

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

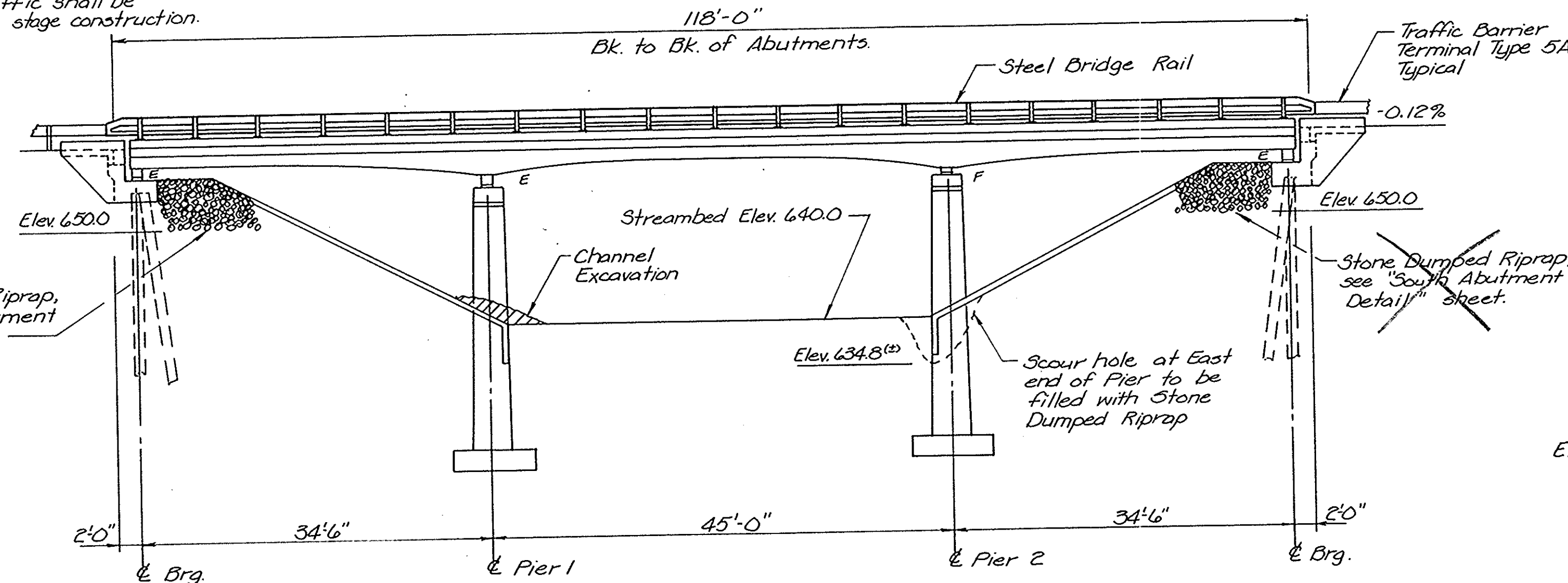
INFORMATION ONLY

EXIST. STRUCTURE DESCRIPTION

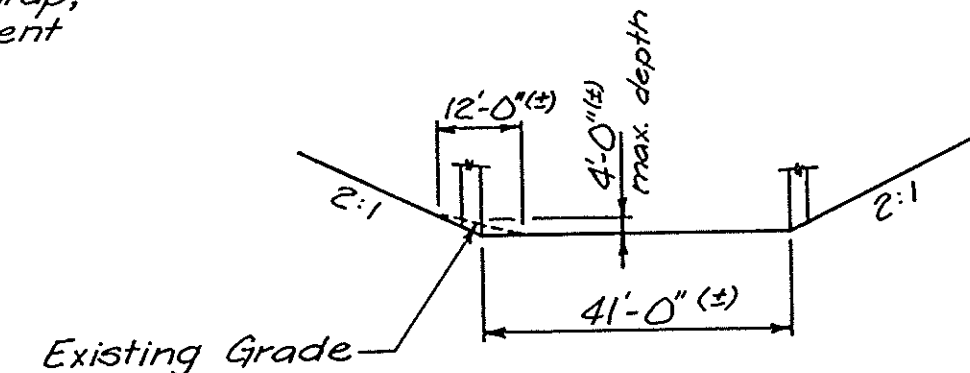
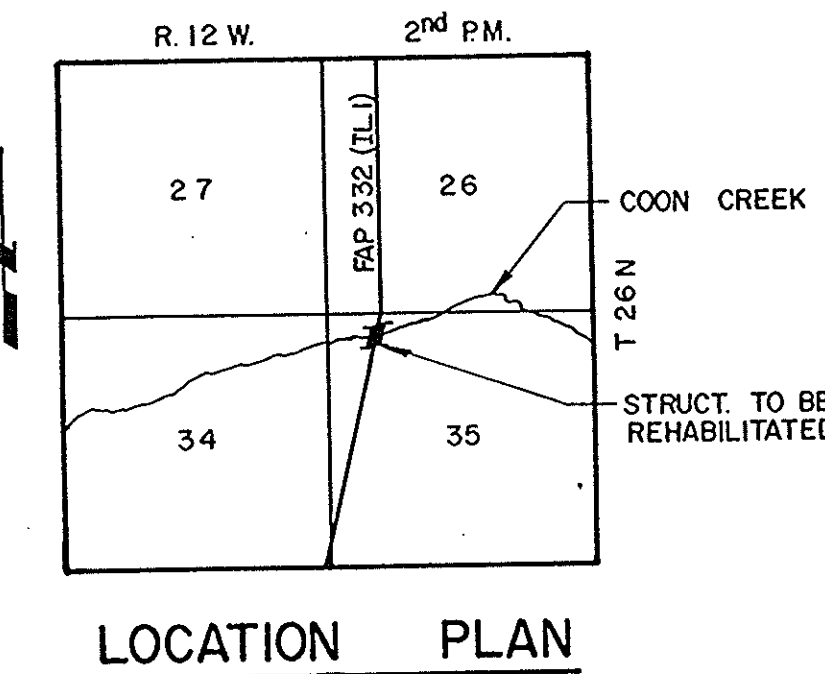
Three span reinf. conc. slab bridge on conc. abutments and piers. 118'-0" back to back of abutments and 33'-8" out to out of deck. Built in 1953 as Section 15-RB. Superstructure and substructure shall be repaired as required. One lane of traffic shall be maintained at all times utilizing stage construction. No Salvage.

BENCHMARK

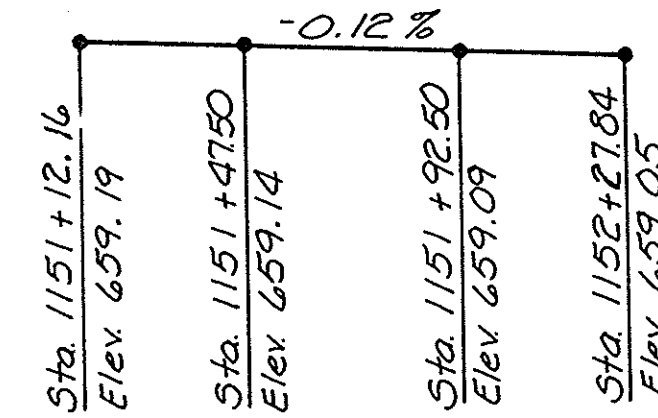
Chiseled "X" on top of S.E. Wingwall @ Bridge Sta. 1152+26, 15' Lt., Elev. 659.86



ELEVATION



CHANNEL EXCAVATION DETAIL



PROFILE GRADE
(Along Roadway Centerline)

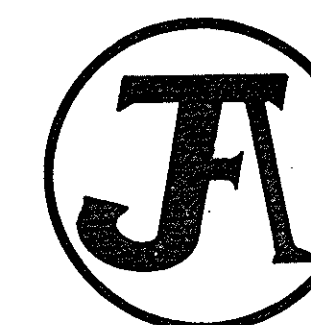
Ralph E. Anderson

* See Special Provisions

DESIGN LOADING
H20-S16-44

DESIGN SPECIFICATIONS
AASHTO 1992

Bar Splicers	Each	SUPER	SUB.	TOTAL
		10	8	18



(217) 351-6268

JOHN FRAUENHOFER and ASSOCIATES
CONSULTING ENGINEERS

702 BLOOMINGTON ROAD CHAMPAIGN, ILLINOIS 61820

GENERAL NOTES

1. Plan dimensions and details relative to the existing structure have been taken from existing plans and are subject to nominal construction variations. It shall be the Contractor's responsibility to verify such dimensions and details in the field and make necessary approved adjustments prior to construction or ordering materials. Such variations shall not be cause for additional compensation for a change in the scope of work, however, the Contractor will be paid for the quantity actually furnished at the unit price bid for the work.
2. Layout of riprap may be varied in the field to suit ground conditions as directed by the Engineer.
3. All structural steel shall be shop painted with the zinc-silicate and vinyl paint system. The color of the vinyl finish coats shall be Munsell No. 10Y 7/1, Light Grey.
4. All structural steel shall be AASHTO M270, Gr. 36.
5. Reinforcing bars shall conform to the requirements of AASHTO M-31, M42 or M-53 grade 60.
6. All top surfaces of the abutment seat shall receive Bridge Seat Sealer.

Keith E. Brandau

KEITH E. BRANDAU
ILLINOIS REGISTERED STRUCTURAL ENGINEER NUMBER 4905
EXPIRATION DATE: NOVEMBER 30, 1994

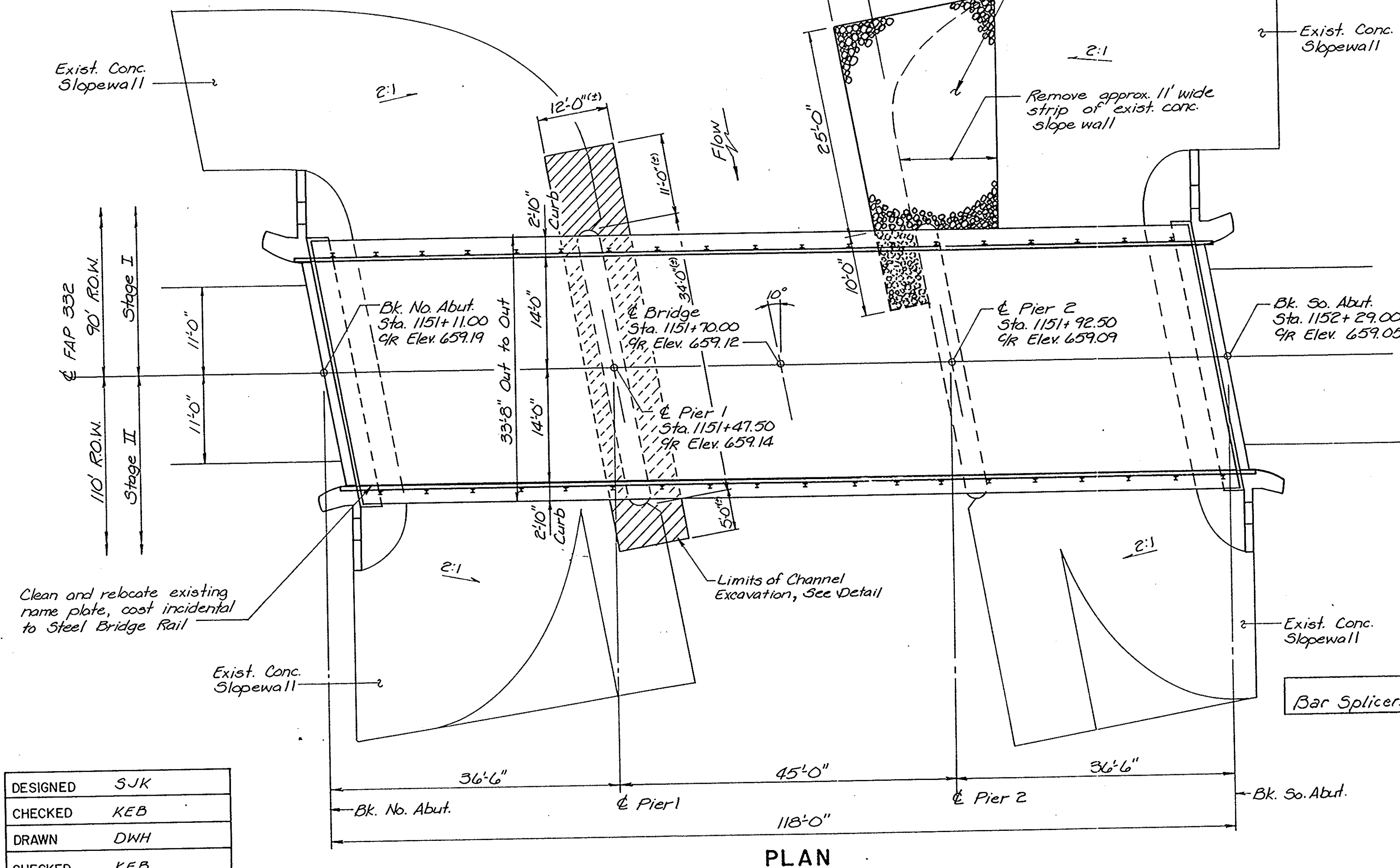


TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
* Bituminous Concrete Removal (Deck)	Sq. Yd.	36.0		36.0
Bituminous Concrete Surface Course, Class I	Tons	26.1		26.1
* Waterproofing Membrane System	Sq. Yd.	36.0		36.0
Steel Bridge Rail	Lin. Ft.	240		240
* Bridge Handrail Removal	Lin. Ft.	235		235
* Epoxy Crack Sealing	Lin. Ft.		38.8	38.8
* Form Concrete Repair (Depth equal to or less than 5")	Sq. Ft.		19.8	19.8
* Epoxy Mortar Repair	Cu. Ft.	5.0		5.0
* Stone Dumped Riprap, Class A4	Ton		242	242
Channel Excavation	Cu. Yd.		30	30
Class X Concrete, Superstructure	Cu. Yd.	3.6		3.6
Concrete Removal	Cu. Yd.	3.6		3.6
Reinforcement Bars, Epoxy Coated	Pound	690	160	850
Furnish and Erect Structural Steel	Pound	7080		7080
Elastomeric Bearing Assembly, Type I	Each	15		15
* Deck Slab Repair (Partial)	Sq. Yd.	34.6		34.6
* Deck Slab Repair (Full Depth, Type I)	Sq. Yd.	25.3		25.3
* Deck Drain Replacement	Each	13		13
Preformed Joint Seal (2 1/2")	Lin. Ft.	70		70
* Bridge Seat Sealer	Sq. Ft.	92		92
* Slope Wall Removal	Sq. Yd.		100	100
* Jack and Remove Existing Bearings	Each	15		15

GENERAL PLAN AND ELEVATION
FAP 332 (IL 1) SECTION (15R)BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

PROJECT NO.
92-048
DATE
FEBRUARY 1993
SHEET NO.
26
OF 60 SHEETS



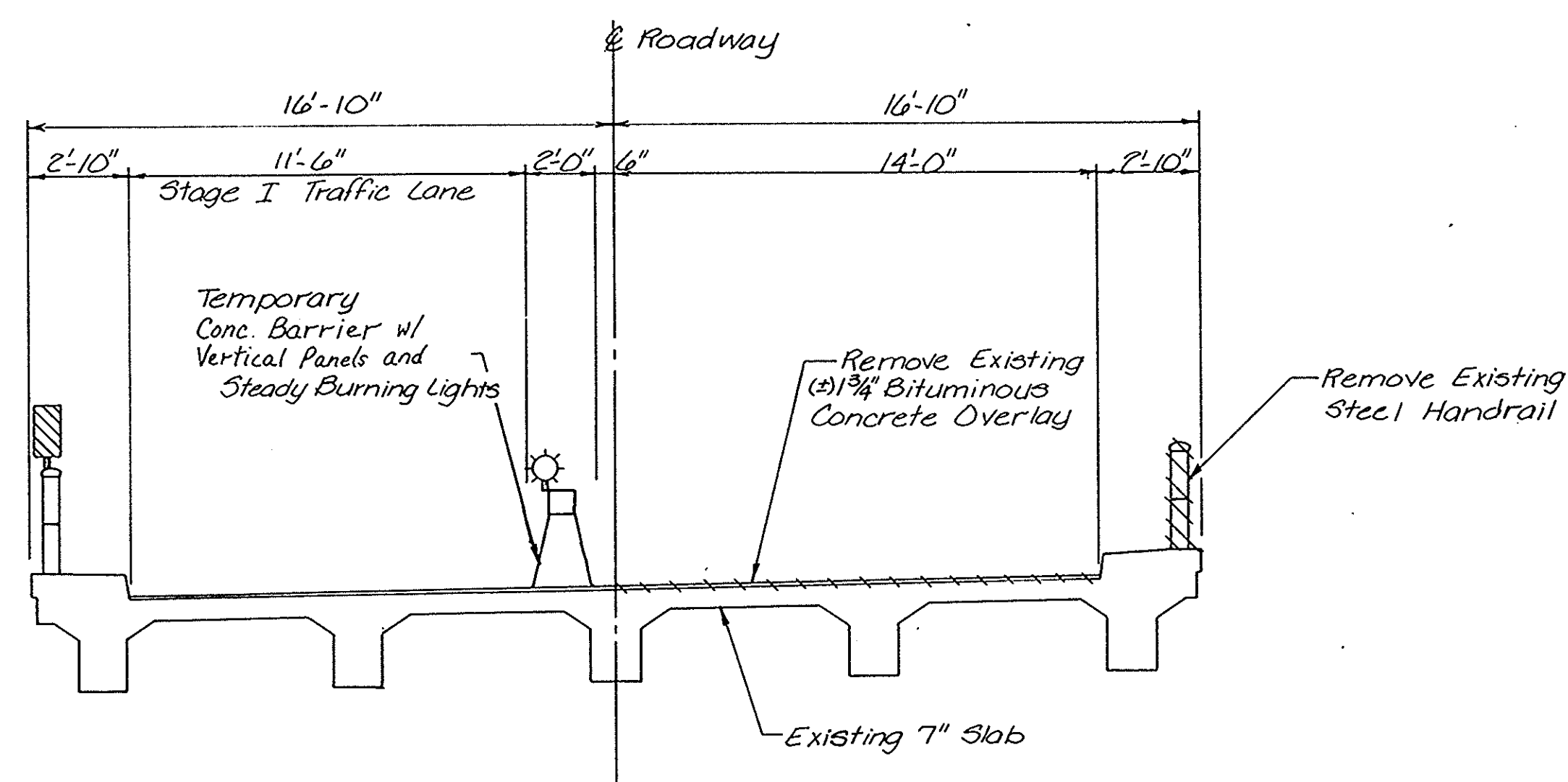
PLAN

DESIGNED	SJK
CHECKED	KEB
DRAWN	DWH
CHECKED	KEB

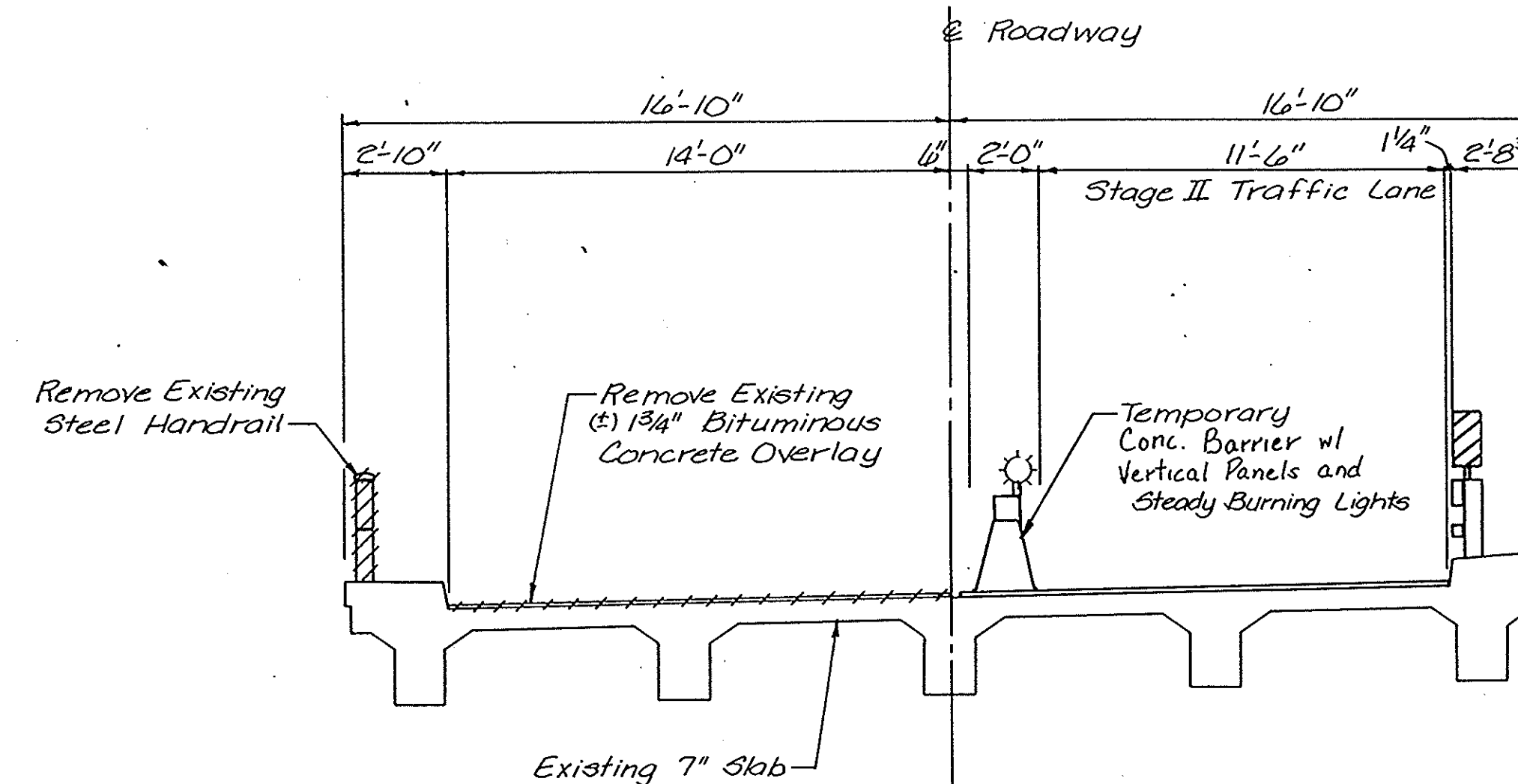
NOTES:

1. All Stage Cross Sections are Looking North.
2. For Quantity of Temporary Stabilized Reflective Drum (Std. 2309) See Roadway Plans

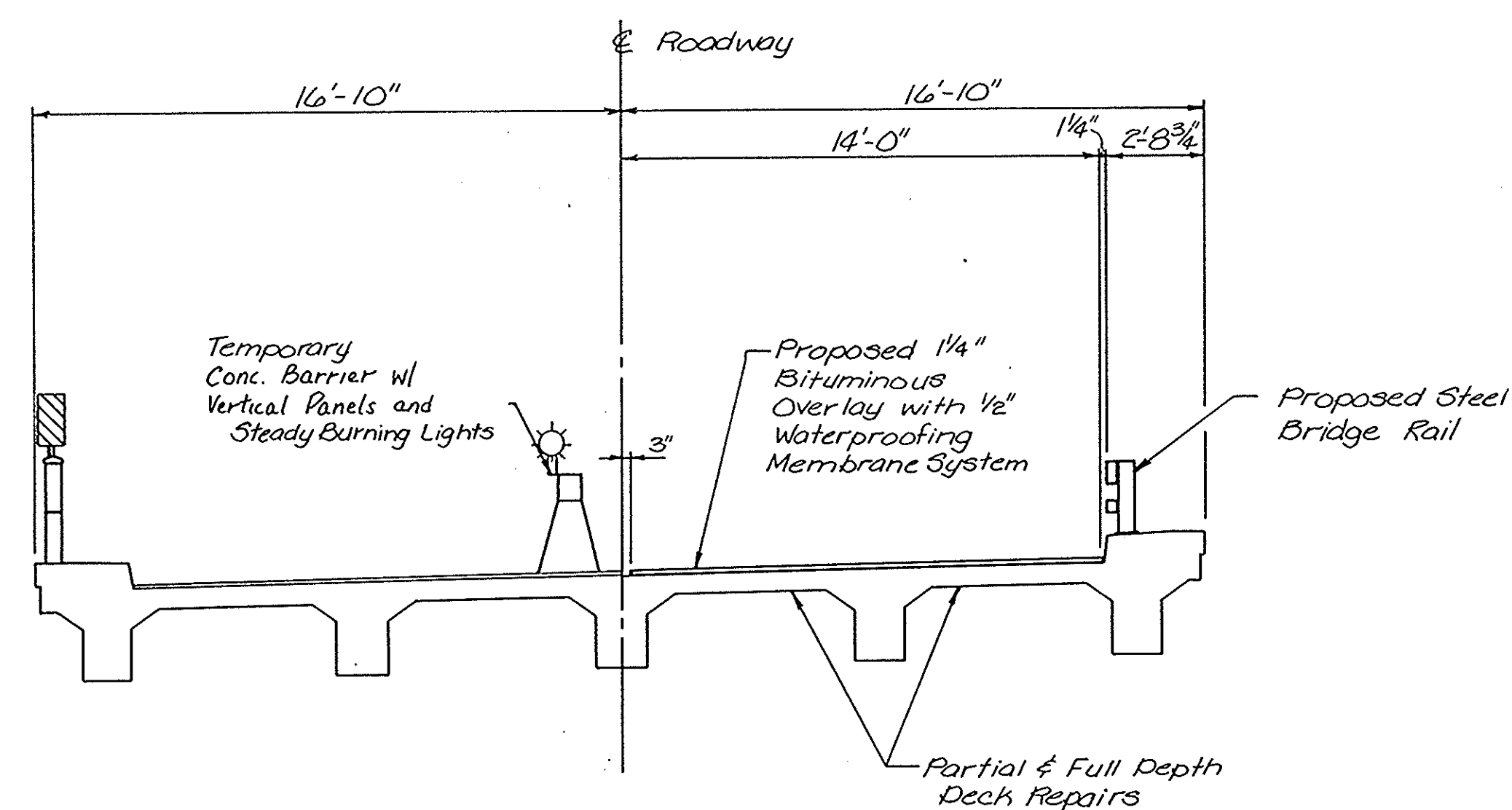
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	(15R)BI	Iroquois	60	27
STA.	TO STA.		PROJECT	
FED. ROAD DIST. NO. 7	ILLINOIS		BRIDGE SHEET 2 OF 11	



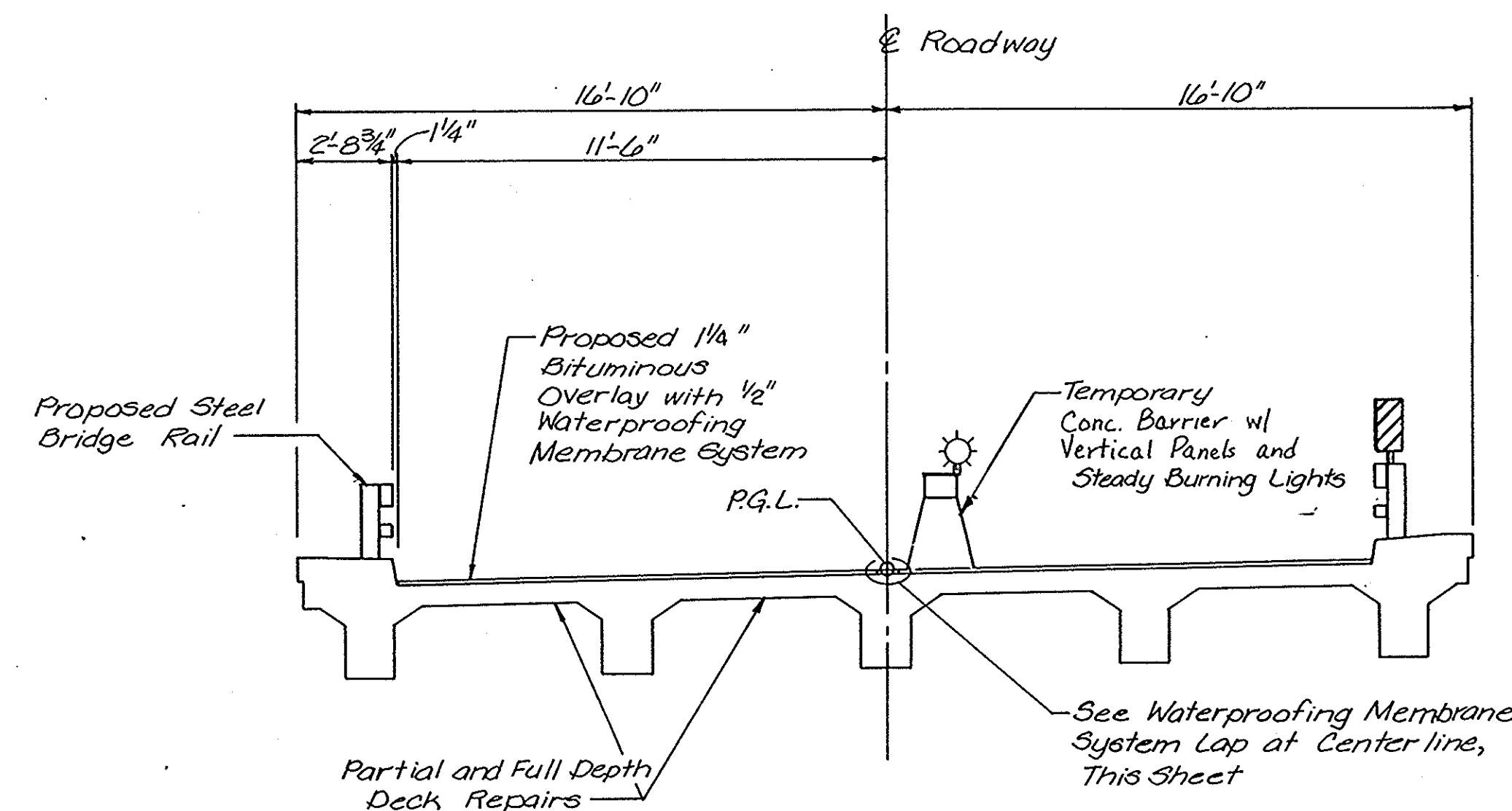
STAGE I REMOVAL



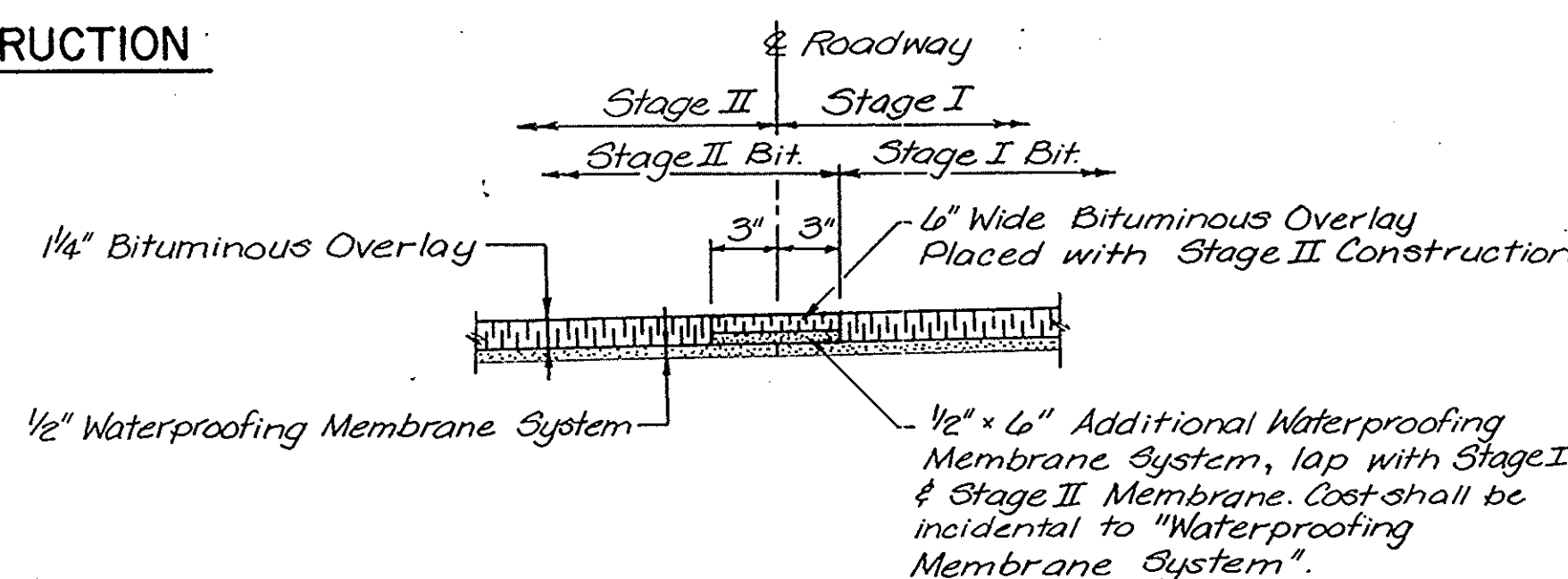
STAGE II REMOVAL



STAGE I CONSTRUCTION

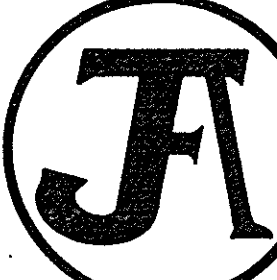


STAGE II CONSTRUCTION



WATERPROOFING MEMBRANE SYSTEM
LAP AT CENTERLINE

DESIGNED	SJK
CHECKED	KEB
DRAWN	SJK
CHECKED	KEB


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JOHN FRAUENHOFER and ASSOCIATES
 CONSULTING ENGINEERS
 702 BLOOMINGTON ROAD CHAMPAIGN, ILLINOIS 61820

STAGE CONSTRUCTION
 FAP 332 (IL 1) SECTION (15R)BI
 COON CREEK
 IROQUOIS COUNTY
 STRUCTURE NO. 038-0023
 STA. 1151+70

PROJECT NO.	92 048
DATE	FEBRUARY 1993
SHEET NO.	27
OF 60 SHEETS	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	(15R)BI	Irroquois	60	28
STA.	TO STA.		PROJECT	
FED. ROAD DIST. NO. 7	ILLINOIS			

BRIDGE SHEET 3 OF 11

Clean & preserve existing reinforcement. Fill with Class X Concrete. Cost shall be incidental to Deck Drain Replacement.

1/4" Bituminous Conc. Surface Course, Class I. Taper at deck drains

Waterproofing Membrane System

Saw cut 1/2" deep max. all around 14"x20"

Bonded Constr. Joint

Bonded Constr. Joint all around

6" Pipe

6" Pipe Clamp w/1/8" fabric Pad. The clamping device and threaded rods shall be galv. in accordance with AASHTO M-232.

Epoxy grout 2-3/4" x 1-4" long threaded rods 9" minimum into drilled 1" holes. Spacing as req'd. for pipe clamp and to miss stirrups. Cost shall be incidental to Deck Drain Replacement.

DECK DRAIN REPLACEMENT DETAIL

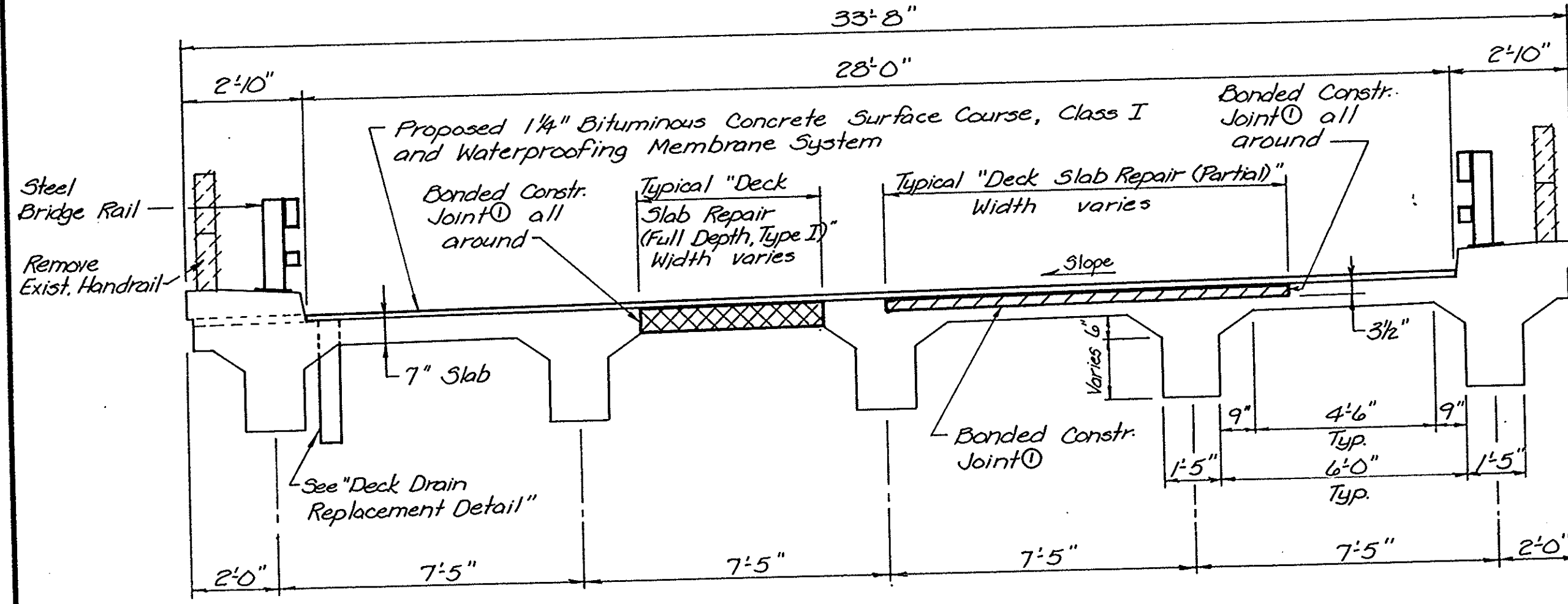
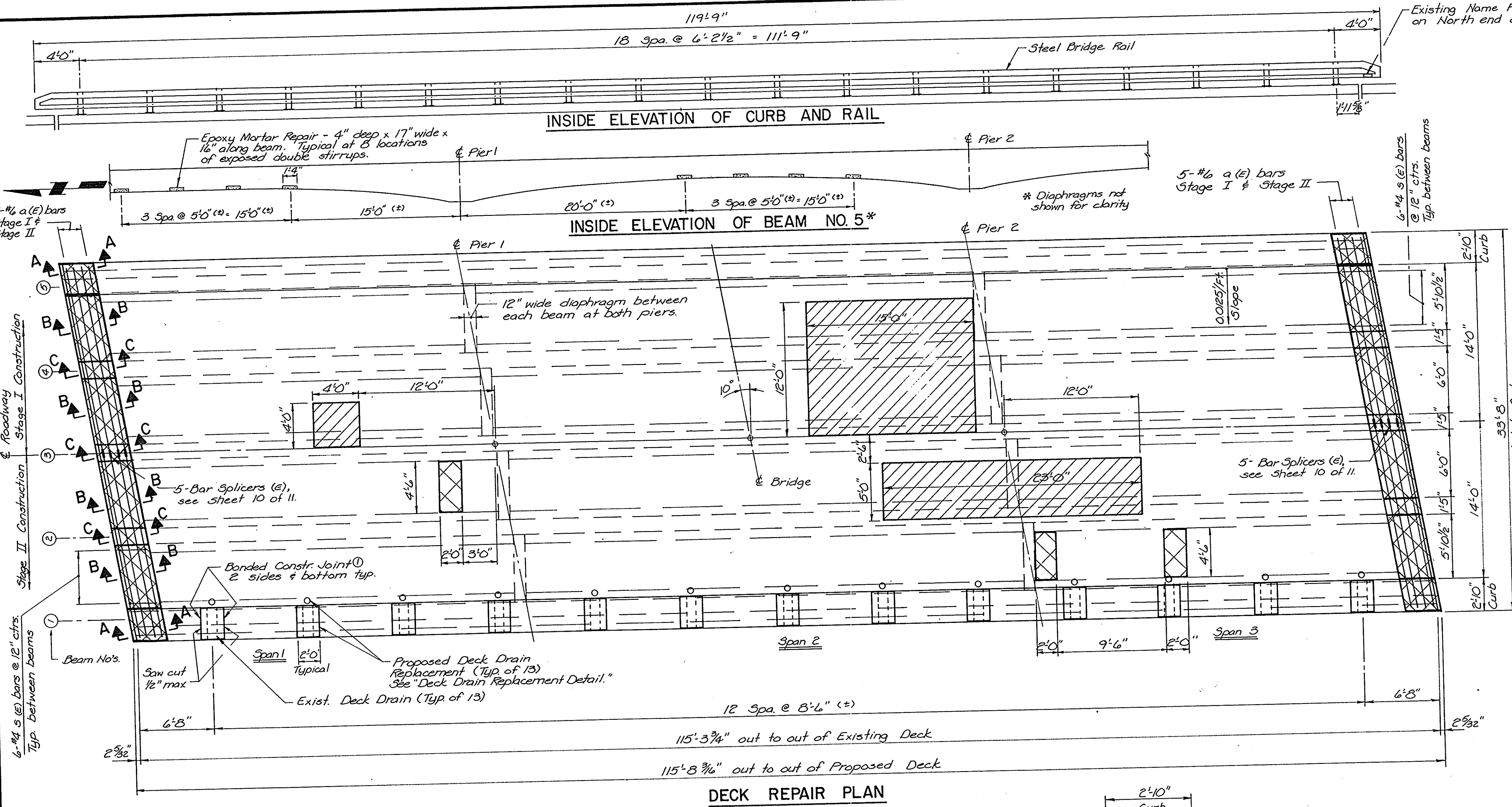
Fiberglass pipe shall conform to ASTM D2996 with short term rupture strength hoop tensile stress of 30,000 psi min. The surface of the fiberglass pipe shall be free of bond inhibiting agents. The exterior surfaces of the fiberglass deck drain shall be cleaned and given a washcoat pretreatment in accordance with Steel Structures Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting with a vinyl enamel coat. The color shall be light grey Munsell No. 10Y 7/1. Painting of the fiberglass deck drains will not be required when the exterior surfaces of the furnished drains are coated by the manufacturer with a pigment that matches the color of the concrete beams.

BILL OF MATERIAL

BAR	NO.	SIZE	LENGTH	SHAPE
a(e)	20	#4	16'-9"	—
s(e)	48	#4	5'-7"	□
Deck Slab Repair (Full Depth, Type I)			Sq. Yd.	25.3
Deck Slab Repair (Partial)			Sq. Yd.	34.6
Reinforcement Bars, Epoxy Coated			Pound	690
Preformed Joint Seal (2 1/2")			Lin. Ft.	70 ✓
Class X Concrete, Superstructure			Cu. Yd.	3.6
Bituminous Concrete Removal (Deck)			Sq. Yd.	360 ✓
Waterproofing Membrane System			Sq. Yd.	319.360
Bituminous Concrete Surface Course, Class I			Ton	26.1 ✓
Steel Bridge Rail			Lin. Ft.	240 ✓
Deck Drain Replacement (SPECIAL)			Each	13 ✓
Bridge Handrail Removal			Lin. Ft.	235 ✓
Epoxy Mortar Repair			Cu. Ft.	4.0 ✓

Bars designated (e) shall be epoxy coated

Work Sheets 3 and 4 of 11 together.



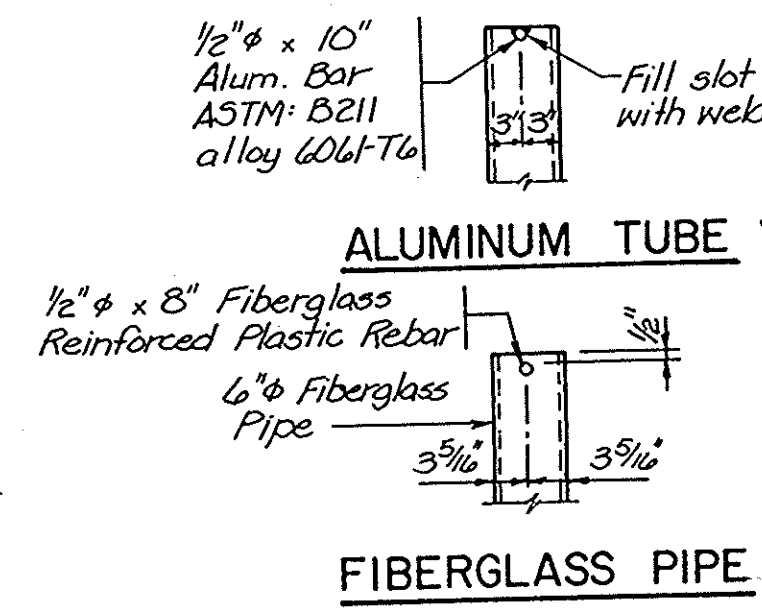
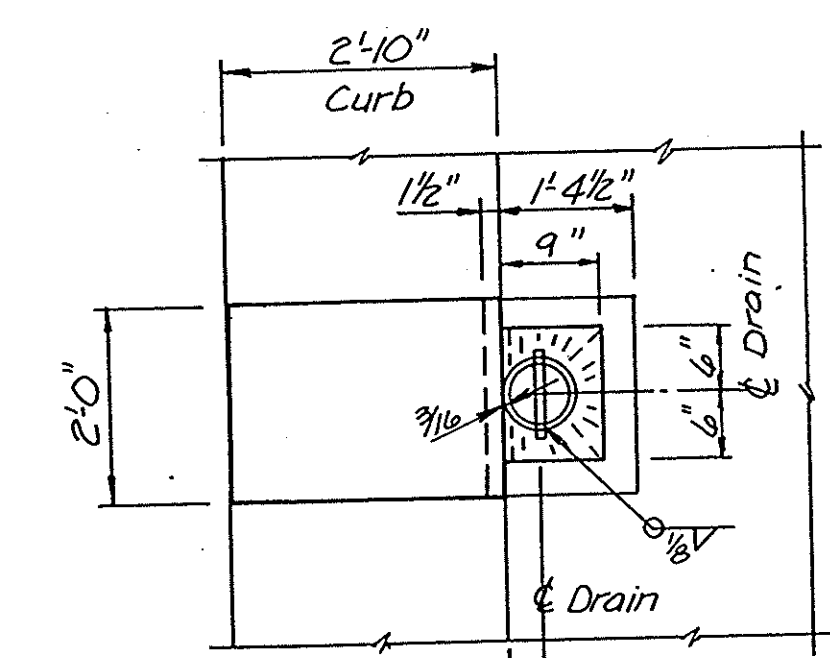
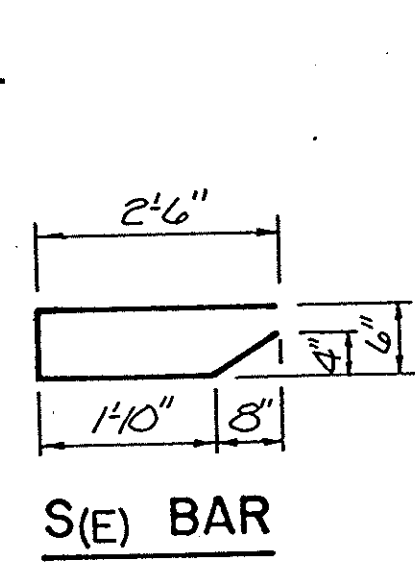
CROSS SECTION (Looking North)

DESIGNED	SJK
CHECKED	KEB
DRAWN	DWH
CHECKED	KEB

① All Bonded Construction Joints shall be in accordance with Article 504.13(a)2 Standard Specifications

- Deck Slab Repair (Partial), 3 1/2" Depth
- Deck Slab Repair (Full Depth, Type I)

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



TOP PLAN (Showing Aluminum Tube) DRAIN PIPE DETAILS

J

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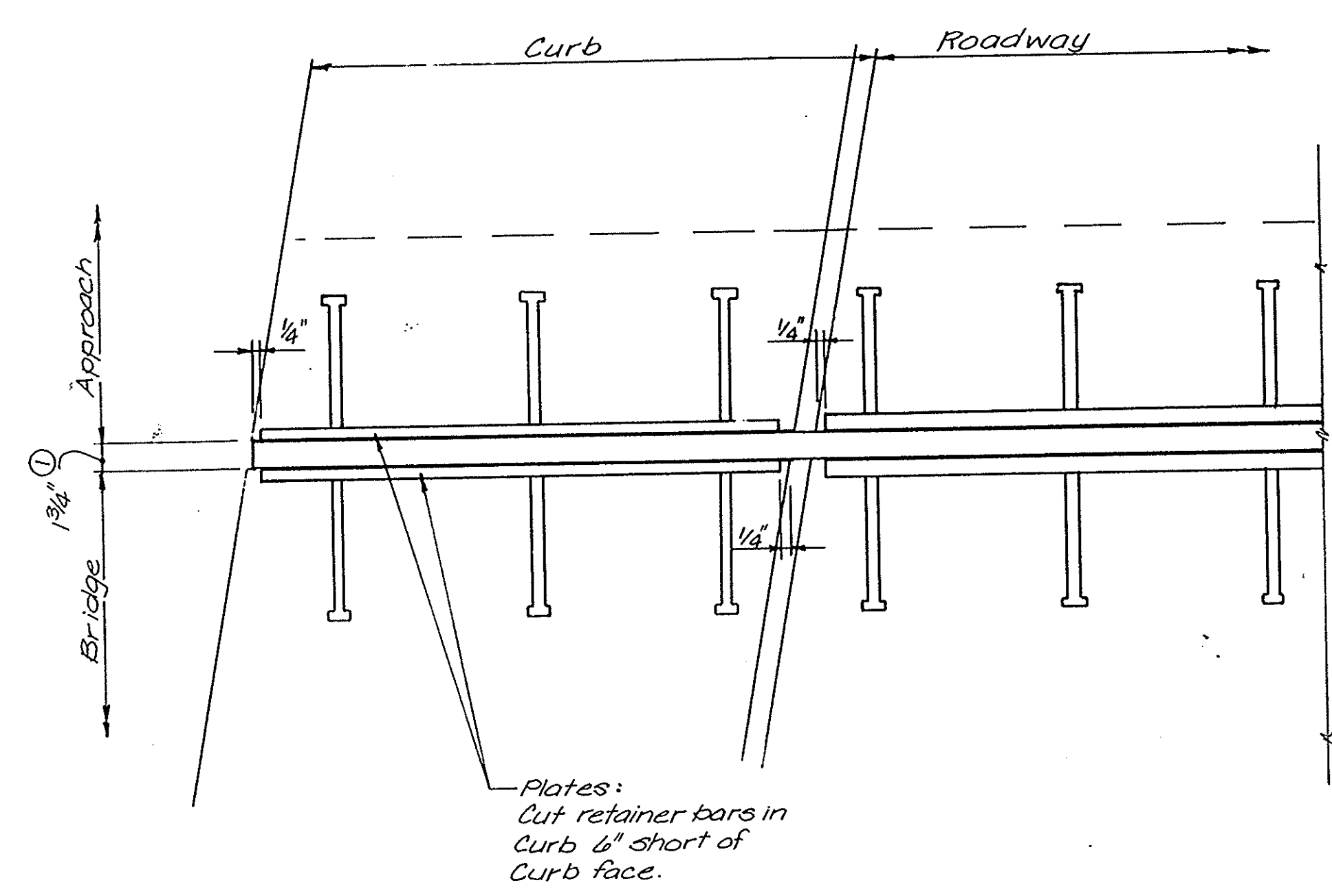
JOHN FRAUENHOFER and ASSOCIATES

CONSULTING ENGINEERS

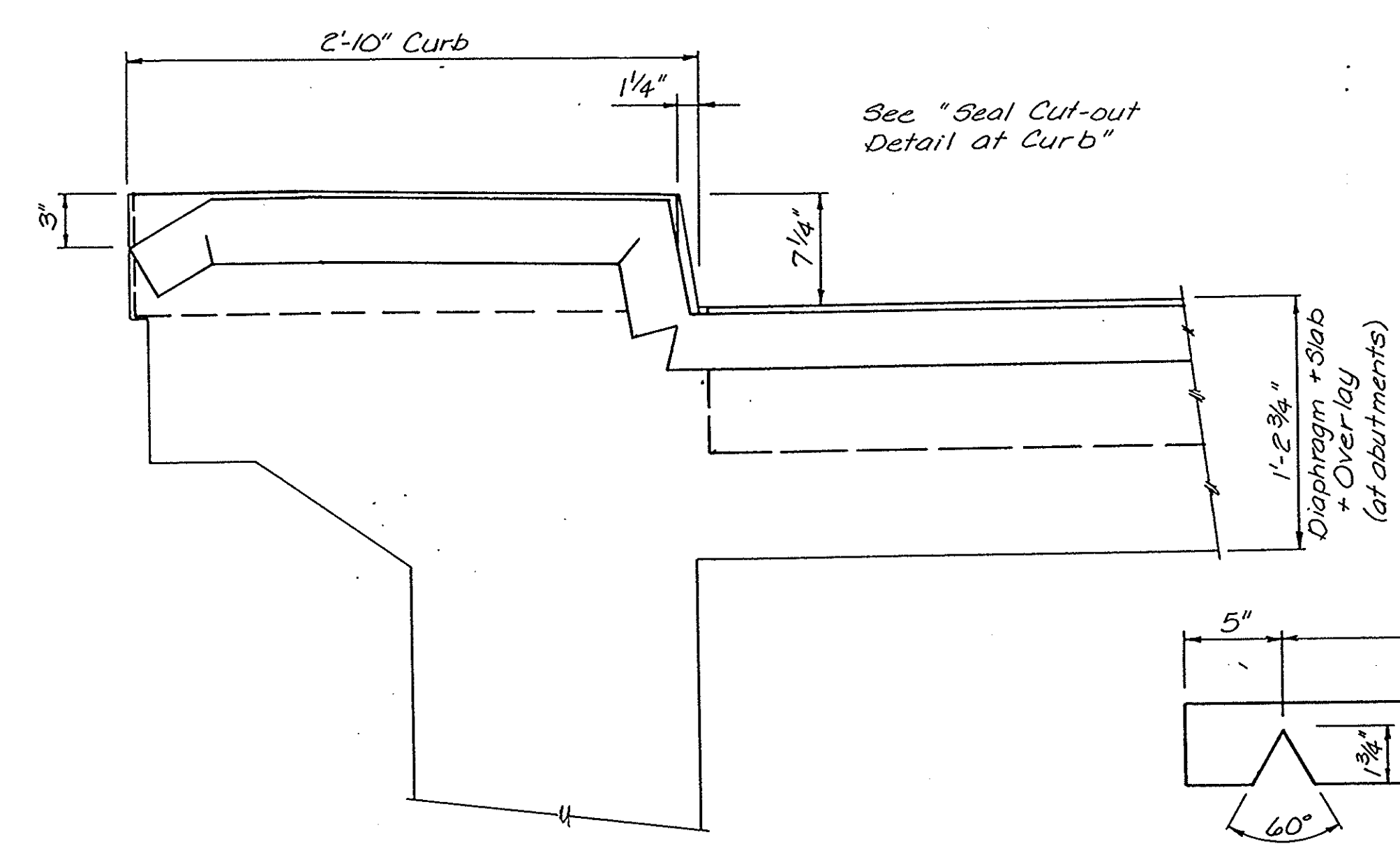
702 BLOOMINGTON ROAD CHAMPAIGN, ILLINOIS 61820

SUPERSTRUCTURE
FAP 332 (IL I) SECTION (15R)BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

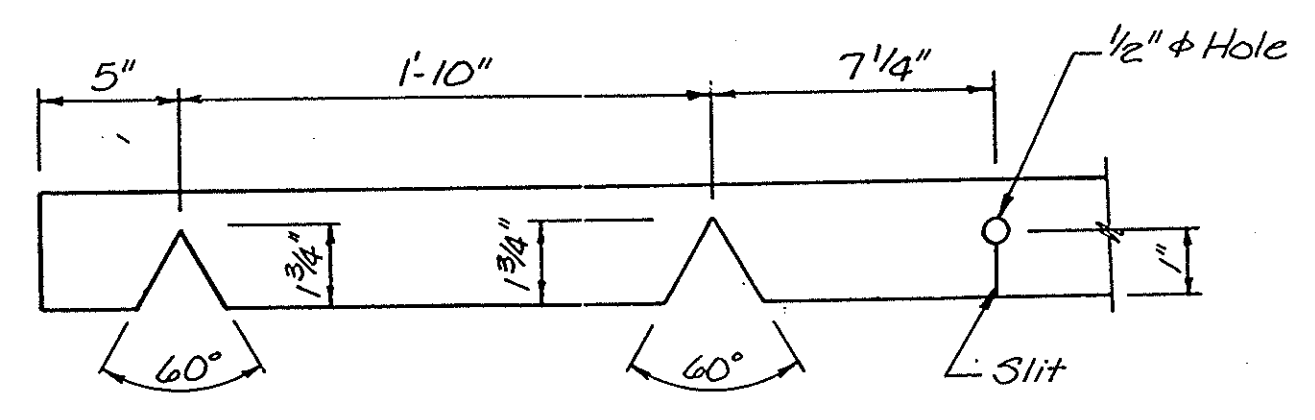
PROJECT NO.
92 048
DATE
FEBRUARY 1993
SHEET NO.
28
OF 60 SHEETS



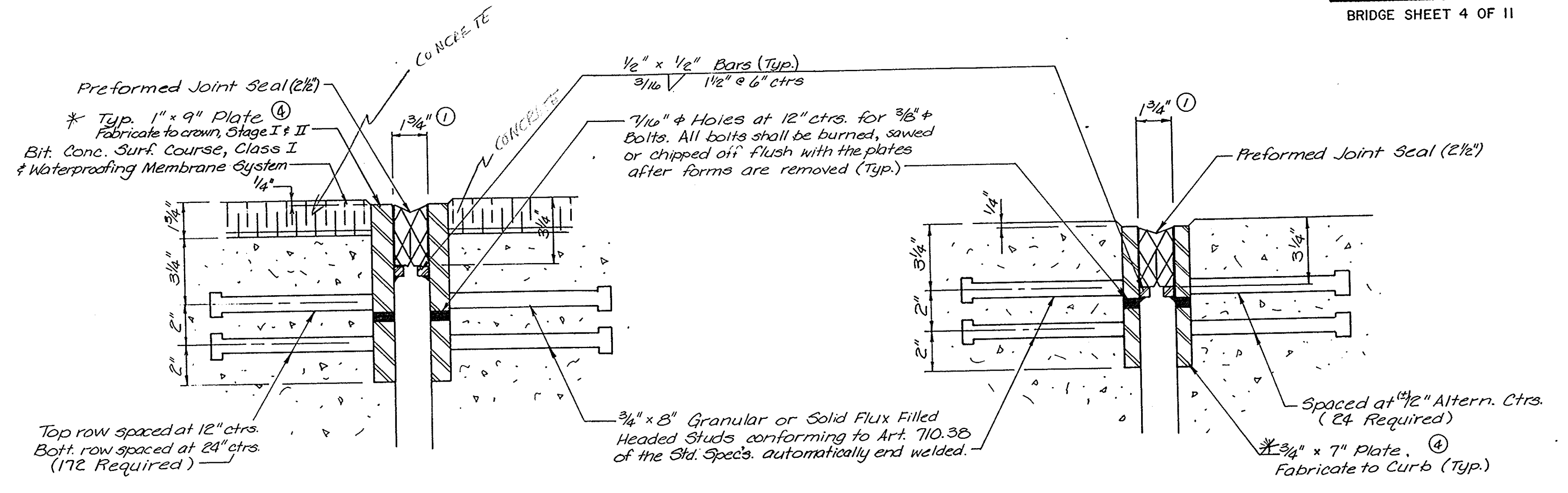
PLAN



SECTION

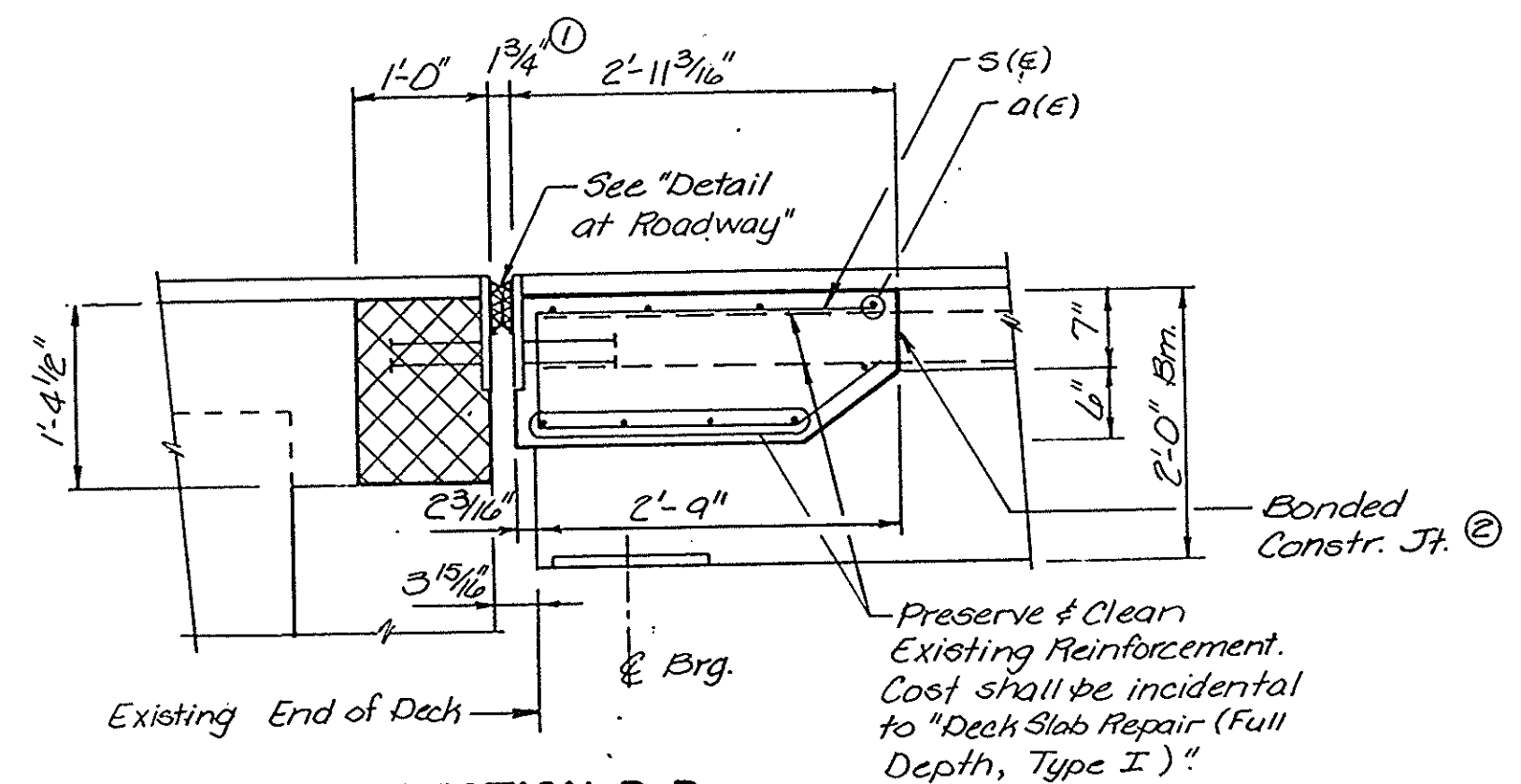


SEAL CUT-OUT AT CURB

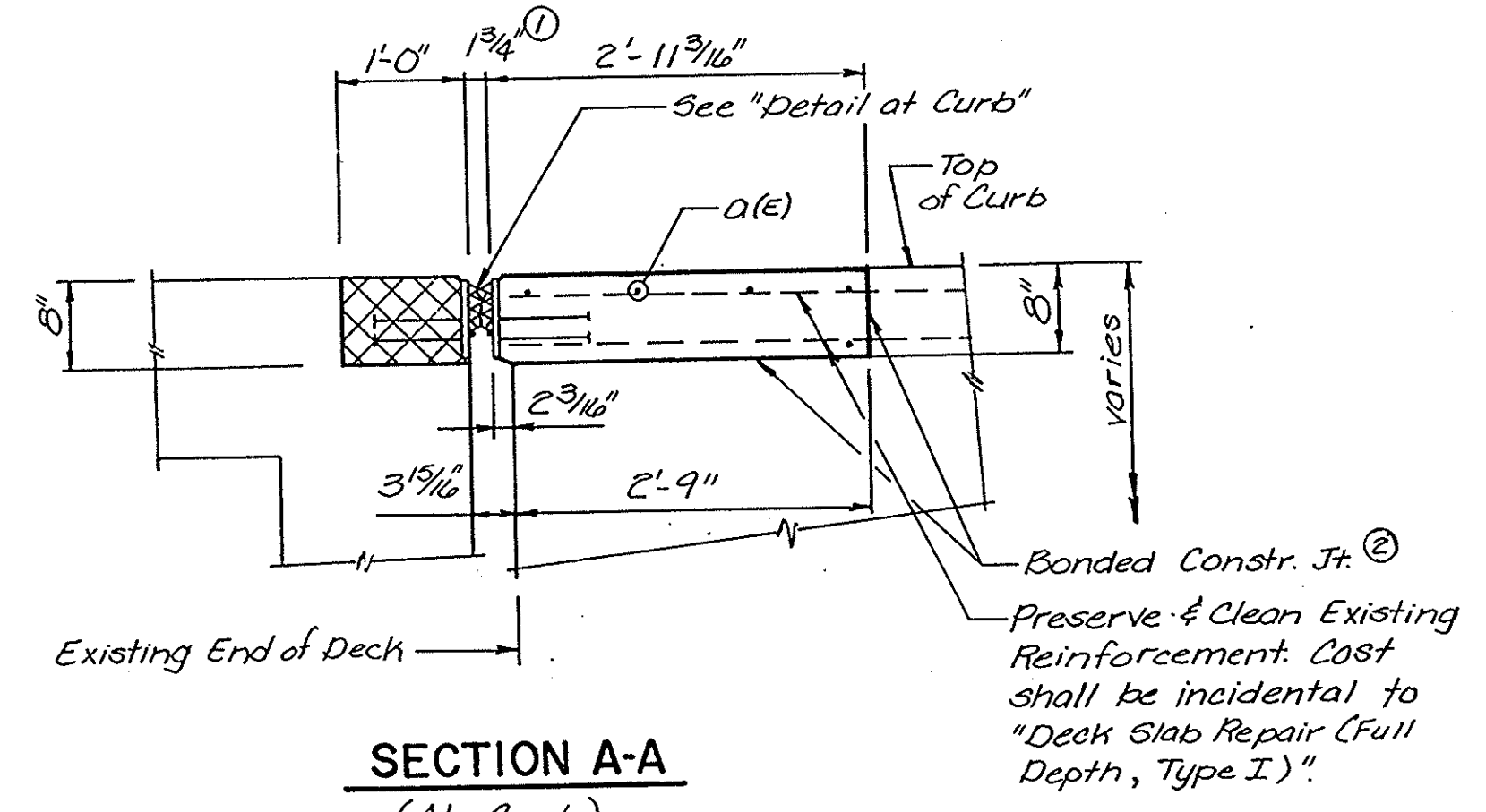


DETAIL AT ROADWAY

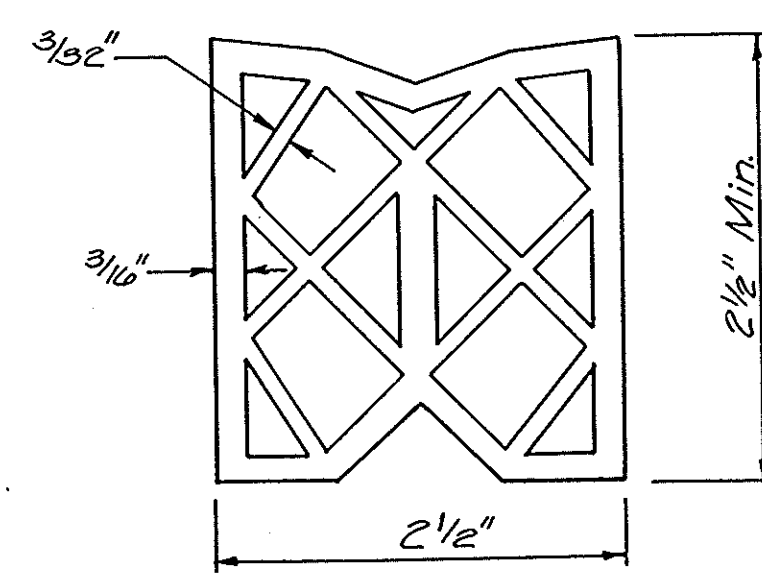
DETAIL AT CURB



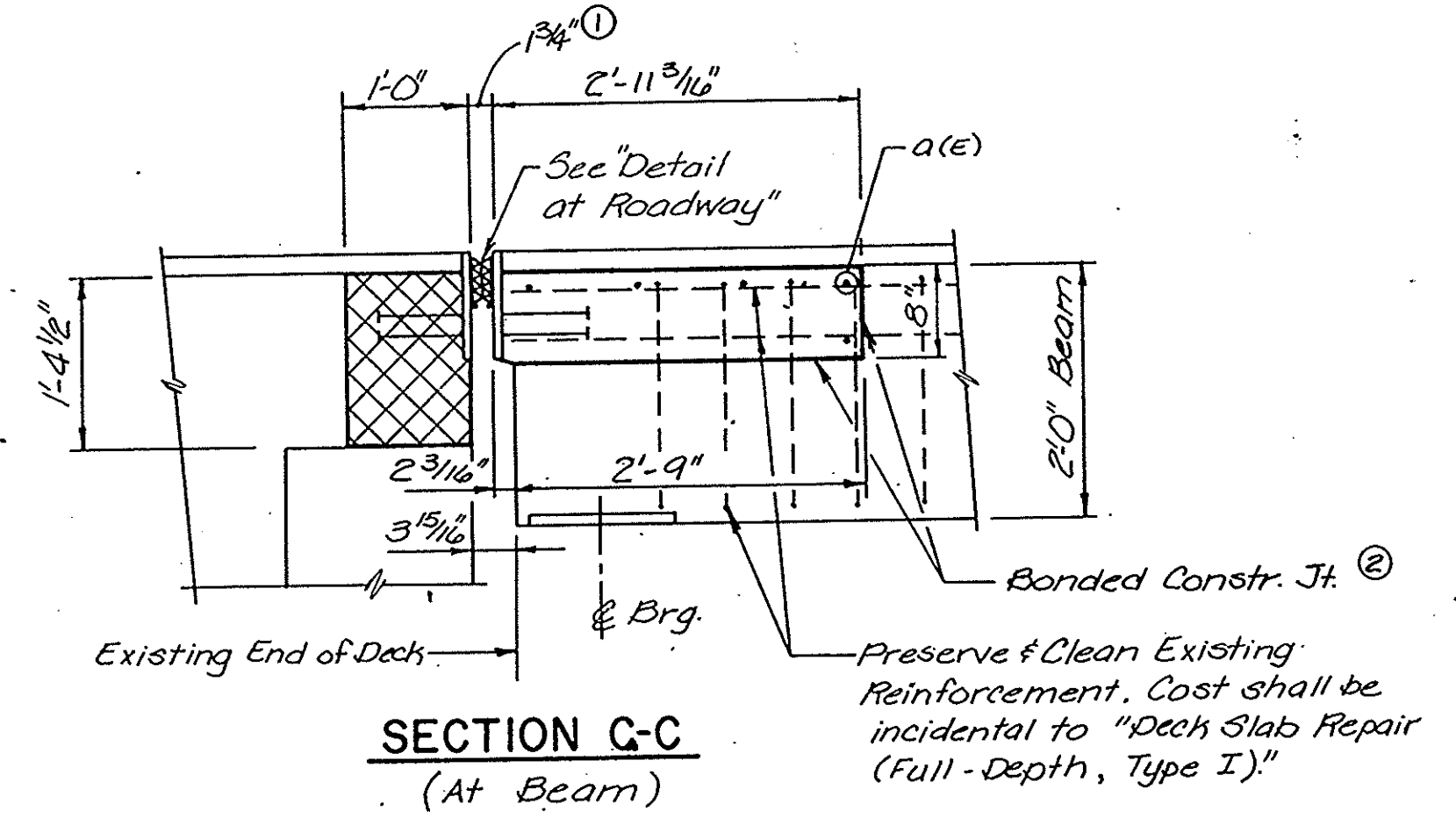
**SECTION B-B
(Between Beams)**



**SECTION A-A
(At Curb)**



PREFORMED JOINT SEAL



**SECTION C-C
(At Beam)**

NOTES:

1. At 50° F.
 2. All Bonded Construction Joints shall be in accordance with Article 504.13 (a) 2 of the Standard Specifications.
 3. All dimensions are at Right L to Joint.
 4. Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.
- * After fabrication all surfaces of the steel plates shall be given one shop coat of Zinc Silicate Primer. No field painting required.

DESIGNED	SJK
CHECKED	KEB
DRAWN	SJK
CHECKED	KEB

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JOHN FRAUENHOFFER and ASSOCIATES

CONSULTING ENGINEERS

702 BLOOMINGTON ROAD CHAMPAIGN, ILLINOIS 61820

SUPERSTRUCTURE DETAILS
FAP 332 (IL 1) SECTION (15R) BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

PROJECT NO.	92 048
DATE	FEBRUARY 1993
SHEET NO.	29
OF 60 SHEETS	

Work Sheets 3 and 4 of 11 together.

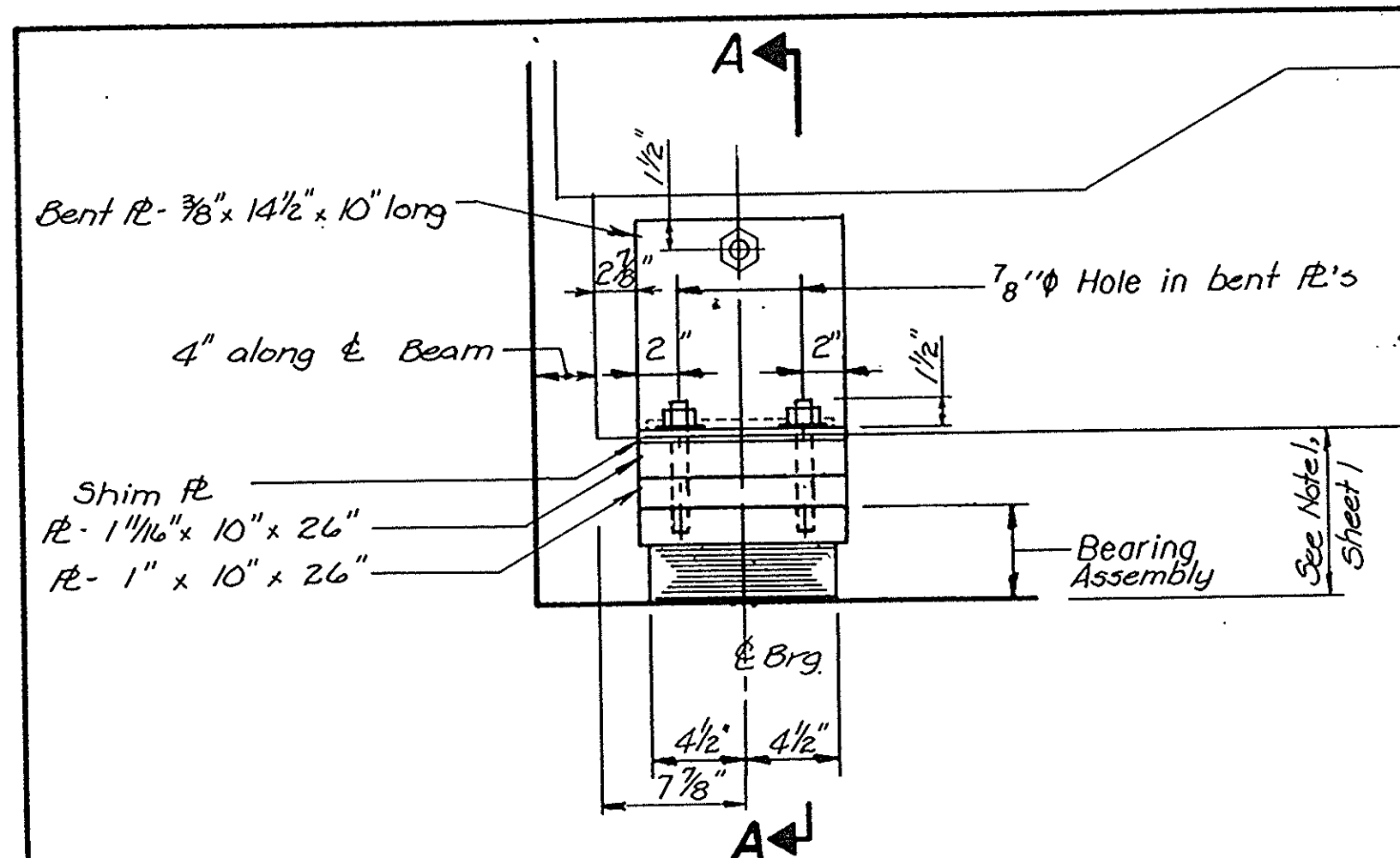
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	15R01	Iroquois	90	30
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BRIDGE SHEET 5 OF 11

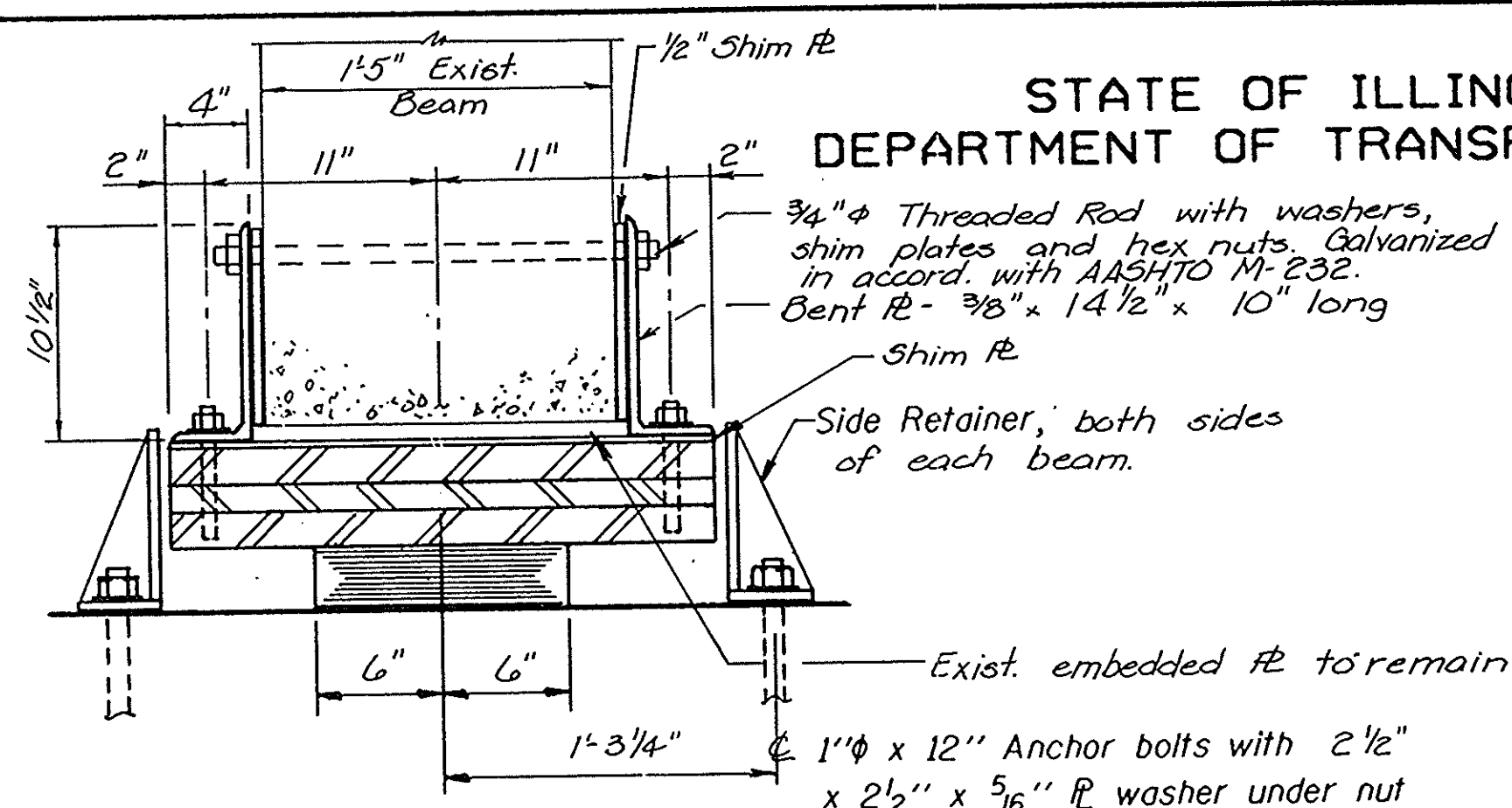
STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

GIRDER REACTIONS

R ₀	(K)	16.7
R _L	(K)	22.4
Imp.	(K)	6.7
R (Total)	(K)	45.8

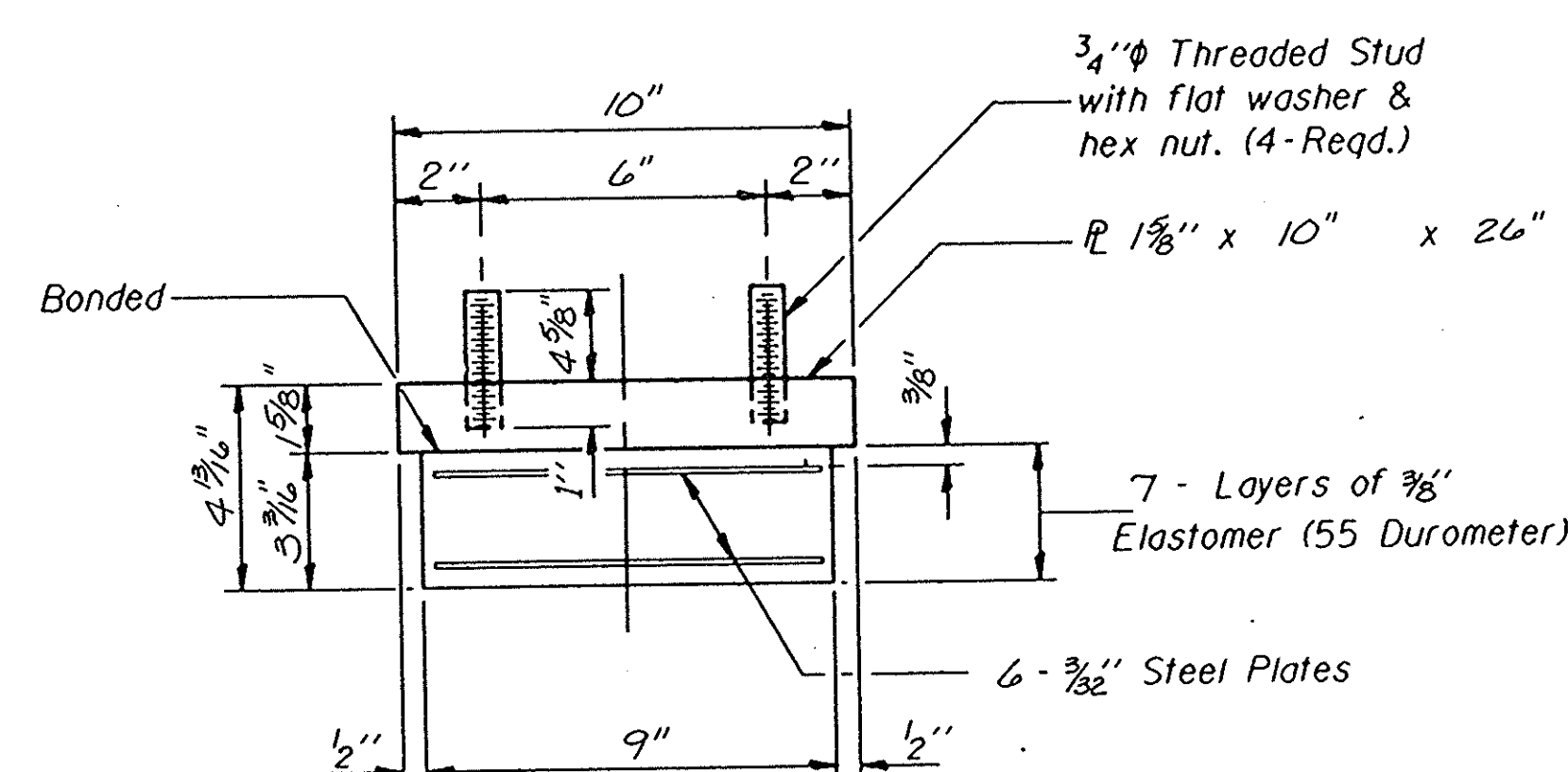


ELEVATION AT N. ABUT.



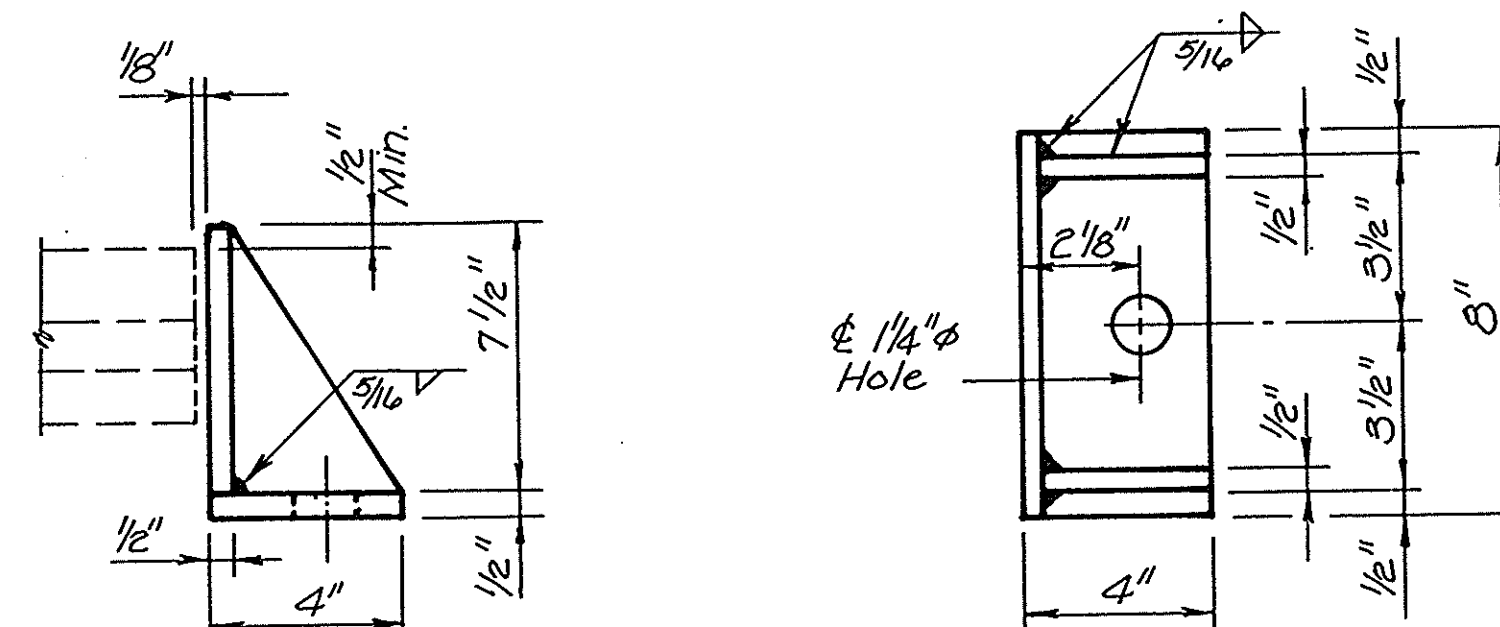
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

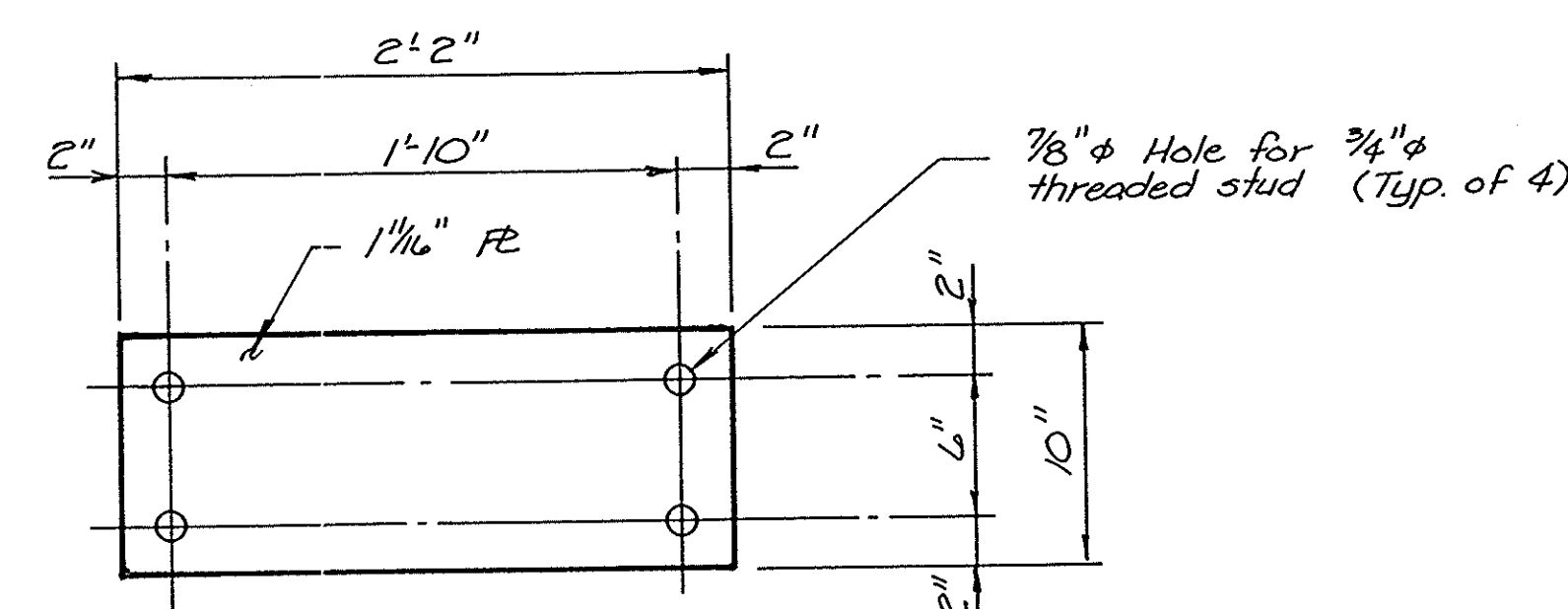


SIDE RETAINER

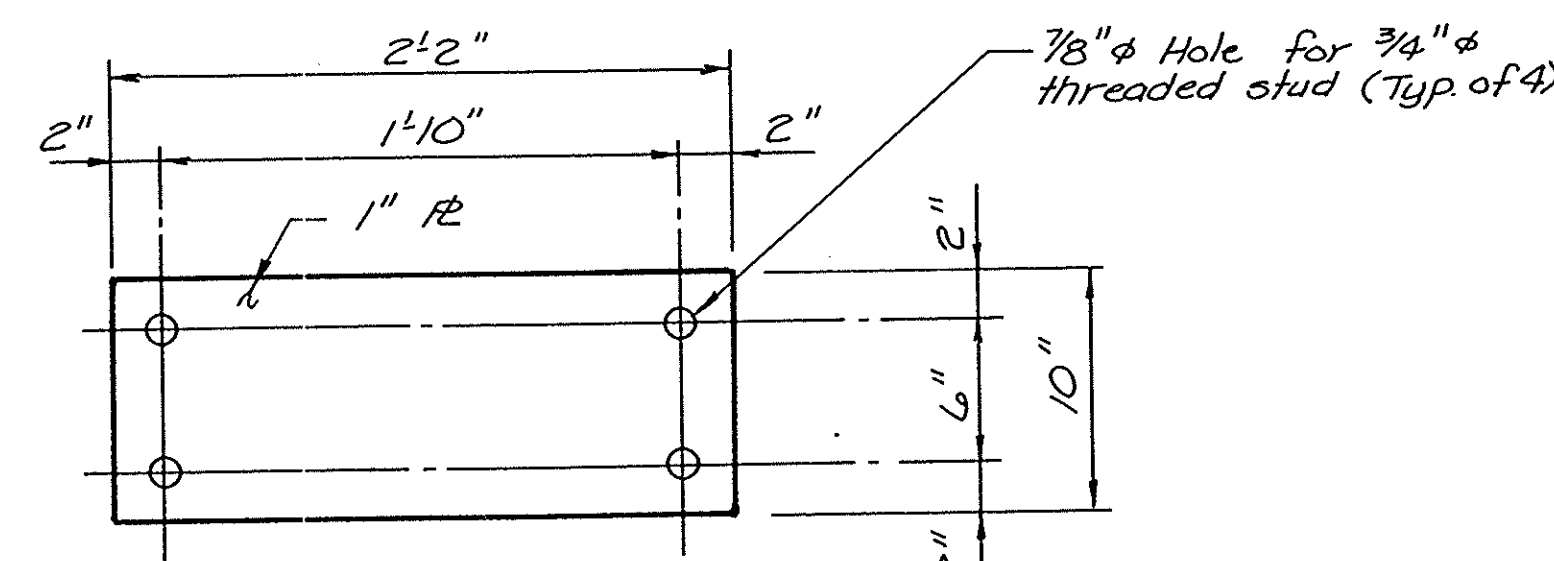
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates. (Weight included with Structural Steel)

DESIGNED	SJK
CHECKED	KEB
DRAWN	DWH
CHECKED	KEB

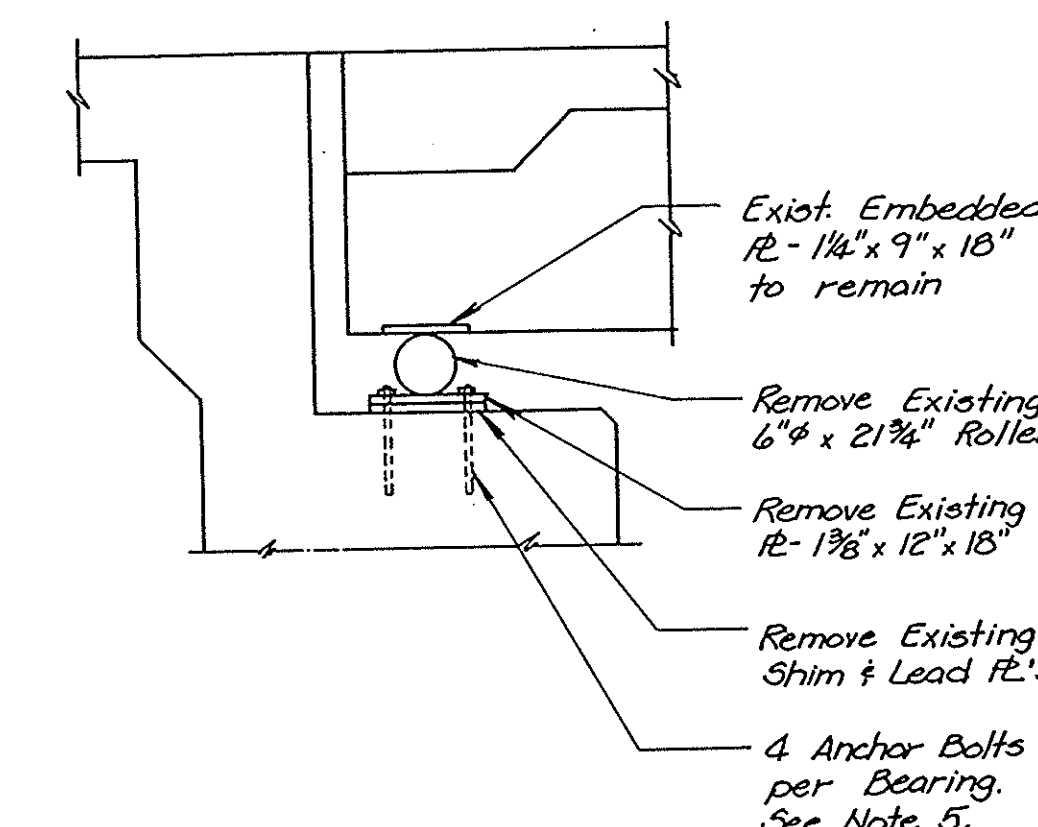
I-2-E1 12-1-83



TOP PLATE



BOTTOM PLATE



EXISTING BEARING REMOVAL DETAIL

NOTES

- See "Anchor Bolt Details for Bearings" sheet for anchor bolt installations.
- See Special Provisions for "Jack and Remove Existing Bearings."
- The 3/4" threaded rod through the existing concrete beam shall not be drilled or installed until the entire new bearing assembly is in place and the dead load has been applied to the new bearing assembly. Cost incidental to Elastomeric Bearing Assembly Type I.
- New sole plates, side retainers, shim plates, bent plates, threaded rods, connection bolts, and anchor bolts are included in "Furnish and Erect Structural Steel."
- Before installing new bearings, burn existing anchor bolts flush with existing concrete surface, grind smooth, and seal with epoxy. Cost is incidental to "Furnish and Erect Structural Steel."

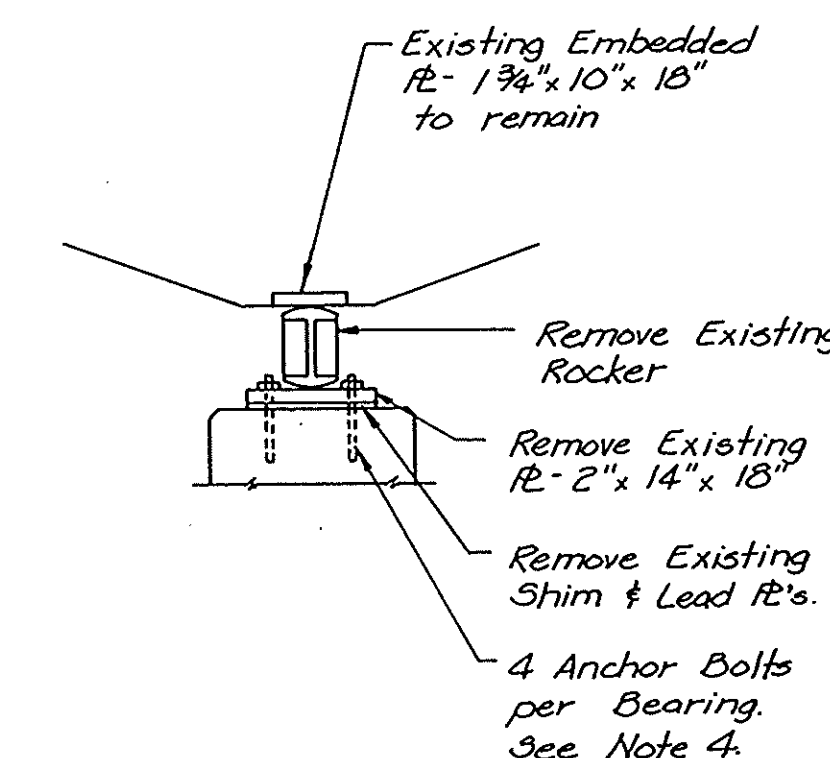
BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5 ✓
Jack and Remove Exist. Bearings	Each	5 ✓

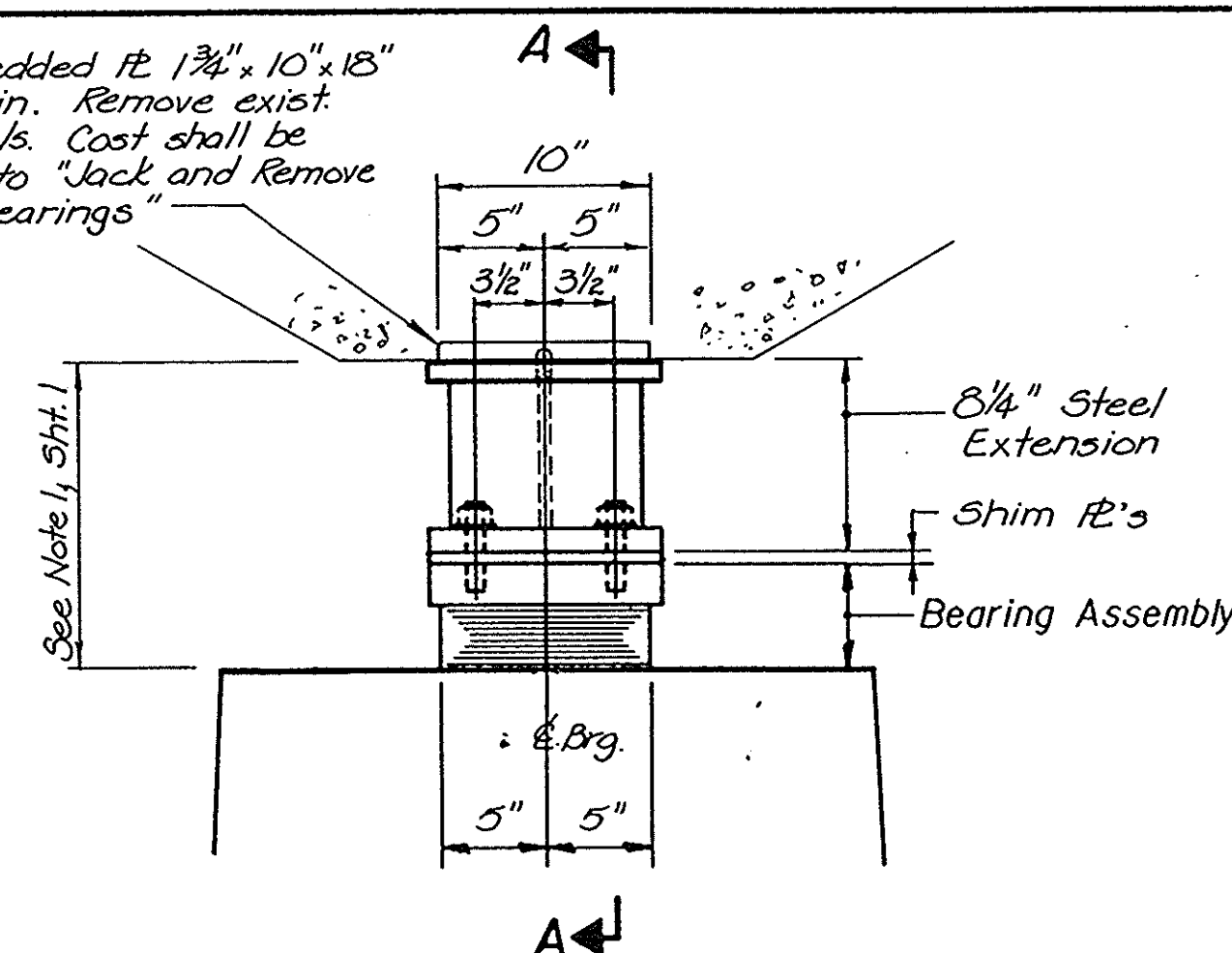
BEARING DETAILS-NORTH ABUTMENT
FAP 332 (IL 1) SECTION (15R)BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

GIRDER REACTIONS

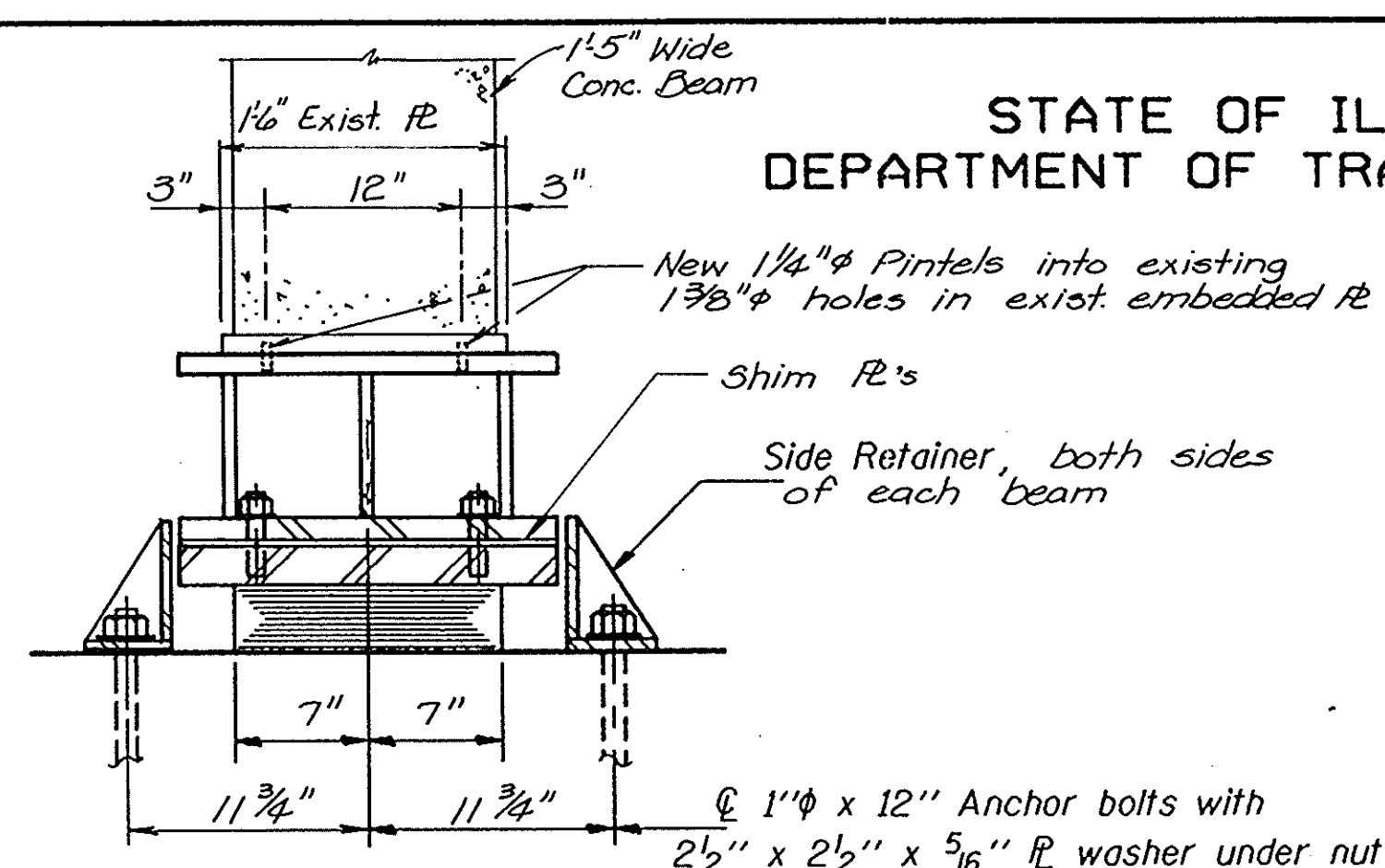
<i>R_D</i>	(K)	73.1
<i>R_E</i>	(K)	34.3
<i>Imp</i>	(K)	8.4
<i>R (Total)</i>	(K)	115.8



EXISTING BEARING REMOVAL DETAIL

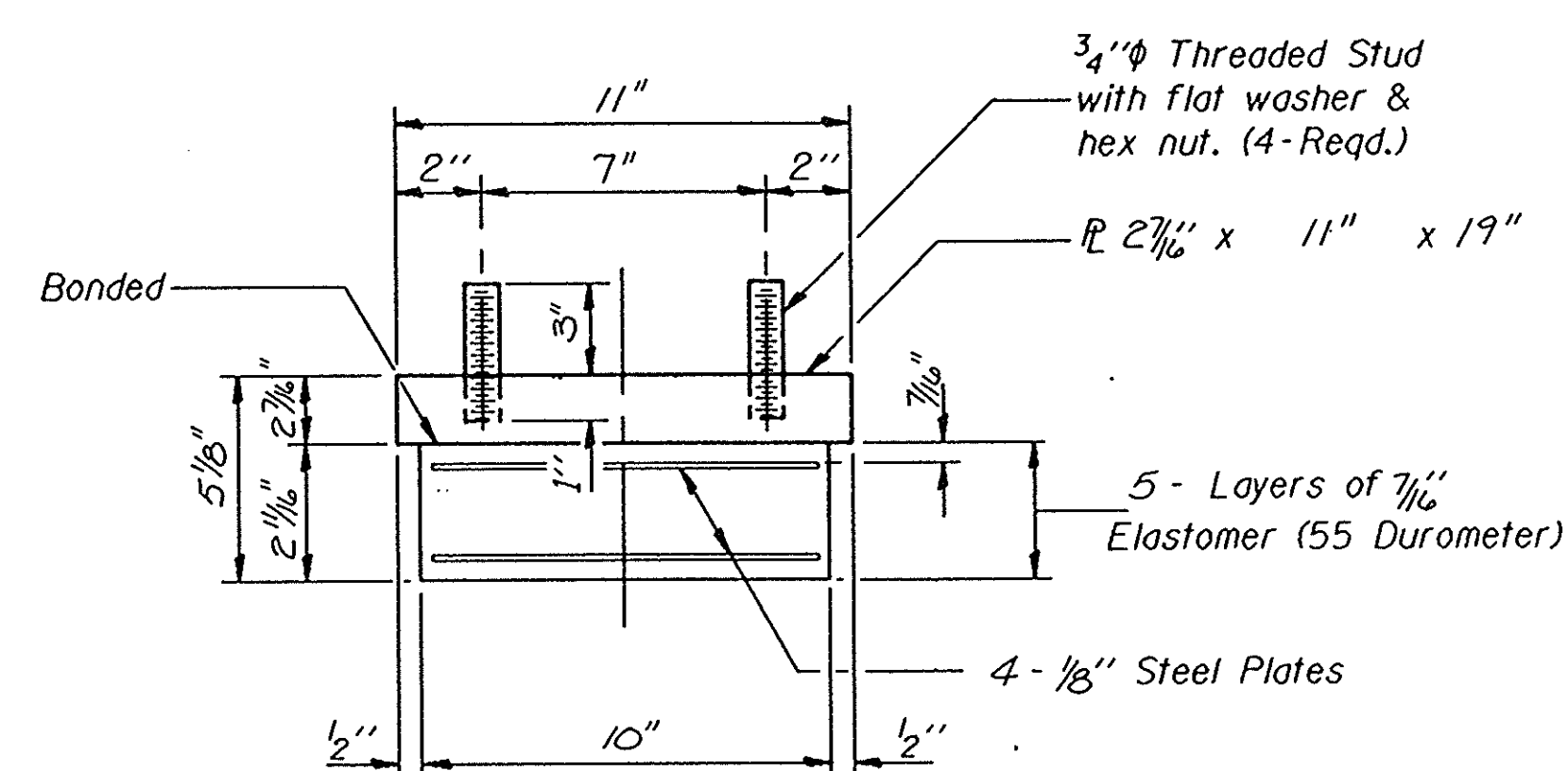


ELEVATION AT PIER 1



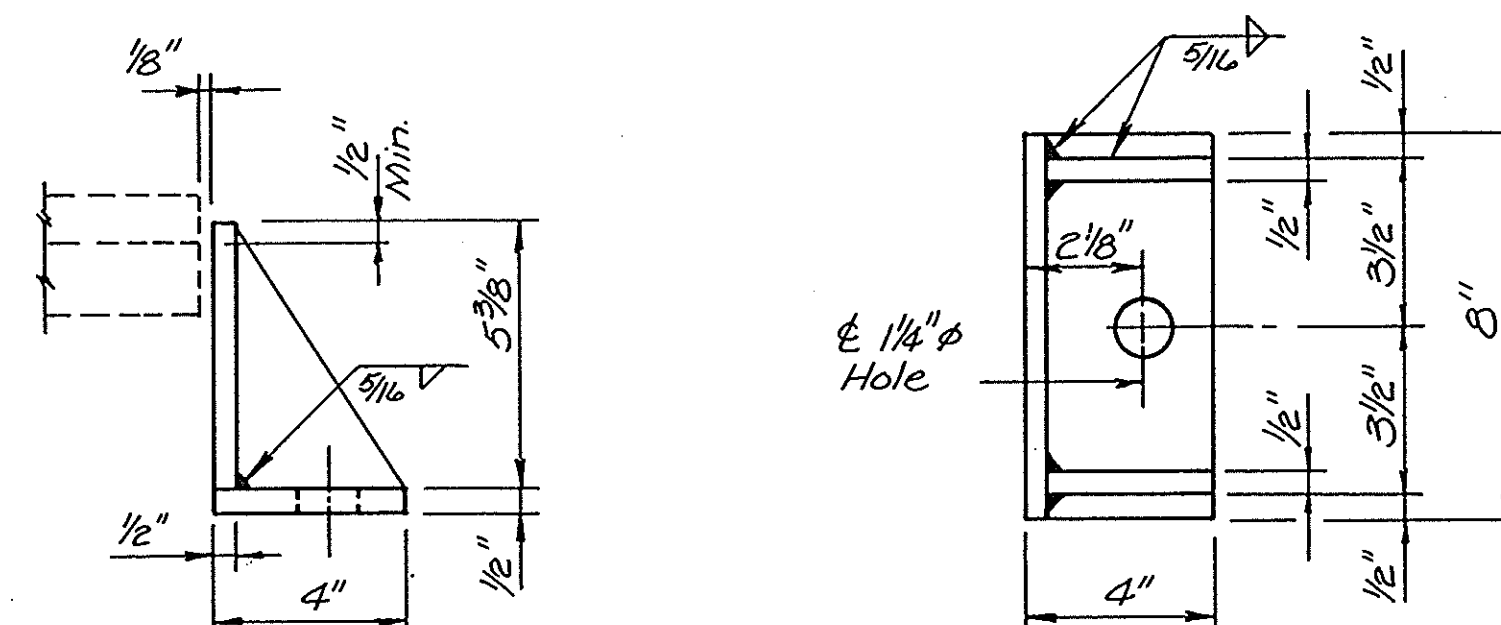
SECTION A-A

TYPE I ELASTOMERIC EXP. BRG.



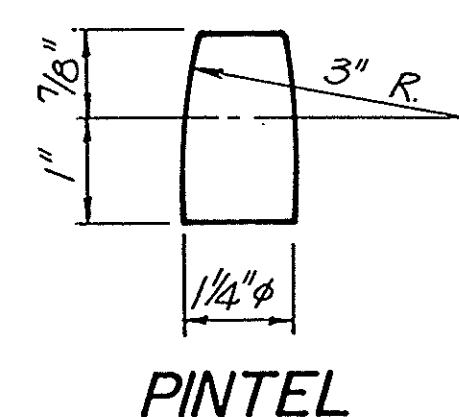
BEARING ASSEMBLY

Note: Shim plates shall not be placed under Bearing Assembly.

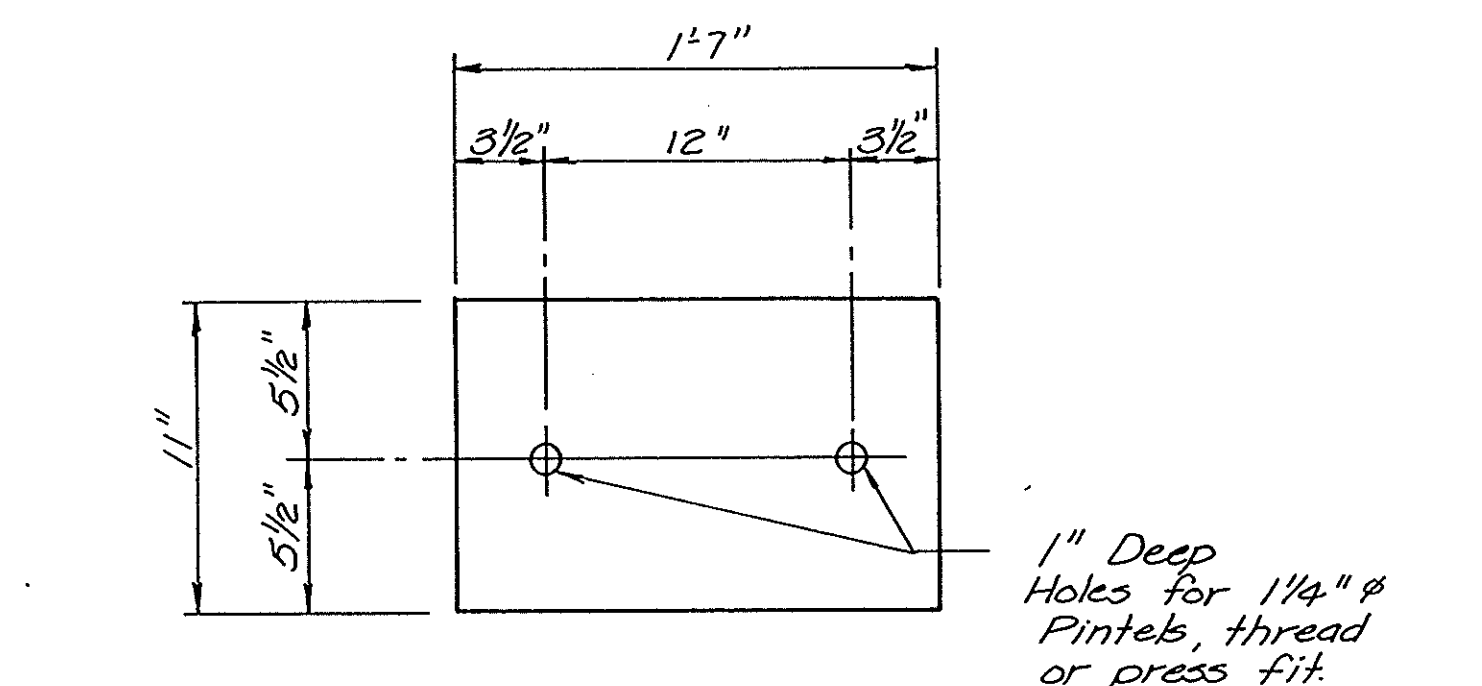


SIDE RETAINER

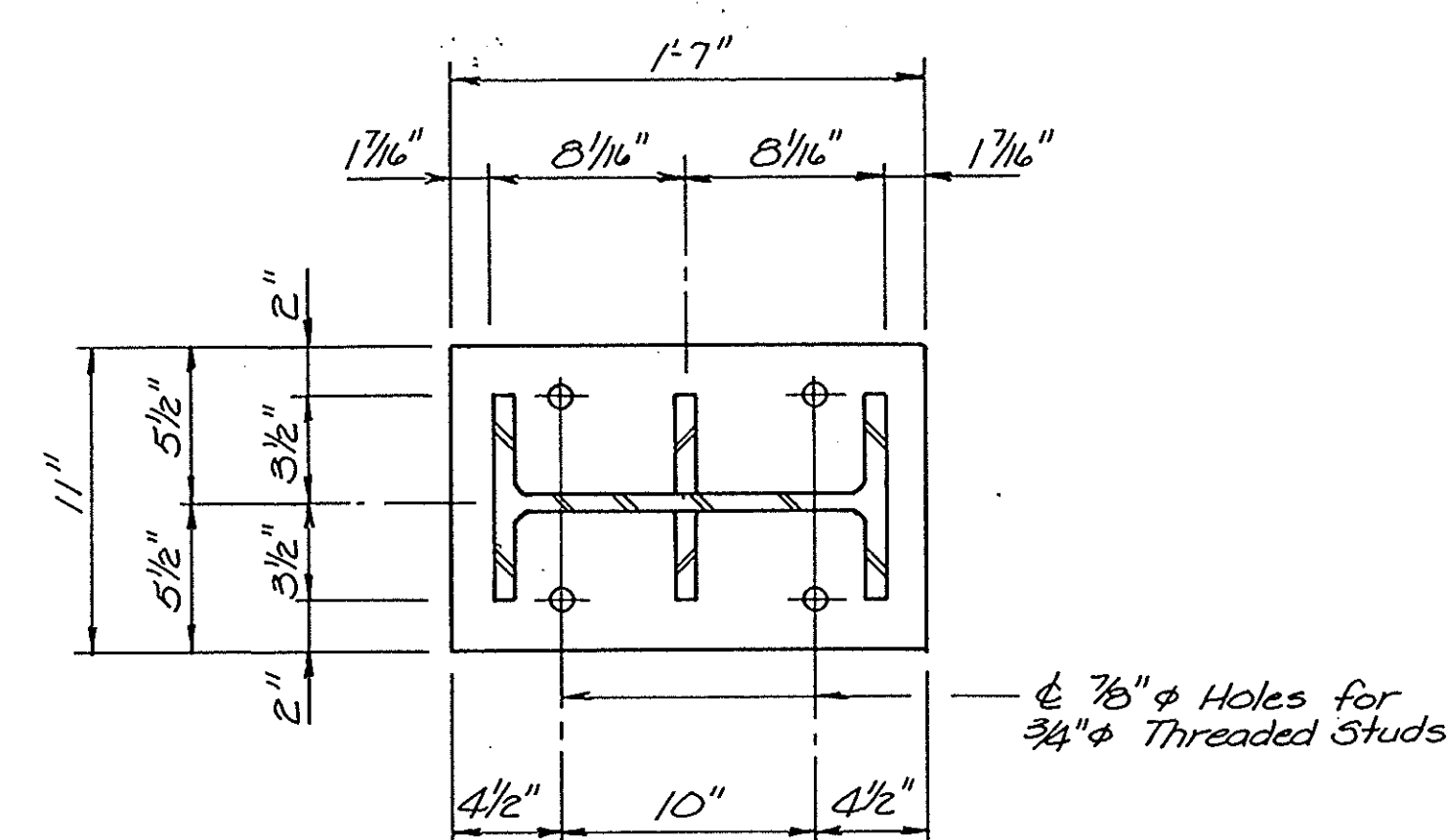
Equivalent rolled angle with stiffeners
will be allowed in lieu of welded plates.
(Wt. included with Structural Steel)



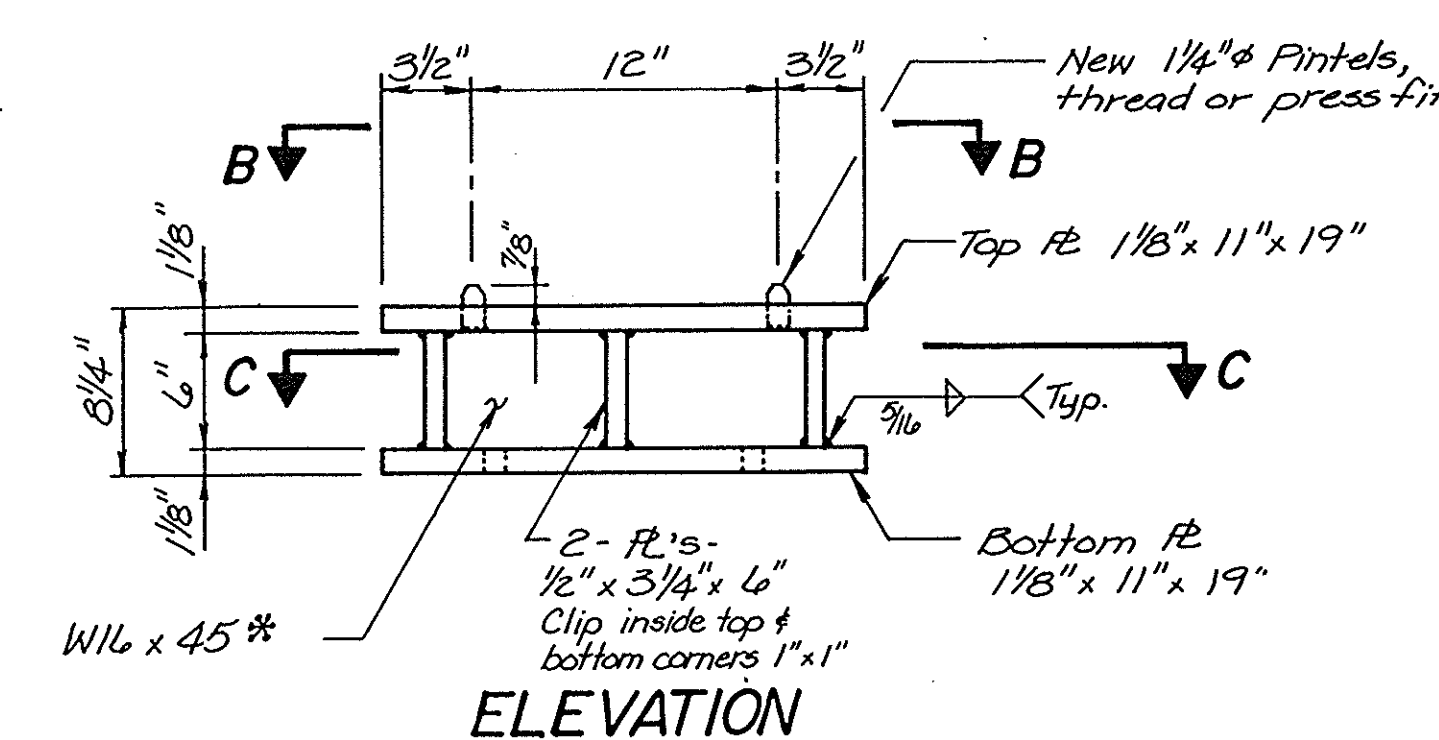
PINTEL



SECTION B-B
(Extension Top Plate)



SECTION C-C
(Extension Bottom Plate)



STEEL EXTENSION

*Equivalent welded plates will be allowed in lieu of W16 x 45

NOTES

1. See "Anchor Bolt Details for Bearings" sheet for anchor bolt installations.
2. See Special Provisions for "Jack and Remove Existing Bearings."
3. New steel extensions, side retainers, connection bolts, shim plates, and anchor bolts are included in "Furnish and Erect Structural Steel."
4. Before installing new bearings, burn existing anchor bolts flush with existing concrete surface, grind smooth, and seal with epoxy. Cost is incidental to "Furnish and Erect Structural Steel."

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5
Jack and Remove Exist. Bearings	Each	5

BEARING DETAILS - PIER 1
FAP 332 (IL 1) SECTION (15R)BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

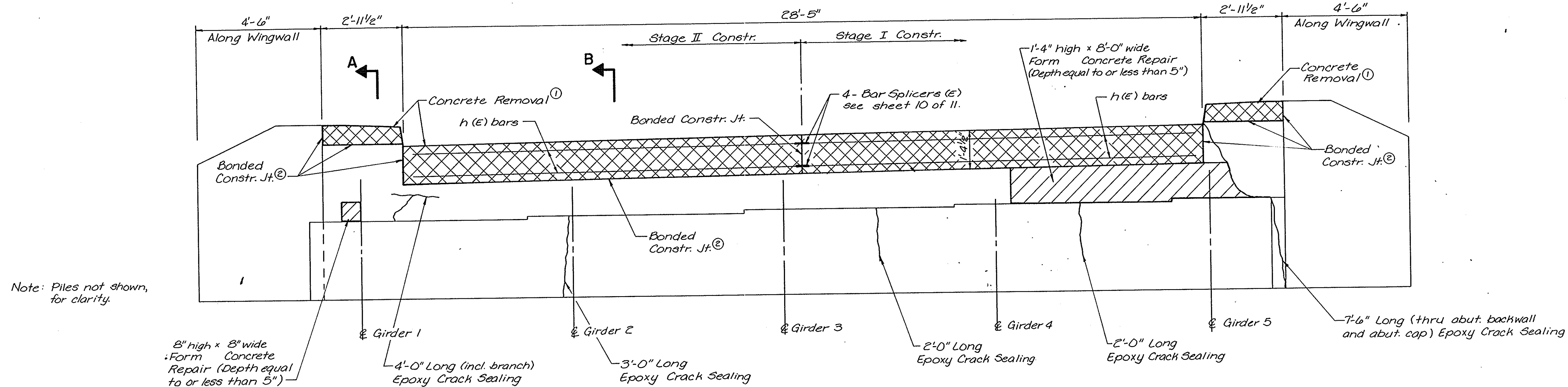
DESIGNED	SJK
CHECKED	KEB
DRAWN	DWH
CHECKED	KEB

I-2-E1 12-1-83



ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	(15R)BI	Iroquois	60	33
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BRIDGE SHEET 8 OF 11



ELEVATION
(Looking North)

NOTES

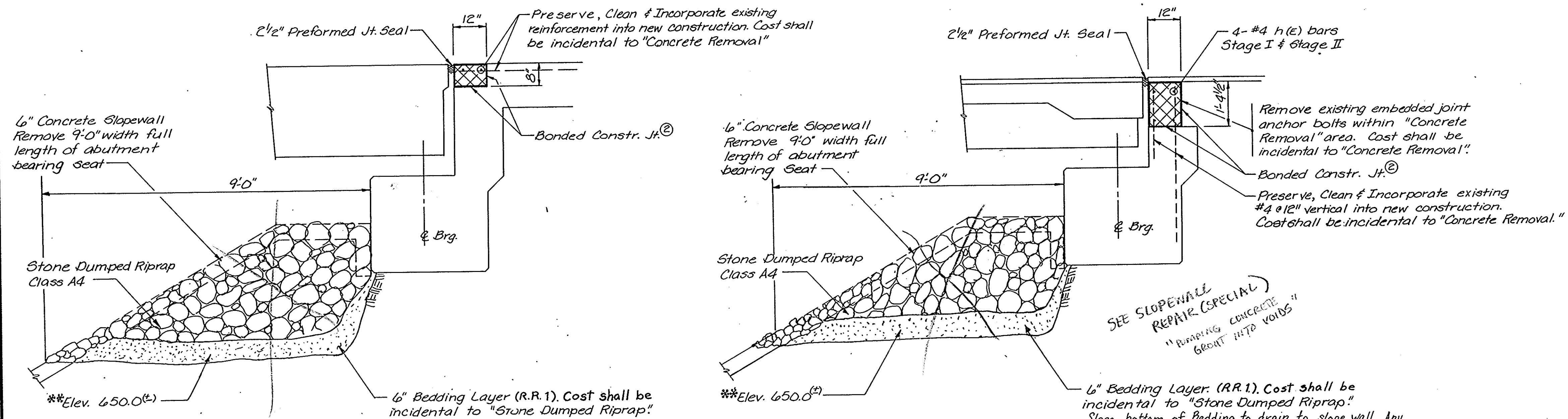
1. Cross-hatched Areas to be poured after forms of Superstructure have been removed. Concrete in Cross-hatched Area shall be billed with Superstructure as "Class 'X' Concrete, Superstructure".
2. Bonded Construction Joints shall be in accordance with Article 504.13(a) 2 of the Standard Specifications.
3. See Special Provisions for "Epoxy Crack Sealing", "Formed Concrete Repair (Depth equal to or less than 5")", and "Stone Dumped Riprap".

BILL OF MATERIALS

BAR	SIZE	NUMBER	LENGTH	SHAPE
h(E)	#4	8	13'-8"	—
Reinforcement Bars, Epoxy Coated				Pound 80
Concrete Removal				Cu. Yd. 1.8
Epoxy Crack Sealing				Lin. Ft. 18.5
Formed Concrete Repair (Depth equal to or less than 5")				Sq. Ft. 11.1
Stone Dumped Riprap, Class A4				Ton 90
Slope Wall Removal				Sq. Yd. 37.0

Bars designated (E) shall be epoxy coated.

Min. #4 Bar Lap = 1'-8"

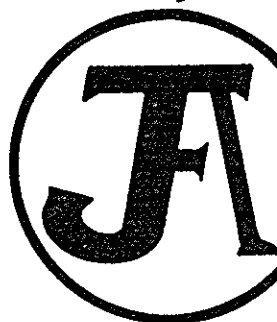


SECTION A

SECTION B

** The elevation and extent of the existing void under the existing concrete slopewall and the quantity of Stone Dumped Riprap, Class A4 are estimated. Existing conditions may vary from those shown. No excavation or compacted backfill is required. The Contractor shall be paid at the unit price per ton of Stone Dumped Riprap, Class A4 for the actual quantity provided.

DESIGNED	SJK
CHECKED	KEB
DRAWN	SJK
CHECKED	KEB



(217) 351-6268

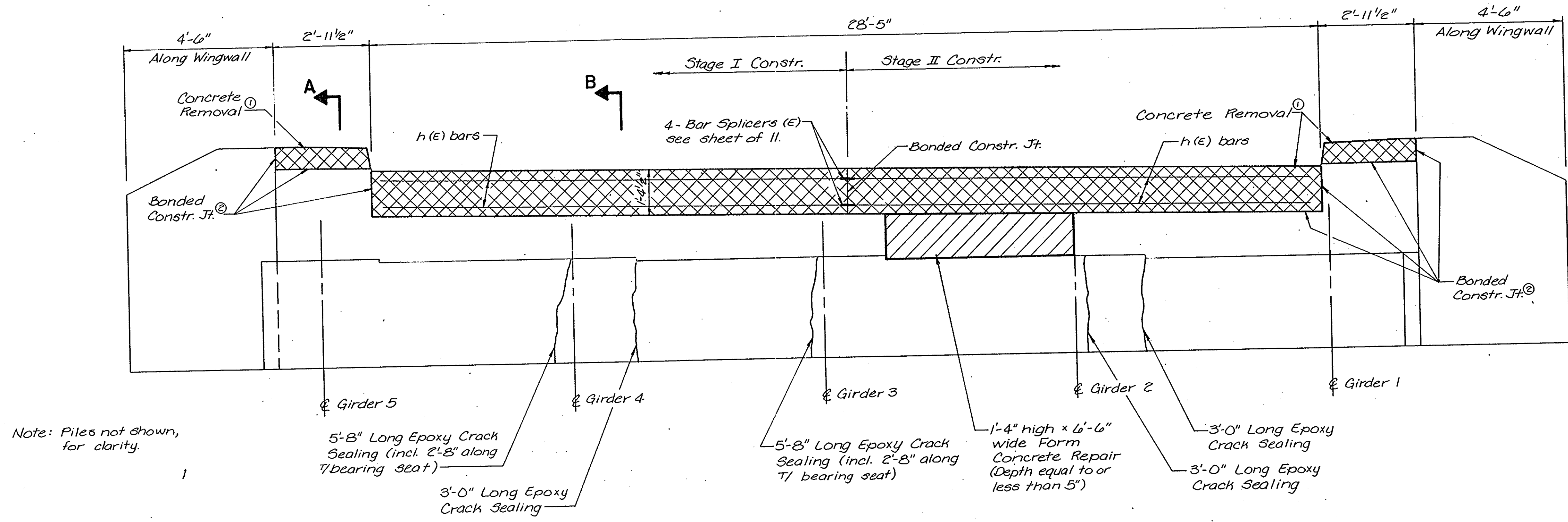
JOHN FRAUENHOFER and ASSOCIATES

CONSULTING ENGINEERS

702 BLOOMINGTON ROAD CHAMPAIGN, ILLINOIS 61820

NORTH ABUTMENT DETAILS
FAP 332 (IL 1) SECTION (15R)BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

PROJECT NO.	92 048
DATE	FEBRUARY 1993
SHEET NO.	33
OF 60 SHEETS	



ELEVATION
(Looking South)

NOTES

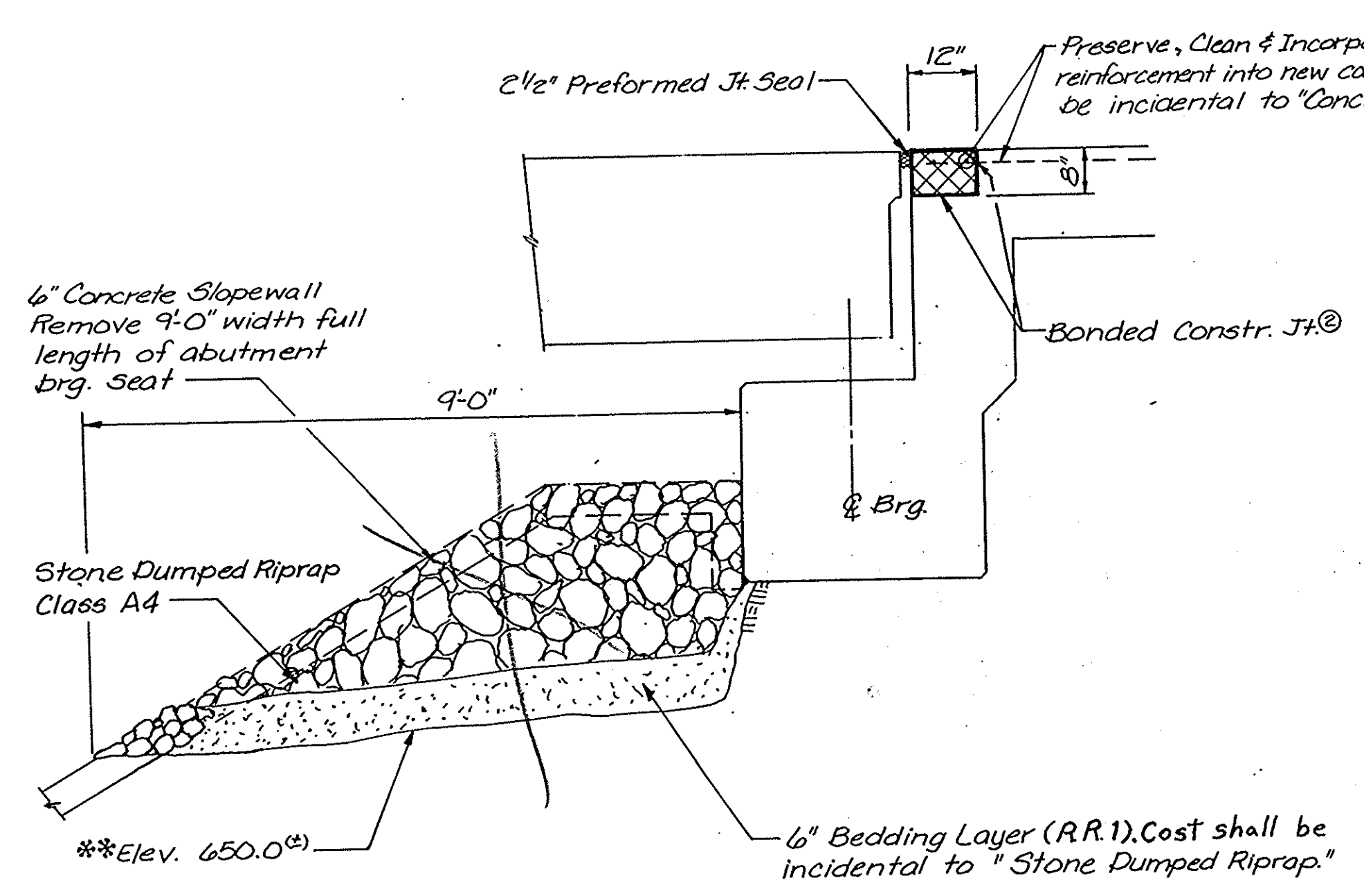
1. Cross-hatched Areas to be poured after forms of Superstructure have been removed. Concrete in cross-hatched Areas shall be billed with Superstructure as "Class 'X' Concrete, Superstructure".
2. Bonded Construction Joints shall be in accordance with Article 504.13 (a) 2 of the Standard Specifications.
3. See Special Provisions for "Epoxy Crack Sealing", "Form Concrete Repair (Depth equal to or less than 5")", and "Stone Dumped Riprap".

BILL OF MATERIALS

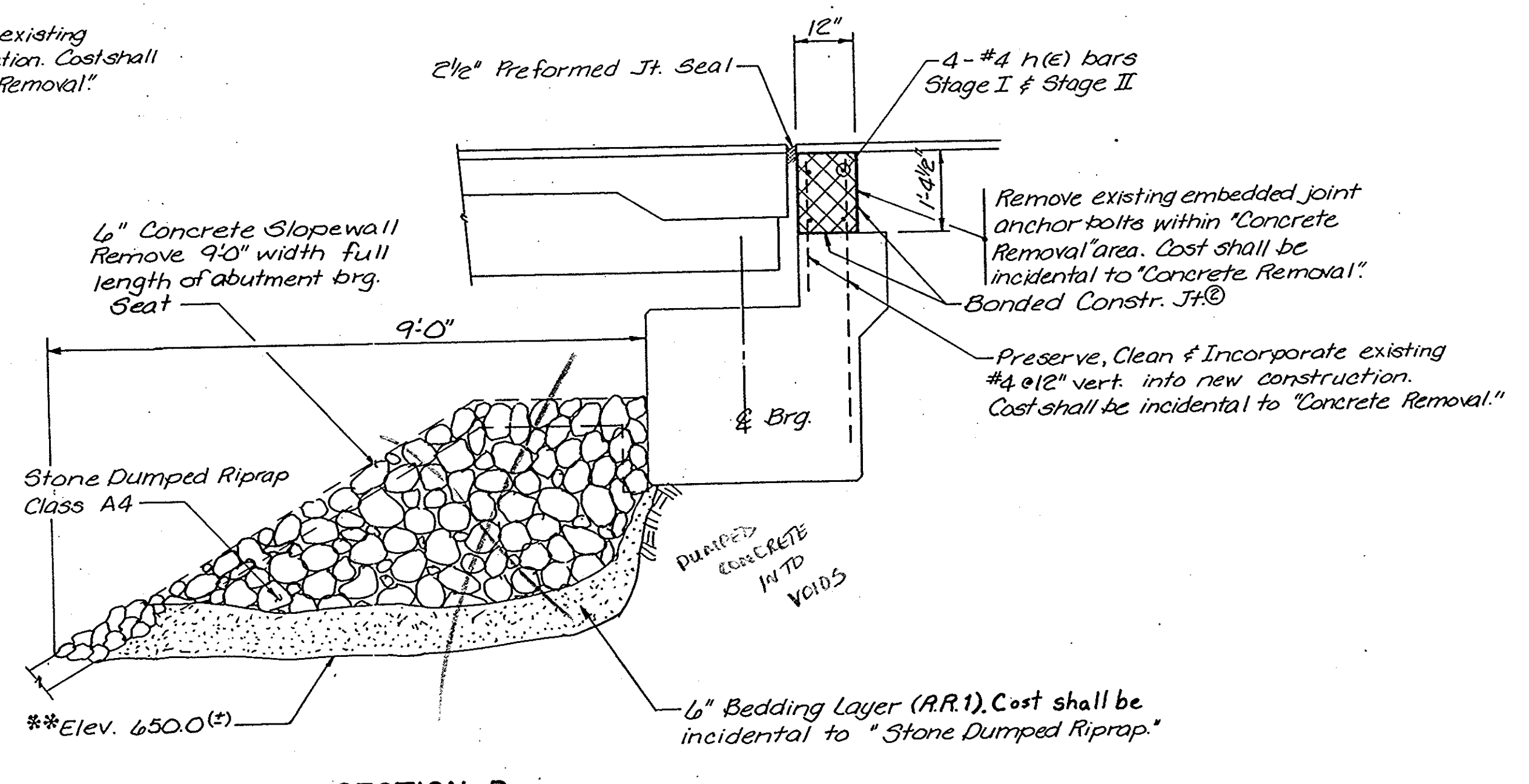
BAR	SIZE	NUMBER	LENGTH	SHAPE
h(E)	#4	8	13'-10"	—
Reinforcement Bars, Epoxy Coated				Pound 80
Concrete Removal				Cu. Yd. 1.8
Epoxy Crack Sealing				Lin. Ft. 20.3
Form Concrete Repair (Depth equal to or less than 5")				Sq. Ft. 8.7
Stone Dumped Riprap, Class A4				Ton 90
Sloped Wall Removal				Sq. Yd. 37.0

Bars designated (E) shall be epoxy coated.

Min. #4 Bar Lap = 1'-8"



SECTION A



SECTION B

** The elevation and extent of the existing void under the existing concrete sloped wall and the quantity of Stone Dumped Riprap, Class A4 are estimated. Existing conditions may vary from those shown. No excavation or compacted backfill is required. The Contractor shall be paid at the unit price per Ton of Stone Dumped Riprap, Class A4 for the actual quantity provided.

DESIGNED	SJK
CHECKED	KEB
DRAWN	SJK
CHECKED	KEB

(217) 351-6268

JA JOHN FRAUENHOFER and ASSOCIATES

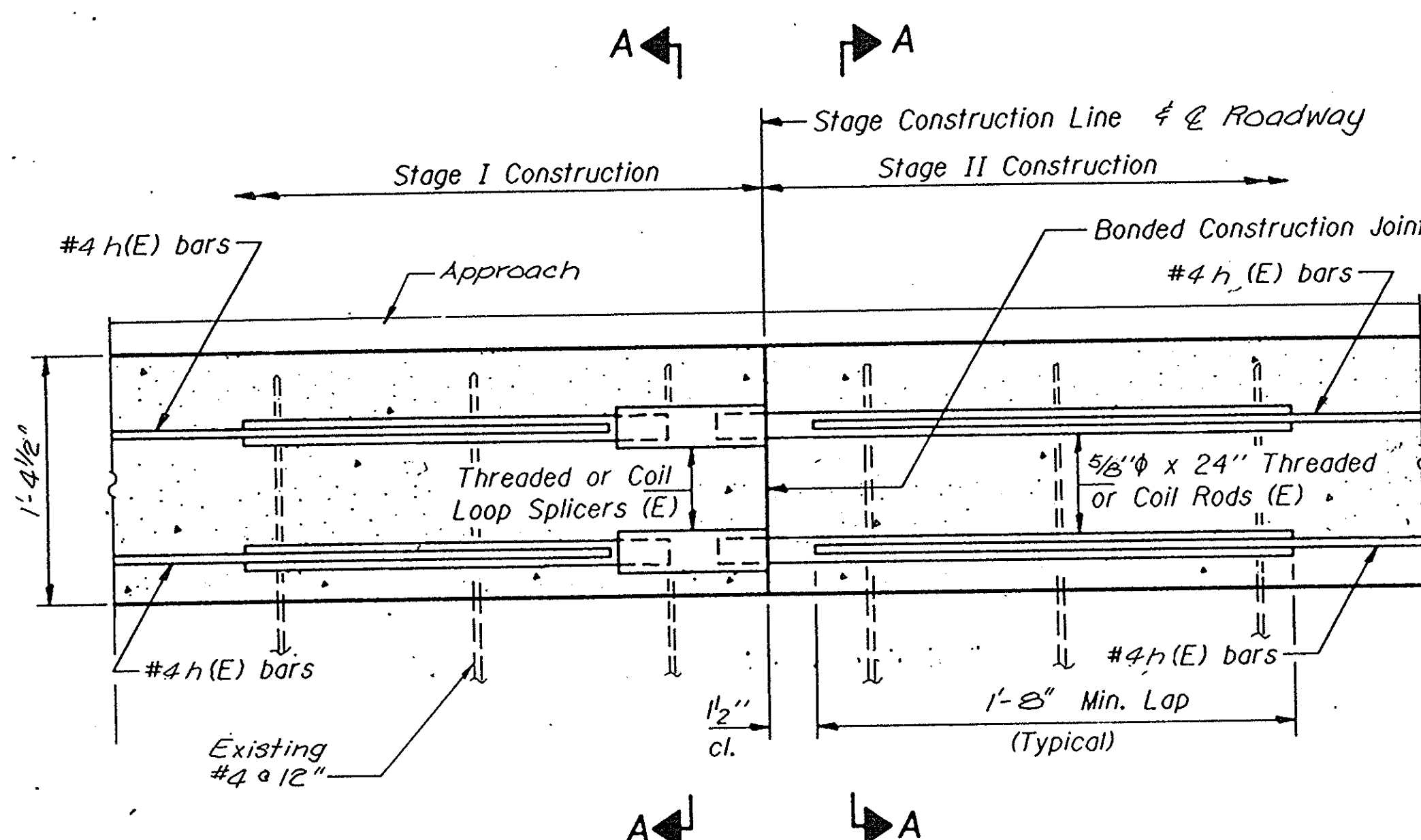
CONSULTING ENGINEERS

702 BLOOMINGTON ROAD CHAMPAIGN, ILLINOIS 61820

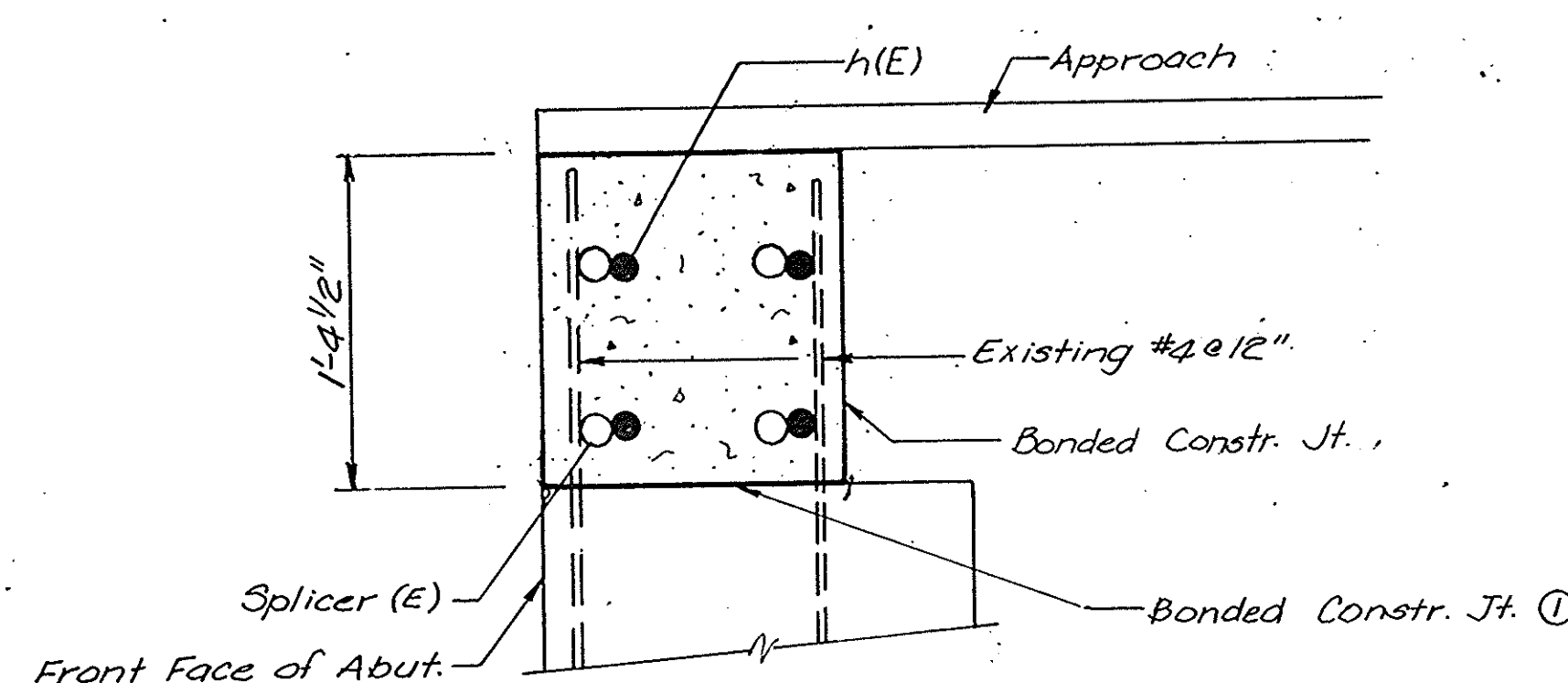
SOUTH ABUTMENT DETAILS
FAP 332 (IL 1) SECTION (15R)BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

PROJECT NO.	92 048
DATE	FEBRUARY 1993
SHEET NO.	34
OF 60 SHEETS	

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	15R/BI	Iroquois	60	35
STA.		TO STA.		
FED. ROAD DIST. NO. 7		ILLINOIS PROJECT		
BRIDGE SHEET 10 OF 11				



SECTION THRU ABUTMENT



SECTION A-A

SPLICER DETAILS

(No. Req'd. 8)

Bar splicers shall be in accordance with Section 512 of the Standard Specifications, except as noted, and will be paid for at the contract unit price each for "BAR SPLICERS."

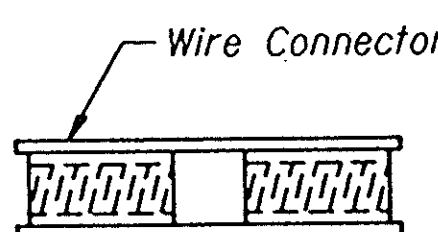
STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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

ROLLED THREAD DOWEL BAR



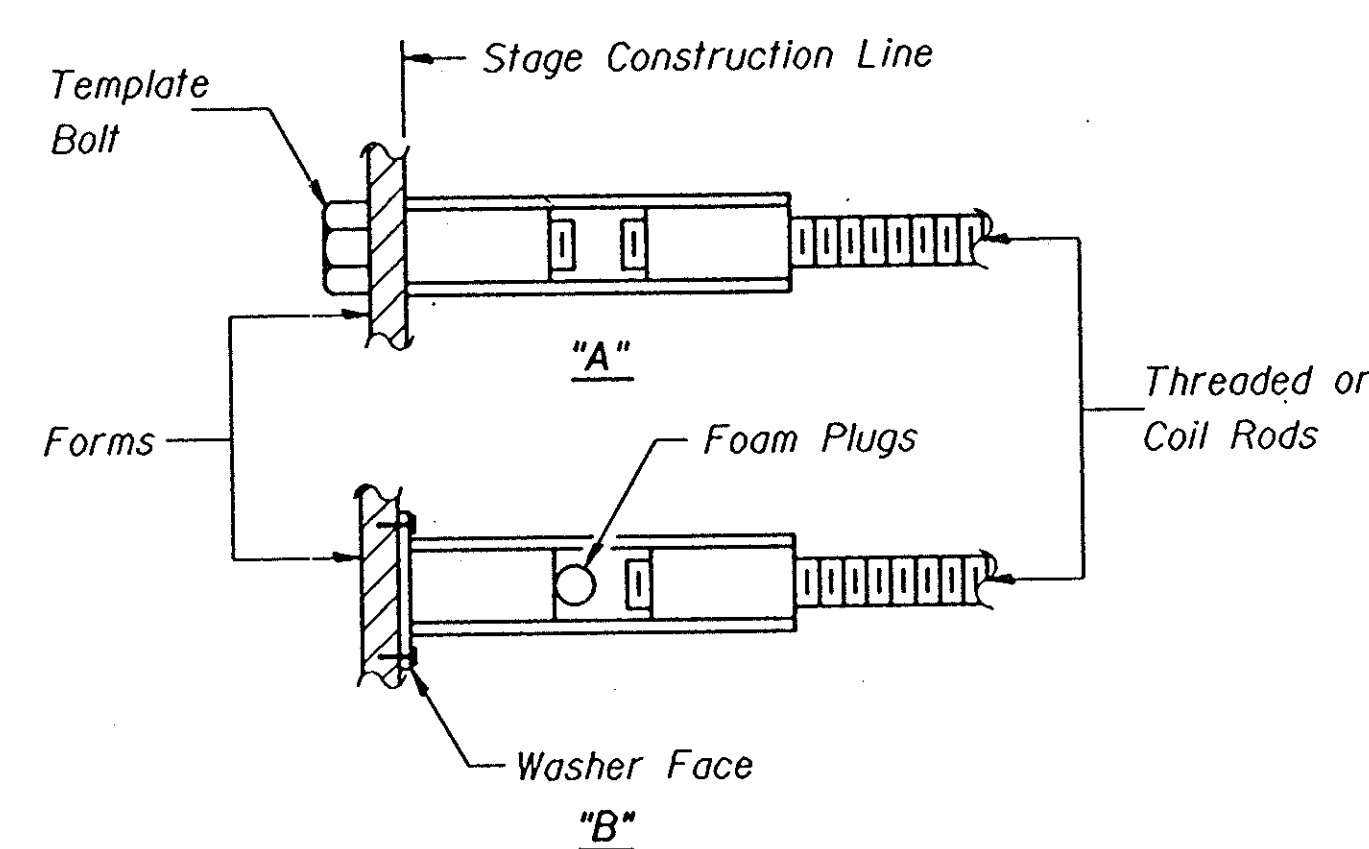
ONE PIECE



WELDED SECTIONS

SPLICER ALTERNATIVES

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



INSTALLATION AND SETTING METHODS

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

NOTES

Steel Splicer (Coupler) assembly shall be of an approved type and shall develop in tension at least 125 percent of the yield strength of the lapped reinforcement bars.
Steel Splicer rods shall be of minimum 60 ksi yield strength, threaded or coiled full length.

All reinforcement bars shall be lapped and tied to the splicer rods.
Splicer (coupler) assembly in the slab shall be epoxy coated in accordance with the requirements for reinforcement bars.

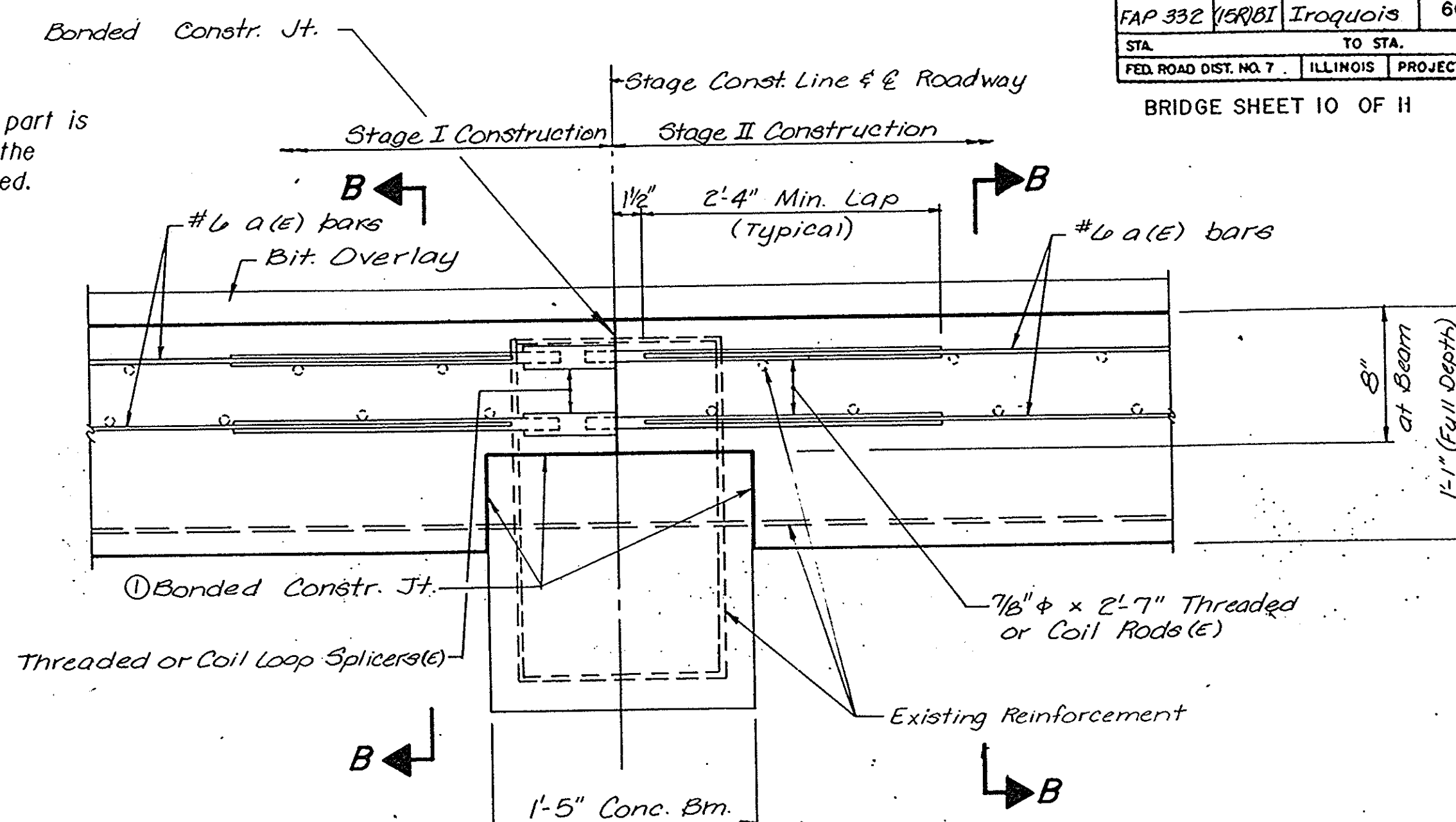
Other systems of similar design may be submitted to the Engineer for approval. Approval shall be based on certified test results from an approved testing laboratory that the proposed splicer (coupler) assembly satisfies the following requirements:

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

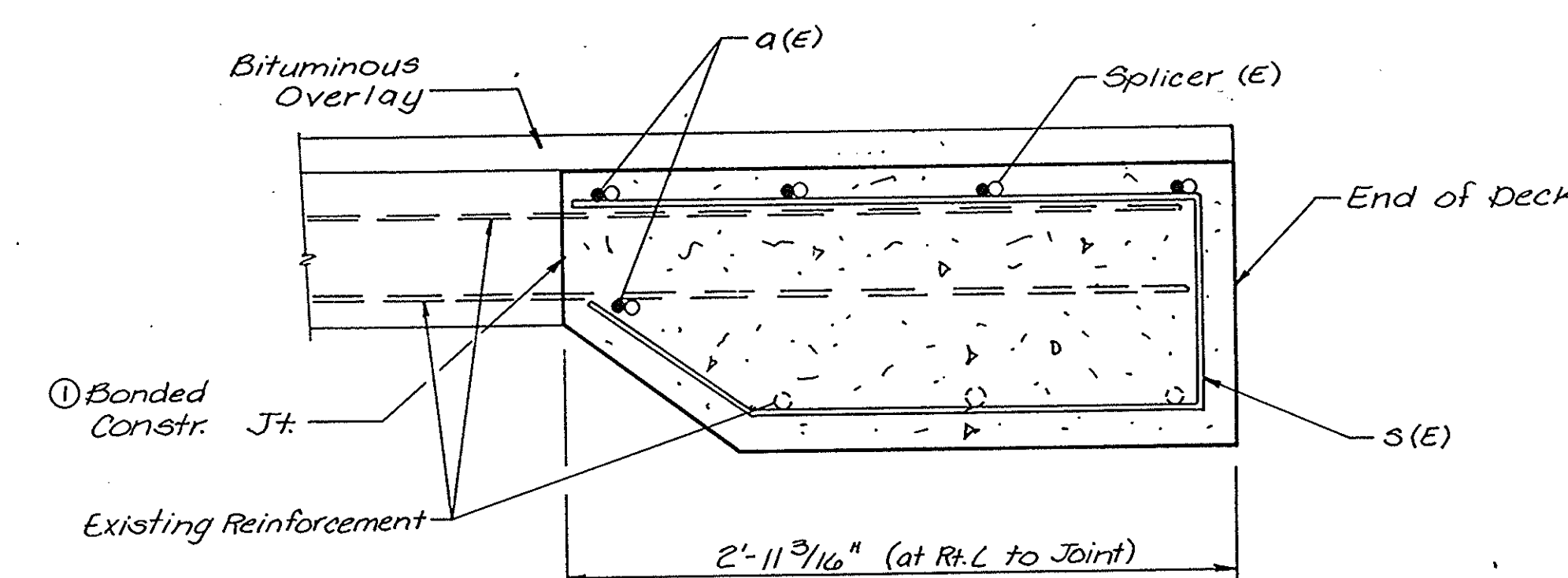
Where f_y = Yield strength of lapped reinforcement bars in ksi.
 $f_{s,allow}$ = Allowable tensile stress in lapped reinforcement bars in ksi (Service Load)
 A_t = Tensile stress area of lapped reinforcement bars.
* = 28 day concrete

Typical Splicer (Coupler) Assembly Sizes:

#4 bar lap with 5/8" Splicer (Coupler) x 2'-0" Splicer Rods	Minimum Capacity = 14.7 kips-tension Minimum Pull-out Strength = 5.9 kips-tension
#6 bar lap with 7/8" Splicer (Coupler) x 2'-7" Splicer Rods	Minimum Capacity = 33.1 kips-tension Minimum Pull-out Strength = 13.3 kips-tension



SECTION THRU SLAB THICKENING



SECTION B-B

SPLICER DETAILS

(No. Req'd. 10)

① Bonded Construction Joints shall be in accordance with Article 504.13 (a) 2 of the Standard Specifications.

DESIGNED	S.J.K.
CHECKED	H.E.B.
DRAWN	S.J.K.
CHECKED	H.E.B.

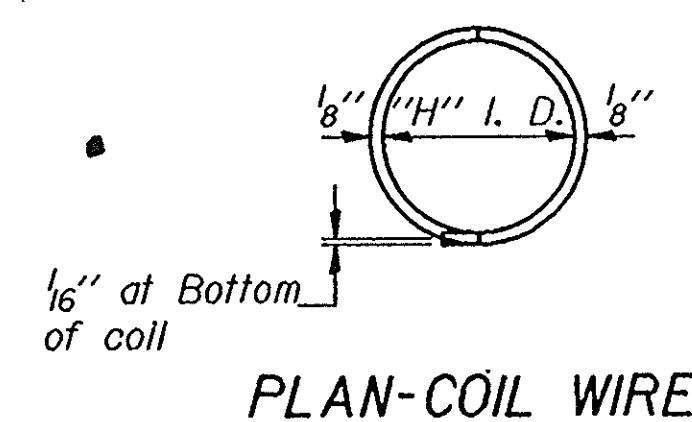
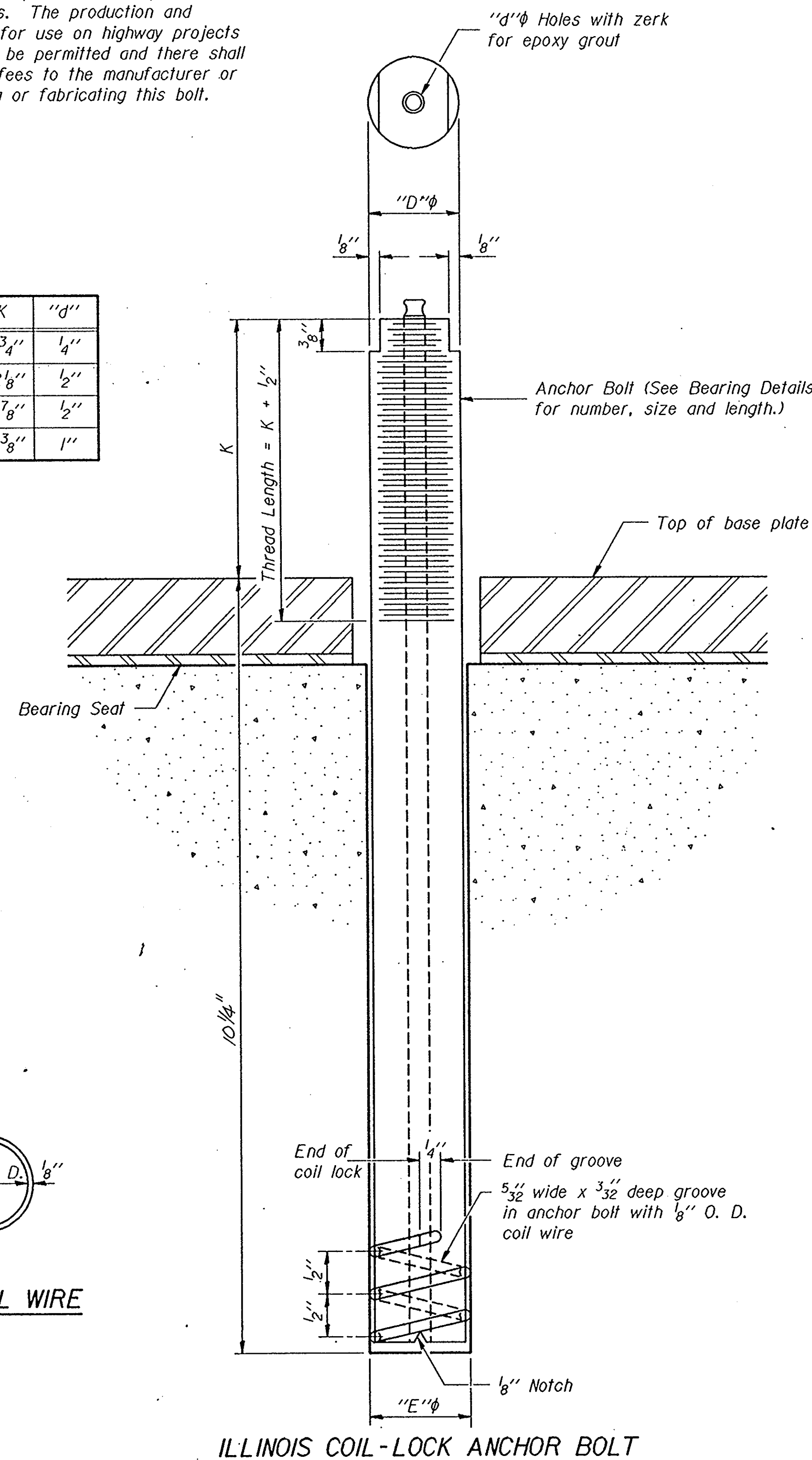
BSD-1

6-1-89

BAR SPLICER (COUPLER) DETAILS
AT STAGE CONSTRUCTION
FAP 332 (IL 1) SECTION (15R) BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70

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.

D	E	H	K	"d"
1"	1 1/8"	1 3/16"	1 3/4"	1/4"
1 1/2"	1 5/8"	1 5/16"	2 1/8"	1/2"
2"	2 1/8"	1 13/16"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/16"	3 3/8"	1"



STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION

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 A519, 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 I and of a Class suitable for the temperature at installation.

INSTALLATION PROCEDURE for the 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 tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through the zerk fitting with a pressure gun. Pumping shall continue until the epoxy overflows the hole around the bolt shank. 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 rods that have been previously tested and given a prior approval by the Department. The Contractor shall install these anchor rods in pre-drilled holes in accordance with the manufacturer's recommendations and procedures.

The capsule or the adhesive cartridge type anchor rods shall be a two part system composed of:

1. A threaded rod stud with nut and washer conforming to ASTM A307.
2. A sealed glass capsule or a sealed glass adhesive cartridge containing premeasured amounts of the adhesive chemical.

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAP 332	(15R)BI	Iroquois	60	36
STA.	TO STA.			
FED. ROAD DIST. NO. 7	ILLINOIS	PROJECT		

BRIDGE SHEET 11 OF 11

GENERAL NOTES

Holes in the masonry for anchor bolts shall be drilled through the base plates to the diameter and depth shown or in accordance with the manufacturer's recommendation after beams or girders have been erected and adjusted.

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.

The anchor bolts, furnished and installed and including the epoxy grout or capsules shall not be paid for separately but shall be included in the unit bid price for "Furnish and Erect Structural Steel".

DESIGNED	SJK
CHECKED	K.E.B.
DRAWN	SJK
CHECKED	K.E.B.

ABB-1 12-1-83

ANCHOR BOLT DETAILS FOR BEARINGS
FAP 332 (IL 1) SECTION (15R) BI
COON CREEK
IROQUOIS COUNTY
STRUCTURE NO. 038-0023
STA. 1151+70