

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)I-3	LASALLE	19	1

INDEX OF SHEETS

1. COVER SHEET
2. GENERAL NOTES
3. SUMMARY OF QUANTITIES
4. GENERAL PLAN & ELEVATIONS
5. DECK JOINT REPAIR PLAN
6. TRUSS FLOOR FRAMING REPAIRS LOCATION PLAN
7. DIAPHRAGM & STRINGER REPAIR DETAILS
8. JOINT RECONSTRUCTION DETAILS @ L15 & L4'
9. SECTIONS A & B
10. SOUTH ABUTMENT SECTION
11. JOINT SEAL DETAILS
12. FINGER JOINT REPAIR DETAILS @ PIER #2 & PIER #3
13. BAR SPLICER DETAILS
14. DECK PATCHING SURVEY - APPROACH SPANS
15. DECK PATCHING SURVEY - TRUSS SPANS
16. TRAFFIC CONTROL DETAILS - STAGE I
17. TRAFFIC CONTROL DETAILS - STAGE II
18. WIDTH RESTRICTION SIGNING
19. TEMPORARY CONCRETE BARRIER

STANDARDS

000001-04	STANDARD SYMBOLS, ABBREVIATIONS AND PATTERNS
001001	AREAS OF REINFORCEMENT BARS
001006	DECIMAL OF AN INCH AND OF A FOOT
635011-01	REFLECTOR MARKER AND MOUNTING DETAILS
701001-01	OFF-ROAD OPERATIONS 2L, 2W, MORE THAN 4.5 m (15') AWAY
701006-02	OFF-ROAD OPERATIONS 2L, 2W, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701321-08	LANE CLOSURE, 2L, 2W, BRIDGE REPAIR WITH BARRIER
702001-05	TRAFFIC CONTROL DEVICES
704001-02	TEMPORARY CONCRETE BARRIER

MICROFILMED _____
 REEL NUMBER _____
 AWARDED _____
 RESIDENT ENGINEER _____
 AS BUILT CHANGES WERE MADE
 ON THE FOLLOWING SHEETS _____

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

DISTRICT NO. 3 815-434-6131
 PROJECT ENGINEER: TOM HUFNAGEL 815-434-8418
 UNIT CHIEF: RON WOODSHANK 815-434-8419
 TOWNSHIP: LASALLE

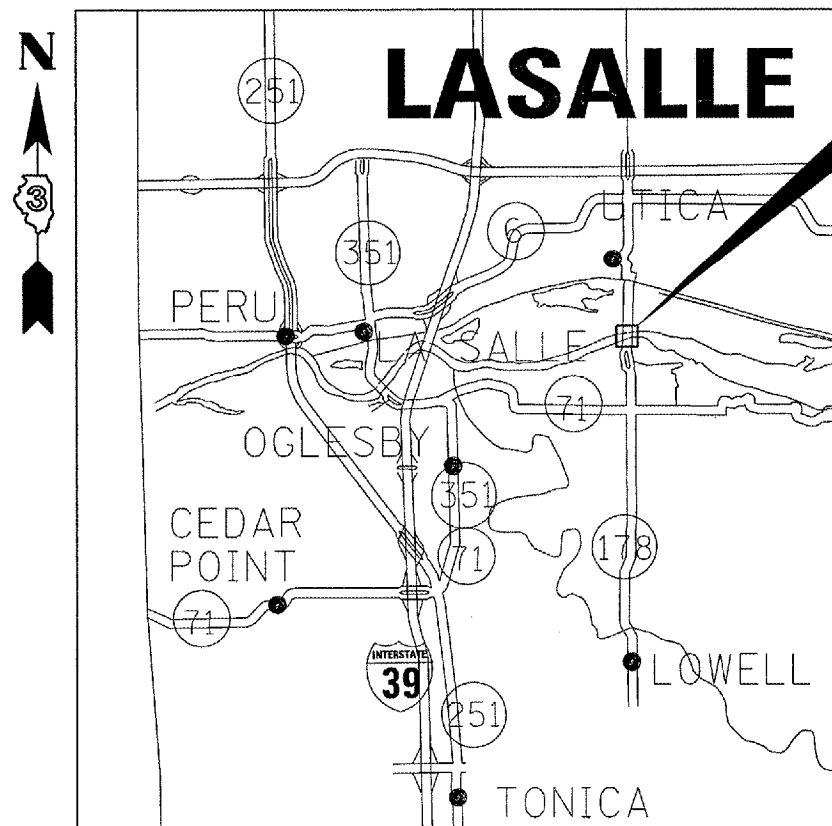
CONTRACT NO. 66548

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

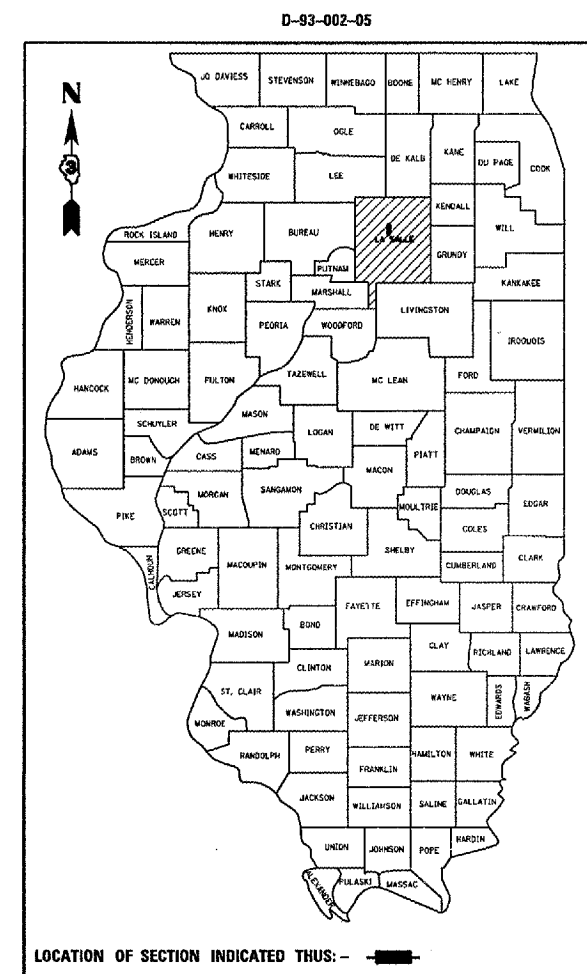
**PROPOSED
 HIGHWAY PLANS**

FAS ROUTE 1279 (IL ROUTE 178)
 SECTION 1(D,E,F,P)I-3

LASALLE COUNTY
 BRIDGE REPAIR
 C-93-025-05



PROJECT LOCATION
 S.N. 050-0088
 ILLINOIS RIVER @ UTICA



FUNCTIONAL CLASSIFICATION
 RURAL MAJOR COLLECTOR
 FAS ROUTE 1279 (IL ROUTE 178)
 2003 ADT = 3600
 P.V = 86.1% M.U. = 3.5% S.U. = 10.4%

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED FEB 10 20 05
Suzana W. M...
 DEPUTY DIRECTOR OF HIGHWAYS, REGION ENGINEER

March 25 20 05
Mike Hine
 ENGINEER OF DESIGN AND ENVIRONMENT

March 25 20 05
Victor Mader
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

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 OF THE STATE OF ILLINOIS

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)I-3	LASALLE	19	2
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	

GENERAL NOTES:

Plan dimensions and details relative to the existing roadway and 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 to make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in the scope of the work, however, the contractor will be paid for the quantity actually furnished at the unit price bid for the work.

The contractor shall be responsible for protecting utility property from construction operations as outlined in Article 107.31 of the Standard Specifications. The "Julie" Number is 1-800-892-0123. A minimum of forty-eight (48) hours advance notice is required.

The cost of any saw cuts made to complete the work as described in plan details, unless otherwise noted shall not be paid for separately but shall be included in the various pay items involved.

For stabilization, all Type III barricades shall require a minimum of four sand bags per barricade.

Where section or subsection monuments are encountered, the engineer shall be notified before such monuments are removed. The contractor shall protect and carefully preserve all monuments until an authorized surveyor or agent has witnessed or otherwise referenced their location. The contractor shall be responsible for having an authorized surveyor reestablish any section or subsection monuments destroyed by his operations.

Any reference to a standard in these plans shall be interpreted to mean the edition as indicated by the subnumber listed on the index of sheets or the copy of the standard included in these plans.

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 Surfaces Areas of Existing Steel Structures".

All new structural steel shall be shop painted with an inorganic zinc rich primer per AASHTO M300, Type I. Cost included with Structural Steel Repair.

The existing structural steel coating contains lead. The Contractor should take appropriate precautions to deal with the presence of lead on this project.

New reinforcement bars shall be epoxy coated.

Reinforcement bars that are to remain in place which are damaged during concrete removal operations shall be repaired or replaced using approved bar splicer or anchorage system. Cost included with "Concrete Removal".

Fasteners shall be high strength bolts. Bolt holes shall be 13/16" dia. For 3/4" bolts.

The cost of removal and/or reinstallation of all members necessary to complete the work as detailed on the plans and as specified in the Special Provisions shall be included in the cost of "Structural Steel Repair".

The Contractor shall provide support and/or shoring systems for the slab, stringer and floor beams in areas of existing stringer and floor beam repairs and at other locations as required to maintain the "as-built" deck profile. The support and/or shoring shall be approved by the Engineer. Such approval will not relieve the Contractor of responsibility for the safety of the 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 of the Standard Specifications.

All structural steel shall be AASHTO M 270 Grade 36.

Field welding of construction accessories will not be permitted to the beams or girders

Reinforcement bars shall conform to the requirements of AASHTO M 31 or M 322 Grade 60.

DATE: 02/10/05

PREPARED BY: Bruce A. Bucher
DISTRICT OPERATIONS ENGINEER

EXAMINED BY: Shubert J. [Signature]
DISTRICT CONSTRUCTION ENGINEER

Thomas R. [Signature]
DISTRICT STUDIES & PLANS ENGINEER

Kenneth R. [Signature]
DISTRICT MATERIALS ENGINEER

REVISIONS		ILLINOIS DEPARTMENT OF TRANSPORTATION
NAME	DATE	
		GENERAL NOTES EXISTING S.N. 050-0088 IL 178 OVER ILLINOIS RIVER STATION 29+30 SCALE: VERT. DRAWN BY RLW HORIZ. DATE 12/08/04 CHECKED BY

cm326/details.dgn

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	10,E,F,P)I-3	LASALLE	19	3
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. - ILLINOIS		NON-FED. AID PROJECT		

SUMMARY OF QUANTITIES

CONSTRUCTION CODE TYPE:

X072-2A

100% STATE
TOTAL
QUANTITY

CODE NO.	ITEM	UNIT	100% STATE TOTAL QUANTITY
50102400	CONCRETE REMOVAL	CU YD	4.3
50300255	CONCRETE SUPERSTRUCTURE	CU YD	4.3
50501130	STRUCTURAL STEEL REPAIR	POUND	7150
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	779
67000400	ENGINEER'S FIELD OFFICE, TYPE A	CAL MO	3
67100100	MOBILIZATION	L SUM	1
70100405	TRAFFIC CONTROL AND PROTECTION, STANDARD 701321	EACH	1
70106500	TEMPORARY BRIDGE TRAFFIC SIGNALS	EACH	1
70400100	TEMPORARY CONCRETE BARRIER	FOOT	1400
70400200	RELOCATE TEMPORARY CONCRETE BARRIER	FOOT	1400
X0320887	POLYMER CONCRETE	CU FT	3.5
X0321743	SILICONE JOINT SEALER, 1"	FOOT	120
X0324943	FINGER PLATE ADJUSTMENT	FOOT	30
X7200201	WIDTH RESTRICTION SIGNING	L SUM	1
Z0002600	BAR SPLICERS	EACH	32
Z0016000	DECK SLAB REPAIR (FULL DEPTH)	SQ YD	70
Z0016200	DECK SLAB REPAIR (PARTIAL)	SQ YD	635
Z0047300	PROTECTIVE SHIELD	SQ YD	1452
Z0073300	TEMPORARY SHORING AND CRIBBING	L SUM	1
* Z0030250	IMPACT ATTENUATORS, TEMPORARY (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1
* Z0030350	IMPACT ATTENUATORS, RELOCATE (NON- REDIRECTIVE), TEST LEVEL 3	EACH	1

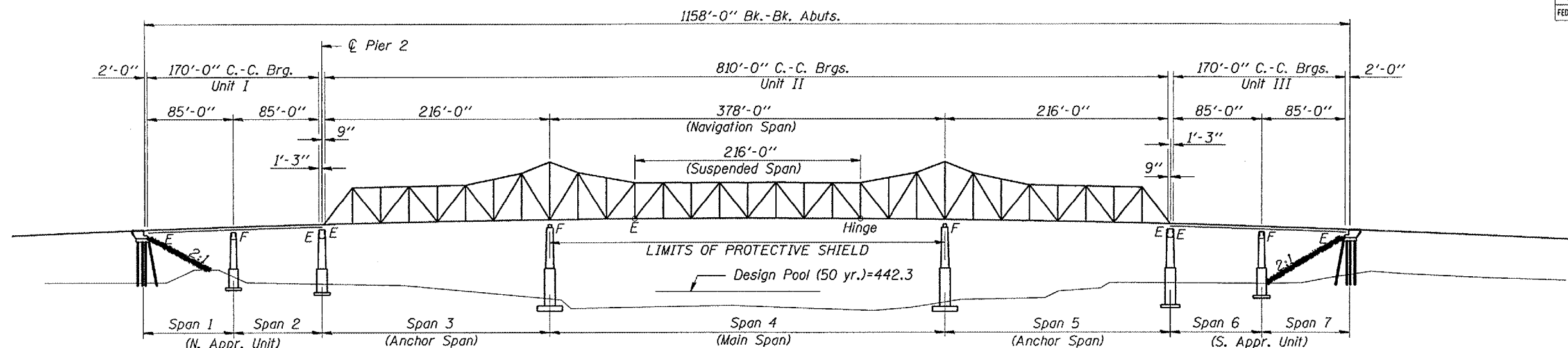
* SFTY-3N

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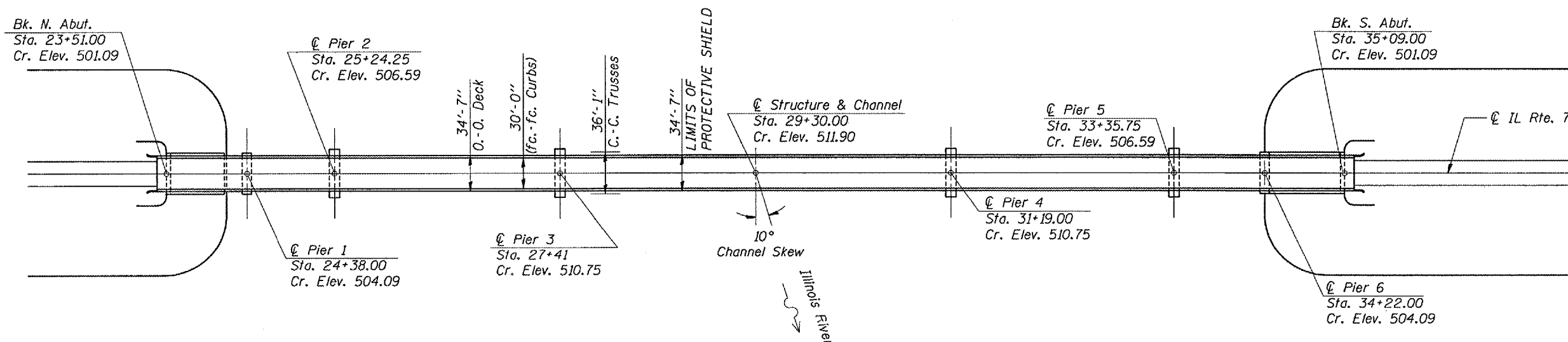
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 VERT. SCALE: DRAWN BY RLW
 HORIZ. CHECKED BY
 DATE 12/08/04

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)I-3	LASALLE	19	4
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. 1		ILLINOIS NON-FED. AID PROJECT		



ELEVATION



PLAN

PROPOSED REHABILITATION WORK

(All work to be done under Stage Construction)

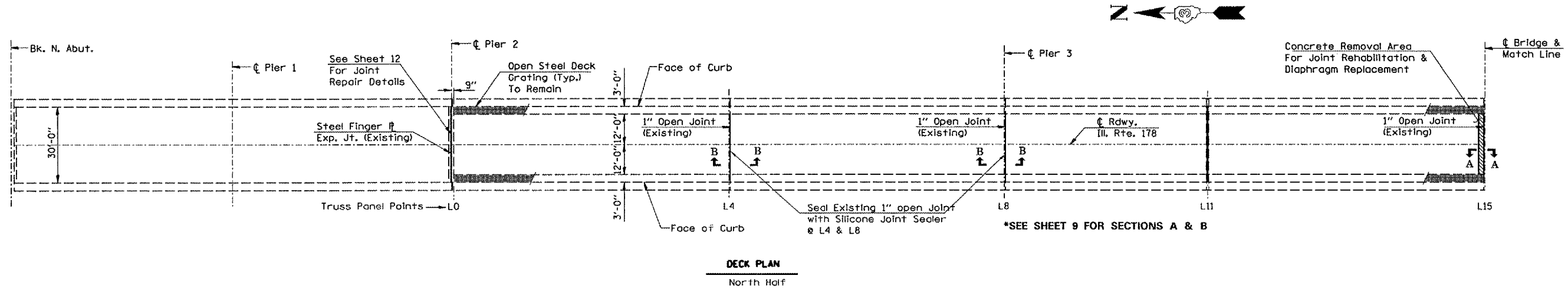
1. Remove & Replace diaphragms below open 1" deck joint locations. Clean existing floor framing in vicinity of joints.
2. Remove and replace the end diaphragm in southwest beam bay at the south abutment.
3. Reinforce stringer webs with severe section loss at shown locations.
4. Install Silicone Joint Sealer at open joints.
5. Taper misaligned deck finger plate expansion joints at Piers 2 & 3 by field grinding.
6. Patch deck at locations shown.

REVISIONS	
NAME	DATE

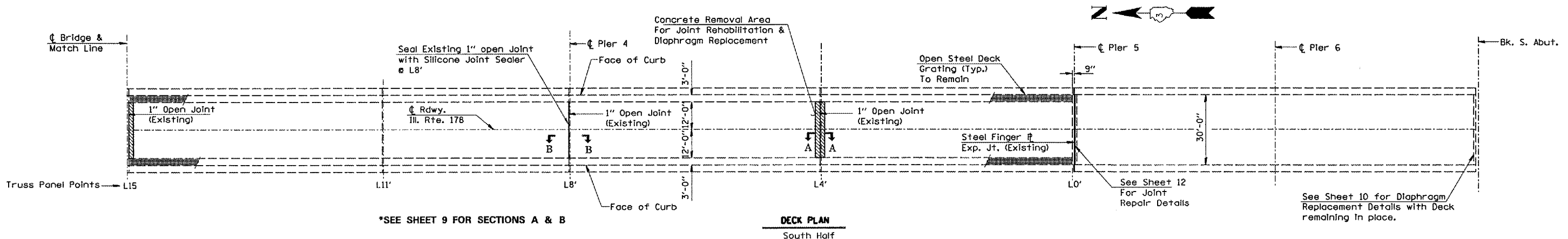
ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL PLAN & ELEVATION
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30

VERT. SCALE: HORIZ. SCALE: 1" = 10'
 DATE: 12/08/04
 DRAWN BY: RLW
 CHECKED BY:

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)1-3	LASALLE	19	5
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. ILLINOIS		NON-FED. AID PROJECT		



DECK PLAN
North Half



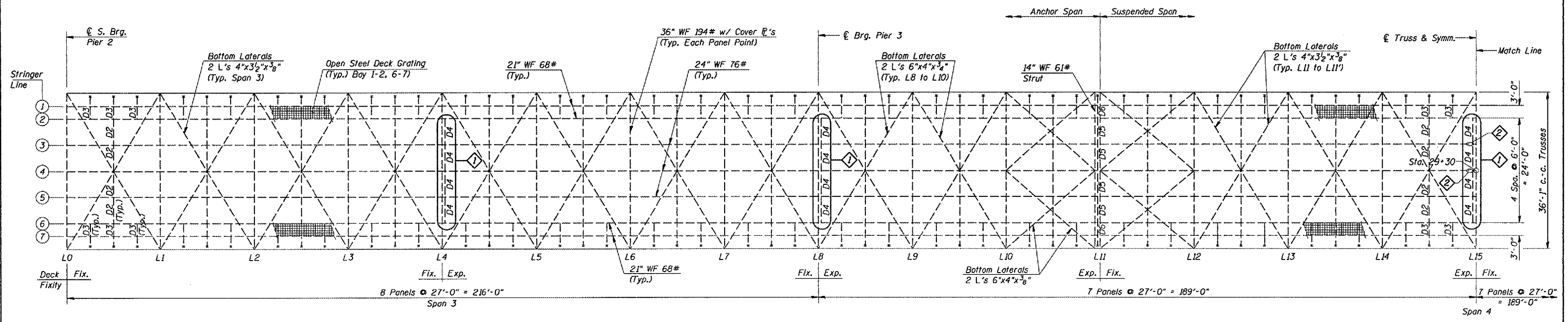
DECK PLAN
South Half

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK JOINT REPAIR PLAN
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. _____
 HORIZ. _____
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY _____

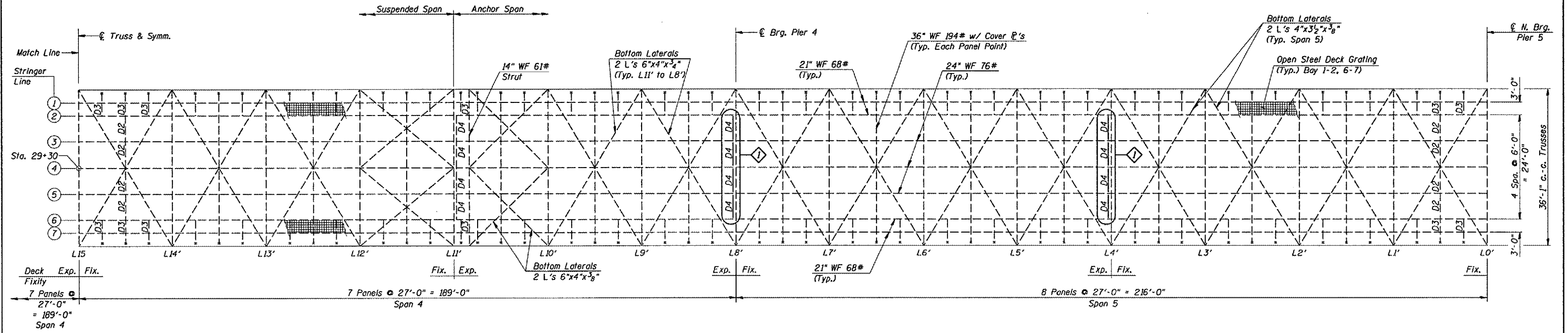
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	10,E,F,P11-3	LASALLE	19	6
STA. 23+51	TO STA. 35+09			
FED. ROAD DIST. NO.	ILLINOIS	NON-FED. AID PROJECT		



TRUSS FLOOR FRAMING PLAN
(North Half)

See Sheets 9 & 7 for End Diaphragm Replacement (1) and Stringer Web Repair Details (2).



TRUSS FLOOR FRAMING PLAN
(South Half)

Note: Diaphragm designations shown match original design plan designations.

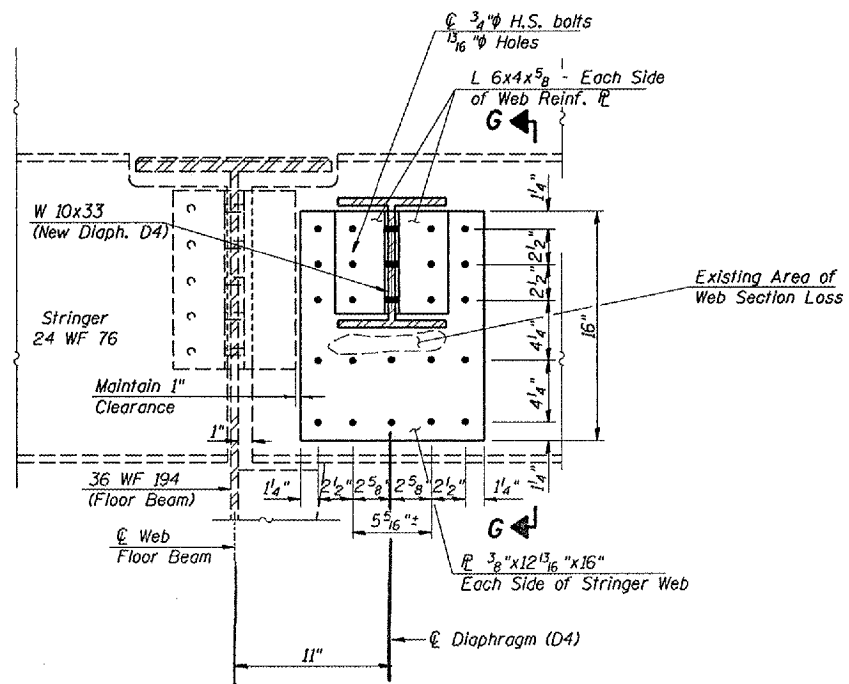
- REPAIR LEGEND**
- ① End Diaphragm Replacement - D4
 - ② Stringer Web Repair

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRUSS FLOOR FRAMING REPAIRS LOCATION PLAN
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. 1"=10'-0"
 HORIZ. 1"=40'-0"
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY

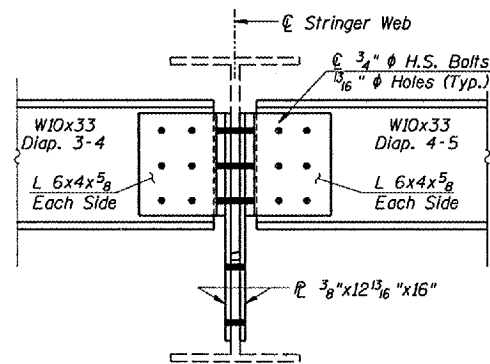
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. -		ILLINOIS	NON-FED. AID PROJECT	



2 - STRINGER WEB REPAIR

Looking West @ Panel Pt. L15 - Stringer Lines 3 & 4



3 or 4

SECTION G-G

Looking South

STAGE 1 CONSTRUCTION SEQUENCE

WORK SEQUENCE FOR STRINGER-4 WEB REINFORCEMENT (L15) & DIAPHRAGM D4 (BAY 4-5) REPLACEMENTS

1. REMOVE DECK TO LIMITS SHOWN ABOVE STRINGER-4 AND DIAPHRAGM CONNECTIONS.
2. INSTALL SHORING BENEATH DIAPHRAGM 3-4 CONNECTION ON EAST SIDE OF STRINGER 4.
3. REMOVE DIAPHRAGM 4-5 AND FRAMING ANGLES AT BOTH SIDES STRINGER-4.
4. DRILL NEW WEB HOLES IN STRINGER-4 WEB, FROM WEST SIDE, FOR WEB REINFORCEMENT PLATES. USE EXISTING STRINGER-4 WEB FRAMING ANGLE HOLES FOR ALIGNMENT OF DRILL TEMPLATE.
5. CLEAN APPROPRIATE SURFACES OF STRINGER-4 WEB'S WEST SIDE.
6. INSTALL WEB REINFORCEMENT PLATE ON WEST SIDE OF STRINGER-4 WITH TEMPORARY H.S. BOLTS. INSTALL NEW DIAPHRAGM 4-5 WITH FRAMING ANGLES ON NEW WEB PLATE AT STRINGER-4. TEMPORARY BOLTS SHALL BE INSTALLED TO "SNUG TIGHT" CONDITION WITH NUTS ON THE EAST SIDE OF STRINGER-4 WEB.
7. FORM DECK FOR STAGE 1, PLACE REINFORCEMENT BARS & BAR SPLICERS
8. POUR STAGE 1 DECK PATCH TO MATCH EXISTING CIRCULAR CROWN.
9. INSTALL SILICONE JOINT SEAL.

NOTE: FOR DIAPHRAGM 4-5 REPLACEMENT, AT LOCATIONS NOT REQUIRING WEB REINFORCEMENT AT STRINGER 4, OMIT STEP 4 AND PLATE INSTALLATION WORK IN STEP 6 IN THE ABOVE SEQUENCE.

STAGE 2 CONSTRUCTION SEQUENCE

WORK SEQUENCE FOR STRINGER-4 WEB REINFORCEMENT (L15) & DIAPHRAGM D4 (BAY 3-4) REPLACEMENTS

1. REMOVE REMAINING DECK CONCRETE TO LIMITS SHOWN.
2. REMOVE DIAPHRAGM 3-4 AND FRAMING ANGLES AT STRINGER-3.
3. CLEAN APPROPRIATE AREAS OF STRINGER-3 AND STRINGER-4 WEBS.
4. DRILL NEW WEB HOLES IN STRINGER-3 WEB FOR WEB REINFORCEMENT PLATES. USE EXISTING STRINGER-3 WEB FRAMING ANGLE HOLES FOR ALIGNMENT OF DRILL TEMPLATE.
5. INSTALL WEB REINFORCEMENT PLATES ON EACH SIDE OF STRINGER-3
6. PLACE TEMPORARY SHORING BENEATH DIAPHRAGM 4-5 ON WEST SIDE OF STRINGER-4.
7. LOOSEN AND REMOVE NUTS ON TEMPORARY BOLTS AT STRINGER-4'S WEB. INSTALL WEB REINFORCEMENT PLATE OVER TEMPORARY BOLTS AT STRINGER-4. REPLACE REINFORCEMENT PLATE TEMPORARY BOLTS WITH NEW H.S. BOLTS AND TIGHTEN AT STRINGER-4.
8. INSTALL NEW DIAPHRAGMS (2-3, 3-4) WITH NEW FRAMING ANGLES OVER NEW REINFORCEMENT PLATES @ STRINGER'S 3 & 4.
9. FORM DECK FOR STAGE 2; PLACE REINFORCEMENT BARS.
10. POUR STAGE 2 DECK PATCH TO MATCH EXISTING CIRCULAR CROWN.
11. INSTALL SILICONE JOINT SEAL.

NOTE: FOR DIAPHRAGM 3-4 REPLACEMENT, AT LOCATIONS NOT REQUIRING WEB REINFORCEMENT AT STRINGER'S 3 & 4, OMIT STRINGER WEB HOLE DRILLING AND PLATE INSTALLATION WORK IN THE APPROPRIATE STEPS ABOVE.

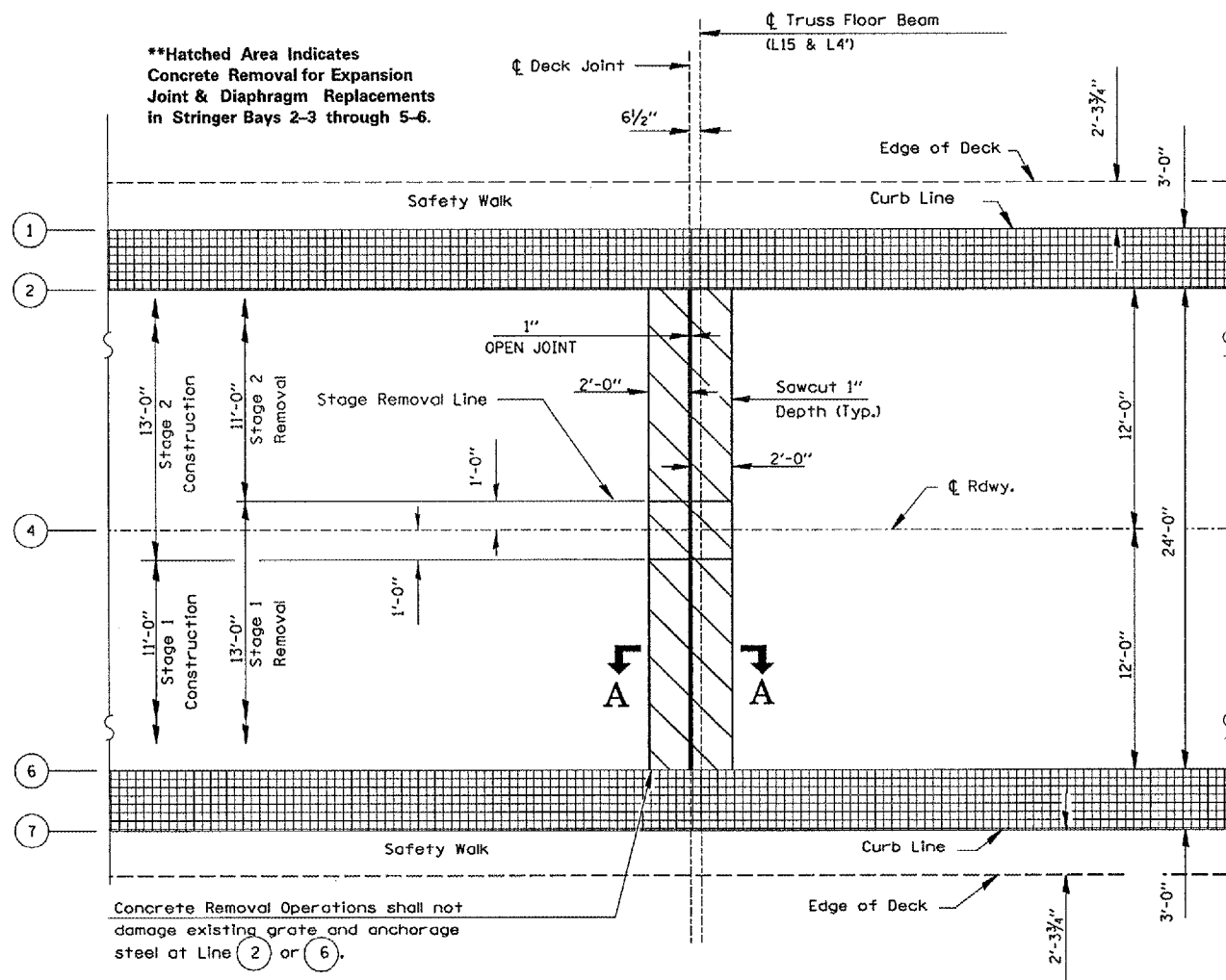
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DIAPHRAGM & STRINGER REPAIR DETAILS
EXISTING S.N. 050-0088
IL 178 OVER ILLINOIS RIVER
STATION 29+30
SCALE: VERT. DRAWN BY RLW
 HORIZ. DATE 12/08/04 CHECKED BY

F.A.S. RTE. 1279	SECTION 1(D,E,F,P)I-3	COUNTY LASALLE	TOTAL SHEETS 19	SHEET NO. 8
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. ILLINOIS		NON-FED. AID PROJECT		



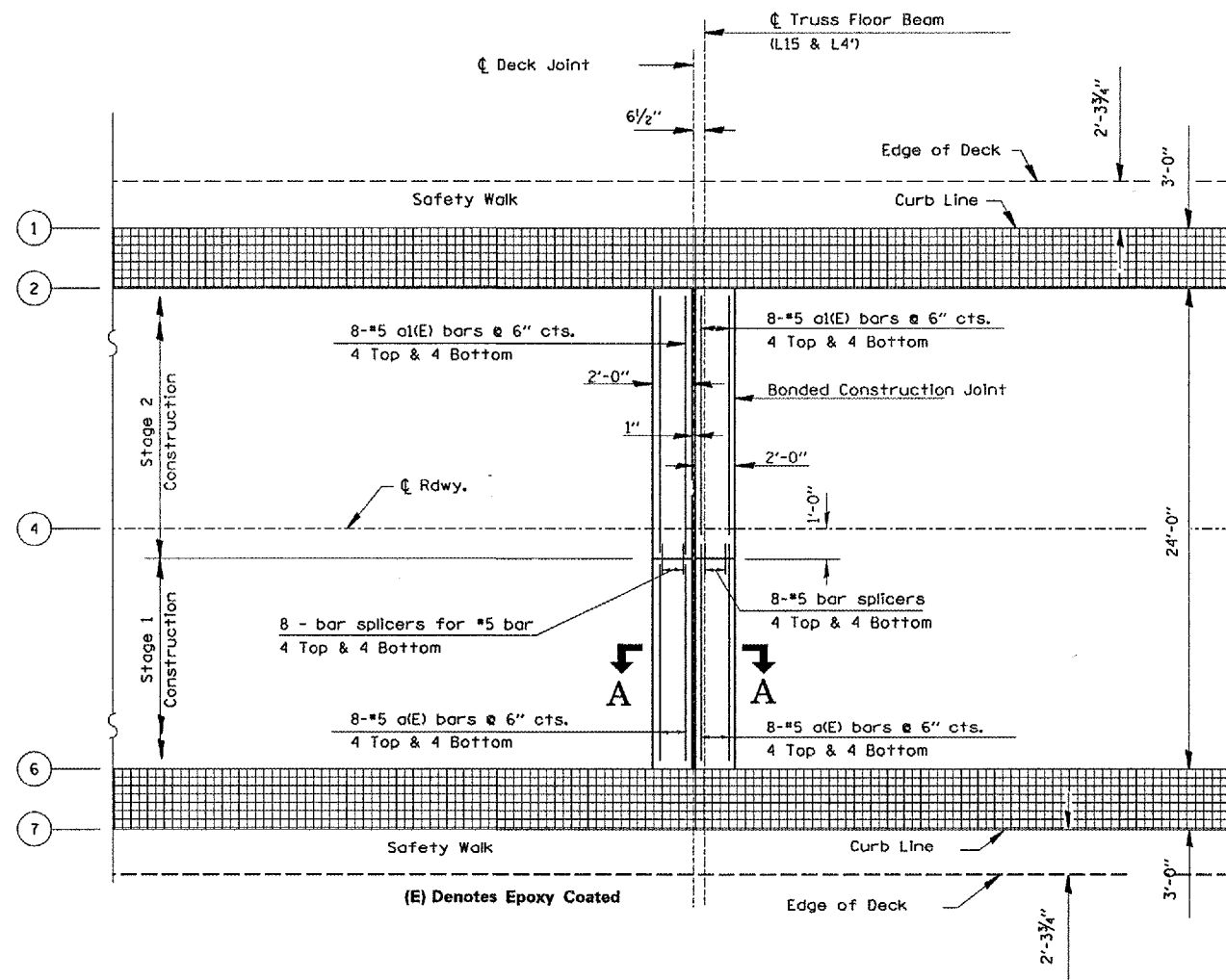
**Hatched Area Indicates Concrete Removal for Expansion Joint & Diaphragm Replacements in Stringer Bays 2-3 through 5-6.



EXISTING DECK PLAN

Truss Spans @ L15 & L4'

Concrete Removal Operations shall not damage existing grate and anchorage steel at Line (2) or (6).



PROPOSED DECK PLAN

Truss Spans @ L15 & L4'

(E) Denotes Epoxy Coated

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	32	#5	10'-8"	—
a1(E)	32	#5	12'-8"	—
Concrete Removal			Cu. Yd.	4.3
Reinforcement Bars, Epoxy Coated			Pound	779
Bar Splicers			Each	32
Concrete Superstructure			Cu. Yd.	4.3
Silicone Joint Sealer, 1"			Foot	120
Polymer Concrete			Cu. Ft.	3.5

SEE SHEET 9 FOR SECTIONS A-A

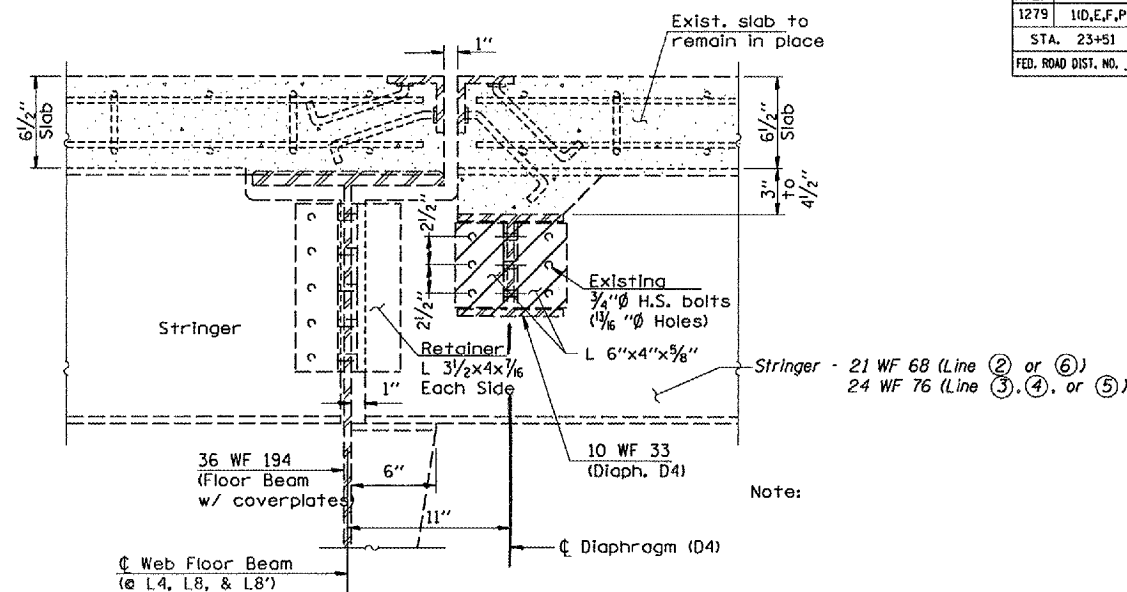
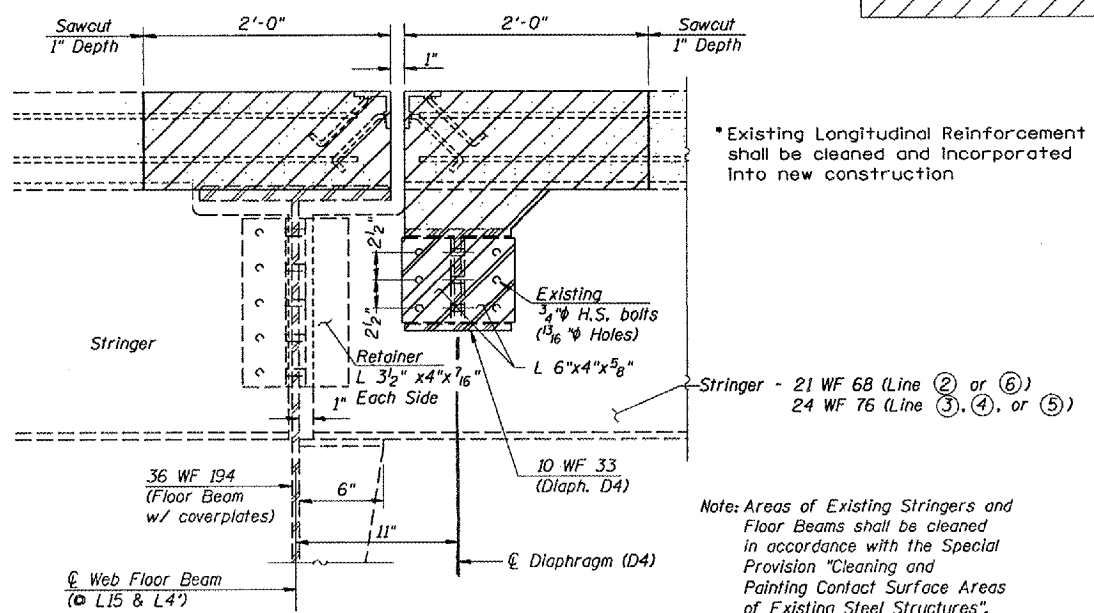
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**JOINT RECONSTRUCTION
 DETAILS @ L15 & L4'**
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS-RIVER
 STATION 29+30
 VERT. SCALE: HORIZ. DATE: 12/08/04
 DRAWN BY: RLW
 CHECKED BY:

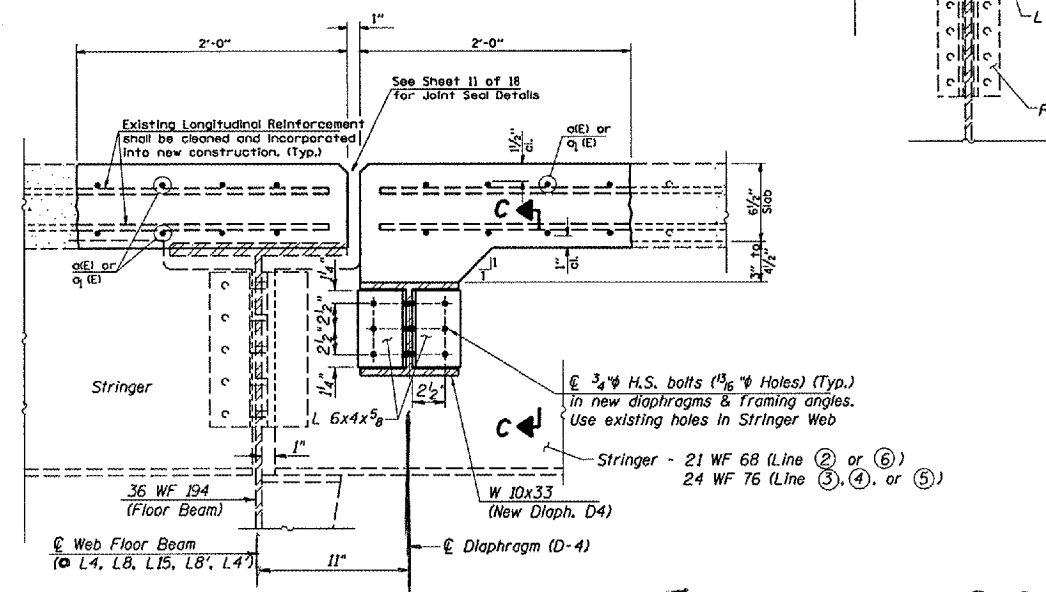
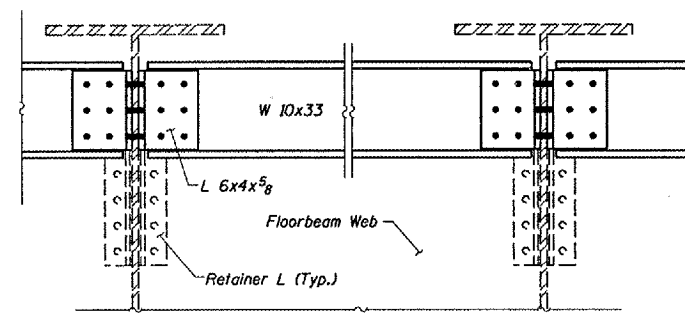
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1279	1(D,E,F,P)1-3	LASALLE	19	9
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. -		ILLINOIS NON-FED. AID PROJECT		

HATCHED AREAS INDICATE REMOVAL

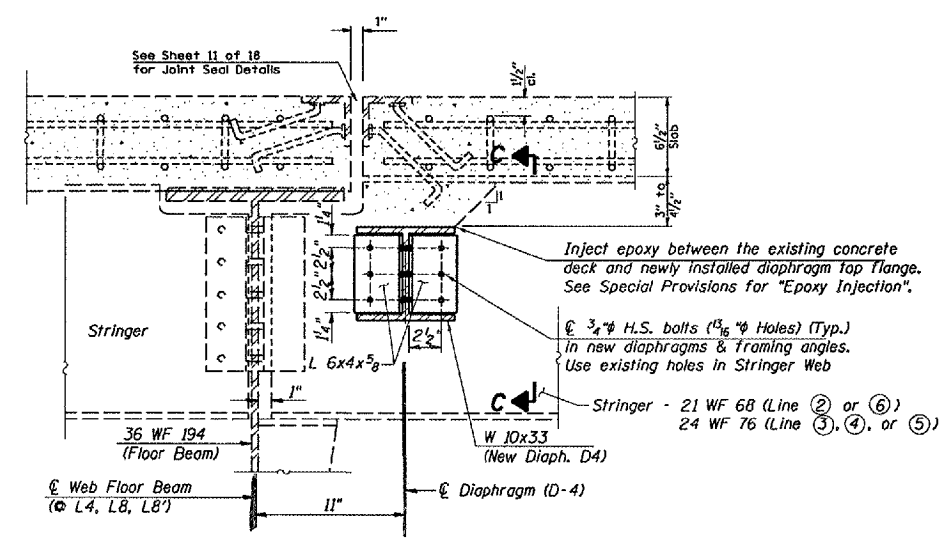


Note: Areas of Existing Stringers and Floor Beams shall be cleaned in accordance with the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".



Note: Areas of Existing Stringers and Floor Beams shall be cleaned in accordance with the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".

SEE SHEET 7 FOR REPAIRS TO STRINGERS ③ & ④



REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION

SECTIONS A & B

EXISTING S.N. 050-0088

IL 178 OVER ILLINOIS RIVER

STATION 29+30

SCALE: VERT. DATE 12/08/04

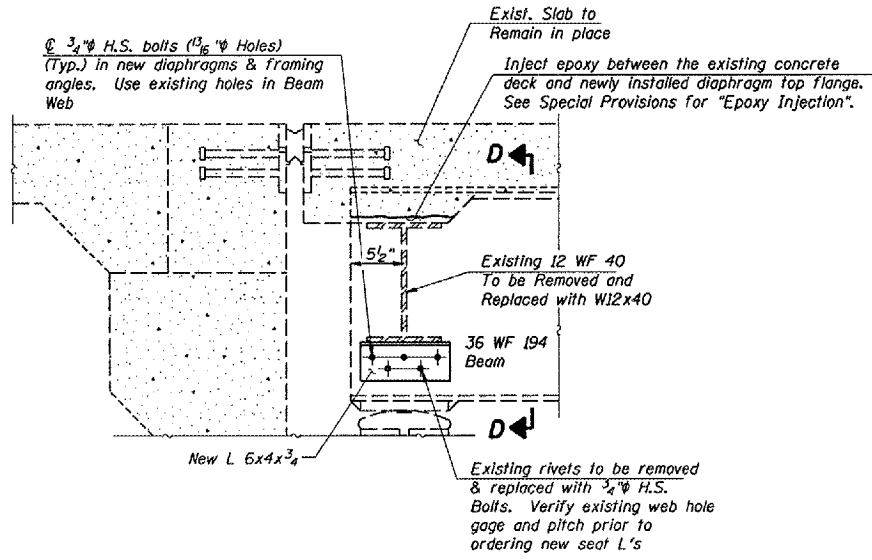
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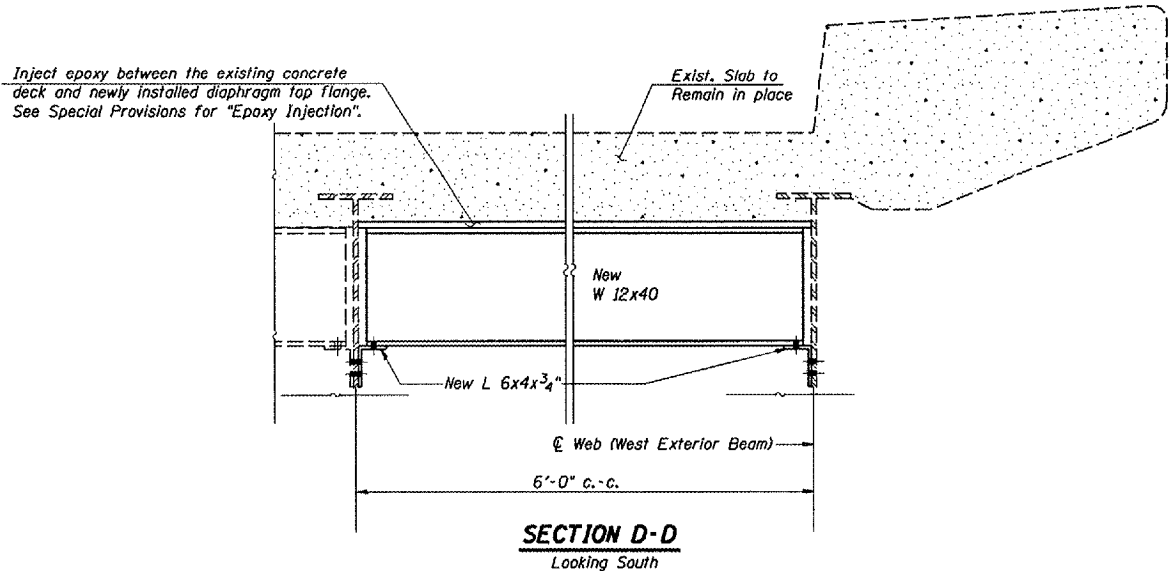
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F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)I-3	LASALLE	19	10
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. .		ILLINOIS	NON-FED. AID PROJECT	



SECTION SOUTH ABUTMENT
Diaphragm D Replacement (Stage 1 Construction)



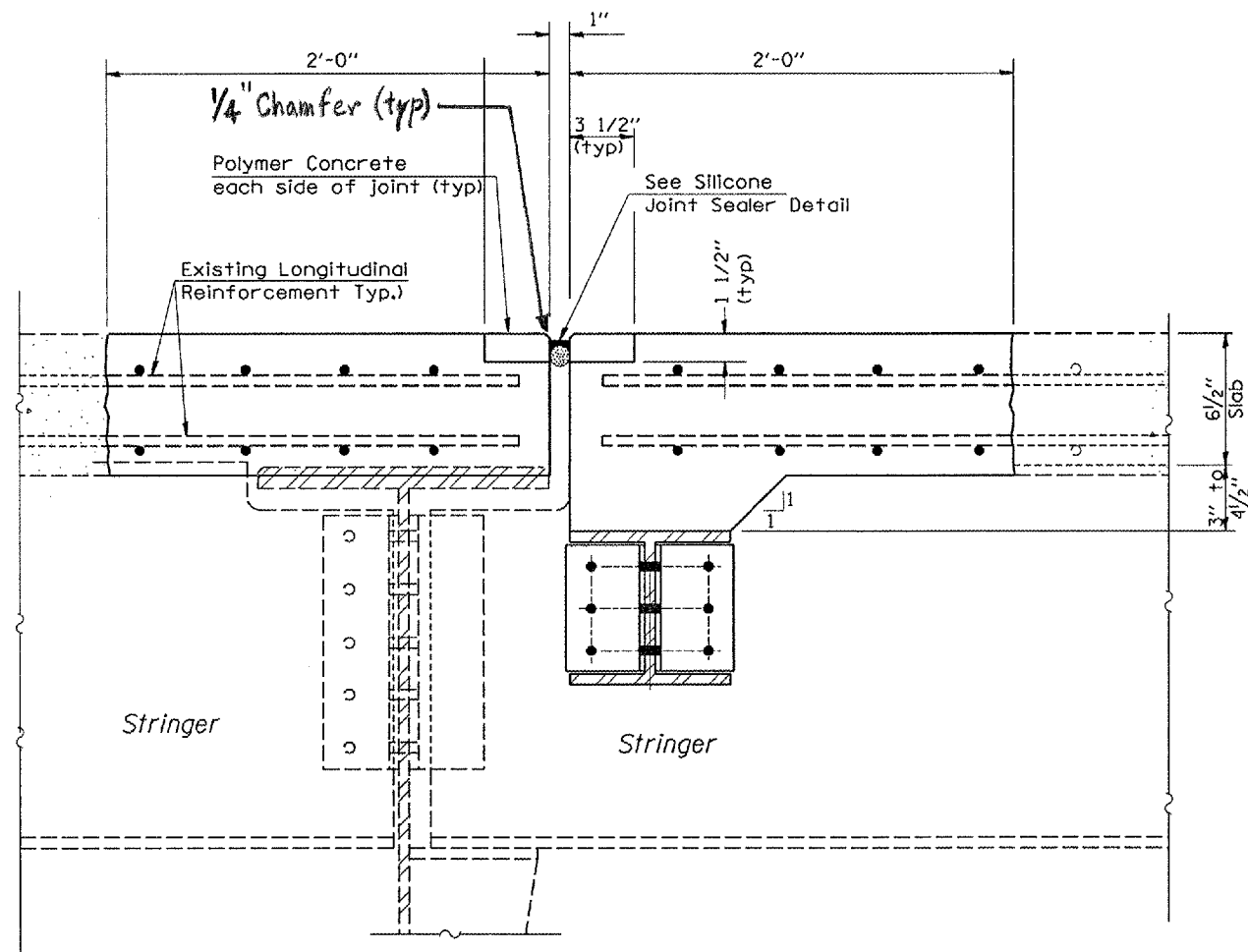
SECTION D-D
Looking South

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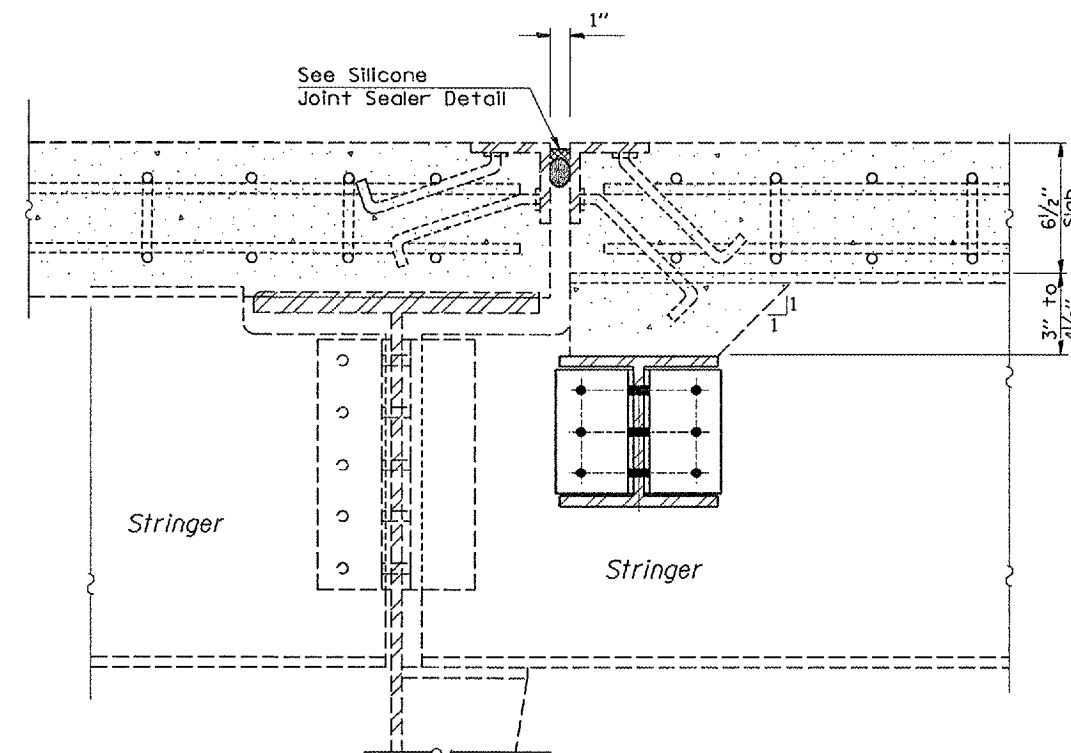
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
SOUTH ABUTMENT SECTION
EXISTING S.N. 050-0088
IL 178 OVER ILLINOIS RIVER
STATION 29 + 30
VERT. SCALE: DRAWN BY: RLW
HORIZ. CHECKED BY:
DATE: 12/08/04

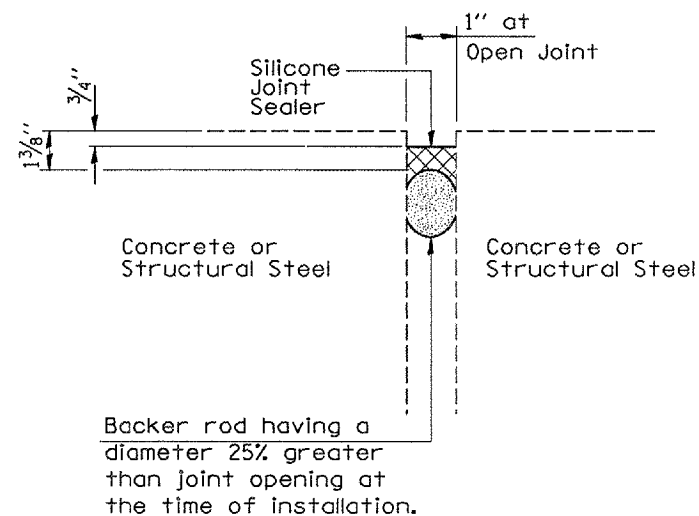
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	10D,E,F,P11-3	LASALLE	19	11
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. ILLINOIS		NON-FED. AID PROJECT		



JOINT SEAL DETAIL A
Looking West @ L15 & L4'



JOINT SEAL DETAIL B
Looking West @ L8'
Looking East at L4 & L8



SILICONE JOINT SEALER

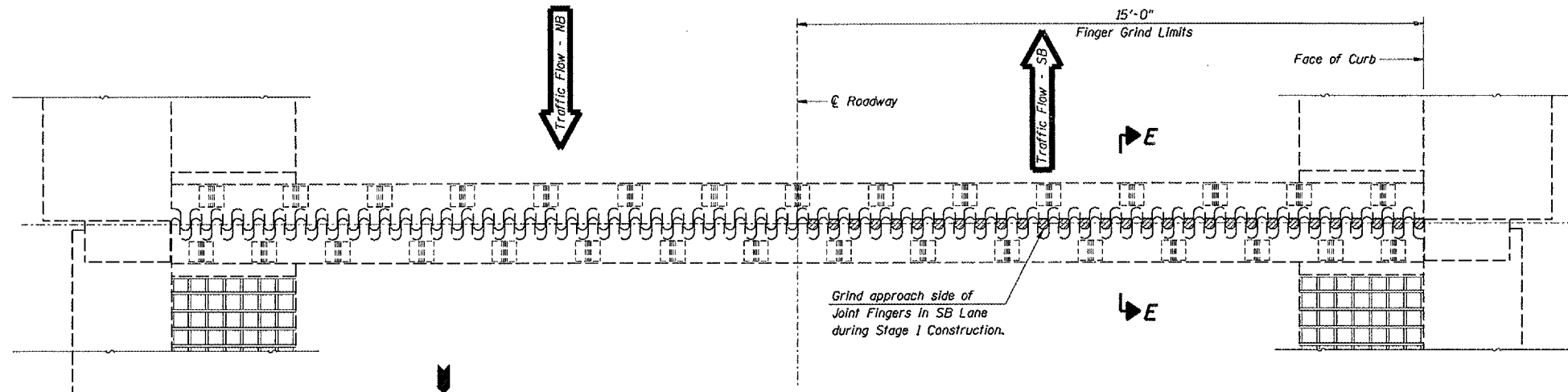
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
JOINT SEAL DETAILS
EXISTING S.N. 050-0088
IL 178 OVER ILLINOIS RIVER
STATION 29+30

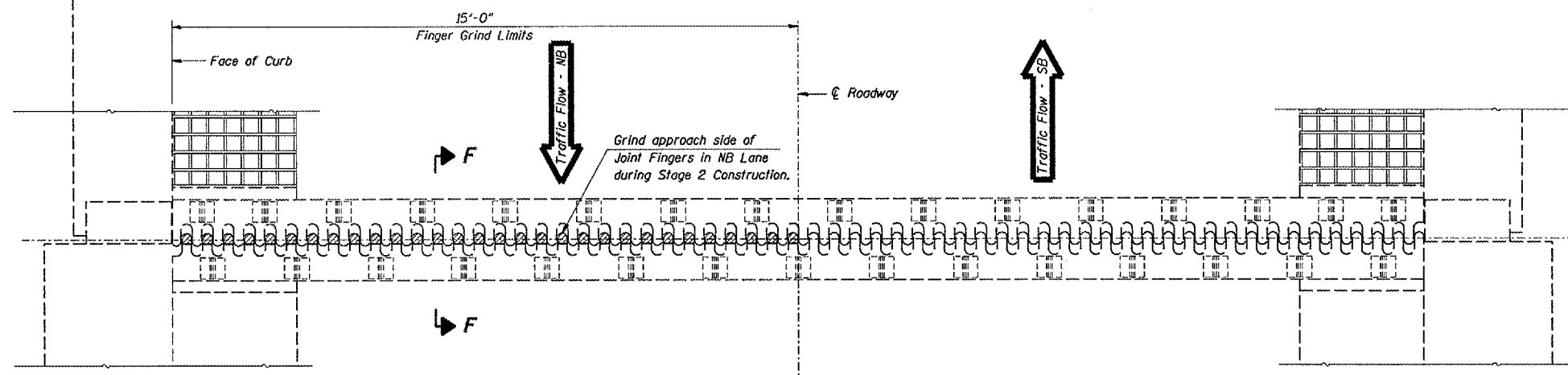
SCALE: VERT. DRAWN BY RLV
HORIZ. CHECKED BY
DATE 12/08/04

cmain05/cm326/det011s.dgn

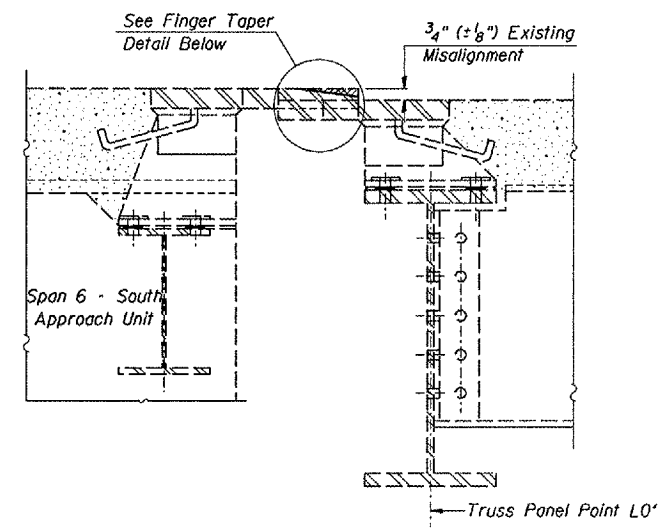
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)1-3	LASALLE	19	12
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS NON-FED. AID PROJECT		



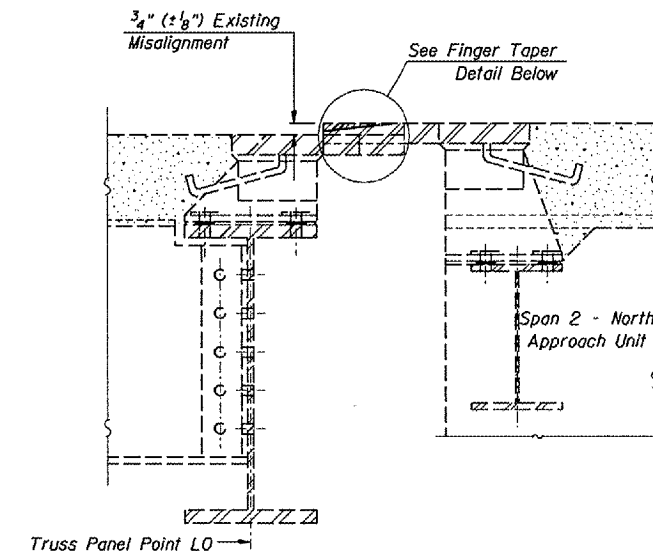
FINGER PLATE EXPANSION JOINT - PIER 5



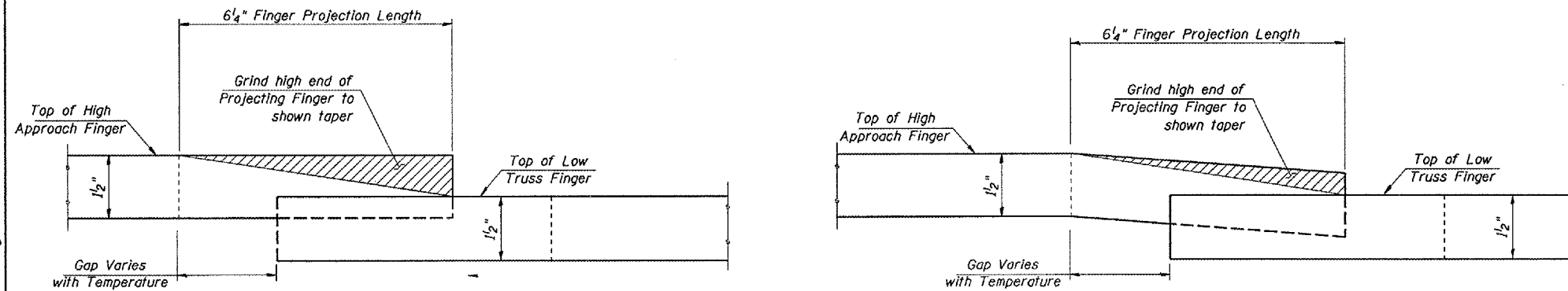
FINGER PLATE EXPANSION JOINT - PIER 2



CROSS SECTION E-E



CROSS SECTION F-F



FINGER TAPER DETAIL

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Finger Plate Adjustment	Foot	30

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
**FINGER JOINT REPAIR
 DETAILS @ PIER 2 & PIER 5**
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. _____
 HORIZ. _____
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY _____

cmain05/cm326/details.dgn

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	110,E,F,P11-3	LASALLE	19	13
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS NON-FED. AID PROJECT		

NOTES

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

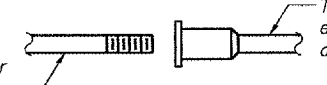
- ① Minimum Capacity (Tension in kips) = $1.25 \times f_y \times A_t$
- ② Minimum *Pull-out Strength (Tension in kips) = $1.25 \times f_{s_{allow}} \times A_t$

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

BAR SPLICER ASSEMBLIES			
Bar Size to be Spliced	Splicer Rod or Dowel Bar Length	Strength Requirements	
		Min. Capacity kips - tension	Min. Pull-Out Strength kips - tension
#4	1'-8"	14.7	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 equal or larger than the diameter of bar spliced.

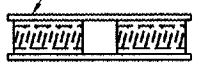


ROLLED THREAD DOWEL BAR



**** ONE PIECE**

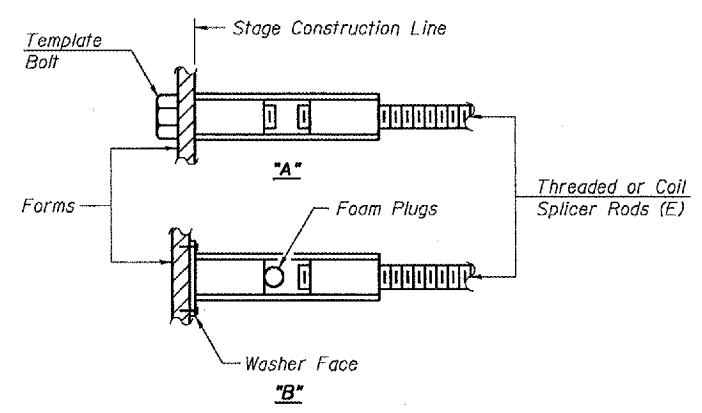
Wire Connector



WELDED SECTIONS

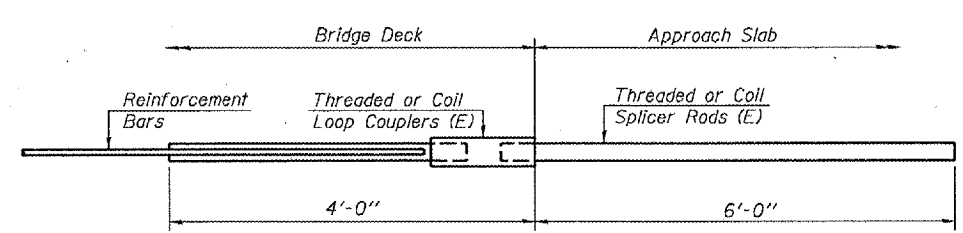
BAR SPLICER ASSEMBLY ALTERNATIVES

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



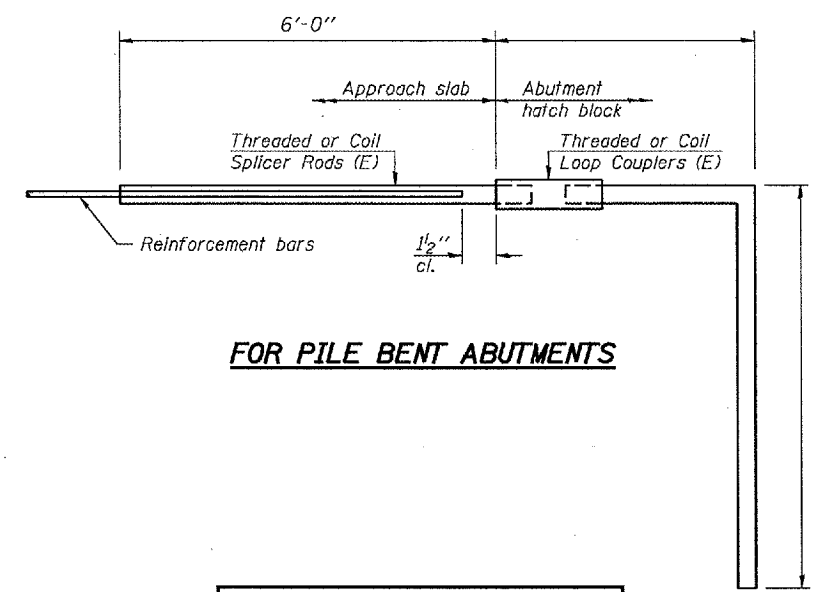
INSTALLATION AND SETTING METHODS

"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.



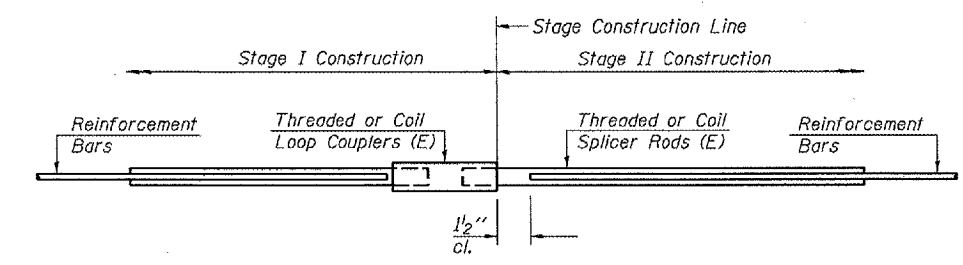
FOR INTEGRAL OR SEMI-INTEGRAL ABUTMENTS

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
#5	32	Deck Transverse Bars

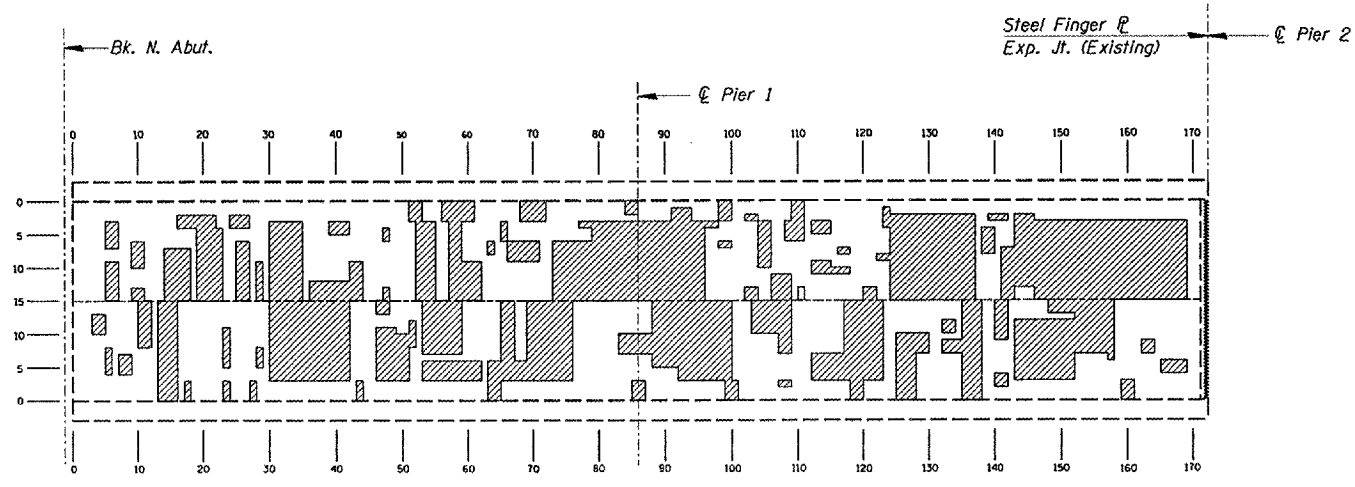
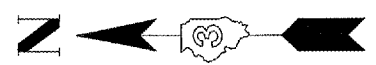
REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
BAR SPLICER DETAILS
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 VERT. N/A
 SCALE: HORIZ. N/A
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY

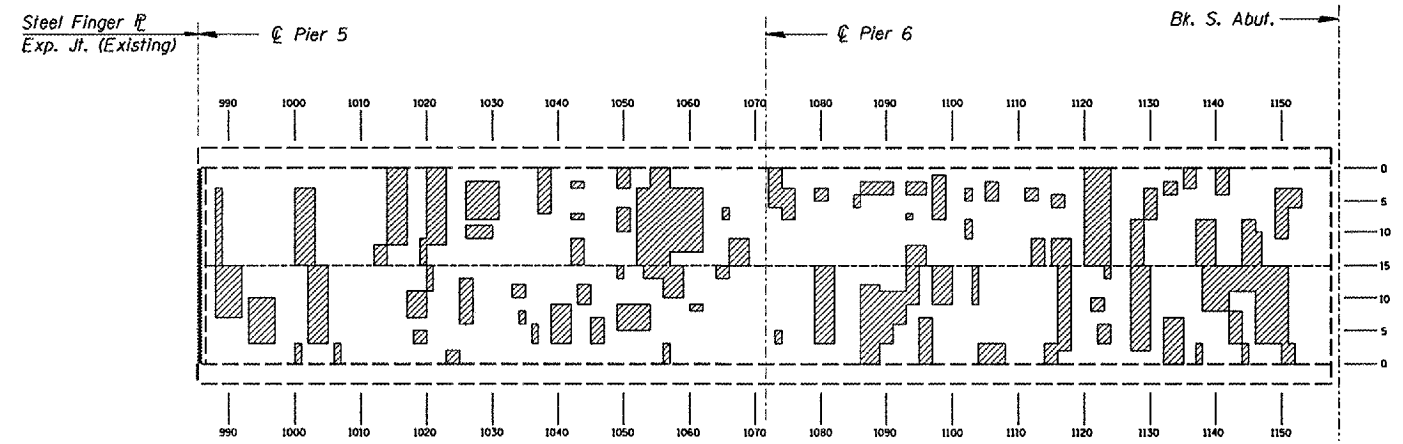
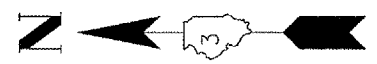
BSD-1

10-22-04

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)I-3	LASALLE	19	14
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



NORTH APPROACH PLAN



SOUTH APPROACH PLAN

NOTES:

Hatched areas represent delaminated areas.

The Engineer shall sound the entire deck surface to determine exact locations and quantities of "Deck Slab Repair".

Deck Slab Repair (Partial) has been estimated at 19% of total deck area = 635 square yards.

Deck Slab Repair (Full Depth) has been estimated at 2% of total deck area = 70 square yards.

The Engineer shall record the actual locations of the deck slab repair on the "As-Built" plans.

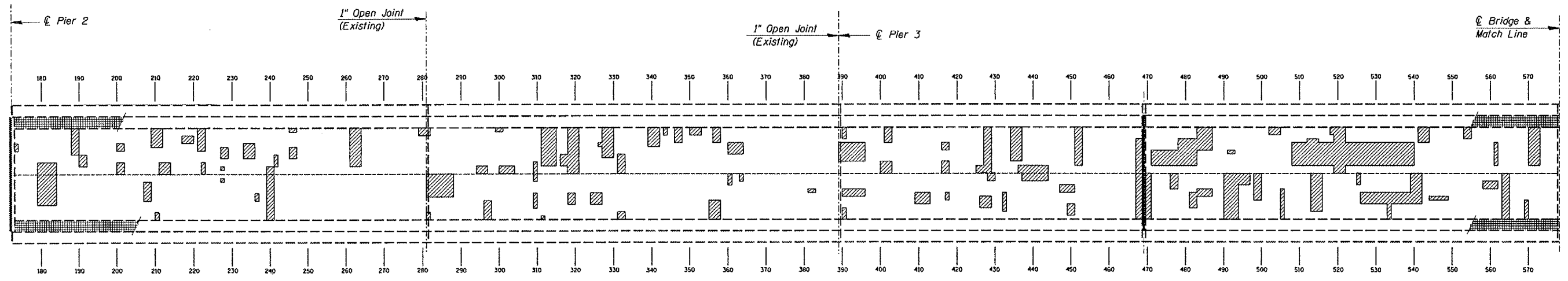
Date of Deck Survey: 12/28/04

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK PATCHING SURVEY
APPROACH SPANS
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. _____
 HORIZ. _____
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY _____

cm326/det/alls.dgn

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)I-3	LASALLE	19	15
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



TRUSS SPANS

NOTES:

Hatched areas represent delaminated areas.

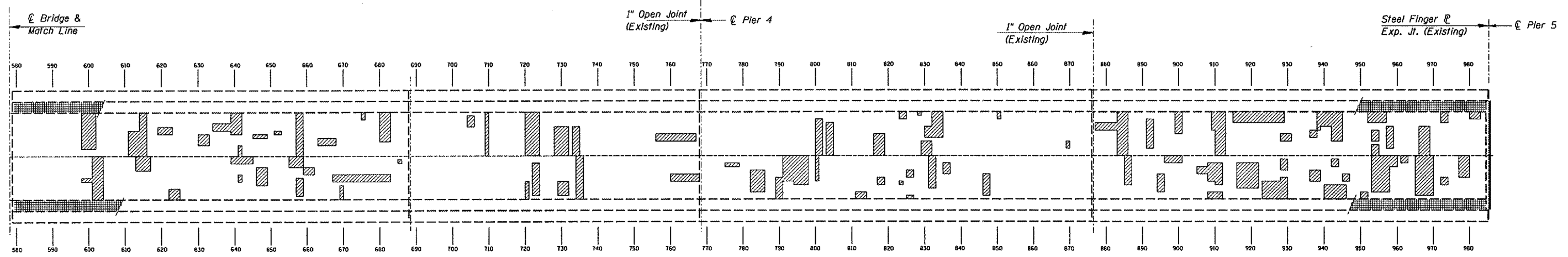
The Engineer shall sound the entire deck surface to determine exact locations and quantities of "Deck Slab Repair".

Deck Slab Repair (Partial) has been estimated at 19% of total deck area = 635 square yards.

Deck Slab Repair (Full Depth) has been estimated at 2% of total deck area = 70 square yards.

The Engineer shall record the actual locations of the deck slab repair on the "As-Built" plans.

Date of Deck Survey: 12/28/04



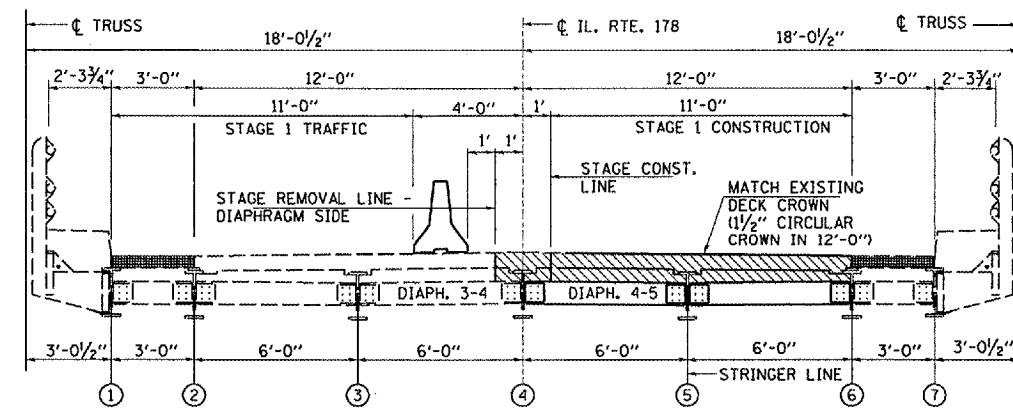
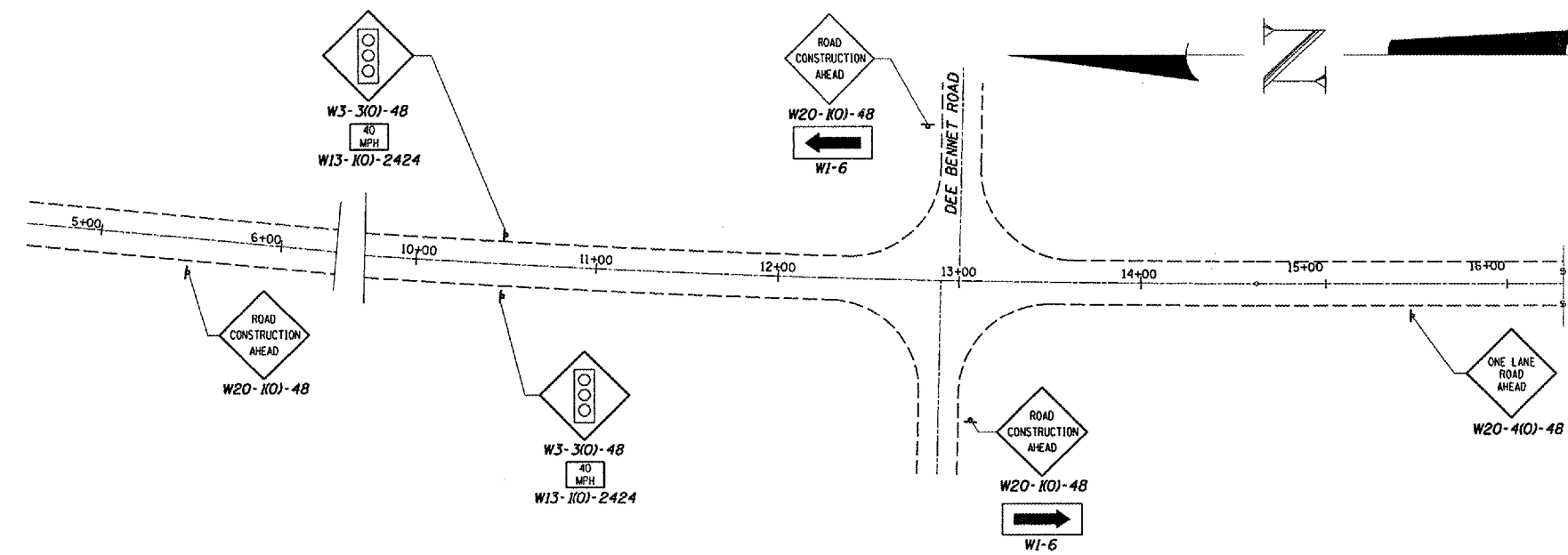
TRUSS SPANS

REVISIONS	
NAME	DATE

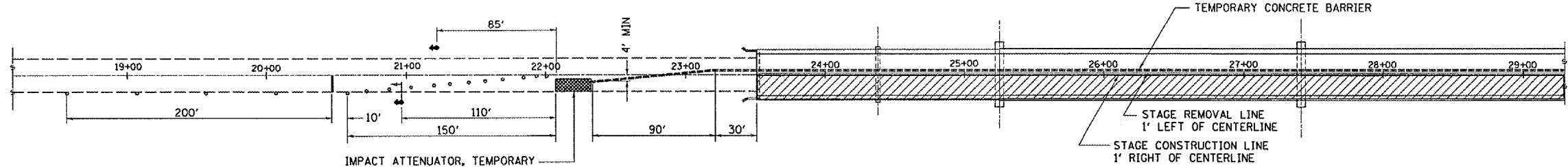
ILLINOIS DEPARTMENT OF TRANSPORTATION
DECK PATCHING SURVEY
TRUSS SPANS
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. _____
 HORIZ. _____
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY _____

cmain05/cm326/details.dgn

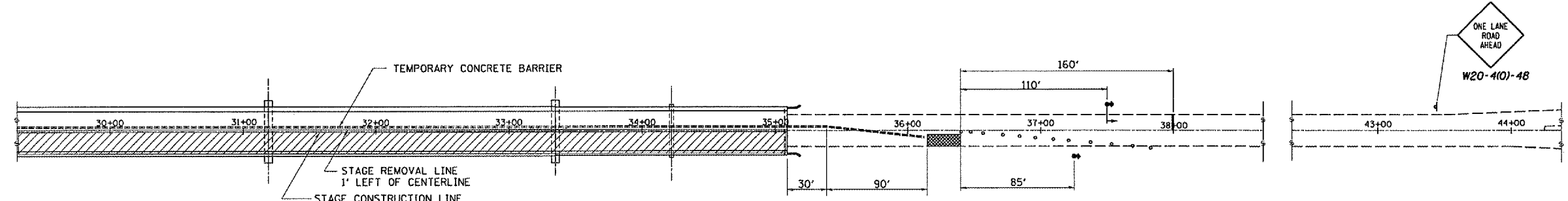
F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	1(D,E,F,P)1-3	LASALLE	19	16
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



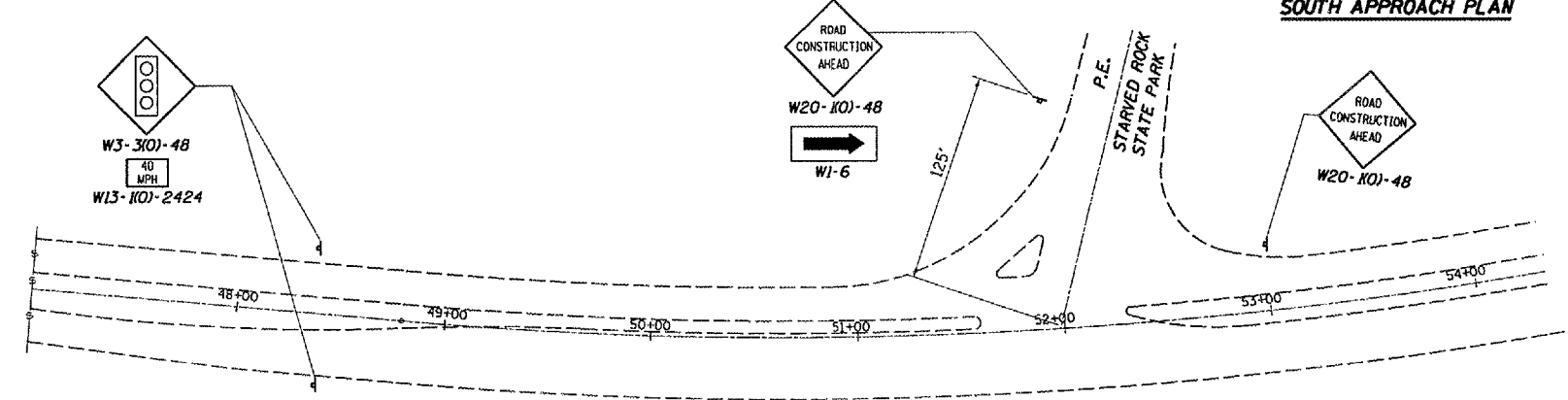
STAGE 1 TYPICAL SECTION
LOOKING SOUTH



NORTH APPROACH PLAN



SOUTH APPROACH PLAN



LEGEND

- DRUM WITH STEADY BURNING LIGHT
- ⬆️ TRAFFIC SIGNAL WITH MICROWAVE DETECTOR
- ⬆️ SIGN
- ▨ INDICATES WORK AREA
- ▩ IMPACT ATTENUATORS TEMPORARY
- | STOP BAR

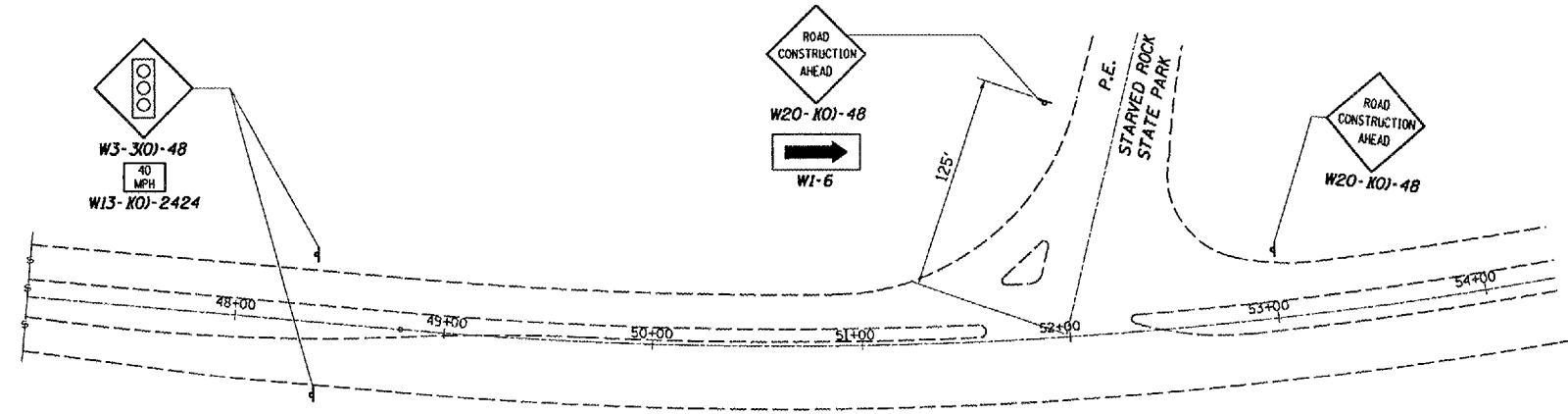
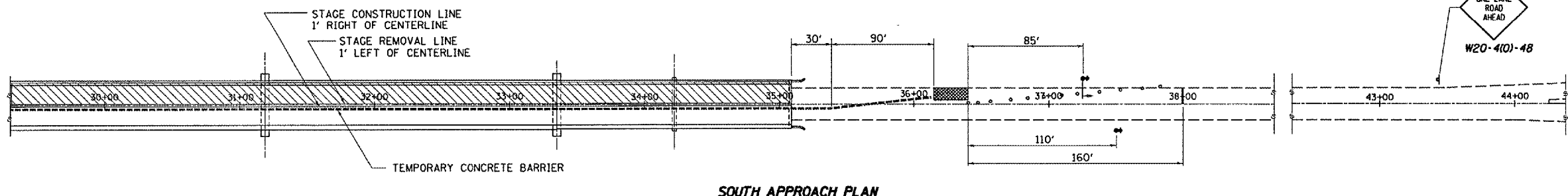
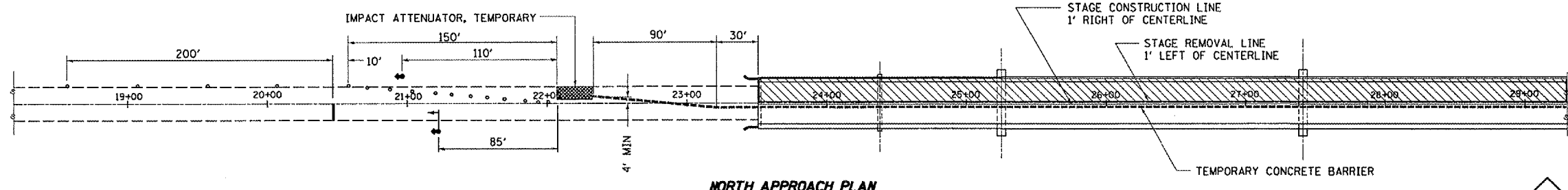
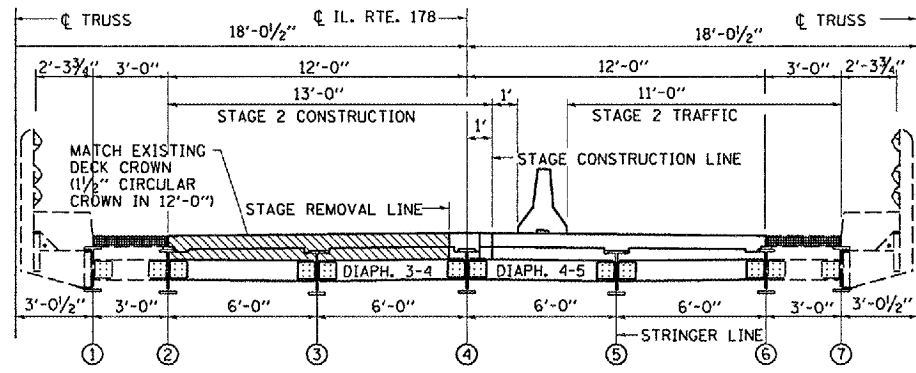
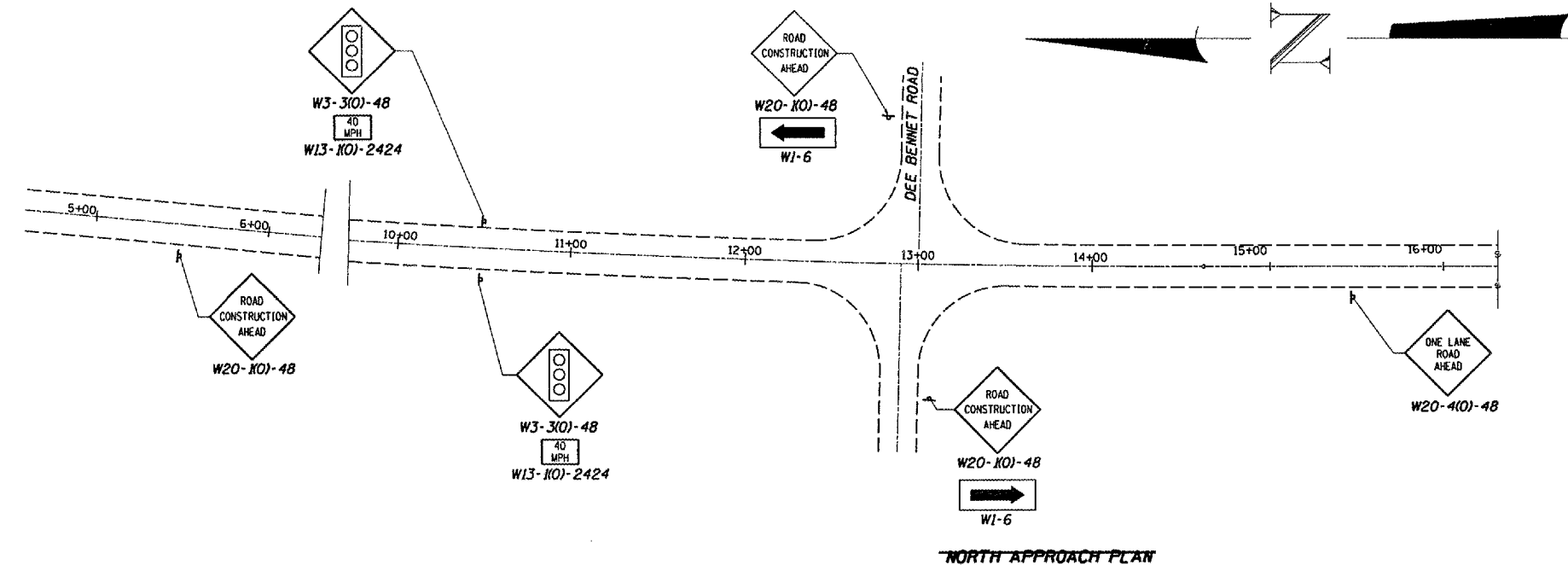
WORK THIS SHEET WITH STANDARD 701321

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL DETAILS
STAGE I
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. _____
 HORIZ. _____
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY _____

cm326/det01is.dgn

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	10,E,F,P)1-3	LASALLE	19	17
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS	NON-FED. AID PROJECT	



LEGEND

- DRUM WITH STEADY BURNING LIGHT
- ⊕ TRAFFIC SIGNAL WITH MICROWAVE DETECTOR
- ⊠ SIGN
- ▨ INDICATES WORK AREA
- ▩ IMPACT ATTENUATORS TEMPORARY
- | STOP BAR

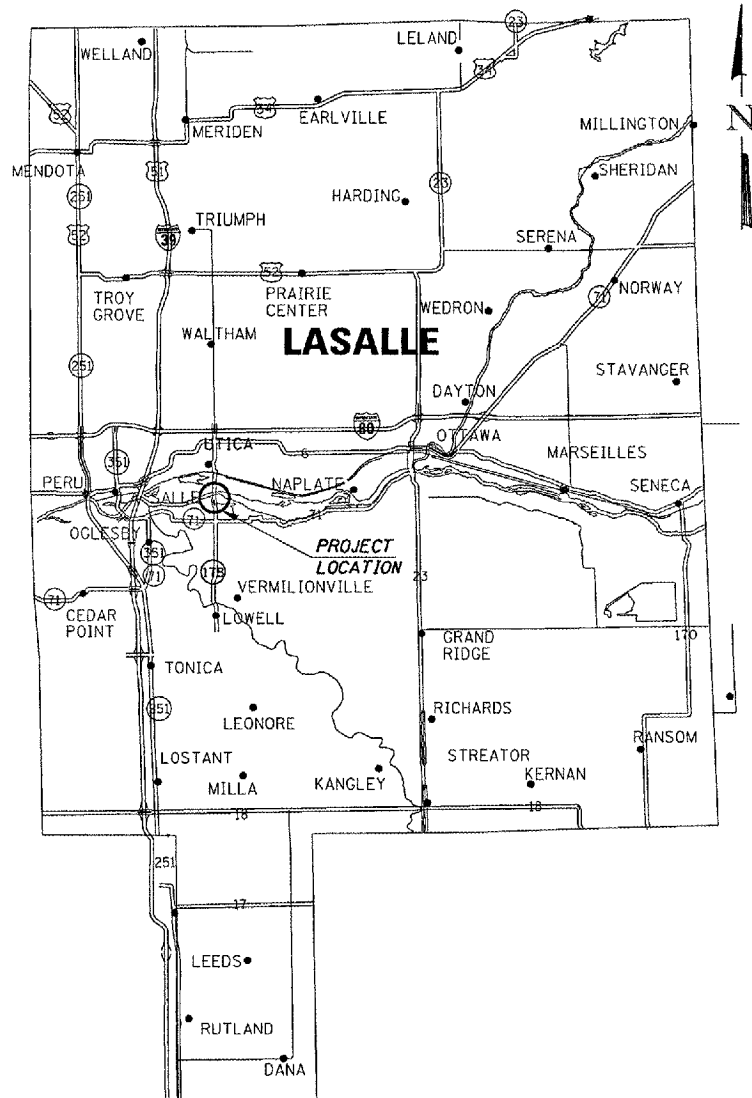
WORK THIS SHEET WITH STANDARD 701321

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TRAFFIC CONTROL DETAILS
STAGE II
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. 1"=20'
 HORIZ. 1"=40'
 DATE 12/08/04
 DRAWN BY RLV
 CHECKED BY

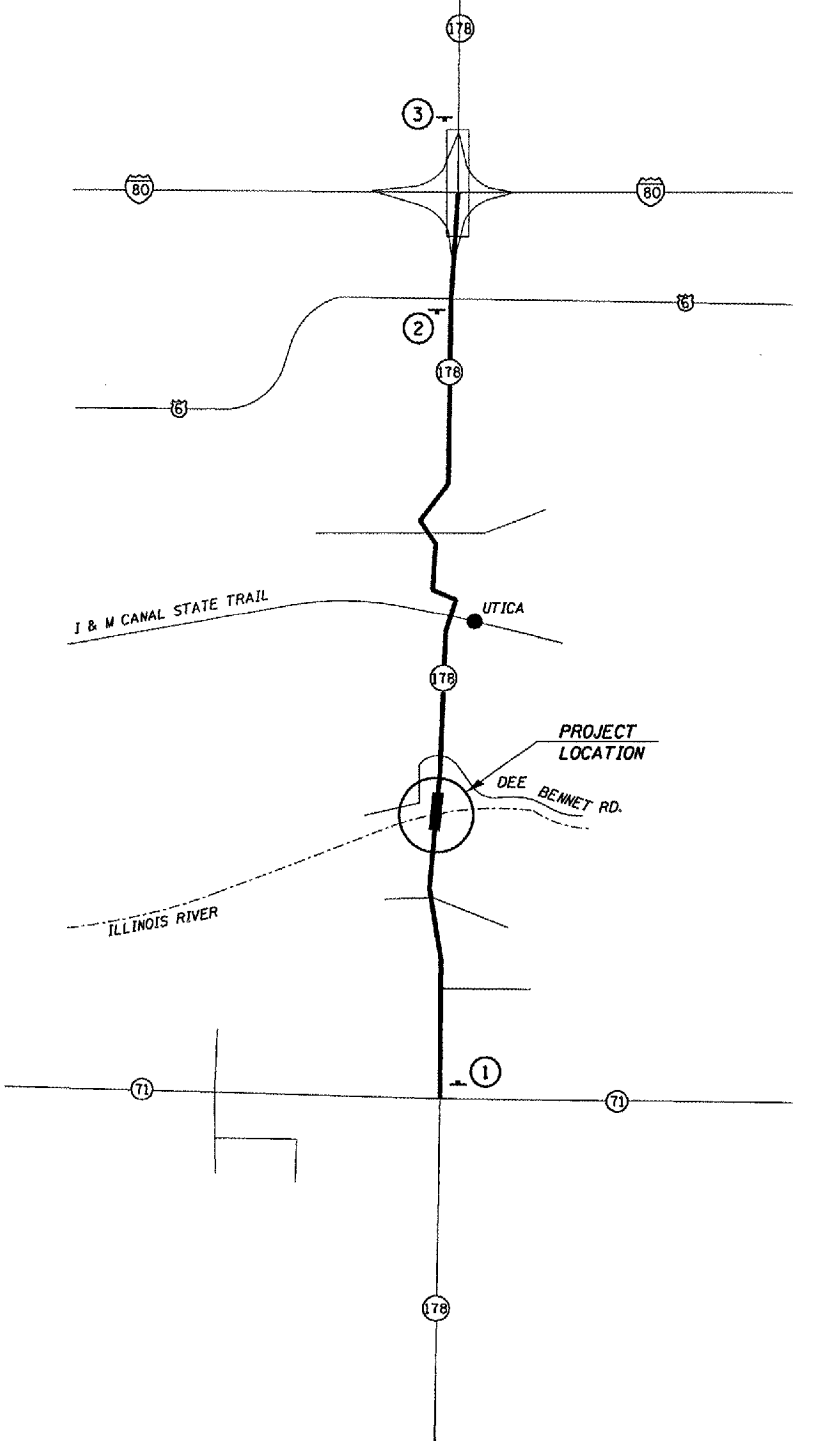
cmcin05/cm326/details.dgn

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	10,E,F,P)I-3	LASALLE	19	18
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO. ILLINOIS NON-FED. AID PROJECT				



SIGNING NOTES

1. ALL SIGNING SHALL BE IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF THE STATE OF ILLINOIS "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION ADOPTED JANUARY 1, 2003, THE DETAILS IN THESE PLANS, AND THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES." AND "ILLINOIS SUPPLEMENT TO MUTCO".
2. ALL SIGNS SHALL BE POST MOUNTED.
3. LONGITUDINAL DIMENSIONS MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
4. SEE SPECIAL PROVISIONS FOR WIDE LOAD TRAFFIC RESTRICTIONS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SEEING THAT ALL BARRICADES, SIGNS, LIGHTS, AND OTHER DEVICES REQUIRED ARE IN PLACE AND OPERATING 24 HOURS EACH DAY INCLUDING SUNDAYS AND HOLIDAYS DURING THE TIME THE TRAFFIC CONTROL IS IN EFFECT.
6. THE CONTRACTOR SHALL MAKE ALL CHANGES IN SIGNING THAT ARE DEEMED NECESSARY BY THE ENGINEER.



LEGEND

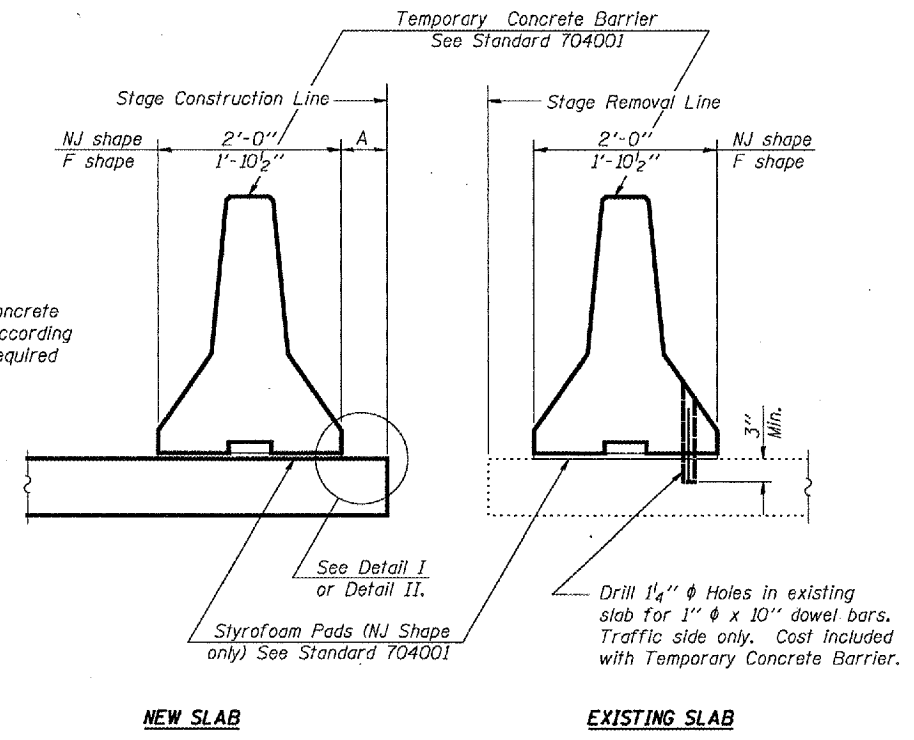
<p>①</p> <p>W20-10) - 48</p> <p>48"x48" 12" D BLACK LETTERING WITH ORANGE BACKGROUND</p> <p>W12-1 10)K)I 4" C BLACK LETTERING WITH ORANGE BACKGROUND</p>	<p>②</p> <p>W20-10) - 48</p> <p>48"x48" 12" D BLACK LETTERING WITH ORANGE BACKGROUND</p> <p>W12-1 10)K)I 4" C BLACK LETTERING WITH ORANGE BACKGROUND</p>	<p>③</p> <p>W20-10) - 48</p> <p>48"x48" 12" D BLACK LETTERING WITH ORANGE BACKGROUND</p> <p>W12-1 10)K)I 4" C BLACK LETTERING WITH ORANGE BACKGROUND</p>
--	--	--

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
WIDTH RESTRICTION SIGNING
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29 + 30
 SCALE: VERT. _____
 HORIZ. _____
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY _____

cmalr05/cm326/details.dgn

F.A.S. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1279	10,E,F,P1-3	LASALLE	19	19
STA. 23+51		TO STA. 35+09		
FED. ROAD DIST. NO.		ILLINOIS NON-FED. AID PROJECT		



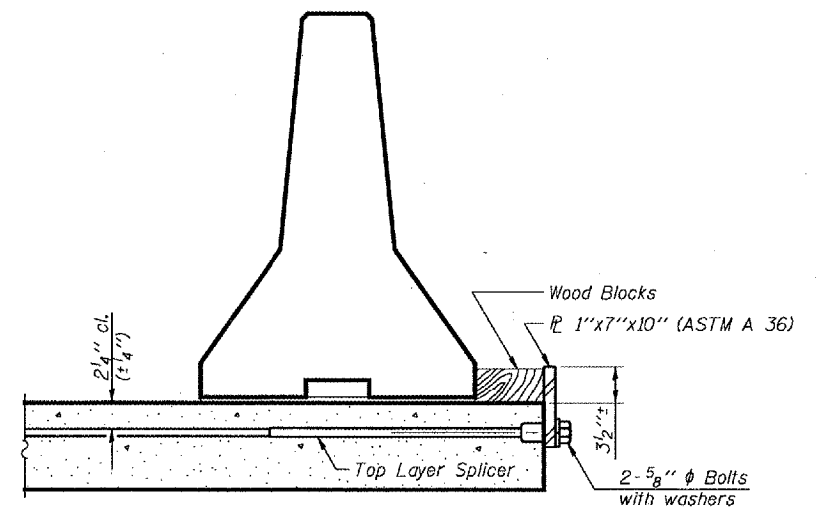
SECTIONS THRU SLAB

NOTES

Detail I - With Bar Splicer or Couplers:
 Connect one (1) 1"x7"x10" steel P to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

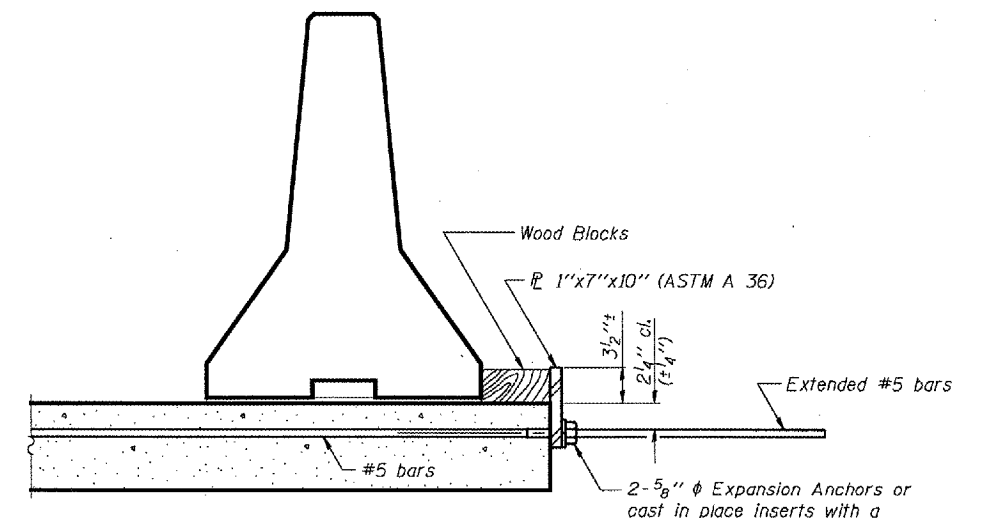
Detail II - With Extended Reinforcement Bars:
 Connect one (1) 1"x7"x10" steel P to the concrete slab with 2-5/8" φ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate C of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.



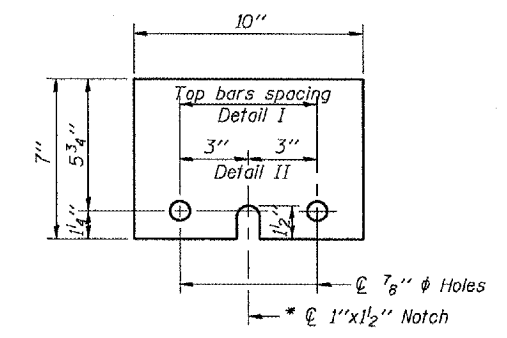
DETAIL I

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and reinforcement bars are in place.



DETAIL II

The 1"x7"x10" Plate shall not be removed until Stage II Construction forms and all reinforcement bars are in place and the concrete is ready to be placed.



P 1"x7"x10"

* Required only with Detail II

REVISIONS	
NAME	DATE

ILLINOIS DEPARTMENT OF TRANSPORTATION
TEMPORARY CONCRETE BARRIER
 EXISTING S.N. 050-0088
 IL 178 OVER ILLINOIS RIVER
 STATION 29+30
 SCALE: VERT. N/A
 HORIZ. N/A
 DATE 12/08/04
 DRAWN BY RLW
 CHECKED BY