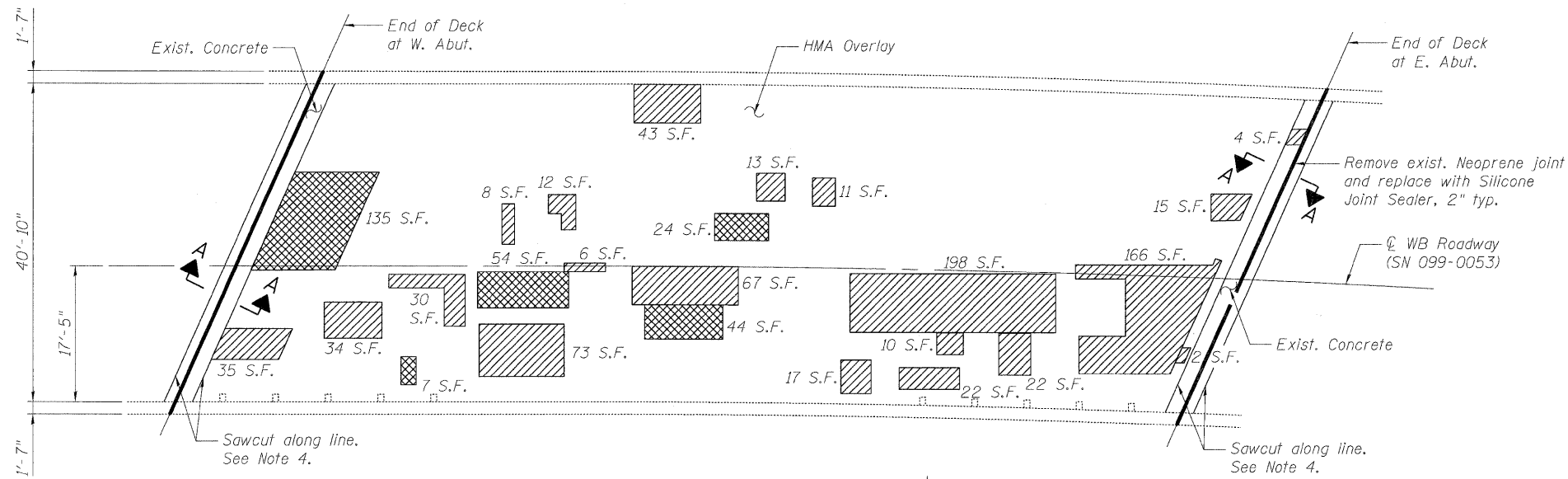


LEGEND

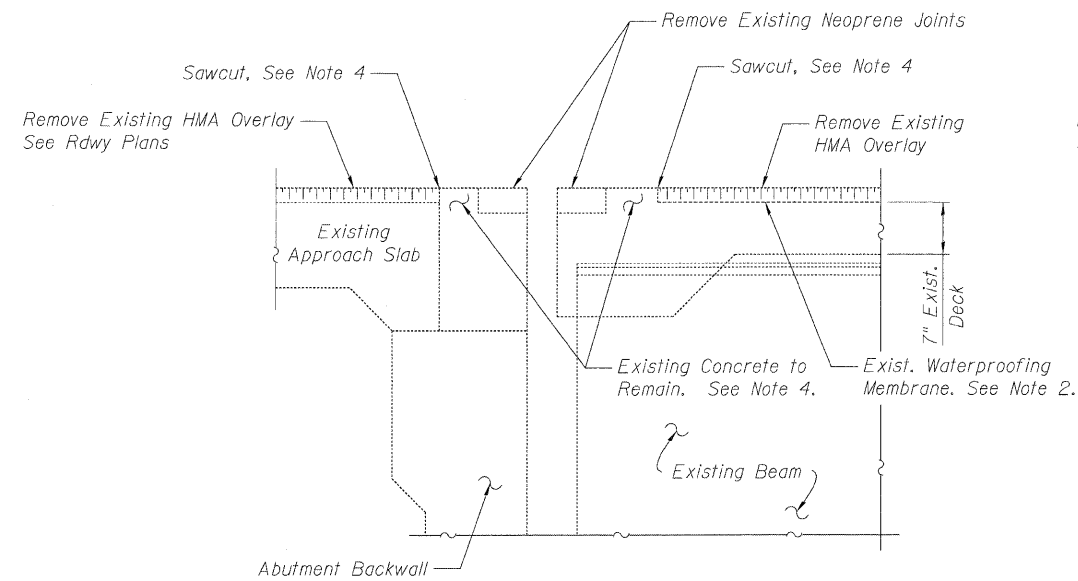
-  Deck Slab Repair (Partial)
-  Deck Slab Repair (Full Depth, Type II)

NOTES

1. Removal of the existing Neoprene joint shall be included in the cost of Polymer Concrete. Existing studs to remain.
2. Contractor shall remove the existing asphalt overlay, and as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane. See Special Provision Hot-Mix Asphalt Surface Removal (Deck).
3. For existing concrete patches throughout the deck and approach slabs, the Contractor shall grind off the existing concrete patch flush with the existing top of deck/approach slab. This work shall be included in the cost of Hot-Mix Asphalt Surface Removal (Deck).
4. Existing concrete surface to remain. Areas requiring repairs shall be paid for as Deck Slab Repair (Full Depth, Type II). Sawcut edge to provide a uniform width in addition to a clean edge for HMA surface. Cost of sawcut shall be included in the cost of Hot-Mix Asphalt Surface Removal (Deck).
5. Contractor may remove and replace guardrail components to facilitate joint replacement work. Cost included with Silicone Joint Sealer, 2".
6. The deck slab repair concrete shall be placed to match the top of the existing waterproofing system adjacent to the repair area.
7. After completion of the deck slab repair work, the HMA surface course shall be placed in sufficient thickness in order to match the original surface elevation.

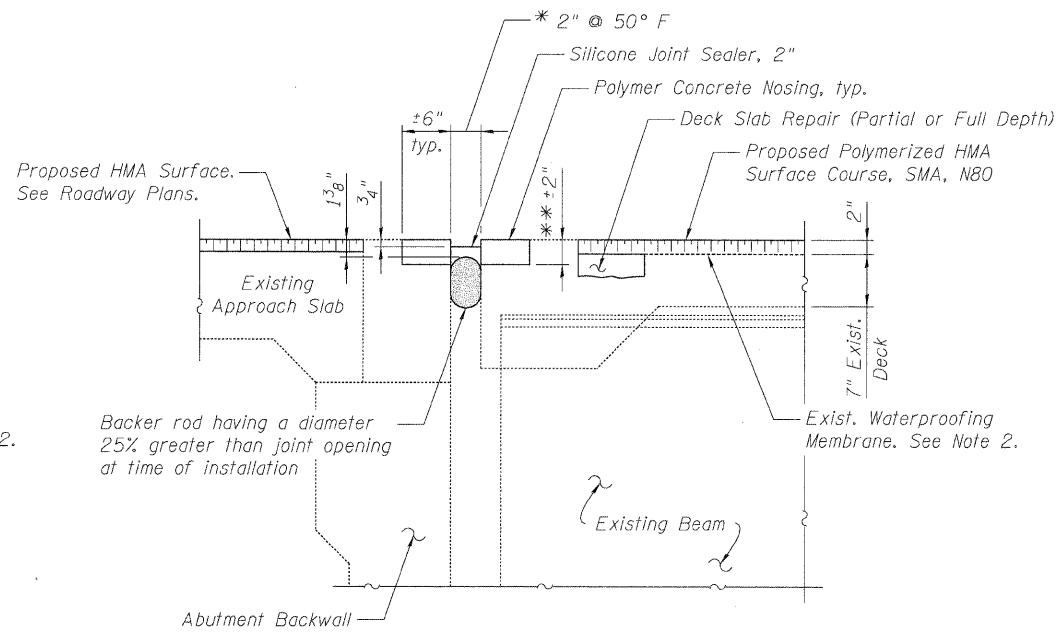


DECK SLAB REPAIR PLAN - WB



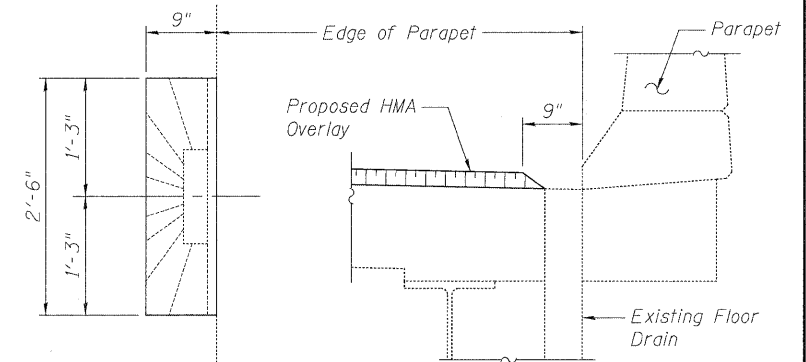
SECTION A-A

Existing Conditions
Dimensions are at Rt. Ls to C. Abut.



SECTION A-A

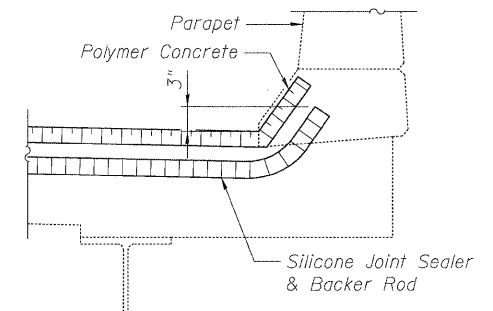
Proposed Conditions
Dimensions are at Rt. Ls to C. Abut.
* Match existing opening
** 1 1/2" min.



TOP PLAN

SECTION AT FLOOR DRAIN

HMA OVERLAY AT FLOOR DRAIN



DETAIL FOR PARAPET TREATMENT

DESIGNED - DF	REVISED -
DRAWN - LAM	REVISED -
CHECKED - BLU	REVISED -
DATE - 1/20/2011	REVISED -



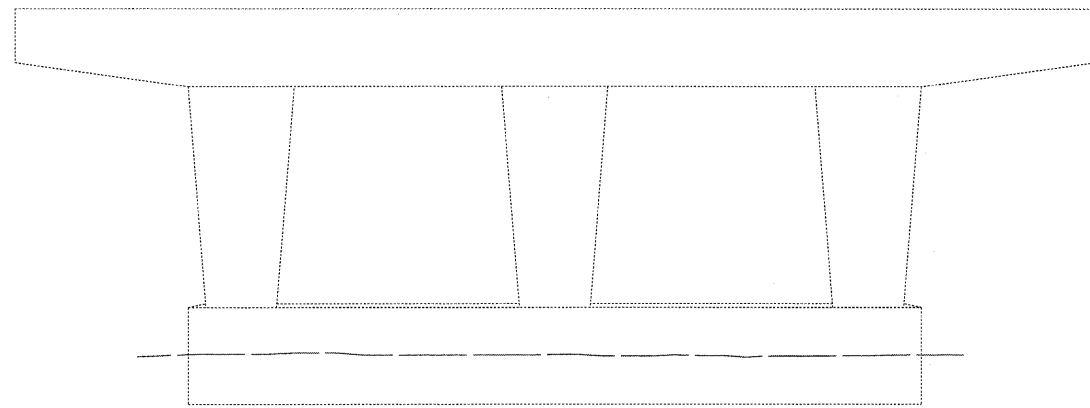
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**DECK AND JOINT REPAIR DETAILS
WESTBOUND FAI-80 OVER CENTER STREET RAMP AA
STRUCTURE NO. 099-0053**

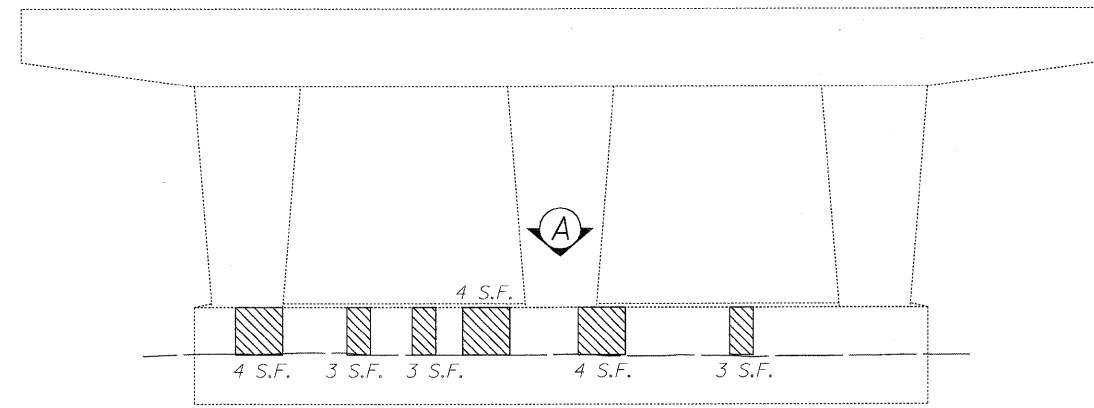
SHEET NO. 5- 3 OF 5- 6 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	9914&4-1RS-3	WILL	203	101
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	

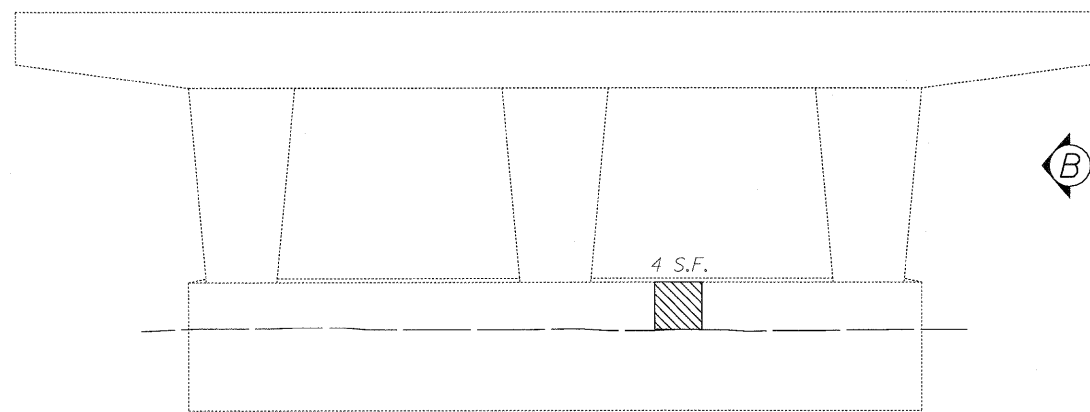
CONTRACT NO. 60M66



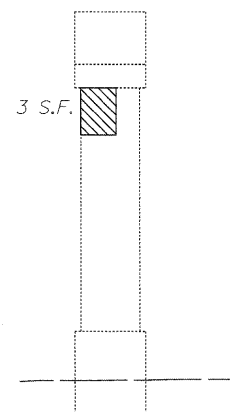
PIER 1 - WEST ELEVATION
Looking East



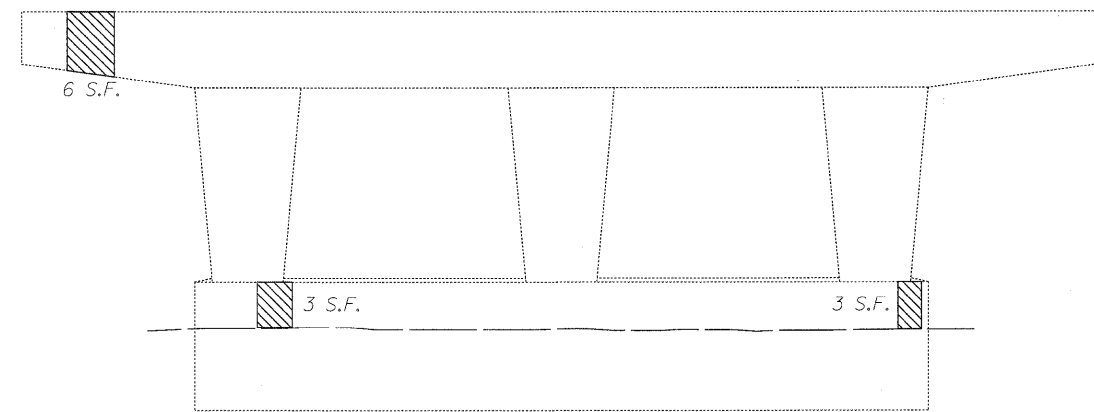
PIER 1 - EAST ELEVATION
Looking West



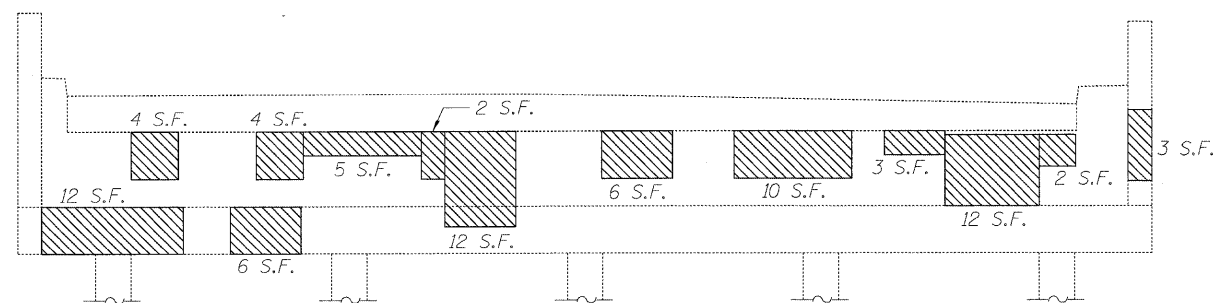
PIER 2 - WEST ELEVATION
Looking East



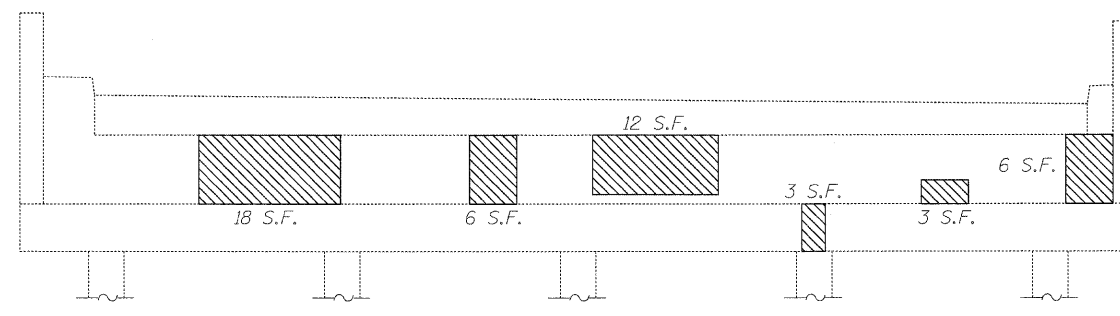
VIEW B



PIER 2 - EAST ELEVATION
Looking West



WEST ABUTMENT - ELEVATION
Looking West



EAST ABUTMENT - ELEVATION
Looking East

LEGEND

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

DESIGNED - DF	REVISED -
DRAWN - LAM	REVISED -
CHECKED - BLU	REVISED -
DATE - 1/20/2011	REVISED -

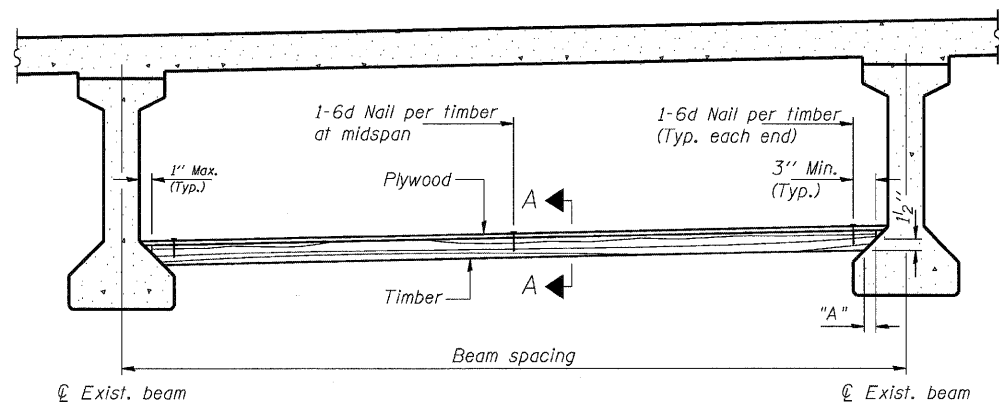


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

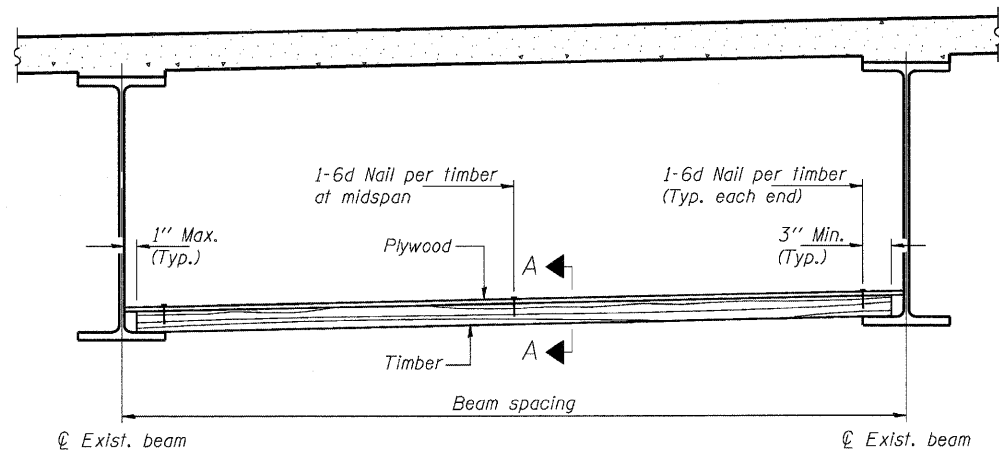
ABUTMENT AND PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER CENTER STREET RAMP AA
STRUCTURE NO. 099-0053

SHEET NO. S-4 OF S-6 SHEETS

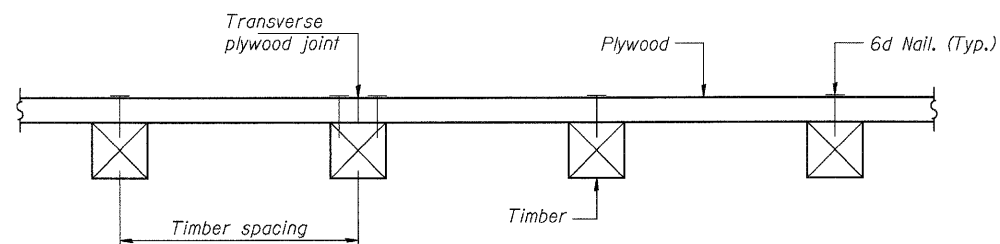
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	102
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	



PPC I-BEAMS AND BULB-T's



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

PPC I-BEAMS AND BULB-T's

BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

Notes: See special provision for Protective Shield, Special.
 Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood per APA.
 Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

BILL OF MATERIAL

Item	Unit	Total
Protective Shield, (Permanent)	Sq. Yd.	245

DESIGNED - DF	REVISED -
DRAWN - LAM	REVISED -
CHECKED - BLU	REVISED -
DATE - 1/20/2011	REVISED -

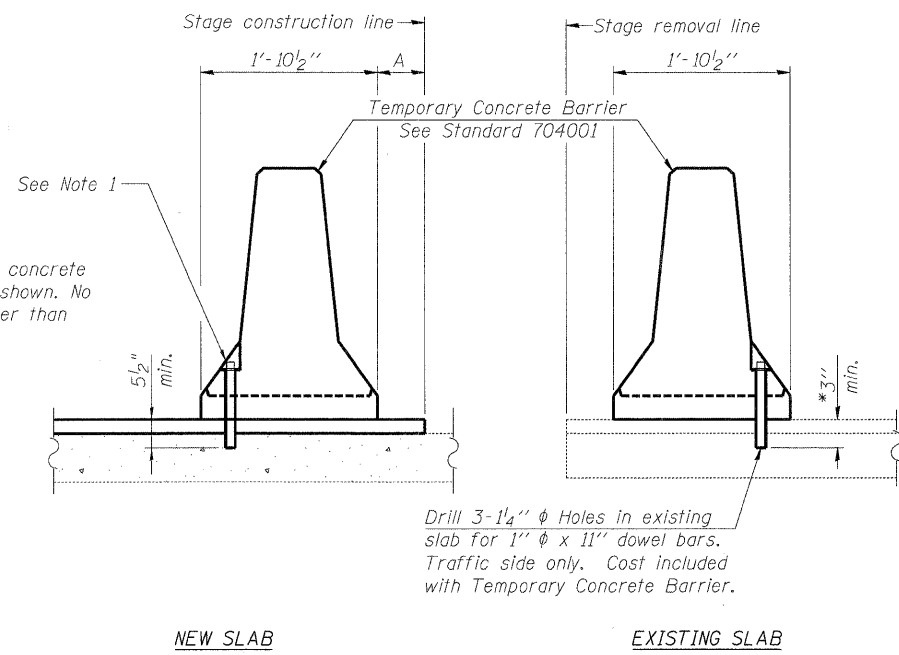


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROTECTIVE SHIELD, SPECIAL
WESTBOUND FAI-80 OVER CENTER STREET RAMP AA
STRUCTURE NO. 099-0053

SHEET NO. S-5 OF S-6 SHEETS

F.A.I. RTE. 80	SECTION 99(4&4-1)RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 103
CONTRACT NO. 60M66				
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT				



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the slab as shown. No anchorage is required when "A" is greater than 3'-6".

See Note 1

Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

SECTIONS THRU SLAB

NOTES

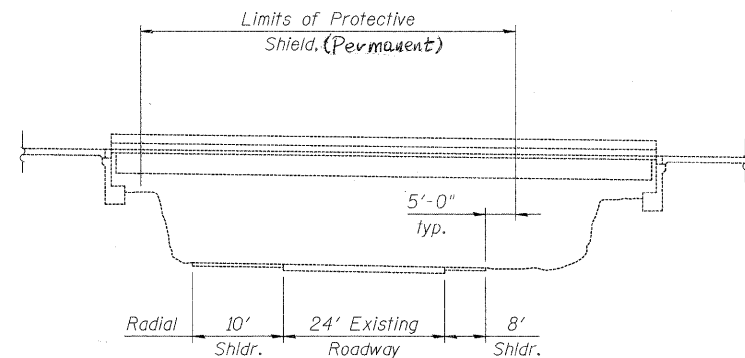
1. Drill 1 1/4" ϕ Holes through new overlay into slab for 1" ϕ x 13" dowel bars. Traffic side only as directed by Engineer. Repair hole with non-shrink epoxy grout as directed by Engineer. Cost of anchorage and repair included with Temporary Concrete Barrier.

DESIGNED - DF	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION WESTBOUND FAI-80 OVER CENTER STREET RAMP AA STRUCTURE NO. 099-0053		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
USER NAME = lmueller	DRAWN - LAM						REVISED -	80	99(4&4-1)RS-3	WILL	203	104
PLOT SCALE = NTS	CHECKED - BLU						REVISED -	CONTRACT NO. 60M66				
PLOT DATE = 1/19/2011 2:17:39 PM	DATE - 1/20/2011						REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
SHEET NO. 5-6 OF 5-6 SHEETS												

Existing Structure: S.N. 099-0054 carrying I-80 Westbound over Southbound Center Street to Eastbound I-80 Ramp was originally constructed in 1964 as FAI Route 80, Section 99-3HB-2. The structure consists of a single span wide flange beam and reinforced concrete deck superstructure supported by stub abutments. The skew is 34°38'07" forward right tangent to \bar{C} I-80 at Sta. 590+22.78. The deck was repaired in 1992 and 2001.

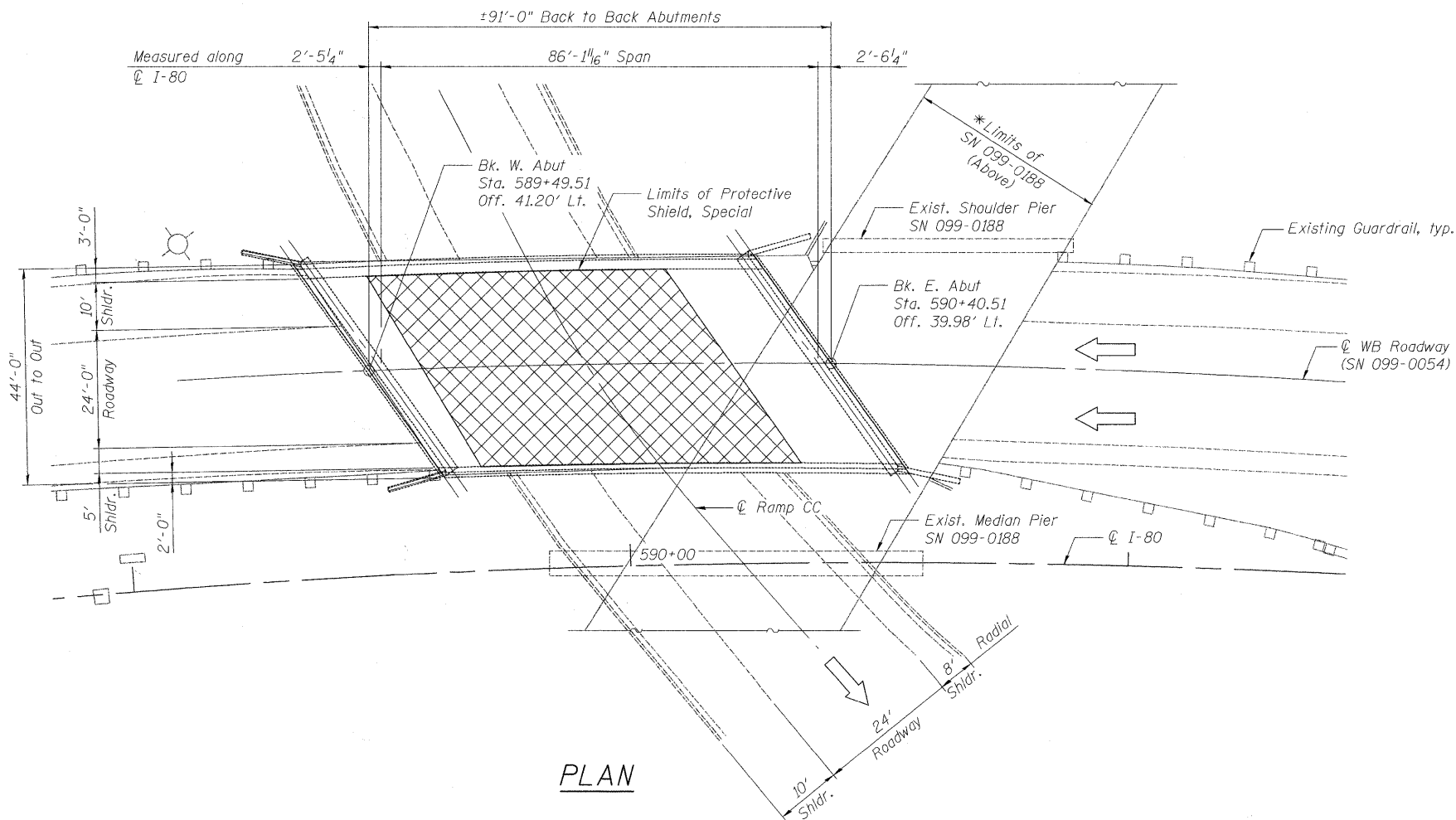
Stage construction shall be utilized to maintain traffic during construction.

No salvage.



ELEVATION

* Note:
Structure No. 099-0188 not shown. The minimum vertical clearance above SN 099-0054 is 16'-3".



PLAN

INDEX OF SHEETS

1. General Plan, Notes & Total Bill of Material
2. Construction Staging
3. Deck, Joint and Abutment Repair Details
4. Protective Shield, Special
5. Temporary Concrete Barrier for Stage Construction

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	43	-	43
Protective Shield, (Permanent)	Sq. Yd.	280	-	280
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	383	-	383
Structural Repair of Concrete (Equal to or Less Than 5")	Sq. Ft.	-	65	65
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	19	-	19
Deck Slab Repair (Partial)	Sq. Yd.	58	-	58
Silicone Joint Sealer, 2"	Foot	110	-	110
Polymer Concrete	Cu. Ft.	5	-	5

SCOPE OF WORK

1. Install Protective Shield, (Permanent)
2. Remove existing HMA overlay.
3. Deck slab repair (full and partial depth).
4. Remove and replace silicone joint seals.
5. Repair structural concrete at abutments.
6. Apply HMA overlay.

DESIGN SPECIFICATIONS

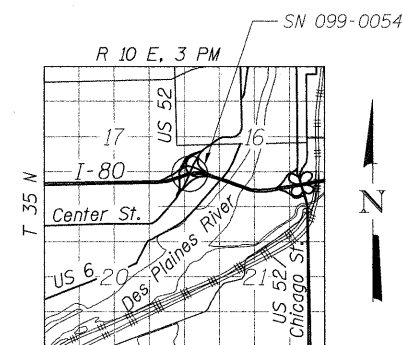
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

$f'c = 3,500$ psi

GENERAL NOTES

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. Protective Shield, (Permanent) shall be installed as shown in the plans and shall be installed prior to start of deck slab repair work. See Special Provision for installation requirements of protective shield adjacent to existing underpass luminaires.
3. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
4. Areas of proposed deck repairs are estimated. Actual type, location and dimension of deck repairs are to be determined by the Engineer during construction.
5. See Roadway Plans for Ramp CC maintenance of traffic details.



LOCATION SKETCH



SIGNED: *Brian L. Umbright*
DATE: Jan. 19, 2011
EXPIRES: November 30, 2012

DESIGNED - DF	REVIS
DRAWN - LAM	REVIS
CHECKED - BLU	REVIS
DATE - 1/20/2011	REVIS

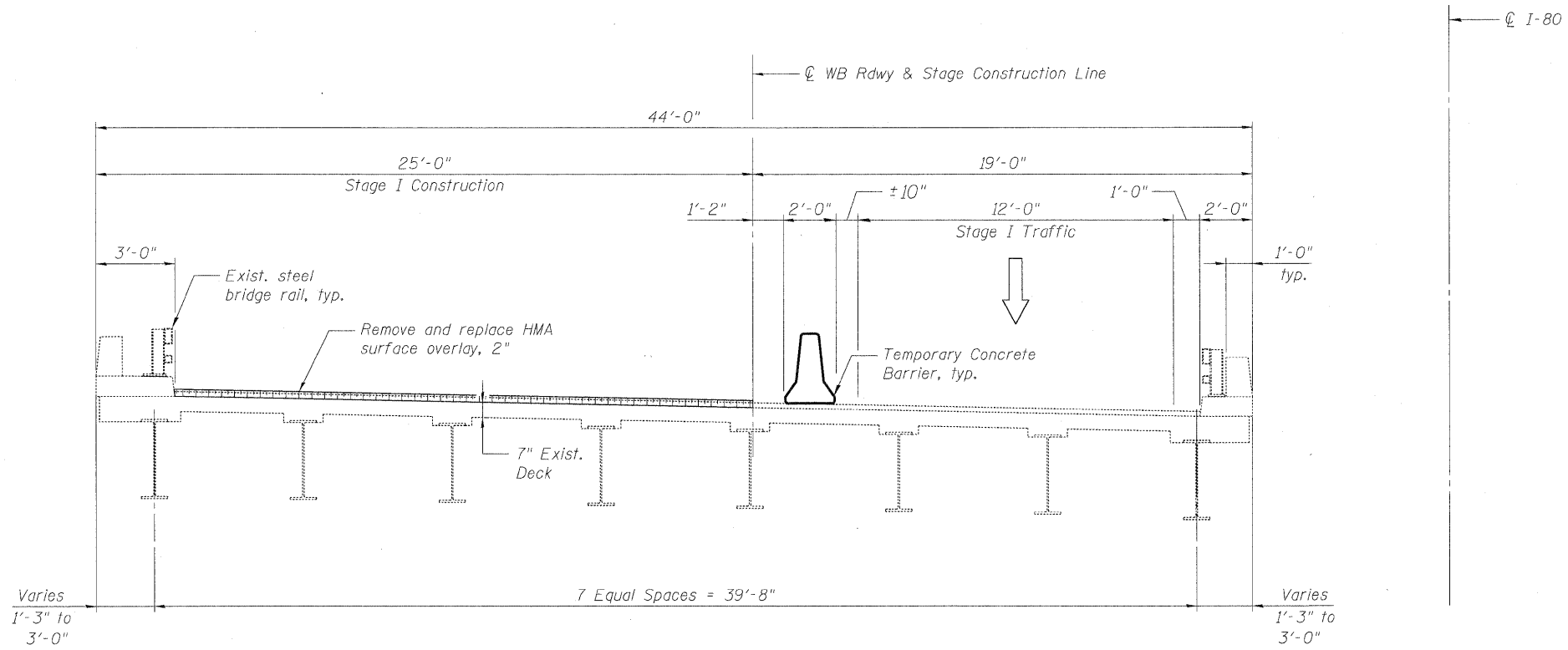


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

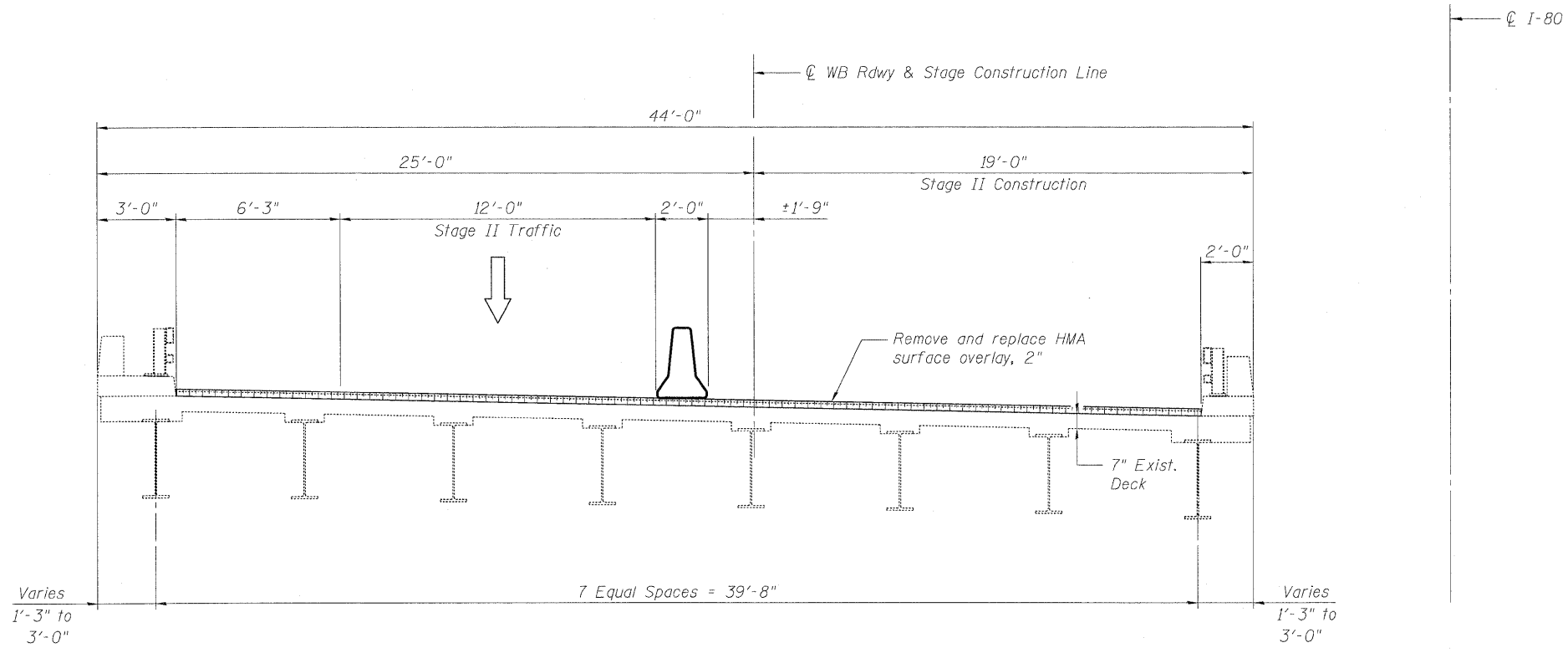
GENERAL PLAN, NOTES & TOTAL BILL OF MATERIAL
WESTBOUND FAI-80 OVER CENTER STREET RAMP CC
STRUCTURE NO. 099-0054

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99148.4-1RS-3	WILL	203	105
FED. ROAD DIST. NO.			CONTRACT NO. 60M66	
ILLINOIS FED. AID PROJECT				

SHEET NO. S-1 OF S-5 SHEETS



STAGE I CONSTRUCTION





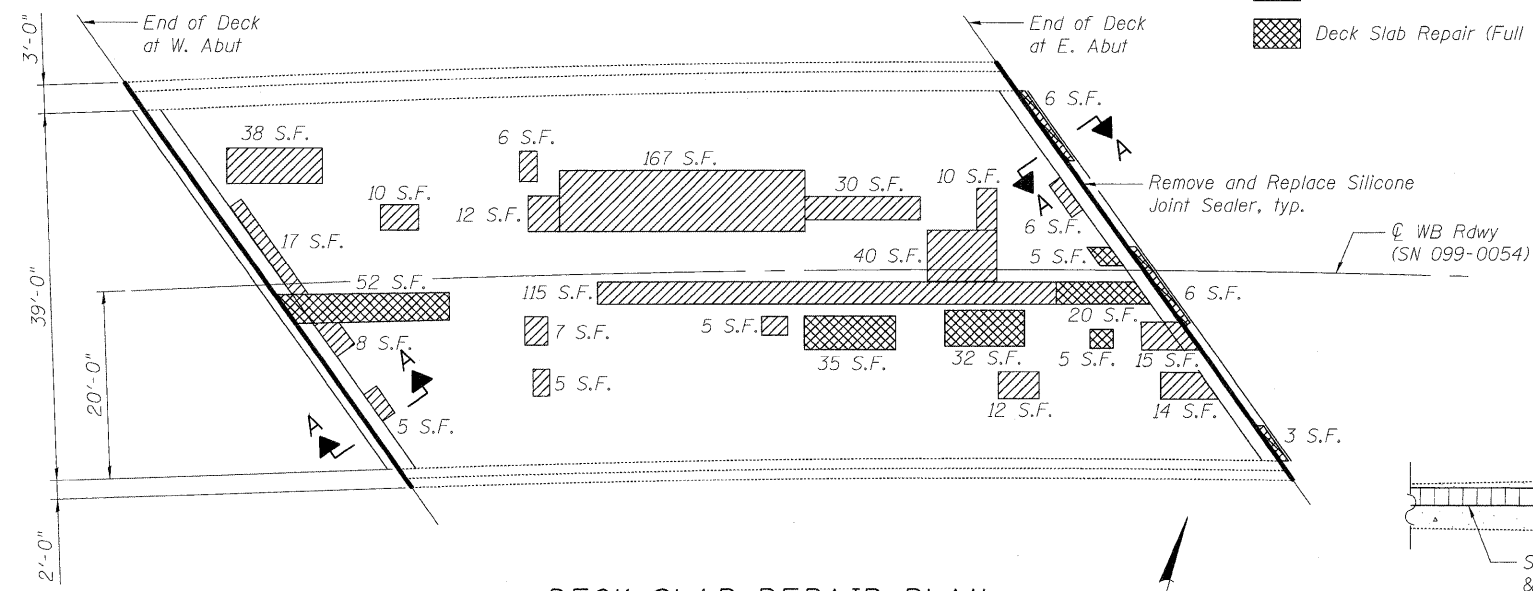
STAGE II CONSTRUCTION

USER NAME = Imueller	DESIGNED - DF	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONSTRUCTION STAGING WESTBOUND FAI-80 OVER CENTER STREET RAMP CC STRUCTURE NO. 099-0054 SHEET NO. S-2 OF S-5 SHEETS	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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DATE = 1/20/2011	REVISIONS	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

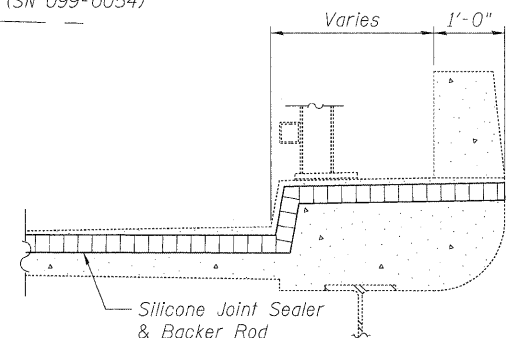
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LEGEND (DECK PLAN)

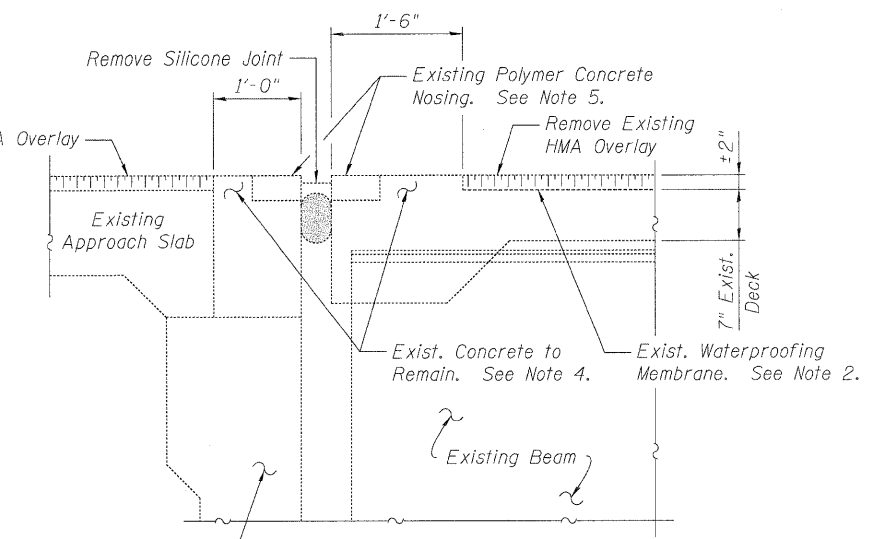
-  Deck Slab Repair (Partial)
-  Deck Slab Repair (Full Depth, Type II)



DECK SLAB REPAIR PLAN

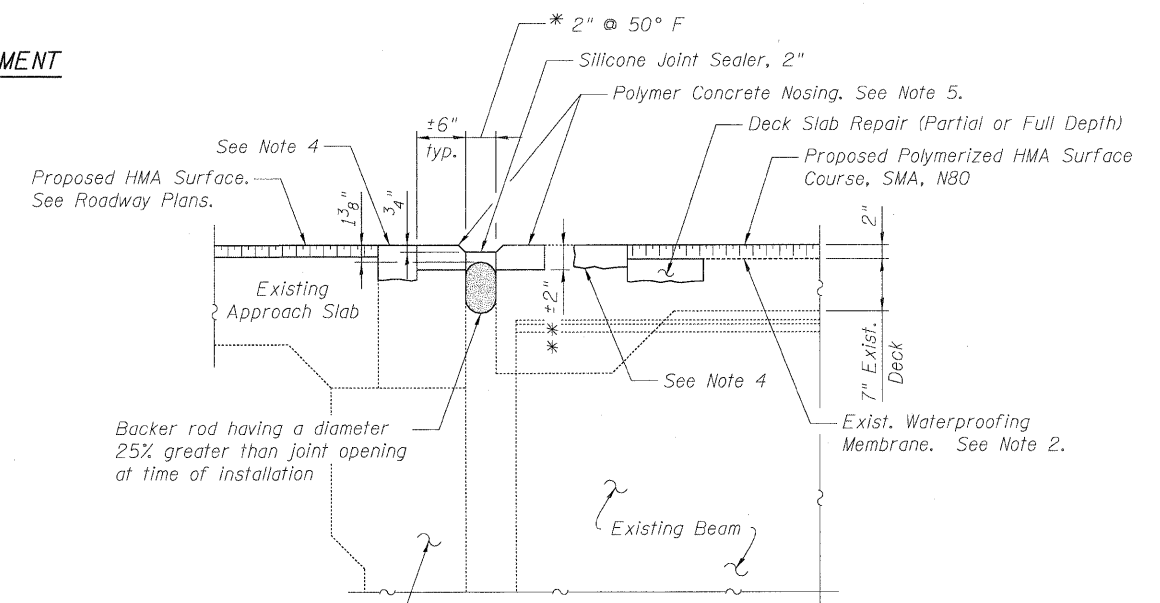


DETAIL FOR CURB TREATMENT



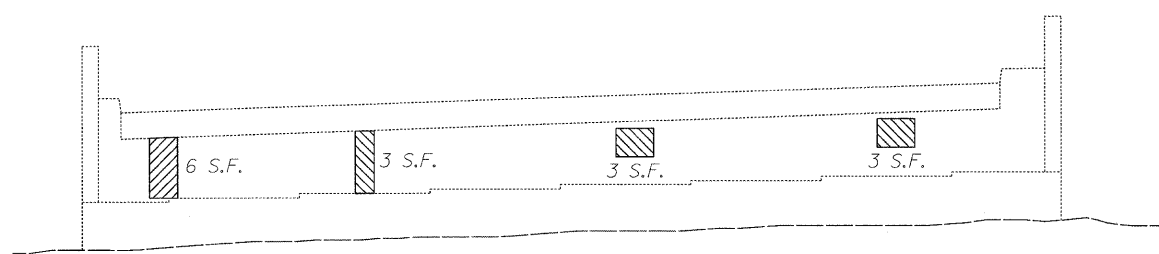
SECTION A-A

Existing Conditions
Dimensions are at Rt. Ls to C. Abut.



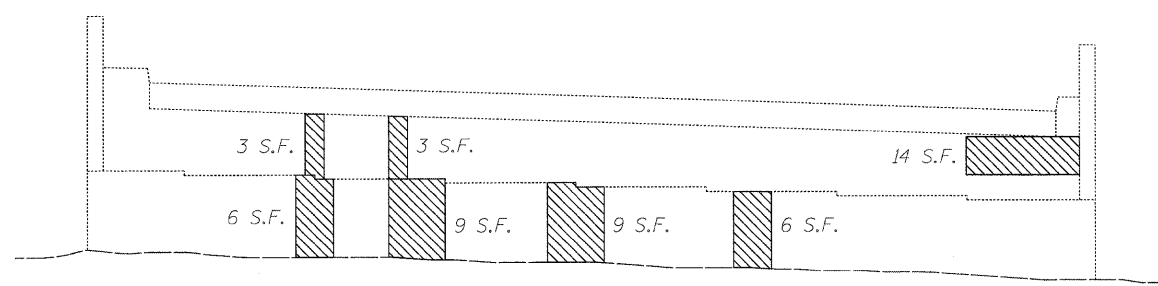
SECTION A-A

Proposed Conditions
Dimensions are at Rt. Ls to C. Abut.
* Match existing opening
** 1/2" min.



WEST ABUTMENT


Note: Beam lines not shown for clarity.



EAST ABUTMENT


Note: Beam lines not shown for clarity.

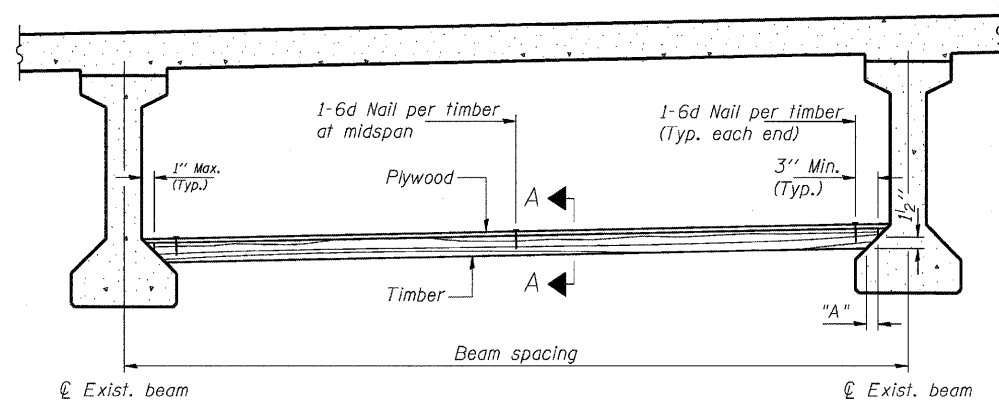
LEGEND (ABUTMENTS)

-  Structural Repair of Concrete (Depth Less Than or Equal to 5")

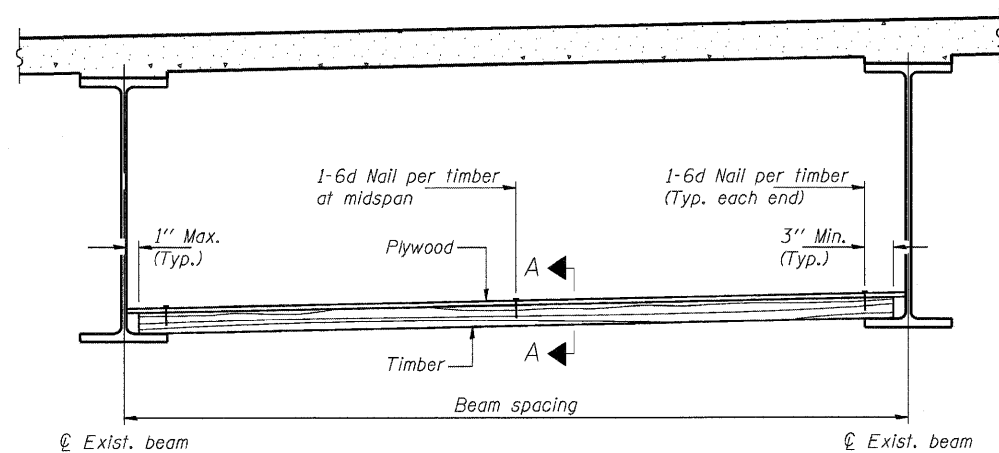
NOTES

1. Removal of the existing silicone joint shall be included in the cost of Silicone Joint Sealer, 2".
2. Contractor shall remove the existing asphalt overlay, and as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane. See Special Provision Hot-Mix Asphalt Surface Removal (Deck).
3. For existing concrete patches throughout the deck or approach slabs, the Contractor shall grind off the existing concrete patch flush with the existing top of deck/approach slab. This work shall be included in the cost of Hot-Mix Asphalt Surface Removal (Deck).
4. Existing concrete surface to remain. Areas that require repair will be paid for as Deck Slab Repair (Partial). Sawcut edge to provide a uniform width in addition to a clean edge for HMA surface and/or polymer concrete. Cost of sawcut and concrete removal shall be included in the cost of Hot-Mix Asphalt Surface Removal (Deck).
5. Existing polymer concrete to remain. Areas that require repair will be paid for as polymer concrete. Saw cut to provide a clean edge prior to removal. Cost of saw cut and existing polymer concrete removal shall be included in the cost of Polymer Concrete. A quantity of 5 cu. ft. of Polymer Concrete has been estimated for repair.
6. Contractor may remove and replace guardrail components to facilitate joint replacement work. Cost included with Silicone Joint Sealer, 2".
7. The deck slab repair concrete shall be placed to match the top of the existing waterproofing system adjacent to the repair area.
8. After completion of the deck slab repair work, the HMA surface course shall be placed in sufficient thickness in order to match the original surface elevation.

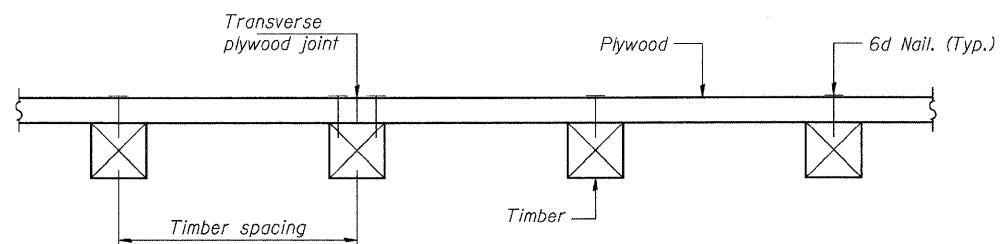
USER NAME = hrueller	DESIGNED - DF	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK JOINT AND ABUTMENT REPAIR DETAILS WESTBOUND I-80 OVER CENTER STREET RAMP CC STRUCTURE NO. 099-0054	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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DATE - 1/20/2011	REVISED -	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				



PPC I-BEAMS AND BULB-T's



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

PPC I-BEAMS AND BULB-T's

BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

Notes: See special provision for Protective Shield, Special.
 Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood per APA.
 Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

BILL OF MATERIAL

Item	Unit	Total
Protective Shield (Permanent)	Sq. Yd.	280

DESIGNED - DF	REVISED -
USER NAME = Inuoller	DRAWN - LAM
PLOT SCALE = NTS	CHECKED - BLU
PLOT DATE = 1/19/2011 2:17:54 PM	DATE - 1/20/2011

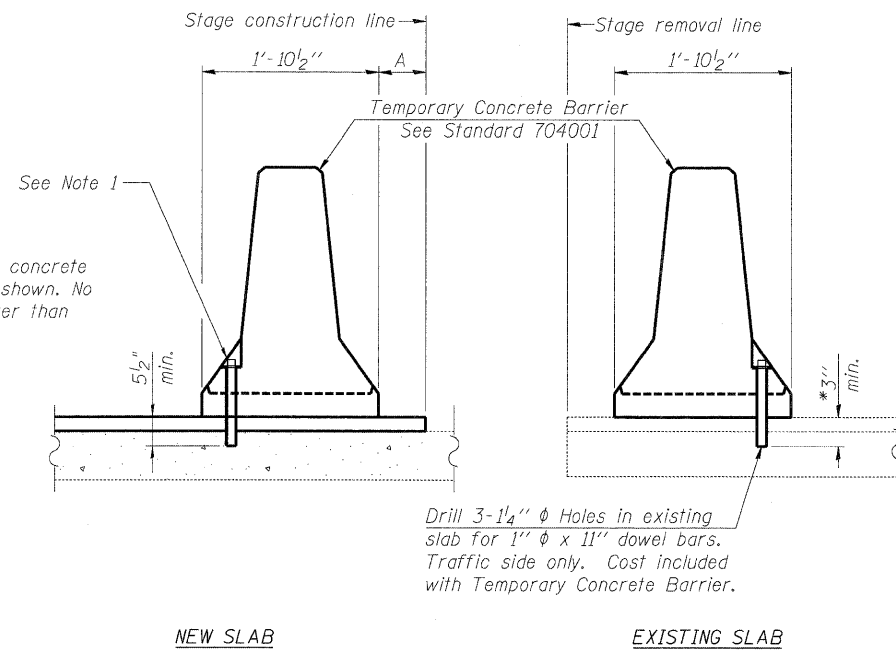


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PROTECTIVE SHIELD, SPECIAL
WESTBOUND FAI-80 OVER CENTER STREET RAMP CC
STRUCTURE NO. 099-0054

SHEET NO. S- 4 OF S- 5 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	108
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the slab as shown. No anchorage is required when "A" is greater than 3'-6".

NOTES

1. Drill 1 1/4" ϕ Holes through new overlay into slab for 1" ϕ x 13" dowel bars. Traffic side only as directed by Engineer. Repair hole with non-shrink epoxy grout as directed by Engineer. Cost of anchorage and repair included with Temporary Concrete Barrier.

* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

SECTIONS THRU SLAB

DESIGNED - DF	REVISED -
USER NAME = ltueller	DRAWN - LAM
PLOT SCALE = NTS	CHECKED - BLU
PLOT DATE = 1/19/2011 2:17:55 PM	DATE - 1/20/2011
REVISED -	REVISED -
REVISED -	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
WESTBOUND I-80 OVER CENTER STREET RAMP CC
STRUCTURE NO. 099-0054

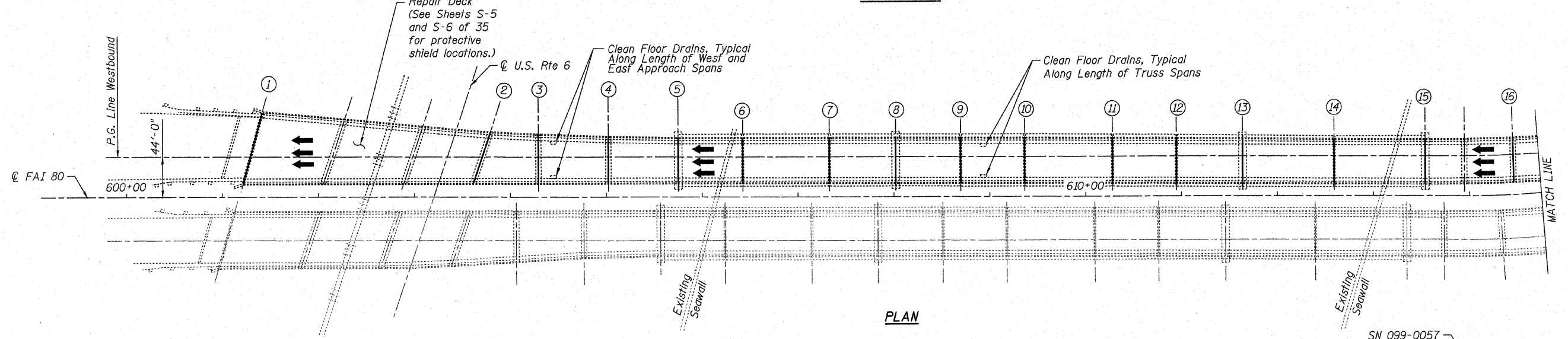
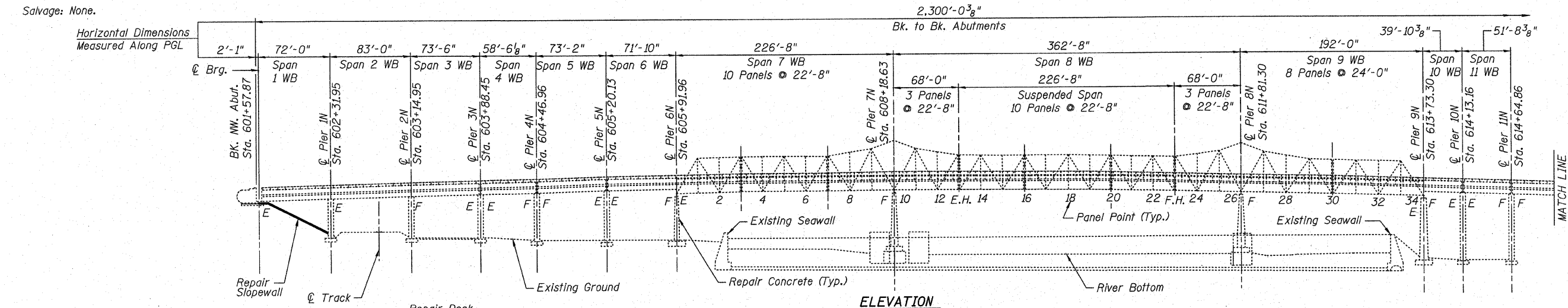
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	109
CONTRACT NO. 60M66			FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT	

SHEET NO. S-5 OF S-5 SHEETS

Existing Structure: SN 099-0057. The existing structure was originally constructed in 1962 as FAI Route 80, Section 99-3D-E&F-P. The existing structure is a 27-span bridge consisting of a 3-span truss over the river and a 6-span west approach and 18-span east approach. The approach spans are composite and non-composite wide flange steel beams. The truss over the river is a Warren truss with verticals. The beams for the approach spans and the floor system for the truss spans support a 7" thick slab. The west approach spans and the truss spans have a 2 3/4" latex concrete overlay. The east approach spans have a Class BD concrete wearing surface with welded wire fabric. The approach slabs have a variable depth polymerized bituminous concrete binder course and surface course. The substructure consists of reinforced concrete stub abutments founded on steel piles and multi-column piers founded on spread footings. The structure was rehabilitated in 1998, 1999, and 2001.

Staging: Traffic shall be maintained using staged construction.

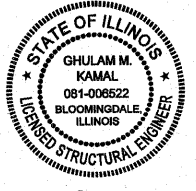
Salvage: None.



Signed: *Philip C. Azzarello*
 Date: 2-8-11
 Exp: 11/30/2012
 Sheets: S-1 thru S-4, S-7 thru S-14, S-20, S-21

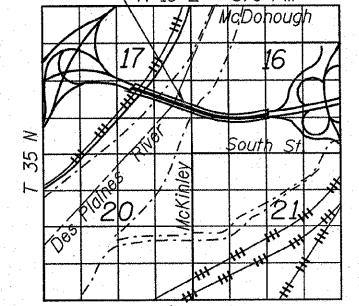


Signed: *Brian L. Umbright*
 Date: Feb. 8, 2011
 Expires: 11/30/2012
 Sheets: S-15 thru S-19, S-22 thru S-35



Signed: *Ghulam M. Kamal*
 Date: 02/08/2011
 Expires: 11/30/2012
 Sheets: S-5, S-6

LEGEND:
 (X) Joint Repair Type Designation
 (See Sheet S-7 of 35)



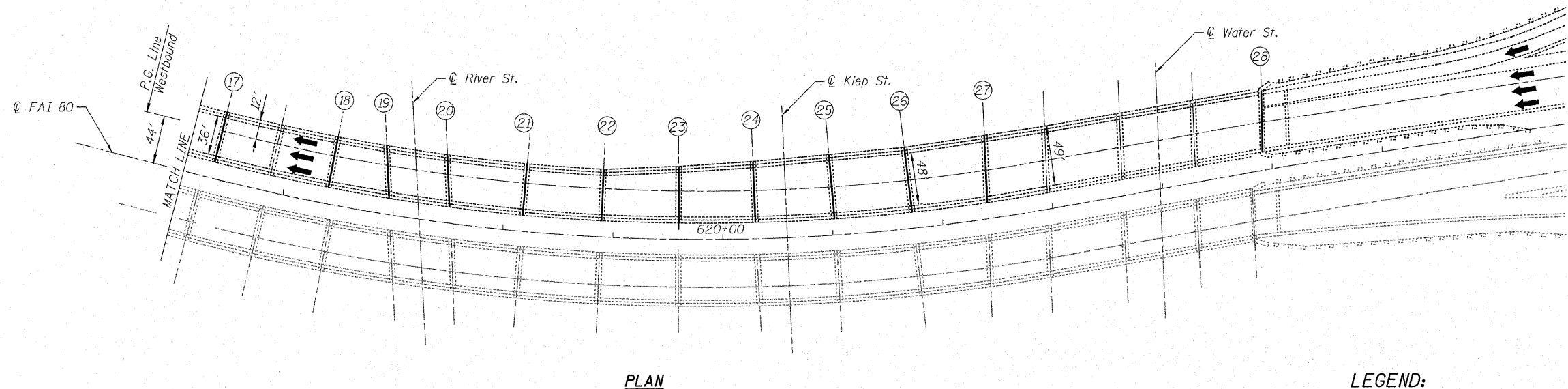
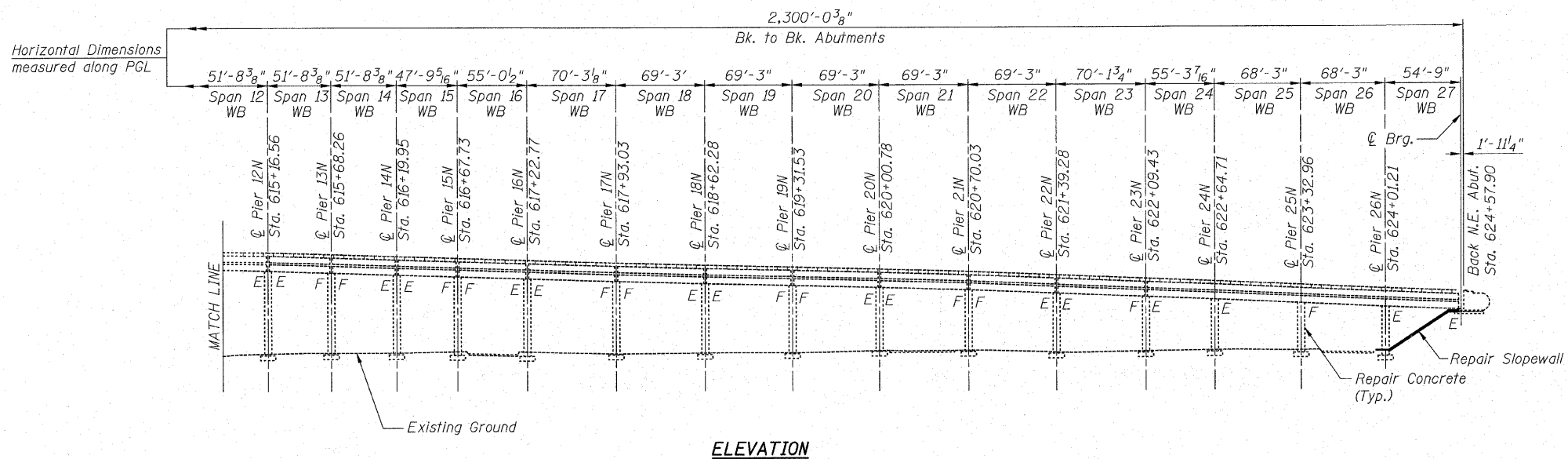
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DRAWN - CFB	REVISIONS -
CHECKED - MEA/ACF/PCA	REVISIONS -
DATE - 2/8/2011	REVISIONS -



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
 WESTBOUND FAI-80 OVER DES PLAINES RIVER
 STRUCTURE NO. 099-0057
 SHEET NO. S-1 OF 35 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	110
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



LEGEND:
 (X) Joint Repair Type Designation
 (See Shet S-7 of 35)

DESIGNED - PCA	REVISED -
DRAWN - CFB	REVISED -
CHECKED - MEA/ACF/PCA	REVISED -
DATE - 2/8/2011	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN & ELEVATION
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057
SHEET NO. 5-2 OF 35 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60M66	

FILE NAME = 1P_PWP\dms34565\0992057-60M66-002-CPE.dgn

SCOPE OF WORK

1. Perform partial depth repairs to the bridge deck.
2. Perform structural repairs on the abutments and the piers.
3. Temporarily shore beams at designated pier cap repair locations.
4. Remove and replace existing joint material with new silicone joint sealers at designated locations.
5. Repair bearings as detailed and at the designated locations.
6. Perform structural repairs of the slope walls.
7. Clean floor drains.
8. Repair damaged and deteriorated structural steel as detailed and at designated locations.
9. Clean lower truss chord.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition.

DESIGN STRESSES

$f'c = 3,500$ psi
 $f_y = 60,000$ psi (Reinforcement)

GENERAL NOTES:

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.
3. Areas of proposed repairs are estimated. Actual type, location and dimensions are to be determined by the Engineer during construction.
4. Fasteners shall be high strength bolts. Bolts $\frac{3}{4}$ " diameter, open holes $\frac{15}{16}$ " diameter, bolts $\frac{7}{8}$ " diameter, open holes $\frac{15}{16}$ " diameter, unless otherwise noted.
5. Existing structural steel shall only be cleaned and painted as required by the Special Provision "Cleaning and Painting Contact Surface Areas of Existing Steel Structures".
6. The Inorganic Rich Zinc 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 Reddish Brown, Munsell No. 2.5YR3/4. See Special Provision for "Cleaning and Painting New Metal Structures".
7. The existing structural steel coating may contain lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.


TOTAL BILL OF MATERIAL

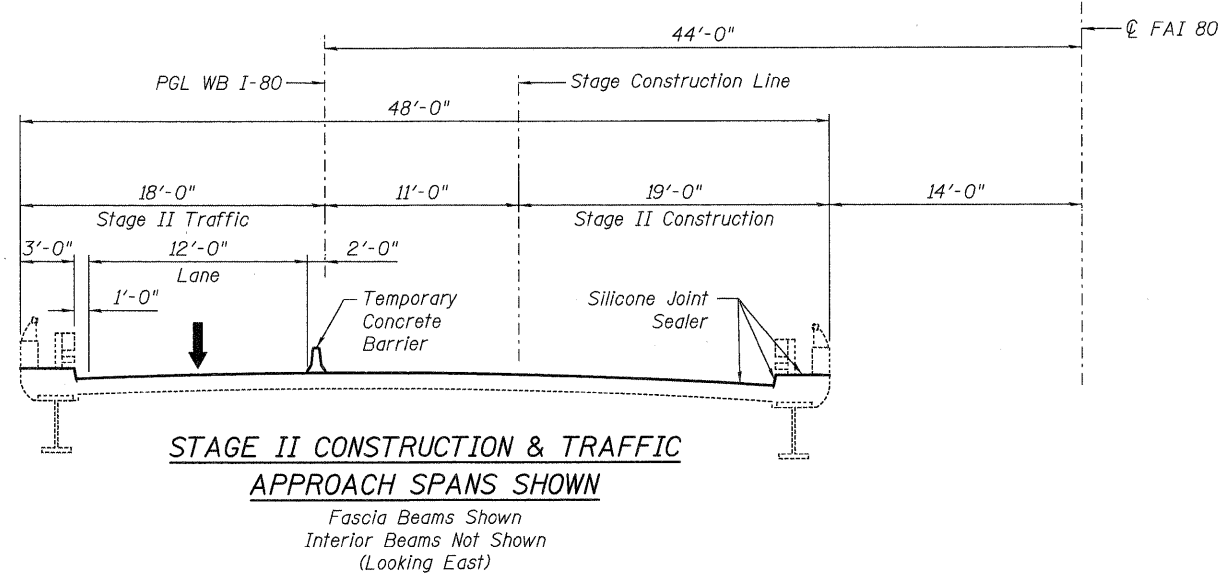
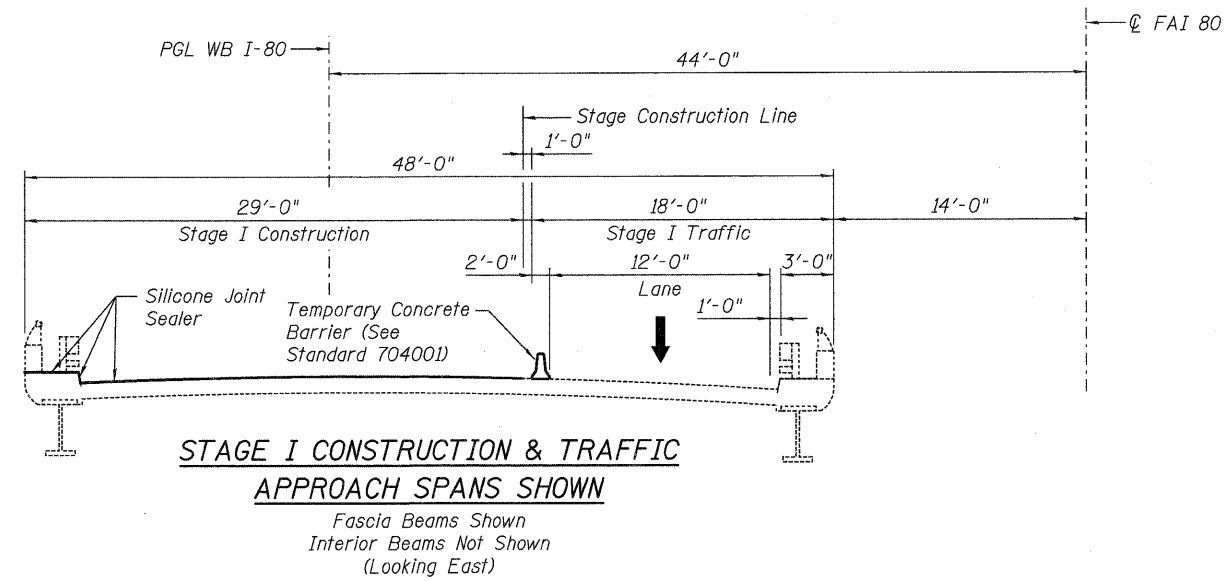
ITEM	UNIT	SUPER	SUB	TOTAL
Slope Wall Removal	Sq.Yd.	-	320	320
Slope Wall 4 Inch	Sq.Yd.	-	320	320
Porous Granular Embankment	Cu.Yd.	-	533	533
Epoxy Crack Injection	Foot	-	359	359
Structural Repair of Concrete (Depth Equal to or Less Than 5 Inches)	Sq.Ft.	-	5,125	5,125
Structural Repair of Concrete (Depth Greater Than 5 Inches)	Sq.Ft.	-	1,660	1,660
Deck Slab Repair (Partial)	Sq.Yd.	321	-	321
Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	16	-	16
Silicone Joint Sealer, 1"	Foot	318	-	318
Silicone Joint Sealer, 1.75"	Foot	289	-	289
Silicone Joint Sealer, 2.5"	Foot	357	-	357
Silicone Joint Sealer, 2.75"	Foot	425	-	425
Silicone Joint Sealer, 3"	Foot	50	-	50
Polymer Concrete	Cu.Ft.	49	-	49
Temporary Shoring and Cribbing, Special	Each	-	103	103
Containment and Disposal of Lead Paint Cleaning Residues No. 1	L.Sum	1	-	1
Jack and Clean Bearings	Each	-	28	28
Cleaning Drainage System *	L.Sum	1	-	1
Structural Steel Repair	Pound	10,195	-	10,195
Cleaning Lower Truss Chord	L. Sum	1	-	1
Protective Shield	Sq.Yd.	633	-	633

* Total number of drains = 566

INDEX OF SHEETS

- S- 1 General Plan & Elevation
- S- 2 General Plan & Elevation
- S- 3 Notes & Total Bill of Material
- S- 4 Construction Staging
- S- 5 Deck Slab Repair Plan
- S- 6 Deck Slab Repair Plan
- S- 7 Deck Joint Repairs
- S- 8 Framing Plan Spans 4-9
- S- 9 Framing Plan Spans 12-15 & 18-21
- S- 10 Framing Plan Spans 22-27
- S- 11 Truss Elevation
- S- 12 Steel Repair Schedule & Notes
- S- 13 Steel Repair Details 1
- S- 14 Steel Repair Details 2
- S- 15 Steel Repair Details 3
- S- 16 Steel Repair Details 4
- S- 17 Steel Repair Details 5
- S- 18 Steel Repair Details 6
- S- 19 Steel Repair Details 7
- S- 20 Temporary Shoring & Cribbing Locations - Substructure
- S- 21 Slopewall Repairs
- S- 22 Abutment Repair Details
- S- 23 Pier Repair Details 1
- S- 24 Pier Repair Details 2
- S- 25 Pier Repair Details 3
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- S- 28 Pier Repair Details 6
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- S- 30 Pier Repair Details 8
- S- 31 Pier Repair Details 9
- S- 32 Pier Repair Details 10
- S- 33 Pier Repair Details 11
- S- 34 Pier Repair Details 12
- S- 35 Pier Repair Details 13

USER NAME = default	DESIGNED - PCA/MEA	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	NOTES & TOTAL BILL OF MATERIAL WESTBOUND I-80 OVER DES PLAINES RIVER STRUCTURE NO. 099-0057	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = #SCALE#	DRAWN - CFB/RCW	REVISED -				80	99 (4&4-1) RS-3	WILL	203	112
PLOT DATE = 2/8/2011	CHECKED - MEA/PCA	REVISED -				CONTRACT NO. 60M66				
	DATE - 2/8/2011	REVISED -				SHEET NO. S-3 OF 35 SHEETS				



NOTES:

1. Sections shown are typical except at beginning and ending of bridge where widths vary to accommodate the ramps. See roadway plans for details.
2. Cost of Temporary Concrete Barrier included in Roadway Plans.

DESIGNED - PCA	REVISED -
USER NAME = jsupencheck	DRAWN - MN
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PLOT DATE = 19-JAN-2011	DATE - 1/21/2011
REVISED -	REVISED -

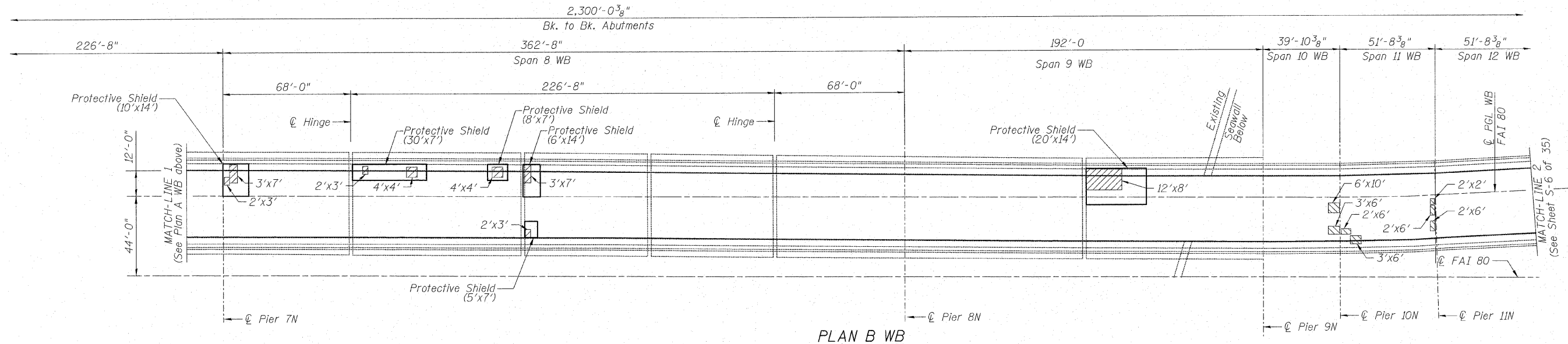
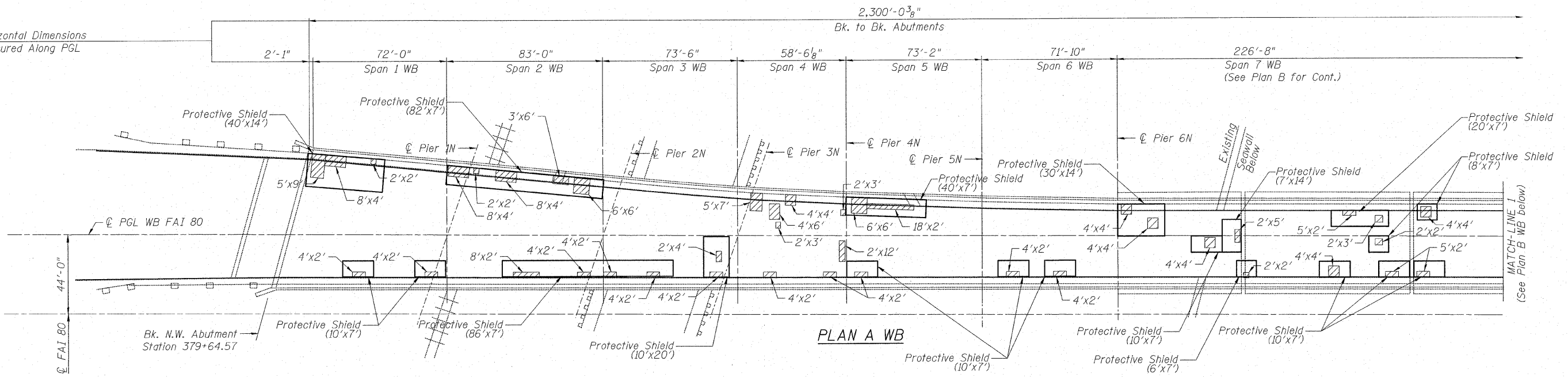


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**CONSTRUCTION STAGING
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057**

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	113
CONTRACT NO. 60M66			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

Horizontal Dimensions
Measured Along PGL



LEGEND:

- Deck Slab Repair (Partial)
- Deck Slab Repair (Partial) w/ Welded Wire Fabric *
- Protective Shield

* Existing wearing surface contains welded wire fabric (WWF 3x3-D8xD8 (E)) in east approach spans (Span 10WB through Span 27WB). Remove and replace welded wire fabric when performing deck slab repair. Cost of removing and replacing WWF is incidental to Deck Slab Repair (Partial).

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq.Yd.	106
Protective Shield	Sq.Yd.	496

NOTES:

1. Areas of proposed deck repairs are estimated. Actual type, location and dimensions of deck repairs are to be determined by the Engineer during construction.
2. Reuse existing drain if drain falls within a full depth repair.

USER NAME = CMF	DESIGNED - GMK	REVISED -
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PLOT DATE = 08-FEB-2011	CHECKED - WPK/MWS/GMK	REVISED -
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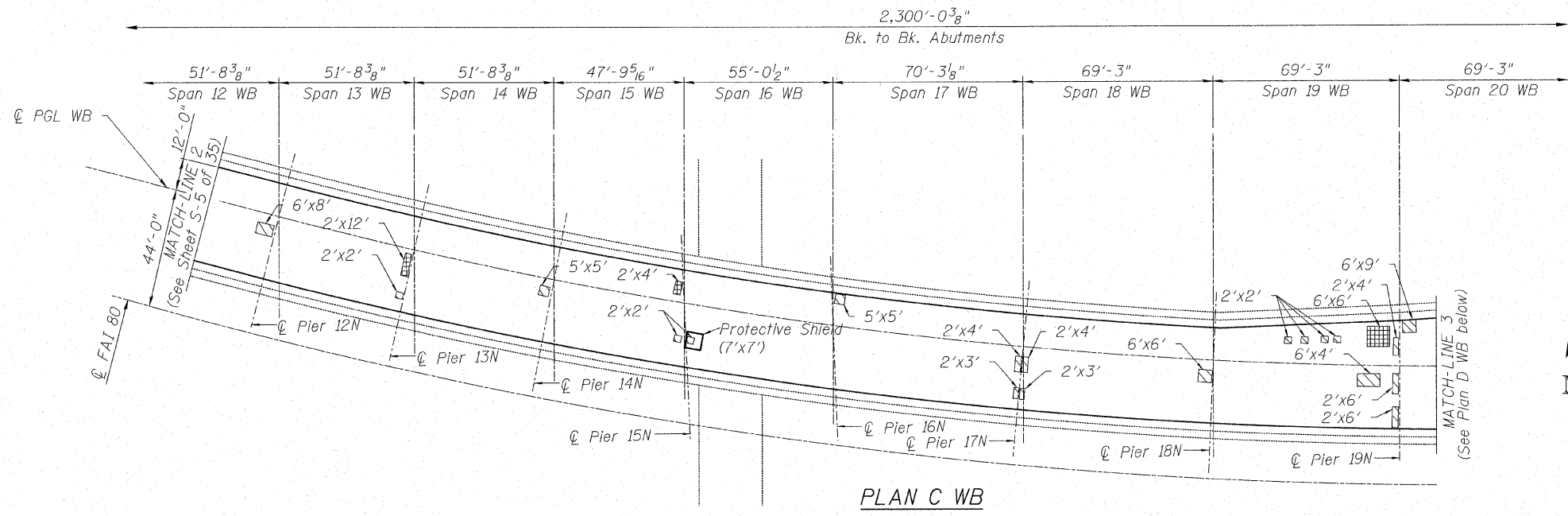


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

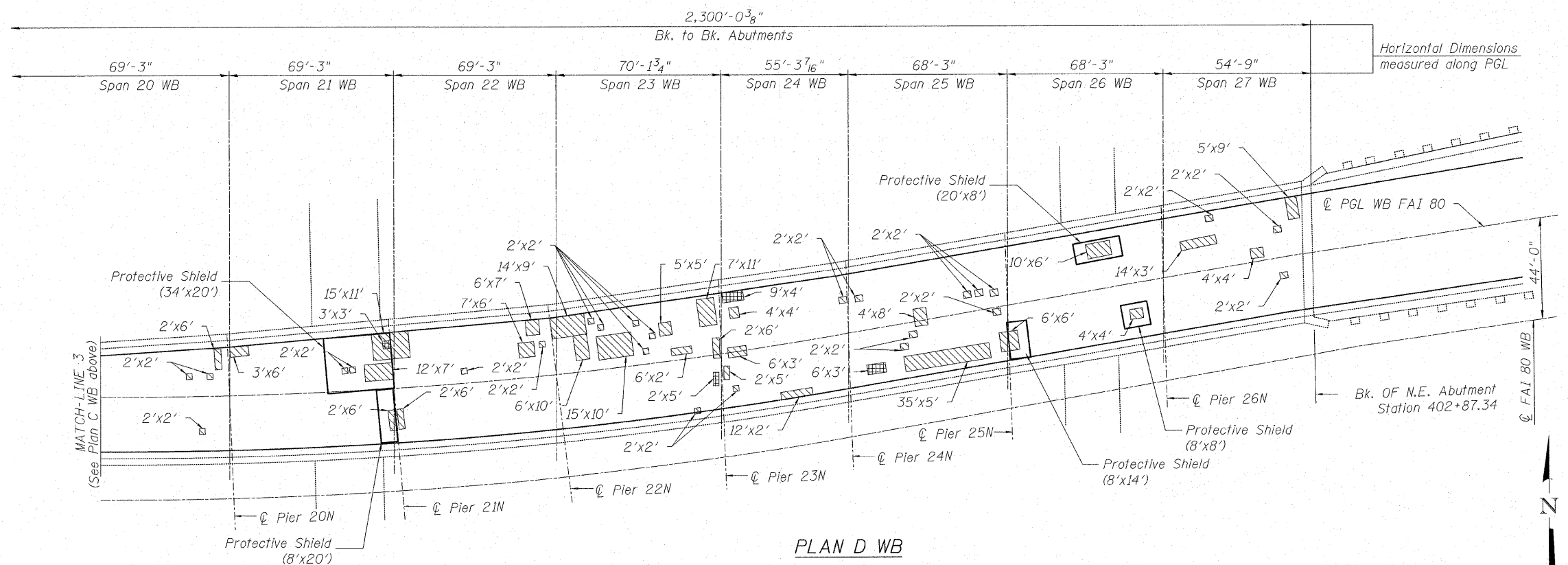
DECK SLAB REPAIR PLAN
WB I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-5 OF S-35 SHEETS

F.A.I. RTE. 80	SECTION 99 (4 & 4)-IRS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 114
CONTRACT NO. 60M66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PLAN C WB



PLAN D WB

LEGEND:

- Deck Slab Repair (Partial)
- Deck Slab Repair (Partial) w/ Welded Wire Fabric *
- Deck Slab Repair (Full Depth, Type II)
- Protective Shield

* Existing wearing surface contains welded wire fabric (WWF 3x3-D8xD8 (E)) in east approach spans (Span 10WB through Span 27WB). Remove and replace welded wire fabric when performing deck slab repair. Cost of removing and replacing WWF is incidental to Deck Slab Repair (Partial).

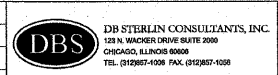
BILL OF MATERIAL

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Deck Slab Repair (Partial)	Sq.Yd.	194
Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	16
Protective Shield	Sq.Yd.	137

NOTES:

1. Areas of proposed deck repairs are estimated. Actual type, location and dimensions of deck repairs are to be determined by the Engineer during construction.
2. Reuse existing drain if drain falls within a full depth repair.

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PLOT DATE = 08-FEB-2011	CHECKED - WPK/MWS/GMK	REVISED -
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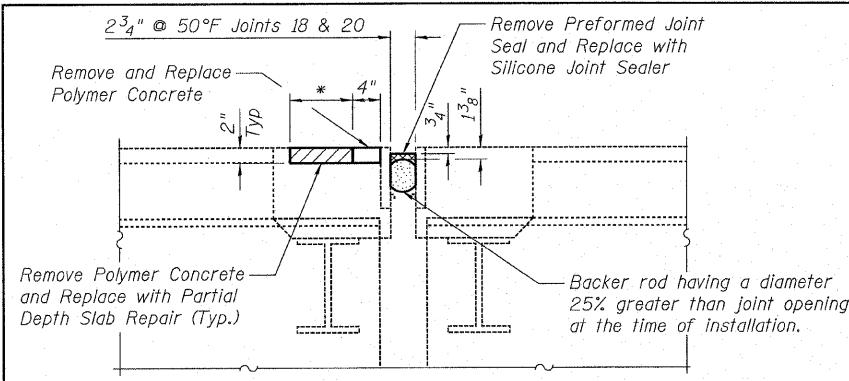


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK SLAB REPAIR PLAN
WB I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

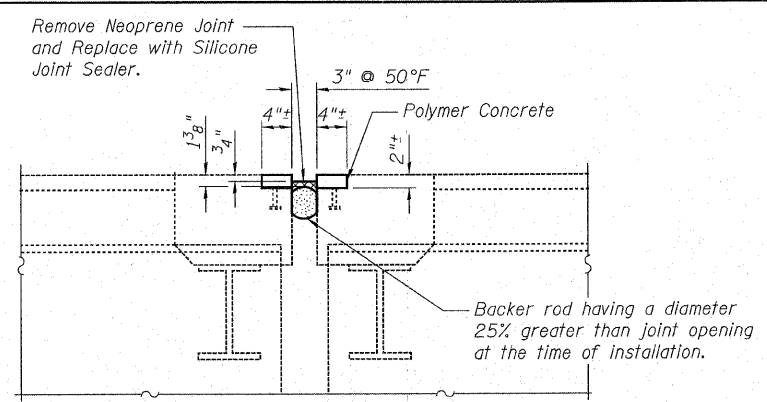
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

SHEET NO. S-6 OF S-35 SHEETS

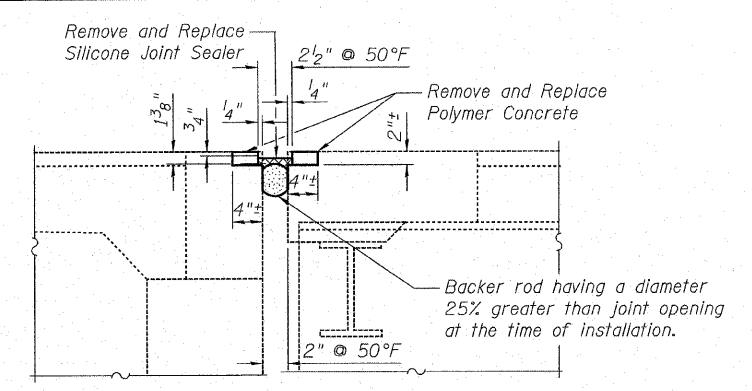


* Joint 18: 8" width West Side of Joint
Joint 20: 1'-8" width, West Side of Joint

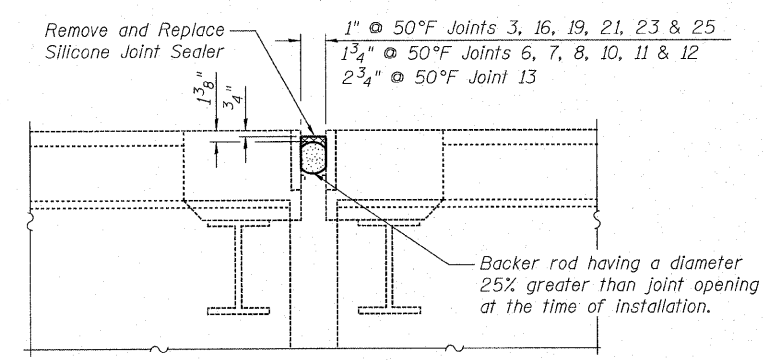
PROPOSED TRANSVERSE JOINT
Joints (18) & (20)



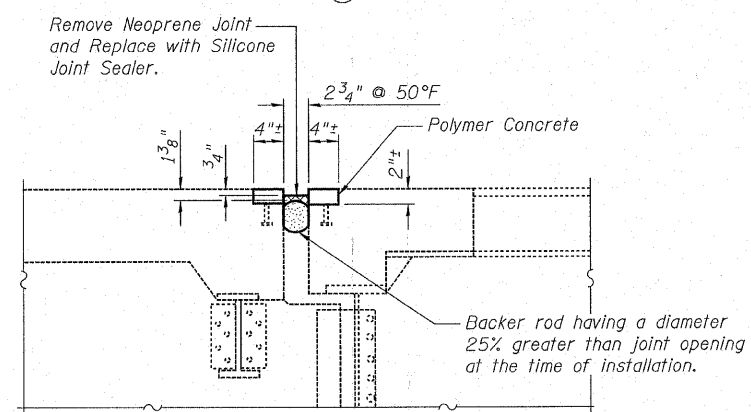
PROPOSED TRANSVERSE JOINT
Joint (5)



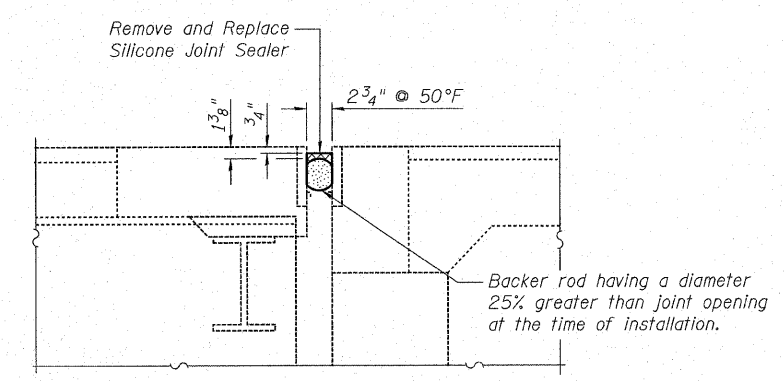
PROPOSED TRANSVERSE JOINT - WEST ABUTMENT
Joint (1)



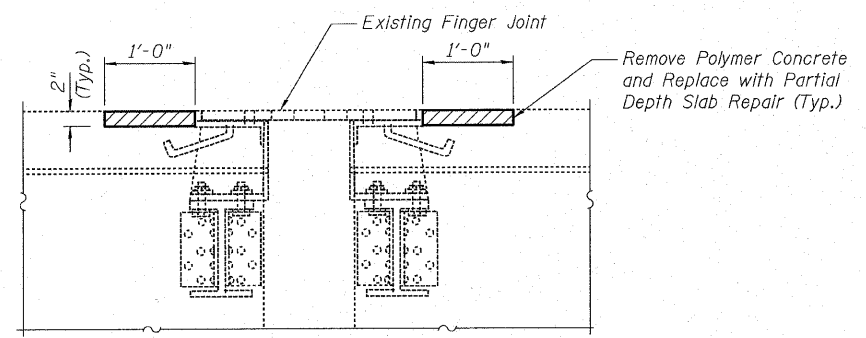
PROPOSED TRANSVERSE JOINT
Joints (3, 6, 7, 8, 10, 11, 12, 13, 16, 19, 21, 23, 25)



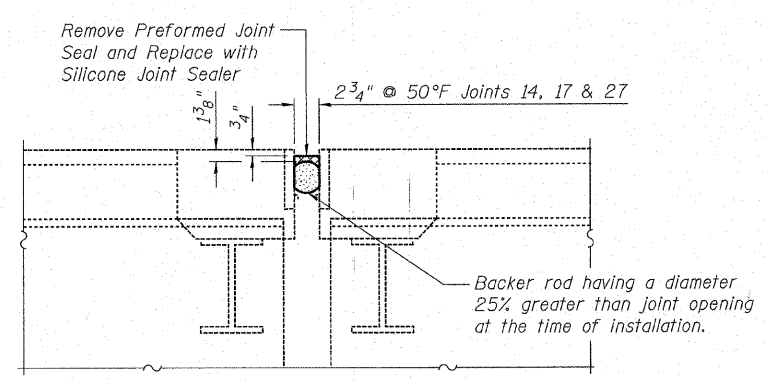
PROPOSED TRANSVERSE JOINT
Joint (9)



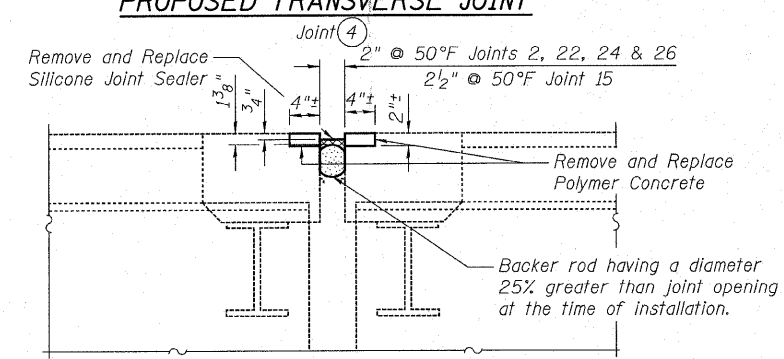
PROPOSED TRANSVERSE JOINT - EAST ABUTMENT
Joint (28)



PROPOSED TRANSVERSE JOINT
Joints (3, 6, 7, 8, 10, 11, 12, 13, 16, 19, 21, 23, 25)



PROPOSED TRANSVERSE JOINT
Joints (14, 17) & (27)



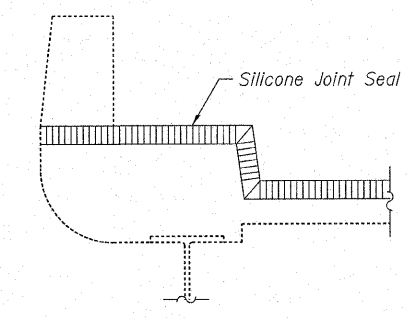
PROPOSED TRANSVERSE JOINT
Joint (4)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Silicone Joint Sealer, 1"	Foot	318
Silicone Joint Sealer, 1.75"	Foot	289
Silicone Joint Sealer, 2.5"	Foot	357
Silicone Joint Sealer, 2.75"	Foot	425
Silicone Joint Sealer, 3"	Foot	50
Polymer Concrete	Cu. Ft.	49
Deck Slab Repair (Partial)	Sq.Yd.	21

NOTES:

1. Removal of existing joint material shall be included in the cost of Silicone Joint Sealer.
2. Provide 1/4" chamfer at top corner of polymer concrete adjacent to opening.
3. Removal of existing concrete and polymer concrete is included in the cost of Polymer Concrete.
4. For location of joints, see Sheet S-1 and S-2 of 35.
5. Limit of removal and replacement of polymer concrete is curb to curb.



TYPICAL END OF SEAL TREATMENT

(Silicone Joint Seal)
Approach Spans Shown, Truss Spans Similar.

LEGEND:

- Deck Slab Repair (Partial)
- Joint repair type designation

USER NAME = lkalita	DESIGNED - RCW	REVISED -
PLOT SCALE = 1:1	DRAWN - RCW	REVISED -
PLOT DATE = 08-FEB-2011	CHECKED - PCA	REVISED -
	DATE = 2/8/2011	REVISED -

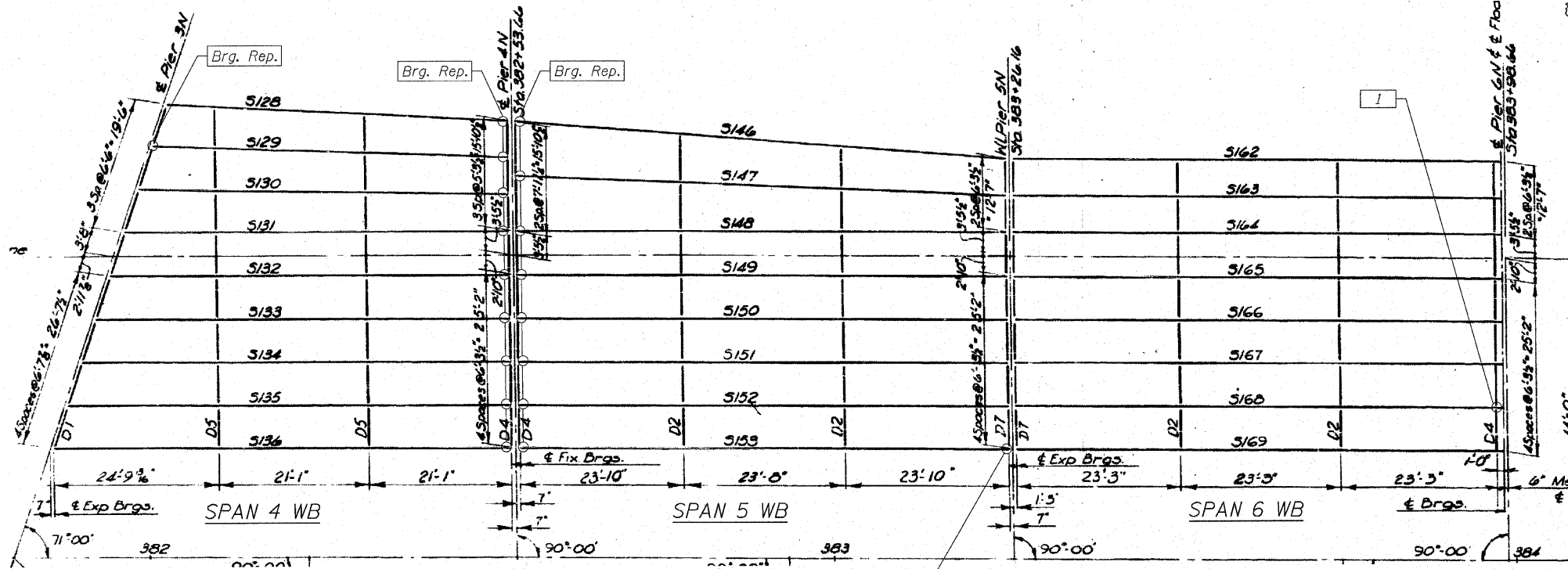


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK JOINT REPAIRS
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057
SHEET NO. S-7 OF 35 SHEETS

F.A.I. RTEL 80	SECTION 99 (4&4-1) RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 116
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

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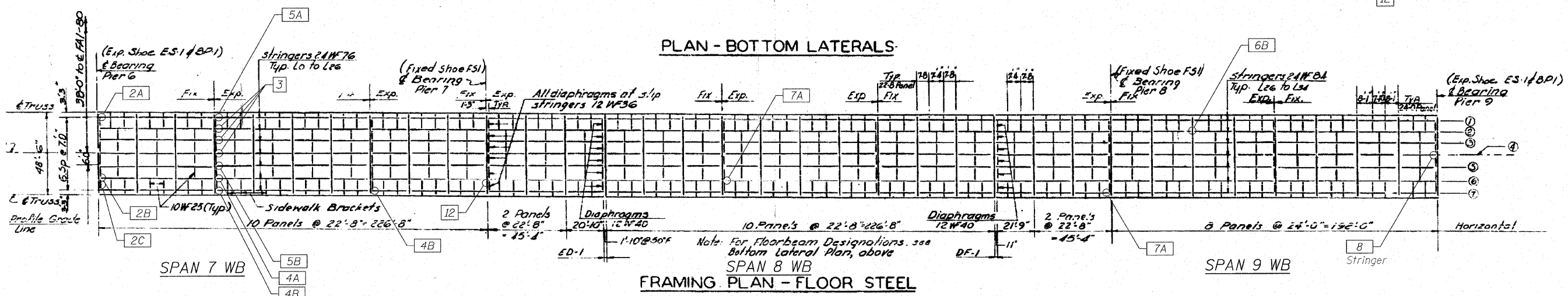
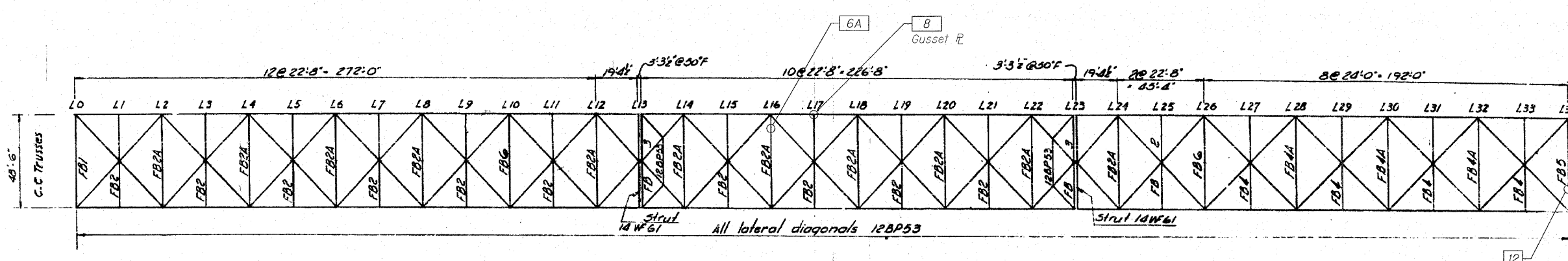


LEGEND:

1 Detail 1

NOTES:

1. Work this sheet with Sheets S-9 to S-12 of 35.
2. Drawing shows plan of floor beams, stringers, diaphragms, lateral diagonals, struts and sidewalk framing. All labels and numbering of the framing members are according to the 1960 design plans.
3. For schedule of repairs, see Sheet S-12 of 35.



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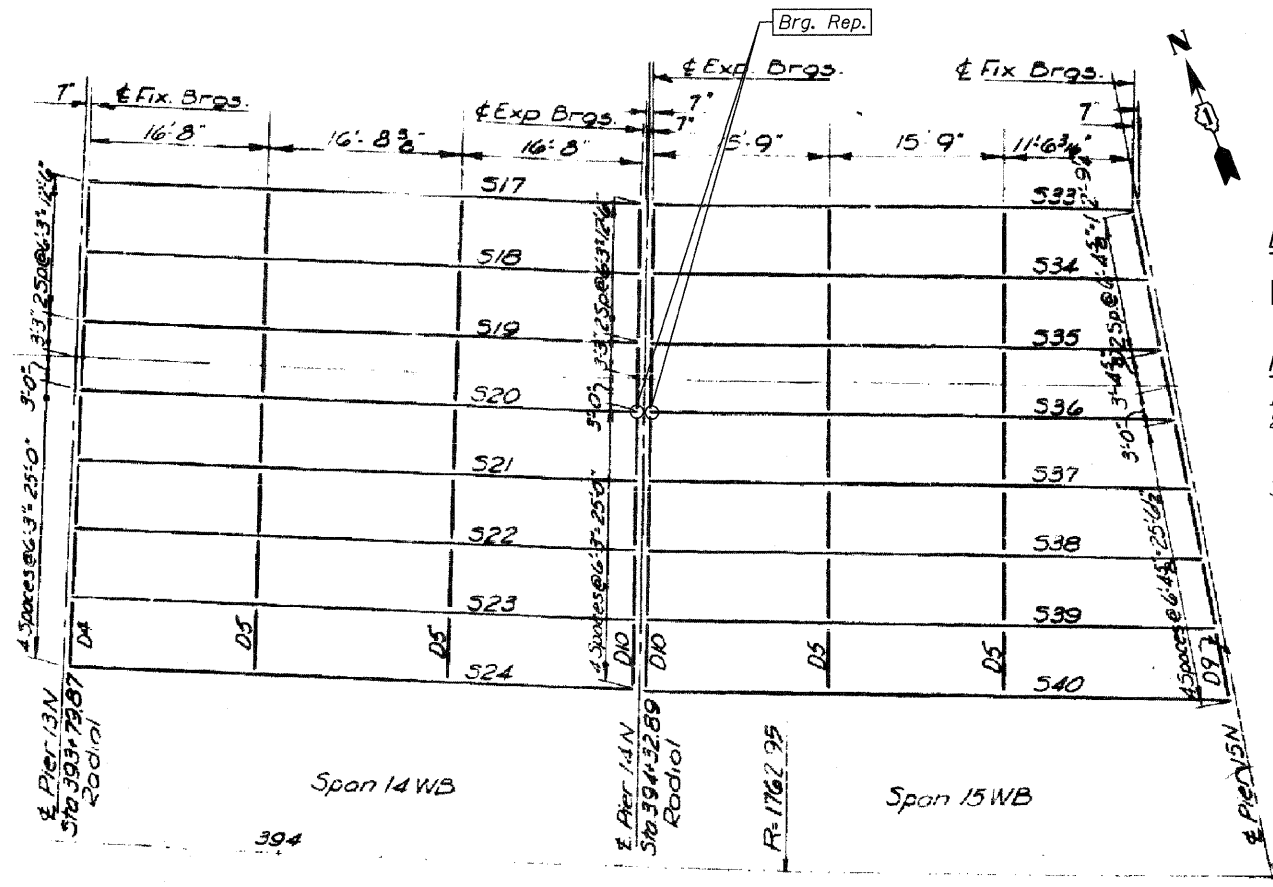
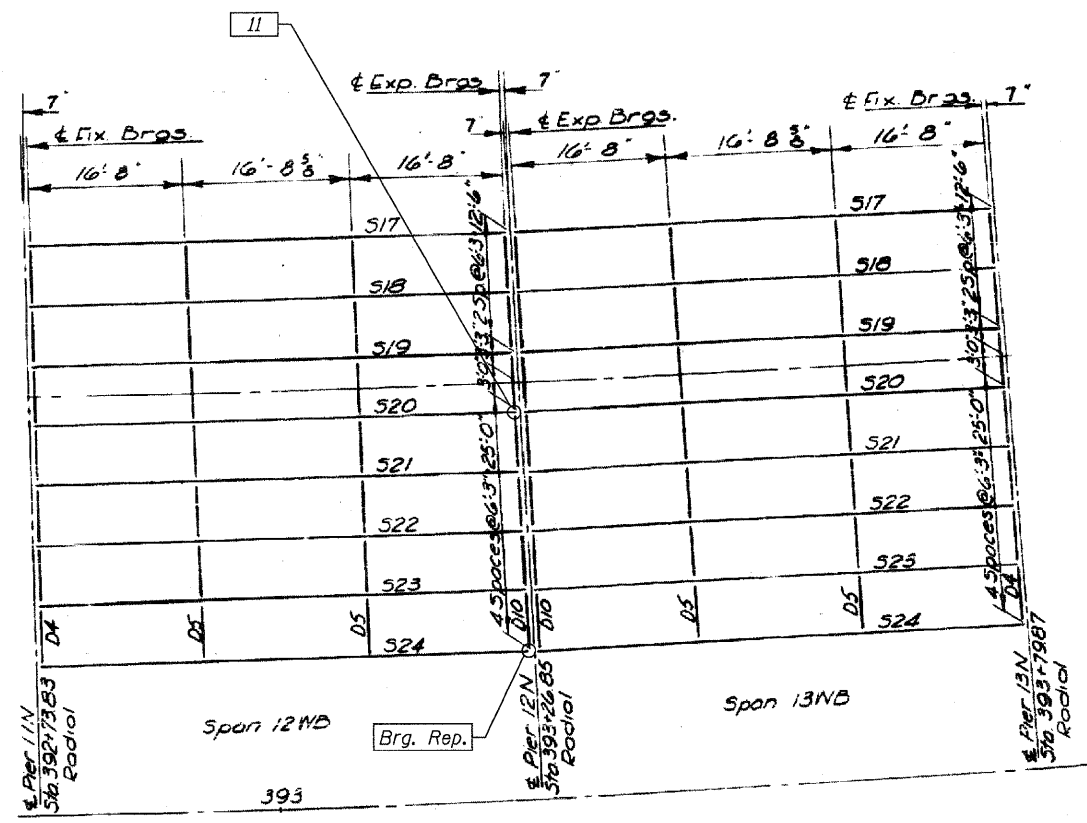


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN SPANS 4-9
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057
SHEET NO. S-8 OF 35 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	117
CONTRACT NO. 60M66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

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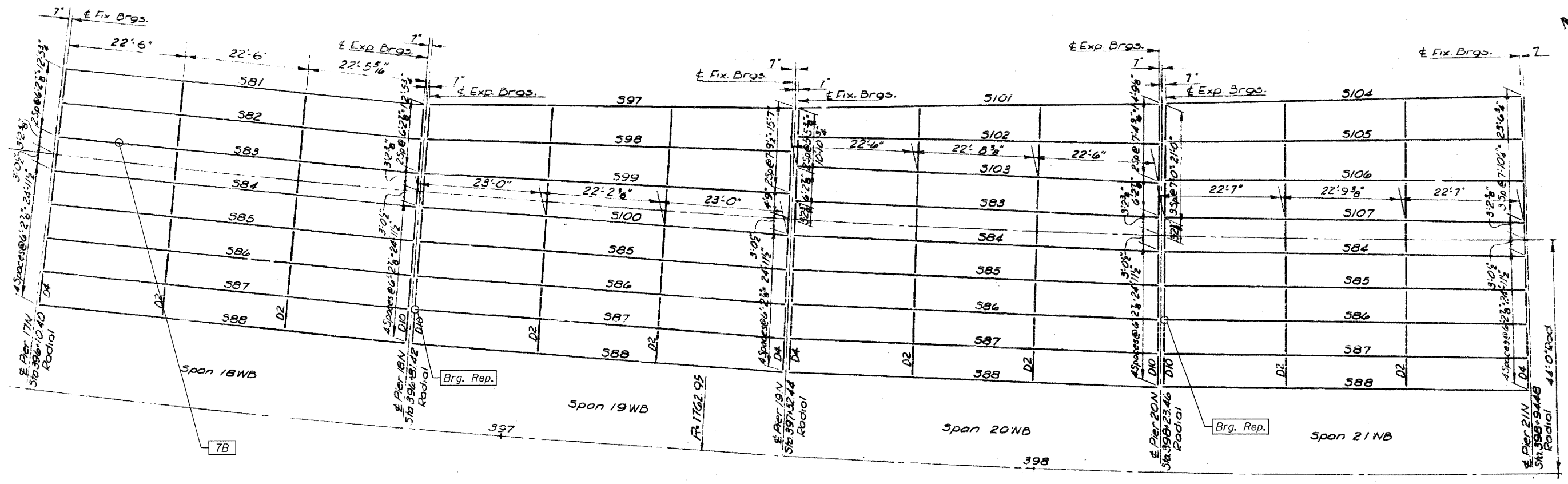


LEGEND:

1 Detail 1

NOTES:

1. Work this sheet with Sheets S-8, S-10 to S-12 of 35.
2. Drawing shows plan of floor beams, stringers and diaphragms. All labels and numbering of the framing members are according to the 1960 design plans.
3. For schedule of repairs, see Sheet S-12 of 35.



DESIGNED - MEA	REVISED -
DRAWN - LK	REVISED -
CHECKED - MRI	REVISED -
DATE - 1/21/2011	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

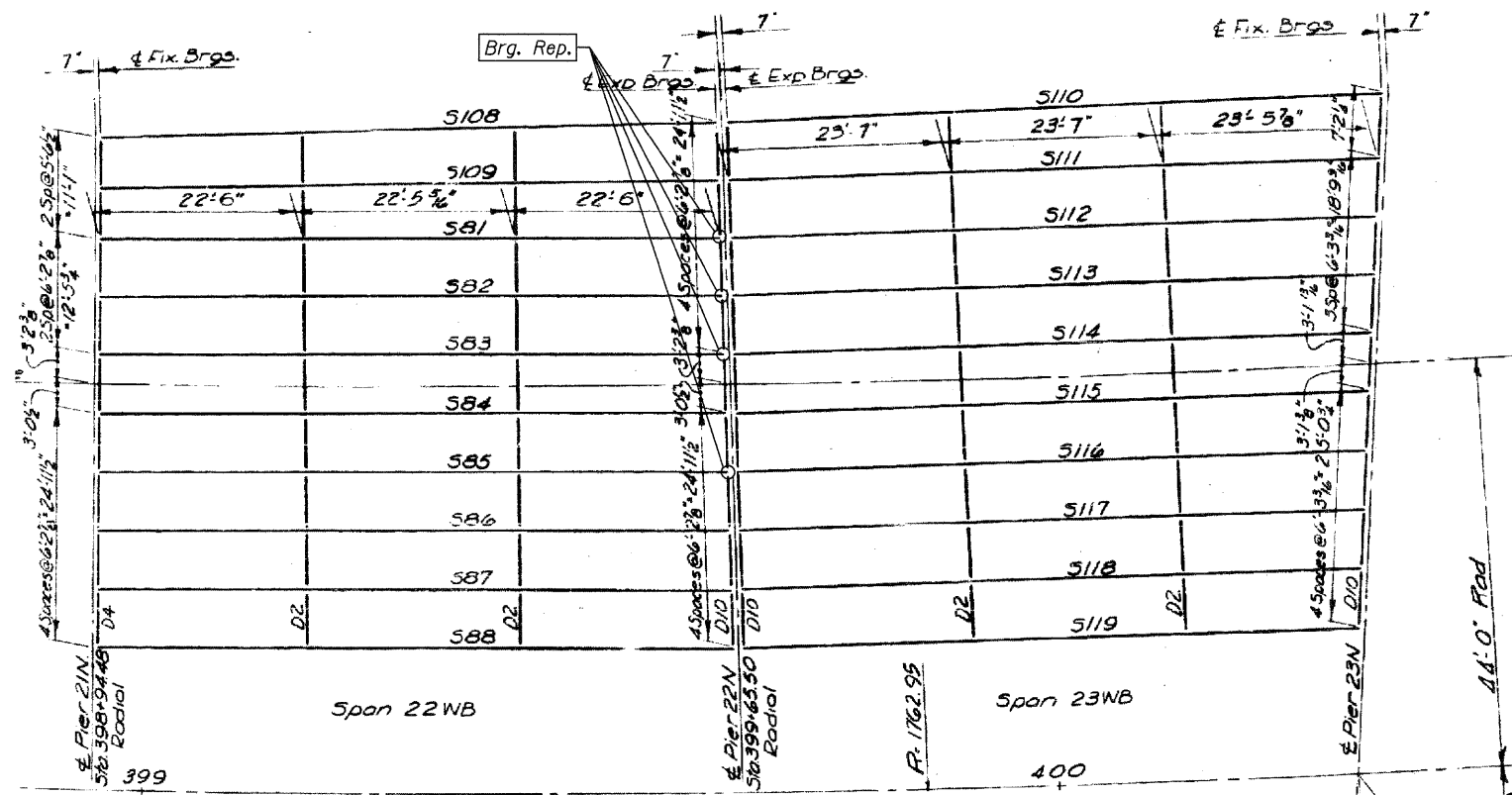
FRAMING PLAN
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	118
CONTRACT NO. 60M66				

SHEET NO. S-9 OF 35 SHEETS

FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT

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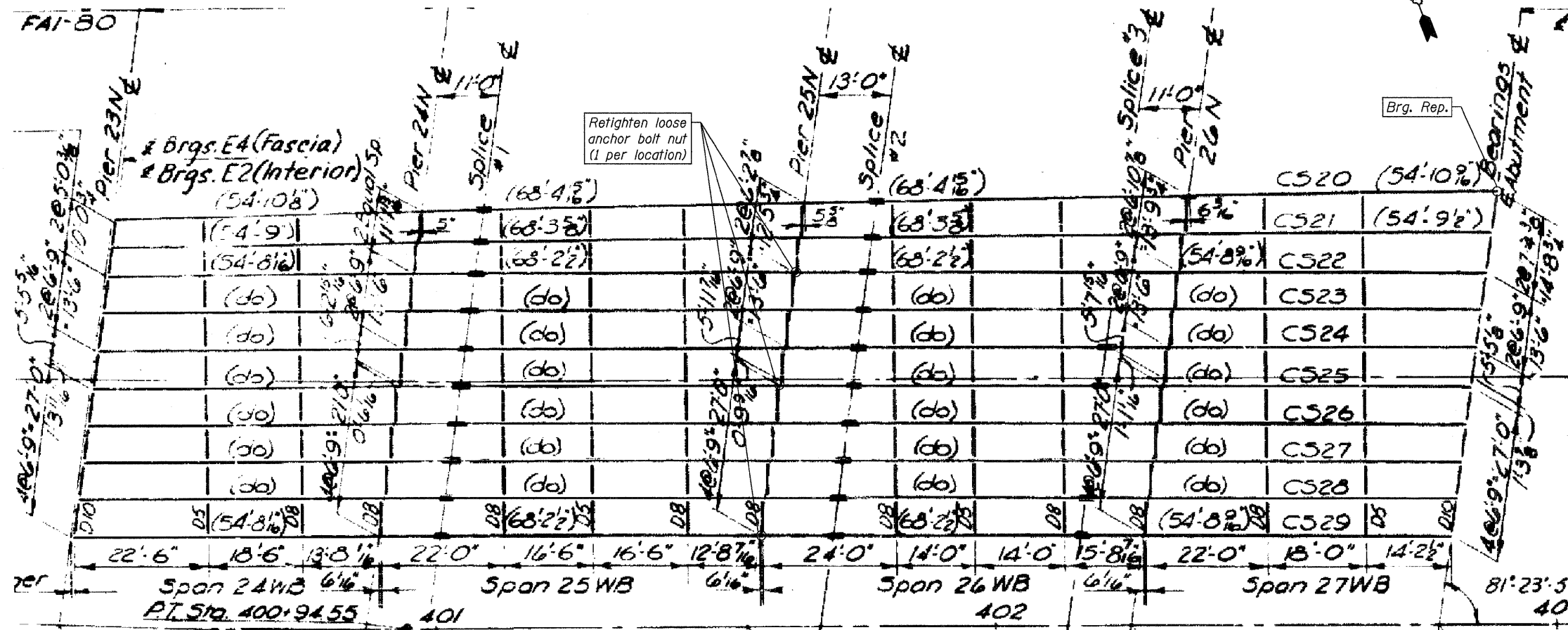


LEGEND:

1 Detail 1

NOTES:

1. Work this sheet with Sheets S-8, S-9, S-11 and S-12 of 35.
2. Drawing shows plan of floor beams, stringers and diaphragms. All labels and numbering of the framing members are according to the 1960 design plans.
3. For schedule of repairs, see Sheet S-12 of 35.



DESIGNED - MEA	REVISED -
DRAWN - LK	REVISED -
CHECKED - MRI	REVISED -
DATE - 1/21/2011	REVISED -

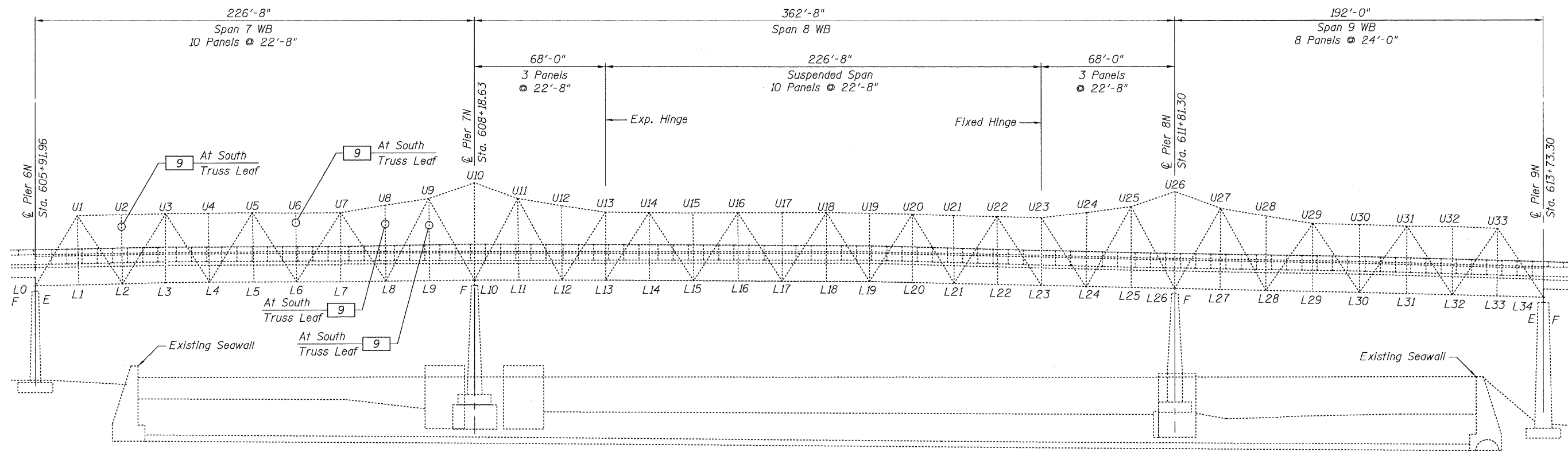


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

FRAMING PLAN
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-10 OF 35 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	119
CONTRACT NO. 60M66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



TRUSS ELEVATION

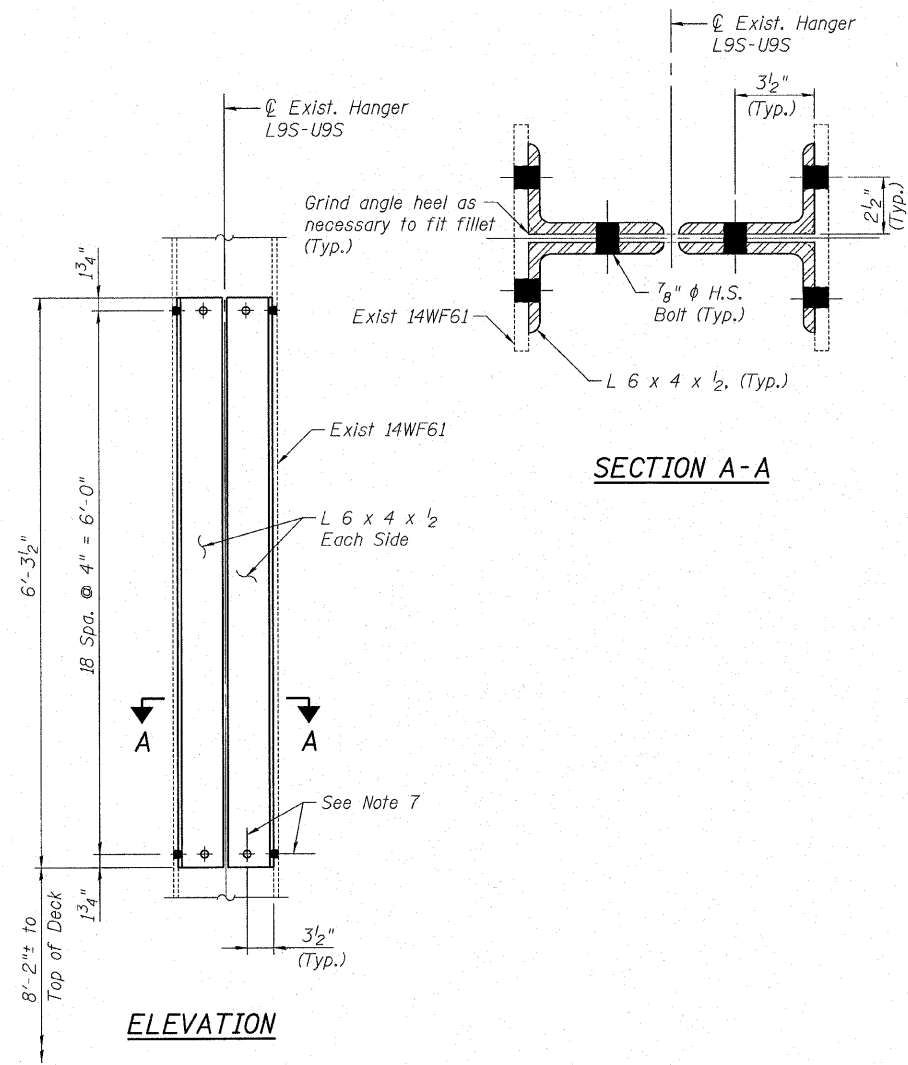
LEGEND:

1 Detail 1

NOTES:

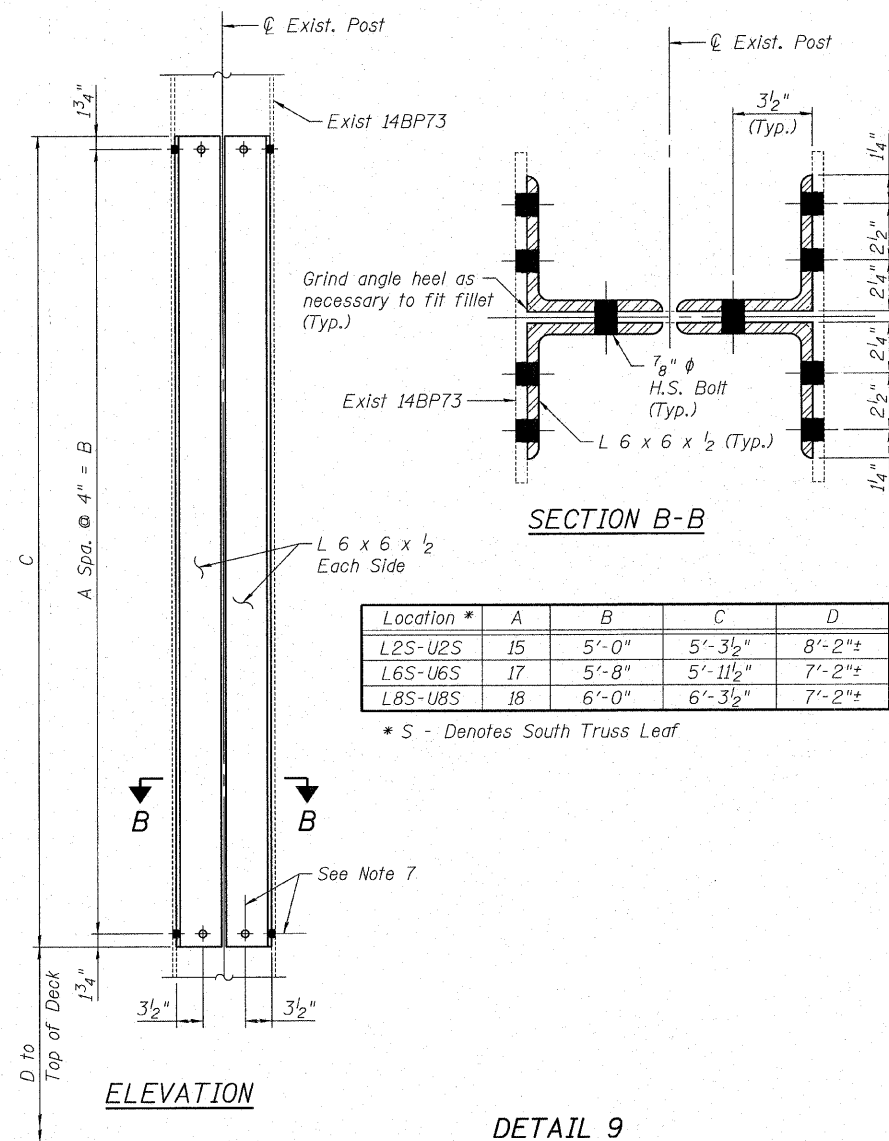
1. Work this sheet with Sheets S-8 to S-10 and S-12 of 35.
2. Drawing shows elevation of truss members.
All labels and numbering of the truss members are according to the 1960 design plans.
3. For schedule of repairs, see Sheet S-12 of 35.

USER NAME = Isupencheck	DESIGNED - MEA	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRUSS ELEVATION WESTBOUND I-80 OVER DES PLAINES RIVER STRUCTURE NO. 099-0057	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 1/4"	DRAWN - LK	REVISED -				80	99 (4&4-1) RS-3	WILL	203	120
PLOT DATE = 19-JAN-2011	CHECKED - MRI	REVISED -				CONTRACT NO. 60M66				
FILE NAME = IP_PWP\dms34565\0990057-80M66-011-TrussE1.dgn	DATE - 12/23/10	REVISED -				SHEET NO. S-11 OF 35 SHEETS				
						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



ELEVATION

DETAIL 9
TRUSS HANGER/POST/DIAGONAL
WEB AND FLANGE REPAIR



ELEVATION

DETAIL 9
TRUSS HANGER/POST/DIAGONAL
WEB AND FLANGE REPAIR

Location *	A	B	C	D
L2S-U2S	15	5'-0"	5'-3 1/2"	8'-2"±
L6S-U6S	17	5'-8"	5'-11 1/2"	7'-2"±
L8S-U8S	18	6'-0"	6'-3 1/2"	7'-2"±

* S - Denotes South Truss Leaf

NOTES:

- See Sheets S-8 to S-12 of 35 for locations of proposed repair details and notes.
- All structural steel plates and shapes used in proposed repair details shall be AASHTO M270 Gr 36 (ASTM A36).
- All fasteners shall be 7/8" dia. AASHTO M164 (ASTM A325) high strength bolts in 15/16" dia. standard size holes.
- Contact surfaces at bolted parts shall have Class B coating as specified in AASHTO Standard Specifications for Highway Bridges.
- Field drilling of existing members is required. The drilling cost shall be included with "Structural Steel Repair".
- The repair plate and angle lengths shown are anticipated based on the latest field notes. Longer repair plates, angles may be required based upon field conditions.
- 15/16" φ standard size holes in the truss member are to be field drilled using the repair plates and shapes as a template unless otherwise noted.

USER NAME = lkalita	DESIGNED - MEA	REVISED -
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PLOT DATE = 08-FEB-2011	CHECKED - MRI	REVISED -
	DATE - 2/8/2011	REVISED -

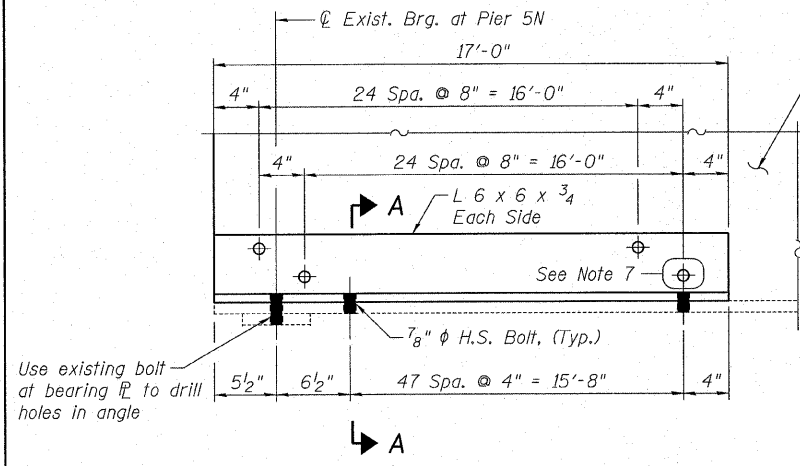


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

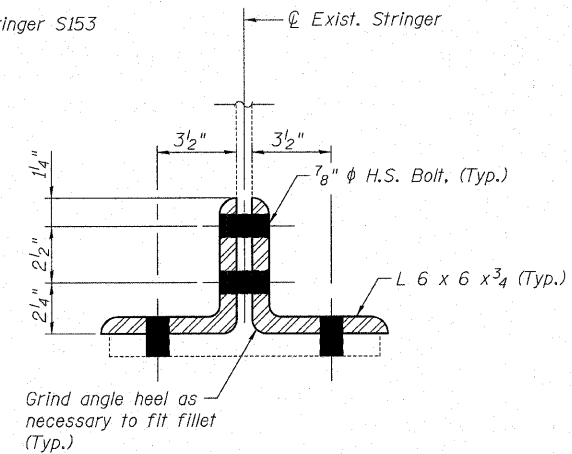
STEEL REPAIR DETAILS 1
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. 5-13 OF 35 SHEETS

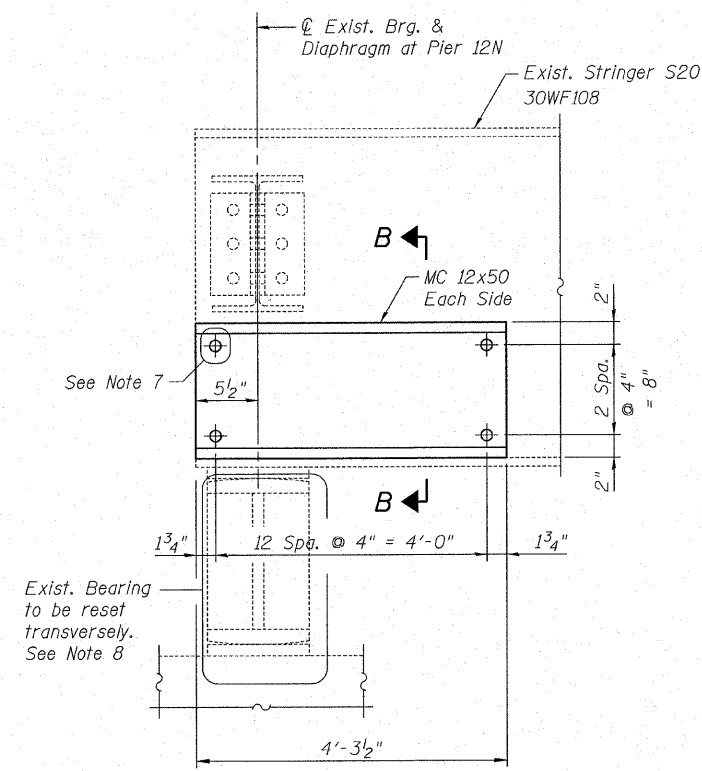
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



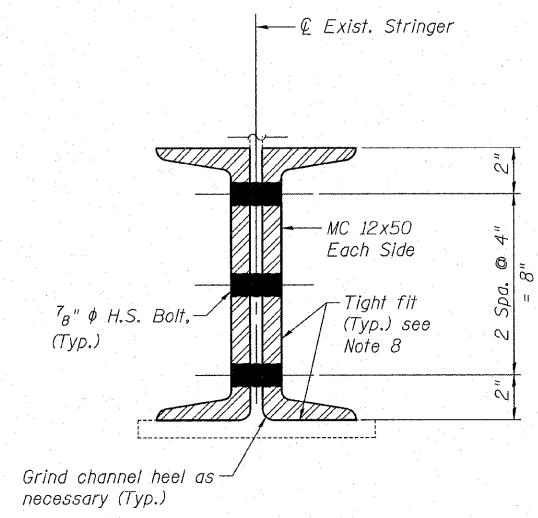
ELEVATION
Adjacent diaphragms connections,
bearings not shown for clarity



SECTION A-A



ELEVATION



SECTION B-B
Adjacent diaphragms connections,
bearings not shown for clarity

DETAIL 10
STRINGER WEB AND FLANGE REPAIR 3

DETAIL 11
STRINGER WEB AND FLANGE REPAIR 2

NOTES:

1. See Sheets S-8 to S-12 of 35 for locations of proposed repair details and notes.
2. All structural steel plates and shapes used in proposed repair details shall be AASHTO M270 Gr 36 (ASTM A36).
3. All fasteners shall be 7/8" dia. AASHTO M164 (ASTM A325) high strength bolts in 1 5/16" dia. standard size holes.
4. Contact surfaces at bolted parts shall have Class B coating as specified in AASHTO Standard Specifications for Highway Bridges.
5. Field drilling of existing members is required. The drilling cost shall be included with "Structural Steel Repair".
6. The repair plate and shape length shown are anticipated based on the latest field notes. Longer repair plates, shapes may be required based upon field conditions.
7. 1 5/16" ϕ standard size holes in the stringer web are to be field drilled using the repair shapes as template except as noted.
8. Suggested repair procedure for Detail 11:
 - A. Jack Stringer off the Bearing, maximum lift limited to 1/8".
 - B. Reset the Bearing transversely.
 - C. Straighten the buckled portions of stringer web and twisted portions of stringer flanges as much as possible without damaging the existing structural steel for a tight fit between the channels and the existing stringer.
 - D. Release the jack and have the Stringer fully supported by the Bearing.
 - E. Install repair channels.
9. Cost for repair procedures for Detail 11 included with "Structural Steel Repair".

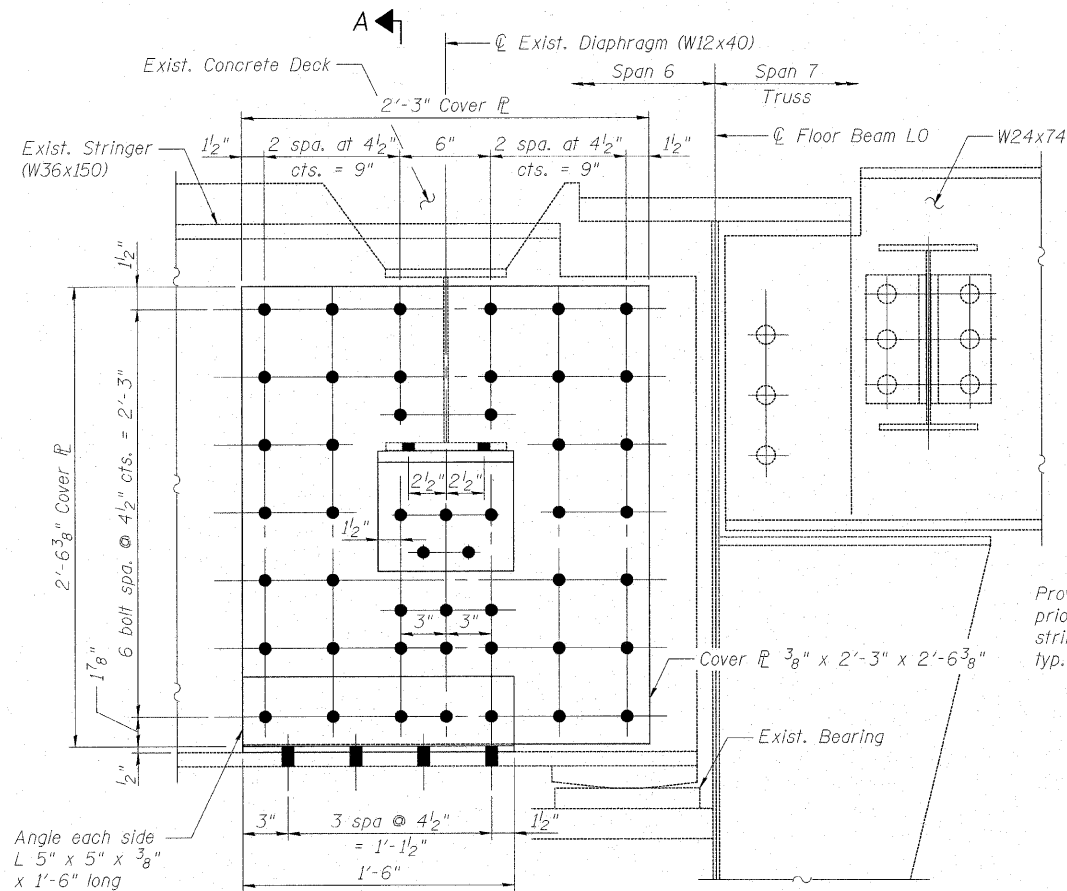
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DRAWN - LK	REVISED -
CHECKED - MRI	REVISED -
DATE - 2/8/2011	REVISED -



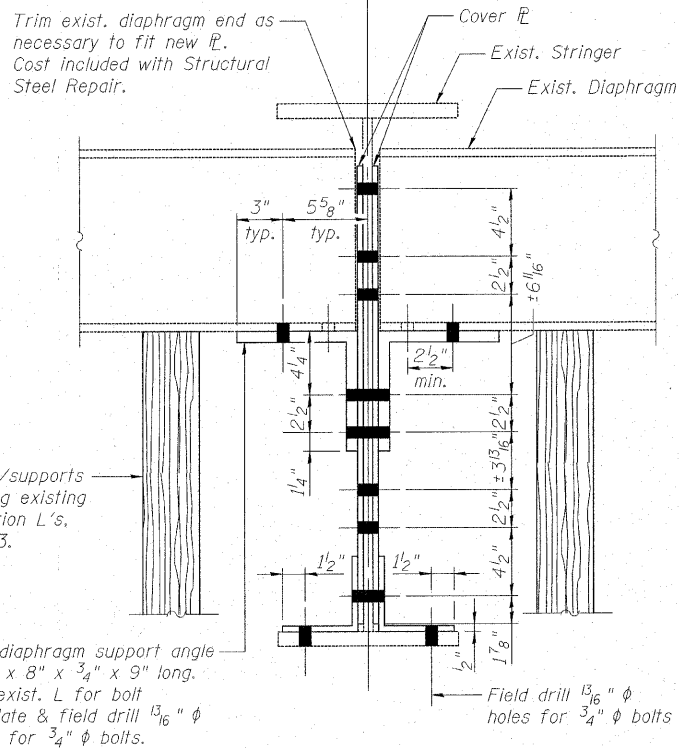
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIR DETAILS 2
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

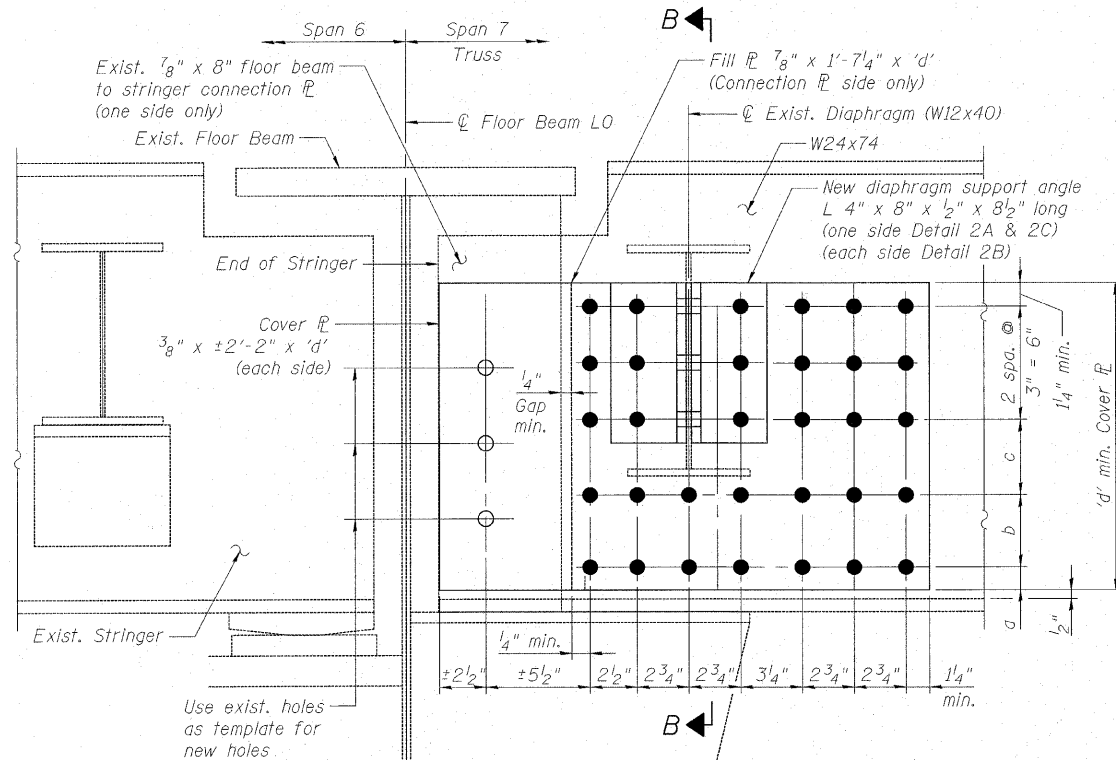
F.A.I. RTE. 80	SECTION 99 (4&4-1) RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 123
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60M66	



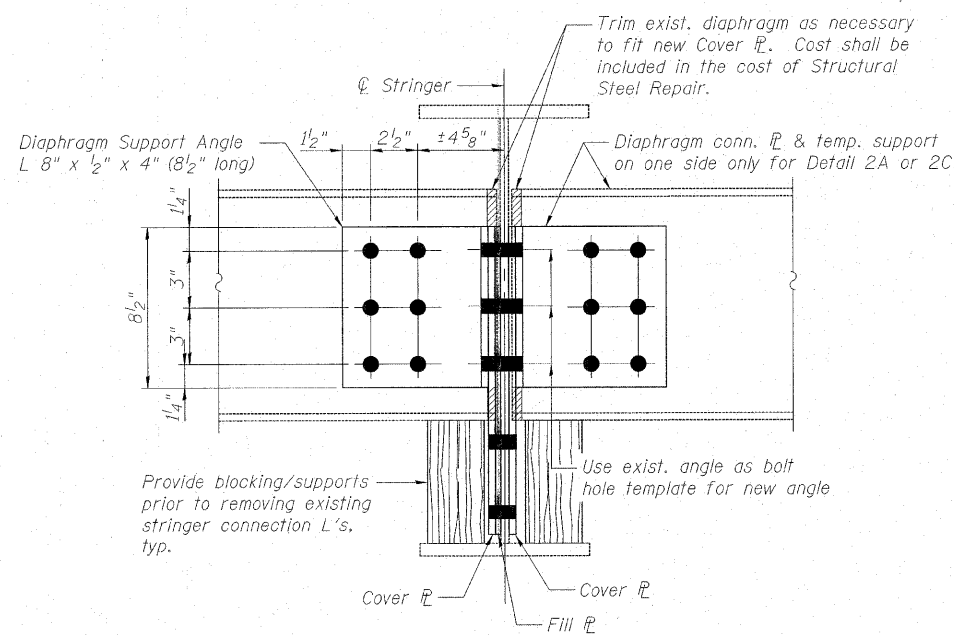
DETAIL 1



SECTION A-A



DETAIL 2A, 2B, & 2C



SECTION B-B

(Detail 2B Shown, Detail 2A & 2C Similar Except as Noted)

LEGEND

- Replace exist. bolts. Use exist. holes as template for field drilling new holes.
- New bolt (field drill)
- Exist. bolt to remain

NOTES

1. Cost of field drilling to be included in the cost of Structural Steel Repairs.
2. All holes to be field drilled 13/16" phi for 3/4" phi AASHTO M164/ASTM A325 bolts.
3. Distance from top of pier cap to diaphragm is approximately 7'-0".
4. The repair plate and shape lengths shown are anticipated based on existing plan data. Longer repair plates and shapes may be required based on field conditions.
5. See Sht S-3 and S-12 of S-35 for additional notes.
6. For additional requirements, See Special Provision for Structural Steel Repair and Structural Steel Removal

DETAIL 2 DIMENSIONS

DETAIL NO.	DIMENSIONS			
	a	b	c	d
2A	1 1/4"	+2 9/16"	4"	+1'-3 9/16"
2B	1 1/4"	+3 9/16"	4"	+1'-4 5/16"
2C	+1 3/16"	4 1/2"	4 1/2"	+1'-6 1/8"

USER NAME = lmueller	DESIGNED - DF	REVISED -
PLOT SCALE = NTS	DRAWN - LAM	REVISED -
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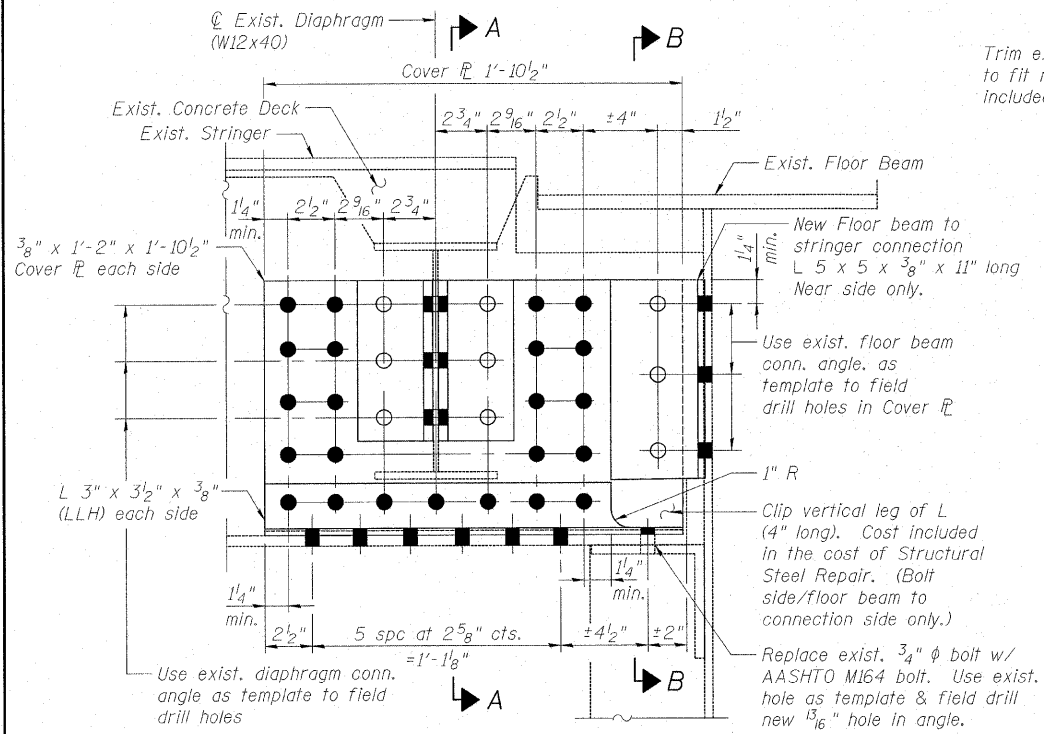


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIR DETAILS 3
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

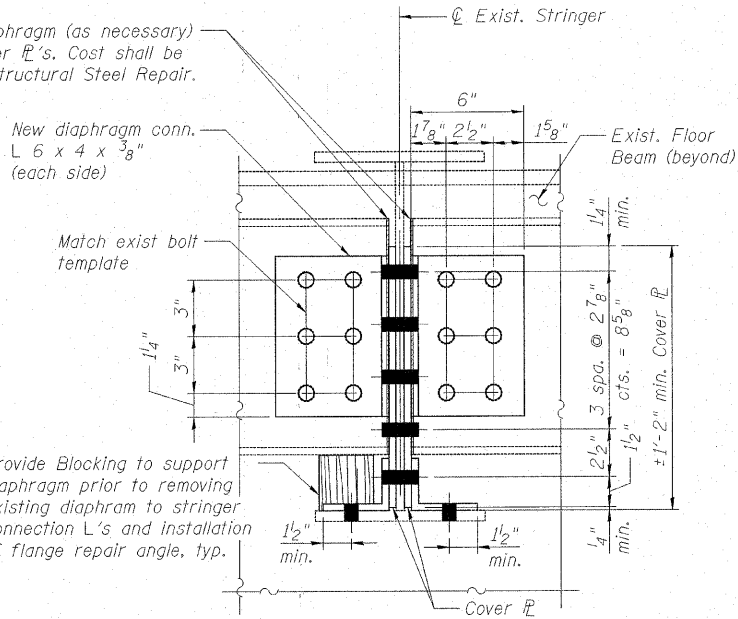
SHEET NO. S-15 OF S-35 SHEETS

F.A.I. RTE. 80	SECTION 99(4&4-1)RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 124
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60M66	

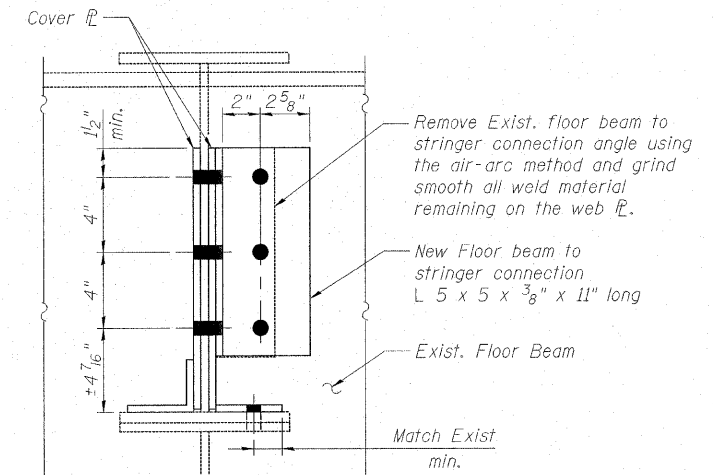


DETAIL 3

Trim exist. diaphragm (as necessary) to fit new Cover PL's. Cost shall be included with Structural Steel Repair.



SECTION A-A



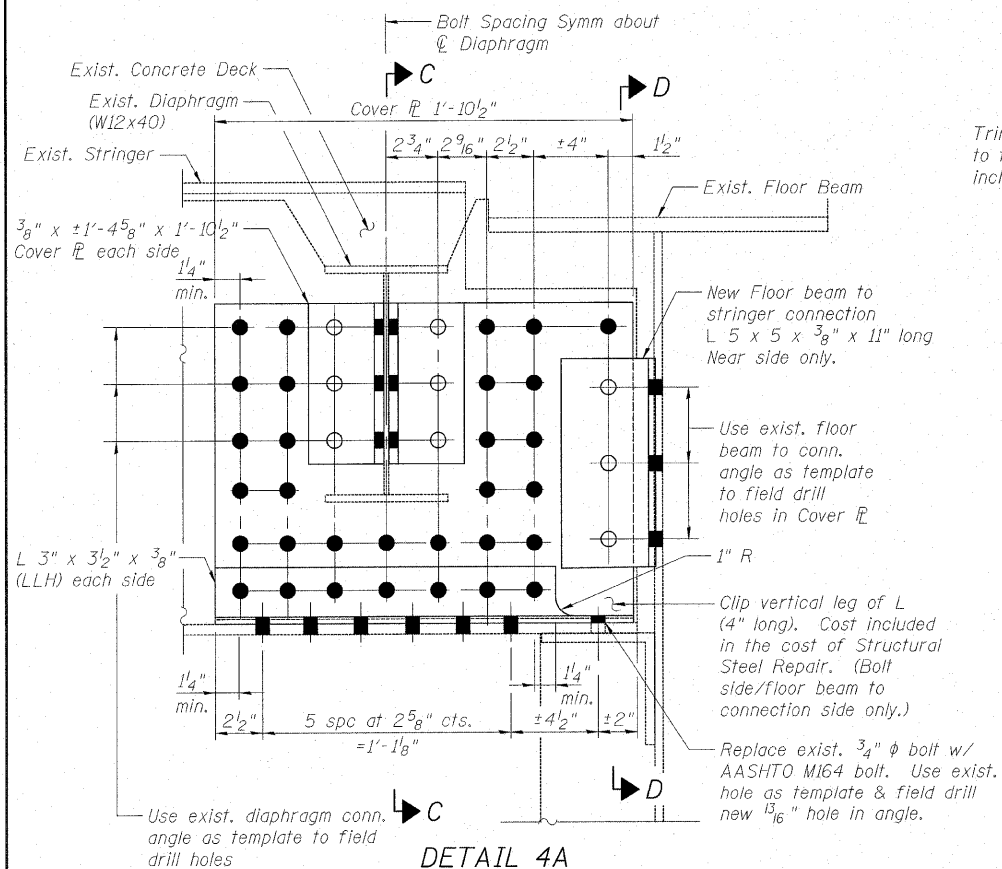
SECTION B-B

LEGEND

- New bolt. Use exist. holes in Stringer as template for field drilling new holes.
- New bolt (field drill)

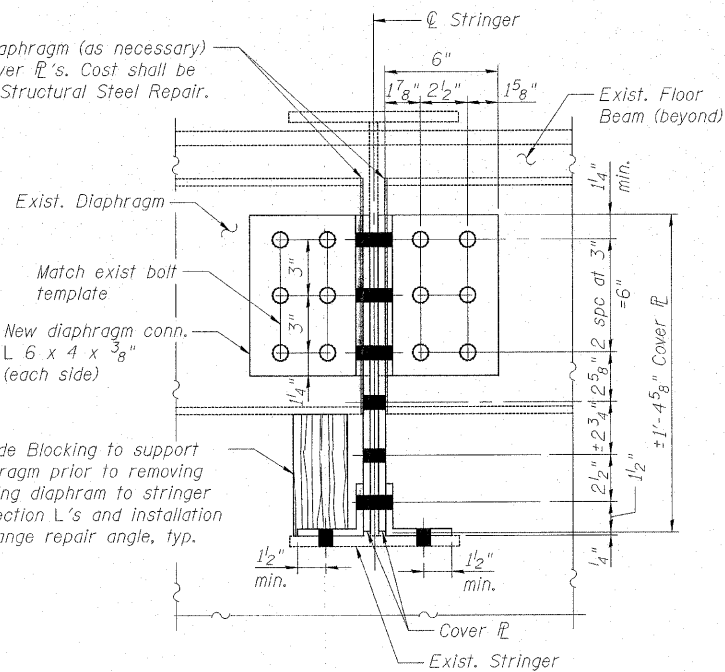
NOTES

1. Fasteners shall be high strength bolts AASHTO M164/ASTM A325. Holes shall be 13/16\"/>
- 2. See Sheet S-3 and S-12 of S-35 for additional notes.
- 3. All cover PL and fill PL shall be 3/8\"/>
- 4. The repair plate and shape lengths shown are anticipated based on existing plan data. Longer repair plates and shapes may be required based on field conditions.
- 5. For additional requirements, See Special Provision for Structural Steel Repair and Structural Steel Removal

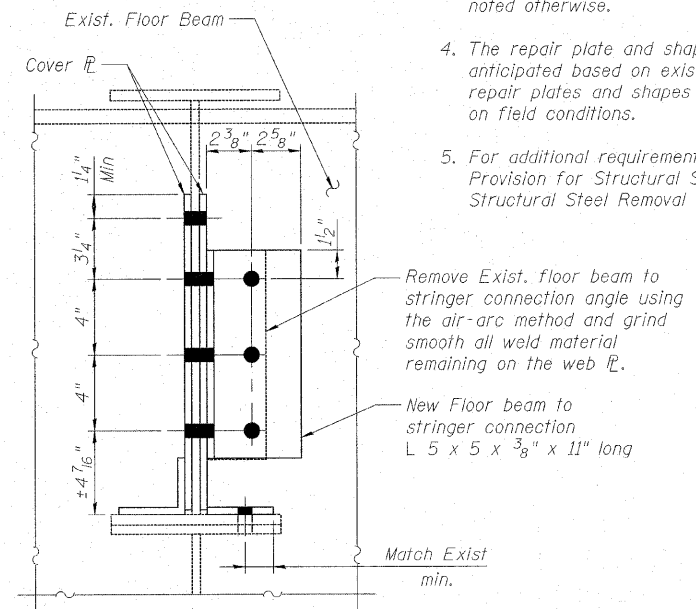


DETAIL 4A

Trim exist. diaphragm (as necessary) to fit new Cover PL's. Cost shall be included with Structural Steel Repair.



SECTION C-C



SECTION D-D

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PLOT SCALE = NTS	DRAWN - LAM	REVISED -
PLOT DATE = 2/8/2011 6:00:30 PM	CHECKED - BLU	REVISED -
	DATE - 1/20/2011	REVISED -

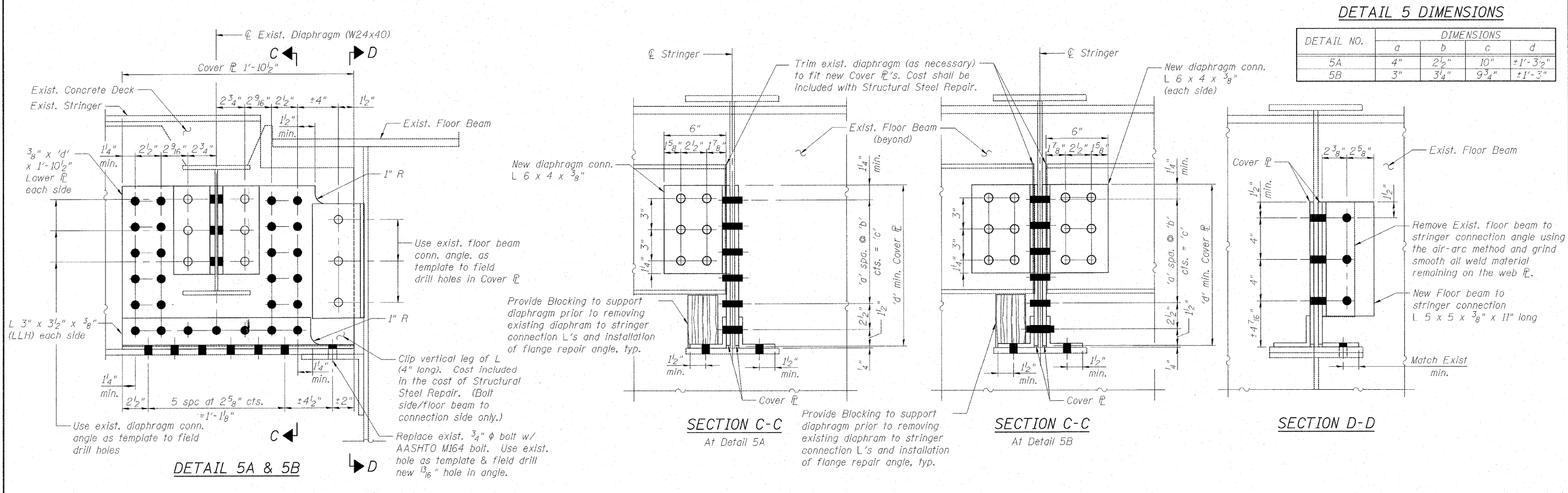
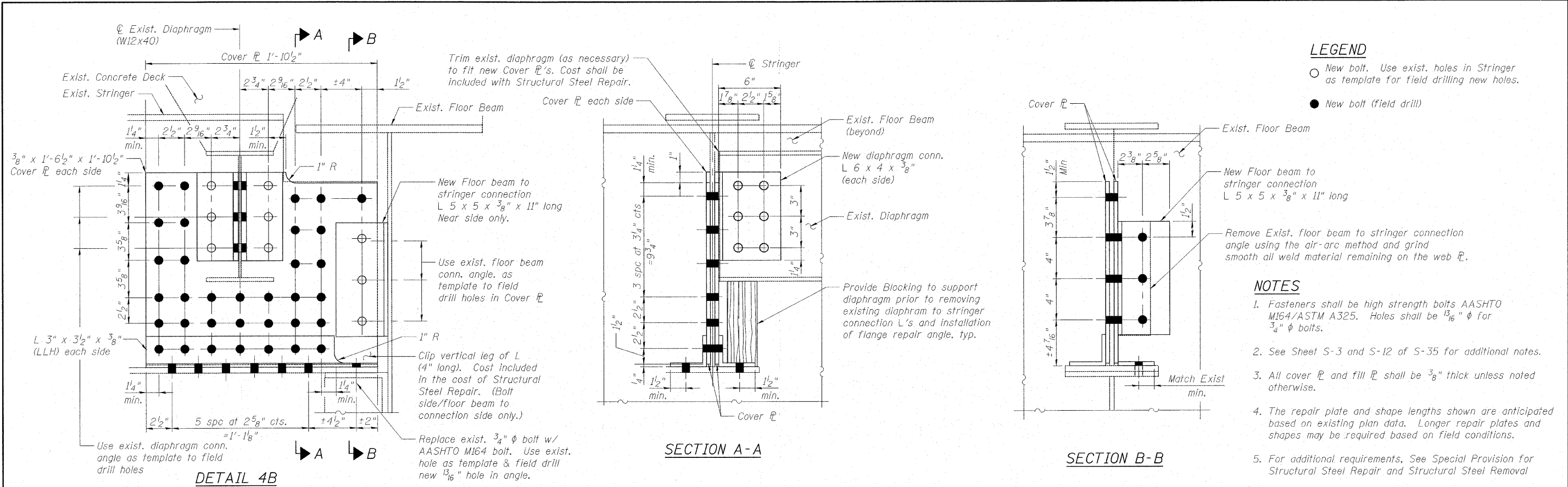


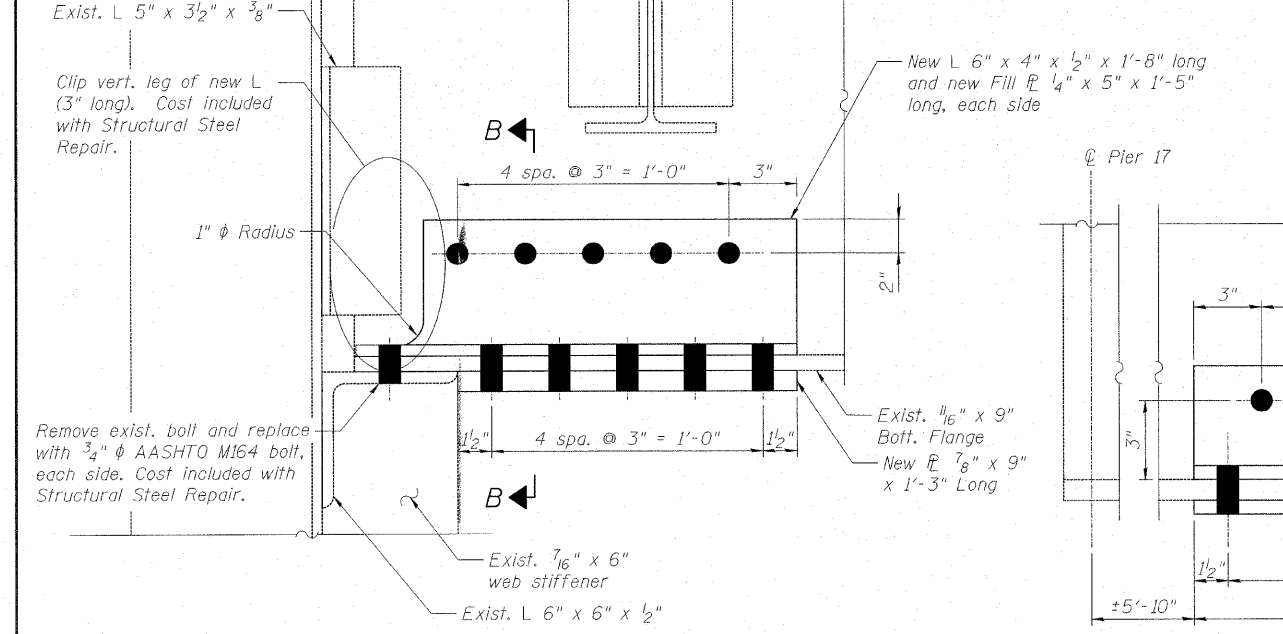
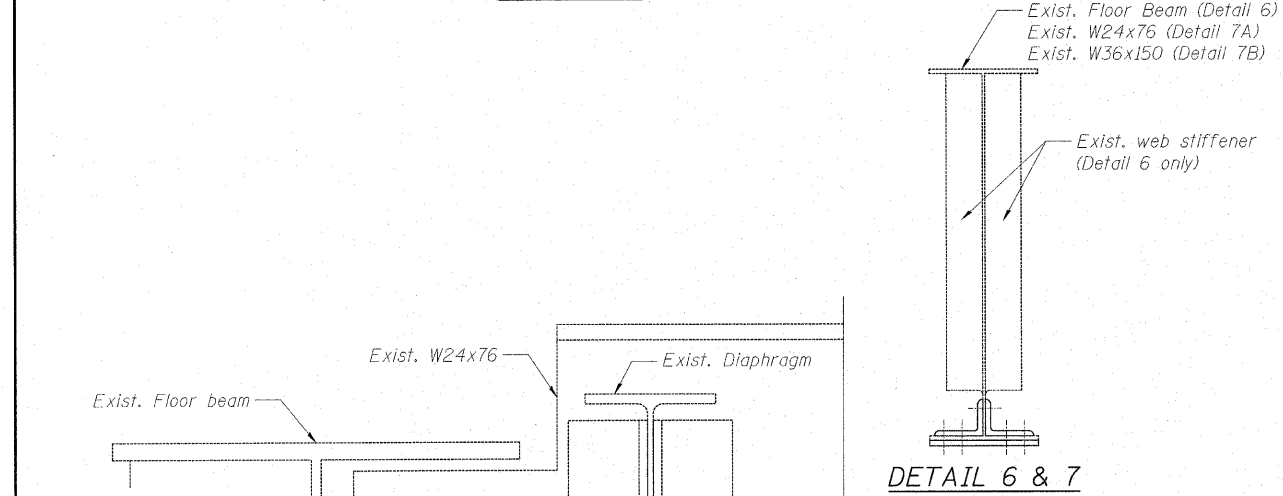
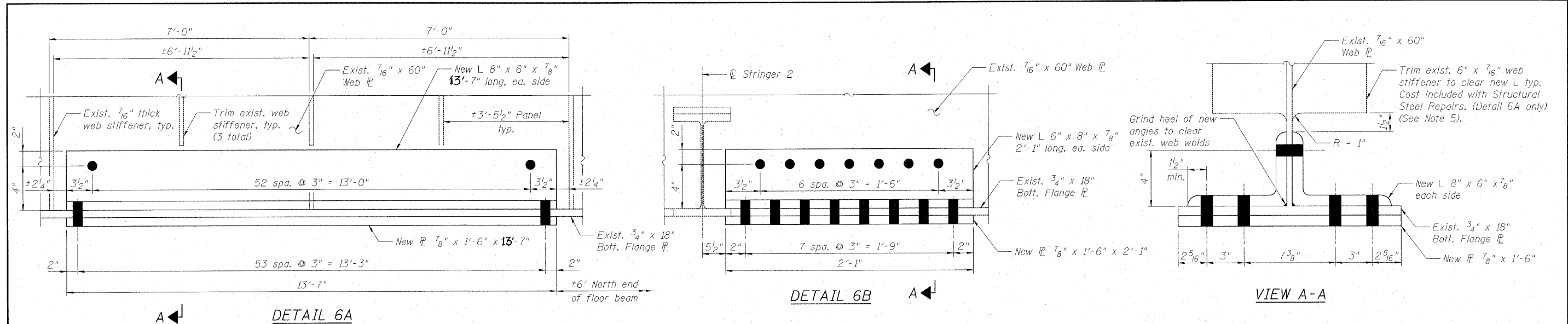
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIR DETAILS 4
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-16 OF S-35 SHEETS

F.A.T. RTE. 80	SECTION 99/48.4-1RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 125
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

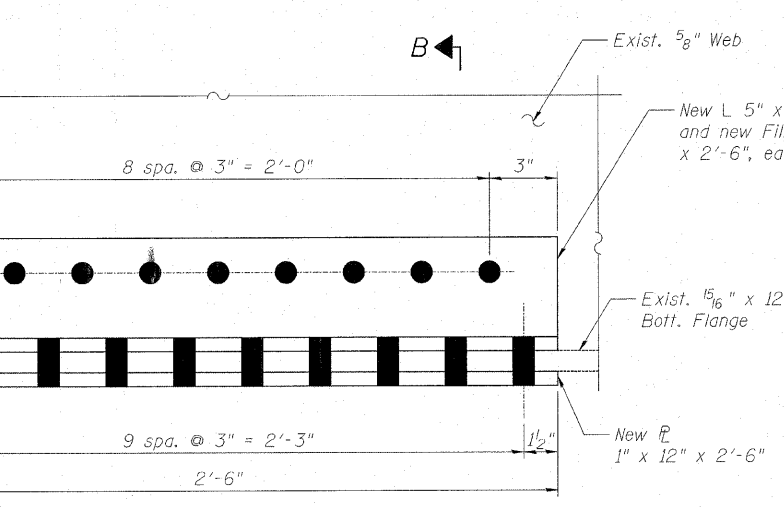




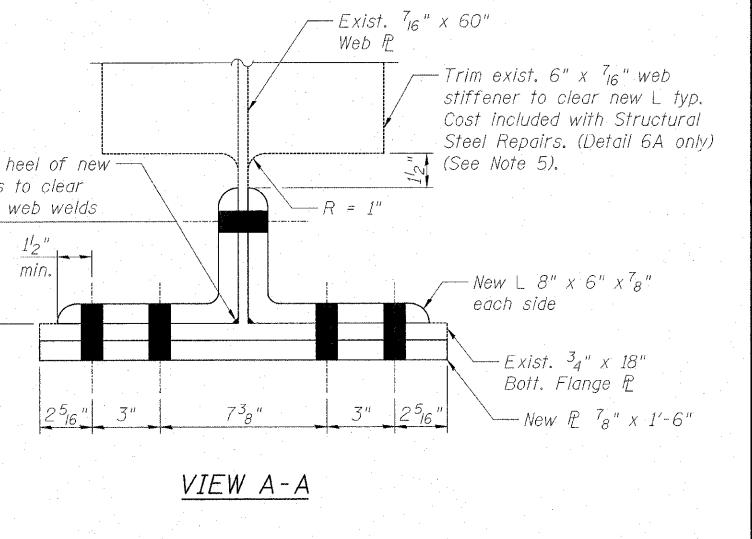
DETAIL 7A

NOTES

1. Cost of field drilling to be included in the cost of Structural Steel Repairs.
2. All holes to be field drilled $\frac{15}{16}$ " ϕ for $\frac{7}{8}$ " ϕ AASHTO M164/ASTM A325 bolts.
3. See Sheet S-3 and S-12 of S-35 for additional notes.
4. The repair plate and shape lengths shown are anticipated based on existing plan data. Longer repair plates and shapes may be required based on field conditions.
5. Procedure for cutting existing web stiffener:
 - A. Cut existing vertical stiffener and along web as shown, with a 1" R min. at web. The minimum distance from cut to face of web shall be the larger of $\frac{1}{4}$ " or web plate weld size, with removal of remaining material by grinding as described below. The cut shall be made parallel to the web without angling the cut towards the web. Equipment and method of cutting shall be approved by the Engineer. Any method of removal to be used shall ensure that no damage is done to the existing web, vertical stiffener or welds connecting these elements. Cutting shall be done in a manner such that the paint on the opposite face of the web is not damaged. If damage occurs, the damaged area shall be repainted at the contractor's expense and procedures shall be modified to prevent damage at subsequent removal locations.

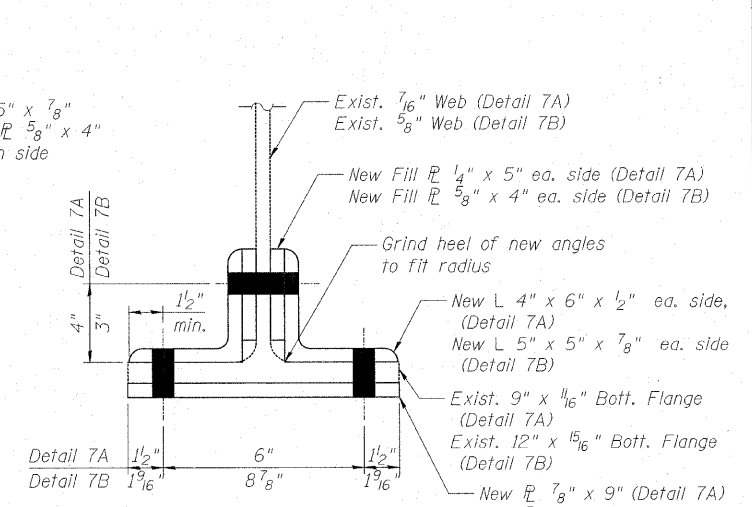


DETAIL 7B



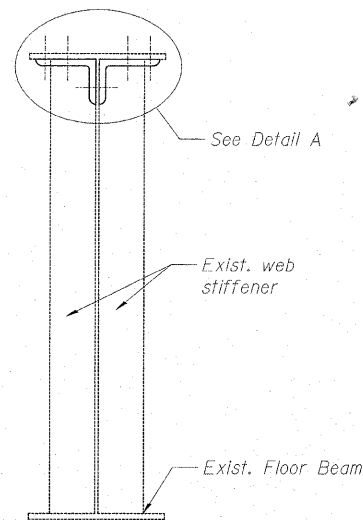
VIEW A-A

- NOTE 5 CONT'D:
- B. Remove material between cut and web by grinding and grind smooth at web surface and cut end stiffener. Web surfaces and cut end of stiffener shall have a roughness average (Ra) of 250 μ in. or less. Grinding equipment shall be approved by the Engineer. The grinding operation should not gouge the girder web.
 - C. The web surface at the modification shall be inspected using dye penetrant or magnetic particle (MT) methods. Any cracks found shall be identified and reported to the Bureau of Bridges and Structures for further disposition.
 - D. The exposed steel surfaces shall be cleaned and painted using an aluminum epoxy mastic primer according to Article 506.05 of the Standard Specifications.
 - E. Cost shall be included with Structural Steel Repair.
6. For additional requirements, See Special Provision for Structural Steel Repair and Structural Steel Removal

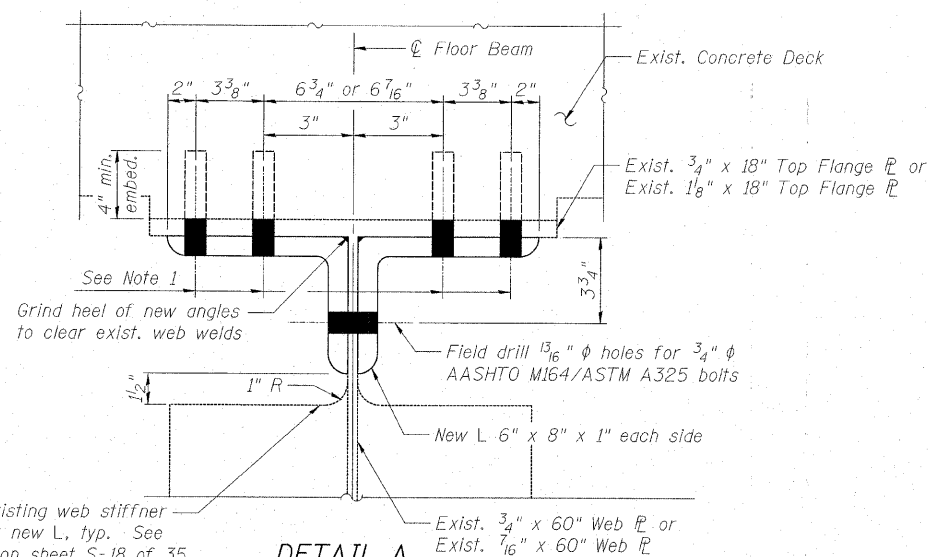


VIEW B-B

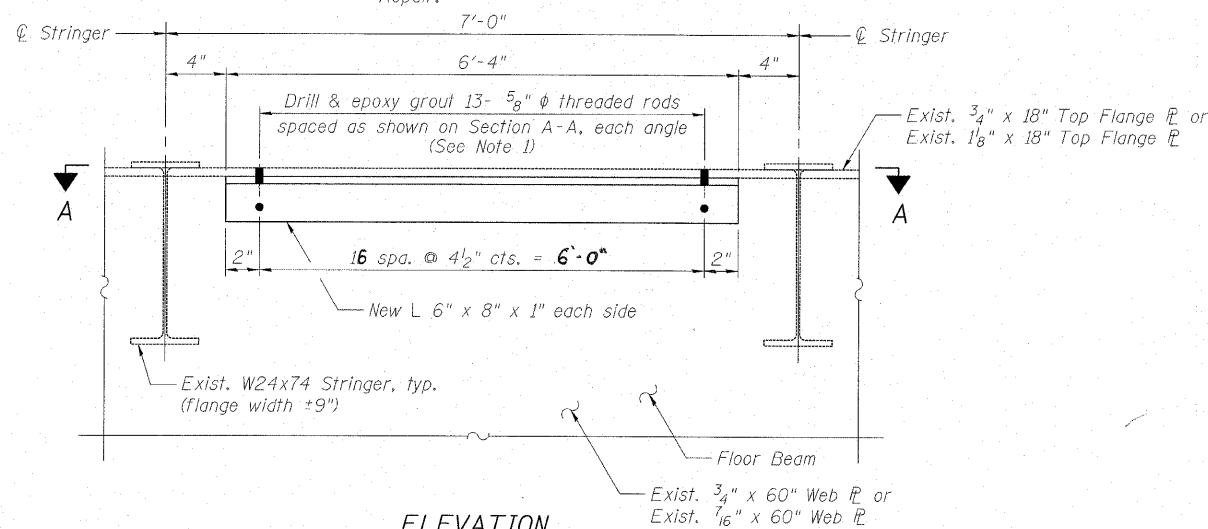
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DATE - 1/20/2011	DATE - 1/20/2011	REVISED -								



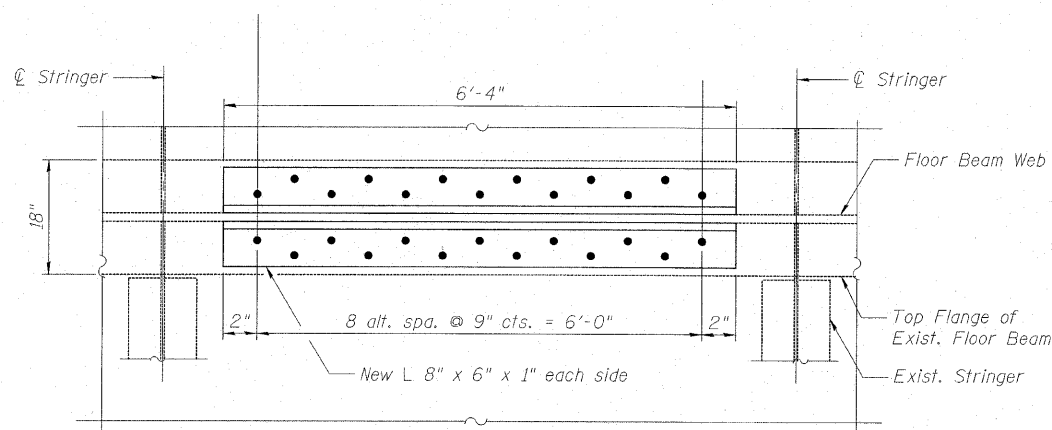
REPAIR DETAIL 12



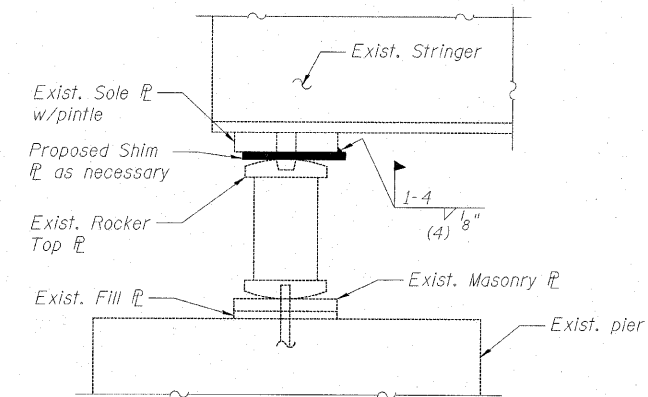
DETAIL A



ELEVATION



SECTION A-A



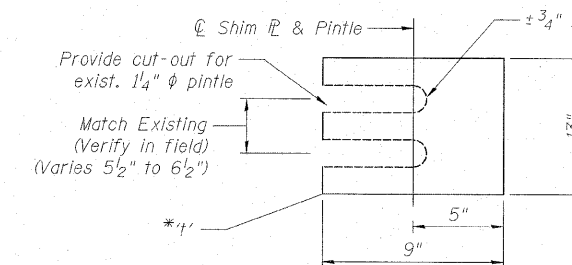
BEARING ELEVATION

REPAIR PROCEDURE

1. Jack existing superstructure.
2. Clean existing bearing between top of rocker and bottom of sole PL, removing pack rust accumulation.
3. Lower Beams
4. Provide shim between sole PL and rocker as necessary to ensure full bearing contact between sole PL and rocker.

NOTES

1. See Special Provision Jack and Clean Bearings.
2. Cleaning existing bearings and shim plates shall be included in the cost of Jack and Clean Bearings.
3. Shim plates shall be AASHTO M270 Gr 36 (ASTM A36).



SHIM PL DETAIL

NOTES

1. Field drill 1 3/16" phi hole 4" into existing concrete and install 3/4" phi expansion anchor bolts with min. pull out capacity of 1.5 kips. Expansion anchor bolts shall be carbon steel. Cost shall be included in the cost of Structural Steel Repair.
2. Cost of field drilling included in the cost of Structural Steel Repair.
3. The repair plate and shape lengths shown are anticipated based on existing plan data. Longer repair plates and shapes may be required based on field conditions.
4. See Sht S-3 and S-12 of S-35 for additional notes.
5. For additional requirements, See Special Provision for Structural Steel Repair and Structural Steel Removal

JACK & CLEAN BEARINGS SCHEDULE

Pier	Span	Stringer	Locations	*1'
3	4	2	1	3/8"
4	4	1-9	9	1/8"
4	5	1-8	8	1/8"-1/2"
12	12	8	1	1/8"
14	14	4	1	1/4"
14	15	4	1	1/8"
18	19	7	1	1/8"
20	21	7	1	1/8"
22	22	3-5, 7	4	1/32"-1/4"
E. Abut.	27	1	1	1/8"

*Thickness shown is the measured gap between top of rocker PL and bottom of sole PL. Contractor shall verify actual shim PL thickness (if required) after cleaning and lowering beams in place.

USER NAME = Inusion	DESIGNED - TL	REVISED -
PLOT SCALE = NTS	DRAWN - LAM	REVISED -
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	DATE - 1/20/2011	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

STEEL REPAIR DETAILS 7
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057
SHEET NO. S-19 OF S-35 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4)-IRS-3	WILL	203	128
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

DEAD LOAD & LIVE LOAD REACTIONS

Pier	Face	Dead Load		Live Load + Impact		TOTAL (Kips)	
		Fascia	Interior	Fascia	Interior	Fascia	Interior
3	West	33	38	46	46	80	84
	East	38	41	45	45	83	85
4	East	42	47	45	45	87	92
	West	42	47	45	45	87	92
5	East	41	46	45	45	86	91
	West	26	29	41	41	67	69
10	East	34	37	43	43	77	80
	West	33	37	43	43	76	80
11	East	34	37	43	43	77	80
	West	34	37	43	43	77	80
12	East	33	37	43	43	76	80
	West	34	37	43	43	77	80
14	East	34	37	43	43	77	80
	West	34	37	43	43	77	80
15	West	34	37	42	42	77	80
	East	36	40	43	43	80	83
16	West	35	39	43	43	78	82
	East	48	53	45	45	92	98
17	West	47	52	45	45	92	97
	East	47	52	45	45	92	97
18	West	47	52	45	45	92	97
	East	53	63	56	56	109	119
19	West	53	63	56	56	109	119
	East	46	52	45	45	90	96
20	East	48	56	56	56	103	112
	West	46	52	45	45	90	96
22	West	46	52	45	45	90	96
	East	49	54	51	51	100	105
26	West	94	106	58	58	152	164

LEGEND:

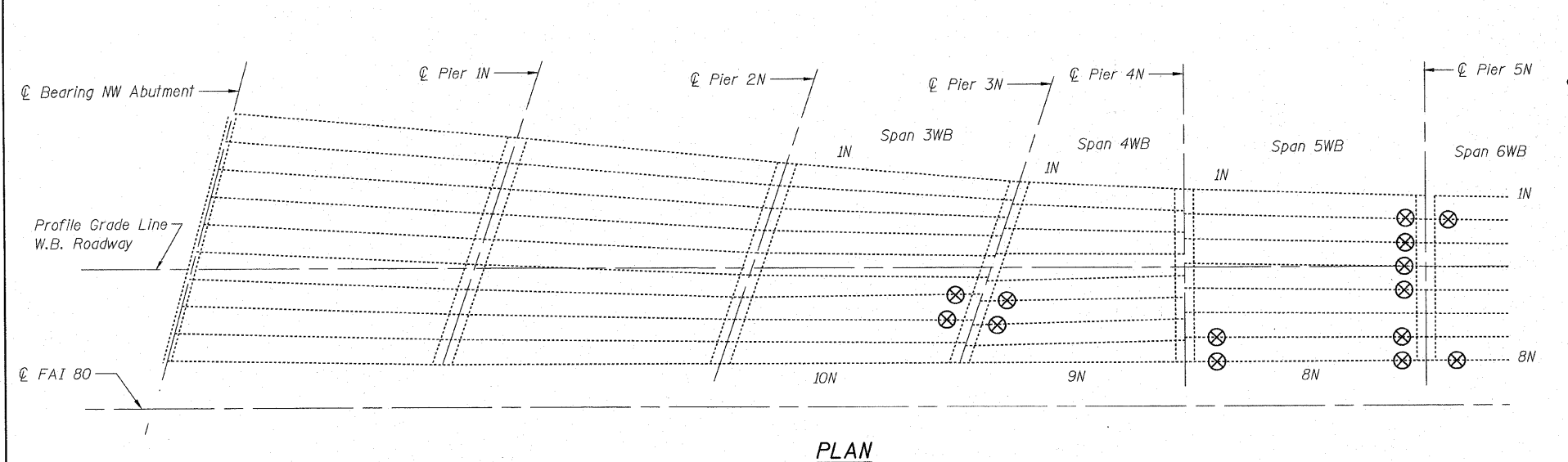
⊗ Temporary Shoring and Cribbing, Special

BILL OF MATERIAL

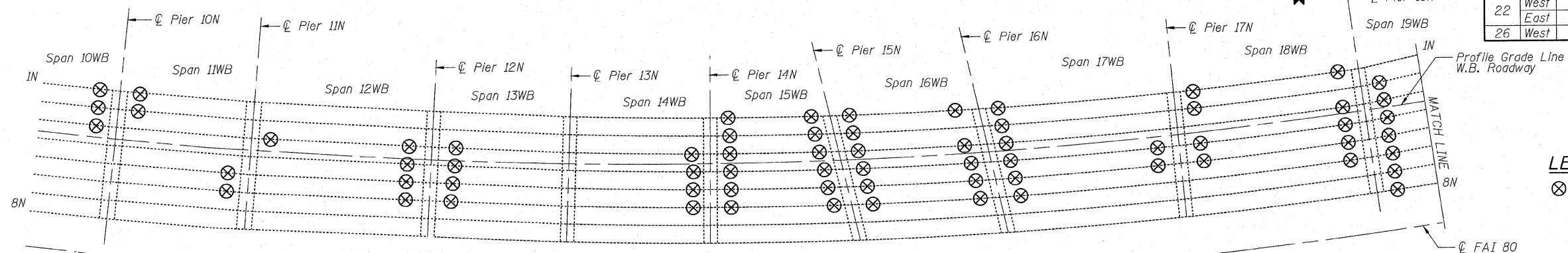
ITEM	UNIT	TOTAL
Temporary Shoring and Cribbing, Special	Each	103

NOTES:

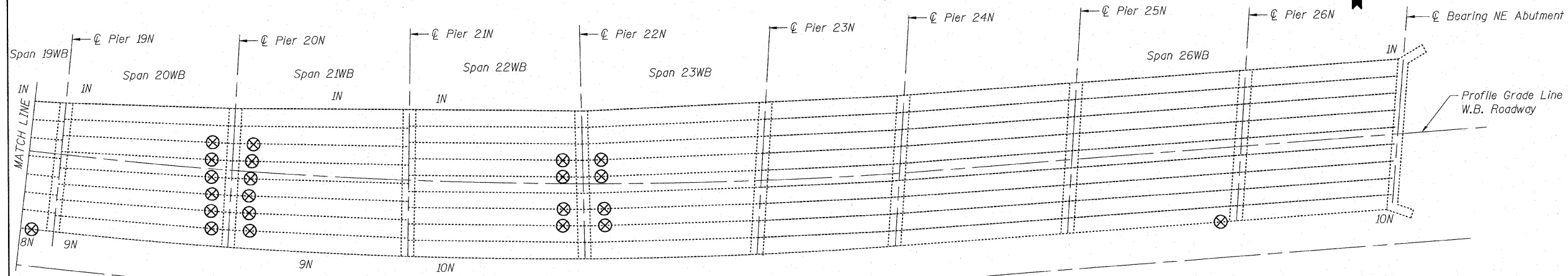
1. Temporary shoring and cribbing is required for pier repairs.
2. Contractor to design shoring system for dead load plus live load plus impact. See Special Provision for Temporary Shoring and Cribbing, Special.



PLAN



PLAN



PLAN

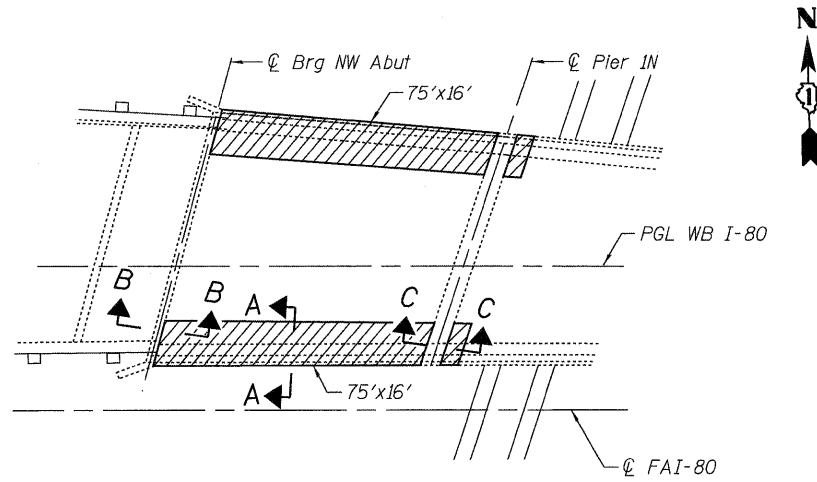
DESIGNED - RCW/MRI	REVISIONS -
DRAWN - RCW	REVISIONS -
CHECKED - PCA	REVISIONS -
DATE - 2/8/2011	REVISIONS -



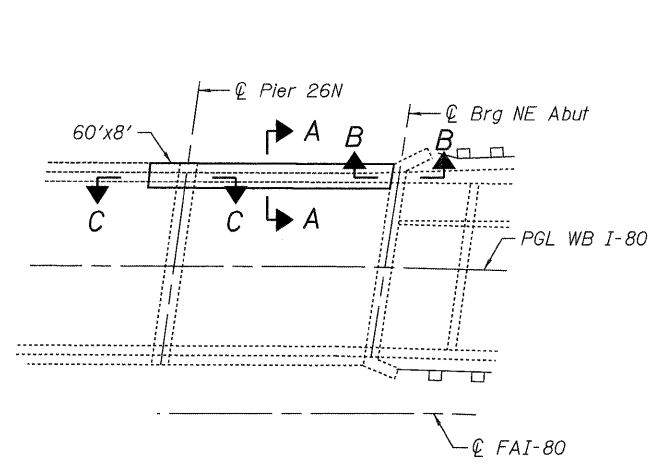
**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY SHORING & CRIBBING LOCATIONS - SUBSTRUCTURE
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057**
SHEET NO. S-20 OF 35 SHEETS

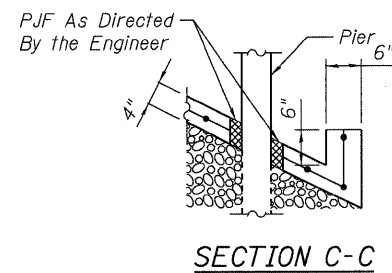
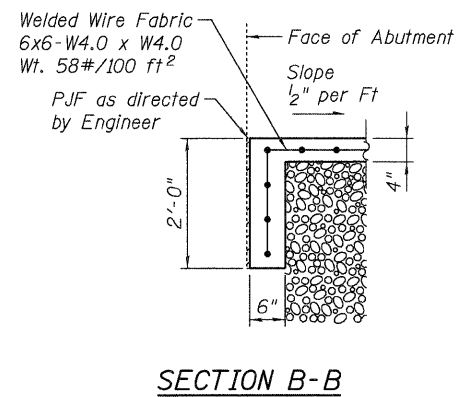
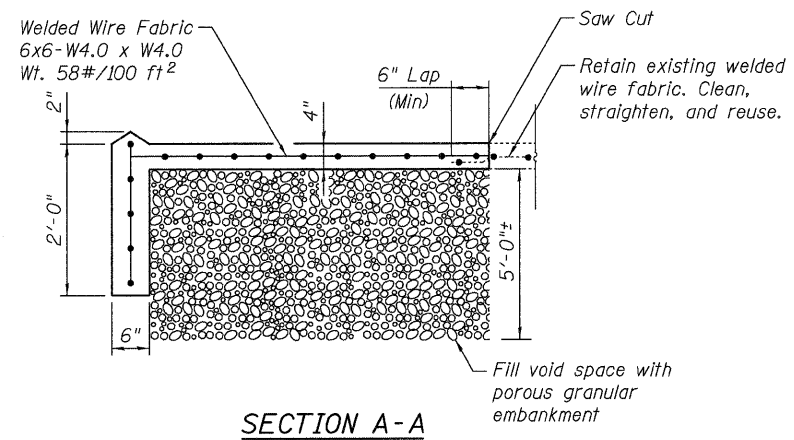
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	129
CONTRACT NO. 60M66				
FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				



PLAN - WEST SLOPEWALL



PLAN - EAST SLOPEWALL



BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu.Yd.	533
Slope Wall Removal	Sq.Yd.	320
Slope Wall 4 Inch	Sq.Yd.	320

LEGEND:

Remove and Replace

NOTES:

1. Areas of proposed slope wall removal and replacement are estimated. Actual location and dimensions are to be determined by the Engineer during construction.
2. Cost of saw cuts and P.J.F. included in the cost of Slope Wall 4 Inch.
3. Contractor to verify 4" slope wall thickness and make necessary approved changes if slope wall is 6".

DESIGNED - PCA	REVISED -
USER NAME = lsupencheck	DRAWN - MN
PLOT SCALE = 1:1	CHECKED - MEA
PLOT DATE = 19-JAN-2011	DATE = 1/21/2011
FILE NAME = IP_PWP\dms34565\0998057-60M66-021-SLOPEW.DGN	

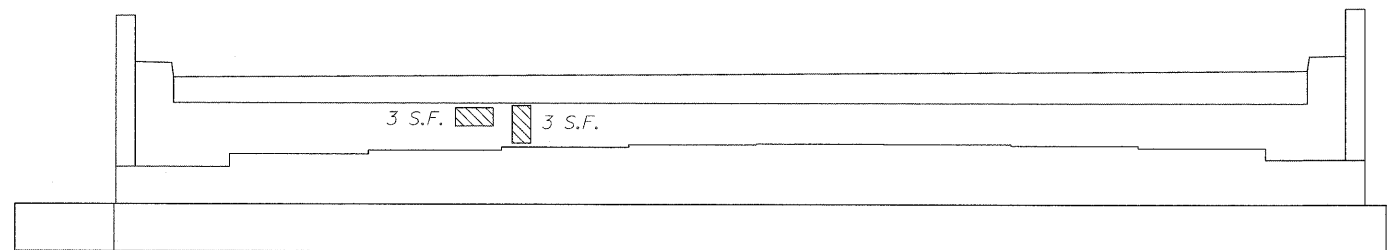


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION


SLOPEWALL REPAIRS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057


SHEET NO. 5-21 OF 35 SHEETS

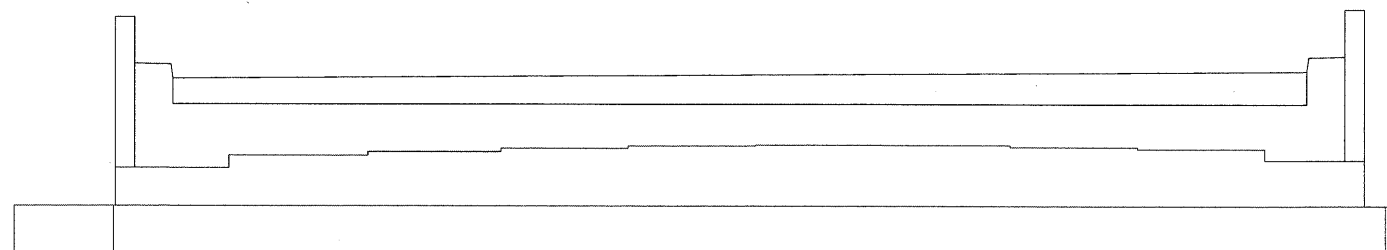
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	130
				CONTRACT NO. 60M66
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				




WEST ABUTMENT


 Structural Repair of Concrete (Depth < 5") = 6 Sq. Ft.

 Structural Repair of Concrete (Depth > 5") = 0 Sq. Ft.



EAST ABUTMENT

 Structural Repair of Concrete (Depth < 5") = 0 Sq. Ft.

 Structural Repair of Concrete (Depth > 5") = 0 Sq. Ft.

DESIGNED - DF	REVISED -
USER NAME = mueller	DRAWN - LAM
PLOT SCALE = NTS	CHECKED - BLU
PLOT DATE = 1/19/2011 2:46:09 PM	DATE - 1/20/2011
REVISED -	REVISED -
REVISED -	REVISED -

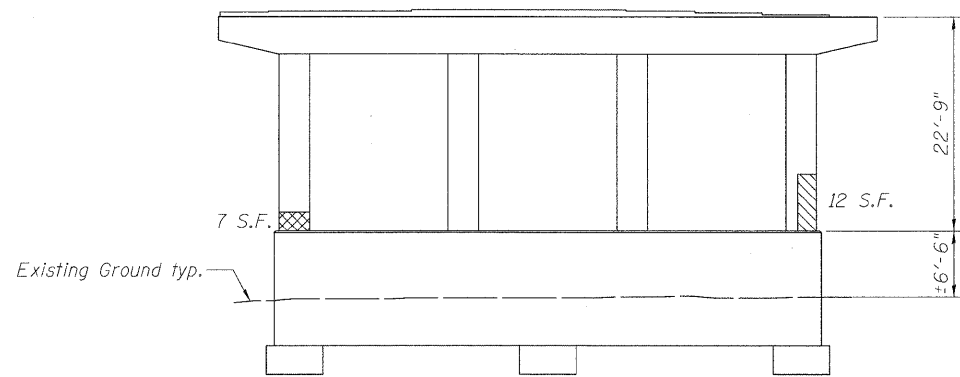


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

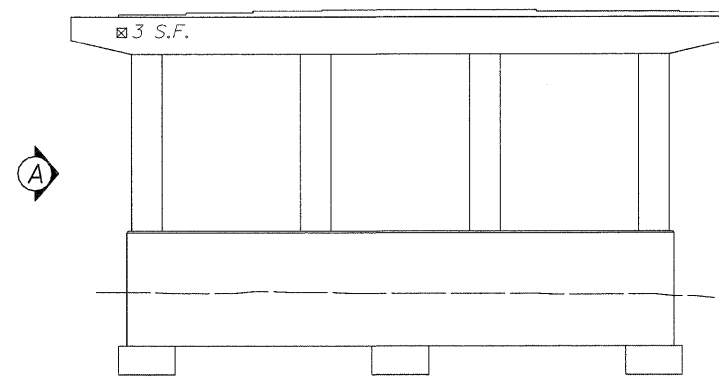
**ABUTMENT REPAIR DETAILS
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057**

SHEET NO. S-22 OF S-35 SHEETS

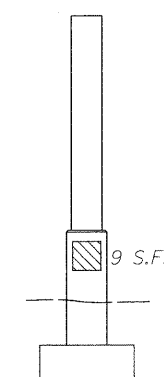
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	131
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



WEST ELEVATION
(Looking East)



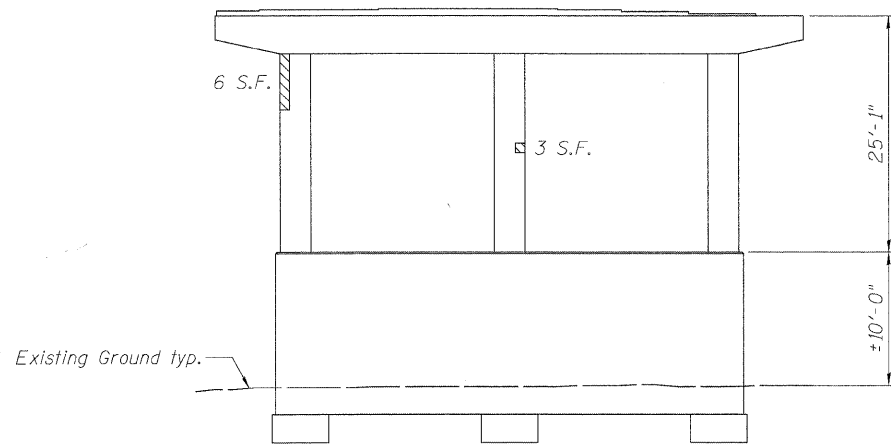
EAST ELEVATION
(Looking West)



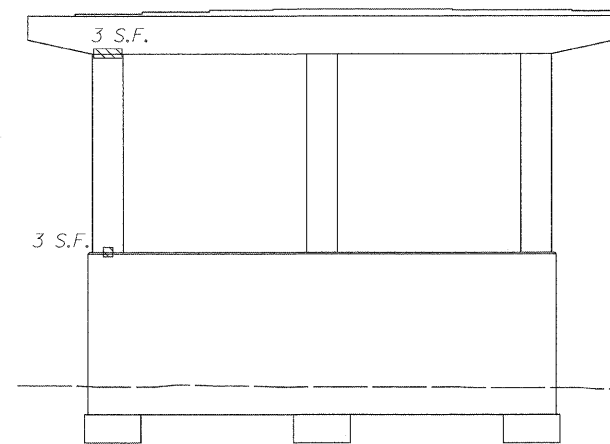
VIEW A

PIER 1

- Structural Repair of Concrete (Depth < 5") = 21 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 10 Sq. Ft.



WEST ELEVATION
(Looking East)



EAST ELEVATION
(Looking West)

PIER 2

- Structural Repair of Concrete (Depth < 5") = 15 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 0 Sq. Ft.

DESIGNED - DF	REVISED -
DRAWN - LAM	REVISED -
CHECKED - BLU	REVISED -
DATE - 1/20/2011	REVISED -

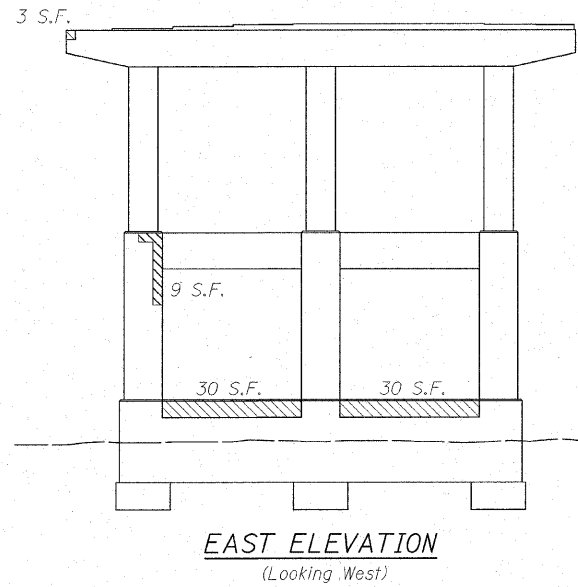
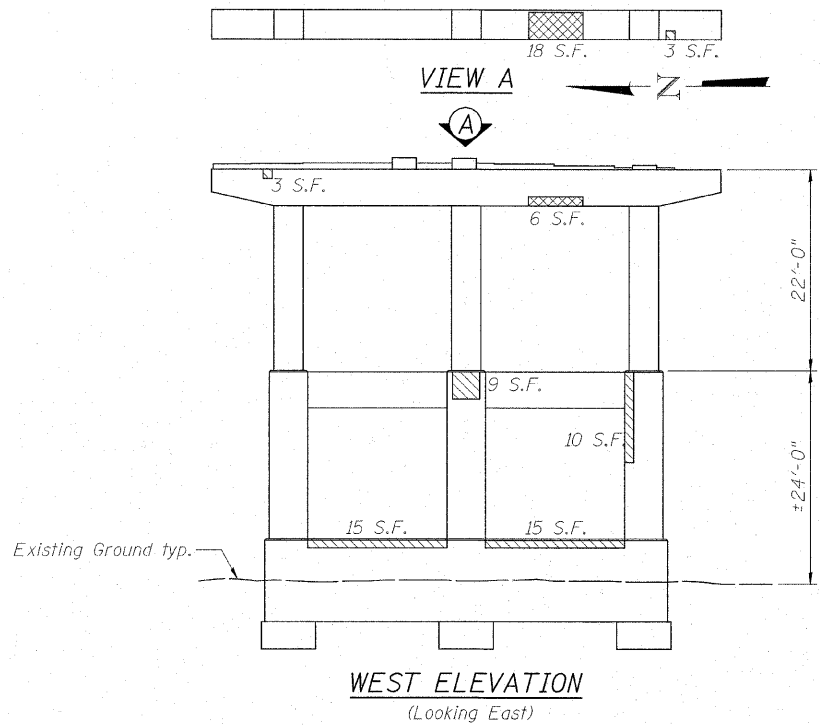


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-23 OF S-35 SHEETS

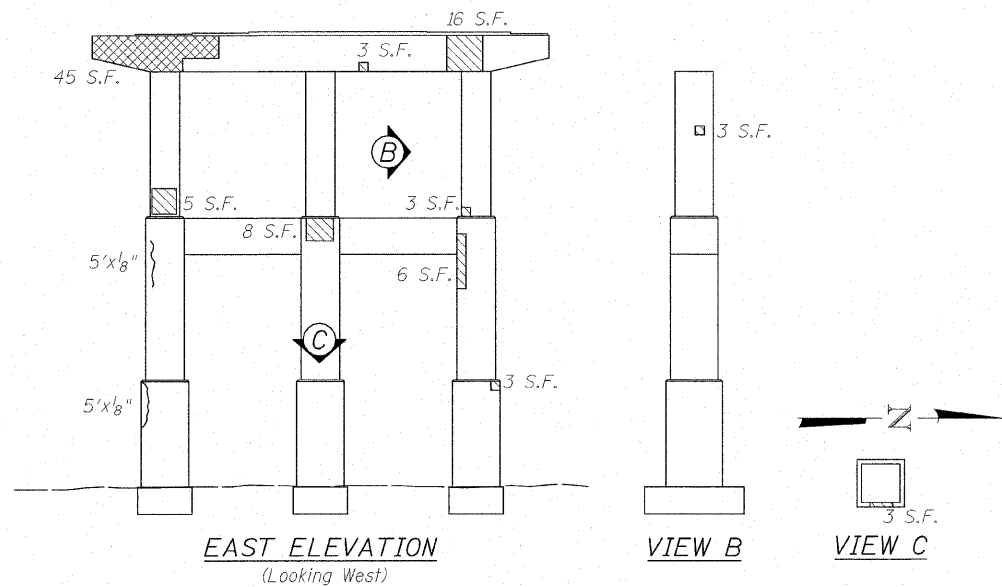
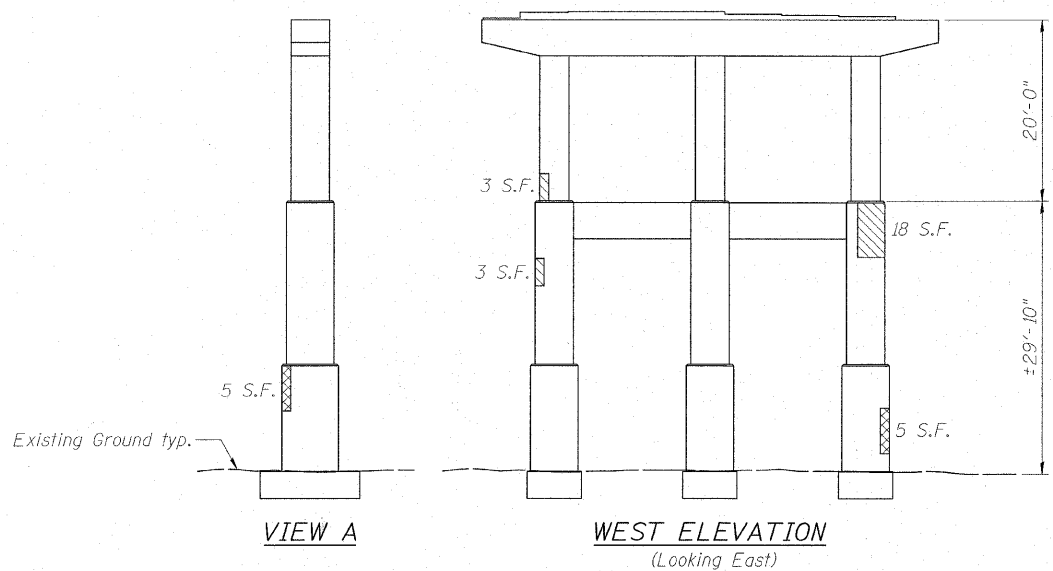
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	132
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60M66	



PIER 3

- Structural Repair of Concrete (Depth < 5") = 127 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 24 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



PIER 4

- Structural Repair of Concrete (Depth < 5") = 74 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 55 Sq. Ft.
- Epoxy Crack Injection

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.

DESIGNED - DF	REVISIONS
DRAWN - LAM	REVISIONS
CHECKED - BLU	REVISIONS
DATE - 1/20/2011	REVISIONS

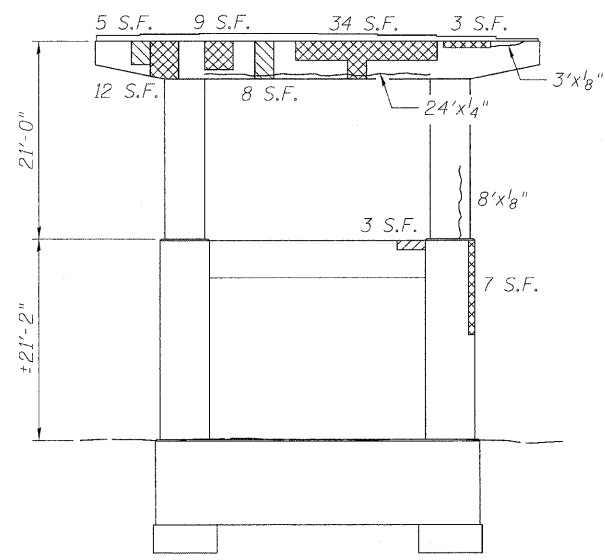


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

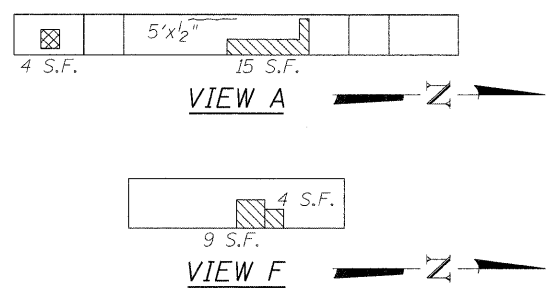
**PIER REPAIR DETAILS 2
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057**

F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4)-1RS-3	WILL	203	133
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		

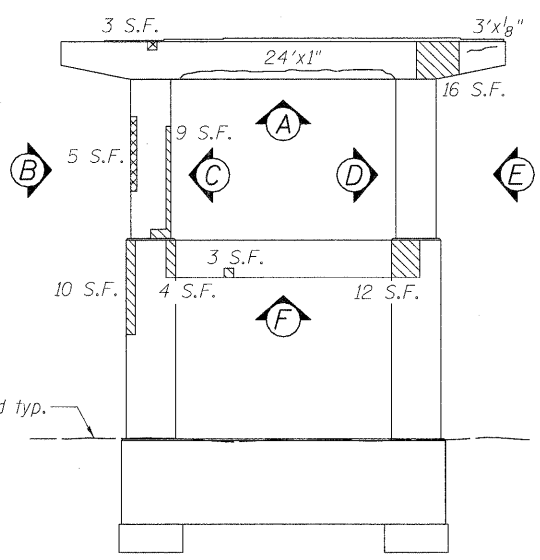
SP0958\05\CADD\VCADD Sheets\0990057-60M66-024-PR3-4.dgn



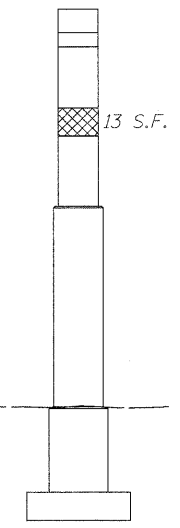
WEST ELEVATION
(Looking East)



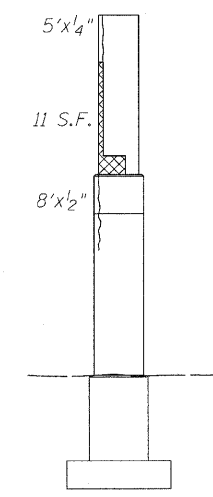
PIER 5



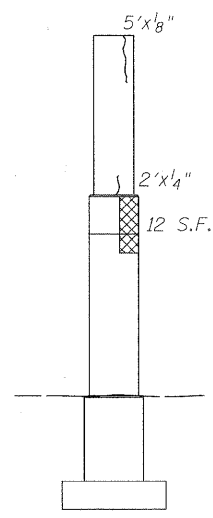
EAST ELEVATION
(Looking West)



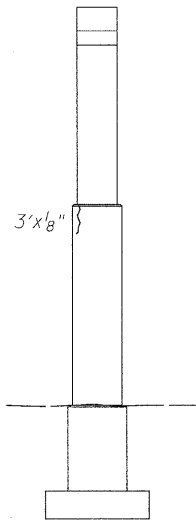
VIEW B



VIEW C



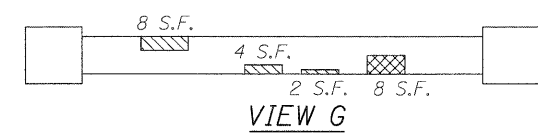
VIEW D



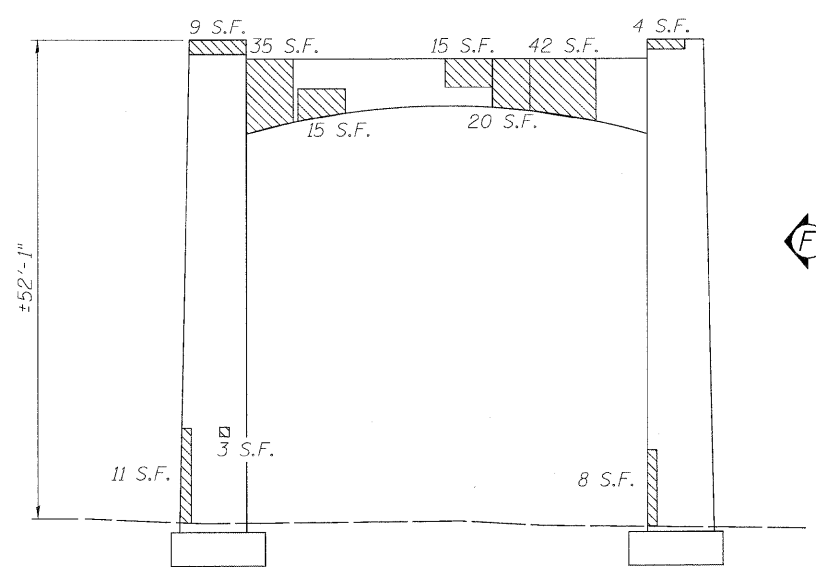
VIEW E

Structural Repair of Concrete (Depth < 5") = 98 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 113 Sq. Ft.
 Epoxy Crack Injection

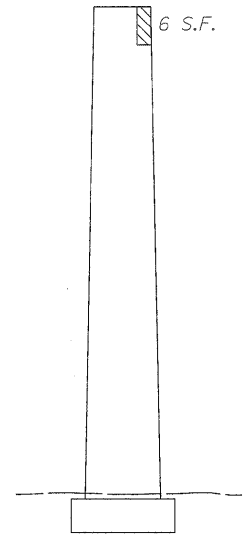
NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



VIEW G

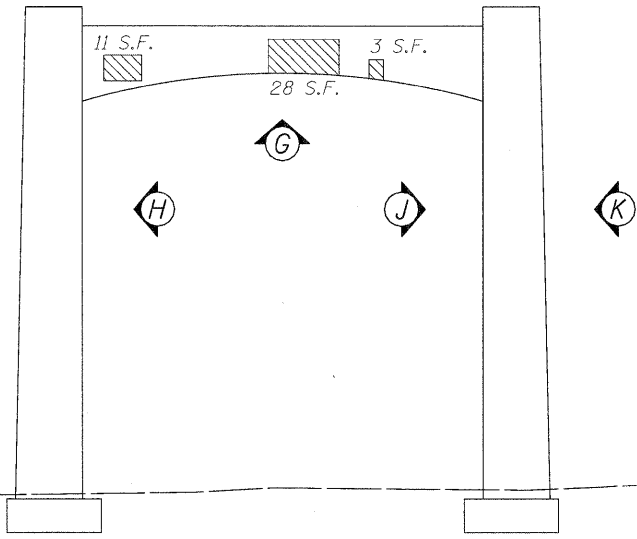


WEST ELEVATION
(Looking East)

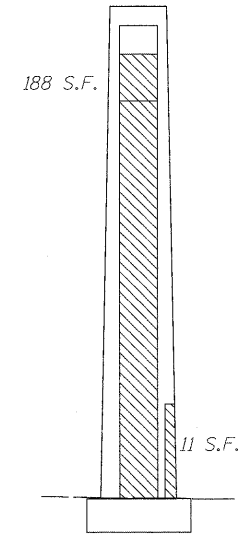


VIEW F

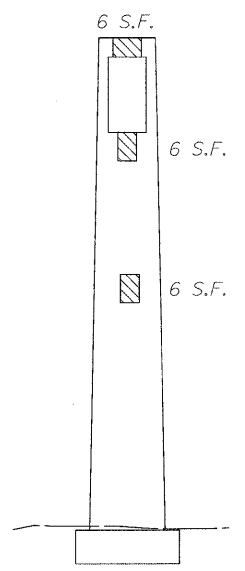
Existing Ground typ.



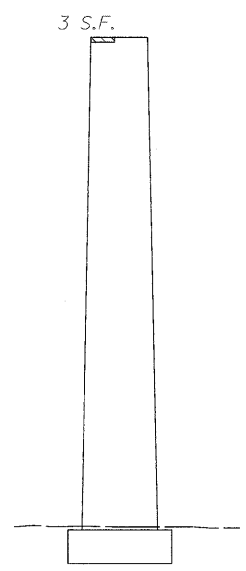
EAST ELEVATION
(Looking West)



VIEW H



VIEW J



VIEW K

Structural Repair of Concrete (Depth < 5") = 444 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 8 Sq. Ft.

PIER 6

DESIGNED - DF	REVISED -
USER NAME = Inueller	REVISED -
DRAWN - LAM	REVISED -
PLOT SCALE = NTS	REVISED -
CHECKED - BLU	REVISED -
DATE - 1/20/2011	REVISED -
PLOT DATE = 1/9/2011 2:48:33 PM	

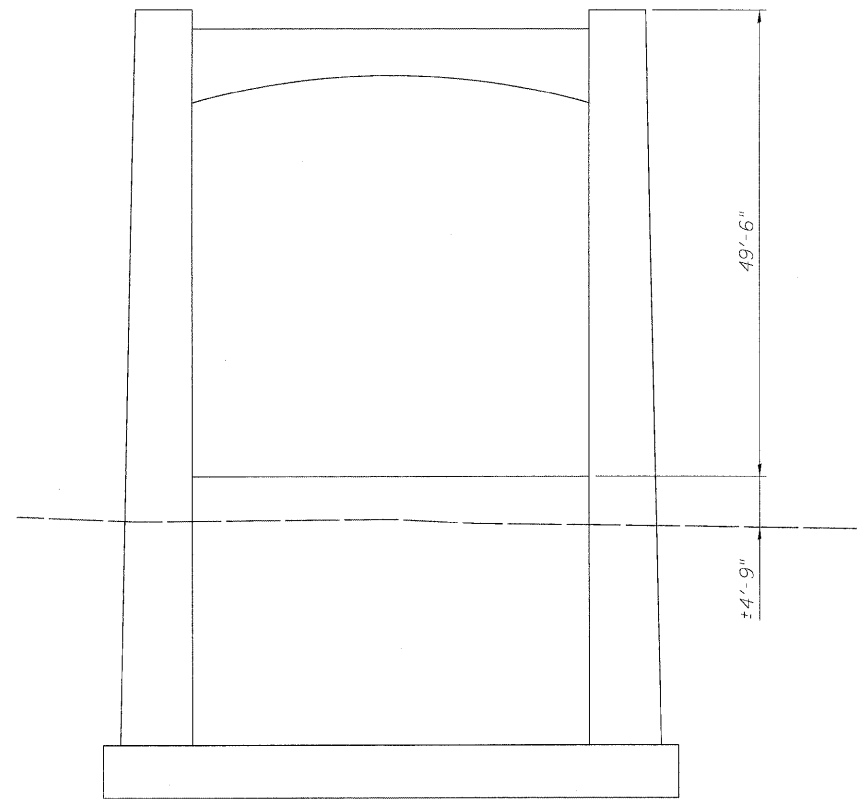


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

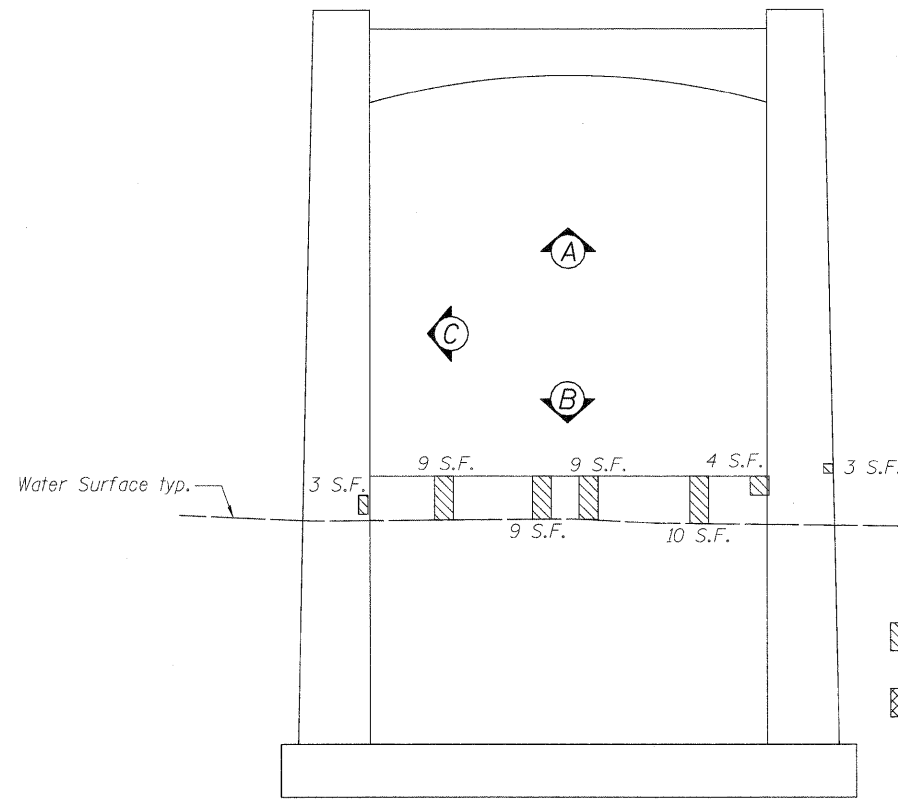
PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-25 OF S-35 SHEETS

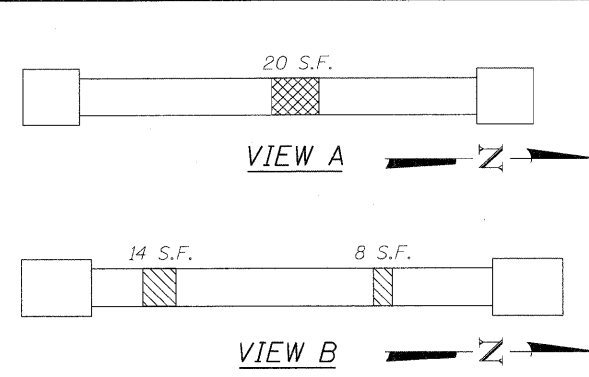
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	134
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60M66	



WEST ELEVATION
(Looking East)

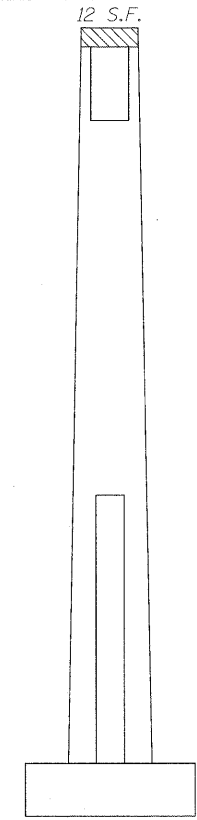


EAST ELEVATION
(Looking West)

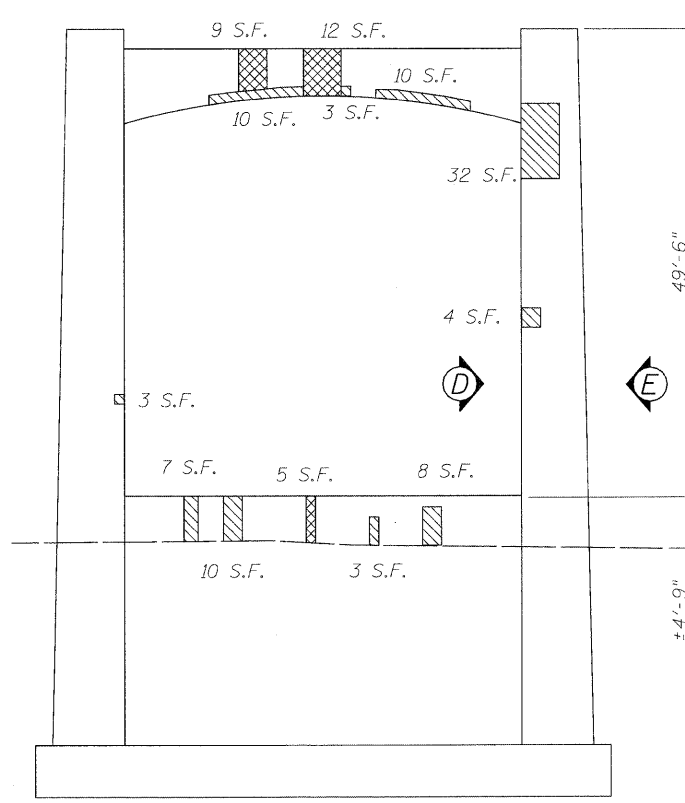


PIER 7

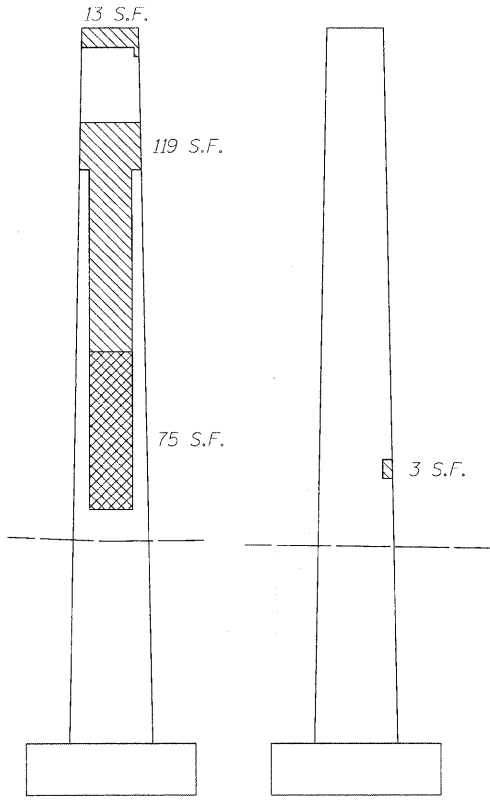
Structural Repair of Concrete (Depth ≤ 5") = 81 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 20 Sq. Ft.



VIEW C

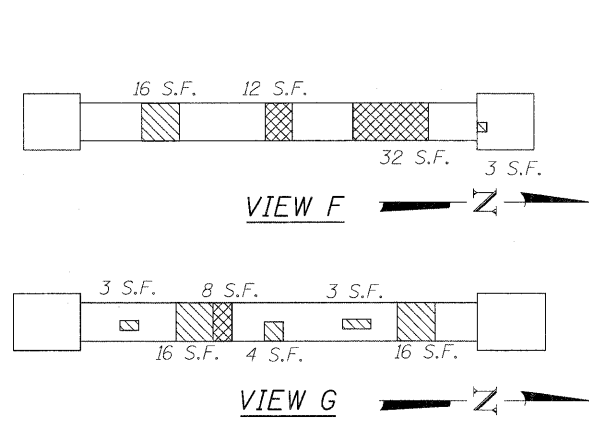


WEST ELEVATION
(Looking East)



VIEW D

VIEW E



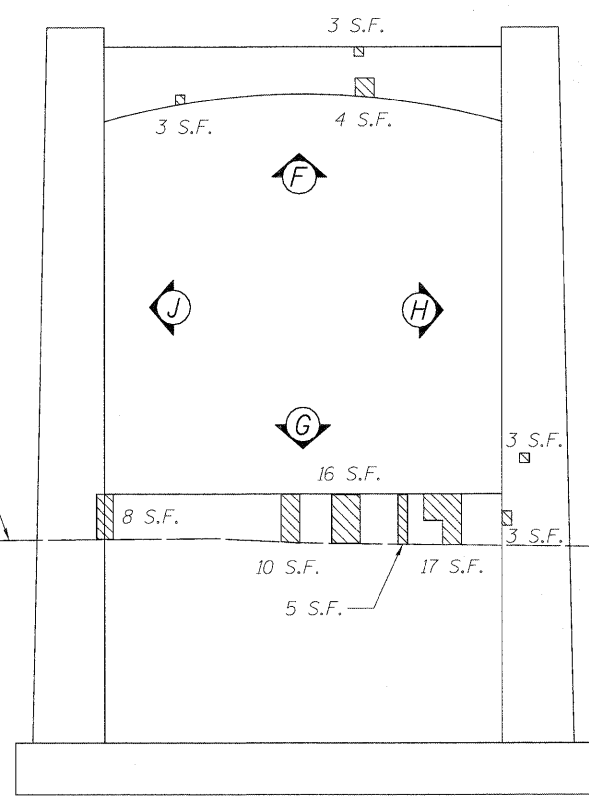
VIEW F

VIEW G

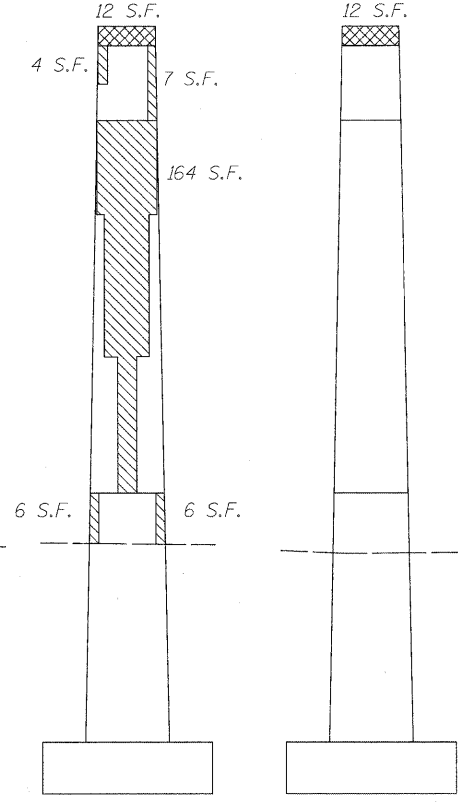
Water Surface typ.

PIER 8

Structural Repair of Concrete (Depth ≤ 5") = 545 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 177 Sq. Ft.



EAST ELEVATION
(Looking West)



VIEW H

VIEW J

DESIGNED - DF	REVISED -
DRAWN - LAM	REVISED -
CHECKED - BLU	REVISED -
DATE - 1/20/2011	REVISED -

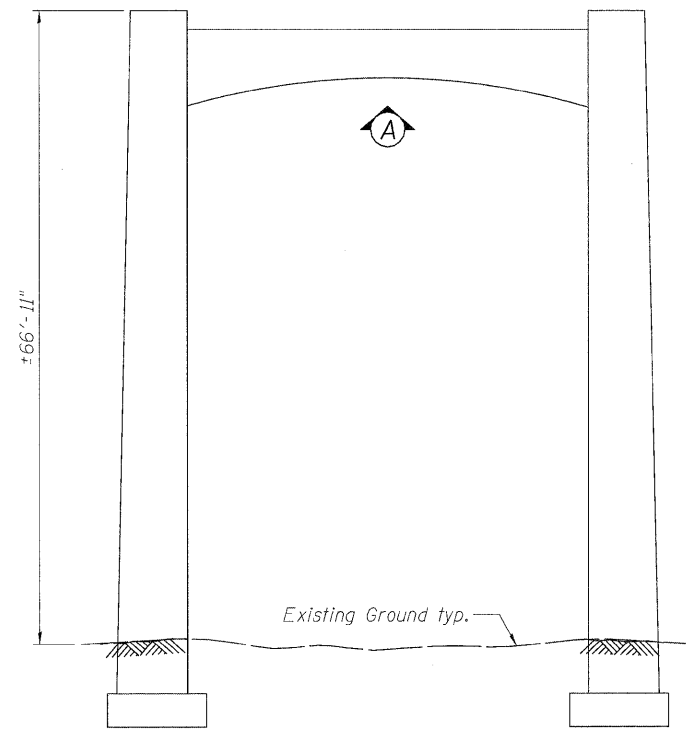


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

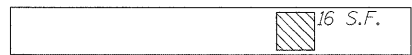
PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

F.A.I. RTE. 80	SECTION 99(4&4-1)RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 135
FED. ROAD DIST. NO. [ILLINOIS] FED. AID PROJECT			CONTRACT NO. 60M66	

SN056N05.CADD\CADD Sheets\0990057-60M66-026-PR7-8.dgn



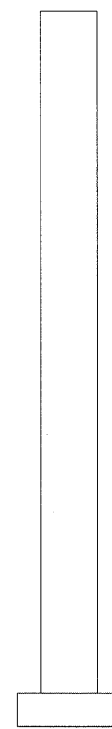
WEST ELEVATION
(Looking East)



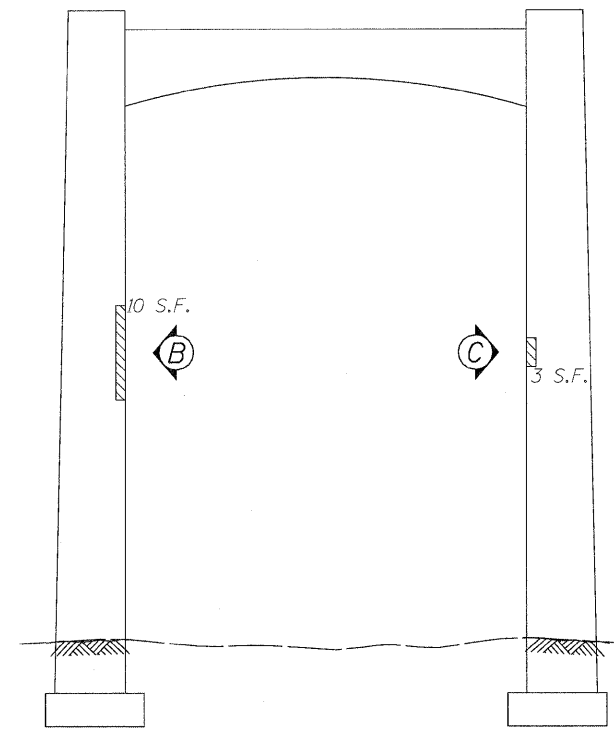
VIEW A

PIER 9

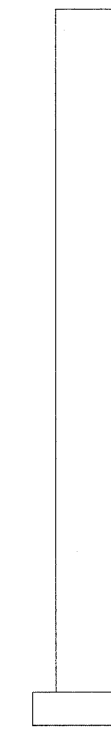
- Structural Repair of Concrete (Depth ≤ 5") = 29 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 0 Sq. Ft.



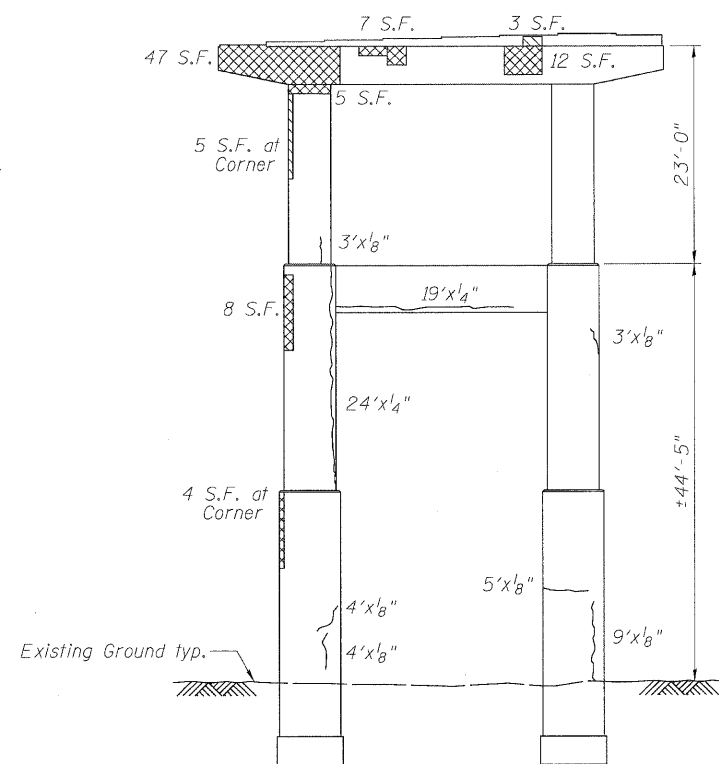
VIEW B



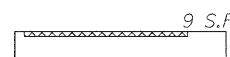
EAST ELEVATION
(Looking West)



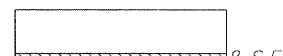
VIEW C



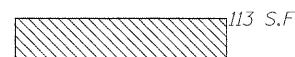
WEST ELEVATION
(Looking East)



VIEW D



VIEW E



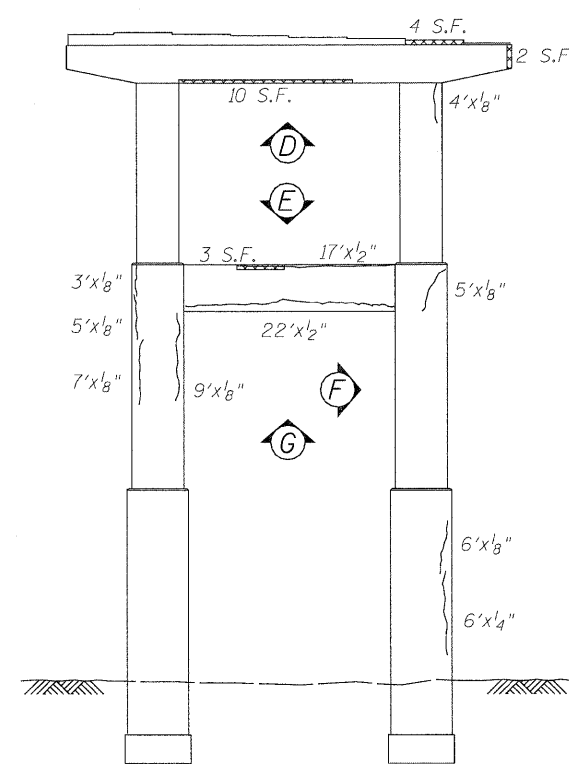
VIEW G

PIER 10

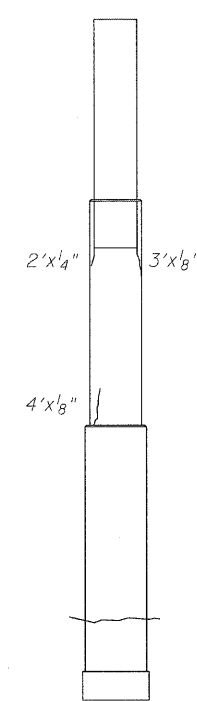
- Structural Repair of Concrete (Depth ≤ 5") = 129 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 111 Sq. Ft.

Epoxy Crack Injection

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



EAST ELEVATION
(Looking West)



VIEW F

USER NAME = lrueler	DESIGNED - DF	REVISED -
PLOT SCALE = NTS	DRAWN - LAM	REVISED -
PLOT DATE = 1/19/2011 2:18:5 PM	CHECKED - BLU	REVISED -
	DATE - 1/20/2011	REVISED -

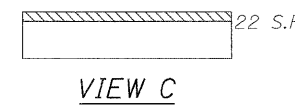
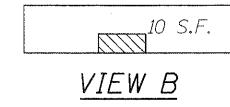
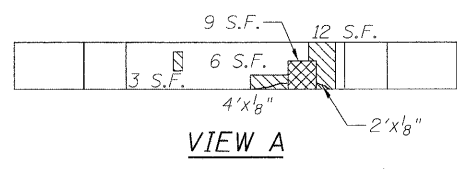
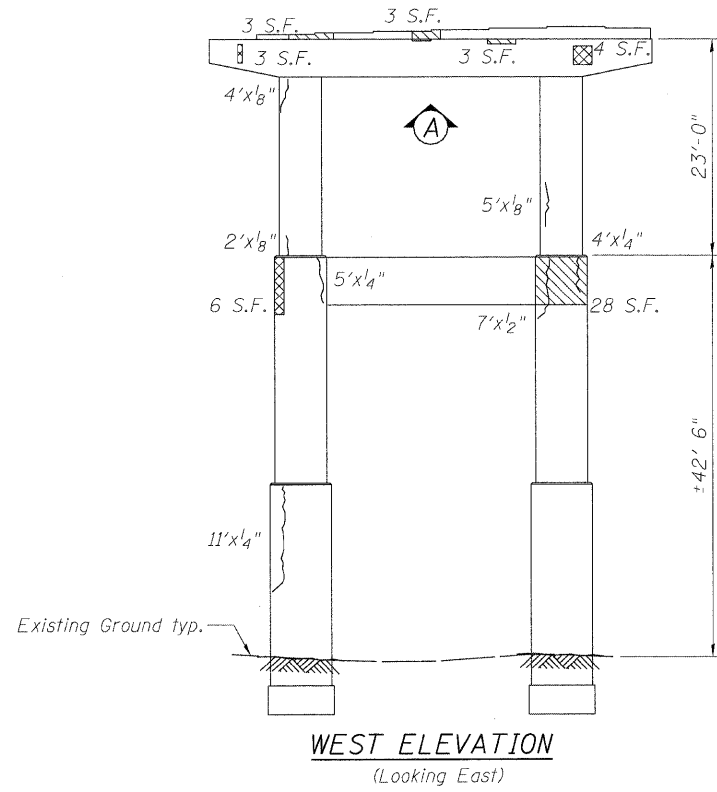


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

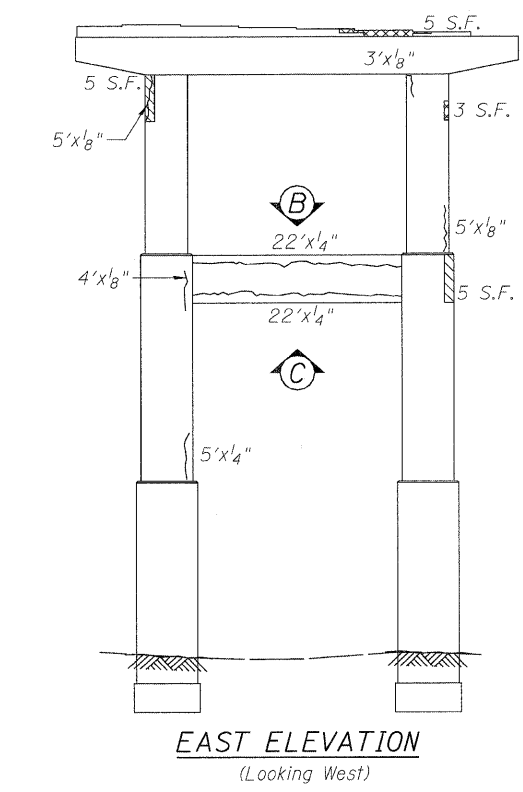
PIER REPAIR DETAILS
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-27 OF S-35 SHEETS

F.A.I. RTE. 80	SECTION 99(4&4-1)RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 136
FED. ROAD DIST. NO.		ILLINOIS FED. AID PROJECT		
CONTRACT NO. 60M66				

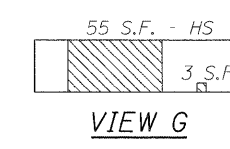
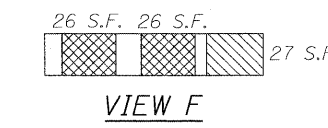
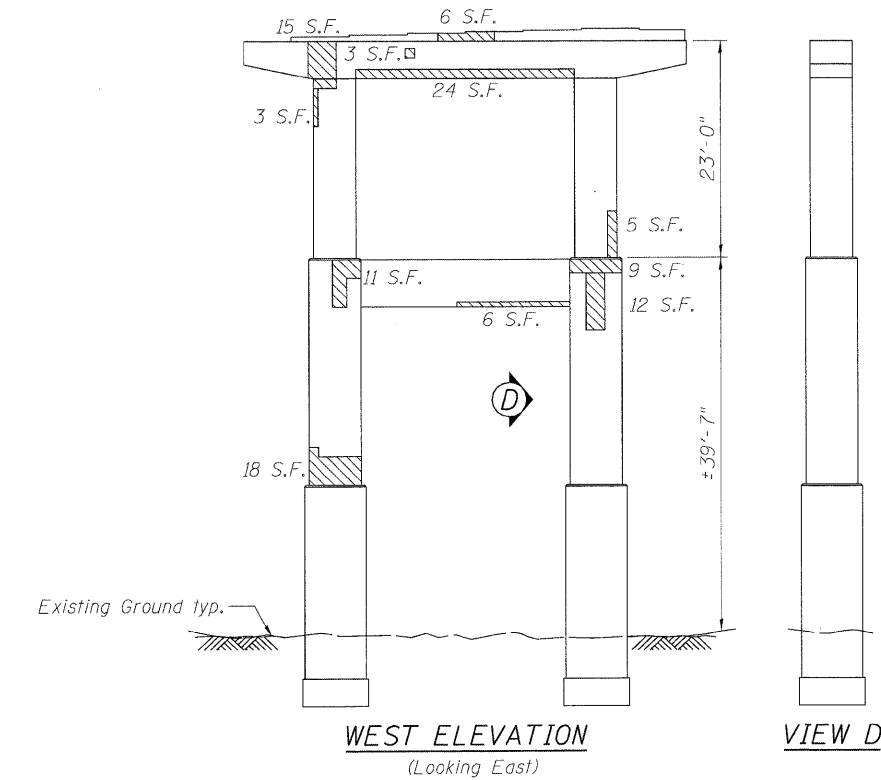


PIER 11

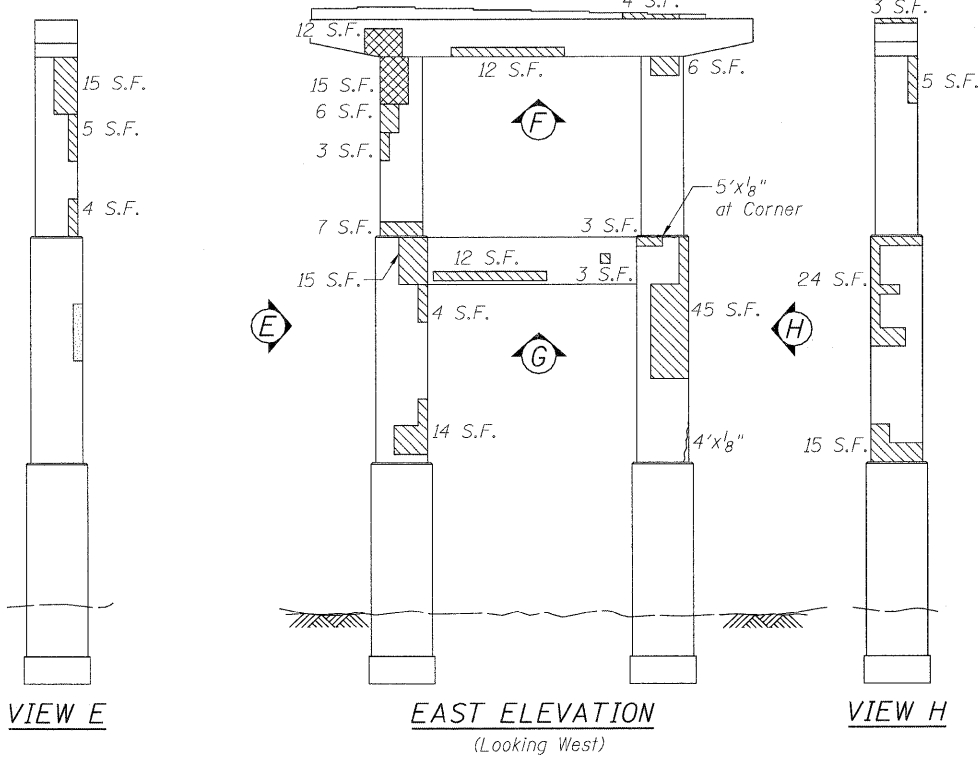


Structural Repair of Concrete (Depth ≤ 5") = 100 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 30 Sq. Ft.
 Epoxy Crack Injection

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



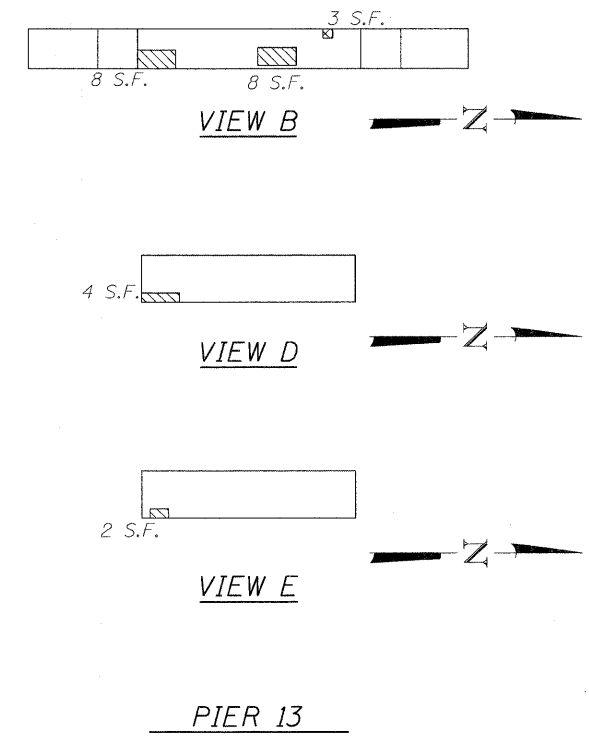
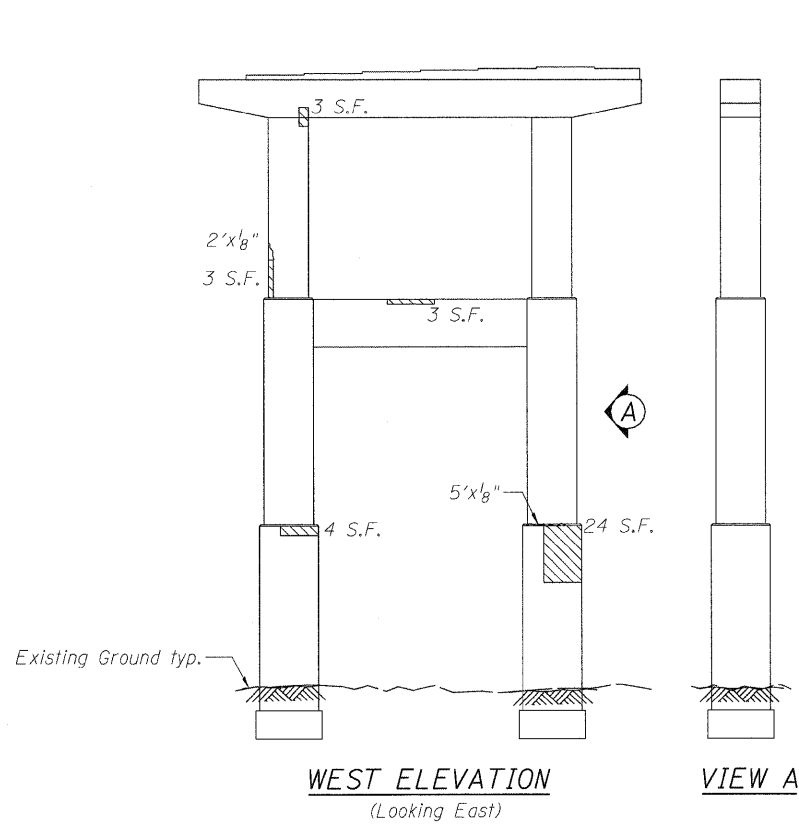
PIER 12



Structural Repair of Concrete (Depth ≤ 5") = 402 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 79 Sq. Ft.
 Epoxy Crack Injection

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.

DESIGNED - DF	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PIER REPAIR DETAILS WESTBOUND I-80 OVER DES PLAINES RIVER STRUCTURE NO. 099-0057		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
USER NAME = Inuoller	DRAWN - LAM						REVISED -	80	99(4&4-1)RS-3	WILL	203	137
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PLOT DATE = 1/19/2011 2:48:47 PM	DATE - 1/20/2011						REVISED -	FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				
SR\056\05.CADD\CADD Sheets\0990057-60M66-028-PIR12.dgn					SHEET NO. S-28 OF S-35 SHEETS							

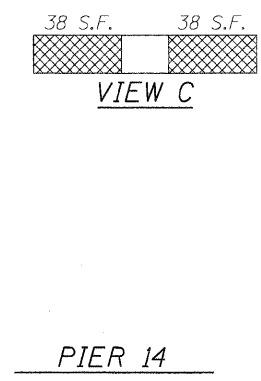
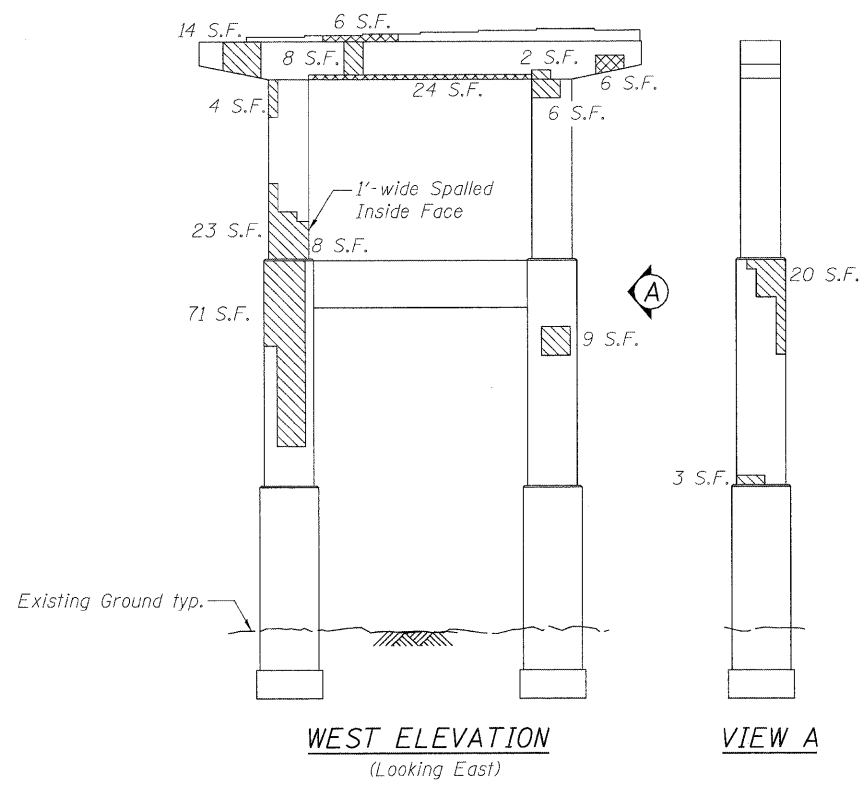
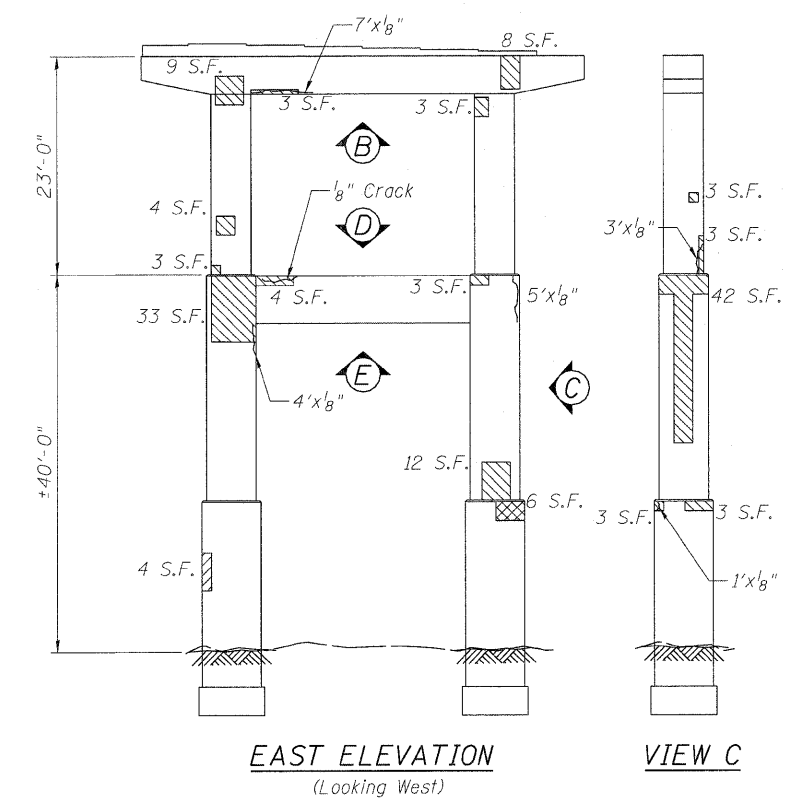


Structural Repair of Concrete (Depth < 5") = 199 Sq. Ft.

Structural Repair of Concrete (Depth > 5") = 9 Sq. Ft.

Epoxy Crack Injection

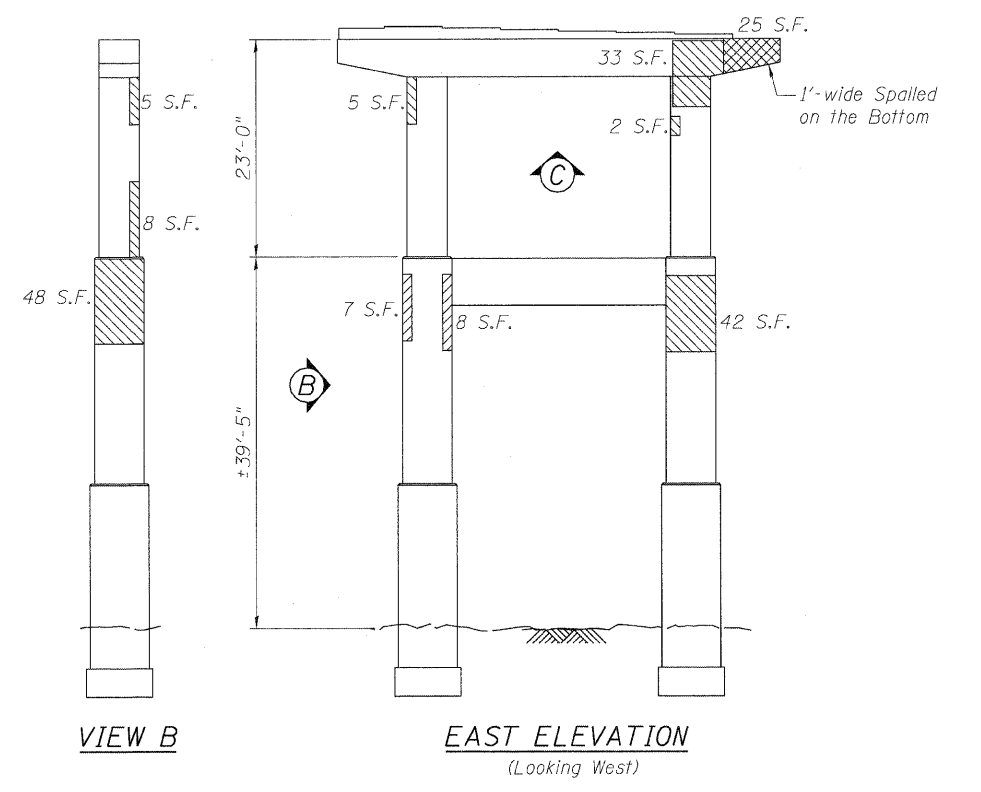
NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



Structural Repair of Concrete (Depth < 5") = 326 Sq. Ft.

Structural Repair of Concrete (Depth > 5") = 137 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



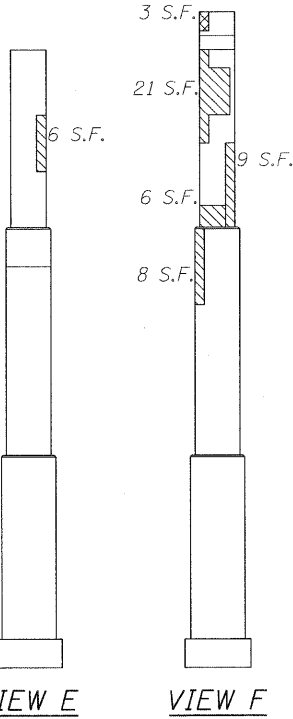
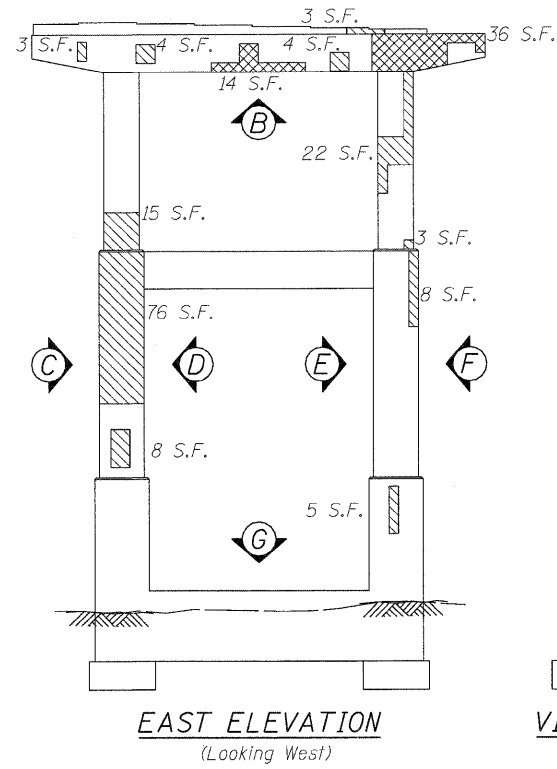
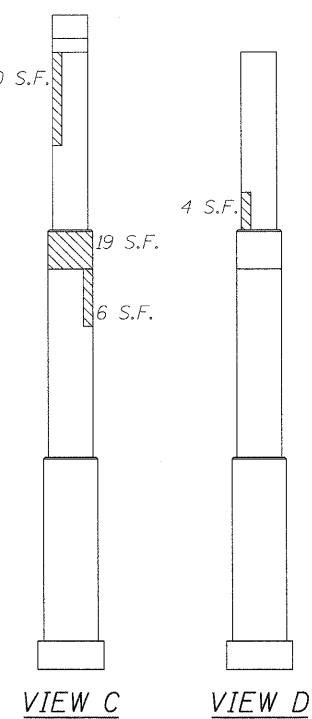
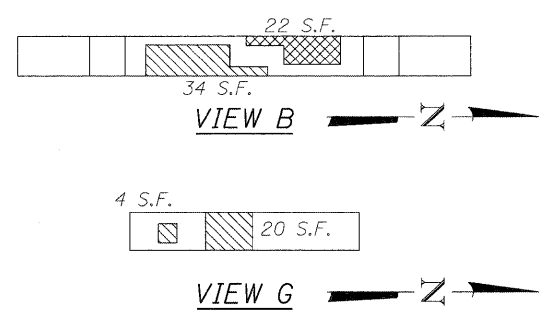
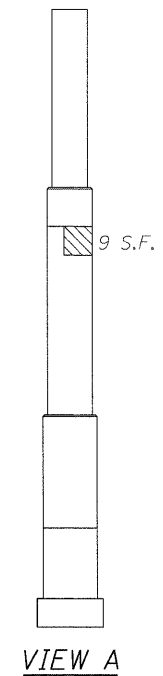
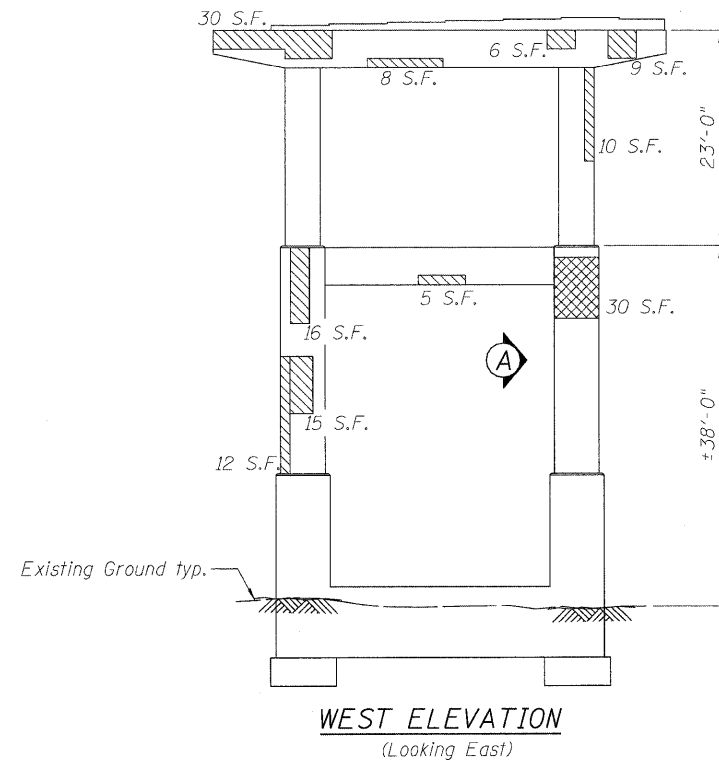
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

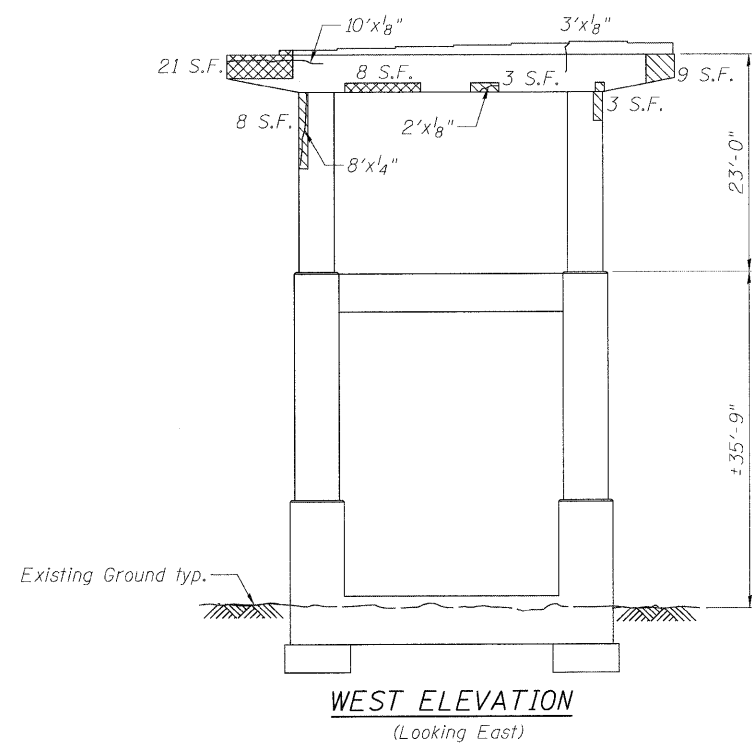
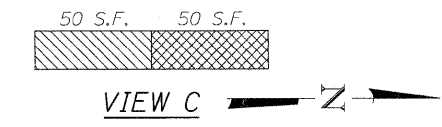
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80	99(4&4-1)RS-3	WILL	203	138
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



Structural Repair of Concrete (Depth < 5") = 418 Sq. Ft.

Structural Repair of Concrete (Depth > 5") = 105 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.

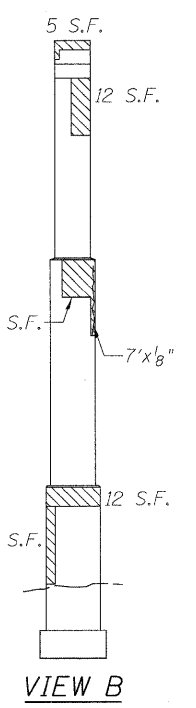
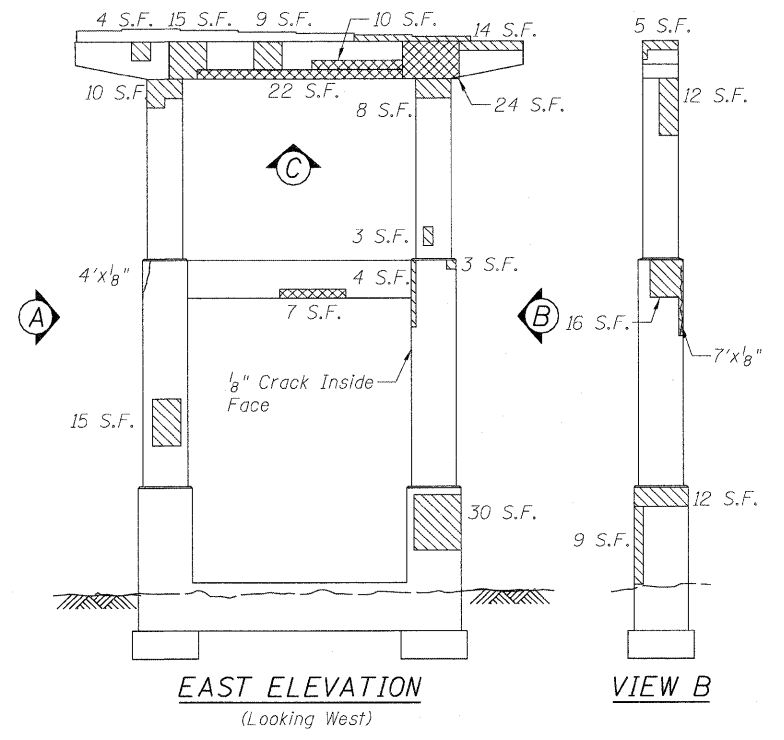
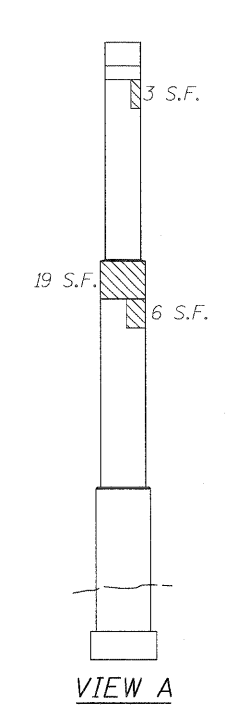


Structural Repair of Concrete (Depth < 5") = 270 Sq. Ft.

Structural Repair of Concrete (Depth > 5") = 142 Sq. Ft.

Epoxy Crack Injection

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



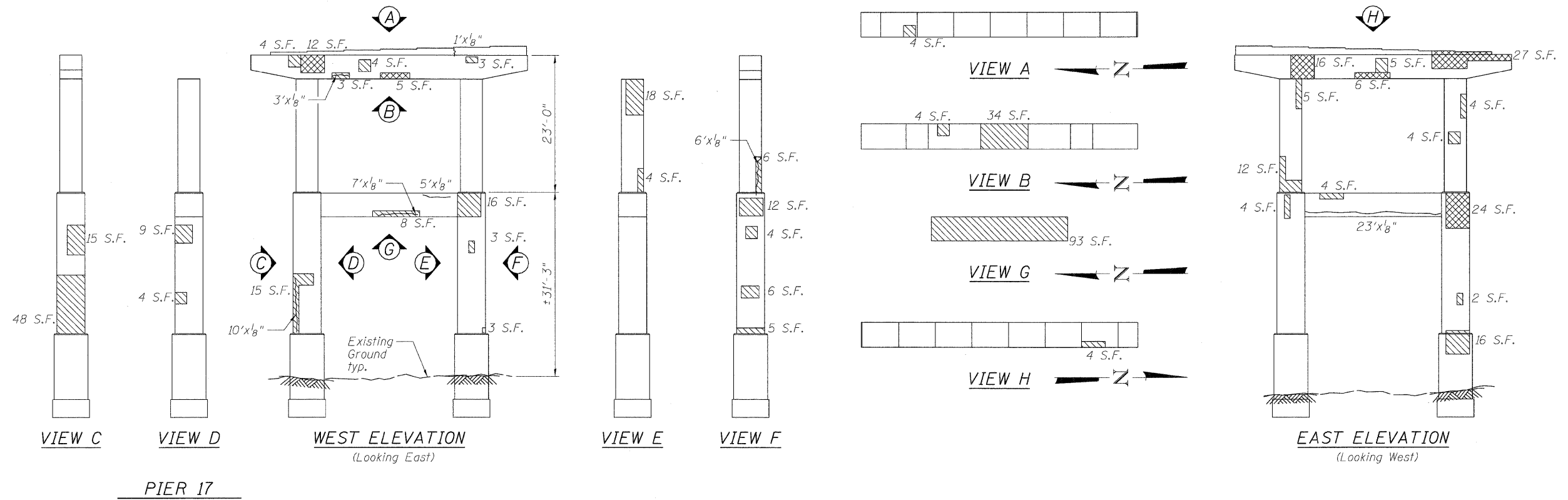
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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

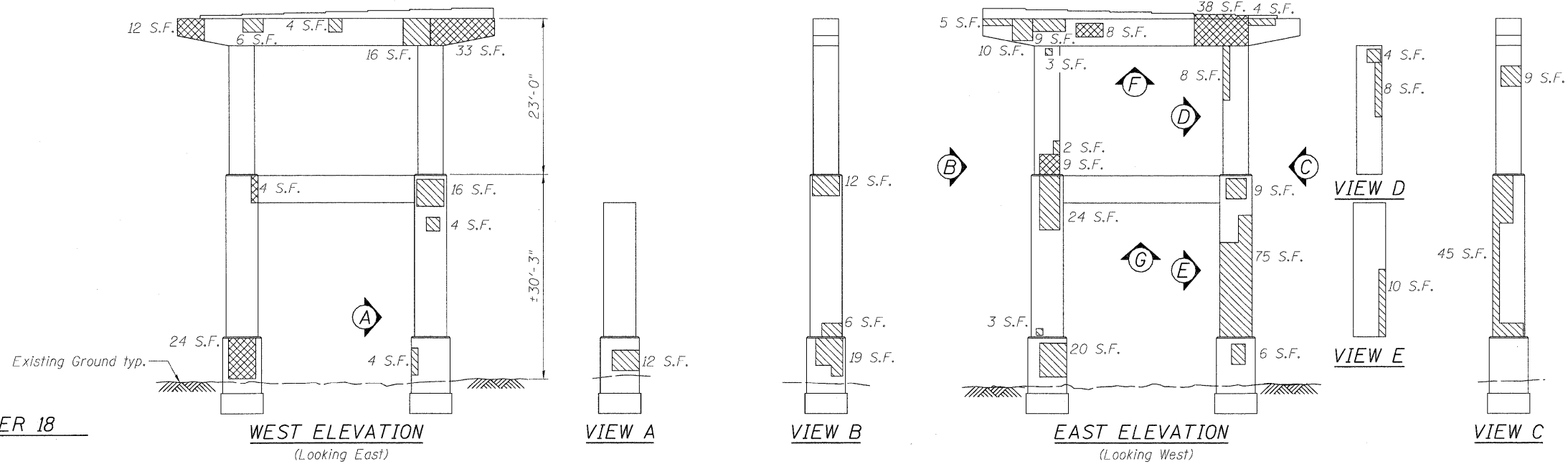
PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	139
FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	



- Structural Repair of Concrete (Depth < 5") = 385 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 90 Sq. Ft.
- Epoxy Crack Injection

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



- Structural Repair of Concrete (Depth < 5") = 426 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 128 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.

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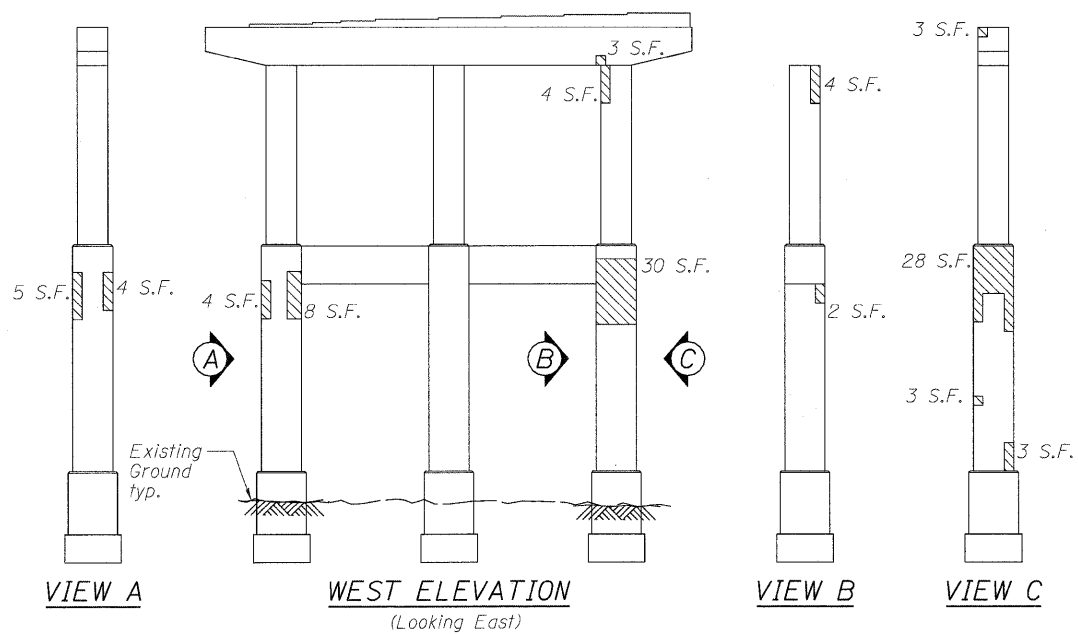


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

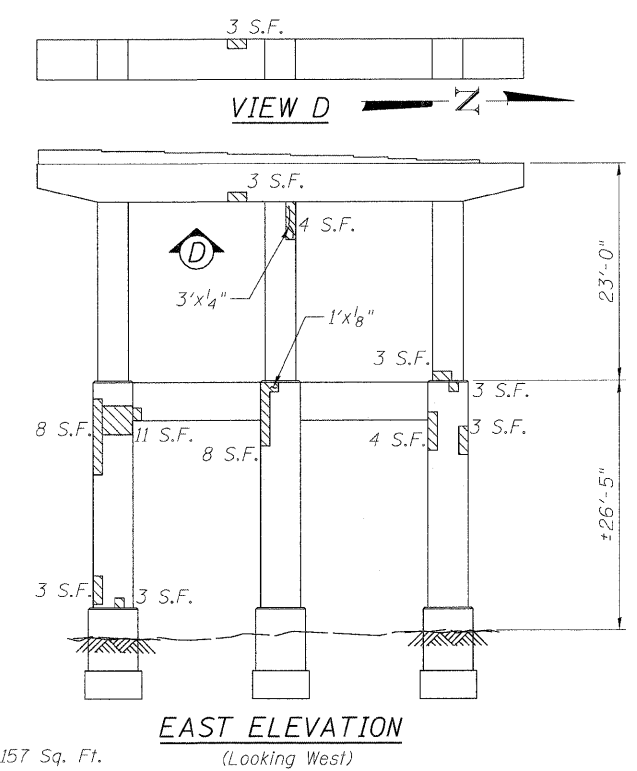
PIER REPAIR DETAILS
WESTBOUND I-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-31 OF S-35 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60M66	

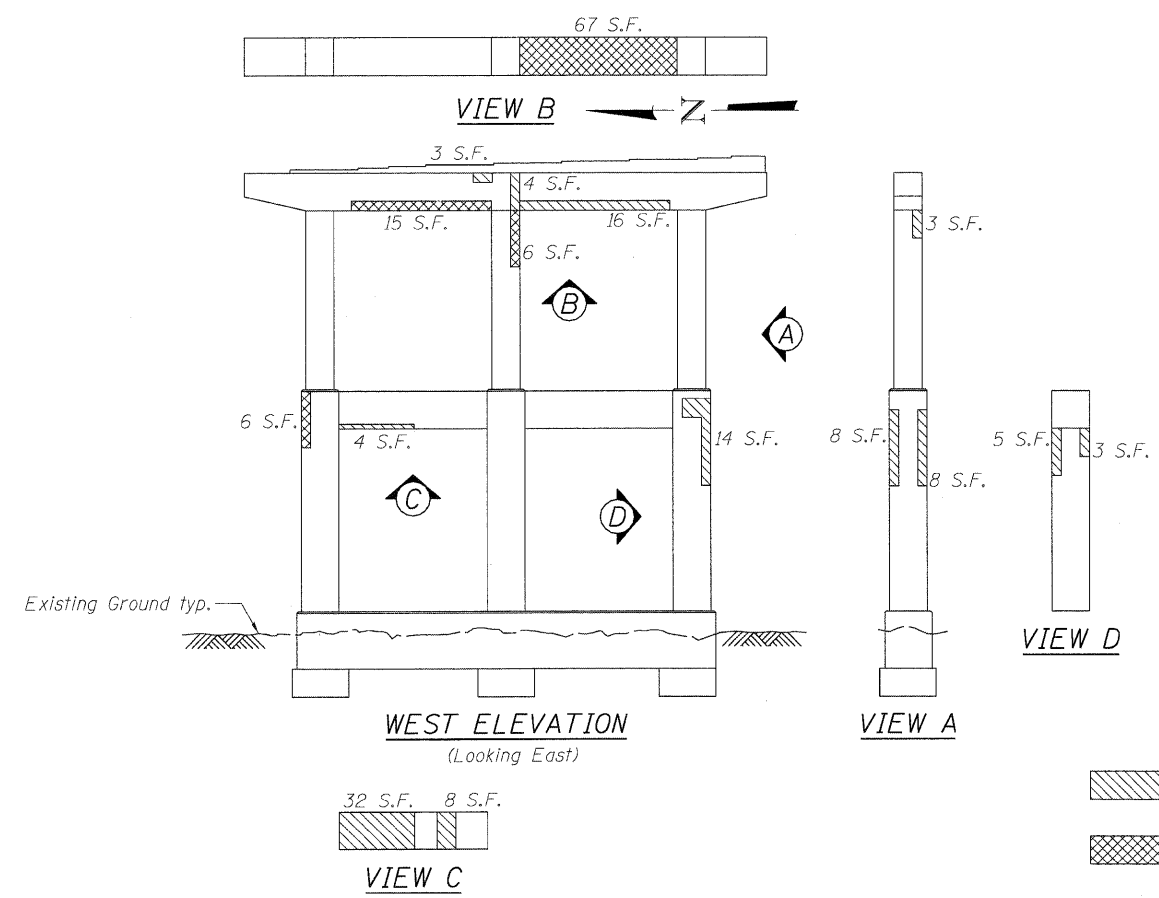


PIER 19

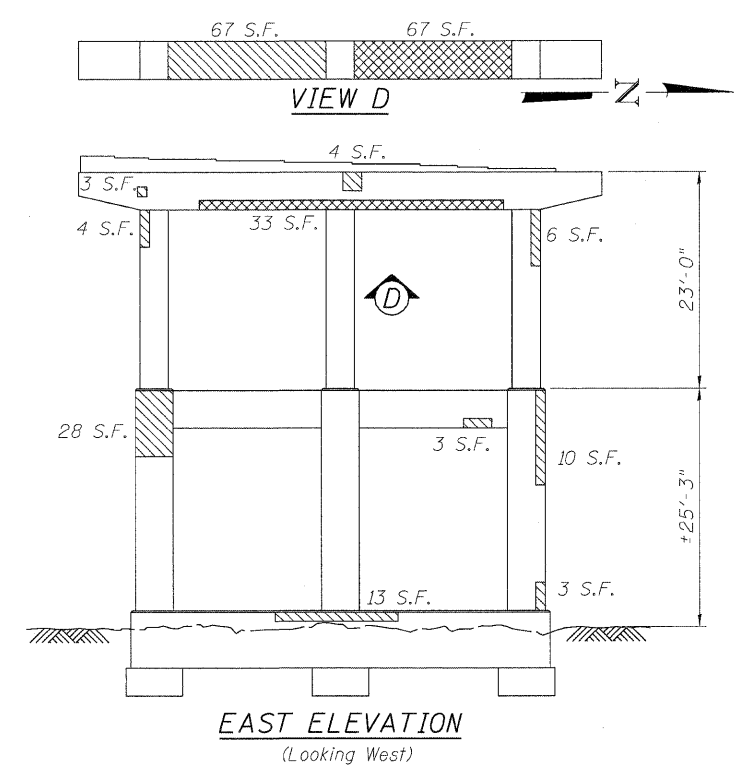


Structural Repair of Concrete (Depth < 5") = 157 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 0 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.



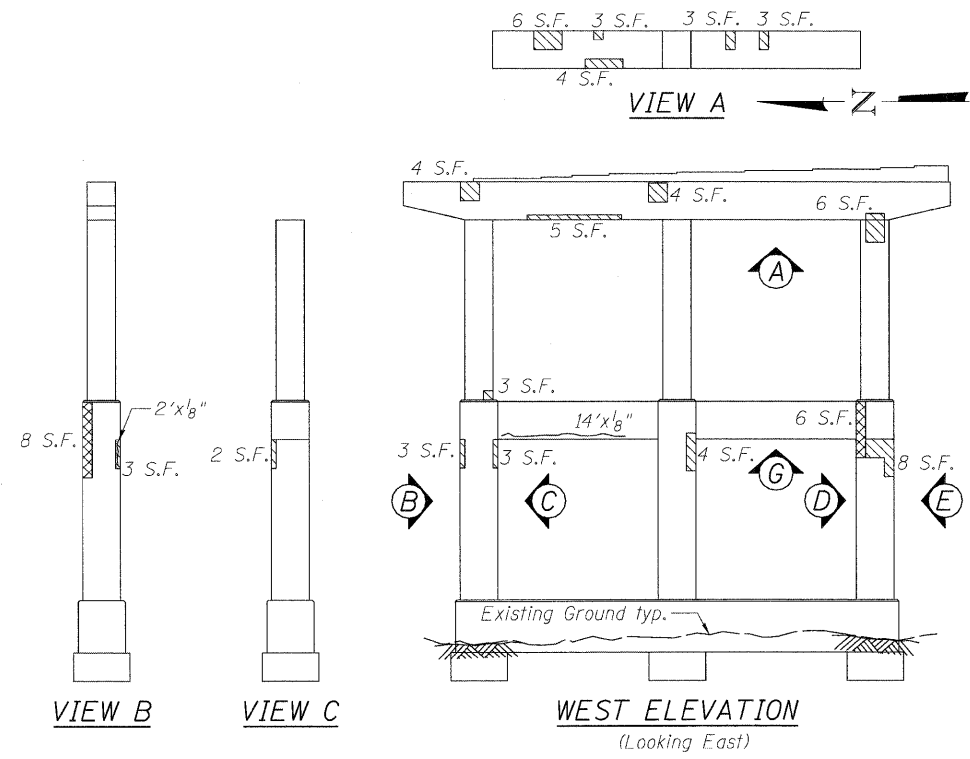
PIER 20



Structural Repair of Concrete (Depth < 5") = 249 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 194 Sq. Ft.

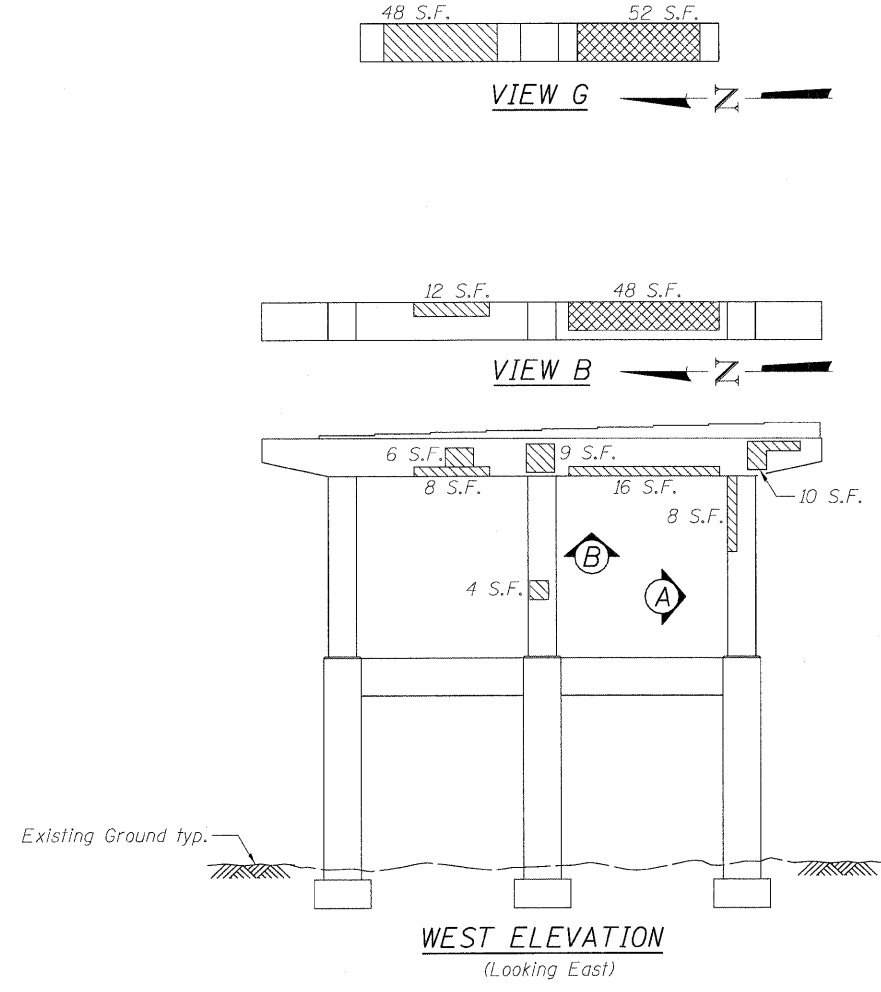
NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.

DESIGNED - DF	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		PIER REPAIR DETAILS WESTBOUND FAI-80 OVER DES PLAINES RIVER STRUCTURE NO. 099-0057 SHEET NO. S-32 OF S-35 SHEETS		F.A.J. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PIER 21

Structural Repair of Concrete (Depth < 5") = 167 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 98 Sq. Ft.
 Epoxy Crack Injection



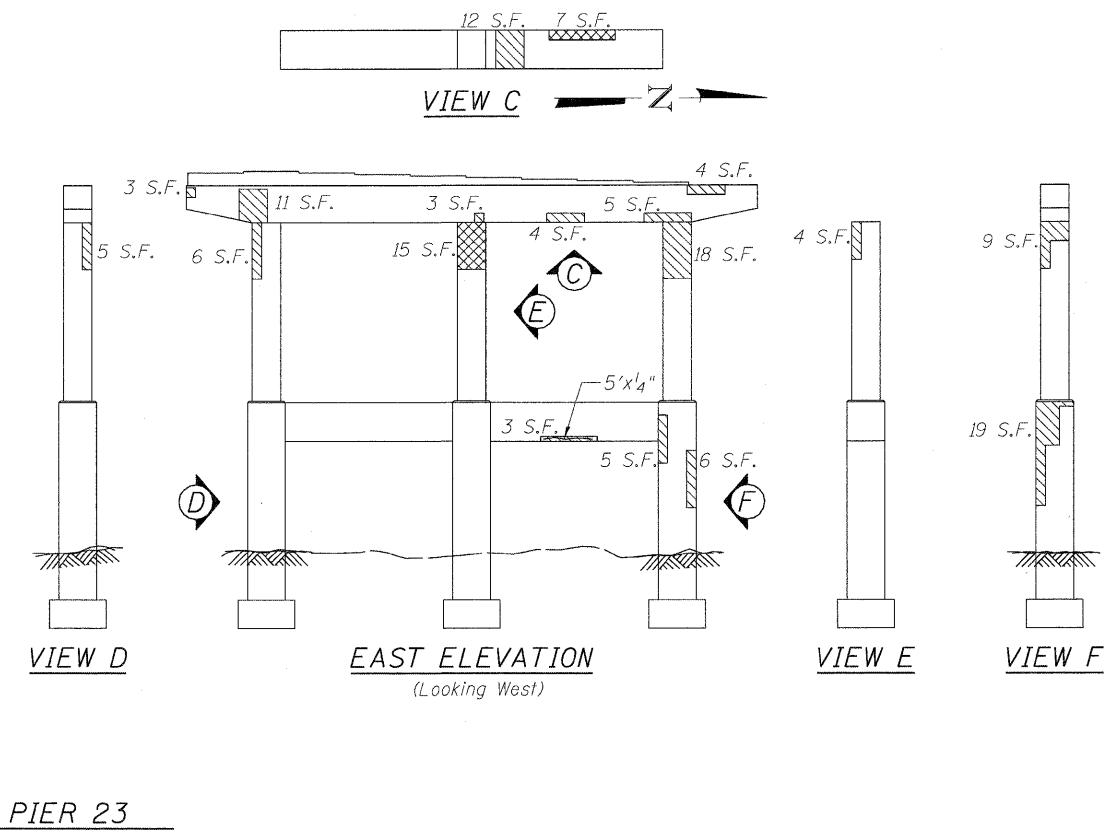
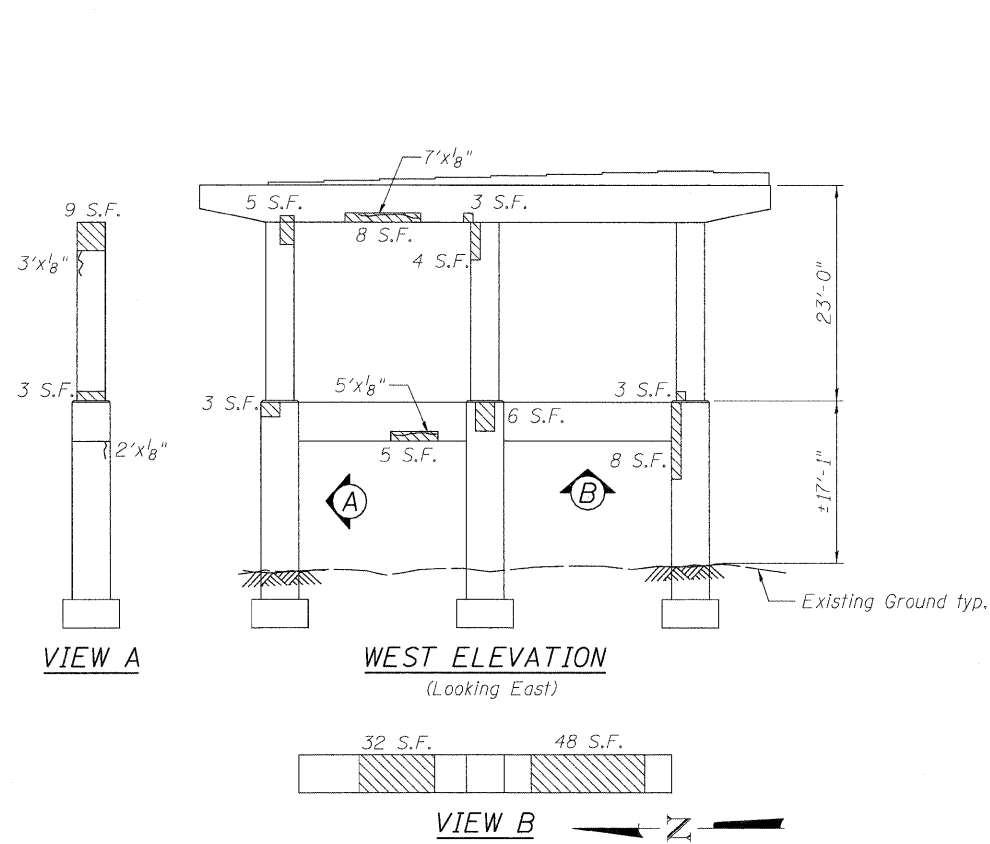
PIER 22

Structural Repair of Concrete (Depth < 5") = 145 Sq. Ft.
 Structural Repair of Concrete (Depth > 5") = 104 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special locations.

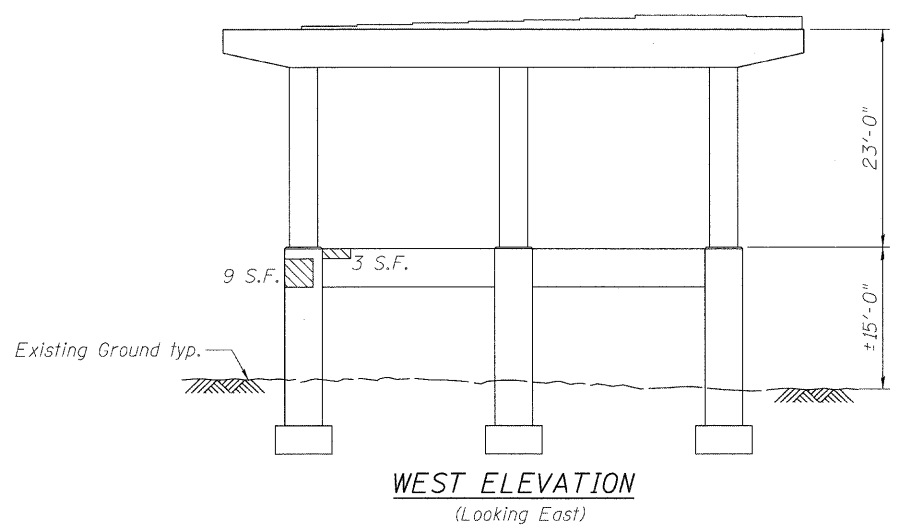
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DATE - 1/20/2011	DATE - 1/20/2011	REVISED -				FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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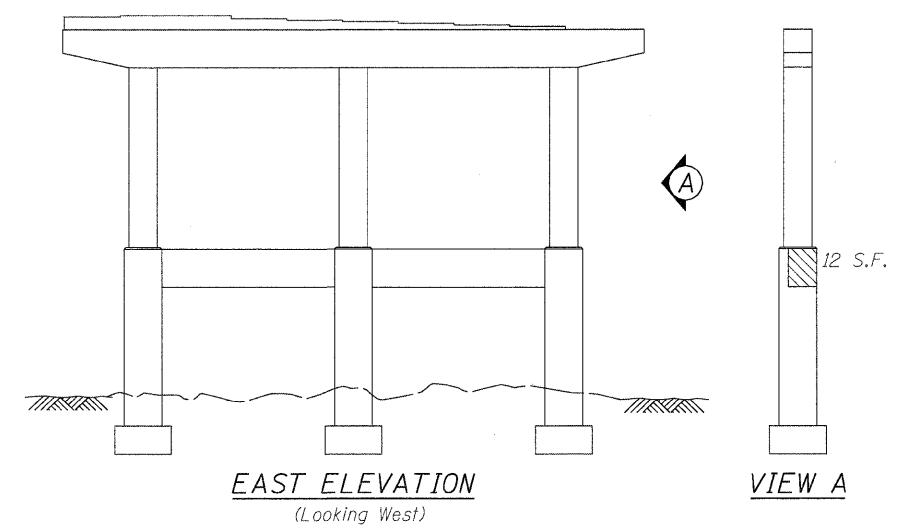
PIER 23

- Structural Repair of Concrete (Depth < 5") = 254 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 22 Sq. Ft.
- Epoxy Crack Injection



PIER 24

- Structural Repair of Concrete (Depth < 5") = 24 Sq. Ft.
- Structural Repair of Concrete (Depth > 5") = 0 Sq. Ft.



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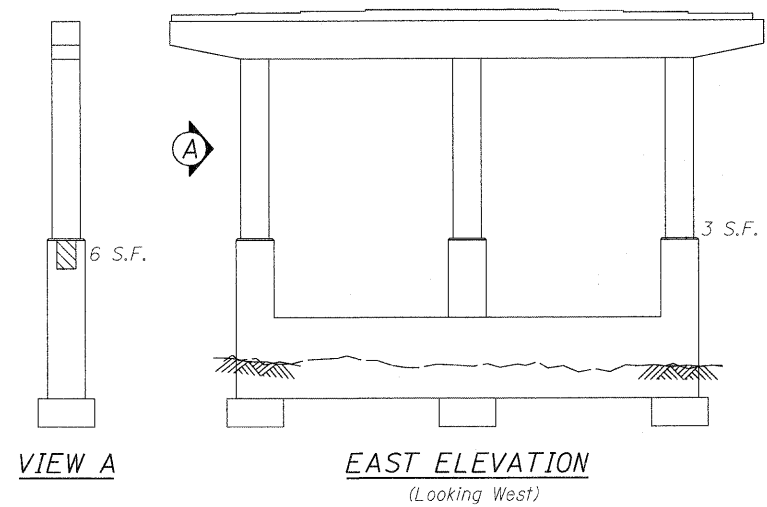
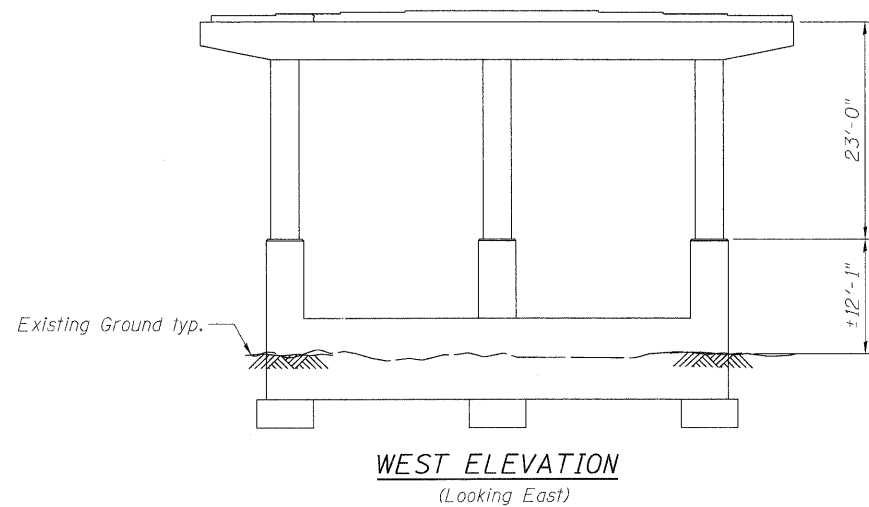


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

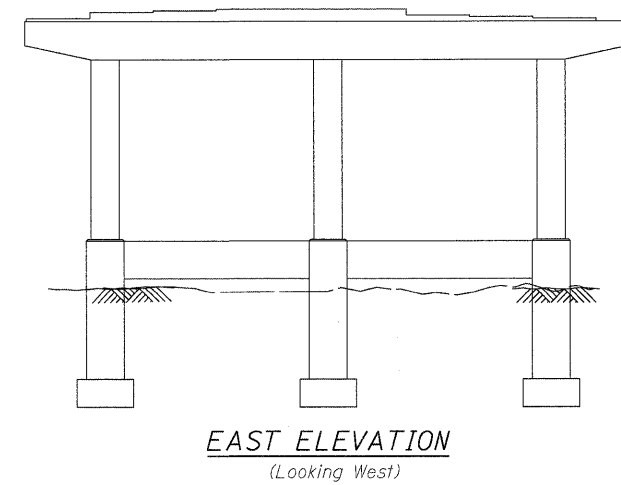
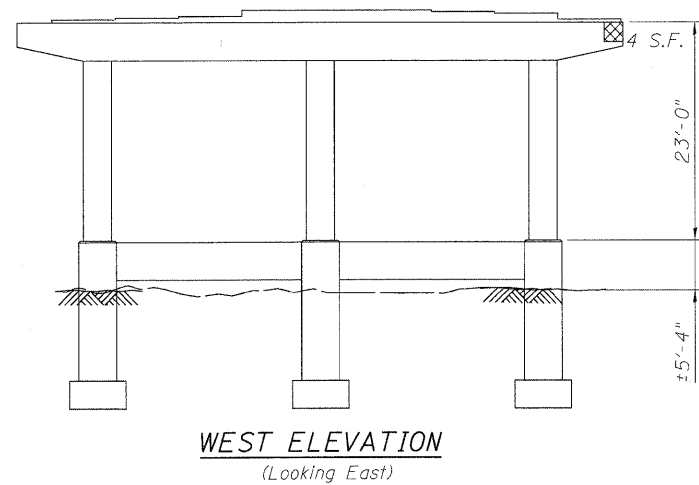
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FED. ROAD DIST. NO.			ILLINOIS FED. AID PROJECT	
			CONTRACT NO. 60M66	

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PIER 25

- Structural Repair of Concrete (Depth \leq 5") = 9 Sq. Ft.
- Structural Repair of Concrete (Depth $>$ 5") = 0 Sq. Ft.



PIER 26

- Structural Repair of Concrete (Depth \leq 5") = 0 Sq. Ft.
- Structural Repair of Concrete (Depth $>$ 5") = 4 Sq. Ft.

NOTES: See Sheet S-20 for Temporary Shoring and Cribbing, Special location.

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STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER REPAIR DETAILS
WESTBOUND FAI-80 OVER DES PLAINES RIVER
STRUCTURE NO. 099-0057

SHEET NO. S-35 OF S-35 SHEETS

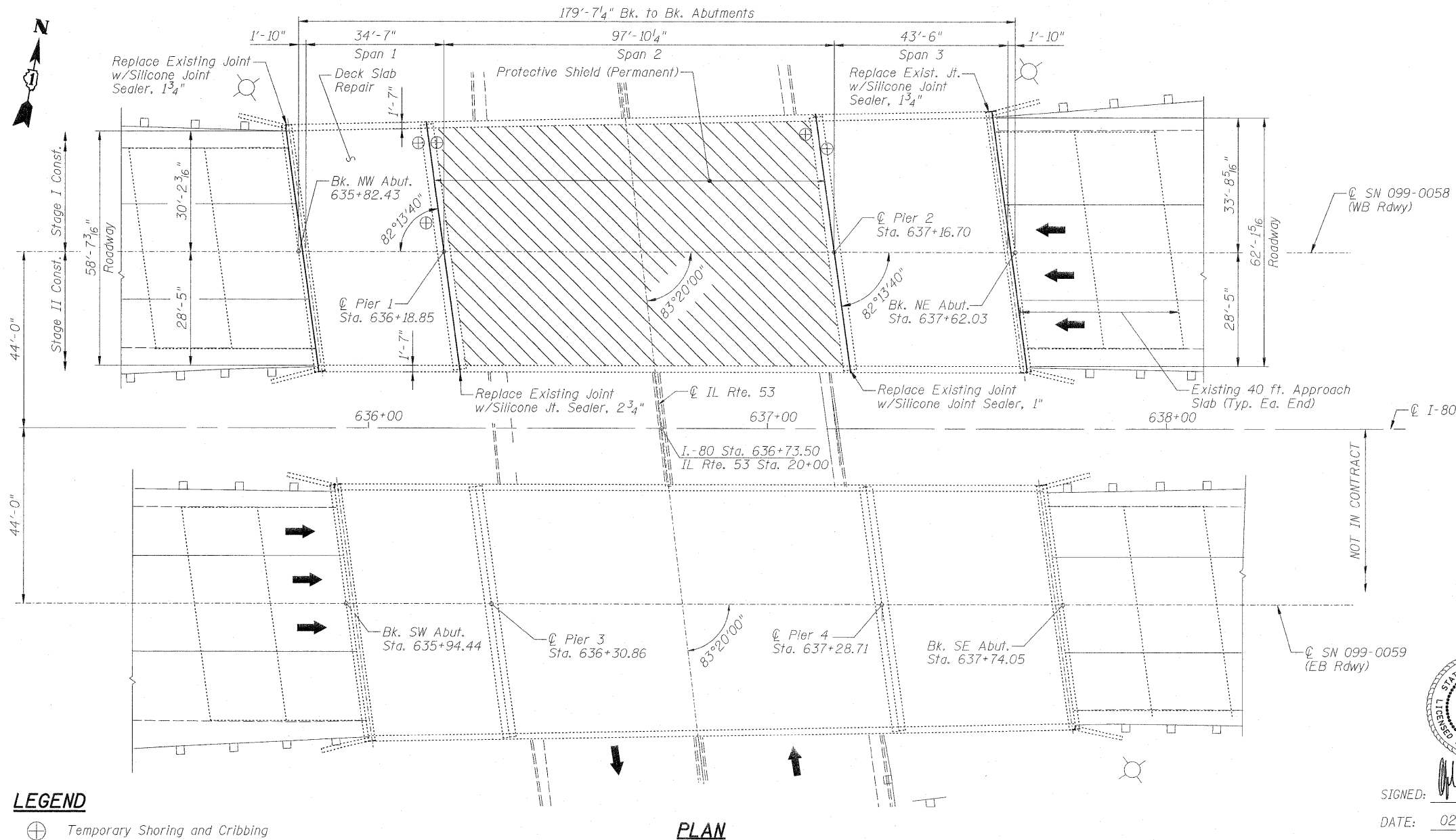
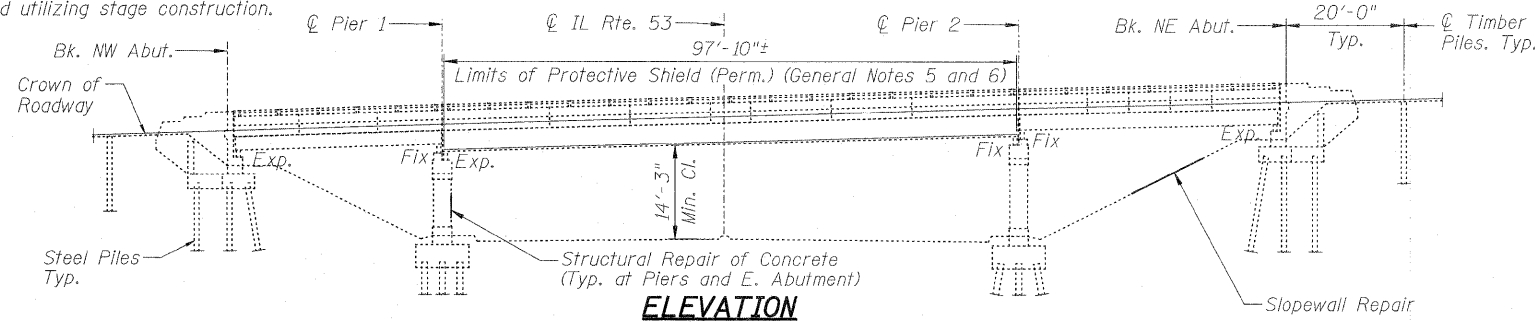
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80	99(4&4-1)RS-3	WILL	203	144
FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

Existing Structures:

Dual bridges over IL Rte 53 Chicago Street, SN 099-0059 carrying I-80 Eastbound and SN 099-0058 carrying I-80 Westbound, were originally constructed in 1962 as a part of F.A.I. 80 Project, I-80-4(3)1134, Section 99-4,99-4(B,HB). The superstructures consist of 3 simple span steel multi-girder units supported on concrete abutments and piers. The existing bridge decks consist of 7-inch reinforced concrete composite slab with 2" bituminous overlay and waterproofing membrane. The transverse deck joints are PJS type with vertical armor plates. In 1971 the longitudinal deck joint was eliminated. In 1990 and 1998 repairs were made to the decks, abutments, piers, deck joints, rail and drainage system. In 2001, the bituminous overlay and waterproofing membrane was replaced. The structure was fully painted in 1985; the facias and beam ends under joints were re-painted in 2003.

Traffic shall be maintained utilizing stage construction.

No salvage.



INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. Construction Staging and Total Bill of Material
- S3. Deck and Expansion Joint Repairs
- S4. Abutment and Slopewall Repairs
- S5. Pier Repairs
- S6. Permanent Protective Shield
- S7. Temporary Concrete Barrier for Stage Construction

SCOPE OF WORK:

- 1. Remove existing Hot-Mix Asphalt Overlay.
- 2. Install Protective Shield.
- 3. Full and partial depth deck slab repair.
- 4. Remove and replace deck joints with silicone joint sealer.
- 5. Install temporary beam shoring.
- 6. Structural concrete repair at abutments and piers.
- 7. Construct Hot-Mix Asphalt Overlay.
- 8. Remove and replace slopewall section.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS:
 f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

GENERAL NOTES:

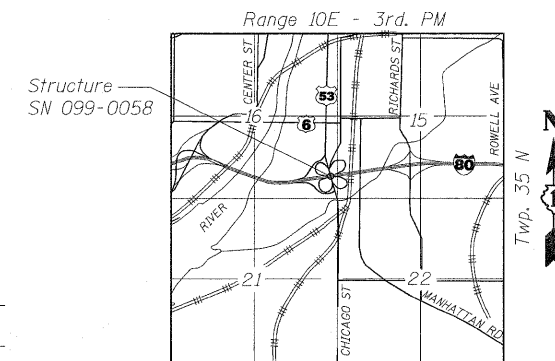
- 1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
- 2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. Contractor should verify dimensions and make necessary approved adjustments prior to starting construction. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for actual quantity furnished and approved by Engineer at unit price bid for the work.
- 3. Areas of proposed deck repairs are estimated. Actual type, location and dimension of deck repairs are to be determined by the Engineer during construction.
- 4. Contractor shall remove the existing asphalt wearing surface and, as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane. After satisfactory completion of the deck repair work, an asphalt surface course shall be placed in sufficient thickness as to match the elevation of the original surface.
- 5. Protective shield shall be installed prior to start of Deck Slab Repair work.
- 6. The Contractor shall protect and maintain the existing underpass luminaires. See Special Provision "Protective Shield, Special".

LEGEND

- ⊕ Temporary Shoring and Cribbing
- ▨ Protective Shield (Permanent)

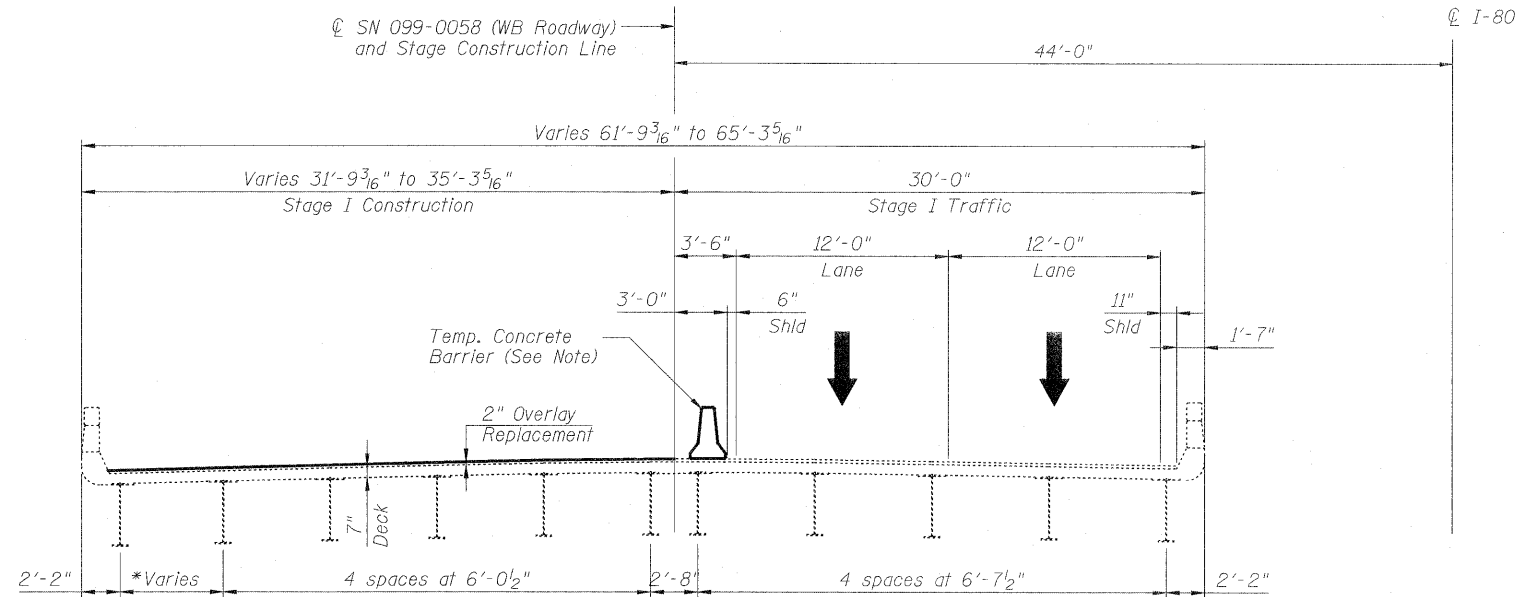


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 DATE: 02/08/2011
 EXP: 11/30/2012
 SHEETS: S1 THRU S7



LOCATION SKETCH

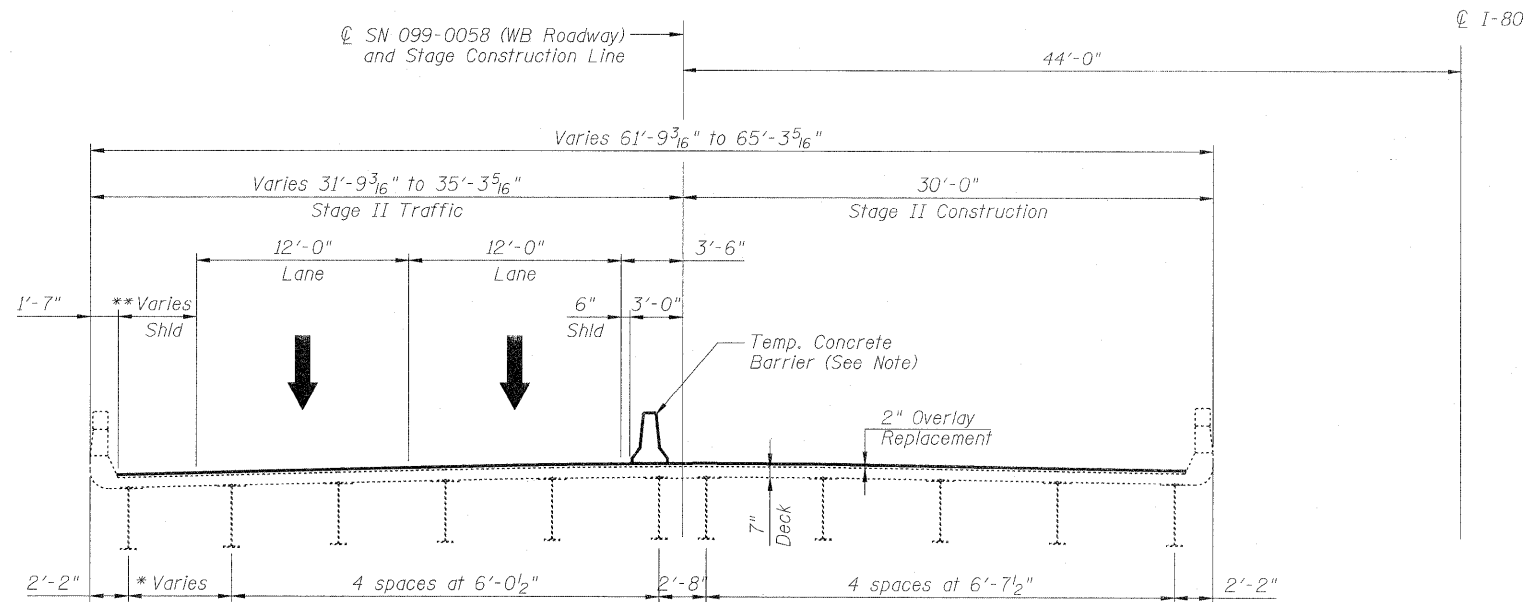
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			SCALE:	SHEET S1 OF S7	STA.	TO STA.					



* Varies 4'-1³/₁₆" to 7'-7⁵/₁₆"

STAGE I CONSTRUCTION & TRAFFIC

(Looking East)



* Varies 4'-1³/₁₆" to 7'-7⁵/₁₆"

** Varies 2'-8³/₁₆" to 6'-2⁵/₁₆"

STAGE II CONSTRUCTION & TRAFFIC

(Looking East)

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	142	-	142
Slopewall Removal	Sq. Yd.	85	-	85
Slopewall, 4"	Sq. Yd.	85	-	85
Protective Shield (Permanent)	Sq. Yd.	641	-	641
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1268	-	1,268
Structural Repair of Concrete (Depth <= 5")	Sq. Ft.	-	110	110
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	-	446	446
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	86	-	86
Deck Slab Repair (Partial)	Sq. Yd.	149	-	149
Silicone Joint Sealer, 1"	Foot	63	-	63
Silicone Joint Sealer, 1 3/4"	Foot	126	-	126
Silicone Joint Sealer, 2 3/4"	Foot	63	-	63
Temporary Shoring and Cribbing	Each	5	-	5

Note:

After removal of temporary concrete barrier, repair dowel holes with non-shrink epoxy grout as directed by the Engineer. Cost of anchorage and repair is included with Temporary Concrete Barrier.

USER NAME = a9org100glwRdwy_L191e1	DESIGNED - A.Y./L.C.	REVISED -
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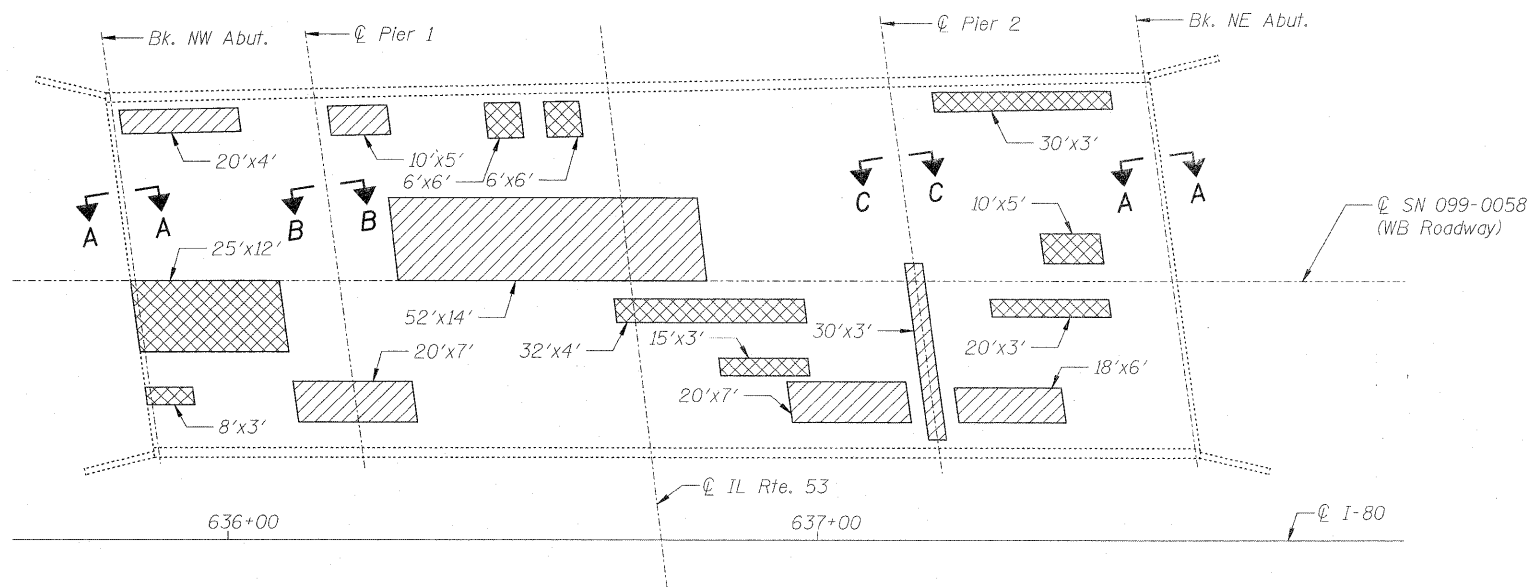


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING AND TOTAL BILL OF MATERIAL
WESTBOUND I-80 OVER IL ROUTE 53 (CHICAGO STREET)
SN 099-0058

SCALE: SHEET S2 OF S7 STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	146
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



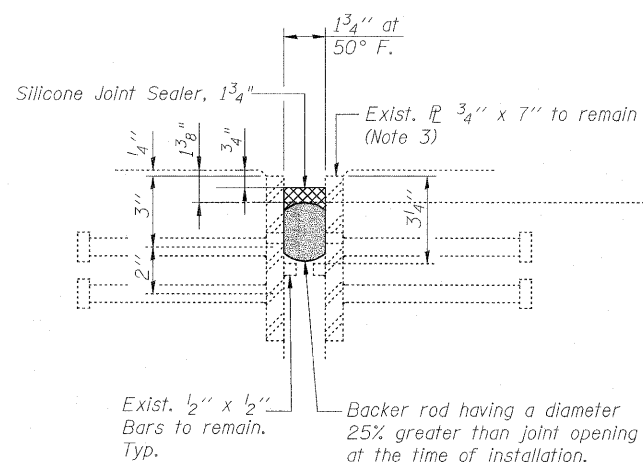
PLAN

BILL OF MATERIAL

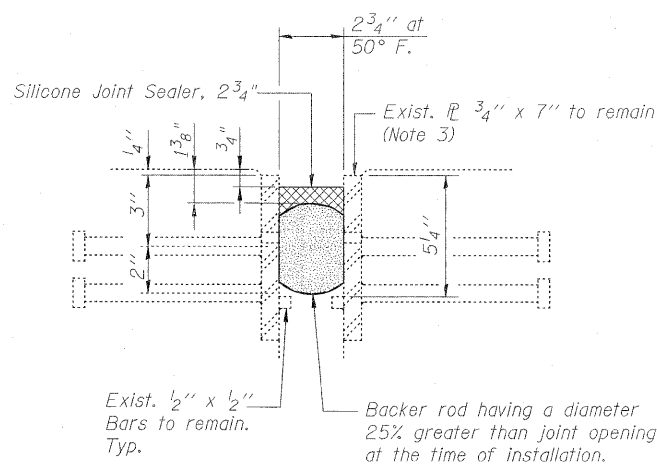
ITEM	UNIT	TOTAL
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	86
Deck Slab Repair (Partial)	Sq. Yd.	149
Silicone Joint Sealer, 1"	Foot	63
Silicone Joint Sealer, 1 3/4"	Foot	126
Silicone Joint Sealer, 2 3/4"	Foot	63

LEGEND:

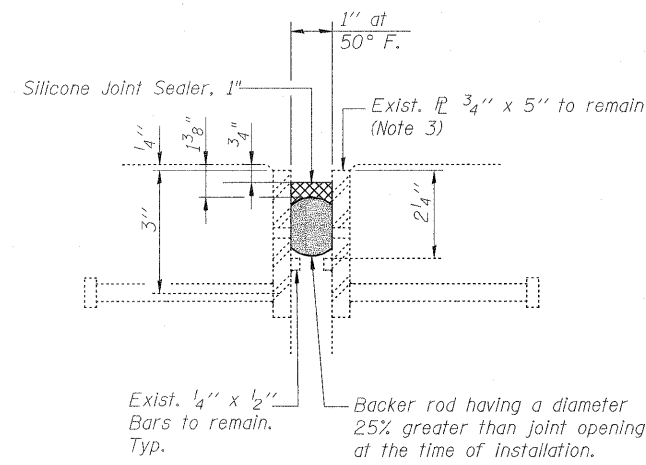
- Deck Slab Repair (Partial)
- Deck Slab Repair (Full Depth, Type II)



SECTION A-A
(At Abutments)

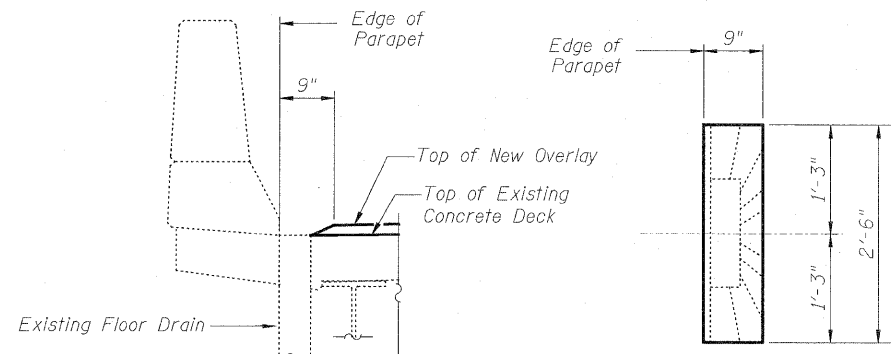


SECTION B-B
(At Pier 1)

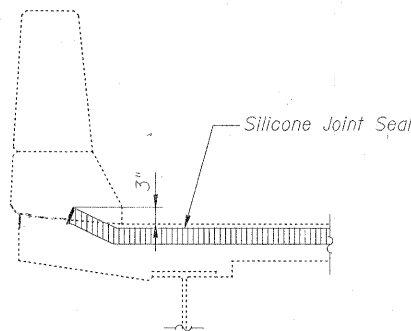


SECTION C-C
(At Pier 2)

DECK EXPANSION JOINT DETAILS



SECTION AT FLOOR DRAIN
OVERLAY TREATMENT AT FLOOR DRAIN



TYPICAL END OF SEAL TREATMENT

Notes:

1. See General Note 3 on Sheet S1 of S7.
2. Removal and disposal of the existing joint fillers and neoprene seals will be included with the cost of Silicone Joint Sealer, of the size specified.
3. Existing plates to be cleaned prior to installation of backer rod. Cost included with Silicone Joint Sealer, of the size specified.
4. Deck Slab Repair concrete shall be placed up to top of existing waterproofing membrane system. Cost included with Deck Slab Repair, of the type specified.
5. The Contractor shall grind off any existing concrete patches flush with the existing waterproofing membrane system. Cost included with Hot-Mix Asphalt Surface Removal (Deck).

USER NAME = e:\jrg\cog\l\rdwy_l\l\l	DESIGNED - A.Y./L.C.	REVISED -
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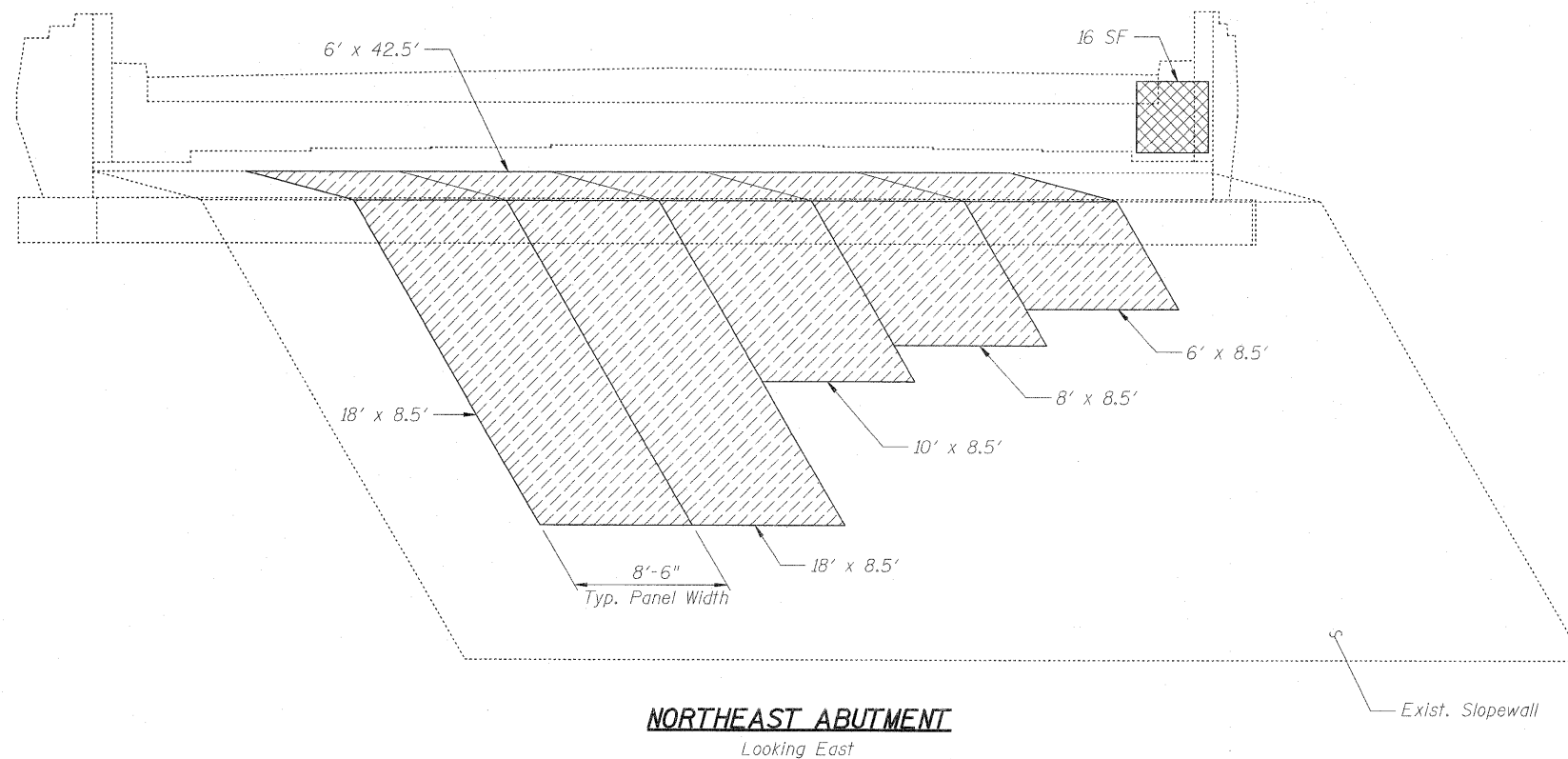


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK AND EXPANSION JOINT REPAIRS
WESTBOUND I-80 OVER IL ROUTE 53 (CHICAGO STREET)
SN 099-0058

SCALE: SHEET S3 OF S7 STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 60M66

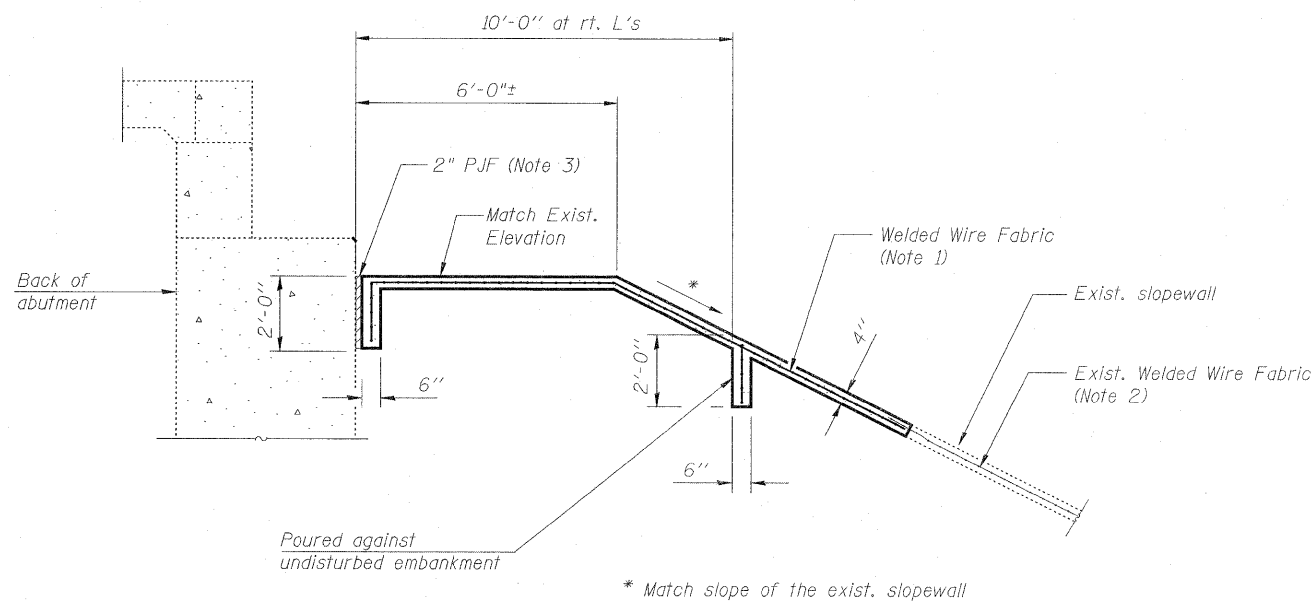


BILL OF MATERIAL

ITEM	UNIT	TOTAL
Slopedwall Removal	Sq. Yd.	85
Slopedwall, 4"	Sq. Yd.	85
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	16

LEGEND:

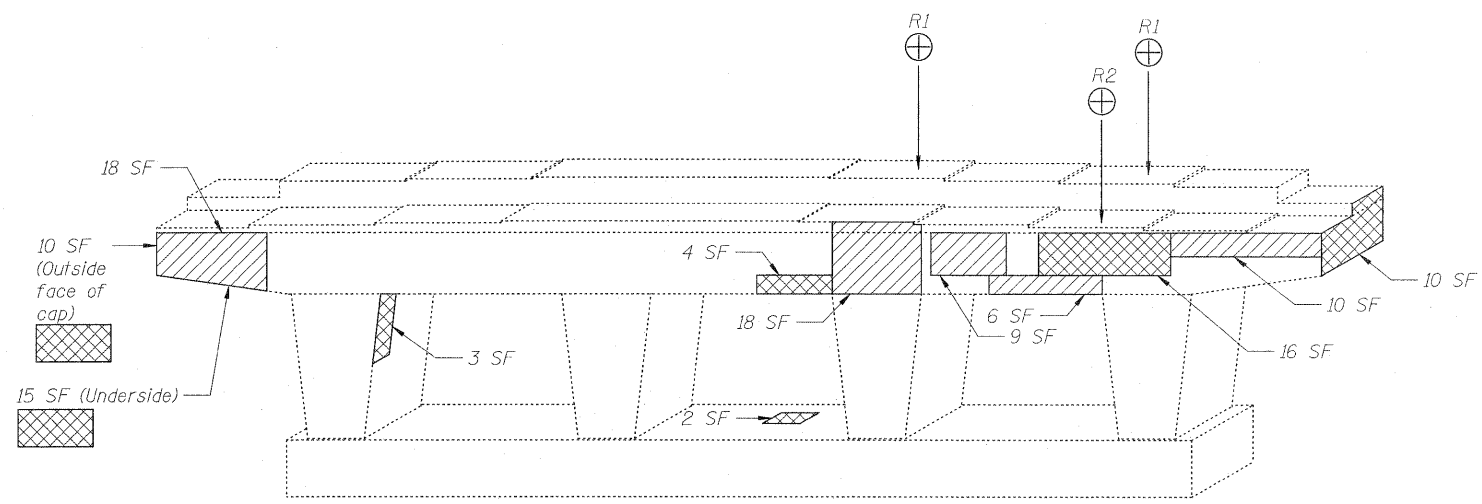
- Structural Repair of Concrete (Depth > 5")
- Slopedwall Repair



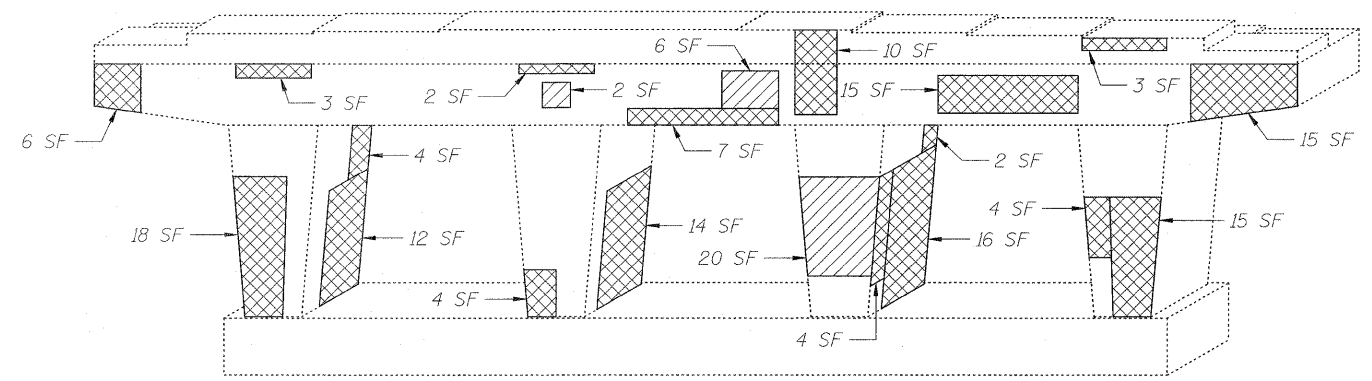
NOTES:

1. Slopedwall shall be reinforced with welded wire fabric 6" x 6" - W4.0 x W4.0, weighing 58 lbs. per 100 sq. ft.
2. Existing welded wire fabric to be cleaned by sandblasting to gray metal and incorporated into new construction. Lap existing and new welded wire fabric a minimum of 6".
3. Cost of Sawcuts and PJF included in the cost of Slope Wall, 4".
4. Removal limits and layout of the slopedwall may be varied to suit ground conditions in the field as directed by the Engineer.
5. When directed by the engineer, the voids under the slope wall areas shall be filled with porous granular embankment in accordance with Article 207 of the Standard Specifications. Cost of filling the voids included in the cost of Slope Wall, 4".

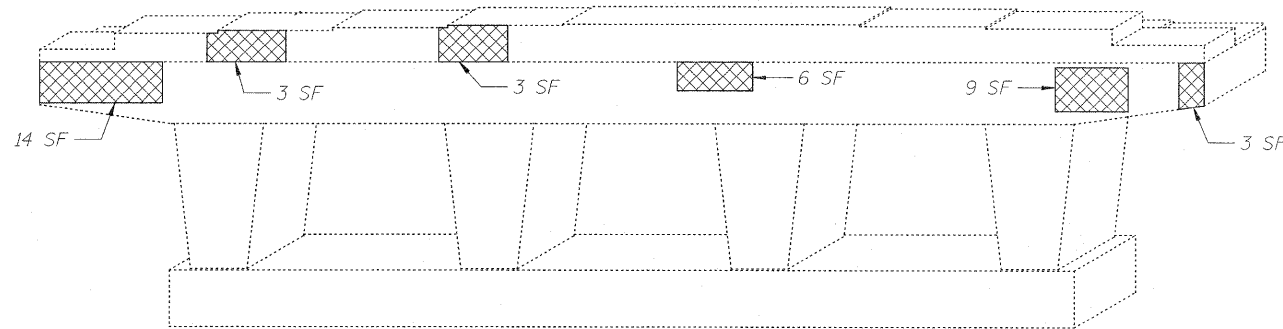
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SCALE: SHEET S4 OF S7 STA. TO STA.						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60M66						



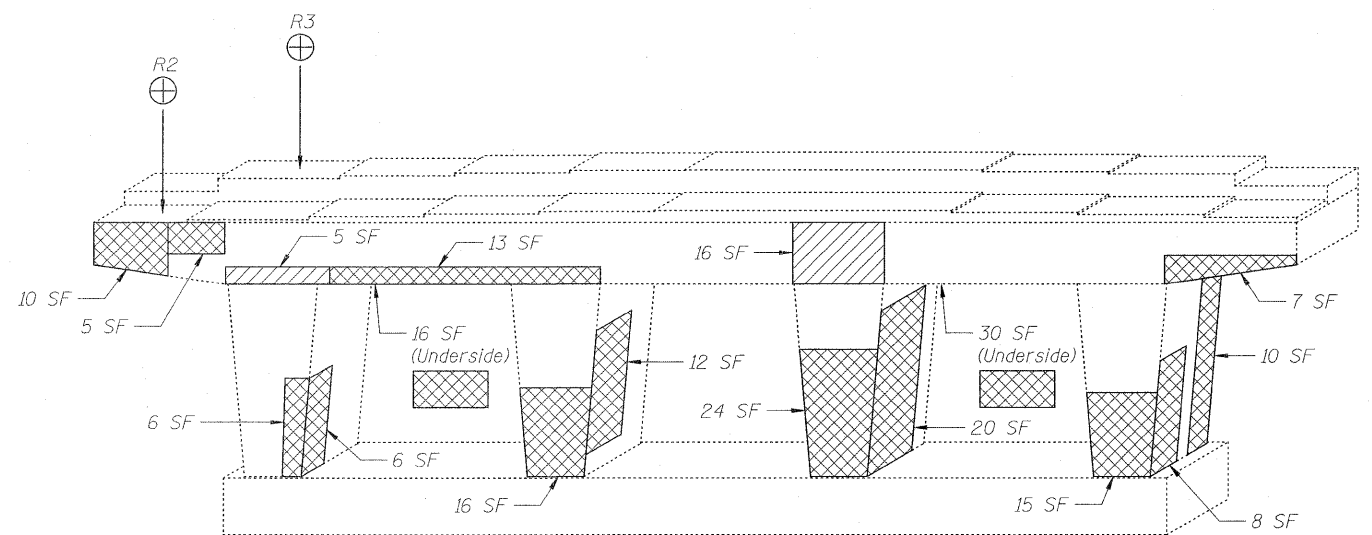
PIER 1
EAST FACE



PIER 2
EAST FACE



PIER 1
WEST FACE



PIER 2
WEST FACE

LEGEND:

Structural Repair of Concrete (Depth < 5")

Structural Repair of Concrete (Depth > 5")

Temporary Shoring and Cribbing

INTERIOR GIRDER REACTION TABLE				
		R1	R2	R3
R ₀	(k)	19.0	50.2	23.3
R ₄	(k)	30.2	39.5	34.7
Imp.	(k)	9.1	8.9	10.2
R _{Total}	(k)	58.2	98.6	68.1

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth < 5")	Sq. Ft.	110
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	430
Temporary Shoring and Cribbing	Each	5

Note:
See the Special Provision "Temporary Shoring and Cribbing" for design, installation, and removal of the temporary shoring and cribbing system. Approximate beam reactions are given in Interior Girder Reaction Table at the locations shown.

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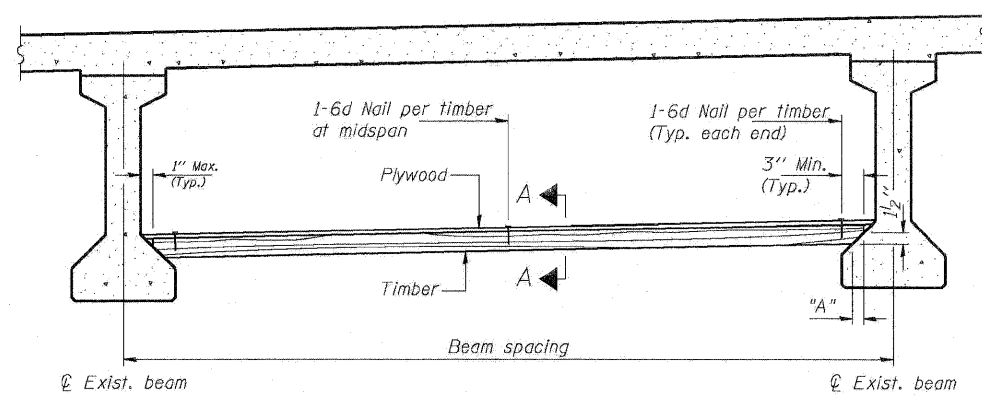


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

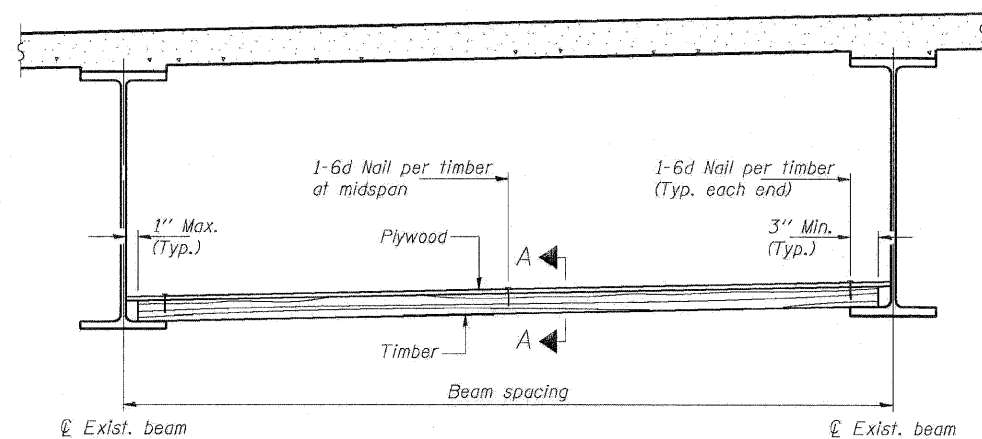
PIER REPAIRS
WESTBOUND I-80 OVER IL ROUTE 53 (CHICAGO STREET)
SN 099-0058

SCALE: SHEET 55 OF 57 STA. TO STA.

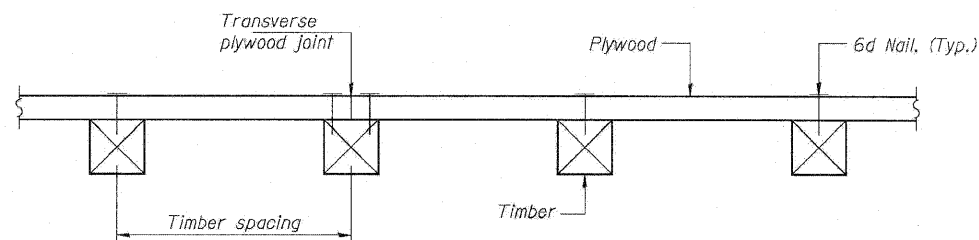
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	149
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



PPC I-BEAMS AND BULB-T's



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

PPC I-BEAMS AND BULB-T's

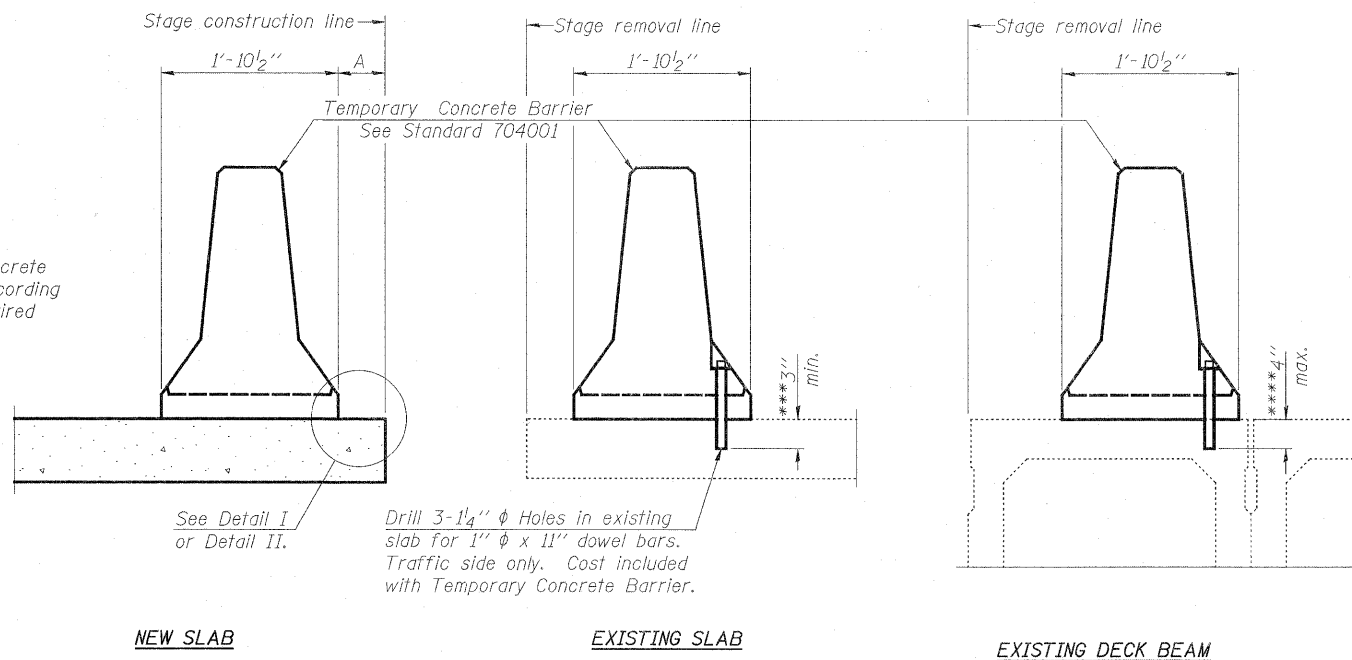
BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 5/8"

Notes: See special provision for Permanent Protective Shield System.
 Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood(per American Plywood Association). Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Protective Shield (Permanent)	Sq. Yd.	641

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

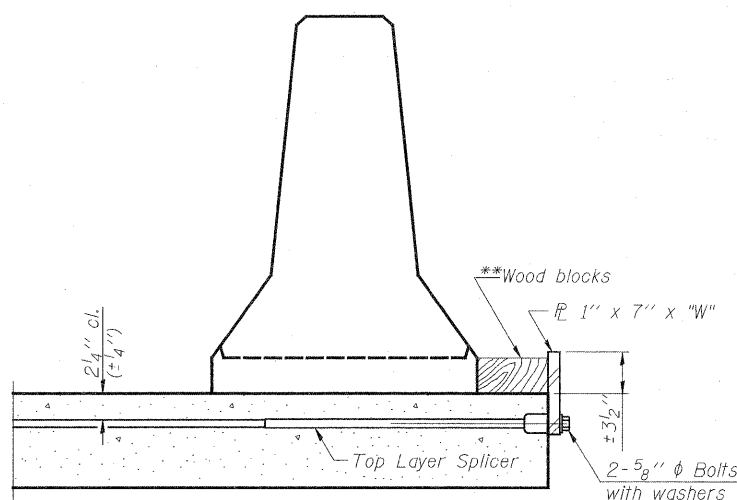
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel \bar{P} to the top layer of couplers with 2-5/8" ϕ bolts screwed to coupler at approximate \bar{C} of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel \bar{P} to the concrete slab or concrete wearing surface with 2-5/8" ϕ Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate \bar{C} of each barrier panel.

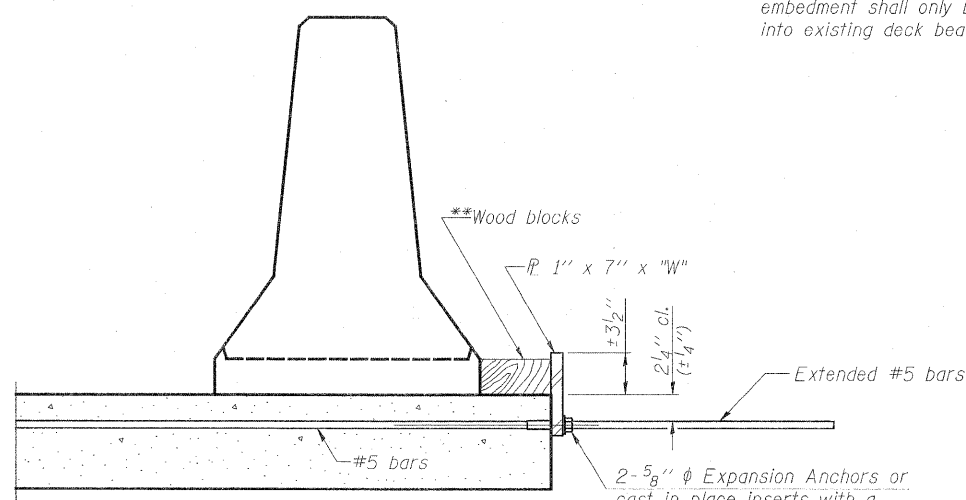
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

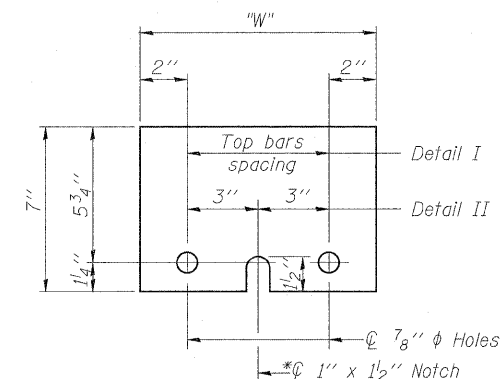
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER \bar{P} 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

USER NAME = ajeorgicoglu(Rdwy_L1s1e)	DESIGNED - A.Y./L.C.	REVISED -
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PLOT SCALE = 1:16	CHECKED - A.Y./R.L.D.	REVISED -
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
WESTBOUND I-80 OVER IL ROUTE 53 (CHICAGO STREET)
SN 099-0058

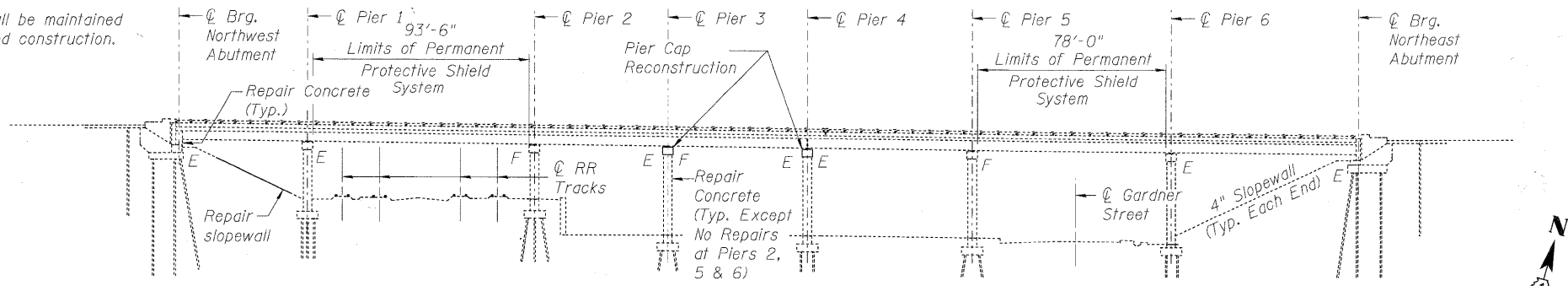
F.A.I. RTE. 80	SECTION 99 (4&4-1) RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 151
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

Existing Structure: SN 099-0061

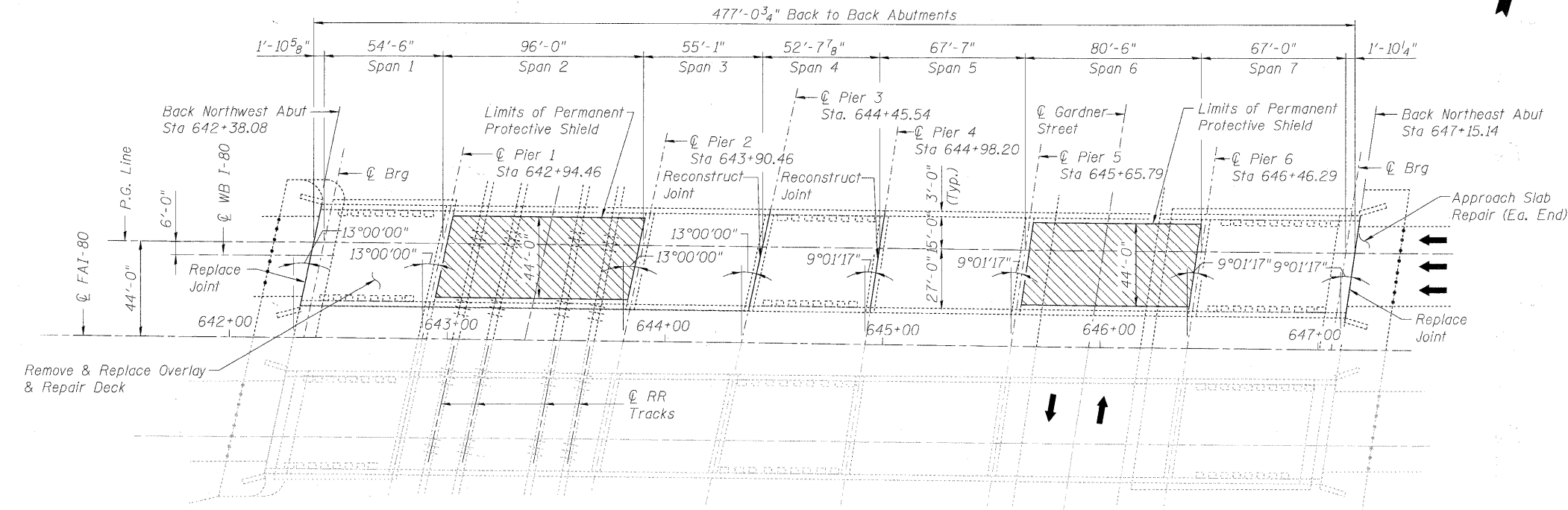
The existing structure is a seven span, three-unit bridge. Spans 1 thru 3 and 5 thru 7 are three span continuous non-composite units and Span 4 is a single span composite unit. All units are steel wide flange beams. The beams support a 7" reinforced concrete slab and a 2" thick waterproof membrane system and polymerized bituminous concrete surface course. The substructure consists of reinforced concrete stub abutments and multi-column piers all founded on steel piles. The structure was originally constructed in 1964 as FAI Route 80 Section 99-4VB and rehabilitated in 1990, 1998, and 2001.

Staging: Traffic shall be maintained using staged construction.

Salvage: None



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Hot-Mix Asphalt Surface Removal (Deck)	Sq.Yd.	2,185	-	2,185
Deck Slab Repair (Partial)	Sq.Yd.	547	-	547
Deck Slab Repair (Full Depth, Type I)	Sq.Yd.	10	-	10
Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	100	-	100
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	246	-	246
Silicone Joint Sealer, 1.75"	Foot	51	-	51
Silicone Joint Sealer, 2.5"	Foot	151	-	151
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 inches)	Sq.Ft.	-	243	243
Structural Repair Of Concrete (Depth Greater Than 5 inches)	Sq.Ft.	-	238	238
Protective Shield, (Permanent)	Sq.Yd.	838	-	838
Approach Slab Repair (Partial Depth)	Sq.Yd.	25	-	25
Jack And Reposition Bearings	Each	-	18	18
Temporary Shoring and Cribbing	Each	28	-	28
Slope Wall Removal	Sq.Yd.	-	160	160
Slope Wall 4 Inch	Sq.Yd.	-	160	160
Porous Granular Embankment	Cu.Yd.	-	80	80
Polymer Concrete	Cu.Ft.	8.2	7.9	16.1
Reinforcement Bars, Epoxy Coated	Pound	2,560	284	2,844
Bar Splicers	Each	28	-	28
Furnishing and Erecting Structural Steel	Pound	-	730	730
Remove and Replace Bearings	Each	-	4	4
Concrete Removal	Cu.Yd.	12.2	2.0	14.2
Concrete Superstructure	Cu.Yd.	11.4	-	11.4
Concrete Structures	Cu.Yd.	-	2.0	2.0
Anchor Bolts, 1"	Each	-	8	8

INDEX OF SHEETS

- S-1 General Plan & Elevation, Notes, & Total Bill of Material
- S-2 Construction Staging
- S-3 Deck & Expansion Joint Repairs
- S-4 Deck & Expansion Joint Repairs
- S-5 Bearing Repairs
- S-6 Abutment Repairs
- S-7 Slopewall Repairs
- S-8 Pier 1 Repairs
- S-9 Pier 3 Repairs
- S-10 Pier 4 Repairs
- S-11 Partial Pier Cap 3 and 4 Removal and Replacement
- S-12 Bar Splicer Assembly & Mechanical Splicer Details
- S-13 Permanent Protective Shield
- S-14 Temporary Concrete Barrier for Stage Construction

Signed: *Philip C. Azzarello*
 Date: 1-19-11
 Exp: 11/30/2012
 Sheets: S-1 thru 14



SCOPE OF WORK

1. Remove the existing 2"± polymerized bituminous concrete surface course and replace it with a 2"± thick polymerized hot-mix asphalt surface course.
2. Perform partial and full depth repairs of the bridge deck.
3. Perform structural repairs on the abutments and the piers.
4. Replace the existing silicone sealers at the abutments and Pier 3 and existing preformed joint seal at Pier 4. Remove steel hardware at Piers 3 and 4 and replace with polymer concrete nosing.
5. Perform structural repairs to the west slope wall.
6. Jack and reposition expansion bearings at Piers 3 and 4.
7. Remove and replace bearings at Piers 3 and 4 at locations noted for pier cap removal and replacement.
8. Provide temporary shoring at Piers 3 and 4 for pier repairs.
9. Place permanent protective shield at Span 2 and Span 6.
10. Repair approach slab at abutments.

DESIGN SPECIFICATIONS

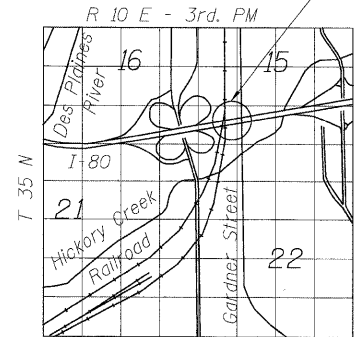
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition.

DESIGN STRESSES

f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

GENERAL NOTES

1. Plan dimensions and details relative to existing plans are subject to nominal construction variations. The Contractor shall field verify existing dimensions and details affecting new construction and make necessary approved adjustments prior to construction or ordering of materials. Such variations shall not be cause for additional compensation for a change in scope of the work. However, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.
3. Areas of proposed repairs are estimated. Actual type, location and dimensions are to be determined by the Engineer during construction.
4. Reinforcement bars designated (E) shall be epoxy coated.
5. The existing structural steel coating contains lead. The Contractor shall take appropriate precautions to deal with the presence of lead on this project.
6. The Inorganic Zinc Rich Primer / Acrylic / Acrylic Paint System shall be used for shop and field painting of new structural steel bearing plates. The color of the final finish coat shall be Reddish Brown, Munsell No. 2.5YR 3/4. See Special Provision for "Cleaning and Painting New Metal Structures."
7. Contractor to coordinate with Railroad the installation of the protective shield. Cost included with Protective Shield, Special.
8. Protective shield shall be installed prior to any deck slab repair work.
9. Substructure repairs shall be done under staging when no live load is present over repair area.



LOCATION SKETCH

USER NAME = rowood	DESIGNED - PCA	REVISED -
PLCT SCALE = 1:1	DRAWN - CFB	REVISED -
PLCT DATE = 19-JAN-2011	CHECKED - ACF	REVISED -
	DATE - 1/21/2011	REVISED -

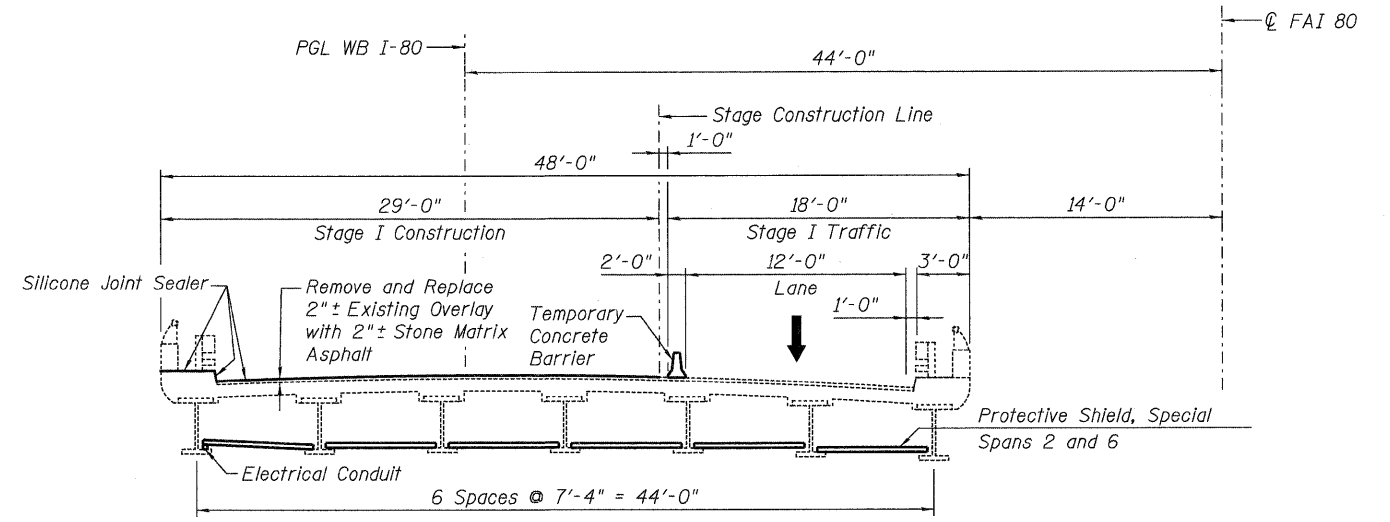


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

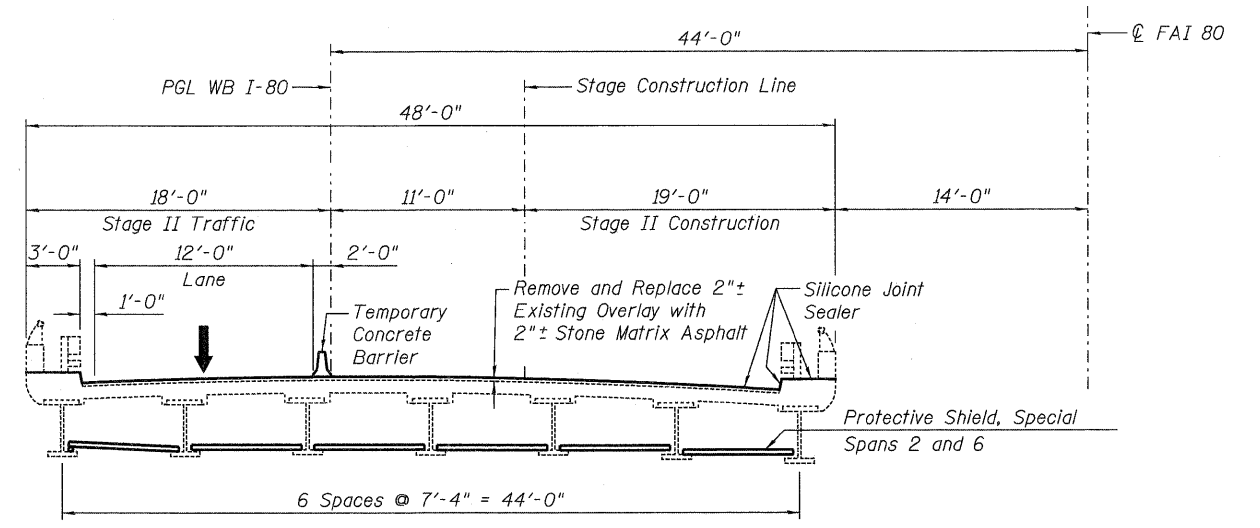
GENERAL PLAN & ELEVATION, NOTES, & TOTAL BILL OF MATERIAL
 WESTBOUND FAI-80 OVER RAILROAD/GARDNER STREET
 STRUCTURE NO. 099-0061

SHEET NO. S-1 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4)4-URS-3	WILL	203	152
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				CONTRACT NO. 60M66



STAGE I CONSTRUCTION & TRAFFIC
(Looking East)



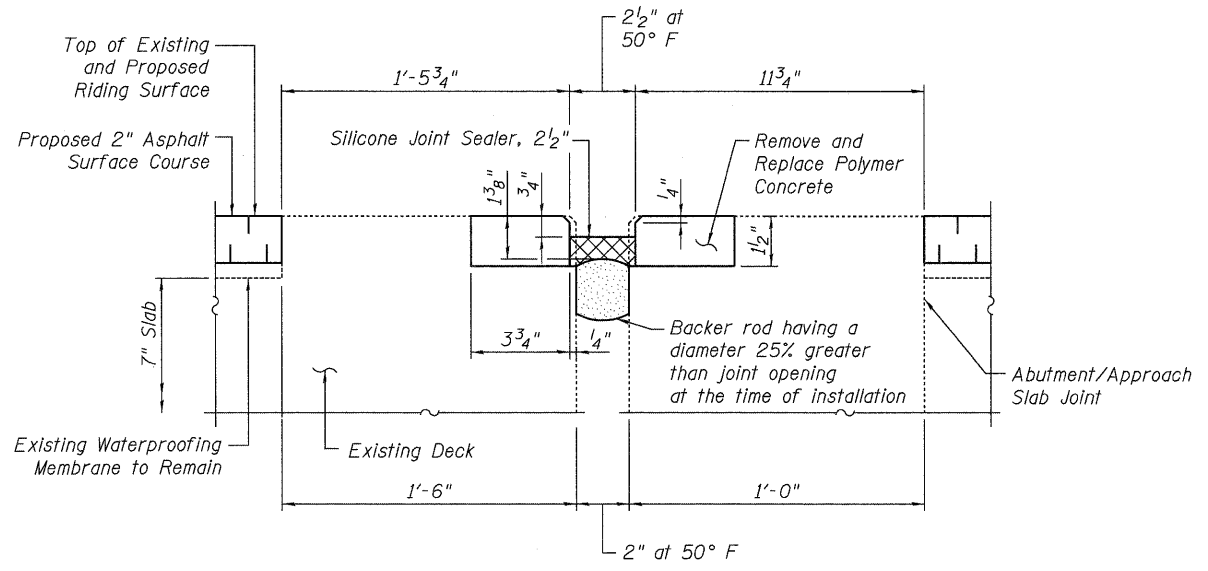
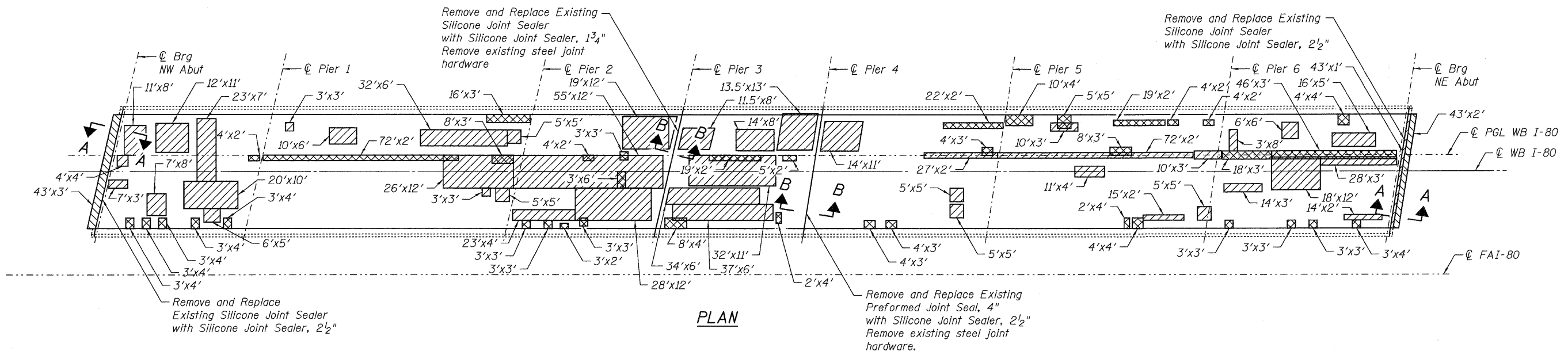
STAGE II CONSTRUCTION & TRAFFIC
(Looking East)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	246
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	2,185

NOTES:

1. For Temporary Concrete Barrier details, see Standard 704001. Cost included in Roadway Plans. For anchoring to bridge deck, see Sheet S-14 of 14.
2. Placement of protective shield shall not interfere with the operation and maintenance of the electrical conduit.



SECTION A-A

Removal quantity is included for payment with Deck Slab Repair (Partial).

LEGEND:

	Deck Slab Repair (Partial)
	Deck Slab Repair (Full Depth, Type I)
	Deck Slab Repair (Full Depth, Type II)
	Approach Slab Repair (Partial Depth)

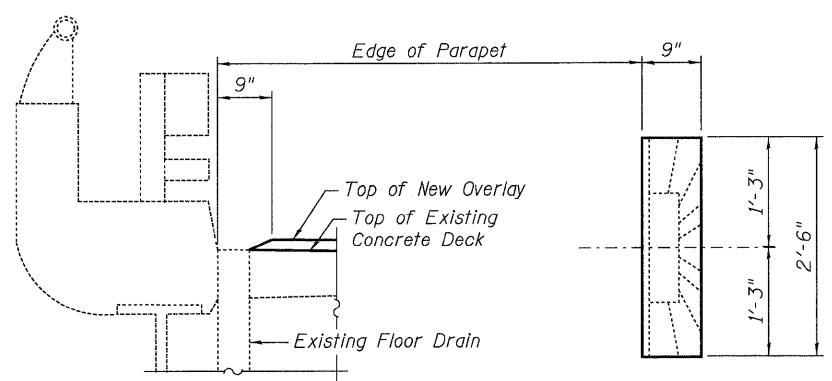
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Deck Slab Repair (Partial)	Sq.Yd.	547
Deck Slab Repair (Full Depth, Type I)	Sq.Yd.	10 **
Deck Slab Repair (Full Depth, Type II)	Sq.Yd.	100
Silicone Joint Sealer, 1.75"	Foot	51
Silicone Joint Sealer, 2.5"	Foot	151
Approach Slab Repair (Partial Depth)	Sq.Yd.	25
Polymer Concrete	Cu. Ft.	7.9

**A nominal quantity has been provided to establish a unit price if Type I repairs are required.

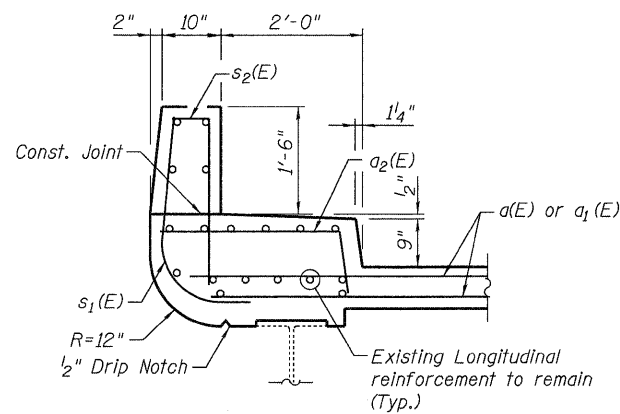
NOTES:

1. Remove and replace silicone joint sealer as detailed in Section A-A.
2. Areas of proposed deck repairs are estimated. Actual type, location and dimensions of deck repairs are to be determined by the Engineer during construction.
3. Reuse existing drain if drain falls within a full depth repair.
4. For Section B-B, see Sheet No. S-4 of 14.
5. Removal of the existing silicone joint shall be included in the cost of Silicone Joint Sealer, 1.75" or 2.5".
6. Contractor shall remove the existing asphalt wearing surface and, as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane system. After satisfactory completion of the deck repair work, an asphalt surface course shall be placed in sufficient thickness as to match the elevation of the original surface.
7. The Contractor shall grind off any existing concrete patches flush with the existing top of deck. This shall be included in the cost of Hot-Mix Asphalt Surface Removal (Deck).
8. Deck Slab Repair concrete shall be used up to top of existing waterproofing membrane system. Cost included in Deck Slab Repair pay item.
9. For Typical End of Seal Treatment Detail, see Sheet S-4 of 14.

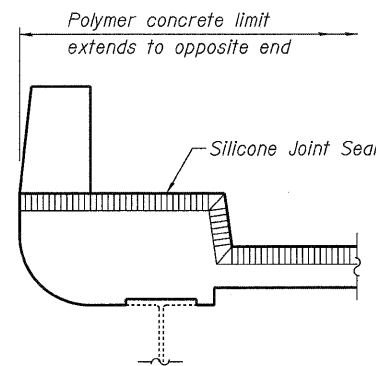


OVERLAY TREATMENT AT FLOOR DRAIN

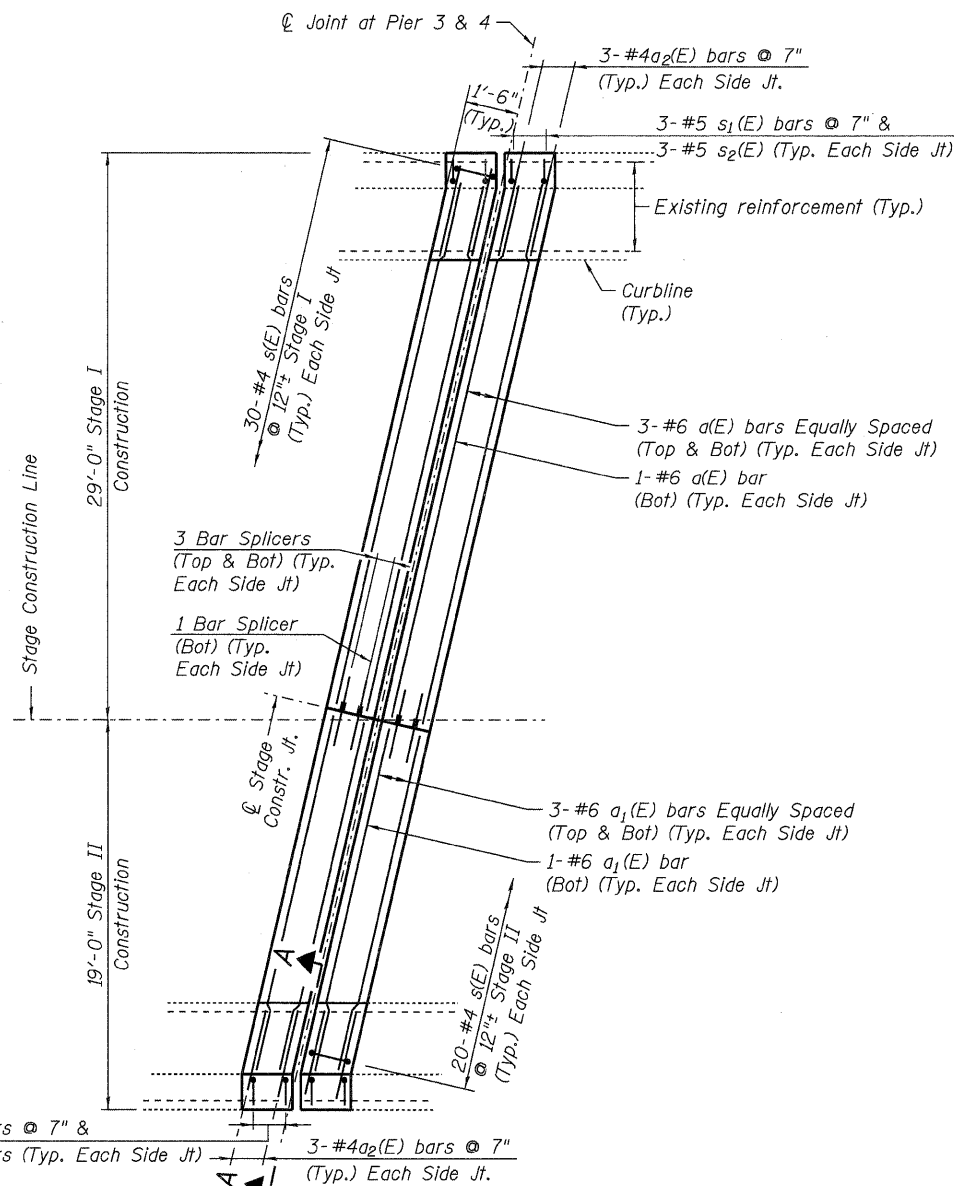
DESIGNED - PCA	REVISSED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DECK AND EXPANSION JOINT REPAIRS WESTBOUND FAI-80 OVER RAILROAD/GARDNER STREET STRUCTURE NO. 099-0061	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = lsupencheck	DRAWN - LK				80	99 (4&4-1) RS-3	WILL	203	154
PLOT SCALE = 1:1	CHECKED - ACF				CONTRACT NO. 60M66				
PLOT DATE = 19-JAN-2011	DATE - 1/21/2011				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
FILE NAME = IP_PWP\dms34565\0990061-60M66-003-DECK.WB.DGN					SHEET NO. S-3 OF 14 SHEETS				



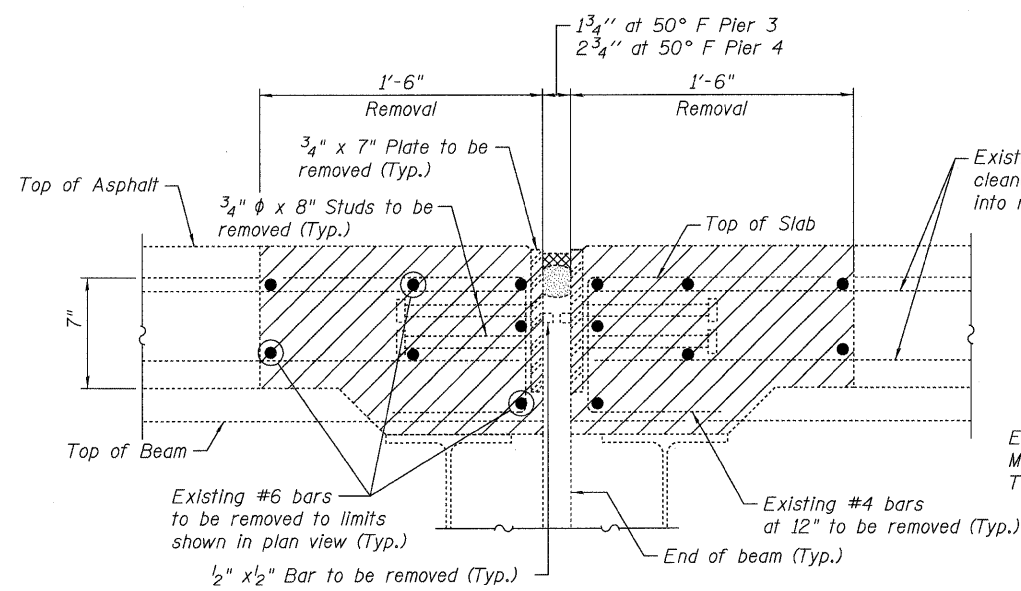
SECTION A-A



TYPICAL END OF SEAL TREATMENT
(Silicone Joint Seal)

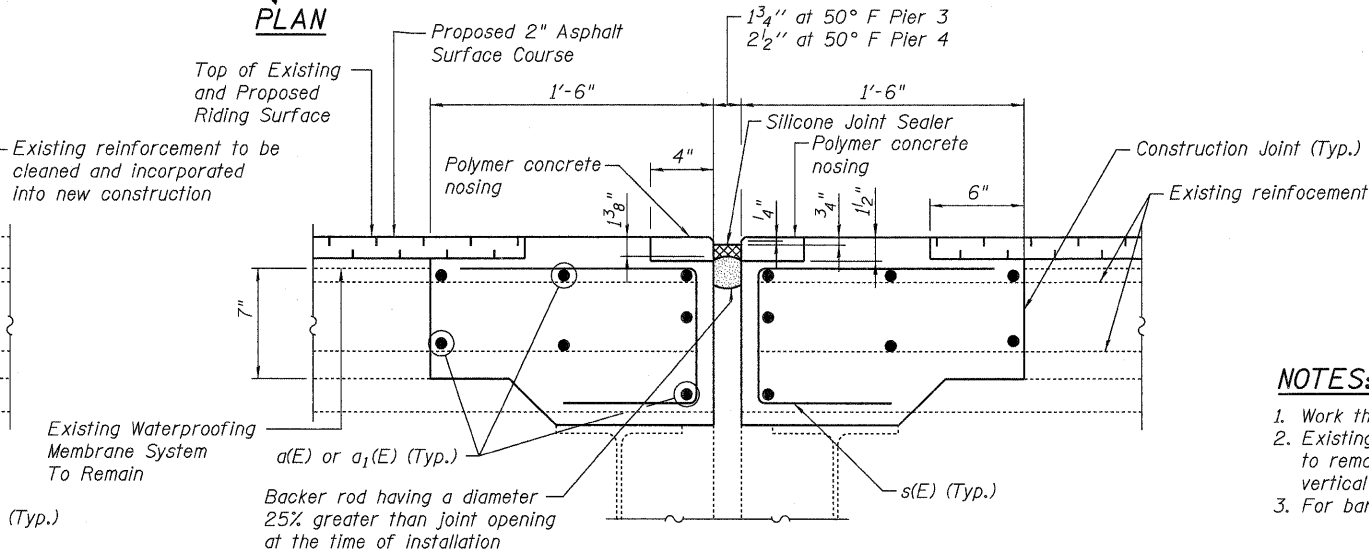


PLAN



EXISTING

(Silicone Joint at Pier 3 shown)



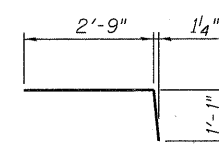
PROPOSED

NOTES:

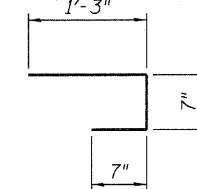
1. Work this sheet with Sheet No. S-3 of 14.
2. Existing curb and barrier longitudinal reinforcement to remain in place. Existing transverse curb and vertical barrier reinforcement to be removed.
3. For bar splicer details, see Sheet No. S-12 of 14.

BILL OF MATERIAL

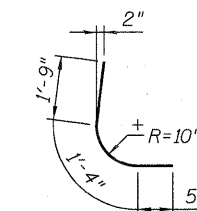
Bar	No.	Size	Length	Shape
a(E)	28	#6	29'-0"	—
a1(E)	28	#6	18'-11"	—
a2(E)	24	#4	3'-10"	—
s(E)	200	#4	2'-5"	—
s1(E)	24	#5	3'-6"	—
s2(E)	24	#5	2'-11"	—
ITEM		UNIT	QUAN	
Reinforcement Bars, Epoxy Coated		Pound	2,560	
Polymer Concrete		Cu. Ft.	8.2	
Concrete Superstructure		Cu. Yd.	11.4	
Concrete Removal		Cu. Yd.	12.2	



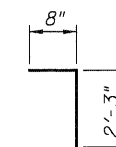
BAR a2(E)



BAR s(E)



BAR s1(E)



BAR s2(E)

DESIGNED - PCA/ML	REVISED -
DRAWN - LK	REVISED -
CHECKED - ACF	REVISED -
DATE - 1/21/2011	REVISED -



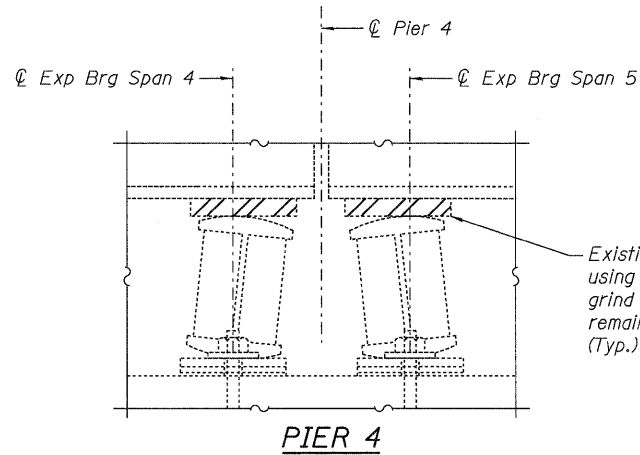
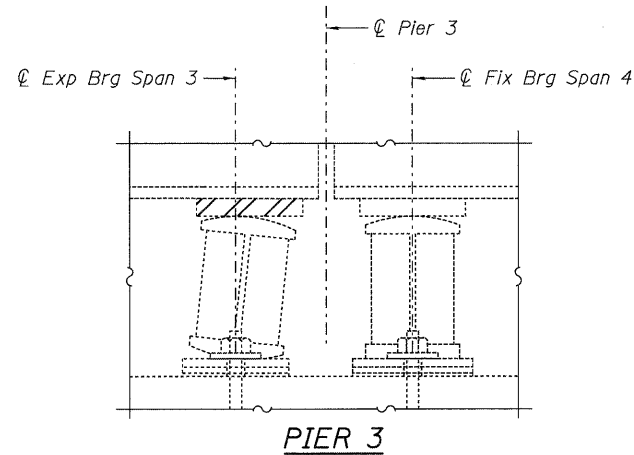
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

DECK & EXPANSION JOINT REPAIRS
WESTBOUND I-80 OVER RAILROAD/GARDNER STREET
STRUCTURE NO. 099-0061

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	155
CONTRACT NO. 60M66				

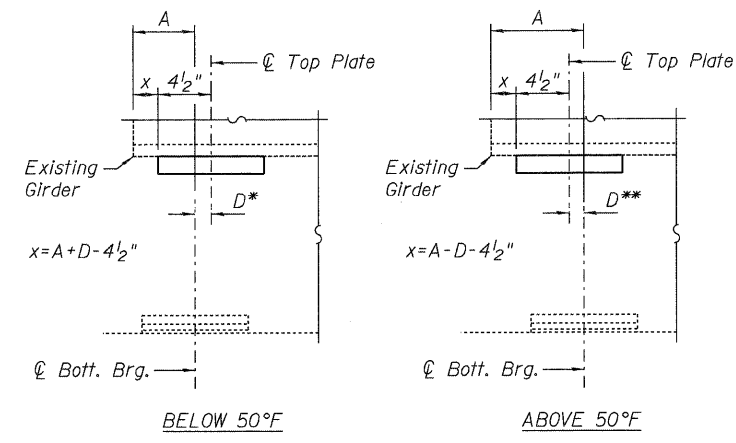
SHEET NO. S-4 OF 14 SHEETS

FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT

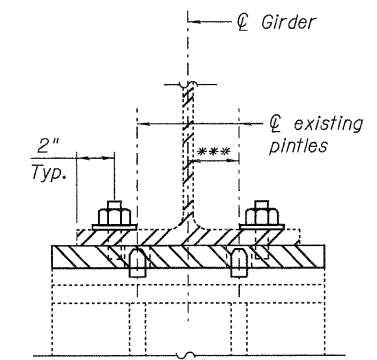


EXISTING BEARING REMOVAL DETAIL
(Looking North)

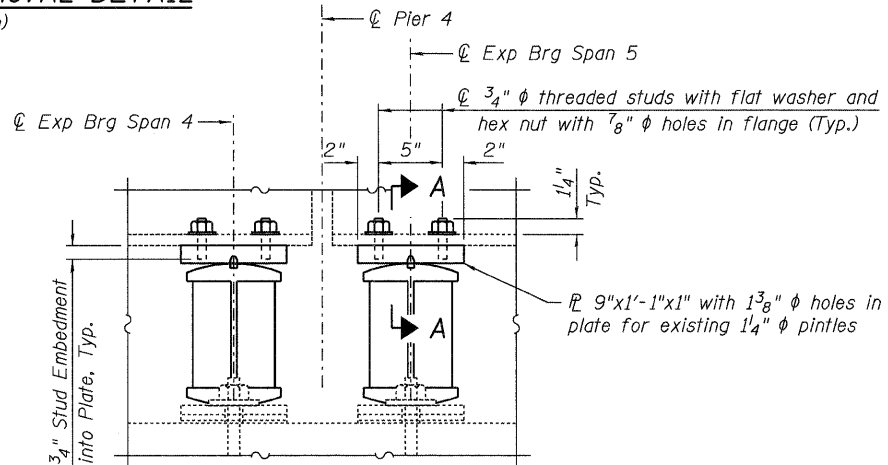
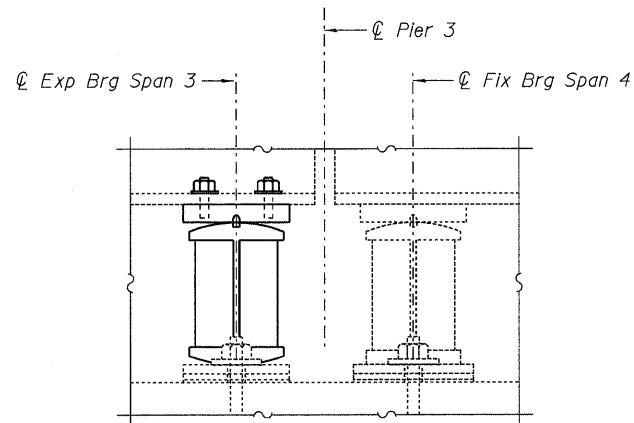
Existing plate to be removed using the air arc method and grind smooth all weld material remaining on the bottom flange (Typ.)



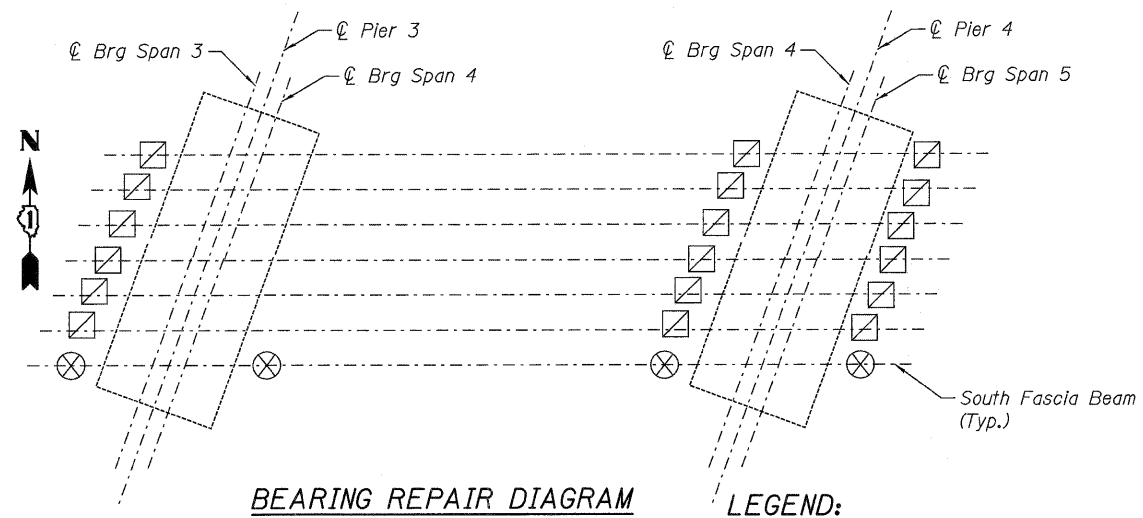
TOP PLATE AT BRG. REPOSITIONING
(Rocker not shown for clarity)
A=field measured



SECTION A-A
*** 3/4"± Contractor to field verify before drilling holes in plate

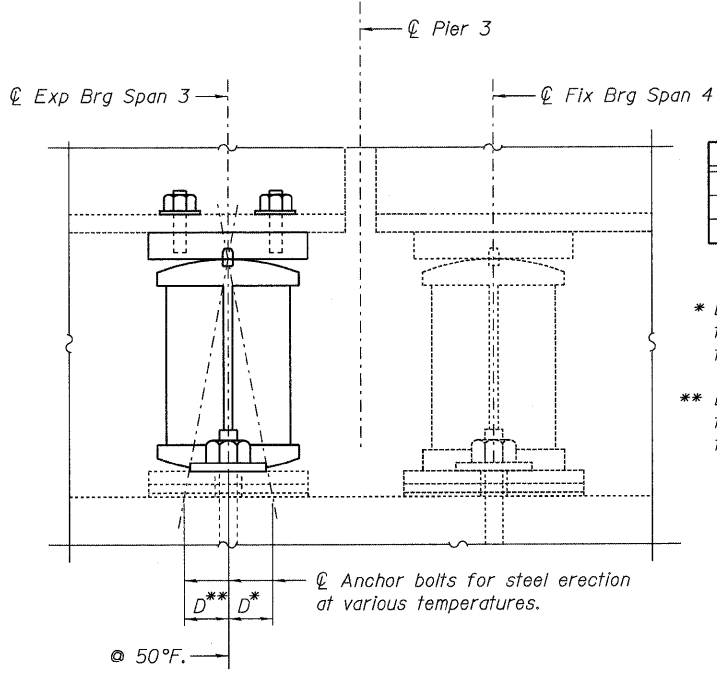


PROPOSED BEARING CONDITION @ 50°F
(Looking North)



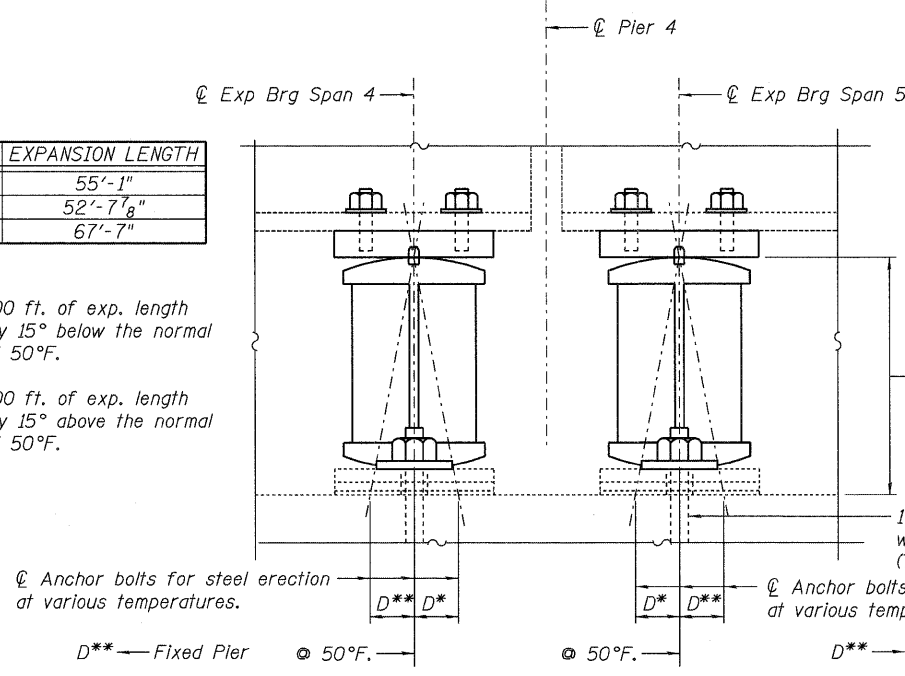
BEARING REPAIR DIAGRAM

- LEGEND:**
- ⊗ Remove and Replace (Reinstall) Bearing
 - ⊠ Jack and Reposition Bearings



SPAN	EXPANSION LENGTH
3	55'-1"
4	52'-7 7/8"
5	67'-7"

* $D = \frac{1}{8}''/100$ ft. of exp. length for every 15° below the normal temp. of 50°F.
 ** $D = \frac{1}{8}''/100$ ft. of exp. length for every 15° above the normal temp. of 50°F.



Existing bearing assembly (excluding anchor bolts) to be reused

EXPANSION BEARING POSITIONING FOR BEARING REPLACEMENT
(Looking North) (At ⊗ Locations)

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Jack and Reposition Bearings	Each	18
Remove and Replace Bearings	Each	4
Furnishing and Erecting Structural Steel	Pound	730
Anchor Bolts, 1"	Each	8

NOTES:

- The cost to remove the existing top plate is paid as "Jack and Reposition Bearings" or "Remove and Replace Bearings".
- If Contractor uses the same shoring system to repair the pier as he/she uses to jack and reposition the bearings and/or remove and replace the bearings, he/she will only be paid for the shoring system under "Temporary Shoring and Cribbing" and not under "Jack and Reposition Bearings" and/or "Remove and Replace Bearings".
- For beam reactions, see Sheet No. S-9 and S-10 of 14.
- "Remove and Replace Bearings" is the work required to remove the existing bearings for the pier cap reconstruction and reinstall the original bearings with new top plate, see Special Provisions.

USER NAME = jsupencheck
 PLOT SCALE = 1:1
 PLOT DATE = 19-JAN-2011
 FILE NAME = IP_PWP\dms34565\0990061-60M66-005-BRG.DGN

DESIGNED - PCA	REVISED -
DRAWN - RCW	REVISED -
CHECKED - ACF	REVISED -
DATE - 1/21/2011	REVISED -

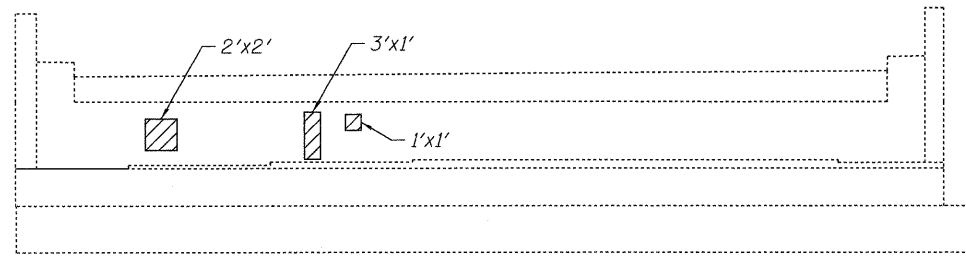


STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

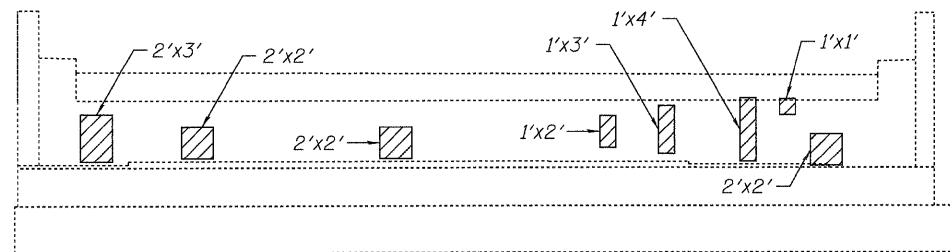
BEARING REPAIRS
 WESTBOUND FAI-80 OVER RAILROAD/GARDNER STREET
 STRUCTURE NO. 099-0061
 SHEET NO. S-5 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	156

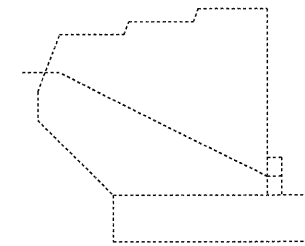
CONTRACT NO. 60M66
 FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT



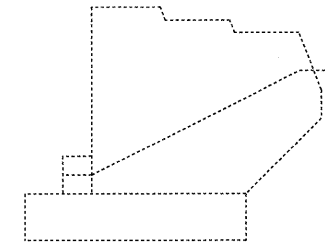
ELEVATION - NW ABUTMENT
Looking West



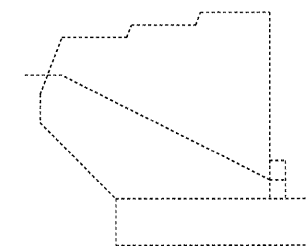
ELEVATION - NE ABUTMENT
Looking East



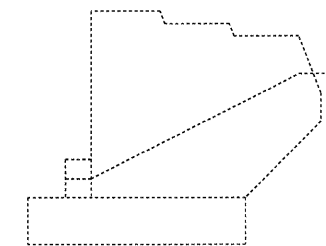
ELEVATION
NW ABUTMENT SOUTH WINGWALL
Outside Face



ELEVATION
NW ABUTMENT NORTH WINGWALL
Outside Face



ELEVATION
NE ABUTMENT SOUTH WINGWALL
Outside Face




ELEVATION
NE ABUTMENT NORTH WINGWALL
Outside Face

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	36

LEGEND:

 Spalled or unsound concrete

NOTES:

- Areas of proposed abutment repairs are estimated. Actual type, location and dimensions of abutment repairs are to be determined by the Engineer during construction.

DESIGNED - PCA	REVISED -
DRAWN - LK	REVISED -
CHECKED - MEA	REVISED -
DATE - 1/21/2011	REVISED -

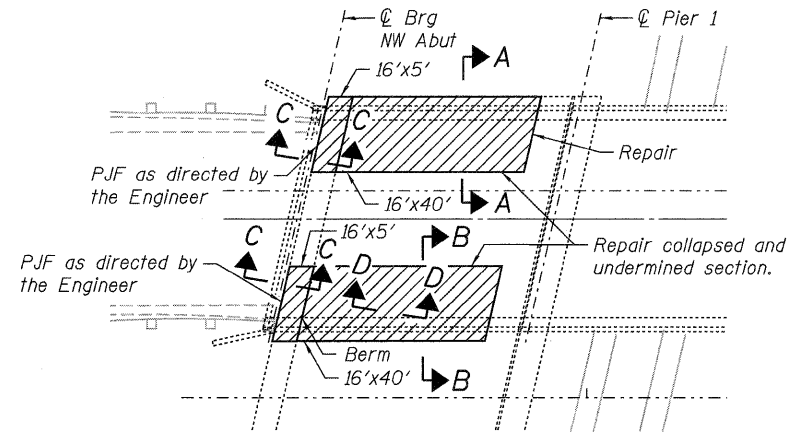


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

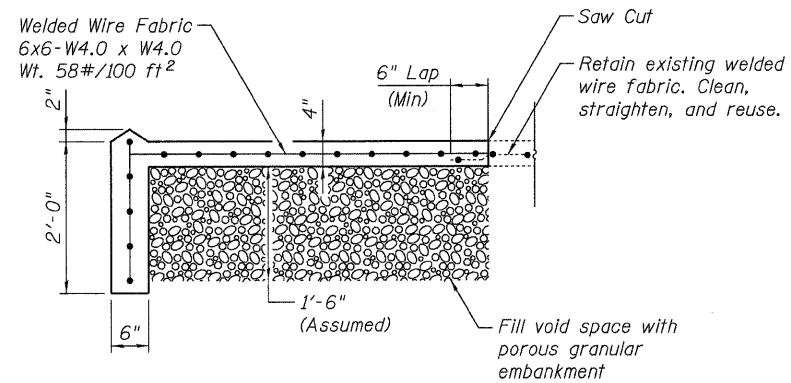
ABUTMENT REPAIRS
WESTBOUND FAI-80 OVER RAILROAD/GARDNER STREET
STRUCTURE NO. 099-0061

SHEET NO. S-6 OF 14 SHEETS

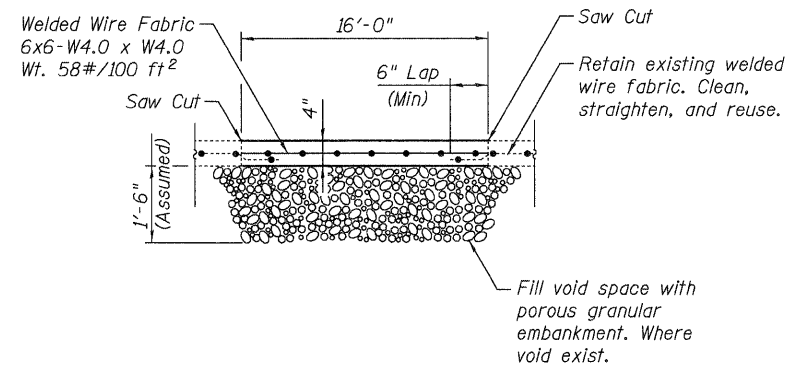
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	157
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



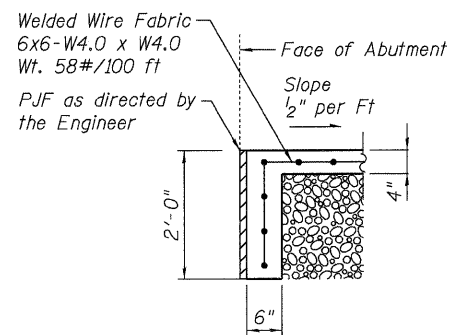
PLAN - WEST SLOPEWALL



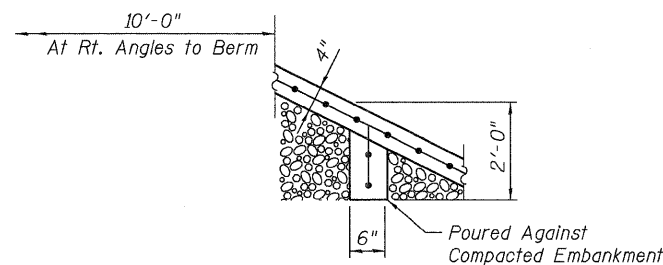
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu.Yd.	80
Slope Wall Removal	Sq.Yd.	160
Slope Wall 4 Inch	Sq.Yd.	160

LEGEND:

Slopewall Remove and Replace

NOTES:

1. Areas of proposed slope wall removal and replacement are estimated. Actual location and dimensions are to be determined by the Engineer during construction.
2. Cost of saw cuts and P/JF included in the cost of Slope Wall 4 Inch.

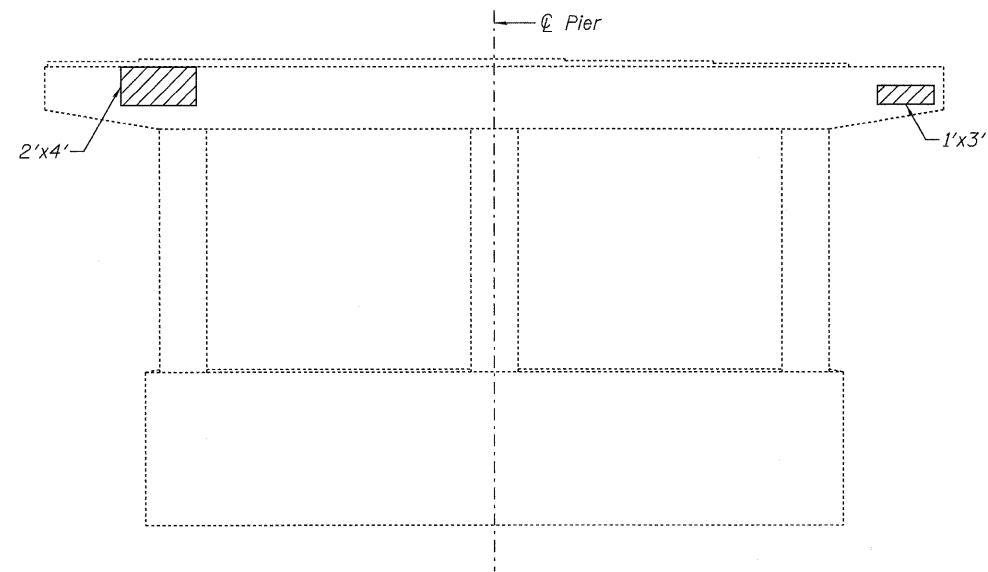
DESIGNED - PCA	REVISED -
USER NAME = Isupencheck	DRAWN - LK
PLOT SCALE = 1:1	CHECKED - MEA
PLOT DATE = 19-JAN-2011	DATE = 1/21/2011
FILE NAME = IP_PWP\dms34565\0990061-60M66-007-SLOPEW.VB.DGN	



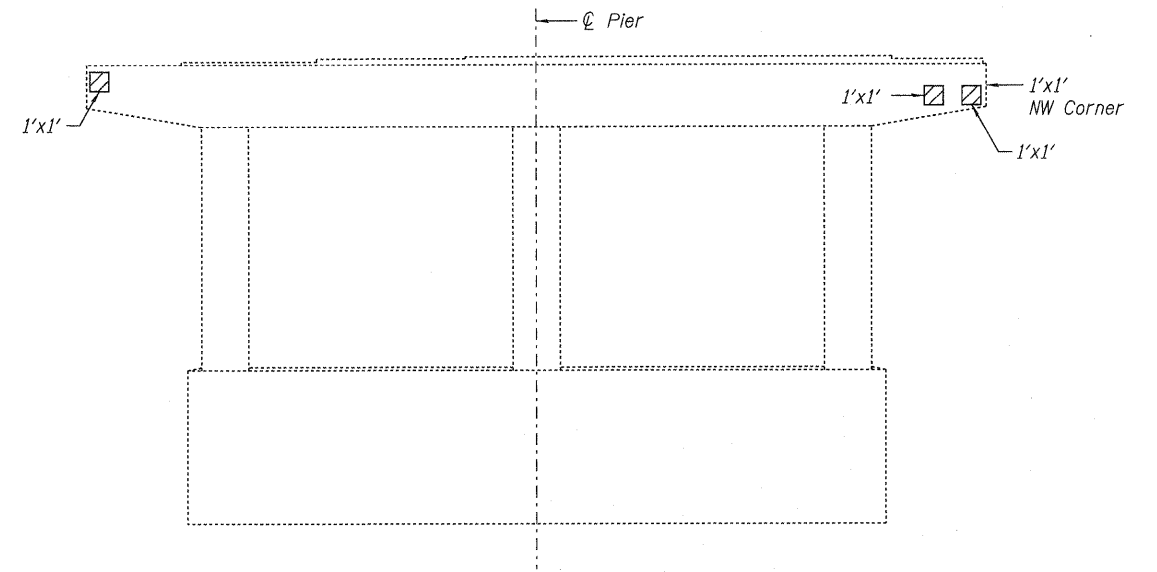
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SLOPEWALL REPAIRS
WESTBOUND FAI-80 OVER RAILROAD/GARDNER STREET
STRUCTURE NO. 099-0061
SHEET NO. S-7 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	158
CONTRACT NO. 60M66				
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



PIER 1 - WEST ELEVATION
Looking East




PIER 1 - EAST ELEVATION
Looking West

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	15

LEGEND:

 Spalled or unsound concrete

NOTES:

1. Areas of proposed pier repairs are estimated. Actual type, location and dimensions of pier repairs are to be determined by the Engineer during construction.

DESIGNED - PCA	REVISED -
USER NAME = lsupencheck	DRAWN - LK
PLLOT SCALE = 1:1	CHECKED - MEA
PLLOT DATE = 19-JAN-2011	DATE - 1/21/2011
	REVISED -

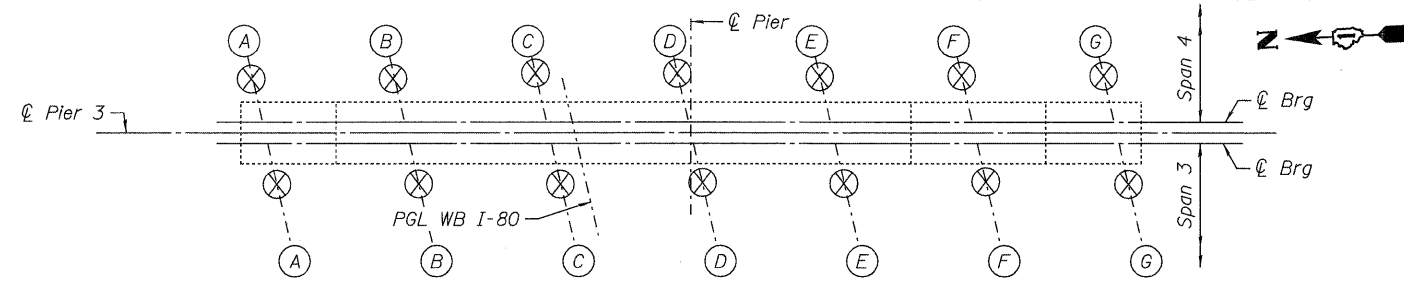


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REPAIRS
WESTBOUND I-80 OVER RAILROAD/GARDNER STREET
STRUCTURE NO. 099-0061

SHEET NO. S-8 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	159
CONTRACT NO. 60M66			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

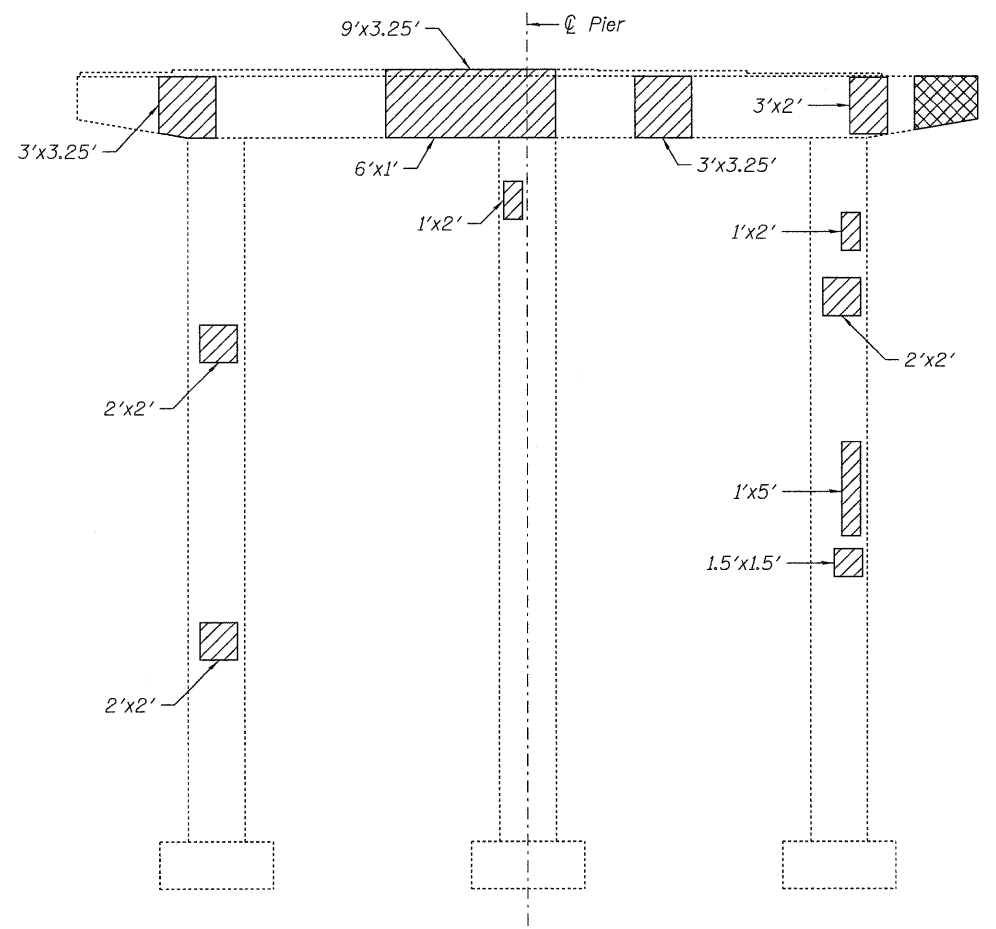


TEMPORARY SHORING PLAN
PIER 3
⊗ Temporary Support

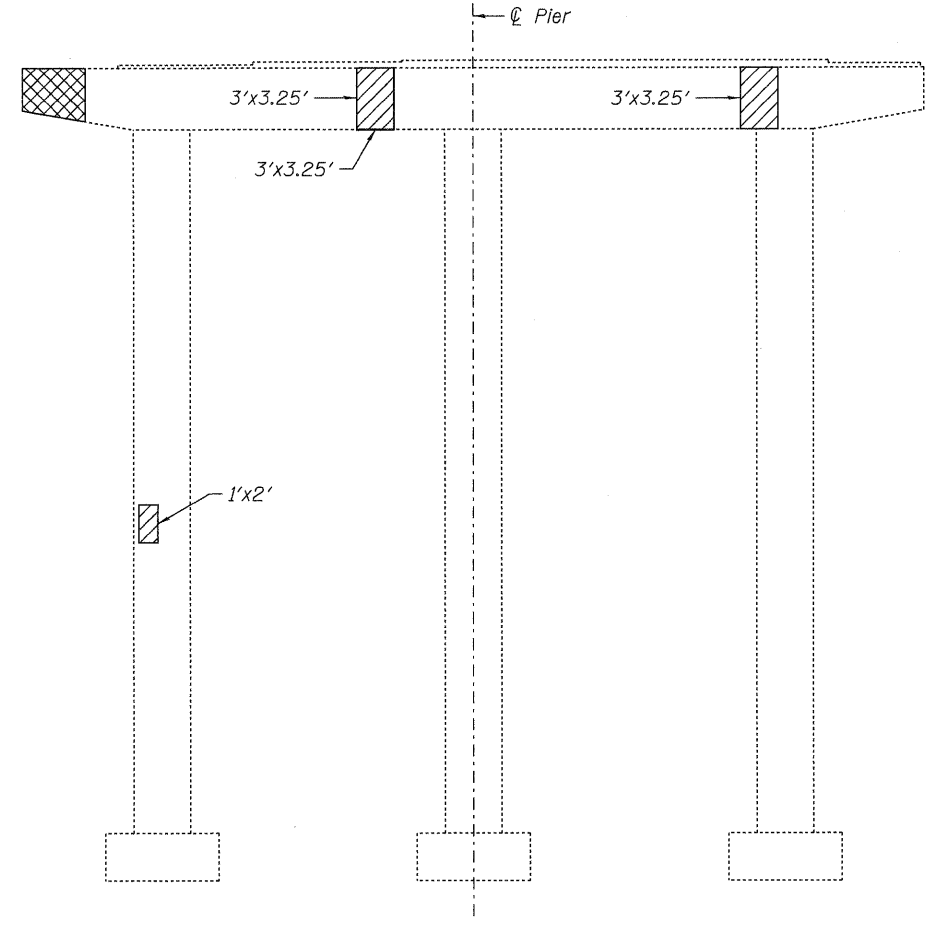
TEMPORARY SUPPORT
INTERIOR BEAM REACTIONS

REACTION	SPAN 3	SPAN 4
Dead Load	26	48
Live Load + Impact	50	51
Total	76	100

Contractor to design shoring system for dead load plus live load plus impact. See Special Provision for Temporary Shoring and Cribbing.



WEST ELEVATION
Looking East



EAST ELEVATION
Looking West

BILL OF MATERIAL

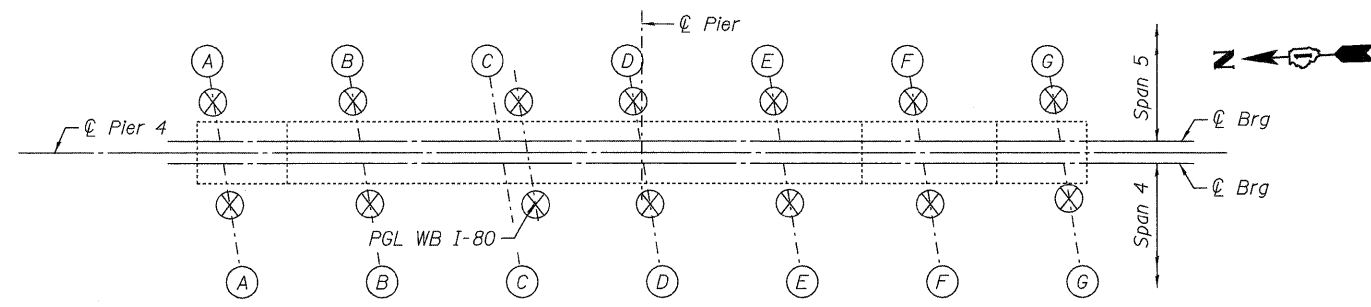
ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq.Ft.	64
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	52
Temporary Shoring and Cribbing	Each	14

LEGEND:

- Spalled or unsound concrete
- Removal and replacement See Sheet S-11 of 14 for details.

NOTES:

1. Areas of proposed pier repairs are estimated. Actual type, location and dimensions of pier repairs are to be determined by the Engineer during construction.
2. Temporary Shoring and Cribbing is required for pier repairs.



TEMPORARY SHORING PLAN

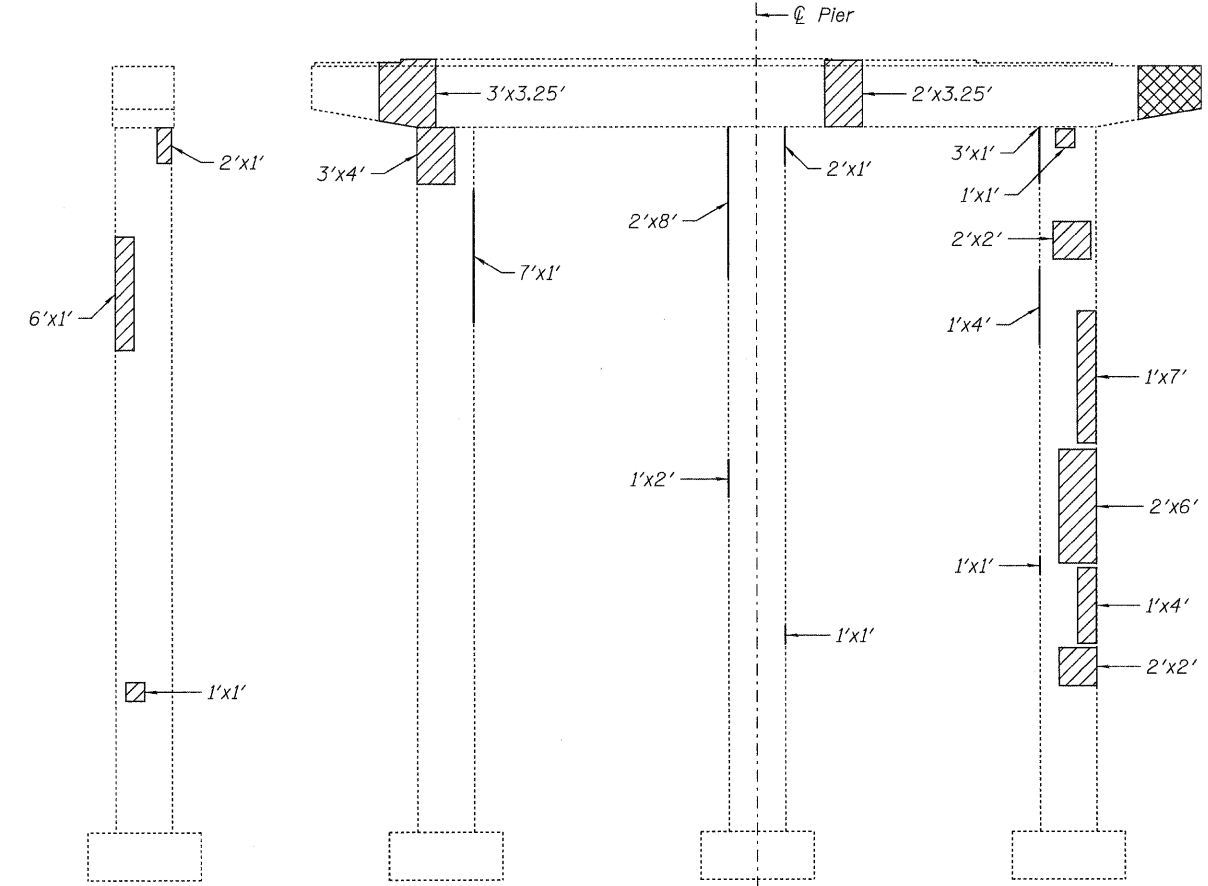
PIER 4

⊗ Temporary Support

**TEMPORARY SUPPORT
INTERIOR BEAM REACTIONS**

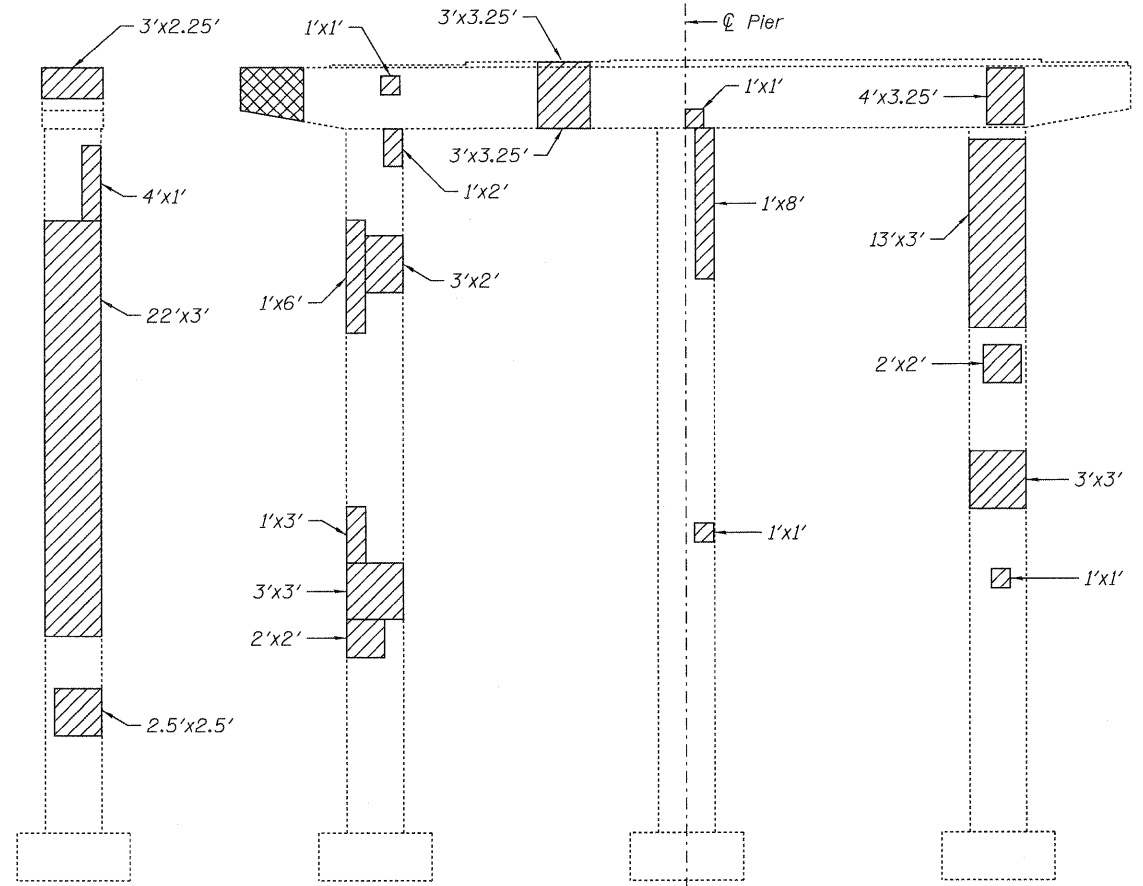
REACTION	SPAN 4	SPAN 5
Dead Load	48	41
Live Load + Impact	51	50
Total	100	91

Contractor to design shoring system for dead load plus live load plus impact.



NORTH ELEVATION
Looking South

WEST ELEVATION
Looking East



SOUTH ELEVATION
Looking North

EAST ELEVATION
Looking West

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq.Ft.	174
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	140
Temporary Shoring and Cribbing	Each	14

LEGEND:

- Spalled or unsound concrete
- Removal and replacement
See Sheet S-11 of 14 for details.

NOTES:

1. Areas of proposed pier repairs are estimated. Actual type, location and dimensions of pier repairs are to be determined by the Engineer during construction.
2. Temporary Shoring and Cribbing is required for pier repairs.

DESIGNED - PCA	REVISED -
USER NAME = lsupencheck	DRAWN - LK
PLOT SCALE = 1/4"	CHECKED - MEA
PLOT DATE = 19-JAN-2011	DATE - 1/21/2011
FILE NAME = IP_PWPdms34565\0990261-60M66-010-PIER.DGN	REVISED -

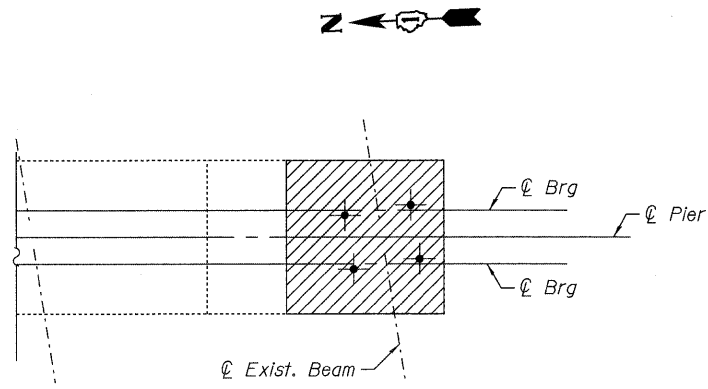


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

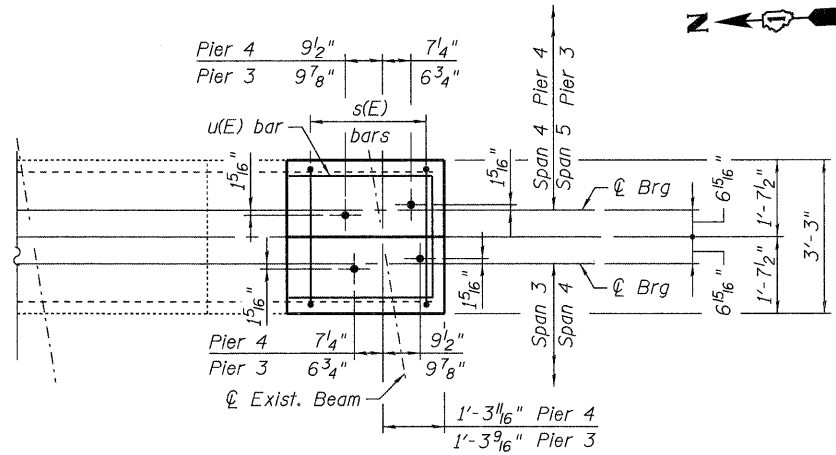
**PIER 4 REPAIRS
WESTBOUND FAI-80 OVER RAILROAD/GARDNER STREET
STRUCTURE NO. 099-0061**

SHEET NO. S-10 OF 14 SHEETS

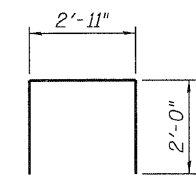
F.A.I. RTE. 80	SECTION 99 (4&4-1) RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 161
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



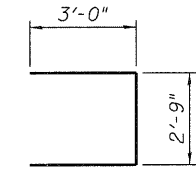
EXISTING



PROPOSED



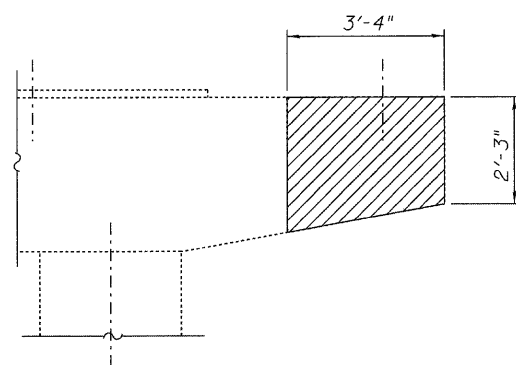
BAR s(E)



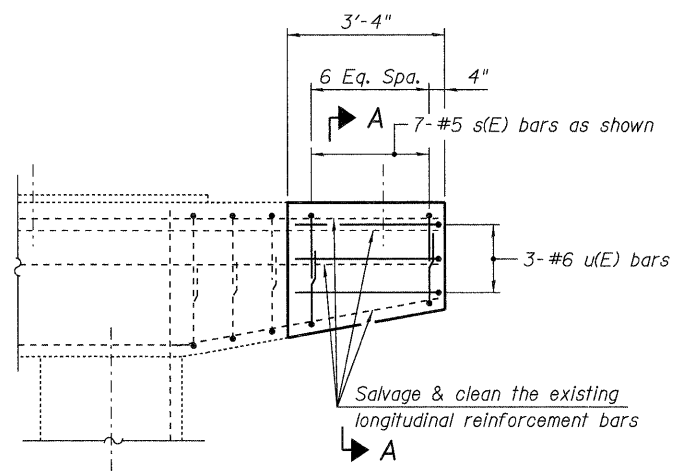
BAR u(E)

BILL OF MATERIAL

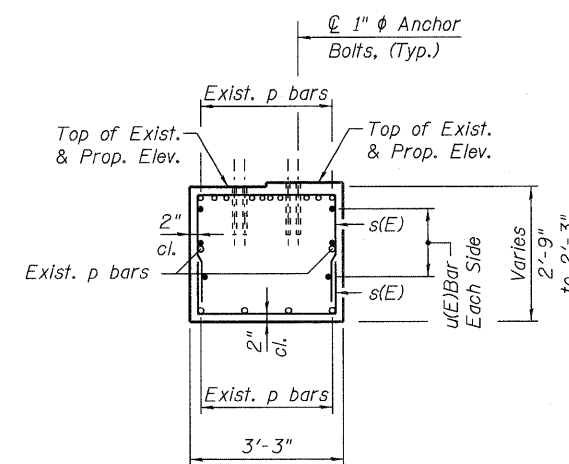
Bar	No.	Size	Length	Shape	
s(E)	28	#5	6'-11"	□	
u(E)	6	#6	8'-9"	□	
Reinforcement Bars, Epoxy Coated				Pound	284
Concrete Structures				Cu. Yd.	2.0
Concrete Removal				Cu. Yd.	2.0



EXISTING



PROPOSED



SECTION A-A

PLAN

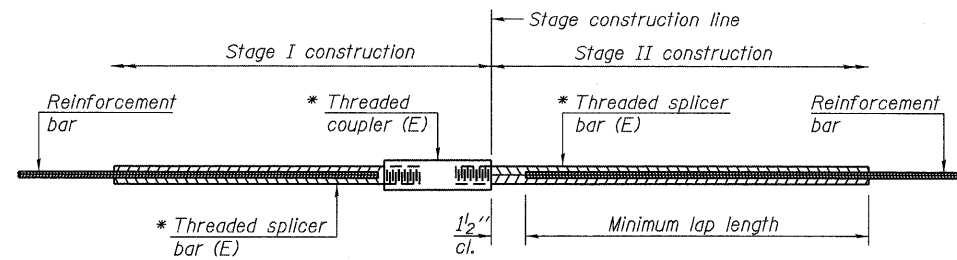
ELEVATION

LEGEND:

Concrete Removal

NOTES:

1. Space reinforcement in cap to miss anchor bolts.
2. Drill holes in cap for anchor bolts and install bolts per Standard Specifications.



STANDARD BAR SPLICER ASSEMBLY

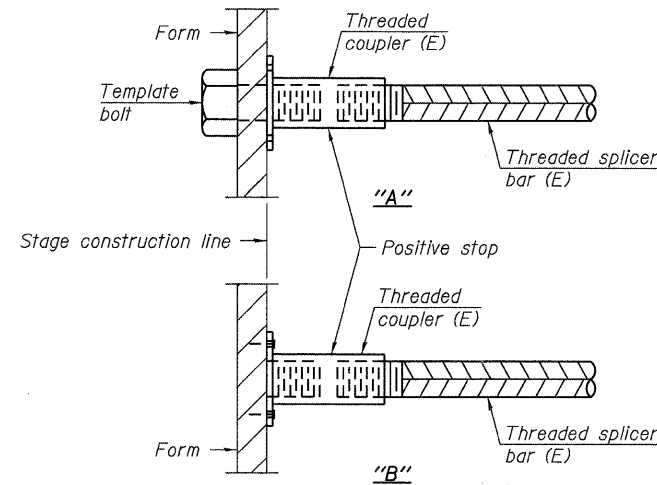
Bar size to be spliced	Minimum Lap Lengths				
	Table 1	Table 2	Table 3	Table 4	Table 5
3, 4	1'-5"	1'-11"	2'-1"	2'-4"	2'-3"
5	1'-9"	2'-5"	2'-7"	2'-11"	2'-10"
6	2'-1"	2'-11"	3'-1"	3'-6"	3'-4"
7	2'-9"	3'-10"	4'-2"	4'-8"	4'-6"
8	3'-8"	5'-1"	5'-5"	6'-2"	5'-10"
9	4'-7"	6'-5"	6'-10"	7'-9"	7'-5"

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

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

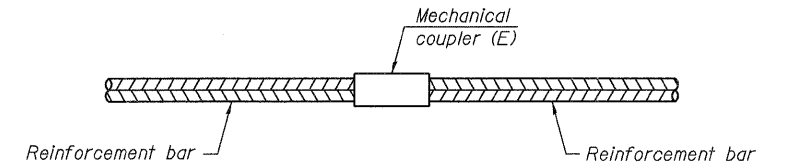
* Epoxy not required on Bar Splicer Assembly components used in conjunction with black bars.

Location	Bar size	No. assemblies required	Table for minimum lap length
Deck	#6	28	Table 3



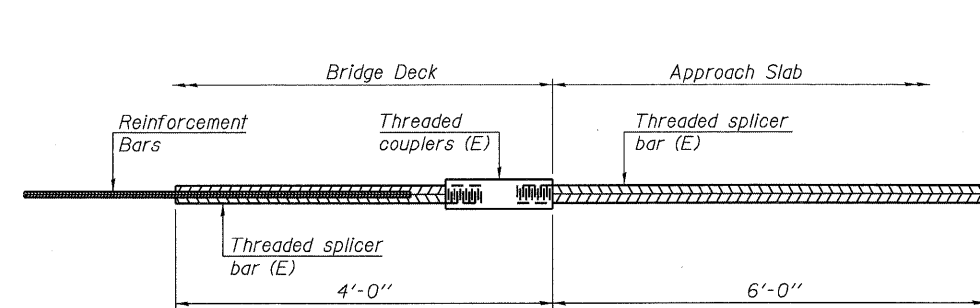
INSTALLATION AND SETTING METHODS

"A": Set bar splicer assembly by means of a template bolt.
 "B": Set bar splicer assembly by nailing to wood forms or cementing to steel forms.
 (E): Indicates epoxy coating.



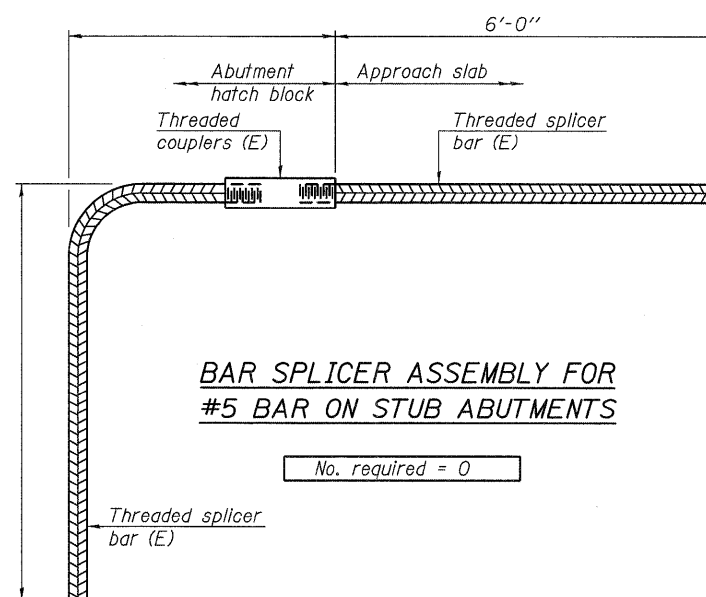
STANDARD MECHANICAL SPLICER

Location	Bar size	No. assemblies required
---	---	---



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

No. required = 0



BAR SPLICER ASSEMBLY FOR #5 BAR ON STUB ABUTMENTS

No. required = 0

NOTES:

Splicer bars shall be deformed with threaded ends and have a minimum 60 ksi yield strength.
 All reinforcement shall be lapped and tied to the splicer bars.
 Bar splicer assemblies shall be epoxy coated according to the requirements for reinforcement bars. See Section 508 of the Standard Specifications.
 See special provision for Mechanical Splicers.
 See approved list of bar splicer assemblies and mechanical splicers for alternatives.

BSD-1 7-1-10

DESIGNED - PCA	REVISED -
DRAWN - LK	REVISED -
CHECKED - ACF	REVISED -
DATE - 1/21/2011	REVISED -



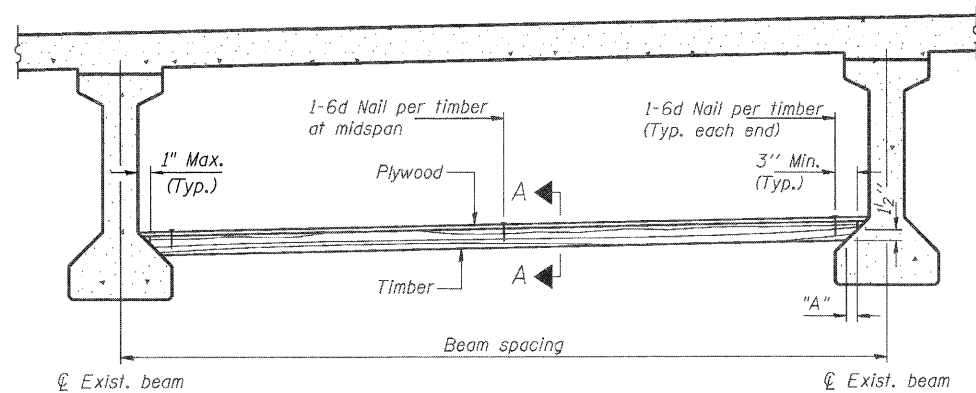
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BAR SPLICER ASSEMBLY & MECHANICAL SPLICER DETAILS
WESTBOUND I-80 OVER RAILROAD/GARDNER STREET
STRUCTURE NO. 099-0061

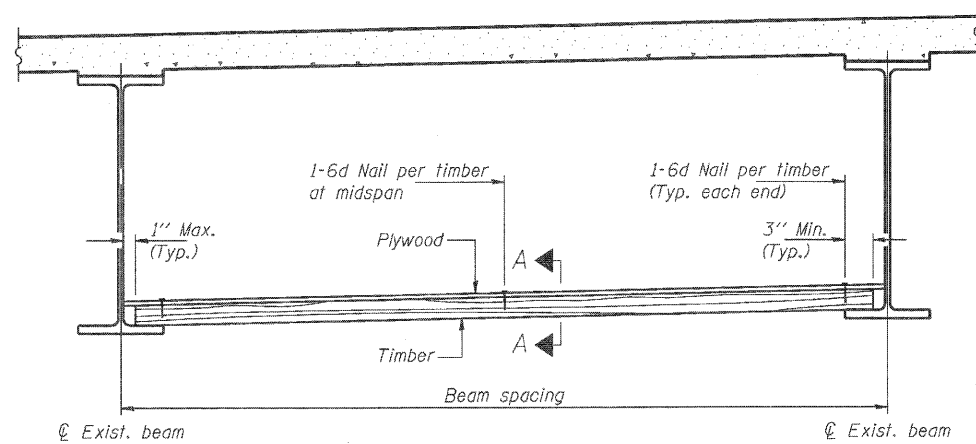
SHEET NO. S-12 OF 14 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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CONTRACT NO. 60M66			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

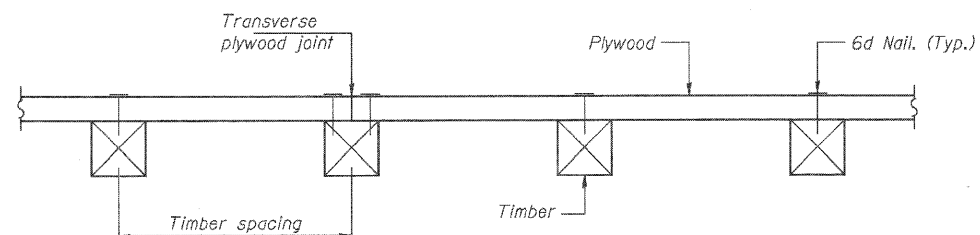
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION



PPC I-BEAMS AND BULB-T's



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

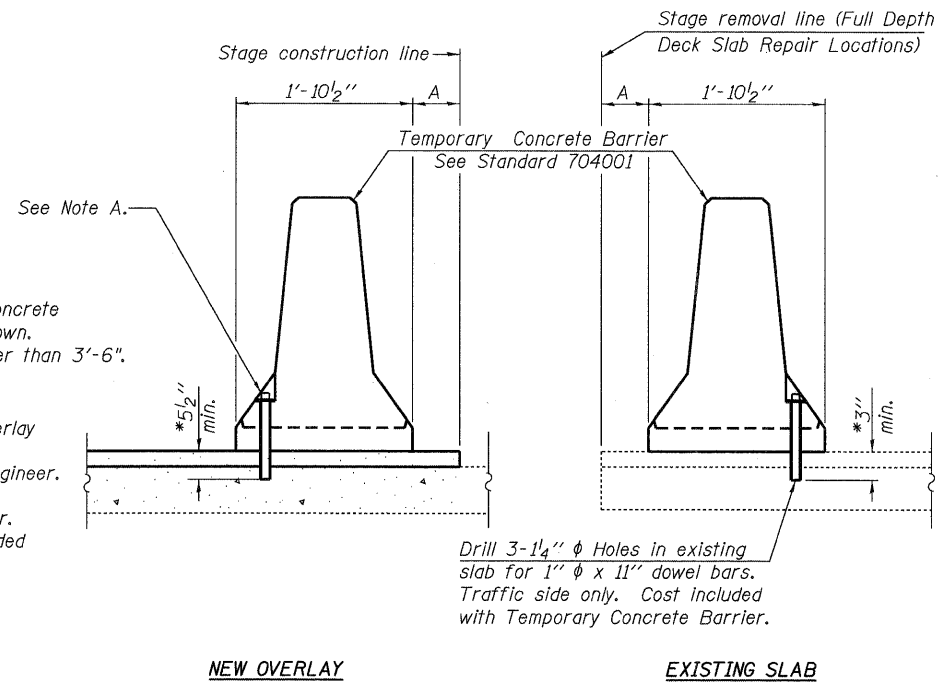
PPC I-BEAMS AND BULB-T's

BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

Notes: See special provision for Protective Shield, Special.
Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
All timber shall be treated.
Plywood shall be 5/8" Exterior type plywood. (Per APA)
Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
Transverse plywood joints shall be supported by timbers.
When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
Design load = 200 psf.

BILL OF MATERIAL

Item	Unit	Total
Protective Shield, Special	Sq. Yd.	838



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the slab as shown. No anchorage is required when "A" is greater than 3'-6".

Note A: Drill 3-1/4" ϕ holes through new overlay into slab for 1" ϕ x 13" dowel bars. Traffic side only as directed by Engineer. Repair hole with non-shrink epoxy grout as directed by Engineer. Cost of anchorage and repair included with Temporary Concrete Barrier.

Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NEW OVERLAY

EXISTING SLAB

SECTIONS THRU SLAB

* Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

NOTES:

1. Anchorage of concrete barrier to deck is required at locations of full depth deck slab repair and at new overlay section thru slab shown.

USER NAME = lsupencheck	DESIGNED - PCA	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION WESTBOUND I-80 OVER RAILROAD/GARDNER STREET STRUCTURE NO. 099-0061	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT SCALE = 1:1	DRAWN - LK	REVISED -				80	99 (4&4-1) RS-3	WILL	203	165
PLOT DATE = 19-JAN-2011	CHECKED - ML	REVISED -				CONTRACT NO. 60M66				
FILE NAME = TP_PWP\dms34565\0990061-60M66-014-BARRIER.DGN	DATE - 1/21/2011	REVISED -	SHEET NO. S-14 OF 14 SHEETS			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

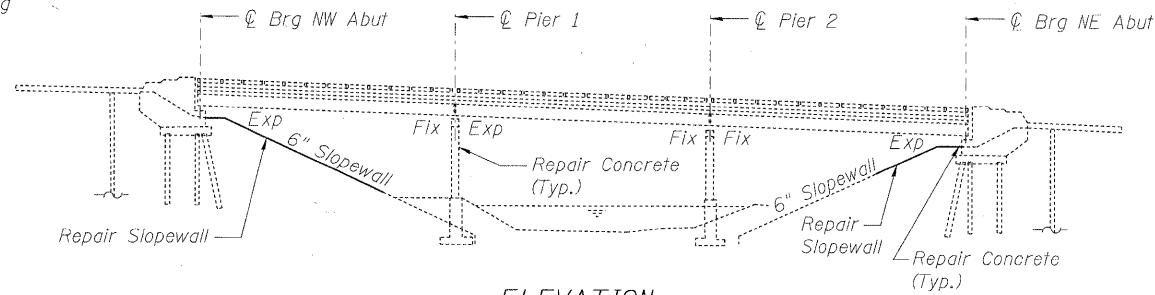
Existing Structure: SN 099-0063

The existing structure is a three span composite steel wide flange beam bridge. The beams support a 7" reinforced concrete slab and a 2" thick waterproof membrane system and polymerized bituminous concrete surface course. The substructure consists of reinforced concrete stub abutments founded on steel piles and multi-column piers founded on spread footings. The structure was originally constructed in 1964 as FAI Route 80, Section 99-4B-1 and rehabilitated in 1990, 1998, and 2001.

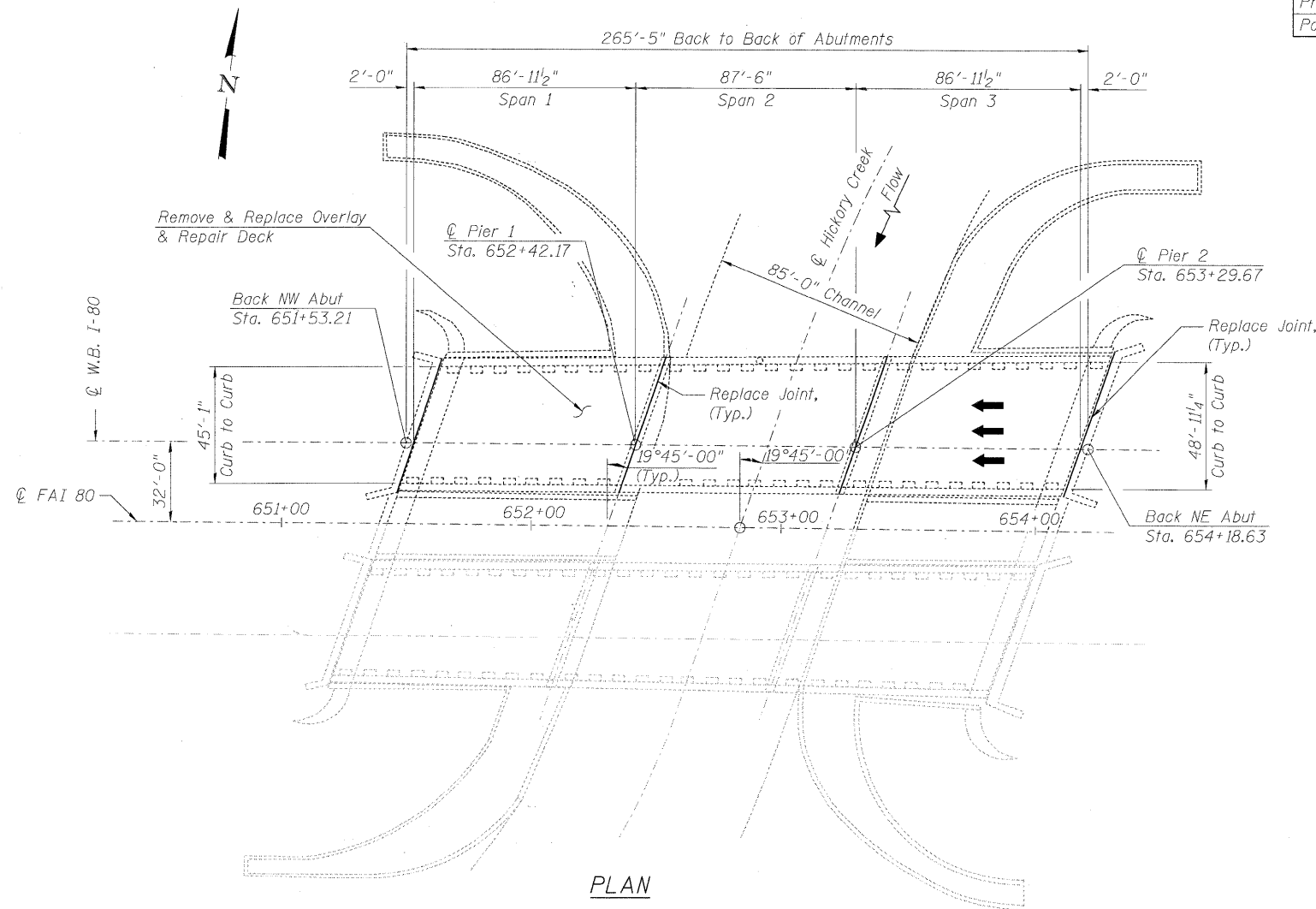
Staging:

Traffic shall be maintained using stage construction.

Salvage: None.



ELEVATION



PLAN

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1,340	—	1,340
Deck Slab Repair (Partial)	Sq. Yd.	311	—	311
Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	10	—	10
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	94	—	94
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	151	—	151
Silicone Joint Sealer, 1"	Foot	58	—	58
Silicone Joint Sealer, 2.75"	Foot	172	—	172
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq. Ft.	—	573	573
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq. Ft.	—	257	257
Slope Wall Removal	Sq. Yd.	—	133	133
Slope Wall 6 Inch	Sq. Yd.	—	133	133
Protective Shield	Sq. Yd.	1,564	—	1,564
Porous Granular Embankment	Cu. Yd.	—	67	67

SCOPE OF WORK

1. Remove the existing 2"± thick polymerized bituminous concrete surface course and replace it with a 2"± thick polymerized hot-mix asphalt surface course.
2. Perform partial and full depth repairs of the bridge deck.
3. Perform structural repairs on the abutments and the piers.
4. Replace the existing preformed joint sealers at the abutments and piers with silicone joint sealers.
5. Perform structural repairs to the slopewalls.

DESIGN SPECIFICATIONS

2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition.

DESIGN STRESSES

f'c = 3,500 psi
fy = 60,000 psi

GENERAL NOTES

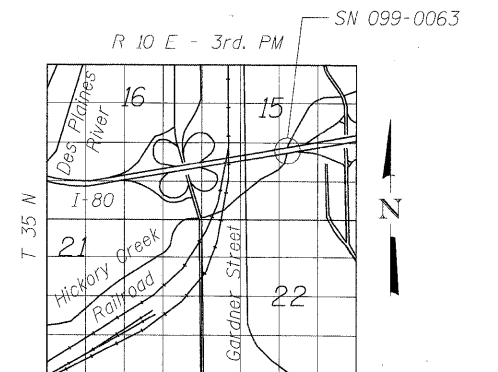
1. Reinforcement bars shall conform to the requirements of ASTM A706 Grade 60. See Special Provisions.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. Contractor should verify dimensions and make necessary approved adjustments prior to starting construction. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for actual quantity furnished and approved by Engineer at unit price bid for the work.
3. Areas of proposed repairs are estimated. Actual type, location and dimensions are to be determined by the Engineer during construction.
4. Contractor shall remove the existing asphalt wearing surface and, as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane system. After satisfactory completion of the deck repair work, an asphalt surface course shall be placed in sufficient thickness as to match the elevation of the original surface.
5. Protective shield shall be installed prior to any deck slab repair work. Protective shield required for environmentally sensitive creek.
6. Substructure repairs shall be done under staging when no live load is present over repair area.

INDEX OF SHEETS

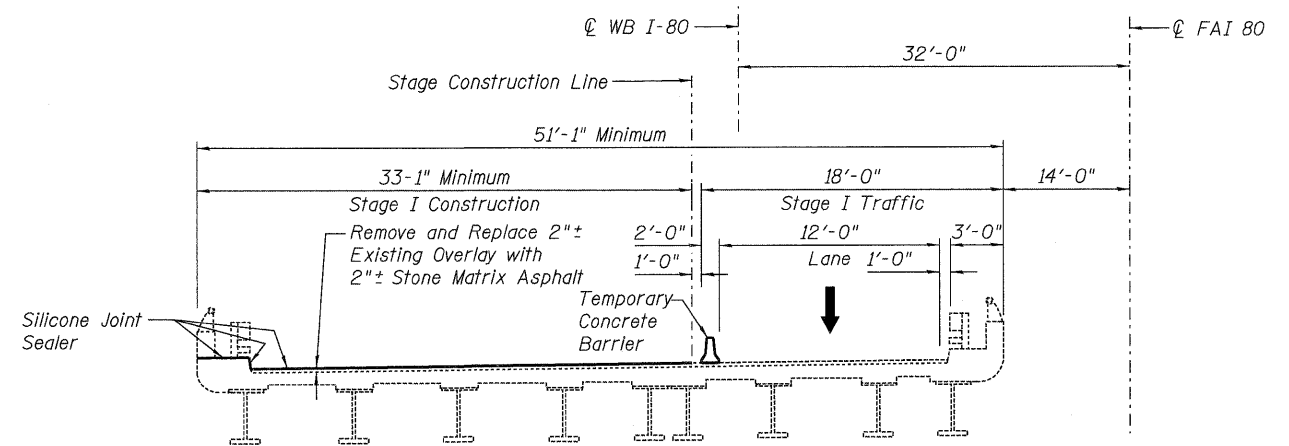
- S-1 General Plan & Elevation, Notes & Total Bill of Material
- S-2 Construction Staging
- S-3 Deck & Expansion Joint Repairs
- S-4 Abutment Repairs
- S-5 Slopewall Repairs
- S-6 Pier 1 Repairs
- S-7 Pier 2 Repairs
- S-8 Temporary Concrete Barrier for Stage Construction



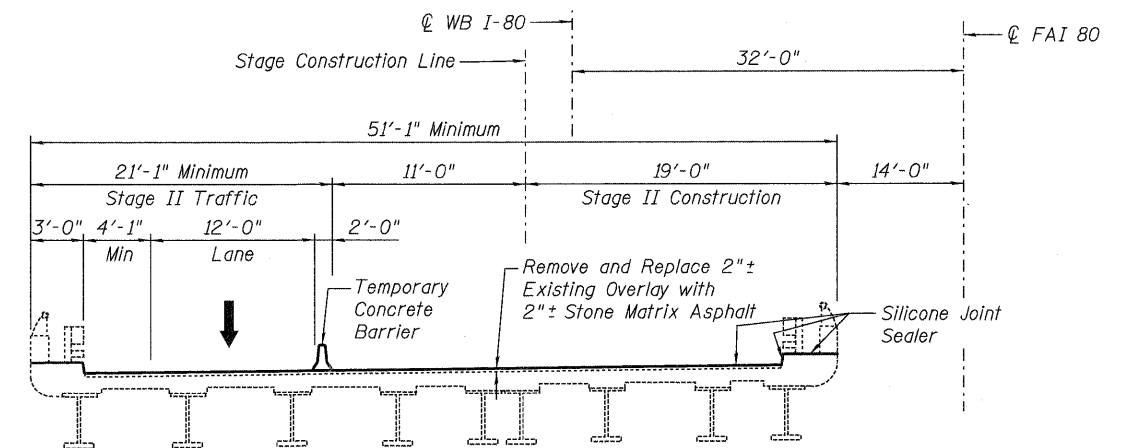
Signed: *Philip C. Azzarello*
Date: 1-19-11
Exp: 11/30/2012
Sheets: S-1 thru 8



LOCATION SKETCH



STAGE I CONSTRUCTION & TRAFFIC
(Looking East)



STAGE II CONSTRUCTION & TRAFFIC
(Looking East)

ITEM	UNIT	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	151
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	1,340
Protective Shield	Sq. Yd.	1,564

NOTES:

- Limits of protective shield extend from abutment to abutment and from out to out of parapet.
- For temporary concrete barrier details, see Standard 704001. Cost included in Roadway Plans. For anchoring to bridge deck, see Sheet S-8 of 8.

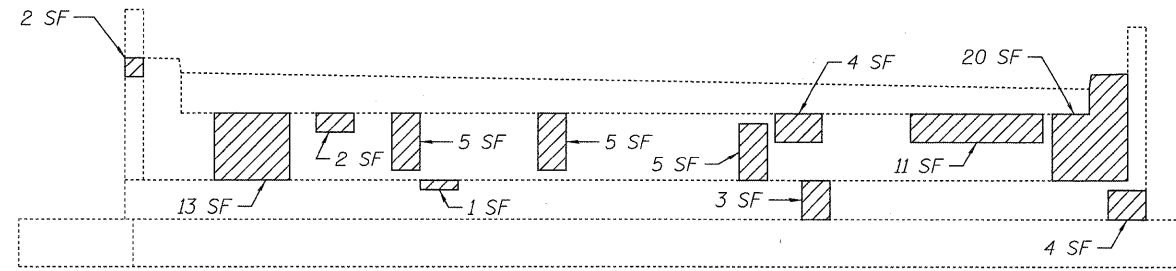
DESIGNED - PCA	REVISED -
DRAWN - RCW	REVISED -
CHECKED - MEA	REVISED -
DATE - 01/21/2011	REVISED -



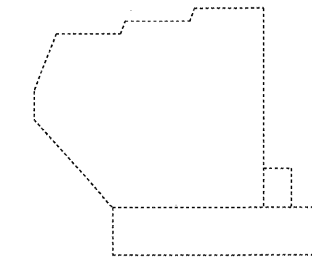
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION STAGING
WESTBOUND FAI-80 OVER HICKORY CREEK
STRUCTURE NO. 099-0063

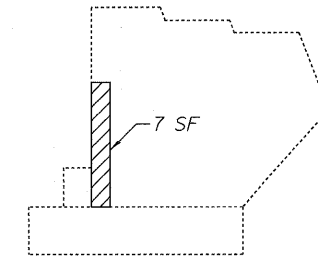
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	167
CONTRACT NO. 60M66				
SHEET NO. S-2 OF 8 SHEETS				
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				



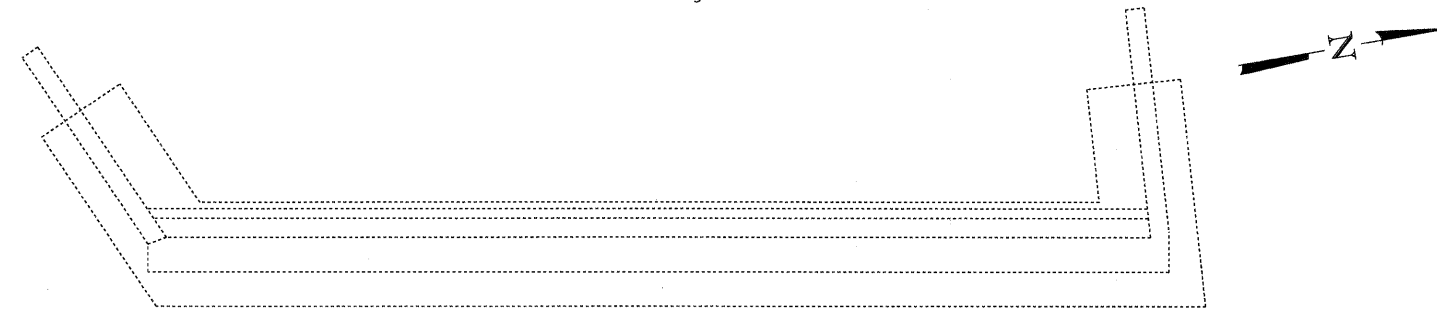
ELEVATION - NORTHWEST ABUTMENT
Looking West



ELEVATION - SOUTH WINGWALL
Outside Face

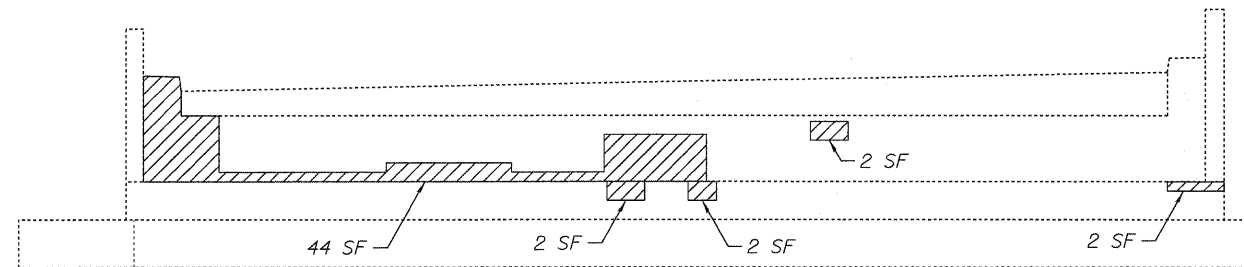


ELEVATION - NORTH WINGWALL
Outside Face

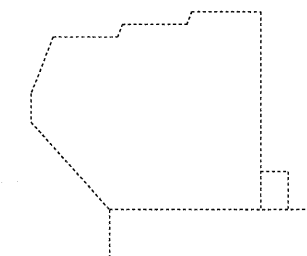


PLAN - NORTHWEST ABUTMENT

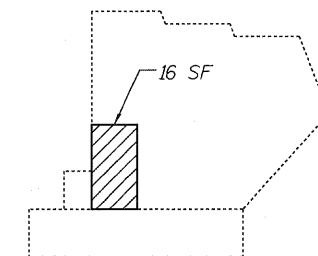
NORTHWEST ABUTMENT



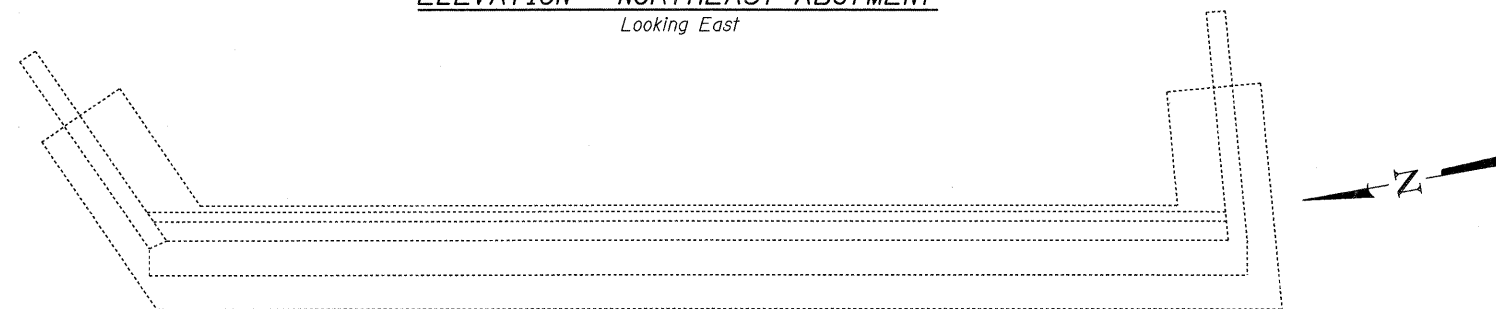
ELEVATION - NORTHEAST ABUTMENT
Looking East



ELEVATION - NORTH WINGWALL
Outside Face



ELEVATION - SOUTH WINGWALL
Outside Face



PLAN - NORTHEAST ABUTMENT

NORTHEAST ABUTMENT

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq.Ft.	63
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	87

LEGEND:

Spalled or unsound concrete - SF indicates square feet.

NOTES:

1. Areas of proposed abutment repairs are estimated. Actual type, location and dimensions of abutment repairs are to be determined by the Engineer during construction.

DESIGNED - PCA	REVISED -
USER NAME = lsupencheck	DRAWN - LK
PLOT SCALE = 1:1	CHECKED - MEA
PLOT DATE = 19-JAN-2011	DATE - 01/21/2011
REVISED -	REVISED -

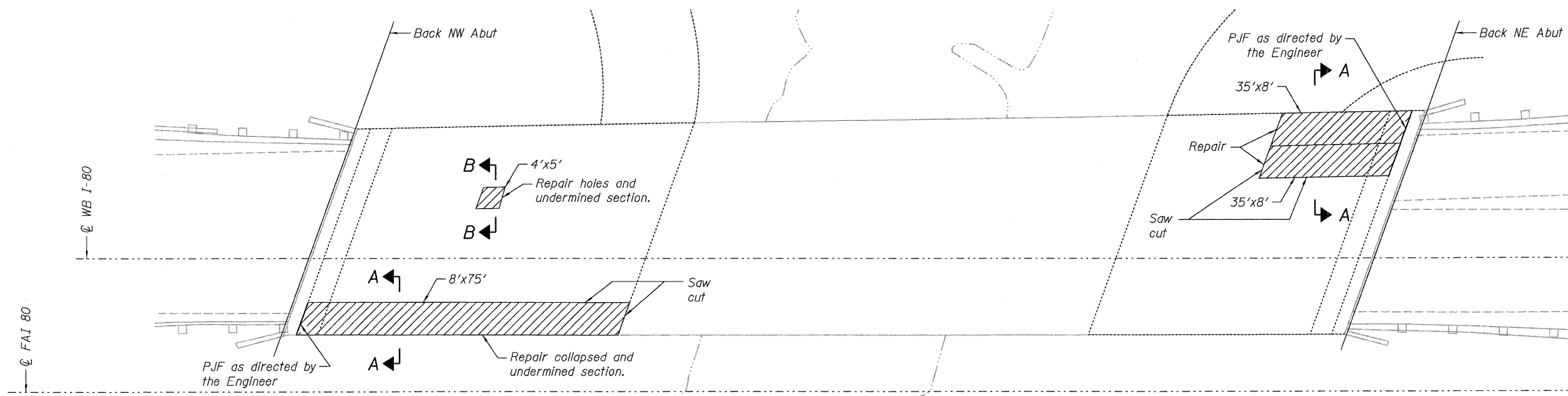


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

ABUTMENT REPAIRS
WESTBOUND FAI-80 OVER HICKORY CREEK
STRUCTURE NO. 099-0063

SHEET NO. S-4 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	169
CONTRACT NO. 60M66			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT	

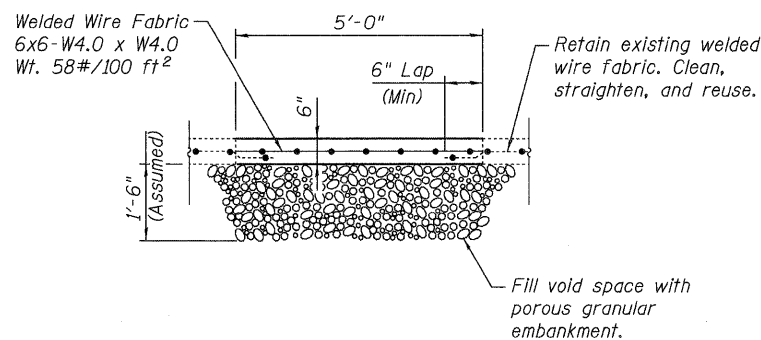


PLAN - WEST SLOPEWALL

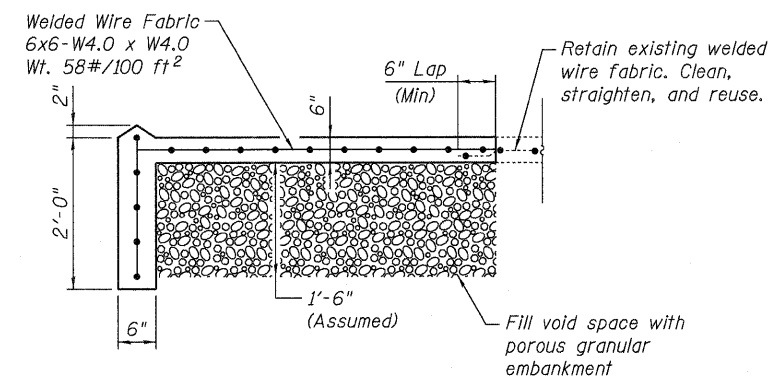
PLAN - EAST SLOPEWALL

LEGEND:

Remove and Replace



SECTION B-B



SECTION A-A

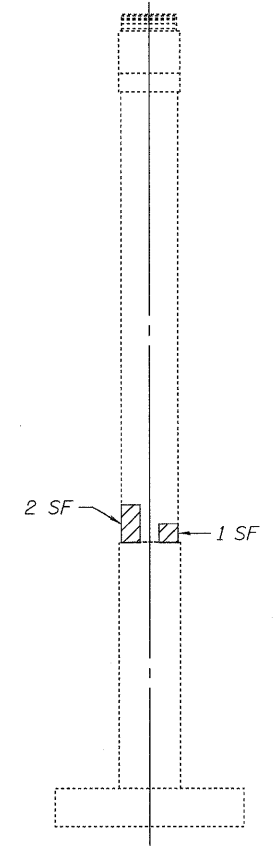
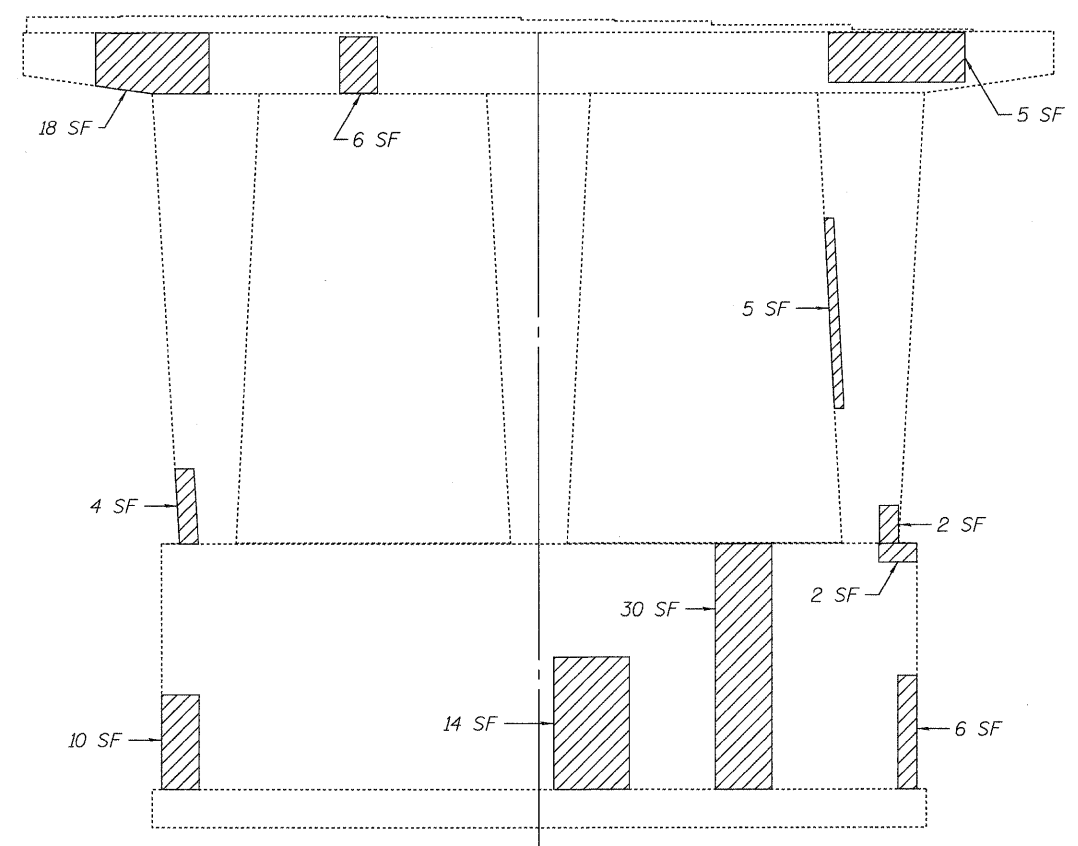
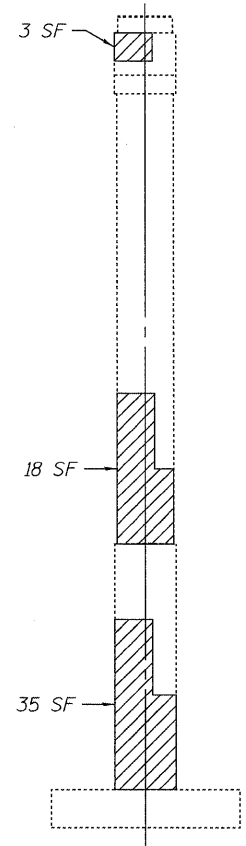
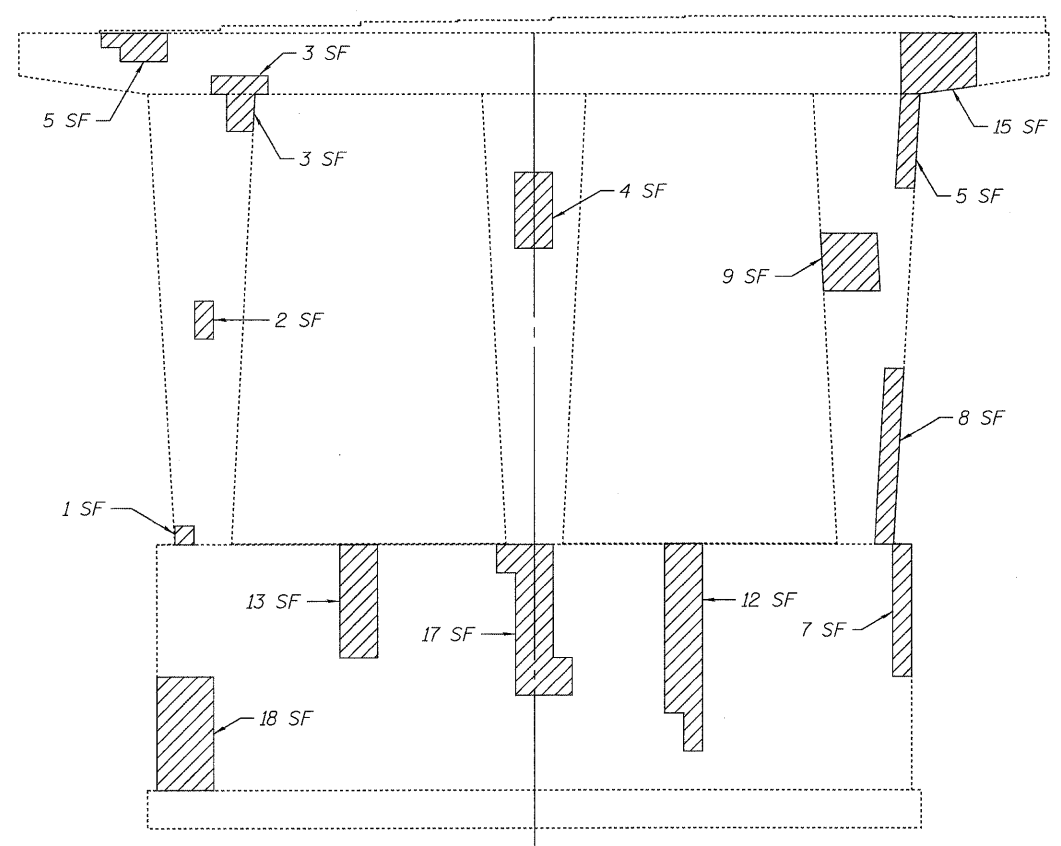
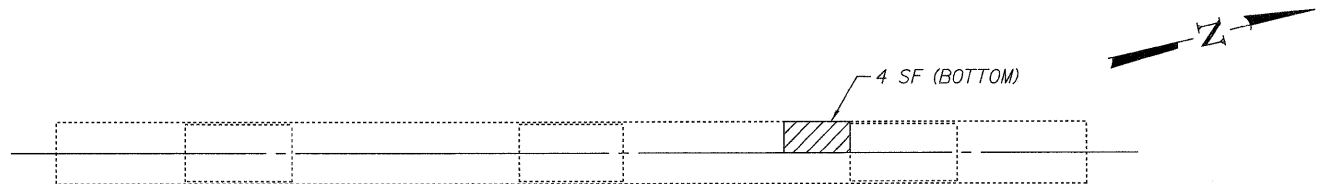
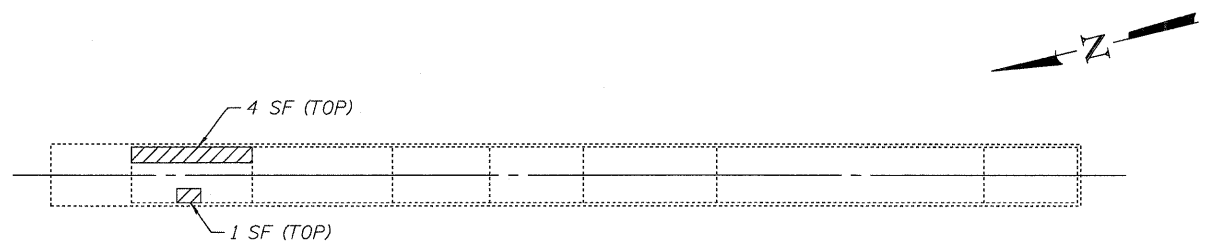
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Porous Granular Embankment	Cu.Yd.	67
Slope Wall Removal	Sq.Yd.	133
Slope Wall 6 Inch	Sq.Yd.	133

NOTES:

1. Areas of proposed slopewall removal and replacement are estimated. Actual location and dimensions are to be determined by the Engineer during construction.
2. Cost of saw cuts and PJF included in the cost of Slope Wall 6 Inch.

DESIGNED - PCA	REVISIONS		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	SLOPEWALL REPAIRS WESTBOUND FAI-80 OVER HICKORY CREEK STRUCTURE NO. 099-0063	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = lsupenocheck	DRAWN - LK				80	99 (4&4-1) RS-3	WILL	203	170
PLOT SCALE = 1:1	CHECKED - MEA				CONTRACT NO. 60M66				
PLOT DATE = 19-JAN-2011	DATE - 01/21/2011				FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT				
FILE NAME = IP_PWP\dms34565\0990063-60M66-005-SLOPEW.DGN				SHEET NO. S-5 OF 8 SHEETS					



WEST ELEVATION
Looking East

SOUTH ELEVATION
Looking North

EAST ELEVATION
Looking West

NORTH ELEVATION
Looking South

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq.Ft.	97
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	195

LEGEND:

Spalled or unsound concrete - SF indicates square feet.

NOTES:

- Areas of proposed pier repairs are estimated. Actual type, location and dimensions of pier repairs are to be determined by the Engineer during construction.

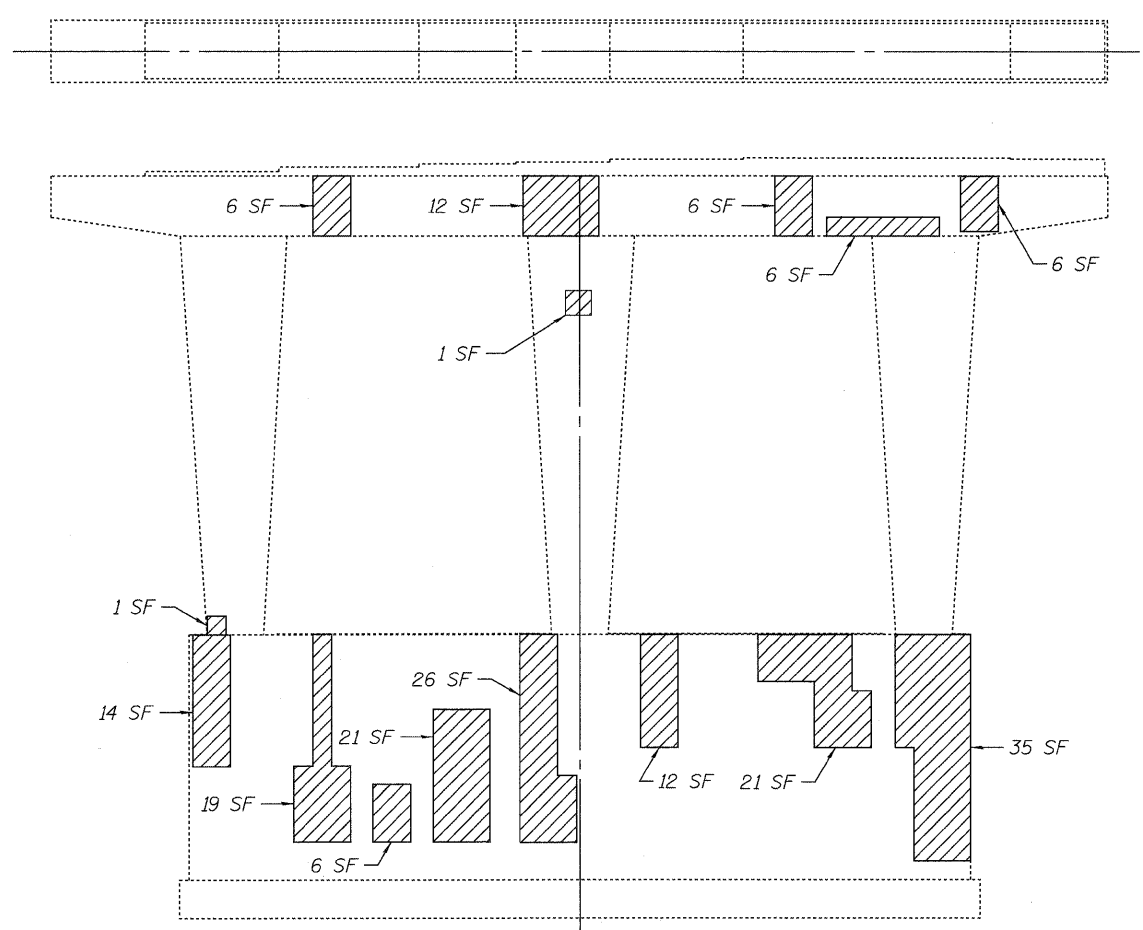
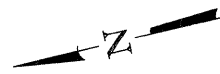
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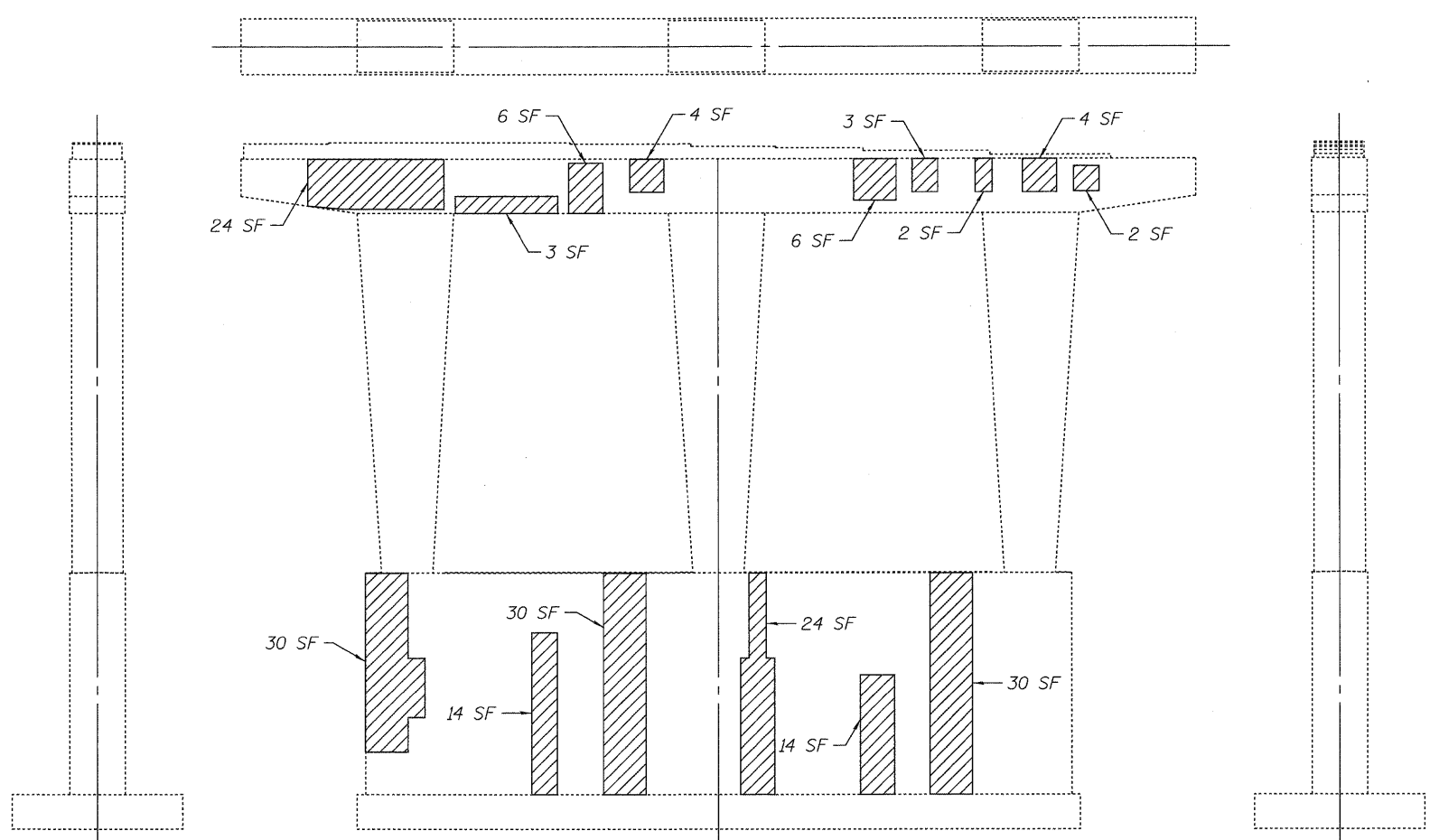
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 1 REPAIRS
WESTBOUND FAI-80 OVER HICKORY CREEK
STRUCTURE NO. 099-0063
SHEET NO. S-6 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	171
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



WEST ELEVATION
Looking East



EAST ELEVATION
Looking West

SOUTH ELEVATION
Looking North

NORTH ELEVATION
Looking South

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair Of Concrete (Depth Greater Than 5 Inches)	Sq.Ft.	97
Structural Repair Of Concrete (Depth Equal To Or Less Than 5 Inches)	Sq.Ft.	291

LEGEND:

Spalled or unsound concrete - SF indicates square feet.

NOTES:

1. Areas of proposed pier repairs are estimated. Actual type, location and dimensions of pier repairs are to be determined by the Engineer during construction.

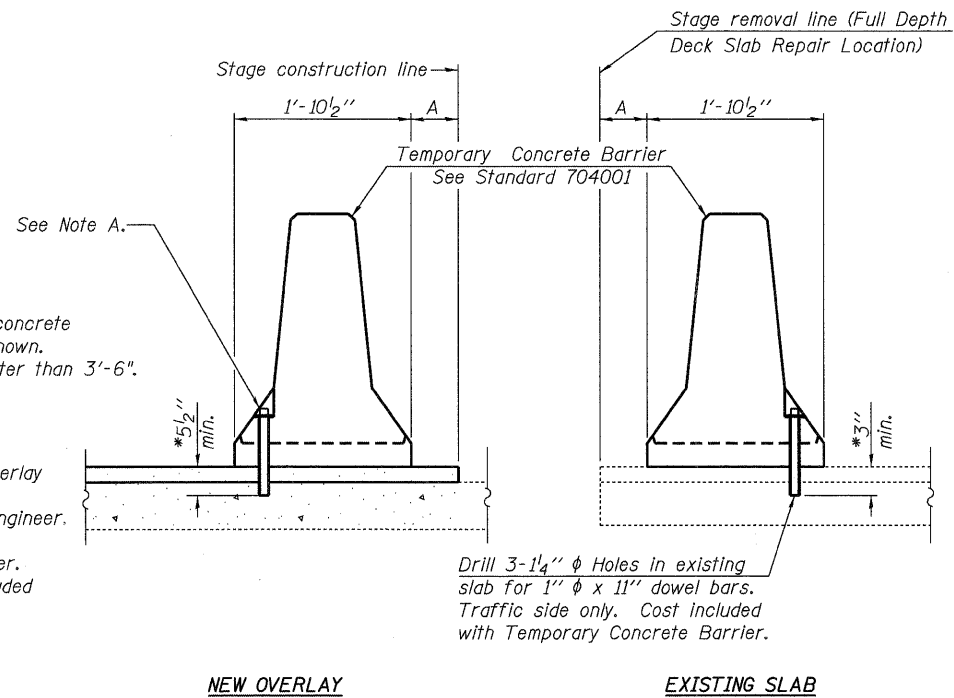
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FILE NAME = IP_PWP\dms34565\0990063-60M66-007-PIER.DGN	



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PIER 2 REPAIRS
WESTBOUND FAI-80 OVER HICKORY CREEK
STRUCTURE NO. 099-0063
SHEET NO. S-7 OF 8 SHEETS

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	172
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the slab as shown. No anchorage is required when "A" is greater than 3'-6".

Note A: Drill 3-1/4" ϕ holes through new overlay into slab for 1" ϕ x 13" dowel bars. Traffic side only as directed by Engineer. Repair hole with non-shrink epoxy grout as directed by Engineer. Cost of anchorage and repair included with Temporary Concrete Barrier.

Drill 3-1/4" ϕ Holes in existing slab for 1" ϕ x 11" dowel bars. Traffic side only. Cost included with Temporary Concrete Barrier.

NEW OVERLAY

EXISTING SLAB

SECTIONS THRU SLAB

*Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

NOTES:

1. Anchorage of concrete barrier to deck is required at locations of full depth deck slab repair and at new overlay section thru slab shown.

DESIGNED - PCA	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION		TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION WESTBOUND FAI-80 OVER HICKORY CREEK STRUCTURE NO. 099-0063		F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
USER NAME = lsupencheck	DRAWN - LK						80	99 (4&4-1) RS-3	WILL	203	173
PLOT SCALE = 1:1	CHECKED - ML						CONTRACT NO. 60M66				
PLOT DATE = 19-JAN-2011	DATE - 01/21/2011						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
FILE NAME = IP_PWP\dms34565\0990063-60M66-008-BARRIER.DGN			SHEET NO. 5-8 OF 8 SHEETS								

Existing Structures:

Dual bridges over Richards Street, S/N 099-0064 carrying I-80 Eastbound and S/N 099-0065 carrying I-80 Westbound, were originally constructed in 1961 as a part of F.A.I. 80 Project, I-80-4(38)134, Section 99-4HB-1. The superstructures consist of 3 simple spans of steel wide flange beam units. The 7-inch thick deck is supported on reinforced concrete piers and abutments with footings that extend a minimum of one foot into solid rock. In 1990 and 1998 repairs were made to the decks, abutments, piers, deck joints, rail and drainage system. In 2001, repairs were made to deck and expansion joints; a new 2" polymerized bituminous concrete overlay with waterproofing membrane was installed.

Traffic shall be maintained utilizing stage construction.

No salvage.

INDEX OF SHEETS

- S1. General Plan, Notes, and Total Bill of Material
- S2. Construction Staging
- S3. Deck, Approach Slab, and Expansion Joint Repairs
- S4. Abutment and Pier Repairs
- S5. Permanent Protective Shield
- S6. Temporary Concrete Barrier for Stage Construction

SCOPE OF WORK:

1. Remove existing Hot-Mix Asphalt Overlay.
2. Install Protective Shield.
3. Repair Deck Slab.
4. Repair Approach Slab.
5. Remove and replace deck joints with Silicone Joint Sealer.
6. Install Temporary Beam Shoring.
7. Repair structural concrete at Abutments and Piers.
8. Construct Hot-Mix Asphalt Overlay.

DESIGN SPECIFICATIONS

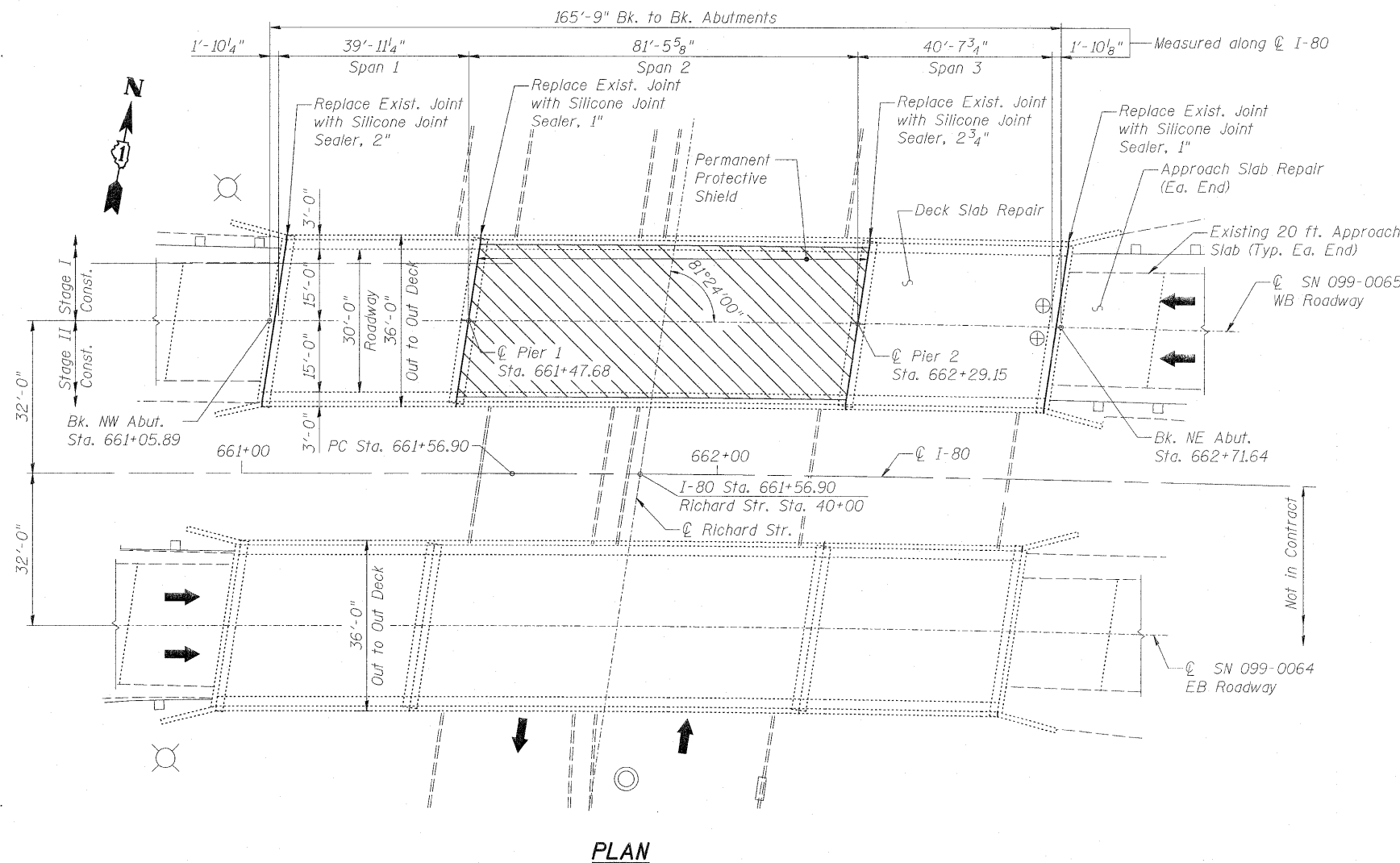
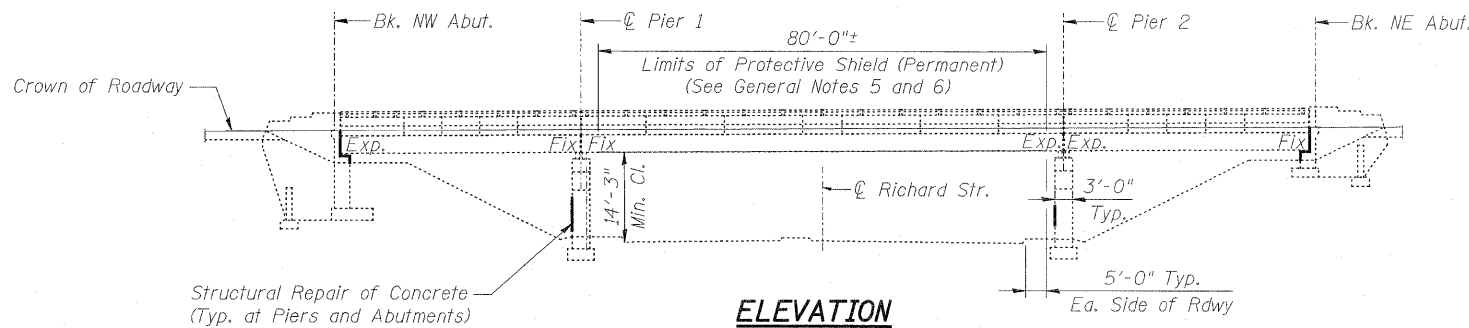
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

FIELD UNITS:
 f'c = 3,500 psi
 fy = 60,000 psi (Reinforcement)

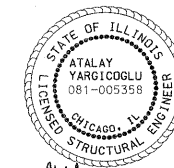
GENERAL NOTES:

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. Contractor should verify dimensions and make necessary approved adjustments prior to starting construction. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for actual quantity furnished and approved by Engineer at unit price bid for the work.
3. Areas of proposed deck repairs are estimated. Actual type, location and dimension of deck repairs are to be determined by the Engineer during construction.
4. Contractor shall remove the existing asphalt wearing surface and, as necessary, adjust the milling depth to prevent damage to the existing waterproofing membrane. After satisfactory completion of the deck repair work, an asphalt surface course shall be placed in sufficient thickness as to match the elevation of the original surface.
5. Protective shield shall be installed prior to start of Deck Slab Repair work.
6. The Contractor shall protect and maintain the existing underpass luminares. See Special Provision "Protective Shield, Special".

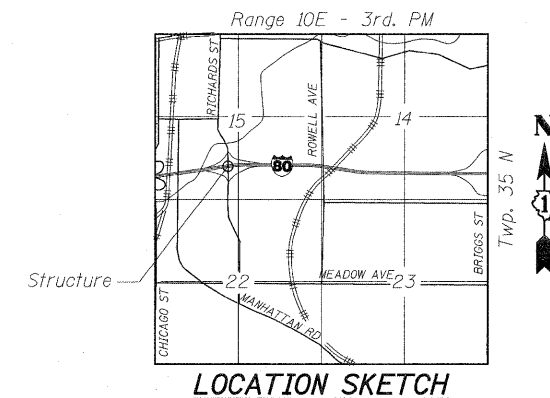


TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Polymerized Hot-Mix Asphalt Surface Course, Stone Matrix Asphalt, N80	Ton	62	-	62
Protective Shield (Permanent)	Sq. Yd.	284	-	284
Approach Slab Repair (Partial Depth)	Sq. Yd.	16	-	16
Hot-Mix Asphalt Surface Removal (Deck)	Sq. Yd.	548	-	548
Structural Repair of Concrete (Depth < 5")	Sq. Ft.	-	300	300
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	-	167	167
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	45	-	45
Deck Slab Repair (Partial)	Sq. Yd.	118	-	118
Silicone Joint Sealer, 1"	Foot	75	-	75
Silicone Joint Sealer, 2"	Foot	38	-	38
Silicone Joint Sealer, 2 3/4"	Foot	38	-	38
Temporary Shoring and Cribbing	Each	2	-	2



SIGNED: *[Signature]*
 DATE: 02/08/2011
 EXP: 11/30/2012
 SHEETS: S1 THRU S6

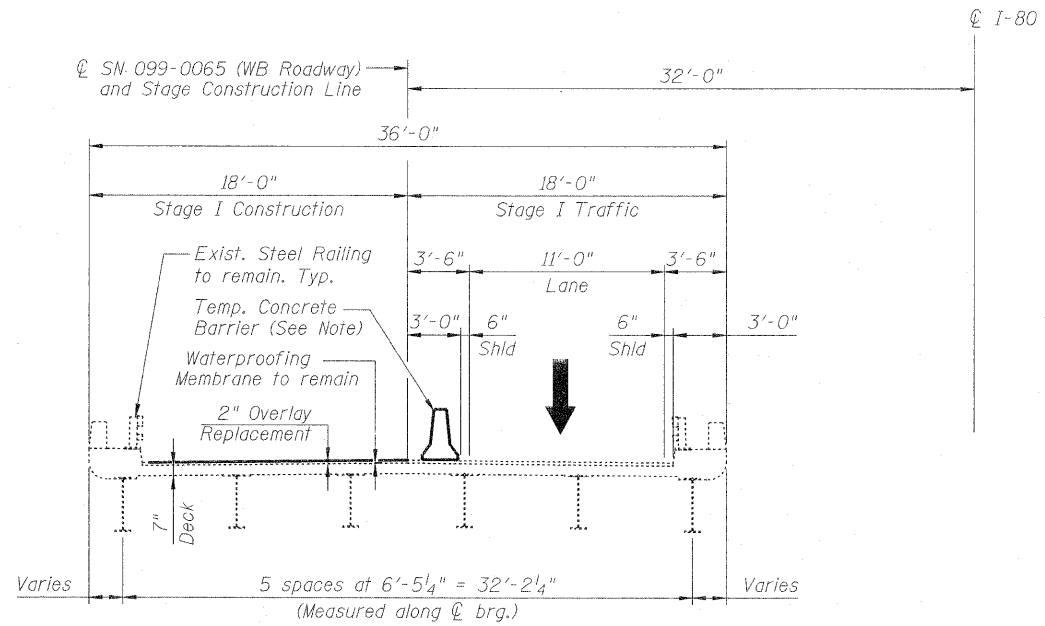


LEGEND

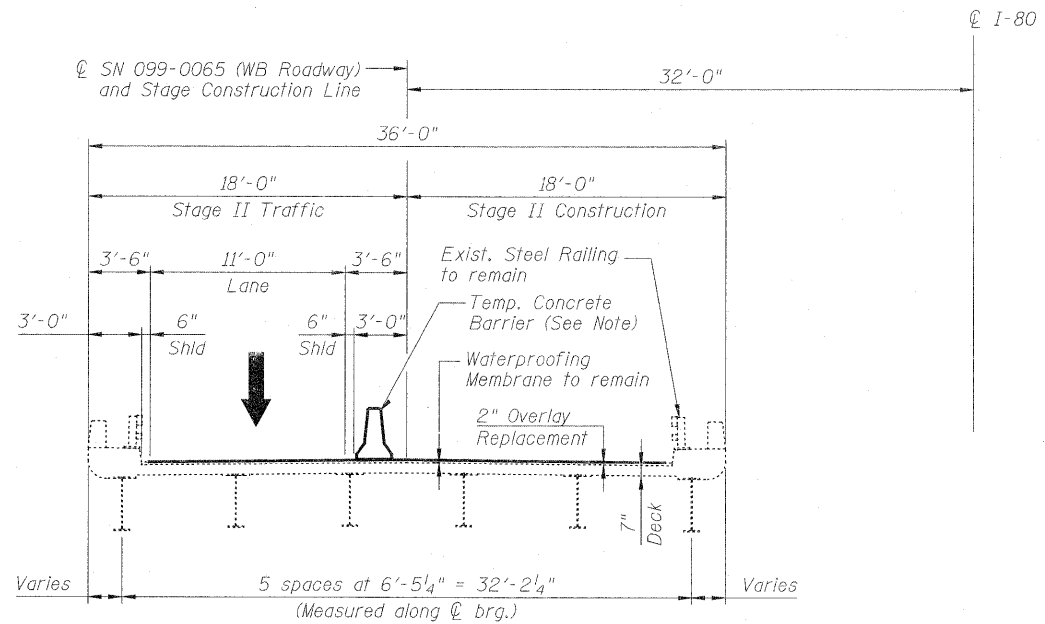
- ⊕ Temporary Shoring and Cribbing
- ▨ Protective Shield (Permanent)

USER NAME = ayargicoglu@rdwy.lsl.ele	DESIGNED - A.Y./L.C.	REVISED -	HBP Illinois Partners	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN, NOTES, AND TOTAL BILL OF MATERIAL WESTBOUND I-80 OVER RICHARDS STREET SN 099-0065	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT CONFIG = PDF(I-80_TopoGrey_Large).p	DRAWN - L.C./A.Y.	REVISED -				80	99 (4&4-1) RS-3	WILL	203	174
PLOT SCALE = 1:16	CHECKED - A.Y./R.L.D.	REVISED -				CONTRACT NO. 60M66				
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -	SCALE:	SHEET S1 OF S6	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

q:\dot\21058.005 (I-80 phase 1)\drawings\cadd sheets\bridge p&e\richards_wb\099-0065-0160M66-GPE-Richards.dgn



STAGE I CONSTRUCTION & TRAFFIC
(Looking East)

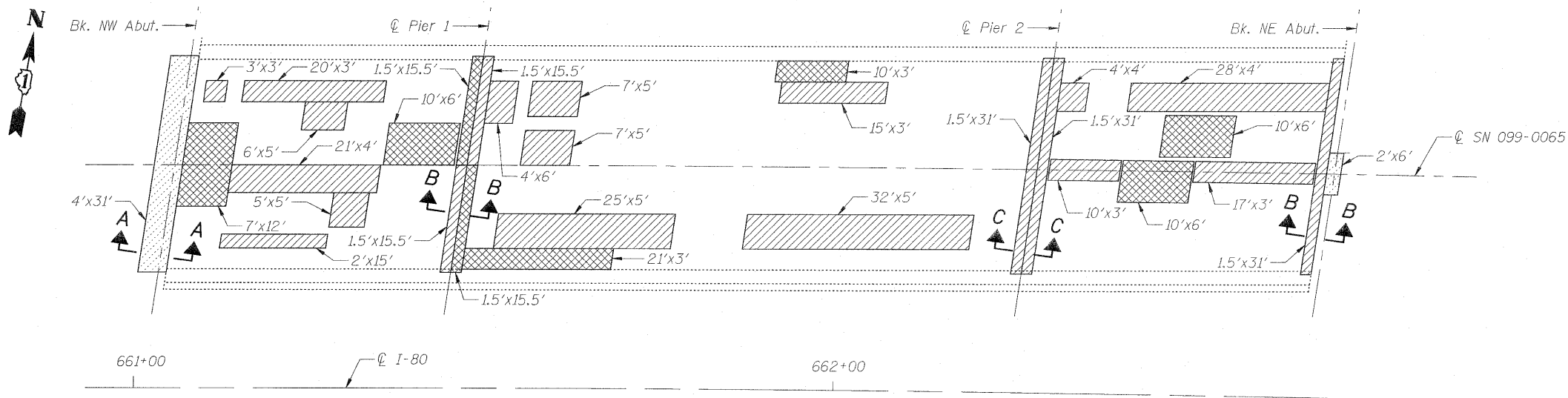


STAGE II CONSTRUCTION & TRAFFIC
(Looking East)

Note:

After removal of temporary concrete barrier, repair dowel holes with non-shrink epoxy grout as directed by the Engineer. Cost of anchorage and repair is included with Temporary Concrete Barrier.

USER NAME = ayeargooglu(Rdwy.L1st)	DESIGNED - A.Y./L.C.	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONSTRUCTION STAGING WESTBOUND I-80 OVER RICHARDS STREET SN 099-0065	F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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PLOT SCALE = 1/8" = 1'-0"	CHECKED - A.Y./R.L.D.	REVISED -				CONTRACT NO. 60M66				
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -	SCALE:	SHEET S2 OF S6	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

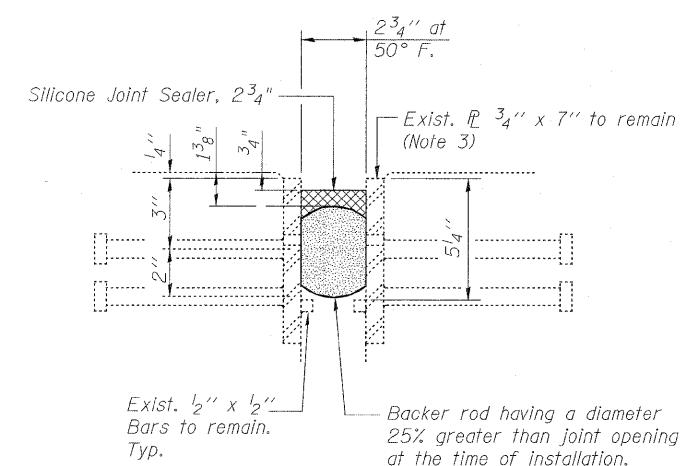
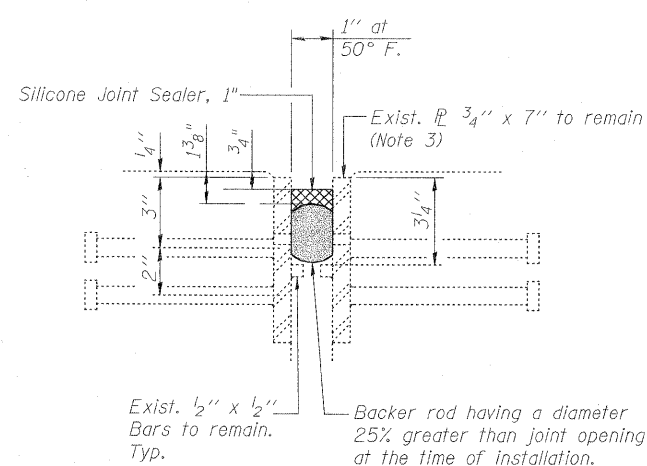
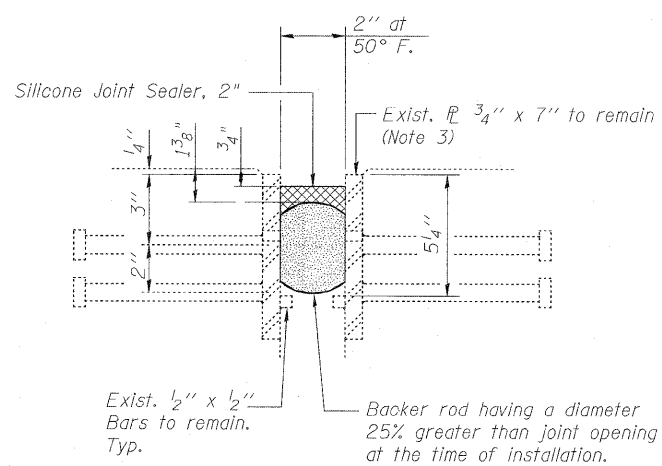


BILL OF MATERIAL

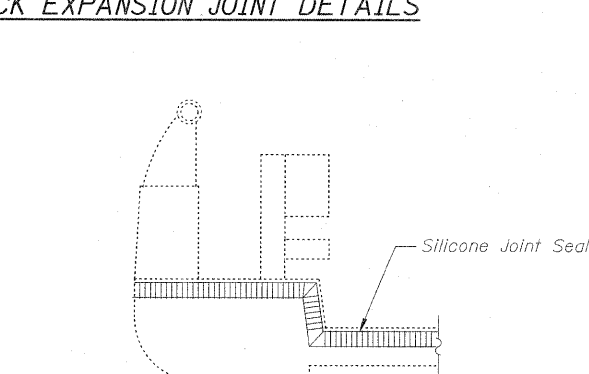
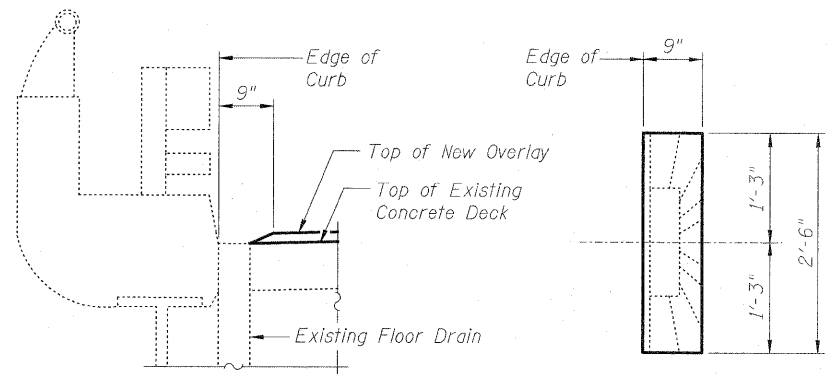
ITEM	UNIT	TOTAL
Approach Slab Repair (Partial Depth)	Sq. Yd.	16
Deck Slab Repair (Full Depth, Type II)	Sq. Yd.	45
Deck Slab Repair (Partial)	Sq. Yd.	118
Silicone Joint Sealer, 1"	Foot	75
Silicone Joint Sealer, 2"	Foot	38
Silicone Joint Sealer, 2 3/4"	Foot	38

LEGEND:

- Deck Slab Repair (Partial)
- Deck Slab Repair (Full Depth, Type II)
- Approach Slab Repair (Partial Depth)



DECK EXPANSION JOINT DETAILS



Notes:

- See General Note 3 on Sheet S1 of S6.
- Removal and disposal of the existing joint fillers and neoprene seals will be included with the cost of Silicone Joint Sealer, of the size specified.
- Existing plates to be cleaned prior to installation of backer rod. Cost included with Silicone Joint Sealer, of the size specified.
- Deck Slab Repair concrete shall be placed up to top of existing waterproofing membrane system. Cost included with Deck Slab Repair, of the type specified.
- The Contractor shall grind off any existing concrete patches flush with the existing waterproofing membrane system. Cost included with Hot-Mix Asphalt Surface Removal (Deck).

USER NAME = ajiangco@rdwy.lisle	DESIGNED - A.Y./L.C.	REVISED -
PLOT CONFIG = PDF11-00_TopoGrey_Large.plt	DRAWN - L.C./A.Y.	REVISED -
PLOT SCALE = 1:10	CHECKED - A.Y./R.L.D.	REVISED -
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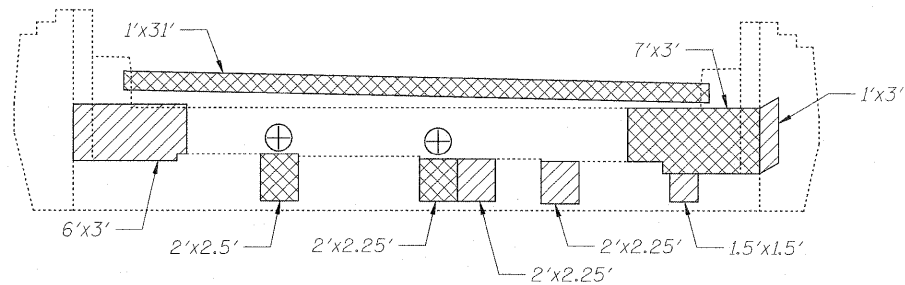


STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

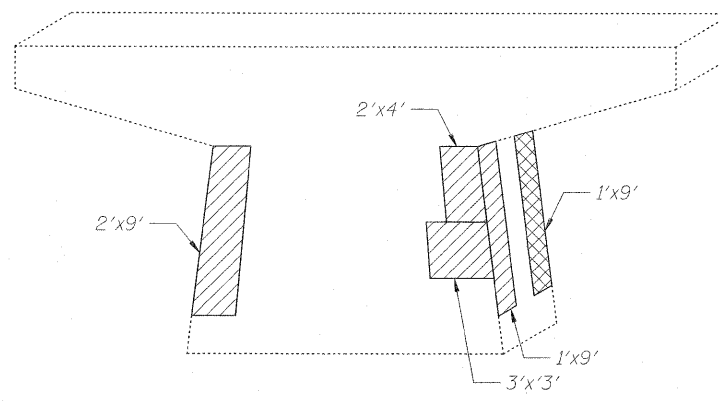
DECK, APPROACH SLAB, AND EXPANSION JOINT REPAIRS
WESTBOUND I-80 OVER RICHARDS STREET
SN 099-0065

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	176
				CONTRACT NO. 60M66

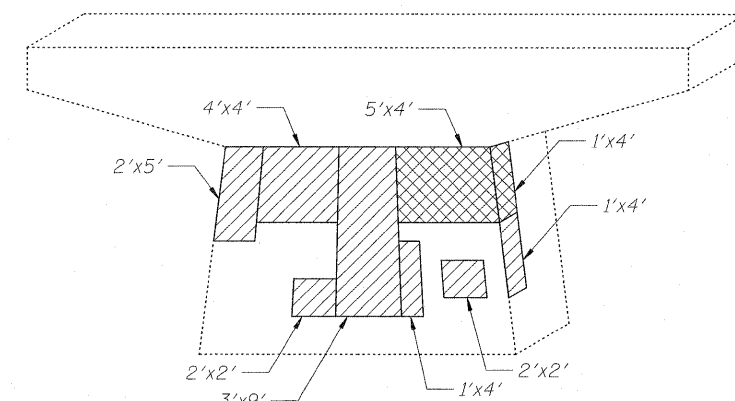
SCALE: SHEET S3 OF S6 STA. TO STA.



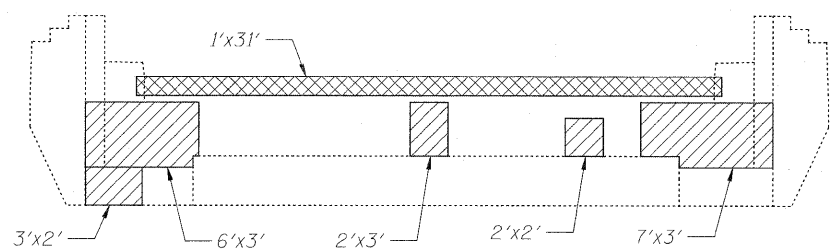
NORTHEAST ABUTMENT
Looking East



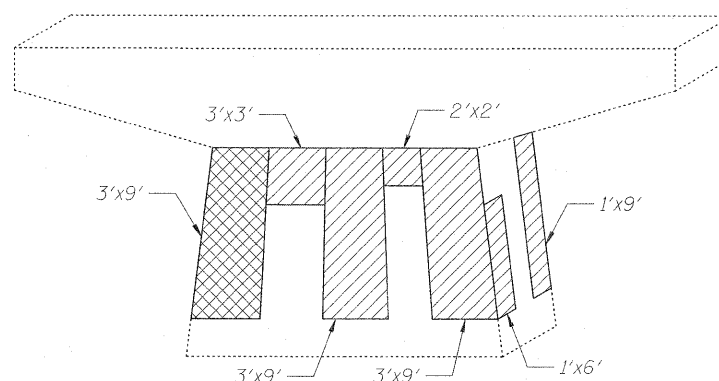
PIER 1
West Face



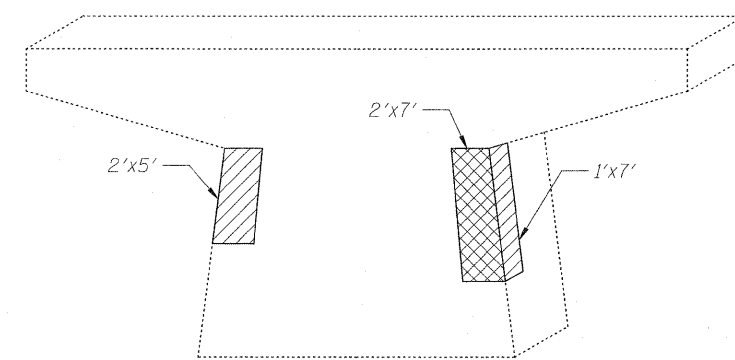
PIER 2
West Face



NORTHWEST ABUTMENT
Looking West



PIER 1
East Face



PIER 2
East Face

LEGEND:

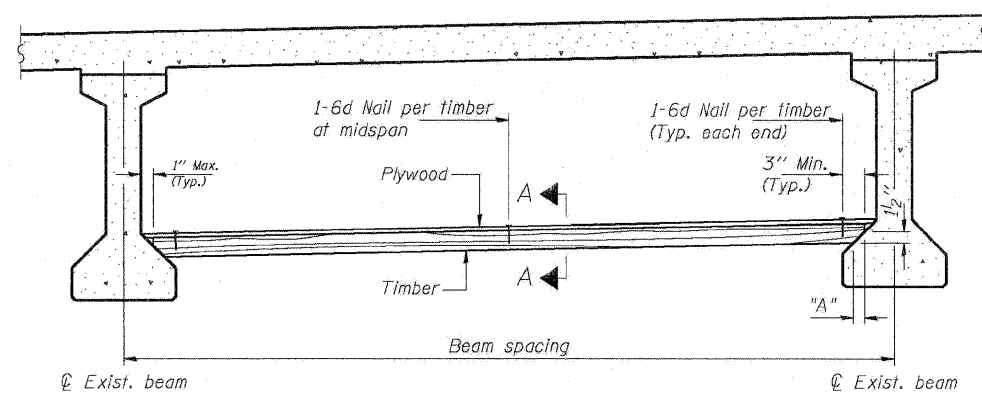
- Structural Repair of Concrete (Depth <= 5")
- Structural Repair of Concrete (Depth > 5")
- Temporary Shoring and Cribbing

INTERIOR GIRDER REACTION TABLE			
	SPAN-1	SPAN-2	SPAN-3
R _L (k)	22.8	50.2	23.2
R _R (k)	31.9	36.9	32.1
Imp. (k)	9.6	8.9	9.6
R _{Total} (k)	64.4	96.1	65.0

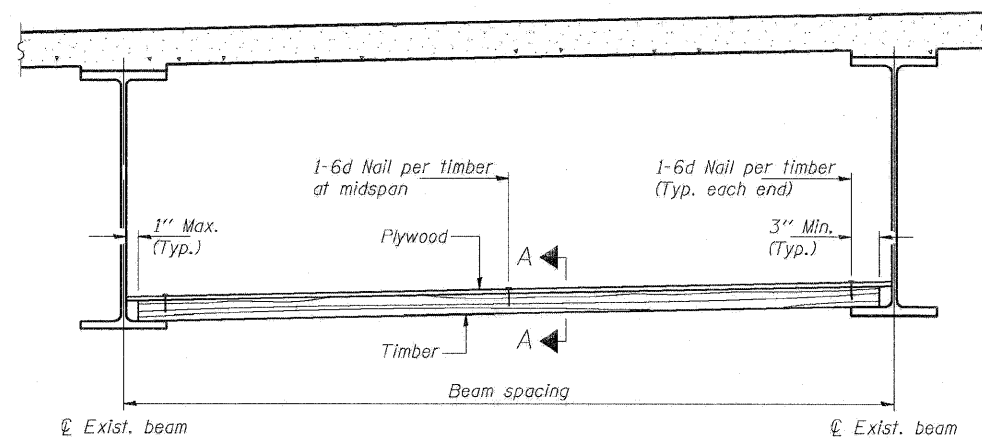
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth <= 5")	Sq. Ft.	300
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	167
Temporary Shoring and Cribbing	Each	2

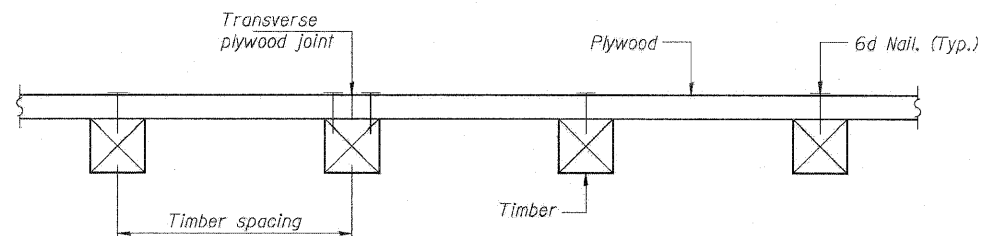
Note:
See the Special Provision "Temporary Shoring and Cribbing" for design, installation, and removal of the temporary shoring and cribbing support system. Approximate beam reactions are given in Interior Girder Reaction Table at the locations shown.



PPC I-BEAMS AND BULB-T's



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

PPC I-BEAMS AND BULB-T's

BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

Notes: See special provision for Permanent Protective Shield System.
 Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood(per American Plywood Association). Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Protective Shield (Permanent)	Sq. Yd.	284

USER NAME = alyergiooglu(Rdwg_Lts1e)	DESIGNED - A.Y./L.C.	REVISED -
PLOT CONFIG = PDF(I-80_TopGrey-Large).pl	DRAWN - L.C./A.Y.	REVISED -
PLOT SCALE = 1:16	CHECKED - A.Y./R.L.D.	REVISED -
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -



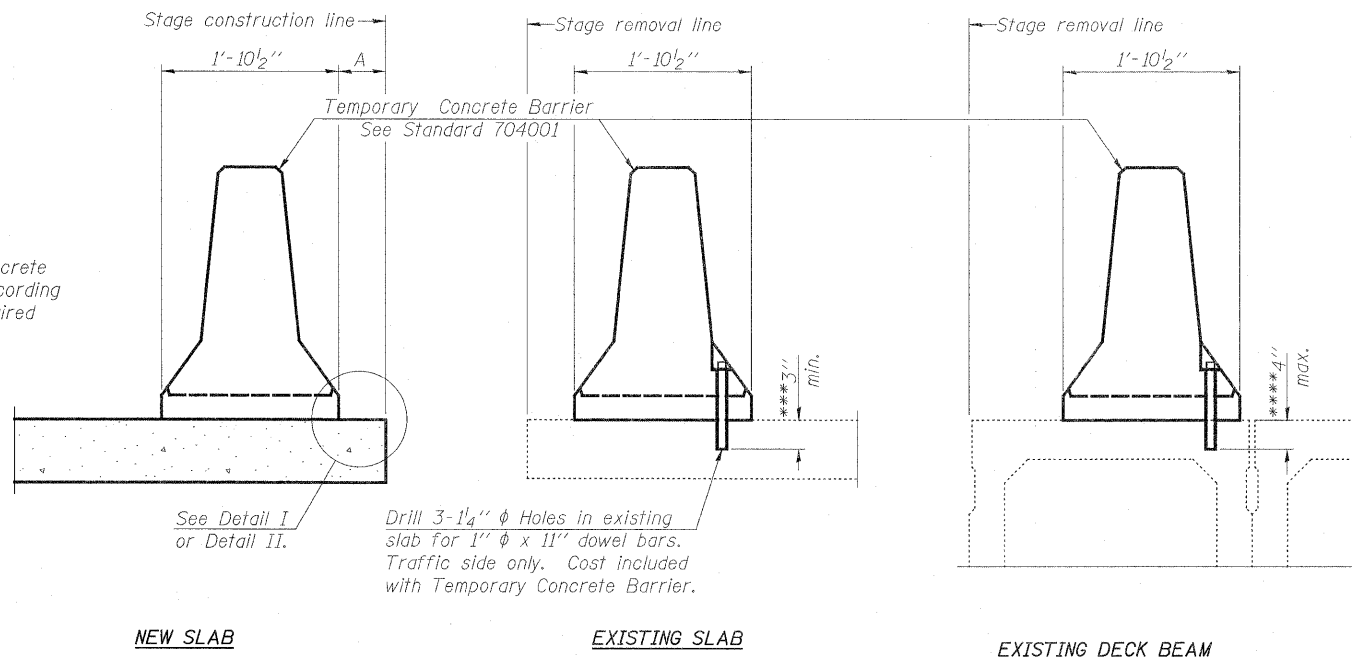
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

PERMANENT PROTECTIVE SHIELD
WESTBOUND I-80 OVER RICHARDS STREET
SN 099-0065

SCALE: SHEET 55 OF 56 STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	178
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



NOTES

Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" diameter bolts screwed to coupler at approximate center of each barrier panel.

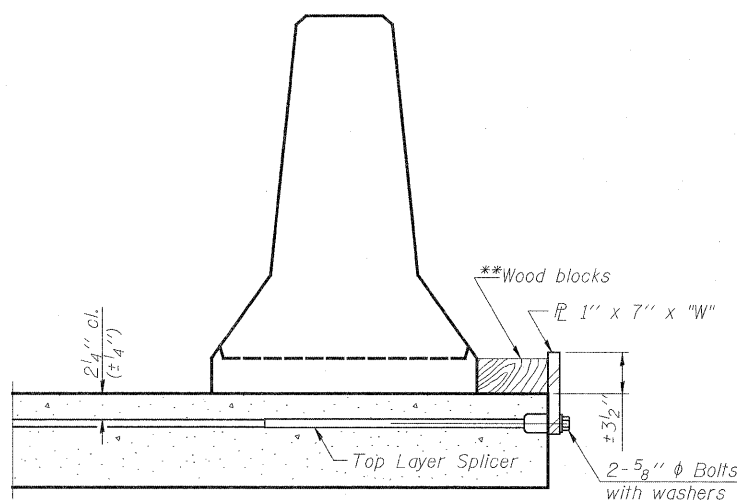
Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface with 2-5/8" diameter Expansion Anchors or cast in place inserts spaced between the top layer of reinforcement at approximate center of each barrier panel.

Cost of anchorage is included with Temporary Concrete Barrier.
The 1" x 7" x "W" 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.

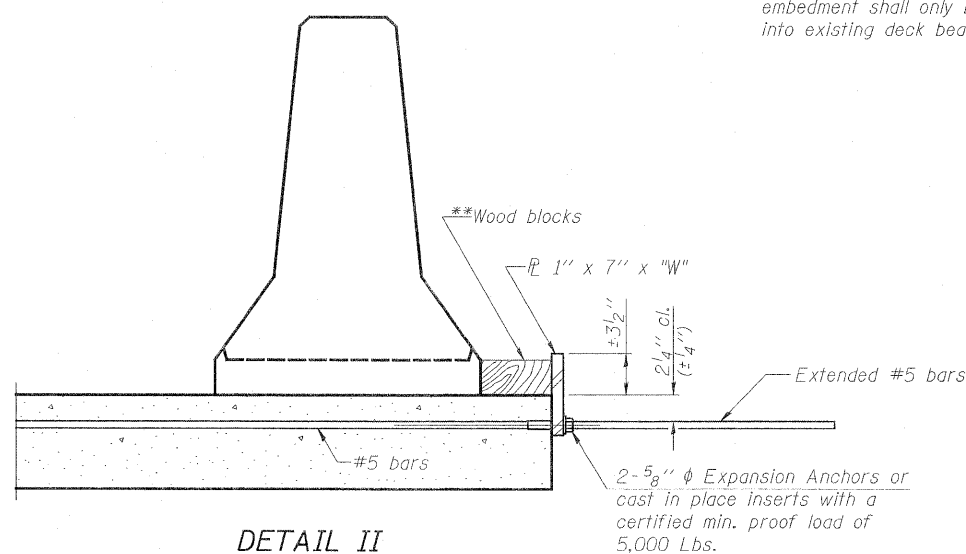
SECTIONS THRU SLAB OR DECK BEAM

*** Dimension shown is minimum required embedment into concrete.
If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

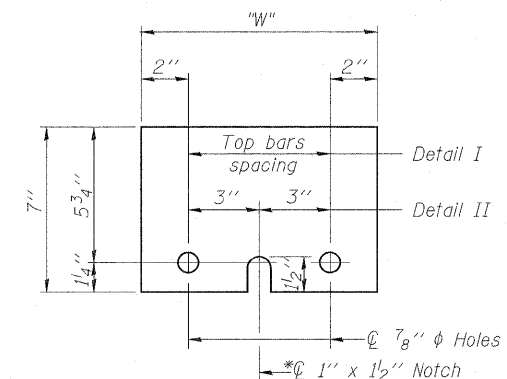
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

USER NAME = eajargocglu(Rdwy_L1s1e)	DESIGNED - A.Y./L.C.	REVISED -
PLOT CONFIG = PDF(1-00_Topo0reg_Large).pl	DRAWN - L.C./A.Y.	REVISED -
PLOT SCALE = 1:16	CHECKED - A.Y./R.L.D.	REVISED -
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
WESTBOUND I-80 OVER RICHARDS STREET
SN 099-0065

SCALE: SHEET S6 of S6 STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	179
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	

Existing Structures:

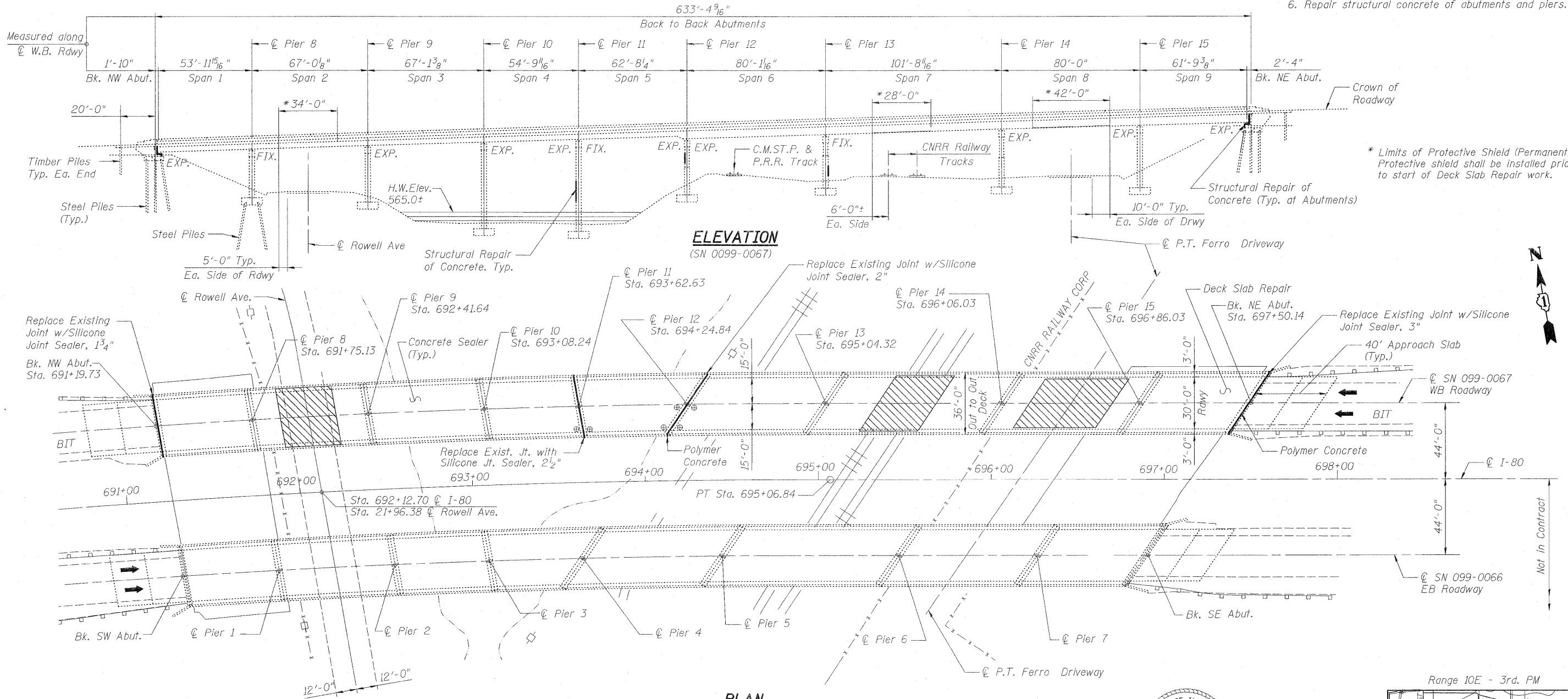
Dual bridges over CNRR and Rowell Avenue, SN 099-0066 carrying I-80 Eastbound and SN 099-0067 carrying I-80 Westbound, were originally constructed in 1962 as a part of F.A.I. 80 Project, I-IG-80-4(4)135, Section 99-4-IVB. The EB and WB superstructures consist of 8 and 9 continuous span steel multi-girder units supported on concrete abutments and piers, respectively. The existing bridge decks consist of 6 1/4" reinforced concrete composite slab with 2 3/4" latex concrete overlay. The transverse deck joints are either PJS type with vertical armor plates or neoprene type expansion joints. In 1998 repairs were made to decks, abutments, piers, slopewalls, deck joints, and drainage system. In addition, the expansion bearings were replaced and the latex concrete overlay, and steel bridge rails were constructed.

Traffic shall be maintained utilizing stage construction.

No salvage.

SCOPE OF WORK:

1. Install protective shield.
2. Partial depth deck slab repair.
3. Seal concrete bridge deck.
4. Remove and replace deck joints with silicone joint sealer.
5. Install temporary beam shoring.
6. Repair structural concrete of abutments and piers.



* Limits of Protective Shield (Permanent). Protective shield shall be installed prior to start of Deck Slab Repair work.

INDEX OF SHEETS

- S1. General Plan and Elevation
- S2. Construction Staging, Notes, and Total Bill of Material
- S3. Deck and Expansion Joint Repairs
- S4. Abutment and Pier Repairs
- S5. Pier 11 Repairs
- S6. Pier 12 Repairs
- S7. Permanent Protective Shield
- S8. Temporary Concrete Barrier for Stage Construction

DESIGN SPECIFICATIONS

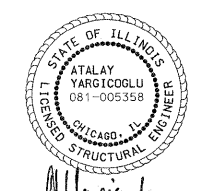
2002 AASHTO Standard Specifications for Highway Bridges, 17th Edition

DESIGN STRESSES

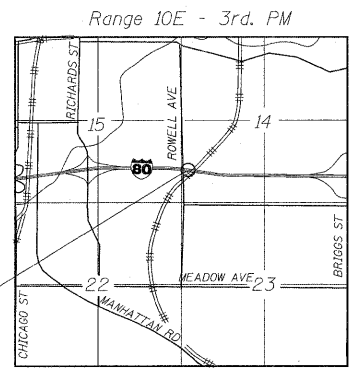
FIELD UNITS:
f'c = 3,500 psi
fy = 60,000 psi

LEGEND

- ⊕ Temporary Shoring and Cribbing
- ▨ Protective Shield (Permanent)

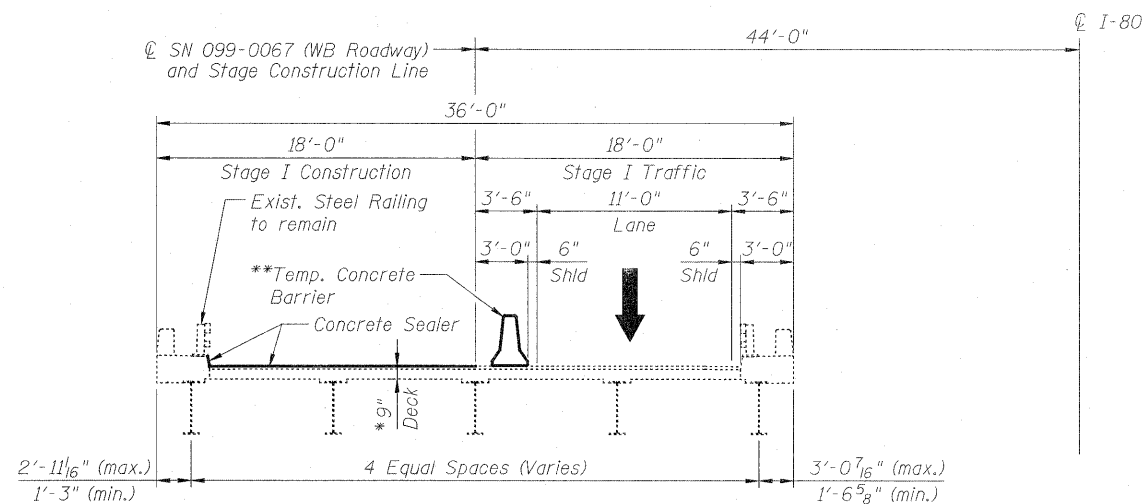


SIGNED: [Signature]
DATE: 02/08/2011
EXP: 11/30/2012
SHEETS: S1 THRU S8



USER NAME = agergicoglu@rdwy-11a1e	DESIGNED - A.Y./L.C.	REVISED -	HBP Illinois Partners	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	GENERAL PLAN AND ELEVATION WESTBOUND I-80 OVER CNRR AND ROWELL AVENUE SN 099-0067			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT CONFIG= PDF(-80_TopoGrey_Large).pl	DRAWN - L.C./A.Y.	REVISED -			80	99 (4&4-1) RS-3	WILL	203	180			
PLOT SCALE = 1:130	CHECKED - A.Y./R.L.D.	REVISED -			CONTRACT NO. 60M66							
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -			FED. ROAD DIST. NO. 1 [ILLINOIS] FED. AID PROJECT							
SCALE: SHEET S1 of S8 STA. TO STA.												

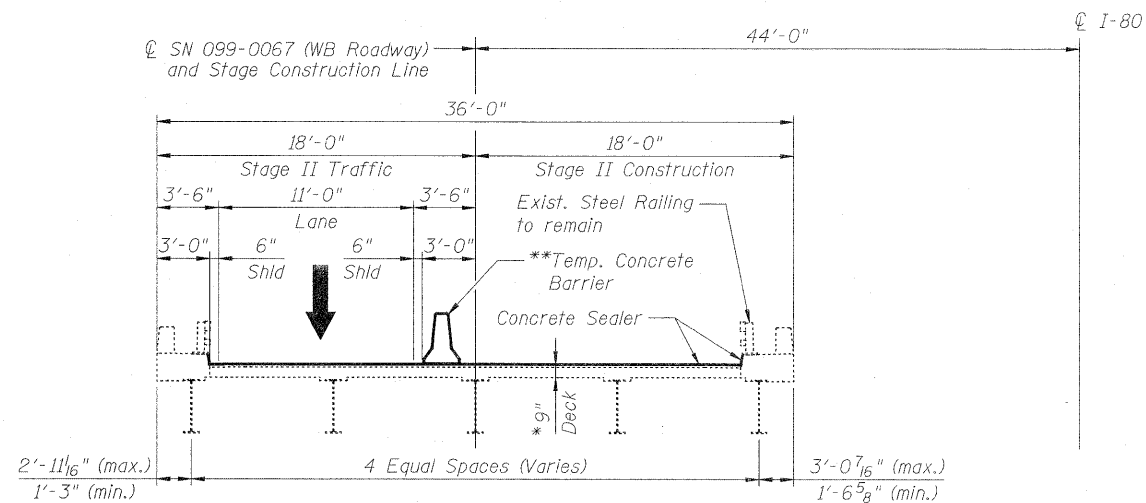
q:\dot\21050\005 (I-80 phase 1)\drawings\cadd sheets\bridge p&e\rowell\wb\099-0067-D160M66-GPE-Rowell.dgn



* 6 1/4" reinforced concrete slab with 2 3/4" Latex Concrete Overlay

STAGE I CONSTRUCTION & TRAFFIC

(Looking East)



* 6 1/4" reinforced concrete slab with 2 3/4" Latex Concrete Overlay

STAGE II CONSTRUCTION & TRAFFIC

(Looking East)

** After removal of temporary concrete barrier, repair dowel holes with non-shrink epoxy grout as directed by the Engineer. Cost of anchorage and repair is included with Temporary Concrete Barrier.

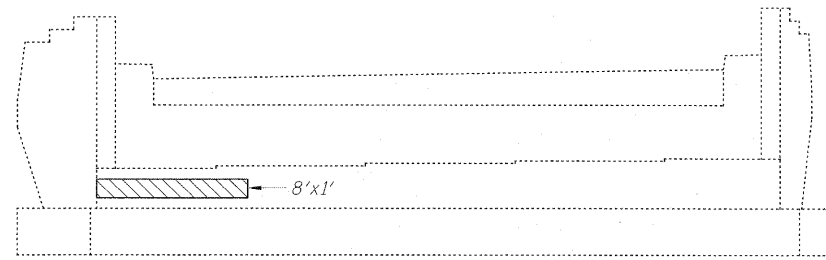
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Sealer	Sq. Ft.	20,012	-	20,012
Protective Shield (Permanent)	Sq. Yd.	370	-	370
Structural Repair of Concrete (Depth =< 5")	Sq. Ft.	-	318	318
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	-	130	130
Deck Slab Repair (Partial)	Sq. Yd.	223	-	223
Silicone Joint Sealer, 1 3/4"	Foot	37	-	37
Silicone Joint Sealer, 2"	Foot	44	-	44
Silicone Joint Sealer, 2 1/2"	Foot	37	-	37
Silicone Joint Sealer, 3"	Foot	44	-	44
Polymer Concrete	Cu. Ft.	13	-	13
Temporary Shoring and Cribbing	Each	6	-	6

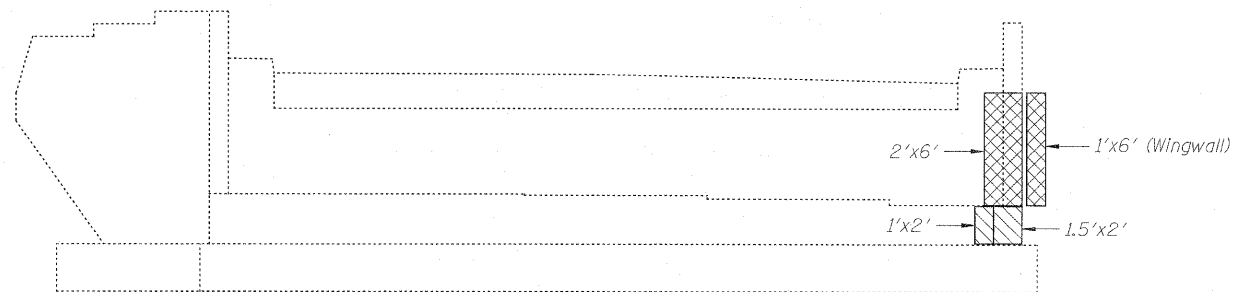
GENERAL NOTES:

1. Reinforcement bars shall conform to the requirements of ASTM A 706 Grade 60. See Special Provisions.
2. Concrete Sealer shall be applied to the entire top surface of bridge deck and inside vertical face of curbs. All work shall be performed in accordance with the provisions of Section 587 of the Standard Specification. When directed by the Engineer, all surfaces to be coated shall be thoroughly cleaned by power washing or other appropriate means prior to the application of Concrete Sealer. Cleaning is included with the cost of "Concrete Sealer". Existing pavement markings shall be temporarily covered prior to application of the deck surface treatment, to prevent the material from being applied to the markings. The temporary covering shall be removed after application of the deck surface treatment and prior to opening to traffic. Cost included with "Concrete Sealer".
3. Plan dimensions and details relative to existing structure have been taken from existing plans and are subject to nominal construction variations. Contractor should verify dimensions and make necessary approved adjustments prior to starting construction. Such variations shall not be cause for additional compensation for a change in scope of work, however, the Contractor will be paid for actual quantity furnished and approved by Engineer at unit price bid for the work.
4. Areas of proposed deck repairs are estimated. Actual type, location and dimension of deck repairs are to be determined by the Engineer during construction.

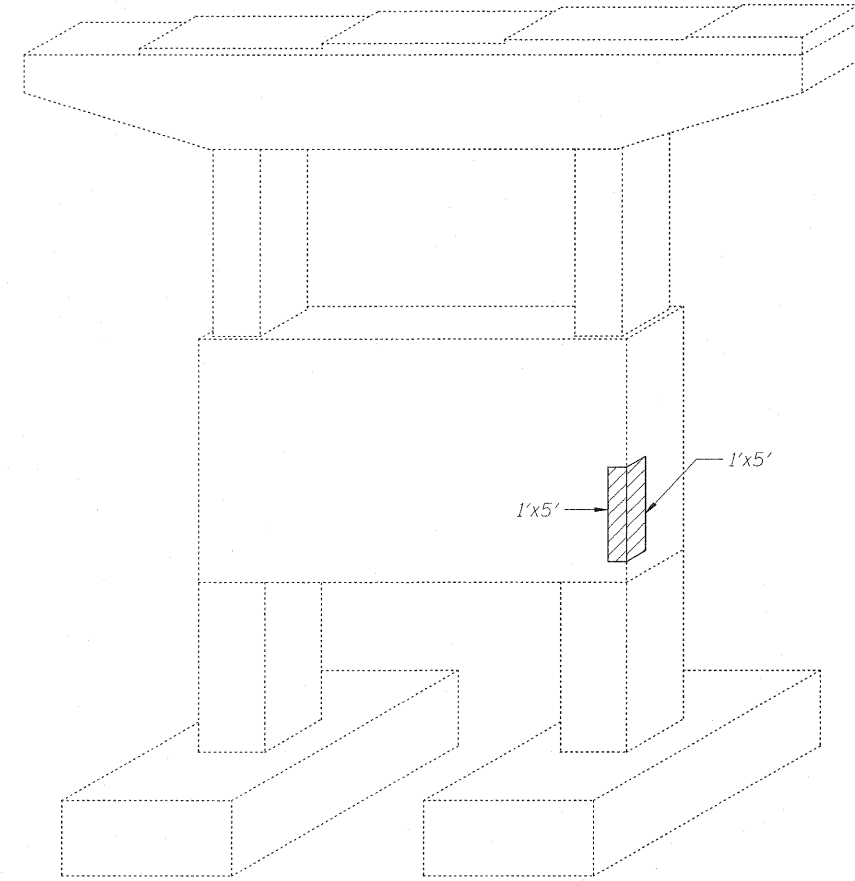
USER NAME = a\jrgio\lrd\lrd\lrd	DESIGNED - A.Y./L.C.	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	CONSTRUCTION STAGING, NOTES, AND TOTAL BILL OF MATERIAL WESTBOUND I-80 OVER CNRR AND ROWELL AVENUE SN 099-0067			F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT CONFIG = PDF(I-80_TopoGrey_Large).p	DRAWN - L.C./A.Y.	REVISED -			80	99 (4&4-1) RS-3	WILL	203	181			
PLOT SCALE = 1:5.33333	CHECKED - A.Y./R.L.D.	REVISED -			CONTRACT NO. 60M66							
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -			FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
			SCALE:		SHEET S2 of S8	STA. TO STA.						



NORTHWEST ABUTMENT



NORTHEAST ABUTMENT



**PIER 13
EAST FACE**

LEGEND:

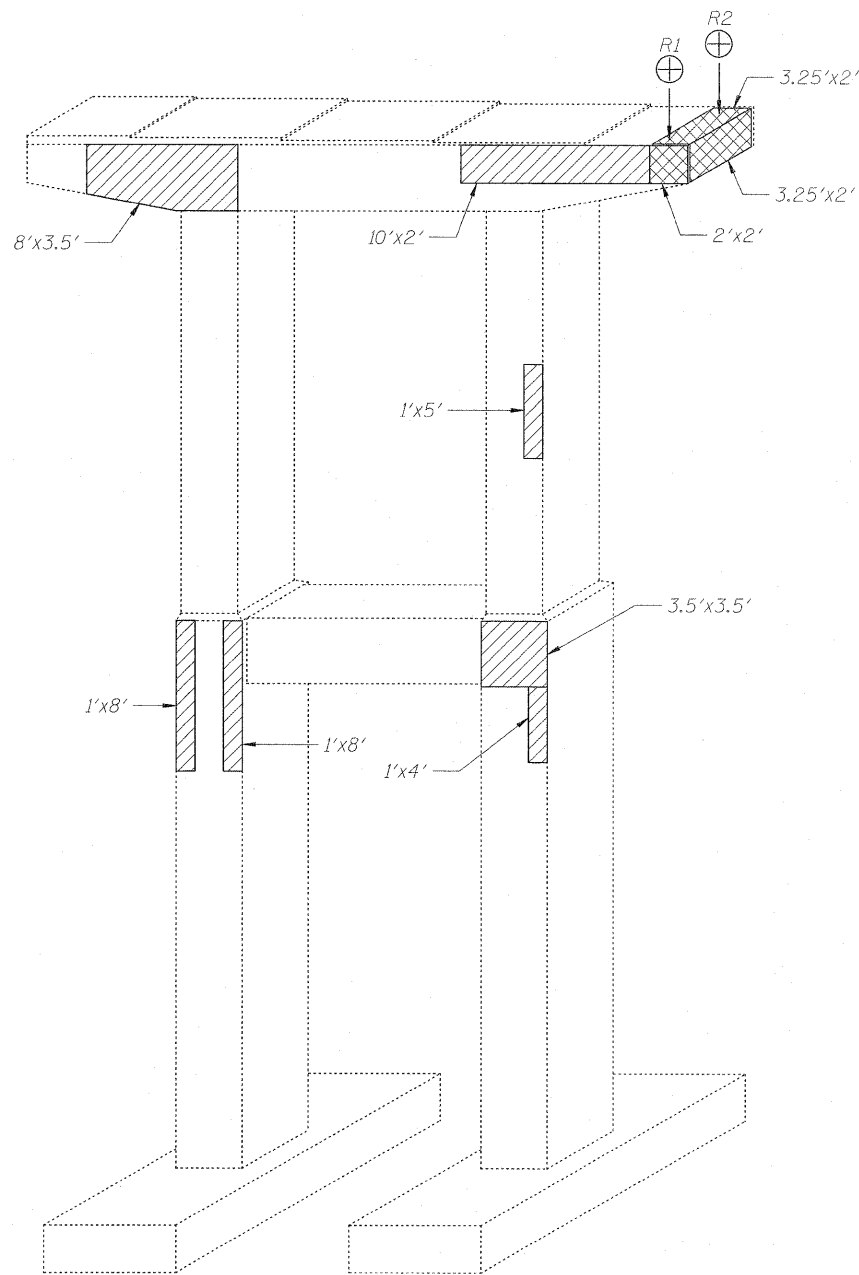
- Structural Repair of Concrete (Depth > 5")
- Structural Repair of Concrete (Depth < 5")

BILL OF MATERIAL

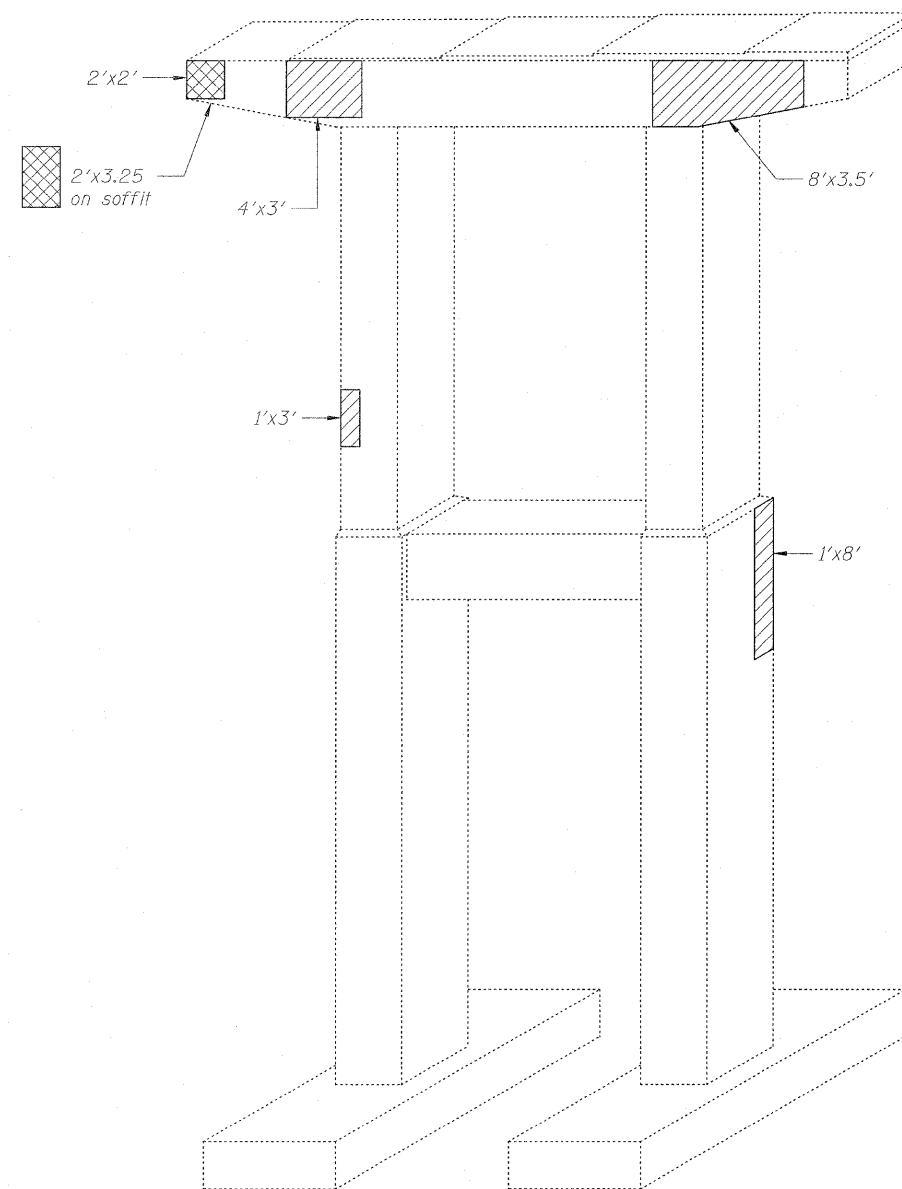
ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth ≤ 5")	Sq. Ft.	23
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	18

USER NAME = a\erg\cog\l\rd\ey... PLOT CONFIG = PDF\1-80... PLOT SCALE = 1:5 PLOT DATE = 2/8/2011	DESIGNED - A.Y./L.C. DRAWN - L.C./A.Y. CHECKED - A.Y./R.L.D. DATE - 01/20/2011	REVISED - REVISED - REVISED - REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ABUTMENT AND PIER REPAIRS WESTBOUND I-80 OVER CNRR AND ROWELL AVENUE SN 099-0067	F.A.I. RTE. 80	SECTION 99 (4&4-1) RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 183
SCALE: SHEET S4 of S8 STA. TO STA.						FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT CONTRACT NO. 60M66				

q:\dot\21050.005 (1-80 phase 1)\drawings\cadd sheets\bridge p8e\rowell\wb\099-0067-DIG0M66-Abutment-Rowell.dgn



PIER 11
WEST FACE



PIER 11
EAST FACE

LEGEND:

- Structural Repair of Concrete (Depth > 5")
- Structural Repair of Concrete (Depth < 5")
- Temporary Shoring and Cribbing

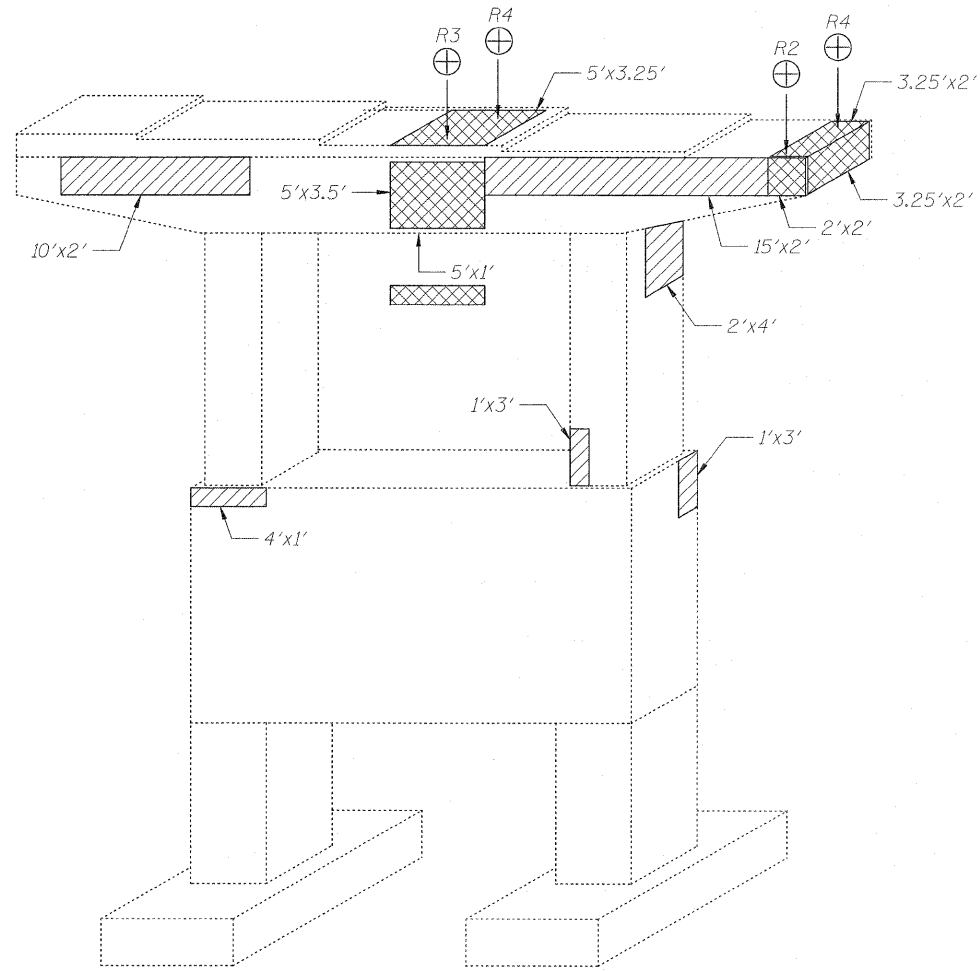
INTERIOR GIRDER REACTION TABLE			
		R1	R2
R ₂	(k)	30.6	33.9
R ₄	(k)	43.2	44.2
Imp.	(k)	12.8	12.8
R _{Total}	(k)	86.5	90.9

BILL OF MATERIAL

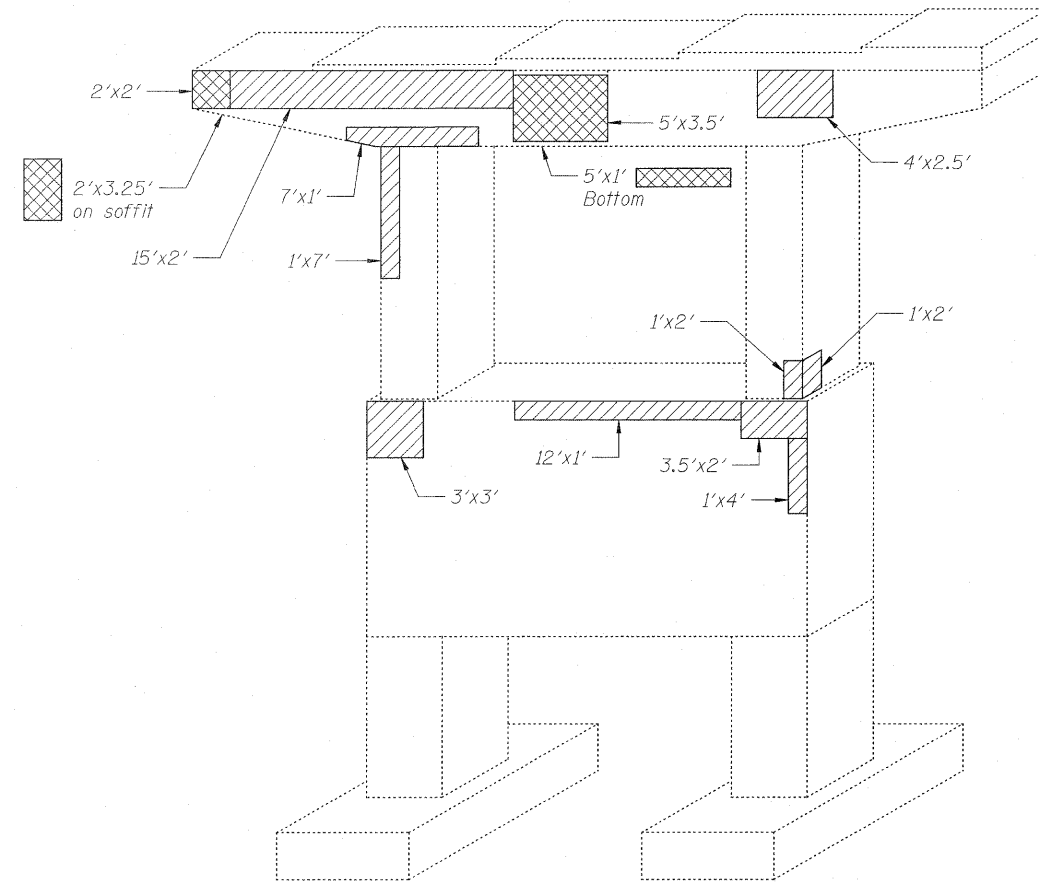
ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth < 5")	Sq. Ft.	137
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	28
Temporary Shoring and Cribbing	Each	2

Note:
See the Special Provision "Temporary Shoring and Cribbing" for design, installation, and removal of the temporary shoring and cribbing support system. Approximate beam reactions are given in Interior Girder Reaction Table at the locations shown.

USER NAME = ayanrigoogl(Rdxy_L1s1e)	DESIGNED - A.Y./L.C.	REVISED -		STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PIER 11 REPAIRS WESTBOUND I-80 OVER CNRR AND ROWELL AVENUE SN 099-0067	F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
PLOT CONFIG= PDF(I-80_TopoGrey_Large).pl	DRAWN - L.C./A.Y.	REVISED -				80	99 (4&4-1) RS-3	WILL	203	184
PLOT SCALE = 1:5	CHECKED - A.Y./R.L.D.	REVISED -				CONTRACT NO. 60M66				
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				
			SCALE:	SHEET 55 of 58	STA. TO STA.					



PIER 12
WEST FACE



PIER 12
EAST FACE

LEGEND:

Structural Repair of Concrete (Depth > 5")

Structural Repair of Concrete (Depth < 5")

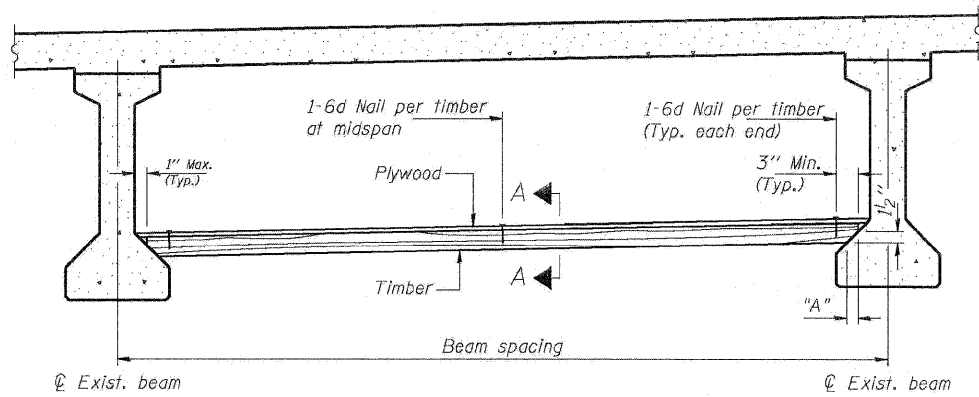
Temporary Shoring and Cribbing

INTERIOR GIRDER REACTION TABLE				
		R2	R3	R4
R _g	(k)	33.9	44.7	44.7
R _l	(k)	44.2	47.7	46.8
Imp.	(k)	12.8	12.6	12.4
R _{Total}	(k)	90.9	105.0	103.9

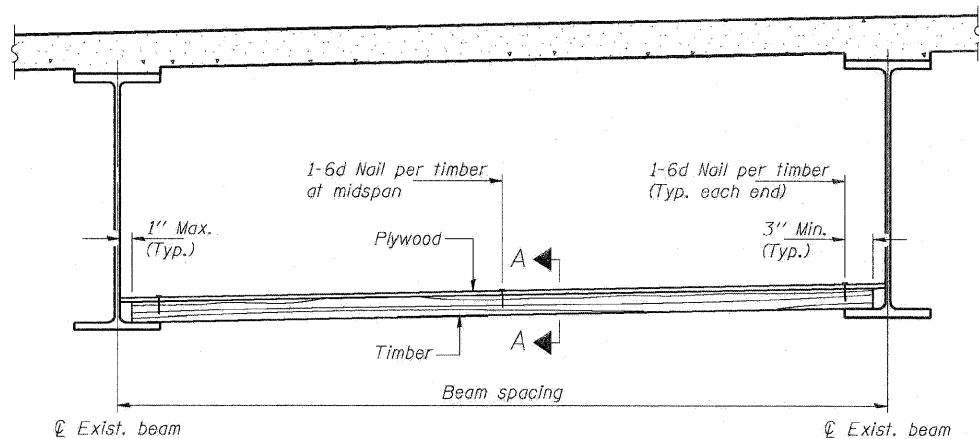
BILL OF MATERIAL

ITEM	UNIT	TOTAL
Structural Repair of Concrete (Depth < 5")	Sq. Ft.	158
Structural Repair of Concrete (Depth > 5")	Sq. Ft.	84
Temporary Shoring and Cribbing	Each	4

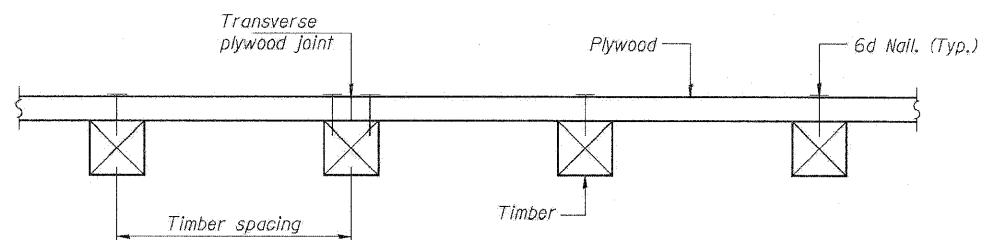
Note:
See the Special Provision "Temporary Shoring and Cribbing" for design, installation, and removal of the temporary shoring and cribbing support system. Approximate beam reactions are given in Interior Girder Reaction Table at the locations shown.



PPC I-BEAMS AND BULB-T'S



STEEL BEAMS



SECTION A-A

TIMBER SPACING

Beam Spacing (ft.)	Timber Sizes (in.)		
	4" x 4" with min. Fb=775 psi Fv=135 psi	4" x 6" with min. Fb=775 psi Fv=135 psi	6" x 6" with min. Fb=575 psi Fv=125 psi
	Maximum Timber Spacing (in.)		
4.5	16	16	16
4.75	16	16	16
5.0	16	16	16
5.25	16	16	16
5.5	16	16	16
5.75	16	16	16
6.0	16	16	16
6.25	12	16	16
6.5	12	16	16
6.75	12	16	16
7.0	8	16	16
7.25	8	16	16
7.5	8	16	16
7.75	8	16	16
8.0	8	12	16
8.25	8	12	16
8.5	6	12	12
8.75	6	12	12
9.0	6	8	12

Notes: See special provision for Permanent Protective Shield System.
 Timber sizes shown are nominal sizes. Rough sawn timber of the dimensions shown will also be considered acceptable.
 The minimum Fb and Fv values shown are the tabulated design values given in the National Design Specification for Wood Construction for No. 2 Spruce-Pine-Fir without adjustment factors applied. Better grades or other species with equal or higher allowable stresses will also be considered acceptable.
 The timber spacings shown have been determined using allowable stresses with all adjustment factors necessary for the anticipated service conditions.
 All timber shall be treated.
 Plywood shall be 5/8" Exterior type plywood (per American Plywood Association).
 Plywood shall be placed such that the face grain is perpendicular to the timber supports. When less than a full sheet (4' width) of plywood is used, the width of the strip used shall not be less than 2'.
 Transverse plywood joints shall be supported by timbers.
 When 4" x 6" timbers are used, they shall be placed such that the wide face is horizontal and the narrow face is vertical.
 Design load = 200 psf.

PPC I-BEAMS AND BULB-T'S

BEAM	"A"
36" I-Beam	1 1/2"
42" I-Beam	1 1/2"
48" I-Beam	1 1/2"
54" I-Beam	1 5/8"
63" Bulb-T	3 3/8"
72" Bulb-T	3 3/8"

BILL OF MATERIAL

ITEM	UNIT	TOTAL
Protective Shield (Permanent)	Sq. Yd.	370

USER NAME = sjarsooogl(Rdwg_L1s1e)	DESIGNED - A.Y./L.C.	REVISED -
PLOT CONFIG = PDF(I-68_TopoGrey_Large).pl	DRAWN - L.C./A.Y.	REVISED -
PLOT SCALE = 1/16	CHECKED - A.Y./R.L.D.	REVISED -
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

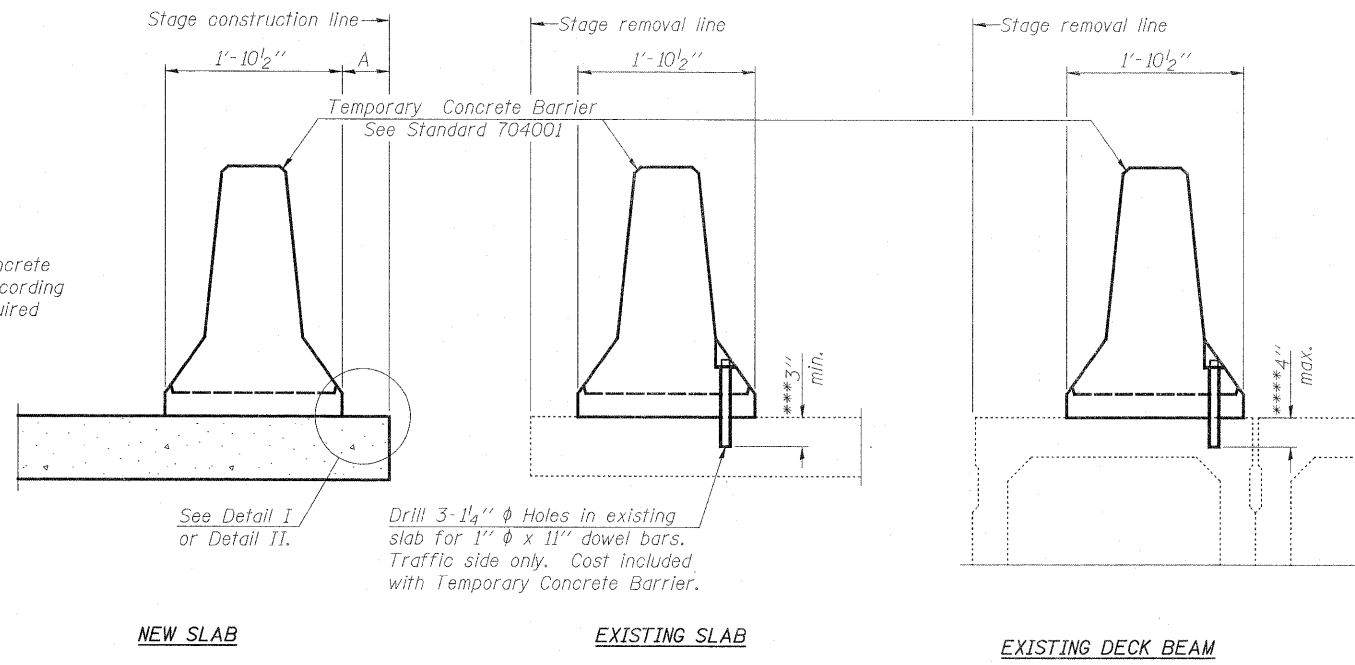
PERMANENT PROTECTIVE SHIELD
WESTBOUND I-80 OVER CNRR AND ROWELL AVENUE
SN 099-0067

SCALE: SHEET S7 of S8 STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	186
FED. ROAD DIST. NO. 1				ILLINOIS FED. AID PROJECT

CONTRACT NO. 60M66

When "A" is 3'-6" or less, the temporary concrete barrier shall be anchored to the new slab according to Detail I or Detail II. No anchorage is required when "A" is greater than 3'-6".



SECTIONS THRU SLAB OR DECK BEAM

NOTES

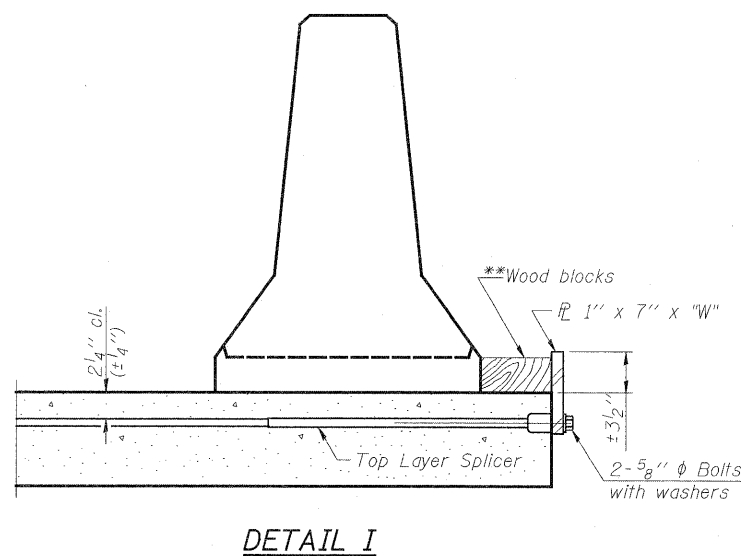
Detail I - With Bar Splicer or Couplers:
Connect one (1) 1" x 7" x "W" steel PL to the top layer of couplers with 2-5/8" φ bolts screwed to coupler at approximate C of each barrier panel.

Detail II - With Extended Reinforcement Bars:
Connect one (1) 1" x 7" x "W" steel PL to the concrete slab or concrete wearing surface 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.

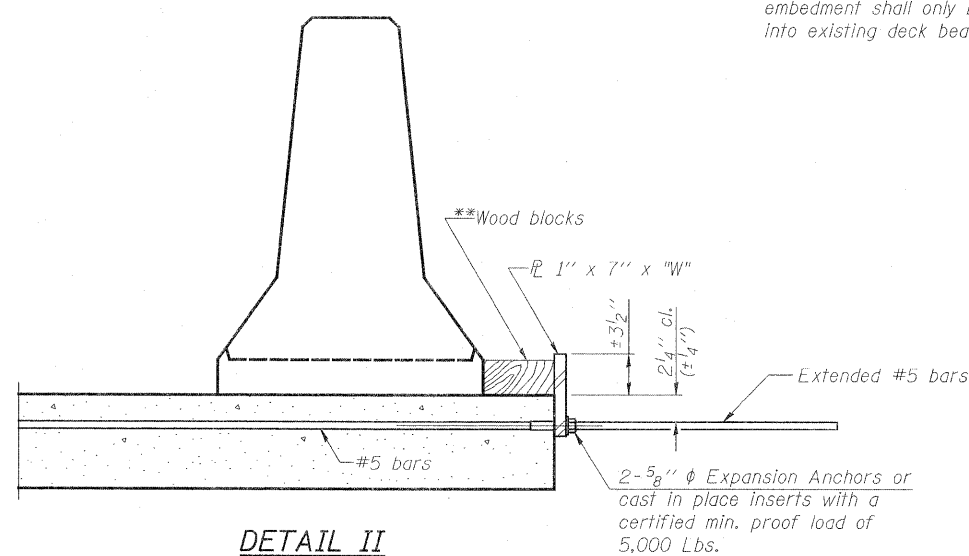
Cost of anchorage is included with Temporary Concrete Barrier. The 1" x 7" x "W" plate shall not be removed until stage II construction forms and all reinforcement bars are in place and the concrete is ready to be placed.

*** Dimension shown is minimum required embedment into concrete. If hot-mix asphalt wearing surface is present, minimum embedment shall be in addition to wearing surface depth.

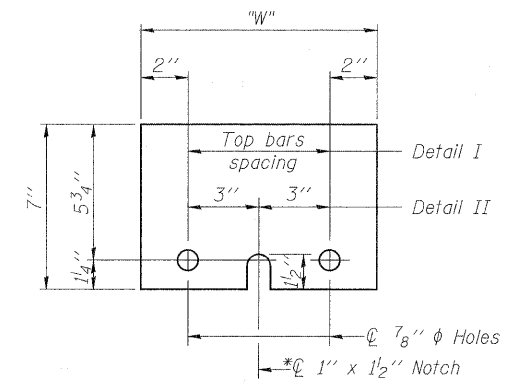
**** If existing deck beam is to remain in place after stage construction, embedment shall only be into wearing surface and not into existing deck beam concrete.



DETAIL I



DETAIL II



STEEL RETAINER PL 1" x 7" x "W"

* Required only with Detail II

** Wood blocks may be omitted when required to provide minimum stage traffic lane width. When the wood blocks are omitted, the concrete barrier shall be in direct contact with the steel retainer plate.

"W" = Top bars spacing + 4"

R-27

7-1-10

USER NAME = ayargiooglu(Rdwg_L1s1e)	DESIGNED - A.Y./L.C.	REVISED -
PLOT CONFIG= PDF(I-80_TopoGrey_Large).pl	DRAWN - L.C./A.Y.	REVISED -
PLOT SCALE = 1:16	CHECKED - A.Y./R.L.D.	REVISED -
PLOT DATE = 2/8/2011	DATE - 01/20/2011	REVISED -

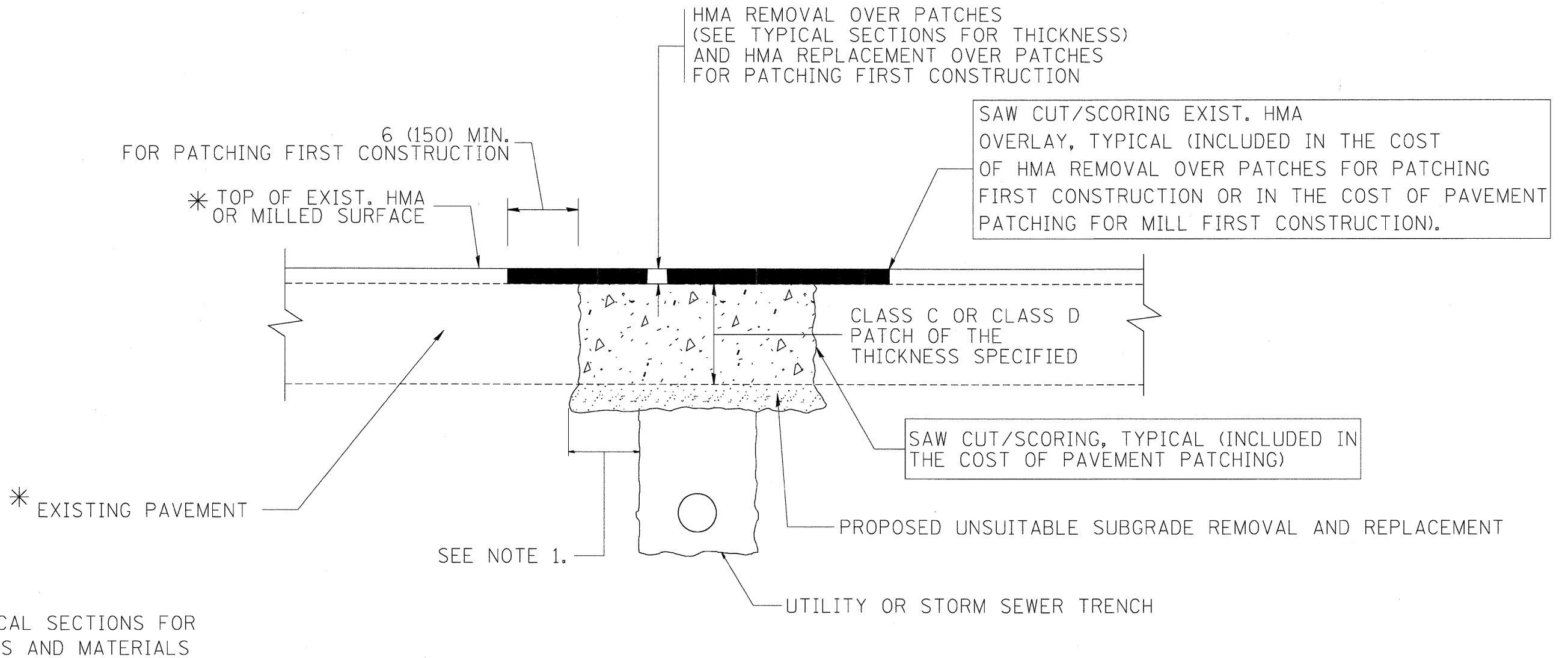


**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

**TEMPORARY CONCRETE BARRIER FOR STAGE CONSTRUCTION
WESTBOUND I-80 OVER CNRR AND ROWELL AVENUE
SN 099-0067**

SCALE: SHEET S8 of S8 STA. TO STA.

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	187
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT			CONTRACT NO. 60M66	



* SEE TYPICAL SECTIONS FOR THICKNESS AND MATERIALS

NOTES:

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

SEQUENCE OF CONSTRUCTION (PATCHING FIRST)

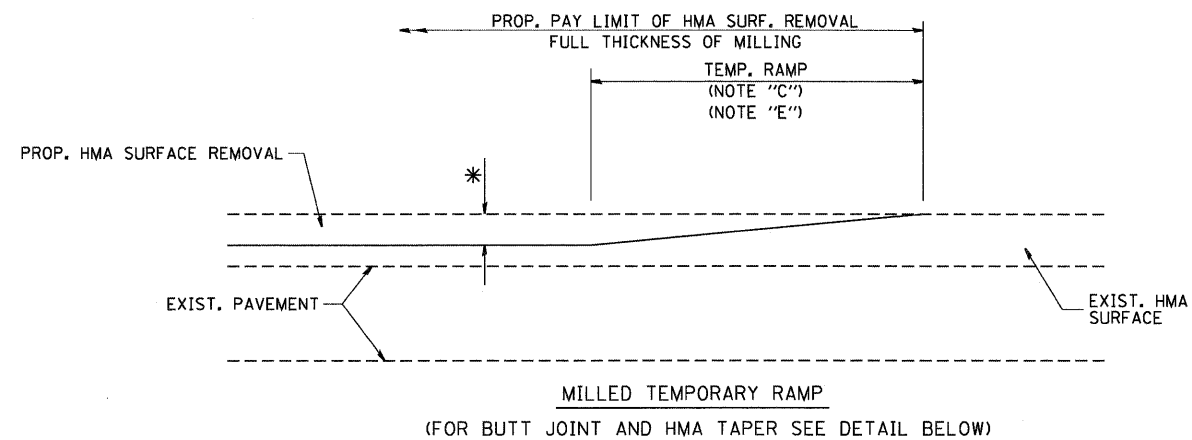
1. REMOVE THE EXISTING HMA MATERIAL OVER THE AREA TO BE PATCHED.
2. REMOVE AND REPLACE WITH CLASS C OR D PATCH.
3. REPLACE HMA MATERIAL OVER THE AREA TO BE PATCHED.

SEQUENCE OF CONSTRUCTION (MILLING FIRST)

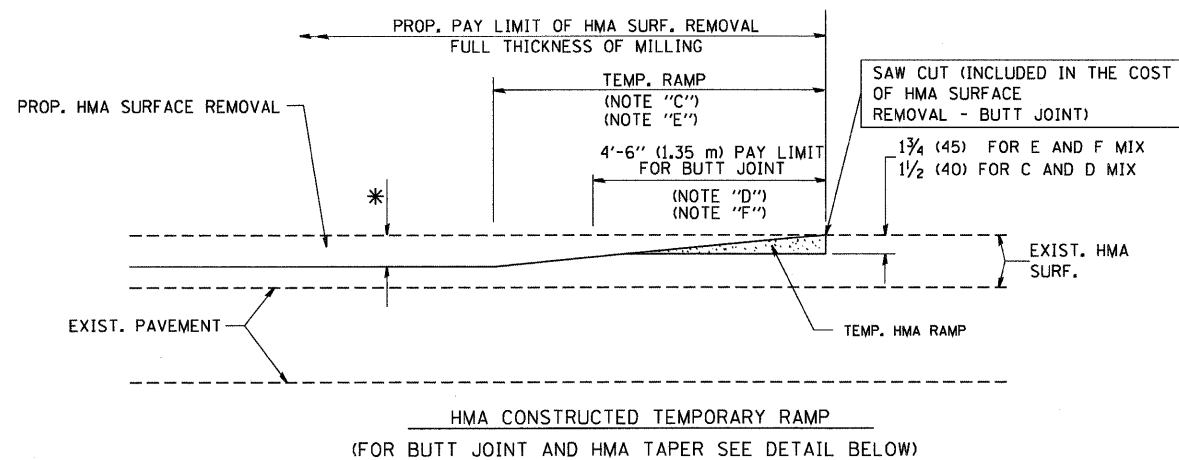
1. MILL HMA FIRST IF THERE IS AT LEAST 4 1/2 INCHES OR MORE OF HMA MATERIAL ON TOP OF THE EXISTING PAVEMENT OR IF THE PAVEMENT IS FULL DEPTH HMA. A MINIMUM OF 2 INCHES OF HMA MATERIAL SHALL BE IN PLACE AFTER MILLING.
2. REMOVE AND REPLACE WITH FULL DEPTH CLASS D PATCHES TO TOP OF MILLED SURFACE.

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

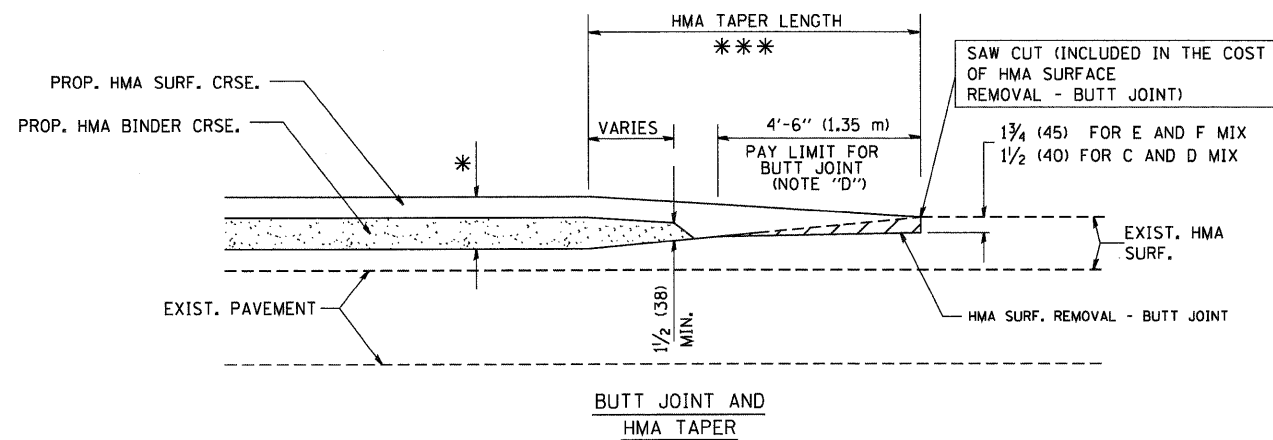
FILE NAME = c:\projects\diststd22x34\bd22.dgn	USER NAME = bauerdl	DESIGNED - R. SHAH	REVISED - A. ABBAS 04-27-98	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	PAVEMENT PATCHING FOR HMA SURFACED PAVEMENT			F.A. RTE. 80	SECTION 99 (4&4-1) RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 188
	PLOT SCALE = 50.000 / / IN.	CHECKED -	REVISED - R. BORO 01-01-07		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	BD400-04 (BD-22)		CONTRACT NO. 60M66		
	PLOT DATE = 10/27/2008	DATE - 10-25-94	REVISED - R. BORO 09-04-07		FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							
			REVISED - K. ENG 10-27-08									



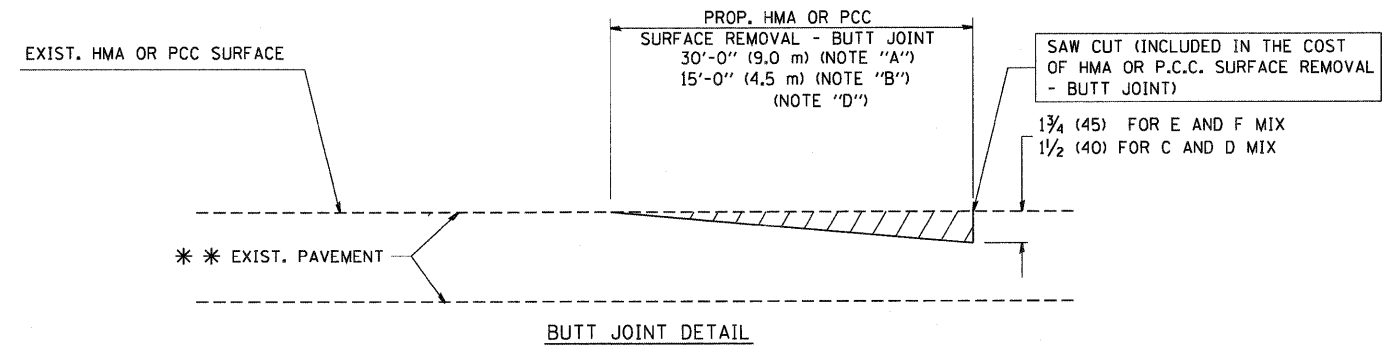
OPTION 1



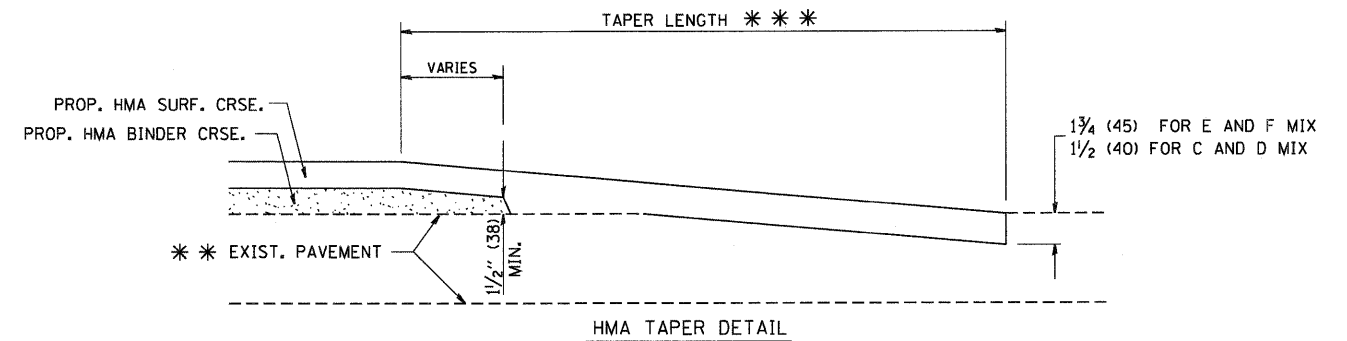
OPTION 2
TYPICAL TEMPORARY RAMP



TYPICAL BUTT JOINT AND HMA TAPER
FOR MILLING AND RESURFACING



BUTT JOINT DETAIL



HMA TAPER DETAIL

TYPICAL BUTT JOINT AND HMA TAPER
FOR RESURFACING ONLY

*** PC CONCRETE, HMA OR HMA RESURFACED PAVEMENT.

NOTES

- A: MAINLINE ROADWAYS AND MAJOR SIDE ROADS.
 - B: MINOR SIDE ROADS.
 - C: THE TEMP. RAMP SHALL BE CONSTRUCTED IMMEDIATELY UPON REMOVAL OF THE EXISTING HMA SURFACE.
 - D: THE BUTT JOINT SHALL BE CONSTRUCTED IMMEDIATELY PRIOR TO PLACING THE PROPOSED HMA COURSES.
 - E: TAPER THE TEMP. RAMP AT A RATE OF 3'-0" (900 mm) PER 1 INCH (25 mm) OF MILLING THICKNESS.
 - F: INSTALLATION AND REMOVAL OF THE 4'-6" (1.35 m) TEMP. RAMP IS INCLUDED IN COST OF HMA SURFACE REMOVAL - BUTT JOINT
 - G: SEE ARTICLE 406.08 AND 406.14 OF THE STANDARD SPECIFICATIONS FOR "HMA AND/OR PCC SURFACE REMOVAL, BUTT JOINT".
- * SEE TYPICAL SECTIONS FOR MILLING THICKNESS.
- *** 20'-0" (6.1 m) PER 1 (25) RESURFACING (NOTE "A")
10'-0" (3.0 m) PER 1 (25) RESURFACING (NOTE "B")

BASIS OF PAYMENT:

THE BUTT JOINT WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD (SQUARE METER) FOR "HOT-MIX ASPHALT SURFACE REMOVAL - BUTT JOINT" OR FOR "PORTLAND CEMENT CONCRETE SURFACE REMOVAL - BUTT JOINT".

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

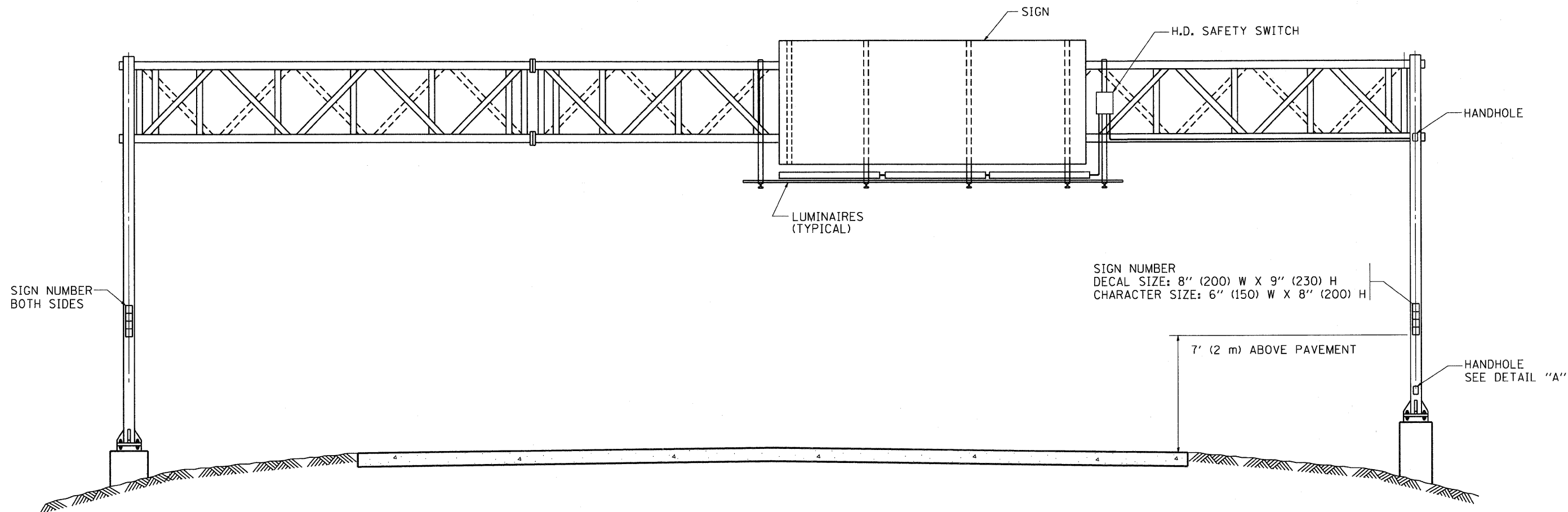
FILE NAME = W:\diststd\22x34\bd32.dgn	USER NAME = gaglianobt	DESIGNED - M. DE YONG	REVISED - R. SHAH 10-25-94
		DRAWN -	REVISED - A. ABBAS 03-21-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED - M. GOMEZ 04-06-01
	PLOT DATE = 1/4/2008	DATE - 06-13-90	REVISED - R. BORO 01-01-07

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

BUTT JOINT AND
HMA TAPER DETAILS

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

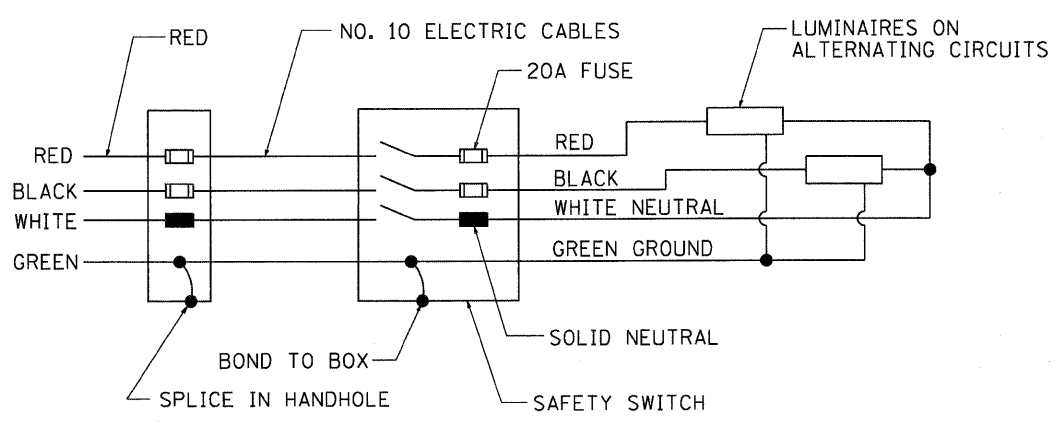
F.A. RTE. = 80	SECTION = 99(4&4-1)RS-3	COUNTY = WILL	TOTAL SHEETS = 203	SHEET NO. = 189
BD400-05 BD32			CONTRACT NO. 60M66	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



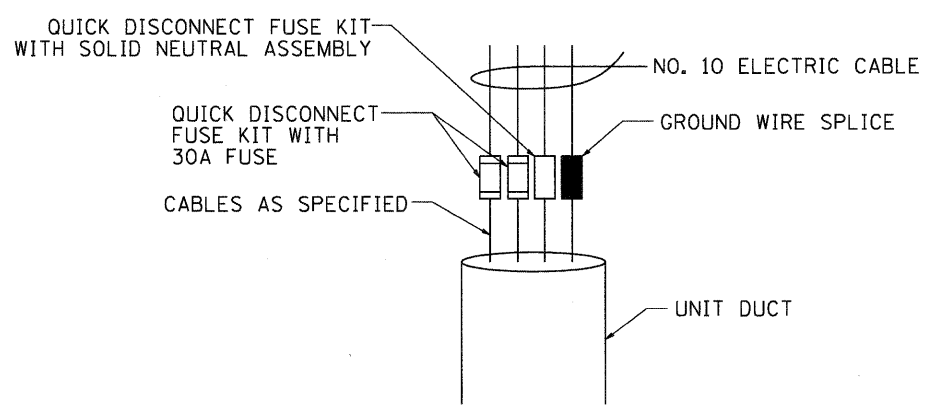
SIGN NUMBER
 DECAL SIZE: 8" (200) W X 9" (230) H
 CHARACTER SIZE: 6" (150) W X 8" (200) H

7' (2 m) ABOVE PAVEMENT

HANDHOLE
 SEE DETAIL "A"



WIRING DIAGRAM

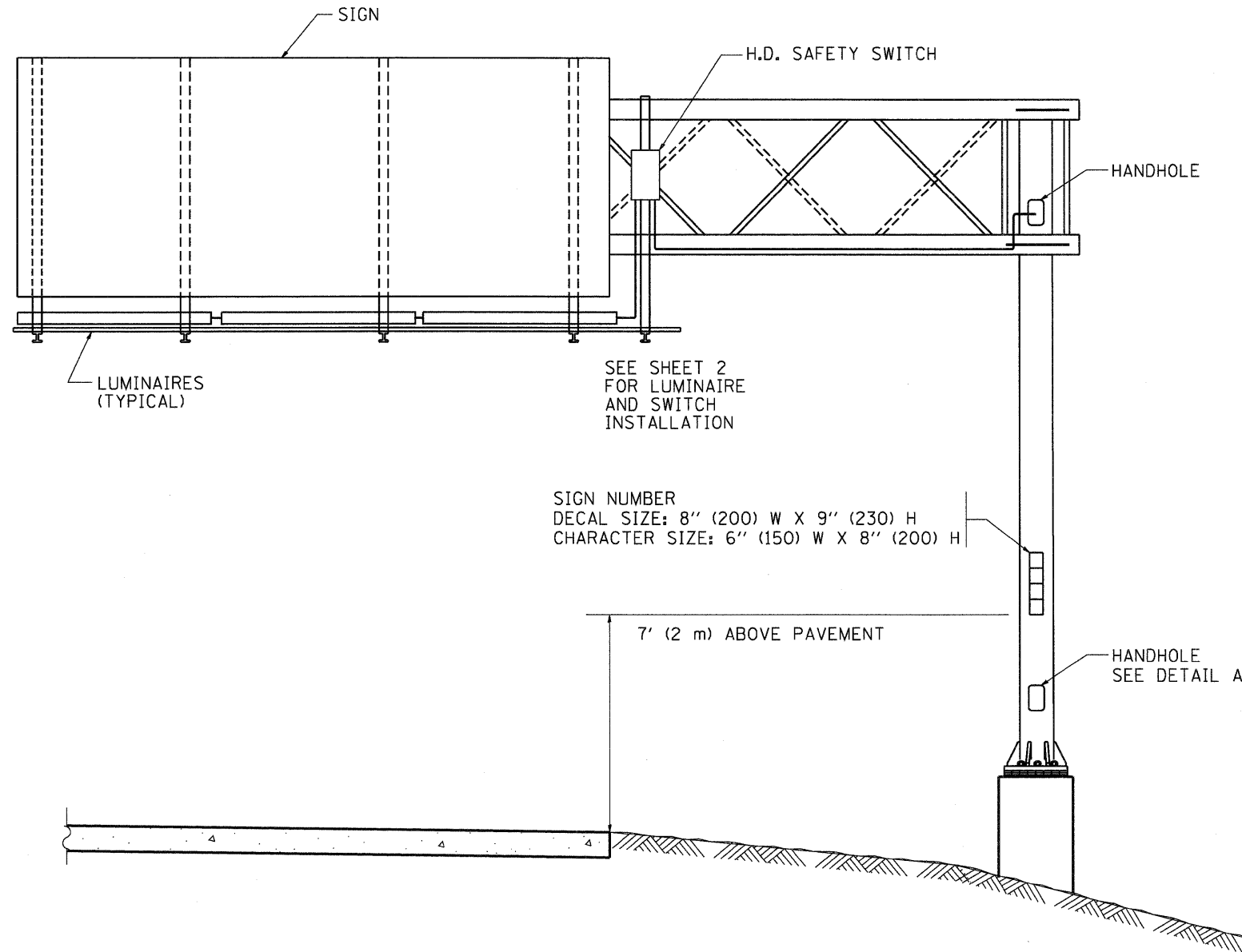


DETAIL A

NOTES:

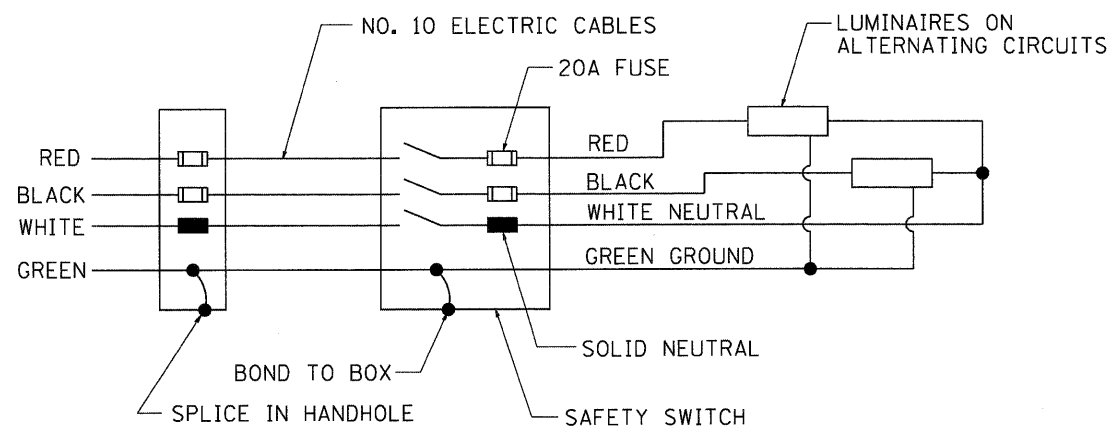
1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED RIGID METALIC CONDUIT, PVC COATED (GRMC, PVC)
3. THE USE OF LIQUID TIGHT METAL CONDUIT (TYPE LFMC) SHALL BE LIMITED TO LOCATIONS WHERE MOVEMENT IS ANTICIPATED AND SHALL NOT EXCEED 5' (1.5 m) IN LENGTH
4. ALL WORK INDICATED SHALL BE INCLUDED IN THE PAY ITEM FOR ELECTRIC CONNECTION TO SIGN STRUCTURE
5. THE SAFETY SWITCH SHALL BE LOCATED ON THE SIDE OF THE SIGN STRUCTURE WHICH IS CLOSEST TO THE SHOULDER, OR EDGE OF PAVEMENT.

FILE NAME = W:\diststd\22x34\be600.dgn	USER NAME = gaglianobt	DESIGNED -	REVISED - 09-19-04	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRIC CONNECTION TO SIGN STRUCTURE SPAN TYPE			F.A. RTE. = 80	SECTION = 99(4&4-1)RS-3	COUNTY = WILL	TOTAL SHEETS = 203	SHEET NO. = 190
	PLOT SCALE = 50,0000' / IN.	CHECKED -	REVISED -					BE-600			CONTRACT NO. 60M66	
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE	SHEET NO. 1 OF 2 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

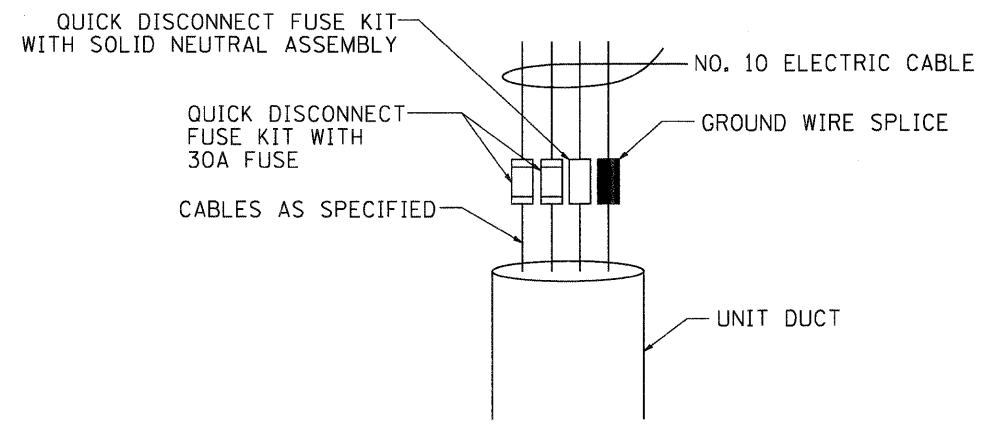


NOTES:

1. ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN
2. ALL CONDUIT ATTACHED TO STRUCTURE SHALL BE GALVANIZED RIGID METALIC CONDUIT, PVC COATED (GRMC, PVC)
3. THE USE OF LIQUID TIGHT METAL CONDUIT (TYPE LFMC) SHALL BE LIMITED TO LOCATIONS WHERE MOVEMENT IS ANTICIPATED AND SHALL NOT EXCEED 5' (1.5M) IN LENGTH
4. ALL WORK INDICATED SHALL BE INCLUDED IN THE PAY ITEM FOR ELECTRIC CONNECTION TO SIGN STRUCTURE
5. THE SAFETY SWITCH SHALL BE LOCATED ON THE SIDE OF THE SIGN STRUCTURE WHICH IS CLOSEST TO THE SHOULDER, OR EDGE OF PAVEMENT.

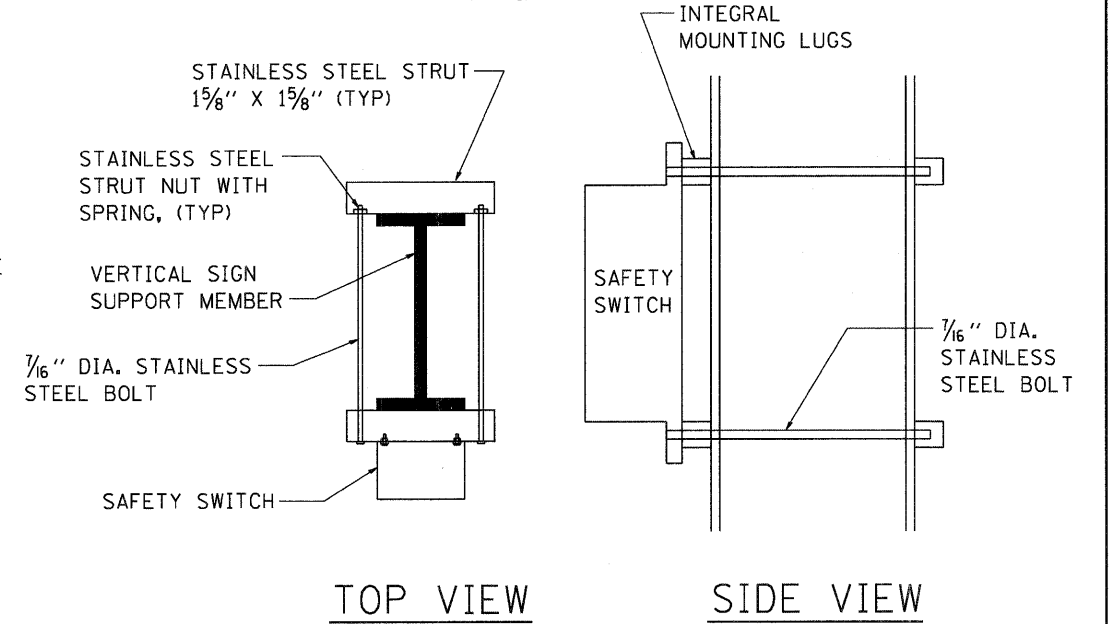
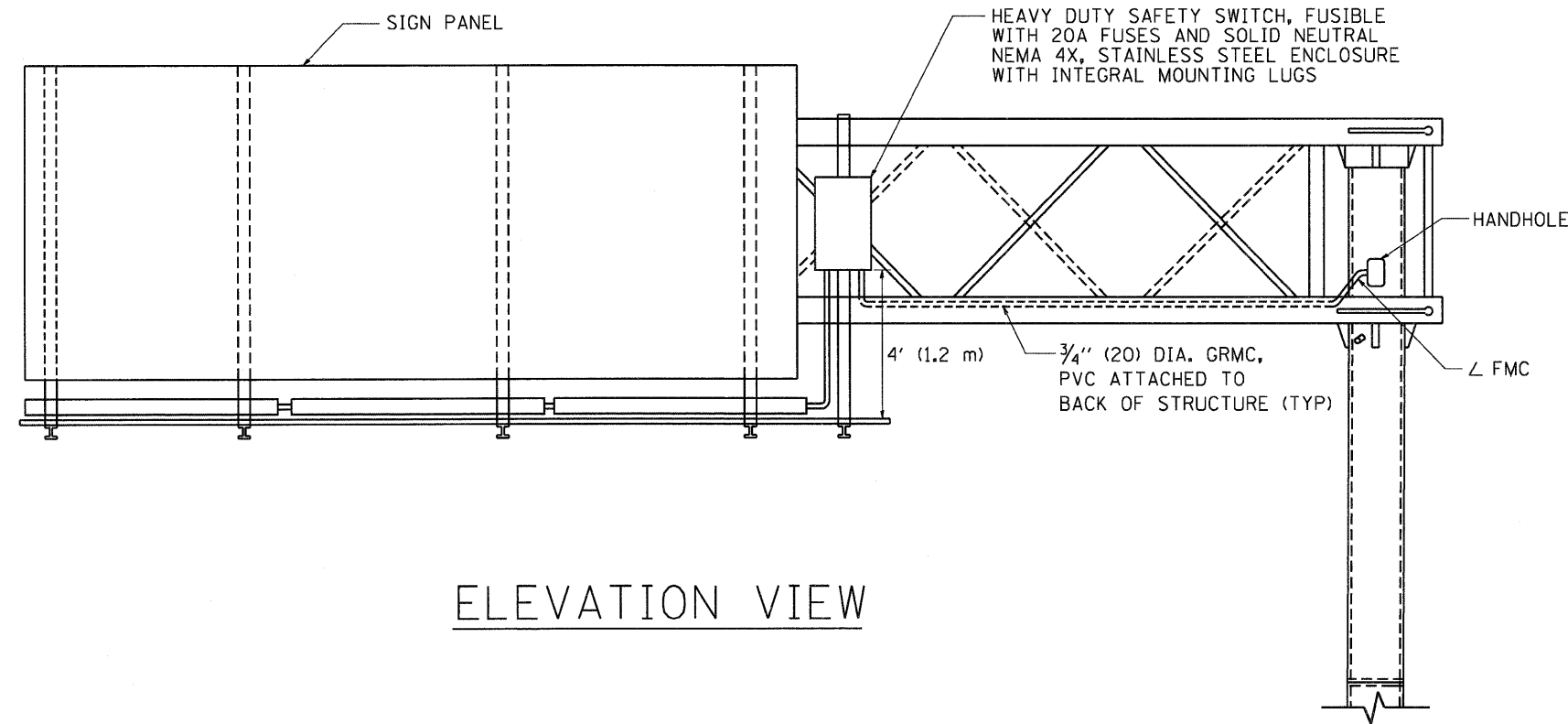
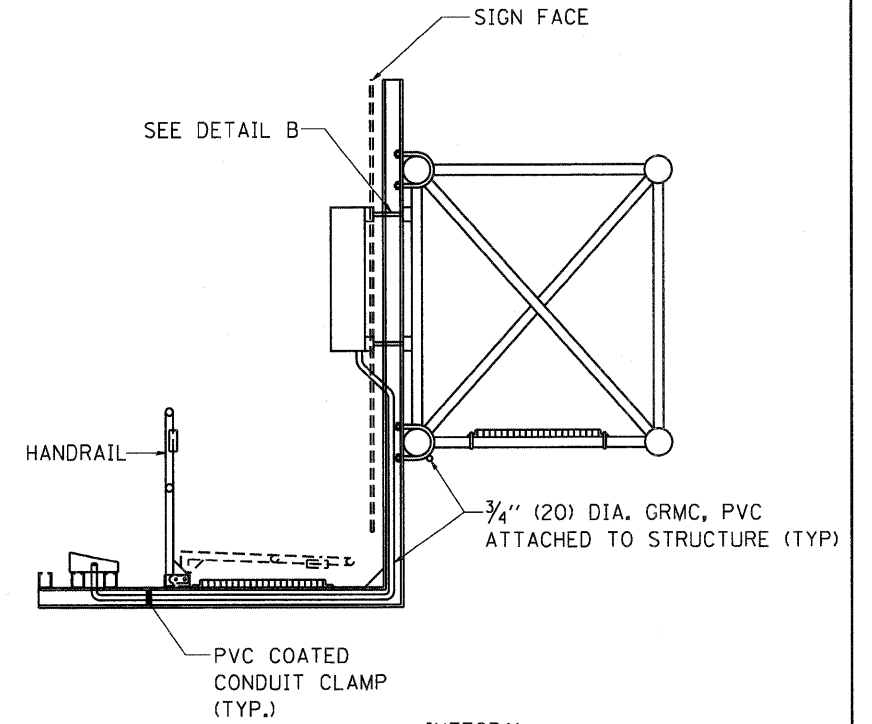
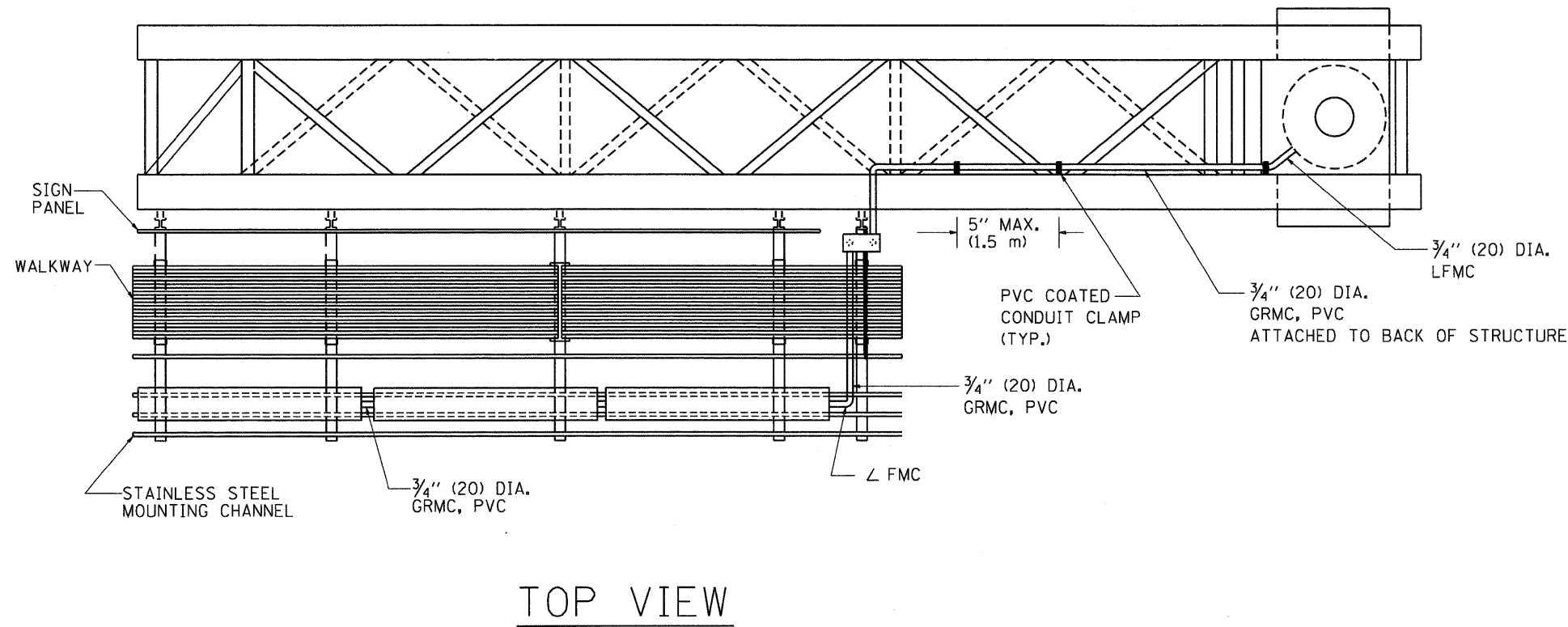


WIRING DIAGRAM



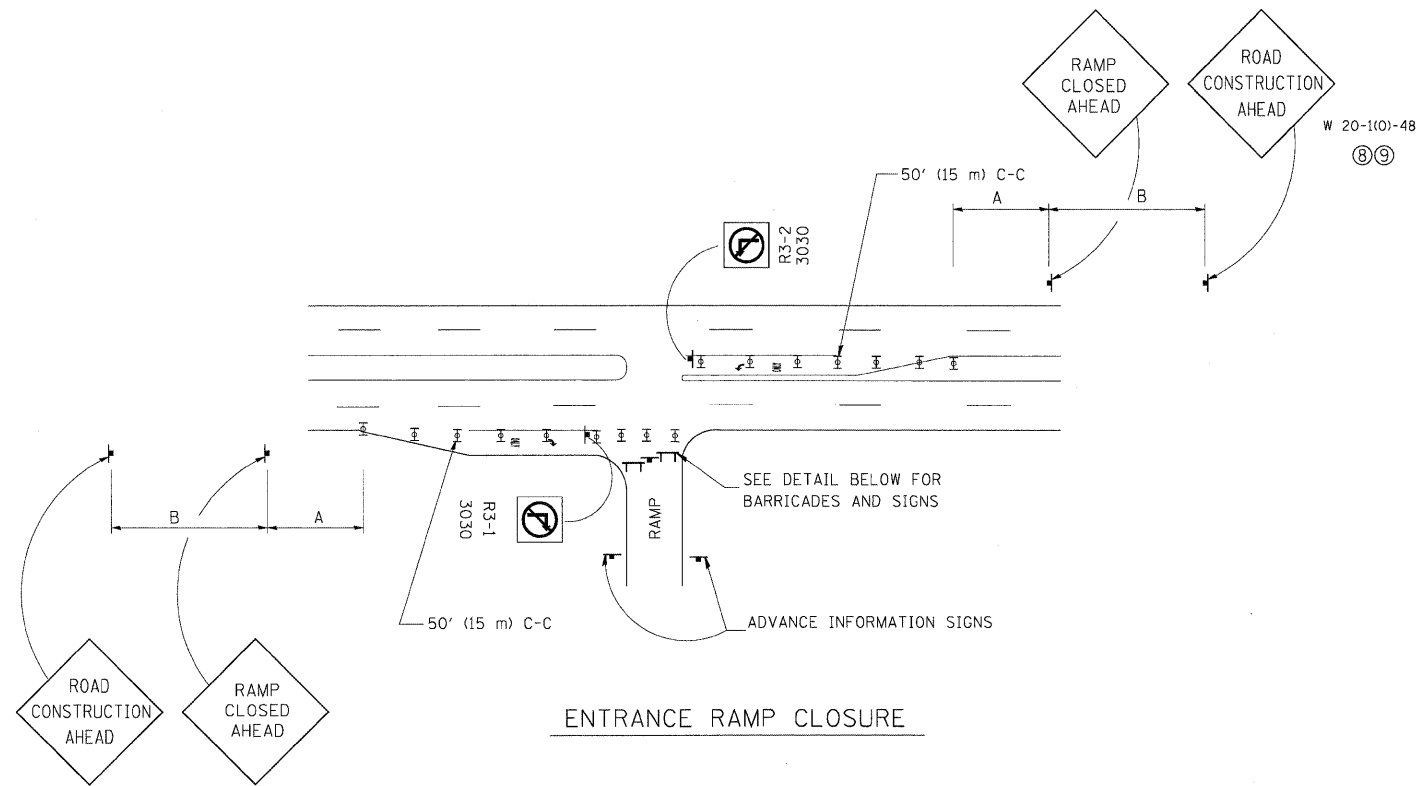
DETAIL A

FILE NAME = W:\disto\22x34\be601.dgn	USER NAME = geglsonobt	DESIGNED -	REVISED - 08-19-04	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRIC CONNECTION TO SIGN STRUCTURE CANTILEVER TYPE			F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -					80	99 (4&4-1) RS-3	WILL	203	192
	PLOT DATE = 1/4/2008	DATE -	REVISED -		SCALE: NONE SHEET NO. 1 OF 2 SHEETS STA. TO STA.			BE-601		CONTRACT NO. 60M66		
								FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



DETAIL B

FILE NAME = W:\diststd\22x34\be601.dgn	USER NAME = goglionobt	DESIGNED - DRAWN -	REVISED - 08-19-04 REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	ELECTRIC CONNECTION TO SIGN STRUCTURE CANTILEVER TYPE			F.A. RTE. = 80	SECTION 99(4&4-1)RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 193
					SCALE: NONE	SHEET NO. 2 OF 2 SHEETS	STA. TO STA.	BE-601				
					CONTRACT NO. 60M66							
					FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT							



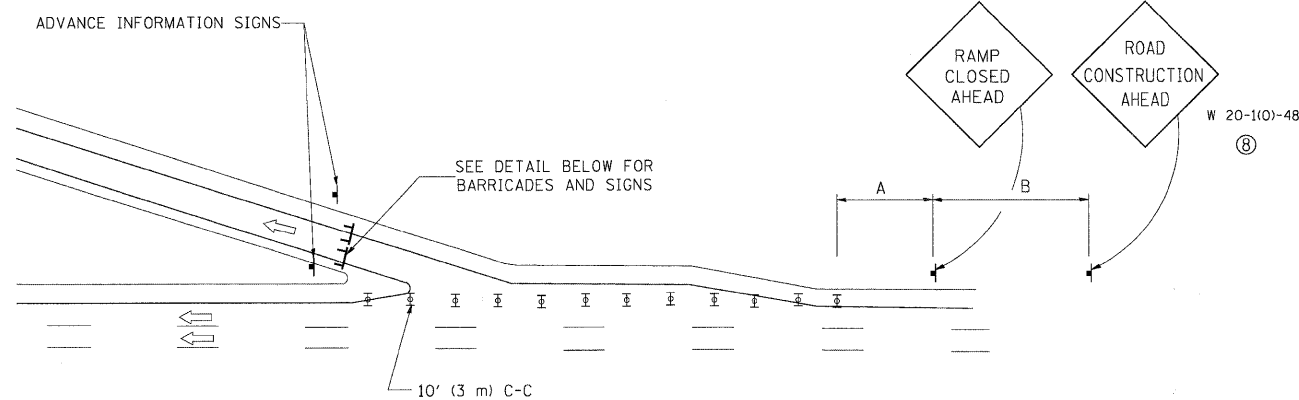
ENTRANCE RAMP CLOSURE

SIGN SPACING TABLE

FACILITY	DISTANCE BETWEEN SIGNS	
	A	B
EXPRESSWAY >24 HOURS	1000' (300 m)	1500' (450 m)
EXPRESSWAY <24 HOURS	500' (150 m)	500' (150 m)
ARTERIAL >45 MPH	350' (100 m)	350' (100 m)
ARTERIAL <45 MPH	150' (45 m)	150' (45 m)

DISTANCES MAY BE SHORTENED DEPENDING UPON THE PROXIMITY OF ADJACENT RAMPS OR INTERSECTIONS.

W 20-110-48
(8) (9)

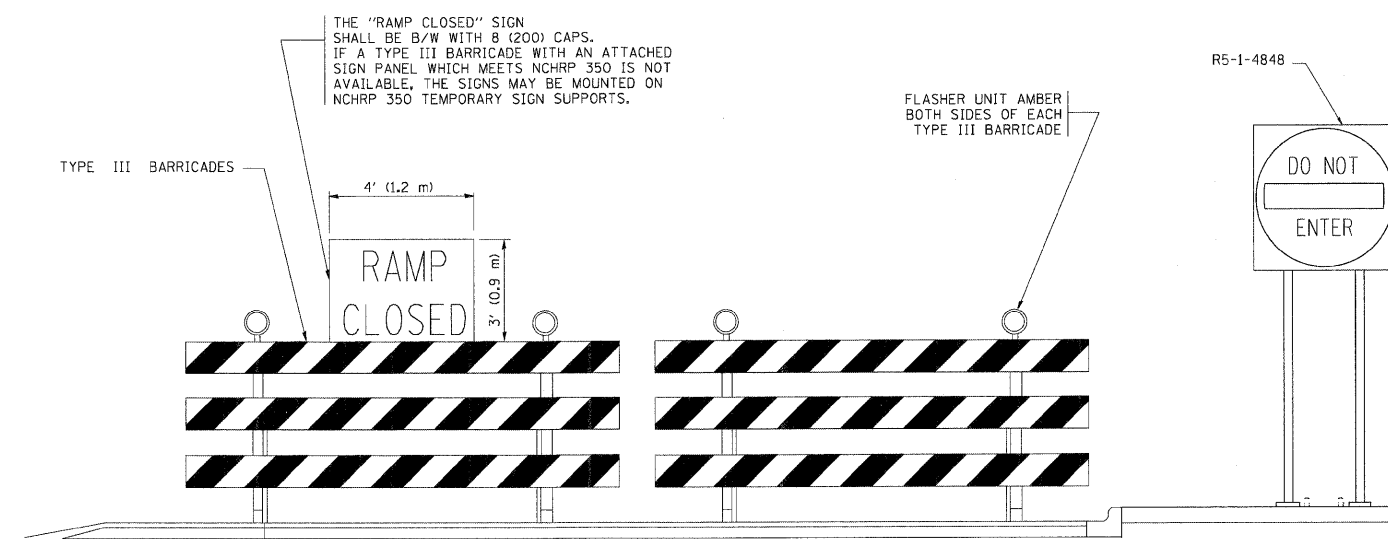


EXIT RAMP CLOSURE

SYMBOLS

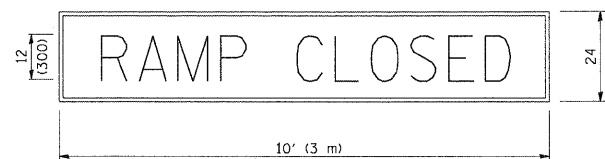
⊥ TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT

⊥ TYPE III BARRICADE WITH FLASHING LIGHT



DETAIL FOR REQUIRED BARRICADES & SIGNS

RAMP CLOSURE ADVANCE WARNING SIGN

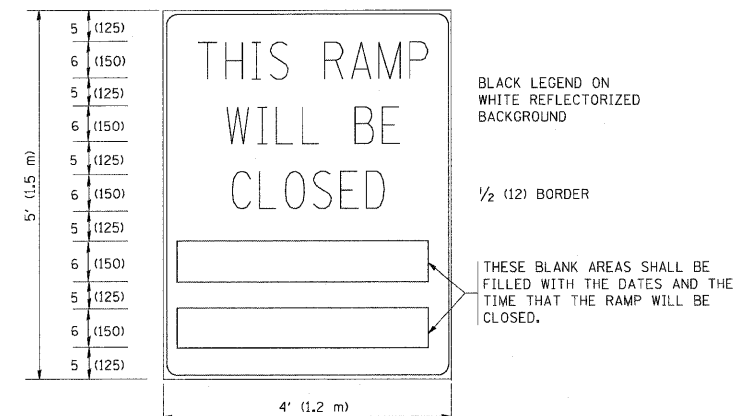


BLACK LEGEND ON ORANGE REFLECTORIZED BACKGROUND

1 (25) BORDER

THESE SIGNS ARE REQUIRED ON ALL THE EXIT GUIDE SIGNS FOR THE CLOSED EXIT RAMPS.

RAMP CLOSURE ADVANCE INFORMATION SIGN



BLACK LEGEND ON WHITE REFLECTORIZED BACKGROUND

1/2 (12) BORDER

THESE BLANK AREAS SHALL BE FILLED WITH THE DATES AND THE TIME THAT THE RAMP WILL BE CLOSED.

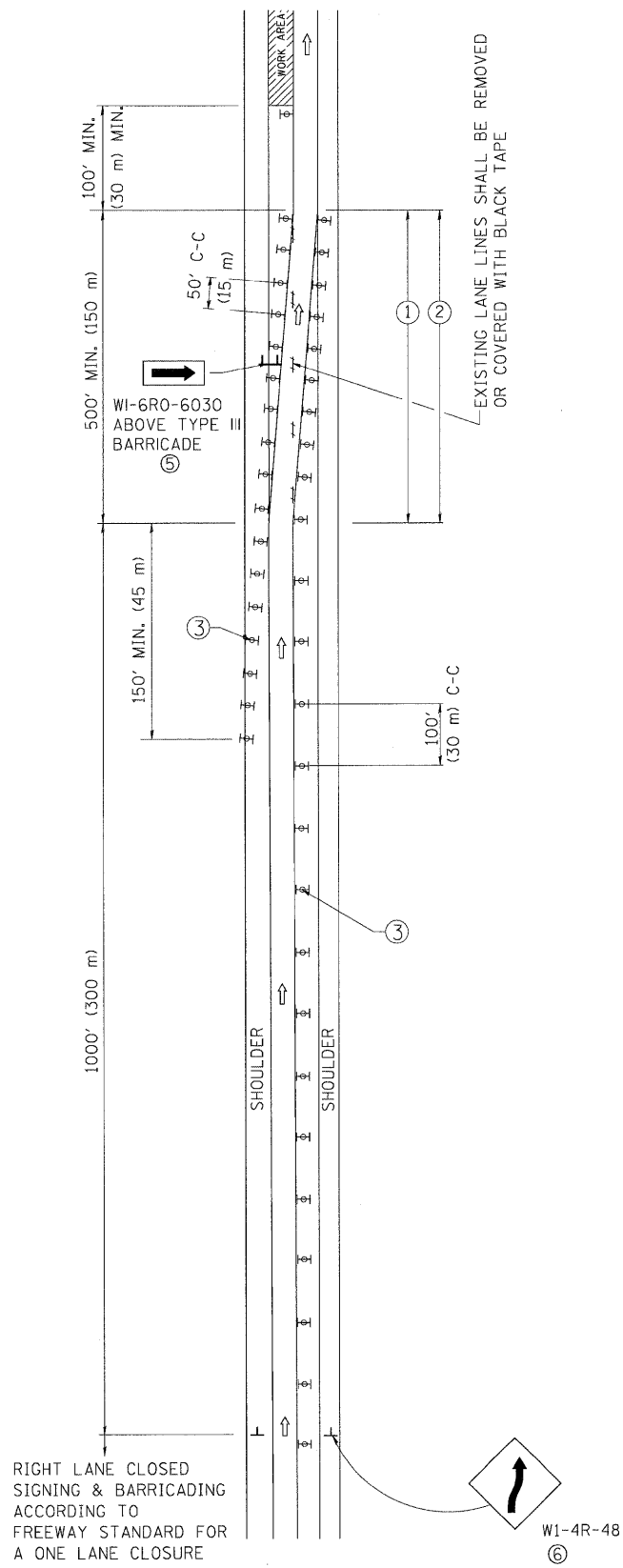
THESE SIGNS ARE REQUIRED ON BOTH SIDES OF THE RAMP, MINIMUM OF 1 WEEK IN ADVANCE OF THE CLOSURE.

GENERAL NOTES:

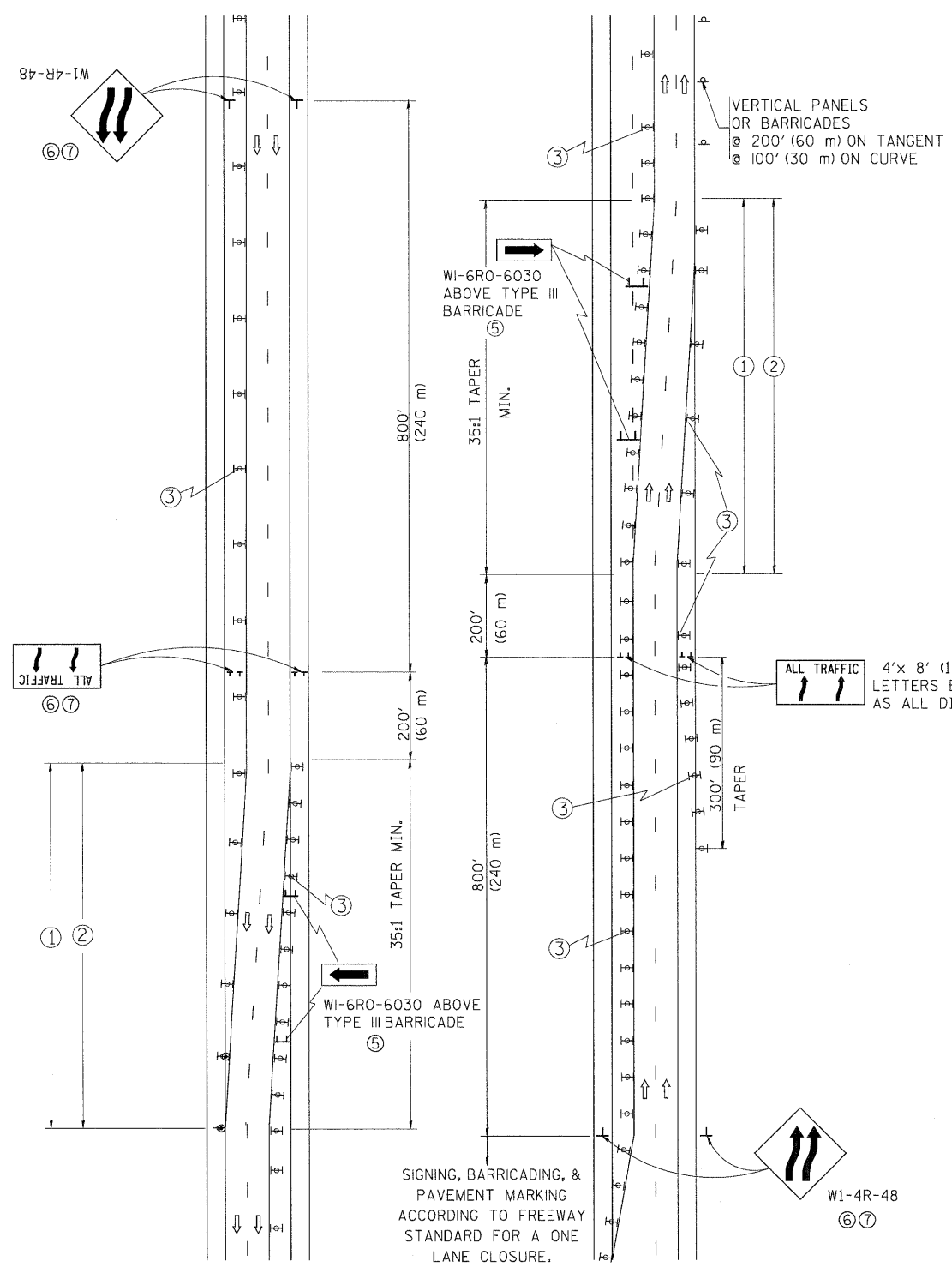
- CONES MAY BE SUBSTITUTED FOR DRUMS OR TYPE II BARRICADES DURING DAY OPERATIONS. CONES SHALL BE A MINIMUM OF 28 (700) HIGH.
- STEADY BURN LIGHTS WILL NOT BE REQUIRED FOR DAY OPERATIONS.
- A FLAGGER SHALL BE POSITIONED AT EACH CLOSED RAMP THAT IS OPEN TO CONSTRUCTION VEHICLES.
- ALL ROUTE MARKERS AND TRAILBLAZER ASSEMBLIES WHICH DIRECT MOTORISTS TO A CLOSED ENTRANCE RAMP SHALL BE COVERED.
- THE SIGNING AND BARRICADING WHICH IS REQUIRED BY THIS DETAIL SHALL BE INCLUDED IN THE COST OF TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS).
- AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL RAMP CLOSURES.
- THE RAMP CLOSURE ADVANCE INFORMATION SIGNS SHALL BE ERECTED IF THE CLOSURE TIME EXCEEDS TWENTY-FOUR (24) HOURS. ADDITIONAL ADVANCE WARNING SIGNS ON EXIT GUIDE SIGNING WILL BE REQUIRED FOR EXIT RAMP CLOSURES THAT EXCEED TWENTY-FOUR (24) HOURS IN LENGTH.
- ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED WHEN THIS DETAIL IS USED IN CONJUNCTION WITH OTHER TRAFFIC CONTROL THAT ALREADY INCLUDES A ROAD CONSTRUCTION AHEAD SIGN.
- ARTERIAL ROAD CONSTRUCTION AHEAD SIGNS MAY BE OMITTED ON CLOSURES LESS THAN 24 HOURS IN DURATION.

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

SINGLE LANE WEAVE



MULTI-LANE WEAVE



GENERAL NOTES

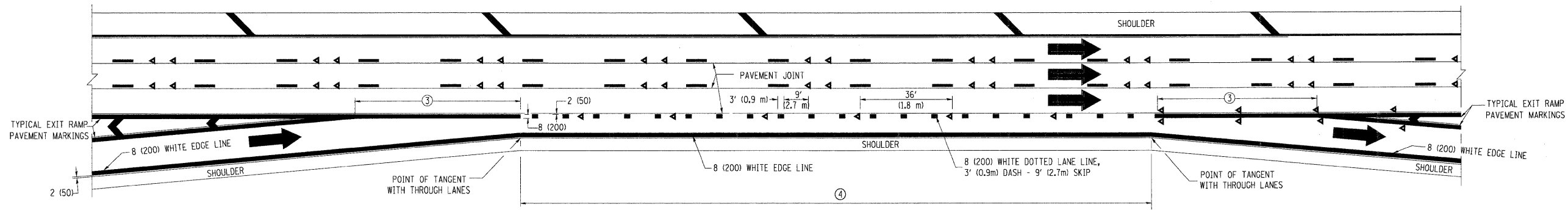
- ① EXISTING CONFLICTING PAVEMENT MARKING LINES SHALL BE REMOVED. PAVEMENT MARKING REMOVAL SHALL NOT BE REQUIRED FOR SINGLE LANE WEAVES UNDER 24 HOURS IN DURATION.
- ② CONTINUOUS REFLECTIVE TEMPORARY PAVEMENT MARKING TAPE SHALL BE PLACED THROUGHOUT THE TAPER AND FOR 300' (90 m) ALONG SIDE THE WORK AREA WHERE THE CLOSURE TIME IS GREATER THAN FOURTEEN DAYS. THE LEFT EDGE LINE SHALL BE YELLOW AND THE RIGHT EDGE LINE SHALL BE WHITE. FOR MULTI-LANE WEAVES LANE LINES SHALL BE 5 INCH, 10'-30' (3 m-9 m) SKIP DASH, WHITE.
- ③ PLASTIC DRUMS WITH STEADY BURN LIGHTS AT 50' (15 m) C-C SPACING IN TAPERS AND 100' (30 m) C-C SPACING IN TANGENTS.
- ④ ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
- ⑤ IF A TYPE III BARRICADE WITH AN ATTACHED SIGN PANEL WHICH MEETS NCHRP 350 IS NOT AVAILABLE, THE SIGNS MAY BE MOUNTED ON NCHRP 350 TEMPORARY SIGN SUPPORTS. TYPE III BARRICADES MAY BE OMITTED FOR SINGLE-LANE WEAVES UNDER 24-HOURS IN DURATION. W1-6 SIGNS WILL STILL BE REQUIRED. IF THE WIDTH OF OFFSET IS LESS THAN 6' THEN THE TYPE III BARRICADE WITH ATTACHED ARROW SIGN PANEL CAN BE ELIMINATED IN THE TAPER AREAS.
- ⑥ WHEN THE LENGTH OF THE SHIFTED SEGMENT (DISTANCE BETWEEN WEAVE POINTS) IS LESS THAN 1500', DOUBLE REVERSE CURVE SIGNS (W24-1) SHOULD BE USED INSTEAD OF THE REVERSE CURVE (W1-4) SIGNS. ARROWS ON THE 4'X8' "ALL TRAFFIC" SIGNS SHALL BE THE SAME SHAPE.
- ⑦ THE NUMBER OF ARROWS ON THESE SIGNS SHALL MATCH THE NUMBER OF LANES OPEN TO TRAFFIC.

SYMBOLS

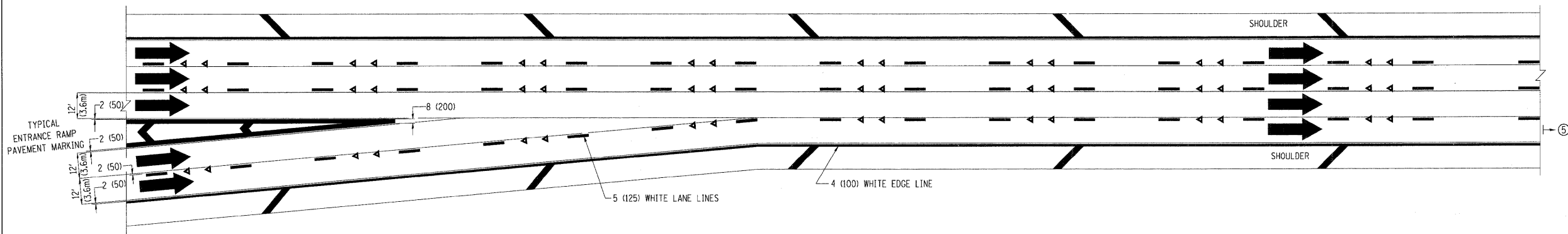
- ↑ DIRECTION OF TRAFFIC
 - ▨ WORK AREA
 - ⊥ SIGN ON PORTABLE OR PERMANENT SUPPORT
 - ⊥ TYPE II BARRICADE OR DRUM WITH MONO-DIRECTIONAL STEADY BURNING LIGHT
- W24-1-48
- W1-4R-48

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

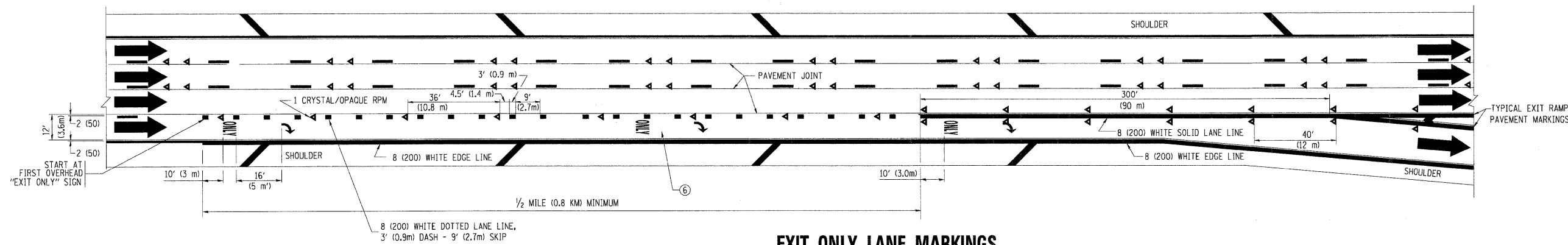
FILE NAME =	USER NAME = lejsa	DESIGNED - DWS	REVISED - JAF 01-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SINGLE & MULTI-LANE WEAVE			F.A. RTE. =	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
W:\diststd\22x34\to09.dgn		DRAWN -	REVISED - JAF 02-06		80	99(4&4-1)RS-3	WILL	203	195			
		CHECKED -	REVISED - SPB 01-07		TC-09			CONTRACT NO. 60M66				
		DATE - 02-87	REVISED - SPB 12-09		SCALE: NONE			SHEET NO. 1 OF 1 SHEETS	STA. TO STA.	FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT		



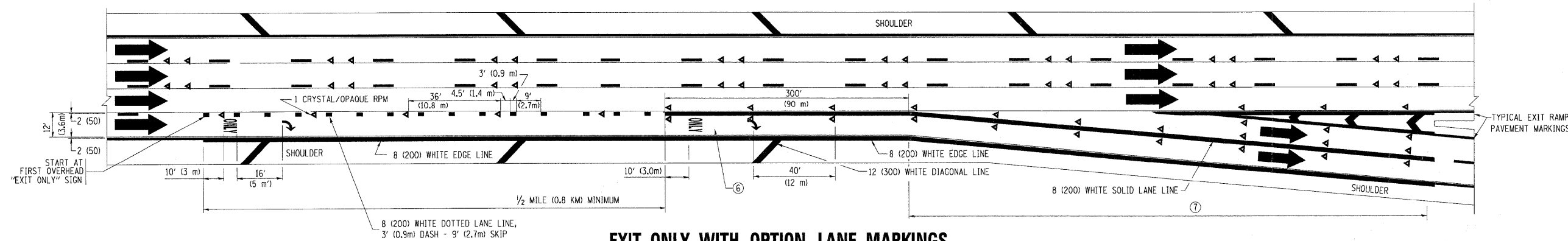
AUXILIARY LANE MARKINGS



TWO LANE ENTRANCE RAMP WITH MERGE MARKINGS



EXIT ONLY LANE MARKINGS



EXIT ONLY WITH OPTION LANE MARKINGS

- NOTES**
- ③ OMIT WHEN LENGTH OF AUXILIARY LANE IS LESS THAN 500' (150 m).
 - ④ 8-INCH WIDE DOTTED LANE LINE MARKINGS SHALL BE USED WHEN THE LENGTH OF THE AUXILIARY LANE IS 2 MILES OR LESS.
 - ⑤ FOR TWO-LANE ENTRANCE RAMP, IF RIGHT LANE ENDS, USE TYPICAL ENTRANCE RAMP PAVEMENT MARKINGS.
 - ⑥ ONLY AND ARROWS EQUALLY SPACED, 500' (150 m) MAXIMUM SPACING. FULL SIZE LETTERS AND ARROW SHALL BE USED.
 - ⑦ CONTINUE 8" SOLID LANE LINE THROUGH EXIT TO END OF PAVED GORE.

FILE NAME =
c:\pw_work\VPW\DOT\LEISA\d0108315\sc12.dgn

USER NAME = leysa
PLOT SCALE = 50,000' / IN.
PLOT DATE = 1/22/2010

DESIGNED - D.W.S.
DRAWN -
CHECKED -
DATE - 01-90

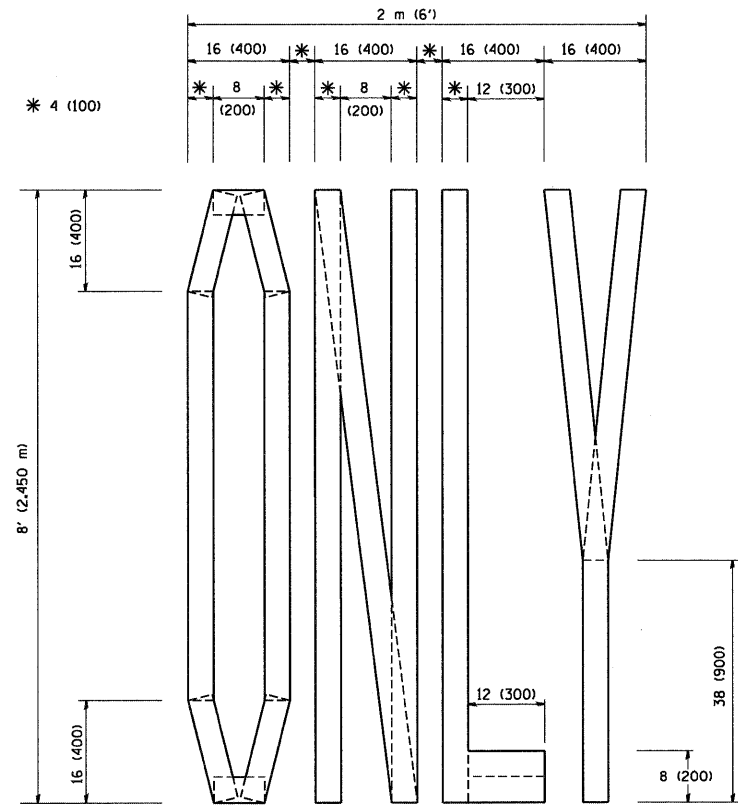
REVISED - D.W.S. 07-96
REVISED - J.A.F. 02-06
REVISED - S.P.B. 01-07
REVISED - S.P.B. 01-10

**STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION**

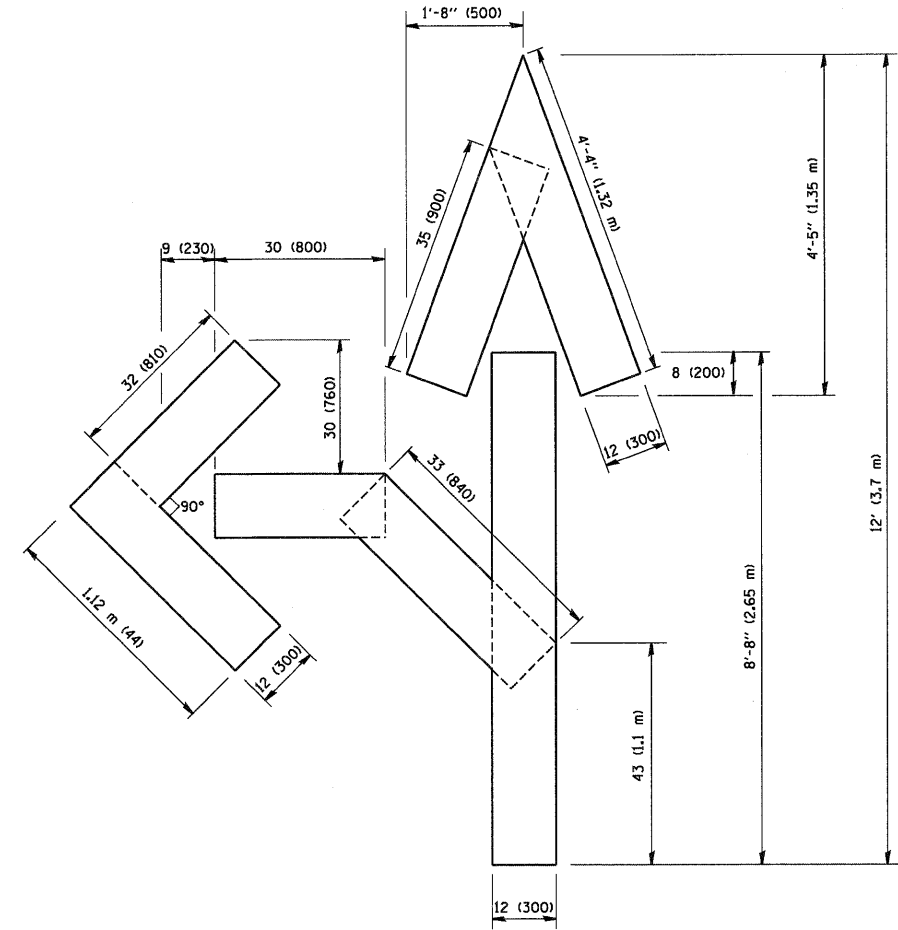
**MULTI-LANE FREEWAY
PAVEMENT MARKING DETAILS**

SCALE: NONE SHEET NO. 2 OF 2 SHEETS STA. TO STA.

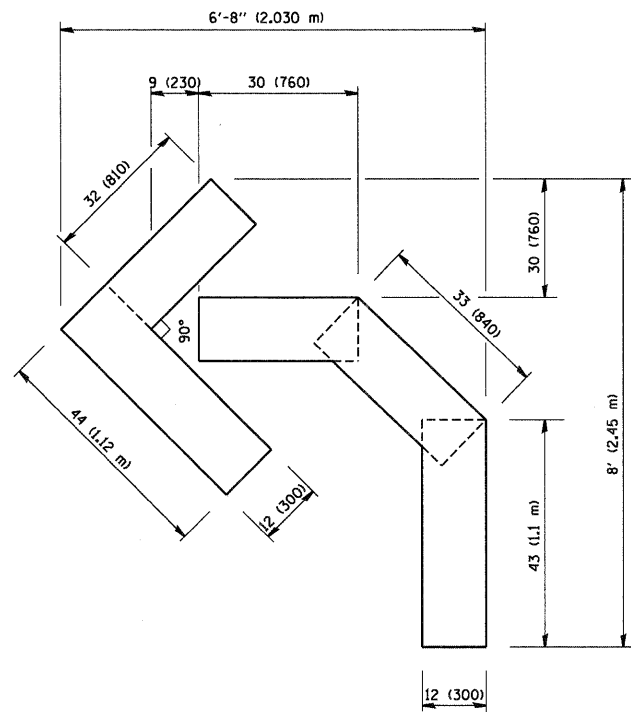
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(4&4-1)RS-3	WILL	203	197
TC-12			CONTRACT NO. 60M66	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				



QUANTITY
 4 (100) LINE = 64.1 ft. (19.7 m)
 21.1 sq. ft. (1.97 sq. m)



QUANTITY
 4 (100) LINE = 82.5 ft. (25.3 m)
 27.5 sq. ft. (2.53 sq. m)



QUANTITY
 4 (100) LINE = 45.5 ft. (13.9 m)
 15.2 sq. ft. (1.39 sq. m)

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

FILE NAME = W:\diststd\22x34\to16.dgn	USER NAME = geglanoht	DESIGNED -	REVISED -T. RAMMACHER 06-05-96
		DRAWN -	REVISED -T. RAMMACHER 11-04-97
	PLOT SCALE = 50.0000' / IN.	CHECKED -	REVISED -T. RAMMACHER 03-02-98
	PLOT DATE = 1/4/2008	DATE - 09-18-94	REVISED -E. GOMEZ 08-28-00

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION

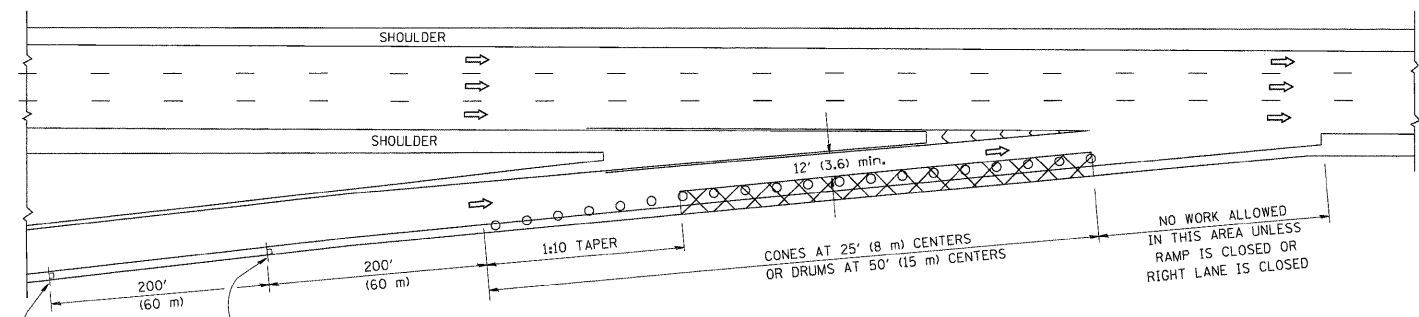
PAVEMENT MARKING LETTERS AND SYMBOLS
 FOR TRAFFIC STAGING

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

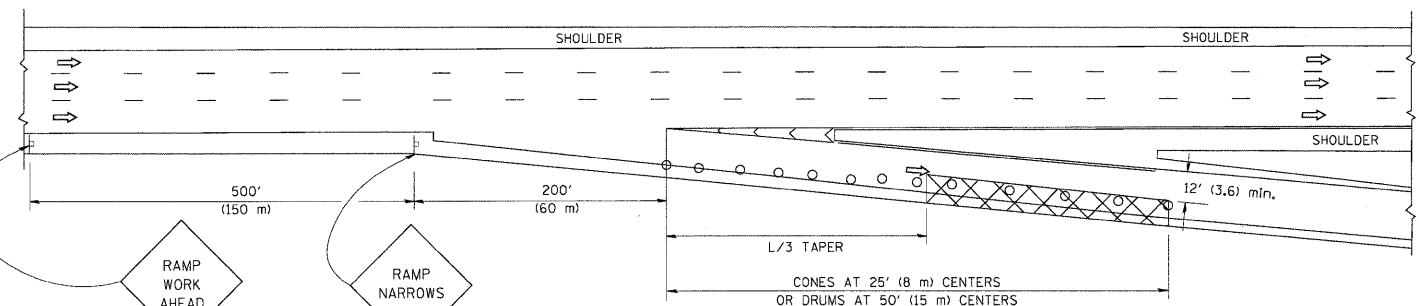
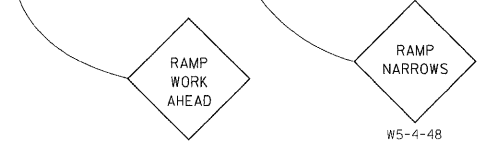
F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99(464-1)RS-3	WILL	203	198
TC-16			CONTRACT NO. 60M66	
FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT				

PARTIAL RAMP CLOSURE DETAILS

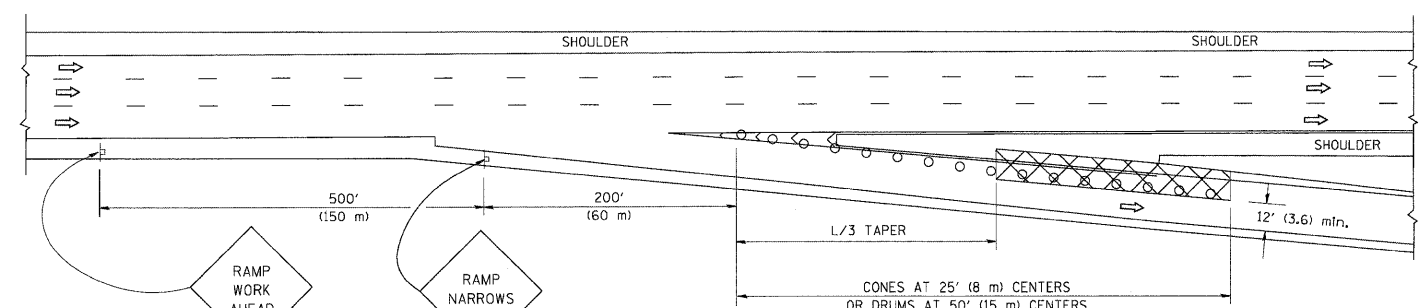
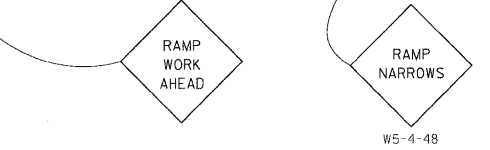
SHOULDER CLOSURE DETAILS



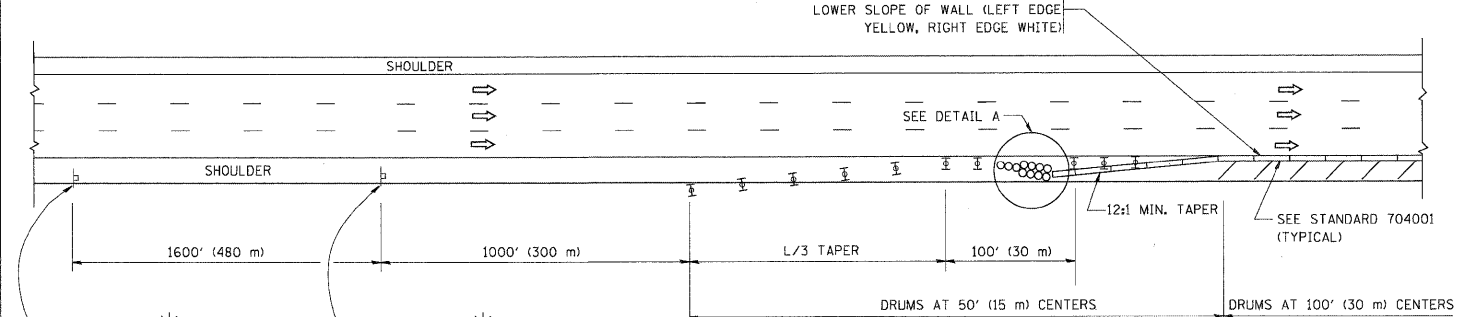
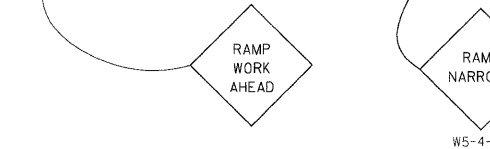
TYPICAL ENTRANCE RAMP



TYPICAL EXIT RAMP



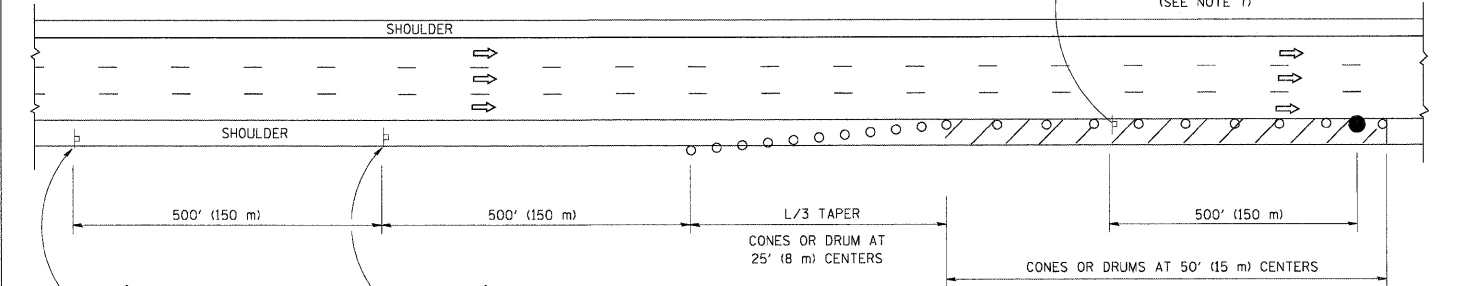
TYPICAL EXIT RAMP



PERMANENT SHOULDER CLOSURE



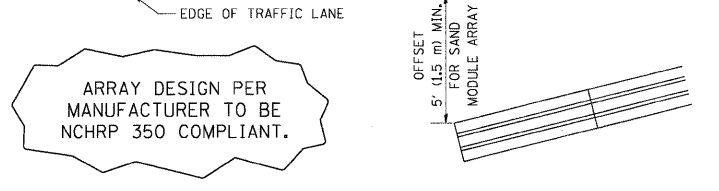
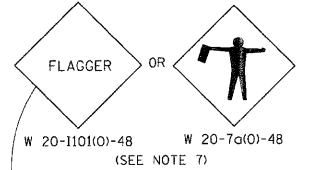
OR WHEN SPECIFIED INSTALL TEMPORARY CONCRETE BARRIER WALL WITH BARRIER WALL REFLECTORS PER TRAFFIC CONTROL AND PROTECTION (EXPRESSWAYS)



DAYTIME SHOULDER CLOSURE



THIS DETAIL IS USED WHERE:
1. VEHICLES, EQUIPMENT, WORKERS OR THEIR ACTIVITIES ENCROACH IN AN AREA CLOSER THAN 15' (4.5 m) TO THE EDGE OF PAVEMENT FOR A PERIOD IN EXCESS OF 15 MINUTES.



DETAIL "A" IMPACT ATTENUATOR, TEMPORARY (SEE NOTE 5)

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

SYMBOLS

- ACTIVE WORK AREA
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- FLAGGER WITH CONTROL SIGN
- TYPE II BARRICADE, DRUM OR VERTICAL BARRICADE WITH STEADY BURN MONO-DIRECTIONAL LIGHT
- CONE, DRUM OR BARRICADE

GENERAL NOTES

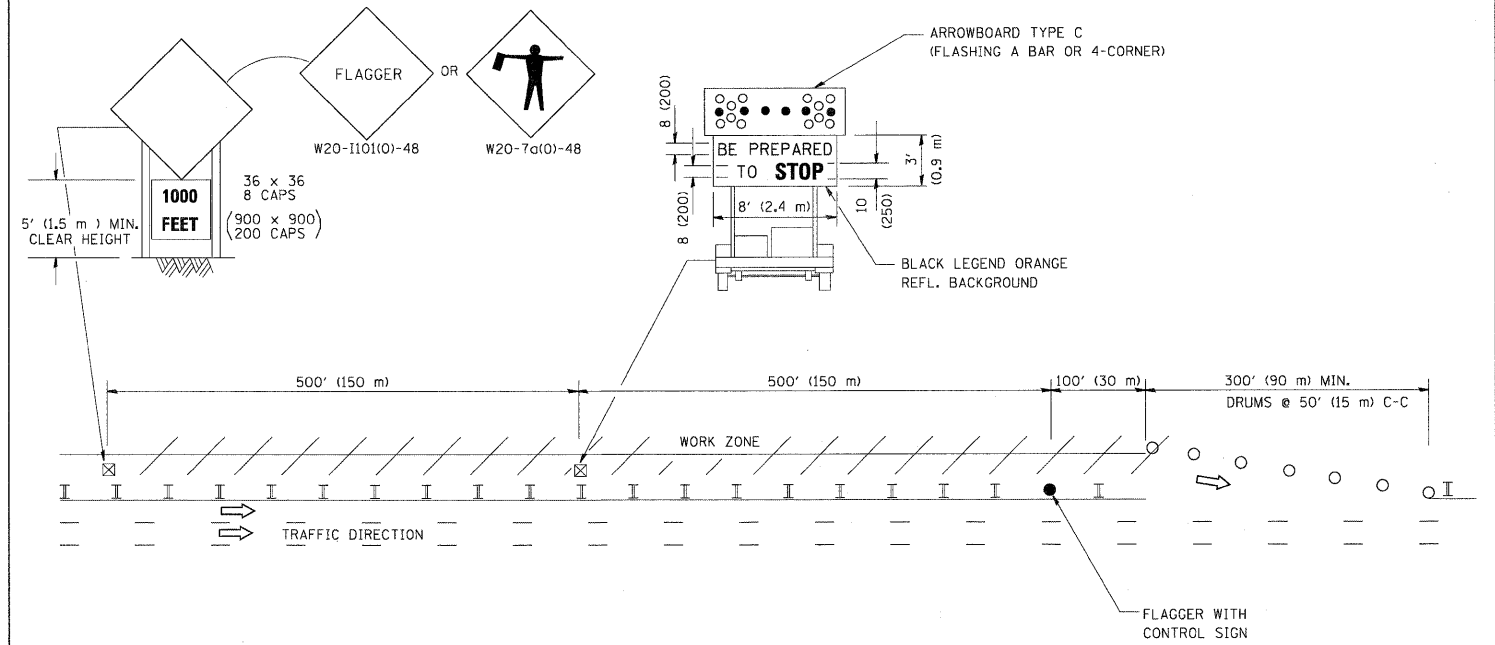
1. THE "L" DISTANCE EQUALS:

SPEED LIMIT	FORMULAS
45 mph (80 km/h)	METRIC ENGLISH
OR GREATER:	$L=0.65(WXS)$ $L=(WXS)$
	W = WIDTH OF OFFSET IN FEET (METERS)
	S = NORMAL POSTED SPEED MPH (KM/H)
2. PLASTIC DRUMS WITH HIGH PERFORMANCE REFLECTIVE SHEETING AND STEADY BURNING LIGHTS ARE REQUIRED FOR ALL NIGHTTIME CLOSURES.
3. ALL SIGNS SHALL BE POST MOUNTED IF THE CLOSURE TIME EXCEEDS FOUR DAYS.
4. FLASHING LIGHTS SHALL BE USED DURING THE HOURS OF DARKNESS AND SHALL BE INSTALLED ABOVE THE FIRST TWO SETS OF SIGNS.
5. THE IMPACT ATTENUATOR, TEMPORARY IS NOT REQUIRED WHEN THE TEMPORARY CONCRETE BARRIER WALL IS PROTECTED BY OR IS TIED INTO THE EXISTING GUARDRAIL. IF OFFSET IS LESS THAN 5 FEET USE NARROW USE TYPE DEVICE TO MEET NCHRP350.
6. AUTHORIZATION FROM THE DISTRICT'S BUREAU OF TRAFFIC IS REQUIRED FOR ALL FREEWAY CLOSURES.
7. THE FLAGGER AND FLAGGER SIGN ARE REQUIRED AT THE ABOVE WORK SITES WHEN:
 - a. FOUR OR MORE WORK VEHICLES ENTER THE TRAFFIC LANES IN A ONE HOUR PERIOD.
 - b. THE WORK AVTIVITY REQUIRES FREQUENT ENCROACHMENT INTO THE LANE OPEN TO TRAFFIC.
 THE FLAGGER SHALL BE STATIONED APPROXIMATELY 100' (30 m) TO 200' (60 m) IN ADVANCE OF THE WORKERS.

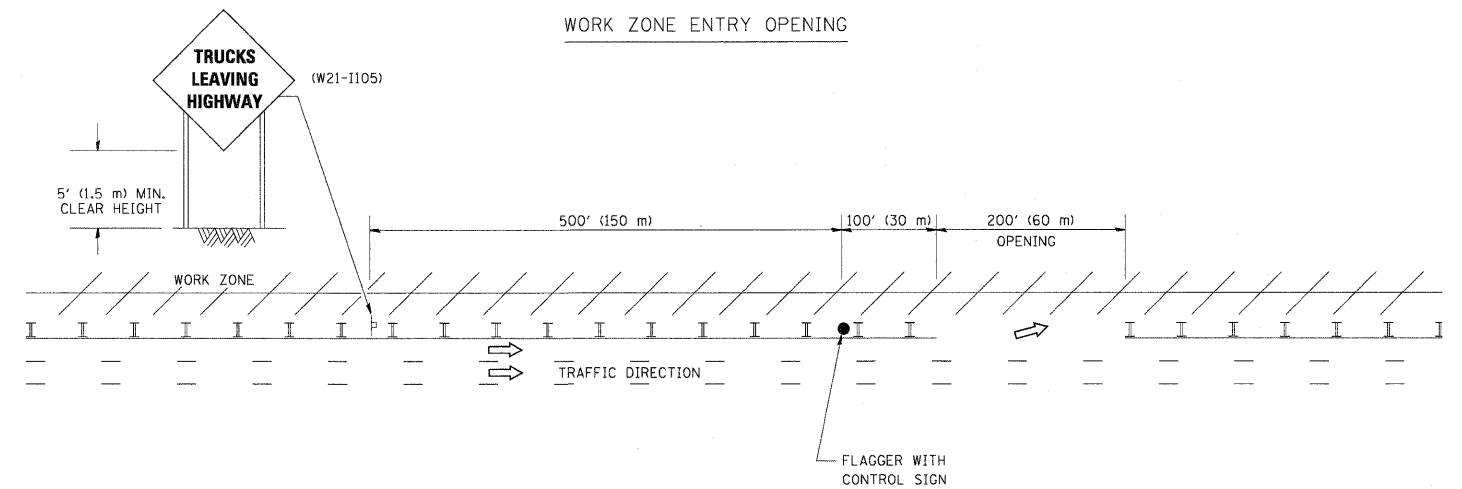
FILE NAME = W:\diststd\22x34\tcl17.dgn	USER NAME = lsgoo	DESIGNED -	REVISED - 04-03	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	TRAFFIC CONTROL DETAILS FOR FREEWAY SHOULDER CLOSURES AND PARTIAL RAMP CLOSURES	F.A. RTE. = 80	SECTION 99(464-1)RS-3	COUNTY WILL	TOTAL SHEETS 203	SHEET NO. 199	
PLOT SCALE = 50.0000' / IN.	DRAWN - D.W.S.	CHECKED -	REVISED - J.A.F. 12-06		SCALE: NONE	SHEET NO. 1 OF 1 SHEETS	STA.	TO STA.	CONTRACT NO. 60M66		
PLOT DATE = 1/26/2010	DATE - 11-96	REVISOR -	REVISED - S.P.B. 01-07								
			REVISED - S.P.B. 12-09								

SIGNING FOR FLAGGING OPERATIONS AT WORK ZONE OPENINGS

WORK ZONE EXIT OPENING



WORK ZONE ENTRY OPENING



NOTES:

1. THE ARROWBOARD, THE FLAGGER AHEAD SIGN AND THE TRUCKS LEAVING HIGHWAY SIGN SHALL BE REMOVED OR TURNED AWAY FROM TRAFFIC AND THE EXIT AND ENTRY OPENINGS SHALL BE CLOSED WHEN THE FLAGGING OPERATION CEASES. NON OPERATING EQUIPMENT SHALL COMPLY WITH ARTICLE 701.11
2. WORK ZONE EXIT OPENINGS SHOULD BE A MINIMUM OF ONE HALF MILE APART.
3. EXITING THE WORK ZONE AT ANY PLACE OTHER THAN AT A WORK ZONE EXIT OPENING WILL BE PROHIBITED.
4. ALL VEHICLES SHALL ENTER THE WORK ZONE AT ENTRY OPENINGS, USING THEIR TURN SIGNALS TO WARN MOTORISTS

ALL DIMENSIONS ARE IN INCHES (MILLIMETERS) UNLESS OTHERWISE SHOWN

FILE NAME =	USER NAME = lejso	DESIGNED -	REVISED - J.A.F. 04-03
W:\diststd\22x34\to18.dgn		DRAWN -	REVISED - J.A.F. 02-06
	PLOT SCALE = 50.000' / IN.	CHECKED -	REVISED - S.P.B. 01-07
	PLOT DATE = 1/26/2010	DATE -	REVISED - S.P.B. 12-09

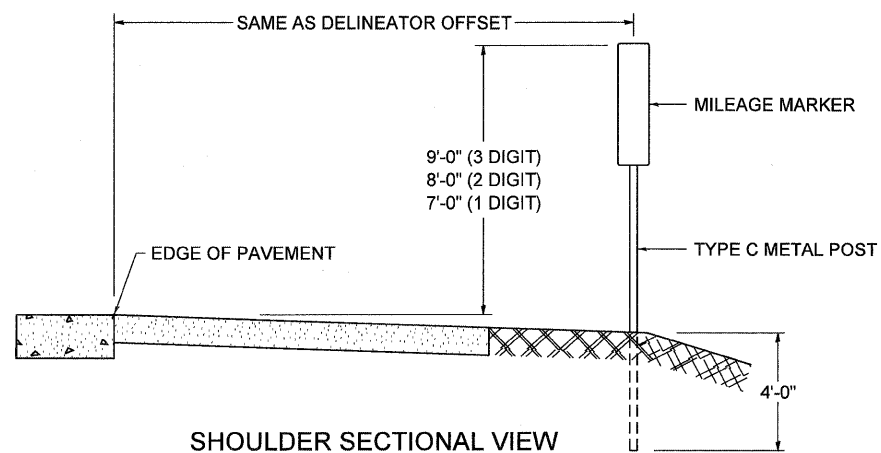
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

SIGNING FOR FLAGGING OPERATIONS
AT WORK ZONE OPENINGS

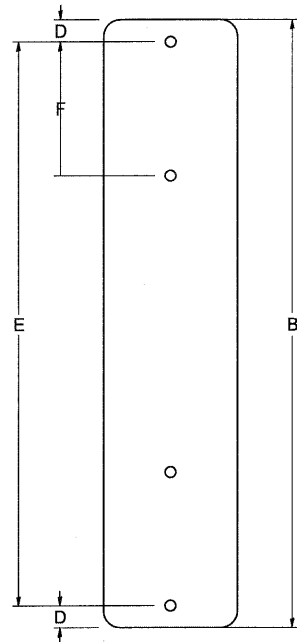
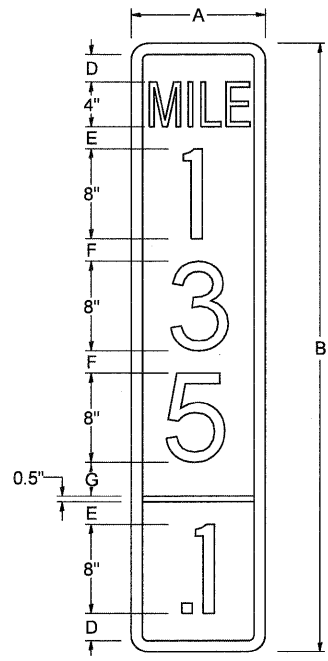
SCALE: NONE SHEET NO. 1 OF 1 SHEETS STA. TO STA.

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
80	99 (4&4-1) RS-3	WILL	203	200
TC-18			CONTRACT NO. 60M66	
FED. ROAD DIST. NO. 1 (ILLINOIS) FED. AID PROJECT				

STANDARD DESIGN FOR MILE POST



SHOULDER SECTIONAL VIEW

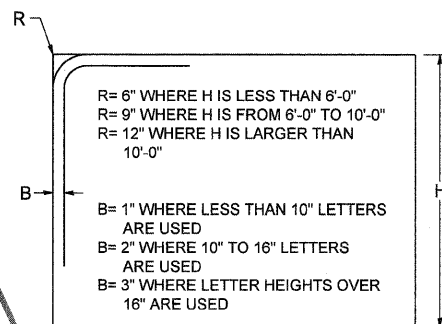


SIGN SIZE	DIMENSIONS							DIGIT
	A	B	C	D	E	F	G	
12 x 24	12.0	24.0	1.5	1.5	1.5	N/A	1.5	1
12 x 36	12.0	36.0	1.5	2.0	2.0	2.0	1.5	2
12 x 48	12.0	48.0	1.5	2.5	2.0	2.0	2.5	3

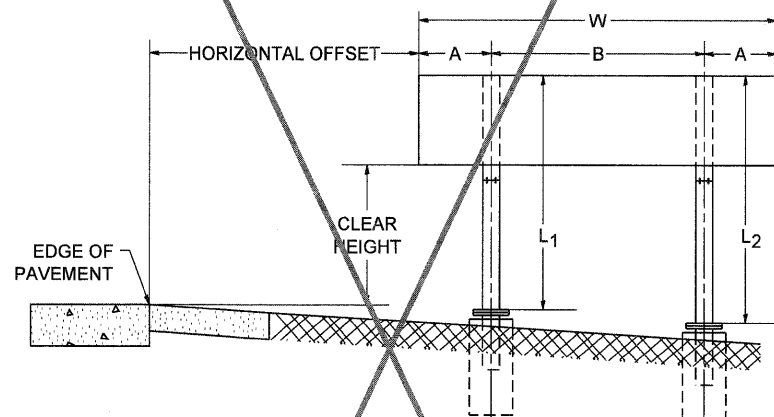
BLANK	A	B	C	D	E	F
B9-1224	12.0	24.0	1.5	2.0	20.0	N/A
B9-1236	12.0	36.0	1.5	2.0	32.0	12.0
B9-1248	12.0	48.0	1.5	2.0	44.0	12.0

SIGN SIZE	SERIES					BLANK STD.	
	LINES						
	1	2	3	4	5		
12 x 24	4C	8D	4C	N/A	N/A	0.5	B9-1224
12 x 36	4C	8D	8D	4C	N/A	0.5	B9-1236
12 x 48	4C	8D	8D	8D	4C	0.5	B9-1248

BORDER AND RADIUS LAYOUT



MAJOR GUIDE SIGN LAYOUT

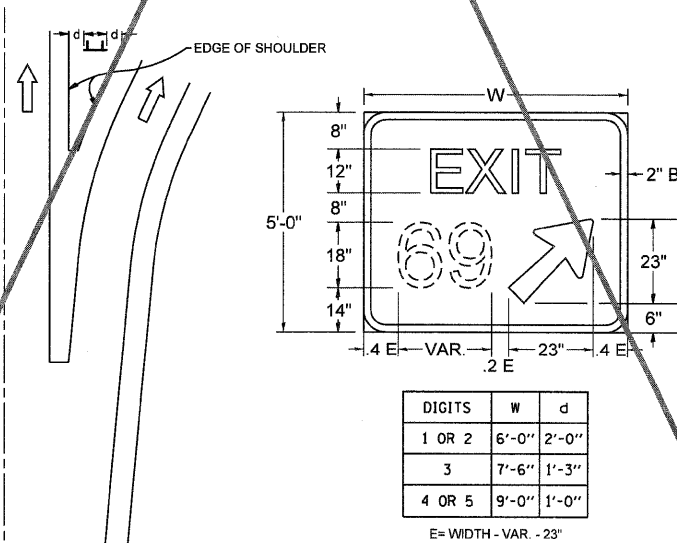


NUMBER OF STEEL SUPPORTS	A	B
2	.2 W	.5 W
3	.15 W	.35 W
4	.125 W	.25 W
5	.1 W	.2 W

"L1" IS THE LENGTH OF SUPPORT, NOT INCLUDING THE STUB PROJECTION, CLOSEST TO THE EDGE OF THE PAVEMENT.

"A" IS THE DISTANCE FROM THE SIGN EDGE TO THE CENTERLINE OF THE NEAREST SUPPORT. "B" IS THE DISTANCE BETWEEN CENTERLINES OF SUPPORTS.

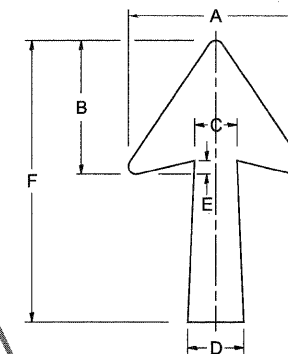
GORE SIGNS



DIGITS	W	d
1 OR 2	6'-0"	2'-0"
3	7'-6"	1'-3"
4 OR 5	9'-0"	1'-0"

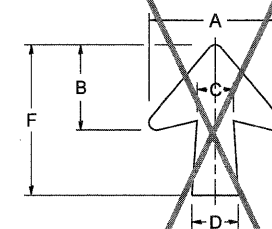
E= WIDTH - VAR. - 23"

STANDARD ARROWS FOR INTERSTATE GUIDE SIGNS



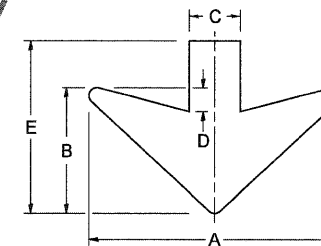
ARROW SYMBOL	A	B	C	D	E	F	R
24 1/4 x 15 1/8	15 1/8	11 1/8	3 3/4	5	1 1/2	2 1/4	1 1/8
29 1/4 x 18 1/4	18 1/4	14	4 1/2	6	1 1/2	2 9/4	3/4
35 1/2 x 22 1/2	22 1/4	17	5 3/8	7 1/8	1 3/4	3 5/8	1
18 1/4 x 11 1/4	11 1/4	8 3/4	3 1/8	3 3/8		1 1/8	

NOTE: D & F ARE RECOMMENDED DIMENSIONS. TAPER SHOULD BE HELD CONSTANT FOR LONGER OR SHORTER SHAFT LENGTHS



ARROW SYMBOL	A	B	C	D	E	F	R
17 1/4 x 14 1/4	14 1/4	9 3/8	3 3/8	4 1/2	5/8	1 1/4	3/4
20 1/4 x 17 1/4	17 1/4	11 3/4	4 3/8	5 5/8	1 1/2	2 0 1/4	
25 x 21 1/8	21 1/8	14 1/4	5	6 3/4	1 3/4	2 5	1
9 3/8 x 8 1/8	8 1/8	5 3/8	2 3/8	2 3/8		9 3/8	1/2

DOWN ARROWS



ARROW SYMBOL	A	B	C	D	E	R
16 1/2 x 24	24	12	5	1 1/2	16 1/2	3/4
22 x 32	32	16	6 1/2	3	22	1

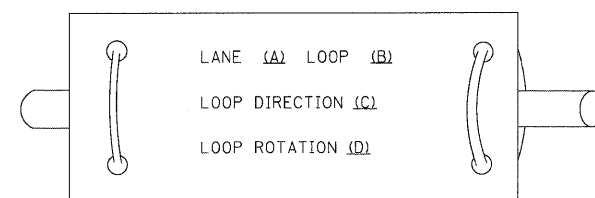
EXCLUDED BORDER AND RADIUS LAYOUT

EXCLUDED STANDARD ARROWS FOR INTERSTATE GUIDE SIGNS

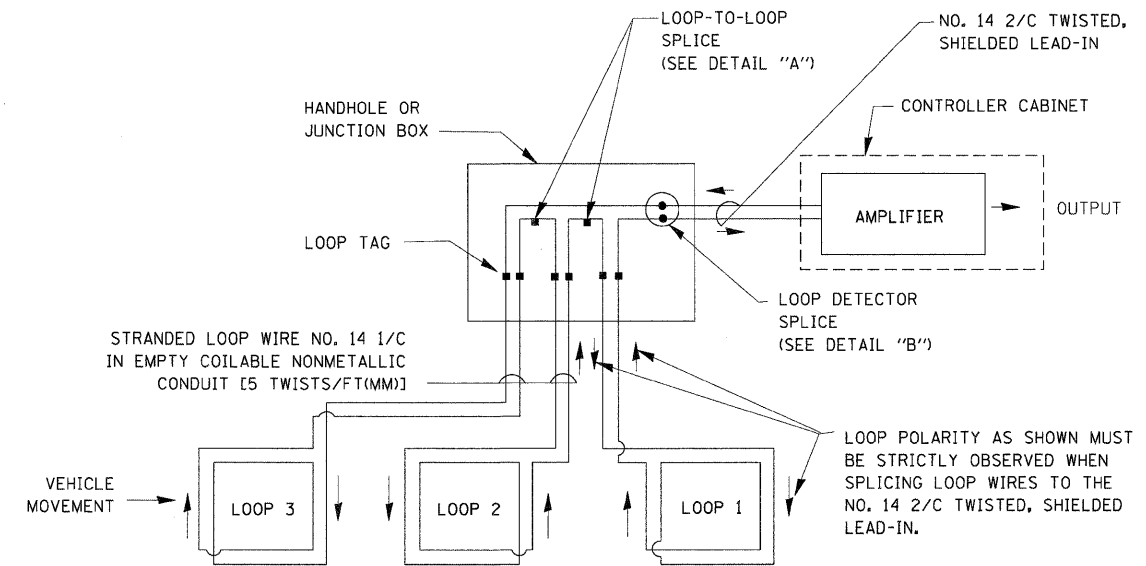
LOOP DETECTOR NOTES

- EACH PAIR OF LOOP WIRES SHALL BE PLACED IN A SEPARATE EMPTY COILABLE NONMETALLIC CONDUIT FROM THE EDGE OF PAVEMENT TO THE HANDHOLE. SPACING BETWEEN THE HOLES DRILLED IN THE PAVEMENT SHALL NOT BE LESS THAN 6" (150 mm). EMPTY COILABLE NONMETALLIC CONDUIT SHALL BE INCLUDED IN THE COST OF THE LOOP WIRE.
- THE NUMBER OF LOOP TURNS SHALL BE AS RECOMMENDED BY THE AMPLIFIER MANUFACTURER. ALL ADJACENT SIDES OF THE LOOPS SHALL BE INSTALLED IN SUCH A WAY THAT THE CURRENT FLOW IS IN THE SAME DIRECTION TO REINFORCE ITS MAGNETIC FIELDS FOR SMALL VEHICLE DETECTION.
- EACH LOOP LEAD-IN SHALL BE IDENTIFIED AND PERMANENTLY TAGGED IN THE HANDHOLE. EACH LEAD-IN CABLE TAG SHALL INDICATE THE LOCATION OF THE LOOP, LOOP ROTATION (CLOCKWISE/COUNTERCLOCKWISE), LOOP LEAD-IN DIRECTION (IN OR OUT), LOOP CABLE NUMBER AND LOCATION IN CABINET, AND NUMBER OF TURNS IN THE DETECTOR LOOPS IN WATER PROOF INK AS INDICATED ON THE DISTRICT 1 STANDARD TRAFFIC SIGNAL DESIGN DETAIL. THE CONTRACTOR SHALL MARK LOOP LOCATIONS ON RECORD DRAWINGS AND PRESENT TO THE ENGINEER AFTER FINAL INSPECTION. LOOPS SHALL BE MARKED BY LANE AND LOOP NUMBER. SEE DETAIL BELOW.
- ALL LOOP CABLE SHALL BE FASTENED WITH PLASTIC TIE WRAP TO THE HANDHOLE HOOKS.
- IN ASPHALT PAVEMENT, LOOPS SHOULD BE PLACED IN THE BINDER AND DIVEHOLES MARKED AT THE CURB WITH A SAW-CUT. THE SAW-CUT SHALL BE CUT IN ACCORDANCE WITH LOCAL AND E.P.A. DUST CONTROL REQUIREMENTS. DETECTOR LOOP(S) SHALL NOT BE INSTALLED IN WET CONDITIONS AND THE SAW-CUTS MUST BE FREE OF DEBRIS AND RESIDUE SUCH AS DUST AND WATER WHICH IS TO BE ACHIEVED BY THE USE OF COMPRESSED AIR, WIRE BRUSHING AND HEAT DRYING ACCORDING TO SEALANT MANUFACTURER REQUIREMENTS. THE DETECTOR WIRE SHALL BE HELD IN PLACE BY THE USE OF FORM WEDGES. WEDGES SHALL BE SPACED NO MORE THAN 18" (450 mm) APART.
- LOOP SPLICES SHALL BE SOLDERED USING A SOLDERING IRON. BLOW TORCHES OR OTHER DEVICES WHICH OXIDIZE COPPER CABLE SHALL NOT BE ALLOWED FOR SOLDERING OPERATIONS. SEE DETAIL BELOW RIGHT.
- PREFORMED DETECTOR LOOPS SHALL BE USED, AS SHOWN ON THE PLANS, WHERE NEW CONCRETE PAVEMENT IS PROPOSED. THE INSTALLATION OF PREFORMED LOOPS SHALL BE IN ACCORDANCE WITH THE DISTRICT 1 SPECIFICATIONS OR AS DIRECTED BY THE ENGINEER.

LOOP LEAD-IN CABLE TAG

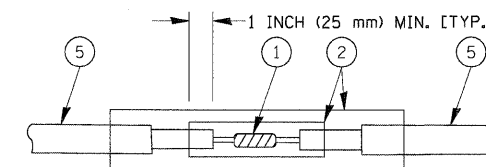


- LANE #1 IS THE LANE CLOSEST TO THE CENTERLINE OF THE ROADWAY
- LOOP #1 IS THE LOOP IN THE LANE CLOSEST TO THE INTERSECTION.
- LABEL LOOP CABLE "IN" OR LOOP CABLE "OUT".
- LABEL LOOP CABLE CLOCKWISE OR LOOP CABLE COUNTERCLOCKWISE.

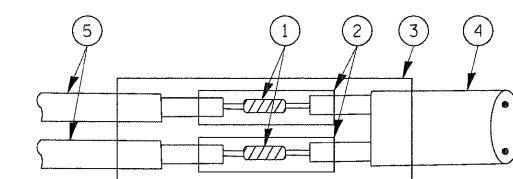


DETECTOR LOOP WIRING SCHEMATIC

- LOOPS SHALL BE SPLICED IN SERIES.
- SAW-CUTS SHALL BE A MINIMUM WIDTH OF 5/16" (8 mm).
- SAW-CUT DEPTHS SHALL BE 3" (75 mm). IF IN CONCRETE, THE SAW-CUT DEPTH SHALL BE TO THE TOP OF THE REINFORCEMENT.
- LOOP CORNERS SHALL BE DRILLED WITH A 2" (50 mm) DIAMETER CORE.

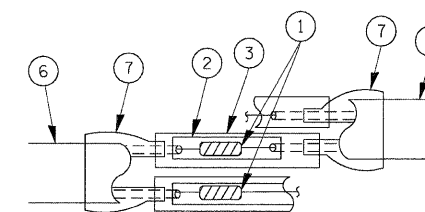


DETAIL "A"
LOOP-TO-LOOP SPLICE

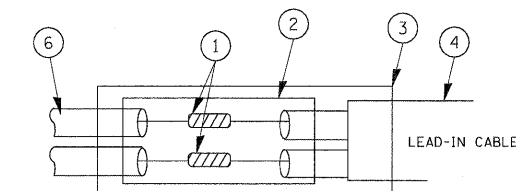


DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

TYPE I LOOP



DETAIL "A"
LOOP-TO-LOOP SPLICE



DETAIL "B"
LOOP-TO-CONTROLLER SPLICE

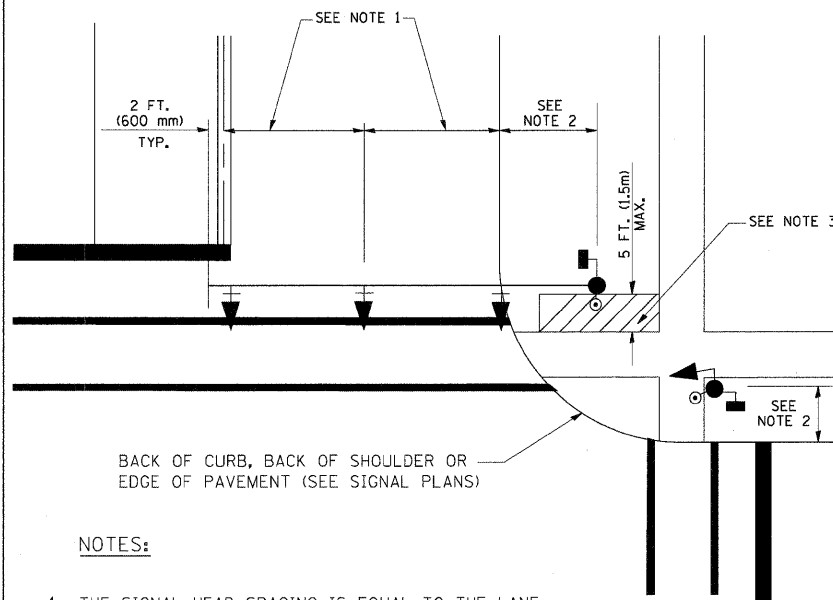
LOOP DETECTOR SPLICE

- WESTERN UNION SPLICE SOLDERED WITH ROSIN CORE FLUX. ALL EXPOSED SURFACES OF THE SOLDER SHALL BE SMOOTH.
- WCSMW 30/100 HEAT SHRINK TUBE, MINIMUM LENGTH 3" (75 mm), UNDERWATER GRADE.
- WCS 200/750 HEAT SHRINK TUBE, MINIMUM LENGTH 6" (150 mm), UNDERWATER GRADE.
- NO. 14 2/C TWISTED, SHIELDED CABLE.
- LOOP CONDUCTOR WITH FLEXIBLE PLASTIC TUBE.
- PRE-FORMED LOOP
- XL POLYOLEFIN 2 CONDUCTOR BREAKOUT SEALS. TYCO CBR-2 OR APPROVED EQUAL

FILE NAME =	USER NAME = bauerdl	DESIGNED - DAD	REVISED -	STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION	DISTRICT ONE STANDARD TRAFFIC SIGNAL DESIGN DETAILS	F.A. RTE. = 80	SECTION = 99(464-1)RS-3	COUNTY = WILL	TOTAL SHEETS = 203	SHEET NO. = 202	
os\pw_work\pwwidot\BAUERDL\d0128315\ts05.dgn	DRAWN - BCK	REVISED -	SCALE: NONE			SHEET NO. 1 OF 6 SHEETS	STA. TO STA.	TS-05		CONTRACT NO. 60M66	
PLOT SCALE = 50.0000' / IN.	CHECKED - DAD	REVISED -				FED. ROAD DIST. NO. 1 ILLINOIS FED. AID PROJECT					
PLOT DATE = 11/4/2009	DATE - 10-28-09	REVISED -									

TRAFFIC SIGNAL MAST ARM AND SIGNAL POST

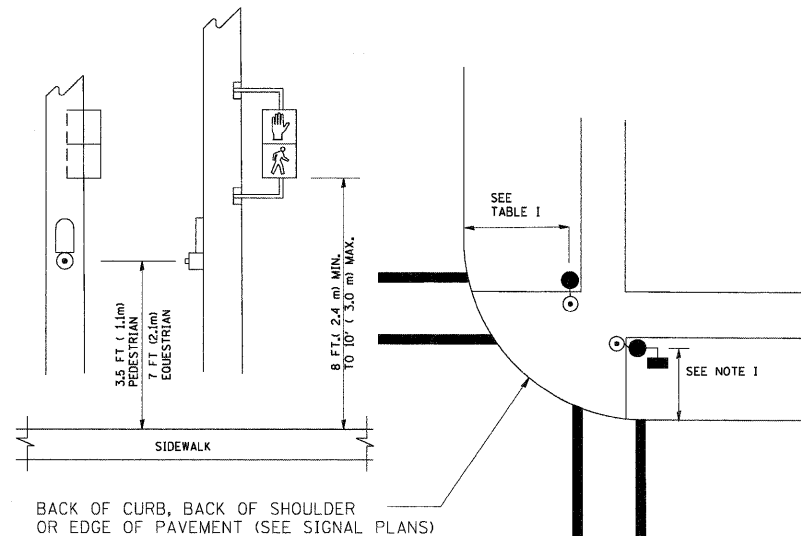
MAST ARM MOUNTED SIGNALS IN EXISTING, PROPOSED OR FUTURE SIDEWALK/BICYCLE PATH AREA. INTERSECTION SHOWN WITH PEDESTRIAN SIGNALS AND PEDESTRIAN PUSHBUTTON DETECTORS.



NOTES:

1. THE SIGNAL HEAD SPACING IS EQUAL TO THE LANE WIDTH OR AS SHOWN ON THE TRAFFIC SIGNAL PLAN.
2. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
3. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE MAST ARM SHAFT OR THE SIGNAL POST.
4. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
5. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

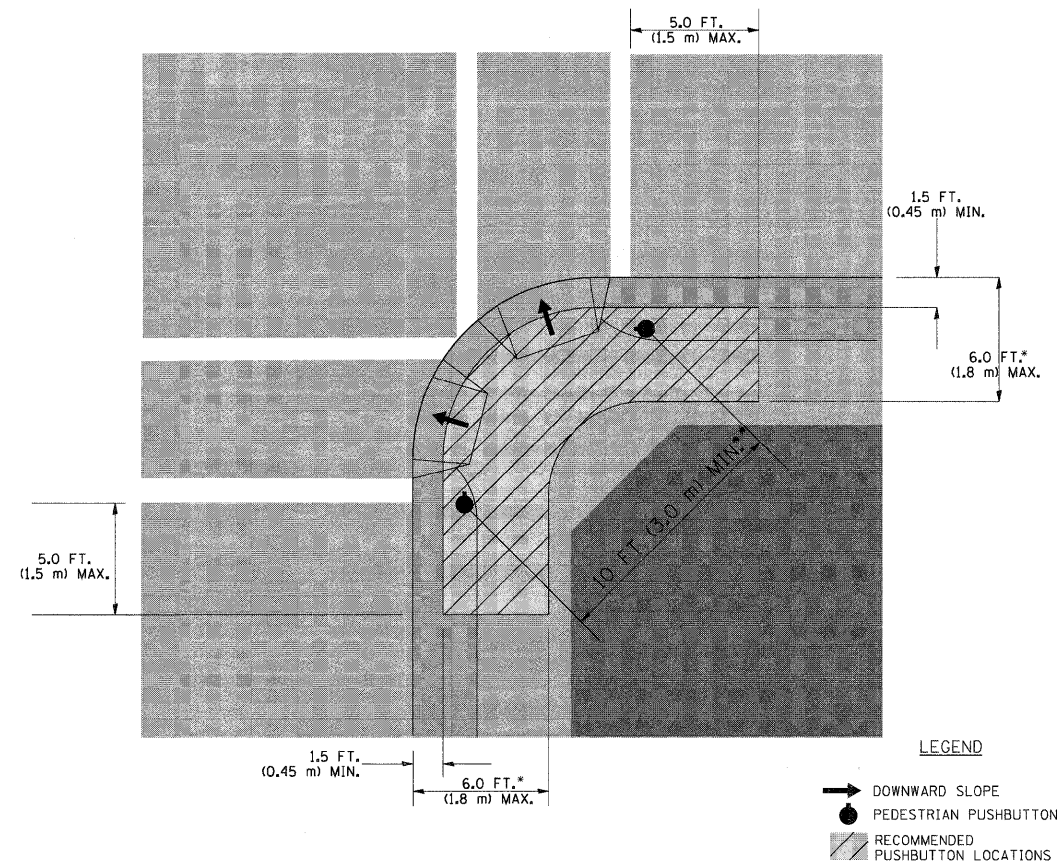
PEDESTRIAN SIGNAL POST AND PEDESTRIAN PUSH BUTTON POST



NOTES:

1. REFER TO THE TRAFFIC SIGNAL EQUIPMENT OFFSET TABLE.
2. PROVIDE A LEVEL ALL-WEATHER SURFACE (CONCRETE SIDEWALK, ASPHALT BICYCLE PATH SURFACE OR MATCHING MATERIAL TO THE ADJACENT SURFACE) UP TO THE PEDESTRIAN SIGNAL POST OR THE PEDESTRIAN PUSH BUTTON POST.
3. THE FACE OF THE PEDESTRIAN PUSHBUTTON SHALL BE PARALLEL TO THE CROSSWALK TO BE USED.
4. THE LOCATIONS AND INSTALLATION OF PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS SHALL MEET THE REQUIREMENTS OF THE MUTCD AND INFORMATION FOUND IN THE "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES FOR BUILDINGS AND FACILITIES."

RECOMMENDED PUSHBUTTON LOCATIONS



- WHERE THERE ARE CONSTRAINTS THAT MAKE IT IMPRACTICAL TO PLACE THE PEDESTRIAN PUSHBUTTON BETWEEN 1.5 FT (0.45 m) AND 6 FT (1.8 m) FROM THE EDGE OF THE CURB, SHOULDER, OR PAVEMENT, IT SHOULD NOT BE FURTHER THAN 10 FT (3 m) FROM THE EDGE OF CURB, SHOULDER, OR PAVEMENT.
- WHERE THERE ARE CONSTRAINTS ON A PARTICULAR CORNER THAT MAKE IT IMPRACTICAL TO PROVIDE THE 10 FT (3 m) SEPARATION BETWEEN THE TWO PEDESTRIAN PUSHBUTTONS, THE PUSHBUTTONS MAY BE PLACED CLOSER TOGETHER OR ON THE SAME POLE.

NOTES:

1. PEDESTRIAN SIGNAL HEADS SHALL BE MOUNTED WITH THE BOTTOM OF THE SIGNAL HOUSING INCLUDING BRACKETS NOT LESS THAN 8 FT (2.4 m) OR MORE THAN 10 FT (3 m) ABOVE SIDEWALK LEVEL, AND SHALL BE POSITIONED AND ADJUSTED TO PROVIDE MAXIMUM VISIBILITY AT THE BEGINNING OF THE CONTROLLED CROSSWALK.
2. THE BOTTOM OF THE SIGNAL HOUSING (INCLUDING BRACKETS) OF A VEHICULAR SIGNAL FACE THAT IS NOT LOCATED OVER A HIGHWAY SHALL BE AT LEAST 8 FT (2.4 m) BUT NOT MORE THAN 19 FT (5.8 m) ABOVE THE SIDEWALK OR, IF THERE IS NO SIDEWALK, ABOVE THE PAVEMENT GRADE AT THE CENTER OF THE ROADWAY.
3. THE BOTTOM OF THE SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARDS 877001, 877002, 877006, 877011 AND 877012 WITH A MINIMUM OF 16 FT (5.0 m) AND A MAXIMUM OF 18 FT (5.5 m) FROM THE HIGHEST POINT OF PAVEMENT.
4. THE BOTTOM OF THE TEMPORARY SPAN WIRE MOUNTED SIGNAL HOUSING AND ANY RELATED ATTACHMENTS TO A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL BE ACCORDING TO CURRENT STATE STANDARD 880001 WITH A MINIMUM OF 17 FT (5.18 m) FROM THE HIGHEST POINT OF PAVEMENT.
5. THE TOP OF THE SIGNAL HOUSING OF A SIGNAL FACE LOCATED OVER ANY PORTION OF A HIGHWAY SHALL NOT BE MORE THAN 25.6 FT (7.8 m) ABOVE THE PAVEMENT.

TRAFFIC SIGNAL EQUIPMENT OFFSET

TRAFFIC SIGNAL EQUIPMENT	COMBINATION CONCRETE CURB AND GUTTER (MINIMUM DISTANCE FROM BACK OF CURB TO CENTERLINE OF FOUNDATION)	SHOULDER/NON-CURBED AREA (MINIMUM DISTANCE FROM EDGE OF PAVEMENT TO CENTERLINE OF FOUNDATION)
TRAFFIC SIGNAL MAST ARM POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TRAFFIC SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN SIGNAL POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
PEDESTRIAN PUSHBUTTON POST	4 FT (1.2m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
TEMPORARY WOOD POLE	6 FT (1.8m)	SHOULDER WIDTH + 2 FT (0.6m), MINIMUM 10 FT (3.0m)
CONTROLLER CABINET	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.
SERVICE INSTALLATION, GROUND MOUNT	6 FT (1.8m) MINIMUM DISTANCE SEE NOTE 2	SHOULDER WIDTH + 6 FT (1.8m), MINIMUM 16 FT (4.9m) SEE NOTE 3.

NOTES:

1. CONTACT THE "AREA TRAFFIC SIGNAL MAINTENANCE AND OPERATIONS ENGINEER" FOR ASSISTANCE IN LOCATING THE TRAFFIC SIGNAL EQUIPMENT WHEN THERE ARE CONFLICTS WITH DITCHES OR THE MINIMUM OFFSET DISTANCES CANNOT BE MET.
2. MINIMUM DISTANCE FROM THE BACK OF CURB TO THE ROADWAY SIDE OF THE FOUNDATION.
3. MINIMUM DISTANCE FROM THE EDGE OF PAVEMENT TO THE ROADWAY SIDE OF THE FOUNDATION.
4. ANY CHANGES TO THE OFFSETS OF THE FOUNDATIONS, FROM THE MINIMUM DISTANCES LISTED IN THE "TRAFFIC SIGNAL EQUIPMENT OFFSET" CHART AND THE TRAFFIC SIGNAL INSTALLATION PLAN, COULD AFFECT THE PLACEMENT OF THE SIGNAL HEADS, PEDESTRIAN SIGNAL HEADS AND THE PEDESTRIAN PUSHBUTTONS. THE SIGNAL HEAD PLACEMENT ON THE MAST ARMS SHALL REMAIN AS PER THE TRAFFIC SIGNAL INSTALLATION PLAN AND THE "TRAFFIC SIGNAL MAST ARM AND SIGNAL POST" DETAIL ABOVE. THE PROPOSED MAST ARM LENGTHS MAY NEED TO BE REVISED TO MEET THE ABOVE REQUIREMENTS. THE PEDESTRIAN SIGNAL HEADS AND PEDESTRIAN PUSHBUTTONS MUST MEET THE REQUIREMENTS UNDER THE DETAILS ON THIS SHEET.