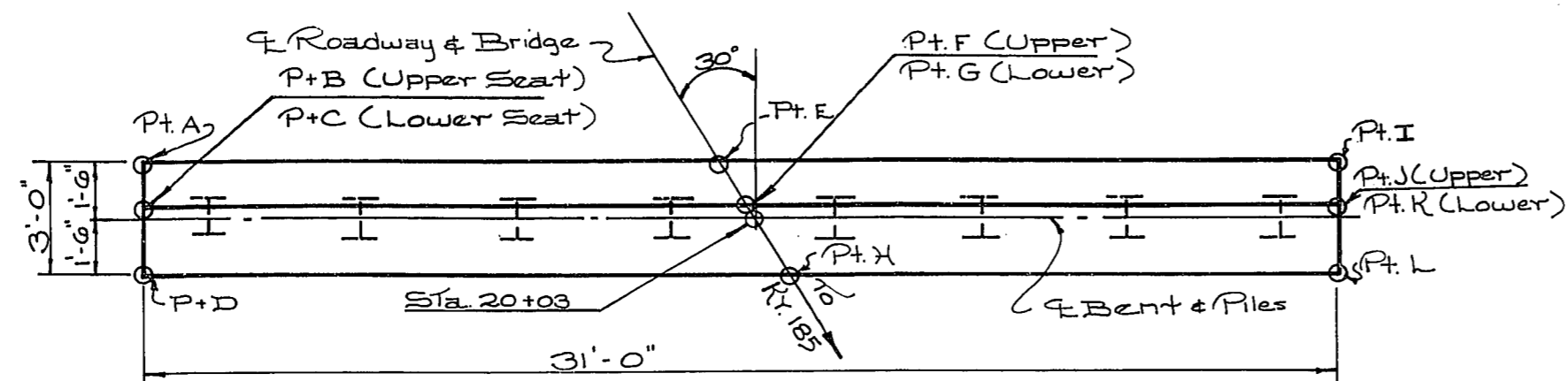
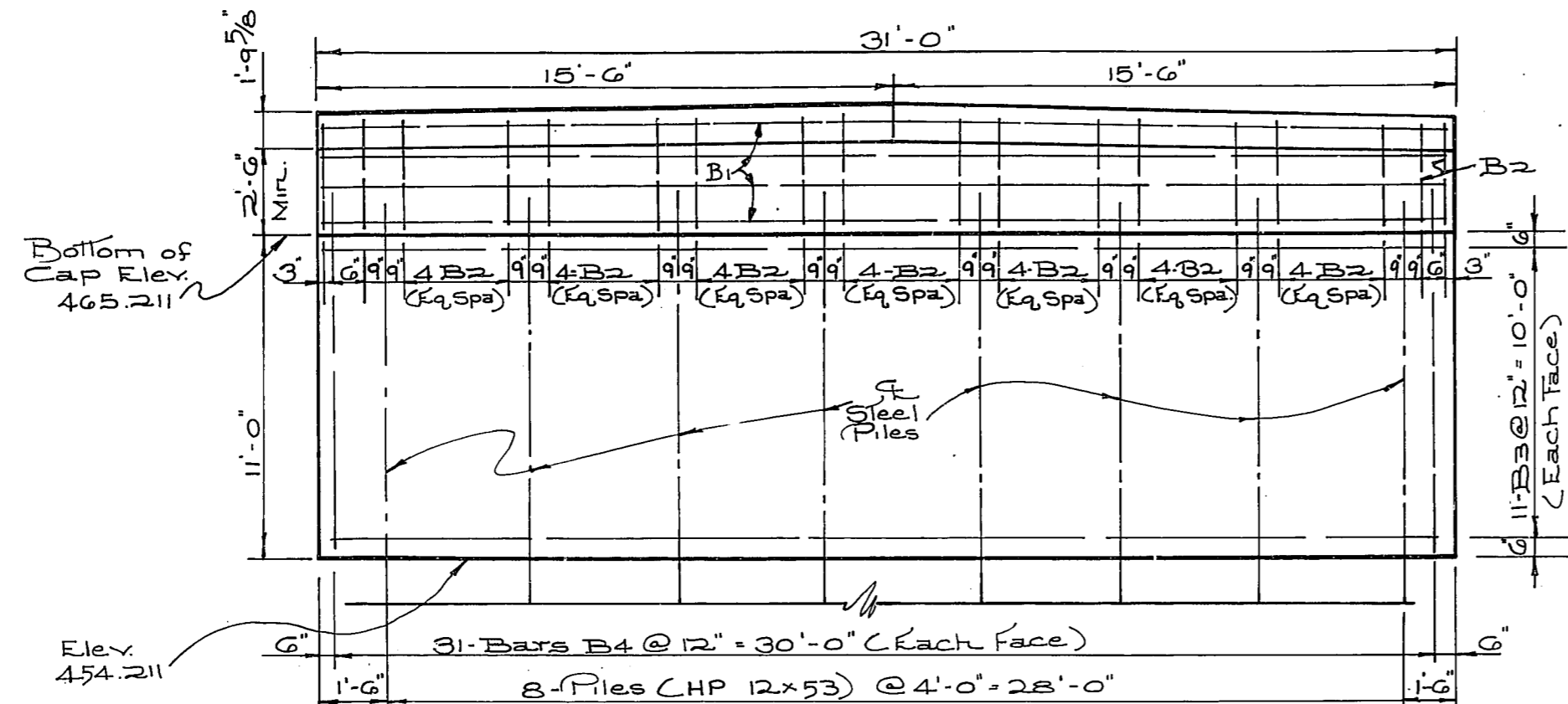


UPDATE DATE
LETTING DATE

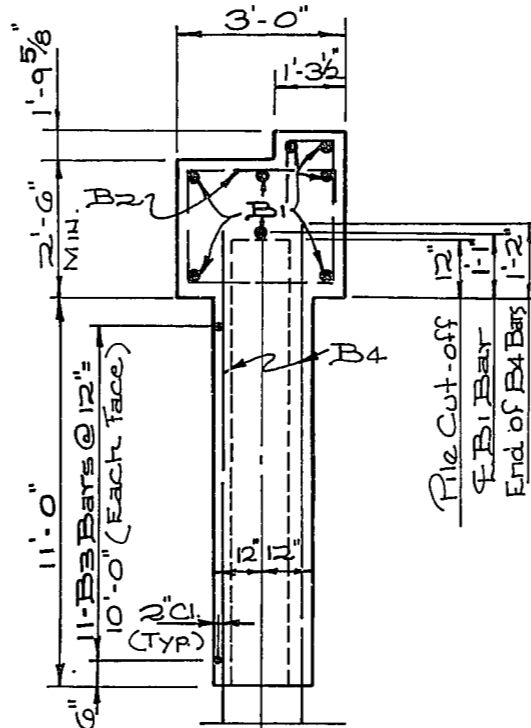
DESIGNED BY: J.L. TULLY
CHECKED BY: P.S.S.
DATE: 11/15/11
REVISED BY: C.H. WAGNER
DATE: 07/22/10
REVISED BY: B.B.S.
DATE: 07/22/10



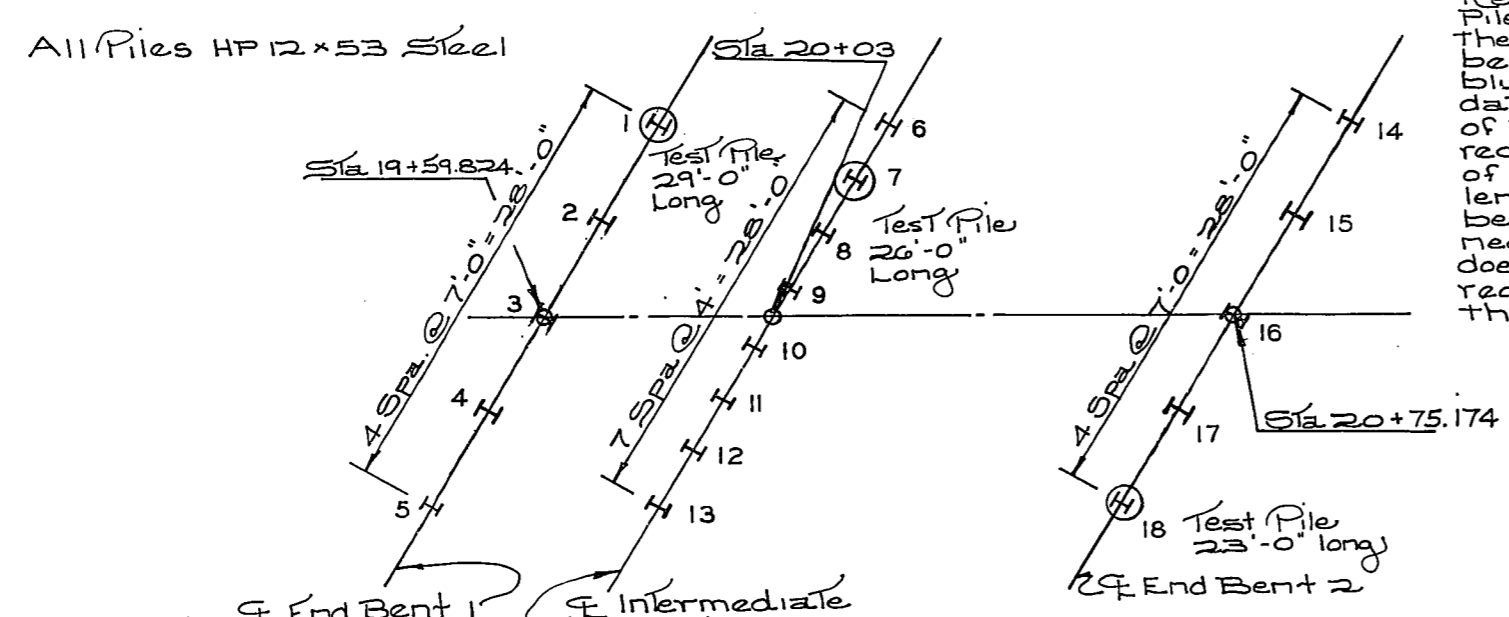
PLAN (30° SKEW RIGHT)



ELEVATION



END ELEVATION



PILE LAYOUT

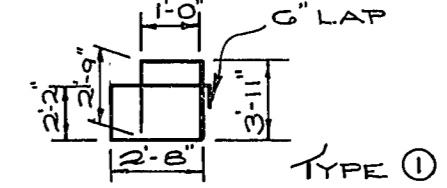
Note: After all Piles have been driven, the Resident Engineer shall record for each pile: the tip-of-pile elevation as driven, the length of pile in place, and the calculated bearing capacity. He shall return one blue print copy of the sheet with this data to the Director of the Division of Bridges so that the data may be recorded on the original plans. Length of piles shown hereon are the actual length of piles in the finished structure below cut-off elevation and are not necessarily pay items. This pile record does not replace other records of pile required to be kept and submitted by the Resident Engineer.

TABLE OF ELEVATIONS

POINT	IB. 4
A	469.544
B	469.531
C	467.729
D	467.711
E	469.808
F	469.808
G	468.006
H	468.006
I	469.513
J	469.527
K	467.725
L	467.742

BILL OF REINFORCEMENT

Mark	Type	Number	Size	Length Ft.	Location
B1	STR	8	#8	30.8	Cap
B2	①	2(20)	#5	15.5	Cap
B3	STR	22	#4	30.8	Webwall
B4	STR	62	#4	12.0	Webwall



PILE RECORD

Pile No.	Pile Cutoff Elevation	Tip of Pile Elevation as Driven	Length of Pile in Place (Linear Ft.)	Calculated Bearing Capacity (Tons)
1	467.913	438.91	29.00	Refusal
2	"	444.61	23.30	Refusal
3	"	443.97	23.94	Refusal
4	"	444.26	23.65	Refusal
5	"	445.43	22.48	Refusal
6	466.211	443.54	22.67	Refusal
7	"	440.21	26.00	Refusal
8	"	443.81	22.40	Refusal
9	"	443.88	22.33	Refusal
10	"	443.81	22.40	Refusal
11	"	443.36	22.85	Refusal
12	"	442.91	23.30	Refusal
13	"	443.39	22.82	Refusal
14	466.111	443.61	22.50	Refusal
15	"	443.48	22.63	Refusal
16	"	444.03	22.08	Refusal
17	"	441.35	24.76	Refusal
18	"	441.43	24.68	Refusal

INTERMEDIATE BENT 1

SHEET 3

BRIDGE OVER BIG REEDY CREEK
COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
FRANKFORT
COUNTY OF
EDMONSON
BIG REEDY - BEE SPRINGS
ROAD
P.E. PROJECT NO.
STATION 20+17.5
CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO.
20922

Description of Soil Compactness or Consistency

SOIL TYPE	COMPACTNESS OR CONSISTENCY	RANGE OF PENETRATION RESISTANCE	RANGE OF UNCONFINED COMPRESSIVE STRENGTH
Coarse grained soils (More than half of material is larger than No 200 sieve size.)	Very loose Loose Medium compact Compact Very compact	Less than 4 blows per foot. 4 to 10 10 to 30 30 to 50 Greater than 50	Not applicable.
Fine grained soils (More than half of material is smaller than No 200 sieve size.)	Very soft Soft Medium stiff Stiff Very stiff Hard	Not applicable	Less than 0.25 tsf 0.25 to 0.5 0.5 to 1.0 1.0 to 2.0 2.0 to 4.0 Greater than 4.0

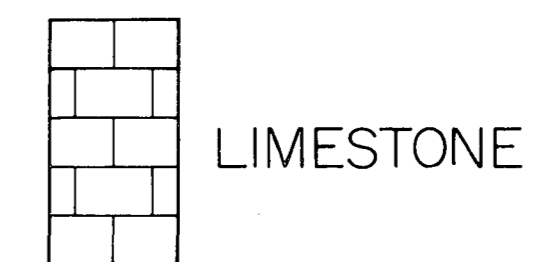
Unified Soil Classifications

MAJOR DIVISIONS	SYMBOL	NAME
COARSE-GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	GW Well-graded gravels or gravel-sand mixtures, little or no fines
		GP Poorly graded gravels or gravel-sand mixtures, little or no fines.
		GM Silty gravels, gravel-sand-silt mixtures.
		GC Clayey gravels, gravel-sand-clay mixtures
	SAND AND SANDY SOILS	SW Well-graded sands or gravelly sands, little or no fines
		SP Poorly graded sands or gravelly sands, little or no fines
		SM Silty sands, sand-silt mixture.
		SC Clayey sands, sand-clay mixtures.
FINE-GRAINED SOILS	SILTS AND CLAYS LL IS LESS THAN 50	ML Inorganic silts and very fine sands, rock flour, silty or clayey fine sands or clayey silts with slight plasticity.
		CL Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
	SILTS AND CLAYS LL IS GREATER THAN 50	MH ¹ Inorganic silts, micaceous or diatomaceous fine sandy or silty soils, elastic silts.
		CH Inorganic clays of high plasticity, fat clays.
UNCLASSIFIED MATERIAL	NONE	Non-classified material (i.e. overburden, pavement, coal mine waste, slag, rubble, talus, etc.) Include visual description.

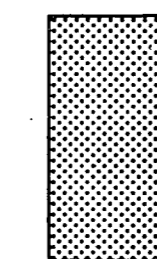
- AI Activity Index
- LI Liquidity Index
- N Penetration Resistance
- S+C(%) Material finer than No. 200 sieve
- Rockline Sounding
- ⊕ Disturbed Sample Boring
- ⊙ Undisturbed Sample Boring
- ⊙ Undisturbed Sample Boring and Rock Core
- Rock Core
- ⊙ Slope inclinometer Installation
- typical applications: ○ ⊕ ⊙ ⊙ ●
- Approximate Footing Elevation
- ▽ Water Elevation
- ▬ Thin-walled Tube Sample
- < Standard Penetration Test Sample
- Q_u Unconfined Compressive Strength
- w(%) Moisture Content
- RQD(%) Rock Quality Designation
- SDI(%) Slake Durability Index
- Rec.(%) Core Recovery
- φ Angle of Internal Friction
- φ Effective Angle of Internal Friction
- c Cohesion
- c̄ Effective Cohesion
- γ Total Unit Weight
- RDZ Rock Disintegration Zone
- OB Overburden Bench
- IB Intermediate Bench
- R Refusal
- NR Refusal Not Encountered

Relation of RQD and in situ Rock Quality

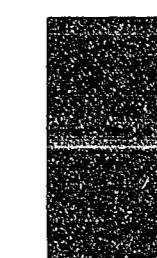
RQD(%)	Rock Quality
90-100	Excellent
75-90	Good
50-75	Fair
25-50	Poor
0-25	Very Poor



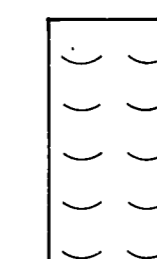
LIMESTONE



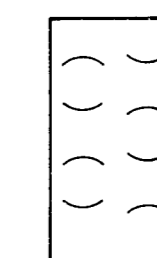
SANDSTONE



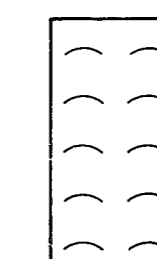
COAL



SHALE, SOIL-LIKE (SDI ≤ 50)



SHALE, INTERMEDIATE (50 < SDI < 95)

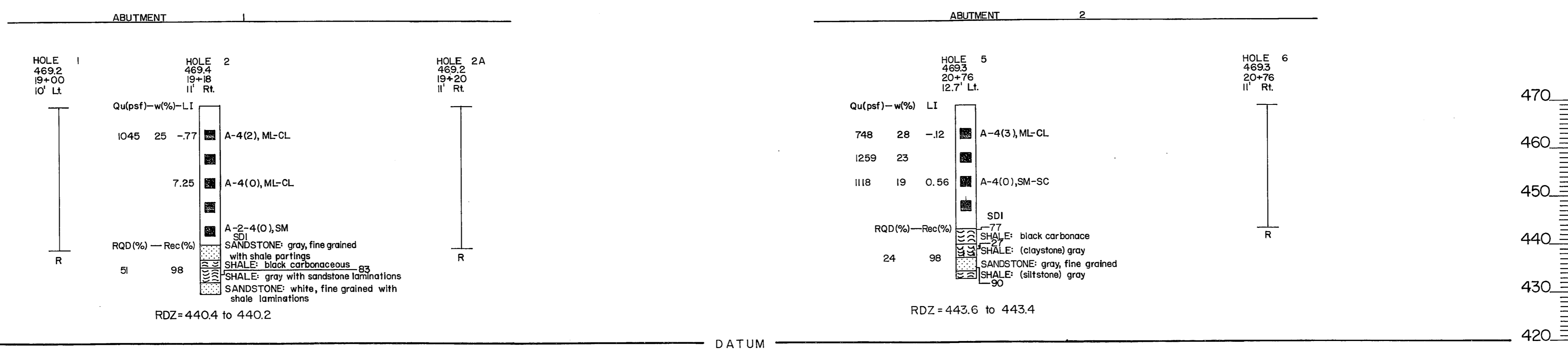
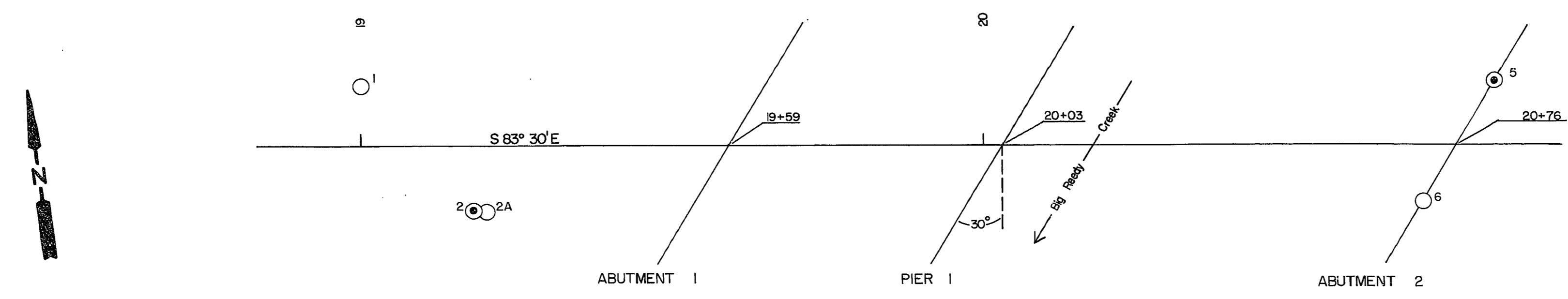


SHALE, ROCK-LIKE (SDI ≥ 95)

SHEET 4

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
 FRANKFORT
 COUNTY OF
EDMONSON
 KY. 238 OVER BIG REEDY CREEK
 ROAD
 P.E. PROJECT NO.
 STATION 20+175
 CONSTRUCTION PROJECT NO. MAINTENANCE PROJECT NO. DRAWING NO. 20922

SUBSURFACE DATA



ALLOWABLE BEARING CAPACITY is estimated to be 10tsf.

UPDATE DATE: _____ LETTING DATE: _____
 Division of Highways
 Geological Division
 Stationing Report # _____
 DATE: _____ DATE: _____
 REVISION: _____ REVISION: _____
 CHECKED BY: _____ CHECKED BY: _____
 DESIGNED BY: _____ DESIGNED BY: _____

SHEET 5

COMMONWEALTH OF KENTUCKY
BUREAU OF HIGHWAYS
 FRANKFORT
 COUNTY OF
EDMONSON
 KY 238 OVER BIG REEDY CREEK
 ROAD
 STATION 20+17.5 P.E. PROJECT NO. _____
 CONSTRUCTION PROJECT NO. _____ MAINTENANCE PROJECT NO. _____ DRAWING NO. 20922

SPECIFICATIONS

THE KENTUCKY BUREAU OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION WITH REVISIONS.

DESIGN LOAD

BEAM SECTIONS ARE DESIGNED FOR HS20-44 LOADING AS SPECIFIED IN 1977 AASHTO SPECIFICATIONS INCLUDING INTERIM SPECIFICATIONS.

MATERIALS DESIGN SPECIFICATIONS

FOR PRESTRESSED GIRDER CONCRETE	FOR PRESTRESSING REINFORCEMENT
F'C = 5,500 PSI	F'S = 270,000 PSI
F'CI = 4,400 PSI	
FOR CLASS "AA" CONCRETE	FOR STEEL REINFORCEMENT
F'C = 4,000 PSI	FY = 60,000 PSI

CONCRETE

CLASS "D" MODIFIED CONCRETE USING TYPE I, OR TYPE III CEMENT SHALL BE USED IN ALL PRECAST BEAMS. CYLINDER STRENGTH SHALL BE 4,400 PSI BEFORE STRANDS ARE RELEASED.

DESIGN LENGTH

LENGTHS SHOWN IN THE TABLES ARE FOR TOTAL BEAM LENGTH. BEAMS ARE DESIGNED FOR SPANS FROM CENTERLINE OF BEARING TO CENTERLINE OF BEARING. USE THE NEXT GREATER DESIGNED SECTION FOR NON-STANDARD LENGTH.

LATERAL TENSIONING RODS

AFTER THE DECK UNITS ARE IN PLACE, AND PRIOR TO GROUTING ALL LONGITUDINAL SHEAR KEYS, THE LATERAL TENSIONING RODS SHALL BE GIVEN A PRELIMINARY TIGHTENING. FINAL TENSIONING SHALL BE 20,000 PSI AS DEVELOPED BY A TORQUE OF 200 FT.-LBS. LATERAL TENSIONING RODS SHALL CONFORM TO ASTM A36, CURRENT EDITION.

VOID DRAINS

ALL BEAMS 24 FOOT OR GREATER MUST HAVE VOID DRAINS OF A TYPE APPROVED BY THE DIVISION OF MATERIALS.

PREFORMED CORK EXPANSION JOINT MATERIAL

MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH SUBSECTION 807.03.02 TYPE II. THE COST OF THE PREFORMED CORK EXPANSION JOINT MATERIAL SHALL BE INCLUDED IN THE PRICE PAID PER LINEAR FOOT OF BEAM.

METAL SHIMS

MULTIPLE SPAN BRIDGES MAY BE ALIGNED BY PLACING METAL SHIMS BETWEEN THE BEAMS.

JOINT SEALING

ALL TRANSVERSE JOINTS SHALL BE SEALED TO A DEPTH OF 1.5 INCHES FROM THE TOP OF BEAM WITH JOINT SEALER IN ACCORDANCE WITH SUBSECTION 807.02.01 OF THE SPECIFICATIONS.

ELASTOMERIC BEARING PADS

ELASTOMERIC BEARING PADS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES AS MODIFIED ON STANDARD DRAWING BBP-001, CURRENT EDITION. PAYMENT FOR THE COST OF ELASTOMERIC BEARING PADS IS TO BE INCLUDED IN THE PRICE PAID PER LINEAR FOOT OF BEAM.

REINFORCEMENT SPACING

DIMENSIONS FROM FACE OF CONCRETE TO BARS ARE CLEAR DISTANCES EXCEPT AS OTHERWISE SHOWN. ALL BAR SPACINGS ARE FROM CENTER TO CENTER.

BEVELED EDGES

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

CURBS

CURBS AS DETAILED ON SHEET 21 SHALL BE POURED IN THE PLANT AND MUST HAVE THE SAME MIX DESIGN AS THE DECK SECTION (WITH TYPE I OR TYPE II CEMENT, EXCEPT THAT THE CYLINDER STRENGTH NEED NOT EXCEED THAT FOR CLASS "A" CONCRETE). PAYMENT FOR THE COST OF CURB SHALL BE INCLUDED IN THE PRICE PAID PER LINEAR FOOT OF BEAM.

GUARDRAIL

GUARDRAIL SYSTEM TYPE II SHALL BE USED ON THIS PROJECT IN CONJUNCTION WITH GUARDRAIL CONNECTOR TO BRIDGE "W" BEAM GUARDRAIL TYPE II DETAIL ON SHEET NO 22. THE BID ITEM SHALL BE STEEL "W" BEAM GUARDRAIL (SINGLE FACE CH).

GUARDRAIL POSTS

GUARDRAIL POSTS AND OFFSET BRACKETS SHALL CONFORM TO ASTM A36. NUTS AND BOLTS CONNECTING GUARDRAIL POSTS TO BEAM SHALL CONFORM TO ASTM A-325 ALL MATERIALS AND HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH THE SPECIFICATIONS. INSERT MATERIALS FOR ANCHORING GUARDRAIL POSTS SHALL CONFORM TO ASTM A108, GRADES 1008, 1010, OR 1117 FOR THREADED FERRULE INSERTS AND ASTM A82, CURRENT EDITION, FOR THREADED FERRULE ANCHOR WIRE.

SURFACE FINISH

THE TOP SURFACES OF DECK UNITS, WHEN INTENDED FOR USE AS THE RIDING SURFACE, SHALL BE GIVEN A BROOMED FINISH. THE BROOMING SHALL BEGIN BEFORE THE CONCRETE HAS TAKEN ITS INITIAL SET AND AFTER ANY WATER OR LAITANCE HAS RISEN TO THE SURFACE. THE BROOM SHALL BE DRAWN TRANSVERSELY ACROSS THE SURFACE IN A SINGLE STROKE, WITH EACH STROKE SLIGHTLY OVERLAPPING THE ADJACENT. THE BROOM SHALL BE THOROUGHLY WASHED AT FREQUENT INTERVALS AND OTHERWISE MAINTAINED IN A CONDITION THAT WILL PROVIDE A UNIFORM FINISH WITH CLOSELY SPACED STRIATIONS BETWEEN 1/16 INCH AND 1/8 INCH IN DEPTH.

DEBONDING STRANDS

DEBONDING OF STRANDS SHALL BE PERFORMED ON BOTH ENDS OF BEAMS AS SHOWN IN TABLE ON SHEET 7. PROPOSED METHOD OF DEBONDING SHALL BE APPROVED BY THE ENGINEER PRIOR TO CASTING BEAMS. COST OF DEBONDING STRANDS SHALL BE INCLUDED IN THE UNIT PRICE BID PER LINEAR FOOT OF BEAM.

WELDED DEFORMED STEEL WIRE FABRIC

WELDED DEFORMED STEEL WIRE FABRIC MAY BE USED IN LIEU OF REINFORCING BAR STIRRUPS, SHALL PROVIDE AN EQUIVALENT AREA OF STEEL AND SHALL CONFORM TO ASTM SPECIFICATION A497 CURRENT EDITION.

PRESTRESSING REINFORCEMENT

PRESTRESSED REINFORCEMENT SHALL BE 1/2" NORMAL DIAMETER UNCOATED SEVEN-WIRE STRESS-RELIEVED STRAND CONFORMING TO THE REQUIREMENTS OF GRADE 270, AASHTO DESIGNATION, M 203, CURRENT EDITION. STABILIZED STRAND (1/2" NOMINAL DIA. 270 GRADE UNCOATED SEVEN-WIRE STRAND IN ACCORDANCE WITH ASTM A 416) MAY BE USED IN THE PRESTRESSED CONCRETE BEAMS INSTEAD OF THE 270 GRADE STRESS-RELIEVED STRAND SPECIFIED FOR THIS PROJECT. HOWEVER, IF THE STABILIZED STRAND ALTERNATE IS CHOSEN, THE PRESTRESSED BEAMS MUST BE REDESIGNED AT THE CONTRACTOR'S EXPENSE. DESIGN CALCULATIONS SHALL BE SUBMITTED TO THE DIRECTOR, DIVISION OF BRIDGES FOR REVIEW. COST OF THE PRESTRESSING STRAND IS INCLUDED IN THE COST OF THE PRESTRESSED BEAM.

GENERAL NOTES

EDMONSON CO.
DRWG. NO. 20922
SHEET 6

Work this Sheet with Sheets
BDP-080 thru BDP-112

KENTUCKY
BUREAU OF HIGHWAYS

PRECAST PRESTRESSED
CONCRETE
DECK UNITS

STANDARD DRAWING No. BDP-081

SUBMITTED 2... 8/12/62
DATE DIRECTOR DIVISION OF BRIDGES

APPROVED 8/11/62
DATE STATE HIGHWAY ENGINEER

DRAWN BY
CHECKED
RECOMMENDED

Table of Design Data

Beam Type	Beam Length	Design Span Length	Number of Strands	Strand Pattern	Number & Length of Strands Debonded	Beam Reinforcement Spacing		Minimum Camber (Inches)	
						End Spa.	C1 Bar Spacing		C2 Bar Spacing
B12-48	12'-0"	11'-0"	6	6		1 1/2"	1 Spa. @ 3" / Spa. @ 9"	1 Spa. @ 3" / Spa. @ 9"	0.04
	14'-0"	13'-0"	6	6					0.06
	16'-0"	15'-0"	8	8					0.10
	18'-0"	17'-0"	8	8					0.12
	20'-0"	19'-0"	10	10					0.19
	24'-0"	23'-0"	12	12	2 @ 2'-0"	1 1/2"	1 Spa. @ 3" / Spa. @ 9"	1 Spa. @ 3" / Spa. @ 9"	0.21
B17-48	26'-0"	25'-0"	8	8		1 1/2"	1 Spa. @ 3" / Spa. @ 10"	1 Spa. @ 3" / Spa. @ 5"	0.30
	28'-0"	27'-0"	10	10					0.13
	30'-0"	29'-0"	10	10					0.20
	32'-0"	31'-0"	12	12					0.21
	34'-0"	33'-0"	14	14	2 @ 1'-5"				0.29
	36'-0"	35'-0"	16	16	4 @ 2'-8"	1 1/2"	1 Spa. @ 3" / Spa. @ 10"	1 Spa. @ 3" / Spa. @ 5"	0.40
B21-48	38'-0"	37'-0"	12	12		1 1/2"	1 Spa. @ 3" / 2 Spa. @ 7" / 3 Spa. @ 10" / Spa. @ 1'-3"	1 Spa. @ 3" / 4 Spa. @ 3 1/2" / 5 Spa. @ 5"	0.51
	40'-0"	39'-0"	14	14			1 Spa. @ 3" / 2 Spa. @ 7" / 3 Spa. @ 10" / Spa. @ 1'-3"	1 Spa. @ 3" / 4 Spa. @ 3 1/2" / 5 Spa. @ 5"	0.27
	42'-0"	41'-0"	16	16	2 @ 1'-4"		1 Spa. @ 3" / 2 Spa. @ 6" / 11 Spa. @ 9" / Spa. @ 1'-3"	1 Spa. @ 3" / 2 Spa. @ 6" / 22 Spa. @ 4 1/2" / Spa. @ 5"	0.37
	44'-0"	43'-0"	16	16	2 @ 1'-4"		1 Spa. @ 3" / 2 Spa. @ 6" / 12 Spa. @ 9" / Spa. @ 1'-3"	1 Spa. @ 3" / 2 Spa. @ 6" / 24 Spa. @ 4 1/2" / Spa. @ 5"	0.47
	46'-0"	45'-0"	18	18	4 @ 2'-6"	1 1/2"	1 Spa. @ 3" / 2 Spa. @ 6" / 10 Spa. @ 9" / 3 Spa. @ 12" / Spa. @ 1'-3"	1 Spa. @ 3" / 2 Spa. @ 6" / 20 Spa. @ 4 1/2" / 6 Spa. @ 6" / Spa. @ 5"	0.49
B27-48	48'-0"	46'-6"	14	14		3"	1 Spa. @ 6" / 2 Spa. @ 8" / 9 Spa. @ 11" / 2 Spa. @ 1'-4" / Spa. @ 1'-8"	1 Spa. @ 6" / 2 Spa. @ 8" / 18 Spa. @ 5 1/2" / 4 Spa. @ 8" / Spa. @ 6 1/16" (±) (See Note)	0.34
	53'-0"	51'-6"	16	16		3"	1 Spa. @ 6" / 2 Spa. @ 8" / 10 Spa. @ 11" / 3 Spa. @ 1'-3" / Spa. @ 1'-8"	1 Spa. @ 6" / 2 Spa. @ 8" / 20 Spa. @ 5 1/2" / 6 Spa. @ 7 1/2" / Spa. @ 6 1/16" (±) (See Note)	0.45
	58'-0"	56'-6"	18	18		3"	1 Spa. @ 6" / 2 Spa. @ 7" / 12 Spa. @ 10" / 4 Spa. @ 1'-2" / Spa. @ 1'-8"	1 Spa. @ 6" / 2 Spa. @ 7" / 24 Spa. @ 5 1/2" / 8 Spa. @ 7" / Spa. @ 6 1/16" (±) (See Note)	0.57
B33-48	63'-0"	61'-6"	16	16		3"	1 Spa. @ 6" / 2 Spa. @ 9" / 11 Spa. @ 1'-1" / Spa. @ 1'-8"	1 Spa. @ 6" / 4 Spa. @ 4 1/2" / 22 Spa. @ 6 1/2" / Spa. @ 6 1/16" (±) (See Note)	0.38
	68'-0"	66'-6"	20	20		3"	1 Spa. @ 6" / 2 Spa. @ 9" / 12 Spa. @ 1'-1" / Spa. @ 1'-8"	1 Spa. @ 6" / 4 Spa. @ 4 1/2" / 24 Spa. @ 6 1/2" / Spa. @ 6 1/16" (±) (See Note)	0.60
B42-48	73'-0"	71'-6"	16	16		3"	1 Spa. @ 6" / 2 Spa. @ 12" / 5 Spa. @ 1'-6" / Spa. @ 1'-8"	20 Spa. @ 6" / Spa. @ 6 1/16" (±) (See Note)	0.28
	78'-0"	76'-6"	18	18		3"	1 Spa. @ 6" / 2 Spa. @ 12" / 6 Spa. @ 1'-5" / Spa. @ 1'-8"	5 Spa. @ 6" / 18 Spa. @ 5 1/16" (±) / Spa. @ 6 1/16" (±) (See Note)	0.35
	83'-0"	81'-6"	20	20		3"	1 Spa. @ 6" / 2 Spa. @ 12" / 8 Spa. @ 1'-4" / Spa. @ 1'-8"	5 Spa. @ 6" / 16 Spa. @ 8" / Spa. @ 6 1/16" (±) (See Note)	0.42

Note: C2 Bars are to be spaced with C1 Bars to form stirrups. The remaining C2 Bars are to be spaced as indicated by chart. The dimensions in chart marked (±) indicate C2 Bars equally spaced between stirrups. Bar spacing shown, including "End Space", are measured from each end of beam.

EDMONSON CO.
 DRWG. NO. 20922
 SHEET 7

Work this Sheet with Sheets
 BDP-080 thru BDP-112

KENTUCKY
 BUREAU OF HIGHWAYS
 Precast Prestressed
 Concrete
 Deck Units

Table of Design Data - Beam Types:
 B12-48, B17-48, B21-48
 B27-48, B33-48, B42-48

STANDARD DRAWING No. BDP-082
 SUBMITTED: [Signature] DATE: 8/13/82
 APPROVED: [Signature] DATE: [Signature]
 STATE HIGHWAY ENGINEER

DRAWN: [Signature]
 CHECKED: [Signature]
 RECOMMENDED: [Signature]

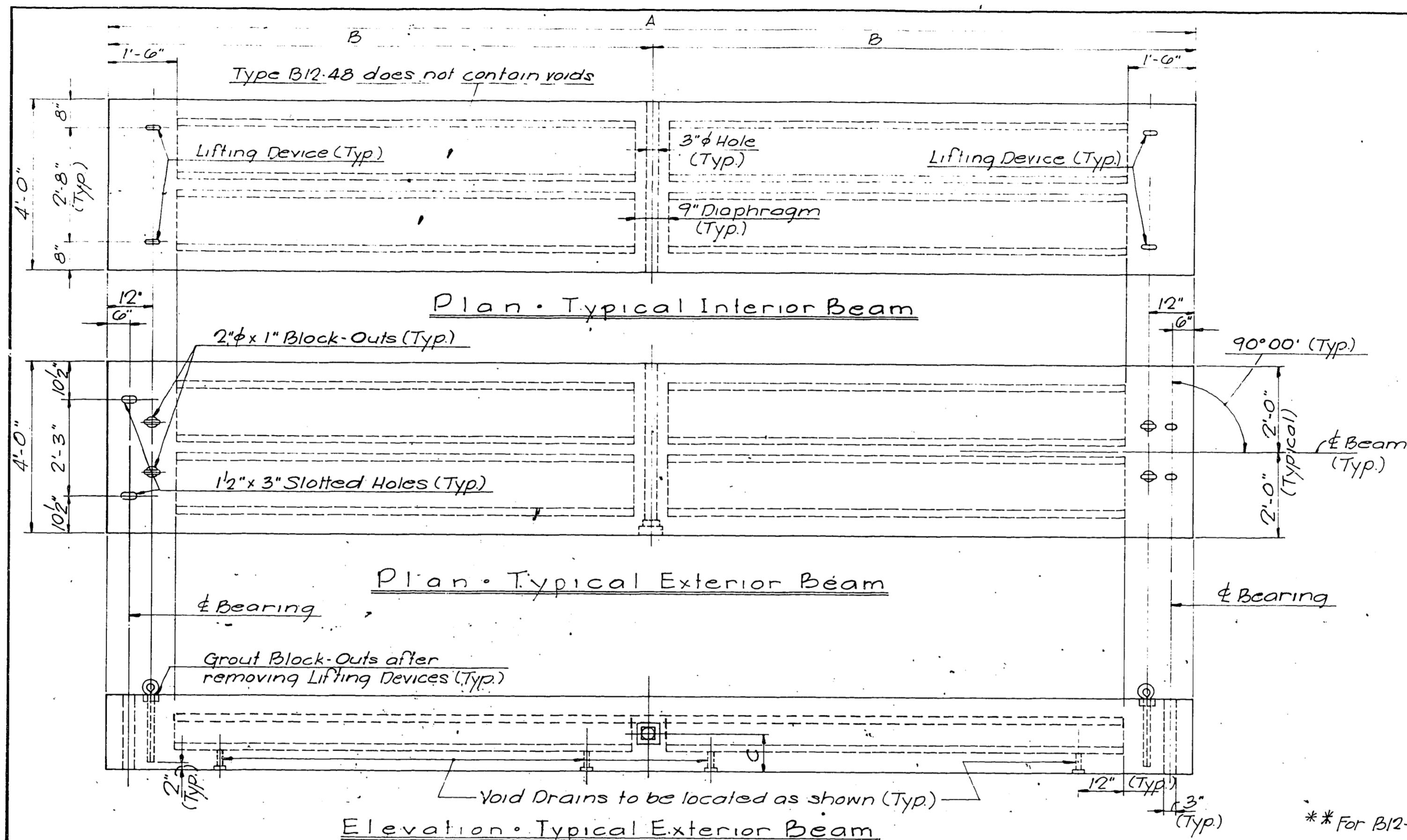
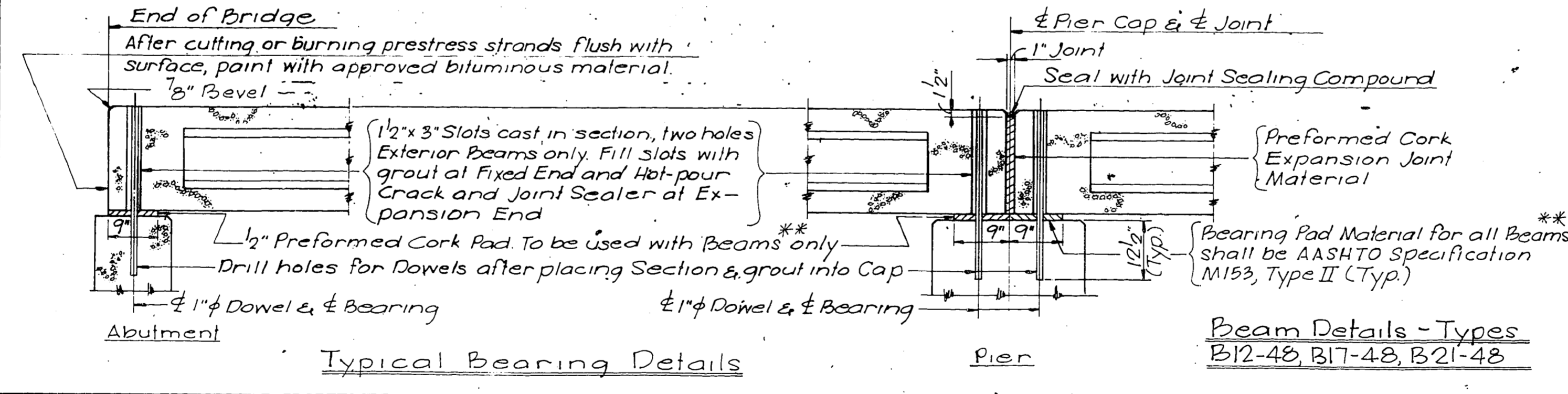


Table of Dimensions

A*	B	C
12'-0"	6'-0"	6"
14'-0"	7'-0"	1"
16'-0"	8'-0"	
18'-0"	9'-0"	
20'-0"	10'-0"	
22'-0"	11'-0"	1"
24'-0"	12'-0"	6"
26'-0"	13'-0"	10"
28'-0"	14'-0"	
30'-0"	15'-0"	
32'-0"	16'-0"	
34'-0"	17'-0"	1"
36'-0"	18'-0"	10"
38'-0"	19'-0"	10 1/2"
40'-0"	20'-0"	
42'-0"	21'-0"	
44'-0"	22'-0"	
46'-0"	23'-0"	10 1/2"

* Denotes Total Beam Length

** For B12-48, B17-48, B21-48



EDMONSON CO.
DRWG. NO. 20922
SHEET 8

Work this Sheet with Sheets BDP-080 thru BDP-112

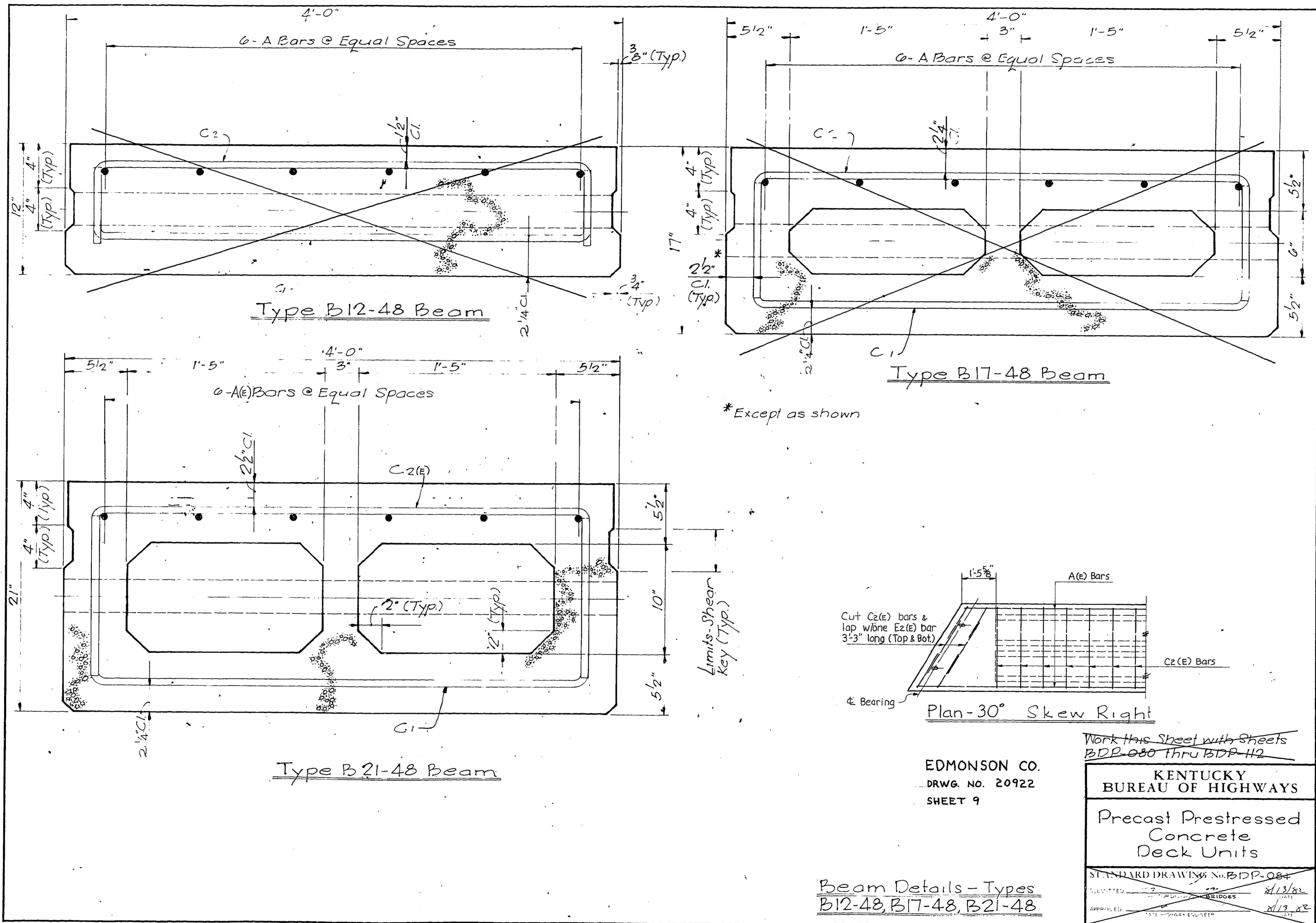
KENTUCKY BUREAU OF HIGHWAYS

Precast Prestressed Concrete Deck Units

STANDARD DRAWING No. BDP-083

SUBMITTED: 8/13/62
APPROVED: 8/13/62

CHECKED: RECOMMENDED:

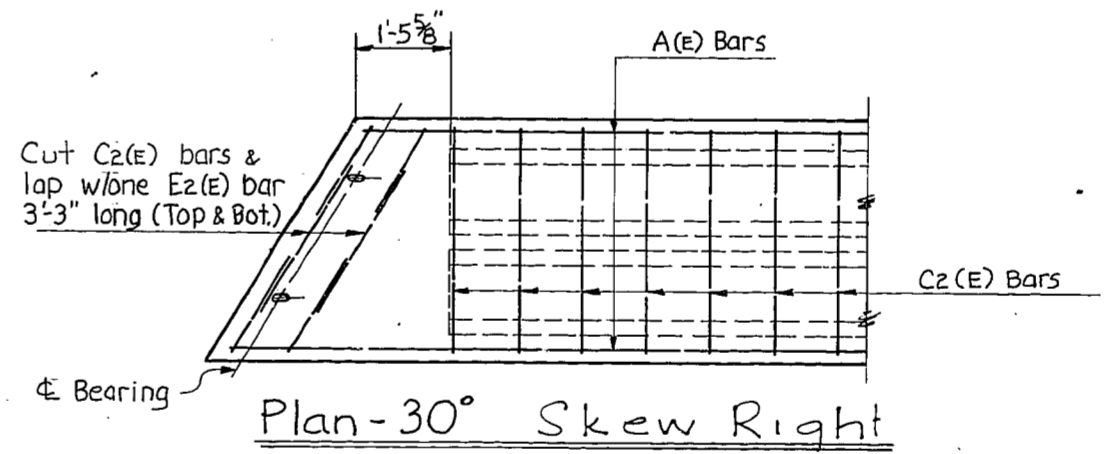


Type B12-48 Beam

Type B17-48 Beam

Type B21-48 Beam

*Except as shown

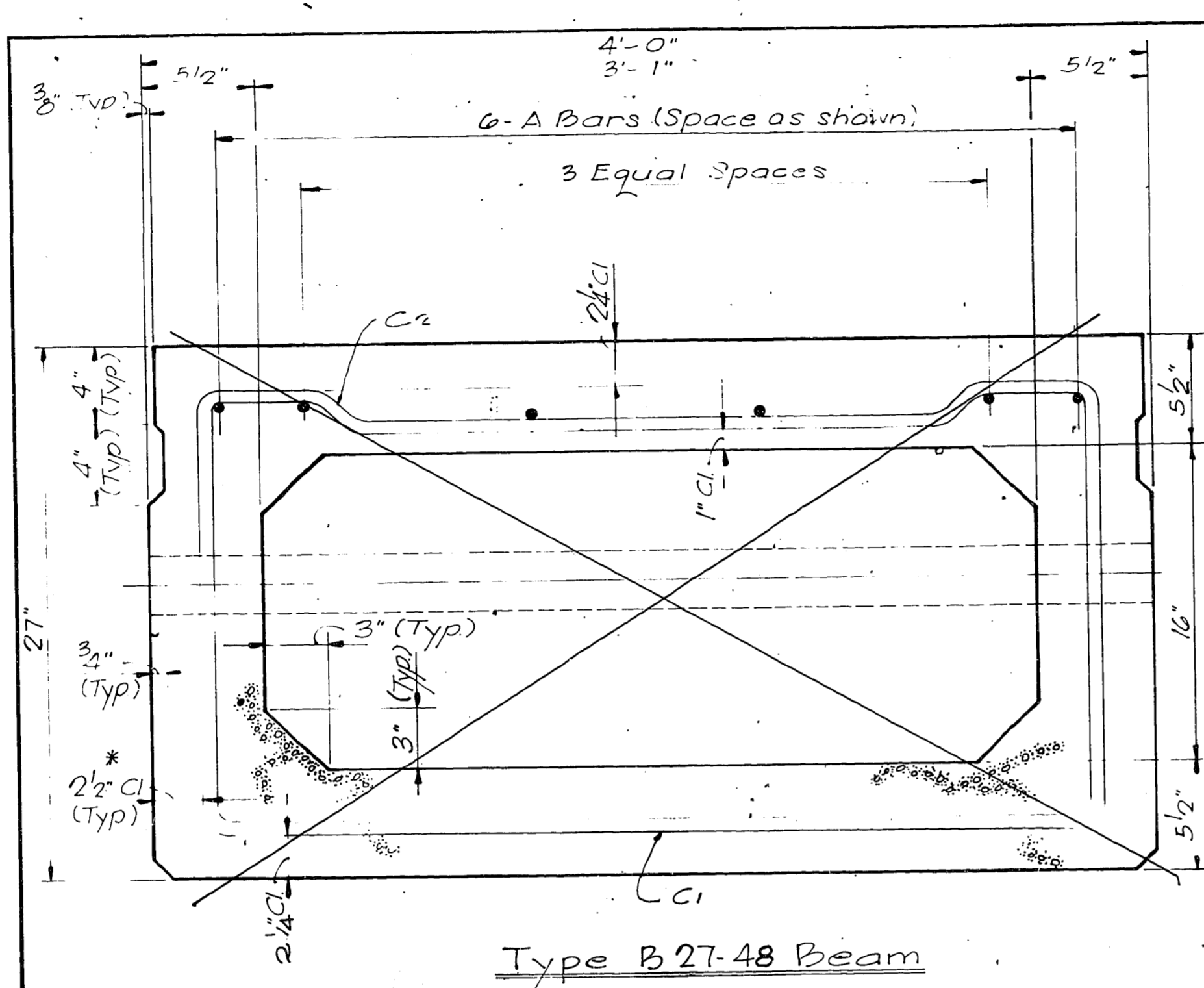


EDMONSON CO.
DRWG. NO. 20922
SHEET 9

Work this Sheet with Sheets
BDP-080 thru BDP-112

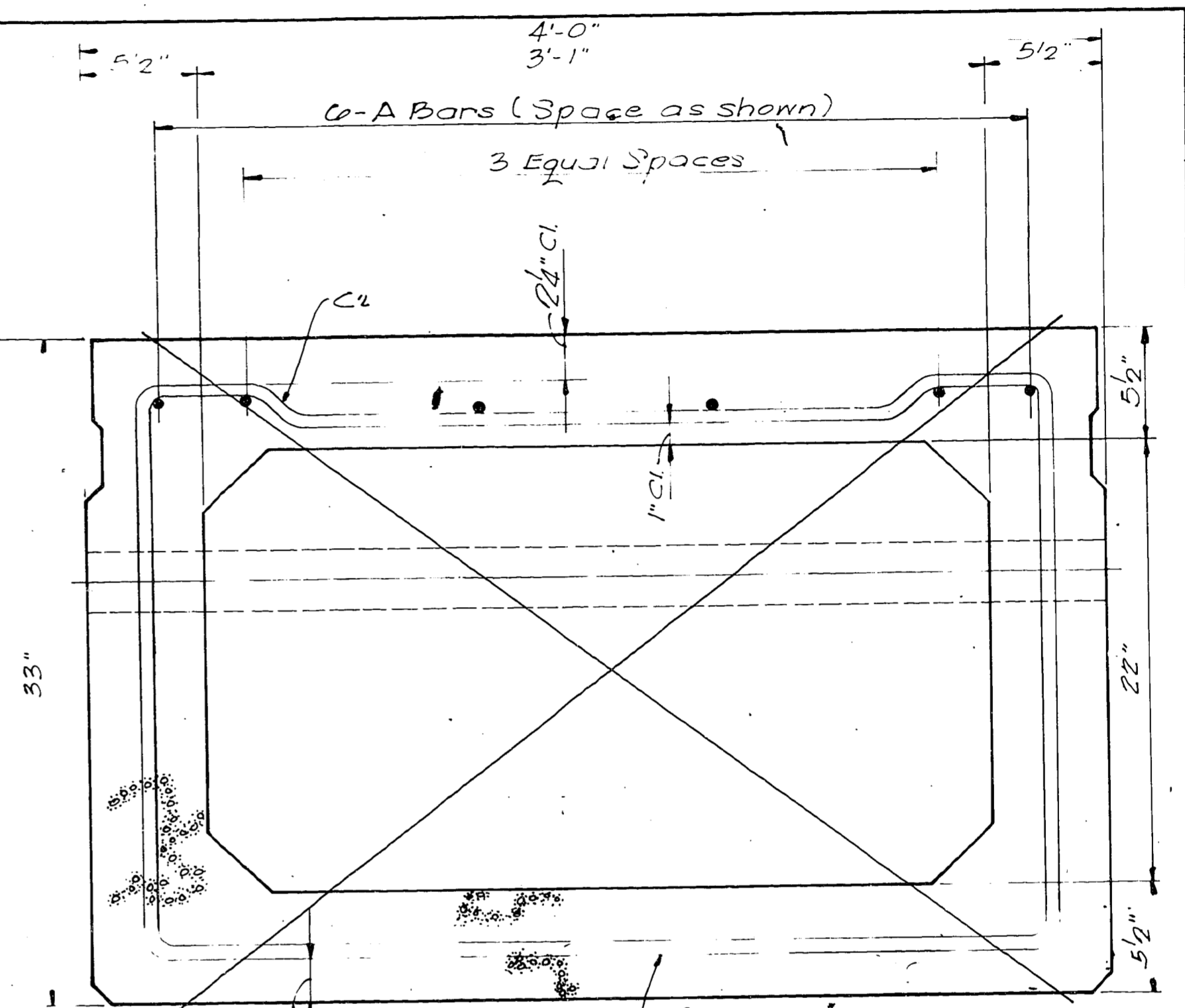
KENTUCKY BUREAU OF HIGHWAYS	
Precast Prestressed Concrete Deck Units	
STANDARD DRAWING No. BDP-084	DATE 8/13/82
APPROVED	DATE 8/13/82

Beam Details - Types
B12-48, B17-48, B21-48

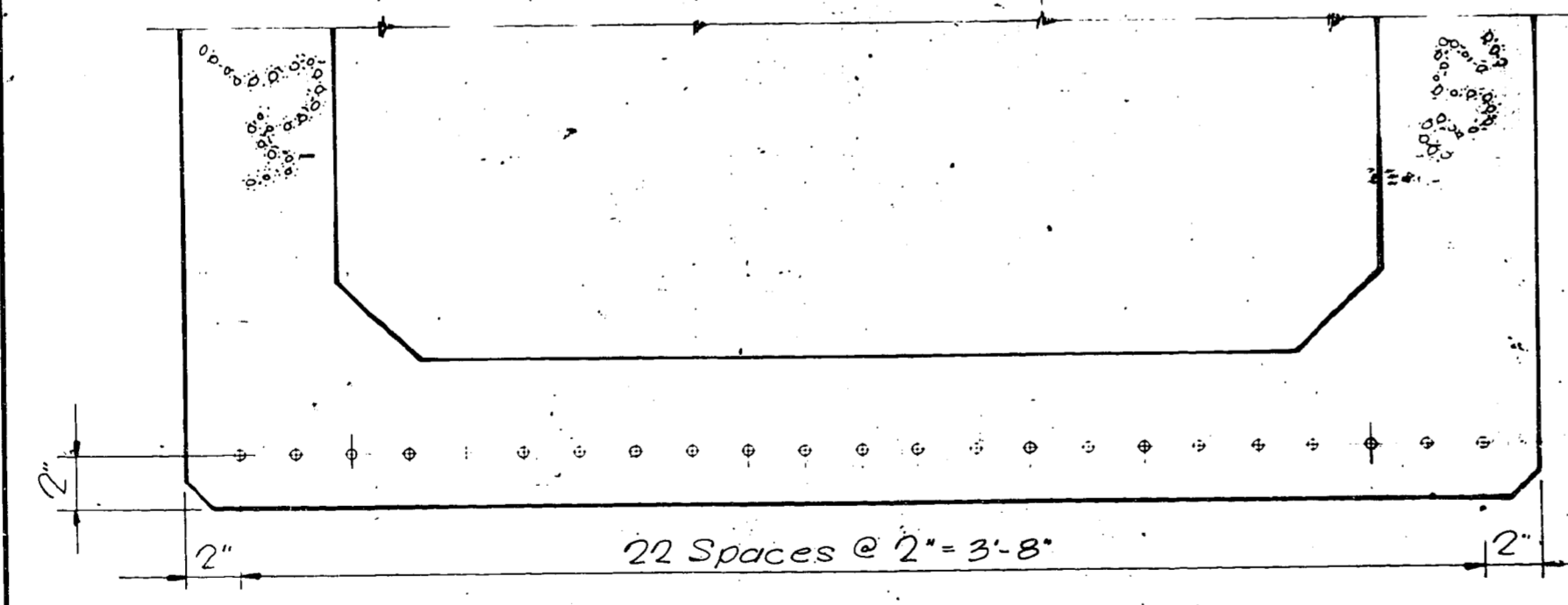


Type B 27-48 Beam

*Except as shown



Type B 33-48 Beam



Template for Spacing Prestress Strands

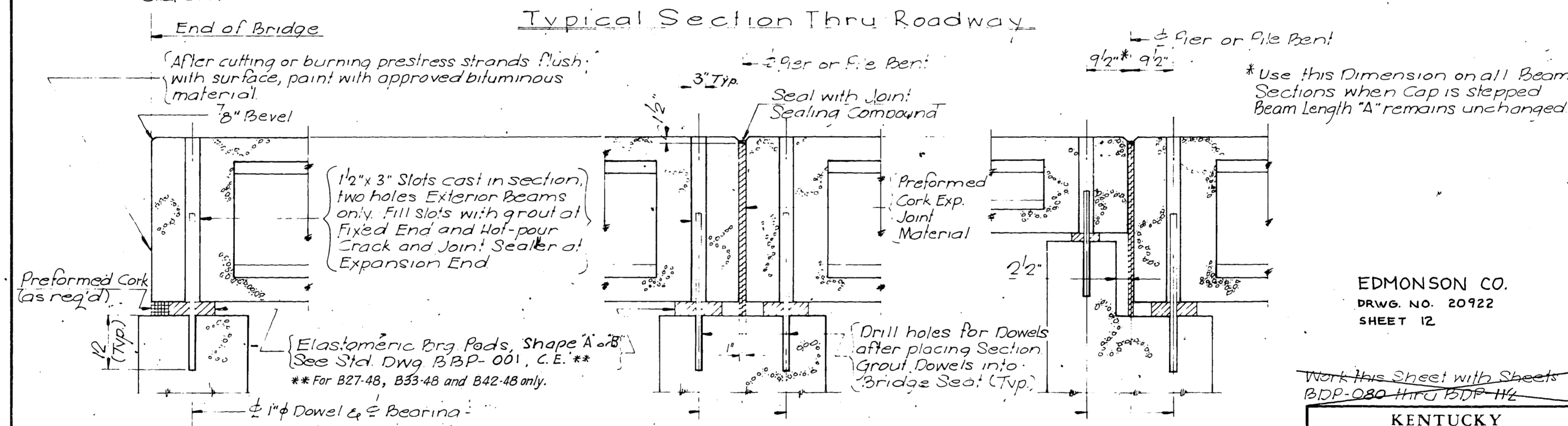
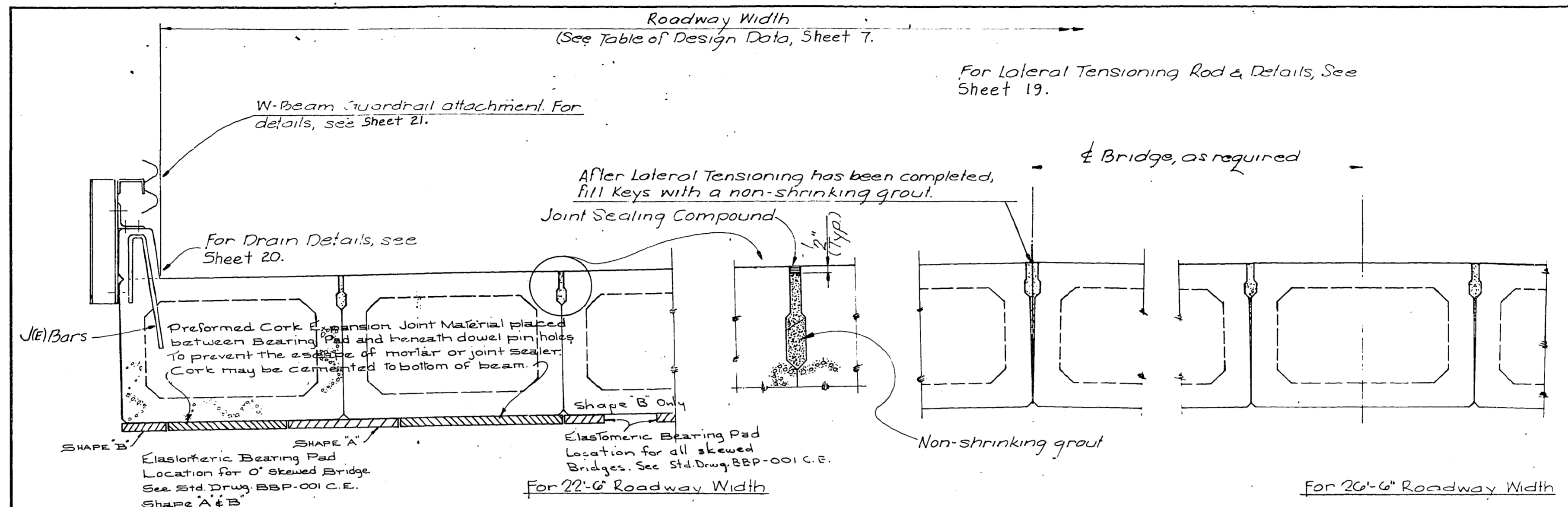
EDMONSON CO.
DRWG. NO. 20922
SHEET 10

Work this Sheet with Sheets
BDP-080 thru BDP-112

KENTUCKY BUREAU OF HIGHWAYS	
Precast Prestressed Concrete Deck Units	
STANDARD DRAWING No. BDP-081	DATE: 8/13/82
DESIGNED BY: [Signature]	CHECKED BY: [Signature]
APPROVED BY: [Signature]	DATE: 8/13/82

Beam Details - Types
B27-48, B33-48, B42-48

DRAWN BY: [Signature]
CHECKED BY: [Signature]
DATE: 8/13/82



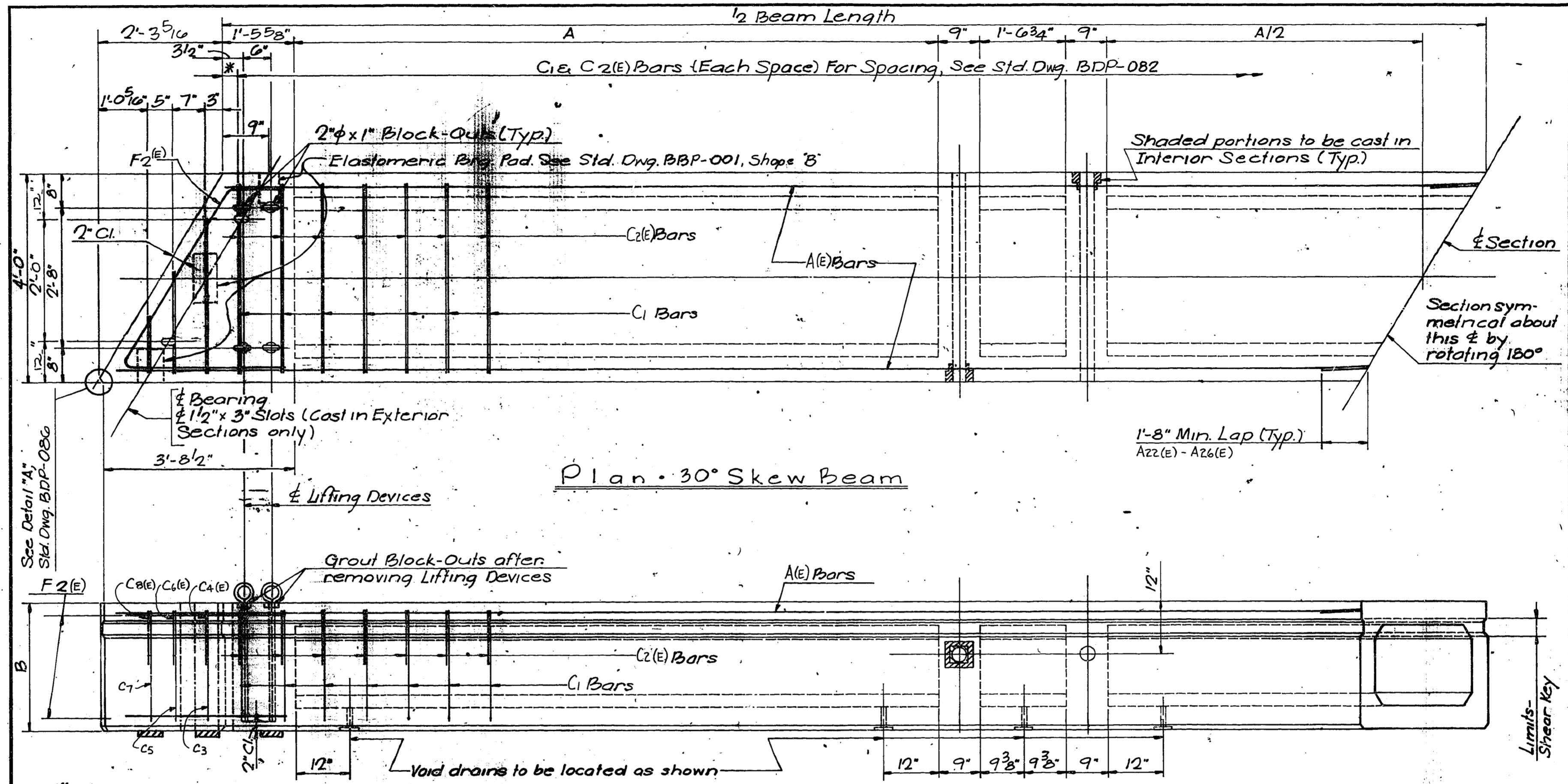
Typical Bearing Details.

Beam Details—Types
 B12-48 B17-48 B21-48
 B27-48 B33-48 B42-48

EDMONSON CO.
 DRWG. NO. 20922
 SHEET 12

Work this Sheet with Sheets
 BDP-080 thru BDP-112

KENTUCKY BUREAU OF HIGHWAYS	
Precast Prestressed Concrete Deck Units	
STANDARD DRAWING No. BDP-087	shain
F. J. [Signature]	shain
[Signature]	shain



* End Spacing - See Std. Dwg. BDP-082.

Table - Beam Dimensions		
Beam Length	A	B
43'-0"	NOT USED	NOT USED
48'-0"	12'-2 1/2"	27"
53'-0"	13'-10 1/2"	27"
58'-0"	15'-6 1/2"	27"
63'-0"	17'-2 1/2"	33"
68'-0"	18'-10 1/2"	33"
73'-0"	20'-6 1/2"	41"
78'-0"	22'-2 1/2"	47"
83'-0"	23'-10 1/2"	47"

Elevation - 30° Skew Beam

EDMONSON CO.
DRWG. NO. 20922
SHEET 13

Work this Sheet with Sheets
BDP-080 thru BDP-142

KENTUCKY BUREAU OF HIGHWAYS

Precast Prestressed Concrete Deck Units

STANDARD DRAWING No. BDP-082

SUBMITTED: [Signature] 8/13/82

APPROVED: [Signature] 8/13/82

STATE HIGHWAY ENGINEER

30° Skew Beam
Types: B27-48, B33-48, B42-48

DATE _____

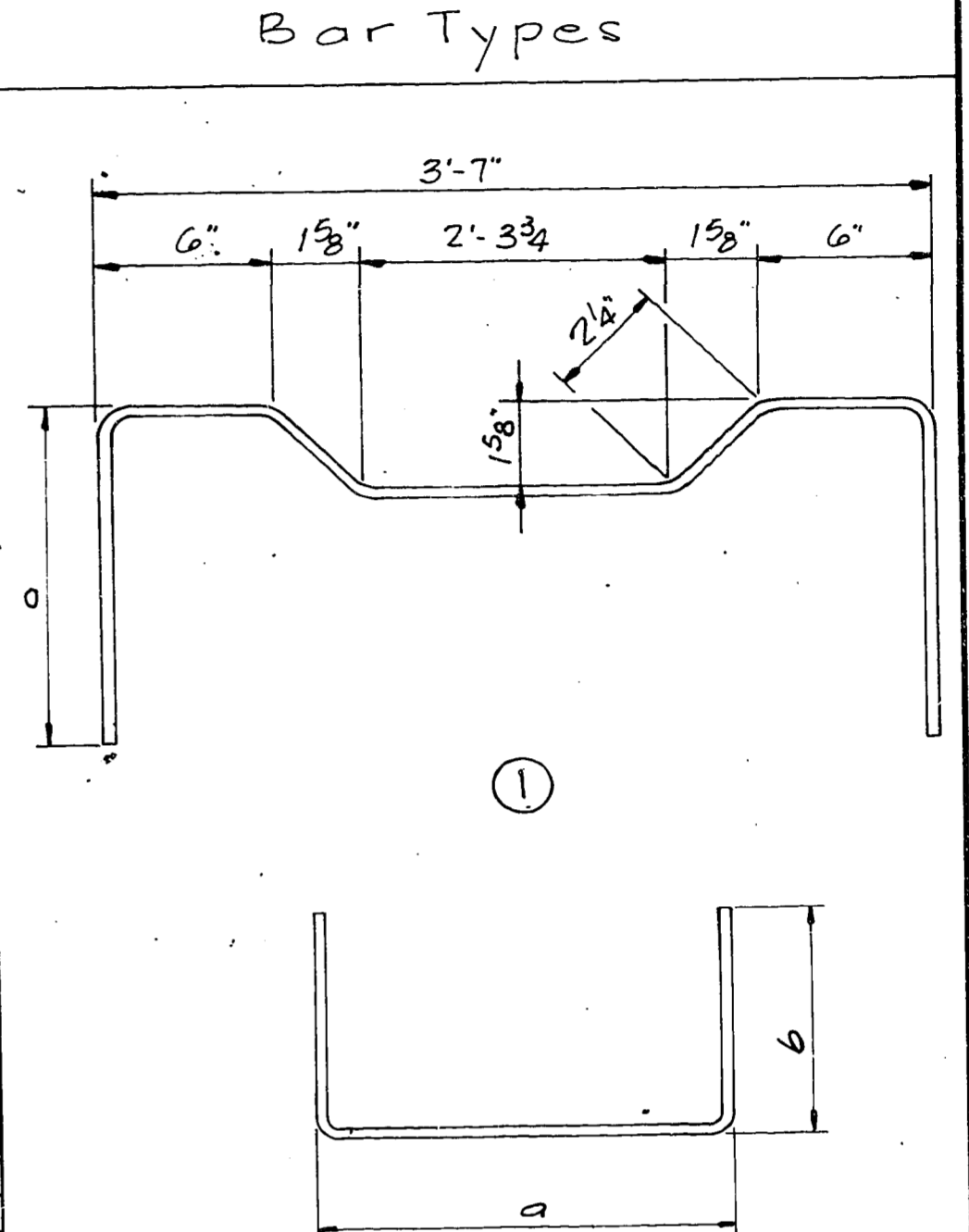
DRAWN _____

CHECKED _____

RECOMMENDED _____

Quantities per Beam

Beam Type	Exterior	Interior	Beam Length	Concrete Class "D" Modified (Cu. Yds)	Prestress Steel (Lin. Ft.)	Weight (Lbs.)		Dowels				A(E) Bars									
						Epoxy Coated	Un-Coated	Mark	Type	No.	Size	Length Ft.	In.	Mark	Type	No.	Size	Length Ft.	In.		
B12-48			12'-0"	1.8	72		267.0			D	Str.	4	8	2	0	A1	Str.	6	4	11	9
			14'-0"	2.1	84		304.0									A2				13	9
			16'-0"	24	128		331.0									A3				15	9
			18'-0"	27	144		368.0									A4				17	9
			20'-0"	30	200		405.0									A5				19	9
			22'-0"	33	220		432.0									A6				21	9
			24'-0"	36	280		469.0			D	Str.	4	8	2	0	A7				23	9
			12'-0"	1.8	72		246.0									A1				11	9
			14'-0"	2.1	84		283.0									A2				13	9
			16'-0"	24	128		310.0									A3				15	9
			18'-0"	27	144		347.0									A4				17	9
			20'-0"	30	200		383.0									A5				19	9
		22'-0"	33	220		410.0									A6				21	9	
		24'-0"	36	280		447.0									A7	Str.	6	4	23	9	
B17-48			26'-0"	46	168		537.0			D	Str.	4	8	2	0	A8	Str.	6	4	25	9
			28'-0"	49	280		568.0									A9				27	9
			30'-0"	53	300		610.0									A10				29	9
			32'-0"	56	384		641.0									A11				31	9
			34'-0"	59	464		671.0									A12				33	9
			36'-0"	63	493		713.0			D	Str.	4	8	2	0	A13				35	9
			26'-0"	45	168		516.0									A8				25	9
			28'-0"	48	280		547.0									A9				27	9
			30'-0"	52	300		589.0									A10				29	9
			32'-0"	55	384		619.0									A11				31	9
			34'-0"	58	464		650.0									A12				33	9
			36'-0"	61	493		692.0									A13	Str.	6	4	35	9
B21-48			38'-0"	75	456		736.0			D	Str.	4	8	2	0	A14	Str.	6	4	37	9
			40'-0"	78	560		769.0									A15				39	9
			42'-0"	82	670		841.0									A16				41	9
			44'-0"	86	678	855.0	351.0									A17				43	9
			46'-0"	89	808		895.0			D	Str.	4	8	2	0	A18				45	9
			38'-0"	72	456		714.0									A14				37	9
			40'-0"	76	560		748.0									A15				39	9
			42'-0"	80	670		819.0									A16				41	9
		44'-0"	83	698	523.0	351.0									A17				43	9	
		46'-0"	87	808		873.0									A18	Str.	6	4	45	9	
B27-48			48'-0"	112	672		884.0			D	Str.	4	8	2	0	A19	Str.	6	4	47	9
			53'-0"	122	848		974.0			D	Str.	4	8	2	0	A20				52	9
			58'-0"	133	1,044		1,092.0			D	Str.	4	8	2	0	A21				57	9
			48'-0"	101	672		862.0									A19				47	9
			53'-0"	111	848		962.0									A20				52	9
		58'-0"	120	1,044		1,070.0									A21	Str.	6	4	57	9	
B33-48			63'-0"	165	1,008		1,113.0			D	Str.	4	8	2	0	A22	Str.	12	4	32	2
			68'-0"	175	1,360		1,193.0			D	Str.	4	8	2	0	A23				34	8
			63'-0"	145	1,008		1,092.0									A22				32	2
			68'-0"	155	1,360		1,172.0									A23	Str.	12	4	34	8
B42-48			73'-0"	222	1,168	1241.0	550.0			D	Str.	4	8	2	0	A24	Str.	12	4	37	2
			78'-0"	237	1,404		1,293.0			D	Str.	4	8	2	0	A25				39	7
			83'-0"	251	1,660		1,396.0			D	Str.	4	8	2	0	A26				42	2
			73'-0"	190	1,168	679.0	550.0									A24				37	2
			78'-0"	202	1,404		1,271.0									A25				39	8
		83'-0"	213	1,660		1,374.0									A26	Str.	12	4	42	2	



Work this Standard Drawing thru
Standard Drawing BDP-103

EDMONSON CO.
DRWG. NO. 20922
SHEET 14

Work this sheet with sheets
BDP-080 thru BDP-112

**KENTUCKY
BUREAU OF HIGHWAYS**

**Precast Prestressed
Concrete
Deck Units**

STANDARD DRAWING No. BDP-099

SUBMITTED: *[Signature]* DATE: 8/13/82

APPROVED: *[Signature]* DATE: 8/13/82

STATE HIGHWAY ENGINEER

Quantities - 30° Skew Beam
Types: B12-48, B17-48, B21-48,
B27-48, B33-48, B42-48

DATE: _____
DRAWN: _____
CHECKED: _____
RECOMMENDED: _____

Quantities per Beam

Beam Type	Exterior	Interior	Beam Length	Reinforcement																													
				C1 Bars								C2 Bars								C3 Bars													
				Mark	Type	No.	Size	Length	a	b		Mark	Type	No.	Size	Length	a	b		Mark	Type	No.	Size	Length	a	b							
				Ft.	In.	Ft.	In.	Ft.	In.					Ft.	In.	Ft.	In.	Ft.	In.					Ft.	In.	Ft.	In.						
B12-48			12'-0"																														
			14'-0"																														
			16'-0"																														
			18'-0"																														
			20'-0"																														
			22'-0"																														
			24'-0"																														
			12'-0"																														
			14'-0"																														
			16'-0"																														
			18'-0"																														
			20'-0"																														
		22'-0"																															
		24'-0"																															
B17-48			26'-0"																														
			28'-0"																														
			30'-0"																														
			32'-0"																														
			34'-0"																														
			36'-0"																														
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			30'-0"																														
			32'-0"																														
			34'-0"																														
			36'-0"																														
B21-48			38'-0"																														
			40'-0"																														
			42'-0"																														
			44'-0"																														
			46'-0"																														
			38'-0"																														
			40'-0"																														
			42'-0"																														
B27-48			48'-0"	C4	(2)	2	5	5	4	2	8 3/4	1	4 3/8	C5	(2)	2	5	5	2	1	8 1/2	1	9 1/4	C6	(2)	2	5	4	3	1	8 1/2	1	3 3/4
			53'-0"																														
			58'-0"																														
			48'-0"	C4	(2)	2	5	5	4	2	8 3/4	1	4 3/8	C5	(2)	2	5	5	2	1	8 1/2	1	9 1/4	C6	(2)	2	5	4	3	1	8 1/2	1	3 3/4
B33-48			63'-0"	C4	(2)	2	5	5	4	2	8 3/4	1	4 3/8	C5	(2)	2	5	6	3	1	8 1/2	2	3 3/4	C6	(2)	2	5	4	3	1	8 1/2	1	3 3/4
			63'-0"																														
			68'-0"																														
			68'-0"	C4	(2)	2	5	5	4	2	8 3/4	1	4 3/8	C5	(2)	2	5	6	3	1	8 1/2	2	3 3/4	C6	(2)	2	5	4	3	1	8 1/2	1	3 3/4
B42-48			73'-0"	C4	(2)	2	5	5	4	2	8 3/4	1	4 3/8	C5	(2)	2	5	7	9	1	8 1/2	3	0 3/4	C6	(2)	2	5	4	3	1	8 1/2	1	3 3/4
			78'-0"																														
			83'-0"																														
			73'-0"																														
			78'-0"																														
		83'-0"	C4	(2)	2	5	5	4	2	8 3/4	1	4 3/8	C5	(2)	2	5	7	9	1	8 1/2	3	0 3/4	C6	(2)	2	5	4	3	1	8 1/2	1	3 3/4	

EDMONSON CO.
 DRWG. NO. 20922
 SHEET 16

Work this Sheet with Sheets
 BDP-080 thru BDP-112

KENTUCKY
 BUREAU OF HIGHWAYS

Precast Prestressed
 Concrete
 Deck Units

STANDARD DRAWING No. BDP-101
 SUBMITTED *[Signature]* 8/15/82
 APPROVED *[Signature]* 8/15/82
 STATE HIGHWAY ENGINEER

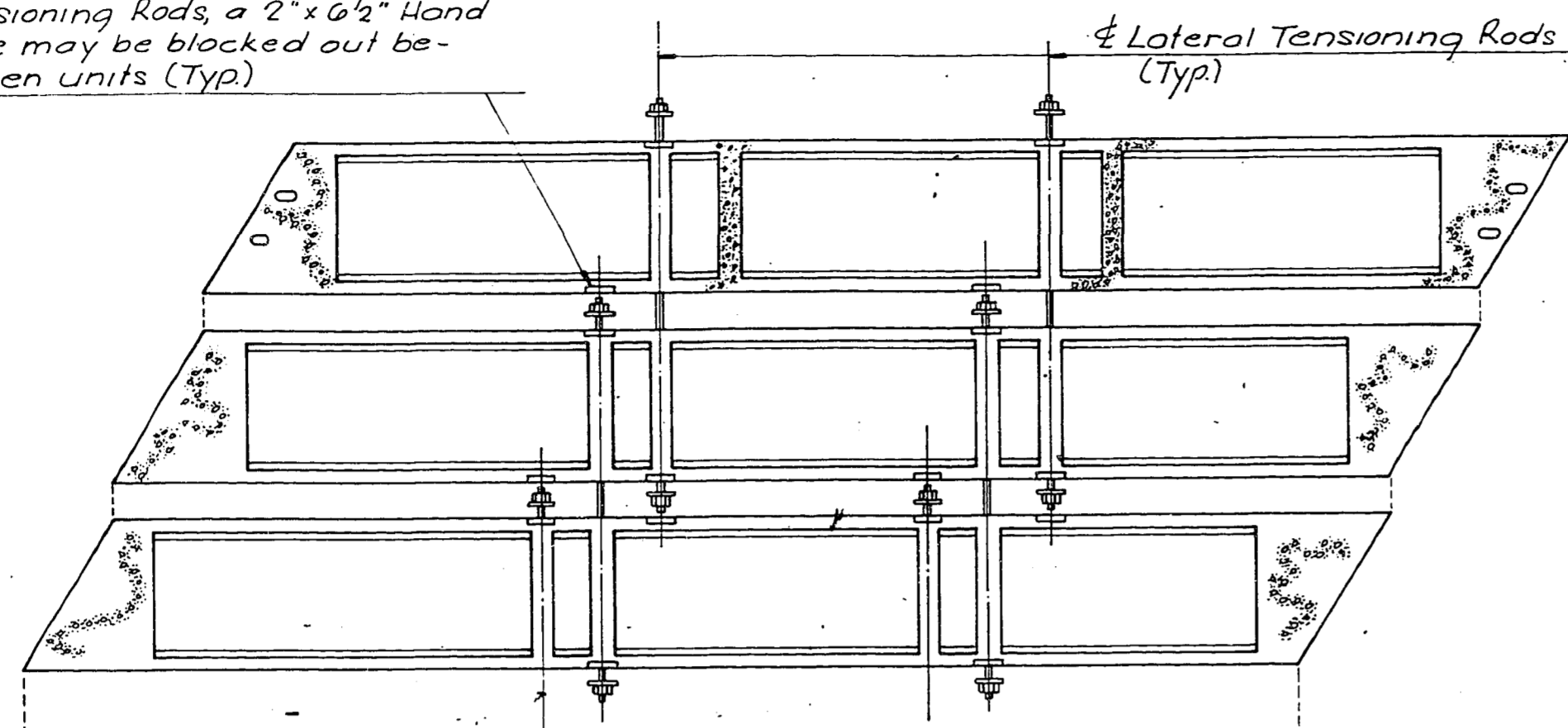
Quantities - 30° Skew Beam
 Types: B12-48, B17-48, B21-48,
 B27-48, B33-48, B42-48

DATE _____
 DRAWN _____
 CHECKED _____
 RECOMMENDED _____

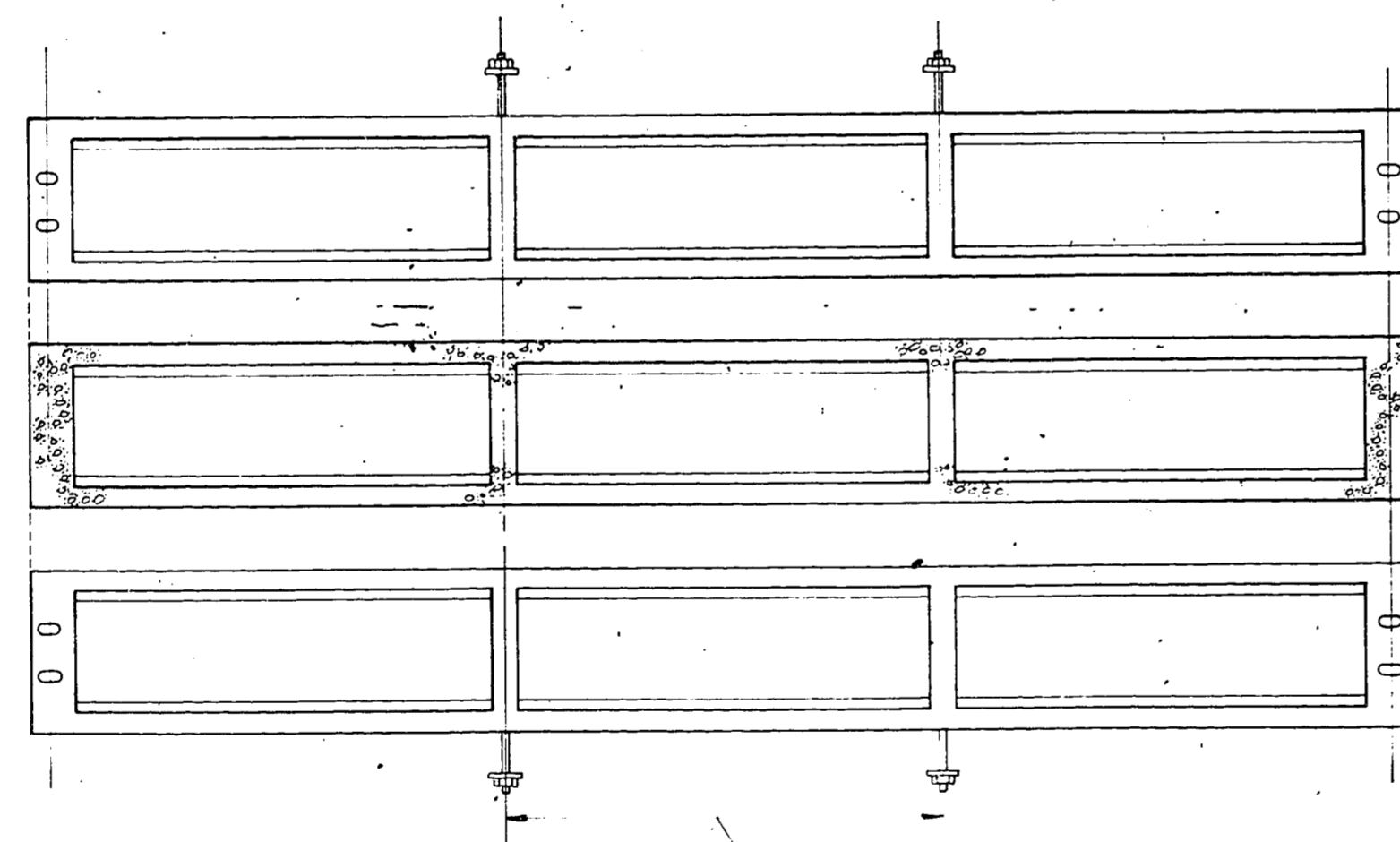
Quantities per Beam

Beam Type	Exterior	Interior	Beam Length	Reinforcement																				
				C Bars						CA Bars						EA Bars								
				Mark	Type	No.	Size	Length	a	b	Mark	Type	No.	Size	Length	a	b	Mark	Type	No.	Size	Length		
				Ft.	In.	Ft.	In.	Ft.	In.					Ft.	In.	Ft.	In.					Ft.	In.	
B12-48			12'-0"																					
			14'-0"																					
			16'-0"																					
			18'-0"																					
			20'-0"																					
			22'-0"																					
			24'-0"																					
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		14'-0"	</																					

For ease of installing Lateral Tensioning Rods, a 2" x 6 1/2" Round Hole may be blocked out between units (Typ)



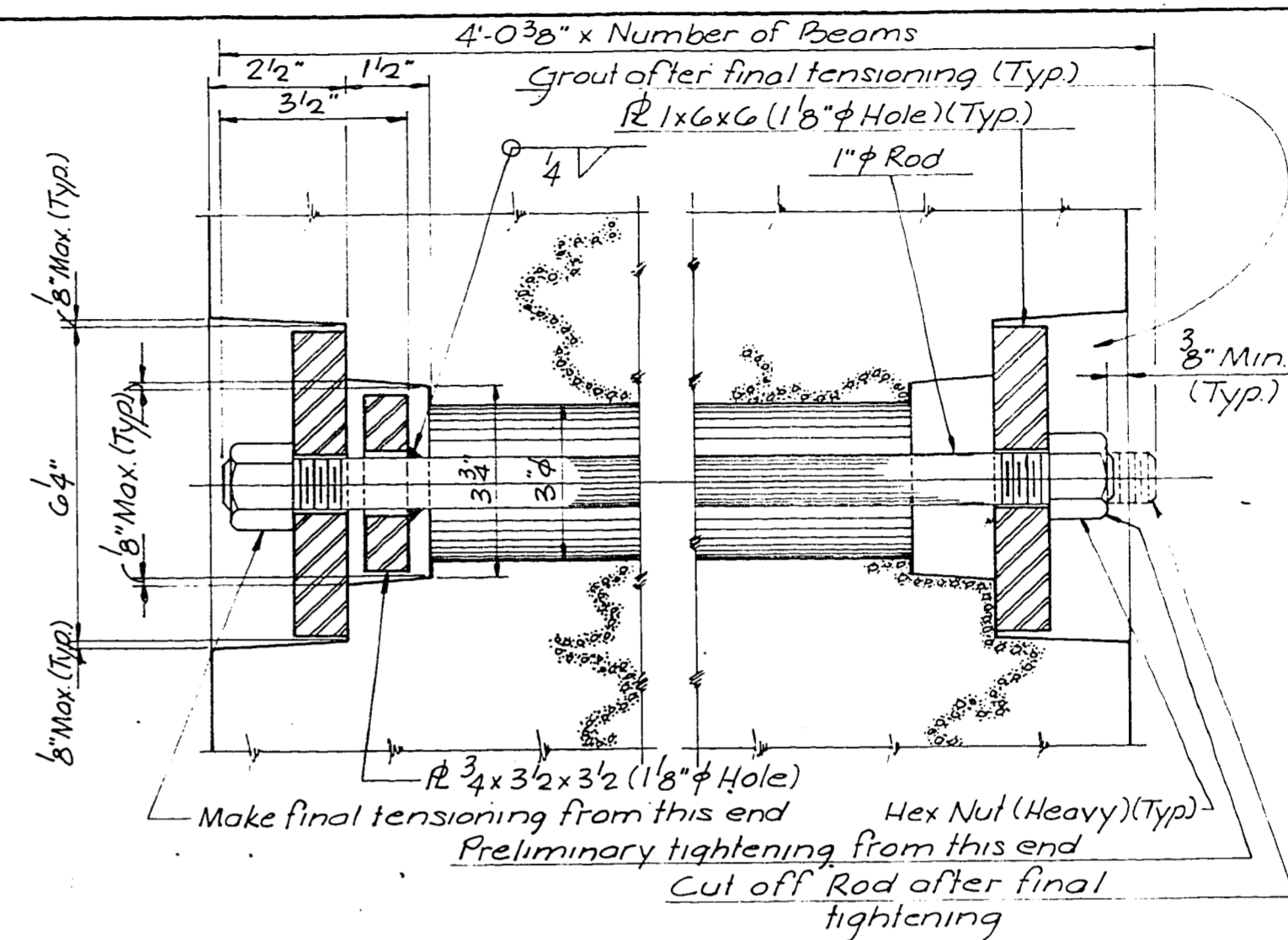
Sectional Plan Showing Lateral Tensioning Method for Skewed Spans



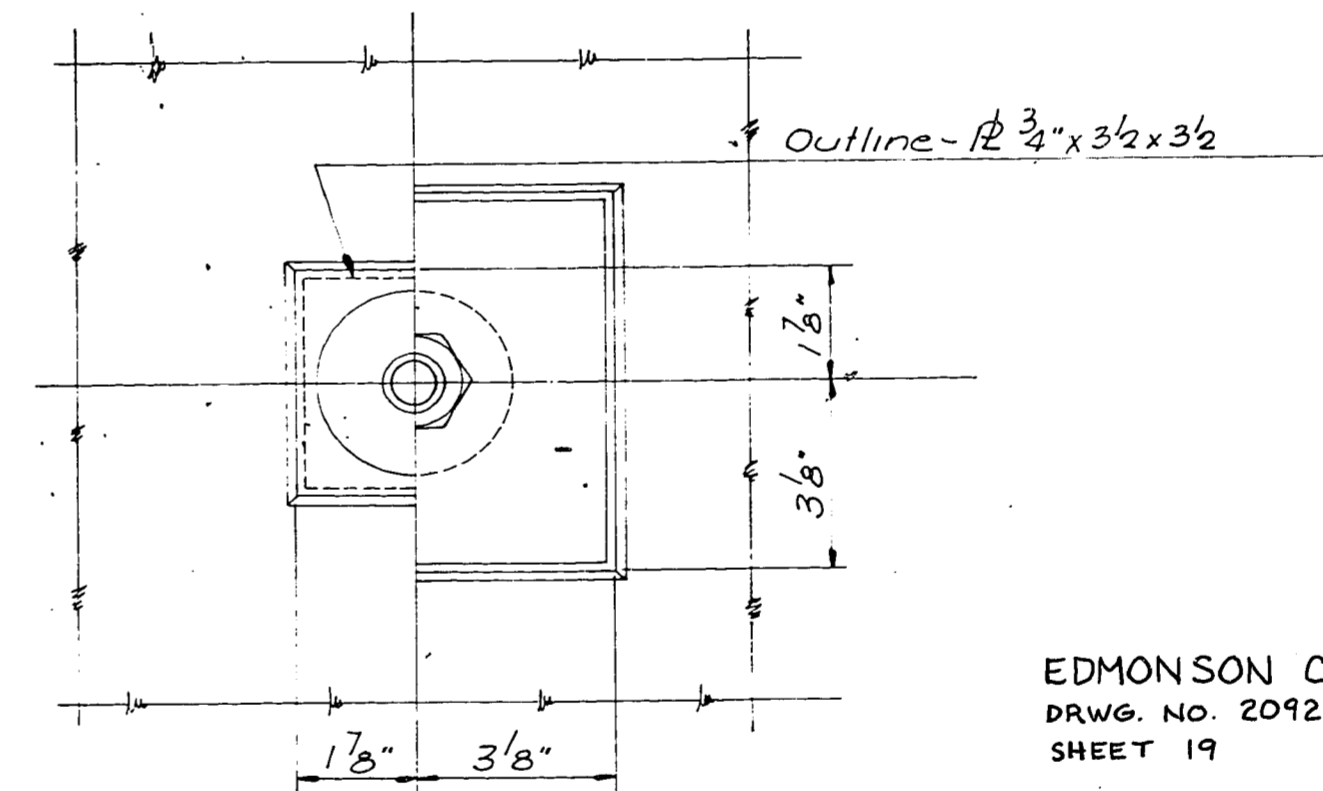
One Lateral Tensioning Rod per Beams 12'-0" thru 46'-0"
Two Lateral Tensioning Rods per Beams 48'-0" thru 83'-0"

Sectional Plan Showing Lateral Tensioning Method for Straight Spans

(The above arrangement is applicable from 0° Skews to and including 10° Skews)



Section Thru Lateral Tensioning Rod



Sectional End Plan Lateral Tension Rod Details

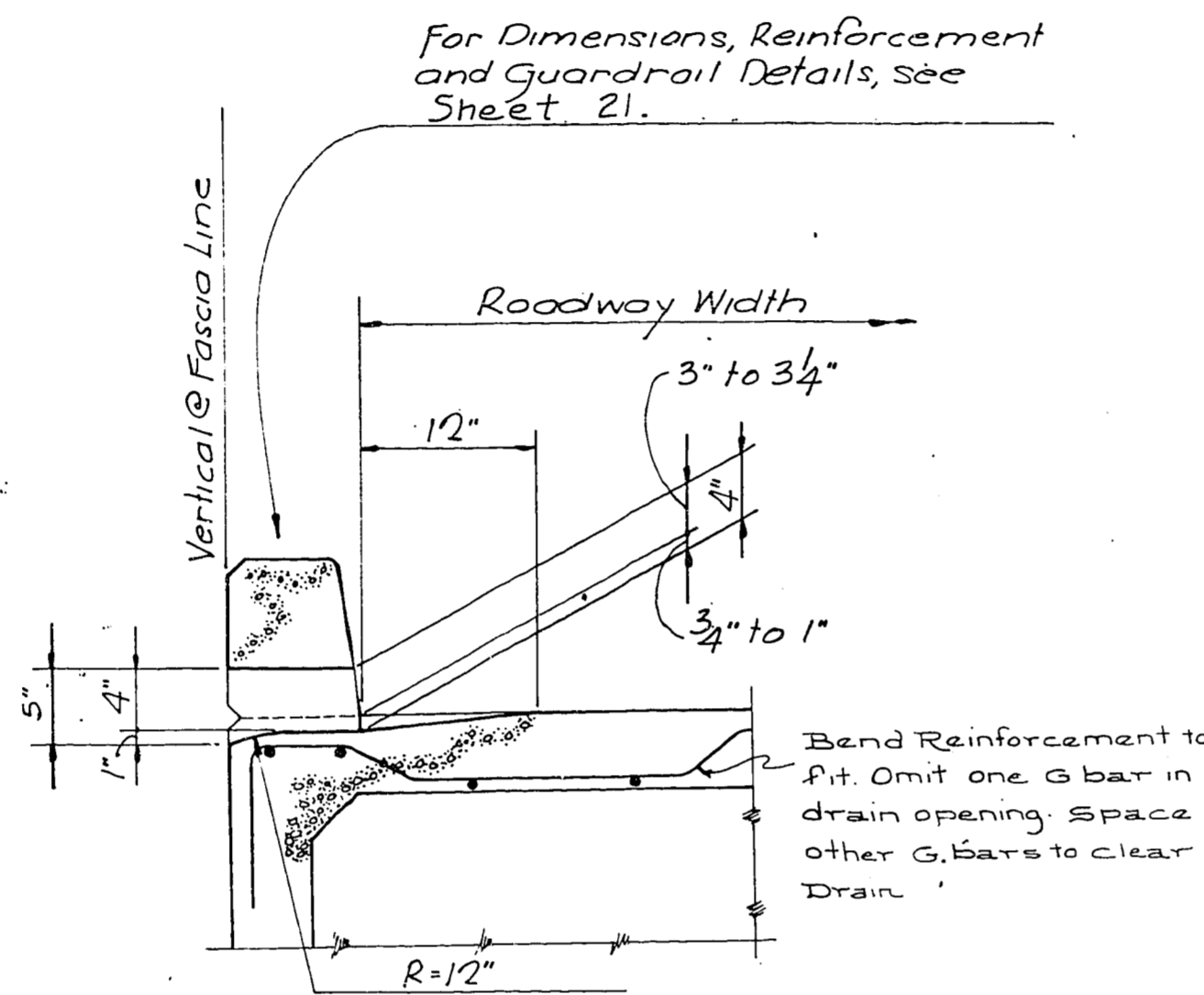
EDMONSON CO.
DRWG. NO. 20922
SHEET 19

Work this Sheet with Sheets
BDP-080 thru BDP-112

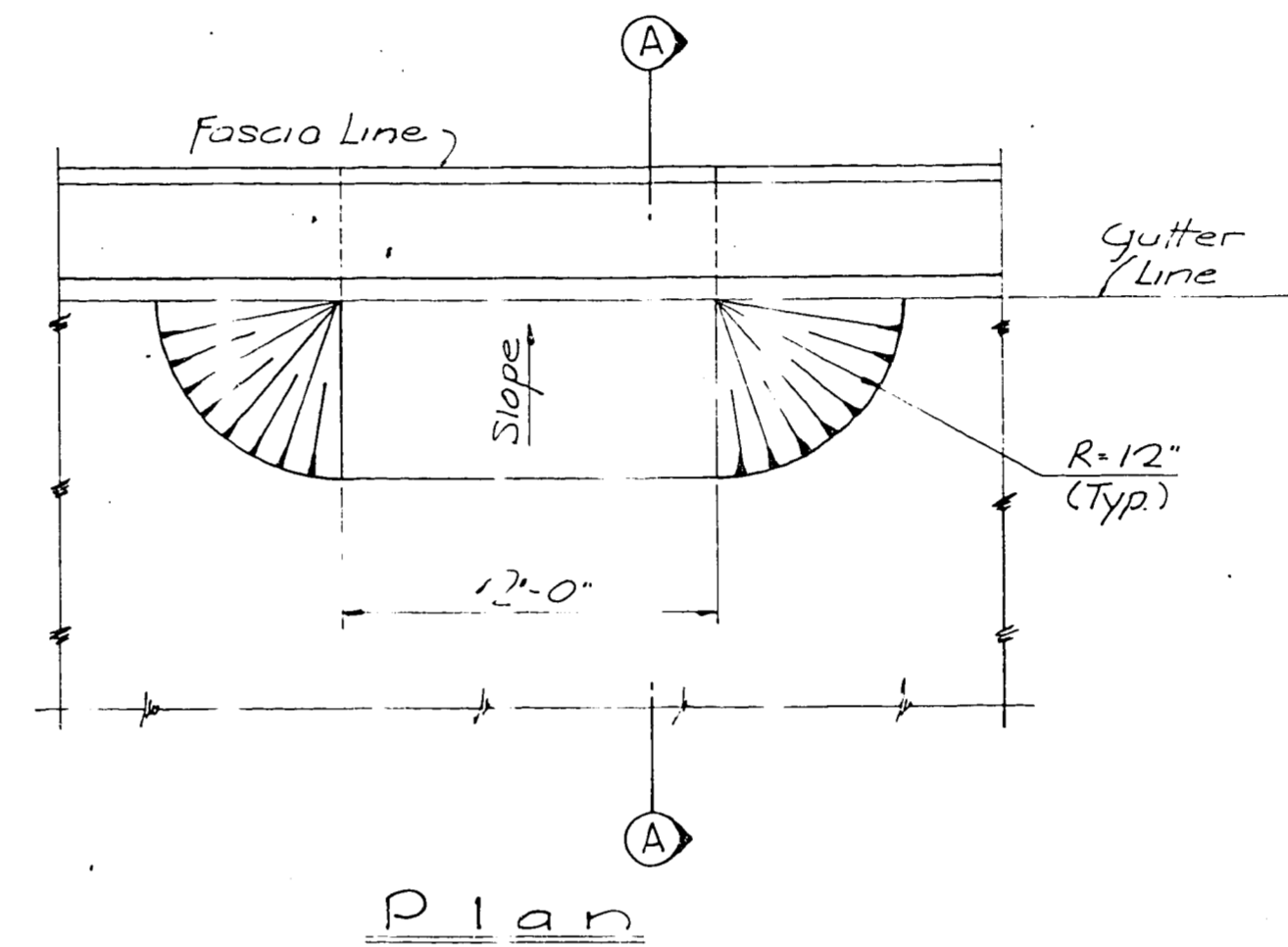
KENTUCKY
BUREAU OF HIGHWAYS
Precast Prestressed
Concrete
Deck Units

STANDARD DRAWING No. BDP-110
SUBMITTED *[Signature]* 8/13/32
APPROVED *[Signature]* 8/13/32
STATE HIGHWAY ENGINEER

Lateral Tension Rod Details



Section A-A
(Brush Curb Barrier)



NOTE:
Provide drains on both sides of Bridges with Normal Crown and on low side only for Super-elevated Bridges. Space drains at approximately 20'-0" on centers with a minimum of one placed each gutter line per span. Omit drains when Bridge crosses over Highway or Railroad.

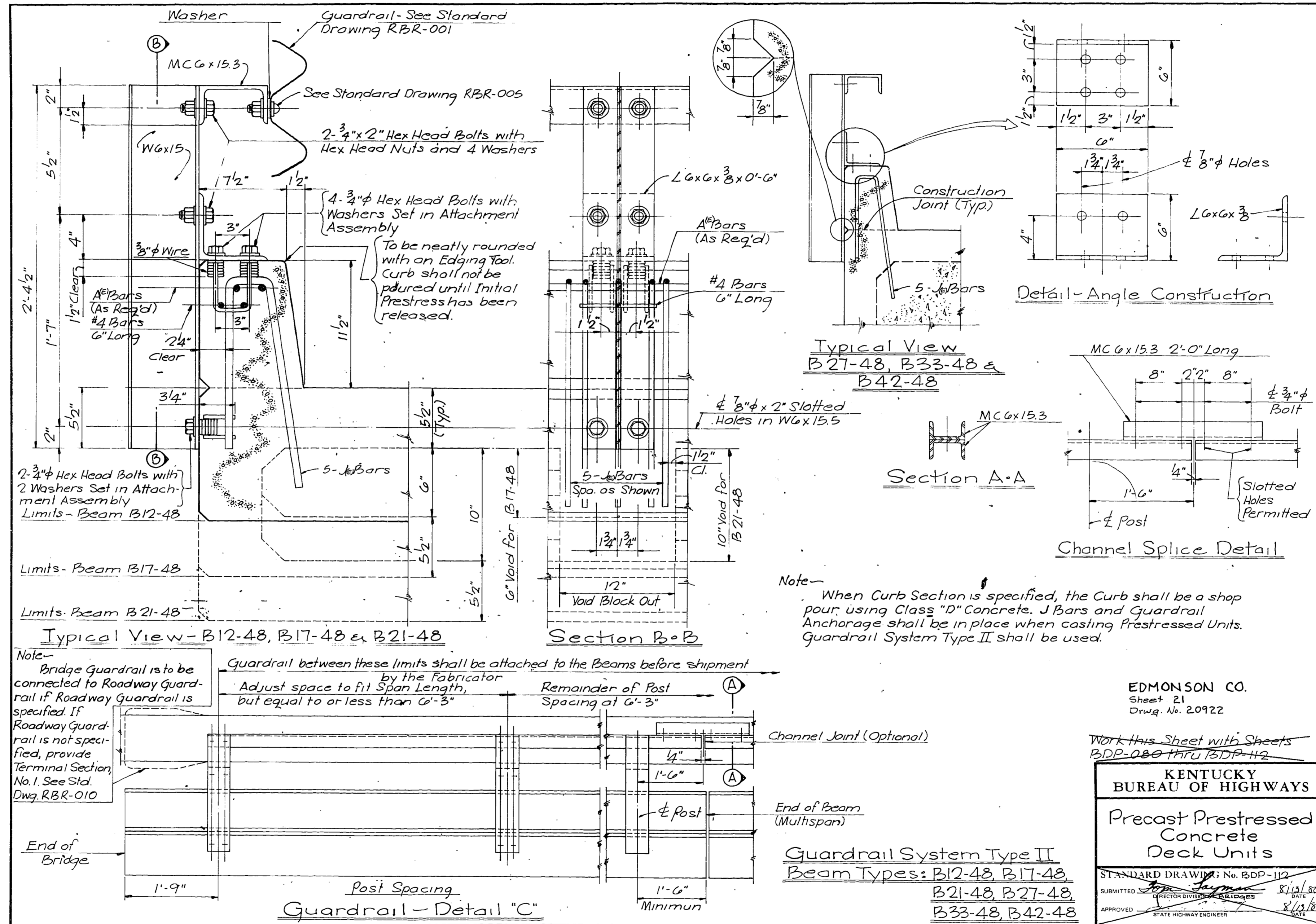
Drain Details

CHECKED
 RECOMMENDED
 APPROVED
 DATE 9-1-81
 NUMBER 10

EDMONSON CO.
 DRWG. NO. 20922
 SHEET 20

~~Work this Sheet with Sheets
 BDP-080 thru BDP-110~~

KENTUCKY BUREAU OF HIGHWAYS	
Precast Prestressed Concrete Deck Units	
STANDARD DRAWING No. BDP-111	
DESIGNED BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE



DATE
DRAWN
CHECKED
RECOMMENDED
APPROVED FHWA

DATE

DIRECTOR
STATE HIGHWAY ENGINEER

EDMONSON CO.
Sheet 21
Dwg. No. 20922

Work this Sheet with Sheets
BDP-080 thru BDP-42

KENTUCKY
BUREAU OF HIGHWAYS

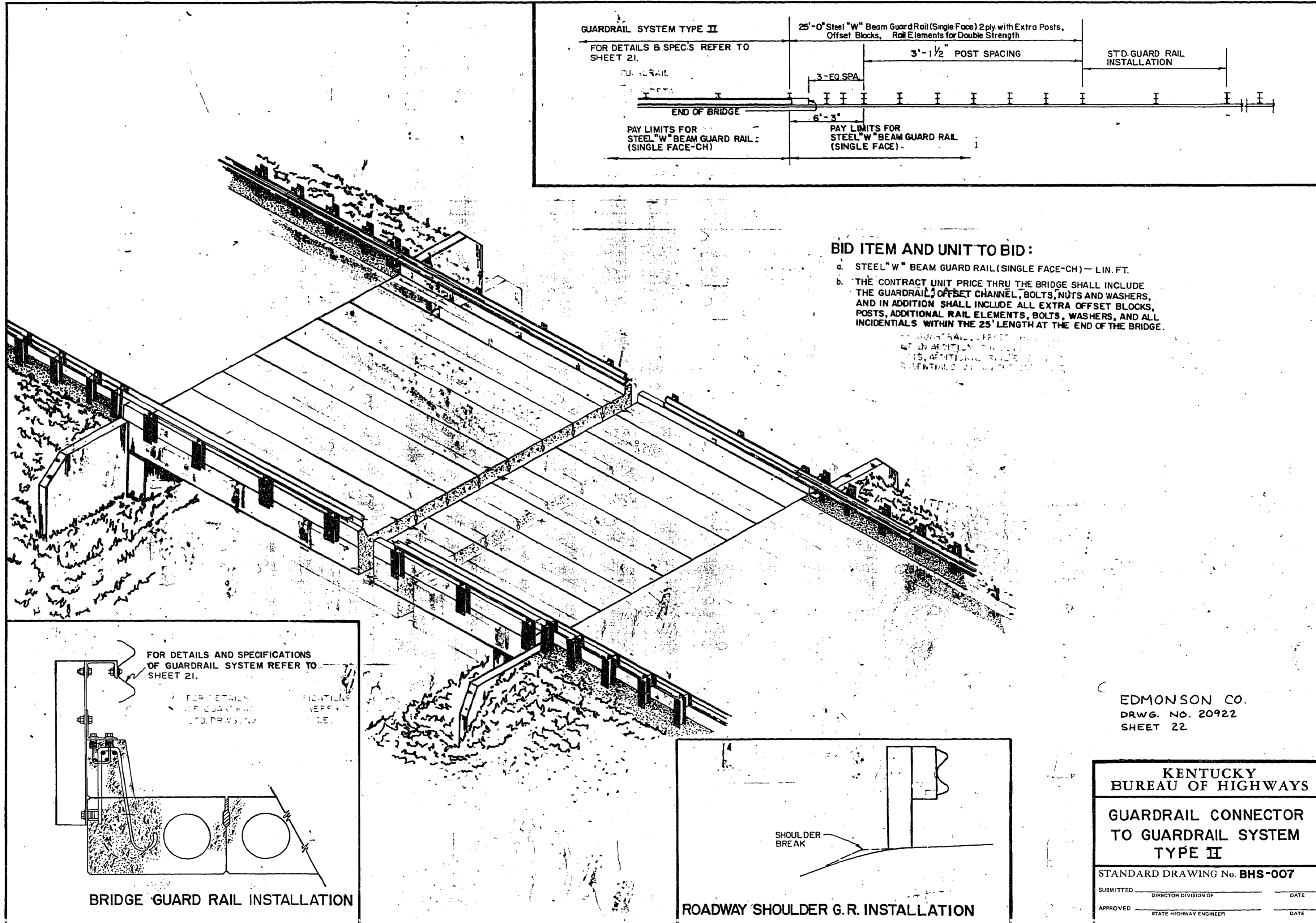
Precast Prestressed
Concrete
Deck Units

STANDARD DRAWING No. BDP-112
SUBMITTED 8/15/82
APPROVED 8/15/82
DATE

Guardrail System Type II
Beam Types: B12-48, B17-48,
B21-48, B27-48,
B33-48, B42-48

Original

DATE: 10-27-82
DRAWN BY: J. L. ...
CHECKED BY: ...
RECOMMENDED BY: ...



EDMONSON CO.
DRWG. NO. 20922
SHEET 22

KENTUCKY
BUREAU OF HIGHWAYS

GUARDRAIL CONNECTOR
TO GUARDRAIL SYSTEM
TYPE II

STANDARD DRAWING No. BHS-007

SUBMITTED _____ DATE _____
APPROVED _____ STATE HIGHWAY ENGINEER _____ DATE _____