

BRIDGE CONDITION REPORT

REGION: 3
DISTRICT: 5
ROUTE: FAI 74
SECTION: (92-11)BR-1
COUNTY: Vermilion
CONTRACT: 70A92
JOB NUMBER: P-95-029-17 / D-95-029-17
STRUCTURE NUMBER: 092-0006 (EB)

**LOCATION: Over Salt Fork Vermilion River West of
Danville and 1 Mile East of US 150 Interchange**

PREPARED BY: Timothy J. Brandenburg – District 5
DATE PREPARED: May 22, 2017
PROPOSED LETTING DATE: November 2019

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I. Geographical & Administrative Data:

Structure Number:	092-0006 (EB)
County:	Vermilion
Route Carried:	FAI 74
Feature Crossed:	Salt Fork Vermilion River
Section:	(92-11)BR-1
Contract:	70A92
Station:	1755+16
Roadway Classification:	Interstate
Design Speed:	70 mph
ADT (EB):	11,100 (2017) / 12,200 (2037)
ADTT (EB):	3,474 (2017) / 3,819 (2037)
DHV (EB):	850 (2037)
NHS:	Yes
SD:	No
Inventory Rating HS:	1.100
Operating Rating HS:	1.840
Sufficiency Rating:	78.3
Bridge Posting Level:	No Posting Required

Construction / Reconstruction / Repair History:

Structure 092-0006 (EB) was built in 1962 as FAI 74, Section 92-11B, Contract 20973F at Station 1755+16 in Vermilion County. The structure carries FAI 74 eastbound over the Salt Fork Vermilion River. In 1977 the structure was repaired with improvements consisting of deck patching, expansion device reconstruction, installation of waterproofing membrane system and hma overlay. Plans for the 1977 repairs have not been found, however these improvements are shown as noted on the 1991 GP&E sheet. In 1991 the structure was rehabilitated with improvements consisting of deck replacement, replacement of 11 of 66 floor beams, various bolt, hanger and other structural steel repairs, neoprene expansion joints, drainage scuppers, replacement of all bearings, substructure repairs at Pier 1A and A3 riprap scour protection as Section 92-11BR, Contract 90165. In 2008 the structure received scour mitigation improvements consisting of placing A4 and A5 riprap around Piers 2 and 3, as Section D5 Scour Mitigation 2008-1, Contract 70013.

Day Labor Repairs: In 2007, Pier 1A, the location of the only open expansion pier joint, had all three transverse cross brace members removed and replaced as part of DL 071505.

Bridge Crew Repairs: In 2006, the neoprene expansion joints at the east abutment and pier1a were replaced with polymer concrete and silicone joints. In 2008, the east abutment vaulted abutment door was replaced.

II. Physical Description of Structure:

Structure 092-0006 (EB) carries FAI 74 over the Salt Fork Vermilion River west of Danville and 1 mile east of the US 150 Interchange. Due to foundation issues during original construction, an additional 93' simple span was added to the west end of this structure, thus moving the west abutment back and creating an overall structure length of 750'-2". Therefore, the original structure consists of one simple 93' span and six continuous spans (1 @ 93', 4 @ 116', 1 @ 93') for a back to back abutment length of 750'-2" with a 9" reinforced concrete deck on two 84" riveted steel plate girders with 66 steel floor beams (24WF94) supported by six double column piers (piers 1a thru 3 on spread footing and piers 4 & 5 with steel piles) and vaulted abutments with spread footing under the west and concrete piles under the east. The clear deck width is 30'-0" with 3'-0" curbs for an out to out width of 36'-0". The structure is built 90° to FAI 74.

The existing structure consists of one simple 93' span and six continuous spans (1 @ 93', 4 @ 116', 1 @ 93') for a back to back abutment length of 750'-2" with a 9" reinforced concrete deck on two 84" riveted steel plate girders with 66 steel floor beams (24WF94) supported by six double column piers (piers 1a thru 3 on spread footing and piers 4 & 5 with steel piles) and vaulted abutments with spread footing under the west and concrete piles under the east. The clear deck width is 32'-10" with 1'-7" parapets for an out to out width of 36'-0". The structure is built 90° to FAI 74.

The structure is on a horizontal tangent and on a vertical tangent with a profile grade of 2.4% located between a crest and sag vertical curves. There are utilities attached to the abutment seat and wingwalls of the west vaulted abutment. Overhead electric lines are present well north of these structures.

The FAI 74 approach roadway consists of two 12'-0" lanes with 10'-0" outside and 4'-0" inside hma shoulders. Shoulder break lines are at 12'-0" outside and 8'-0" inside.

III. Field Inspection & Physical Evaluation:

Superstructure:

Deck: The bare deck is in overall fair condition with minor deterioration. The deck soffit has numerous leaching transverse, longitudinal and map cracking, but overall appears solid with minimal patching anticipated. The drainage scuppers with 6" down spouts are in good condition, at correct locations and length. The parapets exhibit some vertical cracks and map cracking, but are still in good condition.

Beams: The two main girders and 66 floor beams are in overall poor condition with advanced deterioration. There is moderate rust throughout with heavy rust at beam ends and diaphragms under the joints. The two main 84" girders exhibit initial section loss around 5% and have thousands of tack welds between members which could become initiation points for fatigue cracks. The 1991 rehabilitation attempted to grind out the tack welds, but in most cases only the tops were ground, leaving the members bonded and gouging of the girder webs in the process. These locations now exhibit heavy rusting. See Attachment C4 0920006 Fracture Critical Inspection 9.9.2015 for detailed inspections comments. The lead paint system was last painted in May 1998 and is failing with corrosion present throughout.

Joints: The joints are in poor condition with deterioration and leaking. The west abutment joint remains a preformed joint seal and the hatch block is in poor condition. The east abutment and the Pier 1A neoprene joints have been replaced with polymer nosing and silicone, but have been continually leaking for a lengthy period of time in spite of Bridge Crew repairs over the

years. These leaking joints have led to a significant amount of substructure deterioration, especially at Pier 1A.

Bearings: The abutment bearings and pier bearings 1 through 5 exhibit moderate rust and corrosion while Pier 1A bearings exhibit a significant amount of rust. It is difficult to confirm, but is anticipated that none of these bearings functioning properly.

Substructure:

Abutments: The vaulted abutments are in overall fair condition with some deterioration. Both abutments exhibit map cracking and leaching in the interior walls and soffit and have an HMA wearing surface which is worn and map cracked. The backwalls and wingwalls exhibit vertical and map cracking with some delamination, spalling and exposed reinforcement. The west abutment has been identified for 117.0 sq. ft. of Structural Concrete Repair (SCR), approximately 1/3 of the abutment face area and 10.0 sq. ft. of SCR along the beam seat face. The wingwalls exhibit leaching cracks and some delamination for an area of 49.0 sq. ft. of SCR. The east abutment has 52.0 sq. ft. of SCR on the abutment face and 40.0 sq. ft. of SCR on the beam seat. The wingwalls exhibit leaching cracks and minor delamination for an area of 13.0 sq. ft. of SCR.

Piers: Pier 1A is in fair condition due to the leaking expansion joint with areas of delamination, spalling and exposed reinforcement in the columns and has been identified for 184.0 sq. ft. of Structural Concrete Repair. The three transverse tie members are in good condition from the 2007 day labor replacements. Piers 1 thru 5 are in very good condition with minor deterioration and identified for a combined 33.0 sq. ft. of SCR. All transverse tie members are in very good condition. There is minor erosion present around the north end and west face of pier 5.

Slope Protection: The west slopewall is protected with 6” concrete and is in poor condition with most of the area broken and failing with trees and vegetation growing through cracks and voids. Due to addition of the west simple span, the west slopewall is very steep at 1.2:1 and difficult to maintain. The 5’ paved ditch at the bottom of slopewall is broken and in poor condition. The 12” storm sewer which drains from the west slopewall to just west of Pier 2 is in poor condition and not draining effectively. The east slopewall is protected with A3 and A4 riprap and is in good condition. The concrete gutter along the beam seat is in poor condition and likely drains north to the median area as an outlet to the south has not been located.

Scour Protection: The scour protection is in good condition due to the scour mitigation contract in 2008. Pier 2 along the west bank is protected with sheet piling, large concrete blocks and A5 riprap. Pier 3 along the east bank is protected with A5 riprap. Piers 2 & 3 have been on Annual Special Feature Inspections for scour critical evaluation monitoring since 2004. Pier 5 had A4 riprap installed along a portion of the west face in 2008, however the erosion area has expanded and should have additional A4 placed.

Inspection History (NBIS Ratings):

Year	Deck	Super	Sub	Scour
2016	5	5	7	8
2014	5	5	7	
2012	5	6	7	

Geometric, Horizontal & Vertical Clearance / Hydraulic Data:

Geometrically, the alignment criteria for the existing structure are adequate. The existing 32'-10" deck clear width does not meet the required 38'-0" clear width for existing bridges to remain in place as indicated in Figures 39-6.A and 44-5.A of the BDE Manual. A design exception with an analysis to determine cost effectiveness of improving this clear width and satisfactory safety record would be required to retain the use of this superstructure. As a reconstruction, the required clear width is 40'-0" consisting of two 12'-0" lanes with 10'-0" outside and 6'-0" inside shoulders. The shoulder widths will vary to 8'-0" across the structure to allow for symmetry of substructure widening. Due to the large vertical clearance of approximately 53' between the proposed low beam elevation and 50 year natural high water elevation, an Abbreviated Hydraulic Report is anticipated.

1962 Original Vertical Information (CN 20973):

	<u>Sta.</u>	<u>Elev.</u>	<u>Grades, Type, Length</u>
VPC	1739+50	630.74	-0.72%
VPI	1745+00	626.78	1100' Crest V.C.
	1750+00	614.78	
VPT	1750+50	613.58	-2.4%

VPC	1759+00	593.18	-2.4%
VPI	1763+00	583.58	800' Sag V.C.
VPT	1767+00	590.10	+1.631%

P.G.L. across Structure: - 2.40%

Sta. 1750+00; Elev. 614.78

Sta. 1759+00; Elev. 593.18

1991 Rehabilitation Vertical Information (CN 90165):



FAI 74 PROFILE GRADE
(Along E Pavement)

Potential Scope of Work & Analysis:

1. **Rehabilitation – B-SMART or Deck Repair:** An analysis has not been completed for this scope of work due to the fracture critical nature, condition and age of the superstructure. Though the deck condition and age suggest this scope of work may be considered, the narrow clear width of 32'-10" would remain and is well short of the 38'-0" required bridge width to remain in place. Therefore, it is not recommended or considered cost-effective to pursue this scope of work for a fracture critical structure with a less than required clear width.
2. **Rehabilitation – Deck Replacement:** An analysis has not been completed for this scope of work due to the fracture critical nature, condition and age of the superstructure. The deck was replaced on this structure in 1991 and the existing two main girder with floor beam system could not support a wider structure than 36'-0" out to out, 32'-10" clear width without widening. Therefore, it is not recommended or considered cost-effective to pursue this scope of work for a fracture critical structure with a less than required clear width.
3. **Rehabilitation – Superstructure Replacement (7 span):** This option would involve removal of the existing superstructure, widening and repair of all eight substructure units and placement of superstructure with 6 – 45" plate girder beam lines to provide a policy 40'-0" clear width. Approach slab replacements to meet roadway width and cross-over traffic control costs are included. The estimated structure cost of this Superstructure Replacement (7 span) is \$8,481,219. Costs associated with Painting or Metalizing are included. No Utility or Land Acquisition costs are incurred. Preliminary Engineering is to be completed by BBS, so no costs are incurred. The overall cost of Alternative 3 is 53% of the cost of Alternative 5.
4. **Rehabilitation – Superstructure Replacement (6 span):** This option would eliminate the east span 6 and involve removal of the existing superstructure, partial removal of the east abutment, retrofit of pier 5 to the proposed east abutment, widening and repair of the remaining six substructure units and placement of superstructure with 6 – 45" plate girder beam lines to provide a policy 40'-0" clear width. Approach slab replacements to meet roadway width and cross-over traffic control costs are included. The estimated structure cost of this Superstructure Replacement (6 span) is \$7,889,049. Costs associated with Painting or Metalizing are included. No Utility or Land Acquisition costs are incurred. Preliminary Engineering is to be completed by BBS, so no costs are incurred. The overall cost of Alternative 4 is 93% of Alternative 3 and 49% of the cost of Alternative 5.
5. **Complete Replacement:** This option would involve the complete removal and replacement of the entire structure. The proposed structure would consist of 3 – 210' spans with 6 - 84" plate girders for a 635'-0" bk. to bk. of abutment length with vaulted approach spans. Substructure units were positioned to provide greater clearance from the Salt Fork Vermilion River banks thus avoiding future scour issues and to avoid existing substructure units. Depths of the substructure units mirror the existing conditions as mining activities are present at this structure, especially west of the SFVR. The proposed clear width is 40'-0" with an out-out width of 43'-2". Approach slab replacements to meet roadway width and cross-over traffic control costs are included. The estimated cost of Complete Replacement is \$16,033,358. Costs associated with Painting or Metalizing are included. No Utility or Land Acquisition costs are incurred. Preliminary Engineering is to be completed by BBS, so no costs are incurred. The overall cost of Alternative 5 is approximately twice the cost of Alternative 3 and Alternative 4, respectively.

V. Discussion and Recommended Scope of Work:

Alternative 5, Complete Replacement at this time does not fit the overall life cycle of this structure. The substructure is in overall good condition, has only 55 years of service and can be repaired effectively to allow re-use. The remaining service life of these large, deep substructure units is expected to be around 40 years.

Alternative 4, Rehabilitation - Superstructure Replacement (6 span) is 49% of the cost of complete replacement and fits the life cycle of this structure more appropriately. This alternative provides a 40'-0" clear width and shortens the structure by eliminating the east span. However, this does eliminate floodplain access above the natural design highwater elevation under the structure on the east end which has been used by both public and private parties in the past. The remaining five piers can be repaired and widened effectively to allow for re-use. Pier 1A has the majority of the repairs with the other four piers requiring minimal repairs. To provide symmetry of substructure pier cap widening as shown in the Proposed Typical Pier Cap sheet, the proposed shoulder widths will need to be 8'-0" across the structure and will vary from 10' and 6' along the roadway typical to 2 – 8's along the structure typical. The west abutment will be retrofitted to accommodate the proposed 40'-0" clear width as shown in the Proposed Typical Abutment Rehabilitation sheet. The east abutment will be relocated to pier 5 and pier 5 retrofitted to an abutment to accommodate the proposed 40'-0" clear width. The cost of this alternative is within 10% of alternative 3.

Alternative 3, Rehabilitation - Superstructure Replacement (7 span) is 53% of the cost of complete replacement and fits the life cycle of this structure more appropriately. This alternative provides a 40'-0" clear width and re-uses the entire substructure. The six piers can be repaired and widened effectively. Pier 1A has the majority of the repairs with the other five piers requiring minimal repairs. To provide symmetry of substructure pier cap widening as shown in the Proposed Typical Pier Cap sheet, the proposed shoulder widths will need to be 8'-0" across the structure and will vary from 10' and 6' along the roadway typical to 2 – 8's along the structure typical. Both abutments will be retrofitted to accommodate the proposed 40'-0" clear width as shown in the Proposed Typical Abutment Rehabilitation sheet. The cost of this alternative is within 10% of alternative 4.

Based on this discussion; Alternative 3: Rehabilitation – Superstructure Replacement (7 span) is recommended.

Due to the existing fracture critical structure type, the only method of traffic control is to construct cross-overs. A width restriction will be required.

The contract is currently programmed for a November 2019 Letting.

The Bureau of Bridges and Structures is scheduled for the preliminary engineering and structure plans. Details are subject to refinement during the TS&L Phase.

The SGR will be prepared by a District Consultant.

An Abbreviated Hydraulic Report will be prepared, approved and submitted by the District at a later date.

SN's 092-0006 & 0007; CN 70A92 Bridge Rehabilitation
FAI 74 over Salt Fork Vermilion River west of Danville; 1 mile east of US 150 Interchange
Section (92-11)BR-1
Vermilion County
P & D 95-029-17



**Illinois Department of Transportation
Structures Information Management System
Master Structure Report (S-107)**

Date: 3/29/2017
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Structure Number: 092-0006 District: 5

Inventory Data

Facility Carried:	I-74 (EB)	Bridge Name:		Sufficiency Rating:	78.3	Structure Length:	750.2
Feature Crossed:	SALT FORK VERM RIVER	Location:	W OF DANVILLE	HBP Eligible:	No	AASHTO Bridge Length:	99.9
Bridge Remarks:	SPANS = 4 @ 116', 3 @ 93', APPR.=2 @ 17.3			Replaced By:		Length of Long Span:	116.0
Bridge Status:	1 OPEN - NO RESTRICT	StatusDate:	04/1988	Replaces:		Bridge Roadway Width:	32.8
Status Remarks:				Last Update Date:	10/29/2012	Appr Roadway Width:	39.0
Maint County:	092 VERMILION	Maint Township:	05 DANVILLE	Parallel Structure:	Right	Deck Width:	36.0
Maint Responsibility:	01 I.D.O.T.			Multi-Level Structure Nbr:		Sidewalk Width Right:	0.0
Service On/Under:	1 HIGHWAY	/	5 WATERWAY	Skew Direction:	None	Sidewalk Width Left:	0.0
Reporting Agency:	1 I.D.O.T. - BUREAU OF MAINTENANCE			Skew Angle:	0 D	Navigation Control:	0 No
Main Span Matl/Type:	4 STEEL CONTINUOUS	/	03 GIRDER AND FLOORBEAM SYSTEM	Structure Flared:	No	Navigation Horiz Clear:	0
Nbr Of Main Spans:	7	Nbr Of Approach Spans:	2	Historical Significance:	No	Navigation Vert Clear:	0
Approaches				Border Bridge State:		Culvert Fill Depth:	0.0
Near #1 Matl/Type:	1 CONCRETE	/	01 SLAB	Bdr State SN:		Number Culvert Cells:	0
Near #2 Matl/Type:		/		Bdr State % Responsibility:	0	Culvert Opening Area:	0.0
Far #1 Matl/Type:	1 CONCRETE	/	01 SLAB	Structural Steel Wt:	2,205,800	Culvert Cell Height:	0.00
Far #2 Matl/Type:		/		Substructure Material:	55	Culvert Cell Width:	0.00
Median Width/Type:	0 Ft / 0 None			Rated By:	2 IDOT	Rate Method:	6 LOAD FACTOR (LF) RE
Guardrail Type L/R:	0 None / 0 None	Inventory Rating:	1.100 (39)	Load Rating Date:	08/31/2016	***Railroad Crossing Info***	
Toll Facility Indicator:	0 No Toll	Operating Rating:	1.840 (66)	Crossing 1 Nbr:		Crossing 1 Nbr:	
Latitude:	40.11562355	Longitude:	87.69479438	Design Load:	01 HS20+MOD	RR Lateral Underclear:	0.0
Deck Structure Type:	A CIP CON NRMLLY FORM	Deck Structure Thickness:	9.0	SD:	N	RR Vertical Underclear:	0 Ft 0 In
Sidewalks Under Structure:	0 None						

Key Route On Data

Key Route Nbr:	FEDERAL-AID INTERSTATE	0074	Station:	13.2400
Appurtenances	Main Route	00000	Segment:	
Inventory County:	092 VERMILION	Linked:	Y	
Township/Road Dist	05 DANVILLE	Natl. Hwy System:	On NHS	
Municipality	0000	Inventory Direction:		
Urban Area:	None	Curr AADT Yr/Count:	2015 / 11000	
Functional Class:	1 INTERSTATE	Est Truck Percentage:	31	
** CLEARANCES **	South/East	North/West	Number Of Lanes:	2
Max Rdwy Width:	32.8	One Or Two Way:	1 One-Way	
Horizontal:	34.0	Bypass Length:	1	
Min Vertical:	99 Ft 11 In	Future AADT Yr/Cnt:	2032 / 9140	
10 Ft Vertical:	99 Ft 11 In	Designated Truck Rte:	CLASS I	
Lateral:		Special Systems:	Yes	

Key Route Under Data

Station:	
Segment:	
Linked:	
Natl. Hwy System:	
Inventory Direction:	
Curr AADT Yr/Count:	/
Est Truck Percentage:	
Number Of Lanes:	
One Or Two Way:	
Bypass Length:	
Future AADT Yr/Cnt:	/
Designated Truck Rte:	
Special Systems:	

*** Marked Route On Data ***

	Designation	Kind	Number
Route #1:	1 Mainline	1 Interstate Highway	074
Route #2:	1 Mainline		
Route #3:	1 Mainline		

*** Marked Route Under Data ***

	Designation	Kind	Number

**Illinois Department of Transportation
Structures Information Management System
Master Structure Report (S-107)**

Date: 3/29/2017

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Structure Number: 092-0006 District: 5

Data Related to Inspection Information

Inspection Intervals		*** Maximum Allowable Posting Limits ***				Bridge Posting Level:	
Routine NBIS:	24 MOS	Underwater:	0 MOS	One Truck At A Time:	0	Tons	5 No Posting Required
Fracture Critical:	24 MOS	Special:	N	Single Unit Vehicles:		Tons	Combination Type 3S-2:

Inspection/Appraisal Information

Inspection Date:	01/14/2016	Inspection Temperature:	44 Deg. F	Insp by (Name):	ConklinSD	** Actual Posted Limits **
Deck:	5	FAIR CONDITION - MINOR SECTION LOSS, CRACKS		Insp by (Name):	CraddockDJ	Single Unit Vehicles:
Superstructure:	5	FAIR CONDITION - MINOR SECTION LOSS, CRACKS		Utilities Attached:	N N/A	Combination Type 3S-1:
Substructure:	7	GOOD CONDITION - SOME MINOR PROBLEMS			N N/A	Combination Type 3S-2:
Culvert:	N	NOT APPLICABLE			N N/A	One Truck At A Time:
Channel and Protection:	7	GOOD CONDITION - SOME MINOR PROBLEMS		Deck Wearing Surf:	A BARE DECK NO OVRLAY	Last Paint Type:
Structural Evaluation:	5	BETTER THAN ADEQUATE TO BE LEFT IN PLACE		Deck Membrane:	F NONE	E LD FLD PRM AL FNL
Deck Geometry:	4	MINIMUM ADEQUACY TO BE LEFT IN PLACE		Deck Protection:	A EPOXY COATED REINF	J IR/ZC/OXIDE ALKYD
Underclearance-Vert/Lat.:	N	NOT APPLICABLE		Total Deck Thick:	9.0	
Waterway Adequacy:	8	EQUAL TO PRESENT DESIRABLE CRITERIA		Last Paint Date:	05/1998	
Approach Roadway Align:	8	EQUAL TO PRESENT DESIRABLE CRITERIA		Inspection Remarks:	TRANSVERSE AND LONGITUDINAL CRACKS IN DECK SOFFIT. BEAM END AND DIAPHRAMS UNDE ER JOINTS ARE RUSTY. SUPER LOWERED PER 2009 FC INSPECTION. RIPRAP PLACED AROUND D PIER IN FALL OF 2008.	
Bridge Railing Appraisal:	3	Meets Standards				
Approach Guardrail:	333	Acceptable Acceptable Acceptable				
Pier Navig Protection:	N	N/A				

Underwater Inspection/Appraisal Information

Inspection Date: 06/07/2005
 Temperature: 80
 Inspection Method: OPV Other Probe Visual
 Inspected By: ConklinSD Inspected By: Appraisal Rating: 8 VERY GOOD CONDITION
 Inspection Remarks: INSPECTOR 2:TODD RICHARDSON PIER 2 IS PROTECTED BY PILING AND IS OUT OF WATER R WITH 11.4' COVER AND GREATER, PIER 3 HAS 10' COVER AND GREATER.

Scour Critical Information

Rating: 8 CALCULATED SCOUR ABOVE FOOTING Evaluation Method: A Computer Calculation
 Analysis Date: 05/09/2008 Analysis By: BRIDGE & HYDRAULICS

Miscellaneous

Fracture Critical Members: Yes
 Microfilm Data Recorded: Yes

Construction Information

Year:	1962 Original	1991 Reconstructed
Route:	FAI 74 Sta: 1755+16	FAI 74 Sta: 1755+16
Section Nbr:	92-11B	92-11BR
Contract Nbr:	20973F	90165
Fed Aid Pr #:	SEE REMARKS	
Built By:	1 I.D.O.T.	0 UNKNOWN

Proposed Improvement

Cost Estimate Year:		Length:		*** Costs in Dollars ***
Type of Work:				Bridge Cost:
Done By:				Roadway Cost:
Remarks:				Total Project Cost:



SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 44000	Truck Pct: 31
ADT Un:	Maint. Co: VERMILION	Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS		
Facility Carried: I-74 (EB)		Feature Crossed: SALT FORK VERM RIVER				
Location: W OF DANVILLE		Municipality:		Team/Sub Section: 542/740		Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24		Fracture Critical: 24		Underwater: 0		Special: N/A
90 - Inspection Date: 1/14/16		90C - Temp. (°F): 44		90B1 - In-Depth		<input type="checkbox"/>
Is Delinquent:		Reason:				
90A - Agency Program Manager:		K. Woodr		90A3 - Consultant Program Manager:		
90A1 - Team Leader:		S. Conklin		90A2 - Inspector: D. Craddock		
90B - Inspection Remarks:						
Previous Inspection	TRANSVERSE AND LONGITUDINAL CRACKS IN DECK SOFFIT. BEAM END AND DIAPHRAMS UNDEER JOINTS ARE RUSTY. SUPER LOWERED PER 2009 FC INSPECTION. RIPRAP PLACED AROUND PIER IN FALL OF 2008.					

Resources

Time to Inspect(H:M):	8:0	3:00	Traffic Control:	1	1	Boat:		Waders	W	W	Snooper:		
Ladder:			Manlift:			Bucket Truck:		Other:	binoculars, level rod				

Inspector's Appraisals

	Prev	New	
58 - Deck Condition:	5	5	Wearing surface map cracked, leaching transverse and longitudinal cracks in soffit.
59 - Superstructure Cond:	5	5	Lowered due to fracture critical inspection from 9-5-13. Moderate rust throughout and heavy rust at beam ends
60 - Substructure Cond:	7	7	Vertical and map cracks on abutments and wings, spalls with exposed rebar on piers.
82 - Culvert Condition:	N	N	
61 - Channel Condition:	7	7	
71 - Waterway Adequacy:	8	8	
72 - Approach Rdwy Align:	8	8	
111 - Pier Navig Protection:	N	N	

90B - Inspection Remarks:



Additional Inspection Data

36A - Bridge Railing Adequacy:	Prev	New	3	3	Approach Guardrail Adequacy: 36B - Transitions:	Prev	New	3	3	36C - Guardrail:	Prev	New	3	3	36CD - Ends:	Prev	New	3	3
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108A - Wearing Surface Type:	Prev	New	A	A	If 'L-Other' Describe: _____ If 'E-Other' Describe: _____ If 'I-Other' Describe: _____
108B - Type of Membrane:	F	F			
108C - Deck Protection:	A	A			
108D - Total Deck Thickness (In.):	9.0	9.0			

59A - Paint Date(Mo/Yr):	05/1998	05/98	Color: Fascia - <u>Grey</u> ; Inter. - _____; Railing - _____ If 'B-Other' Describe: _____
59B - Paint Type:	E J	E J	
59C - Utilities Attached:	N N N	N N N	

Weight Limit Posting:	70A2 - Single Unit Vehicles:			Tons
	70B2 - Combination Type 3S-1 (3 or 4 axles):			Tons
	70C2 - Combination Type 3S-2 (5 or more axles):			Tons
	70D2 - One Truck at a Time:			

Joint Openings (In.): _____

90B - Inspection Remarks:

	Signature	Date
Inspection Team Leader:	<i>Shawn D. Cook</i>	1/18/16
Consultant Program Manager:		1/1/16
Agency Program Manager:	<i>Kevin Woods</i>	1/20/16

Element Level Inspection Report

SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 44000	Truck Pct: 31
ADT Un:	Maint. Co: VERMILION	Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS		
Facility Carried: I-74 (EB)		Feature Crossed: SALT FORK VERM RIVER				
Location: W OF DANVILLE		Municipality:		Team/Sub Section: 542/740		Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24		Fracture Critical: 24		Underwater: 0		Special: N/A
						Element Level: 24

93D - Inspection Date:	1-14-16	93C6 - Temp. (°F):	44
Is Delinquent		Reason:	
90E - Agency Program Manager:	K. Woods		90E3 - Consultant Program Manager:
90E1 - Team Leader:	S. Conklin		90E2 - Inspector:
D. Craddock			

Resources

Time to Inspect(H:M):	8:0	03:00	Traffic Control:	1	1	Boat:		Waders		✓	Snooper:	
Ladder:		Manlift:		Bucket Truck:		Other:						

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8026	Concrete Deck Protected w/ Coated Bars	3	26197	SF	2229	✓ 23758	0	✓ 210
	Remarks							
107	Lead Painted Steel Open Girder	4	27500	SF	18174	9320 20061	6	0
	Remarks							
152	Lead Painted Steel Floor Beam	4	13416	SF	9331	✓ 4080	5	0
	Remarks							
805 8172	Lead Painted Steel Closed Web/Box Girder and Open	4	8	EA	0	27	51	0
	Remarks							
205	Reinforced Conc Column or Pile Extension	1	6815	SF	6745	0	70	0
	Remarks							
210	Reinforced Conc Pier Wall	1	14358	SF	14341	8	9	0
	Remarks							
215	Reinforced Conc Abutment	1	1858	SF	1859	50	149	0
	Remarks							
234	Reinforced Conc Pier or Abutment Cap	1	217	LF	183	32	2	0
	Remarks							
301	Pourable Joint Seal	3	71	LF	56	0	15	0
	Remarks							
302	Preformed Joint Seal	3	36	LF	36	0	0	0
	Remarks							
311	Movable Discontinuous Brg.	4	6	EA	0	✓ 6	0	0
	Remarks							
313	Fixed Bearing	4	4	EA	0	✓ 4	0	0
	Remarks							
8316	Moveable Steel Bearings below continuous decks	4	8	EA	0	✓ 8	0	0
	Remarks							
8323	Approach Pavement	3	2	EA	✓ 2	0	0	0
	Remarks							



Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
331	Concrete Bridge Railing	3	1495	LF	713	✓ 750	✓ 32	0
Remarks								

	Signature	Date
Inspection Team Leader:	<i>Shaun P. Cook</i>	1 / 14 / 16
Consultant Program Manager:		1 / 1 /
Agency Program Manager:	<i>Kevin Fonda</i>	1 / 20 / 16



Element Level Inspection Report

SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 40800	Truck Pct: 32
ADT Un:	Maint. Co: VERMILION	Twp: DANVILLE		Status: OPEN, NO RESTRICTIONS		
Facility Carried: I-74 (EB)		Feature Crossed: SALT FORK VERM RIVER				
Location: W OF DANVILLE		Municipality:		Team/Sub Section: 542/740		Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24			Fracture Critical: 24		Underwater: 0	
93C - Inspection Date: 3-19-14		93C8 - Temp. (°F): 42				
90E - Agency Program Manager: K woods		90E3 - Consultant Program Manager:				
90E1 - Team Leader: Buescher		90E2 - Inspector: Conklin				

Resources

Time to Inspect(H:M): 0:0 8:00	Traffic Control:	Boat:	Waders:	Snooper:
Ladder:	Manlift:	Bucket Truck:	Other:	

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8026	Concrete Deck Protected w/ Coated Bars	3	26197	SF	26013	2229	23758	210
	Remarks							
107	Lead Painted Steel Open Girder	4	27500	SF	25327	2473	9320	6
	Remarks							
152	Lead Painted Steel Floor Beam	4	13416	SF	12898	813	4080	5
	Remarks							
8172	Lead Painted Steel Closed Web/Box Girder and Open	4	8	EA	8	0	7	1
	Remarks							
205	Reinforced Conc Column or Pile Extension	1	6815	SF	6795	4	10	70
	Remarks							
210	Reinforced Conc Pier Wall	1	14358	SF	14141	23	8	194
	Remarks							
215	Reinforced Conc Abutment	1	1858	SF	1802	30	50	17
	Remarks							
234	Reinforced Conc Pier or Abutment Cap	1	217	LF	206	9	32	12
	Remarks							
302	Preformed Joint Seal	3	36	LF	36	0	0	0
	Remarks							
307	Neoprene Expansion Joint <i>Possible</i>	3	71	LF	71	0	0	15
	Remarks							
311	Movable Discontinuous Brg.	4	6	EA	0	1	6	0
	Remarks							
313	Fixed Bearing	4	4	EA	0	1	4	0
	Remarks							
8316	Moveable Steel Bearings below continuous decks	4	8	EA	0	1	8	0
	Remarks							
8323	Approach Pavement	3	2	EA	2	0	2	0
	Remarks							
331	Concrete Bridge Railing	3	1495	LF	0	713	1483	32
	Remarks							



	Signature	Date
Inspection Team Leader:	<i>Chris Busch</i>	3/19/14
Consultant Program Manager:		1/1
Agency Program Manager:	<i>Keri Woods</i>	4/4/14

Bridge Inspection Form
Pontis Deck Survey

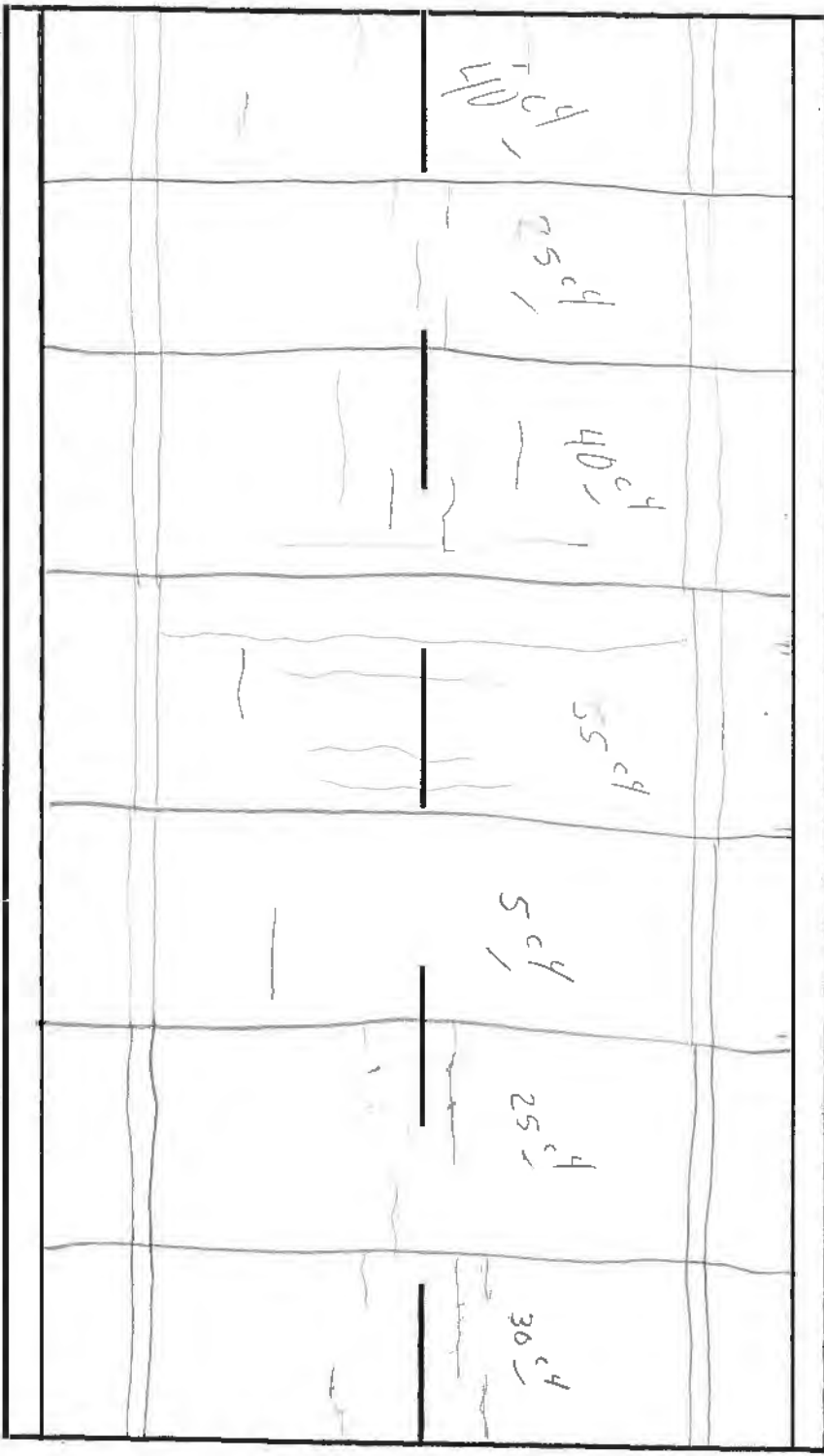


PJS 1
Jut parallel
25

Parallel Jut
10 c³

APPR Point
C1

APPR Point
C1



16 x 36 = 576 c¹
Concrete Slab w/ beams

16 x 36 = 576 c¹
Concrete Slab w/ beams

TOP A11 a²
Beams = 9320 c², 6 c³
Deck = 210 c⁴
Concrete Slab Prob. w/ beams = 1152 c¹
APPR = 2 c¹
Parallel = 15 c³
PJS = 21 c¹

Ends = 7 c² / c³
Disc. brgs = 6 c²
Cont brgs = 8 c²
Fixed brgs = 4 c²
Deck beams = 4080 c²



S.N.: 092-0006 Date: 3-18-14 Insp. By: Buescher, Conklin
+ 14-16

Page of

BRIDGE INSPECTION FORM: OPEN WEB GIRDER

Beam #	End	location on beam	93	93	116	116	116	116 (812)	93 (657)	End	
1	2	Web	210	350	700	700	650	500	180	2	
		Bottom, Top Flange	35	30	80	80	100	100	80		
	Brg	Top, Bottom Flange	60 3'	✓	✓	✓	✓	✓	✓	80	2
		Bot, Bottom Flange	93	116	116	110	116	116	93		
	2	Web	35	60	85	110	80	85	125		
2	3	Web	45	45	75	450	450	650	400	2	
		Bottom, Top Flange	30	20	80	75	80	100	45		
	Brg	Top, Bottom Flange	60 3'	✓	✓	✓	✓	✓	✓	80	Brg
		Bot, Bottom Flange	93	116	116	90	116	116	93		
	2	Web	350	500	500	150	200	145	140	2	
		Web	1011	1231	1752	100	1492	1412	1310		
		Bottom, Top Flange									
	Brg	Top, Bottom Flange				1320	63			Brg	
		Bot, Bottom Flange									
		Web									
Floor Beam		Web (E)	15	5	10	10	10	15	10		
		Bottom, Top Flange	20	15	10	10	10	20	20		
	Brg	Top, Bottom Flange	✓	✓	✓	✓	✓	✓	✓	Brg	
		Bot, Bottom Flange	30	20	25	25	25	25	25		
			Web (W)	15	10	10	10	10	15		
		Web	80x4	50x9	55x10	95x10	95x10	70x10	70x8	End	
		Bottom, Top Flange	720	450	550	550	550	700	560		
	Brg	Top, Bottom Flange								Brg	
		Bot, Bottom Flange									
		Web				4080					
		Web	2016: 100% of outside surface of webs C2							End	
		Bottom, Top Flange	50% of inside surface of webs C2								
	Brg	Top, Bottom Flange	100% of flanges C2							Brg	
		Bot, Bottom Flange	Total 2066 C2								
		Web									

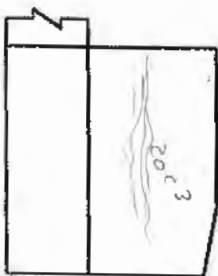
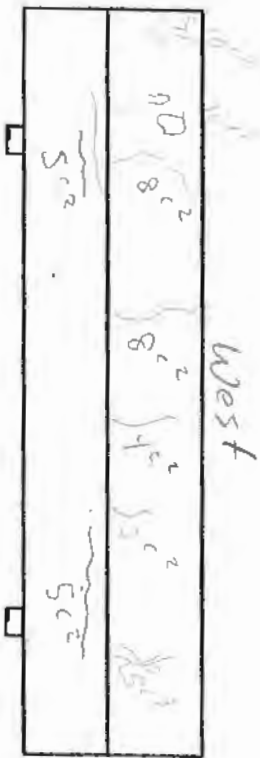
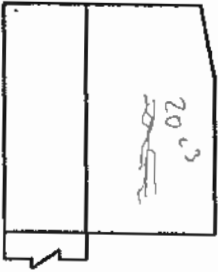
BRIDGE INSPECTION FORM: OPEN WEB GIRDERS

Beam #	End	location on beam	End
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	
		Web	
		Bottom, Top Flange	
	Brg	Top, Bottom Flange	
		Bot, Bottom Flange	
		Web	

S.N. 092-0006

Insp. Date: 3-18-14 1-14-16

Insp. By: Buescher, Conklin



23 c², 95 c³
10 c²

27 c², 54 c³
14 c², 2 c³

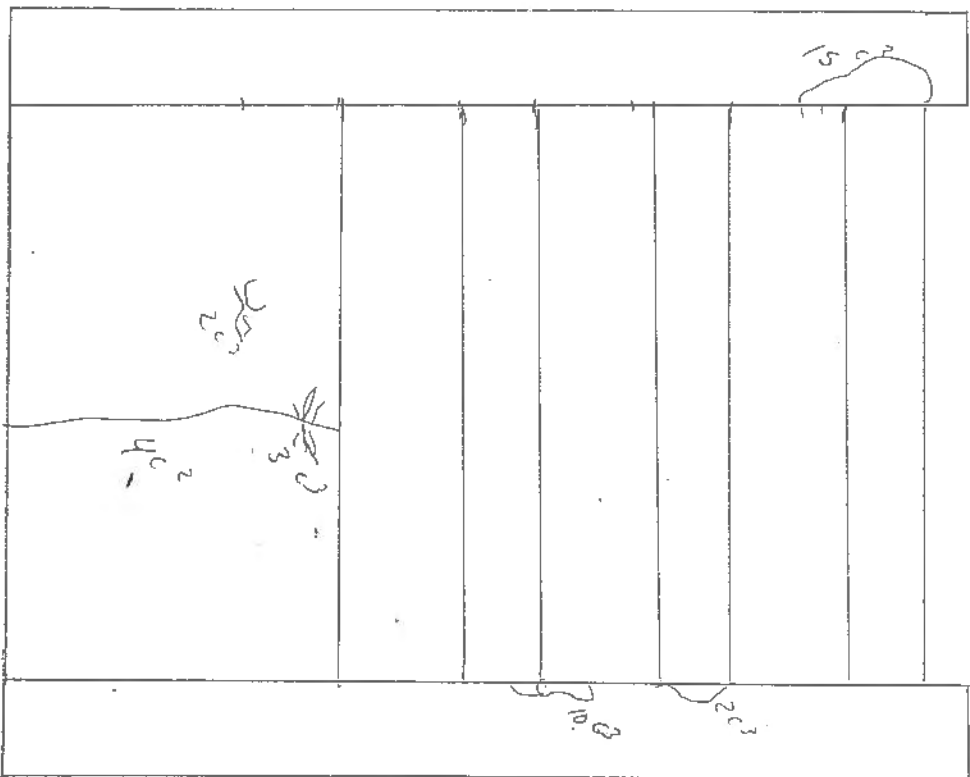
215 = 50 c², 149 c³
234 = 24 c², 2 c³

S.N. 092-000

Insp Date: 1-24-16

Insp By:

Bridge Inspection Form
Pontis Format
Pier 1a West



$$205 = 27 \text{ c}^3$$

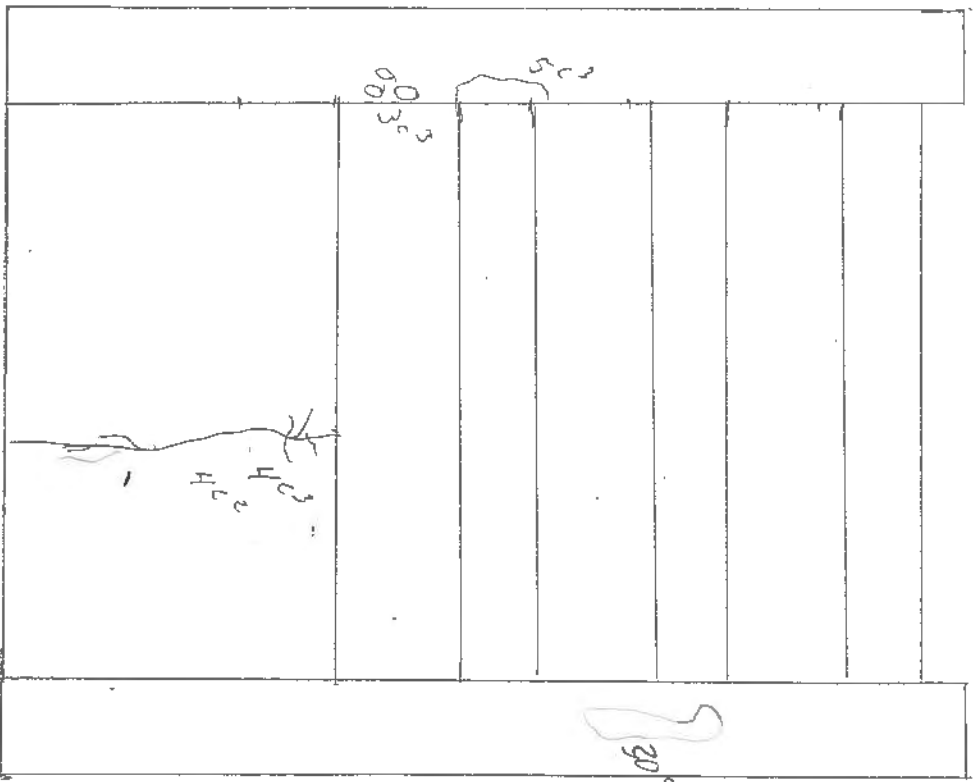
$$210 = 4 \text{ c}^2 \cdot 5 \text{ c}^3$$

S.N. 092-000

Insp Date: 1-14-16

Insp By:

Bridge Inspection Form
Pontis Format
Pier 1 East



$$205 = 38 \text{ c}^3$$

$$210 = 4 \text{ c}^2, 4 \text{ c}^3$$

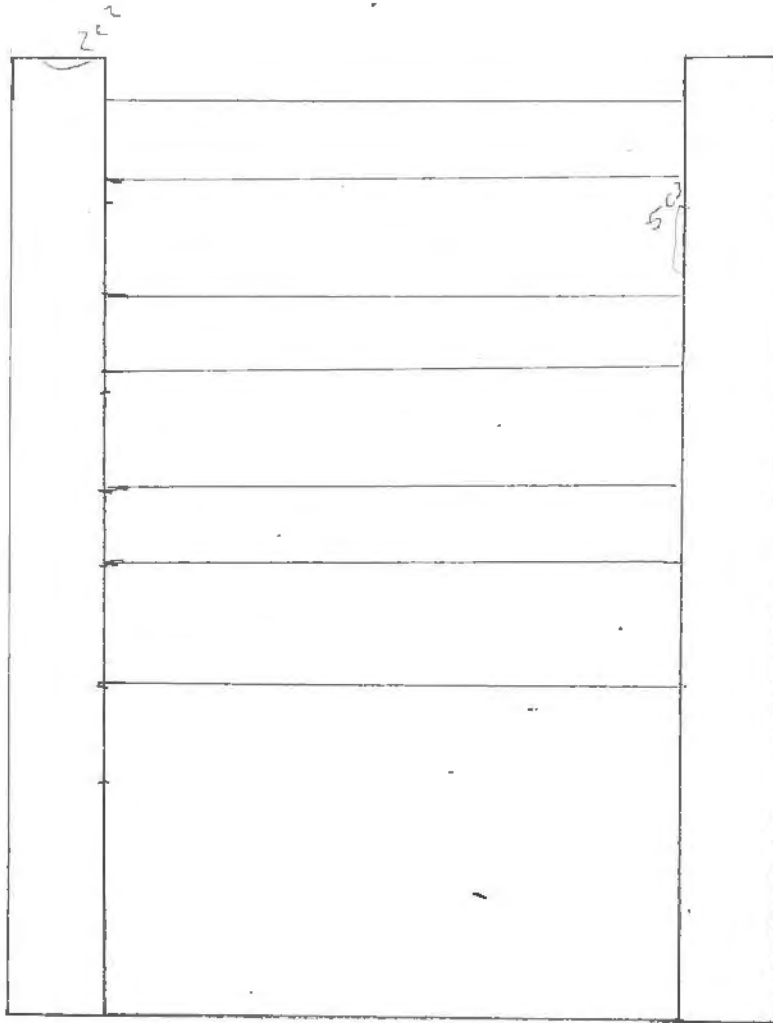
Bridge Inspection Form
Pontis Format

Pier 2

S.N. 092-000

Insp Date: 1-14-16

Insp By: _____



205 = 5^{c3}

234 = 2^{c2}

Bridge Inspection Form
Pontis Format

Pier 3

S.N. 092-000

Insp Date: 1-14-16

Insp By: _____

2 ²		2 ²

234 = 4²

SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 40800	Truck Pct: 32
ADT Un:	Maint. Co: VERMILION	Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS		
Facility Carried: I-74 (EB)		Feature Crossed: SALT FORK VERM RIVER				
Location: W OF DANVILLE		Municipality:		Team/Sub Section: 542/740	Insp/Rte: 000	
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24		Fracture Critical: 24		Underwater: 0	Special: N/A	

90 - Inspection Date:	3/19/14	90C - Temp. (°F):	42	90B1 - In-Depth	<input type="checkbox"/>	
Is Delinquent:		Reason:				
90A - Agency Program Manager:	K. Woods		90A3 - Consultant Program Manager:			
90A1 - Team Leader:	Buescher		90A2 - Inspector:	Conklin		

90B - Inspection Remarks:						
Previous Inspection	TRANSVERSE AND LONGITUDINAL CRACKS IN DECK SOFFIT. BEAM END AND DIAPHRAMS UNDER JOINTS ARE RUSTY. SUPER LOWERED PER 2009 FC INSPECTION. RIPRAP PLACED AROUND PIER IN FALL OF 2008.					

Resources														
Time to Inspect(H:M):	1:30	8:00	Traffic Control:	1	1	Boat:		Waders	W	X	Snooper:			
Ladder:		Manlift:		Bucket Truck:		Other:	binoculars, level rod							

Inspector's Appraisals			
	Prev	New	
58 - Deck Condition:	5	5	Wearing surface is map cracked, leading transverse and longitudinal cracks in soffit
59 - Superstructure Cond:	6	5	moderate rust throughout, heavy rust @ beam ends Lowered due to fracture critical insp. from 975-13
60 - Substructure Cond:	7	7	vertical and map cracks on piers & columns, spalls w/exp. rebar on piers.
62 - Culvert Condition:	N	~	
61 - Channel Condition:	7	7	
71 - Waterway Adequacy:	8	8	
72 - Approach Rdwy Align:	8	8	
111 - Pier Navig Protection:	N	~	

90B - Inspection Remarks:						



Historical Remarks

Inspection Date	Remarks
04/19/12	TRANSVERSE AND LONGITUDINAL CRACKS IN DECK SOFFIT. BEAM END AND DIAPHRAMS UNDEER JOINTS ARE RUSTY. SUPER LOWERED PER 2009 FC INSPECTION. RIPRAP PLACED AROUND PIER IN FALL OF 2008.
07/13/10	TRANSVERSE AND LONGITUDINAL CRACKS IN DECK SOFFIT. BEAM END AND DIAPHRAMS UNDEER JOINTS ARE RUSTY. SUPER LOWERED PER 2009 FC INSPECTION. RIPRAP PLACED AROUND PIER IN FALL OF 2008.
10/20/08	DECK LOWERED DUE TO LEACHING LONGITUDINAL AND TRANSVERSE CRACKS THROUGHOUT DECKK. SUB RAISED DUE TO PERMANENT DAY LABOR REPAIRS TO PIER 1A(08)
03/01/99	VAULTED ABUTS. INSPECTED ON 01/25/01 BY M. BRENNAN. NO PROBLEMS FOUND. MMI ENTRY BY B. FATHAUER 02/07/01
02/14/92	ON FY-91 PROGRAM FOR NEW DECK.



Structure Number: 092-0006

Maintenance County: Vermilion

90 - Insp. Date	90A - Insp. Team Leader/Qualification
10/20/2008	S. Conklin C. Buescher 1
7/13/2010	S. Conklin C. Buescher 1
4/19/2012	S. Conklin C. Buescher 1
1/1	1
1/1	1

Temp.
58°
84°
78°

Township: _____
 Municipality: _____
 Fac Carried: I-74 EB
 Feat Crossed: Salt Fork of Vermilion River
 Location: West of Danville
 Mat/Type/# Span: 7 Stl Cont Gird/FL Bm 51.5

Bridge Inspection Year: 08 10 12

Team Sect. - Sub-Sect: _____

Appraisals

Comments (All comments must be dated.)

Deck

58 - Deck Condition:	5	5	5			
Wearing Surface	3	3	3			Trans & Long Cracks in Surface & Spalls throughout Deck (08)
Parapets / Bridge Railings:	3	3	3			Vert. Cracks
Curbs:	-					
Median:	-					
Sidewalks:	-					
Drain System:	4	4	4			
Light Standards:	-					
Expansion Joints:	4	4	4			Openings (In.): W. Joint is PJS, Pier 1A joint is polymerized Silicate E. Joint is Polymerized Silicate

Superstructure

59 - Superstructure Cond:	7	6	6			
Bearing Devices:	3	3	3			Inspected per 2009 FC Insp. (16)
Girders / Beams / Stringers:	3	3	3			Some Rust, Heavy Rust below Joint @ P. 1A (09)
Diaphragms / Braces:	3	3	3			
Trusses / Portals / Bracing:	-					
Rivets / Bolts:	3	3	3			
Paint:	2	2	2			Flaking, Pooling, Rust Forming (08)

Substructure

60 - Substructure Cond:	7	7	7			
Stem / Columns / Piles:	3	3	3			Sub raised due to Permanent Day Labor Repair to Pier 1A (08)
Abutments						
Caps:	3	3	3			
Bearing Seats:	3	3	3			
Backwalls:	3	3	3			
Wingwalls:	3	3	3			
Piers						
Stem / Columns / Piles:	4	4	4			
Caps:	4	4	4			
Bearing Seats:	3	3	3			
Crash Walls:	3	3	3			
Fender Systems:	-	-	-			
Paint:	-	-	-			

Bridge Inspection Report

Structure Number: 092-0006

Bridge Inspection Year:

Appraisals

Comments (All comments must be dated.)

Culvert

62 - Culvert Condition

Top Slab / Soffit: _____

Side Walls / Arch: _____

Bottom: _____

Headwalls: _____

Wingwalls: _____

Waterway and Channel

61 - Channel Condition:

Streambed: 3 3 3 _____

Slope Walls & Rip-Rap: 3 3 3 _____

Stream Banks: 3 3 3 _____

Spur Dykes & Jetties: - - _____

71 - Waterway Adequacy:

Approach Roadway

72 - Appr. Rdwy Alignment:

Riding Quality: 3 3 3 _____

Structural Condition: 3 3 3 _____

Relief Joints: - - - _____

Navigable Waterways

111 - Pier Navig. Protect'n:

Inspection Remarks

Year **Item 90B - Inspection Remarks** (237 characters maximum.)

20	
20	
20	
20	
20	

Mo. Day Yr. Temp. Inspector

03	07	01	40°	M. Brennan, S. Conklin
03	06	03	35°	C. Buescher, K. Beinke
01	21	04	15°	S. CONKLIN, J. FATHAYER
01	11	06	48°	S. CONKLIN, J. LEE
11	08	06	62°	S. Conklin, C. Buescher

S SN= 092-0006 MUNI= _____
 F FACILITY CARRIED= I-74 (EB) _____
 F FEATURE CROSSED= SALT FORK VERM RIVER _____
 F LOCATION= W OF DANVILLE _____
 L CONST ROUTE= FAT 74 STA= 1755+16 _____
 N CONST SECT= 92-11B _____
 N MAIN SPANS= 7 STL CONT GIRD/FL BM SYS _____
 APPR SPANS= 2 STEEL GIRD/FL BM SYS _____

Year

01	03	04	06	02
----	----	----	----	----

Remarks

Deck Element Rating

108A Wearing Surface Type

A

 108B Type of Membrane

F

 108C Deck Protection

A

 108D Total Deck Thickness

10.0"

Wearing Surface	4	4	3	3	3
Deck Structural Condition	4	4	3	2	2
Curbs	-	-	-	-	-
Median	-	-	-	-	-
Sidewalks	-	-	-	-	-
Parapet	4	3	3	3	3
Railing	-	-	-	-	-
Drains	5	5	5	4	4
Light Standards	-	-	-	-	-
Expansion Joints	4	4	2	2	4

MANY TRANS INTERSECTING LONG CRACKS, SOME MAP CRACKING (02) LONG CRACKS OPENING (06)
 TRANS LEAKING CRACKS THROUGHOUT BOTTOM OF DECK (01) (02) INTERSECTING LONG (04)

58 Condition Rating

8	8	7	6	6
---	---	---	---	---

many vert cracks, some working but not tight (02)

Bridge Railing Appraisal

MEAS Opening ALL APPEAR TO BE LEAKING (04) TORN BLADDER @ E. ABUT (04)
 NECESSARY JOINTS HAVE BEEN REPAIRED BY POLYMER MORTAR & SILICONE (06)

36 Condition Rating

3	3	3	2
---	---	---	---

3	3	3	2
---	---	---	---

3	3	2	2
---	---	---	---

3	3	2	2
---	---	---	---

3	2	2	2
---	---	---	---

LOWERED DUE TO TRANS LEAKING CRACKS @ > 5' INTERVALS WITH MULTIPLE INTERSECTING LONGITUDINAL LEAKING CRACKS (06)

Superstructure

Bearing Devices	4	4	4	3	3
Stringers Floor Beams	3	3	3	3	3
Girders or Beams	3	3	3	3	3
Diaphragms or Braces	3	3	3	3	3
Crack Leaching	-	-	-	-	-
Joints (Leakage or Cond.)	-	-	-	-	-
59C Util.	N	N	N	-	-
Trusses	-	-	-	-	-
Portals and Bracing	-	-	-	-	-
Drainage System	-	-	-	-	-
Paint	3	3	3	3	3
Color: Facia _____ Inter _____ Rail _____					
Rivets or Bolts					
Weld Cracking					
Rust					
Timber (Decay, Damage)					
Concrete Cracking					
Collision Damage					
LL Deflec & Vibration					
Alignment of Members					

SOME RUST FORMING @ ABUT @ PIER 1A (06)
 FLOOR BEAMS RUSTING @ FLANGES (01) (03) (06)
 RUST COMING THROUGH PAINT (04) BEAM ENDS RUSTING SEVERELY @ P 1A (06)

59A MO/YR:

06/77

 59B Code: 1

E

 2

J

 3

U

 H

--

 05/98 (U) PAINT FAILING, FLAKING, RUSTING

Worst % Loss

%

59 Condition Rating

7	7	7	7	7
---	---	---	---	---

Also See Fracture Critical Insp. (94)/(99)/(01)



Vaulted abutment

SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 11000	Truck Pct: 31
ADT Un:	Maint. Co: VERMILION	Twsp: DANVILLE	Status: OPEN - NO RESTRICT			
Facility Carried: I-74 (EB)	Feature Crossed: SALT FORK VERM RIVER					
Location: W OF DANVILLE	Municipality:	Team/Sub: 542/740	Insp/Rte: 000			
Bridge Name:	Material & Type: STEEL CONTINUOUS/GIRDER AND FLOORBEAM SYSTE					
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 0	Special: N/A	Element Level: 24		

90 - Inspection Date: 2 / 29 / 16	90C - Temp. (°F): 38	90B1 - In-Depth: <input checked="" type="checkbox"/>
Is Delinquent: <input type="checkbox"/>	Reason:	
90A - Agency Program Manager: K. Woods	90A3 - Consultant Program Manager:	
90A1 - Team Leader: Broscher	90A2 - Inspector: Craddock	

90B - Inspection Remarks:

Previous Inspection	TRANSVERSE AND LONGITUDINAL CRACKS IN DECK SOFFIT. BEAM END AND DIAPHRAMS UNDEER JOINTS ARE RUSTY. SUPER LOWERED PER 2009 FC INSPECTION. RIPRAP PLACED AROUND PIER IN FALL OF 2008.
---------------------	---

Resources

Time to Inspect (H:M): 3:0	Traffic Control: 1	Boat:	Waders: W	Snooper:
Ladder:	Manlift:	Bucket Truck:	Other: binoculars, level rod	

Inspector's Appraisals

	Prev	New	Comments
58 - Deck Condition:	5	5	Areas of map cracking in soffit, some stalactitic leachings Asphalt wearing surface map cracking
59 - Superstructure Cond:	5	5	" "
60 - Substructure Cond:	7	7	
62 - Culvert Condition:	N		
61 - Channel Condition:	7		
71 - Waterway Adequacy:	8		
72 - Approach Rdw Align:	8		
111 - Pier Navig Protection:	N		

90B - Inspector Remarks:



Vaulted abutment

SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 11000	Truck Pct: 31
ADT Un	Maint. Co: VERMILION	Twsp: DANVILLE	Status: OPEN - NO RESTRICT			
Facility Carried: I-74 (EB)	Feature Crossed: SALT FORK VERM RIVER					
Location: W OF DANVILLE	Municipality:	Team/Sub: 542/740	Insp/Rte: 000			
Bridge Name:	Material & Type: STEEL CONTINUOUS/GIRDER AND FLOORBEAM SYSTE					
Insp. Intervals Routine: 24	Fracture Critical: 24	Underwater: 0	Special: N/A	Element Level: 24		
93D - Inspection Date: 2-29-16	90C - Temp. (°F): 38					
Is Delinquent: <input type="checkbox"/>	Reason:					
90E - Agency Program Manager: K Woods	90E3 - Consultant Program Manager:					
90E1 - Team Leader: Knoscher	90E2 - Inspector: Craddock					

Resources

Time to Inspect (H:M): 3:0	1:00	Traffic Control: 1	/	Boat:	Waders: W	Snooper:	
Ladder:	Manlift:	Bucket Truck:	Other:				

Inspector's Appraisals

Element	Element Description	Env	Quantity	Unit	CS1	CS2	CS3	CS4
8026	Concrete Deck Protected w/ Coated Bars	3	26197	SF				
	Remarks							
107	Lead Painted Steel Open Girder	4	27500	SF				
	Remarks							
152	Lead Painted Steel Floor Beam	4	13416	SF				
	Remarks							
8172	Lead Painted Steel Closed Web/Box Girder Ends Incl	4	8	EA				
	Remarks							
8175	Lead Painted Steel Open Girder Ends Including Diap	4	8	EA				
	Remarks							
205	Reinforced Conc Column or Pile Extension	1	6815	SF				
	Remarks							
210	Reinforced Conc Pier Wall	1	14358	SF				
	Remarks							
215	Reinforced Conc Abutment	1	1858	SF				
	Remarks							
234	Reinforced Conc Pier or Abutment Cap	1	217	LF				
	Remarks							
301	Pourable Joint Seal	3	71	LF				
	Remarks							
302	Prefomed Joint Seal	3	36	LF				
	Remarks							
311	Movable Discontinuous Brg.	4	6	EA				
	Remarks							
313	Fixed Bearing	4	4	EA				
	Remarks							
8316	Moveable Steel Bearings below continuous decks	4	8	EA				
	Remarks							
8323	Approach Pavement	3	2	EA				
	Remarks							
331	Concrete Bridge Railing	3	1495	LF				
	Remarks							

8040 Conc. slab Prot. w/ Ac overlay

Leaching map cracks in soffit

3 1440 SF 160 36 160

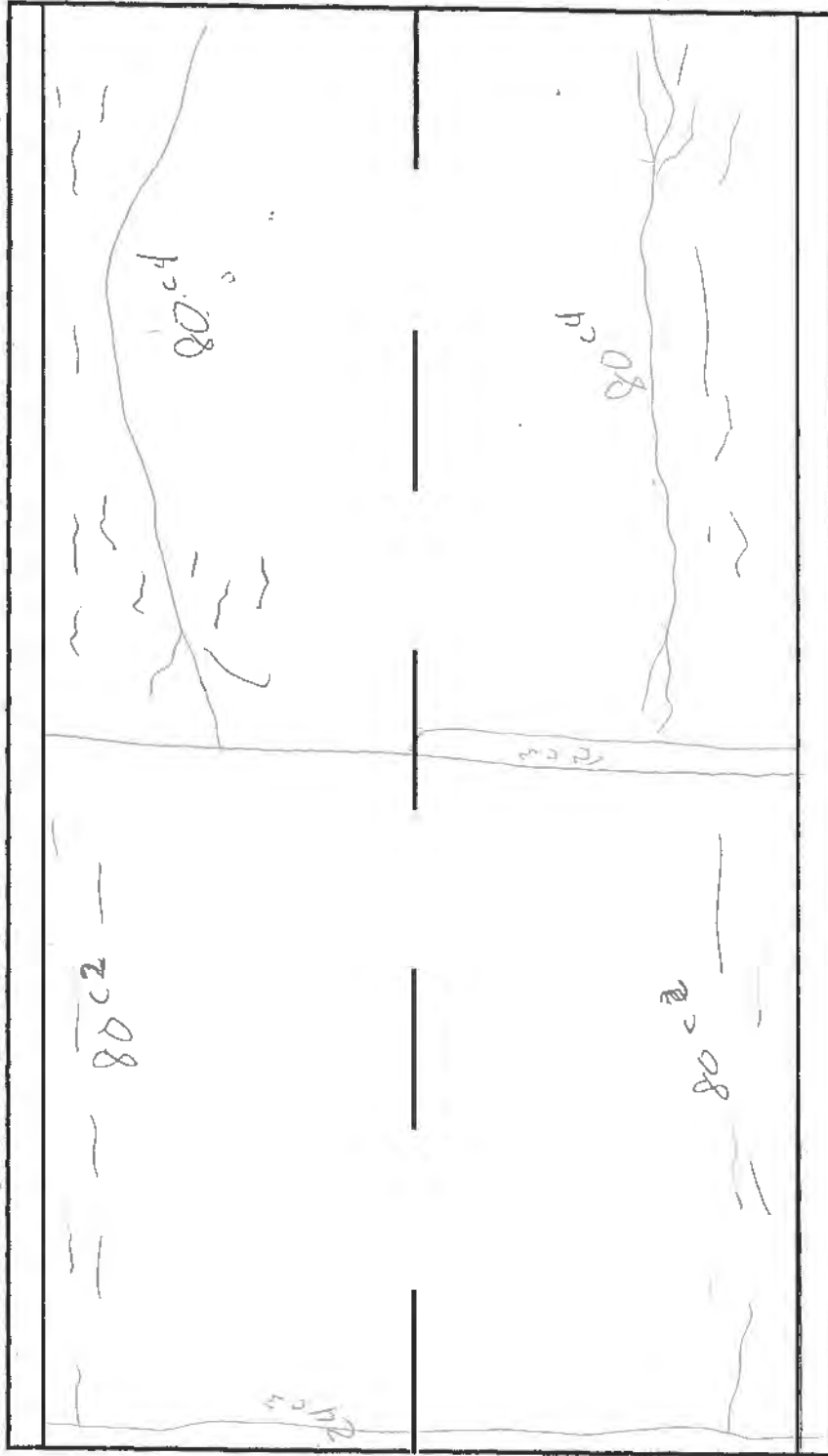
	Signature	Date
Inspection Team Leader:	<i>Chris Buerch</i>	2/29/16
Consultant Program Manager:		1 1
Agency Program Manager:	<i>Chris Fouts</i>	3/22/16

Bridge Inspection Form
Pontis Deck Survey



West abutment

East abutment



Areas of leading map crades

160 c², 36 c³, 160 c⁴

Asphalt overlay is broken up w/ cracks, and cracking.

TOP 411 c² w/ 12 c³



Vaulted Abutment

Bridge Inspection Report (MI)

Structure Number: 092-0006

Maintenance County: Vermilion

90 - Insp. Date	90A - Insp. Team Leader/Qualification	Temp.
02/21/2008	M. Brennan D. Craddock	18°
2/3/12	Buescher	52
/ /	/	
/ /	/	
/ /	/	

Township: _____
 Municipality: _____
 Fac Carried: I-74 EB
 Feet Crossed: Salt Fork
 Location: _____
 Mat/Type/# Span: _____

Bridge Inspection Year: 08 12

Team Sect. - Sub-Sect: -

Appraisals

Comments (All comments must be dated.)

Deck

58 - Deck Condition: 7 7 few imperfections in top w/ few stalactites (12)

Wearing Surface: 3

Parapets / Bridge Railings: _____

Curbs: _____

Median: _____

Sidewalks: _____

Drain System: _____

Light Standards: _____

Expansion Joints: _____

Openings (In.): _____

Superstructure

59 - Superstructure Cond: 7 7 1

Bearing Devices: _____

Girders / Beams / Stringers: _____

Diaphragms / Braces: _____

Trusses / Portals / Bracing: _____

Rivets / Bolts: _____

Paint: _____

Substructure

60 - Substructure Cond: 7 7 _____

Abutments

Stem / Columns / Piles: 3

Caps: 3

Bearing Seats: _____

Backwalls: _____

Wingwalls: 3

Piers

Stem / Columns / Piles: _____

Caps: _____

Bearing Seats: _____

Crash Walls: _____

Fender Systems: _____

Paint: _____

Bridge Inspection Report

Structure Number: 092-000

Bridge Inspection Year:

Appraisals

Comments (All comments must be dated.)

Culvert

62 - Culvert Condition

Top Slab / Soffit: _____

Side Walls / Arch: _____

Bottom: _____

Headwalls: _____

Wingwalls: _____

Waterway and Channel

61 - Channel Condition:

Streambed: _____

Slope Walls & Rip-Rap: _____

Stream Banks: _____

Spur Dykes & Jettles: _____

71 - Waterway Adequacy:

Approach Roadway

72 - Appr. Rdwy Alignment:

Riding Quality: _____

Structural Condition: _____

Relief Joints: _____

Navigable Waterways

111 - Pier Navig. Protect'n:

Inspection Remarks

Year Item 90B - Inspection Remarks (237 characters maximum.)

2008 Some Transverse Cracks in UPPER CORNERS where Top Slab & Back wall meet. Some Leaching @ Cons. Joints where Side walls and Top Slab come together.

2012 No Change from 08

20 _____

20 _____

20 _____



Mo.	Day	Year	Temp.	Inspectors
3	19	14	42 °F.	Russcher, Conklin
1	14	16	44 °F.	Conklin, Beschur
			°F.	
			°F.	
			°F.	

S.N. 09E-0006 Municipality _____
 Facility Carried _____
 Feature Crossed _____
 Location _____
 Main Spans _____

Category _____

Frequency _____

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
14		Level Gaug	:	Waders		

Notes: 9.7 cover @ P2, near south end of stream bed.
 8.6' cover @ P3

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
16		measured	03:00	Chest Waders	1	

Notes: Pier 3 ~~has~~ has 8.6' of cover at the south end with more elsewhere. Rip rap protection around pier has silted over.
 Sheet piling around pier 2 in good condition with little change to streambed along piling from previous inspections, see REVERSE

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

Notes:

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

Notes:

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

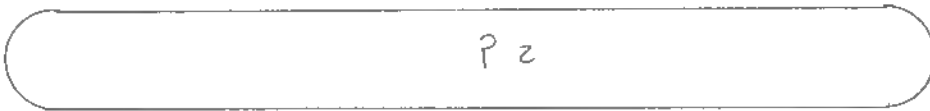
Notes:

092-0004
(EB)

Blac 2016

528.54
- 295

525.59



Sheet Piling

6.8
518.0
505.3
9.7' cover

3.2
5211.6
508.3
13.3' cover

8.0
517.6
9.3' cover to
OH. US

* 518.4

4.3
520.5
506.3
12.2' cover

* 518
520.3

3.4
521.4
508.3
13.1' cover

* 518
521.3

*
Jan 14, 2016

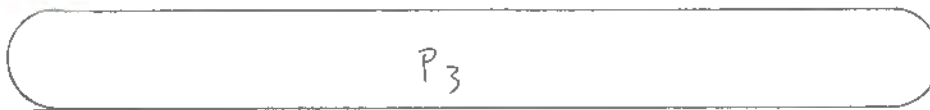
Rip Rap

* 3.8
521.8
501.3
3.5

* 3.6
522.0
507.3
3.0

3.9
520.9
8.6' cover

* 4.7
520.9
8.6' cover



H₂O Elev
524.79



Mo.	Day	Year	Temp.	Inspectors
10	20	2008	98 °F.	S. Conklin & Buescher
7	13	2010	84 °F.	Conklin Buescher
4	19	2012	78 °F.	Conklin Buescher
			°F.	
			°F.	

S.N. 092-0006 Municipality _____
 Facility Carried _____
 Feature Crossed _____
 Location _____
 Main Spans _____

Category _____ Frequency _____

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
08			:			

Notes: Pier 2 has 11.0' of cover at S. end, greater elsewhere, to sheet piling and broken concrete protection
 Pier 3 has 8.7' minimum cover near center on W. face, more elsewhere.
 SEE Reverse for Field Drawing

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
08			:			

Notes: S.F. "K" Inspection ⇒ [unclear] sketch and elevation] ⇒ [unclear] 11/16/08
 Scour Counter Measures placed in fall of 08

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
12			:			

Notes: P₂ has 9.72' minimum cover over footing along sheet piling
 P₃ has 9.45' minimum cover over footing w/design scour countermeasure
 Rip Rap in place. See Reverse for field sketch & elevation of stream bed.

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks
			:			

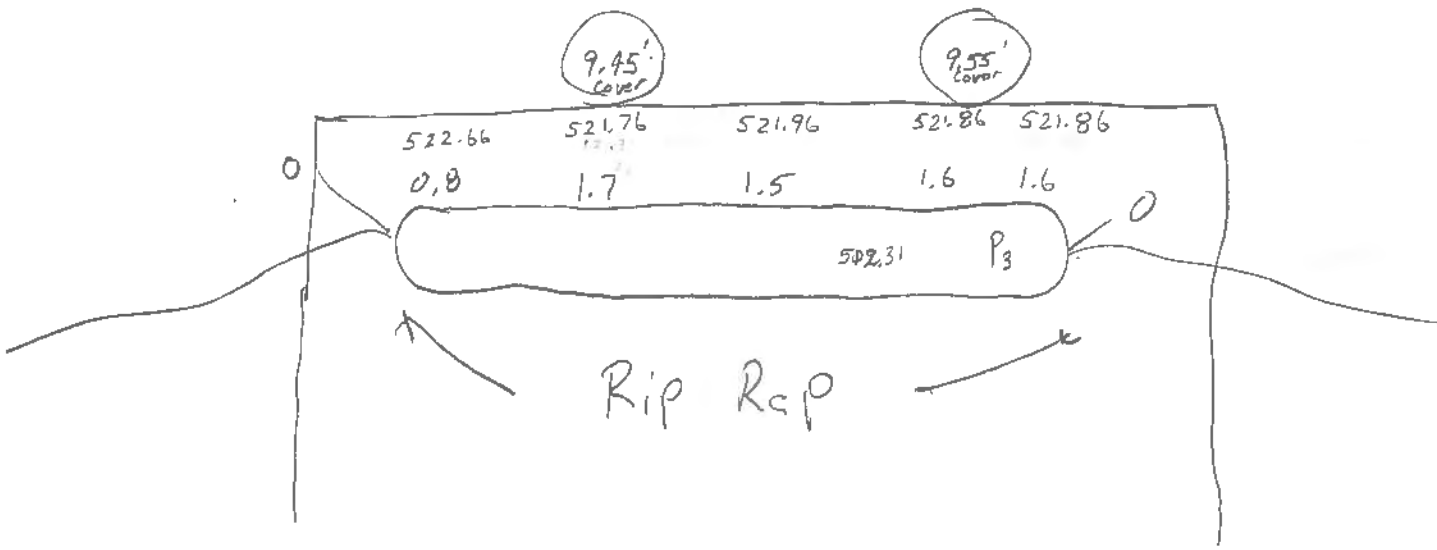
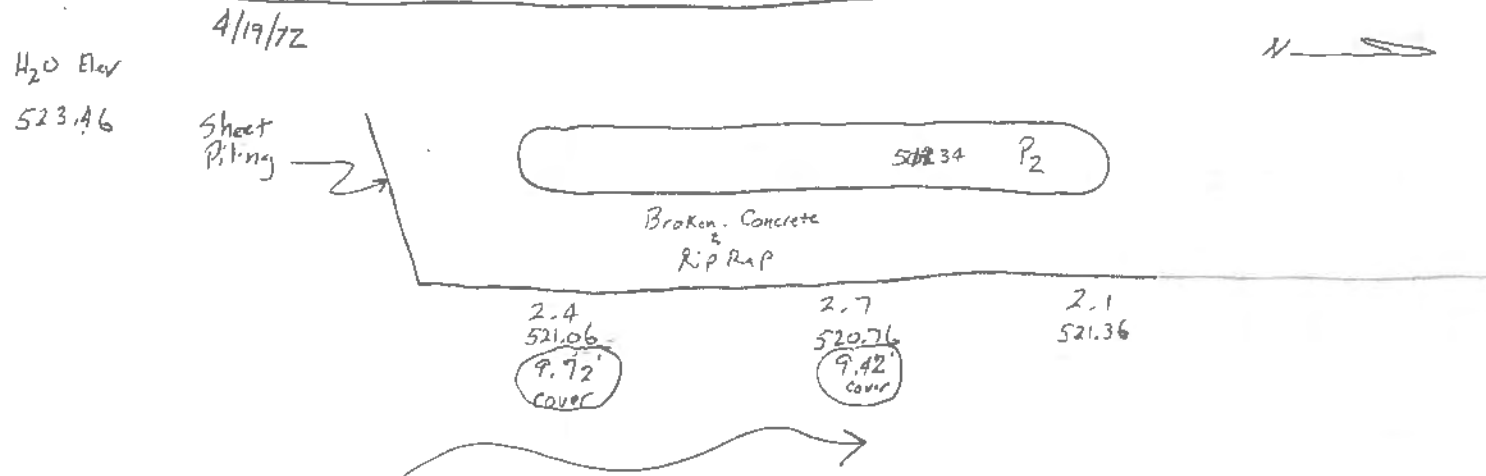
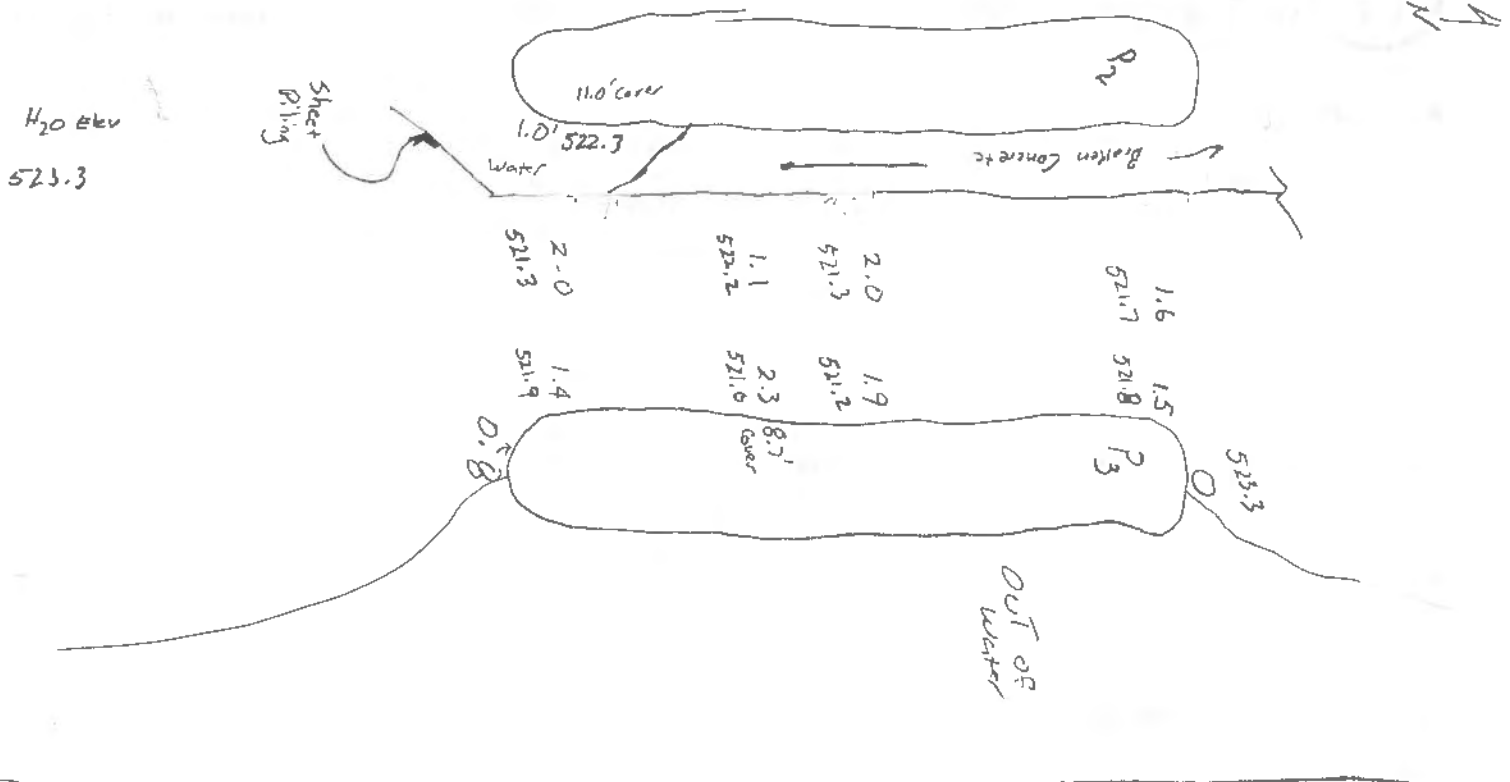
Notes:

Year	Rating	Method	Time	Access Equipment	Traffic Control	Remarks

Notes:

092-0006
E.B

10/20/2008



SCOUR / STREAMBED INSPECTION REPORT

MO.	DAY	YR.	TEMP.	INSPECTORS
11	8			

SN _____ MUNI _____

Facility Carried _____

Feature Crossed _____

Location _____

Main Spans _____

CATEGORY _____

FREQUENCY _____

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS
06		HPD				145' Ch. 523.6 ... PA 2 is out SE ... Bill ... 9 ... over I 295 ... (2)

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

YR.	RATING	METHOD	TIME	ACCESS EQUIP.	TRAFFIC CONTROL	REMARKS

PROPOSED MAINTENANCE REPAIRS

REPAIR CODE	REPAIR DESCRIPTION	ASGD TO CODE	PRIORITY CODE	QUANTITY	UNIT COST	DATE COMPL.

AGENCY CODES: TS=DISTRICT TEAM SECTION BC=DISTRICT BRIDGE CREW DL=DAY LABOR
 MC=MAINTENANCE CONTRACT RC=REPAIR FOR REHAB CONTRACT

PRIORITY CODES: 1=DO THIS YEAR 2=SHOULD DO THIS YEAR 3=WHEN CONVENIENT



SN: <u>092-0006</u>	District: <u>5</u>	Spans:	Appr. Spans:	Skew:	ADT:	Truck Pct:
ADT Un:	Maint. Co: <u>092</u>	Twsp:	Status:			
Facility Carried: <u>1-74 EB</u>	Feature Crossed: <u>Soft Fork of Vermilion River</u>					
Location:	Municipality:	Team/Sub Section: <u>1</u>				
Bridge Name:	Material & Type:					
Insp. Intervals (Mo) Routines NBIS: <u>24</u>	Fracture Critical: <u>24</u>	Underwater:	Special Feature: <u>12</u>			
93C- Inspection Date: <u>7/12/12</u>	93C3- Temp. (°F): <u>82°</u>	90A- Program Manager: <u>K. Woods</u>				
Is Delinquent: <input type="checkbox"/>	Reason:					
93C2A- Team Leader: <u>S. Conklin</u>	93C2B- Inspector: <u>C. Buescher</u>					

93C4 - Special Feature Inspection Remarks:

Resources

Time to Inspect (H:M): <u>01:00</u>	Traffic Control: <u>1</u>	Boat: <u>-</u>	Waders: <u>W</u>	Snooper: <u>-</u>
Ladder: <u>-</u>	Manlif: <u>-</u>	Bucket Truck: <u>-</u>	Other: <u>-</u>	

Special Feature Inventory

92C- Inspection Interval: (months): 12 92C4- Initiated By: _____ If "4-Other Agency" Describe: _____
 92C2- Start Date: 7/27/04 92C6- Determination Date: ___/___/___ 92C7 - Inspect By Date: ___/___/___
 92C1- Type Code:

<input type="checkbox"/> A - Structural Damage/Steel Superstructure	<input type="checkbox"/> J - Reserved
<input type="checkbox"/> B - Structural Damage/Concrete Superstructure	<input checked="" type="checkbox"/> K - Underwater/Scour Critical Evaluation Monitoring
<input type="checkbox"/> C - Structural Damage/Timber Superstructure	<input type="checkbox"/> L - Existing Streambed Scour/Spread Footing
<input type="checkbox"/> D - Structural Damage/Steel Substructure	<input type="checkbox"/> M - Existing Streambed Scour/Pile Supported Footing
<input type="checkbox"/> E - Structural Damage/Concrete Substructure	<input type="checkbox"/> N - Existing Streambed Scour/Pile Bent Substructure Unit
<input type="checkbox"/> F - Structural Damage/Timber Substructure	<input type="checkbox"/> P - Embankment Movement or Settlement
<input type="checkbox"/> G - Underwater/Debris and/or Erodible Soil	<input type="checkbox"/> Q - Substructure Movement or Settlement
<input type="checkbox"/> H - Underwater/Flow Restriction or Velocity	<input type="checkbox"/> R - Pin & Link in Multi-Girder (Redundant) Bridge (If checked must add BBS Form(s) 2760 and 2780 if needed)
<input type="checkbox"/> I - Underwater/Spread footings not adequately keyed into rock or protected from the effects of streambed scour	<input type="checkbox"/> S - Specifically Identified Problematic Structural Details
	<input type="checkbox"/> T - Deck
	<input type="checkbox"/> Z - Other (Describe):

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C1 - Special Feature Condition Status:

Prev	New	
<input type="checkbox"/> 0	<input type="checkbox"/> 0	- Worsening Condition Indicating Imminent Structural Failure - Immediate closure required, then contact BBS
<input type="checkbox"/> 1	<input type="checkbox"/> 1	- Progression of Deterioration or Worsening Condition - Contact BBS, Program Manager, and SFI Initiator
<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 2	- No Change in Condition Noted
<input type="checkbox"/> 3	<input type="checkbox"/> 3	- Corrected Condition Noted - SF inspections no longer required after verification by BBS personnel
<input type="checkbox"/> 4	<input type="checkbox"/> 4	- Feature Determined to be in Adequate Condition - Primarily for monitoring problematic structural details

93C4 - Special Feature Inspection Remarks: Rip Rap around P3 w/ 10.3 minimum cover to top of footer
P2 Protected w/ sheet piling w/ 9.7' minimum cover to bottom of sheet piling See Reverse for field sketch

	Signature	Date
Inspection Team Leader:	<i>Sharon D. Cash</i>	7/12/12
Inspection Program Manager:	<i>K. Woods</i>	7/23/12

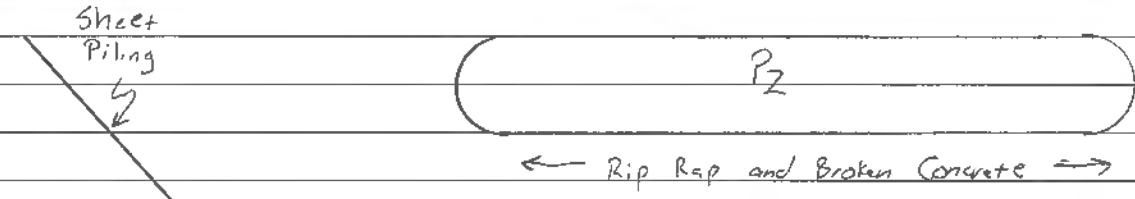
H₂O Elev
522.2

Special Feature Inspection Report

Structure Number: 092-0006 EB

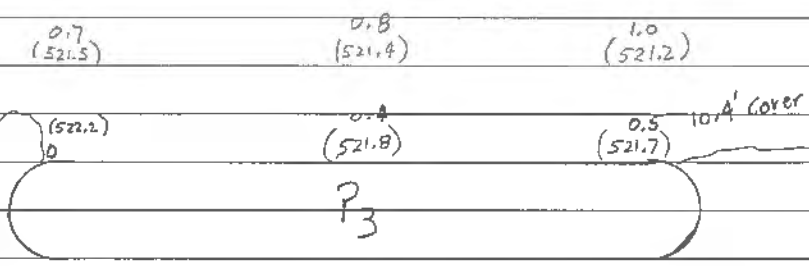
93C4 - Inspection Remarks:

N



8'	2.5 (519.7)	1.0 (521.2)	1.4 (520.8)	0.7 (521.5)
	1.8 (520.4)	1.7 (520.5)	2.4 (519.8)	1.1 (521.1)

9.7' Cover to Bot. Sheet Piling





Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: Municipality:
Facility Carried: I-78 E.B. Feature Crossed: Salt Fork of the Vermilion River
Location: West of Danville
Number of Spans: 7 Material & Type:

Special Feature Inventory (determined and set by the BBS)

- 92C - Special Feature Inspection Interval: (months) 2
92C2 - Special Feature Start Date: 7/27/09
92C1 - Special Feature Type Code:
A - Structural Damage/Steel Superstructure
B - Structural Damage/Concrete Superstructure
C - Structural Damage/Timber Superstructure
D - Structural Damage/Steel Substructure
E - Structural Damage/Concrete Substructure
F - Structural Damage/Timber Substructure
G - Underwater/Debris and/or Erodible Soil
H - Underwater/Flow Restriction or Velocity
I - Underwater/Keying of Spread Footing
J - Underwater/Large Drainage Area (> 5000 mi^2)
K - Underwater/Scour Critical Evaluation Monitoring
L - Existing Streambed Scour/Spread Footing
M - Existing Streambed Scour/Pile Supported Footing
N - Existing Streambed Scour/Pile Bent Substructure Unit
P - Embankment Movement or Settlement
Q - Substructure Movement or Settlement
R - Pin & Link in Multi-Girder (Redundant) Bridge
S - Specifically Identified Problematic Structural Details
T - Deck
Z - Other

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

- 93C - Special Feature Inspection Date: 7/13/11
93C1 - Special Feature Condition Status:
Prev New
0 0 - Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
1 1 - Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
2 2 - No Change in Condition Noted
3 3 - Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
4 4 - Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 - Special Feature Inspection Remarks:

Table with 2 columns: Previous Inspection, New Inspection. Contains handwritten notes about sheet piling protection and rip rap protection.

93C2A - Inspection Team Leader

Signature of inspection team leader

Signature

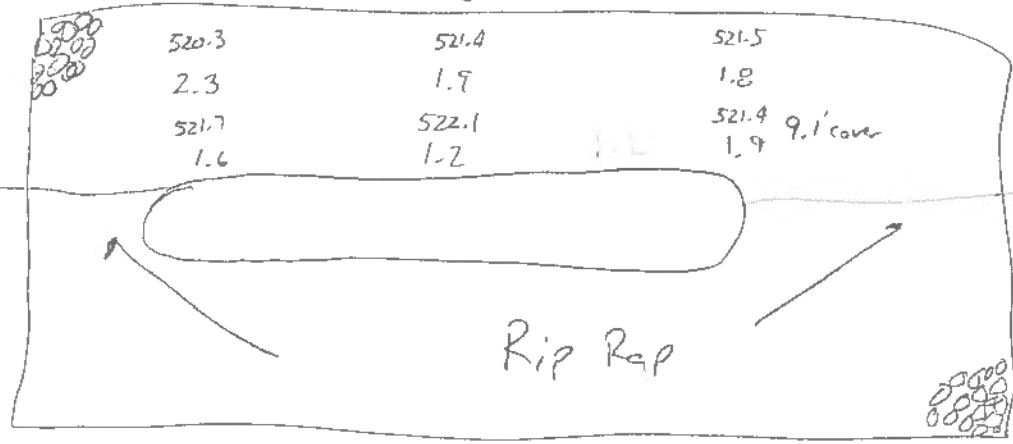
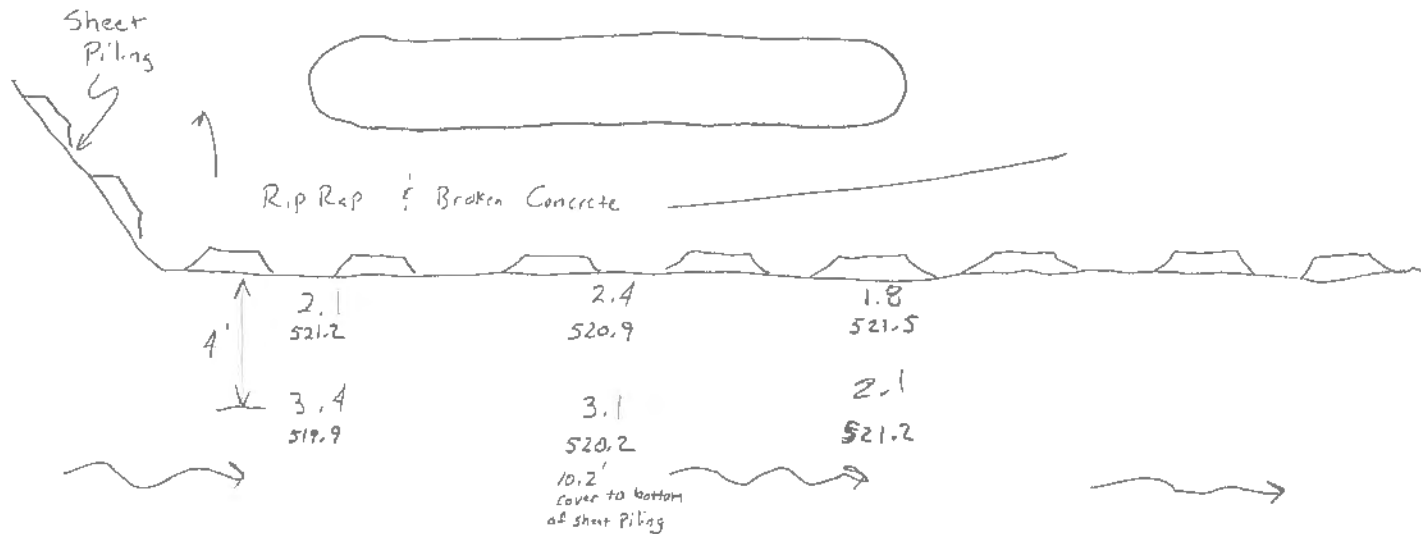
Date 7/13/11

Date

Supervisor Initials

Date

E.B. H₂O Elev 523.3





Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____
 Facility Carried: 1-7+ EB Feature Crossed: Salt Fork River
 Location: West of Danville
 Number of Spans: 7 Material & Type: _____

Special Feature Inventory (determined and set by the BBS)

92C - Special Feature Inspection Interval: (months) 12 92C2 - Special Feature Start Date: 7/27/07
 92C1 - Special Feature Type Code:
 A - Structural Damage/Steel Superstructure K - Underwater/Scour Critical Evaluation Monitoring
 B - Structural Damage/Concrete Superstructure L - Existing Streambed Scour/Spread Footing
 C - Structural Damage/Timber Superstructure M - Existing Streambed Scour/Pile Supported Footing
 D - Structural Damage/Steel Substructure N - Existing Streambed Scour/Pile Bent Substructure Unit
 E - Structural Damage/Concrete Substructure P - Embankment Movement or Settlement
 F - Structural Damage/Timber Substructure Q - Substructure Movement or Settlement
 G - Underwater/Debris and/or Erodible Soil R - Pin & Link in Multi-Girder (Redundant) Bridge
 H - Underwater/Flow Restriction or Velocity S - Specifically Identified Problematic Structural Details
 I - Underwater/Keying of Spread Footing T - Deck
 J - Underwater/Large Drainage Area (> 5000 mi²) Z - Other

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C - Special Feature Inspection Date: 7/13/10

93C1 - Special Feature Condition Status:

Prev	New	
<input type="checkbox"/> 0	<input type="checkbox"/> 0	- Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
<input type="checkbox"/> 1	<input type="checkbox"/> 1	- Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
<input type="checkbox"/> 2	<input checked="" type="checkbox"/> 2	- No Change in Condition Noted
<input type="checkbox"/> 3	<input type="checkbox"/> 3	- Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
<input type="checkbox"/> 4	<input type="checkbox"/> 4	- Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 - Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	<i>P2 has sheet piling and R.R. protection w/ a minimum 10.2' cover to bottom of sheet piling P3 has R.R. w/ 9.0' minimum cover to top of cover See Reverse for Field sketch and Elevations</i>

93C2A - Inspection Team Leader _____

Signature

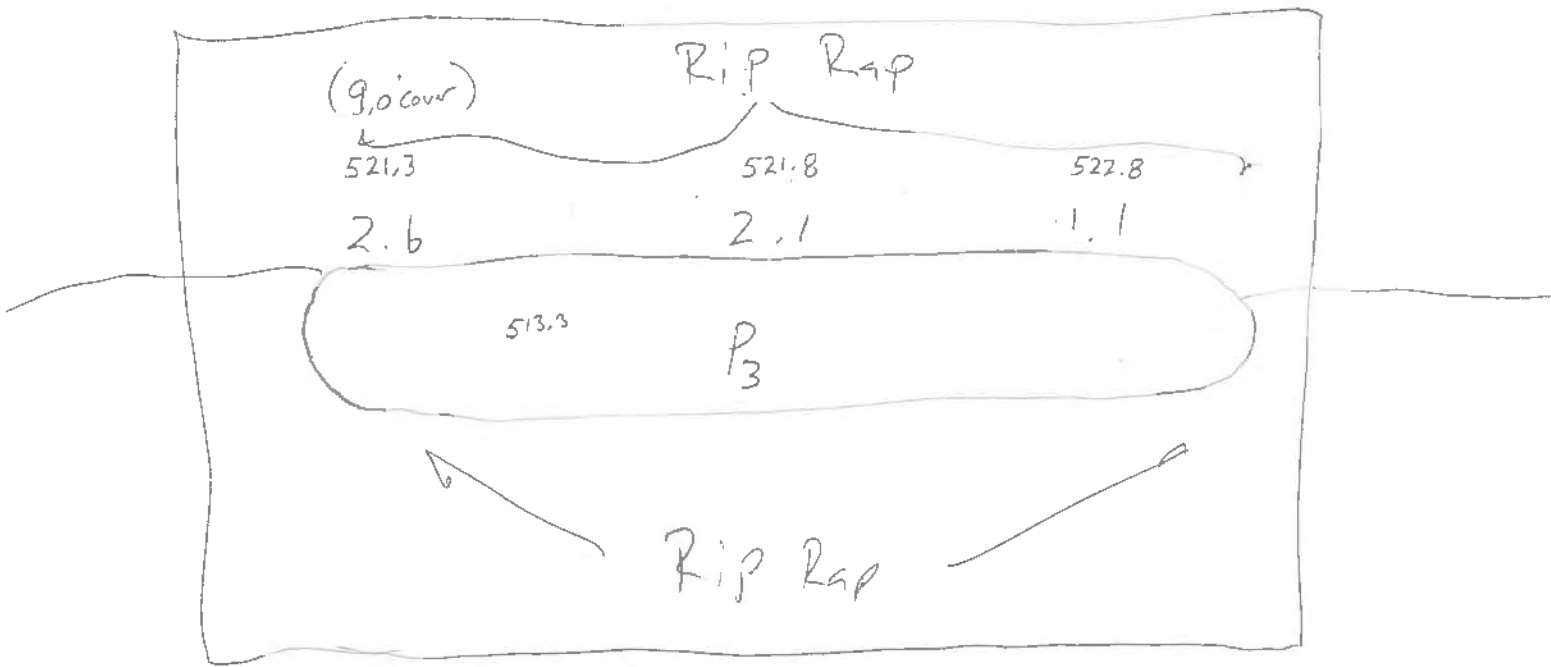
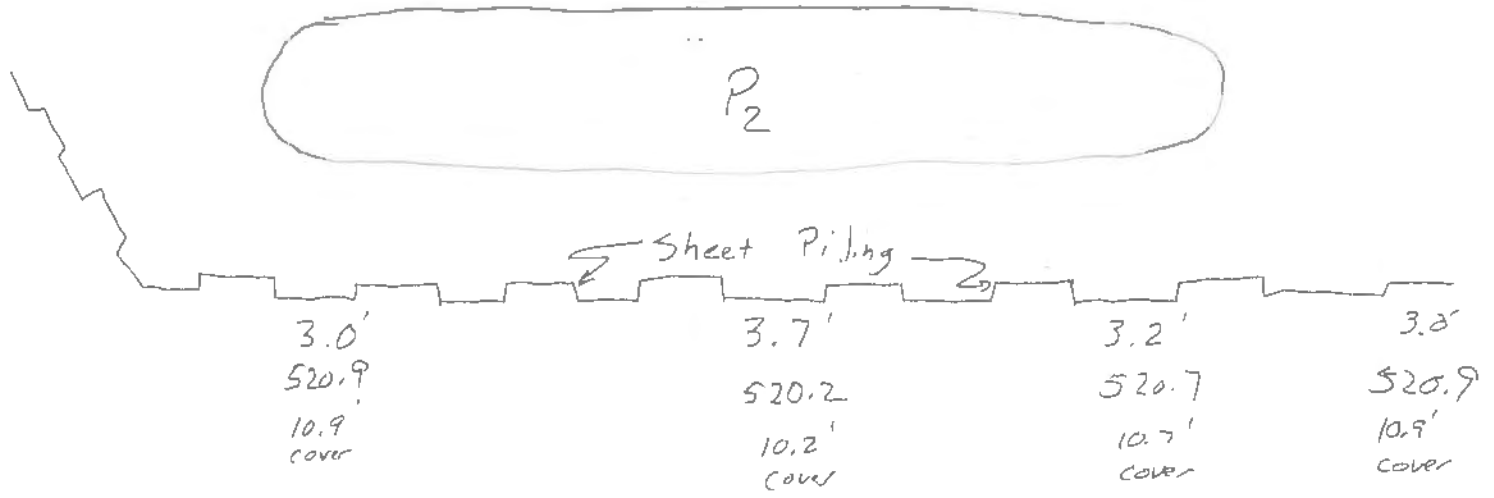
Date

Supervisor Initials

1/5/10
Date

E.B

H₂O
Elev - 523.9





Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: Municipality:
Facility Carried: I-74 East Bound Feature Crossed: Salt Fork River
Location: West of Danville
Number of Spans: 7 Material & Type: Steel Twin Girder w/ Floor Beams

Special Feature Inventory (determined and set by the BBS)

92C - Special Feature Inspection Interval: (months) 12 92C2 - Special Feature Start Date: 7/27/2009
92C1 - Special Feature Type Code:
A - Structural Damage/Steel Superstructure
B - Structural Damage/Concrete Superstructure
C - Structural Damage/Timber Superstructure
D - Structural Damage/Steel Substructure
E - Structural Damage/Concrete Substructure
F - Structural Damage/Timber Substructure
G - Underwater/Debris and/or Erodible Soil
H - Underwater/Flow Restriction or Velocity
I - Underwater/Keying of Spread Footing
J - Underwater/Large Drainage Area (> 5000 mi^2)
K - Underwater/Scour Critical Evaluation Monitoring
L - Existing Streambed Scour/Spread Footing
M - Existing Streambed Scour/Pile Supported Footing
N - Existing Streambed Scour/Pile Bent Substructure Unit
P - Embankment Movement or Settlement
Q - Substructure Movement or Settlement
R - Pin & Link in Multi-Girder (Redundant) Bridge
S - Specifically Identified Problematic Structural Details
T - Deck
Z - Other

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C - Special Feature Inspection Date: 7/18/2009

93C1 - Special Feature Condition Status:
Prev New
0 0 - Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
1 1 - Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
2 2 - No Change in Condition Noted
3 3 - Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
4 4 - Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

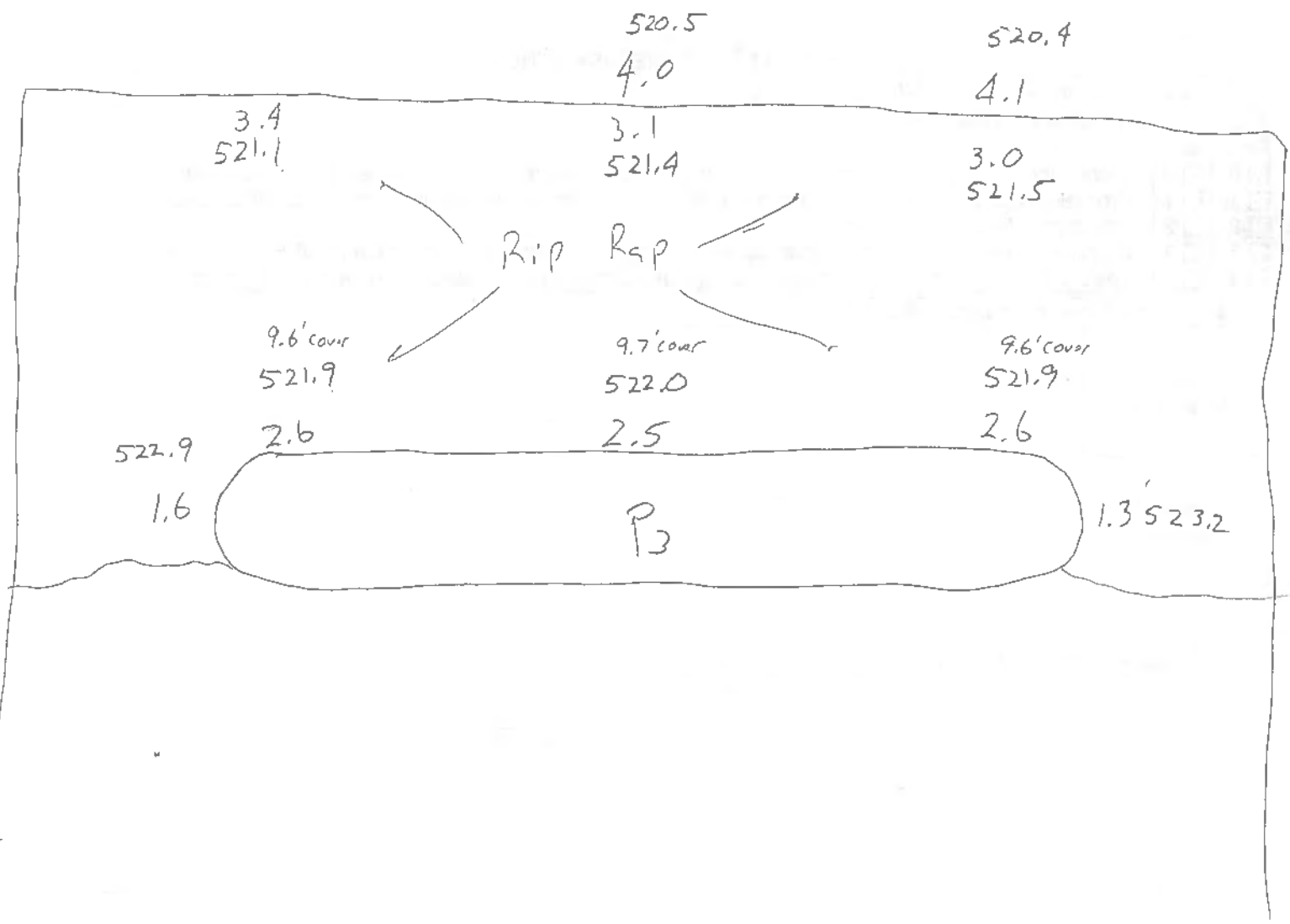
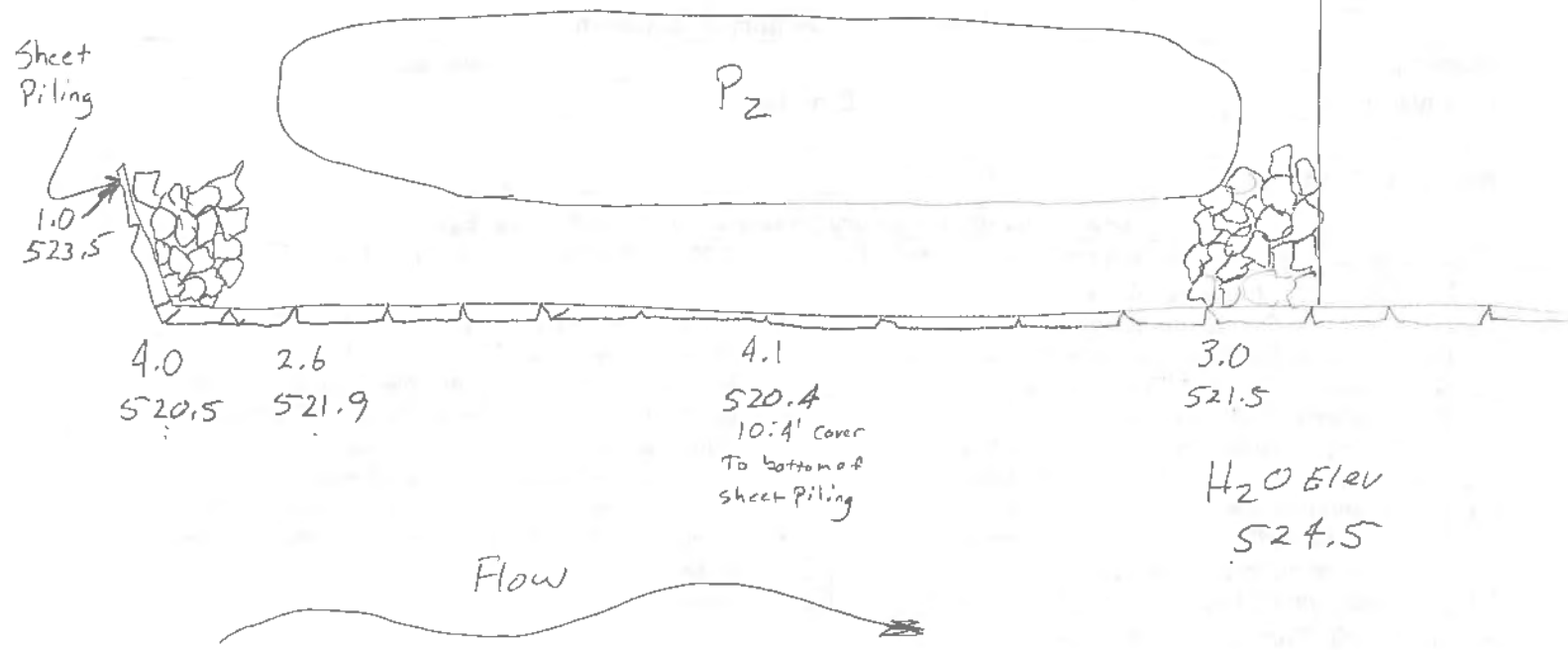
93C4 - Special Feature Inspection Remarks:

Table with 2 columns: Previous Inspection, New Inspection. Contains handwritten notes about sheet piling and scour mitigation.

93C2A - Inspection Team Leader: Shawn A. Gosh Signature Date: 7/9/09
Supervisor Initials Date: 7/9/09

E.B.
092-0006

N





Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____
Facility Carried: I-74 (EB) Feature Crossed: Salt Fork Vermilion River
Location: W. of Danville
Number of Spans: 7 Material & Type: Twin Girder / Floor Beam

Special Feature Inventory (determined and set by the BBS)

92C - Special Feature Inspection Interval: (months) 12 92C2 - Special Feature Start Date: 7/27/2004

92C1 - Special Feature Type Code:

- | | |
|---|---|
| <input type="checkbox"/> A - Structural Damage/Steel Superstructure | <input checked="" type="checkbox"/> K - Underwater/Scour Critical Evaluation Monitoring |
| <input type="checkbox"/> B - Structural Damage/Concrete Superstructure | <input type="checkbox"/> L - Existing Streambed Scour/Spread Footing |
| <input type="checkbox"/> C - Structural Damage/Timber Superstructure | <input type="checkbox"/> M - Existing Streambed Scour/Pile Supported Footing |
| <input type="checkbox"/> D - Structural Damage/Steel Substructure | <input type="checkbox"/> N - Existing Streambed Scour/Pile Bent Substructure Unit |
| <input type="checkbox"/> E - Structural Damage/Concrete Substructure | <input type="checkbox"/> P - Embankment Movement or Settlement |
| <input type="checkbox"/> F - Structural Damage/Timber Substructure | <input type="checkbox"/> Q - Substructure Movement or Settlement |
| <input type="checkbox"/> G - Underwater/Debris and/or Erodible Soil | <input type="checkbox"/> R - Pin & Link in Multi-Girder (Redundant) Bridge |
| <input type="checkbox"/> H - Underwater/Flow Restriction or Velocity | <input type="checkbox"/> S - Specifically Identified Problematic Structural Details |
| <input type="checkbox"/> I - Underwater/Keying of Spread Footing | <input type="checkbox"/> T - Deck |
| <input type="checkbox"/> J - Underwater/Large Drainage Area (> 5000 mi ²) | <input type="checkbox"/> Z - Other |

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C - Special Feature Inspection Date: 11/26/2008

93C1 - Special Feature Condition Status:

- | Prev | New | |
|---------------------------------------|---------------------------------------|---|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | - Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS) |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | - Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required) |
| <input checked="" type="checkbox"/> 2 | <input checked="" type="checkbox"/> 2 | - No Change in Condition Noted |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | - Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel) |
| <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | - Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details) |

93C4 - Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	After completion of Scour Mitigation Contract A5 RipRap is in place. Pier #2 is protected by sheet piling wall. The cover above the bottom of the sheet piling is 9.7' + greater w/ the min cover at approx. the center of the pier @ arms reach from the sheet pile wall. Pier #3 has 8.5' cover + greater w/ the min cover at arms reach from the pier along the entire length. A5 RipRap elevation quite consistent.

93C2A - Inspection Team Leader Joan Lee Signature _____ Date 11/26/08
Supervisor Initials _____ Date 12/4/08

Jason Lee 11/26/2008
24° 8-10 AM

Initial Rip Rap Evaluation following Scour Mitigation Contract

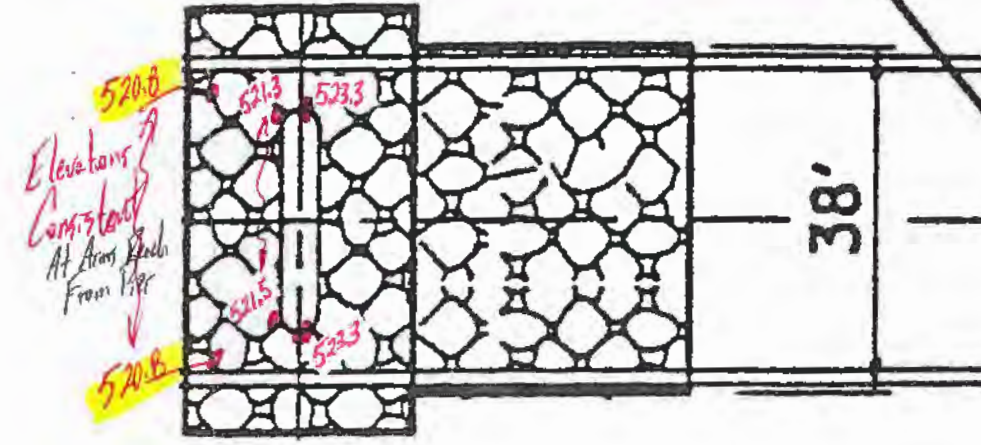
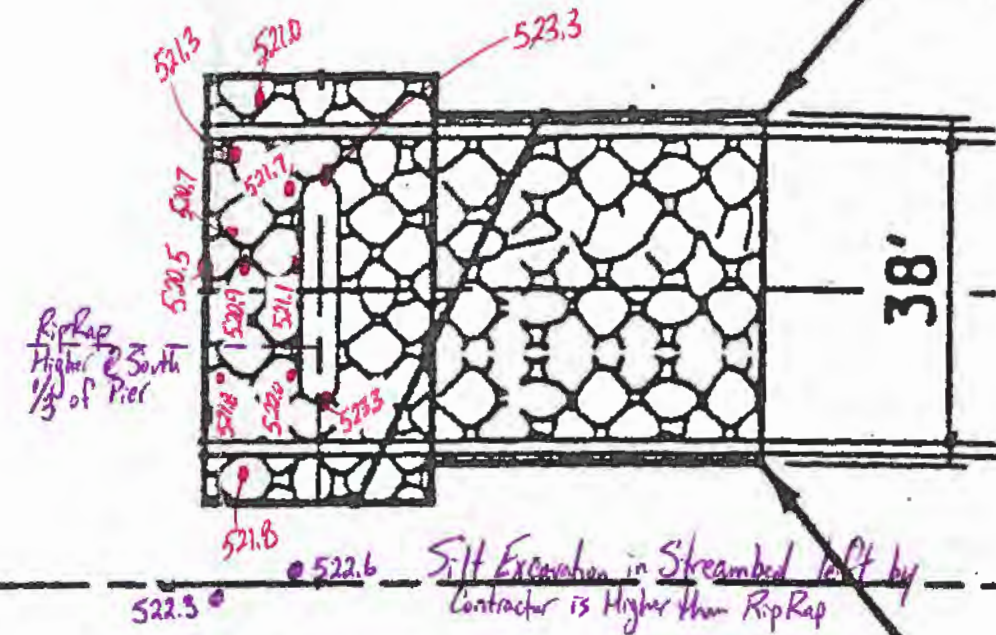
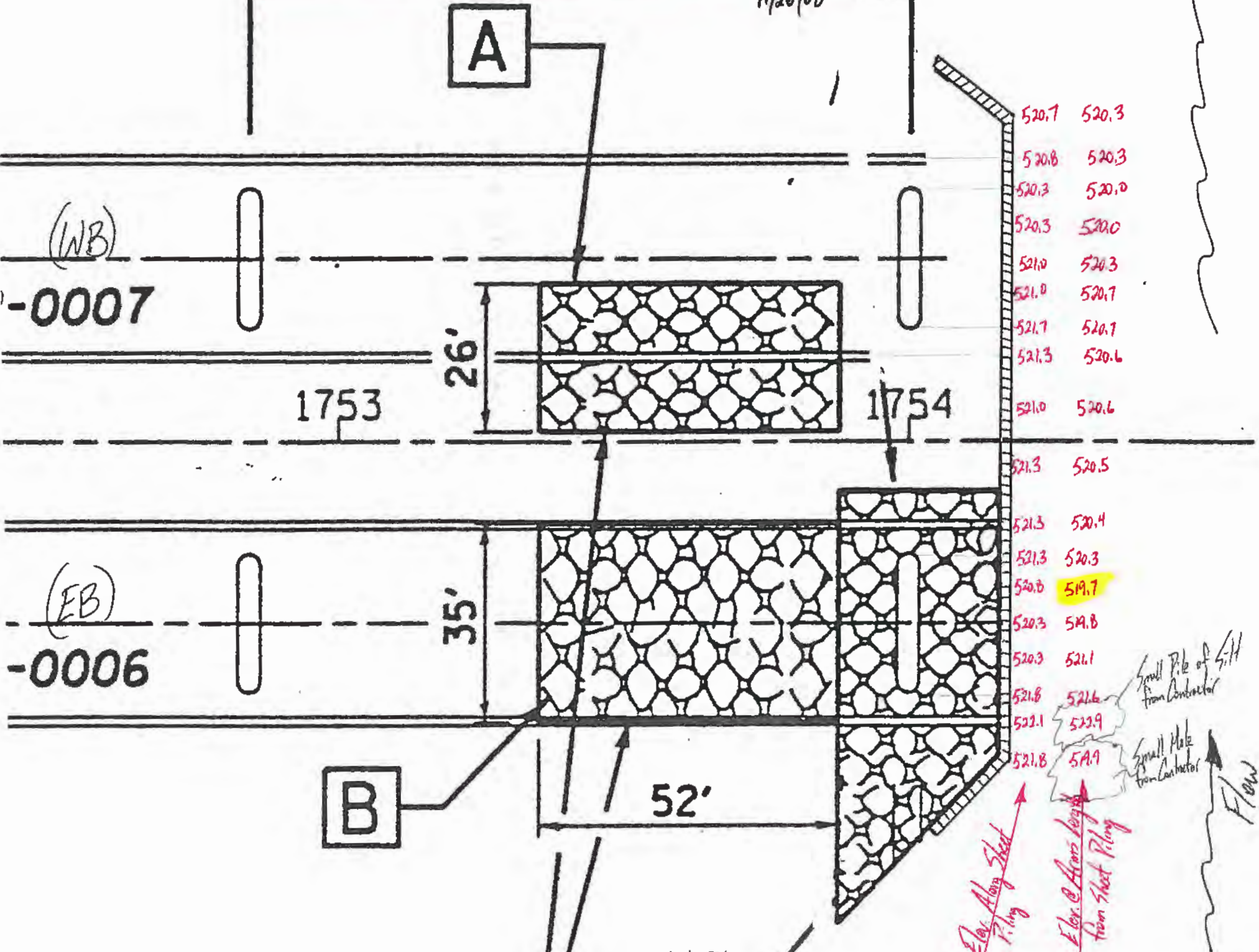
11/26/08

PIER 1

PIER 2

PIER 3

Mark on Pier 528.54
- 5.25
523.29
Water Elev. 523.3



520.7	520.3
520.8	520.3
520.3	520.0
520.3	520.0
521.0	520.3
521.0	520.7
521.7	520.7
521.3	520.6
521.0	520.6
521.3	520.5
521.3	520.4
521.3	520.3
520.8	519.7
520.3	519.8
520.3	521.1
521.8	521.6
521.1	521.9
521.8	519.9

Small Pile of Silt from Contractor
Small Mole from Contractor

SALT FORK VERMILION RIVER

STONE RIPRAP.
CLASS A-4 16"

Bottom of Sheet Piling per plan is 510.0 (As-Built Top Elevations Unknown)

Top of Footing Pier 2 = 508.34 + 3.0 = 511.34

519.7
- 511.34
8.36' → Stream is 8.36' Above Top Footing
519.7
- 510.0
9.7' Cover Above Bottom of Sheet Piling

In areas @ 0006 + 0007, the Riprap is lower than the streambed elev along the East side of the river.
∴ Expect some Siltation over the Riprap over time.

Top of Footing Pier 3 = 509.31 + 3.0 = 512.31

520.8
- 512.31
8.5' Cover + Greater @ Arms Reach from West Side of Pier



Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____
Facility Carried: 1-74 EB Feature Crossed: Soft Fork River
Location: West of Danville
Number of Spans: 7 Material & Type: Stl Cont Girder, floor beam System

Special Feature Inventory (determined and set by the BBS)

- 92C - Special Feature Inspection Interval: (months) 12 92C2 - Special Feature Start Date: 7/24/2008
92C1 - Special Feature Type Code:
[] A - Structural Damage/Steel Superstructure [x] K - Underwater/Scour Critical Evaluation Monitoring
[] B - Structural Damage/Concrete Superstructure [] L - Existing Streambed Scour/Spread Footing
[] C - Structural Damage/Timber Superstructure [] M - Existing Streambed Scour/Pile Supported Footing
[] D - Structural Damage/Steel Substructure [] N - Existing Streambed Scour/Pile Bent Substructure Unit
[] E - Structural Damage/Concrete Substructure [] P - Embankment Movement or Settlement
[] F - Structural Damage/Timber Substructure [] Q - Substructure Movement or Settlement
[] G - Underwater/Debris and/or Erodible Soil [] R - Pin & Link in Multi-Girder (Redundant) Bridge
[] H - Underwater/Flow Restriction or Velocity [] S - Specifically Identified Problematic Structural Details
[] I - Underwater/Keying of Spread Footing [] T - Deck
[] J - Underwater/Large Drainage Area (> 5000 mi²) [] Z - Other

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C - Special Feature Inspection Date: 7/17/2008

- 93C1 - Special Feature Condition Status:
Prev New
[] 0 [] 0 - Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
[] 1 [] 1 - Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
[] 2 [x] 2 - No Change in Condition Noted
[] 3 [] 3 - Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
[] 4 [] 4 - Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)

93C4 - Special Feature Inspection Remarks:

Table with 2 columns: Previous Inspection, New Inspection. Handwritten notes in the New Inspection column describe cover measurements at P2 and P3.

93C2A - Inspection Team Leader Shawn P. Cash Signature Date 7/17/08
Supervisor Initials [Signature] Date 7/21/08



Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____
Facility Carried: I-74 (EB) Feature Crossed: Salt Fork River
Location: W. of Danville
Number of Spans: 7 Material & Type: Stl Cant Girder / Floor beam system

Special Feature Inventory (determined and set by the BBS)

92C - Special Feature Inspection Interval: (months) 12 92C2 - Special Feature Start Date: 7/24/04
92C1 - Special Feature Type Code:
 A - Structural Damage/Steel Superstructure K - Underwater/Scour Critical Evaluation Monitoring
 B - Structural Damage/Concrete Superstructure L - Existing Streambed Scour/Spread Footing
 C - Structural Damage/Timber Superstructure M - Existing Streambed Scour/Pile Supported Footing
 D - Structural Damage/Steel Substructure N - Existing Streambed Scour/Pile Bent Substructure Unit
 E - Structural Damage/Concrete Substructure P - Embankment Movement or Settlement
 F - Structural Damage/Timber Substructure Q - Substructure Movement or Settlement
 G - Underwater/Debris and/or Erodible Soil R - Pin & Link in Multi-Girder (Redundant) Bridge
 H - Underwater/Flow Restriction or Velocity S - Specifically Identified Problematic Structural Details
 I - Underwater/Keying of Spread Footing T - Deck
 J - Underwater/Large Drainage Area (> 5000 mi²) Z - Other
92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C - Special Feature Inspection Date: 7/17/07
93C1 - Special Feature Condition Status:
Prev New
 0 0 - Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS)
 1 1 - Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required)
 2 2 - No Change in Condition Noted
 3 3 - Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel)
 4 4 - Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details)
93C4 - Special Feature Inspection Remarks:
Previous Inspection
New Inspection
Pier #2 has 12.0 feet of cover @ Southend. Pier #3 has 9.5' and greater cover. greater elsewhere.

93C2A - Inspection Team Leader Shannon Cash Signature _____ Date 7/17/07
Supervisor Initials SC Date 7/18/07



Structure Number: 092 - 0006

Location & Inventory Information

Maintenance County: Vermilion Township: _____ Municipality: _____
Facility Carried: I-74 (EB) Feature Crossed: Salt Fork Vermilion River
Location: W. of Danville
Number of Spans: 7 Material & Type: Twin Girders/Floor Beam

Special Feature Inventory (determined and set by the BBS)

- 92C - Special Feature Inspection Interval: (months) 12 92C2 - Special Feature Start Date: 7/27/2004
- 92C1 - Special Feature Type Code:
- | | |
|---|---|
| <input type="checkbox"/> A - Structural Damage/Steel Superstructure | <input checked="" type="checkbox"/> K - Underwater/Scour Critical Evaluation Monitoring |
| <input type="checkbox"/> B - Structural Damage/Concrete Superstructure | <input type="checkbox"/> L - Existing Streambed Scour/Spread Footing |
| <input type="checkbox"/> C - Structural Damage/Timber Superstructure | <input type="checkbox"/> M - Existing Streambed Scour/Pile Supported Footing |
| <input type="checkbox"/> D - Structural Damage/Steel Substructure | <input type="checkbox"/> N - Existing Streambed Scour/Pile Bent Substructure Unit |
| <input type="checkbox"/> E - Structural Damage/Concrete Substructure | <input type="checkbox"/> P - Embankment Movement or Settlement |
| <input type="checkbox"/> F - Structural Damage/Timber Substructure | <input type="checkbox"/> Q - Substructure Movement or Settlement |
| <input type="checkbox"/> G - Underwater/Debris and/or Erodible Soil | <input type="checkbox"/> R - Pin & Link in Multi-Girder (Redundant) Bridge |
| <input type="checkbox"/> H - Underwater/Flow Restriction or Velocity | <input type="checkbox"/> S - Specifically Identified Problematic Structural Details |
| <input type="checkbox"/> I - Underwater/Keying of Spread Footing | <input type="checkbox"/> T - Deck |
| <input type="checkbox"/> J - Underwater/Large Drainage Area (> 5000 mi ²) | <input type="checkbox"/> Z - Other |

92C5 - Special Feature Type Remarks:

SPECIAL FEATURE INSPECTION

93C - Special Feature Inspection Date: 5/22/2007

93C1 - Special Feature Condition Status:

- | Prev | New | |
|----------------------------|---------------------------------------|---|
| <input type="checkbox"/> 0 | <input type="checkbox"/> 0 | - Worsening Condition Indicative of Imminent Structural Failure (closure required pending follow-up by BBS) |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 1 | - Progression of Deterioration or Worsening of Condition Noted (immediate follow-up by BBS required) |
| <input type="checkbox"/> 2 | <input checked="" type="checkbox"/> 2 | - No Change in Condition Noted |
| <input type="checkbox"/> 3 | <input type="checkbox"/> 3 | - Corrected Condition Noted (SF inspections no longer required after verification by BBS personnel) |
| <input type="checkbox"/> 4 | <input type="checkbox"/> 4 | - Feature Determined to be in Adequate Condition (primarily for monitoring problematic structural details) |

93C4 - Special Feature Inspection Remarks:

Previous Inspection	
New Inspection	<i>Pier #2 has 12.0' of cover and greater w/ min cover @ the South End. The cover above the bottom of the sheet piling is 9.9' with min cover @ SE corner. Pier #3 has 9.4' of cover and greater w/ min. cover at the South End. & greater</i>

93C2A - Inspection Team Leader J. Lee Jason A. Lee Signature 5/22/2007 Date

J. Lee S. Conklin 2 R. J. Supervisor Initials 5/29/07 Date

Structure Number ___ - ___

Comments:

Mark on Pile 528.54 - 4.63 = 523.91 = Water Elev.

PIER #3 East Bank
1-2.2' Below Water Line
No RipRap

523.91
- 2.2
521.71

Top Pier #3 = 509.31 + 3.0 = 512.31 = Top Footer

Cover = 521.71 - 512.31 = 9.4'
PIER #3



Along Sheet Piling 2.5-3.5 below Waterline
PIER #2 WEST BANK
527.1
Ground Shot 523.3
Sheet Pile
4.0

Streambed Elev. along Sheet Piling 523.91

- 4.0
519.91 @ SE Corner

Cover above bottom of Sheet Piling = 519.91 - 510.0 = 9.9'

Top Pier #2 = 508.34 + 3.0 = 511.34 = Top Footer

Cover = 523.3 - 511.34 = 11.96'
PIER #2

(continue comments on additional pages as needed)

Inspection Resource Needs:

Time to inspect (H:M): ___ : ___

Traffic Control: Yes No

Equipment: Boat Waders Snooper Manlift Ladder short medium tall

Other: _____



SN: 092-0006	District: 5	Spans: 7	Appr. Spans: 2	Skew: 0	ADT: 40800	Truck Pct: 32
ADT Un:	Maint. Co: VERMILION	Twsp: DANVILLE		Status: OPEN, NO RESTRICTIONS		
Facility Carried: I-74 (EB)			Feature Crossed: SALT FORK VERM RIVER			
Location: W OF DANVILLE		Municipality:		Team/Sub Section: 542/740		Insp/Rte: 000
Bridge Name:			Material & Type: STEEL CONTINUOUS/DECK GIRDER			
Insp. Intervals Routine: 24		Fracture Critical: 24		Underwater: 0		Special: N/A
93A - Inspection Date: 9/9/15		93A4 - Temp. (°F): 80°				
Is Delinquent:		Reason:				
90A - Agency Program Manager: K. Woods			90A3 - Consultant Program Manager:			
93A3 - Team Leader: Jason Lee		93A5 - Inspector: Shawn Conklin + Chris Burscher				

Resources

Time to Inspect(H:M): 10:0	10:00	Traffic Control: 3	3	Boat:		Waders:		Snooper: S	S	
Ladder:		Manlift:		Bucket Truck:		Other: ISP GABZ Patrols	ISP GABZ Patrols			

Inspector's Appraisals

92A1 - Type A3 If "X4-Other": _____

93A1-Rating: Prev. 5 New 5 FC Method: Pr V New: MP DP UT V

93A2 - Remarks: SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)

See attached report (2015) Jason Lee 9/9/15

	Signature	Date
Inspection Team Leader:	<i>Jason Lee</i>	9/9/15
Consultant Program Manager:		1/1
Agency Program Manager:	<i>K. Woods</i>	9/17/15

- | | | | |
|--|--|---|---|
| <p>Two Girder</p> <ul style="list-style-type: none"> A1 - Suspension Link & Pin A2 - Suspension Single Pin A3 - Tension Flanges Riveted/Bolted Plate Girders A4 - Bearing Seat of Suspended Spans A5 - Tension Flange of Rolled Beam A6 - Tension Flange of Welded Plate Girders A7 - Tension Flanges of Lattice Truss Web Girders | <p>Truss Systems</p> <ul style="list-style-type: none"> B1 - Eyebars & Pin Tension Members B2 - Simple Span Welded Truss Tension Members B3 - Hanger Link & Pin of Suspended Trusses B4 - Single Element Tension Members B5 - Simple Span Riveted/Bolted Tension Members B6 - Continuous Truss System - Welded, Riveted or Bolted Tension Members | <p>Cable Stayed & Suspension</p> <ul style="list-style-type: none"> C1 - Suspension Bridge - Cables C2 - Cable Stayed - Cables <p>Tied Arches</p> <ul style="list-style-type: none"> D1 - Welded Box Ties D2 - Riveted/Bolted Box Ties D3 - Stiffened Girders <p>Framed Steel Substructure</p> <ul style="list-style-type: none"> E1 - Welded or Rolled Pier Cap E2 - Riveted or Bolted Pier Cap E3 - Welded or Rolled Pier Column | <p>Box Beams</p> <ul style="list-style-type: none"> F1 - Single Welded Box F2 - Single Riveted/Bolted Box F3 - Double Box Beam - Welded, Riveted or Bolted <p>Other Types</p> <ul style="list-style-type: none"> X1 - Bascule X2 - Floorbeams supporting other steel members or spacing > 15 ft. X3 - Cross Frames or Transfer Beams X4 - Other |
|--|--|---|---|

Historical Remarks

Inspection Date	Type	Remarks
10/11/90	A3	INSPECTION SHOWED RELATIVELY GOOD CONDITION. ONLY CURRENT PROBLEM INVOLVED TACKWELDS IN TENSILE AREAS. TWO TACK WELDS HAVE CRACKED AND SHOULD BE GROUND AND DIE PENETRATED. OTHERS WILL BE REMOVED DURING UPCOMING CONSTRUCTION CONTRACT.
12/01/93	A3	SEE INSP. REPORT FOR DETAILS.
01/21/99	A3	INSPECTION NOTES ON PAGES 137 -139 OF BRIDGE FIELD NOTES BOOK #5, SEE ATTACHED REPORT
01/21/04	A3	SEE INSPECTION NOTES IN BRIDGE FIELD NOTES BOOK #6
11/08/05	A3	LOWERED DUE TO WIDESPREAD PAINT FAILURE AND RUSTING. SEE FRACTURE CRITICAL FILLE FOR FULL REPORT AND PHOTOS.
10/17/07	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS.
09/17/09	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)
09/08/11	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)
09/05/13	A3	SEE FRACTURE CRITICAL FILE FOR FULL REPORT AND PHOTOS. LOWERED DUE TO AREAS OFF RUST SCALING / PITTING WITH SECTION LOSS THAT MAY AFFECT THE STRUCTURAL CAPACITY OF INDIVIDUAL MEMBERS.(09)

FRACTURE CRITICAL INSPECTION

092-0006 I-74 EB

September 8th and 9th, 2015

- Inspected by: Jason A. Lee and Shawn D. Conklin
- Equip. used: Springfield's 2008 A-62 Aspen under bridge inspection truck
Operated by Paul Carpenter of the State-Wide Bridge Crew
- Structure: 7 Spans, 2 Riveted Plate Girders with Floor Beams and Cross Members.
- Logistics: Access was accomplished using the Central Bureau's 2008 A-62 Aspen under bridge inspection truck. WBPL & EBPL interstate lane closures were set by Danville Storage in accordance with case number WZ 42 of the Operations Work Site Protection Manual. We closed the passing lanes to also allow the Bridge Crew to be able to fix a median erosion problem along the vaulted abutment wings at the east abutment of both structures. The A-62 hoist works off both sides of the truck chassis; therefore utilization of the passing lanes worked out well. Illinois State Police GABZ Patrols were also utilized to enforce speed limits on the traveling public.
- Inspection: All tensile areas of the Fracture Critical Riveted Plate Girders were visually inspected at arms length. The tensile areas include the bottom half of the girders in simple spans, the top half of the girders for 30' each side of the piers in the continuous spans (30' is at the splice location), and the bottom half of the girders for 60' in the middle of the continuous spans. Emphasis was placed on the documented tack welds between the web plate and flange-to-web connection angle in the tensile zones, splice connections, cross-brace connections to the main girders, and out of plane bending. Tack welds in tension zones were supposed to have been ground off during the structure rehabilitation in 1992. In most cases the top of the weld was ground off but the bond between members was not severed. In the remaining cases the welds were not touched at all. The last several years, a greater emphasis has been placed on the six "shop web splices". These splices have a 3/8" filler plate on the vertical portion (web portion) of the flange-to-web connection angle. Pack rust has started to develop in the corners of the fill plates.

Findings: The attached diagram, field notes, and photos show areas of interest that have been documented by District 5 forces during Fracture Critical Inspections since 1990. Each area of interest is lettered with a description of the observations. Pictures of various points of interest are also attached and lettered to match the diagram when appropriate.

Throughout the structure various bends, nicks, and gouges can be found on the girders. These imperfections were most likely caused during fabrication, transportation, or erection of the members during original construction. These imperfections have been in service since 1962 with no documented problems. The most severe cases have been documented in this report, with no evidence of distress in the field to date. These locations will continue to be closely monitored in subsequent inspections.

The failure of the paint system continues to play an increasing larger role in the overall condition of this structure. In localized areas, deterioration has grown beyond surface rust and developed into areas of pitting, scaling, or pack rust. The most notable locations of deterioration are at the locations of the six “shop web splices”. These splices have a 3/8” filler plate on the vertical portion (web portion) of the flange-to-web connection angle. Moderate to heavy pack rust has developed in the corners behind the fill plates. This condition is worse on the splice on the outside of the girders. The side of the splice on the inside of the girders is protected more from the elements and is therefore in better condition. Since the 3/8” filler plates have little to do with the structural capacity of the members, the main concern is the extent of the deterioration to the flange-to-web connection angle behind the 3/8” fill plate. After heavy scraping by inspectors, it appears that section loss of the flange-to-web connection angle is minor. The majority of the pack rust appears to be created from the 3/8” fill plate as evidenced by the “fanning” of the fill plate. A portion of the surface of the flange-to-web connection angle behind the 3/8” fill plate has rust scaling, but no major pitting at this time. No broken rivets have been found to date.

Another area of deterioration is in the west end of span 1 in the outside of the south girder over pier 1 (location “F”). The lower corner of the web exhibits paint failure and moderate section loss / pitting. The area of pitting is bowl shaped and relatively small at this time, too small to get an accurate thickness measurement. Rust scaling at this location was cleaned up in 2009 to limit the collection of moisture. No further scaling or deterioration was found in 2011. In 2013, inspectors cleaned and sealed the web pitting with silicone caulking to shed water and stop deterioration. The caulking was performing well and looked good at the 2015 inspection.

The most significant locations of section loss are on the top of the bottom flange on the outside of the south girder along the west end of the east field splice in spans 4 & 5 (diagram locations “T” and “BB”). It appears that water and

moisture may run down the girder flange and rest against the west edge of the splice plate. The depth of deterioration at location “T” in span 4 was measured at 3/16”, which calculates to be 3.7% section loss. The deterioration at location “BB” is not as deep. In 2009 at location “T”, inspectors cleaned the area and applied caulking to keep water and moisture from collecting and to slow the rate of deterioration. In 2015 at location “T”, the existing caulking looked good and completely secure with no evidence of peeling along the edges. There is no more evidence of collecting moisture. Paint failure at adjacent areas will continue to allow surface rust, however deterioration has been stopped at the most critical location. In 2011, inspectors cleaned and applied caulking at location “BB” to shed water and slow the rate of deterioration. In 2015 at location “BB”, it is evident that rust is starting to create a small location of separation between the rivet head and silicone. The silicone bond failure has crept down to the bottom flange. Future silicone repair may be necessary, but the location of pitting along the bottom flange is still protected from moisture at this time. Pitting of a similar nature was also found on the outside of the north girder along the west end of the west field splice in span 5 (diagram location “LL”). In 2013, inspectors cleaned and sealed location “LL” with silicone caulking to shed water and stop deterioration. In 2015 the caulking looked good at location “LL”. These areas will be closely monitored during subsequent fracture critical inspections.

This structure exhibits additional riveted splices that are not shown in the original plans and are areas of special interest. Diagram location “U” (outside of south girder, span 4) has an extra riveted splice of the top flange east of the east field splice between the 1st & 2nd floor beams west of pier 4. This extra splice in the top flange is for the flange-to-web connection angle. The extra splice appears to be a shop or field repair, potentially damaged from a flood in the early 60’s during construction that damaged some structural steel. This extra riveted splice is found on the outside of the girder only and holds a 10’-9” piece of top flange-to-web connection angle. The limits of the 10’-9” piece of top flange-to-web connection angle are marked with blue paint in the photographs. The inside of the girder does not have the extra splice, therefore it is evident that the flange-to-web connection angle on the inside of the girder was not in need of repair and was built according to plan.

Diagram location “V” & “W” (outside and inside of south girder, span 5) has extra riveted splices of the top flange west of the west field splice between the 1st & 2nd floor beams east of pier 4. These extra splices in the top flange are for the flange-to-web connection angle and for the main steel top flange plate. The extra splices appear to be a shop or field repair, potentially damaged from a flood in the early 60’s during construction that damaged some structural steel. These extra riveted splices are found on both the inside and outside of the girder. The bolted field splice is also slightly longer / modified from the original plans. The additional riveted splices and the modified bolted field splice hold a 7’-4” piece of the main top flange plate, a 12’-6” piece of top flange-to-web connection angle on the outside of the girder, and a 14’-8” piece

of top flange-to-connection angle on the inside of the girder. The limits of the 7'-4" piece of main top flange plate are marked with white paint in the photographs. The limits of the 12'-6" & 14'-8" pieces of outside and inside top flange-to-web connection angle are marked with orange paint in the photographs. In 2015, inspectors marked the limits of the outside flange-to-web angle splice on the inside of the beam to see the splice locations on the inside relative to the outside. The inside splice locations are marked with an "I" and the outside splice locations are marked with an "O". These can be seen in photos for location/item "W".

It should be noted that the extra riveted splices at locations "U", "V", & "W" and the adjacent bolted field splices have numerous tack welds between the top flange plates. No cracked welds were found, however the top half of the girders is in the tension zone at these locations and the tack welds will continue to be monitored during subsequent inspections.

The District 5 Bridge Crew replaced the joint at Pier 1A in the summer of 2006 with polymer nosing and silicone. The wide joint and large movements have made it difficult for the silicone to perform maintenance-free. Joint opening has typically been 3"-3½" at inspection time and sees a significant amount of expansion and contraction throughout the year. The performance of the silicone has been fair with a few holes and tears. This joint receives routine maintenance. The current joint is performing better than the old block and bladder joint. The efforts of the District Bridge Crew have greatly reduced leakage at this joint.

In 2015, two hanger rod locations that support the cross bracing were in need of repair. In Span 1A, the 4th hanger rod from the west was broken and was replaced by inspectors and the D-5 Bridge Crew. In Span 1, the 1st hanger rod from the west (5th hanger rod overall) was loose and was tightened by inspectors and the D-5 Bridge Crew. The Bridge Crew has hanger rod replacements ready to go and stored in Tuscola.

The poor attempt at removing the tack welds during the 1992 rehabilitation, has made inspection of the tack welds more difficult. The bond between members was not broken and the paint in the immediate area near the tack welds was disturbed. These areas are now starting to surface rust. No cracks or broken tack welds were found at this time.

All other minor problems or deficiencies are shown and discussed in the attached diagram, field notes, and photos. Tensile zones and the documented points of interest will continue to be monitored during future Fracture Critical Inspections.

Conclusions: While no major changes have taken place since the last inspection, the failure of the paint system has resulted in localized areas of scaling and minor to moderate pitting that could affect the structural capacity of individual members but not of the overall structure – most notably at the “shop web splices” and on the top of the bottom flange on the outside of the south girder along the west end of the east field splice in spans 4 & 5 (diagram locations “T” and “BB”). The Fracture Critical Appraisal Rating (Item No. 93A1) is a “5” = “Fair – Rust scaling/pitting and/or minor nicks or gouges indicating measureable section loss which may affect structural capacity of individual members but not of the overall structure.”

The percent section loss of the bottom flange in span 4 (location “T”) is calculated at 3.7%, keeping the rating in the “5” category.

Pack rust at the “shop web splices” has not broken any rivets. No cracks or distresses were found in main members at nicks, gouges, or tack welds.

Fracture Critical Bridge Field Notes & Photos

092-0006 I-74 EB

- A. 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 1A – Gouge in web approx. 10” long. No distresses evident.
- B. 2007 / 2009 / 2011 / 2013 / 2015 Span 1A – High volume of tack welds between the bottom flange angle and the web. None have been ground out. Tension zone in Span 1A is bottom half of girder for the entire length of Span 1A (simple span). Continue to monitor.
High volume of tack welds applies to:
 - S. Girder – Outside mostly (Inside has few tack welds)
 - N. Girder – Outside & InsidePhotos also show a short vertical gouge in the outside web of the S. Girder near Pier 1A. No distresses found.
- C. 2009 / 2011 / 2013 / 2015 Shop Web Splice #7 – S. Girder Span 1A – Little to no rust in corners of the 3/8” fill plates at bottom of web on both the inside and outside of the girder. No broken rivets.
- D. 2009 / 2011 / 2013 / 2015 Shop Web Splice #8 – N. Girder Span 1A – Little to no rust in corners of the 3/8” fill plates at bottom of web on both the inside and outside of the girder. No broken rivets.
- E. 2005 / 2009 / 2011 / 2013 / 2015 N. Girder over Pier 1A – Loose bolt in horizontal gusset plate to bottom flange of floor beam.
- F. 2009 / 2011 / 2013 / 2015 Outside S. Girder over Pier 1A – West end of Span 1 – Paint failure and web section loss in lower corner. Small bowl shaped section loss, could not get thickness measurement. After chipping away loose paint and rust scale in 2009, deterioration has slowed / stopped. Inspectors cleaned and sealed the web pitting with silicone caulking to shed water and stop deterioration on 9/6/13. Caulking looked good in 2015.
- G. 1993/2004/2005/2007/2009/2011/2013/2015 Shop Web Splice #9 – S. Girder Span 1 – Moderate pack rust in the west corner of the outside 3/8” fill plate at bottom of web. Little to no rust in corners of the inside 3/8” fill plate at bottom of web. No broken rivets.
- H. 1993/2004/2005/2007/2009/2011/2013/2015 Shop Web Splice #10 – N. Girder Span 1 – Heavy pack rust in the corners of the outside 3/8” fill plate at bottom of web. After heavy scraping by inspectors, it appears that section loss of the flange-to-web connection angle is very minor. The majority of pack rust appears to be created from the 3/8” fill plates as evidenced by the “fanning” of the fill plate. No broken rivets found. The inside 3/8” fill plate exhibits little to no rust in the corners.
- I. 2009 / 2011 / 2013 / 2015 Inside N. Girder Span 1 – 1st box east of pier 1 – Typical paint failure.
- J. 2009 / 2011 / 2013 / 2015 Pier 1A – New concrete diaphragms between concrete columns. Day Labor removed and replaced the existing diaphragms in October 2007.

- K. 2009 / 2011 / 2013 / 2015 Inside N. Girder Span 1 – Web gouges / deformations – 2nd box west of pier 1 – no distresses found.
- L. 2009 / 2011 / 2013 / 2015 Inside N. Girder Span 1 – Web gouges / deformations – 1st box west of pier 1 – no distresses found.
- M. 2009 / 2011 / 2013 / 2015 Inside N. Girder Span 1 – Top flange 1st box west of pier 1. Scrapped away scratch in paint to ensure there is not a crack. Continue to monitor.
- N. 2004 / 2009 / 2011 / 2013 / 2015 Inside S. Girder Span 2 – 4th vertical stiffener on inside from pier 1 has slight bend. Approximately 1” out of plane.
- O1. 2011 / 2013 / 2015 Outside N. Girder Span 2 over Pier 2 – Gouges in top flange just west of pier 2 – no distresses found.
- O2. 2009 / 2011 / 2013 / 2015 Outside N. Girder Span 3 over Pier 2 – Gouges in top flange just east of pier 2 – no distresses found.
- P. 1990 / 2011 / 2013 / 2015 Inside S. Girder Span 3 – Bottom flange inside edge at midspan is rough with spotty slag laminations. No problems evident.
- Q. 2005 / 2013 / 2015 Outside N. Girder Span 5 – Outside edge of bottom flange just east of pier 4 – slight gouge in bottom plate. This is in the compression zone. No problems evident.
- R. 1990 / 2011 / 2013 / 2015 N. Girder Span 5 – Several gouges, nicks, and dents in top flange +/- ¼” deep – inside edge of top flange 2’ and 5’ east of centerline of bearing at pier 4. No distresses evident. Continue to monitor.
- S. 2004 / 2009 / 2011 / 2013 / 2015 Span 5 – 2nd bottom transverse cross member east of pier 4 (below 4th floor beam from pier 5) has a cut in the top angle. Does not appear to be getting larger or be causing any problems.
- T. 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 4 – 3/16” Section loss on top of bottom flange at the west end of the east field splice. In 2009, inspectors cleaned the area and applied caulking to keep water from pooling and to slow the deterioration. In 2011, 2013, and 2015 the existing caulking looked very good and completely secure with no evidence of peeling along the edges. No additional maintenance was needed at this time. No more evidence of collecting moisture. Paint failure at adjacent areas will continue to surface rust, however the deterioration has been stopped at the most critical location.
- U. 1990/2007/2009/2011/2013/2015 S. Girder Span 4 – Extra riveted splice of the top flange east of the east field splice between the 1st & 2nd floor beams west of pier 4. This extra splice in the top flange is for the flange-to-web connection angle. The extra splice appears to be a shop or field repair, potentially damaged from a flood in the early 60’s during construction that damaged some structural steel. This extra riveted splice is found on the outside of the girder only and holds a 10’-9” piece of top flange-to-web connection angle. The limits of the 10’-9” piece of top flange-to-web connection angle are marked with blue paint in the photographs. The inside of the girder does not have the extra splice, therefore it is evident that the flange-to-web connection angle on the inside of the girder was not in need of repair and was built according to plan.

Also note the numerous tack welds between the top flange plates at both the bolted field splice and extra riveted splice. This is in the tension zone – continue to monitor.

- V. 1999/2007/2009/2011/2013/2015 Outside S. Girder Span 5 – Extra riveted splice of the top flange west of the west field splice between the 1st & 2nd floor beams east of pier 4. This extra splice in the top flange is for the flange-to-web connection angle and for the main steel top flange plate. The extra splice appears to be a shop or field repair, potentially damaged from a flood in the early 60's during construction that damaged some structural steel. This extra riveted splice is found on both the inside and outside of the girder. The bolted field splice is also slightly longer / modified from the original plans. The additional riveted splice and the modified bolted field splice hold a 7'-4" piece of the main top flange plate, a 12'-6" piece of top flange-to-web connection angle on the outside of the girder, and a 14'-8" piece of top flange-to-web connection angle on the inside of the girder. The limits of the 7'-4" piece of main top flange plate are marked with white paint in the photographs. The limits of the 12'-6" & 14'-8" pieces of outside and inside top flange-to-web connection angle are marked with orange paint in the photographs. In 2015, inspectors marked the limits of the outside flange-to-web angle splice on the inside of the beam to see the splice locations on the inside relative to the outside. The inside splice locations are marked with an "I" and the outside splice locations are marked with an "O". These can be seen in photos for item "W".
- Also note the numerous tack welds between the top flange plates at both the bolted field splice and extra riveted splice. This is in the tension zone – continue to monitor.
- W. 1999/2007/2009/2011/2013/2015 Inside S. Girder Span 5 – Extra riveted splice of the top flange west of the west field splice between the 1st & 2nd floor beams east of pier 4. See description in "V" above. Spliced portion of top flange-to-web connection angle is slightly longer on the inside compared to the outside (approx. 14'-8" vs. 12'-6"). In 2015, inspectors marked the limits of the outside flange-to-web angle splice on the inside of the beam to see the splice locations on the inside relative to the outside. The inside splice locations are marked with an "I" and the outside splice locations are marked with an "O".
- Also note the numerous tack welds between the top flange plates at both the bolted field splice and extra riveted splice. This is in the tension zone – continue to monitor.
- X1. 2009 / 2011 / 2013 / 2015 Inside S. Girder Span 5 – 1st box east of Pier 4 – Typical Paint Failure.
- X2. 2011 / 2013 / 2015 Inside S. Girder Span 5 – 2nd box east of Pier 4 – Typical Paint Failure.
- Y. 1990 / 2011 / 2013 / 2015 Inside S. Girder Span 5 – Gouges in top flange inside edge just east of pier 4. Not causing any problems. No distresses evident. Continue to monitor. See item "QQ" for top flange gouges on outside edge of beam at pier 4.
- Z. 1990 / 2011 / 2013 / 2015 S. Girder Span 5 - 1st floorbeam east of pier 4 – loose bolt. Bolt does not move, but was clearly not fully tightened. Based on paint color, this floorbeam is a 1962 original and was not replaced in 1992. No problems.
- AA. 1990 / 2011 / 2013 / 2015 Inside S. Girder Span 5 – 2nd floorbeam east of pier 4 – Three (3) broken tack welds ground out with dye penetrant test conducted in 1990. The first tack weld was between the web stiffener and top flange-to-web connection angle. The second tack weld was between the web stiffener and the web plate. The third tack weld was between the top flange-to-web connection angle and the web plate. These areas have a different grinding pattern and a

different color touch up paint from the tack welds ground out in the 1992 rehab. Cracks found NOT to extend into the flange-to-web connection angle or web of the main girder.

- BB. 2009 / 2011 / 2013 / 2015 Outside S. Girder Span 5 – 1/8” Section loss on top of bottom flange at the west end of the east field splice. Section loss not as bad as same location in Span 4 discussed as item “T”. After noting the success of the 2009 caulking protection in Span 4 item “T”, inspectors cleaned the area and applied caulking in 2011 to keep water from pooling and to slow the deterioration. In 2015 the existing caulking looked fair, and may be in need of repair during the 2017 inspection. Rust has started to create a small location of separation between the rivet head and silicone and the separation has crept down to the bottom flange. Inspectors do not believe repair is required at this time. The location of pitting along the bottom flange is still protected from moisture. Continue to monitor during future inspections.
- CC. 1993/2007/2009/2011/2013/2015 Shop Web Splice #11 – S. Girder Span 6 – Minor to moderate pack rust in corners of the outside 3/8” fill plate at bottom of web. Little to no rust in corners of the inside 3/8” fill plate at bottom of web. No broken rivets.
- DD. 1993/2007/2009/2011/2013/2015 Shop Web Splice #12 – N. Girder Span 6 – Heavy pack rust in the west corner of the outside 3/8” fill plate at bottom of web. Moderate to heavy pack rust in the east corner. After heavy scraping by inspectors, it appears that section loss of the flange-to-web connection angle is very minor. The majority of pack rust appears to be created from the 3/8” fill plates as evidenced by the “fanning” of the fill plate. No broken rivets found. The inside 3/8” fill plate exhibits little to no rust in the corners.
- EE. 2011 / 2013 / 2015 Inside S. Girder Span 2 – Gouges, nicks, and dents in bottom flange inside edge near midspan. Causing no problems to date. No distresses evident.
- FF. 2011 / 2013 / 2015 Outside & Inside N. Girder Span 3 – inside 1st box east of pier 2 – Extra hole in top flange-to-web connection angle under floorbeam. Incorrectly placed hole, as there are no rivets directly under floorbeams. Extra hole not causing any problems. No distresses evident.
- GG. 2011 / 2013 / 2015 Inside N. Column Pier Cap Pier 3 – Honeycomb above top concrete diaphragm. In place since construction in 1962. Depth 1”-2”. Location is protected from the elements. No moisture or rust staining evident.
- HH. 2011 / 2013 / 2015 Outside & Inside N. Girder Span 6 – East of Pier 5 and West of West field splice. Extra holes in web portion of the outside and inside top flange-to-web connection angles. No hole in web plate. Extra holes not causing any problems. No distresses evident.
- II. 2011 / 2013 / 2015 Outside N. Girder over Pier 4 – Gouges in top flange directly above pier 4. No distresses evident. Continue to monitor.
- JJ. 2011 / 2013 / 2015 Inside S. Girder Span 4 – 3rd vertical stiffener on inside west of pier 4 has slight bend. Approximately 1” out of plane.
- KK. 2013 / 2015 Inside S. Girder Span 4 – horizontal and vertical web gouges / deformations – east of 3rd vertical stiffener west of pier 4 – no distresses found.
- LL. 2013 / 2015 Outside N. Girder Span 5 – Pitting on top of bottom flange at the west end of the west field splice. Pitting not as bad as location in Span 4 discussed as item “T” or Span 5 item

“BB”. After noting the success of the 2009 and 2011 caulking protection of items “T” and “BB”, inspectors cleaned the area and sealed with silicone caulking in 2013 to keep water from pooling and to slow the deterioration. Caulking looked good in 2015. Continue to monitor during future inspections.

- MM. 2015 Span 1A – 4th hanger rod from the west supporting the cross bracing is broken. Replaced by inspectors and the D-5 Bridge Crew. The Bridge Crew has hanger rod replacements ready to go and stored in Tuscola.
Span 1 – 1st hanger rod from the west (5th hanger overall) supporting the cross bracing is loose. Hanger rod was tightened by inspectors and the D-5 Bridge Crew.
- NN. 2015 S. Girder at Span 1A – Overview of corrosion under expansion joint at Pier 1A. Old neoprene joints were replaced by the bridge crew in 2006 with polymer nosing and silicone. Joint opening has typically been 3”-3½” at inspection time and sees a significant amount of expansion and contraction throughout the year. The performance of the silicone has been fair with a few holes and tears. The silicone has been repaired a few times. The current joint is performing better than the old block and bladder joint.
- OO. 2015 Inside S. Girder Span 2 – East of Pier 1 – Dent in bottom plate of top flange. No distresses evident. Continue to monitor.
- PP. 2015 Inside N. Girder Span 3 – Gouge in 6th vertical web stiffener west of pier 3. No problems found.
- QQ. 2015 Outside S. Girder over Pier 4 – Gouges in top flange directly above pier 4. Not causing any problems. No distresses evident. Continue to monitor. See item “Y” for top flange gouges on inside edge of beam just east of pier 4.
- RR. 2015 Outside N. Girder Span 5 – Gouges in top flange just west of pier 5. No distresses evident. Continue to monitor.

FOR INDEX OF SHEETS - SEE SHEET. 3.
FOR SUMMARY OF QUANTITIES - SEE SHEET. 4.

STATE OF ILLINOIS
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID HIGHWAY

*Official
copy
Review on Built*

FEDERAL AID PROJECT NO.	SEC.	COUNTY	TOTAL AREA	SHEET NO.
74	92-11B-1	VERMILION	5.3	1
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT I-74-6(35) 213				
92-11B 92-11F 1-74-6(37) 213				

SCALES
PLAN 1 INCH = 100 FT
PROFILE, HOR. 1 INCH = 100 FT
PROFILE, VERT. 1 INCH = 10 FT
CROSS SECTIONS 1 INCH = 100 FT HORIZ.
CROSS SECTIONS 1 INCH = 5 FT VERT.



FAI ROUTE 74, SEC 92-11 HB-1, VERMILION COUNTY
PROJECT I-74-6(35) 213

FAI ROUTE 74, SEC 92-11B, VERMILION COUNTY
FAI ROUTE 74, SEC 92-11F, VERMILION COUNTY
PROJECT I-74-6(37) 213

SN's 092-0006 & 0007
CN 20973 1962 ORIGINALS

ADDITIONAL WEST SPAN 1A INCLUDED IN THIS ELECTRONIC SET

LETTING REEL 5-36 INCLUDES AS-BUILTS FOR NEW WEST SPAN 1A

AS-BUILT REEL 5-24 DOES NOT INCLUDE NEW WEST SPAN 1A

LOCATION OF SECTION INDICATED THUS:

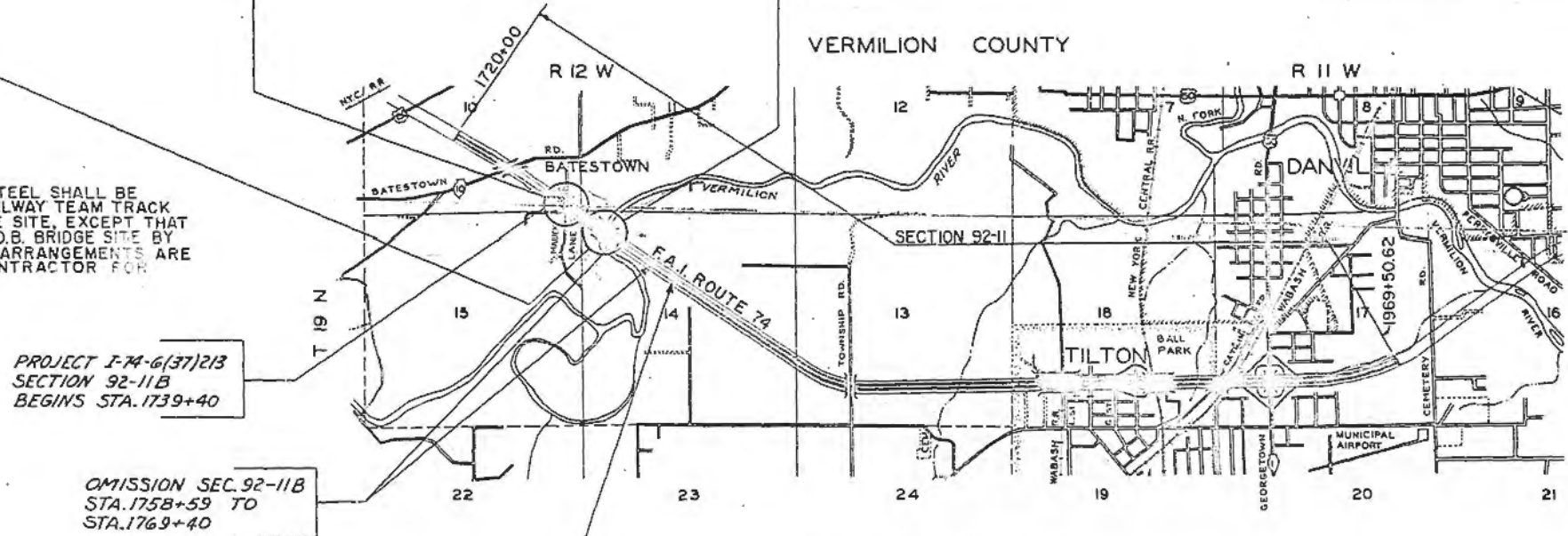
SECTION 92-11F INCLUDES FURNISHING AND FABRICATING STRUCTURAL STEEL, FURNISHING AND APPLYING SHOP COAT OF PAINT AND DELIVERY OF STRUCTURAL STEEL AS SPECIFIED BELOW.

SECTION 92-11HB-1 INCLUDES A 4 SPAN REINFORCED CONCRETE GRADE SEPARATION STRUCTURE, SPANS 2 AT 54'-6" AND 2 AT 68'-6" WITH 24'-0" ROADWAY WIDTH AND 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1742+16.65

SECTION 92-11B INCLUDES TWIN 6 SPAN DECK PLATE GIRDER BRIDGES OVER THE VERMILION RIVER; SPANS 2 AT 93'-0" AND 4 AT 116'-0" WITH 30' 0" ROADWAY WIDTH AND 2'-0" SAFETY WALKS ON REINFORCED CONCRETE PIERS AND ABUTMENTS AT STATION 1755+16 TOGETHER WITH ROUGH GRADING.

DESIGN CLASSIFICATION
1525-T-70
PROJECT I-74-6(37) 213

NOTE: STRUCTURAL STEEL SHALL BE DELIVERED F.O.B. RAILWAY TEAM TRACK NEAREST THE BRIDGE SITE, EXCEPT THAT DELIVERY MAY BE F.O.B. BRIDGE SITE BY TRUCK IF SUITABLE ARRANGEMENTS ARE MADE WITH THE CONTRACTOR FOR SECTION 92-11B



PROJECT I-74-6(37)213
SECTION 92-11B
BEGINS STA. 1739+40

OMISSION SEC. 92-11B
STA. 1758+59 TO
STA. 1769+40

PROJECT I-74-6(37)213
SECTION 92-11B
ENDS STA. 1775+30

PLANS PREPARED BY
CONSOER TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS
360 EAST GRAND AVE.
CHICAGO, ILL.

PROJECT I-74-6(35)213 LENGTH = 0.0 FT = 0.0 MI.
SECTION 92-11B GROSS LENGTH = 3,590.0 FT. = 0.680 MI.
PROJECT I-74-6(37)213 LENGTH = 2,509.0 FT. = 0.475 MI.

DESIGNED MAY 25 1961
W. B. Blumenthal
ENGINEER OF BRIDGES & TRAFFIC STRUCTURES

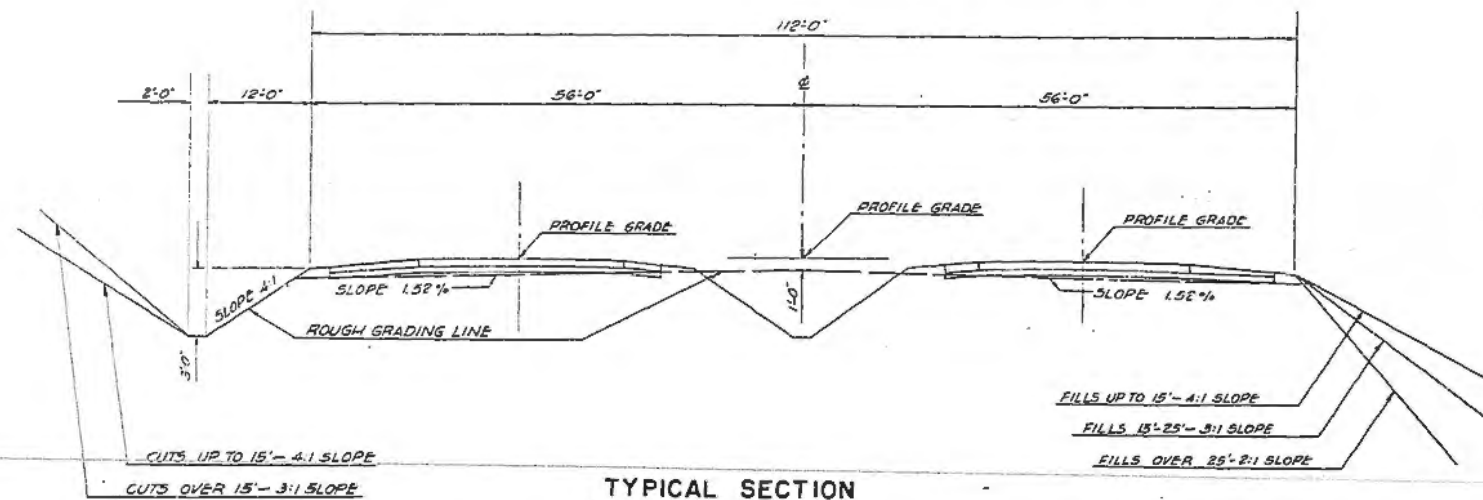
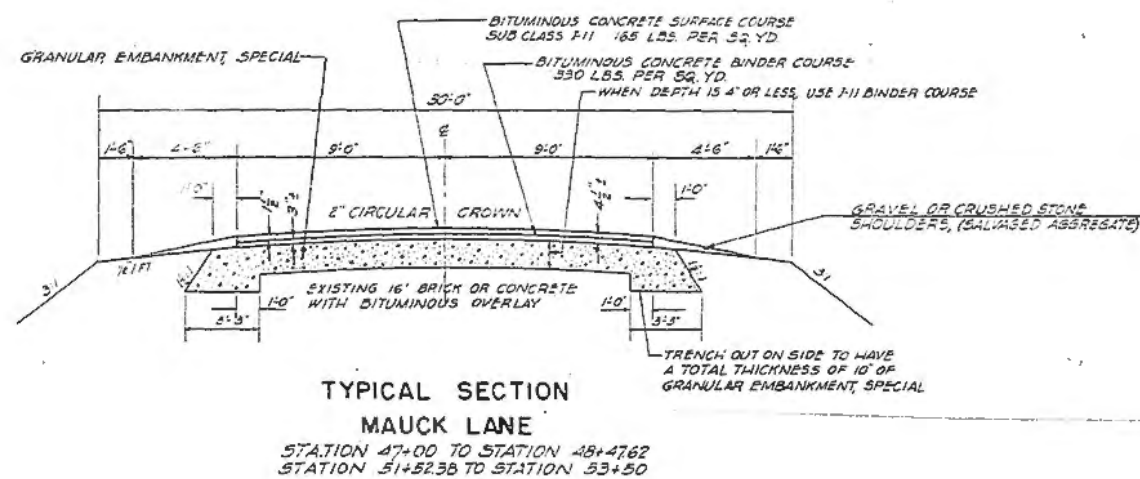
STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS	
SUBMITTED	May 25, 1961
EXAMINED	June 13, 1961
PASSED	June 13, 1961
APPROVED	June 13, 1961
APPROVED	June 13, 1961

DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

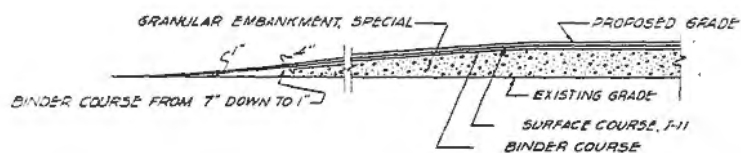
APPROVED

DIVISION ENGINEER DATE

SECTION	SEC	COUNTY	TOWNSHIP	RANGE
74	25-115	VERMILION	23	2



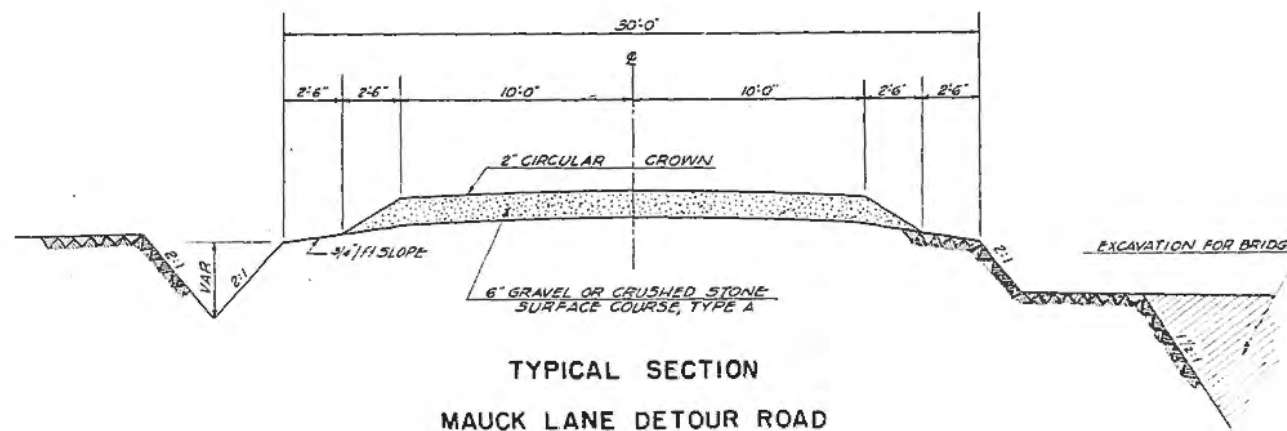
**TYPICAL SECTION
 ROUGH GRADING LINE
 DUAL PORTLAND CEMENT CONCRETE PAVEMENT**



**LONGITUDINAL SECTION— MAUCK LANE
 FOR MEETING EXISTING PAVEMENT**

THE NOMINAL THICKNESSES FOR SUB-BASE GRANULAR MATERIAL AND GRAVEL OR CRUSHED STONE SHOULDERS TYPE B; BASE AND SURFACE COURSES ARE SHOWN ON THE TYPICAL SECTIONS, STANDARDS, SCHEDULES OR SPECIAL DETAILS. THE CONSTRUCTED THICKNESSES OF THE ABOVE ITEMS SHALL NOT BE LESS THAN 90 PER CENT OF THE NOMINAL THICKNESS AT ANY LOCATION.

THE THICKNESS OF BITUMINOUS MIXTURE SHOWN ON THE PLANS IS THE NOMINAL THICKNESS. DEVIATIONS FROM THE NOMINAL THICKNESS WILL BE PERMITTED WHEN SUCH DEVIATIONS OCCUR DUE TO IRREGULARITIES IN THE EXISTING SURFACE OR BASE ON WHICH THE BITUMINOUS MIXTURE IS PLACED.



**TYPICAL SECTION
 MAUCK LANE DETOUR ROAD**

GENERAL NOTES - ROADWAY

All elevations shown are on United States Geological Survey Datum.
Grade elevations on Plan and Profile Sheets and on Cross Sections apply as follows:

1. Crossroad: Station 47 + 00 to Station 53 + 50; the center of the surfaced way.
2. Detour Road: Station 7+57.77 to Station 13 + 78.53; the center of the surfaced way.

A Bituminous Concrete Binder Course, shall be constructed 3 inches thick and variable, in accordance with the Typical Section shown, and as directed by the Engineer, on the Crossroad at F.A.I. Station 1742+16.65.

ESTIMATED QUANTITY:

108	Tons	BITUMINOUS CONCRETE BINDER COURSE
250	Gals.	BITUMINOUS MATERIALS (PRIME COAT)

A Bituminous Concrete Surface Course, Sub-Class 1-II, shall be constructed 1 1/2 inches thick, in accordance with the Typical Section shown, and as directed by the Engineer.

ESTIMATED QUANTITY:

60	Tons	BITUMINOUS CONCRETE SURFACE COURSE, SUB-CLASS 1-II
----	------	--

Granular Embankment, Special shall be placed over the existing pavement surface on Hauck Lane and shall be compacted to the elevations as shown on the Cross Sections and as directed by the Engineer.

ESTIMATED QUANTITY:

430	Tons	GRANULAR EMBANKMENT - SPECIAL
-----	------	-------------------------------

Gravel or Crushed Stone Shoulders, Type B, shall be built of Salvaged Aggregate in accordance with the Typical Sections shown in the plans and as directed by the Engineer.

ESTIMATED QUANTITY:

50	Cu.Yds.	GRAVEL OR CRUSHED STONE SHOULDERS, (SALVAGED AGGREGATE)
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A Gravel or Crushed Stone Surface Course, Type A, shall be placed uniformly 2 inches thick, compacted, on the detour for Hauck Lane, Station 7 + 86 to Station 13 + 80, in accordance with the Typical Section shown.

ESTIMATED QUANTITY:

535	Tons	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A
-----	------	--

Gravel or Crushed Stone for maintenance purposes and for raising the grade at the terminals of the Detour Road for Hauck Lane has been provided.

ESTIMATED QUANTITY:

200	Tons	GRAVEL OR CRUSHED STONE
-----	------	-------------------------

Waterproofing shall be applied on the bottom of the Detour Road and 5 pounds per square yard and shall be mixed with the Gravel or Crushed Stone for maintenance as directed by the Engineer.

ESTIMATED QUANTITY:

4.6	Tons	CALCIUM CHLORIDE APPLIED
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Where indicated on the cross sections and as may be directed by the Engineer, Top Soil, 4 inches thick shall be placed.

ESTIMATED QUANTITY:

75	Cu.Yds.	TOPSOIL
----	---------	---------

Shoulders, Ditches and any other areas between the Right of Way lines on Hauck Lane having insufficient cover or unsatisfactory vegetation shall be seeded as directed by the Engineer.

ESTIMATED QUANTITIES:

0.1	Acres	TEMPORARY SEEDING
0.1	Acres	COMPLETE SEEDING

On all areas to be seeded, Fertilizer Nutrients and Agricultural Ground Limestone shall be applied as directed by the Engineer.

ESTIMATED QUANTITIES:

0.1	Ton	FERTILIZER NUTRIENTS
1	Ton	AGRICULTURAL GROUND LIMESTONE

Earth Shoulders and all areas having a slope of 4:1, or steeper, shall be covered with asphalt-coated mulch as directed by the Engineer.

ESTIMATED QUANTITIES:

1	Ton	STRAW FOR ASPHALT-COATED MULCH
100	Gal.	EMULSIFIED ASPHALT

A strip of sod 36 inches wide shall be placed on each side of all paved ditches and paved ditch transitions as directed by the Engineer.

ESTIMATED QUANTITIES:

1000	Sq.Yds.	SOODING
6	Units	SUPPLEMENTAL WATERING

All trees that interfere with construction operations shall be removed as directed by the Engineer. For the Contractors convenience, the estimated inch Diameters and Acres to be removed are shown below. (See Special Provisions)

ESTIMATED DIAMETERS & ACRES

270	In.Dia.	TREE REMOVAL (6" TO 15" DIA.)
330	In.Dia.	TREE REMOVAL (OVER 15" DIA.)
44.6	Acres	TREE REMOVAL (ACRES)

QUANTITY:

1	Lump Sum	TREE AND HEDGE REMOVAL
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At locations indicated on the plans and as directed by the Engineer, Right of Way Markers shall be furnished and erected.

ESTIMATED QUANTITIES:

30	Each	FURNISHING AND ERECTING RIGHT OF WAY MARKERS
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Existing pavement on Hauck Lane shall be removed as indicated on the plans and as directed by the Engineer.

ESTIMATED QUANTITY:

533	Sq.Yds.	PAVEMENT REMOVAL
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Before ordering pipe culverts, corrugated metal pipe or storm sewer, the Contractor shall consult the Engineer for exact lengths.

Standard 2152-2, shall be erected at locations as shown on the plans.

Wherever in these plans reference is made to the "Standard Specifications", it is understood to include the "Supplemental Specifications", effective July 1, 1961

GENERAL NOTES - BRIDGES

SECTIONS 92 - 11HB-1 & 92-11B

Class X Concrete shall be used throughout.

Superstructure Slab shall be finished in accordance with Article 51.19 of the Standard Specifications.
Exposed Concrete surfaces shall be rubbed in accordance with Standard Specifications, Sec. 52-13.

SECTION 92 - 11HB-1

All Rollers, Rockers, Bearing Plates, Masonry Plates, Pintles, Anchor Bolts, Bolts and Nuts, Lead Plates, and all parts of Expansion Guards and Devices shall be fabricated and set in accordance with Article 51.13 and Article 51.15 of the Standard Specifications and are included for payment as "Furnishing and Erecting Structural Steel".

All surfaces of Structural Steel that will be exposed after erection shall receive one coat red lead paint and two field coats of Aluminum paint. All paint to be furnished and applied by the contractor and included in the unit price bid for "Furnishing and Erecting Structural Steel".

#4 Concrete Slopewall shall be reinforced with welded Wire Fabric 6" x 6" Mesh, #4 Wires, Weighing 58# Per 100 Sq. Ft.

Test Piles, the Contractor shall drive one test pile in a permanent location in the North Abutment before driving the remainder of the piles.

SECTION 92 - 11B

Coarse Aggregate used in Parapet Handrails and Wingwall End Posts must be absolutely free of Chert, Flint, Limonite, Lightite and soft Sandstone.

Anchor Bolts shall be set before riveting Cross Frames over Piers and Abutments.

Slope Wall shall be reinforced with welded Wire Fabric 6" x 6" Mesh, #4 Wires, weighing 58 Lbs. per 100 Sq. Ft. layout of the Slope Walls may be varied to suit ground conditions in the field, as directed by the Engineer.

Test Piles shall be driven in permanent locations after embankments are placed, before driving remainder of piles.

Piles in Abutments shall be driven in holes precored to natural ground in accordance with Article 60.9 (c) of the Standard Specifications.

SECTIONS 92 - 11B & 92 - 11F

All Rollers, Rockers, Bearing Plates, Masonry Plates, Pintles and Anchor Bolts shall be fabricated and set in accordance with Article 51.15 of the Standard Specifications and are included for payment as Structural Steel.

Expansion Guards shall be fabricated and erected in accordance with Article 51.13 (d) of the Standard Specifications. Expansion Plates shall be flame cut as provided in Article 54.5 of the Standard Specifications. Expansion Guards shall be given two shop coats of red lead paint. One 1/4" x 8" welded Stud Anchors shall not be painted. Expansion Guards are included for payment as Structural Steel.

Except as otherwise provided, All Structural Steel shall receive one shop coat of red lead paint and two field coats of Aluminum paint. See Articles 56.1 to 56.5, inclusive, of the Standard Specifications.

All Paint shall be furnished and applied by the Contractor involved.

3/4" Rivets shall be used for all connections, except as noted.

SECTION 92 - 11F

All Holes for Splices shall be subpunched 11/16" and reamed to 13/16" for 3/4" Rivets, while Girders are assembled in shop in proper position and left assembled for shop inspection by Division of Highways.

Design Specifications: A.A.S.H.O. 1957 Edition

Design Load: H15-S12-44

Concrete Ultimate compression	$f'_c = 20,000$ p.s.i.
Allowable compression (No Earth Pressure)	$f'_c = 8,500$ p.s.i.
Allowable compression (With Earth Pressure)	$f'_c = 1,900$ p.s.i.
Modular Ratio	$n = 10$
Horizontal Earth Pressure (Equiv. Liquid Pressure)	$= 40$ p.c.f.
Concrete Pile Capacity	$= 40$ Tons @ Abutments
Pier Footing Shear	$V = 75$ p.s.i.
Allowable Soil Pressure - Piers	$= 3$ Tons/S.F. Max.

Design Specification: A.A.S.H.O. 1957 Edition

Design Load: H20-S16-44 & Alternative

Concrete	$f'_c = 18,000$ p.s.i.
Reinforcing Steel	$f'_s = 20,000$ p.s.i.
Concrete	$f'_c = 3,500$ p.s.i.
Allowable Compression (No Earth Pressure)	$f'_c = 1,800$ p.s.i.
Allowable Compression (With Earth Pressure)	$f'_c = 1,000$ p.s.i.
Modular Ratio	$n = 10$
Horizontal Earth Pressure = Equiv. Fluid Pressure	$= 40$ p.c.f.
Concrete Pile Capacity	$= 40$ Tons @ Abutments
Timber Pile Capacity	$= 15$ Tons @ Approach Slab
Steel Pile Capacity	$= 40$ Tons @ Piers
Pier Footings, Max. Shear	$= 75$ p.s.i.

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2	TYPICAL SECTIONS
3	INDEX OF SHEETS & GENERAL NOTES
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5	HAUCK LANE, PLAN & PROFILE
6 - 7	F.A.I. RTE. 74, PLAN & PROFILE
8	SPECIAL DETAILS: PAVED DITCHES, PAVED DITCH TERMINATION, TRANSITION - PIPE CULVERT TO PAVED DITCH
9	SPECIAL DETAILS: PAVED DITCH TRANSITION, HEADWALL RAFFLE

BRIDGE-SEC. 92-11HB-1

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11	BORING LOGS
12 - 16	SUPERSTRUCTURE DETAILS
18	HANDRAIL DETAILS
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BRIDGE-SEC. 92-11B

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35	DECK SLAB ELEVATIONS
36	STRUCTURAL STEEL - FRAMING PLAN
37 - 38	GIRDER DETAILS
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74	CULVERT HEADWALL STA. 1770 + 00, STANDARD 2153-2

INDEX OF SHEETS SECTION 92-11F

SHEET NO.	DRAWING
1	COVER SHEET
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3	GENERAL PLAN AND LOCATION
4	GENERAL PLAN AND LOCATION
5	SUPERSTRUCTURE FLOOR PLAN
6	SUPERSTRUCTURE DETAILS
7	STRUCTURAL STEEL - FRAMING PLAN
8	GIRDER DETAILS
9	GIRDER DETAILS
10	STRUCTURAL STEEL - FRAMING DETAILS
11	STRUCTURAL STEEL - EXPANSION JOINT DETAILS
12	STRUCTURAL STEEL - EXPANSION JOINT DETAILS
13	STRUCTURAL STEEL - BEARING DEVICES

SUMMARY OF QUANTITIES

PROJECT F.A.1-74-6(35) 213. SECTION 92-11 HB-1

QUANTITY	UNIT	ITEM	CODE
657	CU.YD.	EARTH EXCAVATION	011001
430	TON	GRAVEL OR CRUSHED STONE SHOULDERS - SPECIAL	017001
50	CU.YD.	GRAVEL OR CRUSHED STONE SHOULDERS, (SALVAGED AGGREGATE)	026005
75	CU.YD.	TOP SOIL	027001
535	TON	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	036001
250	GAL.	BITUMINOUS MATERIALS (PRIME COAT)	046001
108	TON	BITUMINOUS CONCRETE BINDER COURSE	046006
60	TON	BITUMINOUS CONCRETE SURFACE COURSE, SUBCLASS 1-11	046007
106	SQ.YD.	PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2 - 10 1/2 - 16 1/2)	046011
331	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
10,450	POUND	FURNISHING AND ERECTING STRUCTURAL STEEL	051002
665.5	CU.YD.	CLASS X CONCRETE	052003
498	LIN.FT.	FURNISHING & ERECTING METAL HANDRAIL	055001
104	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 24 IN.	058103
126,940	POUND	REINFORCEMENT BARS	059001
357	LIN.FT.	DRIVING CONCRETE PILES	060043
357	LIN.FT.	FURNISHING CONCRETE PILES	060044
1	EACH	TEST PILES (CONCRETE)	060047
2	EACH	NAME PLATES	061001
533	SQ.YD.	PAVEMENT REMOVAL	082001
605	SQ.YD.	SLOPE WALL, 4 INCH	083002
200	LIN.FT.	STEEL PLATE BEAM GUARD RAIL	094001
200	TON	GRAVEL OR CRUSHED STONE SALVAGED AGGREGATE	101002
2	CU.YD.		101006
4.6	TON	CALCIUM CHLORIDE APPLIED	102001
0.1	ACRE	TEMPORARY SEEDING	110001
0.1	ACRE	COMPLETE SEEDING	110004
0.1	ACRE	FERTILIZER NUTRIENTS	110005
1	TON	AGRICULTURAL GROUND LIMESTONE	110006
1	TON	STRAW FOR ASPHALT-COATED MULCH	111002
100	GAL.	EMULSIFIED ASPHALT	111003

PROJECT F.A.1-74-6(37) 213. SECTION 92-11B

QUANTITY	UNIT	TYPE	CODE
1	LUMP SUM	TREE AND HEDGE REMOVAL	010009
234,171	CU.YD.	EARTH EXCAVATION	011001
2,335	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
1,970	CU.YD.	CLASS B EXCAVATION FOR STRUCTURES	050002
4980.7	CU.YD.	CLASS X CONCRETE	052003
15.7	CU.YD.	CLASS X CONCRETE (HEADWALL)	052016
1,914,880	POUND	ERECTING STRUCTURAL STEEL	058003
168	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 24 IN.	058009
542	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 36 IN.	058126
268	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 42 IN.	058127
921,750	POUND	REINFORCEMENT BARS	059001
300	LIN.FT.	FURNISHING CREOSOTED PILES, 20.1'-38'	060005
300	LIN.FT.	DRIVING TIMBER PILES	060008
4,510	LIN.FT.	FURNISHING STEEL PILES (12 BP 53)	060024
2	EACH	TEST PILES (STEEL 12 BP 53)	060033
4,510	LIN.FT.	DRIVING STEEL PILES	060037
5,470	LIN.FT.	DRIVING CONCRETE PILES	060043
5,470	LIN.FT.	FURNISHING CONCRETE PILES	060044
2	EACH	TEST PILES (CONCRETE)	060047
2	EACH	NAME PLATES	061001
8	LIN.FT.	CORRUGATED METAL PIPE, 12 IN.	063003
60	LIN.FT.	STORM SEWERS, TYPE 3, 24 IN.	066053
100	CU.YD.	ROCK EXCAVATION FOR STRUCTURES	069002
1	EACH	HANHOLES, TYPE A, 5' DIA. WITH TYPE 1 FRAME AND CLOSED LID	075096
2	EACH	CATCH BASINS, TYPE B WITH TYPE 7 GRATE	075120
4	EACH	CAST IRON FRAMES & GRATES - SPECIAL	078025
1,830	SQ.YD.	SLOPE WALL, 6-INCH	083003
1,354	LIN.FT.	PAVED DITCH, 6 FT.	091005
30	EACH	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	104001
1000	SQ.YD.	SODDING	112001
6	UNIT	SUPPLEMENTAL WATERING	112002
2,611	LIN.FT.	ALUMINUM HANDRAIL	200004
4	EACH	FURNISHING & ERECTING DRAINAGE MARKERS	200125
2	EACH	COFFERDAM (PIER 2)	050007
2	EACH	COFFERDAM (PIER 3)	050008

PROJECT F.A.1-74-6(37) 213. SECTION 92-11F

QUANTITY	UNIT	TYPE	CODE
1,914,880	POUND	FURNISHING AND ERECTING STRUCTURAL STEEL	058003

TOTALS - SEC. 92-11HB-1 & SEC. 92-11B

AS BUILT QUANTITY	UNIT	ITEM	CODE
247,353	CU.YD.	EARTH EXCAVATION	011001
373.6	TON	GRAVEL OR CRUSHED STONE SHOULDERS - SPECIAL	017001
50	CU.YD.	GRAVEL OR CRUSHED STONE SHOULDERS, (SALVAGED AGGREGATE)	026005
75	CU.YD.	TOP SOIL	027001
543.4	TON	GRAVEL OR CRUSHED STONE SURFACE COURSE, TYPE A	036001
225	GAL.	BITUMINOUS MATERIALS (PRIME COAT)	046001
105	TON	BITUMINOUS CONCRETE BINDER COURSE	046006
64.8	TON	BITUMINOUS CONCRETE SURFACE COURSE, SUBCLASS 1-11	046007
106	SQ.YD.	PORTLAND CEMENT CONCRETE PAVEMENT (16 1/2 - 10 1/2 - 16 1/2)	046011
4,120	CU.YD.	CLASS A EXCAVATION FOR STRUCTURES	050001
970	CU.YD.	CLASS B EXCAVATION FOR STRUCTURES	050002
10,670	POUND	FURNISHING & ERECTING STRUCTURAL STEEL	051002
6,636.3	CU.YD.	CLASS X CONCRETE	052003
16.3	CU.YD.	CLASS X CONCRETE (HEADWALL)	052016
2,205,795	POUND	ERECTING STRUCTURAL STEEL	058003
138	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 24 IN.	058009
104	LIN.FT.	PIPE CULVERTS, TYPE 2A, RCP CLASS 3, 36 IN.	058103
542	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 36 IN.	058126
268	LIN.FT.	PIPE CULVERTS, TYPE 3A, RCP CLASS 4, 42 IN.	058127
921,750	POUND	REINFORCEMENT BARS	059001
300	LIN.FT.	FURNISHING CREOSOTED PILES, 20.1'-38'	060005
300	LIN.FT.	DRIVING TIMBER PILES	060008
4,510	LIN.FT.	FURNISHING STEEL PILES (12 BP 53)	060024
2	EACH	TEST PILES (STEEL 12 BP 53)	060033
4,510	LIN.FT.	DRIVING STEEL PILES	060037
5,470	LIN.FT.	DRIVING CONCRETE PILES	060043
5,470	LIN.FT.	FURNISHING CONCRETE PILES	060044
2	EACH	TEST PILES (CONCRETE)	060047
2	EACH	NAME PLATES	061001
8	LIN.FT.	CORRUGATED METAL PIPE, 12 IN.	063003
60	LIN.FT.	STORM SEWERS, TYPE 3, 24 IN.	066053
100	CU.YD.	ROCK EXCAVATION FOR STRUCTURES	069002
1	EACH	HANHOLES, TYPE A, 5' DIA. WITH TYPE 1 FRAME AND CLOSED LID	075096
2	EACH	CATCH BASINS, TYPE B WITH TYPE 7 GRATE	075120
4	EACH	CAST IRON FRAMES & GRATES - SPECIAL	078025
1,830	SQ.YD.	SLOPE WALL, 6-INCH	083003
1,354	LIN.FT.	PAVED DITCH, 6 FT.	091005
30	EACH	FURNISHING AND ERECTING RIGHT OF WAY MARKERS	104001
1000	SQ.YD.	SODDING	112001
6	UNIT	SUPPLEMENTAL WATERING	112002
2,611	LIN.FT.	ALUMINUM HANDRAIL	200004
4	EACH	FURNISHING & ERECTING DRAINAGE MARKERS	200125
2	EACH	COFFERDAM (PIER 2)	050007
2	EACH	COFFERDAM (PIER 3)	050008

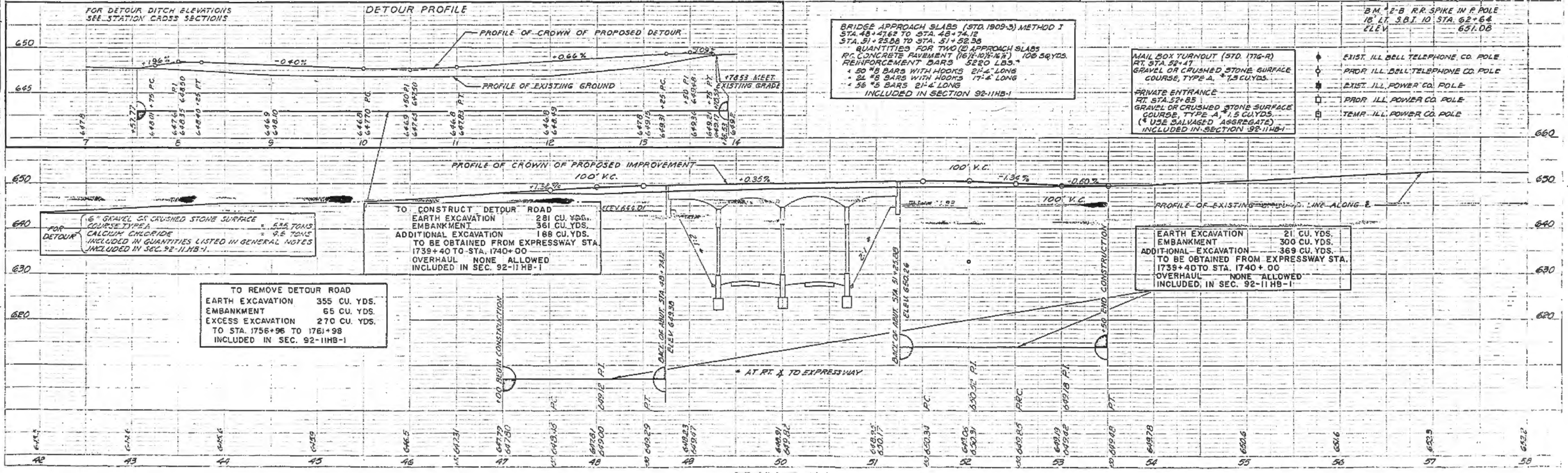
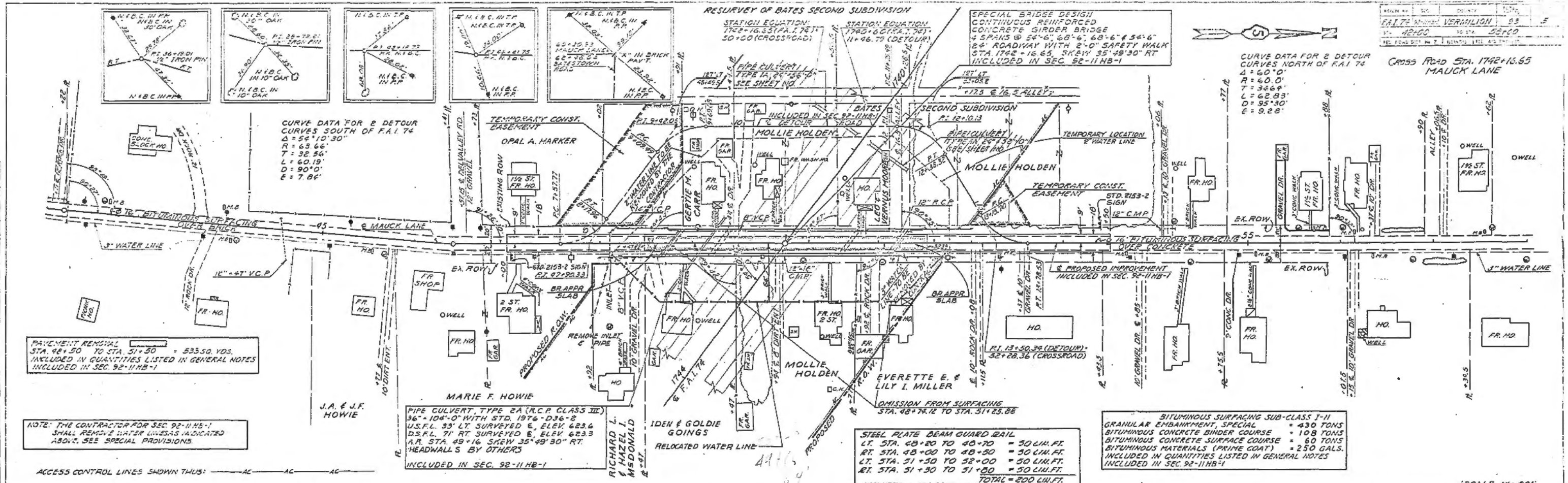
4,965.4 LIN.FT. DRIVING CONCRETE PILES (ADJ.)
 3,320.4 LIN.FT. DRIVING STEEL PILES (ADJ.)
 208.1 LIN.FT. DRIVING TIMBER PILES (ADJ.)

SUMMARY OF CLASS X CONCRETE

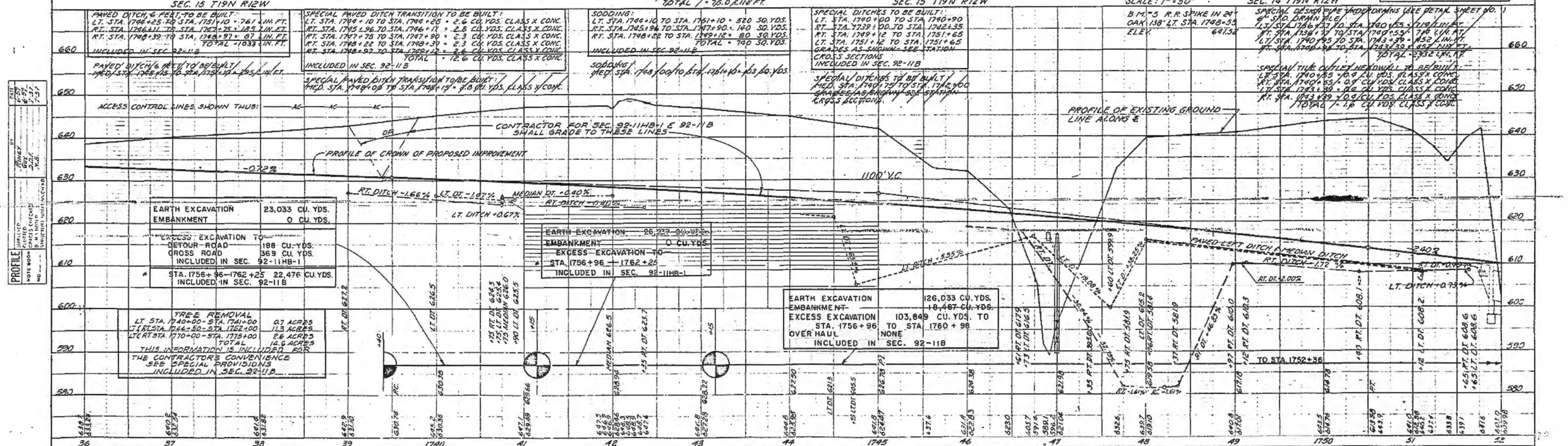
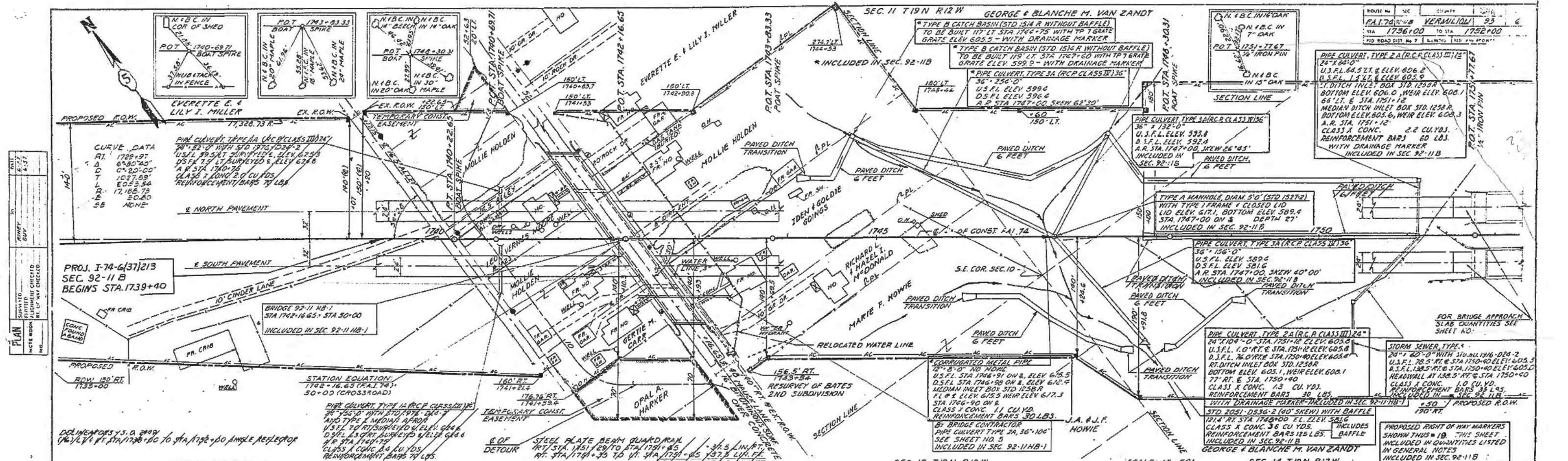
SIDE	STATION	TYPE OF STRUCTURE	CLASS X CONC.	CLASS X CONC. HEADWALL
PROJECT F.A.1-74-6(35)213, SEC. 92-11HB-1				
C/L	50+00	SPECIAL BRIDGE DESIGN	665.5	
TOTALS				665.5
PROJECT F.A.1-74-6(37)213 SEC. 92-11B				
LT	1748+10	SPECIAL TRANSITION FOR PAVED DITCH	2.6	
RT	1745+98	SPECIAL TRANSITION FOR PAVED DITCH	2.8	
C/L	1746+90	STANDARD 1258 R INLET	1.1	
RT	1747+75	SPECIAL TRANSITION FOR PAVED DITCH	2.9	
RT	1748+00	2051-DS36-2 (1) HEADWALL		3.4
WT	1748+00	SPECIAL BAFFLE		0.2
RT	1748+22	SPECIAL TRANSITION FOR PAVED DITCH	2.3	
RT	1748+37	SPECIAL TRANSITION FOR PAVED DITCH	2.6	
RT	1750+40	1076-DS2-2 (1) HEADWALL		1.0
RT	1750+40	STANDARD 1258 R INLET	1.3	
C/L	1751+14	STANDARD 1258 R INLET	1.1	
LT	1751+14	STANDARD 1258 R INLET	1.1	
C/L	1755+16	SPECIAL BRIDGE DESIGN	5,076.5	
LT	1755+65	SPECIAL TRANSITION FOR PAVED DITCH	2.1	
WT	1757+15	SPECIAL TRANSITION FOR PAVED DITCH	2.1	
C/L	1770+00	1988-DS42-2 (2) HEADWALL		10.8
C/L	1770+00	SPECIAL BAFFLE		6.3
TOTALS			6,636.3	16.3
TOTAL CLASS X CONCRETE (HEADWALL)			16,540.9 CU.YDS	
TOTAL CLASS X CONCRETE			6,636.3 CU.YDS	

Revised quantities Class A and Class B Excav. added Cofferdams Piers 2 & 3 12-12-01 L.D.W.
 Revised quantities Class D Excav., Class X Conc., Steel Piles, Test Piles Steel 1-8-02 L.D.W.

ENTIRE SECTION INSPECTED AND APPROVED AS TO POLICY BY DISTRICT ENGINEER DATE: 11-17-57
 PLAN NO. 1740
 COUNTY: VERMONT
 DISTRICT: 11

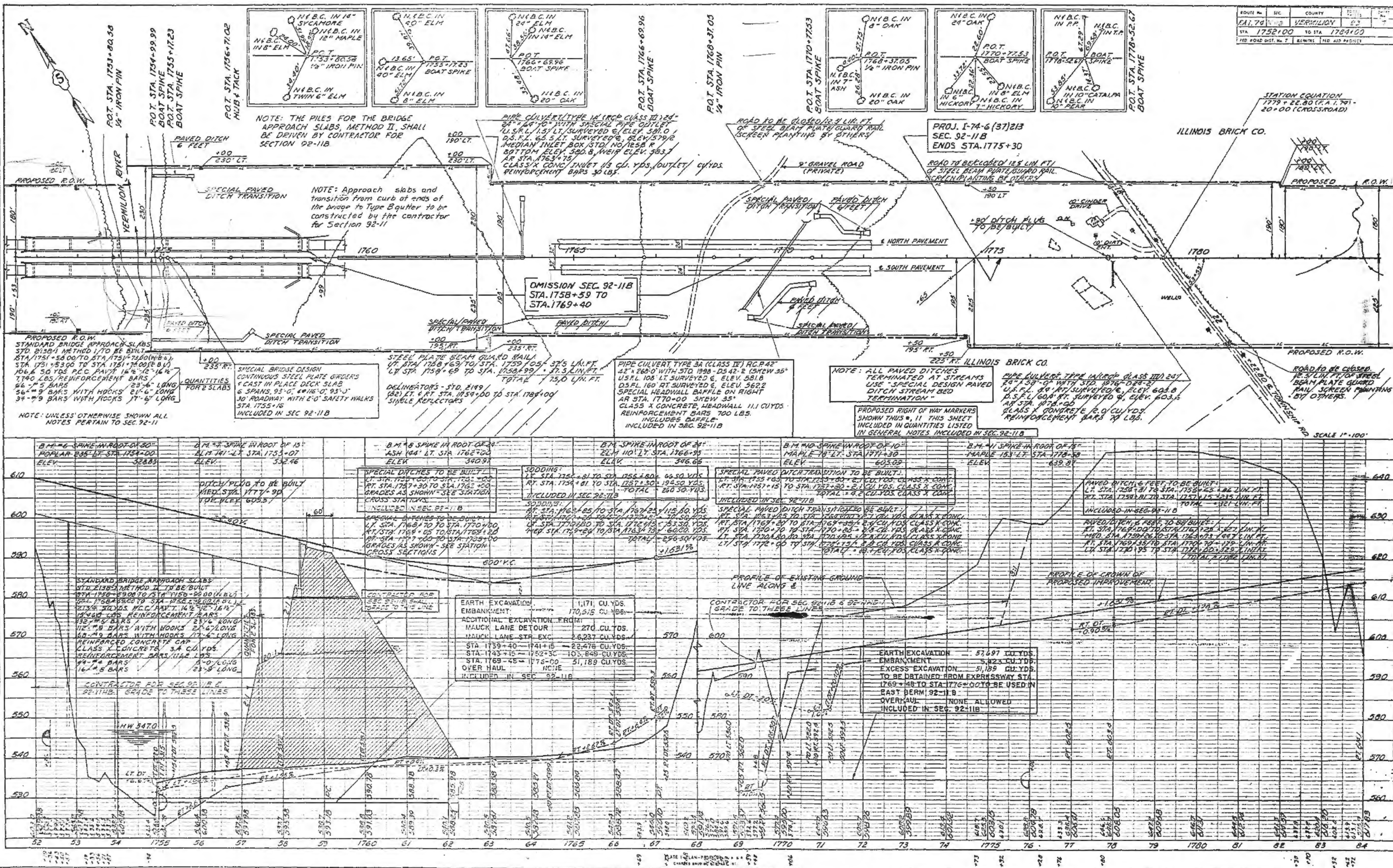


PLAN NO. 1740
 COUNTY: VERMONT
 DISTRICT: 11
 DATE: 11-17-57



DATE: 8-31-77
 BY: J. L. HARRIS
 CHECKED: J. L. HARRIS
 APPROVED: J. L. HARRIS
 NO. OF WAY CHECKED: 1

DATE: 8-31-77
 BY: J. L. HARRIS
 CHECKED: J. L. HARRIS
 APPROVED: J. L. HARRIS
 NO. OF WAY CHECKED: 1



NOTE: THE PILES FOR THE BRIDGE APPROACH SLABS, METHOD II, SHALL BE DRIVEN BY CONTRACTOR FOR SECTION 92-11B

NOTE: Approach slabs and transition from curb at ends of the bridge to Type B quarter to be constructed by the contractor for Section 92-11

NOTE: ALL PAVED DITCHES TERMINATED AT STREAMS USE "SPECIAL DESIGN PAVED DITCH STREAM BED TERMINATION"

PROPOSED RIGHT OF WAY MARKERS SHOWN THIS SHEET INCLUDED IN QUANTITIES LISTED IN GENERAL NOTES, INCLUDED IN SEC. 92-11B

PROPOSED R.O.W. STANDARD BRIDGE APPROACH SLABS STD. 21304 METHOD I TO BE BUILT STA. 1751+58.00 TO STA. 1751+74.00 (N.B.C.) STA. 1751+53.00 TO STA. 1751+74.00 (E.B.C.) 106.6 SQ. YDS. P.C.C. PAVT. 16" x 12" x 16" 1740 LBS. REINFORCEMENT BARS 46 - #5 BARS 23'-6" LONG 56 - #9 BARS WITH HOOKS 21'-6" LONG 34 - #9 BARS WITH HOOKS 17'-6" LONG

QUANTITIES FOR 2 SLABS

SPECIAL BRIDGE DESIGN CONTINUOUS STEEL PLATE GIRDERS 1 CAST IN PLACE DECK SLAB 6 SPANS, 93'-0", 60'-10", 93'-0", 30' ROADWAY WITH 2'-0" SAFETY WALKS STA. 1755+16

DECLINATOR'S - STD. 21199 (S2) LT. & RT. STA. 1759+00 TO STA. 1768+00 SINGLE REFLECTORS

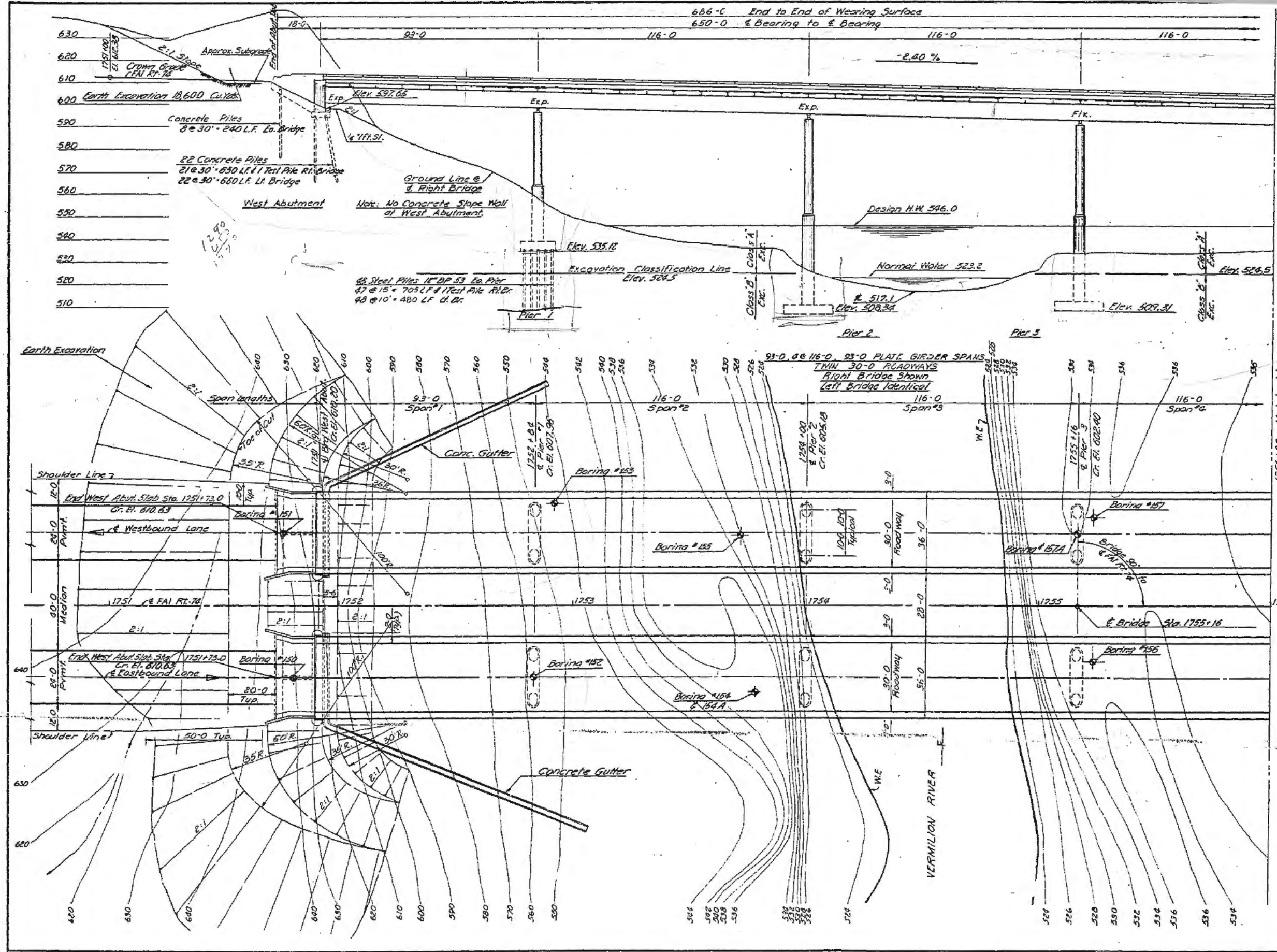
PIPE CULVERT TYPE 3A (CLASS II) R.C.P. 42" x 26'-0" WITH STD. 1998-DS42-2 (SHEW 35" USFL 108' LT. SURVEYED & ELEV. 581.8 D.S.F.L. 160' RT. SURVEYED & ELEV. 562.2 SPECIAL HEADWALL BAFFLE ON RIGHT AT STA. 1770+00 SHEW 35" CLASS X CONCRETE, HEADWALL 11.1 CU.YDS. REINFORCEMENT BARS 700 LBS. INCLUDES BAFFLE INCLUDED IN SEC. 92-11B

PIPE CULVERT TYPE 1A (CLASS III) R.C.P. 24" x 24'-59" OF WATH STD. 1976-DS24-2 (S.F.L. 60' RT. SURVEYED & ELEV. 603.8 D.S.F.L. 104' RT. SURVEYED & ELEV. 603.5 AT STA. 1774+00 CLASS X CONCRETE R.O. CU.YDS. REINFORCEMENT BARS 70 LBS.

STATION	DESCRIPTION	QUANTITY
1751+58.00 TO 1751+74.00	STANDARD BRIDGE APPROACH SLABS	106.6 SQ. YDS.
1751+53.00 TO 1751+74.00	CONTINUOUS STEEL PLATE GIRDERS	1 CAST IN PLACE DECK SLAB
1755+16	DECLINATOR'S	2
1768+00 TO 1770+00	PIPE CULVERT TYPE 3A	1
1774+00	PIPE CULVERT TYPE 1A	1
1750+00 TO 1785+00	EARTH EXCAVATION EMBANKMENT	1171 CU. YDS.
1750+00 TO 1785+00	MAUCK LANE DETOUR	270 CU. YDS.
1750+00 TO 1785+00	MAUCK LANE STR. EXC.	2,223 CU. YDS.
1759+40 TO 1741+5	EXCESS EXCAVATION FROM	22,476 CU. YDS.
1743+15 TO 1752+30	EXCESS EXCAVATION FROM	103,849 CU. YDS.
1769+45 TO 176+00	OVER HAUL	51,189 CU. YDS.
1769+45 TO 1776+00	EXCESS EXCAVATION	57,697 CU. YDS.
1769+45 TO 1776+00	EMBANKMENT	5,423 CU. YDS.
1769+45 TO 1776+00	EXCESS EXCAVATION	51,189 CU. YDS.

STATION EQUATION
 1779 + 22.80 (F.A. 1.791 - 20+00 (CROSSROAD))

SCALE 1"=100'



F.A.I. R.T. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	24

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	13	2



B.M. #6 Spike in roof of 50' Poplar
235' Lt. Sta. 1754+00 El. 528.85

B.M. #7 Spike in roof of 15' Elm
181' Lt. Sta. 1755+07 El. 532.96

Note: Construct Bridge and all Elements
90' to E of Construction FAI RT. 74

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

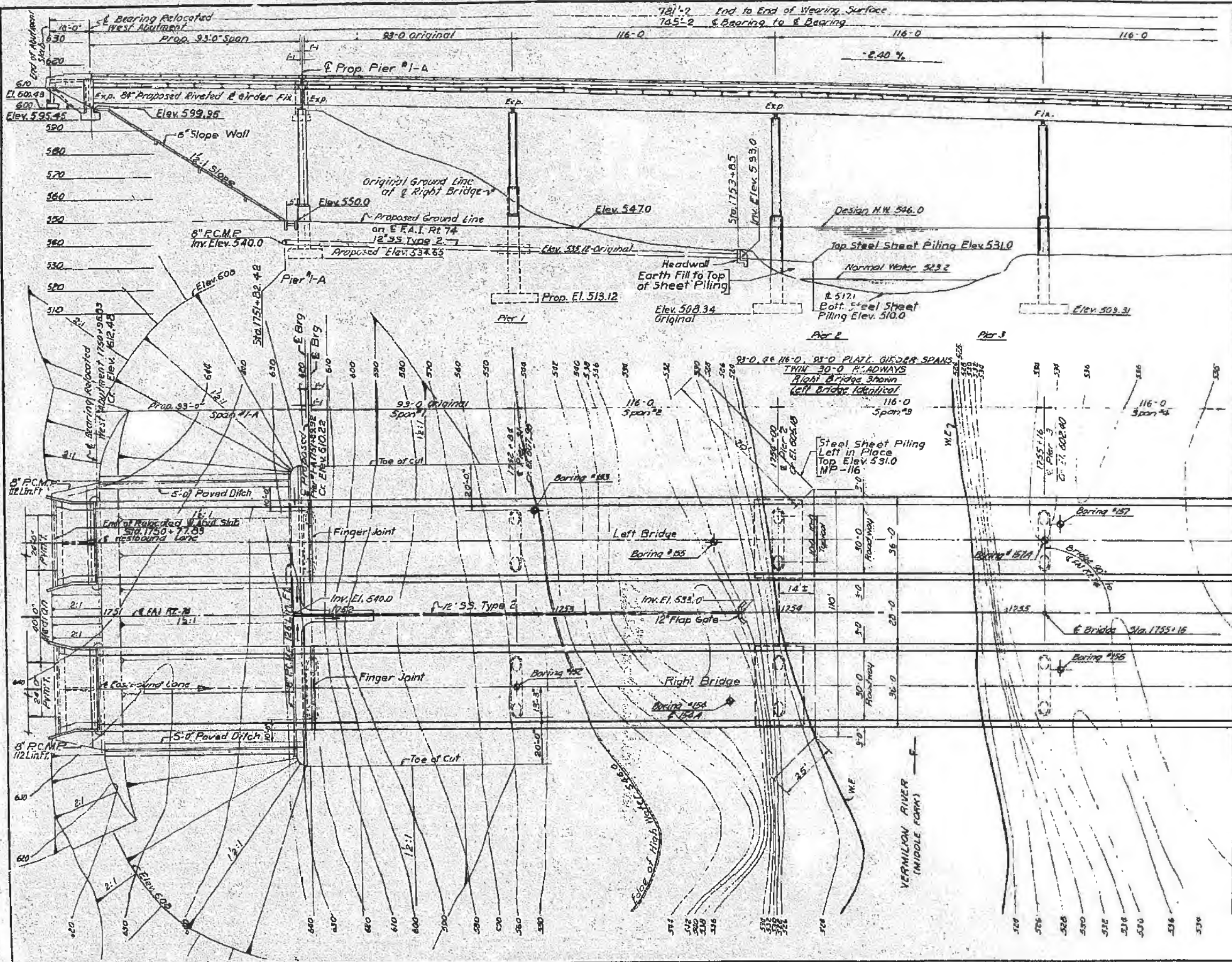
ILLINOIS DIVISION OF HIGHWAYS

FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11 B.11F
PROJECT I-74-6(37)213 STA. 1755+16

GENERAL PLAN AND LOCATION

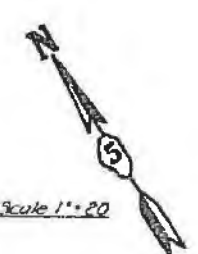
DESIGNED	BY	TRACED	CHECKED	DATE
GEE	RLF	RLF	JWH	
			LDB	HSM 10-10-46

Bensed and removed piles 1-2-48 L.D.W.



DATE	BY	CHKD	APP'D	SCALE
7-4	52-113	VERMILION		24-1

SECTION	SEC	COUNTY	TOTAL	DATE
74	92.11F	VERMILION		1



B.M. #6 Spike in root of 30' Poplar
235' LT Sta. 1759+00 El. 528.85

B.M. #7 Spike in root of 15' Elm
181' LT Sta. 1755+07 El. 532.96

Note: Construct Bridge and all elements
90' to E of Construction FAI Rt. 74

AS BUILT

RELOCATED WEST ABUTMENT

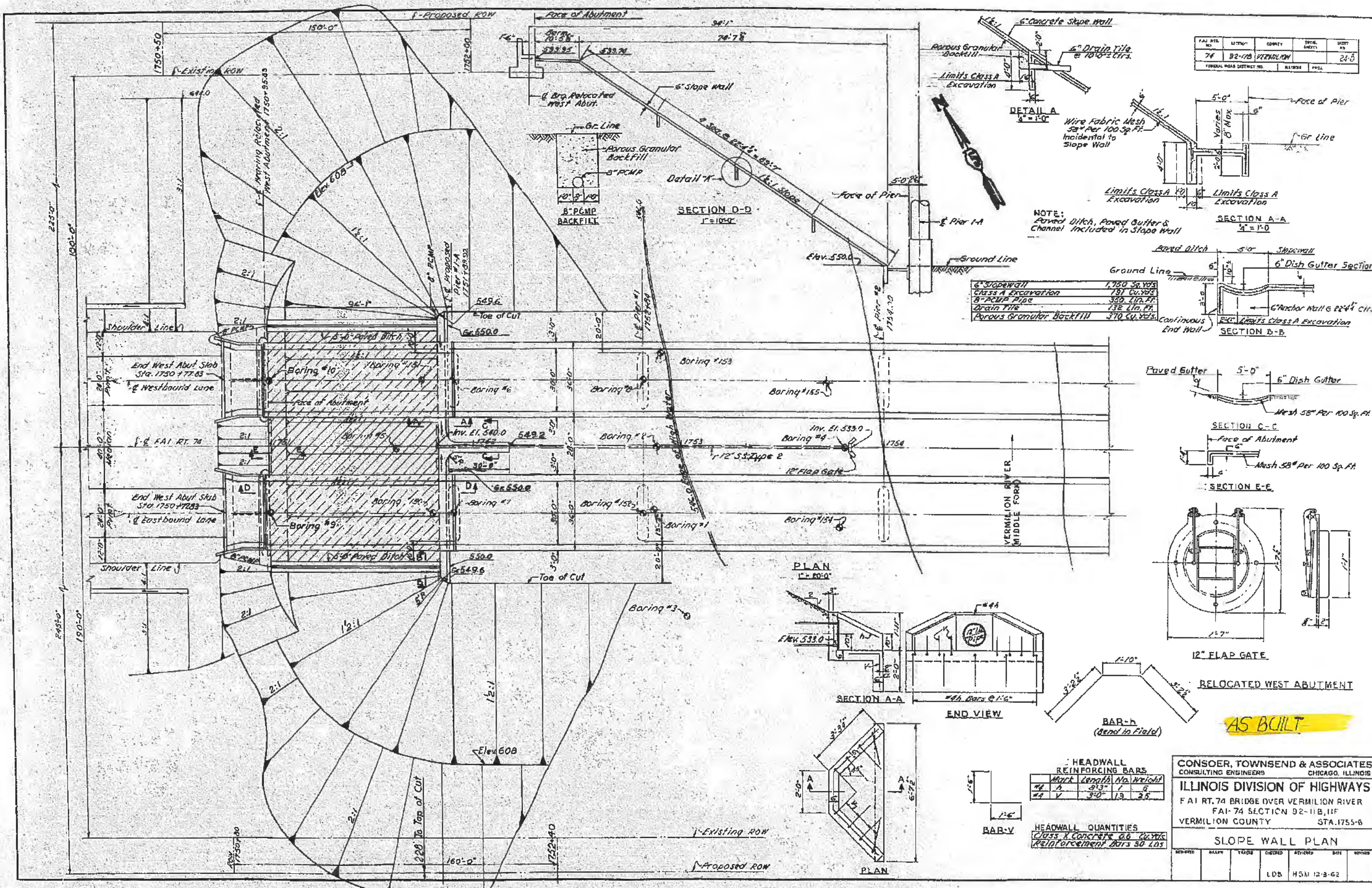
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755+85

GENERAL PLAN AND LOCATION

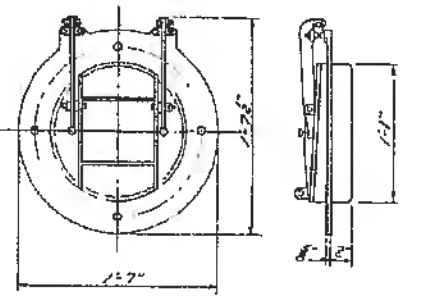
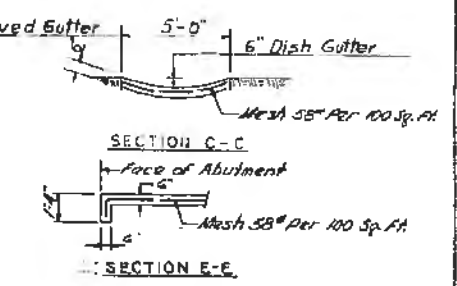
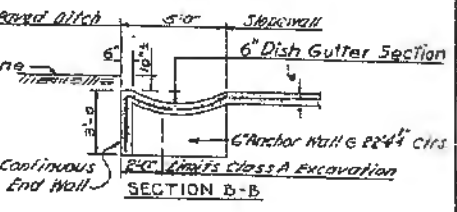
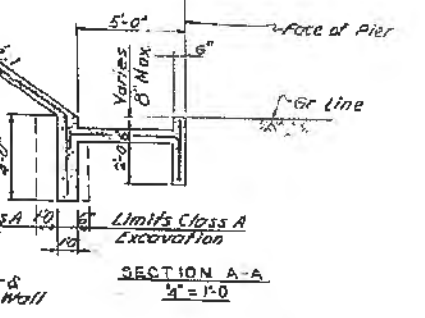
DESIGNED	DRAWN	PLANNED	CHECKED	REVIEWED	DATE	SCALE
GEE	RLF	RLF	JWH	LDB	HSM 12-3-62	

FAI DIST. NO.	SECTION	COUNTY	TYPICAL SHEET	SHEET NO.
74	92-11B	VERMILION		24-0
FEDERAL ROAD DISTRICT NO.		ILLINOIS	FDL	



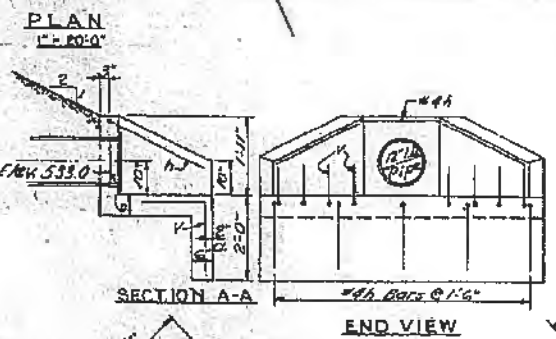
NOTE: Paved Ditch, Paved Gutter & Channel Included in Slope Wall

6" Slope Wall	1,750 Cu. Yds.
Class A Excavation	797 Cu. Yds.
8" PCMP Pipe	350 Lin. Ft.
Drain Tile	132 Lin. Ft.
Porous Granular Backfill	370 Cu. Yds.



RELOCATED WEST ABUTMENT

AS BUILT



BAR-h (Send to Field)

HEADWALL REINFORCING BARS			
Bar	Mark	Length	No. Weights
#1	A	8'3"	8
#4	V	3'0"	13
			25

HEADWALL QUANTITIES	
Class 1 Concrete	Class 2 Concrete
0.6 Cu. Yds.	0.6 Cu. Yds.
Reinforcement Bars	50 Lbs.

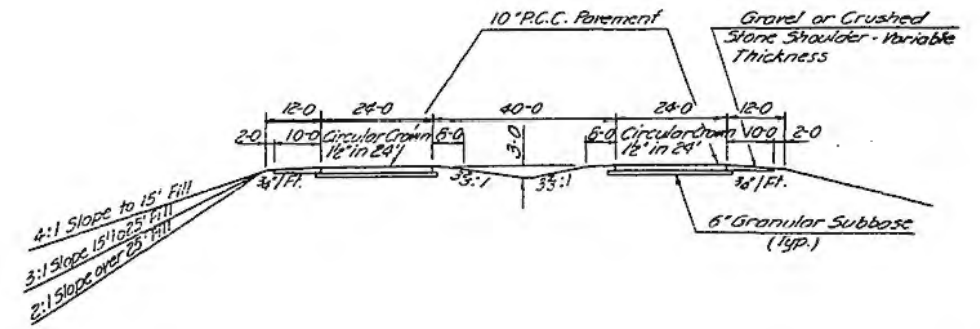
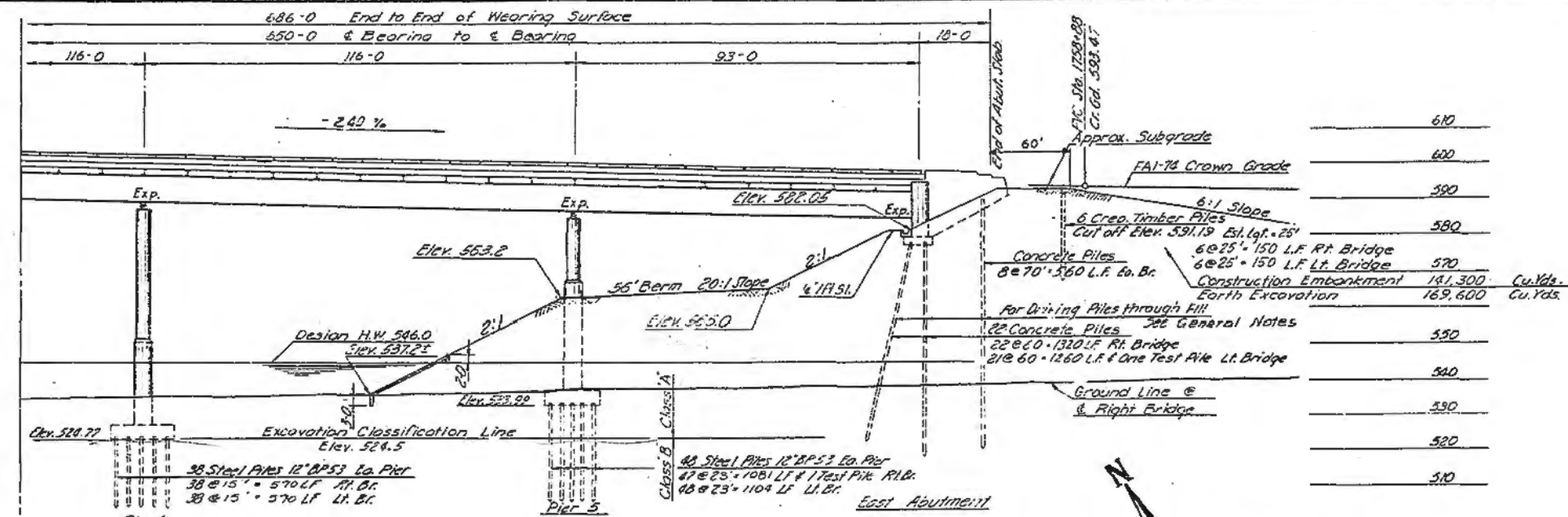
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755-6

SLOPE WALL PLAN

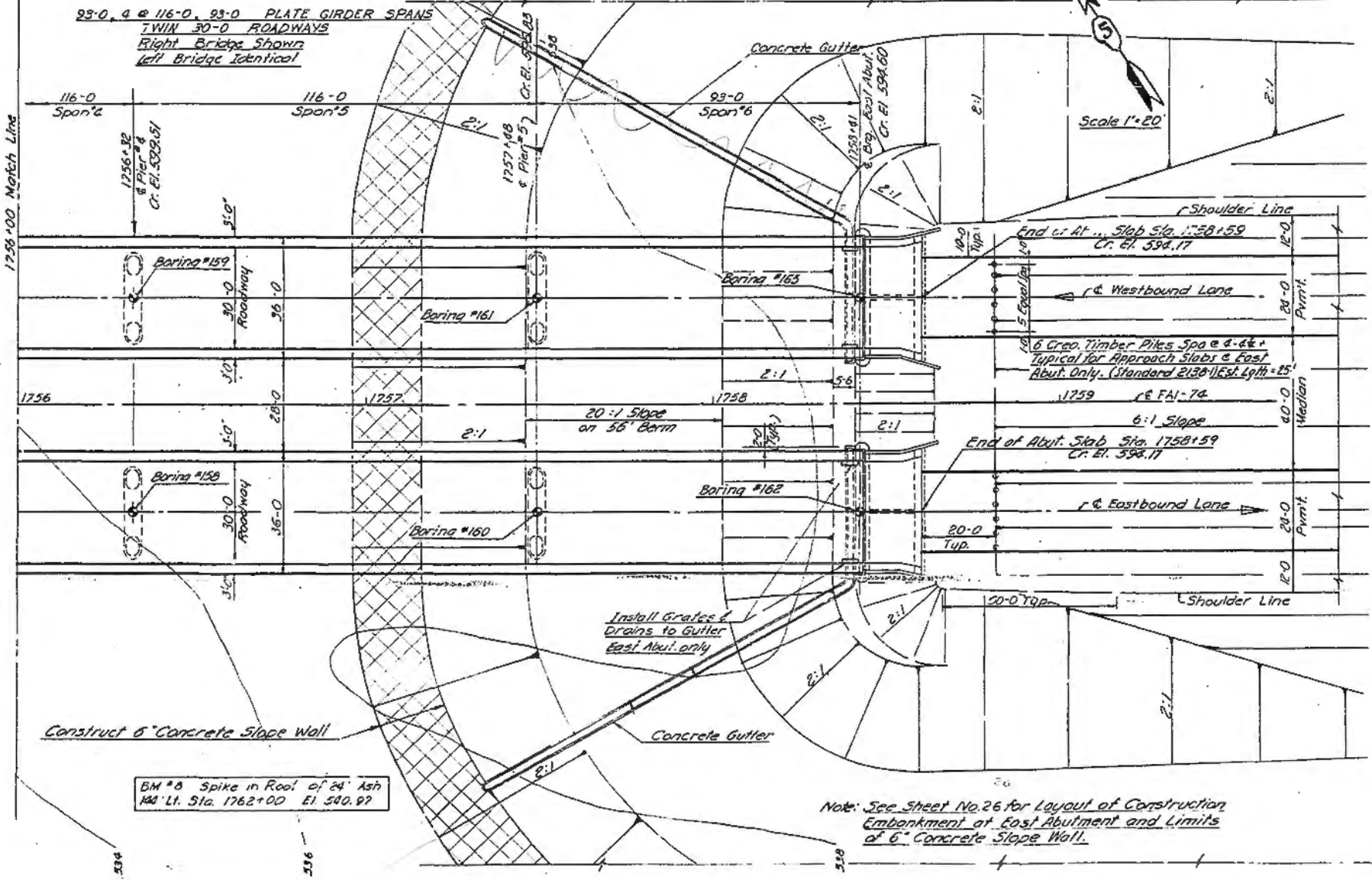
DESIGNED	CHECKED	DATE	BY	REVISION

FED. R.T.D. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	25	25
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS PROJECT: I-74-6(37)213				

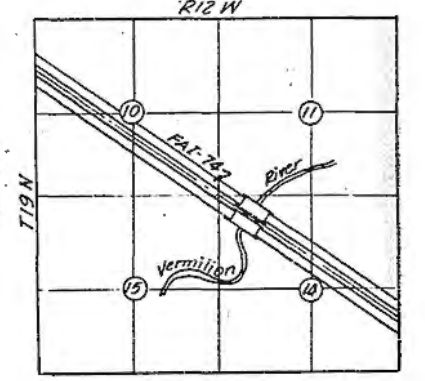
FED. R.T.D. NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	13	3
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT:				



TYPICAL APPROACH ROADWAY CROSS SECTION



NOTE: Approach slabs and transition from curb at the ends of the bridge to Type B gutter to be constructed by the contractor for Section 92-11



BRIDGE LOCATION

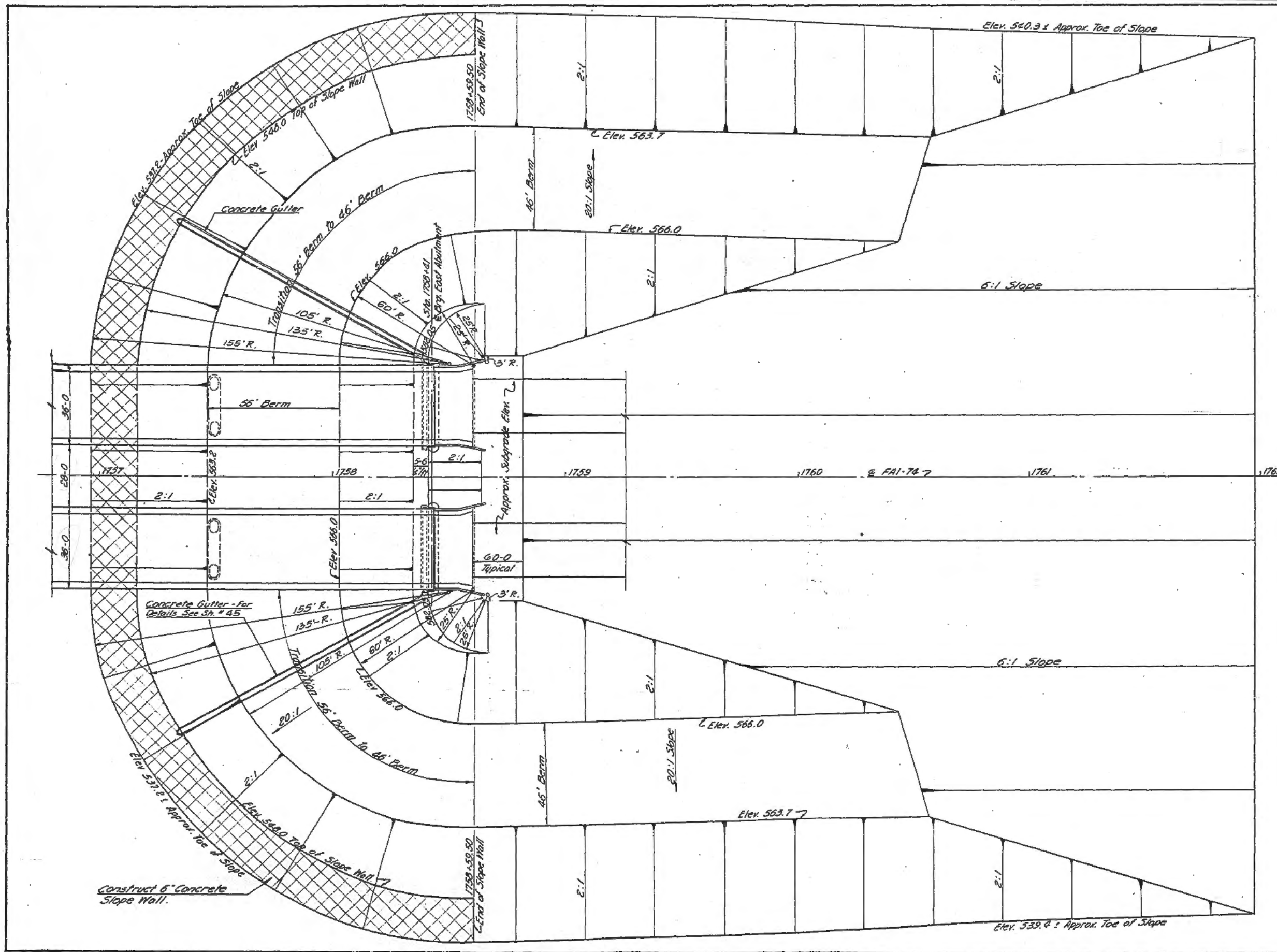
Note: Construct Bridge and All Elements 90° to E. of Construction FAI Rt. 74.

Note: Design loading this structure H20-S16-89 Mod. The right bridge illustrated, the left bridge is identical except as noted in the plans.

WATERWAY INFORMATION
 Drainage Area 970 Sq. Mi.
 Waterway Required: Illinois Division of Waterways 5,650 Sq. Ft.
 Waterway Provided: Below Design High Water 5,380 Sq. Ft.
 Note: Bridge Grade not controlled by High Water.

CONSOER. TOWNSEND & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS					
ILLINOIS DIVISION OF HIGHWAYS					
FAI RT. 74 BRIDGE OVER VERMILION RIVER					
FAI-74 SECTION 92-11B, IIF					
PROJECT I-74-6(37)213				STA. 1755+16	
GENERAL PLAN AND LOCATION					
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE
GEE	RLF	RLF	JWH	LDB	HSM 10-10-60

F&E No.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	26
FEDERAL ROAD DISTRICT NO. 7				



NOTE: Layout of Slope Walls and Concrete Gutters may be varied to suit ground conditions in the field as directed by the Engineer.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

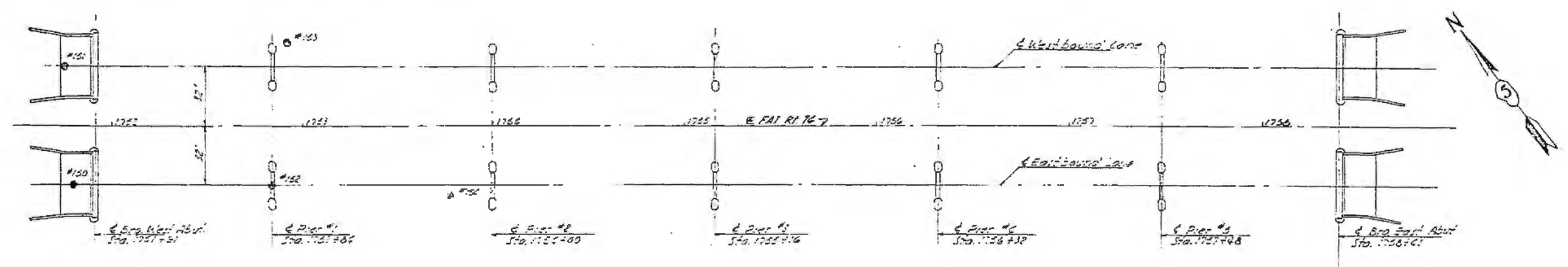
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

EAST CONSTRUCTION BERM

DESIGNED	DRAWN	CHECKED	APPROVED	DATE
	JH	JH		
		LDB	HSM	10-10-60

Revised berm dimension 1-3-62 L.D.W.

FED. AID DISTRICT NO.	SECTION	COUNTY	TOTAL LENGTH	SHEET NO.
75	92-15	VERMILION	93	27
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	ILLINOIS	



BORING NO. 150
DATE: 4-15/58
GROUND ELEVATION: +641.6'

ELEVATION	DEPTH (ft)	LOG DESCRIPTION
641.6	1-2	FINE TO MED. SAND-SOME SILT-SOME SILT-TRACE OF GRAVEL-BROWN-MED. DENSE (U)
640.0	2-2	SILT-SOME SAND & CLAY-TRACE OF GRAVEL-BROWN-MED. DENSE (U)
638.0	3-10	FINE TO COARSE SAND & SILT-TRACE OF CLAY & GRAVEL-BROWN-MED. DENSE (U)
635.0	4-12	1.9-0.3
631.0	5-70	1.5-0.3
629.0	6-79	1.2-0.3
627.1	7-142	6.0-0.3
624.1	8-100	0.1
621.0	9-100	3.2-0.3
618.0	10-100	0.1
615.0	11-170	0.3
612.0	12-100	0.1
610.0	13-192	0.1
608.0	14-100	0.1
606.0	15-100	0.1
604.1	16-100	0.1
602.0	17-100	0.1
600.1	18-100	0.1
598.1	19-100	0.1
596.0	20-100	0.1

BORING NO. 151
DATE: 4-15/58
GROUND ELEVATION: +636.5'

ELEVATION	DEPTH (ft)	LOG DESCRIPTION
636.5	1-7	0.4
635.0	2-16	1.1-0.3
633.0	3-10	2.2-0.3
631.5	4-13	0.2
629.5	5-10	2.4-0.2
627.5	6-10	0.3
625.5	7-132	6.5-0.3
623.0	8-161	0.9-0.1
621.0	9-162	0.2
619.0	10-189	0.2
617.0	11-114	0.4
615.0	12-179	0.3
613.0	13-100	0.1
611.0	14-100	0.1
609.0	15-100	0.1
607.0	16-100	0.1
605.0	17-100	0.1
603.0	18-100	0.1
601.0	19-100	0.1
599.0	20-100	0.1

BORING NO. 152
DATE: 3-20-58
GROUND ELEVATION: +551.9'

ELEVATION	DEPTH (ft)	LOG DESCRIPTION
551.9	1-7	0.3
549.0	2-49	0.3
547.0	3-30	0.2
545.0	4-20	0.2
543.0	5-12	1.9-0.4
541.0	6-26	2.1-0.4
539.0	7-20	0.3
537.0	8-25	2.4-0.5
535.0	9-50	0.2
533.0	10-40	0.2
531.0	11-77	0.2
529.0	12-100	0.3
527.0	13-100	0.2
525.0	14-100	0.2
523.0	15-100	0.2
521.0	16-100	0.2
519.0	17-100	0.1
517.0	18-100	0.1
515.0	19-100	0.1
513.0	20-100	0.1

BORING NO. 153
DATE: 4-1-58
GROUND ELEVATION: +548.0'

ELEVATION	DEPTH (ft)	LOG DESCRIPTION
548.0	1-10	0.3
546.0	2-12	0.4
544.0	3-25	0.3
542.0	4-31	0.2
540.0	5-19	0.3
538.0	6-71	0.3
536.0	7-100	0.2
534.0	8-100	0.1
532.0	9-100	0.1
530.0	10-100	0.1
528.0	11-100	0.1
526.0	12-100	0.1
524.0	13-100	0.1
522.0	14-100	0.1
520.0	15-100	0.1
518.0	16-100	0.1
516.0	17-100	0.1
514.0	18-100	0.1
512.0	19-100	0.1
510.0	20-100	0.1

BORING NO. 154
DATE: 3-29-58
GROUND ELEVATION: +537.1'

ELEVATION	DEPTH (ft)	LOG DESCRIPTION
537.1	1-4	0.4
535.0	2-7	0.3
533.0	3-10	0.3
531.0	4-12	1.2-0.2
529.0	5-13	1.1-0.2
527.0	6-37	0.3
525.0	7-20	0.3
523.0	8-47	3.0-0.5
521.0	9-42	0.2
519.0	10-170	0.3
517.0	11-100	0.1
515.0	12-100	0.1
513.0	13-100	0.1
511.0	14-100	0.1
509.0	15-100	0.1
507.0	16-100	0.1
505.0	17-100	0.1
503.0	18-100	0.1
501.0	19-100	0.1
499.0	20-100	0.1

BORING #	STATION	DEPTH
150	1751+80	32' RT.
151	1751+75	32' LT.
152	1752+84	32' RT.
153	1752+92	45' LT.
154	1753+78	36' RT.

GENERAL NOTES

1950 CHICAGO BUILDING CODE SOIL CLASSIFICATIONS ARE USED.

E = ELEVATION
S = SAMPLE NUMBERS
PR = PENETRATION IN BLOWS PER FOOT OF 140 POUNDS HAMMER FALLING 30 INCHES
QU = UNCONFIRMED COMPRESSIVE STRENGTH (lb./sq. ft.)
R = RECOVERY IN FEET
GS = SPLIT SPOON-SIZE: 2" O.D., SIZE: 3/8" I.D.
M = MOIST
D = DRY
W = WET

*LOGS PREPARED BY
SOIL TESTING SERVICES, INC.
827 N. HARLEM AVE.
CHICAGO 35, ILL.

WATER LEVELS INDICATED ON THE BORING LOGS ARE THE LEVELS MEASURED IN THE BORING AT THE TIMES INDICATED. IN PREVIOUS BORINGS THE INDICATED ELEVATIONS ARE CONSIDERED RELIABLE GROUND WATER LEVELS. IN IMPROVED SOILS, THE ACCURATE DETERMINATION OF GROUND WATER ELEVATIONS IS NOT POSSIBLE IN EVEN SEVERAL DAYS OBSERVATION, AND ADDITIONAL EVIDENCE ON GROUND WATER ELEVATIONS MUST BE OBTAINED.

LOCATION # 3-1

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAIR T. 74 BRIDGE OVER VERMILION RIVER
FAIR-74 SECTION 92-11B
VERMILION COUNTY STA 1755+16

BORING LOGS

REVISION	DATE	BY

DESIGNED: LDB
REVISED: WSM 10-10-58

E	S	PR	QU	R	CLASSIFICATION

PLAN SHEET NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		274
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS 1962				

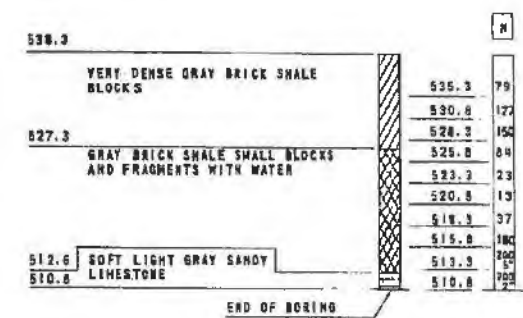
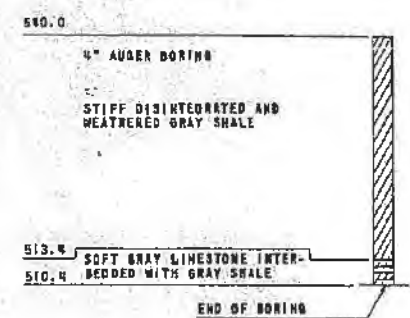
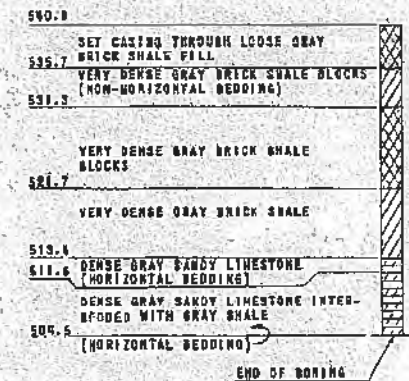
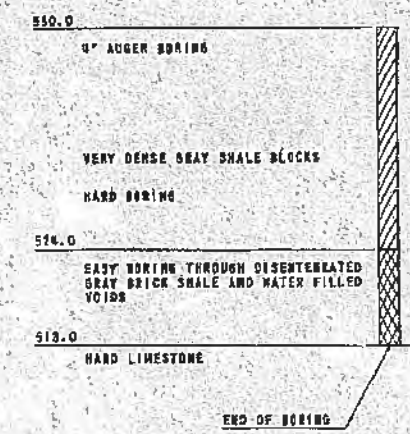
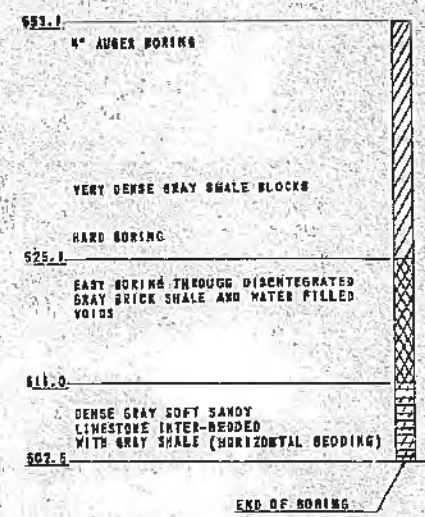
BORING NO. 3
 DATE: 8-21, 1962
 GROUND ELEVATION: 553.1
 STATION 1753 +08 OFFSET 31' LT.

BORING NO. 2
 DATE: 8-20, 1962
 GROUND ELEVATION: 550.0
 STATION 1752 +01 OFFSET 11' LT.

BORING NO. 1
 DATE: 8-16 & 17, 1962
 GROUND ELEVATION: 540.0
 STATION 1752 +04 OFFSET 21' LT.

BORING NO. 4
 DATE: 8-22, 1962
 GROUND ELEVATION: 540.0
 STATION 1753 +02.5 OFFSET 0.5' LT.

BORING NO. 5
 DATE: 9-17, 1962
 GROUND ELEVATION: 538.3
 STATION 1752 +02 OFFSET 32' LT.



N - STANDARD PENETRATION TEST - BLOWS PER FOOT TO DRIVE 2" O.D. SPLIT SPOON SAMPLER 12" WITH 140# HAMMER FALLING 30"

BORING LOGS BY DISTRICT #5 PARIS, ILLINOIS.

AS BUILT

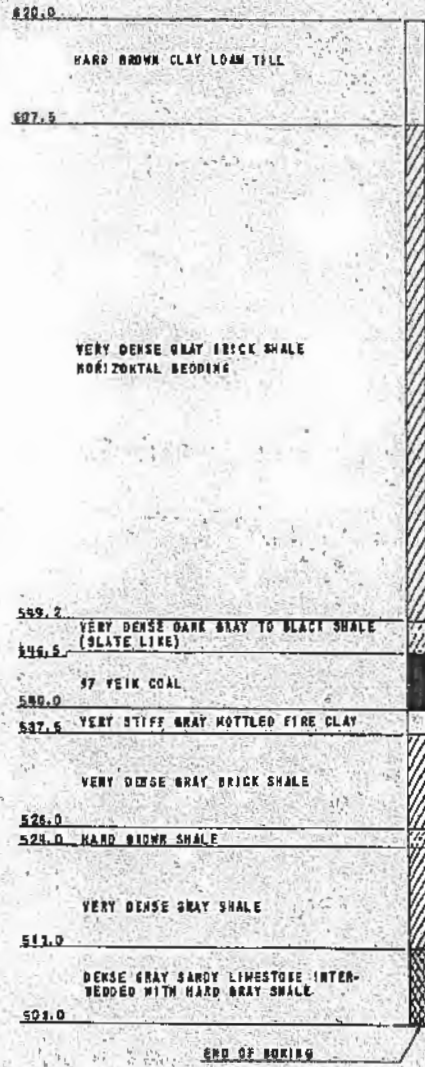
RELOCATED WEST ABUTMENT
CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
 F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
 F.A.I.-74 SECTION 92-11B
 VERMILION COUNTY STA. 1755+16

BORING LOGS

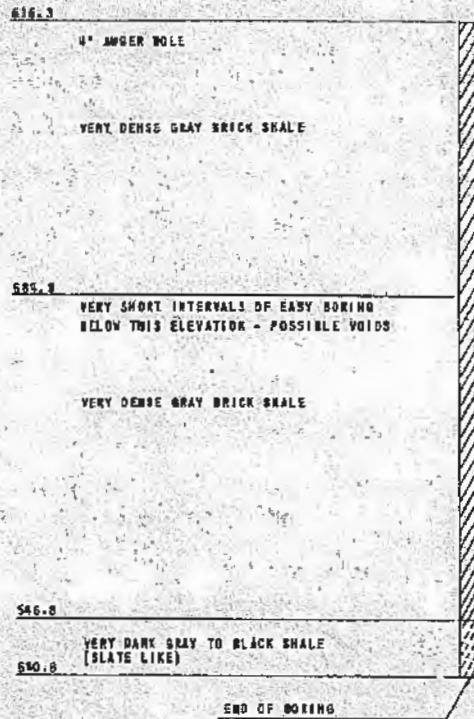
ENGINEER	GROUP	PROJECT	CHECKED	REVISED	DATE	REPLACES
	00		LOB	HSM	11-20-62	

FED. PROJ. NO.	SECTION	COUNTY	FED. DIST.	SHEET NO.
74	92-11E	VERMILION		77E
FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PAV.		

BORING NO. 5
 DATE: 9-23 & 24, 1962
 GROUND ELEVATION: 620.0
 STATION 175D+61 OFFSET 2' RT.



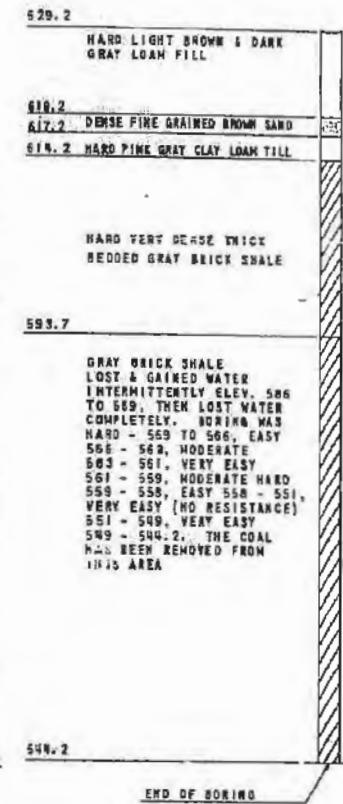
BORING NO. 6
 DATE: 9-4 & 5, 1962
 GROUND ELEVATION: 616.3
 STATION 175I+80 OFFSET 32' LT.



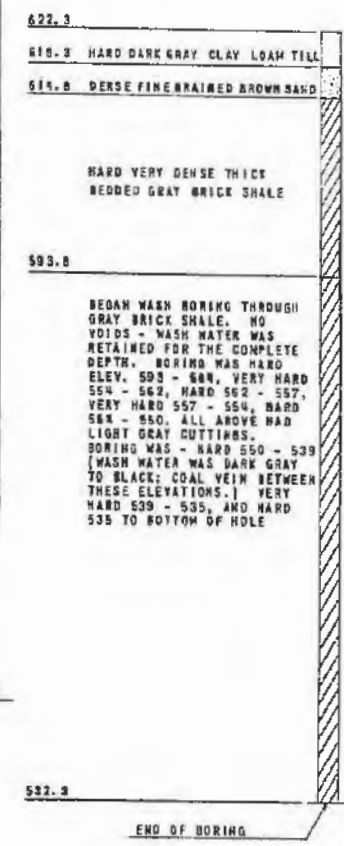
BORING NO. 7
 DATE: 9-6, 1962
 GROUND ELEVATION: 612.5
 STATION 175I+91 OFFSET 32' RT.



BORING NO. 9
 DATE: 10-5, 1962
 GROUND ELEVATION: 629.2
 STATION 175I+00 OFFSET 42' RT.



BORING NO. 10
 DATE: 10-9, 1962
 GROUND ELEVATION: 622.3
 STATION 175I+00 OFFSET 32' LT.



BORING LOGS BY DISTRICT #5
 PARIS, ILLINOIS.

AS BUILT

RELOCATED WEST ABUTMENT

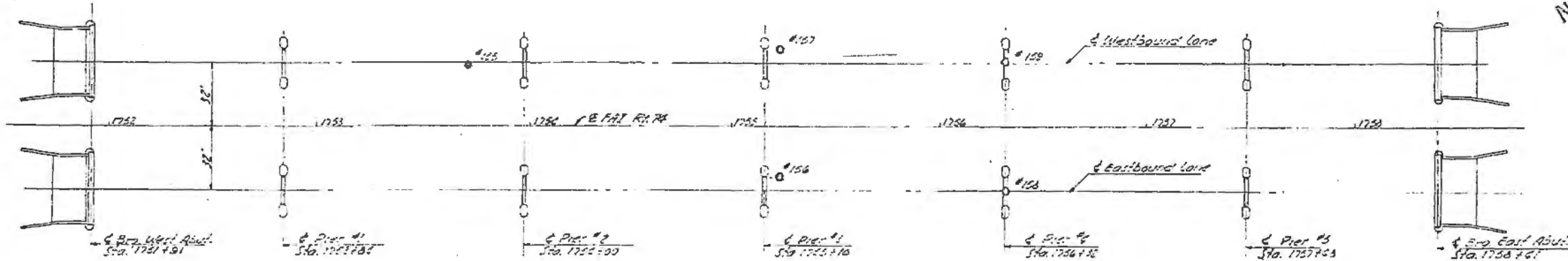
CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
 I.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
 I.A.I.-74 SECTION 92-11B
 VERMILION COUNTY STA. 1755+16

BORING LOGS

DATE	NAME	TRACED	CHECKED	APPROVED	BY	REVISED
DU			108	HSM	11-10-62	

FALL LITE. S.S.	SECTION	COUNTY	P.O. S. S.S.	SHEET NO.
76	92-11B	VERMILION	93	28
FEDERAL ROAD DISTRICT NO. 7		ROUTE	PROJ.	



BORING NO. 155
DATE: 3-30-58
GROUND ELEVATION: +530.8'

DEPTH (FT)	DIAMETER (IN)	DESCRIPTION
20.8	1 - 4	SILT-SOME SAND, CLAY & FIBROUS MATERIAL-BROWN LOOSE (M)
28.8	2 - 8	SILT-SOME SAND & CLAY BROWN LOOSE (M)
25.8	3 - 10	SILT-SOME SAND & CLAY BROWN LOOSE (M)
23.8	4 - 9	SILT-SOME SAND & CLAY BROWN LOOSE (M)
15.8	5 - 20	SILT-SOME SAND & GRAVEL-BROWN-MED. DENSE (M)
16.8	6 - 21	WATER LEVEL +518.8' 1/2 HR. AFTER BORING
14.8	7 - 26	SILT-SOME CLAY & SAND TRACE OF GRAVEL-ORG. MATERIAL-GRAY-LOOSE (M)
12.8	8 - 29	SILT-SOME CLAY & SAND TRACE OF GRAVEL-GRAY-VERY DENSE (D)
10.8	9 - 100	SILT-SOME SAND, CLAY & GRAVEL-ORG. VERY DENSE (D)
09.8	10 - 100	SILT-SOME SAND, CLAY & GRAVEL-ORG. VERY DENSE (D)

END OF BORING

BORING NO. 156
DATE: 2-14-53
GROUND ELEVATION: +534.2'

DEPTH (FT)	DIAMETER (IN)	DESCRIPTION
33.2	1 - 7	BROWN TOP SOIL-LOOSE (M)
31.2	2 - 6	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
30.2	3 - 8	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
29.2	4 - 6	SILT-SOME SAND & CLAY BROWN-LOOSE (M)
27.2	5 - 6	SILT-SOME SAND & CLAY BROWN-LOOSE (M)
25.2	6 - 5	FINE SAND-SOME SILT-TRACE OF CLAY-BROWN-LOOSE (M)
23.2	7 - 18	WATER LEVEL +523.8' AFTER BORING & 24 HRS. AFTER BORING
21.2	8 - 5	FINE TO MED. SAND-SOME SILT-TRACE OF GRAVEL-BROWN & GRAY-LOOSE (M)
19.2	9 - 18	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
17.2	10 - 40	SILT-SOME SAND-TRACE OF CLAY & GRAVEL-GRAY-DENSE (M)
15.2	11 - 200	SILT-SOME CLAY & SAND-GRAY-VERY DENSE (D)
09.2	12 - 200	SILT-SOME CLAY & SAND-GRAY-VERY DENSE (D)

END OF BORING

BORING NO. 157
DATE: 2-14-53
GROUND ELEVATION: +535.4'

DEPTH (FT)	DIAMETER (IN)	DESCRIPTION
34.4	1 - 8	BROWN TOP SOIL-LOOSE (M)
32.4	2 - 9	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
30.4	3 - 8	SILT-SOME SAND-TRACE OF CLAY-BROWN-LOOSE (M)
28.4	4 - 9	SILT-SOME SAND-TRACE OF CLAY-BROWN-LOOSE (M)
26.4	5 - 5	FINE SAND-SOME SILT-TRACE OF CLAY-BROWN-LOOSE (M)
24.4	6 - 5	WATER LEVEL +524.4' AFTER BORING & 24 HRS. AFTER BORING
22.4	7 - 5	FINE TO MED. SAND-SOME SILT-TRACE OF CLAY-GRAY-LOOSE (M)
20.4	8 - 35	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
18.4	9 - 41	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
16.4	10 - 53	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
14.4	11 - 19	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
12.4	12 - 167	SILT-SOME CLAY & SAND-TRACE OF GRAVEL-GRAY-VERY DENSE (D)
10.4	13 - 150	SILT-SOME CLAY & SAND-TRACE OF GRAVEL-GRAY-VERY DENSE (D)

END OF BORING

BORING NO. 158
DATE: 2-16-53
GROUND ELEVATION: +537.2'

DEPTH (FT)	DIAMETER (IN)	DESCRIPTION
35.2	1 - 57	BROWN TOP SOIL-LOOSE (M) (FROZEN)
34.2	2 - 22	SILT-SOME CLAY-TRACE OF SAND-BROWN-MED. DENSE (M)
32.2	3 - 15	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
30.2	4 - 8	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
28.2	5 - 6	SILT-SOME SAND & CLAY BROWN-LOOSE (M)
26.2	6 - 5	WATER LEVEL +525.2' 1/2 HR. AFTER BORING & 24 HRS. AFTER BORING
24.2	7 - 3	SILT-SOME SAND & CLAY BROWN-MED. DENSE (M)
22.2	8 - 7A	SILT-SOME SAND-TRACE OF CLAY & COAL-BROWN-LOOSE (M)
20.2	9 - 11	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
18.2	10 - 48	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
16.2	11 - 53	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
14.2	12 - 148	SILT-SOME CLAY & SAND-TRACE OF GRAVEL-GRAY-VERY DENSE (D)
12.2	13 - 120	SILT-SOME CLAY & SAND-TRACE OF GRAVEL-GRAY-VERY DENSE (D)

END OF BORING

BORING NO. 159
DATE: 2-16-53
GROUND ELEVATION: +537.5'

DEPTH (FT)	DIAMETER (IN)	DESCRIPTION
36.8	1 - 48	BROWN TOP SOIL-LOOSE (M) (FROZEN)
34.8	2 - 21	SILT-SOME CLAY-TRACE OF SAND-BROWN-MED. DENSE (M)
32.8	3 - 10	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
30.8	4 - 4	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
28.8	5 - 2	SILT-SOME CLAY-TRACE OF SAND-BROWN-LOOSE (M)
26.8	6 - 3	WATER LEVEL +527.1' 1/2 HR. & 24 HRS. AFTER BORING
24.8	7 - 7	SILT-SOME CLAY & SAND-BROWN-LOOSE (M)
22.8	8 - 8	FINE TO MED. SAND-SOME SILT-TRACE OF GRAVEL & COAL-BROWN & GRAY-LOOSE (M)
20.8	9 - 8A	FINE TO COARSE SAND-SOME SILT-BROWN-MED. DENSE (M)
18.8	10 - 34	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
16.8	11 - 30	FINE TO MED. SAND & CLAY-TRACE OF SILT-BROWN-MED. DENSE (M)
14.8	12 - 112	SILT-SOME CLAY & SAND-TRACE OF GRAVEL-GRAY-VERY DENSE (D)
12.8	13 - 150	SILT-SOME CLAY & SAND-TRACE OF GRAVEL-GRAY-VERY DENSE (D)

END OF BORING

BORING #	STATION	DEPTH
155	1753+70	31' LT.
156	1754+23	25' RT.
157	1755+23	39' RT.
158	1756+32	32' RT.
159	1756+32	32' LT.

NOTE: FOR GENERAL NOTES SEE LOCATION # 3-1

LOCATION # 2-1

E S PR QV R CLASSIFICATION

E S PR QV R CLASSIFICATION

E S PR QV R CLASSIFICATION

E S PR QV R CLASSIFICATION

E S PR QV R CLASSIFICATION

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CONSULTING ENGINEERS CHICAGO, ILLINOIS

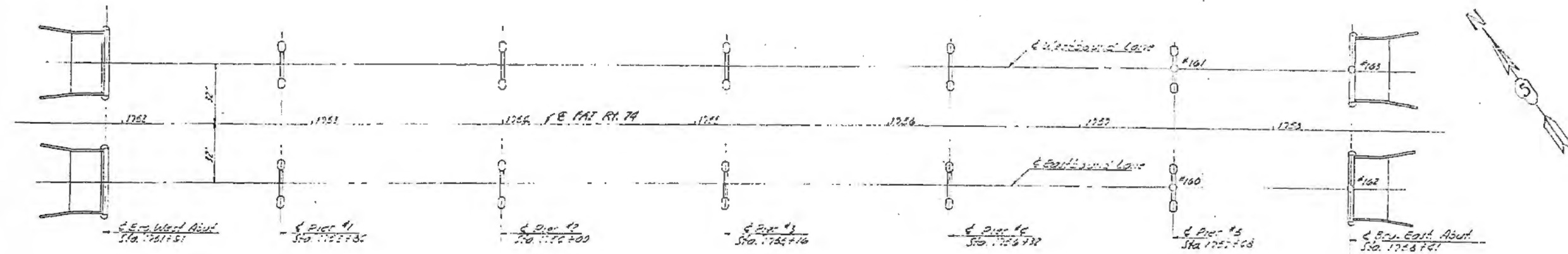
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
			LDB			

MSM 10-5-53

FILE NO.	SECTION	COUNT	TOTAL	DATE
77	92-11B	VERMILION CO.	93	20
VERMILION ROAD DISTRICT NO. 7				



BORING NO. 149
DATE: 2-19-58
GROUND ELEVATION: +537.6'

DEPTH (ft)	DIAMETER (in)	DESCRIPTION
35.8	80	FROM TOP SOIL-LOOSE (U) (FROZEN)
35.1		
34.0	2	10 - 0.3 - SILT-TRACE OF SAND & CLAY-GROWN-MED. DENSE (U)
33.8	3	15 - 1.7 0.4
33.1		
32.3	4	13 - 1.8 0.4 - SILT-SOME CLAY-TRACE OF SAND-GROWN-MED. DENSE (U)
31.6		
30.8	5	10 - 0.5 - 0.8 - SILT-SOME CLAY-TRACE OF SAND-GROWN-MED. DENSE (U)
30.1		
29.9		
27.6		
26.9	8	8 - 0.7 - 0.6 - SILT-SOME CLAY & SAND-GROWN-LOOSE (U)
26.1		
24.6		WATER LEVEL +524.1' AFTER BORING & 24 HRS. AFTER BORING
23.8	7	9 - 0.8 - 0.9
23.1		WATER LEVEL +523.1' WHILE SAMPLING
22.4		
21.6		
20.8	8	10 - 0.98 1.1 - MED. SAND & SILT-SOME CLAY & GRAVEL-GROWN & GRAY-MED. DENSE (U)
20.1		
19.4		
18.6	9	3 - 0.8 - 0.8 - SILT-SOME CLAY & SAND-GROWN & GRAY-LOOSE (U)
17.9		
17.2	9A	29 1.4 0.8 - SILT-SOME SAND, CLAY & GRAVEL-GROWN-MED. DENSE (U)
16.5		
15.8		
15.1	10	53 - 0.8 - SILT-SOME CLAY & FINE SAND-GRAY-VERY DENSE (D)
14.4		
13.7		
13.0		
12.3	11	147 - 0.8 - SILT-SOME CLAY & FINE SAND-GRAY-VERY DENSE (D)
11.6		
10.9		
10.2		
9.5		
8.8		

END OF BORING

C	S	Pr	Cu	R	CLASSIFICATION
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BORING NO. 151
DATE: 2-15-58
GROUND ELEVATION: +537.5'

DEPTH (ft)	DIAMETER (in)	DESCRIPTION
35.8	1	55 - 0.9 - FROM TOP SOIL-LOOSE (U) (FROZEN)
35.0		
34.2	2	12 - 2.4 0.4 - SILT-TRACE OF CLAY & SAND-GROWN-MED. DENSE (U)
33.5		
32.8	3	14 - 2.3 0.4
32.0		
31.2	4	18 - 1.6 0.4 - SILT-SOME CLAY-TRACE OF SAND-GROWN-MED. DENSE (U)
30.5		
29.8	5	11 - 1.3 0.3 -
29.0		
28.3		
27.5		
26.8	6	5 - 0.6 0.7 - SILT-SOME CLAY-TRACE OF SAND-GROWN-LOOSE (U)
26.0		
24.5		WATER LEVEL +524.5' & HR. & 24 HRS. AFTER BORING
23.8	7	6 - 0.8 -
23.0		
22.3		WATER LEVEL +521.5' WHILE SAMPLING
21.6		
20.8	8	28 - 0.7 - FINE TO MED. SAND & GRAVEL-SOME SILT-TRACE OF CLAY-GROWN-MED. DENSE (U)
20.1		
19.4		
18.6		
17.9		
17.2	9	32 - 0.3 - SILT-SOME SAND & CLAY-GRAY-VERY DENSE (D)
16.5		
15.8		
15.1	10	92 - 0.3 - MED. GRAVEL-SOME SILT & SAND-TRACE OF CLAY-GRAY-VERY DENSE (D)
14.4		
13.7		
13.0		
12.3		
11.6	11	145 - 0.8 - SILT-SOME CLAY & FINE SAND-GRAY-VERY DENSE (D)
10.9		
10.2		
9.5		
8.8		

END OF BORING

C	S	Pr	Cu	R	CLASSIFICATION
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BORING NO. 152
DATE: 3-18-58
GROUND ELEVATION: +537.9'

DEPTH (ft)	DIAMETER (in)	DESCRIPTION
35.8	1	6 - 0.3 - SILT-SOME CLAY-TRACE OF SAND & ORGANIC MATERIAL-GROWN-LOOSE (U)
35.0		
34.2	2	13 - 2.0 - 0.4 - SILT & CLAY-TRACE OF SAND-GROWN-MED. DENSE (U)
33.5		
32.8	3	15 - 0.8 - 0.3 -
32.0		
31.2		
30.5	4	14 - 0.9 - 0.3 - SILT & CLAY-TRACE OF SAND-GROWN-LOOSE (U)
29.8		
29.0		
28.3		
27.5		
26.8	5	7 - 0.5 - 0.3 - SILT-SOME CLAY & SAND-GROWN-LOOSE (U)
26.0		
25.2		
24.4	6	9 - 0.5 - 0.4 - WATER LEVEL +524.4' 4 HRS. AFTER BORING
23.7		
23.0		
22.3		
21.6	7	5 - 0.33 - 0.5 - SILT-SOME SAND, CLAY & GRAVEL-GROWN-LOOSE (U)
20.9		
20.1		
19.4	8	31 - 0.4 - SAND & GRAVEL-SOME SILT-TRACE OF CLAY-GROWN-MED. DENSE (U)
18.6		
17.9		
17.2		
16.5	9	28 - 0.9 -
15.8		
15.1		
14.4	10	88 - 0.5 - SILT & CLAY-SOME SAND-TRACE OF FINE SAND-GRAY-VERY DENSE (D)
13.7		
13.0		
12.3		
11.6	11	100 - 0.1 -
10.9		
10.2		
9.5	12	100 - 0.1 - SILT-SOME SAND & CLAY-GRAY-VERY DENSE (D)
8.8		

END OF BORING

C	S	Pr	Cu	R	CLASSIFICATION
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BORING NO. 153
DATE: 2-10-58
GROUND ELEVATION: +538.4'

DEPTH (ft)	DIAMETER (in)	DESCRIPTION
37.7	1	66 - 1.0 - FROM TOP SOIL-LOOSE (U) (FROZEN)
35.0		
34.1	2	24 - 3.0 0.4 - SILT-TRACE OF CLAY & SAND-GROWN-MED. DENSE (U)
33.2		
32.4	3	16 - 2.2 - 0.5 -
31.7		
30.9	4	17 - 2.1 - 0.6 - SILT-SOME CLAY-TRACE OF SAND-GROWN-MED. DENSE (U)
30.2		
29.4	5	16 - 2.2 - 0.7 -
28.7		
28.0		
27.2	6	7 - 0.6 - 0.6 - SILT-SOME CLAY-TRACE OF SAND & COAL-GROWN-LOOSE (U)
26.5		
25.7		
25.0		WATER LEVEL +525.4' AFTER BORING & 24 HRS. AFTER BORING
24.3	7	7 - 0.2 - 0.0 -
23.6		
22.8		
22.1		
21.4		
20.7	8	5 - 0.4 - 0.7 - SILT-SOME CLAY-TRACE OF SAND-GROWN-LOOSE (U)
20.0		
19.2		
18.5		
17.8	9	27 - 0.6 - MED. GRAVEL-SOME SAND & SILT-GROWN-MED. DENSE (U)
17.1		
16.4		
15.7		
15.0		
14.3	10	120 - 0.3 - COAL-VERY DENSE (D)
13.6		
12.9		
12.2		
11.5	11	165 - 0.2 -
10.8		
10.1		
9.4		
8.7		
8.0	12	91 - 0.3 - SILT-SOME CLAY & FINE SAND-GRAY-VERY DENSE (D)
7.3		
6.6		
5.9		
5.2	13	165 - 0.4 -
4.5		

END OF BORING

C	S	Pr	Cu	R	CLASSIFICATION
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NOTE FOR GENERAL NOTES SEE LOCATION #3-1

BORING #	STATION	OFFSET
150	1757+48	32' RT
151	1757+48	32' LT
152	1758+41	32' RT
153	1758+41	32' LT

LOCATION # 2-3

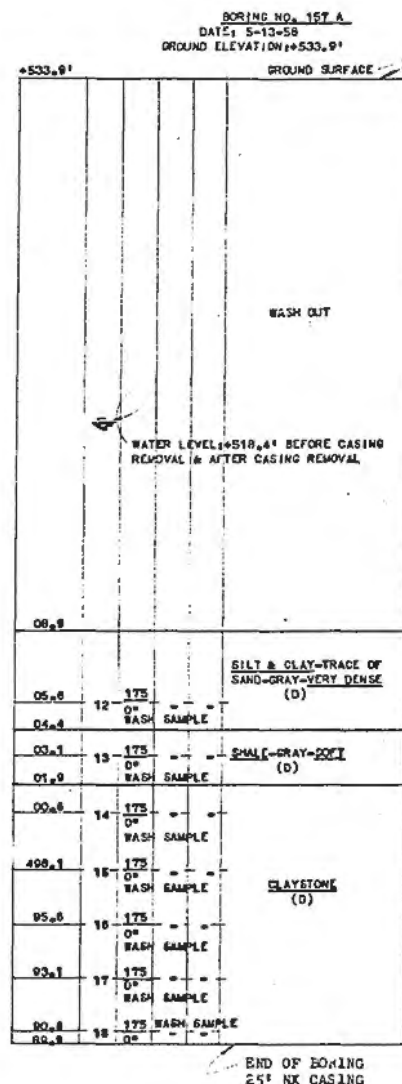
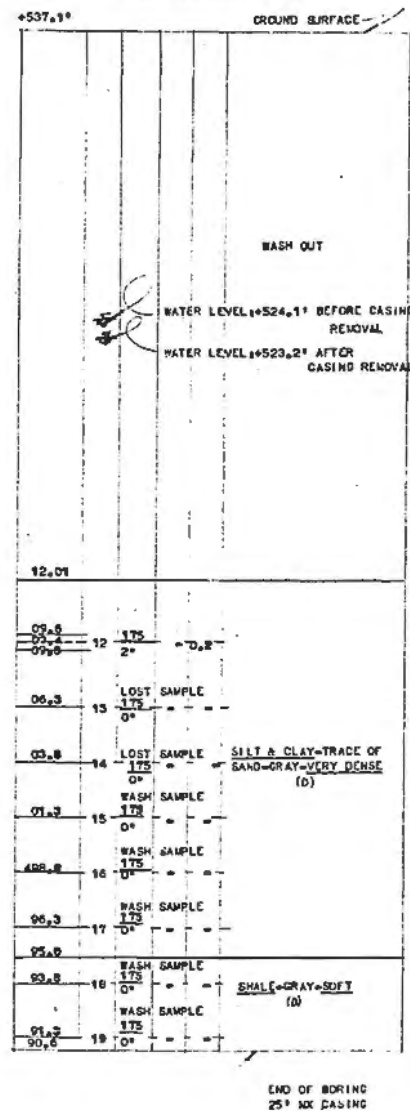
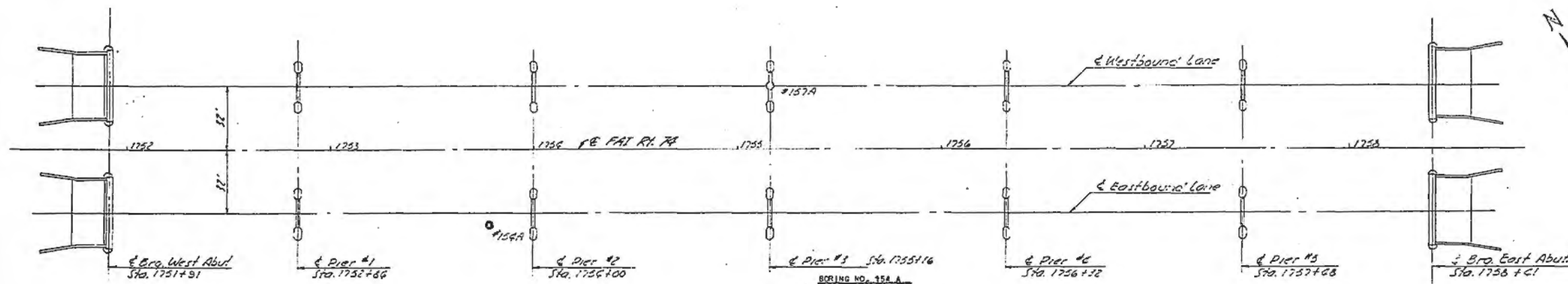
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT. BRIDGE OVER VERMILION RIVER
FAI 74 SECTION 92-11B
VERMILION COUNTY STA 1755+15

BORING LOGS

ENGINEER	DRAWN	TRACES	LOGS	REVIEWED	DATE	STATUS
				NSM	10/20/58	

FED. H.W. NO.	SECTION	COUNTY	TOTAL MILES	SHEET NO.
74	92-118	VERMILION	9.3	30
FEDERAL ROAD DISTRICT NO. 7				



C	B	PR	QU	R	CLASSIFICATION
---	---	----	----	---	----------------

C	B	PR	QU	R	CLASSIFICATION
---	---	----	----	---	----------------

BORING	STATION	OFFSET
154A	1753+78	38' RT.
157A	1755+16	32' LT.

S.T.S. JOB NO. 3791-R

FOR GENERAL NOTES SEE LOCATION # 3-1

LOCATION # 3-4

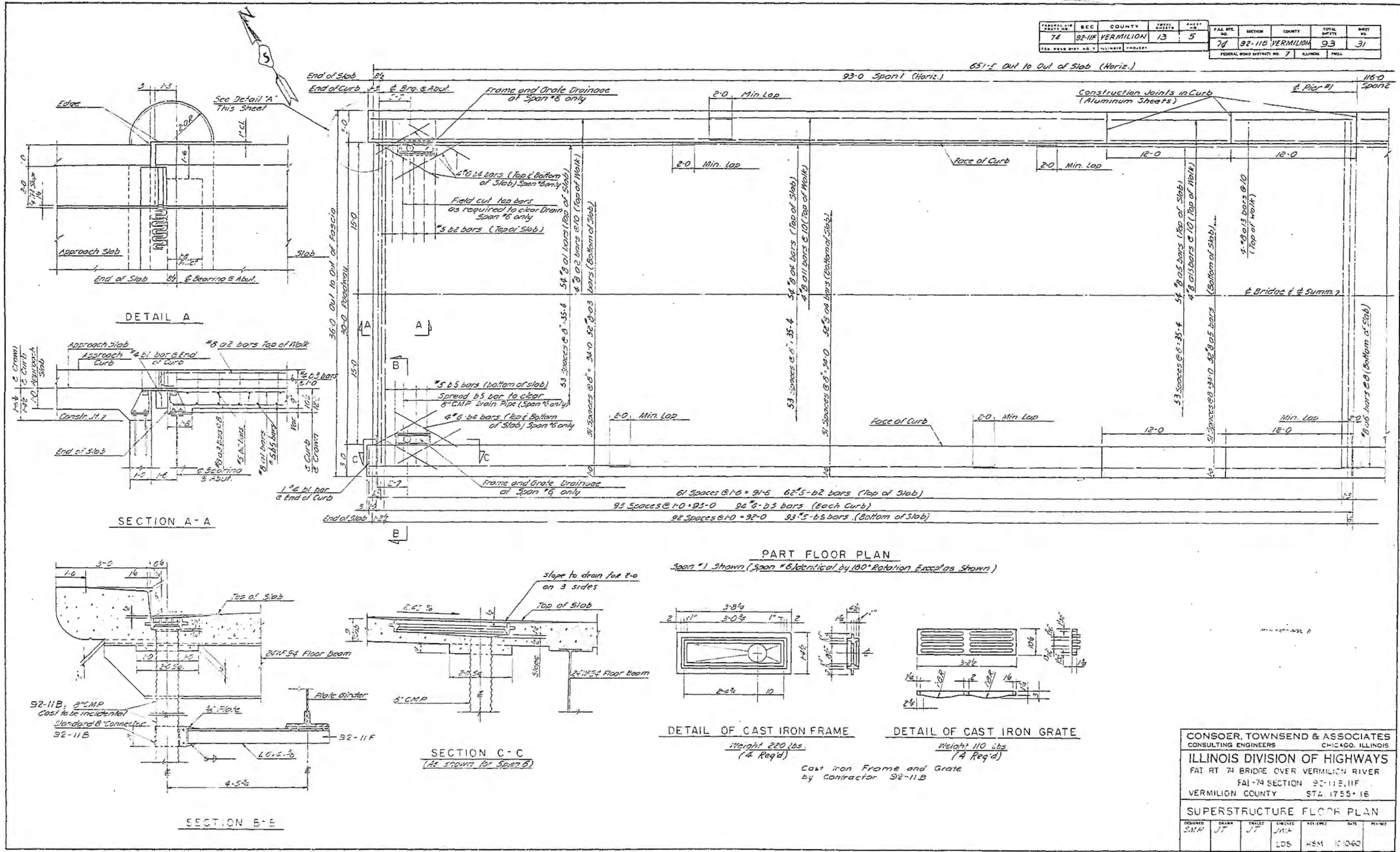
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI 74 SECTION 92-118
VERMILION COUNTY STA 1755+16

BORING LOGS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
			LDB		10-10-65	

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL LENGTH	PAGE NO.
74	92-11F	VERMILION	13	5
ILLINOIS PROJECT				
FEDERAL AID ROUTE NO.	SECTION	COUNTY	TOTAL LENGTH	PAGE NO.
74	92-11B	VERMILION	93	31
FEDERAL ROAD DISTRICT NO. 7				

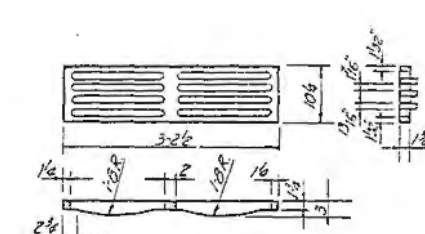
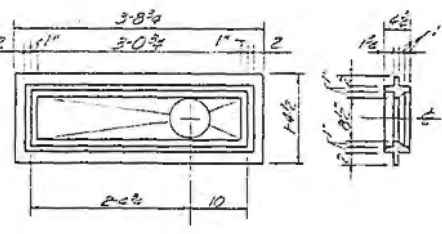


DETAIL A

SECTION A-A

PART FLOOR PLAN

Span #1 Shown (Span #6 identical by 180° Rotation Except as Shown)



SECTION C-C

(As shown for Span #6)

SECTION B-B

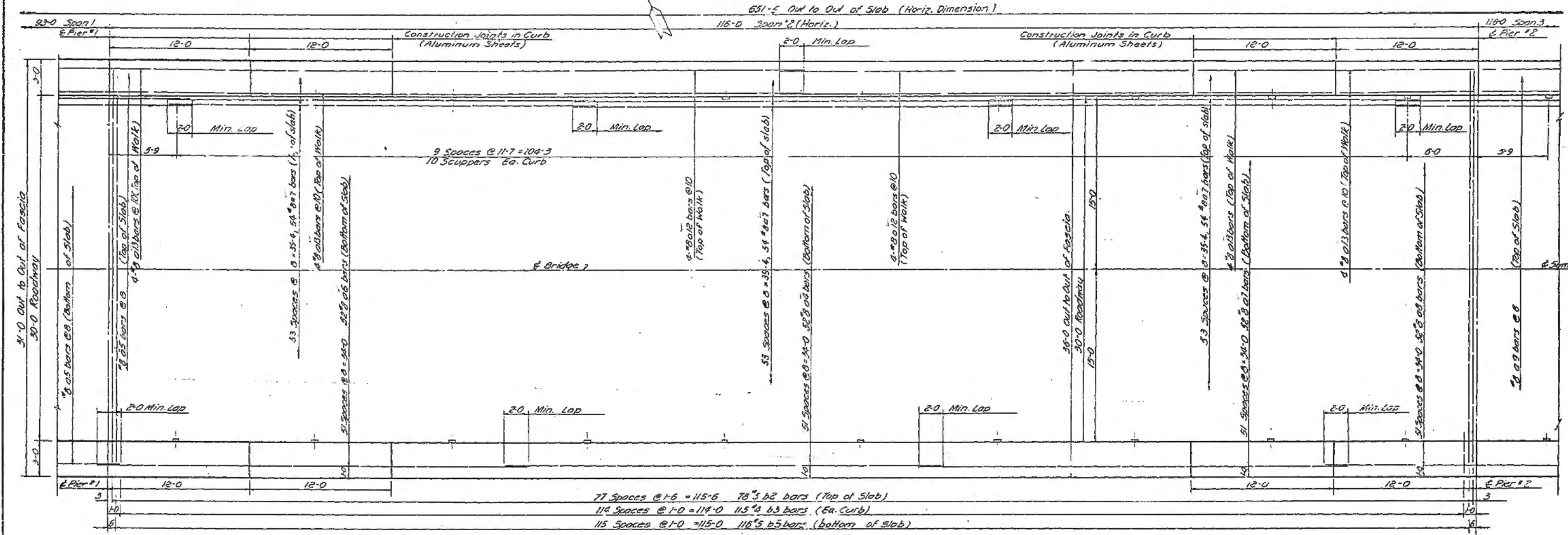
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11F
VERMILION COUNTY STA. 1755+16

SUPERSTRUCTURE FLOOR PLAN

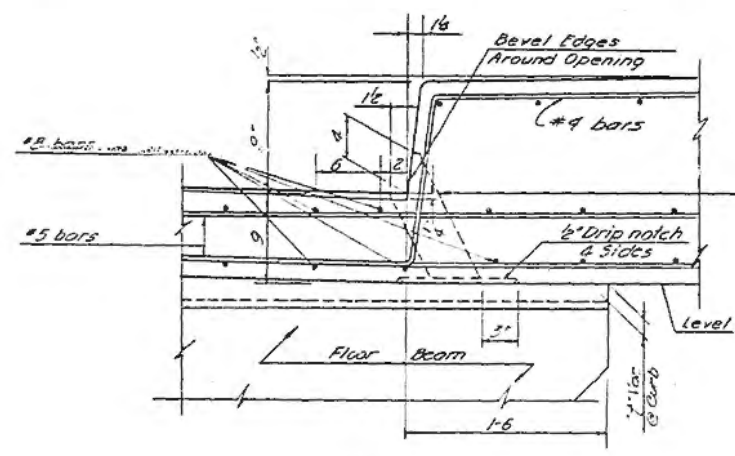
DESIGNED	DRAWN	TRACED	ENGINEER	REVIEWER	DATE	REVISED
SMH	JT	JT	JM	LDS	HEM	10-60

FBI FILE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-118	VERMILION	93	32
FEDERAL ROAD DISTRICT NO. 7		RAVINGS	FINAL	



PART FLOOR PLAN

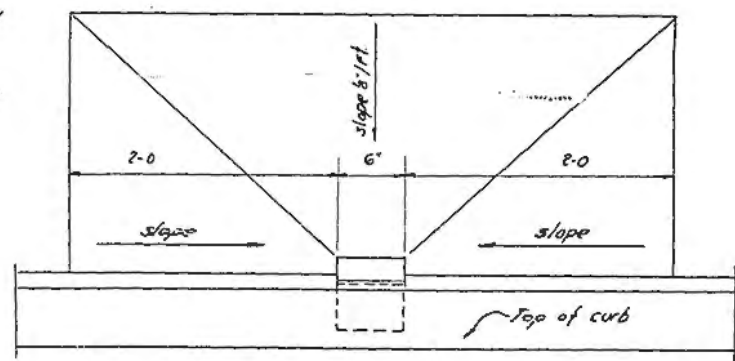
Span #2 shown, Span #5 identical by 180° rotation



SECTION

4" x 6" Formed Drain Opening Spaced to miss Floor Beams & 117 Chrs. Scuppers of Spans #2, #3, #4 & #5 each curb. Spread Slab Bars to clear opening.

SCUPPER DETAIL



PLAN

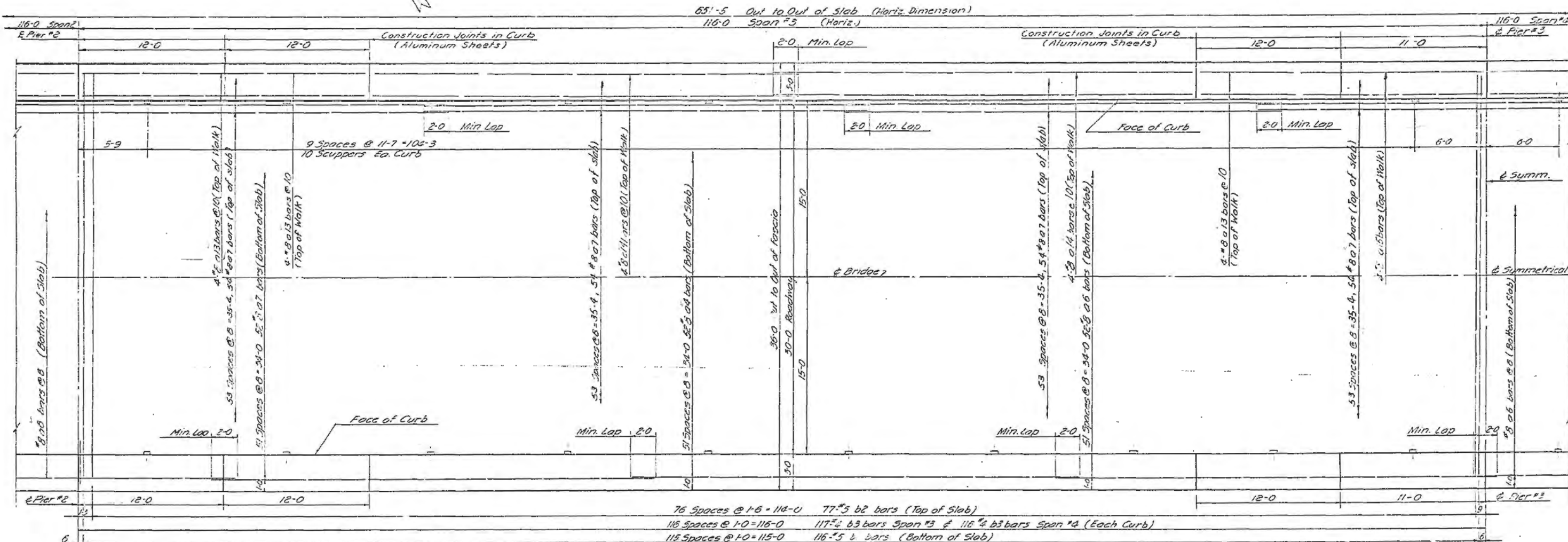
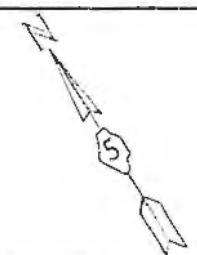
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-118
VERMILION COUNTY STA 1755+16

SUPERSTRUCTURE FLOOR PLAN

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
SMH	JT	JT	JWH		
			LDB	NSM	10-26-64

F.A.I. R.T. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	53	33
FEDERAL ROAD DISTRICT NO. 7	COLUMBIA	PROJ.		



PART FLOOR PLAN
Span 3 shown. Span 4 identical by 180° Rotation

CONSOER, TOWNSEND & ASSOCIATES
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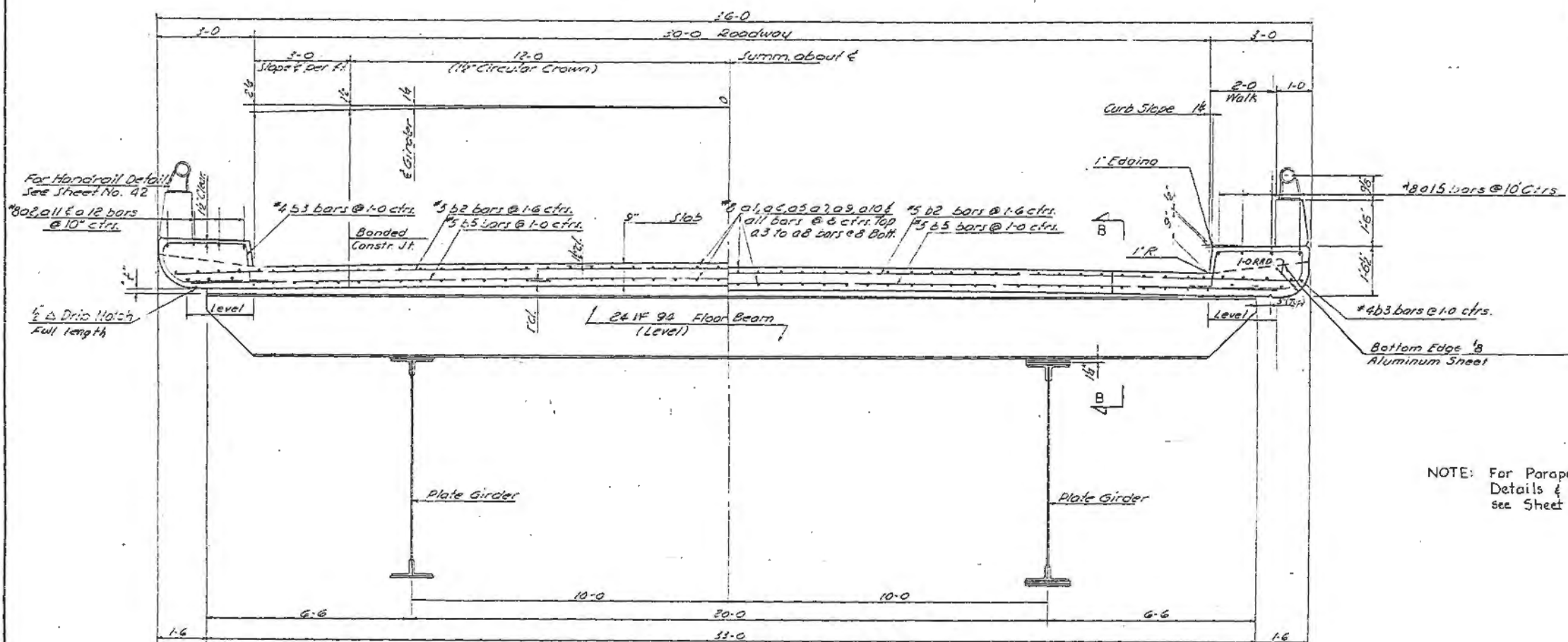
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

SUPERSTRUCTURE FLOOR PLAN

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
S.M.H.	J.T.	J.T.	J.N.H.	LDB	4/54	10/10/54

FED. AID DIST. NO.	REC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	6

FED. AID DIST. NO.	SECTION	QUANTITY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	34

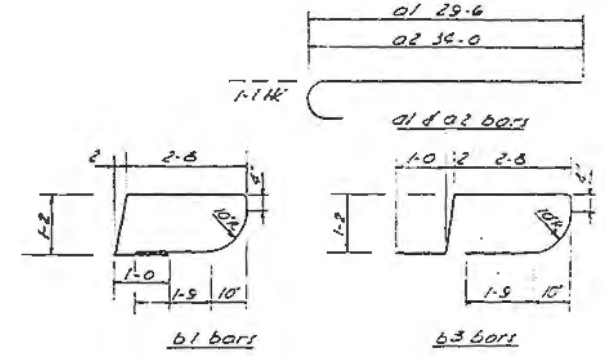


Bar No	Size	Length	Spacing	Shape
a1	216	8	30.7	8
a2	32	8	35.1	9
a3	208	8	23.8	8
a4	1056	8	37.0	As Shown
a5	424	8	37.10	As Shown
a6	216	8	36.9	8
a7	1064	8	36.7	As Shown
a8	208	8	26.0	8
a9	216	8	37.0	As Shown
a10	216	8	36.2	As Shown
a11	248	8	38.0	As Shown
a12	64	8	35.0	10"
a13	288	8	11.1	10"
a14	64	8	35.4	10"
a15	32	8	10.8	10"
b1	8	4	8.2	As Shown
b2	868	5	35.3	1-6
b3	2604	4	8.2	1-0
b4	32	6	7.0	As Shown
b5	1300	5	34.3	1-0

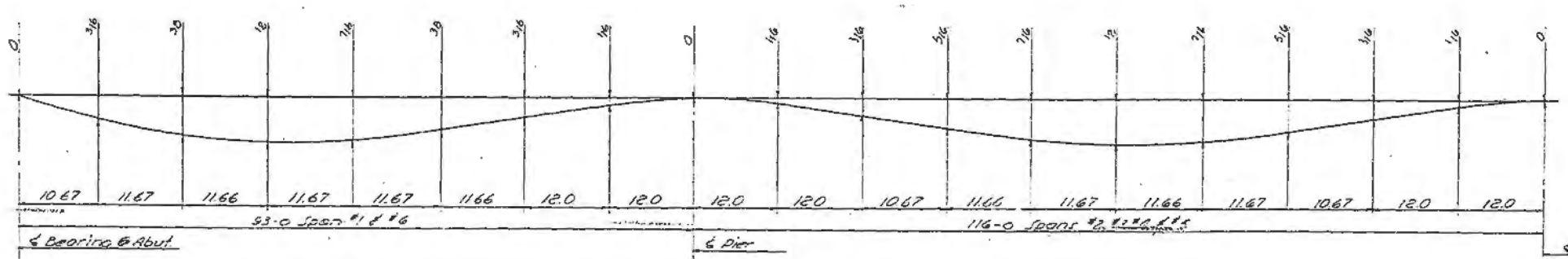
SUPERSTRUCTURE QUANTITIES	
Class X Concrete	1556.5 cu yds
Reinforcement Bars	522,510 lbs

NOTE: For Parapet Handrail Details & Quantities see Sheet No. 42

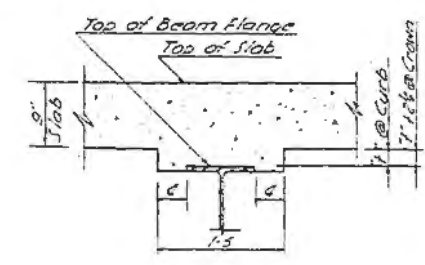
Note: Quantities shown are for both structures.



BENDING DIAGRAMS
(All Bar dimensions are Out to Out)

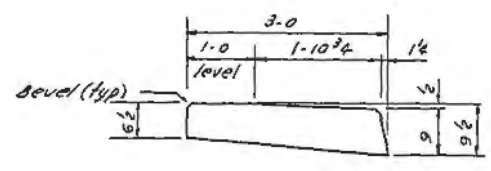


SLAB DEAD LOAD DEFLECTION



SECTION B-B

METHOD FOR DETERMINING FILLET HEIGHTS "T"
Elevation of the top flanges of each floor beam shall be taken after all structural steel has been erected. From these elevations subtract the increment of deflection for these points, determined from the slab D.L. deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus 1/4" (slab 9" & crown 2 1/2") equals the fillet height "T" at the curb. The fillet height @ & Roadway equals 1/4" + 1/2" & crown.



DETAIL OF 1/8" ALUMINUM SHEETS
Used in curb joints (3003-H14)

NOTE: Aluminum Sheet
Used in Curb shall be included
in Cost of Class X Concrete.

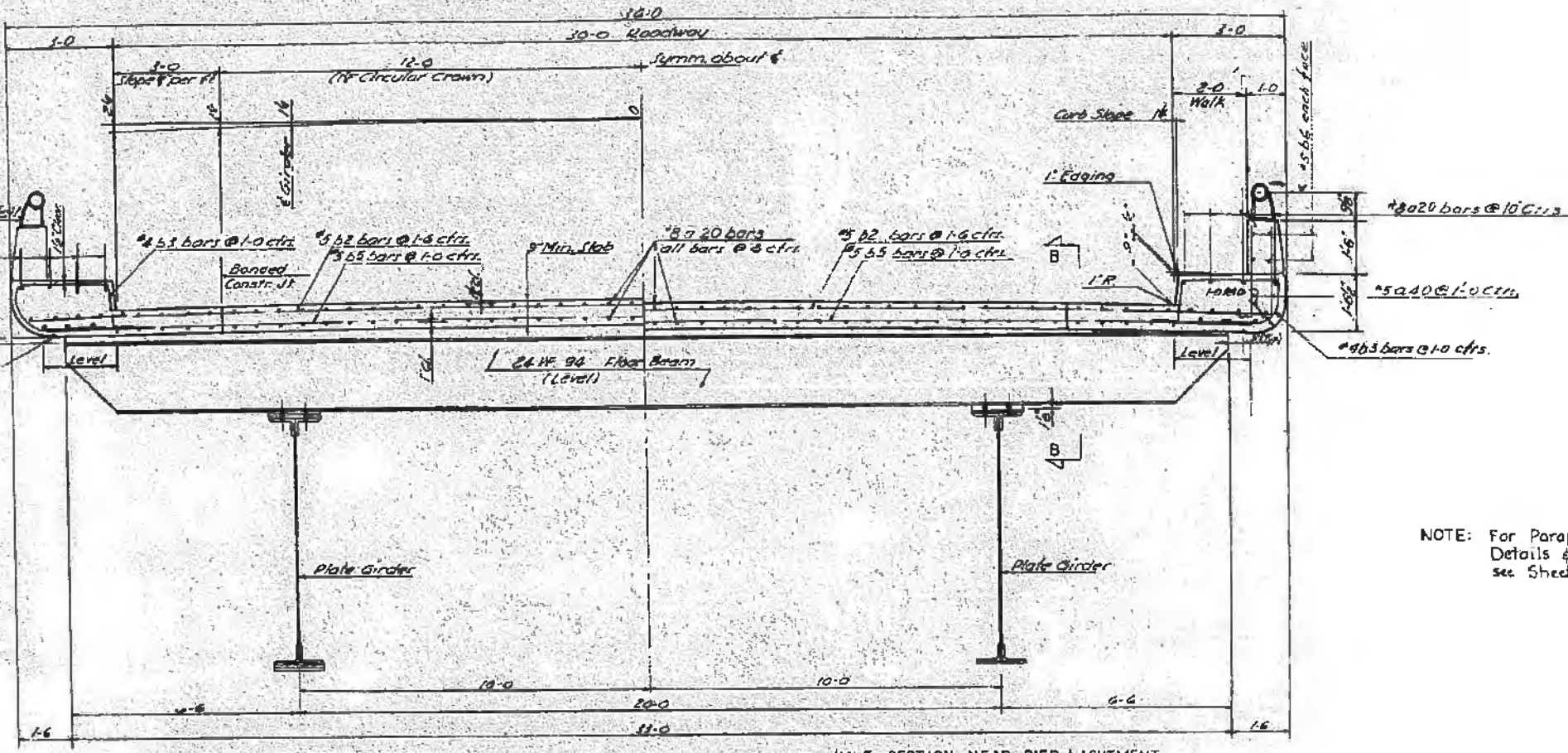
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMLION RIVER
FAI-74 SECTION 92-11B.11F
VERMILION COUNTY STA. 1755+16

SUPERSTRUCTURE DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
SMH	JT	NES	JNH	HSM	10-10-63	

PROJECT NO.	SEC.	COUNTY	TOWN	SHEET
74	92-11B	VERMILION		2
DATE	BY	CHECKED	DATE	



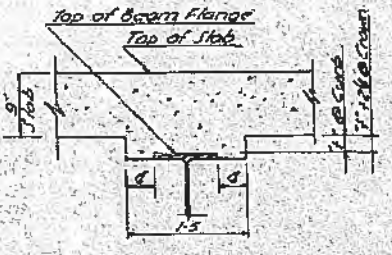
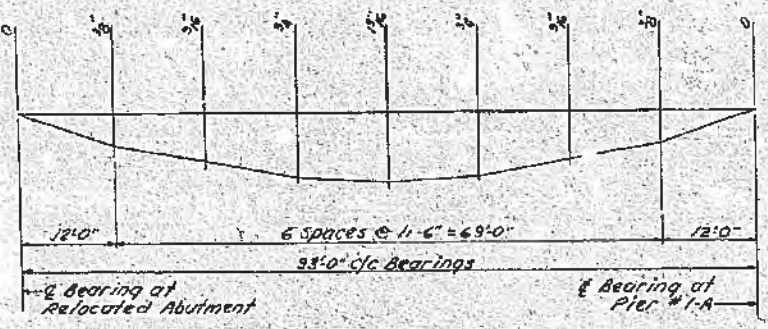
BAR SCHEDULE					
Bar No.	Size	Length	Spacing	Shape	
a 20	684	8	33'-0"	As Shown	
a 40	872	5	3'-0"	As Shown	
b 2	128	5	33'-3"	1'-6"	
b 3	384	4	8'-2"	1'-0"	
b 5	188	5	34'-3"	1'-0"	
b 6	128	5	11'-6"	As Shown	

SUPERSTRUCTURE QUANTITIES		
Class X Concrete	244	cu. yds.
Reinforcement Bars	79,950	lbs.

NOTE: For Parapet Handrail Details & Quantities see Sheet No. 9

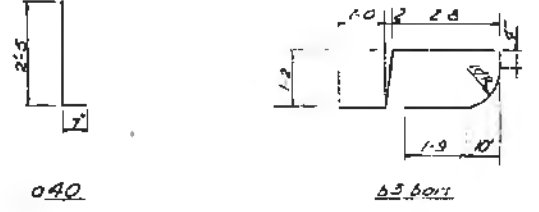
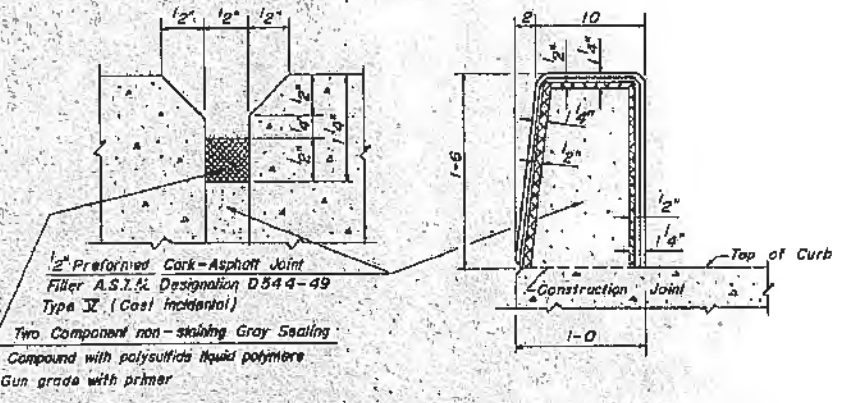
Note: Quantities shown are for both structures, Span No. 1-A

HALF SECTION AT CENTER OF SPAN. TYPICAL SECTION HALF SECTION NEAR PIER & ABUTMENT



METHOD FOR DETERMINING FILLET HEIGHTS "T"

Elevation of the top flange of each floor beam shall be taken after all structural steel has been erected. From these elevations subtract the increment of deflection for these points, determined from the slab D.L. deflection diagram. The elevations so obtained subtracted from the theoretical grade elevations, minus 1 1/4" (slab 3" & crown 2 1/2") equals the fillet height "T" at the curb. The fillet height @ 6" roadway equals "1" + 2 1/2" crown.



AS BUILT

RELOCATED WEST ABUTMENT

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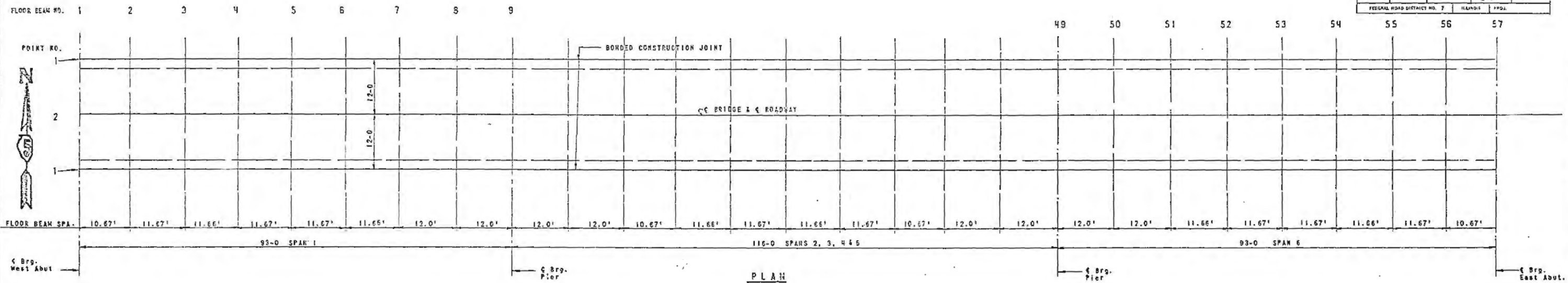
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F

VERMILION COUNTY STA. 1755+16

SUPERSTRUCTURE DETAILS

DESIGNED	CHECKED	DATE
JMH	JRH	12-3-62

FED. RD. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-118	VERMILION	23	35
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	SHEET	



SPAN 1				SPAN 2				SPAN 3				SPAN 4				SPAN 5				SPAN 6				
FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	
1.	1	175191.000	610.071	610.071	10.	1	175296.000	607.551	607.556	20.	1	175412.000	604.766	604.771	40.	1	175494.000	599.199	599.204	50.	1	175760.000	596.415	596.420
	2	175191.000	610.196	610.196		2	175296.000	607.676	607.681		2	175412.000	604.891	604.896		2	175494.000	599.324	599.329		2	175760.000	596.540	596.545
2.	1	175201.670	609.814	609.820	11.	1	175308.000	607.263	607.279	21.	1	175424.000	604.478	604.494	41.	1	175556.000	598.911	598.927	51.	1	175772.000	596.127	596.143
	2	175201.670	609.939	609.955		2	175308.000	607.388	607.404		2	175424.000	604.603	604.619		2	175556.000	599.036	599.052		2	175772.000	596.252	596.268
3.	1	175213.336	609.534	609.565	12.	1	175318.666	607.006	607.032	22.	1	175434.666	604.223	604.249	42.	1	175666.666	598.655	598.661	52.	1	175783.666	595.847	595.878
	2	175213.336	609.659	609.690		2	175318.666	607.131	607.157		2	175434.666	604.348	604.374		2	175666.666	598.780	598.806		2	175783.666	595.972	595.003
4.	1	175225.002	609.254	609.290	13.	1	175330.333	606.726	606.763	23.	1	175446.333	603.943	603.980	43.	1	175678.333	598.375	598.412	53.	1	175795.333	595.567	595.604
	2	175225.002	609.379	609.421		2	175330.333	606.851	606.888		2	175446.333	604.068	604.105		2	175678.333	598.500	598.537		2	175795.333	595.692	595.729
5.	1	175236.668	608.974	609.011	14.	1	175342.000	606.446	606.486	24.	1	175458.000	603.663	603.705	44.	1	175690.000	598.095	598.137	54.	1	175807.000	595.287	595.329
	2	175236.668	609.099	609.136		2	175342.000	606.571	606.613		2	175458.000	603.788	603.830		2	175690.000	598.220	598.262		2	175807.000	595.412	595.454
6.	1	175248.334	608.694	608.725	15.	1	175353.666	606.166	606.203	25.	1	175469.666	603.383	603.420	45.	1	175701.666	597.815	597.852	55.	1	175818.666	595.007	595.038
	2	175248.334	608.819	608.850		2	175353.666	606.291	606.328		2	175469.666	603.508	603.545		2	175701.666	597.940	597.977		2	175818.666	595.132	595.163
7.	1	175260.000	608.415	608.431	16.	1	175365.333	605.886	605.912	26.	1	175481.333	603.103	603.129	46.	1	175713.333	597.535	597.561	56.	1	175830.333	594.727	594.742
	2	175260.000	608.540	608.556		2	175365.333	606.011	606.037		2	175481.333	603.228	603.254		2	175713.333	597.660	597.686		2	175830.333	594.852	594.868
8.	1	175272.000	608.127	608.132	17.	1	175376.000	605.600	605.656	27.	1	175492.000	602.817	602.863	47.	1	175724.000	597.279	597.295	57.	1	175841.000	594.471	594.471
	2	175272.000	608.252	608.257		2	175376.000	605.725	605.771		2	175492.000	602.942	602.988		2	175724.000	597.404	597.420		2	175841.000	594.596	594.596
9. Brg. Pier #1	1	175284.000	607.836	607.839	18.	1	175388.000	605.322	605.387	28.	1	175504.000	602.539	602.564	48.	1	175736.000	596.991	596.996					
	2	175284.000	607.964	607.964		2	175388.000	605.447	605.472		2	175504.000	602.664	602.689		2	175736.000	597.116	597.121					
					19. Brg. Pier #2	1	175400.000	605.054	605.054	39. Brg. Pier #4	1	175632.000	599.487	599.487	49. Brg. Pier #5	1	175748.000	596.703	596.703					
						2	175400.000	605.179	605.179		2	175632.000	599.612	599.612		2	175748.000	596.828	596.828					

NOTES: 1. THEORETICAL ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION.
2. ADJUSTED ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION ADJUSTED FOR THE CONCRETE DEAD LOAD DEFLECTION.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

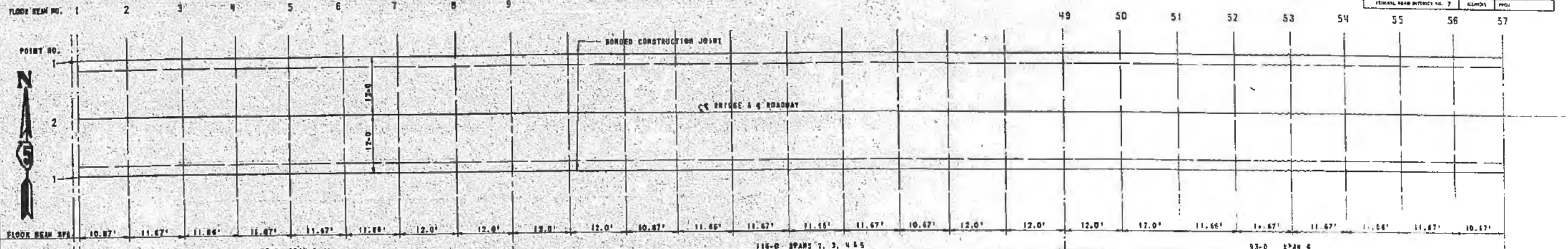
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI -74 SECTION 92-118

VERMILION COUNTY STA. 1755-18

DECK SLAB ELEVATIONS

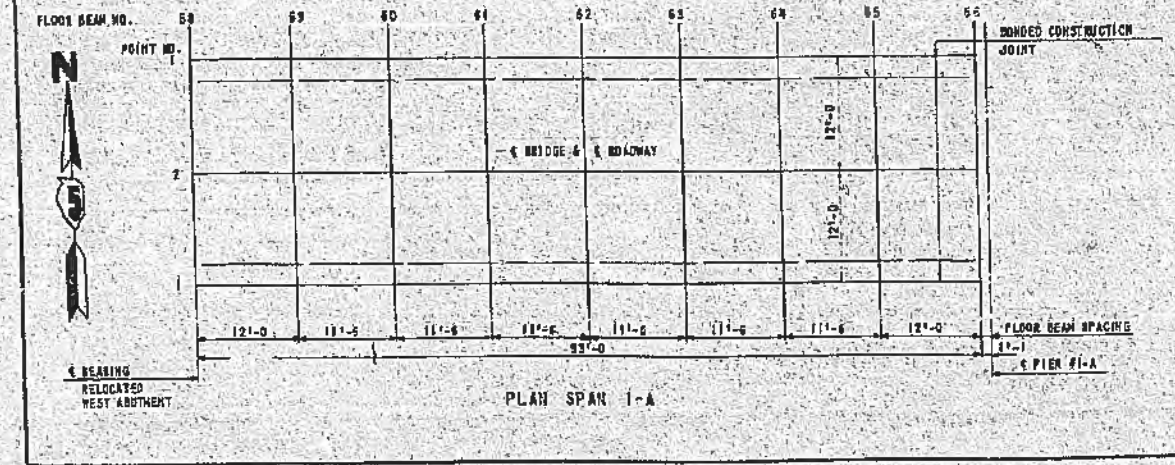
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
		JCS	LDB	HSM	3-24-61	

PLAN NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
70	92-11B	VERMILION	7	35



PLAN

SPAN 1				SPAN 2				SPAN 3				SPAN 4				SPAN 5				SPAN 6				
FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR. ADJUSTED	
1.	1	175195.000	610.071	610.071	10.	1	175206.000	607.551	607.556	20.	1	175412.000	604.766	604.771	30.	1	175525.000	601.943	601.988	40.	1	175641.000	599.120	599.204
2.	2	175191.000	610.196	610.199	2.	2	175202.000	607.876	607.881	2.	2	175408.000	604.891	604.896	2.	2	175521.000	602.108	602.113	2.	2	175637.000	599.324	599.329
3.	1	175213.216	609.524	609.565	11.	1	175308.000	607.783	607.779	11.	1	175424.000	604.978	604.984	11.	1	175540.000	601.895	601.711	11.	1	175656.000	599.911	599.527
4.	2	175213.336	609.653	609.690	2.	2	175304.000	607.598	607.400	2.	2	175420.000	604.603	604.619	2.	2	175540.000	601.820	601.816	2.	2	175656.000	599.696	599.692
5.	1	175235.002	608.251	608.256	12.	1	175318.846	607.086	607.032	12.	1	175434.888	604.233	604.248	12.	1	175550.666	601.430	601.815	12.	1	175666.666	598.655	599.481
6.	2	175235.002	608.379	608.384	2.	2	175314.918	607.931	607.877	2.	2	175430.950	604.348	604.378	2.	2	175546.666	601.524	601.590	2.	2	175666.666	598.986	599.812
7.	1	175257.618	608.874	608.911	13.	1	175328.333	608.716	608.763	13.	1	175444.333	603.593	603.560	13.	1	175560.333	601.459	601.456	13.	1	175676.333	598.375	598.442
8.	2	175257.618	608.999	609.036	2.	2	175324.405	608.551	608.609	2.	2	175438.405	604.089	604.105	2.	2	175554.405	601.284	601.321	2.	2	175676.333	598.500	598.577
9.	1	175280.000	609.415	609.431	14.	1	175342.000	608.466	608.460	14.	1	175458.000	603.683	603.705	14.	1	175574.000	600.873	600.821	14.	1	175690.000	598.095	598.137
10.	2	175280.000	609.540	609.556	2.	2	175338.000	608.271	608.273	2.	2	175454.000	603.788	603.830	2.	2	175570.000	601.004	601.045	2.	2	175690.000	598.200	598.252
11.	1	175302.000	609.854	609.875	15.	1	175355.646	608.140	608.203	15.	1	175471.646	603.393	603.420	15.	1	175587.646	600.593	600.636	15.	1	175703.646	597.415	597.552
12.	2	175302.000	609.979	609.150	2.	2	175351.718	607.985	608.028	2.	2	175467.718	603.508	603.545	2.	2	175583.718	600.724	600.741	2.	2	175703.646	597.540	597.677
13.	1	175324.000	609.389	609.396	16.	1	175369.333	607.804	607.812	16.	1	175485.333	603.103	603.129	16.	1	175601.333	600.310	600.365	16.	1	175719.333	597.025	597.561
14.	2	175324.000	609.514	609.521	2.	2	175365.405	607.649	607.657	2.	2	175481.405	603.228	603.254	2.	2	175597.405	600.448	600.470	2.	2	175719.333	597.150	597.586
15.	1	175346.000	609.054	609.077	17.	1	175383.000	607.468	607.484	17.	1	175499.000	602.887	602.953	17.	1	175615.000	600.053	600.078	17.	1	175741.000	596.545	597.295
16.	2	175346.000	609.179	609.196	2.	2	175379.000	607.313	607.329	2.	2	175495.000	602.977	602.984	2.	2	175611.000	600.188	600.204	2.	2	175741.000	596.670	597.420
17.	1	175368.000	608.584	608.607	18.	1	175405.000	607.187	607.203	18.	1	175521.000	601.707	601.740	18.	1	175637.000	599.575	599.780	18.	1	175763.000	596.091	596.536
18.	2	175368.000	608.709	608.726	2.	2	175401.000	607.032	607.048	2.	2	175517.000	601.802	601.835	2.	2	175633.000	599.700	599.905	2.	2	175763.000	596.216	597.121
19.	1	175390.000	608.415	608.431	19.	1	175427.000	606.906	606.922	19.	1	175543.000	601.417	601.450	19.	1	175659.000	599.487	599.807	19.	1	175789.000	596.216	596.674
20.	2	175390.000	608.540	608.556	2.	2	175423.000	606.751	606.767	2.	2	175539.000	601.512	601.545	2.	2	175655.000	599.612	599.932	2.	2	175789.000	596.341	596.800



FLOOR BEAM NO.	POINT NO.	STATION	ELEVATION THEOR.	ELEVATION ADJUSTED
58.	1	175049.85	612.355	611.365
58.	2	175045.63	612.480	611.480
59.	1	175107.83	612.667	612.095
59.	2	175103.63	612.492	612.220
60.	1	175149.33	611.791	611.840
60.	2	175145.13	611.916	611.865
61.	1	175140.83	611.515	611.577
61.	2	175136.63	611.640	611.702
62.	1	175141.33	611.239	611.306
62.	2	175137.13	611.364	611.431
63.	1	175163.83	610.883	611.025
63.	2	175159.63	611.008	611.150
64.	1	175165.33	610.687	610.786
64.	2	175161.13	610.812	610.881
65.	1	175176.83	610.411	610.459
65.	2	175172.63	610.536	610.594
66.	1	175188.83	610.123	610.123
66.	2	175184.63	610.248	610.248

NOTES: 1. THEORETICAL ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION.
2. ADJUSTED ELEVATION IS THE THEORETICAL TOP OF SLAB ELEVATION ADJUSTED FOR THE CONCRETE DEAD LOAD DEFLECTION.

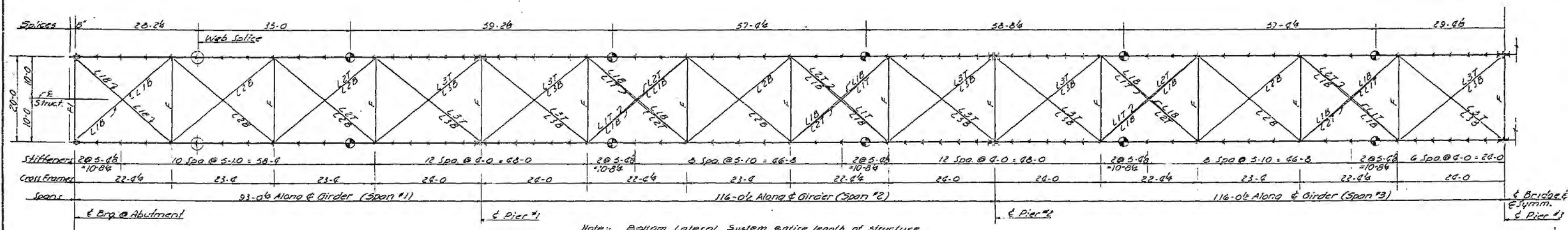
AS BUILT

RELOCATED WEST ABUTMENT
CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS
 CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
 FAI RT. 74 BRIDGE OVER VERMILION RIVER
 FAI-74 SECTION 92-11B
 VERMILION COUNTY STA 175E-16
 DECK SLAB ELEVATIONS
 DRAWN BY JCS
 CHECKED BY LDB
 DESIGNED BY HSM
 DATE 12-3-62

NOTE: FLOOR BEAM NO. 58 = E BEARING AT RELOCATED WEST ABUTMENTS.
FLOOR BEAM NO. 66 = E WEST BEARING AT PIER #1-A.

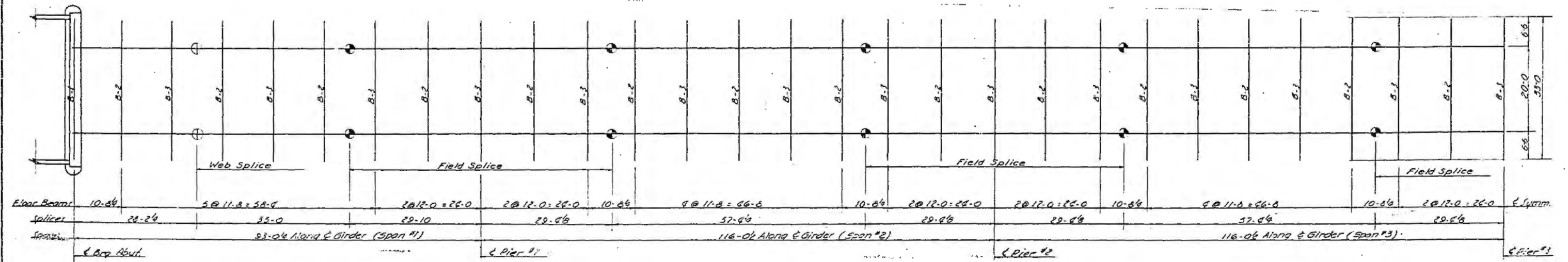
FED. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	36
FEDERAL ROAD DISTRICT NO. 7		SECTION	PROJECT	

FED. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	7
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		



Note: Bottom Lateral System entire length of structure. Top Lateral System as shown.

LAYOUT GIRDERS, STIFFENERS, CROSS FRAMES & LATERAL BRACING



LAYOUT GIRDERS, SPLICES & FLOOR BEAMS

PLATE GIRDER ELEVATION
AT TOP FLANGE BACK OF ANGLES

LOCATION	ELEVATION
← Brg. West Abut.	607.071
Field Splice	605.555
← Brg. Pier #1	604.639
Field Splice	604.135
Field Splice	602.758
← Brg. Pier #2	602.058
Field Splice	601.350
Field Splice	599.975
← Brg. Pier #3	599.271
Field Splice	598.567
Field Splice	597.191
← Brg. Pier #4	596.487
Field Splice	595.783
Field Splice	594.407
← Brg. Pier #5	593.703
Field Splice	592.997
← Brg. East Abut.	591.471

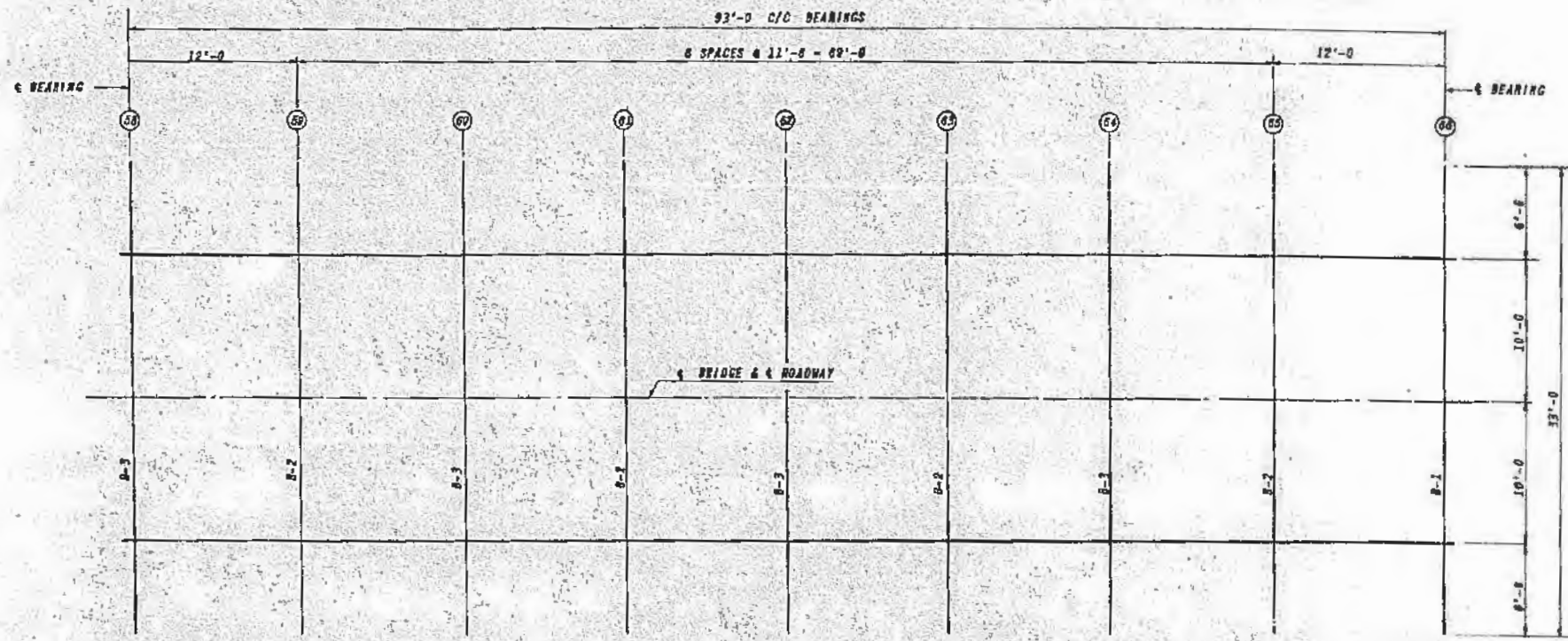
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755+16

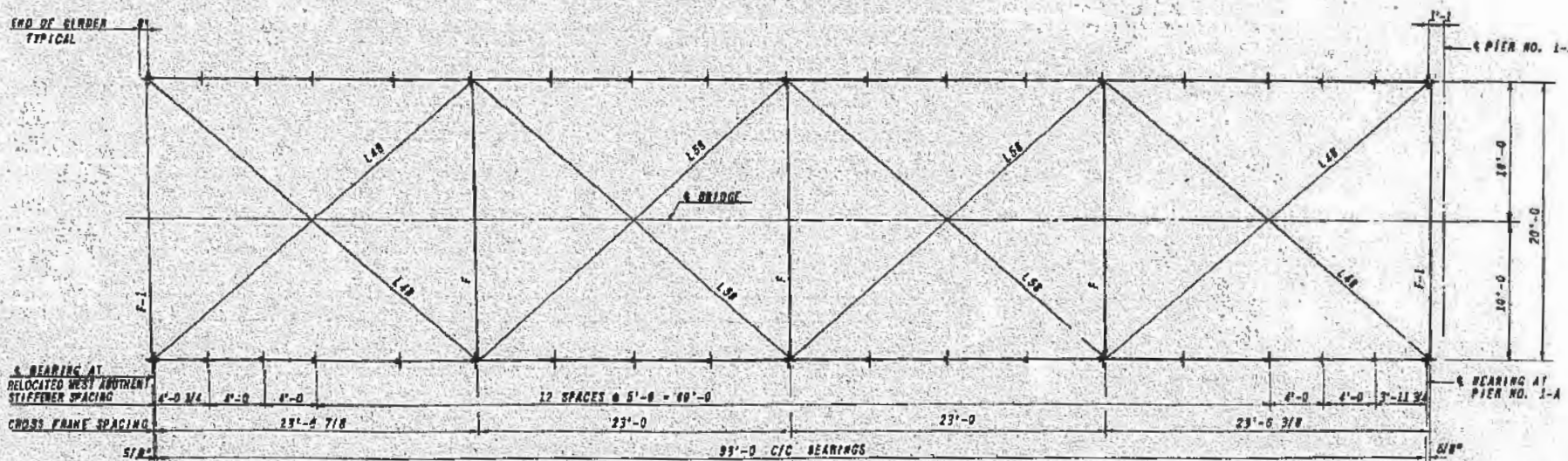
STRUCTURAL STEEL-FRAMING PLAN

DESIGNED	DRAWN	TRACED	CHECKED	INVESTIGATED	DATE	REVISION
JH	JAL	WES	LDB	HSM	10-10-60	

SHEET NO.	DISTRICT	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION		130-A
FEDERAL HIGHWAY DISTRICT NO.	SECTION	STATE	FED.	
74	92-11 B	VERMILION		



LAYOUT GIRDERS & FLOOR BEAMS



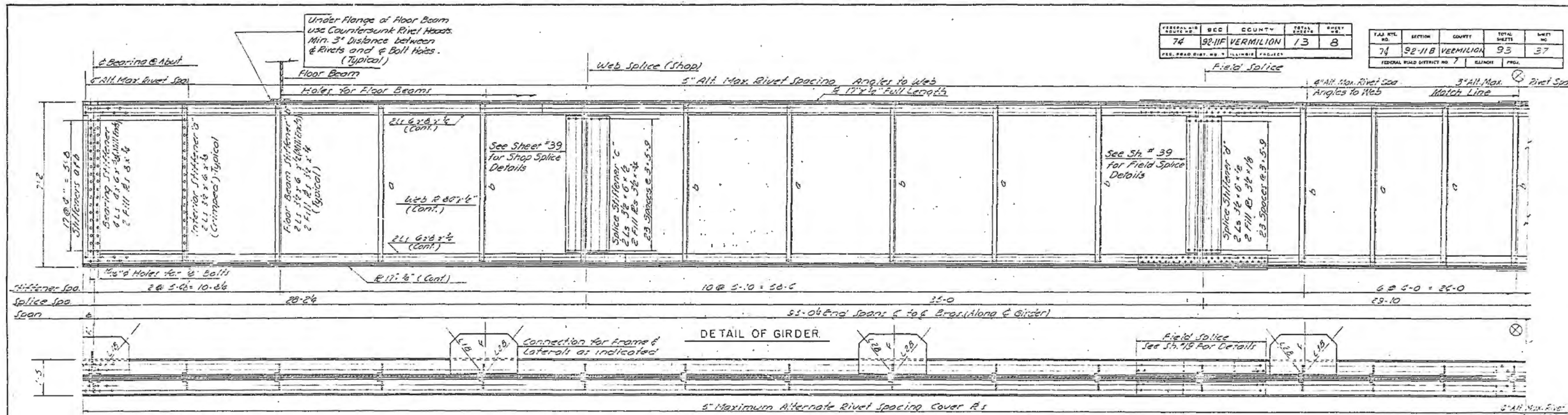
LAYOUT GIRDERS, STIFFENERS, CROSSFRAMES & LATERAL BRACING

AS BUILT

RELOCATED WEST ABUTMENT					
CONSOER, TOWNSEND & ASSOCIATES			CHICAGO, ILLINOIS		
CONSULTING ENGINEERS					
ILLINOIS DIVISION OF HIGHWAYS					
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER					
F.A.I.-74 SECTION 92-11B					
VERMILION COUNTY			STA. 1755+16		
FRAMING PLAN SPAN NO. 1-A					
DESIGNED BY	DRAWN BY	TRACED BY	CHECKED BY	APPROVED BY	DATE
ST	EG		LOB	HSM	12-3-62

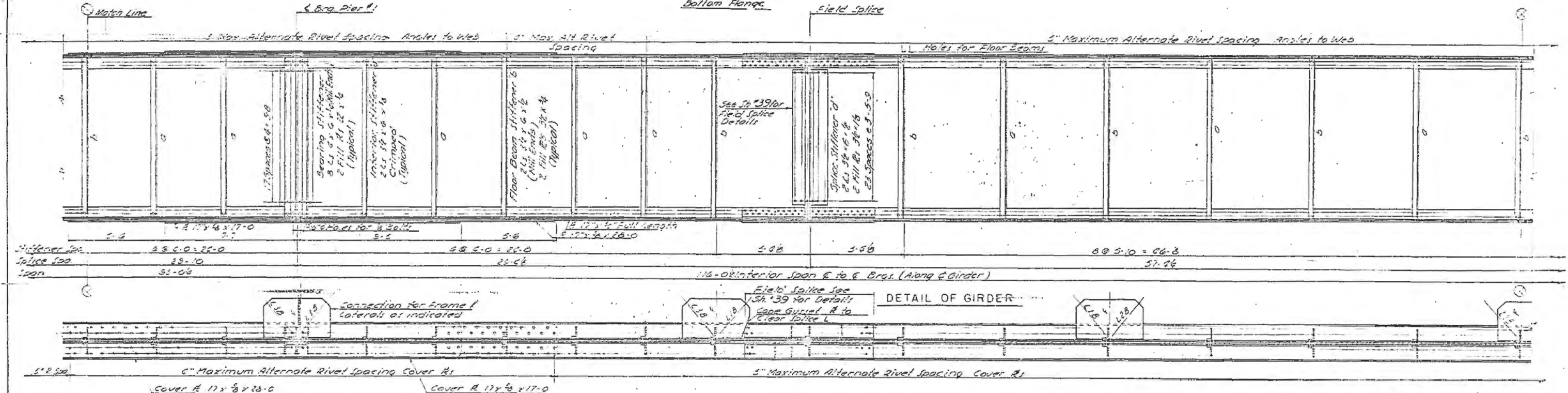
SECTION	SEC	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	13	8

SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
92-11B	VERMILION	93	37



DETAIL OF GIRDER

PLAN



PLAN
Bottom Flange

Note: If Girder shown, Lt Girder is symmetrical by 180° Rotation. Use 1/2\"/>

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

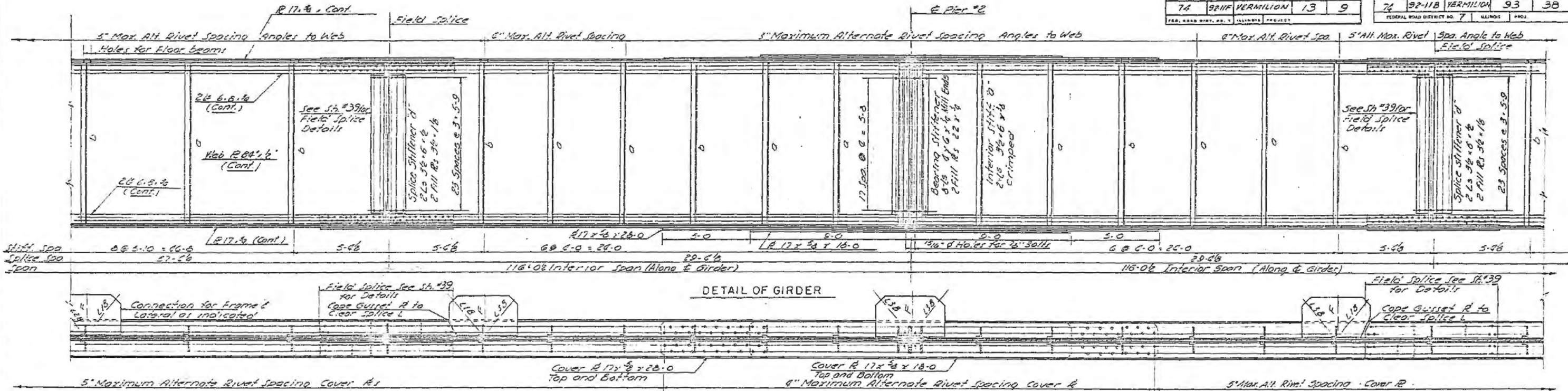
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B, IIF
VERMILION COUNTY STA. 1755+16

GIRDER DETAILS

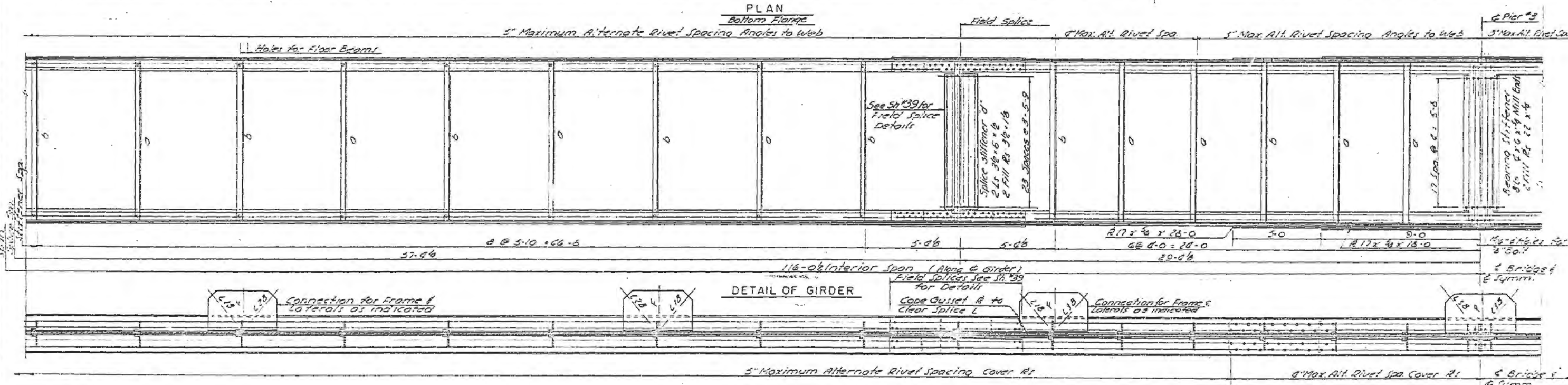
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	SCALE
J.H.	J.H.	J.E.L.	J.H.	HSM	10/2/65	

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	3211F	VERMILION	13	9
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				

F.A. RTE. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	38
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS PROJ.				



DETAIL OF GIRDER



DETAIL OF GIRDER

PLAN
Bottom Flange

Note: R. Girder shown. L. Girder is symmetrical by 180° rotation. Use 1/2" rivets throughout.

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

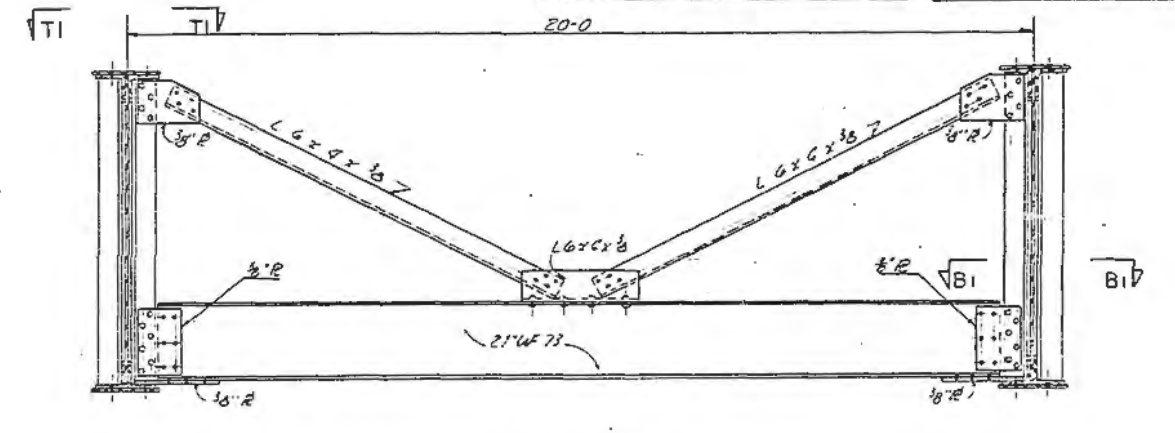
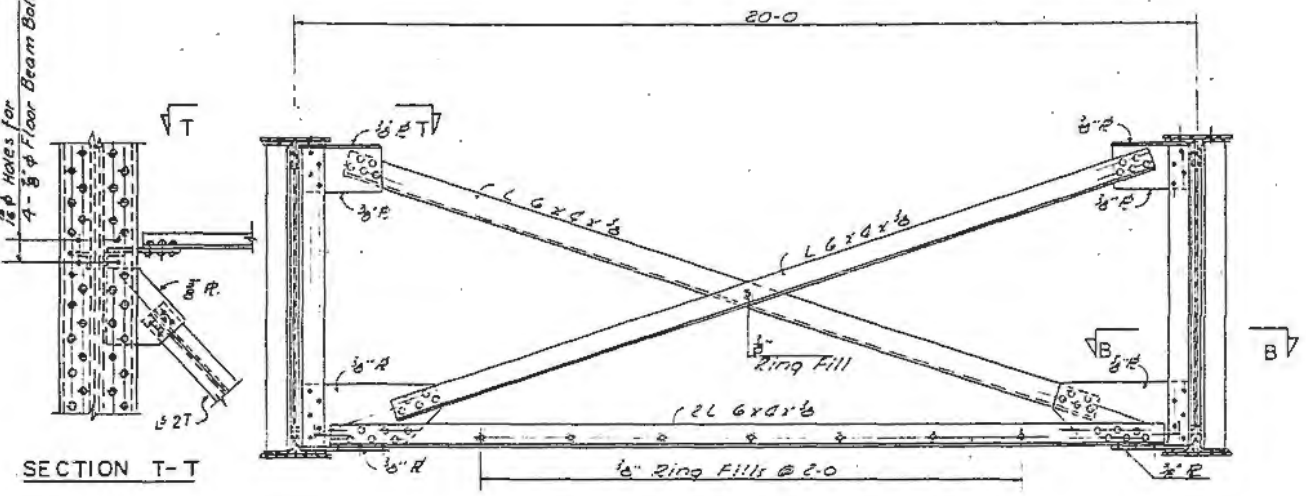
ILLINOIS DIVISION OF HIGHWAYS
FAL RT 74 BRIDGE OVER VERMILION RIVER
FAL-74 SECTION 92-11B, IIF
VERMILION COUNTY STA. 1755+16

GIRDER DETAILS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J. N. H.	J. N.	K. S. J.	J. N.	LDB	HSM	10-10-60

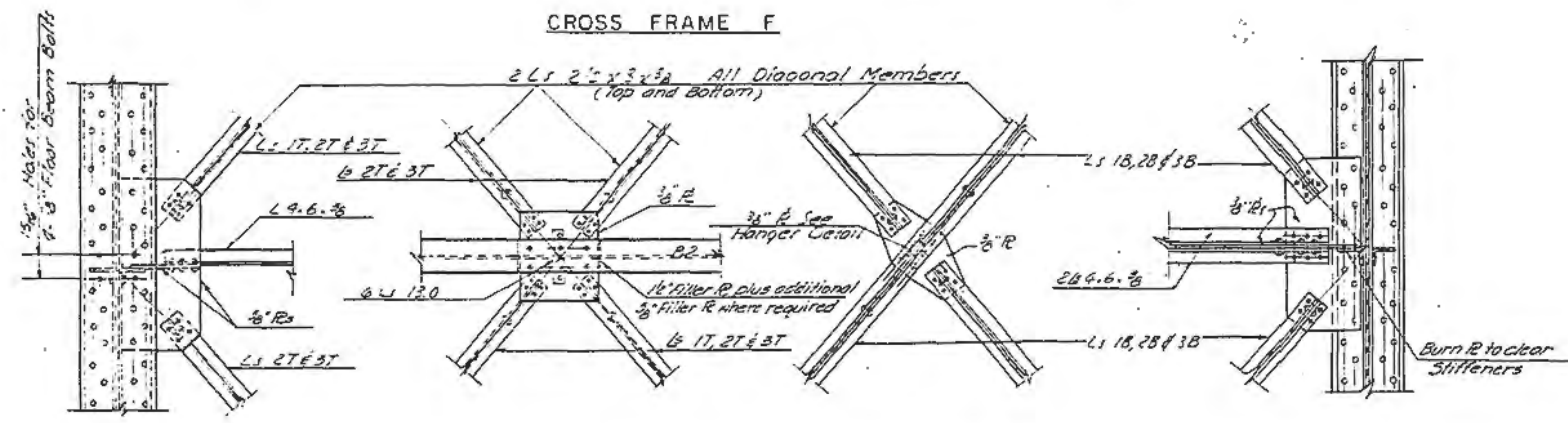
1/2" Notes for 4-8 Floor Beam Bolts

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.	FED. AID DIST. NO.	ILLINOIS PROJECT	FED. AID DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	
74	BRIDGE	VERMILION	13	10	74	92-11B	VERMILION	93	39			
										FEDERAL ROAD DISTRICT NO. 7	ILLINOIS	PREL.



CROSS FRAME F

CROSS FRAME F1

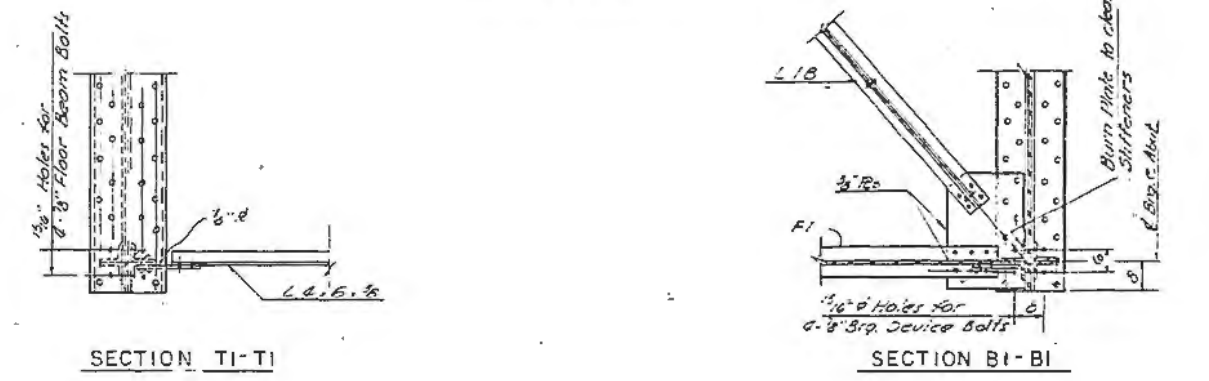


SECTION T-T

TOP LATERAL CONNECTION (Down)

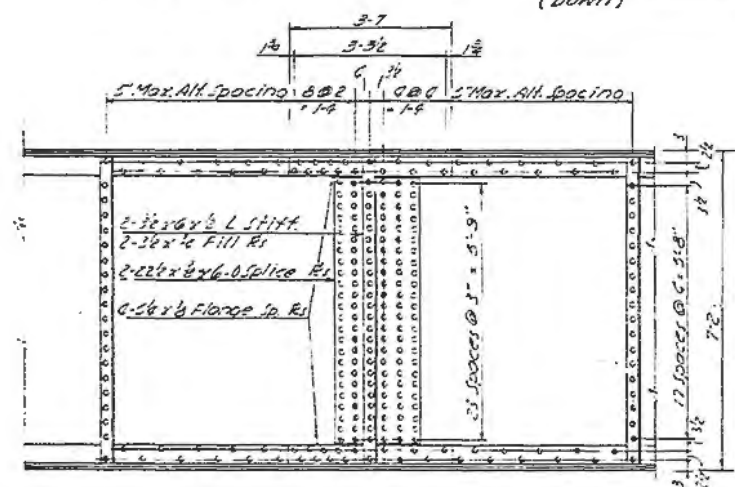
BOTTOM LATERAL CONNECTION (Down)

SECTION B-B

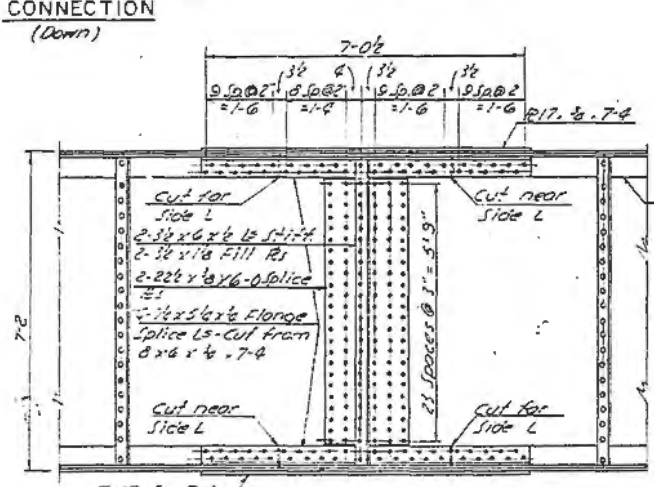


SECTION TI-TI

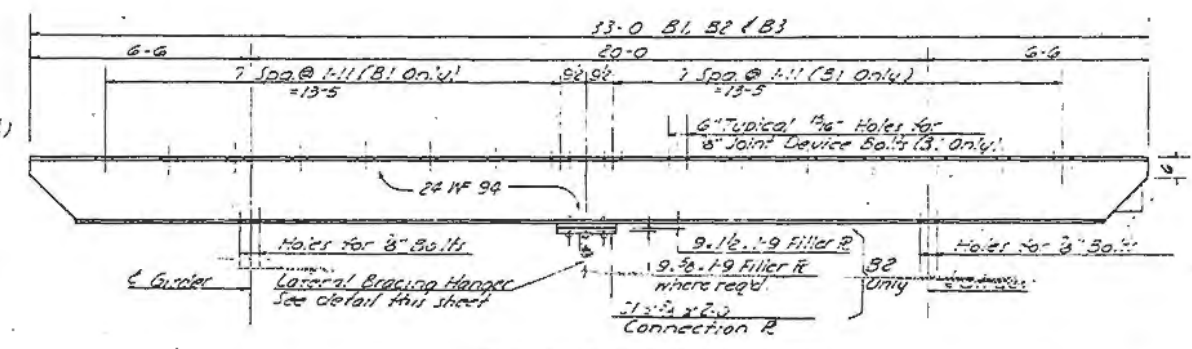
SECTION BI-BI



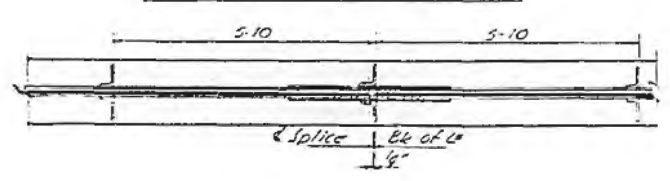
SHOP WEB SPLICE DETAIL



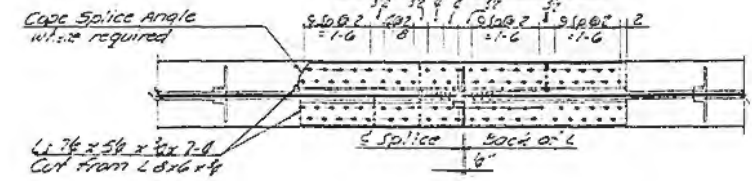
FIELD SPLICE DETAIL



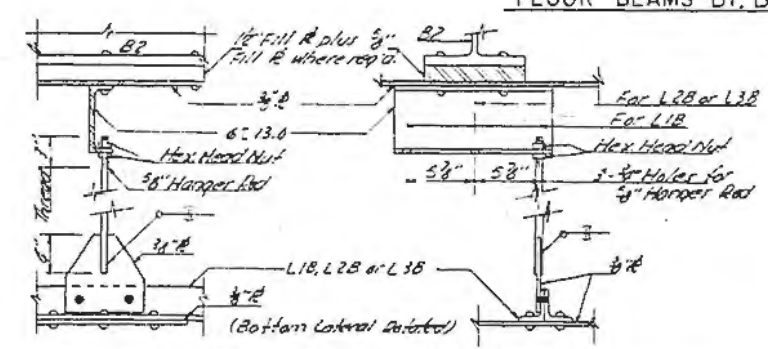
FLOOR BEAMS B1, B2 & B3



PLAN OF LOWER FLANGE



PLAN OF LOWER FLANGE



LATERAL BRACING HANGER

COMPUTED WEIGHT OF GIRDERS
STRUCTURAL STEEL LB5511C LFS
See above quantities are for 275' left bridge and includes connections to CM2 at girders

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.M.A.	J.H.	K.C.	J.A.P.		10-10-64	

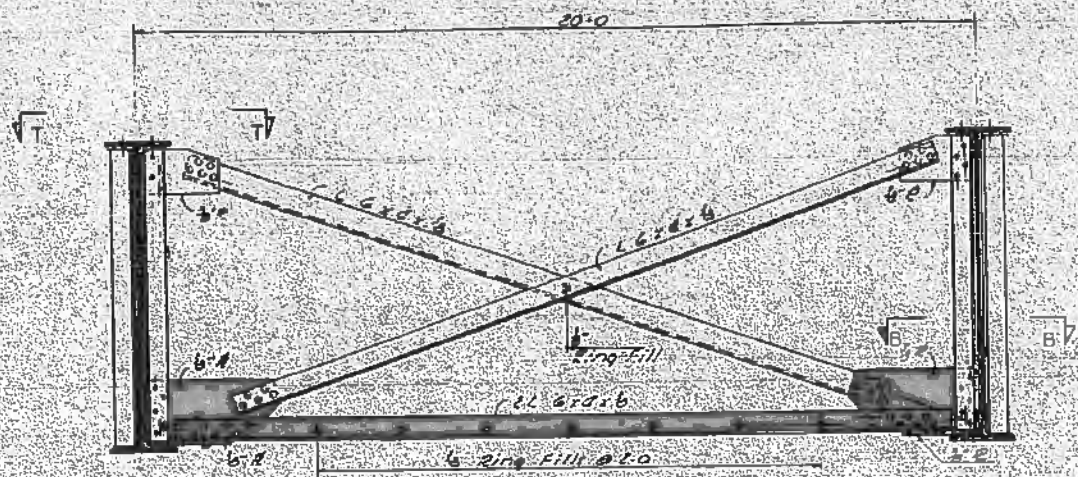
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
VERMILION COUNTY STA 1755+16

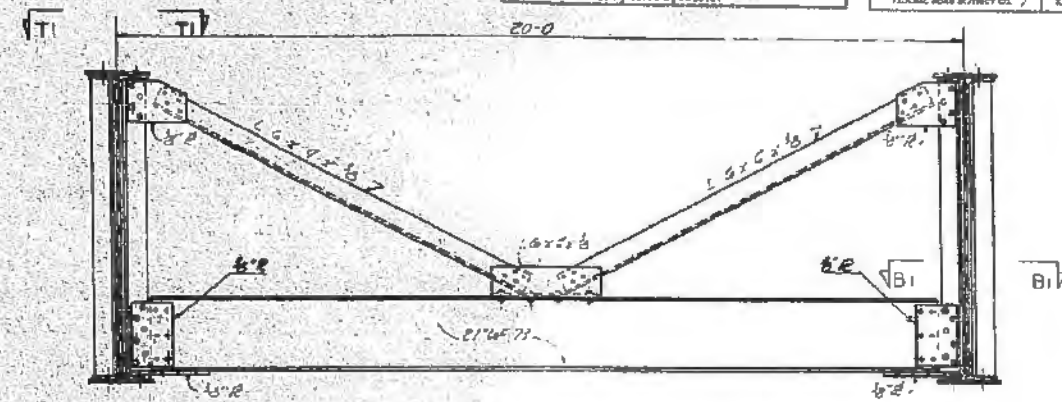
STRUCTURAL STEEL-FRAMING DETAILS

FEDERAL AID PROJECT NO.	S.E.C.	COUNTY	TYPICAL SECTION	SHEET NO.
74	BRIF	VERMILION		5

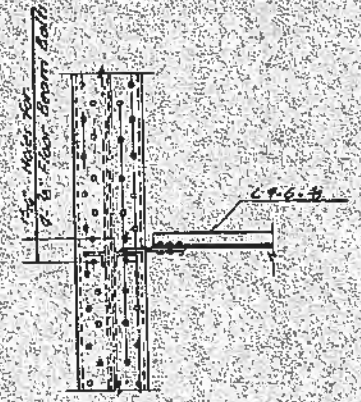
F.A.I. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION		35-1



CROSS FRAME F

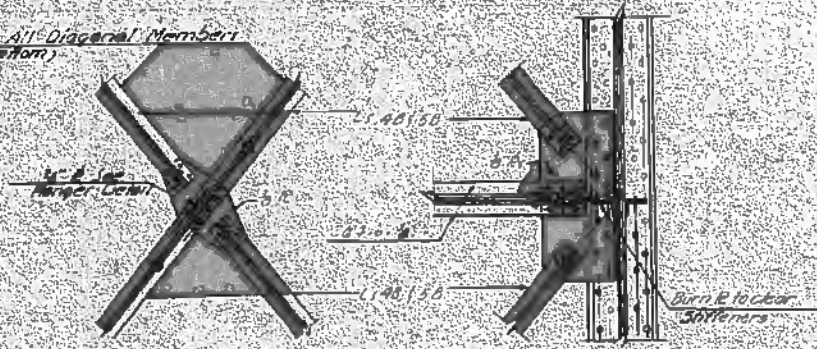


CROSS FRAME F1



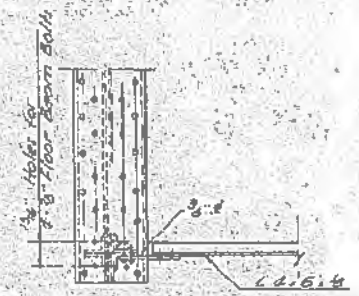
SECTION T-T

2 Ls 2 1/2 x 3 x 3/4 All Diagonal Members (Bottom)

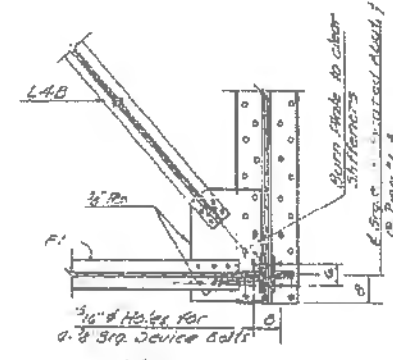


BOTTOM LATERAL CONNECTION (Down)

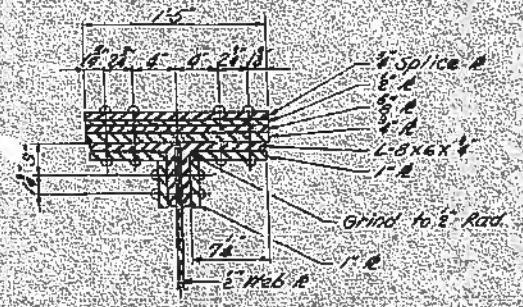
SECTION B-B



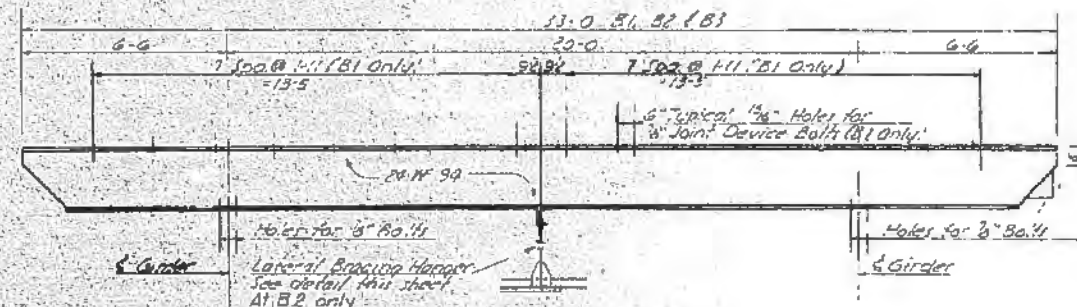
SECTION T1-T1



SECTION B1-B1



SECTION K-K



FLOOR BEAMS B1, B2 & B3

RELOCATED WEST ABUTMENT

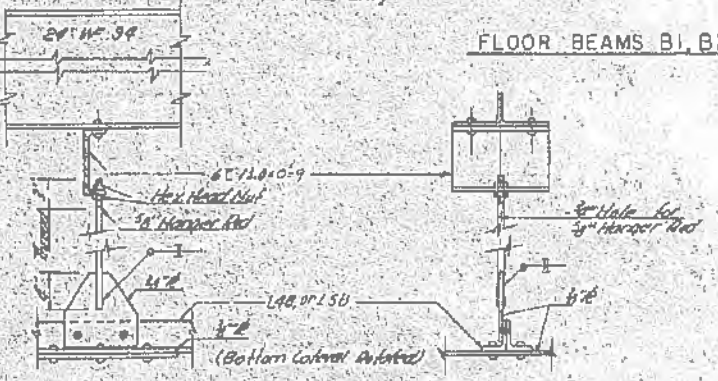
COMPUTED WEIGHT OF GIRDERS
STRUCTURAL STEEL 290,770 LBS
The above quantities are for girders left in place and includes connection 8" CMP to Girders

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI 74 SECTION 92-11B, HF
VERMILION COUNTY STA. 1755+16

STRUCTURAL STEEL-FRAMING DETAILS

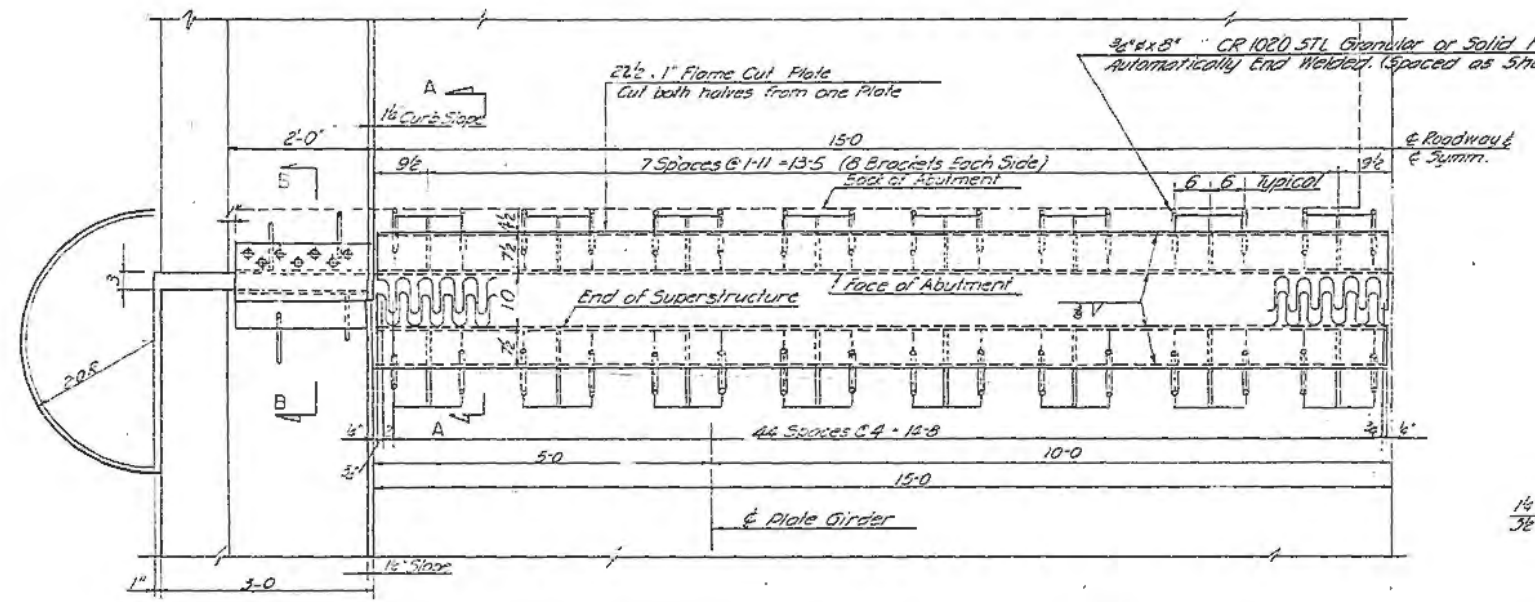
DESIGNED	DRAWN	CHECKED	APPROVED	DATE
S.M.H.	J.H.	A.E.S.	J.W.H.	4541 1-7-63



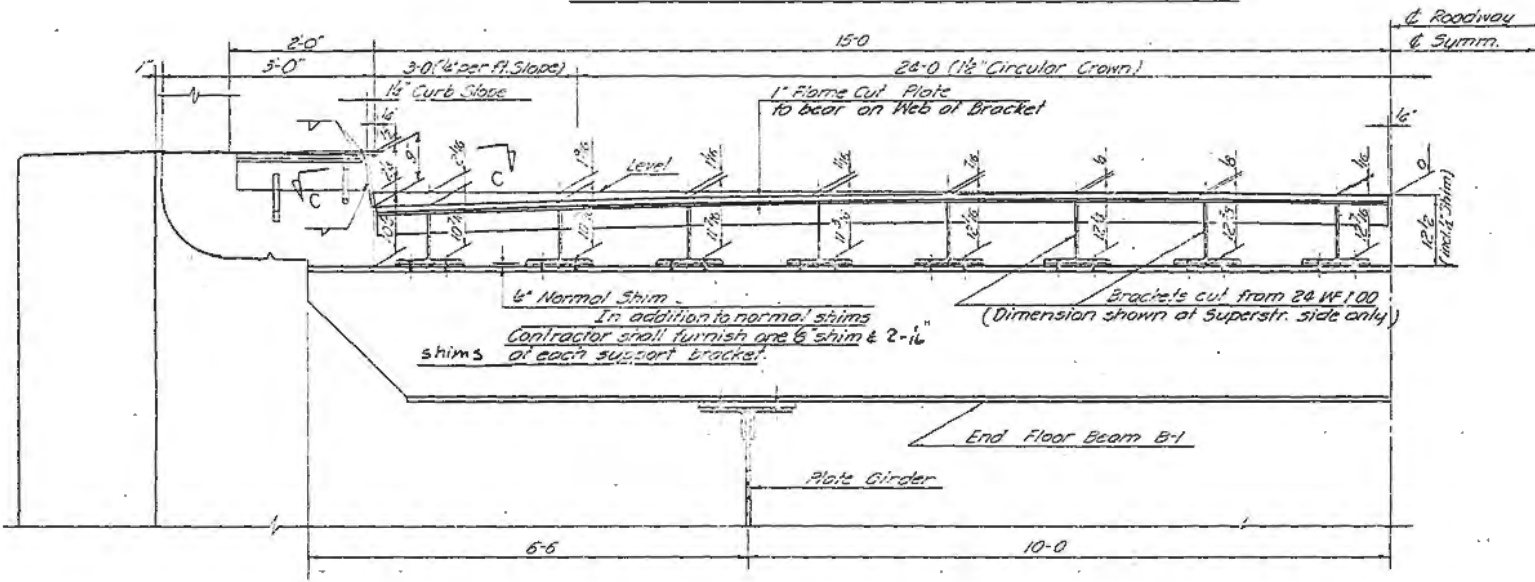
LATERAL BRACING HANGER

AS BUILT

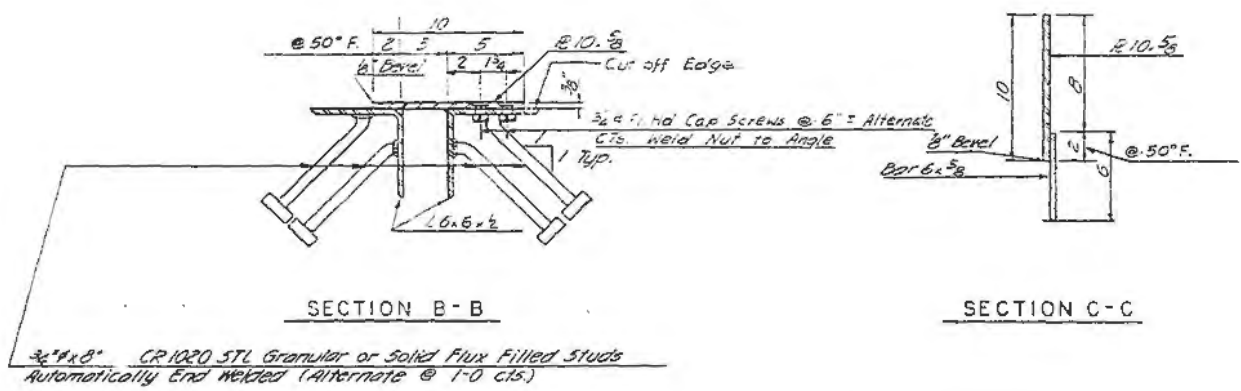
FAI RFL NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	23	10
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS PROJ.				
SEC.	EDUCITY	NO.	DATE	
74	92-11F	VERMILION	13	11
FED. ROAD DIST. NO. 7 ILLINOIS PROJ.				



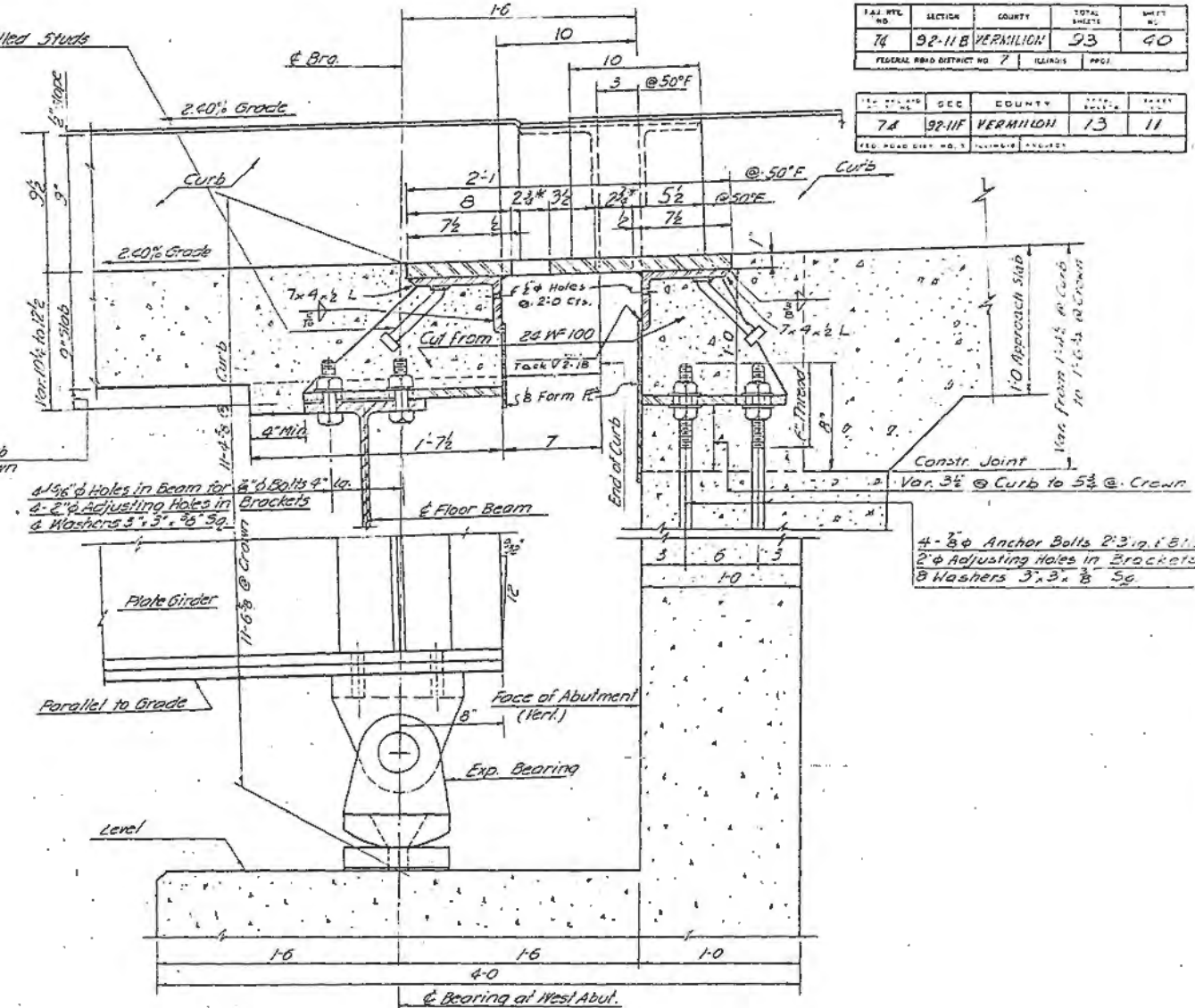
HALF PLAN OF EXPANSION DEVICE AT WEST ABUT.



HALF ELEVATION OF EXPANSION DEVICE



3/4 x 8 CR 1020 STL Granular or Solid Flux Filled Studs Automatically End Welded (Alternate @ 1-0 cts.)



SECTION A-A

Note: All 3/4 x 8 CR 1020 STL Granular or Solid Flux Filled Studs automatically end welded shall be included in the unit price bid for "Furnishing Structural Steel"

TEMPERATURE SETTING TABLE

DEG. FAHR.	NUMBER PL. OPENING INCHES
110°	1 7/16
100°	1 21/32
90°	1 7/8
80°	2 3/32
70°	2 5/16
60°	2 17/32
50°	2 3/4
40°	2 31/32
30°	3 3/16
20°	3 13/32
10°	3 5/8
0°	3 27/32
-10°	4 1/16

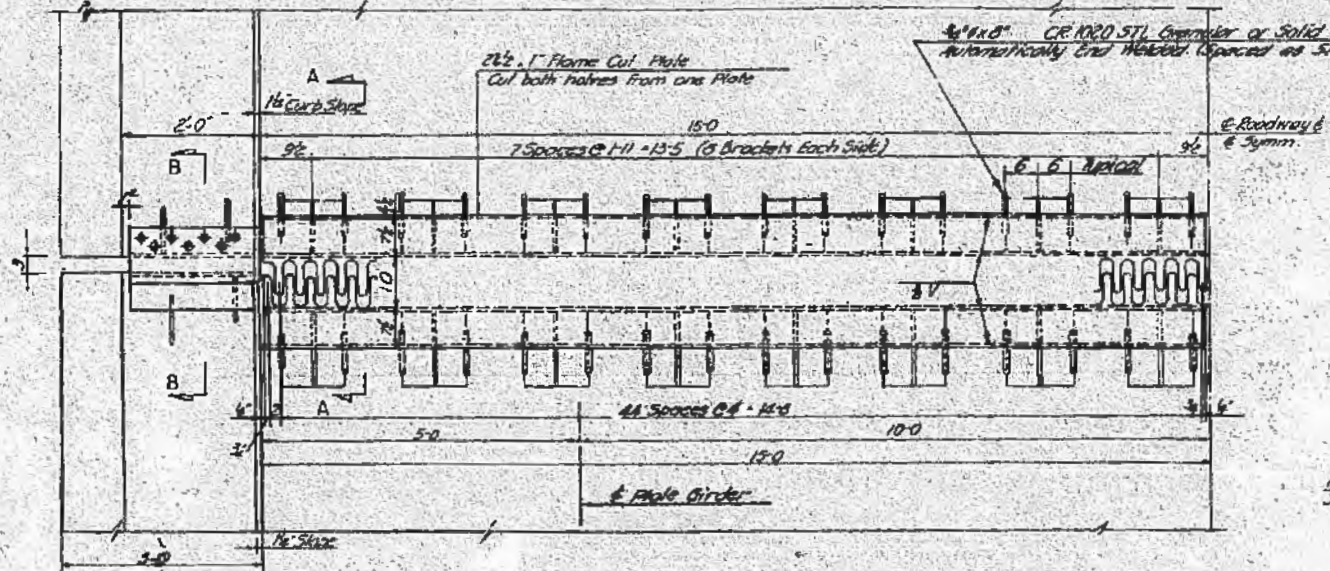
COMPUTED WEIGHT OF JOINT DEVICE AT WEST ABUT.
STRUCTURAL STEEL 12,470 LBS.
The above Quantities are for right & left Bridges

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

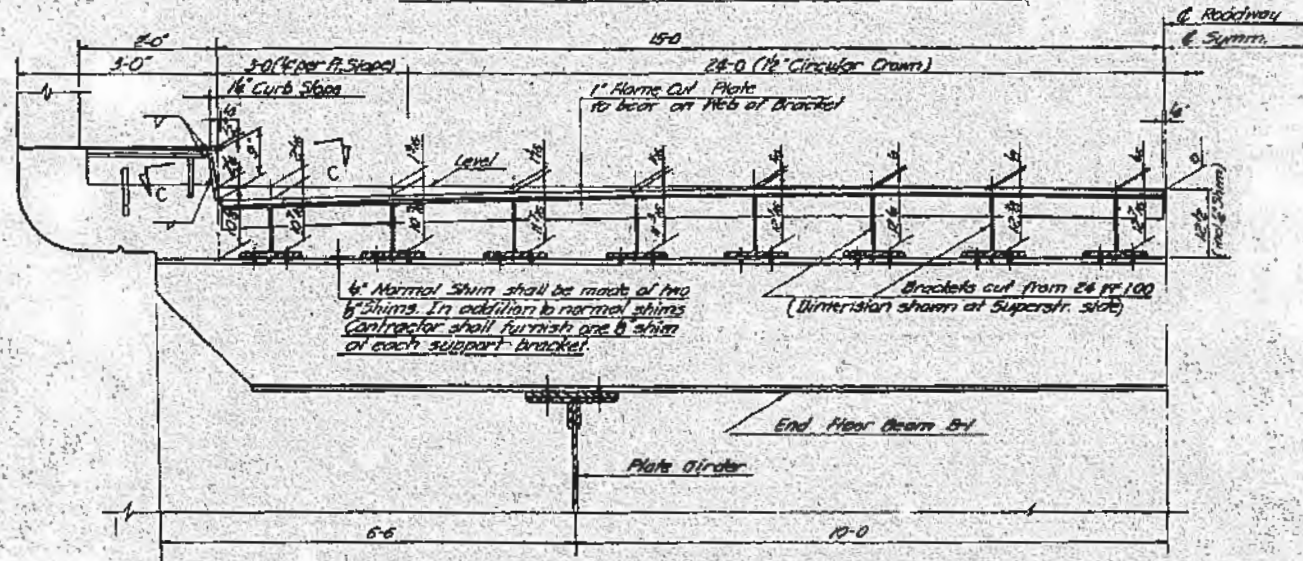
ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11B, 11F
VERMILION COUNTY STA. 1755+16

STRUCTURAL STEEL EXP JOINT DETAILS

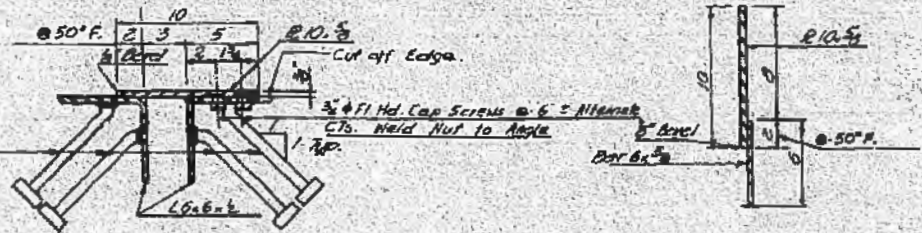
DESIGNED	DRAWN	TRACED	CHECKED	APPROVED	DATE	REV.
	J.T.	J.T.	LDB	HSM	10-12-32	



HALF PLAN OF EXPANSION DEVICE AT PIER #1-A



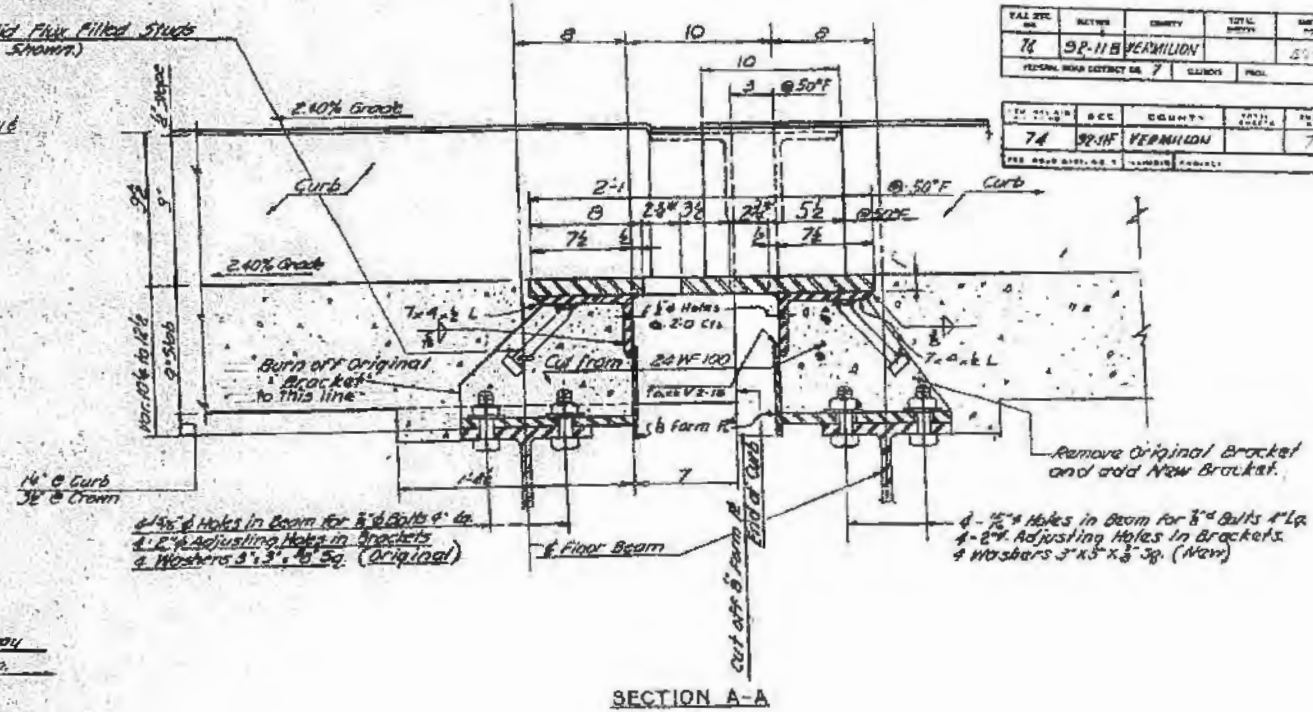
HALF ELEVATION OF EXPANSION DEVICE



SECTION B-B

SECTION C-C

4"x8" CR 1020 STL Granular or Solid Flux Filled Studs Automatically End Welded (Alternate @ 1-0 cts.)



SECTION A-A

4"x8" Holes in Beam for 3/4" Bolts 4" Lg.
4-2" Adjusting Holes in Brackets
2 Washers 3"x3"x1/2" Sq. (Original)

TAL. SHEET NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
74	92-NB VERMILION			5 of 7
REGIONAL ROAD DISTRICT NO. 7 CLARENCE, ILL.				
74	92-NB VERMILION			7
ILLINOIS DIVISION OF HIGHWAYS				

TEMPERATURE SETTING TABLE

DEG. FAHR.	FINGER PL. OPENING INCHES
110°	1 7/16
100°	1 21/32
90°	1 7/8
80°	2 3/32
70°	2 5/16
60°	2 17/32
50°	2 3/8
40°	2 31/32
30°	3 5/16
20°	3 13/32
10°	3 5/8
0°	3 27/32
-10°	4 1/16

NOTE:

Finger joint originally shown for West Abutment shall be remodeled for Pier #1-A by adjustment of 28" W 100 brackets for attachment to Superstructure Steel on each side of joint.

Note: All 4"x8" CR 1020 STL Granular or Solid Flux Filled Studs automatically end welded shall be included in the unit price bid for "Furnishing Structural Steel"

-AS BUILT-

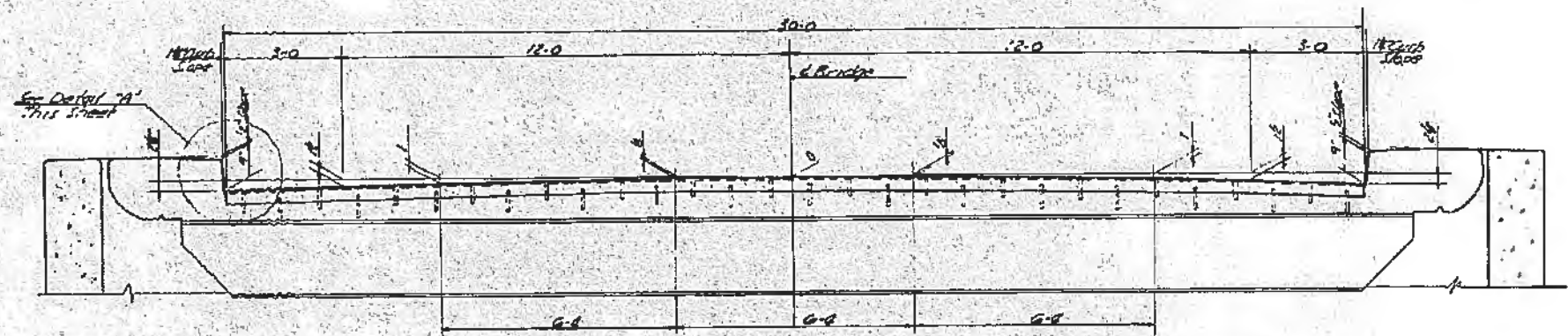
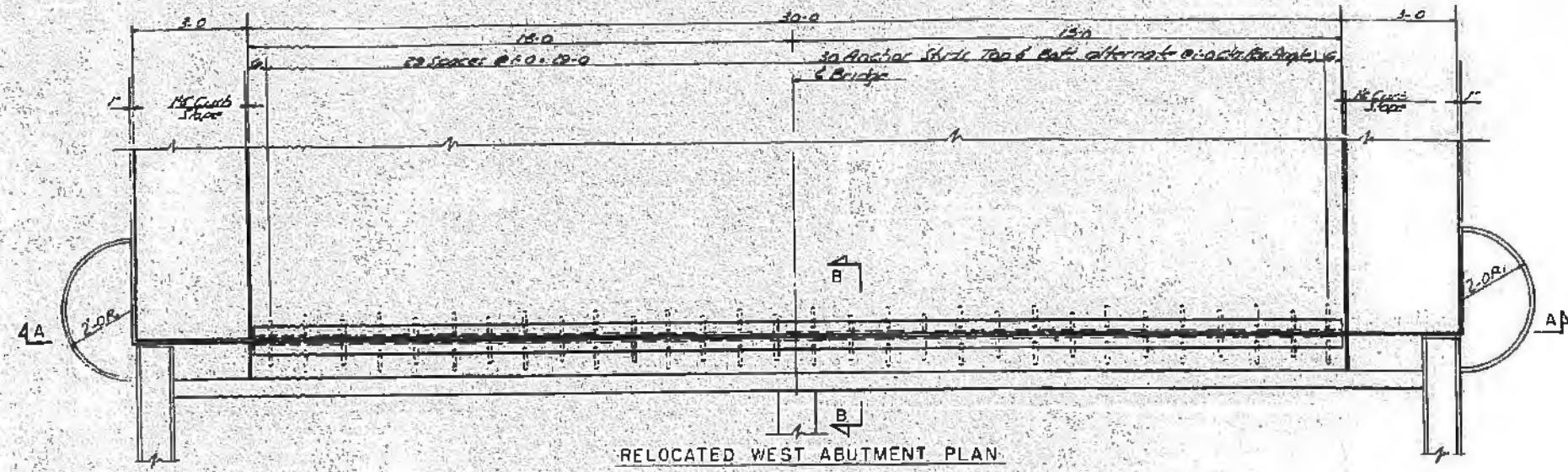
COMPUTED WEIGHT OF REMODELED JOINT DEVICE AT PIER #1-A. STRUCTURAL STEEL 3,640 LBS.
The above Quantities are for right & left bridges

RELOCATED WEST ABUTMENT

CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS					
ILLINOIS DIVISION OF HIGHWAYS FA1 AT 74 BRIDGE OVER VERMILION RIVER FA1 - 74 SECTION 92-11B, 11F VERMILION COUNTY STA. 17.55+16					
STRUCTURAL STEEL EXP. JOINT DETAILS					
DESIGNED	CHECKED	APPROVED	DATE	BY	REVISION
J.F.	J.F.	J.H.	LDB	MSM	12-9-62

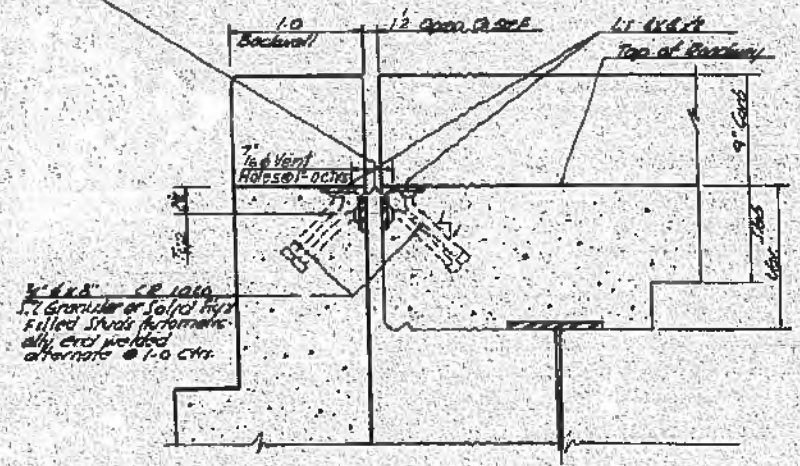
FILE NO.	DATE	BY	CHKD	APP'D
74-92-115	11/20/54	W.C. H.		
PROJECT: VERMILION CO. 7				

PROJECT NO.	SEG.	COUNTY	DATE	REV.
74	1	VERMILION		3
DATE: 11/20/54				

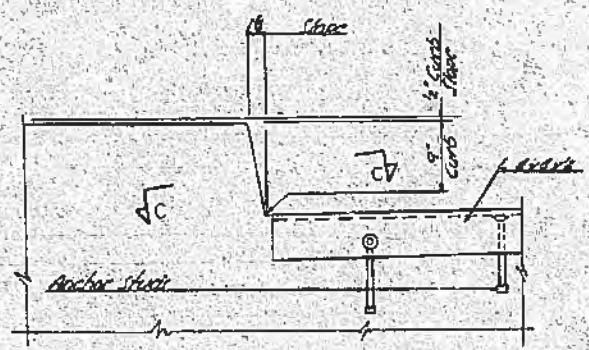


SECTION A-A
EXPANSION JOINT DEVICE
2 Required (2 Bridges)
Right Bridge Shown
Left Bridge Identical

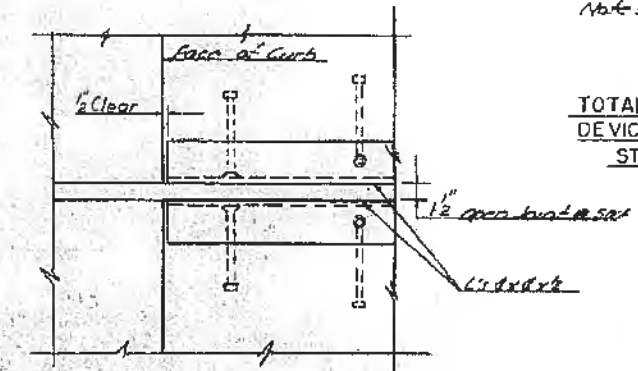
7/8" ϕ Holes @ 12" ctrs. For 3/8" ϕ Bolts.
All Bolts Shall Be Burned, Sawed or Clipped Off Flush
With Back Of Angles After Forms Are Removed



SECTION B-B



DETAIL "A"



SECTION C-C

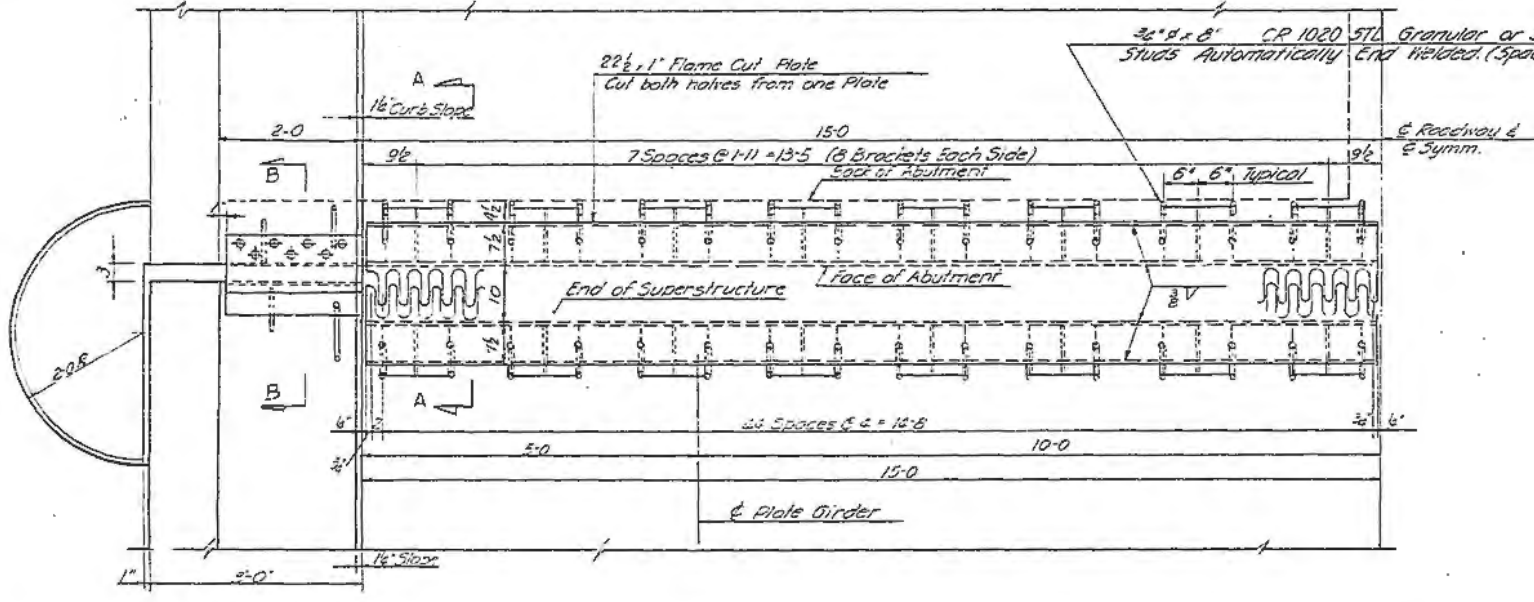
AS BUILT

Note: All 1/2" x 3/8" x 1020 STK Granular or Solid
Flow Filled Studs Automatically End
Welds shall be included in the
weight of Structural Steel

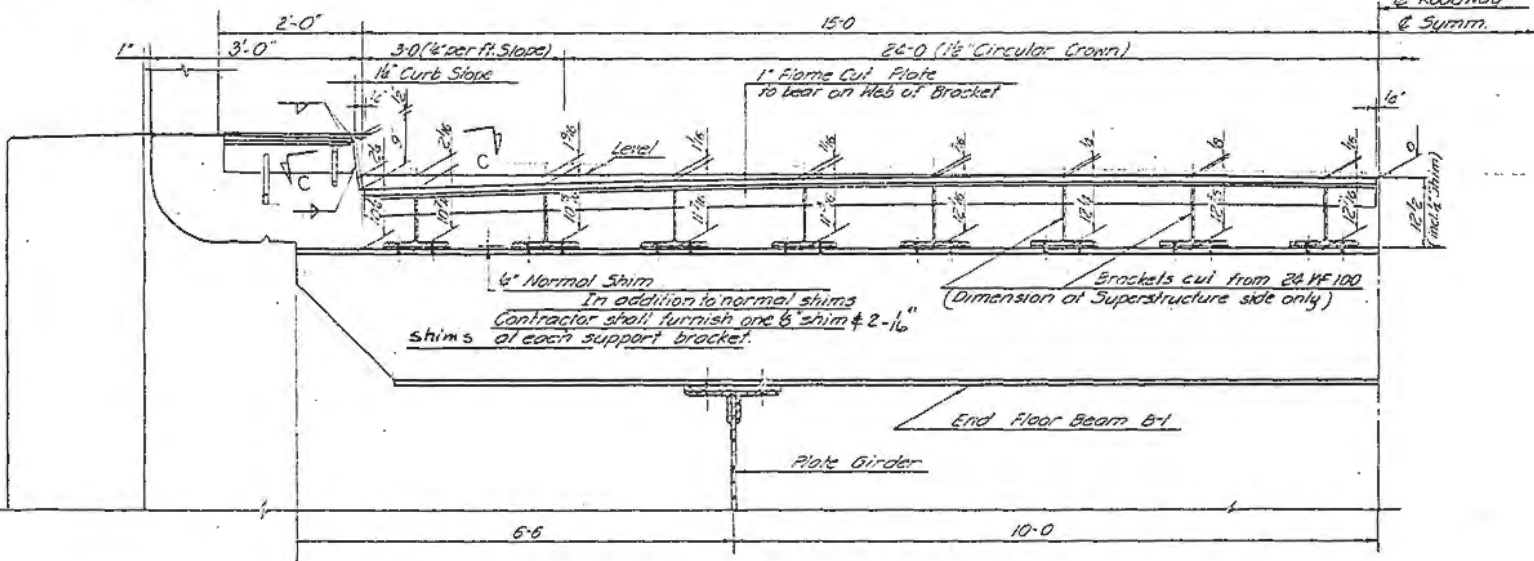
TOTAL COMPUTED WEIGHT OF JOINT
DEVICES AT RELOCATED WEST ABUT.
STRUCTURAL STEEL 1,686 LBS
(2 Bridges)

RELOCATED WEST ABUTMENT					
CONSOER, TOWNSEND & ASSOCIATES					
CONSULTING ENGINEERS			CHICAGO, ILLINOIS		
ILLINOIS DIVISION OF HIGHWAYS					
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER					
F.A.I.-74 SECTION 92-118.11F					
VERMILION COUNTY			STA. 1755+16		
STRUCTURAL STEEL JOINT DETAILS					
NO.	DATE	ISSUED	BY	CHKD	APP'D
			L.D.S.	H.S.M.	12-3-62

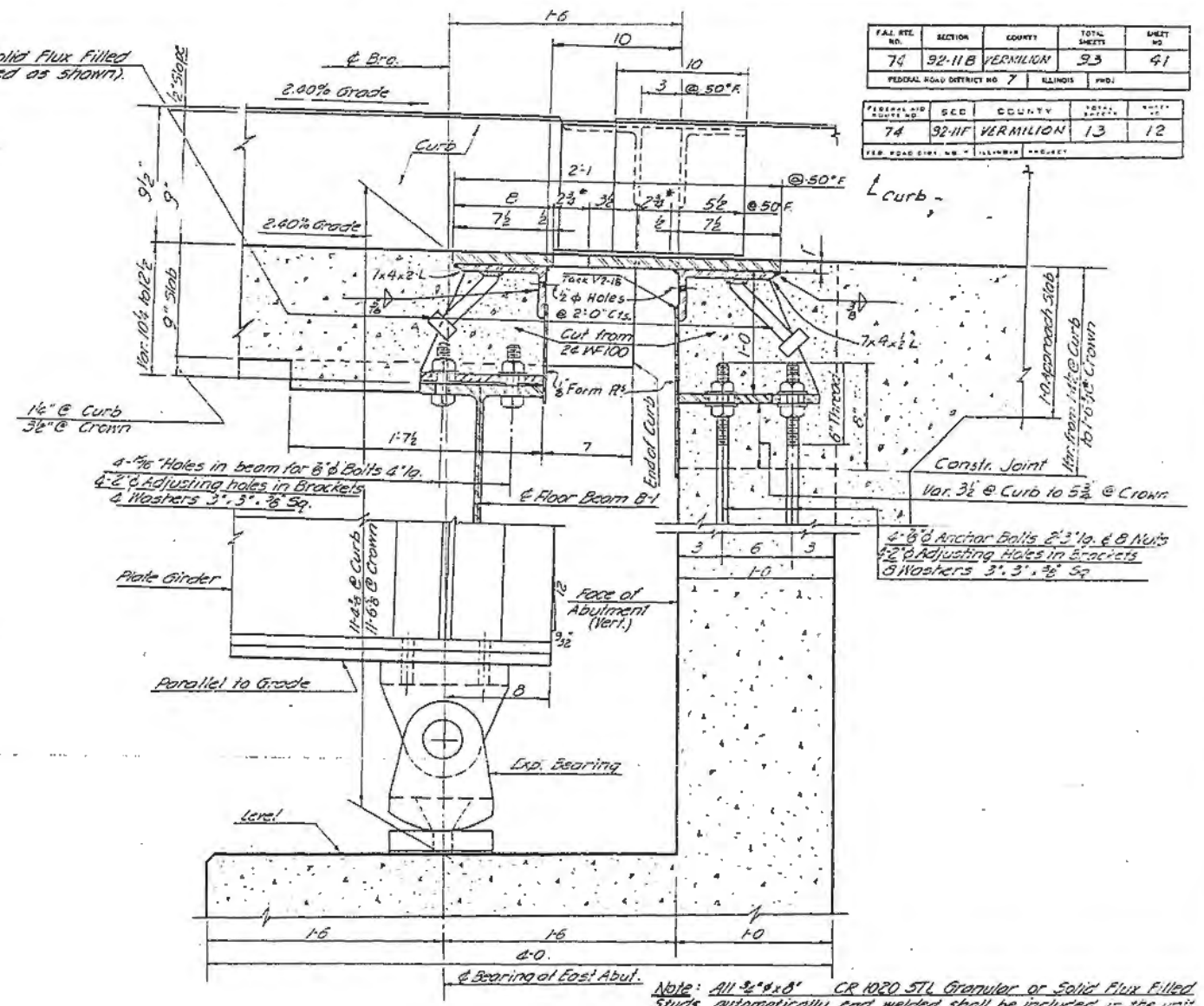
F.A.I. DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	23	41
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS PROJ.				
FEDERAL AID DISTRICT NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	12
FED. ROAD DIST. NO. 7 ILLINOIS PROJECT				



For Section B-B & C-C See Sheet #20. HALF PLAN OF EXPANSION DEVICE AT EAST ABUT.

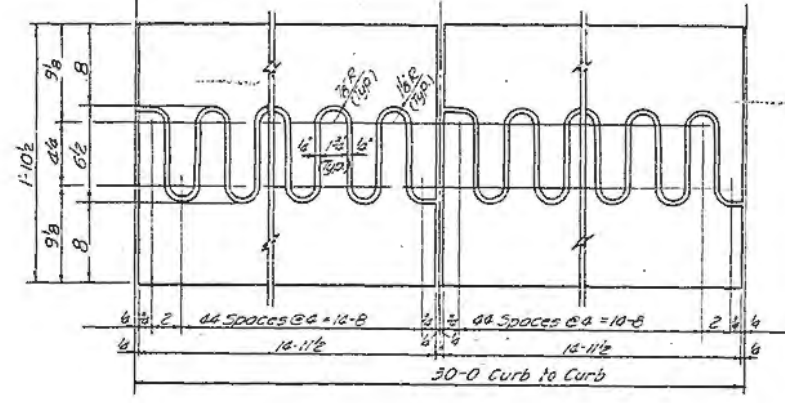


HALF ELEVATION OF EXPANSION DEVICE



SECTION A-A

Note: All 3/4 x 8 CR 1020 STL Granular or Solid Flux Filled Studs automatically and welded shall be included in the unit price bid for "Furnishing Structural Steel"

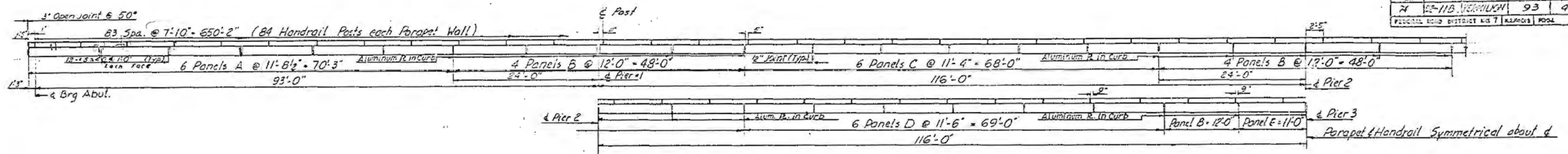


DETAIL OF FLAME CUT PLATE Plates shall be matched marked

COMPUTED WEIGHT OF JOINT DEVICE AT EAST ABUT
STRUCTURAL STEEL 11,740 LBS.
The above Quantities are for right & left Bridges

CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS					
ILLINOIS DIVISION OF HIGHWAYS					
FAI RT 74 BRIDGE OVER VERMILION RIVER					
FAI-74 SECTION 92-11B, 11F					
VERMILION COUNTY STA. 1755+16					
STRUCTURAL STEEL EXP. JOINT DETAILS					
DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE
J.T.	J.T.	J.H.	LDB	HSM	10-10-60

F.A.I. DIST. SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	VERMILION	93	42
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS ROAD			



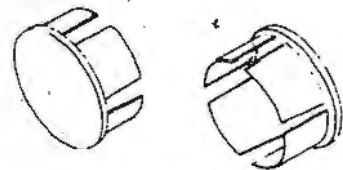
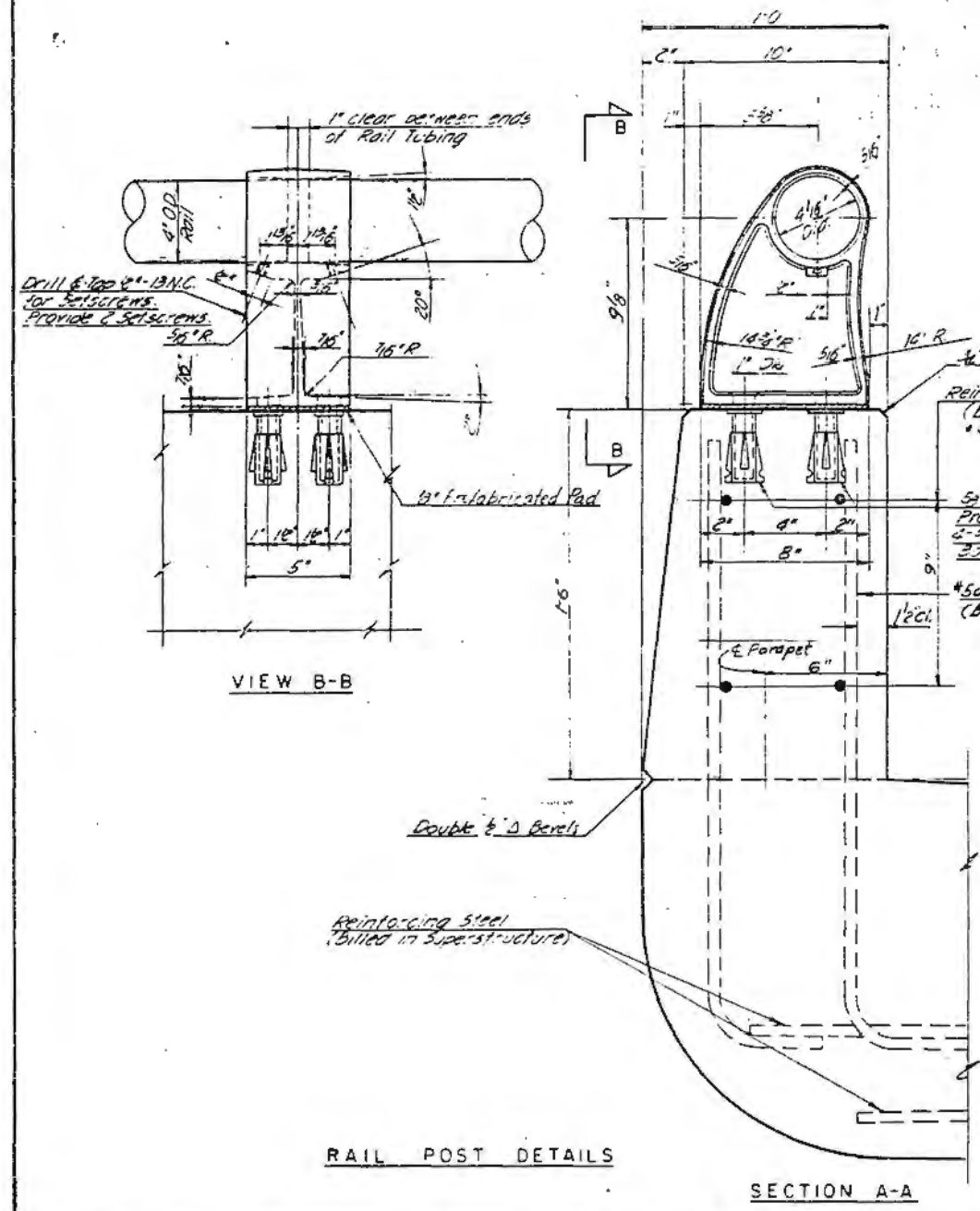
HANDRAIL ELEVATION
Showing spacing of handrail posts & joints in parapet

STATION 1755+16
BUILT 198-87
STATE OF ILLINOIS
FAI RT. 74 SEC. 92-11B
FA PROJ. 1-7-6(137)
LOADERS H20-S16 & ALT.

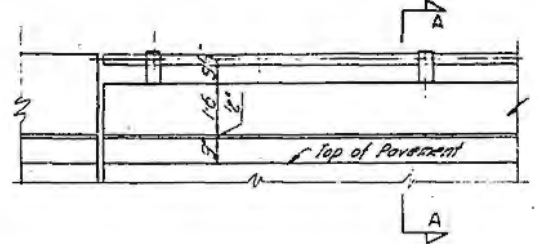
ELEVATION BRIDGE NAME PLATE
(Provide 2)
see STD. 2113

BAR LIST

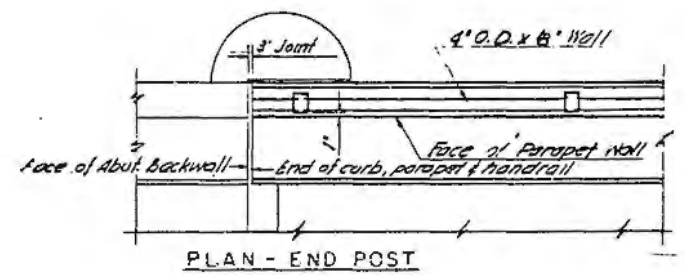
Panel	Bar	No.	Size	Length	Spacing	Shape
All	a 40	5,376	5"	3'-0"	1'-0"	—
A, D	b 40	384	5"	11'-2"	As Shown	—
B	b 41	288	5"	11'-8"	—	—
C	b 42	192	5"	11'-0"	—	—
E	b 43	32	5"	10'-8"	—	—



CAST END CAP DRIVE FIT TYPE
8 Required
Incidental to Item "Aluminum Handrail"



ELEVATION - END POST



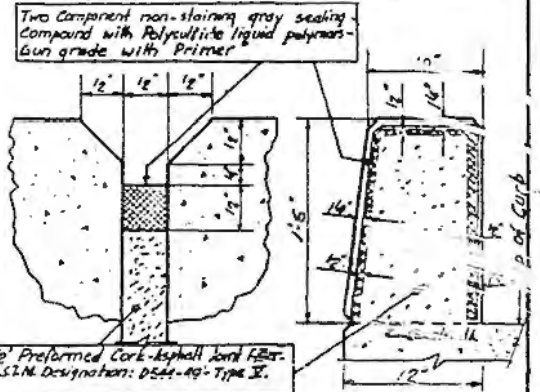
PLAN - END POST

NOTES:
All Posts shall be placed normal to parapet.
All Posts shall be of Aluminum conforming to A.S.T.M. Specification B-108 alloy 56-70B-T6.
All Rail Tubing shall be of Aluminum conforming to A.S.T.M. Specification B-235 alloy G5-11A-T6.
Alclad washers shall be made from sheet conforming to A.S.T.M. Specification B-209 alloy clad C6-42A-T4.
Rail Tubing may be cut to 3 lengths maximum.
Set screws shall be of Aluminum conforming to A.S.T.M. Specification B-211 Alloy C6-42A-T4.
For material composition of Prefabricated Pad see Art. 54.9(f) (Bearings & Anchorage of the Std. Specs.)

NOTE: Quantities Shown for 2 Bridges

BILL OF MATERIAL

Item	Unit	Quantity
Aluminum Handrail	Lin. Ft.	2,611
Class X Concrete	Cu. Yds.	152.9
Reinforcement Bars	Lbs.	27,360



DETAIL OF JOINT IN PARAPET

NOTE: Parapet Wall Joint Materials
Cost Incidental to Class X Concrete

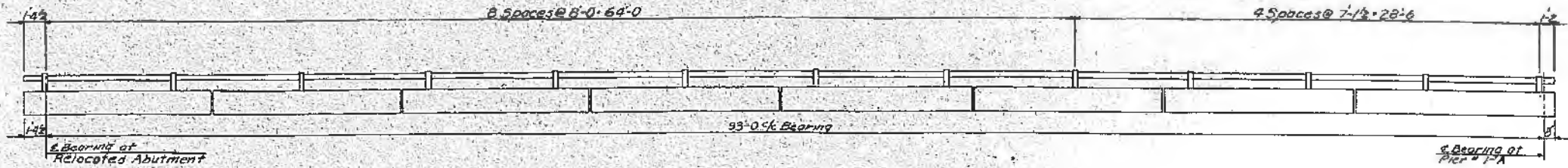
CONSER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI 74 SECTION 92-11-B
VERMILION COUNTY STA. 1755+16

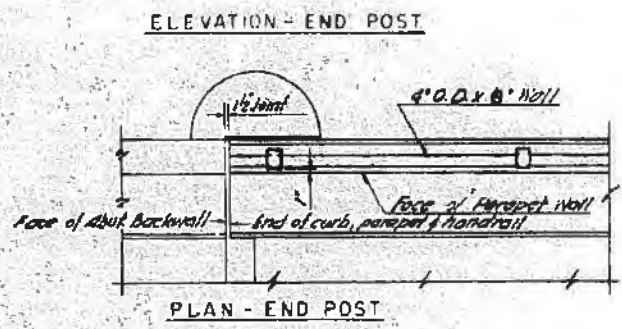
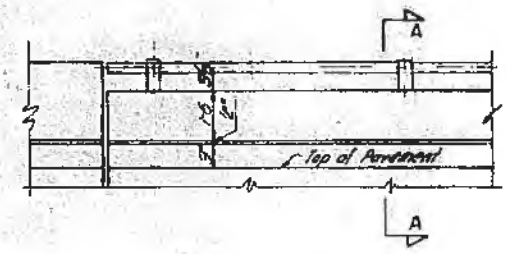
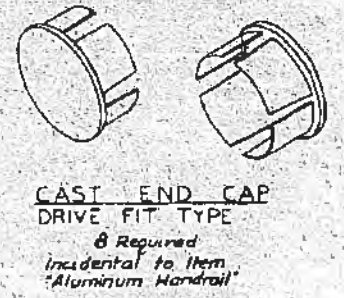
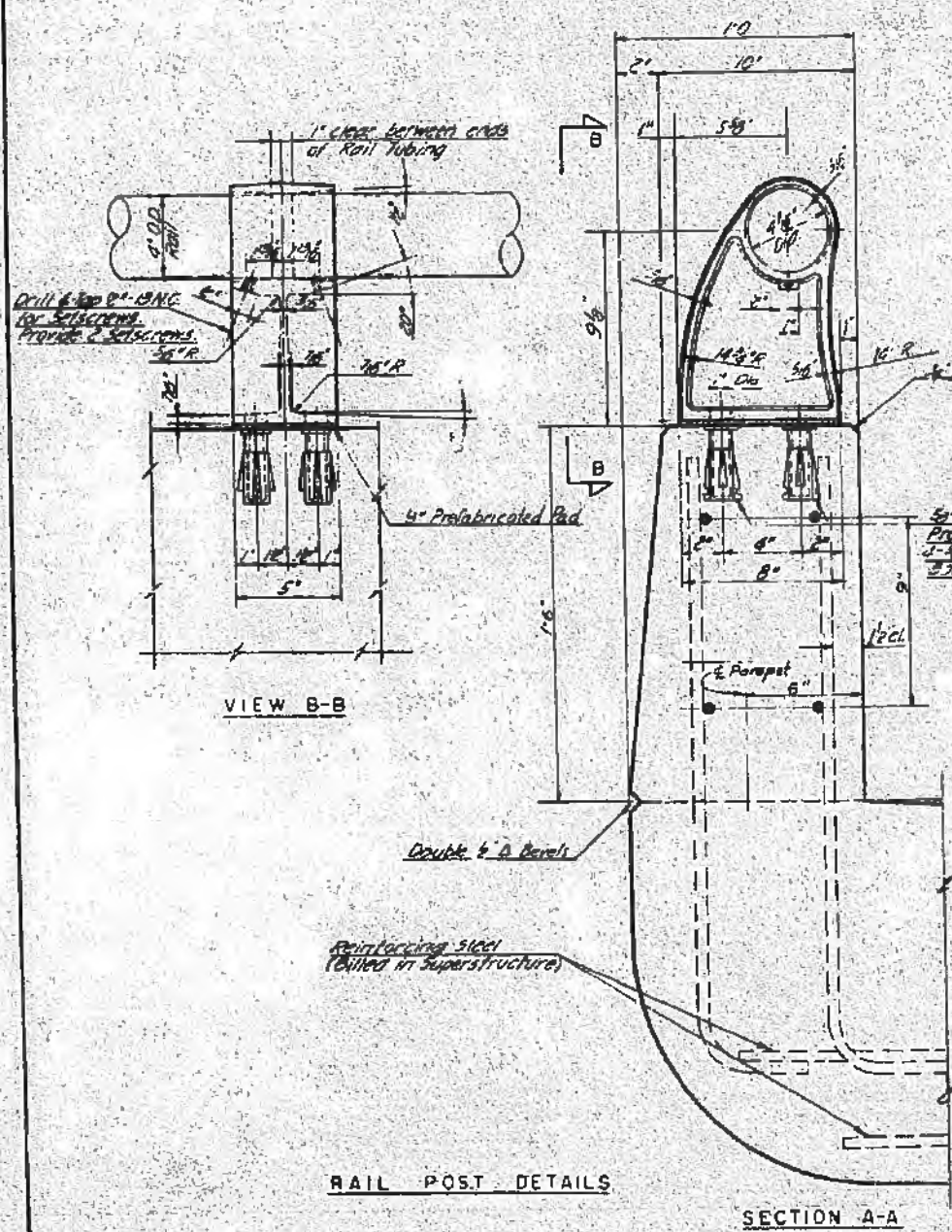
HANDRAIL DETAILS

LDB	RK	EFD	HSM 10-10-60
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P.L. NO.	SECTION	QUANTITY	TOTAL QUANTITY	UNIT
7	92-11-B	300		LINEAL FEET



HANDRAIL ELEVATION
Showing spacing of handrail posts & joints in parapet



NOTES:
 All Posts shall be placed normal to parapet.
 All Posts shall be of Aluminum conforming to A.S.T.M. Specification B-108 alloy 36-70B-T6.
 All Rail Tubing shall be of Aluminum conforming to A.S.T.M. Specification B-235 alloy G5-11A-T6.
 All Rail Tubing shall be made from sheet conforming to A.S.T.M. Specification B-209 alloy clad C6-42A-T4.
 All end Washers shall be made from sheet conforming to A.S.T.M. Specification B-209 alloy clad C6-42A-T4.
 Rail Tubing may be cut to 3 Lengths maximum.
 Set screws shall be of Aluminum conforming to A.S.T.M. Specification B-211 Alloy C5-42A-T4.
 For material composition of Prefabricated Pad see Art. 54.9(d) (Bearings & Anchorage of the Std. Spcs.)

NOTE: Quantities Shown for 2 Bridges

BILL OF MATERIAL		
Item	Unit	Quantity
Aluminum Handrail	lin. ft.	300

- AS BUILT -

NOTE: Parapet Wall Joint Materials are incidental to Class X Concrete

RELOCATED WEST ABUTMENT

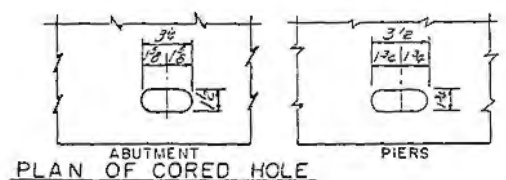
CONSOER. TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI - 74 SECTION 92-11-B
VERMILION COUNTY STA. 1755+16

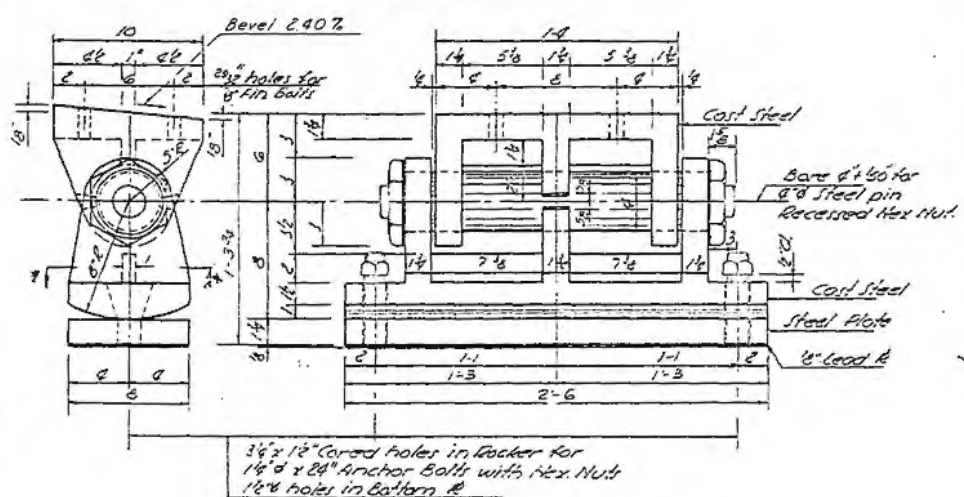
HANDRAIL DETAILS

ST	LDB	RK	EFD	NSM	12 3-62
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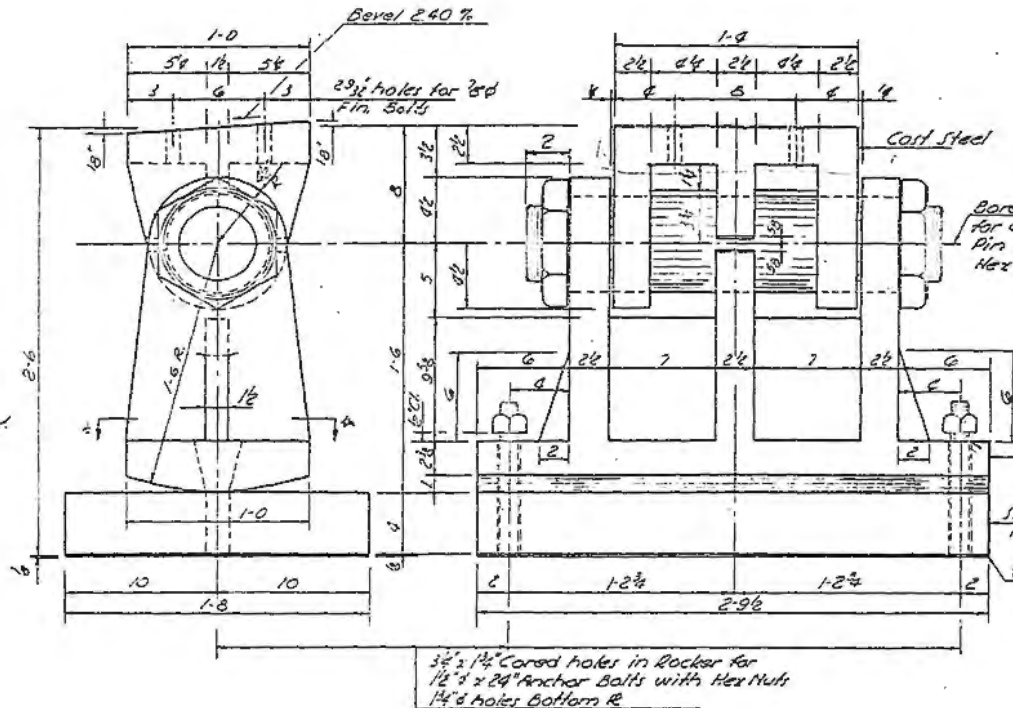
F.A.I. R.T. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	93	43
FEDERAL ROAD DISTRICT NO. 7 ILLINOIS PROJ.				
FEDERAL ROAD DISTRICT NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11F	VERMILION	13	13
ILLINOIS PROJ.				



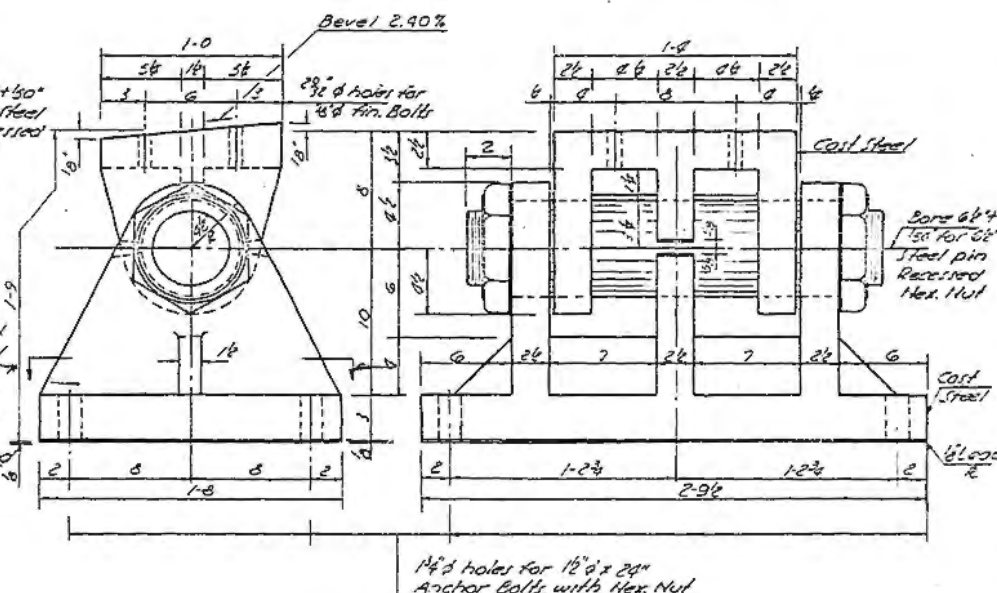
PLAN OF CORED HOLE



DETAIL OF EXPANSION BEARING AT ABUTMENTS (3 Required)

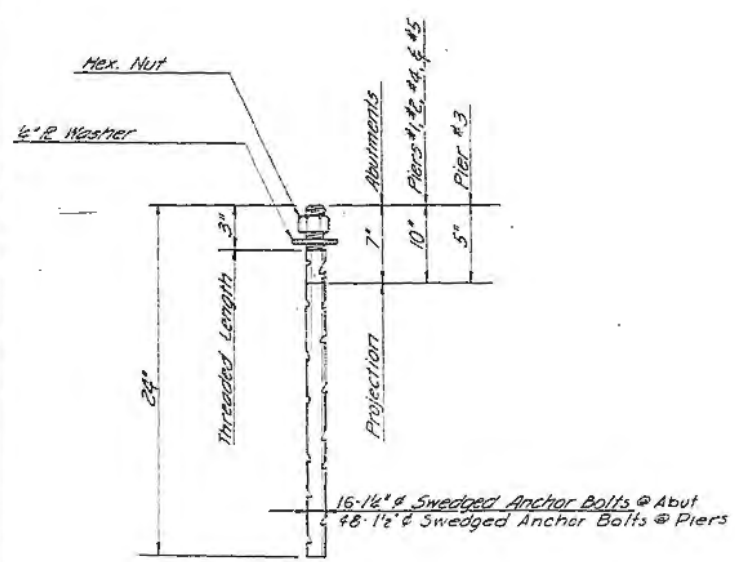


DETAIL OF EXPANSION BEARING AT PIERS (16 Required)



DETAIL OF FIXED BEARING AT PIERS (4 Required)

* Indicates Areas to be X-Rayed. See Special Provisions.



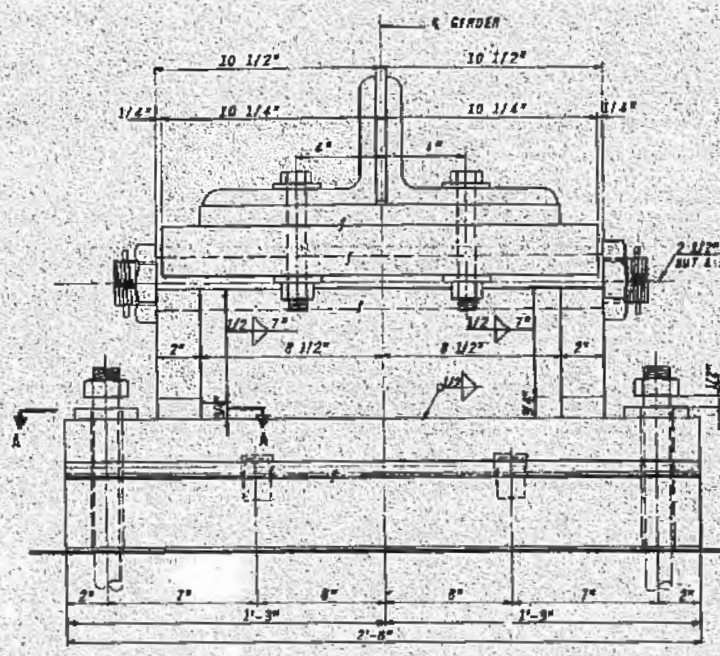
ANCHOR BOLT (64 Required)

COMPUTED WEIGHT OF BEARING DEVICES
 STRUCTURAL STEEL 45,560 LBS.
 The above Quantities are for right & left Bridges

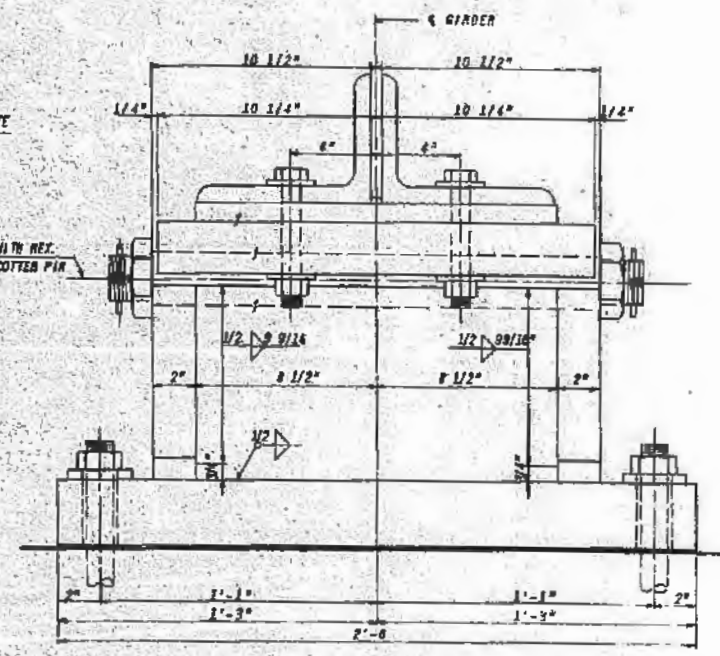
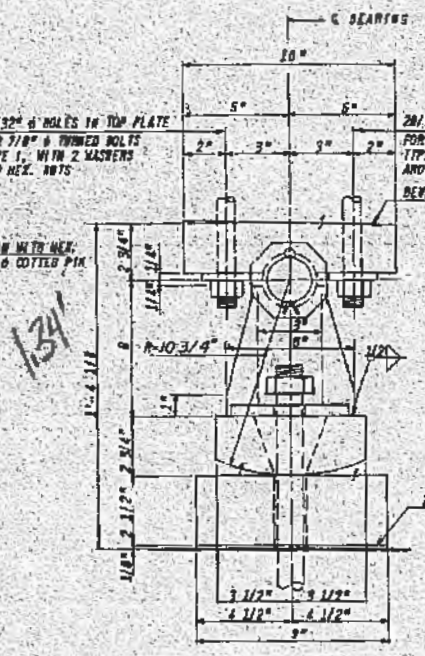
CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS						
ILLINOIS DIVISION OF HIGHWAYS F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER F.A.I. 74 SECTION 92-11B, 11F VERMILION COUNTY STA 1755+16						
STRUCTURAL STEEL BEARING DEVICES						
DESIGNED SMH	DRAWN JT	CHECKED KES	ENGINEER JII	APPROVED LOR	DATE 11-11-54	REVISED

DRAWING NO.	SECTION	QUANTITY	TYPICAL SHEETS	DATE
74	92-118	VERMILION		6-5-62
FEDERAL ROAD DISTRICT NO. 7				

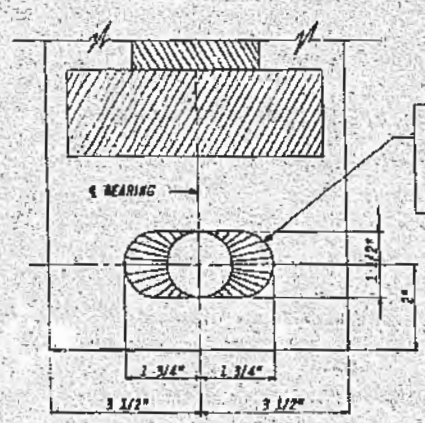
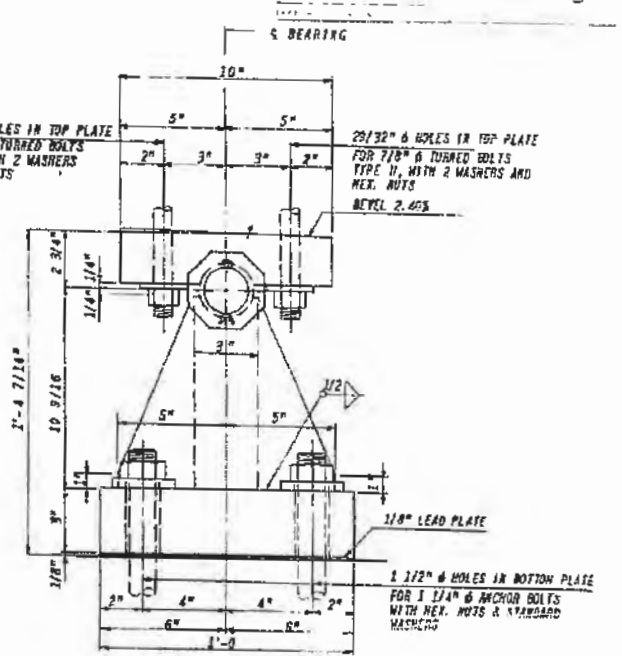
74 92-118 VERMILION 6



EXPANSION BEARING
4 REQUIRED



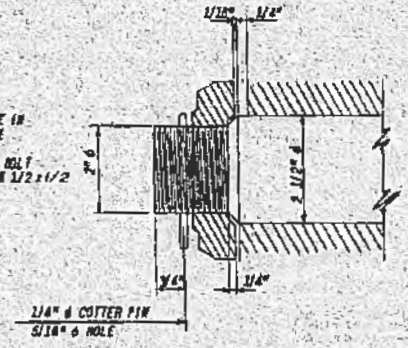
FIXED BEARING
4 REQUIRED



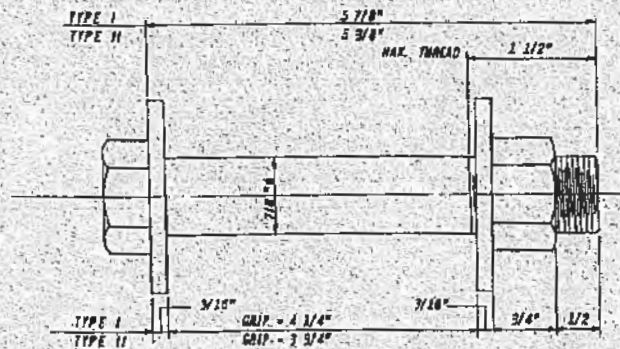
SECTION A-A



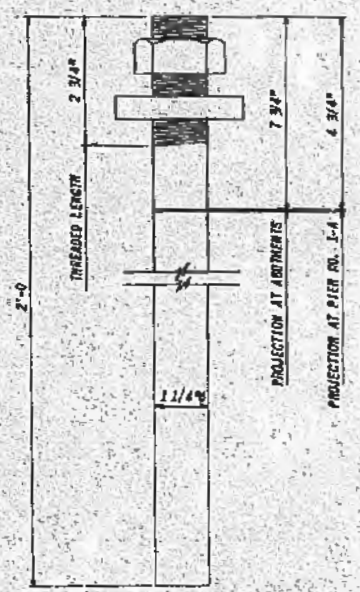
PLATE WASHER
8 REQUIRED



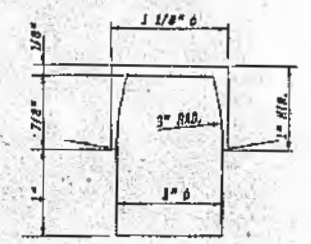
DETAIL OF PIN



TURNED BOLT
TYPE I 16 REQUIRED
TYPE II 16 REQUIRED



ANCHOR BOLT DETAIL
ANCHOR BOLTS & HEX. NUTS 24 REQUIRED
STANDARD WASHER 16 REQUIRED



DETAIL OF PINTLES
6 REQUIRED

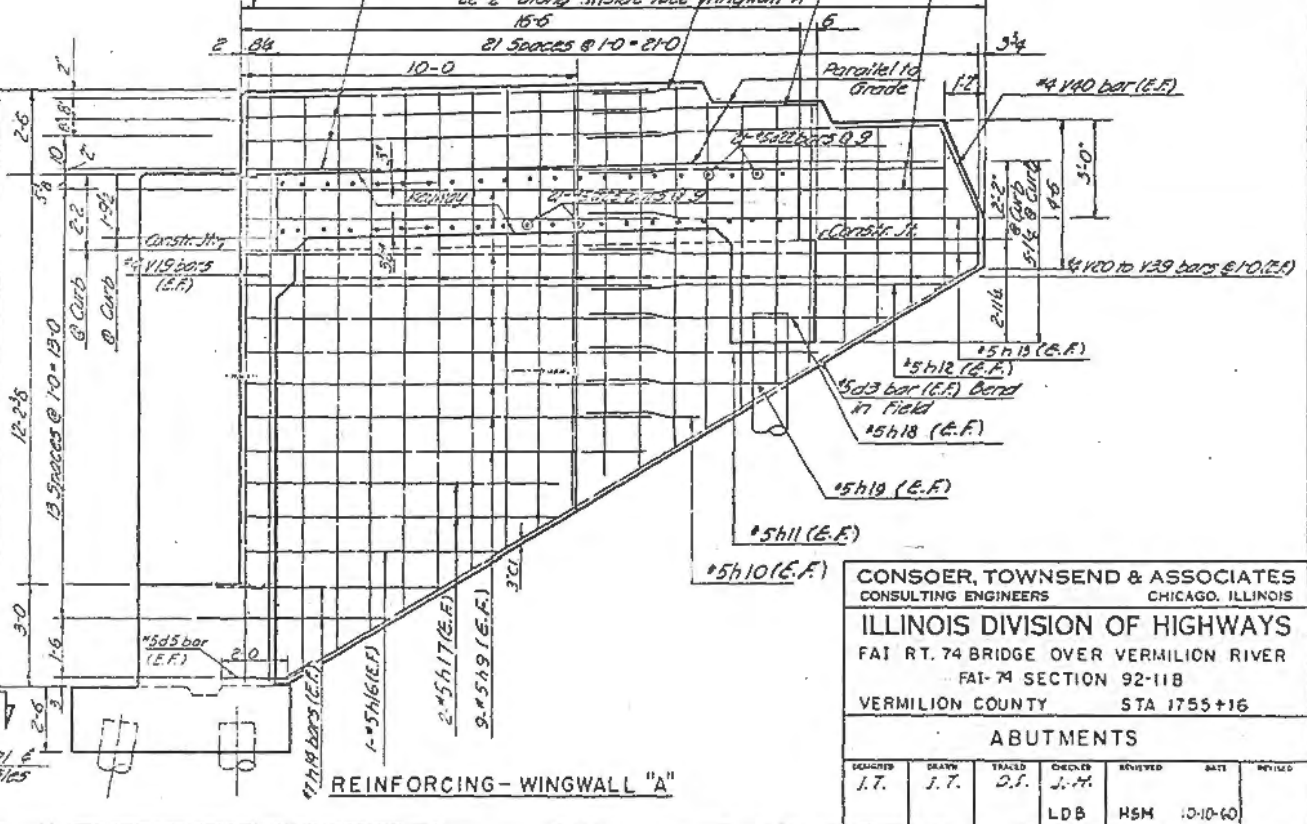
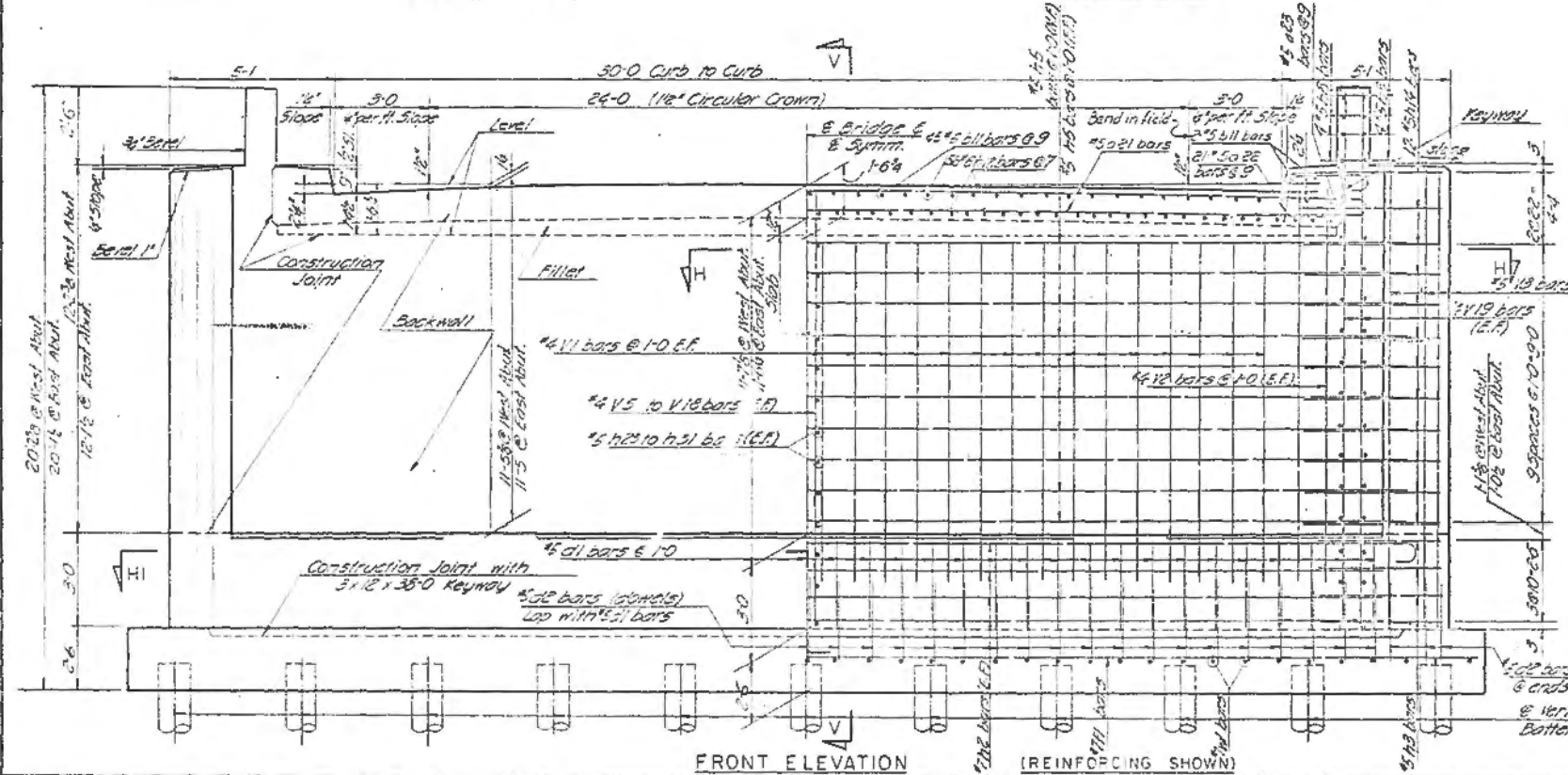
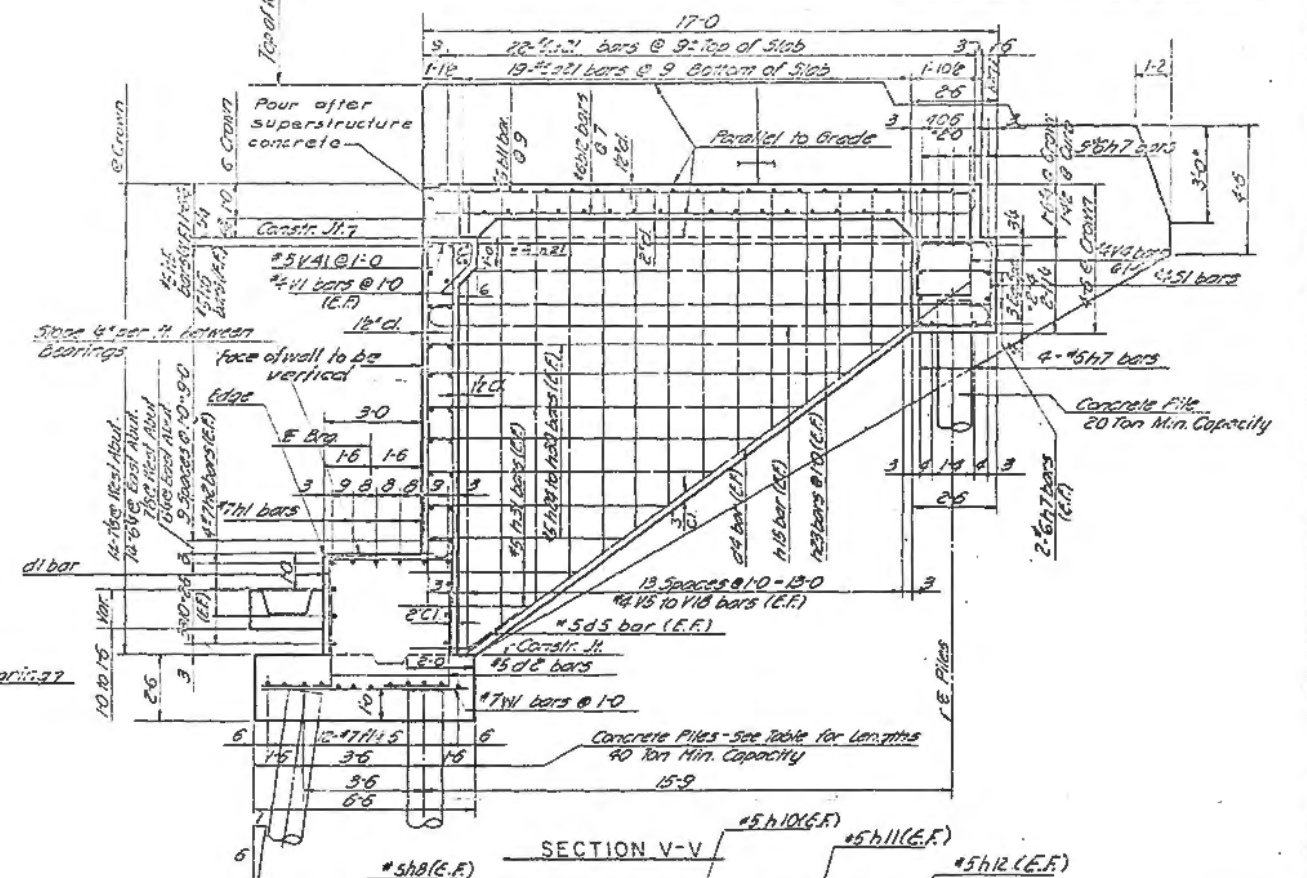
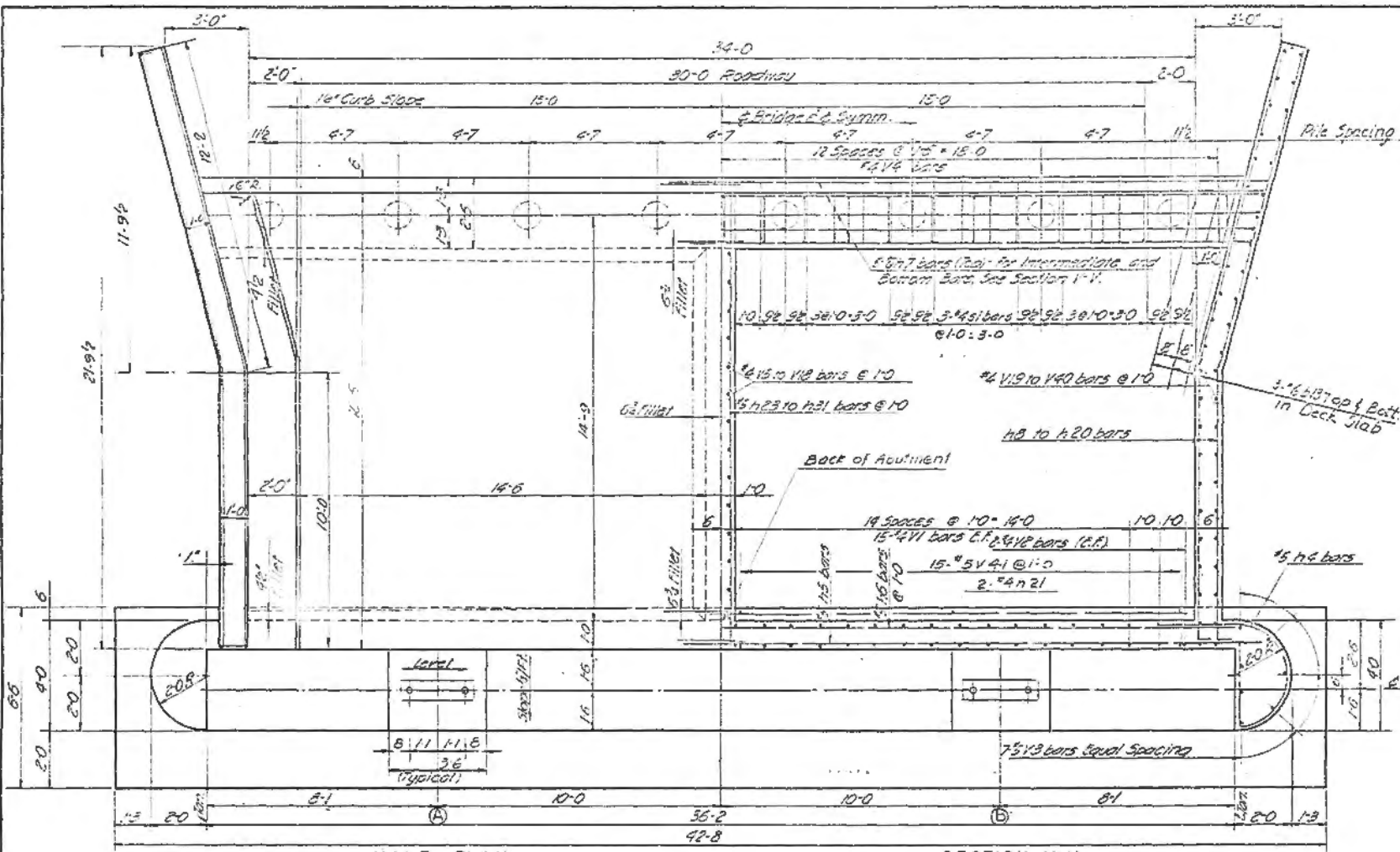
NOTE: WELDED STEEL ASTM A373

AS BUILT

TOTAL COMPUTED WEIGHT OF BEARING DEVICES
STRUCTURAL STEEL 6,030 LBS.

PELOCATED WEST ABUTMENT					
CONSOER, TOWNSEND & ASSOCIATES CONSULTING ENGINEERS CHICAGO, ILLINOIS					
ILLINOIS DIVISION OF HIGHWAYS					
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER					
F.A.I.-74 SECTION 92-118					
VERMILION COUNTY				STA. 1755+16	
STRUCTURAL STEEL BEARING DEVICES					
DESIGNED	CHECKED	TRACED	QUANTITY	DATE	REVISION
ST	DU		LDB	HSM 12-3-62	

FED. PROJ. NO.	SECTION	COUNTY	ROUTE	POST MILE
76	92-118	VERMILION	74	92
FEDERAL ROAD DISTRICT NO. 7				



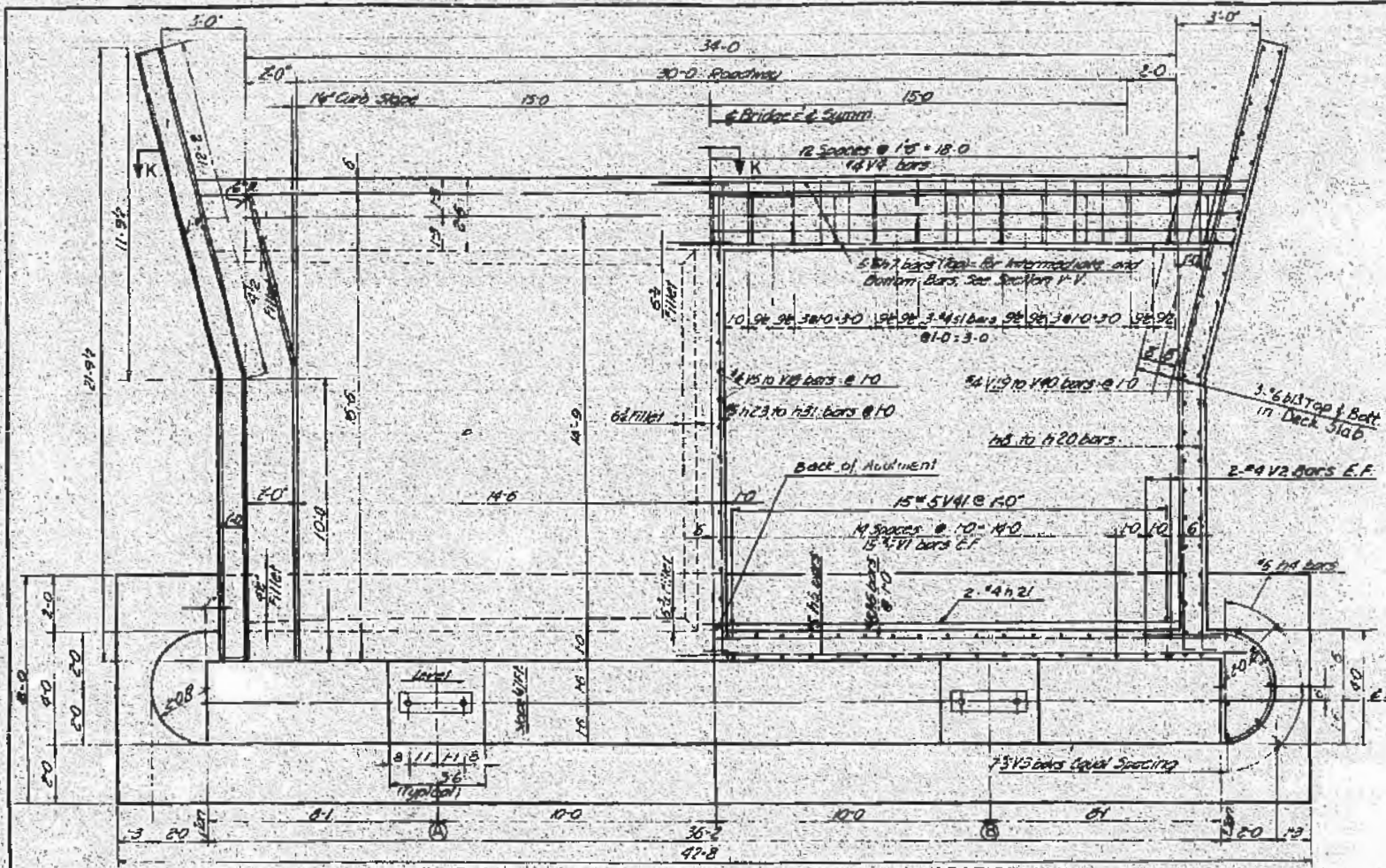
CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAT RT. 74 BRIDGE OVER VERMILION RIVER
FAT-74 SECTION 92-118
VERMILION COUNTY STA 1755+16

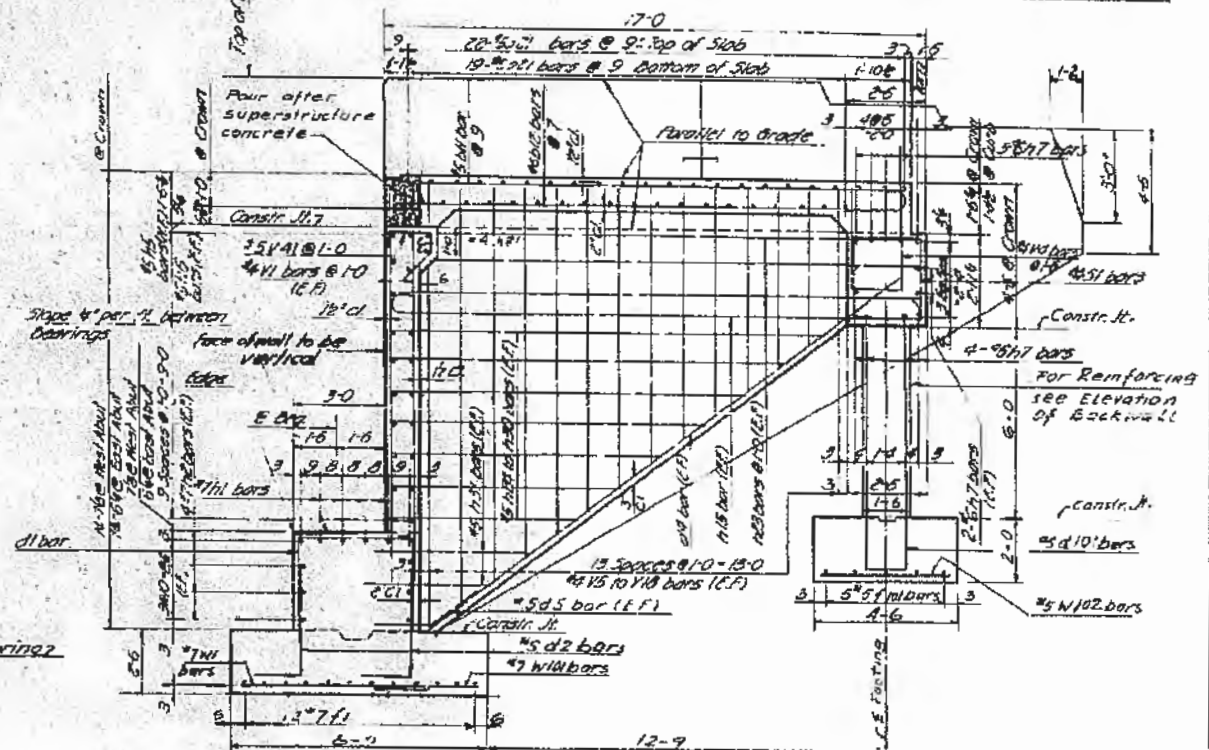
ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISED
J.T.	J.T.	D.F.	J.H.	HSM	10-10-60	

FAI DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
76	92-118	VERMILION	11	11

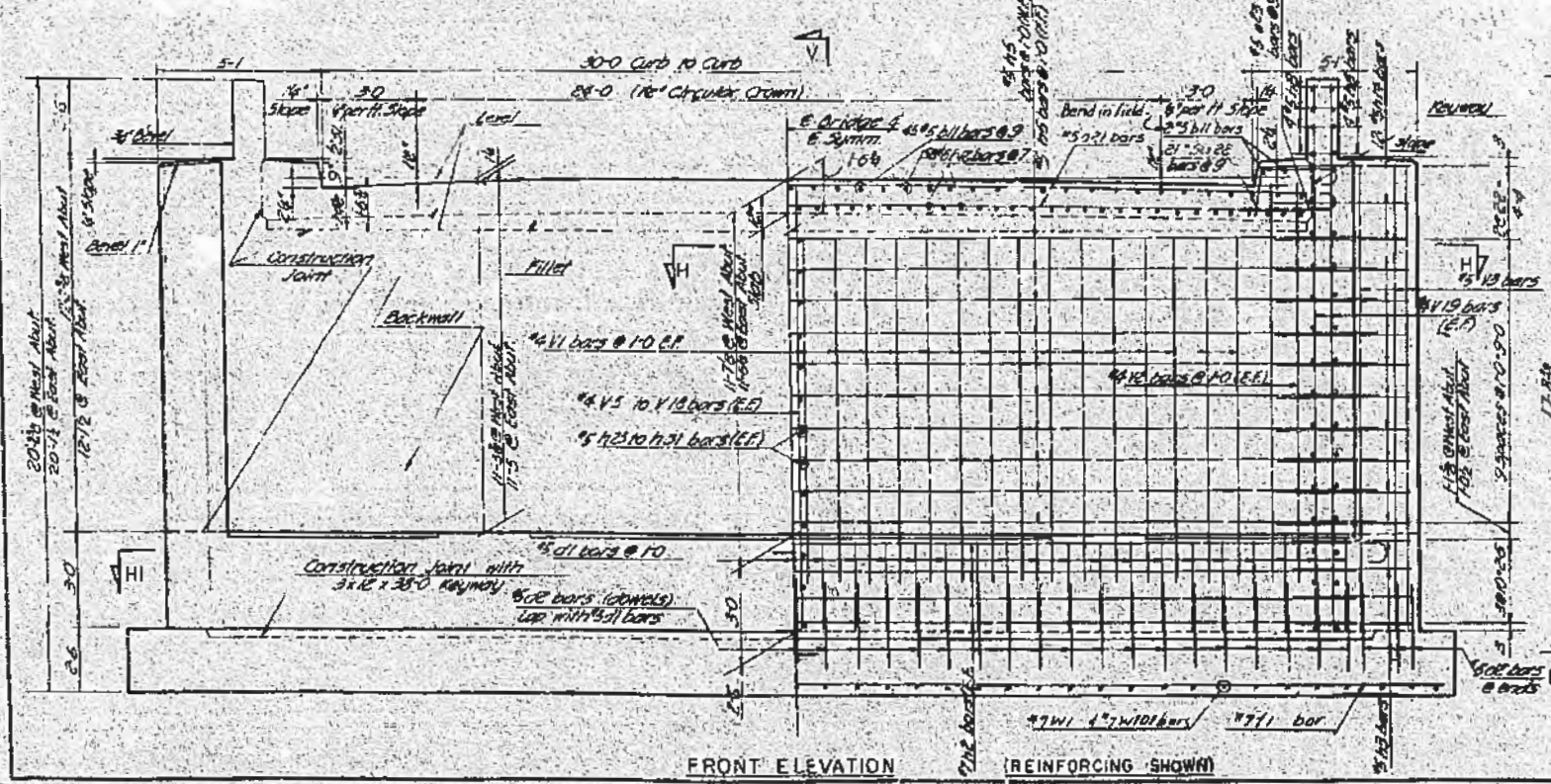


HALF PLAN SECTION H-H

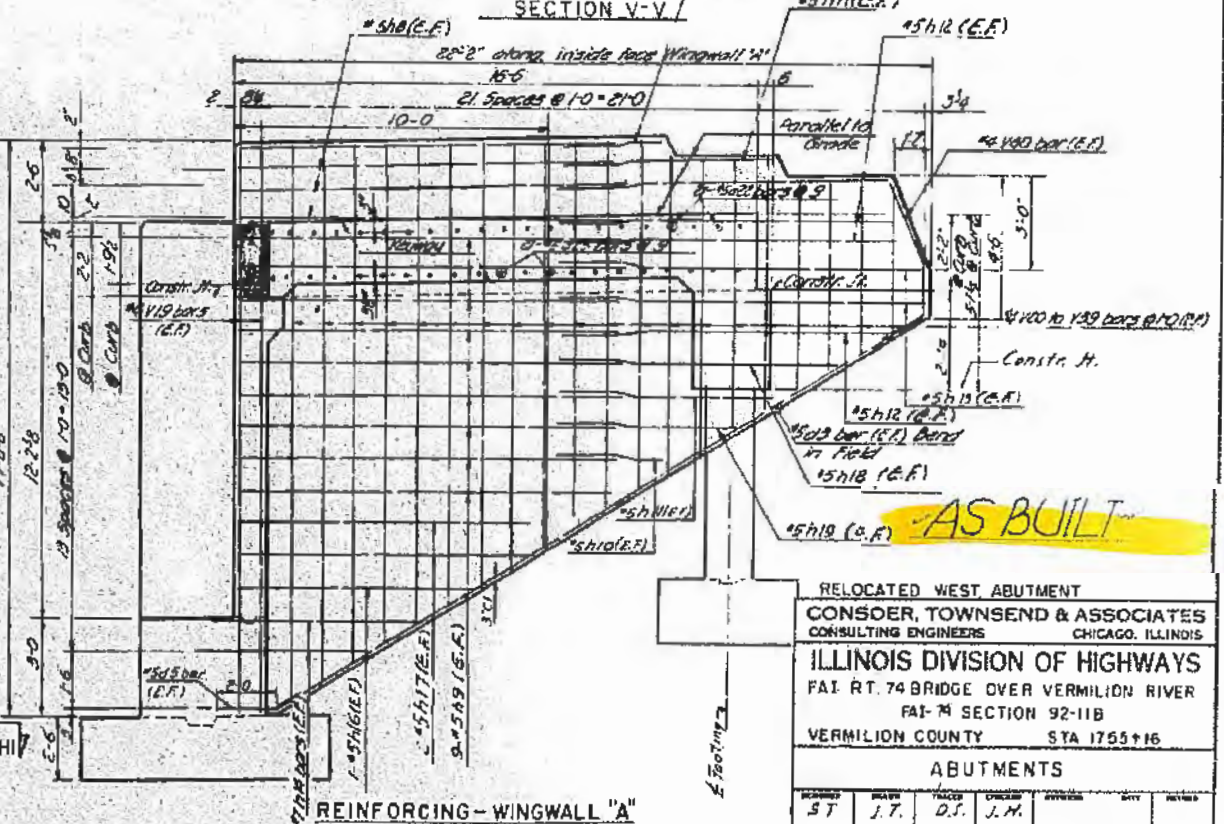


West Abutment Max. Footing Bearing Press. = 3,400 Lbs. per Sq. Ft.

SECTION V-V



FRONT ELEVATION (REINFORCING SHOWN)



REINFORCING - WINGWALL "A"

RELOCATED WEST ABUTMENT

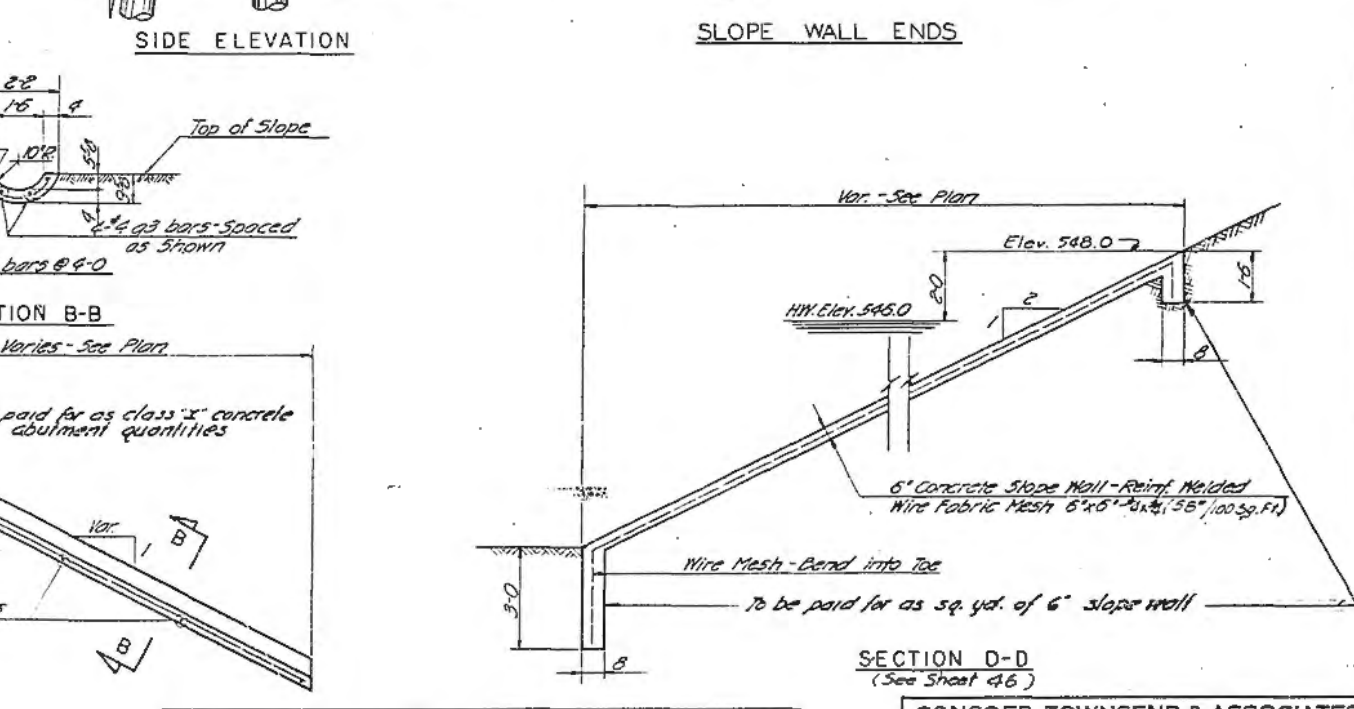
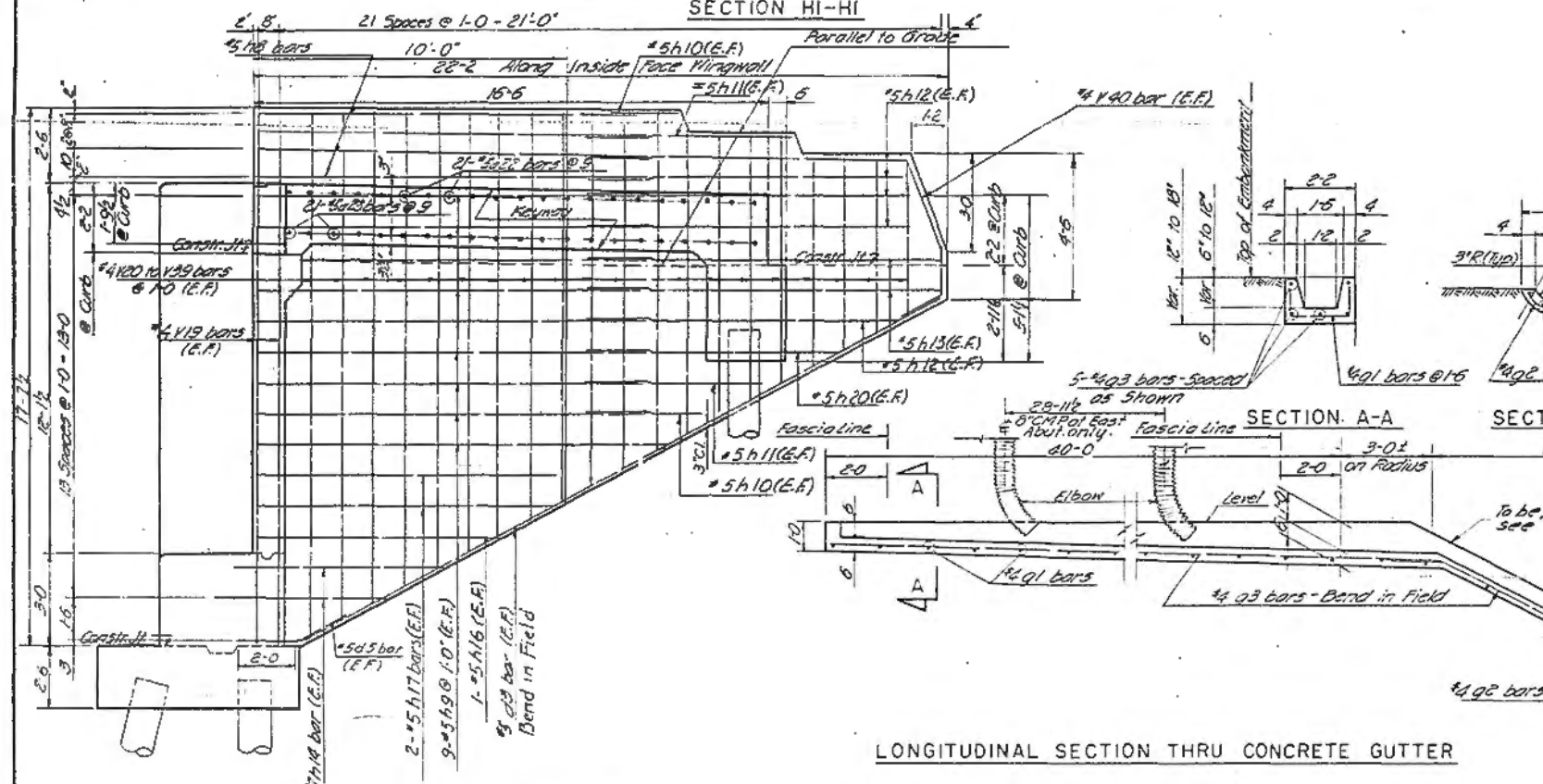
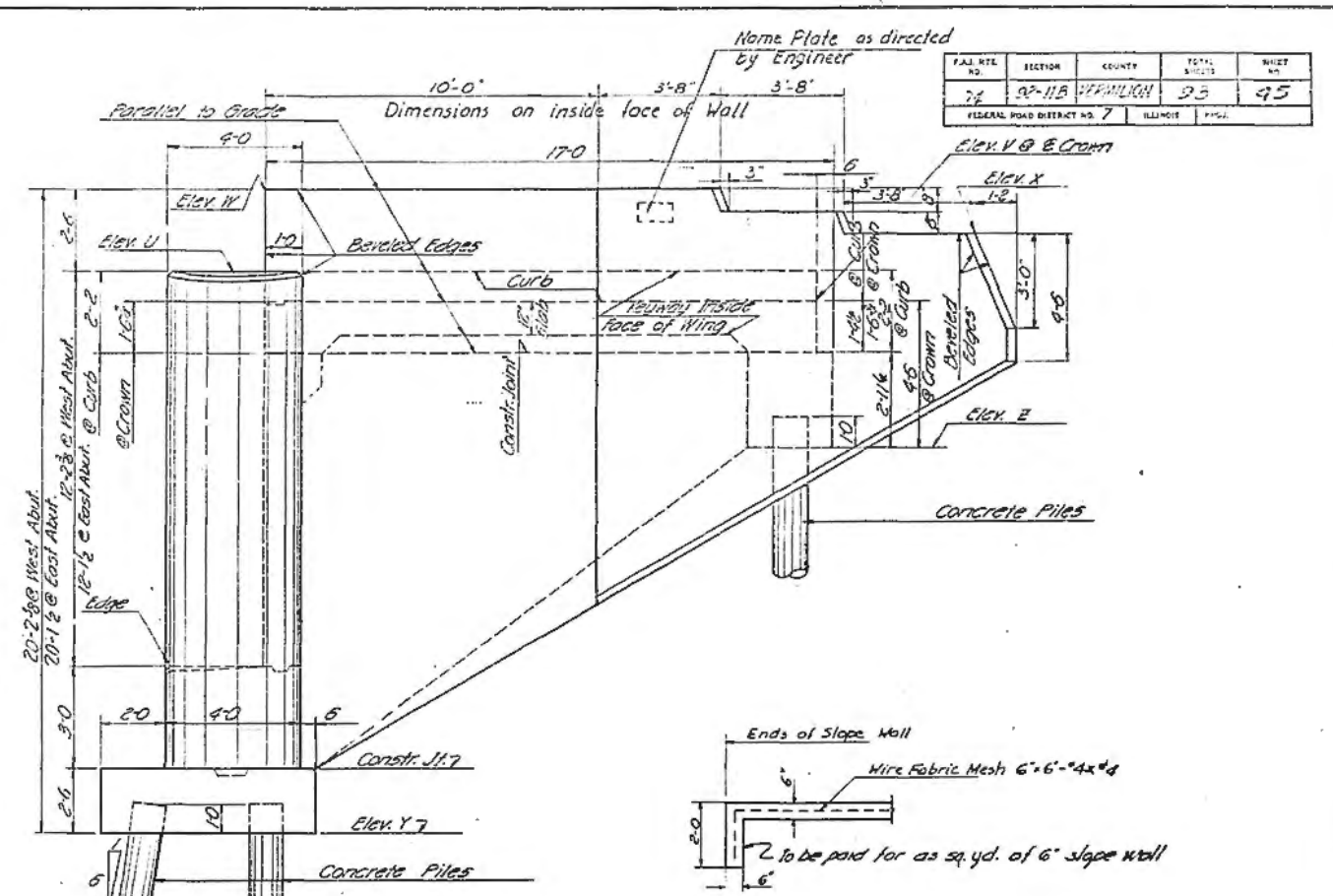
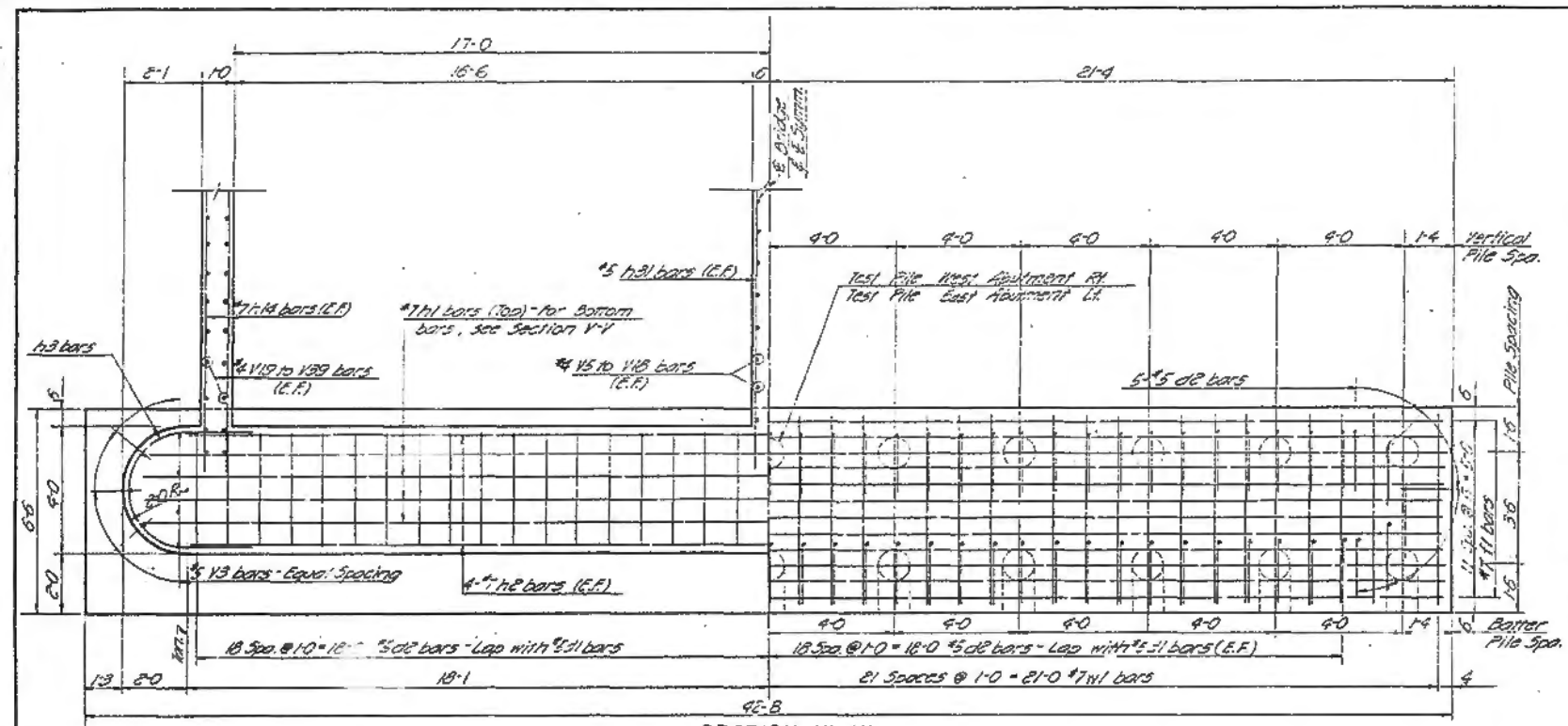
CONSDER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-M SECTION 92-118
VERMILION COUNTY STA 1755+16

NO.	DATE	BY	CHECKED	APPROVED	REV.
57	J.T.	D.T.	J.M.		
	J.T.		LOB	HSM	12-3-62

AS BUILT

FAI R.T. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11B	VERMILION	25	45
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS		



REINFORCING - WINGWALL "B"

LONGITUDINAL SECTION THRU CONCRETE GUTTER

ESTIMATED LENGTHS & QUANTITIES OF PILES	
Abutment	Concrete Piles
West Abut. Rt.	29 @ 30' = 870' Lin. Ft.
West Abut. Lt.	30 @ 30' = 900' Lin. Ft.
East Abut. Rt.	22 @ 60' = 1320' Lin. Ft.
East Abut. Lt.	8 @ 70' = 560' Lin. Ft.
TOTAL	5470' Lin. Ft.
Test Pile (@ W. Abut. Rt. & E. Abut. Lt.) Conc.	

TABLE OF ELEVATIONS										
Abutment	Berm Elev.	Crown Elev. Inside Face Backwall on E	Wingwall						Top Seat Elev. (Top of Concrete)	
			U	V	X	Y	Z	A	B	
West Abut. Rt.	597.65	610.22	610.85	610.63	615.35	612.51	599.15	605.12	599.65	599.65
West Abut. Lt.	597.65	610.22	610.85	610.63	615.35	612.51	599.15	605.12	599.65	599.65
East Abut. Rt.	582.05	594.65	595.18	594.17	597.68	595.83	577.55	589.67	583.05	583.05
East Abut. Lt.	582.05	594.65	595.18	594.17	597.68	595.83	577.55	589.67	583.05	583.05

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ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

ABUTMENTS

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	REVISION
J.T.	J.T.	C.S.	J.H.		10-10-60	

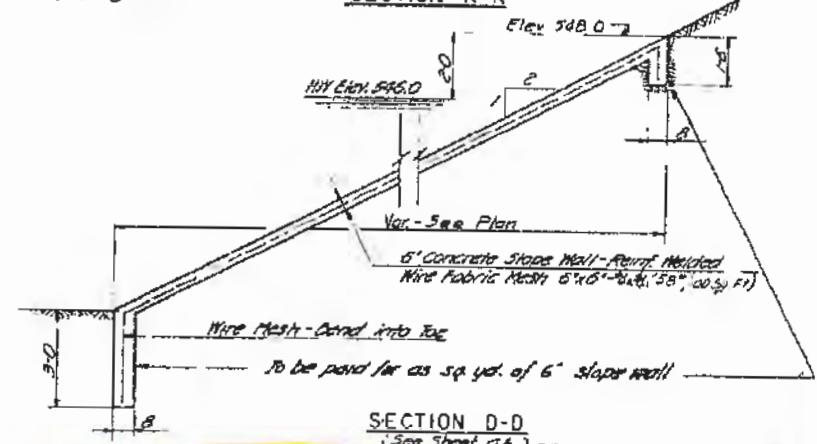
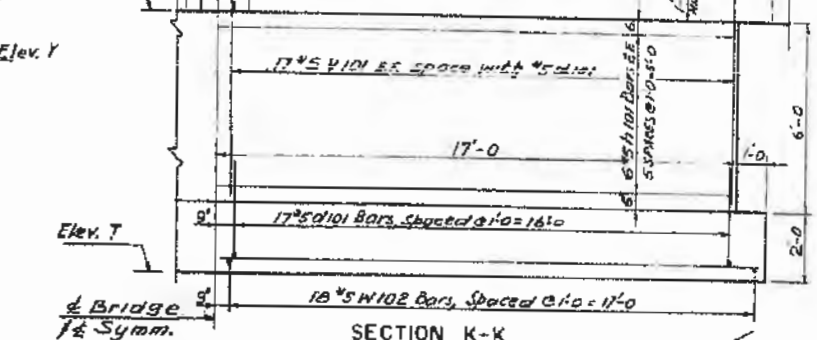
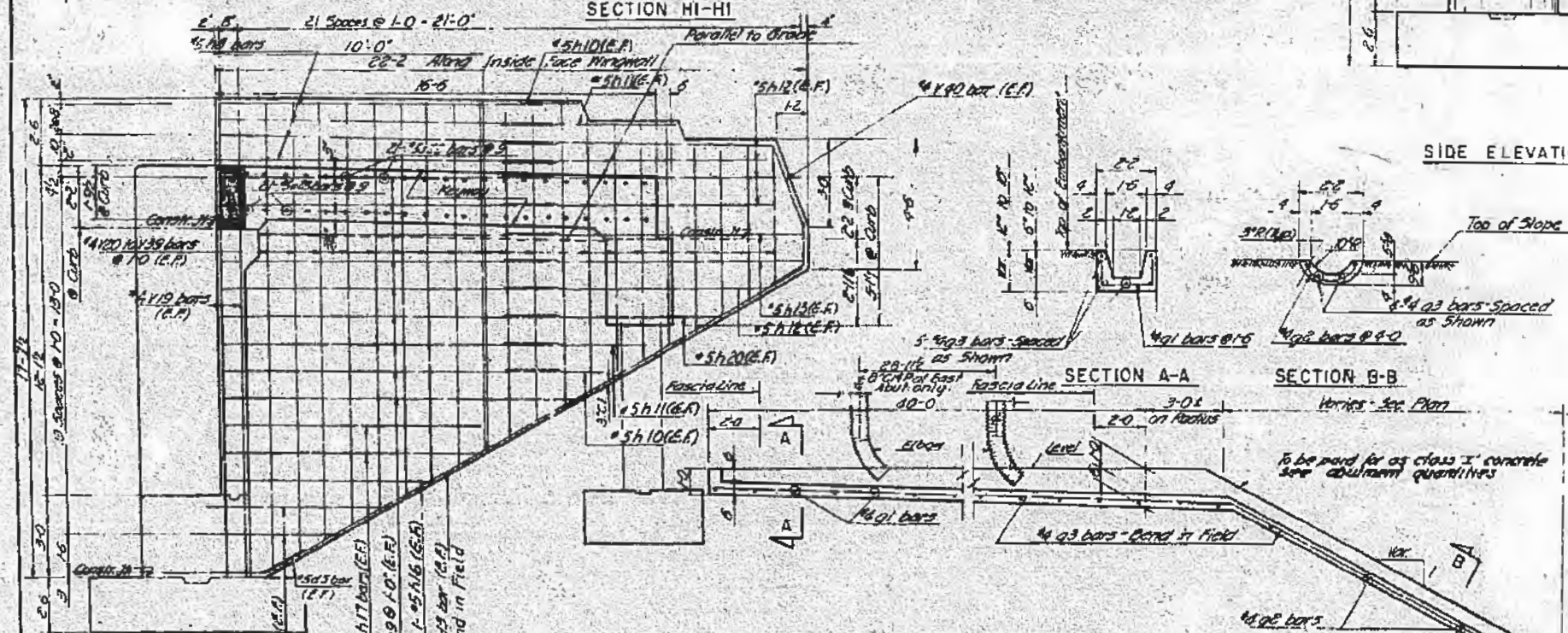
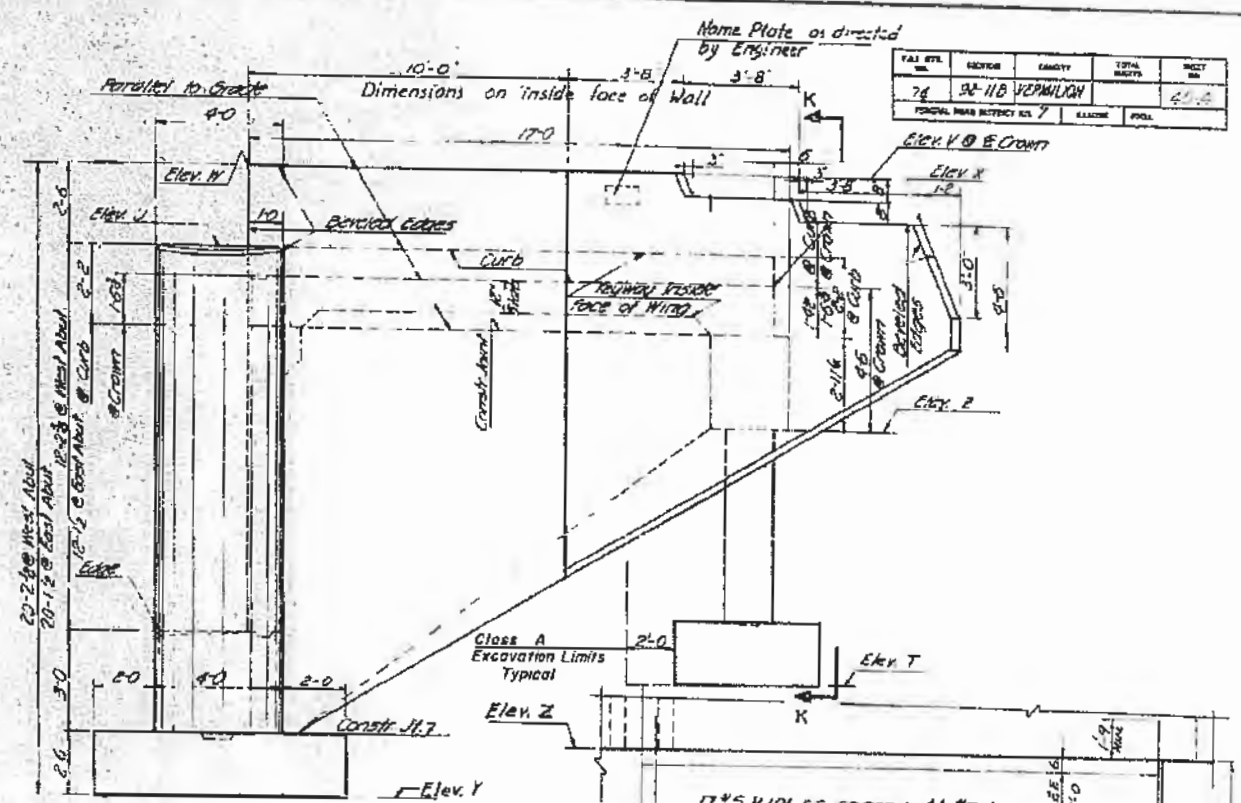
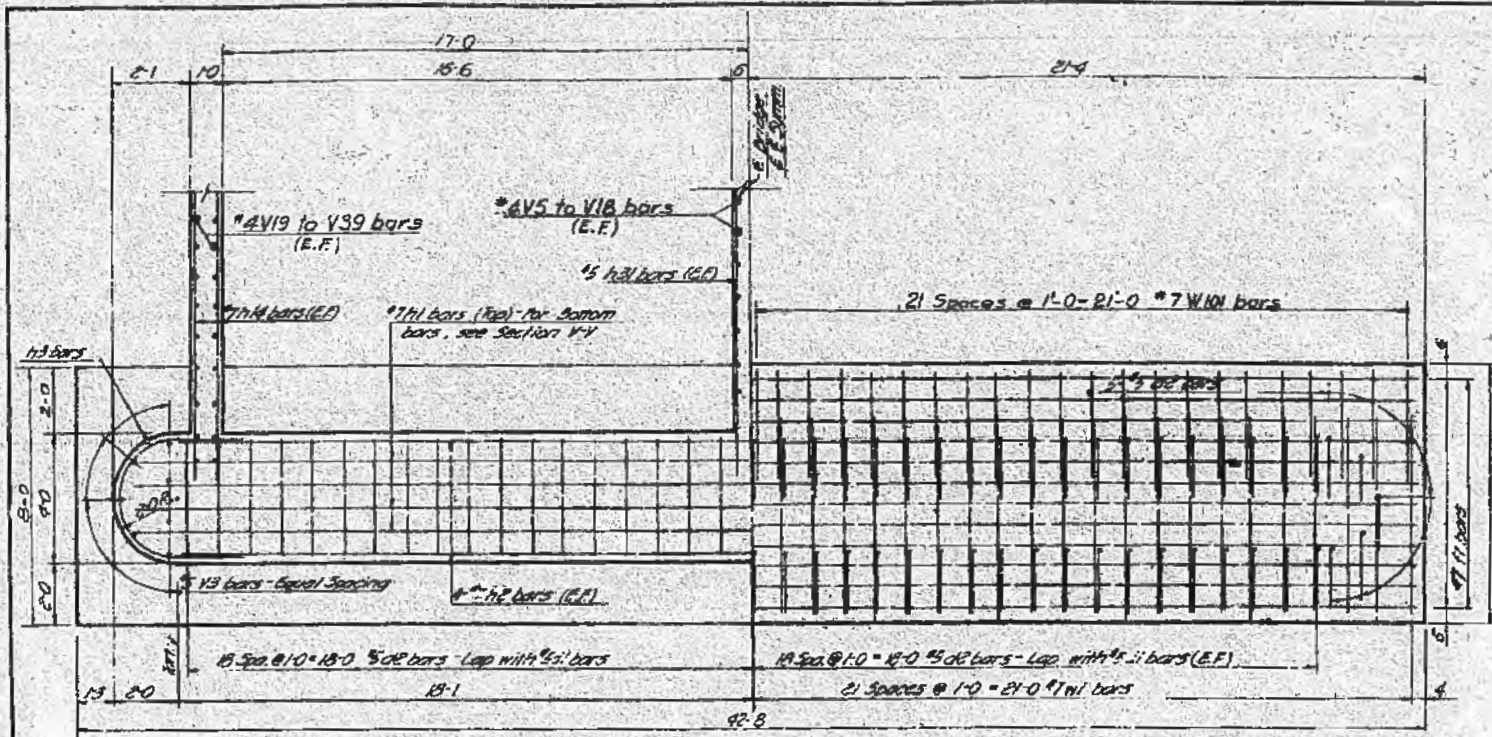
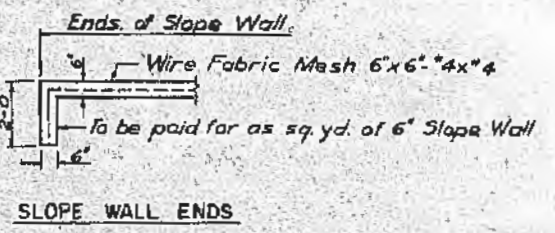


TABLE OF ELEVATIONS

Abutment	Crown Elev.	Down Slope Inside Face Backfillant	Wingwall							Opp. Side Elev. (Top of Curbs)		
			U	V	W	X	Y	Z	A	B	T	
West Abut. Ry.	599.95	612.52	618.13	612.91	615.63	614.79	595.43	608.41	600.92	600.92	600.41	
West Abut. Lt.	599.95	612.52	618.13	612.91	615.63	614.79	595.43	608.41	600.92	600.92	600.41	



AS-BUILT

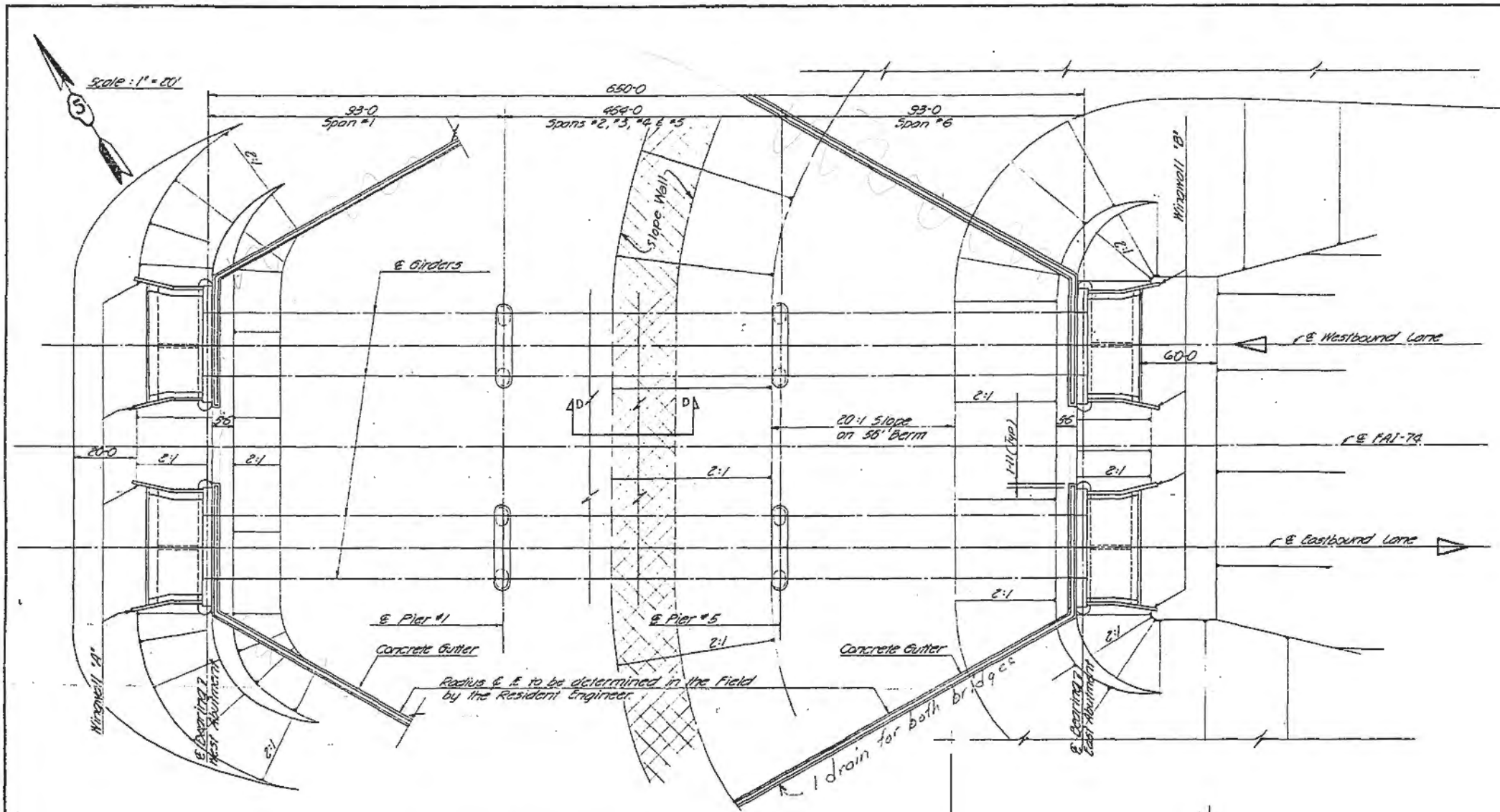
RELOCATED WEST ABUTMENT
(See Sheet 46)

CONSOER, TOWNSEND & ASSOCIATES
CONSULTING ENGINEERS CHICAGO, ILLINOIS

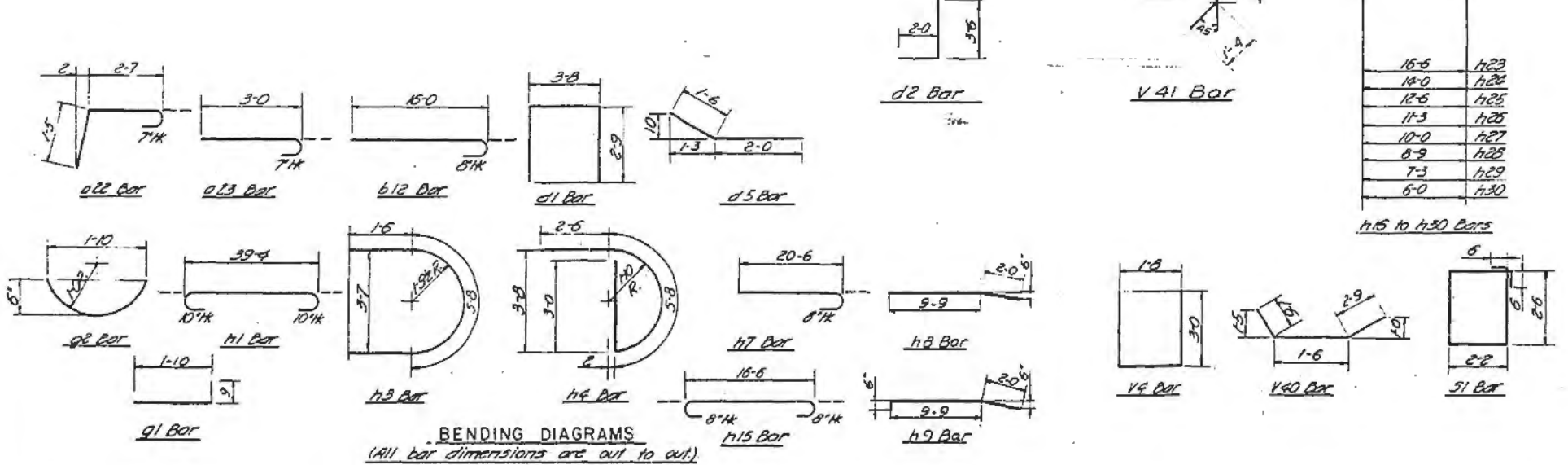
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

ABUTMENTS

DESIGNED	CHECKED	APPROVED	DATE
J.T.	J.T.	J.H.	12.9.62



PLAN OF ABUTMENTS & CONCRETE GUTTERS
 (Abutments are identical by 180° Rotation except as noted)
 (For Section D-D See Sheet 45)



BENDING DIAGRAMS
 (All bar dimensions are out to out.)

Bar No.	Size	Length	Spacing	Shape	Bar No.	Size	Length	Spacing	Shape
d21	328	5	18-8	9	V1	240	4	12-0	1-0
d22	168	5	4-7	9	V2	32	4	13-9	1-0
d23	168	5	3-7	9	V3	56	5	15-0	As Shown
b11	156	5	15-0	9	V4	100	4	7-8	1-0
b12	232	6	16-8	7	V5	8	4	18-4	
b13	48	6	8-0	7	V7	8	4	12-9	
d1	148	5	9-2	10	V8	8	4	12-0	
d2	336	5	5-6	As Shown	V9	8	4	11-3	
d3	16	5	23-6	As Shown	V10	8	4	10-6	
d4	8	6	18-0	As Shown	V11	8	4	9-3	
d5	24	5	3-6	As Shown	V12	8	4	9-0	
F1	48	7	45-2	6	V13	8	4	8-3	
g1	110	4	3-4	1-5	V14	8	4	7-6	
g2	120	4	2-2	4-0	V15	8	4	6-9	
g3	128	4	22-3	As Shown	V16	8	4	6-0	
					V17	8	4	5-3	
					V18	8	4	4-6	
					V19	32	4	17-4	
h1	16	7	41-0	8	V20	16	4	17-0	
h2	32	7	35-2	10	V21	16	4	16-4	
h3	32	5	8-8	10	V22	16	4	15-10	
h4	36	5	11-2	As Shown	V23	16	4	15-3	
h5	40	5	39-0	10	V24	16	4	14-8	
h6	40	5	26-2	10	V25	16	4	14-1	
h7	104	6	21-2	As Shown	V26	16	4	13-5	
h8	64	5	11-9		V27	16	4	13-0	
h9	144	5	12-3		V28	16	4	12-5	
h10	32	5	2-10		V29	16	4	11-8	
h11	32	5	6-6		V30	16	4	11-2	
h12	72	5	10-2		V31	16	4	10-8	
h13	32	5	11-4	1-0	V32	16	4	9-6	
h14	32	7	7-0	1-0	V33	16	4	9-0	
h15	8	6	17-10	As Shown	V34	16	4	8-5	
h16	16	5	8-0	1-0	V35	16	4	7-9	
h17	32	5	9-9		V36	16	4	6-6	
h18	8	5	8-8		V37	16	4	5-10	
h19	8	5	5-5		V38	16	4	5-4	
h20	8	5	8-2		V39	16	4	4-9	
h21	16	4	18-3		V40	16	4	5-9	1-0
					V41	120	5	3-10	1-0
h23	24	5	17-0						
h24	8	5	14-6						
h25	8	5	13-0						
h26	8	5	11-9		S1	128	4	10-4	1-0
h27	8	5	10-6						
h28	8	5	9-3						
h29	8	5	7-9						
h30	8	5	6-6		W1	172	7	6-0	1-0
h31	16	5	5-0	1-0					

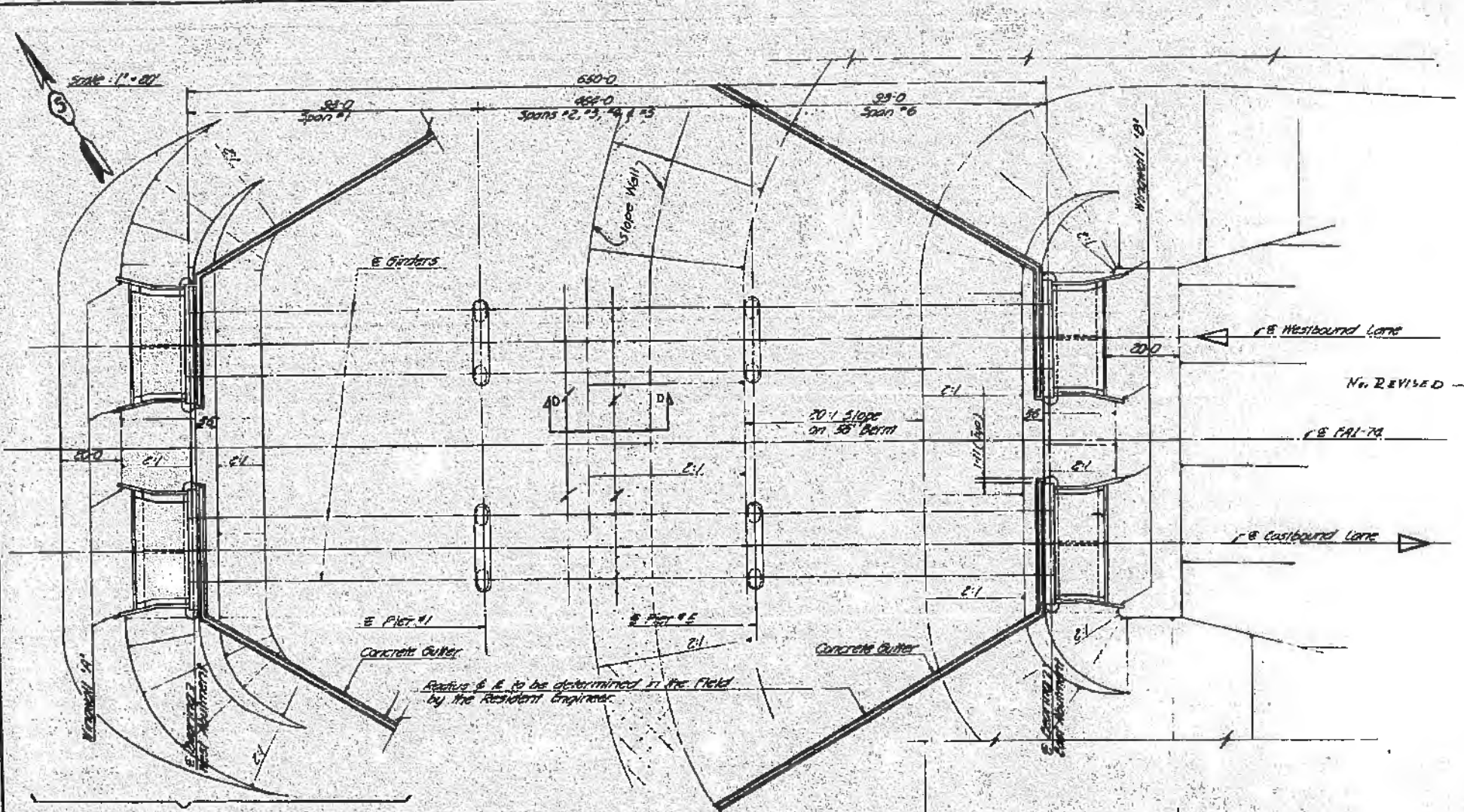
ABUTMENT QUANTITIES	
Class X Concrete	508.3 Cu.Yd.
Reinforcement Steel	56,830 Lbs.
NOTE: The above quantities are for four Abutments and Concrete Gutter. Estimated Length of Concrete Gutter @ 660 Lft.Ft.	
Class A Excavation	165 Cu.Yd. West Abut.
Class A Excavation	370 Cu.Yd. Slope Wall Fig.

CONSOER, TOWNSEND & ASSOCIATES
 CONSULTING ENGINEERS CHICAGO, ILLINOIS
ILLINOIS DIVISION OF HIGHWAYS
 FAI RT. BRIDGE OVER VERMILION RIVER
 FAI-M SECTION 92-118
 VERMILION COUNTY STA. 1755+16

ABUTMENTS		
DRAWN	CHECKED	DATE
J.T.	J.H.	10-10-40
J.T.	D.S.	
J.T.	J.H.	

Revised berm dimension 1-3-68 L.P.W.

PLAN NO.	SECTION	DATE	BY	CHKD
23	92-118	PERMILUTION		45-4
FEDERAL ROAD DISTRICT NO. 7 ALGONQUIN, ILL.				

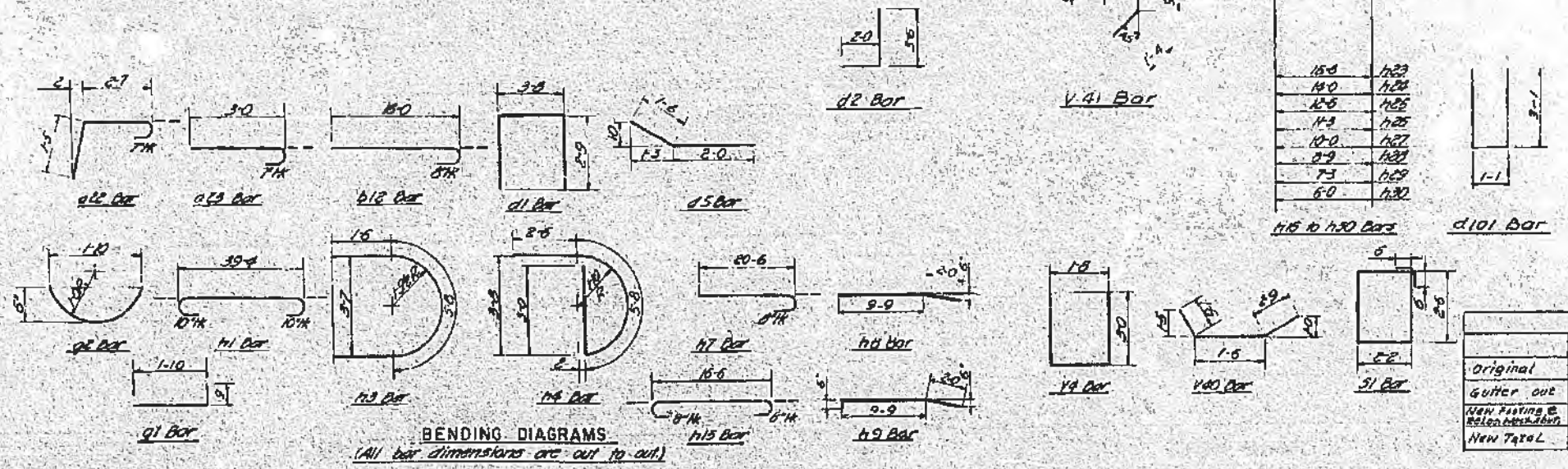


BAR SCHEDULE

Bar No.	Size	Length	Spacing	Shape	Bar No.	Size	Length	Spacing	Shape
d1	5	150	9		v1	280	4	12-0	10
d2	5	4-7	9		v2	32	4	13-9	10
d3	5	3-7	9		v3	56	5	15-0	As Shown
d4	5	9-2	10		v4	100	4	7-8	10
d5	5	5-6	As Shown		v5	8	4	18-4	
d6	5	23-6	As Shown		v6	8	4	13-6	
d7	5	18-0	As Shown		v7	8	4	12-9	
d8	5	3-6	As Shown		v8	8	4	12-0	
d9	5	4-2	5		v9	8	4	11-3	
d10	5	3-4	1-6		v10	8	4	10-6	
d11	5	2-2	4-0		v11	8	4	9-9	
d12	5	2-3	As Shown		v12	8	4	9-0	
d13	5	4-2	6		v13	3	4	8-3	
d14	5	3-4	1-6		v14	3	4	7-6	
d15	5	2-2	4-0		v15	3	4	6-9	
d16	5	2-3	As Shown		v16	3	4	6-0	
d17	5	4-2	6		v17	3	4	5-3	
d18	5	3-4	1-6		v18	3	4	4-6	
d19	5	2-2	4-0		v19	3	4	3-9	
d20	5	2-3	As Shown		v20	3	4	3-0	
d21	5	4-2	6		v21	3	4	2-3	
d22	5	3-4	1-6		v22	3	4	1-6	
d23	5	2-2	4-0		v23	3	4	1-0	
d24	5	2-3	As Shown		v24	3	4	1-0	
d25	5	4-2	6		v25	3	4	1-0	
d26	5	3-4	1-6		v26	3	4	1-0	
d27	5	2-2	4-0		v27	3	4	1-0	
d28	5	2-3	As Shown		v28	3	4	1-0	
d29	5	4-2	6		v29	3	4	1-0	
d30	5	3-4	1-6		v30	3	4	1-0	
d31	5	2-2	4-0		v31	3	4	1-0	
d32	5	2-3	As Shown		v32	3	4	1-0	
d33	5	4-2	6		v33	3	4	1-0	
d34	5	3-4	1-6		v34	3	4	1-0	
d35	5	2-2	4-0		v35	3	4	1-0	
d36	5	2-3	As Shown		v36	3	4	1-0	
d37	5	4-2	6		v37	3	4	1-0	
d38	5	3-4	1-6		v38	3	4	1-0	
d39	5	2-2	4-0		v39	3	4	1-0	
d40	5	2-3	As Shown		v40	3	4	1-0	
d41	5	4-2	6		v41	3	4	1-0	
d42	5	3-4	1-6		v42	3	4	1-0	
d43	5	2-2	4-0		v43	3	4	1-0	
d44	5	2-3	As Shown		v44	3	4	1-0	
d45	5	4-2	6		v45	3	4	1-0	
d46	5	3-4	1-6		v46	3	4	1-0	
d47	5	2-2	4-0		v47	3	4	1-0	
d48	5	2-3	As Shown		v48	3	4	1-0	
d49	5	4-2	6		v49	3	4	1-0	
d50	5	3-4	1-6		v50	3	4	1-0	
d51	5	2-2	4-0		v51	3	4	1-0	
d52	5	2-3	As Shown		v52	3	4	1-0	
d53	5	4-2	6		v53	3	4	1-0	
d54	5	3-4	1-6		v54	3	4	1-0	
d55	5	2-2	4-0		v55	3	4	1-0	
d56	5	2-3	As Shown		v56	3	4	1-0	
d57	5	4-2	6		v57	3	4	1-0	
d58	5	3-4	1-6		v58	3	4	1-0	
d59	5	2-2	4-0		v59	3	4	1-0	
d60	5	2-3	As Shown		v60	3	4	1-0	
d61	5	4-2	6		v61	3	4	1-0	
d62	5	3-4	1-6		v62	3	4	1-0	
d63	5	2-2	4-0		v63	3	4	1-0	
d64	5	2-3	As Shown		v64	3	4	1-0	
d65	5	4-2	6		v65	3	4	1-0	
d66	5	3-4	1-6		v66	3	4	1-0	
d67	5	2-2	4-0		v67	3	4	1-0	
d68	5	2-3	As Shown		v68	3	4	1-0	
d69	5	4-2	6		v69	3	4	1-0	
d70	5	3-4	1-6		v70	3	4	1-0	
d71	5	2-2	4-0		v71	3	4	1-0	
d72	5	2-3	As Shown		v72	3	4	1-0	
d73	5	4-2	6		v73	3	4	1-0	
d74	5	3-4	1-6		v74	3	4	1-0	
d75	5	2-2	4-0		v75	3	4	1-0	
d76	5	2-3	As Shown		v76	3	4	1-0	
d77	5	4-2	6		v77	3	4	1-0	
d78	5	3-4	1-6		v78	3	4	1-0	
d79	5	2-2	4-0		v79	3	4	1-0	
d80	5	2-3	As Shown		v80	3	4	1-0	
d81	5	4-2	6		v81	3	4	1-0	
d82	5	3-4	1-6		v82	3	4	1-0	
d83	5	2-2	4-0		v83	3	4	1-0	
d84	5	2-3	As Shown		v84	3	4	1-0	
d85	5	4-2	6		v85	3	4	1-0	
d86	5	3-4	1-6		v86	3	4	1-0	
d87	5	2-2	4-0		v87	3	4	1-0	
d88	5	2-3	As Shown		v88	3	4	1-0	
d89	5	4-2	6		v89	3	4	1-0	
d90	5	3-4	1-6		v90	3	4	1-0	
d91	5	2-2	4-0		v91	3	4	1-0	
d92	5	2-3	As Shown		v92	3	4	1-0	
d93	5	4-2	6		v93	3	4	1-0	
d94	5	3-4	1-6		v94	3	4	1-0	
d95	5	2-2	4-0		v95	3	4	1-0	
d96	5	2-3	As Shown		v96	3	4	1-0	
d97	5	4-2	6		v97	3	4	1-0	
d98	5	3-4	1-6		v98	3	4	1-0	
d99	5	2-2	4-0		v99	3	4	1-0	
d100	5	2-3	As Shown		v100	3	4	1-0	

For Relocated West Abutments & Slopewalls see Sheet "Slopewall Plan"

PLAN OF ABUTMENTS & CONCRETE GUTTERS
 (Abutments are identical by 180° Rotation except as noted)
 (For Section D-D See Sheet 45)



ABUTMENT QUANTITIES

Class X Concrete	508.3 Cu. Yd.
Reinforcement Steel	56,830 Lbs.

NOTE: The above quantities are for four Abutments and Concrete Gutter. Estimated Length of Concrete Gutter @ 64.0 L.F.F.I.
 Class A Excavation 165 Cu. Yd. West Abut.
 Class A Excavation 370 Cu. Yd. Slope Wall Ftg.
 Additional Reinforcement Steel at relocated West Abutment.

ILLINOIS DIVISION OF HIGHWAYS
 FAT RT. 74 BRIDGE OVER VERMILION RIVER
 FAI-74 SECTION 92-118
 VERMILION COUNTY STA. 1755+16

ABUTMENTS

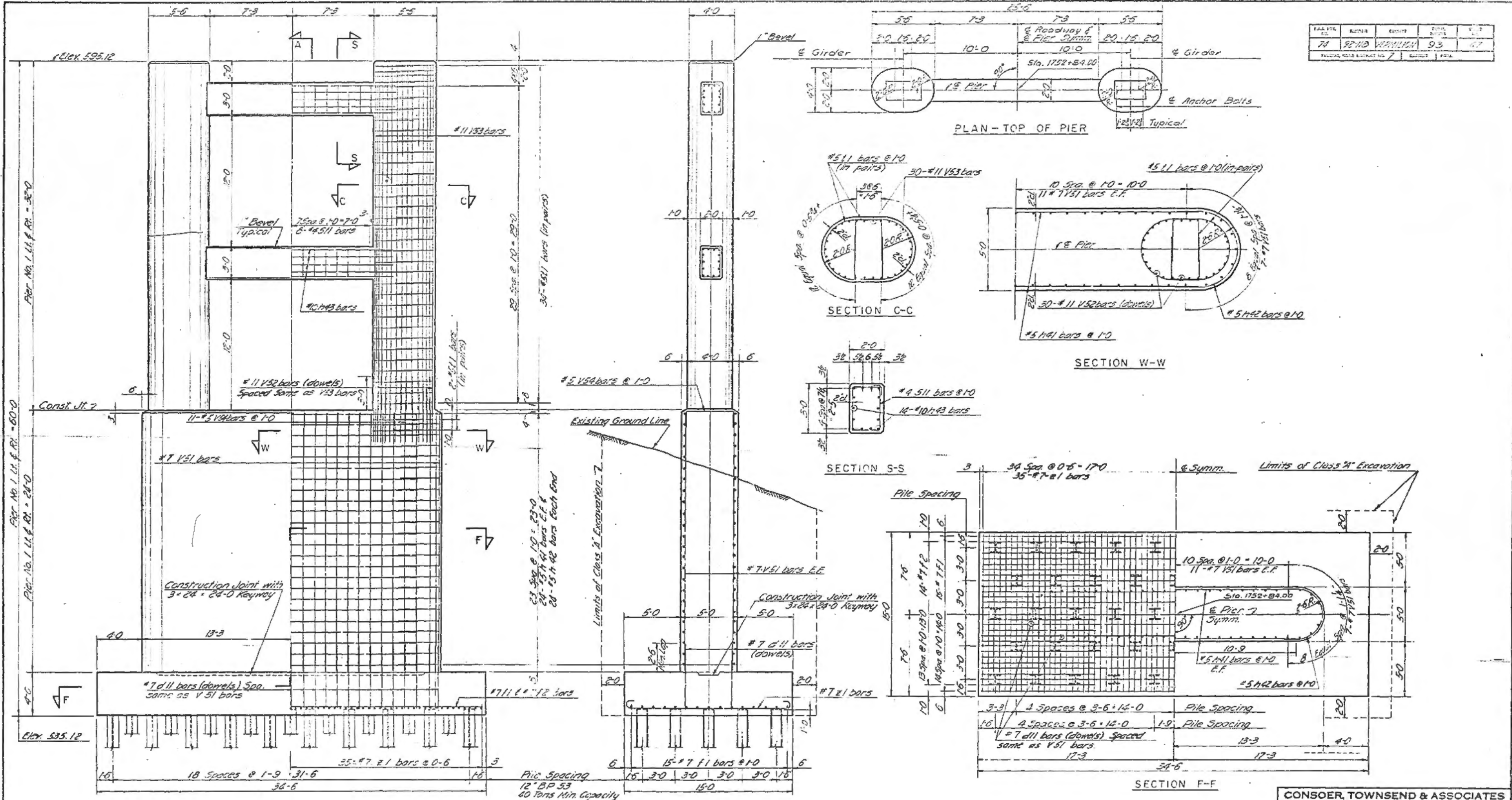
ST	DATE	THROU	DESIGN	INCH	REVISION	BY	DATE
17	1.7	D.S.	J.H.				
					1.08	HSM	12-5-62

RELOCATED WEST ABUTMENT

	Class X Concrete	Reinforc. Steel	Class A Excavation
Original	508.3 CU.YD	56,830 Lbs.	165 CU.YD
Gutter out	- 12.0 CU.YD	- 1,067 Lbs.	-
New Paving @ 1800 LBS./CY	+ 29.8 CU.YD	+ 3,707 Lbs.	151 CU.YD
New Total	525.6 CU.YD	59,470 Lbs.	316 CU.YD

AS BUILT

FILE NO.	DATE	BY	CHKD.	APP.
74	92-10	VERMILION	93	107



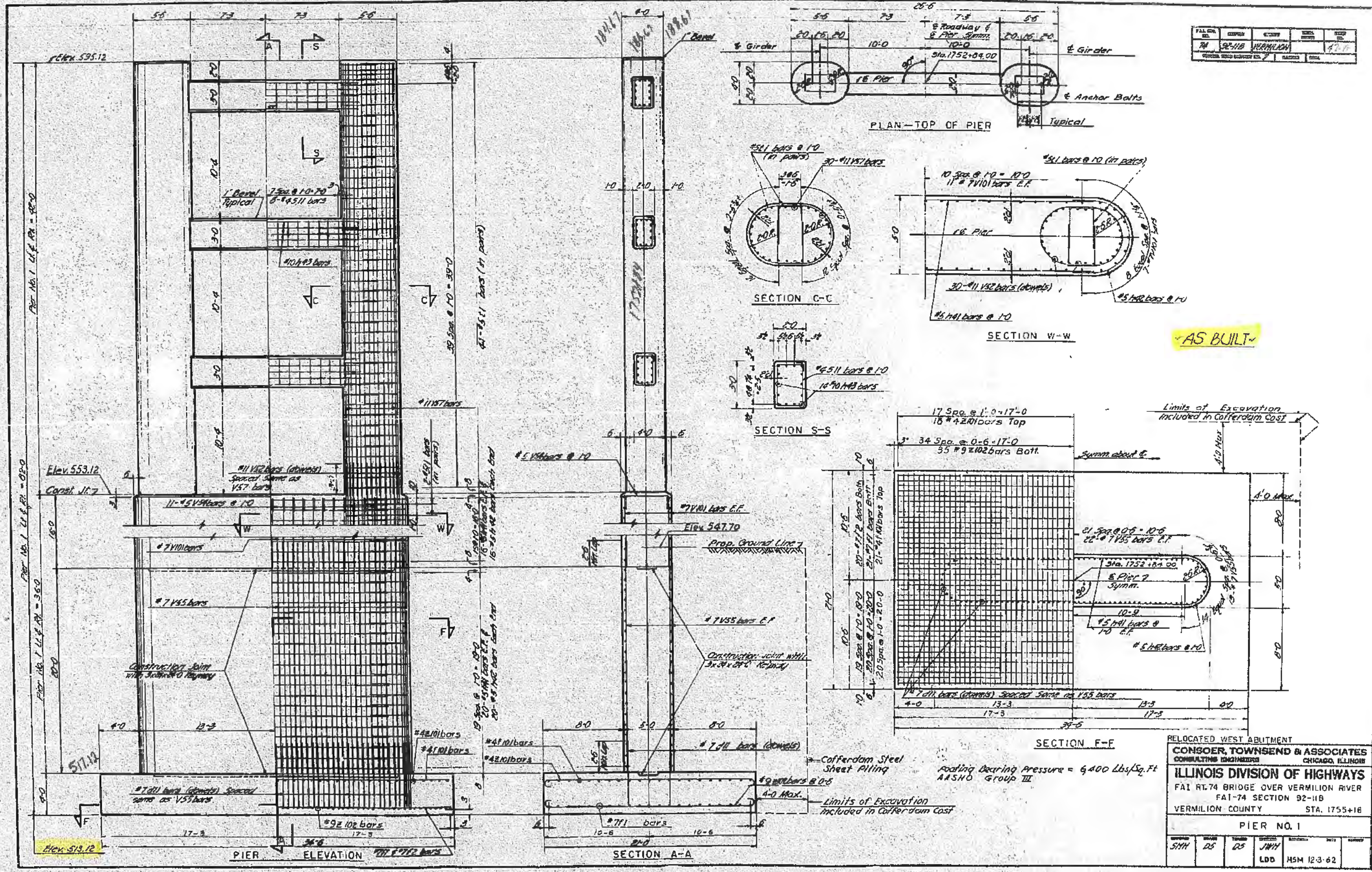
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIER NO. 1

REVISED	DATE	BY	CHKD.	APPROVED	DATE
SMH	05	DS	JWH	HSM	10-10-60

FILE NO.	DATE	BY	CHKD.	APP'D.
74-92-118	10/1/62	JMH	LDD	
REVISIONS				
NO.	DESCRIPTION	DATE	BY	CHKD.
1	AS BUILT			



AS BUILT

RELOCATED WEST ABUTMENT

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CONSULTING ENGINEERS
CHICAGO, ILLINOIS

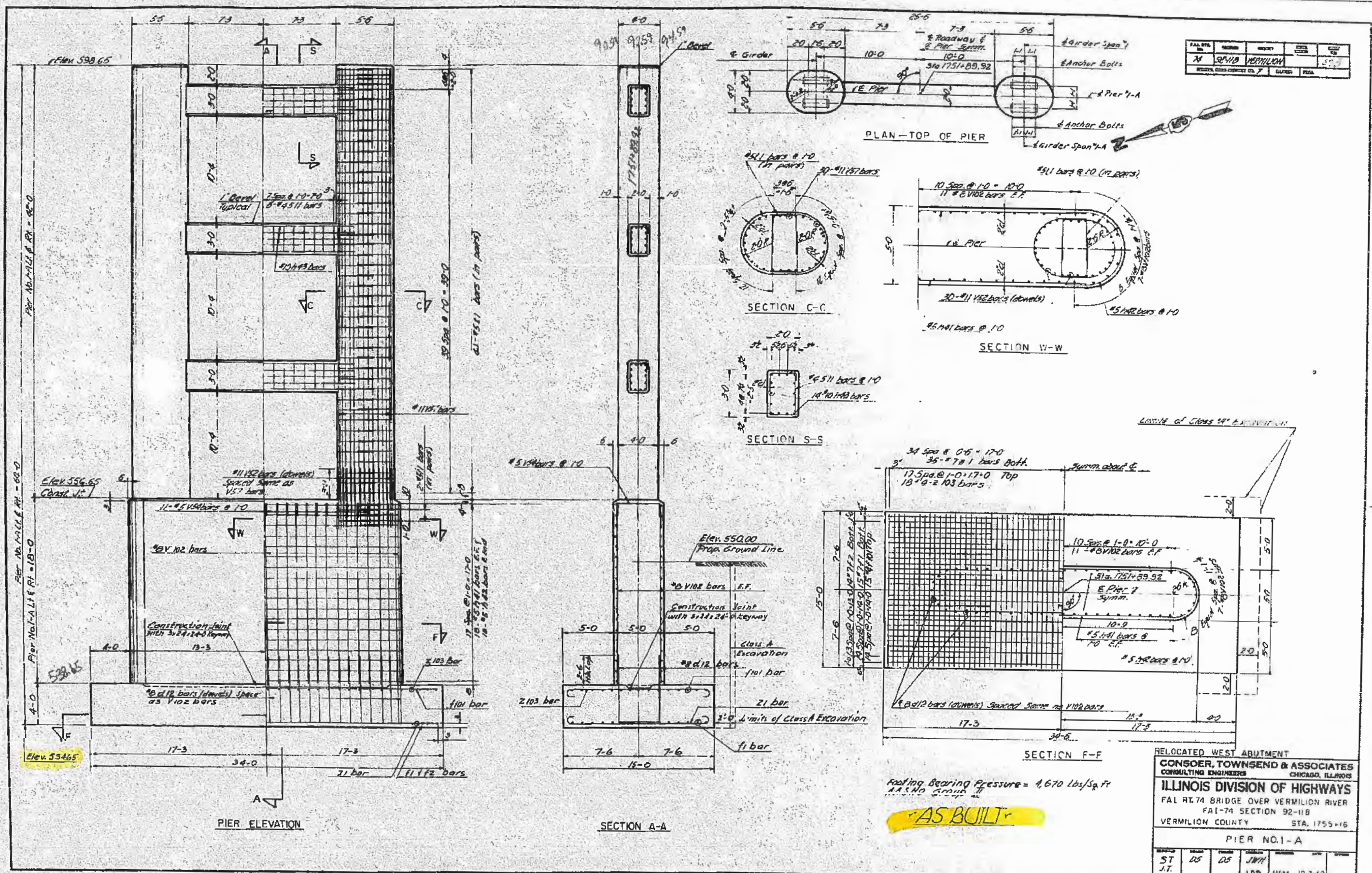
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-118
VERMILION COUNTY STA. 1755+16

PIER NO. 1

DATE	BY	CHKD.	APP'D.
10/1/62	JMH	LDD	

5/11/62
LDD
454 12-3-62

FILE NO.	SECTION	DATE	BY	CHKD
74	92-11B	1/27/54	VERMILION	
REVISIONS: CHECKED BY: [] DRAWN: []				



Roofing Bearing Pressure = 4,670 lbs/Sq Ft
 A.A.S. No. Group II

AS BUILT

RELOCATED WEST ABUTMENT

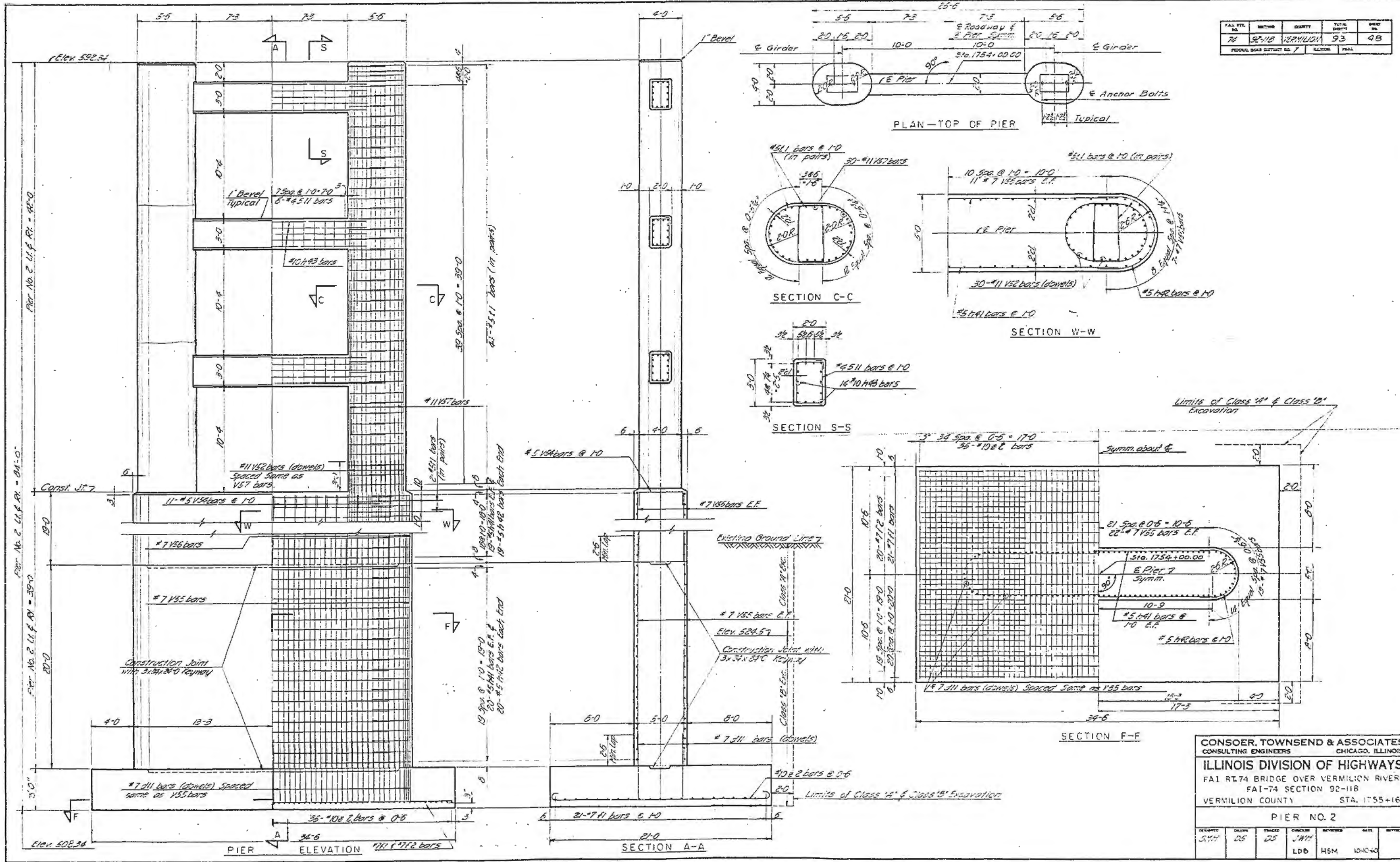
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ILLINOIS DIVISION OF HIGHWAYS
 FAI-74 BRIDGE OVER VERMILION RIVER
 FAI-74 SECTION 92-11B
 VERMILION COUNTY STA. 1755+16

PIER NO. 1-A

DESIGNED BY	ST J.T.	CHECKED BY	DS	DATE	12-3-62
DRAWN BY	LDB	SCALE	H5M		

PAV. STL. NO.	SECTION	QUANTITY	TOTAL DIST.	SPED. NO.
74	92-118	VERMILION	93	48
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	PIER	



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CONSULTING ENGINEERS CHICAGO, ILLINOIS

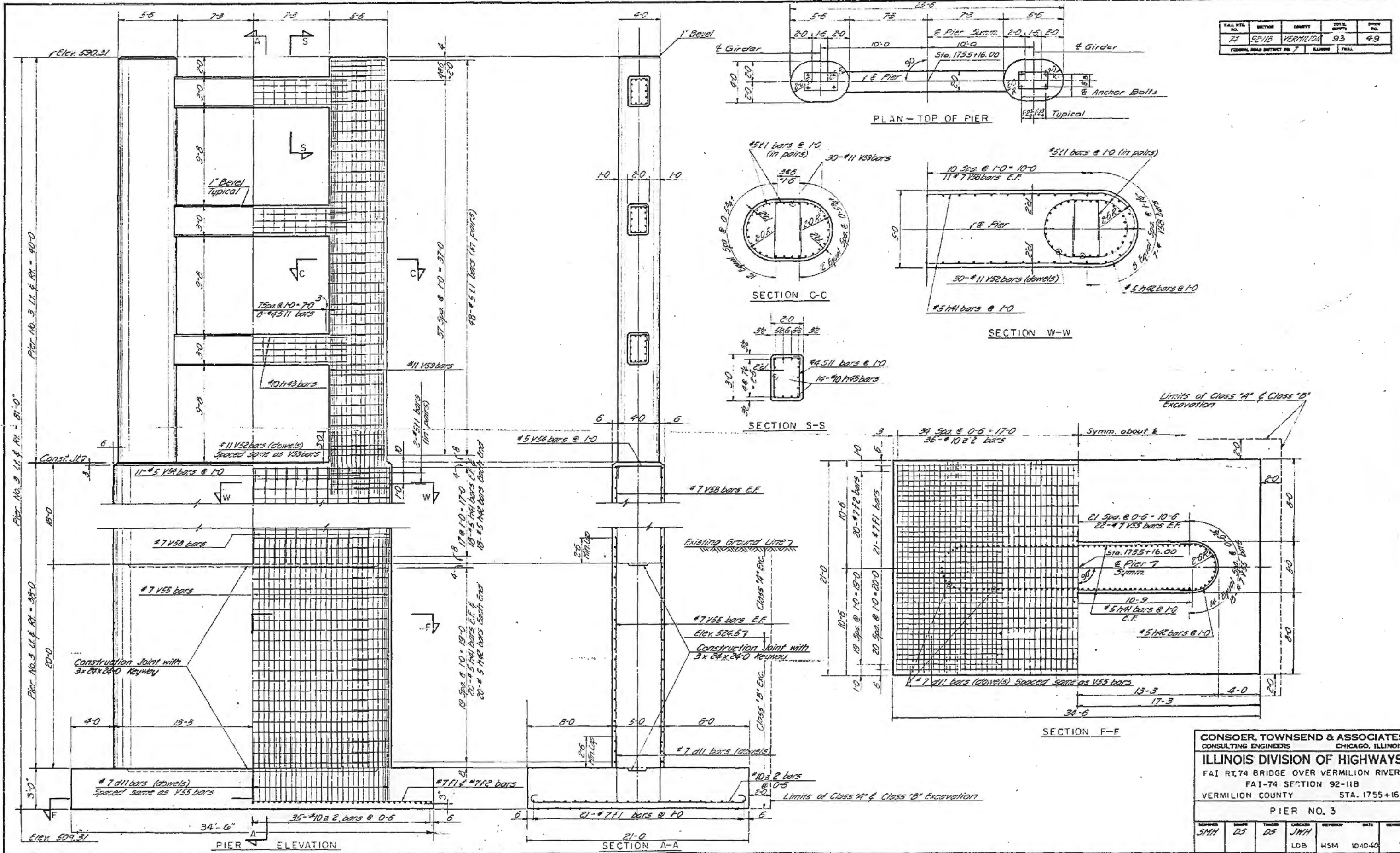
ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-118
VERMILION COUNTY STA. 1755+16

PIER NO. 2

DESIGNED	DRAWN	TRACED	CHECKED	REVIEWED	DATE	BY
S.M.H.	D.S.	D.S.	J.H.H.	LDB	HSM	10-10-43

Revised footing 1-8-62 L.D.W.

FALL RISE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
77	92-1B	VERMILION	93	49
FEDERAL ROAD DISTRICT NO. 7		ILLINOIS	FINAL	



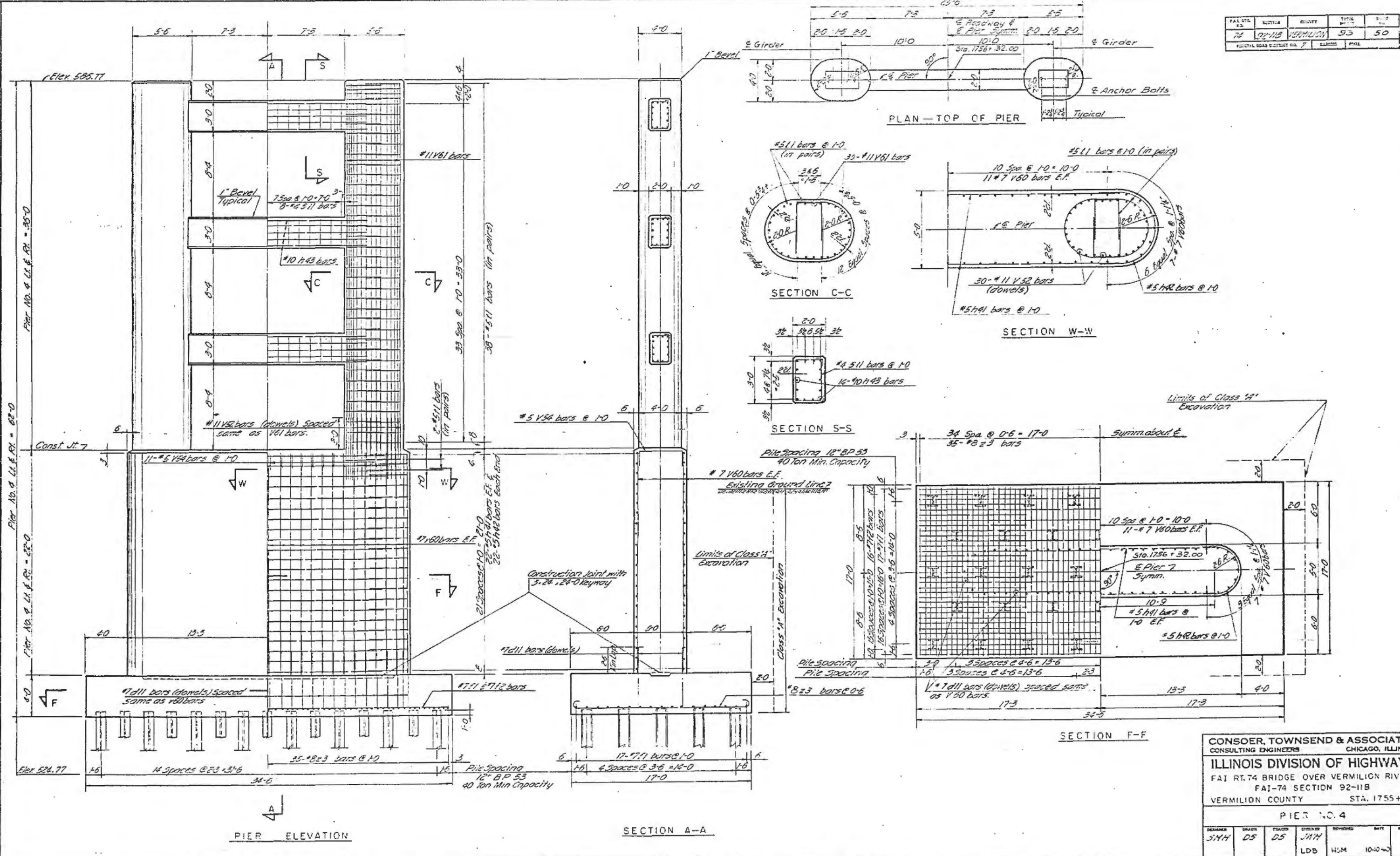
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 CONSULTING ENGINEERS CHICAGO, ILLINOIS

ILLINOIS DIVISION OF HIGHWAYS
 FAI RT. 74 BRIDGE OVER VERMILION RIVER
 FAI-74 SECTION 92-11B
 VERMILION COUNTY STA. 1755+16

PIER NO. 3

REVISION	DATE	BY	CHKD	APP'D	DATE
SMH	DS	DS	JWH	LDB	HSM 10-10-60

FAI STA. E.S.	STATION	ROUTE	TOTAL PILES	PILE SIZE
74	02+11.8	VERMILION	93	50
GENERAL ROAD EXISTING STA. 7				

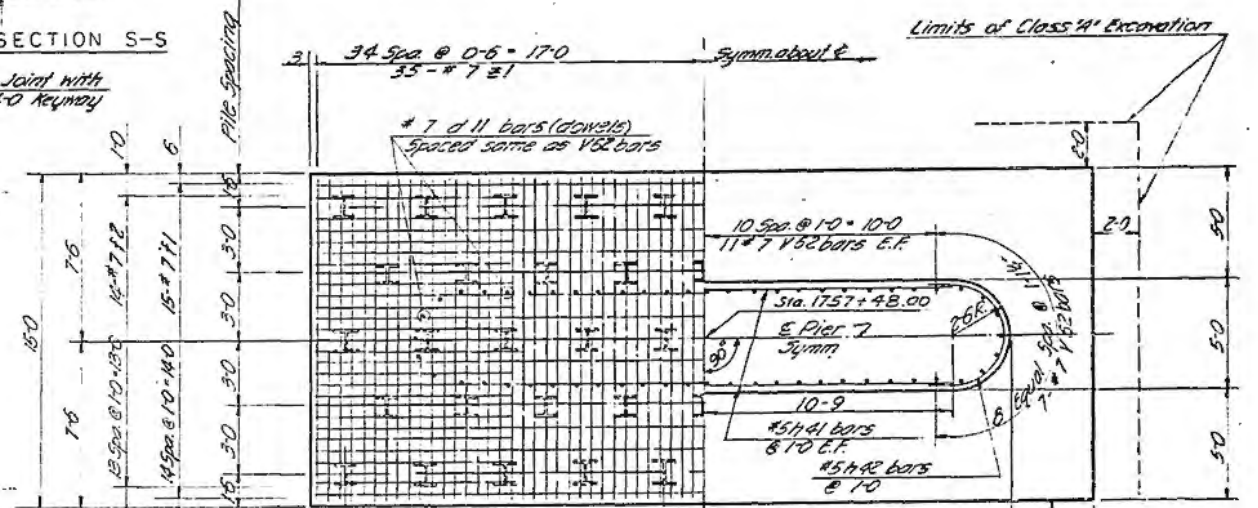
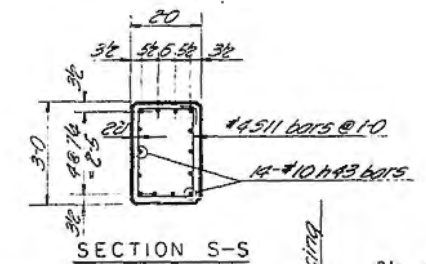
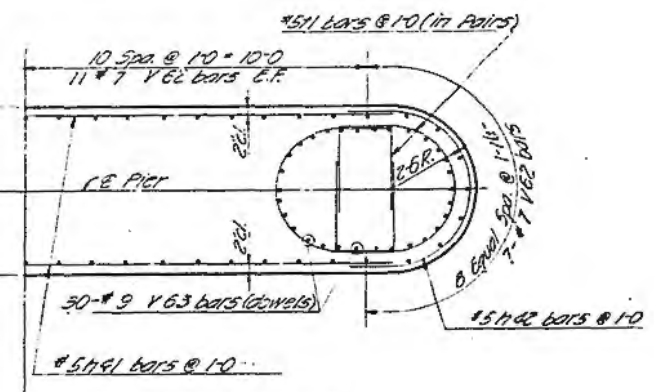
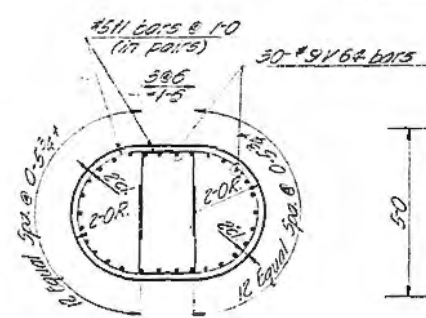
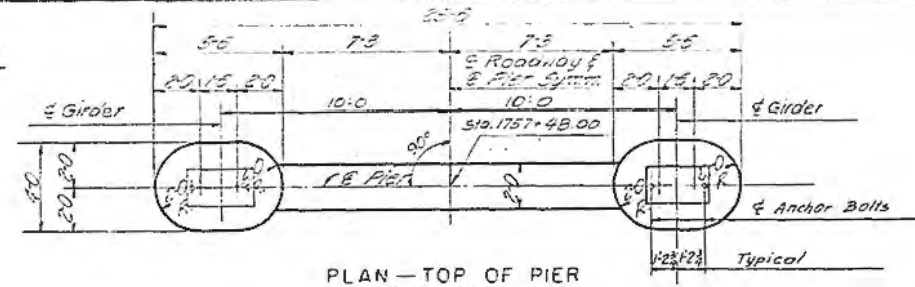
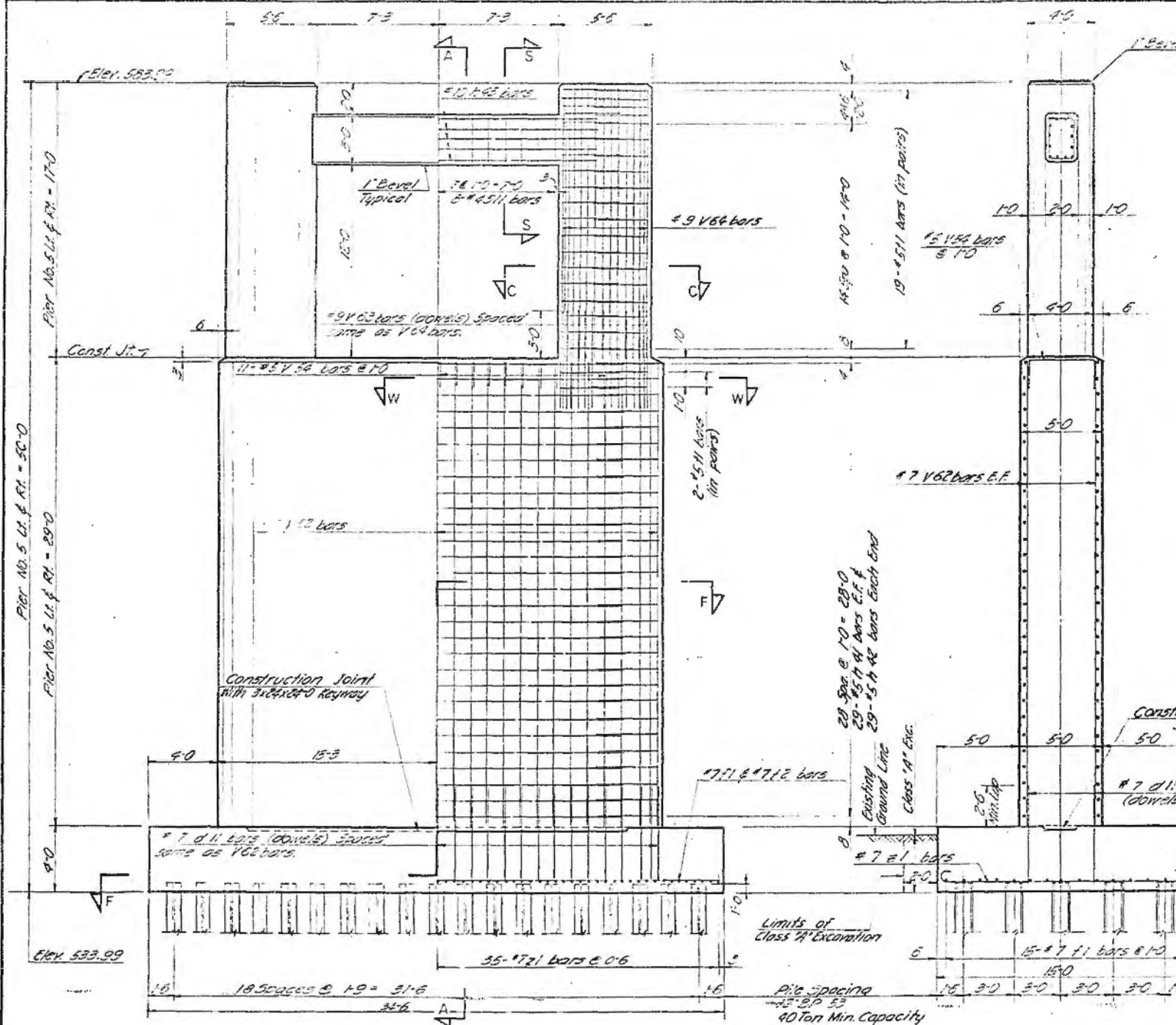


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ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIER NO. 4					
DESIGNED BY	DRAWN BY	CHECKED BY	DATE	REVISION	APPROVED BY
JMH	DS	DS	JMH	LDB	HJM
			10-10-43		

FILE NO.	SECTION	DRAWN	TOTAL SHEETS	SHEET NO.
91	SP11B	VERMILION	93	51
FEDERAL ROAD DISTRICT NO. 7				



SECTION A-A

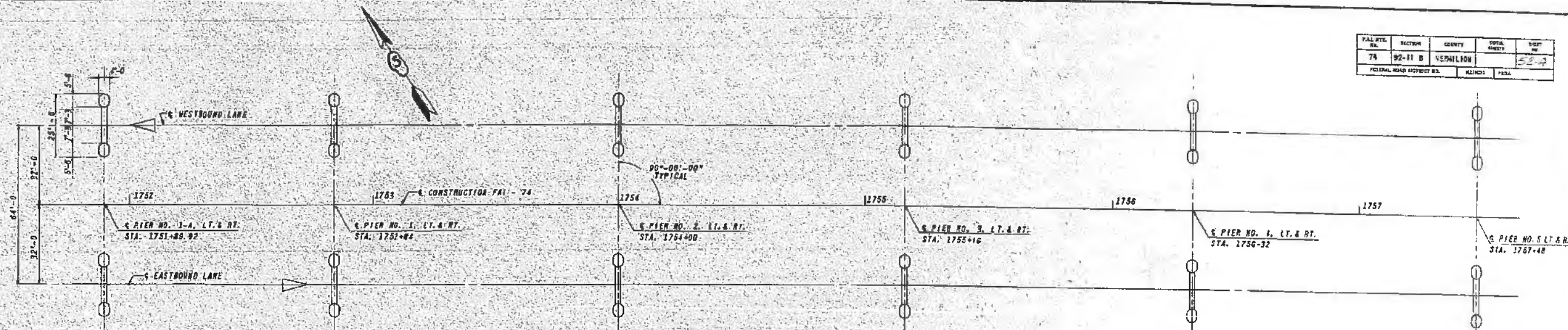
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ILLINOIS DIVISION OF HIGHWAYS
FAI RT. 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755 + 16

PIER NO. 5

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
SMH	DS	DS	JWH	10-10-60	

FED. AID DIST. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11 B	VERMILION	52	3
FEDERAL ROAD DISTRICT NO.	ALIGNED	PIED.		



GENERAL LAYOUT OF PIERS

ORIGINAL BAR SCHEDULE						
PIERS	BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
ALL	#11	784	7	8'-0"	As Shown	—
ALL	#12	178	7	34'-0"	1'-0"	—
ALL	#2	336	7	10'-8"	1'-0"	—
ALL	#41	608	8	21'-0"	1'-0"	—
ALL	#42	608	5	10'-0"	1'-0"	—
ALL	#43	336	10	22'-0"	1'-0"	—
ALL	#11	960	4	9'-8"	1'-0"	—
ALL	#12	1,496	5	13'-0"	1'-0"	—
1	#51	112	7	23'-8"	1'-0"	—
1, 2, 3, 4	#52	430	11	6'-0"	As Shown	—
1	#53	120	11	31'-9"	As Shown	—
ALL	#54	210	8	7'-8"	1'-0"	—
2, 3	#55	448	7	22'-8"	0'-8"	—
2	#56	112	7	18'-8"	1'-0"	—
2	#57	120	11	41'-9"	As Shown	—
3	#58	112	7	17'-8"	1'-0"	—
3	#59	120	11	39'-9"	As Shown	—
4	#60	112	7	21'-8"	1'-0"	—
4	#61	120	11	39'-9"	As Shown	—
5	#62	112	7	20'-8"	1'-0"	—
5	#63	120	9	6'-0"	As Shown	—
5	#64	120	9	16'-9"	As Shown	—
1-5	#1	278	7	10'-2"	0'-8"	—
2-3	#2	278	10	23'-4"	0'-8"	—
4	#3	138	8	18'-8"	0'-8"	—

PIER QUANTITIES	
CLASS B CONCRETE	2,761.8 CU. YDS.
REINFORCEMENT BARS	314,070 LBS.
STEEL PILES (12" Ø @ 3)	4,510 LIN. FT.
CLASS A EXCAVATION	1,800 CU. YDS.
TEST PILES	2 EACH

NOTE: ONE TEST PILE LOCATED AT PIER NO. 1 RT. & PIER NO. 5 RT. QUANTITIES SHOWN ARE FOR 5 PIERS LT. & RT.

BAR SCHEDULE PIERS NO. 2 THRU NO. 5						
PIERS	BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
ALL	#11	672	7	8'-0"	As Shown	—
ALL	#12	148	7	34'-0"	1'-0"	—
ALL	#2	280	7	10'-8"	1'-0"	—
ALL	#41	512	5	21'-8"	1'-0"	—
ALL	#42	512	5	10'-0"	1'-0"	—
ALL	#43	280	10	21'-0"	1'-0"	—
ALL	#11	900	4	9'-8"	1'-0"	—
ALL	#12	1,268	5	13'-0"	1'-0"	—
2, 3, 4	#52	390	11	6'-0"	As Shown	—
ALL	#54	180	8	7'-8"	1'-0"	—
2, 3	#55	448	7	22'-8"	0'-8"	—
2	#56	112	7	18'-8"	1'-0"	—
2	#57	120	11	41'-9"	As Shown	—
3	#58	112	7	17'-8"	1'-0"	—
3	#59	120	11	39'-9"	As Shown	—
4	#60	112	7	21'-8"	1'-0"	—
4	#61	120	11	39'-9"	As Shown	—
5	#62	112	7	20'-8"	1'-0"	—
5	#63	120	9	6'-0"	As Shown	—
5	#64	120	9	16'-9"	As Shown	—
5	#1	138	7	10'-2"	0'-8"	—
2-3	#2	278	10	23'-4"	0'-8"	—
4	#3	138	8	18'-8"	0'-8"	—

PIER QUANTITIES	
CLASS B CONCRETE	2,291.2 CU. YDS.
REINFORCEMENT BARS	262,310 LBS.
STEEL PILES (12" Ø @ 3)	743 LIN. FT.
CLASS A EXCAVATION	743 CU. YDS.
TEST PILES	1 EACH

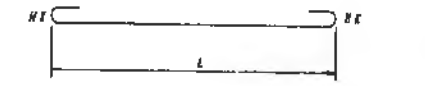
NOTE: ONE TEST PILE LOCATED AT PIER NO. 5 RT. QUANTITIES SHOWN ARE FOR PIERS NO. 2 THRU NO. 5 LT. & RT.

BAR SCHEDULE PIERS NO. 1-A & NO. 1						
PIERS	BAR	NO.	SIZE	LENGTH	SPACING	SHAPE
1	#11	224	7	8'-0"	As Shown	—
1-A	#12	112	8	0'-0"	As Shown	—
ALL	#1	72	7	34'-0"	1'-0"	—
ALL	#2	138	7	10'-8"	1'-0"	—
ALL	#101	72	4	21'-8"	1'-0"	—
ALL	#41	218	5	21'-8"	1'-0"	—
ALL	#42	218	5	10'-0"	1'-0"	—
ALL	#43	108	10	21'-0"	1'-0"	—
ALL	#11	180	4	9'-8"	1'-0"	—
ALL	#12	738	5	13'-9"	1'-0"	—
ALL	#52	240	11	6'-0"	As Shown	—
ALL	#54	84	5	7'-8"	1'-0"	—
1	#55	224	7	22'-8"	0'-8"	—
ALL	#57	240	11	41'-9"	As Shown	—
1	#101	112	7	15'-8"	1'-0"	—
1-A	#102	112	8	17'-8"	1'-0"	—
1	#101	70	4	21'-8"	1'-0"	—
1	#102	138	8	23'-8"	0'-8"	—
1-A	#103	70	4	15'-8"	1'-0"	—

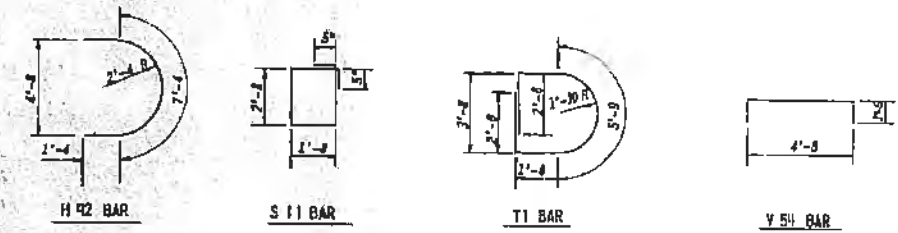
PIER QUANTITIES	
CLASS B CONCRETE	1,145.7 CU. YDS.
REINFORCEMENT BARS	145,790 LBS.
COFFERDAM PIER 1	2 EACH
CLASS A EXCAVATION**	832 CU. YDS.

NOTE: QUANTITIES SHOWN ARE FOR PIERS NO. 1-A & NO. 1 LT. & RT. * COFFERDAM AT PIER NO. 1 LT. & RT. (NECESSARY EXCAVATION INCIDENTAL TO COFFERDAM). ** CLASS A EXCAVATION AT PIER NO. 1-A LT. & RT. ONLY

DETAILING DIMENSIONS				
BAR	SIZE	L	HK	LENGTH
#1	7	24'-6"	0'-10"	18'-2"
#2	10	20'-8"	1'-5"	23'-4"
#3	8	16'-8"	1'-1"	18'-8"
#101	4	20'-8"	0'-6"	21'-8"
#102	9	20'-8"	2'-3"	23'-0"
#103	4	14'-8"	0'-6"	18'-8"



#1, #2, #3, #101, #102 & #103 BARS



BENDING DIAGRAMS
(ALL BAR DIMENSIONS ARE OUT TO OUT.)

AS BUILT

ADDITIONAL PIER QUANTITIES	
CLASS B CONCRETE	1,145.7 CU. YDS.
REINFORCEMENT BARS	145,790 LBS.
COFFERDAM PIER 1	2 EACH
CLASS A EXCAVATION**	832 CU. YDS.

RELOCATED WEST ABUTMENT

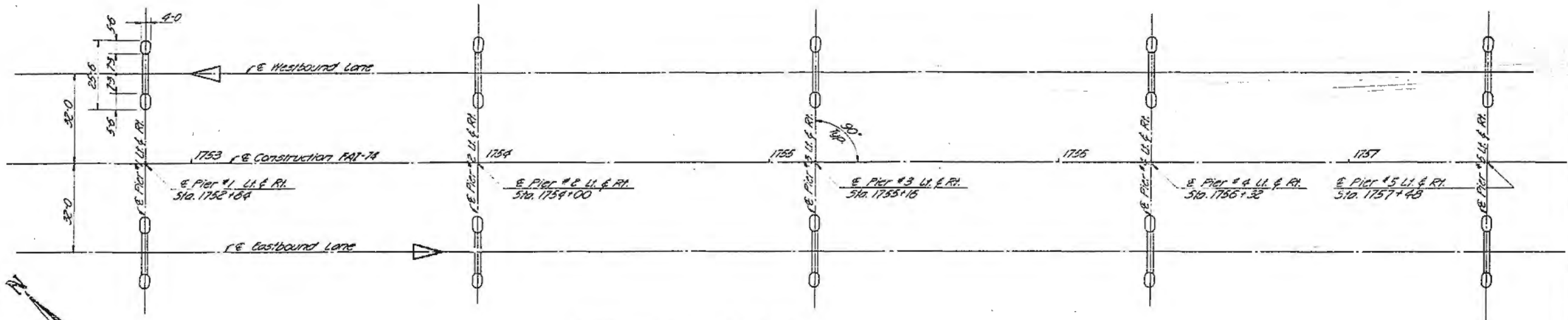
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ILLINOIS DIVISION OF HIGHWAYS
F.A.I. RT. 74 BRIDGE OVER VERMILION RIVER
F.A.I. 74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

PIERS						
CONTRACT	NO.	DATE	ISSUED	REVISED	BY	CHECKED
EG			LDS			

H.S.M. 123-42

FAL. P.L. NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
71	92-11B	VERMILION	93	52
FEDERAL ROAD DISTRICT NO. 7		CLERK	POST	

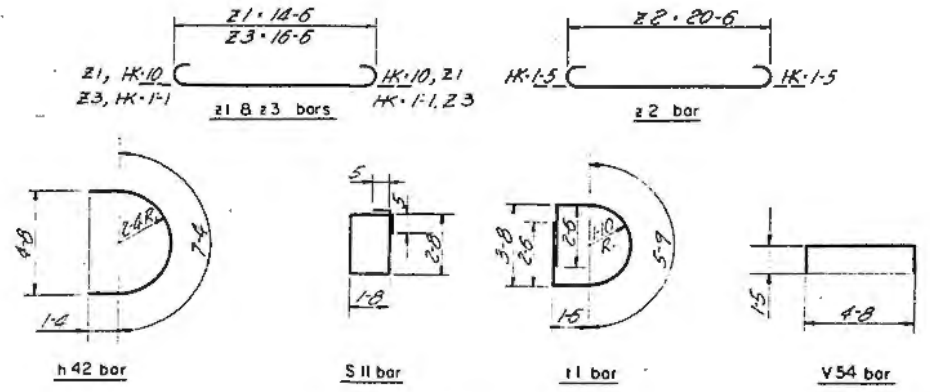


ESTIMATED LENGTHS & QUANTITIES STEEL PILES			
Pier #1 Rt.	47 @ 15		705 Lin. Ft.
Pier #1 Lt.	48 @ 10		480 Lin. Ft.
Pier #2 Rt.			
Pier #2 Lt.			
Pier #3 Rt.			
Pier #3 Lt.			
Pier #4 Rt.	38 @ 15		570 Lin. Ft.
Pier #4 Lt.	39 @ 15		570 Lin. Ft.
Pier #5 Rt.	47 @ 23		1081 Lin. Ft.
Pier #5 Lt.	48 @ 23		1104 Lin. Ft.
Test Piles @ Pier #1 Rt.		2 Each	
		1 Pier #5 Rt.	2 Each

BAR SCHEDULE						
Piers	Bar	No.	Side	Length	Spacing	Shape
All	#11	184	7	6-0	As Shown	—
All	#11	178	7	34-0	1-0	—
All	#12	336	7	10-6	1-0	—
All	#41	608	5	21-6	1-0	—
All	#42	608	5	10-0	1-0	—
All	#43	336	10	21-0	1-0	—
All	#11	360	4	9-6	1-0	□
All	#11	1496	5	13-9	1-0	□
1	#51	112	7	23-8	1-0	—
1,2,3,4	#52	680	11	6-0	As Shown	—
1	#53	120	11	31-9	As Shown	—
All	#54	210	5	7-6	1-0	—
2-3	#55	663	7	22-5	0-6	—
2	#56	112	7	18-8	1-0	—
2	#57	120	11	41-9	As Shown	—
3	#58	112	7	17-8	1-0	—
3	#59	120	11	39-9	As Shown	—
4	#60	112	7	21-8	1-0	—
4	#61	120	11	35-9	As Shown	—
5	#62	112	7	28-8	1-0	—
5	#63	120	9	6-0	As Shown	—
5	#64	120	9	16-9	As Shown	—
1-5	#1	276	7	16-2	0-6	—
2-3	#2	275	10	23-4	0-6	—
4	#3	138	8	18-8	0-6	—

PIER QUANTITIES	
Class X Concrete	2761.6 Cu. Yds.
Reinforcement Bars	314,070 Lbs.
Steel Piles (12" BP. 53)	4,510 Lin. Ft.
Class "A" Excavation	1800 Cu. Yds.
Class "B" Excavation	970 Cu. Yds.
Test Piles	2 Each

Note: One Test Pile located at Pier No. 1 Rt. & Pier No. 5 Rt.
Quantities shown are for 5 Piers Lt. & Rt.



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ILLINOIS DIVISION OF HIGHWAYS
FAI RT 74 BRIDGE OVER VERMILION RIVER
FAI-74 SECTION 92-11B
VERMILION COUNTY STA. 1755+16

DESIGNED	DRAWN	CHECKED	APPROVED	DATE	REVISION
SMH	DS	DS	JNH		
			LDB	HSM	10-10-60

Revised Class A & B Excav. 12-12-61 L.D.W.
Revised Class X Conc., Piles, Test piles, Class B Excav. 1-2-62 L.D.W.

S
L

DEPARTMENT OF PUBLIC WORKS AND BUILDINGS

DIVISION OF HIGHWAYS

PLANS FOR PROPOSED FEDERAL AID INTERSTATE HIGHWAY

*affixed
9-13-63
Able*

FEDERAL AID ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
74	92-11	VERMILION	286	1

FOR SUMMARY OF QUANTITIES - SEE SHEET NO. 7
FOR INDEX OF SHEETS - SEE SHEET NO. 6

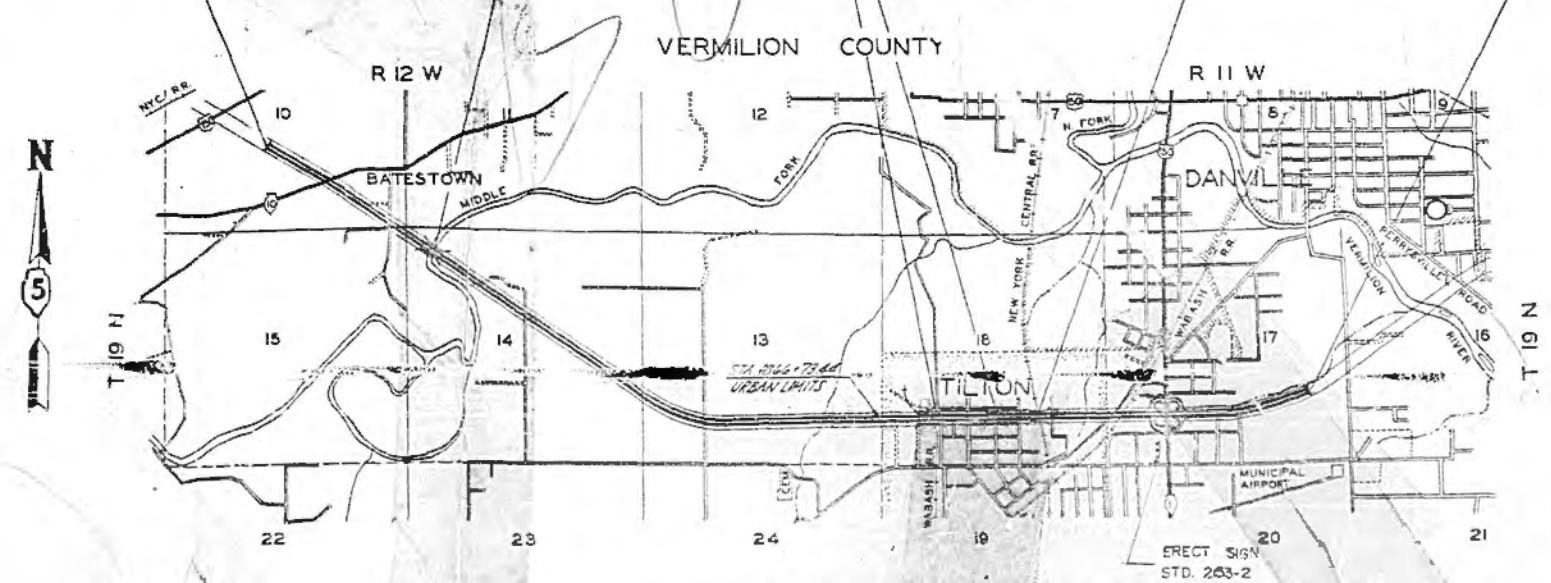
SCALES

PLAN	1 INCH	100 FT.
PROFILE, HOR.	1 INCH	100 FT.
PROFILE, VERT.	1 INCH	10 FT.
CROSS-SECTIONS	1 INCH	5 FT.

F.A.I. ROUTE 74, SEC. 92-11, VERMILION COUNTY
PROJECT I-U-74-6(65)212
DESIGN CLASSIFICATION 1350-T-70



PROJECT I-U-74-6(65)212 SEC. 92-11 BEGINS STA. 1720+00	OMISSION 781.17 FT. FROM PAVING ONLY STA. 1750+77.83 TO STA. 1758+59	OMISSION 277.41 FT. FROM PAVING ONLY STA. 1876+24.92 TO STA. 1879+02.32	OMISSION 117.66 FT. FROM PAVING ONLY STA. 1890+61.75 TO STA. 1894+79.41	OMISSION 237.84 FT. FROM PAVING ONLY STA. 1899+91.07 TO STA. 1902+26.91	PROJECT I-U-74-6(65)212 SEC. 92-11 ENDS STA. 1957+00
--	--	---	---	---	--



TOTAL LENGTH OF SECTION - 23,700 FT. = 4.489 MILES
NET LENGTH OF SECTION - 22,285.92 FT. = 4.221 MILES
TOTAL LENGTH OF PROJECT I-U-74-6(65)212 - 23,700 FT. = 4.489 MILES
NET LENGTH OF PROJECT I-U-74-6(65)212 - 22,285.92 FT. = 4.221 MILES

STATE DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
DIVISION OF HIGHWAYS
SUBMITTED *May 24, 1963*
EXAMINED *August 12, 1963*
William C. Case
PUBLIC REQUEST *12-19-63*
APPROVED *August 12, 1963*
APPROVED *August 12, 1963*

CONSOER, TOWNSEND &
360 E. GRAND AVE., CHICAGO

DEPARTMENT OF PUBLIC WORKS AND BUILDINGS
BUREAU OF PUBLIC WORKS
APPROVED
DIVISION ENGINEER

CONTRACT NO. 23136

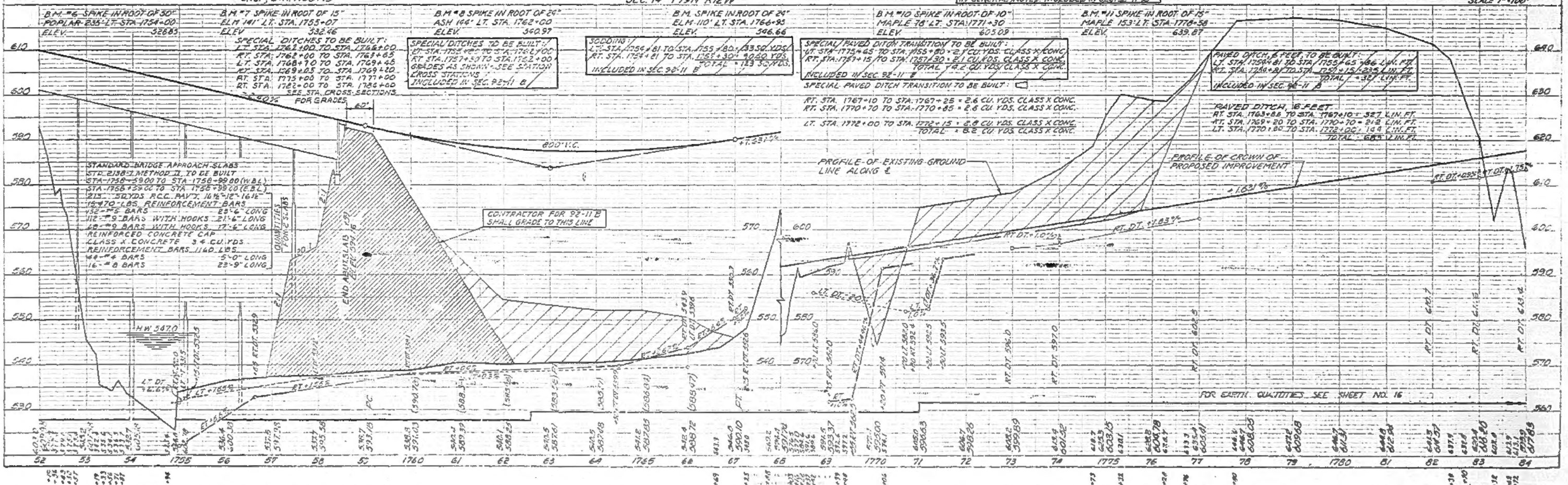
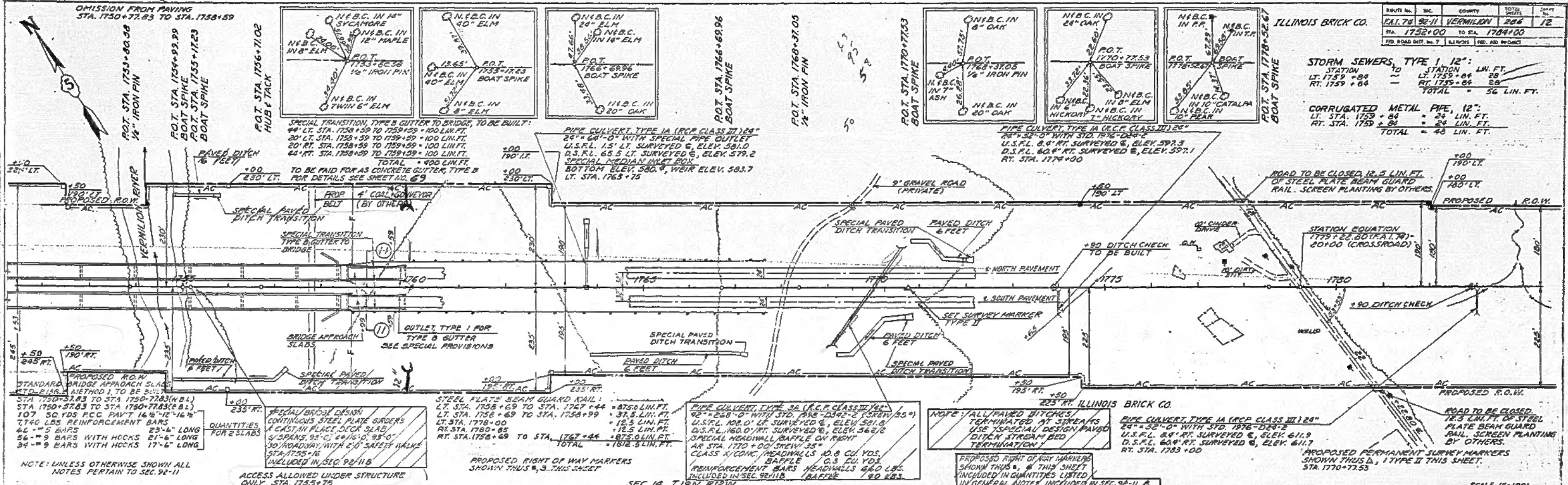
ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
ILL. 78	92-11	VERMILION	286	12
STA.	1752+00	TO STA.	1784+00	
78	ROAD DIST. NO. 7	ILLINOIS	RD. AD. WORK	

STORM SEWERS TYPE 1 12":

STATION	TO	STATION	LN. FT.
LT. STA. 1752+00	-	LT. STA. 1752+84	28
RT. STA. 1752+84	-	RT. STA. 1752+84	28
			TOTAL = 56 LIN. FT.

CORRUGATED METAL PIPE, 12":

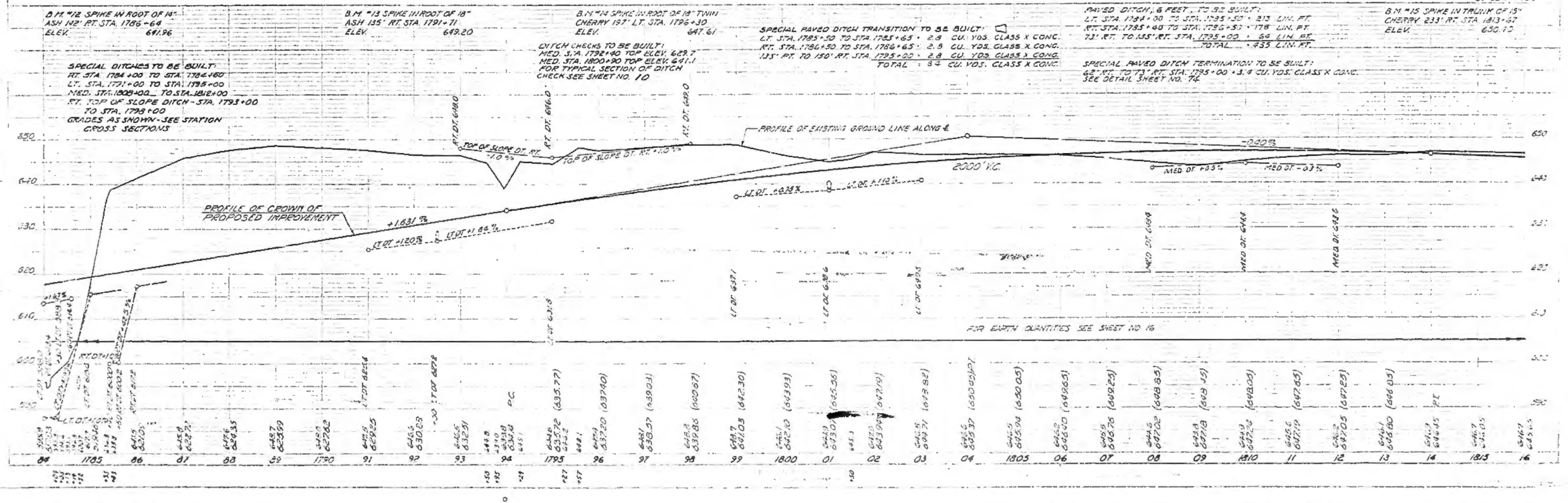
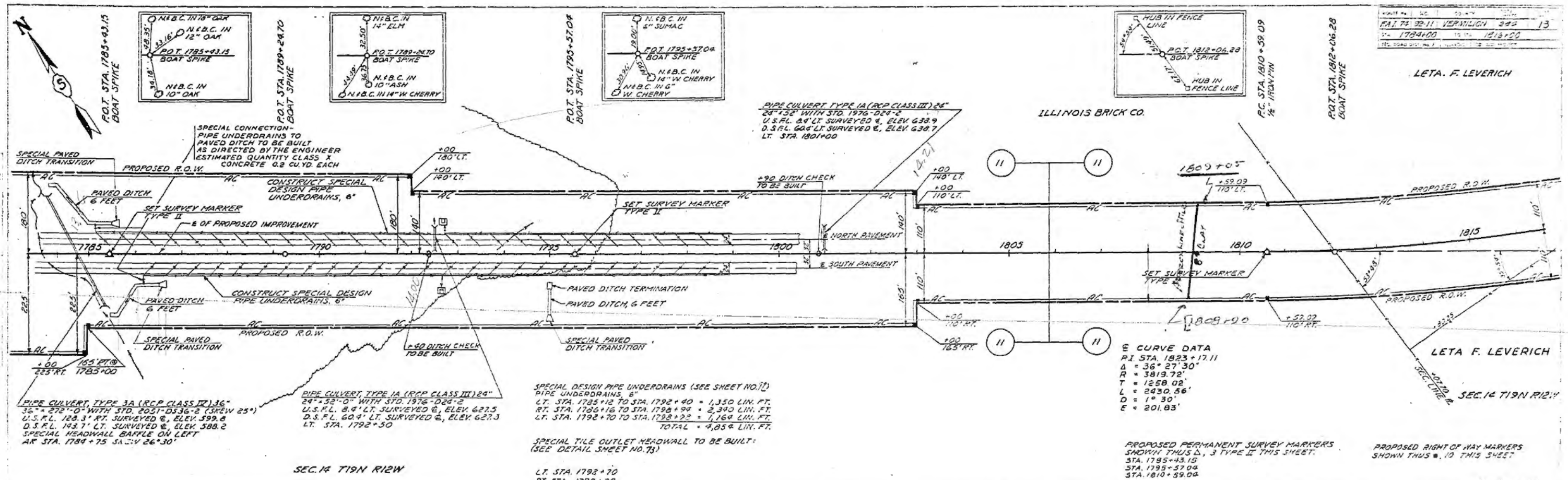
STATION	TO	STATION	LN. FT.
LT. STA. 1752+84	-	LT. STA. 1752+84	28
RT. STA. 1752+84	-	RT. STA. 1752+84	28
			TOTAL = 48 LIN. FT.



PLAN
 DRAWN BY
 CHECKED BY
 DATE

PROFILE
 DATE

FOR EARTH QUANTITIES SEE SHEET NO. 16



STATION	ELEVATION	STATION	ELEVATION	STATION	ELEVATION
1785	619.96	1795	635.72	1805	645.04
1786	619.96	1796	635.72	1806	645.04
1787	619.96	1797	635.72	1807	645.04
1788	619.96	1798	635.72	1808	645.04
1789	619.96	1799	635.72	1809	645.04
1790	619.96	1800	635.72	1810	645.04
1791	619.96	1801	635.72	1811	645.04
1792	619.96	1802	635.72	1812	645.04
1793	619.96	1803	635.72	1813	645.04
1794	619.96	1804	635.72	1814	645.04
1795	619.96	1805	635.72	1815	645.04
1796	619.96	1806	635.72	1816	645.04
1797	619.96	1807	635.72		
1798	619.96	1808	635.72		
1799	619.96	1809	635.72		
1800	619.96	1810	635.72		
1801	619.96	1811	635.72		
1802	619.96	1812	635.72		
1803	619.96	1813	635.72		
1804	619.96	1814	635.72		
1805	619.96	1815	635.72		

SCALE 1" = 100'
 PROPOSED RIGHT OF WAY MARKERS SHOWN THUS D, 3 TYPE II THIS SHEET.
 STA. 1785+43.15
 STA. 1795+57.04
 STA. 1810+59.04

PROPOSED PERMANENT SURVEY MARKERS SHOWN THUS D, 3 TYPE II THIS SHEET.
 STA. 1785+43.15
 STA. 1795+57.04
 STA. 1810+59.04

SPECIAL PAVED DITCH TERMINATION TO BE BUILT:
 62' RT. TO 73' RT. STA. 1795+00 + 3.4 CU. YDS. CLASS X CONC.
 SEE DETAIL SHEET NO. 74

SPECIAL PAVED DITCH TRANSITION TO BE BUILT:
 LT. STA. 1785+50 TO STA. 1785+65 + 2.8 CU. YDS. CLASS X CONC.
 RT. STA. 1786+50 TO STA. 1786+65 + 2.8 CU. YDS. CLASS X CONC.
 135' RT. TO 150' RT. STA. 1795+00 + 3.4 CU. YDS. CLASS X CONC.
 TOTAL = 8.4 CU. YDS. CLASS X CONC.

PIPE CULVERT TYPE 1A (RCP CLASS III) 24" 24" x 32" WITH STD. 1976-D24-2 U.S.F.L. 8.9' LT. SURVEYED @ ELEV. 639.9 D.S.F.L. 60.4' LT. SURVEYED @ ELEV. 639.7 LT. STA. 1801+00

PIPE CULVERT TYPE 3A (RCP CLASS III) 36" 36" x 27" WITH STD. 2051-D536-2 (SKEW 25°) U.S.F.L. 128.3' RT. SURVEYED @ ELEV. 599.8 D.S.F.L. 143.7' LT. SURVEYED @ ELEV. 588.2 SPECIAL HEADWALL Baffle ON LEFT AT STA. 1784+75 S.A. 26° 30'

PIPE CULVERT TYPE 1A (RCP CLASS III) 24" 24" x 32" WITH STD. 1976-D24-2 U.S.F.L. 8.9' LT. SURVEYED @ ELEV. 627.5 D.S.F.L. 60.4' LT. SURVEYED @ ELEV. 627.3 LT. STA. 1792+50

SPECIAL DESIGN PIPE UNDERDRAINS (SEE SHEET NO. 10) PIPE UNDERDRAINS, 8" LT. STA. 1785+12 TO STA. 1792+40 = 1,350 LIN. FT. RT. STA. 1786+16 TO STA. 1792+94 = 2,340 LIN. FT. LT. STA. 1792+70 TO STA. 1792+22 = 1,169 LIN. FT. TOTAL = 4,859 LIN. FT.

SPECIAL TILE OUTLET HEADWALL TO BE BUILT (SEE DETAIL SHEET NO. 73) LT. STA. 1792+70 RT. STA. 1792+70

PAVED DITCH, 6 FEET, TO BE BUILT: LT. STA. 1784+00 TO STA. 1795+50 = 213 LIN. FT. RT. STA. 1785+40 TO STA. 1795+50 = 178 LIN. FT. 73' RT. TO 135' RT. STA. 1795+00 + 64 LIN. FT. TOTAL = 455 LIN. FT.

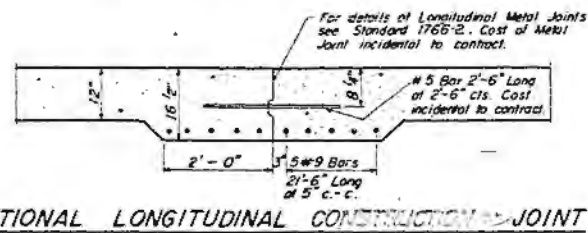
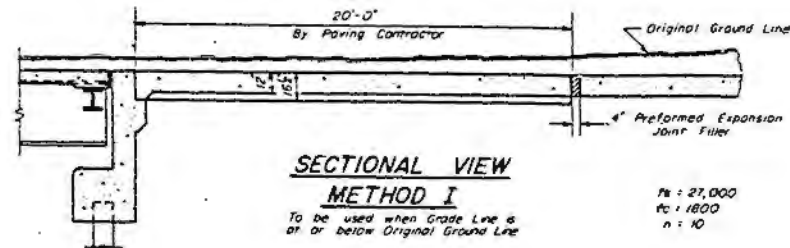
SPECIAL CONNECTION PIPE UNDERDRAINS TO PAVED DITCH TO BE BUILT AS DIRECTED BY THE ENGINEER ESTIMATED QUANTITY CLASS X CONCRETE 0.2 CU. YD. EACH

CONSTRUCT SPECIAL DESIGN PIPE UNDERDRAINS, 6"

CONSTRUCT SPECIAL DESIGN PIPE UNDERDRAINS, 6"

CONSTRUCT SPECIAL DESIGN PIPE UNDERDRAINS, 6"

**DETAILS OF BRIDGE APPROACHES
FOR FEDERAL AID INTERSTATE ROUTES**



OPTIONAL LONGITUDINAL CONSTRUCTION JOINT

As approved by the Engineer, the Contractor may elect to reduce the width of joint by use of the Optional Longitudinal Construction Joint shown. Joint shall be located at the edge of Traffic Lane.

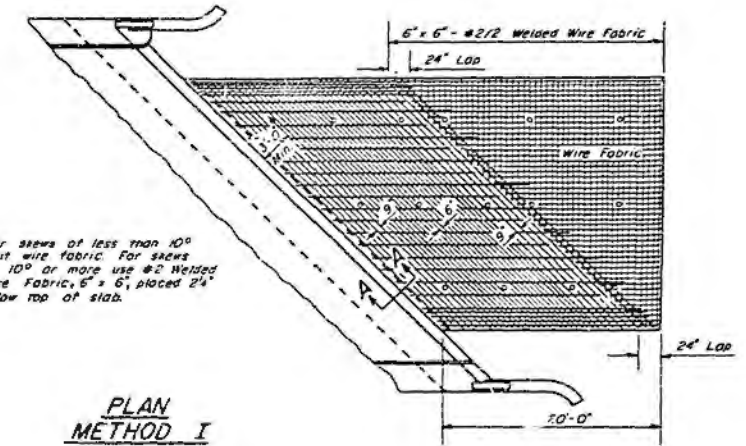
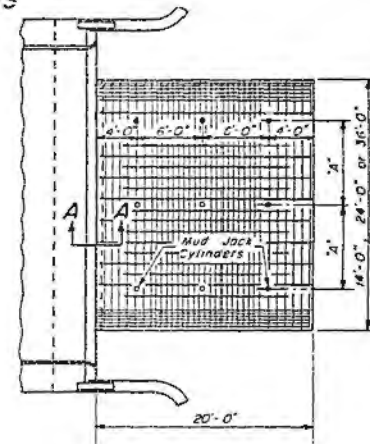
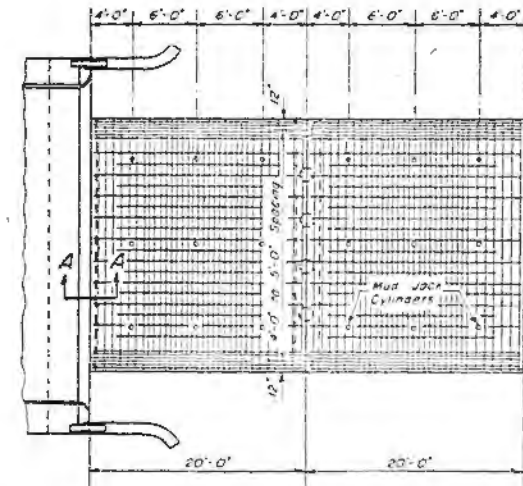
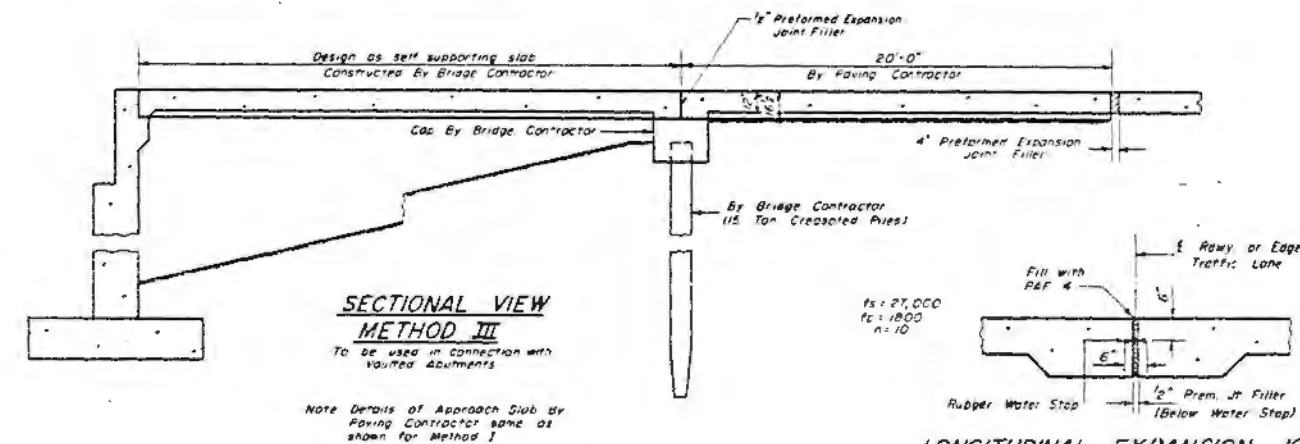
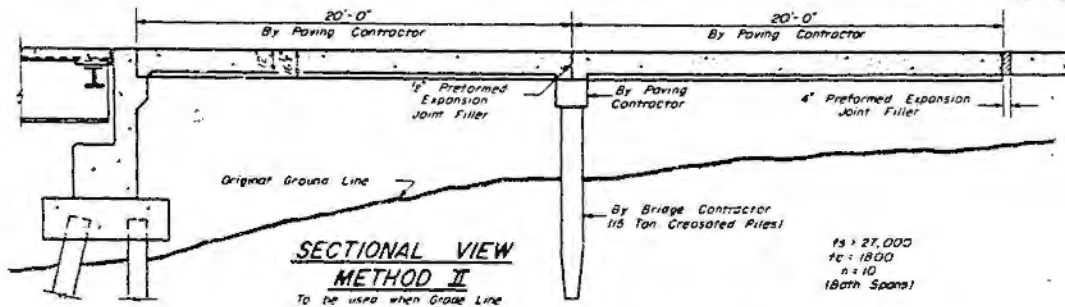


TABLE OF "A" DIMENSIONS

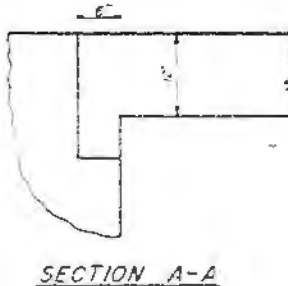
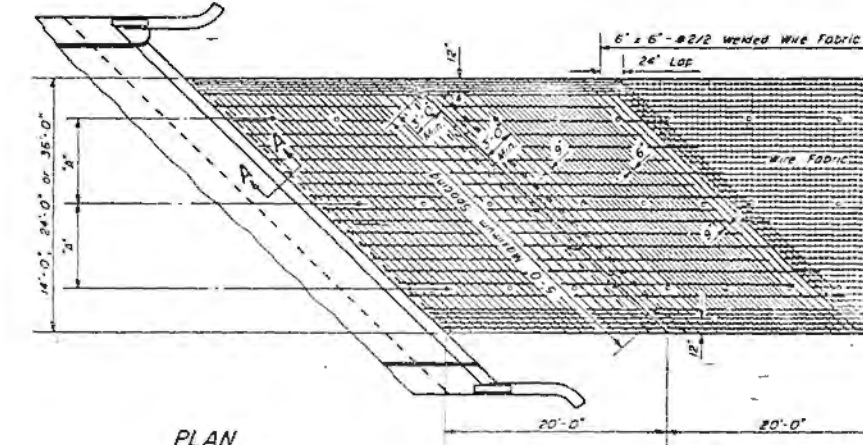
Width of Approach Slab	Dimension "A" (Spacing of Mud Jack Cylinders)
14'	6'-0"
24'	8'-0"
36'	2 Spaces at 8'-0"

Expanded Metal weighing not less than 75 Lbs. per 100 sq. ft. or a welded bar net weighing not less than 75 Lbs. per 100 sq. ft. having members of equal size in both directions and spaced not over 8" apart may be used instead of the #2 Welded Wire Fabric, 6" x 6", provided the expanded metal or bar net is furnished at no additional cost to the State.



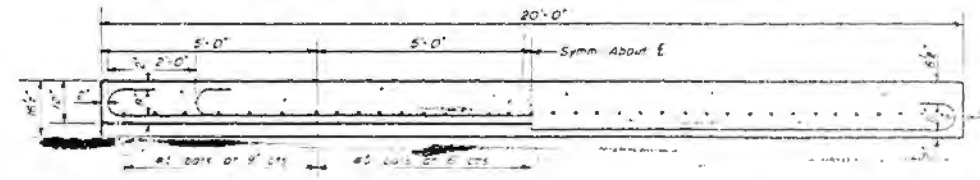
LONGITUDINAL EXPANSION JOINT

To be used when Approach Slabs are greater than 36'-0" wide. Joint shall be placed at edge of Traffic Lane nearest to the E of the total width of Approach Slab.



**DETAIL OF
MUD JACK CYLINDER**

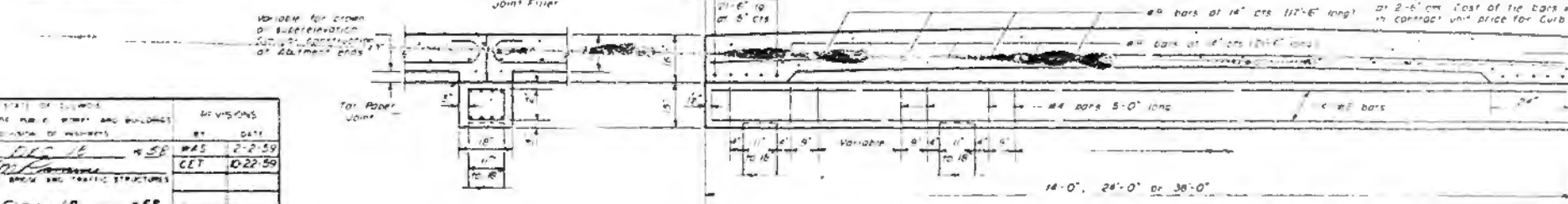
Cylinders shall be Standard Weight Black Steel Pipe



**LONGITUDINAL SECTION THRU
CENTER OF SLAB**

**LONGITUDINAL SECTION THRU
THICKENED EDGE OF SLAB**

Note: When road slabs show curb and gutter, gutter shall be adjacent to approach slabs and #4 tie bar 2'-6" long at 2'-6" c-c. Cost of tie bars included in contract unit price for Curb & Gutter or Gutter.



SECTIONAL VIEW OF CONCRETE SLAB AND CAP

GENERAL NOTES

1. This slab is to be paid for at the contract unit price for PORTLAND CEMENT CONCRETE PAVEMENT (12" - 16" thick). The concrete cap will be paid for at the contract unit price for CLASS A CONCRETE.

2. Reinforcement bars, except tie bars for curb and gutter or gutter, will be paid for at the contract unit price for REINFORCEMENT BARS.

3. The Welded Wire Fabric, Mud Jack Cylinders and Preformed Expansion Joint Filler shall be included in the unit price bid for PORTLAND CEMENT CONCRETE PAVEMENT (12" - 16" thick).

4. Expansion Joint Filler shall conform to Section 108 of the Standard Specifications.

5. Width of Bridge Approach Slab bars shall be determined before the reinforcement bars are fabricated.

6. Quantities shown for Reinforcement Bars are for two (2) thickened edges only.

STATE OF CALIFORNIA	DEPARTMENT OF PUBLIC WORKS AND BUILDINGS	DIVISION OF HIGHWAYS	REVISIONS
NAME: <i>W. J. ...</i>	DATE: <i>2-2-59</i>	BY: <i>W. J. ...</i>	DATE: <i>2-2-59</i>
ENGINEER OF BRIDGE AND TRAFFIC STRUCTURES		CET: <i>10-22-59</i>	
APPROVED: <i>W. J. ...</i>	DATE: <i>2-2-59</i>		
ENGINEER OF BRIDGE			

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PLANS FOR PROPOSED
FEDERAL AID INTERSTATE HIGHWAY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS
74		VERMILION	45
SHEET NO.			1

FOR INDEX OF SHEETS, SEE SHEET NO. 5
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO. 7-11 (INCL.)

SCALES { PLAN TO MAP & PLAN
 PROFILE VERT.
 CROSS-SECTIONS

F.A.I. ROUTE 74, SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR)

VERMILION COUNTY

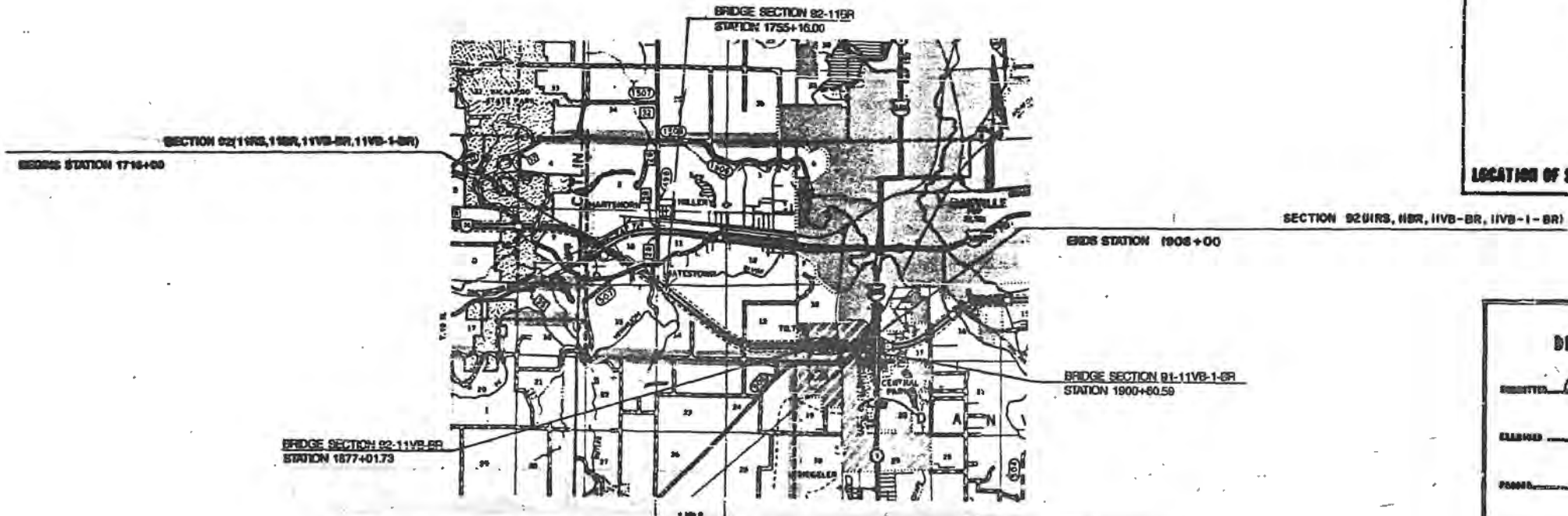
C-95-067-90

INTERSTATE RESURFACING AND BRIDGE REHABILITATION

AS BUILT PLANS



LOCATION OF SECTION INDICATED THIS: - - - - -



RESIDENT ENGINEER	-	GERALD W. MILLER
CONTRACTOR	-	O'NEIL BROS. CONST. CO. & McCALMAN CONST. CO.
JOINT VENTURE		
STARTED	-	8-7-91
COMPLETED	-	3-14-95

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

REVISED: April 25, 1991

DESIGNED: [Signature] DESIGNER

DRAWN: [Signature] DRAWER

CHECKED: [Signature] CHECKER OF PLANS AND INSTRUMENTS

APPROVED: [Signature] DIVISION ADMINISTRATOR

DESIGN DESIGNATION
 1630 (15) INTERSTATE 8.13(COMP-6)

CONTRACT NO. 90165

TOTAL & NET LENGTH OF SECTION 92(11RS,11BR,11VB-BR,11VB-1-BR) = 19,200.00 FEET = 5.63 MILES

TOLL FREE J.U.L.I.E. TELEPHONE NO
 1-800-892-0123

DAUVILLE TOWNSHIP

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED

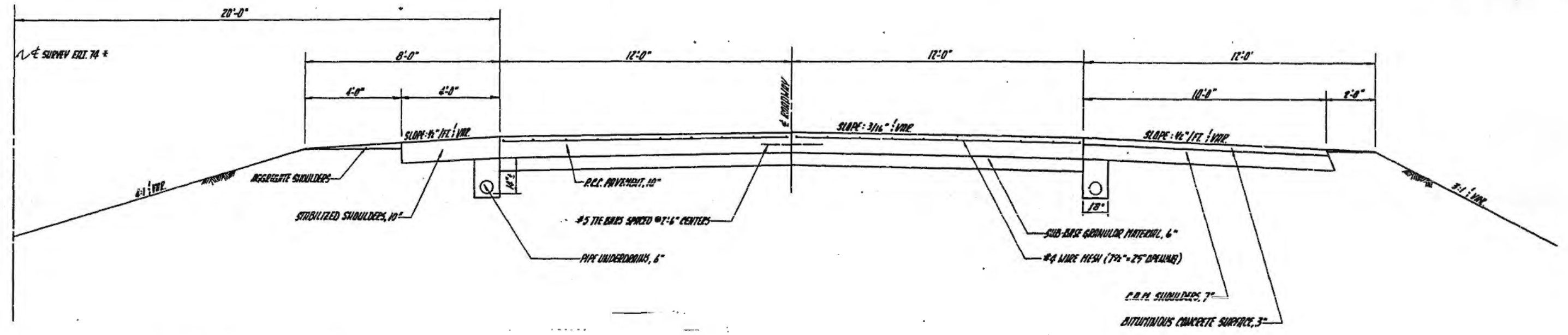
DIVISION ADMINISTRATOR

SQUAD LEADER: DON BRANN PROJECT ENGINEER: PAUL KOEHLER

EXISTING TYPICAL CROSS SECTION

DATE	BY	CHECKED	APPROVED	SCALE
E.R.T. 74	*	VERMILION	165	Z

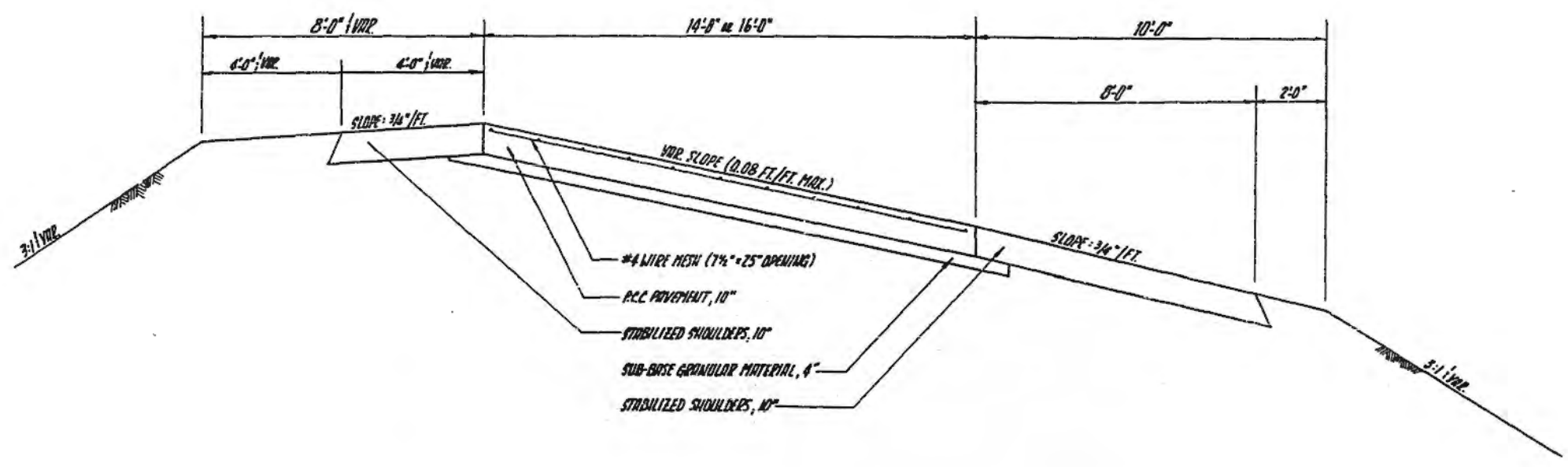
* 92 (11 BS, 11 BR, 11 BS-DR, 11 BS-1-DR)



* PAVEMENT SYMMETRICAL ABOUT C SURVEY E.R.T. 74

NOTE: EXISTING PIPE UNDERDRAINS, 6" FROM STATION 1716 + 00 TO STATION 1711 + 50

EXISTING TYPICAL RAMP CROSS SECTION

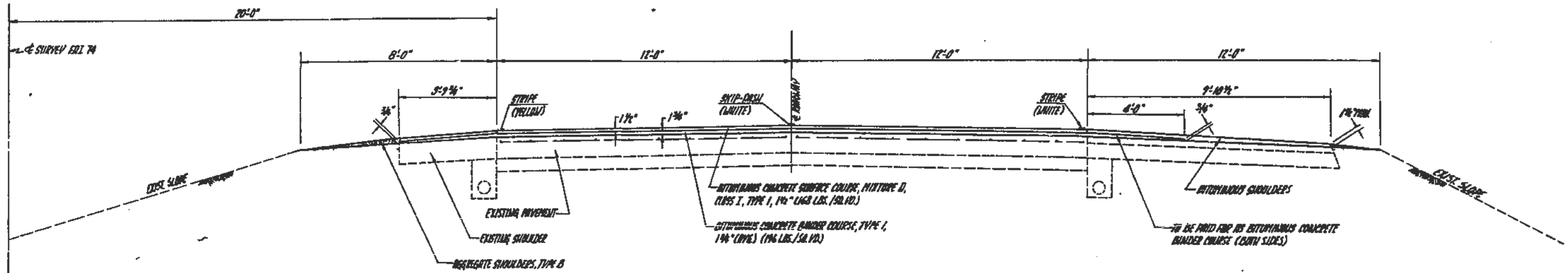


DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY	AL	4-91

PROPOSED TYPICAL CROSS SECTION

DATE	NO.	BY	CHKD.	APP'D.
11/21/70	*	MSZPH/AM	KS	J

* SEE (11/21/70, 11/21/70, 11/21/70)



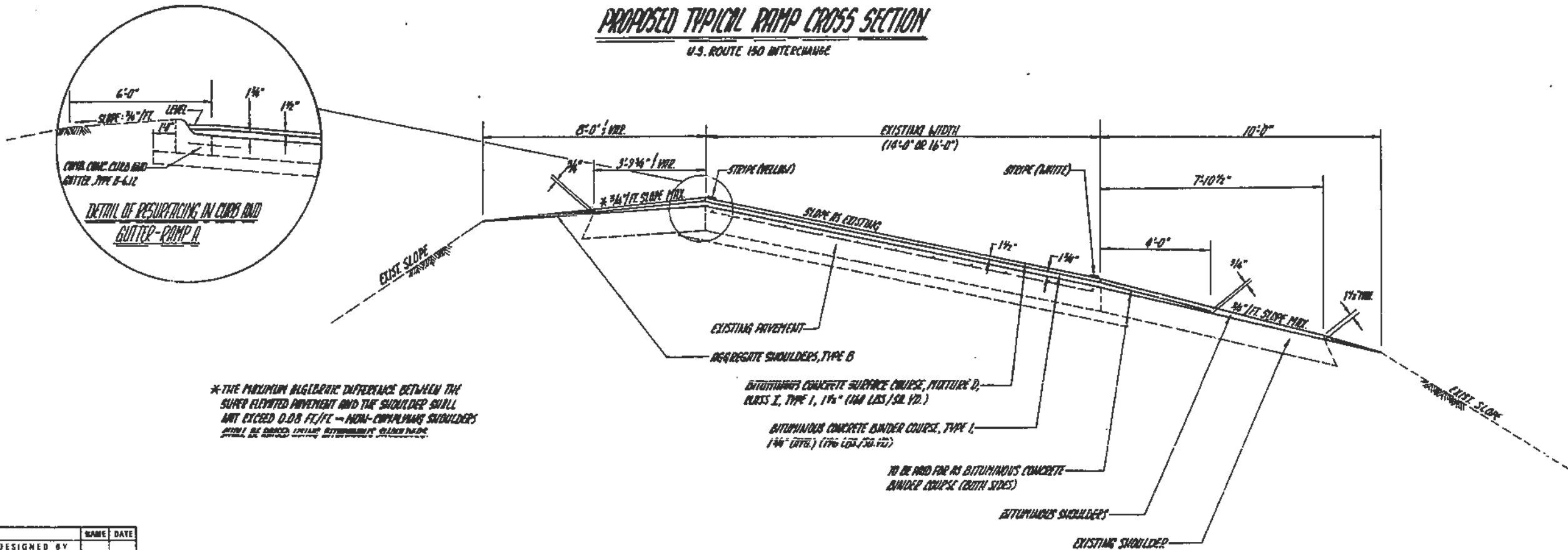
STRUCTURAL DESIGN TRAFFIC

1996 R.D.E. = 15,870	
DC-11,707 (74.0%)	CSB-3.0
RB-1,147 (7.0%)	4-32%
RA-3,026 (19.0%)	1/2-1/4-1/2
CLASS I ROAD	TF-6.09 (6.09% DESIGN)

NOTE: REPAIRS FOR UNDERDRAIN, 6" FROM STATION 874+50 TO 874+70

PROPOSED TYPICAL RAMP CROSS SECTION

U.S. ROUTE 150 INTERCHANGE



* THE MAXIMUM ALGEBRAIC DIFFERENCE BETWEEN THE SUPER ELEVATED PAVEMENT AND THE SHOULDER SHALL NOT EXCEED 0.08 FT./FT. - NON-COMPULSORY SHOULDER SHALL BE CONSIDERED EXISTING BITUMINOUS SLAB THERE.

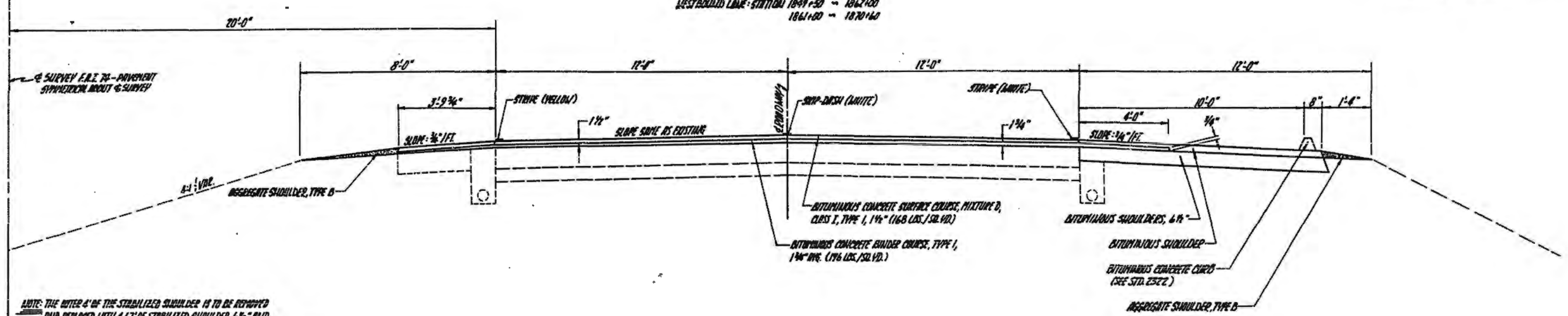
DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY		

PROPOSED TYPICAL CROSS SECTION

EAST SHOULDER LINE: STATION 1746+25 ~ 1748+70
 1783+50 ~ 1784+50
 1805+00 ~ 1810+00
 1871+50 ~ 1871+50
 WEST SHOULDER LINE: STATION 1849+50 ~ 1862+00
 1861+00 ~ 1870+60

PROJECT NO.	SECTION	DATE	TOTAL SHEETS	SHEET NO.
K.R.T. 74	*	10/21/61	165	4

1/2" = 10' (HORIZ. SCALE), 1/4" = 1' (VERT. SCALE)

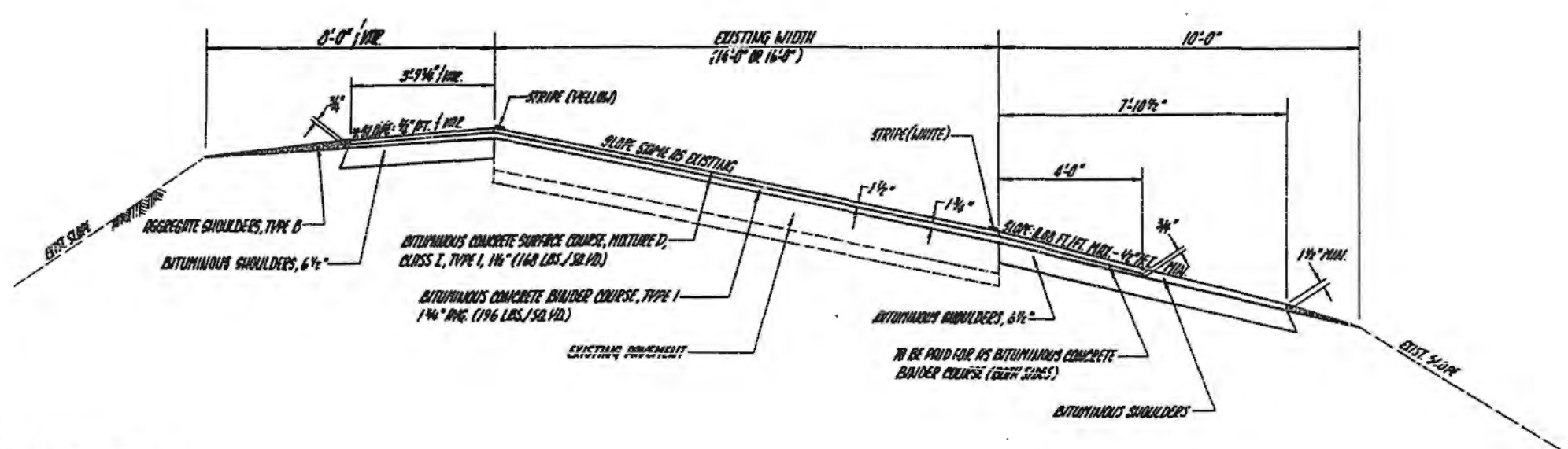


NOTE: THE OUTER 4" OF THE STABILIZED SHOULDER IS TO BE REMOVED AND REPLACED WITH 4.67" OF STABILIZED SHOULDER, 6% BITUMINOUS CONCRETE CURB
 RT. STATION 1746+25 ~ RT. STATION 1748+70
 RT. STATION 1849+50 ~ RT. STATION 1871+50
 LT. STATION 1849+50 ~ LT. STATION 1862+00

THE OUTER 4" OF THE STABILIZED SHOULDER IS TO BE REMOVED AND REPLACED WITH 4" OF STABILIZED SHOULDER, 6% BITUMINOUS CONCRETE CURB
 RT. STATION 1783+50 ~ RT. STATION 1784+50
 RT. STATION 1805+00 ~ RT. STATION 1810+00

PROPOSED TYPICAL RAMP CROSS SECTION

TILTON INTERCHANGE



* THE MAXIMUM ALGEBRAIC DIFFERENCE BETWEEN THE SLOPE ELEVATED IMPROVEMENT AND THE SHOULDER SHALL NOT EXCEED 0.08 FT./FT. - NON-COMPILING SHOULDER SHALL BE BUILT USING BITUMINOUS SHOULDER.

DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY	H	4.91

ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.I.74	9	VERMILION	165	5

*SEC. 92(1)RS, 11GR, 11VB-BR, 11VB-1-BR

INDEX OF SHEETS

SHEET NO.	DESCRIPTION
1.	COVER SHEET
2.	EXISTING TYPICAL CROSS SECTIONS
3. - 4.	PROPOSED TYPICAL CROSS SECTIONS
5.	INDEX OF SHEETS
6.	GENERAL NOTES
7. - 11.	SUMMARY OF QUANTITIES
12. - 20.	PLAN SHEETS - F.A.I. ROUTE 74
21.	DELETED
22. - 31.	STAGE CONSTRUCTION PLAN SHEETS - SECTION 92-11BR
32. - 37.	STAGE CONSTRUCTION PLAN SHEETS - SECTION (92-11VB)BR
38. - 43.	STAGE CONSTRUCTION PLAN SHEETS - SECTION (92-11VB-1)BR
44.	BRIDGE APPROACH PAVEMENT FOR (92-11VB)BR
45.	BRIDGE APPROACH PAVEMENT FOR (92-11VB-1)BR
46.	DETAIL FOR PIPE DRAIN (SPECIAL) FOR METAL ENERGY DISSIPATOR
47.	DETAIL OF METAL ENERGY DISSIPATOR 21"
48.	DETAIL OF METAL ENERGY DISSIPATOR 36"
49.	SPECIAL DETAIL FOR RAMP WORK AREAS
50.	DETAIL OF GUARDRAIL ATTACHED TO PIERS AND ABUTMENT WALLS DETAIL OF MEDIAN CROSSOVERS TYPICAL TEMPORARY PAVEMENT MARKING FOR INTERSTATE ROUTES
51.	TYPICAL APPLICATION OF PAVEMENT MARKINGS FOR INTRERSTATE AND MULTI-LANE DIVIDED HIGHWAYS
52.	DELETED
53.	DETAIL OF INERTIAL BARRIERS (70 MPH DESIGN)
54.	DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL - S.N. 092-0010 & S.N. 092-0011
55.	DELETED
56.	DELETED
57.	DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL - S.N. 092-0099
58.	DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL - S.N. 092-0099
59.	DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL - S.N. 092-0126
60.	DETAIL OF POST SPACING FOR STEEL BRIDGE RAIL - S.N. 092-0128
61.	DETAIL OF STEEL BRIDGE RAIL SPECIAL
62. - 89.	BRIDGE PLANS - SECTION 92-11BR
90. - 130.	BRIDGE PLANS - SECTION (92-11VB)BR
131. - 162.	BRIDGE PLANS - SECTION (92-11VB-1)BR
163.	DELETED
164.	BORING FOR EAST ABUTMENT PIER - SECTION (92-11VB-1)BR
165.	SUB-STRUCTURE LAYOUT - SECTION (92-11VB-1)BR

STANDARDS

1538-5	CATCH BASIN, TYPE C
1686-4	SYMBOLS AND ABBREVIATIONS
2113-2	NAME PLATE FOR BRIDGES
2168-11	CHAIN LINK FENCE
2169-7	WOVEN WIRE FENCE
2217-3	GRATE, TYPE B
2228-4	METAL END SECTION FOR PIPE CULVERTS
2230-16	STEEL PLATE BEAM GUARD RAIL TYPES A, B, C AND D
2240-5	FLUSH INLET BOX FOR MEDIAN
2298-8	TRAFFIC CONTROL
2299-11	TRAFFIC CONTROL
2300-3	TRAFFIC CONTROL
2303-6	TRAFFIC CONTROL
2305-5	TRAFFIC CONTROL
2308-5	TRAFFIC CONTROL
2313-5	TRAFFIC CONTROL
2314-5	TRAFFIC CONTROL
2316-12	TRAFFIC CONTROL
2322-4	SHOULDER INLETS WITH CURB
2323-11	PAVEMENT JOINTS
2324-7	BRIDGE APPROACH SHOULDER PAVEMENT
2327-11	SUB-SURFACE DRAINAGE
2336-4	TRAFFIC BARRIER TERMINAL, TYPE 1 AND 1A
2337-2	TRAFFIC BARRIER TERMINAL, TYPE 2
2340-4	TRAFFIC BARRIER TERMINAL, TYPE 5 AND 5A
2341-3	TRAFFIC BARRIER TERMINAL, TYPE 6
2345-1	TRAFFIC BARRIER TERMINAL, TYPE 8
2357-2	INLET BOX FOR MEDIAN DITCH CHECK
2362-3	CONCRETE HEADWALL FOR PIPE DRAIN
2381	TEMPORARY EROSION CONTROL SYSTEM
2382-2	BRIDGE APPROACH PAVEMENT
2383-1	TEMPORARY CONCRETE BARRIER
2388-1	TRAFFIC BARRIER TERMINAL, TYPE 11
2399-1	STANDARD STEEL BRIDGE RAIL CURB MOUNTED
2417-2	TRAFFIC CONTROL
2419	TRAFFIC CONTROL
2427-1	CLASS C AND D PATCHES
2438	RUMBLE STRIP FOR P.C.C. OR BITUMINOUS SHOULDER

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DISTRICT FIVE

REVIEWED BY: James M. Lewis
DISTRICT ENGINEER OF DESIGN

DATE: Nov 4, 1991

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DISTRICT ENGINEER OF TRAFFIC

W. B. Dineen
DISTRICT ENGINEER OF MATERIALS

GENERAL NOTES

G.N. -105.09
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON U.S.G.S. MEAN SEA LEVEL DATUM.

G.N. -107.09-A
THE VERTICAL CLEARANCE SHALL NOT BE REDUCED WHEN PROTECTING TRAFFIC FROM FALLING OBJECTS AND/OR MATERIALS.

G.N. -107.19-A
WHERE SECTION OR SUB SECTION MARKERS ARE ENCOUNTERED, THE ENGINEER SHALL BE NOTIFIED BEFORE SUCH MONUMENTS ARE REMOVED. THE CONTRACTOR SHALL PROTECT AND CAREFULLY PRESERVE ALL PROPERTY MARKERS AND MONUMENTS UNTIL THE OWNER, AN AUTHORIZED AGENT OR LAND SURVEYOR HAS WITNESSED OR OTHERWISE REFERENCED THEIR LOCATIONS.

G.N. -107.26-A
THE FOLLOWING IS A LIST OF UTILITY COMPANIES THAT HAVE UTILITIES LOCATED ALONG THIS SECTION.
THE UTILITY OWNERS MARKED WITH AN "X" BELONG TO J.U.L.I.E.

INTERSTATE WATER COMPANY
ILLINOIS POWER COMPANY

G.N. 107.26 B
EXISTING STATE-OWNED AND MAINTAINED UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL NOTIFY THE DISTRICT ENGINEER OF TRAFFIC TWO WEEKS PRIOR TO COMMENCING ANY EXCAVATION OR BORINGS IN THE VICINITY OF THESE LINES. THE STATE WILL THEN LOCATE AND MARK THE HORIZONTAL LOCATIONS OF THE LINES AND PROVIDE ANY AVAILABLE INFORMATION AS TO THEIR DEPTH. SHOULD ANY OF THE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF THE ENGINEER AND AT NO COST TO THE STATE.

G.N. 207-A
BENCHING PROCEDURES SHALL BE USED IN AREAS WHERE EXISTING EMBANKMENTS ARE WIDENED FOR THE PROPOSED PAVEMENT. STEPS SHALL BE CUT INTO THE EXISTING EMBANKMENT SLOPES AND SHALL HAVE THE FOLLOWING DIMENSIONS:
HORIZONTAL: 3.0 FEET (MINIMUM)
VERTICAL: 1 1/2 FEET

G.N. -405-A
THE QUANTITIES INCLUDED IN THE PLANS FOR BITUMINOUS CONCRETE RESURFACING ARE INTENDED TO GIVE THE COVERAGE SHOWN ON THE TYPICAL CROSS SECTIONS. IT IS NOT INTENDED TO INCREASE THE THICKNESS OF THE BITUMINOUS MIXTURE IN ORDER TO USE ALL OF THE QUANTITIES INCLUDED IN THE CONTRACT. DESIGN THICKNESSES CAN BE BACK CALCULATED USING THE CONVERSION FACTOR OF 1" THICKNESS = 112 POUNDS/SQUARE YARD.

G.N. -406-B
THE TOTAL AREA TO BE RESURFACED IS 121,226 SQ. YDS. OF WHICH 5,781 SQ. YDS. ARE VARIABLE WIDTH.
ESTIMATED QUANTITIES:
18,485 GALLONS BITUMINOUS MATERIALS (PRIME COAT)
370 TONS AGGREGATE (PRIME COAT)
15,640 TONS BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B, TYPE 1
10,690 TONS BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, TYPE 1

G.N. -406-D
PAVEMENT CLEANING SHALL BE PERFORMED ON THIS JOB TO REMOVE ANY LOOSE MATERIAL FROM SPALLED AREAS ON THE PAVEMENT AS DIRECTED BY THE ENGINEER. CLEANING OF THE AREA SHALL CONSIST OF THE APPLICATION OF COMPRESSED AIR, HAND PICK, AND BACKHOE TOOTH AS DIRECTED BY THE ENGINEER.

IMMEDIATELY AFTER CLEANING, THE SPALLED AREA SHALL BE HAND PRIMED WITH MATERIAL AS SPECIFIED IN ARTICLE 406.02 OF THE STANDARD SPECIFICATIONS. AFTER PRIMING, THE AREA SHALL BE FILLED WITH BITUMINOUS CONCRETE MEETING THE REQUIREMENTS OF ARTICLE 406.12 FOR SURFACE MIXTURE C. THE METHOD OF COMPACTION SHALL BE AS DIRECTED BY THE ENGINEER.

ALL LABOR, EQUIPMENT AND MATERIALS TO COMPLETE THE PAVEMENT CLEANING AND SUBSEQUENT POT HOLE FILLING AS DIRECTED BY THE ENGINEER WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04.

G.N. -511-A
BEFORE ORDERING PIPE CULVERTS AND PIPE DRAINS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G.N. -601-A
THE RIPRAP GRADATION FOR R.R. 3 SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.3 FEET. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

G.N. -601-A
THE RIPRAP GRADATION FOR R.R. 2 SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.16 FEET. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

G.N. -603-A
BEFORE ORDERING STORM SEWERS, THE CONTRACTOR SHALL CONSULT THE ENGINEER FOR THE EXACT LENGTHS.

G.N. -617-A
WHERE PROPOSED CONSTRUCTION ABUTS EXISTING APPURTENANCES, A SAW CUT SHALL BE MADE TO ACHIEVE A NEAT BUTT JOINT. SAW CUTS WILL NOT BE PAID FOR SEPARATELY. COST OF SAW CUTS SHALL BE INCLUDED IN THE TYPE WORK ENCOUNTERED.

G.N. 620-B
CLASS C PATCHES
WHERE ESTIMATED PATCHES ARE OVER 20 FEET LONG, THE EXPANSION TIE ANCHORS REQUIRED BY STANDARD 2426 SHALL BE INCLUDED IN THE PAYMENT FOR THE PATCHES. WHERE ADDITIONAL PATCHES OVER 20 FEET IN LENGTH ARE CONSTRUCTED OR WHERE ESTIMATED PATCHES "GROW" FROM LESS THAN 20 FEET TO MORE THAN 20 FEET, THE EXPANSION TIE ANCHORS WILL BE PAID FOR IN ACCORDANCE WITH ARTICLE 109.04 OF THE STANDARD SPECIFICATIONS.

PATCHES WHICH WILL REQUIRE TIE BARS (PATCHES IN BOTH LANES)	
NUMBER	LENGTH
3	20'
2	30'
1	50'
1	60'

PATCHES WHICH WILL REQUIRE ANCHORS	
NUMBER	LENGTH
1	40'
1	60'

CLASS D PATCHES, TYPE II, 10 INCH
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 620 OF THE STANDARD SPECIFICATIONS AND STANDARD 2427 IN ORDER TO PROVIDE EXPANSION FOR THE EXISTING CONCRETE PAVEMENT. THE PATCHES SHALL BE CONSTRUCTED IN HALF WIDTHS, 4 FEET IN LENGTH, FULL WIDTH OF THE PAVEMENT, APPROXIMATELY 1,000 FEET APART AS DESIGNED BY THE ENGINEER.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE YARD FOR CLASS D PATCHES, TYPE II, 10 INCH WHICH WILL BE PAYMENT IN FULL TO COMPLETE THE WORK AS SPECIFIED.

ESTIMATED QUANTITY
427 SQ. YD. CLASS D PATCHES, TYPE II, 10"

CLASS C PATCHES SHALL BE USED THROUGHOUT THIS SECTION EXCEPT FOR THE EXPANSION PATCHES. THERE ARE 6 TYPE I PATCHES, 107 TYPE II PATCHES AND 28 TYPE III PATCHES.

ESTIMATED QUANTITIES
27 SQ. YD. CLASS C PATCHING, TYPE I, 10"
1,058 SQ. YD. CLASS C PATCHING, TYPE II, 10"
910 SQ. YD. CLASS C PATCHING, TYPE III, 10"

G.N. -628-A
GUARD RAIL DESIGN IN THESE PLANS WERE BASED ON THE FOLLOWING INFORMATION:
CLEAR ZONE WIDTH = 38-46' (FROM EDGE OF PAVEMENT).
OPERATING SPEED = 60 M.P.H. (POSTED SPEED LIMIT).
A.D.T. = 15,820 (1996).

G.N. -642-A
SHOULDERS, DITCHES, FORE-SLOPES, BACK-SLOPES AND OTHER PORTIONS OF THE RIGHT-OF-WAY HAVING INSUFFICIENT VEGETATION SHALL BE SEEDING AS LISTED ELSEWHERE IN THE PLANS.

G.N. -642-B
THE FOLLOWING APPLICATION RATES HAVE BEEN USED TO CALCULATE THE VARIOUS ITEMS NECESSARY FOR SEEDING:
FERTILIZER NUTRIENTS CLASS 1, 2 & 2 SPECIAL SEEDING
NITROGEN 60 LBS. PER ACRE
PHOSPHORUS 200 LBS. PER ACRE
POTASSIUM 60 LBS. PER ACRE

G.N. -642-C
SEEDING DATES FOR ALL CLASSES OF SEEDING WILL BE AS LISTED BELOW:
CLASS OF SEEDING BEGINNING DATES TERMINATION DATES
1, 1A, 2, 2 SPECIAL, 2A, 3, 6, 6A APRIL 1 MAY 15
(IN SPRING)
1, 1A, 2, 2 SPECIAL, 2A, 3, 6, 6A AUGUST 15 OCTOBER 15
(IN FALL)
4 & 5 & 7 REFER TO
ARTICLE 642.06

G.N. -643-A
ALL AREAS DISTURBED BY CONSTRUCTION OPERATIONS THAT ARE TO BE SEEDING SHALL ALSO BE MULCHED. THIS WORK SHALL CONFORM TO THE REQUIREMENTS OF SECTION 643 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION EXCEPT THAT THE CONTRACTOR WILL HAVE THE OPTION OF USING EITHER METHODS 2, 3, 4, 5, 6 OR 7 FOR PLACING THE MULCH. MULCH, METHOD 1 SHALL NOT BE ALLOWED. MULCH WILL BE MEASURED IN ACRES OF SURFACE AREA MULCHED. THE EMULSIFIED ASPHALT USED IN METHOD 2, THE APPLICATION AND MATERIAL OF THE HYDRAULIC MULCH USED IN METHOD 5, THE CHEMICAL MULCH BINDER USED IN METHOD 6, OR THE WOOD OR PAPER FIBER HYDRAULIC MULCH USED IN METHOD 7 WILL NOT BE PAID FOR SEPARATELY BUT SHALL BE CONSIDERED INCLUDED IN THE CONTRACT UNIT PRICE PER ACRE FOR MULCH AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.

WHEN THE WORK IS CONSTRUCTED ESSENTIALLY TO THE LINES, GRADES OR DIMENSIONS SHOWN ON THE PLANS AND THE CONTRACTOR AND THE ENGINEER HAVE AGREED IN WRITING THAT THE PLAN QUANTITIES FOR MULCH ARE ACCURATE, NO FURTHER MEASUREMENT WILL BE REQUIRED AND PAYMENT WILL BE MADE FOR THE QUANTITY SHOWN IN THE CONTRACT EXCEPT THAT IF ERRORS ARE DISCOVERED AFTER WORK HAS BEEN STARTED, APPROPRIATE ADJUSTMENTS WILL BE MADE.

WHEN THE PLANS HAVE BEEN ALTERED OR WHEN DISAGREEMENT EXISTS BETWEEN THE CONTRACTOR AND THE ENGINEER AS TO THE ACCURACY OF THE PLAN QUANTITY, EITHER PARTY SHALL, BEFORE ANY WORK IS STARTED WHICH WOULD AFFECT THE MEASUREMENT, HAVE THE RIGHT TO REQUEST IN WRITING AND THEREBY CAUSE THE QUANTITY INVOLVED TO BE MEASURED AS SPECIFIED.

THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE PER ACRE FOR MULCH MEASURED AS SPECIFIED HEREIN.

G.N. -643-B
THE APPLICATION RATE FOR STRAW IN MULCH, METHODS 1, 2, 3, 5, OR 6 SHALL BE 2 TONS PER ACRE.

G.N. -647-C
TEMPORARY PAVEMENT MARKING SHALL BE APPLIED TO THE PAVEMENT AFTER PLACING BITUMINOUS MATERIALS (PRIME COAT), (LEVEL) BINDER AND SURFACE. THE PRIME COAT AND (LEVEL) BINDER SHALL HAVE THE TEMPORARY PAVEMENT MARKING PLACED TO DELINEATE 2 LANES. THE SURFACE SHALL HAVE THE TEMPORARY PAVEMENT MARKING PLACED TO COINCIDE WITH THE FINAL STRIPING. USE 4 FEET PER 40 FEET (OR 10% PER STATION).
ESTIMATED QUANTITY:
14,298 LIN. FT. TEMPORARY PAVEMENT MARKING
(1,388 LIN. FT. YELLOW & 12,910 LIN. FT. WHITE)

G.N. -704.G1
COARSE AGGREGATE GRADATION CA-30 MAY BE USED WHENEVER COARSE AGGREGATE CA-6 IS SPECIFIED IN THE STANDARD SPECIFICATIONS.

G.N. -T-500-A
FOR THE FINAL SURFACE, ONLY THE MATERIAL AND LAYOUT SCHEME SHOWN FOR THE PERMANENT PAVEMENT MARKING WILL BE ALLOWED FOR THE STANDARD MARKINGS. SHORT TERM MARKINGS SHALL BE AS SPECIFIED ELSEWHERE HEREIN.

G.N. -T501-A
THERMOPLASTIC PAVEMENT MARKINGS SHALL BE APPLIED TO THE FINAL PAVEMENT SURFACE.
ESTIMATED QUANTITIES:
YELLOW:
46,375 LIN. FT. THERMOPLASTIC PAVEMENT MARKING - LINE 4"
WHITE:
60,120 LIN. FT. THERMOPLASTIC PAVEMENT MARKING - LINE 4"
800 LIN. FT. THERMOPLASTIC PAVEMENT MARKING - LINE 8"
TOTALS:
106,495 LIN. FT. THERMOPLASTIC PAVEMENT MARKING - LINE 4"
800 LIN. FT. THERMOPLASTIC PAVEMENT MARKING - LINE 8"

G.N. -T-502-C
THE FOLLOWING QUANTITIES ARE ALLOWED FOR PLACING STANDARD PAVEMENT MARKINGS, IN ACCORDANCE WITH THE SPECIAL PROVISION ENTITLED 'SECTION 647, SHORT-TERM PAVEMENT MARKING AND NO-PASSING ZONE SIGNING,' ON THE MILLED SURFACE OR INTERMEDIATE LIFTS AND TO DELINEATE NO-PASSING ZONES DURING CONSTRUCTION. QUANTITIES FOR THE FINAL PAVEMENT MARKING ARE INCLUDED ELSEWHERE HEREIN.

ESTIMATED QUANTITIES:
YELLOW:
92,750 LIN. FT. PAINT PAVEMENT MARKING - LINE 4"
WHITE:
120,240 LIN. FT. PAINT PAVEMENT MARKING - LINE 4"
TOTALS:
212,990 LIN. FT. PAINT PAVEMENT MARKING - LINE 4"

SUMMARY OF QUANTITIES

ROUTE NO.	SECTION	COUNTY	SHEET NO.
F.A.174	0	VERMILION	165

SEC. 9211RS, 11BR, 11VB-BR, 11VB-1-BR

CODE NO	ITEM	CONSTRUCTION TYPE CODE:	UNIT	TOTAL QUANTITY	2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-50	11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-50	ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL 1000	ROADWAY STA. 1866+73.44 TO STA. 1908+00 URBAN 1000
50700400	FURNISHING AND ERECTING STRUCTURAL STEEL		LBS.	121,560.0	121,560.0				
50700100	FURNISHING AND ERECTING STRUCTURAL STEEL		L SUM	1.0		0.74	0.26		
X0301078	JACKING EXISTING STRUCTURE, NUMBER 5		L SUM	1.0			1.0		
X0301079	JACKING EXISTING STRUCTURE, NUMBER 6		L SUM	1.0			1.0		
X0301080	FLOATING BEARINGS, FIXED 650K		EACH	4.0	4.0				
X0301081	MODIFIED PORTLAND CEMENT MORTAR REPAIR		SQ FT	422.0	422.0				
X0301082	TIGHTEN HANGER ROD ASSEMBLIES		EACH	52.0	52.0				
X0301083	BOLT REMOVAL AND REPLACEMENT, 3/4"		EACH	50.0	50.0				
X0301084	BOLT REMOVAL AND REPLACEMENT, 7/8"		EACH	45.0	45.0				
X0301085	WELD REMOVAL		LIN FT	100.0	100.0				
X0301086	WELD PEENING		EACH	24.0		24.0			
X0301087	METAL ENERGY DISSIPATORS - 21" PIPE		EACH	1.0				1.0	
X0301088	METAL ENERGY DISSIPATORS - 36" PIPE		EACH	2.0				2.0	
20100100	TREE REMOVAL (6 TO 15 INCH DIAMETER)		IN DIA	62.0					62.0
20100200	TREE REMOVAL (OVER 15 INCH DIAMETER)		IN DIA	108.0					108.0
20200100	EARTH EXCAVATION		CU YD	1,029.0			941.0		88
20700100	EMBANKMENT		CU YD	1,138.0					1,138.0
20900100	PORDUS GRANULAR EMBANKMENT		TON	3,800.0			3,800.0		
21300100	SUB-BASE GRANULAR MATERIAL, TYPE A		TON	459.0			459.0		
21500500	AGGREGATE SHOULDERS, TYPE A 6"		SO YD	608.0			608.0		
21501200	AGGREGATE SHOULDERS, TYPE B		TON	2,639.0			1,997.0		642.0
21900410	BITUMINOUS SHOULDERS 6 1/2"		SO YD	7,326.0			3,820.0		3,506.0
21901000	BITUMINOUS SHOULDERS		TON	8,195.0			5,470.0		2,725.0
30400700	PORTLAND CEMENT CONCRETE BASE COURSE 12"		SO YD	485.0					485.0
30800900	BITUMINOUS BASE COURSE 12"		SO YD	87.0					87.0
40600100	BITUMINOUS MATERIALS (PRIME COAT)		GALLON	18,485.0			14,098.0		4,387.0
40600300	AGGREGATE (PRIME COAT)		TON	370.0			290.0		80.0
40600400	MIXTURE FOR CRACKS, JOINTS, AND FLANGEWAYS		TON	5.0			2.5		2.5
40600720	BITUMINOUS CONCRETE BINDER COURSE, MIXTURE B, TYPE 1		TON	15,640.0			12,300.0		3,340.0
40600820	BITUMINOUS CONCRETE SURFACE COURSE, MIXTURE D, CLASS I, TYPE 1		TON	10,690.0			8,273.0		2,417.0
40600895	CONSTRUCTING TEST STRIP		EACH	2.0			1.0		1.0
40601151	BITUMINOUS CONCRETE PAVEMENT (FULL-DEPTH), TYPE 1 13 1/2"		SO YD	2,600.0			2,600.0		
40801150	BRIDGE APPROACH PAVEMENT (STANDARD 2382)		SO YD	649.0					649.0
40801500	P.C. CONCRETE BRIDGE APPRDACH SHOULDER PAVEMENT		SO YD	151.0					151.0
41000300	PORTLAND CEMENT CONCRETE SHOULDERS 8"		SO YD	74.0			56.0		18.0
50102400	CONCRETE REMOVAL		CU YD	157.9	32.0	46.8	79.1		
50102500	CONCRETE REMOVAL (SPECIAL)		CU YD	18.7					18.7
50102900	EXPANSION BOLTS 3/4 INCH		EACH	480.0		268.0	212.0		
50104100	BRIDGE HANDRAIL REMOVAL		LIN FT	5,124.0	2,991.0	1,190.0	943.0		
50104400	CONCRETE HEADWALL REMOVAL		EACH	1.0				1.0	
50105200	REMOVE EXISTING CULVERTS		EACH	1.0				1.0	
50200100	STRUCTURE EXCAVATION		CU YD	790.5		433.5	357.0		
50300100	FLOOR DRAINS		EACH	32.0		20.0	12.0		

SUMMARY OF QUANTITIES

ROUTE NO.	SECTION	COUNTY	SHEET NO.
F.A. 174	0	VERMILION	165

*SEC. 92(1)RS, 11BR, 11VB-BR, 11VB-1-BR)

CODE NO	ITEM	CONSTRUCTION TYPE CODE:	UNIT	TOTAL QUANTITY	SAFETY CLASSIFICATION CODE: LOCATION OF WORK:		2A	11VB-BR	11VB-1-BR	ROADWAY	ROADWAY
					NO. 092-0006	NO. 092-0007	NO. 092-0008	NO. 092-0009	NO. 092-0012	NO. 092-0013	NO. 092-0014
					STATION	STATION	STATION	STATION	STATION	STATION	STATION
					1755+16	1877+01.3	1900+80.5	1716+00	1866+73.44	1866+73.44	1908+00
					RURAL	URBAN	URBAN	RURAL	RURAL	URBAN	URBAN
					X031	X571-50	X571-50	J000	J000	J000	J000
50300130	PREFORMED JOINT SEAL 4"		LIN FT	421.0		72.0	145.0	204.0			
50300150	NEOPRENE EXPANSION JOINT 2"		LIN FT	172.0			172.0				
50300160	NEOPRENE EXPANSION JOINT 4"		LIN FT	142.0		142.0					
50300250	CLASS X CONCRETE SUPERSTRUCTURE		CU YD	3,479.6		1,892.4	863.7	723.5			
50300300	PROTECTIVE COAT		SO YD	13,131.0		6,755.0	3,450.0	2,926.0			
50300310	ELASTOMERIC BEARING ASSEMBLY, TYPE I		EACH	78.0			46.0	32.0			
50300320	ELASTOMERIC BEARING ASSEMBLY, TYPE II		EACH	47.0			15.0	32.0			
50300330	ELASTOMERIC BEARING ASSEMBLY, TYPE III		EACH	7.0			7.0				
50300400	CONCRETE HEADWALL FOR PIPE DRAIN		EACH	27.0							27.0
50400300	CLASS X CONCRETE		CU YD	408.0		26.2	190.5	192.3			
50700500	STUD SHEAR CONNECTORS		EACH	15,922.0			5,298.0	10,624.0			
50701110	STRUCTURAL STEEL REMOVAL		POUND	71,370.0		71,370.0					
50801001	STEEL BRIDGE RAIL		LIN FT	1,637.0					1,404.0		233.0
50801002	STEEL BRIDGE RAIL (SPECIAL)		LIN FT	233.0							233.0
50801600	TEMPORARY BRIDGE RAIL		LIN FT	480.0			350.0				130.0
51100433	PIPE CULVERTS, TYPE I RCCP 18"		LIN FT	34.0					34.0		
51100439	PIPE CULVERTS, TYPE I RCCP 24"		LIN FT	4.0					4.0		
51115547	METAL END SECTIONS 12"		EACH	7.0					5.0		2.0
51115556	METAL END SECTIONS 21"		EACH	1.0					1.0		
51115571	METAL END SECTIONS 36"		EACH	2.0					2.0		
51200100	REINFORCEMENT BARS		POUND	66,230.0			18,140.0	14,990.0			33,100.0
51200200	REINFORCEMENT BARS, EPOXY COATED		POUND	939,910.0		552,150.0	200,200.0	187,560.0			
51301400	FURNISHING STEEL PILES HP10x42		LIN FT	489.0			489.0				
51302200	FURNISHING CONCRETE PILES		LIN FT	360.0			270.0	90.0			
51302T00	DRIVING STEEL PILES		LIN FT	489.0			489.0				
51302800	DRIVING CONCRETE PILES		LIN FT	360.0			270.0	90.0			
51303400	TEST PILE STEEL HP10x42		EACH	2.0			2.0				
51304200	TEST PILE CONCRETE		EACH	3.0			2.0	1.0			
51305200	TEMPORARY SHEET PILING		SO FT	3,712.0			1,336.0	2,376.0			
51400100	NAME PLATES		EACH	12.0		2.0	2.0	2.0	6.0		
60100103	STONE RIPRAP, CLASS A2		SO YD	256.0			159.0	97.0			
60100105	STONE RIPRAP, CLASS A3		SO YD	2,012.0		452.0			1,560.0		
60300500	STORM SEWERS, TYPE 1 12"		LIN FT	506.0					506.0		
60700200	PIPE DRAINS 6"		LIN FT	88.0					8.0		80.0
60700500	PIPE DRAINS 12"		LIN FT	594.0					398.0		196.0
60702300	PIPE DRAINS 21" (SPECIAL)		LIN FT	180.0					180.0		
60702800	PIPE DRAINS 36" (SPECIAL)		LIN FT	440.0					440.0		
60707600	PIPE UNDERDRAINS 4"		LIN FT	14,265.0							14,265.0
60709100	PIPE UNDERDRAINS 4" (SPECIAL)		LIN FT	422.0							422.0
6120T600	CATCH BASINS, TYPE C, TYPE 8 GRATE		EACH	1.0					1.0		
61244400	FLUSH INLET BOX FOR MEDIAN (2240)		EACH	1.0					1.0		
61245400	INLET BOX, STANDARD 2247		EACH	1.0					1.0		

SUMMARY OF QUANTITIES

PROJECT NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
F.A.T. 74	0	VERMONT	105	105

*SEC. 9201RS, 11BR, 11VB-BR, 11VB-1-9R)

CODE NO	ITEM	CONSTRUCTION TYPE CODE:	UNIT	TOTAL QUANTITY	2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	2A 11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-50	2A 11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-50	ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL 1000	ROADWAY STA. 1866+73.44 TO STA. 1908+00 URBAN 1000
61246200	INLET BOX, STANDARD 2357		EACH	4.0				4.0	
61247115	TYPE E INLET BOX, STANDARD 2322		EACH	1.0					1.0
61247120	TYPE F INLET BOX, STANDARD 2322		EACH	6.0				5.0	1.0
61700100	PAVEMENT REMOVAL		SO YD	2,774.0				1,512.0	1,262.0
61700600	SIDEWALK REMOVAL		SO FT	72.0					72.0
61701000	BITUMINOUS CONCRETE SURFACE REMOVAL		SO YD	4,842.0				2,406.0	2,436.0
61704570	SHOULDER REMOVAL AND REPLACEMENT, 5"		LIN FT	5,711.0					5,711.0
61705000	STABILIZED SHOULDER REMOVAL		SO YD	12,938.0				6,728.0	6,210.0
62001349	CLASS C PATCHES, TYPE I, 10 INCH		SO YD	27.0				17.0	10.0
62001353	CLASS C PATCHES, TYPE II, 10 INCH		SO YD	1,058.0				877.0	181.0
62001357	CLASS C PATCHES, TYPE III, 10 INCH		SO YD	910.0				620.0	290.0
62001765	CLASS D PATCHES, TYPE II, 10 INCH		SO YD	427.0				299.0	128.0
62400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH		SO FT	72.0					72.0
62800000	STEEL PLATE BEAM GUARD RAIL, TYPE A		LIN FT	9,902.0				5,531.0	4,371.0
62800035	TRAFFIC BARRIER TERMINAL, TYPE 1		EACH	28.0				22.0	6.0
62800040	TRAFFIC BARRIER TERMINAL, TYPE 1A		EACH	8.0				8.0	
62800045	TRAFFIC BARRIER TERMINAL, TYPE 2		EACH	4.0				1.0	3.0
62800070	TRAFFIC BARRIER TERMINAL, TYPE 5		EACH	3.0					3.0
62800075	TRAFFIC BARRIER TERMINAL, TYPE 5A		EACH	6.0					6.0
62800085	TRAFFIC BARRIER TERMINAL, TYPE 6		EACH	9.0					9.0
62800095	TRAFFIC BARRIER TERMINAL, TYPE 8		EACH	1.0				1.0	
62800110	TRAFFIC BARRIER TERMINAL, TYPE 11		EACH	1.0					1.0
62800135	STEEL PLATE BEAM GUARD RAIL, TYPE B (SPECIAL)		LIN FT	150.0				150.0	
62800140	STEEL PLATE BEAM GUARD RAIL, TYPE C (SPECIAL)		LIN FT	125.0				125.0	
62800205	TRAFFIC BARRIER TERMINAL, TYPE 5A (SPECIAL)		EACH	12.0				12.0	
62800215	TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)		EACH	6.0				6.0	
62900300	CHAIN LINK FENCE, 6'		LIN FT	251.0					251.0
62910100	CHAIN LINK FENCE (MODIFIED)		LIN FT	4,920.0					4,920.0
62910300	CHAIN LINK FENCE REMOVAL		LIN FT	261.0					261.0
63000100	WOVEN WIRE FENCE, 4'		LIN FT	246.0					246.0
63002300	WOVEN WIRE FENCE REMOVAL		LIN FT	256.0					256.0
63300300	STEEL PLATE BEAM GUARD RAIL REMOVAL		LIN FT	8,558.0				4,744.0	3,814.0
63301000	REMOVE AND RE-ERECT STEEL PLATE BEAM GUARD RAIL		LIN FT	7,508.0				5,079.0	2,429.0
64201000	SEEDING, CLASS 2 (SPECIAL)		ACRE	1.0				0.6	0.4
64600400	ENGINEER'S FIELD OFFICE, TYPE A		CAL MC	36.0				24.0	12.0
64700090	TEMPORARY PAVEMENT MARKING		LIN FT	14,298.0				9,650.0	4,648.0
64800410	TRAFFIC CONTROL AND PROTECTION, STANDARD 2417		EACH	2.0				2.0	
64800420	TRAFFIC CONTROL AND PROTECTION, STANDARD 2419		EACH	8.0					8.0

SUMMARY OF QUANTITIES

DRAWING NO.	SECTION	COUNTY	SHEET NO.
F.A.I.74	0	VERMILION	165

*SEC. 92(1)RS,11BR,11VB-BR,11VB-1-BR

CODE NO	ITEM	UNIT	TOTAL QUANTITY	SAFETY CLASSIFICATION CODE: LOCATION OF WORK:				
				2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	2A 11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-50	2A 11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-50	ROADWAY STA. 1716+00 TO STA. 1866+73.44	ROADWAY STA. 1866+73.44 TO STA. 1908+00
							RURAL 1000	URBAN 1000
64800800	TRAFFIC CONTROL AND PROTECTION, STANDARD 2316	L SUM	1.0				0.3	0.7
64801600	TRAFFIC CONTROL AND PROTECTION, STANDARD 2316 (SPECIAL)	L SUM	1.0				0.3	0.7
64801620	TRAFFIC CONTROL AND PROTECTION U-1	L SUM	1.0					1.0
64801625	TRAFFIC CONTROL AND PROTECTION U-2	L SUM	1.0					1.0
64801630	TRAFFIC CONTROL AND PROTECTION U-3	L SUM	1.0					1.0
64801640	TRAFFIC CONTROL AND PROTECTION U-5	L SUM	1.0					1.0
65000100	MOBILIZATION	L SUM	1.0				0.4	0.6
65600100	TEMPORARY CONCRETE BARRIER	LIN FT	4,440.0				1,630.0	2,810.0
65600200	RELOCATE TEMPORARY CONCRETE BARRIER	LIN FT	4,444.0				1,634.0	2,810.0
65600300	TEMPORARY CONCRETE BARRIER, TERMINAL SECTION	EACH	6.0				2.0	4.0
67400100	BITUMINOUS CONCRETE CURB	LIN FT	7,462.0				5674.0	1,788.0
• 75010200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	LIN FT	106,495.0				92,261.0	14,234.0
• 75010500	THERMOPLASTIC PAVEMENT MARKING - LINE 8"	LIN FT	800.0				400.0	400.0
• 75020200	PAINT PAVEMENT MARKING - LINE 4"	LIN FT	212,990.0				184,522.0	28,468.0
• 75020500	PAINT PAVEMENT MARKING - LINE 8"	LIN FT	1,600.0				800.0	800.0
X0300330	FURNISH CHANGEABLE MESSAGE SIGN	EACH	2.0				0.5	1.5
X0300331	INSTALL CHANGEABLE MESSAGE SIGN	CAL DAY	20.0				5.0	15.0
X0300472	REMOVE AND REELECT MANHOLE FOR PIPE DRAINS	EACH	2.0				2.0	
X0320212	FLOATING BEARINGS, FIXED 300K	EACH	4.0	4.0				
X0320784	FLOATING BEARINGS, GUIDED EXPANSION 650K	EACH	16.0	16.0				
X0331900	REMOVAL OF EXISTING CONCRETE DECK NO 5	L SUM	1.0			1.0		
X0332000	REMOVAL OF EXISTING CONCRETE DECK NO 6	L SUM	1.0			1.0		
X0344600	REMOVAL OF EXISTING CONCRETE DECK NO 3	L SUM	1.0		1.0			
X0344700	REMOVAL OF EXISTING CONCRETE DECK NO 4	L SUM	1.0		1.0			
X0751100	REMOVAL OF EXISTING CONCRETE DECK NO 1	L SUM	1.0	1.0				
X0751200	REMOVAL OF EXISTING CONCRETE DECK NO 2	L SUM	1.0	1.0				
X0833800	JACKING EXISTING STRUCTURE NO. 1	L SUM	1.0	1.0				
X0833900	JACKING EXISTING STRUCTURE NO. 2	L SUM	1.0	1.0				
X0835100	JACKING EXISTING STRUCTURE NO. 3	L SUM	1.0		1.0			
X0835200	JACKING EXISTING STRUCTURE NO. 4	L SUM	1.0		1.0			

* SPECIALTY ITEM

SUMMARY OF QUANTITIES

ROUTE NO.	SECTION	COUNTY	SHEET NO.
F.A.I.74	0	VERMILION	165

*SEC. 92(1)RS,11BR,11VB-BR,11VB-1-BR

CODE NO	ITEM	CONSTRUCTION TYPE CODE:	UNIT	TOTAL QUANTITY	SAFETY CLASSIFICATION CODE: LOCATION OF WORK:		ROADWAY	
					2A 11BR STRUCTURES NO. 092-0006 NO. 092-0007 STATION 1755+16 RURAL X031	2A 11VB-BR STRUCTURES NO. 092-0008 NO. 092-0009 STATION 1877+01.3 URBAN X571-50	2A 11VB-1-BR STRUCTURES NO. 092-0012 NO. 092-0013 STATION 1900+80.5 URBAN X571-50	ROADWAY STA. 1716+00 TO STA. 1866+73.44 RURAL 1000
X0859600	FLOATING BEARINGS, GUIDED EXPANSION 300K		EACH	12.0	12.0			
X2193300	BITUMINOUS SHOULDERS, 13 1/2"		SO YD	6,463.0			1,590.0	4,873.0
Z0000120	ABUTMENT DRAINS		EACH	8.0				8.0
** Z0002000	ATTENUATOR BASE		SO YD	183.0			183.0	
Z0007200	BRIDGE SEAT SEALER		L SUM	1.0	0.4	0.3		
Z0008300	CAISSON CONCRETE		CU YD	50.4		50.4		
Z0008600	CAISSON SHAFTS 30"		CU FT	177.0		177.0		
Z0008700	CAISSON SHAFTS 36"		CU FT	1,244.0		1,244.0		
Z0010800	COLD MILLING (LEVELING)		SO YD	8,125.0			6,925.0	1,200.0
Z0013500	CONCRETE THRUST BLOCKS		EACH	7.0			5.0	2.0
Z0017900	DRAINAGE SCUPPERS		EACH	17.0	16.0	1.0		
Z0018800	DRAINAGE SYSTEM		L SUM	1.0		1.0		
Z0020300	EPOXY CRACK SEALING		LIN FT	48.0	48.0			
Z0020400	EPOXY MORTAR REPAIR		CU FT	37.8	12.0	25.8		
Z0024400	FILTER FABRIC		SO YD	355.5		239.5	116.0	
Z0024405	FILTER FABRIC FOR USE WITH RIPRAP		SO YD	680.0			680.0	
** Z0030200	INERTIAL BARRIER INSTALLATION		EACH	6.0			6.0	
Z0047300	PROTECTIVE SHIELD		SO YD	3,144.0		1,000.0	2,144.0	
Z0048665	RAILROAD PROTECTIVE LIABILITY INSURANCE		L SUM	1.0				1.0
Z0051800	REPAIR CONCRETE STRUCTURES		SO FT	151.0		151.0		
Z0068300	STEEL CASINGS 36"		LIN FT	177.0		177.0		
△ XE172800	BRIDGE DECK GROOVING		SQ YD	10,868.0	5,455.0	2,926.0	2,487.0	
Z0077800	WOOD POST		EACH	24.0			24.0	

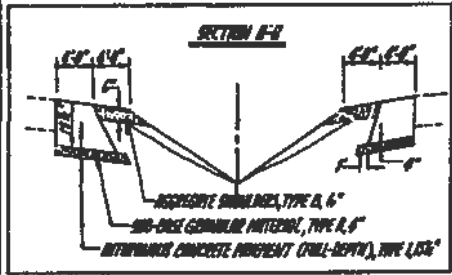
• SPECIALTY ITEMS
** SFTY-3N

MEDIUM CROSSOVER DETOUR
 SALT LAKE CITY TO SALT LAKE CITY
 SR 1745+00 - SR 1744+00

STAGE I

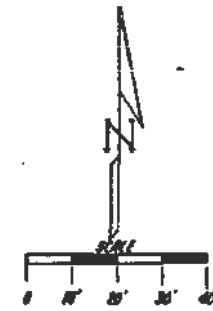
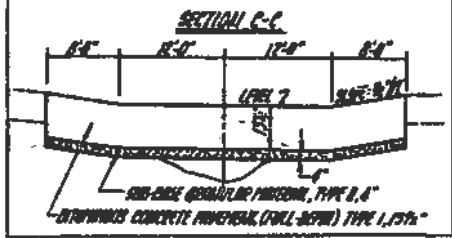
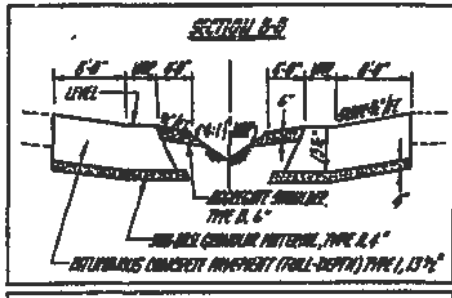
DATE	BY	REVISION	NO.	DATE
...

6" X 6" (PLAN, ELEV, H.W.G.-ON, H.W.G.-OFF)



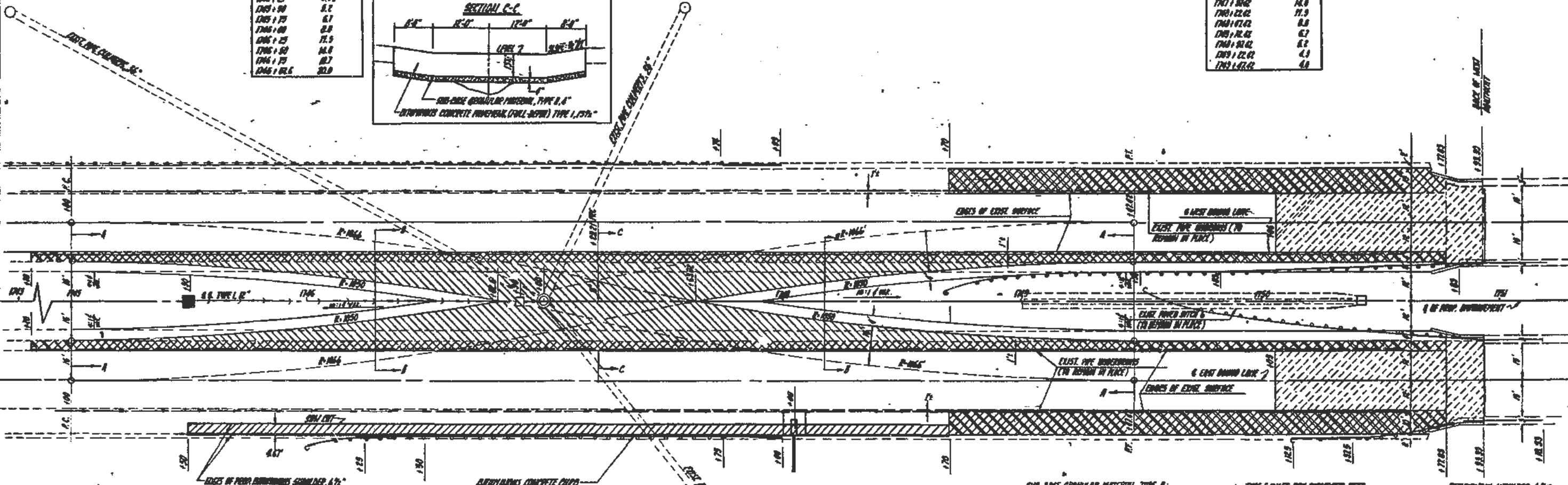
TANGENT OFFSETS FROM EDGE OF PAVEMENT

STATION	OFFSET IN FT.
1745+00	0.00
1745+25	4.30
1745+50	8.2
1745+75	11.7
1746+00	14.8
1746+25	17.5
1746+50	19.8
1746+75	21.7
1746+100	23.0



TANGENT OFFSETS FROM EDGE OF PAVEMENT

STATION	OFFSET IN FT.
1747+00	23.0
1747+25	20.7
1747+50	18.0
1747+75	15.0
1748+00	12.0
1748+25	9.0
1748+50	6.0
1748+75	4.0
1749+00	3.0



STABILIZED SHOULDER REMOVAL:

STATION	TO	STATION	QA QTY
EX 1743+20		1750+72.83	337
EX 1743+20		1750+72.83	337
EX 1743+70		1750+72.83	231
EX 1743+70		1750+72.83	231
EX 1743+70		1746+70	224
EX 1743+70		1746+70	224

TOTAL = 1285 SQ YD

STREET SEWER, TYPE 1, 12":

STATION	TO	STATION	LN. FT.
6 1745+52.5		1746+08.5	737

EARTH EXCAVATION:

STATION	TO	STATION	LN. FT.
1745+00		1745+60	330

BITUMINOUS SHOULDERS 13%:

STATION	TO	STATION	QA QTY
EX 1743+20		1745+00	80
EX 1743+70		1745+00	80
EX 1743+70		1750+72.83	231
EX 1743+70		1750+72.83	231
EX 1743+72.82		1750+92.83	63
EX 1743+72.82		1750+92.83	63

TOTAL = 757 SQ YD

BITUMINOUS CONCRETE SURFACE REMOVAL:

STATION	TO	STATION	QA QTY
EX 1740+08.5		1746+08.83	176
EX 1750+06.9		1746+08.83	212

TOTAL = 388 SQ YD

BITUMINOUS CONCRETE PAVEMENT (FULL DEPTH), TYPE 1, 13%:

STATION	TO	STATION	QA QTY
1745+00		1745+42.82	1,154

300-D SIZE GRANULAR MATERIAL, TYPE B:

STATION	TO	STATION	QA QTY
1745+00		1747+42.82	209

AGGREGATE SHOULDERS, TYPE B, 6":

STATION	TO	STATION	QA QTY
EX 1743+00		1746+02.5	76
EX 1743+00		1746+02.5	76
EX 1747+63.81		1749+02.82	76
EX 1747+63.82		1749+02.82	76

TOTAL = 364 SQ YD

TYPE F INLET AND STRAINERS EXC:

STATION	LN. FT.
EX 1748+05	1

CONCRETE THURST BLOCK:

STATION	LN. FT.
EX 1748+05	1

BITUMINOUS SHOULDER 6%:

STATION	TO	STATION	LN. FT.
SR-SALT EX 1745+25		1746+70	377

STEEL PLATE BEAM ALUMINUM REINFORC. ROAD REINFORCEMENT:

STATION	TO	STATION	LN. FT.
EX 1746+50		1747+75	125

TRAFFIC BARRIER, TYPICAL, TYPE B:

STATION	TO	STATION	LN. FT.
EX 1740+62.83		1750+12.83	1

PIPE BRIDGES, 12":

STATION	LN. FT.
EX 1748+05	82

METAL END SECTIONS, 12":

STATION	LN. FT.
EX 1748+05	1

BITUMINOUS CONCRETE CURBS:

STATION	TO	STATION	LN. FT.
EX 1746+25		1746+80	175

TRAFFIC BARRIER, TYPICAL, TYPE 1:

STATION	TO	STATION	LN. FT.
EX 1740+62.80		1740+82.8	1
EX 1746+00		1746+25	1

TOTAL = 2 BARRIERS

PORTLAND CEMENT CONCRETE SHOULDER, 6":

STATION	TO	STATION	LN. FT.
EX 1748+00		1748+80	72

STEEL PLATE BEAM GUARDRAIL REMOVAL:

STATION	TO	STATION	LN. FT.
EX 1746+25		1746+50	25
EX 1747+25		1748+00	75

TOTAL = 50 LN. FT.

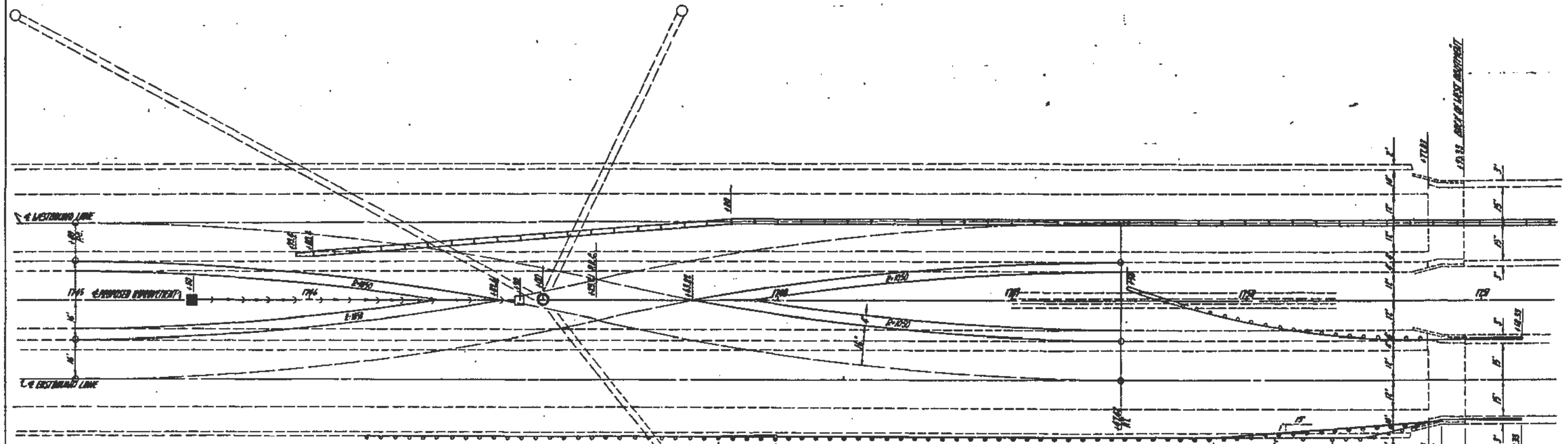
DESIGNED BY	NAME	DATE
CHECKED BY	RCC	3-9
DRAFTED BY	SK	3-9

TOTAL = 200 LN. FT.

STAGE II

NO.	DATE	BY	CHKD.	APP.
110	11/22

* SEE (1101, 1102, 1103-02, 1103-01-02)



STEEL PLATE BEAM GIRDER, BEHIND

STATION TO	STATION	LEN. FT.
EL. 1747.75	EL. 1743.00	25
EL. 1749.50	EL. 1751.00.33	163
EL. 1750.12.5	1751.00.33	206
		TOTAL 294 LIN. FT.

TROTYL BARRIER TERMINAL, TYPE G. (SACCOL)

STATION TO	STATION	LEN. FT.
EL. 1750.44.33	1752.11.64	1

STEEL PLATE BEAM GIRDER, TYPE A

STATION TO	STATION	LEN. FT.
EL. 1747.75	1750.44.33	230

TEMPORARY CONCRETE BARRIER

STATION TO	STATION	LEN. FT.
EL. 1746.02.6	1750.00	1120

TEMPORARY CONCRETE BARRIER TERMINAL SECTION

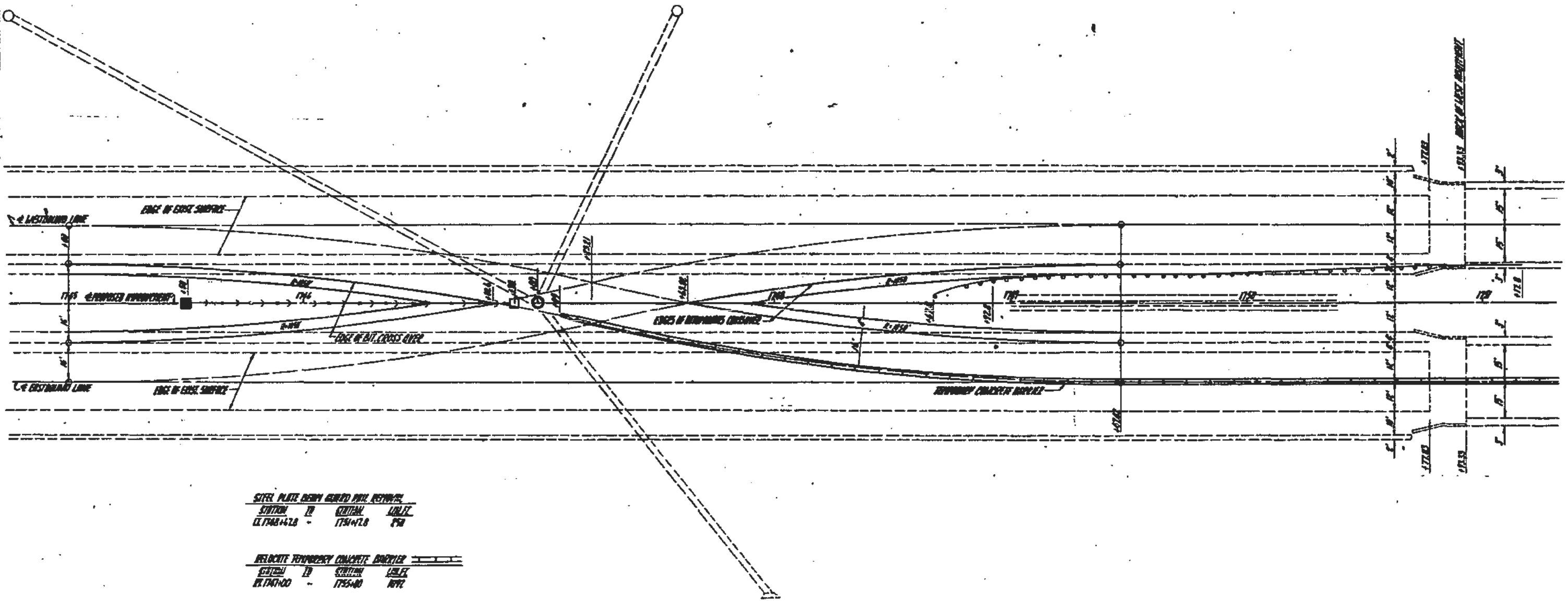
STATION TO	STATION	LEN. FT.
EL. 1745.02.6	1746.02.6	1

DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY		

STAGE III

Scale	Sheet No.	Project No.	Date	Drawn By
1" = 100'	165	1180-02	11/22/50	NYZ

* 92 (HRS, 1182, 1183-02, HRS-1-02)



STEEL PLATE DECK GIRDERS PER RESTRICTION

STATION	TO	STATION	LEVEL
EL. 1748+47.8	-	1754+71.8	PS

RELOCATE TEMPORARY CONCRETE DECK

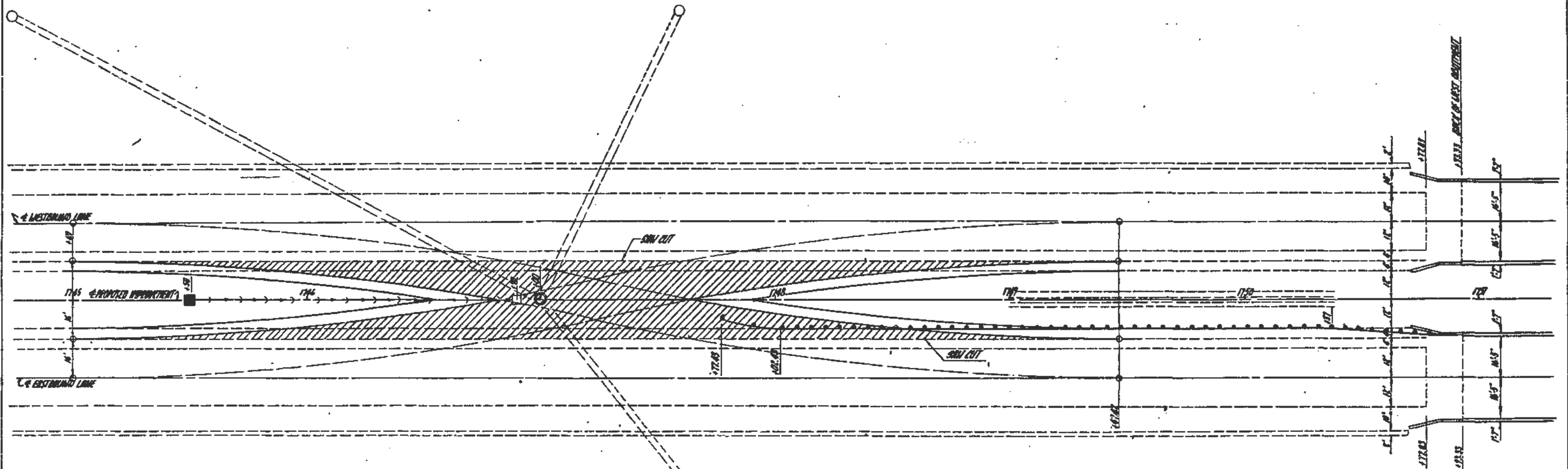
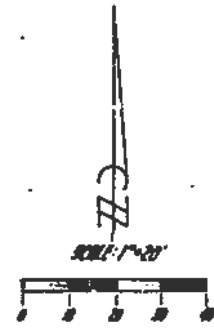
STATION	TO	STATION	LEVEL
EL. 1747+00	-	1753+00	NYZ

DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY		

STAGE IV

NO.	DATE	BY	REVISION
1	11/20/50	W.S.	AS SHOWN

* 92 (1105, 1106, 1107-08, 1109-1-02)



PAVEMENT REMOVAL		
STATION	TO	STATION
1745+00	-	1749+42.42

EARTH EXCAVATION		
STATION	TO	STATION
1745+00		1749+42.42

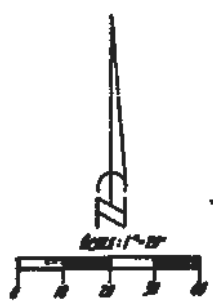
STEEL PLATE BEAM BARRIER, TYPE II		
STATION	TO	STATION
1748+00.15		1750+16.6

TRAFFIC BARRIER TERMINAL, TYPE I		
STATION	TO	STATION
1747+74.5		1750+02.41

TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)		
STATION	TO	STATION
1750+44.33		1750+91.44

DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY		

TANGENT OFFSETS FROM EDGE OF PAVEMENT	
STATION	OFFSET IN FT.
1760+00	4.0
1760+25	4.3
1760+50	5.2
1760+75	6.7
1761+00	8.8
1761+25	11.5
1761+50	16.8
1761+75	25.7
1762+00	38.0



NOTE: FOR CROSS SECTION DETAIL A-A, B-B, AND C-C, SEE SHEET NO. 27.

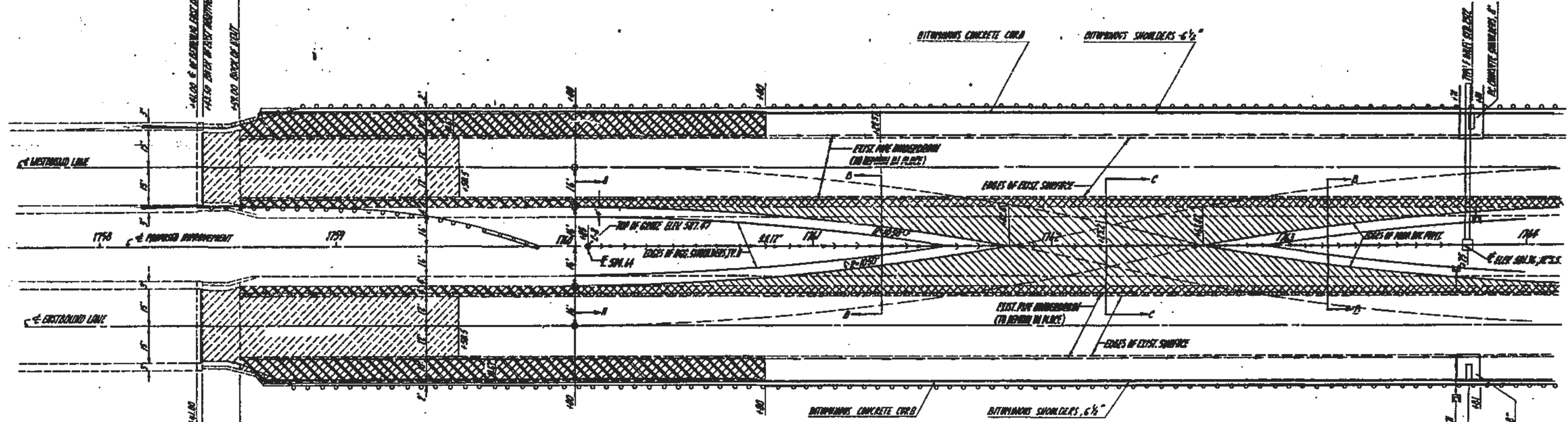
STAGE I

DATE	BY	REVISION	NO.
APR 74	K	VEETALANI	165

1192 (11 BR, 1193-02, 1193-1-02)

TANGENT OFFSETS FROM EDGE OF PAVEMENT	
STATION	OFFSET IN FT.
1761+25.02	20.8
1761+75	18.09
1763+00	14.26
1763+25	11.04
1763+50	8.44
1763+75	6.43
1764+00	5.03
1764+25	4.22
1764+66.02	4.00

NOTE: ADJUST THE PROPOSED 12" PIPE DOWN TO FIT THE EXISTING PIPE CHANNEL.



STABILIZED SHOULDER REMOVAL

STATION	TO	STATION	SQ. YD.
EL. 1759+59	-	1760+00	296
EL. 1759+59	-	1761+30	343
EL. 1759+59	-	1766+00	296

TOTAL: 935 SQ. YD.

**BITUMINOUS SHOULDER, 1 1/2\"/>

STATION	TO	STATION	SQ. YD.
EL. 1759+59	-	1760+00	262
EL. 1759+59	-	1761+00	63
EL. 1759+59	-	1760+00	43
EL. 1759+59	-	1760+00	262
EL. 1764+66.02	-	1766+00	82
EL. 1764+66.02	-	1766+00	82

TOTAL: 614 SQ. YD.**

CATCH BASIN, TYPE C, TYPE B GATE: 1

STATION	EQ.
1760+00	1

BITUMINOUS CONCRETE SURFACE REMOVAL

STATION	TO	STATION	SQ. YD.
EL. 1759+63.00	-	1759+50.5	296
EL. 1759+63.00	-	1759+50.5	296

TOTAL: 592 SQ. YD.

**BITUMINOUS CONCRETE PAVEMENT, FULL DEPTH, 1 1/2\"/>

STATION	TO	STATION	SQ. YD.
1760+00	-	1764+66.02	4,194

SUB-BASE GRANULAR MATERIAL, TYPE B

STATION	TO	STATION	TOTAL
1760+00	-	1764+66.02	285

**REGULATED SHOULDER, TYPE B, 6\"/>

STATION	TO	STATION	SQ. YD.
EL. 1760+00	-	1761+02.6	76
EL. 1760+00	-	1761+02.6	76
EL. 1762+63.02	-	1764+66.02	76
EL. 1762+63.02	-	1764+66.02	76

TOTAL: 304 SQ. YD.**

**STEEL SANDS, TYPE I, 12\"/>

STATION	TO	STATION	LINEAL FT.
1760+00	-	1763+75	369

**PIPE DRAINS, 6\"/>

STATION	LINEAL FT.
EL. 1763+70	4
EL. 1763+00	4

TOTAL: 8 LINEAL FT.**

REMOVE & RE-ERECT MANHOLE FOR PIPE DRAINS: 2

STATION	EQ.
EL. 1763+70	1
EL. 1763+70	1

TOTAL: 2 EQ.

**PIPE DRAINS, 12\"/>

STATION	LINEAL FT.
EL. 1763+76	106
EL. 1763+76	87

TOTAL: 206 LINEAL FT.**

TYPE F DILET BOX STANDARDIZED SPEC:

STATION	EQ.
EL. 1763+76	1
EL. 1763+76	1

TOTAL: 2 EQ.

**PORTLAND CEMENT CONCRETE SHOULDER, 8\"/>

STATION	TO	STATION	SQ. YD.
EL. 1763+71	-	1763+00	12
EL. 1763+71	-	1763+00	12

TOTAL: 24 SQ. YD.**

CONCRETE TANGENT BLOCKS:

STATION	EQ.
EL. 1763+76	1
EL. 1763+76	1

TOTAL: 2 EQ.

**PIEPL END SECTIONS, 12\"/>

STATION	EQ.
EL. 1763+76	1
EL. 1763+76	1

TOTAL: 2 EQ.**

EARTH EXCAVATION:

STATION	TO	STATION	CU. YD.
1760+00	-	1764+50	360

REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL:

STATION	TO	STATION	LINEAL FT.
EL. 1760+00	-	1766+00	600
EL. 1760+00	-	1764+00	380

TOTAL: 980 LINEAL FT.

BITUMINOUS CONCRETE CURB:

STATION	TO	STATION	SQ. YD.
EL. 1760+00	-	1763+71	571
EL. 1760+00	-	1763+71	891
EL. 1763+01	-	1764+00	79

TOTAL: 700 SQ. YD.

**BITUMINOUS SHOULDER, 6 1/2\"/>

STATION	TO	STATION	SQ. YD.
EL. 1760+00	-	1763+71	66
EL. 1760+00	-	1763+71	66
EL. 1763+01	-	1764+00	6
EL. 1763+01	-	1764+00	6

TOTAL: 150 SQ. YD.**

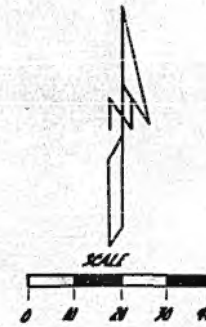
NOTE: SEE DETAIL OF 6 1/2\"/>

DESIGNED BY	MADE	DATE
CHECKED BY		
DRAFTED BY		

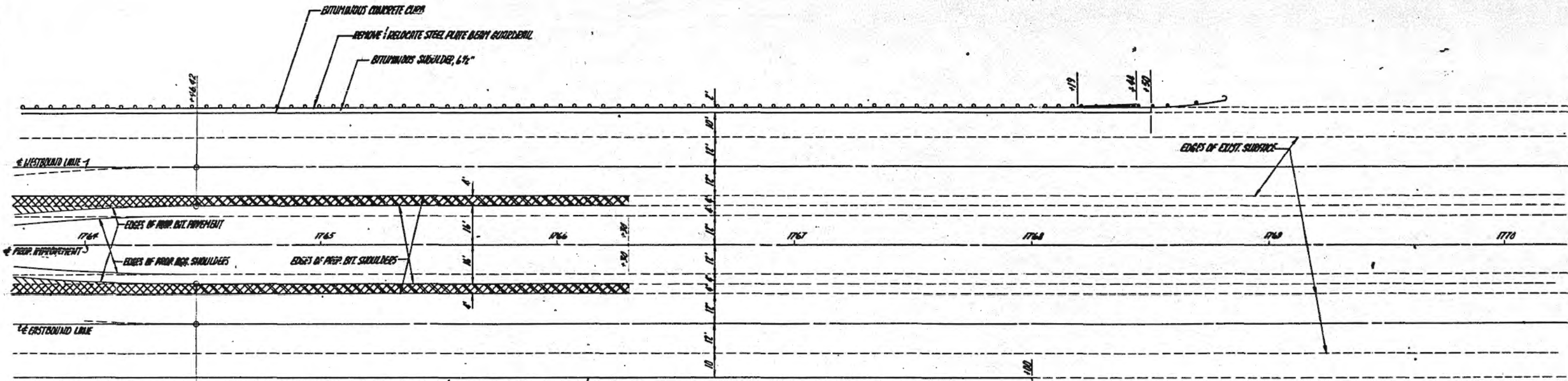
STAGE I

ROUTE NO.	SECTION	DATE	SCALE	NO.
92	#	NEPALAW	1/65	21

92 (11RS, 11BR, 11RS-DR, 11BS-F-DR)



NOTE: QUANTITIES TO CONSTRUCT THE CROSS SECTIONS ARE SHOWN ON STREET NO.



BITUMINOUS CONCRETE CURB
 REMOVE & RELOCATE STEEL PLATE BEAM GUARDRAIL
 BITUMINOUS SHOULDER, 6 1/2"

REMOVE & RE-ERECT STEEL PLATE BEAM GUARDRAIL			
STATION TO	STATION	LIQ. FT.	
LT 1764+00	1768+19	419	
RT 1764+00	1770+19	619	
			TOTAL = 1038 LIQ. FT.

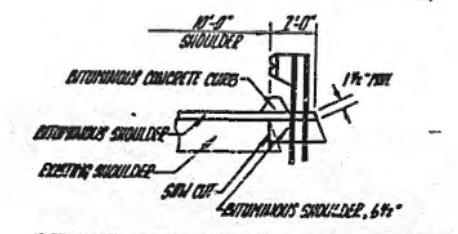
BITUMINOUS CONCRETE CURB			
STATION TO	STATION	LIQ. FT.	
LT 1764+00	1768+50	450	
RT 1764+00	1768+00	400	
			TOTAL = 850 LIQ. FT.

STEEL PLATE BEAM GUARDRAIL REMOVAL			
STATION TO	STATION	LIQ. FT.	
LT 1768+19	1768+44	25	
RT 1770+19	1770+44	25	
			TOTAL = 50 LIQ. FT.

BITUMINOUS SHOULDER, 6 1/2"			
STATION TO	STATION	LIQ. FT.	
54'SS LT 1764+00	1768+50	400	
54'SS RT 1764+00	1768+00	89	
			TOTAL = 489 SQ. YD.

TRAFFIC BARRIER TERMINAL, TYPE 1			
STATION TO	STATION	EACH	
LT 1768+56.5	1768+81.5	1	
RT 1770+19	1770+44	1	
			TOTAL = 2 EACH

STEEL PLATE BEAM GUARDRAIL, TYPE A			
STATION TO	STATION	LIQ. FT.	
LT 1768+19	1768+56.5	37.5	



DETAIL OF PROPOSED BITUMINOUS CONCRETE CURB

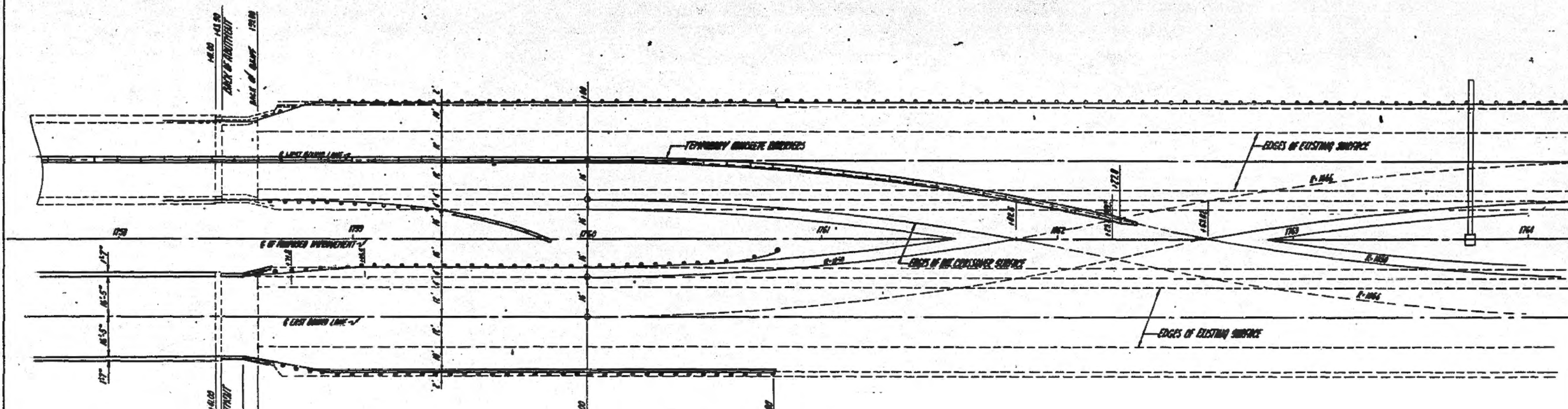
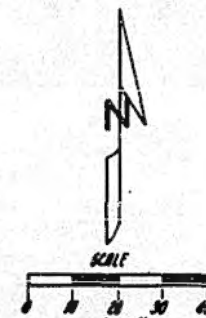
NOTE: BITUMINOUS CONCRETE CURB AND RE-ERECTED GUARDRAIL TO BE CONSTRUCTED IN ACCORDANCE WITH STANDARD 2322.

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE II

ROUTE NO.	DISTRICT	COUNTY	SHEET NO.	TOTAL SHEETS
17	1	WISCONSIN	165	28

17 (165-166, 167-168, 169-172)



TEMPORARY CONCRETE BARRIER			
STATION	TO	STATION	LINE FT.
CL 1758+00	-	1762+72.8	470

TRAFFIC BARRIER TERMINAL, TYPE 1			
STATION	TO	STATION	EACH
16' RT. 1760+59.3	-	1760+83.3	1

TEMPORARY CONCRETE BARRIER, TERMINAL SECTION			
STATION	TO	STATION	EACH
1762+72.8	-	1762+74.8	1

STEEL PLATE BEAM GUARDRAIL, TYPE A			
STATION	TO	STATION	LINE FT.
16' RT. 1758+71.8	-	1760+59.3	187.5

REMOVE AND RE-SET STEEL PLATE BEAM GUARDRAIL			
STATION	TO	STATION	LINE FT.
RT. 1758+57	-	1760+80	295

BITUMINOUS CONCRETE CURB			
STATION	TO	STATION	LINE FT.
RT. 1758+59	-	1760+80	221

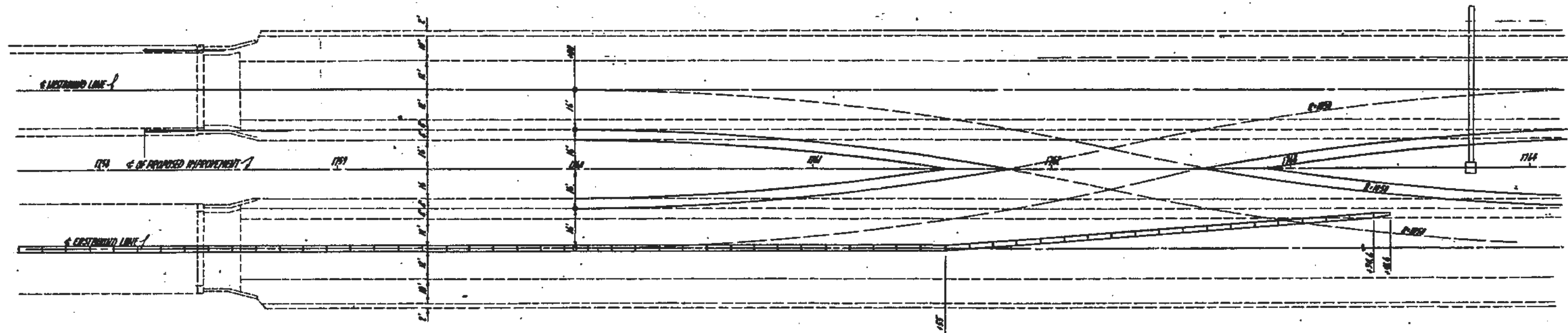
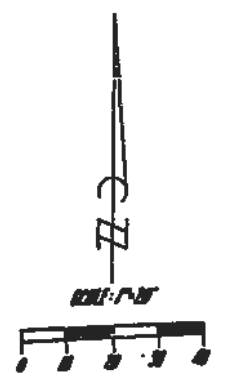
TRAFFIC BARRIER TERMINAL, TYPE 6 (SPECIAL)			
STATION	TO	STATION	EACH
48' RT. 1758+45.21	-	1758+71.82	1
16' RT. 1758+45.21	-	1758+71.82	1
TOTAL			2 EACH

DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY		

STAGE III

PROJECT NO.	SECTION	DATE	SCALE	DATE
1117	1	11/11/61	1/8" = 1'-0"	11/11/61

92 (1103, 1104, 1105-02, 1105-1-02)



RELOCATE TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	LINE FT.
1758+00	~	1765+44.6	542

TRAFFIC BARRIER TERMINAL, TYPE G (SPECIAL)

STATION	TO	STATION	LINE FT.
1758+45.31	~	1758+47.02	1

STEEL PLATE BEAM GUARDRAIL REMOVAL

STATION	TO	STATION	LINE FT.
1758+19	~	1759+05	168
1758+19	~	1759+00	21
TOTAL			347 LINE FT.

RELOCATE TEMPORARY CONCRETE CURB

STATION	TO	STATION	LINE FT.
1758+53	~	1760+00	161

REMOVE / RE-ERECT STEEL PLATE BEAM GUARDRAIL

STATION	TO	STATION	LINE FT.
1759+00	~	1760+00	100

STEEL PLATE BEAM GUARDRAIL, TYPE A

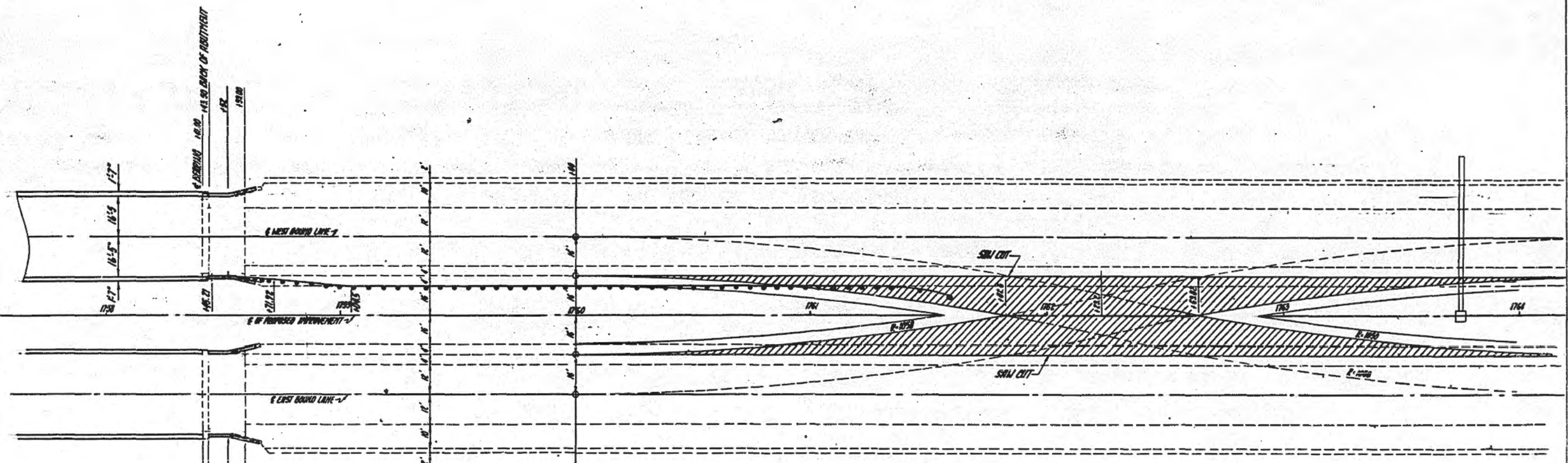
STATION	TO	STATION	LINE FT.
1758+11.82	~	1759+00	28

DESIGNED BY	NAME	DATE
CHECKED BY		
DRAFTED BY		

STAGE IV

ROUTE NO.	SECTION	CONTRACT	SHEET NO.	TOTAL SHEETS
165	*	NEPTUNION	165	3

* 92 (1183, 1182, 1183-22, 1183-1-22)



PAVEMENT REMOVAL

STATION TO	STATION	CU YD.
1760+00	1764+00.42	756

EARTH EXCAVATION

STATION TO	STATION	CU YD.
1760+00	1764+06.62	27

STEEL PLATE BEAM GUARDRAIL, TYPE B

STATION TO	STATION	LIN. FT.
1758+71.92	1761+34.42	262.5

TRAFFIC BARRIER TERMINAL, TYPE 1

STATION TO	STATION	EACH
1761+34.42	1761+58.42	1

TRAFFIC BARRIER TERMINAL, TYPE 6

STATION TO	STATION	EACH
1758+45.21	1758+71.92	1

STEEL PLATE BEAM GUARDRAIL REMOVAL

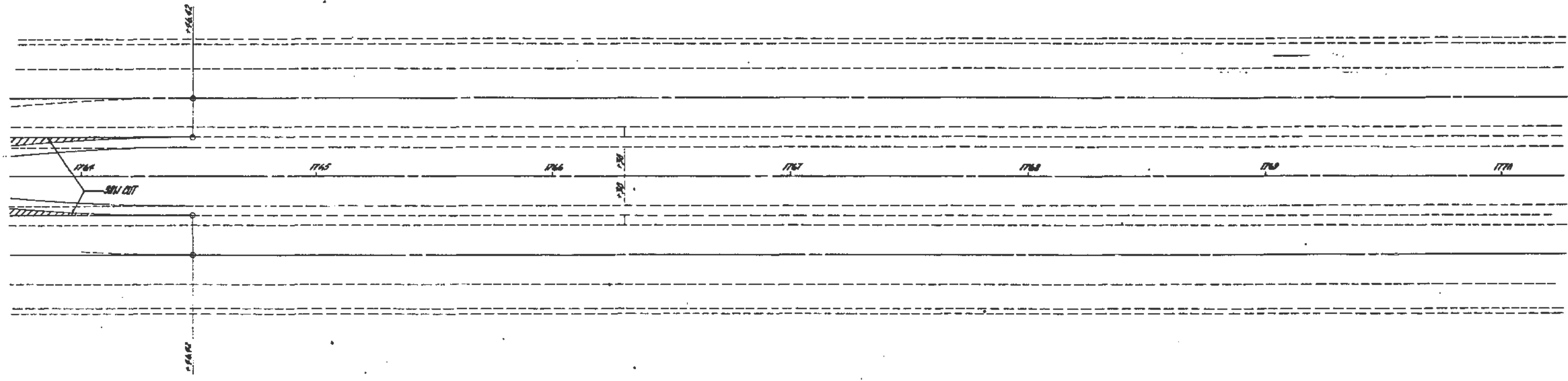
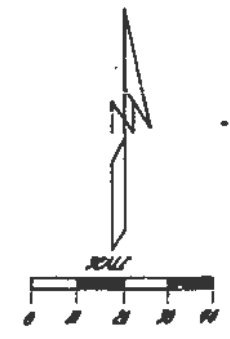
STATION TO	STATION	LIN. FT.
16' RT. 1758+45.21	1760+03.3	215

	NAME	DATE
DESIGNED BY		
CHECKED BY		
DRAFTED BY		

STAGE IV

NO.	DATE	REVISION	BY	APP.
1				

* 92 (HRS, 11BR, 11PD-GR, 11PD-LBR)

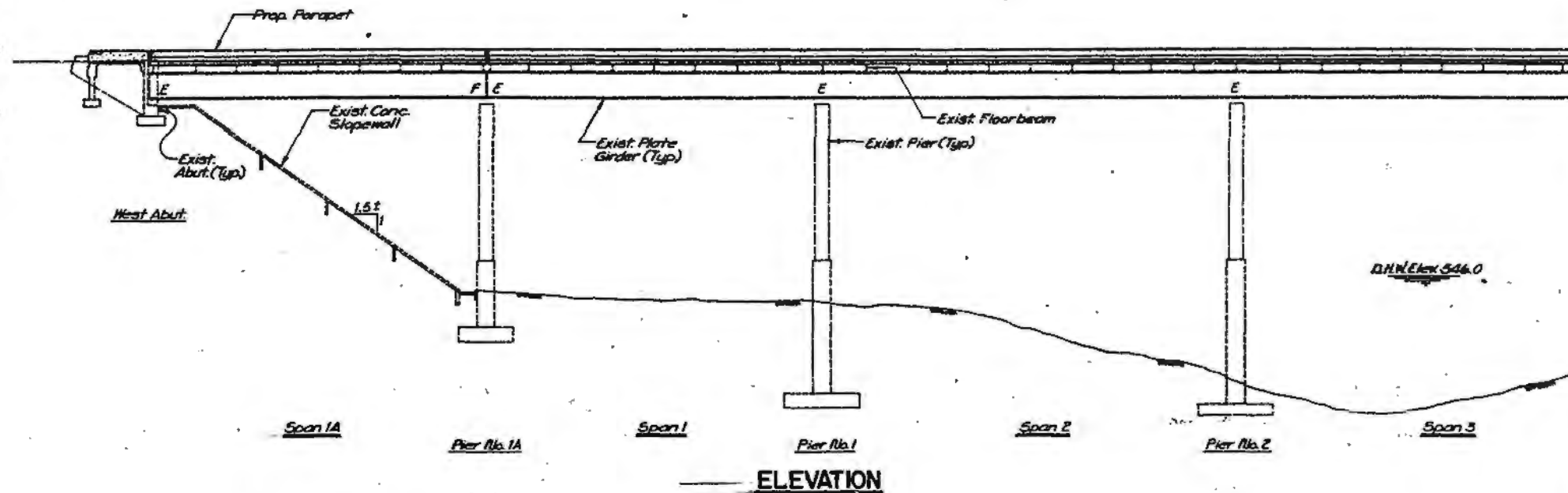


(NAME) DATE
DESIGNED BY
CHECKED BY
DRAWN BY

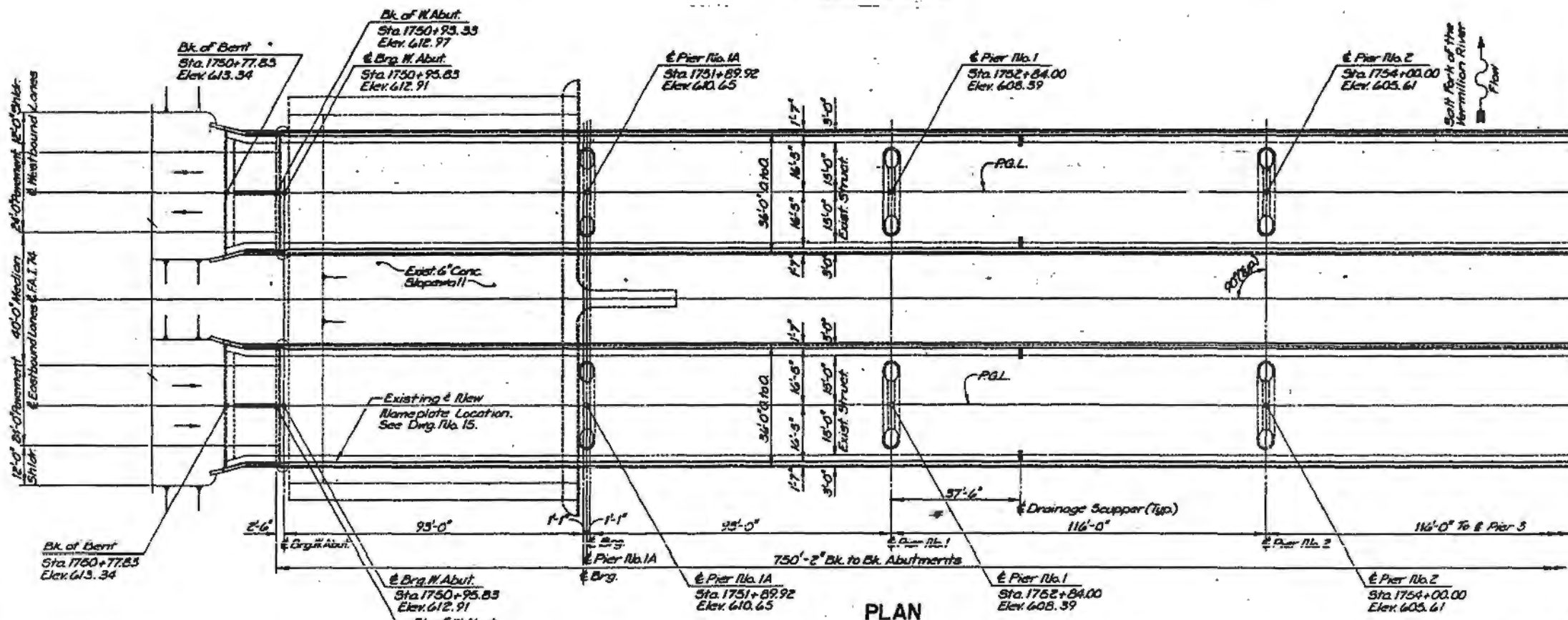
BRIDGE MARK: PERMANENT SURVEY MARKER, TYPE II
STATION 1742 + 40, TOP OF BRASS PLUG, ELEV. 625.41

EXISTING STRUCTURE:
STRUCTURE NOS. 092-0006 & 092-0007 WERE BUILT IN 1964 AS FAI 74, SECTION 92-11B, 11F. REPAIRS PERFORMED IN 1977 INCLUDED DECK PATCHING, EXPANSION DEVICE RECONSTRUCTION, INSTALLATION OF WATERPROOFING MEMBRANE SYSTEM AND BITUMINOUS OVERLAY. EACH STRUCTURE CONSISTS OF ONE SIMPLE 93' SPAN AND SIX CONTINUOUS SPANS (93', 4 @ 116', 93') OF TWO STEEL PLATE GIRDERS WITH STEEL FLOORBEAMS AND REINFORCED CONCRETE DECK SUPERSTRUCTURE WITH DOUBLE COLUMN PIERS AND VAULTED ABUTMENTS. OVERALL LENGTH IS 750'-2" AND CLEAR ROADWAY WIDTH IS 30'-0". TRAFFIC TO BE MAINTAINED BY BUILDING CROSS-OVER'S & WORKING ON ONE STRUCTURE AT A TIME. HANDRAIL TO BE SALVAGED. BRIDGE CONTRACTOR TO STOCKPILE ON SITE NOW FOR REMOVAL BY DISTRICT MAINTENANCE FORCES. SALVAGE NAME PLATE AND INCORPORATE INTO NEW CONSTRUCTION.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11B	Normanton	165	62
TO STA.				
FED. ROAD DIST. NO.				
ILLINOIS PROJECT				
Dwg. No. 1 of 28				



ELEVATION



PLAN

GENERAL NOTES

- FASTENERS SHALL BE HIGH STRENGTH BOLTS 3/4" Ø, OPEN HOLES 13/16" Ø, UNLESS OTHERWISE NOTED.
- CALCULATED WEIGHT OF STRUCTURAL STEEL = 125,000 LBS.
- THE FIRST TWO COATS OF THE LEAD AND CHROMATE FREE ALKYD PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF NEW STRUCTURAL STEEL.
Prior to pouring the new concrete for the deck, all loose rust, loose mill scale, and all other foreign material shall be removed from the embedded portions of flanges of stringers. The removal shall be accomplished in accordance with the requirements of the SSPC Surface Preparation Specifications SP-11 for Power tool cleaning or SP-2 for Hand tool cleaning. Cast shall be incidental to concrete removal.
- ALL CONTACT SURFACES OF NEW AND EXISTING STRUCTURAL STEEL SHALL BE FREE OF PAINT OR LACQUER.
- FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF FLOORBEAMS OR GIRDERS AT ANY LOCATION, NOR TO THE TOP FLANGE FOR A DISTANCE EQUAL TO ONE-FOURTH THE SPAN LENGTH EACH WAY FROM SUPPORTS, NOR TO THE TOP FLANGE OF EACH BEAM CANTILEVERS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
- NEW ANCHOR BOLTS SHALL BE INSTALLED PRIOR TO REPAIRING CROSS FRAMES OVER SUPPORTS.
- REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M-31, M-42 OR M-53 GRADE 60.
- LAYOUT OF SLOPE PROTECTION SYSTEM MAY BE VARIED IN THE FIELD TO SUIT GROUND CONDITIONS AS DIRECTED BY THE ENGINEER.
- PLAN DIMENSIONS AND DETAILS RELATIVE TO EXISTING STRUCTURE HAVE BEEN TAKEN FROM EXISTING PLANS AND ARE SUBJECT TO NOMINAL CONSTRUCTION VARIATIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SUCH DIMENSIONS AND DETAILS IN THE FIELD AND MAKE NECESSARY APPROVED ADJUSTMENTS PRIOR TO CONSTRUCTION OR ORDERING OF MATERIALS. SUCH VARIATIONS SHALL NOT BE CAUSE FOR ADDITIONAL COMPENSATION FOR A CHANGE IN THE SCOPE OF THE WORK; HOWEVER, THE CONTRACTOR WILL BE PAID FOR THE QUANTITY ACTUALLY FURNISHED AT THE UNIT PRICE BID FOR THE WORK.
- THE CONTRACTOR WILL BE REQUIRED TO MARK ON TOP OF THE CONCRETE DECK THE LOCATIONS OF THE TOP FLANGE OF ALL STEEL FLOORBEAMS, PRIOR TO ANY REMOVAL OF THE BRIDGE DECK. SAW CUTTING DIRECTLY OVER THE TOP OF FLOORBEAM FLANGES IS NOT PERMITTED.
- THE BEARING SEATS AT THE ABUTMENTS AND AT PIERS 1A SHALL HAVE BRIDGE SEAT SEALER APPLIED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.
- STRUCTURAL STEEL SHALL ONLY BE CLEANED AND PAINTED AS REQUIRED BY THE SPECIAL PROVISIONS (CLEANING AND PAINTING NEW STEEL AND ADJACENT AREAS OF EXISTING STRUCTURES).

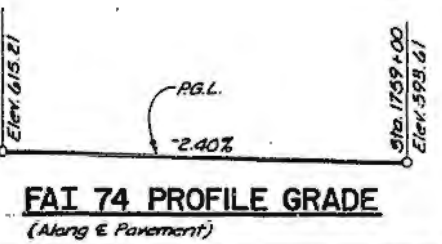
APPROVED
FOR STRUCTURAL ADEQUACY ONLY

James K. Noland
Licensed Structural Engineer



LEGEND
F = Fixed Org
E = Exp. Org
P.G.L. = Profile Grade Line

ESCA CONSULTANTS, INC.	
DESIGNED BY: RDP	6-90
DRAWN BY: NEM	6-90
CHECKED BY: JRF	6-90
APPROVED BY: RDP	6-90

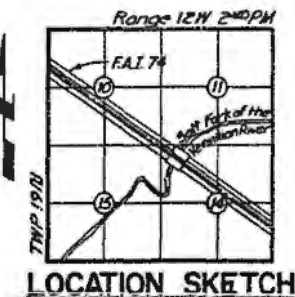


FAI 74 PROFILE GRADE
(Along E Pavement)

DESIGN SPECIFICATIONS
AASHTO 1989 and applicable interims (1990) and Seismic Retrofitting Guidelines for Highway Bridges.
LOADING
HS 20-44 & ALTERNATE MILITARY
WITH ALLOWANCE FOR 25 psf. FMS.
DESIGN STRESSES (EXISTING ELEMENTS TO BE REUSED)
f_t = 3,500 psi (CONCRETE)
f_c = 20,000 psi (REINFORCING BARS)
f_y = 40,000 psi (REINFORCING BARS)
f_t = 35,000 psi (STRUCTURAL STEEL)
f_y = 20,000 psi (STRUCTURAL STEEL)

DESIGN STRESSES (NEW CONSTRUCTION)
f_t = 3,500 psi
f_c = 60,000 psi (REINFORCING BARS)
f_y = 36,000 psi (STRUCTURAL STEEL)

WATERWAY INFORMATION
DRAINAGE AREA: 970 SQ. MI.
WATERWAY REQUIRED: 5650 SQ. FT.
WATERWAY PROVIDED (BELOW D.H.N.): 5380 SQ. FT.
D.H.N.: 546.0
NOTE: BRIDGE GRADE NOT CONTROLLED BY HIGHWAY



LOCATION SKETCH

GENERAL PLAN
& ELEVATION
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	RE-CON	Vermilion	165	63
TO STA.				
FED. ROAD DIST. NO.				
ILL. SHOW PROJECT				
Draw No. 2 of 25				

STATION 1755+16.00
RE-BUILT 199... BY
STATE OF ILLINOIS
FAI RTE. 74 SECTION 92-11BR
LOADING HS20 & ALT.
STR. NO. 092-0007

WESTBOUND
STATION 1755+16.00
RE-BUILT 199... BY
STATE OF ILLINOIS
FAI RTE. 74 SECTION 92-11BR
LOADING HS20 & ALT.
STR. NO. 092-0006

EASTBOUND
**NEW NAME PLATES
(1 EA. REQ'D)
(SEE STD. 2113)**

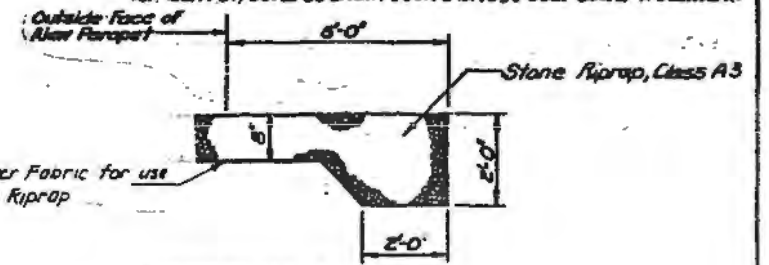
TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPPLY	CONTRACT	TOTAL
Protective Coat	Sq. Yd.	1221	-	1221
Concrete Removal	Cu. Yd.	-	52	52
Class X Concrete Superstructure	Cu. Yd.	1892.4	-	1892.4
Class X Concrete	Cu. Yd.	-	26.2	26.2
Filter Fabric for use with Riprap	Sq. Yd.	-	452	452
Stone Riprap, Class A3	Sq. Yd.	-	452	452
Reinforcement Bars, Epoxy Coated	Lbs.	551,255	922	552,177
Removal of Exist. Conc. Deck No. 1	L. Sum	1	-	1
Removal of Exist. Conc. Deck No. 2	L. Sum	1	-	1
Floating Bearings, Guided Exp. 650K	Each	16	-	16
Floating Bearings, Guided Exp. 300K	Each	12	-	12
Floating Bearings, Fixed 650K	Each	4	-	4
Floating Bearings, Fixed 300K	Each	4	-	4
Mod. Portland Cement Mortar Repair	Sq. Ft.	-	482	482
Neoprene Expansion Joint, 4"	Lin. Ft.	142	-	142
Preformed Joint Seal, 4"	Lin. Ft.	72	-	72
Tighten Hanger Rod Assemblies	Each	52	-	52
Bolt Removal & Replacement (3/8")	Each	50	-	50
Bolt Removal & Replacement (1/2")	Each	45	-	45
Weld Removal	Lin. Ft.	100	-	100
Drainage Scuppers	Each	16	-	16
Name Plates	Each	2	-	2
Bridge Seat Sealer	L. Sum	-	02	02
Structural Steel Removal	Lbs.	71,370	-	71,370
Epoxy Mortar Repair	Sq. Ft.	-	12	12
Epoxy Crack Sealing	Lin. Ft.	-	48	48
FURN. & ERECT. STRUCT. STEEL	Lbs.	121,560	-	121,560
Bridge Deck Grooving	Sq. Yd.	5455	-	5455
JACK EXIST. STRUCTURE NO. 1	L. SUM	1	-	1
JACK EXIST. STRUCTURE NO. 2	L. SUM	1	-	1

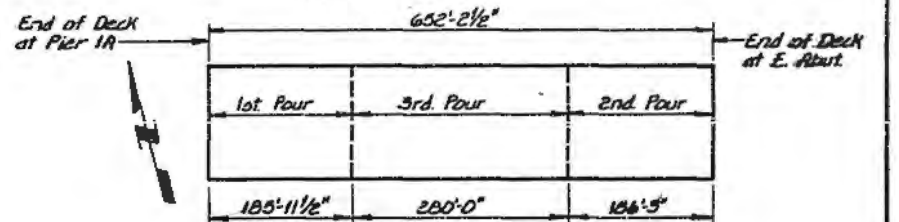
** Quantity includes top and inside faces of parapets only.

** CALCULATED AREA OF BRIDGE SEAT SEALER - 292.58 SQ. FT.

* All top surfaces of the Abutment seats and Pier 1 seats for both structures shall receive Bridge Seat Sealer treatment.



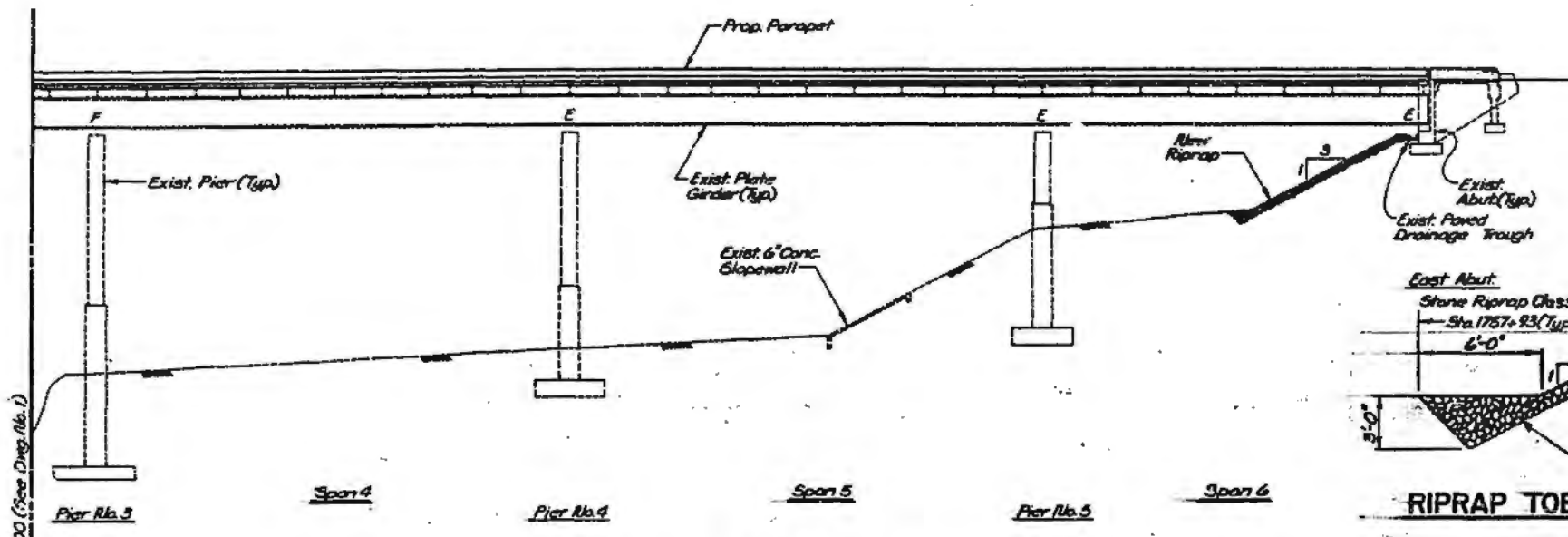
SECTION A-A
(Typ. @ Locations)



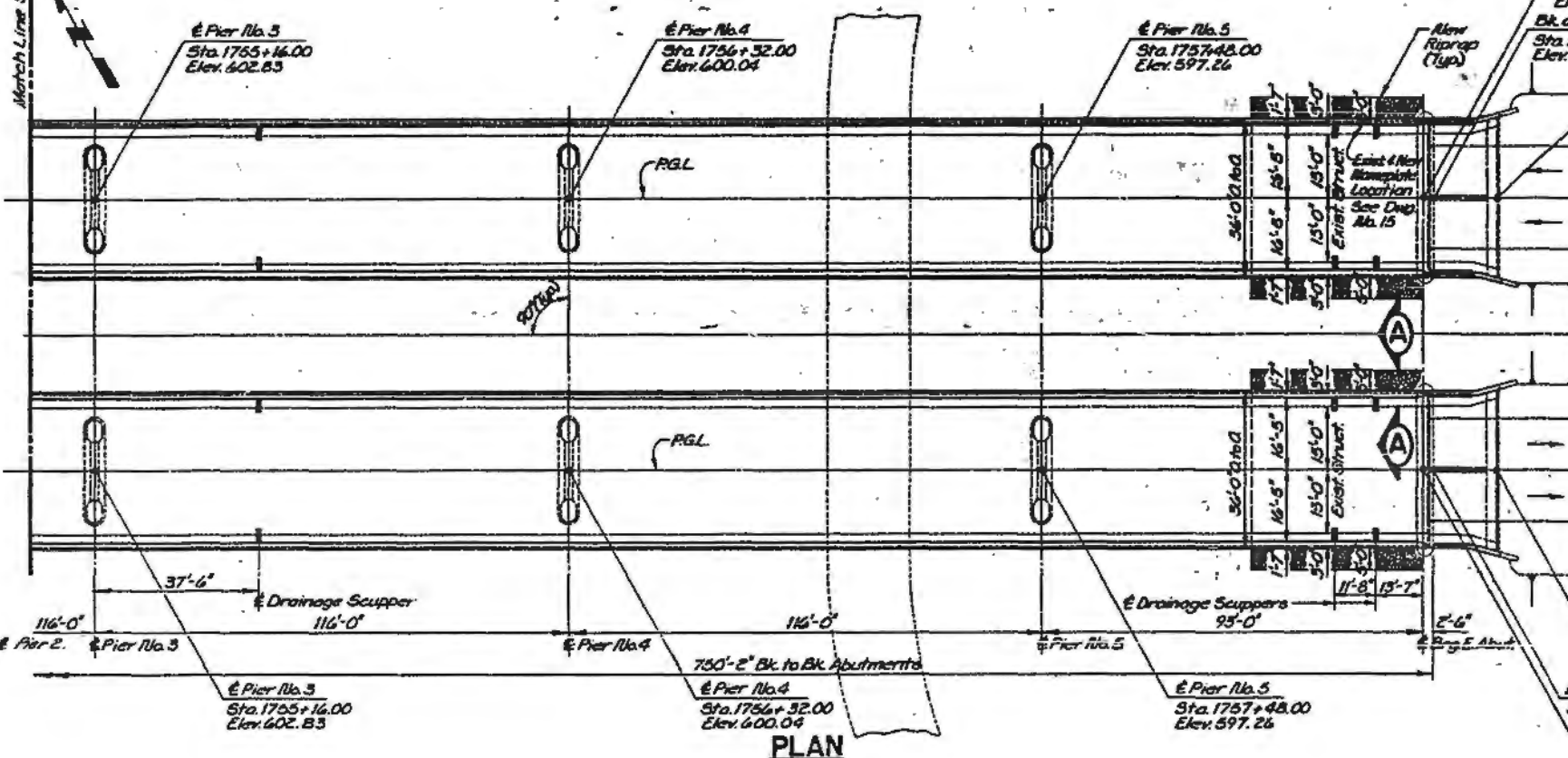
POURING SEQUENCE
(Typ. Ea. Structure)

**GENERAL PLAN
& ELEVATION (CONT.)**
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

- WHEN THE DECK POUR IS STOPPED FOR THE DAY AT ONE OR MORE OF THE TRANSVERSE BONDED CONSTRUCTION JOINTS IN THE DECK POURING SEQUENCE AS SHOWN, THE NEXT POUR SHALL NOT BE MADE UNTIL BOTH OF THE FOLLOWING REQUIREMENTS ARE MET:
1. AT LEAST 72 HOURS SHALL HAVE ELAPSED FROM THE END OF THE PREVIOUS POUR.
 2. THE CONCRETE STRENGTH SHALL HAVE ATTAINED A MINIMUM MODULUS OF RUPTURE OF 650 P.S.I. OR A MINIMUM COMPRESSIVE STRENGTH OF 3500 P.S.I.



ELEVATION

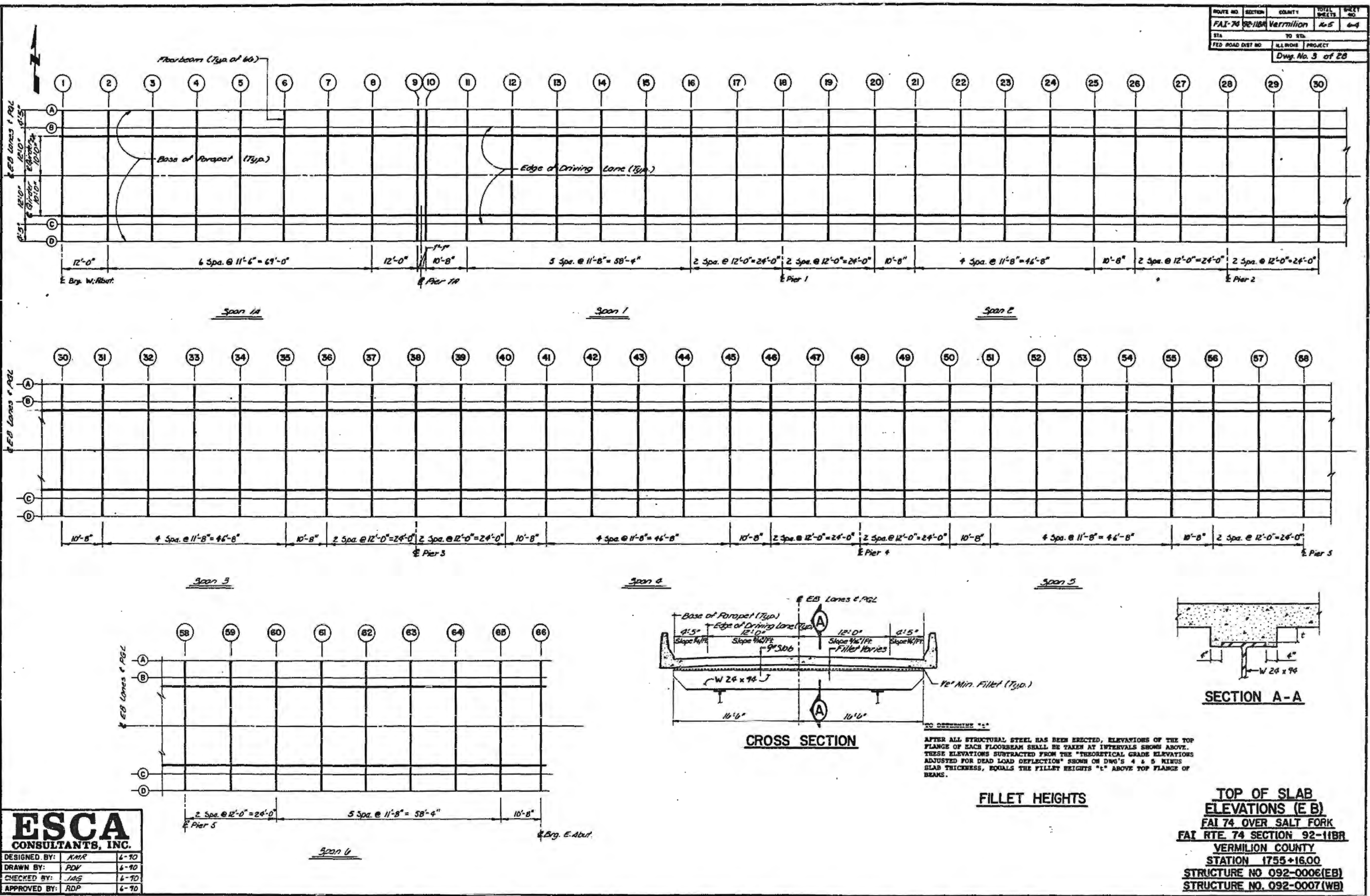


PLAN

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	MEH	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	45	44
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT			
		Dwg. No. 3 of 28		



ESCA
 CONSULTANTS, INC.

DESIGNED BY:	KMR	6-70
DRAWN BY:	PDY	6-70
CHECKED BY:	JAG	6-70
APPROVED BY:	RDP	6-70

FILLETS

DECK GRADES REVISED

+ .02 ON 4/29/93

ROUTE FAI-74

SECTION 92-11B EAST BOUND

COUNTY VERMILION

JOB NO. C-95-067-90

DECK THICKNESS FT. - 0.75

STATION	LOCATION	BEAM		LINE		A	
		ELEV DCK	ELEV STL	SHOT	FILLET		
175095.83	1	613.014	612.264	612.24	0.024		
175107.83	2	612.752	612.002	611.95	0.052		
175119.33	3	612.492	611.742	611.71	0.032		
175130.83	4	612.226	611.476	611.45	0.026		
175142.33	5	611.952	611.202	611.19	0.012		
175153.83	6	611.668	610.918	610.90	0.018		
175165.33	7	611.377	610.627	610.65	-0.023		
175176.83	8	611.079	610.329	610.32	0.009		
175188.83	9	610.76	610.01	610.01	0		
175191	10	610.707	609.957	609.93	0.027		
175201.67	11	610.467	609.717	609.67	0.047		
175213.33	12	610.196	609.446	609.33	0.116		
175225	13	609.92	609.17	609.03	0.14		
175236.67	14	609.636	608.886	608.73	0.156		
175248.33	15	609.346	608.596	608.44	0.156		
175260	16	609.053	608.303	608.15	0.153		
175272	17	608.752	608.002	607.88	0.122		
175284	18	608.456	607.706	607.65	0.056		
175296	19	608.17	607.42	607.30	0.12		
175308	20	607.889	607.139	606.94	0.199		
175318.67	21	607.642	606.892	606.69	0.202		
175330.33	22	607.366	606.616	606.41	0.206		
175342	23	607.087	606.337	606.12	0.217		
175353.67	24	606.801	606.051	605.82	0.231		
175365.33	25	606.509	605.759	605.51	0.249		
175376	26	606.241	605.491	605.26	0.231		
175388	27	605.94	605.19	605.06	0.13		
175400	28	605.644	604.894	604.85	0.044		
175412	29	605.358	604.608	604.50	0.108		
175424	30	605.077	604.327	604.19	0.137		
175434.67	31	604.829	604.079	603.94	0.139		
175446.33	32	604.554	603.804	603.65	0.154		
175458	33	604.275	603.525	603.34	0.185		
175469.67	34	603.989	603.239	603.06	0.179		
175481.33	35	603.696	602.946	602.79	0.156		
175492	36	603.429	602.679	602.52	0.159		
175504	37	603.128	602.378	602.28	0.098		

175516	38	602.832	602.082	602.05	0.032
175528	39	602.546	601.796	601.70	0.096
175540	40	602.265	601.515	601.33	0.185
175550.67	41	602.016	601.266	601.05	0.216
175562.33	42	601.742	600.992	600.77	0.222
175574	43	601.463	600.713	600.47	0.243
175585.67	44	601.177	600.427	600.17	0.257
175597.33	45	600.884	600.134	599.87	0.264
175608	46	600.617	599.867	599.63	0.237
175620	47	600.316	599.566	599.41	0.156
175632	48	600.02	599.27	599.20	0.07
175644	49	599.734	598.984	598.83	0.154
175656	50	599.453	598.703	598.54	0.163
175666.67	51	599.205	598.455	598.23	0.225
175678.33	52	598.93	598.18	597.93	0.25
175690	53	598.651	597.901	597.65	0.251
175701.67	54	598.365	597.615	597.35	0.265
175713.33	55	598.073	597.323	597.08	0.243
175724	56	597.804	597.054	596.82	0.234
175736	57	597.504	596.754	596.56	0.194
175748	58	597.208	596.458	596.34	0.118
175760	59	596.922	596.172	595.99	0.182
175772	60	596.641	595.891	595.65	0.241
175783.67	61	596.369	595.619	595.36	0.259
175795.33	62	596.092	595.342	595.09	0.252
175807	63	595.811	595.061	594.83	0.231
175818.67	64	595.523	594.773	594.59	0.183
175830.33	65	595.226	594.476	594.36	0.116
175841	66	594.95	594.2	594.13	0.07

FILLETS

DECK GRADES REVISED +.02 ON 4/29/93
 ROUTE FAI-74
 SECTION 92-11B EAST BOUND
 COUNTY VERMILION
 JOB NO. C-95-067-90

DECK THICKNESS FT. - 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	B SHOT	FILLET
175095.83	1	613.104	612.354	612.22	0.134
175107.83	2	612.84	612.09	611.94	0.15
175119.33	3	612.58	611.83	611.70	0.13
175130.83	4	612.314	611.564	611.45	0.114
175142.33	5	612.04	611.29	611.18	0.11
175153.83	6	611.756	611.006	610.92	0.086
175165.33	7	611.465	610.715	610.65	0.065
175176.83	8	611.167	610.417	610.33	0.087
175188.83	9	610.85	610.1	610.01	0.09
175191	10	610.797	610.047	609.93	0.117
175201.67	11	610.555	609.805	609.65	0.155
175213.33	12	610.284	609.534	609.33	0.204
175225	13	610.007	609.257	609.02	0.237
175236.67	14	609.724	608.974	608.72	0.254
175248.33	15	609.434	608.684	608.43	0.254
175260	16	609.14	608.39	608.14	0.25
175272	17	608.839	608.089	607.89	0.199
175284	18	608.544	607.794	607.65	0.144
175296	19	608.257	607.507	607.30	0.207
175308	20	607.976	607.226	606.95	0.276
175318.67	21	607.73	606.98	606.69	0.29
175330.33	22	607.454	606.704	606.40	0.304
175342	23	607.174	606.424	606.12	0.304
175353.67	24	606.889	606.139	605.82	0.319
175365.33	25	606.597	605.847	605.52	0.327
175376	26	606.328	605.578	605.27	0.308
175388	27	606.027	605.277	605.07	0.207
175400	28	605.732	604.982	604.84	0.142
175412	29	605.445	604.695	604.50	0.195
175424	30	605.164	604.414	604.18	0.234
175434.67	31	604.917	604.167	603.92	0.247
175446.33	32	604.642	603.892	603.64	0.252
175458	33	604.362	603.612	603.33	0.282
175469.67	34	604.077	603.327	603.06	0.267
175481.33	35	603.784	603.034	602.77	0.264
175492	36	603.516	602.766	602.51	0.256
175504	37	603.215	602.465	602.27	0.195

175516	38	602.92	602.17	602.03	0.14
175528	39	602.633	601.883	601.68	0.203
175540	40	602.352	601.602	601.33	0.272
175550.67	41	602.104	601.354	601.04	0.314
175562.33	42	601.83	601.08	600.76	0.32
175574	43	601.55	600.8	600.47	0.33
175585.67	44	601.265	600.515	600.17	0.345
175597.33	45	600.972	600.222	599.87	0.352
175608	46	600.704	599.954	599.63	0.324
175620	47	600.403	599.653	599.41	0.243
175632	48	600.108	599.358	599.19	0.168
175644	49	599.821	599.071	598.84	0.231
175656	50	599.54	598.79	598.55	0.24
175666.67	51	599.293	598.543	598.22	0.323
175678.33	52	599.018	598.268	597.93	0.338
175690	53	598.738	597.988	597.65	0.338
175701.67	54	598.453	597.703	597.36	0.343
175713.33	55	598.161	597.411	597.09	0.321
175724	56	597.891	597.141	596.82	0.321
175736	57	597.591	596.841	596.58	0.261
175748	58	597.296	596.546	596.35	0.196
175760	59	597.009	596.259	595.99	0.269
175772	60	596.728	595.978	595.65	0.328
175783.67	61	596.457	595.707	595.37	0.337
175795.33	62	596.18	595.43	595.10	0.33
175807	63	595.898	595.148	594.84	0.308
175818.67	64	595.611	594.861	594.60	0.261
175830.33	65	595.314	594.564	594.37	0.194
175841	66	595.04	594.29	594.13	0.16

FILLETS

DECK GRADES REVISED +0.2 ON 4/29/93
 ROUTE FAI-74
 SECTION 92-11B EAST BOUND
 COUNTY VERMILION
 JOB NO. C-95-067-90

DECK THICKNESS FT. - 0.75

PROPOSED GRADE LINE P G L

STATION	LOCATION	ELEV DCK	BOT DECK	SHOT	FILLET
175095.83	1	613.291	612.541	612.20	0.341
175107.83	2	613.023	612.273	611.93	0.343
175119.33	3	612.763	612.013	611.68	0.333
175130.83	4	612.498	611.748	611.43	0.318
175142.33	5	612.223	611.473	611.16	0.313
175153.83	6	611.94	611.19	610.92	0.27
175165.33	7	611.648	610.898	610.65	0.248
175176.83	8	611.35	610.6	610.33	0.27
175188.83	9	611.037	610.287	610.03	0.257
175191	10	610.984	610.234	609.92	0.314
175201.67	11	610.738	609.988	609.63	0.358
175213.33	12	610.467	609.717	609.33	0.387
175225	13	610.191	609.441	609.02	0.421
175236.67	14	609.907	609.157	608.73	0.427
175248.33	15	609.618	608.868	608.42	0.448
175260	16	609.324	608.574	608.14	0.434
175272	17	609.022	608.272	607.90	0.372
175284	18	608.731	607.981	607.66	0.321
175296	19	608.44	607.69	607.30	0.39
175308	20	608.16	607.41	606.96	0.45
175318.67	21	607.912	607.162	606.69	0.472
175330.33	22	607.638	606.888	606.41	0.478
175342	23	607.358	606.608	606.13	0.478
175353.67	24	607.072	606.322	605.83	0.492
175365.33	25	606.78	606.03	605.55	0.48
175376	26	606.512	605.762	605.30	0.462
175388	27	606.21	605.46	605.07	0.39
175400	28	605.919	605.169	604.83	0.339
175412	29	605.628	604.878	604.49	0.388
175424	30	605.347	604.597	604.15	0.447
175434.67	31	605.1	604.35	603.89	0.46
175446.33	32	604.825	604.075	603.59	0.485
175458	33	604.545	603.795	603.30	0.495
175469.67	34	604.259	603.509	603.02	0.489
175481.33	35	603.968	603.218	602.72	0.498
175492	36	603.7	602.95	602.47	0.48
175504	37	603.398	602.648	602.23	0.418

175516	38	603.107	602.357	602.00	0.357
175528	39	602.816	602.066	601.63	0.436
175540	40	602.536	601.786	601.21	0.476
175550.67	41	602.287	601.537	601.02	0.517
175562.33	42	602.013	601.263	600.75	0.513
175574	43	601.733	600.983	600.45	0.533
175585.67	44	601.447	600.697	600.17	0.527
175597.33	45	601.156	600.406	599.86	0.546
175608	46	600.887	600.137	599.61	0.527
175620	47	600.586	599.836	599.39	0.446
175632	48	600.295	599.545	599.18	0.365
175644	49	600.004	599.254	598.83	0.424
175656	50	599.724	598.974	598.56	0.414
175666.67	51	599.475	598.725	598.23	0.495
175678.33	52	599.202	598.452	597.94	0.512
175690	53	598.922	598.172	597.65	0.522
175701.67	54	598.636	597.886	597.37	0.516
175713.33	55	598.344	597.594	597.10	0.494
175724	56	598.075	597.325	596.84	0.485
175736	57	597.774	597.024	596.60	0.424
175748	58	597.483	596.733	596.36	0.373
175760	59	597.192	596.442	596.01	0.432
175772	60	596.912	596.162	595.67	0.492
175783.67	61	596.639	595.889	595.38	0.509
175795.33	62	596.364	595.614	595.12	0.494
175807	63	596.082	595.332	594.86	0.472
175818.67	64	595.793	595.043	594.61	0.433
175830.33	65	595.498	594.748	594.37	0.378
175841	66	595.227	594.477	594.14	0.337

FILLETS

DECK GRADES REVISED +0.2 ON 4/29/3
 ROUTE FAI-74
 SECTION 92-11B EAST BOUND
 COUNTY VERMILION
 JOB NO. C-95-067-90

DECK THICKNESS FT. - 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	C SHOT	FILLET
175095.83	1	613.104	612.354	612.18	0.174
175107.83	2	612.84	612.09	611.91	0.18
175119.33	3	612.58	611.83	611.67	0.16
175130.83	4	612.314	611.564	611.42	0.144
175142.33	5	612.04	611.29	611.16	0.13
175153.83	6	611.756	611.006	610.91	0.096
175165.33	7	611.465	610.715	610.65	0.065
175176.83	8	611.167	610.417	610.33	0.087
175188.83	9	610.85	610.1	610.02	0.08
175191	10	610.797	610.047	609.9	0.147
175201.67	11	610.555	609.805	609.63	0.175
175213.33	12	610.284	609.534	609.33	0.204
175225	13	610.007	609.257	609.02	0.237
175236.67	14	609.724	608.974	608.72	0.254
175248.33	15	609.434	608.684	608.41	0.274
175260	16	609.14	608.39	608.14	0.25
175272	17	608.839	608.089	607.91	0.179
175284	18	608.544	607.794	607.67	0.124
175296	19	608.257	607.507	607.32	0.187
175308	20	607.976	607.226	606.96	0.266
175318.67	21	607.73	606.98	606.69	0.29
175330.33	22	607.454	606.704	606.41	0.294
175342	23	607.174	606.424	606.14	0.284
175353.67	24	606.889	606.139	605.84	0.299
175365.33	25	606.597	605.847	605.58	0.267
175376	26	606.328	605.578	605.32	0.258
175388	27	606.027	605.277	605.08	0.197
175400	28	605.732	604.982	604.83	0.152
175412	29	605.445	604.695	604.47	0.225
175424	30	605.164	604.414	604.11	0.304
175434.67	31	604.917	604.167	603.86	0.307
175446.33	32	604.642	603.892	603.57	0.322
175458	33	604.362	603.612	603.27	0.342
175469.67	34	604.077	603.327	602.98	0.347
175481.33	35	603.784	603.034	602.69	0.344
175492	36	603.516	602.766	602.44	0.326
175504	37	603.215	602.465	602.19	0.275

175516	38	602.92	602.17	601.96	0.21
175528	39	602.633	601.883	601.61	0.273
175540	40	602.352	601.602	601.28	0.322
175550.67	41	602.104	601.354	601.01	0.344
175562.33	42	601.83	601.08	600.73	0.35
175574	43	601.55	600.8	600.43	0.37
175585.67	44	601.265	600.515	600.15	0.365
175597.33	45	600.972	600.222	599.85	0.372
175608	46	600.704	599.954	599.61	0.344
175620	47	600.403	599.653	599.38	0.273
175632	48	600.108	599.358	599.17	0.188
175644	49	599.821	599.071	598.83	0.241
175656	50	599.54	598.79	598.56	0.23
175666.67	51	599.293	598.543	598.24	0.303
175678.33	52	599.018	598.268	597.94	0.328
175690	53	598.738	597.988	597.64	0.348
175701.67	54	598.453	597.703	597.38	0.323
175713.33	55	598.161	597.411	597.11	0.301
175724	56	597.891	597.141	596.85	0.291
175736	57	597.591	596.841	596.62	0.221
175748	58	597.296	596.546	596.38	0.166
175760	59	597.009	596.259	596.03	0.229
175772	60	596.728	595.978	595.69	0.288
175783.67	61	596.457	595.707	595.4	0.307
175795.33	62	596.18	595.43	595.13	0.3
175807	63	595.898	595.148	594.88	0.268
175818.67	64	595.611	594.861	594.63	0.231
175830.33	65	595.314	594.564	594.37	0.194
175841	66	595.04	594.29	594.13	0.16

FILLETS

DECK GRADES REVISED

+.02 ON 4/29/93

ROUTE FAI-74

SECTION 92-11B EAST BOUND

COUNTY VERMILION

JOB NO. C-95-067-90

DECK THICKNESS FT. - 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	D SHOT	FILLET
175095.83	1	613.014	612.264	612.17	0.094
175107.83	2	612.752	612.002	611.91	0.092
175119.33	3	612.492	611.742	611.66	0.082
175130.83	4	612.226	611.476	611.4	0.076
175142.33	5	611.952	611.202	611.16	0.042
175153.83	6	611.668	610.918	610.92	-0.002
175165.33	7	611.377	610.627	610.65	-0.023
175176.83	8	611.079	610.329	610.33	-0.001
175188.83	9	610.76	610.01	610.02	-0.01
175191	10	610.707	609.957	609.9	0.057
175201.67	11	610.467	609.717	609.64	0.077
175213.33	12	610.196	609.446	609.33	0.116
175225	13	609.92	609.17	609.02	0.15
175236.67	14	609.636	608.886	608.72	0.166
175248.33	15	609.346	608.596	608.42	0.176
175260	16	609.053	608.303	608.13	0.173
175272	17	608.752	608.002	607.91	0.092
175284	18	608.456	607.706	607.68	0.026
175296	19	608.17	607.42	607.33	0.09
175308	20	607.889	607.139	606.96	0.179
175318.67	21	607.642	606.892	606.69	0.202
175330.33	22	607.366	606.616	606.41	0.206
175342	23	607.087	606.337	606.16	0.177
175353.67	24	606.801	606.051	605.84	0.211
175365.33	25	606.509	605.759	605.59	0.169
175376	26	606.241	605.491	605.32	0.171
175388	27	605.94	605.19	605.09	0.1
175400	28	605.644	604.894	604.84	0.054
175412	29	605.358	604.608	604.46	0.148
175424	30	605.077	604.327	604.1	0.227
175434.67	31	604.829	604.079	603.86	0.219
175446.33	32	604.554	603.804	603.56	0.244
175456	33	604.275	603.525	603.26	0.265
175469.67	34	603.989	603.239	602.97	0.269
175481.33	35	603.696	602.946	602.69	0.256
175492	36	603.429	602.679	602.42	0.259
175504	37	603.128	602.378	602.18	0.198

175516	38	602.832	602.082	601.96	0.122
175528	39	602.546	601.796	601.61	0.186
175540	40	602.265	601.515	601.26	0.255
175550.67	41	602.016	601.266	601.01	0.256
175562.33	42	601.742	600.992	600.73	0.262
175574	43	601.463	600.713	600.43	0.283
175585.67	44	601.177	600.427	600.14	0.287
175597.33	45	600.884	600.134	599.85	0.284
175608	46	600.617	599.867	599.61	0.257
175620	47	600.316	599.566	599.38	0.186
175632	48	600.02	599.27	599.17	0.1
175644	49	599.734	598.984	598.84	0.144
175656	50	599.453	598.703	598.55	0.153
175666.67	51	599.205	598.455	598.25	0.205
175678.33	52	598.93	598.18	597.94	0.24
175690	53	598.651	597.901	597.65	0.251
175701.67	54	598.365	597.615	597.38	0.235
175713.33	55	598.073	597.323	597.12	0.203
175724	56	597.804	597.054	596.87	0.184
175736	57	597.504	596.754	596.63	0.124
175748	58	597.208	596.458	596.39	0.068
175760	59	596.922	596.172	596.03	0.142
175772	60	596.641	595.891	595.71	0.181
175783.67	61	596.369	595.619	595.42	0.199
175795.33	62	596.092	595.342	595.14	0.202
175807	63	595.811	595.061	594.88	0.181
175818.67	64	595.523	594.773	594.63	0.143
175830.33	65	595.226	594.476	594.38	0.096
175841	66	594.95	594.2	594.13	0.07

A

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Brg. W. Abut (1)	1750+95.83	-16.417	612.431	612.634
2	1751+07.83	-16.417	612.343	612.375
3	1751+19.33	-16.417	612.067	612.118
4	1751+30.83	-16.417	611.791	611.854
5	1751+42.33	-16.417	611.515	611.583
6	1751+53.83	-16.417	611.239	611.302
7	1751+65.33	-16.417	610.963	611.014
8	1751+76.83	-16.417	610.687	610.719
W. Brg. Pier 1A (9)	1751+88.83	-16.417	610.399	610.402
W. Brg. Pier 1A (10)	1751+91.00	-16.417	610.346	610.349
11	1752+01.67	-16.417	610.090	610.111
12	1752+13.33	-16.417	609.811	609.844
13	1752+25.00	-16.417	609.530	609.570
14	1752+36.67	-16.417	609.250	609.289
15	1752+48.33	-16.417	608.971	609.002
16	1752+60.00	-16.417	608.690	608.711
17	1752+72.00	-16.417	608.402	608.413
W. Pier 1 (18)	1752+84.00	-16.417	608.114	608.120
19	1752+96.00	-16.417	607.826	607.837
20	1753+08.00	-16.417	607.538	607.559
21	1753+18.67	-16.417	607.252	607.314
22	1753+30.33	-16.417	607.003	607.042
23	1753+42.00	-16.417	606.722	606.765
24	1753+53.67	-16.417	606.442	606.482
25	1753+65.33	-16.417	606.163	606.194
26	1753+76.00	-16.417	605.906	605.927
27	1753+88.00	-16.417	605.618	605.629
W. Pier 2 (28)	1754+00.00	-16.417	605.330	605.336
29	1754+12.00	-16.417	605.042	605.053
30	1754+24.00	-16.417	604.754	604.775
31	1754+34.67	-16.417	604.498	604.529
32	1754+46.33	-16.417	604.219	604.258
33	1754+58.00	-16.417	603.938	603.981
34	1754+69.67	-16.417	603.658	603.698
35	1754+81.33	-16.417	603.379	603.409
36	1754+92.00	-16.417	603.122	603.143
37	1755+04.00	-16.417	602.834	602.845
W. Pier 3 (38)	1755+16.00	-16.417	602.546	602.552
39	1755+28.00	-16.417	602.258	602.269
40	1755+40.00	-16.417	601.970	601.991
41	1755+50.67	-16.417	601.714	601.745
42	1755+62.33	-16.417	601.435	601.474
43	1755+74.00	-16.417	601.154	601.197
44	1755+85.67	-16.417	600.874	600.914
45	1755+97.33	-16.417	600.595	600.625
46	1756+08.00	-16.417	600.338	600.359
47	1756+20.00	-16.417	600.050	600.061
W. Pier 4 (48)	1756+32.00	-16.417	599.762	599.768
49	1756+44.00	-16.417	599.474	599.485
50	1756+56.00	-16.417	599.186	599.207
51	1756+66.67	-16.417	598.930	598.962
52	1756+78.33	-16.417	598.651	598.690
53	1756+90.00	-16.417	598.370	598.413
54	1757+01.67	-16.417	598.090	598.130
55	1757+13.33	-16.417	597.811	597.842
56	1757+24.00	-16.417	597.554	597.575
57	1757+36.00	-16.417	597.266	597.277
W. Pier 5 (58)	1757+48.00	-16.417	596.978	596.984
59	1757+60.00	-16.417	596.690	596.701
60	1757+72.00	-16.417	596.402	596.423
61	1757+83.67	-16.417	596.122	596.154
62	1757+95.33	-16.417	595.843	595.881
63	1758+07.00	-16.417	595.562	595.602
64	1758+18.67	-16.417	595.282	595.316
65	1758+30.33	-16.417	595.003	595.023
W. Brg. E. Abut. (66)	1758+41.00	-16.417	594.746	594.749

B

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Brg. W. Abut (1)	1750+95.83	-12.000	612.723	612.724
2	1751+07.83	-12.000	612.435	612.463
3	1751+19.33	-12.000	612.159	612.206
4	1751+30.83	-12.000	611.883	611.942
5	1751+42.33	-12.000	611.607	611.671
6	1751+53.83	-12.000	611.331	611.390
7	1751+65.33	-12.000	611.055	611.102
8	1751+76.83	-12.000	610.779	610.807
W. Brg. Pier 1A (9)	1751+88.83	-12.000	610.491	610.492
W. Brg. Pier 1A (10)	1751+91.00	-12.000	610.439	610.440
11	1752+01.67	-12.000	610.182	610.199
12	1752+13.33	-12.000	609.905	609.932
13	1752+25.00	-12.000	609.623	609.658
14	1752+36.67	-12.000	609.342	609.377
15	1752+48.33	-12.000	609.063	609.090
16	1752+60.00	-12.000	608.783	608.799
17	1752+72.00	-12.000	608.495	608.501
W. Pier 1 (18)	1752+84.00	-12.000	608.207	608.209
19	1752+96.00	-12.000	607.919	607.925
20	1753+08.00	-12.000	607.631	607.647
21	1753+18.67	-12.000	607.374	607.402
22	1753+30.33	-12.000	607.095	607.130
23	1753+42.00	-12.000	606.815	606.853
24	1753+53.67	-12.000	606.535	606.570
25	1753+65.33	-12.000	606.255	606.282
26	1753+76.00	-12.000	605.979	606.015
27	1753+88.00	-12.000	605.691	605.717
W. Pier 2 (28)	1754+00.00	-12.000	605.423	605.425
29	1754+12.00	-12.000	605.135	605.141
30	1754+24.00	-12.000	604.847	604.863
31	1754+34.67	-12.000	604.590	604.617
32	1754+46.33	-12.000	604.311	604.346
33	1754+58.00	-12.000	604.031	604.069
34	1754+69.67	-12.000	603.750	603.786
35	1754+81.33	-12.000	603.471	603.497
36	1754+92.00	-12.000	603.215	603.231
37	1755+04.00	-12.000	602.927	602.933
W. Pier 3 (38)	1755+16.00	-12.000	602.639	602.641
39	1755+28.00	-12.000	602.351	602.357
40	1755+40.00	-12.000	602.063	602.079
41	1755+50.67	-12.000	601.806	601.833
42	1755+62.33	-12.000	601.527	601.562
43	1755+74.00	-12.000	601.247	601.285
44	1755+85.67	-12.000	600.966	601.002
45	1755+97.33	-12.000	600.687	600.713
46	1756+08.00	-12.000	600.431	600.447
47	1756+20.00	-12.000	600.143	600.149
W. Pier 4 (48)	1756+32.00	-12.000	599.855	599.857
49	1756+44.00	-12.000	599.567	599.573
50	1756+56.00	-12.000	599.279	599.295
51	1756+66.67	-12.000	598.922	598.950
52	1756+78.33	-12.000	598.743	598.778
53	1756+90.00	-12.000	598.463	598.501
54	1757+01.67	-12.000	598.182	598.218
55	1757+13.33	-12.000	597.903	597.930
56	1757+24.00	-12.000	597.647	597.663
57	1757+36.00	-12.000	597.359	597.365
W. Pier 5 (58)	1757+48.00	-12.000	597.071	597.073
59	1757+60.00	-12.000	596.783	596.789
60	1757+72.00	-12.000	596.495	596.511
61	1757+83.67	-12.000	596.214	596.242
62	1757+95.33	-12.000	595.935	595.969
63	1758+07.00	-12.000	595.655	595.690
64	1758+18.67	-12.000	595.374	595.404
65	1758+30.33	-12.000	595.095	595.111
W. Brg. E. Abut. (66)	1758+41.00	-12.000	594.839	594.840

PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Brg. W. Abut (1)	1750+95.83	0.00	612.910	612.909
2	1751+07.83	0.00	612.622	612.646
3	1751+19.33	0.00	612.346	612.389
4	1751+30.83	0.00	612.070	612.126
5	1751+42.33	0.00	611.794	611.854
6	1751+53.83	0.00	611.518	611.574
7	1751+65.33	0.00	611.242	611.285
8	1751+76.83	0.00	610.966	610.999
W. Brg. Pier 1A (9)	1751+88.83	0.00	610.678	610.677
W. Brg. Pier 1A (10)	1751+91.00	0.00	610.626	610.625
11	1752+01.67	0.00	610.370	610.383
12	1752+13.33	0.00	610.090	610.115
13	1752+25.00	0.00	609.810	609.842
14	1752+36.67	0.00	609.530	609.561
15	1752+48.33	0.00	609.250	609.274
16	1752+60.00	0.00	608.970	608.983
17	1752+72.00	0.00	608.682	608.684
W. Pier 1 (18)	1752+84.00	0.00	608.394	608.392
19	1752+96.00	0.00	608.106	608.108
20	1753+08.00	0.00	607.818	607.831
21	1753+18.67	0.00	607.562	607.585
22	1753+30.33	0.00	607.283	607.314
23	1753+42.00	0.00	607.002	607.037
24	1753+53.67	0.00	606.722	606.754
25	1753+65.33	0.00	606.442	606.465
26	1753+76.00	0.00	606.166	606.199
27	1753+88.00	0.00	605.888	605.900
W. Pier 2 (28)	1754+00.00	0.00	605.610	605.608
29	1754+12.00	0.00	605.322	605.324
30	1754+24.00	0.00	605.034	605.046
31	1754+34.67	0.00	604.778	604.801
32	1754+46.33	0.00	604.499	604.529
33	1754+58.00	0.00	604.218	604.252
34	1754+69.67	0.00	603.938	603.969
35	1754+81.33	0.00	603.658	603.681
36	1754+92.00	0.00	603.402	603.415
37	1755+04.00	0.00	603.114	603.116
W. Pier 3 (38)	1755+16.00	0.00	602.826	602.824
39	1755+28.00	0.00	602.538	602.540
40	1755+40.00	0.00	602.250	602.263
41	1755+50.67	0.00	601.994	602.017
42	1755+62.33	0.00	601.714	601.745
43	1755+74.00	0.00	601.434	601.468
44	1755+85.67	0.00	601.154	601.185
45	1755+97.33	0.00	600.874	600.897
46	1756+08.00	0.00	600.619	600.630
47	1756+20.00	0.00	600.329	600.332
W. Pier 4 (48)	1756+32.00	0.00	600.042	600.040
49	1756+44.00	0.00	599.754	599.754
50	1756+56.00	0.00	599.466	599.479
51	1756+66.67	0.00	599.210	599.233
52	1756+78.33	0.00	598.930	598.952
53	1756+90.00	0.00	598.650	598.685
54	1757+01.67	0.00	598.370	598.402
55	1757+13.33	0.00	598.090	598.113
56	1757+24.00	0.00	597.834	597.847
57	1757+36.00	0.00	597.546	597.5

C

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Abut. (1)	1750+95.83	+12.000	612.723	612.724
	1751+07.83	+12.000	612.435	612.463
	1751+19.33	+12.000	612.159	612.206
	1751+30.83	+12.000	611.883	611.942
	1751+42.33	+12.000	611.607	611.671
	1751+53.83	+12.000	611.331	611.390
	1751+65.33	+12.000	611.055	611.102
	1751+76.83	+12.000	610.779	610.807
W. Pier 1A (9)	1751+88.83	+12.000	610.491	610.492
	1751+91.00	+12.000	610.439	610.440
	1752+01.67	+12.000	610.182	610.199
	1752+13.33	+12.000	609.903	609.932
	1752+25.00	+12.000	609.623	609.658
	1752+36.67	+12.000	609.342	609.377
	1752+48.33	+12.000	609.063	609.090
	1752+60.00	+12.000	608.783	608.799
W. Pier 1 (16)	1752+72.00	+12.000	608.495	608.501
	1752+84.00	+12.000	608.207	608.209
	1752+96.00	+12.000	607.919	607.925
	1753+08.00	+12.000	607.631	607.647
	1753+18.67	+12.000	607.374	607.402
	1753+30.33	+12.000	607.095	607.130
	1753+42.00	+12.000	606.815	606.853
	1753+53.67	+12.000	606.534	606.570
W. Pier 2 (26)	1753+65.33	+12.000	606.255	606.282
	1753+76.00	+12.000	605.999	606.015
	1754+00.00	+12.000	605.721	605.717
	1754+12.00	+12.000	605.433	605.425
	1754+24.00	+12.000	605.135	605.141
	1754+36.67	+12.000	604.847	604.863
	1754+46.33	+12.000	604.590	604.617
	1754+58.00	+12.000	604.311	604.356
W. Pier 3 (36)	1754+69.67	+12.000	604.031	604.069
	1754+81.33	+12.000	603.750	603.786
	1754+92.00	+12.000	603.471	603.497
	1755+04.00	+12.000	603.215	603.231
	1755+16.00	+12.000	602.927	602.933
	1755+28.00	+12.000	602.639	602.661
	1755+40.00	+12.000	602.351	602.357
	1755+50.67	+12.000	602.063	602.079
W. Pier 4 (46)	1755+62.33	+12.000	601.806	601.833
	1755+74.00	+12.000	601.527	601.562
	1755+85.67	+12.000	601.247	601.285
	1755+97.33	+12.000	600.966	601.002
	1756+08.00	+12.000	600.687	600.713
	1756+20.00	+12.000	600.431	600.447
	1756+32.00	+12.000	600.143	600.149
	1756+44.00	+12.000	599.855	599.857
W. Pier 5 (56)	1756+56.00	+12.000	599.567	599.573
	1756+66.67	+12.000	599.279	599.295
	1756+78.33	+12.000	598.992	599.050
	1757+00.00	+12.000	598.743	598.778
	1757+10.67	+12.000	598.463	598.501
	1757+21.33	+12.000	598.182	598.218
	1757+32.00	+12.000	597.903	597.930
	1757+42.67	+12.000	597.647	597.663
W. Pier 6 (66)	1757+53.33	+12.000	597.359	597.365
	1757+64.00	+12.000	597.071	597.073
	1757+74.67	+12.000	596.783	597.789
	1757+85.33	+12.000	596.495	596.511
	1757+96.00	+12.000	596.214	596.242
	1758+06.67	+12.000	595.935	596.069
	1758+17.33	+12.000	595.655	596.490
	1758+28.00	+12.000	595.374	595.404
W. Abut. (66)	1758+30.33	+12.000	595.095	595.111
	1758+41.00	+12.000	594.839	594.840

D

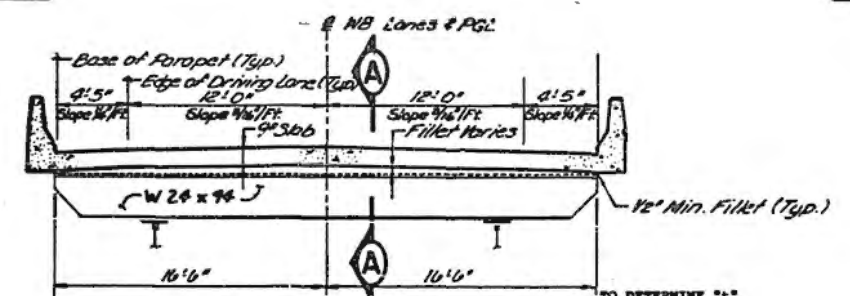
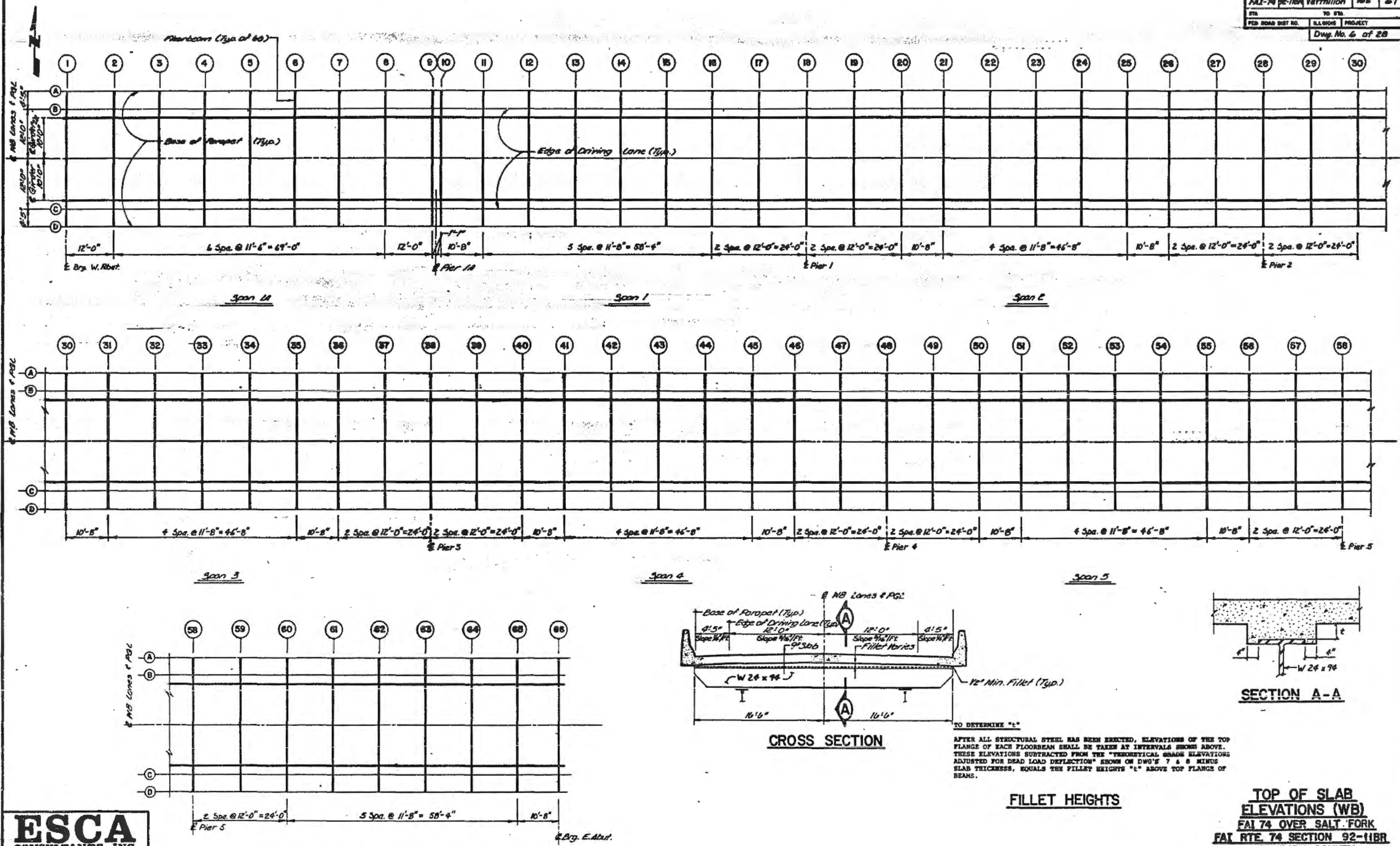
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Abut. (1)	1750+95.83	16.417	612.631	612.634
	1751+07.83	16.417	612.343	612.375
	1751+19.33	16.417	612.067	612.118
	1751+30.83	16.417	611.791	611.854
	1751+42.33	16.417	611.515	611.583
	1751+53.83	16.417	611.239	611.302
	1751+65.33	16.417	610.963	611.014
	1751+76.83	16.417	610.687	610.719
W. Pier 1A (9)	1751+88.83	16.417	610.399	610.402
	1751+91.00	16.417	610.346	610.349
	1752+01.67	16.417	610.090	610.111
	1752+13.33	16.417	609.811	609.844
	1752+25.00	16.417	609.530	609.570
	1752+36.67	16.417	609.250	609.289
	1752+48.33	16.417	608.971	609.002
	1752+60.00	16.417	608.690	608.711
W. Pier 1 (16)	1752+72.00	16.417	608.402	608.413
	1752+84.00	16.417	608.114	608.120
	1752+96.00	16.417	607.826	607.837
	1753+08.00	16.417	607.538	607.559
	1753+18.67	16.417	607.282	607.314
	1753+30.33	16.417	607.003	607.042
	1753+42.00	16.417	606.722	606.765
	1753+53.67	16.417	606.442	606.482
W. Pier 2 (26)	1753+65.33	16.417	606.163	606.194
	1753+76.00	16.417	605.906	605.927
	1754+00.00	16.417	605.618	605.625
	1754+12.00	16.417	605.330	605.336
	1754+24.00	16.417	605.042	605.053
	1754+36.67	16.417	604.754	604.775
	1754+46.33	16.417	604.498	604.529
	1754+58.00	16.417	604.219	604.258
W. Pier 3 (36)	1754+69.67	16.417	603.938	603.981
	1754+81.33	16.417	603.658	603.698
	1754+92.00	16.417	603.379	603.409
	1755+04.00	16.417	603.122	603.147
	1755+16.00	16.417	602.824	602.845
	1755+28.00	16.417	602.546	602.552
	1755+40.00	16.417	602.258	602.269
	1755+50.67	16.417	601.970	601.991
W. Pier 4 (46)	1755+62.33	16.417	601.714	601.745
	1755+74.00	16.417	601.435	601.474
	1755+85.67	16.417	601.154	601.197
	1755+97.33	16.417	600.874	600.914
	1756+08.00	16.417	600.595	600.625
	1756+20.00	16.417	600.338	600.359
	1756+32.00	16.417	600.050	600.061
	1756+44.00	16.417	599.762	599.748
W. Pier 5 (56)	1756+56.00	16.417	599.474	599.485
	1756+66.67	16.417	599.186	599.207
	1756+78.33	16.417	598.930	598.962
	1757+00.00	16.417	598.651	598.690
	1757+10.67	16.417	598.370	598.413
	1757+21.33	16.417	598.090	598.130
	1757+32.00	16.417	597.811	597.842
	1757+42.67	16.417	597.554	597.575
W. Pier 6 (66)	1757+53.33	16.417	597.266	597.277
	1757+64.00	16.417	596.978	596.984
	1757+74.67	16.417	596.690	596.701
	1757+85.33	16.417	596.402	596.423
	1757+96.00	16.417	596.122	596.154
	1758+06.67	16.417	595.843	595.881
	1758+17.33	16.417	595.562	595.602
	1758+28.00	16.417	595.282	595.316
W. Abut. (66)	1758+30.33	16.417	595.003	595.023
	1758+41.00	16.417	594.746	594.749

ESCA
CONSULTANTS, INC.

DESIGNED BY:	NMR	6/30
DRAWN BY:	CJG	6/30
CHECKED BY:	JRF	6/30
APPROVED BY:	RDP	6/30

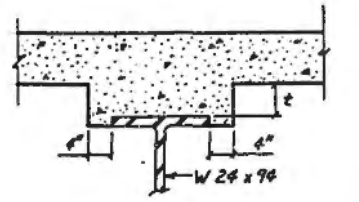
VOID
TOP OF SLAB
ELEVATIONS (EB)
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-118R
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-118A	Vermilion	40	27
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT			
Dwg. No. 6 of 28				



CROSS SECTION

TO DETERMINE "t"
 AFTER ALL STRUCTURAL STEEL HAS BEEN ERECTED, ELEVATIONS OF THE TOP FLANGE OF EACH FLOORBEAM SHALL BE TAKEN AT INTERVALS SHOWN ABOVE. THESE ELEVATIONS SUBTRACTED FROM THE "THEORETICAL GRADE ELEVATIONS" ADJUSTED FOR DEAD LOAD DEFLECTION" SHOWN ON DWG'S 7 & 8 MINUS SLAB THICKNESS, EQUALS THE FILLET HEIGHTS "t" ABOVE TOP FLANGE OF BEAMS.



SECTION A-A

FILLET HEIGHTS

TOP OF SLAB ELEVATIONS (WB)
 FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 92-118A
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

ESCA
 CONSULTANTS, INC.

DESIGNED BY:	AMR	6-70
DRAWN BY:	PDV	6-70
CHECKED BY:	JAG	6-70
APPROVED BY:	RDP	6-70

FILLETS
 DECK GRADES REVISED 7/9/92 +.23 & +.023
 ROUTE FAI-74
 SECTION 92-11B WEST BOUND
 COUNTY VERMILION
 JOB NO. C-95-067-80

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	A SHOT	FILLET
175085.8	1	612.887	612.137	612.14	-0.003
175107.8	2	612.628	611.678	611.89	-0.012
175119.3	3	612.371	611.621	611.85	-0.029
175130.8	4	612.107	611.357	611.38	-0.023
175142.3	5	611.836	611.086	611.11	-0.024
175153.8	6	611.555	610.805	610.8	0.005
175165.3	7	611.287	610.517	610.52	-0.003
175176.8	8	610.972	610.222	610.22	0.002
175188.8	9	610.855	609.905	609.91	-0.005
175191	10	610.602	609.852	609.78	0.072
175201.8	11	610.364	609.614	609.49	0.124
175213.3	12	610.097	609.347	609.22	0.127
175225	13	609.823	609.073	608.87	0.203
175236.6	14	609.542	608.792	608.6	0.182
175248.3	15	609.255	608.505	608.3	0.205
175260	16	608.984	608.214	608.02	0.194
175272	17	608.668	607.916	607.77	0.146
175284	18	608.373	607.623	607.55	0.073
175296	19	608.09	607.34	607.23	0.11
175308	20	607.812	607.062	606.89	0.172
175318.6	21	607.567	606.817	606.63	0.167
175330.3	22	607.295	606.545	606.34	0.205
175342	23	607.018	606.268	606.05	0.218
175353.6	24	606.735	605.985	605.75	0.235
175365.3	25	606.447	605.697	605.5	0.187
175376	26	606.18	605.43	605.21	0.22
175388	27	605.882	605.132	605.02	0.112
175400	28	605.588	604.839	604.77	0.069
175412	29	605.306	604.556	604.44	0.116
175424	30	605.026	604.278	604.1	0.176
175434.8	31	604.782	604.032	603.85	0.182
175446.3	32	604.511	603.761	603.57	0.191
175458	33	604.234	603.484	603.31	0.174
175469.6	34	603.951	603.201	603.03	0.171
175481.3	35	603.65	602.9	602.76	0.14
175492	36	603.388	602.638	602.51	0.128
175504	37	603.098	602.348	602.25	0.098
175516	38	602.805	602.055	601.99	0.065
175528	39	602.522	601.772	601.84	0.132
175540	40	602.244	601.494	601.3	0.184
175550.6	41	601.998	601.248	601.03	0.216
175562.3	42	601.727	600.977	600.72	0.257
175574	43	601.442	600.692	600.43	0.262
175585.6	44	601.159	600.409	600.13	0.279
175597.3	45	600.871	600.121	599.84	0.281
175608	46	600.604	599.854	599.59	0.264
175620	47	600.306	599.556	599.4	0.156
175632	48	600.014	599.264	599.16	0.104
175644	49	599.73	598.98	598.83	0.15
175656	50	599.453	598.703	598.51	0.193
175668.6	51	599.207	598.457	598.24	0.217
175676.3	52	598.936	598.186	597.92	0.266
175690	53	598.659	597.909	597.63	0.279
175701.6	54	598.376	597.626	597.33	0.296
175713.3	55	598.087	597.337	597.06	0.277
175724	56	597.821	597.071	596.79	0.261
175736	57	597.522	596.772	596.61	0.182
175748	58	597.23	596.48	596.41	0.07
175760	59	596.948	596.198	596.09	0.108
175772	60	596.669	595.919	595.76	0.159
175783.6	61	596.399	595.649	595.49	0.159
175795.3	62	596.127	595.377	595.21	0.167
175807	63	595.846	595.096	594.97	0.126
175818.6	64	595.561	594.811	594.7	0.111
175830.3	65	595.289	594.519	594.43	0.089
175841	66	594.999	594.249	594.2	0.049

FILLETS
 REVISED DECK GRADES 6/17/92 +.23
 ROUTE FAI-74
 SECTION 92-11B WEST BOUND
 COUNTY VERMILION
 JOB NO. C-95-067-80

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	B SHOT	FILLET
175085.8	1	612.854	612.204	612.15	0.054
175107.8	2	612.693	611.943	611.66	0.063
175119.3	3	612.436	611.686	611.64	0.046
175130.8	4	612.17	611.42	611.35	0.07
175142.3	5	611.901	611.151	611.08	0.071
175153.8	6	611.62	610.87	610.8	0.07
175165.3	7	611.332	610.582	610.51	0.072
175176.8	8	611.037	610.287	610.23	0.057
175188.8	9	610.722	609.972	609.92	0.052
175191	10	610.67	609.92	609.78	0.14
175201.8	11	610.429	609.679	609.5	0.179
175213.3	12	610.182	609.412	609.21	0.202
175225	13	609.888	609.139	608.88	0.258
175236.6	14	609.607	608.857	608.59	0.267
175248.3	15	609.32	608.57	608.3	0.27
175260	16	609.029	608.279	608.01	0.269
175272	17	608.731	607.981	607.77	0.211
175284	18	608.439	607.689	607.55	0.139
175296	19	608.155	607.405	607.23	0.175
175308	20	607.877	607.127	606.88	0.247
175318.6	21	607.632	606.882	606.63	0.252
175330.3	22	607.36	606.61	606.33	0.28
175342	23	607.083	606.333	606.05	0.283
175353.6	24	606.8	606.05	605.79	0.29
175365.3	25	606.512	605.762	605.49	0.272
175376	26	606.245	605.495	605.21	0.285
175388	27	605.947	605.197	605.02	0.177
175400	28	605.655	604.905	604.78	0.125
175412	29	605.371	604.621	604.44	0.181
175424	30	605.093	604.343	604.1	0.243
175434.8	31	604.847	604.097	603.84	0.257
175446.3	32	604.576	603.826	603.57	0.256
175458	33	604.299	603.549	603.3	0.249
175469.6	34	604.016	603.286	603.02	0.246
175481.3	35	603.727	602.977	602.73	0.247
175492	36	603.461	602.711	602.51	0.201
175504	37	603.163	602.413	602.25	0.163
175516	38	602.871	602.121	602	0.121
175528	39	602.587	601.837	601.85	0.187
175540	40	602.309	601.559	601.3	0.259
175550.6	41	602.063	601.313	601.03	0.263
175562.3	42	601.782	601.042	600.74	0.302
175574	43	601.515	600.765	600.44	0.325
175585.6	44	601.232	600.482	600.14	0.342
175597.3	45	600.943	600.193	599.87	0.323
175608	46	600.677	599.927	599.82	0.307
175620	47	600.379	599.629	599.39	0.239
175632	48	600.087	599.337	599.16	0.177
175644	49	599.803	599.053	598.83	0.223
175656	50	599.525	598.775	598.49	0.285
175668.6	51	599.28	598.53	598.23	0.3
175676.3	52	599.008	598.258	597.92	0.338
175690	53	598.731	597.981	597.63	0.351
175701.6	54	598.448	597.698	597.33	0.366
175713.3	55	598.16	597.41	597.05	0.36
175724	56	597.893	597.143	596.8	0.343
175736	57	597.595	596.845	596.62	0.225
175748	58	597.303	596.553	596.41	0.143
175760	59	597.019	596.269	596.08	0.169
175772	60	596.741	595.991	595.76	0.231
175783.6	61	596.472	595.722	595.5	0.222
175795.3	62	596.176	595.426	595.22	0.206
175807	63	595.917	595.167	594.95	0.217
175818.6	64	595.634	594.884	594.7	0.184
175830.3	65	595.341	594.591	594.44	0.151
175841	66	595.07	594.32	594.21	0.11

FILLETS
DECK GRADES REVISED 6/17/92 +.23
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-087-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	PROPOSED ELEV DCK	GRADE BOT DECK	LINE SHOT	P G L FILLET
175095.8	1	613.139	612.389	612.16	0.229
175107.8	2	612.876	612.126	611.88	0.248
175119.3	3	612.819	611.889	611.63	0.239
175130.8	4	612.356	611.606	611.34	0.266
175142.3	5	612.084	611.334	611.07	0.264
175153.8	6	611.804	611.054	610.8	0.254
175165.3	7	611.515	610.765	610.52	0.245
175176.8	8	611.22	610.47	610.22	0.25
175188.8	9	610.807	610.157	609.92	0.237
175191	10	610.855	610.105	609.79	0.315
175201.6	11	610.613	609.863	609.51	0.353
175213.3	12	610.345	609.595	609.2	0.395
175225	13	610.072	609.322	608.88	0.442
175236.6	14	609.791	609.041	608.59	0.451
175248.3	15	609.504	608.754	608.3	0.454
175260	16	609.213	608.463	608.01	0.453
175272	17	608.914	608.164	607.77	0.394
175284	18	608.622	607.872	607.55	0.322
175296	19	608.338	607.588	607.22	0.368
175308	20	608.061	607.311	606.88	0.451
175318.6	21	607.815	607.065	606.61	0.455
175330.3	22	607.544	606.794	606.32	0.474
175342	23	607.267	606.517	606.06	0.457
175353.6	24	606.994	606.234	605.77	0.464
175365.3	25	606.695	605.945	605.49	0.455
175376	26	606.429	605.679	605.24	0.439
175388	27	606.13	605.38	605.02	0.36
175400	28	605.838	605.088	604.76	0.308
175412	29	605.554	604.804	604.45	0.354
175424	30	605.276	604.526	604.12	0.406
175434.6	31	605.031	604.281	603.88	0.421
175446.3	32	604.759	604.009	603.57	0.439
175458	33	604.482	603.732	603.29	0.442
175469.6	34	604.199	603.449	602.99	0.459
175481.3	35	603.911	603.161	602.71	0.451
175492	36	603.645	602.895	602.48	0.415
175504	37	603.346	602.596	602.23	0.386
175516	38	603.054	602.304	602.01	0.294
175528	39	602.77	602.02	601.66	0.36
175540	40	602.493	601.743	601.32	0.423
175550.6	41	602.247	601.497	601.07	0.427
175562.3	42	601.975	601.225	600.78	0.445
175574	43	601.698	600.948	600.48	0.468
175585.6	44	601.415	600.665	600.19	0.475
175597.3	45	601.127	600.377	599.92	0.457
175608	46	600.88	600.11	599.67	0.44
175620	47	600.562	599.812	599.42	0.392
175632	48	600.27	599.52	599.18	0.34
175644	49	599.986	599.238	598.82	0.416
175656	50	599.709	598.959	598.47	0.489
175668.6	51	599.493	598.713	598.21	0.503
175678.3	52	599.192	598.442	597.91	0.532
175690	53	598.915	598.165	597.63	0.535
175701.6	54	598.632	597.882	597.35	0.532
175713.3	55	598.343	597.593	597.07	0.523
175724	56	598.077	597.327	596.83	0.497
175736	57	597.778	597.028	596.64	0.388
175748	58	597.486	596.738	596.41	0.326
175760	59	597.202	596.452	596.09	0.362
175772	60	596.925	596.175	595.77	0.405
175783.6	61	596.655	595.905	595.5	0.405
175795.3	62	596.383	595.633	595.23	0.403
175807	63	596.104	595.354	594.96	0.394
175818.6	64	595.817	595.067	594.7	0.367
175830.3	65	595.525	594.775	594.45	0.325
175841	66	595.255	594.505	594.2	0.305

FILLETS
DECK GRADES REVISED 6/17/92 +.23
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-087-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	C SHOT	FILLET
175095.8	1	612.954	612.204	612.17	0.034
175107.8	2	612.693	611.943	611.88	0.063
175119.3	3	612.436	611.686	611.63	0.058
175130.8	4	612.17	611.42	611.33	0.09
175142.3	5	611.801	611.151	611.08	0.091
175153.8	6	611.62	610.87	610.79	0.08
175165.3	7	611.332	610.582	610.51	0.072
175176.8	8	611.037	610.287	610.2	0.087
175188.8	9	610.722	609.972	609.91	0.062
175191	10	610.87	609.92	609.78	0.16
175201.6	11	610.429	609.679	609.49	0.189
175213.3	12	610.162	609.412	609.2	0.212
175225	13	609.888	609.136	608.87	0.288
175236.6	14	609.607	608.857	608.58	0.277
175248.3	15	609.32	608.57	608.29	0.28
175260	16	609.029	608.279	608.01	0.289
175272	17	608.731	607.981	607.78	0.201
175284	18	608.439	607.689	607.55	0.139
175296	19	608.155	607.405	607.22	0.185
175308	20	607.877	607.127	606.85	0.277
175318.6	21	607.632	606.882	606.61	0.272
175330.3	22	607.38	606.61	606.33	0.26
175342	23	607.083	606.333	606.05	0.283
175353.6	24	606.8	606.05	605.78	0.29
175365.3	25	606.512	605.762	605.48	0.282
175376	26	606.245	605.485	605.27	0.225
175388	27	605.947	605.197	605.02	0.177
175400	28	605.655	604.905	604.79	0.115
175412	29	605.371	604.621	604.47	0.151
175424	30	605.093	604.343	604.14	0.203
175434.6	31	604.847	604.097	603.89	0.207
175446.3	32	604.578	603.826	603.58	0.246
175458	33	604.299	603.549	603.3	0.249
175469.6	34	604.016	603.266	602.98	0.266
175481.3	35	603.727	602.977	602.7	0.277
175492	36	603.481	602.711	602.48	0.251
175504	37	603.163	602.413	602.23	0.183
175516	38	602.871	602.121	602.01	0.111
175528	39	602.587	601.837	601.67	0.167
175540	40	602.309	601.559	601.34	0.219
175550.6	41	602.063	601.313	601.12	0.193
175562.3	42	601.792	601.042	600.82	0.222
175574	43	601.515	600.765	600.52	0.245
175585.6	44	601.232	600.482	600.23	0.252
175597.3	45	600.943	600.193	599.97	0.223
175608	46	600.677	599.927	599.71	0.217
175620	47	600.379	599.629	599.45	0.179
175632	48	600.067	599.337	599.19	0.147
175644	49	599.803	599.053	598.81	0.243
175656	50	599.525	598.775	598.44	0.335
175668.6	51	599.28	598.53	598.18	0.35
175678.3	52	599.008	598.258	597.9	0.358
175690	53	598.731	597.981	597.64	0.341
175701.6	54	598.448	597.698	597.35	0.348
175713.3	55	598.16	597.41	597.1	0.31
175724	56	597.893	597.143	596.85	0.293
175736	57	597.595	596.845	596.65	0.195
175748	58	597.303	596.553	596.41	0.143
175760	59	597.019	596.269	596.08	0.189
175772	60	596.741	595.991	595.76	0.231
175783.6	61	596.472	595.722	595.5	0.222
175795.3	62	596.176	595.426	595.22	0.206
175807	63	595.917	595.167	594.95	0.217
175818.6	64	595.634	594.884	594.7	0.184
175830.3	65	595.341	594.591	594.44	0.151
175841	66	595.07	594.32	594.19	0.13

FILLETS
DECK GRADES REVISED 7/9/92 +.23 +.023
ROUTE FAI-74
SECTION 92-11B WEST BOUND
COUNTY VERMILION
JOB NO. C-95-087-90

DECK THICKNESS FT.- 0.75

STATION	LOCATION	BEAM ELEV DCK	LINE ELEV STL	D SHOT	FILLET
175095.6	1	612.887	612.137	612.16	-0.043
175107.6	2	612.628	611.878	611.88	-0.002
175119.3	3	612.371	611.621	611.63	-0.009
175130.6	4	612.107	611.357	611.33	0.027
175142.3	5	611.836	611.088	611.07	0.016
175153.6	6	611.555	610.805	610.8	0.005
175165.3	7	611.267	610.517	610.5	0.017
175176.8	8	610.972	610.222	610.2	0.022
175188.8	9	610.655	609.905	609.91	-0.005
175191	10	610.602	609.852	609.74	0.112
175201.6	11	610.384	609.614	609.48	0.134
175213.3	12	610.097	609.347	609.2	0.147
175225	13	609.823	609.073	608.88	0.213
175236.6	14	609.542	608.792	608.58	0.212
175248.3	15	609.255	608.505	608.29	0.215
175260	16	608.964	608.214	608.02	0.184
175272	17	608.686	607.916	607.76	0.136
175284	18	608.373	607.623	607.54	0.083
175296	19	608.09	607.34	607.23	0.11
175308	20	607.812	607.062	606.85	0.212
175318.6	21	607.587	606.817	606.6	0.217
175330.3	22	607.295	606.545	606.32	0.225
175342	23	607.016	606.268	606.04	0.228
175353.6	24	606.735	605.985	605.74	0.245
175365.3	25	606.447	605.697	605.49	0.207
175376	26	606.18	605.43	605.29	0.14
175388	27	605.882	605.132	605.03	0.102
175400	28	605.589	604.839	604.79	0.049
175412	29	605.306	604.558	604.48	0.086
175424	30	605.028	604.278	604.14	0.138
175434.6	31	604.782	604.032	603.91	0.122
175446.3	32	604.511	603.761	603.58	0.161
175458	33	604.234	603.484	603.3	0.184
175469.6	34	603.951	603.201	602.97	0.231
175481.3	35	603.662	602.912	602.7	0.212
175492	36	603.398	602.646	602.44	0.206
175504	37	603.098	602.348	602.22	0.126
175516	38	602.805	602.055	602	0.055
175528	39	602.522	601.772	601.67	0.102
175540	40	602.244	601.494	601.38	0.134
175550.6	41	601.998	601.248	601.14	0.108

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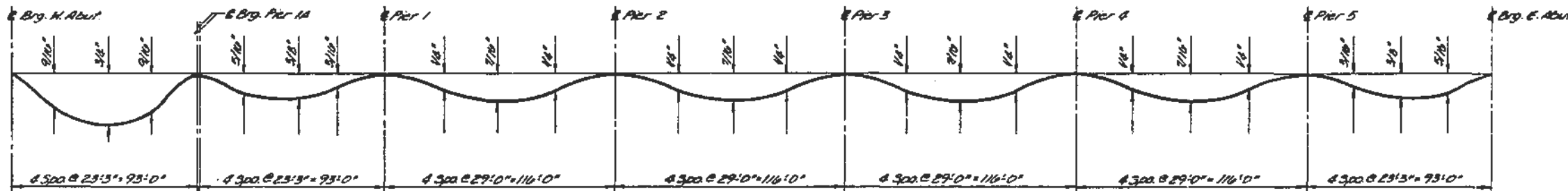
LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Abut. (1)	1750+95.83	-16.417	612.621	612.634
	1751+07.83	-16.417	612.343	612.375
	1751+19.33	-16.417	612.067	612.139
	1751+30.83	-16.417	611.791	611.854
	1751+42.33	-16.417	611.515	611.583
	1751+53.83	-16.417	611.239	611.307
	1751+65.33	-16.417	610.963	611.031
	1751+76.83	-16.417	610.687	610.755
Pier 1A (9)	1751+88.83	-16.417	610.399	610.402
	1751+91.00	-16.417	610.346	610.349
	1752+01.67	-16.417	610.090	610.111
	1752+13.33	-16.417	609.811	609.844
	1752+25.00	-16.417	609.530	609.570
	1752+36.67	-16.417	609.250	609.289
	1752+48.33	-16.417	608.971	609.022
	1752+60.00	-16.417	608.690	608.751
Pier 1B (10)	1752+72.00	-16.417	608.402	608.413
	1752+84.00	-16.417	608.114	608.130
	1752+96.00	-16.417	607.826	607.837
	1753+08.00	-16.417	607.538	607.559
	1753+18.67	-16.417	607.242	607.314
	1753+30.33	-16.417	606.947	607.042
	1753+42.00	-16.417	606.652	606.765
	1753+53.67	-16.417	606.357	606.482
Pier 2 (20)	1753+65.33	-16.417	606.063	606.194
	1753+76.00	-16.417	605.768	605.927
	1753+87.67	-16.417	605.473	605.629
	1753+99.00	-16.417	605.178	605.334
	1754+10.00	-16.417	604.883	605.039
	1754+21.00	-16.417	604.588	604.744
	1754+32.00	-16.417	604.293	604.449
	1754+43.00	-16.417	604.000	604.154
Pier 3 (30)	1754+54.00	-16.417	603.705	603.861
	1754+65.00	-16.417	603.410	603.606
	1754+76.00	-16.417	603.115	603.409
	1754+87.00	-16.417	602.820	603.153
	1754+98.00	-16.417	602.525	602.898
	1755+09.00	-16.417	602.230	602.643
	1755+20.00	-16.417	601.935	602.388
	1755+31.00	-16.417	601.640	602.133
Pier 4 (40)	1755+42.00	-16.417	601.345	601.878
	1755+53.00	-16.417	601.050	601.623
	1755+64.00	-16.417	600.755	601.368
	1755+75.00	-16.417	600.460	601.113
	1755+86.00	-16.417	600.165	600.858
	1755+97.00	-16.417	599.870	600.603
	1756+08.00	-16.417	599.575	600.348
	1756+19.00	-16.417	599.280	600.093
Pier 5 (50)	1756+30.00	-16.417	598.985	599.838
	1756+41.00	-16.417	598.690	599.583
	1756+52.00	-16.417	598.395	599.328
	1756+63.00	-16.417	598.100	599.073
	1756+74.00	-16.417	597.805	598.818
	1756+85.00	-16.417	597.510	598.563
	1756+96.00	-16.417	597.215	598.308
	1757+07.00	-16.417	596.920	598.053
E. Abut. (66)	1757+18.00	-16.417	596.625	597.798
	1757+29.00	-16.417	596.330	597.543
	1757+40.00	-16.417	596.035	597.288
	1757+51.00	-16.417	595.740	597.033
	1757+62.00	-16.417	595.445	596.778
	1757+73.00	-16.417	595.150	596.523
	1757+84.00	-16.417	594.855	596.268
	1757+95.00	-16.417	594.560	596.013

B

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Abut. (1)	1750+95.83	-12.000	612.723	612.724
	1751+07.83	-12.000	612.435	612.463
	1751+19.33	-12.000	612.139	612.206
	1751+30.83	-12.000	611.843	611.949
	1751+42.33	-12.000	611.547	611.692
	1751+53.83	-12.000	611.251	611.435
	1751+65.33	-12.000	610.955	611.178
	1751+76.83	-12.000	610.659	610.921
Pier 1A (9)	1751+88.83	-12.000	610.363	610.432
	1751+91.00	-12.000	610.067	610.175
	1752+01.67	-12.000	609.771	610.019
	1752+13.33	-12.000	609.475	609.863
	1752+25.00	-12.000	609.179	609.707
	1752+36.67	-12.000	608.883	609.551
	1752+48.33	-12.000	608.587	609.395
	1752+60.00	-12.000	608.291	609.239
Pier 1B (10)	1752+72.00	-12.000	608.000	609.083
	1752+84.00	-12.000	607.704	608.927
	1752+96.00	-12.000	607.408	608.771
	1753+08.00	-12.000	607.112	608.615
	1753+18.67	-12.000	606.816	608.459
	1753+30.33	-12.000	606.520	608.303
	1753+42.00	-12.000	606.224	608.147
	1753+53.67	-12.000	605.928	607.991
Pier 2 (20)	1753+65.33	-12.000	605.632	607.835
	1753+76.00	-12.000	605.336	607.679
	1753+87.67	-12.000	605.040	607.523
	1753+99.00	-12.000	604.744	607.367
	1754+10.00	-12.000	604.448	607.211
	1754+21.00	-12.000	604.152	607.055
	1754+32.00	-12.000	603.856	606.899
	1754+43.00	-12.000	603.560	606.743
Pier 3 (30)	1754+54.00	-12.000	603.264	606.587
	1754+65.00	-12.000	602.968	606.431
	1754+76.00	-12.000	602.672	606.275
	1754+87.00	-12.000	602.376	606.119
	1754+98.00	-12.000	602.080	605.963
	1755+09.00	-12.000	601.784	605.807
	1755+20.00	-12.000	601.488	605.651
	1755+31.00	-12.000	601.192	605.495
Pier 4 (40)	1755+42.00	-12.000	600.896	605.339
	1755+53.00	-12.000	600.600	605.183
	1755+64.00	-12.000	600.304	605.027
	1755+75.00	-12.000	600.008	604.871
	1755+86.00	-12.000	599.712	604.715
	1755+97.00	-12.000	599.416	604.559
	1756+08.00	-12.000	599.120	604.403
	1756+19.00	-12.000	598.824	604.247
Pier 5 (50)	1756+30.00	-12.000	598.528	604.091
	1756+41.00	-12.000	598.232	603.935
	1756+52.00	-12.000	597.936	603.779
	1756+63.00	-12.000	597.640	603.623
	1756+74.00	-12.000	597.344	603.467
	1756+85.00	-12.000	597.048	603.311
	1756+96.00	-12.000	596.752	603.155
	1757+07.00	-12.000	596.456	603.000
E. Abut. (66)	1757+18.00	-12.000	596.160	602.844
	1757+29.00	-12.000	595.864	602.688
	1757+40.00	-12.000	595.568	602.532
	1757+51.00	-12.000	595.272	602.376
	1757+62.00	-12.000	594.976	602.220
	1757+73.00	-12.000	594.680	602.064
	1757+84.00	-12.000	594.384	601.908
	1757+95.00	-12.000	594.088	601.752

PGL

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
W. Abut. (1)	1750+95.83	0.00	612.910	612.999
	1751+07.83	0.00	612.622	612.646
	1751+19.33	0.00	612.334	612.359
	1751+30.83	0.00	612.046	612.082
	1751+42.33	0.00	611.758	611.805
	1751+53.83	0.00	611.470	611.528
	1751+65.33	0.00	611.182	611.251
	1751+76.83	0.00	610.894	610.974
Pier 1A (9)	1751+88.83	0.00	610.606	610.677
	1751+91.00	0.00	610.318	610.420
	1752+01.67	0.00	610.030	610.163
	1752+13.33	0.00	609.742	610.007
	1752+25.00	0.00	609.454	609.851
	1752+36.67	0.00	609.166	609.695
	1752+48.33	0.00	608.878	609.539
	1752+60.00	0.00	608.590	609.383
Pier 1B (10)	1752+72.00	0.00	608.302	609.227
	1752+84.00	0.00	608.014	609.071
	1752+96.00	0.00	607.726	608.915
	1753+08.00	0.00	607.438	608.759
	1753+18.67	0.00	607.150	608.603
	1753+30.33	0.00	606.862	608.447
	1753+42.00	0.00	606.574	608.291
	1753+53.67	0.00	606.286	608.135
Pier 2 (20)	1753+65.33	0.00	606.000	607.979
	1753+76.00	0.00	605.712	607.823
	1753+87.67	0.00	605.424	607.667
	1753+99.00	0.00	605.136	607.511
	1754+10.00	0.00	604.848	607.355
	1754+21.00	0.00	604.560	607.199
	1754+32.00	0.00	604.272	607.043
	1754+43.00	0.00	603.984	606.887
Pier 3 (30)	1754+54.00	0.00	603.696	606.731
	1754+65.00	0.00	603.408	606.575
	1754+76.00	0.00	603.120	606.419
	1754+87.00	0.00	602.832	606.263
	1754+98.00	0.00	602.544	606.107
	1755+09.00	0.00	602.256	605.951
	1755+20.00	0.00	601.968	605.795
	1755+31.00	0.00	601.680	605.639
Pier 4 (40)	1755+42.00	0.00	601.392	605.483
	1755+53.00	0.00	601.104	605.327
	1755+64.00	0.00	600.816	605.171
	1755+75.00	0.00	600.528	605.015
	1755+86.00	0.00	600.240	604.859
	1755+97.00	0.00	599.952	604.703
	1756+08.00	0.00	599.664	604.547
	1756+19.00	0.00	599.376	604.391
Pier 5 (50)	1756+30.00	0.00	599.088	604.235
	1756+41.00	0.00	598.800	604.079
	1756+52.00	0.00	598.512	603.923
	1756+63.00	0.00	598.224	603.767
	1756+74.00	0.00	597.936	603.611
	1756+85.00	0.00	597.648	603.455
	1756+96.00	0.00	597.360	603.299
	1757+07.00	0.00	597.072	603.143
E. Abut. (66)	1757+18.00	0.00	596.784	602.987
	1757+29.00	0.00	596.496	602.831
	1757+40.00	0.00	596.208	602.675
	1757+51.00	0.00	595.920	602.519
	1757+62.00	0.00	595.632	602.363
	1757+73.00	0.00	595.344	602.207
	1757+84.00	0.00	595.056	602.051
	1757+95.00	0.00	594.768	601.895



DEAD LOAD DEFLECTION DIAGRAM
(INCLUDES WEIGHT OF CONCRETE ONLY)

NOTE: THE ABOVE DEFLECTIONS ARE NOT TO BE USED IN THE FIELD IF THE ENGINEER IS WORKING FROM THE GRADE ELEVATIONS ADJUSTED FOR DEAD LOAD DEFLECTIONS AS SHOWN ON DWG'S 7 & 8.

VOID
TOP OF SLAB ELEVATIONS (WB)
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA
CONSULTANTS, INC.

DESIGNED BY:	KMR	6/90
DRAWN BY:	CUG	6/90
CHECKED BY:	JRF	6/90
APPROVED BY:	RDP	6/90

C

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Q. Sup. W. Abut. (1)	1750+85.83	+12.000	612.723	612.724
2	1751+07.83	+12.000	612.435	612.463
3	1751+19.33	+12.000	612.159	612.206
4	1751+30.83	+12.000	611.883	611.942
5	1751+42.33	+12.000	611.607	611.671
6	1751+53.83	+12.000	611.331	611.390
7	1751+65.33	+12.000	611.055	611.102
8	1751+76.83	+12.000	610.779	610.807
Q. Sup. Pier 1A (9)	1751+88.33	+12.000	610.499	610.492
Q. Sup. Pier 1A (10)	1751+91.00	+12.000	610.439	610.440
11	1752+01.67	+12.000	610.182	610.199
12	1752+13.33	+12.000	609.903	609.932
13	1752+25.00	+12.000	609.623	609.658
14	1752+36.67	+12.000	609.342	609.377
15	1752+48.33	+12.000	609.063	609.090
16	1752+60.00	+12.000	608.783	608.799
17	1752+71.67	+12.000	608.503	608.501
Q. Pier 1 (18)	1752+84.00	+12.000	608.207	608.209
19	1752+96.00	+12.000	607.919	607.925
20	1753+08.00	+12.000	607.631	607.647
21	1753+18.67	+12.000	607.374	607.402
22	1753+30.33	+12.000	607.116	607.130
23	1753+42.00	+12.000	606.853	606.853
24	1753+53.67	+12.000	606.534	606.570
25	1753+65.33	+12.000	606.255	606.282
26	1753+76.00	+12.000	605.999	606.015
27	1753+88.00	+12.000	605.711	605.717
Q. Pier 2 (28)	1754+00.00	+12.000	605.423	605.425
29	1754+12.00	+12.000	605.135	605.141
30	1754+24.00	+12.000	604.847	604.863
31	1754+36.67	+12.000	604.590	604.617
32	1754+48.33	+12.000	604.311	604.346
33	1754+59.00	+12.000	604.031	604.069
34	1754+69.67	+12.000	603.750	603.786
35	1754+81.33	+12.000	603.471	603.497
36	1754+92.00	+12.000	603.215	603.231
37	1755+04.00	+12.000	602.927	602.933
Q. Pier 3 (38)	1755+16.00	+12.000	602.639	602.641
39	1755+28.00	+12.000	602.351	602.357
40	1755+40.00	+12.000	602.063	602.079
41	1755+50.67	+12.000	601.806	601.833
42	1755+62.33	+12.000	601.527	601.562
43	1755+74.00	+12.000	601.247	601.285
44	1755+85.67	+12.000	600.966	601.002
45	1755+97.33	+12.000	600.687	600.713
46	1756+09.00	+12.000	600.431	600.447
47	1756+20.67	+12.000	600.143	600.148
Q. Pier 4 (48)	1756+32.00	+12.000	599.855	599.857
49	1756+44.00	+12.000	599.567	599.573
50	1756+56.00	+12.000	599.279	599.285
51	1756+66.67	+12.000	598.922	598.950
52	1756+78.33	+12.000	598.743	598.778
53	1756+90.00	+12.000	598.463	598.501
54	1757+01.67	+12.000	598.182	598.218
55	1757+13.33	+12.000	597.903	597.930
56	1757+24.00	+12.000	597.647	597.663
57	1757+35.00	+12.000	597.359	597.385
Q. Pier 5 (58)	1757+48.00	+12.000	597.071	597.073
59	1757+60.00	+12.000	596.783	597.789
60	1757+72.00	+12.000	596.495	596.511
61	1757+83.67	+12.000	596.214	596.242
62	1757+95.33	+12.000	595.935	595.969
63	1758+07.00	+12.000	595.655	595.690
64	1758+18.67	+12.000	595.374	595.404
65	1758+30.33	+12.000	595.095	595.111
Q. Sup. E. Abut. (66)	1758+41.00	+12.000	594.839	594.840

D

LOCATION	STATION	OFFSET	THEORETICAL GRADE ELEVATION	THEORETICAL GRADE ELEVATION ADJUSTED FOR DEAD LOAD DEFLECTION
Q. Sup. W. Abut. (1)	1750+85.83	16.417	612.621	612.634
2	1751+07.83	16.417	612.343	612.375
3	1751+19.33	16.417	612.067	612.110
4	1751+30.83	16.417	611.791	611.854
5	1751+42.33	16.417	611.515	611.583
6	1751+53.83	16.417	611.239	611.302
7	1751+65.33	16.417	610.963	611.014
8	1751+76.83	16.417	610.687	610.719
Q. Sup. Pier 1A (9)	1751+88.33	16.417	610.411	610.402
Q. Sup. Pier 1A (10)	1751+91.00	16.417	610.346	610.349
11	1752+01.67	16.417	610.090	610.111
12	1752+13.33	16.417	609.811	609.844
13	1752+25.00	16.417	609.530	609.570
14	1752+36.67	16.417	609.250	609.289
15	1752+48.33	16.417	608.971	608.902
16	1752+60.00	16.417	608.690	608.711
17	1752+71.67	16.417	608.402	608.413
Q. Pier 1 (18)	1752+84.00	16.417	608.114	608.120
19	1752+96.00	16.417	607.826	607.837
20	1753+08.00	16.417	607.539	607.599
21	1753+18.67	16.417	607.282	607.314
22	1753+30.33	16.417	607.001	607.032
23	1753+42.00	16.417	606.722	606.745
24	1753+53.67	16.417	606.443	606.482
25	1753+65.33	16.417	606.163	606.194
26	1753+76.00	16.417	605.906	605.927
27	1753+88.00	16.417	605.610	605.629
Q. Pier 2 (28)	1754+00.00	16.417	605.330	605.336
29	1754+12.00	16.417	605.042	605.053
30	1754+24.00	16.417	604.754	604.775
31	1754+36.67	16.417	604.498	604.529
32	1754+48.33	16.417	604.219	604.250
33	1754+59.00	16.417	603.939	603.981
34	1754+69.67	16.417	603.659	603.690
35	1754+81.33	16.417	603.379	603.409
36	1754+92.00	16.417	603.122	603.143
37	1755+04.00	16.417	602.834	602.845
Q. Pier 3 (38)	1755+16.00	16.417	602.546	602.552
39	1755+28.00	16.417	602.258	602.269
40	1755+40.00	16.417	601.970	601.991
41	1755+50.67	16.417	601.714	601.745
42	1755+62.33	16.417	601.435	601.474
43	1755+74.00	16.417	601.154	601.197
44	1755+85.67	16.417	600.874	600.914
45	1755+97.33	16.417	600.595	600.625
46	1756+09.00	16.417	600.338	600.359
47	1756+20.67	16.417	600.058	600.051
Q. Pier 4 (48)	1756+32.00	16.417	599.782	599.788
49	1756+44.00	16.417	599.474	599.485
50	1756+56.00	16.417	599.186	599.207
51	1756+66.67	16.417	598.930	598.962
52	1756+78.33	16.417	598.651	598.690
53	1756+90.00	16.417	598.370	598.413
54	1757+01.67	16.417	598.089	598.130
55	1757+13.33	16.417	597.811	597.842
56	1757+24.00	16.417	597.534	597.575
57	1757+35.00	16.417	597.266	597.277
Q. Pier 5 (58)	1757+48.00	16.417	596.978	596.984
59	1757+60.00	16.417	596.690	596.701
60	1757+72.00	16.417	596.402	596.423
61	1757+83.67	16.417	596.122	596.154
62	1757+95.33	16.417	595.843	595.881
63	1758+07.00	16.417	595.562	595.602
64	1758+18.67	16.417	595.282	595.316
65	1758+30.33	16.417	595.003	595.023
Q. Sup. E. Abut. (66)	1758+41.00	16.417	594.746	594.749

ESCA
CONSULTANTS, INC.

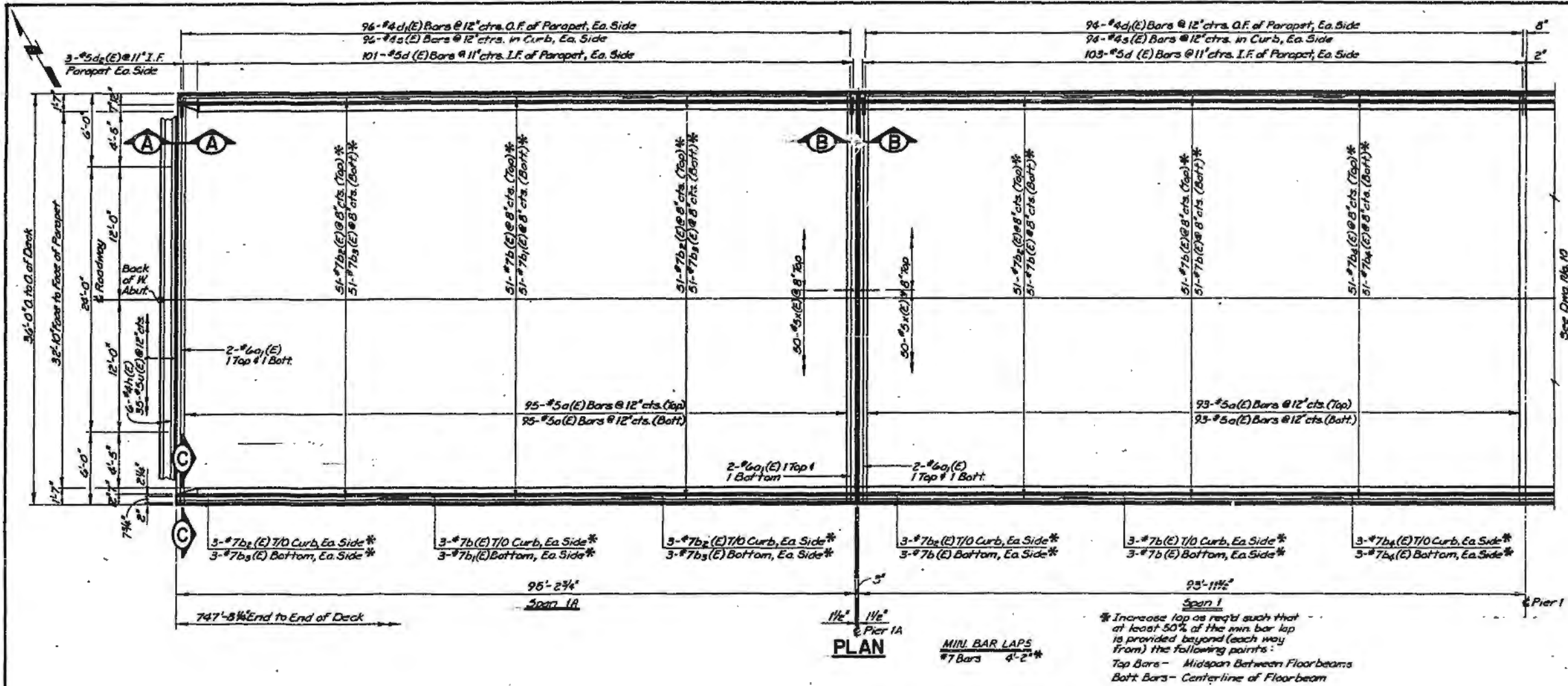
DESIGNED BY:	NNE	6/90
DRAWN BY:	CJG	6/90
CHECKED BY:	JRF	6/90
APPROVED BY:	RDP	6/90

VOID
TOP OF SLAB
ELEVATIONS (WB)
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-118R
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-118A	Vermilion	165	70
STA.		TO STA.		
FED. ROAD DIST. NO. 8		ILLINOIS	PROJECT	
Dwg. No. 9 of 20				

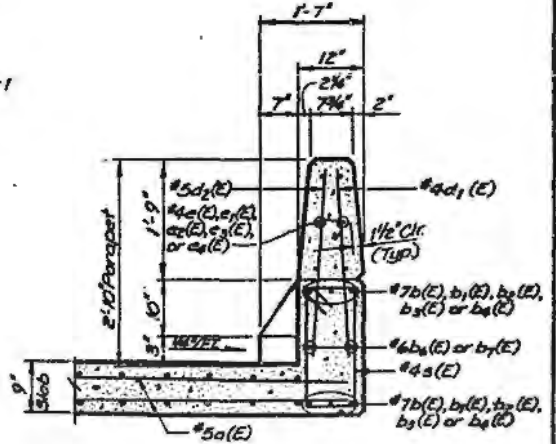
NOTES

- FOR CONFIGURATION OF SUPERSTRUCTURE PLAN, SEE ENCL. 104 11.
- REINFORCEMENT DESIGNATED (E) SHALL BE EPOXY COATED.
- SEE DNG. NO. 10 FOR SECTIONS A-A & B-B.
- EXISTING REINFORCEMENT WHICH EXTENDS INTO CONCRETE REMOVAL AREAS SHALL BE CLEANED AND INCORPORATED INTO THE NEW CONSTRUCTION. COST INCIDENTAL.
- JOINTS IN PARAPET NOT SHOWN. SEE DNG. NO. 15.
- SEE DNG. NO. 16 FOR SUPERSTRUCTURE BILL OF MATERIAL.

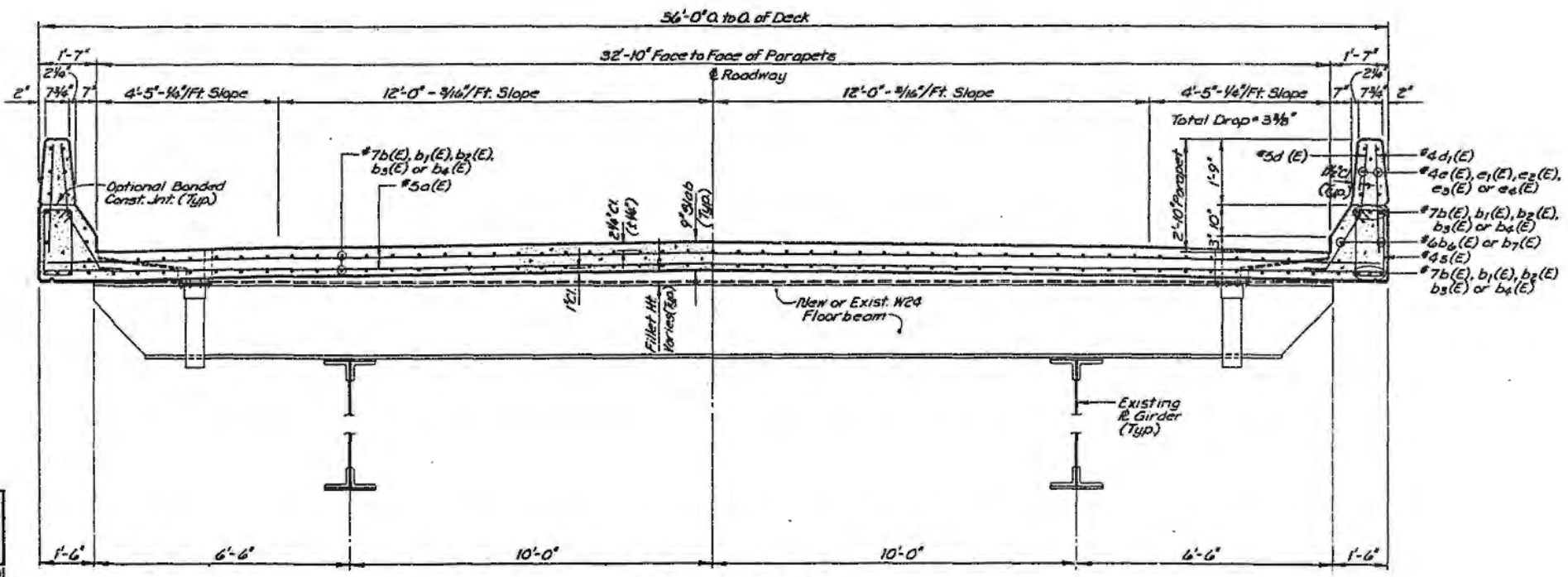


PLAN
MINI BAR LAPS
#7 Bars 4'-2"*

* Increase lap as req'd such that at least 50% of the min bar lap is provided beyond (each way from) the following points:
Top Bars - Midspan Between Floorbeams
Bott Bars - Centerline of Floorbeam



SECTION C-C



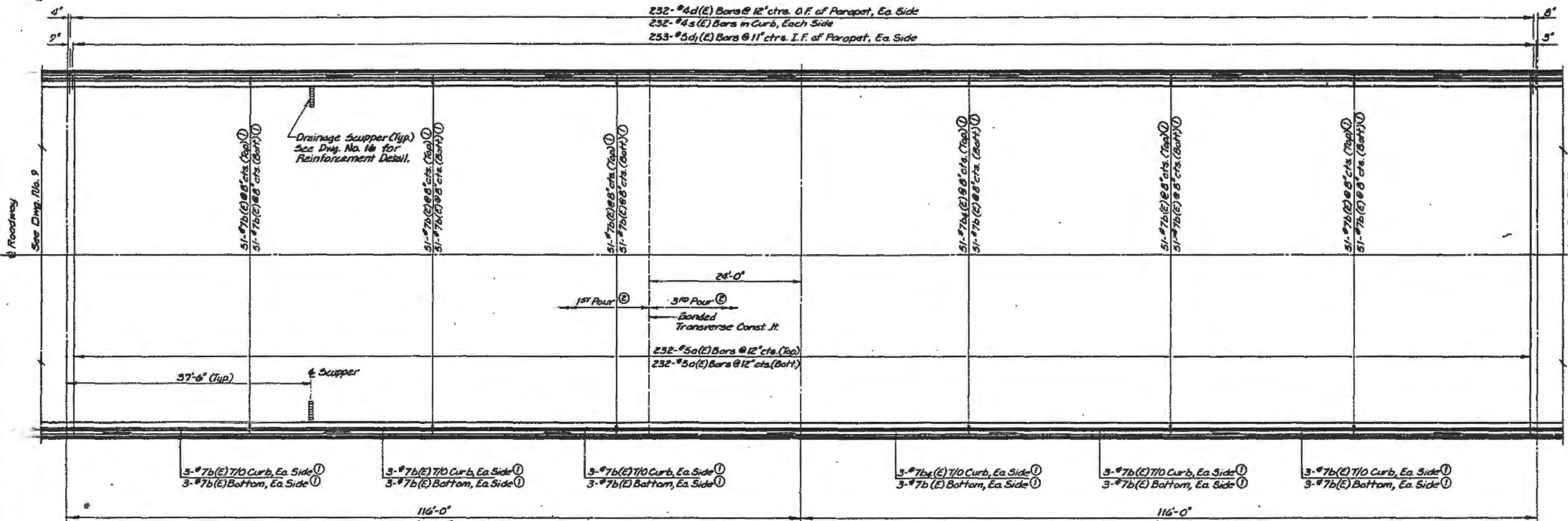
CROSS SECTION
(LOOKING EAST)

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

EASTBOUND LANES SUPERSTRUCTURE
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-118B
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

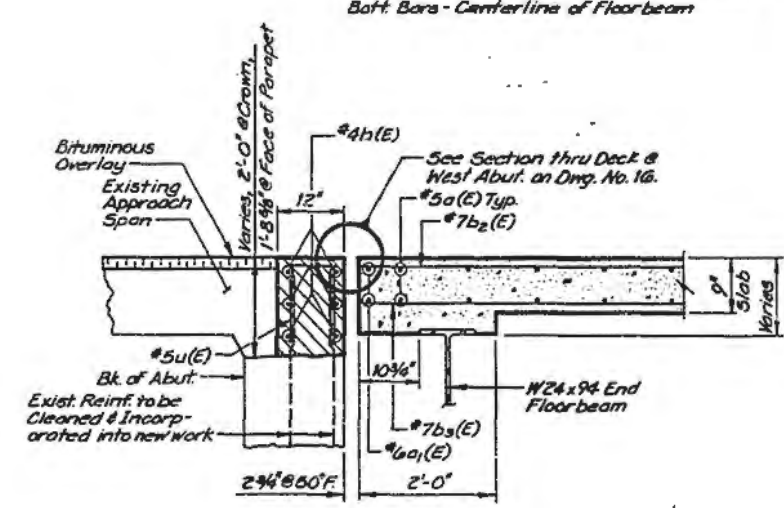
SCALE NO.	SHEET	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	71
FED. ROAD DIST. NO.		ILLINOIS PROJECT		
		Dwg. No. 10 of 28		



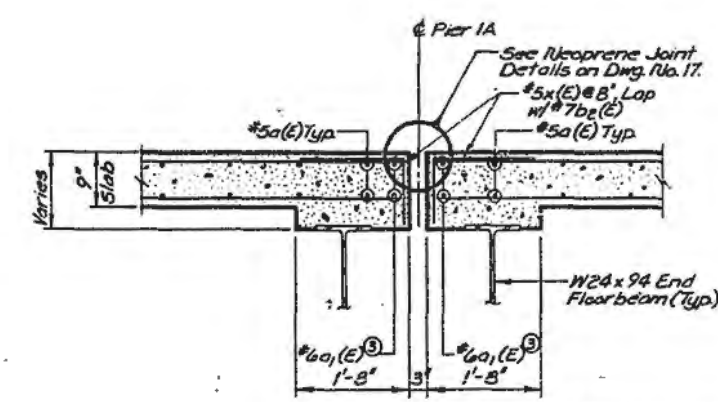
PLAN MIN BAR LAPS
 #7 Bars 4'-2" ①

① Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
 Top Bars - Midspan Between Floorbeams
 Bot. Bars - Centerline of Floorbeam

② At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



SECTION A-A
 (See Dwg. No. 9 for Location)



SECTION B-B
 (See Dwg. No. 9 for Location)

③ Place in front of Anchor Bolts for Neoprene Exp. Device.

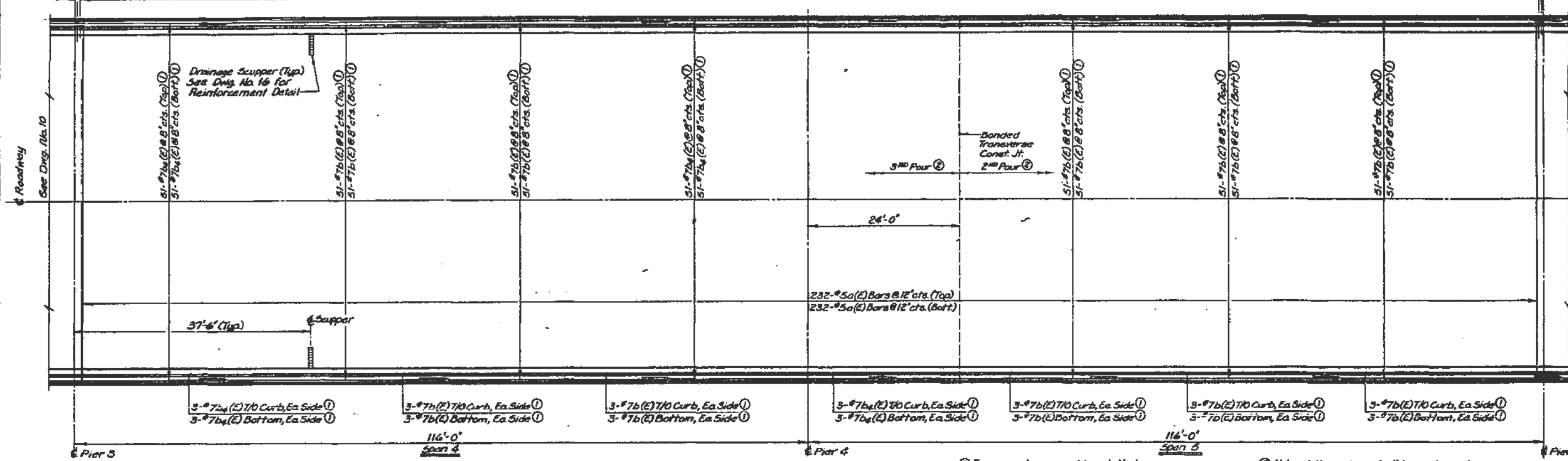
ESCA
 CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

**EASTBOUND LANES
 SUPERSTRUCTURE (CONT.)**
 FAI 74 OVER SALT FORK
 FAI RTE. 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

PROJECT NO.	ACTION	DATE	BY	REVISION
FAI-74	RE-DESIGN	November	16-5	72
STA.	TO STA.			
FED. ROAD DIST. NO.	ALIGN.	PROJECT		
		Div. No. 11 of 28		

232-#4d(E) Bars @ 12" ctrs. O.F. of Parapet, Ea. Side
 232-#4s(E) Bars @ 12" ctrs. in Curb, Each Side
 253-#6d(E) Bars @ 11" ctrs. I.F. of Parapet, Ea. Side

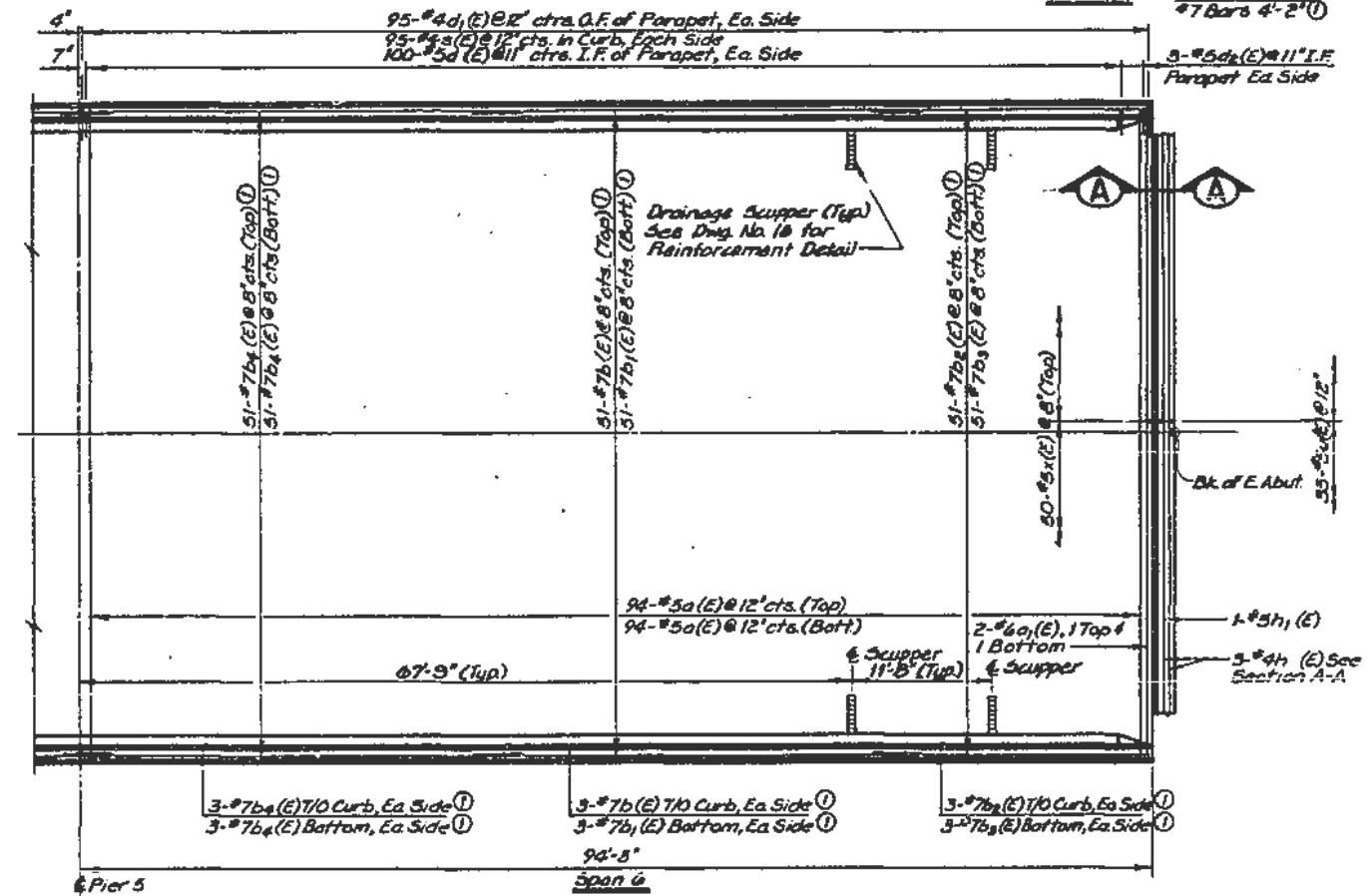


PLAN

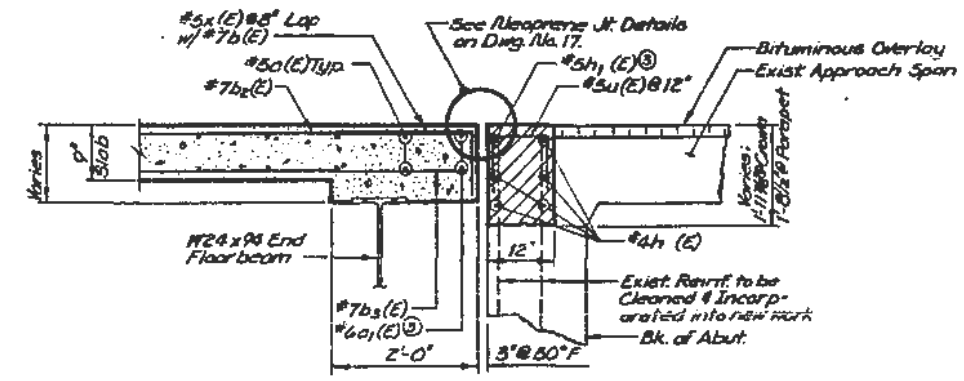
MIRL BAR LAPS
 #7 Bars 4'-2" ①
 3-#5d₁(E) @ 11" I.F. Parapet Ea. Side

① Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
 Top Bars - Midspan Between Floorbeams
 Bott Bars - Centerline of Floorbeam

② At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or a minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



PLAN



SECTION A-A

③ Place in front of Anchor Bolts for Neoprene Expansion Device

ESCA
 CONSULTANTS, INC.

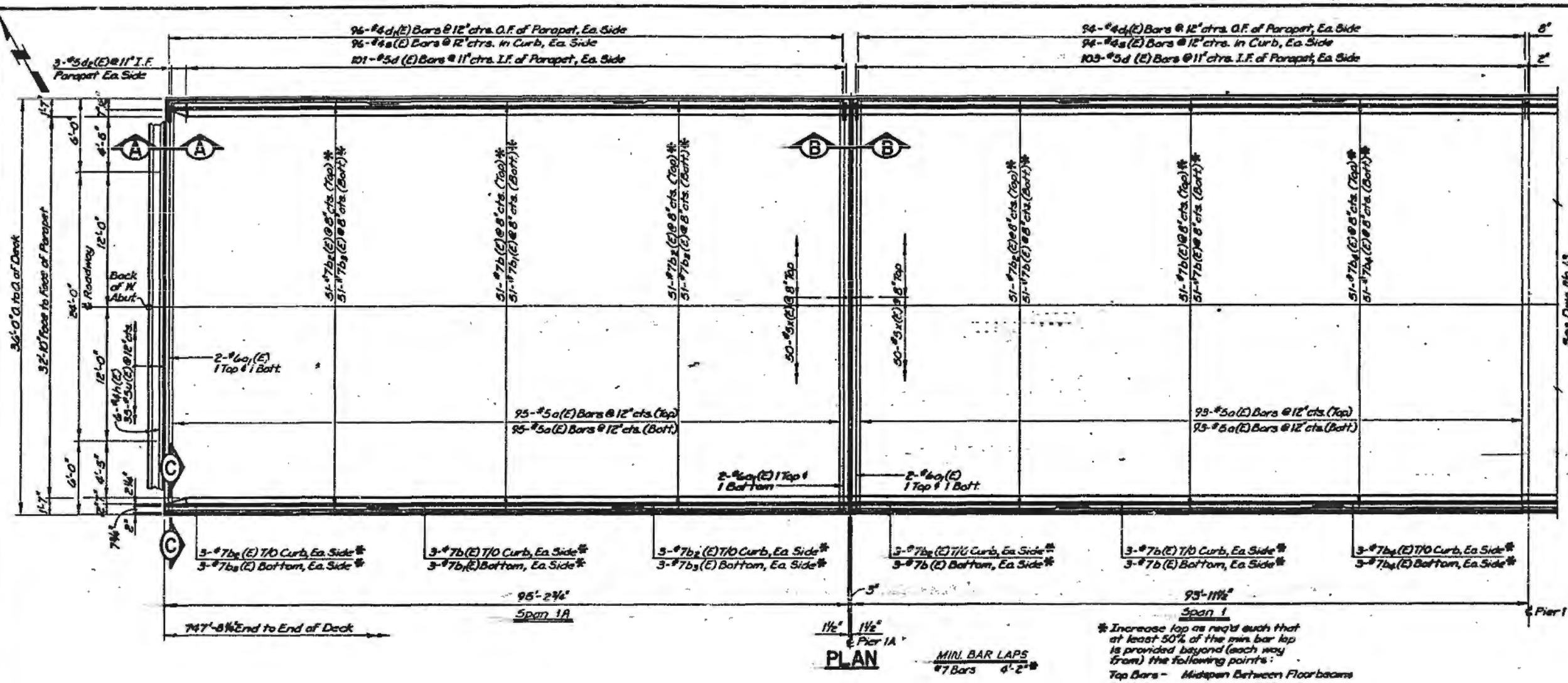
DESIGNED BY:	RDP	6-90
DRAWN BY:	WEH	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

**EASTBOUND LANES
 SUPERSTRUCTURE (CONT.)**
 FAI 74 OVER SALT FORK
 FAI RTE. 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

DATE	REVISION	BY	DESCRIPTION
FAI-74	92-11BR	Merrill	Rev. 1
			TO CIV.
			PROJECT
Dwg. No. 12 of 28			

NOTES

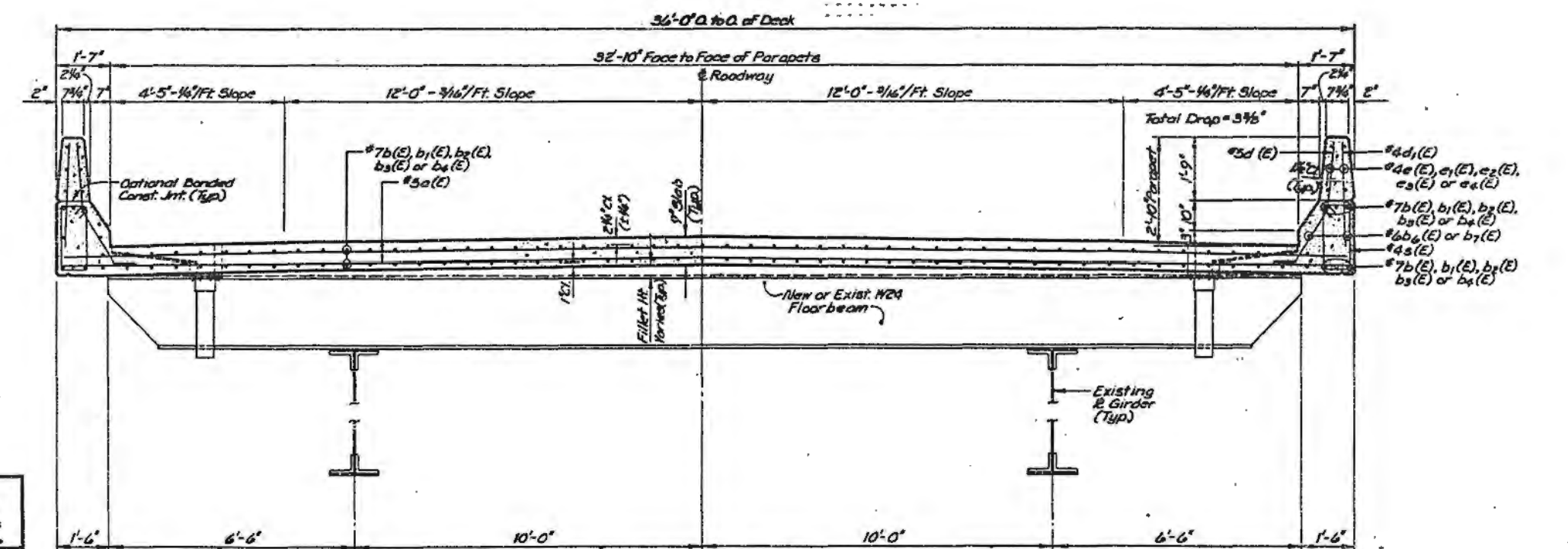
- FOR CONTINUATION OF SUPERSTRUCTURE PLAN, SEE DWG. 13 & 14.
- REINFORCEMENT DESIGNATED (B) SHALL BE EPOXY COATED.
- SEE DWG. NO. 13 FOR SECTIONS A-A & B-B.
- EXISTING REINFORCEMENT WHICH EXTENDS INTO CONCRETE REMOVAL AREAS SHALL BE CLEANED AND INCORPORATED INTO THE NEW CONSTRUCTION. COST INCIDENTAL.
- JOINTS IN PARAPET NOT SHOWN. SEE DWG. NO. 13.
- SEE DWG. NO. 14 FOR SUPERSTRUCTURE BILL OF MATERIAL.



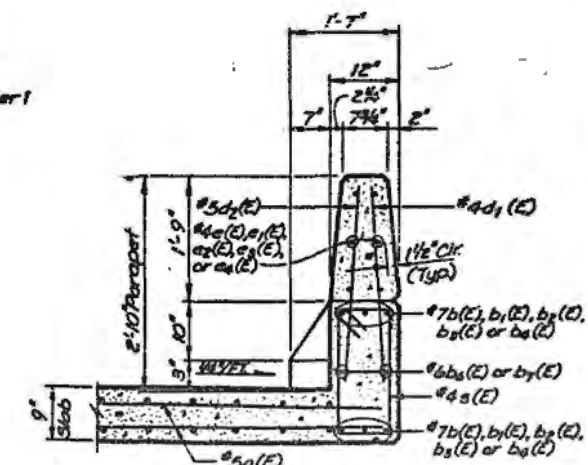
PLAN

MINI. BAR LAPS
#7 Bars 4'-2"

* Increase top as req'd such that at least 50% of the min bar lap is provided beyond (each way from) the following points:
Top Bars - Midspan Between Floorbeams
Bottom Bars - Centerline of Floorbeam



CROSS SECTION (LOOKING EAST)



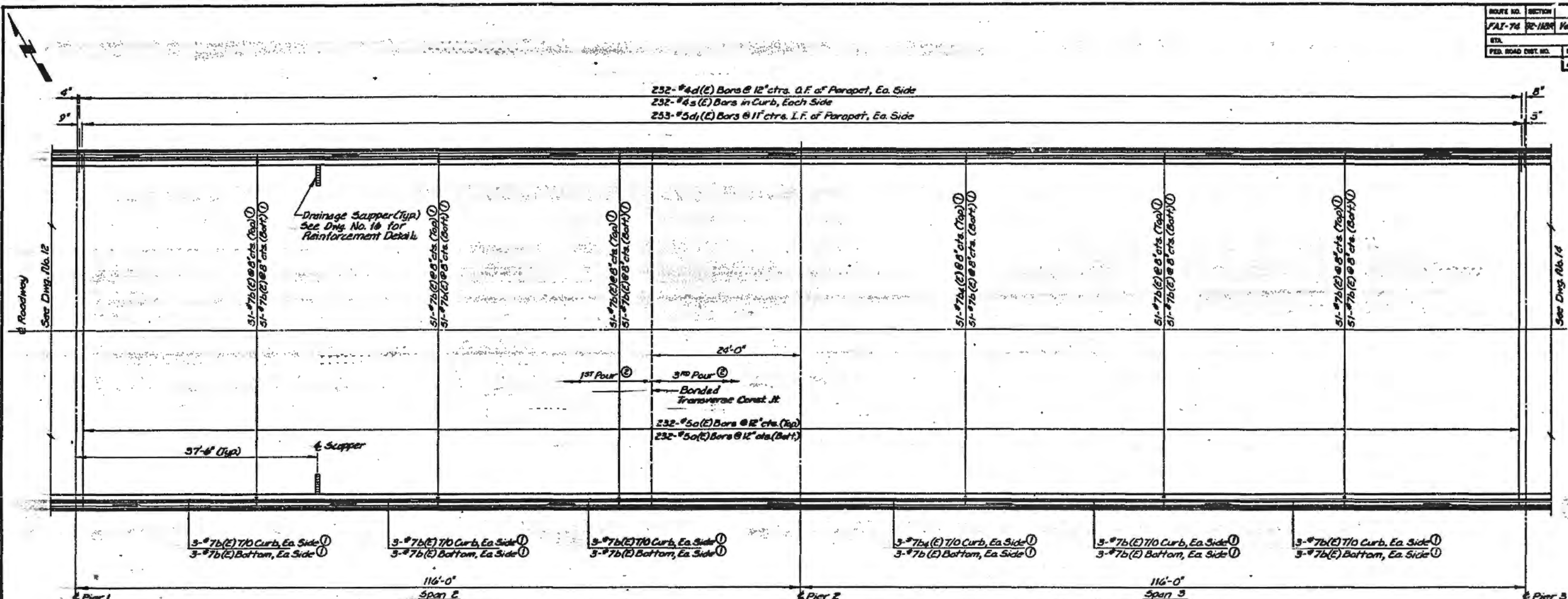
SECTION C-C

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

**WESTBOUND LANES
SUPERSTRUCTURE**
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

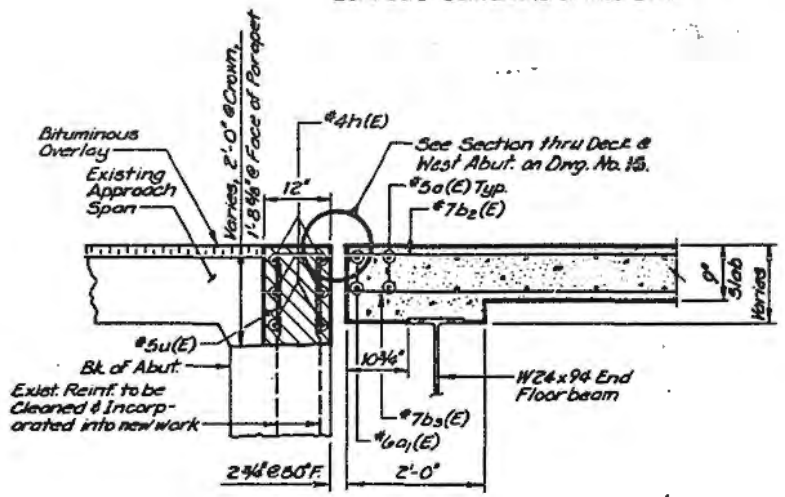
ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
FAI-74	92-108R	Vermillion	16-5	24
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT	Dwg. No. 13 of 28		



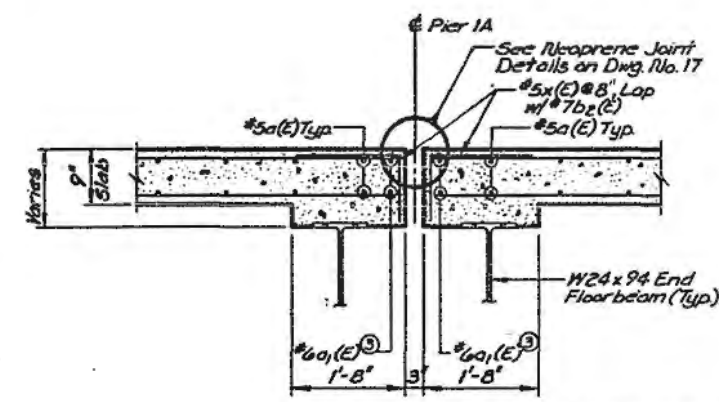
PLAN MIN BAR LAPS
 #7 Bars 4'-0"

① Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
 Top Bars - Midspan Between Floorbeams
 Bott Bars - Centerline of Floorbeam

② At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or a minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



SECTION A-A
 (See Dwg. No. 12 for Location)



SECTION B-B
 (See Dwg. No. 12 for Location)

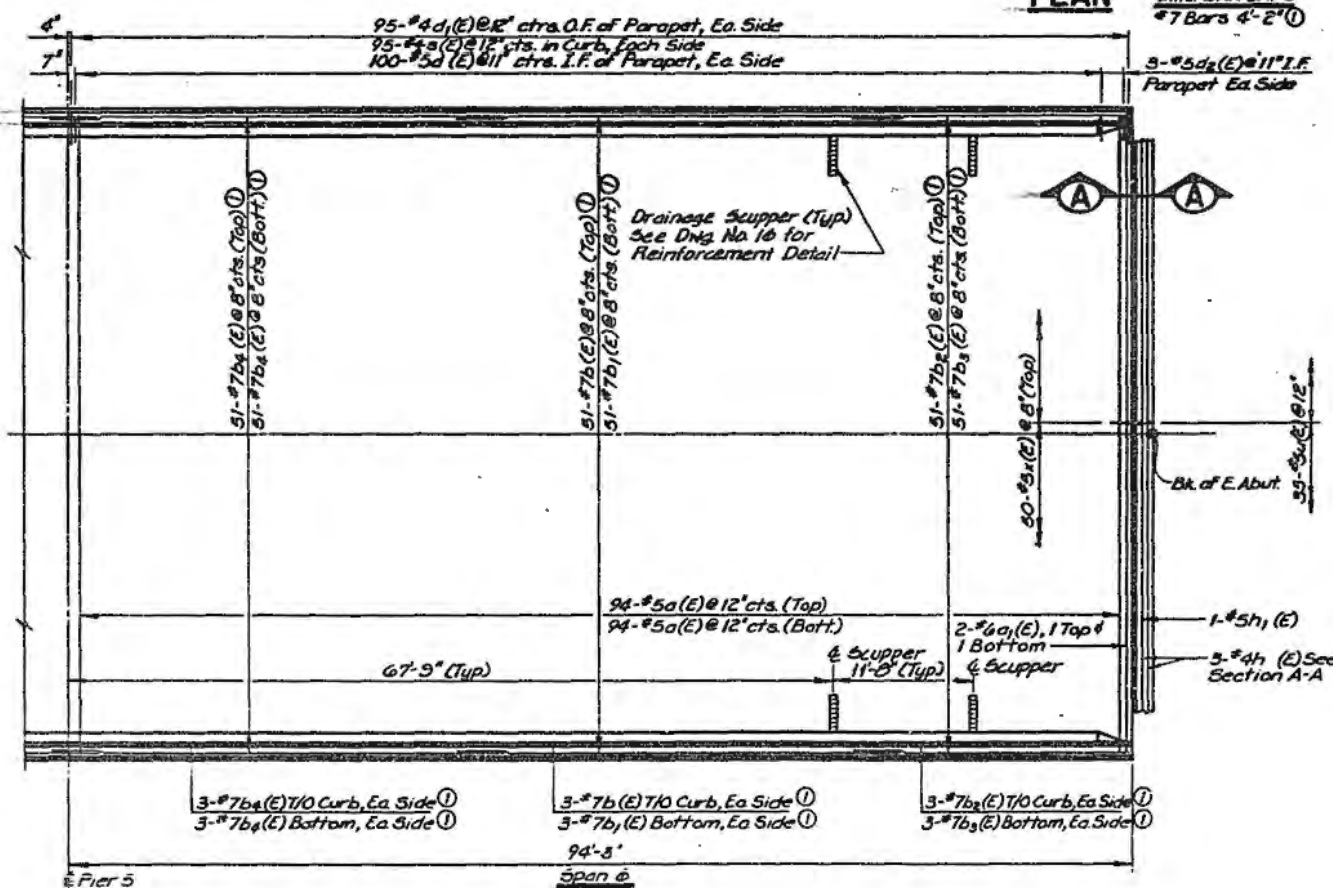
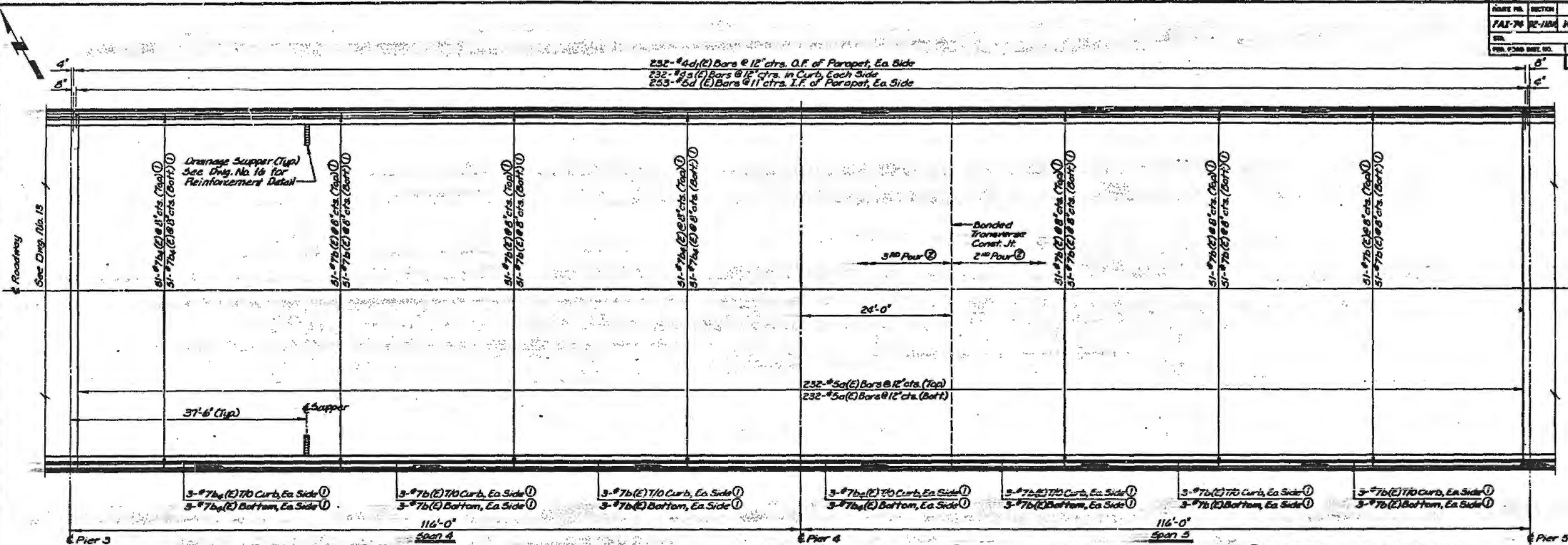
③ Place in front of Anchor Bolts for Neoprene Exp. Device.

ESCA
 CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

**WESTBOUND LANES
 SUPERSTRUCTURE (CONT.)**
 FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 92-118R
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

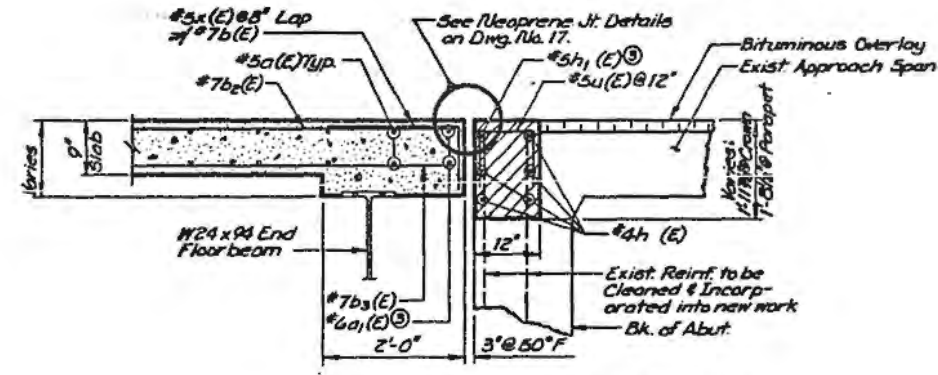
DATE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-118R	Vermilion	165	75
STA.	TO STA.	PROJECT		
VER. 0300 DIST. NO.	ILL. NO. 02	PROJECT	Dwg. No. 14 of 28	



MIN. BAR LAPS
 #7 Bars 4'-2" (1)
 #5-#5d_s(E) @ 11" I.F. Parapet Ea. Side

(1) Increase lap as req'd such that at least 50% of the min. bar lap is provided beyond (each way from) the following points:
 Top Bars - Midspan Between Floor beams
 Bott Bars - Centerline of Floor beam

(2) At least three days shall have elapsed since completion of the previous pour before the next pour can be commenced. The previous pour shall have attained a minimum compression strength of 3500 p.s.i. or minimum modulus of rupture of 650 p.s.i. prior to commencing the next pour.



SECTION A-A

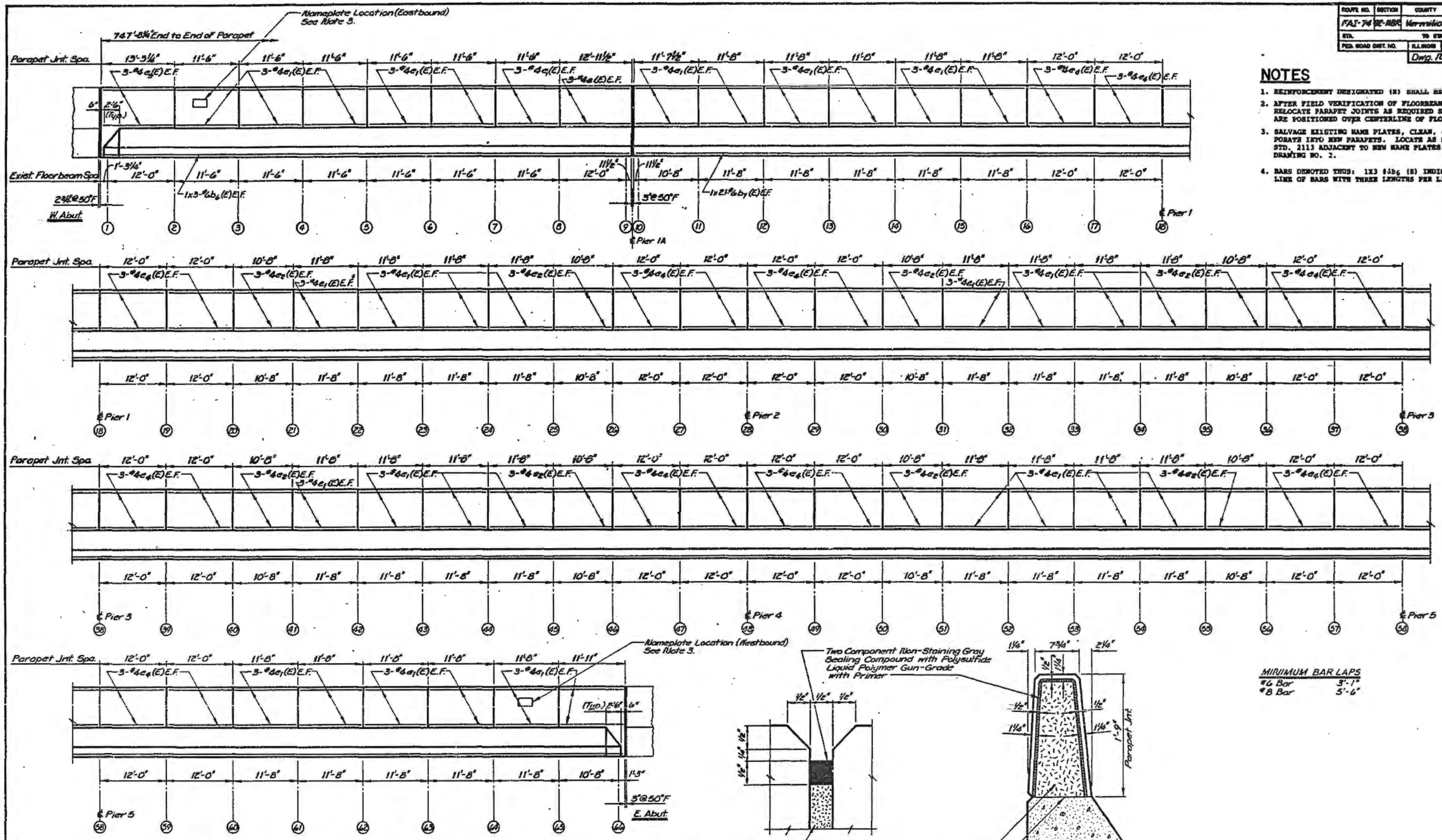
(3) Place in front of Anchor Bolts for Neoprene Expansion Device

ESCA
 CONSULTANTS, INC.

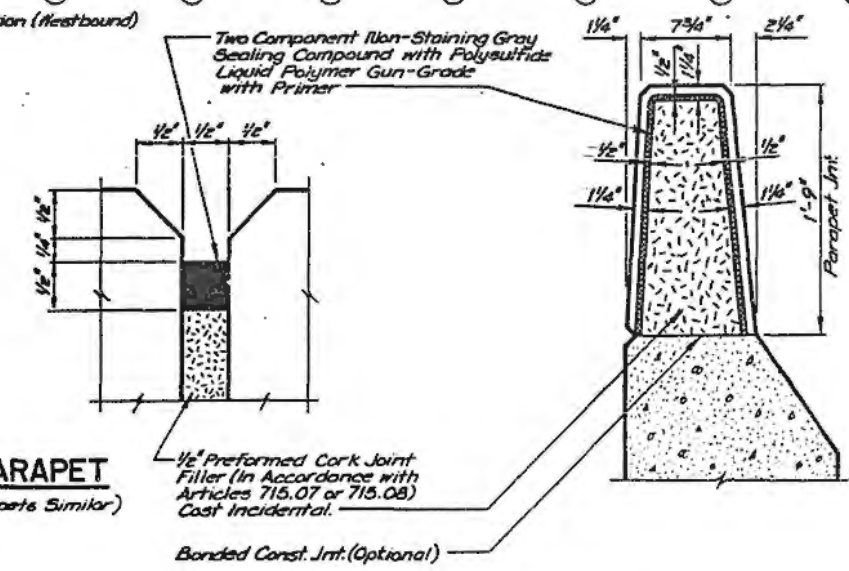
DESIGNED BY:	RDP	4-90
DRAWN BY:	NEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

**WESTBOUND LANES
 SUPERSTRUCTURE (CONT.)
 FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 92-118R
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)**

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-MBR	Vermilion	165	76
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT	PROJECT		
	Dwg. No. 15 of 28			



- NOTES**
1. REINFORCEMENT DESIGNATED (E) SHALL BE EPOXY COURED.
 2. AFTER FIELD VERIFICATION OF FLOORBEAM SPACING, RELOCATE PARAPET JOINTS AS REQUIRED SUCH THAT JOINTS ARE POSITIONED OVER CENTERLINE OF FLOORBEAM.
 3. SALVAGE EXISTING NAME PLATES, CLEAR, & INCORPORATE INTO NEW PARAPETS. LOCATE AS SHOWN ON STD. 2113 ADJACENT TO NEW NAME PLATES. SEE DRAWING NO. 2.
 4. BARS DENOTED THUS: 1X3 #5b6 (E) INDICATES ONE LINE OF BARS WITH THREE LENGTHS PER LINE.



INSIDE ELEVATION OF PARAPET
(Looking at North Parapets, South Parapets Similar)

DETAILS OF PARAPET JOINTS

MINIMUM BAR LAPS

#6 Bar	3'-1"
#8 Bar	5'-6"

ESCA
CONSULTANTS, INC.

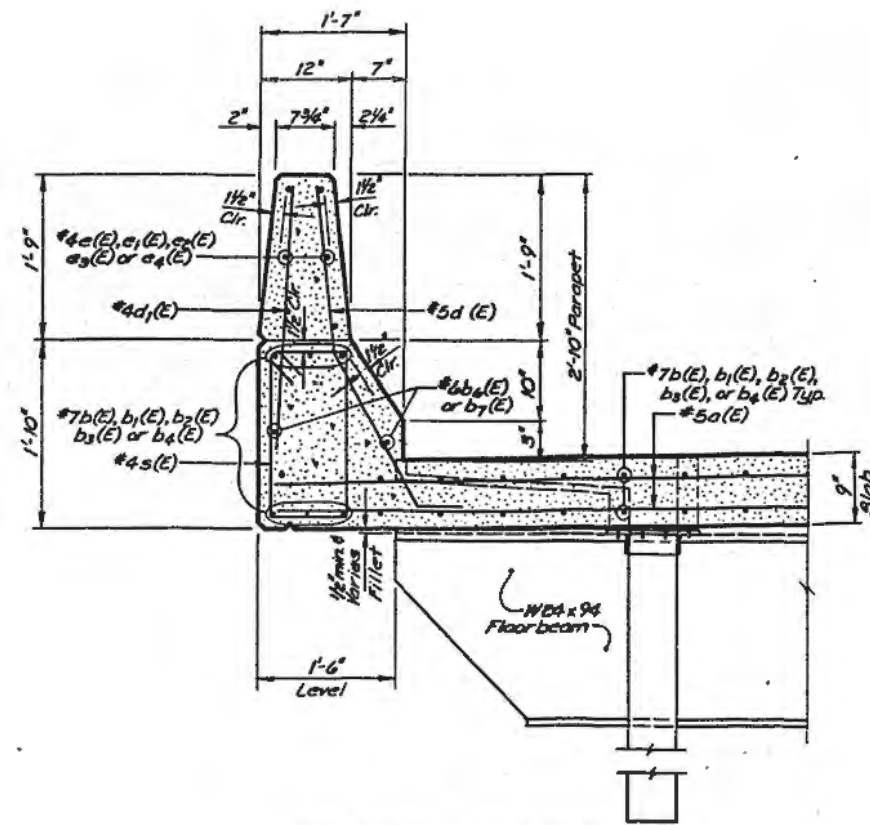
DESIGNED BY:	RDP	6-90
DRAWN BY:	WCM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

SUPERSTRUCTURE DETAILS
FAI 74 OVER SALT FORK
FAI RTE 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

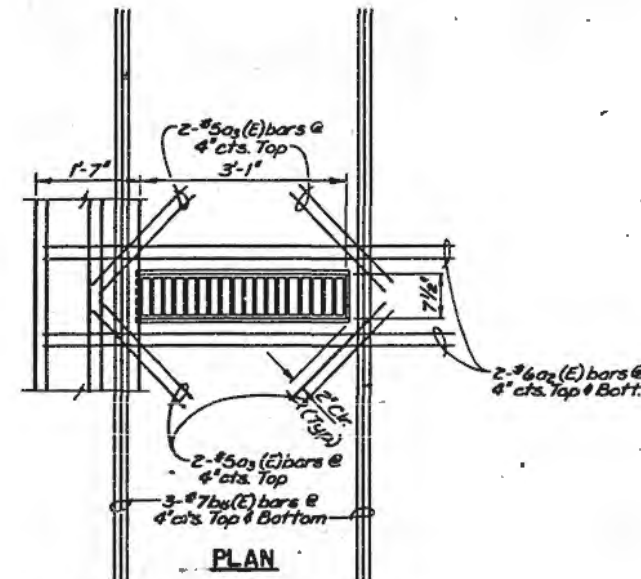
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	77
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT	Dwg No. 16 of 28		

NOTES

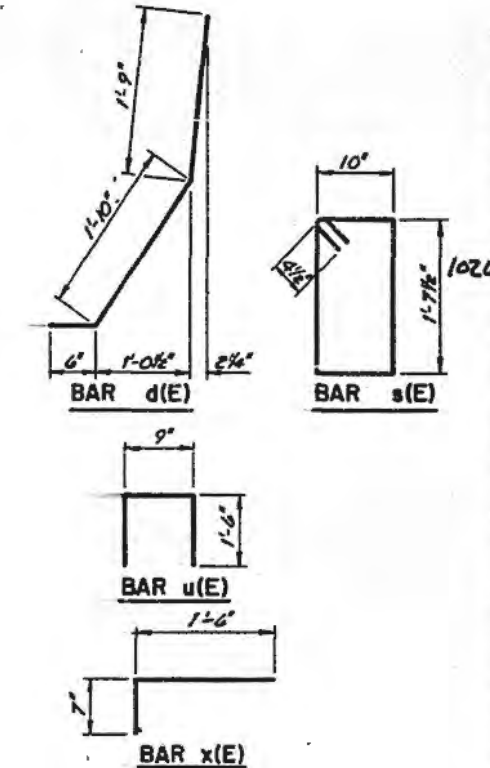
1. REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.



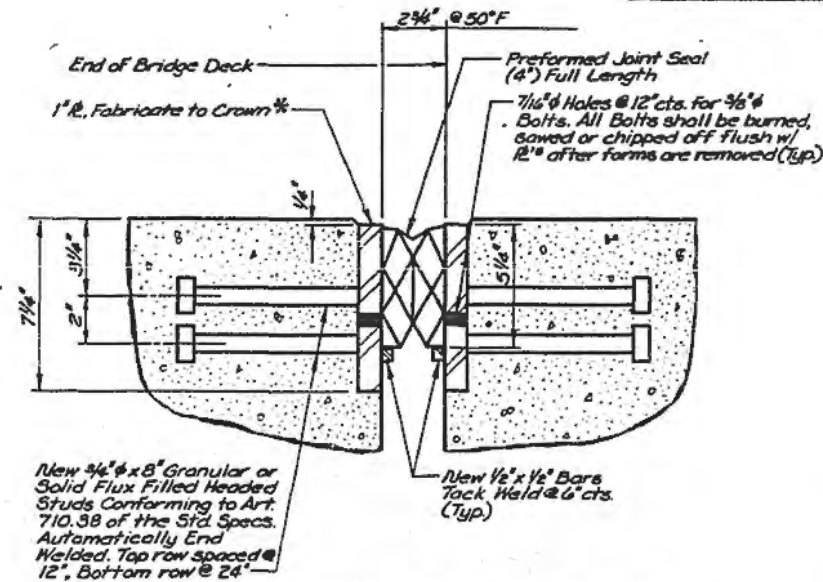
SECTION THRU PARAPET



ADDITIONAL REINFORCING AT SCUPPERS

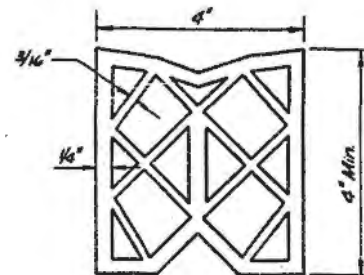


BAR BENDING DETAILS

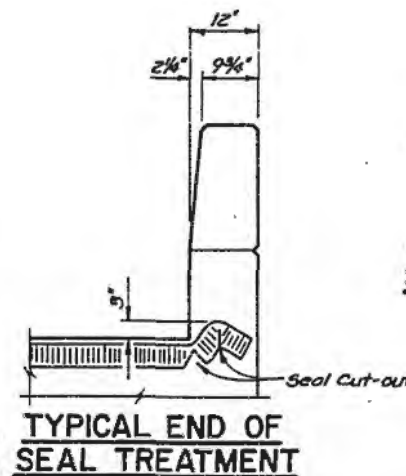


SECTION THRU DECK AT W. ABUT.

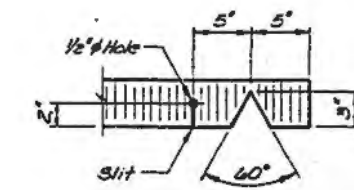
* FURNISH IN SEGMENTS OF 20' MAX. LENGTH. MAXIMUM SPACE BETWEEN INSTALLED SEGMENTS SHALL BE 3/16". SEAL SPACES W/SILICONE SEALANT SUITABLE FOR STRUCTURAL STEEL. AFTER FABRICATION, ALL SURFACES OF THE STEEL PLATES SHALL BE GIVEN ONE SHOP COAT OF PAINT SPECIFIED FOR STRUCTURAL STEEL.



4" P.J.S. DETAILS



TYPICAL END OF SEAL TREATMENT



SEAL CUT-OUT DETAIL

BILL OF MATERIAL (TWO SUPERSTRUCTURES)

BAR	NO.	SIZE	LENGTH	SHAPE
a(E)	2984	#5	35'-4"	—
a1(E)	16	#6	35'-0"	—
a2(E)	128	#6	6'-0"	—
a3(E)	128	#5	2'-0"	—
b(E)	2964	#7	39'-2"	—
b1(E)	228	#7	27'-6"	—
b2(E)	456	#7	32'-6"	—
b3(E)	342	#7	38'-3"	—
b4(E)	242	#7	40'-2"	—
b5(E)	192	#7	8'-0"	—
b6(E)	24	#6	35'-8"	—
b7(E)	168	#6	34'-0"	—
d(E)	3240	#5	4'-1"	—
d1(E)	2996	#4	2'-9"	—
d2(E)	24	#5	2'-10"	—
e(E)	24	#4	12'-9"	—
e1(E)	816	#4	11'-2"	—
e2(E)	192	#4	10'-2"	—
e3(E)	24	#4	12'-11"	—
e4(E)	480	#4	11'-8"	—
h(E)	22	#6	35'-4"	—
h1(E)	2	#5	35'-4"	—
s(E)	2996	#4	5'-8"	—
u(E)	140	#5	3'-9"	—
x(E)	300	#5	2'-1"	—

ITEM	UNIT	QUANTITY
Reinforcement Bars (Epoxy Coated)	Lbs.	501,228
Protective Coat	Sq. Yds.	4755
Class X Conc. Superstructure	Cu. Yds.	1892.4
Neoprene Exp. Jnt. (4")	Lin. Ft.	142
Drainage Scuppers	Each	16
P.J.S. 4"	Lin. Ft.	72

**Quantity includes top and inside faces of parapets only.

SUPERSTRUCTURE DETAILS
 FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

ESCA
 CONSULTANTS, INC.
 DESIGNED BY: RDP 6-90
 DRAWN BY: WEM 6-90
 CHECKED BY: JRF 6-90
 APPROVED BY: RDP 6-90

Joint Size	"C" at 50°F	"D" at 50°F
4	3"	2 1/2" min

INSTALLATION NOTES

Use anchor blocks and continuous seal as anchor bolt location templates.

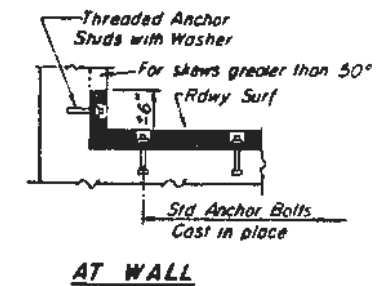
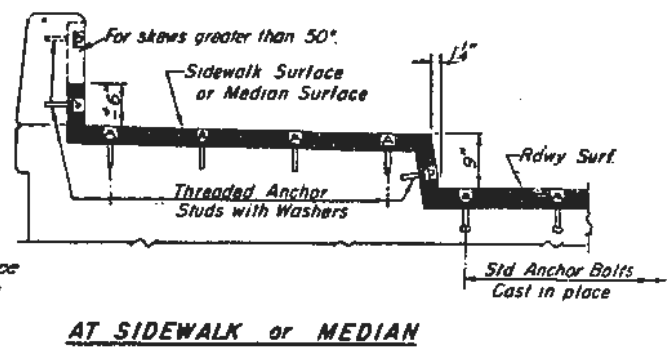
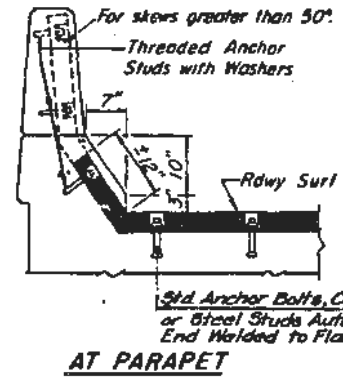
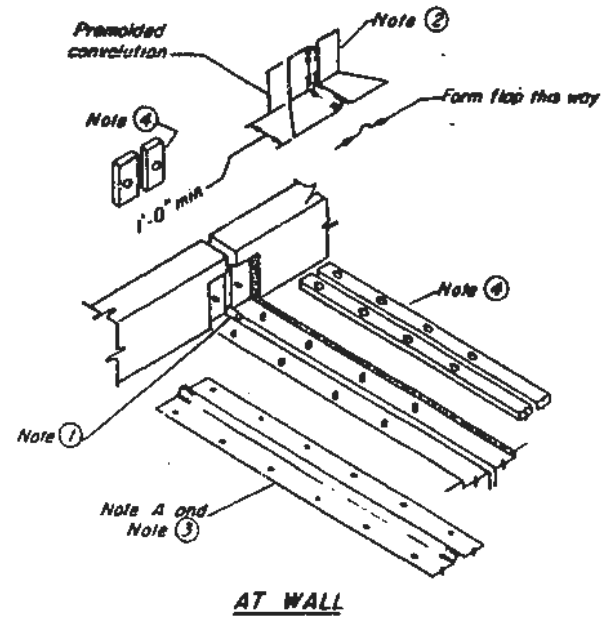
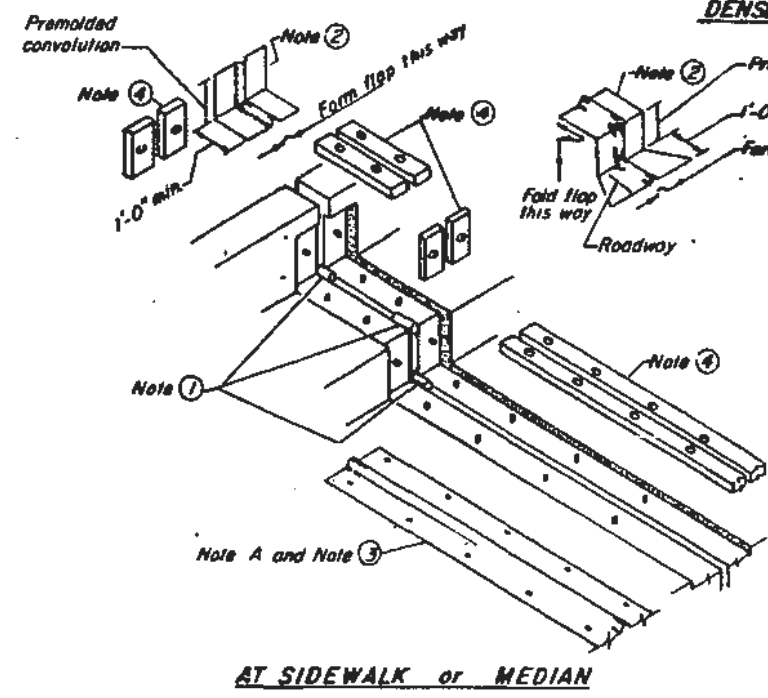
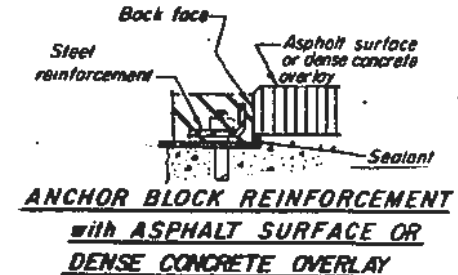
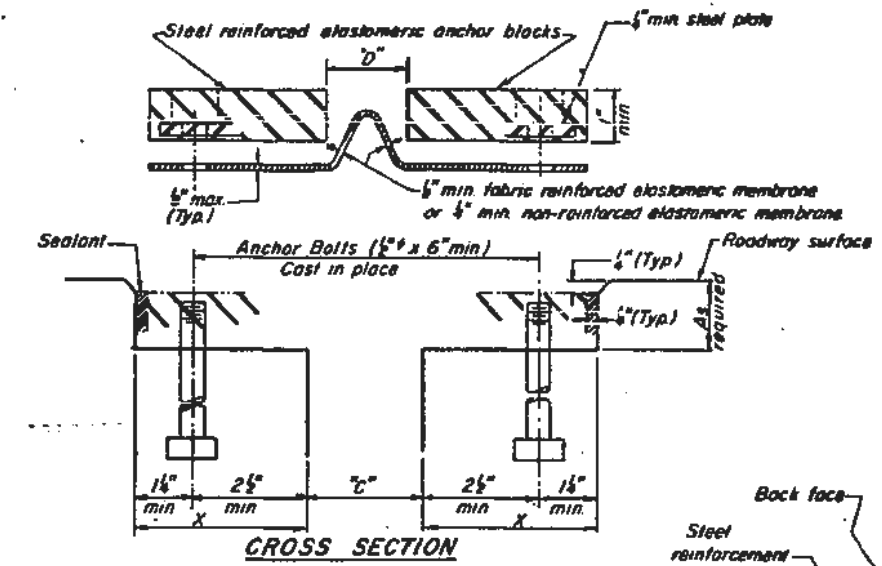
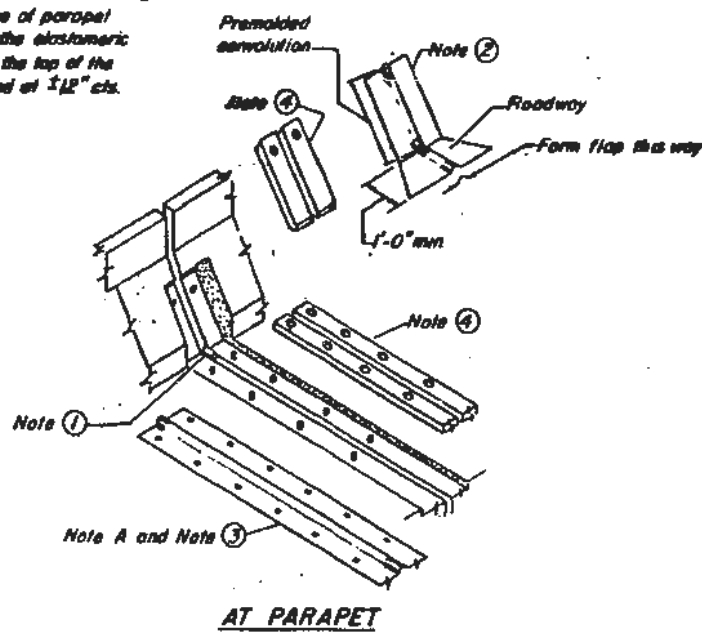
- 1 Install sponge mandrels into positions shown to form flap convolution.
- 2 Install parapet or sidewalk piece (trim roadway flap to fit before applying epoxy).
- 3 Install continuous seal in roadway.
- 4 Install anchor blocks as indicated.

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

SKEW LIMITATIONS

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

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



TYPICAL END TREATMENTS

GENERAL NOTES

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

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

The steel reinforcement must extend up the back face of anchor blocks when asphalt surfaces are used but is optional in concrete blockout.

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

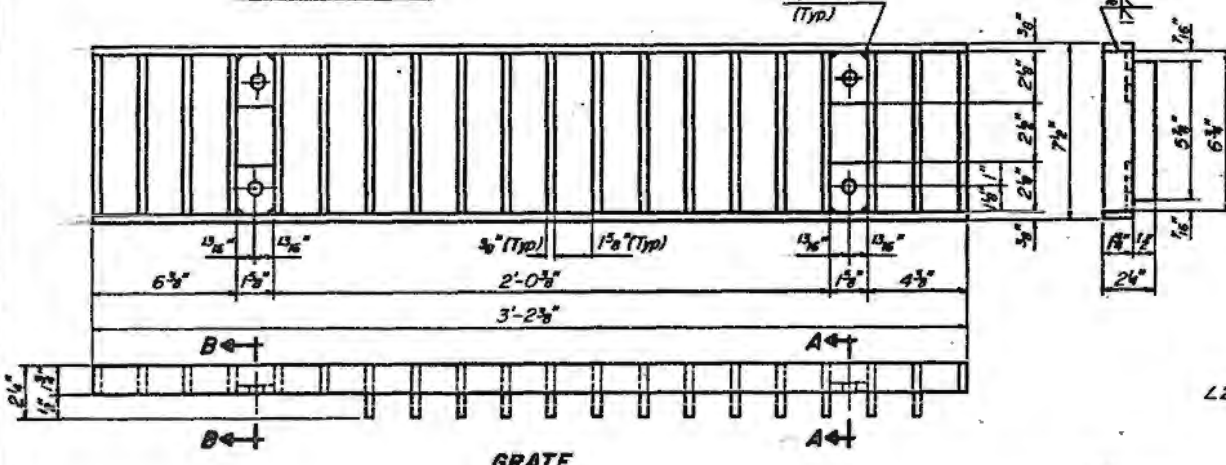
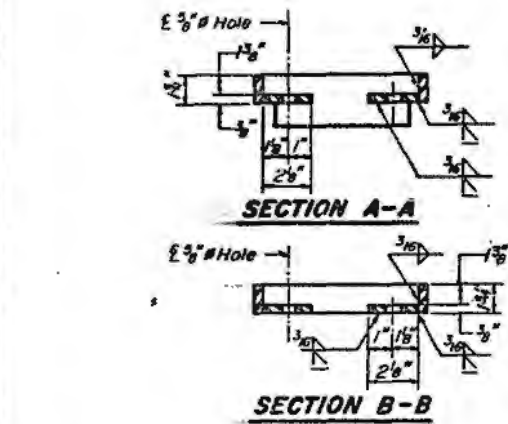
Joint openings shall be adjusted in accordance with Article 503.07(c) of the Standard Specifications when the deck is poured at an ambient temperature other than 50°F.

The parapet and sidewalk flaps may be furnished factory vulcanized to the roadway membrane provided the centerline of the convolution is maintained and the process and method meet the approval of the Engineer.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-20
DRAWN BY:	HEM	6-20
CHECKED BY:	JRF	6-20
APPROVED BY:	RDP	6-20

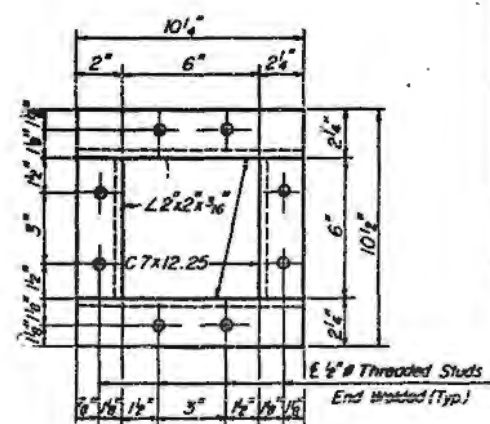
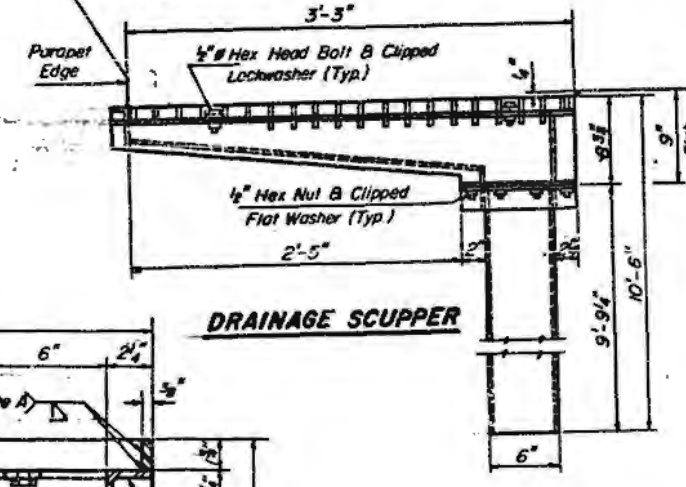
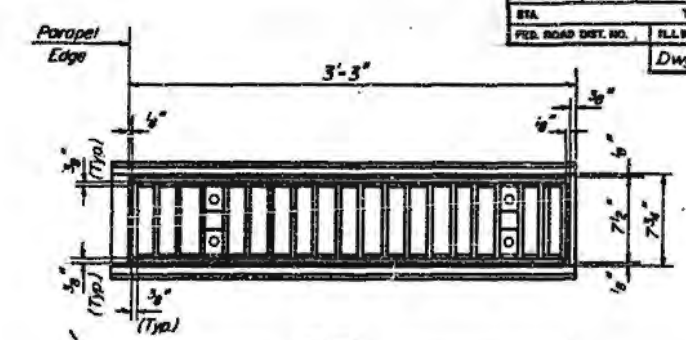
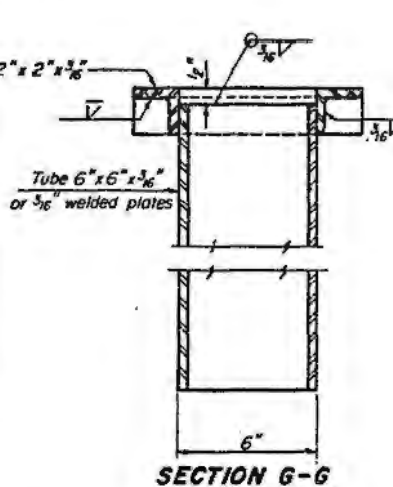
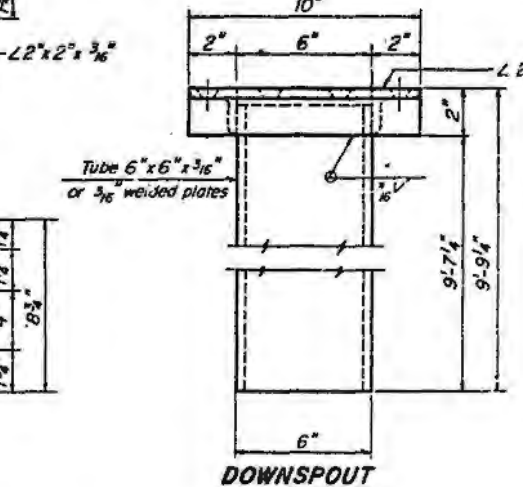
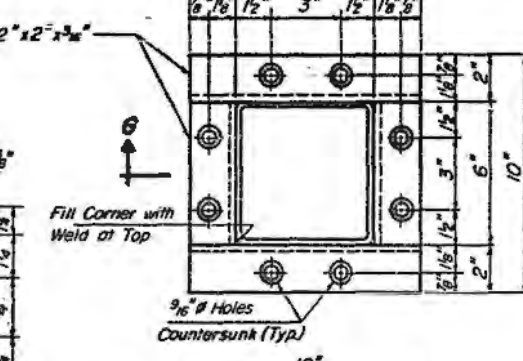
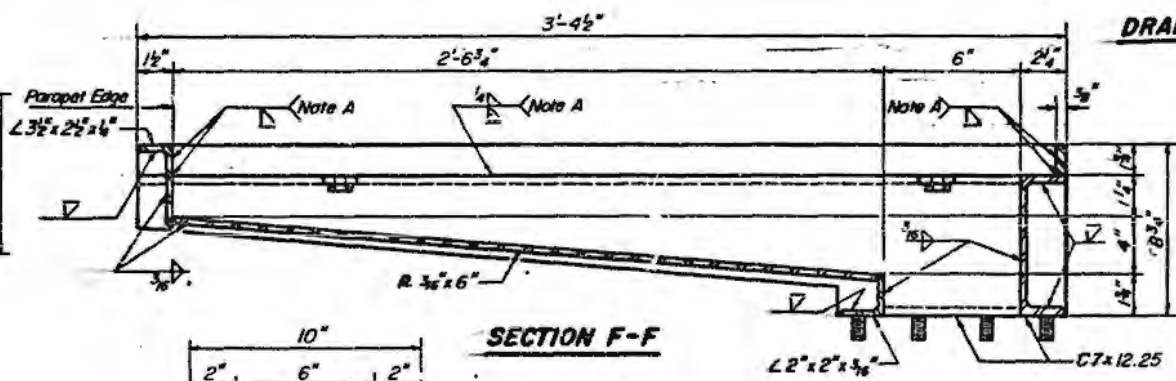
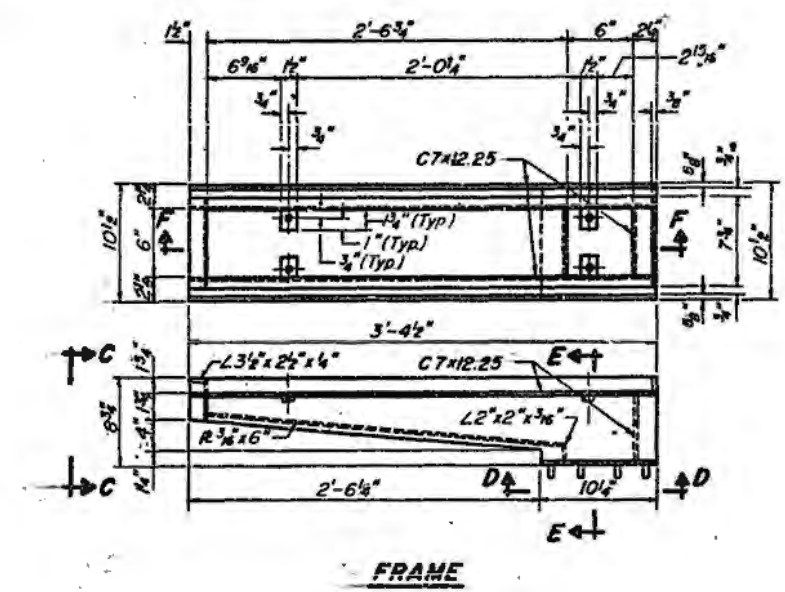
**CONTINUOUS SEAL
TYPE NEOPRENE
EXPANSION JOINTS**
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-118R
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)



Notes:
 Hollow structural steel tubing shall conform to the requirements of A.S.T.M. designation A-500 Grade B, or A-501 Structural Steel Tubing.
 All other shapes, plates and bars shall conform to the requirements of A.A.S.H.T.O. M 183.
 Bolts, studs, washers and nuts shall conform to the requirements of A.S.T.M. A-307.
 The Grate, Frame, and Downspout shall be galvanized after shop fabrication in accordance with A.A.S.H.T.O. M-111 & A.S.T.M. A-385.
 All bolts, washers and nuts shall be galvanized in accordance with A.A.S.H.T.O. M 232.
 Cost of the Grate, Frame, Downspout, Bolts, Washers and Nuts including complete installation of Scupper shall be paid for at the unit bid price for "DRAINAGE SCUPPERS".

ESCA
 CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	PDV	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

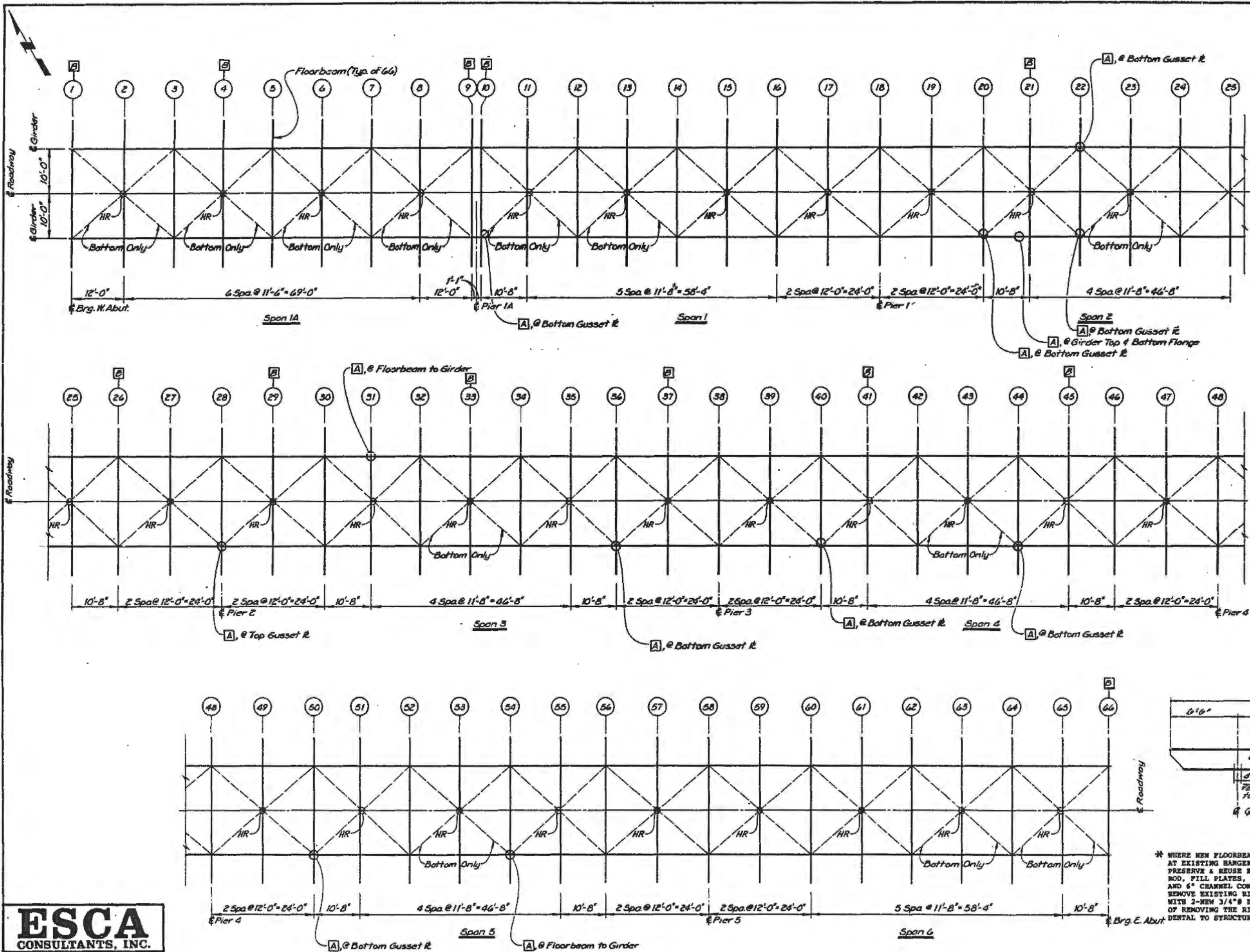


BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Drainage Scupper	Each	16

DRAINAGE SCUPPER
 FAI 74 OVER SALT FORK
 FAI RTE. 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	BRIDGE	TOTAL SPANS	SHEET NO.
FAI-74	92-11BR	Vermillion	145	80
STA.	TO STA.			
FED. ROAD DIST. NO.	ALBANY	PROJECT	Dwg No. 19 of 28	



NOTES

- BOTTOM LATERAL BRACING EXISTS AS SHOWN BY DASHED LINES THROUGHOUT LENGTH OF STRUCTURE; TOP LATERAL BRACING EXISTS IN ALL PANELS EXCEPT WHERE "BOTTOM ONLY" DESIGNATION APPEARS.
- CROSS FRAMES BETWEEN GIRDERS ARE LOCATED TRANSVERSE TO ROADWAY AT EACH POINT WHERE LATERAL BRACING INTERSECTS GIRDERS.
- HR INDICATES LOCATION OF HANGER ROD ASSEMBLY FOR BOTTOM LATERAL BRACING SYSTEM.
- ①, ②, ③, etc., INDICATES FLOORBEAM DESIGNATION.
- SEE DWG. NOS. 20 & 21 FOR ADDITIONAL DETAILS OF STRUCTURAL STEEL REPAIRS.
- THE COST OF REMOVING FLOORBEAMS IS INCLUDED WITH "STRUCTURAL STEEL REMOVAL." THE COST OF ALL OTHER STRUCTURAL STEEL REMOVAL WORK (BEARINGS, ANCHOR BOLTS, ETC.) IS INCIDENTAL.
- EXISTING BOLTS WHICH THE CONTRACTOR LOOSENS OR REMOVES TO FACILITATE THE WORK CANNOT BE REUSED. WHERE NEW FLOORBEAMS ARE PROVIDED (AND AT OTHER LOCATIONS - SEE SPECIAL PROVISIONS), THE COST OF REMOVING AND REPLACING BOLTS IS INCIDENTAL.

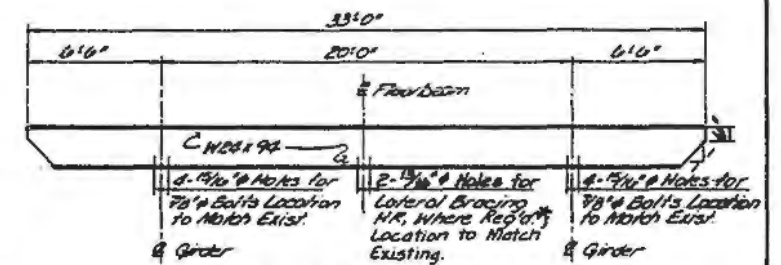
LEGEND

- [A] Broken, Loose, or Missing Bolt Location.
- [B] Floorbeam to be Replaced.

Note:
Repair locations indicated on this dwg. are as determined by field inspection conducted in October, 1986. Actual repairs required will be determined and/or verified by the Engineer. The Contractor should not proceed with repairs until they are approved by the Engineer.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish & Erect Structural Steel	Lbs.	57,225
Bolt Removal & Replacement, (1/4")	Each	30
Bolt Removal & Replacement, (1/2")	Each	20
Tighten Hanger Rod Assemblies	Each	25
Weld Removal	Lin. Ft.	50
Structural Steel Removal	Lbs.	53,685



FLOORBEAM DETAIL

* WHERE NEW FLOORBEAMS ARE PROVIDED AT EXISTING HANGER ROD LOCATIONS, PRESERVE & REUSE EXISTING HANGER ROD, FILL PLATES, GUSSET PLATES, AND 6" CHANNEL CONNECTION DEVICE. REMOVE EXISTING RIVETS & REPLACE WITH 2-NEW 3/4" BOLTS. THE COST OF REMOVING THE RIVETS IS INCIDENTAL TO STRUCTURAL STEEL REMOVAL.

**EASTBOUND LANES
STEEL FRAMING PLAN**
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	81
STA.	TO STA.			
FED. ROAD DIST. NO.	MILEAGE	PROJECT		
		Dwg No-20 of 28		

NOTES

1. BOTTOM LATERAL BRACING EXISTS AS SHOWN BY DASHED LINES THROUGHOUT LENGTH OF STRUCTURE; TOP LATERAL BRACING EXISTS IN ALL PANELS EXCEPT WHERE "BOTTOM ONLY" DESIGNATION APPEARS.
2. CROSS FRAMES BETWEEN GIRDERS ARE LOCATED TRANSVERSE TO ROADWAY AT EACH POINT WHERE LATERAL BRACING INTERSECTS GIRDERS.
3. HR INDICATES LOCATION OF HANGER ROD ASSEMBLY FOR BOTTOM LATERAL BRACING SYSTEM.
4. ①, ②, ③, etc., INDICATES FLOORBEAM DESIGNATION.
5. SEE DWG. NOS. 19 & 21 FOR ADDITIONAL DETAILS OF STRUCTURAL STEEL REPAIRS.
6. SEE DWG. NO. 19 FOR DETAIL OF NEW FLOORBEAMS.
7. THE COST OF REMOVING FLOORBEAMS IS INCLUDED WITH "STRUCTURAL STEEL REMOVAL." THE COST OF ALL OTHER STRUCTURAL STEEL REMOVAL WORK (BEARINGS, ANCHOR BOLTS, ETC.) IS INCIDENTAL.

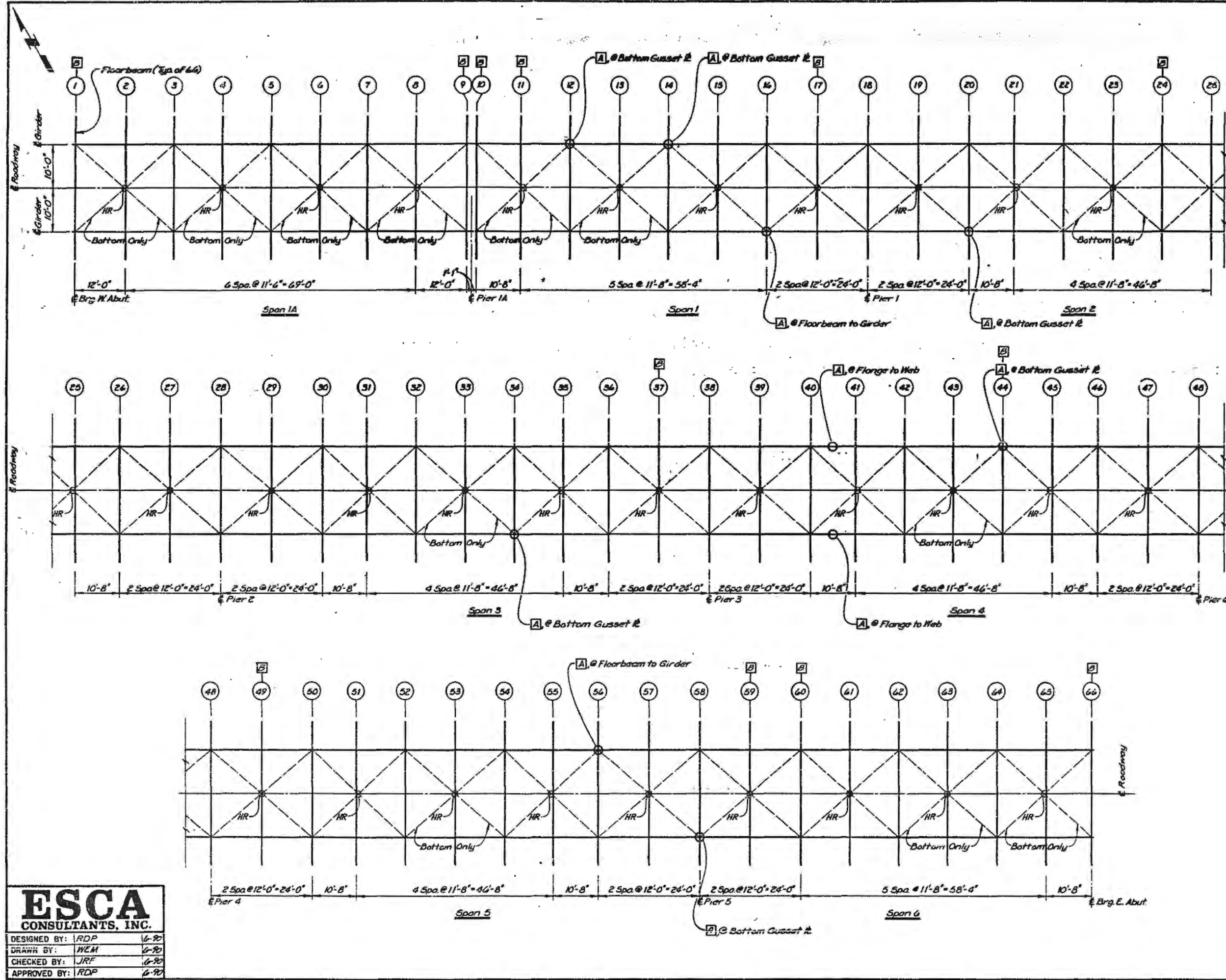
LEGEND

- A Broken, Loose, or Missing Bolt Locations.
- B Floorbeam to be Replaced.

Note
Repair locations indicated on this drawing are as determined by field inspection conducted in October, 1986. Actual repairs required will be determined and/or verified by the Engineer. The Contractor should not proceed with repairs until they are approved by the Engineer.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish & Erect Structural Steel	Lbs	57,225
Bolt Removal & Replacement, (3/4")	Each	20
Bolt Removal & Replacement, (1/2")	Each	25
Tighten Hanger Rod Assemblies	Each	27
Weld Removal	LIN. FT.	50
Structural Steel Removal	Lbs.	276.5



ESCA
CONSULTANTS, INC.

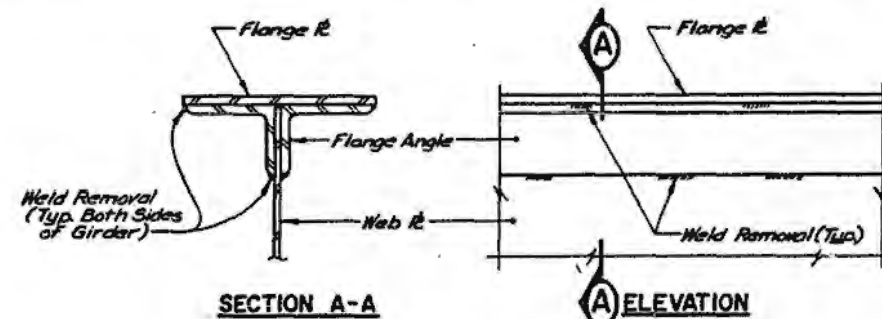
DESIGNED BY:	RDP	6-90
DRAWN BY:	HEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

**WESTBOUND LANES
STEEL FRAMING PLAN**
FAI 74 OVER SALT FORK
FAI RTE 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

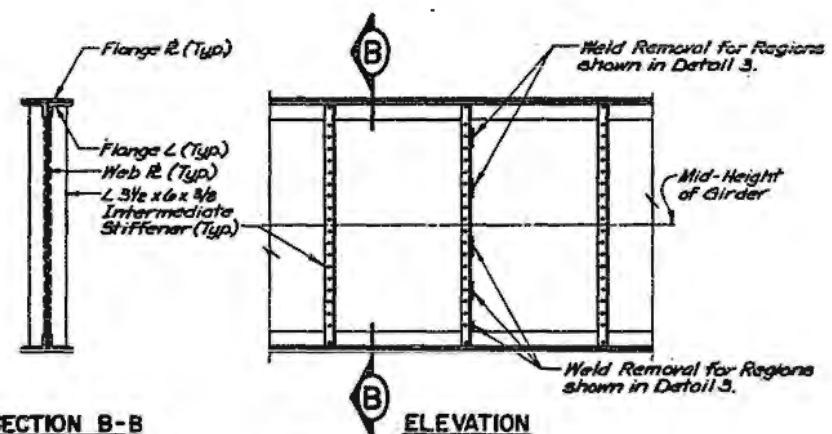
ROUTE NO.	SECTION	COUNTY	SHEET NO.	TOTAL SHEETS
FAI-74	92-11BR	Vermilion	165	22
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT	Dwg. No. 21 of 28		

STRUCTURAL STEEL REPAIR NOTES

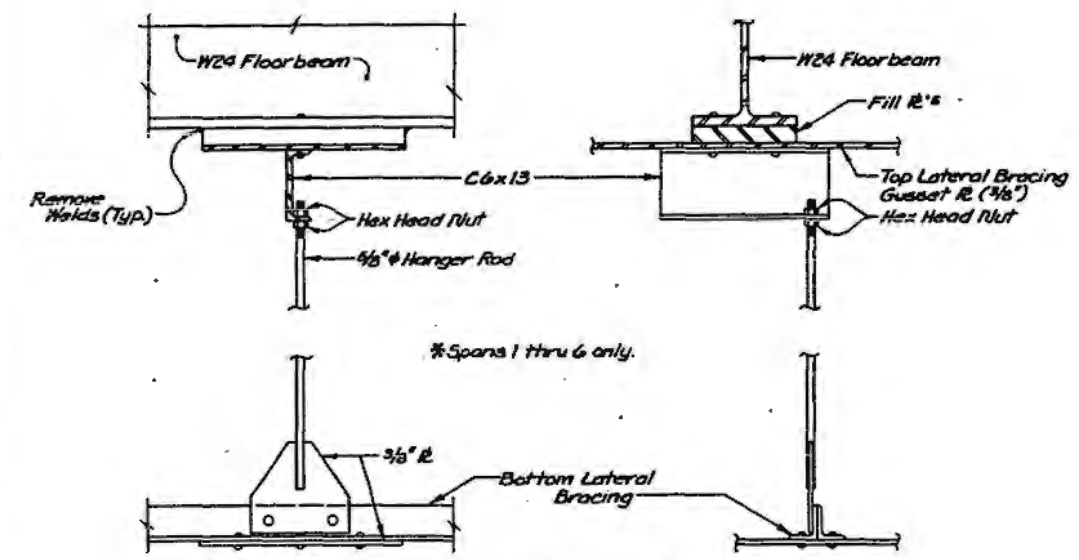
- CHECK ALL RANGER ROD ASSEMBLIES FOR BOTTOM LATERAL BRACING SYSTEM, AND TIGHTEN PER THE DIRECTIONS OF THE ENGINEER. SEE DETAIL 1 THIS DRAWING AND SPECIAL PROVISIONS.
- REMOVE ALL FILLET WELDS BETWEEN RANGER ROD ASSEMBLY AND BOTTOM FLANGE OF FLOOR BEAMS. SEE DETAIL 1 THIS DRAWING AND SPECIAL PROVISIONS.
- REMOVE TACK WELDS BETWEEN GIRDER WEB PLATES AND FLANGE ANGLES AND BETWEEN GIRDER FLANGE ANGLES AND FLANGE PLATES. SEE DETAILS 2 & 3 AND SPECIAL PROVISIONS.
- REPLACE BROKEN, LOOSE, AND MISSING BOLTS AT LOCATIONS SHOWN ON DMGS. 19 & 20 AND AS DIRECTED BY THE ENGINEER. TYPES OF CONNECTIONS WHERE BOLT REPLACEMENT IS REQUIRED ARE:
 - FLOORBEAM TO GIRDER CONNECTIONS (7/8"Ø).
 - GIRDER FLANGE TO WEB CONNECTIONS AT SPLICES (3/4"Ø).
 - LATERAL BRACING CONNECTIONS (3/4"Ø).
 - CROSS FRAM CONNECTIONS (3/4"Ø).
- REMOVE TACK WELDS BETWEEN GIRDER WEB AND STIFFENERS AT LOCATIONS SHOWN ON DETAILS 3 & 4 AND AS DIRECTED BY THE ENGINEER. SEE SPECIAL PROVISIONS.
- RAISE EXISTING STRUCTURE AND PROVIDE NEW BEARINGS. SEE DWG. NO. 22.
- PROVIDE NEW FLOORBEAMS AT LOCATIONS INDICATED ON DWG. NOS. 19 & 20, AND AS DIRECTED BY THE ENGINEER.



DETAIL 2
(Top Flange Shown; Bottom Flange Similar)



DETAIL 4

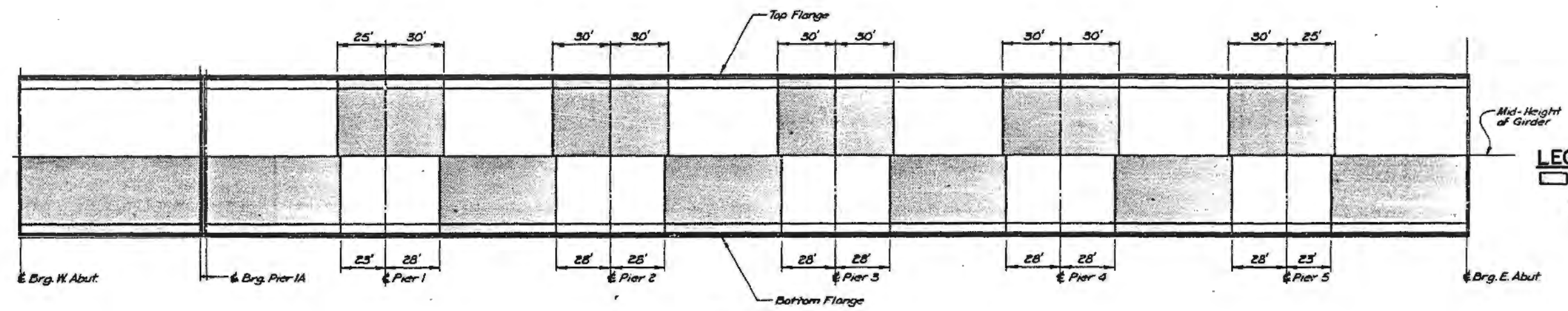


HANGER ROD TIGHTENING PROCEDURE

- Loosen Bottom Nut.
- Tighten Top Nut per Directions of the Engineer.
- Tighten Bottom Nut.

DETAIL 1

(Typ. as shown @ 20 locations each bridge; @ 12 odd' locations each bridge, detail is similar except no Top Lateral Bracing Gusset R's exist. At these locations, remove any fillet welds between C6 & Bottom Flange of Floorbeam)



ELEVATION
(Looking North)

DETAIL 3

LEGEND

□ Indicates Region where weld removal is req'd. See Details 2 & 4 and Notes 3 & 5.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-20
DRAWN BY:	WEM	6-20
CHECKED BY:	JRF	6-20
APPROVED BY:	RDP	6-20

STRUCTURAL STEEL REPAIRS
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

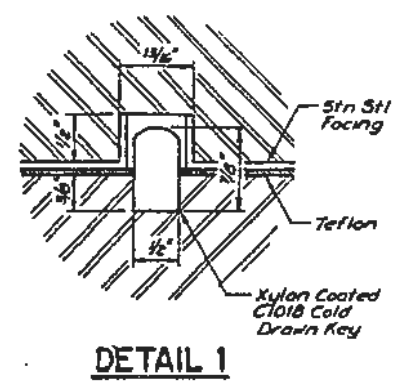
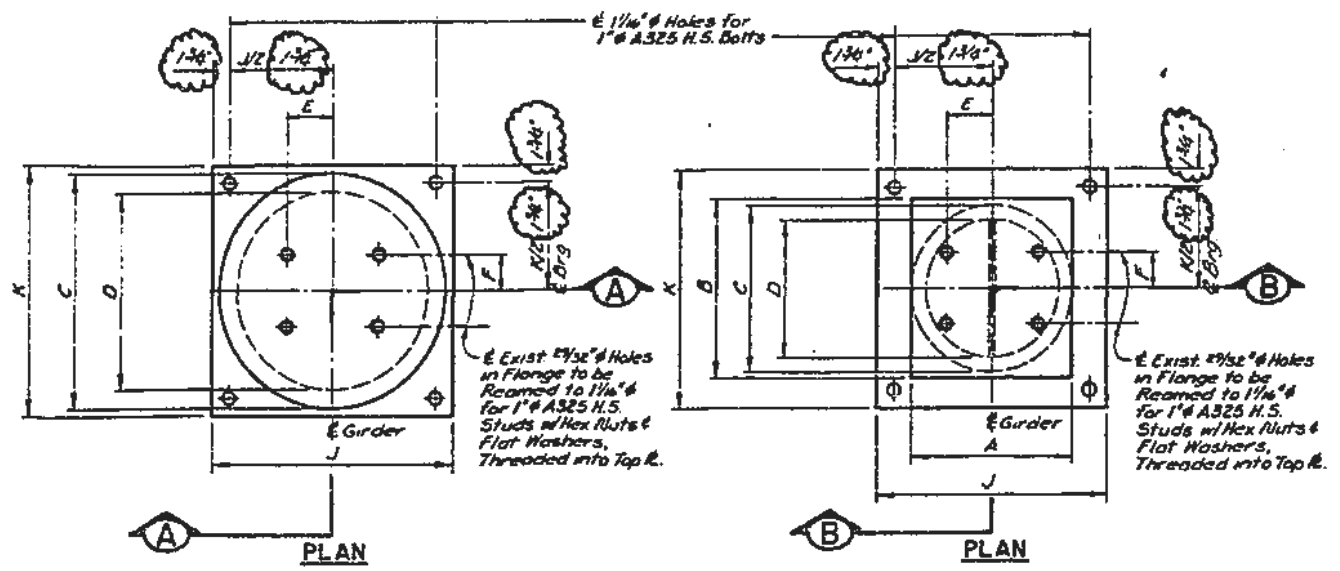


TABLE OF ELEVATIONS - TOP OF STEEL FLOORBEAMS

LOCATION	ELEVATION
W. Abutts.	611.824
Piers 1A, Span 1A	609.498
Piers 1A, Span 1	609.451
Piers 1	607.523
Piers 2	604.539
Piers 3	601.755
Piers 4	598.971
Piers 5	596.187
E. Abutts.	593.851

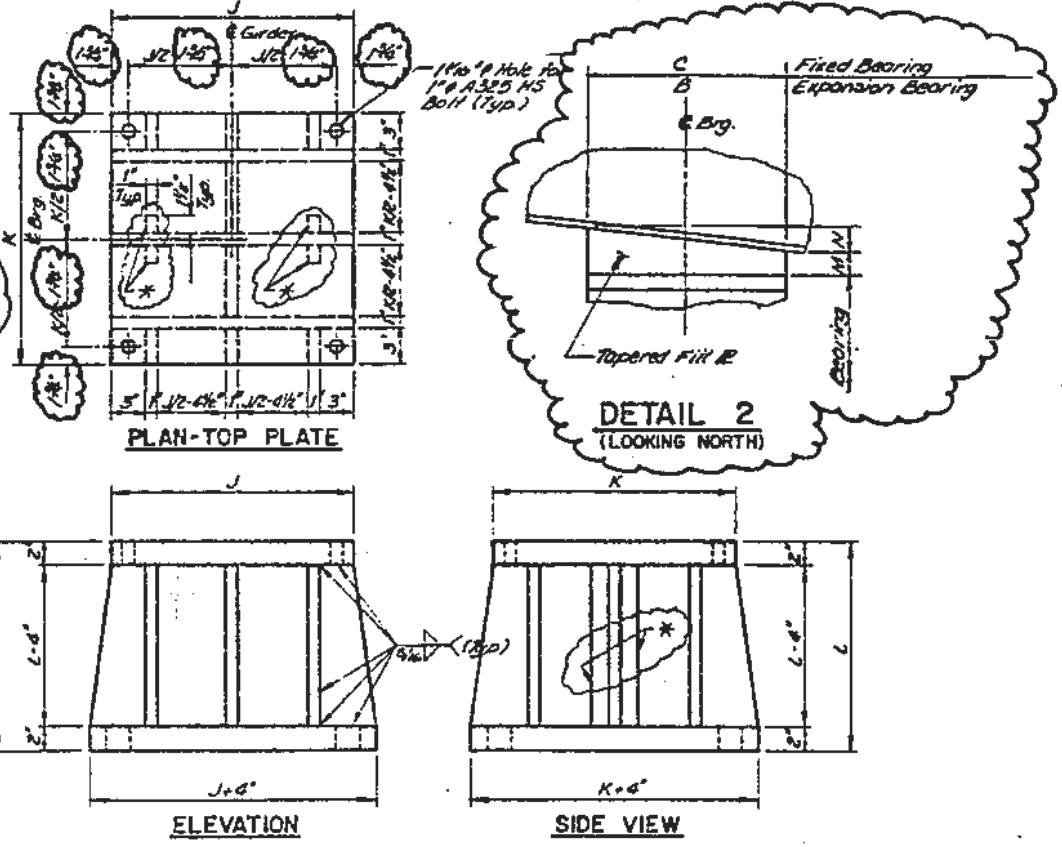
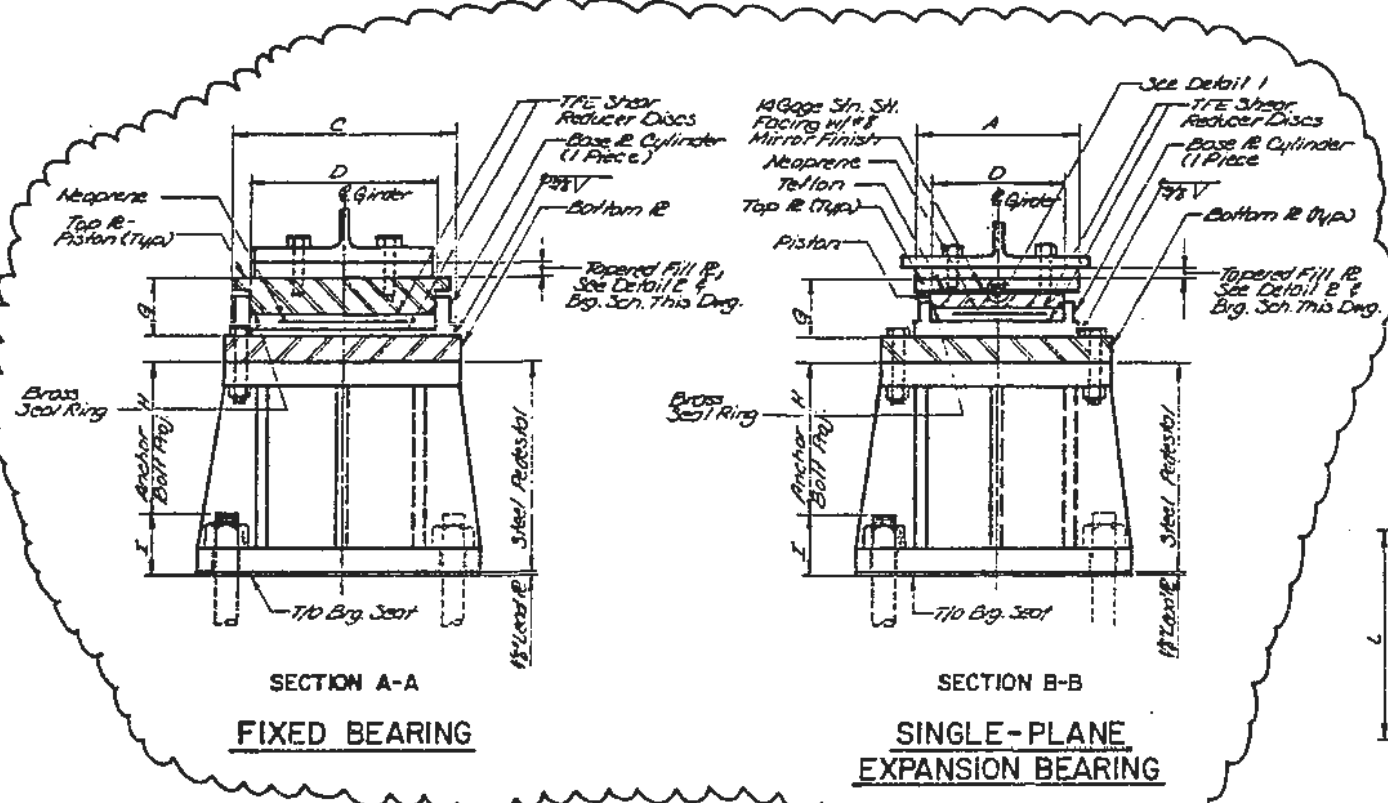
PROCEDURE

- THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, PLANS FOR RAISING EXISTING GIRDERS AND PROVIDING NEW BEARINGS AND PEDESTALS PRIOR TO COMMENCING ANY RELATED WORK. THIS WORK SHALL BE DONE AFTER EXISTING CONCRETE DECK IS REMOVED, AFTER STRUCTURAL STEEL REPAIRS HAVE BEEN PERFORMED, AND PRIOR TO POURING OF NEW CONCRETE DECK. MAXIMUM DEAD LOAD REACTION PER GIRDER (WEIGHT OF STEEL ONLY) IS AS FOLLOWS:

W. ABUTTS.	36K	PIERS 3	79K
PIERS 1A, SPAN 1A	36K	PIERS 4	79K
PIERS 1A, SPAN 1	23K	PIERS 5	80K
PIERS 1	80K	E. ABUTTS.	23K
PIERS 2	79K		

REINFORCE WITH ON ALL EXISTING BEARING ANCHOR BOLTS TO BE RAISED.
- CUT OFF EXISTING ANCHOR BOLTS FLOPPY WITH BEARING SEAT AT ALL BEARINGS AFTER RAISING.
- RAISING SHALL BE DONE BY JACKING. MEASURES SHALL BE TAKEN TO PREVENT LATERAL OR LONGITUDINAL DISPLACEMENT OF GIRDERS DURING RAISING OPERATIONS. ALL GIRDERS AT A GIVEN SUB-STRUCTURE ELEMENT SHALL BE SLOWLY AND CONTINUALLY RAISED THE SAME AMOUNT SIMULTANEOUSLY, WITH THE MAXIMUM AMOUNT OF RAISE LIMITED TO 3" GREATER THAN THAT REQUIRED TO INSTALL NEW BEARINGS. ANY SWAY OF THE STEEL DURING RAISING OPERATIONS SHALL BE IMMEDIATELY CORRECTED.
- THE STEEL SHALL BE RAISED IN INCREMENTS OF 1 1/2" AND SHALL BE BLOCKED IN POSITION UPON COMPLETION OF A RAISING INTERVAL. ADEQUATE BLOCKING MUST BE USED TO HOLD THE STRUCTURE IN PLACE WHILE JACKS ARE REPOSITIONED FOR THE NEXT LIFT.
- PRIOR TO RAISING, ELEVATIONS OF EXISTING BEARING SEATS SHALL BE TAKEN AND THE ENGINEER SHALL VERIFY FILL PLATE THICKNESSES REQUIRED ABOVE EACH BEARING. THIS SHALL BE ACCOMPLISHED BY USING FIELD MEASUREMENTS ALONG WITH THE "TABLE OF ELEVATIONS - TOP OF STEEL FLOORBEAMS" ON THIS DWG.
- RAISE BEAMS, REMOVE EXISTING BEARINGS AND ANCHOR BOLTS. INSTALL NEW LEAD PLATES, PEDESTALS, FILL PLATES, AND BEARINGS. INSTALL NEW ANCHOR BOLTS. ALL WORK REQUIRED TO RAISE THE GIRDERS SHALL BE PAID FOR AT THE LUMP SUM PRICE FOR "JACKING EXISTING STRUCTURES." SEE SPECIAL PROVISIONS.

* TOP OF FLOORBEAM & GIRDER BEARING



NOTES

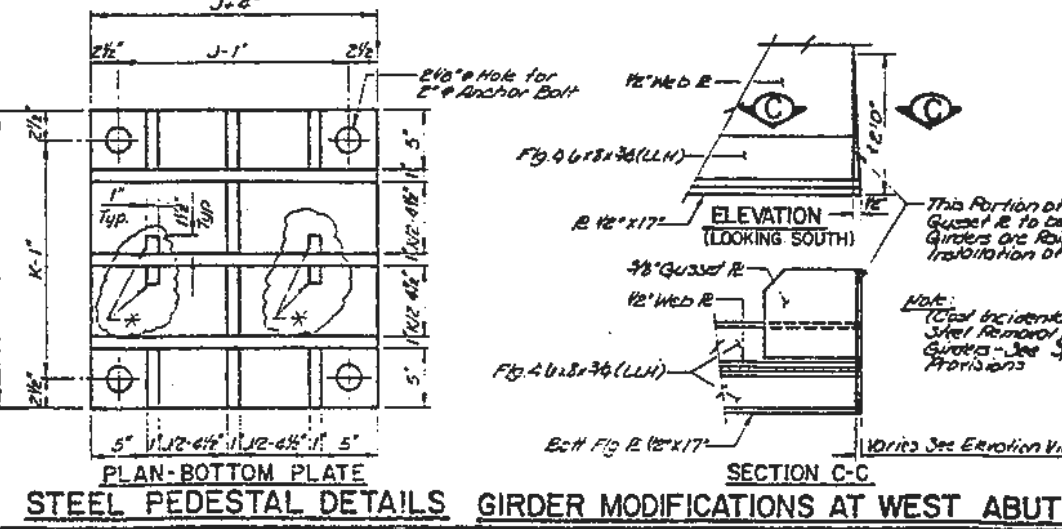
- THE BEARING CONFIGURATIONS AND DETAILS SHOWN ARE FOR GENERAL GUIDANCE FOR THE MANUFACTURER. SLIGHT VARIATIONS IN DIMENSIONS, ETC. WILL BE ALLOWED. SEE SPECIAL PROVISIONS.
- BEARINGS ARE TO BE DESIGNED BY THE MANUFACTURER FOR THE MINIMUM LOADS GIVEN IN THE BEARING SCHEDULE ON THIS DWG. MANUFACTURER SHALL SUBMIT SHOP DWGS. & DESIGN CALCULATIONS TO THE ENGINEER FOR REVIEW.
- CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIMENSIONS AS REQUIRED IN THE FIELD FOR THE ACTUAL BEARINGS USED.
- EXPANSION BEARINGS SHALL BE SET AT 0" AT 50°F. ADJUST 1/8" PER 100 FT. OF EXPANSION PER 15°F VARIATION.
- SEE DWG. NO. 25 FOR ANCHOR BOLT DETAILS.
- THE STEEL PEDESTALS, FILL PLATES, & LEAD PLATES ARE INCLUDED IN "FURNISHING & ERECTING STRUCTURAL STEEL."

BEARING SCHEDULE

LOCATION	TYPE	VERTICAL LOAD	LATERAL LOAD	NO. REQ'D	A	B	C	D	E	F	G	H	I	J	K	L	M	N
W. Abutments	Exp	300k	30k	4	14"	15"	14"	11 1/2"	4"	3"	5 1/2"	11 1/2"	5"	20 1/2"	13 1/2"	13 1/2"	3 1/2"	38"
Piers 1A, Span 1A	Fixed	300k	30k	4	-	-	14"	11 1/2"	4"	3"	3 3/4"	11 1/2"	5"	10 1/2"	10 1/2"	13 1/2"	13 1/2"	38"
Piers 1A, Span 1	Exp	300k	30k	4	14"	15"	12"	11 1/2"	4"	3"	3 3/4"	11 1/2"	5"	20 1/2"	13 1/2"	13 1/2"	3 1/2"	38"
Piers 1	Exp	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/4"	11 1/2"	5"	25 1/2"	20 1/2"	20 1/2"	3 1/2"	42"
Piers 2	Exp	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/4"	11 1/2"	5"	25 1/2"	20 1/2"	20 1/2"	3 1/2"	42"
Piers 3	Fixed	650k	65k	4	-	-	19 3/4"	16 3/8"	4"	3"	5 1/4"	11 1/2"	5"	21 1/2"	21 1/2"	17 1/2"	3 1/2"	42"
Piers 4	Exp	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/4"	11 1/2"	5"	25 1/2"	20 1/2"	20 1/2"	3 1/2"	42"
Piers 5	Exp	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/4"	11 1/2"	5"	25 1/2"	20 1/2"	20 1/2"	3 1/2"	42"
E. Abutments	Exp	300k	30k	4	14"	15"	14"	11 1/2"	4"	3"	5 1/2"	11 1/2"	5"	20 1/2"	13 1/2"	13 1/2"	3 1/2"	38"

- At Right Angle to B Girder unless noted otherwise
- Any Direction
- Field Verify: See Note 3 under "PROCEDURE".

Delete all 1 1/2" stiffeners when J=2A



BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Floating Brgs, Guided Exp	650k	Each 16
Floating Brgs, Guided Exp	300k	Each 12
Floating Brgs, Fixed	650k	Each 6
Floating Brgs, Fixed	300k	Each 4
Jacking Existing Structures	L. Sum	1
Furnish & Erect Structural Steel	Lbs.	67,260

REV. 10/30/91 - RDP

BEARINGS
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-118R
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA
CONSULTANTS, INC.
 DESIGNED BY: RDP 7/90
 DRAWN BY: WEM 7/90
 CHECKED BY: JRF 7/90
 APPROVED BY: RDP 7/90

ROUTE NO	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	02-11BR	Vermilion	165	23
STA	TO STA			
FED ROAD DIST NO	ALLIANCE	PROJECT		
		DRG. No. 22 of 28		

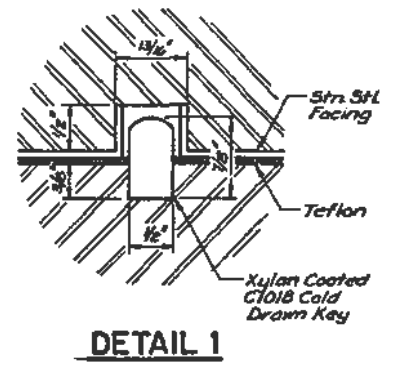
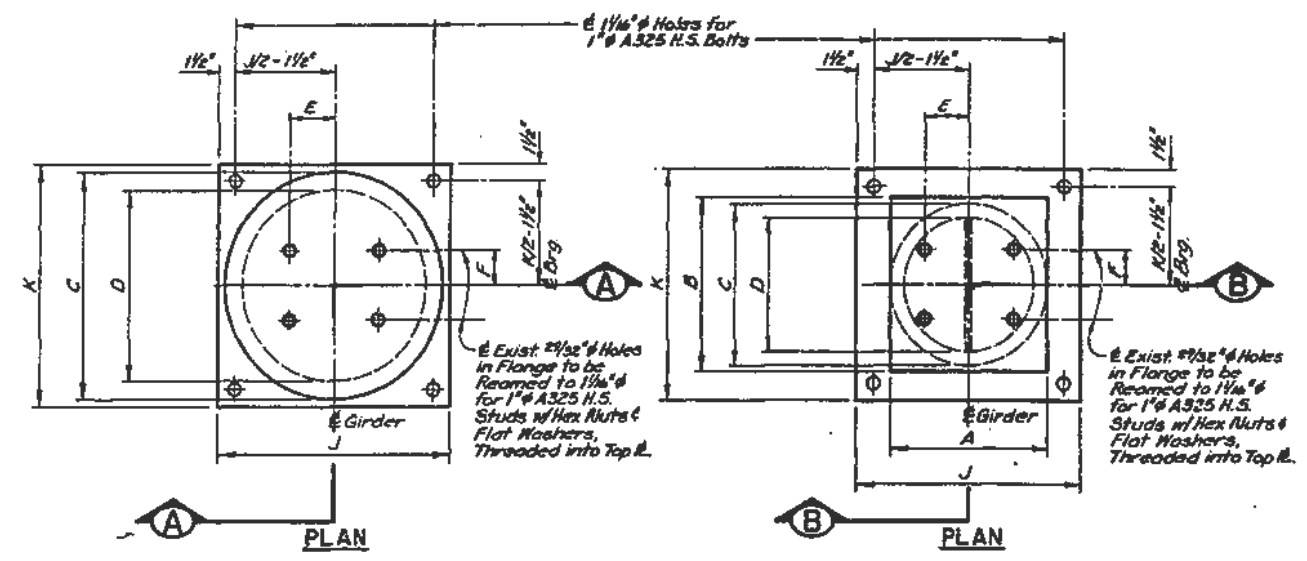


TABLE OF ELEVATIONS - TOP OF STEEL FLOORBEAMS

LOCATION	ELEVATION
W. Abuts.	611.824
Piers 1A, Span 1A	609.498
Piers 1	607.323
Piers 2	604.539
Piers 3	601.753
Piers 4	598.971
Piers 5	596.187
E. Abuts.	593.851

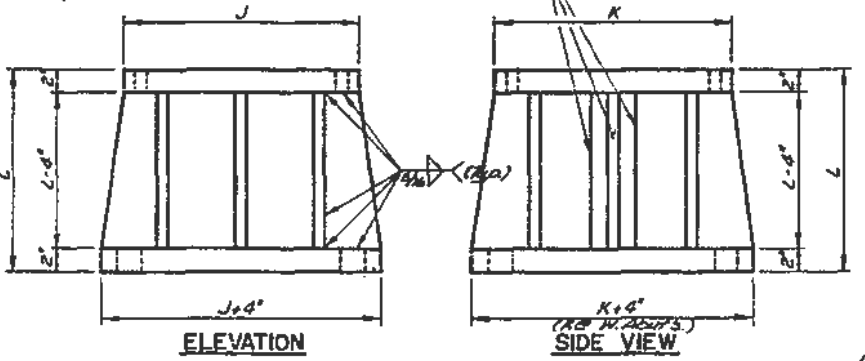
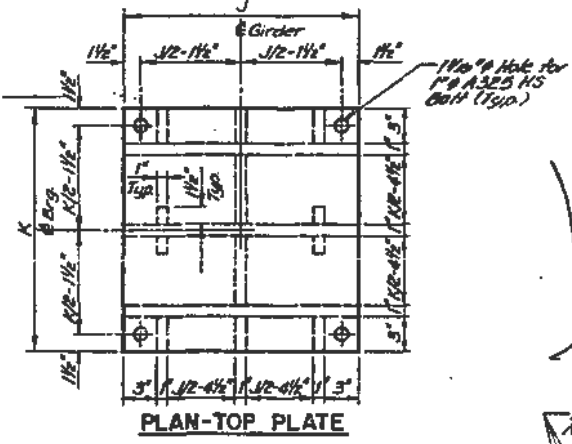
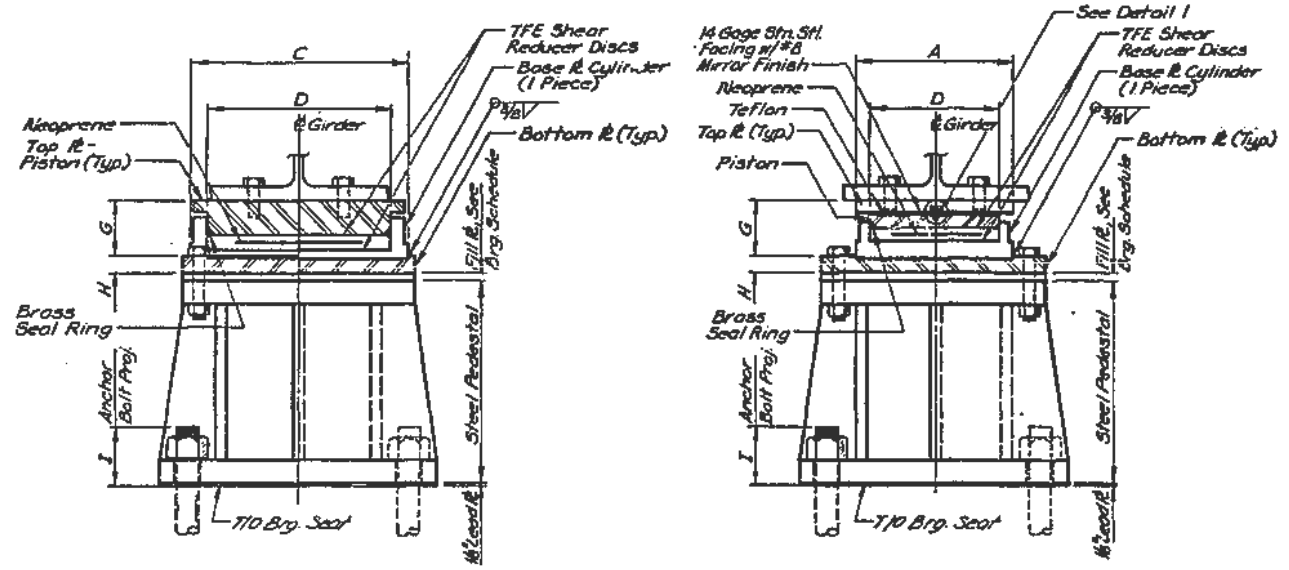
PROCEDURE

- THE CONTRACTOR SHALL SUBMIT FOR APPROVAL BY THE ENGINEER, PLANS FOR RAISING EXISTING GIRDERS AND PROVIDING NEW BEARINGS AND PEDESTALS PRIOR TO COMMENCING ANY RELATED WORK. THIS WORK SHALL BE DONE AFTER EXISTING CONCRETE DECK IS REMOVED, AFTER STRUCTURAL STEEL REPAIRS HAVE BEEN PERFORMED, AND PRIOR TO POURING OF NEW CONCRETE DECK. MAXIMUM DEAD LOAD REACTION PER GIRDER (WEIGHT OF STEEL ONLY) IS AS FOLLOWS:

W. ABUTTS.	36k	PIERS 3	79k
PIERS 1A, SPAN 1A	34k	PIERS 4	79k
PIERS 1A, SPAN 1	23k	PIERS 5	80k
PIERS 2	80k	E. ABUTTS.	23k
PIERS 3	79k		

 REMOVE BOLTS ON ALL EXISTING BEARING ANCHOR BOLTS TO BE RAISED.
- CUT OFF EXISTING ANCHOR BOLTS FLUSH WITH BEARING SURF AT ALL BEARINGS AFTER RAISING.
- RAISING SHALL BE DONE BY JACKING. MEASURES SHALL BE TAKEN TO PREVENT LATERAL OR LONGITUDINAL DISPLACEMENT OF GIRDERS DURING RAISING OPERATIONS. ALL GIRDERS AT A GIVEN SUB-STRUCTURE ELEMENT SHALL BE SLOWLY AND CONTINUALLY RAISED THE SAME AMOUNT SIMULTANEOUSLY, WITH THE MAXIMUM AMOUNT OF RAISE LIMITED TO 3" GREATER THAN THAT REQUIRED TO INSTALL NEW BEARINGS. ANY PART OF THE STEEL DURING RAISING OPERATIONS SHALL BE IMMEDIATELY CONNECTED.
- THE STEEL SHALL BE RAISED IN INCREMENTS OF 1 1/2" AND SHALL BE STOPPED IN POSITION UPON COMPLETION OF A RAISING INTERVAL. ADEQUATE BLOCKING MUST BE USED TO HOLD THE STRUCTURE IN PLACE WHILE JACKS ARE REPOSITIONED FOR THE NEXT LIFT.
- PRIOR TO RAISING, ELEVATIONS OF EXISTING BEARING BOLTS SHALL BE TAKEN AND THE ENGINEER SHALL VERIFY FILL PLATE THICKNESSES REQUIRED UNDER EACH BEARING. THIS SHALL BE ACCOMPLISHED BY USING FIELD MEASUREMENTS ALONG WITH THE "TABLE OF ELEVATIONS - TOP OF STEEL FLOORBEAMS" ON THIS DWG.
- RAISE BEARS, REMOVE EXISTING BEARINGS AND ANCHOR BOLTS, INSTALL NEW LEAD PLATES, PEDESTALS, FILL PLATES, AND BEARINGS. INSTALL NEW ANCHOR BOLTS. ALL WORK REQUIRED TO RAISE THE GIRDERS SHALL BE PAID FOR AT THE LUMP SUM PRICE FOR "JACKING EXISTING STRUCTURES." SEE SPECIAL PROVISIONS.

VOID



NOTES

- THE BEARING CONFIGURATIONS AND DETAILS SHOWN ARE FOR GENERAL GUIDANCE FOR THE MANUFACTURER. SLIGHT VARIATIONS IN DIMENSIONS, ETC. WILL BE ALLOWED. SEE SPECIAL PROVISIONS.
- BEARINGS ARE TO BE DESIGNED BY THE MANUFACTURER FOR THE EXTREME LOADS GIVEN IN THE BEARING SCHEDULE ON THIS DWG. MANUFACTURER SHALL SUBMIT SHOP DWGS. & DESIGN CALCULATIONS TO THE ENGINEER FOR REVIEW.
- CONTRACTOR IS RESPONSIBLE FOR ADJUSTING DIMENSIONS AS REQUIRED IN THE FIELD FOR THE ACTUAL BEARINGS USED.
- EXPANSION BEARINGS SHALL BE SET AT 0° AT 50°F. ADJUST 1/8" PER 100 FT. OF EXPANSION PER 15°F VARIATION.
- SEE DWG. NO. 23 FOR ANCHOR BOLT DETAILS.
- THE STEEL PEDESTALS, FILL PLATES, & LEAD PLATES ARE INCLUDED IN "FURNISHING & ERECTING STRUCTURAL STEEL."

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Floating Brgs., Guided Exp.	650k	Each 16
Floating Brgs., Guided Exp.	300k	Each 12
Floating Brgs., Fixed	650k	Each 4
Floating Brgs., Fixed	300k	Each 4
Furnish & Erect Structural Steel	Lbs.	47,260

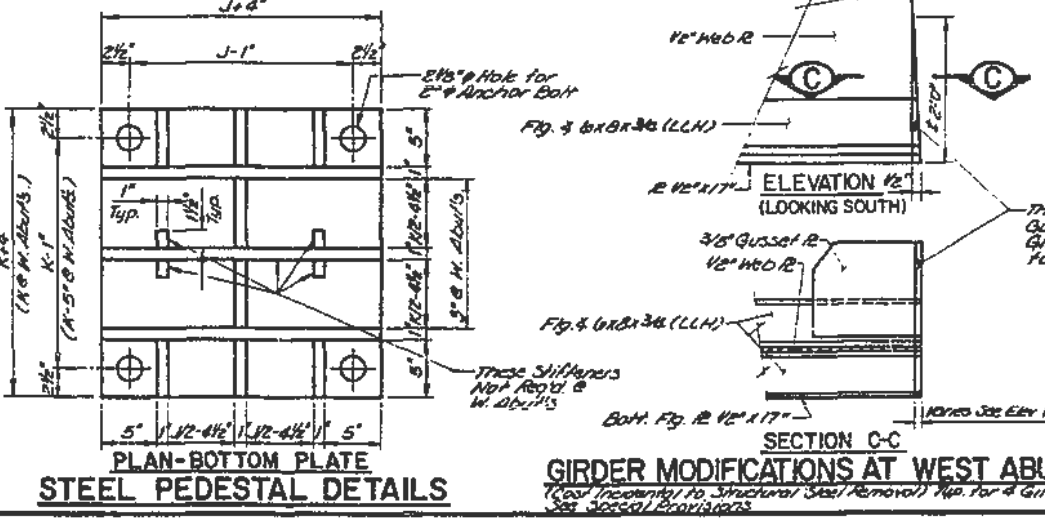
BEARING SCHEDULE

LOCATION	TYPE	VERTICAL LOAD	LATERAL LOAD	NO REQ'D	A	B	C	D	E	F	G	H	I	J	K	L	FILL PLATE Thickness
W. Abutments	Exp.	300k	30k	4	14"	15"	14"	11 1/2"	4"	3"	3 3/4"	1 1/2"	5"	20"	15"	13 1/2"	1/2"
Piers 1A, Span 1A	Fixed	300k	30k	4	-	-	14"	11 1/2"	4"	3"	3 3/4"	1 1/2"	5"	16"	16"	13 1/2"	1/2"
Piers 1A, Span 1	Exp.	300k	30k	4	14"	15"	14"	11 1/2"	4"	3"	3 3/4"	1 1/2"	5"	20"	20"	13 1/2"	3/8"
Piers 1	Exp.	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/2"	1 1/2"	5"	25"	25"	20"	3/4"
Piers 2	Exp.	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/2"	1 1/2"	5"	25"	25"	20"	3/4"
Piers 3	Fixed	650k	65k	4	-	-	19 3/4"	16 3/8"	4"	3"	5 1/2"	1 1/2"	5"	21"	21"	17 1/2"	3/8"
Piers 4	Exp.	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/2"	1 1/2"	5"	25"	25"	20"	3/4"
Piers 5	Exp.	650k	65k	4	19 3/4"	20 1/4"	19 3/4"	16 3/8"	4"	3"	5 1/2"	1 1/2"	5"	25"	25"	20"	3/8"
E. Abutments	Exp.	300k	30k	4	14"	15"	14"	11 1/2"	4"	3"	3 3/4"	1 1/2"	5"	20"	20"	13 1/2"	3/8"

- At Right Angle to G Girder unless noted otherwise
- Any Direction
- Field Verify; See Note 5 under "PROCEDURE".

ESCA CONSULTANTS, INC.

DESIGNED BY:	RDP	7/90
DRAWN BY:	NEM	7/90
CHECKED BY:	JRF	7/90
APPROVED BY:	RDP	7/90



BEARINGS

FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 02-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-C007(WB)

MATERIALS FOR ILLINOIS COIL-LOCK ANCHOR BOLT

THE ANCHOR BOLT SHALL BE FABRICATED FROM COLD DRAWN OR HOT FINISHED SEAMLESS CARBON STEEL MECHANICAL TUBING CONFORMING TO ASTM A 519, GRADE 1026 AND SUPPLIED WITH HEXAGONAL NUTS AND CUT WASHERS.
 THE COIL WIRE SHALL BE MADE OF ANY SUITABLE SOFT STEEL WIRE.
 THE FINISHED ANCHOR BOLT SHALL BE CLEANED OF RUST AND OTHER FOREIGN MATERIALS AND WRAPPED OR PACKAGED TO PREVENT CONTAMINATION UNTIL THEY ARE INSTALLED.
 THE EPOXY GROUT SHALL BE A TWO-COMPONENT, EPOXY RESIN BONDING SYSTEM CONFORMING TO ASTM C881, TYPE I, GRADE 1 AND OF A CLASS SUITABLE FOR THE TEMPERATURE OF INSTALLATION.

INSTALLATION PROCEDURE FOR ILLINOIS COIL-LOCK ANCHOR BOLT

1. WITH THE COIL WIRE IN PLACE, THE BOLT SHALL BE INSERTED INTO THE HOLE AND TURNED CLOCKWISE TO A SNUG FIT IN THE HOLE. NUT AND WASHER SHALL BE PLACED ON THE BOLT. THE NUT SHALL BE SELF-LOCKING AND SET FOR 1/8" FREE PLAY.
2. EPOXY GROUT SHALL BE PUMPED THROUGH THE HOLE FITTING WITH A PRESSURE GUN. PUMPING SHALL CONTINUE UNTIL THE EPOXY OVERFLOWS THE HOLE AROUND THE BOLT SHAFT. AFTER PUMPING IS DISCONTINUED, EXCESS EPOXY SHALL BE IMMEDIATELY WIPED OFF.

ALTERNATE ANCHOR BOLTS

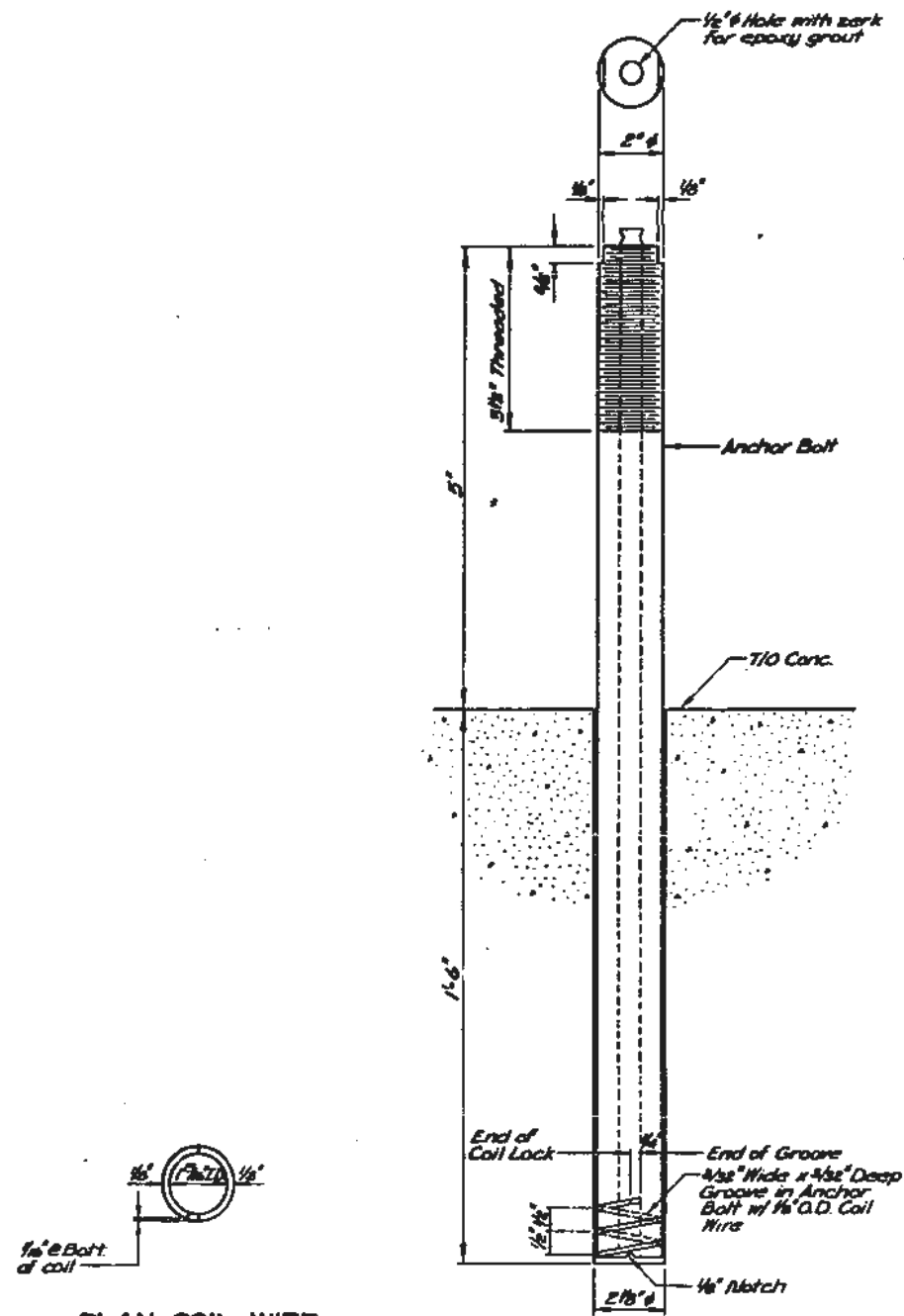
THE CONTRACTOR MAY USE, AT HIS OPTION, THE CAPSULE OR THE ADHESIVE CARTRIDGE TYPE ANCHOR BOLT THAT HAVE BEEN PREVIOUSLY TESTED AND GIVEN A PRIOR APPROVAL BY THE DEPARTMENT. THE CONTRACTOR SHALL INSTALL THESE ANCHOR BOLTS IN PRE-DRILLED HOLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS AND PROCEDURES.
 THE CAPSULE OR THE ADHESIVE CARTRIDGE TYPE ANCHOR BOLT SHALL BE A TWO PART SYSTEM COMPOSED OF:
 1. A THEREADED ROD STUD WITH NUT AND WASHER CONFORMING TO ASTM A307.
 2. A SEALED GLASS CAPSULE OR A SEALED GLASS ADHESIVE CARTRIDGE CONTAINING PREMEASURED AMOUNT OF THE ADHESIVE CHEMICAL.

GENERAL NOTES

1. DRILL HOLES IN THE CONCRETE (THROUGH THE PRECAST PLATE BOLTS) TO THE DIAMETER AND DEPTH SHOWN AND IN ACCORDANCE WITH THE ANCHOR BOLT MANUFACTURER'S RECOMMENDATIONS.
2. PRIOR TO SETTING THE BOLTS, THE HOLES SHALL BE DRY AND ALL DUST AND LOOSE PARTICLES SHALL BE REMOVED BY THE USE OF COMPRESSED AIR OR VACUUMING.
3. THE ANCHOR BOLTS, INCLUDING REMOVAL OF EXISTING ANCHOR BOLTS, DRILLING & PREPARATION OF HOLES, SETTING OF NEW ANCHOR BOLTS WITH EPOXY GROUT OR CAPSULES, SHALL BE PAID FOR BY THE UNIT PRICE BID FOR FORMS FOR FURNISHING & ERECTING STRUCTURAL STEEL.

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Furnish & Erect Structural Steel	Lbs.	2,950



ILLINOIS COIL-LOCK ANCHOR BOLT

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-70
DRAWN BY:	WEM	6-70
CHECKED BY:	JRF	6-70
APPROVED BY:	RDP	6-70

NOTE

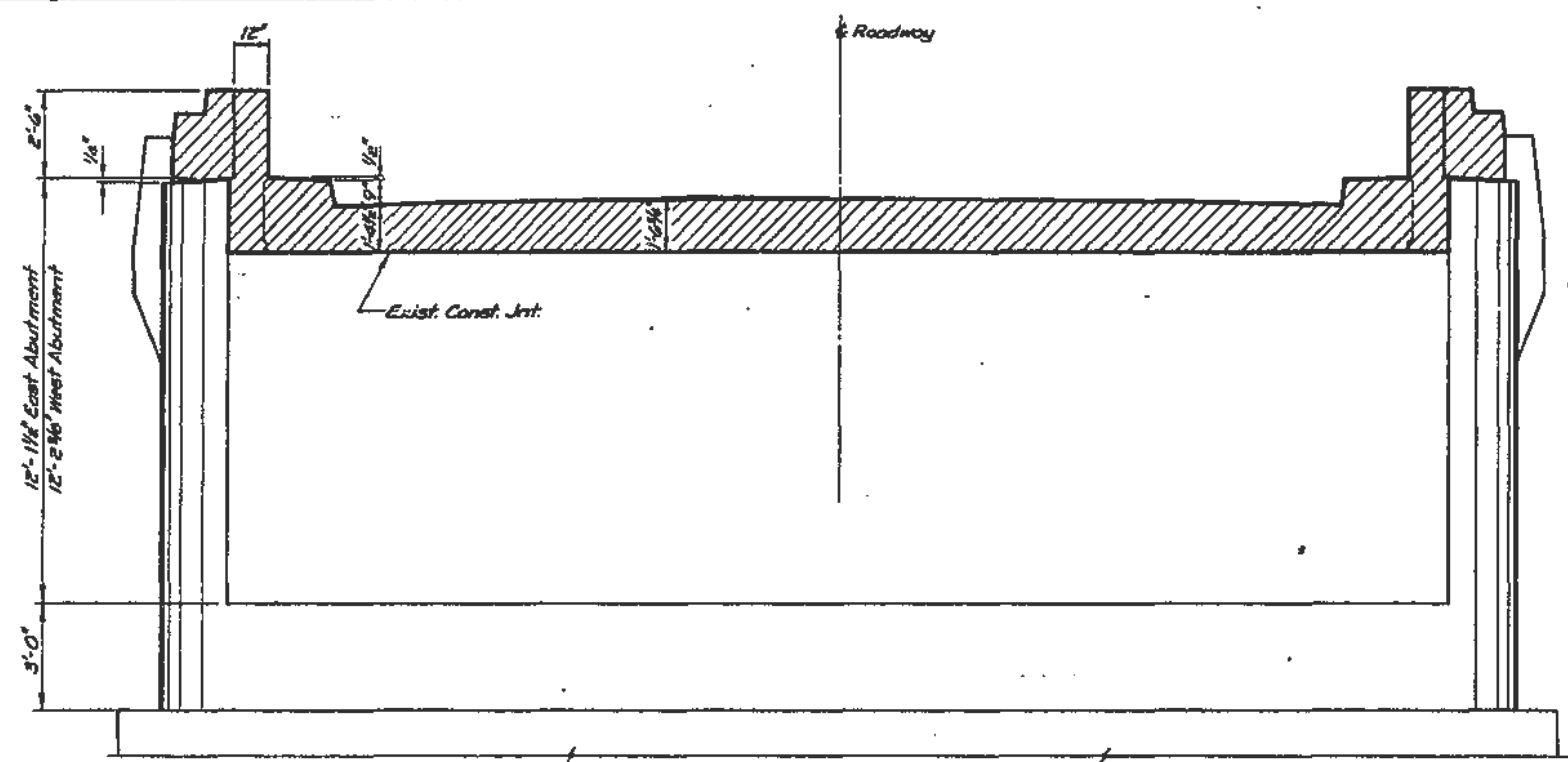
THE ILLINOIS COIL LOCK ANCHOR BOLT IS A PROPRIETARY ITEM WHICH IS THE PROPERTY OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION. USE, REPRODUCTION OR DISCLOSURE WITHOUT EXPRESS WRITTEN PERMISSION IS PROHIBITED AND PROTECTED UNDER FEDERAL COPYRIGHT LAWS. THE PRODUCTION AND THE FABRICATION OF THIS BOLT FOR USE ON HIGHWAY PROJECTS IN THE STATE OF ILLINOIS SHALL BE PERMITTED AND THERE SHALL BE NO INCURRED CHARGES OR FEES TO THE MANUFACTURER OR THE FABRICATOR FOR PRODUCING OR FABRICATING THIS BOLT.

**ANCHOR BOLT
DETAILS FOR BRGS.**
 FAI 74 OVER SALT FORK
 FAI RTE. 74 SECTION 92-118R
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

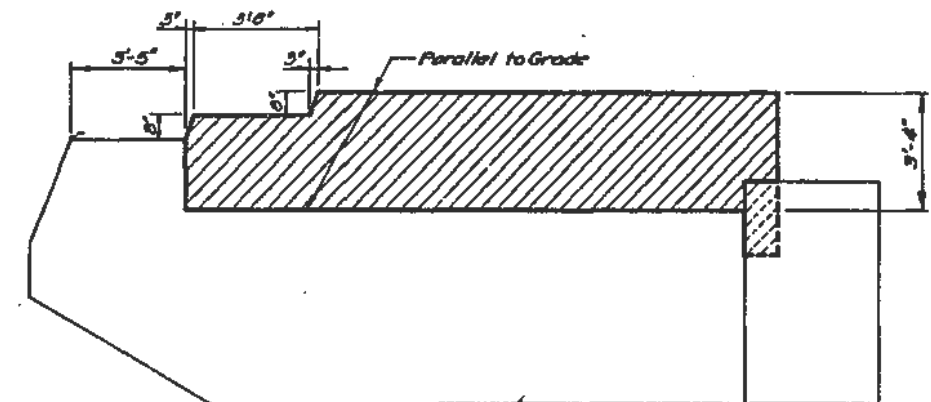
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	85
STA.	TO STA.		PROJECT	
FED. ROAD DIST. NO.	ALIGNED	Dwg. No. 24 of 28		

NOTES

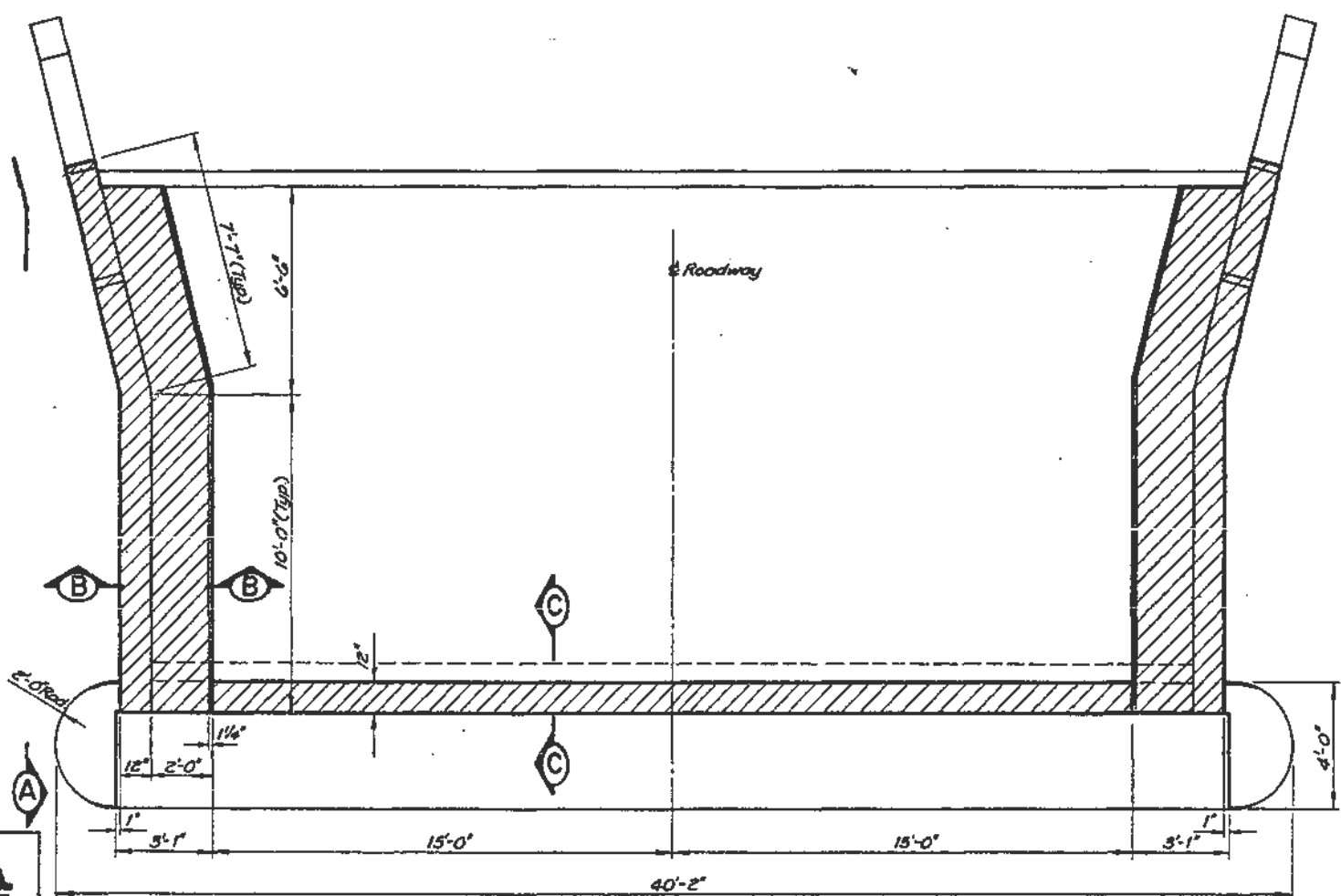
- EXISTING REINFORCEMENT WHICH IS TO BE REUSED IN THE NEW CONSTRUCTION AND EXTENDS INTO REMOVAL AREAS SHALL BE PRESERVED.



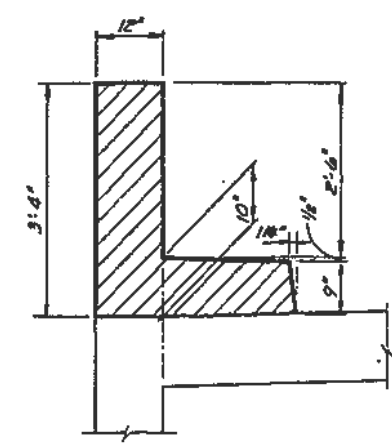
ELEVATION



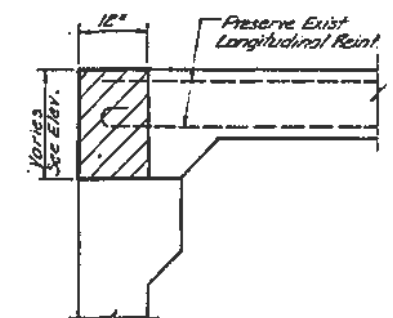
SECTION A-A



PLAN



SECTION B-B



SECTION C-C

LEGEND

Concrete Removal

BILL OF MATERIAL
(FOUR ABUTMENTS)

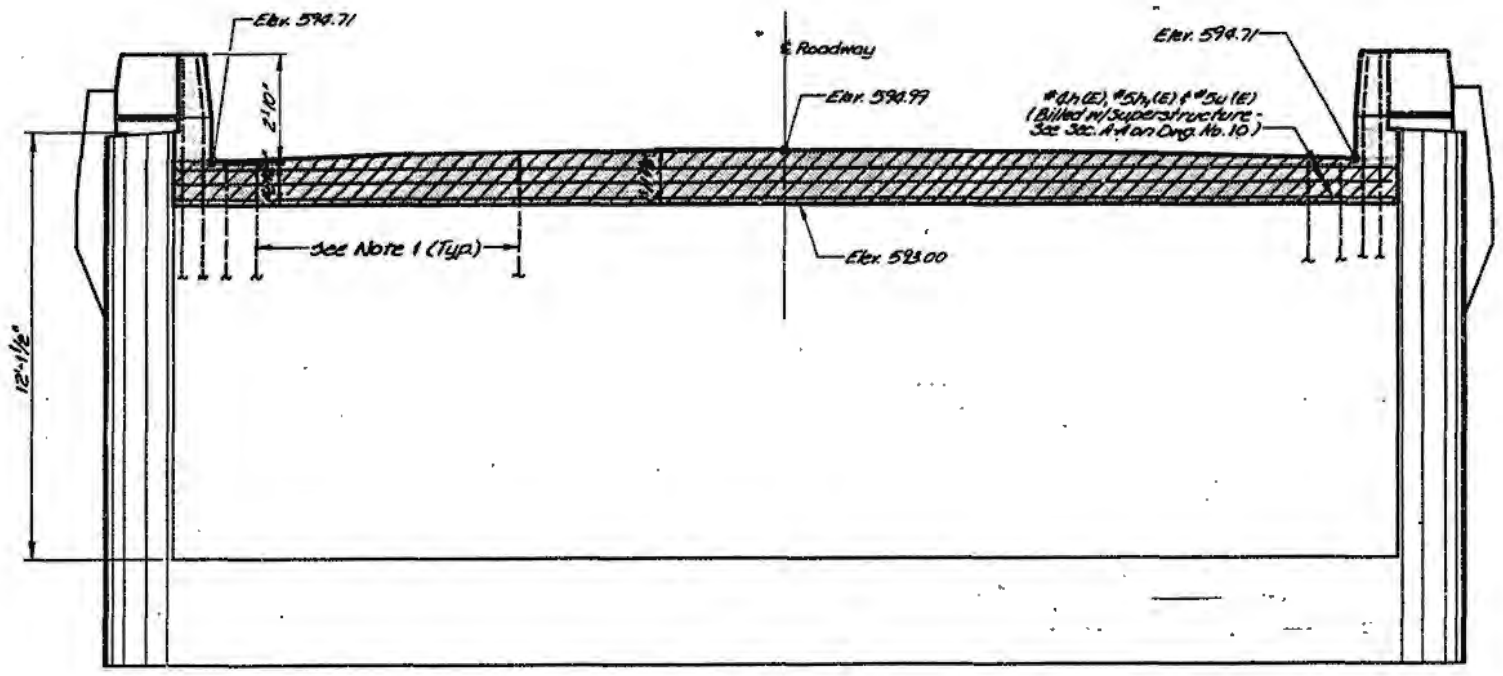
ITEM	UNIT	QUANTITY
Concrete Removal	Cu. Yds.	32

ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP 10-90
 DRAWN BY: WEM 10-90
 CHECKED BY: JRF 10-90
 APPROVED BY: RDP 10-90

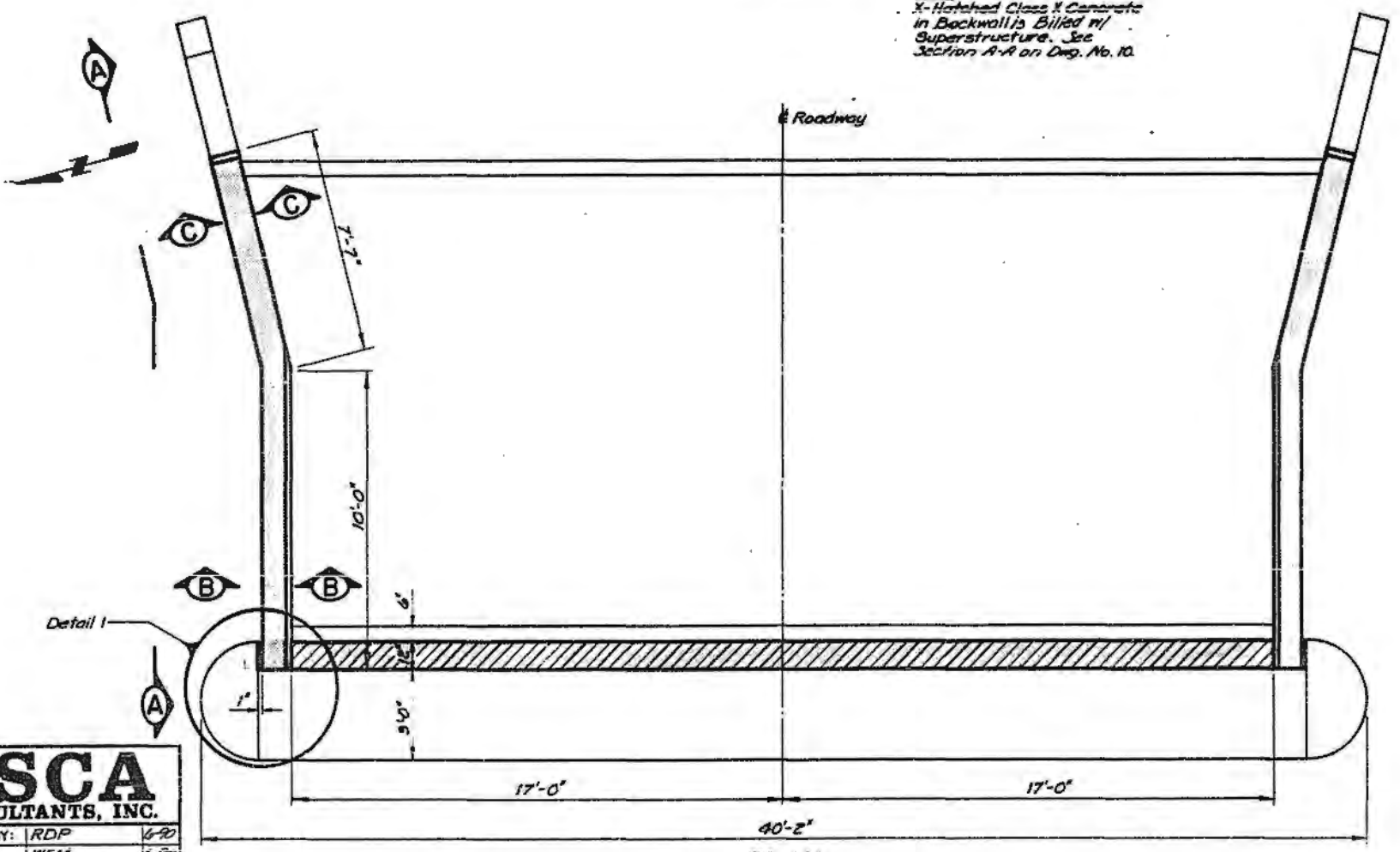
CONCRETE REMOVAL
(ABUTMENTS)
 FAI 74 OVER SALT FORK
 FAI RTE. 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	64
STA.	TO STA.			
FED. ROAD DIST. NO.	ALIGNMENT	PROJECT		
		Dwg. No. 25 of 28		

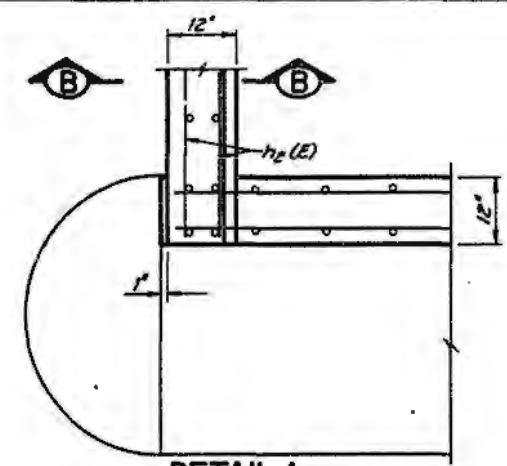


ELEVATION

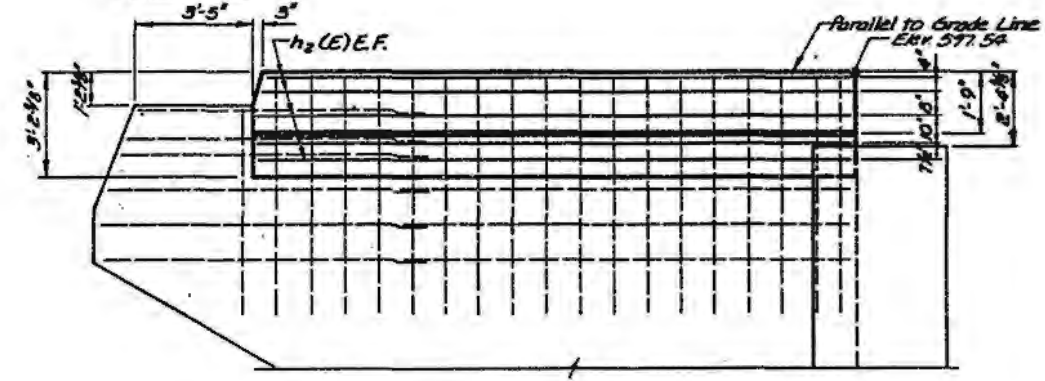
Note
 X-Hatched Class X Concrete in Backwall is Billed w/ Superstructure. See Section A-A on Dwg. No. 10.



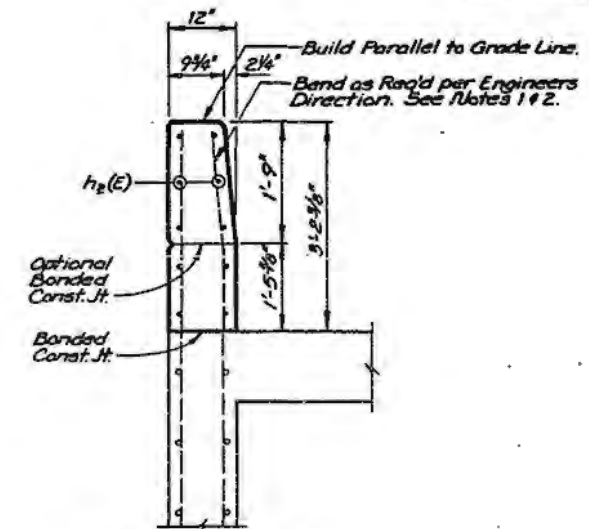
PLAN



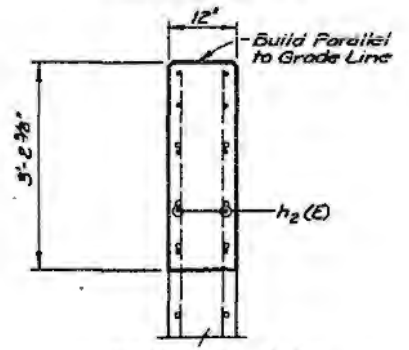
DETAIL 1



SECTION A-A



SECTION B-B



SECTION C-C

NOTES

- EXISTING REINFORCEMENT EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED OR BENT AND REALIGNED AS REQUIRED, AND INCORPORATED INTO NEW CONSTRUCTION. COST INCIDENTAL.
- CUT OFF EXCESS LENGTH OF EXISTING REINFORCEMENT BARS AS DIRECTED BY THE ENGINEER TO PROVIDE 1-1/2" CLEAR COVER.
- SHADED AREA SHALL BE FORMED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED.
- EXISTING MANHOLE SHALL BE REMOVED, CLEANED AND REINSTALLED. SEE DWGS. 1 & 2 FOR LOCATIONS. COST INCIDENTAL TO CLASS X CONCRETE.
- REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

BILL OF MATERIAL
(TWO ABUTMENTS)

BAR	R#	SIZE	LENGTH	SHAPE
#4	h2 (E)	#4	17'-5"	—
ITEM		UNIT	QUANTITY	
Reinforcement Bars (Epoxy Coated)		Lbs.	491	
Class X Concrete		Cu Yds.	13.1	

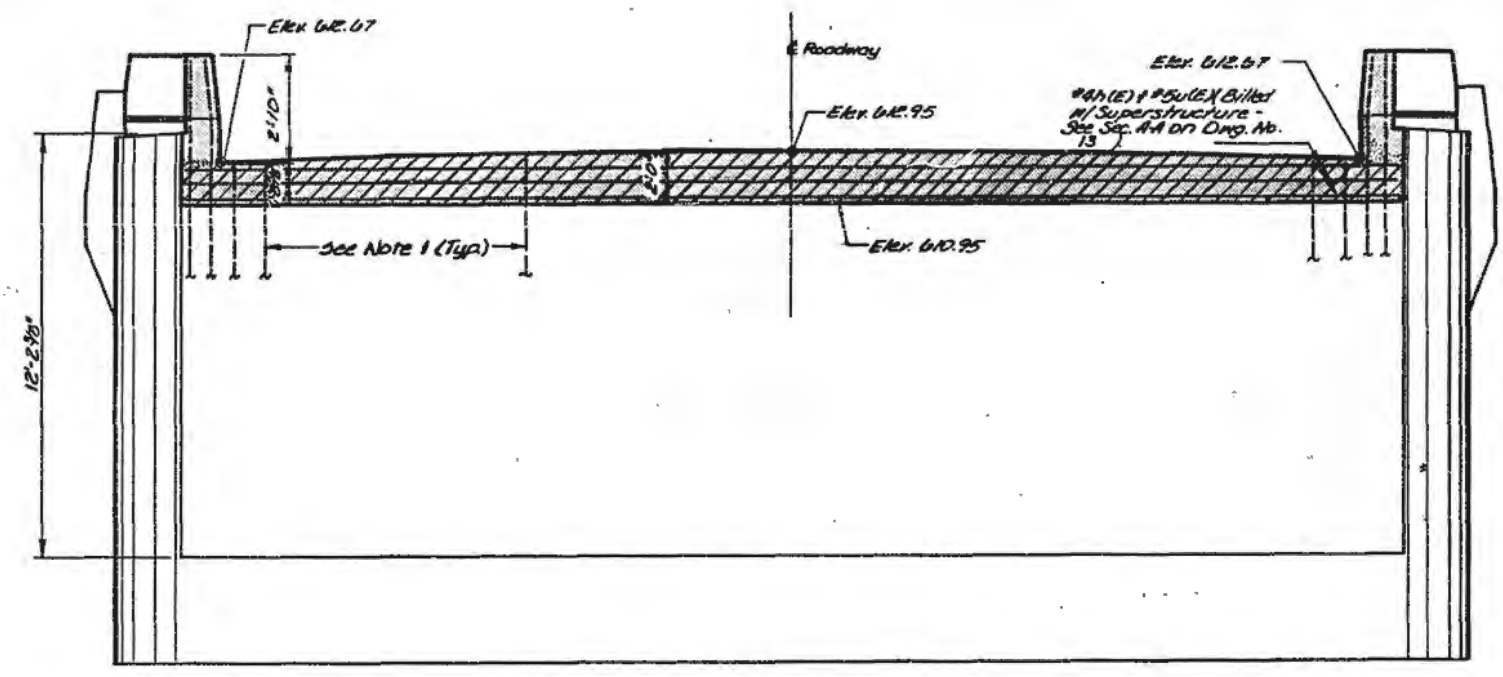
* Field Bend as Req'd.

EAST ABUTMENTS
 FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

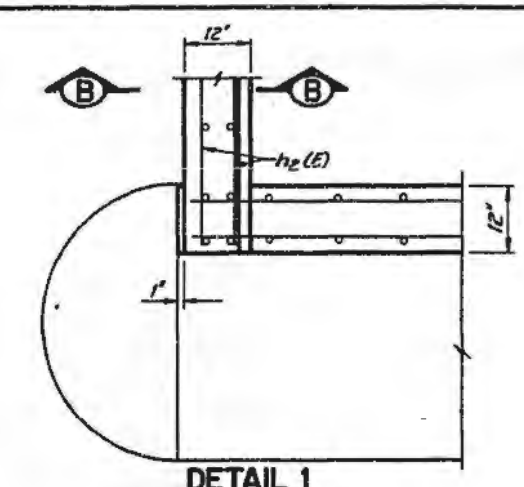
ESCA
 CONSULTANTS, INC.

DESIGNED BY:	RDP	6-20
DRAWN BY:	NEM	6-20
CHECKED BY:	JRF	6-20
APPROVED BY:	RDP	6-20

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	165	87
STA.	TO STA.			
FED. ROAD DIST. NO.	ILLINOIS PROJECT	Dwg. No. 26 of 28		



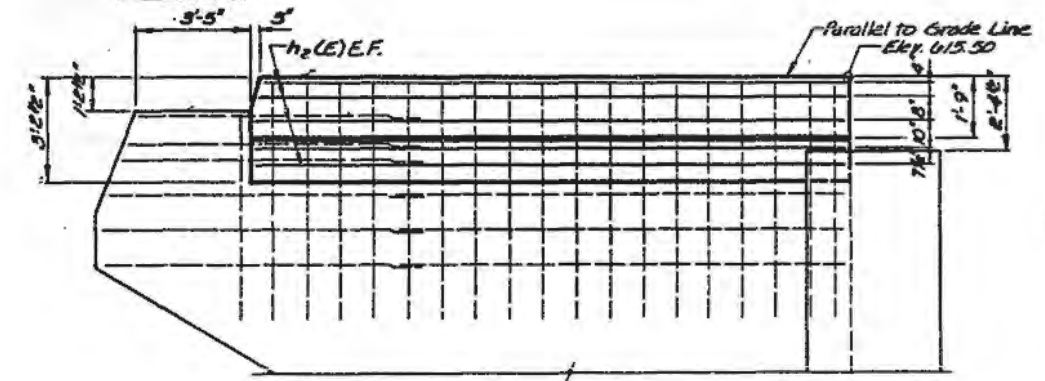
ELEVATION



DETAIL 1

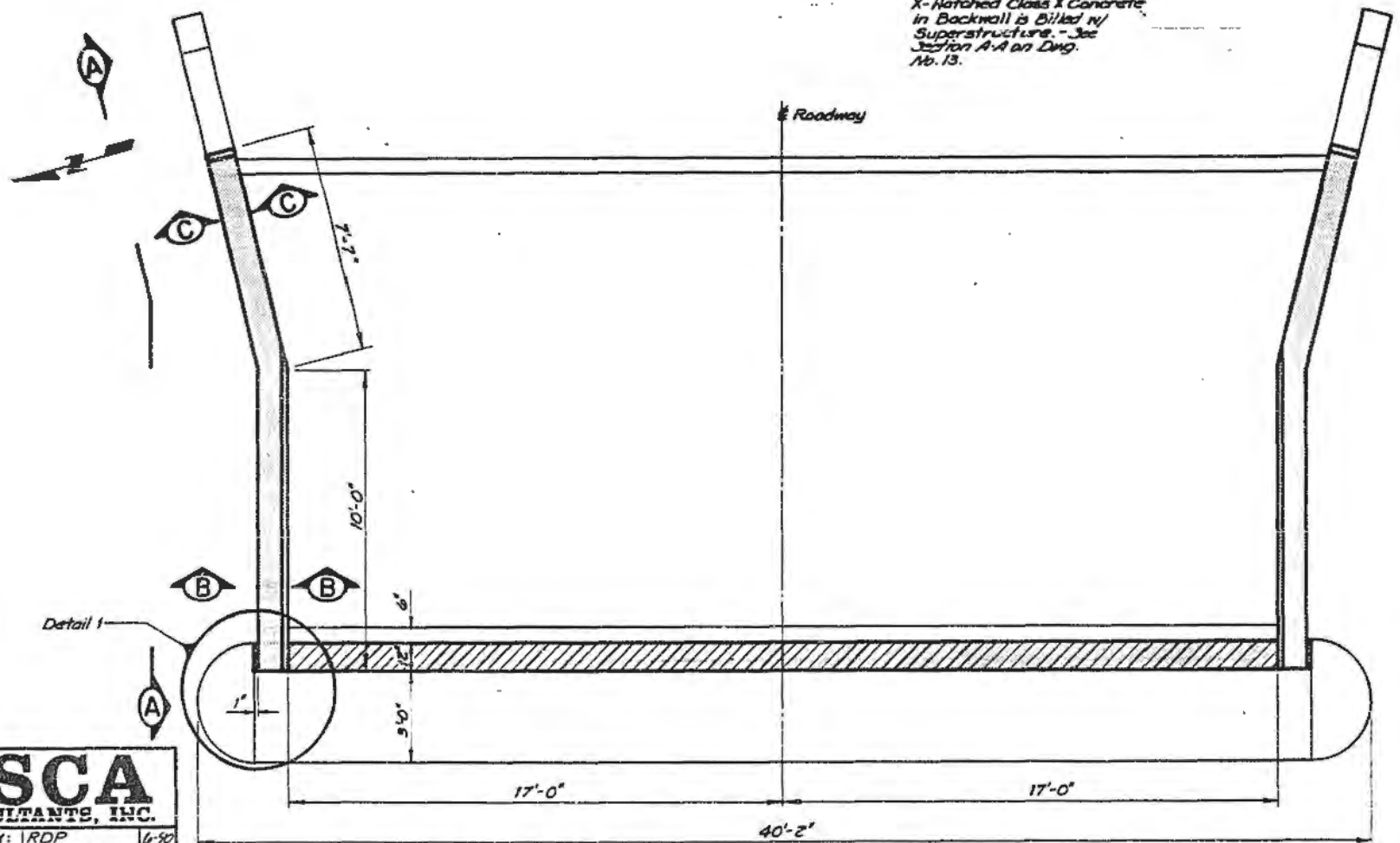
NOTES:

- EXISTING REINFORCEMENT EXTENDING INTO REMOVAL AREA SHALL BE CLEANED, STRAIGHTENED OR BENT AND REALIGNED AS REQUIRED, AND INCORPORATED INTO NEW CONSTRUCTION. COST INCIDENTAL.
- CUT OFF EXCESS LENGTH OF EXISTING REINFORCEMENT BARS AS DIRECTED BY THE ENGINEER TO PROVIDE 1-1/2" CLEAR COVER.
- SHADED AREA SHALL BE POURED AFTER SUPERSTRUCTURE FORMS HAVE BEEN REMOVED.
- EXISTING NAMEPLATE SHALL BE REMOVED, CLEANED AND REINSTALLED. SEE DWGS. 1 & 2 FOR LOCATIONS. COST INCIDENTAL TO CLASS X CONCRETE.
- REINFORCEMENT BARS DESIGNATED (E) SHALL BE EPOXY COATED.

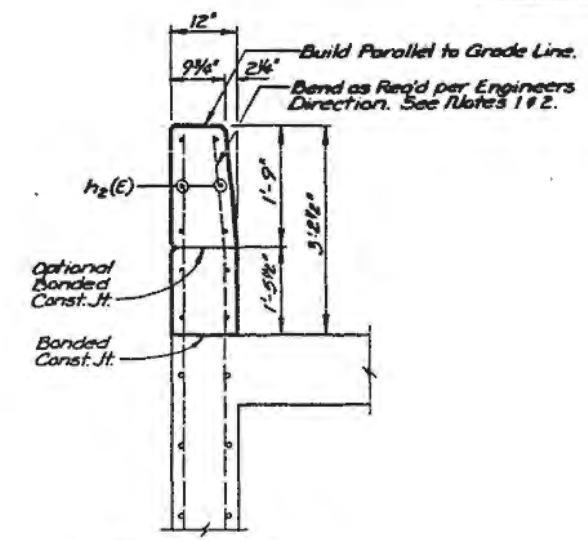


SECTION A-A

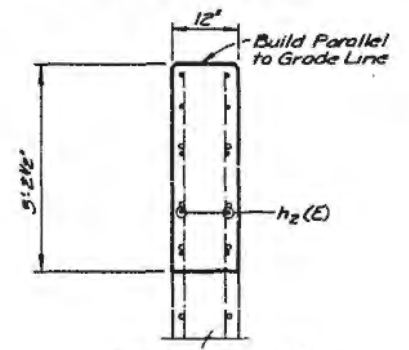
Note
X-Hatched Class X Concrete in Backwall is Billed w/ Superstructure. - See Section A-A on Dwg. No. 13.



PLAN



SECTION B-B



SECTION C-C

BILL OF MATERIAL
(TWO ABUTMENTS)

BAR	R#	SIZE	LENGTH	SHAPE
#4	h2(E)	40	#4	17'-3"
ITEM				
			UNIT	QUANTITY
Reinforcement Bars (Epoxy Coated)			Lbs.	401
Class X Concrete			Cu Yds.	13.1

* Field Bend as Req'd.

ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	WEM	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

WEST ABUTMENTS
FAI 74 OVER SALT FORK
FAI RTE. 74 SECTION 92-11BR
VERMILION COUNTY
STATION 1755+16.00
STRUCTURE NO. 092-0006(EB)
STRUCTURE NO. 092-0007(WB)

ESCA CONSULTANTS

ESCA CONSULTANTS, INC.

1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

JOB 092-0006,0007 Pier 1A
SHEET NO. 4 OF _____
CALCULATED BY RAP DATE 6/5/92
CHECKED BY JZF DATE 6/8/92
SCALE _____

BILL OF MATERIAL
(Total for 1 Pier)

Bar	No.	Size	Length	Shape
U(E)	16	#4	10'-4"	C
V(E)	30	#3	4'-2"*	
V ₁ (E)	24	#6	7'-6"*	F
V ₂ (E)	24	#6	6'-10"*	F
V ₃ (E)	16	#5	8'-9"	C

* Field Verify

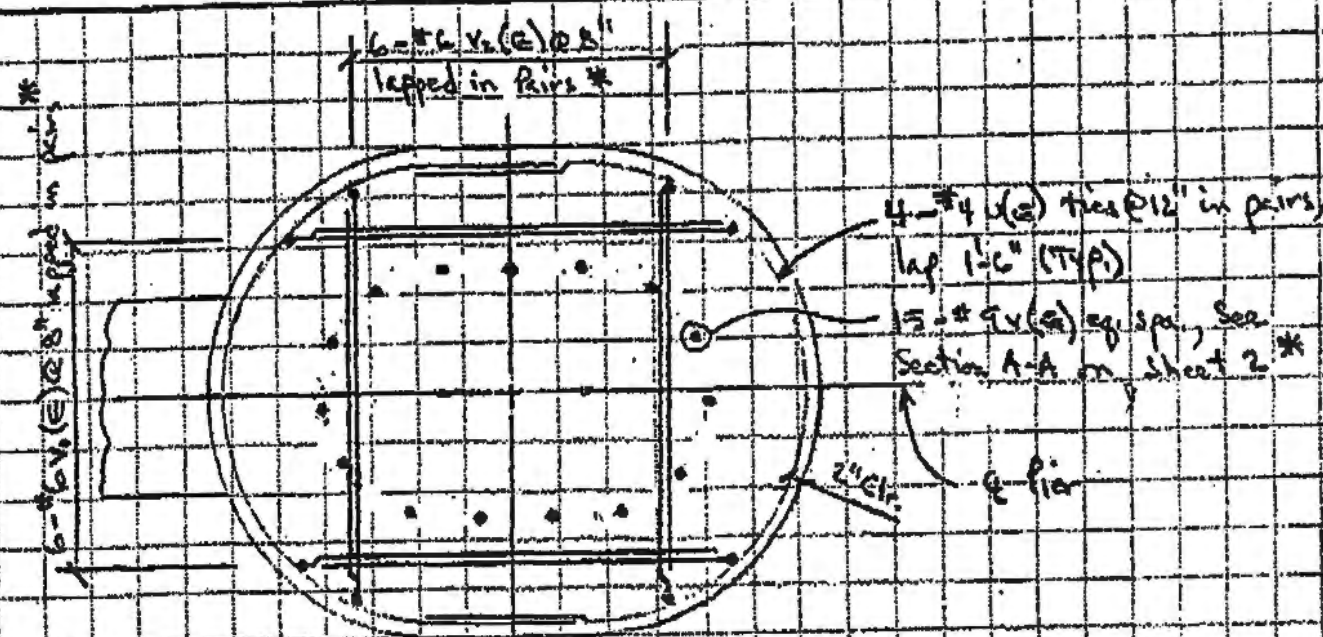
Item	Unit	Quantity
Class X Concrete	Cu. Yds.	6.1*
Reinforcement Bars, Epoxy Ctd.	Lbs.	1200*
Concrete Removal	Cu. Yds.	2.8*

ESCA CONSULTANTS

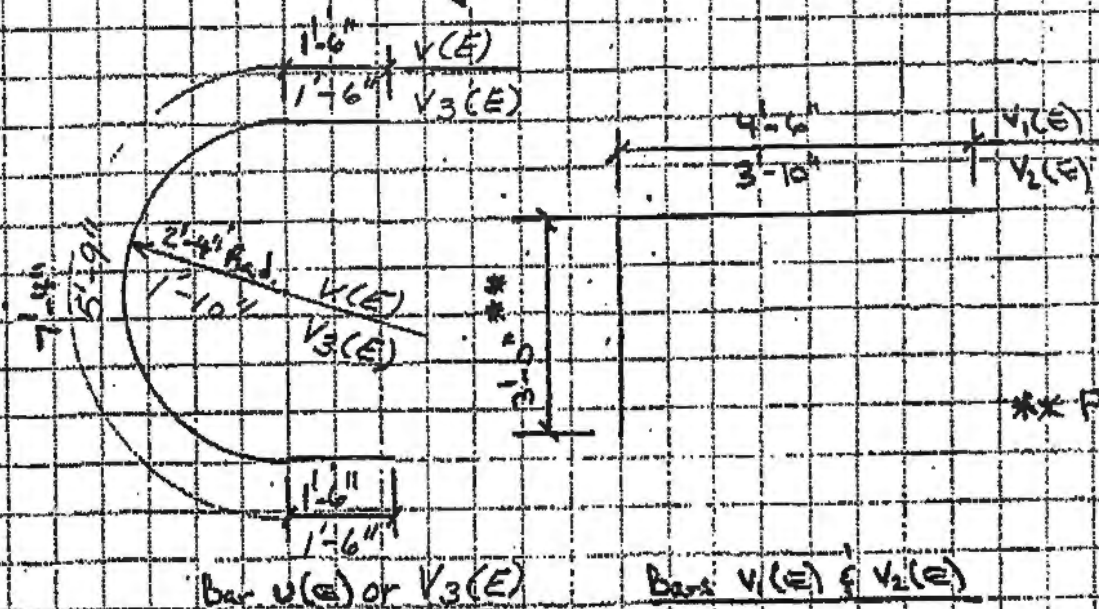
ESCA CONSULTANTS, INC.

1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

JOB 092-0006,0007 Pier 1A
SHEET NO. 3 OF _____
CALCULATED BY RAP DATE 6/5/92
CHECKED BY JZF DATE 6/8/92
SCALE _____



TOP PLAN
(Showing Reinf.)



BAR BONDING DETAILS

* Locate to miss new anchor bolts

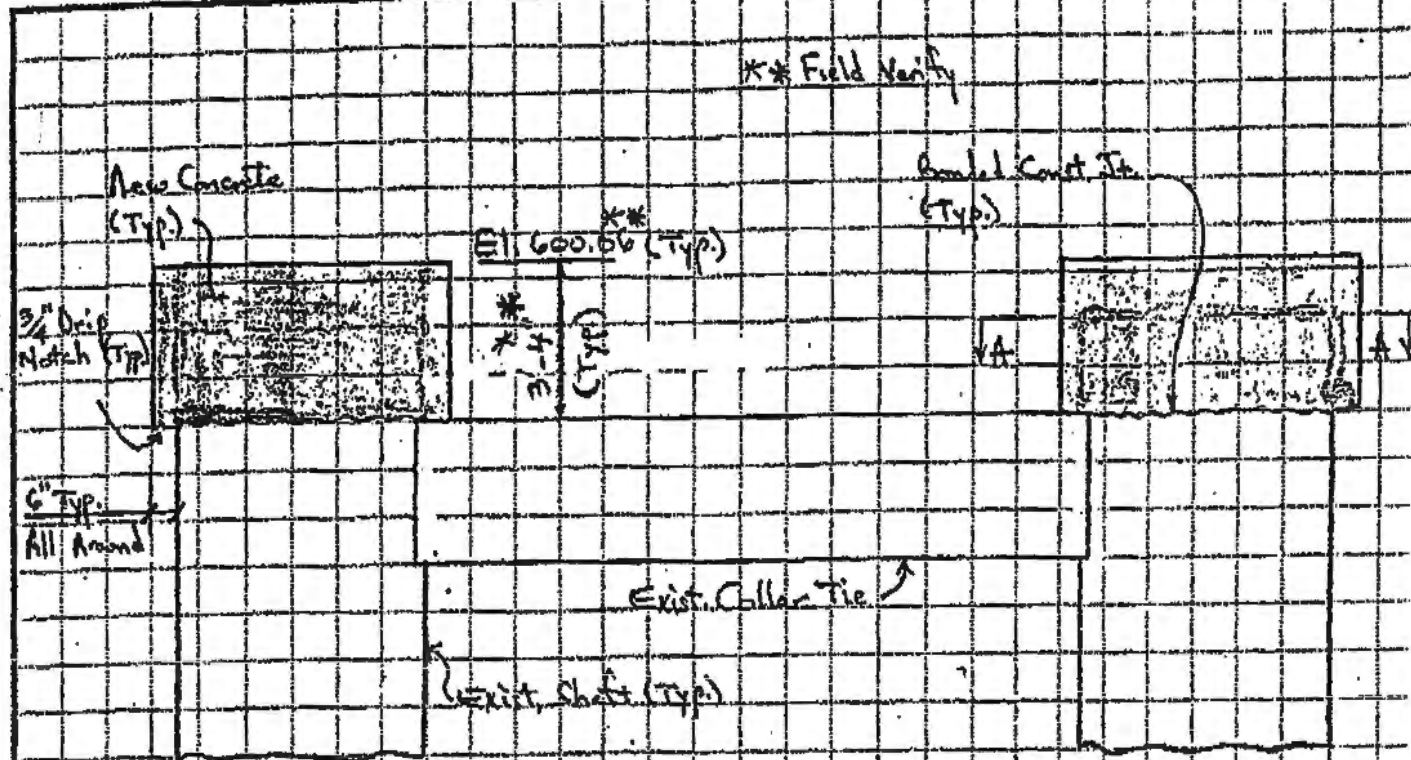
** Field Verify

ESCA CONSULTANTS, INC.
1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

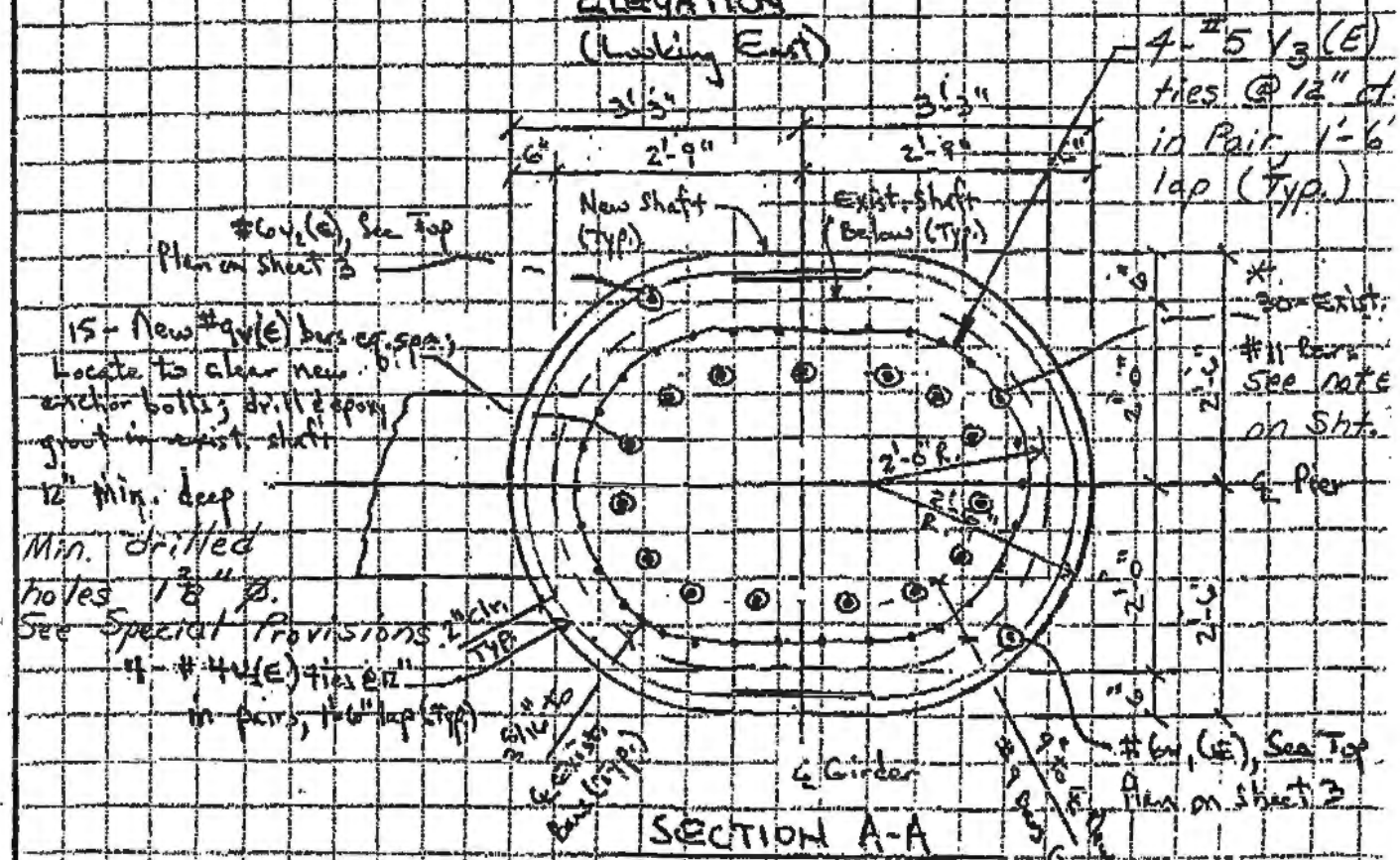
JOB 92-004,000-1 SHEET NO. 2 OF
CALCULATED BY ROP DATE 6/3/92
CHECKED BY JRF DATE 6/8/92
SCALE

ESCA CONSULTANTS, INC.
1606 Willow View Road 2J
P.O. Box 159
URBANA, ILLINOIS 61801
(217) 384-0505
FAX (217) 384-0506

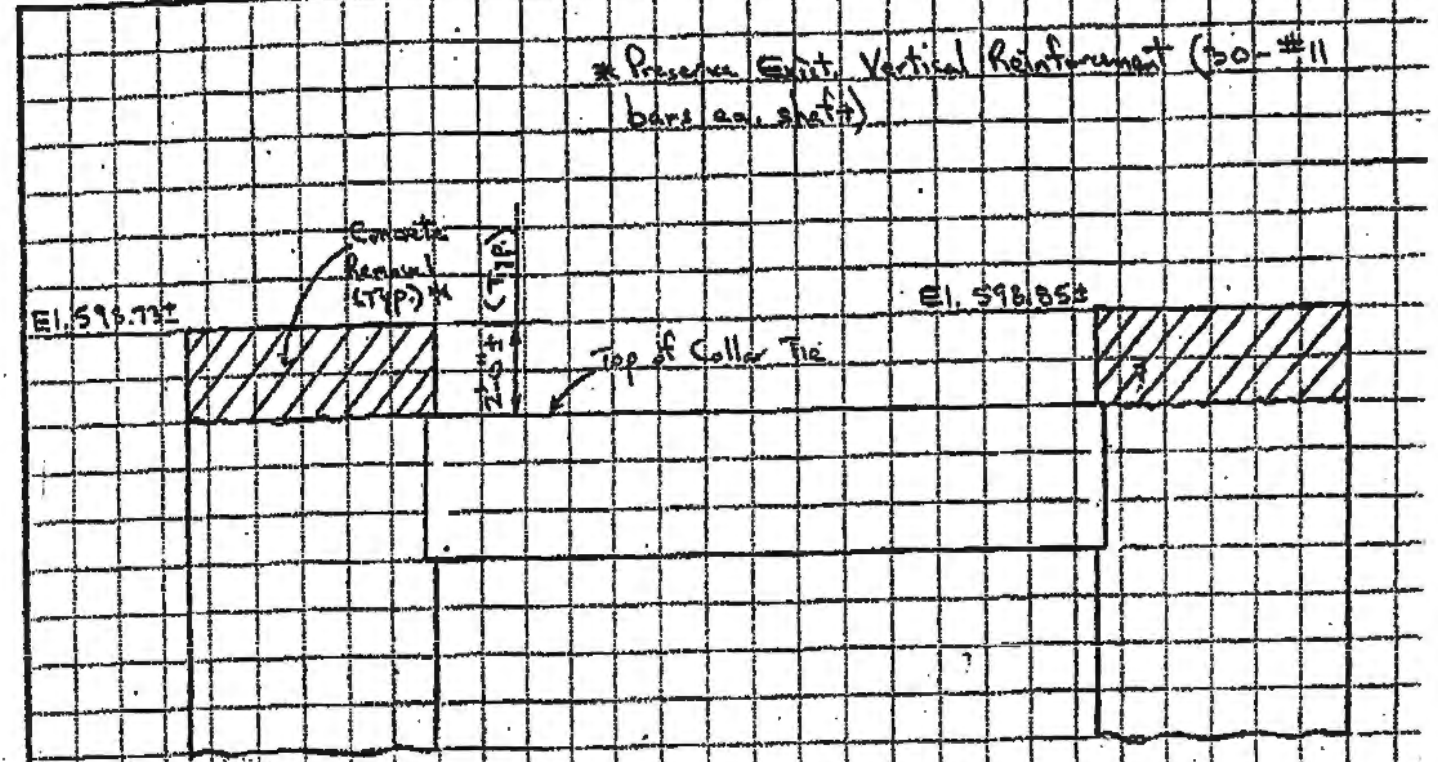
JOB 92-004,000-1 SHEET NO. 1 OF
CALCULATED BY ROP DATE 6/3/92
CHECKED BY JRF DATE 6/8/92
SCALE



ELEVATION
(Looking East)



SECTION A-A



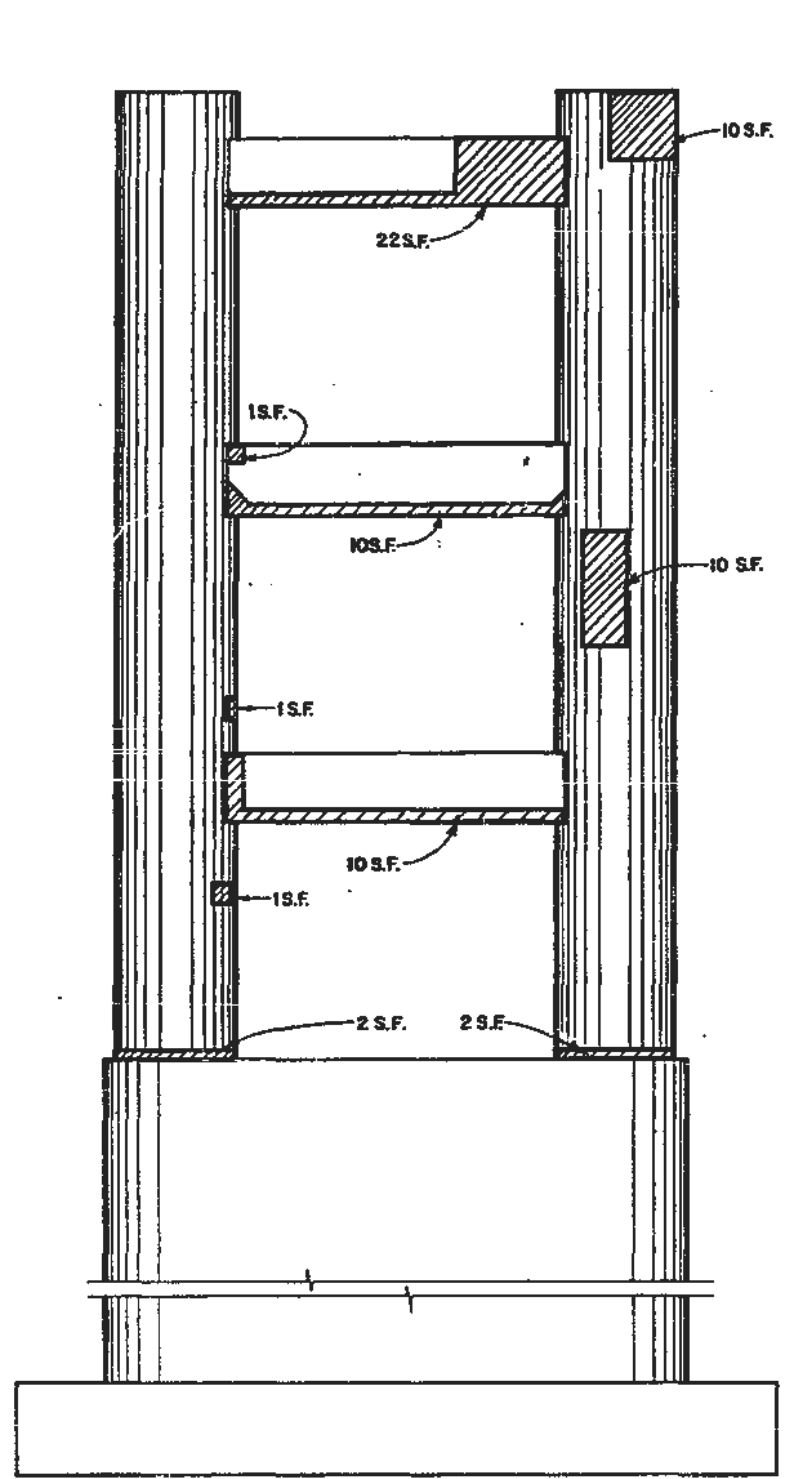
ELEVATION
(Looking East)

* Existing Vertical Reinforcement extending into new construction shall be cleaned, straightened and incorporated into new construction.

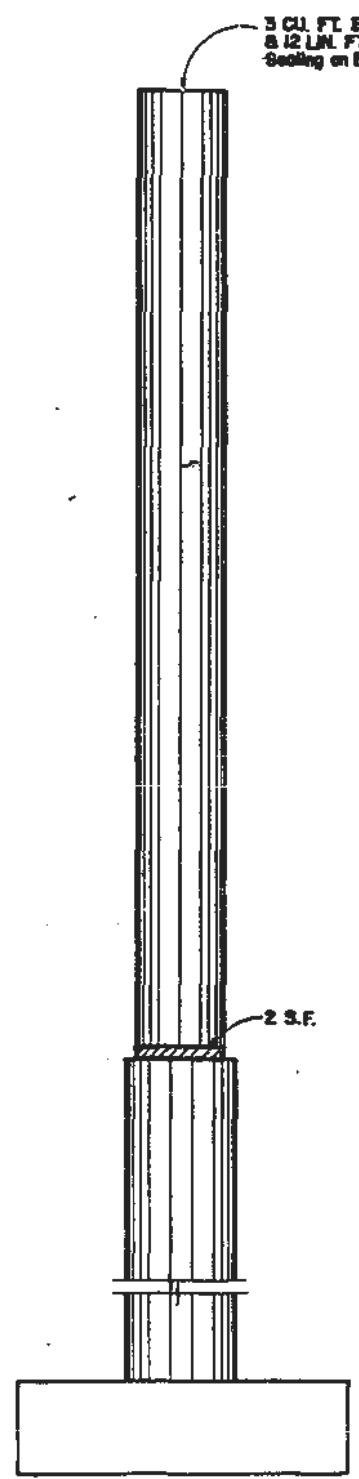
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermillion	165	88
PROJECT			TO SHEET	
FAI 74 OVER SALT FORK			92-11BR	
DRAWING NO.			DRAWING DATE	
Dwg No. 27 of 28				

NOTES

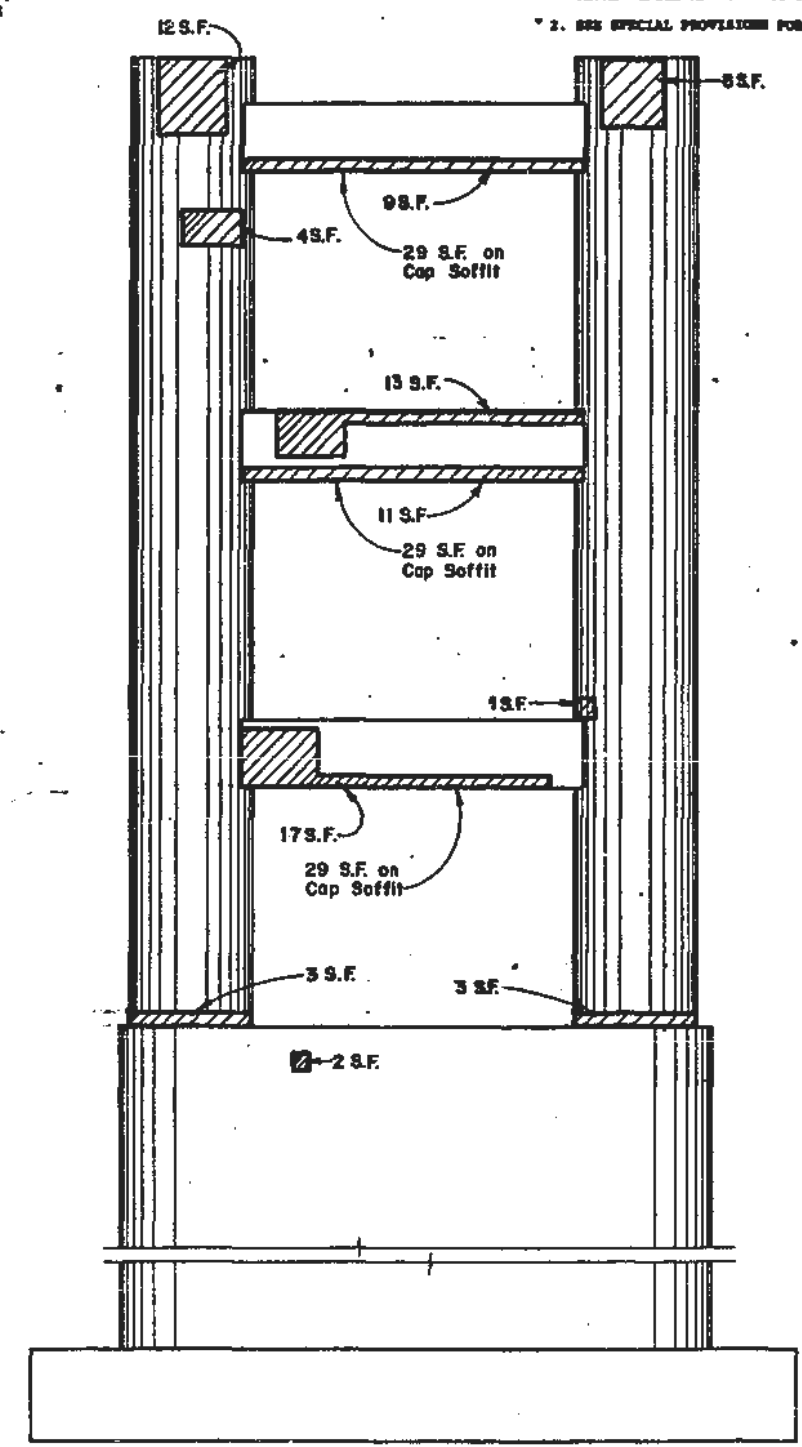
- REPAIR LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL NOT COMMENCE ANY REPAIRS RELATED TO CONCRETE REPAIR UNTIL APPROVED BY THE ENGINEER.
- SEE SPECIAL PROVISIONS FOR CONCRETE REPAIR METHOD.



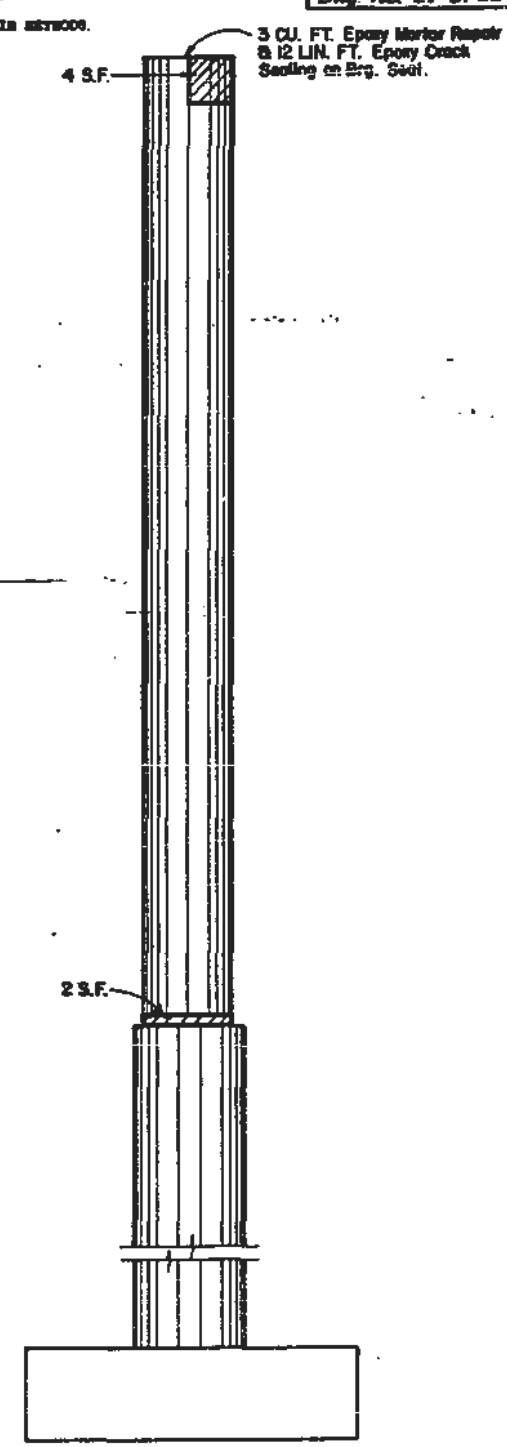
ELEVATION
(LOOKING WEST)



END VIEW
(LOOKING SOUTH)



ELEVATION
(LOOKING EAST)



END VIEW
(LOOKING NORTH)

LEGEND
 MOD. PORT. CEM. MORTAR REPAIR

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Mod. Port. Cem. Mortar Repair	Sq. Ft.	247
Epoxy Mortar Repair	Cu. Ft.	6
Epoxy Crack Sealing	Lin. Ft.	24

**EASTBOUND LANES
PIER 1A CONCRETE REPAIRS**
 FAI 74 OVER SALT FORK
 FAI RTE 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+18.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

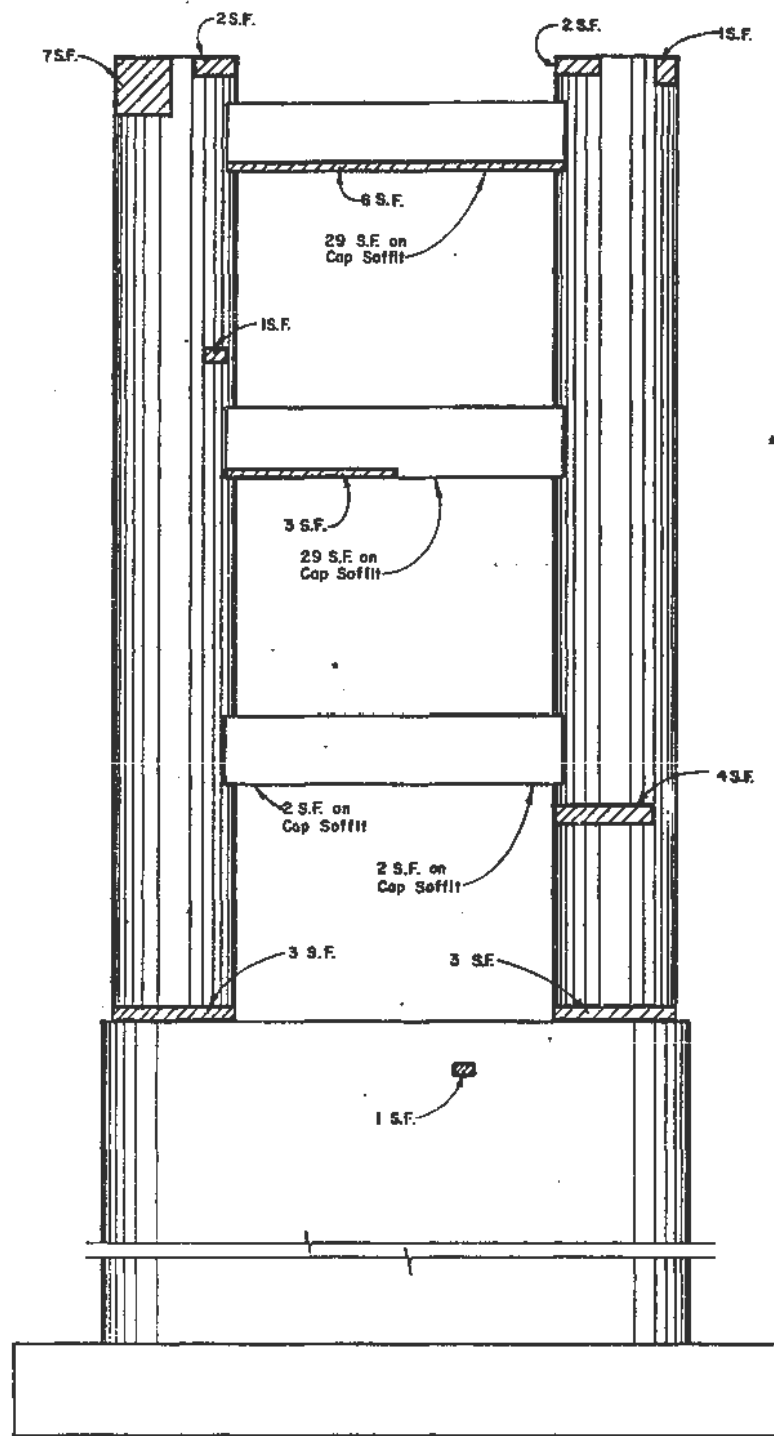
ESCA
CONSULTANTS, INC.

DESIGNED BY:	RDP	6-90
DRAWN BY:	GGB	6-90
CHECKED BY:	JRF	6-90
APPROVED BY:	RDP	6-90

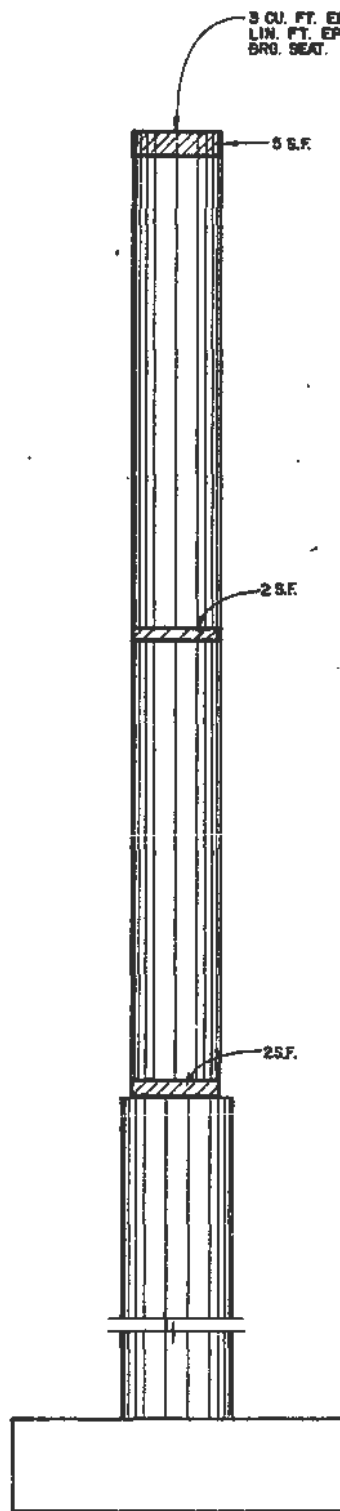
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI-74	92-11BR	Vermilion	405	89
PER. ROAD DIST. NO.		ILLINOIS PROJECT		
		Dwg. No. 20 of 28		

NOTES

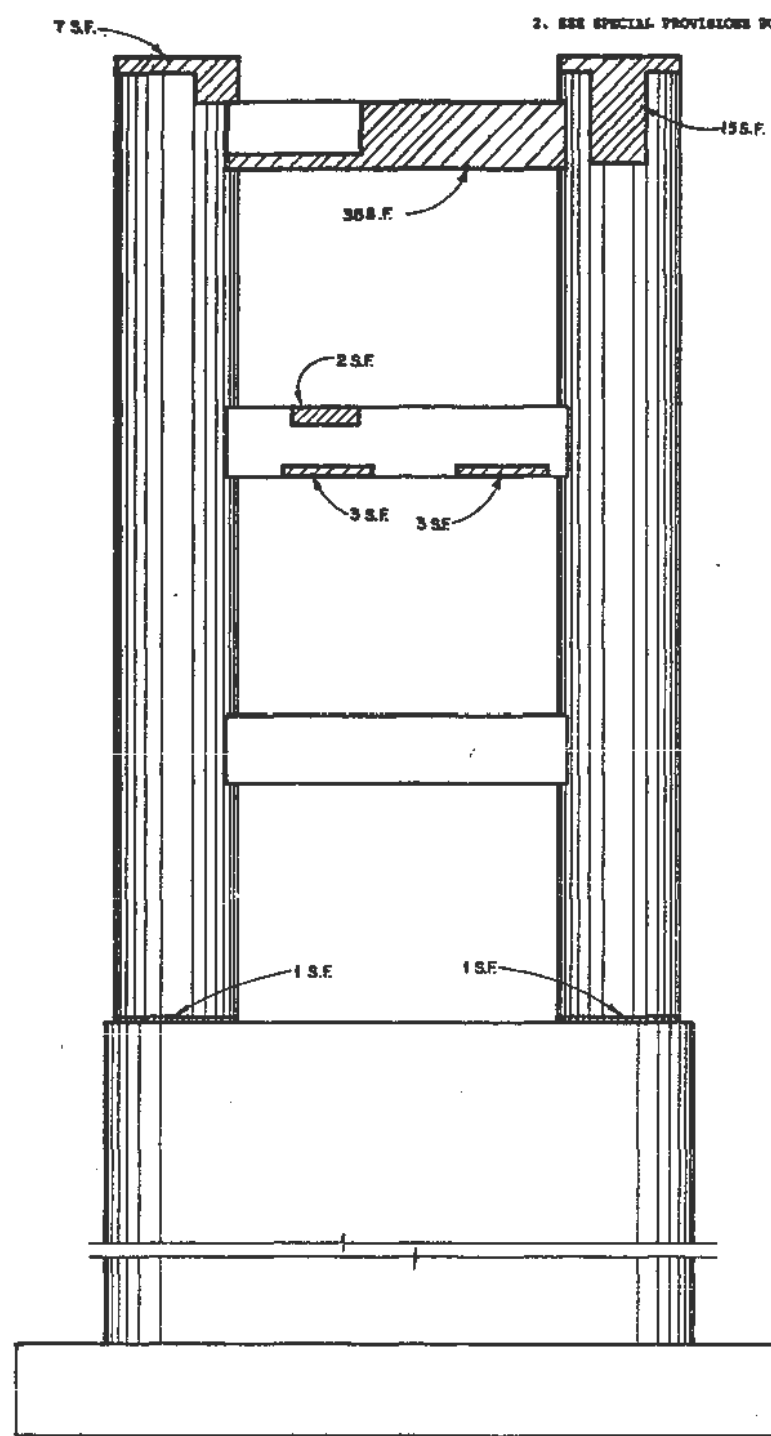
- REPAIR LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE VERIFIED IN THE FIELD BY THE ENGINEER. THE CONTRACTOR SHALL NOT COMMENCE ANY REMOVAL RELATED TO CONCRETE REPAIRS UNTIL APPROVED BY THE ENGINEER.
- SEE SPECIAL PROVISIONS FOR CONCRETE REPAIR METHODS.



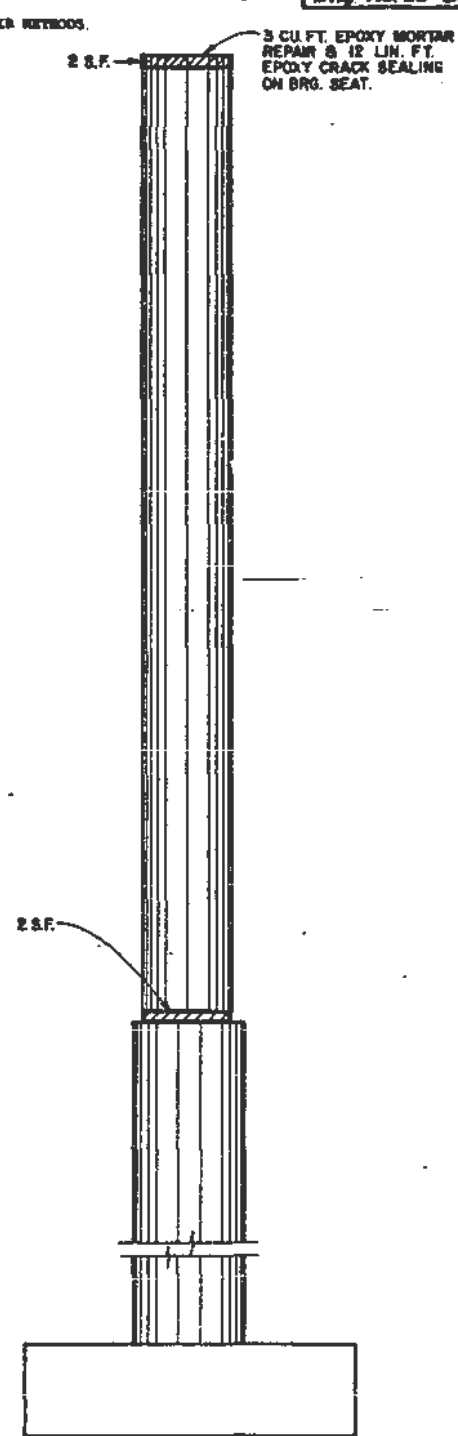
ELEVATION
(LOOKING WEST)



END VIEW
(LOOKING SOUTH)



ELEVATION
(LOOKING EAST)



END VIEW
(LOOKING NORTH)

LEGEND

MOD. PORT. CEM. MORTAR REPAIR

BILL OF MATERIAL

ITEM	UNIT	QUANTITY
Mod. Port. Cem. Mortar Repair	Sq. Ft.	175
Epoxy Mortar Repair	Cu. Ft.	6
Epoxy Crack Sealing	Lin. Ft.	29

ESCA
CONSULTANTS, INC.

DESIGNED BY: RDP 6-90
 DRAWN BY: GGB 6-90
 CHECKED BY: JRF 6-90
 APPROVED BY: RDP 6-90

WESTBOUND LANES
PIER 1A CONCRETE REPAIRS
 FAI 74 OVER SALT FORK
 FAI RTE. 74 SECTION 92-11BR
 VERMILION COUNTY
 STATION 1755+16.00
 STRUCTURE NO. 092-0006(EB)
 STRUCTURE NO. 092-0007(WB)

Speed Letter



Illinois Department of Transportation

Bureau of Bridges & Structures • 2300 S. Dirksen Parkway • Springfield, Illinois 62764

07:11 AM 06 JUN 2006

TO: Joseph E. Crowe - District 5

Four horizontal lines for recipient address

Date: June 28, 2006	Job No.: - - -
Str. No.: 092-0006	Contract No.: 0-5 JUN 30 2006 PM 1:12
Route: FAI 74	
Section: 92-11B	
County: VERMILION	
Other:	

Attention: Jerry W. Cearlock
Brian Trygg

We are Sending

Please Send

- TS & L Plans
- Prints of Prefinal Plans
- Prints of Final Plans
- Prefinal Prints

- Details
- Report(s)
- Estimate(s)
- Boring Data

- Bridge Condition Report
- Special Provisions
- Copy of Letter
-

These Are:

- For Processing
- For Your File
- For Approval
- For Your Use
- As Requested
- Approved As Noted
- For Review & Comments
- Returned For Corrections

Remarks:

As requested with your memo of 02/24/2006 by Brian Trygg. If you have any questions, please contact Victor H. Veliz at 217-782-2708. Please submit a complete set of Project Plans (quarter size) and Special Provisions to the Bridge Office when the plans are transmitted to Day Labor for Award.

07:11 AM 06 JUN 2006

Copies To: Joe Hill Attn: Rick A. Brunette

By John A. Morris
For The Engineer of Bridges & Structures

Trygg, Brian K

From: Trygg, Brian K
Sent: Tuesday, March 28, 2006 2:05 PM
To: Puzey, D. Carl
Cc: Veliz, Victor H.
Subject: RE: SN 092-0006 Pier Column Tie Beams

Carl,

This project is part of our 2007 Day Labor program – Day Labor Project #07-I505. We agree your staff could more easily prepare the plans for the day labor section.

We would like to have the plans available for Day Labor to get materials and scheduling ready for this fall. The District would appreciate receiving the plans on or before July 4, 2006.

Brian K. Trygg, PE
IDOT - Region 3/District 5
Operations Planning and Design Engineer
(217) 466-7233 (Desk Phone)
(217) 251-4858 (Mobile Phone)
TryggBK@dot.il.gov

From: Puzey, D. Carl
Sent: Tuesday, March 28, 2006 11:56 AM
To: Trygg, Brian K
Cc: Veliz, Victor H.
Subject: SN 092-0006 Pier Column Tie Beams

Brian,

We reviewed the information sent with your 2/24/06 memo regarding replacement of the tie beams between columns at Pier 1A. Removing the members and their reinforcement flush with the face of the column would necessitate drilling very deep into the column in order to develop the new reinforcement because it consists of #10 bars. The option of exposing enough reinforcement length for a lap splice would require a significant amount of removal by hand tools since the lap length for a #10 bar is large. We therefore recommend removal of enough concrete by hand methods to allow the use of mechanical splicers to connect the existing to new #10 bars.

We feel it would be easiest for us to prepare these plans if you would like us to. If you would like us to prepare the plans please let me know the letting and when you need plans from us. If you do not want us to prepare plans and need a hard copy response to your 2/24/06 memo, please let me know. I will wait to here from you. Thanks.

Carl Puzey

Illinois Department of Transportation
Bureau of Bridges and Structures
Bridge Investigations and Repair Plans Unit

Phone: (217) 785-4511
fax: (217) 782-7960
e-mail: puzeydc@dot.il.gov

3/28/2006

FILE



Illinois Department of Transportation

Memorandum

To: Ralph E. Anderson
From: Joseph E. Crowe
Subject: Structural Services
Date: February 24, 2006

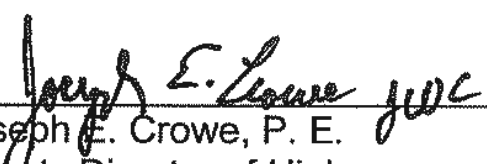
*FY-2007 Day Labor Project
F.A.I. Route 74
Section 92-11B
S.N. 092-0006 (Eastbound)
Over Middle Fork Vermilion River
Vermilion County

The transverse tie members between pier columns on pier 1A are deteriorating due to leaking from the expansion joint located above them.

The district plans to remove the existing transverse members and replace them in kind with new concrete members. It is preferred to remove the ties by sawing flush with the columns, drilling and anchoring bars for reinforcement development. A suggested alternative is to remove the transverse member leaving enough reinforcement in place for bar development, remove the remaining concrete using hand methods, and tying in-kind reinforcement onto the remaining existing reinforcement.

Please review the pier detail and advise this office on the appropriate development lengths for the reinforcement. Also, please provide your comments on the detailing and replacement of the transverse members.

Please direct any questions regarding this project to Mr. Brian K. Trygg at telephone number 217-466-7233.



Joseph E. Crowe, P. E.
Deputy Director of Highways,
Region Three Engineer

BKT:jw
Attach.
cc: K. R. Woods

092-0006 (EB)

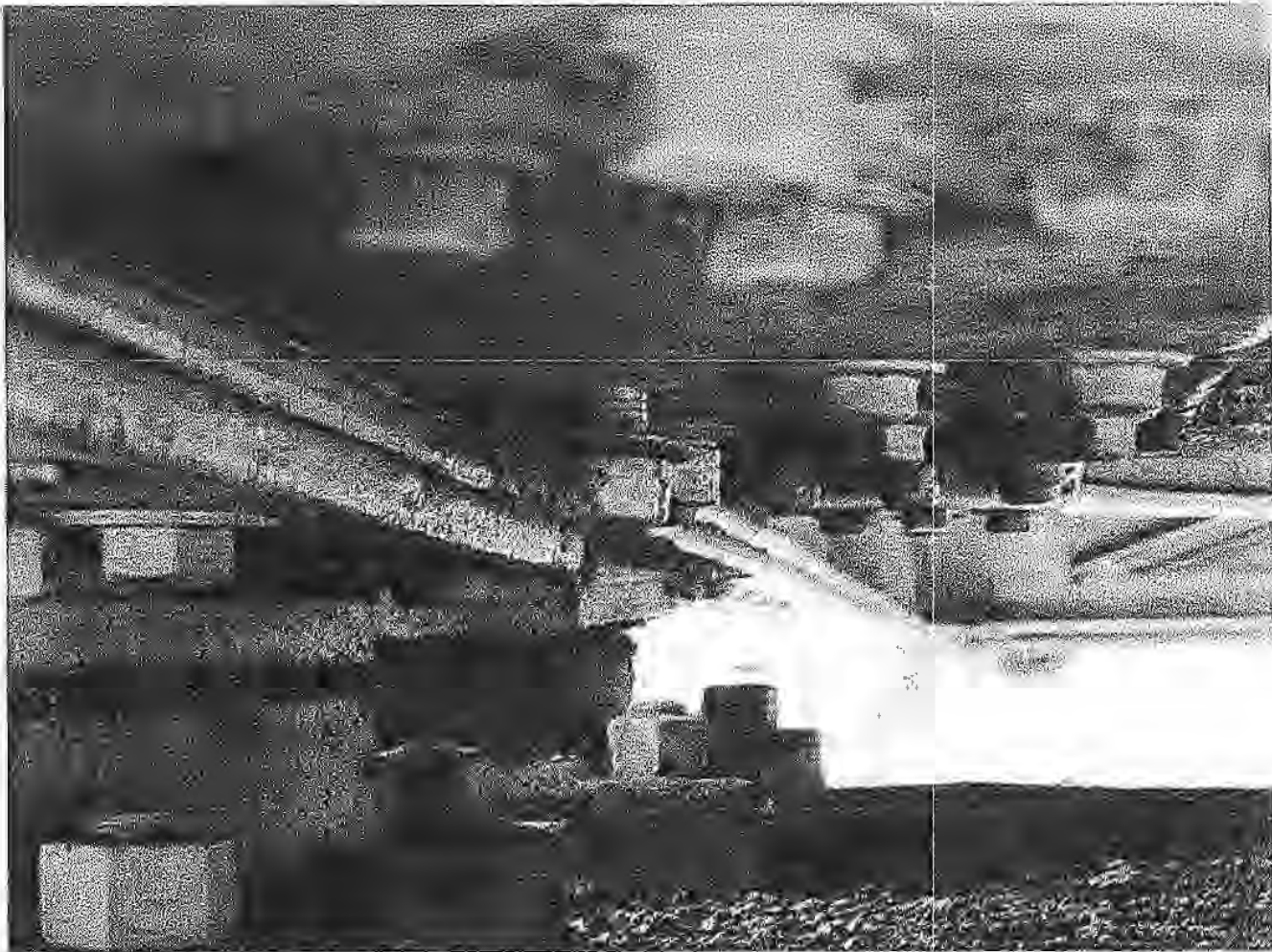


FORMED CONCRETE
REPAIR, TOP TWO
DIAPHRAGMS.

Pier 1A deterioration (TOP PIED DIA)



Pier 1A deterioration



Loose bolt in Horizontal Gusset Plate to Bottom Flange of diaphragm over Pier 1A.



Pier 1A cracking SECOND FROM TOP DIAPHRAGM



Pier 1A deterioration

FILE



Illinois Department of Transportation

Memorandum

To: J. S. Hill
From: Joseph E. Crowe
Subject: Day Labor Project No. 07-I505*
Date: July 5, 2006

*FAI Route 74
Section 92-11BR
Vermilion County
S.N. 092-0006

Attached are a location map, plan detail sheets, and estimate of quantities needed to repair three cross braces located on Pier 1A of this structure.

The intent of the project is removal and replacement of three existing cross bracing members as well as replacement of the existing reinforcement using mechanical splicers. Please note the details require replacement of the cross bracing on a one-at-a-time basis.

This project is a part of the district's FY 2007 day labor program and will use \$70,000. We ask that this project be provided priority and be considered for completion this fall.

Please direct any questions regarding this project to Mr. Brian K. Trygg at telephone number 217-466-7233.

A handwritten signature in black ink, appearing to read 'Joe Crowe', written over a horizontal line.

Joseph E. Crowe, P. E.
Deputy Director of Highways,
Region Three Engineer

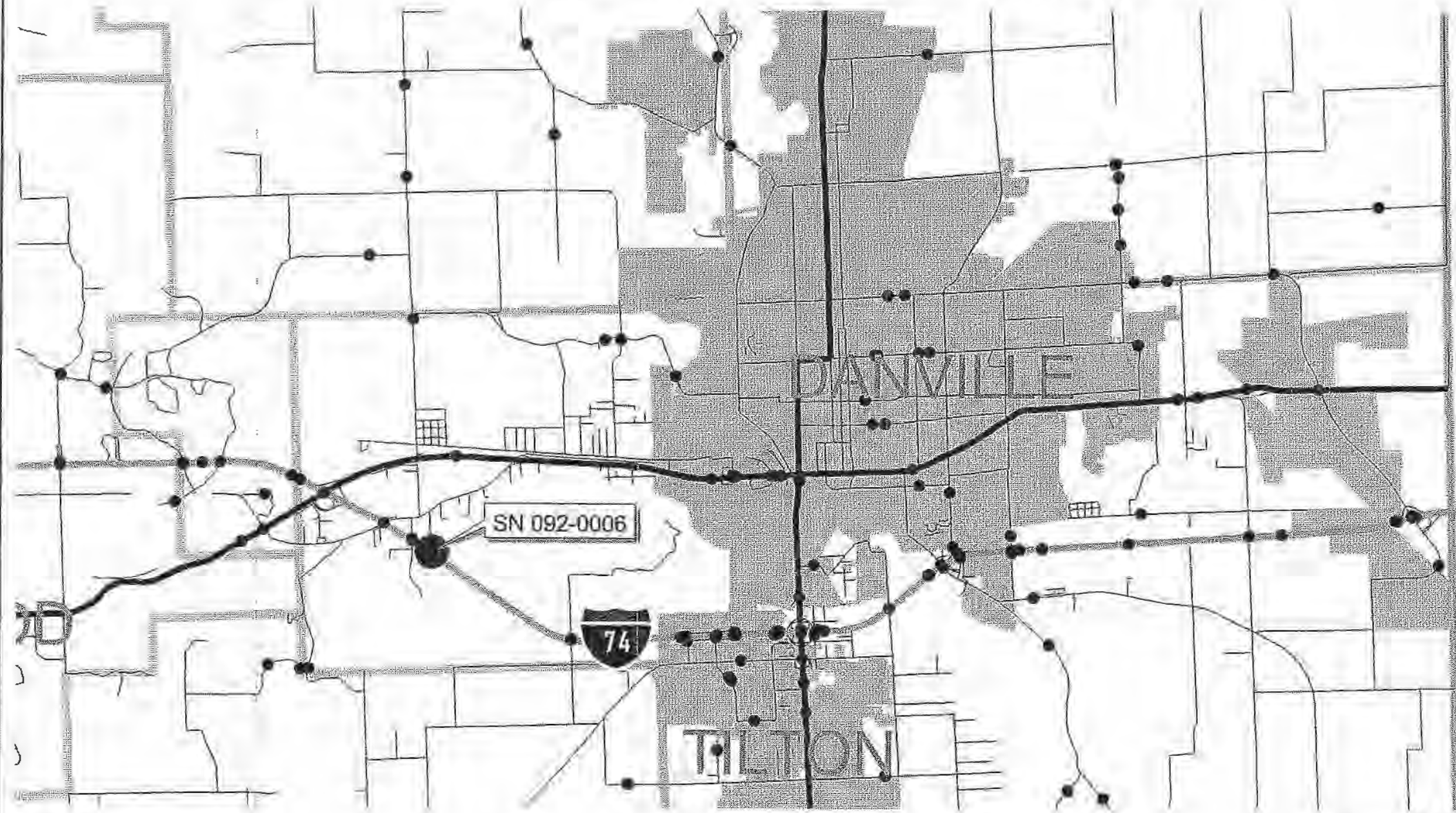
BKT:jw

Attach.

cc Central Bureau of Bridges and Structures
K. R. Woods

FY 07 Day Labor Project

Substructure Repairs - Structure 092-0006



Legend

- Structures
- Roadway
 - Interstate
 - US Route
 - State Route
 - Road Network



2500 0 2500 5000 7500 10000 12500 Feet

1:85334

Bridge Substructure Repairs

FAI 74 Over Salt Fork Vermilion River

SN 090-0006

Item	Quantity	Unit	Unit Price	Total
Concrete Removal	9.7	Cu Yd	\$ 2,100.00	\$ 20,370.00
Concrete Strucutres	9.7	Cu Yd	\$ 2,100.00	\$ 20,370.00
Mechanical Splicers	84	Each	\$ 30.00	\$ 2,520.00
Reinforcement Bars, Epoxy Coated	2670	Lbs	\$ 2.75	\$ 7,342.50
Traffic Control	1	Lump Sum	\$ 10,000.00	\$ 10,000.00
Mobilization				\$ 9,000.00

Summary

\$ 69,602.50

Use \$70,000

7/5/2006

MECHANICAL SPLICE

Effective: September 21, 1995

Revised: August 24, 1998

Description. This work shall consist of furnishing and installing mechanical splices/couplers according to the plans and this special provision.

Materials and Procedures. The mechanical connection may be made by means of an approved mechanical splicer or coupler. Either connection method shall develop in tension at least 125 percent of the specified yield strength of the bar.

Contact the Bureau of Materials for a current list of approved mechanical reinforcing bar splicers/coupler systems.

Installation. The Contractor shall supply the manufacturer's written installation instructions to the Engineer prior to installing the mechanical splices.

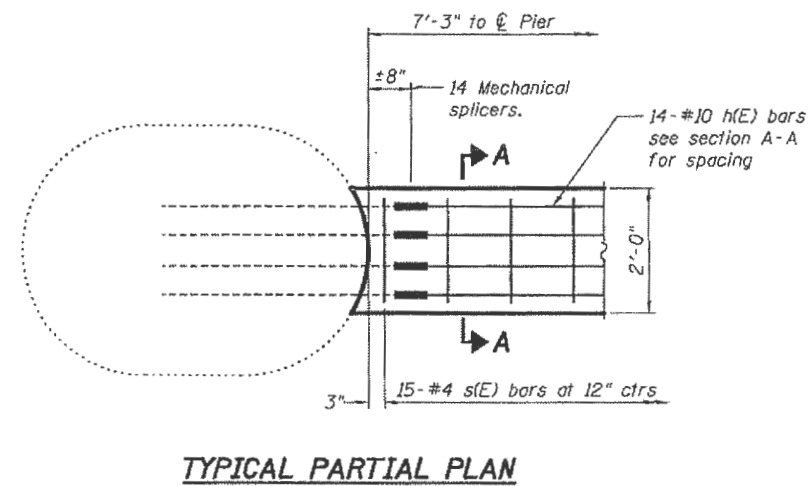
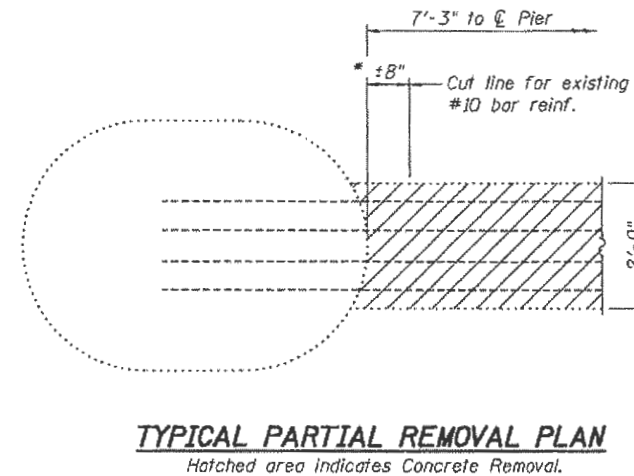
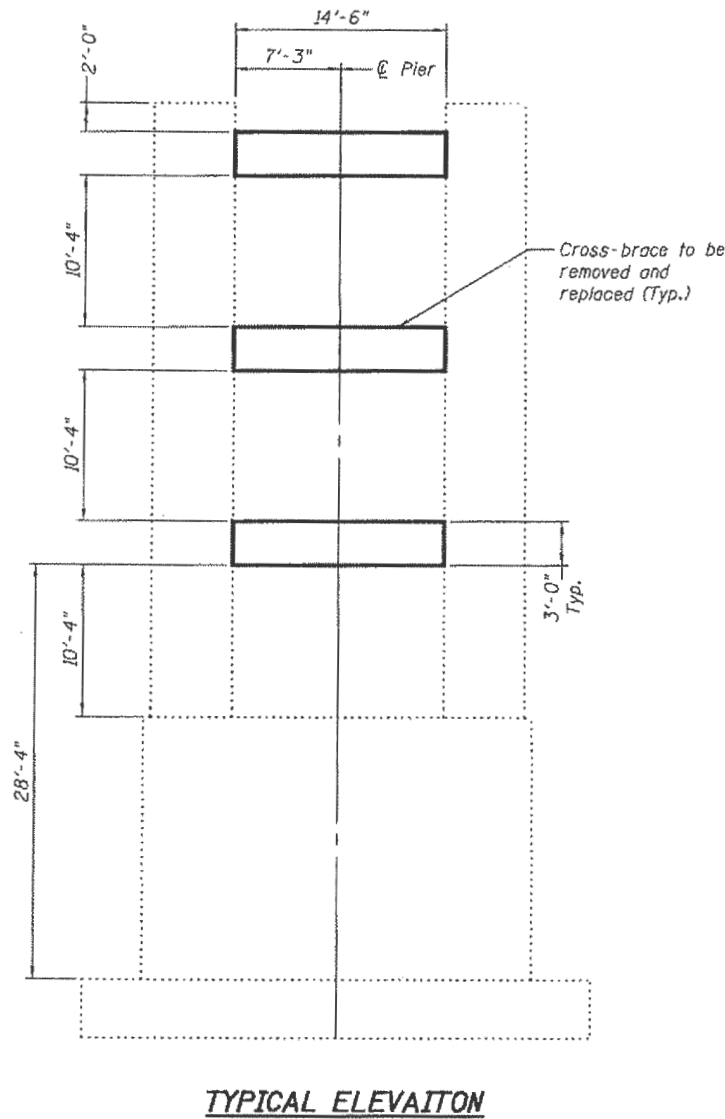
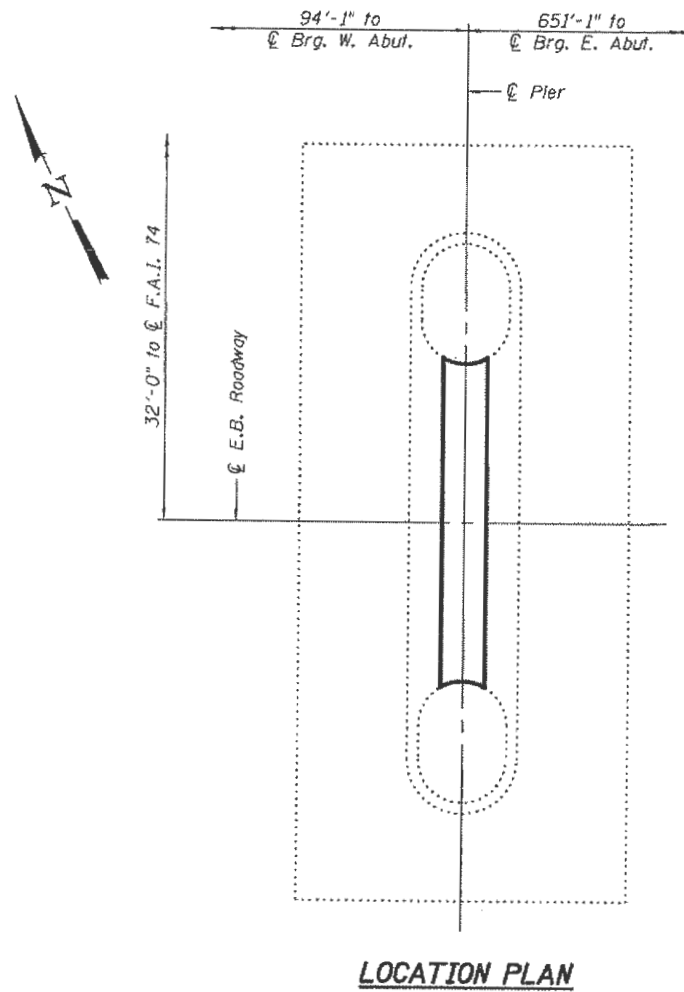
Testing. A minimum of two tension tests will be made with the method of splicing/coupling selected on each size bar to be spliced/coupled. The Contractor shall furnish certified copies of the test reports from an independent testing laboratory.

Basis of Payment. This work will be paid for at the contract unit price each for MECHANICAL SPLICE.

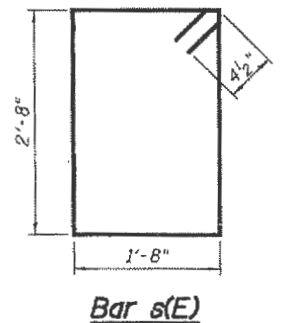
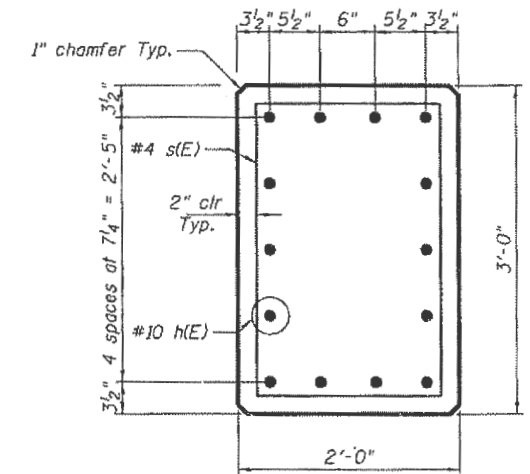
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

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

Contract Number: ---



* Prior to cutting existing bars, the contractor must verify that proper length is provided to engage mechanical splicers as recommended by the manufacturer.



BILL OF MATERIAL

Bar	No.	Size	Length	Shape
h(E)	42	#10	13'-2"	—
s(E)	45	#4	9'-6"	□
Concrete Removal			Cu. Yd.	9.7
Concrete Structures			Cu. Yd.	9.7
Mechanical Splicers			Each	84
Reinforcement Bars, Epoxy Coated			Lbs.	2,670

Reinforcement bars designated (E) shall be epoxy coated.

GENERAL NOTES

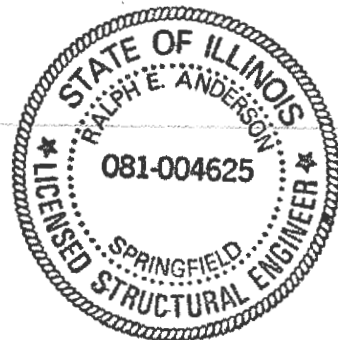
Existing reinforcement extending into the removal area shall be cleaned, straightened, cut as shown and incorporated into the new construction. Any reinforcement bars that are damaged during concrete removal shall be replaced with an approved bar splicer or anchorage system. Cost shall be included with Concrete Removal.

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

Only one cross-brace is to be removed and replaced at a time. All joints are to be bonded.

DESIGN STRESSES

$f'_c = 3,500 \text{ psi}$
 $f_y = 60,000 \text{ psi}$



Expires November 30, 2006

DESIGNED	Victor H. Velazquez	June 28, 2006
CHECKED	Carl Krupp	EXAMINED John A. Morris
DRAWN	Drew Christopher	PASSED Ralph E. Anderson
CHECKED	VHV DCP	ENGINEER OF BRIDGES AND STRUCTURES

PIER 1A REPAIR DETAILS
F.A.I. RT. 74
VERMILION COUNTY
SN 092-0006

384-2380

CITY
Jim KELLY - URSALIA

92-11 B
TRANSVERSE TAKE REPL.

$\frac{2' \times 3' \times 14.5'}{27} = 3.2 \text{ CU YDS} \cdot 3 = 9.7 \text{ CU YD REM \& REPL.}$

$1\frac{1}{4} \times 21' \quad 14 \cdot 21' \neq 105 \text{ AR} \quad 4.303 \frac{\text{lb}}{\text{FT}} \quad 1265.08$

$14 \cdot 5\frac{1}{2} \cdot 6 \neq 49 \cdot 6 \text{ " 1300} \quad 0.668 \frac{\text{lb}}{\text{FT}} \quad 88.816$

1353.89 1354 lb.

$7.7 \cdot 3 = 23.1 \text{ CU YD} \cdot \400

\$ 11,640

$9.7 \cdot 3 = 29.1 \text{ CU YD} \cdot 750$

\$ 21,825

$1354 \cdot 3 \cdot 3 = 12062 \text{ lb.} \cdot 3^{\frac{00}{}}$

12,186

$84 \cdot 25 =$

2,100

\$ 47,751

MOBILIZATION

5,000

TRAFFIC CONTROL

5,000

65,751

USE 70,000

6-13-08 Letting, Item 171

STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS
**PROPOSED
 HIGHWAY PLANS**

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	12	1
VERMILION	SUBD	POLY		
* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013				

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

AS-BUILT PLANS

Resident: T SHANE ROBINSON
 Contractor: O'NEIL BROS.
 Date Started: Nov. 03, 2008
 Date Completed: DEC. 03, 2008

F.A.I. ROUTE 74
 SECTION D5 SCOUR MITIGATION 2008-1
 VERMILION COUNTY

C-95-047-99

VARIOUS DISTRICT WIDE SCOUR MITIGATION

SECTION: D-5 SCOUR MITIGATION
 LOCATION NO. 2

S. N. 092-0014 (WB) &
 S. N. 092-0015 (EB)
 STATION 1992+54.00

SECTION: D-5 SCOUR MITIGATION
 LOCATION NO. 1

S. N. 092-0006 (EB) &
 S. N. 092-0007 (WB)
 STATION 1755+16.00



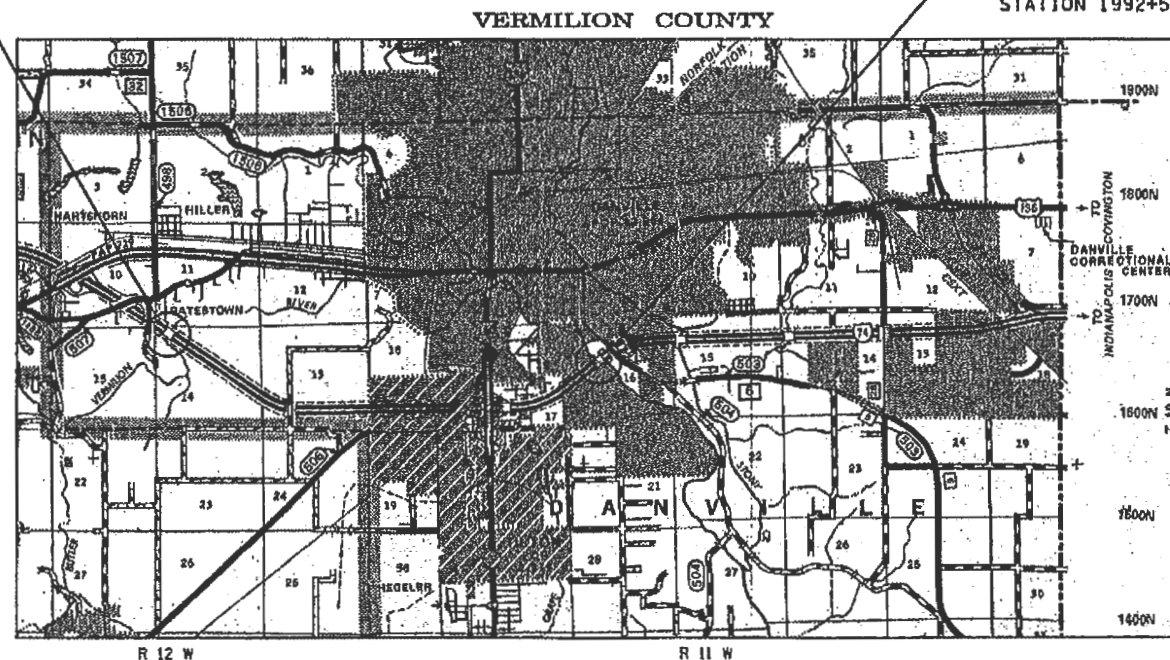
CURRENT ADT /DESIGN ADT
 CURRENT ADT 20,500 (2005) - LOCATION #1
 CURRENT ADT 27,600 (2005) - LOCATION #2

DESIGN DESIGNATION
 N/A

J.U.L.I.E.
 JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
 1-800-692-0123
 OR 811

PROJECT ENGINEER: TIM BRANDENBURG
 SQUAD LEADER: EURNIE GARVER
 DESIGNER: BRIAN HOGAN
 (217)465-4181

CONTRACT NO. 70013



TOTAL LENGTH OF SECTION & PROJECT = N.A.
 NET LENGTH OF SECTION & PROJECT = N.A.



STATE OF ILLINOIS
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF HIGHWAYS

SUBMITTED 3/12 20 08

Joseph R. Crane
 DEPUTY DIRECTOR OF HIGHWAYS, REGION THREE ENGINEER

May 9, 20 08
Eric E. Starn
 INTERIM ENGINEER OF DESIGN AND ENVIRONMENT

May 9, 20 08
Christine M. Reed
 DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

**PRINTED BY THE AUTHORITY
 OF THE STATE OF ILLINOIS**

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	2
* 05 SCOUR MITIGATION 2008-1		CONTRACT NO. 70013		

INDEX OF SHEETS

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
1	COVER SHEET
2	INDEX OF SHEETS
2	LIST OF HIGHWAY STANDARDS
3	GENERAL NOTES
4	SUMMARY OF QUANTITIES
5	PLAN SHEET S. N. 092-0006 & 0007
6	PROFILE SHEET S. N. 092-0006 & 0007
7	PLAN SHEET S. N. 092-0014 & 0015
8	PROFILE SHEET S. N. 092-0014 & 0015
9-10	DETAILS
11-12	SUGGESTED CONTRACTOR ACCESS ROUTES

LIST OF HIGHWAY STANDARDS

<u>STANDARD NO.</u>	<u>DESCRIPTION</u>
000001-05	STANDARD SYMBOLS, ABBREVIATIONS, AND PATTERNS
001006	DECIMAL OF AN INCH AND OF A FOOT
665001-01	WOVEN WIRE FENCE
701101-01	OFF-ROAD OPERATIONS, MULTILANE, 4.5 m (15') TO 600 mm (24") FROM PAVEMENT EDGE
701106-01	OFF-ROAD OPERATIONS, MULTILANE, MORE THAN 4.5 m (15') AWAY
701400-02	APPROACH TO LANE CLOSURE, FREEWAY/EXPRESSWAY
701406-04	LANE CLOSURE, FREEWAY/EXPRESSWAY, DAY OPERATIONS ONLY
701901	TRAFFIC CONTROL DEVICES

ILLINOIS DEPARTMENT OF TRANSPORTATION
INDEX OF SHEETS AND
LIST OF HIGHWAY STANDARDS
 F.A.I. ROUTE 74
 SECTION 05 SCOUR MITIGATION 2008-1
 VERMILION COUNTY

SCALE: N/A DRAWN BY: CADD
 DATE: 02-07-08 CHECKED BY:

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	0	VERMILION	12	3
TOWNSHIP		RANGE		SECTION
* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013				

GENERAL NOTES

G. N. -100
ENGLISH UNITS OF MEASUREMENT SHALL GOVERN OVER AND SUPERSEDE ANY METRIC UNITS SHOWN IN THIS CONTRACT. WHERE INCLUDED, METRIC UNITS ARE FOR INFORMATION ONLY.

G. N. -105.07B
EXISTING STATE-OWNED AND MAINTAINED UTILITY LINES ARE SHOWN ON THE PLANS TO INDICATE THEIR PRESENCE AND APPROXIMATE LOCATION. THE CONTRACTOR SHALL SECURE AN APPROVED LOCATING FIRM TO LOCATE STATE-OWNED UTILITIES PRIOR TO COMMENCING ANY EXCAVATION IN THE VICINITY OF THESE LINES IN ACCORDANCE TO SECTION 803 OF THE STANDARD SPECIFICATIONS. SHOULD ANY OF THE LINES BE DAMAGED BY THE CONTRACTOR'S OPERATION, THE CONTRACTOR SHALL REPAIR THEM TO THE SATISFACTION OF THE ENGINEER AT NO COST TO THE STATE.

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

MR. ADRIAN GREENWELL - HIGHWAY LIGHTING
ILLINOIS DEPARTMENT OF TRANSPORTATION
13473 IL HWY 133
P. O. BOX 610
PARIS, IL 61944

G. N. -105.09A
ALL ELEVATIONS SHOWN IN THE PLANS ARE BASED ON NORTH AMERICAN VERTICAL DATUM OF 1988. (NAVD 88)

G. N. -281
THE RIPRAP GRADATION SHALL BE IN ACCORDANCE WITH THE GRADATION SPECIFIED IN THE PLANS OR, WITH APPROVAL OF THE ENGINEER, A RIPRAP GRADATION MEETING A D50 GREATER THAN OR EQUAL TO 0.8 FEET FOR A4 AND 1.1 FEET FOR A5. D50 IS DEFINED AS THE MEAN ROCK SIZE AS DESCRIBED IN THE FHWA HYDRAULIC ENGINEERING CIRCULARS (HEC 11, HEC 14 AND HEC 15).

IF GRAVEL IS USED FOR THE BEDDING MATERIAL UNDER RIPRAP, THE GRAVEL SHALL BE CRUSHED AS ALLOWED UNDER ARTICLE 1005.01.

ILLINOIS DEPARTMENT OF TRANSPORTATION
GENERAL NOTES
F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A
DATE: 02-07-08

DRAWN BY: CADD
CHECKED BY:

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	4
PROJECT		CONTRACT NO. 70013		
* D5 SCOUR MITIGATION 2008-1				

SUMMARY OF QUANTITIES

LOCATION OF WORK:

VERMILION COUNTY
URBAN MULTILANE
100% STATE
MINOR
STRUCTURE
REPAIR

CONSTRUCTION TYPE CODE:

SFTY-2A

STR. #092-0006 STR. #092-0014
& #092-0007 & #092-0015

<u>CODE NO.</u>	<u>ITEM</u>	<u>UNIT</u>	<u>TOTAL QUANTITY</u>	<u>LOCATION #1</u>	<u>LOCATION #2</u>
28100107	STONE RIPRAP, CLASS A4	SQ YD	811.6 804.0	776.0 783.8	28.0 27.8
28100709	STONE DUMPED RIPRAP, CLASS A5	SQ YD	1069.7 1050.0	431.0 412.1	619.0 657.6
28200200	FILTER FABRIC	SQ YD	811.6 804.0	776.0 783.8	28.0 27.8
50102500	CONCRETE REMOVAL (SPECIAL)	CU YD	23.0	23.0	0.0
66500105	WOVEN WIRE FENCE, 4'	DELETED FOOT	0 50.0	50.0	0.0
66502300	WOVEN WIRE FENCE REMOVAL	DELETED FOOT	0 50.0	50.0	0.0
67100100	MOBILIZATION	L SUM	1.0	0.5	0.5
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	DELETED L SUM	0 1.0	1.0	0.0
X0325888	TEMPORARY CULVERT 24"	DELETED FOOT	0 100.0	100.0	0.0
X7015005	CHANGEABLE MESSAGE SIGN	DELETED CAL DA	0 14.0	14.0	0.0
XX006681	REMOVE AND SALVAGE EROSION CONTROL BLOCK	L SUM	1.0	1.0	0.0

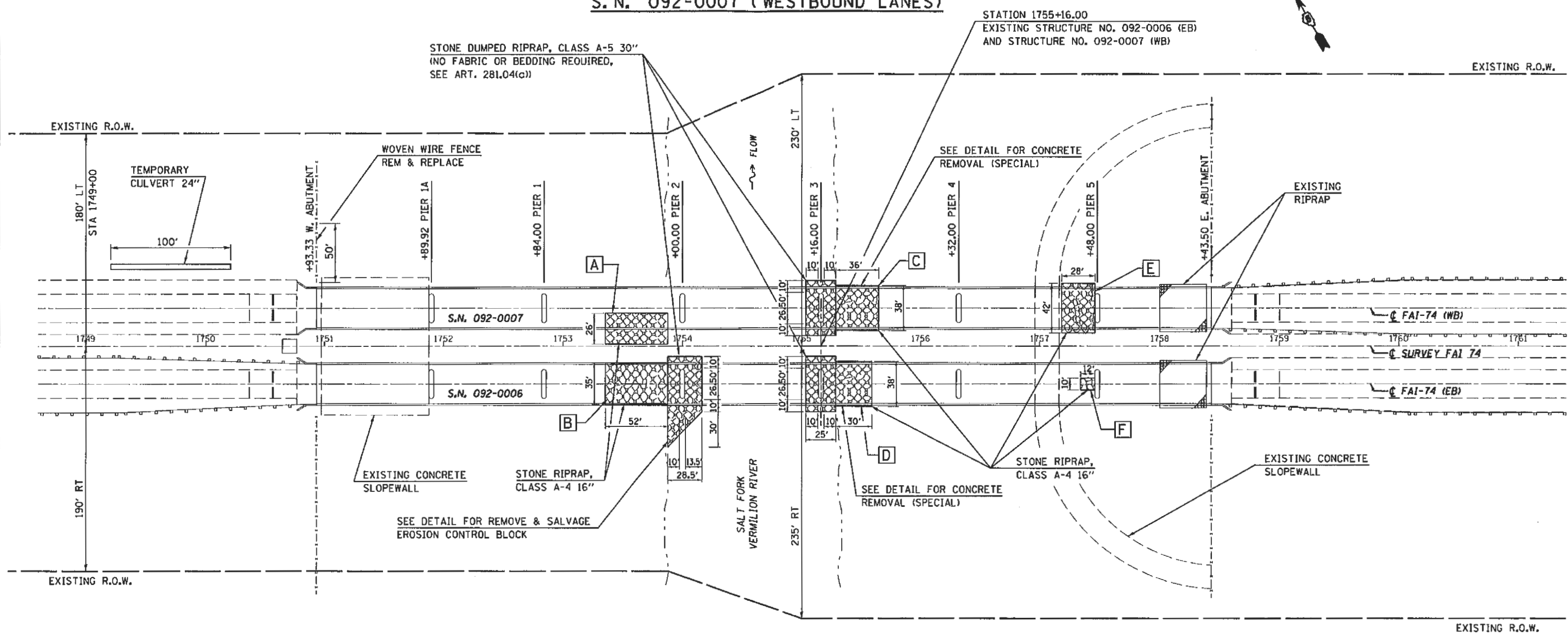
ILLINOIS DEPARTMENT OF TRANSPORTATION
SUMMARY OF QUANTITIES
F.A.I. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A DRAWN BY: CADD
DATE: 02-07-08 CHECKED BY:

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74		VERMILION	12	6
PROJECT NO.	DATE	PROJECT		

* D5 SCOUR MITIGATION 2008-1 CONTRACT NO. 70013

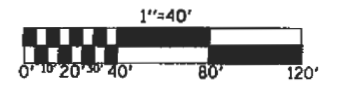
S. N. 092-0006 (EASTBOUND LANES)
S. N. 092-0007 (WESTBOUND LANES)



SCOUR REPAIR SCHEDULE

LOCATION	FABRIC AREA(SY)	REPAIR AREA(SY)	TYPE OF REPAIR	RIPRAP THICKNESS(IN)	BEDDING THICKNESS(IN)	RIPRAP ESTIMATED TONS	WOVEN WIRE FENCE(FT)	CONC. REMOVAL (SPECIAL)(CY)	REM & SALVAGE EROSION CONTROL BLOCK (L SUM)
PIER #2 (S)	0.0	185.0	A-5	30	0	238.0	50.0	0.0	1.0
PIER #3 (N)	0.0	123.0	A-5	30	0	157.5	0.0	0.0	0.0
PIER #3 (S)	0.0	123.0	A-5	30	0	157.5	0.0	0.0	0.0
A	150.0	150.0	A-4	16	6	101.0	0.0	0.0	0.0
B	202.0	202.0	A-4	16	6	135.0	0.0	0.0	0.0
C	152.0	152.0	A-4	16	6	101.0	0.0	11.5	0.0
D	127.0	127.0	A-4	16	6	85.0	0.0	11.5	0.0
E	131.0	131.0	A-4	16	6	88.0	0.0	0.0	0.0
F	14.0	14.0	A-4	16	6	9.0	0.0	0.0	0.0

NOTE:
 UNDER NO CIRCUMSTANCES
 ARE THE BRIDGE PIER
 FOOTINGS TO BE UNCOVERED.



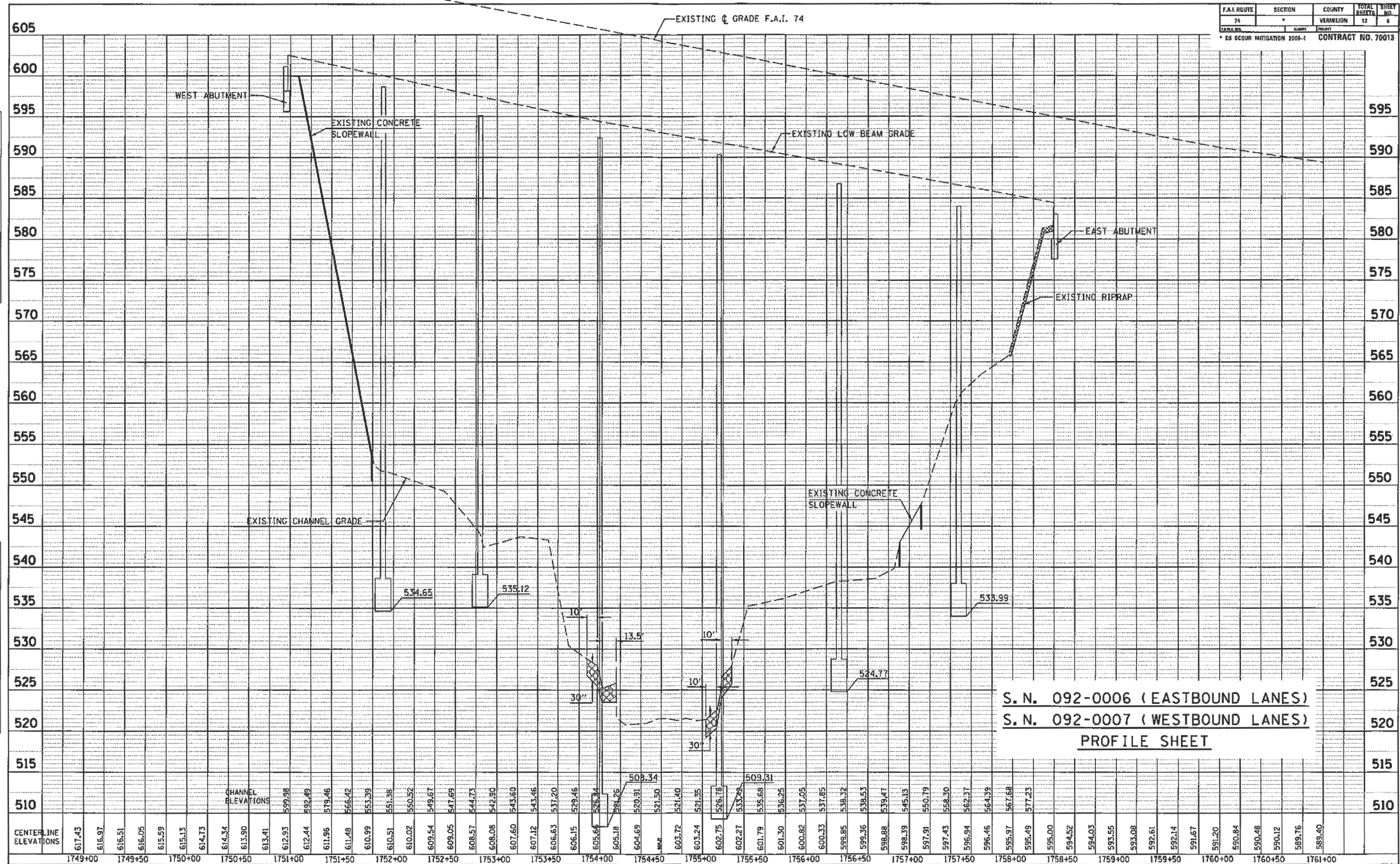
ILLINOIS DEPARTMENT OF TRANSPORTATION
PLANS SHEETS
S.N. 092-0006 & S.N. 092-0007
 F.A.I. ROUTE 74
 SECTION D5 SCOUR MITIGATION 2008-1
 VERMILION COUNTY

SCALE: N/A DRAWN BY: CADD
 DATE: 02-07-08 CHECKED BY:

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	6
PARALLEL	ALIGNED	PROJECT		
* DS SCOUR MITIGATION 2008-1			CONTRACT NO. 70013	

DATE	BY
DATE	BY
DATE	BY

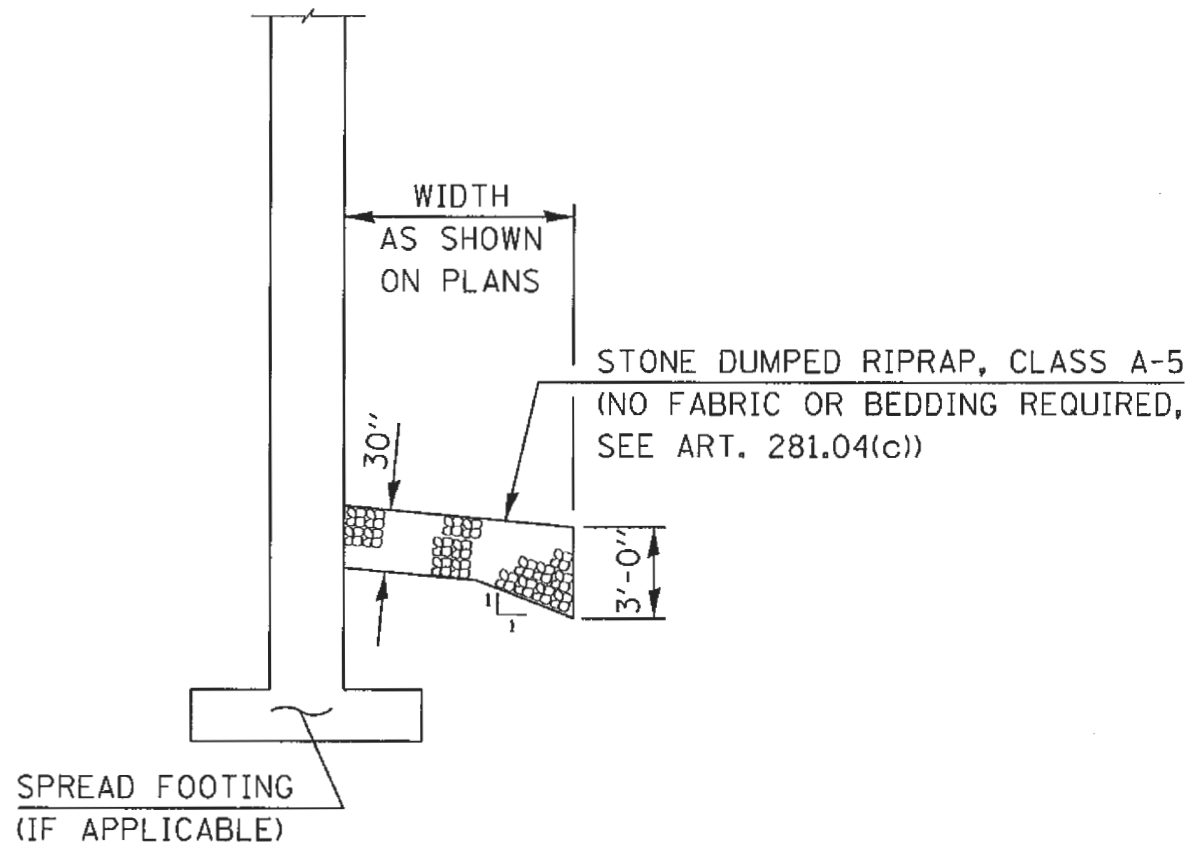
DATE	BY
DATE	BY
DATE	BY



S. N. 092-0006 (EASTBOUND LANES)
 S. N. 092-0007 (WESTBOUND LANES)
PROFILE SHEET

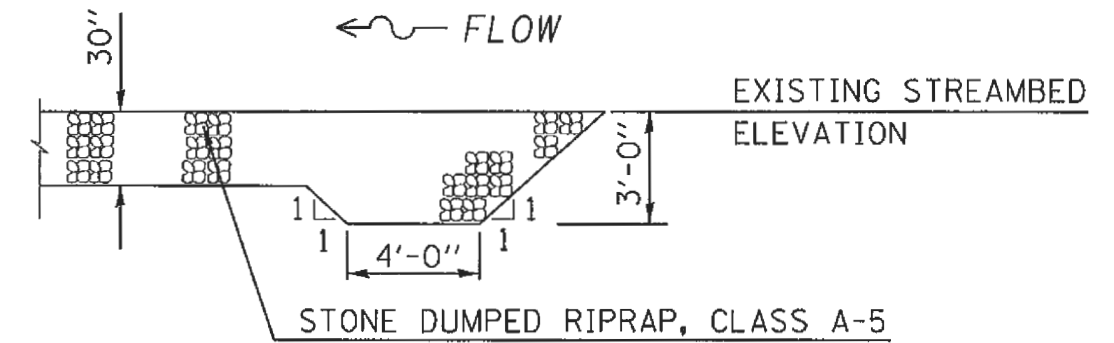
F.A.L. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	9
PROJECT		CONTRACT NO. 70013		

**TYPICAL DETAIL FOR RIPRAP
AT ABUTMENT OR PIER**



NOTE:
UNDER NO CIRCUMSTANCES ARE
THE BRIDGE PIER FOOTINGS TO
BE UNCOVERED.

**TYPICAL DETAIL FOR UPSTREAM
EDGE OF RIPRAP**



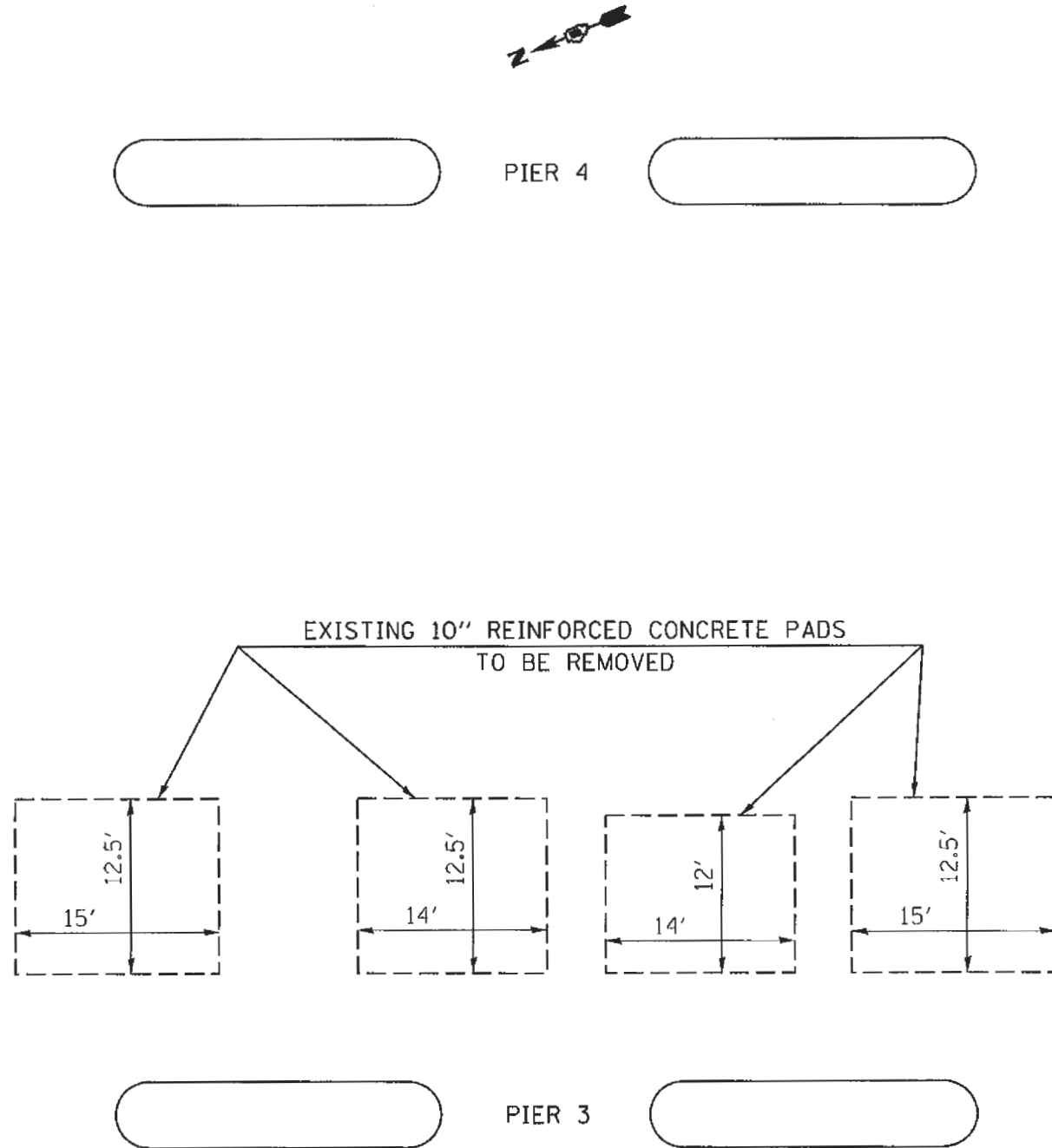
ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS
F.A.L. ROUTE 74
SECTION 05 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A
DATE: 02-07-08

DRAWN BY: CADD
CHECKED BY:

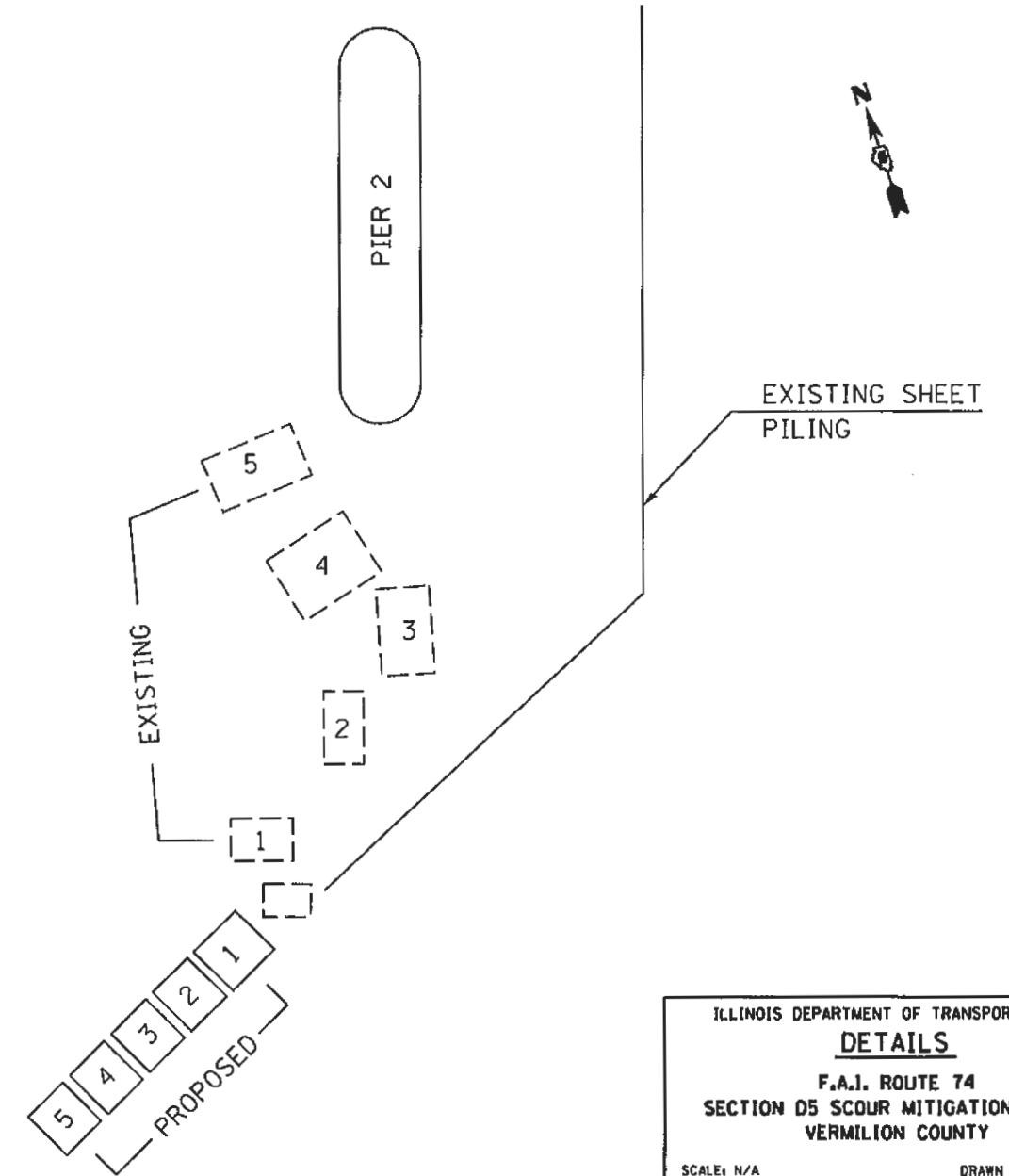
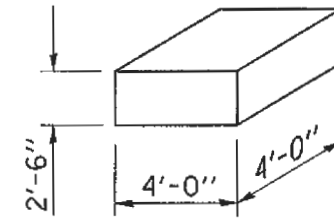
F.A.J. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	10
F.A.J. ROUTE		NUMBER	PROJECT	
* D5 SCOUR MITIGATION 2008-1		CONTRACT NO. 70013		

**DETAIL FOR CONCRETE REMOVAL (SPECIAL)
BETWEEN PIER 3 & PIER 4
S.N. 092-0006 & S.N. 092-0007**



**DETAIL FOR REMOVE AND SALVAGE
EROSION CONTROL BLOCK
PIER 2 S.N. 092-0006**

EXISTING DIMENSIONS

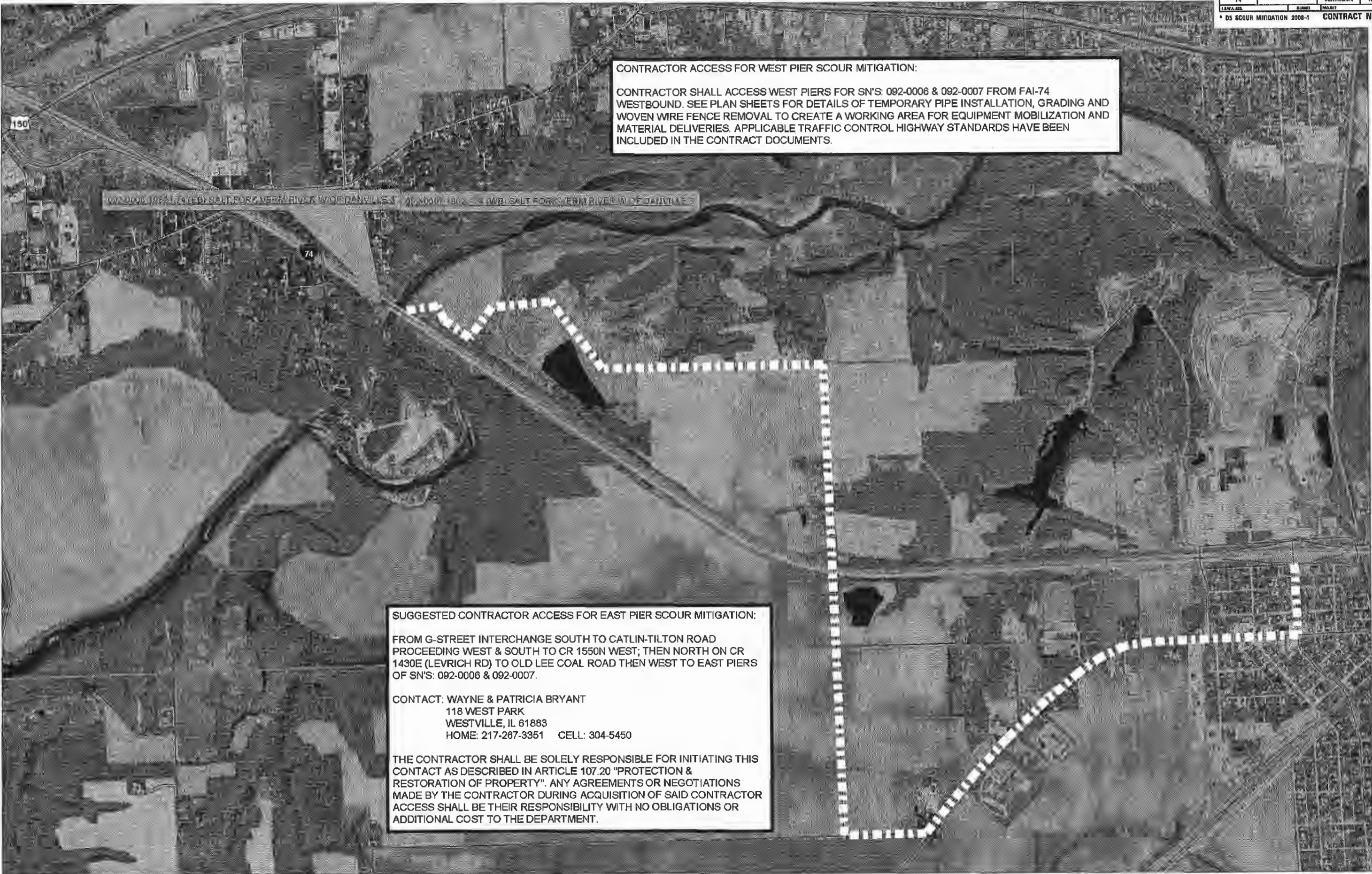


ILLINOIS DEPARTMENT OF TRANSPORTATION
DETAILS
F.A.J. ROUTE 74
SECTION D5 SCOUR MITIGATION 2008-1
VERMILION COUNTY

SCALE: N/A
DATE: 02-07-08

DRAWN BY: CADD
CHECKED BY:

F.A.I. ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
74	*	VERMILION	12	11
* DS SCOUR MITIGATION 2008-1			CONTRACT NO. 70013	



CONTRACTOR ACCESS FOR WEST PIER SCOUR MITIGATION:

CONTRACTOR SHALL ACCESS WEST PIERS FOR SN'S: 092-0006 & 092-0007 FROM FAI-74 WESTBOUND. SEE PLAN SHEETS FOR DETAILS OF TEMPORARY PIPE INSTALLATION, GRADING AND WOVEN WIRE FENCE REMOVAL TO CREATE A WORKING AREA FOR EQUIPMENT MOBILIZATION AND MATERIAL DELIVERIES. APPLICABLE TRAFFIC CONTROL HIGHWAY STANDARDS HAVE BEEN INCLUDED IN THE CONTRACT DOCUMENTS.

WADSWORTH BRIDGE SALT FORK VERMILION RIVER WOODDANVILLE, MO. NORTH BRIDGE SALT FORK VERMILION RIVER W. OF DANVILLE, MO.

SUGGESTED CONTRACTOR ACCESS FOR EAST PIER SCOUR MITIGATION:

FROM G-STREET INTERCHANGE SOUTH TO CATLIN-TILTON ROAD PROCEEDING WEST & SOUTH TO CR 1550N WEST; THEN NORTH ON CR 1430E (LEVRICH RD) TO OLD LEE COAL ROAD THEN WEST TO EAST PIERS OF SN'S: 092-0006 & 092-0007.

CONTACT: WAYNE & PATRICIA BRYANT
 118 WEST PARK
 WESTVILLE, IL 61883
 HOME: 217-267-3351 CELL: 304-5450

THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING THIS CONTACT AS DESCRIBED IN ARTICLE 107.20 "PROTECTION & RESTORATION OF PROPERTY". ANY AGREEMENTS OR NEGOTIATIONS MADE BY THE CONTRACTOR DURING ACQUISITION OF SAID CONTRACTOR ACCESS SHALL BE THEIR RESPONSIBILITY WITH NO OBLIGATIONS OR ADDITIONAL COST TO THE DEPARTMENT.