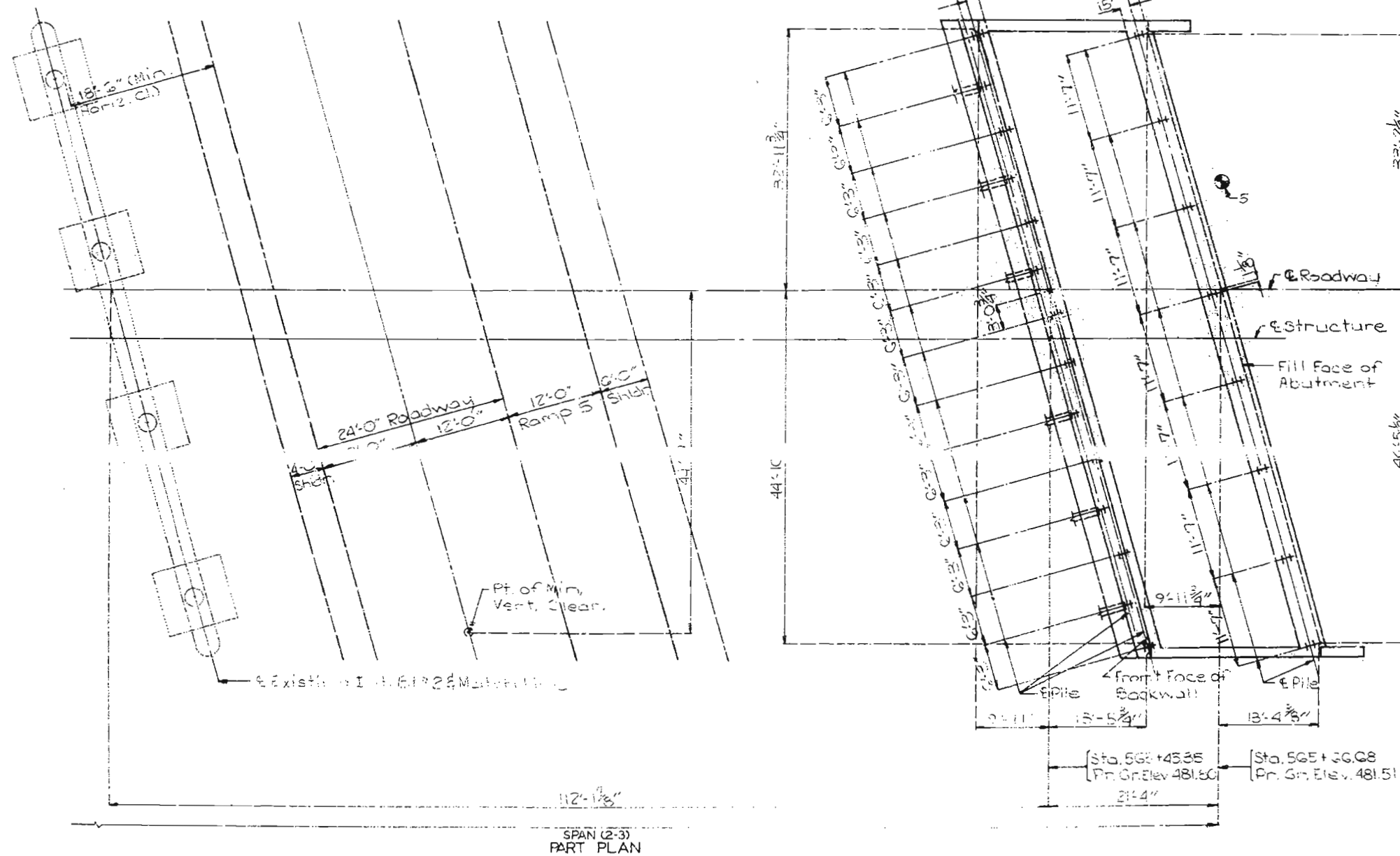
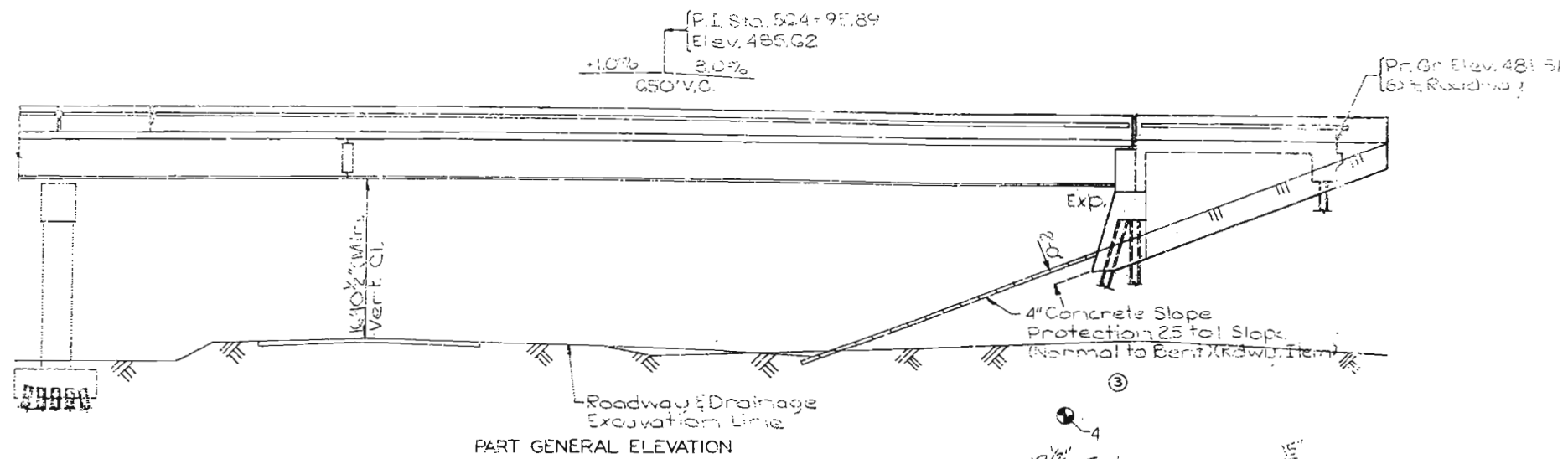




STATE	PROJ NO	SHEET NO
MO.		25



⊙ Indicates location of borings. For Boring Data see Sheet No. 4.

DETAILED JUNE 1984  
CHECKED JULY 1984

Note: This drawing is not to scale. Follow dimensions.

SEE FINAL PLANS  
Sheet No. 2 of 2

ST. CHARLES COUNTY

A-4294

4179225

ESTIMATED QUANTITIES			
ITEM	SUBSTR.	SUPERSTR.	TOTAL
Removal Of Bridges 4'-6" - (See Special Provisions) Long Span			1
Class 1 Excavation	1000 LF		1000
Structural Steel Piles (C-1)	1000 LF		1000
Class B Concrete	2000 YD		2000
C-10 Pile - Steel (See Special Provisions #)	2000 LF	2000	2000
Grout Barrier Core	1000 LF	500	500
Slab On Sum-Pier Abutment	500 YD	200	400
Lamination Neoprene Bearing Pads	En.	20	20
Preformed Composites Expansion Joint Seal (65) Lin.Ft.		100	100
Reinforcing Steel	1000 LF		1000
Reinforcing Steel (Epoxy Coated)	1000 LF		1000
Fabricated Structural Carbon Steel (Plate Girder)	1000 LBS	20000	20000
Fabricated Structural Low Alloy Steel (Plate Girder)	1000 LBS	10000	10000
Painting (Super. B) Green	1000	2000	2000

Note: All concrete and reinforcing steel below top of slab is above Cor. sl. joint under slab. See sleep reinforcement and included quantity for slab on beam section only.

PILE DATA				
BENT NO.	18pnt. 1	18pnt. 2	3Apnt. 1	3Apnt. 2
Pile Type and Size	HPDx42	HPDx42	HPDx40	HPDx42
Number	8	15	8	14
Approximate Length	70'	69'	75'	69'
Design Bearing	40 Tons	54	35	56
Allowable Embedment, required	9000	3200	8600	13800

Note: Minimums apply to required percent of time in compliance on plan length and deviation from value of piles.

ESTIMATED QUANTITIES FOR ALTERNATE SLABS			
TYPE OF SLAB	SLAB ON STEEL		
	REINF. (LBS)		CONC.
	EPOXY	PLAIN	CU.YD.
Exterior Slab - 12' x 12' x 6"	75120	54150	3012
Interior Slab - 12' x 12' x 6"	75120	54150	3012
Exterior Slab - 12' x 12' x 6"	75120	54150**	4740*

Not that I have any interest in Quindaro, for after its destruction, everything is a ruin. The only building of importance left is the one for the customs. The Quindaro station is a fine example of the architecture of the territory, but the building is completely ruined. I have seen it in the past. The construction is of a very good kind of stone. It is the only one of its kind in the territory.

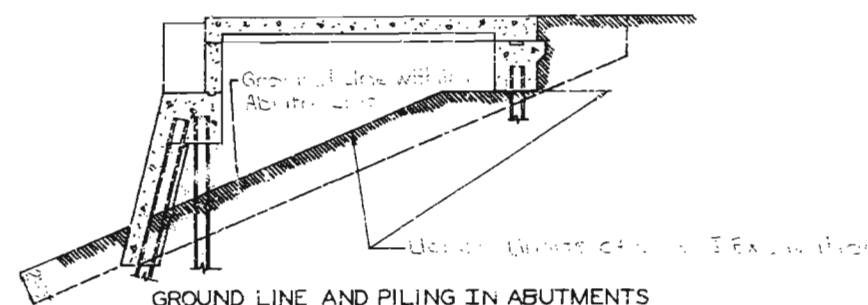
See Appendix F for details.

1. *Chlorophyll a* (Chl a) is the primary photosynthetic pigment in most plants and algae. It is a green pigment that absorbs light energy in the blue and red regions of the visible spectrum. Chl a is essential for the light-dependent reactions of photosynthesis, where it converts light energy into chemical energy in the form of ATP and NADPH.

*Journal of Interpersonal Violence* 26(10) 1978-1997  
© The Author(s) 2011

\* 2500 not in stock, so 2500 is to fill 2000, and 500 is left.

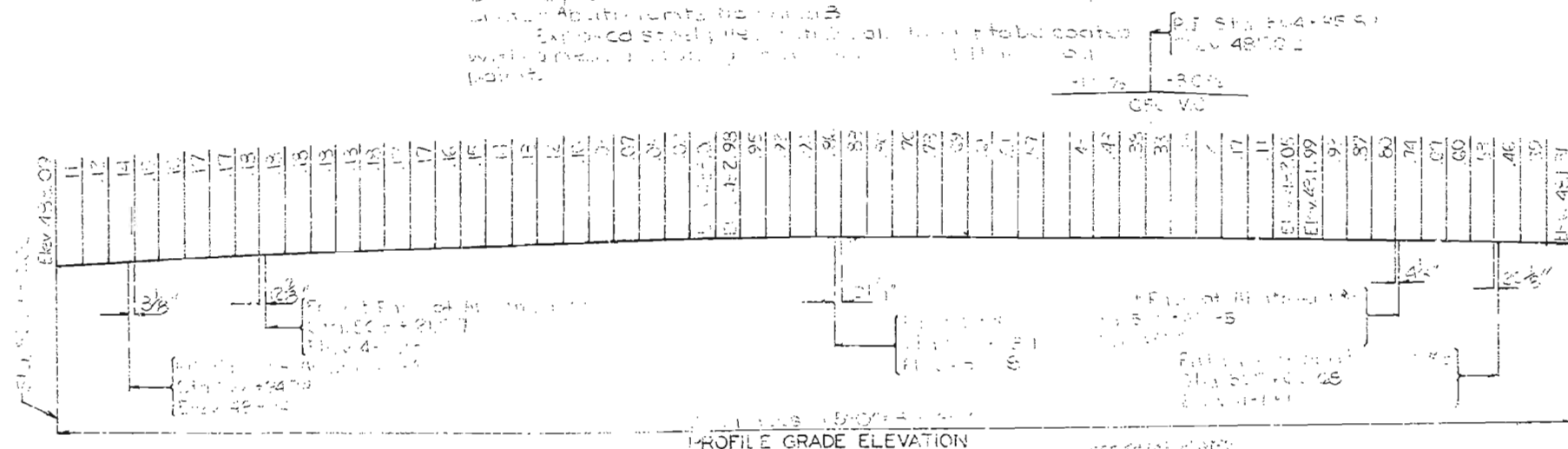
\*\*\*[illegible]\*\*\*



10. In no case shall the sum<sup>11</sup> with which the  
 11. on the day the sum is shown, be less than  
 12. the sum shown on the day.

The pile was installed at a depth of 2' and the pile  
was driven until it reached its final position, the pile was  
driven to a depth of 2' and the pile was driven to a depth of 2'

Exposed study population: 100,000  
 Exposed study population: 100,000  
 Exposed study population: 100,000



GENERAL NOTES:

[illegible]

Concrete (Superstructure) except for Slab, 18,000 sq. ft. @ \$1.00 = \$18,000

[illegible]

5. The contract is to be constructed in accordance with the contract documents, including the specifications and drawings.

item 1 (at 1, green)

Fabricated Steel:  
Field connections - all steel angles 1" x 3/8", min.  
Weld except as noted  
Steel Bolts

Article 2.1.2 shall not be applicable to  
 stations of 2.0 except as noted.

Reinforcing Steel: The reinforcement to non-anchoring steel shall be 10 #10 units, as otherwise shown. All reinforcing bars in tops of all structural beams or caps shall be spaced to clear anchor bolts for bearings by at least 4".

For H.S. data, we used the semi-parametric Bayes method.

Note: A minimum vertical clearance of 15'-0" from crown of existing lanes and a minimum lateral clearance of 8'-0" centered on existing lanes shall be maintained during construction.

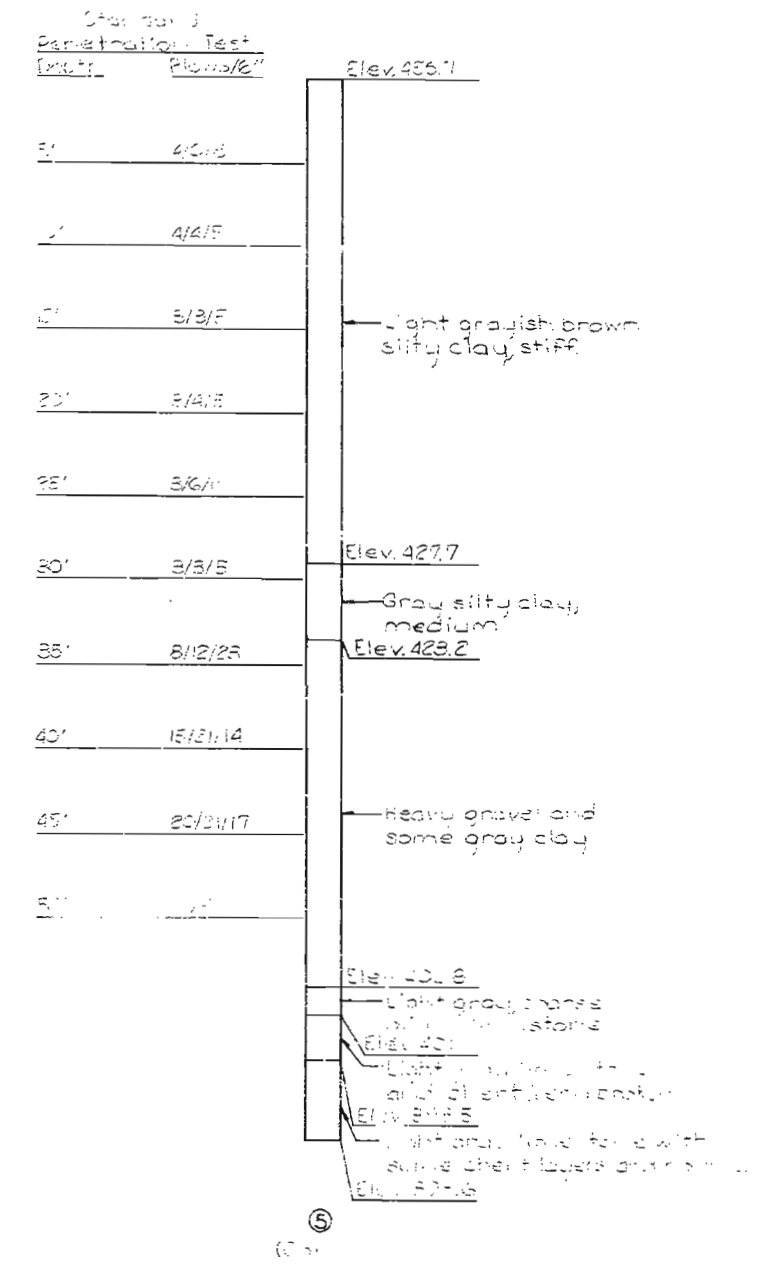
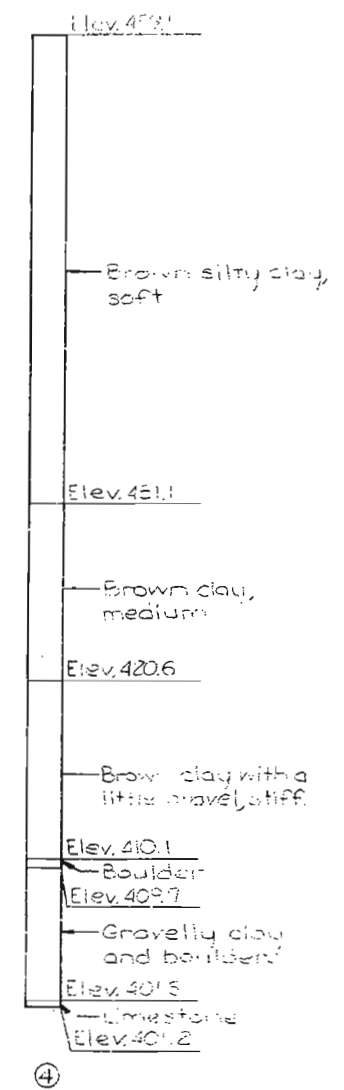
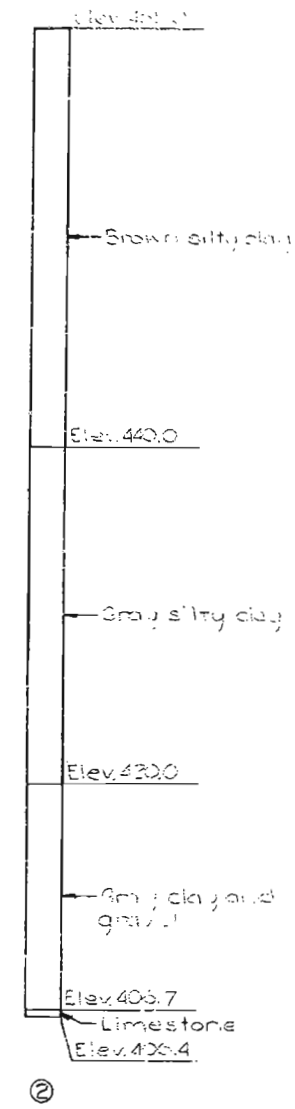
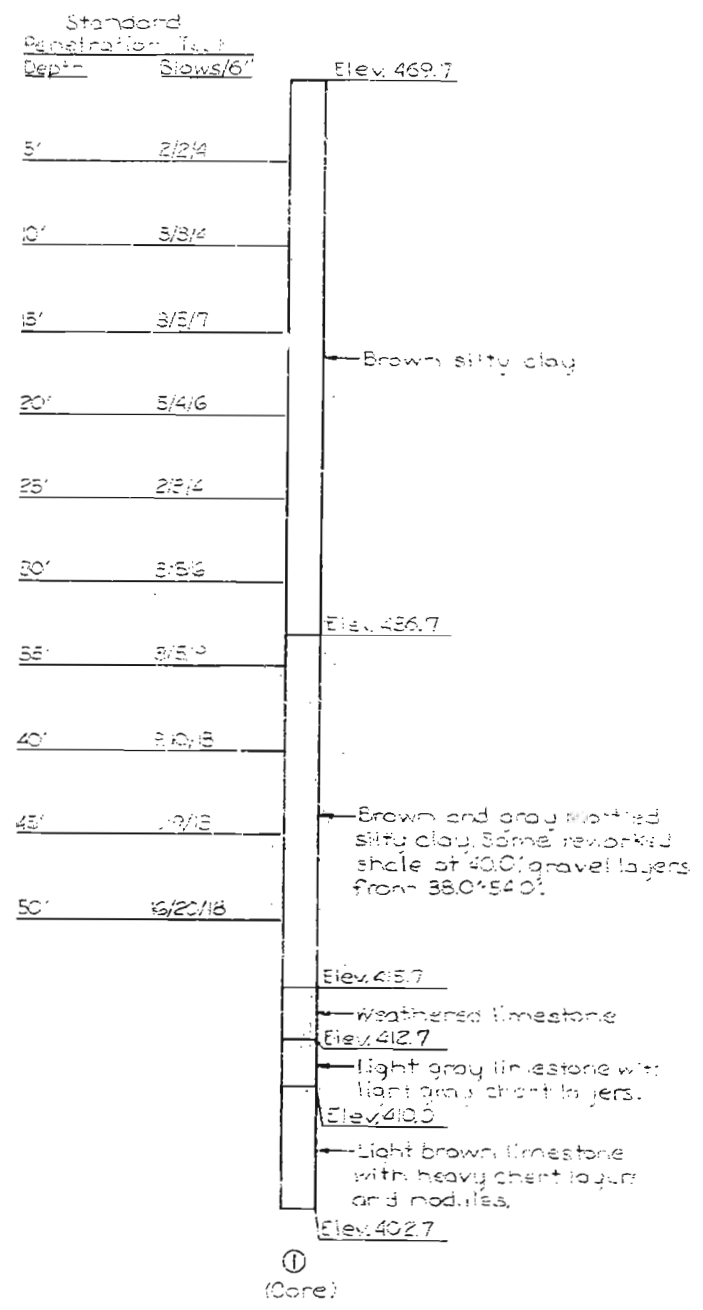
*Note: This drawing is not to scale. Follow dimensions.*

Sheet No. 11 of 20

ST. CHARLES COUNTY

A-4294

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		19	21	

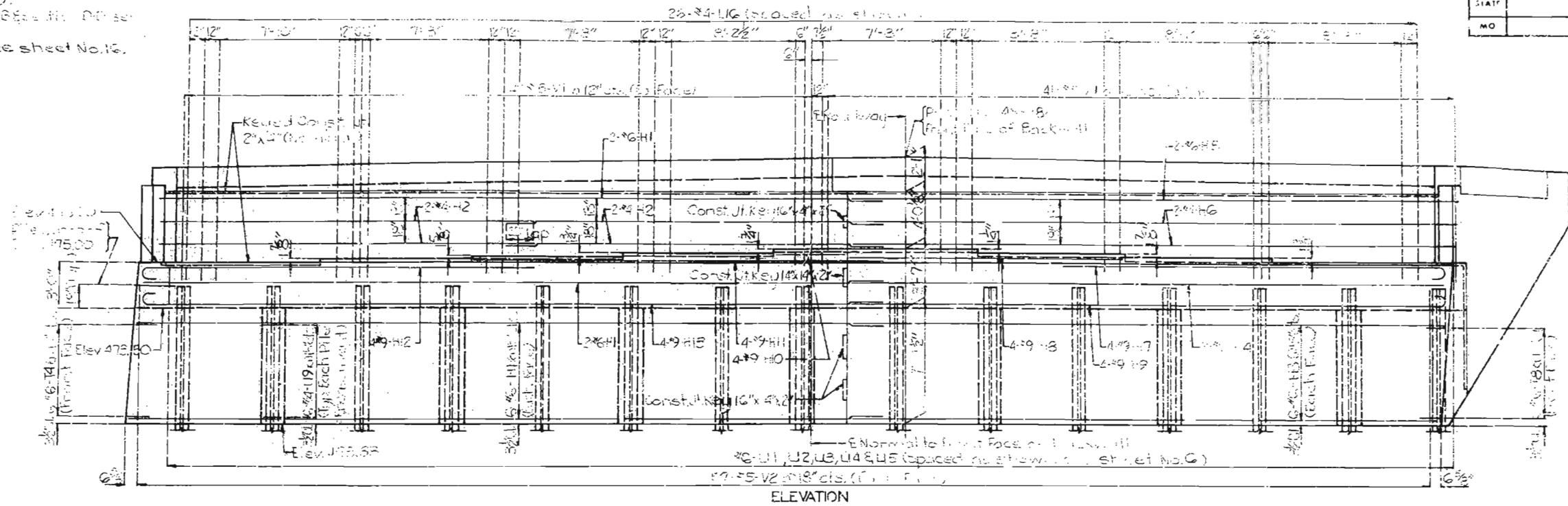


Note: For location of borings see sheet No. 1 & 2.

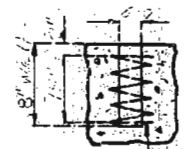
BORING DATA

187483

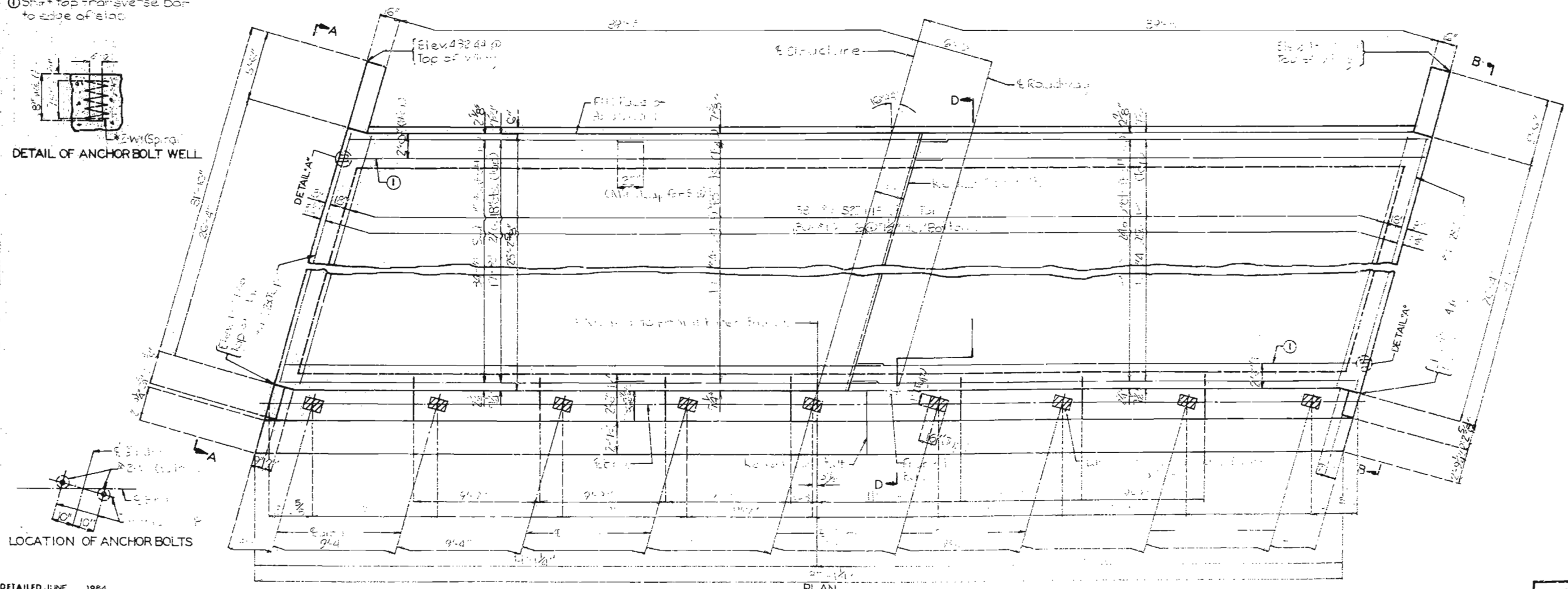
STATE	PROJ NO	SHEET NO.
MO		50



① Shift top transverse bar to edge of slab



DETAIL OF ANCHOR BOLT WELL



DETAILED JUNE 1984  
CHECKED JULY 1984

Note: This drawing is not to scale. Follow dimensions.

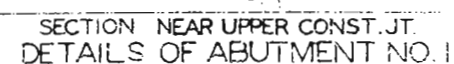
PLAN  
DETAILS OF ABUTMENT NO. 1

Sheet No. 21 - 11

ST. CHARLES COUNTY

A-4294

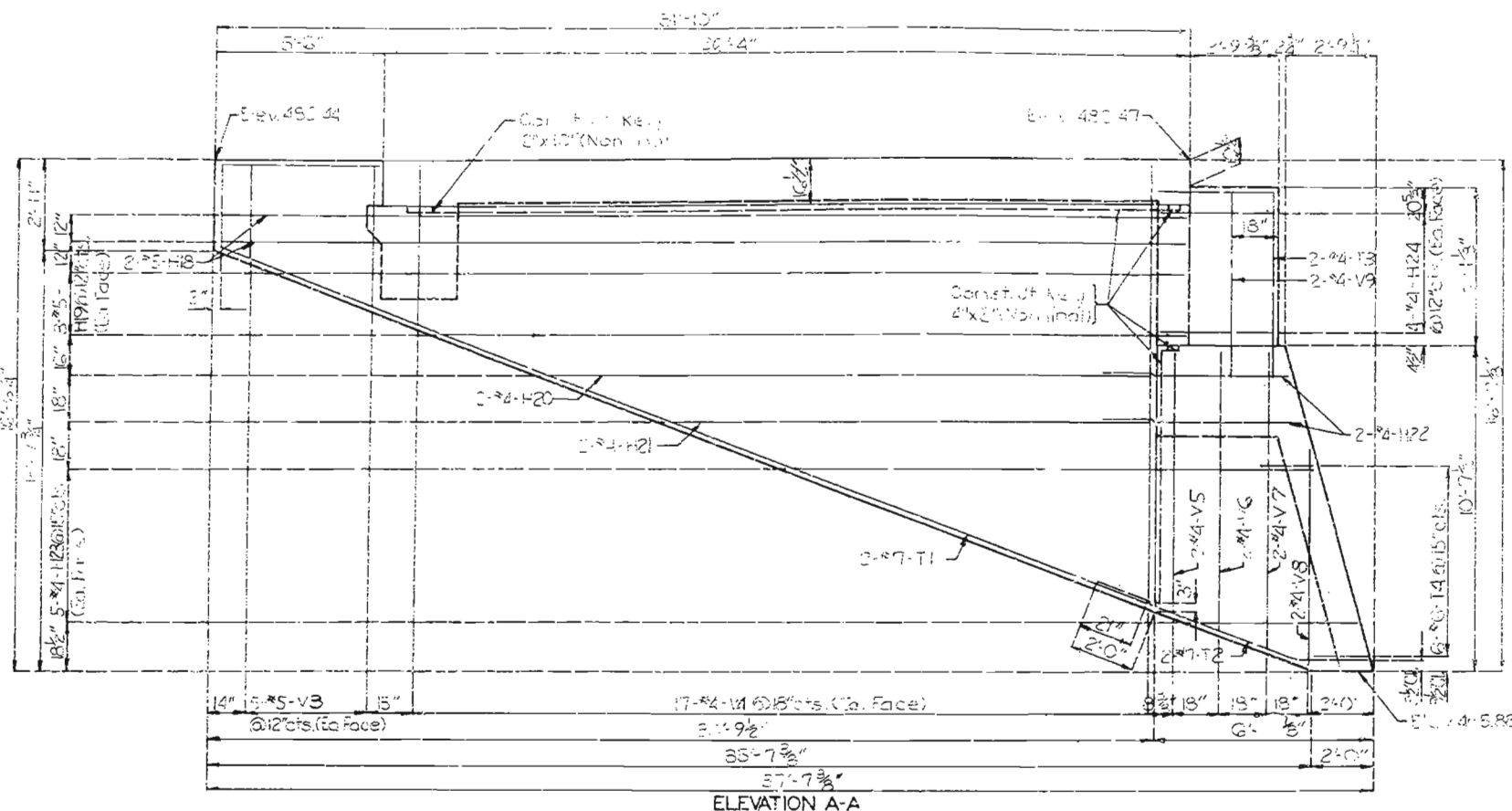
STATE	PROJ NO	SP
MO.		5



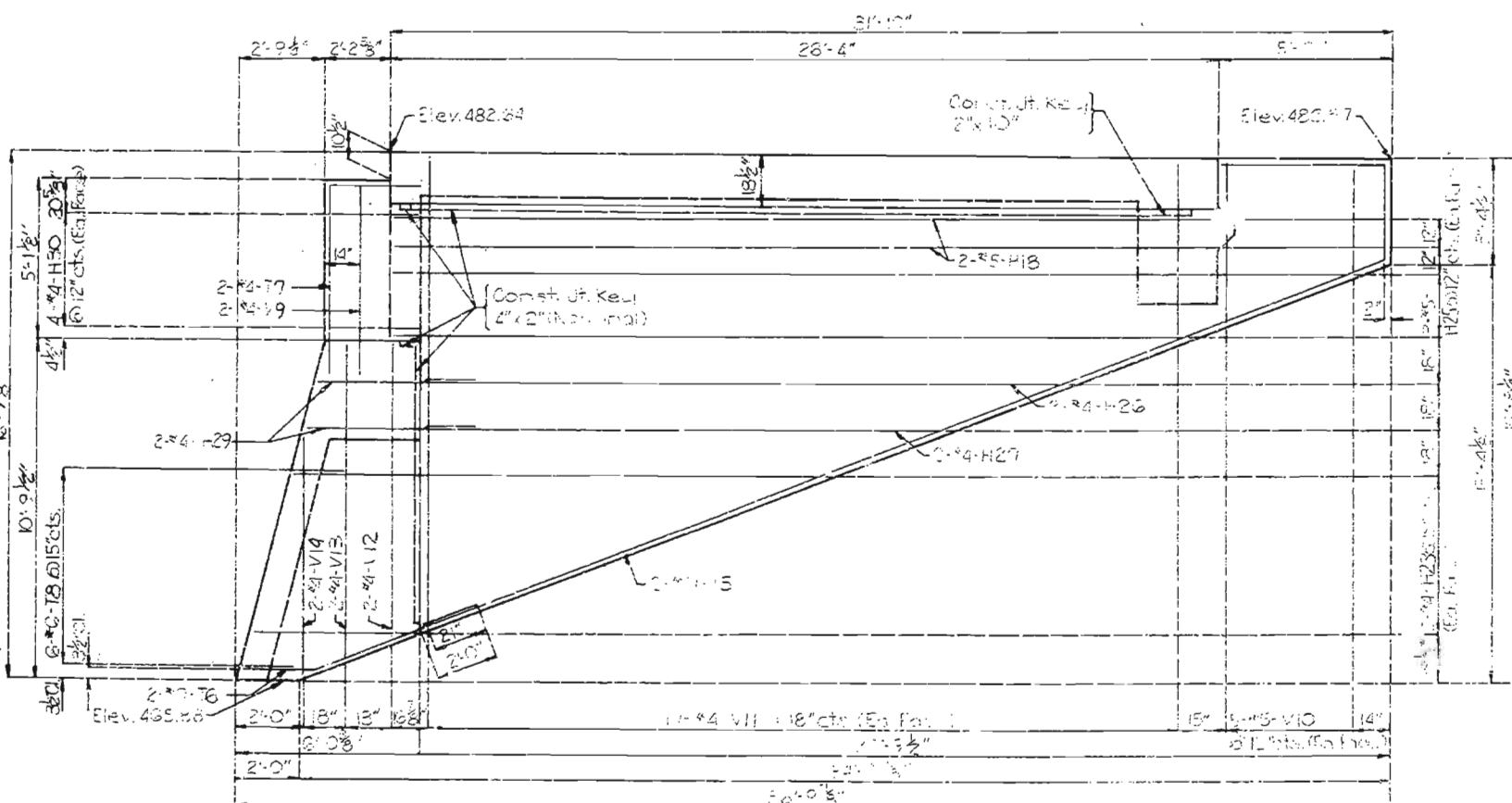
A-4294

429 483

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MO			94	94



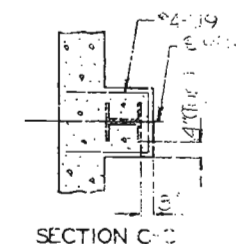
ELEVATION A-A



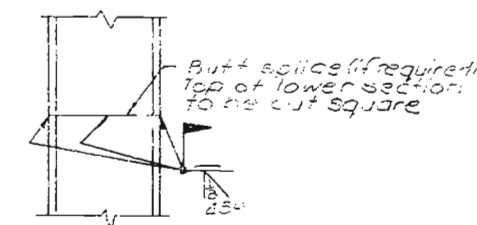
ELEVATION B-B

# DETAILS OF ABUTMENT NO. 1

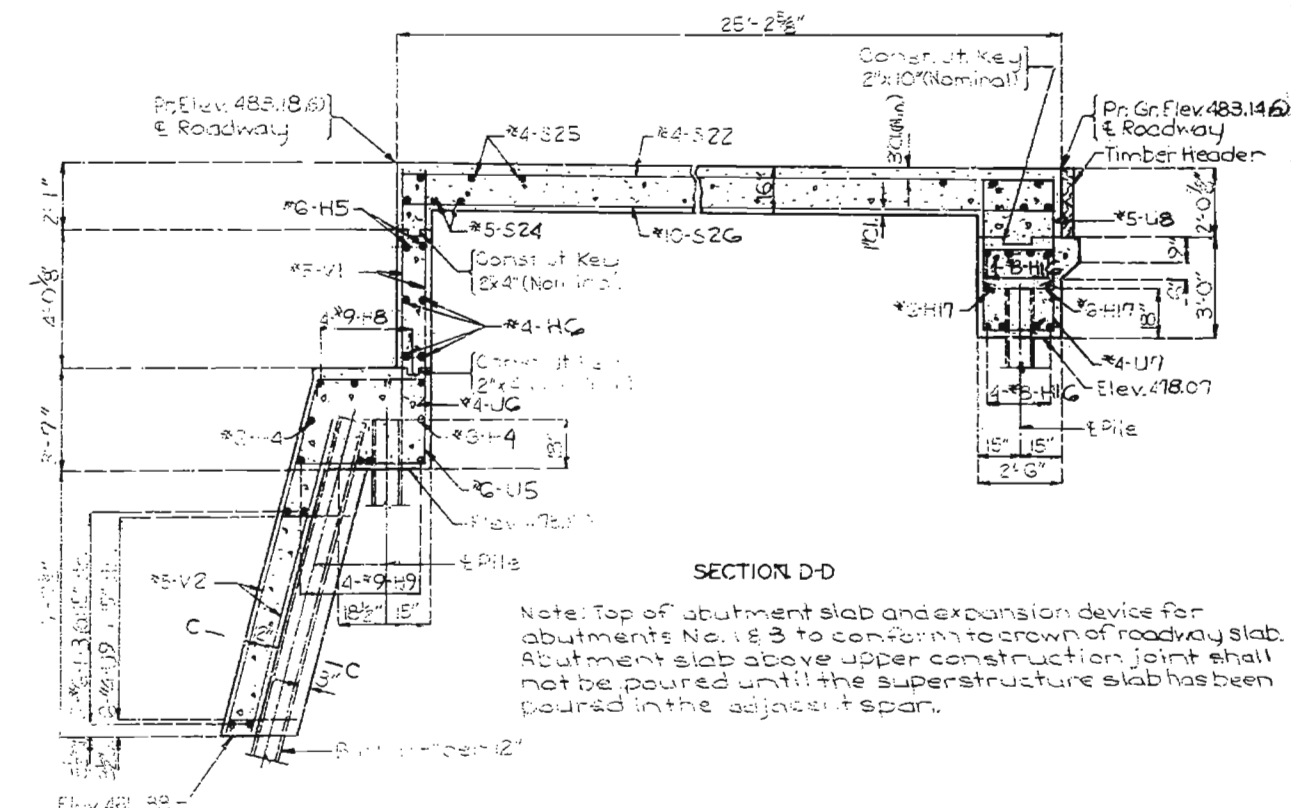
Note: For details of timber header see Sheet No. 19.



SECTION C-C



DETAIL OF STEEL PILE SPLICE

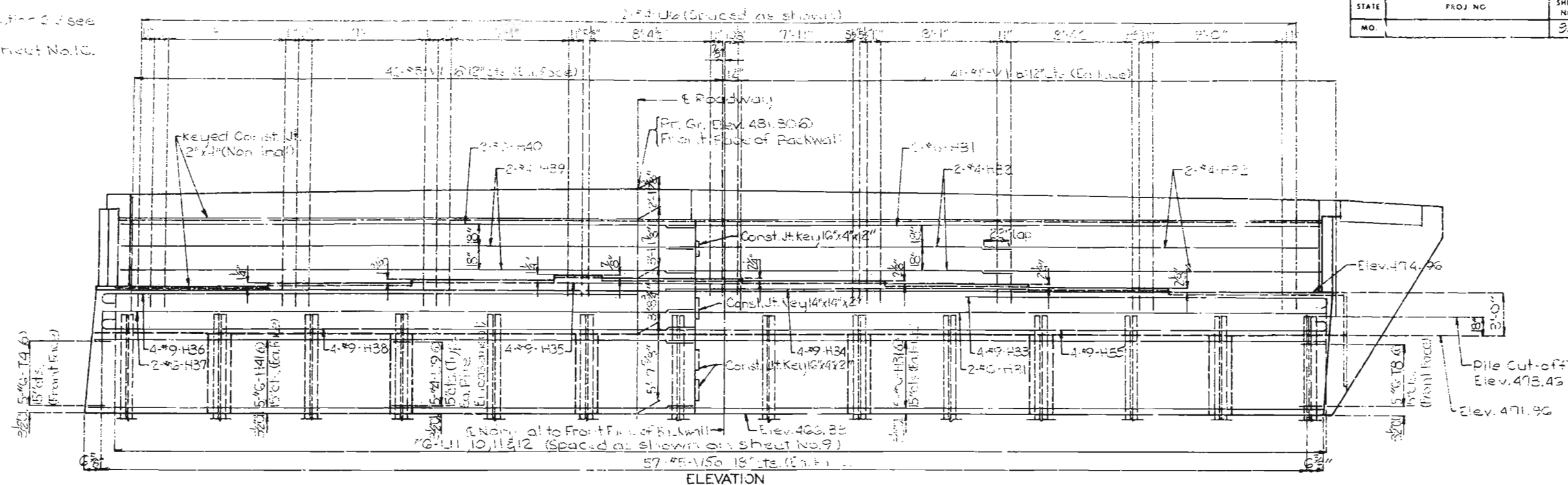


SECTION D-D

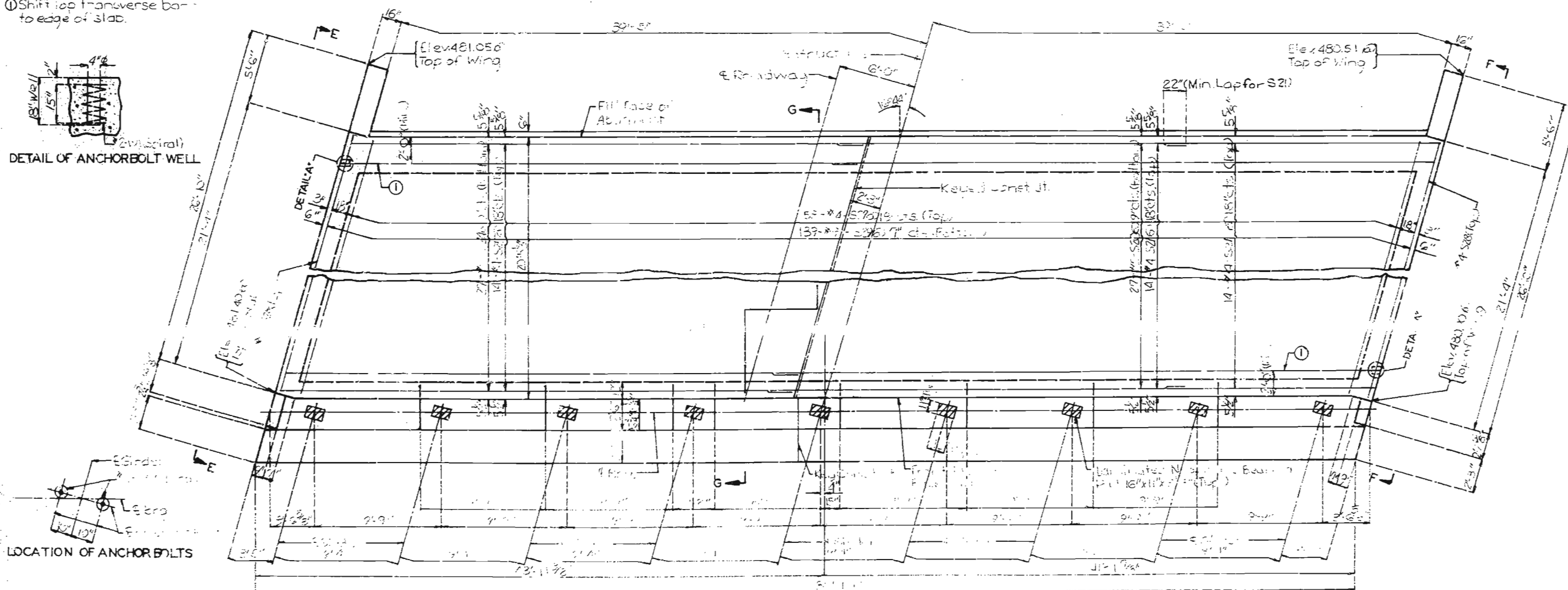
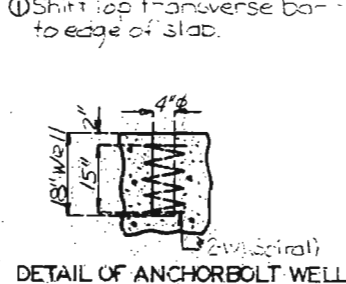
Note: Top of abutment slab and expansion device for abutments No. 1 & 3 to conform to crown of roadway slab. Abutment slab above upper construction joint shall not be poured until the superstructure slab has been poured in the adjacent span.



STATE	PROJ NO	SHEET NO
MO.		34



① Shift top transverse bar to edge of slab.



LOCATION OF ANCHOR BOLTS

DETAILED JUNE 1984  
CHECKED JULY 1984

*Note: This drawing is not to scale. Follow dimensions.*

PLAN  
DETAILS OF ABUTMENT NO. 3

Sheet No. 8 of 25.

ST. CHARLES

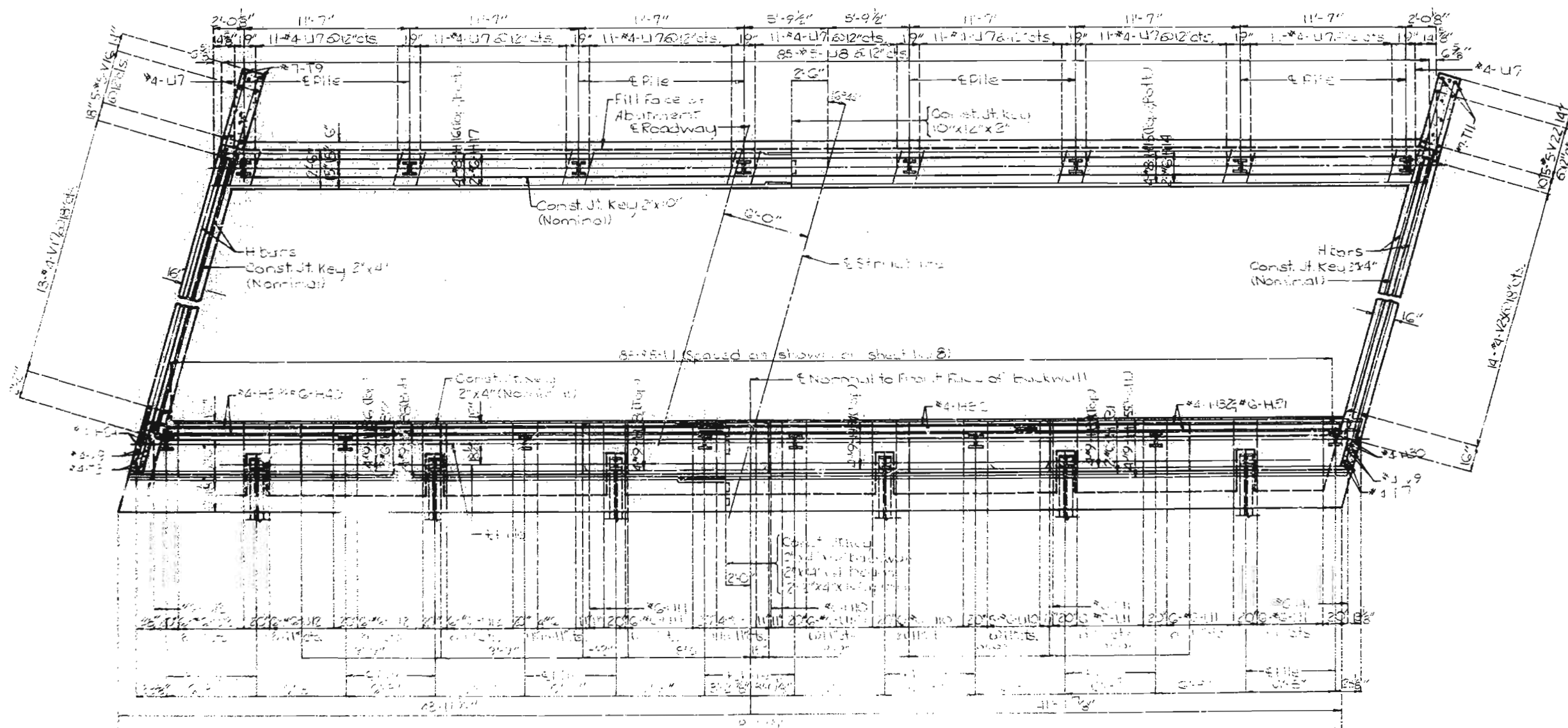
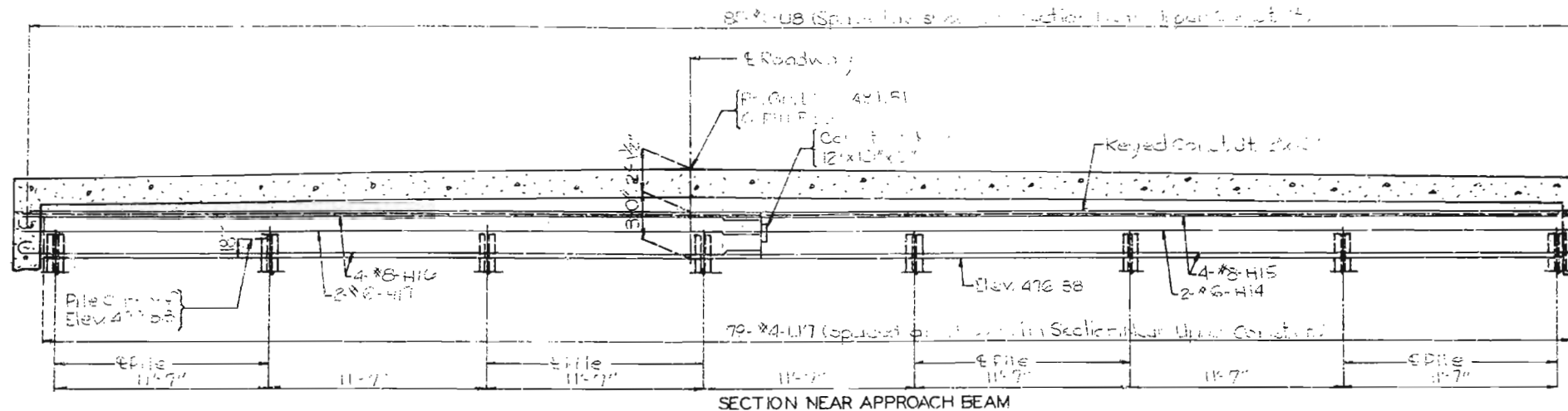
COUNTY

A-4294



Note: Field bending shall be performed at 1/4" intervals for 1/4" increments.

STATE	PROJ. NO.	SHEET NO.
MO		96



SECTION NEAR UPPER CONST. JT.  
DETAILS OF ABUTMENT NO. 3

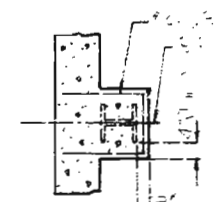
DETAILED JUNE 1984  
CHECKED JULY 1984

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 2 of 2

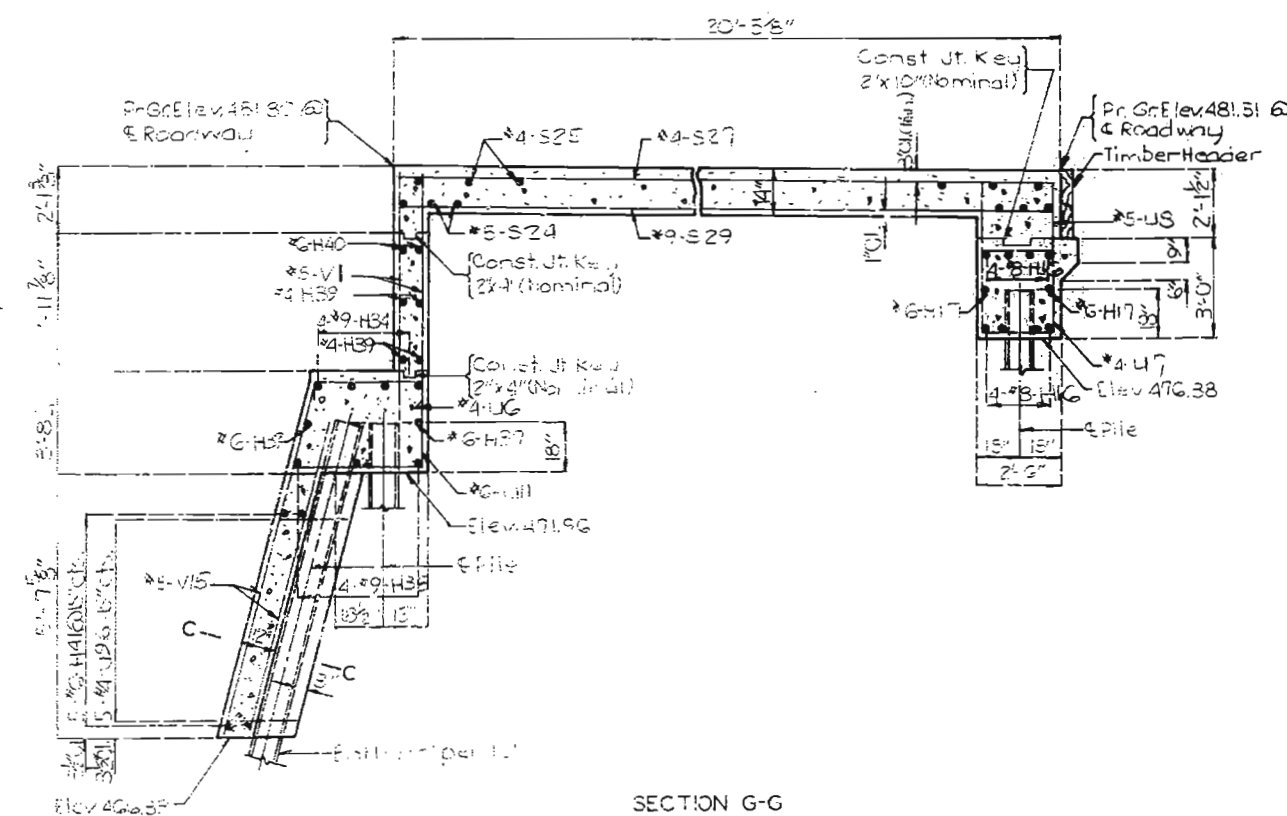
ST. CHARLES COUNTY

A-4294



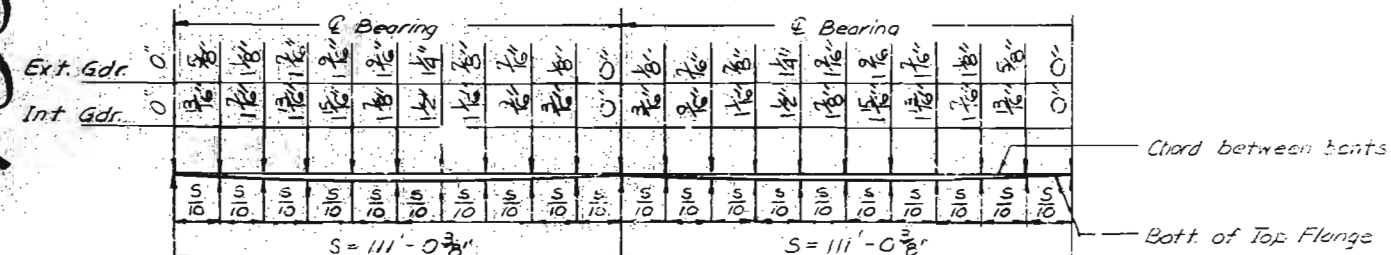
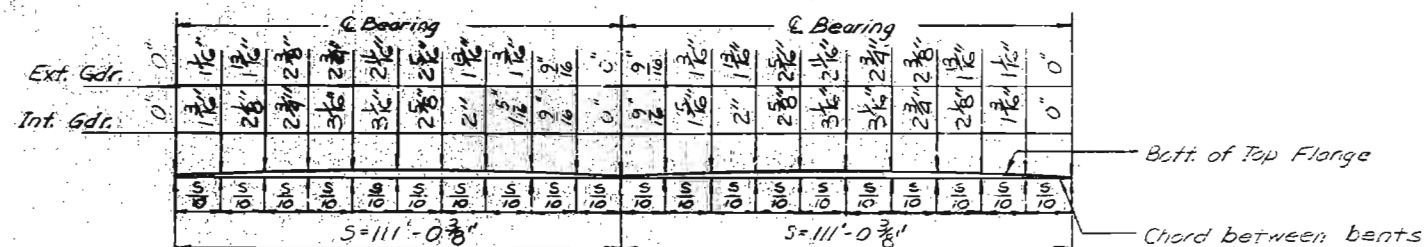
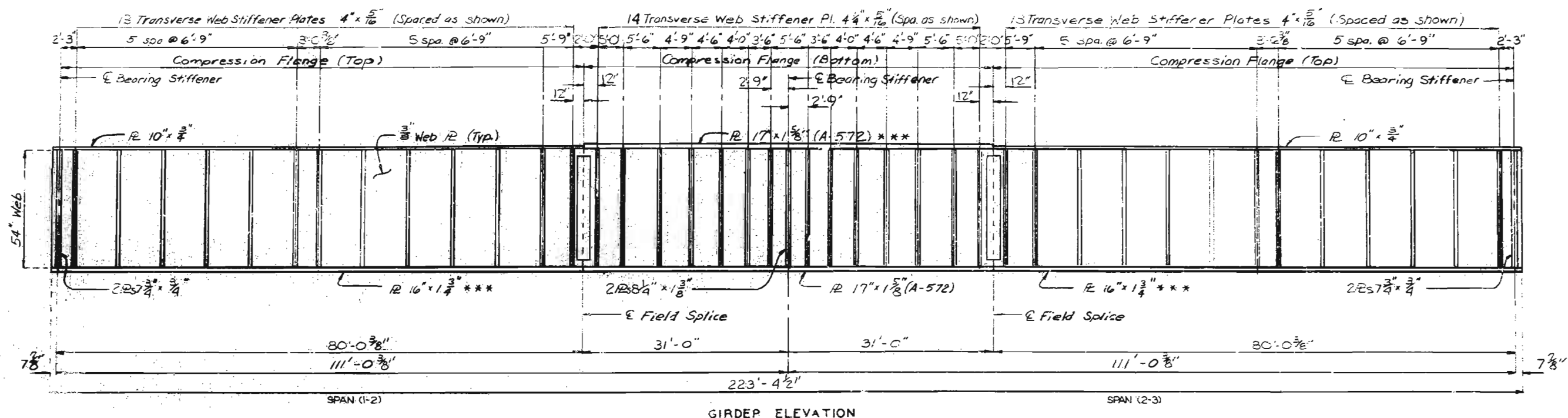
SECTION C-C

1. For details of the Header, see Chapter 9.  
 2. For details of the Footer, see Chapter 9.  
 3. For details of the Page Number, see Chapter 9.  
 4. For details of the Page Number, see Chapter 9.  
 5. For details of the Page Number, see Chapter 9.  
 6. For details of the Page Number, see Chapter 9.  
 7. For details of the Page Number, see Chapter 9.  
 8. For details of the Page Number, see Chapter 9.  
 9. For details of the Page Number, see Chapter 9.  
 10. For details of the Page Number, see Chapter 9.



SECTION G-G

A-4294

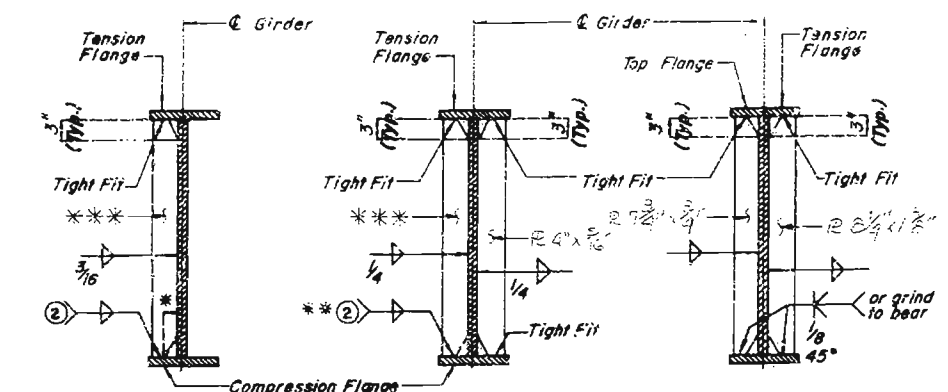


Note: Plate girders shall be fabricated to conform with Camber Diagram. Transverse web stiffeners shall be oriented as shown in Plan of structural steel.

\*\*\* Indicates Flange Plates subject to notch toughness requirements. All web plates shall be subject to notch toughness requirements. Fabricated structural steel shall be A-36 except as noted. Longitudinal dimensions are along top of webs. See longitudinal steel diagram, sheet No. 12. Intermediate web stiffener plate and diaphragm spacings may vary from plan dimensions by a maximum of 3" for diaphragm to connect to intermediate web stiffener plate.



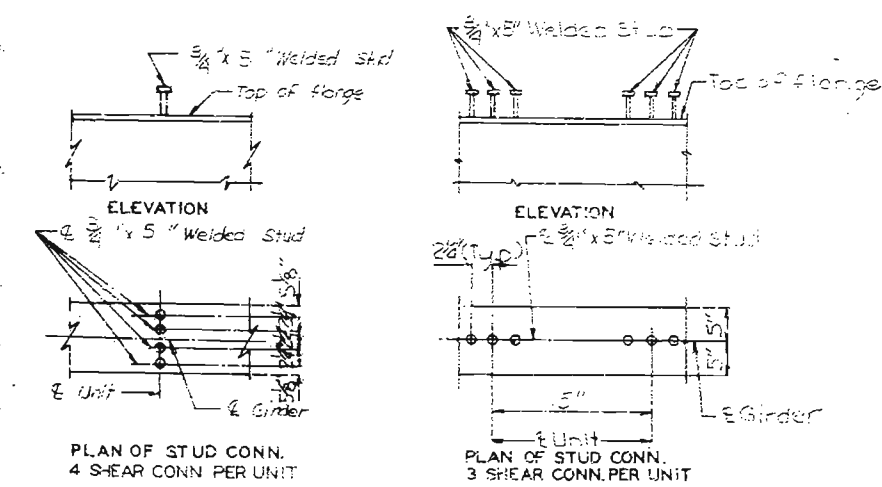
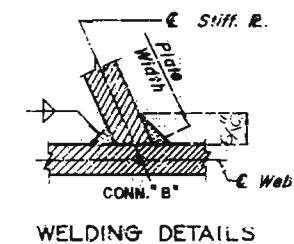
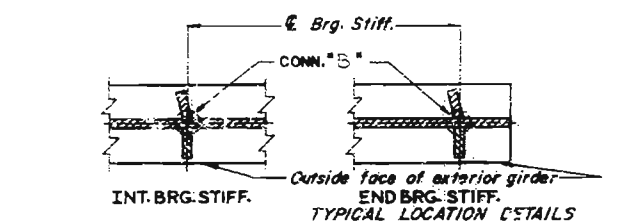
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		13	100	



WELDING DETAILS

② Weld to compression flange as located on ELEVATION OF GIRDER.  
 \* 1/2" typical for all Int. Web Stiff., Int. Diaph. Conn. R. and Brg. Stiff.,  
 \*\* Weld may be omitted on interior girders, and Tight Fit used when Int. Diaph. Conn. R. is required on both sides.

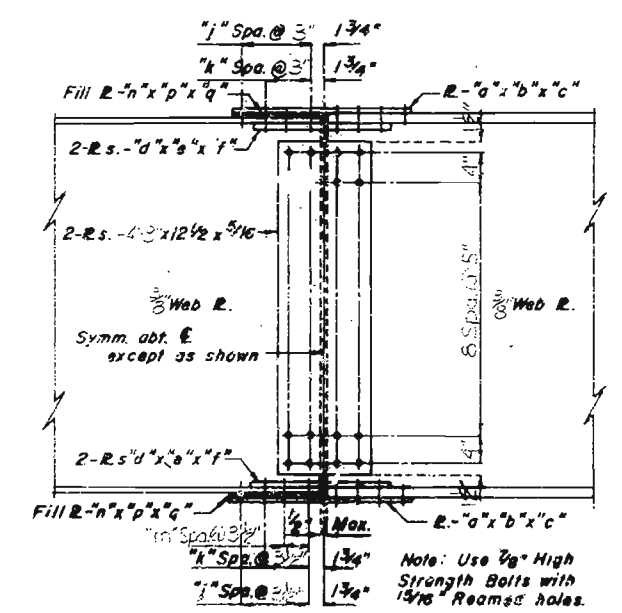
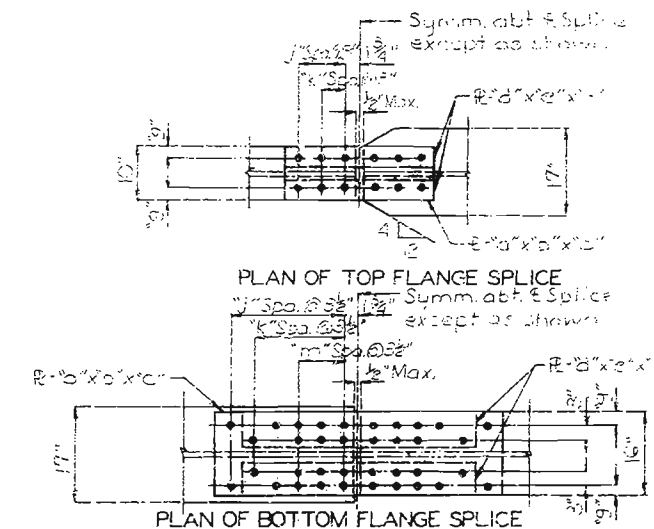
\*\*\* 4" x 5/8" and 4 1/2" x 5/8" placed as shown on sheet No. 11



DETAILS OF SHEAR CONNECTORS

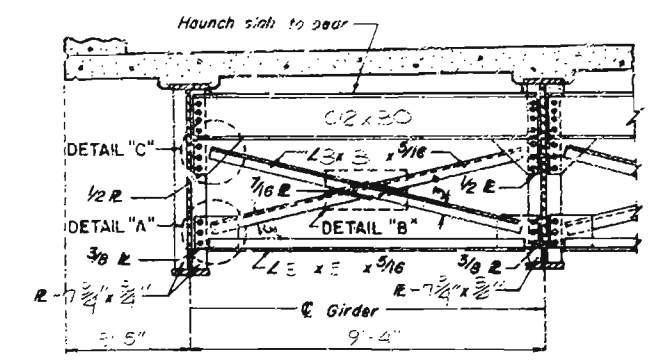
Note: Weight of 2607 lbs. of shear connectors is included in weight of fabricated structural carbon steel.

DETAIL OF BEVEL PLATE FOR BRG. STIFF. AT ABUT. NO. 1 & 3  
 Note: See ELEVATION of BRG. STIFF. at abut. No. 1 and 3 for details.

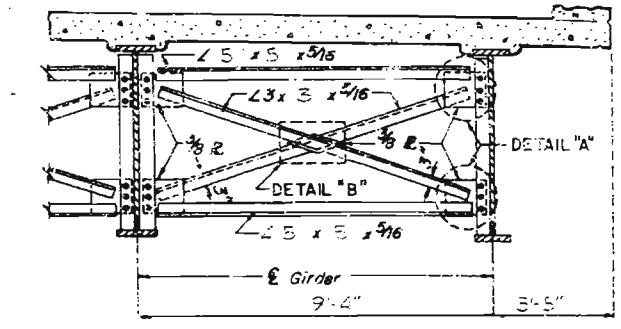


SPlice LOCATION	TABLE OF DIMENSIONS - FIELD SPLICE											
	10'	12'	14'	16'	18'	20'	22'	24'	26'	28'	30'	32'
Top	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"
Bottom	10"	12"	14"	16"	18"	20"	22"	24"	26"	28"	30"	32"

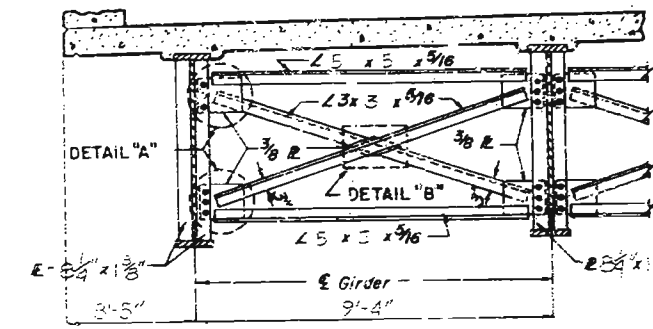
DETAILS OF FIELD SPLICE



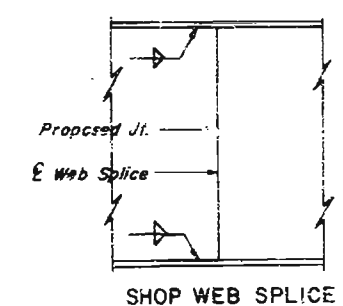
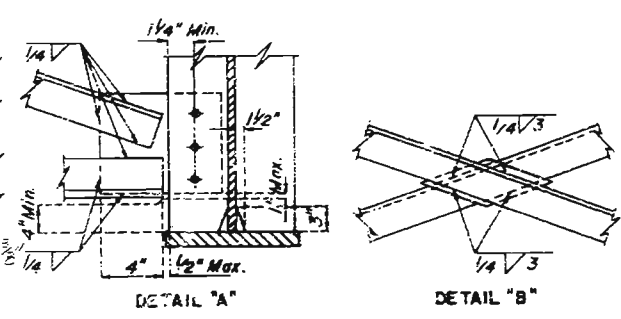
TYP. PART SECTION SHOWING END DIAPHRAGMS



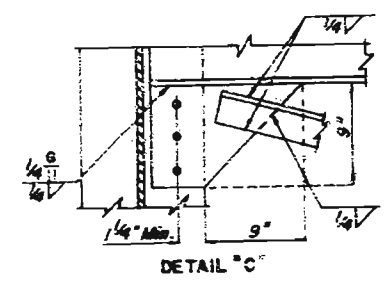
TYP. PART SECTION SHOWING INT. DIAPHRAGMS



TYP. PART SECTION SHOWING CROSS FRAMES



SHOP WEB SPLICE

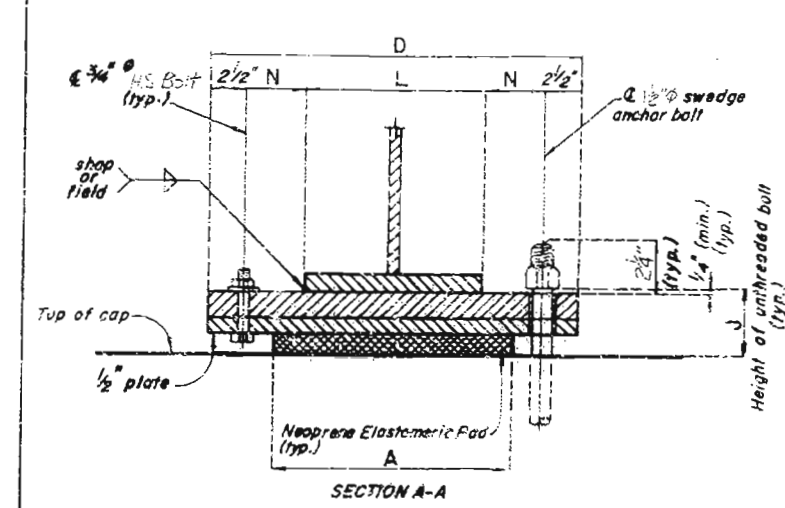


DETAIL "C"

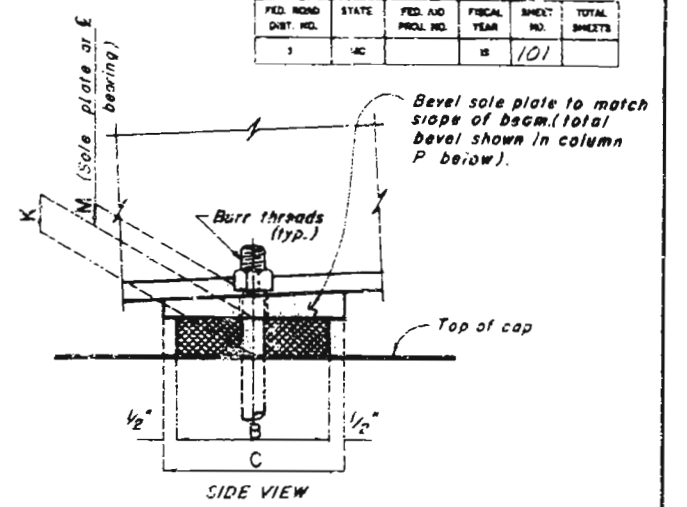
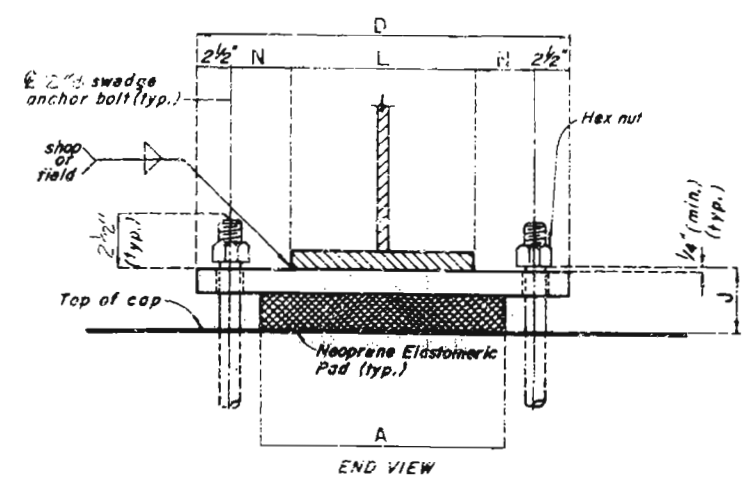
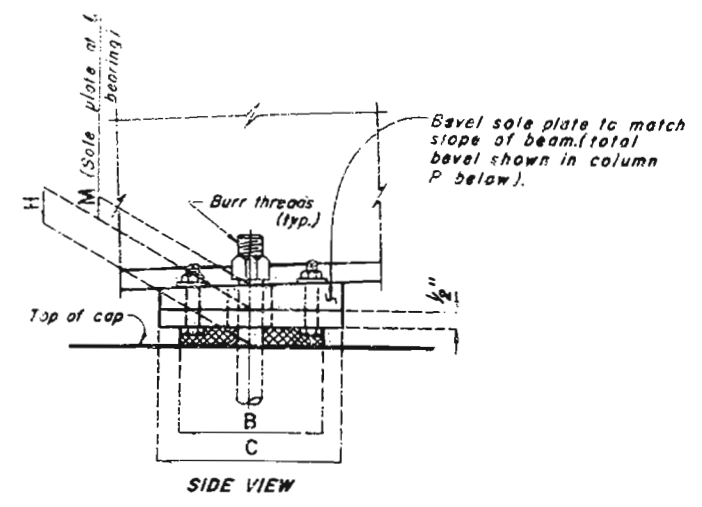
436-490

437 491

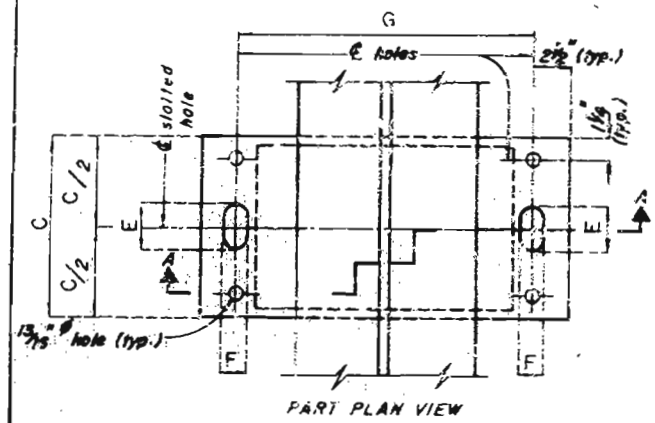
SPS-LNB  
MARCH 1989  
REVISED  
SEPT. 1983



Note: The location of anchor bolts in relation to the slotted holes in the sole plate shall correspond with the temperature at the time of erection. At 60°F. the slotted holes should center on the anchor bolts.

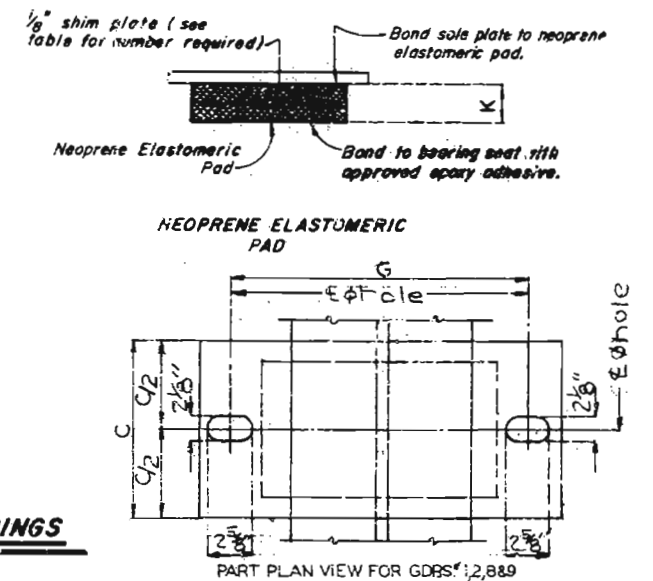
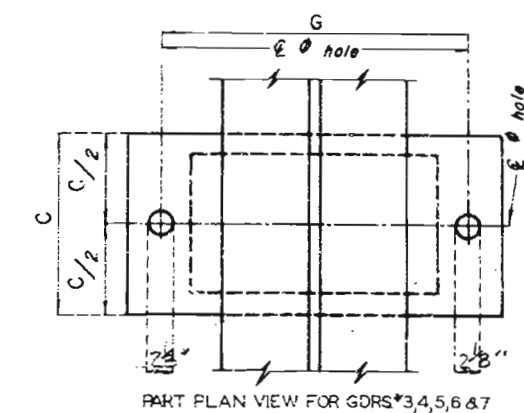
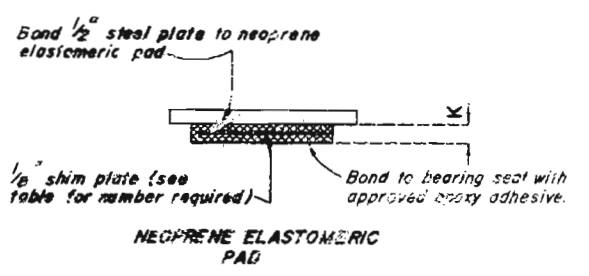


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	NC		15	101	



\*\*\*1 1/2" Gdts. #3, 4, 5, 6, 7  
\*\*\*2 1/4" Gdts. #1, 2, 8, 9

### EXPANSION BEARINGS



### FIXED BEARINGS

#### GENERAL NOTES:

- ANCHOR BOLTS SHALL BE ① SWEDGED BOLTS AND SHALL EXTEND ② INTO CONCRETE WITH HEXAGON NUTS.
- WEIGHT OF ANCHOR BOLTS AND HEXAGON NUTS FOR BEARINGS SHALL BE INCLUDED IN WEIGHT OF FABRICATED STRUCTURAL STEEL.
- NEOPRENE ELASTOMERIC PADS SHALL BE 50 DUROMETER.
- THE SOLE PLATE SHALL BE FURNISHED WITH THE BEARING PLATE OR PADS WELDED TO THE STRINGERS OR GIRDERS.
- STRUCTURAL STEEL FOR SOLE PLATE AND 1/2" BEARING PLATE SHALL BE A-36.
- PAYMENT FOR THE SOLE PLATE, 1/2" BEARING PLATE WILL BE INCLUDED IN THE COST OF THE BEARING ASSEMBLY. SEE SPECIAL PROVISIONS.
- ALL ANCHOR BOLTS SHALL BE A-588 STEEL WITH A-563 (Grade 50) HEXAGON NUTS.
- THE ACCEPTED QUANTITY OF ELASTOMERIC BEARING ASSEMBLIES, COMPLETE IN PLACE, WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR LAMINATED NEOPRENE BEARINGS, EACH.
- ALL STRUCTURAL STEEL FOR SOLE PLATES, 1/2" BEARING PLATES, ANCHOR BOLTS AND HEXAGON NUTS SHALL BE PAINTED WITH 2 COATS (5 MILS MINIMUM) OF INORGANIC ZINC. WELD AREAS TO BE TOUCHED UP AFTER ASSEMBLY.

### LAMINATED NEOPRENE BEARINGS

EXPANSION BEARINGS														
ABUT. NO.	A	B	C	D	E	F	G	H	J	K	L	M	N	P
3	16"	17"	12"	2'-2"	4'-3"	***	20"	2'-3"	5'-3"	3'-3"	16"	1'-6"	2"	1'-8"

NUMBER REQUIRED: 13

(\*) The required shim plates shall be placed between equal layers of elastomer and molded together to form an integral unit.  
\*\*\*1 1/2" Gdt. #4  
\*\*\*2 1/4" Gdt. #1, 2, 8, 9

FIXED BEARINGS														
BENT NO.	A	B	C	D	G	J	K	L	M	N	P	NUMBER OF PLATES (N)		
2	17"	2'-4"	2'-5"	2'-2"	20"	4'-6"	3"	17"	1'-6"	2"	1'-8"	4		

NUMBER REQUIRED: 9

(\*) The required shim plate shall be placed between equal layers of elastomer and molded together to form an integral unit.

DETAILED MAR. 1984  
CHECKED AUG. 1984

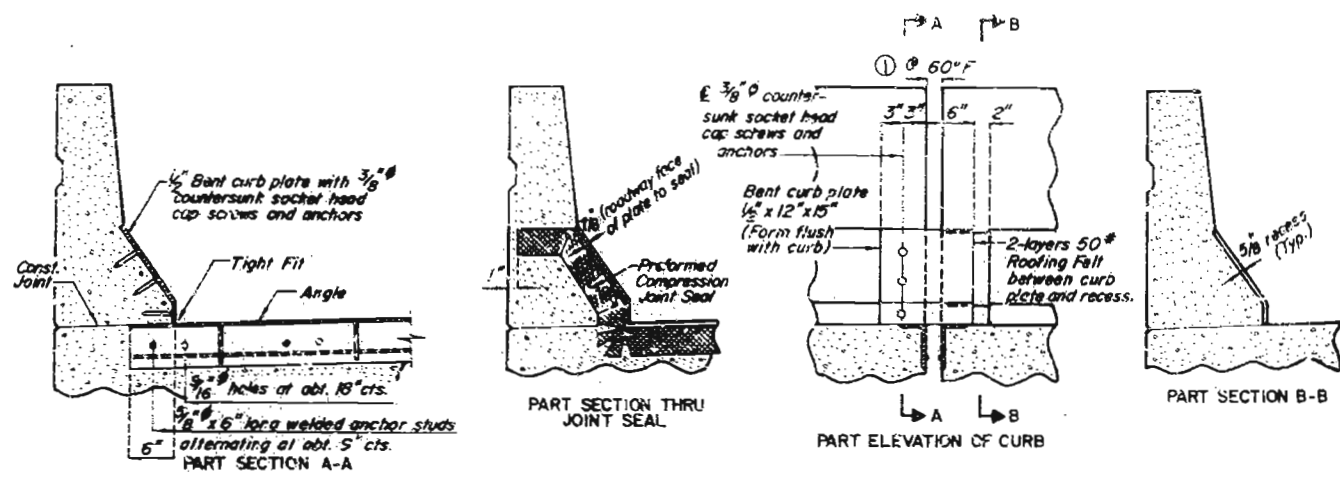
Note: This drawing is not to scale. Follow dimensions.

Sheet No. 14 of 23.

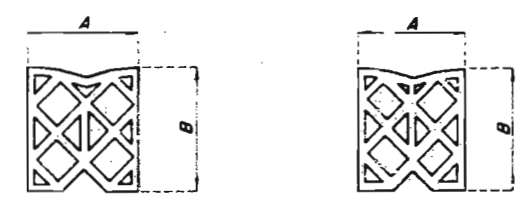
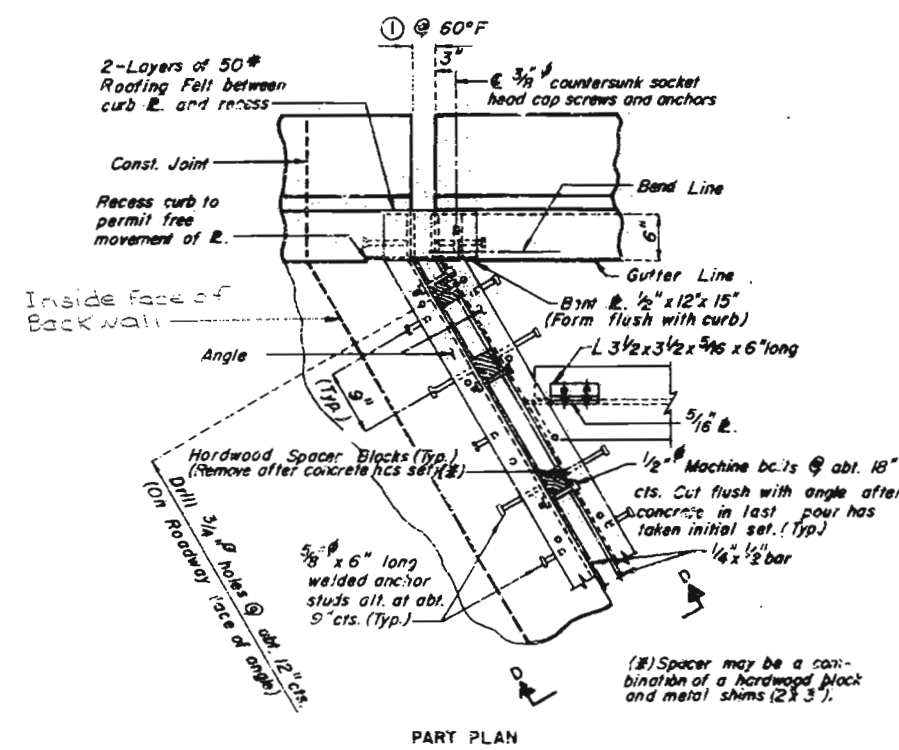
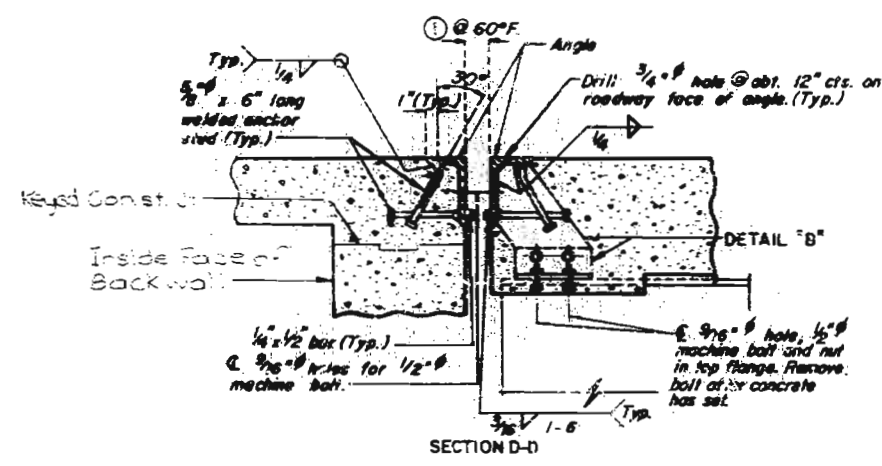
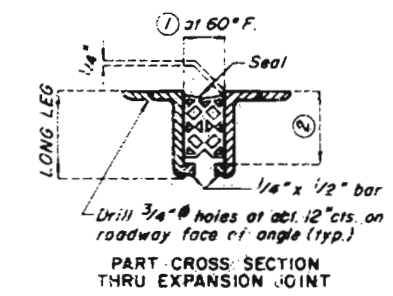
ST. CHARLES COUNTY

A-4234





**GENERAL NOTES:**  
 STRUCTURAL STEEL FOR EXPANSION DEVICE SHALL BE FABRICATED IN ONE SECTION, EXCEPT THAT WHEN THE LENGTH IS OVER 50', SPICING IS PERMISSIBLE.  
 THE EXPANSION DEVICE SHALL BE BENT TO CONFORM TO CROWN AND GRADE OF ROADWAY.  
 ANCHORS FOR COMPRESSION SEAL ARMOR SHALL BE APPROVED STUD WELDED ANCHORS C1010 THRU C1025.  
 PLAN DIMENSIONS ARE BASED ON INSTALLATION AT 60° F.  
 DIMENSIONS (1) SHALL BE INCREASED 1/8" FOR EACH 10° FALL IN TEMPERATURE AND DECREASED 1/8" FOR EACH 10° RISE IN TEMPERATURE AT INSTALLATION.  
 SEE SPECIAL PROVISIONS FOR THE REQUIREMENTS OF COMPRESSION JOINT SEAL.  
 FURNISHING, PAINTING AND INSTALLING THE STRUCTURAL STEEL ARMORED JOINT AND CURB PLATES SHALL BE INCLUDED IN THE CONTRACT UNIT PRICE FOR PRE-FORMED EXPANSION JOINT SEAL.  
 NEOPRENE EXTRUSIONS SHALL MEET A.S.T.M. D3542-83.



TYPE	"A" (WIDTH)	(1)	(2)	REQUIRED MOVEMENT RANGE
A1 OR B3	2.5"	1-5/8"	"B" + 3/4"	.9"
A1 OR B3	3.0"	1-7/8"	"B" + 3/4"	1.0"
A1 OR B3	3.5"	2-1/4"	"B" + 3/4"	1.3"
A1 OR B3	4.0"	2-5/8"	"B" + 3/4"	1.6"
A1 OR B3	4.5"	2-3/4"	"B" + 3/4"	1.9"
A1 OR B3	5.0"	2-7/8"	"B" + 3/4"	2.0"

NOTE: "B" HEIGHT SHALL NOT BE LESS THAN "A" WIDTH.

**SIZE OF ARMOR ANGLE:**  
 VERTICAL LEG OF ANGLE SHALL BE A MINIMUM OF 8" + 1-1/2". HORIZONTAL LEG OF ANGLE SHALL BE A MINIMUM OF 3". MINIMUM THICKNESS OF ANGLE SHALL BE 1/2".  
 IF A SEAL SIZE LARGER THAN THAT INDICATED ON THE PLANS IS USED, THE MOVEMENT RANGE, THE OPENING AT 60° AND ALL DIMENSIONS FOR THE ARMOR ANGLES SHALL BE SHOWN ON THE SHOP DRAWINGS.

# DETAILS OF PREFORMED COMPRESSION JOINT SEAL AT ABUTS. NO. 1 & 3

478  
 490

STD. PG. (S&L) REVISED  
 OCT. 1973  
 APRIL 1985

DETAILED JULY 1985  
 CHECKED JULY 1985

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 1

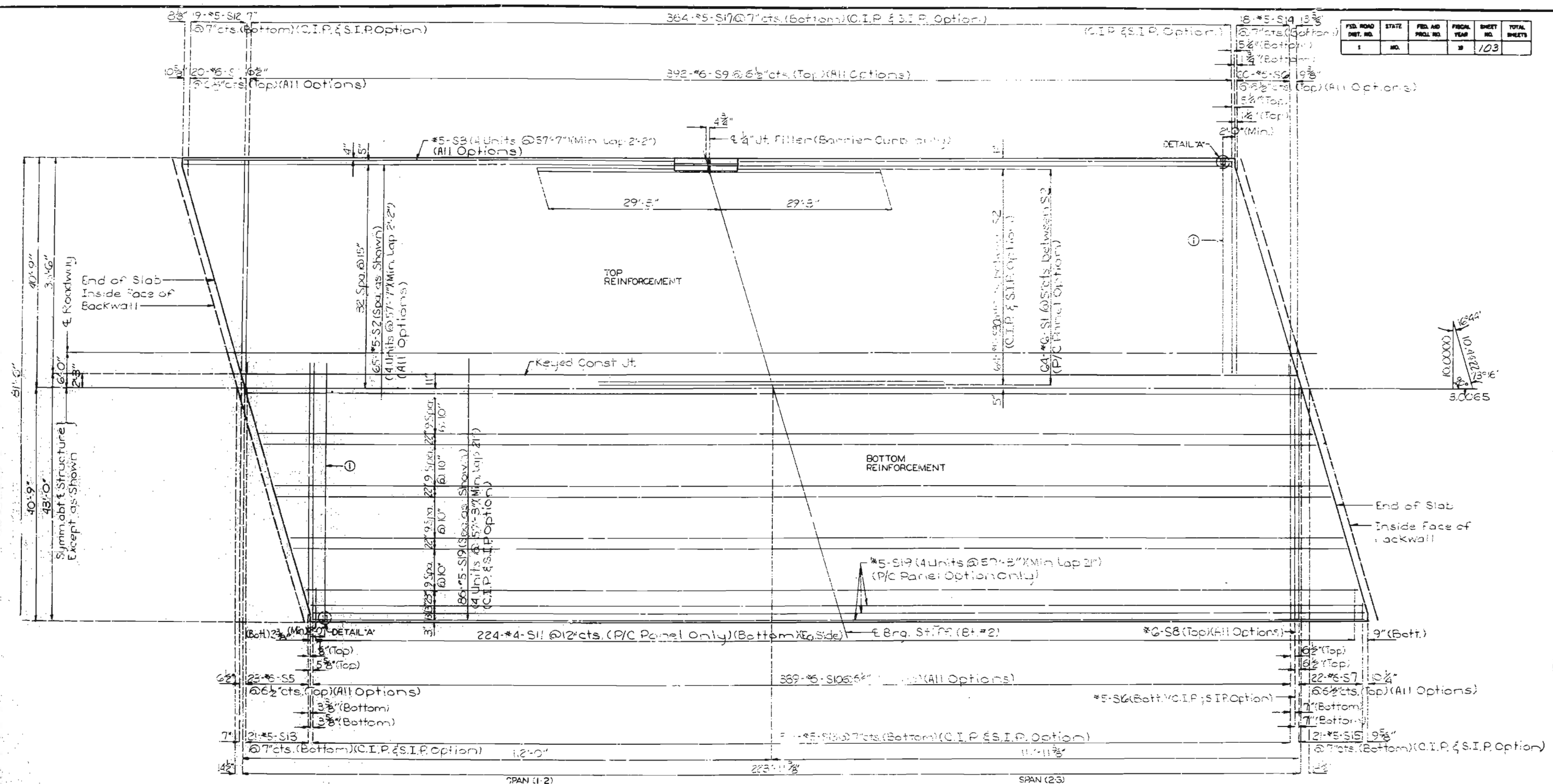
ST. CHARLES COUNTY

A-4294



429493

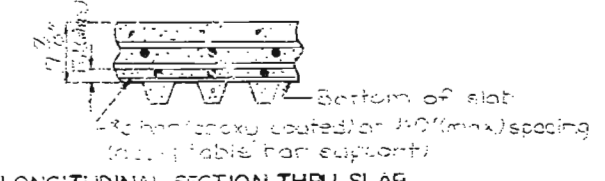
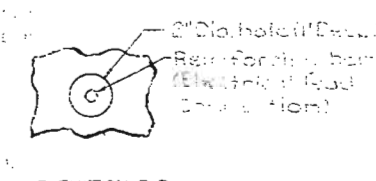
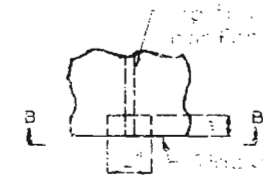
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MO.		88	103	



PLAN OF SLAB SHOWING REINFORCEMENT

Note: Longitudinal dimensions are parallel to grade along top of slab.  
Longitudinal reinforcing steel shall be placed so that ends shall not be more than 1" from vertical leg of angle at expansion device.  
For Section thru slab, slab haunching diagram and slab pouring sequence see sheet No. 17.

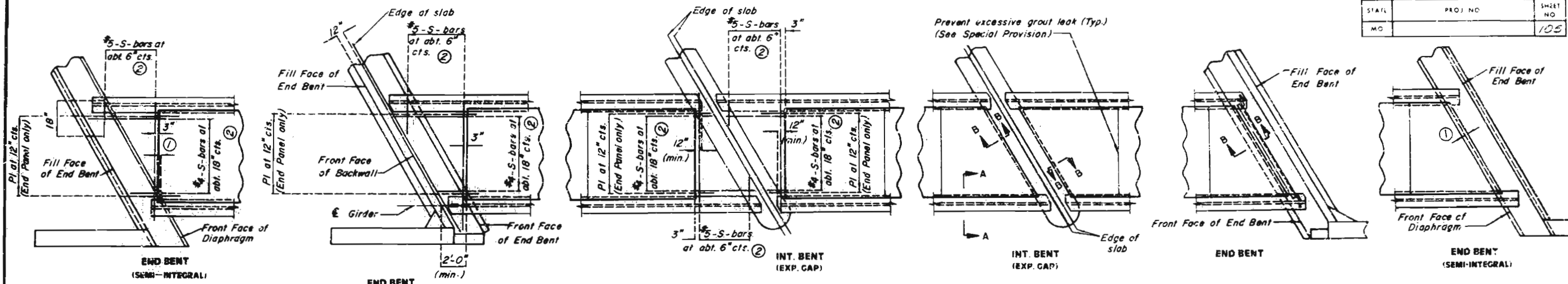
① Shift top transverse reinforcement bar 1/4" right at end.



LONGITUDINAL SECTION THRU SLAB (STAY-IN-PLACE FORMS)

Note: Form transverse reinforcing steel and bar 1/4" right at end.

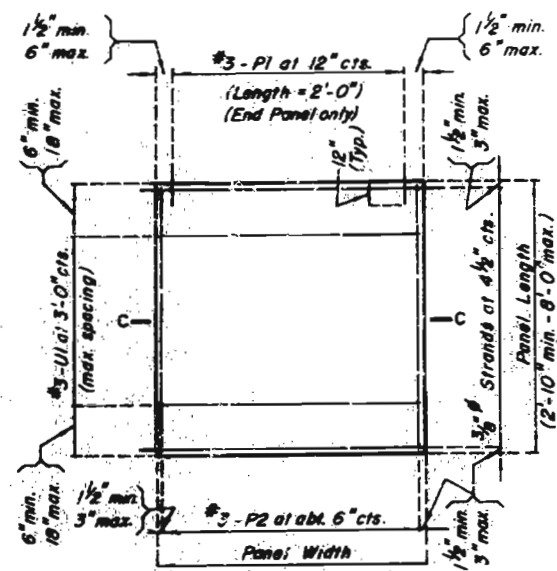




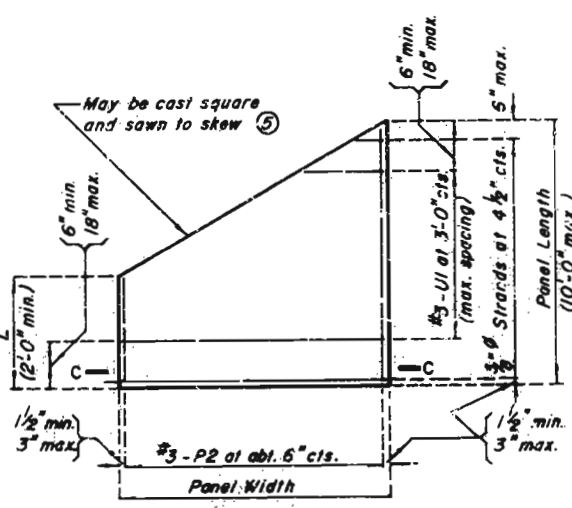
PANELS - SQUARED ENDS

PANELS - SKEWED ENDS

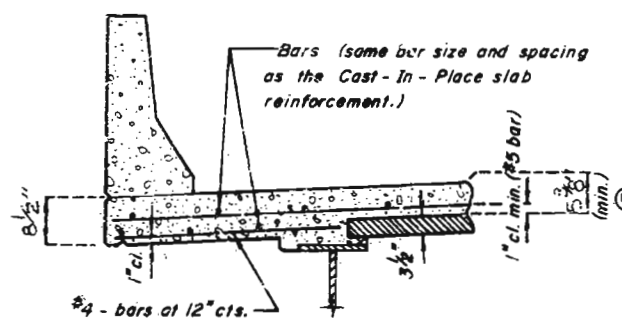
PLAN OF PRECAST PRESTRESSED PANELS PLACEMENT



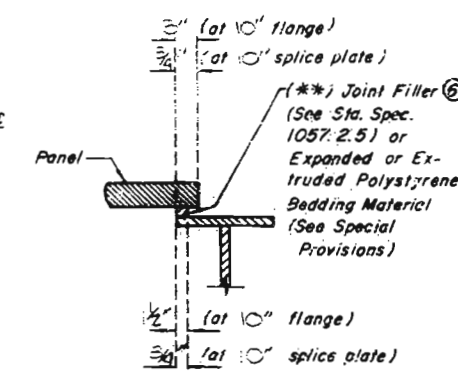
PLAN OF PRECAST PRESTRESSED PANEL



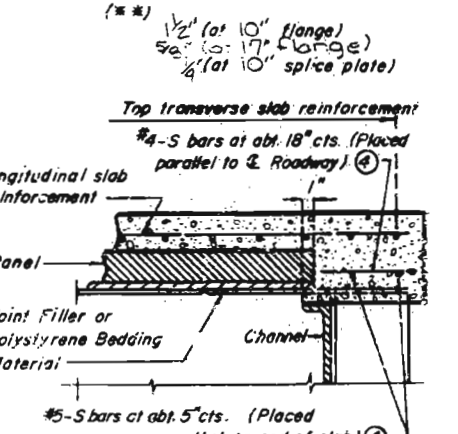
PLAN OF PRECAST PRESTRESSED PANEL (SKEWED END-optional)



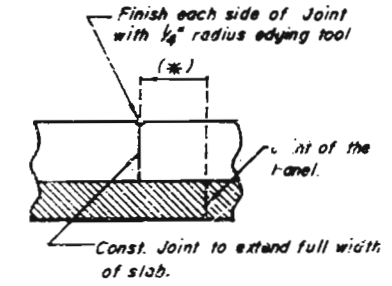
SECTION THRU CANTILEVER



SECTION A-A



PART SECTION B-B



PERMISSIBLE CONST. JOINT

GENERAL NOTES:

**PRESTRESSED PANEL:**  
CONCRETE FOR PRESTRESSED PANELS SHALL BE CLASS A1 WITH  $f'_c = 5,000$  PSI,  $f'_d = 3,500$  PSI.

THE TOP SURFACE OF ALL PANELS SHALL RECEIVE A SCORED FINISH WITH A DEPTH OF SCORING OF  $\frac{1}{4}$  INCH PERPENDICULAR TO THE PRESTRESSING STRANDS IN THE PANEL (SEE SPECIAL PROVISIONS).

PRESTRESSING TENDON SHALL BE HIGH-TENSILE STRENGTH UNCLAD SEVEN-WIRE (7) LOW RELAXATION STRANDS FOR PRESTRESSED CONCRETE CONFORMING TO AASHTO M229 EXCEPT THAT NOMINAL DIAMETER OF STRAND =  $\frac{3}{4}$  INCH AND NOMINAL AREA = 0.885 SQ. IN. AND MINIMUM ULTIMATE STRENGTH = 23,000 LBS. (270 KSI). LARGER STRANDS MAY BE USED WITH THE SAME SPACING AND INITIAL TENSION.

INITIAL PRESTRESSING FORCE = 17.2 KIPS/STRAND.

THE METHOD AND SEQUENCE OF RELEASING THE STRANDS SHALL BE SHOWN ON THE SHOP DRAWINGS.

SUITABLE ANCHORAGE DEVICES FOR LIFTING PANELS MAY BE CAST IN PANELS PROVIDED THEY ARE SHOWN ON THE SHOP DRAWINGS AND APPROVED BY THE ENGINEER. PANEL LENGTHS SHALL BE DETERMINED BY THE CONTRACTOR AND SHOWN ON THE SHOP DRAWINGS.

WHEN SQUARE END PANELS ARE USED AT SKEWED BENTS IT IS REQUIRED THAT THE SKEWED PORTION BE CAST FULL DEPTH. NO SEPARATE PAYMENT WILL BE MADE FOR THE ADDITIONAL CONCRETE AND REINFORCING REQUIRED.

MINIMUM JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL THICKNESS SHALL BE  $\frac{1}{4}$  INCH EXCEPT OVER SPICE PLATES WHERE MINIMUM THICKNESS SHALL BE  $\frac{1}{2}$  INCH. WHEN JOINT FILLER IS LESS THAN  $\frac{1}{2}$  INCH OVER SPICE PLATE, MAKE THE WIDTH OF JOINT FILLER AT SPICE THE SAME WIDTH AS PANEL ON SPICE. THICKER JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL MAY BE USED ON ONE OR BOTH SIDES OF THE GIRDER TO REDUCE CAST-IN-PLACE CONCRETE THICKNESS, WITHIN TOLERANCES. NO MORE THAN 2 INCHES TOTAL THICKNESS OF JOINT FILLER OR POLYSTYRENE BEDDING MATERIAL SHALL BE USED.

THE SAME THICKNESS OF JOINT FILLER MATERIAL SHALL BE USED UNDER ANY ONE EDGE OF ANY PANEL EXCEPT AT SPICES, AND THE MAXIMUM CHANGE IN THICKNESS BETWEEN ADJACENT PANELS SHALL BE  $\frac{1}{4}$  INCH TO CORRECT FOR VARIATIONS FROM GIRDER CAMBER DIAGRAM. THE POLYSTYRENE BEDDING MATERIAL MAY BE CUT TO MATCH HAUNCH HEIGHT ABOVE TOP OF FLANGE.

SUPPORT FROM DIAPHRAGM FORMS REQUIRED UNDER OPTIONAL SKEWED END UNTIL CAST-IN-PLACE CONCRETE HAS REACHED 3,000 PSI COMPRESSIVE STRENGTH.

NOTES:

- END PANEL TO BE DIMENSIONED  $\frac{1}{2}$  INCH INSIDE FACE OF DIAPHRAGM.
- S-BARS SHOWN ARE BOTTOM STEEL IN SLAB BETWEEN PANELS AND USED WITH SKEWED END PANELS ONLY.
- ADJUSTMENT IN THE SLAB THICKNESS, JOINT FILLER OR EXPANDED POLYSTYRENE BEDDING MATERIAL THICKNESS OR GRADE WILL BE NECESSARY IF THE GIRDER CAMBER AFTER ERECTION DIFFERS FROM PLAN CAMBER BY MORE THAN THE  $\frac{1}{4}$  OF DEAD LOAD DEFLECTION DUE TO THE WEIGHT OF STRUCTURAL STEEL. NO PAYMENT WILL BE MADE FOR ADDITIONAL LABOR OR MATERIALS FOR THE ADJUSTMENT.
- S-BARS SHOWN ARE USED WITH SKEWED END PANELS OR SQUARE END PANELS OF SQUARE STRUCTURES ONLY. #5 S-BARS SHALL EXTEND THE WIDTH OF SLAB (21 INCHES) LAP IF NECESSARY OR TO WITHIN 3 INCHES OF EXPANSION DEVICE ASSEMBLIES.
- COST OF S-BARS SHALL BE INCLUDED IN PRICE BID FOR SLAB PER SQUARE YARD.
- S-BARS ARE NOT LISTED IN BILL OF REINFORCING.
- SLAB EXTERIOR GIRDER HAUNCH TO BE THE SAME AS CAST-IN-PLACE.
- ANY STRAND 2'-0" OR SHORTER SHALL HAVE A #4 REINFORCING BAR ON EACH SIDE OF IT CENTERED BETWEEN STRANDS. STRANDS 2'-0" OR SHORTER MAY THEN BE DEBONDED AT FABRICATORS OPTION.
- ALL PANEL SUPPORT PADS SHALL BE GLUED TO THE GIRDER. WHEN SUPPORT THICKNESS EXCEEDS  $\frac{1}{2}$  INCH THE PADS SHALL BE GLUED TOP AND BOTTOM. THE GLUE USED SHALL BE THE TYPE RECOMMENDED BY THE PANEL SUPPORT PADS MANUFACTURER.

REINFORCING STEEL:

ALL DIMENSIONS ARE OUT TO OUT.

MINIMUM CLEARANCE TO REINFORCING STEEL SHALL BE  $\frac{1}{2}$  INCH UNLESS OTHERWISE SHOWN.

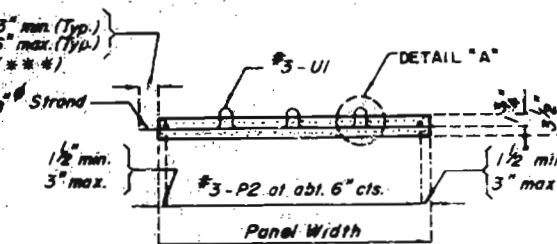
HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE C.R.S.I. MANUAL OF STANDARD PRACTICE FOR DETAILING REINFORCED CONCRETE STRUCTURES, STIRRUP AND TIE DIMENSIONS.

ACTUAL LENGTHS ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.

THE PRESTRESSED PANEL QUANTITIES ARE NOT INCLUDED IN THE TABLE OF ESTIMATED QUANTITIES FOR ALTERNATE SLABS.

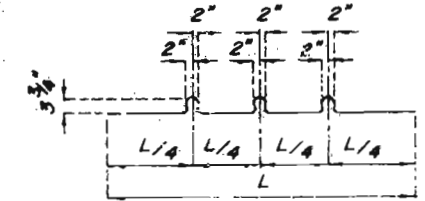
IF U1 BARS INTERFERE WITH PLACEMENT OF SLAB STEEL, U1 LOOPS MAY BE BENT OVER AS NECESSARY TO CLEAR SLAB STEEL.

WELDED WIRE FABRIC OR WELDED DEFORMED BAR MATS PROVIDING A MINIMUM AREA OF REINFORCING PERPENDICULAR TO STRANDS OF 0.22 SQ. IN./FT. WITH SPACING PARALLEL TO STRANDS SUFFICIENT TO INSURE PROPER HANDLING MAY BE USED IN LIEU OF THE #3-P2 BARS SHOWN. WIRE OR BAR DIAMETER SHALL NOT BE LARGER THAN 0.375 INCHES. #3-U1 BARS MAY BE ORIENTED AT RIGHT ANGLES TO LOCATION AND SPACING SHOWN. U1 BARS SHALL BE PLACED BETWEEN P1 BARS.



SECTION C-C

(\*\*\*) Prestressing strands to extend within 1" of adjacent panel.



BENDING DIAGRAM FOR U1 BAR

DETAILS OF PRECAST PRESTRESSED PANELS

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 15 of 17

ST. CHARLES COUNTY

A-4294

DETAILED JULY 1985  
CHECKED JULY 1985

STEEL  
P/C-P/S PANEL (3 1/2")  
APRIL 1984  
REVISED  
JUNE 1985



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO.		15	100	

# NOTES:

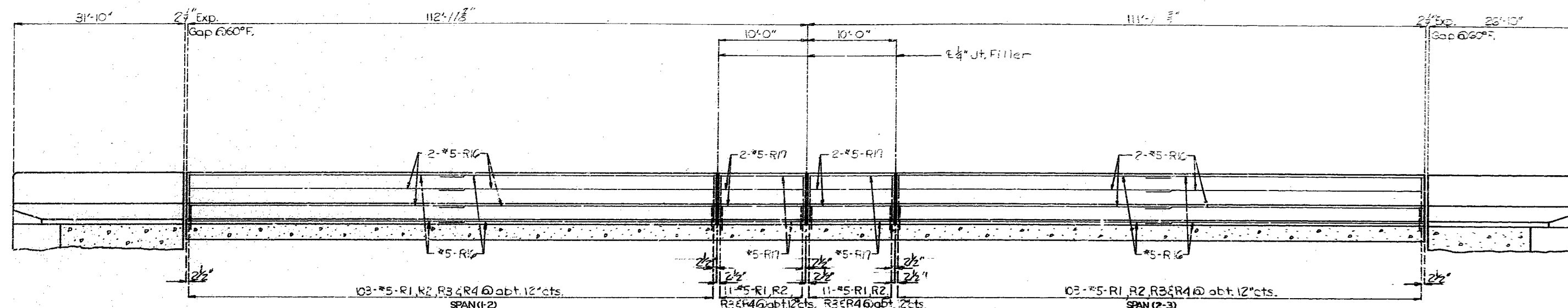
Top of barrier curb to be built parallel to grade with barrier curb joints (except at end bents) normal to grade.

All exposed edges of barrier curb shall have  $\frac{1}{2}$ " radius or  $\frac{3}{8}$ " bevel unless otherwise noted.

When the barrier curb is bid by linear feet, the contract unit price shall include the cost of all concrete and reinforcement, complete in place.

Concrete in the safety barrier curb shall be Class B1.

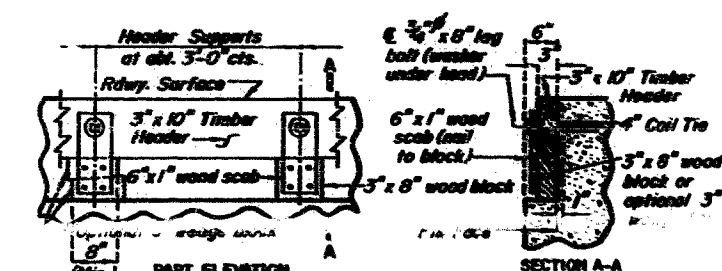
Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top face of the curb from end of wing to end of wing.



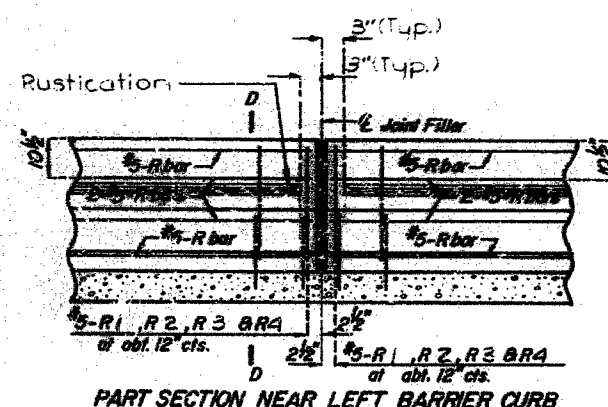
SECTION NEAR LEFT BARRIER CURB

Note: For details of barrier curb on abutment wings see sheet No. 20.  
Rustication not shown in Section Near Left Barrier Curb for clarity.

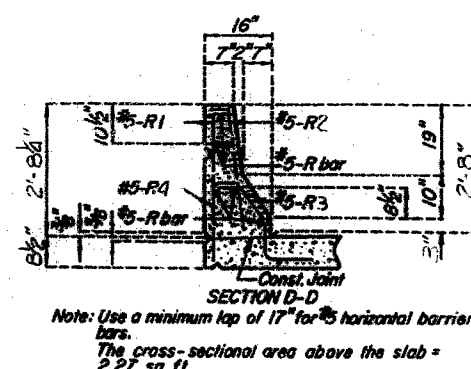
Note: Longitudinal dimensions are along top of barrier curb parallel to grade.



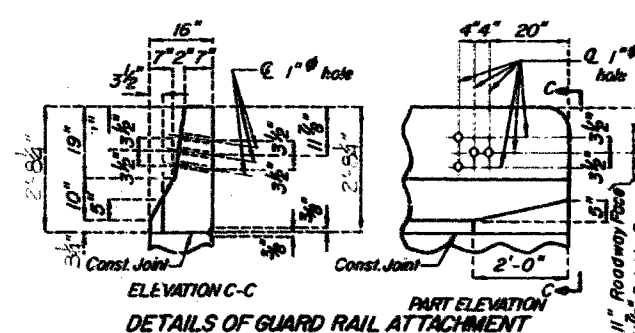
DETAILS OF TIMBER HEADER AT END BENTS



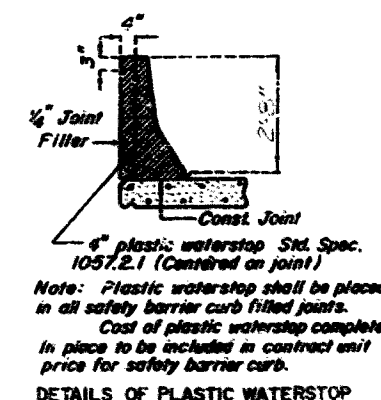
PART SECTION NEAR LEFT BARRIER CURB



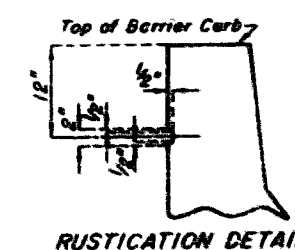
SECTION D-D  
Note: Use a minimum top of 17" for #5 horizontal barrier bars.  
The cross-sectional area above the slab = 2.27 sq. ft.



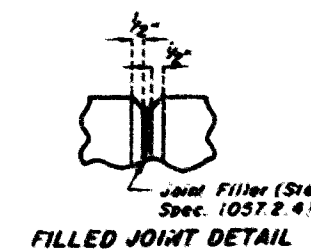
ELEVATION C-C  
DETAILS OF GUARD RAIL ATTACHMENT



DETAILS OF PLASTIC WATERSTOP

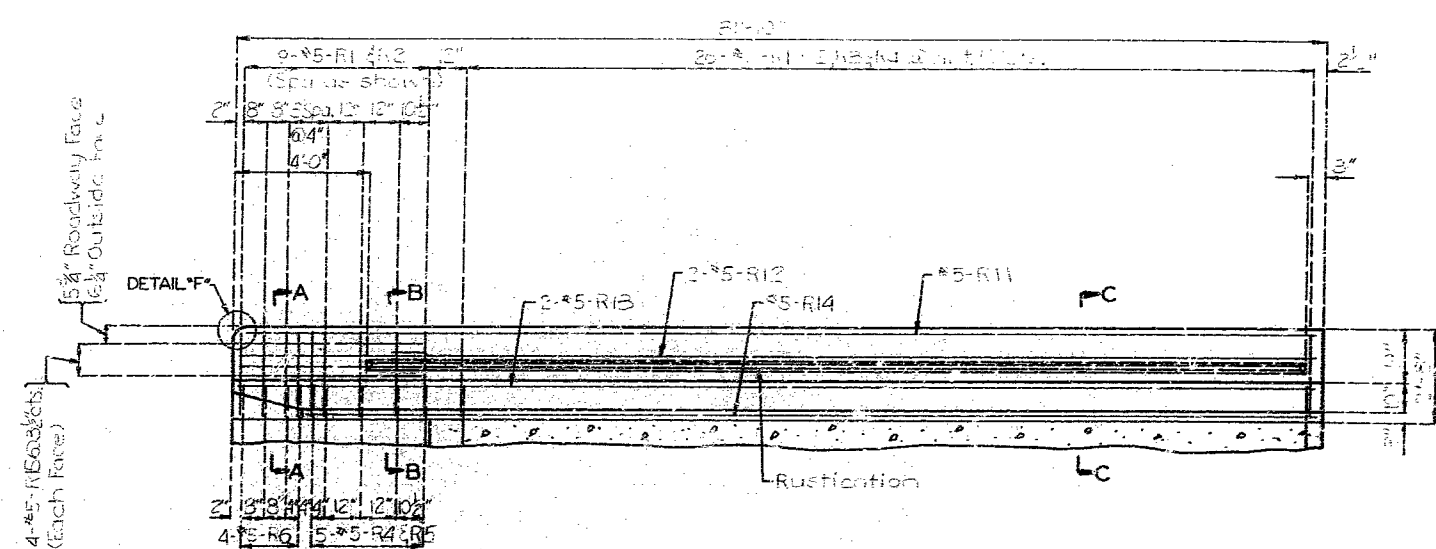


RUSTICATION DETAIL

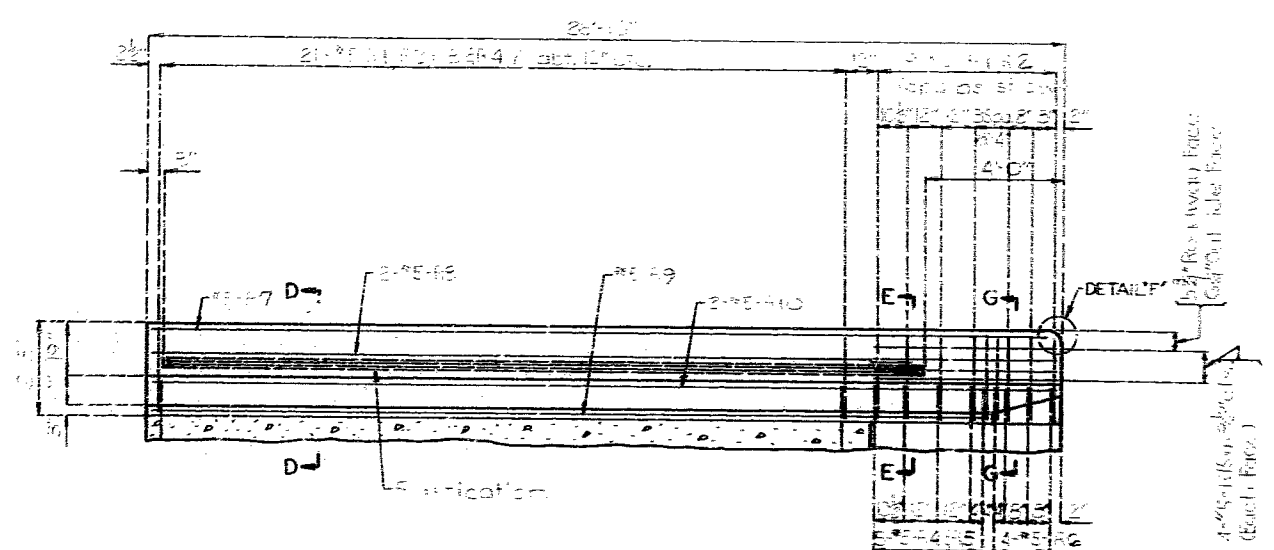


FILLED JOINT DETAIL

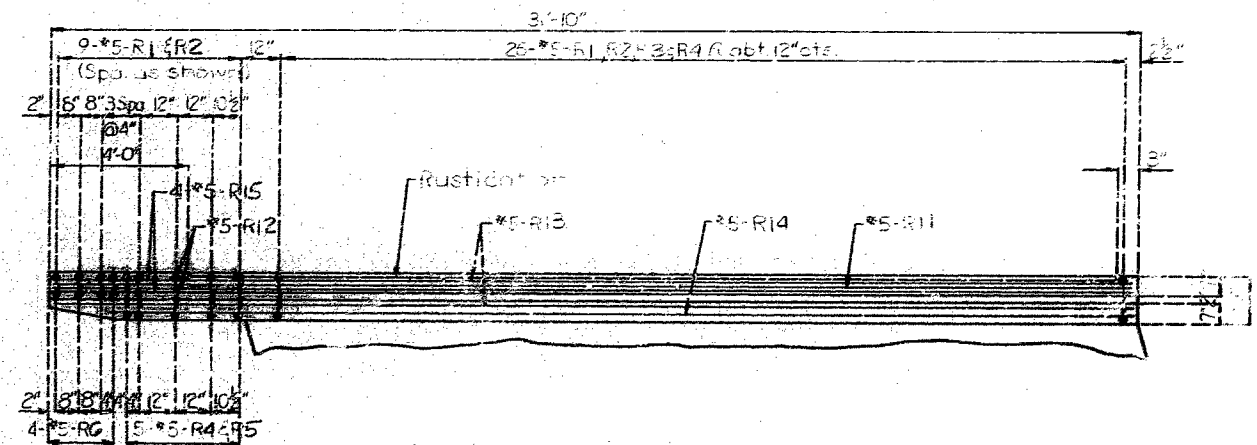
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
5	MO		8	107	



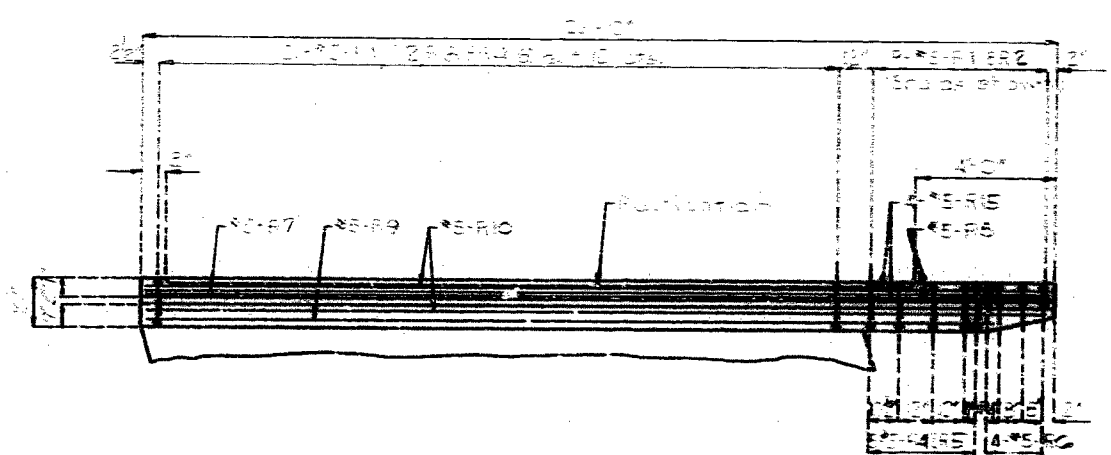
ELEVATION OF BARRIER CURB AT ABUTMENT NO.1



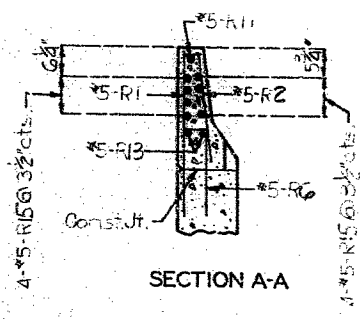
ELEVATION OF BARRIER CURB AT ABUTMENT NO.3



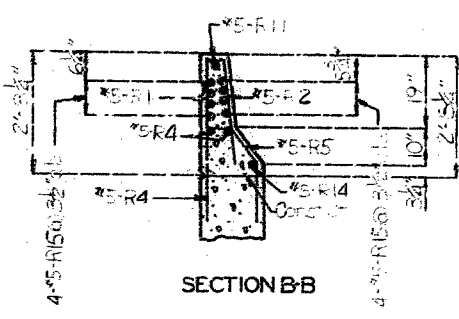
PLAN OF BARRIER CURB AT ABUTMENT NO.1



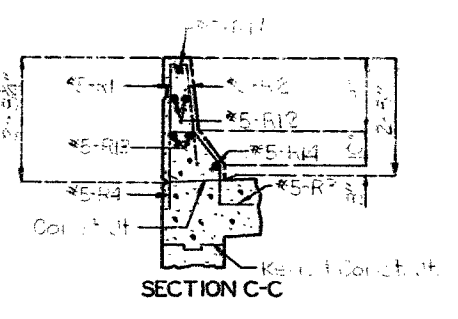
PLAN OF BARRIER CURB AT ABUTMENT NO.3



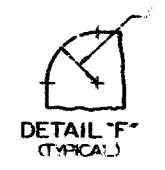
SECTION A-A



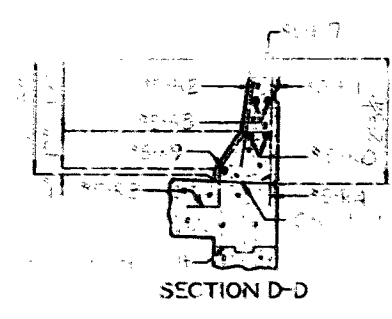
SECTION B-B



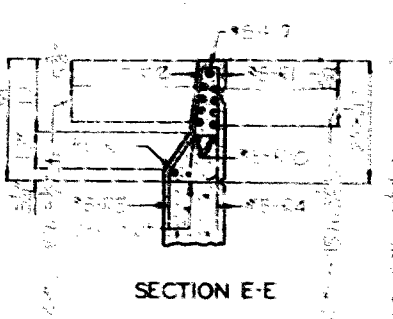
SECTION C-C



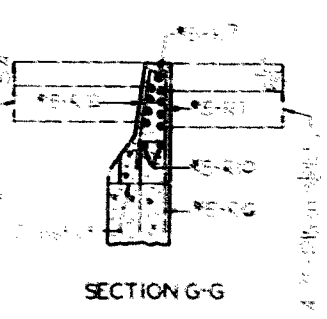
DETAIL 'F' (TYPICAL)



SECTION D-D



SECTION E-E



SECTION G-G

Note: For details of reinforcement, see sheet No. 19.  
For details of construction, see sheet No. 13.



# COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (V)	VARIES (V)	DIMENSIONS										NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT
								B	C	D	E	F	G	H	I	J	K			
								FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	LBS.
		SUBSTRUCTURE																		
		ABUT. NO. 1																		
16	6H1	24G. RM. APRON &	20	X				51	0.000									51	0	1228
		BACKWALL																		
8	4H2	BACKWALL	20	X				24	11.000									24	11	133
12	4H3	APRON	20	X				37	0.000									37	0	667
2	6H4	BRG. BEAM	20	X				27	10.000									27	10	114
2	6H5	BACKWALL	20	X				38	6.000									38	6	116
4	6H6	BACKWALL	20	X				38	6.000									38	6	103
4	9H7	BRG. BEAM	20	X				27	11.000									27	11	397
4	9H8	BRG. BEAM	20	X				16	8.000									16	8	227
4	9H9	BRG. BEAM	20	X				17	8.000									17	8	529
4	9H10	BRG. BEAM	20	X				5	5.000									5	5	74
4	9H11	BRG. BEAM	20	X				32	0.000									32	0	435
4	9H12	BRG. BEAM	20	X				30	1.000									30	1	409
4	9H13	BRG. BEAM	20	X				53	4.53									53	4	725
2	6H14	APPROACH BEAM	20	X				48	6.000									48	6	145
8	6H15	APPROACH BEAM	20	X				51	7.51									51	7	1105
8	6H16	APPROACH BEAM	20	X				40	5.40									40	5	863
2	6H17	APPROACH BEAM	20	X				39	6.39									39	6	119
8	6H18	WINGS	20	X				31	7.000									31	7	264
4	6H19	WING	20	X				29	3.29									29	3	167
		INCR = 31.200 IN						24	1.000									24	1	167
2	4H20	WING	20	X				19	6.000									19	6	24
2	4H21	WING	20	X				15	8.000									15	8	21
4	4H22	WING	20	X				5	6.000									5	6	15
16	4H23	WING	20	X				16	7.16									16	7	172
		INCR = 34.750 IN						5	0.000									5	0	72
8	4H24	CURTAIN WALL	20	X				3	8.000									3	8	20
4	5H25	WING	20	X				30	5.30									30	5	174
		INCR = 31.900 IN						25	2.25									25	2	174
2	4H26	WING	20	X				20	2.20									20	2	27
2	4H27	WING	20	X				16	4.800									16	4	22
10	4H28	WING	20	X				16	10.16									16	10	160
		INCR = 35.250 IN						5	1.000									5	1	73
4	4H29	WING	20	X				5	0.000									5	0	13
8	4H30	CURTAIN WALL	20	X				3	1.000									3	1	10
2	7H1	WING	20	X				5	2.000									5	2	164
2	7H2	WING	20	X				6	8.375									6	8	36
2	6H3	CURTAIN WALL	20	X				6	0.000									6	0	13
4	6H4	APRON & WING	20	X				15.000	2	7.000								14.375	4.375	33
2	7H5	WING	20	X				5	2.000									5	2	166
2	7H6	WING	20	X				5	10.625									5	10	33
2	4H7	CURTAIN WALL	20	X				6	0.000									6	0	12
4	6H8	APRON & WING	20	X				15.000	2	7.000								14.375	4.375	34
16	4H1	BRG. BEAM	20	X				3	3.000									3	3	385
16	4H2	BRG. BEAM	20	X				3	2.250									3	2	377
5	6H3	BRG. BEAM	20	X				3	1.250									3	1	115
16	6H4	BRG. BEAM	20	X				3	3.000									3	3	394
15	6H5	BRG. BEAM	20	X				3	2.000									3	2	334
20	4H6	BRG. BEAM	20	X				6.000	3	3.000								4	3	71
79	4H7	APPROACH BEAM	20	X				2	4.250									10	8	550
89	5H8	APPROACH BEAM	20	X				3	6.000									9	4	613
42	4H9	PILE ENCASUREMENT	20	X				23.000	15.000									5	1	138
16	5H1	BACKWALL	20	X				7	8.7									7	8	1327
114	5H2	APRON WALL	20	X				9	0.000									9	0	1070

# COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (V)	VARIES (V)	NO. EACH	DIMENSIONS										NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT		
									B	C	D	E	F	H	K								
									FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.				FT.	IN.
10	5V3	WING		20		X		2	4	7.000									4	7	4	7	
		INCR = 4.500 IN							3	1.000									3	1			40
34	4V4	WING		20		X		2	14	3.000									14	3	14	3	
		INCR = 6.875 IN							5	1.000									5	1	5	1	220
2	4V5	WING		20		X			8	6.300									8	6	8	6	11
2	4V6	WING		20		X			9	1.000									9	1	9	1	11
2	4V7	WING		20		X			9	8.000									9	8	9	8	13
2	4V8	WING		20		X			7	1.000									7	1	7	1	32
4	4V9	CURTAIN WALL		20		X			6	0.000									6	0	6	0	16
10	5V10	WING		20		X		2	5	1.000									5	1	5	1	
		INCR = 4.750 IN							3	6.000									3	6	3	6	45
34	4V11	WING		20		X		2	14	0.000									14	8	14	8	
		INCR = 6.750 IN							5	7.000									5	7	5	7	330
2	4V12	WING		20		X			9	4.000									9	4	9	4	12
2	4V13	WING		20		X			5	11.000									9	11	9	11	13
2	4V14	WING		20		X			7	3.000									7	3	7	3	10
18	2H1	A.S. WELLS		20		X			15.000	9.125									23	0	23	0	69
		ABUT. NO. 2																					
2	6H14	APPROACH BEAM		20		X			48	6.000									48	6	48	6	146
8	6H15	APPROACH BEAM		17		X			50	10.000									51	9	51	9	1105
8	6H16	APPROACH BEAM		17		X			39	6.000									40	5	40	5	863
2	6H17	APPROACH BEAM		20		X			39	6.000									39	6	39	6	119
10	4H24	CURTAIN WALL		20		X			3	8.000									3	8	3	8	24
10	4H30	CURTAIN WALL		20		X			3	1.000									3	1	3	1	21
14	6H31	BRG. BM. APRON & BACKWALL		20		X			47	7.000									47	7	47	7	1301
8	4H32	BACKWALL		20		X			24	3.000									24	3	24	3	130
4	7H33	BRG. BEAM		17		X			28	9.000									30	0	30	0	408
4	9H34	BRG. BEAM		20		X			29	0.000									29	5	29	5	400
4	9H35	BRG. BEAM		20		X			9	6.000									9	6	9	6	129
4	9H36	BRG. BEAM		17		X			8	8.000									39	11	39	11	563
2	6H37	BRG. BEAM		20		X			40	4.000									40	4	40	4	121
4	9H38	BRG. BEAM		17		X			40	4.000									41	7	41	7	566
4	4H39	BACKWALL		20		X			40	0.000									40	0	40	0	107
2	6H40	BACKWALL		20		X			40	0.000									40	0	40	0	120
10	6H41	APRON WALL		20		X			41	0.000									41	0	41	0	616
8	5H42	WINGS		20		X			26	7.000									26	7	26	7	222
2	5H43	WING		20		X			24	4.000									24	4	24	4	51
2	5H44	WING		20		X			21	9.000									21	9	21	9	45
2	4H45	WING		20		X			16	10.000									16	10	16	10	22
2	4H46	WING		20		X			12	9.000									12	9	12	9	17
8	4H47	WING		20		X		2	13	10.000									13	10	13	10	
		INCR = 35.000 IN							5	1.000									5	1	5	1	51
4	4H48	WING		20		X			5	3.000									5	6	5	6	15
2	5H49	WING		20		X			24	8.000									24	8	24	8	51
2	5H50	WING		20		X			22	1.000									22	1	22	1	46
2	4H51	WING		20		X			17	6.000									17	6	17	6	23
2	4H52	WING		20		X			13	9.000									13	9	13	9	18
8	4H53	WING		20		X		2	13	10.000									13	10	13	10	
		INCR = 34.425 IN							5	2.000									5	2	5	2	51
4	4H54	WING		20		X			4	7.000									4	7	4	7	12
4	9H55	BRG. BEAM		17		X			49	10.000									51	1	51	1	695
2	6T3	CURTAIN WALL		19		S	X		6	0.000	3	8.000							9	8	9	7	13
5	6T4	APRON & WING		21		X			15.000	7	7.000					14.375	4.375		3	10	5	7	27

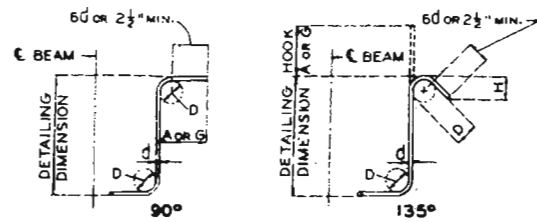


# COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (V)	NO. EACH	DIMENSIONS												NOMINAL LENGTH FT.	ACTUAL LENGTH FT.	WEIGHT LBS.			
								B		C		D		E		F		H					K		
								FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.				FT.	IN.	
2	477	CURTAIN WALL		19	S	X	1	6	0.000	3	1.000							9	1	9	0	12			
3	678	APRON & WING		23	X		1	15.000	2	7.000							14.375	4.375	3	10	3	9	28		
2	779	WING		14	X		1	5	2.000	2	11.000	27	2.625				25	5.000	9	6.875	35	4	35	0	193
2	7710	WING		15	X		1	6	1.375	2	2.000						2	2.250	5	8.500	8	3	8	3	34
2	7711	WING		14	X		1	5	2.000	2	8.000	27	1.000				25	3.500	9	8.250	34	11	34	8	142
2	7712	WING		15	X		1	5	1.000	2	2.000						21.875	4	9.000	7	3	7	3	30	
20	601	DRG. BEAM		13	X		1	3	3.000	2	10.000	3	11.000	2	9.000		14	9	14	3					428
26	406	DRG. BEAM		10	S	X	1			6.000	3	3.000					4	3	4	1					71
75	407	APPROACH BEAM		13	S	X	1	2	4.250	2	7.000	2	4.250	2	7.000		10	8	10	5					550
85	508	APPROACH BEAM		18	S	X	1	3	6.000	2	4.250						9	4	9	2					113
30	409	PILE ENCASMENT		10	S	X	1			23.000	15.000						5	1	4	11					99
19	6010	DRG. BEAM		13	X		1	3	2.000	3	2.500	3	11.000	3	1.375		15	5	14	11					473
12	6011	DRG. BEAM		12	X		1	5	1.500	3	6.875	3	11.000	3	5.750		16	1	15	7					81
29	6012	DRG. BEAM		13	X		1	3	2.250	3	3.750	3	11.000	3	2.750		15	8	15	2					661
164	901	BACKMALL		20	X		1	7	8.000								7	8	7	8					1327
6	909	CURTAIN WALL		20	X		1	6	0.000								6	0	6	0					16
114	9015	APRON WALL		20	X		1	7	1.000								7	1	7	1					842
10	9016	WING		20	X	V	2	4	11.000								4	11	4	11					411
		WING - 4.150 IN					1	3	4.000								3	4	3	4					43
26	4017	WING		20	X	V	2	12	8.000								12	8	12	8					158
		WING - 7.125 IN					1	5	6.000								5	6	5	6					158
2	4018	WING		20	X		1	7	4.000								7	4	7	4					10
2	4019	WING		20	X		1	7	11.000								7	11	7	11					11
2	4020	WING		20	X		1	6	6.000								6	6	6	6					11
2	4021	WING		20	X		1	5	8.000								5	0	5	0					7
30	9022	WING		20	X	V	2	4	7.000								4	7	4	7					40
		WING - 6.500 IN					1	3	1.000								3	1	3	1					40
20	9023	WING		20	X	V	2	12	10.000								12	10	12	10					167
		WING - 7.250 IN					1	5	8.000								5	0	5	0					10
2	4024	WING		20	X		1	7	5.000								7	5	7	5					11
2	4025	WING		20	X		1	8	8.000								8	0	8	0					11
2	4026	WING		20	X		1	4	4.000								4	4	4	4					6
18	201	A.G. WALLS		22	X		1	15.000	9.125								23	3	23	0					69
SUPERSTRUCTURE																									
508	901	BARRIER CURB		19	S		1	2	6.000	3.900							2	10	2	8					1630
508	902	BARRIER CURB		19	S		1	2	6.125	3.900							2	10	2	9					1681
500	903	BARRIER CURB		27	S		1		6.000	11.125	7.000	12.000					9.125	6.315	3	0	2	10			1626
570	904	BARRIER CURB		19	S		1	17.000	6.000									23	22						1070
20	905	BARRIER CURB		27	S		1		6.000	11.125	18.000						9.125	6.375	2	11	2	10			59
14	906	CARRIER CURB		19	S		1	2	4.000	6.300							5	2	5	0					63
2	907	BARRIER CURB		20	X		1	26	4.000								26	4	26	4					55
6	908	BARRIER CURB		20	X		1	22	9.000								22	9	22	9					143
2	909	BARRIER CURB		20	X		1	24	10.000								24	10	24	10					52
4	9010	BARRIER CURB		20	X		1	26	7.000								26	7	26	7					111
2	9011	BARRIER CURB		20	X		1	31	4.000								31	4	31	4					65
4	9012	BARRIER CURB		20	X		1	27	9.000								27	9	27	9					116
4	9013	BARRIER CURB		20	X		1	31	7.000								31	7	31	7					132
2	9014	BARRIER CURB		20	X		1	29	10.000								29	10	29	10					62
32	9015	BARRIER CURB		20	X		1	5	6.000								5	6	5	6					184
48	9016	BARRIER CURB		20	X		1	51	7.000								51	7	51	7					256
20	9017	BARRIER CURB		20	X		1	9	9.000								9	9	9	9					244

# COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (V)	VARIES (V)	NO. EACH	DIMENSIONS												NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
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STIRRUP HOOK DIMENSIONS				
GRADES 40-50-60 KSI				
BAR SIZE	D (IN.)	90° HOOK A OR G	135° HOOK A OR G	APPROX. H
#3	1-1/2"	4"	4"	2-1/2"
#4	2"	4-1/2"	4-1/2"	3"
#5	2-1/2"	5"	5-1/2"	3-3/4"
#6	4-1/2"	8"	7"	4-1/2"

NOTE: UNLESS OTHERWISE NOTED DIAMETER "D" IS THE SAME FOR ALL BENDS AND HOOKS ON A BAR.

END HOOK DIMENSIONS					
BAR SIZE	180° HOOKS				90° HOOKS
	GRADE 40 A OR G	GRADE 40 J	GRADE 60 A OR G	GRADE 60 J	ALL GRADES A OR G
#3	5"	2-3/4"	5"	3"	6"
#4	6"	3-1/2"	6"	4"	8"
#5	7"	4-1/2"	7"	5"	10"
#6	8"	5-1/4"	8"	6"	12"
#7	9"	6-1/4"	10"	7"	14"
#8	10"	7"	11"	8"	16"
#9	12"	8"	15"	11-1/4"	19"
#10	13"	9"	17"	12-3/4"	22"
#11	14"	10"	19"	14-1/4"	21-0"
#14	21-2"	20-1/2"	21-2"	20-1/2"	21-7"

SIZE OF 180° HOOKS (GRADE 40-60 KSI)  
 D = 5d for #3 thru #11  
 D = 10d for #14 and #18

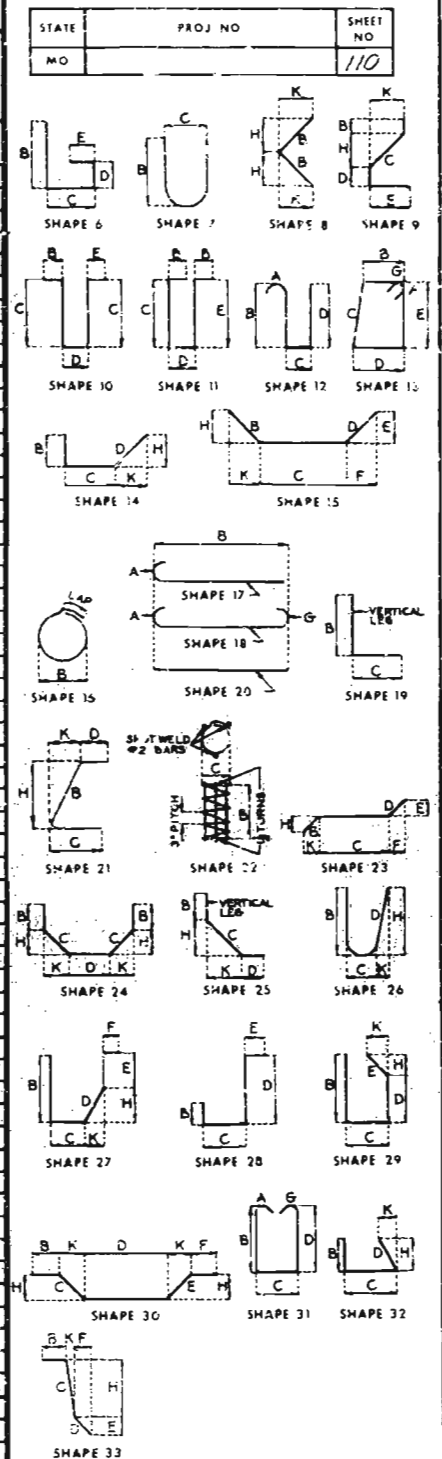
SIZE OF 90° HOOKS (ALL GRADES) AND 180° HOOKS (GRADE 60 KSI)  
 D = 8d for #3 thru #8  
 D = 8d for #9, #10, and #11  
 D = 10d for #14 and #18

#### NOTES:

ALL STANDARD HOOKS AND BENDS OTHER THAN 180 DEG. TO BE BENT WITH SAME PROCEDURE AS FOR 90 DEG. STD. HOOKS.  
 HOOKS AND BENDS SHALL BE IN ACCORDANCE WITH THE PROCEDURES AS SHOWN ON THIS SHEET.  
 C - EPOXY COATED REINFORCEMENT.  
 S - STIRRUP.  
 X - BAR IS INCLUDED IN SUBSTRUCTURE QUANTITIES.  
 V - BAR DIMENSIONS VARY IN EQUAL INCREMENTS BETWEEN DIMENSIONS SHOWN ON THIS LINE AND THE FOLLOWING LINE.  
 N.E. EA. - NUMBER OF BARS OF EACH LENGTH.  
 NOMINAL LENGTHS - ARE BASED ON OUT-TO-OUT DIMENSIONS SHOWN IN BENDING DIAGRAM AND ARE LISTED FOR FABRICATORS USE. (NEAREST INCH).  
 ACTUAL LENGTHS - ARE MEASURED ALONG CENTERLINE BAR TO THE NEAREST INCH.  
 PAYMENTS ARE BASED ON ACTUAL LENGTHS.

#### COMPLETE BILL OF REINFORCING STEEL

NO. REQD.	MARK NO.	LOCATION	EPOXY (E)	SHAPE NO.	STIRRUP (S)	SUBSTR. (X)	VARIES (V)	NO. EACH	DIMENSIONS												NOMINAL LENGTH	ACTUAL LENGTH	WEIGHT						
									B		C		D		E		F		H					K					
SIZE	MARK								FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	FT.	IN.	LBS.
		ABUT. NO. 3																											
27	5520	ABUT. NO. 3		20					46	7.000															46	7	4	7	13
28	4521	ABUT. NO. 3		20					24	6.000															24	6	24	6	4
27	5524	ABUT. NO. 3		20					39	11.000															39	11	39	11	11
14	4525	ABUT. NO. 3		20					39	11.000															39	11	39	11	3
53	4527	ABUT. NO. 3		20					21	1.000															21	1	21	1	7
2	4528	ABUT. NO. 3		20					21	1.000															21	1	21	1	7
139	9529	ABUT. NO. 3		20					21	1.090															21	1	21	1	94
		END OF BAR LIST																											



BENDING DIAGRAMS

REVISED  
 MAY 1974  
 MAY 1984

DETAILED SEPT. 1984  
 CHECKED SEPT. 1984

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 23 of 23

ST. CHARLES

COUNTY

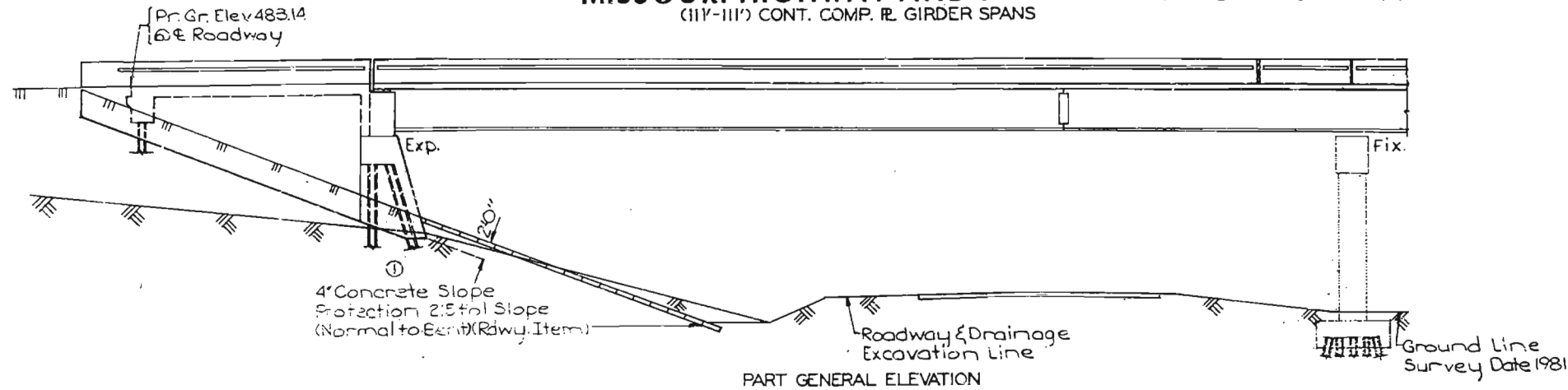
A-4294



# MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

(111'-111") CONT. COMP. R. GIRDER SPANS

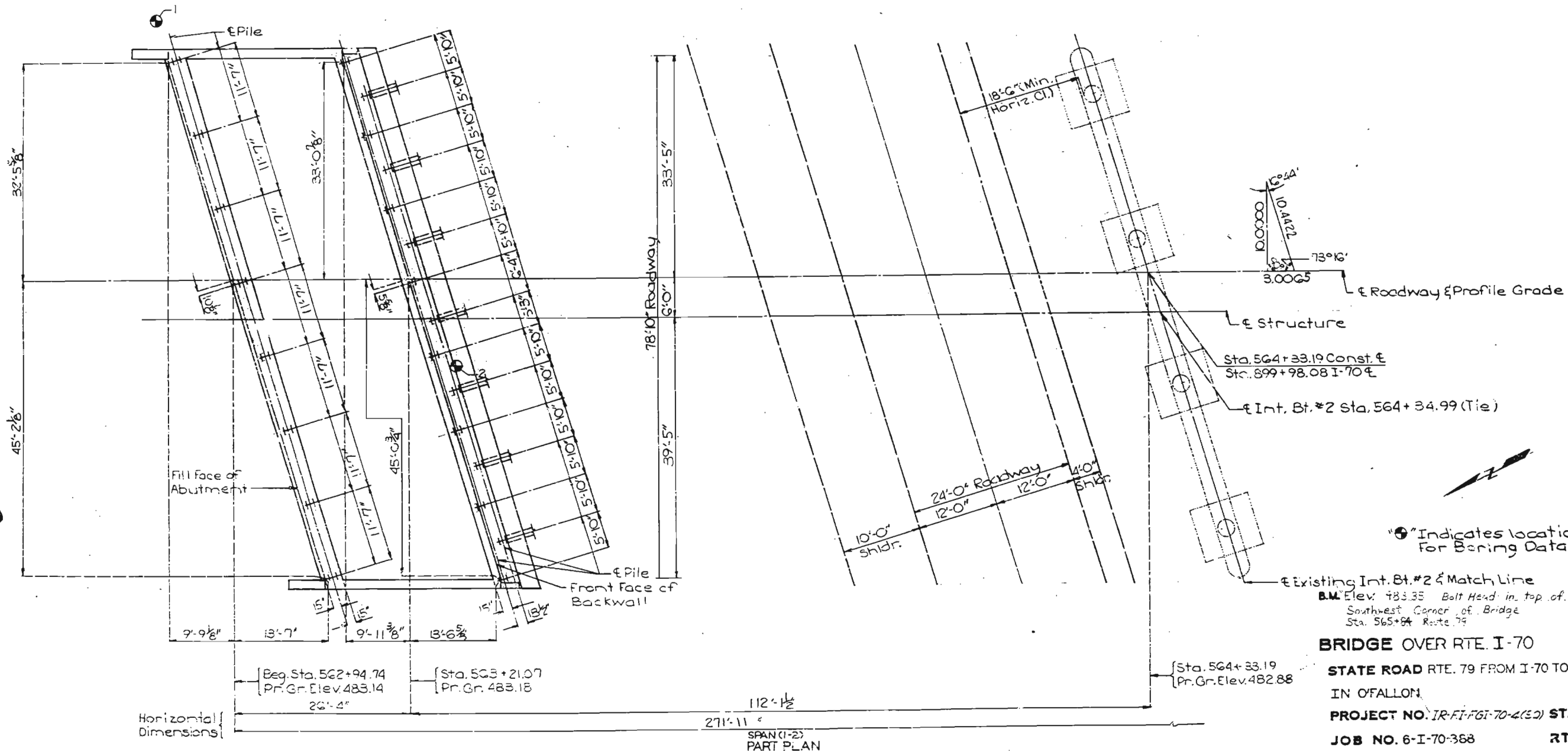
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MO.		85	58	
SEC./SUR. 731		TWP. 47N		RGE. 3E	



Note: Roadway fill was completed to the final roadway section and up to the elevation of the bottom of the concrete approach beam within the limits of the structure and for not less than 25' in back of the fill face of the end bents before piles are driven for any bents falling within the embankment section.

For General Notes, Estimated Quantities and Pile Data see sheet No. 3

Outline of old work is indicated by light dashed lines. Heavy lines indicate new work.



"●" Indicates location of Borings. For Boring Data see sheet No. 4.

BRIDGE OVER RTE. I-70

STATE ROAD RTE. 79 FROM I-70 TO LINCOLN COUNTY LINE IN O'FALLON

PROJECT NO. IR-FI-FGT-70-4(52) STA. 562+94.74

JOB NO. 6-I-70-368 RTE. 79

ST. CHARLES COUNTY

DATE: 8/29/85 FINAL PLANS

STD. 611.60  
STD. 706.35  
A-4294

DESIGNED AUG. 1983  
DETAILED JUNE 1984  
CHECKED JULY 1984

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1A of 23.

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FINAL QUANTITIES			
ITEM	SUBSTR.	SUPERSTR.	TOTAL
Removal Of Bridges (A-853) (See Special Provisions) Lump Sum			1
Class I Excavation Cu.Yd.	123.5		123.5
Structural Steel Piles (10") Lin.Ft.	3124		3124
Class B Concrete Cu.Yd.	257.0		257.0
Slab On Steel (See Special Provisions) Sq.Yd.		2028	2028
Safety Barrier Curb Lin.Ft.		566	566
Slab On Semi-Deep Abutment Sq.Yd.		432	432
Laminated Neoprene Bearing Pads Ea.		27	27
Preformed Compression Expansion Joint Seal (35) Lin.Ft.		165	165
Reinforcing Steel Lbs.	27680		27680
Reinforcing Steel (Epoxy Coated) Lbs.	1620		1620
Fabricated Structural Carbon Steel (Plate Girder) Lbs.		377300	377300
Fabricated Structural Low Alloy Steel (Plate Girder) Lbs.		104600	104600
Painting (System B) Green Ton		239.5	239.5

Note: All concrete and reinforcing steel below top of slab and above Const. Joint under slab in Semi-Deep Abutments were included in superstructure quantities for Slab on Semi-Deep Abutments.

FINAL QUANTITIES FOR ALTERNATE SLABS			
TYPE OF SLAB	SLAB ON STEEL		
	REINF. (LBS)		CONC. CU.YD.
	EPOXY	PLAIN	
Precast Panel Forms	78570	2940	534.2

Note: The table of Estimated Quantities for Alternate Slabs represents the quantities used by the state in preparing the cost estimate for concrete slabs. Variations may be encountered in these estimated quantities but these variations cannot be used for an adjustment in the Contract Unit Price per square yard of Alternate Slab used.

See Special Provisions for alternate methods of forming slabs.  
Precast panel quantities based on skewed end panels.

#### GENERAL NOTES:

Design Specifications: A.A.S.H.T.O. 1977 and Interims thru 1983 Load Factor Design  
Design Loading: Modified 24000 \* Tandem Axle HS20-44 157/54 Ft. Future Wearing Surface Earth 120 \* cu.ft. Equivalent Fluid Pressure 30 \* cu.ft. Fatigue Stress - Case II

#### Design Unit Stresses:

Class B Concrete (Substructure)  $f'_c = 3000$  psi.  
Class E2 Concrete (Superstructure except Safety Barrier Curb)  $f'_c = 4000$  psi.  
Class B1 Concrete (Safety Barrier Curb)  $f'_c = 4000$  psi.  
Reinforcing Steel (Grade 60)  $f_y = 60,000$  psi.  
Structural Carbon Steel  $f_y = 36,000$  psi.  
Structural Steel (A.S.T.M. A-572) Grade 50  $f_y = 50,000$  psi.  
Steel Pile  $f_b = 9,000$  psi.

#### Paint:

System B by contractor in accordance with Std. Spec. 712.12. Color of the final field coat for System B was green.

#### Fabricated Steel:

Field connections, High Strength Bolts  $\frac{3}{4}$ " holes  $\frac{1}{2}$ " except as noted.

#### Joint Filler:

All joint filler did meet the requirement of Std. Spec. 1057.2.4 except as noted.

#### Reinforcing Steel:

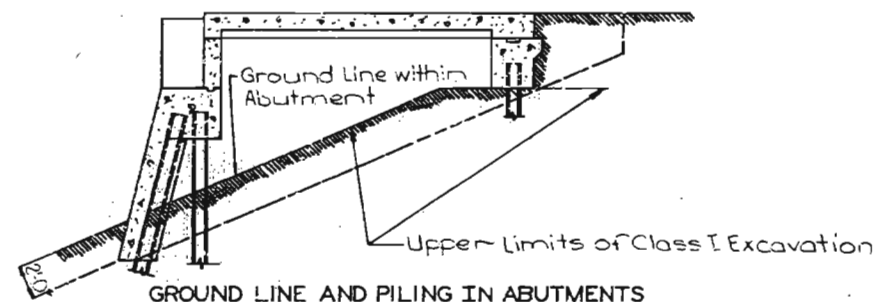
Minimum clearance to reinforcing steel was  $1\frac{1}{2}$ " unless otherwise shown. All reinforcing bars in tops of substructure beams or caps were spaced to clear anchor bolts for bearings by at least  $\frac{1}{2}$ ".

All H.S. bolts may be tensioned by Turn-of-Nut method.

Note: A minimum vertical clearance of 15'-0" from crown of existing lanes and a minimum lateral clearance of 8'-0" centered on existing lanes was maintained during construction.

PILE DATA				
BENT NO.	1 App. Br.	1 Brq. Br.	3 App. Br.	3 Brq. Br.
Pile Type and Size	HP10x42	HP10x42	HP10x42	HP10x42
Number	8	15	8	14
Approximate Length Ft.	70	69	75	69
Design Bearing Tons	40	54	38	56
Hammer Energy required Ft.Lbs	9000	13200	8600	13800

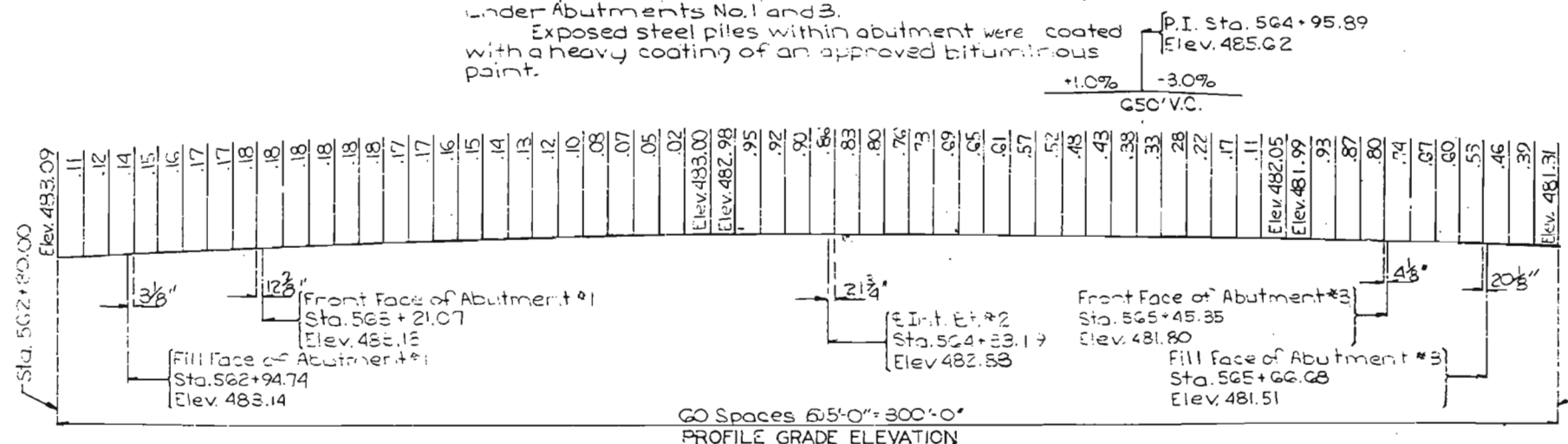
Note: Minimum energy requirement of hammer based on plan length and design bearing value of piles.  
All piles were driven to practical refusal.



Note: In no case was the earth within abutments No. 1 and 3 be above the Ground Line shown. Forms supporting abutment slab were left in place.

The maximum variation of the head of the pile and the battered face of the pile from the position shown on the plans was not more than 2" inches for pile under Abutments No. 1 and 3.

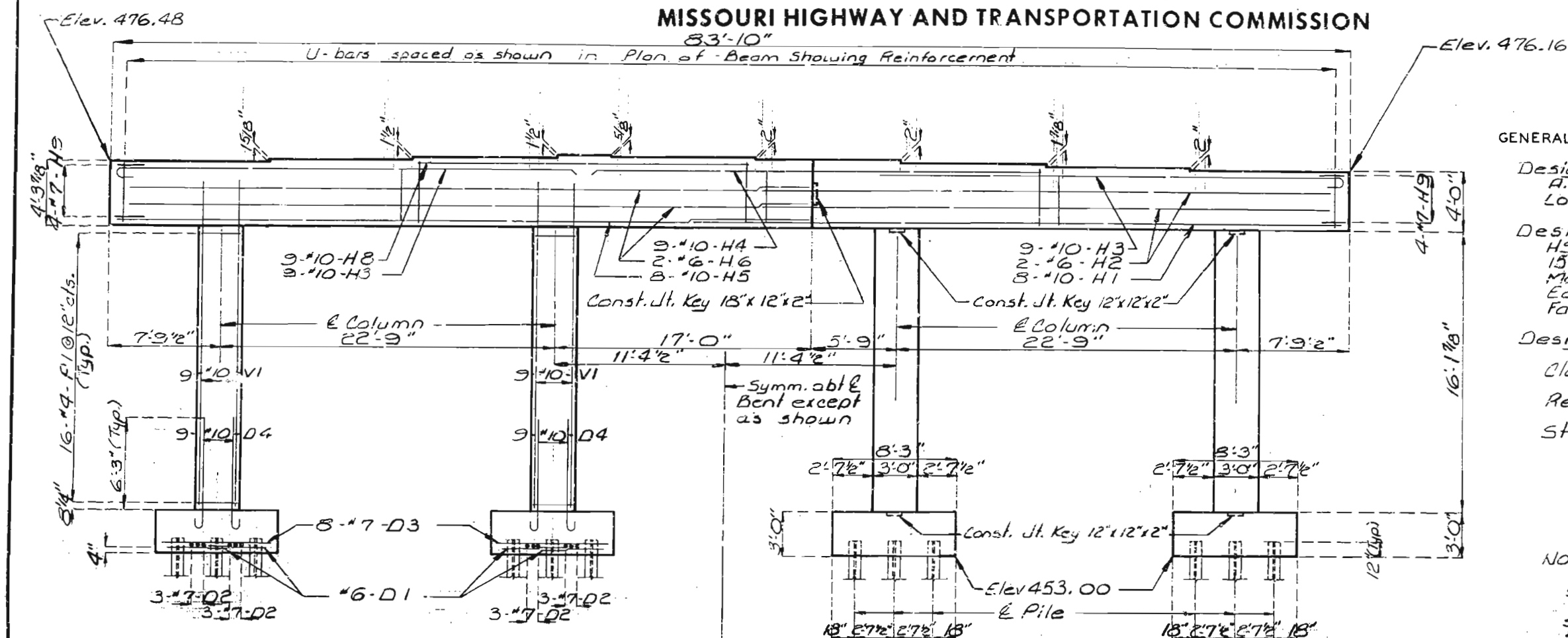
Exposed steel piles within abutment were coated with a heavy coating of an approved bituminous paint.



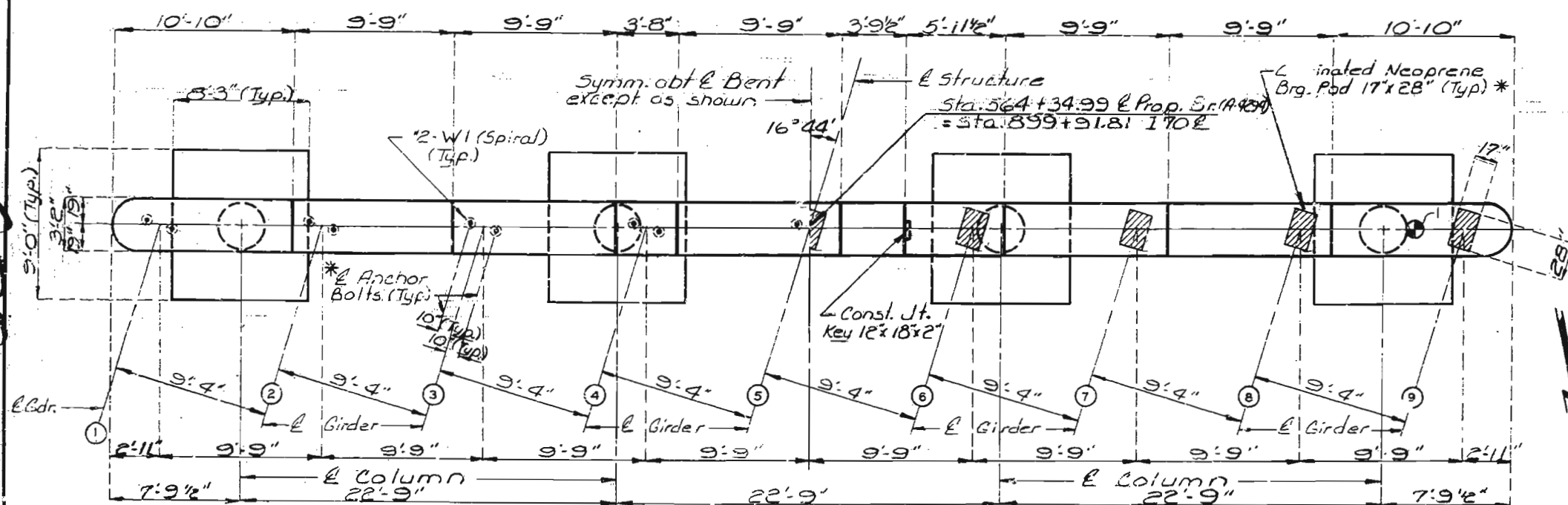
70 5/16

# MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MO.		8	60	
SEC./SUR. 731 TWP. 47N RGE. 3E					



ELEVATION OF INT. BENT NO. 2



PLAN OF INT. BENT NO. 2

## GENERAL NOTES:

Design Specifications:  
A.A.S.H.T.O. - 1977 and Interims thru 1982  
Load Factor Design Substructure

Design Loading:  
HS20-44  
15'14" ft. Future Wearing Surface  
Modified 24,000 lb. Tandem Axle  
Earth 120 lb/cu.ft. Equivalent Fluid Pressure 30 lb/cu.ft.  
Fatigue Stress - Case II

## Design Unit Stresses:

Class B Concrete (Substructure)  
 $f'_c = 3,000$  psi  
Reinforcing Steel (Grade 60)  
 $f_y = 60,000$  psi  
Steel Pile -  $f_b = 9,000$  psi

Note:  
Minimum clearance to reinforcing steel shall be 1 1/2" unless otherwise shown.  
All reinforcing bars in tops of substructure beams or caps shall be spaced to clear anchor bolts for bearings by at least 1/2".  
For Boring Data see sheet No. 2  
⊙ Indicates location of Boring.

\* Laminated Neoprene Brg. Pads and Anchor Bolts shall be included in Future Contract.

PILE AND FOOTING DATA	
Pile Type and size	HP10x42
Number	32
Approximate length	ft. 55
Design Bearing	tons 52
Hammer Energy Required	ft. lbs 12205

Note: Minimum energy requirement of hammer based on plan length and design bearing value of piles.  
All pile shall be driven to practical refusal

BM #11 - Elev. 452.01 Chiseled "B" on conc. Headwall  
48' N. of N. edge of W.B.L. pvt. I-70, 480' Rt of Sta. 564+80 Const. & Rte 79.

## BRIDGE: ROUTE 79 UNDERPASS

STATE ROAD FROM O'FALLON TO ST. PETERS

ABOUT 2.8 MILES EAST OF RTE. M

PROJECT NO.

STA. 895 - 91.81

JOB NO. 6-1070-474

RTE. I-70

ST. CHARLES

COUNTY

DATE 5/1/84

STD.
STD. 706.35
A-4294

DESIGNED NOV. 1983  
DETAILS JAN. 1984  
CHECKED Feb. 1984

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 2





Elev. 457.6  
 → Brown silty clay, stiff  
 Elev. 438.6  
 → Gray silty clay, medium  
 Elev. 422.6  
 → Gray silty clay with heavy gravel  
 Elev. 404.4  
 → Light gray, medium grain limestone with some chert nodules and layers.  
 Elev. 393.4  
 53.2-54.2' (cut with rock bit)

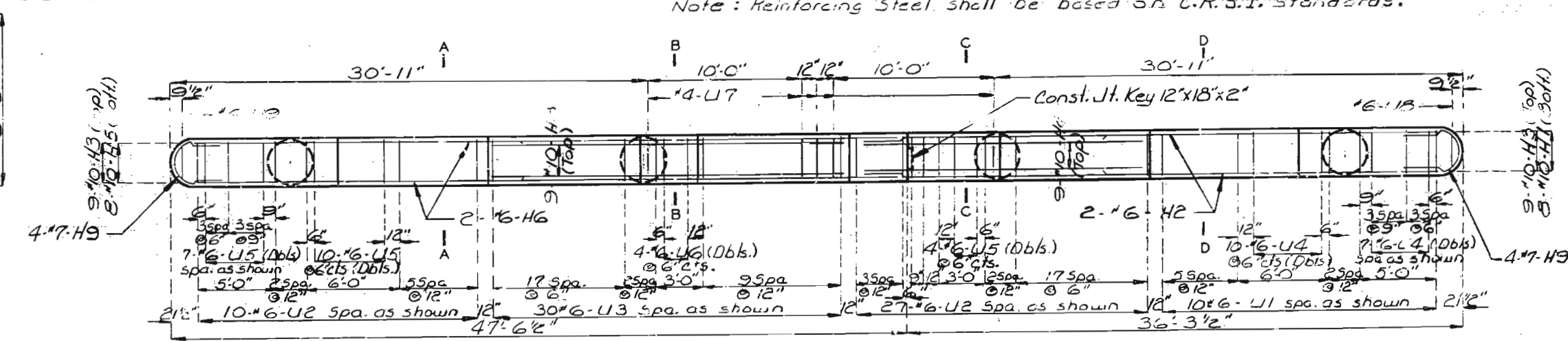
BORING DATA

ESTIMATED QUANTITIES		
ITEM		TOTAL
Class 1 Excavation	Cu. Yd.	95
Structural Steel Piles (10 in)	Lin Ft.	1760
Class B Concrete	Cu. Yd.	92.7
Reinforcing Steel	Lb.	18150

Diagrams of 12 additional shapes for the wire model:

- SHAPE 22:** A complex shape with a circular top, a central rectangular section with a cross-hatched pattern, and a triangular base. Dimensions include "3" p/dch", "15", "1 1/2", and "10 mm". A note "3 spot weld 1/2" bars (typ)" is present.
- SHAPE 10:** A simple rectangle with dimensions D and C.
- SHAPE 7:** A U-shaped piece with dimensions 3 1/16", 2 9/16", and 2 1/2".
- SHAPE 13:** A simple rectangle with dimensions D and C.
- SHAPE 17:** A rectangular piece with a circular feature on top. Dimensions include 17, 2 3/4", and 10-bar.
- SHAPE 20:** A simple rectangle with dimension B.

Note: Reinforcing Steel shall be based on C.R.S.I. standards.

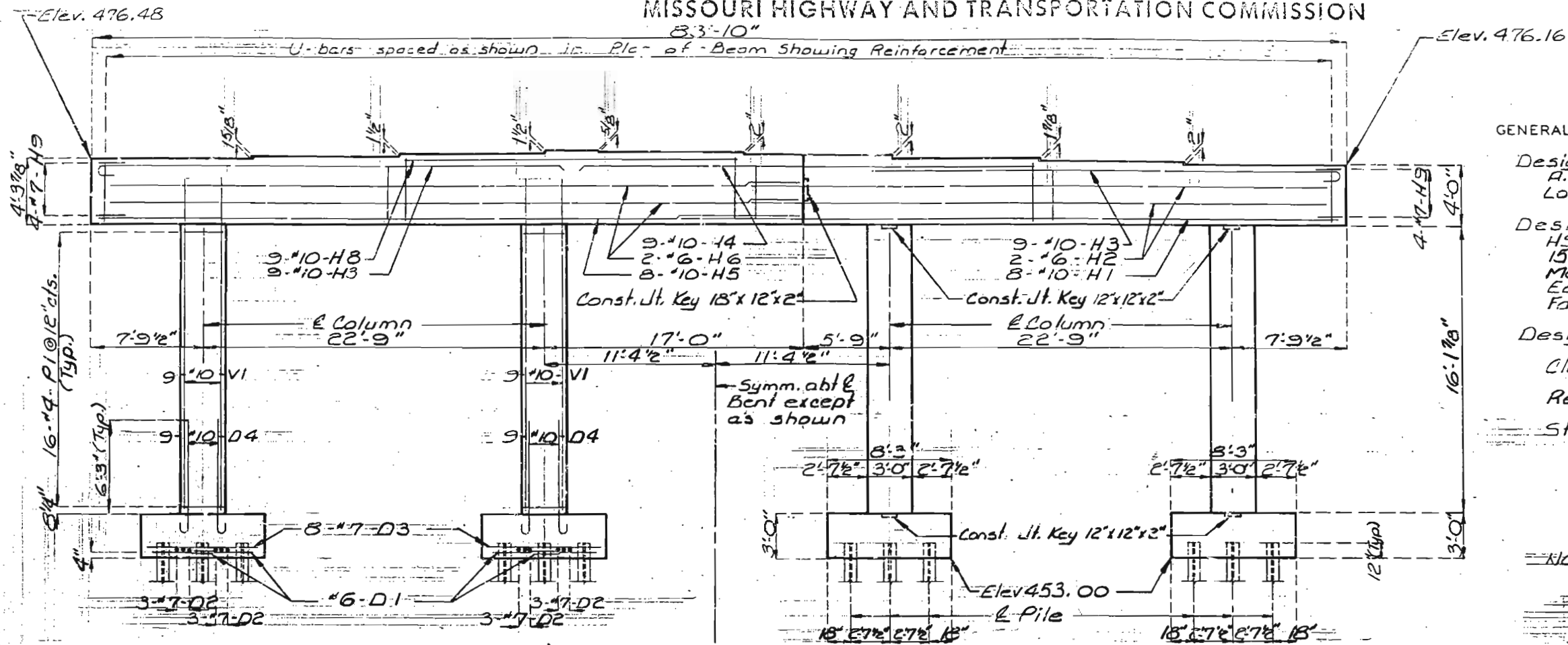


DETAILS OF INT. BENT NO. 2

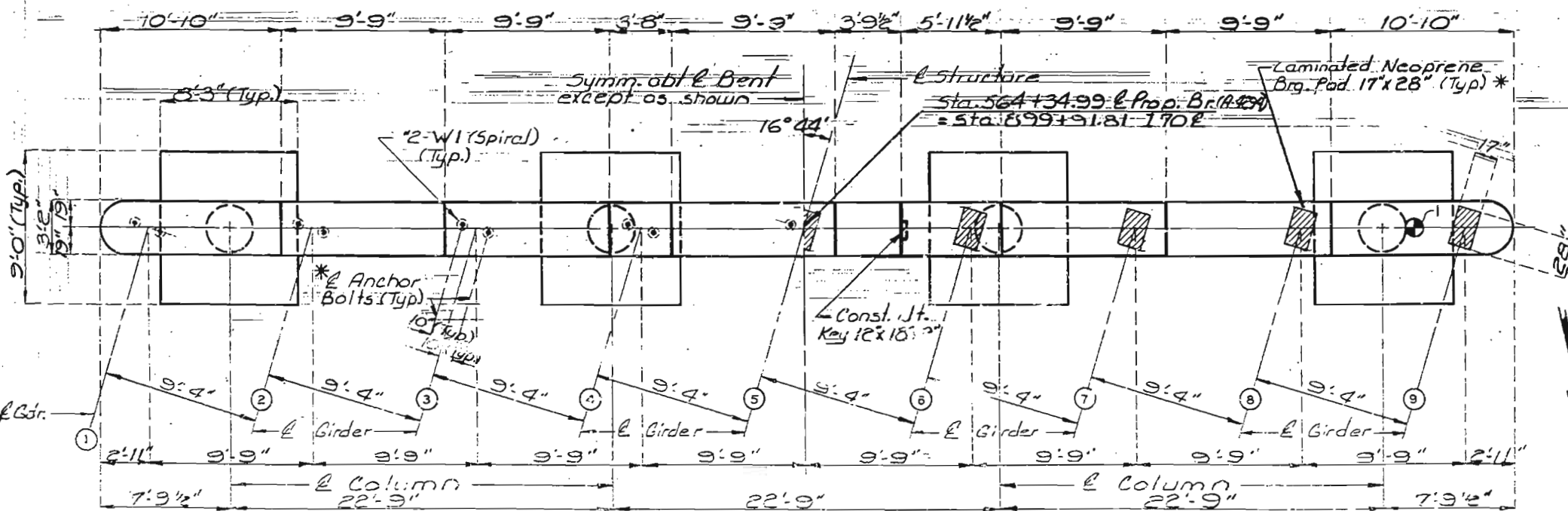
105-6

# MISSOURI HIGHWAY AND TRANSPORTATION COMMISSION

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
1	MO.		1984	60	
SEC./BLK.	731	TWP.	47N	RGE.	3E



ELEVATION OF INT. BENT NO. 2



PLAN OF INT. BENT NO. 2

FINAL PLANS

## GENERAL NOTES :

Design Specifications:  
A.A.S.H.T.O. - 1977 and Interims thru 1982  
Load Factor Design Substructure

Design Loading :  
H20-44  
15'13.94 ft. Future Wearing Surface  
Modified 24,000 lb. Tandem Axle  
Earth 120 lb/cu ft. Equivalent Fluid Pressure 30 lb/cu ft.  
Fatigue Stress - Case II

Design Unit Stresses :  
Class B Concrete (Substructure)  $f'_c = 3,000$  psi  
Reinforcing Steel (Grade 60)  $f_y = 60,000$  psi  
Steel Pile  $f_b = 9,000$  psi

Note:  
Minimum clearance to reinforcing steel was 1" unless otherwise shown.  
All reinforcing bars in tops of substructure beams or caps was spaced to clear anchor bolts for bearings by at least 1/2".  
For Boring Data, see sheet No. 2  
● Indicates location of Boring.

\* Laminated Neoprene Brq. Pads and Anchor Bolts were included in Future Contract.

PILE AND FOOTING DATA	
Pile Type and size	HP10x42
Number	32
Approximate length	55'
Design Bearing	tons 52
Hammer Energy Required - ft. lbs	12200

Note: Minimum energy requirement of hammer based on plan length and design bearing value of piles.  
All piles were driven to practical refusal

R.M. #11 - Elev. 452.01 - Chiseled "S" on conc. Headwall  
48" N. of N. edge of W.B.L. pvt. I-70, 480' Rt of Sta. 564+80 Const. & Rte 79.

## BRIDGE : ROUTE 79 UNDERPASS

STATE ROAD FROM O'FALLON TO ST. PETERS

ABOUT 2.6 MILES EAST OF RTE. M

PROJECT NO. IR-70-4(76) STA. 899 + 91.81

JOB NO. 6-1070-474

ST. CHARLES

RTE. I-70

COUNTY

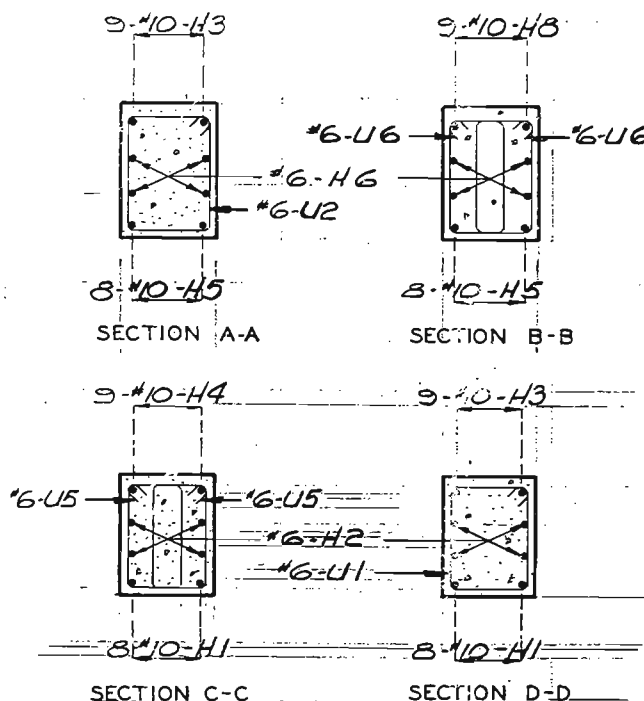
DATE 5/1/84

STD. 706.35  
A-4294

DESIGNED NOV. 1983  
REVIEWED JAN. 1984  
CHECKED FEB. 1984

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 1 of 2

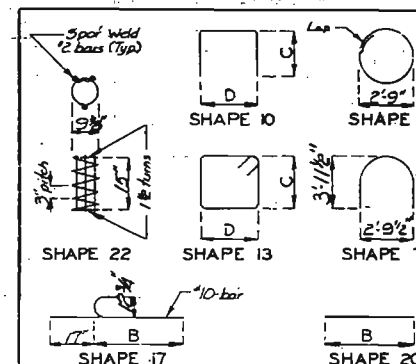


5'	3/4/4	1.75	
10'	4/6/9	2.25	→ Brown silty clay, stiff
15'	5/6/12	3.0	
20'	2/4/3	1.25	Elev. 438.6
25'	2/2/3	0.75	
30'	3/4/6	1.25	→ Gray silty clay, medium
35'	6/6/10		Elev. 422.6
40'	17/14/13		
45'	9/11/12		→ Gray silty clay with heavy gravel
50'	22/17/15		
			Elev. 404.4
			→ Light gray, medium grain limestone with some chert nodules and layers.
			Elev. 393.4
			(53.2-54.2' cut with rock bit)

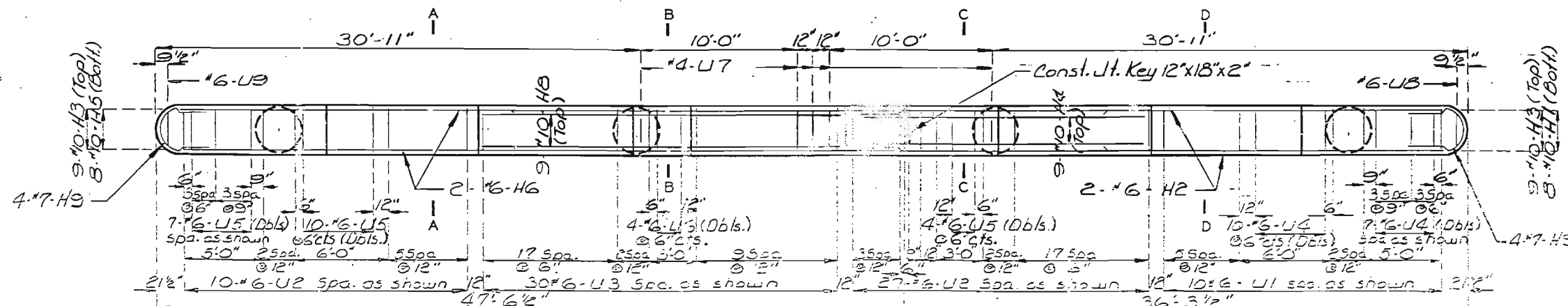
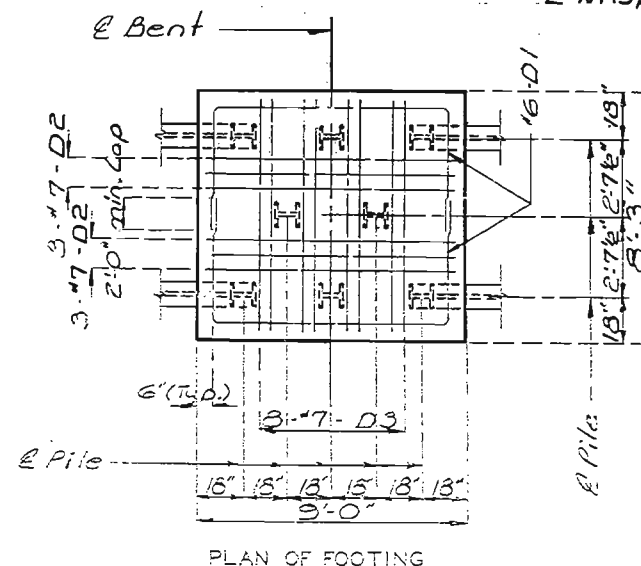
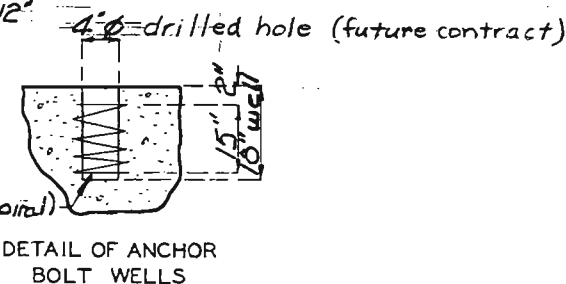
ITEM	TOTAL
Class I Excavation	Cu. Yd. 94
Structural Steel Piles (10 in)	Lin Ft. 1771
Class B Concrete	Cu. Yd. 92.7
Reinforcing Steel	Lb. 18150

NO.	SIZE & REQD MARK	LOCATION	SHAPE NO.	DIM. B or C		DIM. D	NOMINAL LENGTH		ACTUAL LENGTH		WEIGHT (Lbs)
				(ET) (IN)	(ET) (IN)		(IN)	(IN)	(IN)	(IN)	
		<b>Substructure</b>									
8	6-D1	Footing	10	4'-7 1/2"	8'-0"		17 3	18 11	20		
24	7-D2	Footing	20	8'-9"			8 9	8 9	42		
32	7-D3	Footing	20	8'-0"			8 0	8 0	52		
36	10-D4	Footing	17	7'-10"			9 3	9 3	143		
8	10-H1	Beam	20	45"			45 3	45 3	155		
4	6-H2	Beam	20	37'-1"			37 1	37 1	22		
18	10-H3	Beam	17	31'-8"			33 1	33 1	256		
9	10-H4	Beam	20	30'-7"			30 7	30 7	118		
8	10-H5	Beam	20	46'-2"			46 2	46 2	158		
4	6-H6	Beam	20	46'-2"			46 2	46 2	27		
9	10-H8	Beam	20	22'-11"			22 11	22 11	88		
8	7-H9	Beam	7				9 6	9 6	15		
64	4-P1	Column	16				9 6	9 6	40		
10	6-U1	Beam	13	3'-9"	2'-11"		15 4	14 10	22		
37	6-U2	Beam	13	4'-0 1/2"	2'-11"		16 0	15 6	86		
30	6-U3	Beam	13	4'-4 1/4"	2'-11"		16 8	16 2	72		
34	6-U4	Beam	13	3'-9"	2'-0"		13 6	13 0	66		
42	6-U5	Beam	13	4'-0 1/2"	2'-0"		14 2	13 8	80		
8	6-U6	Beam	13	4'-4 1/4"	2'-0"		14 10	14 4	17		
5	4-U7	Beam	10	6"	2'-11"		3 11	3 9	1		
7	6-U8	Beam	13	3'-9"	2'-6"		14 6	14 0	2		
1	6-U9	Beam	13	4'-0 1/2"	2'-6"		15 2	14 0	2		
36	10-V1	Column	20	19'-11"			19 11	19 11	308		
78	2-W1	Beam	22				23 0	23 0	6		

Note: Reinforcing Steel was based on C.R.S.I. standards.



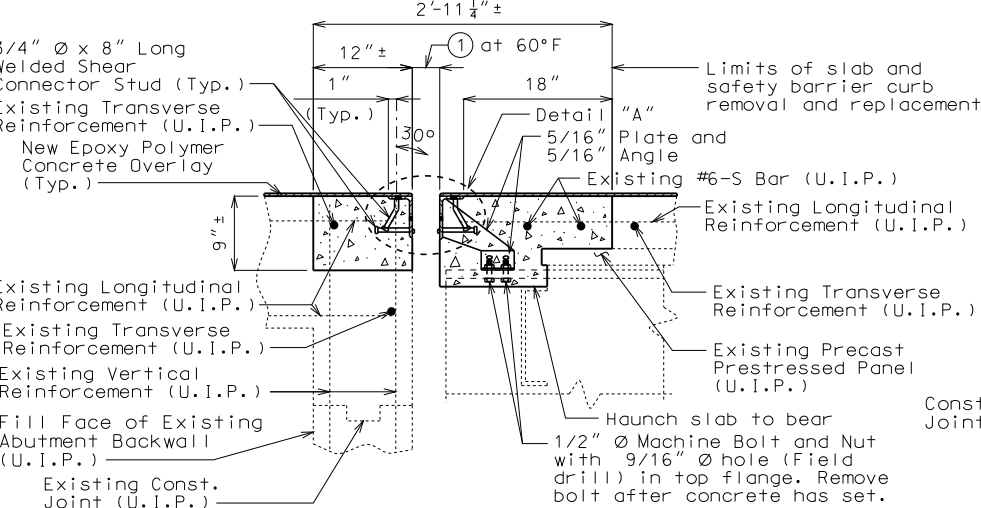
BORING DATA  
Note: For location of boring see sheet No. 1



2010-01-01

DETAILS OF INT. BENT NO. 2

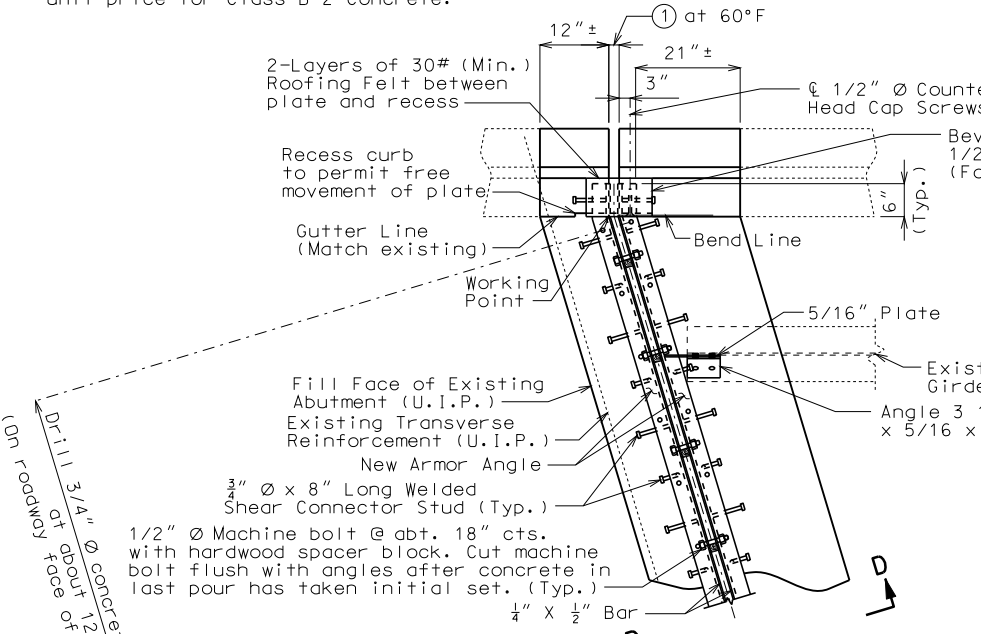




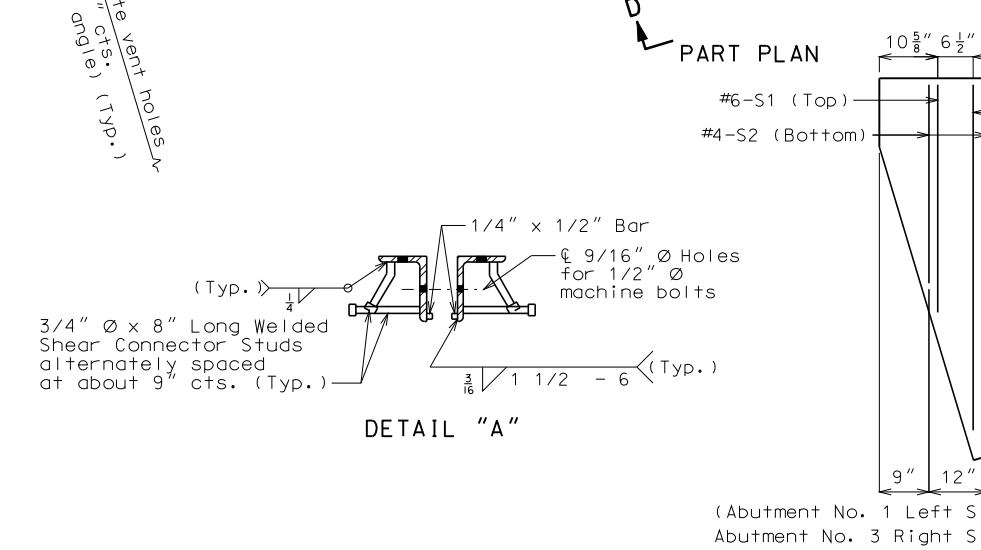
PART SECTION D-D

NOTES:  
Reinforcing steel in slab shall be considered completely covered by the contract unit price for Reinforcing Steel (Bridges).

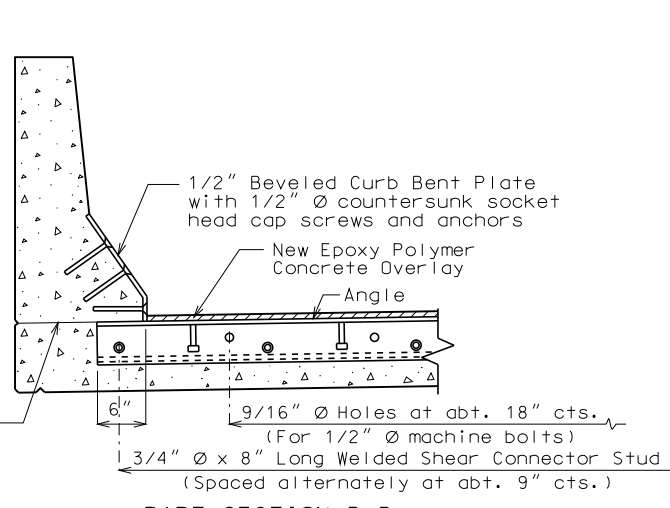
Concrete in slab shall be considered completely covered by the contract unit price for Class B-2 Concrete.



PART PLAN

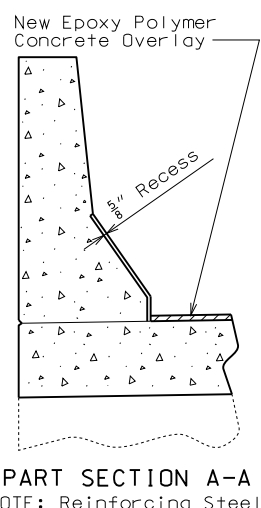


DETAIL "A"



PART SECTION B-B

NOTE: Reinforcing Steel not shown for clarity.



PART SECTION A-A

NOTE: Reinforcing Steel not shown for clarity.

GENERAL NOTES:

Expansion joint system shall be fabricated in one section, except for stage construction and when the length is over 50 feet. A complete joint penetration groove welded splice shall be required. Welds shall be ground flush to provide a smooth surface. The expansion joint system shall be fabricated and installed to the crown and grade of the roadway.

Plan dimensions are based on installation at 60°F. The expansion gap and other dimension shall be increased or decreased 1/8" for each 10° fall or rise in temperature at installation.

Structural steel for the expansion joint system shall be ASTM A709 Grade 36. Anchors for the expansion joint system shall be in accordance with Sec 1037. Preformed compression seal expansion joint system shall be in accordance with Sec 717.

Structural steel for the expansion joint system and curb plate shall be coated with a minimum of two coats of inorganic zinc primer (5 mils minimum) or galvanized in accordance with ASTM A123. Anchors need not be protected from overspray.

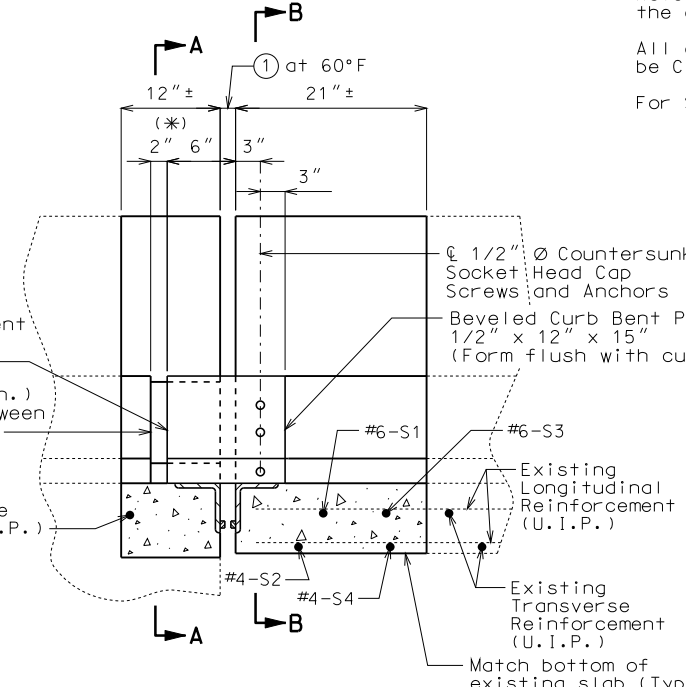
Concrete shall be forced under armor angle and around anchors. Proper consolidation of the concrete shall be achieved by localized internal vibration.

Existing longitudinal reinforcing steel shall be cut (if necessary) so that ends shall not be more than 1" from vertical leg of angle at the expansion joint system.

Curb plate anchors shall be a drilled cone expansion or a cast-in-place wing type threaded insert. The minimum ultimate pullout capacity for these anchors shall be 2700 lbs in f'c = 4000 psi concrete. Lead anchors will not be permitted. Holes in the barrier curb for anchors shall not be drilled until the concrete is at least 7 days old.

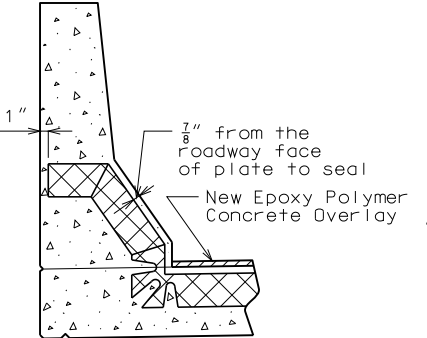
All concrete above the upper construction joint in backwall shall be Class B-2.

For Safety Barrier Curb reinforcement, see Sheet No. 3.

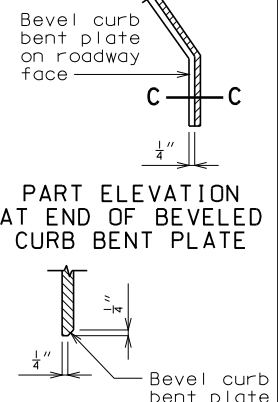


PART ELEVATION OF BARRIER CURB

NOTE: Epoxy polymer concrete overlay not shown for clarity.



PART SECTION THRU JOINT SEAL



SECTION C-C

TABLE OF TRANSVERSE BRIDGE SEAL DIMENSIONS			
Seal (Width)	①	②	Required Movement Range
3.5"	2 1/4"	Manufacturer's Recommended Height	1.3"

Notes:  
Depth of seal shall not be less than width of seal.

Size of armor angle: Vertical leg of angle shall be a minimum of ② + 3/4". Horizontal leg of angle shall be a minimum of 3". Minimum thickness of angle shall be 1/2".

If a seal size larger than that indicated on the plans is used, the movement range, the opening at 60°F and all dimensions for the armor angles shall be shown on the shop drawings.

Payment for furnishing, coating or galvanizing and installing the structural steel for the expansion joint will be considered completely covered by the contract unit price for Preformed Compression Seal Expansion Joint System.

STATE OF MISSOURI  
KENNETH ALLAN SHAMET  
NUMBER  
PE-2002016735  
PROFESSIONAL ENGINEER

THIS SHEET HAS BEEN  
SIGNED, SEALED AND DATED  
ELECTRONICALLY.

DATE PREPARED  
9/17/2009

ROUTE  
1-70

STATE  
MO

DISTRICT  
BR

SHEET NO.  
2

COUNTY  
ST. CHARLES

JOB NO.  
J611886

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
A42941

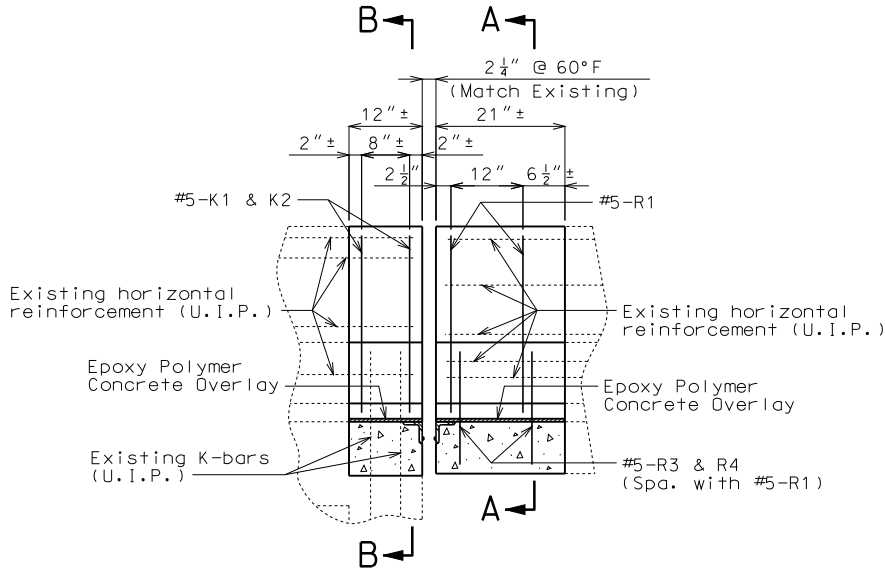
DESCRIPTION

DATE

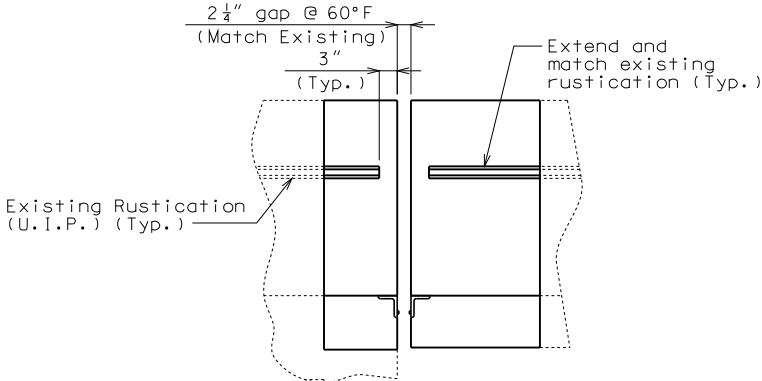
MISSOURI HIGHWAYS AND TRANSPORTATION  
COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

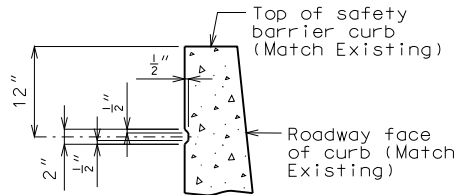




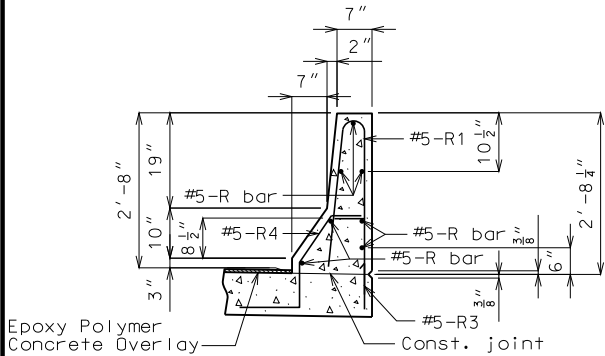
PART SECTION SHOWING PARTIAL SAFETY BARRIER CURB REPLACEMENT  
(Abutment No. 1 shown, Abutment No. 3 similar)



PART ELEVATION SHOWING PARTIAL SAFETY BARRIER CURB REPLACEMENT  
(Abutment No. 1 shown, Abutment No. 3 similar)

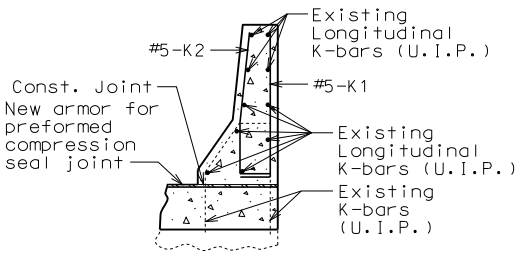


PART SECTION SHOWING RUSTICATION DETAILS

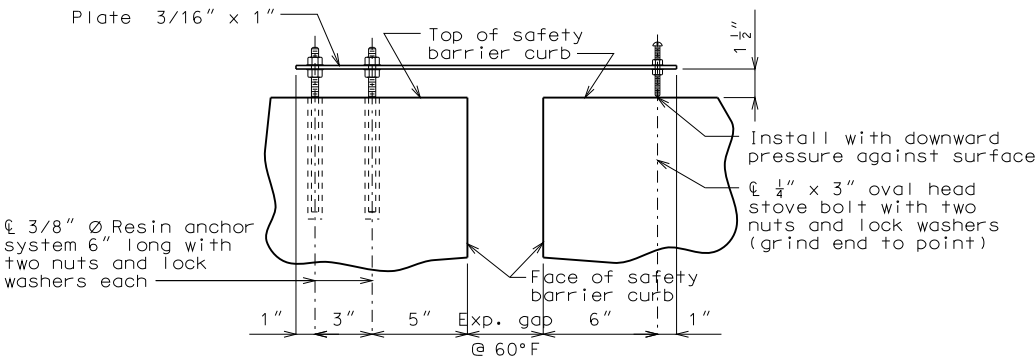


PART SECTION A-A

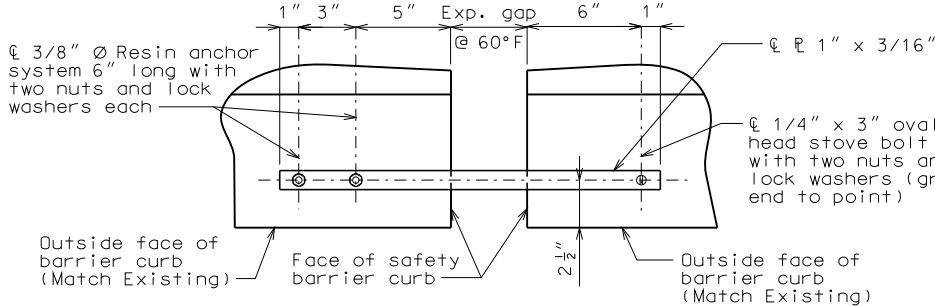
Note:  
The cross-sectional area above the slab = 2.28 sq. ft.



PART SECTION B-B



PART ELEVATION OF BARRIER CURB SHOWING MOVEMENT GAUGE



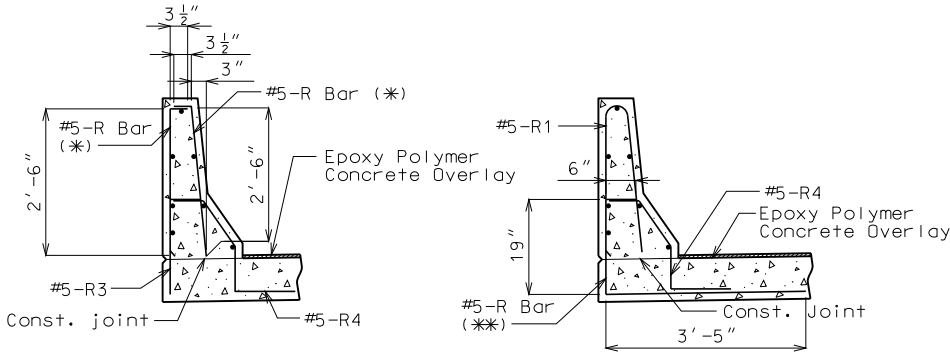
PART PLAN OF BARRIER CURB SHOWING MOVEMENT GAUGE

Notes:

A movement gauge shall be provided on one side of bridge at all safety barrier curb expansion joints.

All steel shall be galvanized.

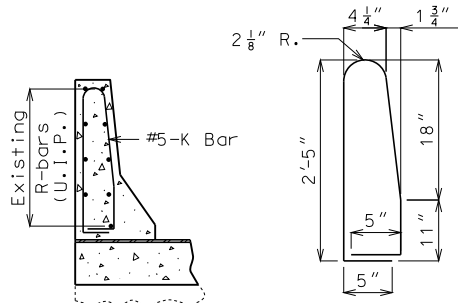
Cost of movement gauge, complete-in-place, will be considered completely covered by the contract unit price for Safety Barrier Curb.



R-BAR PERMISSIBLE ALTERNATE SHAPE

(\*) The R1 bar may be separated into two bars as shown, at the contractor's option, only when slip forming is not used. (All dimensions are out to out.)

(\*\*) The R3 bar and #4 bottom transverse slab bar in cantilever combination may be furnished as one bar as shown, at the contractor's option.



(Existing K-bars not shown for clarity)

K1-K2 BAR PERMISSIBLE ALTERNATE SHAPE (\*\*\*)

(\*\*\*) The K1 and K2 bar combination may be furnished as one bar as shown, at the contractor's option.

Notes:  
Top of safety barrier curb shall be built parallel to grade.

All exposed edges of safety barrier curb shall have either a 1/2" radius or a 1/8" bevel, unless otherwise noted.

Payment for all concrete and reinforcement, complete-in-place, will be considered completely covered by the contract unit price for safety barrier curb per linear foot.

Concrete in the safety barrier curb shall be Class B-1.

Measurement of safety barrier curb is to the nearest linear foot for each structure, measured along the outside top of slab.

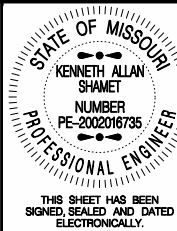
The curb shall be cured by application of Type 1-D or Type 2 Liquid Membrane-Forming Compound in accordance with Sec 1055. Surface sealing for concrete in accordance with Sec 703 is not required. Application of linseed oil at the contractor's expense is permitted.

## DETAILS OF SAFETY BARRIER CURB REPLACEMENT

Detailed June 2009  
Checked Aug. 2009

Note: This drawing is not to scale. Follow dimensions.

Sheet No. 3 of 5



DATE PREPARED  
9/17/2009

ROUTE  
I-70

DISTRICT  
BR

COUNTY  
ST. CHARLES

JOB NO.  
J611886

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
A42941

DESCRIPTION

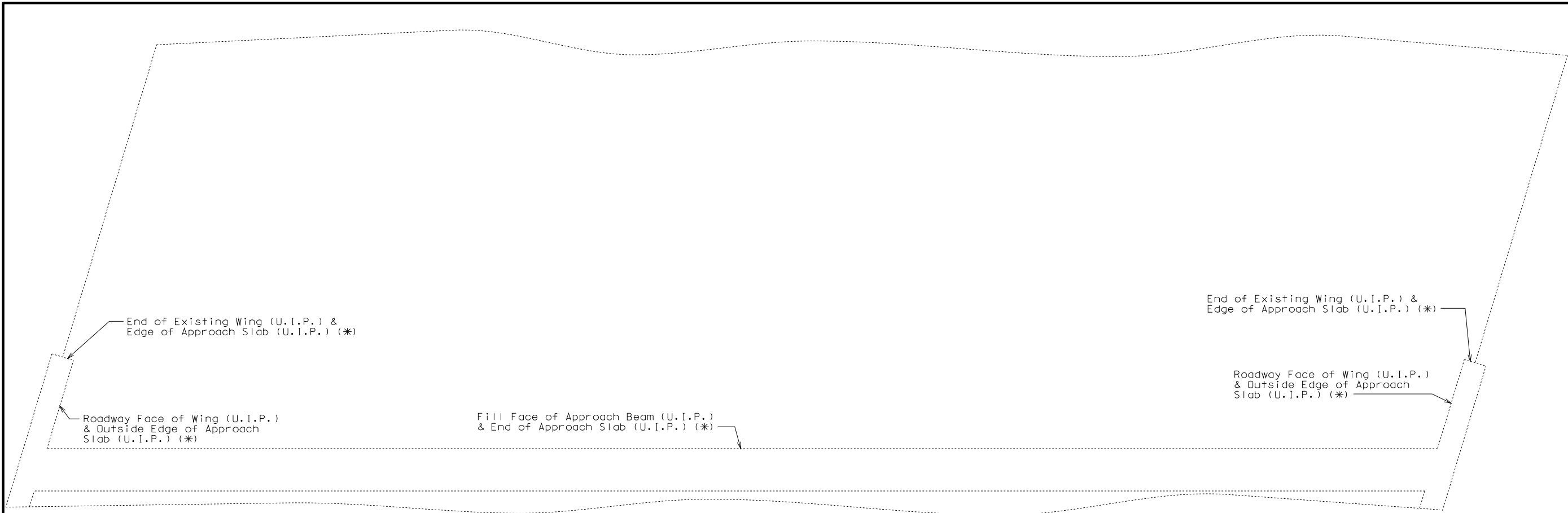
DATE

MISSOURI HIGHWAYS AND TRANSPORTATION COMMISSION

105 WEST CAPITOL  
JEFFERSON CITY, MO 65102  
1-888-ASK-MODOT (1-888-275-6636)

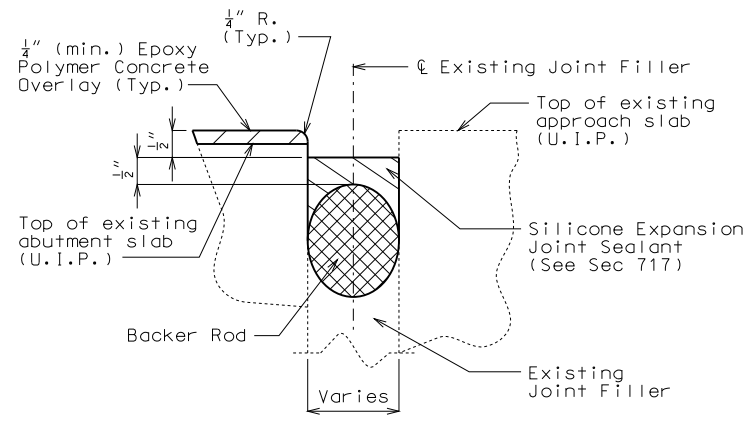
MoDOT

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.

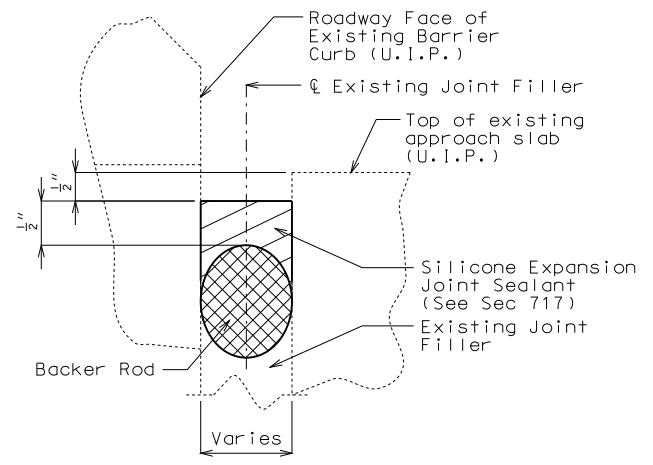


PART PLAN SHOWING EXISTING ABUTMENT AND APPROACH PAVEMENT

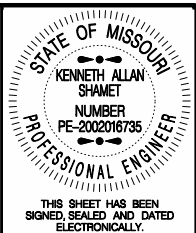
Note:  
 (\*) Seal joints between vertical faces at both abutments.  
 Payment for furnishing and installing joint sealer or sealant will be considered completely covered by the contract unit price for Silicone Expansion Joint Sealant.



SECTION THRU JOINT BETWEEN ABUTMENT  
 APPROACH BEAM AND APPROACH SLAB



SECTION THRU JOINT BETWEEN  
 WING AND APPROACH SLAB



THIS SHEET HAS BEEN  
 SIGNED, SEALED AND DATED  
 ELECTRONICALLY.

DATE PREPARED  
 9/17/2009

ROUTE I-70	STATE MO
DISTRICT BR	SHEET NO. 4

COUNTY  
 ST. CHARLES

JOB NO.  
 J611886

CONTRACT ID.

PROJECT NO.

BRIDGE NO.  
 A42941

DESCRIPTION	DATE

MISSOURI HIGHWAYS AND TRANSPORTATION  
 COMMISSION

105 WEST CAPITOL  
 JEFFERSON CITY, MO 65102  
 1-888-ASK-MODOT (1-888-275-6636)

IF A SEAL IS PRESENT ON THIS SHEET IT HAS BEEN ELECTRONICALLY SEALED AND DATED.



