

PROJECT ENGINEER: JIM MILLER 309-671-3451

DESIGNER: TOM INGLIS 309-671-3481

STATE OF ILLINOIS

D-94-075-08

SHEET 1

DEPARTMENT OF TRANSPORTATION

DIVISION OF HIGHWAYS

PROPOSED HIGHWAY PLANS

ROUTES: FAI - 155

SECTION: D4 BRIDGE

METALIZING 2009

COUNTY: TAZEWELL

C-94-103-08



INDEX OF SHEETS

- 1) COVER SHEET
- 2) COMMITMENT SHEET/GENERAL NOTES
- 3&4) SUMMARY OF QUANTITIES
- 5) ELEVATION & PLAN (090-0138)
- 6) FRAMING PLAN (090-0138)
- 7) JOINT DETAIL (090-0138)
- 8) ELEVATION & PLAN (090-0138)
- 9) FRAMING PLAN (090-0139)
- 10) JOINT DETAIL (090-0139)
- 11) BEARING DETAIL (090-0139)

TRAFFIC STANDARDS

- 701101-02
- 701106-02
- 701400-03
- 701402-07
- 701426-03
- 701901-01
- 704001-05
- 701601-06
- 701001-02
- 701006-03
- 701401-05
- 701411-05

ADT

I-155 21,000 TOTAL, 3000 TRUCKS

CONTRACT NO. 68833

CATALOG NO. 033848-00D

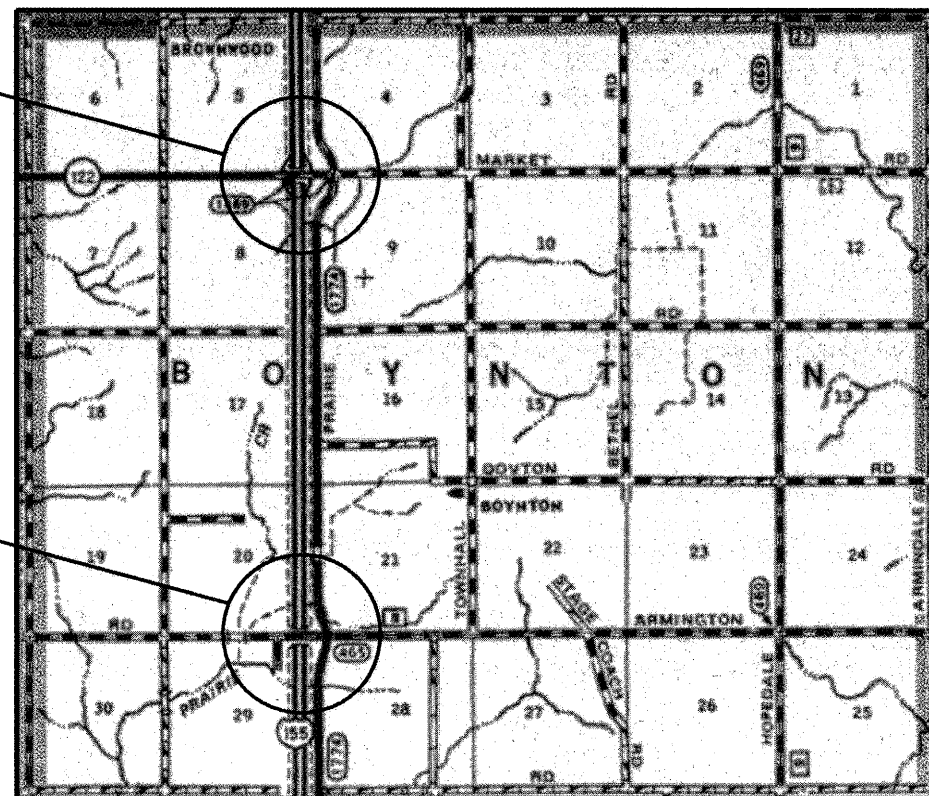
J.U.L.I.E.

JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION

1-800-892-0123

S.N. 090-0138

S.N. 090-0139



STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED Dec. 30 2009

Joseph E. Crowe
DISTRICT ENGINEER

January 30, 2009
Charles J. Ingersoll
ENGINEER OF DESIGN AND ENVIRONMENT

January 30, 2009
Christine M. Reed
DIRECTOR, DIVISION OF HIGHWAYS

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OF THE STATE OF ILLINOIS

COMMITTMENTS

No commitments have been made for this project.

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I - 155	D4 BRG PNTG MTLZG 2008	TAZEWELL	11	2

GENERAL NOTES

Cleaning, Painting & Metalizing of the existing steel shall be as specified in the special provision for **Field Thermal Spraying Metalizing**. All beams, bearings, brackets and all other structural steel shall be cleaned per Near White Blast Cleaning – SSPC SP 10 according to following schedule.

Bridge No. 1 & 2 – All beams, bearings, brackets and all other structural steel within 5 feet (as measured along the centerline of the beam) of either side of the deck joints.

All Metalized areas shall be sealed with an IDOT approved sealer applied DFT of 1 to 2 mils.

The final finish coat for the exterior shall be according to the following schedule:

Bridge No. 1 & 2 – shall match the existing color of Blue (Munsell No. 10B 3/6)

Removal of the PJS expansion seals shall be included in the cost of Preformed Joint Seal 3 1/2" & 4"

QP1 & QP2 ARE NOT REQUIREMENTS FOR THIS CONTRACT.

AIR MONITORS, will not be required for this project.

**COMMITMENTS &
GENERAL NOTES**

Summary of Quantities

Code Order

ROUTE		SECTION	COUNTY	SHEET	
FAI	155	D4 BRIDGE METALIZING 2009	TAZEWELL	TOTAL	NO.
I	155			11	3
CONTRACT NO.				68833	

CONSTRUCTION TYPE CODE

090-0138	090-0139
SFTY-2A	SFTY-2A
100%	100%
STATE	STATE

CODE No.	ITEM	UNIT	Tot.QTY		
50606600	CONTAINMENT AND DISPOSAL OF NON-LEAD PAINT CLEANING RESIDUES	L SUM	1	0.5	0.5
52000040	PREFORMED JOINT SEAL 3 1/2"	FOOT	132	132	
52000050	PREFORMED JOINT SEAL 4"	FOOT	33		33
67100100	MOBILIZATION	L SUM	1	0.5	0.5
70100420	TRAFFIC CONTROL AND PROTECTION, STANDARD 701411	EACH	2	1	1
70100450	TRAFFIC CONTROL AND PROTECTION, STANDARD 701201	L SUM	1		1
70100700	TRAFFIC CONTROL AND PROTECTION, STANDARD 701406	L SUM	1	0.5	0.5
X0325215	THERMAL SPRAYING (METALIZING) BRIDGE JOINT STEEL	FOOT	165	33	132

Summary of Quantities

Code Order

ROUTE		SECTION	COUNTY	SHEET	
FAI	155	D4 BRIDGE METALIZING 2009	TAZEWELL	TOTAL	NO.
I	155			11	4
CONTRACT NO.				68833	

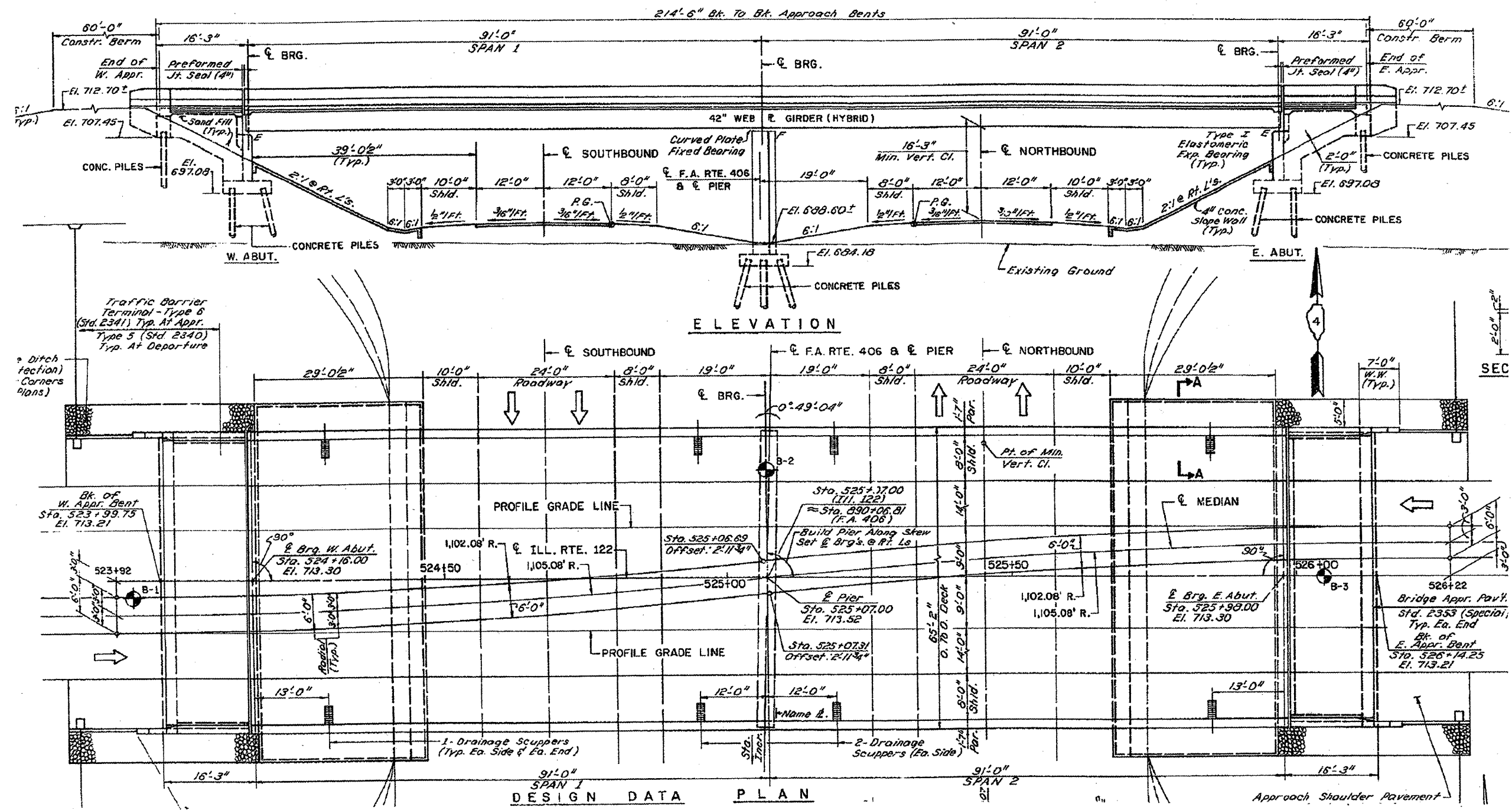
CONSTRUCTION TYPE CODE

090-0138	090-0139
SFTY-2A	SFTY-2A
100%	100%
STATE	STATE

CODE No.	ITEM	UNIT	Tot.QTY		
X0325217	BLAST CLEANING BRIDGE JOINT STEEL	FOOT	165	33	132
X0325381	FIELD THERMAL SPRAYING (METALLIZING) STRUCTURAL STEEL NO. 1	L SUM	1	1	
X0325382	FIELD THERMAL SPRAYING (METALLIZING) STRUCTURAL STEEL NO. 2	L SUM	1		1
X7015005	CHANGEABLE MESSAGE SIGN	CAL DA	6	3	3

42" PLATE GIRDER INFORMATION ONLY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	5	11

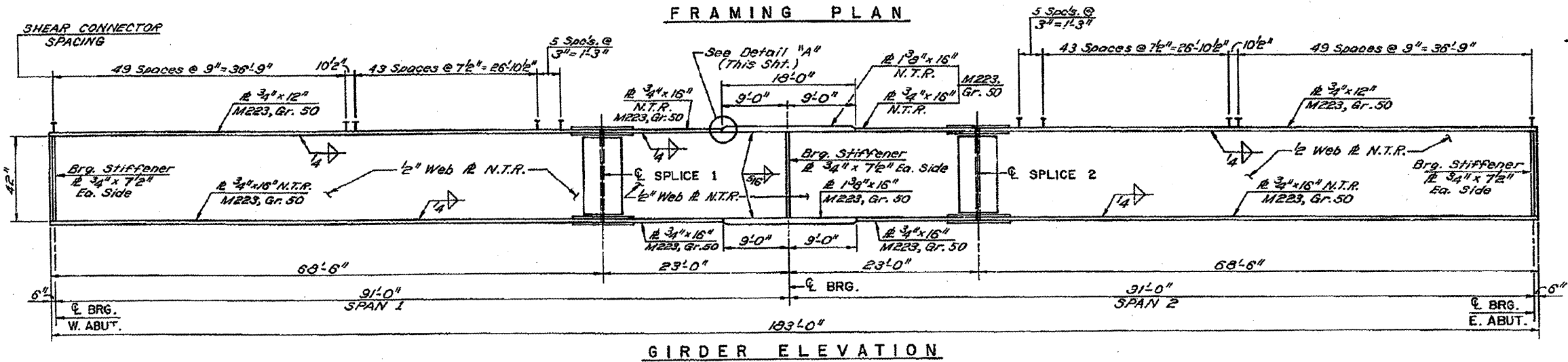
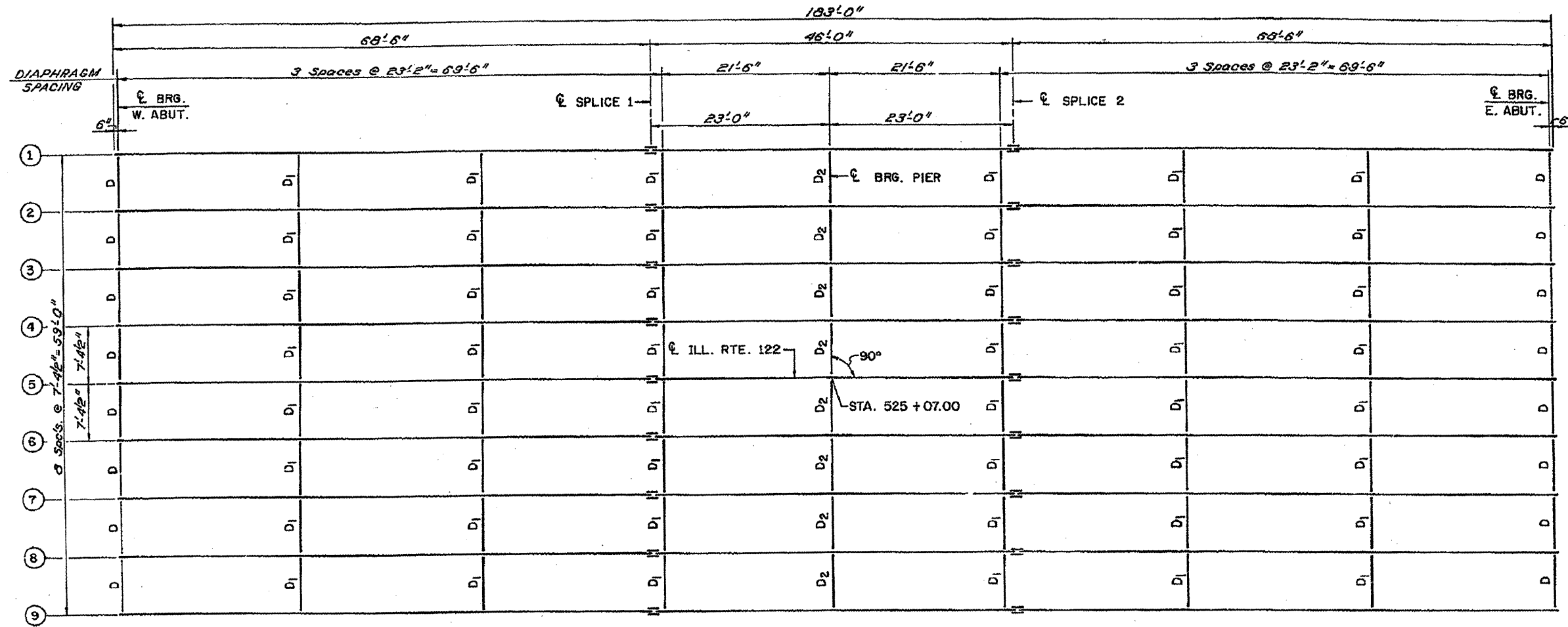


090-0138

**ELEVATION &
PLAN VIEW**

42" PLATE GIRDER INFORMATION ONLY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	6	11

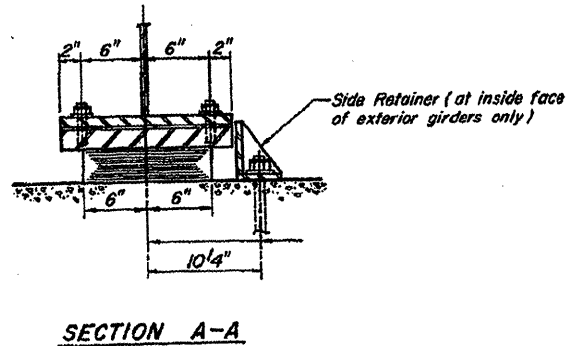
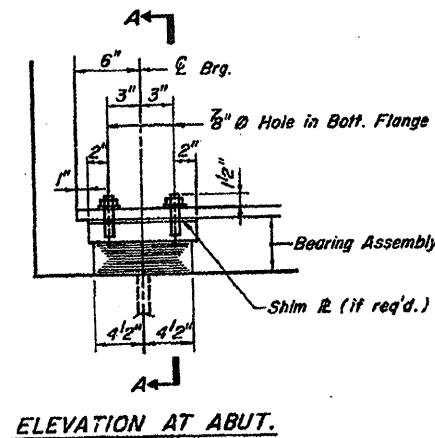


090-0138

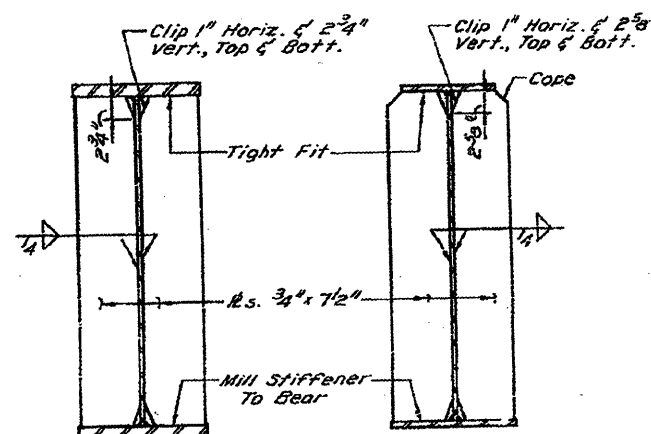
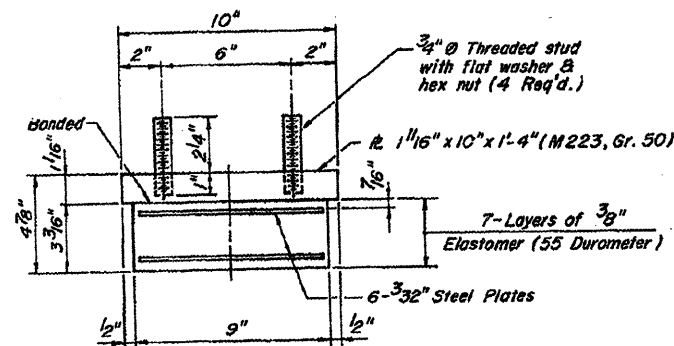
FRAMING PLAN

INFORMATION ONLY

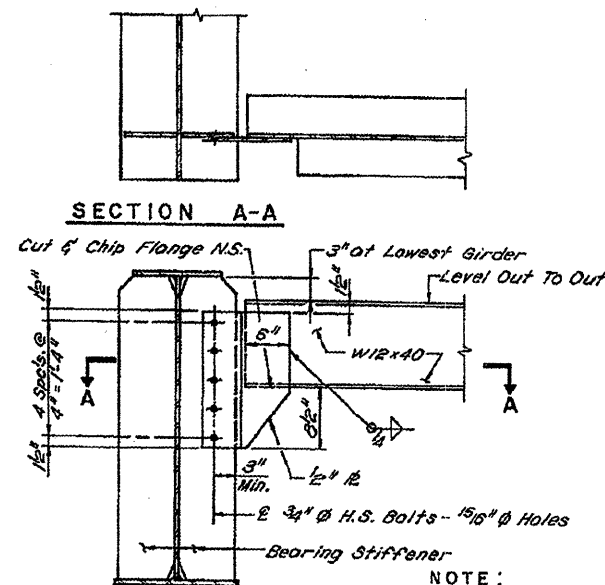
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	7	11



TYPE I ELASTOMERIC EXP. BRG.
(18 Required)

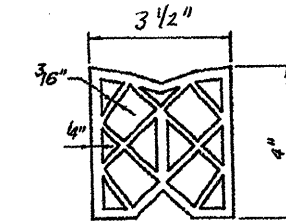


DETAIL OF BEARING STIFFENERS

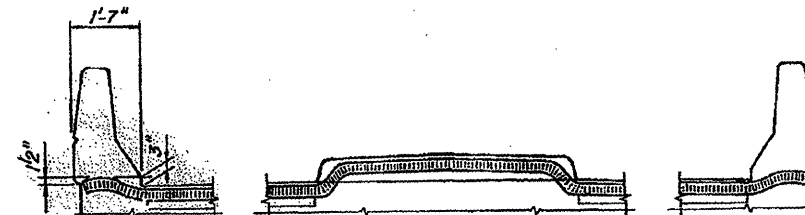
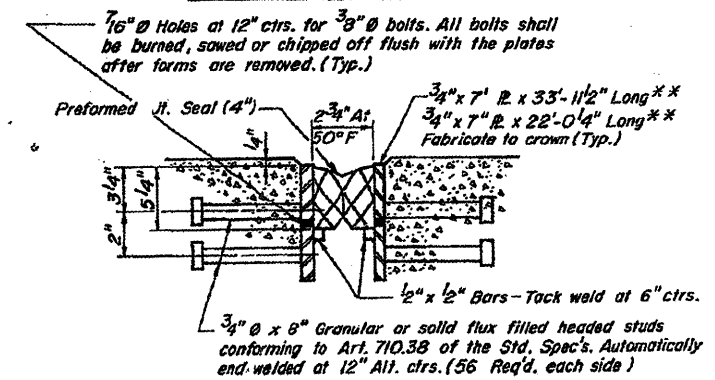


END DIAPHRAGM D
(16 REQ'D.)

NOTE:
TWO HARDENED WASHERS SHALL
REQUIRED OVER ALL 1 5/16" Ø HOLE
IN DIAPHRAGM CONNECTIONS.



PREFORMED JOINT SEAL



TYPICAL SEAL TREATMENTS
NOTE: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel.

PREFORMED JOINT SEAL 3 1/2"

BILL OF MATERIAL

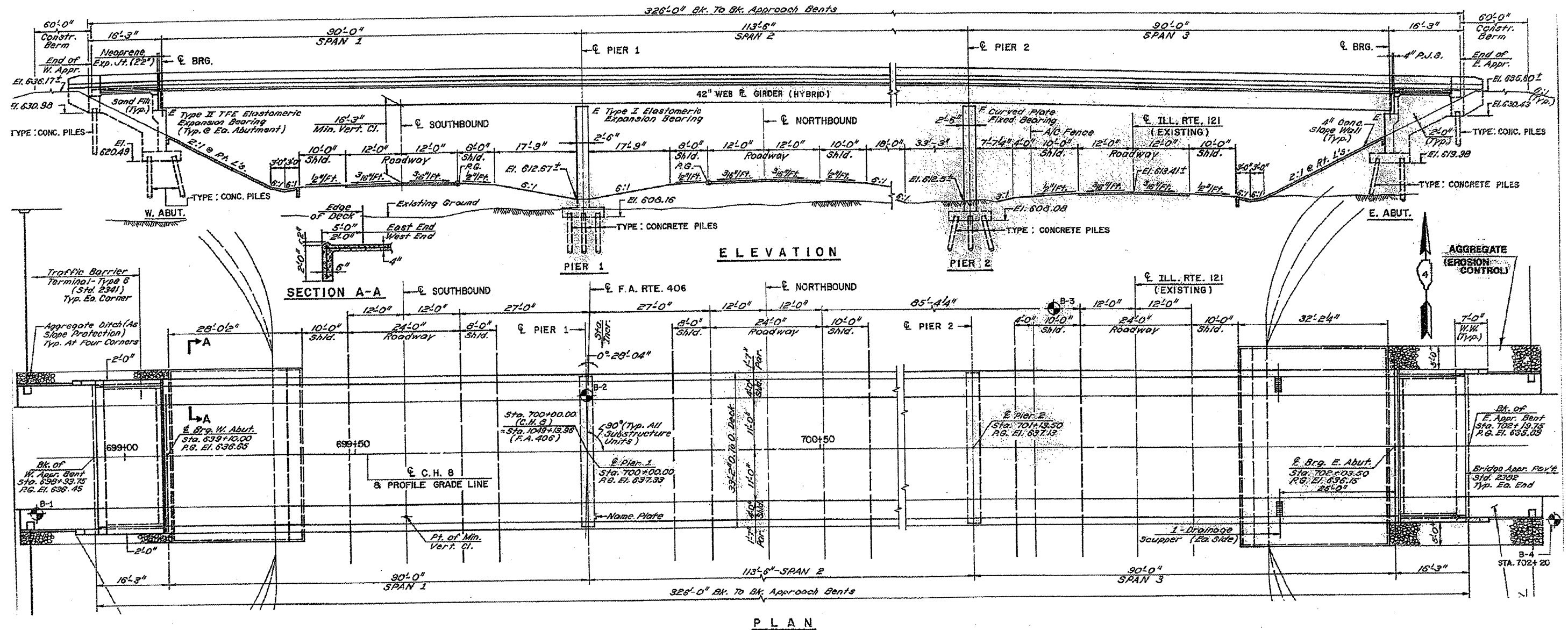
Item	Unit	Total
Preformed Joint Seal (3 1/2")	Lin. Ft.	132

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JOINT DETAIL & DIAPHRAGMS

42" PLATE GIRDER INFORMATION ONLY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	8	11

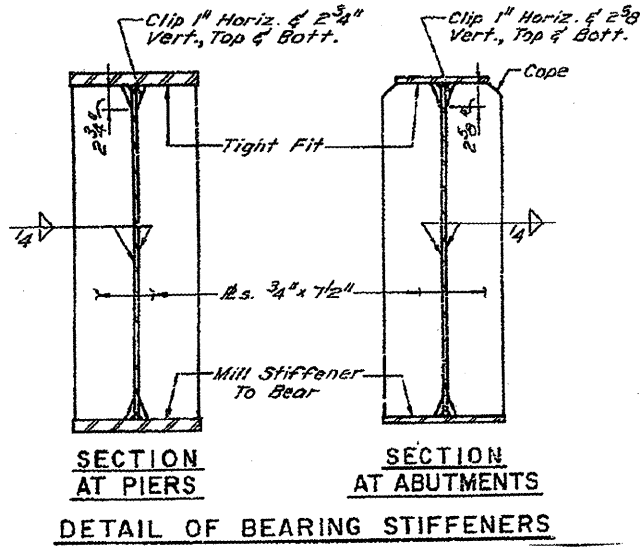
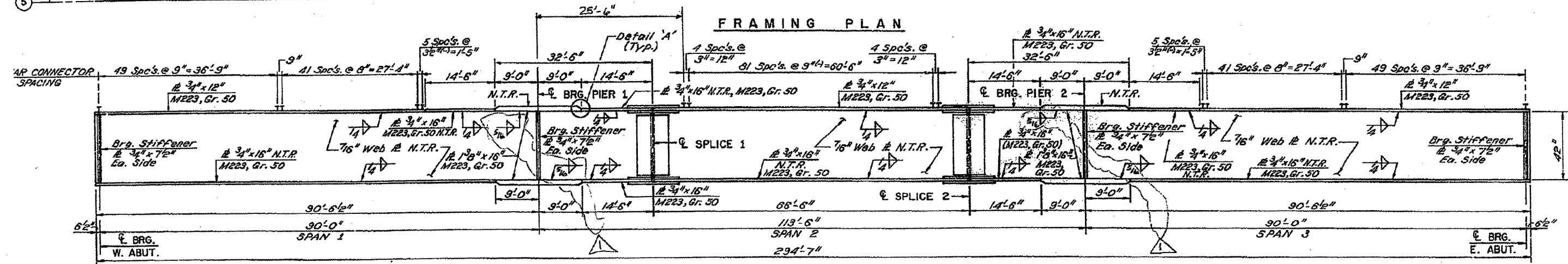
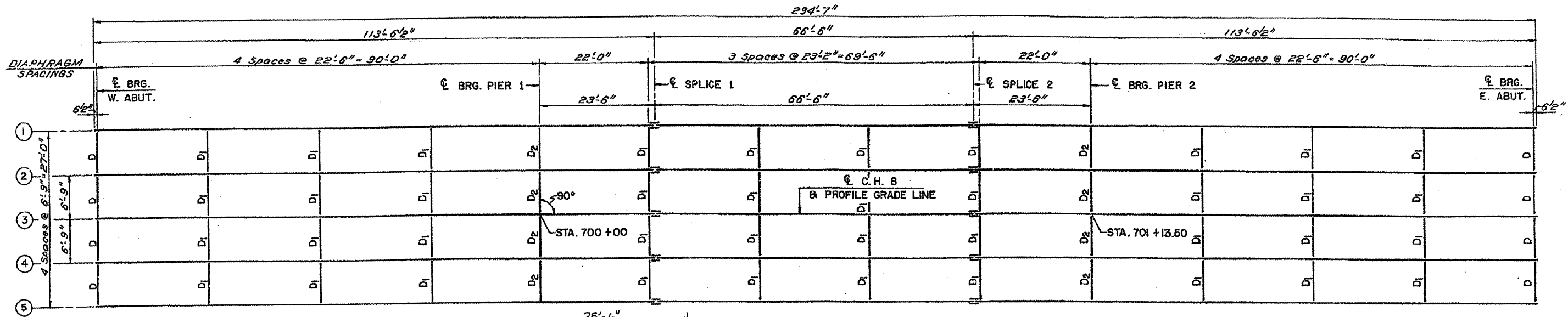


090-0139

**ELEVATION &
PLAN VIEW**

42" PLATE GIRDER INFORMATION ONLY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	9	11

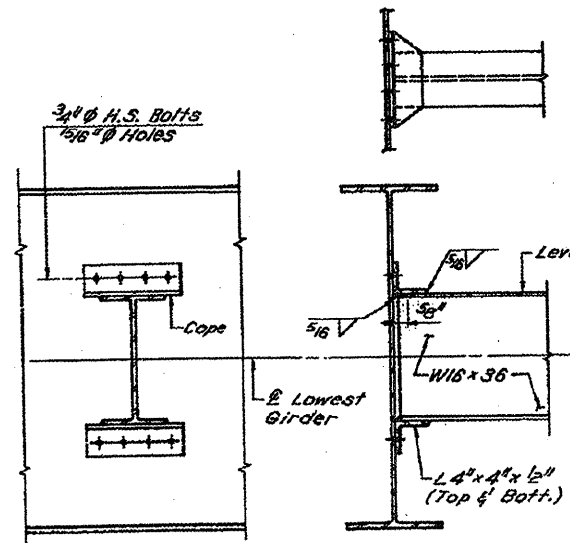


090-0139

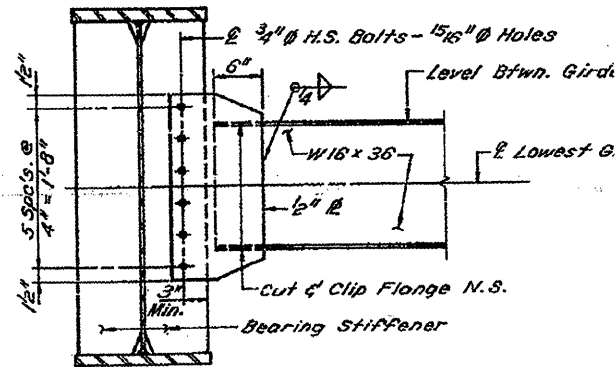
**FRAMING
PLAN**

INFORMATION ONLY

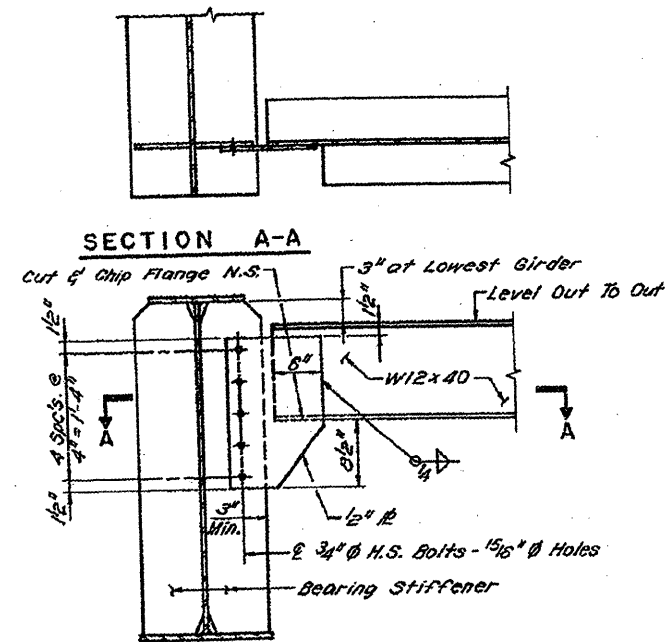
ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	10	11



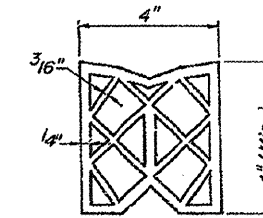
INTERIOR DIAPHRAGM D1
(40 REQ'D.)



INTERIOR DIAPHRAGM AT PIER D2
(8 REQ'D.)

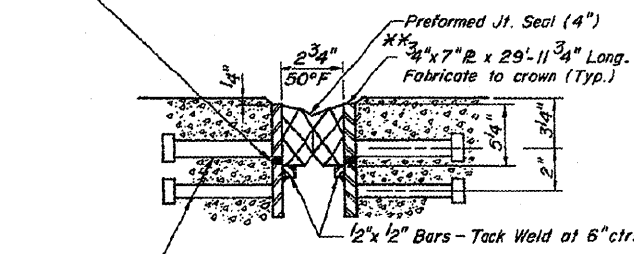


END DIAPHRAGM D
(8 REQ'D.)

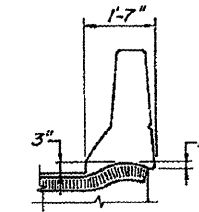


PREFORMED JOINT SEAL (4")

7/16" ϕ Holes at 12" ctrs., for 3/8" ϕ bolts. All bolts shall be burned, sawed or chipped off flush with the plates, after forms are removed. (Typ.)



3/4" ϕ x 8" Granular or solid flux filled headed studs conforming to Art. 710.38 of the Standard Spec's., automatically and welded at 12" All. ctrs. (30 Req'd. each side.)
 ** Furnish in segments of 20 Ft. max. length. Maximum space between installed segments shall be 3/16". Seal space with Silicone Sealant suitable for Structural Steel.



TYPICAL END OF SEAL TREATMENTS

NOTE: After fabrication all surfaces of the steel plates shall be given one shop coat of paint specified for Structural Steel.

PREFORMED JOINT SEAL (4")
(AT EAST ABUTMENT)

BILL OF MATERIAL

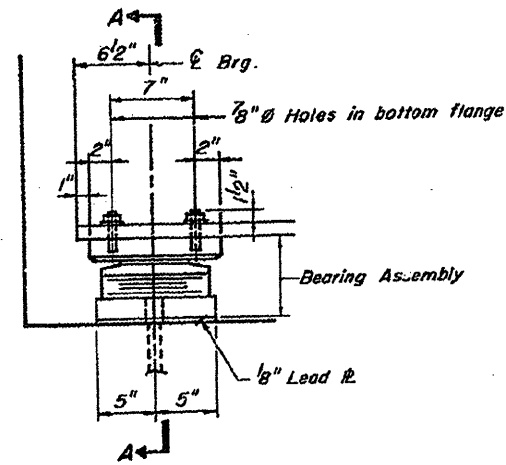
Item	Unit	Total
Preformed Joint Seal (4")	Lin. Ft.	33

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JOINT DETAIL & DIAPHRAGMS

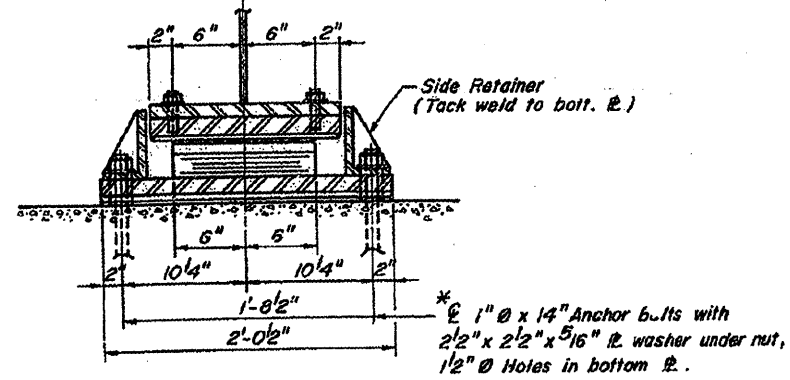
INFORMATION ONLY

ROUTE	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
I-155	D4 BRG PNTG MTLZG 08	TAZEWELL	11	11



ELEVATION AT ABUT.

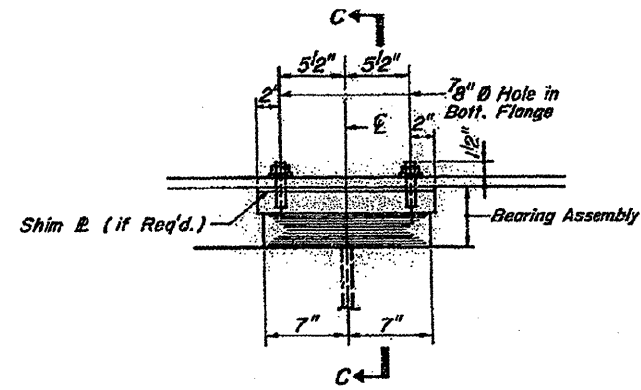
TYPE II TFE ELASTOMERIC EXP. BRG.



SECTION A-A

BILL OF MATERIAL

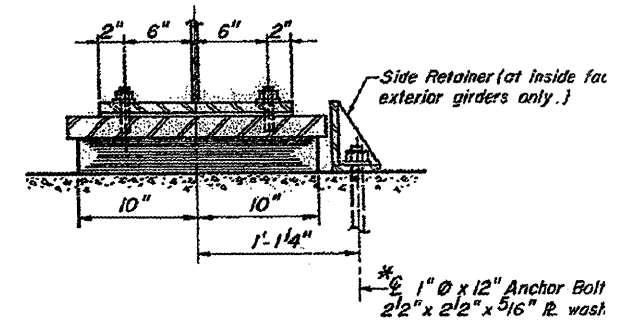
Item	Unit	Total
Elastomeric Bearing Assembly Type II	Each	10



ELEVATION AT PIER 1

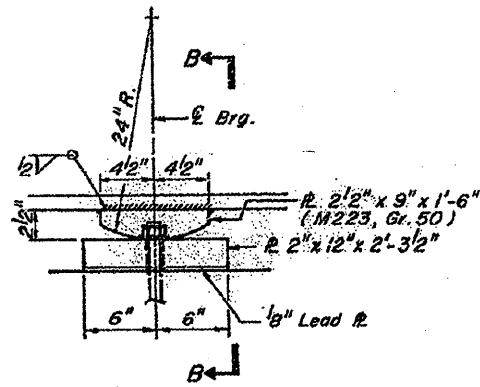
TYPE I ELASTOMERIC EXP. BRG.

(5 Required)



SECTION C-C

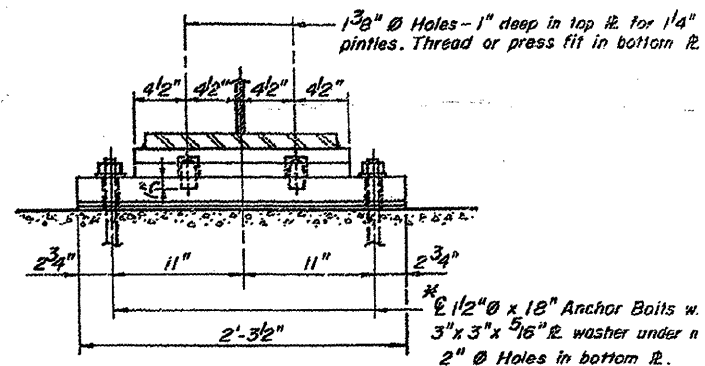
*NOTES:
Anchor Bolts at bearings may be built into the masonry.
See Sht. 511 for Anchor Bolt install.



ELEVATION AT PIER 2

FIXED BEARING

(5 Required)

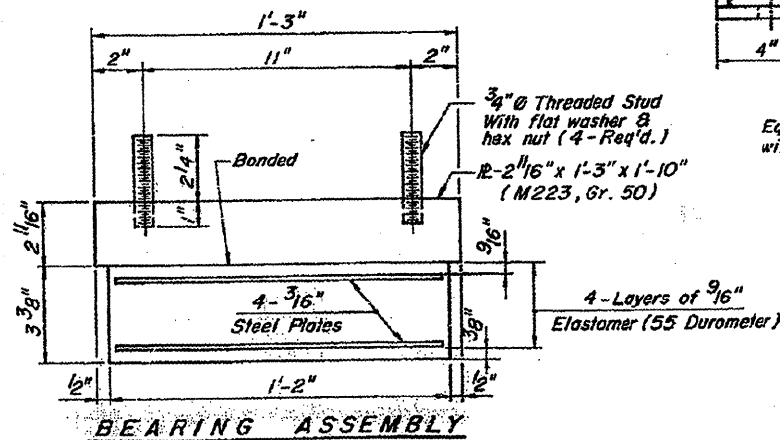


SECTION B-B

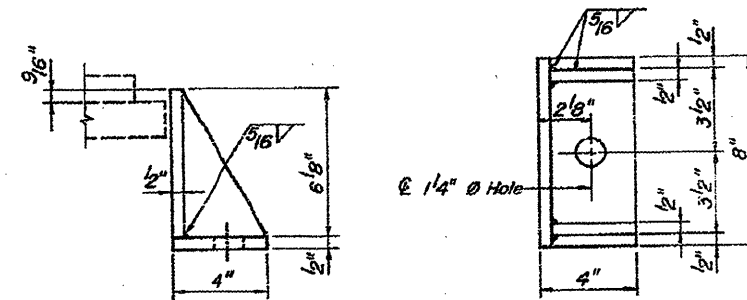
*NOTES:
Anchor Bolts at fixed bearings may be built into the masonry.
See Sht. 511 for Anchor Bolt install.

BILL OF MATERIAL

Item	Unit	Total
Elastomeric Bearing Assembly Type I	Each	5



BEARING ASSEMBLY



SIDE RETAINER
Equivalent rolled angle with stiffeners will be allowed in lieu of welded plates.

090-0139

BEARING
DETAIL