

78046

FRANKLIN JLR

#108

1-16-09 Letting, Item 108

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

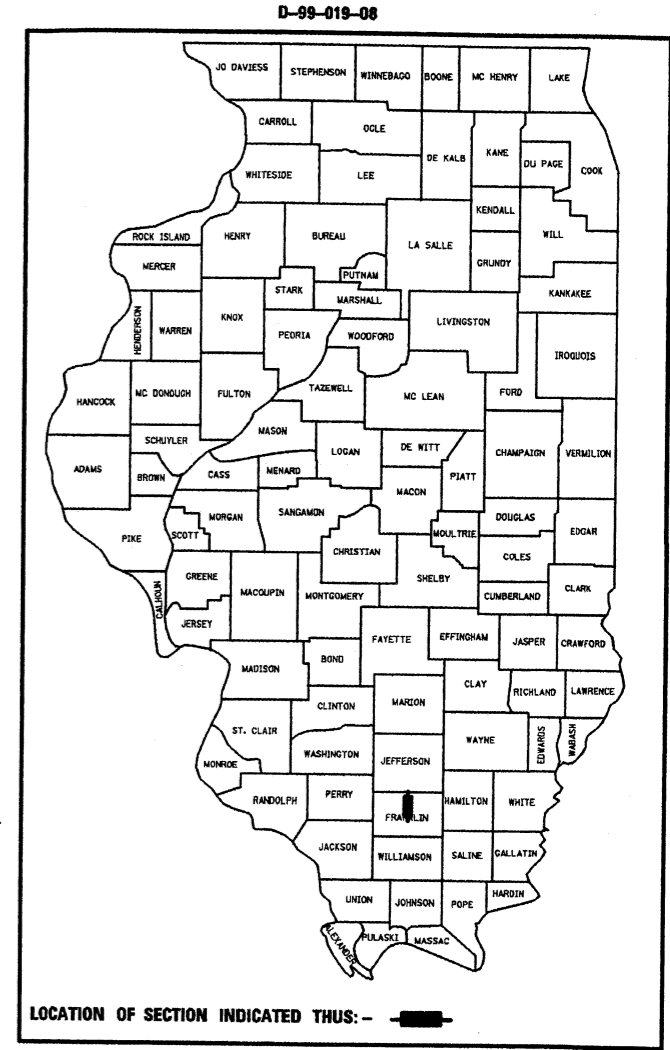
F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	28-(1,1-1,1-2,2,2-1,3,3S)RS-1	FRANKLIN	52	1
FED. ROAD DIST. NO.		ILLINOIS	CONTRACT NO. 78046	

FOR INDEX OF SHEETS, SEE SHEET NO. 3

# PROPOSED INTERSTATE HIGHWAY PLANS

F.A.I. ROUTE 57 (I-57)  
SECTION 28-(1,1-1,1-2,2,2-1,3,3S)RS-1  
PROJECT: IM-057-2(147)080  
FRANKLIN COUNTY  
C-99-029-08

100%  
7-14-09



### TRAFFIC DATA

I-57 TRAFFIC DATA  
(NORTHBOUND LANES ONLY)  
2007 ADT = 16,000 WITH 36% TRUCKS  
2008 ADT = 16,400 WITH 36% TRUCKS  
2028 ADT = 26,870 WITH 36% TRUCKS

### TOWNSHIPS

BROWNING  
BENTON  
EWING

PROJECT BEGINS - NB LANES  
JEFFERSON/FRANKLIN COUNTY LINE  
STA. 7+20

SN 028-0055  
STA. 9+78.11  
(COUNTY LINE RD. OVERPASS)

SN 028-0059  
STA. 176+52.10  
(IL 154 OVERPASS)

OMISSION - GUN CREEK BRIDGE AREA  
SN 028-0013  
STA. 101+81.3 TO STA. 103+60

SN 028-0053  
STA. 283+35.75  
(MARCUM BRANCH RD. OVERPASS)

DOUBLE BOX CULVERT  
SN 028-2006  
STA. 151+58

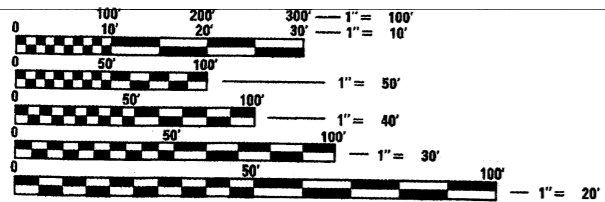
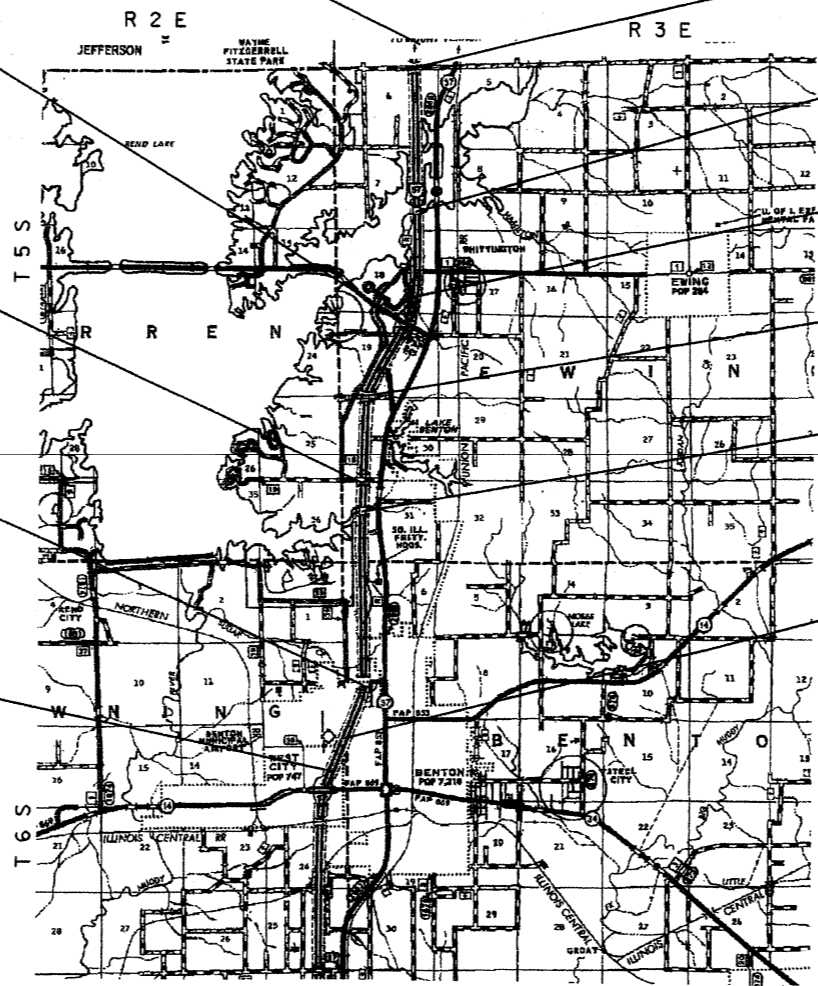
SN 028-0056  
STA. 229+54.50  
(FRANKLIN CEMETERY RD. OVERPASS)

OMISSION - MARCUM BRANCH BRIDGE AREA  
SN 028-0012  
STA. 303+14 TO STA. 304+79

SN 028-0057  
STA. 415+71.58  
(PETROFF RD. OVERPASS)

SN 028-0064  
STA. 444+50  
(DU QUOIN ST. OVERPASS)

PROJECT ENDS - NB LANES  
STA. 469+00



FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ENGINEERING SCALES. REDUCED SIZED PLANS WILL NOT CONFORM TO STANDARD SCALES. IN MAKING MEASUREMENTS ON REDUCED PLANS, THE ABOVE SCALES MAY BE USED.

J.U.L.I.E.  
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION  
1-800-892-0123  
OR 811

PROJECT ENGINEER: CHARLES STEIN  
DESIGNER: MELISSA COLE

CONTRACT NO. 78046

028-0013 & -0014

GROSS LENGTH OF PROJECT = 46,180 FT = 8.75 MILES (NB)  
NET LENGTH OF PROJECT = 45,836.3 FT = 8.68 MILES (NB)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED Oct 14 20 08  
Mary C. Zornie  
DEPUTY DIRECTOR OF HIGHWAYS, REGION V ENGINEER

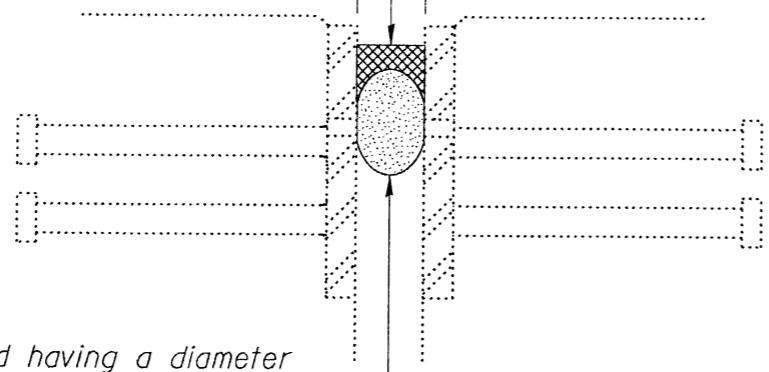
December 5, 20 08  
Eric E. Harn  
ENGINEER OF DESIGN AND ENVIRONMENT

December 5, 20 08  
Christine M. Reed  
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PRINTED BY THE AUTHORITY OF THE STATE OF ILLINOIS

028-0013 & -0014

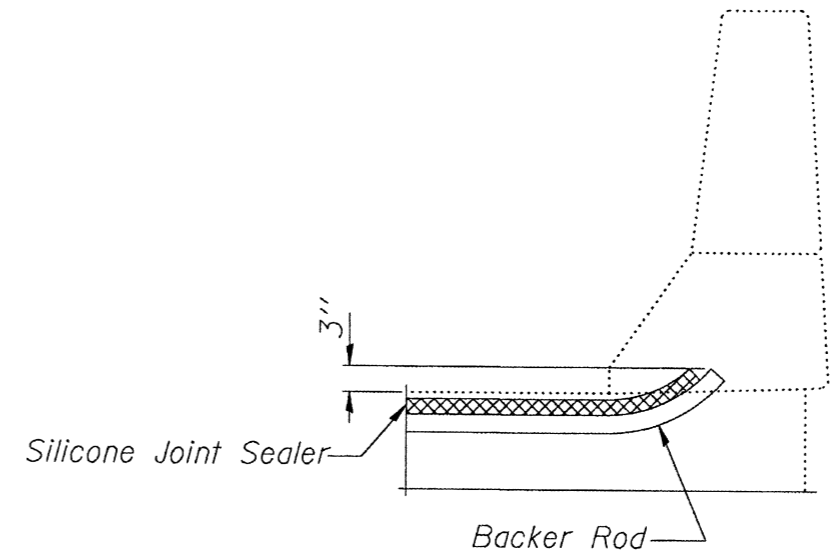
2 3/4" N. Abut, SN 028-0013  
 1 3/4" S. Abut, SN 028-0013  
 2 3/4" Typ. SN 028-0012  
 Silicone Joint Sealer



Backer Rod having a diameter  
 25% greater than the joint  
 opening at the time of installation.

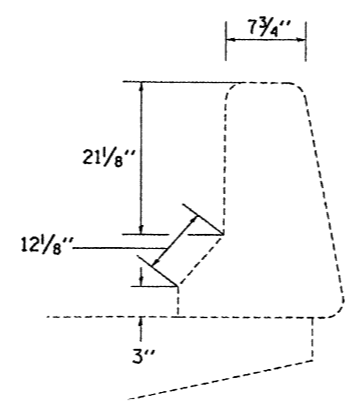
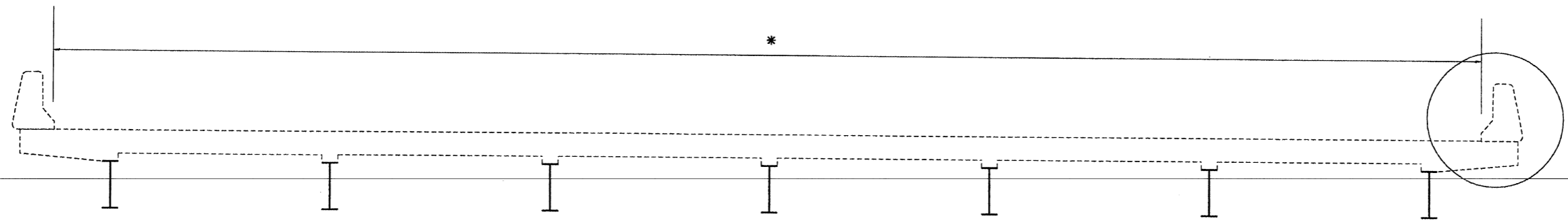
**SILICONE JOINT SEALER DETAIL**

Cost of removing the existing PJS is included  
 with the cost of Silicone Joint Sealer.



**END OF SEAL TREATMENT**

**PARAPET DETAIL**



\* SEE SCHEDULE ON SHEET 16 FOR WIDTH

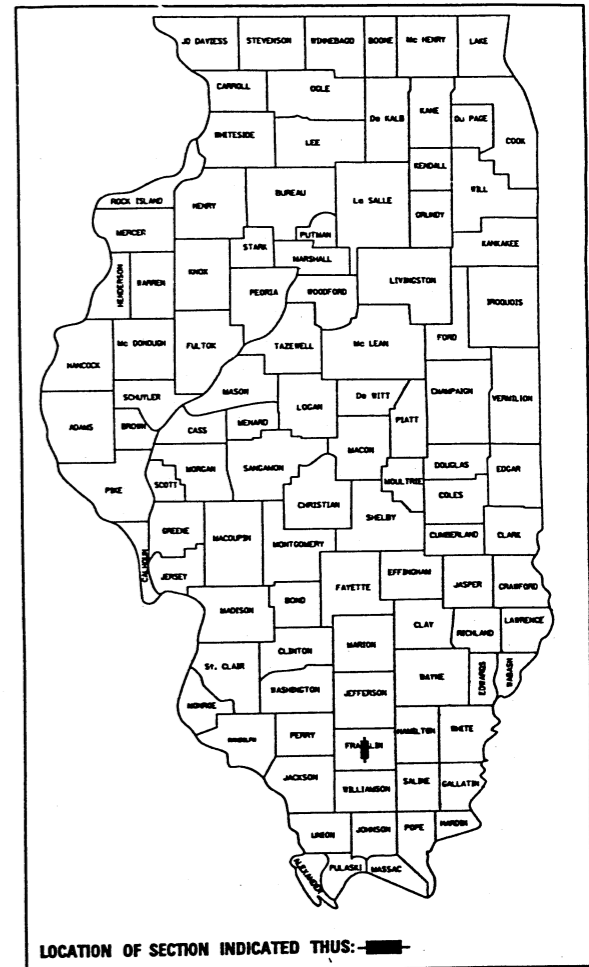
SN 028-0012 & 028-0013

FILE NAME =	USER NAME = #USER#	DESIGNED -	REVISED -	<b>STATE OF ILLINOIS DEPARTMENT OF TRANSPORTATION</b>	<b>SILICONE JOINT SEALER AND PARAPET DETAILS</b>				F.A.T. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
#FILE#		DRAWN -	REVISED -		SCALE:	SHEET NO. OF SHEETS	STA.	TO STA.	57	*	Franklin	52	51
		CHECKED -	REVISED -						CONTRACT NO. 78046				
		DATE -	REVISED -						FED. ROAD DIST. NO. ILLINOIS FED. AID PROJECT				

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

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	FRANKLIN	145	1
* 28(5B-1,5B,2B,1B)D-1; 28(5VB,3VB-1)I-1				

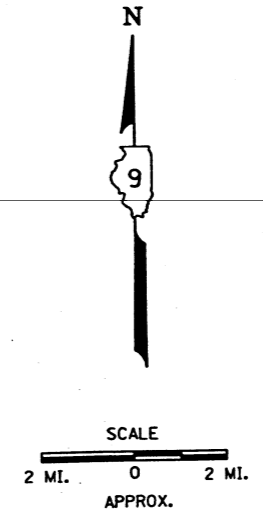
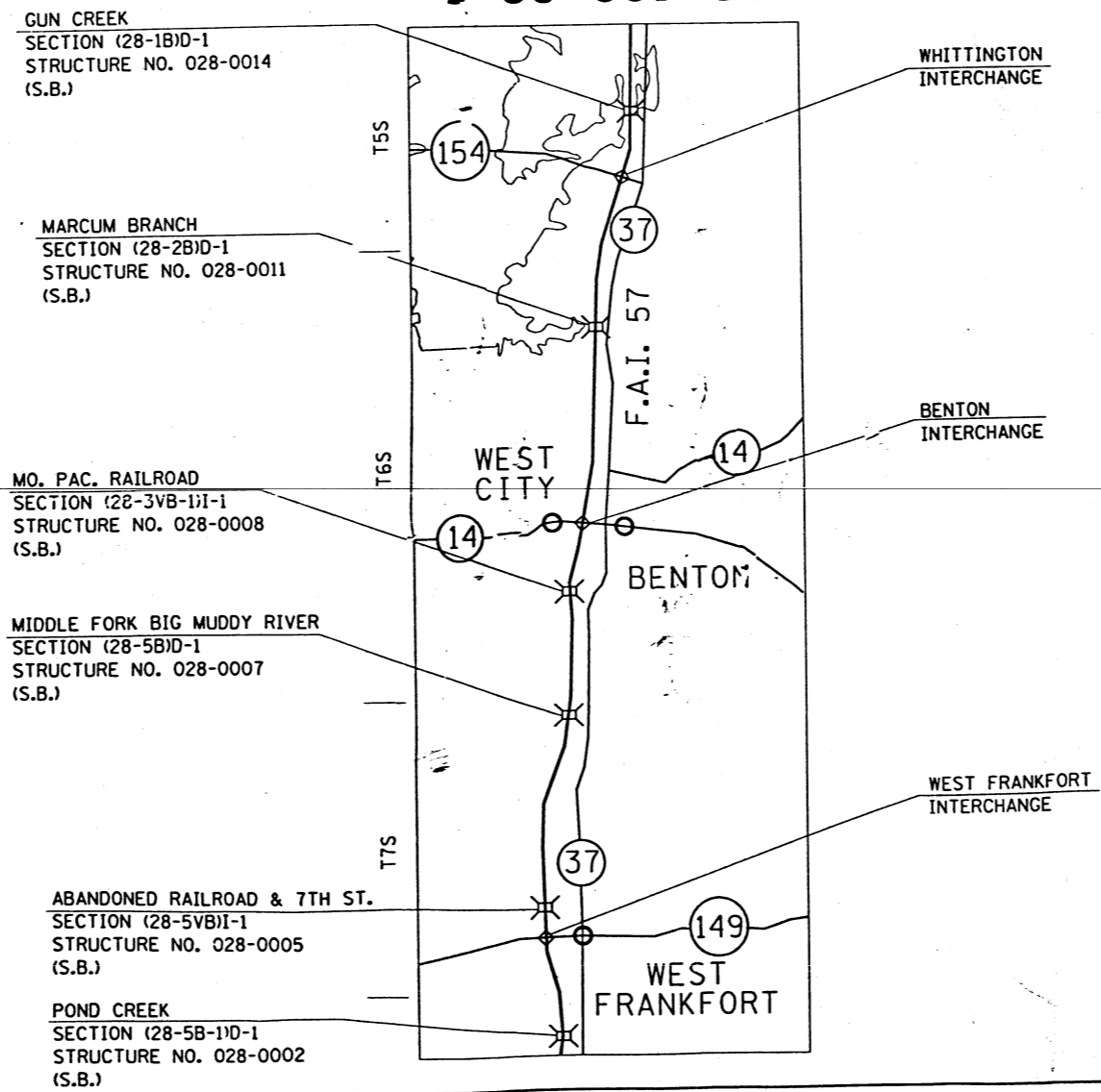
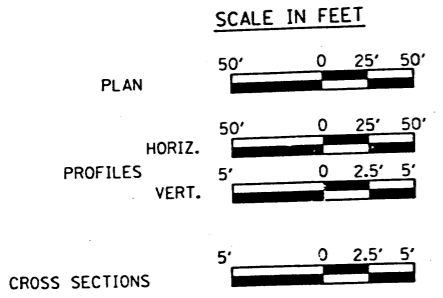
D-99-036-90



FOR INDEX OF SHEETS, SEE SHEET NO.2  
 FOR SUMMARY OF QUANTITIES, SEE SHEET NO.3-4

F.A.I. ROUTE 57  
 SECTION 28(5B-1,5B,2B,1B)D-1; 28(5VB,3VB-1)I-1  
 FRANKLIN COUNTY  
 PROJECT ACI M-57-2(133)63  
 D-99-007-91

028-0013 & -0014



STATE OF ILLINOIS  
 DEPARTMENT OF TRANSPORTATION  
 DIVISION OF HIGHWAYS

SUBMITTED March 25 1993

*Val D. Rutkowski*  
 DISTRICT ENGINEER

EXAMINED \_\_\_\_\_ 19\_\_\_\_

PASSED JUNE 4 1993

*Harry H. Hall*  
 ENGINEER OF DESIGN AND ENVIRONMENT

APPROVED JUNE 4 1993

*Richard C. Welner*  
 DIRECTOR, DIVISION OF HIGHWAYS

JULIE 1-800-892-0123

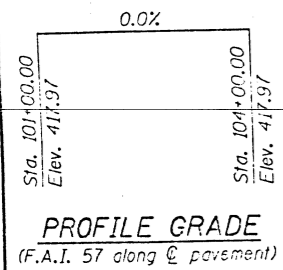
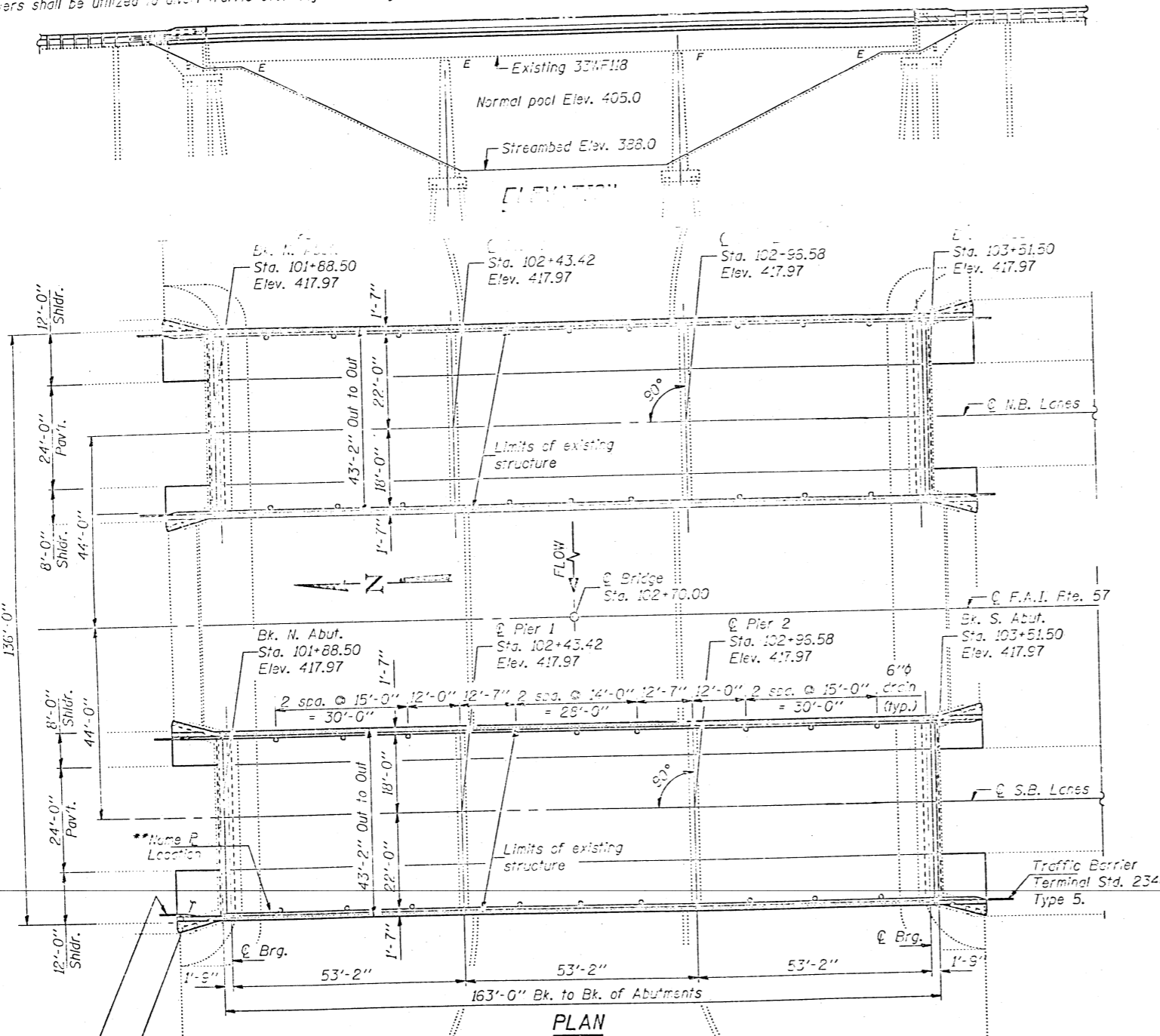
**CONTRACT NO. 98149**

Sheets 1 Thru 100 (Set 1 of 2)

COUNTY: FRANKLIN SECTION: 28(5B-1,5B,2B,1B)D-1; 28(5VB,3VB-1)I-1 ROUTE: F.A.I. RTE. 57

6 REEL 9-145

Existing structure: 028-0014 S.B. Built as F.A.I. Route 57 28-1B-F in 1962.  
The superstructure consists of R.C. deck supported on 3 span continuous W.F. beams.  
Temporary median cross-overs shall be utilized to divert traffic over adjacent bridge (028-0013 N.B.) during reconstruction.



STATION 102 + 70.00  
BUILT 199 BY  
STATE OF ILLINOIS  
F.A.I. RT.57 SEC/28-1B/D-1  
F.A. PROJ. \*  
LOADING HS20  
STR. NO. 028-0014  
\*IM-57-2(133)63

**NAME PLATE**

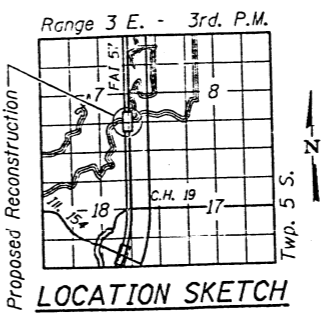
See Std. 2113  
\*\*Existing Name Plate to be cleaned and relocated next to the new Name Plate on the New Parapet. Cost incidental to "Name Plates."

**DESIGN SPECIFICATIONS**  
1989 AASHTO, 1990 & 1991 Interim Specifications & Seismic Retrofitting Guidelines for Highway Bridges.

**LOADING HS 20-44 & ALT.**  
Allow 25# / sq. ft. for future wearing surface.

**DESIGN STRESSES**

**FIELD UNITS**  
New Construction  
 $f_c = 3,500$  psi  
 $f_y = 60,000$  psi (Reinf.)  
 $f_y = 36,000$  psi (Str. Steel - M270 Gr. 36)  
Old Construction  
 $f_s = 20,000$  psi (Exist. Structural Steel)



**GENERAL NOTES**

- Fasteners shall be high strength bolts. Bolts 3/4". Open holes 7/8".
- Field welding of steel beams shall be permitted only when approved by the Engineer.
- Reinforcement bars shall conform to the requirements of AASHTO M-31.
- 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 of 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 the steel beams, prior to any removal of the bridge concrete deck. Saw cutting directly over the top of the beam flanges is not permitted.
- All top surfaces of the abutment seat area shall receive "Bridge Seat Sealer."
- The Zinc-Silicate Primer Paint System shall be used for shop painting of new structural steel. The color of the vinyl finish coat shall be Munsell Std. 10Y 7/1 light grey.
- 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-3 for power tool cleaning or SP-2 for hand tool cleaning. Cost shall be incidental to Removal of Existing Concrete Deck.

**TOTAL BILL OF MATERIAL**

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		9	9
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		23	23
Floor Drains	Each	18		18
Preformed Joint Seal 2 1/2"	Lin. Ft.	43		43
Preformed Joint Seal 4"	Lin. Ft.	43		43
Class X Concrete Superstructure	Cu. Yd.	215.4		215.4
Protective Coat	Sq. Yd.	852		852
Elastomeric Bearing Assembly, Type I	Each	21		21
Structural Steel	Lbs.	10,300		10,300
Stud Shear Connectors	Each	3094		3094
Reinforcement Bars, Epoxy Coated	Pound	51,380		51,380
Name Plates	Each	1		1
Bridge Seat Sealer	Sq. Ft.		147	147
Jack and Remove Existing Brgs.	Each	28		28
Bridge Deck Grooving	Sq. Yd.	678		678

\*\*\* Includes deck & top and inside face of parapet.  
\* Includes removal of existing railing and expansion plates.

**GENERAL PLAN**  
F.A.I. ROUTE 57 OVER  
GUN CREEK  
FRANKLIN COUNTY  
STATION 102+70.00  
STRUCTURE NUMBER 028-0014 (S.B.)

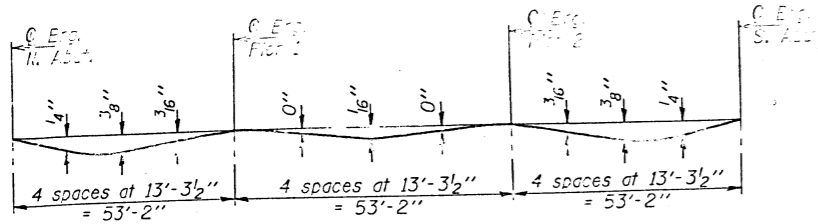
DESIGNED Michael A. Stephens  
CHECKED George A. Shure  
DRAWN El. Vann Taylor  
CHECKED MAS GAG

EXAMINED Dan J. Kaster  
PASSED Ralph E. Anderson  
APPROVED



May 20 1993

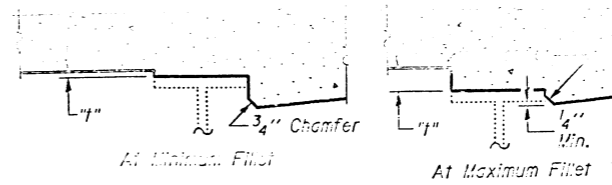




**DEAD LOAD DEFLECTION DIAGRAM**

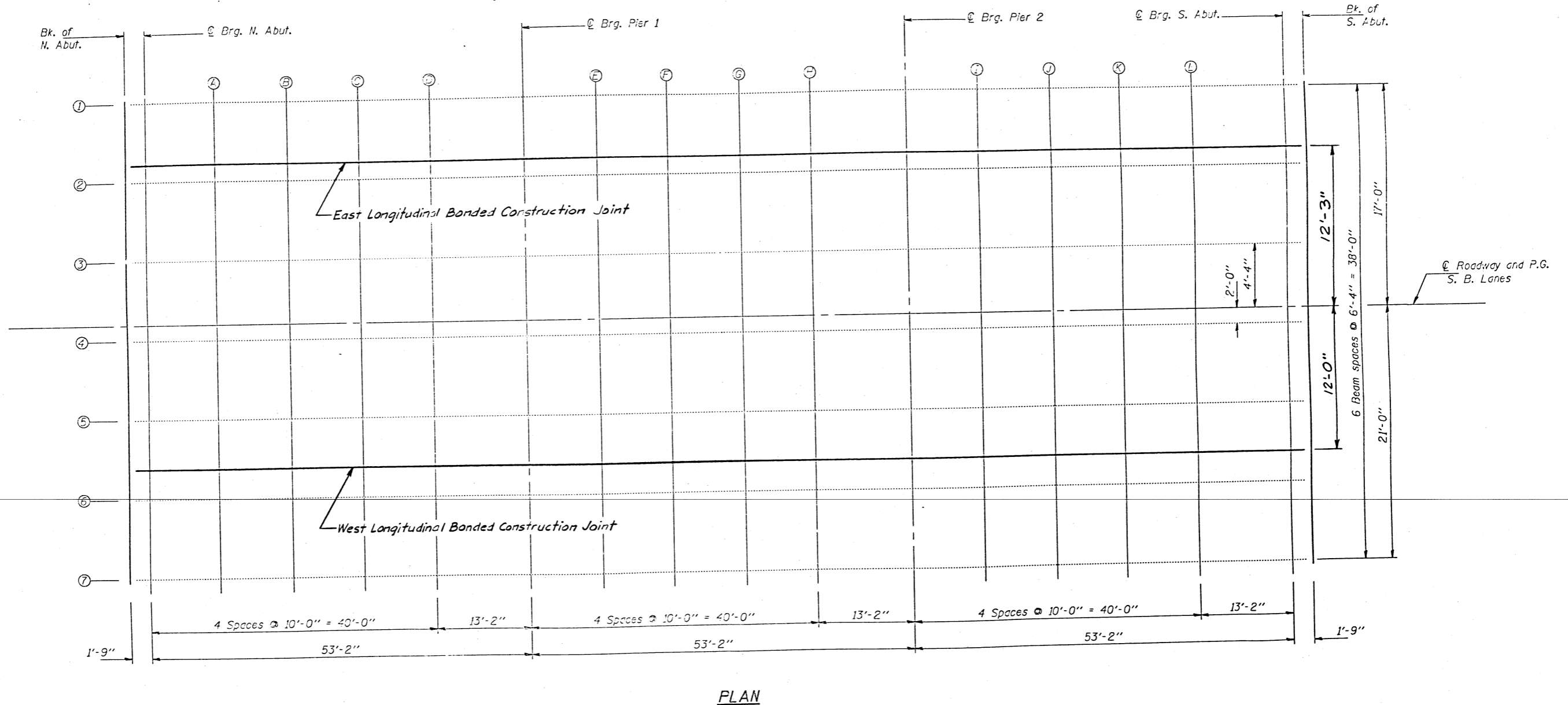
(Includes weight of concrete only)

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 Sheet #3 of 16.



To determine "f": After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations" proposed for each cross-section shown on Sheet #3 of 16, minus slab thickness, equals the fillet heights "f" above top flange of beams.

**FILLET HEIGHTS**



**PLAN**

DESIGNED	Michael O. Stephenson
CHECKED	George A. Hines
DRAWN	E. Vern Taylor
CHECKED	MAS GAG

EXAMINED	May 20 1993	Origi J. Kaspar
PASSED	Ralph E. Anderson	
APPROVED		

**TOP OF SLAB ELEVATIONS**  
F.A.I. RT. 57 SEC. (28-1B)D-1  
FRANKLIN COUNTY  
STATION 102+70.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

☉ BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-17.000	417.741	417.741
€ BRG. N. ABUT.	10190.250	-17.000	417.741	417.741
A	10200.250	-17.000	417.741	417.759
B	10210.250	-17.000	417.741	417.768
C	10220.250	-17.000	417.741	417.768
D	10230.250	-17.000	417.741	417.758
€ BRG. PIER 1	10243.417	-17.000	417.741	417.741
E	10253.417	-17.000	417.741	417.741
F	10263.417	-17.000	417.741	417.743
G	10273.417	-17.000	417.741	417.743
H	10283.417	-17.000	417.741	417.741
€ BRG. PIER 2	10296.583	-17.000	417.741	417.741
I	10306.583	-17.000	417.741	417.754
J	10316.583	-17.000	417.741	417.765
K	10326.583	-17.000	417.741	417.769
L	10336.583	-17.000	417.741	417.764
€ BRG. S. ABUT.	10349.750	-17.000	417.741	417.741
BK. S. ABUT.	10351.500	-17.000	417.741	417.741

E. LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-12.250	417.840	417.840
€ BRG. N. ABUT.	10190.250	-12.250	417.840	417.840
A	10200.250	-12.250	417.840	417.857
B	10210.250	-12.250	417.840	417.861
C	10220.250	-12.250	417.840	417.866
D	10230.250	-12.250	417.840	417.857
€ BRG. PIER 1	10243.417	-12.250	417.840	417.840
E	10253.417	-12.250	417.840	417.840
F	10263.417	-12.250	417.840	417.841
G	10273.417	-12.250	417.840	417.842
H	10283.417	-12.250	417.840	417.840
€ BRG. PIER 2	10296.583	-12.250	417.840	417.840
I	10306.583	-12.250	417.840	417.853
J	10316.583	-12.250	417.840	417.863
K	10326.583	-12.250	417.840	417.868
L	10336.583	-12.250	417.840	417.863
€ BRG. S. ABUT.	10349.750	-12.250	417.840	417.840
BK. S. ABUT.	10351.500	-12.250	417.840	417.840

☉ BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-10.667	417.871	417.871
€ BRG. N. ABUT.	10190.250	-10.667	417.871	417.871
A	10200.250	-10.667	417.871	417.889
B	10210.250	-10.667	417.871	417.898
C	10220.250	-10.667	417.871	417.898
D	10230.250	-10.667	417.871	417.888
€ BRG. PIER 1	10243.417	-10.667	417.871	417.871
E	10253.417	-10.667	417.871	417.871
F	10263.417	-10.667	417.871	417.873
G	10273.417	-10.667	417.871	417.874
H	10283.417	-10.667	417.871	417.871
€ BRG. PIER 2	10296.583	-10.667	417.871	417.871
I	10306.583	-10.667	417.871	417.884
J	10316.583	-10.667	417.871	417.895
K	10326.583	-10.667	417.871	417.900
L	10336.583	-10.667	417.871	417.894
€ BRG. S. ABUT.	10349.750	-10.667	417.871	417.871
BK. S. ABUT.	10351.500	-10.667	417.871	417.871

☉ BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-4.333	417.954	417.954
€ BRG. N. ABUT.	10190.250	-4.333	417.954	417.954
A	10200.250	-4.333	417.954	417.971
B	10210.250	-4.333	417.954	417.980
C	10220.250	-4.333	417.954	417.980
D	10230.250	-4.333	417.954	417.970
€ BRG. PIER 1	10243.417	-4.333	417.954	417.954
E	10253.417	-4.333	417.954	417.954
F	10263.417	-4.333	417.954	417.955
G	10273.417	-4.333	417.954	417.956
H	10283.417	-4.333	417.954	417.954
€ BRG. PIER 2	10296.583	-4.333	417.954	417.954
I	10306.583	-4.333	417.954	417.966
J	10316.583	-4.333	417.954	417.977
K	10326.583	-4.333	417.954	417.982
L	10336.583	-4.333	417.954	417.977
€ BRG. S. ABUT.	10349.750	-4.333	417.954	417.954
BK. S. ABUT.	10351.500	-4.333	417.954	417.954

☉ ROADWAY AND P. G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	0.000	417.970	417.970
€ BRG. N. ABUT.	10190.250	0.000	417.970	417.970
A	10200.250	0.000	417.970	417.988
B	10210.250	0.000	417.970	417.997
C	10220.250	0.000	417.970	417.997
D	10230.250	0.000	417.970	417.987
€ BRG. PIER 1	10243.417	0.000	417.970	417.970
E	10253.417	0.000	417.970	417.970
F	10263.417	0.000	417.970	417.972
G	10273.417	0.000	417.970	417.972
H	10283.417	0.000	417.970	417.970
€ BRG. PIER 2	10296.583	0.000	417.970	417.970
I	10306.583	0.000	417.970	417.983
J	10316.583	0.000	417.970	417.994
K	10326.583	0.000	417.970	417.998
L	10336.583	0.000	417.970	417.993
€ BRG. S. ABUT.	10349.750	0.000	417.970	417.970
BK. S. ABUT.	10351.500	0.000	417.970	417.970

☉ BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	2.000	417.967	417.967
€ BRG. N. ABUT.	10190.250	2.000	417.967	417.967
A	10200.250	2.000	417.967	417.984
B	10210.250	2.000	417.967	417.993
C	10220.250	2.000	417.967	417.993
D	10230.250	2.000	417.967	417.983
€ BRG. PIER 1	10243.417	2.000	417.967	417.967
E	10253.417	2.000	417.967	417.967
F	10263.417	2.000	417.967	417.968
G	10273.417	2.000	417.967	417.969
H	10283.417	2.000	417.967	417.967
€ BRG. PIER 2	10296.583	2.000	417.967	417.967
I	10306.583	2.000	417.967	417.979
J	10316.583	2.000	417.967	417.990
K	10326.583	2.000	417.967	417.995
L	10336.583	2.000	417.967	417.990
€ BRG. S. ABUT.	10349.750	2.000	417.967	417.967
BK. S. ABUT.	10351.500	2.000	417.967	417.967

☉ BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	8.333	417.910	417.910
€ BRG. N. ABUT.	10190.250	8.333	417.910	417.910
A	10200.250	8.333	417.910	417.927
B	10210.250	8.333	417.910	417.936
C	10220.250	8.333	417.910	417.936
D	10230.250	8.333	417.910	417.926
€ BRG. PIER 1	10243.417	8.333	417.910	417.910
E	10253.417	8.333	417.910	417.910
F	10263.417	8.333	417.910	417.911
G	10273.417	8.333	417.910	417.912
H	10283.417	8.333	417.910	417.910
€ BRG. PIER 2	10296.583	8.333	417.910	417.910
I	10306.583	8.333	417.910	417.922
J	10316.583	8.333	417.910	417.933
K	10326.583	8.333	417.910	417.938
L	10336.583	8.333	417.910	417.933
€ BRG. S. ABUT.	10349.750	8.333	417.910	417.910
BK. S. ABUT.	10351.500	8.333	417.910	417.910

W. LONGITUDINAL BONDED CONSTRUCTION JOINT

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	12.000	417.845	417.845
€ BRG. N. ABUT.	10190.250	12.000	417.845	417.845
A	10200.250	12.000	417.845	417.863
B	10210.250	12.000	417.845	417.872
C	10220.250	12.000	417.845	417.872
D	10230.250	12.000	417.845	417.862
€ BRG. PIER 1	10243.417	12.000	417.845	417.845
E	10253.417	12.000	417.845	417.845
F	10263.417	12.000	417.845	417.847
G	10273.417	12.000	417.845	417.845
H	10283.417	12.000	417.845	417.845
€ BRG. PIER 2	10296.583	12.000	417.845	417.845
I	10306.583	12.000	417.845	417.858
J	10316.583	12.000	417.845	417.869
K	10326.583	12.000	417.845	417.873
L	10336.583	12.000	417.845	417.868
€ BRG. S. ABUT.	10349.750	12.000	417.845	417.845
BK. S. ABUT.	10351.500	12.000	417.845	417.845

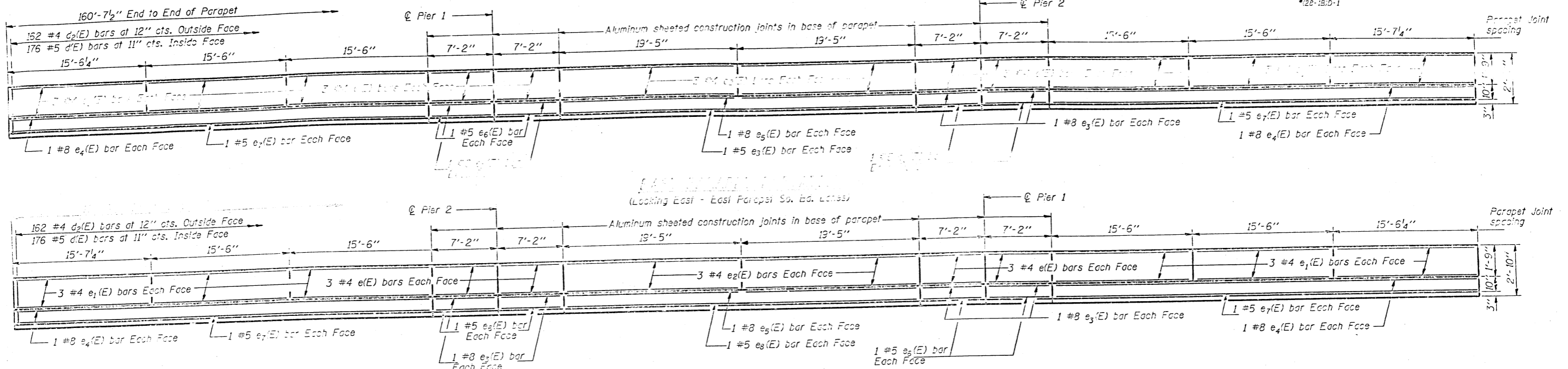
☉ BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	14.666	417.790	417.790
€ BRG. N. ABUT.	10190.250	14.666	417.790	417.790
A	10200.250	14.666	417.790	417.807
B	10210.250	14.666	417.790	417.816
C	10220.250	14.666	417.790	417.816
D	10230.250	14.666	417.790	417.806
€ BRG. PIER 1	10243.417	14.666	417.790	417.790
E	10253.417	14.666	417.790	417.790
F	10263.417	14.666	417.790	417.791
G	10273.417	14.666	417.790	417.792
H	10283.417	14.666	417.790	417.790
€ BRG. PIER 2	10296.583	14.666	417.790	417.790
I	10306.583	14.666	417.790	417.802
J	10316.583	14.666	417.790	417.813

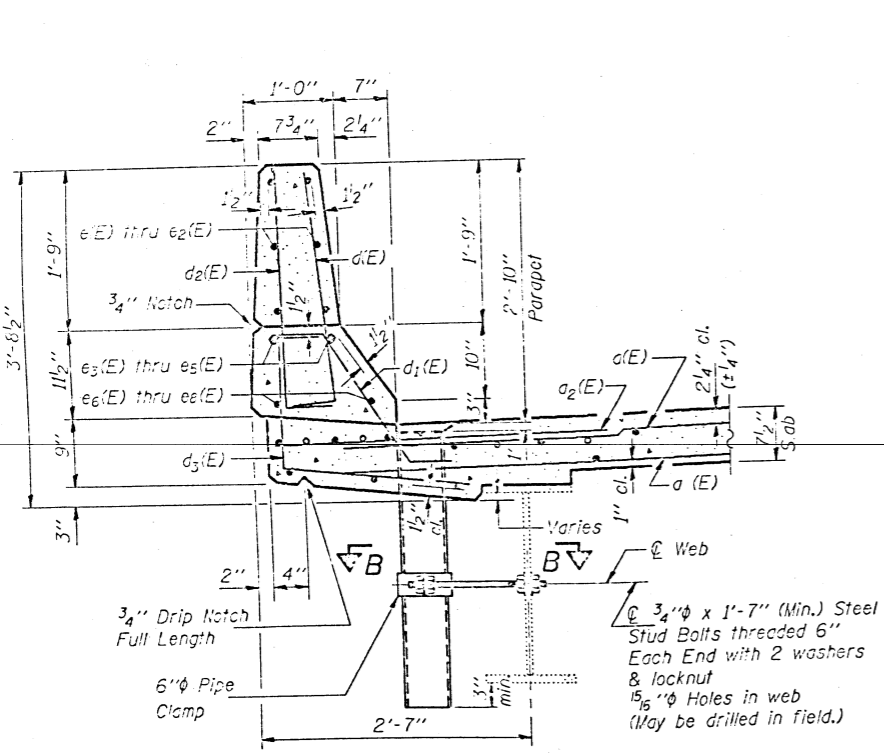


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

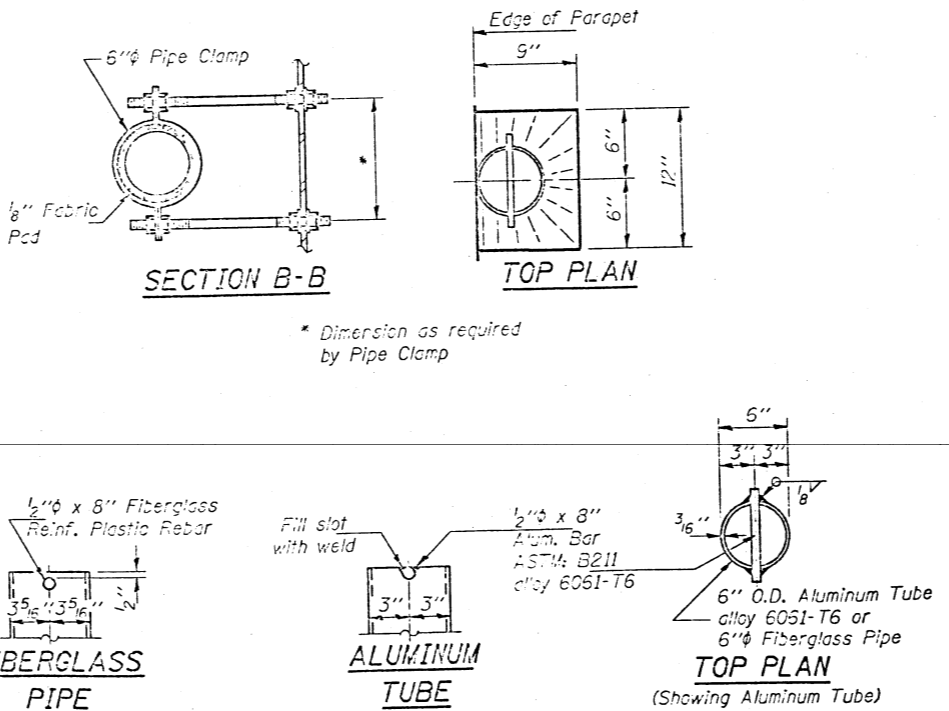
PROJECT NO.	27
FED. ROAD DIST. NO.	
LINE	
PROJECT	



**WEST PARAPET ELEVATION**  
(Looking West - West Parapet So. Bd. Lanes)



**SECTION THRU PARAPET**  
See Plan view for Location of 6\"/>



**PARAPET JOINT DETAILS**

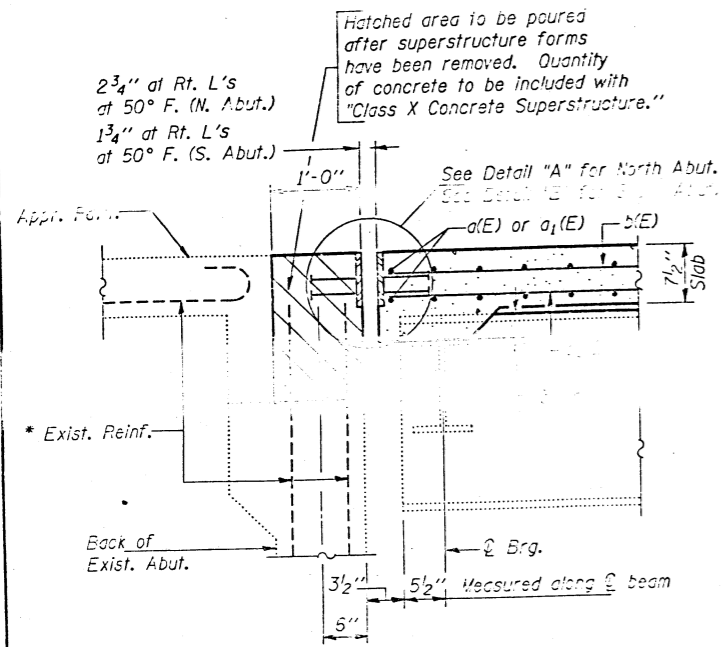
**Notes:**  
The exterior surfaces of the Floor Drain shall be painted with the vinyl enamel paint as specified in the Standard Specifications. The exterior surface of the drain shall be cleaned and given a washcoat pretreatment in accordance with Steel Structural Painting Council's Spec. SSPC-SP1 & SSPC-Paint 27 prior to painting.  
Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.

DESIGNED <i>Michael J. [Signature]</i>	EXAMINED <i>Orji O. [Signature]</i>
CHECKED <i>[Signature]</i>	PASSED <i>Ralph E. [Signature]</i>
DRAWN <i>E. Vern Taylor</i>	APPROVED _____
CHECKED <i>MAS Gag</i>	DIRECTOR OF HIGHWAYS

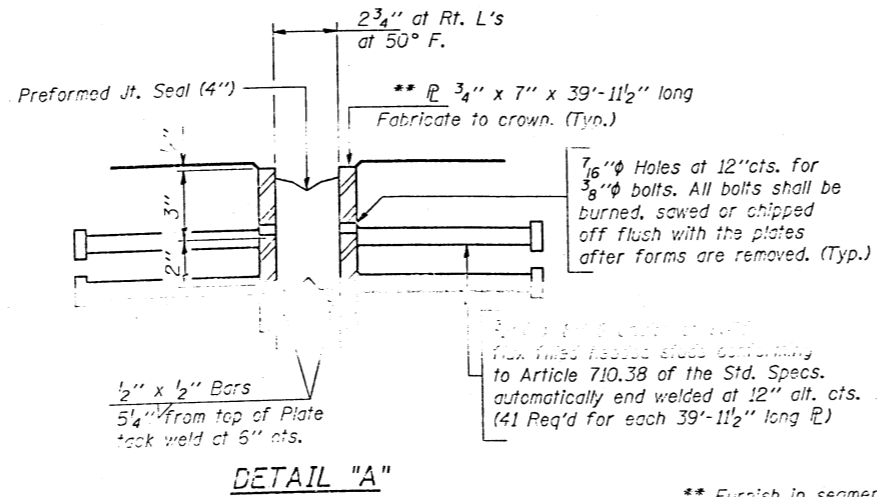
**SOUTH BOUND LANES  
SUPERSTRUCTURE DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D-1  
FRANKLIN COUNTY  
STATION 102+70.00**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

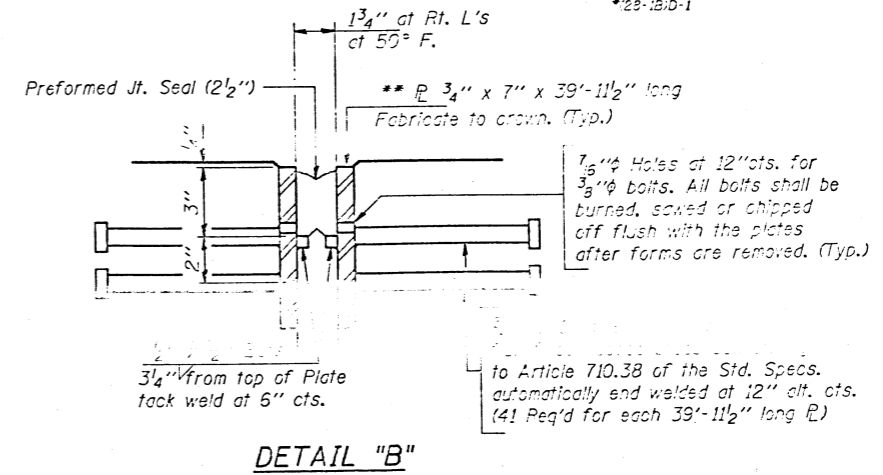
ILLINOIS	28
FED. ROAD DIST. NO. 7	ILLINOIS
FED. AID PROJECT-	



SECTION A-A



DETAIL "A"

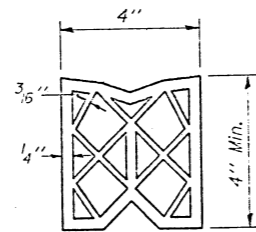


DETAIL "B"

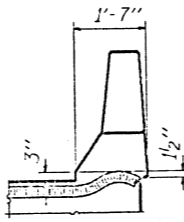
\*\* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.

Notes: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No field painting required.

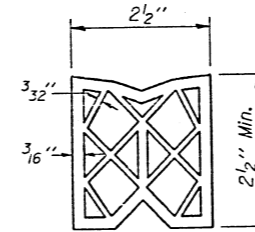
\* Existing vertical Reinforcement in the back wall and the longitudinal reinforcement in the approach slab shall be cleared and straightened and incorporated into new construction. Cost incidental to "Concrete Removal."



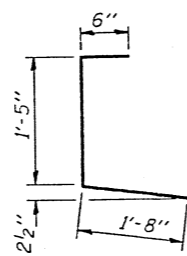
PREFORMED JOINT SEAL (4")  
North Abutment



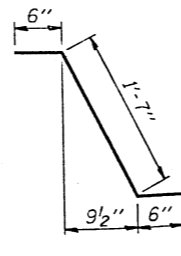
END TREATMENT  
Typ. for (4") and (2 1/2").



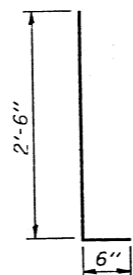
PREFORMED JOINT SEAL (2 1/2")  
South Abutment



BAR d3(E)



BAR d1(E)



BARS d(E) & d2(E)

SUPERSTRUCTURE  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
d(E)	470	#5	41'-2"	
a1(E)	276	#6	4'-0"	
b(E)	235	#5	33'-5"	
b1(E)	88	#6	25'-8"	
b2(E)	252	#5	28'-2"	
d(E)	352	#5	3'-0"	L
d1(E)	352	#5	2'-7"	L
d2(E)	324	#4	3'-0"	L
d3(E)	324	#4	3'-7"	L
e(E)	48	#4	6'-11"	
e1(E)	72	#4	15'-3"	
e2(E)	24	#4	19'-2"	
e3(E)	16	#8	6'-11"	
e4(E)	8	#8	46'-3"	
e5(E)	4	#8	38'-7"	
e6(E)	16	#5	6'-11"	
e7(E)	8	#5	46'-3"	
e8(E)	4	#5	38'-7"	
Reinforcement Bars, Epoxy Coated			Lbs.	47,920
*** Class X Concrete Superstructure			Cu. Yd.	215.4

Reinforcement bars designated (E) shall be epoxy coated.

\*\*\* Includes 17.2 cu. yds. for Abutments and approaches.

SUPERSTRUCTURE DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D-1  
FRANKLIN COUNTY  
STATION 102+70.00

DESIGNED	Michael A. Stephenson
CHECKED	Thomas A. ...
DRAWN	E. Vern Taylor
CHECKED	MAS GRG

EXAMINED	May 20 1993	Greg J. Kaspar
PASSED	Ralph E. Anderson	
APPROVED	DIRECTOR OF HIGHWAYS	

**\* INTERIOR BEAM MOMENT TABLE**

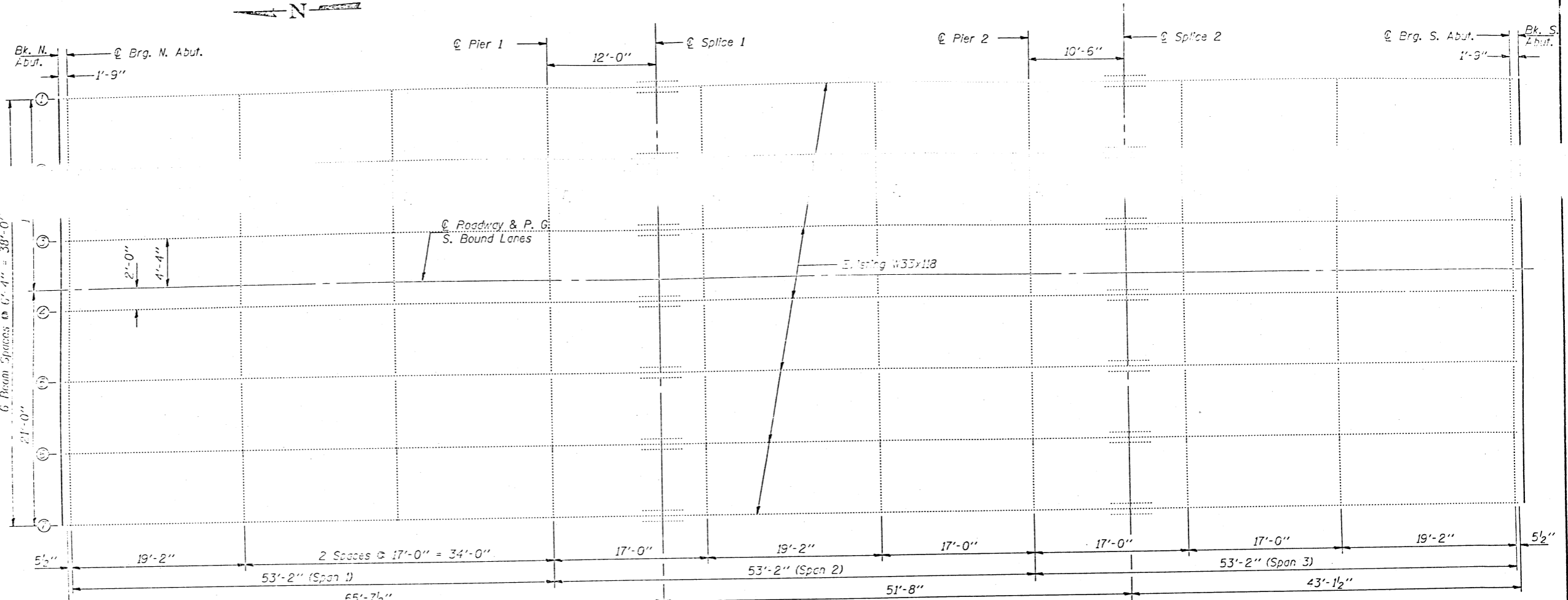
	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
$I_s$	(in <sup>4</sup> ) 5900	5900	5900
$I_c$	(in <sup>4</sup> ) 15782	15782	15782
$S_s$	(in <sup>3</sup> ) 359	359	359
$S_c$	(in <sup>3</sup> ) 530	530	530
$I$	(K/ft.) .75	1.03	.75
$M_D$	(K) 169	271	53
$f_s$ non-comp (k.s.l.)	5.6	9.1	1.8
$s_e$	(K/ft.) .276		.276
$M_s D$	(K) 69		37
$M_L$	(K) 329	160	267

$I_s$ (in <sup>4</sup> )	18.7	10.4
$VR$ (K)	41	40

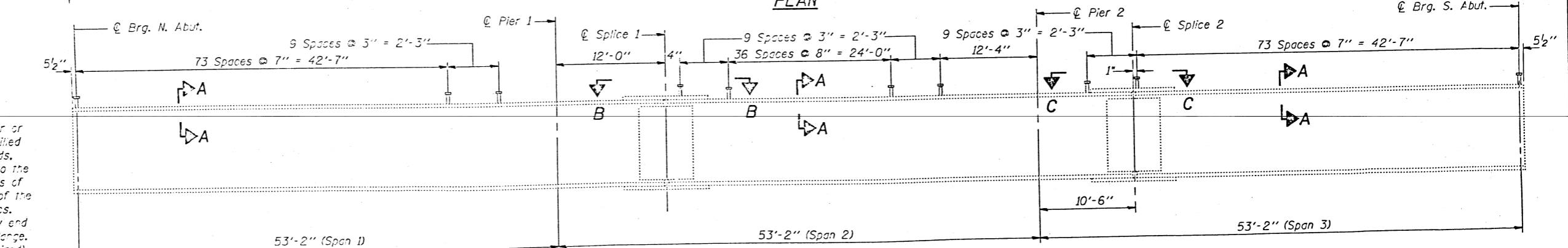
**\* INTERIOR BEAM REACTION TABLE**

	Abuts.	Piers
$R_D$	(K) 22.2	59.7
$R_L$	(K) 32.8	38.4
Imp.	(K) 9.2	10.8
$R$ (Total)	(K) 64.2	108.9

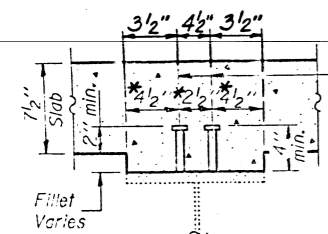
\* Service Load Values.  
 $I_s$  and  $S_s$  are the moment of inertia and section modulus of the steel section used in computing  $f_s$  (Total).  
 $I_c$  and  $S_c$  are the moment of inertia and section modulus of the composite section used in computing  $f_s$  (Total).  
 $VR$  is the maximum live load + impact shear range in span.  
 $M$  (Total) =  $M_s D + (M_L + I)$   
 $f_s$  (Total) is the sum of the stresses due to  $M D + M_s D + (M_L + I)$ .  
 $M_D$  is the Moment due to Dead Loads on non-composite section.  
 $M_s D$  is the Moment due to Dead Loads on composite section.  
 $M_L$  is the Moment due to Live Loads on non-composite or composite section.  
 $I$  is the Live Load Impact.



**PLAN**

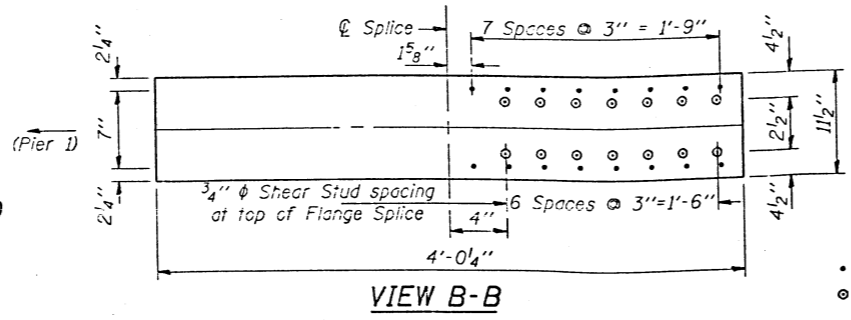


**ELEVATION**

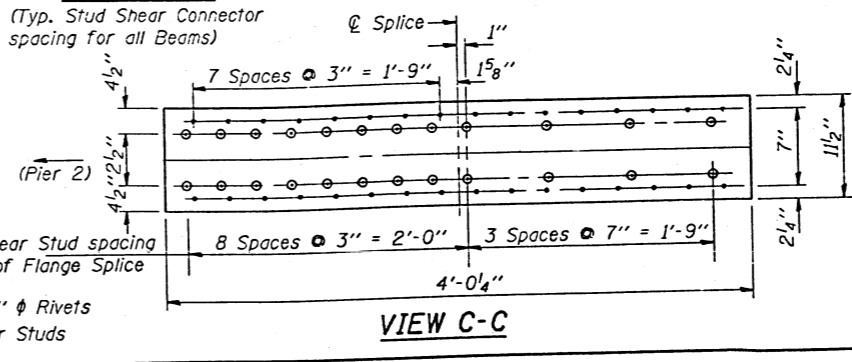


**SECTION A-A**

\* @ Splice only



**VIEW B-B**



**VIEW C-C**

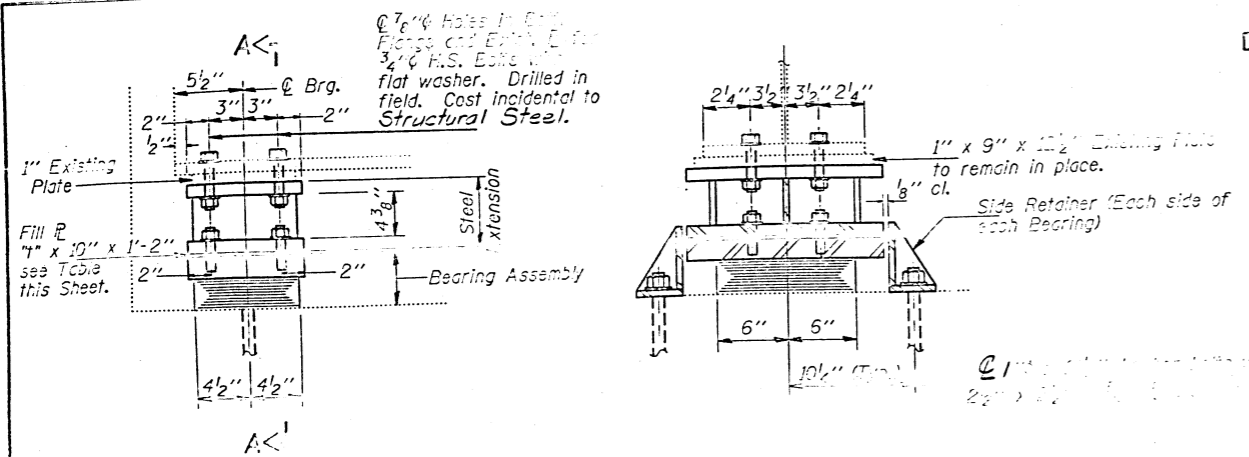
-- Existing 7/8"  $\phi$  Rivets  
 ○ - 3/4"  $\phi$  Shear Studs

DESIGNED *Michael A. St. Charles*  
 CHECKED *T. J. ...*  
 DRAWN *E. Vern Taylor*  
 CHECKED *MAS, Ger, ...*

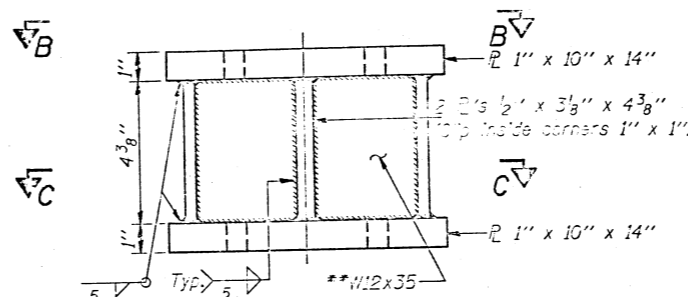
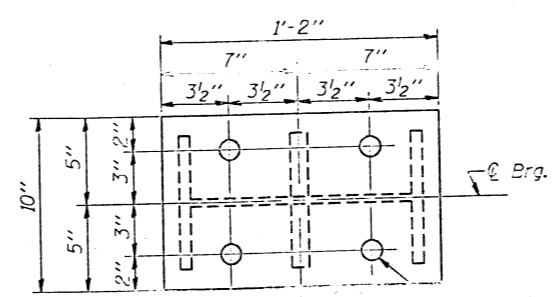
EXAMINED *Greg J. Kassar*  
 PASSED *Robert E. Anderson*  
 APPROVED  
 May 20 1993

**STRUCTURAL STEEL DETAILS**  
**F.A.I. RT. 57 SEC. (28-1B/D-1)**  
**FRANKLIN COUNTY**  
**STATION 102+70.00**

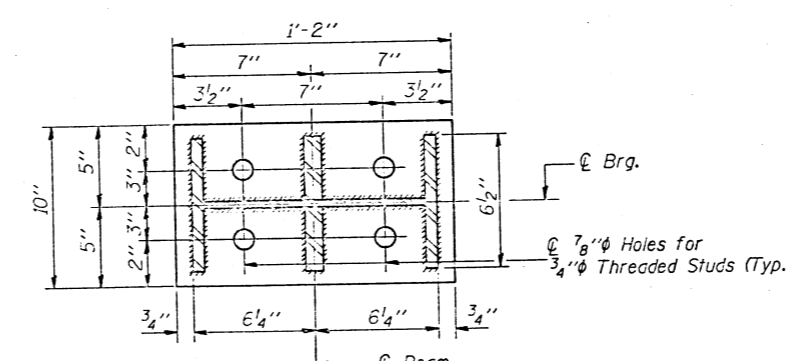




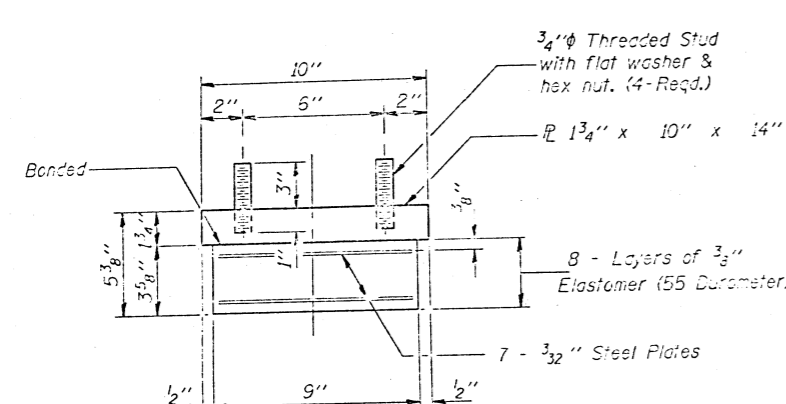
ELEVATION AT NORTH ABUT. SECTION A-A  
TYPE I ELASTOMERIC EXP. BRG.



STEEL EXTENSION AT NORTH ABUT.  
\*\*Equivalent welded plates will be allowed in lieu of W12x35 section.

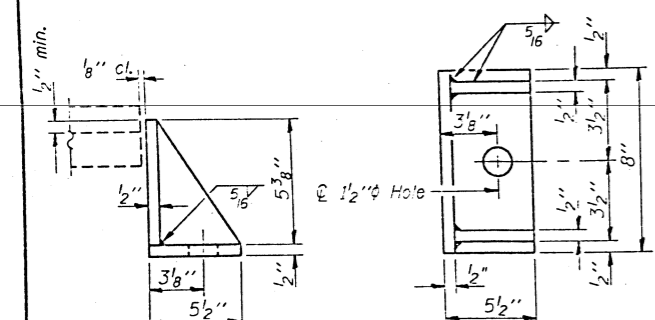


SECTION C-C



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.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	7
Jack and Remove Existing Bearings	Each	7

\*\*\* See Sheet 11 of 16 for the Jacking locations.

Dimension / Location	Bm. #2	Bm. #3	Bm. #4	Bm. #5	Bm. #6	Bm. #7
* Dim. "1"	9 1/16"	9 1/16"	7 7/8"	3 3/8"	7 1/16"	3 3/8"

Beam #1, No Fill R Required.

For anchor bolt installation details see sheet #12 of 16. Existing anchor bolts which are not under side retainer shall be covered with a 2" thick layer of cement mortar. Cost incidental to "Jack and Remove Existing Bearing". For anchor bolt location see sheets #13 and 14 of 16.

NORTH ABUTMENT  
BEARING DETAILS  
F.A.I. RT. 57 SEC. (28-1B/D)-1  
FRANKLIN COUNTY  
STATION 102+70.00

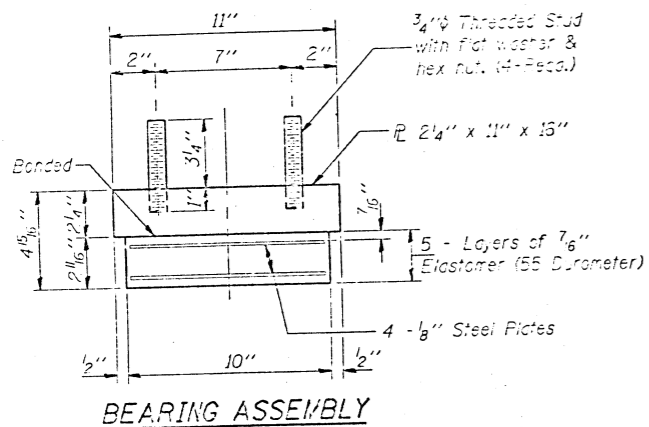
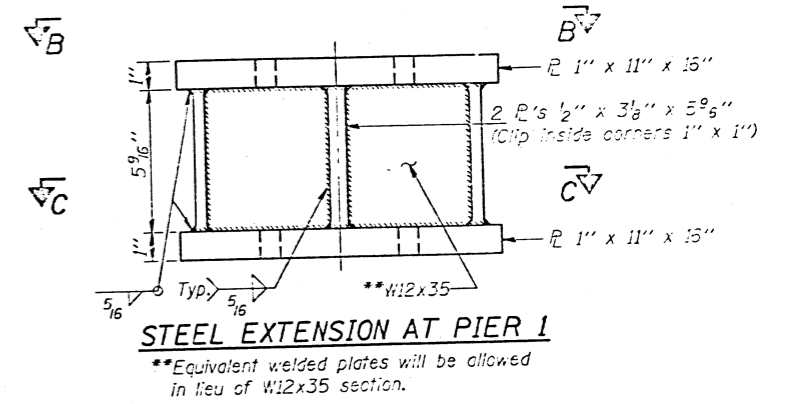
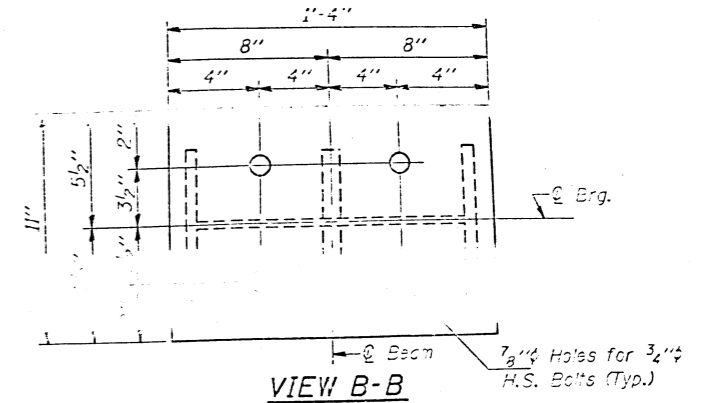
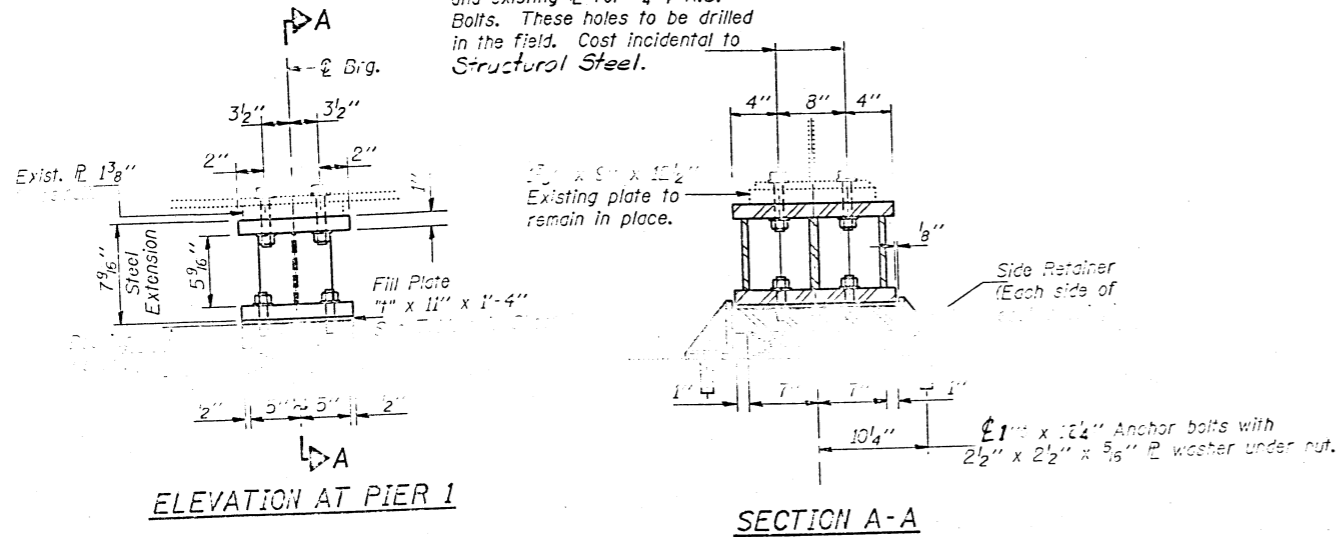
DESIGNED *Michael A. Stephenson*  
CHECKED *George A. Shaw*  
DRAWN *E. Vern Taylor*  
CHECKED *MAS CWG*

EXAMINED *Greg J. Kasper*  
PASSED *Ralph E. Anderson*  
APPROVED \_\_\_\_\_

May 20 1993  
DIRECTOR OF HIGHWAYS



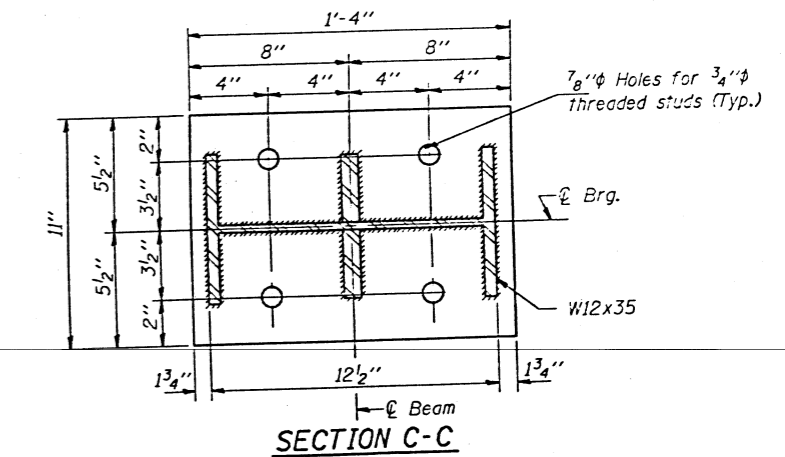
7/8" holes in existing flange and existing R for 3/4" H.S. Bolts. These holes to be drilled in the field. Cost incidental to Structural Steel.



**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	7
Jack and Remove Existing Bearings	Each	7

\*\*\* See Sheet #11 of 16 for the Jacking locations.

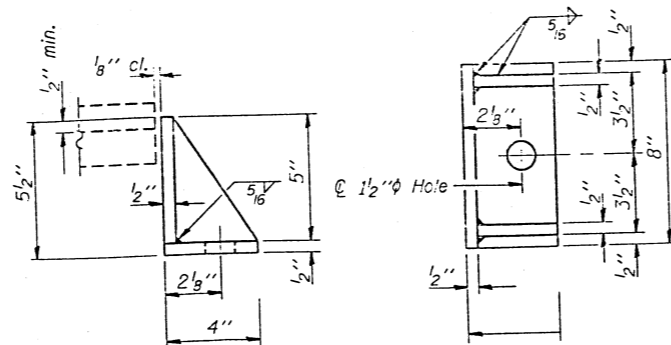


Note: Shim Plates shall not be placed under Bearing Assembly.

\* Based on the existing elevations shown on Sheet #11 of 16. The Contractor shall verify these elevations and make adjustments if necessary.

Dimension / Location	Bm. #2	Bm. #3	Bm. #4	Bm. #5	Bm. #6	Bm. #7
* Dim. "1"	9/16"	1/2"	13/16"	3/16"	1/4"	3/16"

Beam #1. No Fill R Required.



Notes: For anchor bolt installation details see sheet #12 of 16. Existing anchor bolts which are not under side retainer shall be covered with a 2" thick layer of cement mortar. Cost incidental to "Jack and Remove Existing Bearing". For anchor bolt location see sheets #13 and #14 of 16.

DESIGNED *Michael A. Johnson*  
CHECKED *George A. Johnson*  
DRAWN *E. Vann Taylor*  
CHECKED *MAS*

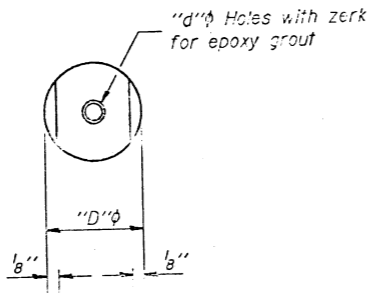
EXAMINED *Orin J. Kasper*  
PASSED *Ralph E. Anderson*  
APPROVED

May 20 1993  
DIRECTOR OF HIGHWAYS

**PIER 1  
BEARING DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D-1  
FRANKLIN COUNTY  
STATION 102+70.00**



The Illinois Coil-Lock Anchor Bolt is a registered 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 coil 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.



**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.

**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 vacuum.

1"	1 1/8"	1 3/8"	1 3/4"	1 7/8"
1 1/4"	1 3/4"	1 7/8"	2"	2 1/8"
1 1/2"	1 7/8"	2"	2 1/4"	2 1/2"
1 3/4"	2"	2 1/8"	2 3/8"	2 1/2"
2"	2 1/4"	2 3/8"	2 7/8"	2 1/2"
2 1/2"	2 5/8"	2 7/8"	3 1/8"	2 1/2"

**INSTALLATION PROCEDURE for the ILLINOIS COIL-LOCK ANCHOR BOLT**

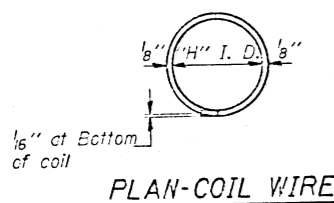
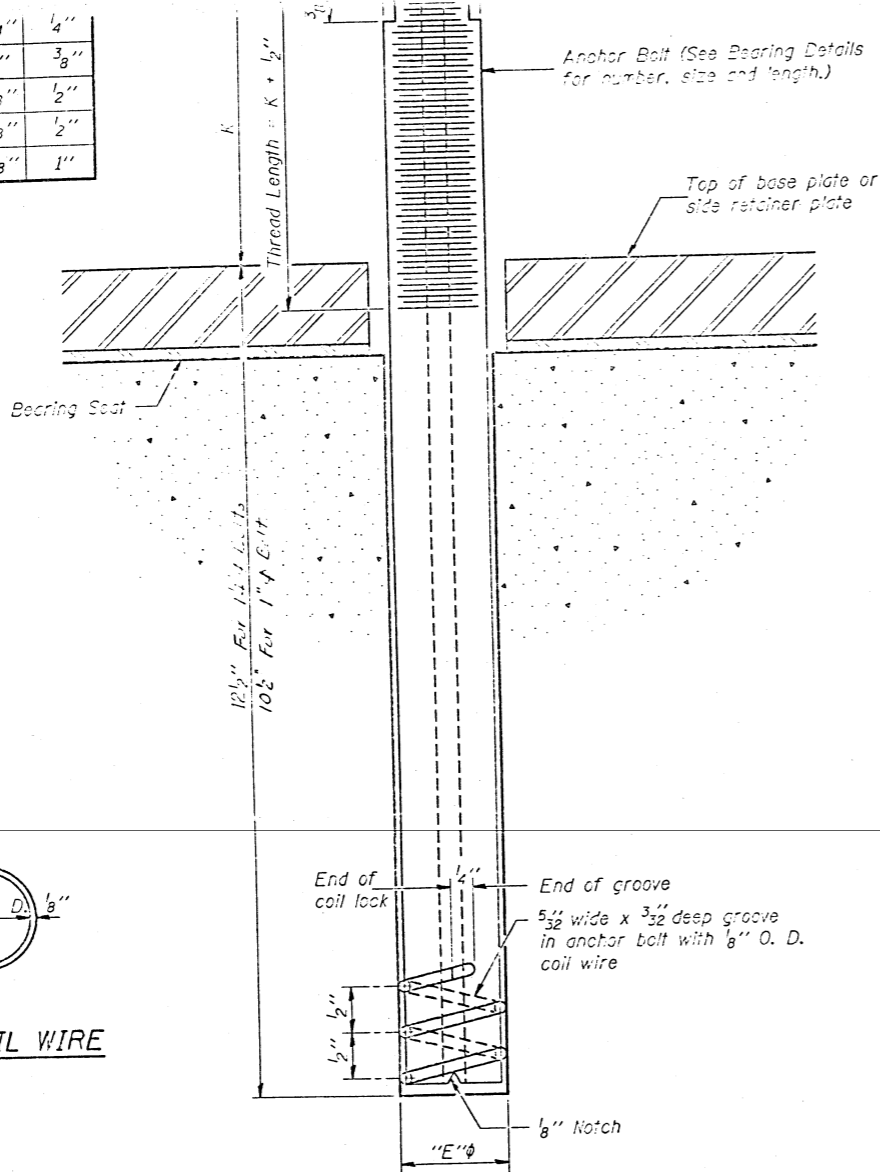
1. With the coil wire in place, the bolt shall be inserted into the hole and turned clockwise to a snug fit in the hole. Nut and washer shall be placed on the bolt. The nut shall be tensioned until the steel base plates are held securely to the concrete bearing seat.
2. Epoxy grout shall be pumped through 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.



PLAN-COIL WIRE

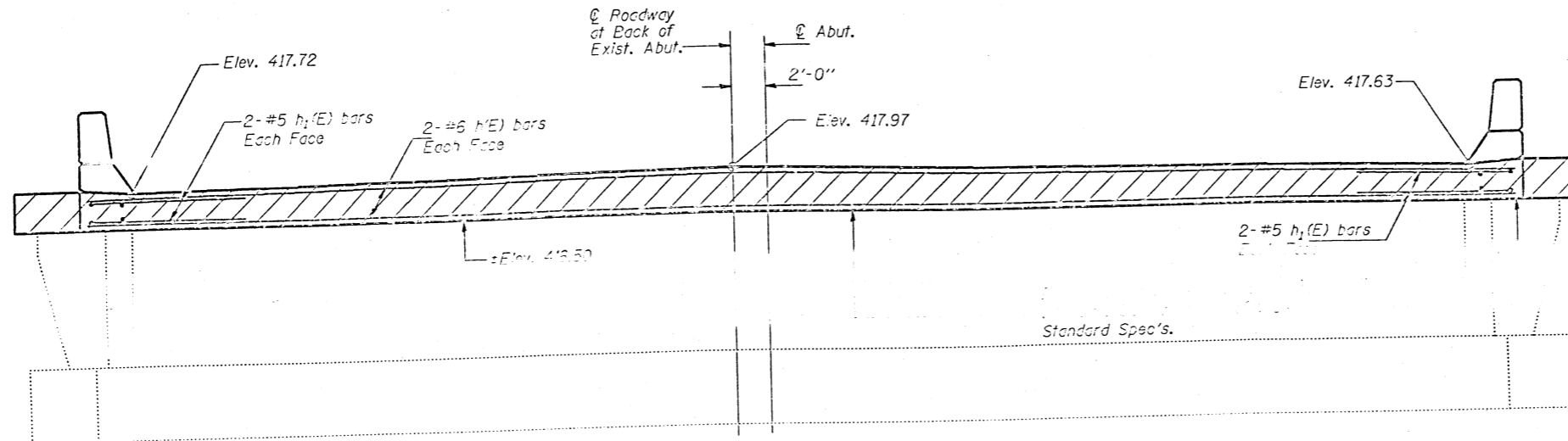
ILLINOIS COIL-LOCK ANCHOR BOLT

**ANCHOR BOLT DETAILS FOR BEARINGS**  
F.A.I. RT. 57 SEC. (28-1B1D-1)  
FRANKLIN COUNTY  
STATION 102+70.00

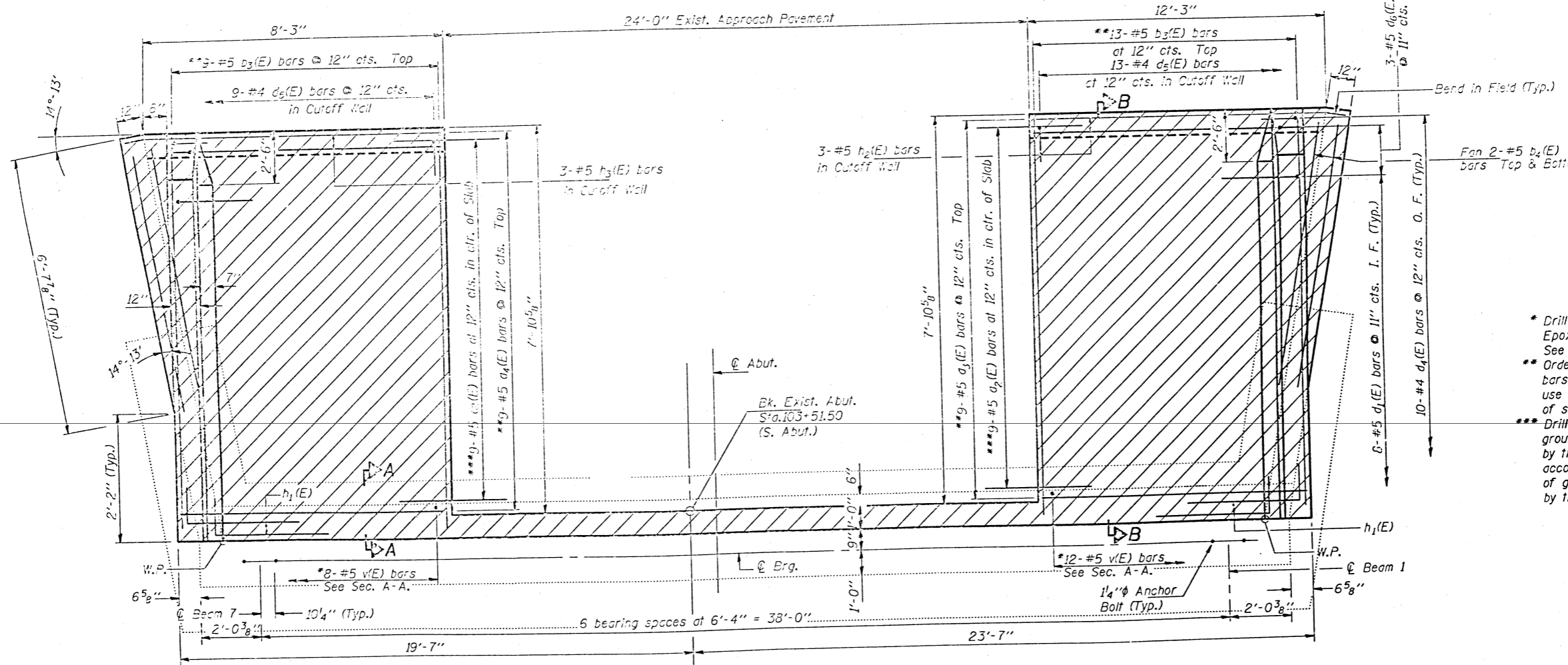
DESIGNED *Michael J. Stinson*  
CHECKED *George J. Cavanaugh*  
DRAWN *E. Vern Taylor*  
CHECKED *MAS CAG*

EXAMINED *Greg J. Kaspar*  
PASSED *Ralph E. Anderson*  
APPROVED \_\_\_\_\_

May 20 1993  
ENGINEER OF TRUCK DESIGN  
ENGINEER OF BRIDGES AND STRUCTURES  
DIRECTOR OF HIGHWAYS



**ELEVATION**  
(Looking South)



**PLAN**

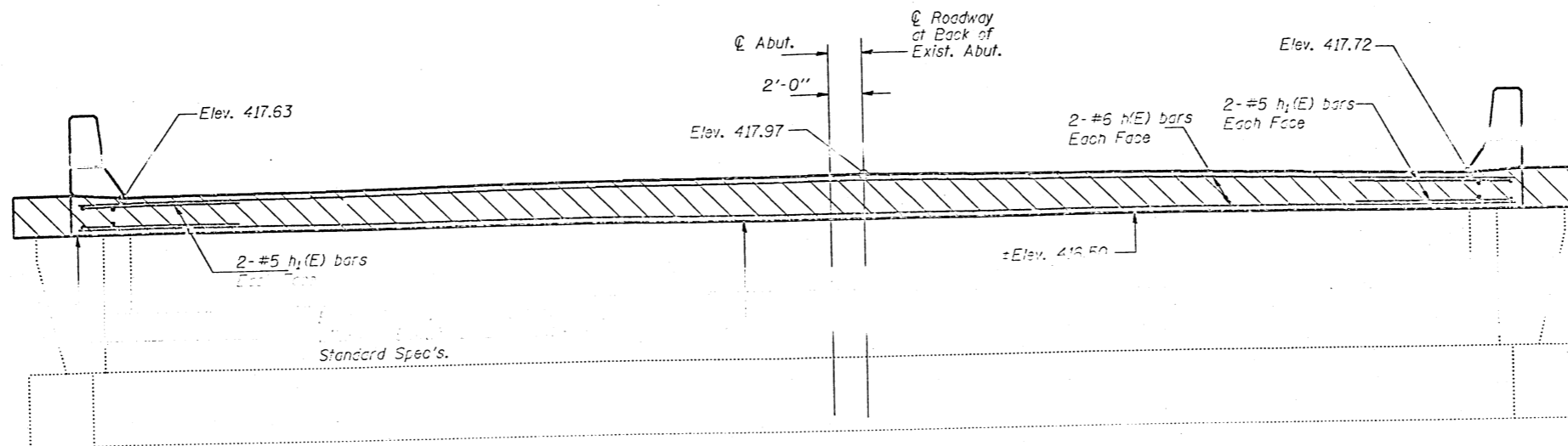
- \* Drill  $\frac{7}{8}$ "  $\phi$  x 9" Min. hole. Epoxy grout v(E) bars. See Special Provisions.
- \*\* Order a3(E), a4(E) and b3(E) bars full length. Cut to fit and use remainder of bars in bottom of slab.
- \*\*\* Drill  $\frac{7}{8}$ "  $\phi$  x 9" Min. hole. Epoxy grout a2(E) bars. Use a grout approved by the Department or epoxy grout in accordance with BSP-11. The method of grout application shall be approved by the Engineer. See Special Provisions.

Notes: Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #6 of 16. Quantity for End Post is billed with "Class X Conc. Superstr." Existing reinforcement extending into removed area shall be cleaned, straightened and incorporated into the new construction. Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line. For anchor bolt installation details see sheet #12 of 16. All edges shall have Standard  $\frac{3}{4}$ " chamfer. Work this sheet with sheet #15 of 16.

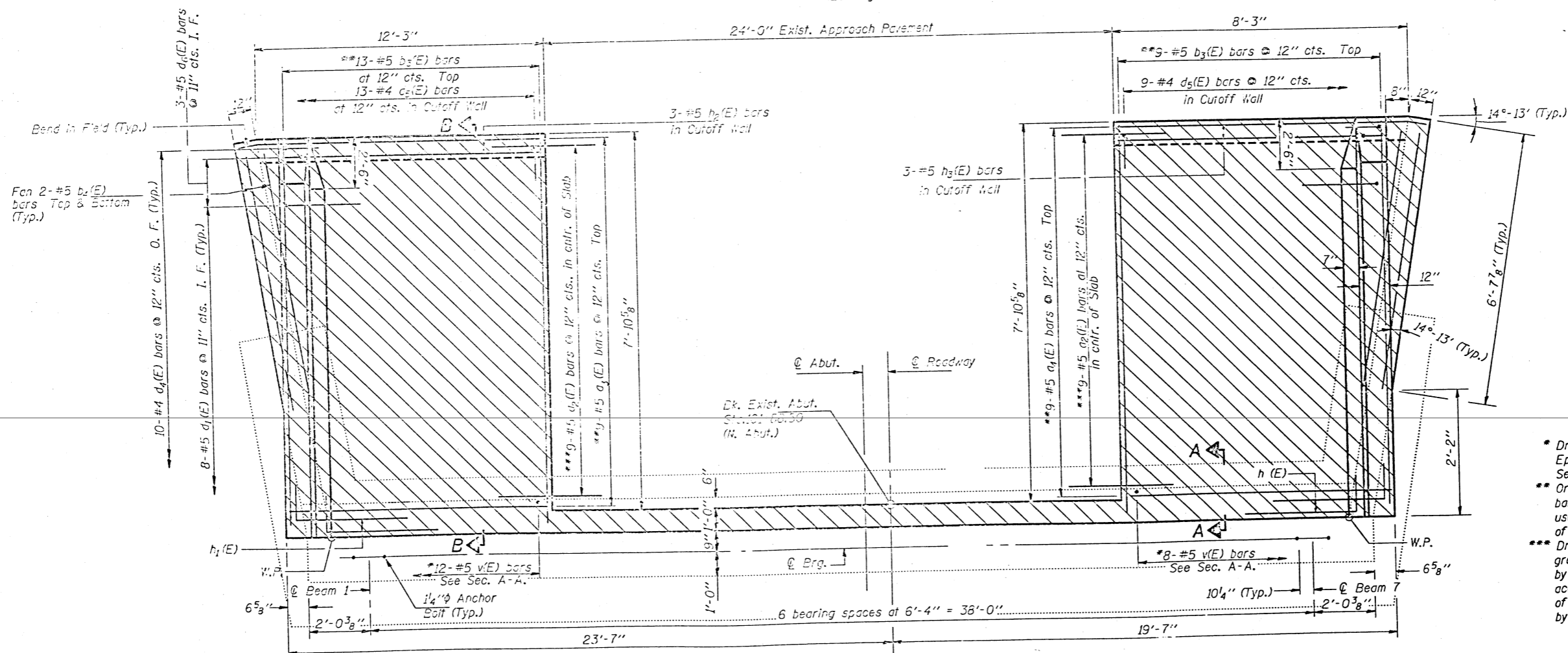
DESIGNED	Michael Johnson George A. Gaudin	EXAMINED	May 20 1993 David J. Kasper ENGINEER OF PUBLIC DESIGN
CHECKED	Tommy S. Quinn	PASSED	Robert E. Ambrose ENGINEER OF BRIDGES AND STRUCTURES
DRAWN	E. Vern Taylor	APPROVED	DIRECTOR OF HIGHWAYS
CHECKED	MAS GAG 102		

**SOUTH ABUTMENT**  
**F.A.I. RT. 57 SEC. (28-1B/D-1**  
**FRANKLIN COUNTY**  
**STATION 102+70.00**





**ELEVATION**  
(Looking North)



**PLAN**

Notes: Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #6 of 16. Quantity for End Post is billed with "Class X Conc. Superstr." Existing reinforcement extending into removed area shall be cleaned, straightened and incorporated into the new construction. Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line. For anchor bolt installation details see sheet #12 of 16. All edges shall have Standard 3/4" chamfer. Work this sheet with sheet #15 of 16.

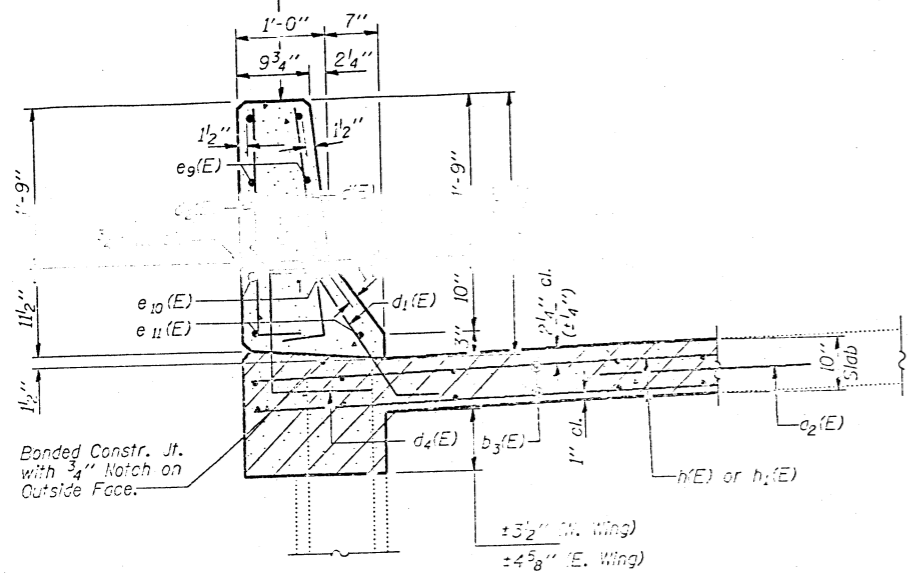
- \* Drill 7/8"  $\phi$  x 9" Min. hole. Epoxy grout v(E) bars. See Special Provisions.
- \*\* Order a3(E), a4(E) and b3(E) bars full length. Cut to fit and use remainder of bars in bottom of slab.
- \*\*\* Drill 7/8"  $\phi$  x 9" Min. hole. Epoxy grout a2(E) bars. Use a grout approved by the Department or epoxy grout in accordance with BSP-11. The method of grout application shall be approved by the Engineer. See Special Provisions.

DESIGNED	Michael A. Johnson
CHECKED	George S. Johnson
DRAWN	E. Vern Taylor
CHECKED	MAS GAG TAC

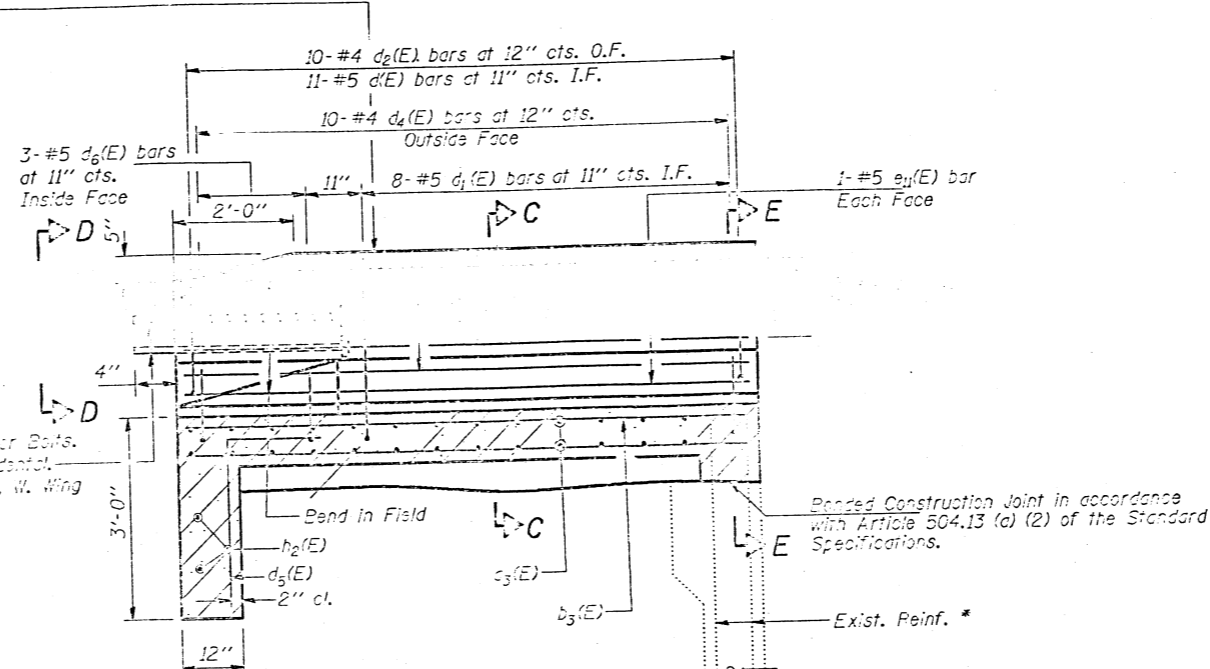
EXAMINED	May 20 1993
PASSED	Robert E. Carlson
APPROVED	Director of Highways

**NORTH ABUTMENT**  
**F.A.I. RT. 57 SEC. (28-1B)D-1**  
**FRANKLIN COUNTY**  
**STATION 102+70.00**

Approach Parapet shall be poured after bridge parapet is in place. Form top surfaces to match parapet grade.

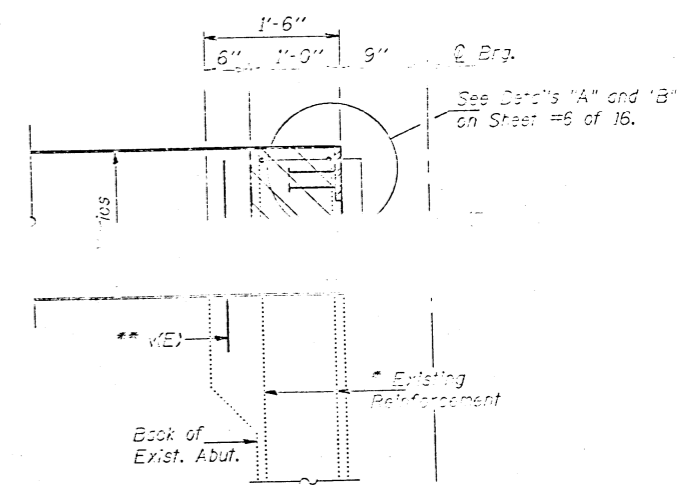


SECTION E-E



SECTION B-B

\* Existing Reinforcement extending into new Construction shall be cleaned, straightened and incorporated into new Construction. Cost is incidental to "Concrete Removal."



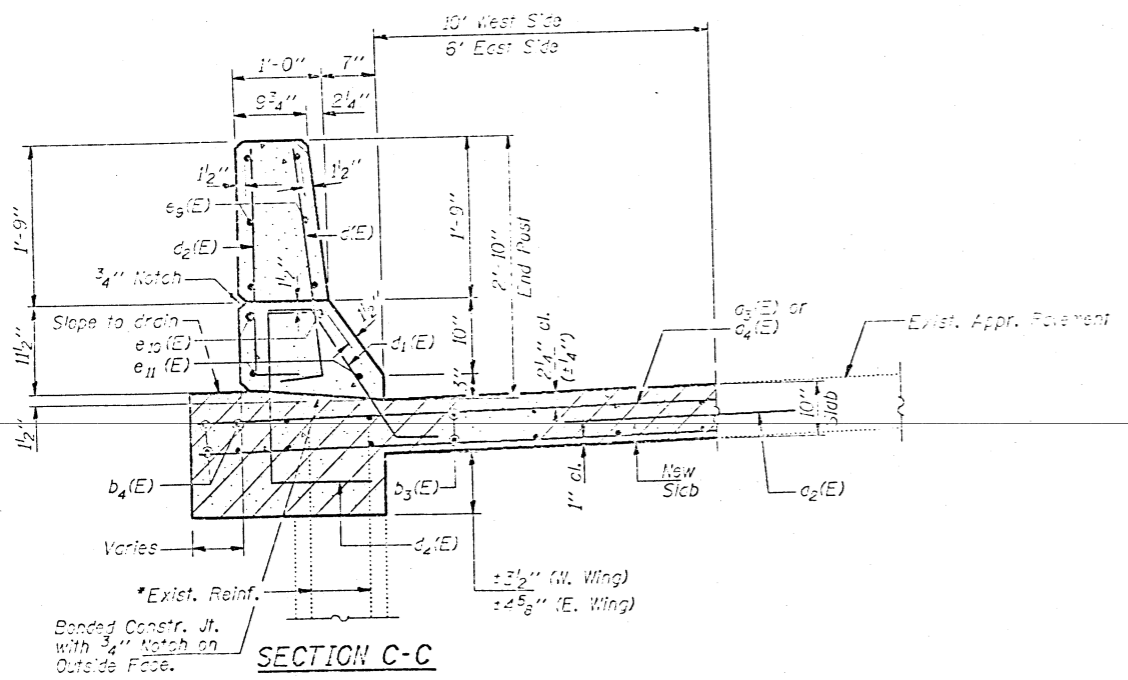
SECTION A-A

\*\* Drill 7/8"φ x 9" min. holes and epoxy grout v(E) bars in accordance with Special Provision BSP-11 or grout approved by the Department. Cost shall be incidental to "Reinforcement Bars (Epoxy Coated)".

ABUTMENTS & APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
c2(E)	36	#5	3'-0"	—
c3(E)	18	#5	26'-0"	—
c4(E)	18	#5	18'-0"	—
b5(E)	44	#5	17'-2"	—
b2(E)	16	#5	7'-6"	—
d(E)	44	#5	3'-0"	L
d1(E)	32	#5	2'-7"	L
d2(E)	40	#4	3'-0"	L
d4(E)	40	#4	3'-8"	L
c5(E)	44	#4	4'-6"	L
d6(E)	12	#5	2'-9"	L
e9(E)	24	#4	8'-7"	—
e10(E)	8	#8	8'-7"	—
e11(E)	8	#5	8'-7"	—
n(E)	8	#6	39'-9"	—
h1(E)	16	#5	6'-6"	L
h2(E)	6	#5	12'-0"	—
h3(E)	6	#5	8'-0"	—
v(E)	40	#5	2'-0"	—
Reinforcement Bars, Epoxy Coated			Lbs.	3,460

Reinforcement bars designated (E) shall be epoxy coated.  
Notes: Work this sheet with Sheets #13 & #14 of 16.



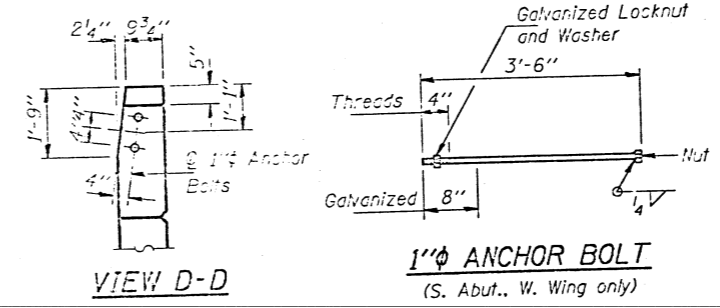
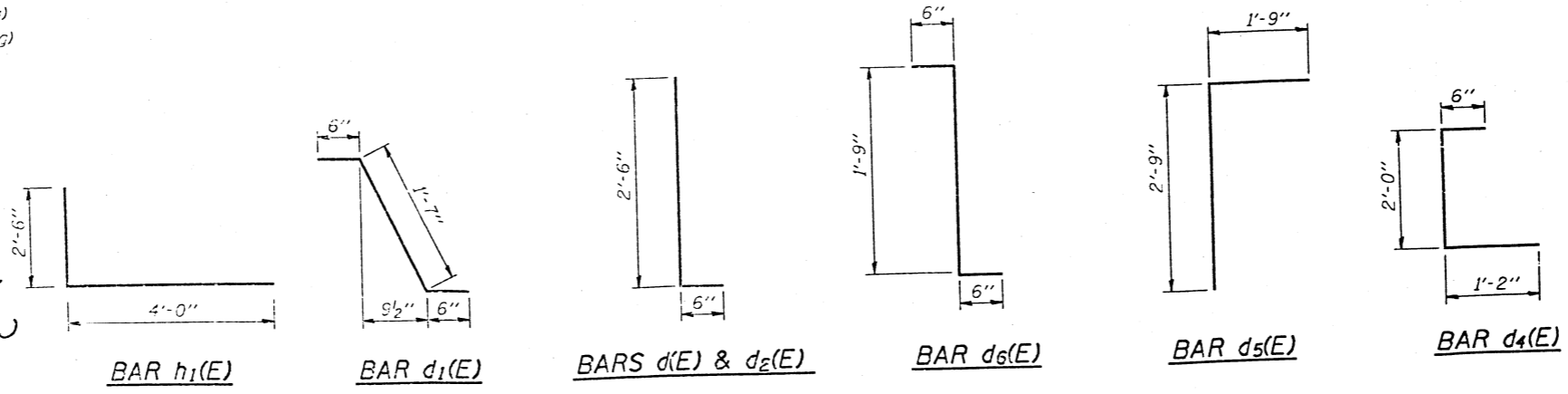
SECTION C-C

Notes: Area to be poured after Superstructure forms have been removed.  
Concrete quantity to be billed with "Class X Concrete Superstructure." See Sheet #6 of 16.  
Reinforcement bars designated (E) shall be Epoxy coated.

DESIGNED: Michael A. Johnson  
CHECKED: John A. Johnson  
DRAWN: E. Verna Taylor  
CHECKED: MAS GAG

EXAMINED: David J. Kasper  
PASSED: Robert E. Omberson  
APPROVED: \_\_\_\_\_

May 20 1993

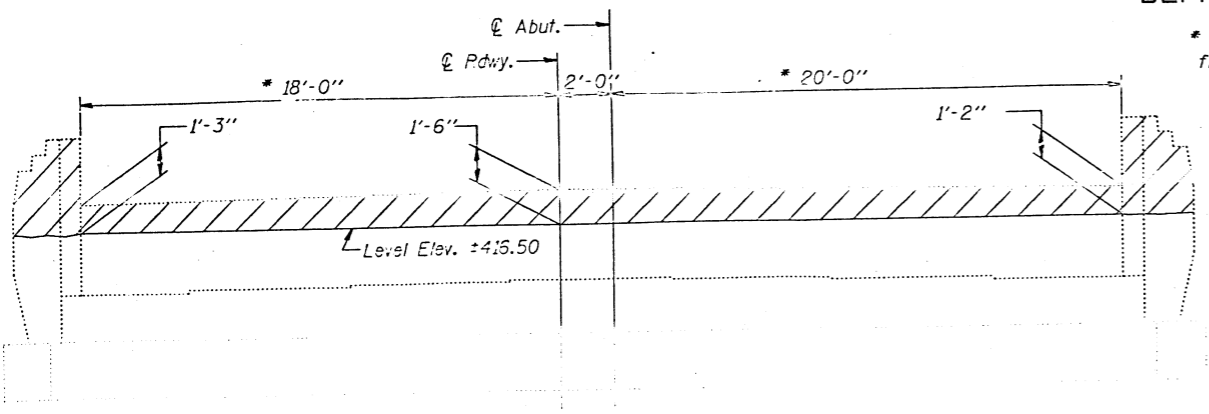


1"φ ANCHOR BOLT  
(S. Abut., W. Wing only)

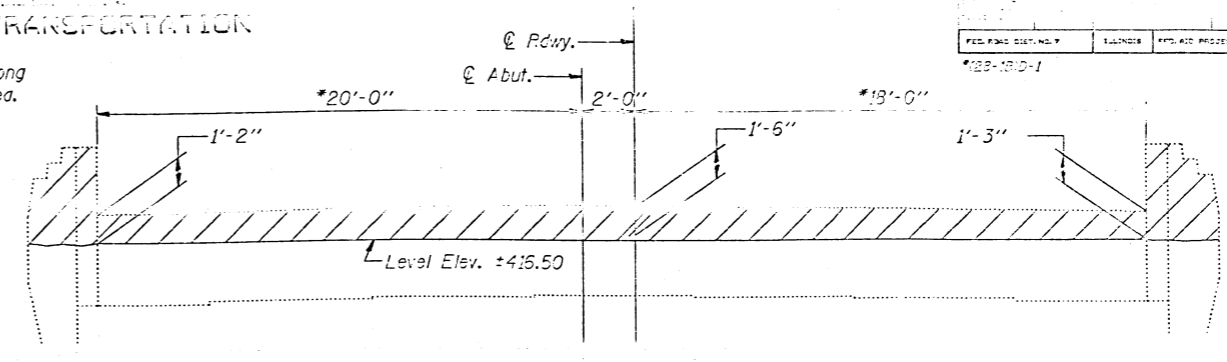
NORTH AND SOUTH ABUTMENT DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D-1  
FRANKLIN COUNTY  
STATION 102+70.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

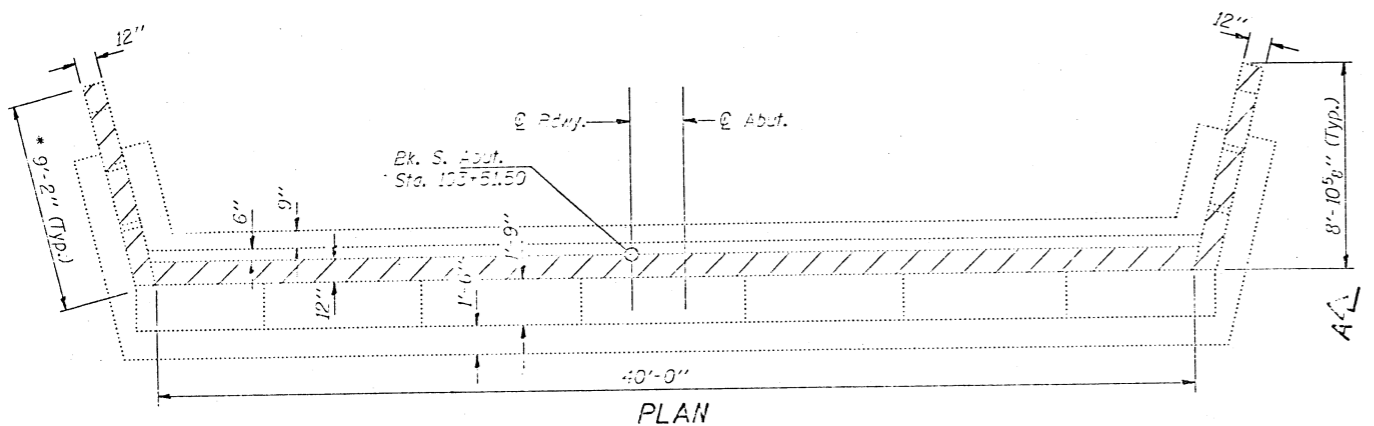
\* These dimensions are along front face of hatched area.



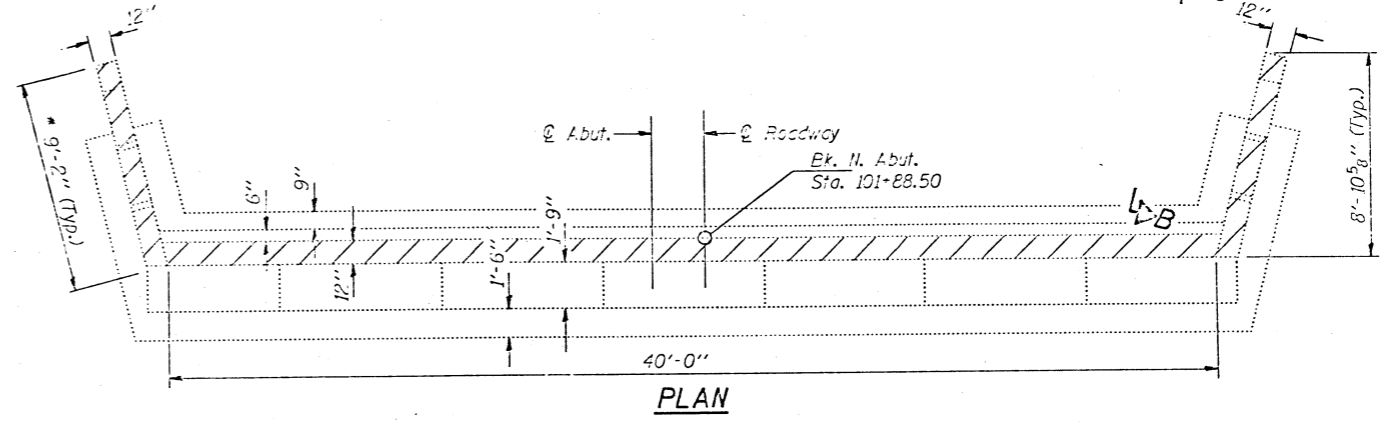
**ELEVATION**  
(Looking South)



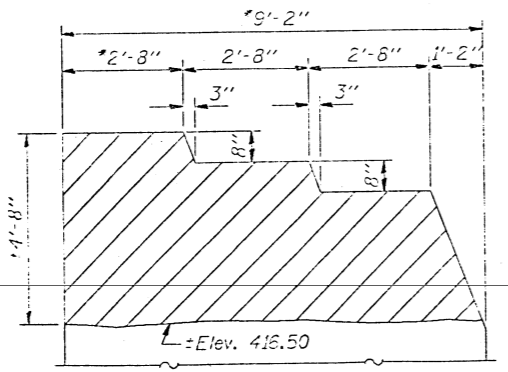
**ELEVATION**  
(Looking North)



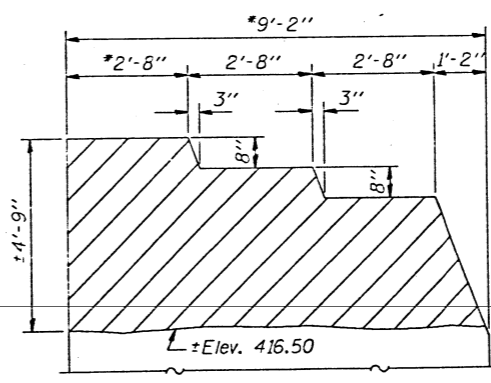
**PLAN**



**PLAN**



**VIEW A-A**



**VIEW B-B**

**SOUTH ABUTMENT DETAILS**

**NORTH ABUTMENT DETAILS**

\* Inside Face of wing

Notes: Hatched area indicates Concrete Removal.  
For existing shoulder pavement removal see Roadway Plans.

**TWO ABUTMENTS  
BILL OF MATERIAL**

Item	Unit	Total
Concrete Removal	Cu. Yd.	9

**CONCRETE REMOVAL DETAILS  
FOR EXISTING ABUTMENTS  
F.A.I. RT. 57 SEC. (28-1B)D-1  
FRANKLIN COUNTY  
STATION 102+70.00**

DESIGNED *Michael A. Stephenson*  
CHECKED *James A. ...*  
DRAWN *E. Vern Teuler*  
CHECKED *M.S. GUG*

May 20 1993

EXAMINED *Gregory D. Larson*  
PASSED *Robert E. Anderson*  
APPROVED \_\_\_\_\_

DIRECTOR OF HIGHWAYS

# STATE OF ILLINOIS

## DEPARTMENT OF TRANSPORTATION

### DIVISION OF HIGHWAYS

# PLANS FOR PROPOSED FEDERAL AID HIGHWAY

F.A.I. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
57	*	FRANKLIN	155	1
* 28(5B-1,5B,2B,1B)D; 28(5VB,3VB-1)I				

D-99-036-90



FOR INDEX OF SHEETS, SEE SHEET NO.2  
FOR SUMMARY OF QUANTITIES, SEE SHEET NO.3-4

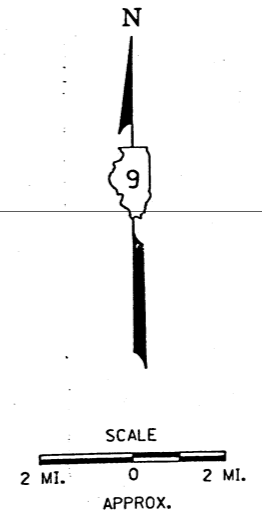
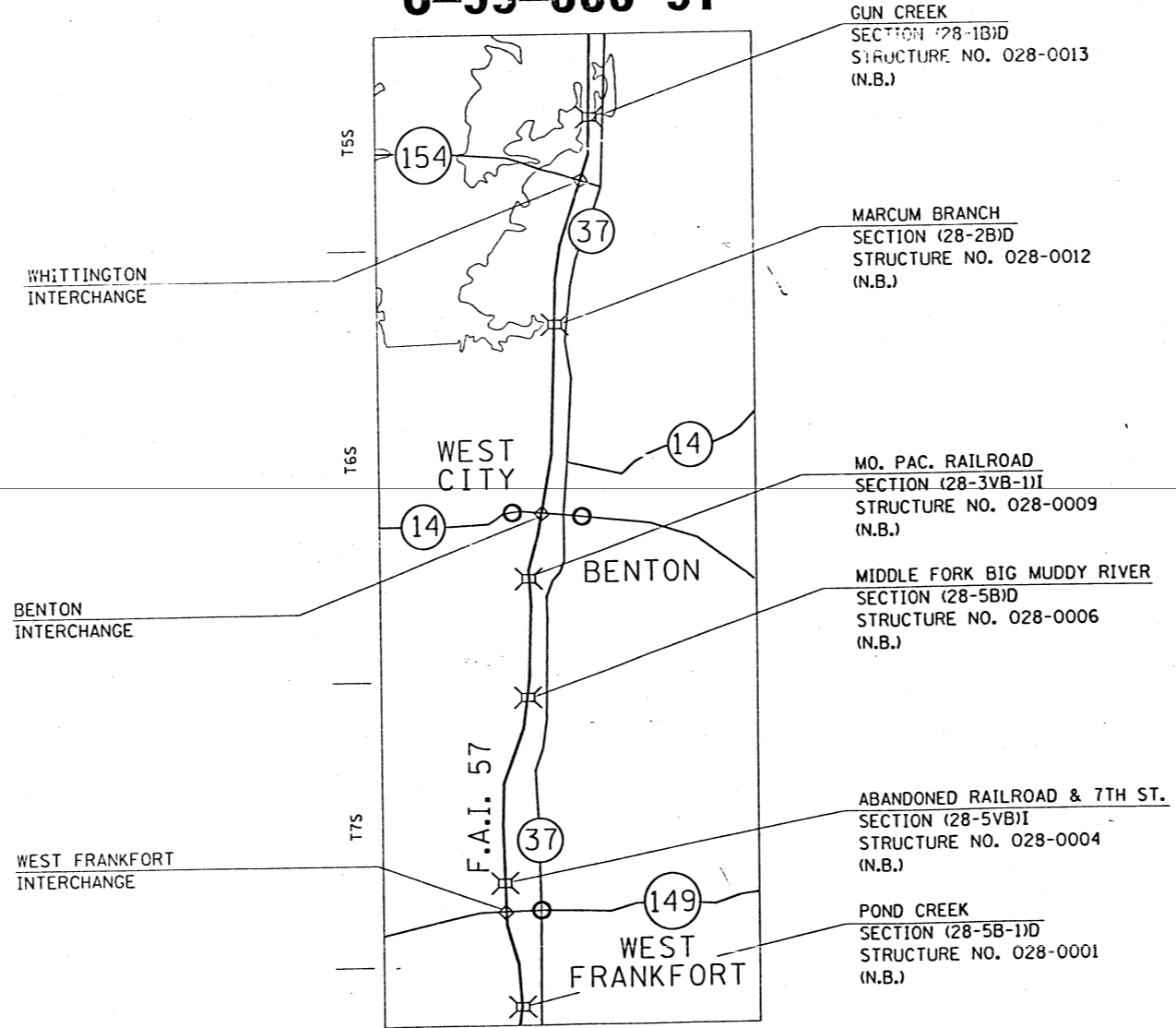
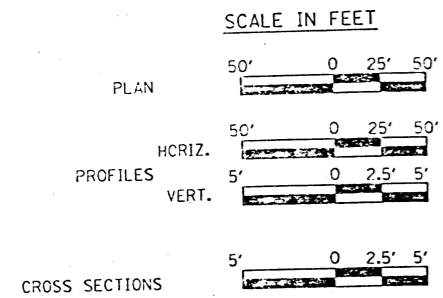
## F.A.I. ROUTE 57

### SECTION 28(5B-1,5B,2B,1B)D; 28(5VB,3VB-1)I

### FRANKLIN COUNTY

### PROJECT NO. IM-57-2(132)63

### C-99-006-91



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION  
DIVISION OF HIGHWAYS

SUBMITTED 5/106 1992  
*Karl A. Bartelme* DISTRICT ENGINEER

EXAMINED \_\_\_\_\_ 19\_\_\_\_\_  
ENGINEER OF PLANS AND CONTRACTS

PASSED June 12 1992  
*Harry D. Gould* ENGINEER OF DESIGN

APPROVED June 12 1992  
*Ralph C. Welna* DIRECTOR, DIVISION OF HIGHWAYS

JULIE 1-800-892-0123

**CONTRACT NO. 98148**

REEL 9-141

PROJECT ENGINEER: JOSE RUIZ  
SQUAD LEADER: ED SHAFFER  
549-2171  
CENTREX 702-4554

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET NO. 1
F.A.I. 57		FRANKLIN	155	24
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	

Bench Mark: Top of 1/2" bolt imbedded in the S.E. corner of the east handrail on the southbound lane of the Gun Creek Bridge. Elev. 419.91

Existing structure: 028-0013 N.B. Built as F.A.I. Route 57 28-1B-F in 1962. The superstructure consists of R.C. deck supported on 3 span continuous W.F. beams. Temporary median cross-overs shall be utilized to divert traffic over adjacent bridge (028-0014 S.B.) during reconstruction.

GENERAL NOTES

Field welding of construction accessories will not be permitted to the bottom flange of beams nor to the top flange for a distance equal to one-fourth the span length each way from the pier supports. Field welding in other areas will be permitted only when approved by the Engineer.

Reinforcement bars shall conform to the requirements of AASHTO M-31, M-42 or M-53 Grade 60.

Plan dimensions and details relative to existing structure have been taken from existing plans and Field Survey Elevations 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 of the unit price bid for the work.

Bearing seat surfaces shall be constructed or adjusted to the designated elevations within a tolerance of 1/8 inch. Adjustment shall be made by shimming the bearing. Two 1/2" adjusting shims, of the dimensions of the top bearing plate, shall be provided for each new bearing in addition to all other plates or shims.

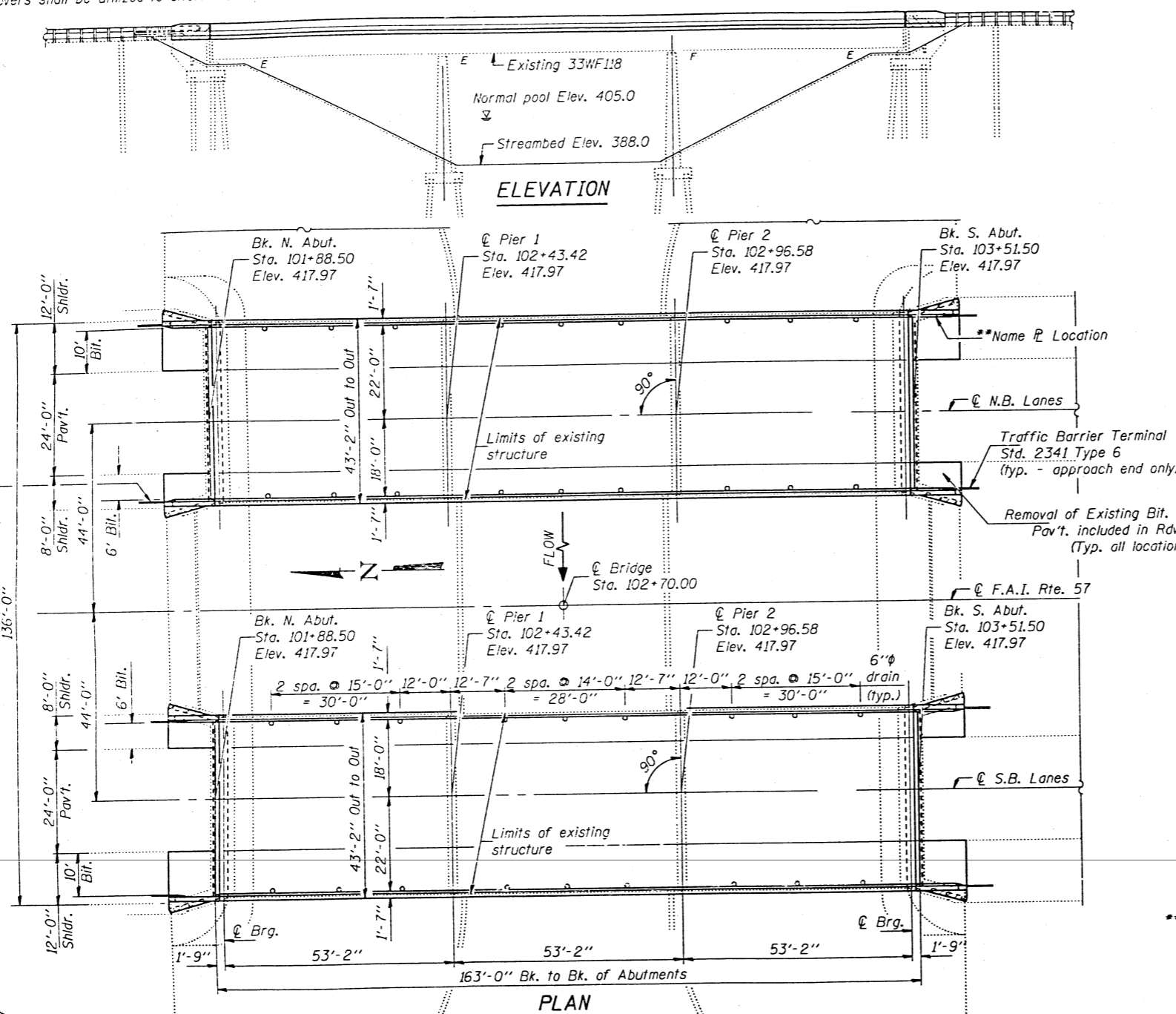
The Contractor will be required to mark on top of the concrete deck, the locations of the top flange of all the steel beams, prior to any removal of the bridge concrete deck. Saw cutting directly over the top of the beam flanges is not permitted.

All top surfaces of the abutment seat area shall receive "Bridge Seat Sealer." Estimated quantity = 147 Sq. Ft.

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.

Structural steel shall only be cleaned and painted as required by the special provision "Cleaning and Painting New Steel and Adjacent Areas of Existing Steel Structures".

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. Cost shall be incidental to concrete removal.



Traffic Barrier Terminal Std. 2340 Type 5 (typ. - exit end)

Traffic Barrier Terminal Std. 2341 Type 6 (typ. - approach end only)

STATION 102 + 70.00  
BUILT 199 BY  
STATE OF ILLINOIS  
F.A.I. RT.57 SEC.(28-1B)D  
F.A. PROJ. 1M-57-2(1992)63  
LOADING HS20  
STR. NO. 028-0013

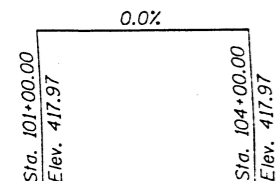
NAME PLATE

See Std. 2113  
\*\*Existing Name Plate to be cleaned and relocated next to the new Name Plate on the New Parapet. Cost incidental to "Name Plates."

TOTAL BILL OF MATERIAL

ITEM	UNIT	SUPER	SUB	TOTAL
Concrete Removal	Cu. Yd.		9	9
Removal of Existing Concrete Deck	Each	1		1
Structure Excavation	Cu. Yd.		23	23
Floor Drains	Each	18		18
Preformed Joint Seal 2 1/2"	Lin. Ft.	43		43
Preformed Joint Seal 4"	Lin. Ft.	43		43
Class X Concrete Superstructure	Cu. Yd.	215.4		215.4
Protective Coat	Sq. Yd.	852		852
Elastomeric Bearing Assembly, Type I	Each	21		21
Structural Steel	Lbs.	10,450		10,450
Stud Shear Connectors	Each	3094		3094
Reinforcement Bars, Epoxy Coated	Pound	51,380		51,380
Name Plates	Each	1		1
Bridge Seat Sealer	L.S.		0.25	0.25
Jack and Remove Existing Brgs.	Each	28		28
Bridge Deck Grooving	Sq. Yd.	713		713

\*\*\* Includes deck & top and inside face of parapet.  
\* Includes removal of existing railing and expansion plates.



PROFILE GRADE  
(F.A.I. 57 along centerline pavement)

DESIGNED	Michael A. Johnson KSC
CHECKED	Steve Brown, Eng. Staff
DRAWN	E. Vern Taylor
CHECKED	MAS, GAG

EXAMINED *Raj J. Kaspar*  
PASSED *Ralph E. Anderson*  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS



NOTE: Only the Northbound Structure is included in the Contract.

DESIGN SPECIFICATIONS

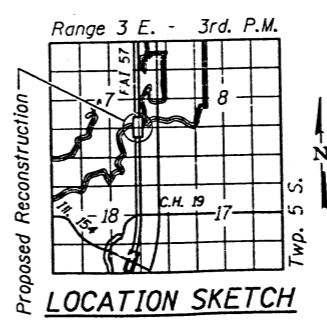
1989 AASHTO, 1990 & 1991 Interim Specifications & Seismic Retrofitting Guidelines for Highway Bridges.

LOADING HS 20-44 & ALT.

Allow 25#/sq. ft. for future wearing surface.

DESIGN STRESSES

FIELD UNITS  
New Construction  
f<sub>c</sub> = 3,500 psi  
f<sub>y</sub> = 60,000 psi (Reinf.)  
f<sub>y</sub> = 36,000 psi (Str. Steel - M270 Gr. 36)  
Old Construction  
f<sub>s</sub> = 20,000 psi (Exist. Structural Steel)



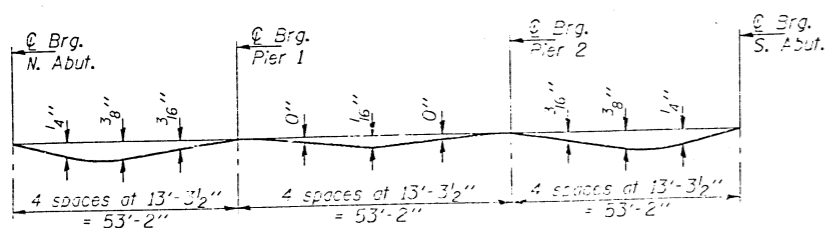
LOCATION SKETCH

GENERAL PLAN  
F.A.I. ROUTE 57 OVER  
GUN CREEK  
FRANKLIN COUNTY  
STATION 102+70.00  
STRUCTURE NUMBER 028-0013 (N.B.)

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
P.A.L. 57		FRANKLIN	155	25
FED. ROAD DIST. NO. 1		ILLINOIS	FED. AID PROJECT-	
*(28-1B)D				

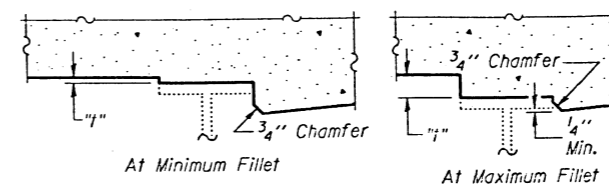
SHEET NO. 2  
16 SHEETS



**DEAD LOAD DEFLECTION DIAGRAM**

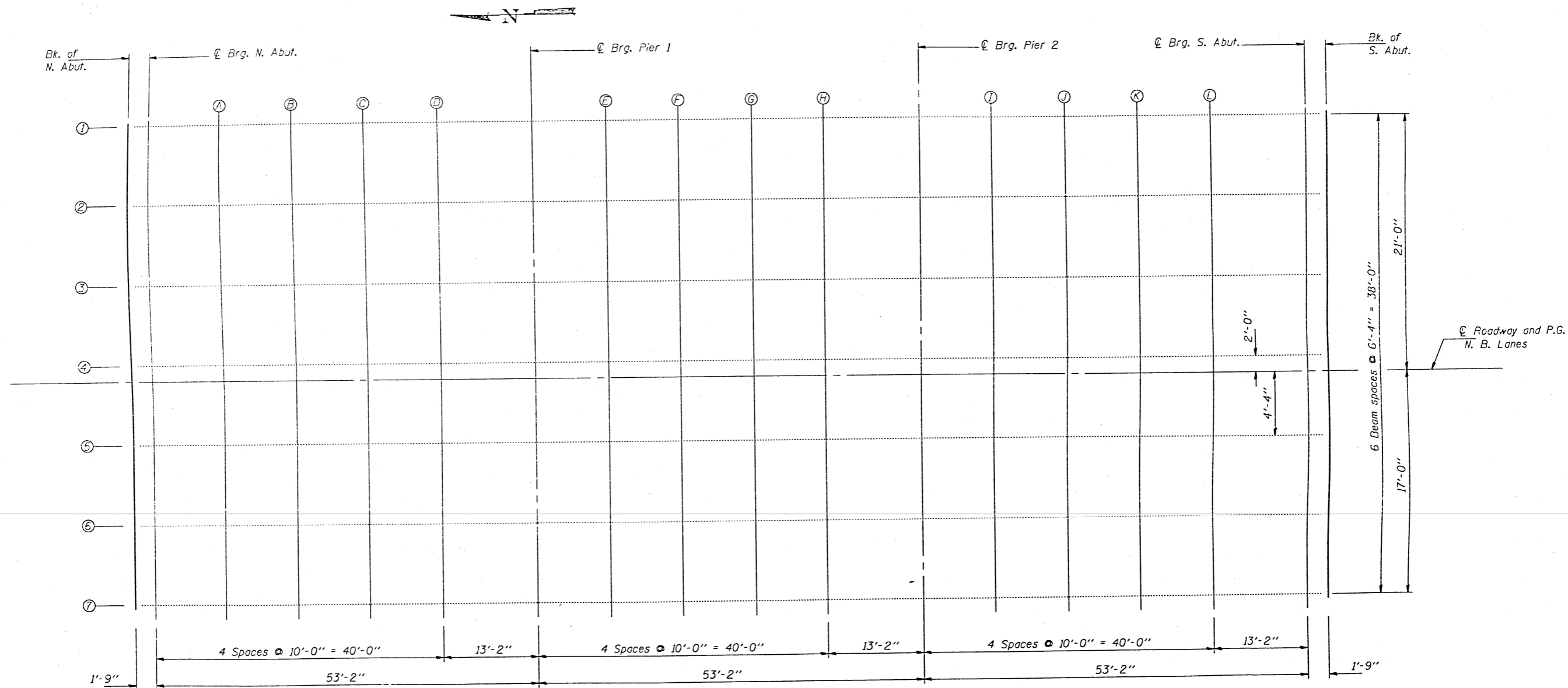
(Includes weight of concrete only)

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 Sheet #3 of 16.



To determine "f". After all structural steel has been erected, elevations of the top flanges of the beams shall be taken at intervals shown below. These elevations subtracted from the "Theoretical Grade Elevations Adjusted for Dead Load Deflection" shown on Sheet #3 of 16, minus slab thickness, equals the fillet heights "f" above top flange of beams.

**FILLET HEIGHTS**



**PLAN**

DESIGNED: Michael O. Stephenson, RSC	EXAMINED: <i>Raj D. Kasper</i>
CHECKED: Shaker Asfour, GAG	PASSED: <i>Ralph E. Anderson</i>
DRAWN: E. Vern Taylor	APPROVED: _____
CHECKED: MAS, GAG	DIRECTOR OF HIGHWAYS

May 22 1992

**TOP OF SLAB ELEVATIONS**  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00



STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

☉ BEAM 1

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	21.000	417.658	417.658
☉ BRG. N. ABUT.	10190.250	21.000	417.658	417.658
A	10200.250	21.000	417.658	417.675
B	10210.250	21.000	417.658	417.685
C	10220.250	21.000	417.658	417.685
D	10230.250	21.000	417.658	417.675
☉ BRG. PIER 1	10243.417	21.000	417.658	417.658
E	10253.417	21.000	417.658	417.658
F	10263.417	21.000	417.658	417.659
G	10273.417	21.000	417.658	417.660
H	10283.417	21.000	417.658	417.658
☉ BRG. PIER 2	10296.583	21.000	417.658	417.658
I	10306.583	21.000	417.658	417.671
J	10316.583	21.000	417.658	417.681
K	10326.583	21.000	417.658	417.666
L	10336.583	21.000	417.658	417.681
☉ BRG. S. ABUT.	10349.750	21.000	417.658	417.658
BK. S. ABUT.	10351.500	21.000	417.658	417.658

☉ BEAM 2

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	14.667	417.790	417.790
☉ BRG. N. ABUT.	10190.250	14.667	417.790	417.790
A	10200.250	14.667	417.790	417.807
B	10210.250	14.667	417.790	417.816
C	10220.250	14.667	417.790	417.816
D	10230.250	14.667	417.790	417.806
☉ BRG. PIER 1	10243.417	14.667	417.790	417.790
E	10253.417	14.667	417.790	417.790
F	10263.417	14.667	417.790	417.791
G	10273.417	14.667	417.790	417.792
H	10283.417	14.667	417.790	417.790
☉ BRG. PIER 2	10296.583	14.667	417.790	417.790
I	10306.583	14.667	417.790	417.802
J	10316.583	14.667	417.790	417.813
K	10326.583	14.667	417.790	417.818
L	10336.583	14.667	417.790	417.813
☉ BRG. S. ABUT.	10349.750	14.667	417.790	417.790
BK. S. ABUT.	10351.500	14.667	417.790	417.790

☉ BEAM 3

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	8.333	417.910	417.910
☉ BRG. N. ABUT.	10190.250	8.333	417.910	417.910
A	10200.250	8.333	417.910	417.927
B	10210.250	8.333	417.910	417.936
C	10220.250	8.333	417.910	417.936
D	10230.250	8.333	417.910	417.926
☉ BRG. PIER 1	10243.417	8.333	417.910	417.910
E	10253.417	8.333	417.910	417.910
F	10263.417	8.333	417.910	417.911
G	10273.417	8.333	417.910	417.912
H	10283.417	8.333	417.910	417.910
☉ BRG. PIER 2	10296.583	8.333	417.910	417.910
I	10306.583	8.333	417.910	417.922
J	10316.583	8.333	417.910	417.933
K	10326.583	8.333	417.910	417.938
L	10336.583	8.333	417.910	417.933
☉ BRG. S. ABUT.	10349.750	8.333	417.910	417.910
BK. S. ABUT.	10351.500	8.333	417.910	417.910

☉ BEAM 4

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	2.000	417.967	417.967
☉ BRG. N. ABUT.	10190.250	2.000	417.967	417.967
A	10200.250	2.000	417.967	417.984
B	10210.250	2.000	417.967	417.993
C	10220.250	2.000	417.967	417.967
D	10230.250	2.000	417.967	417.983
☉ BRG. PIER 1	10243.417	2.000	417.967	417.967
E	10253.417	2.000	417.967	417.967
F	10263.417	2.000	417.967	417.968
G	10273.417	2.000	417.967	417.969
H	10283.417	2.000	417.967	417.967
☉ BRG. PIER 2	10296.583	2.000	417.967	417.967
I	10306.583	2.000	417.967	417.979
J	10316.583	2.000	417.967	417.990
K	10326.583	2.000	417.967	417.995
L	10336.583	2.000	417.967	417.990
☉ BRG. S. ABUT.	10349.750	2.000	417.967	417.967
BK. S. ABUT.	10351.500	2.000	417.967	417.967

☉ ROADWAY AND P. G.

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	0.000	417.970	417.970
☉ BRG. N. ABUT.	10190.250	0.000	417.970	417.970
A	10200.250	0.000	417.970	417.988
B	10210.250	0.000	417.970	417.997
C	10220.250	0.000	417.970	417.997
D	10230.250	0.000	417.970	417.967
☉ BRG. PIER 1	10243.417	0.000	417.970	417.970
E	10253.417	0.000	417.970	417.970
F	10263.417	0.000	417.970	417.972
G	10273.417	0.000	417.970	417.972
H	10283.417	0.000	417.970	417.970
☉ BRG. PIER 2	10296.583	0.000	417.970	417.970
I	10306.583	0.000	417.970	417.983
J	10316.583	0.000	417.970	417.994
K	10326.583	0.000	417.970	417.998
L	10336.583	0.000	417.970	417.993
☉ BRG. S. ABUT.	10349.750	0.000	417.970	417.970
BK. S. ABUT.	10351.500	0.000	417.970	417.970

☉ BEAM 5

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-4.333	417.954	417.954
☉ BRG. N. ABUT.	10190.250	-4.333	417.954	417.954
A	10200.250	-4.333	417.954	417.971
B	10210.250	-4.333	417.954	417.980
C	10220.250	-4.333	417.954	417.980
D	10230.250	-4.333	417.954	417.970
☉ BRG. PIER 1	10243.417	-4.333	417.954	417.954
E	10253.417	-4.333	417.954	417.954
F	10263.417	-4.333	417.954	417.955
G	10273.417	-4.333	417.954	417.956
H	10283.417	-4.333	417.954	417.954
☉ BRG. PIER 2	10296.583	-4.333	417.954	417.954
I	10306.583	-4.333	417.954	417.966
J	10316.583	-4.333	417.954	417.977
K	10326.583	-4.333	417.954	417.982
L	10336.583	-4.333	417.954	417.977
☉ BRG. S. ABUT.	10349.750	-4.333	417.954	417.954
BK. S. ABUT.	10351.500	-4.333	417.954	417.954

☉ BEAM 6

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-10.667	417.871	417.871
☉ BRG. N. ABUT.	10190.250	-10.667	417.871	417.871
A	10200.250	-10.667	417.871	417.889
B	10210.250	-10.667	417.871	417.898
C	10220.250	-10.667	417.871	417.898
D	10230.250	-10.667	417.871	417.888
☉ BRG. PIER 1	10243.417	-10.667	417.871	417.871
E	10253.417	-10.667	417.871	417.871
F	10263.417	-10.667	417.871	417.873
G	10273.417	-10.667	417.871	417.874
H	10283.417	-10.667	417.871	417.871
☉ BRG. PIER 2	10296.583	-10.667	417.871	417.871
I	10306.583	-10.667	417.871	417.884
J	10316.583	-10.667	417.871	417.895
K	10326.583	-10.667	417.871	417.900
L	10336.583	-10.667	417.871	417.894
☉ BRG. S. ABUT.	10349.750	-10.667	417.871	417.871
BK. S. ABUT.	10351.500	-10.667	417.871	417.871

☉ BEAM 7

Location	Station	Offset	Theoretical Grade Elevations	Theoretical Grade Elevations Adjusted For Dead Load Deflection
BK. N. ABUT.	10188.500	-17.000	417.741	417.741
☉ BRG. N. ABUT.	10190.250	-17.000	417.741	417.741
A	10200.250	-17.000	417.741	417.759
B	10210.250	-17.000	417.741	417.768
C	10220.250	-17.000	417.741	417.768
D	10230.250	-17.000	417.741	417.758
☉ BRG. PIER 1	10243.417	-17.000	417.741	417.741
E	10253.417	-17.000	417.741	417.741
F	10263.417	-17.000	417.741	417.743
G	10273.417	-17.000	417.741	417.743
H	10283.417	-17.000	417.741	417.741
☉ BRG. PIER 2	10296.583	-17.000	417.741	417.741
I	10306.583	-17.000	417.741	417.754
J	10316.583	-17.000	417.741	417.765
K	10326.583	-17.000	417.741	417.769
L	10336.583	-17.000	417.741	417.764
☉ BRG. S. ABUT.	10349.750	-17.000	417.741	417.741
BK. S. ABUT.	10351.500	-17.000	417.741	417.741

Note: Work this sheet with sheet #2 of 16.

DESIGNED Michael D. Stevenson, E.S.  
CHECKED Shaker Asfaw, GAG  
DRAWN E. Vern Taylor  
CHECKED MAS, GAG

EXAMINED Orsi O. Kapor  
PASSED Ralph E. Anderson  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS

E-S 1-6-82

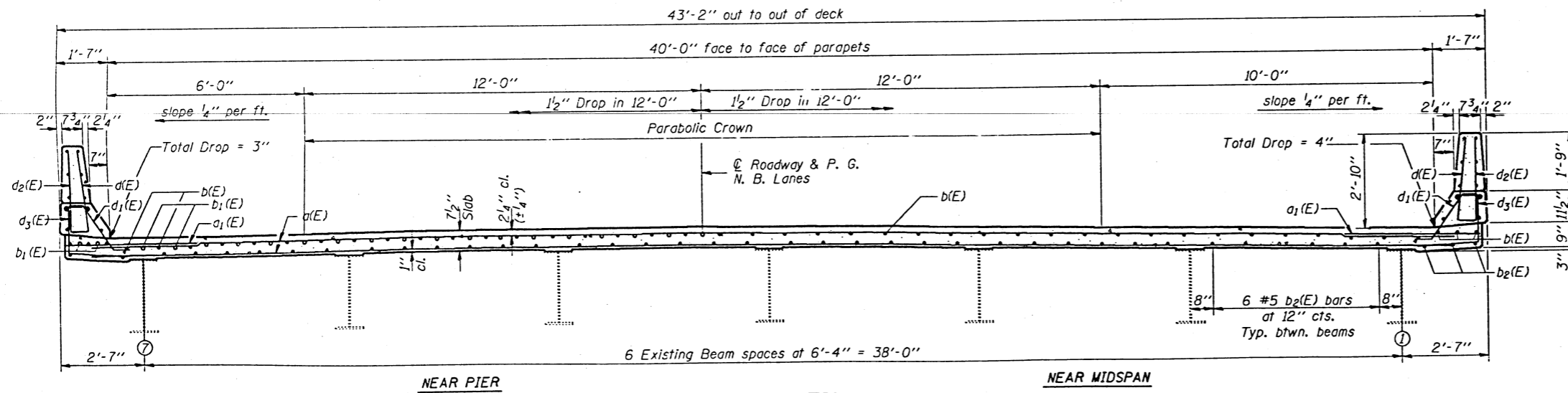
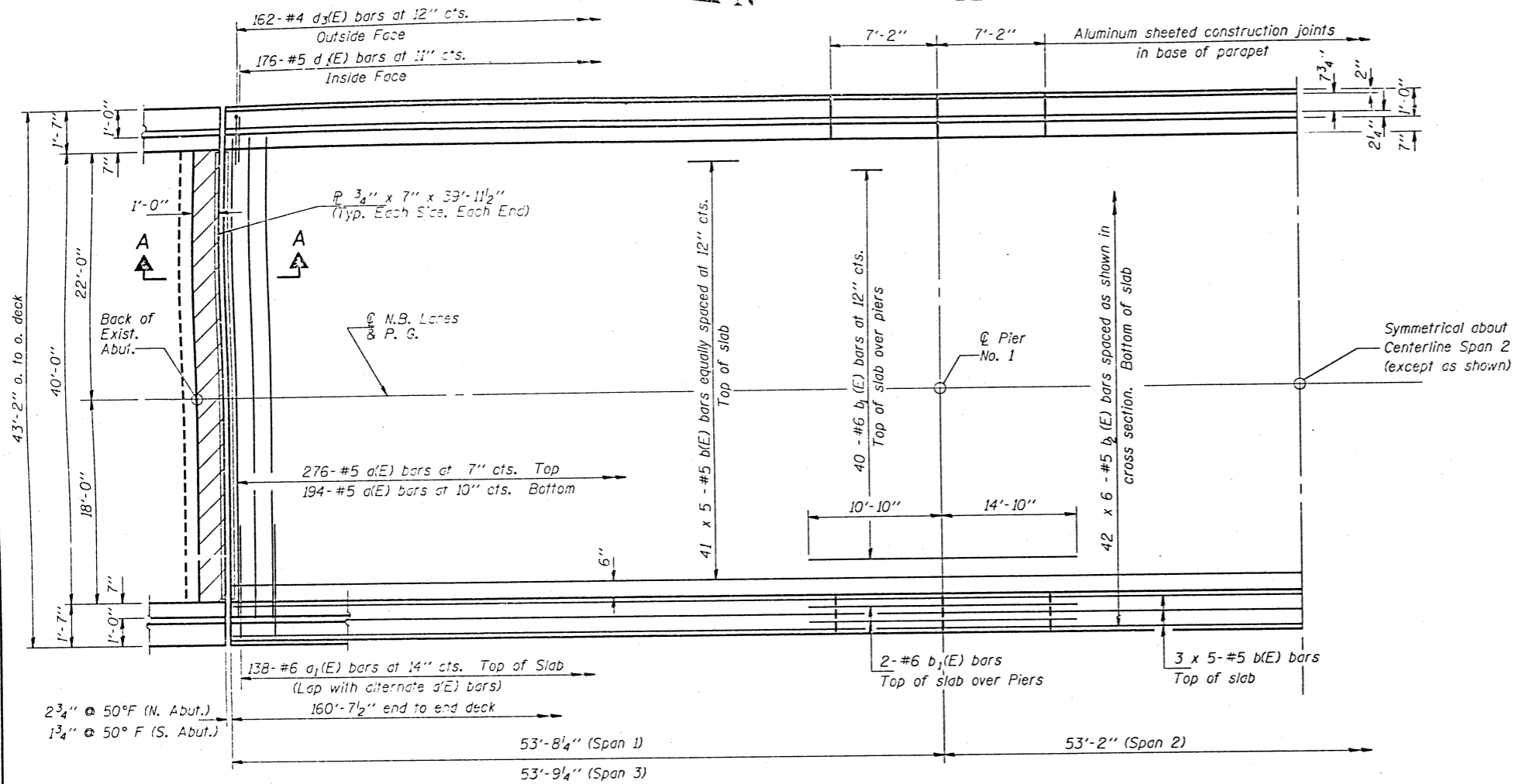
TOP OF SLAB ELEVATIONS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	*	FRANKLIN	155	27
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT-	

SHEET NO. 4  
16 SHEETS

\*(28-1B)D



Notes: See sheets #5 and #6 of 16 for superstructure details, parapet reinforcement and Bill of Material.  
Reinforcement bars designated (E) shall be epoxy coated.  
Reinforcement bars indicated thus 40 x 4 #5 etc. indicates 40 lines of bars with 4 lengths per line.  
See sheet #1 of 16 for drain locations and sheet #5 of 16 for details.  
Hatched area to be poured after superstructure forms have been removed. Quantity of concrete to be included with Class X Concrete Superstructure.  
For Sec. A-A See Sht. 6 of 16.

MIN. BAR LAPS  
#5 bars = 1'-8"

DESIGNED <i>Michael A. Stephens, RSK</i>	EXAMINED <i>Greg J. Kaspar</i>
CHECKED <i>Shaker Asfour, GAG</i>	PASSED <i>Ralph E. Anderson</i>
DRAWN <i>E. Vern Taylor</i>	APPROVED <i>[Signature]</i>
CHECKED <i>MAS, GAG</i>	DIRECTOR OF HIGHWAYS

May 22 1992

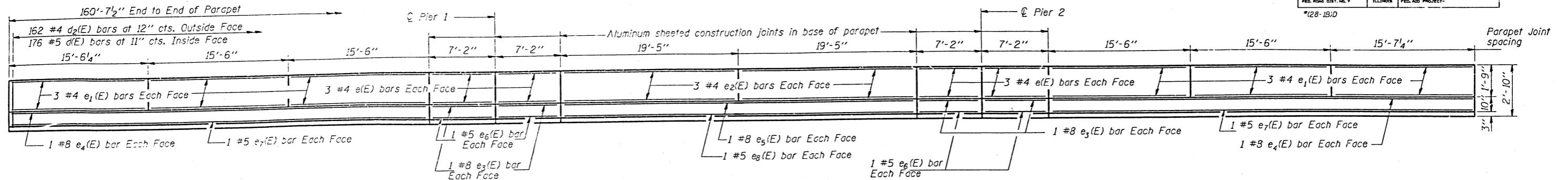
SUPERSTRUCTURE  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00

S-1-0 12-31-87

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

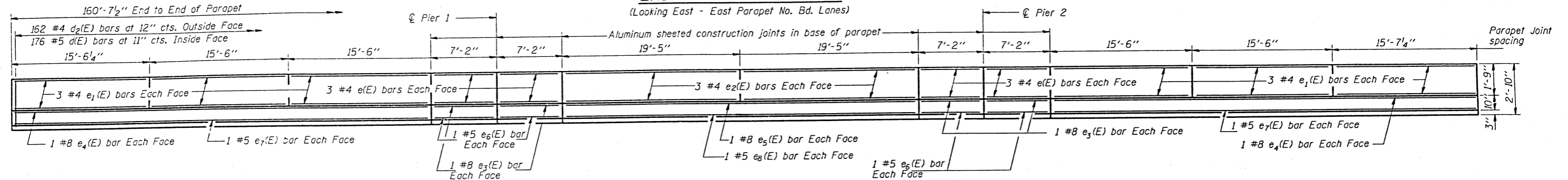
ROUTE NO.	SECTION	COUNTY	DATE	SHEET	SHEET NO. 5 16 SHEETS
F.A.I. 57		FRANKLIN	155	28	
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT		

(28-1B)D



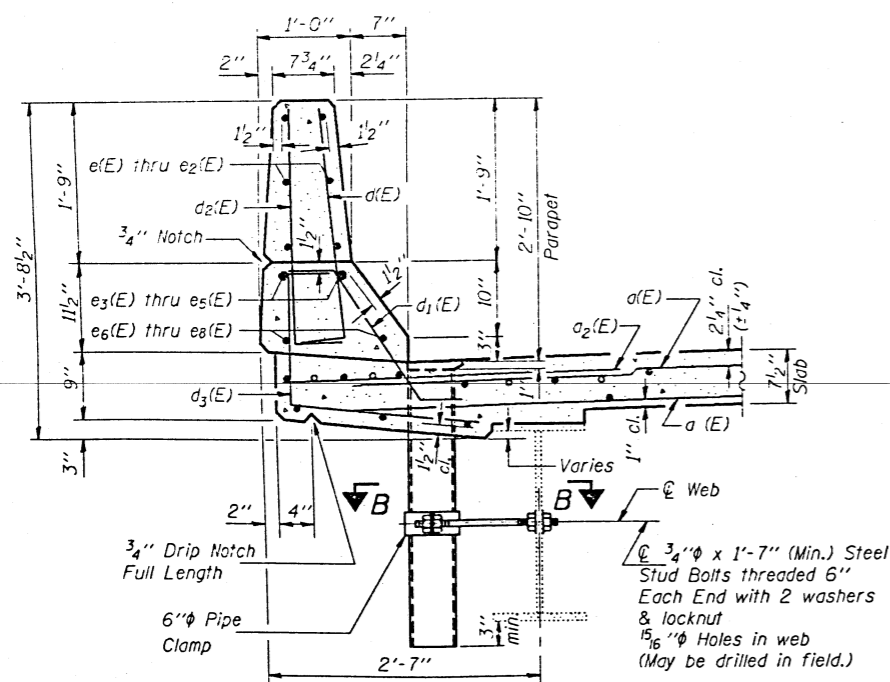
**EAST PARAPET ELEVATION**

(Looking East - East Parapet No. Bd. Lanes)



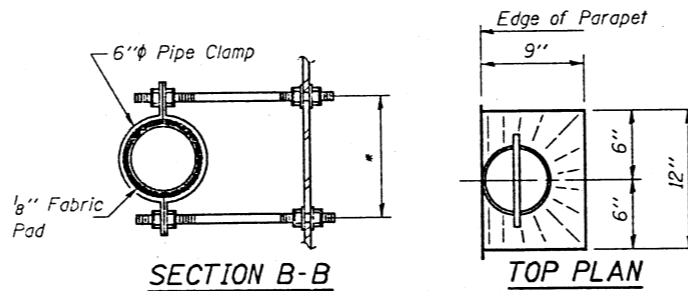
**WEST PARAPET ELEVATION**

(Looking West - West Parapet No. Bd. Lanes)

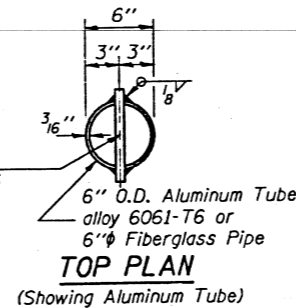
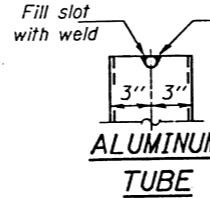
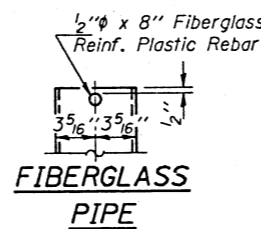
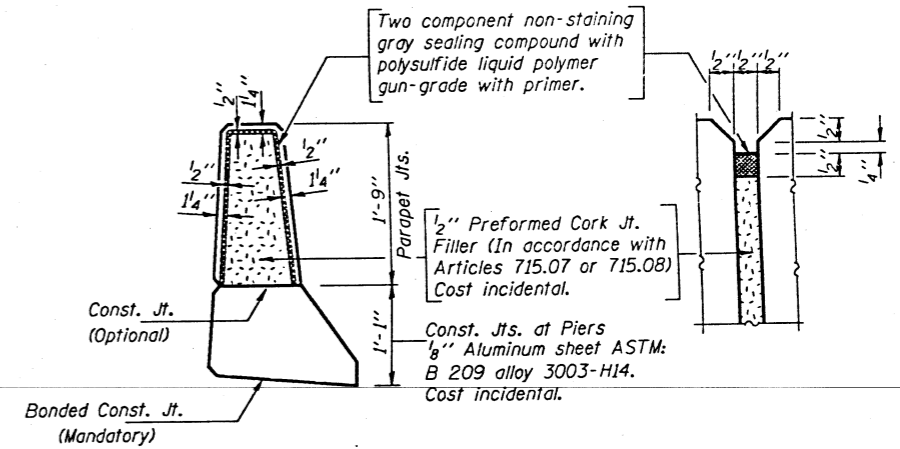


**SECTION THRU PARAPET**

See Plan view for Location of 6"φ drain.



\* Dimension as required by Pipe Clamp



**Notes:**

The exterior surfaces of the Floor Drain shall be painted with the vinyl enamel coat painting specified for Structural Steel. The exterior surface of the Aluminum tube shall be cleaned and given a washcoat pretreatment in accordance with Steel Structural Painting Council's Spec. SSPC-SPI & SSPC-Paint 27 prior to painting. Fiberglass to have prewash as per MIL-P-15328 prior to painting.

Fiberglass pipe shall conform to ASTM: D2996, with short-time rupture strength hoop tensile stress of 30,000 p.s.i. minimum. The surface of the Fiberglass pipe shall be free of bond inhibiting agents.

DESIGNED <i>Michael A. Stephens, E.S.C.</i>
CHECKED <i>Shaker Asfour, GAG</i>
DRAWN <i>E. Vern Taylor</i>
CHECKED <i>MAS, GAG</i>

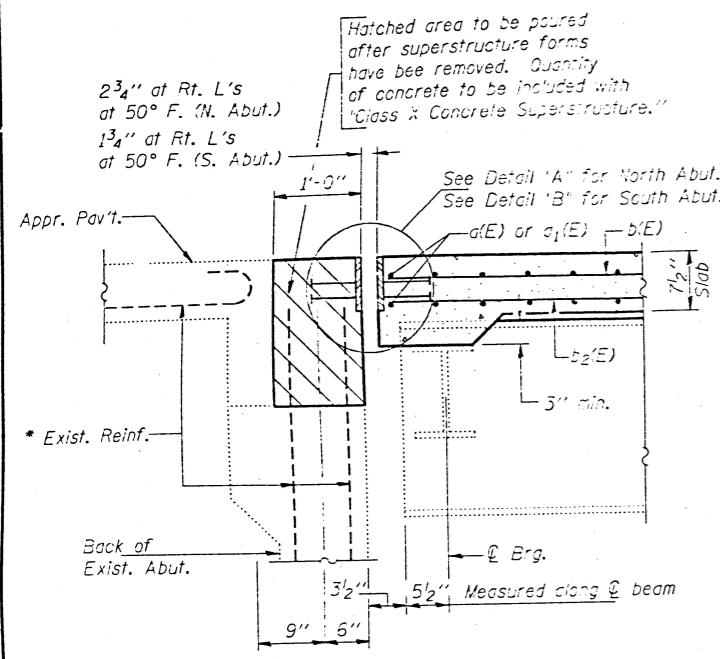
EXAMINED <i>Raj K. Kasper</i>	ENGINEER OF BRIDGE DESIGN
PASSED <i>Ralph E. Anderson</i>	ENGINEER OF BRIDGES AND STRUCTURES
APPROVED	DIRECTOR OF HIGHWAYS

**NORTH BOUND LANES  
SUPERSTRUCTURE DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00**

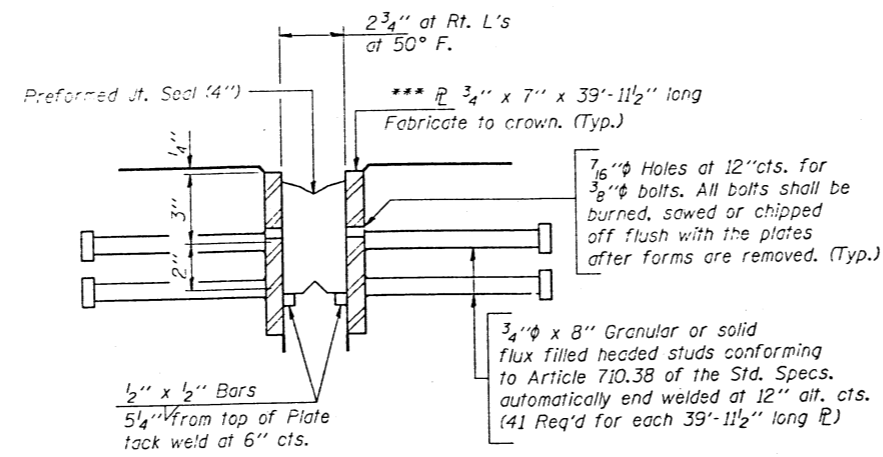
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET
F.A.I. 57		FRANKLIN	155	29
FED. ROAD DIST. NO.	ILLINOIS	FED. AID PROJECT		
(28-1B)D				

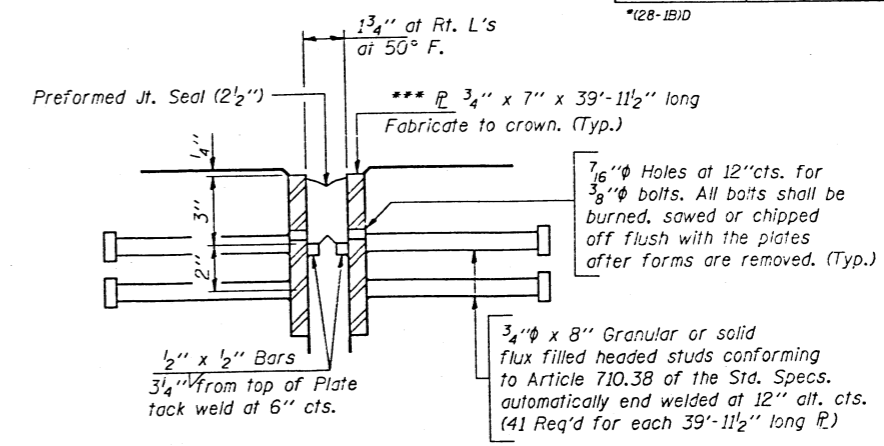
SHEET NO. 6  
16 SHEETS



SECTION A-A



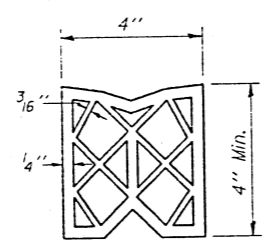
DETAIL "A"



DETAIL "B"

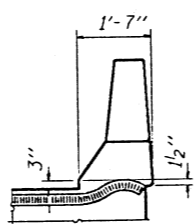
\*\*\* Furnish in segments of 20 ft. maximum length. Maximum space between installed segments shall be 16". Seal space with Silicone Sealant suitable for Structural Steel.

- Notes:
- After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel. No field painting required.
  - \*\*Reinforcement is included in Abutment & Approach Slab Bill of Material.
  - \* Existing vertical Reinforcement in the back wall and the longitudinal reinforcement in the approach slab shall be cleaned and straightened and incorporated into new construction. Cost incidental to "Concrete Removal."



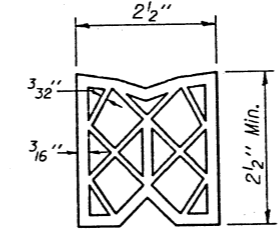
PREFORMED JOINT SEAL (4'')

North Abutment



END TREATMENT

Typ. for (4'') and (2 1/2'')



PREFORMED JOINT SEAL (2 1/2'')

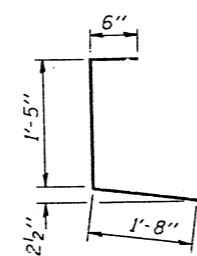
South Abutment

SUPERSTRUCTURE  
BILL OF MATERIAL

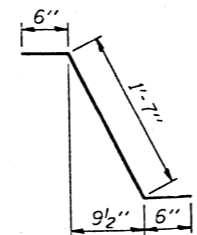
Bar	No.	Size	Length	Shape
d(E)	470	#5	41'-2"	
d1(E)	276	#6	4'-0"	
d(E)	235	#5	33'-5"	
d1(E)	88	#6	25'-8"	
d2(E)	252	#5	28'-2"	
d(E)	352	#5	3'-0"	L
d1(E)	352	#5	2'-7"	L
d2(E)	324	#4	3'-0"	L
d3(E)	324	#4	3'-7"	L
e(E)	48	#4	6'-11"	
e1(E)	72	#4	15'-3"	
e2(E)	24	#4	19'-2"	
e3(E)	16	#8	6'-11"	
e4(E)	8	#8	46'-3"	
e5(E)	4	#8	38'-7"	
e6(E)	16	#5	6'-11"	
e7(E)	8	#5	46'-3"	
e8(E)	4	#5	38'-7"	

Reinforcement Bars, Epoxy Coated	Lbs.	47,920
Class X Concrete Superstructure	Cu. Yd.	215.4

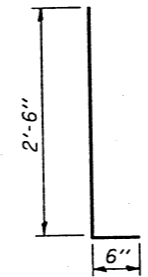
Reinforcement bars designated (E) shall be epoxy coated.



BAR d3(E)



BAR d1(E)



BARS d(E) & d2(E)

DESIGNED M. A. Stephens, RSC  
CHECKED Shaker Ashout, GAG  
DRAWN E. Vern Taylor  
CHECKED MAS, GAG

May 22 1992  
EXAMINED Raj D. Kasper  
PASSED Ralph E. Anderson  
APPROVED \_\_\_\_\_  
DIRECTOR OF HIGHWAYS

SUPERSTRUCTURE DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET	SHEET	SHEET NO. 7
F.A.I. 57		FRANKLIN	155	30	16 SHEETS
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT			

(28-1B)D

**\* INTERIOR BEAM MOMENT TABLE**

	0.4 Sp. 1 or 0.6 Sp. 3	Pier 1 or Pier 2	0.5 Sp. 2
Is (in <sup>4</sup> )	5900	5900	5900
Ic (in <sup>4</sup> )	15782		15782
Ss (in <sup>3</sup> )	359	359	359
Sc (in <sup>3</sup> )	530		530
φ (K/ft.)	.75	1.03	.75
M <sub>Q</sub> (K)	169	271	53
f <sub>s</sub> non-comp (k.s.i.)	5.6	9.1	1.8
s <sub>Q</sub> (K/ft.)	.276		.276
M <sub>sQ</sub> (K)	69		37
M <sub>L</sub> (K)	329	160	267
M (Imp) (K)	92	45	75
M (Total)	490	205	379
f <sub>s</sub> (Comp) (k.s.i.)	11.1	6.9	8.6
f <sub>s</sub> (Total) (k.s.i.)	16.7	16.0	10.4
VR (K)	41		40

**\* INTERIOR BEAM REACTION TABLE**

	Abuts.	Piers
R <sub>P</sub> (K)	22.2	59.7
R <sub>L</sub> (K)	32.8	38.4
Imp. (K)	9.2	10.8
R (Total) (K)	64.2	108.9

**\* Service Load Values.**

Is and Ss are the moment of inertia and section modulus of the steel section used in computing fs (Total).

Ic and Sc are the moment of inertia and section modulus of the composite section used in computing fs (Total).

VR is the maximum live Load + Impact shear range in span.

$$M \text{ (Total)} = M_s Q + (M_L + I)$$

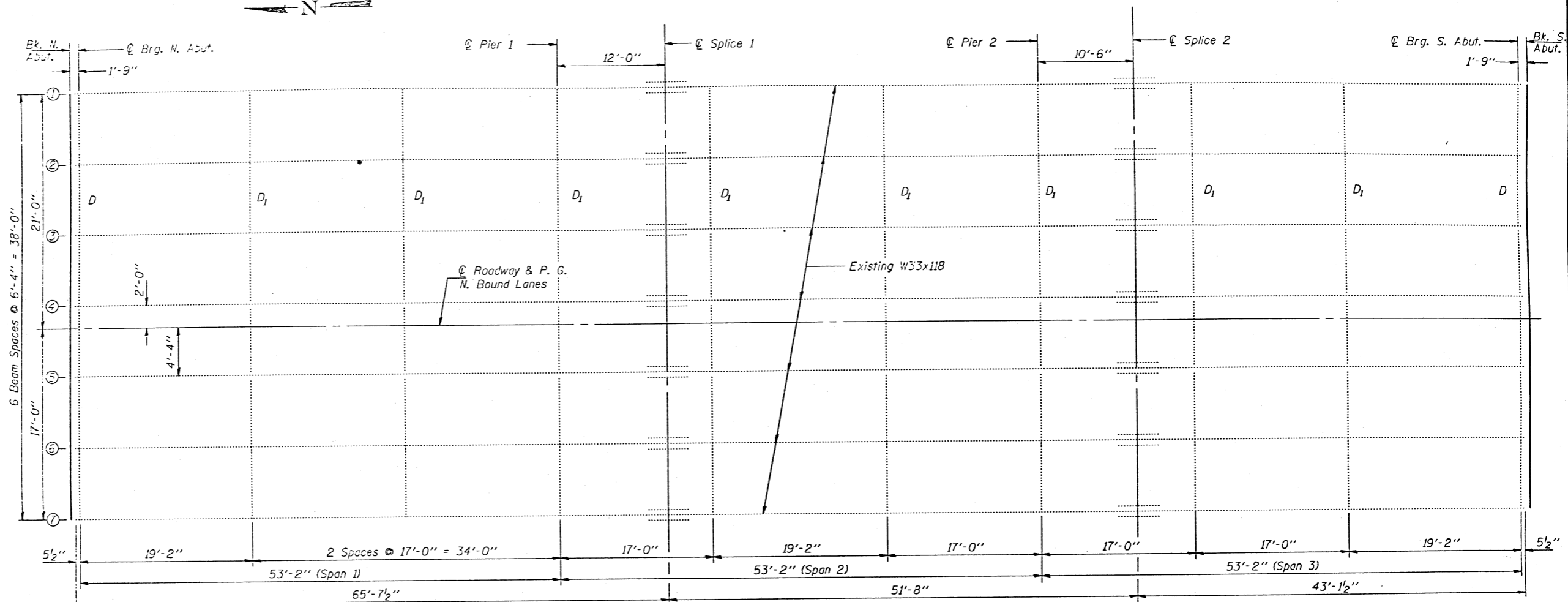
fs (Total) is the sum of the stresses due to [M<sub>Q</sub> + M<sub>sQ</sub> + (M<sub>L</sub> + I)]

M<sub>Q</sub> is the Moment due to Dead Loads on non-composite section.

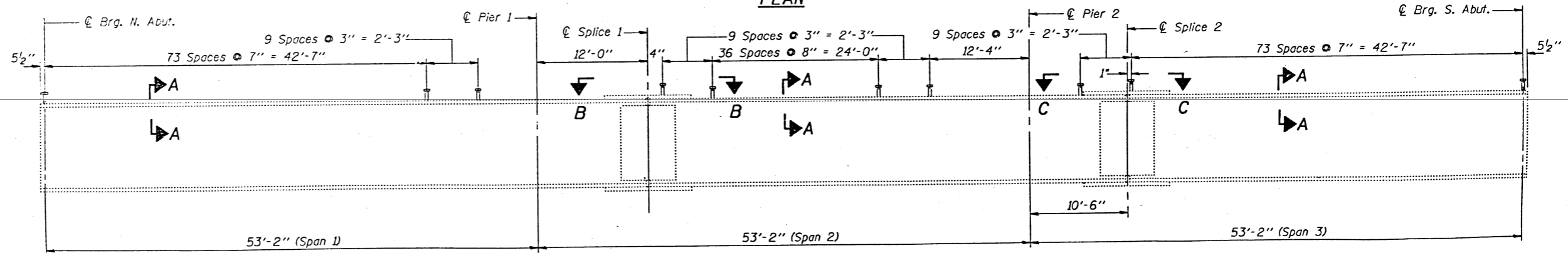
M<sub>sQ</sub> is the Moment due to Dead Loads on composite section.

M<sub>L</sub> is the Moment due to Live Loads on non-composite or composite section.

I is the Live Load Impact.

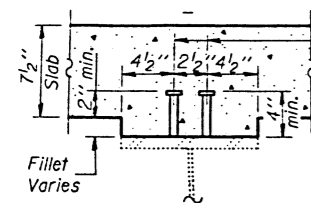


**PLAN**

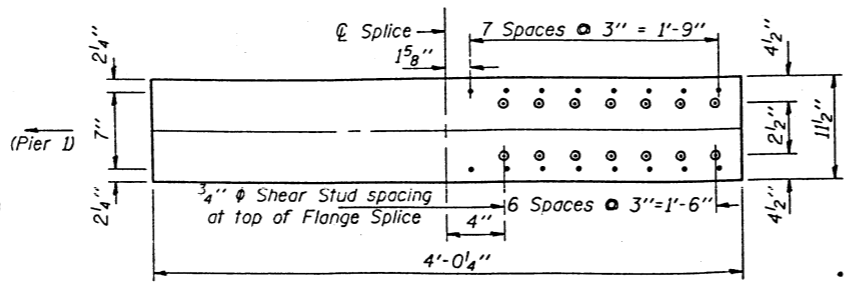


**ELEVATION**

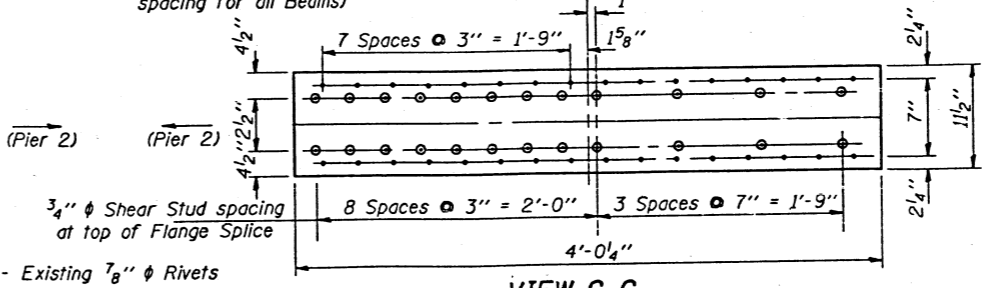
(Typ. Stud Shear Connector spacing for all Beams)



**SECTION A-A**



**VIEW B-B**



**VIEW C-C**

--- Existing 7/8" φ Rivets  
● - 3/4" φ Shear Studs

DESIGNED Michael O. Stephenson, RSD	EXAMINED <i>Greg J. Kaspar</i>
CHECKED Shaker Afshar, GAG	PASSED <i>Ralph E. Anderson</i>
DRAWN E. Vern Taylor	APPROVED _____
CHECKED MAS, GAG	DIRECTOR OF HIGHWAYS

May 22, 1992

*Greg J. Kaspar*  
ENGINEER OF BRIDGE DESIGN

*Ralph E. Anderson*  
ENGINEER OF BRIDGES AND STRUCTURES

**STRUCTURAL STEEL DETAILS**  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00



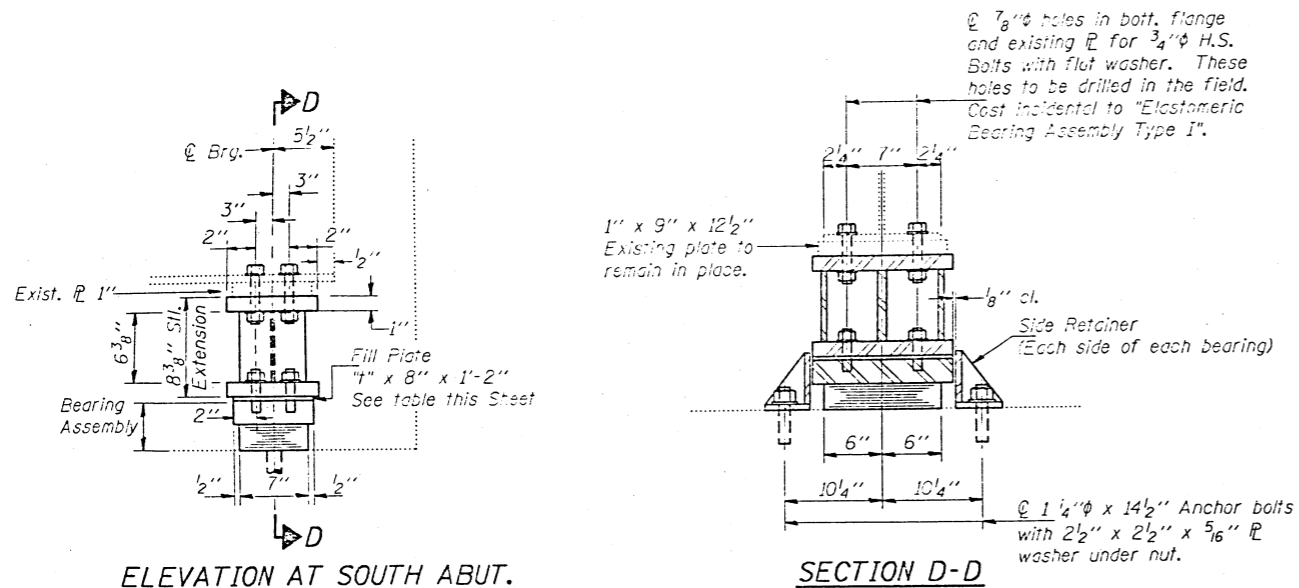


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	STATION	SHEET
F.A.I. 57	*	FRANKLIN	155	32
FED. ROAD DIST. NO. Y	ILLINOIS	FED. AID PROJECT		

(28-1B)D

SHEET NO. 9  
16 SHEETS



ELEVATION AT SOUTH ABUT.

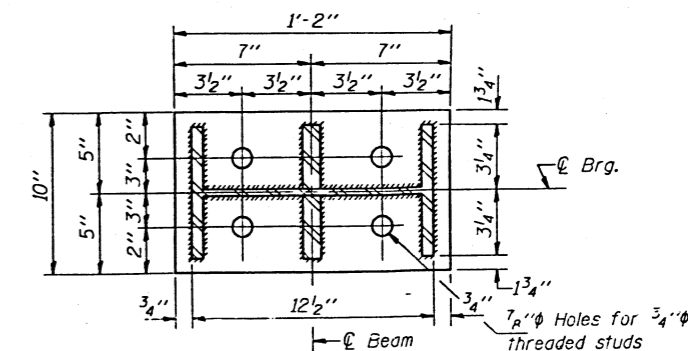
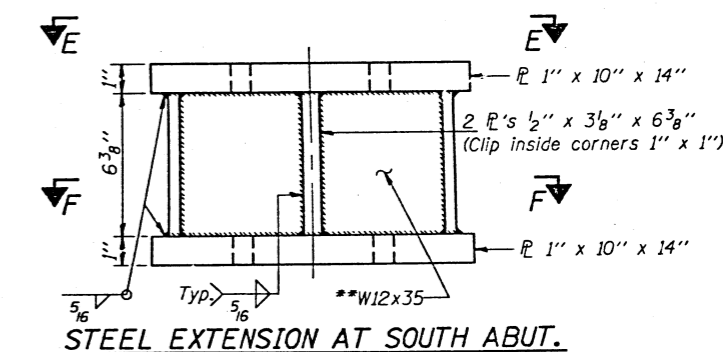
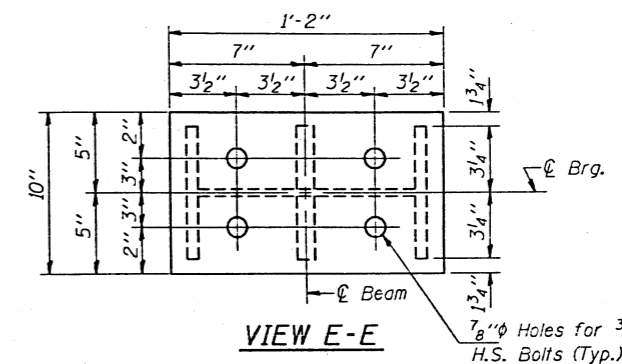
SECTION D-D

TYPE I ELASTOMERIC EXP. BRG.

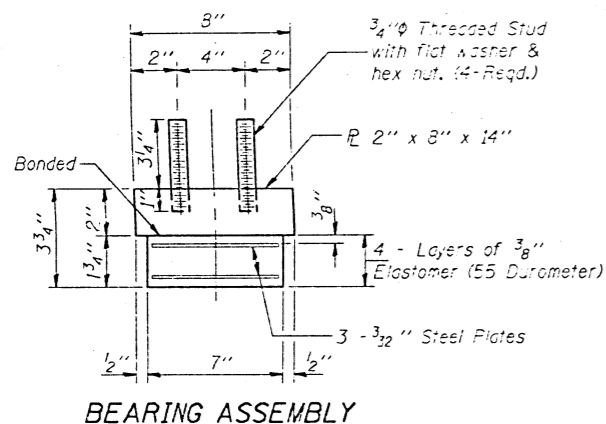
\* Based on the existing elevations shown on sheet #11 of 16. The Contractor shall verify these elevations and make adjustments if necessary. Cost incidental.

Dimension / Location	Bm. #1	Bm. #2	Bm. #4	Bm. #5	Bm. #6	Bm. #7
* Dim. 4"	1/2"	5/16"	1 1/8"	1 5/16"	1 1/8"	1/8"

Beam #3, No Fill R Required.



SOUTH ABUTMENT  
BEARING DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00

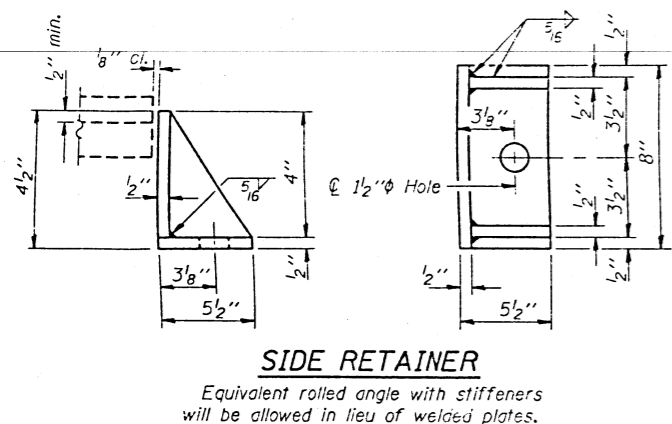


BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	7
Jack and Remove Existing Bearings	Each	7

\*\*\*See Sheet #11 of 16 for the Jacking locations.

Notes: For anchor bolt installation details see sheet #12 of 16. Existing anchor bolts which are not under side retainer shall be covered with a 2" thick layer of cement mortar. Cost incidental to "Jack and Remove Existing Bearing". For anchor bolt location see sheets #13 and #14 of 16.



DESIGNED Michael D. Kephner BS  
 CHECKED Shaker A. Four, GAG  
 DRAWN E. Vern Taylor  
 CHECKED MAS, GAG

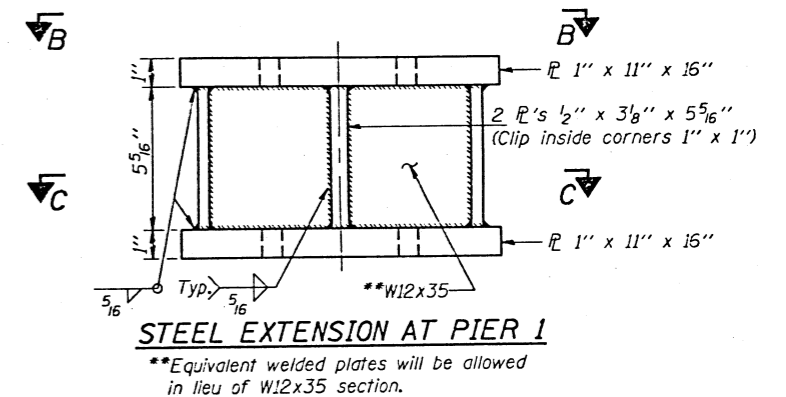
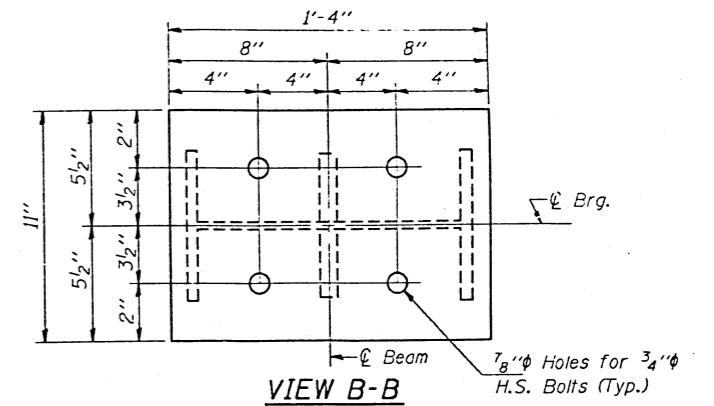
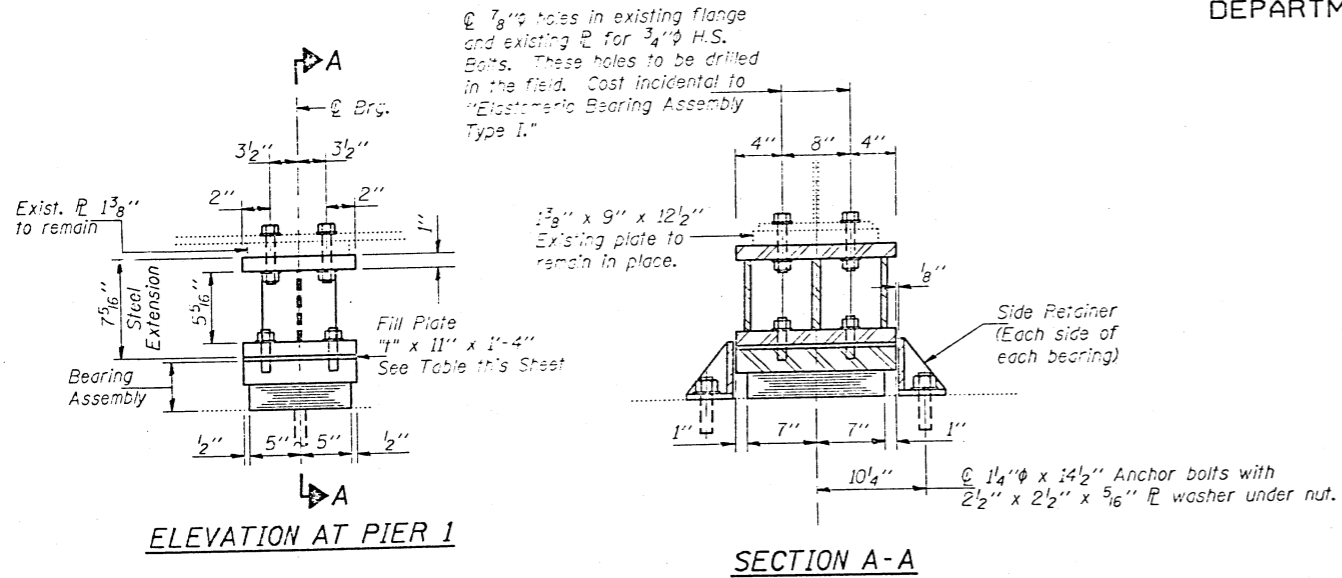
EXAMINED Greg J. Kaspar  
 PASSED Ralph E. Arburn  
 APPROVED \_\_\_\_\_

MAY 22 1992  
 DIRECTOR OF HIGHWAYS

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.	SHEET NO. 10 16 SHEETS
F.A.I. 57	*	FRANKLIN	155	33	
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-			

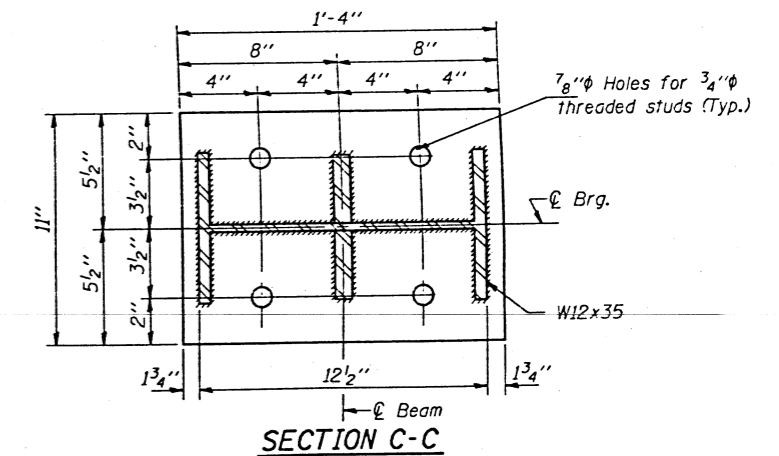
\*28-1B1D



**BILL OF MATERIAL**

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	7
Jack and Remove Existing Bearings	Each	7

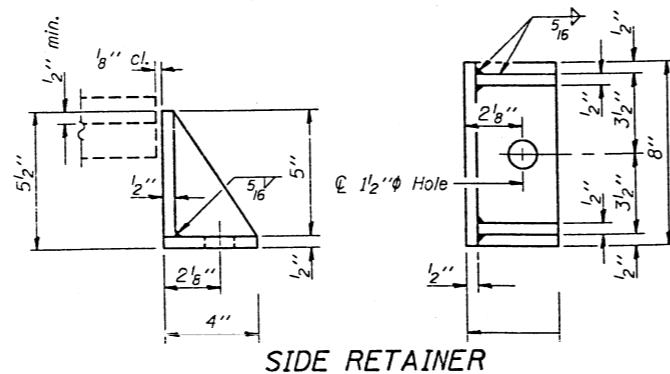
\*\*\* See Sheet #11 of 16 for the Jacking locations.



\* Based on the existing elevations shown on Sheet #11 of 16. The Contractor shall verify these elevations and make adjustments if necessary. Cost incidental.

Dimension / Location	Bm. #2	Bm. #3	Bm. #4	Bm. #5	Bm. #6	Bm. #7
* Dim. "1"	3/16"	1/8"	13/16"	5/8"	11/16"	1/8"

Beam #1. No Fill  $\text{R}$  Required.



Notes:  
 For anchor bolt installation details see sheet #12 of 16.  
 Existing anchor bolts which are not under side retainer shall be covered with a 2" thick layer of cement mortar. Cost incidental to "Jack and Remove Existing Bearing".  
 For anchor bolt location see sheets #13 and #14 of 16.

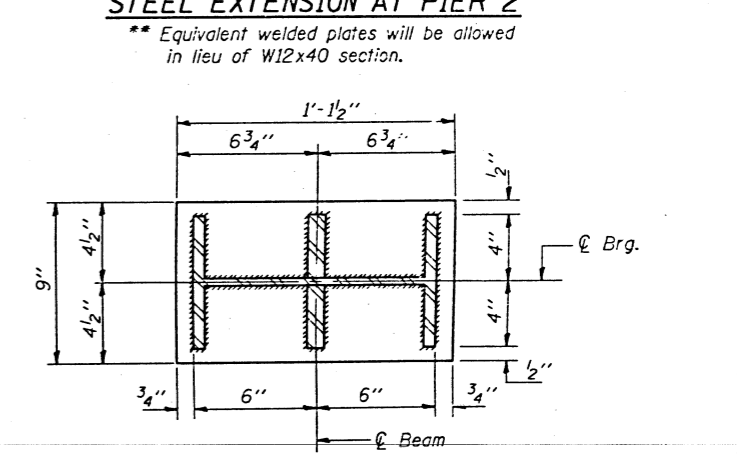
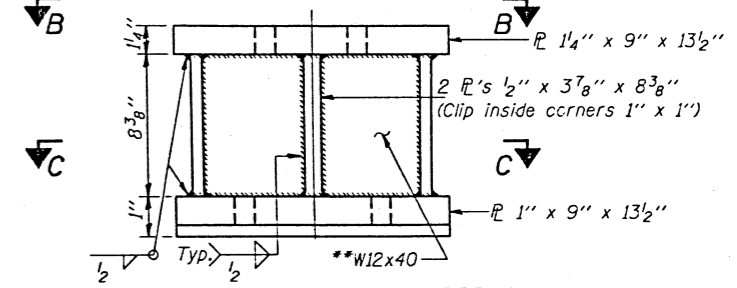
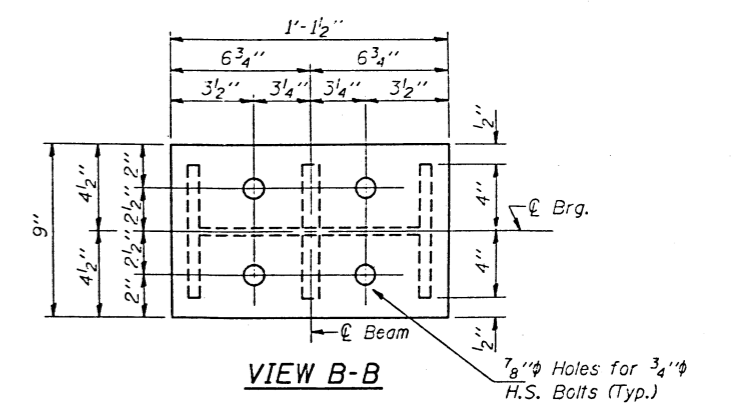
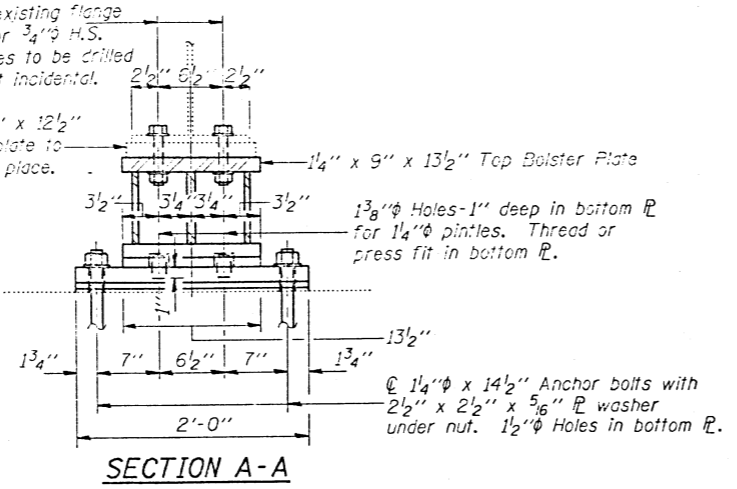
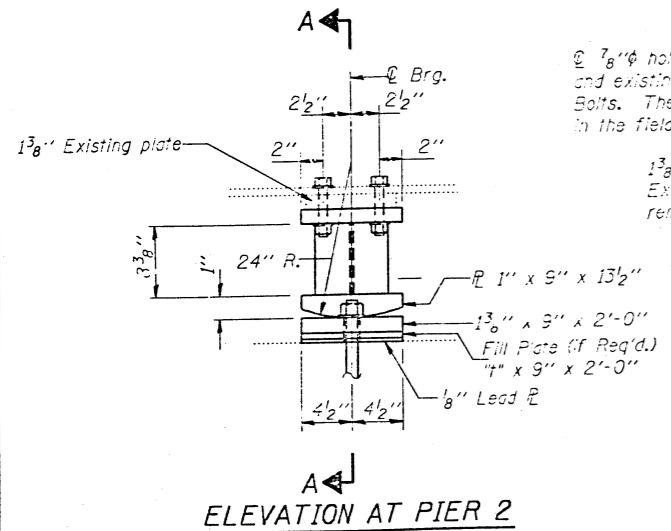
DESIGNED <i>Michael A. Stephenson, R.S.</i>	EXAMINED <i>Greg J. Kaspar</i>
CHECKED <i>Shane A. GAG</i>	PASSED <i>Ralph E. Anderson</i>
DRAWN <i>E. Vern Taylor</i>	APPROVED _____
CHECKED <i>MAS, GAG</i>	DIRECTOR OF HIGHWAYS

May 22 1992

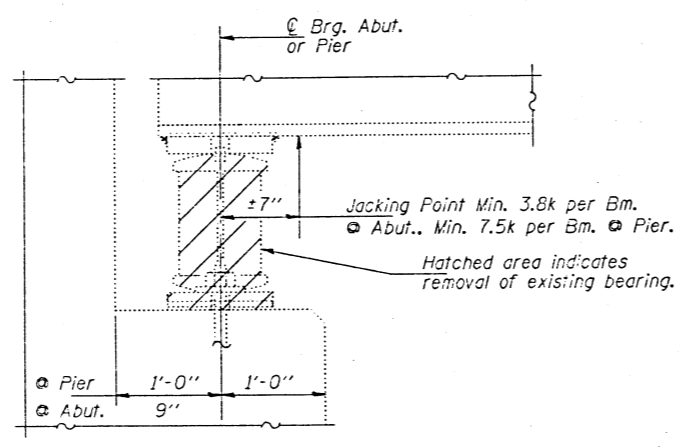
**PIER 1  
BEARING DETAILS  
F.A.I. RT. 57 SEC. (28-1B1D)  
FRANKLIN COUNTY  
STATION 102+70.00**

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET	SHEET NO. 11
F.A.I. 57		FRANKLIN	155	34	16 SHEETS
FED. ROAD DIST. NO. 1	ILLINOIS	FED. AID PROJECT	"28-1B)D"		



**FIXED BEARING**



**\*EXISTING SEAT ELEVATIONS**

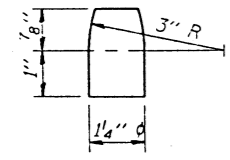
Location	N. Abut.	Pier #1	Pier #2	S. Abut.
Beam #1	413.19	413.12	413.12	413.12
Beam #2	413.31	413.23	413.24	413.26
Beam #3	413.45	413.36	413.37	413.41
Beam #4	413.41	413.36	413.37	413.38
Beam #5	413.38	413.36	413.37	413.35
Beam #6	413.30	413.27	413.28	413.28
Beam #7	413.23	413.19	413.21	413.23

\* From Field Survey

Notes:

The maximum dead load reaction with the deck removed per bearing at each abutment is 3.8 kips and at each Pier is 7.5 kips. Bearing removal and replacement shall be completed before new deck is poured

For anchor bolt installation details see sheet #12 of 16. Existing anchor bolts which are not under side retainer shall be covered with a 2" thick layer of cement mortar. Cost incidental to "Jack and Remove Existing Bearing." For anchor bolt Location see Sheets #13 and #14 of 16.



**JACK AND REMOVE EXISTING BEARING PROCEDURE**

- The Contractor shall submit for approval by the Engineer, plans for jacking prior to commencing any work at the bearings. Dead Load = 3.8K at each beam at abutments and 7.5K at each beam at piers without concrete deck. Jack Capacity = 8 Tons min.
- Jacking and removing existing bearings shall be done after deck removal is completed and before the new deck is poured.
- All beams at one abutment or at one pier shall be lifted simultaneously.
- Jacking shall be limited to a maximum of 1/4" lift.
- The existing anchor bolts shall be removed or cut off flush and grind smooth with the bridge seat. The rockers and bottom plates shall be removed leaving the existing top plate intact. The existing holes shall be filled with concrete and new holes drilled at locations specified. The bottom flange area of the beam and existing top plate shall be cleaned and painted as required and as specified for structural steel prior to placing the new elastomeric bearings.
- The new elastomeric bearings and steel extensions shall be placed and the jacks shall be lowered before the new deck is poured.

**BILL OF MATERIAL**

Item	Unit	Total
Jack and Remove Existing Bearings	Each	7

DESIGNED	Michael J. Stephan, E.S.
CHECKED	Shaker Asfour, GAG
DRAWN	E. Vern Taylor
CHECKED	MAS, GAG

EXAMINED	May 22 1992 Greg J. Kaspar, ENGINEER OF BRIDGE DESIGN
PASSED	Ralph E. Anderson, ENGINEER OF BRIDGES AND STRUCTURES
APPROVED	DIRECTOR OF HIGHWAYS

Dimension / Location	Bm. #1	Bm. #2	Bm. #3	Bm. #4	Bm. #5	Bm. #6
* Dim. "4"	1/16"	3/16"	1/8"	13/16"	5/8"	1/16"

Beam #7, No Fill PL Required. \* Based on the existing elevations shown in table on this sheet. The Contractor shall verify these elevations and make adjustments if necessary. Cost incidental.

**PIER 2  
BEARING DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00**

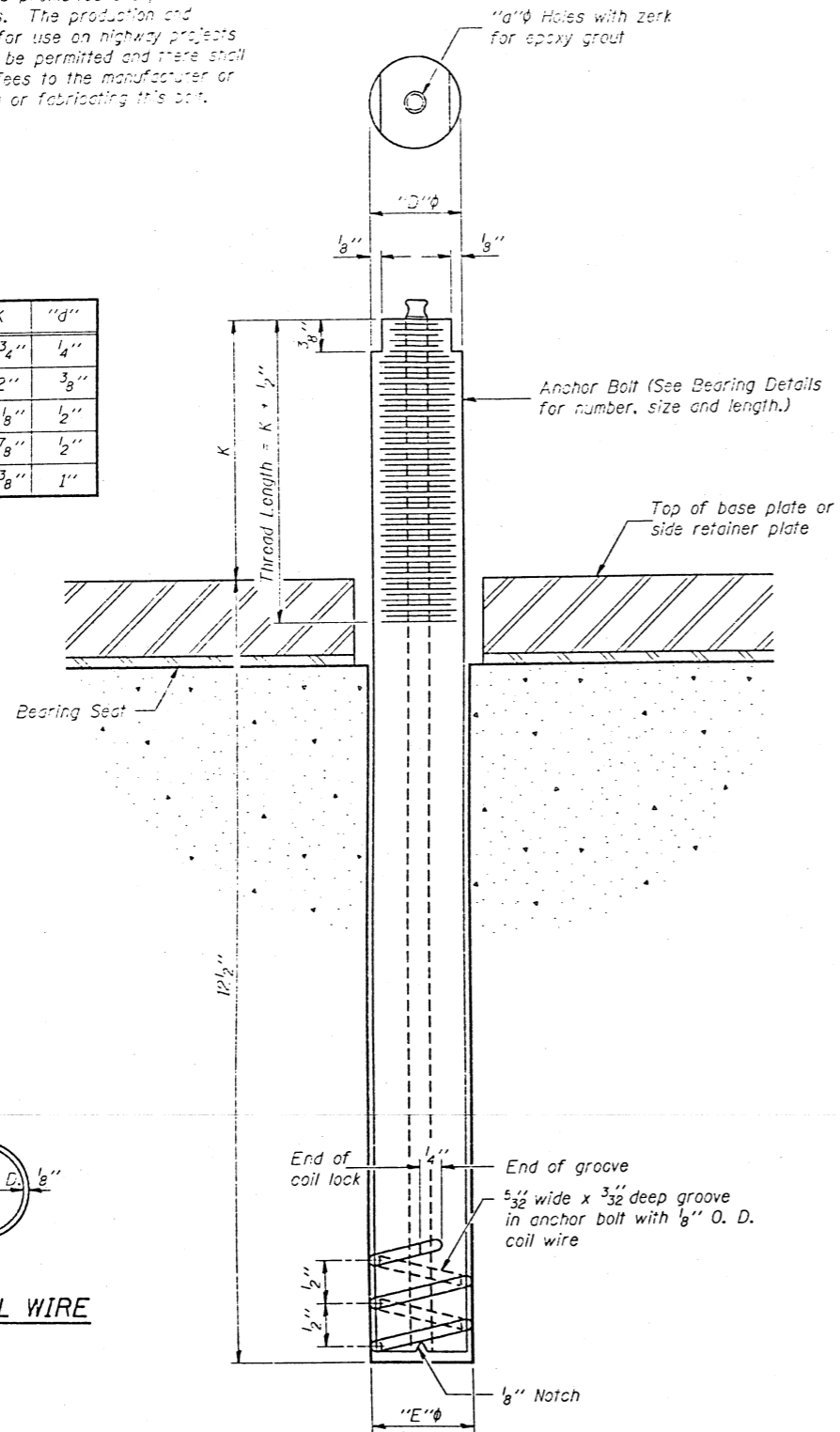
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEET NO.	SHEET
F.A.I. 57	#	FRANKLIN	155	35
FED. ROAD DIST. NO. 7	ILLINOIS	FED. AID PROJECT-		

SHEET NO. 12  
16 SHEETS

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"	3 5/8"	1 3/4"	1/4"
1 1/4"	1 3/8"	1 1/6"	2"	3/8"
1 1/2"	1 5/8"	1 5/8"	2 1/8"	1/2"
2"	2 1/8"	2 3/8"	2 7/8"	1/2"
2 1/2"	2 5/8"	2 5/8"	3 3/8"	1"



PLAN-COIL WIRE

ILLINOIS COIL-LOCK ANCHOR BOLT

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 1 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".

DESIGNED	Michael A. Stephenson, P.E.
CHECKED	Shaker Asfour, GAG
DRAWN	E. Vern Taylor
CHECKED	MMS, GAG

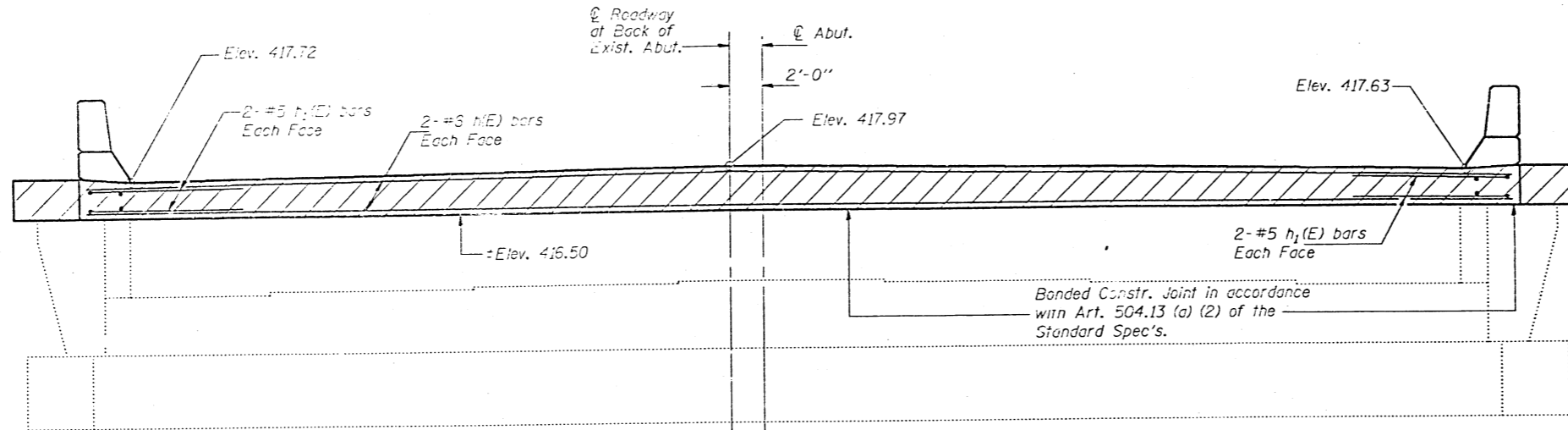
May 22 1992  
EXAMINED *[Signature]*  
PASSED *[Signature]*  
APPROVED \_\_\_\_\_

ABB-1 12-1-83

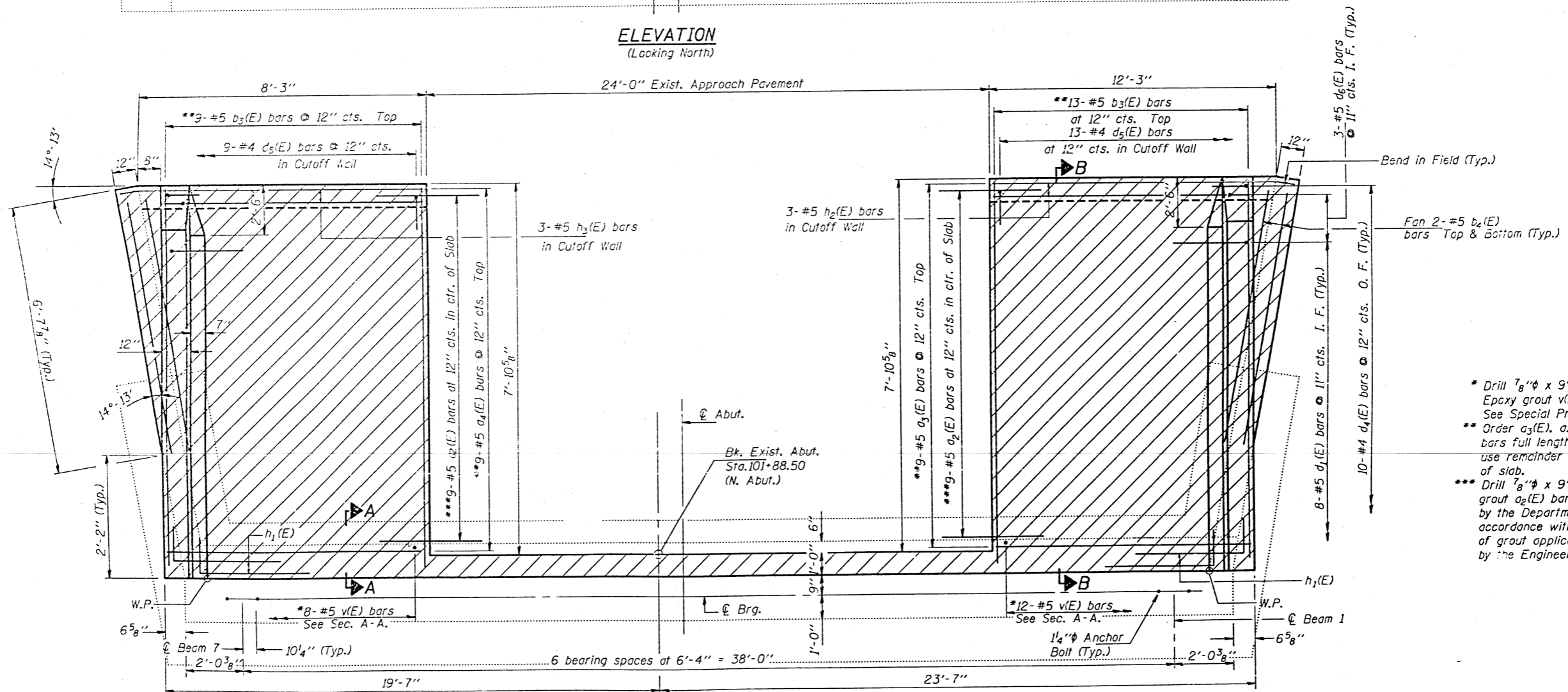
ANCHOR BOLT DETAILS FOR BEARINGS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	*	FRANKLIN	155	36
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
				28-1B/D



ELEVATION  
(Looking North)



PLAN

- \* Drill  $\frac{7}{8}$ "  $\phi$  x 9" Min. hole. Epoxy grout v(E) bars. See Special Provisions.
- \*\* Order  $a_3(E)$ ,  $a_4(E)$  and  $b_3(E)$  bars full length. Cut to fit and use remainder of bars in bottom of slab.
- \*\*\* Drill  $\frac{7}{8}$ "  $\phi$  x 9" Min. hole. Epoxy grout  $a_2(E)$  bars. Use a grout approved by the Department or epoxy grout in accordance with BSP-11. The method of grout application shall be approved by the Engineer. See Special Provisions.

Notes: Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #6 of 16. Quantity for End Posts billed with "Class X Conc. Superstr." Existing reinforcement extending into removed area shall be cleaned, straightened and incorporated into the new construction. Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line. For anchor bolt installation details see sheet #12 of 16. All edges shall have Standard  $\frac{3}{4}$ " chamfer. Work this sheet with sheet #15 of 16.

NORTH ABUTMENT  
F.A.I. RT. 57 SEC. (28-1B/D)  
FRANKLIN COUNTY  
STATION 102+70.00

DESIGNED: Michael A. Johnson, R.C.	EXAMINED: Greg J. Kaspar
CHECKED: Shaker Asfour, GAG	PASSED: Ralph E. Anderson
DRAWN: E. Vern Taylor	APPROVED: [Signature]
CHECKED: MAS, GAG	DIRECTOR OF HIGHWAYS

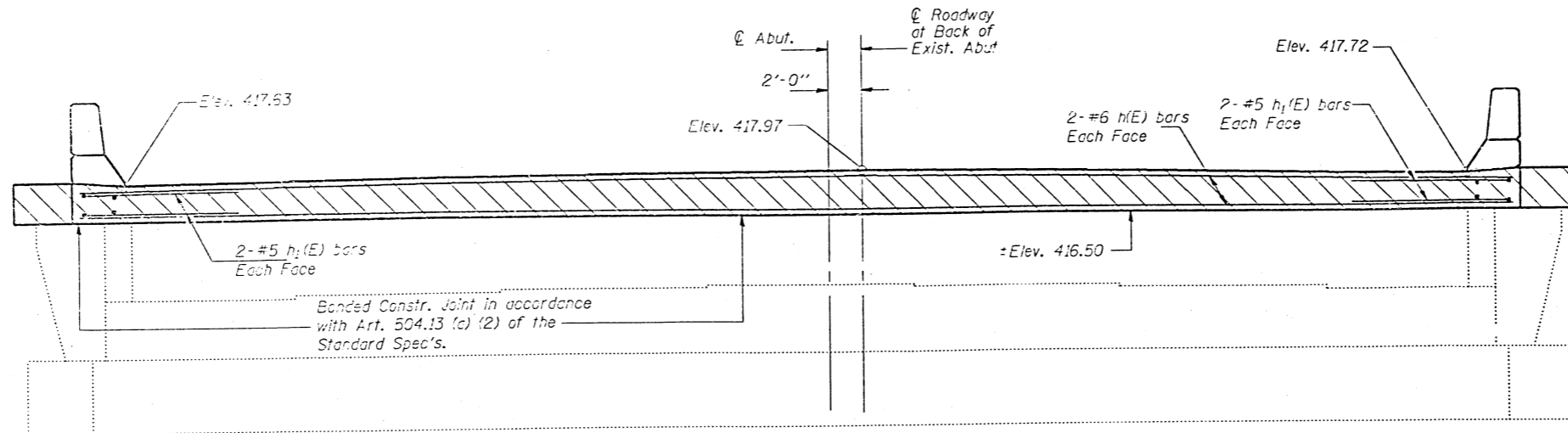
May 22 1992

STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

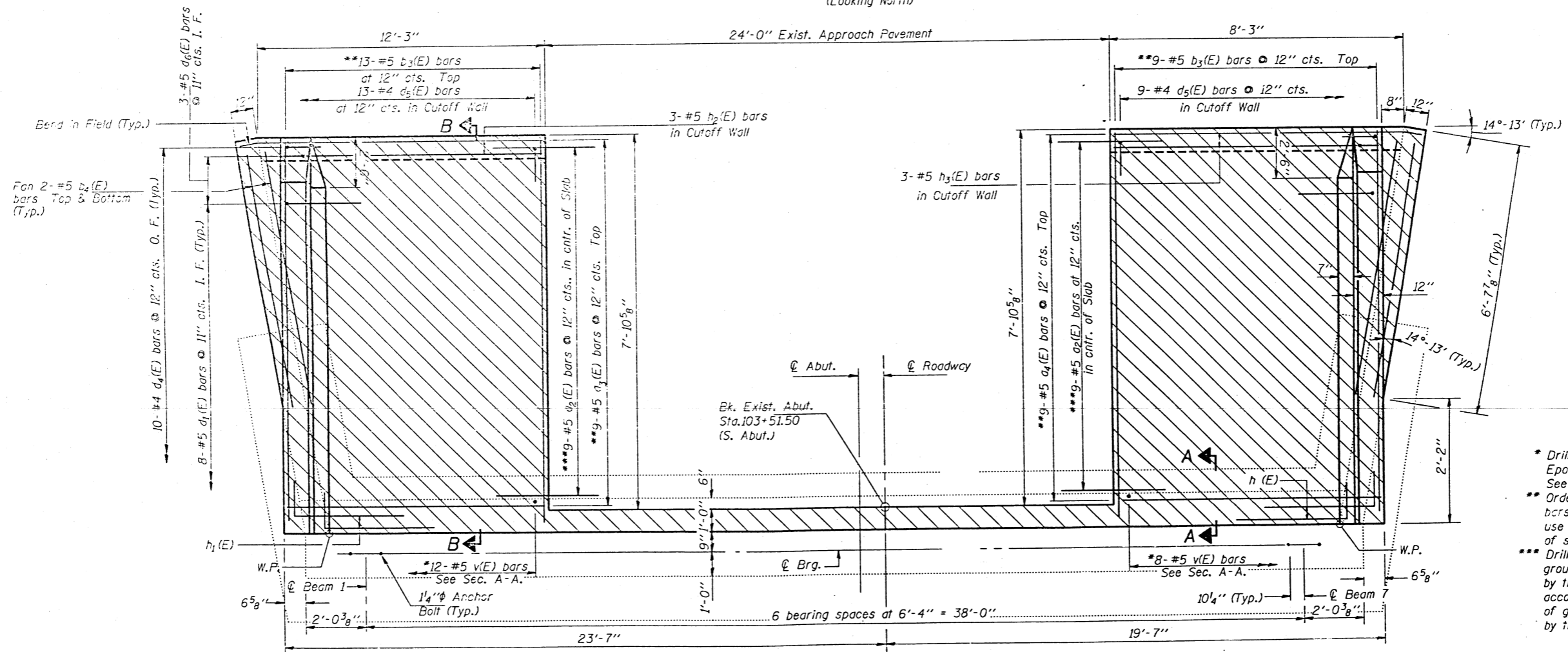
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
F.A.I. 57	*	FRANKLIN	155	37
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
(28-1B)D				

SHEET NO. 14

16 SHEETS



**ELEVATION**  
(Looking North)



**PLAN**

Notes: Hatched area to be poured after superstructure forms have been removed. Quantity of concrete included with "Class X Concrete Superstructure" on sheet #6 of 16. Quantity for End Post is billed with "Class X Conc. Superstr." Existing reinforcement extending into removed area shall be cleaned, straightened and incorporated into the new construction. Reinforcement bars designated (E) shall be epoxy coated. Bars indicated thus 2 x 2-#6 etc. indicates 2 lines of bars with 2 lengths per line. For anchor bolt installation details see sheet #12 of 16. All edges shall have Standard 3/4" chamfer. Work this sheet with sheet #15 of 16.

- \* Drill 7/8" φ x 9" Min. hole. Epoxy grout v(E) bars. See Special Provisions.
- \*\* Order a3(E), a4(E) and b3(E) bars full length. Cut to fit and use remainder of bars in bottom of slab.
- \*\*\* Drill 7/8" φ x 9" Min. hole. Epoxy grout a2(E) bars. Use a grout approved by the Department or epoxy grout in accordance with BSP-11. The method of grout application shall be approved by the Engineer. See Special Provisions.

DESIGNED	Michael D. Stephenson, P.E.
CHECKED	Shaker Afewer, GAG
DRAWN	E. Vern Taylor
CHECKED	MAS, GAG

May 22 1992  
 EXAMINED *Greg J. Kaspar*  
 ENGINEER OF BRIDGE DESIGN  
 PASSED *Ralph E. Anderson*  
 ENGINEER OF BRIDGES AND STRUCTURES  
 APPROVED \_\_\_\_\_  
 DIRECTOR OF HIGHWAYS

**SOUTH ABUTMENT**  
**F.A.I. RT. 57 SEC. (28-1B)D**  
**FRANKLIN COUNTY**  
**STATION 102+70.00**

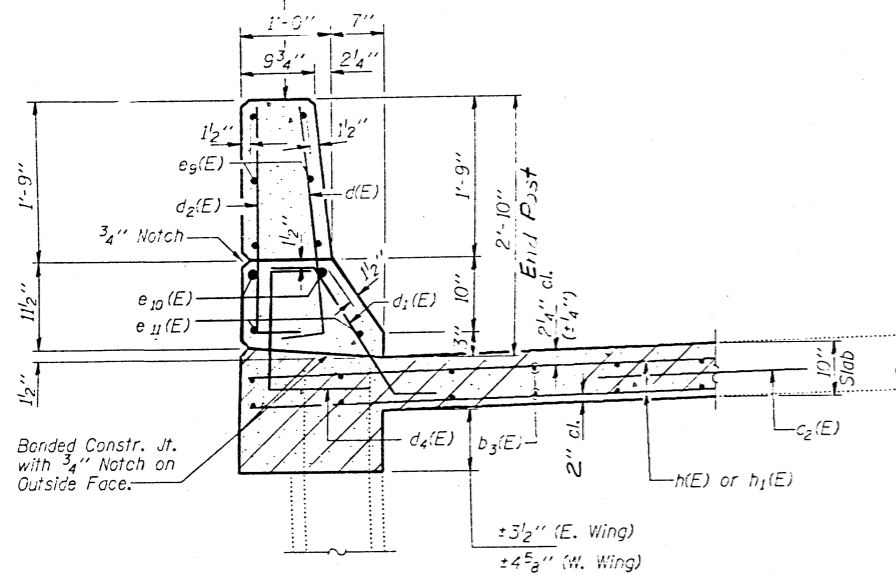


STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

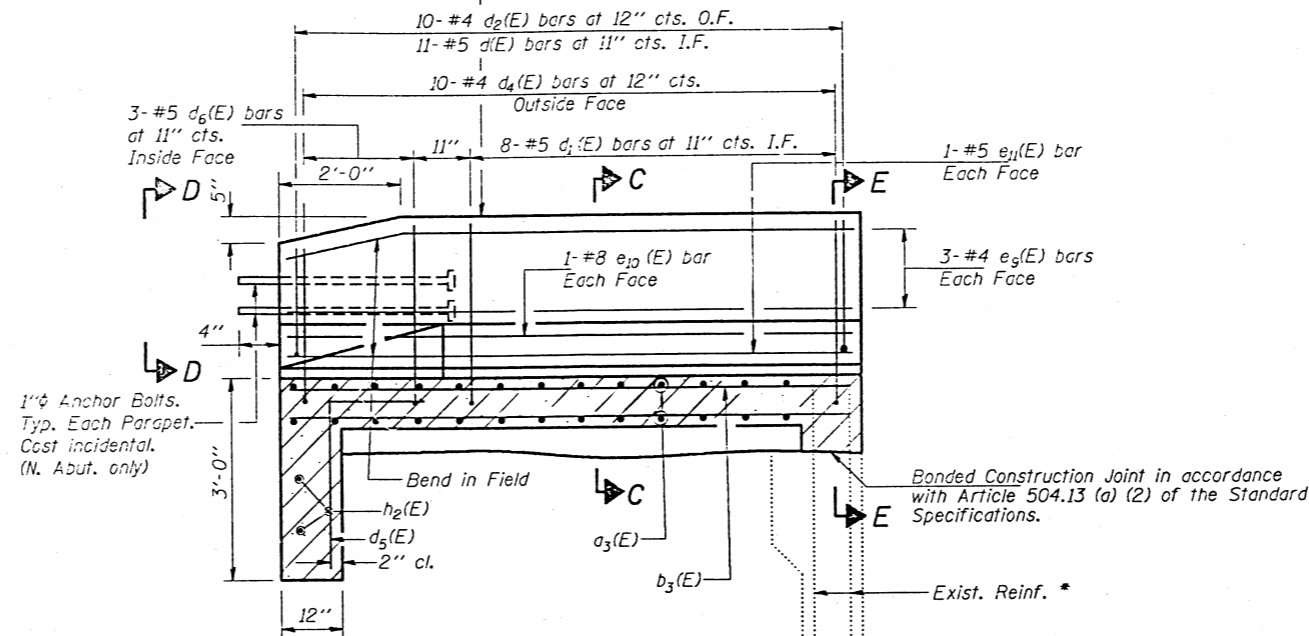
ROUTE NO.	SECTION	COUNTY	MILES	SHEET	SHEET NO. 15 16 SHEETS
F.A.I. 57	*	FRANKLIN	155	30	
FED. ROAD DIST. NO. 7		ILLINOIS		FED. AID PROJECT	

\* (28-1B)D

Approach Parapet shall be poured after bridge parapet is in place. Form top surface to match parapet grade.

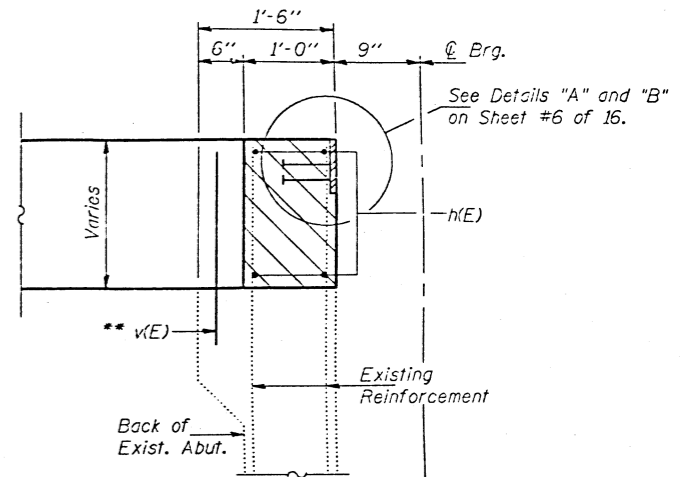


SECTION E-E



SECTION B-B

\* Existing Reinforcement extending into new Construction shall be cleaned, straightened and incorporated into new Construction. Cost is incidental to "Concrete Removal."



SECTION A-A

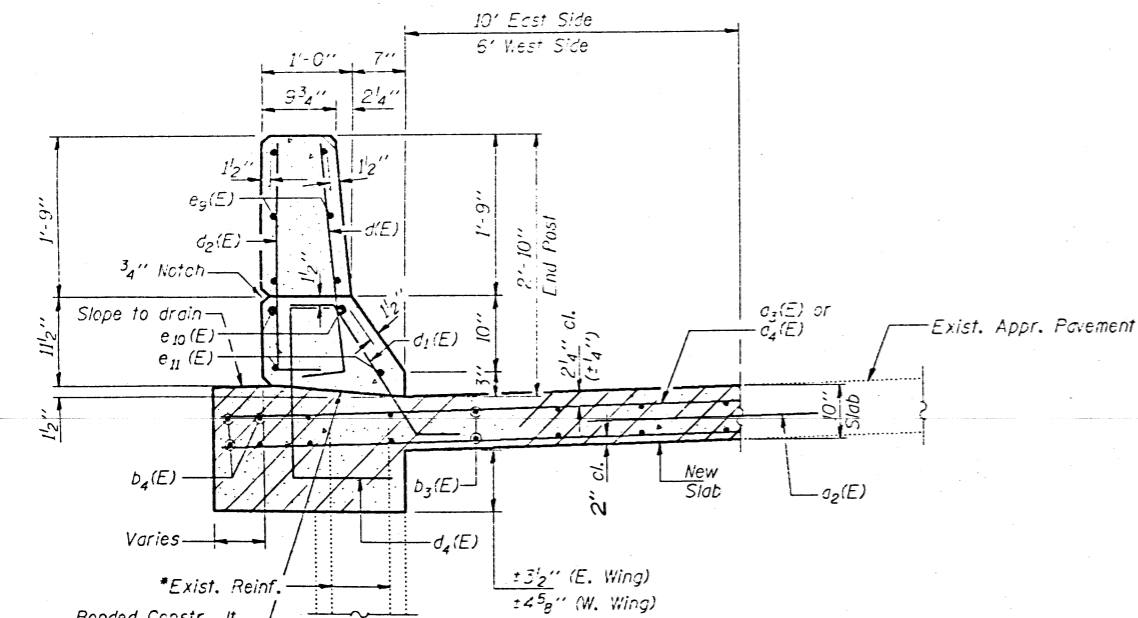
\*\* Drill 7/8" φ x 9" min. holes and epoxy grout v(E) bars in accordance with Special Provision BSP-11 or grout approved by the Department. Cost shall be incidental to "Reinforcement Bars (Epoxy Coated)".

ABUTMENTS & APPROACHES  
BILL OF MATERIAL

Bar	No.	Size	Length	Shape
a2(E)	36	#5	3'-0"	—
a3(E)	18	#5	26'-0"	—
a4(E)	18	#5	18'-0"	—
b3(E)	44	#5	17'-2"	—
b4(E)	16	#5	7'-6"	—
d(E)	44	#5	3'-0"	L
d1(E)	32	#5	2'-7"	L
d2(E)	40	#4	3'-0"	L
d4(E)	40	#4	3'-8"	L
d5(E)	44	#4	4'-6"	L
d6(E)	12	#5	2'-9"	L
e9(E)	24	#4	8'-7"	—
e10(E)	8	#8	8'-7"	—
e11(E)	8	#5	8'-7"	—
h(E)	8	#6	39'-9"	—
h1(E)	16	#5	6'-6"	L
h2(E)	6	#5	12'-0"	—
h3(E)	6	#5	8'-0"	—
v(E)	40	#5	2'-0"	—
Reinforcement Bars, Epoxy Coated		Lbs.	3,460	

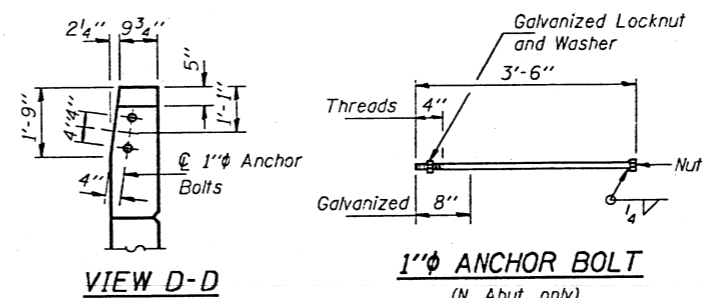
Reinforcement bars designated (E) shall be epoxy coated.

Notes: Work this sheet with Sheets #13 & #14 of 16.

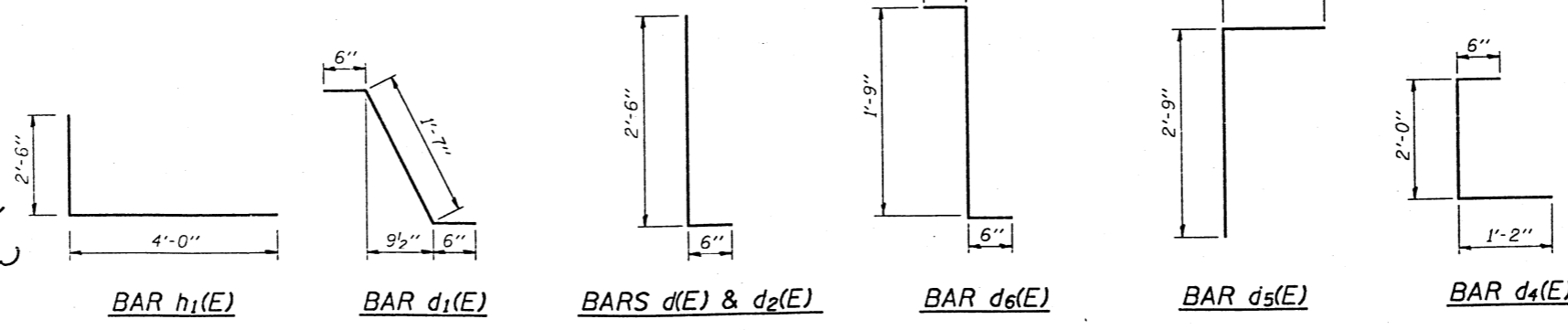


SECTION C-C

Notes: Area to be poured after Superstructure forms have been removed.  
Concrete quantity to be billed with "Class X Concrete Superstructure." See Sheet #6 of 16.  
Reinforcement bars designated (E) shall be Epoxy coated.



1" ANCHOR BOLT  
(N. Abut. only)



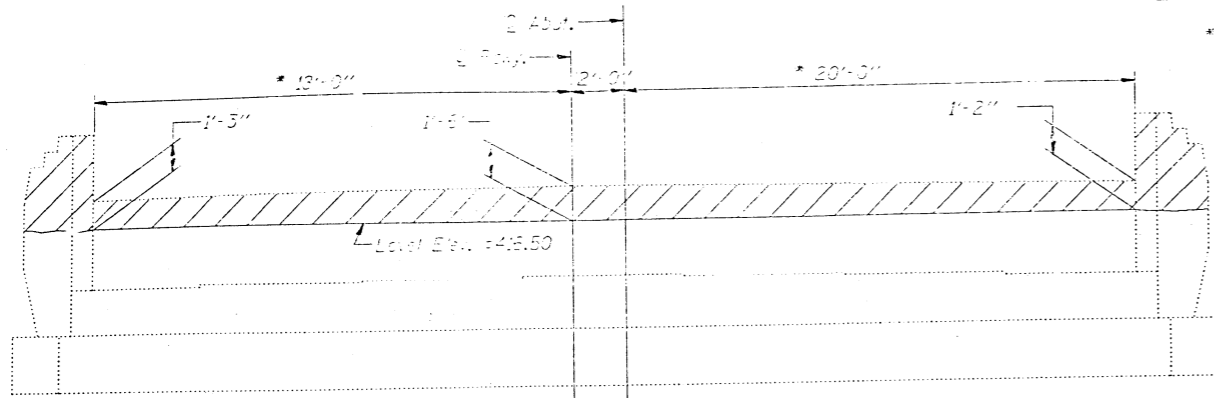
DESIGNED Michael J. Stephenson, BS	EXAMINED May 22 1992 Craig J. Kaspar ENGINEER OF BRIDGE DESIGN
CHECKED ShaKe-A-Go, GAG	PASSED Ralph E. Anderson ENGINEER OF BRIDGES AND STRUCTURES
DRAWN E. Vera Taylor	APPROVED DIRECTOR OF HIGHWAYS
CHECKED MAS, GAG	

NORTH AND SOUTH ABUTMENT DETAILS  
F.A.I. RT. 57 SEC. (28-1B)D  
FRANKLIN COUNTY  
STATION 102+70.00

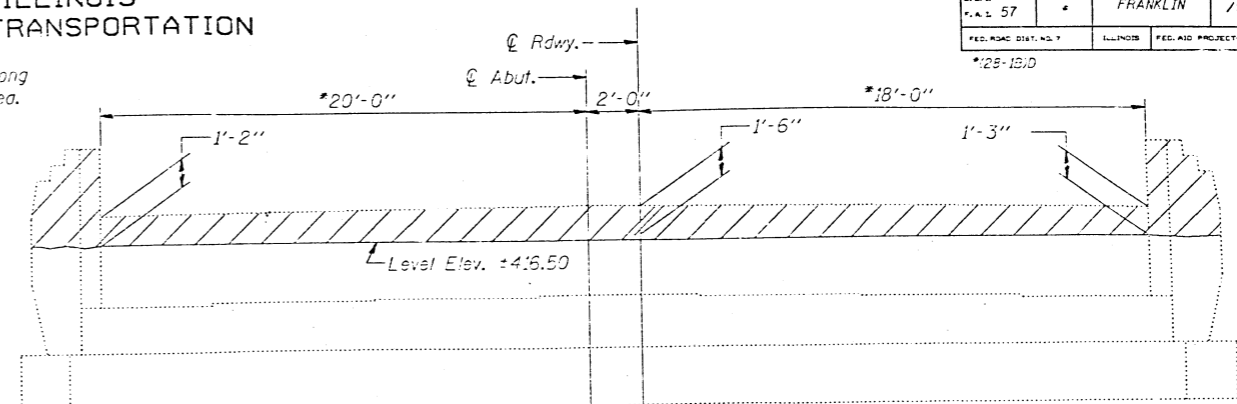
STATE OF ILLINOIS  
DEPARTMENT OF TRANSPORTATION

ROUTE NO.	SECTION	COUNTY	SHEETS	SHEET NO.
F.A.I. 57	4	FRANKLIN	155	39
FED. ROAD DIST. NO. 7		ILLINOIS	FED. AID PROJECT	
*28-1B/D				

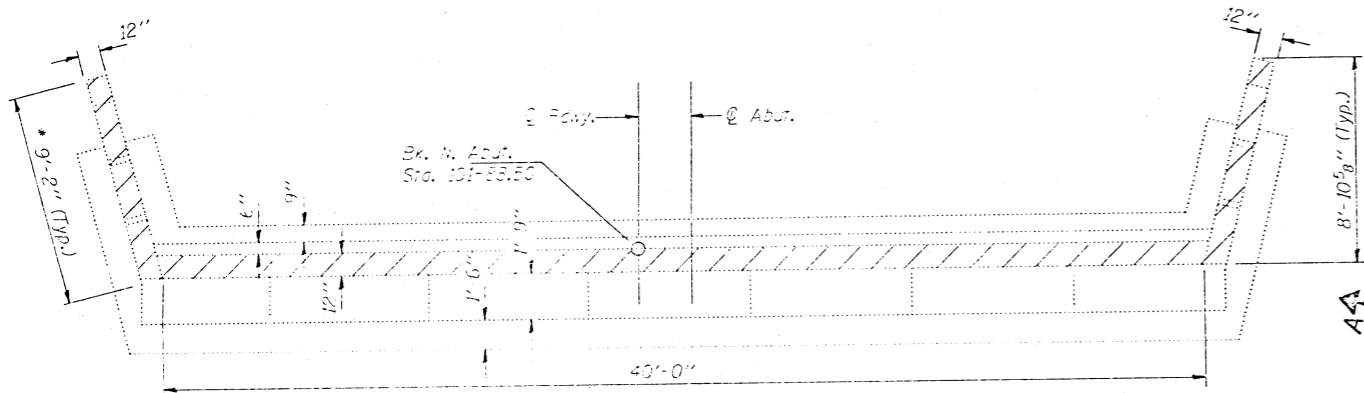
\* These dimensions are along front face of hatched area.



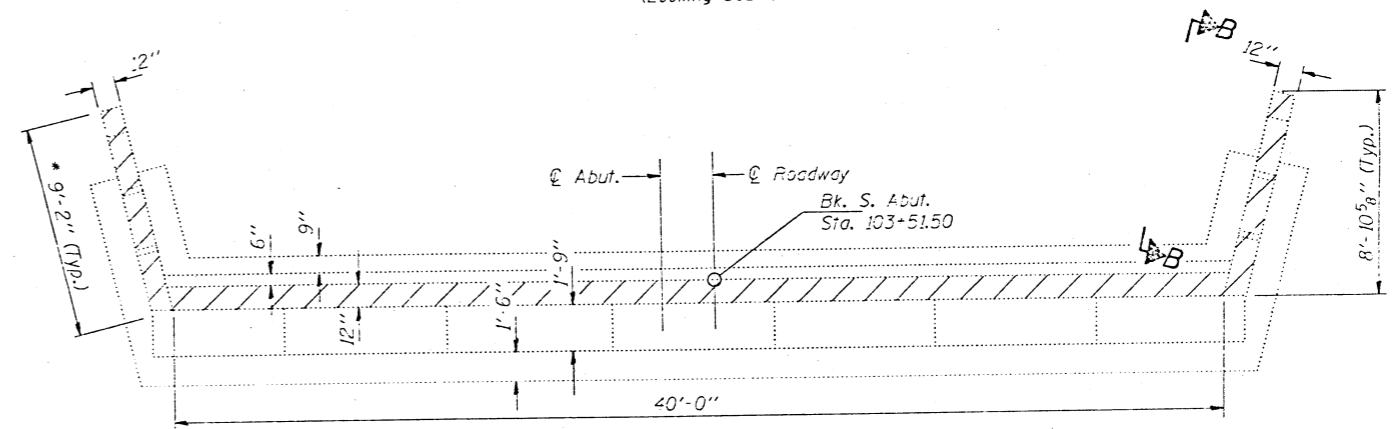
**ELEVATION**  
(Looking North)



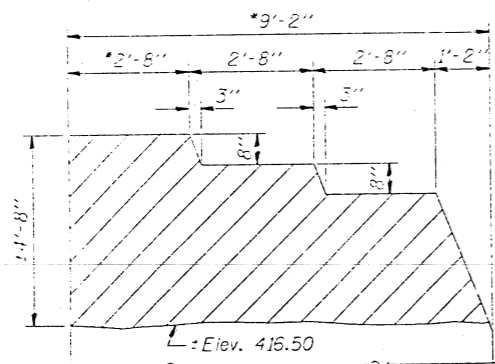
**ELEVATION**  
(Looking South)



**PLAN**



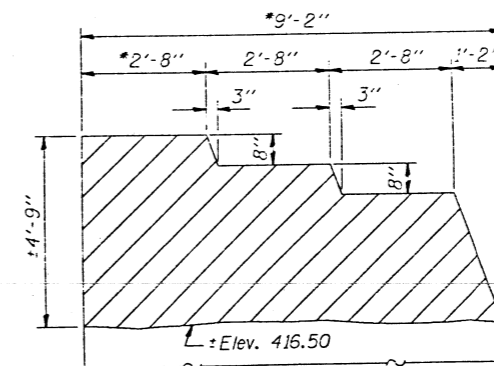
**PLAN**



**VIEW A-A**

**NORTH ABUTMENT DETAILS**

\* Inside Face of wing



**VIEW B-B**

**SOUTH ABUTMENT DETAILS**

**TWO ABUTMENTS  
BILL OF MATERIAL**

Item	Unit	Total
Concrete Removal	Cu. Yd.	9

Notes: Hatched area indicates Concrete Removal.  
For existing shoulder pavement removal see Roadway Plans.

**CONCRETE REMOVAL DETAILS  
FOR EXISTING ABUTMENTS  
F.A.I. RT. 57 SEC. (28-1B/D)  
FRANKLIN COUNTY  
STATION 102+70.00**

DESIGNED <i>Michael J. Stephenson</i>
CHECKED <i>Sharon A. GAG</i>
DRAWN <i>E. Vern Taylor</i>
CHECKED <i>MAG, GAG</i>

EXAMINED <i>Draj J. Kasper</i>	MAY 22 1992
PASSED <i>Ralph E. Anderson</i>	
APPROVED	

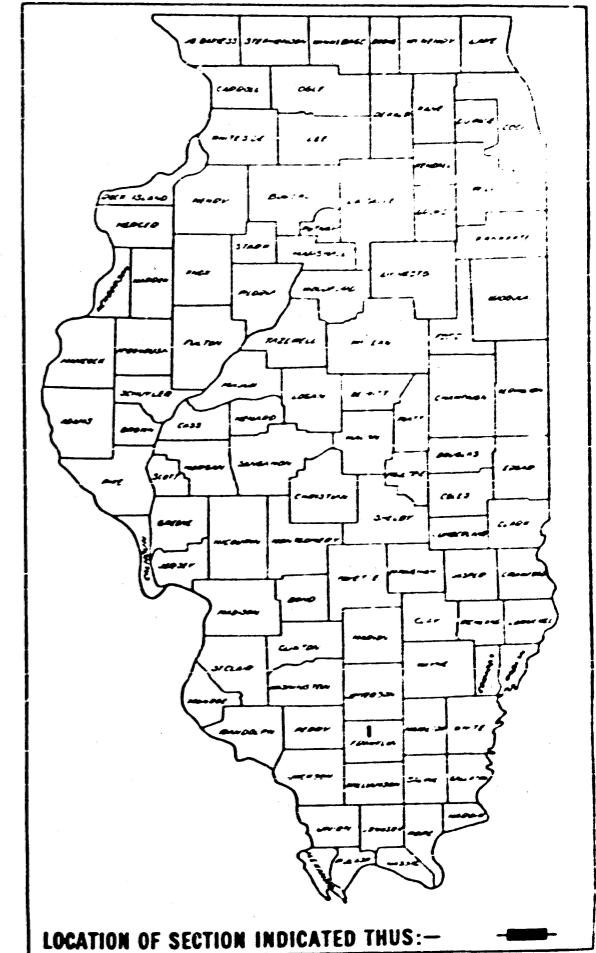
# STATE OF ILLINOIS DEPARTMENT OF PUBLIC WORKS AND BUILDINGS DIVISION OF HIGHWAYS PLANS FOR PROPOSED FEDERAL AID INTERSTATE HIGHWAY

FEDERAL AID	REC.	COUNTY	TOTAL SHEETS	SHEET
FAJ.57	28-1B 28-1F	FRANKLIN	29	1
			9	1
I-57-2(33)77				

SCALES

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

F.A.I. ROUTE 57 SECTION 28-1B;28-1F  
PROJECT I-57-2 (33) 77  
FRANKLIN COUNTY

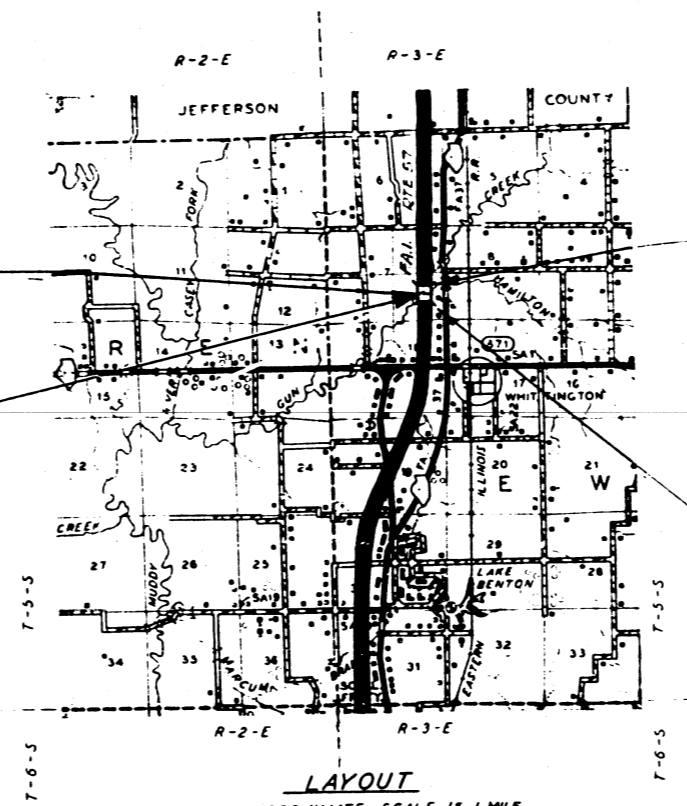


LOCATION OF SECTION INDICATED THUS: -

028-0013(NB) 004(SB)

**DUAL BRIDGES SEC. 28-1B**  
GUN CREEK STA 102+70  
CONSIST OF 3 SPANS CONTINUOUS W-F BEAM  
40' FC. TO FC. 3 SPANS AT 53'-2"  
BK. TO BK. ABT 163'-0"

**SEC. 28-1F INCLUDES:-** FURNISHING,  
FABRICATING, SHOP-PAINTING, AND DELIVERY  
OF THE STRUCTURAL STEEL F.O.B. THE  
I.C. RR, MO. PAC. RR OR C.I.E.I RR,  
SIDING AT BENTON, ILLINOIS



PROJECT I-57-2(33)77  
SECTION 28-1B  
PROPOSED IMPROVEMENT BEGINS  
STA. 101+88.5 BACK OF ABT.

PROJECT I-57-2(33)77  
SECTION 28-1B  
PROPOSED IMPROVEMENT ENDS  
STA. 103+51.5 BACK OF ABT.

SECTION 28-1B NET LENGTH		NET LENGTH ALONG TRANSITLINE TO BE IMPROVED	
LIN. FT.	MILES	LIN. FT.	MILES
163	0.031	163	0.031

PROJECT LENGTH = 163.0 FT. = 0.031 MI.

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS AND BUILDINGS  
DIVISION OF HIGHWAYS

SUBMITTED: *[Signature]*

EXAMINED: June 1, 1962 *[Signature]*

DRAWN: June 1, 1962 *[Signature]*

APPROVED: June 1, 1962 *[Signature]*

APPROVED: June 1, 1962 *[Signature]*

DEPARTMENT OF COMMERCE  
BUREAU OF PUBLIC ROADS

APPROVED:

DIVISION ENGINEER

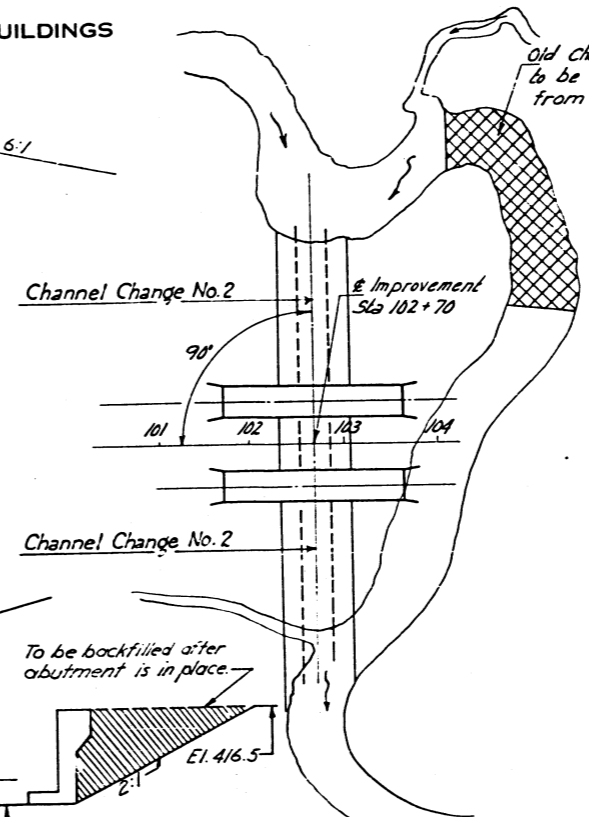
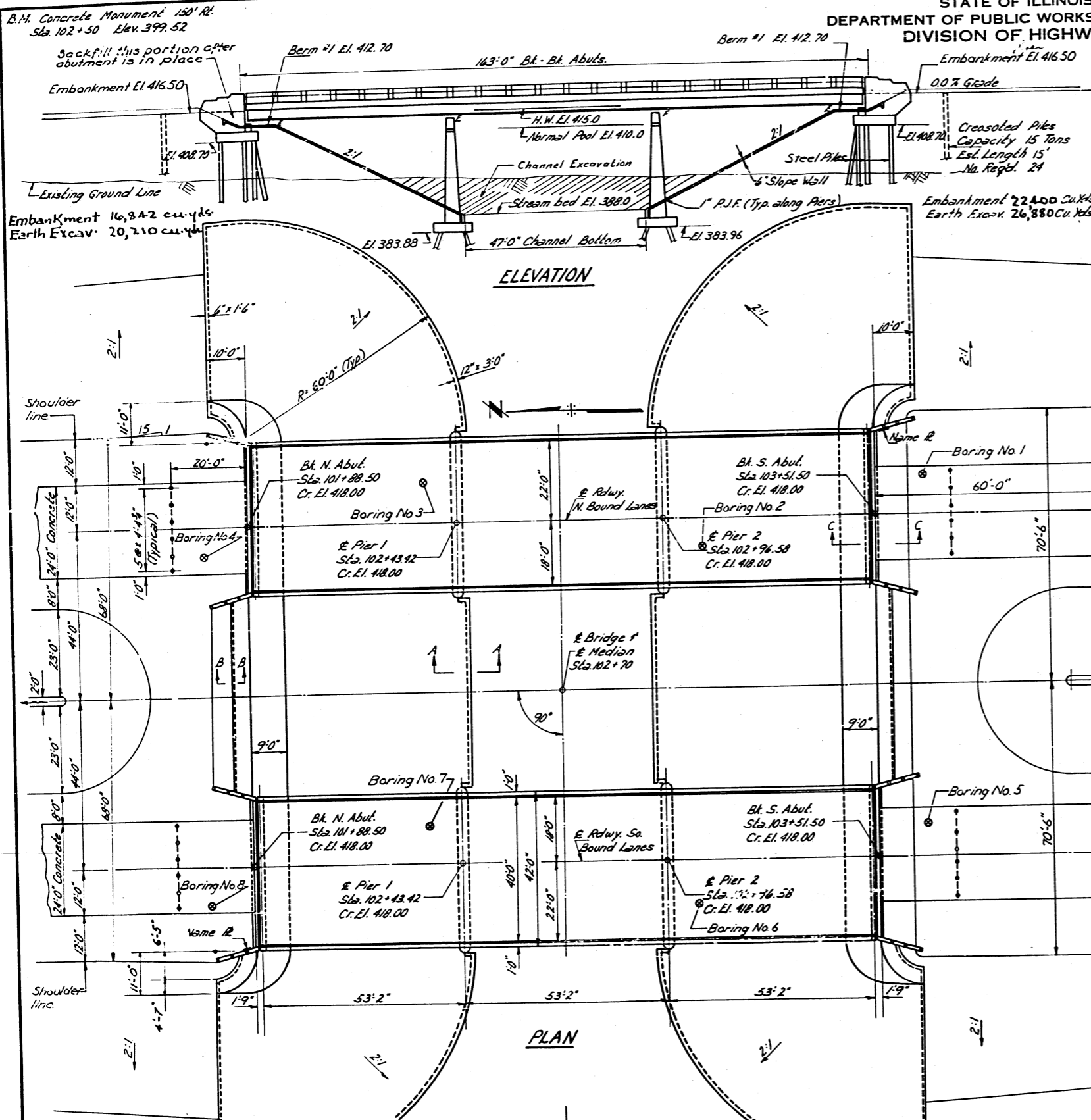
DATE:

028-0013(NB) 004(SB)

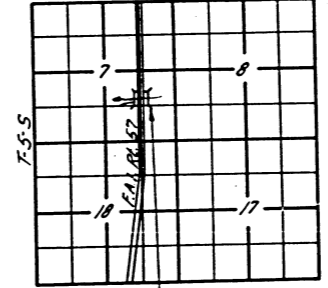
REEL 9-36

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

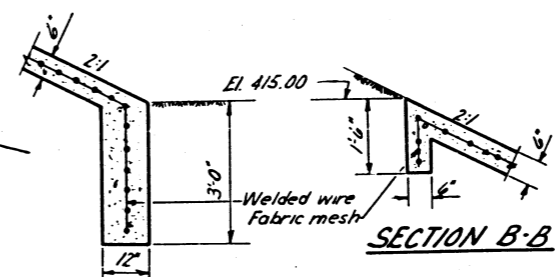
ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
1-57	28-1B	Franklin	9	6
PROJECT NO. I-57-2 (33)77		SHEET NO. 1 10 SHEETS		



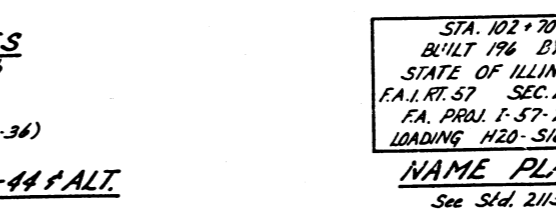
**SECTION C-C**  
SKETCH OF CHANNEL CHANGE NO. 2  
(Channel Excavation - 12,545 Cu. Yds.)  
[See Sheet 4 for details of Channel Change No. 1]  
P. 3-E



**LOCATION SKETCH**



**SECTION B-B**



**SECTION A-A**

**GENERAL NOTES**

Class X Concrete shall be used throughout except in piers. Class A Concrete shall be used in piers. Coarse aggregate which is to be used in end posts must be absolutely free of chert, flint, limonite, lignite and soft sandstone.

The concrete floor slab shall be finished in accordance with Article 5119 of the Standard Specifications.

Slope Wall shall be reinforced with welded wire fabric, 6"x6" mesh, #4 wires, weighing 58# per 100 sq. ft. Layout of slope walls may be varied to suit ground conditions in the field as directed by the Engineer.

Rivets #4, open holes 2 1/2", unless noted.

All Structural Steel shall conform to A.S.T.M. A-36 Specifications for Structural Steel.

Anchor bolts shall be set before riveting diaphragms over supports.

All bolsters, rockers, bearing plates, lead plates, shim plates, pintles and anchor bolts shall be fabricated and set in accordance with Article 5115 of the Standard Specifications and are included in quantity of Structural Steel.

Roadway expansion guards shall be fabricated and erected in accordance with Article 5115(d) of the Standard Specifications and are included in quantity of Structural Steel.

Exposed surface of expansion guard angles shall be given two shop coats of red lead paint.

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 54.1 to 54.5 inclusive of the Standard Specifications.

All paint shall be furnished and applied by the contractor. The Contractor shall drive one each steel test pile at the N. Abut. and Pier 2 of the E. bridge, S. Abut. and Pier 1 of the W. bridge, all in permanent locations, as directed by the Engineer before ordering the remaining piles.

**WATERWAY INFORMATION**

Drainage Area-----26,610 Acres  
Character-----Level  
Proposed Opening (50 yr. fl.)-----986 Sq. Ft. below El. 402.0

**TOTAL BILL OF MATERIAL**

Item	Super	Sub	Sec. 28-1F	Sec. 28-1B
Class A Excav. for Struct.				*1360
Class A Concrete		540		5980
Class X Concrete	334.6	178.8		513.4
Furnishing Structural Steel			333,660	
Erecting Structural Steel				333,660
Furn. Erect. Metal Handrail		642		642
Reinforcement Bars	86,470	34,700		121,170
Creosoted Piles				360
Steel Piles (8BP36)		4,760		4,760
Test Piles (8BP36)		4		4
Name Pls		2		2
Slope Wall (6:1)		3,930		3,930
Protective Coat				1,635

\* Including Excav. for slope wall - 820 Cu. Yd.

**DESIGN STRESSES**  
fc = 1,400 p.s.i. Super & Sub  
ft = 75 p.s.i. Footings  
fs = 20,000 p.s.i. Reinf.  
fs = 20,000 p.s.i. Struct. (A-36)  
n = 10

**LOADING H2O-S16-44' ALT.**

STA. 102+70  
BUILT 196 BY  
STATE OF ILLINOIS  
F.A.I. RT. 57 SEC. 28-1B  
F.A. PROJ. I-57-2 (33)  
LOADING H2O-S16-44' ALT.

**NAME PLATE**  
See Std. 2113

**GENERAL PLAN & ELEVATION**  
PROJ. I-57-2 (33)77  
GUN CREEK  
F.A.I. RT. 57 SEC. 28-1B-F  
FRANKLIN COUNTY  
STA. 102+70

DESIGNED: W.H. McKeown  
CHECKED: T.M. Yang  
DRAWN: P. Lawler  
CHECKED: T.M. Yang

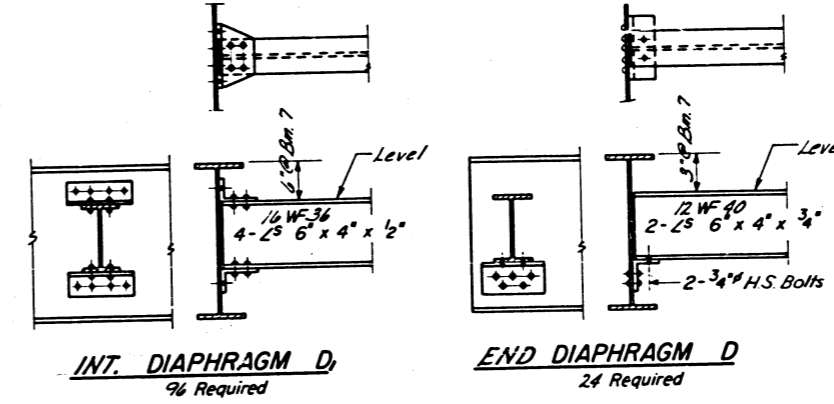
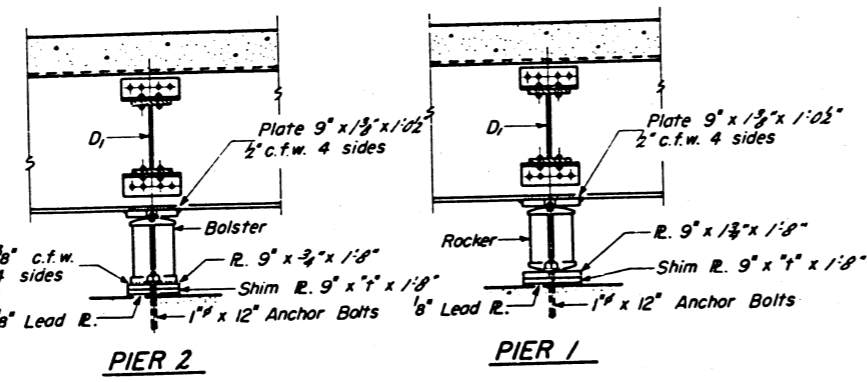
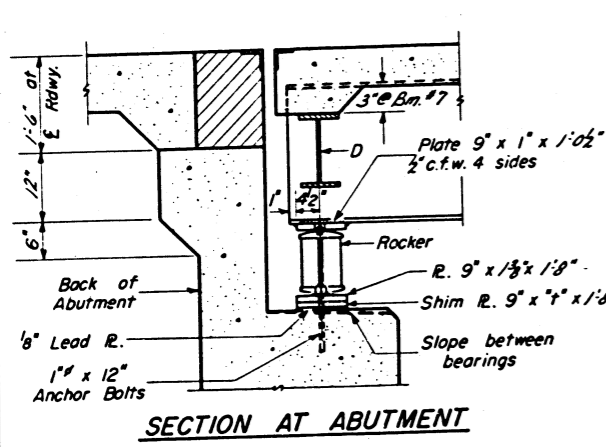
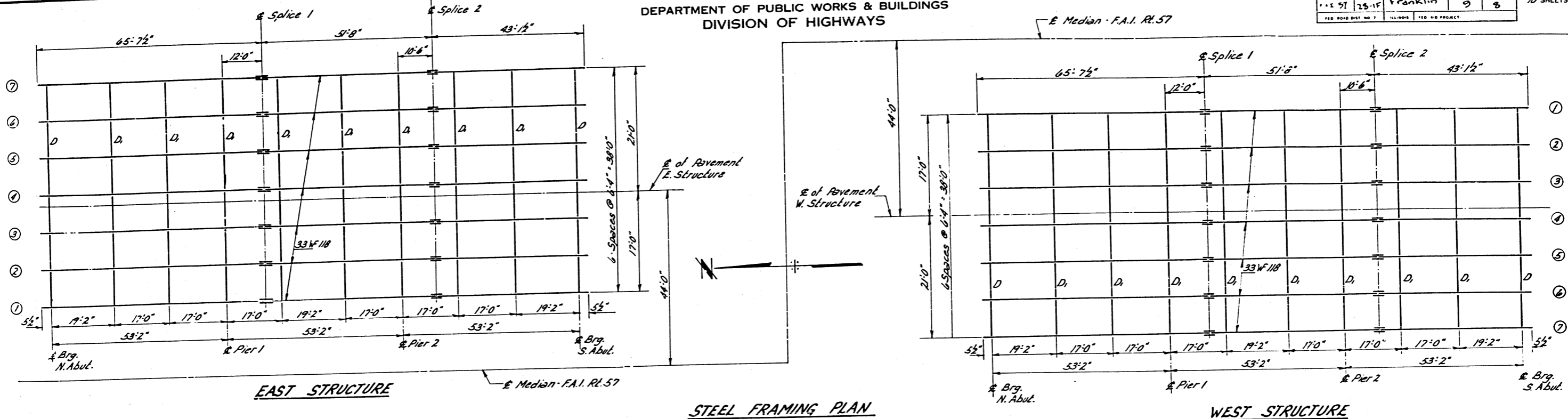
EXAMINED: N.E. Baumann  
PASSED: [Signature]  
APPROVED: [Signature]

Nov 14 1961

Revised 12-29-61-NUM At location of S. Abut. in ELEVATION, and in TOTAL BILL OF MATERIAL, changed designation of Boring No. 1 to Earth Exc. Changed title of channel change sketch to indicate that it covered Channel Change No. 2 only. In addition note that details of Channel Change No. 1 were to be found on Sheet 4 of the contract plans. In the channel change sketch, & in TOTAL BILL OF MATERIAL, changed quantity of Channel Exc. from 4,943 to 12,545 Cu. Yds.

Revised 8/21/62 Quantity of Reinf. Bars changed from 11,100 to 26,270 (Super) & from 115,880 to 121,170 (Total) Added 1600 REINFORCING COAT.





ELEVATION TOP OF BEAMS

Location	Bm.1	Bm.2	Bm.3	Bm.4	Bm.5	Bm.6	Bm.7
All	417.15	417.28	417.36	417.37	417.32	417.20	417.07

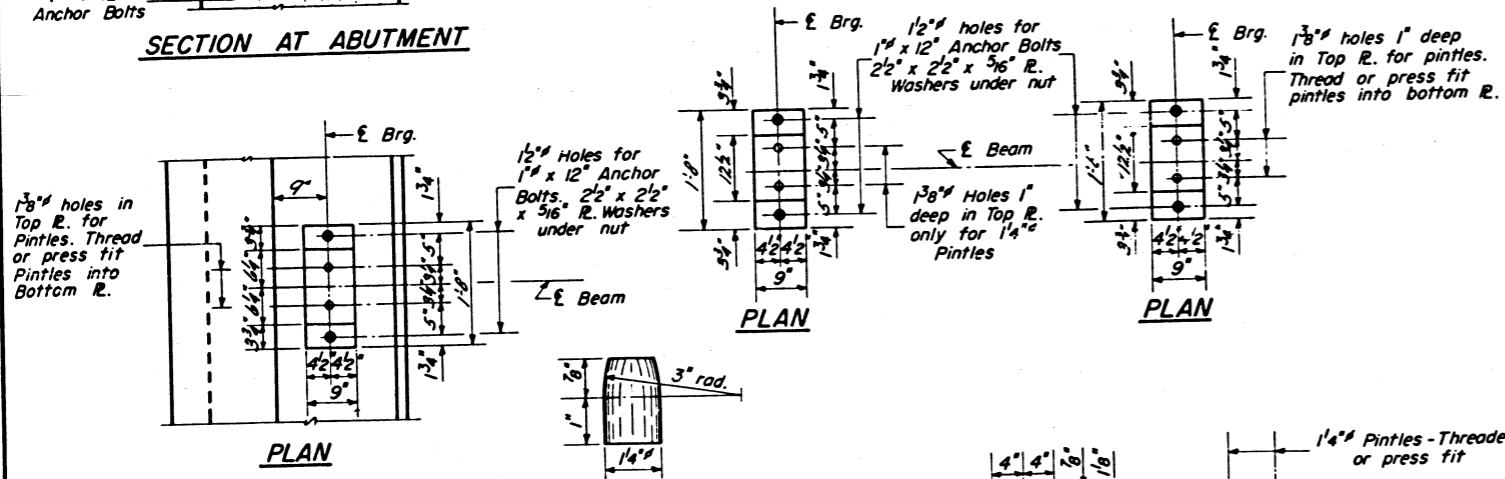


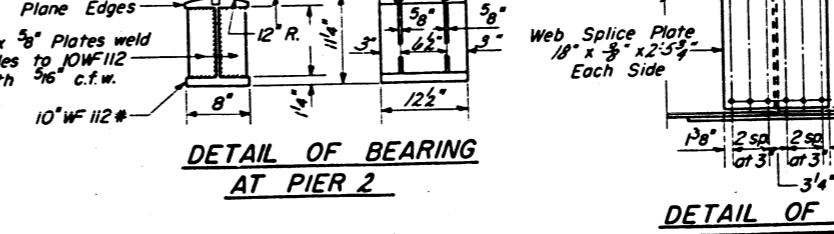
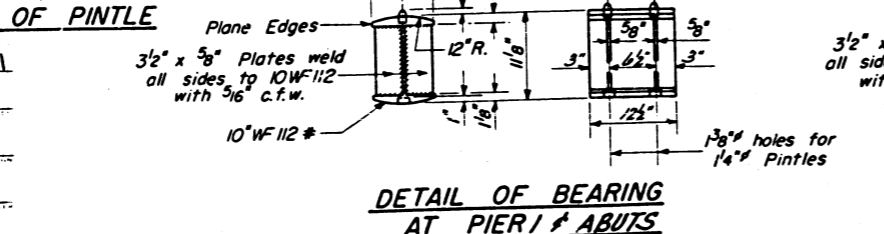
TABLE OF "I" DIMENSIONS

Location	Bm.1	Bm.2	Bm.3	Bm.4	Bm.5	Bm.6	Bm.7
All	0	1/2	1/2	5/8	0	0	0

DESIGNED *W.A. Sausamon*  
CHECKED *T.M. Young*  
DRAWN *W.A. Sausamon*  
CHECKED *T.M. Young*

EXAMINED *W.E. Bauman*  
PASSED *E.P. Smith*  
APPROVED *M. Bartholomew*

Nov. 14 1961



STRUCTURAL STEEL  
F.A.I. RT. 57 SEC. 28-1B-F  
FRANKLIN COUNTY  
STA. 102 + 70



STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
FAI 57	28-1B	Franklin	29	9
FDL ROAD DIST NO. 7		ALIGNED	FOR AID PROJECT	

SHEET NO. 4  
10 SHEETS

**SPAN 1**

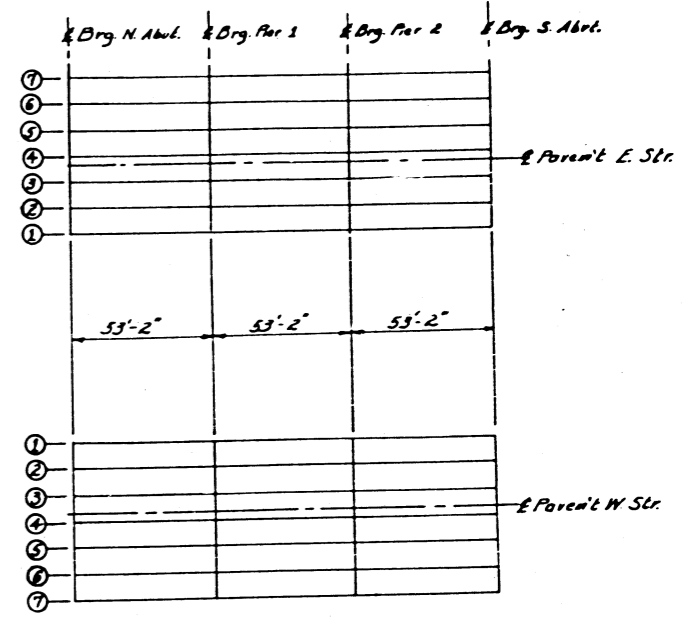
Beams	Station	Offset	Theoretical Grade Elevations	Grade Elevations Adjusted For Deflection
1	10188.500	17.000	417.771	417.771
2	10188.500	10.666	417.901	417.901
3	10188.500	4.333	417.986	417.986
4	10188.500	.000	418.000	418.000
5	10188.500	2.000	417.997	417.997
6	10188.500	8.333	417.940	417.940
7	10188.500	14.666	417.819	417.819
8	10188.500	21.000	417.688	417.688
1	10190.250	17.000	417.771	417.771
2	10190.250	10.666	417.901	417.901
3	10190.250	4.333	417.986	417.986
4	10190.250	.000	418.000	418.000
5	10190.250	2.000	417.997	417.997
6	10190.250	8.333	417.940	417.940
7	10190.250	14.666	417.819	417.819
8	10190.250	21.000	417.688	417.688
1	10200.250	17.000	417.771	417.787
2	10200.250	10.666	417.901	417.917
3	10200.250	4.333	417.986	417.999
4	10200.250	.000	418.000	418.016
5	10200.250	2.000	417.997	418.012
6	10200.250	8.333	417.940	417.955
7	10200.250	14.666	417.819	417.835
8	10200.250	21.000	417.688	417.703
1	10210.250	17.000	417.771	417.794
2	10210.250	10.666	417.901	417.925
3	10210.250	4.333	417.986	418.007
4	10210.250	.000	418.000	418.023
5	10210.250	2.000	417.997	418.020
6	10210.250	8.333	417.940	417.963
7	10210.250	14.666	417.819	417.863
8	10210.250	21.000	417.688	417.711
1	10220.250	17.000	417.771	417.794
2	10220.250	10.666	417.901	417.925
3	10220.250	4.333	417.986	418.007
4	10220.250	.000	418.000	418.023
5	10220.250	2.000	417.997	418.020
6	10220.250	8.333	417.940	417.963
7	10220.250	14.666	417.819	417.863
8	10220.250	21.000	417.688	417.711
1	10230.250	17.000	417.771	417.786
2	10230.250	10.666	417.901	417.917
3	10230.250	4.333	417.986	417.999
4	10230.250	.000	418.000	418.015
5	10230.250	2.000	417.997	418.012
6	10230.250	8.333	417.940	417.955
7	10230.250	14.666	417.819	417.835
8	10230.250	21.000	417.688	417.733
1	10240.250	17.000	417.771	417.775
2	10240.250	10.666	417.901	417.905
3	10240.250	4.333	417.986	417.987
4	10240.250	.000	418.000	418.004
5	10240.250	2.000	417.997	418.000
6	10240.250	8.333	417.940	417.963
7	10240.250	14.666	417.819	417.823
8	10240.250	21.000	417.688	417.691

**SPAN 2**

Beams	Station	Offset	Theoretical Grade Elevations	Grade Elevations Adjusted For Deflection
1	10243.417	17.000	417.771	417.771
2	10243.417	10.666	417.901	417.901
3	10243.417	4.333	417.986	417.986
4	10243.417	.000	418.000	418.000
5	10243.417	2.000	417.997	417.997
6	10243.417	8.333	417.940	417.940
7	10243.417	14.666	417.819	417.819
8	10243.417	21.000	417.688	417.688
1	10253.417	17.000	417.771	417.771
2	10253.417	10.666	417.901	417.901
3	10253.417	4.333	417.986	417.986
4	10253.417	.000	418.000	418.000
5	10253.417	2.000	417.997	417.997
6	10253.417	8.333	417.940	417.940
7	10253.417	14.666	417.819	417.819
8	10253.417	21.000	417.688	417.688
1	10263.417	17.000	417.771	417.771
2	10263.417	10.666	417.901	417.901
3	10263.417	4.333	417.986	417.986
4	10263.417	.000	418.000	418.000
5	10263.417	2.000	417.997	417.997
6	10263.417	8.333	417.940	417.940
7	10263.417	14.666	417.819	417.819
8	10263.417	21.000	417.688	417.688
1	10273.417	17.000	417.771	417.771
2	10273.417	10.666	417.901	417.901
3	10273.417	4.333	417.986	417.986
4	10273.417	.000	418.000	418.000
5	10273.417	2.000	417.997	417.997
6	10273.417	8.333	417.940	417.940
7	10273.417	14.666	417.819	417.819
8	10273.417	21.000	417.688	417.688
1	10283.417	17.000	417.771	417.771
2	10283.417	10.666	417.901	417.901
3	10283.417	4.333	417.986	417.986
4	10283.417	.000	418.000	418.000
5	10283.417	2.000	417.997	417.997
6	10283.417	8.333	417.940	417.940
7	10283.417	14.666	417.819	417.819
8	10283.417	21.000	417.688	417.688
1	10293.417	17.000	417.771	417.771
2	10293.417	10.666	417.901	417.901
3	10293.417	4.333	417.986	417.986
4	10293.417	.000	418.000	418.000
5	10293.417	2.000	417.997	417.997
6	10293.417	8.333	417.940	417.940
7	10293.417	14.666	417.819	417.819
8	10293.417	21.000	417.688	417.688

**SPAN 3**

Beams	Station	Offset	Theoretical Grade Elevations	Grade Elevations Adjusted For Deflections
1	10296.583	17.000	417.771	417.771
2	10296.583	10.666	417.901	417.901
3	10296.583	4.333	417.986	417.986
4	10296.583	.000	418.000	418.000
5	10296.583	2.000	417.997	417.997
6	10296.583	8.333	417.940	417.940
7	10296.583	14.666	417.819	417.819
8	10296.583	21.000	417.688	417.688
1	10306.583	17.000	417.771	417.783
2	10306.583	10.666	417.901	417.913
3	10306.583	4.333	417.986	417.995
4	10306.583	.000	418.000	418.012
5	10306.583	2.000	417.997	418.008
6	10306.583	8.333	417.940	417.951
7	10306.583	14.666	417.819	417.831
8	10306.583	21.000	417.688	417.699
1	10316.583	17.000	417.771	417.792
2	10316.583	10.666	417.901	417.922
3	10316.583	4.333	417.986	418.005
4	10316.583	.000	418.000	418.021
5	10316.583	2.000	417.997	418.017
6	10316.583	8.333	417.940	417.961
7	10316.583	14.666	417.819	417.840
8	10316.583	21.000	417.688	417.708
1	10326.583	17.000	417.771	417.796
2	10326.583	10.666	417.901	417.926
3	10326.583	4.333	417.986	418.008
4	10326.583	.000	418.000	418.025
5	10326.583	2.000	417.997	418.021
6	10326.583	8.333	417.940	417.964
7	10326.583	14.666	417.819	417.864
8	10326.583	21.000	417.688	417.712
1	10336.583	17.000	417.771	417.792
2	10336.583	10.666	417.901	417.922
3	10336.583	4.333	417.986	418.006
4	10336.583	.000	418.000	418.021
5	10336.583	2.000	417.997	418.017
6	10336.583	8.333	417.940	417.960
7	10336.583	14.666	417.819	417.860
8	10336.583	21.000	417.688	417.708
1	10346.583	17.000	417.771	417.776
2	10346.583	10.666	417.901	417.906
3	10346.583	4.333	417.986	417.989
4	10346.583	.000	418.000	418.005
5	10346.583	2.000	417.997	418.002
6	10346.583	8.333	417.940	417.965
7	10346.583	14.666	417.819	417.824
8	10346.583	21.000	417.688	417.693
1	10349.750	17.000	417.771	417.771
2	10349.750	10.666	417.901	417.901
3	10349.750	4.333	417.986	417.986
4	10349.750	.000	418.000	418.000
5	10349.750	2.000	417.997	417.997
6	10349.750	8.333	417.940	417.940
7	10349.750	14.666	417.819	417.819
8	10349.750	21.000	417.688	417.688
1	10351.500	17.000	417.771	417.771
2	10351.500	10.666	417.901	417.901
3	10351.500	4.333	417.986	417.986
4	10351.500	.000	418.000	418.000
5	10351.500	2.000	417.997	417.997
6	10351.500	8.333	417.940	417.940
7	10351.500	14.666	417.819	417.819
8	10351.500	21.000	417.688	417.688

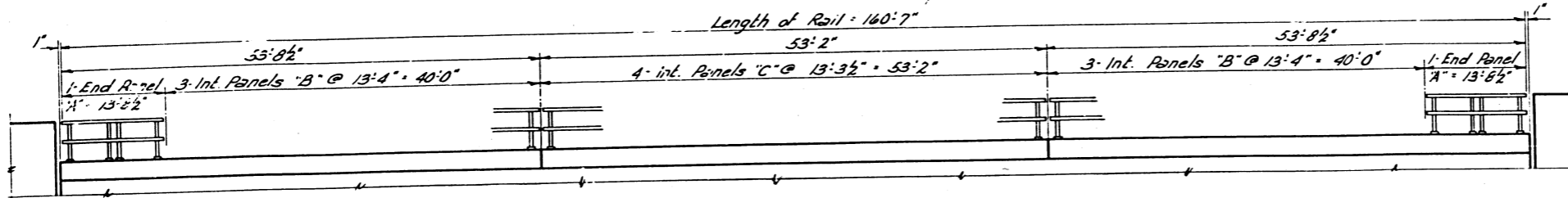


DESIGNED *W. H. McKinney*  
 CHECKED *T. M. Young*  
 DRAWN *J. P.*  
 CHECKED *T. M. Young*

EXAMINED *V. E. Baumann*  
 PASSED *E. J. Schuch*  
 APPROVED *P. P. Bartolomeo*

Nov. 14 1961

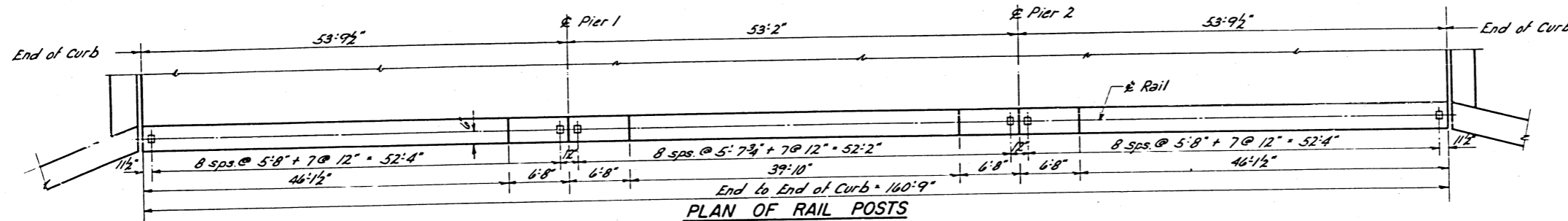
TOP OF SLAB ELEVATIONS  
 FAI RT. 57 SECTION 28-1B, 1F  
 FRANKLIN COUNTY  
 STATION 102+70



ELEVATION

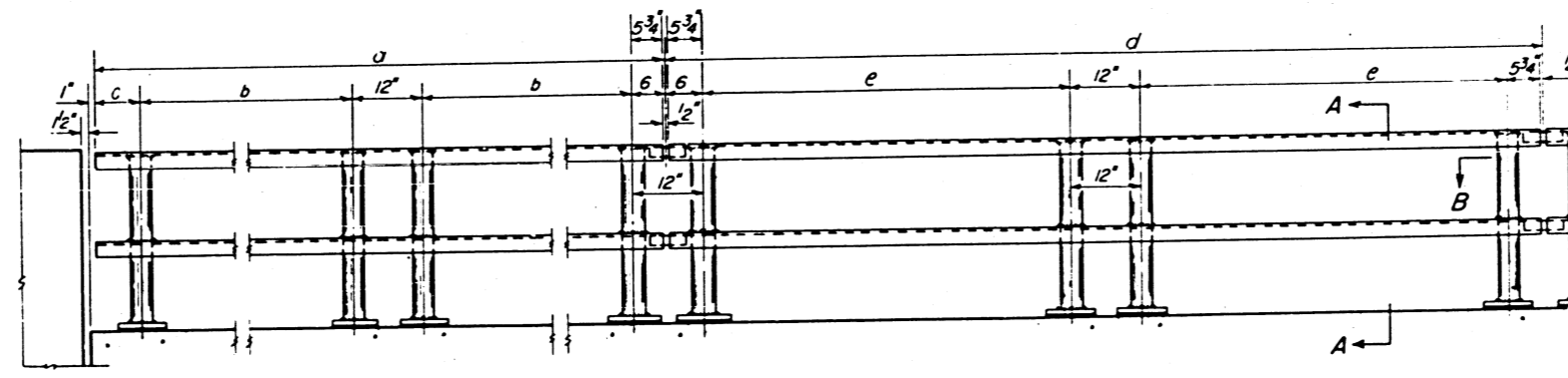
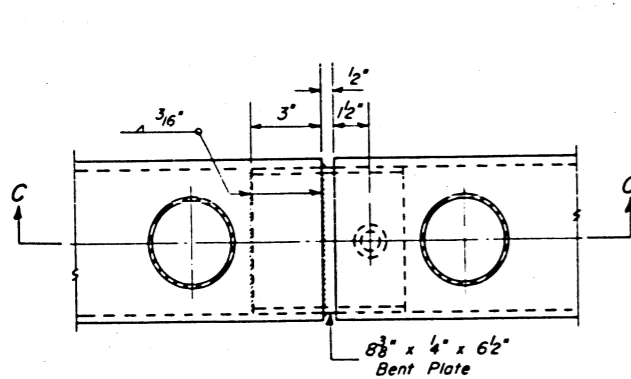
DIMENSIONS OF END PANELS

Unit	Value
a	13'-8 1/2"
b	5'-8"
c	10 1/2"

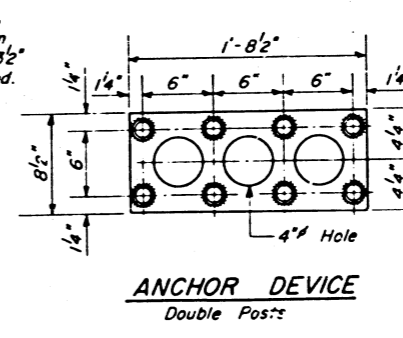
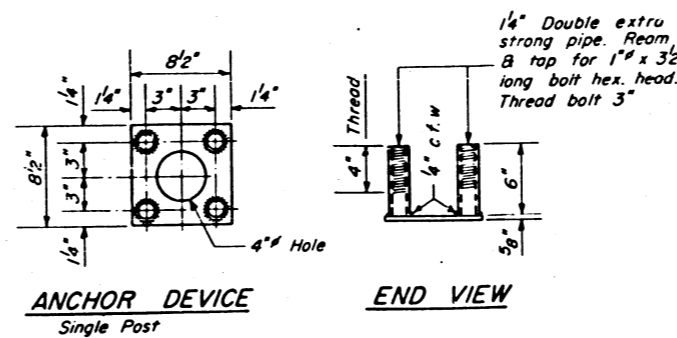
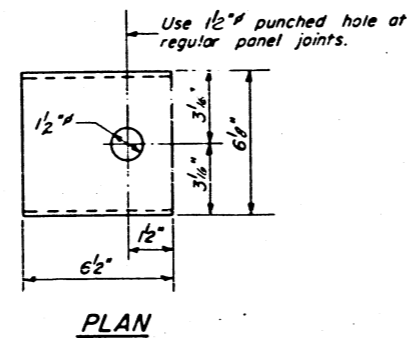
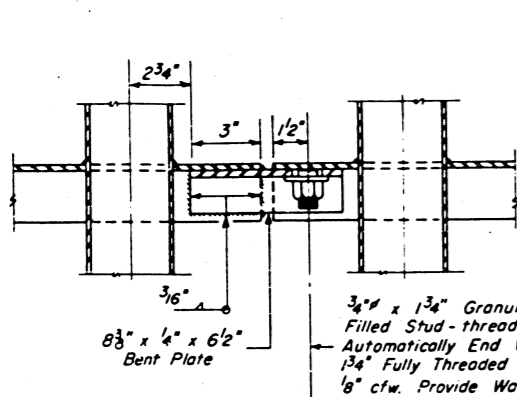
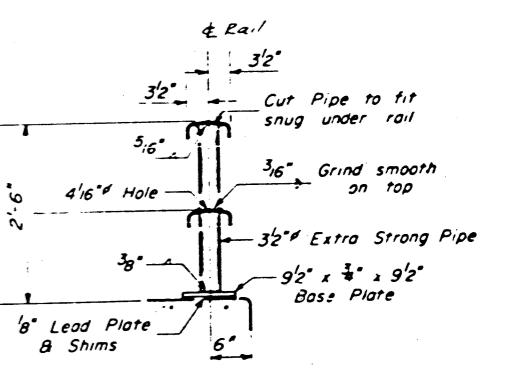


DIMENSIONS OF INTERIOR PANELS

Unit	Value
d	13'-4"      13'-3 1/2"
e	5'-8"      5'-7 3/4"



ELEVATION TYPICAL INTERIOR PANEL



GENERAL NOTES

After erection all Bolts and Washers shall be spot painted with one coat of red lead paint. The entire rail shall therefore receive two coats of aluminum paint.

Provide 1- 8" and 2- 16" Shims for 50% of the Posts.

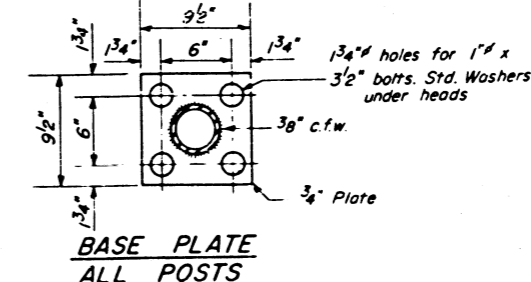
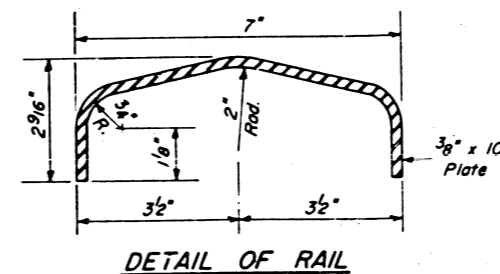
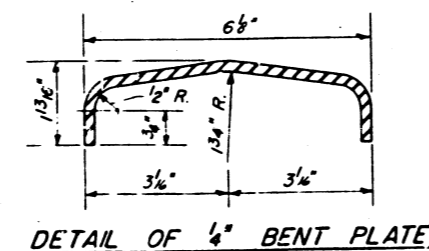
BILL OF MATERIAL

Item	Unit	Quantity
Metal Handrail	Lin. Ft.	642

DESIGNED *W. F. M. Young*  
CHECKED *T. M. Young*  
DRAWN *P. Lawler*  
CHECKED *T. M. Young*

EXAMINED *W. E. Bauman*  
PASSED *E. J. Shultz*  
APPROVED *W. B. Bartles*

Nov. 14 1961



HANDRAILS  
F.A.I. RT. 57 SEC. 23-1B  
FRANKLIN COUNTY  
STA. 102 + 70

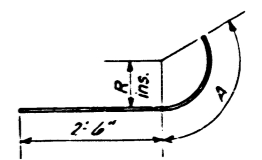
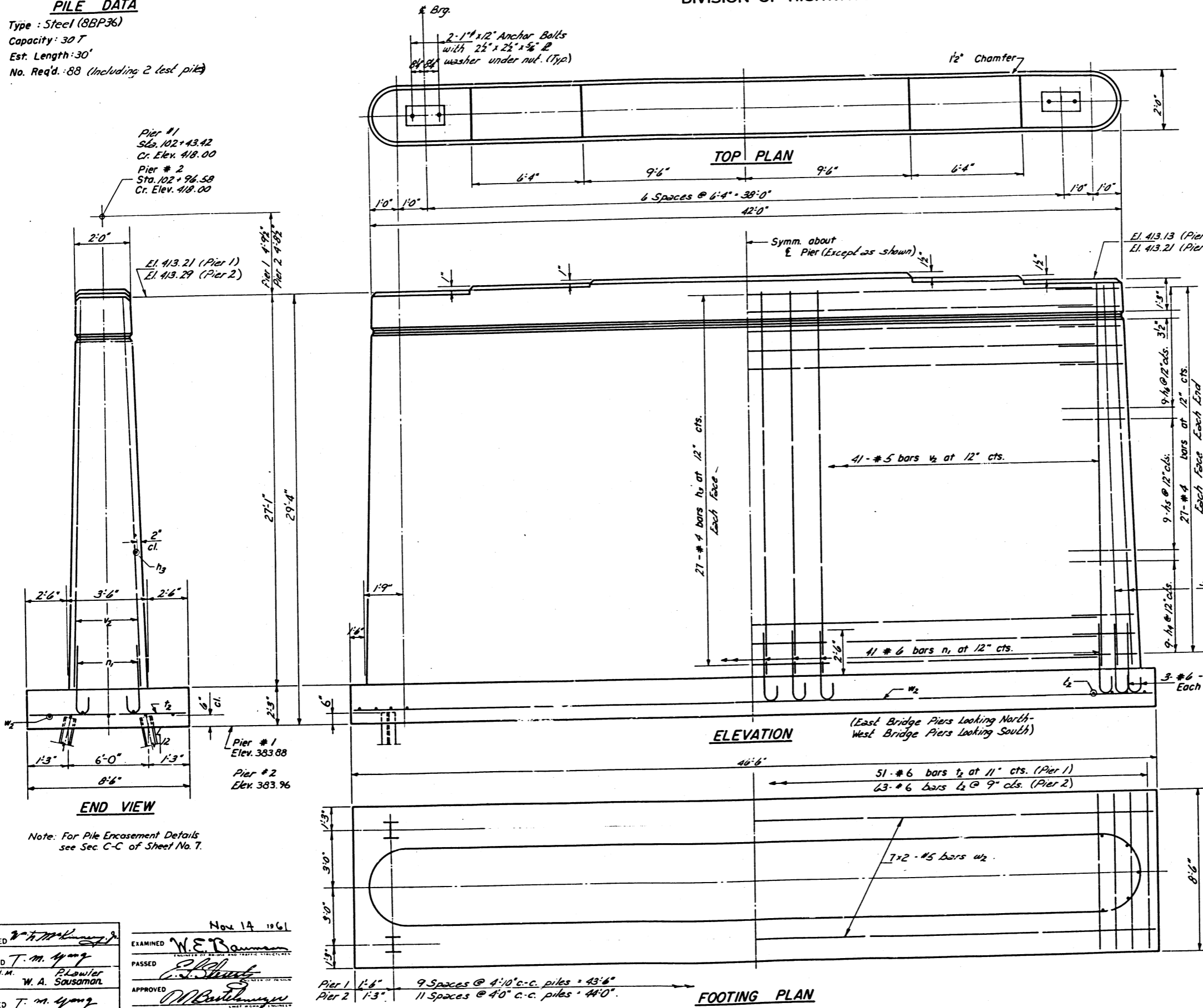


STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE NO.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
191	28-18	Franklin	29	10
SHEET NO. 8 / 10 SHEETS				

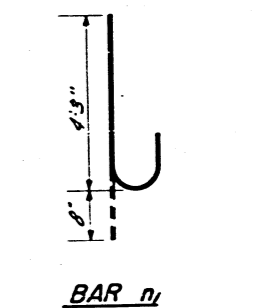
**PILE DATA**

Type: Steel (BBP36)  
Capacity: 30 T  
Est. Length: 30'  
No. Req'd: 88 (Including 2 test piles)



Bar	R	A
$h_4$	1'8"	3'3"
$h_5$	1'5"	3'0"
$h_6$	1'2"	2'6"

**DETAIL OF BARS**  
 $h_3, h_4, h_5$



**(TWO BRIDGES)  
BILL OF MATERIAL**

Bar	No.	Size	Length	Shape
$h_3$	216	#4	36'0"	—
$h_4$	144	#4	5'9"	—
$h_5$	144	#4	5'6"	—
$h_6$	144	#4	5'0"	—
$n_1$	352	#6	4'11"	C
$\frac{1}{2}$	228	#6	8'3"	—
$\frac{1}{2}$	352	#5	26'9"	—
$\frac{1}{2}$	56	#5	23'9"	—
Class A Concrete				Cu. Yds. 5980
Reinforcement Bars				Lbs. 23390
Steel Piles (BBP36)				Lin. Ft. 2580
Test Piles (BBP36)				Each 2

PIERS 1 & 2  
E.A.I. RT. 57 SEC. 28-18  
FRANKLIN COUNTY  
STA. 102 + 70

DESIGNED: W. H. McHenry Jr.  
CHECKED: T. M. Young  
W.N.M. P. Lowler  
DRAWN: W. A. Sausaman  
CHECKED: T. M. Young

EXAMINED: W. E. Bannan  
PASSED: E. J. Stewart  
APPROVED: M. B. Williams

Nov 14 1961

STATE OF ILLINOIS  
DEPARTMENT OF PUBLIC WORKS & BUILDINGS  
DIVISION OF HIGHWAYS

ROUTE F.A.R.T. 57 SEC. 28-1B COUNTY Franklin				over Gunn Creek STA. 102+70 Bored By J. Congiardo Checked By W. E. Stallman				COUNTY Franklin			
Boring No. 1 Station 102+69H Offset 55' Lt.				Surface Water El. --- Groundwater El. at Completion 387.4 After 24 Hours 392.4				Boring No. 1 Station 102+69H Offset 55' Lt.			
Elevation	Z	V	W (%)	Elevation	Z	V	W (%)	Elevation	Z	V	W (%)
397.5	0			397.5	0			397.5	0		
Ground Surface				(See previous column)				(See previous sheet)			
Medium soft and moist brown silty clay loam A-4(8-9)				Medium stiff and moist grey silty clay A-6(10-11)				Medium and dry coarse grained brown to grey sandstone			
395.0	2			373.5	8	2.18	22	355.5	100	Blows in 9 inches	
Auger Sample 22											
393.0	5							355.5	100	Blows in 5 inches	
Medium and moist tan mottled grey silty clay loam to silty loam A-4(8)								Cored with 95% Recovery			
388.0	10			365.5	9	1.75	30	347.0	50		
Medium and moist grey mottled brown silty clay loam A-4(8)				Medium and very moist grey clay loam A-6(9-10)				Bottom of Hole - 50.5 feet			
385.0	15			363.5	9	1.68	39	347.0	50		
Medium soft and moist brown mottled grey silty clay A-6(10)				Loose and wet medium graded fine grey sand				During drilling operation, it appeared that free water was encountered at 15 feet.			
381.0	20			357.5	14	-	27	347.0	50		
Medium stiff and moist brown mottled grey clay A-7-6(12-14)				Dense and very moist medium graded brown and grey sand and gravel.				Hole was washed out to obtain samples from 36.0 to 42.0 feet. Hole was cored from 44.5 feet to 50.5 feet.			
375.5	25			355.5	12			347.0	50		
Auger Sample 23				(See next sheet)				Lost Sample			

COUNTY Franklin				COUNTY Franklin			
Boring No. 3 Station 102+34H Offset 55' Lt.				Boring No. 3 Station 102+34H Offset 55' Lt.			
Elevation	Z	V	W (%)	Elevation	Z	V	W (%)
398.7	0			398.7	0		
Ground Surface				(See previous column)			
Medium and moist brown silty clay loam to silty loam A-4(8)				Medium stiff and moist grey clay A-6(12-13)			
393.2	5			374.2	7	1.78	27
Auger Sample 13				Soft and moist coarse grained grey sandstone			
389.2	10			363.7	15	2.02	15
Medium and moist grey silty loam to silty clay loam A-4(8)				Medium stiff and very moist grey sandy silty loam			
389.2	15			363.7	15	2.02	15
Medium and moist grey mottled brown silty clay A-6(9-11)				Bottom of Hole - 51.0 feet			
381.7	20			361.2	12	1.52	21
Stiff and moist grey mottled brown clay A-7-6(13-14)				Loose and wet fine graded grey sand			
375.5	25			361.2	12	1.52	21
Auger Sample 26				Medium and moist grey clay loam A-6(7-8)			
375.5	25			359.2	21	1.52	17
Auger Sample 26				Medium dense and wet coarse graded grey sand and gravel			
375.5	25			356.2	62	-	14
Auger Sample 26				(see next sheet)			

Notes:  
N - Standard Penetration Test - blow count for 2' 10" split spoon sampler with 140 lb hammer falling 30".  
Qu - Unconfined Compressive Strength - psi  
w - Water Content - percentage of oven dry weight-%.  
Type failure:  
B - Bulge Failure  
S - Shear Failure  
E - Estimated value  
P - PENETROMETER VALUE

COUNTY Franklin				COUNTY Franklin				COUNTY Franklin			
Boring No. 2 Station 102+06H Offset 35' Lt.				Surface Water El. --- Groundwater El. at Completion 386.7 After 24 Hours 392.7				Boring No. 2 Station 102+06H Offset 35' Lt.			
Elevation	Z	V	W (%)	Elevation	Z	V	W (%)	Elevation	Z	V	W (%)
397.6	0			397.6	0			397.6	0		
Ground Surface				Medium stiff and moist brown silty clay A-6(10-11)				Medium stiff and moist grey silty clay A-6(10-11)			
395.6	2			369.6	7	0.88	25	369.6	7	0.88	25
Auger Sample 17				Medium soft and moist brown silty clay loam A-4(8-9)				Medium stiff and moist dark grey silty clay A-6(10-11) with some rotten vegetation included			
391.1	5			367.6	9	1.72	29	367.6	9	1.72	29
Medium and moist tan mottled grey silty clay loam to silty loam A-4(8)				Medium and very moist dark grey silty clay A-6(9-10)				Bottom of Hole - 50.5 feet			
388.6	10			367.6	9	1.58	35	367.6	9	1.58	35
Medium soft and very moist tan mottled grey silty clay A-6(10-11)				Loose to medium and wet medium graded medium grained sand				During drilling operation, it appeared that free water was encountered at 15 feet.			
383.6	15			362.1	13	1.15	28	362.1	13	1.15	28
Medium and moist tan mottled grey clay A-6(11-12)				Hole was washed out to obtain samples from 36.0 to 42.0 feet. Hole was cored from 44.5 feet to 50.5 feet with 70% recovery. Most of loss was between 48.5 and 50.5 feet. Poor recovery is attributed to fact that a piece of core was lodged in core barrel in such a way to break up and grind away part of core.				Bottom of Hole - 50.5 feet			
378.6	20			357.6	15	-	15	357.6	15	-	15
Medium and moist tan mottled grey clay A-7-6(12-14)				Medium dense and wet coarse graded grey sand and gravel				(see next sheet)			
375.6	25			355.6	100	Blows in 5 inches		355.6	100	Blows in 5 inches	
Auger Sample 25				(See next column)				Cored with 70% Recovery			

BRIDGE FOUNDATION BORING LOG

PROJECT - BRIDGE carrying Interstate Date September 1961

ROUTE F.A.R.T. 57 over Gunn Creek Bored By J. Congiardo

SEC. 28-1B STA. 102+70 Checked By W. E. Stallman

COUNTY Franklin

Boring No. 4  
Station 101+76H  
Offset 35' Lt.

Elevation	Z	V	W (%)	Elevation	Z	V	W (%)
398.4	0			398.4	0		
Ground Surface				(See previous column)			
Medium and moist brown silty clay loam A-4(8)				Soft to medium and very moist grey clay loam A-6(9-10)			
394.4	4			371.4	10	2.08	24
Auger Sample 23				Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)			
389.4	9			369.4	8	1.28	27
Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)				Medium and moist grey sandy loam			
387.4	11			367.9	16	1.52	8
Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)				Loose and wet medium graded fine to medium coarse grey sand			
382.9	16			361.9	28	-	18
Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)				Stiff and moist grey sandy clay loam			
379.4	19			359.4	14	2.72	17
Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)				Medium dense and wet coarse graded grey sand with some gravel			
375.4	23			356.4	65	-	20
Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)				(See next sheet)			
371.4	27			356.4	100	Blows in 5 inches	
Medium and moist to very moist brown mottled grey to grey silty clay A-6(9-10)				Auger Sample 24			

BRIDGE FOUNDATION BORING LOG

PROJECT - BRIDGE carrying Interstate Date September 1961

ROUTE F.A.R.T. 57 over Gunn Creek Bored By J. Congiardo

SEC. 28-1B STA. 102+70 Checked By W. E. Stallman

COUNTY Franklin

Boring No. 4  
Station 101+76H  
Offset 35' Lt.

Elevation	Z	V	W (%)	Elevation	Z	V	W (%)
398.4	0			398.4	0		
Ground Surface				(See previous sheet)			
Medium and moist brown silty clay loam to silty loam A-4(8)				Soft and moist coarse grained grey sandstone			
393.2	5			356.4	100	Blows in 5 inches	
Medium and moist grey silty loam to silty clay loam A-4(8)				Bottom of Hole - 50.0 feet			
389.2	10			348.4	50	100	Blows in 6 inches
Medium and moist grey mottled brown silty clay A-6(9-11)				During drilling operation, it appeared that free water was encountered at 12 feet.			
381.7	15			348.4	50	100	Blows in 6 inches
Stiff and moist grey mottled brown clay A-7-6(13-14)				Hole was washed out to obtain samples from 31.0 to 42.0 feet. No coring operation was used in this hole.			
375.5	20			348.4	50	100	Blows in 6 inches
Auger Sample 26				Bottom of Hole - 50.0 feet			

DESIGNED  
CHECKED T. M. Young  
DRAWN L. W. ...  
CHECKED T. M. Young

EXAMINED W. E. Stallman  
PASSED  
APPROVED

Nov. 14 1961

BORING DATA  
F.A.R.T. 57 SEC. 28-1B  
FRANKLIN COUNTY  
STA. 102+70

