

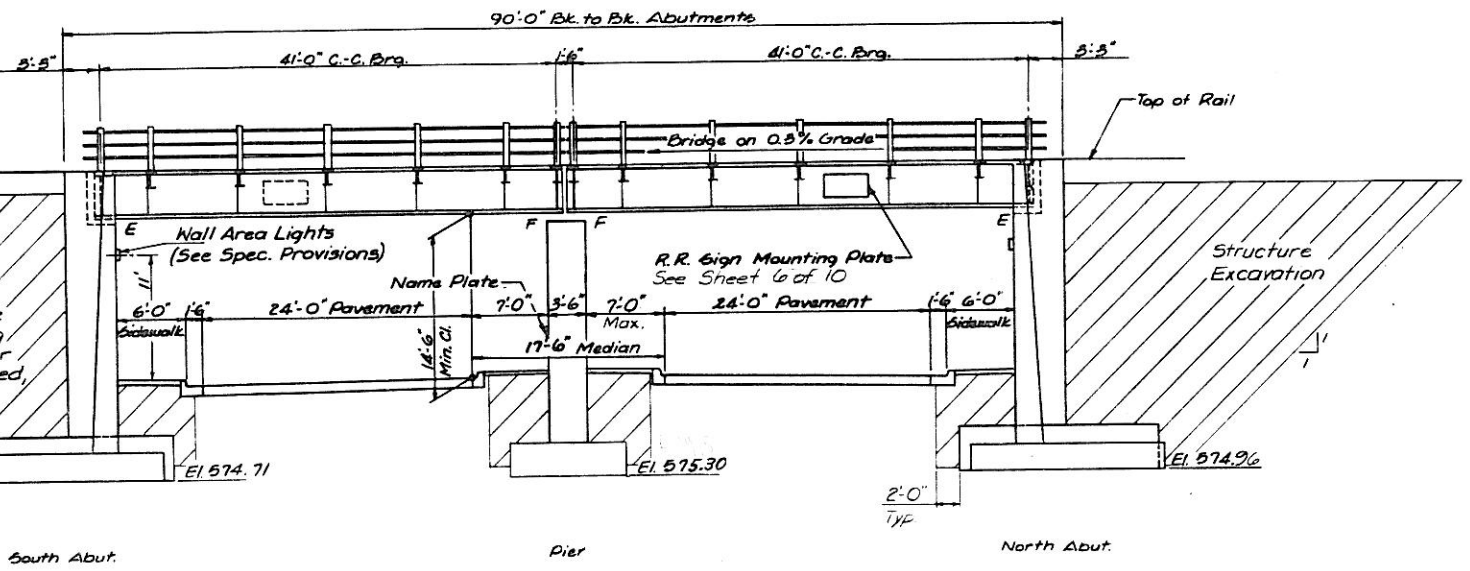
DATE	BY	CHKD	TOTAL	NO.
7/25	CE-1	S. Iqumon	101	70
NO. ROAD DIST. NO. 7		DESIGN	PROJECT	

B.M. #1 - C.G.S. Marker #L-13 (1933) @ W. End  
 S. Abut. R.R. Bridge - El. 594.74

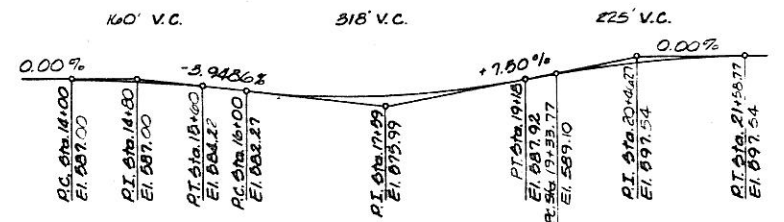
Existing Structure - Three Track Structure  
 with One Thru Steel Girder Span and Two  
 Reinforced Concrete Slab Spans.  
 Concrete Gravity Abutments and  
 Reinforced Concrete Piers.

Salvable Material to become  
 Property of the Contractor.

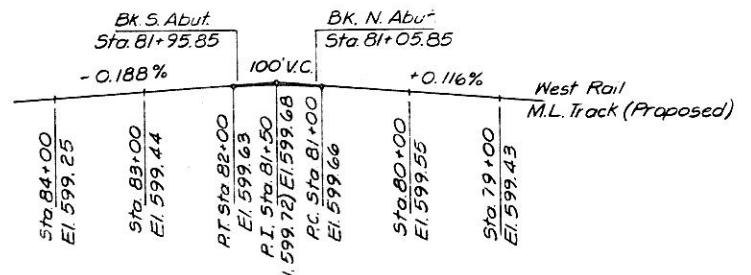
To protect shale during exposure  
 in excavations, undercut footing  
 elev. 6" and, immediately after  
 last lift of excavation is removed,  
 pour 6" of seal Coat.



**ELEVATION**  
 (Looking West)

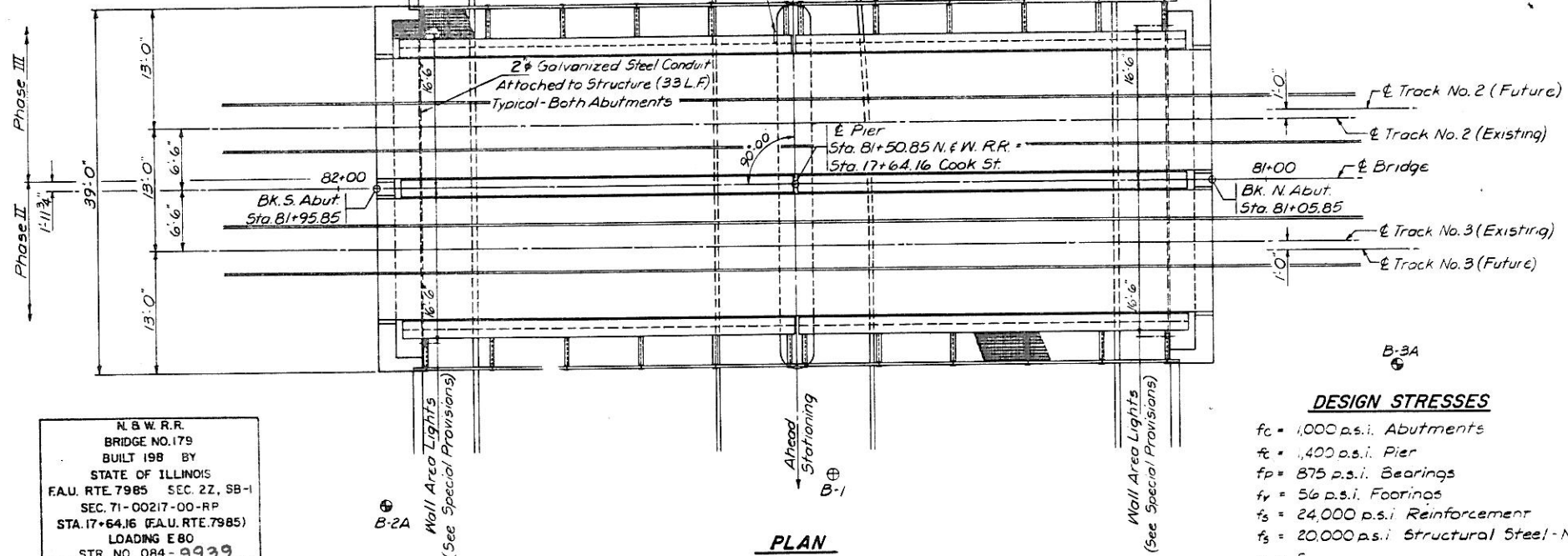


**PROPOSED PROFILE GRADE F.A.U. RTE. 7985**



**PROPOSED TOP OF RAIL ELEVATIONS  
 MAIN LINE TRACK (TRACK NO. 2)**

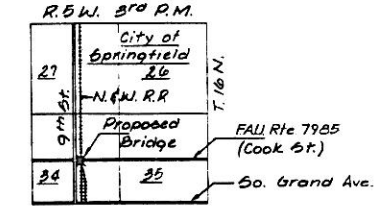
Phase I consists of the removal of the  
 easterly portion of the existing structure  
 supporting tracks 2 & 3 and the construction  
 of a temporary trestle to support  
 track 4.



**PLAN**

**DESIGN STRESSES**

- $f_c = 1,000$  p.s.i. Abutments
  - $f_c = 1,400$  p.s.i. Pier
  - $f_p = 875$  p.s.i. Bearings
  - $f_f = 56$  p.s.i. Floorings
  - $f_s = 24,000$  p.s.i. Reinforcement
  - $f_s = 20,000$  p.s.i. Structural Steel - M183
  - $n = 9$
  - $f_s = 27,000$  p.s.i. Ballast  $\#$  M222
- 1984 A.R.E.A. Specifications & 1985-86 Supplements  
 Loading: Cooper E-80 Plus Diesel Impact



**LOCATION SKETCH**

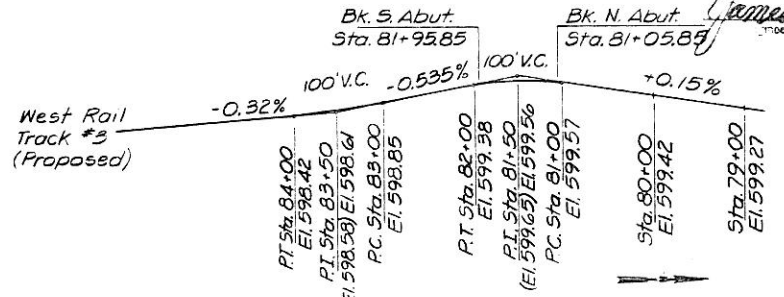
**GENERAL NOTES**

1. SPECIFICATIONS FOR MATERIAL & WORKMANSHIP: 1984 AREA SPECIFICATIONS WITH 1985 & 1986 SUPPLEMENTS FOR STRUCTURAL STEEL - STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION ADOPTED OCTOBER 1, 1983 FOR OTHER MATERIAL NOT COVERED BY SPECIAL PROVISIONS.
2. SEE SHEET 2 OF 10 FOR BORING DATA.
3. FASTENERS SHALL BE HIGH STRENGTH BOLTS. BOLTS 7/8"  $\phi$ , OPEN HOLES 15/16"  $\phi$ , UNLESS OTHERWISE NOTED.
4. CALCULATED WEIGHT OF STRUCTURAL STEEL = 246,730 Lbs. - M183 & 73,150 Lbs. - M222
5. THE ZINC-SILICATE AND VINYL PAINT SYSTEM SHALL BE USED FOR SHOP AND FIELD PAINTING OF STRUCTURAL STEEL EXCEPT WHERE OTHERWISE NOTED.
6. THE BACK FACE OF CLOSED ABUTMENTS SHALL BE WATERPROOFED ACCORDING TO ARTICLE 503.11 OF THE STANDARD SPECIFICATIONS.
7. ALL WELDING SHALL BE IN ACCORDANCE WITH THE 1984 AMERICAN RAILROAD ENGINEERING ASSOCIATION MANUAL WITH 1985 & 1986 SUPPLEMENTS.
8. FIELD WELDING OF CONSTRUCTION ACCESSORIES WILL NOT BE PERMITTED TO THE BOTTOM FLANGE OF BEAMS OF GIRDERS. FIELD WELDING IN OTHER AREAS WILL BE PERMITTED ONLY WHEN APPROVED BY THE ENGINEER.
9. ANCHOR BOLTS SHALL BE SET BEFORE BOLTING FLOOR BEAMS OVER SUPPORTS.
10. THE MAIN LOAD CARRYING MEMBER COMPONENTS SUBJECT TO TENSILE STRESS SHALL CONFORM TO THE SUPPLEMENTAL REQUIREMENTS FOR NOTCH TOUGHNESS ZONE 2. THE FRACTURE-CRITICAL COMPONENTS ARE THE FLANGES AND WEBS OF THE STEEL GIRDERS. THE WIDE FLANGE FLOOR BEAMS SHALL CONFORM TO THE NOTCH TOUGHNESS REQUIREMENTS.
11. REINFORCEMENT BARS SHALL CONFORM TO THE REQUIREMENTS OF AASHTO M31, M42 OR M-53 GRADE 60.
12. SEE SPECIAL PROVISIONS FOR ITEMS BUTYL RUBBER MEMBRANE, DECK DRAINS, AND STRUCTURAL STEEL.
13. ALL HIGH STRENGTH BOLT CONNECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE LATEST ISSUE OF THE SPECIFICATIONS FOR STRUCTURAL JOINTS USING ASTM A325(M164) OR A490(M253) BOLTS FOR SLIP-CRITICAL CONNECTIONS. EXCEPT TIGHTENING METHODS USING EITHER THE LOAD INDICATING WASHERS OR THE CALIBRATED WRENCH ARE NOT ALLOWED.

**NOTE:** See Proposed Construction Sequence Sht. for Construction Phasing.

**APPROVED**  
 FOR STRUCTURAL DESIGN ONLY

*James J. Paulson*  
 REGISTERED PROFESSIONAL ENGINEER  
 No. 01213



**PROPOSED TOP OF RAIL ELEVATIONS - TRACK NO. 3**

N. & W. R.R.  
 BRIDGE NO. 179  
 BUILT 198 BY  
 STATE OF ILLINOIS  
 F.A.U. RTE. 7985 SEC. 22, SB-1  
 SEC. 71-00217-00-RP  
 STA. 17+64.16 (F.A.U. RTE. 7985)  
 LOADING E80  
 STR. NO. 084-9939

**LETTERING FOR NAMEPLATE**  
 For Location See Sheet 10 of 10  
 (See Special Provisions)

**GENERAL PLAN & ELEVATION**  
**F.A.U. RTE. 7985**  
**SEC. 22, SB-1 SEC. 71-00217-00-RP**  
**SANGAMON COUNTY**

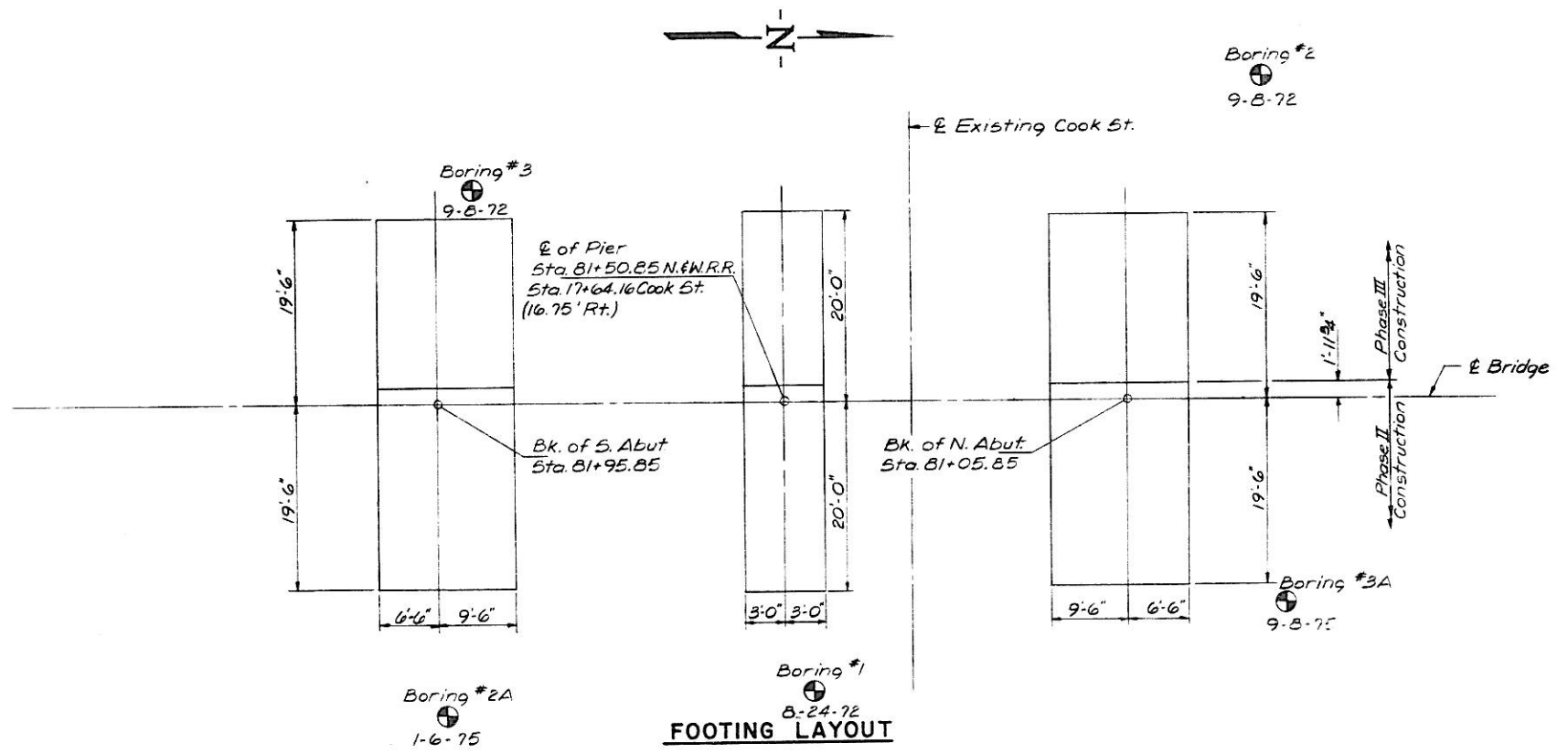


DESIGNED JEH  
 CHECKED TRG  
 DRAWN DAB  
 CHECKED TRG

FILE NO.  
 84S10B1  
 DATE  
 1-PC

TOTAL BILL OF MATERIAL (PERMANENT STRUCTURE)

ITEM	UNIT	SUB	SUPER	TOTAL
Porous Gran. Backfill	Cu. Yds.	1,386	-	1,386
Removal of Existing Structures	L. Sum	-	-	1
Structure Excavation	Cu. Yds.	1,593	-	1,593
Rock Excavation For Structure	Cu. Yds.	79	-	79
Deck Drains	Lin. Ft.	-	364	364
Class X Concrete	Cu. Yds.	505.8	-	505.8
Structural Steel	L. Sum	-	1	1
Steel Railing	Lin. Ft.	-	164	164
Reinforcement Bars	Lbs.	46,910	-	46,910
Name Plates	Ea.	1	-	1
Pipe Drains C.S. 8"	Lin. Ft.	126	-	126
Grating	Sq. Ft.	-	516	516
Membrane Waterproofing	Sq. Ft.	-	2,700	2,700
Pipe Underdrain 8 Sp.	Lin. Ft.	78	-	78
Conduit Attached To Structure	Lin. Ft.	76	-	76
2" Dia. Galvanized Steel				
Luminaire, Sodium Vapor, Vertical Mount, 150 WATT'S	Ea.	4	-	4
Seal Coat Concrete	Cu. Yds.	27.5	-	27.5



Elevation	Boring #1 8-24-72 Sta. 17+95 13' Rt.			Boring #2 9-8-72 Sta. 17+16 46' Lt.			Boring #2A 1-6-75 Sta. 17+98 61' Rt.			Boring #3 9-8-72 Sta. 17+30 57' Rt.			Boring #3A 1-6-75 Sta. 17+84 48' Lt.		
	N	Qu	W	N	Qu	W	N	Qu	W	N	Qu	W	N	Qu	W
600															
595															
590															
585															
580															
575															
570															
565															
560															

Note: Shale had to be pressed out of core barrel - compressed sample from 4.0 to 2.5' in process of removing sample.

BORING DATA

N = Standard Penetration Test  
Number of blows to drive 2" OD Split Spoon Sampler 12" with 140# Wt falling 30"

A = Percent of Core Recovered  
B = Amount of Penetration (inches)  
C = Amount Recovered (inches)

Qu = Unconfined Compressive Strength, Tsr  
Qu in ( ) = Compressive Strength found by Standard Penetrometer Test.

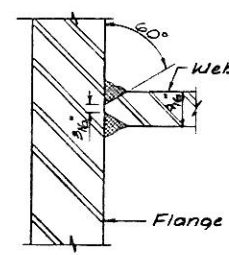
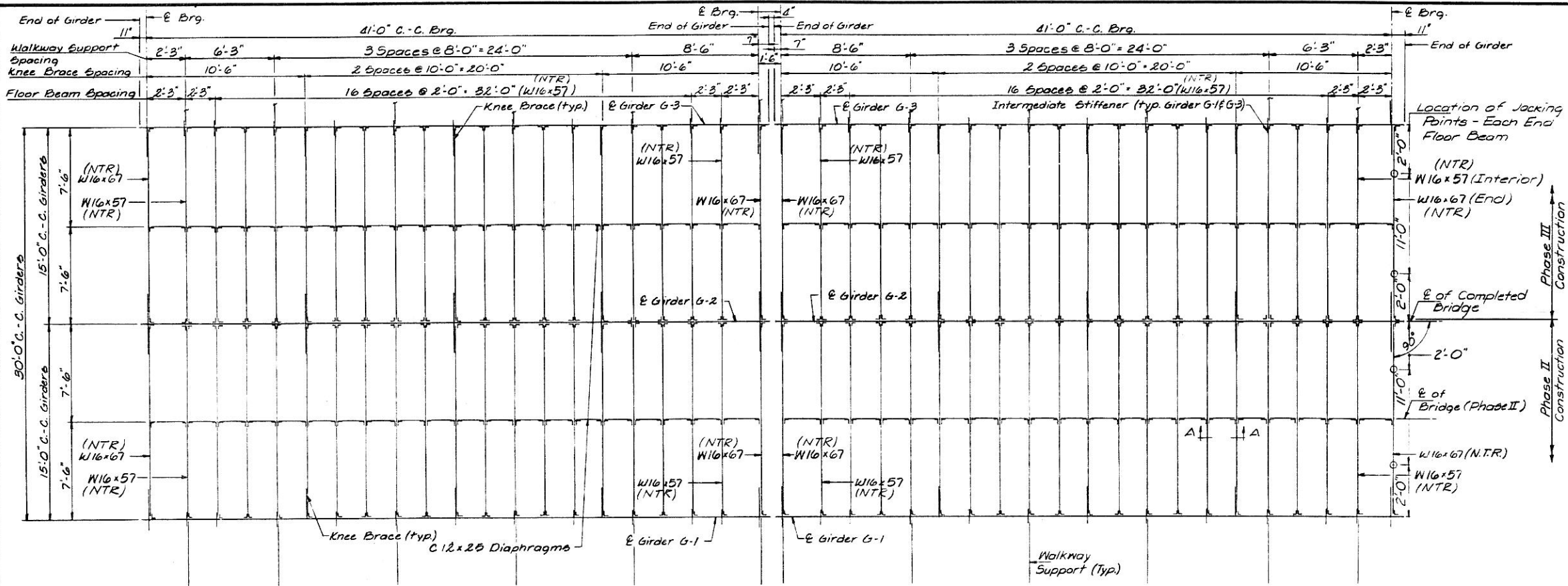
W = Water Content % Oven Dry Weight

BRIDGE - BORING AND FOOTING LAYOUT  
F.A.U. RTE. 7985  
SEC. 22, SB-1 SEC. 71-00217-00-RP  
SANGAMON COUNTY

TEH		FILE NO.
JEH		8451081
DB&JH		DATE
TEH		1-19-87

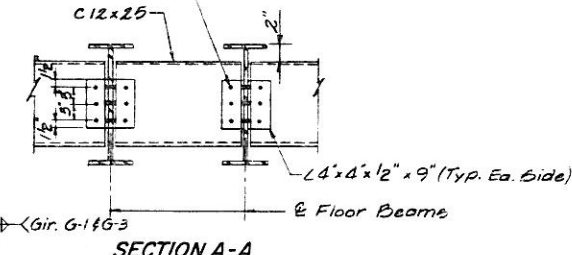
DATE	REV.	DESCRIPTION	TOTAL SHEETS	SHEET NO.
F.A.U. 7/9/85	2	Sangamon	101	72
FUEL ROAD DIST. NO. 7		ILLINOIS PROJECT		

Sheet 3 of 10

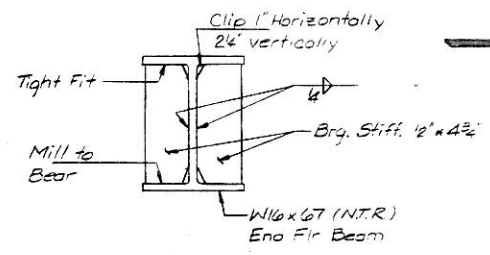


Groove Weld TC-U5-B(A.W.S)  
**FLANGE TO WEB WELD DETAIL**  
(Girder G-1 & G-3)

7/8" φ H.S. Bolts, 1/4" φ holes  
Use 2 hardened washers in Diaphragm Connections

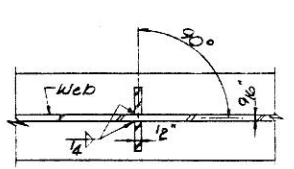


**SECTION A-A**

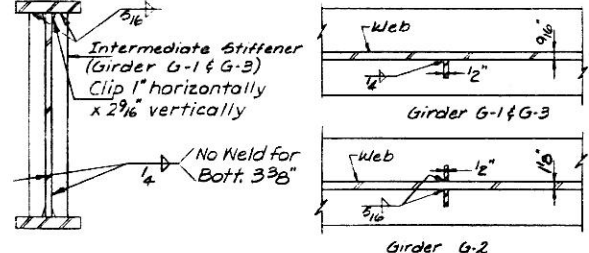


**BRG. STIFFENER-END FLOOR BEAM**  
(Locate at Jacking Points)

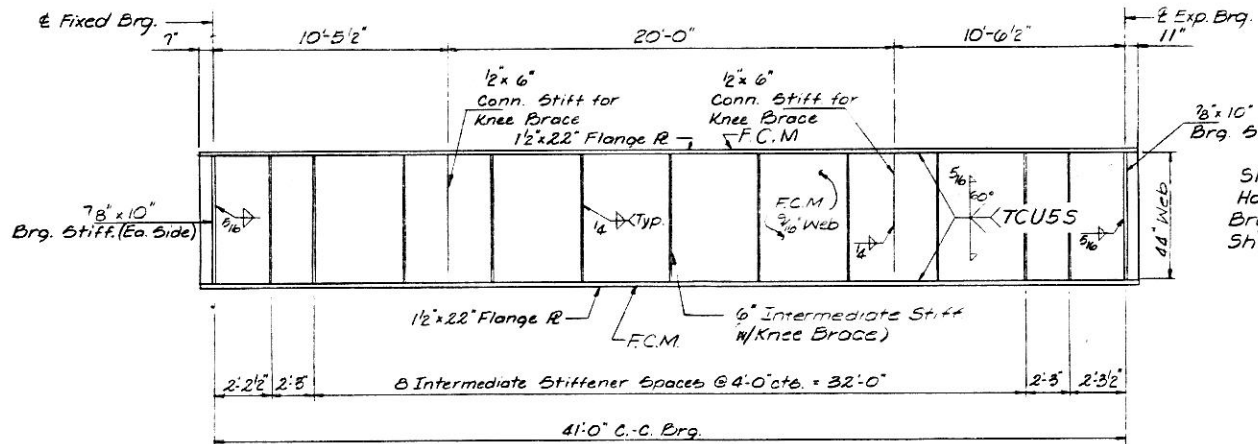
**FRAMING PLAN**



**INTERMEDIATE STIFFENER DETAILS**

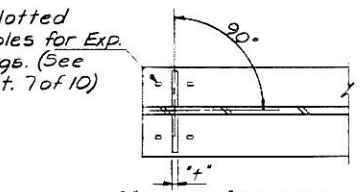


**CONNECTION STIFFENER DETAILS**

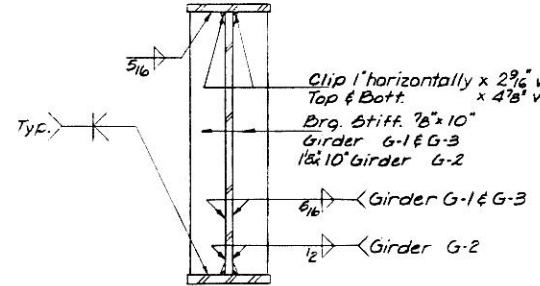


**INTERIOR ELEVATION OF GIRDER G-1 & G-3**

NOTE: N.T.R. Refers to the Supplemental Requirements for Notch Toughness.  
F.C.M. Indicates Fracture Critical Member



**BEARING STIFFENER DETAILS**



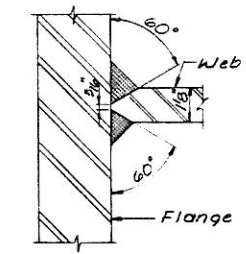
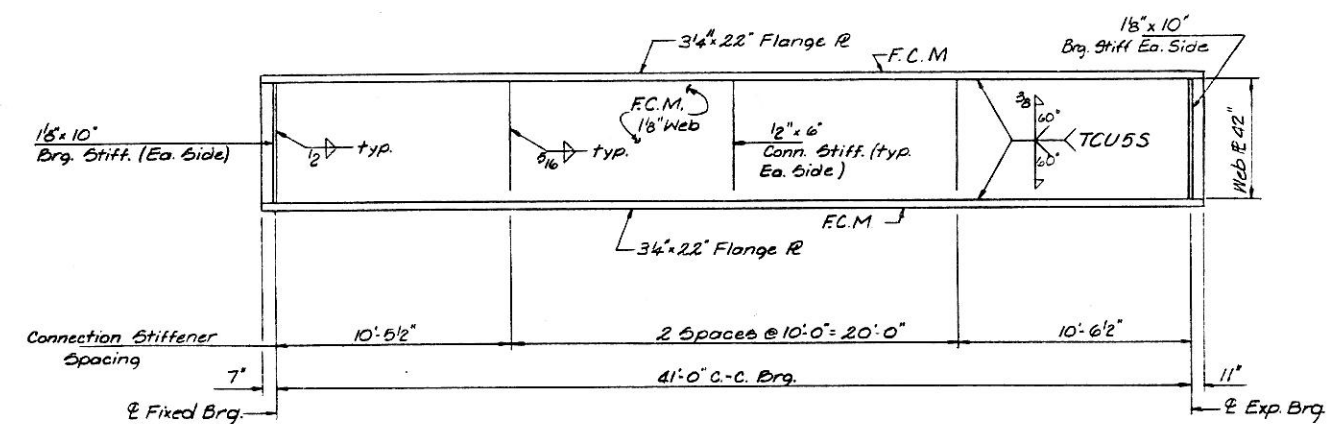
**SECTION**

NOTE: Structural Steel Conforming to AASHTO M183 Silicon-killed fine-grain practice shall be used for all welded components (See Special Provisions)

**STRUCTURAL STEEL FRAMING PLAN & DETAILS**

F.A.U. RTE. 7985  
SEC. 22, SB-1 SEC. 71-00217-00-RP  
SANGAMON COUNTY

DESIGNED BY CHECKED BY DRAWN BY DATE	TEH JEH DAB 1-19-87		FILE NO. DATE	845/081 1-19-87



**FLANGE TO WEB WELD DETAIL**  
(Girder G-2)

**MOMENT & SHEARS FOR FLOOR BEAMS**

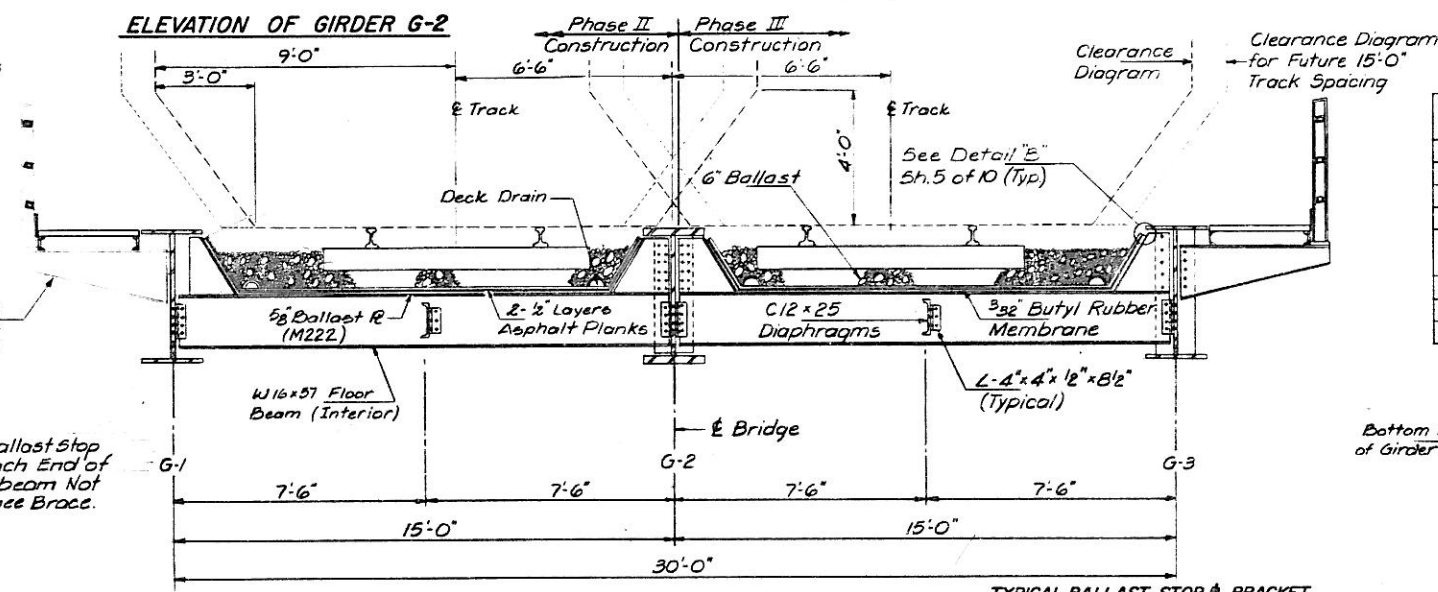
DESCRIPTION	TYPICAL INTERIOR		1 <sup>ST</sup> INTERIOR		END	
	MOMENT	SHEAR	MOMENT	SHEAR	MOMENT	SHEAR
Dead Load	10.5 <sup>K</sup>	2.9 <sup>K</sup>	11.8 <sup>K</sup>	3.2 <sup>K</sup>	11.8 <sup>K</sup>	3.2 <sup>K</sup>
Live Load	9.57	20.9	9.57	20.9	9.57	20.9
Impact	44.0	9.6	44.0	9.6	44.0	9.6
Total	150.2	33.4	151.5	33.7	151.5	33.7
Section	W16x57		W16x57		W16x67	
Net I	752 in <sup>4</sup>		752 in <sup>4</sup>		948 in <sup>4</sup>	
Net S	91.5 in <sup>3</sup>		91.5 in <sup>3</sup>		116.1 in <sup>3</sup>	
f <sub>s</sub>	19.7 ksi		19.9 ksi		15.6 ksi	

I - Moment of Inertia of the Section  
 S - Section Modulus  
 f<sub>s</sub> - Max. unfactored stress in the section due to D and L + Imp

Note: Design Moments and Shears are Based on 12" of Ballast

- ① - Tracks @ 13'-0" Centers
- ② - Tracks @ 15'-0" Centers
- ③ - End Floorbeam Design Governed by A.R.E.A. 1.B.1

**ELEVATION OF GIRDER G-2**



**MOMENT & SHEAR PER GIRDER**

DESCRIPTION	INTERIOR GIRDER		EXTERIOR GIRDER	
	MOMENT	SHEAR	MOMENT	SHEAR
Dead Load	74.6 <sup>K</sup>	7.3 <sup>K</sup>	38.2 <sup>K</sup>	3.7 <sup>K</sup>
Live Load	31.04	34.8	13.69	15.4
Impact	12.11	13.6	5.34	6.0
Total	50.61	55.7	22.35	25.1
Section	Web @ 1/8" x 42"		Web @ 9/16" x 44"	
	Flange @ 3" x 22"		Flange @ 1 1/2" x 22"	
Net I	7982.9		3794.0	
Net S	329.2		161.5	
f <sub>s</sub>	18.5 ksi		17.0 ksi	

**TOP OF WEB ELEVATIONS**

DESCRIPTION	G-11G-3	G-2
± Brq. Ea. Abut.	599.59	599.42
± Brq. So. Pier	599.71	599.54
± Brq. No. Pier	599.71	599.54
± Brq. No. Abut.	599.84	599.67

NOTE: N.T.R. Refers to the Supplemental Requirements for Notch Toughness. F.C.M. indicates Fracture Critical Member

Note: Place Ballast Stop Plate on Each End of Each Floorbeam Not having a Knee Brace.

**BALLAST STOP PLATE BRACKET**  
(W/O Stiffener)

**TYPICAL BALLAST STOP & BRACKET**  
(W/O Stiffener)

**TYPICAL KNEE BRACE**

**TYPICAL DECK CROSS SECTION**  
(Looking South)

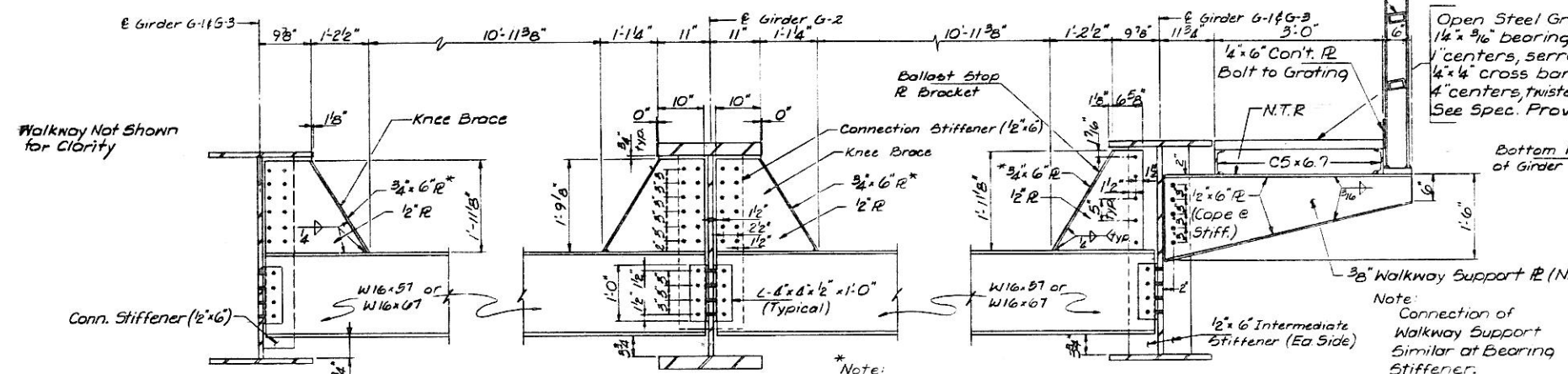
**TYPICAL BALLAST STOP & BRACKET**  
(W/ Stiffener)

**ANGLE CONNECTION**

**BILL OF MATERIAL**

Item	Unit	Quantity
Deck Drain	Lin. Ft.	364
Structural Steel	L. Sum	1
Steel Railing	Lin. Ft.	164
Membrane Waterproofing	Sq. Ft.	2,700
Grating	Sq. Ft.	516

NOTE: Asphalt planks are incidental to Butyl Rubber Membrane Waterproofing. (See Special Provisions)



**KNEE BRACE**

**KNEE BRACE**

**INTERMEDIATE STIFFENER**

**TYPICAL CONNECTION DETAILS**

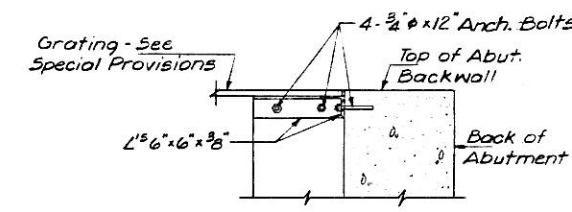
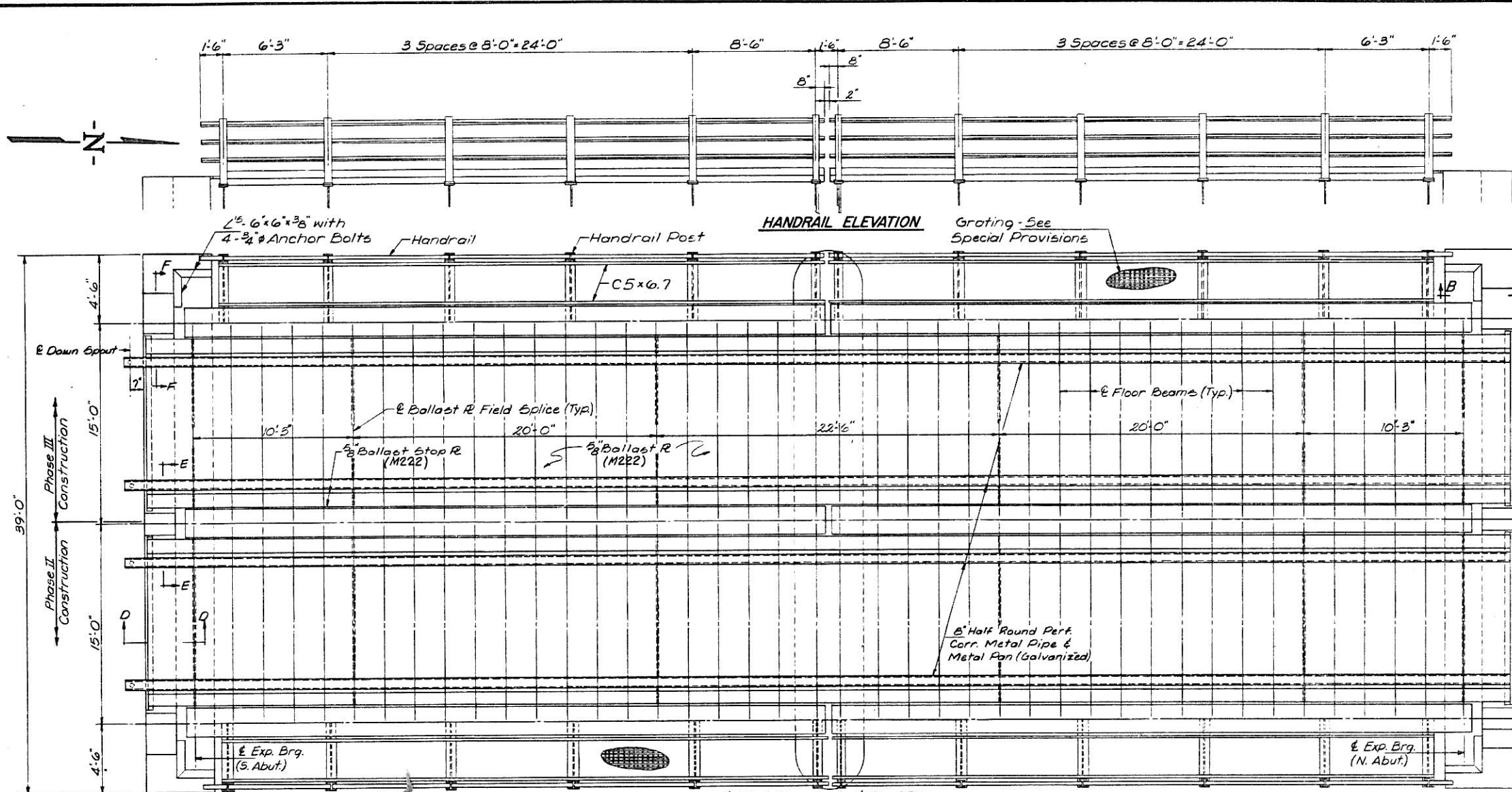
**INTERMEDIATE STIFFENER**

**GIRDER AND CONNECTION DETAILS**  
 F.A.U. RTE. 7985  
 SEC. 22, SB-1 SEC. 71-00217-00-RP  
 SANGAMON COUNTY

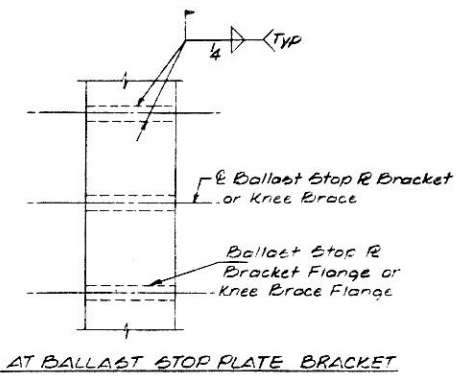
DESIGNED BY	TEH		FILE NO.	BAS/081
CHECKED BY	JEH		DATE	1-19-81
DRAWN BY	DAB			
CHECKED BY	TEH			

ROUTE NO.	SEC.	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.U. 72	7985	Sangamon	101	74
7985	SB-1			

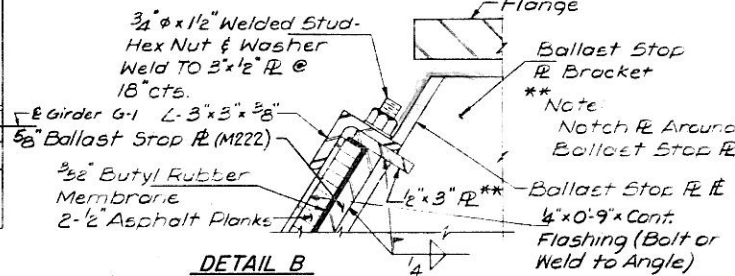
Sheet 5 of 10



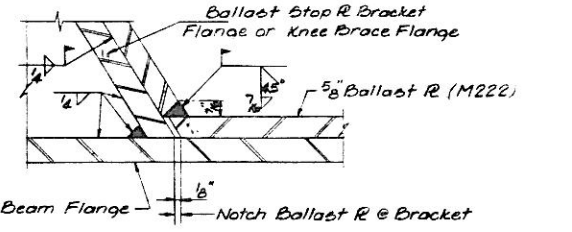
SECTION B-B



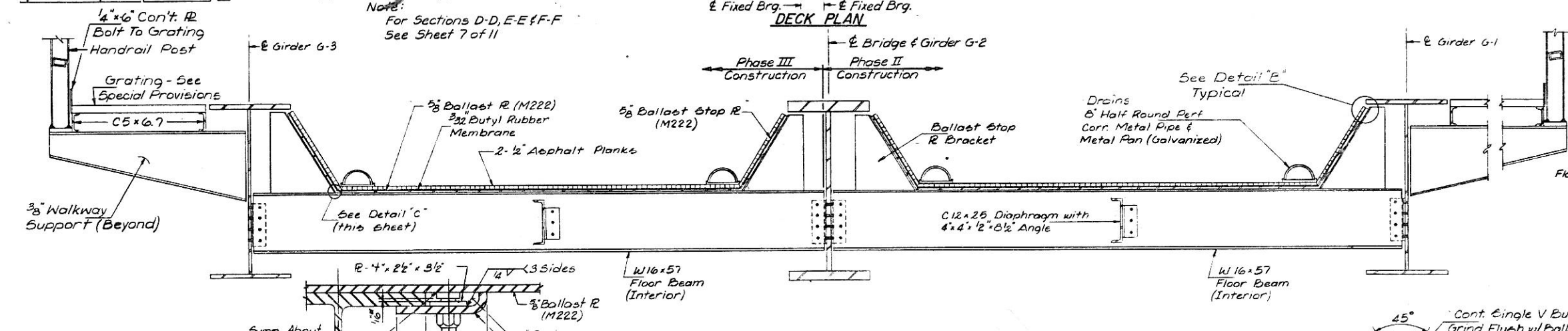
AT BALLAST STOP PLATE BRACKET



DETAIL B



DETAIL C



DECK CROSS SECTION (Looking North)

BALLAST PLATE TO FLOOR BEAM CONNECTION

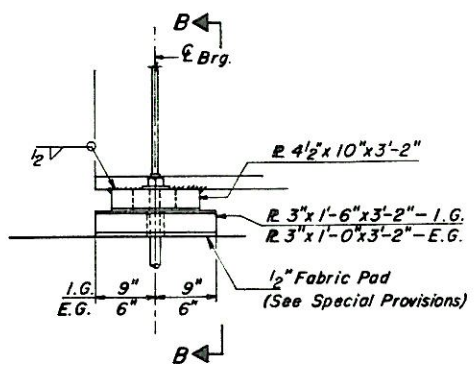
\* For Detailing Only. Clamp to Be Fastened Snug Tight in Field

BALLAST PLATE FIELD SPLICE

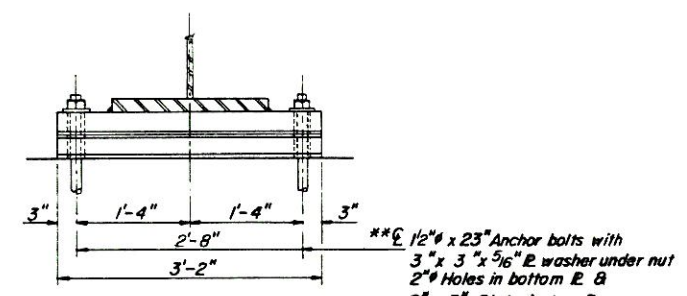
**BALLAST PLATE DETAILS**  
 F.A.U. RTE. 7985  
 SEC. 22, SB-1 SEC. 71-00217-00-RP  
 SANGAMON COUNTY

DESIGNED TEH		FILE NO.	8451081	
CHECKED JEH		DATE	1-19-87	
DATE DAB				
CHECKED TEH				

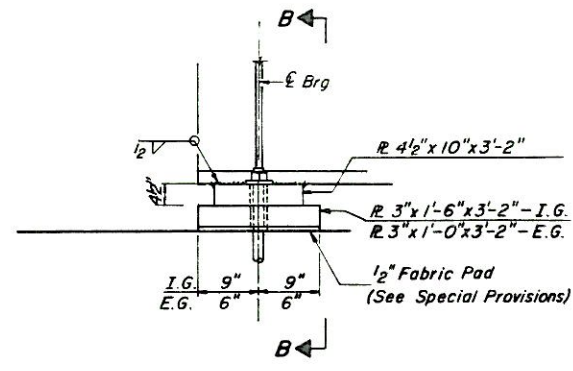
SPRINGFIELD, ILLINOIS      PEORIA, ILLINOIS



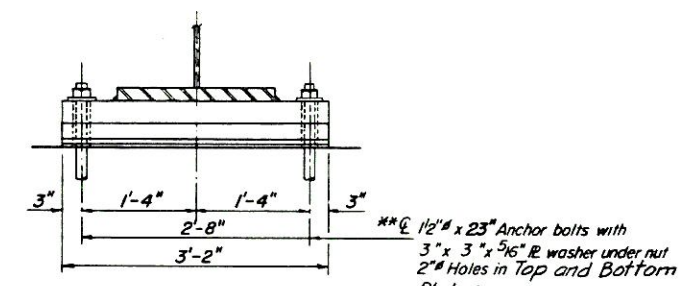
SECTION AT ABUTMENTS



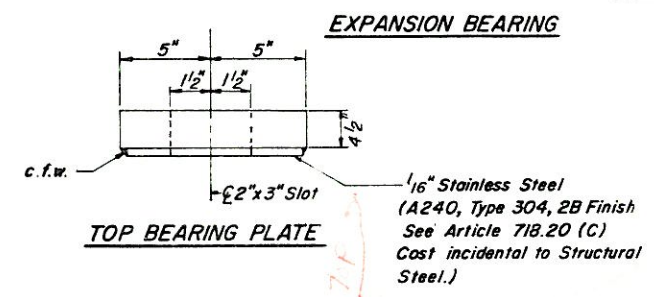
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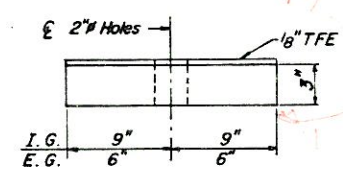
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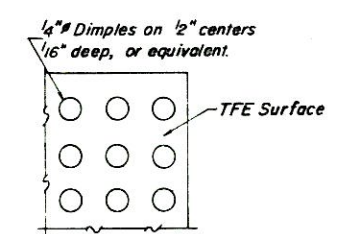
SECTION B-B



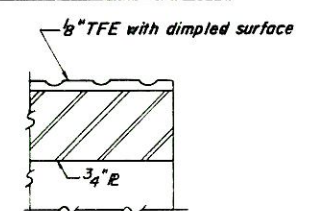
TOP BEARING PLATE



BOTTOM BEARING PLATE

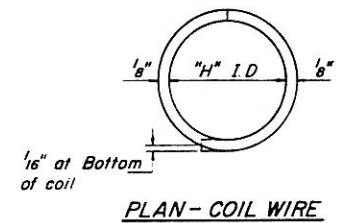


PLAN-TFE SURFACE

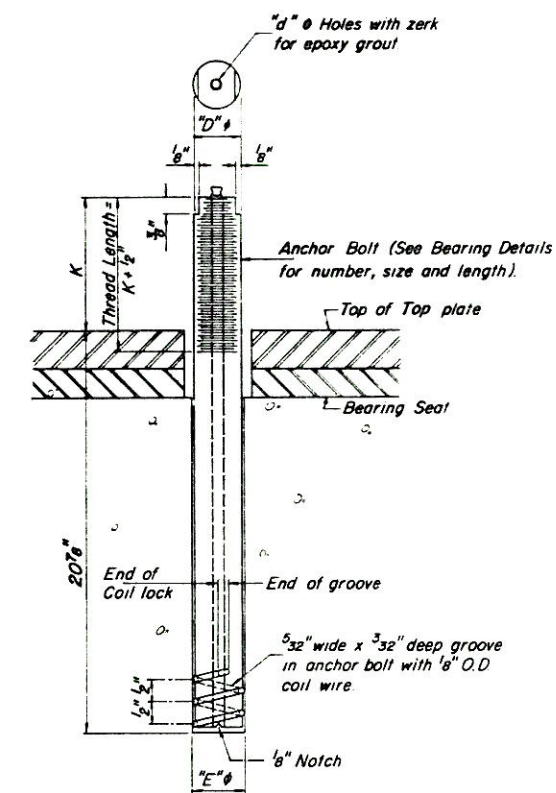


SECTION THRU TFE

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



PLAN-COIL WIRE



ILLINOIS COIL-LOCK ANCHOR BOLT (Showing Fixed Brg. - Exp. Brg. Similar)

\*\*Notes: Anchor bolts at fixed bearings may be built into the masonry. See sheet nos. 8 & 10 of 10 for Anchor Bolt installation.

**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.

**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 "Furnishing and Erecting Structural Steel".

Note: The 1/8 inch TFE sheet shall be bonded directly to the bottom steel plate with a two-component, medium viscosity epoxy resin, conforming to the requirements of the Federal Specification MMM-A-134, Type I. The bond agent shall be applied on the full area of the contact surfaces. See Article 718.20 (b) of the Standard Specification.

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.

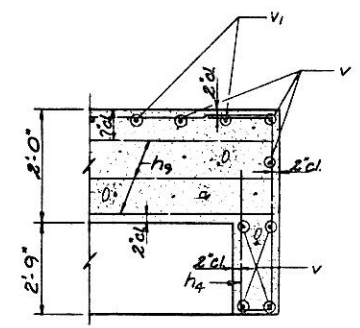
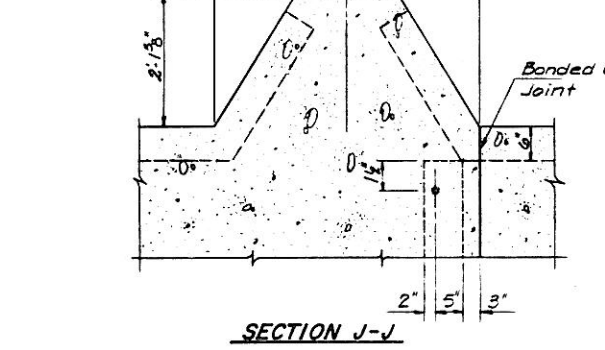
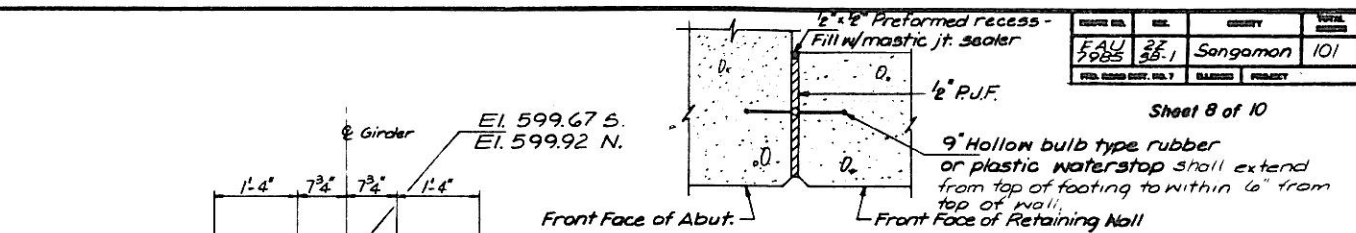
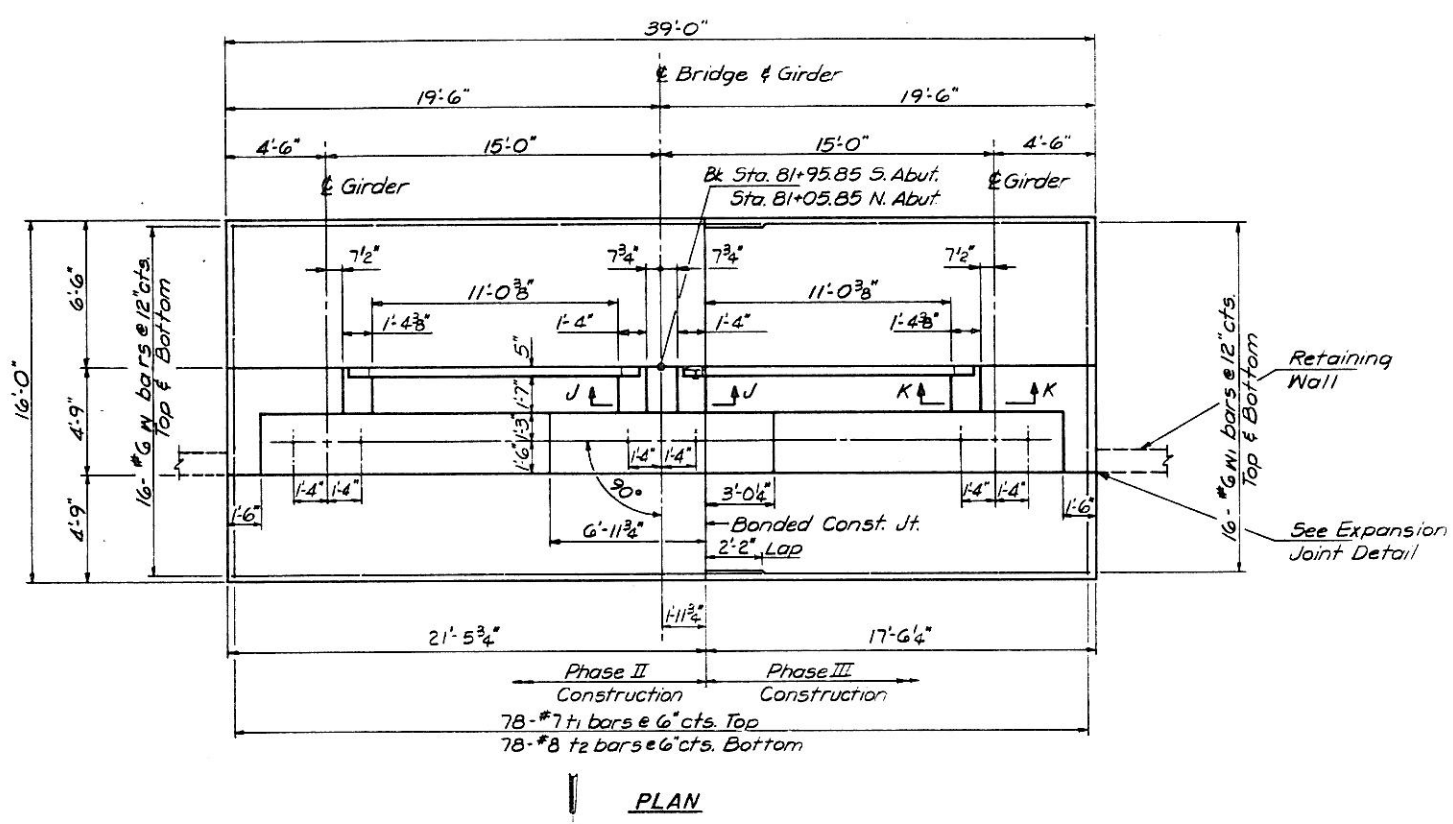
**BEARINGS**  
 F.A.U. RTE. 7985  
 SEC. 27, SB-1 SEC. 71-00217-00-RP  
 SANGAMON COUNTY

DESIGNED T.E.H. CHECKED J.E.H. DRAWN M.A.E. CHECKED T.E.H.		FILE NO. 8451081 DATE 1-19-87
---------------------------------------------------------------------	--	----------------------------------

SPRINGFIELD, PEORIA & ROCKFORD, ILLINOIS

PROJECT NO.	8451081	DATE	1-19-87
CONTRACT NO.	7985	SECTION	22, 27, 28-1
CITY	Sangamon	NO. OF SHEETS	101
STATE	ILLINOIS	DESIGNED BY	TEH
		CHECKED BY	DB & DN
		APPROVED BY	TEH

Sheet 8 of 10

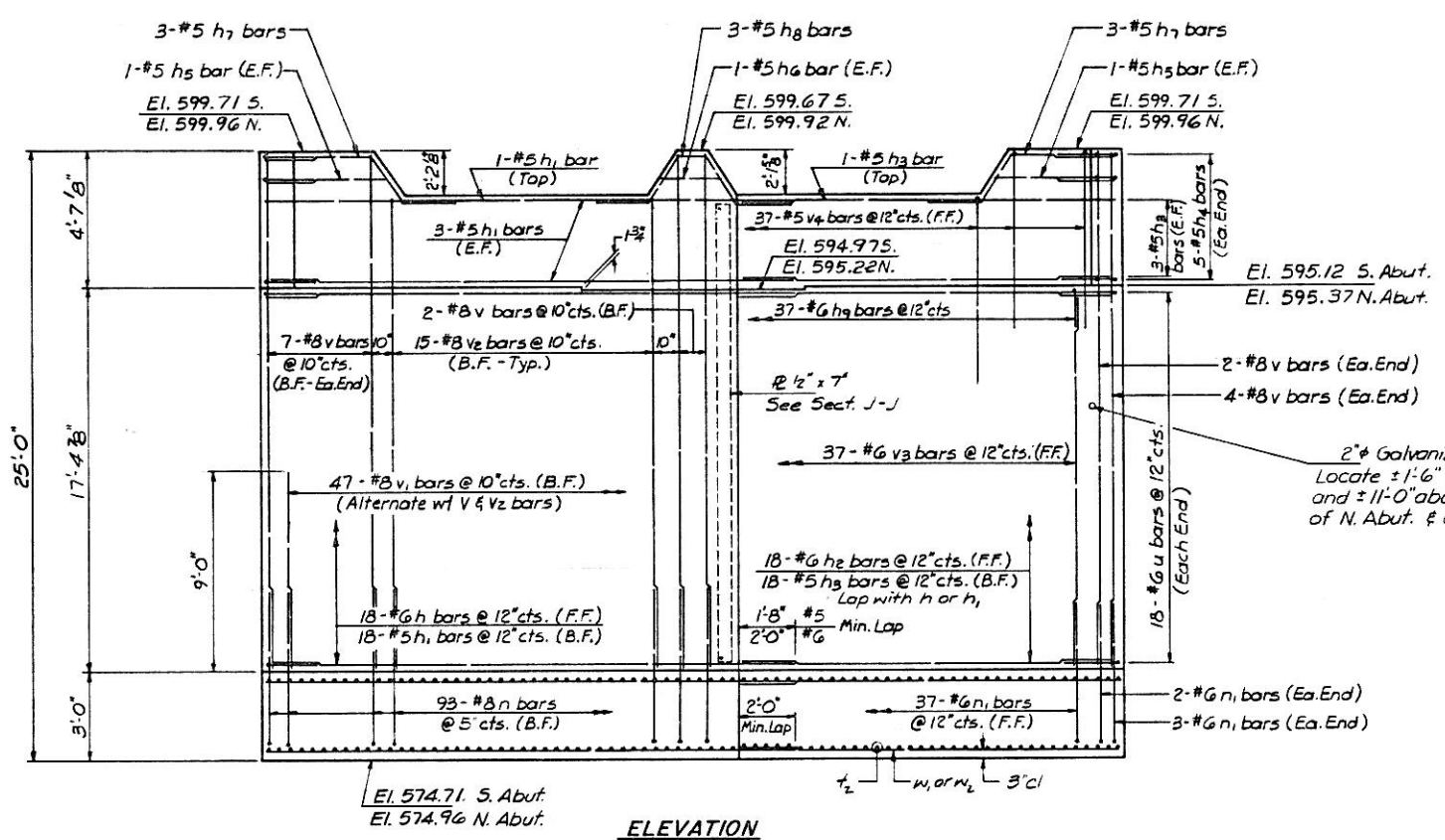
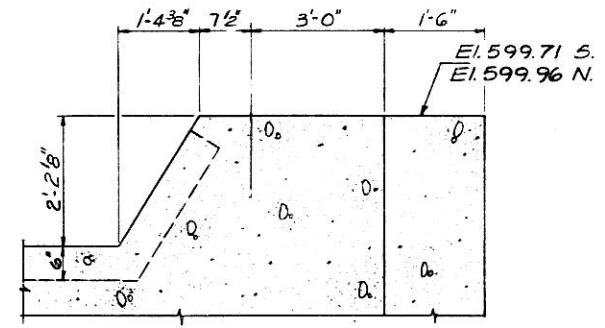


Notes:

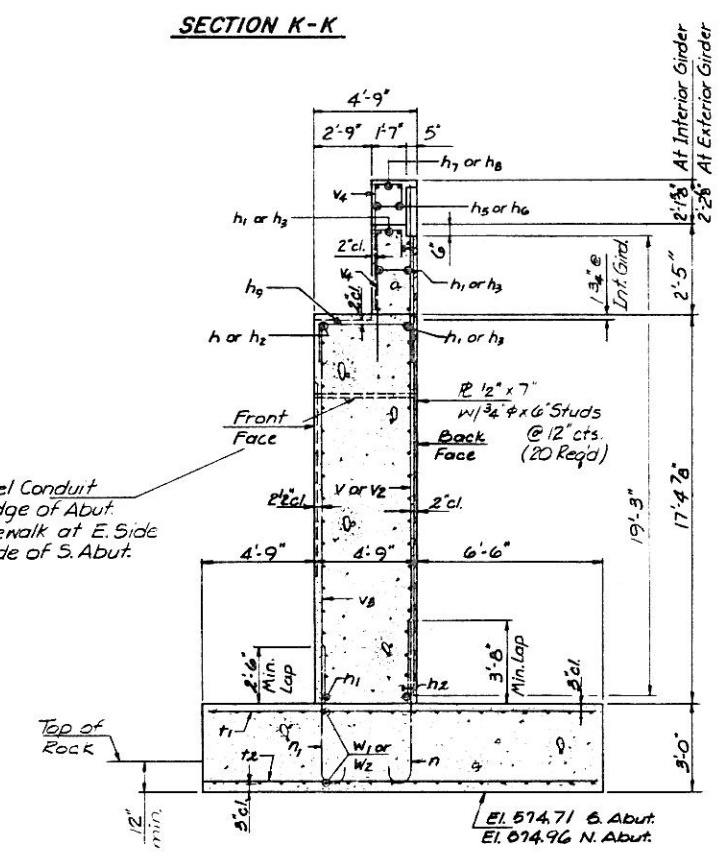
Space reinforcement to miss anchor bolts.

All edges shall have standard 3/4" chamfers except as noted.

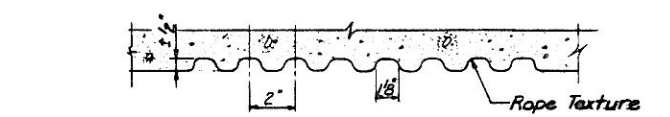
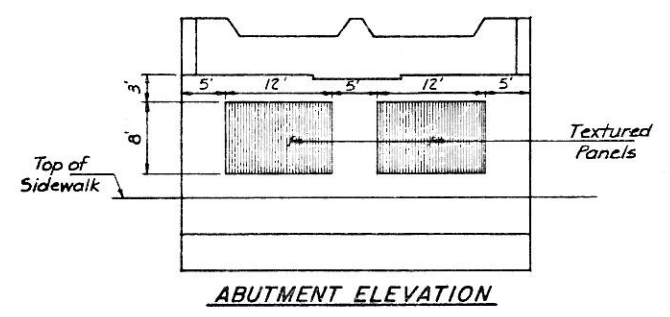
Footing pressure = 9,100 lbs. per sq. ft.



**ELEVATION**  
South Abutment Shown  
North Abutment Similar



**SECTION THRU ABUTMENT**



**SECTION THRU TEXTURED PANELS**

Note:

The use of reverse image poly-vinyl plastic sheets (Form Liners), attached to concrete forms, will produce the textured surfaces as depicted. See Special Provisions

**ABUTMENTS**

F.A.U. RTE. 7985

SEC. 22, 27, 28-1 SEC. 71-00217-00-RP

SANGAMON COUNTY

TEH

JEH

DB & DN

TEH

**HANSON ENGINEERS INCORPORATED**

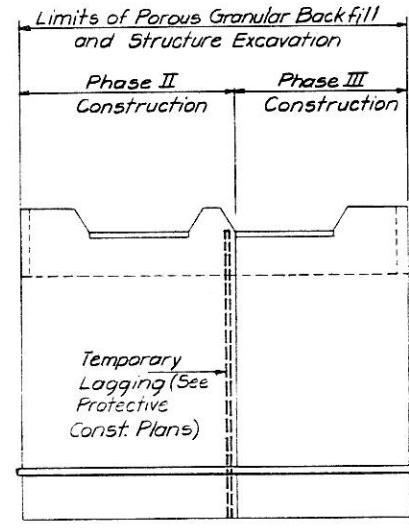
SPRINGFIELD, ILLINOIS PEORIA, ILLINOIS

8451081

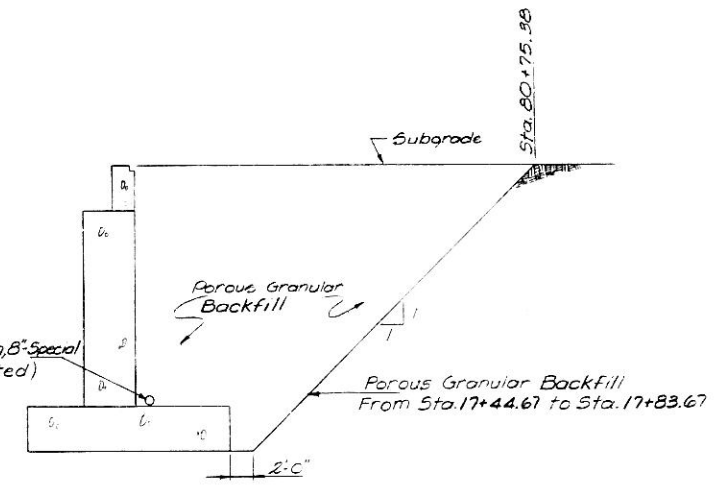
DATE 1-19-87

ROUTE NO.	SEC.	SHEET	TOTAL SHEETS	SHEET NO.
FAU 7985	22	58.1	101	78
FED. ROAD DIST. NO. 7		ILLINOIS	PROJECT	

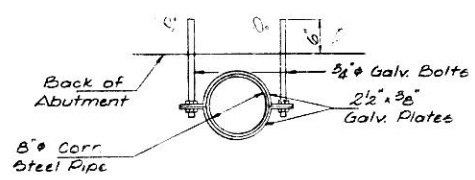
Sheet 9 of 10



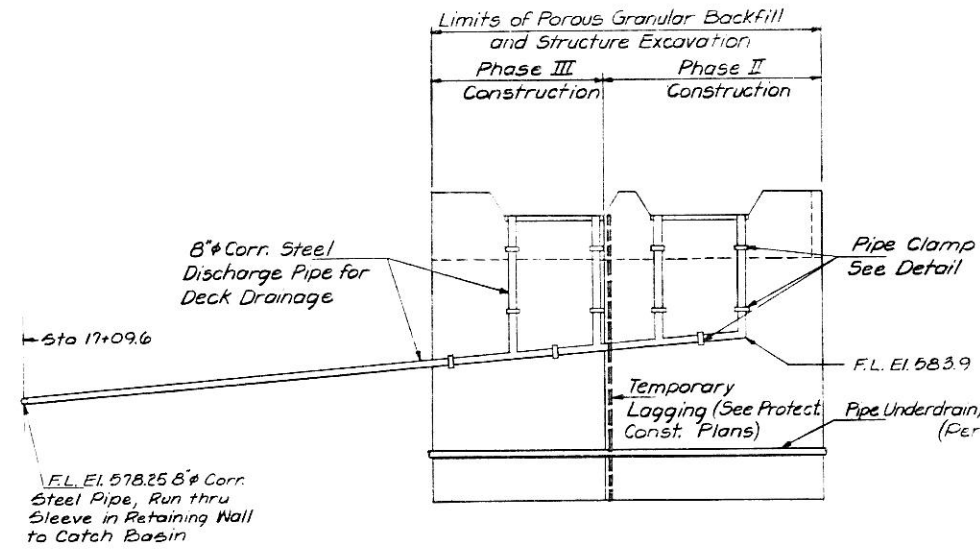
REAR ELEVATION - NORTH ABUTMENT



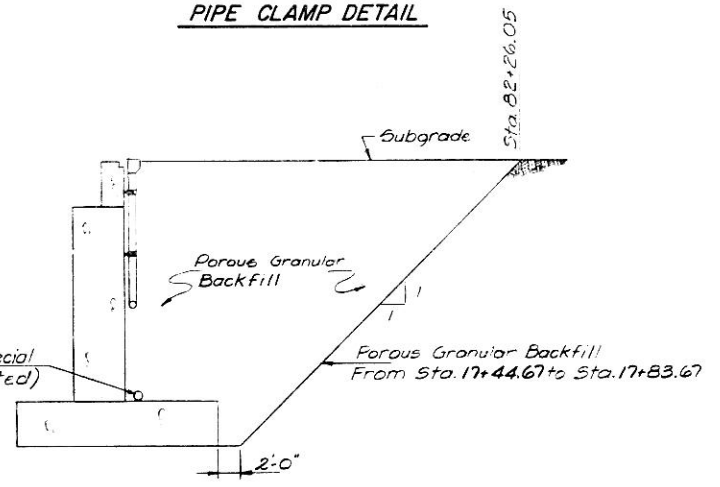
SECTION M-M



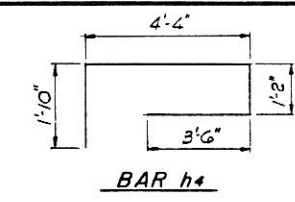
PIPE CLAMP DETAIL



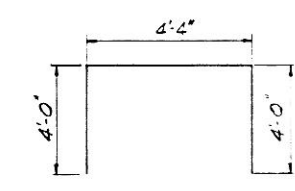
REAR ELEVATION - SOUTH ABUTMENT



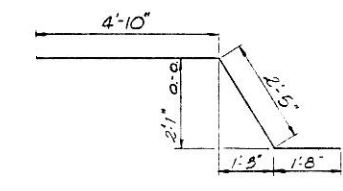
SECTION N-N



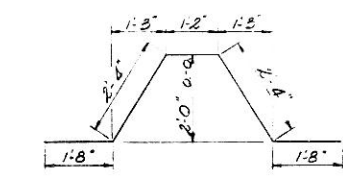
BAR h4



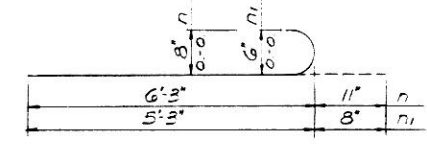
BAR h5



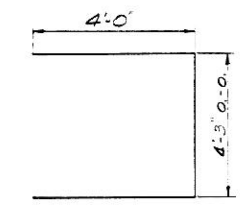
BAR h7



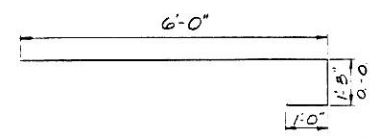
BAR h8



BAR n & n1



BAR u



BAR v4

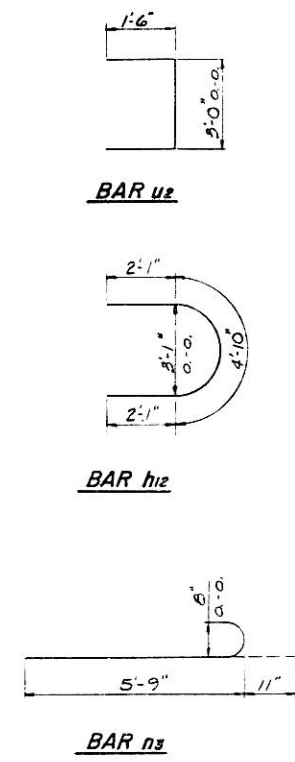
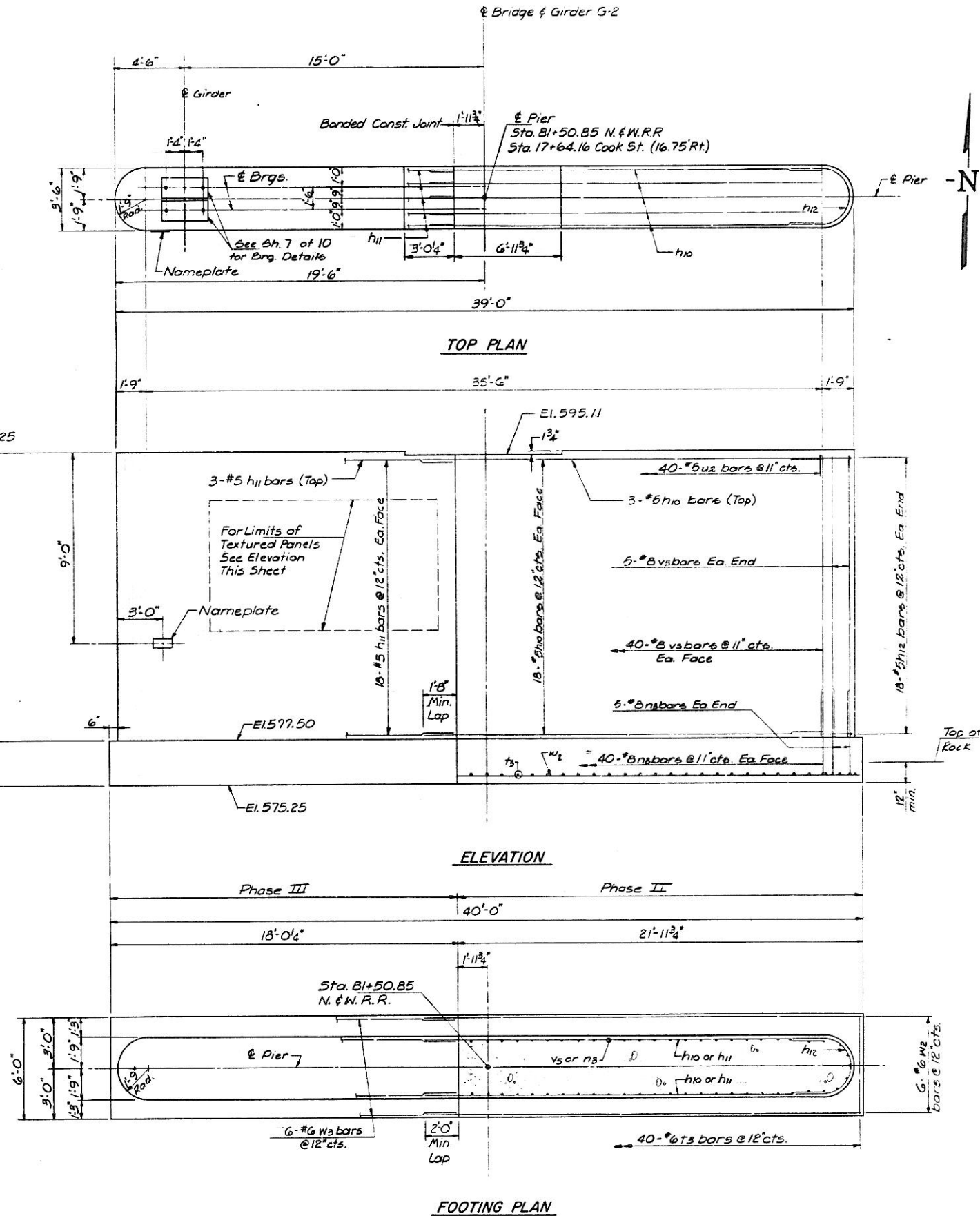
BILL OF MATERIAL  
TWO ABUTMENTS

BAR NO.	SIZE	LENGTH	SHAPE
h	36	#6	23'-6"
h1	50	#5	23'-3"
h2	36	#6	17'-3"
h3	50	#5	17'-3"
h4	20	#5	10'-10"
h5	8	#5	5'-6"
h6	4	#5	2'-3"
h7	12	#5	8'-11"
h8	6	#5	9'-2"
h9	74	#6	12'-4"
n	186	#3	7'-2"
n1	94	#6	5'-11"
n1	156	#7	15'-6"
n2	156	#8	15'-6"
u	72	#6	12'-3"
v	56	#8	2'-9"
v1	94	#3	9'-0"
v2	60	#3	19'-6"
v3	74	#6	17'-1"
v4	74	#5	8'-3"
w	64	#6	23'-9"
w1	64	#6	17'-3"
Class 2 Concrete		Cu. Yds.	398.4
Reinforcement Bars		Lbs.	38,370
Structure Excavation		Cu. Yds.	1,521
Rock Exc. Struct.		Cu. Yds.	84
Porous Gran Backfill		Cu. Yds.	1,338
Pipe Drains C5 B		Lin. Ft.	125
Pipe Underdrain B Sp.		Lin. Ft.	78
Seal Coat Concrete		Cu. Yds.	23.1

ABUTMENT DETAILS  
F.A.U. RTE. 7985  
SEC. 22, SB-1 SEC. 71-00217-00-RP  
SANGAMON COUNTY

DESIGNED: JEH		FILE NO:
CHECKED: TRG		8451081
DRAWN: DB&DN		DATE:
CHECKED: TRG		1-19-87

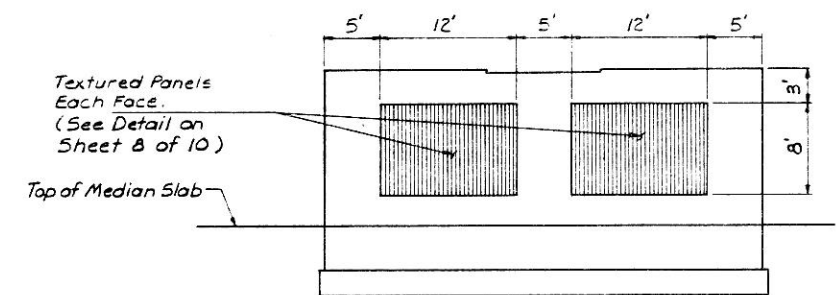




**BILL OF MATERIAL - PIER**

BAR	NO	SIZE	LENGTH	SHAPE
h10	39	#5	21'-9"	—
h11	39	#5	15'-9"	—
h12	36	#5	9'-0"	U
n3	90	#8	6'-3"	—
t3	40	#6	5'-6"	—
u2	40	#5	6'-0"	U
v5	90	#8	17'-6"	—
w2	6	#6	24'-0"	—
w3	6	#6	18'-9"	—
Class X Concrete			Cu. Yds.	107.8
Reinforcement Bars			Lbs.	8,540
Structure Excavation			Cu. Yds.	72
Rock Exc. Struct.			Cu. Yds.	13
Name Plates			Ea.	1
Porous Gran. Backfill			Cu. Yds.	48
Seal Coat Concrete			Cu. Yds.	4.4

Notes:  
 Space reinforcement to miss anchor bolts.  
 All edges shall have standard  $\frac{3}{4}$ " chamfers except as noted.  
 Footing pressure = 10,000 lbs per sq. ft.



**PIER ELEVATION**

**PIER**  
 F.A.U. RTE. 7985  
 SEC. 22, SB-1 SEC. 71-00217-00-RP  
 SANGAMON COUNTY