

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
JOB NO. 100133							15	80

3162, 3163, 3166 ARK. QUANTITIES 27765

SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME/PLATE TITLE	ITEM NO.	UNIT OF STRUCTURE	801	SP 802	SP 802	803	804	SP 805	SP 805	SP 807	SP 807	SP 807	SP 809	812	816
			ITEM		COMMON EXCAVATION FOR STRUCTURES-BRIDGE	CLASS 5 CONCRETE	CLASS 5(AE) CONCRETE	BOILED LINSFED OIL	REINFORCING STEEL (GRADE 60)	PRECAST CONCRETE PILING (16" OCT. OR 14" SQ.)	TEST PILES (16" OCT. OR 14" SQ.)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A 572-50)	STRUCTURAL STEEL IN PLATE GIRDER SPANS (A 36)	STRUCTURAL STEEL IN BEAM SPANS (A 572-50)	PREFORMED JOINT SEALER	BRIDGE NAME PLATES (TYPE C)	CONCRETE RIPRAP
					CUBIC YARD	CUBIC YARD	CUBIC YARD	GALLON	POUND	LINEAR FT.	LINEAR FT.	POUNDS	POUNDS	POUNDS	LINEAR FT.	EACH	CUBIC YD.
3162 AR	X271	H.W.Y. 61 OVERPASS	END BENT NOS. 1 & 4		10	38.05		0.4	3201	200			1536			1	190
			INT. BENT NOS. 2 & 3		43	33.45			4157	315	40						
			2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS				174.65	15.7	19542				33058		108.0		
			1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN				97.25	8.4	10730			3570	15446				
			TOTAL BRIDGE NO. 3162 AR		53	71.50	271.90	23.8	37630	515	40	3570	50040		108.0	1	190
3162 BR	X271	H.W.Y. 61 OVERPASS	END BENT NOS. 1 & 4		70	38.05		0.4	3201	150	55		1536			1	190
			INT. BENT NOS. 2 & 3		43	33.45			4157	350							
			2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS				174.65	15.0	19542				33058		108.0		
			1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN				97.25	8.4	10730			3570	15446				
			TOTAL BRIDGE NO. 3162 BR		53	71.50	271.90	23.8	37630	500	55	3570	50040		108.0	1	190
3163 AR	X171	BURLINGTON NORTHERN RR OVERPASS	END BENT NOS. 1 & 15		6	22.90		0.3	2074	65	70		1204			1	
			INT. BENT NOS. 2-7 AND 10-14		149	152.50			21751	1890	100						
			INT. BENT NOS. 8 & 9		43	75.10			4963	675	50						
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS				160.24	14.2	15244				29180	128.6			
			9-67'-6" COMPOSITE W-BEAM SPANS				718.77	63.9	68597				131067	385.6			
			1-51'-7 3/8" COMPOSITE W-BEAM SPAN				61.77	5.4	6670				9610	48.6			
			1-53'-3 3/8" COMPOSITE W-BEAM SPAN				63.83	5.6	6864				14233	48.6			
			1-35'-6 1/2" R.C. SLAB SPAN				101.09	3.7	15447				1546	54.6			
			TOTAL BRIDGE NO. 3163 AR		198	250.50	1105.70	93.1	141610	2630	220			186840	666.0	1	
			END BENT NOS. 1 & 15		6	22.90		0.3	2074	130				1204		1	
3163 BR	X171	BURLINGTON NORTHERN RR OVERPASS	INT. BENT NOS. 2-6 AND 9-14		149	153.20			21886	1980							
			INT. BENT NOS. 7 & 8		43	75.10			4963	720							
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS				160.24	14.2	15244				29180	128.6			
			9-67'-6" COMPOSITE W-BEAM SPANS				718.77	63.9	68597				131067	385.6			
			1-53'-3 3/8" COMPOSITE W-BEAM SPAN				63.83	5.6	6864				14233	48.6			
			1-51'-7 3/8" COMPOSITE W-BEAM SPAN				61.77	5.4	6675				9610	48.6			
			1-35'-6 1/2" R.C. SLAB SPAN				101.09	3.7	15447				1546	54.6			
			TOTAL BRIDGE NO. 3163 BR		198	251.20	1105.70	93.1	141750	2830				186840	666.0	1	
			END BENT NOS. 1 & 16		6	22.90		0.3	2074	60	65			1204		1	
			INT. BENT NOS. 2-7 & 10-15		162	159.06			22466	1840	90						
3166 AR	X171	BURLINGTON NORTHERN RR OVERPASS	INT. BENT NOS. 8 & 9		42	53.94			4638	360	45						
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS				160.24	14.2	15244				29180	128.6			
			10-67'-6" COMPOSITE W-BEAM SPANS				798.83	70.8	76219				145629	428.7			
			2-67'-6 1/2" COMPOSITE W-BEAM SPANS				159.85	14.2	15244				29125	85.8			
			1-36'-5 3/8" R.C. SLAB SPAN				103.28	3.8	15275				1202	42.9			
			TOTAL BRIDGE NO. 3166 AR		210	235.90	1222.20	103.3	151160	2260	200			206340	686.0	1	
			END BENT NOS. 1 & 16		6	22.90		0.3	2074	120				1204		1	
			INT. BENT NOS. 2-7 & 10-15		162	159.06			22466	1920							
			INT. BENT NOS. 8 & 9		42	53.94			4638	400							
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS				160.24	14.2	15244				29180	128.6			
3166 BR	X171	BURLINGTON NORTHERN RR OVERPASS	10-67'-6" COMPOSITE W-BEAM SPANS				798.83	70.8	76219				145629	428.7			
			2-67'-6 1/2" COMPOSITE W-BEAM SPANS				159.85	14.2	15244				29125	85.8			
			1-36'-5 3/8" R.C. SLAB SPAN				103.28	3.8	15275				1202	42.9			
			TOTAL BRIDGE NO. 3166 BR		210	235.90	1222.20	103.3	151160	2440				206340	686.0	1	
			END BENT NOS. 1 & 16		6	22.90		0.3	2074	120				1204		1	
			INT. BENT NOS. 2-7 & 10-15		162	159.06			22466	1920							
			INT. BENT NOS. 8 & 9		42	53.94			4638	400							
			2-67'-8 1/2" COMPOSITE W-BEAM SPANS				160.24	14.2	15244				29180	128.6			
			10-67'-6" COMPOSITE W-BEAM SPANS				798.83	70.8	76219				145629	428.7			
			2-67'-6 1/2" COMPOSITE W-BEAM SPANS				159.85	14.2	15244				29125	85.8			
TOTALS FOR JOB NO 100133					922	1116.50	5199.60	440.40	660,940	11175	515	7140	100080	786,360	2920.1	6	380

* Includes SP 802-5

GARY ASHLEY
DESIGN SECTION SUPERVISOR

SHEET 1 OF 2
SCHEDULE OF
BRIDGE QUANTITIES
I-55 STRUCTURES RENOVATION
(BLYTHEVILLE)
MISSISSIPPI COUNTY
ROUTE I-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: *EAK* DATE: 8-16-85
CHECKED BY: *GVA* DATE: 10-22-85
DESIGNED BY: *David J. ...* DATE: *...* SCALE: NONE
BRIDGE NO. 3162, 3163, 8
3166 AR 8 BR
DRAWING NO. 27765

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO. 3162, 3163, 3166 AR & BR		100133	16	80

SCHEDULE OF BRIDGE QUANTITIES

BRIDGE NO.	CODE NO.	NAME	DATE TITLE	ITEM NO.		EPOXY COATED REINFORCING STEEL (GRADE 60)	PAINTING EXISTING STRUCTURAL STEEL (TYPE II.)	REPLACING EXISTING ANCHOR BOLTS	REPLACING EXISTING MASONRY PLATES	REMODELING EXISTING BRIDGE STRUCTURES	CLOSED CELL FOAMED JOINT FILLER	CONCRETE DECK SALVAGE FOR RIPRAP									
				UNIT OF STRUCTURE	UNIT														SP 4 804	SP JOB 100133	SP JOB 100133
						POUND	TON	EACH	EACH	LUMP SUM	LINEAR FT.	SQ. YD.									
3162 AR	X271	Hwy 61 OVERPASS		END BENT NOS. 1 & 4				7	10												
				INT. BENT NOS. 2 & 3																	
				2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS		20660						54.0									
				1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN		9480						54.0									
				TOTAL BRIDGE NO. 3162 AR		30140	90	7	10	0.05	108.0										
3162 BR	X271	Hwy 61 OVERPASS		END BENT NOS. 1 & 4				14	10												
				INT. BENT NOS. 2 & 3																	
				2-71'-8 1/2" PLATE GIRDER CANTILEVER SPANS		20656						54.0									
				1-79'-11 1/2" PLATE GIRDER SUSPENDED SPAN		9480						54.0									
				TOTAL BRIDGE NO. 3162 BR		30140	90	14	10	0.05	108.0										
3163 AR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 15				4	10			1100									
				INT. BENT NOS. 2-7 AND 10-14				5													
				INT. BENT NOS. 8 & 9																	
				2-67'-8 1/2" COMPOSITE W-BEAM SPANS		15113															
				9-67'-6" COMPOSITE W-BEAM SPANS		68013															
				1-51'-7 3/8" COMPOSITE W-BEAM SPANS		6116															
				1-53'-3 3/8" COMPOSITE W-BEAM SPANS		6282															
				1-35'-6 1/2" R.C. SLAB SPAN		1836															
				TOTAL BRIDGE NO. 3163 AR		97360	390	14	10	0.21		1100									
3163 BR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 15				4	10			1100									
				INT. BENT NOS. 2-6 AND 9-14				3													
				INT. BENT NOS. 7 & 8				1													
				2-67'-8 1/2" COMPOSITE W-BEAM SPANS		15113															
				9-67'-6" COMPOSITE W-BEAM SPANS		68013															
				1-53'-3 3/8" COMPOSITE W-BEAM SPAN		6282															
				1-51'-7 3/8" COMPOSITE W-BEAM SPAN		6116															
				1-35'-6 1/2" R.C. SLAB SPANS		1836															
				TOTAL BRIDGE NO. 3163 BR		97360	390	8	10	0.21		1100									
3166 AR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 16				1	10			1100									
				INT. BENT NOS. 2-7 & 10-15				7													
				INT. BENT NOS. 8 & 9																	
				2-67'-8 1/2" COMPOSITE W-BEAM SPANS		15113															
				10-67'-6" COMPOSITE W-BEAM SPANS		75568															
				2-67'-6 7/8" COMPOSITE W-BEAM SPANS		15113															
				1-36'-5 3/8" R.C. SLAB SPAN		1646															
				TOTAL BRIDGE NO. 3166 AR		107440	440	8	10	0.24		1100									
				3166 BR	X171	BURLINGTON NORTHERN RR OVERPASS		END BENT NOS. 1 & 16				2	10			1100					
INT. BENT NOS. 2-7 & 10-15								7													
INT. BENT NOS. 8 & 9								1													
2-67'-8 1/2" COMPOSITE W-BEAM SPANS		15113																			
10-67'-6" COMPOSITE W-BEAM SPANS		75568																			
2-67'-6 7/8" COMPOSITE W-BEAM SPANS		15113																			
1-36'-5 3/8" R.C. SLAB SPAN		1646																			
TOTAL BRIDGE NO. 3166 BR		107440	440					10	10	0.24		1100									
TOTALS FOR JOB NO. 100133								469,880	1840	61	60	1.0	216.0	4400							

GARY ASHLEY
DESIGN SECTION SUPERVISOR

SHEET 2 OF 2
SCHEDULE OF
BRIDGE QUANTITIES
I-55 STRUCTURES RENOVATION
(BLYTHEVILLE)
MISSISSIPPI COUNTY
ROUTE I-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: EJK DATE: 8-19-85
CHECKED BY: GVA DATE: 12-22-85 SCALE: NONE
DESIGNED BY: DATE:
BRIDGE NO. 3162, 3163, 8 DRAWING NO. 27766
3166 AR & BR

David Pinkerton
BRIDGE ENGINEER

DATE RECEIVED	DATE FILMED	DATE REFILED	DATE PLACED	FED. ROAD NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	120133		21	80

① 3162 AR. BR. LAYOUT 27767

For R/W Data & Guard Rail - see
Rdwy. Plans

Note: Remove Existing Concrete
Riprap and replace with New
Concrete Riprap - see dwg.
no. 14995A.

Note: Remove existing concrete deck and replace with new class 5 (AE) concrete.

Note: Use Type III Bridge Approach Slab & Gutters at beg. & end of both bridges - see dwg. no. 27782.

GENERAL NOTES

BENCH MARK: ELEV. ARE BASED ON EXISTING PLAN ELEVATIONS.

THE PROPOSED WORK CONSISTS OF REMODELING AND WIDENING EXISTING BRIDGE 3162A AND 3162B IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING CHECK MEASUREMENTS OF EXISTING BRIDGE AND MAKING NECESSARY ADJUSTMENTS TO THE NEW WORK. ALL CONCRETE IN NEW WORK TO BE CLASS S OR S(AE) AND SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH OF $f'c = 3500$ PSI. ALL EXPOSED CORNERS TO BE CHAMFERED $3/4"$ UNLESS OTHERWISE NOTED.

ALL NEW REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60.

LIVE LOAD: (NEW CONSTRUCTION) HS20 AND MILITARY LOADING OF TWO 24,000# AXLES AT FOUR FEET CENTERS.

METHOD OF DESIGN: (NEW CONSTRUCTION) LOAD FACTOR

DESIGN SPECIFICATIONS: FOR NEW WORK, AASHTO STD. SPECIFICATIONS FOR HIGHWAY
BRIDGES, 1983 WITH CURRENT INTERIM SPECIFICATIONS.

CONSTRUCTION SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 AND APPLICABLE SPECIAL PROVISIONS.

HALF-SIZE DETAIL SHEETS OF THE EXISTING BRIDGE MAY BE OBTAINED FROM THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT UPON REQUEST.

THE BRIDGE DECK SHALL BE GIVEN A TINE FINISH AS SPECIFIED FOR TINE FINISHING OF CLASS 6, ROADWAY SURFACES FINISH IN SUBSECTION 802.23 OF THE STANDARD SPECIFICATIONS.

ALL PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE, DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE. ALL PILES SHALL BE DRIVEN WITH AN APPROVED AIR, STEAM, OR DIESEL HAMMER. PILES IN END BENTS ARE TO BE DRIVEN AFTER EMBANKMENT TO BOTTOM OF CAP IS IN PLACE. LENGTHS OF PILING SHOWN ARE BASED ON EXISTING DRIVING RECORDS. ACTUAL LENGTHS TO BE DETERMINED IN THE FIELD. PILING SHALL HAVE A MINIMUM PENETRATION OF 20 FT. BELOW THE GROUND LINE.

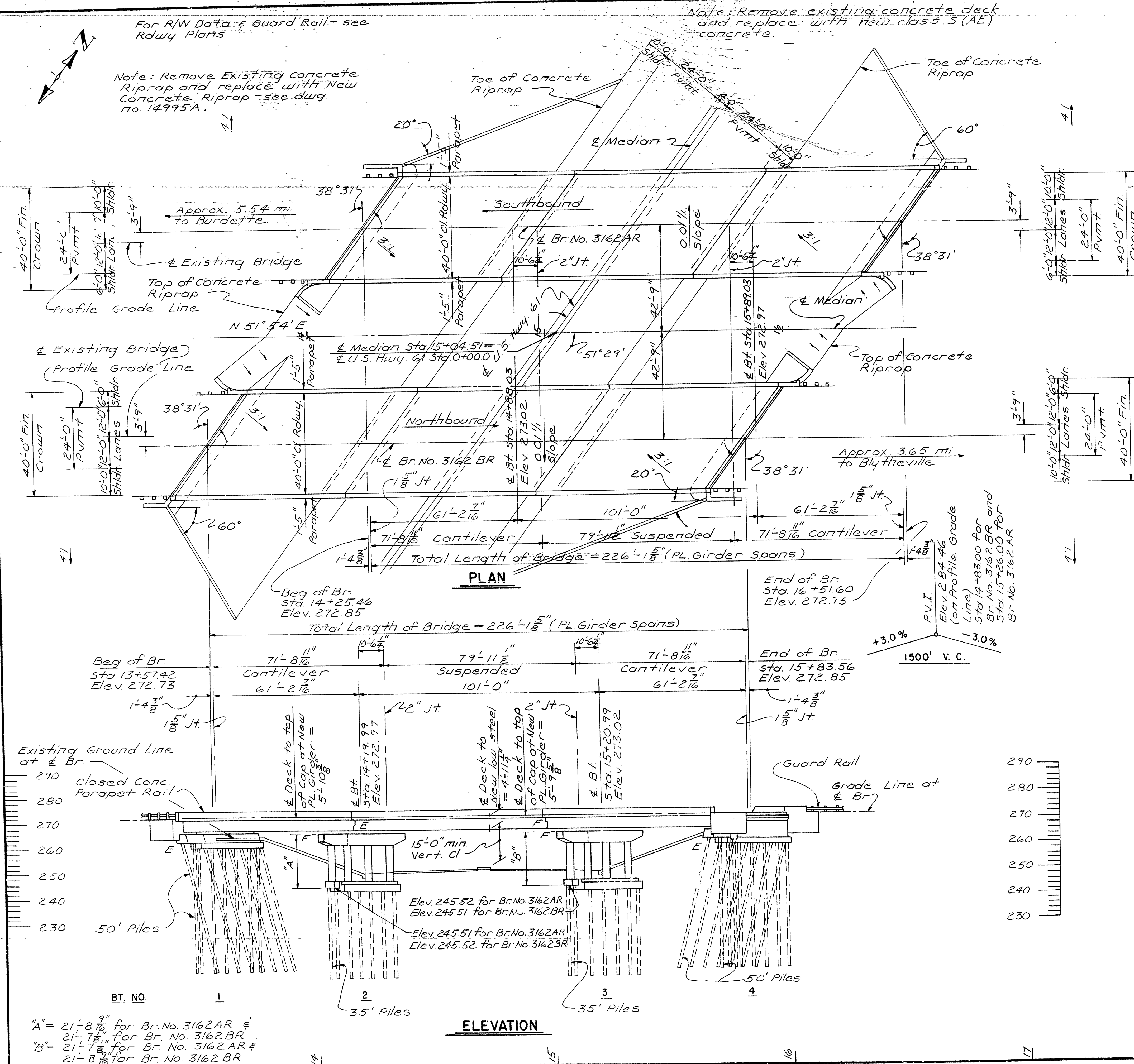
STRUCTURAL STEEL: STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 OR ASTM A572, GRADE 50 AS NOTED ON THE DETAIL DRAWINGS.

FOR DETAILS OF END BENTS, SEE DWG. NOS. 27769 TO 27772
FOR DETAILS OF INT. BENTS, SEE DWG. NOS. 27773
FOR DETAILS OF SUPERSTRUCTURE, SEE DWG. NOS. 27774 TO 27781
FOR DETAILS OF APPROACH SLAB AND GUTTERS, SEE DWG. NO. 27782
FOR DETAILS OF CONCRETE RIPRAP, SEE DWG. NO. 14995A

STAGE CONSTRUCTION: SEE ROADWAY PLANS AND DRAWING NO.27768

SPRAYED FINISH: IN LIEU OF RUBBING CONCRETE SURFACES, THE CONTRACTOR SHALL USE A SPRAYED FINISH MEETING THE REQUIREMENTS OF SECTION 802.23 OF THE STANDARD SPECIFICATIONS AND SP802-7.

DRIVE ONE 55' TEST PILE IN BENT NO. 1 OF BRIDGE NO. 3162BR AND ONE 40' TEST PILE IN BENT NO. 3 OF BRIDGE NO. 3162 AR.



LAYOUT OF
U.S. HWY. 61 OVERPASS
I-55 STRUCTURES RENOVATION
(BLYTHEVILLE)
MISSISSIPPI COUNTY
ROUTE 1-55 SEC.
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

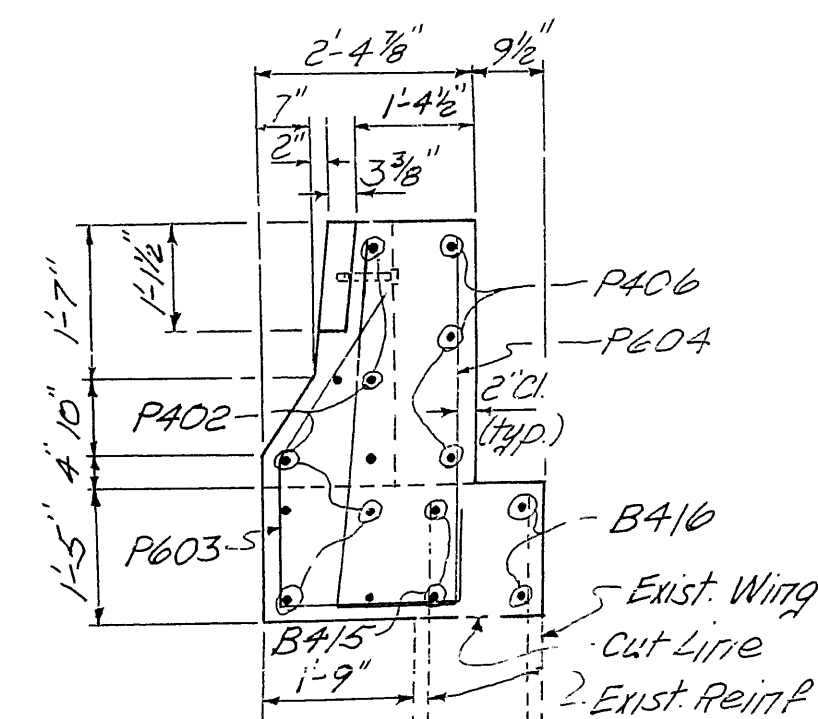
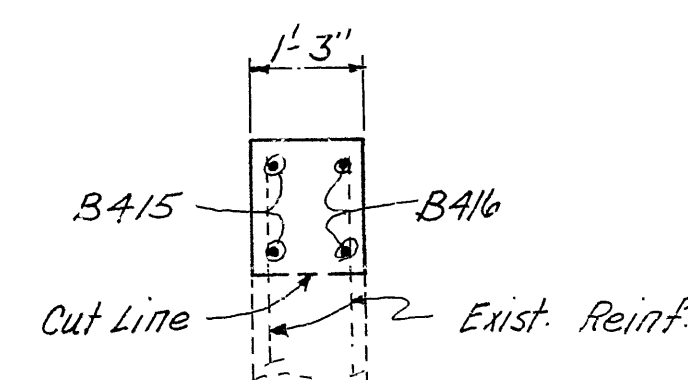
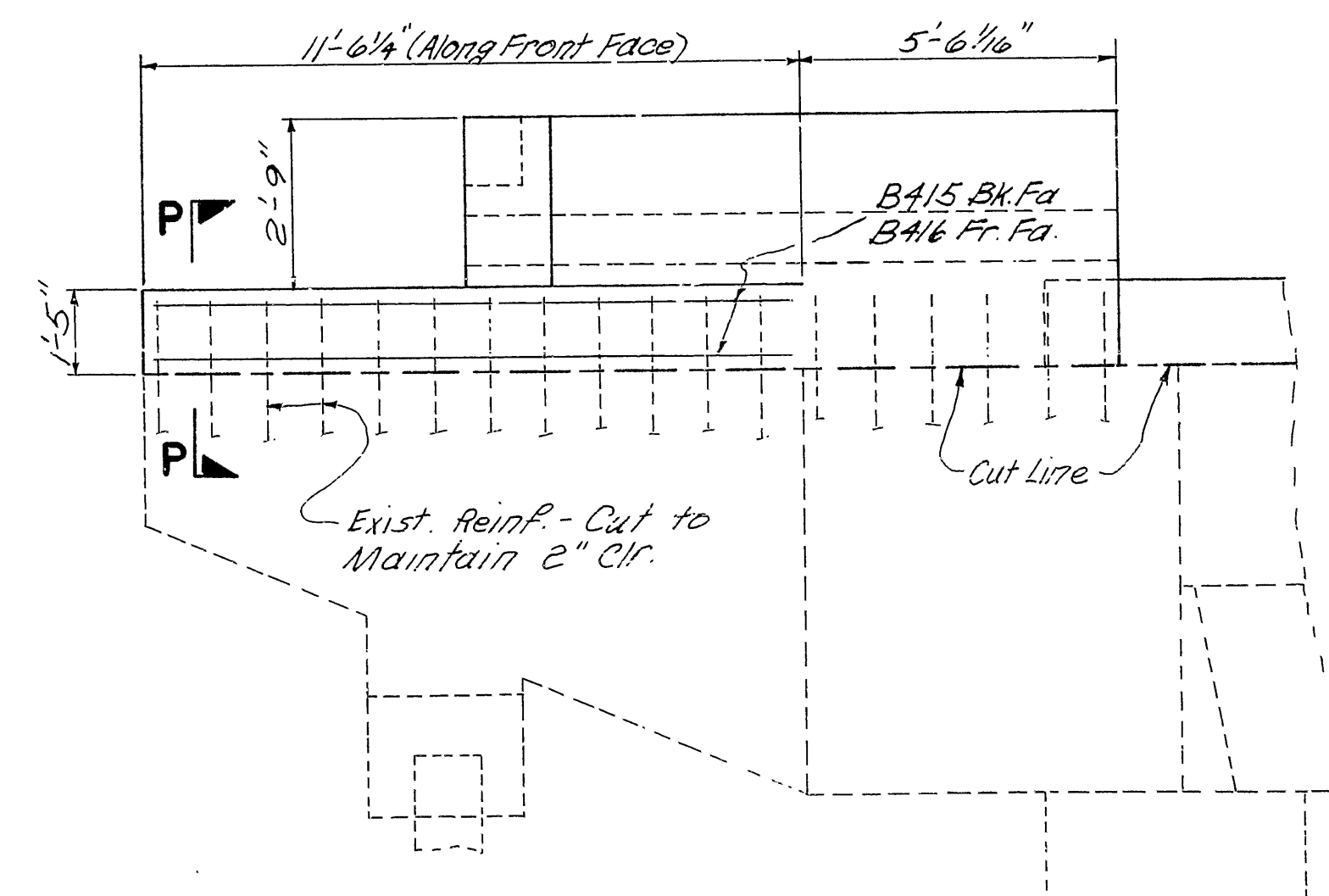
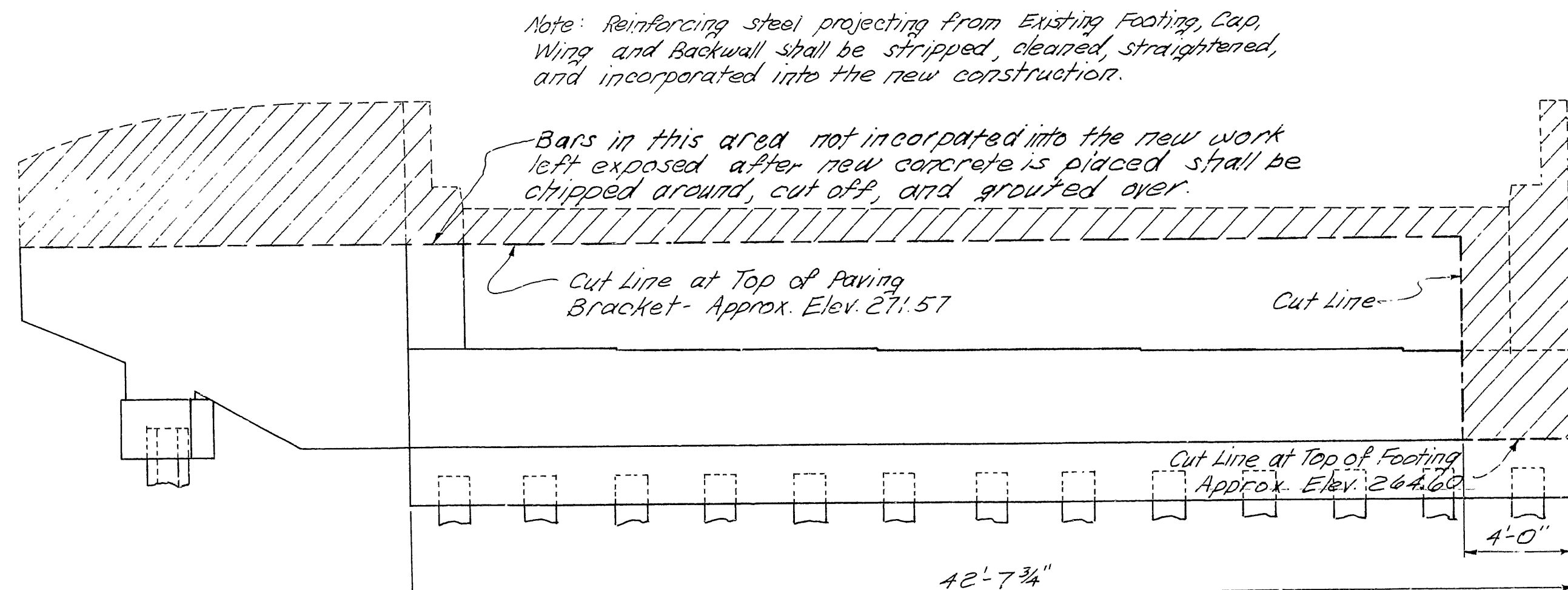
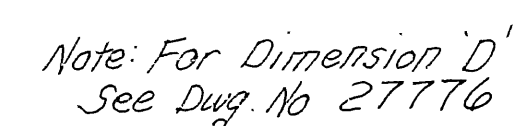
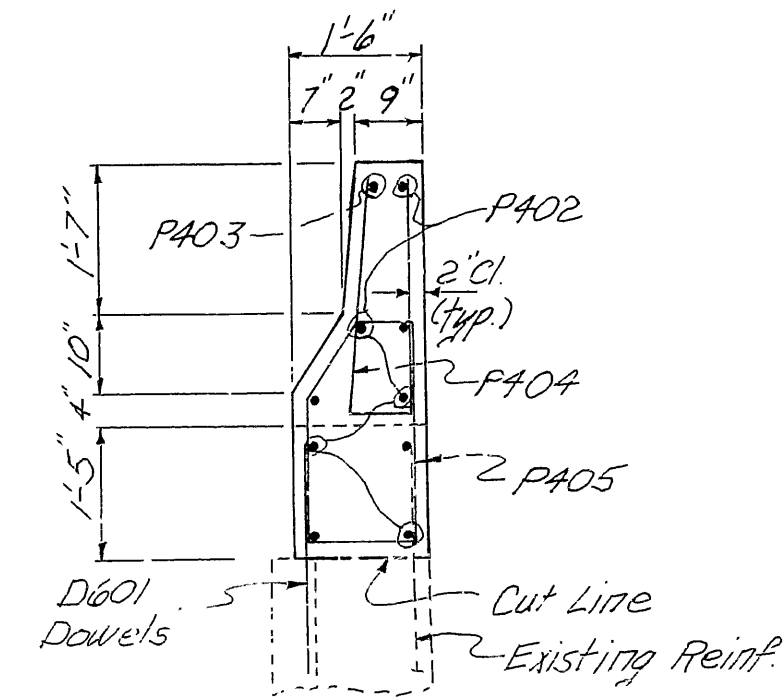
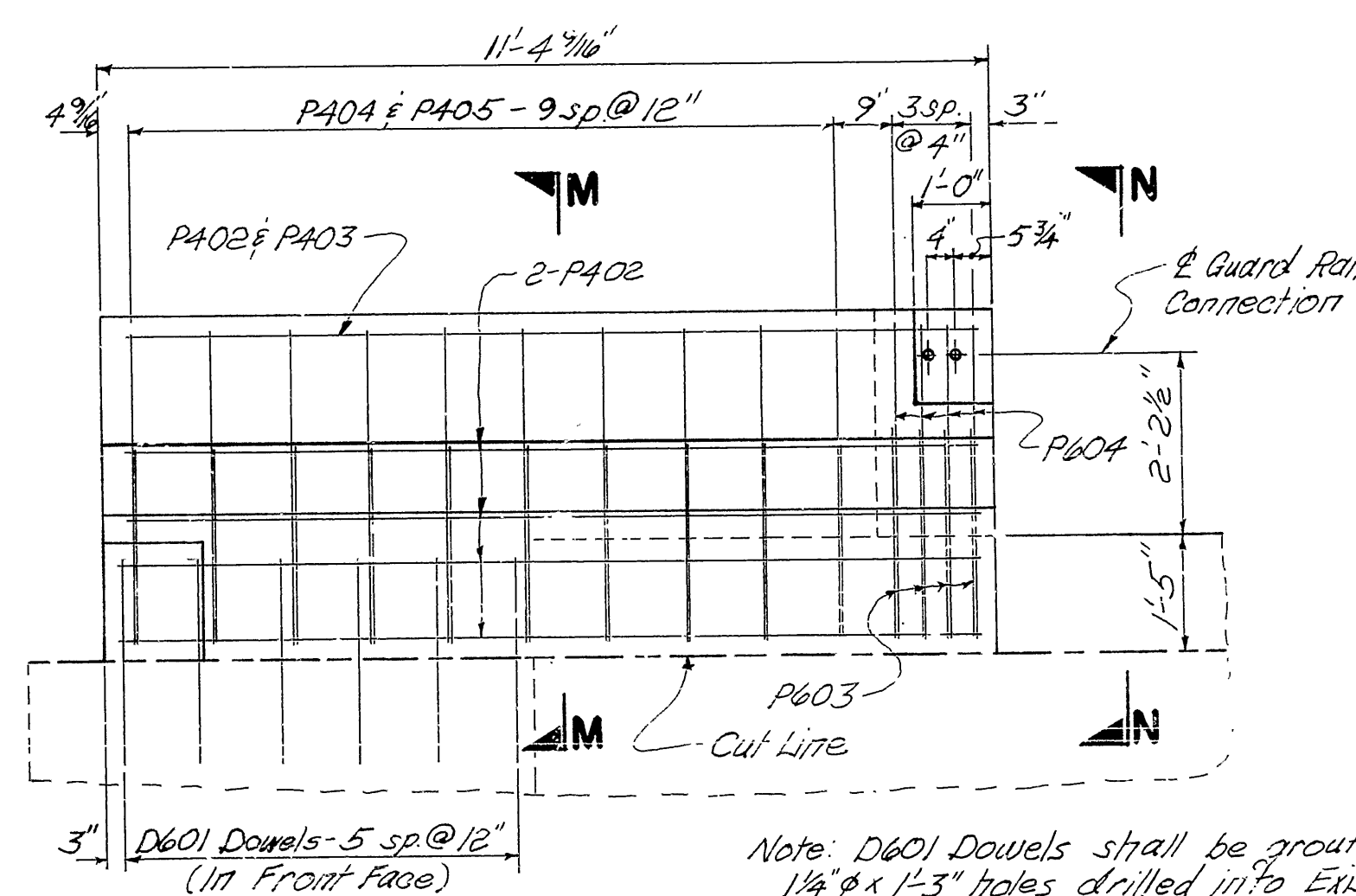
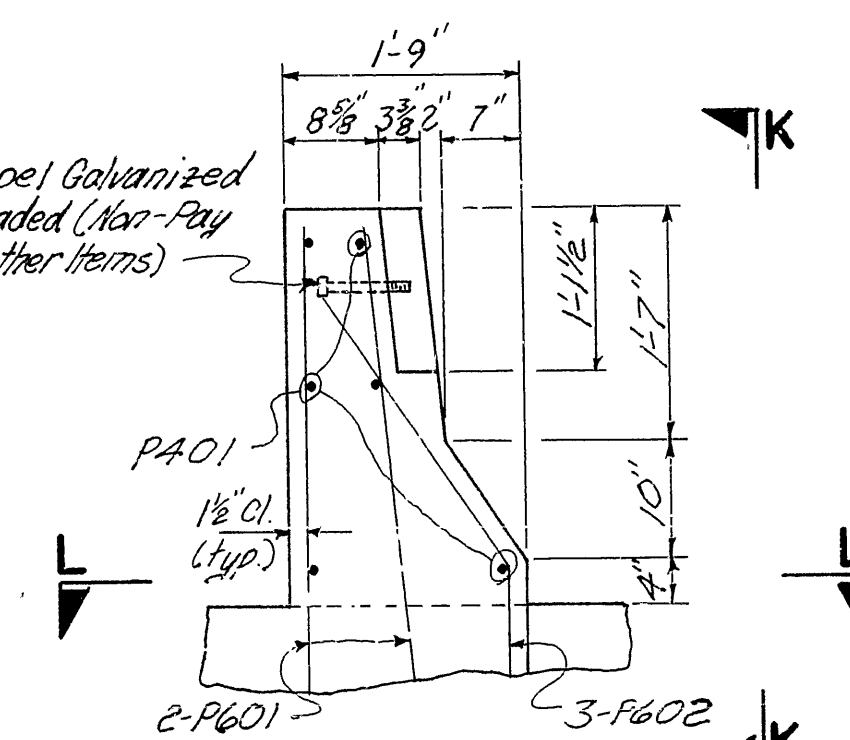
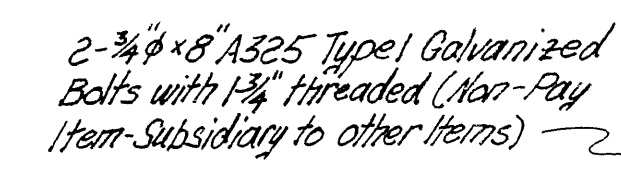
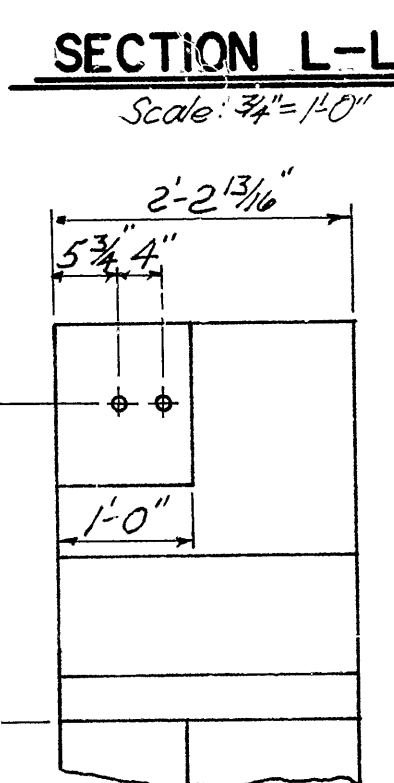
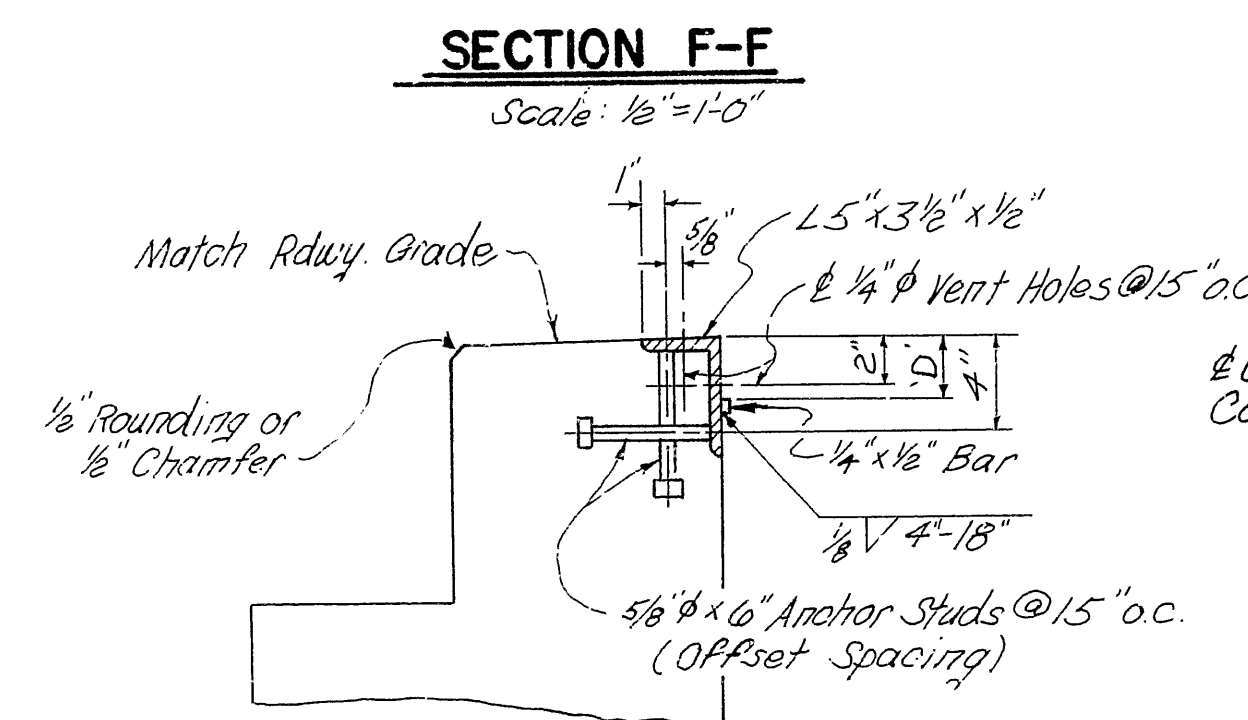
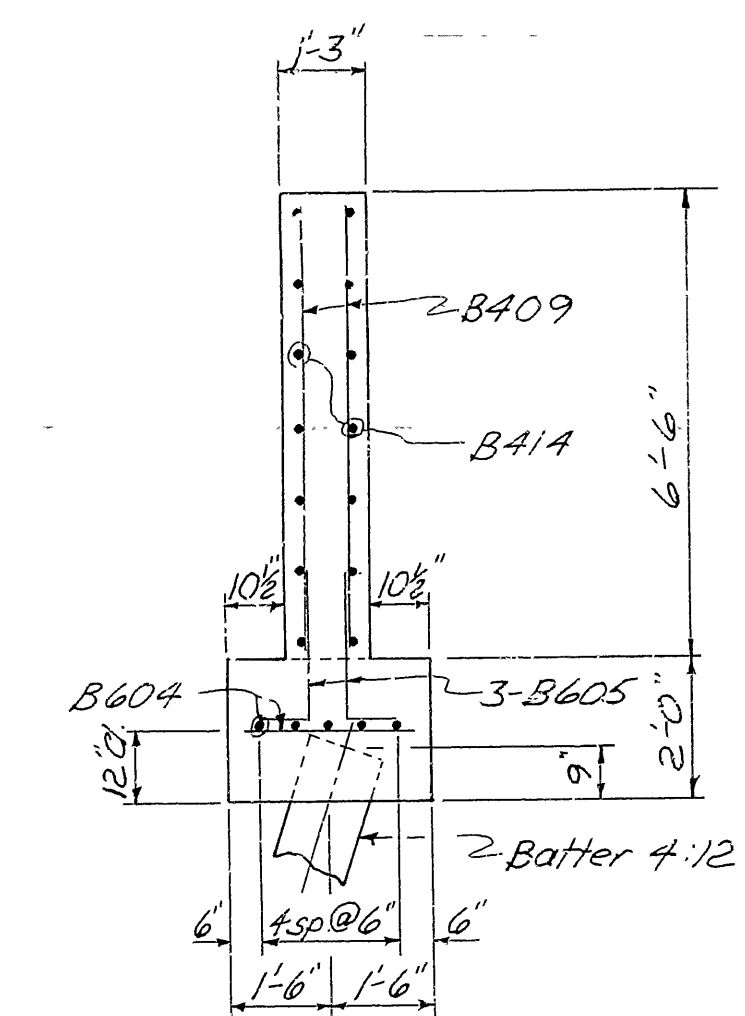
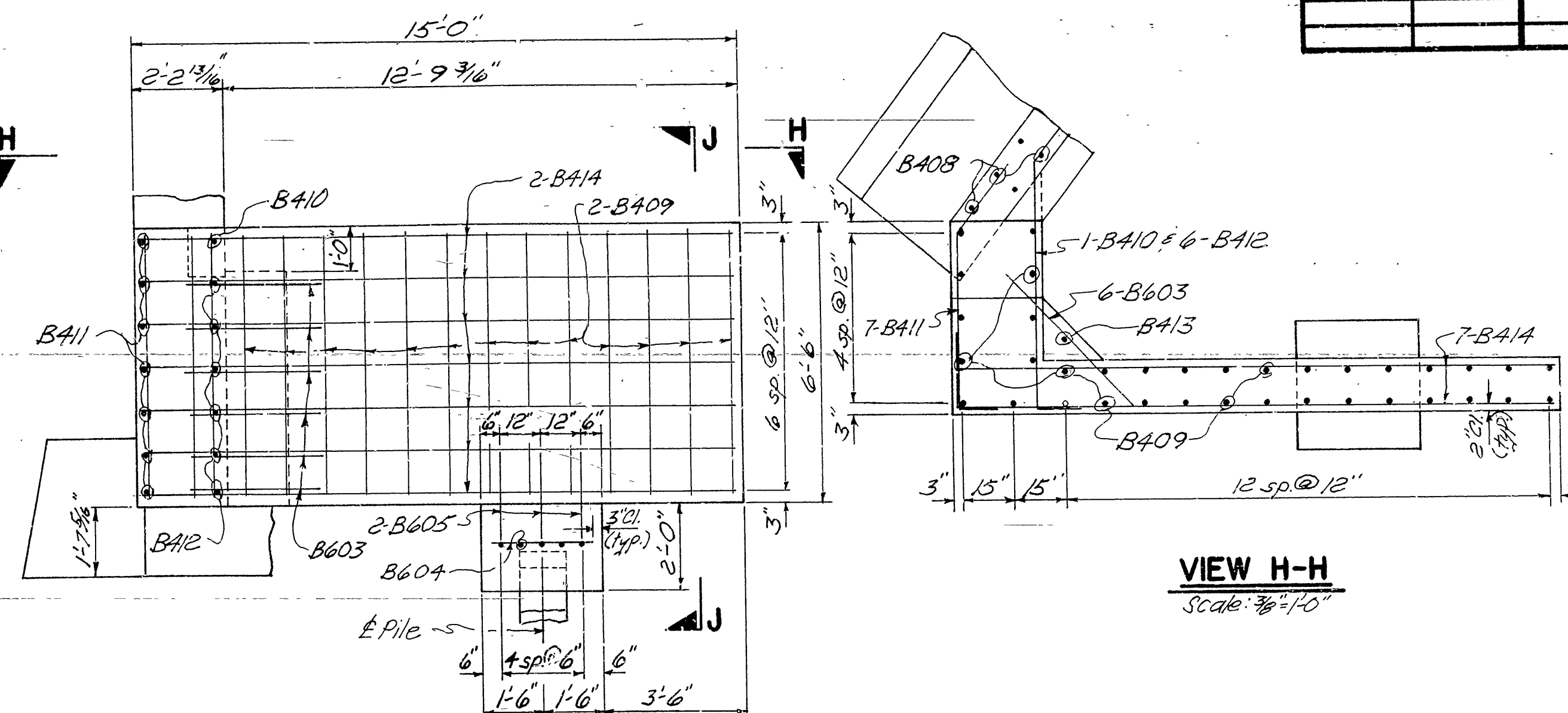
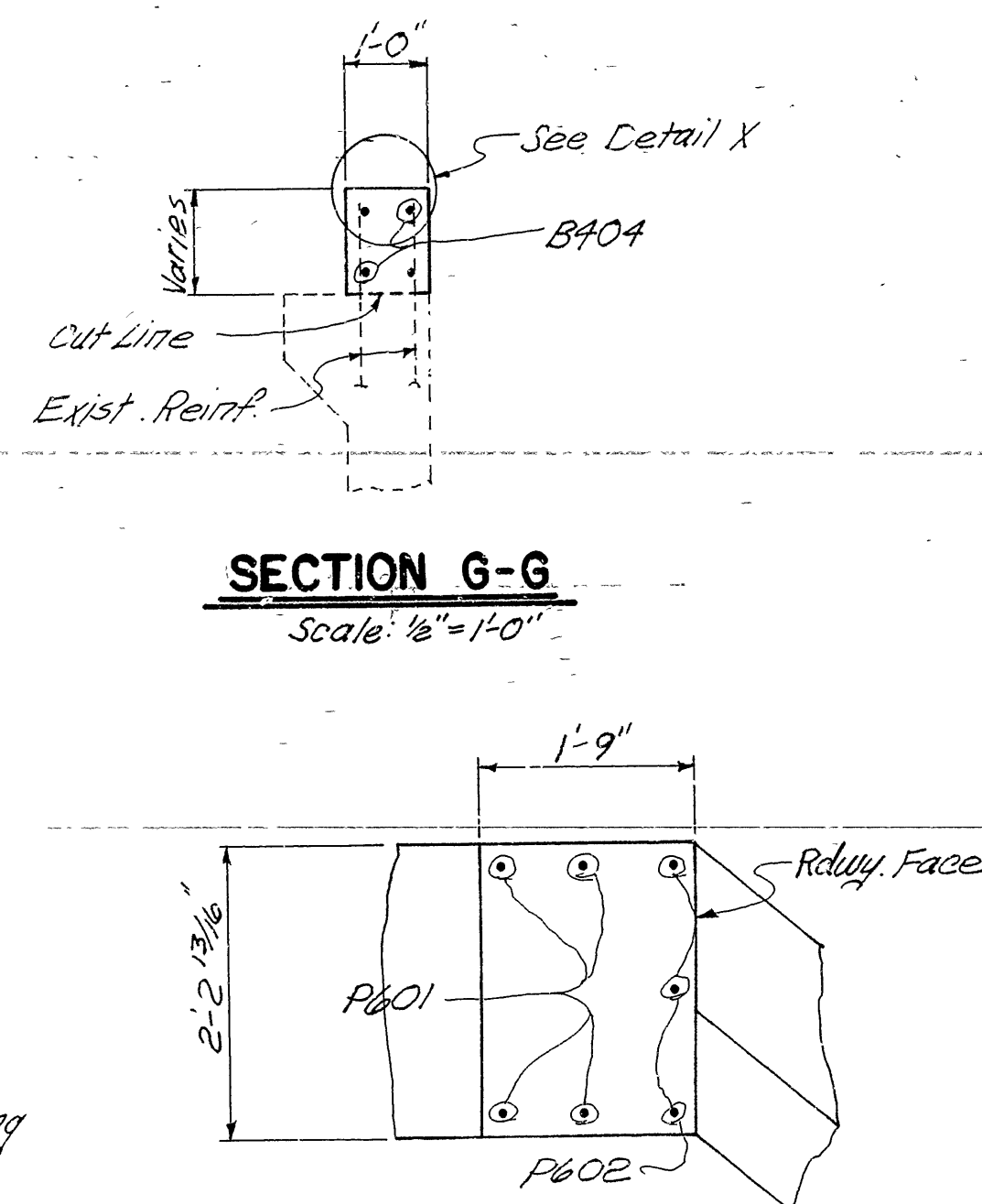
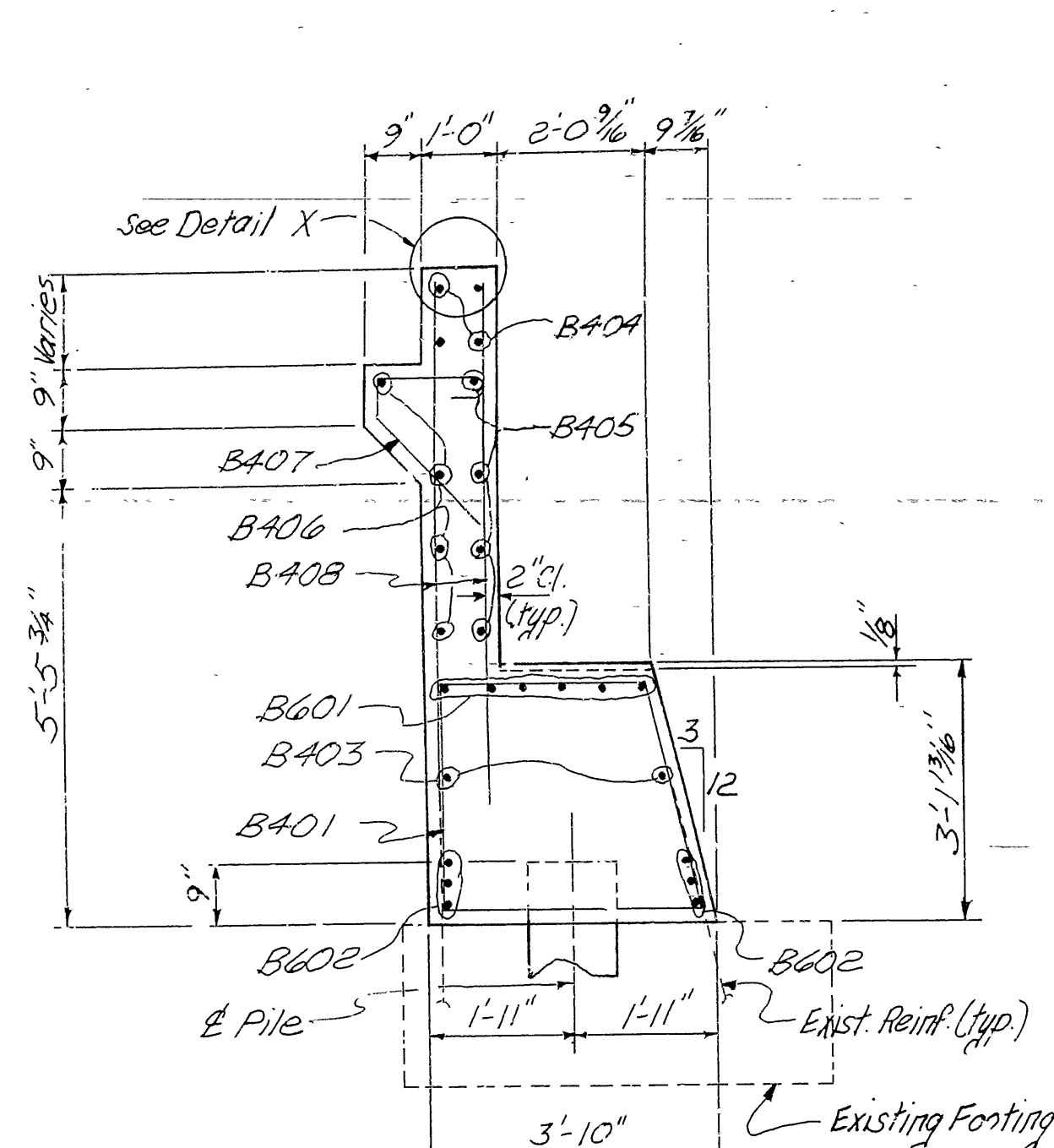
DRAWN BY: J.P.S. DATE: 3-1-85
CHECKED BY: GEC DATE: 8-30-85 SCALE: 1" = 20'-0"

DESIGNED BY: AKW DATE: Feb-85
BRIDGE NO. 3162AR & 3162BR DRAWING NO. 27767

Verla Pinkerton
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOE NO.		100133	24	80

① 3162 AR BREND BENT DTLS 27770



SHEET 2 OF 2
DETAILS OF END BENT
NOS. IAR & 4BR
U.S. HWY. 61 OVERPASS
MISSISSIPPI COUNTY

ROUTE 1-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

DRAWN BY: ARW DATE: 9-10-85

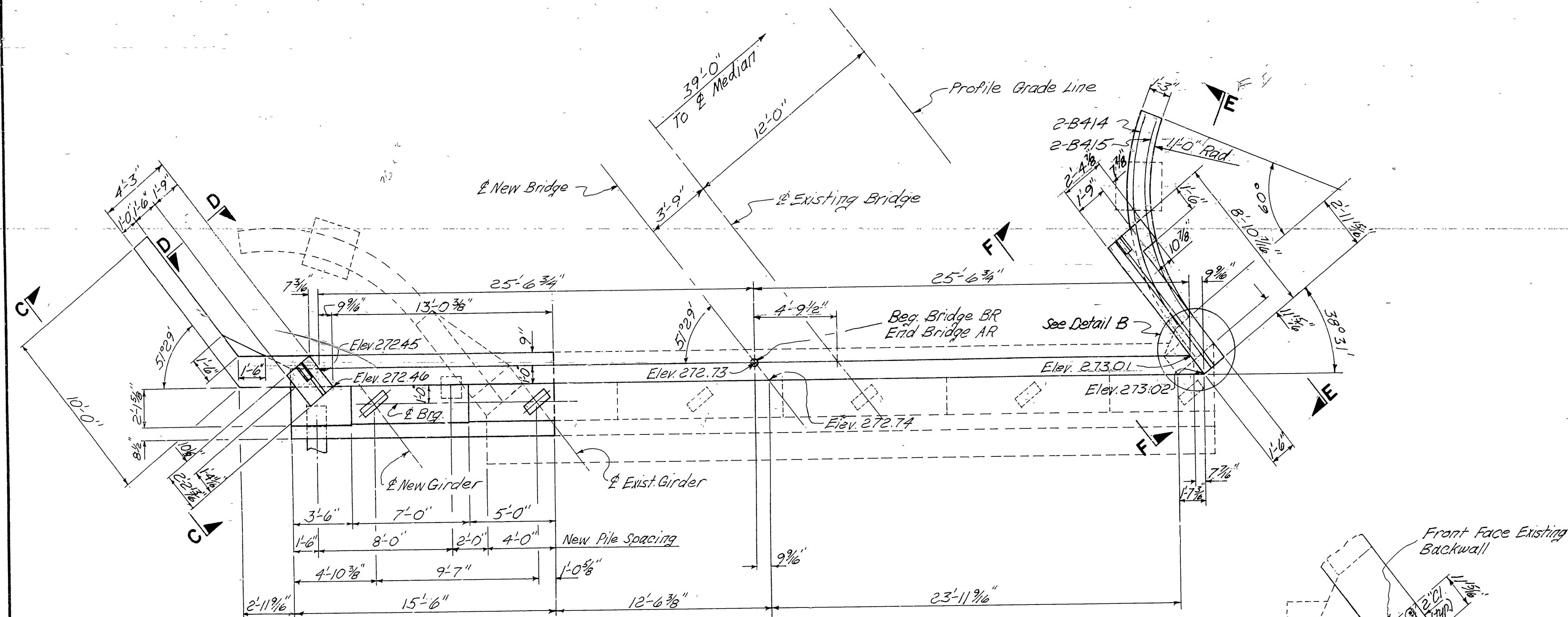
CHECKED BY: DJB DATE: 9-30-85 SCALE: As Noted

DESIGNED BY: ARW DATE: June 85

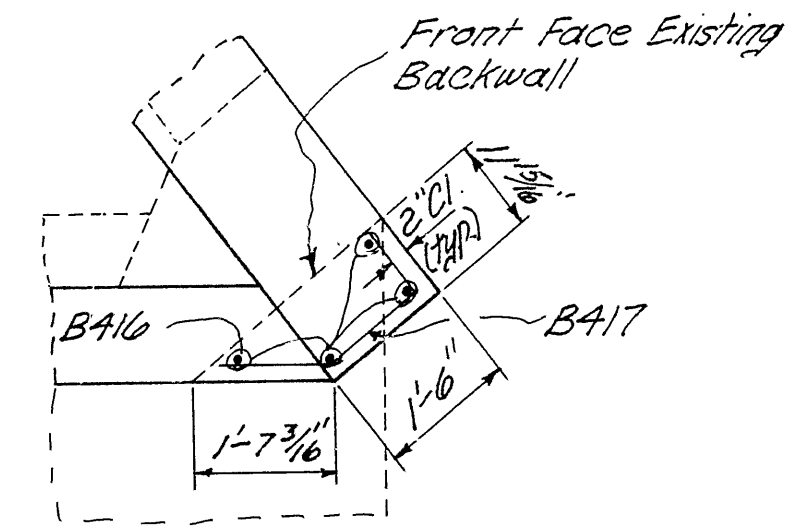
BRIDGE NO. **3162 AR&BR** DRAWING NO. **27770**

BRIDGE NO. 3162 AR&BR DRAWING NO. 27770

DATE REVISID	DATE FILMED	DATE REVISID	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133		25	80
				① 3162 ARK BRND BENT DTLS 27771				



Place Type C Bridge Name Plate
on Right Turnout Post at Beg.
of Bridge

[illegible]

Dimensions are out to out of bars.

GENERAL NOTES

CONCRETE SHALL BE CLASS "S" WITH A MINIMUM 28 DAY COMPRESSIVE STRENGTH, $f'_c = 3500$ PSI.
CONCRETE SHALL BE POURED IN THE DRY UNLESS OTHERWISE NOTED. ALL EXPOSED
CORNERS SHALL BE CHAMFERED 3/4 INCH.

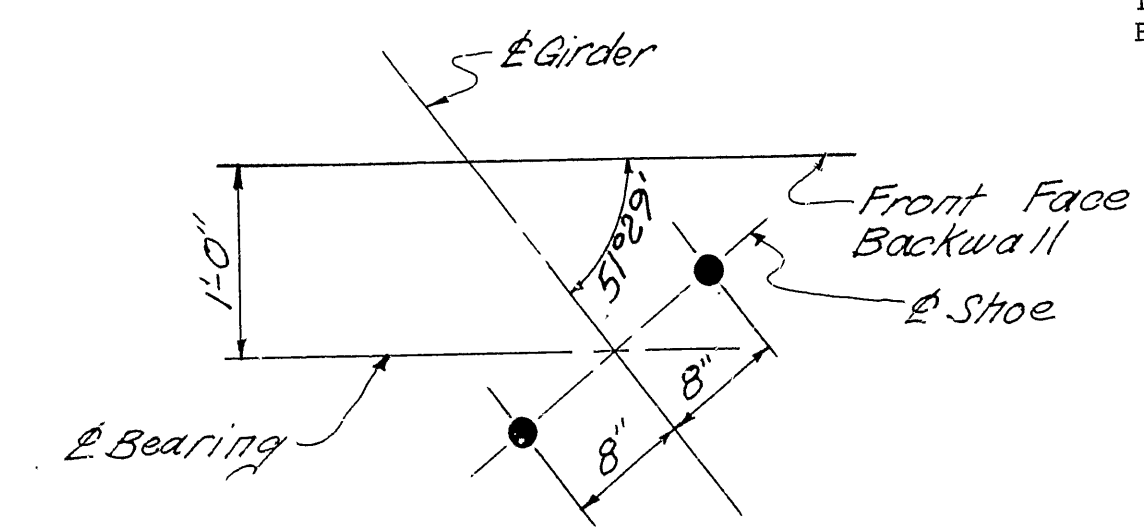
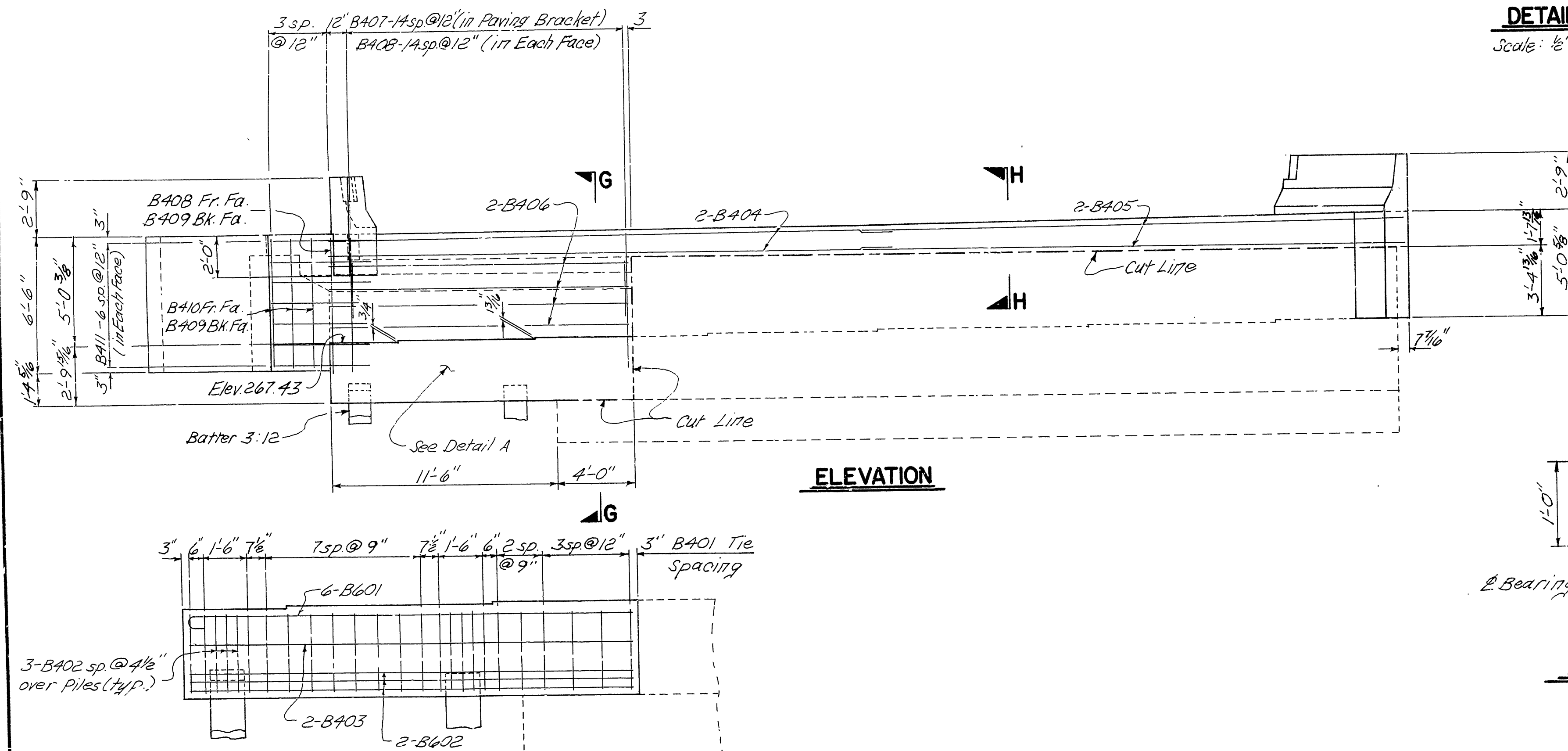
REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A617, GRADE 60 (YIELD STRENGTH = 60,000 PSI).

STRUCTURAL STEEL IN END BENTS SHALL BE A36 AND SHALL BE MEASURED AND PAID FOR AS "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36."

ALL PILING SHALL BE DRIVEN TO A MINIMUM BEARING CAPACITY OF 44 TONS PER PILE.
PILING SHALL BE 16" OCT. OR 14" SQ. PRECAST CONCRETE.

IF ANCHOR BOLTS ARE DRILLED INTO CAP, TOP MAIN REINFORCING BARS SHALL BE PROPERLY PLACED TO AVOID DAMAGE.

THE BACKWALL SHALL NOT BE POURED UNTIL THE GIRDERS HAVE BEEN PLACED ON THE BENT CAP.



SHEET 1 OF 2
DETAILS OF END BENT
NOS. 1BR & 4AR
U.S. HWY. 61 OVERPASS
MISSISSIPPI COUNTY

ROUTE 1-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

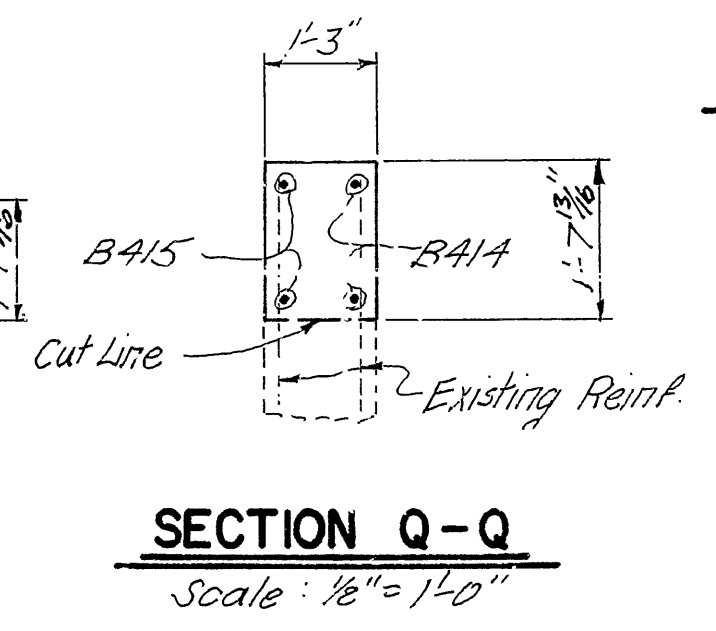
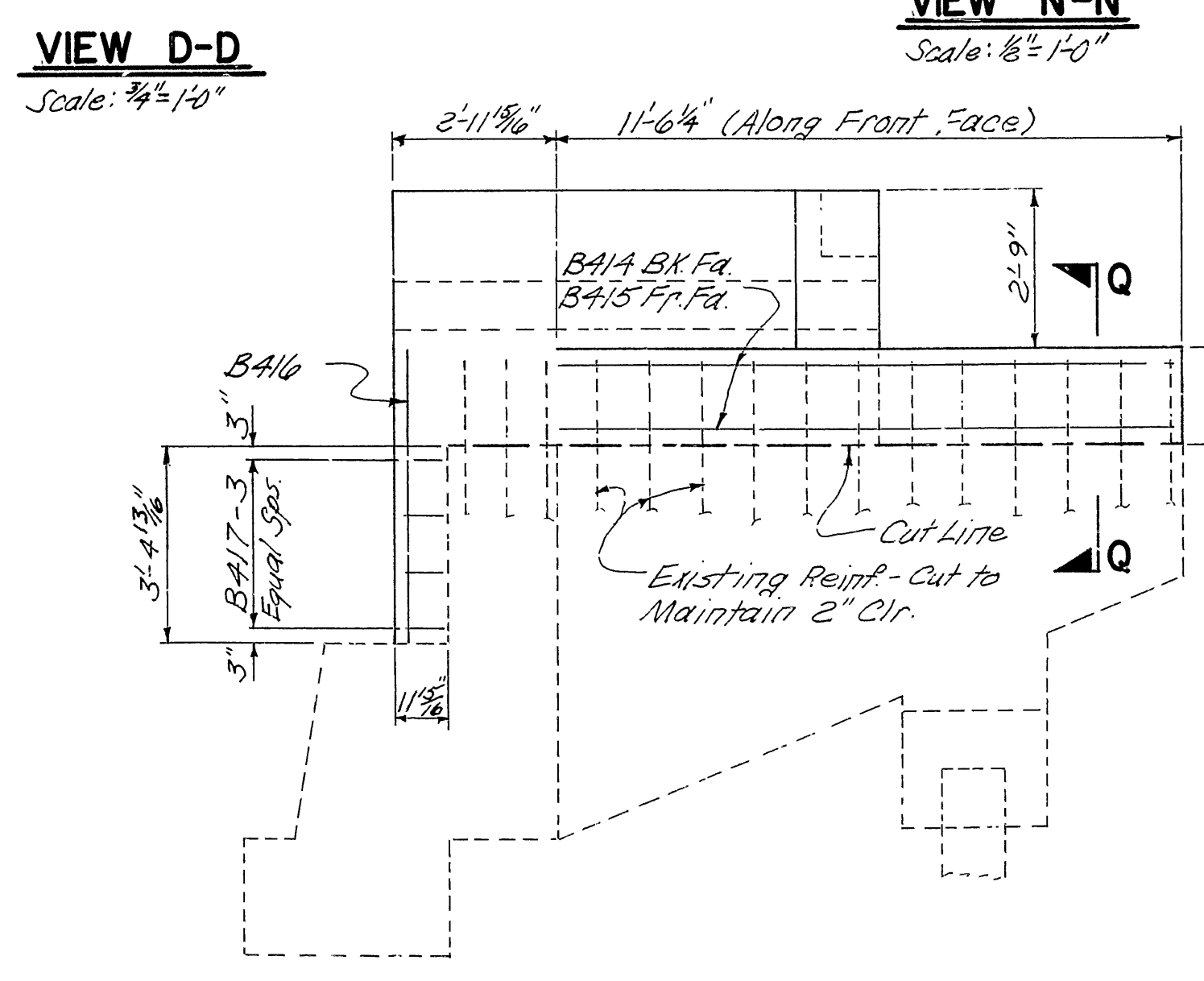
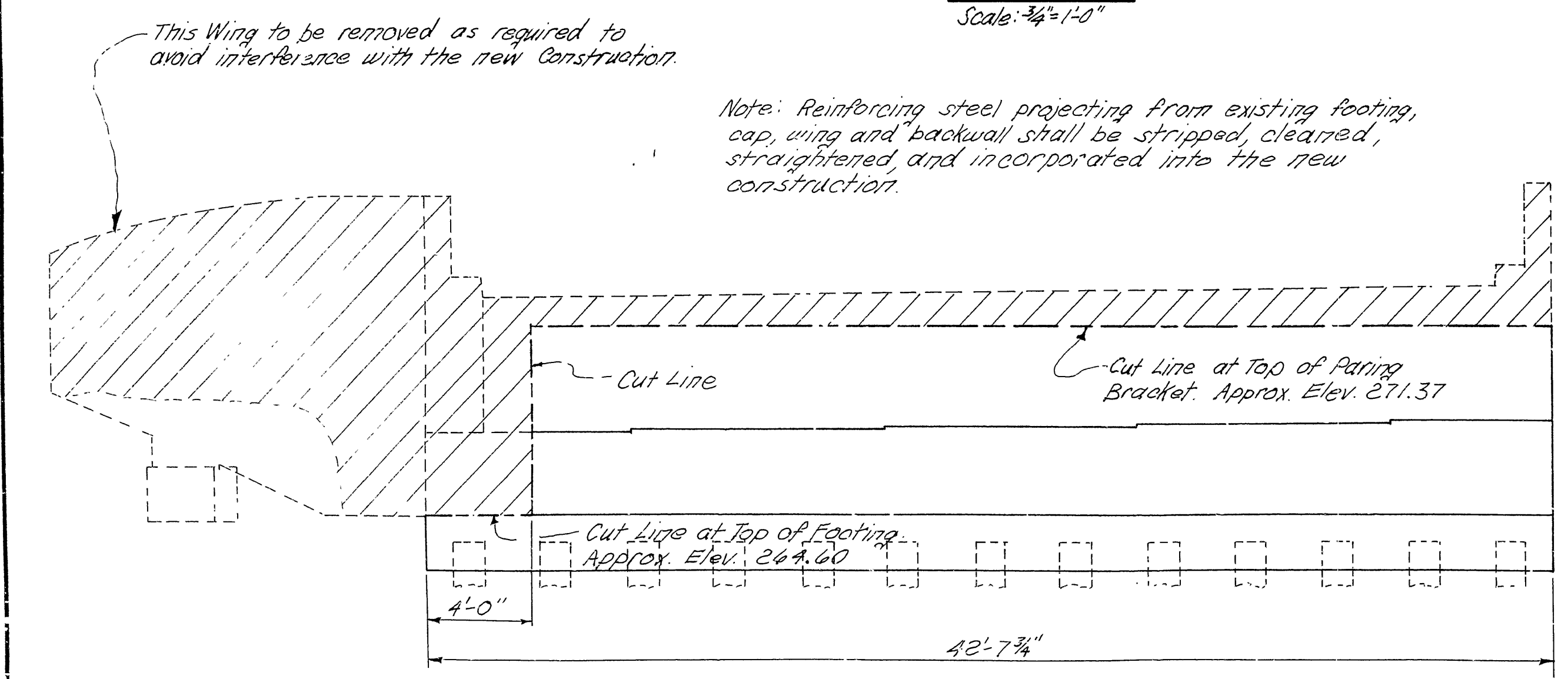
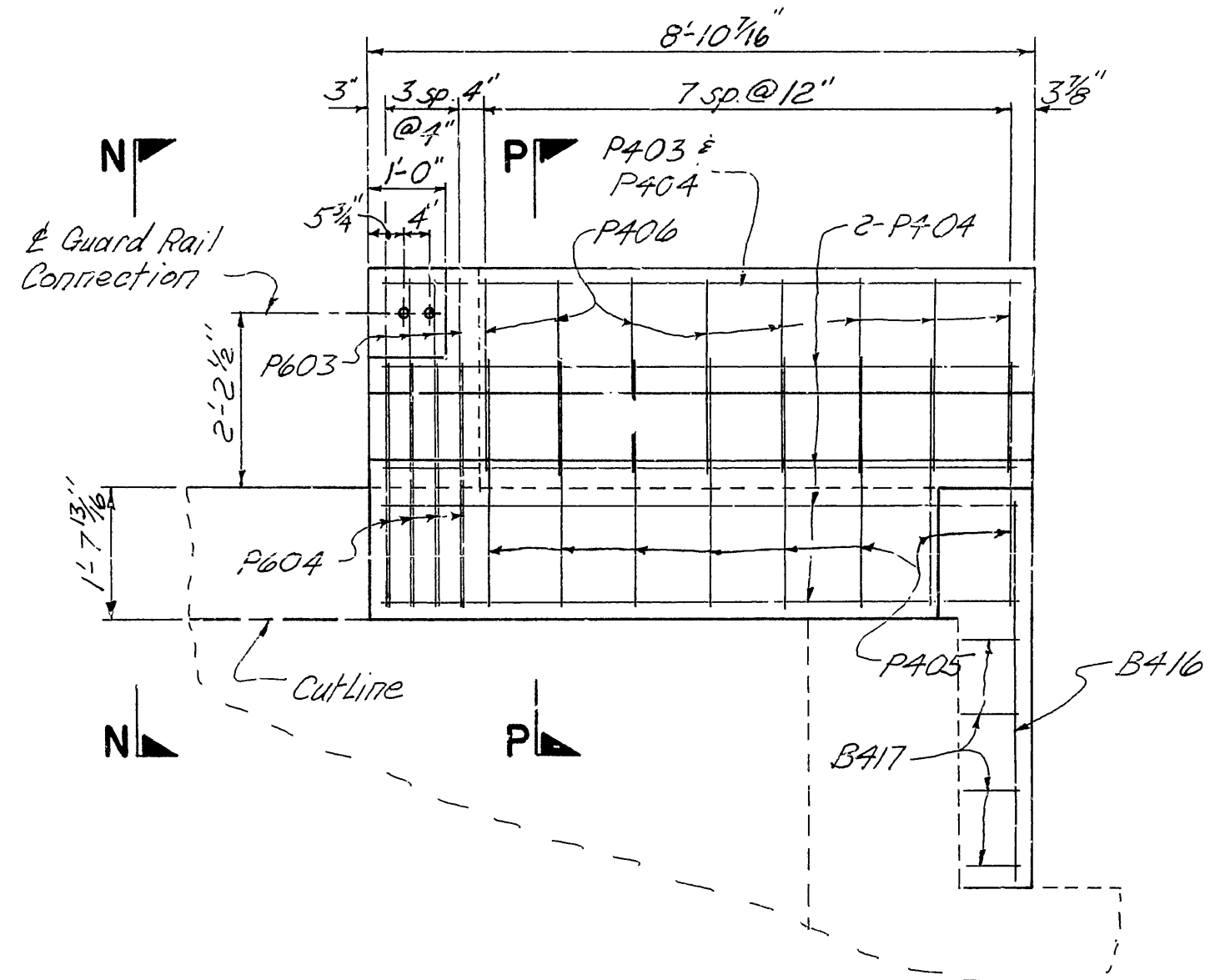
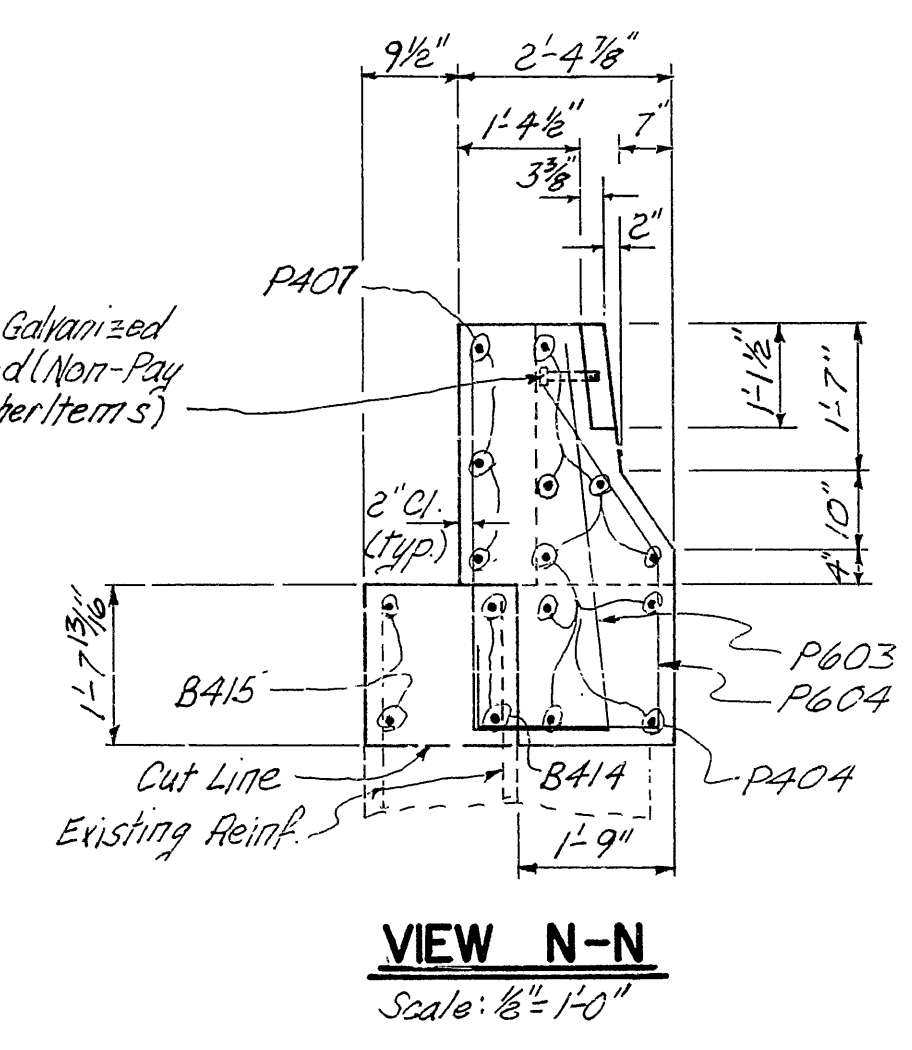
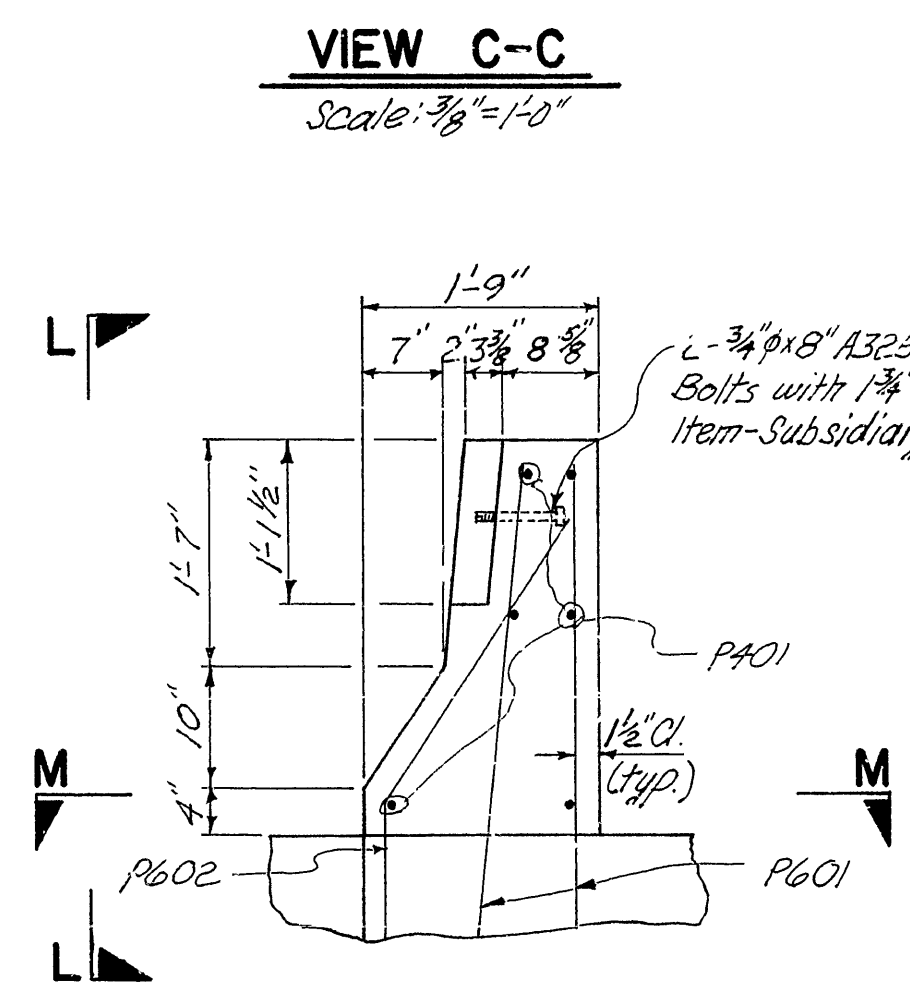
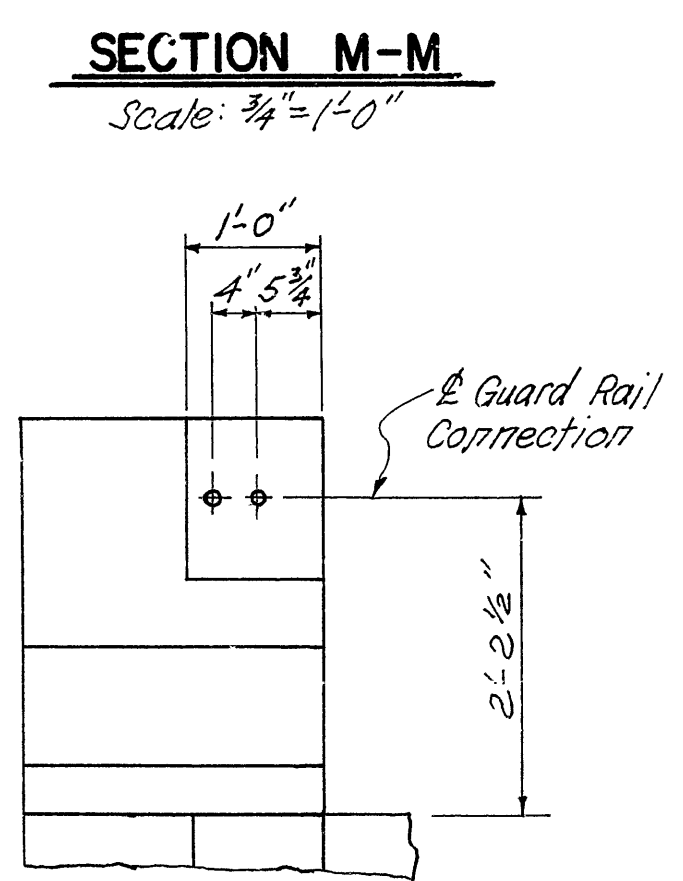
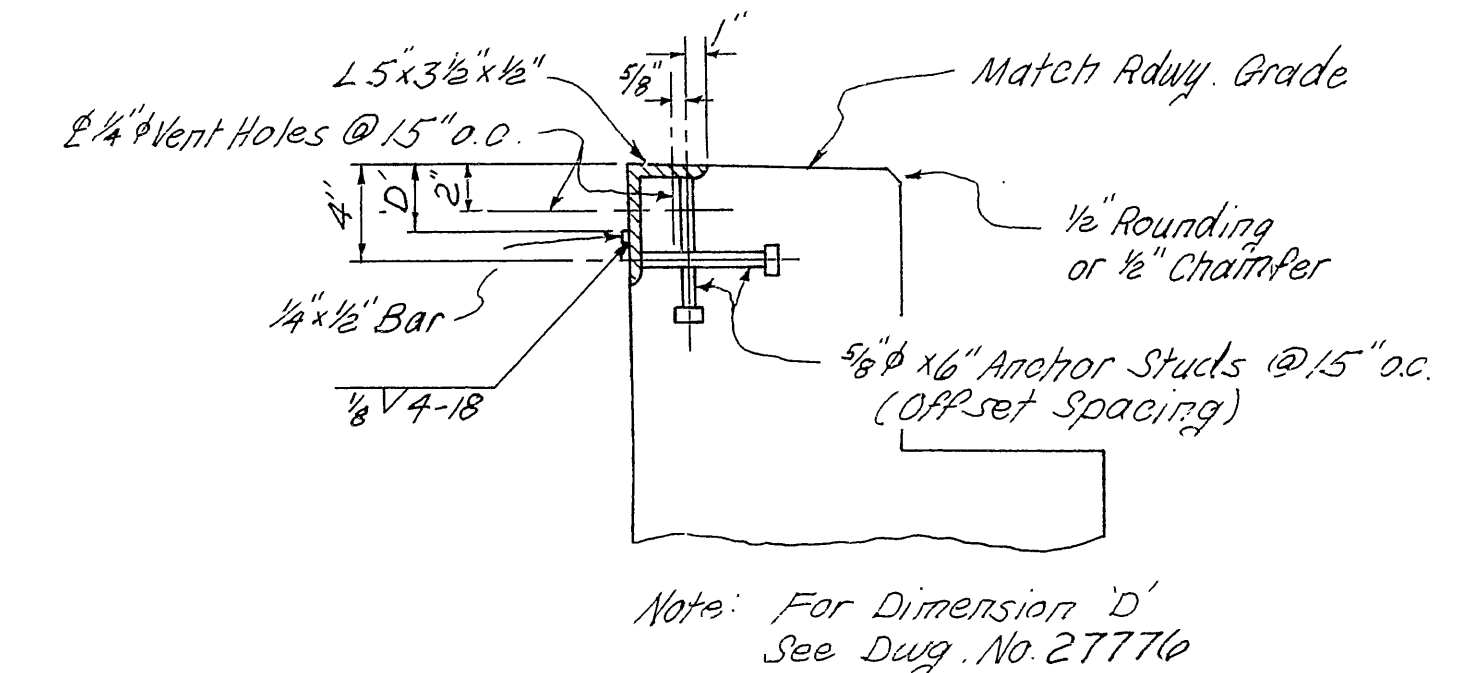
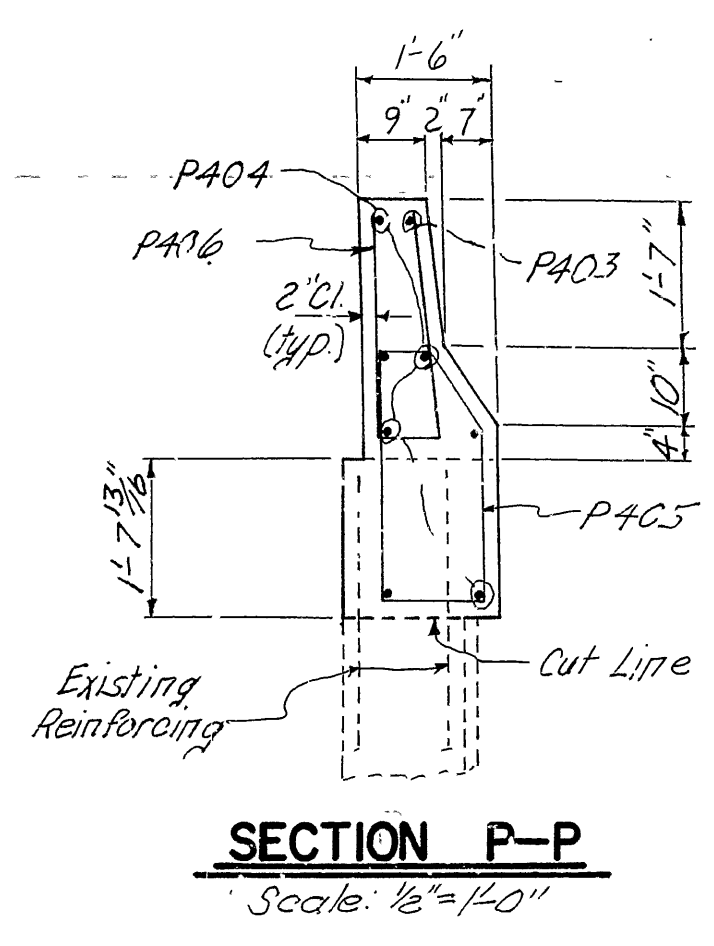
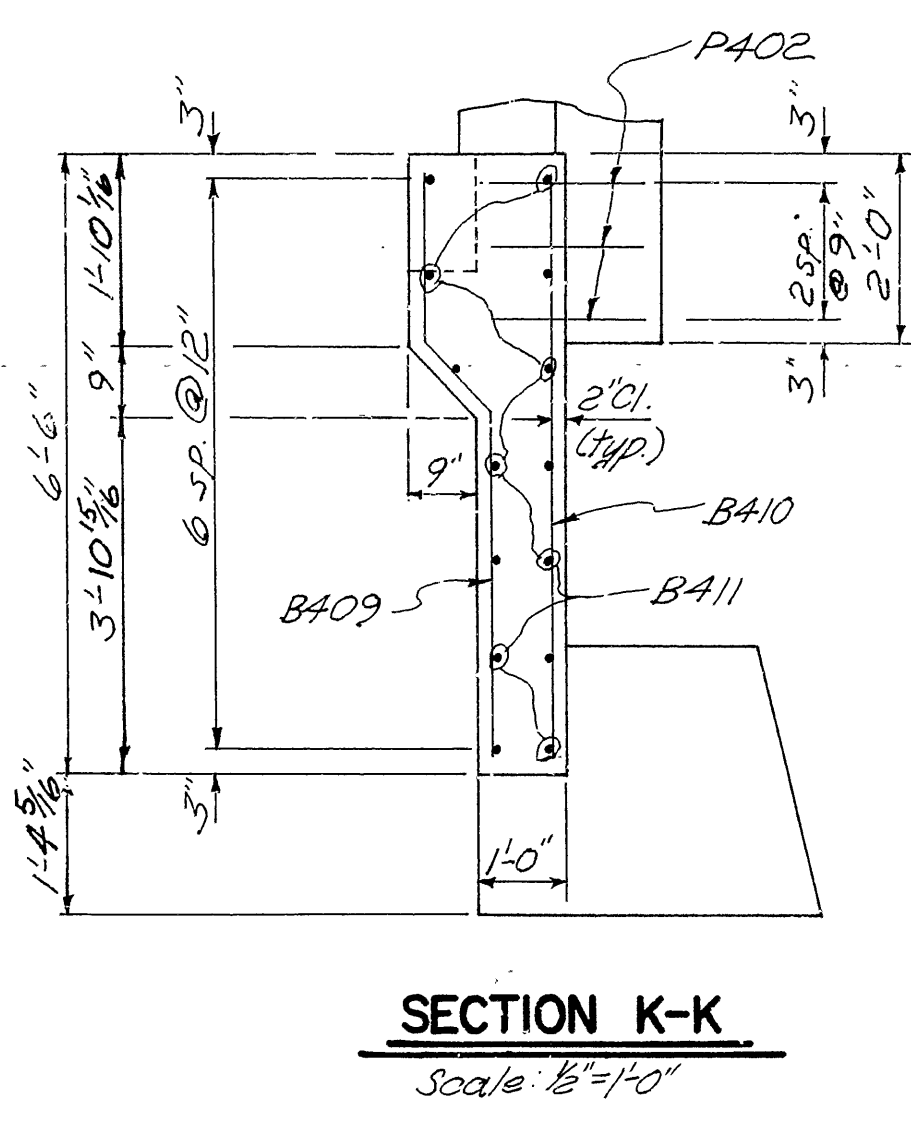
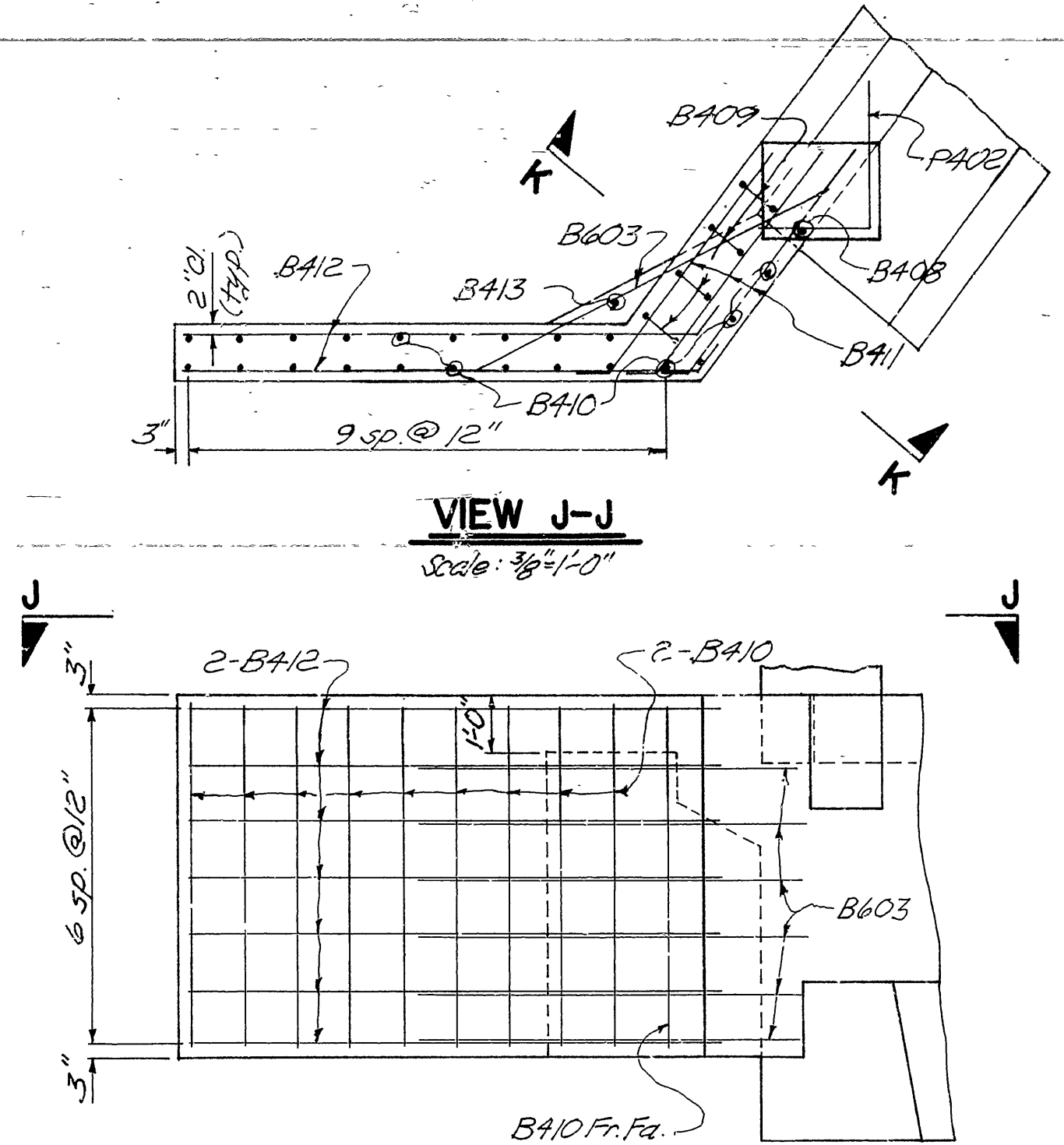
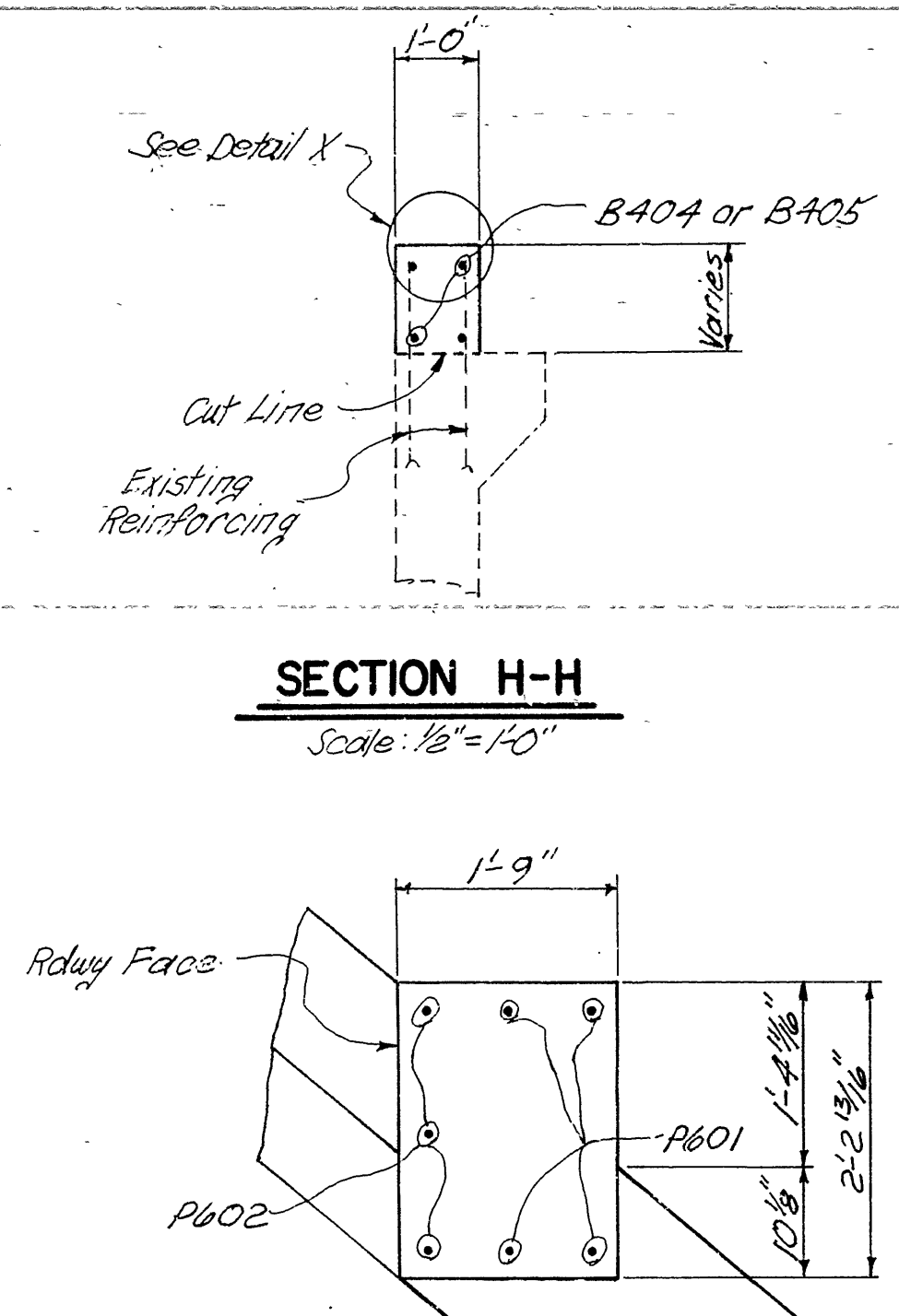
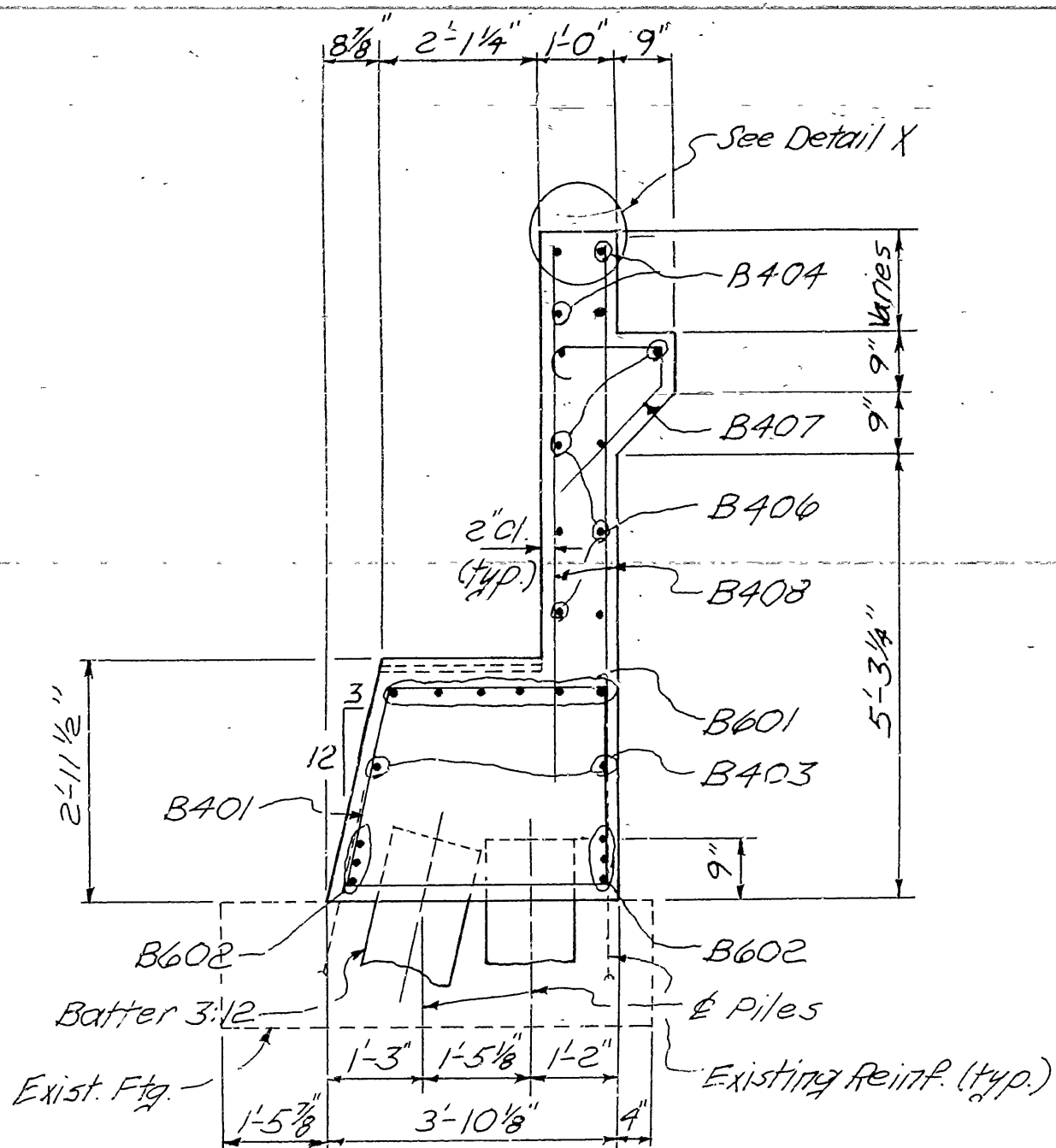
DRAWN BY: ARW DATE: 9-11-85
CHECKED BY: DLA DATE: 9-30-85
DESIGNED BY: ARW DATE: 5-26-85

SCALE: 1/4" = 1'-0" or as noted

BRIDGE NO. 3162 AR&BR DRAWING NO. 27771

Vesal P. Kulkarni
BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.		100/33	26	80



12.0"

SHEET 2 OF 2

DETAILS OF END BENT

NOS. 1BR & 4AR

U.S. HWY. 61 OVERPASS

MISSISSIPPI COUNTY

ROUTE 1-55 SEC. 12

ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.

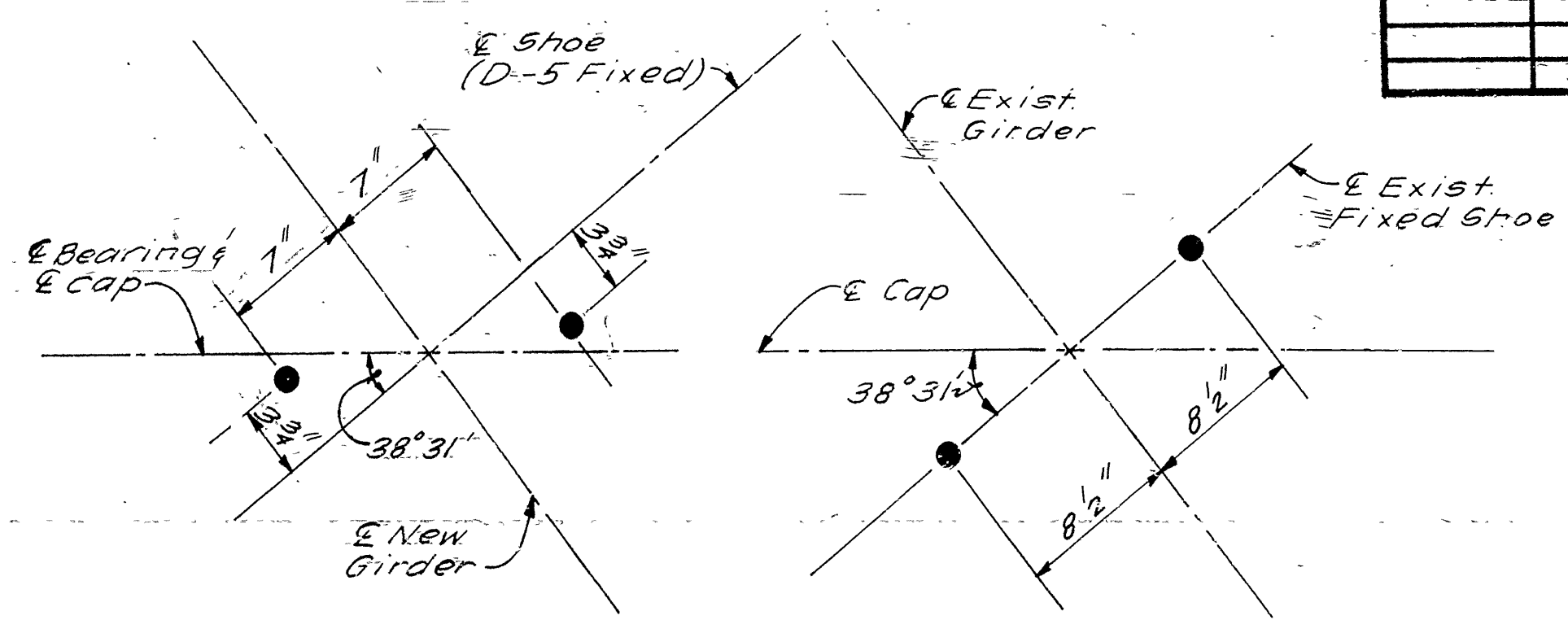
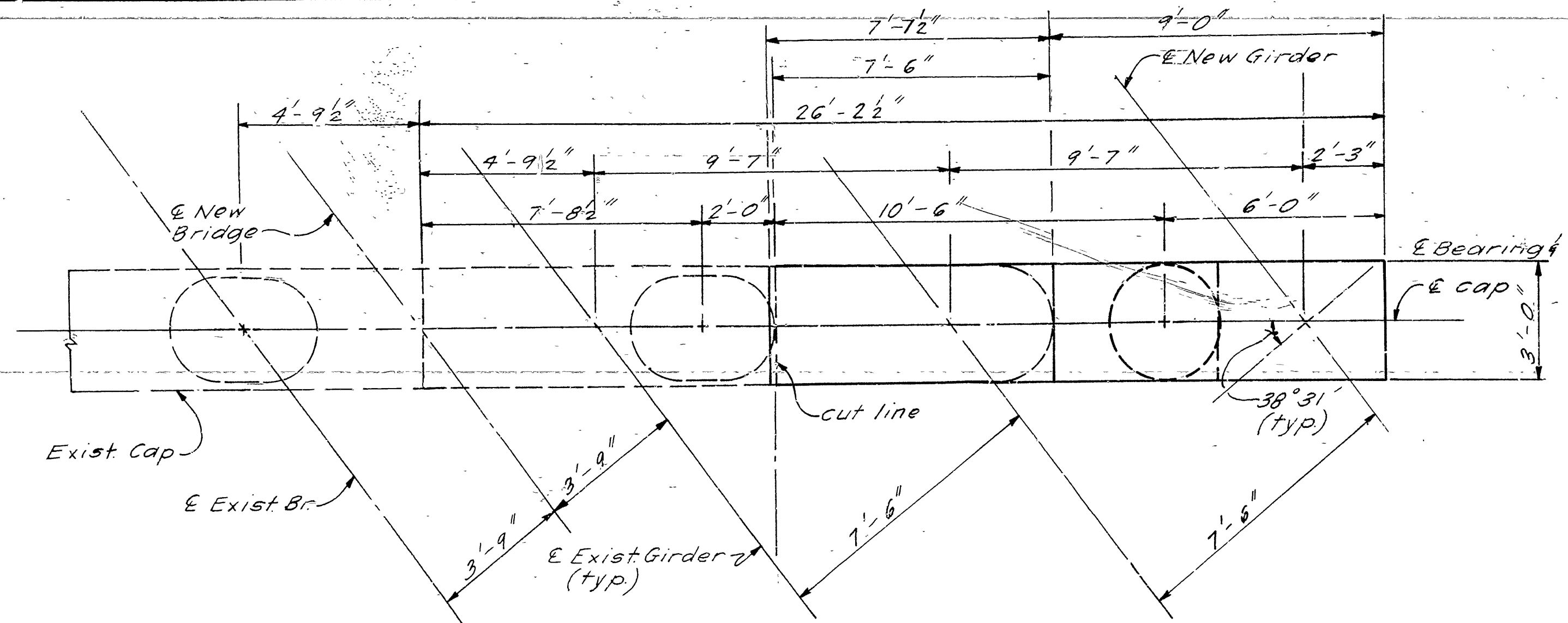
DRAWN BY: ARW DATE: 9-17-85

CHECKED BY: DAB DATE: 9-30-85 SCALE: As Noted

DESIGNED BY: ARW DATE: JUN-85

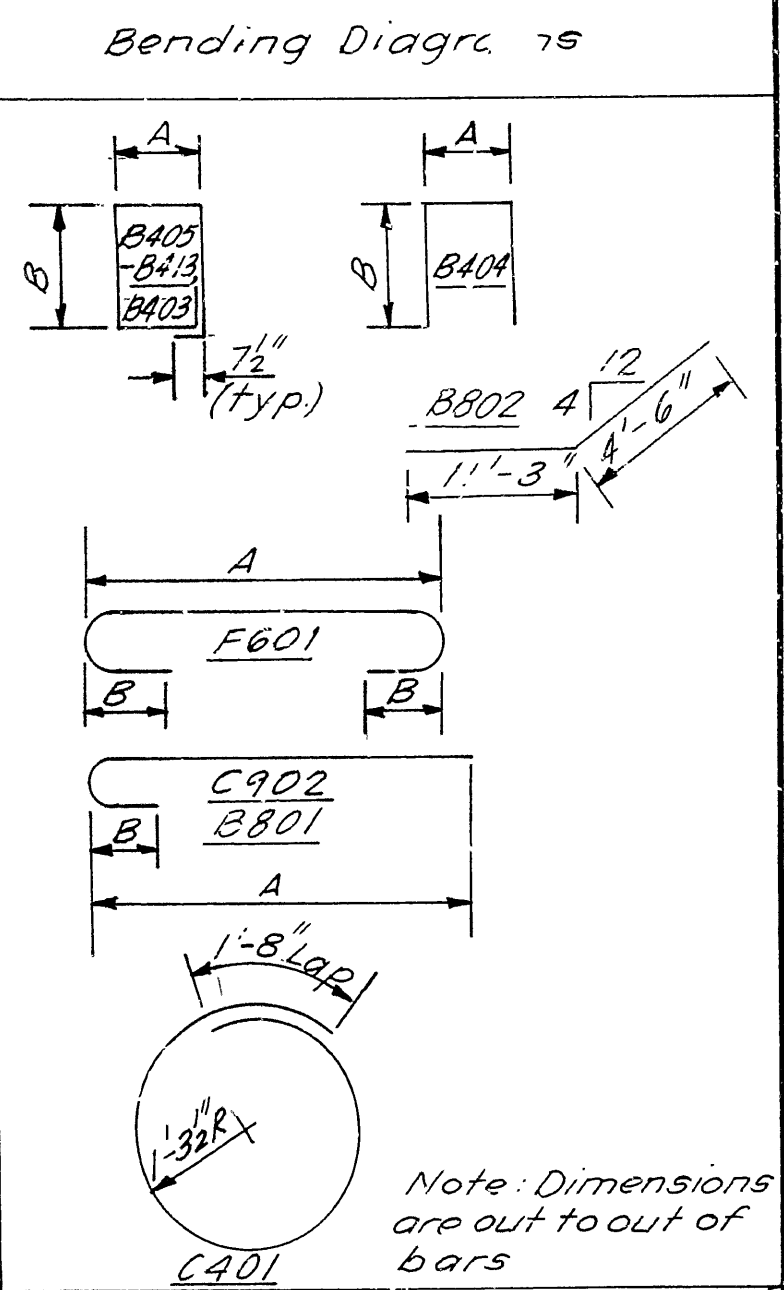
BRIDGE NO. 3162 AR&BR DRAWING NO. 27772

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133	27	80	
3/62 AR 8 BR DTLS. OF INT. BT 5 27773								



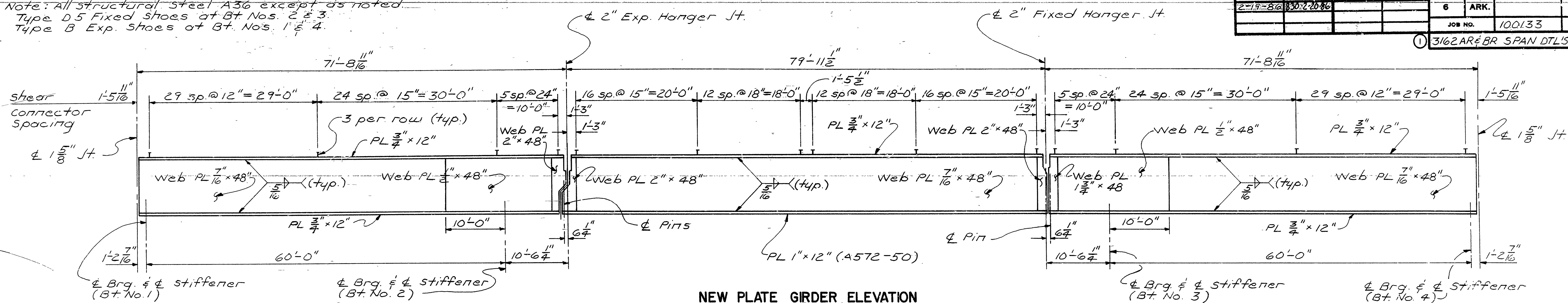
BAR LIST PER BENT

MK	No. Req'd.	Length	A	B	Pin Dia.
B401	2	15'-0"	-	-	str.
B402	4	16'-4"	-	-	str.
B403	9	14'-6"	2'-8"	4'-2"	2"
B404	3	10'-10"	2'-8"	4'-2"	2"
B405	1 ea.	14'-4"	2'-8"	4'-1"	2"
B413		11'-6"	2'-8"	2'-8"	2"
B801	5	17'-1"	16'-2"	8"	6"
B802	4	15'-9"	-	-	6"
C401	18	9'-9"	-	-	Cir.
C901	12	17'-6"	-	-	str.
C902	12	8'-3"	6'-9"	10"	9"
F601	24	7'-4"	6'-0"	6"	4 1/2"



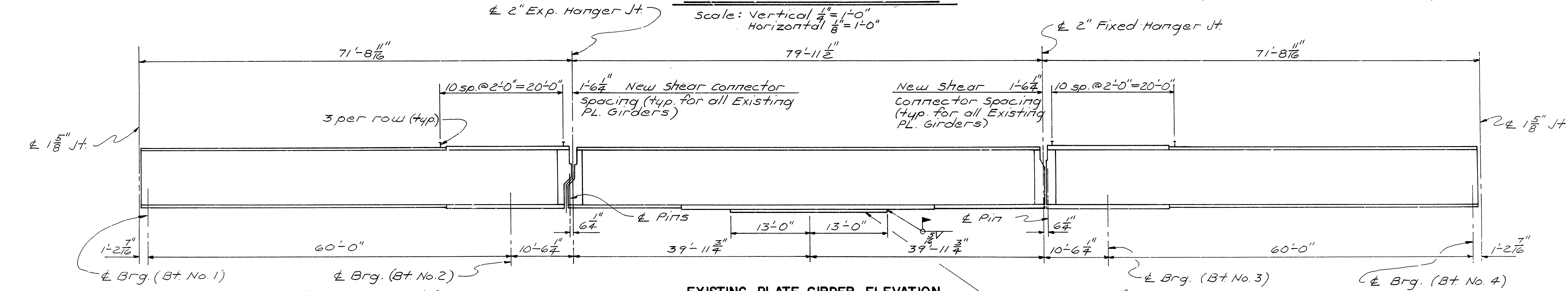
DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
2-19-86	8-16-86			6	ARK.			
				JOB NO.	100133		31	80
				3162 AR & BR SPAN DTL'S 27777				

Note: All structural steel A36 except as noted.
Type D5 Fixed Shoes at Bt. Nos. 2 & 3.
Type B Exp. Shoes at Bt. Nos. 1 & 4.



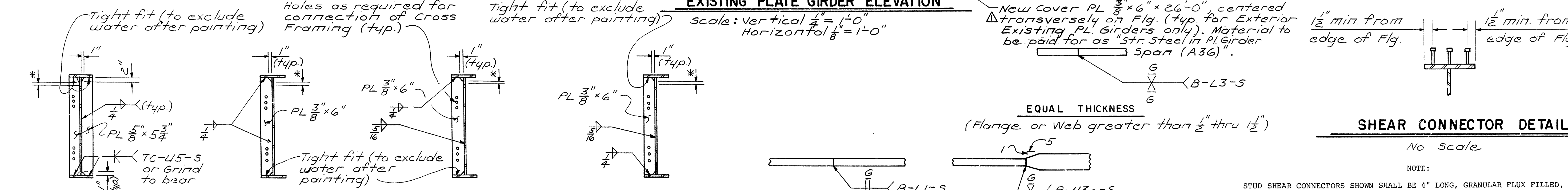
NEW PLATE GIRDER ELEVATION

Scale: Vertical $\frac{1}{4}$ " = 1'-0"
Horizontal $\frac{1}{8}$ " = 1'-0"



EXISTING PLATE GIRDER ELEVATION

Scale: Vertical $\frac{1}{4}$ " = 1'-0"
Horizontal $\frac{1}{8}$ " = 1'-0"

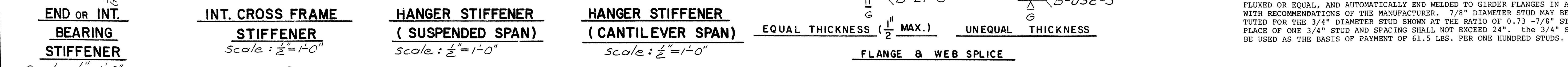


SHEAR CONNECTOR DETAIL

No Scale

NOTE:

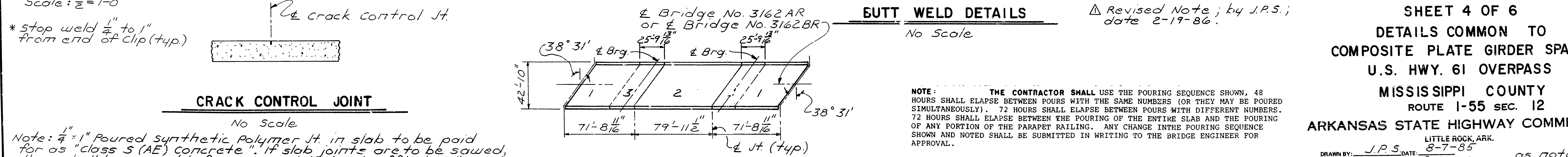
STUD SHEAR CONNECTORS SHOWN SHALL BE 4" LONG, GRANULAR FLUX FILLED, SOLID FLUXED OR EQUAL, AND AUTOMATICALLY END WELDED TO GIRDER FLANGES IN ACCORDANCE WITH RECOMMENDATIONS OF THE MANUFACTURER. 7/8" DIAMETER STUD MAY BE SUBSTITUTED FOR THE 3/4" DIAMETER STUD SHOWN AT THE RATIO OF 0.73 - 7/8" STUDS IN PLACE OF ONE 3/4" STUD AND SPACING SHALL NOT EXCEED 24". the 3/4" STUDS SHALL BE USED AS THE BASIS OF PAYMENT OF 61.5 LBS. PER ONE HUNDRED STUDS.



FLANGE & WEB SPLICE

BUTT WELD DETAILS

No Scale



POURING SEQUENCE

Scale: 1" = 50'-0"

SHEET 4 OF 6
DETAILS COMMON TO
COMPOSITE PLATE GIRDER SPANS
U.S. HWY. 61 OVERPASS
MISSISSIPPI COUNTY
ROUTE 1-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.
DRAWN BY: J.P.S. DATE: 8-7-85
CHECKED BY: GEC DATE: 8-16-85 SCALE: as noted
DESIGNED BY: ARW DATE: March-85
BRIDGE NO. 3162 AR & 3162 BR DRAWING NO. 27777

NOTE: THE CONTRACTOR SHALL USE THE POURING SEQUENCE SHOWN, 48 HOURS SHALL ELAPSE BETWEEN POURS WITH THE SAME NUMBERS (OR THEY MAY BE Poured SIMULTANEOUSLY). 72 HOURS SHALL ELAPSE BETWEEN POURS WITH DIFFERENT NUMBERS. 72 HOURS SHALL ELAPSE BETWEEN THE POURING OF THE ENTIRE SLAB AND THE POURING OF ANY PORTION OF THE PARAPET RAILING. ANY CHANGE IN THE POURING SEQUENCE SHOWN AND NOTED SHALL BE SUBMITTED IN WRITING TO THE BRIDGE ENGINEER FOR APPROVAL.

Final Inspection
BRIDGE ENGINEER

GENERAL NOTES

ALL CONCRETE TO BE CLASS S(AE). ALL EXPOSED CORNERS TO BE CHAMFERED 3/4" UNLESS OTHERWISE NOTED.

FIELD CONNECTIONS TO BE BOLTED WITH HIGH STRENGTH BOLTS. BOLTS: 3/4" Ø, OPEN HOLES 13/16" Ø EXCEPT WHERE NOTED OTHERWISE. BOLT SPACING SHALL BE 2-1/2" UNLESS OTHERWISE NOTED. MINIMUM EDGE DISTANCE SHALL BE 1-1/4" UNLESS OTHERWISE NOTED. BOLTS SHALL BE PLACED WITH HEADS ON THE OUTSIDE FACE OF THE EXTERIOR GIRDERS.

STRUCTURAL SHAPES OF EQUAL OR GREATER STRENGTH MAY BE SUBSTITUTED FOR SHAPES SHOWN, IF APPROVAL IS OBTAINED FROM THE BRIDGE ENGINEER. PAYMENT WILL BE MADE ON THE BASIS OF SHAPES SHOWN.

ALL WELDING SHALL CONFORM TO THE AMERICAN WELDING SOCIETY STANDARD SPECIFICATIONS FOR WELDED HIGHWAY AND RAILWAY BRIDGES, CURRENT EDITION.

SHOP PAINT: ALL NEW STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS, CONTACT SURFACES OF BOLTED CONNECTIONS, AND SURFACES WITHIN 3" OF HOLES AND FIELD WELDS, AND SURFACES IN CONTACT WITH CONCRETE SHALL BE GIVEN ONE PRIME COAT AS SPECIFIED IN SECTION 807.59 OF THE STANDARD SPECIFICATIONS.

FIELD PAINT: IN ADDITION TO THE PRIME COAT ALL NEW STRUCTURAL STEEL EXCEPT GALVANIZED MEMBERS AND SURFACES IN CONTACT WITH CONCRETE SHALL RECEIVE TWO COATS OF FIELD PAINT. FIRST COAT - SEE SP 807-10. SECOND COAT - ALUMINUM, SEE SP 807-10.

THESE DRAWINGS SHOW GENERAL FEATURES OF DESIGN ONLY. SHOP DRAWINGS SHALL BE MADE IN ACCORDANCE WITH SPECIFICATIONS, SUBMITTED AND APPROVAL SECURED BEFORE FABRICATION IS BEGUN.

REINFORCING STEEL TO BE ASTM A615 OR A617, GRADE 60. THE REINFORCING STEEL IS TO BE ACCURATELY LOCATED IN THE FORMS AND FIRMLY HELD IN PLACE BY STEEL WIRE SUPPORTS, SUFFICIENT IN NUMBER AND SIZE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION. THE WIRE SUPPORTS WILL NOT BE PAID FOR DIRECTLY BUT WILL BE CONSIDERED SUBSIDIARY TO THE ITEM OF "REINFORCING STEEL."

GIRDER WEBS MAY BE MADE BY SHOP SPlicing WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. FLANGE PLATES LONGER THAN 50 FT. MAY BE MADE BY SHOP SPlicing WITH MINIMUM LENGTH OF 25'-0" FOR SECTIONS. NO ADDITIONAL PAYMENT FOR WELDS FOR THESE SPLICES WILL BE MADE.

DESIGN SPECIFICATIONS: AASHTO 1983 WITH INTERIMS.

METHOD OF DESIGN: LOAD FACTOR

DESIGN LIVE LOADING: HS20 & MILITARY.

LOAD DISTRIBUTION:	TO INTERIOR GIRDER	TO EXTERIOR GIRDER
DEAD LOAD TO GIRDER	703#/FT.	617#/FT.
DEAD LOAD TO COMPOSITE GIRDER (INCLUDES 133#/FT FOR FUTURE WEARING SURFACES)	211#/FT.	367#/FT.
LIVE LOAD TO COMPOSITE GIRDER	1.3636 WHEELS + IMPACT	1.2766 WHEELS + IMPACT
UNIT STRESSES:		

COMPRESSIVE STRENGTH OF CLASS S(AE) CONCRETE (N=9)	3500 PSI
YIELD STRENGTH OF REINFORCING STEEL	60,000 PSI
YIELD STRENGTH OF STRUCTURAL STEEL (A572-50)	50,000 PSI
YIELD STRENGTH OF STRUCTURAL STEEL (A36)	36,000 PSI

ALL FLANGE AND WEB PLATES OF GIRDERS ARE CONSIDERED MAIN LOAD CARRYING MEMBERS AND SHALL MEET THE CHARPY V-NOTCH TEST REQUIREMENTS OF SECTION 807.05.

ALL GIRDERS SHALL BE BLOCKED IN THEIR TRUE POSITION, WITH WEB PLATES HORIZONTAL IN THE SHOP, IN GROUPS OF A MINIMUM OF THREE SECTIONS, BUT INCLUDE TWO BEARINGS. SEE SECTION 807.16(b) OF THE STANDARD SPECIFICATIONS. THE CAMBER, LENGTH OF SECTION, DISTANCE BETWEEN BEARINGS AND OPENINGS OF JOINTS SHALL BE MEASURED WITH THE BEAMS IN THIS POSITION AND THIS INFORMATION SHALL BECOME A PART OF THE PERMANENT RECORDS OF THIS JOB. THE COMPONENT PARTS SHALL BE MATCH MARKED IN THIS ASSEMBLY AND THESE MARKS SHALL BE SHOWN ON THE ERECTION DIAGRAM. ALL GIRDER DIMENSIONS ARE BASED ON A TEMPERATURE OF 60° F.

FLANGES NOTED ON GIRDER ELEVATION AS HIGH STRENGTH LOW ALLOY COLUMBIUM VANADIUM STEEL, ASTM DESIGNATION A572, grade 50, SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A572-50." ALL OTHER STRUCTURAL STEEL SHALL BE ASTM DESIGNATION A36 AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER POUND BID FOR "STRUCTURAL STEEL IN PLATE GIRDER SPANS A36."

ALL WELDING THAT IS TO BE DONE DURING FABRICATION OF STRUCTURAL STEEL, INCLUDING TEMPORARY WELDS SHALL BE DETAILED ON THE SHOP DRAWINGS AND SUBMITTED FOR APPROVAL. IF THE CONTRACTOR OR ERECTOR SHOULD WANT TO MAKE ADDITIONAL WELDS, WHETHER TEMPORARY OR PERMANENT, HE SHALL SUBMIT DETAILED DRAWINGS WITH A FORMAL REQUEST TO THE BRIDGE DESIGN DIVISION OF THE ARKANSAS STATE HIGHWAY AND TRANSPORTATION DEPARTMENT FOR APPROVAL. ALL WELDING SHALL CONFORM TO SP 807-5.

ALL CONCRETE SHALL BE POURED AND SCREEDED OFF PRIOR TO INITIAL SET. THE CONCRETE DECK SHALL BE FINISHED IN ACCORDANCE WITH SECTION 802.23 OF THE STANDARD SPECIFICATIONS. MOVEMENT OF THE FINISHING MACHINE ACROSS NEW CONCRETE SHALL BE ON PLANKS PLACED ON THE SURFACE AND SHALL BE PROHIBITED FOR 72 HOURS AFTER FINISHING POUR. SUFFICIENT CONCRETE MUST BE PLACED AHEAD OF THE STRIKE-OFF TO FULLY LOAD THE BEAM. IF A LONGITUDINAL STRIKE-OFF IS USED, A VERTICAL CAMBER ADJUSTMENT MUST BE MADE IN THE STRIKE-OFF TO ACCOUNT FOR THE FUTURE DEAD LOAD DEFLECTION OF THE RAILING.

STEEL PLATES FOR MAIN MEMBERS AND MAIN TENSION MEMBERS, NOT SECONDARY MEMBERS, SHALL BE CUT AND FABRICATED SO THAT THE PRIMARY DIRECTION OF THE ROLLING IS PARALLEL TO THE DIRECTION OF THE MAIN TENSILE AND/OR COMPRESSIVE STRESSES.

ALL CROSS FRAMES SHALL BE INSTALLED AND COMPLETELY BOLTED PRIOR TO POURING OF FLOOR SLABS. EXCEPT CONNECTIONS TO EXISTING GIRDER. BOLTS FOR CROSS FRAMES CONNECTING NEW PLATE GIRDERS TO EXISTING PLATE GIRDERS SHALL BE INSTALLED WITH NUTS FINGER TIGHT UNTIL AFTER SLAB IS POURED. CROSS FRAMES SHALL BE INSTALLED AS PLATE GIRDERS ARE ERECTED.

ALL METAL BEARING AND ROADWAY EXPANSION DEVICES SHALL BE PAID FOR AS "STRUCTURAL STEEL IN BEAM SPANS (A36)."

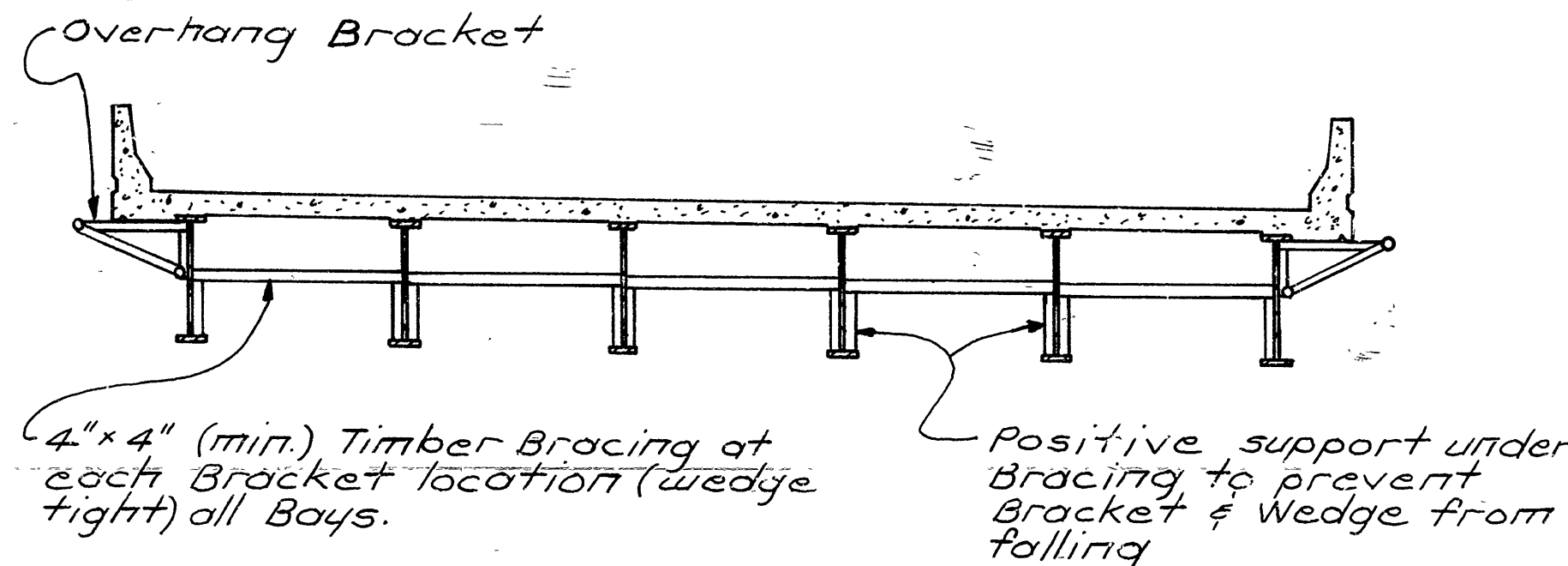
BEARINGS SHALL BE FIRMLY SEATED IN ACCORDANCE WITH SECTION 807.51 OF THE STANDARD SPECIFICATIONS. THIS WORK AND MATERIAL ARE TO BE CONSIDERED AS SUBSIDIARY TO THE ITEM "STRUCTURAL STEEL IN PLATE GIRDER SPANS" AND WILL NOT BE PAID FOR DIRECTLY.

ANCHOR BOLTS SHALL BE GALVANIZED TO CONFORM TO ASTM SPECIFICATIONS, DESIGNATION A153 & SP 100-10.

ALL CASTINGS FOR SHOES SHALL BE ASTM A27, GRADE 70-40 OR 70-36.

WELDED SHOES MAY BE USED IN PLACE OF THE TYPE "D" SHOES SHOWN. APPROVED DETAILS WILL BE FURNISHED ON REQUEST.

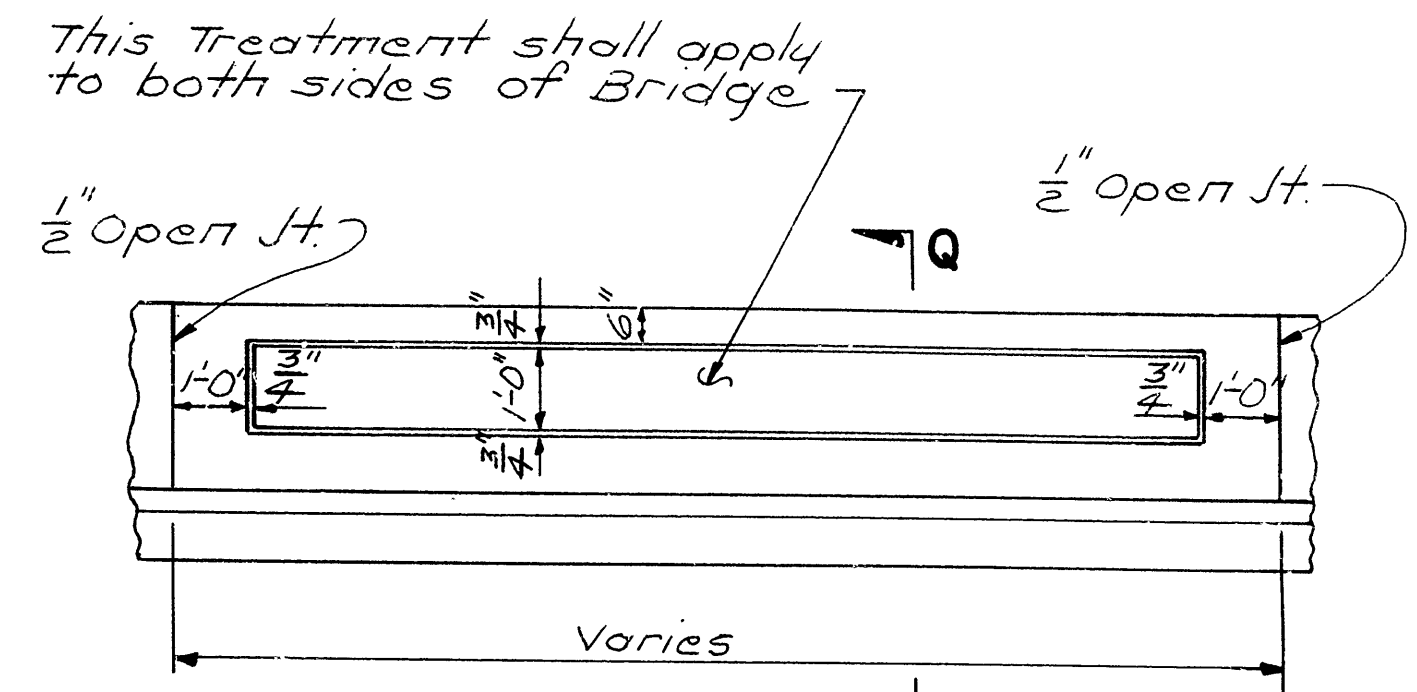
SPECIFICATIONS: ARKANSAS STATE HIGHWAY COMMISSION STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, EDITION OF 1978 WITH APPLICABLE SPECIAL PROVISIONS.
ALL EXISTING STRUCTURAL STEEL SHALL BE PAINTED.
FOR PAINTING EXISTING STRUCTURAL STEEL, SEE JOB SP "PAINTING EXISTING STRUCTURAL STEEL."



SCREED RAIL SUPPORT DETAIL

Scale: 3/16" = 1'-0"

Note: If a transverse finishing machine is used the rail shall be supported directly over the exterior PL Girder or as an alternate the rail may be supported by the overhang brackets if the above strutting system is used.



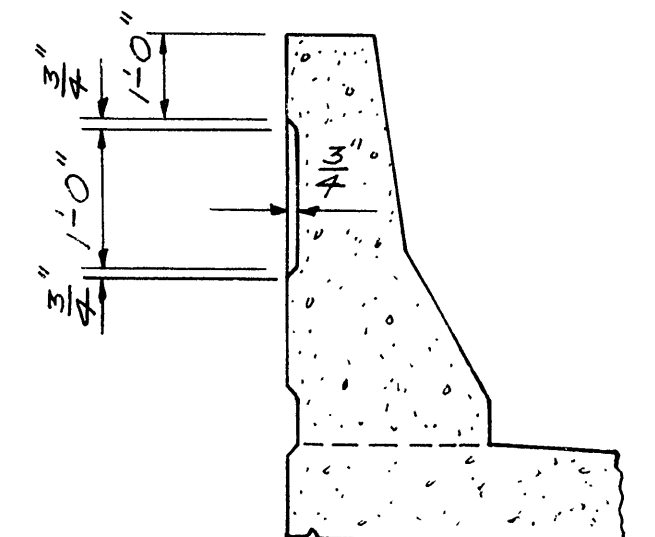
ELEVATION SHOWING TREATMENT FOR PARAPET RAILING

No Scale

TABLE OF DEAD LOAD DEFLECTION (INCHES)

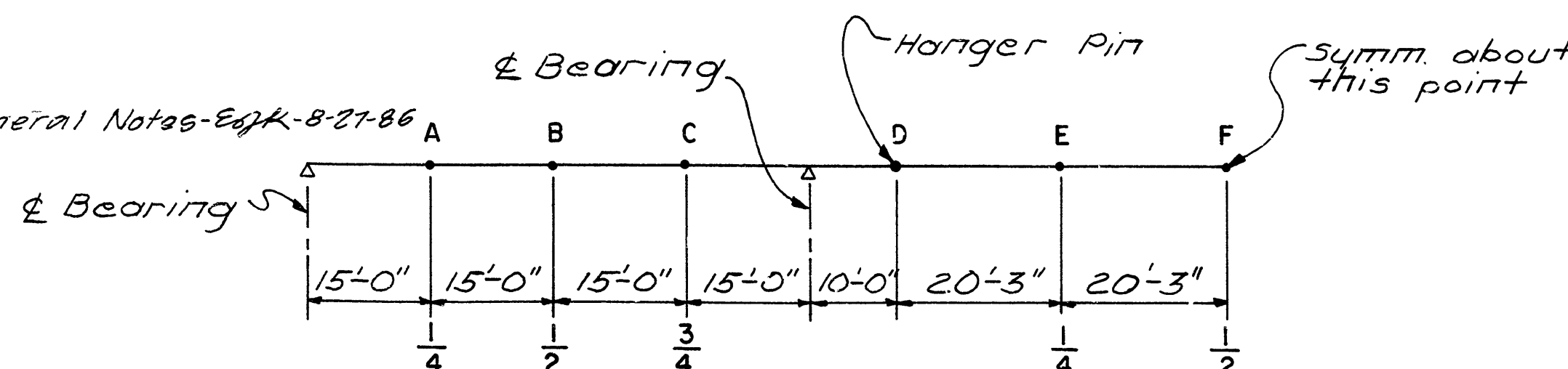
Point of Deflec.	New PL Girder			Existing PL Girder		
	Wt. of Girder	Wt. of Girder & Slab	Wt. of Slab & Parapet	Wt. of Girder	Wt. of Girder & Slab	Wt. of Slab & Parapet
A	0.0250	0.1655	0.1928	0.0200	0.2210	0.2530
B	0.0272	0.1926	0.2247	0.0200	0.2570	0.2940
C	0.0091	0.0855	0.1003	-0.0030	0.0670	0.0780
D	0.0165	0.0544	0.0644	0.0170	0.0600	0.0620
* E	0.2435	1.1744	1.2894	0.2410	1.2350	1.3240
* F	0.3345	1.6244	1.7814	0.3300	1.7000	1.8220

* Includes Deflection at hinge



SECTION Q-Q

Scale: 3/4" = 1'-0"



DEAD LOAD DEFLECTION DIAGRAM

CAMBER FOR DEAD LOAD DEFLECTION PLUS VERTICAL CURVE + 1/4" TOLERANCE. DEFLECTIONS SHOWN ARE FROM A CHORD FROM CENTERLINE BEARING TO CENTERLINE BEARING. VERTICAL CURVE CORRECTIONS NOT INCLUDED. NEGATIVE SIGN (-) INDICATES POINT ABOVE CHORD.

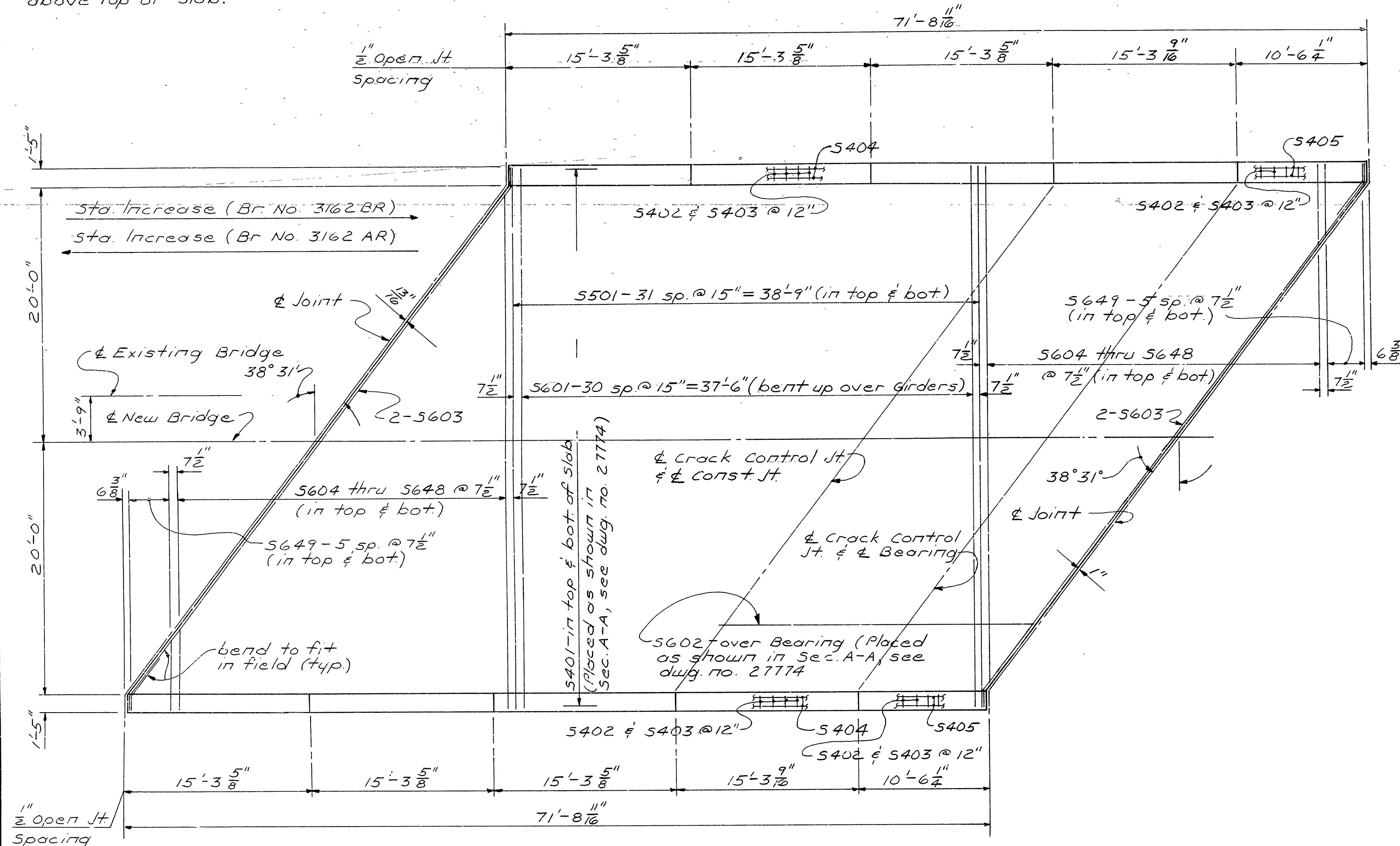
SHEET 6 OF 6
DETAILS COMMON TO
COMPOSITE PLATE GIRDER SPANS
U.S. HWY. 61 OVERPASS
MISSISSIPPI COUNTY
ROUTE 1-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION

LITTLE ROCK, ARK.
7-23-85
DRAWN BY: J.P.S. DATE: 7-23-85 SCALE: as noted
CHECKED BY: GEC DATE: 8-16-85
DESIGNED BY: ARW DATE: March-85
BRIDGE NO. 3162 AR & 3162 BR DRAWING NO. 27779

BRIDGE ENGINEER

DATE REVISED	DATE FILMED	DATE REVISED	DATE FILMED	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
				6	ARK.			
				JOB NO.	100133		34	80
① 3162AR & BR SPAN DTL'S. 27780								

Note: $\frac{1}{2}$ open joints shall stop 4' above top of slab.



REINFORCING PLAN

Scale: $\frac{3''}{16} = 1'-0''$

Note: The Reinforcing Plan shown is typical for Span No. 1. Span No. 3 is opposite hand to the Reinforcing Plan shown.

EPOXY COATED REINF. STEEL

MK.	No. Reg'd
3401	68
3501	32
3601	31
3602.	46
3603	2
3604 to 3648	2 ea
3649	12

Note: The contractor may, at his option and at his own expense, substitute two straight #6 bars for each S601 trussed bar. Payment for reinforcing steel will be based on S601 bars. Bars in top mat shall be epoxy coated.

**Number Required includes epoxy coated Bars.

BAR LIST PER SPAN

MK.	** No. Req'd.	Length	Pin Dia.	Bending Diagrams
* 5401	200	36'-5"	str.	
5402	150	5'-6"	2"	
5403	150	6'-0"	2"	
5404	48	14'-11"	str.	
5405	12	10'-2"	str.	
* 5501	64	42'-6"	str.	
* 5601	31	43'-7"	3 ³ / ₄ "	
* 5602	46	26'-0"	str.	
* 5603	4	53'-6"	str.	
* 5604 to 5648	4 ea.	40'-9" to 6'-2"	str.	
* 5649	24	5'-5"	str.	

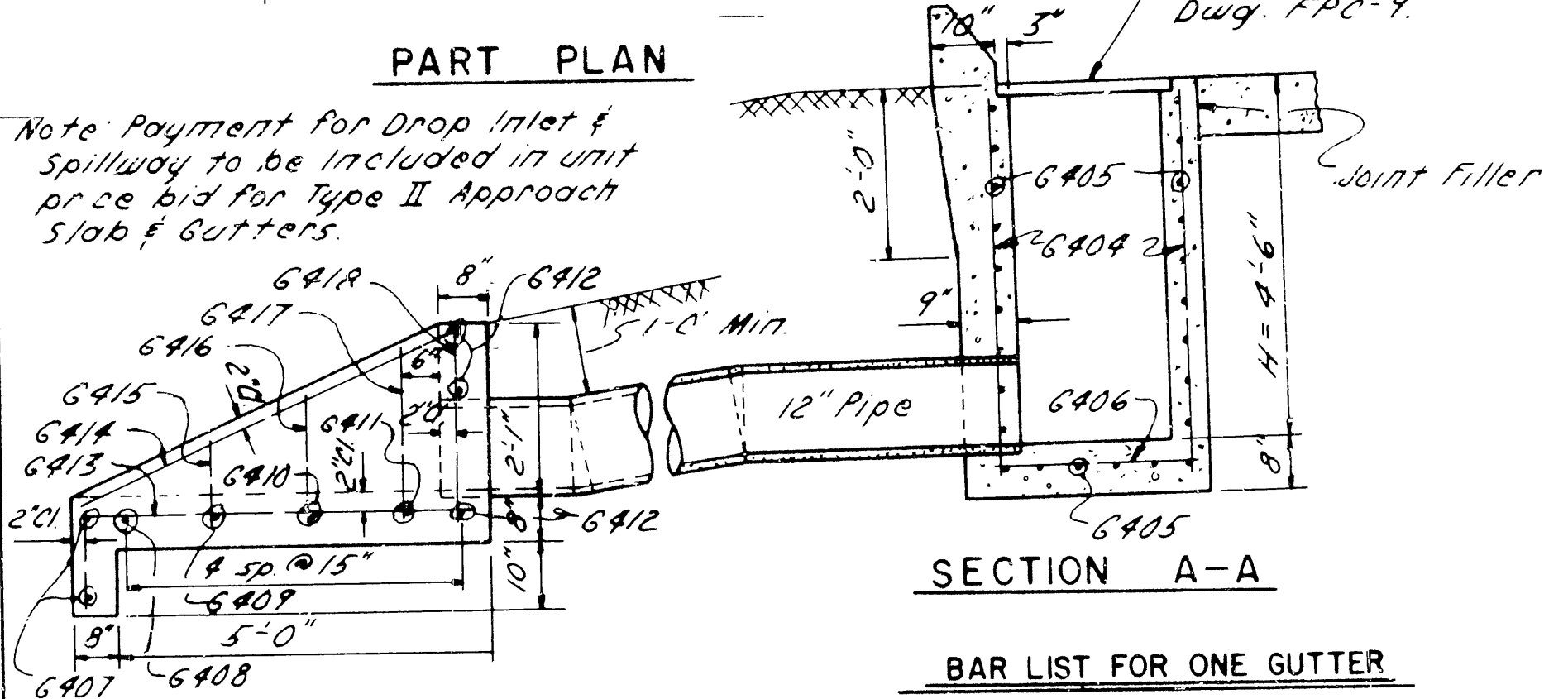
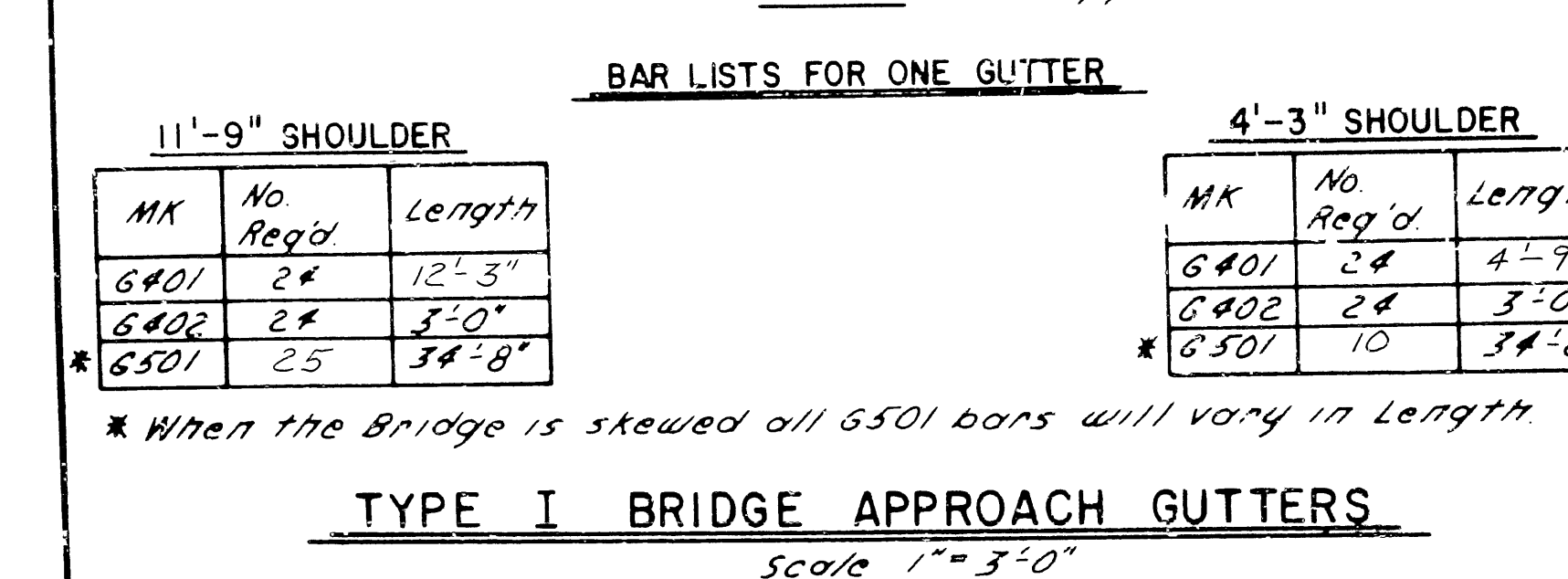
* Bars in top mat shall be Epoxy Coated - see SP Job 100133 Epoxy Coated Reinforcing Steel.

DETAILS OF SPAN
NOS. 1 & 3

71'-8 $\frac{11}{16}$ " CANTILEVER
COMPOSITE PLATE GIRDER SPANS
U.S. HWY. 61 OVERPASS
MISSISSIPPI COUNTY
ROUTE 1-55 SEC. 12
ARKANSAS STATE HIGHWAY COMMISSION
LITTLE ROCK, ARK.

DRAWN BY: J.P.S. DATE: 8-7-85
 CHECKED BY: GFC DATE: 8-16-85 SCALE: as noted
 DESIGNED BY: APW DATE: March-85
 BRIDGE NO. 3162AR & 3162BR DRAWING NO. 27780

Gerard P. ...
BRIDGE ENGINEER



MX	No. Req'd				Length	Bending Diagram
	11'-9" 5#	8'-0" 5#	6'-0" 5#			
6401	21	21	21		1 + 6"	<p>12' 5" 2" p.d. 6413</p>
6402	24	24	24		3'-0"	
6403	3	3	3		A - (3'-1")	
6404	24	24	24		4'-10"	
6405	24	24	24		3'-8"	
6406	26	26	26		2'-8"	
6407	2	2	2		3'-8"	
6408	1	1	1		3'-5"	
6409	1	1	1		3'-1"	
6410	1	1	1		2'-9"	
6411	1	1	1		2'-5"	
6412	3	3	3		2'-2"	
6413	3	3	3		6'-5"	
6414	2	2	2		5'-9"	
6415	2	2	2		1'-2"	
6416	2	2	2		1'-8"	
6417	2	2	2		2'-2"	
6418	2	2	2		2'-5"	
6501	18	10	6		3'-8"	
6502	7	7	7		30'-8"	

