

JEFFERSON COUNTY
BROWNSBORO ROAD
U.S. 42 OVER I-264

① Estimated weight of Structural Steel Is 85247 lbs.
② Estimated weight of Stud Shear Connectors Is 120 lbs.

[illegible]

U.S. 42 OVER WATTERSON X-WAY	SHEET 1 of 17
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF JEFFERSON BROWNSBORO RD. (U.S. 42) ROAD	
STATION 13+06.24	P.E. PROJECT NO.316 FSP 56 264 022-023 128
CONSTRUCTION PROJECT NO. IR 264-(1118)21	MAINTENANCE PROJECT NO. DRAWING NO. 21592

UPDATE DATE
LETTING DATE

THE KENTUCKY DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND
BRIDGE CONSTRUCTION, CURRENT EDITION SHALL APPLY TO THIS PROJECT.

THIS BRIDGE IS DESIGNED FOR HS20-44 LIVE LOAD, AS SPECIFIED IN 1983 AASHTO SPECIFICATIONS OR ALTERNATE LOADING OF TWO 24-KIP AXLES SPACED FOUR FEET APART, WHICHEVER PRODUCES THE GREATER STRESS. THIS BRIDGE IS DESIGNED FOR A WIND LOAD BASED ON A WIND VELOCITY OF 84 MPH.

ALL REINFORCED CONCRETE MEMBERS ARE DESIGNED BY THE LOAD FACTOR METHOD AS SPECIFIED IN THE CURRENT AASHTO SPECIFICATIONS.

FOR STRUCTURAL STEEL
FS = 20000 PSI FOR AASHTO M 183 OR ASTM A36 STEEL

CLASS 'AA' CONCRETE IS TO BE USED THROUGHOUT THE SUPERSTRUCTURE AND IN THE PORTIONS OF THE SUBSTRUCTURE ABOVE THE TOP OF THE CAPS EXCEPT IN THE PEDESTALS. CLASS 'A' CONCRETE IS TO BE USED IN THE PEDESTALS AND IN THE SUBSTRUCTURE BELOW THE TOP OF THE CAPS.

DIMENSIONS SHOWN FROM THE FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES UNLESS OTHERWISE SHOWN. SPACING OF BARS IS FROM CENTER TO CENTER OF BARS.

ALL REINFORCING BARS DESIGNATED BY SUFFIX (E) IN THE PLANS SHALL BE EPOXY COATED IN ACCORDANCE WITH SECTION 811.10 OF THE STANDARD SPECIFICATIONS.

ALL EXPOSED EDGES SHALL BE BEVELED 7/8" UNLESS OTHERWISE SHOWN.

THE QUANTITIES SHOWN IN THE BILL OF INCIDENTAL MATERIALS ARE APPROXIMATE ONLY AND THE CONTRACTOR IS RESPONSIBLE FOR FURNISHING ENOUGH MATERIAL TO COMPLETE THE WORK IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE COST OF THESE ITEMS IS TO BE INCLUDED IN THE UNIT PRICE BID FOR CLASS 'A' CONCRETE.

THE LUMP SUM BID FOR STRUCTURAL STEEL SHALL BE FULL PAYMENT FOR ALL NEW STRUCTURAL STEEL, BOLTS, WASHERS, WELDING AND WELDING MATERIALS, PAINT AND ALL LABOR AND MATERIALS NECESSARY TO ERECT THE NEW STEEL AND TO MODIFY OR REMOVE THE EXISTING STEEL IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS. THE APPROXIMATE WEIGHT OF STRUCTURAL STEEL SHOWN IN THE ESTIMATE OF QUANTITIES DOES NOT INCLUDE OVERRUN OR WELD MATERIAL.

Holes of depth and dimensions shown shall be drilled for anchor bolts or dowels. After base plates are properly set, by the superstructure contractor who shall be responsible for keeping holes dry in freezing weather. After base plates are properly set, anchor bolt holes drilled, and anchor bolts heated to a blue heat are placed in drilled holes, molten lead shall be poured into holes and packed until holes are completely filled flush to top of base plate. The heated, molten lead and anchor bolts heating anchor bolts furnishing lead, and filling holes with molten lead shall be incidental to and included in the lump sum bid for structural steel.

THE NAMES OF THE PRIME CONTRACTOR AND THE SUB-CONTRACTOR SHALL BE IMPRINTED IN THE CONCRETE WITH ONE INCH LETTERS AT A LOCATION DESIGNATED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH ALL PLANS, EQUIPMENT AND LABOR NECESSARY TO DO THE WORK FOR WHICH NO DIRECT PAYMENT WILL BE MADE.

SLOPE PROTECTION SHALL BE CRUSHED AGGREGATE SLOPE PROTECTION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

THE "LUMP SUM BID" FOR SHEAR CONNECTORS SHALL BE FULL PAYMENT FOR ALL SHEAR CONNECTORS, WELDING AND WELDING MATERIAL, AND MATERIALS NECESSARY TO FIELD WELD OR SHOP WELD THE SHEAR CONNECTORS IN PLACE ACCORDING TO THE PLANS AND SPECIFICATIONS.

THE CONTRACTOR SHALL USE ONE OF THE FOLLOWING OPTIONS THROUGHOUT THIS STRUCTURE:

- THE MINIMUM LENGTH OF STUDS IS 4'. PROVIDE THE NECESSARY LENGTH TO PENETRATE
AT LEAST 2' ABOVE BOTTOM OF SLAB.

IF THE CONTRACTOR WISHES TO USE OTHER THAN 3/4" STUD SHEAR CONNECTORS SHOWN ON THE PLANS, THE PROPOSED ARRANGEMENT SHALL BE SUBMITTED FOR APPROVAL WITH THE SHOP PLANS.

UNLESS OTHERWISE PROVIDED ON THE PLANS, ALL FIELD CONNECTIONS SHALL BE 7/8" DIAMETER HIGH STRENGTH BOLTS. OPEN HOLES SHALL BE 15/16" DIAMETER. ALL JOINTS ARE DESIGNED AS FRICTION TYPE CONNECTIONS. TIGHTENING SHALL BE DONE WITH PROPERLY CALIBRATED WRENCHES.

STUDS SHALL BE WELDED IN ACCORDANCE WITH AWS SPECIFICATIONS.

EXCEPT AS SHOWN ON THE PLANS, NO WELDING OF ANY NATURE SHALL BE PERFORMED ON THE LOAD CARRYING MEMBERS OF THE BRIDGE WITHOUT THE WRITTEN CONSENT OF THE DIRECTOR, DIVISION OF BRIDGES, OR HIS AUTHORIZED REPRESENTATIVE, AND THEN ONLY IN THE MANNER AND AT THE LOCATIONS DESIGNATED IN THE AUTHORIZATION.

THE LUMP SUM BID FOR THIS ITEM SHALL INCLUDE FURNISHING ALL JUNCTION BOXES, CONDUIT AND OTHER MATERIALS AND LABOR NECESSARY FOR PLACING THESE MATERIALS IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.

IF ELECTRICAL CONDUIT IS FOUND WITHIN THE EXISTING CONCRETE THAT IS TO BE REMOVED, THE CONDUIT SHALL BE REMOVED. HOWEVER, THE CONTRACTOR SHALL DETERMINE IF LIVE ELECTRICITY IS IN THE CONDUIT BEFORE REMOVAL.

ALL AREAS OF EXISTING STEEL THAT ARE TO BE IN CONTACT WITH NEW STEEL, INCLUDING AREAS UNDER BOLT HEADS, SHALL BE CLEANED OF ALL DIRT, RUST, PAINT, AND OTHER FOREIGN MATTER BEFORE INSTALLING THE NEW STEEL. THE COST OF THIS CLEANING IS TO BE INCIDENTAL TO THE LUMP SUM BID FOR STRUCTURAL STEEL.

THE TOPS OF ALL EXISTING STEEL STRINGERS, AND OTHER STEEL TO BE IN CONTACT WITH NEW CONCRETE, ARE TO BE CLEANED OF ALL RUST AND OTHER FOREIGN MATTER BEFORE POURING THE CONCRETE FLOOR. THE COST OF MATERIAL AND LABOR IS TO BE INCIDENTAL TO THE LUMP SUM BID FOR STRUCTURAL STEEL.

THE COST OF CUTTING, BENDING, AND CLEANING EXISTING REINFORCING STEEL IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR REMOVE CONCRETE MASONRY.

NEW CONCRETE SHALL BE BONDED TO OLD CONCRETE AS SHOWN ON PLANS WITH A TWO-COMPONENT EPOXY RESIN SYSTEM CONFORMING TO SECTION 833 OF THE SPECIFICATIONS. THE COST OF THIS WORK, INCLUDING ALL LABOR, TOOLS AND MATERIALS, IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR CLASS 'AA' CONCRETE.

THE COST OF DRILLING HOLES IN EXISTING CONCRETE FOR DOWELS AND THE COST OF NON-SHRINKING GROUT IS TO BE INCIDENTAL TO THE UNIT PRICE BID FOR REMOVE CONCRETE MASONRY.

THE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES TO THE STRUCTURE DURING RECONSTRUCTION, EVEN TO THE REPLACEMENT OF ENTIRE SPANS AND REMOVAL OF THE FALLEN SPANS AT HIS EXPENSE, SHOULD THEY BE ALLOWED TO FALL DUE TO HIS ACTIONS.

THE EXISTING ALUMINUM HANDRAIL, INCLUDING POSTS, SHALL BE CAREFULLY REMOVED AND STACKED NEAR THE SITE AS DIRECTED BY THE ENGINEER. THIS MATERIAL SHALL REMAIN THE PROPERTY OF THE DEPARTMENT. THE COST OF THIS ITEM OF WORK SHALL BE INCIDENTAL TO THE CONTRACT.

THE CONTRACTOR SHALL REMOVE CONCRETE WITH A METHOD THAT WILL NOT DAMAGE THE EXISTING REINFORCEMENT THAT IS TO BE UTILIZED IN THE NEW CONSTRUCTION NOR DAMAGE THE EXISTING SLAB. THE CONTRACTOR SHALL USE APPROVED PLATFORMS TO CATCH DEBRIS FROM FALLING ONTO UNDERNEATH ROADWAYS, OR PROVIDE FLAGMEN TO STOP TRAFFIC.

DESIGNED BY <u>D. KRAFT</u>	CHECKED BY <u>L. GRAVES</u>	DATE <u>2/6/68</u>	REVISED _____	DATE _____
DRAWN BY _____	CHECKED BY _____	DATE _____	REVISED _____	DATE _____
PACKED BY _____	CHECKED BY _____	DATE _____	REVISED _____	DATE _____

GENERAL NOTE

US 42 OVER WATTEYSON X-WAY		SHEET 2	
COMMONWEALTH OF KENTUCKY			
DEPARTMENT OF HIGHWAYS			
FRANKFORT			
COUNTY OF			
JEFFERSON			
BROWNSBORO RD. (U. S. 42)			
ROAD			
STATION 131+06.24 P.E. PROJECT NO.			
CONSTRUCTION PROJECT NO.		MAINTENANCE PROJECT NO.	
		DRAWING NO. 21592	

UPDATE DATE
LETTING DATE

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SAWCUTTING EXISTING CONCRETE

PRIOR TO THE REMOVAL OF THE EXISTING CONCRETE MASONRY, CUT THE SURFACE WITH A CONCRETE SAW TO A DEPTH OF ONE INCH TO FACILITATE A NEAT LINE. THE COST OF CUTTING CONCRETE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR REMOVING CONCRETE MASONRY.

WELDING SPECIFICATIONS

ALL WELDING AND WELDING MATERIALS EXCEPT FOR REINFORCEMENT, SHALL CONFORM TO AWS D.1.1-80 'STRUCTURAL WELDING CODE'. MODIFICATION AND ADDITIONS AS STATED ON THE PLANS, AASHTO 1981 STANDARD SPECIFICATIONS FOR WELDING OF STRUCTURAL STEEL HIGHWAY BRIDGES, AND SPECIAL PROVISION 4(88), CURRENT EDITION, SHALL SUPERSEDE THE AWS SPECIFICATIONS.

FOUNDATION PRESSURE

ABUTMENTS FOOTINGS ARE DESIGNED FOR A MAXIMUM PRESSURE OF 12000 PSF. PIER FOOTINGS ARE DESIGNED FOR A MAXIMUM PRESSURE OF 12000 PSF. ALL FOOTINGS SHALL BE POURED ON SOLID ROCK.

CLEANING AND PAINTING

SECTION 607.25 OF THE SPECIFICATIONS APPLIES TO THIS PROJECT AND CONTRACTORS ARE HEREBY REMINDED THAT IN ACCORDANCE WITH THAT SECTION ALL STEEL SURFACES TO BE PAINTED, INCLUDING EXPOSED SURFACES OF SPLICE PLATES NUTS, BOLTS, AND WASHERS, SHALL BE BLAST CLEANED TO A NEAR-WHITE CONDITION IN ACCORDANCE WITH SSPC-SP10 IMMEDIATELY PRIOR TO BEING PAINTED WITH THE FIRST COAT OF PAINT, REGARDLESS OF WHETHER THE FIRST COAT IS APPLIED IN THE SHOP OR IN THE FIELD.

MATERIALS

ASTM OR AASHTO SPECIFICATIONS, CURRENT EDITION, AS DESIGNATED BELOW SHALL GOVERN THE MATERIALS FURNISHED.

MATERIAL	A. S. T. M.	AASHTO
STRUCTURAL STEEL		M-183
PINTLES AND STUD SHEAR CONNECTORS, UNS G 1015		M-169
HIGH STRENGTH BOLTS, NUTS, AND WASHERS		M-164
SHEET LEAD AND PIG LEAD	B29-79	

ALL ANCHOR BOLTS, NUTS, AND WASHERS FOR LIGHT POLE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A123-78.

EXISTING LIGHT POLE

THE EXISTING LIGHT POLE SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR AND SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE RIGHT OF WAY. THE COST OF THIS REMOVAL SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR REMOVE CONCRETE MASONRY.

UTILITY LINE

THE EXISTING GAS LINE SHALL BE CAREFULLY REMOVED BY THE CONTRACTOR AND SHALL BECOME PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM THE RIGHT OF WAY. THE CONTRACTOR SHALL COOPERATE WITH THE UTILITY OWNERS DURING THE CONSTRUCTION. THE COST OF THIS REMOVAL SHALL BE INCIDENTAL TO THE UNIT PRICE BID FOR REMOVE CONCRETE MASONRY.

CONCRETE FINISH

ALL NEW PORTIONS OF THE BRIDGE SUPERSTRUCTURE SHALL RECEIVE A MASONRY COATING FINISH IN ACCORDANCE WITH THE SPECIFICATIONS. ONLY THE NEW PORTIONS OF BRIDGE SUBSTRUCTURE SHALL RECEIVE AN ORDINARY SURFACE FINISH.

GENERAL NOTE

TRAFFIC

THE CONTRACTOR SHALL PLACE THE HOT-POURED JOINT SEALER AT THE EXPANSION DAM AND THE PREFORMED COMPRESSION JOINT SEALER AT THE ARMORED EDGE EXPANSION JOINTS AT LOW TRAFFIC VOLUME HOURS AS OUTLINED IN THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND AS DIRECTED BY THE ENGINEER. THE COST OF THIS ITEM SHALL BE INCIDENTAL TO THE CONTRACT. SEE THE ROAD PLANS FOR ALL OTHER TRAFFIC NOTES.

PAINTING DAMAGED AREAS

ALL AREAS OF NEW OR EXISTING STRUCTURAL STEEL ON WHICH THE PAINT HAS BEEN DAMAGED BY THE CONTRACTOR WITH WELD BURNS OR BY OTHER MEANS SHALL BE CLEANED AND SPOT PAINTED IN ACCORDANCE WITH SECTION 607.25 OF THE SPECIFICATIONS USING THE SAME COATS OF PAINT SPECIFIED FOR NEW STEEL. THE COST OF THIS TOUCH UP PAINTING IS TO BE INCIDENTAL TO THE LUMP SUM BID FOR STRUCTURAL STEEL.

GENERAL NOTE

US 42 OVER WATTERSON X-WAY

SHEET 3

COMMONWEALTH OF KENTUCKY

DEPARTMENT OF HIGHWAYS

FRANKFORT

COUNTY OF

JEFFERSON

BROWNSBORO RD. (U. S. 42)

ROAD

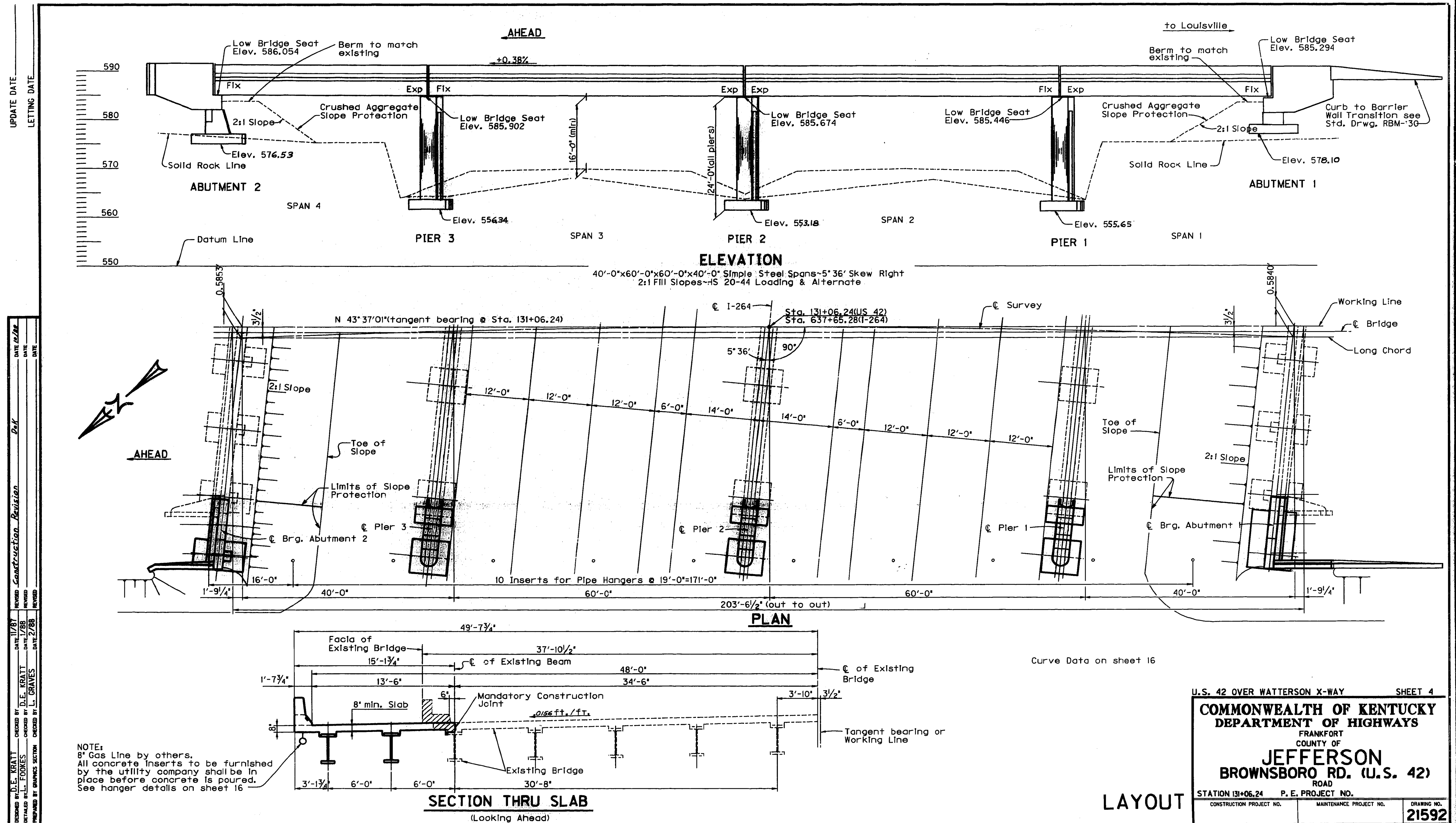
STATION 131+06.24 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

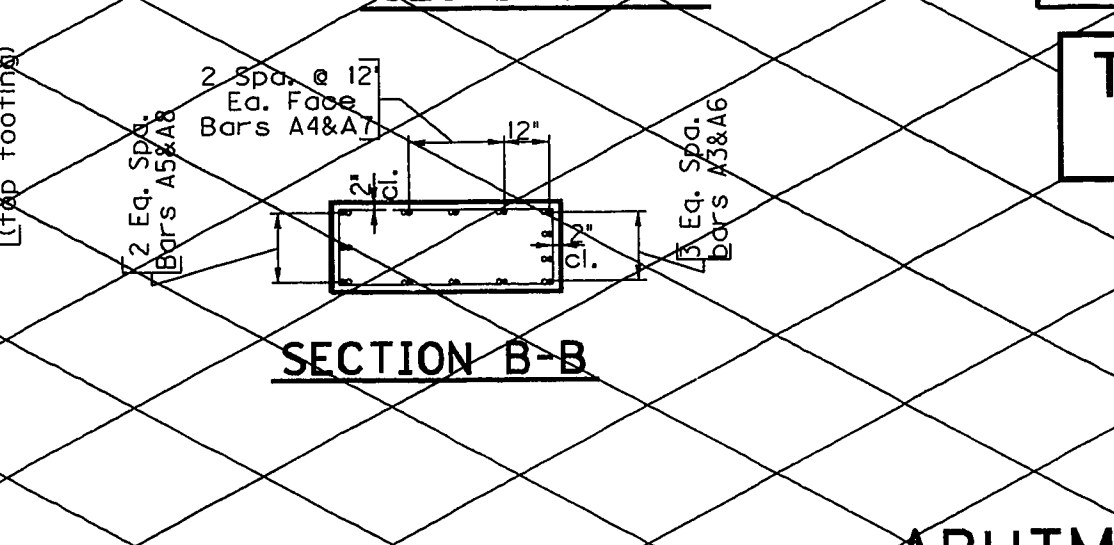
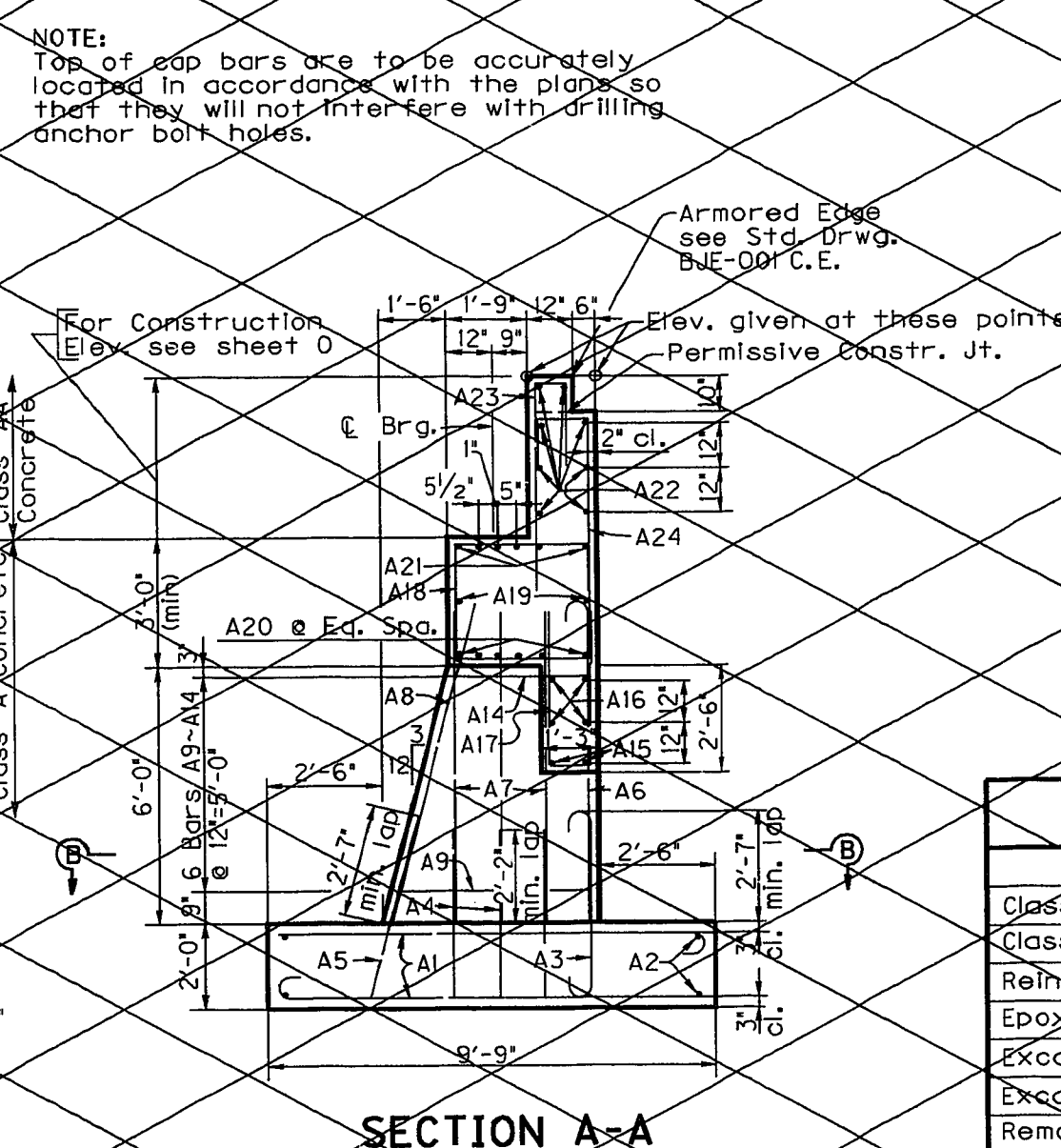
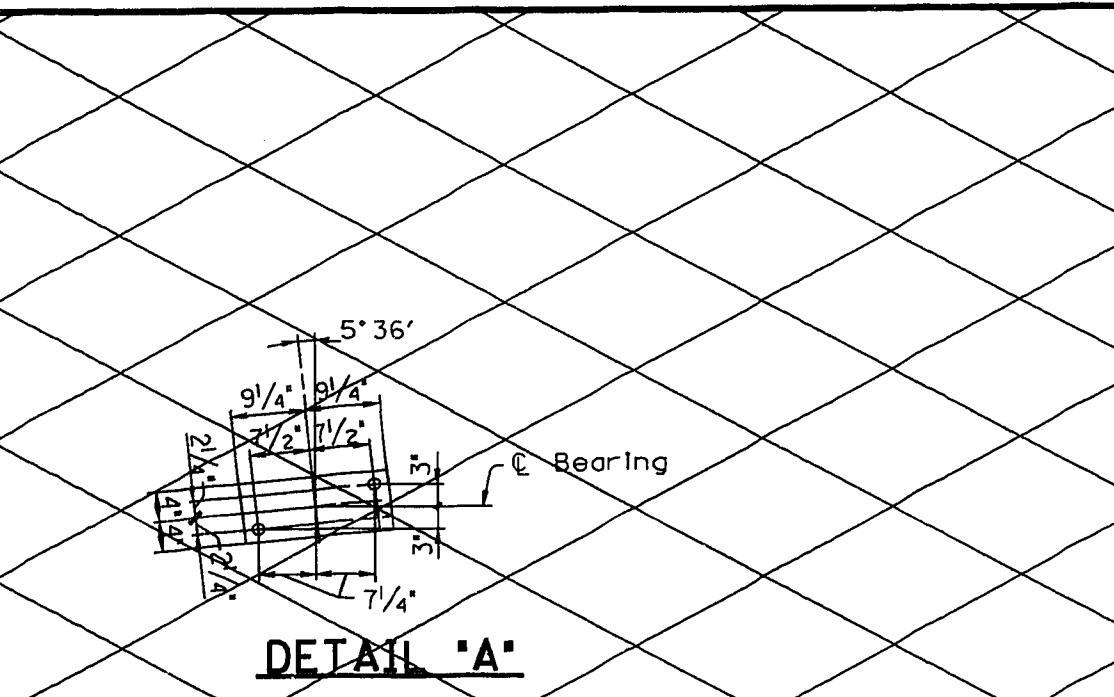
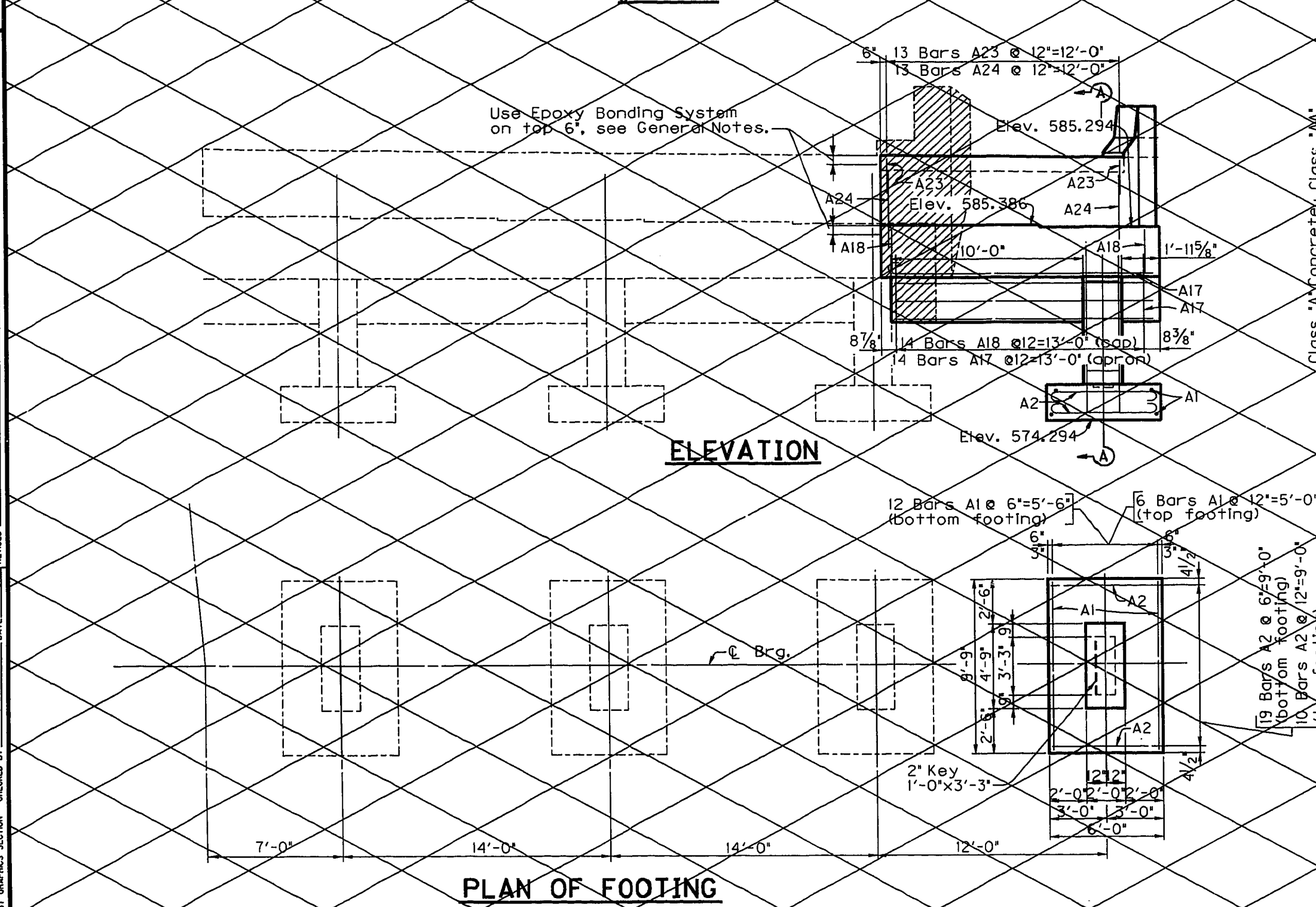
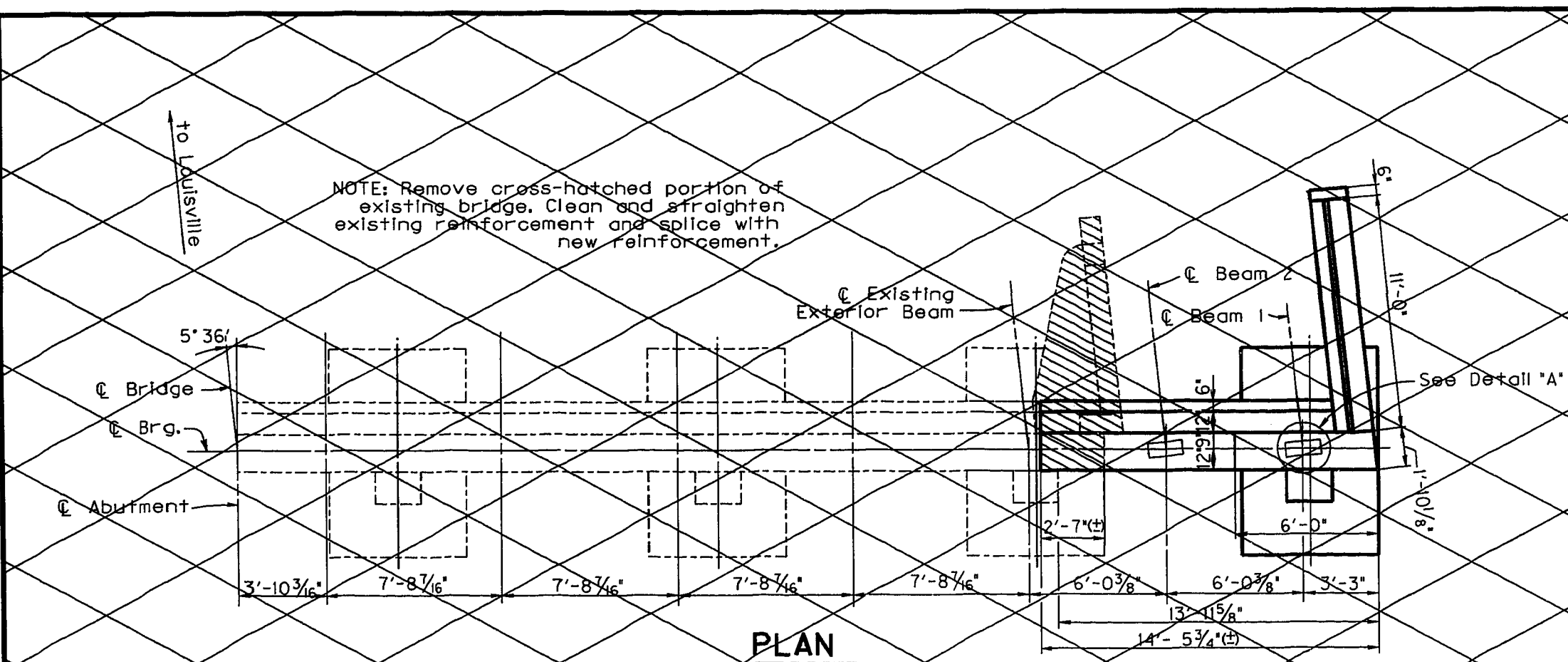
DRAWING NO.

21592



UPDATE DATE
LETTING DATE

DESIGNED BY: D.E. KRATT
CHECKED BY: D.E. KRATT
DATE: 10/88
REVISIONS: 10/88
DATE: 10/88
PREPARED BY: L. GRAVES
CHECKED BY: L. GRAVES
DATE: 2/88
REVISIONS: 2/88



Estimate of Quantities

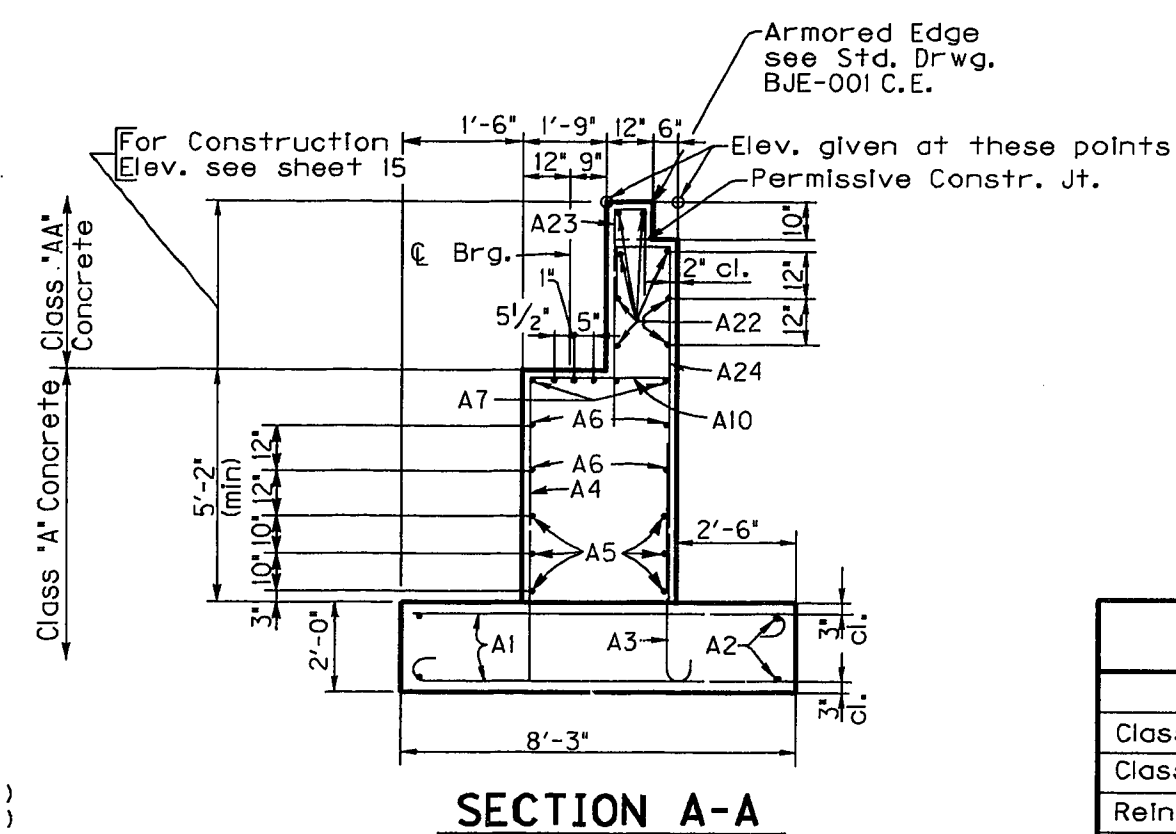
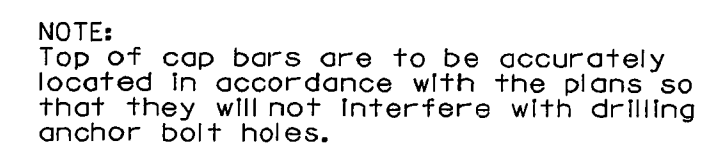
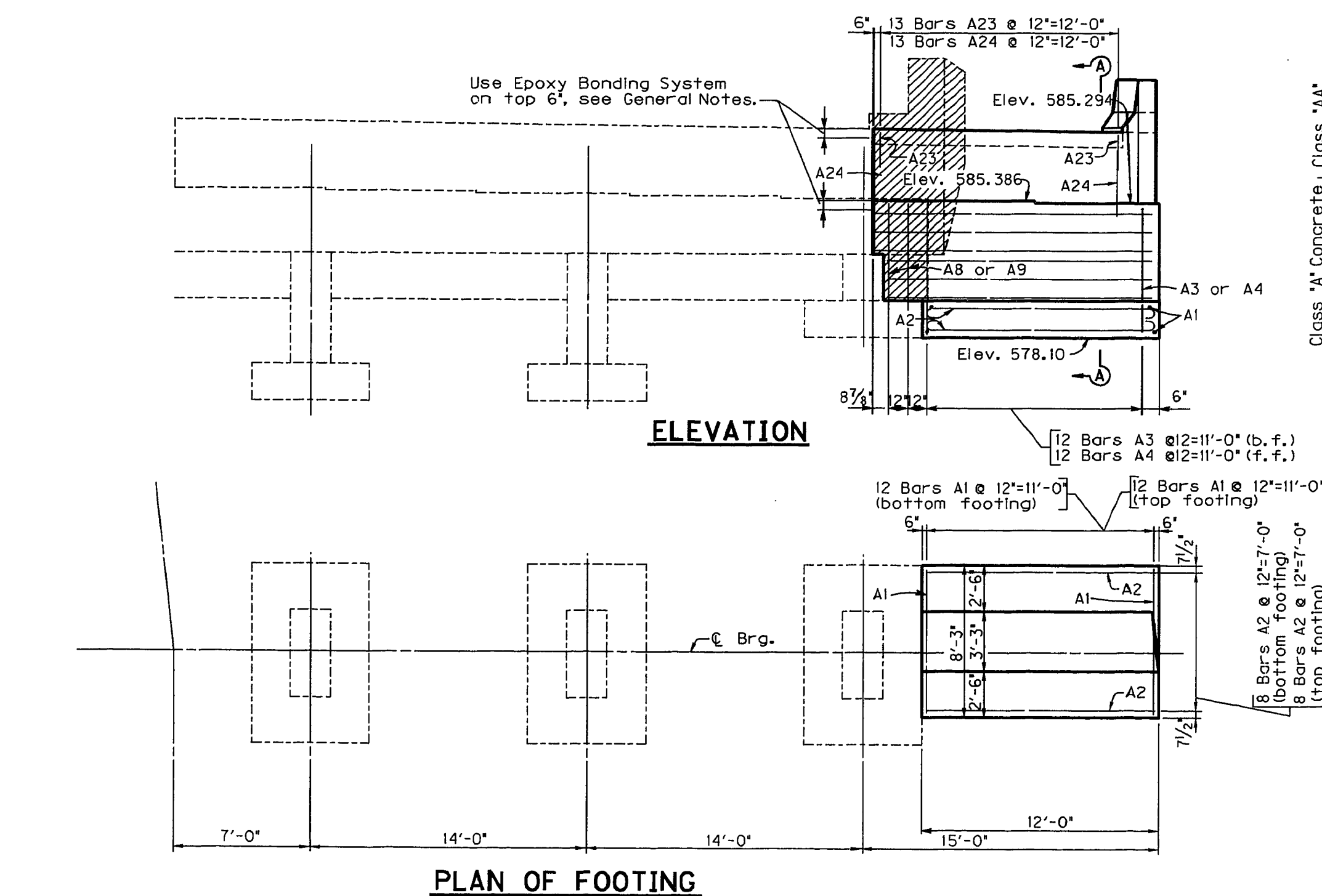
Item	Quantities	Units
Class 'A' Concrete	13.5	Cu. Yds.
Class 'AA' Concrete	6.4	Cu. Yds.
Reinforcement	2354	Lbs.
Epoxy Coated Reinforcement	570	Lbs.
Excavation Common	110	Cu. Yds.
Excavation Solid Rock	10	Cu. Yds.
Remove Concrete Masonry	6	Cu. Yds.

THIS SHEET IS REPLACED
BY SHEET 5A

U.S. 42 OVER WATKINSON X-WAY
SHEET 5
COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
BROWNSBORO RD. (U.S. 42)
ROAD
STATION 131+06.24 P.E. PROJECT NO.
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO.
DRAWING NO. 21592

ABUTMENT 1

DESIGNED BY <u>D.E. KRAIT</u>	CHECKED BY <u>DATE 11/87</u>	REVISED CONSTRUCTION REVISION, RAISE ABUT., FOOTING ELEVATIONS	DEK	DATE 10/88
DETAILS BY <u>L. FOKES</u>	CHECKED BY <u>D.E. KRAIT</u>	DATE <u>1/88</u>	REVISED	DATE
PREPARED BY GRAPHICS SECTION	CHECKED BY <u>L. GRAVES</u>	DATE <u>2/88</u>	REVISED	DATE



• BILL OF REINFORCEMENT

MARK	TYPE	NO.	SIZE	LENGTH		LOCATION	A		B		C		D	
				FT.	IN.		FT.	IN.	FT.	IN.	FT.	IN.		
A1	4	24	6	8	8	FOOTING	7	8	1	0	0	6	7	11
A2	1	16	6	13	2	FOOTING	11	2	1	0	0	6	11	8
A3	4	12	6	7	6	WALL INTO FOOTING	6	6	1	0	0	6	6	9
A4	Str	12	5	6	9	WALL INTO FOOTING								
A5	Str	6	5	13	6	WALL								
A6	Str	4	6	13	11	WALL								
A7	1	6	8	16	1	WALL	13	3	1	5	0	8	13	11
A8	Str	2	6	5	0	WALL (BF)								
A9	Str	2	5	5	0	WALL (FF)								
A10	2	14	5	7	2	WALL	2	2	2	11				

TYPE ①

TYPE ②

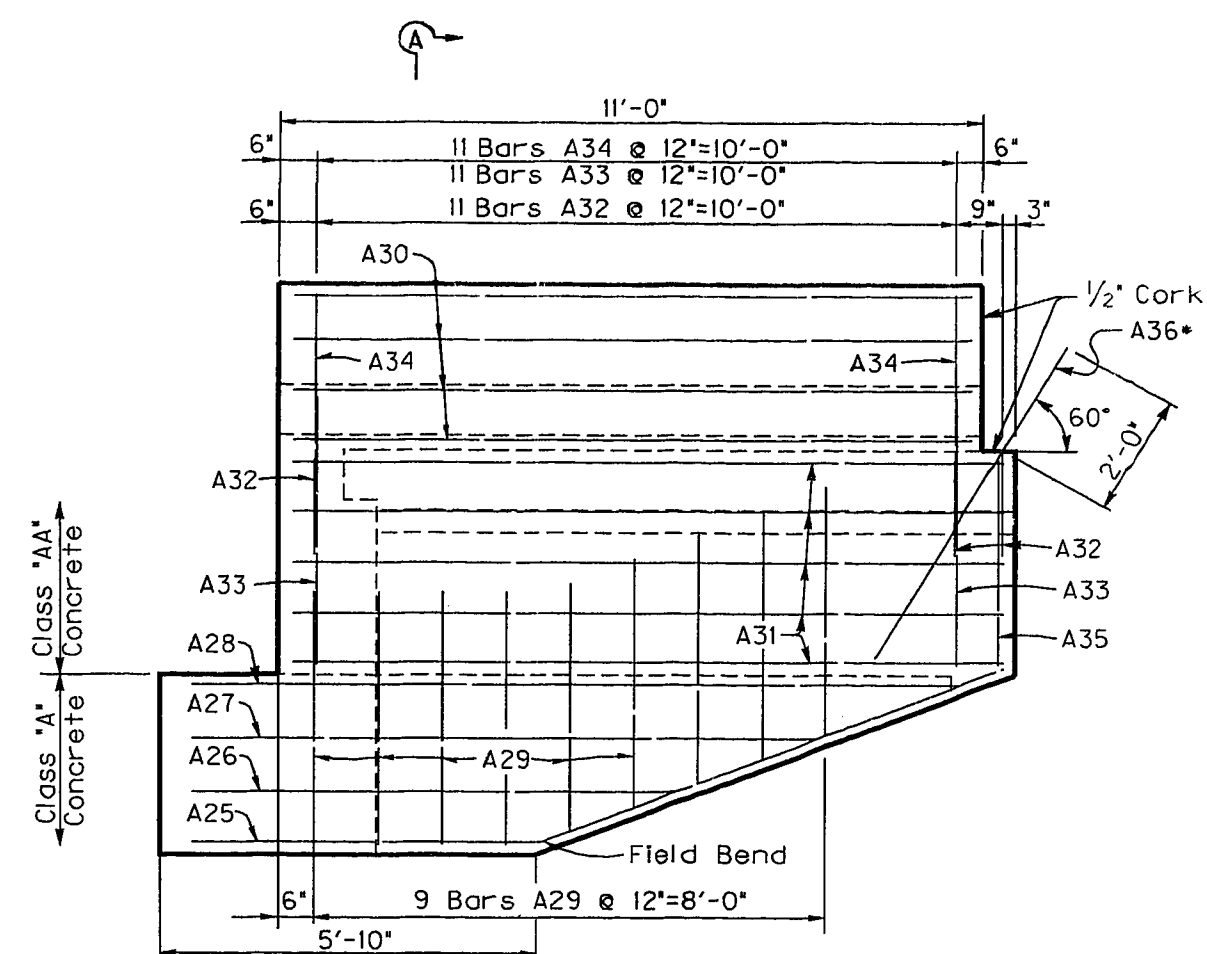
TYPE ④

Estimate Of Quantities		
Item	Quantities	Units
Class "A" Concrete	16.9	Cu. Yds.
Class "AA" Concrete	6.4	Cu. Yds.
Reinforcement	1901	Lbs.
Epoxy Coated Reinforcement	570	Lbs.
Excavation Common	110	Cu. Yds.
Excavation Solid Rock	10	Cu. Yds.
Remove Concrete Masonry	6	Cu. Yds.

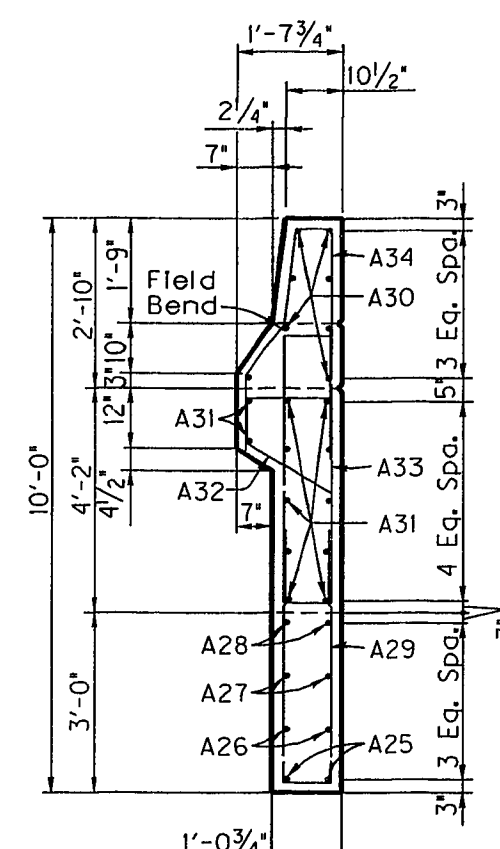
ABUTMENT 1	U.S. 42 OVER MATTERSON X-WAY SHEET 5A
	COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF JEFFERSON BROWNSBORO RD. (U.S. 42) ROAD
	STATION 131+06.24 P. E. PROJECT NO.
	CONSTRUCTION PROJECT NO.
	MAINTENANCE PROJECT NO.
DRAWING NO. 21592	

UPDATE DATE _____
LETTING DATE _____

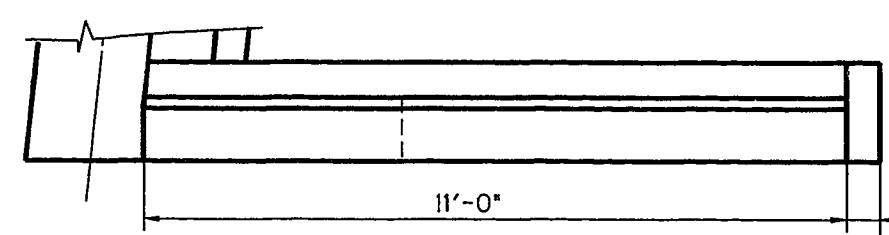
DESIGNED BY D.E. KRATT CHECKED BY D.E. KRATT DATE 11/87
DETAILED BY L. FOKES CHECKED BY D.E. KRATT DATE 1/88
PREPARED BY GRAPHICS SECTION CHECKED BY L. GRAVES DATE 2/88



WING ELEVATION



SECTION A-A

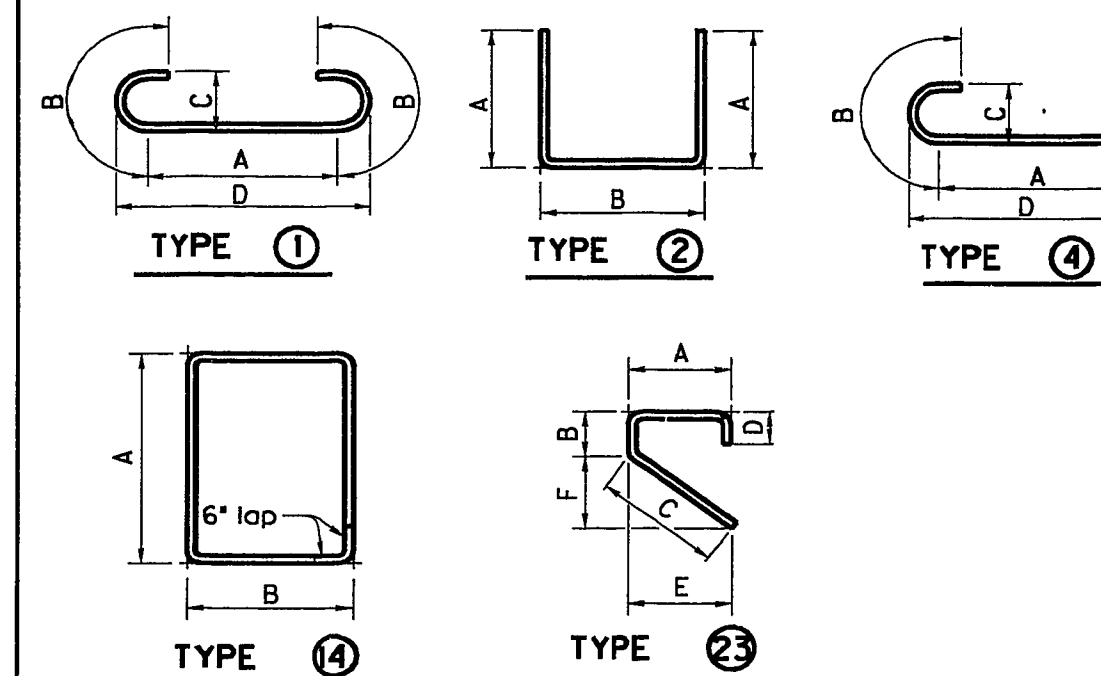


WINGWALL PLAN

* Bars A36 for Curb to Barrier Wall Transition. See Std. Drwg. RBM-130 C.E.

Bars A1-A21 of the Bill of Reinforcement shall be void and shall be replaced by Bars A1-A10 shown on sheet 5A.

BILL OF REINFORCEMENT										
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	E	B	F	C
				FT. IN.		FT. IN.	FT. IN.	FT. IN.	FT. IN.	FT. IN.
A1	4	18	6	10	FOOTING	9	0	1	0	0
A2	1	29	6	7	FOOTING	5	0	1	0	0
A3	4	6	5	10	FOOTING DOWEL	3	10	1	0	0
A4	Str	5	5	3	FOOTING DOWEL					
A5	Str	3	6	4	FOOTING DOWEL					
A6	4	4	6	8	COLUMN	7	3	1	0	0
A7	Str	6	5	7	COLUMN					
A8	Str	3	6	7	COLUMN					
A9	14	1	5	12	COLUMN	1	7 7/8	4	3	
A10	14	1	5	11	COLUMN	1	7 7/8	4	0	
A11	14	1	5	11	COLUMN	1	7 7/8	3	9	
A12	14	1	5	10	COLUMN	1	7 7/8	3	6	
A13	14	1	5	10	COLUMN	1	7 7/8	3	3	
A14	14	1	5	9	COLUMN	1	7 7/8	3	0	
A15	Str	2	7	13	APRON					
A16	Str	4	5	13	APRON					
A17	2	14	5	7	APRON	3	6 7/8	0	9	
A18	14	1	5	11	CAP	2	7 7/8	2	11	
A19	Str	2	6	13	CAP					
A20	4	6	9	15	CAP	13	5	1	11	0
A21	1	6	8	16	CAP	13	3	1	5	0
A22e	Str	8	6	13	BACKWALL					
A23e	2	13	5	5	BACKWALL	2	5 7/8	0	8	
A24	2	13	5	9	BACKWALL	4	5 7/8	1	2	
A25	Str	2	5	13	WING					
A26	Str	2	5	7	WING					
A27	Str	2	5	9	WING					
A28	Str	2	5	11	WING					
A29	2	9	5	8	WING	4	7/8	0	9	
A30e	Str	8	5	10	WING					
A31	Str	12	5	11	WING					
A32	23	12	5	3	WING	1	3 3/4	0	8 3/4	1
A33e	14	11	5	11	WING	1	2 3/4	0	9 1/2	
A34e	2	11	5	8	WING	4	8 7/8	0	9	
A35	14	1	5	9	WING	3	10 7/8	0	6 1/2	
A36e	Str	2	6	6	WING	3	8 7/8	0	9	



U.S. 42 OVER WATTERSON X-WAY

SHEET 6

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF

JEFFERSON

BROWNSBORO RD. (U.S. 42)

ROAD

STATION 131+06.24 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

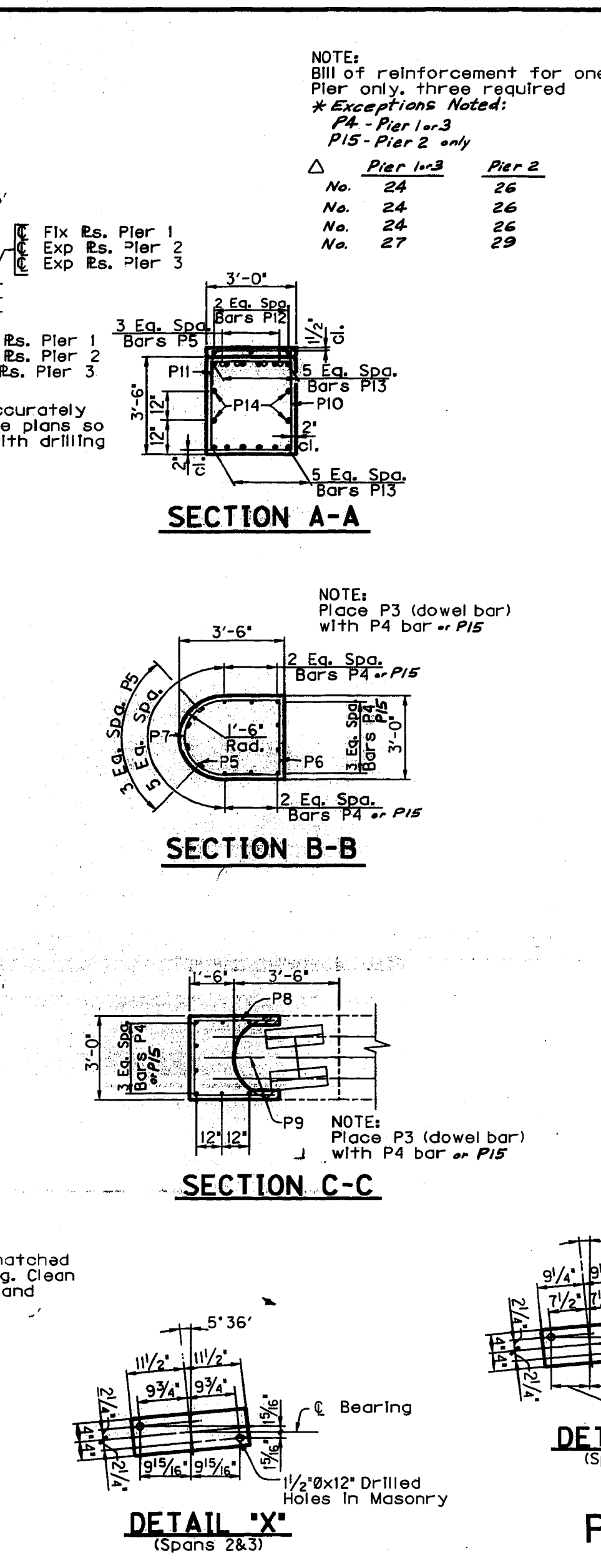
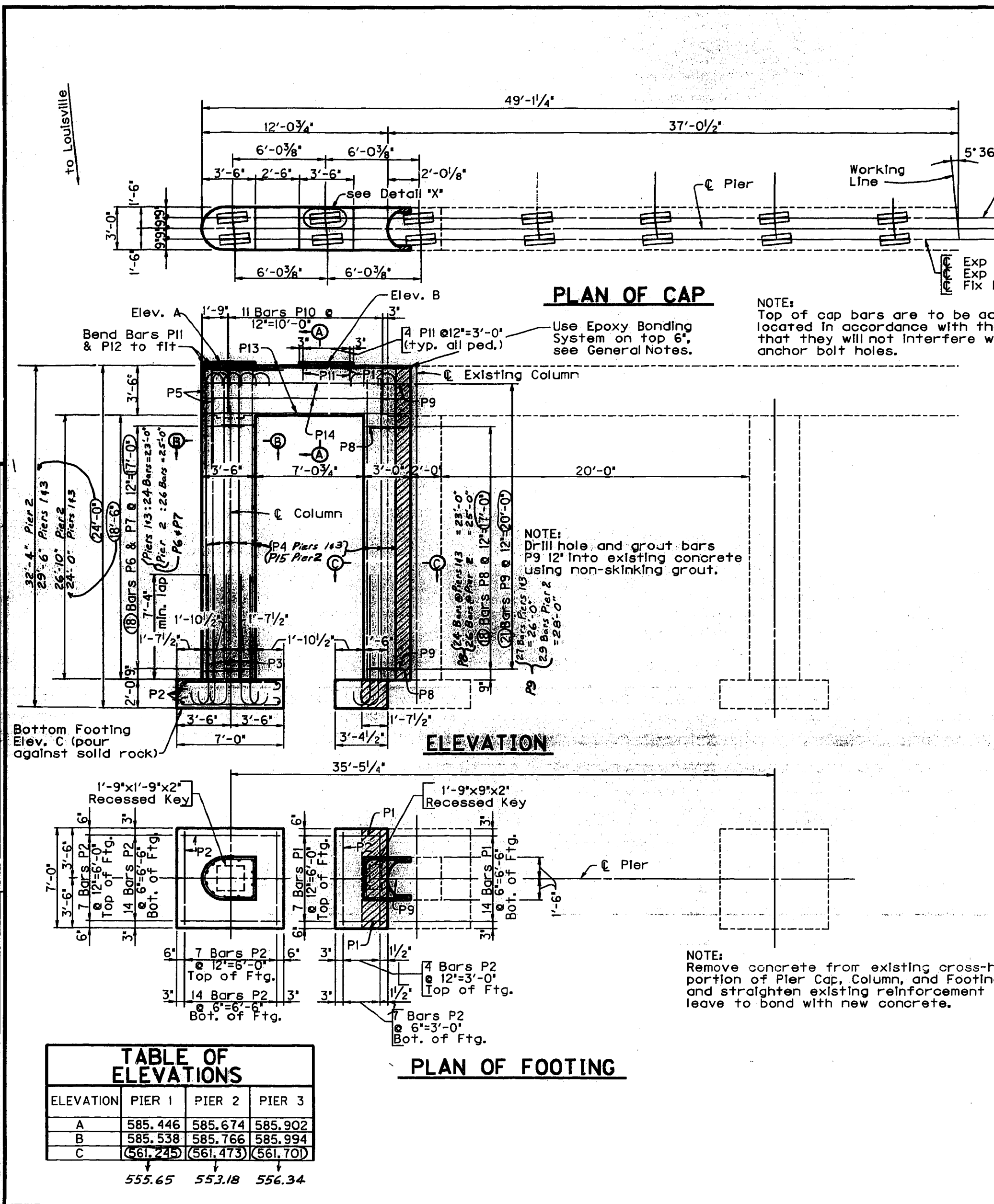
DRAWING NO.

21592

ABUTMENT 1

UPDATE DATE
LETTING DATE

DESIGNED BY D.E. KRATT
CHECKED BY D.E. KRATT
DATE 1/88
REVISIONS
DATE 2/88
BY L. GRAVES



BILL OF REINFORCEMENT											
MARK	TYPE	NO.	SIZE	LENGTH FT. IN.	LOCATION	A	E	B	F	C	D
P1	①	21	6	4	7	FOOTING	2	7	1	0	0
P2	①	53	6	8	0	FOOTING	6	0	1	0	0
P3	④	18	10	10	8	COLUMN DOWEL 26'-5"	8	6	2	2	1 1/4
P4	④	20	10	23	1	COLUMN, Pier 1 or 3	20	0	2	2	1 1/4
P5	⑤	4	11	11	5	COLUMN & CAP	7	3/8	4	9	2 1/2
P6	②	10	5	6	5	COLUMN, Pier 1, 2 or 3	1	11/8	2	8	
P7	③	10	5	6	7	COLUMN, Pier 1, 2 or 3	1	2/8	4	2 1/4	2
P8	②	10	5	7	9	COLUMN, Pier 1, 2 or 3	2	7/8	2	8	2
P9	Str	20	6	2	0	DOWEL, Pier 1, 2 or 3					
P10	④	11	5	12	1	CAP	3	1 1/8	2	8	
P11	②	8	4	5	8	PEDESTAL	1	7/8	2	8	
P12	Str	6	4	3	2	PEDESTAL					
P13	Str	12	7	11	10	CAP					
P14	Str	4	6	11	10	CAP					
P15	④	20	10	31	5"	Column, Pier 2	29	3"	2	2"	1

Estimate Of Quantities				
Item	Pier 1	Pier 2	Pier 3	Units
Class "A" Concrete	20.9	20.9	20.9	Cu. Yds.
Reinforcement	4832	4832	4832	Lbs.
Remove Concrete Masonry	1.2	1.2	1.2	Cu. Yds.
Excavation Common	11	11	11	Cu. Yds.
Excavation Solid Rock	23	23	23	Cu. Yds.
Revised "A" Concrete	24.1	25.7	24.0	C.Y.
" Reinforcement	5454	5747	5454	Lbs.

TABLE OF ELEVATIONS			
ELEVATION	PIER 1	PIER 2	PIER 3
A	585.446	585.674	585.902
B	585.538	585.766	585.994
C	581.245	581.473	581.700
	555.65	553.18	556.34

COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS			
FRANKFORT COUNTY OF			
JEFFERSON			
BROWNSBORO RD. (U.S. 42)			
ROAD			
STATION 131+06.24		P.E. PROJECT NO.	
CONSTRUCTION PROJECT NO.		MAINTENANCE PROJECT NO.	
		DRAWING NO.	
		21592	

DESIGNED BY D.E. KRATT	CHECKED BY D.E. KRATT	DATE 11/87	REVISED 11/87	DATE 12/87
DETAILS BY L. FOOLES	CHECKED BY L. FOOLES	DATE 1/88	REVISED 1/88	DATE 1/88
PREPARED BY GRAPHICS SECTION	CHECKED BY L. GRAVES	DATE 2/88	REVISED 2/88	DATE 2/88



to Louisville.

[illegible]

SECTION A-A



Estimate Of Quantities			
Item	Quantities	Units	
Class 'A' Concrete	13.1	13.5	Cu. Yd.
Class 'AA' Concrete		7.0	Cu. Yd.
Reinforcement	2426	2436	Lbs.
Epoxy Coated Reinforcement		661	Lbs.
Excavation Common		110	Cu. Yd.
Excavation Solid Rock		10	Cu. Yd.
Remove Concrete Masonry		6	Cu. Yd.

U.S. 42 OVER WATTERSON X-WAY SHEET 2

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
BROWNSBORO RD. (U.S. 42)
ROAD
STATION 13+06.24 P.E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO.
		21592

ABUTMENT 2

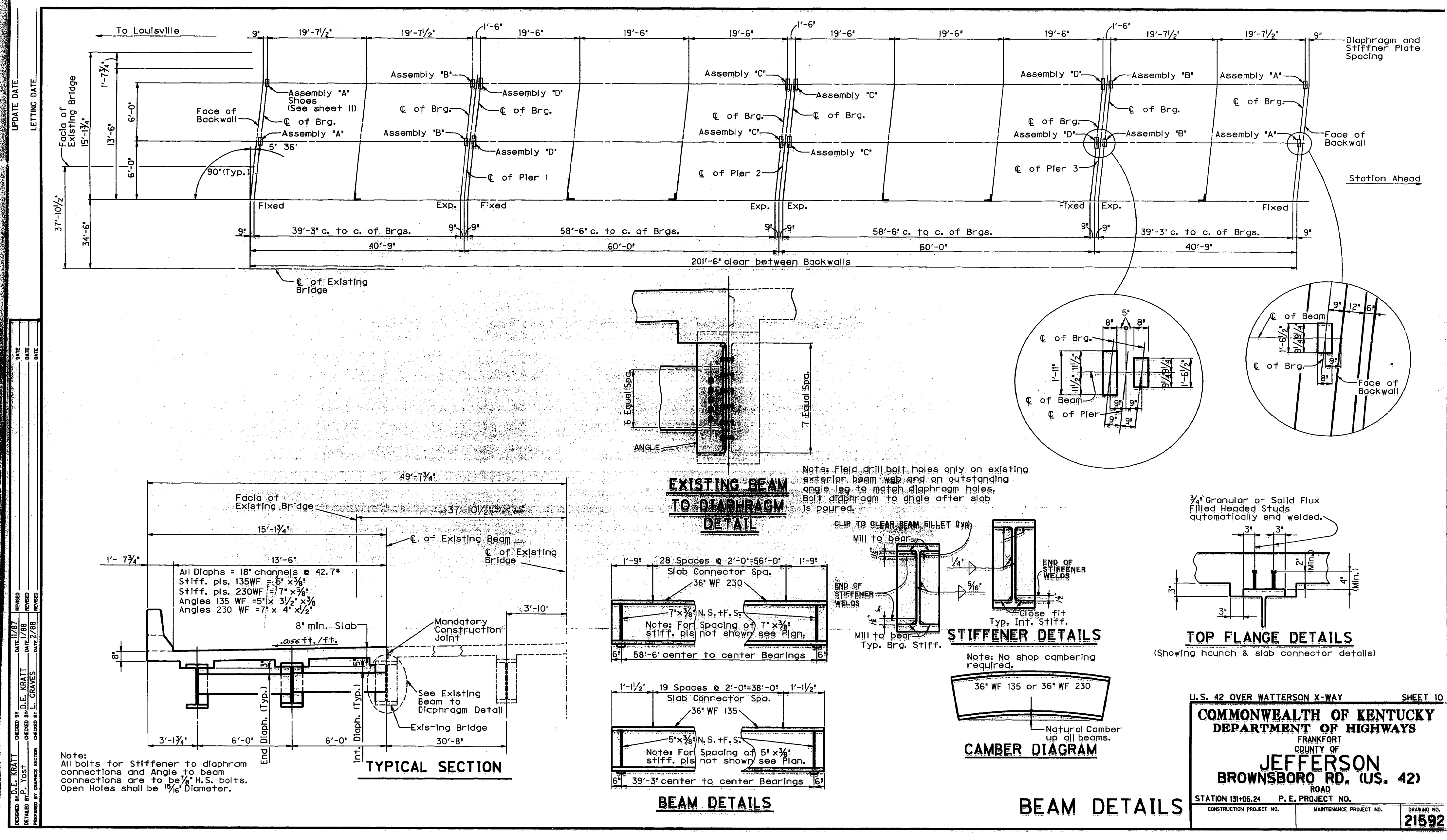
DESIGNED BY D.E. KRATT	CHECKED BY D.E. KRATT	DATE 11/87	REVISED	<i>Construction Revision</i>	DATE 10/88
DETAILS BY L. FOKES	CHECKED BY D.E. KRATT	DATE 1/88	REVISED		DATE
	CHECKED BY L. GRAYES	DATE	REVISED		DATE
	CHECKED BY L. GRAYES	DATE 2/88	REVISED		DATE

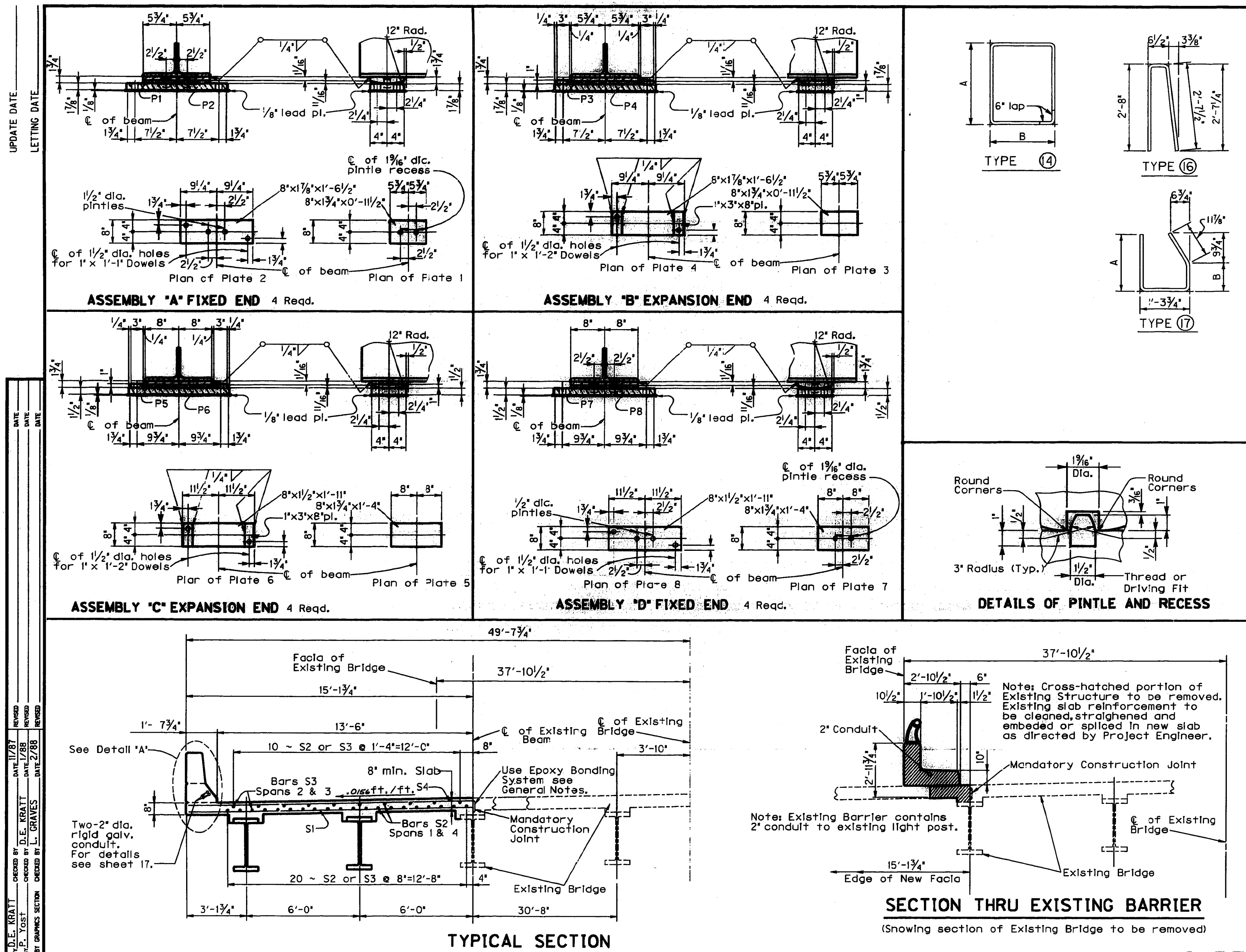


The diagrams illustrate various methods for joining angle iron sections:

- TYPE ①:** Two L-shaped angle iron sections are joined at their ends. The top flange of one section is overlapped by the top flange of the other. Dimensions include A (flange width), B (total width), C (overlap), and D (leg length).
- TYPE ②:** Two L-shaped angle iron sections are joined at their ends. The top flange of one section is overlapped by the top flange of the other. Dimensions include A (flange width), B (total width), and D (leg length).
- TYPE ④:** Two L-shaped angle iron sections are joined at their ends. The top flange of one section is overlapped by the top flange of the other. Dimensions include A (flange width), B (total width), C (overlap), and D (leg length).
- TYPE ⑬:** Two rectangular angle iron sections are joined at their ends. The top flange of one section is overlapped by the top flange of the other. Dimensions include A (flange width), B (total width), and a 6° lap.
- TYPE ⑮:** Two L-shaped angle iron sections are joined at their ends. The top flange of one section is overlapped by the top flange of the other. Dimensions include A (flange width), B (total width), C (overlap), D (leg length), E (leg length), and F (leg length).
- TYPE ⑧:** Two L-shaped angle iron sections are joined at their ends. The top flange of one section is overlapped by the top flange of the other. Dimensions include A (flange width), B (total width), C (overlap), D (leg length), E (leg length), and F (leg length).

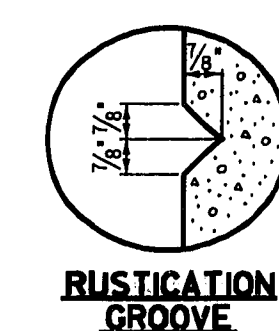
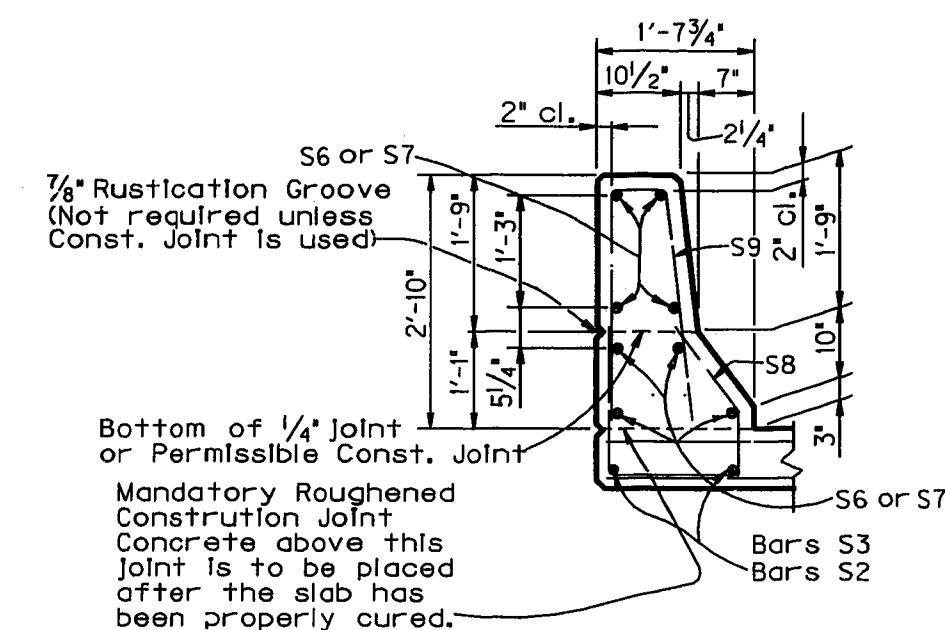
U.S. 42 OVER MATTERSON X-WAY		SHEET 2	
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF JEFFERSON BROWNSBORO RD. (U.S. 42) ROAD			
STATION 131+06.24		P. E. PROJECT NO.	
CONSTRUCTION PROJECT NO.		MAINTENANCE PROJECT NO.	
		DRAWING NO. 21592	





BILL OF REINFORCEMENT									
MARK	TYPE	NO.	SIZE	LENGTH	LOCATION	A	B	C	D
				FT. IN.		FT. IN.	FT. IN.	FT. IN.	FT. IN.
S1e	Str	202	6	15	0				
S2e	Str	64	4	40	5				
S3e	Str	128	4	30	7				
S4e	Str	400	5	15	0				
S5e	Str	13	6	10	0				
S6e	Str	16	5	40	5				
S7e	Str	32	5	30	7				
S8e	Str	17	208	5	4				
S9e	Str	16	202	5	5				
S10e	Str	14	6	5	7				
S11e	Str	4	4	1	8				
					Bottom Slab Sp. 1-4				
					Slab Spans 1&4				
					Slab Spans 2&3				
					Top Slab Sp. 1-4				
					Radial @ Corner				
					Barrier Sp. 1&4				
					Barrier Sp. 2&3				
					Bottom Barrier				
					Top Barrier				
					Light Bracket	1	7	0	9/4
					Light Bracket	2	5/8	1	2

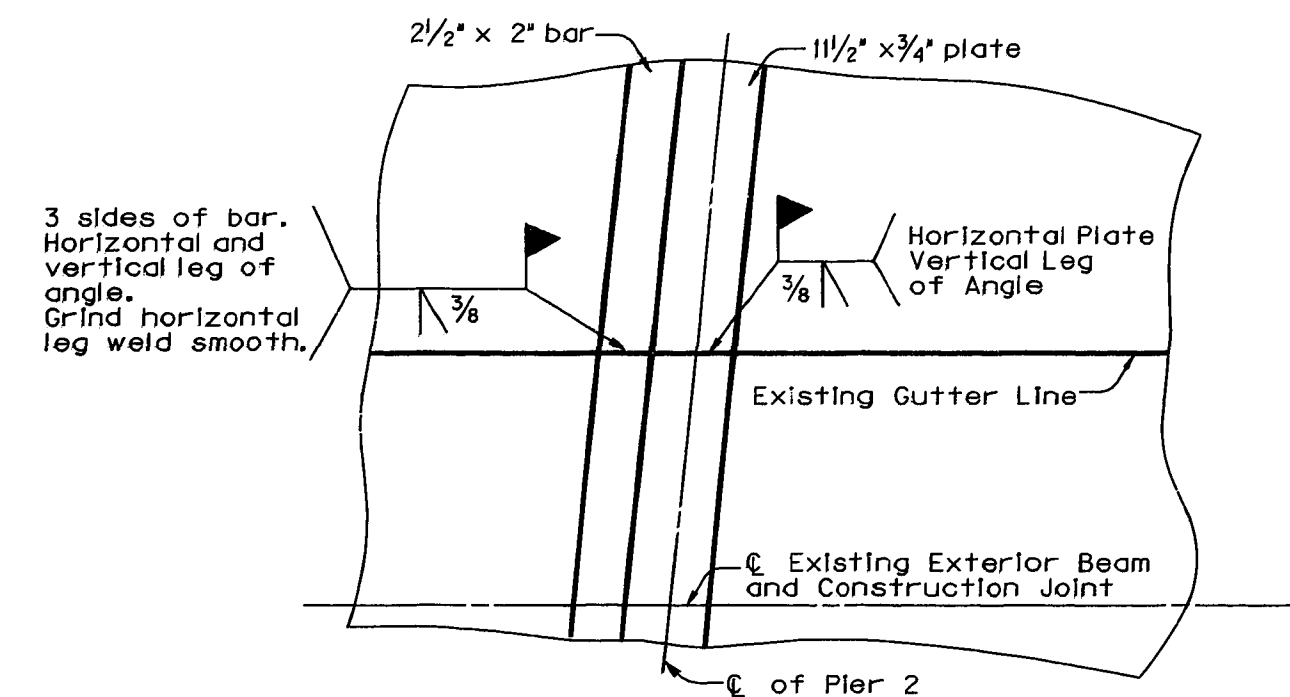
Estimate Of Quantities		
Item	Quantities	Units
Class "AA" Concrete	105.1	Cu. Yds.
Epoxy Coated Steel Reinforcement	19212	Lbs.
Remove Concrete Masonry	41.0	Cu. Yds.



SUPERSTRUCTURE

U.S. 42 OVER WATTERSON X-WAY SHEET 11

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
 FRANKFORT
 COUNTY OF
JEFFERSON
BROWNSBORO RD. (US. 42)
 ROAD
 STATION 131+06.24 P. E. PROJECT NO.
 CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
21592



EXPANSION DAM
PLAN VIEW AT GUTTER
(Showing typical welds for widening
at Existing gutter line.)

Expansion Dam and Armored Edge Notes

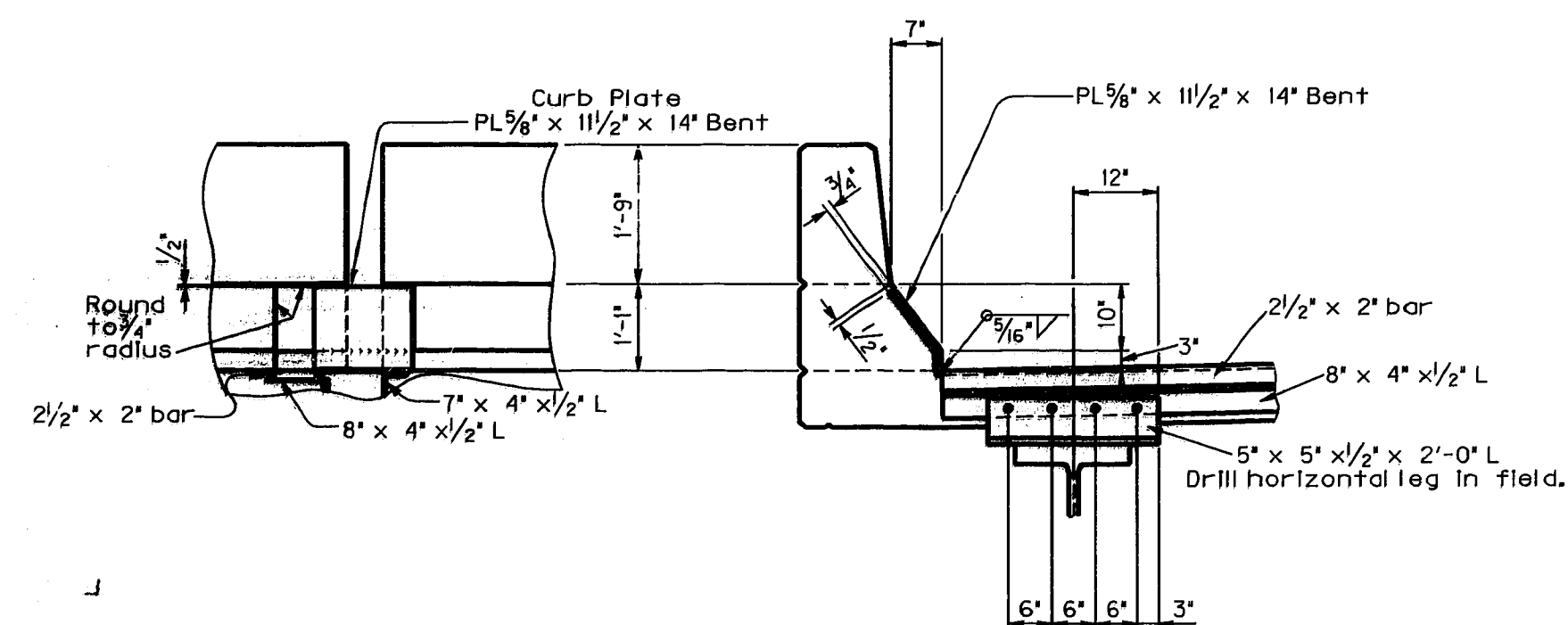
Dimensions A and B for both Expansion dam and Armored Edges are to be determined in the field from the Existing Section by the Contractor.

Cut Existing Expansion Dam and Armored Edges at Existing Gutter line and leave to weld to widened portion.

All existing joint sealing material shall be cleaned out of existing joints in accordance with the specifications. The existing and widened portions of the Expansion Dam shall be sealed using Hot-poured Elastic Joint Sealer in accordance with the specifications, sections 807.02 and 609.06. All Armored Edges at expansion joints shall with preformed compressive joint sealer across both existing and widened portions.

Refer to General Notes for Maintenance of Traffic during joint sealer replacement.

The cost of all Preformed Compressive Joint Sealer used in both new and existing joints is incidental to the Unit Price Bid for Expansion Dam 1 1/2" Neoprene.



SECTION THRU
BARRIER

U.S. 42 OVER WATTERSON X-WAY

SHEET 13

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS

FRANKFORT
COUNTY OF

JEFFERSON
BROWNSBORO RD. (US. 42)

STATION 131+06.24	ROAD P. E. PROJECT NO.
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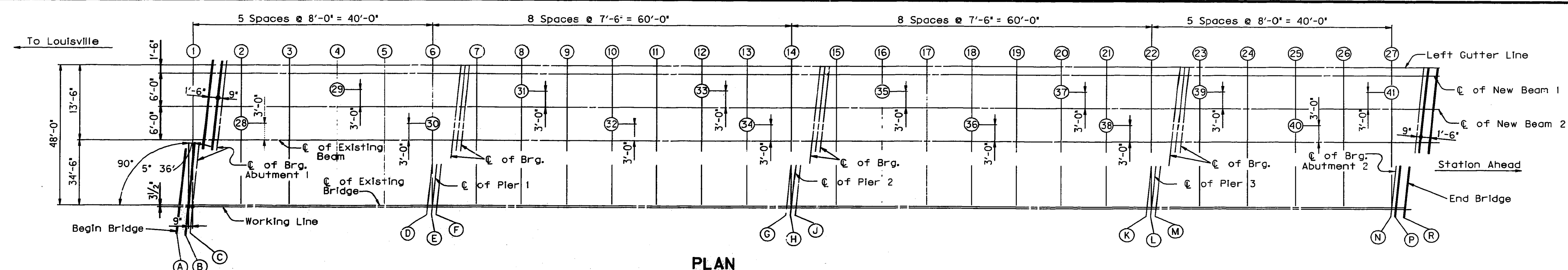
CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING NO.

SUPERSTRUCTURE

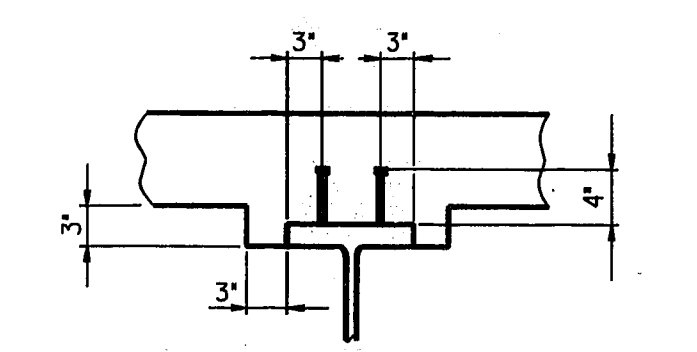
DESIGNED BY <u>D. E. Krott</u>	CHECKED BY _____	DATE <u>11/87</u>	REVISED _____	DATE _____
DETAILS BY <u>P. Yost</u>	CHECKED BY <u>D. E. Krott</u>	DATE <u>1/88</u>	REVISED _____	DATE _____
PREPARED BY GRAPHICS SECTION	CHECKED BY <u>L. Groves</u>	DATE <u>2/88</u>	REVISED _____	DATE _____



PLAN

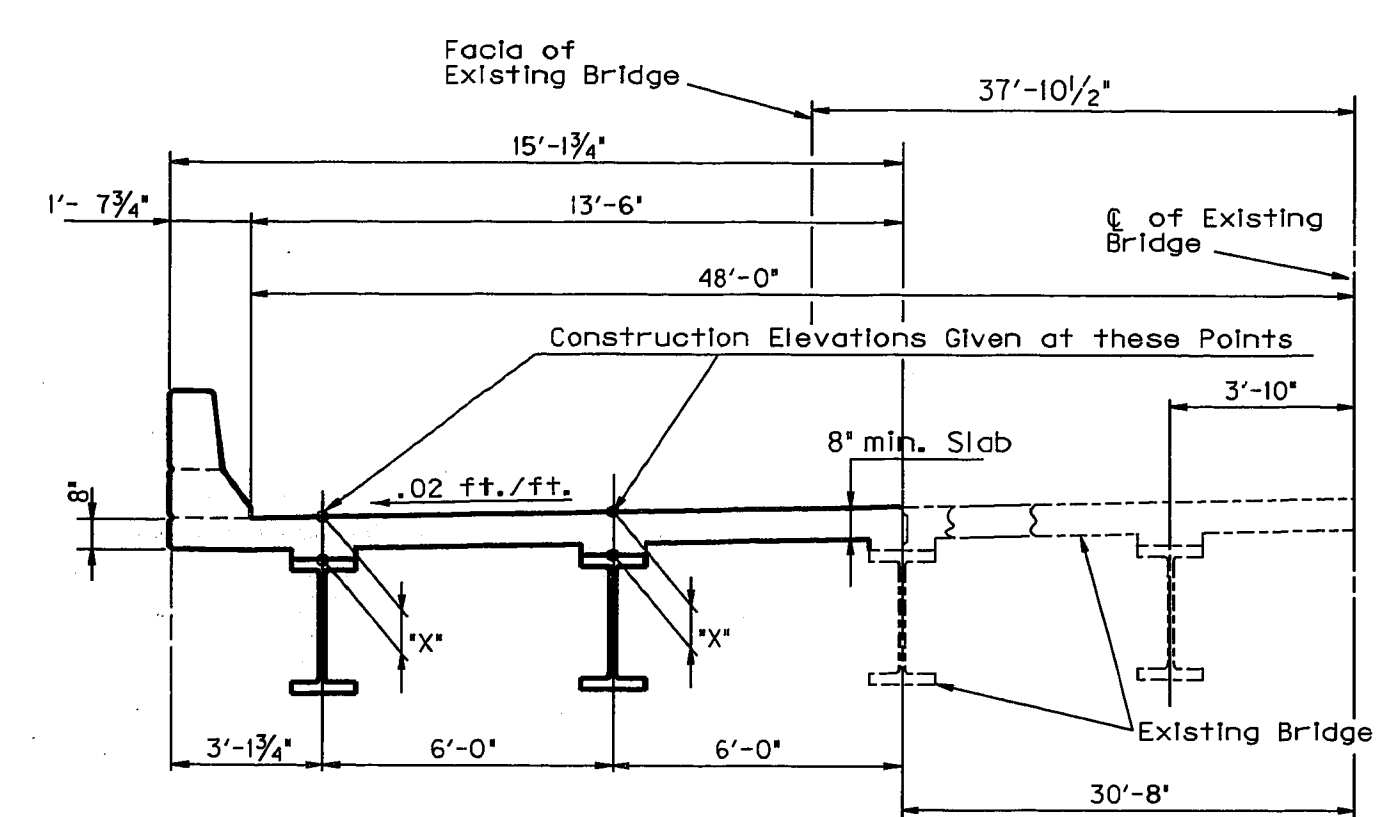
CHECK POINT ELEVATION FOR SLAB THICKNESS			
CHECK POINT	TOP OF SLAB ELEVATION	BOTTOM OF SLAB ELEVATION	COMPUTED SLAB THICKNESS
28	589.576		
29	589.553		
30	589.647		
31	589.678		
32	589.820		
33	589.810		
34	589.910		
35	589.906		
36	590.085		
37	590.038		
38	590.138		
39	590.086		
40	590.254		
41	590.188		

After the slab forms are erected and before the slab reinforcement is placed, the Project Engineer shall take field elevations at slab thickness check points and enter them in the table in the space provided. The slab thickness shall then be computed. If the computed slab thickness varies more than 1/360 of the slab span for deflection of the form work, the form shall be adjusted until the computed slab thickness is within the tolerance allowed.



TOP FLANGE DETAILS

(Showing haunch & slab connector details)



TYPICAL SECTION

* The Elevations Shown On This Plan Sheet Do Not Take Into Account The Slab Overlay On The Existing Portion of The Bridge.

U.S. 42 OVER WATTERSON X-WAY SHEET NO.

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
BROWNSBORO RD. (U.S. 42)
ROAD
STATION 13+06.24 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.	DRAWING NO. 21592
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CONSTRUCTION ELEVATION

DESIGNED BY D.E. HUNT CHECKED BY _____ DATE 2/88 _____
 DETAILED BY _____ CHECKED BY _____ DATE _____
 TRACED BY _____ CHECKED BY _____ DATE _____
 RETIRED _____ DATE _____
 RETIRED _____ DATE _____
 RETIRED _____ DATE _____

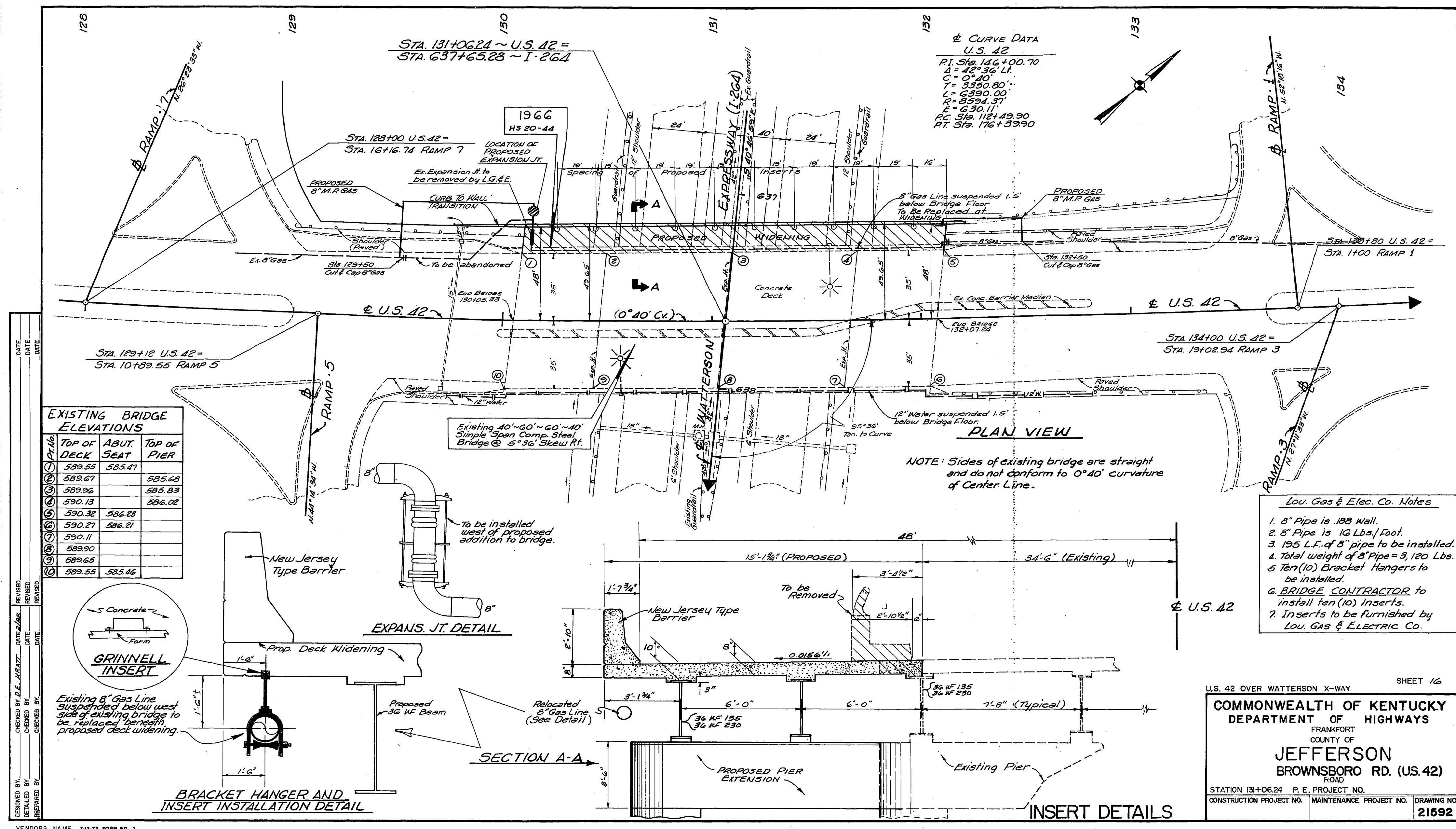
CONSTRUCTION ELEVATIONS ✖								
LOCATION			LEFT GUT		BEAM 1		BEAM 2	
			CONSTR. ELEV.	CONSTR. ELEV.	TOP OF BEAM	DIH. "X"	CONSTR. ELEV.	TOP OF BEAM
SKEW LN	A	TOP	599.367	599.390			599.481	
SKEW LN	B	TOP	599.373	599.395			599.487	
SKEW LN	C	TOP	599.375	599.398			599.490	
SKEW LN	D	TOP	599.525	599.547			599.639	
SKEW LN	E	TOP	599.527	599.550			599.642	
SKEW LN	F	TOP	599.530	599.553			599.645	
SKEW LN	G	TOP	599.753	599.775			599.867	
SKEW LN	H	TOP	599.755	599.778			599.870	
SKEW LN	J	TOP	599.758	599.781			599.873	
SKEW LN	K	TOP	599.981	599.003			599.095	
SKEW LN	L	TOP	599.983	599.006			599.098	
SKEW LN	M	TOP	599.986	599.009			599.101	
SKEW LN	N	TOP	599.135	599.158			599.250	
SKEW LN	P	TOP	599.138	599.161			599.253	
SKEW LN	R	TOP	599.144	599.167			599.258	
ORID LN	2	TOP	599.393	599.416			599.511	
ORID LN	3	TOP	599.433	599.457			599.550	
ORID LN	4	TOP	599.468	599.491			599.584	
ORID LN	5	TOP	599.495	599.519			599.610	
ORID LN	6	TOP	599.516	599.539			599.632	
ORID LN	7	TOP	599.544	599.567			599.663	
ORID LN	8	TOP	599.594	599.617			599.711	
ORID LN	9	TOP	599.638	599.661			599.754	
ORID LN	10	TOP	599.676	599.700			599.792	
ORID LN	11	TOP	599.706	599.729			599.820	
ORID LN	12	TOP	599.727	599.750			599.841	
ORID LN	13	TOP	599.741	599.763			599.855	
ORID LN	14	TOP	599.750	599.772			599.864	
ORID LN	15	TOP	599.772	599.795			599.891	
ORID LN	16	TOP	599.822	599.845			599.939	
ORID LN	17	TOP	599.866	599.889			599.982	
ORID LN	18	TOP	599.904	599.928			599.020	
ORID LN	19	TOP	599.934	599.957			599.048	
ORID LN	20	TOP	599.955	599.978			599.069	
ORID LN	21	TOP	599.969	599.991			599.083	
ORID LN	22	TOP	599.978	599.000			599.092	
ORID LN	23	TOP	599.000	599.023			599.118	
ORID LN	24	TOP	599.040	599.065			599.157	
ORID LN	25	TOP	599.076	599.099			599.192	
ORID LN	26	TOP	599.103	599.127			599.219	
ORID LN	27	TOP	599.125	599.148			599.241	

3. TAKE ELEVATIONS ON TOP OF BEAM AT POINTS INDICATED AFTER INTERMEDIATE DIAPHRAGMS ARE IN PLACE. AFTER ALL FALSEWORK HAS BEEN REMOVED, AND AFTER FORMS FOR CONCRETE SLABS HAVE BEEN PUT IN PLACE. READ ELEVATIONS TO THREE DECIMALS USING A TARGET ROD AND ENTER READINGS IN TABLE UNDER BEAM ELEVATIONS.
4. COMPUTE DIMENSION 'X' AS FOLLOWS: CONSTRUCTION ELEVATION MINUS BEAM ELEVATION EQUALS DIMENSION 'X'. CONSTRUCTION ELEVATIONS INCLUDE CAMBER DUE TO WEIGHT OF CONCRETE SLAB, FORMS, BARRIER, AND FUTURE SURFACING.
5. FOR SETTING TEMPLATES, MEASURE DIMENSION 'X' ABOVE TOP OF BEAM FOR TOP OF TEMPLATE. DO NOT SET TEMPLATE BY ELEVATIONS.
6. CONSTRUCT BARRIER TO GUTTER LINE GRADE. DO NOT ADD CAMBER TO BARRIER.
7. SLAB THICKNESS CONTROL: AFTER THE SLAB FORMS ARE ERECTED AND BEFORE THE SLAB REINFORCEMENT IS PLACED, THE ENGINEER SHALL TAKE FIELD ELEVATIONS AT THE SLAB THICKNESS CHECK POINTS AND ENTER THEM IN THE TABLE IN THE SPACE PROVIDED. THE SLAB THICKNESS SHALL THEN BE COMPUTED. IF THE COMPUTED SLAB THICKNESS VARIES MORE THAN 1/4 INCH FROM THE PLAN THICKNESS, ALLOWING 1/360 OF THE SLAB SPAN FOR DEFLECTION OF THE FORMWORK, THE FORM SHALL BE ADJUSTED UNTIL THE COMPUTED SLAB THICKNESS IS WITHIN THE TOLERANCE ALLOWED.
8. AFTER THE CONSTRUCTION ELEVATION TABLE AND THE SLAB THICKNESS TABLE HAVE BEEN COMPLETED, A COPY OF THE COMPLETED ELEVATION SHEET SHALL BE SENT TO THE DIVISION OF BRIDGES.

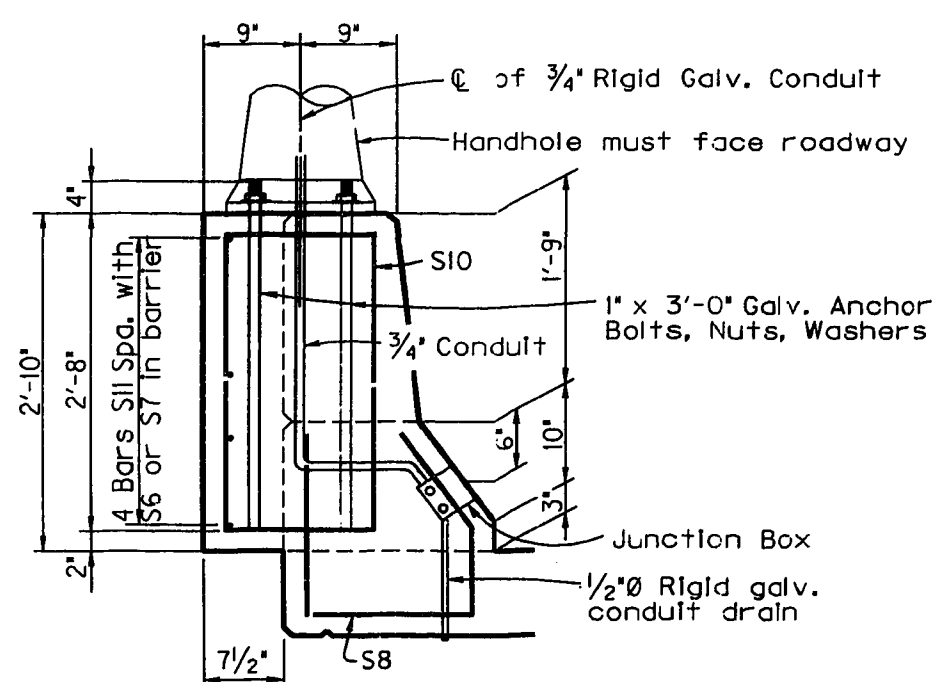
* The Elevations Shown On This Plan Sheet Do Not Take Into Account The Slab Overlay On The Existing Portion Of The Bridge.

U.S. 42 OVER WATTERSON X-WAY	SHEET 1/5
COMMONWEALTH OF KENTUCKY DEPARTMENT OF HIGHWAYS FRANKFORT COUNTY OF JEFFERSON BROWNSBORO RD. (U.S. 42) ROAD	
STATION 131+06.24 P-E. PROJECT NO.	
CONSTRUCTION PROJECT NO.	MAINTENANCE PROJECT NO.
DRAWING NO. 21592	

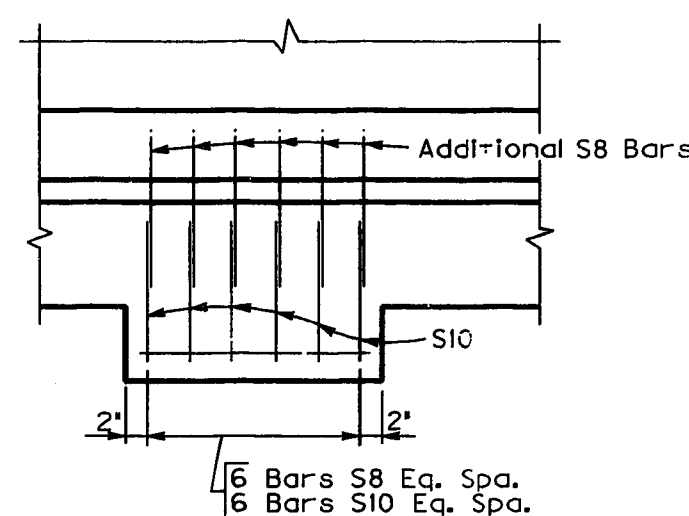
CONSTRUCTION ELEVATIONS



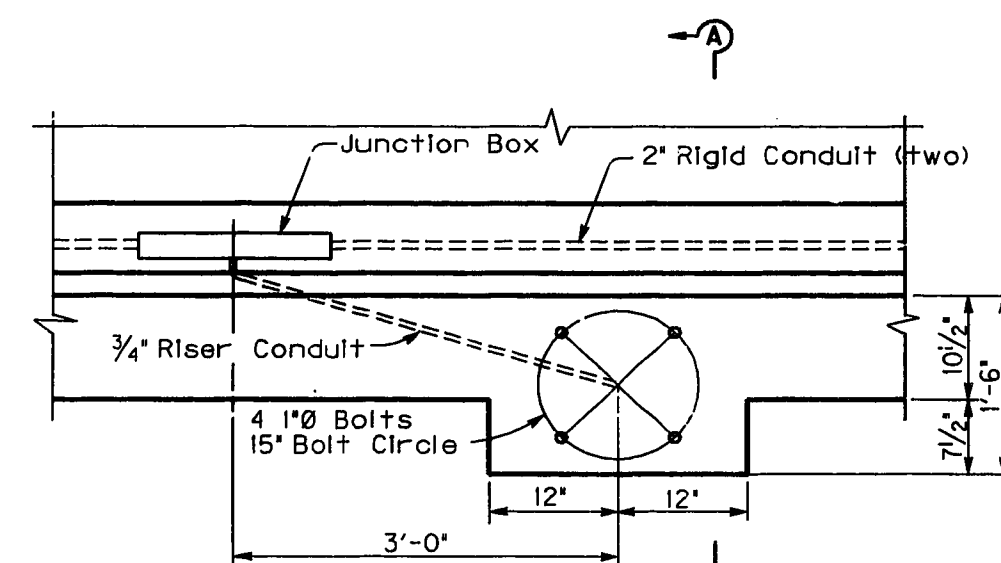
UPDATE DATE
LETTING DATE



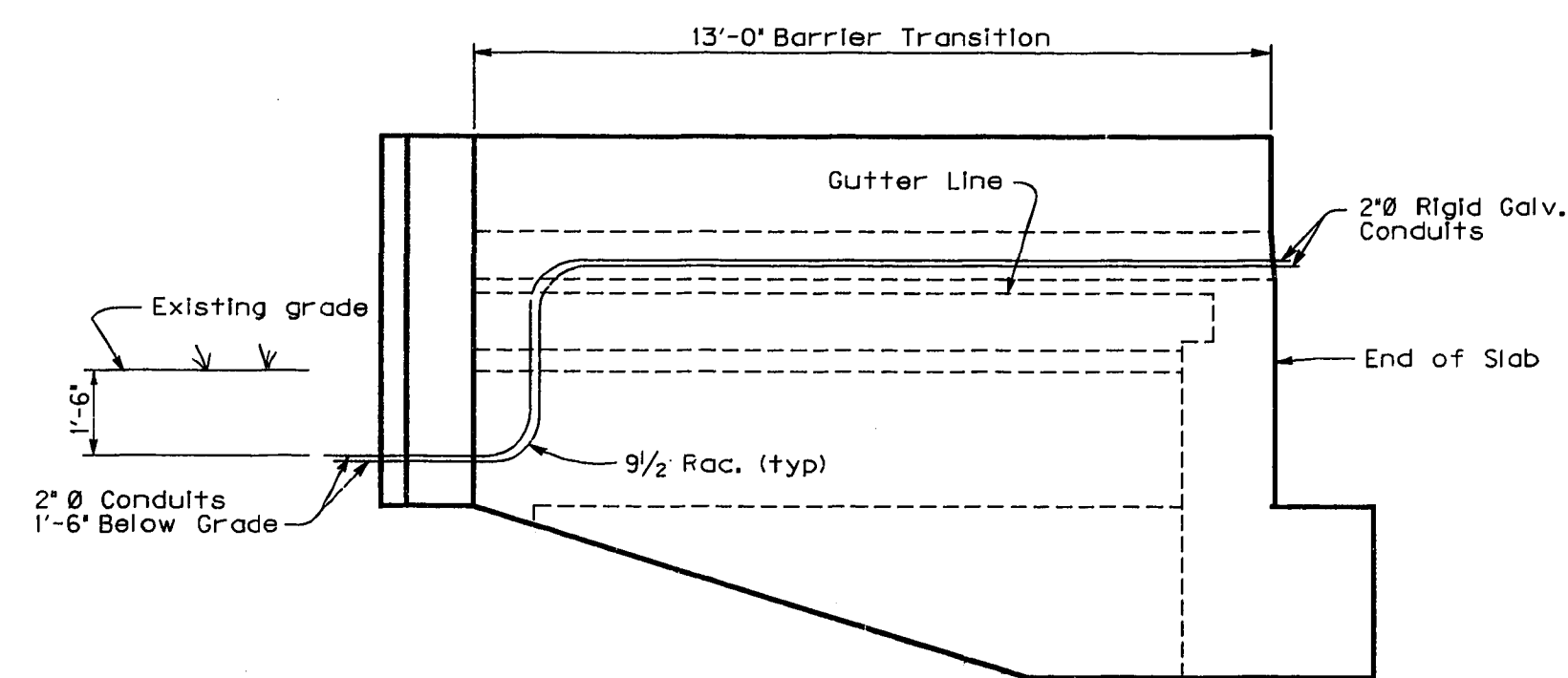
SECTION A-A



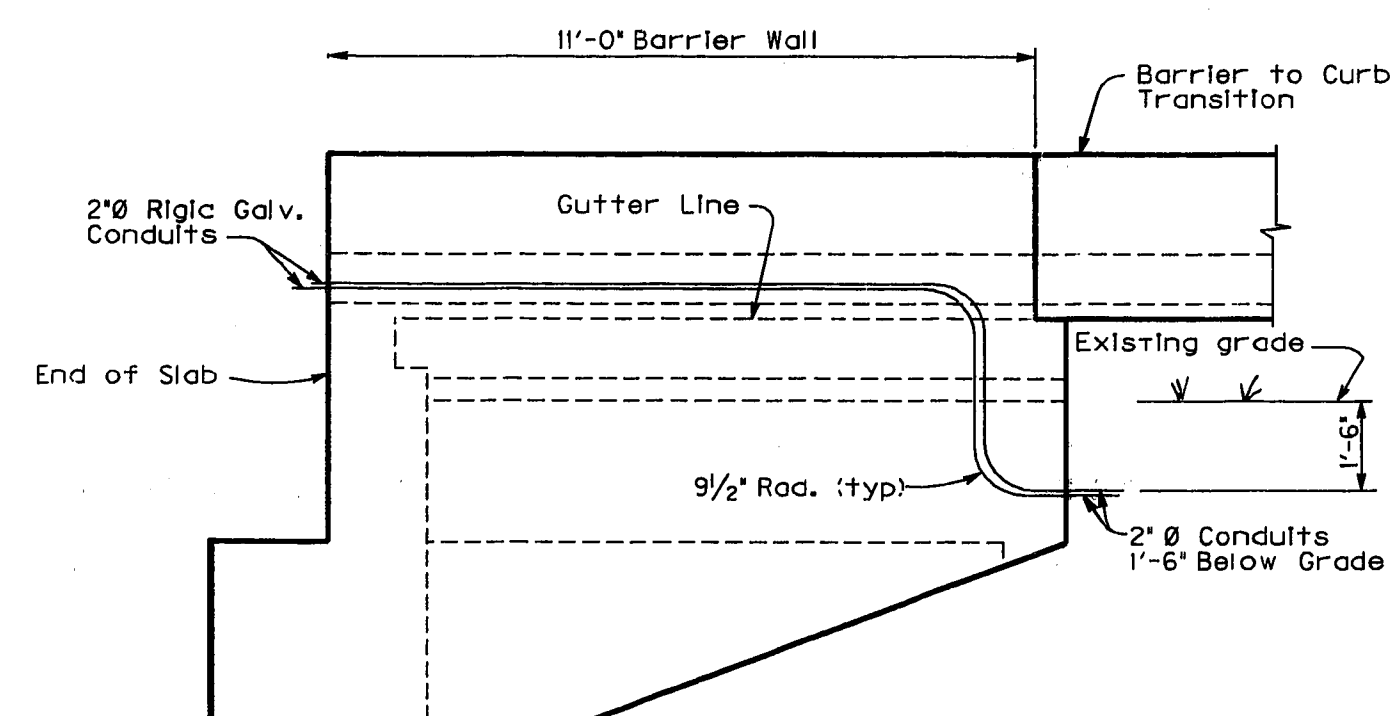
PART PLAN
(Showing Reinforcement in Outrigger)



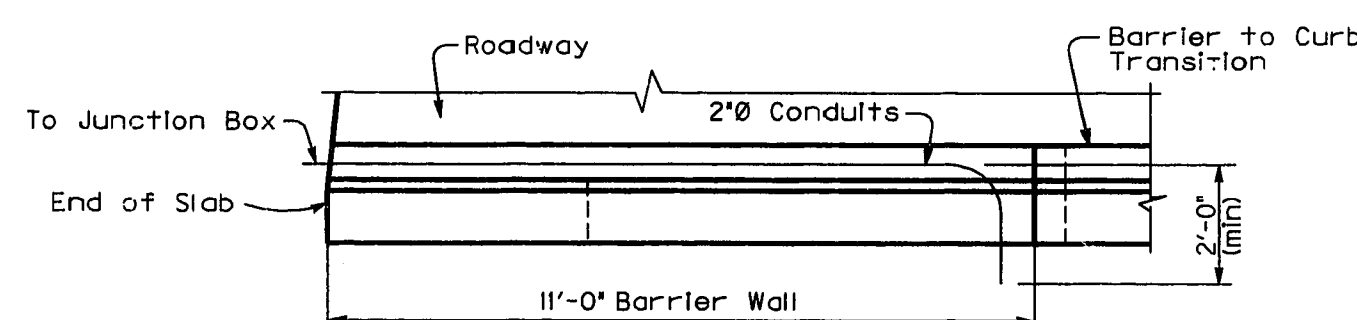
PART PLAN



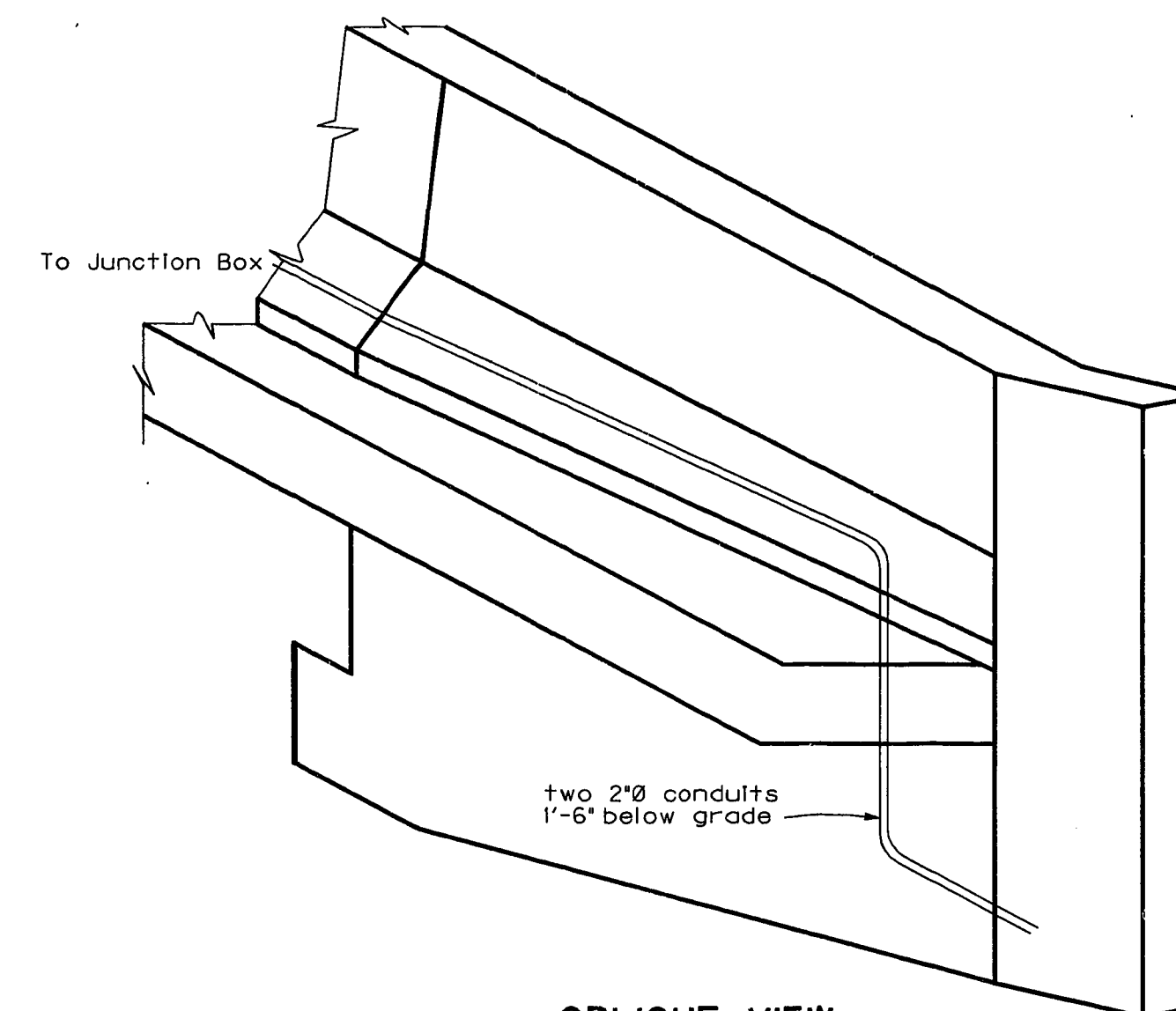
WING ELEVATION
(Abutment 2)



WING ELEVATION
(Abutment 1)



WINGWALL PLAN
(Abutment 1)



OBLIQUE VIEW
(Abutment 2)

BILL OF MATERIALS

2" Rigid Galvanized Conduit	461.3 (Lin. Ft.)
1/2" Rigid Galvanized Conduit	2.0 (Lin. Ft.)
3/4" Rigid Galvanized Conduit	5.5 (Lin. Ft.)
Std. 6"x6"x1'-4" Junction Box (JBI)	2 (Each)
Expansion Fitting	5 (Each)
2" Galvanized Caps	4 (Each)
3/4" Galvanized Caps	2 (Each)
1"x3'-0" Galvanized Anchor Bolts, Nuts, and Washers	4 (Each)

- ① a. OZ Electric Co. type YU
b. Spring City Electric Co. type IR
c. Hope Electric Products Co. type H6200
d. Or approved equal
- ② a. Crouse-Hinds, type XU641 w/GC100 Bonding Jumper
b. OZ Electric Co. type EX200 w/BJ1520-24 Bonding Jumper
c. Spring City Electric Co. type EF200 w/EJ200 Bonding Jumper
d. Or approved equal

NOTE:
Work this sheet
with sheet 11.

ELECTRICAL DETAILS

U.S. 42 OVER WATTERSON X-WAY

SHEET 17

COMMONWEALTH OF KENTUCKY
DEPARTMENT OF HIGHWAYS
FRANKFORT
COUNTY OF
JEFFERSON
BROWNSBORO RD. (U.S. 42)

ROAD
STATION 131+06.24 P. E. PROJECT NO.

CONSTRUCTION PROJECT NO.

MAINTENANCE PROJECT NO.

DRAWING NO.

21592