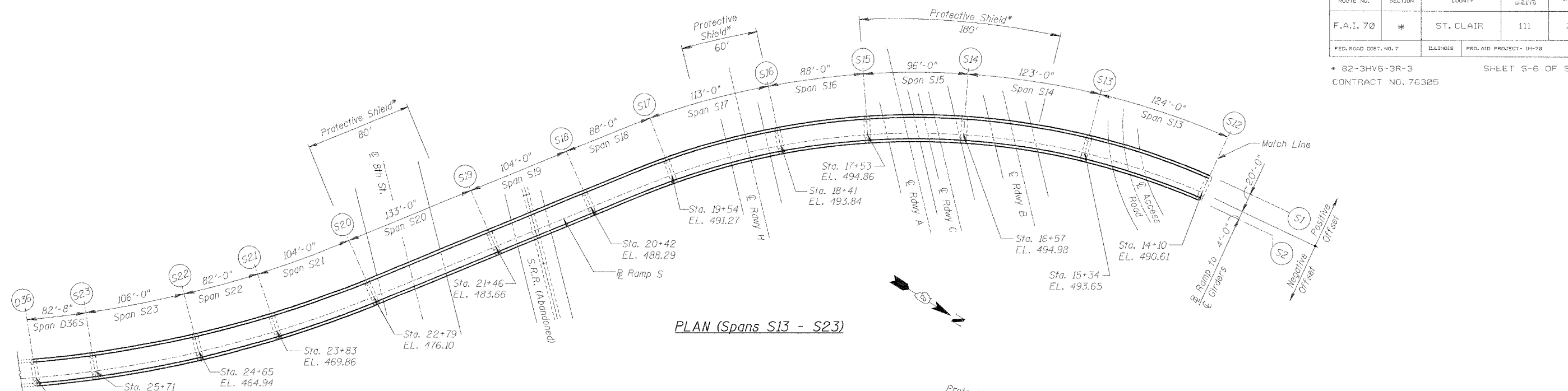
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BILL OF MATERIAL

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. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	73
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		
* 82-3HVB-3R-3			SHEET S-6 OF S-44	
CONTRACT NO. 76305				



PIER	STATION	GIRDER S1	GIRDER S2
S1	401.000	448.343	450.263
S2	496.000	451.854	453.775
S4	655.000	459.258	459.988
S5	763.000	464.487	464.139
S6	871.000	469.702	468.279
S8	1025.000	476.233	474.313
S9	1122.000	480.107	478.187
S11	1287.000	486.770	484.850
S12	1410.000	491.310	489.390
S13	1534.000	494.350	492.430
S14	1657.000	495.690	493.770
S16	1841.000	494.564	492.644
S17	1954.000	491.707	490.118
S19	2146.000	482.683	482.782
S20	2279.000	474.227	475.518
S22	2465.000	462.449	464.369
S23	2571.000	456.724	457.905

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.

* Notes:
 * Provide protective shield underneath full roadway width for the length indicated.
 Roadway elevations are theoretical top of new 2" overlay.

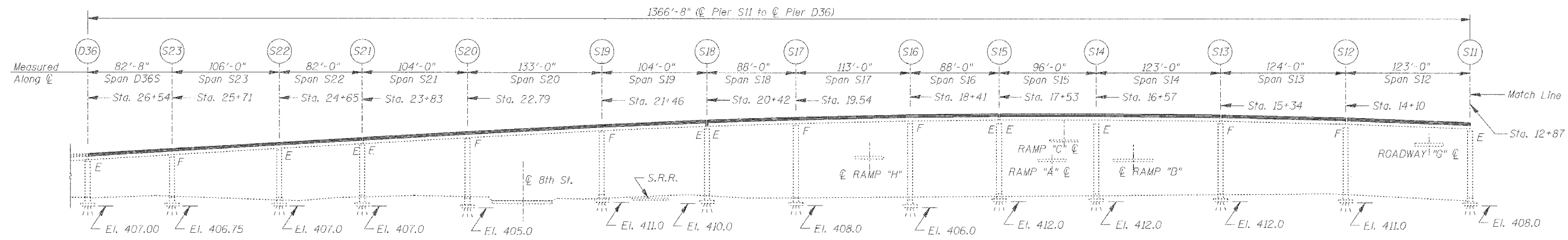
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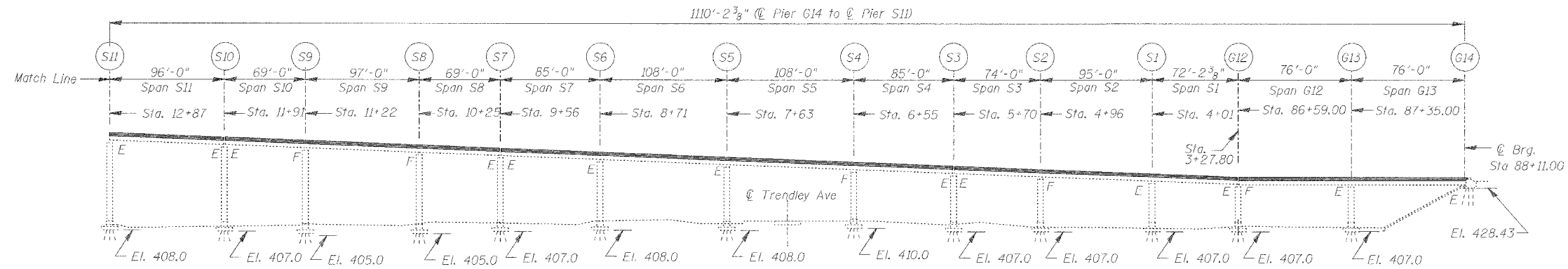
NAME	DATE

PROJECT PLAN
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
 STRUCTURE NO. 082-0142 (RAMP S)
 SCALE:
 DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	74
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-70		
* 82-3HVB-3R-3			SHEET S-7 OF S-44	
CONTRACT NO. 76305				



ELEVATION (Spans S12 - D36S)



ELEVATION (Spans G13 - S11)

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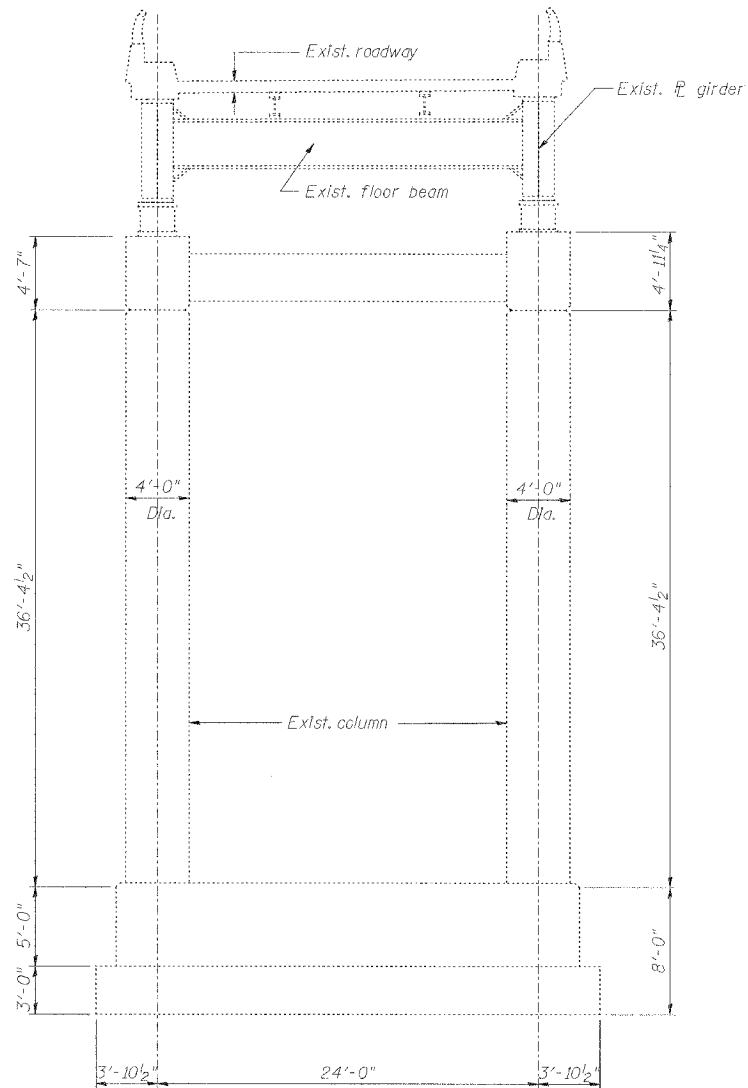
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REVISIONS	
NAME	DATE

PROJECT ELEVATION
 STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 REHABILITATION AND RETROFIT REPAIRS
 FAI ROUTE 70
 POPLAR STREET BRIDGE APPROACHES
 ST. CLAIR COUNTY
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 SCALE:
 DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	75
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-78		

* 82-3HVB-3R-3 SHEET S-8 OF S-44
CONTRACT NO. 76305



TYPICAL SECTION THROUGH TWO - GIRDER ROADWAY (PIER S5 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. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
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Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for D
Roadway C			
8660.367	-51.501	447.246	447.246
8660.367	-44.001	447.733	447.733
8660.367	-36.501	448.215	448.215
8660.367	-29.001	448.693	448.693
8660.367	-21.500	449.110	449.110
8660.367	-14.000	449.550	449.550
8667.667	-50.462	447.094	447.097
8667.667	-43.195	447.550	447.553
8667.667	-35.800	448.010	448.013
8667.667	-28.405	448.465	448.467
8667.667	-21.011	448.886	448.888
8667.667	-13.618	449.299	449.302
8675.000	-49.443	446.949	446.952
8675.000	-42.360	447.378	447.383
8675.000	-35.071	447.815	447.820
8675.000	-27.783	448.247	448.252
8675.000	-20.496	448.654	448.659
8675.000	-13.209	449.041	449.046
8685.000	-48.088	446.760	446.767
8685.000	-41.179	447.157	447.164
8685.000	-34.035	447.564	447.571
8685.000	-26.892	447.966	447.972
8685.000	-19.751	448.326	448.332
8685.000	-12.612	448.679	448.686
8695.000	-46.770	446.575	446.582
8695.000	-39.958	446.938	446.945
8695.000	-32.966	447.304	447.311
8695.000	-25.374	447.666	447.673
8695.000	-18.983	447.990	447.997
8695.000	-11.993	448.309	448.316
8705.000	-45.498	446.381	446.386
8705.000	-38.738	446.709	446.714
8705.000	-31.896	447.037	447.042
8705.000	-25.055	447.359	447.364
8705.000	-18.214	447.648	447.653
8705.000	-11.374	447.935	447.940
8715.000	-44.271	446.172	446.175
8715.000	-37.609	446.466	446.469
8715.000	-30.908	446.756	446.759
8715.000	-24.207	447.084	447.087
8715.000	-17.506	447.299	447.302
8715.000	-10.805	447.555	447.558
8725.000	-43.089	445.971	445.972
8725.000	-36.619	446.224	446.225
8725.000	-30.041	446.477	446.478
8725.000	-23.464	446.725	446.726
8725.000	-16.887	446.940	446.941
8725.000	-10.309	447.167	447.168
8735.000	-41.952	445.717	445.717
8735.000	-35.628	445.937	445.937
8735.000	-29.175	446.156	446.156
8735.000	-22.721	446.372	446.372
8735.000	-16.268	446.578	446.578
8735.000	-9.814	446.776	446.776
8745.000	-40.860	445.464	445.465
8745.000	-34.638	445.652	445.653
8745.000	-28.308	445.839	445.840
8745.000	-21.978	446.023	446.024
8745.000	-15.648	446.210	446.211
8745.000	-9.319	446.381	446.382
8755.000	-39.813	445.211	445.213
8755.000	-33.647	445.369	445.372
8755.000	-27.441	445.526	445.528
8755.000	-21.235	445.679	445.681
8755.000	-15.029	445.839	445.841
8755.000	-8.823	445.983	445.986

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for D
Ramp S			
326.214	-20.000	448.881	448.881
327.370	-11.999	448.361	448.361
328.544	-3.999	447.835	447.835
329.735	4.000	447.304	447.304
336.568	-20.000	449.192	449.197
336.568	-11.949	448.610	448.614
336.568	-3.956	448.031	448.034
336.568	4.000	447.455	447.458
344.000	-20.000	449.424	449.431
344.000	-11.968	448.823	448.830
344.000	-3.971	448.224	448.230
344.000	4.000	447.626	447.632
353.500	-20.000	449.731	449.740
353.500	-11.936	449.101	449.110
353.500	-3.936	448.476	448.484
353.500	4.000	447.855	447.864
363.000	-20.000	450.021	450.029
363.000	-11.893	449.373	449.381
363.000	-3.894	448.733	448.741
363.000	4.000	448.101	448.110
372.500	-20.000	450.286	450.292
372.500	-11.936	449.641	449.647
372.500	-3.936	449.001	449.007
372.500	4.000	448.366	448.372
382.000	-20.000	450.562	450.565
382.000	-11.956	449.918	449.921
382.000	-3.957	449.278	449.281
382.000	4.000	448.642	448.645
391.500	-20.000	450.849	450.850
391.500	-11.913	450.202	450.203
391.500	-3.914	449.562	449.563
391.500	4.000	448.929	448.930
401.000	-20.000	451.147	451.147
401.000	-11.956	450.503	450.503
401.000	-3.957	449.864	449.864
401.000	4.000	449.227	449.227

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for D
410.500	-20.000	451.457	451.458
410.500	-11.965	450.814	450.815
410.500	-3.965	450.174	450.175
410.500	4.000	449.537	449.538
420.000	-20.000	451.778	451.782
420.000	-11.971	451.135	451.139
420.000	-3.972	450.495	450.499
420.000	4.000	449.858	449.862
429.500	-20.000	452.110	452.117
429.500	-11.936	451.465	451.472
429.500	-3.936	450.825	450.832
429.500	4.000	450.190	450.197
439.000	-20.000	452.453	452.463
439.000	-11.893	451.805	451.815
439.000	-3.894	451.165	451.175
439.000	4.000	450.533	450.543
448.500	-20.000	452.808	452.819
448.500	-11.936	452.163	452.174
448.500	-3.936	451.523	451.534
448.500	4.000	450.888	450.899
458.000	-20.000	453.174	453.184
458.000	-11.971	452.532	452.542
458.000	-3.972	451.892	451.902
458.000	4.000	451.254	451.264
467.500	-20.000	453.551	453.559
467.500	-11.965	452.908	452.916
467.500	-3.965	452.268	452.276
467.500	4.000	451.631	451.639
477.000	-20.000	453.931	453.935
477.000	-11.956	453.287	453.292
477.000	-3.957	452.648	452.652
477.000	4.000	452.011	452.015
486.500	-20.000	454.311	454.312
486.500	-11.913	453.664	453.665
486.500	-3.914	453.024	453.025
486.500	4.000	452.391	452.392
496.000	-20.000	454.691	454.691
496.000	-11.956	454.047	454.047
496.000	-3.957	453.408	453.408
496.000	4.000	452.771	452.771
505.500	-20.000	455.071	455.072
505.500	-11.965	454.428	454.429
505.500	-3.965	453.788	453.789
505.500	4.000	453.151	453.152
515.000	-20.000	455.451	455.454
515.000	-11.971	454.809	454.812
515.000	-3.972	454.169	454.172
515.000	4.000	453.531	453.534
524.500	-20.000	455.831	455.837
524.500	-11.908	455.186	455.192
524.500	-3.936	454.546	454.552
524.500	4.000	453.911	453.917
534.000	-20.000	456.211	456.219
534.000	-11.893	455.562	455.570
534.000	-3.894	454.922	454.930
534.000	4.000	454.291	454.299
543.500	-20.000	456.579	456.587
543.500	-11.936	455.958	455.967
543.500	-3.936	455.343	455.351
543.500	4.000	454.733	454.741
553.000	-20.000	456.943	456.949
553.000	-11.970	456.357	456.363
553.000	-3.970	455.773	455.780
553.000	4.000	455.192	455.198
560.833	-20.000	457.243	457.246
560.833	-11.956	456.683	456.686
560.833	-3.956	456.125	456.128
560.833	4.000	455.571	455.574
568.690	-20.000	457.544	457.544
568.681	-12.000	457.013	457.013
568.671	-4.000	456.481	456.481
568.661	4.000	455.949	455.949

Station	Offset	Theo. Elev.	Theo. Elev. Adj. for for D
571.310	-20.000	457.645	457.645
571.319	-12.000	457.123	457.123
571.329	-4.000	456.600	456.600
571.339	4.000	456.078	456.078
577.167	-20.000	457.869	457.872
577.167	-11.925	457.361	457.364
577.167	-3.925	456.858	456.861
577.167	4.000	456.360	456.363
583.000	-20.000	458.093	458.099
583.000	-11.882	457.602	457.608
583.000	-3.883	457.119	457.125
583.000	4.000	456.642	456.648
592.000	-20.000	458.438	458.447
592.000	-11.879	457.977	457.986
592.000	-3.880	457.524	457.533
592.000	4.000	457.077	457.086
601.000	-20.000	458.783	458.794
601.000	-11.954	458.357	458.368
601.000	-3.954	457.933	457.944
601.000	4.000	457.512	457.523
610.000	-20.000	459.128	459.139
610.000	-12.000	458.734	458.745
610.000	-4.000	458.341	458.352
610.000	4.000	457.947	457.958
619.000	-20.000	459.473	459.482
619.000	-12.000	459.109	459.118
619.000	-4.000	458.746	458.755
619.000	4.000	458.382	458.391
628.000	-20.000	459.818	459.824
628.000	-12.000	459.484	459.491
628.000	-4.000	459.151	459.157
628.000	4.000	458.817	458.824
637.000	-20.000	460.163	460.166
637.000	-12.000	459.859	459.862
637.000	-4.000	459.556	459.559
637.000	4.000	459.252	459.255
646.000	-20.000	460.508	460.509
646.000	-12.000	460.234	460.235
646.000	-4.000	459.961	459.962
646.000	4.000	459.687	459.688
655.000	-20.000	460.853	460.853
655.000	-12.000	460.609	460.609
655.000	-4.000	460.366	460.366
655.000	4.000	460.122	460.122
664.000	-20.000	461.198	461.199
664.000	-12.000	460.984	460.985
664.000	-4.000	460.771	460.772
664.000	4.000	460.557	460.558
673.000	-20.000	461.543	461.546
673.000	-12.000	461.359	461.362
673.000	-4.000	461.176	461.179
673.000	4.000	460.992</	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	77

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT- IN-70
 * 82-3HVB-3R-3 SHEET S-10 OF S-44
 CONTRACT NO. 76305

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
772.000	-20.000	465.338	465.339	898.000	-4.000	470.168	470.175	1025.000	-4.000	475.211	475.211	1168.250	-4.000	480.941	480.947
772.000	-12.000	465.484	465.485	898.000	3.917	470.728	470.735	1025.000	3.935	475.846	475.846	1168.250	3.910	481.574	481.580
772.000	-4.000	465.630	465.631	898.000	11.916	471.294	471.301	1025.000	11.935	476.486	476.486	1168.250	11.909	482.214	482.220
772.000	4.000	465.777	465.778	898.000	20.000	471.867	471.874	1025.000	20.000	477.131	477.131	1168.250	20.000	482.861	482.867
781.000	-20.000	465.683	465.686	907.000	-4.000	470.513	470.523	1034.250	-4.000	475.581	475.584	1177.500	-4.000	481.311	481.315
781.000	-12.000	465.859	465.862	907.000	3.859	471.099	471.109	1034.250	3.950	476.217	476.220	1177.500	3.965	481.948	481.952
781.000	-4.000	466.035	466.038	907.000	11.858	471.695	471.705	1034.250	11.949	476.857	476.860	1177.500	11.965	482.588	482.592
781.000	4.000	466.211	466.214	907.000	20.000	472.302	472.312	1034.250	20.000	477.501	477.504	1177.500	20.000	483.231	483.235
790.000	-20.000	466.028	466.035	916.000	-4.000	470.858	470.870	1043.500	-4.000	475.951	475.958	1183.583	-4.000	481.555	481.557
790.000	-12.000	466.234	466.241	916.000	3.917	471.478	471.490	1043.500	3.958	476.588	476.595	1183.583	3.956	482.191	482.193
790.000	-4.000	466.440	466.447	916.000	11.916	472.104	472.116	1043.500	11.958	477.228	477.235	1183.583	11.955	482.831	482.833
790.000	4.000	466.646	466.653	916.000	20.000	472.737	472.749	1043.500	20.000	477.871	477.878	1183.583	20.000	483.475	483.477
799.000	-20.000	466.373	466.383	925.000	-4.000	471.211	471.223	1053.500	-4.000	476.351	476.363	1189.658	-4.000	481.798	481.798
799.000	-12.000	466.609	466.619	925.000	3.960	471.848	471.860	1053.500	1.521	476.793	476.805	1189.673	4.000	482.438	482.438
799.000	-4.000	466.845	466.855	925.000	11.959	472.488	472.500	1053.500	7.062	477.236	477.248	1189.688	12.000	483.079	483.079
799.000	4.000	467.081	467.091	925.000	20.000	473.131	473.143	1053.500	20.000	477.871	477.883	1189.703	20.000	483.719	483.719
808.000	-20.000	466.718	466.730	934.000	-4.000	471.571	471.581	1063.500	-4.000	476.751	476.766				
808.000	-12.000	466.984	466.996	934.000	3.953	472.207	472.217	1063.500	-2.460	476.874	476.890				
808.000	-4.000	467.250	467.262	934.000	11.953	472.847	472.857	1063.500	-0.903	476.999	477.014				
808.000	4.000	467.516	467.528	934.000	20.000	473.491	473.501	1063.500	20.000	478.671	478.686				
817.000	-20.000	467.063	467.076	943.000	-4.000	471.931	471.937	1073.500	-4.000	477.151	477.168				
817.000	-12.000	467.359	467.372	943.000	3.966	472.568	472.574	1073.500	-1.679	477.337	477.354				
817.000	-4.000	467.655	467.668	943.000	11.966	473.208	473.214	1073.500	0.664	477.524	477.541				
817.000	4.000	467.951	467.964	943.000	20.000	473.851	473.857	1073.500	20.000	479.071	479.088				
826.000	-20.000	467.408	467.420	948.833	-4.000	472.164	472.167	1083.500	-4.000	477.551	477.566				
826.000	-12.000	467.734	467.746	948.833	3.959	472.801	472.804	1083.500	2.339	478.058	478.073				
826.000	-4.000	468.060	468.072	948.833	11.958	473.441	473.444	1083.500	8.695	478.567	478.582				
826.000	4.000	468.386	468.398	948.833	20.000	474.084	474.087	1083.500	20.000	479.471	479.486				
835.000	-20.000	467.753	467.763	954.658	-4.000	472.397	472.397	1093.500	-4.000	477.951	477.963				
835.000	-12.000	468.109	468.119	954.673	4.000	473.038	473.038	1093.500	3.940	478.586	478.598				
835.000	-4.000	468.465	468.475	954.688	12.000	473.679	473.679	1093.500	11.939	479.226	479.238				
835.000	4.000	468.821	468.831	954.703	20.000	474.319	474.319	1093.500	20.000	479.871	479.883				
844.000	-20.000	468.098	468.105	957.342	-4.000	472.505	472.505	1103.500	-4.000	478.351	478.358				
844.000	-12.000	468.484	468.491	957.327	4.000	473.144	473.144	1103.500	3.954	478.988	478.995				
844.000	-4.000	468.870	468.877	957.312	12.000	473.784	473.784	1103.500	11.954	479.627	479.634				
844.000	4.000	469.256	469.263	957.297	20.000	474.423	474.423	1103.500	20.000	480.271	480.278				
853.000	-20.000	468.443	468.446	963.417	-4.000	472.748	472.750	1112.750	-4.000	478.721	478.724				
853.000	-12.000	468.857	468.860	963.417	3.910	473.381	473.383	1112.750	3.950	479.357	479.360				
853.000	-4.000	469.273	469.276	963.417	11.909	474.021	474.023	1112.750	11.949	479.997	480.000				
853.000	4.000	469.691	469.694	963.417	20.000	474.668	474.670	1112.750	20.000	480.641	480.644				
862.000	-4.000	468.788	468.789	969.500	-4.000	472.991	472.995	1122.000	-4.000	479.091	479.091				
862.000	3.897	469.228	469.229	969.500	3.873	473.621	473.625	1122.000	3.958	479.728	479.728				
862.000	11.896	469.674	469.675	969.500	11.872	474.261	474.265	1122.000	11.958	480.368	480.368				
862.000	20.000	470.126	470.127	969.500	20.000	474.911	474.915	1122.000	20.000	481.011	481.011				
871.000	-4.000	469.133	469.133	978.750	-4.000	473.361	473.367	1131.250	-4.000	479.461	479.461				
871.000	3.942	469.606	469.606	978.750	3.919	473.995	474.001	1131.250	3.950	480.097	480.097				
871.000	11.942	470.082	470.082	978.750	11.918	474.635	474.641	1131.250	11.949	480.737	480.737				
871.000	20.000	470.561	470.561	978.750	20.000	475.281	475.287	1131.250	20.000	481.381	481.381				
880.000	-4.000	469.478	469.479	988.000	-4.000	473.731	473.737	1140.500	-4.000	479.831	479.833				
880.000	3.953	469.981	469.982	988.000	3.958	474.368	474.374	1140.500	3.958	480.468	480.470				
880.000	11.953	470.487	470.488	988.000	11.958	475.008	475.014	1140.500	11.958	481.108	481.110				
880.000	20.000	470.996	470.997	988.000	20.000	475.651	475.657	1140.500	20.000	481.751	481.753				
889.000	-4.000	469.823	469.827	997.250	-4.000	474.101	474.105	1149.750	-4.000	480.201	480.205				
889.000	3.960	470.356	470.360	997.250	3.950	474.737	474.741	1149.750	3.910	480.834	480.838				
889.000	11.959	470.893	470.896	997.250	11.949	475.377	475.381	1149.750	11.909	481.474	481.478				
889.000	20.000	471.431	471.435	997.250	20.000	476.021	476.025	1149.750	20.000	482.121	482.125				
				1006.500	-4.000	474.471	474.473	1159.000	-4.000	480.571	480.577				
				1006.500	3.935	475.106	475.108	1159.000	3.849	481.199	481.205				
				1006.500	11.935	475.746	475.748	1159.000	11.847	481.839	481.845				
				1006.500	20.000	476.391	476.393	1159.000	20.000	482.491	482.497				
				1015.750	-4.000	474.841	474.841								
				1015.750	3.874	475.471	475.471								
				1015.750	11.872	476.111	476.111								
				1015.750	20.000	476.761	476.761								

Notes:
 1. All elevations are top of new concrete overlay.
 See additional sloping requirements at gutter lines in Detail 1/S35.
 2. See Sht. S6 for station numbers and offsets
 3. All numbers this sheet are given in feet

TOP OF ROADWAY ELEVATIONS - SPANS S6 - S10

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP 5) SCALE: DATE: 02/28/2006
NAME	DATE	

DATE: 4/19/2006
 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab_ds\ramps\elevations\s_el0610.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	78
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT- 1M-70	

* 82-3HVB-3R-3 SHEET S-11 OF S-44
 CONTRACT NO. 76305

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 ∇
1192.345	-4.000	481.904	481.904	1327.995	-4.000	487.331	487.343	1492.660	-4.000	492.502	492.513	1646.593	-4.000	494.613	494.614
1192.345	4.000	482.544	482.544	1327.995	4.000	487.967	487.979	1492.660	4.000	493.138	493.149	1646.593	4.000	495.248	495.249
1192.345	12.000	483.184	483.184	1327.995	12.000	488.607	488.619	1492.660	12.000	493.778	493.789	1646.593	12.000	495.888	495.889
1192.345	20.000	483.824	483.824	1327.995	20.000	489.251	489.263	1492.660	20.000	494.422	494.433	1646.593	20.000	496.533	496.534
1198.678	-4.000	482.158	482.159	1338.244	-4.000	487.739	487.754	1502.993	-4.000	492.726	492.733	1657.000	-4.000	494.660	494.660
1198.678	4.000	482.796	482.797	1338.244	4.000	488.374	488.389	1502.993	4.000	493.361	493.368	1657.000	4.000	495.296	495.296
1198.678	12.000	483.436	483.437	1338.244	12.000	489.014	489.029	1502.993	12.000	494.001	494.008	1657.000	12.000	495.936	495.936
1198.678	20.000	484.078	484.079	1338.244	20.000	489.659	489.674	1502.993	20.000	494.646	494.653	1657.000	20.000	496.580	496.580
1205.010	-4.000	482.411	482.418	1348.492	-4.000	488.138	488.153	1513.325	-4.000	492.938	492.941	1667.249	-4.000	494.696	494.697
1205.010	4.000	483.048	483.055	1348.492	4.000	488.774	488.789	1513.325	4.000	493.574	493.577	1667.249	4.000	495.331	495.332
1205.010	12.000	483.688	483.695	1348.492	12.000	489.414	489.429	1513.325	12.000	494.214	494.217	1667.249	12.000	495.971	495.972
1205.010	20.000	484.331	484.338	1348.492	20.000	490.058	490.073	1513.325	20.000	494.858	494.861	1667.249	20.000	496.616	496.617
1215.259	-4.000	482.821	482.832	1358.741	-4.000	488.524	488.539	1523.658	-4.000	493.139	493.139	1677.497	-4.000	494.719	494.723
1215.259	4.000	483.457	483.468	1358.741	4.000	489.159	489.174	1523.658	4.000	493.774	493.774	1677.497	4.000	495.355	495.359
1215.259	12.000	484.096	484.107	1358.741	12.000	489.799	489.814	1523.658	12.000	494.414	494.414	1677.497	12.000	495.995	495.998
1215.259	20.000	484.741	484.752	1358.741	20.000	490.444	490.459	1523.658	20.000	495.059	495.059	1677.497	20.000	496.639	496.643
1225.508	-4.000	483.231	483.244	1368.990	-4.000	488.899	488.911	1534.000	-4.000	493.327	493.327	1687.746	-4.000	494.731	494.738
1225.508	4.000	483.867	483.880	1368.990	4.000	489.535	489.547	1534.000	4.000	493.963	493.963	1687.746	4.000	495.366	495.373
1225.508	12.000	484.507	484.520	1368.990	12.000	490.175	490.187	1534.000	12.000	494.603	494.603	1687.746	12.000	496.006	496.013
1225.508	20.000	485.151	485.164	1368.990	20.000	490.819	490.831	1534.000	20.000	495.247	495.247	1687.746	20.000	496.651	496.658
1235.757	-4.000	483.641	483.654	1379.238	-4.000	489.262	489.270	1544.236	-4.000	493.503	493.504	1697.995	-4.000	494.731	494.742
1235.757	4.000	484.276	484.289	1379.238	4.000	489.897	489.905	1544.236	4.000	494.138	494.139	1697.995	4.000	495.367	495.378
1235.757	12.000	484.916	484.929	1379.238	12.000	490.537	490.545	1544.236	12.000	494.778	494.779	1697.995	12.000	496.007	496.018
1235.757	20.000	485.561	485.574	1379.238	20.000	491.182	491.190	1544.236	20.000	495.423	495.424	1697.995	20.000	496.651	496.662
1246.005	-4.000	484.051	484.062	1389.487	-4.000	489.614	489.617	1554.471	-4.000	493.666	493.670	1708.244	-4.000	494.720	494.733
1246.005	4.000	484.687	484.698	1389.487	4.000	490.250	490.253	1554.471	4.000	494.302	494.306	1708.244	4.000	495.355	495.368
1246.005	12.000	485.327	485.338	1389.487	12.000	490.890	490.893	1554.471	12.000	494.942	494.946	1708.244	12.000	495.995	496.008
1246.005	20.000	485.971	485.982	1389.487	20.000	491.534	491.537	1554.471	20.000	495.586	495.590	1708.244	20.000	496.640	496.653
1256.254	-4.000	484.461	484.468	1399.736	-4.000	489.954	489.955	1564.707	-4.000	493.718	493.726	1718.492	-4.000	494.696	494.709
1256.254	4.000	485.096	485.103	1399.736	4.000	490.589	490.590	1564.707	4.000	494.453	494.461	1718.492	4.000	495.332	495.345
1256.254	12.000	485.736	485.743	1399.736	12.000	491.229	491.230	1564.707	12.000	495.093	495.101	1718.492	12.000	495.972	495.985
1256.254	20.000	486.381	486.388	1399.736	20.000	491.874	491.875	1564.707	20.000	495.738	495.746	1718.492	20.000	496.616	496.629
1266.503	-4.000	484.871	484.874	1410.000	-4.000	490.282	490.282	1574.943	-4.000	493.958	493.970	1728.741	-4.000	494.662	494.673
1266.503	4.000	485.507	485.510	1410.000	4.000	490.918	490.918	1574.943	4.000	494.594	494.606	1728.741	4.000	495.297	495.308
1266.503	12.000	486.147	486.150	1410.000	12.000	491.558	491.558	1574.943	12.000	495.234	495.246	1728.741	12.000	495.937	495.948
1266.503	20.000	486.791	486.794	1410.000	20.000	492.202	492.202	1574.943	20.000	495.878	495.890	1728.741	20.000	496.582	496.593
1276.751	-4.000	485.281	485.282	1420.333	-4.000	490.601	490.601	1585.179	-4.000	494.087	494.102	1738.990	-4.000	494.615	494.622
1276.751	4.000	485.916	485.917	1420.333	4.000	491.236	491.236	1585.179	4.000	494.722	494.737	1738.990	4.000	495.252	495.259
1276.751	12.000	486.556	486.557	1420.333	12.000	491.876	491.876	1585.179	12.000	495.362	495.377	1738.990	12.000	495.892	495.899
1276.751	20.000	487.201	487.202	1420.333	20.000	492.521	492.521	1585.179	20.000	496.007	496.022	1738.990	20.000	496.535	496.542
1287.000	-4.000	485.691	485.691	1430.665	-4.000	490.908	490.911	1595.414	-4.000	494.204	494.220	1745.322	-4.000	494.581	494.582
1287.000	4.000	486.327	486.327	1430.665	4.000	491.544	491.547	1595.414	4.000	494.840	494.856	1745.322	4.000	495.217	495.218
1287.000	12.000	486.967	486.967	1430.665	12.000	492.184	492.187	1595.414	12.000	495.480	495.496	1745.322	12.000	495.857	495.858
1287.000	20.000	487.611	487.611	1430.665	20.000	492.828	492.831	1595.414	20.000	496.124	496.140	1745.322	20.000	496.501	496.502
1297.249	-4.000	486.101	486.102	1440.998	-4.000	491.203	491.210	1605.650	-4.000	494.309	494.324	1753.000	-4.000	494.542	494.542
1297.249	4.000	486.736	486.737	1440.998	4.000	491.838	491.845	1605.650	4.000	494.944	494.959	1753.000	4.000	495.182	495.182
1297.249	12.000	487.376	487.377	1440.998	12.000	492.478	492.485	1605.650	12.000	495.584	495.599	1753.000	12.000	495.722	495.722
1297.249	20.000	488.021	488.022	1440.998	20.000	493.123	493.130	1605.650	20.000	496.229	496.244	1753.000	20.000	496.462	496.462
1307.497	-4.000	486.511	486.515	1451.330	-4.000	491.487	491.498	1615.886	-4.000	494.403	494.415				
1307.497	4.000	487.147	487.151	1451.330	4.000	492.123	492.134	1615.886	4.000	495.039	495.051				
1307.497	12.000	487.787	487.791	1451.330	12.000	492.763	492.774	1615.886	12.000	495.679	495.691				
1307.497	20.000	488.431	488.435	1451.330	20.000	493.407	493.418	1615.886	20.000	496.323	496.335				
1317.746	-4.000	486.921	486.929	1461.663	-4.000	491.758	491.772	1626.121	-4.000	494.485	494.493				
1317.746	4.000	487.556	487.564	1461.663	4.000	492.393	492.407	1626.121	4.000	495.120	495.128				
1317.746	12.000	488.196	488.204	1461.663	12.000	493.033	493.047	1626.121	12.000	495.760	495.768				
1317.746	20.000	488.841	488.849	1461.663	20.000	493.678	493.692	1626.121	20.000	496.405	496.413				
				1471.995	-4.000	492.018	492.033	1636.357	-4.000	494.555	494.559				
				1471.995	4.000	492.654	492.669	1636.357	4.000	495.191	495.195				
				1471.995	12.000	493.294	493.309	1636.357	12.000	495.731	495.735				
				1471.995	20.000	493.938	493.953	1636.357	20.000	496.475	496.479				
				1482.328	-4.000	492.266	492.279								
				1482.328	4.000	492.901	492.914								
				1482.328	12.000	493.541	493.554								
				1482.328	20.000	494.186	494.199								

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 1/S35.
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet
 - In Roadway G, adjust elevations of new overlay as necessary to match adjacent existing overlay

TOP OF ROADWAY ELEVATIONS - SPANS S11 - S15

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	79
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78		

* 82-3HVB-3R-3 SHEET S-12 OF S-44
CONTRACT NO. 76305

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
1754.342	-4.000	494.524	494.524	1878.667	-4.000	492.819	492.835	2019.917	-4.000	488.952	488.963
1754.327	4.000	495.164	495.164	1878.667	3.957	493.455	493.472	2019.917	4.000	489.282	489.293
1754.312	12.000	495.804	495.804	1878.667	11.957	494.095	494.112	2019.917	12.000	489.612	489.623
1754.297	20.000	496.444	496.444	1878.667	20.000	494.739	494.755	2019.917	20.000	489.941	489.952
1760.000	-4.000	494.484	494.487	1888.083	-4.000	492.619	492.639	2029.333	-4.000	488.619	488.625
1760.000	3.916	495.117	495.120	1888.083	3.948	493.255	493.275	2029.333	4.000	488.921	488.928
1760.000	11.915	495.757	495.760	1888.083	11.947	493.895	493.915	2029.333	12.000	489.224	489.231
1760.000	20.000	496.404	496.407	1888.083	20.000	494.539	494.559	2029.333	20.000	489.527	489.533
1765.667	-4.000	494.440	494.447	1897.500	-4.000	492.410	492.431	2035.000	-4.000	488.413	488.416
1765.667	3.879	495.070	495.077	1897.500	3.957	493.047	493.068	2035.000	4.000	488.700	488.703
1765.667	11.878	495.710	495.717	1897.500	11.957	493.687	493.708	2035.000	12.000	488.986	488.989
1765.667	20.000	496.360	496.367	1897.500	20.000	494.330	494.351	2035.000	20.000	489.272	489.275
1775.083	-4.000	494.359	494.370	1906.917	-4.000	492.192	492.211	2040.666	-4.000	488.204	488.204
1775.083	3.919	494.993	495.004	1906.917	3.948	492.827	492.847	2040.666	4.000	488.474	488.474
1775.083	11.918	495.632	495.643	1906.917	11.947	493.467	493.487	2040.666	12.000	488.744	488.744
1775.083	20.000	496.279	496.290	1906.917	20.000	494.112	494.131	2040.666	20.000	489.014	489.014
1784.500	-4.000	494.268	494.282	1916.333	-4.000	491.963	491.980				
1784.500	3.957	494.905	494.919	1916.333	3.957	492.599	492.616				
1784.500	11.957	495.545	495.559	1916.333	11.957	493.239	493.256				
1784.500	20.000	496.188	496.202	1916.333	20.000	493.883	493.900				
1793.917	-4.000	494.168	494.182	1925.750	-4.000	491.730	491.742				
1793.917	3.948	494.803	494.817	1925.750	3.948	492.355	492.367				
1793.917	11.947	495.443	495.457	1925.750	11.947	492.983	492.995				
1793.917	20.000	496.088	496.102	1925.750	20.000	493.616	493.628				
1803.333	-4.000	494.057	494.069	1935.167	-4.000	491.497	491.504				
1803.333	3.957	494.694	494.706	1935.167	3.957	492.091	492.098				
1803.333	11.957	495.334	495.346	1935.167	11.957	492.689	492.696				
1803.333	20.000	495.977	495.989	1935.167	20.000	493.289	493.296				
1812.750	-4.000	493.937	493.946	1944.583	-4.000	491.255	491.257				
1812.750	3.948	494.573	494.582	1944.583	3.948	491.817	491.819				
1812.750	11.947	495.213	495.222	1944.583	11.947	492.383	492.385				
1812.750	20.000	495.857	495.866	1944.583	20.000	492.952	492.955				
1822.167	-4.000	493.807	493.812	1954.000	-4.000	491.002	491.002				
1822.167	3.957	494.443	494.448	1954.000	3.957	491.534	491.534				
1822.167	11.957	495.083	495.088	1954.000	11.957	492.068	492.068				
1822.167	20.000	495.727	495.732	1954.000	20.000	492.606	492.606				
1831.583	-4.000	493.667	493.668	1963.417	-4.000	490.740	490.741				
1831.583	3.948	494.302	494.304	1963.417	3.948	491.240	491.241				
1831.583	11.947	494.942	494.944	1963.417	11.947	491.743	491.744				
1831.583	20.000	495.587	495.588	1963.417	20.000	492.249	492.250				
1841.000	-4.000	493.517	493.517	1972.833	-4.000	490.468	490.472				
1841.000	3.934	494.151	494.151	1972.833	3.957	490.937	490.941				
1841.000	11.934	494.791	494.791	1972.833	11.957	491.409	491.413				
1841.000	20.000	495.437	495.437	1972.833	20.000	491.883	491.887				
1850.417	-4.000	493.357	493.359	1982.250	-4.000	490.186	490.194				
1850.417	3.871	493.987	493.989	1982.250	3.966	490.624	490.632				
1850.417	11.869	494.626	494.629	1982.250	11.965	491.064	491.072				
1850.417	20.000	495.277	495.279	1982.250	20.000	491.506	491.514				
1859.833	-4.000	493.187	493.194	1991.667	-4.000	489.893	489.904				
1859.833	3.934	493.822	493.829	1991.667	3.986	490.303	490.314				
1859.833	11.934	494.462	494.469	1991.667	11.986	490.715	490.726				
1859.833	20.000	495.107	495.114	1991.667	20.000	491.126	491.137				
1869.250	-4.000	493.008	493.020	2001.083	-4.000	489.589	489.602				
1869.250	3.948	493.644	493.656	2001.083	4.000	489.973	489.986				
1869.250	11.947	494.284	494.296	2001.083	12.000	490.357	490.370				
1869.250	20.000	494.928	494.940	2001.083	20.000	490.741	490.754				
				2010.500	-4.000	489.275	489.288				
				2010.500	4.000	489.632	489.645				
				2010.500	12.000	489.989	490.002				
				2010.500	20.000	490.346	490.359				

- Notes:
- All elevations are top of new concrete overlay. See additional sloping requirements at gutter lines in Detail 1/S35.
 - See Sht. S6 for station numbers and offsets
 - All numbers this sheet are given in feet
 - In Roadway G, adjust elevations of new overlay as necessary to match adjacent existing overlay

TOP OF ROADWAY ELEVATIONS - SPANS S16 - S18

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006
NAME	DATE	

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab.dwg\ramps\elevations_s_ell618.dwg

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	80
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-70		

* 82-3HVB-3R-3 SHEET S-13 OF S-44
CONTRACT NO. 76305

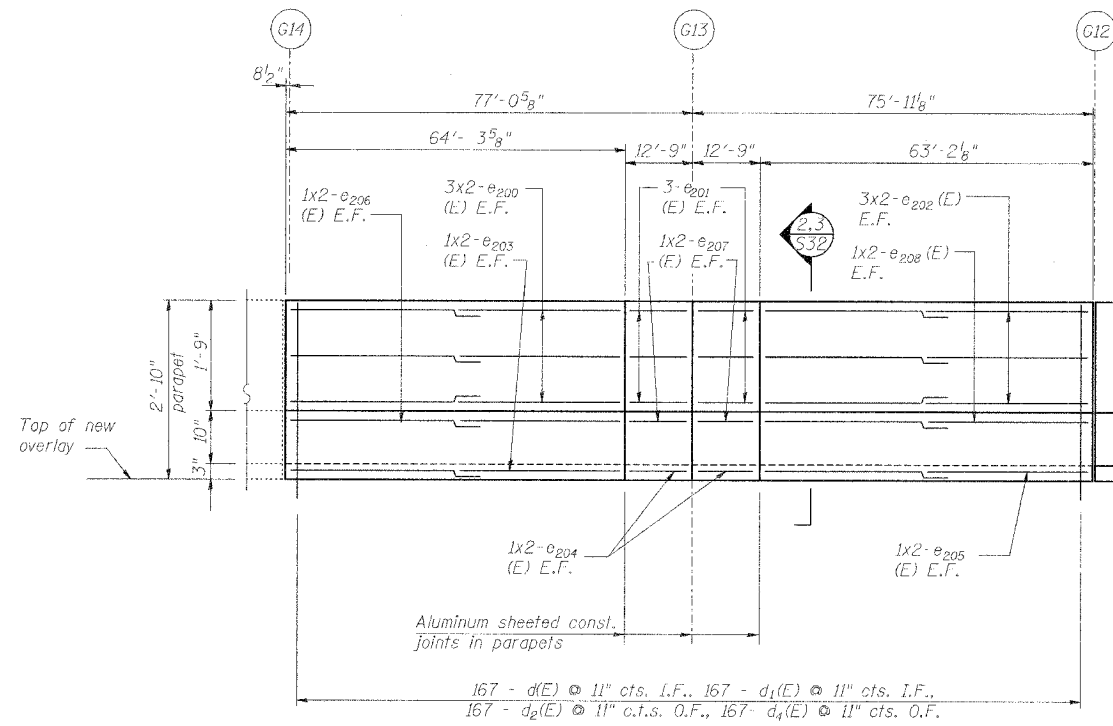
Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ	Station	Offset	Theo. Elev.	Theo. Elev. Adj. for Δ
2043.334	-4.000	488.105	488.105	2165.000	-4.000	482.722	482.727	2307.500	-4.000	474.640	474.646	2443.800	-4.000	466.527	466.530	2592.200	-4.000	457.562	457.565
2043.334	4.000	488.367	488.367	2165.000	4.000	482.634	482.639	2307.500	4.059	474.127	474.128	2443.800	4.030	465.885	465.888	2592.200	4.005	457.223	457.226
2043.334	12.000	488.629	488.629	2165.000	12.000	482.546	482.551	2307.500	12.059	473.617	473.623	2443.800	12.030	465.245	465.248	2592.200	12.005	456.884	456.887
2043.334	20.000	488.892	488.892	2165.000	20.000	482.458	482.463	2307.500	20.000	473.111	473.117	2443.800	20.000	464.607	464.610	2592.200	20.000	456.545	456.548
2048.667	-4.000	487.903	487.907	2174.500	-4.000	482.232	482.242	2317.000	-4.000	474.086	474.097	2454.400	-4.000	465.891	465.891	2602.800	-4.000	456.962	456.969
2048.667	4.000	488.150	488.154	2174.500	4.000	482.117	482.127	2317.000	4.059	473.540	473.551	2454.400	4.042	465.248	465.248	2602.800	4.000	456.658	456.665
2048.667	12.000	488.397	488.401	2174.500	12.000	482.002	482.012	2317.000	12.059	472.999	473.010	2454.400	12.042	464.608	464.608	2602.800	12.000	456.355	456.362
2048.667	20.000	488.644	488.648	2174.500	20.000	481.887	481.897	2317.000	20.000	472.462	472.473	2454.400	20.000	463.971	463.971	2602.800	20.000	456.051	456.058
2054.000	-4.000	487.669	487.685	2184.000	-4.000	481.733	481.748	2326.500	-4.000	473.532	473.546	2465.000	-4.000	465.255	465.255	2613.400	-4.000	456.375	456.384
2054.000	4.000	487.930	487.939	2184.000	4.000	481.590	481.605	2326.500	4.145	472.948	472.963	2465.000	4.044	464.612	464.612	2613.400	4.000	456.106	456.115
2054.000	12.000	488.162	488.171	2184.000	12.000	481.448	481.463	2326.500	12.144	472.375	472.390	2465.000	12.044	463.972	463.972	2613.400	12.000	455.838	455.847
2054.000	20.000	488.394	488.403	2184.000	20.000	481.303	481.319	2326.500	20.000	471.812	471.827	2465.000	20.000	463.335	463.335	2613.400	20.000	455.569	455.578
2062.000	-4.000	487.386	487.400	2193.500	-4.000	481.223	481.243	2336.000	-4.000	472.978	472.995	2475.600	-4.000	464.619	464.621	2624.000	-4.000	455.800	455.809
2062.000	4.000	487.594	487.608	2193.500	4.000	481.053	481.073	2336.000	4.151	472.361	472.378	2475.600	4.093	463.972	463.973	2624.000	4.000	455.566	455.576
2062.000	12.000	487.803	487.817	2193.500	12.000	480.883	480.903	2336.000	12.150	471.757	471.774	2475.600	12.093	463.332	463.333	2624.000	12.000	455.333	455.343
2062.000	20.000	488.012	488.026	2193.500	20.000	480.713	480.733	2336.000	20.000	471.163	471.183	2475.600	20.000	462.699	462.701	2624.000	20.000	455.100	455.110
2070.000	-4.000	487.066	487.084	2203.000	-4.000	480.704	480.727	2345.500	-4.000	472.423	472.440	2486.200	-4.000	463.982	463.987	2634.600	-4.000	455.237	455.244
2070.000	4.000	487.231	487.255	2203.000	4.000	480.506	480.529	2345.500	4.078	471.781	471.798	2486.200	4.044	463.340	463.345	2634.600	4.000	455.039	455.046
2070.000	12.000	487.437	487.456	2203.000	12.000	480.309	480.332	2345.500	12.078	471.144	471.161	2486.200	12.044	462.700	462.705	2634.600	12.000	454.841	454.849
2070.000	20.000	487.622	487.641	2203.000	20.000	480.112	480.135	2345.500	20.000	470.514	470.531	2486.200	20.000	462.062	462.067	2634.600	20.000	454.643	454.651
2079.500	-4.000	486.676	486.697	2212.500	-4.000	480.174	480.199	2355.000	-4.000	471.855	471.870	2496.800	-4.000	463.347	463.356	2643.467	-4.000	454.776	454.780
2079.500	4.000	486.835	486.856	2212.500	4.000	479.949	479.974	2355.000	4.047	471.211	471.226	2496.800	4.042	462.705	462.715	2643.467	4.000	454.608	454.612
2079.500	12.000	486.993	487.014	2212.500	12.000	479.725	479.750	2355.000	12.046	470.571	470.586	2496.800	12.042	462.064	462.073	2643.467	12.000	454.439	454.443
2079.500	20.000	487.151	487.172	2212.500	20.000	479.500	479.525	2355.000	20.000	469.935	469.950	2496.800	20.000	461.417	461.429	2643.467	20.000	454.271	454.275
2089.000	-4.000	486.277	486.298	2222.000	-4.000	479.634	479.657	2363.000	-4.000	471.375	471.386	2507.400	-4.000	462.702	462.715	2652.194	-4.000	454.331	454.331
2089.000	4.000	486.408	486.429	2222.000	4.000	479.383	479.406	2363.000	4.098	470.727	470.739	2507.400	4.030	462.078	462.091	2652.471	4.000	454.178	454.178
2089.000	12.000	486.539	486.560	2222.000	12.000	479.130	479.153	2363.000	12.097	470.087	470.099	2507.400	12.030	461.456	461.469	2652.749	12.000	454.028	454.028
2089.000	20.000	486.670	486.691	2222.000	20.000	478.878	478.901	2363.000	20.000	469.455	469.466	2507.400	20.000	460.837	460.850	2653.026	20.000	453.879	453.879
2098.500	-4.000	485.868	485.886	2231.500	-4.000	479.085	479.105	2371.000	-4.000	470.895	470.902	2518.000	-4.000	462.048	462.062				
2098.500	4.000	485.971	485.989	2231.500	4.000	478.805	478.825	2371.000	4.093	470.248	470.255	2518.000	4.080	461.456	461.470				
2098.500	12.000	486.075	486.093	2231.500	12.000	478.526	478.546	2371.000	12.092	469.608	469.615	2518.000	12.080	460.870	460.884				
2098.500	20.000	486.178	486.196	2231.500	20.000	478.247	478.267	2371.000	20.000	468.975	468.982	2518.000	20.000	460.289	460.303				
2108.000	-4.000	485.449	485.463	2241.000	-4.000	478.529	478.544	2376.333	-4.000	470.575	470.578	2528.600	-4.000	461.395	461.408				
2108.000	4.000	485.525	485.539	2241.000	4.000	478.222	478.237	2376.333	4.059	469.930	469.934	2528.600	4.129	460.835	460.848				
2108.000	12.000	485.601	485.615	2241.000	12.000	477.915	477.930	2376.333	12.059	469.290	469.290	2528.600	12.128	460.282	460.295				
2108.000	20.000	485.677	485.691	2241.000	20.000	477.608	477.623	2376.333	20.000	468.655	468.658	2528.600	20.000	459.741	459.754				
2117.500	-4.000	485.019	485.028	2250.500	-4.000	477.972	477.982	2381.670	-4.000	470.255	470.255	2539.200	-4.000	460.741	460.750				
2117.500	4.000	485.068	485.077	2250.500	4.000	477.638	477.648	2381.670	4.151	469.615	469.615	2539.200	4.080	460.220	460.229				
2117.500	12.000	485.117	485.126	2250.500	12.000	477.304	477.314	2381.670	12.150	468.976	468.976	2539.200	12.080	459.704	459.714				
2117.500	20.000	485.166	485.174	2250.500	20.000	476.970	476.980	2381.670	20.000	468.337	468.337	2539.200	20.000	459.195	459.204				
2127.000	-4.000	484.580	484.583	2260.000	-4.000	477.416	477.421	2384.330	-4.000	470.095	470.095	2549.800	-4.000	460.087	460.092				
2127.000	4.000	484.601	484.605	2260.000	4.000	477.034	477.045	2384.339	4.000	469.455	469.455	2549.800	4.044	459.604	459.609				
2127.000	12.000	484.623	484.626	2260.000	12.000	476.693	476.698	2384.349	12.000	468.814	468.814	2549.800	12.044	459.124	459.129				
2127.000	20.000	484.644	484.648	2260.000	20.000	476.332	476.337	2384.358	20.000	468.174	468.174	2549.800	20.000	458.646	458.651				
2136.000	-4.000	484.120	484.121	2269.500	-4.000	476.860	476.861	2392.867	-4.000	469.583	469.587	2560.400	-4.000	459.438	459.440				
2136.000	4.000	484.125	484.125	2269.500	4.000	476.471	476.472	2392.867	4.047	468.939	468.943	2560.400	4.093	458.987	458.989				
2136.000	12.000	484.119	484.119	2269.500	12.000	476.082	476.083	2392.867	12.046	468.299	468.303	2560.400	12.093	458.542	458.544				
2136.000	20.000	484.113	484.113	2269.500	20.000	475.693	475.694	2392.867	20.000	467.663	467.667	2560.400	20.000	458.102	458.104				
2146.000	-4.000	483.671	483.671	2279.000	-4.000	476.303	476.303	2401.400	-4.000	469.071	469.078	2571.000	-4.000	458.800	458.800				
2146.000	4.000	483.638	483.638	2279.000	4.000	475.887	475.887	2401.400	4.030	468.429	468.436	2571.000	4.044	458.388	458.388				
2146.000	12.000	483.604	483.604	2279.000	12.000	475.471	475.471	2401.400	12.030	467.789	467.796	2571.000	12.044	457.978	457.978				
2146.000	20.000	483.571	483.571	2279.000	20.000	474.505	474.519	2401.400	20.000	467.151	467.158	2571.000	20.000	457.570	457.570				

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	81
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 3M-78		

* 82-3HVB-3R-3 SHEET S-14 OF S-44
CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₃₅₀ (E)	20	#5	2'-0"	—
a ₃₅ (E)	56	#5	3'-0"	—
b ₁ (E)	20	#5	39'-10"	—
b ₂ (E)	8	#5	39'-10"	—
b ₆ (E)	3	#6	40'-0"	—
d(E)	167	#5	3'-0"	—
d ₁ (E)	167	#5	2'-7"	—
d ₂ (E)	167	#4	3'-0"	—
d ₄ (E)	167	#4	2'-10"	—
d ₁₀ (E)	1	#3	2'-6"	—
e ₂₀₀ (E)	12	#4	32'-10"	—
e ₂₀₁ (E)	12	#4	12'-6"	—
e ₂₀₂ (E)	12	#4	32'-4"	—
e ₂₀₃ (E)	4	#5	33'-1"	—
e ₂₀₄ (E)	4	#5	12'-6"	—
e ₂₀₅ (E)	4	#5	32'-7"	—
e ₂₀₆ (E)	4	#8	34'-3"	—
e ₂₀₇ (E)	4	#8	12'-6"	—
e ₂₀₈ (E)	4	#8	33'-9"	—
Reinforcement Bars, Epoxy Coated			Pound	4,950
Concrete Removal			Cu. Yd.	44.2
Concrete Superstructure			Cu. Yd.	40.6
Bituminous Concrete Removal - (Deck)			Sq. Yd.	216
Bridge Deck Hydro-Scarification - 1/2"			Sq. Yd.	216
Bridge Deck Microsilica Concrete Overlay - 2 1/2"			Sq. Yd.	204
Drainage Scuppers - DS12			Ea.	5
Protective Coat			Sq. Yd.	254
Bridge Deck Grooving			Sq. Yd.	204
Mechanical Splice			Ea.	36

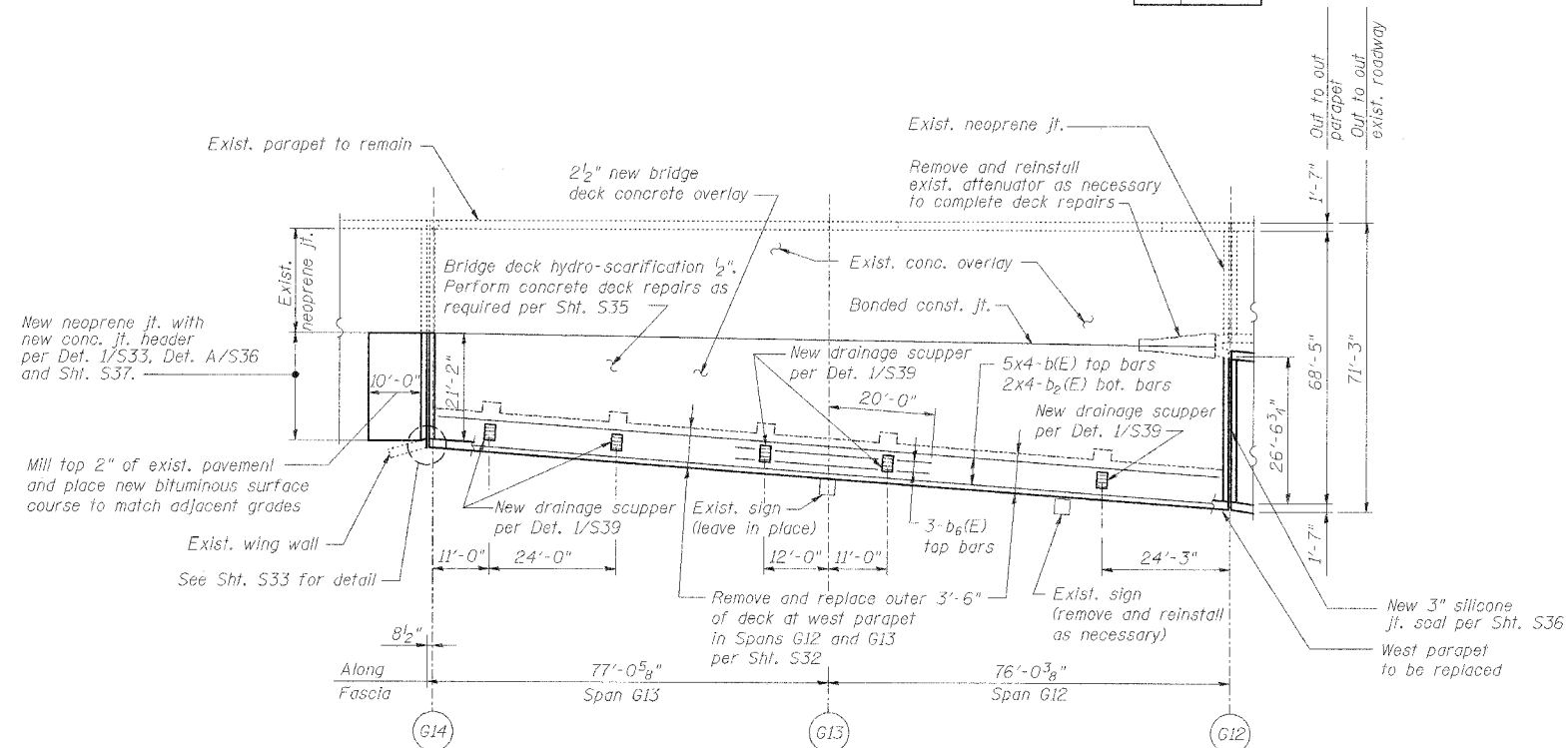
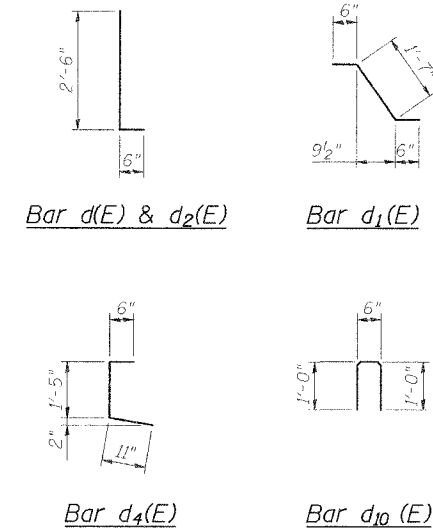


OUTSIDE ELEVATION OF WEST PARAPET

All dimensions measured along bottom of outside 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 G12 - G13

DECK & PARAPET REPAIRS - SPANS G12-G13

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. 082-0142 (RAMP S)
		SCALE: N.T.S.
		DATE: 02/28/2006

DATE: 4/19/2006
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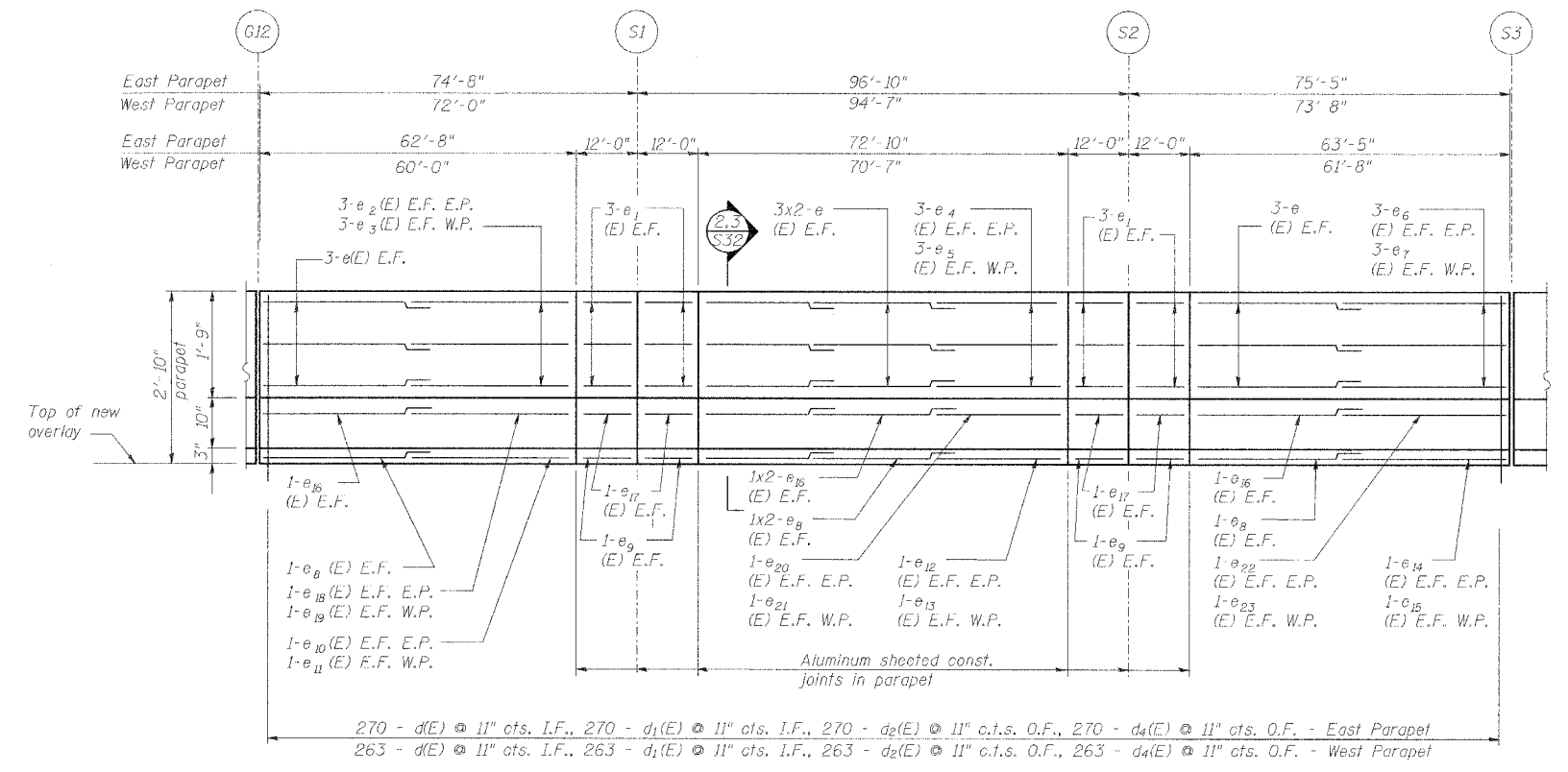
DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	82
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - IM-78		

* 82-3HVB-3R-3 SHEET S-15 OF S-44
CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

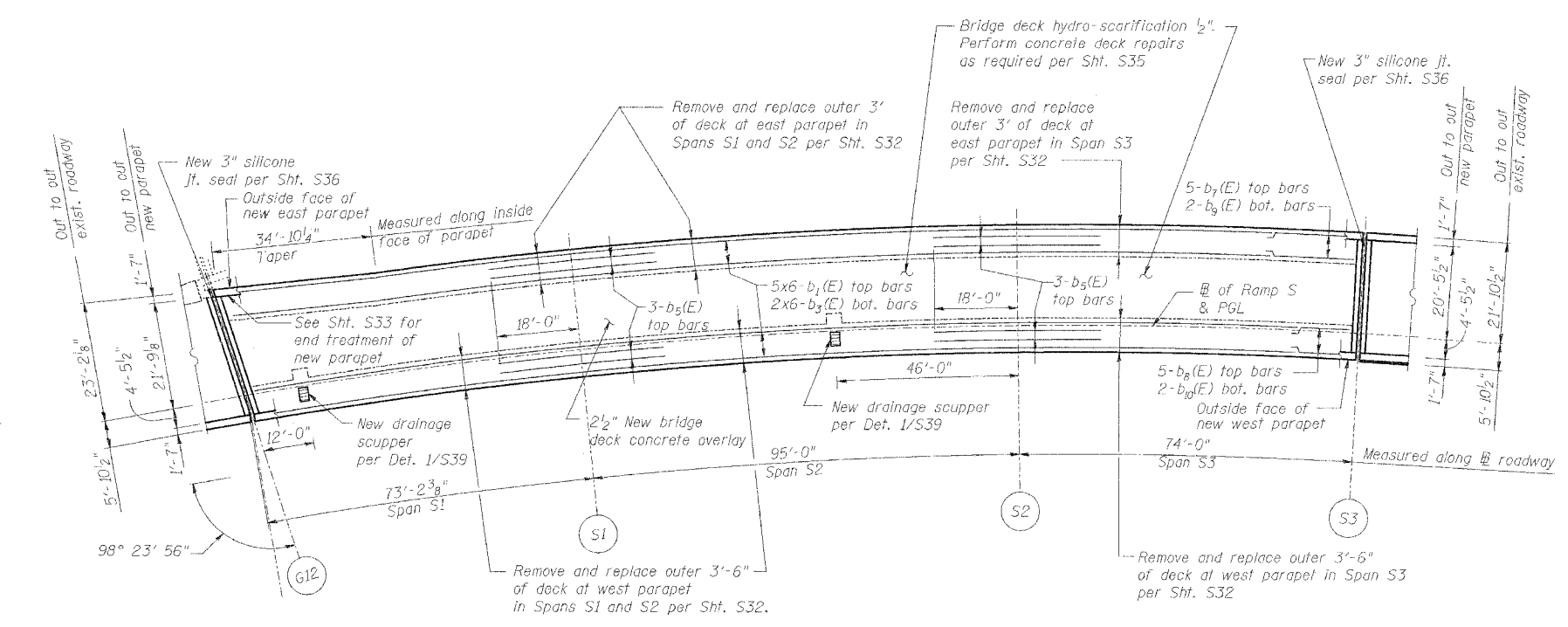
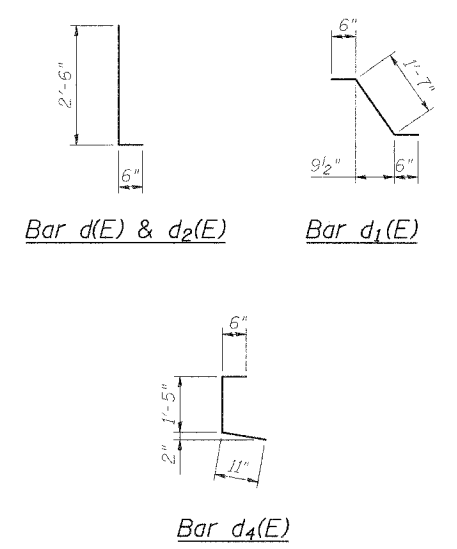
Bar	No.	Size	Length	Shape
a ₃₅₀ (E)	8	#5	2'-0"	---
a ₃₅₅ (E)	78	#5	3'-0"	---
b ₁ (E)	60	#5	40'-0"	---
b ₂ (E)	20	#5	40'-0"	---
b ₃ (E)	12	#6	36'-0"	---
b ₄ (E)	5	#5	19'-8"	---
b ₅ (E)	5	#5	13'-0"	---
b ₆ (E)	2	#5	19'-8"	---
b ₇ (E)	2	#5	13'-0"	---
d(E)	533	#5	3'-0"	---
d ₁ (E)	533	#5	2'-7"	---
d ₂ (E)	533	#4	3'-0"	---
d ₄ (E)	533	#4	2'-10"	---
e(E)	48	#4	35'-0"	---
e ₁ (E)	48	#4	11'-9"	---
e ₂ (E)	6	#4	29'-1"	---
e ₃ (E)	6	#4	26'-5"	---
e ₄ (E)	6	#4	6'-0"	---
e ₅ (E)	6	#4	3'-8"	---
e ₆ (E)	6	#4	29'-10"	---
e ₇ (E)	6	#4	28'-0"	---
e ₈ (E)	16	#5	35'-0"	---
e ₉ (E)	16	#5	11'-9"	---
e ₁₀ (E)	2	#5	29'-7"	---
e ₁₁ (E)	2	#5	26'-10"	---
e ₁₂ (E)	2	#5	7'-0"	---
e ₁₃ (E)	2	#5	4'-7"	---
e ₁₄ (E)	2	#5	30'-4"	---
e ₁₅ (E)	2	#5	28'-6"	---
e ₁₆ (E)	16	#8	35'-0"	---
e ₁₇ (E)	16	#8	11'-9"	---
e ₁₈ (E)	2	#8	32'-0"	---
e ₁₉ (E)	2	#8	29'-3"	---
e ₂₀ (E)	2	#8	11'-8"	---
e ₂₁ (E)	2	#8	9'-3"	---
e ₂₂ (E)	2	#8	32'-8"	---
e ₂₃ (E)	2	#8	30'-10"	---
Reinforcement Bars, Epoxy Coated	Pound	15,400		
Concrete Removal	Cu. Yd.	124.1		
Concrete Superstructure	Cu. Yd.	113.7		
Bituminous Concrete Removal - (Deck)	Sq. Yd.	653		
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	653		
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	697		
Drainage Scuppers - DS12	Ea.	2		
Protective Coat	Sq. Yd.	1,095		
Bridge Deck Grooving	Sq. Yd.	697		
Protective Shield	Sq. Yd.	690		
Mechanical Splice	Ea.	70		



INSIDE ELEVATION OF EAST PARAPET

West 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 S1 - S3

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS S1 - S3

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. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/10/2006 FILENAME: P:\2001\1201-1800\2001.1240\drafting\roadway\rehab.dwg\tramp\parapet-deck1_e_dp0108.dwg

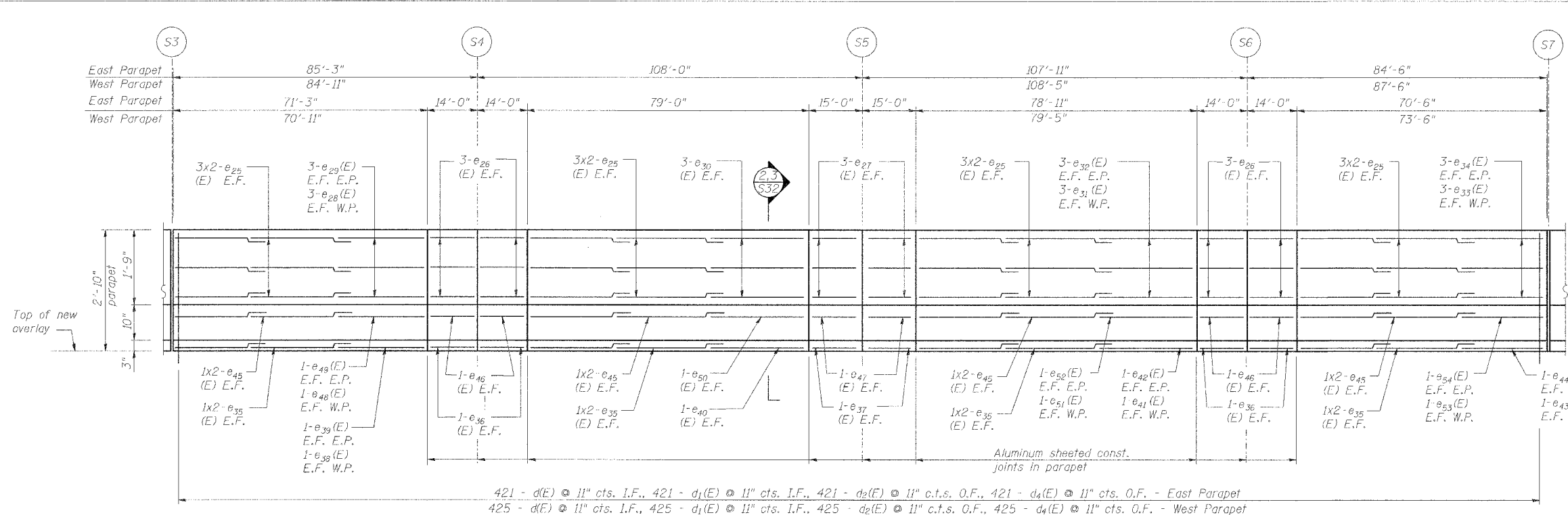
DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	83
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT 14-70		

* 82-3HVB-3R-3 SHEET 5-16 OF S-44
CONTRACT NO. 763005

SUPERSTRUCTURE BILL OF MATERIAL

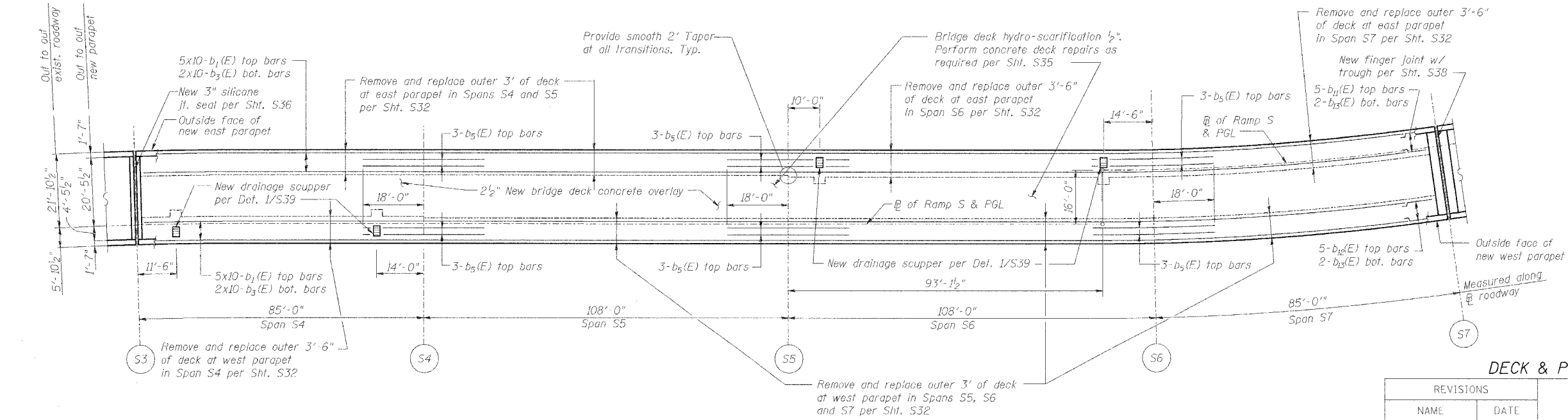
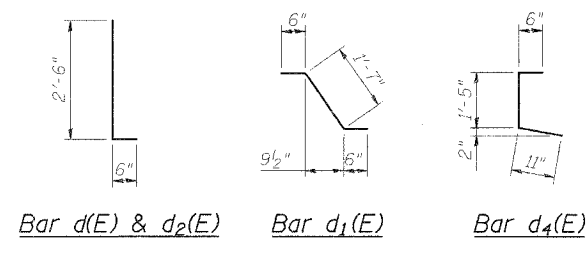
Bar	No.	Size	Length	Shape
$\sigma_{30}(E)$	16	#5	2'-0"	
$\sigma_{35}(E)$	100	#5	3'-0"	
$b_1(E)$	100	#5	40'-0"	
$b_2(E)$	40	#5	40'-0"	
$b_3(E)$	18	#6	36'-0"	
$d_{11}(E)$	5	#5	7'-1"	
$d_{12}(E)$	5	#5	10'-3"	
$d_{13}(E)$	2	#5	7'-1"	
$d_{14}(E)$	2	#5	10'-3"	
$d(E)$	846	#5	3'-0"	
$d_1(E)$	846	#5	2'-7"	
$d_2(E)$	846	#4	3'-0"	
$d_4(E)$	846	#4	2'-10"	
$e_{25}(E)$	96	#4	35'-0"	
$e_{26}(E)$	48	#4	13'-9"	
$e_{27}(E)$	24	#4	14'-9"	
$e_{28}(E)$	6	#4	4'-0"	
$e_{29}(E)$	6	#4	4'-4"	
$e_{30}(E)$	12	#4	12'-1"	
$e_{31}(E)$	6	#4	12'-6"	
$e_{32}(E)$	6	#4	12'-0"	
$e_{33}(E)$	6	#4	6'-7"	
$e_{34}(E)$	6	#4	3'-7"	
$e_{35}(E)$	32	#5	35'-0"	
$e_{36}(E)$	16	#5	13'-9"	
$e_{37}(E)$	8	#5	14'-9"	
$e_{38}(E)$	2	#5	5'-0"	
$e_{39}(E)$	2	#5	5'-4"	
$e_{40}(E)$	4	#5	13'-1"	
$e_{41}(E)$	2	#5	13'-6"	
$e_{42}(E)$	2	#5	13'-0"	
$e_{43}(E)$	2	#5	7'-7"	
$e_{44}(E)$	2	#5	4'-7"	
$e_{45}(E)$	32	#8	35'-0"	
$e_{46}(E)$	16	#8	13'-9"	
$e_{47}(E)$	8	#8	14'-9"	
$e_{48}(E)$	2	#8	9'-8"	
$e_{49}(E)$	2	#8	10'-0"	
$e_{50}(E)$	4	#8	17'-9"	
$e_{51}(E)$	2	#8	18'-2"	
$e_{52}(E)$	2	#8	17'-8"	
$e_{53}(E)$	2	#8	12'-3"	
$e_{54}(E)$	2	#8	9'-3"	
Reinforcement Bars, Epoxy Coated			Pound	24,780
Concrete Removal			Cu. Yd.	194.2
Concrete Superstructure			Cu. Yd.	176.2
Bituminous Concrete Removal - (Deck)			Sq. Yd.	947
Bridge Deck Hydro-Scarification - 1/2"			Sq. Yd.	947
Bridge Deck Microsilica Concrete Overlay - 2 1/2"			Sq. Yd.	1,072
Drainage Scuppers - DS12			Ea.	4
Protective Coat			Sq. Yd.	1,704
Bridge Deck Grooving			Sq. Yd.	1,072
Protective Shield			Sq. Yd.	190
Mechanical Splice			Ea.	84



INSIDE ELEVATION OF EAST PARAPET

West 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 S4 - S7

Reinforcement bars designated (E) shall be epoxy coated.

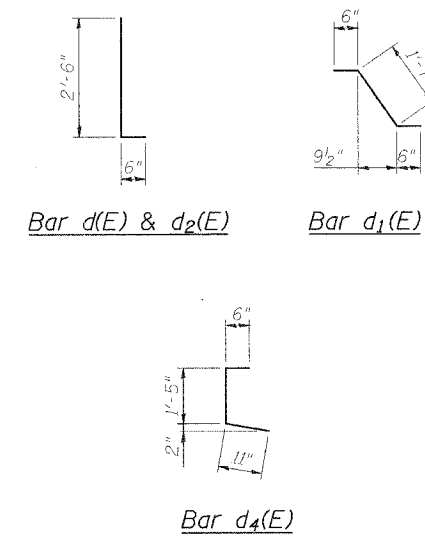
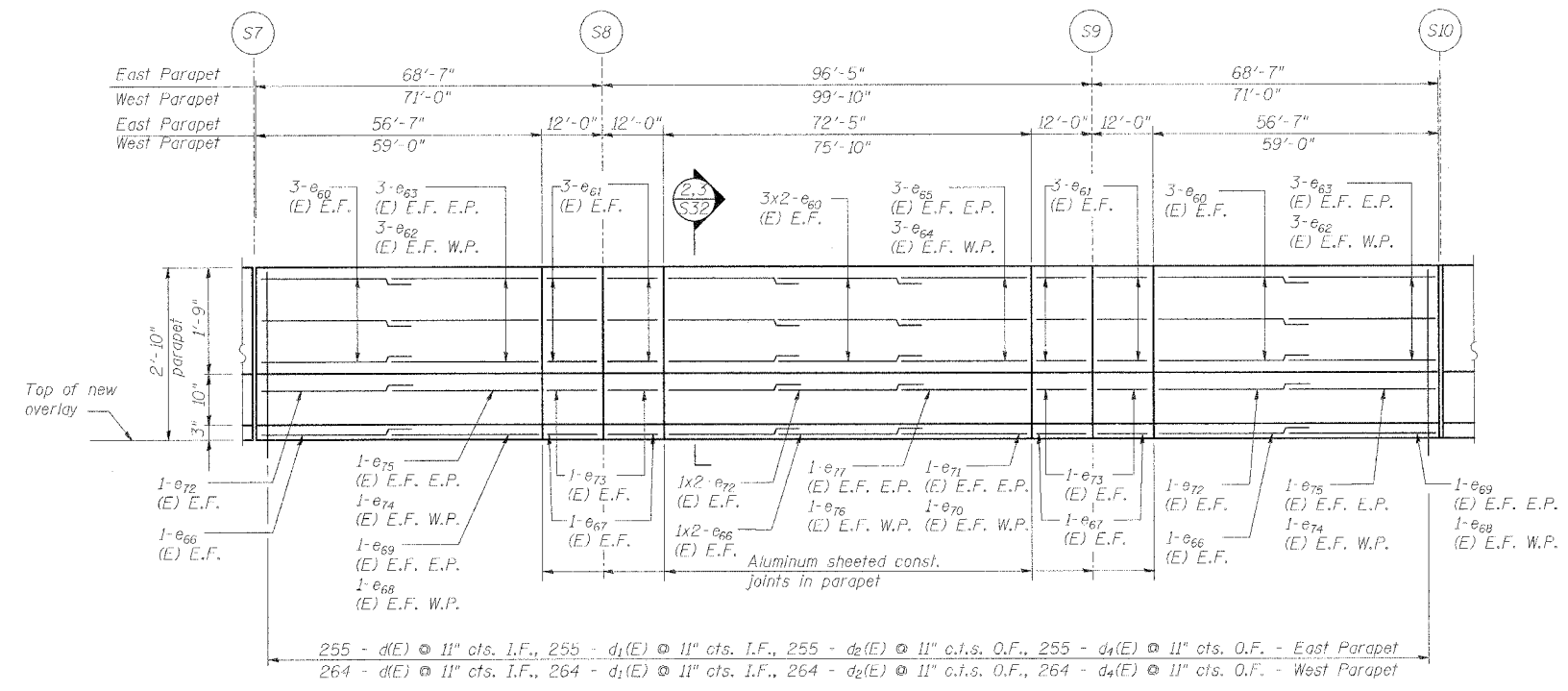
DECK & PARAPET REPAIRS - SPANS S4 - S7

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. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadway\rehab_dbs\tramps\parapet-deck.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD



INSIDE ELEVATION OF EAST PARAPET

West 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

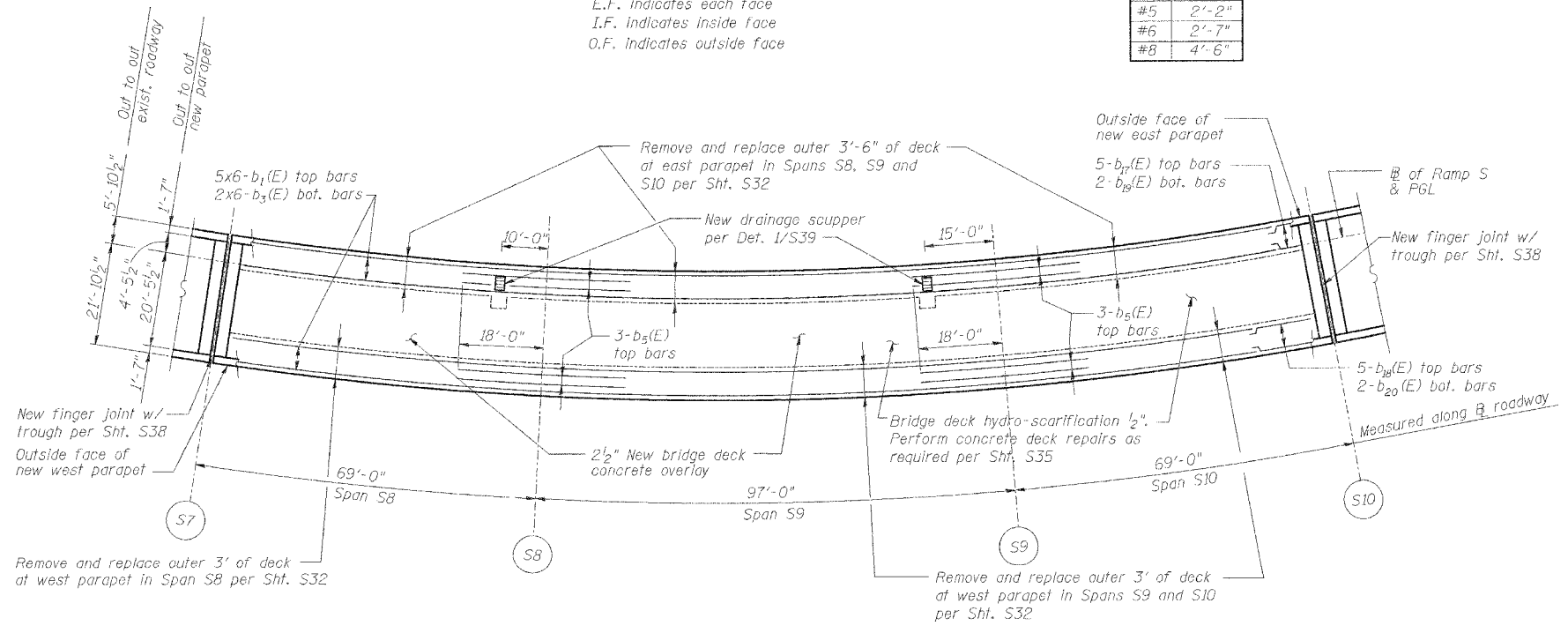
#4	1'-8"
#5	2'-2"
#6	2'-7"
#8	4'-6"

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₅₀ (E)	8	#5	2'-0"	
a ₅₁ (E)	80	#5	3'-0"	
b ₁ (E)	60	#5	40'-0"	
b ₂ (E)	24	#5	40'-0"	
b ₃ (E)	12	#6	36'-0"	
b ₇ (E)	5	#5	6'-4"	
b ₈ (E)	5	#5	14'-7"	
b ₉ (E)	2	#5	6'-4"	
b ₂₀ (E)	2	#5	14'-7"	
d(E)	519	#5	3'-0"	
d ₁ (E)	519	#5	2'-7"	
d ₂ (E)	519	#4	3'-0"	
d ₄ (E)	519	#4	2'-10"	
e ₆₀ (E)	48	#4	35'-0"	
e ₆₁ (E)	48	#4	11'-9"	
e ₆₂ (E)	12	#4	25'-5"	
e ₆₃ (E)	12	#4	23'-0"	
e ₆₄ (E)	6	#4	9'-0"	
e ₆₅ (E)	6	#4	5'-6"	
e ₆₆ (E)	16	#5	35'-0"	
e ₆₇ (E)	16	#5	11'-9"	
e ₆₈ (E)	4	#5	25'-11"	
e ₆₉ (E)	4	#5	23'-6"	
e ₇₀ (E)	2	#5	10'-0"	
e ₇₁ (E)	2	#5	6'-6"	
e ₇₂ (E)	16	#8	35'-0"	
e ₇₃ (E)	16	#8	11'-9"	
e ₇₄ (E)	4	#8	28'-3"	
e ₇₅ (E)	4	#8	25'-10"	
e ₇₆ (E)	2	#8	14'-9"	
e ₇₇ (E)	2	#8	11'-2"	

Item	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	15,200
Concrete Removal	Cu. Yd.	121.7
Concrete Superstructure	Cu. Yd.	110.6
Bituminous Concrete Removal - (Deck)	Sq. Yd.	581
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	581
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	658
Drainage Scuppers - DS12	Ea.	2
Protective Coat	Sq. Yd.	1,046
Bridge Deck Grooving	Sq. Yd.	658
Mechanical Splice	Ea.	72

Reinforcement bars designated (E) shall be epoxy coated.



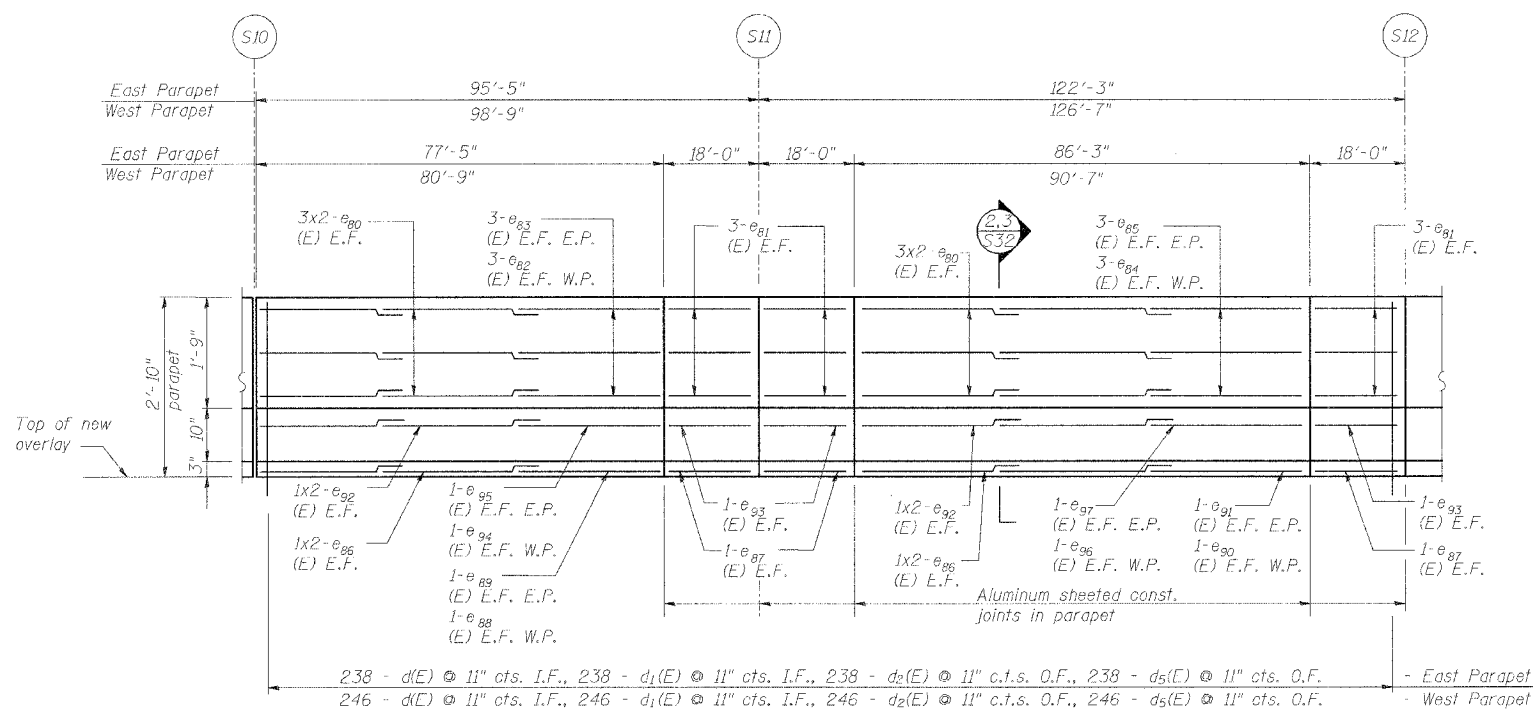
DECK PLAN OF SPANS S8 - S10

DECK & PARAPET REPAIRS - SPANS S8 - S10

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. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\20011240\drafting\roadwayrehab_d8\parapet\parapet-deck_s_dp0810.dgn

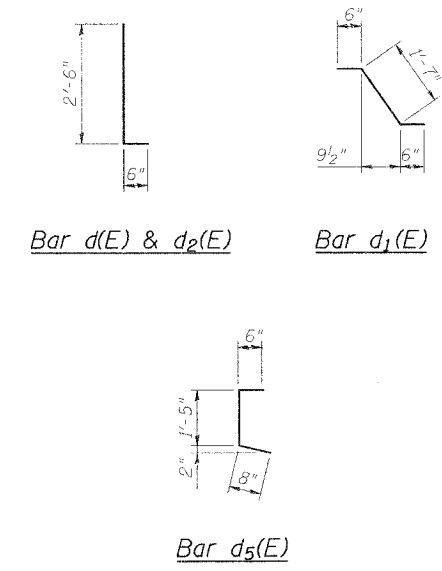
DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD/JEL



INSIDE ELEVATION OF EAST PARAPET

West 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"

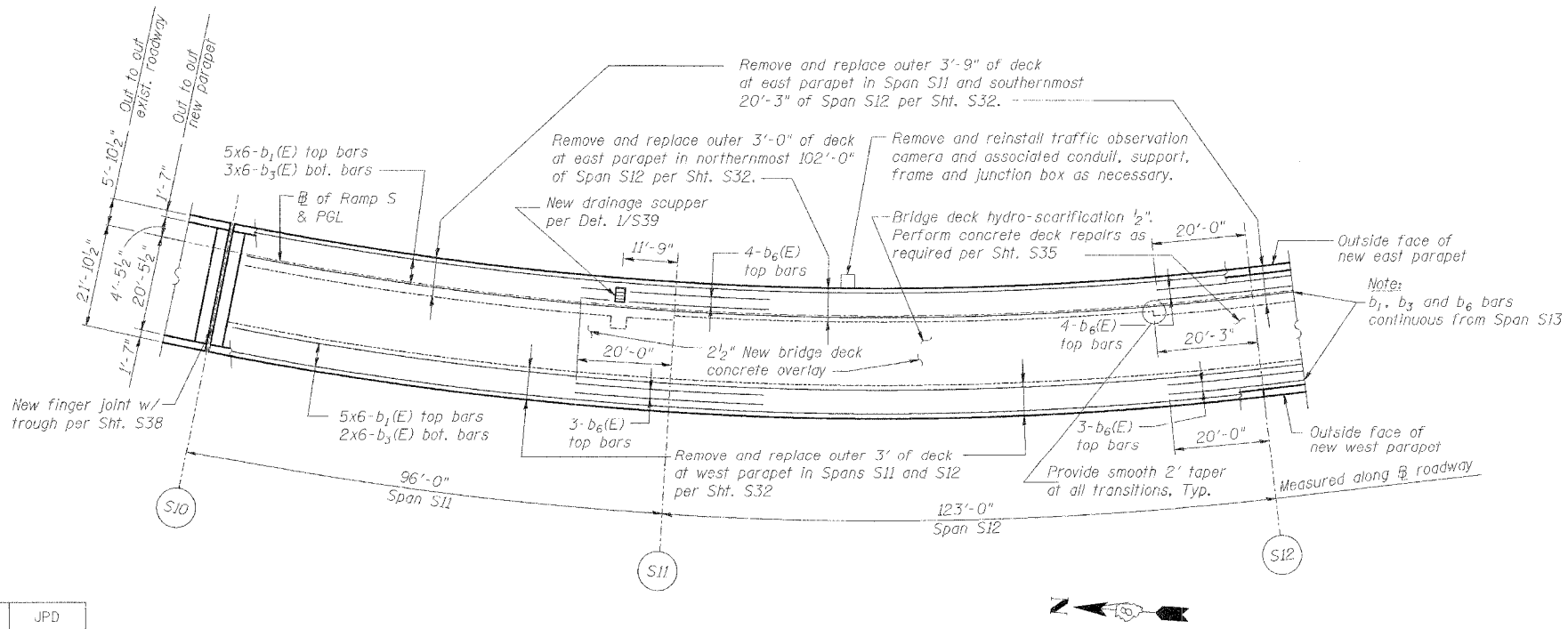


SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a _{35d} (E)	4	#5	2'-0"	
a _{35s} (E)	38	#5	3'-0"	
b ₁ (E)	60	#5	40'-0"	
b ₃ (E)	30	#5	40'-0"	
b ₆ (E)	7	#6	40'-0"	
d(F)	484	#5	3'-0"	
d ₁ (E)	484	#5	2'-7"	
d ₂ (E)	484	#4	3'-0"	
d ₅ (E)	484	#4	2'-7"	
e ₈₀ (E)	48	#4	35'-0"	
e ₈₁ (E)	36	#4	17'-9"	
e ₈₂ (E)	6	#4	13'-9"	
e ₈₃ (E)	6	#4	10'-6"	
e ₈₄ (E)	6	#4	23'-10"	
e ₈₅ (E)	6	#4	19'-4"	
e ₈₆ (E)	16	#5	35'-0"	
e ₈₇ (E)	12	#5	17'-9"	
e ₈₈ (E)	2	#5	14'-9"	
e ₈₉ (E)	2	#5	11'-6"	
e ₉₀ (E)	2	#5	24'-10"	
e ₉₁ (E)	2	#5	20'-4"	
e ₉₂ (E)	16	#8	35'-0"	
e ₉₃ (E)	12	#8	17'-9"	
e ₉₄ (E)	2	#8	19'-6"	
e ₉₅ (E)	2	#8	16'-2"	
e ₉₆ (E)	2	#8	29'-6"	
e ₉₇ (E)	2	#8	25'-0"	
Reinforcement Bars, Epoxy Coated	Pound	14,150		
Concrete Removal	Cu. Yd.	106.9		
Concrete Superstructure	Cu. Yd.	96.6		
Bituminous Concrete Removal (Deck)	Sq. Yd.	541		
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	541		
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	613		
Drainage Scuppers - DS12	Ea.	1		
Protective Coat	Sq. Yd.	975		
Bridge Deck Grooving	Sq. Yd.	613		
Protective Shield	Sq. Yd.	380		
Mechanical Splice	Ea.	34		

DECK & PARAPET REPAIRS - SPANS S11 - S12

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. 082-0142 (RAMP S)
		SCALE:
		DATE: 02/28/2006



DECK PLAN OF SPANS S11 - S12

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001\1240\drafting\roadwayrehab\ds\parapet\roadwayrehab\ds\parapet-deck_e_dp1112.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD/JEL

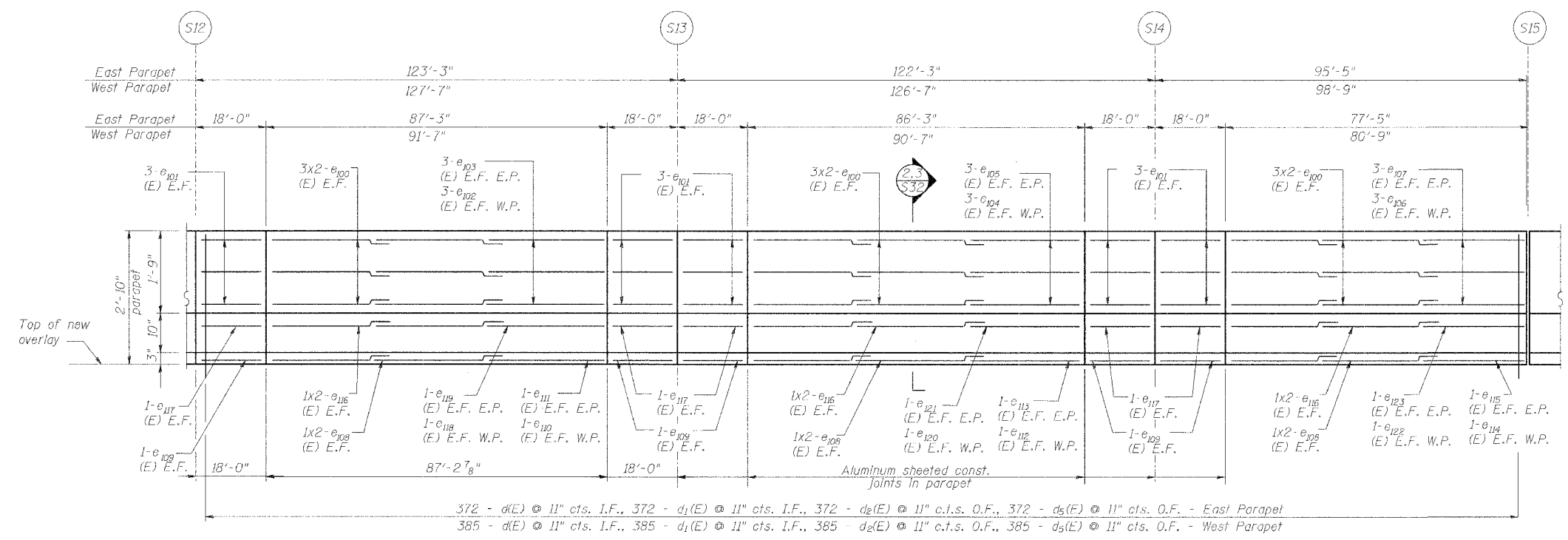
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	86

* 82-3HVB-3R-3 SHEET S-19 OF S-44
 CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
$d_{11}(E)$	8	#5	2'-0"	
$d_{12}(E)$	40	#5	3'-0"	
$b_1(E)$	85	#5	40'-0"	
$b_2(E)$	38	#5	40'-0"	
$b_3(E)$	20	#6	40'-0"	
$b_{23}(E)$	5	#5	28'-5"	
$b_{24}(E)$	5	#5	10'-3"	
$b_{25}(E)$	2	#5	28'-5"	
$b_{26}(E)$	2	#5	10'-3"	
$d(E)$	757	#5	3'-0"	
$d_1(E)$	757	#5	2'-7"	
$d_2(E)$	757	#4	3'-0"	
$d_3(E)$	757	#4	2'-7"	
$d_4(E)$	3	#6	4'-8"	
$d_5(E)$	5	#6	8'-11"	
$e_{100}(E)$	72	#4	35'-0"	
$e_{101}(E)$	60	#4	17'-9"	
$e_{102}(E)$	6	#4	24'-10"	
$e_{103}(E)$	6	#4	20'-4"	
$e_{104}(E)$	6	#4	23'-10"	
$e_{105}(E)$	6	#4	19'-4"	
$e_{106}(E)$	6	#4	13'-10"	
$e_{107}(E)$	6	#4	10'-6"	
$e_{108}(E)$	24	#5	35'-0"	
$e_{109}(E)$	20	#5	17'-9"	
$e_{110}(E)$	2	#5	25'-10"	
$e_{111}(E)$	2	#5	21'-4"	
$e_{112}(E)$	2	#5	24'-10"	
$e_{113}(E)$	2	#5	20'-4"	
$e_{114}(E)$	2	#5	14'-10"	
$e_{115}(E)$	2	#5	11'-6"	
$e_{116}(E)$	24	#8	35'-0"	
$e_{117}(E)$	20	#8	17'-9"	
$e_{118}(E)$	2	#8	30'-6"	
$e_{119}(E)$	2	#8	26'-0"	
$e_{120}(E)$	2	#8	29'-6"	
$e_{121}(E)$	2	#8	25'-0"	
$e_{122}(E)$	2	#8	19'-6"	
$e_{123}(E)$	2	#8	16'-2"	

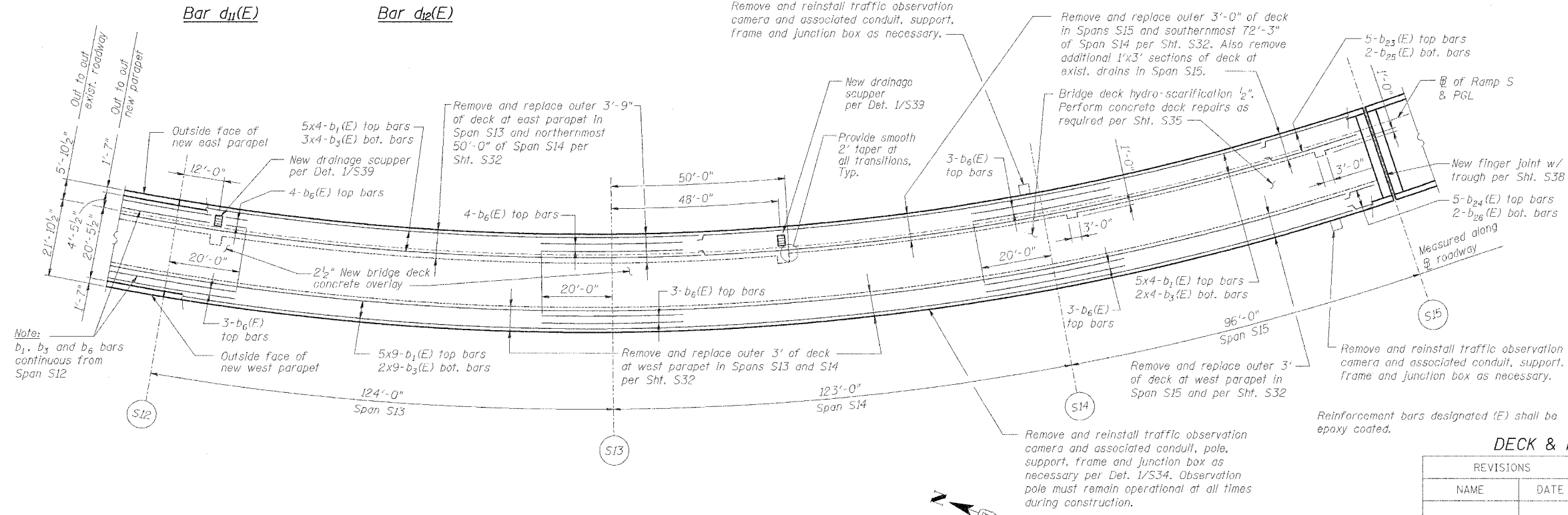
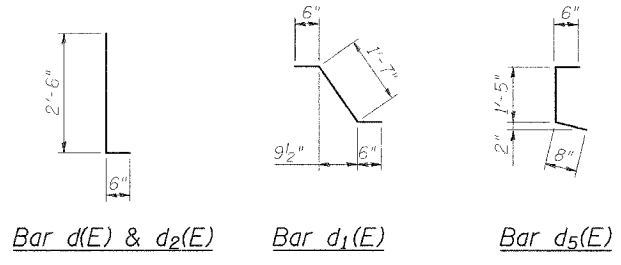
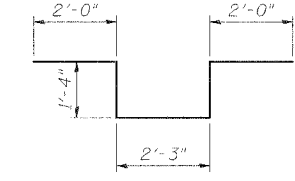
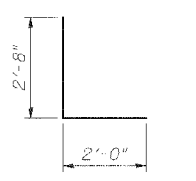
Item	Unit	Quantity
Reinforcement Bars, Epoxy Coated	Pound	22,360
Concrete Removal	Cu. Yd.	164.0
Concrete Superstructure	Cu. Yd.	147.9
Bituminous Concrete Removal - (Deck)	Sq. Yd.	848
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.	848
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.	960
Drainage Scuppers - DS12	Ea.	?
Protective Coat	Sq. Yd.	1,527
Bridge Deck Grooving	Sq. Yd.	960
Protective Shield	Sq. Yd.	560
Mechanical Splice	Ea.	34



INSIDE ELEVATION OF EAST PARAPET

West 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

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



DECK PLAN OF SPANS S13 - S15

DECK & PARAPET REPAIRS - SPANS S13 - S15

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. 082-0142 (RAMP S)
 SCALE:
 DATE: 02/28/2006

DATE: 4/19/2006
 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab_ds\parapet-deck\p1315.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD/JEL

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	88
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-3 SHEET S-21 OF S-44
CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₁₅₀ (E)	20	#5	2'-0"	
a ₁₅₁ (E)	66	#5	3'-0"	
b ₁ (E)	80	#5	110'-0"	
b ₂ (E)	32	#5	40'-0"	
b ₃ (E)	12	#6	40'-0"	
b ₃₃ (E)	12	#6	14'-7"	
b ₃₄ (E)	5	#5	38'-6"	
b ₃₅ (E)	5	#5	36'-4"	
b ₃₆ (E)	2	#5	38'-6"	
b ₃₇ (E)	2	#5	36'-4"	
d(E)	743	#5	3'-0"	
d ₁ (E)	743	#5	2'-7"	
d ₂ (E)	743	#4	3'-0"	
d ₄ (E)	743	#4	2'-10"	
e ₁₅₀ (E)	72	#4	35'-0"	
e ₁₅₁ (E)	48	#4	17'-9"	
e ₁₅₂ (E)	12	#4	19'-0"	
e ₁₅₃ (E)	12	#4	30'-0"	
e ₁₅₄ (E)	6	#4	19'-6"	
e ₁₅₅ (E)	6	#4	17'-4"	
e ₁₅₆ (E)	24	#5	35'-0"	
e ₁₅₇ (E)	16	#5	17'-9"	
e ₁₅₈ (E)	4	#5	20'-0"	
e ₁₅₉ (E)	4	#5	31'-1"	
e ₁₆₀ (E)	2	#5	20'-6"	
e ₁₆₁ (E)	2	#5	18'-4"	
e ₁₆₂ (E)	24	#8	35'-0"	
e ₁₆₃ (E)	16	#8	17'-9"	
e ₁₆₄ (E)	4	#8	24'-9"	
e ₁₆₅ (E)	4	#8	35'-9"	
e ₁₆₆ (E)	2	#8	25'-2"	
e ₁₆₇ (E)	2	#8	23'-0"	
Reinforcement Bars, Epoxy Coated	Pound		21,780	
Concrete Removal	Cu. Yd.		157.6	
Concrete Superstructure	Cu. Yd.		142.4	
Bituminous Concrete Removal - (Deck)	Sq. Yd.		796	
Bridge Deck Hydro-Scarification - 1/2"	Sq. Yd.		796	
Bridge Deck Microsilica Concrete Overlay - 2 1/2"	Sq. Yd.		902	
Drainage Scuppers - DS12	Ea.		5	
Protective Coat	Sq. Yd.		1,434	
Bridge Deck Grooving	Sq. Yd.		902	
Protective Shield	Sq. Yd.		250	
Mechanical Splice	Ea.		46	

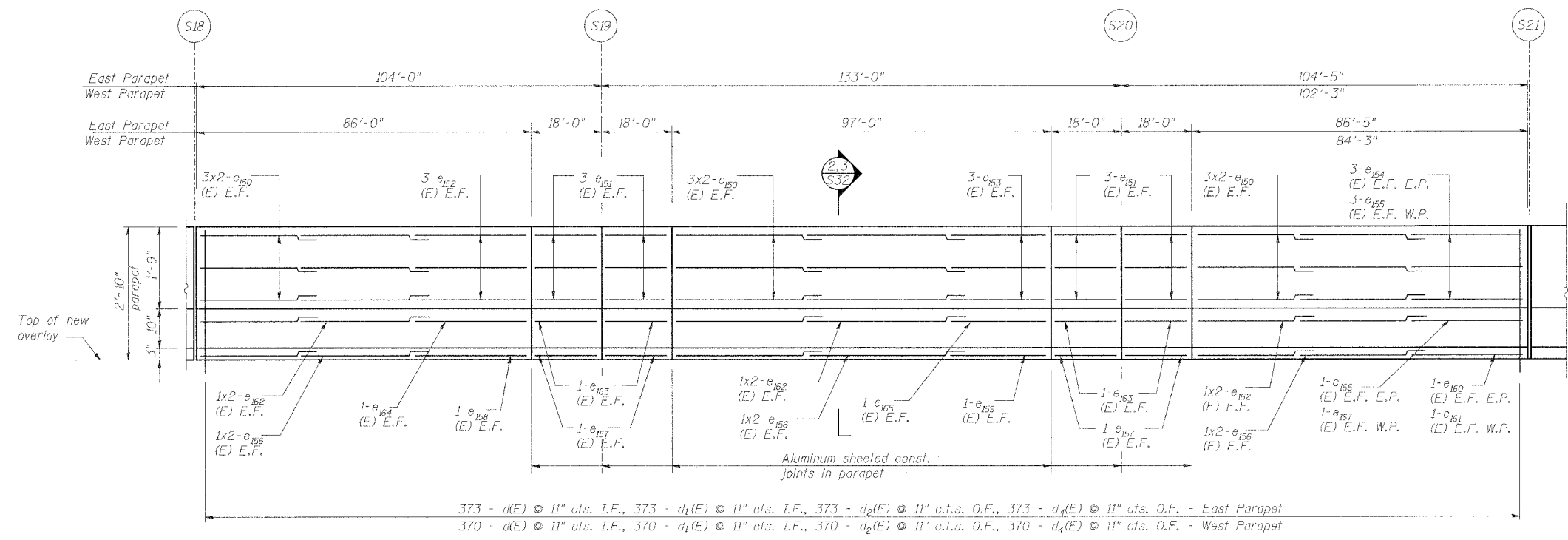
REVISIONS	NAME	DATE

Reinforcement bars designated (E) shall be epoxy coated.

DECK & PARAPET REPAIRS - SPANS S19 - S21

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

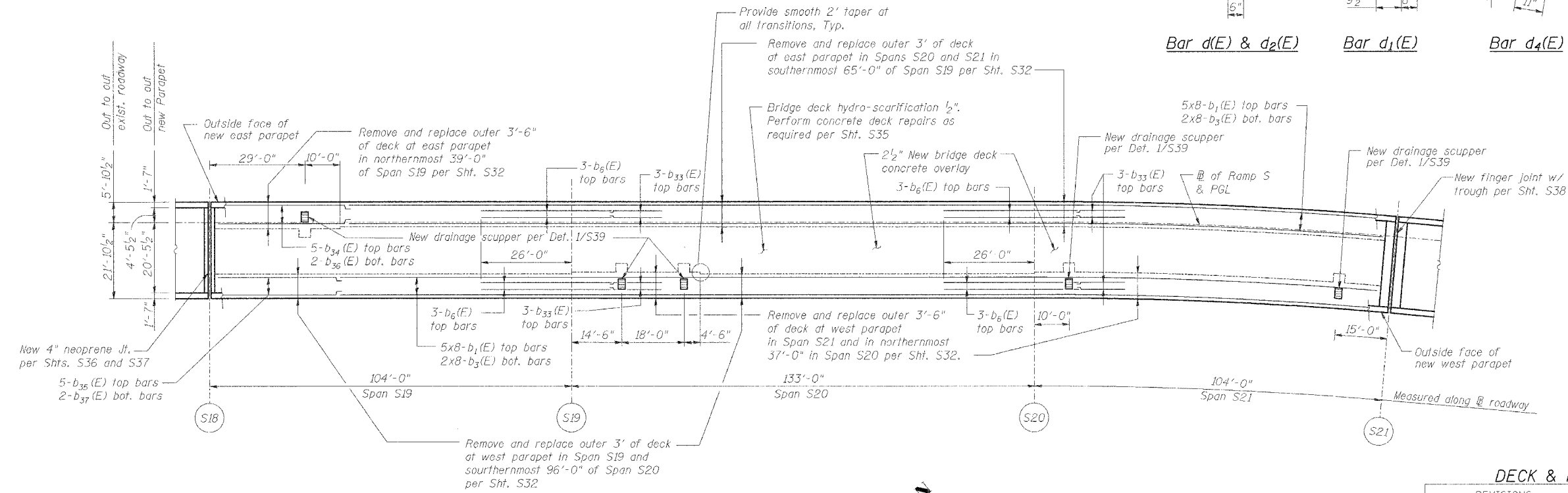
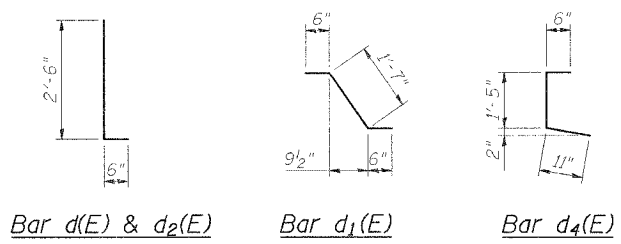
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006



INSIDE ELEVATION OF EAST PARAPET

West 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 S19 - S21

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab_dsa\ ramps\parapet-deck_e_dp1921.dgn

DESIGNED	JPD
CHECKED	JEL
DRAWN	CLK
CHECKED	JPD/JEL

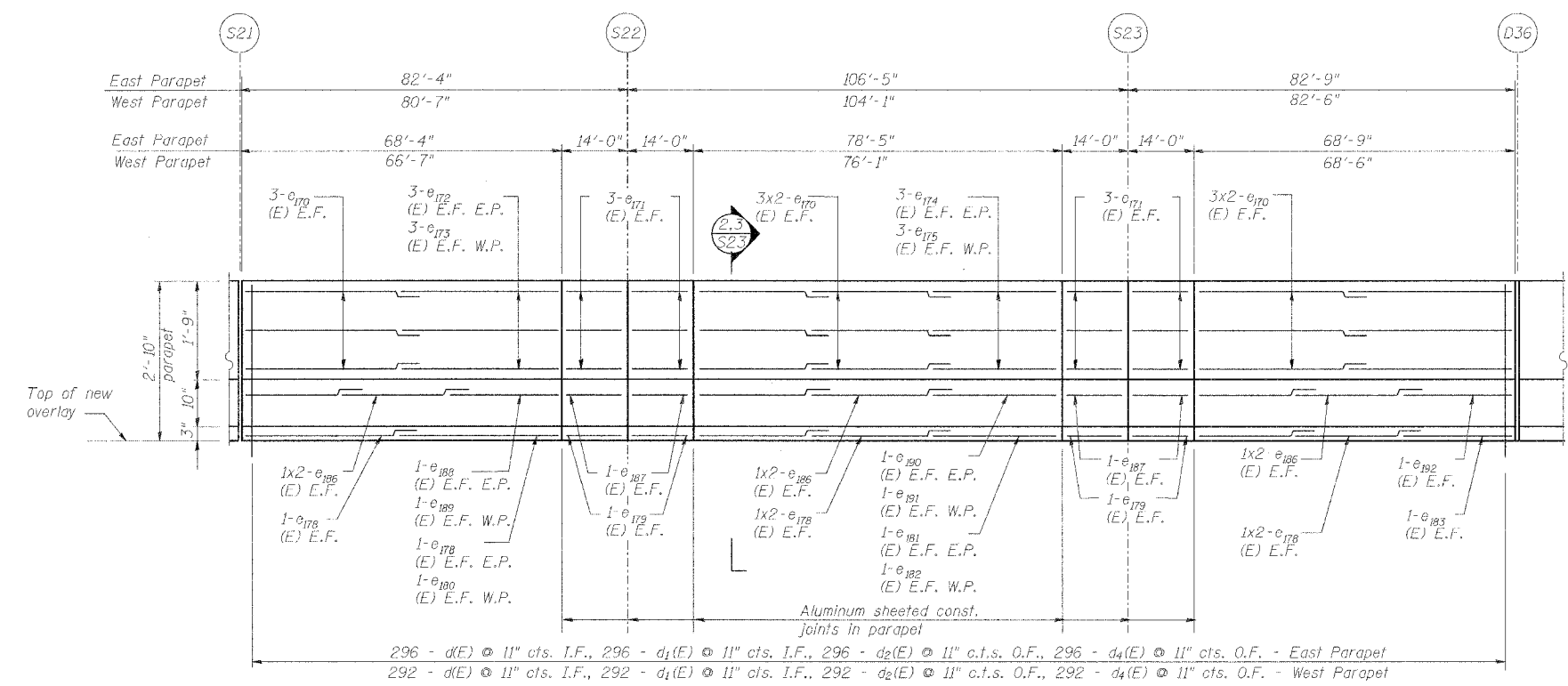
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	89
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-78		

* 82-3HVB-3R-3 SHEET S-22 OF S-44
CONTRACT NO. 76305

SUPERSTRUCTURE BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a ₃₅₀ (E)	16	#5	2'-0"	---
a ₃₅₁ (E)	72	#5	3'-0"	---
b ₁ (E)	70	#5	40'-0"	---
b ₃ (E)	28	#5	40'-0"	---
b ₆ (E)	12	#6	40'-0"	---
b ₃₈ (E)	5	#5	6'-2"	---
b ₃₉ (E)	5	#5	1'-10"	---
b ₄₀ (E)	2	#5	6'-2"	---
b ₄₁ (E)	2	#5	1'-10"	---
d(E)	588	#5	3'-0"	---
d ₁ (E)	588	#5	2'-7"	---
d ₂ (E)	588	#4	3'-0"	---
d ₄ (E)	588	#4	2'-10"	---
e ₁₇₀ (E)	60	#4	35'-0"	---
e ₁₇₁ (E)	48	#4	13'-9"	---
e ₁₇₂ (E)	6	#4	34'-9"	---
e ₁₇₃ (E)	6	#4	33'-0"	---
e ₁₇₄ (E)	6	#4	11'-7"	---
e ₁₇₅ (E)	6	#4	9'-2"	---
e ₁₇₈ (E)	22	#5	35'-0"	---
e ₁₇₉ (E)	16	#5	13'-9"	---
e ₁₈₀ (E)	2	#5	33'-6"	---
e ₁₈₁ (E)	2	#5	12'-7"	---
e ₁₈₂ (E)	2	#5	10'-1"	---
e ₁₈₃ (E)	4	#5	2'-8"	---
e ₁₈₆ (E)	24	#8	35'-0"	---
e ₁₈₇ (E)	16	#8	13'-9"	---
e ₁₈₈ (E)	2	#8	7'-1"	---
e ₁₈₉ (E)	2	#8	5'-4"	---
e ₁₉₀ (E)	2	#8	17'-3"	---
e ₁₉₁ (E)	2	#8	14'-9"	---
e ₁₉₂ (E)	4	#8	7'-4"	---
Reinforcement Bars, Epoxy Coated		Pound	17,280	
Concrete Removal		Cu. Yd.	134.2	
Concrete Superstructure		Cu. Yd.	121.7	
Bituminous Concrete Removal - (Deck)		Sq. Yd.	658	
Bridge Deck Hydro-Scarification - 1/2"		Sq. Yd.	658	
Bridge Deck Microsilica Concrete Overlay - 2 1/2"		Sq. Yd.	746	
Drainage Scuppers - DS12		Ea.	4	
Protective Coat		Sq. Yd.	1,185	
Bridge Deck Grooving		Sq. Yd.	746	
Mechanical Splice		Ea.	56	

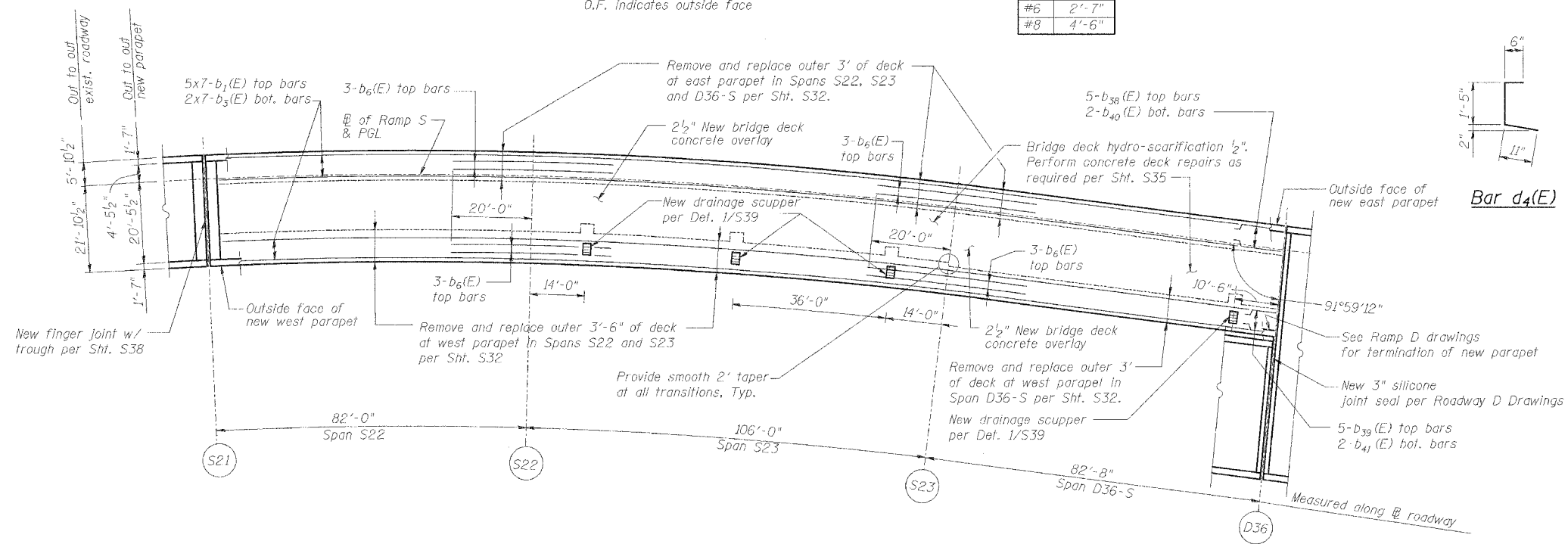
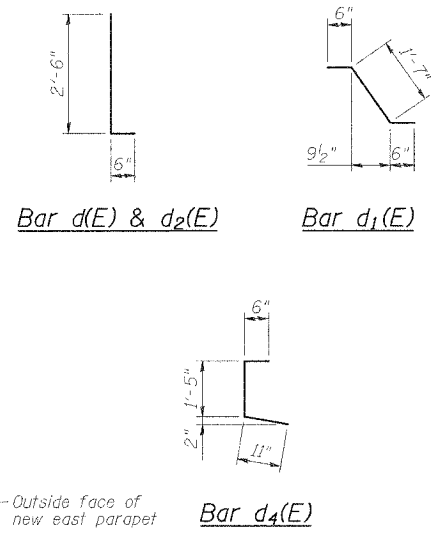
Reinforcement bars designated (E) shall be epoxy coated.



INSIDE ELEVATION OF EAST PARAPET

West 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 S22 - D36-S

DECK & PARAPET REPAIRS - SPANS S22 - D36-S

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

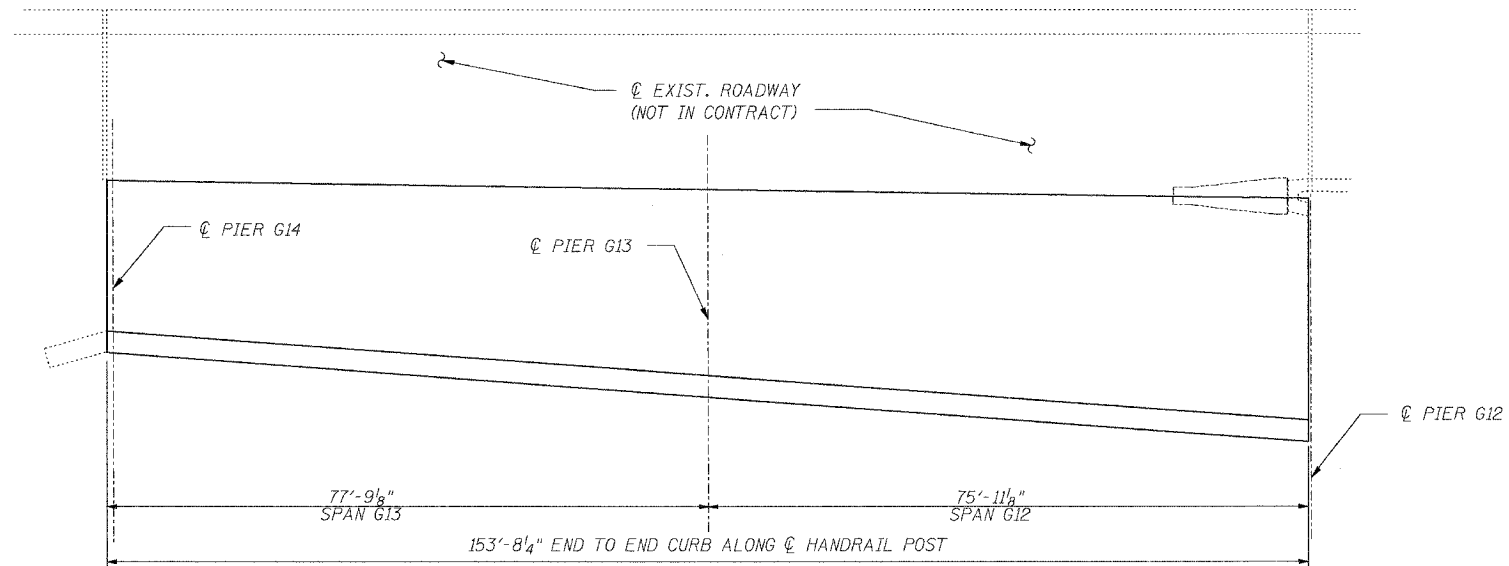
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

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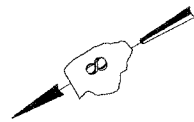
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	90
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

* 82-3HVB-3R-3 SHEET S-23 OF S-44
CONTRACT NO. 76305



PLAN



ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

SPAN	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
G12	210
G13	210

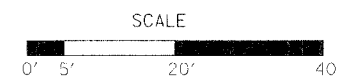
QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

NOTES:

INFRARED INSPECTION NOT PERFORMED IN THESE TWO SPANS
SURFACE TYPE: ASPHALT OVERLAY.
ACTUAL REPAIR LOCATIONS SHOULD BE SHOWN ON AS-BUILT DRAWINGS.

INFRARED THERMOGRAPHIC INSPECTION RESULTS

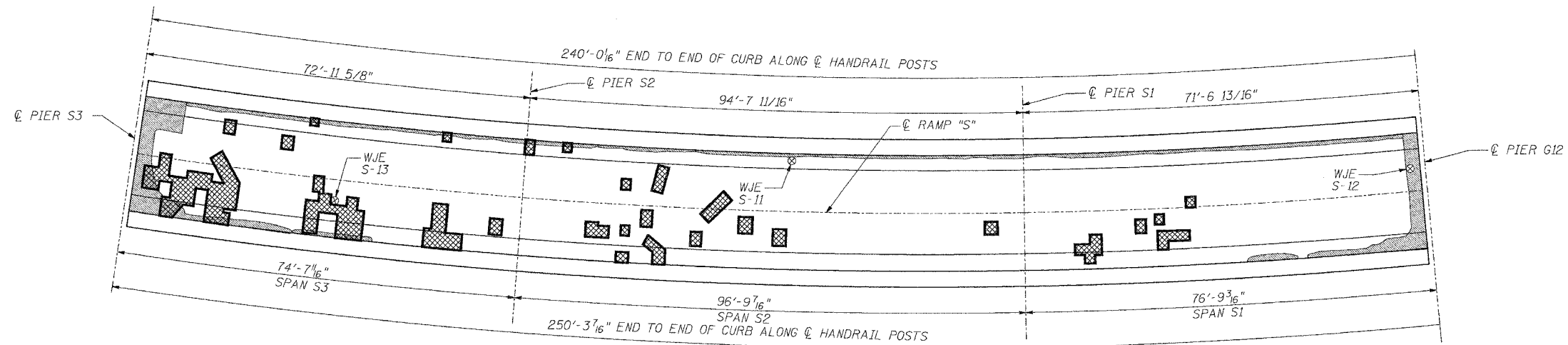
REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0142 (RAMP 5) SCALE: DATE: 02/28/2006



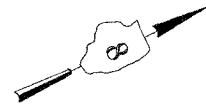
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DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	91
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-72		
* 82-3HVB-3R-3			SHEET 5-24 OF 5-44	
CONTRACT NO. 76305				



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	5385		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	103	1.9	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	401	7.4	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	0	0		

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S1	150	190
S2	180	240
S3	140	180

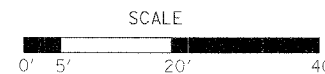
QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

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

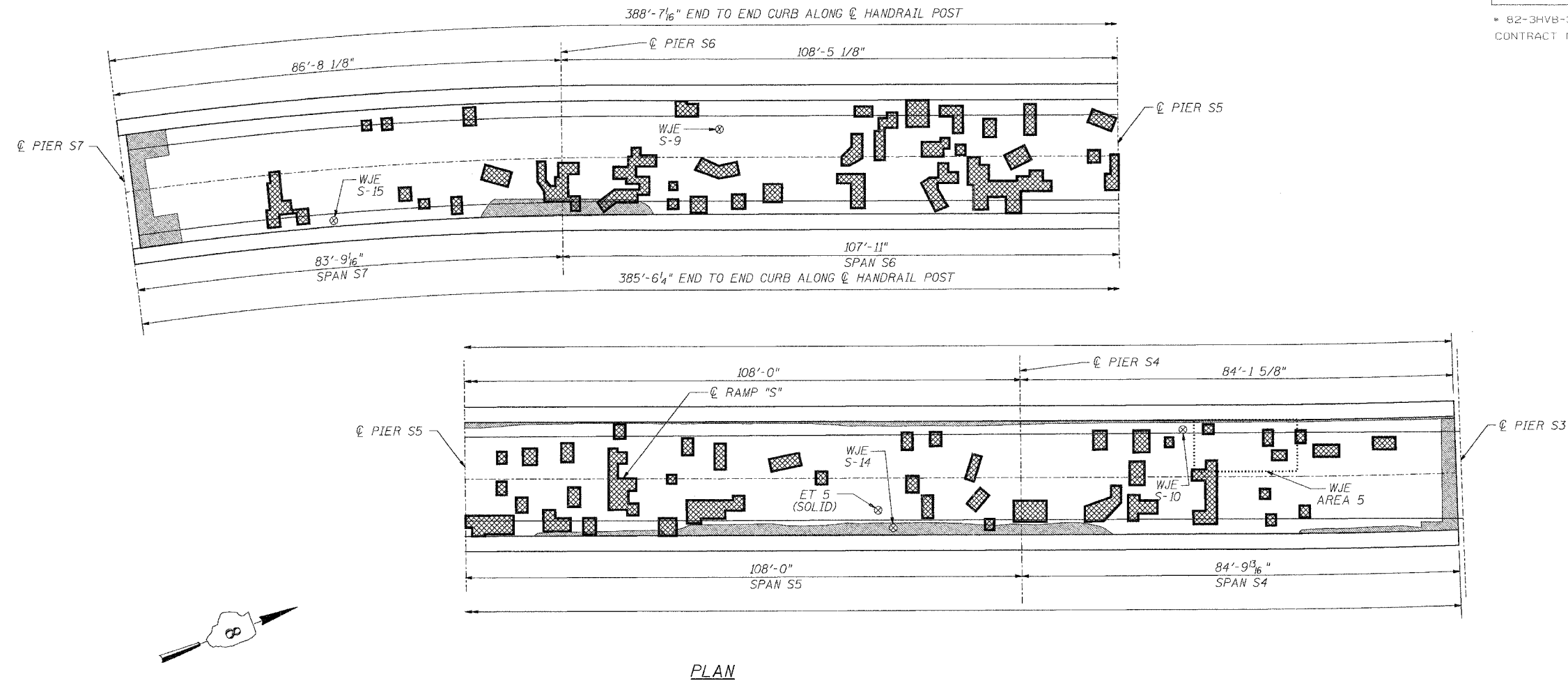
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		NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG			
ANALYSIS: TC	CHECKED: DJ			

DATE: 4/19/2006 FILENAME: p:\2001\201-1300\2001.1240\drafting\roadway\rehab.dwg\ ramps\earth_tech\p_et0103.dgn

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

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	92

FED. ROAD DIST. NO. 7 ILLINOIS FED. AID PROJECT- 114-70
 * 82-3HVB-3R-3 SHEET S-25 OF S-44
 CONTRACT NO. 76305



INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft. ²	8443		DELAMINATION	
SHADE/DEBRIS	ft. ²	0		SPALL	
DELAMINATION	ft. ²	234	2.8	DEBOND	
SPALL	ft. ²	0	0	ASPHALT PATCH	
DEBOND	ft. ²	610	7.2	SUBSURFACE PATCH	
ASPHALT PATCH	ft. ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft. ²	0	0		

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S4	270	340
S5	340	430
S6	340	430
S7	270	340

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



INFRARED THERMOGRAPHIC INSPECTION RESULTS

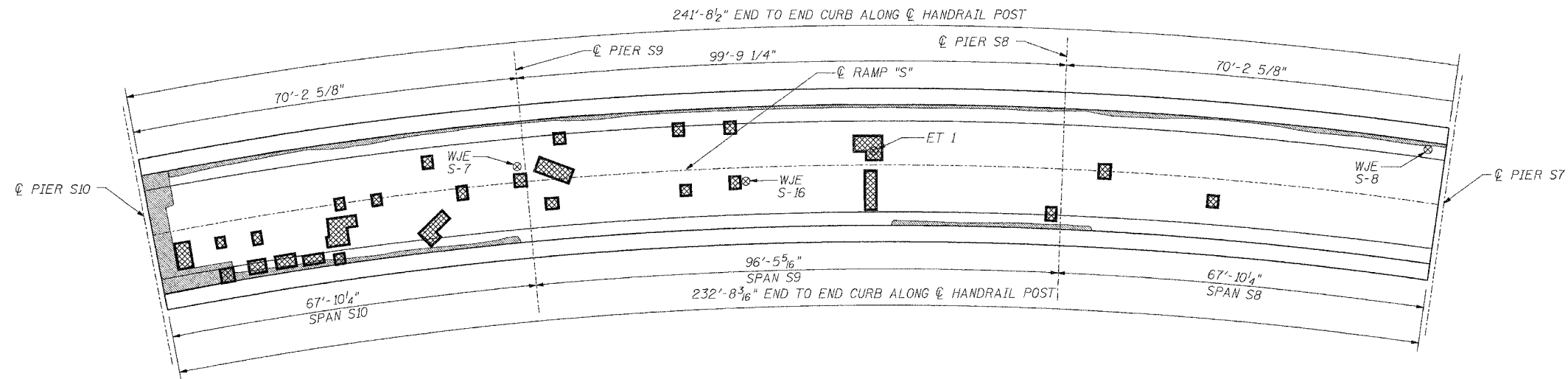
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		NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG			
ANALYSIS: TC	CHECKED: DU			

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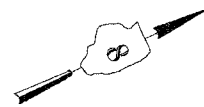
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	93
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1M-70		

* 82-3HVB-3R-3 SHEET S-26 OF S-44
CONTRACT NO. 76305



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	5200		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	47	0.9	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	343	6.6	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	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S8	70	90
S9	100	130
S10	70	90

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



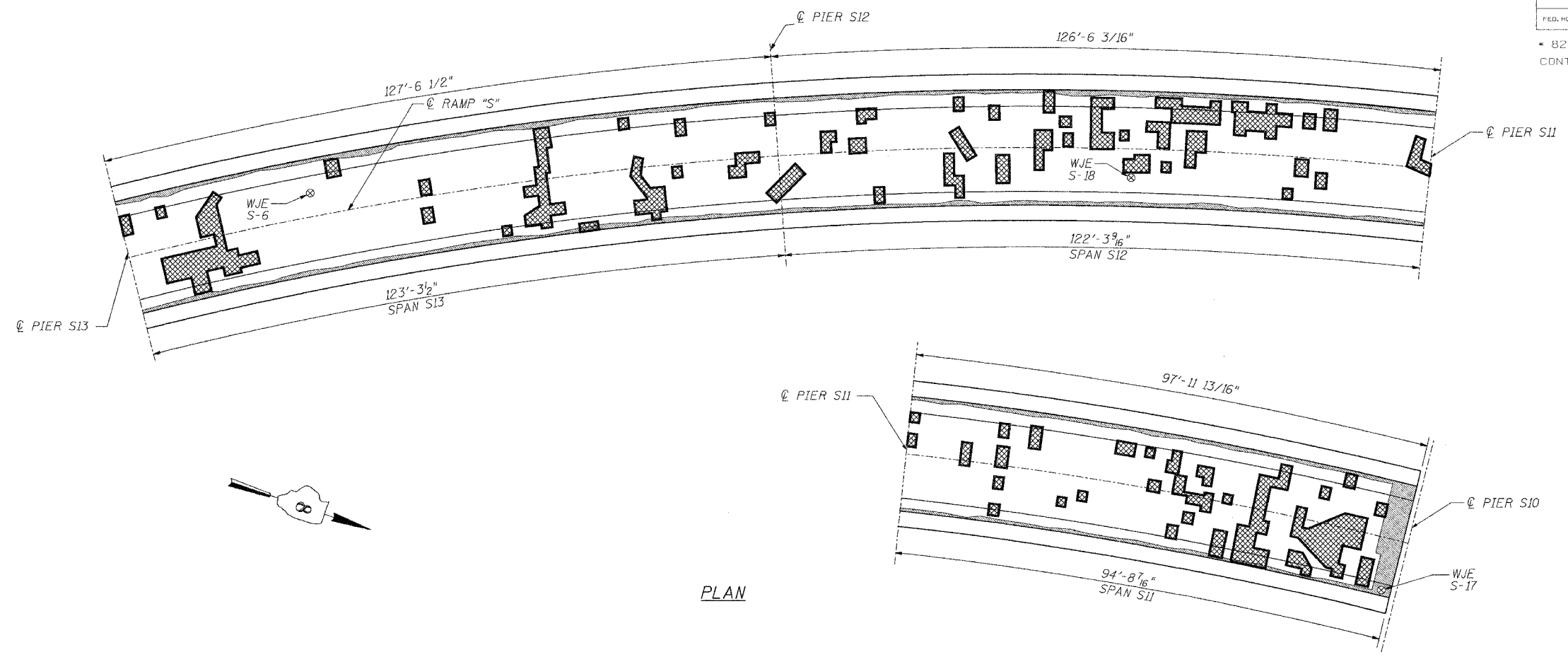
INFRARED THERMOGRAPHIC INSPECTION RESULTS

	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. 082-0142 (RAMP S1)
ANALYSIS: TC	CHECKED: DU		SCALE:
			DATE: 02/28/2006

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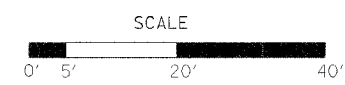
DESIGNED	---/WJE
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	94
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT - 1H-70	
* 82-3HVB-3R-3			SHEET S-27 OF S-44	
CONTRACT NO. 76305				



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	7633		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	246	3.2	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	590	7.7	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	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S11	410	520
S12	530	670
S13	250	320

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

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DRAWN	CLK
CHECKED	JPD

INSPECTED: TC
ANALYSIS: TC

CADD: MA/MD DS/EG
CHECKED: DU

INFRARED THERMOGRAPHIC INSPECTION RESULTS

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

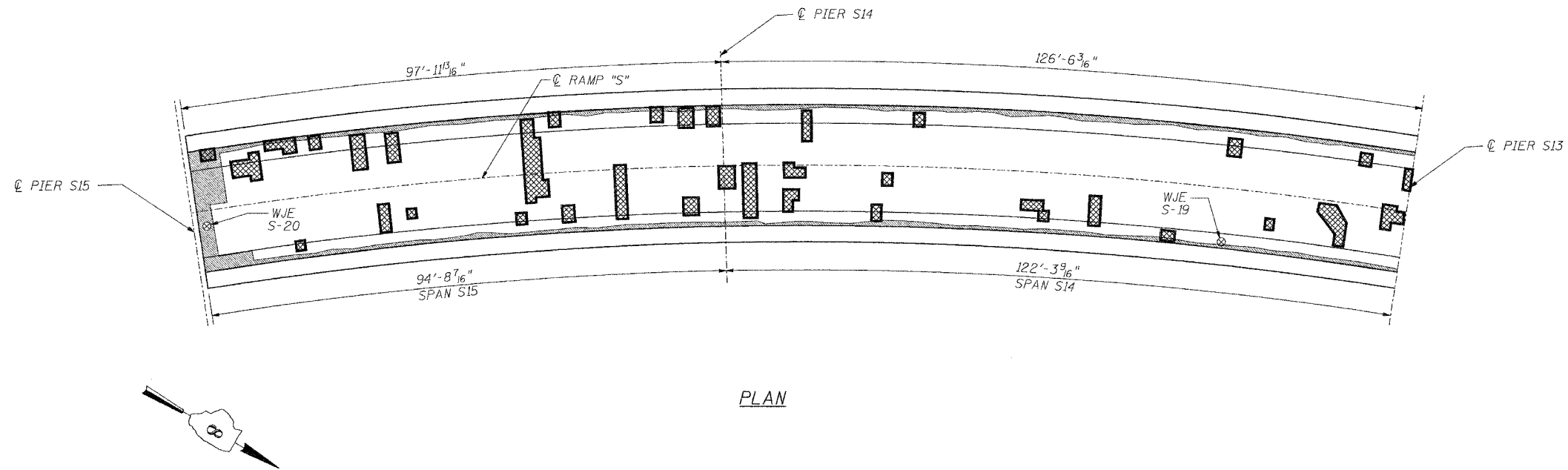
STRUCTURE NO. 082-0142 (RAMP S1)
SCALE:
DATE: 02/28/2006

REVISIONS

NAME	DATE

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	95
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1H-70		

* 82-3HVB-3R-3 SHEET 5-28 OF 5-44
CONTRACT NO. 76305



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	4869		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	102	2.1	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	417	8.6	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	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S14	250	320
S15	200	250

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



INFRARED THERMOGRAPHIC INSPECTION RESULTS

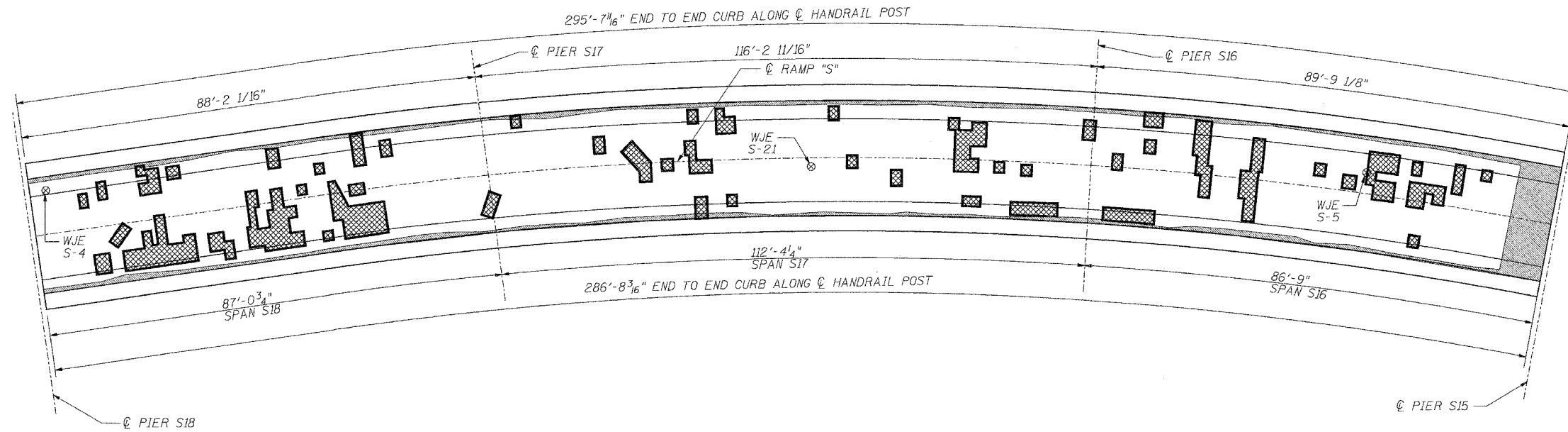
EARTH TECH	REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
	NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG		STRUCTURE NO. 082-0142 (RAMP S1)
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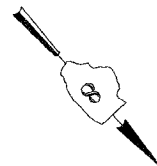
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DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	96
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

* 82-3HVB-3R-3 SHEET S-29 OF S-44
CONTRACT NO. 76305



PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY	UNIT	TOPSIDE		LEGEND	
		QUANT.	%		
TOTAL AREA	ft ²	6400		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	179	2.8	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	589	9.2	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	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S16	210	350
S17	350	450
S18	270	340

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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: ASPHALT OVERLAY



INFRARED THERMOGRAPHIC INSPECTION RESULTS

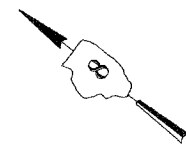
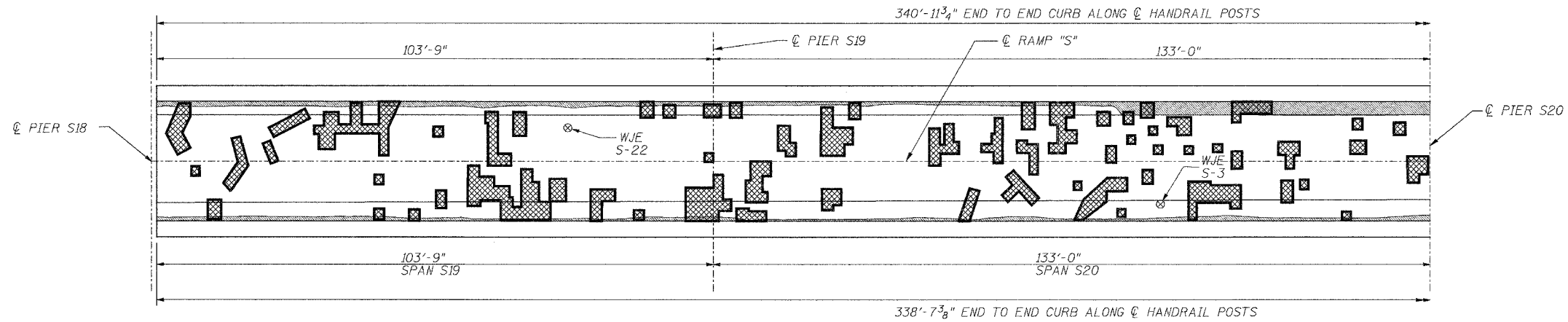
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DRAWN	CLK
CHECKED	JPD

EARTH TECH	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. 082-0142 (RAMP S)
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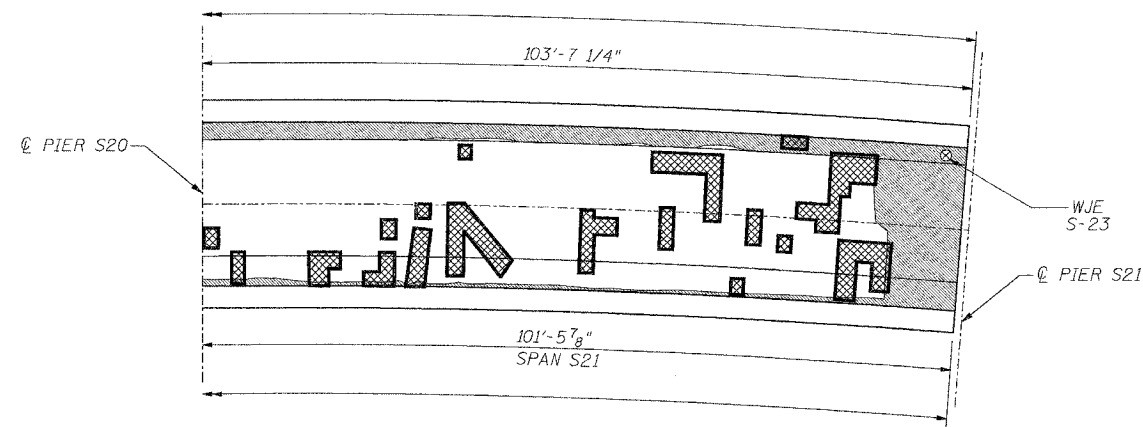
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	97
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1H-70		

* 82-3HVB-3R-3 SHEET S-30 OF S-44
CONTRACT NO. 76305

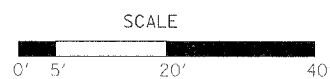


PLAN



INFRARED THERMOGRAPHIC INSPECTION RESULTS

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	7453		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	272	3.6	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	927	12.4	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	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S19	410	520
S20	530	670
S21	410	520

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

INFRARED THERMOGRAPHIC INSPECTION RESULTS

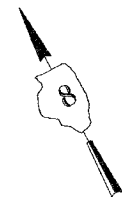
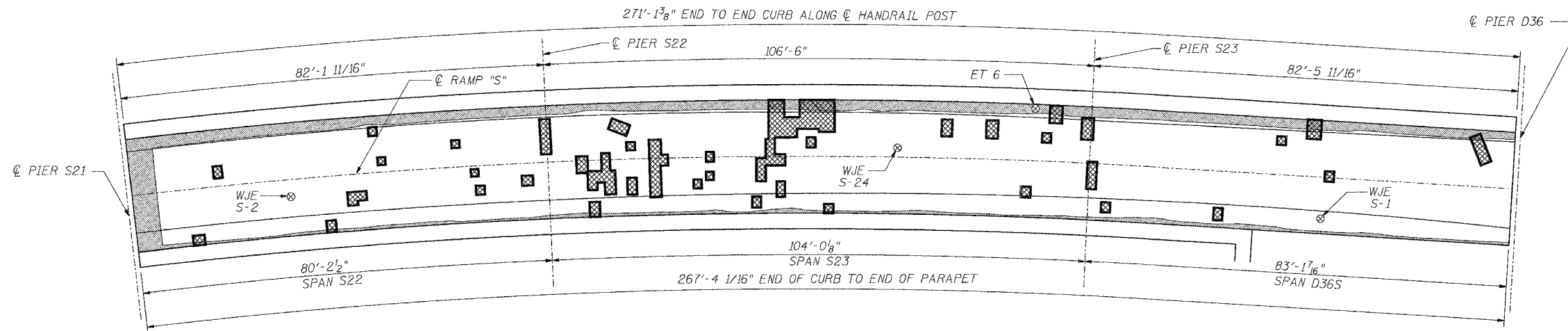
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	NAME	DATE	
INSPECTED: TC	CADD: MA/MD		STRUCTURE NO. 082-0142 (RAMP S) SCALE: N.T.S. DATE: 02/26/2006
ANALYSIS: TC	CHECKED: DU		

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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	111	98
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: IM-70		

* 82-3HV3-3R-3 SHEET S-31 OF S-44
CONTRACT NO. 76305



PLAN

INFRARED THERMOGRAPHIC INSPECTION RESULTS

ANTICIPATED DECK REPAIR QUANTITIES (ft.²)

FIELD OBSERVATIONS SUMMARY		TOPSIDE		LEGEND	
ITEM	UNIT	QUANT.	%		
TOTAL AREA	ft ²	5915		DELAMINATION	
SHADE/DEBRIS	ft ²	0		SPALL	
DELAMINATION	ft ²	76	1.3	DEBOND	
SPALL	ft ²	0	0	ASPHALT PATCH	
DEBOND	ft ²	746	12.6	SUBSURFACE PATCH	
ASPHALT PATCH	ft ²	0	0	SHADE/DEBRIS	
SUBSURFACE PATCH	ft ²	0	0		

SPAN	2000 SURVEY RESULTS	2005 ANTICIPATED PARTIAL DEPTH REPAIRS
S22	120	150
S23	160	200
D36-S	120	160

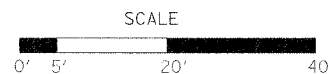
QUANTITIES IN THIS TABLE ARE FOR INFORMATIONAL PURPOSES ONLY AND ARE INCLUDED UNDER THE BRIDGE DECK HYDRO-SCARIFICATION AND BRIDGE DECK MICROSILICA CONCRETE OVERLAY PAY ITEMS. REFER TO SPECIAL PROVISIONS.

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

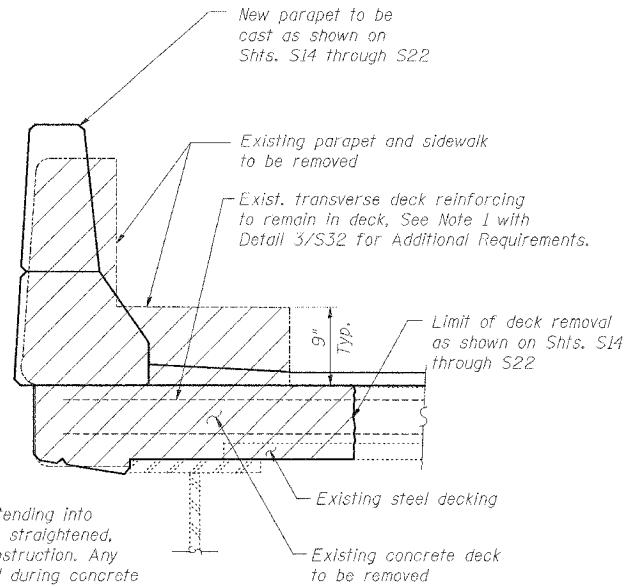
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		NAME	DATE	
INSPECTED: TC	CADD: MA/MD DS/EG			
ANALYSIS: TC	CHECKED: DU			

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.1240\drafting\roadwayrehab.dwg\ramps\earth_tech\1_s_e42223.dwg

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

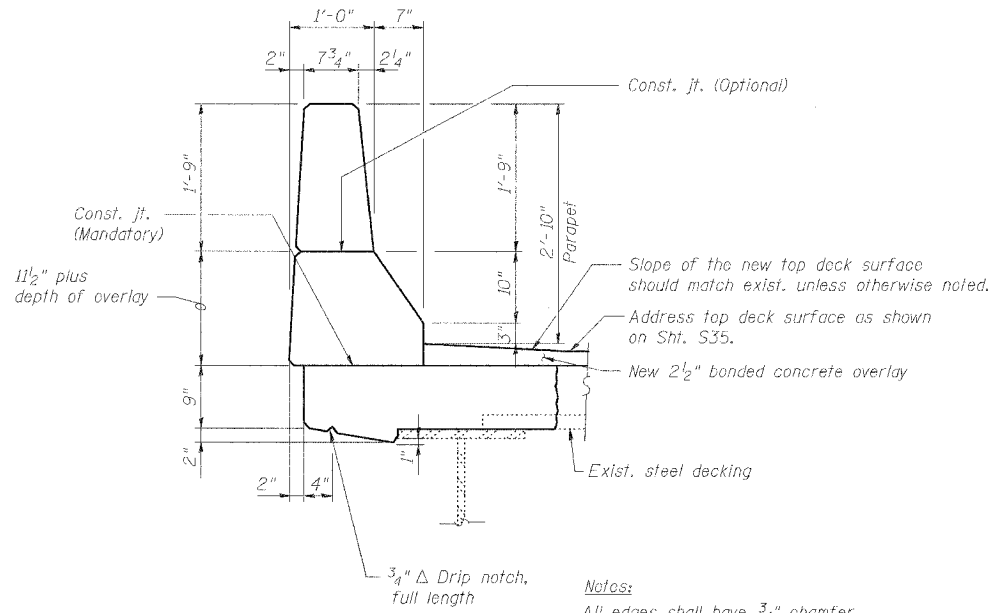
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F.A.I. 70	*	ST. CLAIR	111	99
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 1K-70		

* 82-3HVB-3R-3 SHEET S-32 OF S-44
CONTRACT NO. 76305



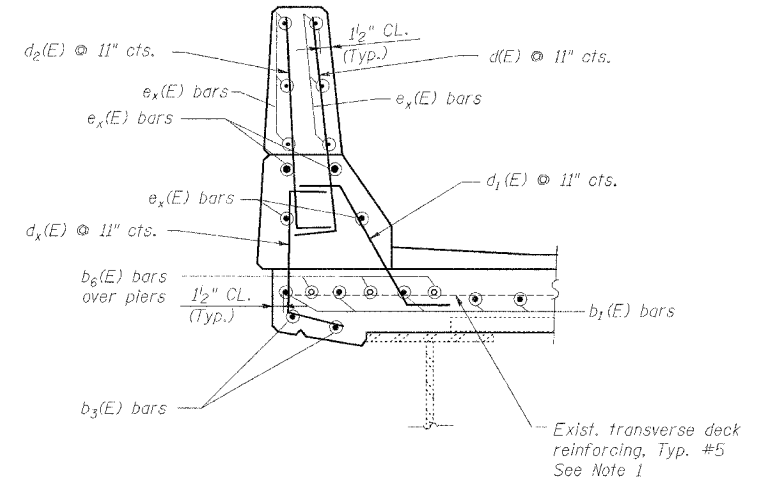
Note:
Existing deck reinforcing bars extending into the removal area shall be cleaned, straightened, and incorporated into the new construction. Any reinforcing bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost included with concrete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

1 PARAPET DEMOLITION PLAN
S32



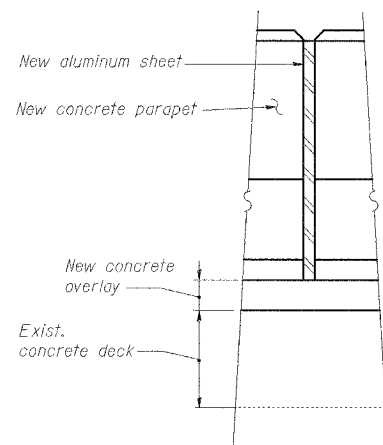
Notes:
All edges shall have 3/4" chamfer.

2 TYPICAL NEW PARAPET CROSS SECTION
S32

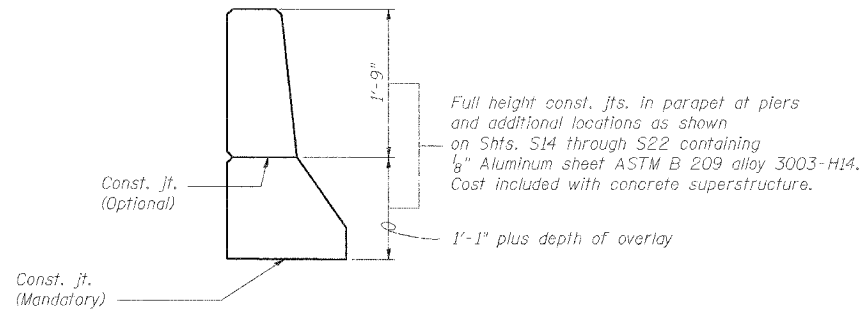


3 TYPICAL REINFORCEMENT FOR NEW PARAPET
S32

Note 1. Existing transverse reinforcement terminated at locations of existing floor drains and does not extend across the full width of the deck at those locations. Contractor shall provide #5 a₃₅₁(E) bars connected to existing transverse bars via mechanical splices at these locations. See deck plan sheets for quantities.



4 PARAPET CONSTRUCTION JOINT
S32



5 PARAPET JOINT DETAILS
S32

Notes:
e_x(E) bars shall not pass thru aluminum sheets.
Contractor shall verify existing dimensions in field.

REVISIONS	
NAME	DATE

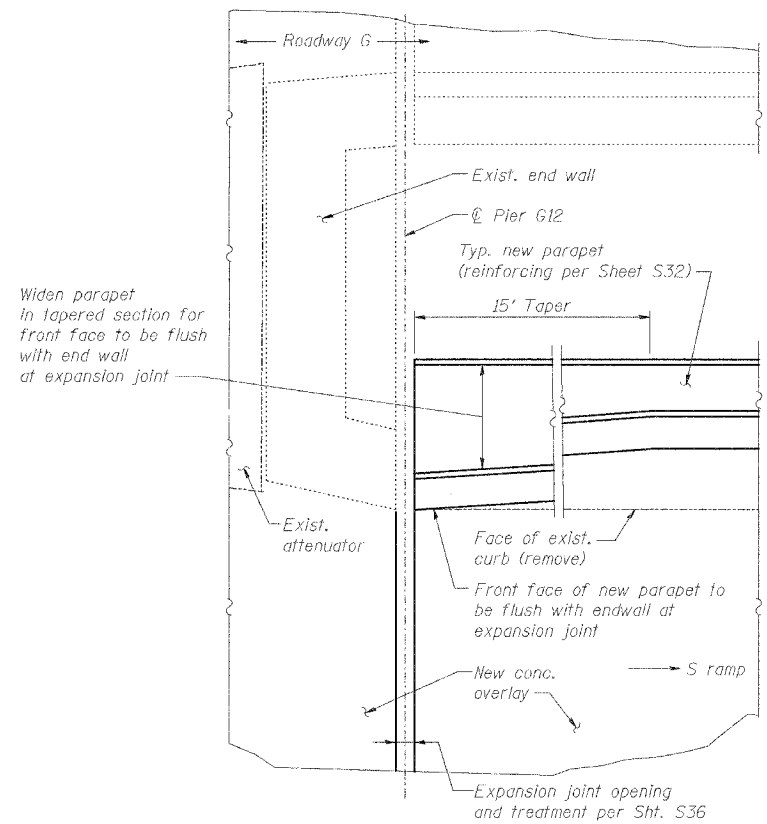
TYPICAL PARAPET DETAILS
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
REHABILITATION AND RETROFIT REPAIRS
FAI ROUTE 70
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY
STRUCTURE NO. 082-0142 (RAMP 5)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
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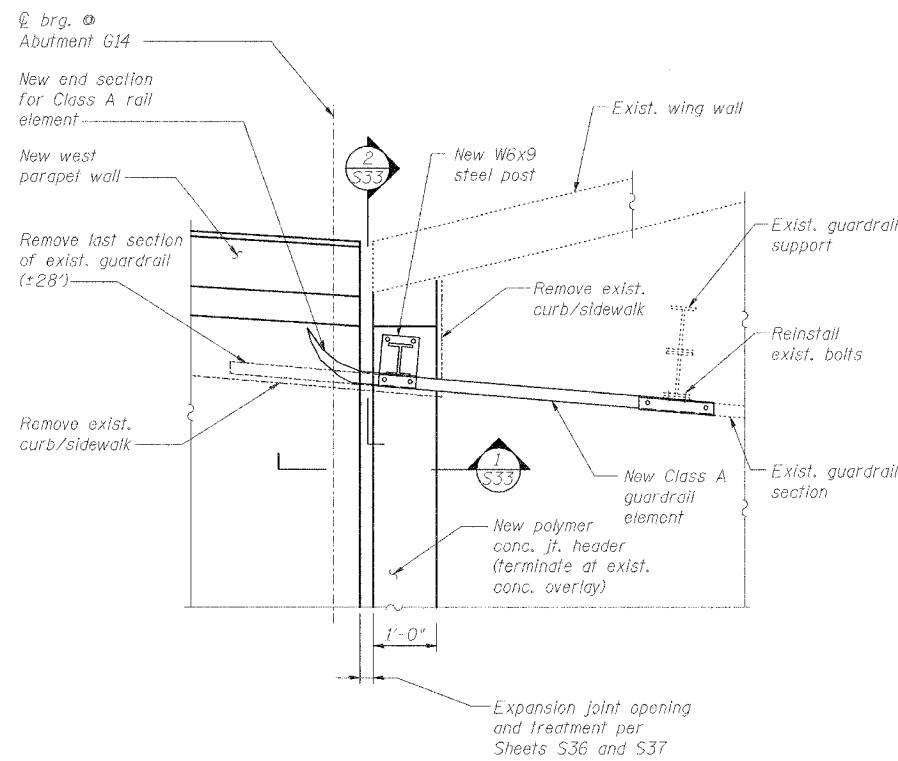
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CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 1M-70		

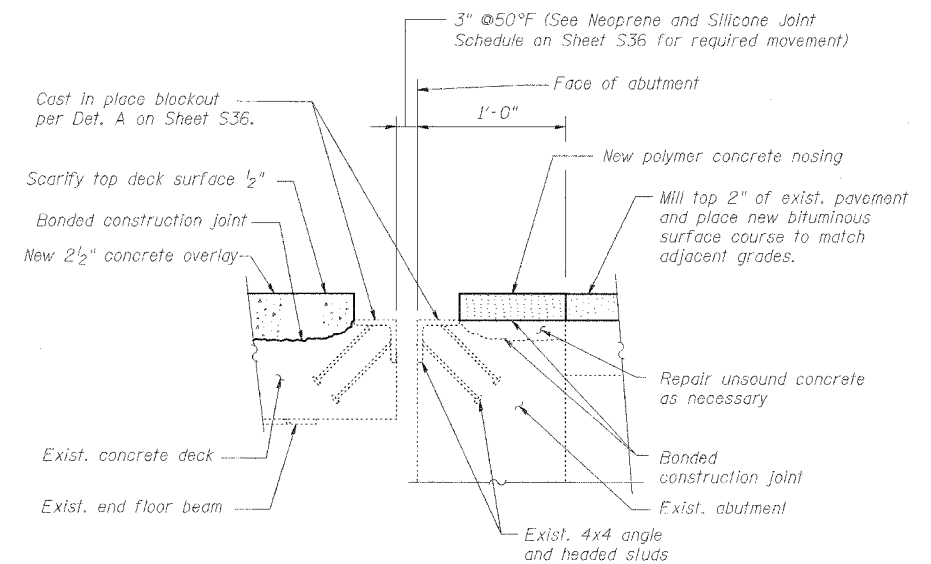
* 82-3HVB-3R-3 SHEET S-33 OF S-44
CONTRACT NO. 76305



PLAN - EAST PARAPET END TREATMENT @ PIER G12 (S RAMP)

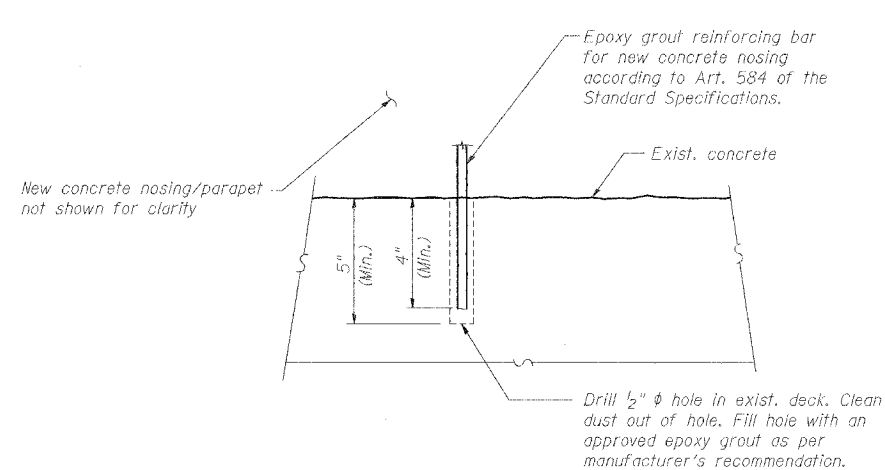


PLAN - WEST PARAPET END TREATMENT @ ABUTMENT G14 (S RAMP)

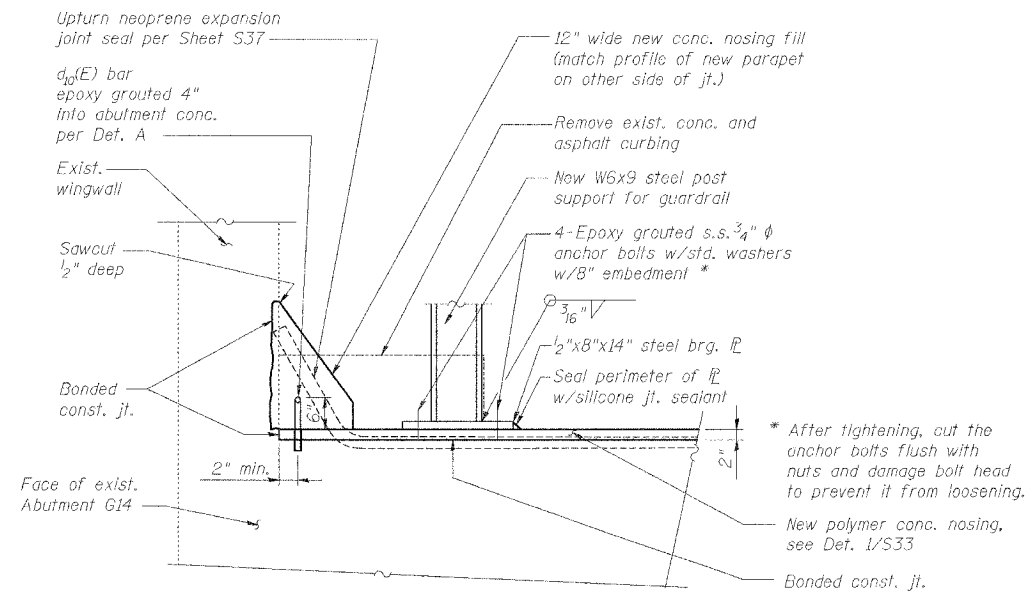


SECTION - DECK REPAIR @ G14 EXPANSION JOINT

Notes: For joint seal installation, see Detail A on Sheet S36
Remove entire existing expansion joint seal system, including anchor bolts. Existing angles and headed studs to remain.



DETAIL A - EPOXY GROUTING OF REINFORCING BARS



SECTION 2 SECTION

Note: See Sheet S14 for Bill of Material

SPECIAL PARAPET TERMINATION DETAILS

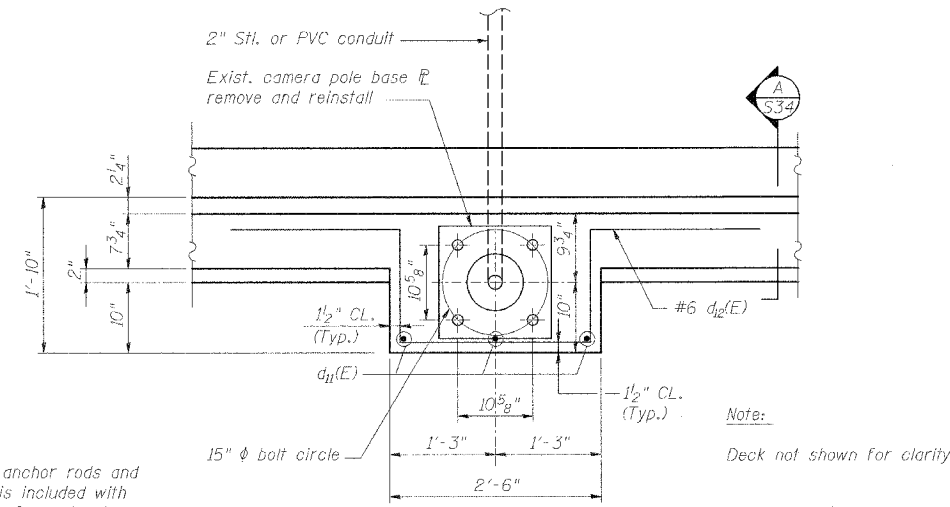
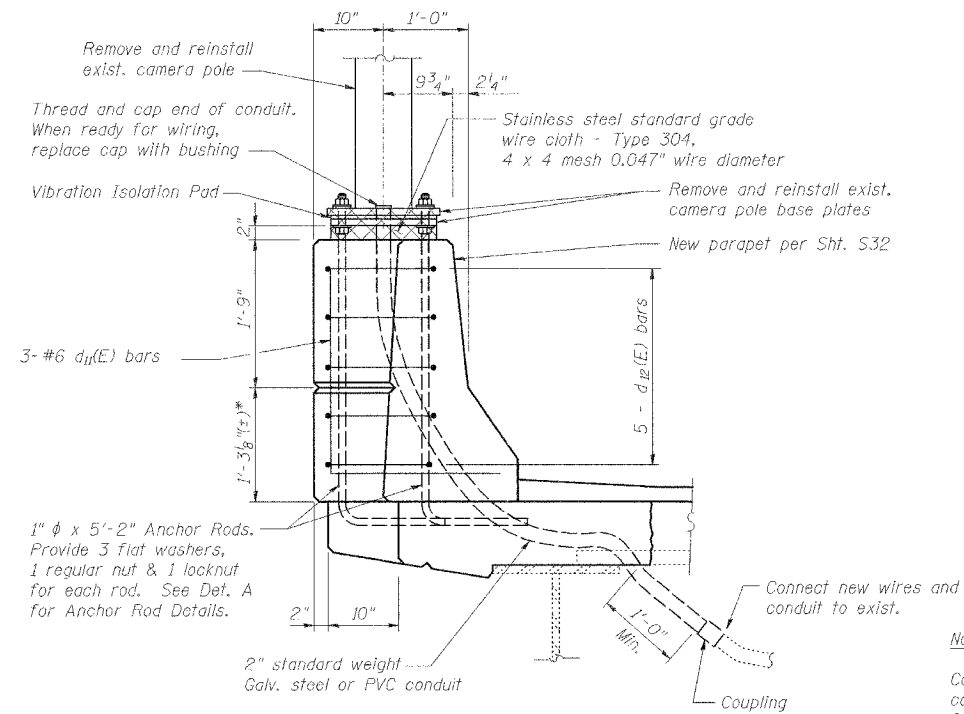
REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
		STRUCTURE NO. 082-0142 (RAMP S1) SCALE: DATE: 02/28/2006

DATE: 4/9/2006 FILENAME: P:\2001\1901-1300\2001.12.40\drawing\roadway\rehab_dsl\ ramps\para\ e-parae04.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	101
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- IM-70		

* 82-3HVB-3R-3 SHEET S-34 OF S-44
CONTRACT NO. 76305



Notes:

Cost of anchor rods and conduit is included with Concrete Superstructure.

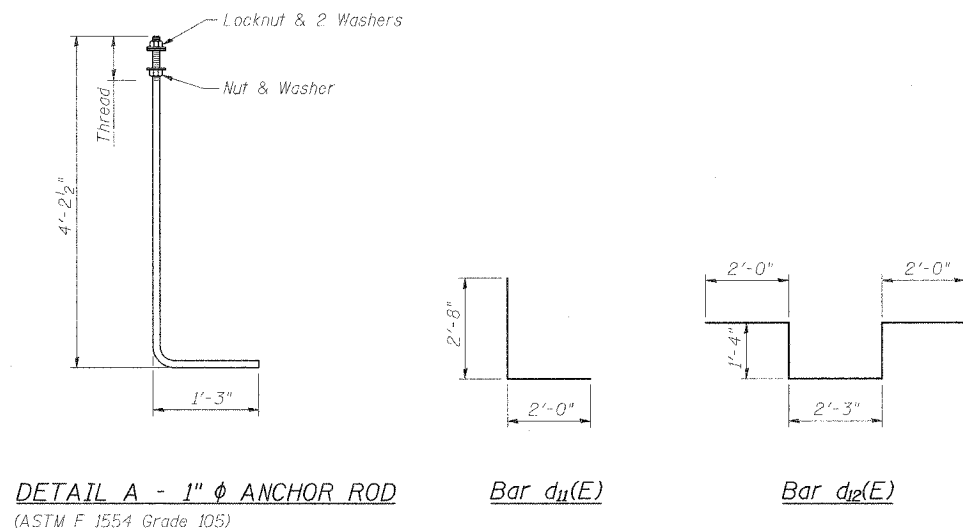
Verify location of exist. anchor rods and adjust location of new anchor rods to match exist. camera pole base plate.

* - 1 1/2" plus depth of overlay

SECTION A-A

PLAN

1 TYPICAL PEDESTAL FOR TRAFFIC CAMERA POLE
S34



DETAIL A - 1" ϕ ANCHOR ROD
(ASTM F 1554 Grade 105)

2 TYPICAL LIGHT PEDESTAL REINFORCEMENT
S34

SPECIAL PARAPET DETAILS

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

STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

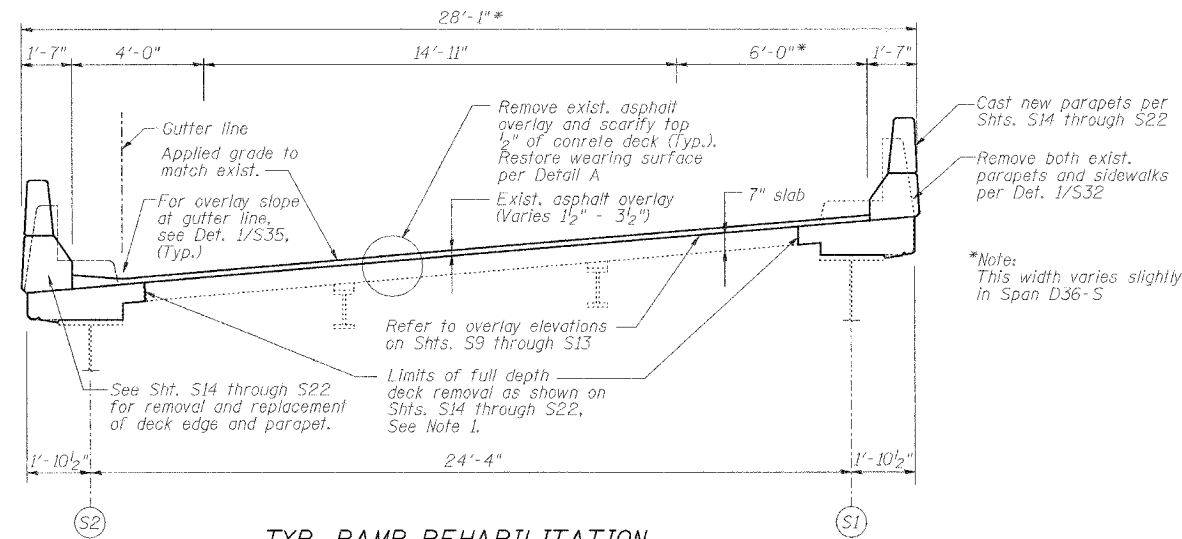
REVISIONS	
NAME	DATE

Note:
See Sht. S19 for Bill of Material

DATE: 4/19/2006 FILENAME: P:\2001\1201-1300\2001.12.00\drafting\roadwayrehab_ds\ ramps\para\s_para05.dgn

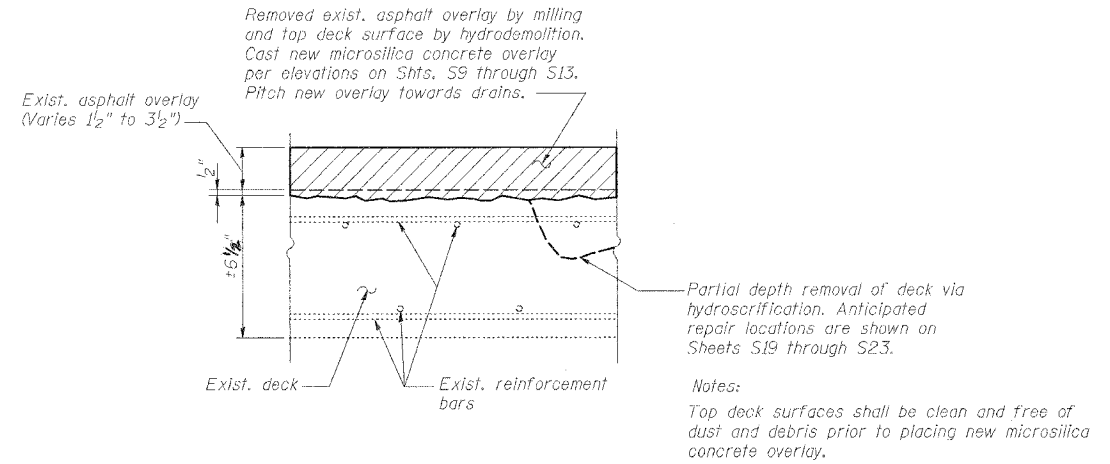
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FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT: 11-70		
* 82-3HVB-3R-3			SHEET S-35 OF S-44	
CONTRACT NO. 76305				

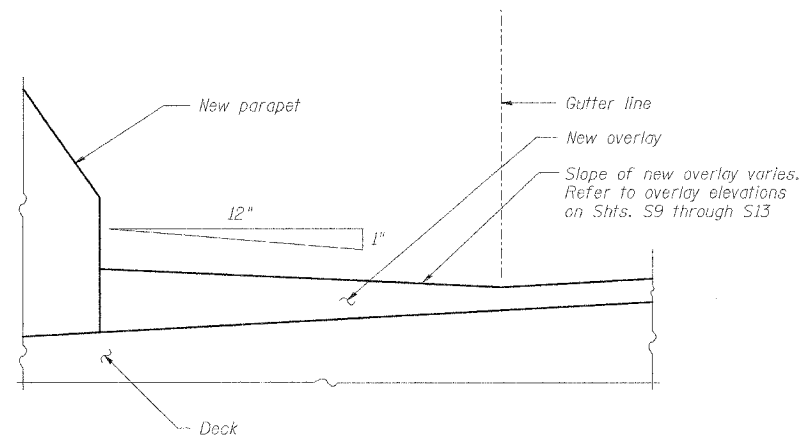


TYP. RAMP REHABILITATION
(Looking toward higher numbered pier)

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



DETAIL A-SCHEMATIC DIAGRAM OF REPAIR NORTH OF PIER D43



1 OVERLAY SLOPE AT GUTTER LINE
S35

DATE: 4/19/2006
FILENAME: F:\2001\1201-1800\2001.1240\drafting\roadwayrehab_dsl\ramps\conc\c-conc01.dgn

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REVISIONS	
NAME	DATE

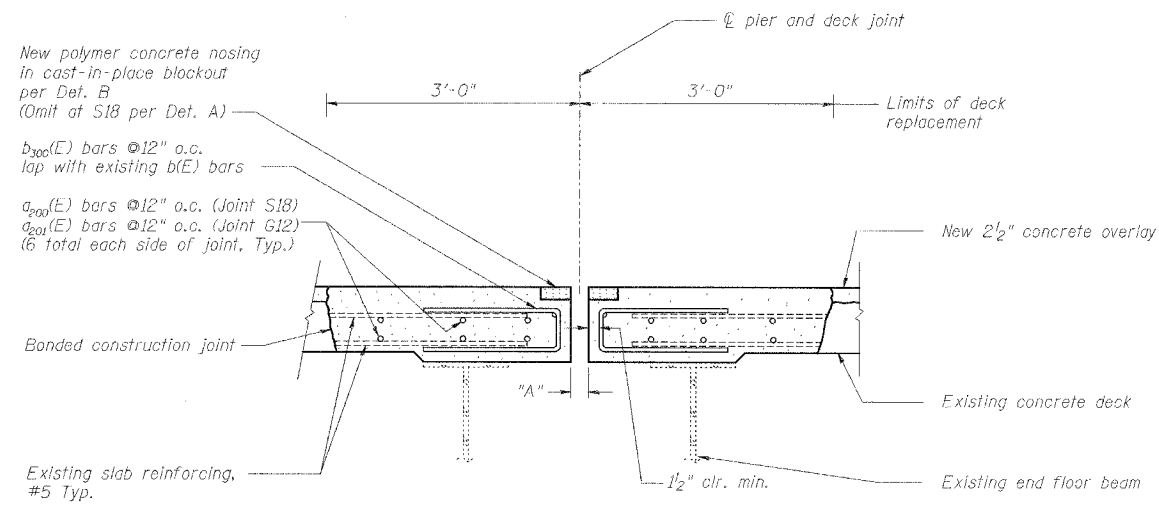
DECK REHABILITATION DETAILS

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

STRUCTURE NO. 082-0142 (RAMP S1)
SCALE:
DATE: 02/28/2006

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	103
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 14-78		

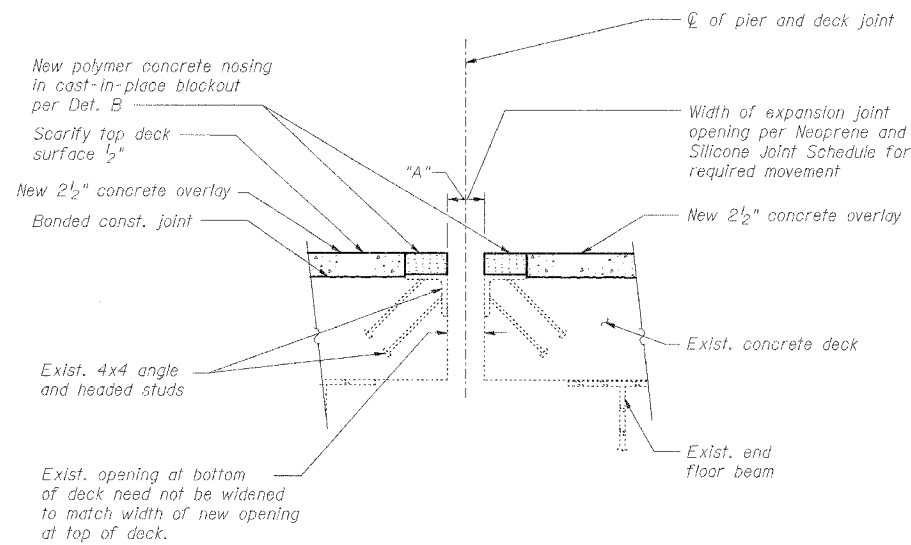
* 82-3HVB-3R-3 SHEET S-36 OF S-44
CONTRACT NO. 76305



1 DECK REPAIR @ G12 AND S18 EXPANSION JOINTS

Notes: For joint seal installation, see Detail A for S18 and Detail B for G12

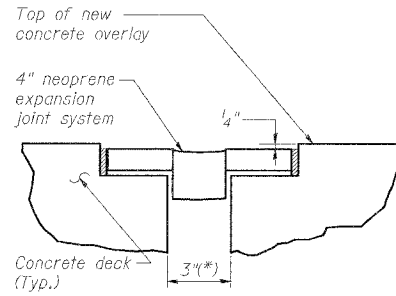
Remove entire exist. expansion joint seal system, including anchor bolts.



2 DECK REPAIR @ S3 EXPANSION JOINT

Notes: For Joint Seal Installation, see Detail B.

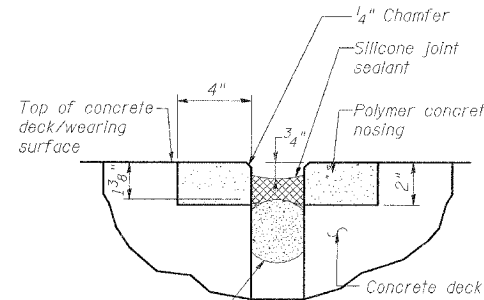
Remove entire exist. expansion joint seal system, including anchor bolts. Existing angles, headed studs, and surrounding concrete to remain.



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

DETAIL A - NEOPRENE EXPANSION JOINT

- Notes:
- See Sht. S37 for additional installation dimensions and details.
 - At G14, gland for the expansion jt. system must be adhered to end of exist. gland at Roadway G in accordance with manufacturer's recommendations. Alternatively exist. gland in Ramp S portion of jt. may be reused if intact and undamaged.



"A" = 3" @ 50°F. See Neoprene and Silicone Joint Schedule for movement requirements

DETAIL B - SILICONE JOINT SEAL

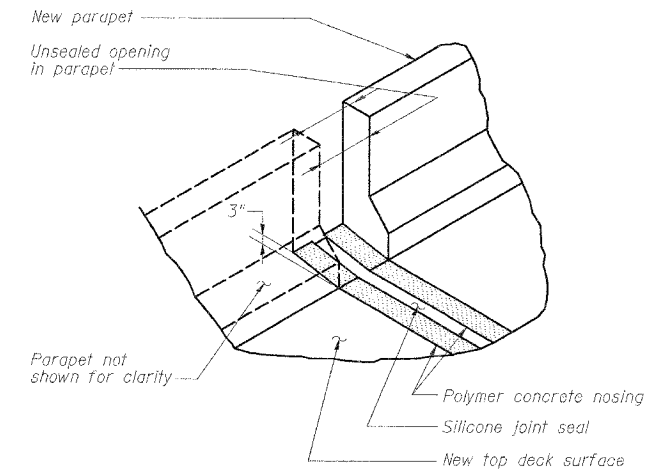
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a200(E)	12	#5	27'-3"	—
a201(E)	12	#5	24'-4"	—
b300(E)	116	#5	4'-5"	□
Silicone Joint Sealer - 3"			Ft.	56
Neoprene Expansion Joint - 4"			Ft.	51
Reinforcing Bars, Epoxy Coated			Pounds	1,180
Polymer Concrete			Cu. Ft.	9.3
Concrete Removal			Cu. Yd.	7.8
Concrete Superstructure			Cu. Yd.	7.8

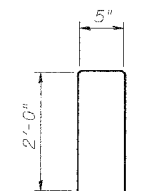
NEOPRENE AND SILICONE JOINT SCHEDULE - RAMP S/ROADWAY G

Location	Type of Joint Seal	Joint Opening - "A" (Inches)				
		-30°F	10°F	50°F	90°F	130°F
G14 (North end of ramp)	4" Neoprene	5"	4"	3"	2"	1"
G12	3" Silicone	4"	3 1/2"	3"	2 1/2"	2"
S3	3" Silicone	4 1/4"	3 5/8"	3"	2 3/8"	1 3/4"
S18	4" Neoprene	5"	4"	3"	2"	1"

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



3 SILICONE JOINT SEAL @ PARAPET



Bar b300(E)

TYPICAL JOINT 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. 082-0142 (RAMP S)
		SCALE:
		DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: F:\2001\2001-1800\2001.1240\drafting\roadwayrehab_ds\rapms\join_s-join08.dgn

DESIGNED	JPD
CHECKED	CSD
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 7	ILL. INDIS	FED. AID PROJECT- 11-70		

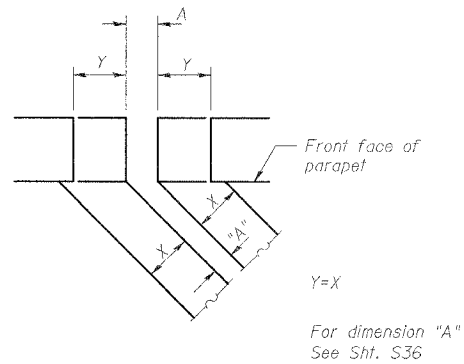
* 82-3HYB-3R-3 SHEET S-37 OF S-44
CONTRACT NO. 76305

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

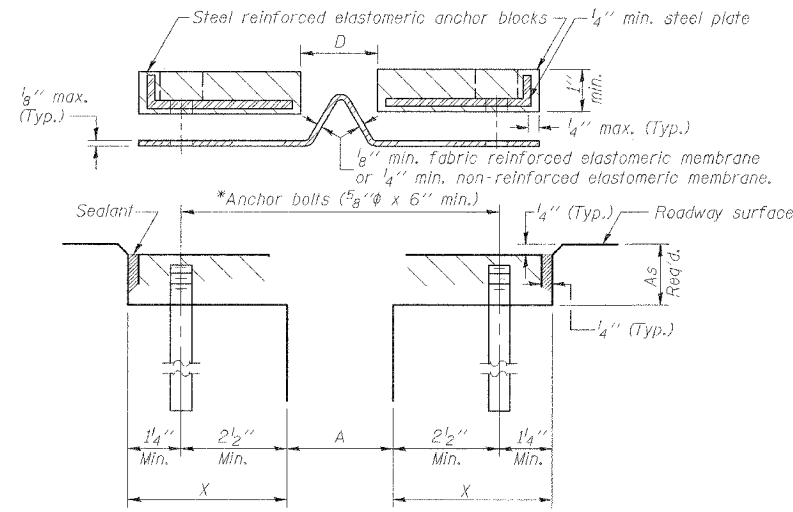
INSTALLATION NOTES

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

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



FORMING BLOCKOUT SKETCH



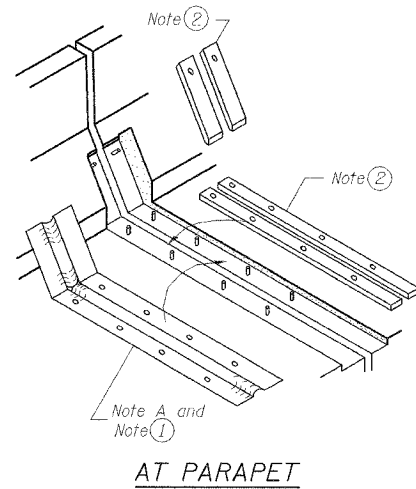
CROSS SECTION

GENERAL NOTES

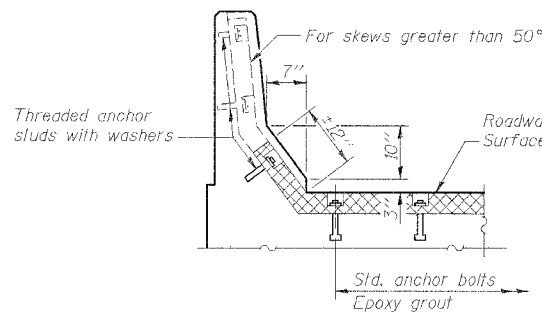
Continuous Seal Neoprene Expansion Joint shall consist of molded anchor blocks of elastomer and steel, field assembled over continuous lengths of elastomeric membrane.
The elastomeric membrane shall be premolded with a single or a double upward convolution that will have a "memory" to return to its molded 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" diameter threaded stainless steel rods in accordance with Section 584 of the Standard Specifications. Space to miss existing studs.

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 PARAPET

TYPICAL NEOPRENE JOINT DETAILS

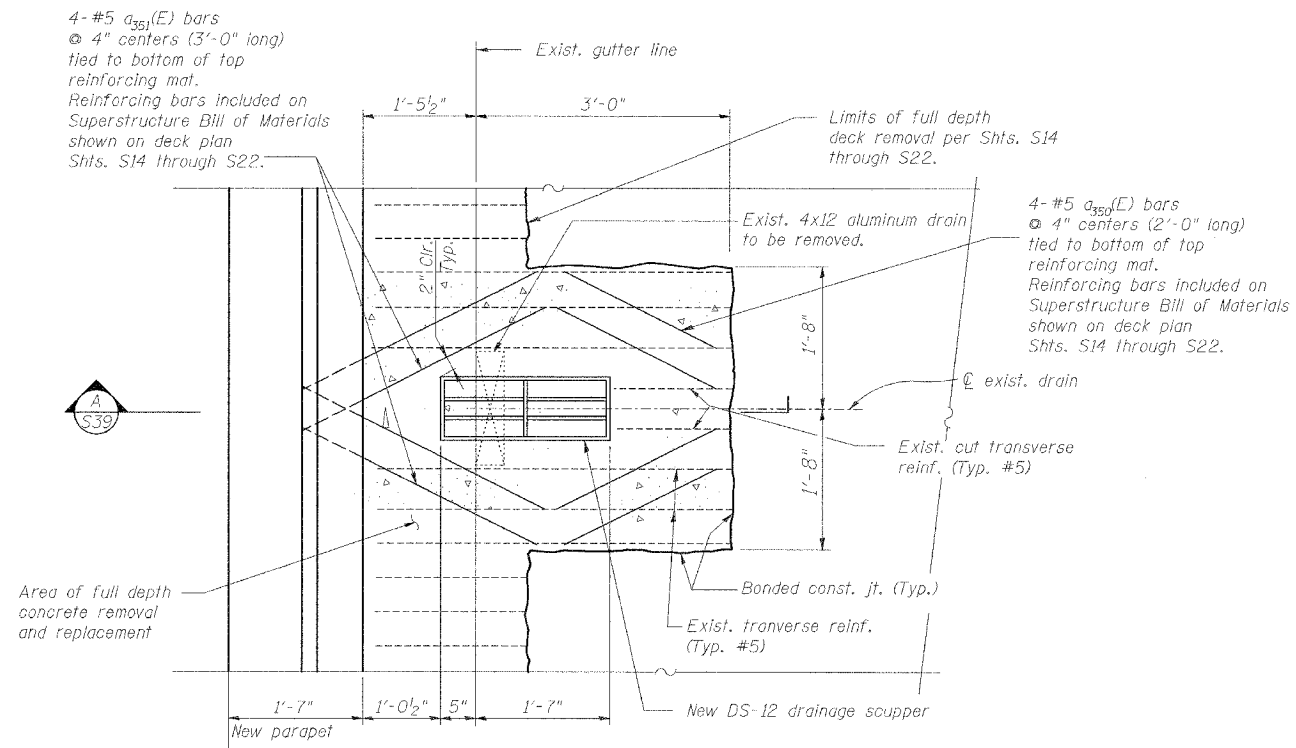
REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 LOPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY
NAME	DATE	
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		SCALE:
		DATE: 02/28/2006

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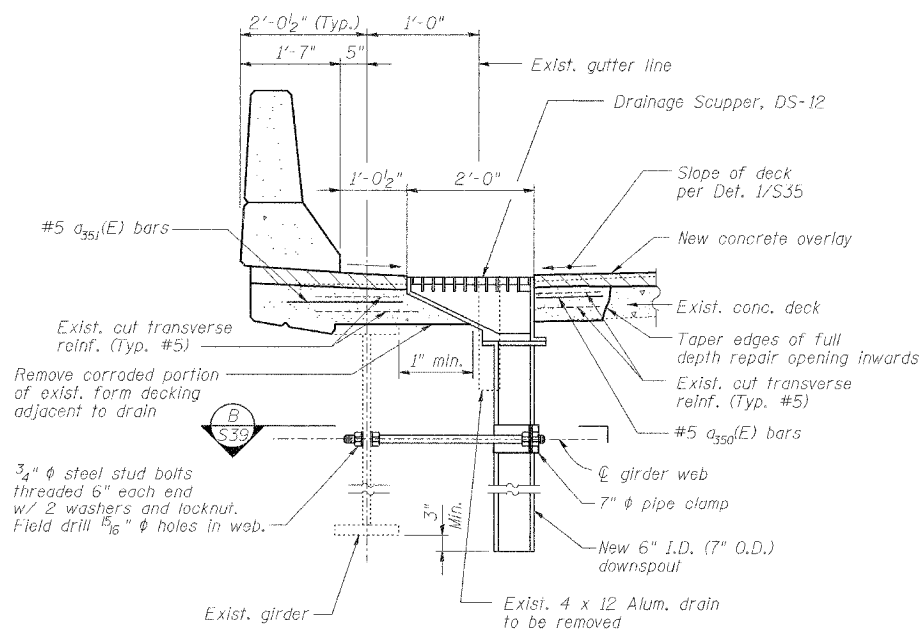
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	106
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 34-78		

* 82-3HVB-3R-3 SHEET S-39 OF S-44
CONTRACT NO. 76305

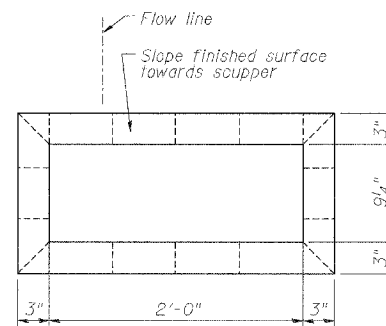


1
S39 **NEW DRAINAGE SCUPPER**

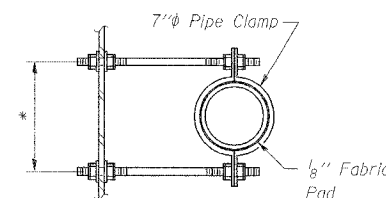
Note:
Exist. and new longitudinal reinforcement not shown for clarity.
Cut exist. longitudinal reinforcement as necessary to clear new scupper.



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 TO
POPLAR STREET BRIDGE APPROACHES
ST. CLAIR COUNTY

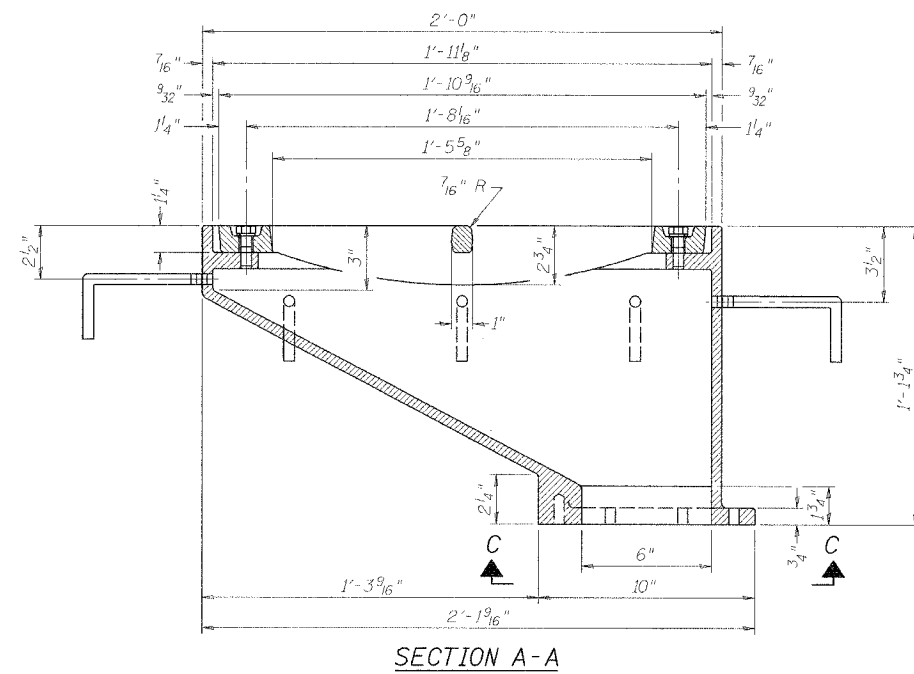
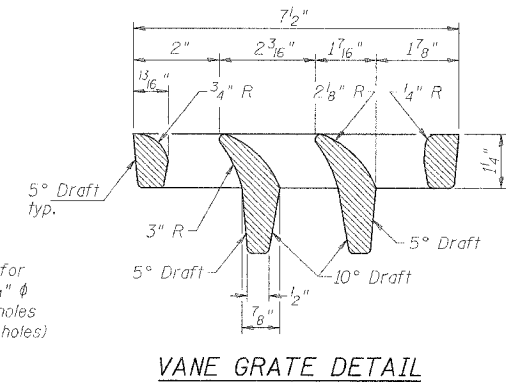
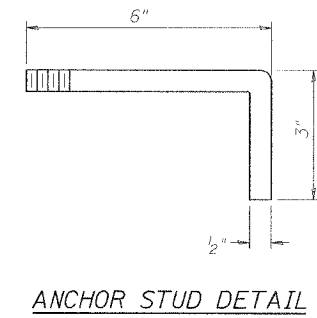
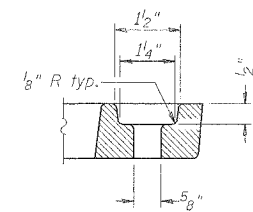
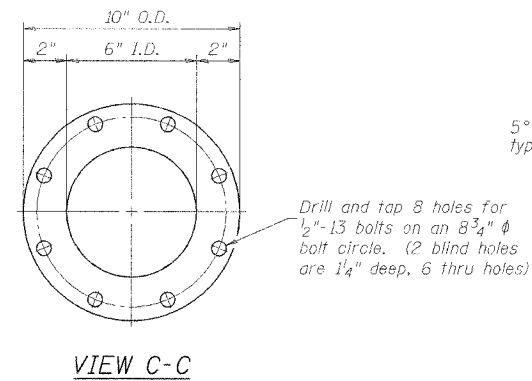
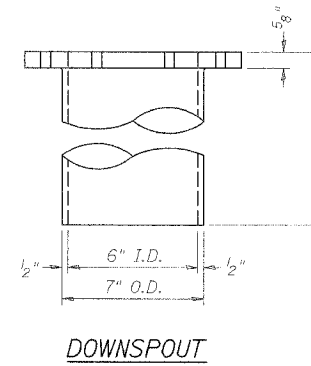
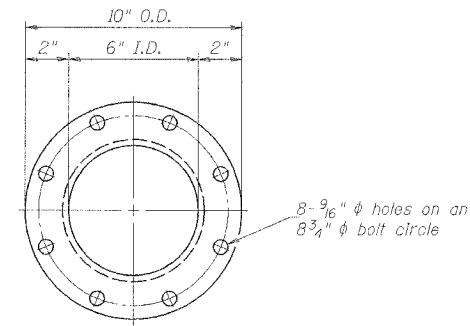
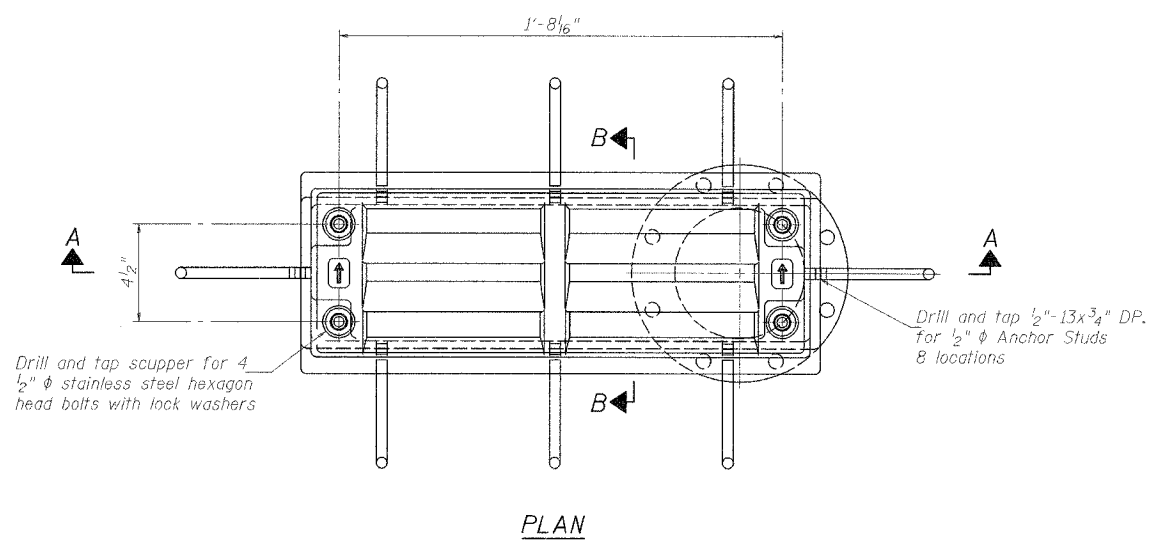
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SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
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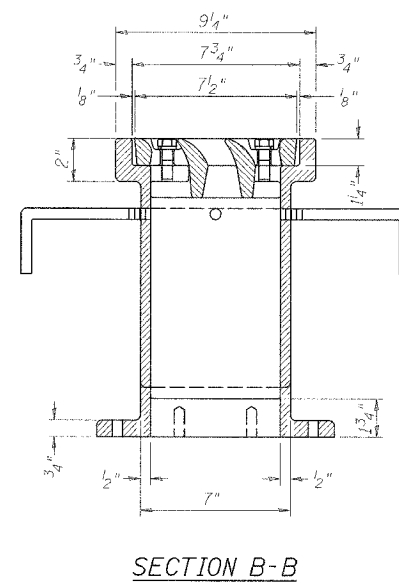
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	107
FEA ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 14-78		

* 82-3HVB-3R-3 SHEET S-40 OF S-44
CONTRACT NO. 76305



See Sht. S39 for scupper location relative to parapet.



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	
NAME	DATE

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

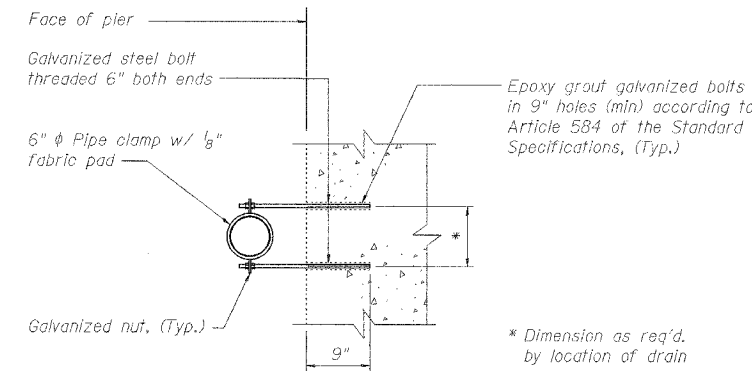
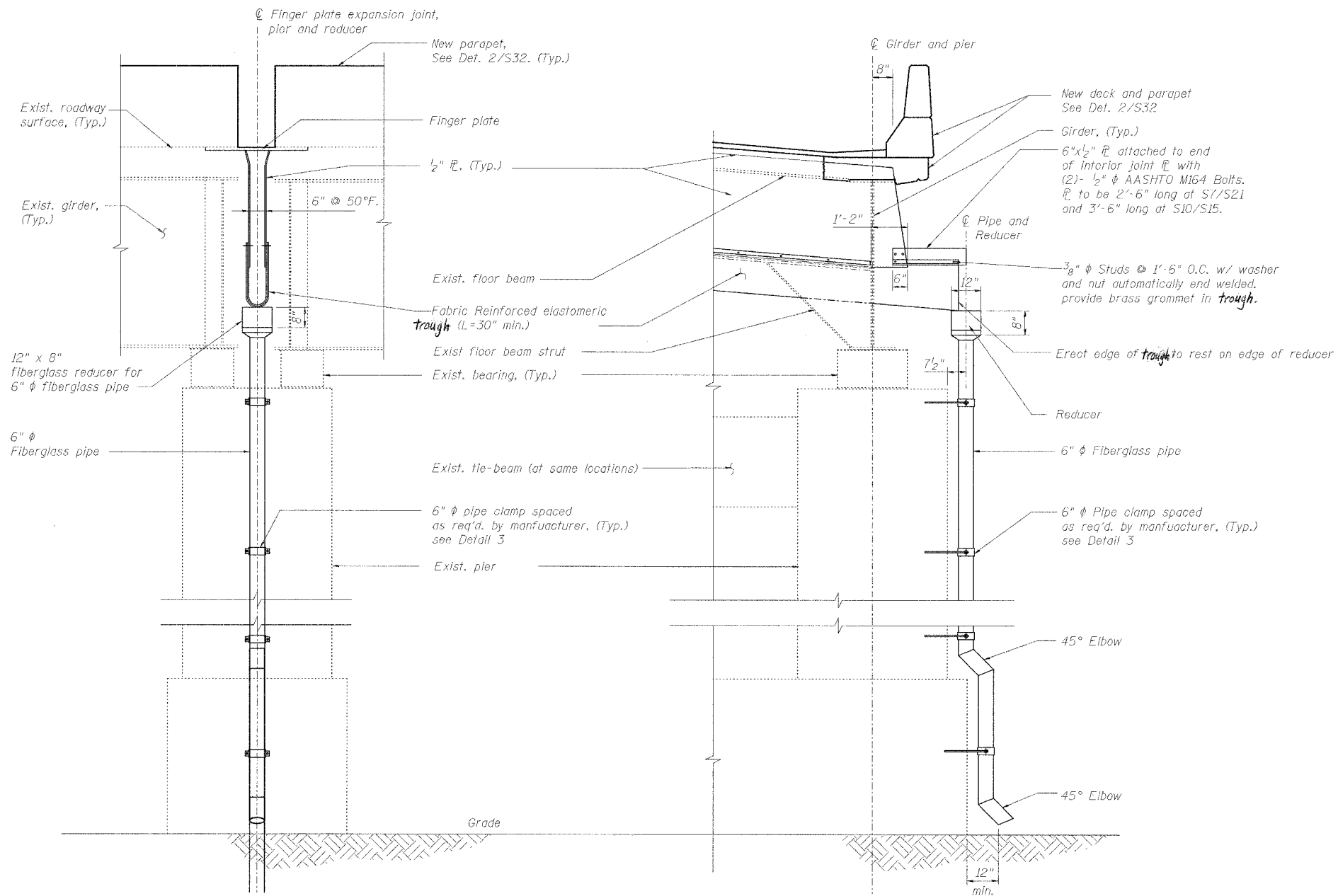
STRUCTURE NO. 082-0142 (RAMP S)
SCALE:
DATE: 02/28/2006

DATE: 4/19/2006
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DRAWN	CLK
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ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.1. 70	*	ST. CLAIR	111	108
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT- 3H-78		

* 82-3HVB-3R-3 SHEET S-41 OF S-44
CONTRACT NO. 76305



3 PIPE CLAMP DETAIL
S41

- Notes:
1. 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.
 2. 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.
 3. The clamping device and inserts shall be galvanized according to AASHTO M232.
 4. Space drilled holes in existing concrete to miss existing reinforcement.
 5. Fiberglass drainage system is included in the Bill of Materials on Sht. S38.

1 FINGER JOINT MAT DRAINAGE DETAIL - END VIEW
S41 PIERS S7, S10, S15 and S21

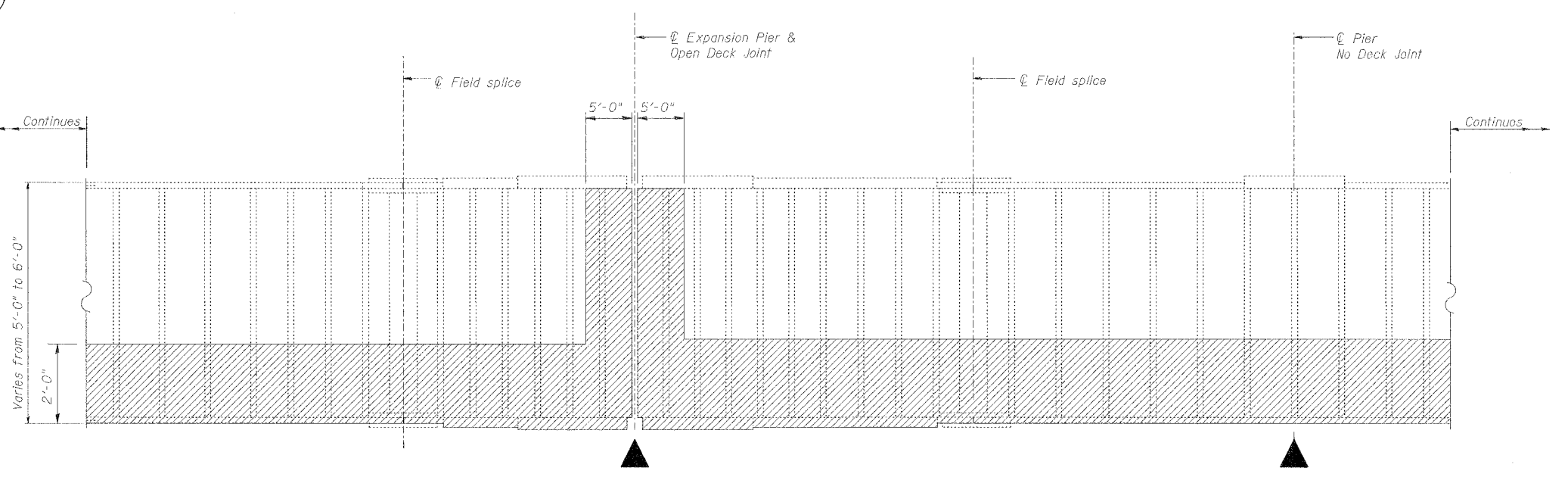
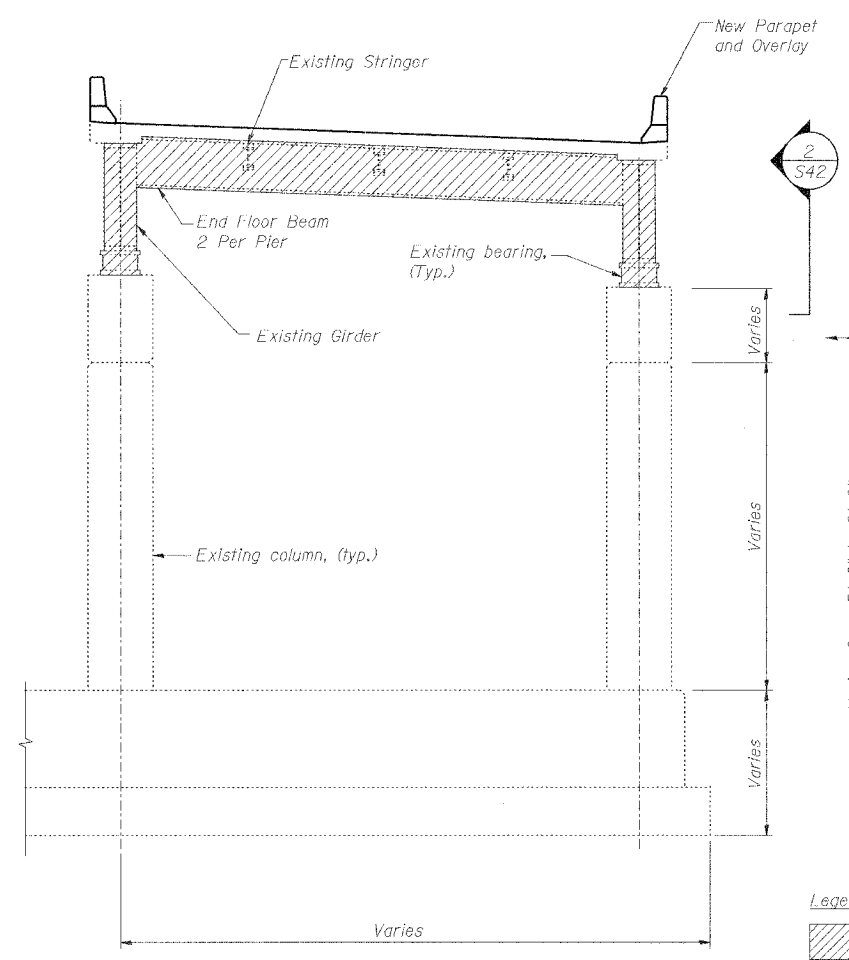
2 FINGER JOINT MAT DRAINAGE DETAIL - ELEVATION
S41 PIERS S7, S10, S15 and S21

SPECIAL DRAINAGE 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. 082-0142 (RAMP S1) SCALE: DATE: 02/28/2006

DATE: 4/19/2006 FILENAME: P:\2001\2001-1300\2001.1240\drafting\roadwayrehab.dwg\ramps\drain\se-drai03.dgn

DESIGNED	JPD
CHECKED	CSD
DRAWN	CLK
CHECKED	JPD



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

2 ELEVATION OF TYPICAL GIRDER
 S42 N.T.S.

1 ELEVATION AT TYPICAL EXPANSION PIER
 S42

- 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 girders 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 G12 to Pier D36.

Span (Pier to Pier)	Girder	Location*	Bolts
G12 - S1	G1	Btwn. FB2 and FB3	8
S1 - S2	G1	Btwn. FB1 and FB2	10
S2 - S3	G1	Btwn. FB1 and FB2	12
S16 - S17	G2	Btwn. FB4 and FB5	14

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.
 *Floor beams are numbered starting with "FB0" at lower numbered pier listed

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
Bolt Replacement	Each	44
Crack Extension Modifications	Each	20

Note: See Detail 2/S44 for Crack Extension Retrofit

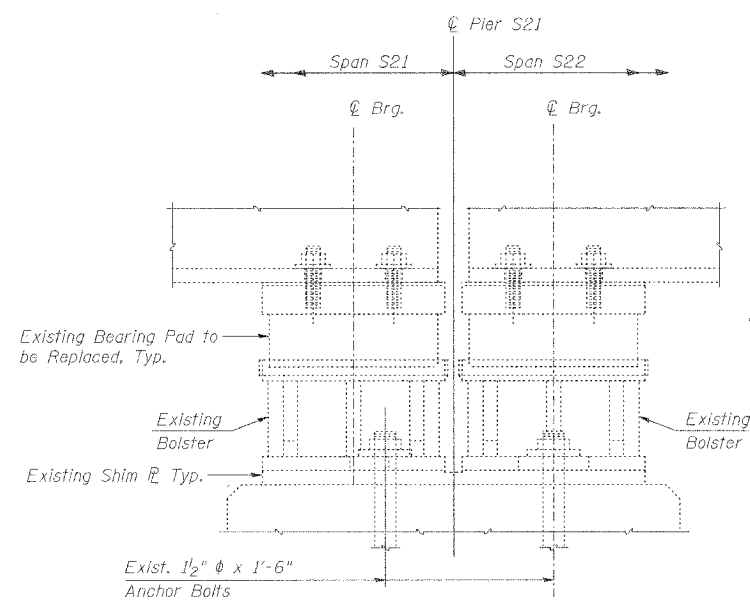
CLEANING AND PAINTING STRUCTURAL STEEL

REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S1) SCALE: DATE: 02/28/2006
NAME	DATE	

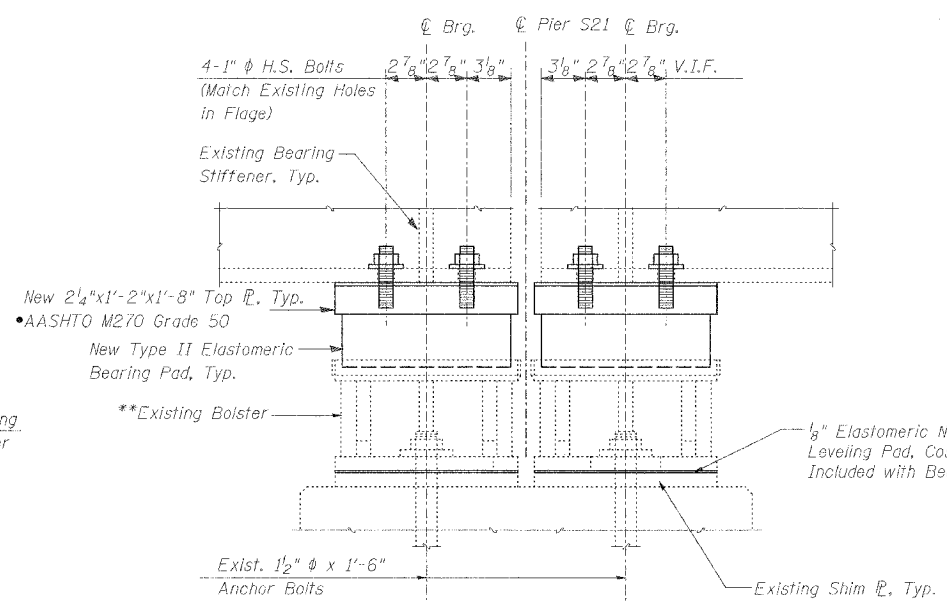
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CHECKED	JEL

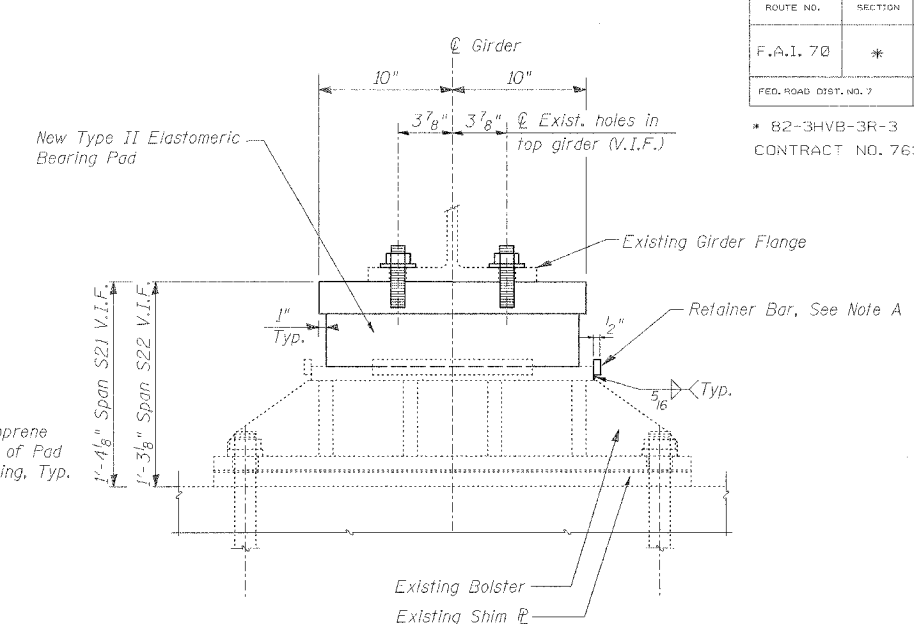
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 70	*	ST. CLAIR	111	110
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT - 11-70	SHEET S-43 OF S-44	
* B2-3HYB-3R-3		CONTRACT NO. 76305		



1 BEARING REMOVAL
S43



SIDE VIEW



END VIEW

**Reposition Existing Bolster in Span S21 such that Bolster is centered under Existing Bearing Stiffener. Drill new Holes as necessary in bottom Bolster Plate and Shim Plate to accommodate Existing Anchor Bolts to remain.

2 BEARING REPLACEMENT
S43

Note A: Remove existing retainer bar on one side for bearing replacement. Care shall be taken not to damage existing bolster during the removal. Grind smooth all weld metal remaining before installing new retainer bar. The Contractor shall provide a new retainer bar of the same size as existing and attach using a 5/16" fillet weld at the bottom edge only. Cost included with Elastomeric Bearing Assembly Type II.

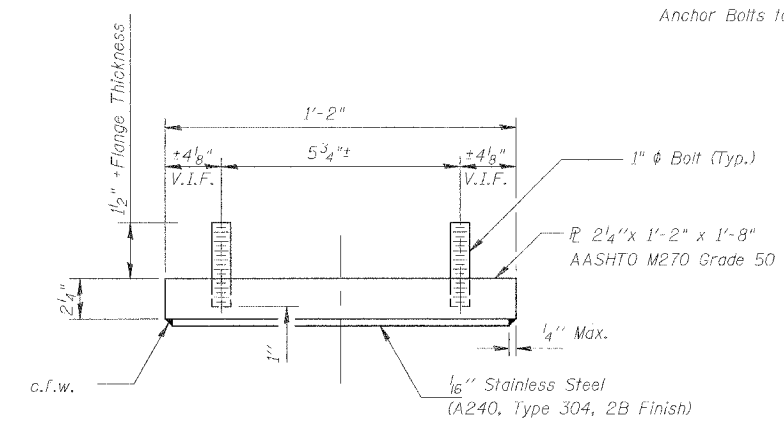
BEARING REACTION TABLE PIER S21

Load*	Span S21 both Girders	Span S22 both Girders
RD (K)	95	72
RL (K)	64	62
Imp. (K)	20	19
R (Total) (K)	179	153

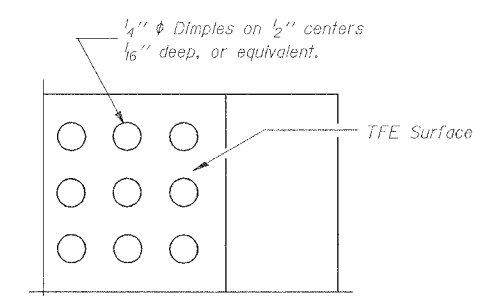
*Gravity Service Loads
Minimum jack size: 150 Ton

Notes:

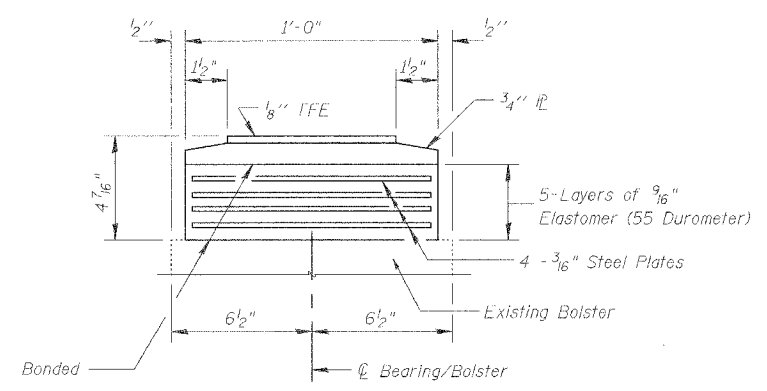
- Bearings to be replaced are 4 exist. Elastomeric Bearings at Pier 21, both Girders.
- Exist. anchor bolts to be reused. Regrout in place where necessary.
- Air temperature at time of setting the Elastomeric Bearing shall not be lower than 35° F. or higher than 65° F.
- Area between Retainer Bars and Elastomeric Bearing to be filled with sealer 1" thick, sloped to drain. (Elastomeric Polymer Type Sealer)
- The cost of the Top Plate is included with Bearing.
- Shoring shall be incidental to bearing replacement.
- Exist. anchor bolts shall be cut off 1/2" above the 3/4" bar.
- May use standard nut if full engagement of threads is achieved.



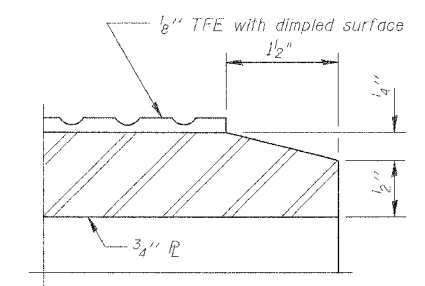
TOP BEARING ASSEMBLY



PLAN-TFE SURFACE



BOTTOM BEARING ASSEMBLY



SECTION THRU TFE

Note: The 1/8" TFE sheet shall be bonded directly to the top steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces.

Bonding of 1/8" TFE sheet during vulcanizing process will be permitted provided the process and method of adjusting assembly height is approved by the Engineer.

BILL OF MATERIAL

Item	Unit	Total
Jack and Remove Existing Bearings	Each	4
Elastomeric Bearing Assembly Type II	Each	4

BEARING DETAILS

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

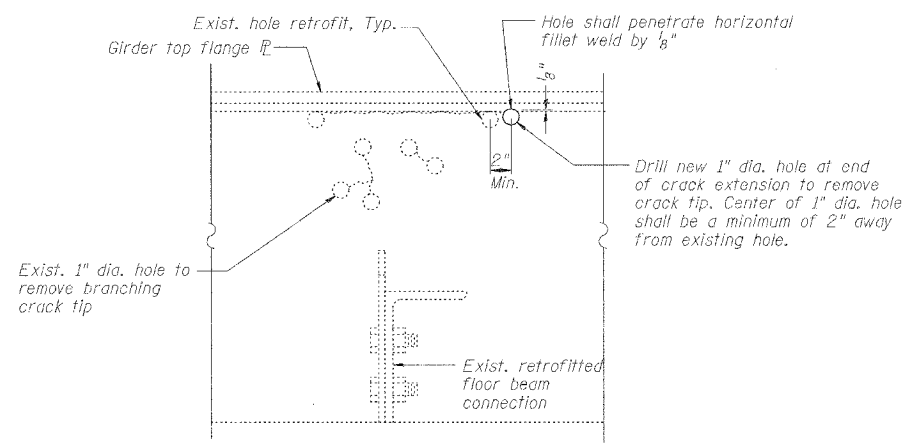
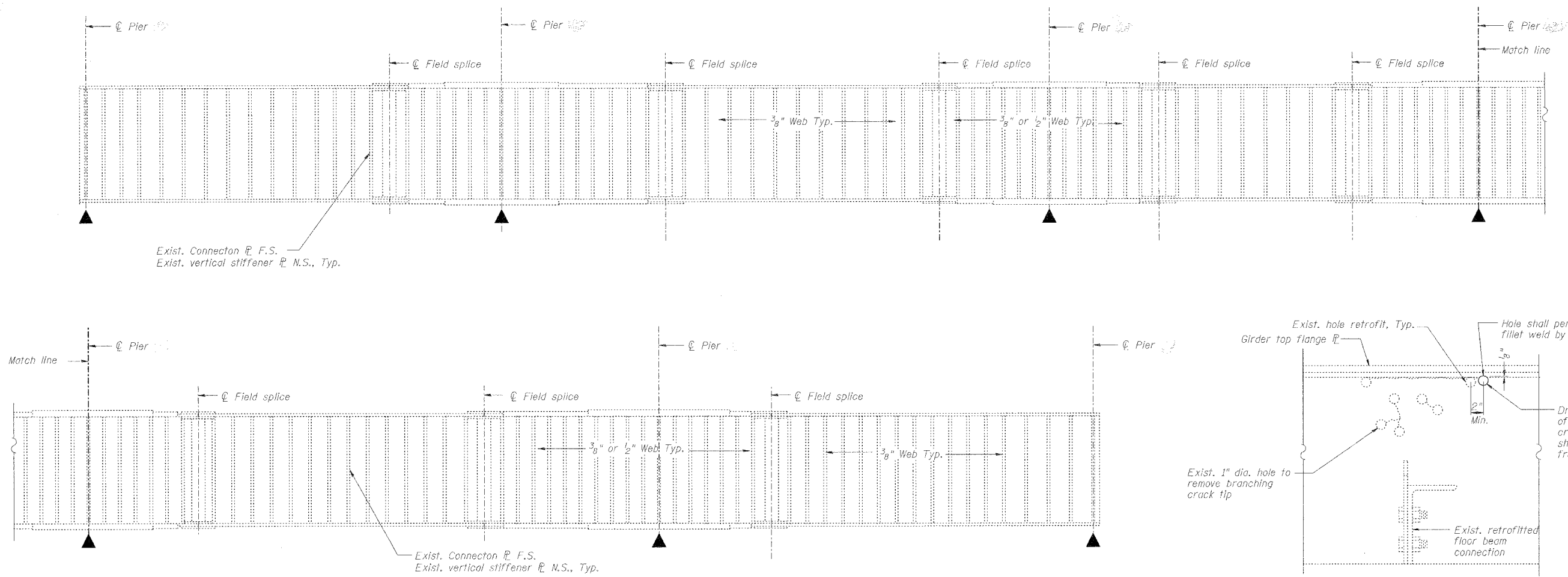
STRUCTURE NO. 082-0142 (RAMP S)

SCALE:

DATE: 02/28/2006

DATE: 4/9/2006 FILENAME: P:\2001\1201-1300\2001.1240\Drafting\RoadwayRehab_DS\Ramps\Bearings\S-BEAR01.dgn

DESIGNED	JEL
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1 GIRDER 1 ELEVATION INDICATING TYPICAL FATIGUE RETROFIT LOCATIONS FOR FIVE-SPAN CONTINUOUS UNIT
S44 GIRDER 2 - OPPOSITE HAND

2 CRACK EXTENSION RETROFIT AT FIRST INTERIOR FLOOR BEAMS
S44

Note A:
Fatigue retrofit locations also apply to three and four-span continuous units.

Note B:
No Fatigue retrofits identified at this time for Ramp S/Roadway G an allocation has been included in the summary of quantities.

- Procedure - Detail 2/S44:
- At locations 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 beams).
 - 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 2/S44.
 - Cored surfaces shall have a Roughness Average (Ra) of 500 or less.
 - Re-inspect area using MT methods to verify crack does not extend past the newly drilled holes.
 - Obtain approval of Engineer.
 - Clean and paint steel surfaces adjacent to the repair in accordance with the Special Provisions.

DATE: 4/9/2006 FILENAME: p:\2001\1201-1300\2001.1240\drafting\roadwayrehab_ds\ ramps \fatigue\@-fat01.dgn

DESIGNED	DDC
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CHECKED	DDC

REVISIONS		FATIGUE RETROFIT STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION REHABILITATION AND RETROFIT REPAIRS FAI ROUTE 70 POPLAR STREET BRIDGE APPROACHES ST. CLAIR COUNTY STRUCTURE NO. 082-0142 (RAMP S) SCALE: DATE: 02/28/2006
NAME	DATE	