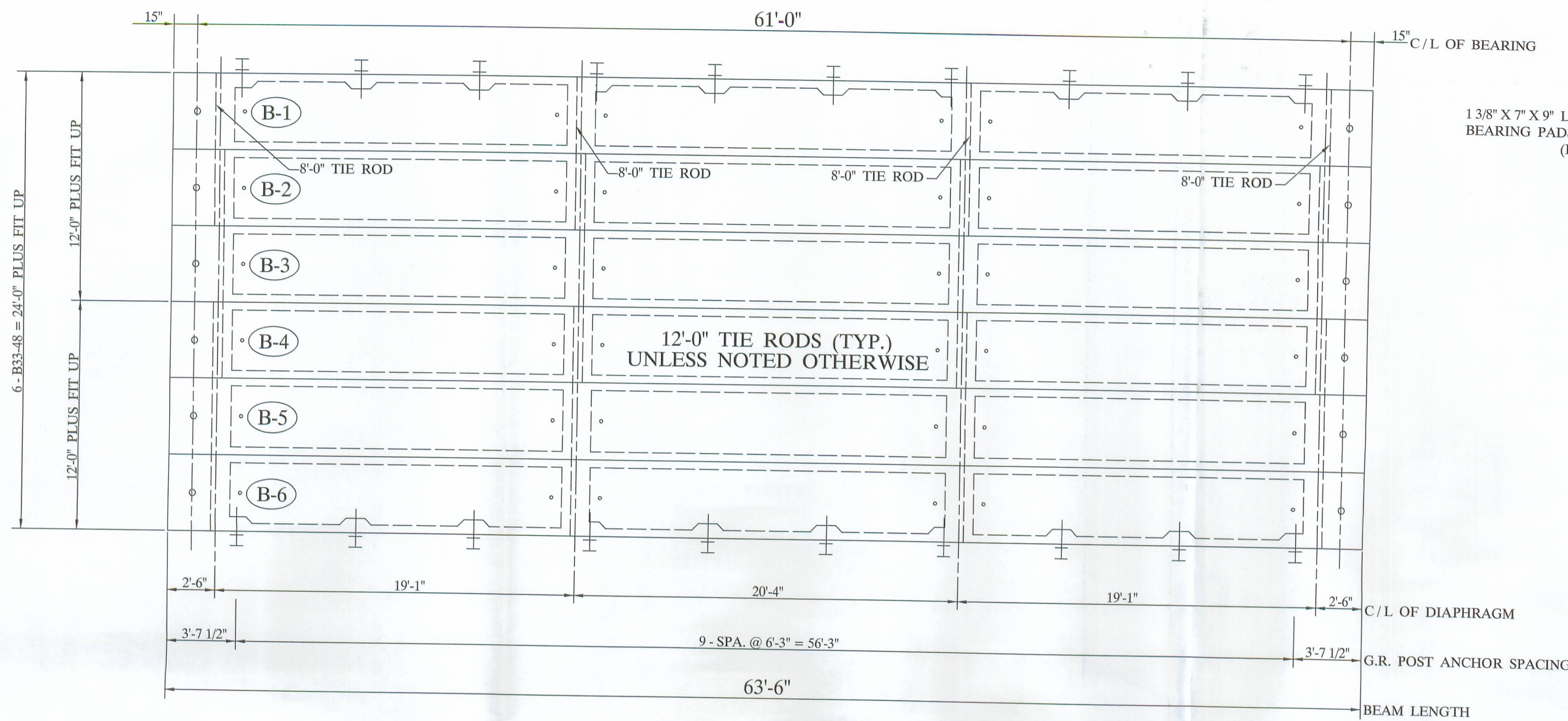
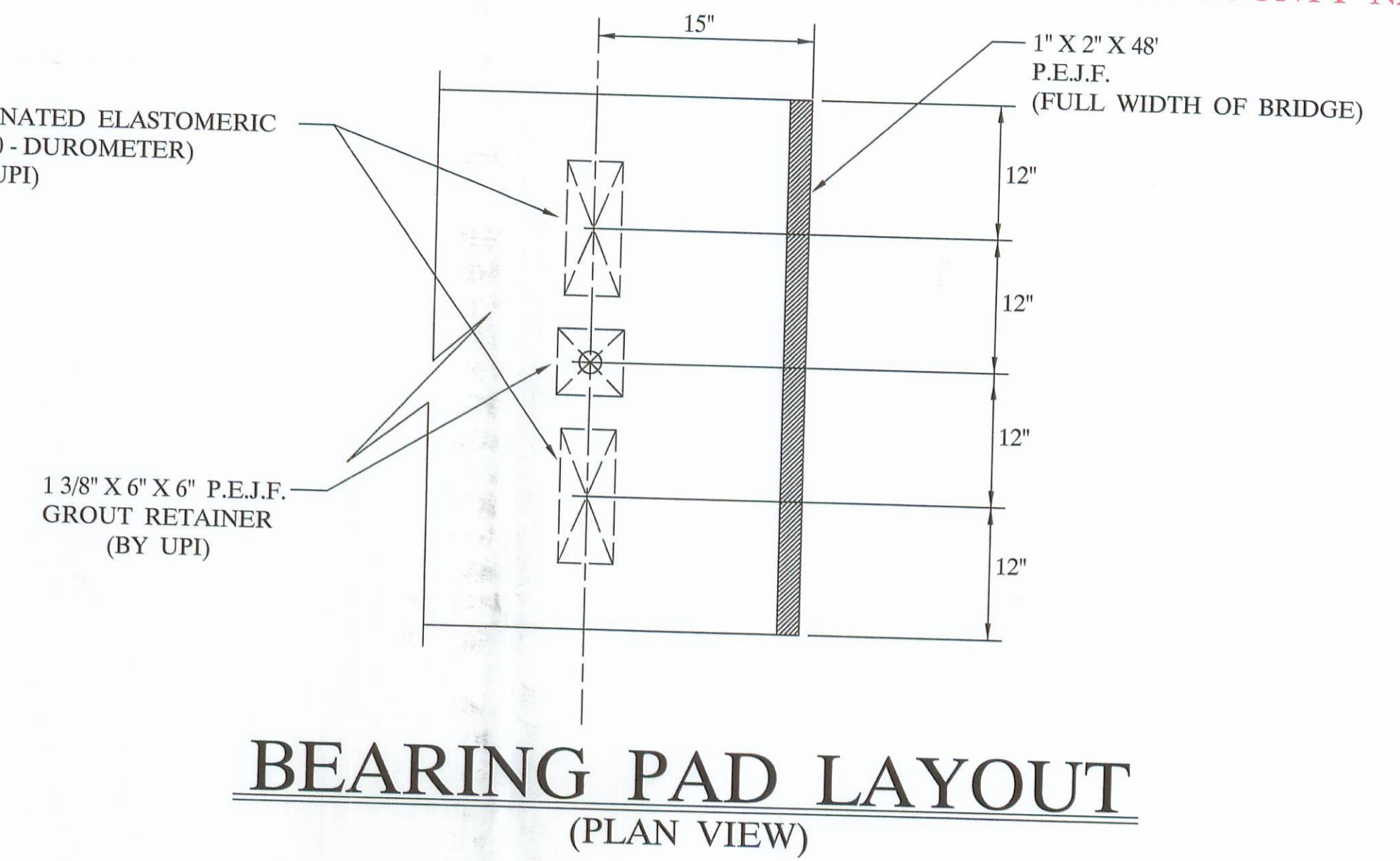


PLEASE MARK SPO. # ON TOP OF ALL BEAMS ALONG WITH COUNTY NAME



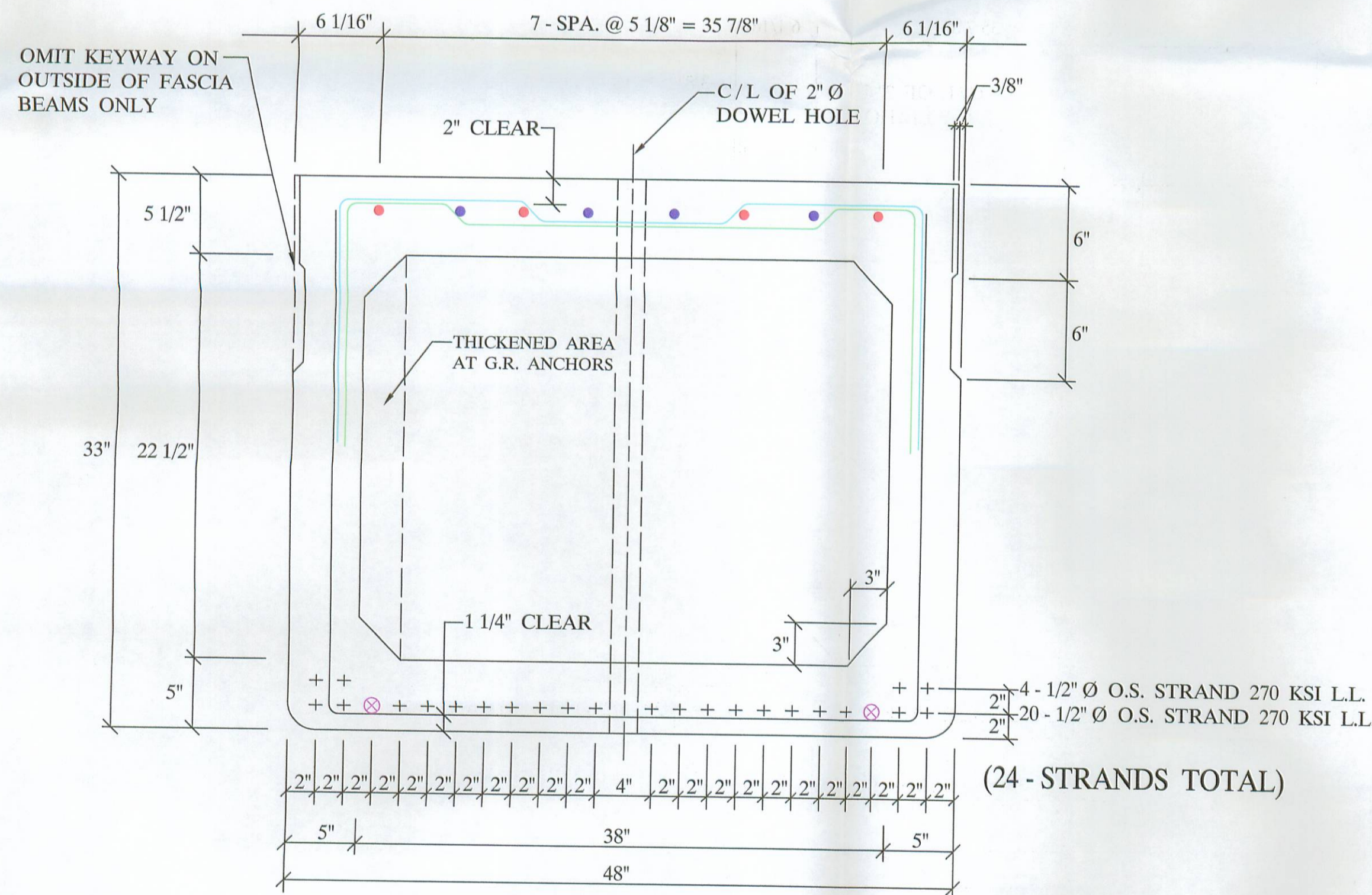
DECK PLAN



BEARING PAD LAYOUT (PLAN VIEW)

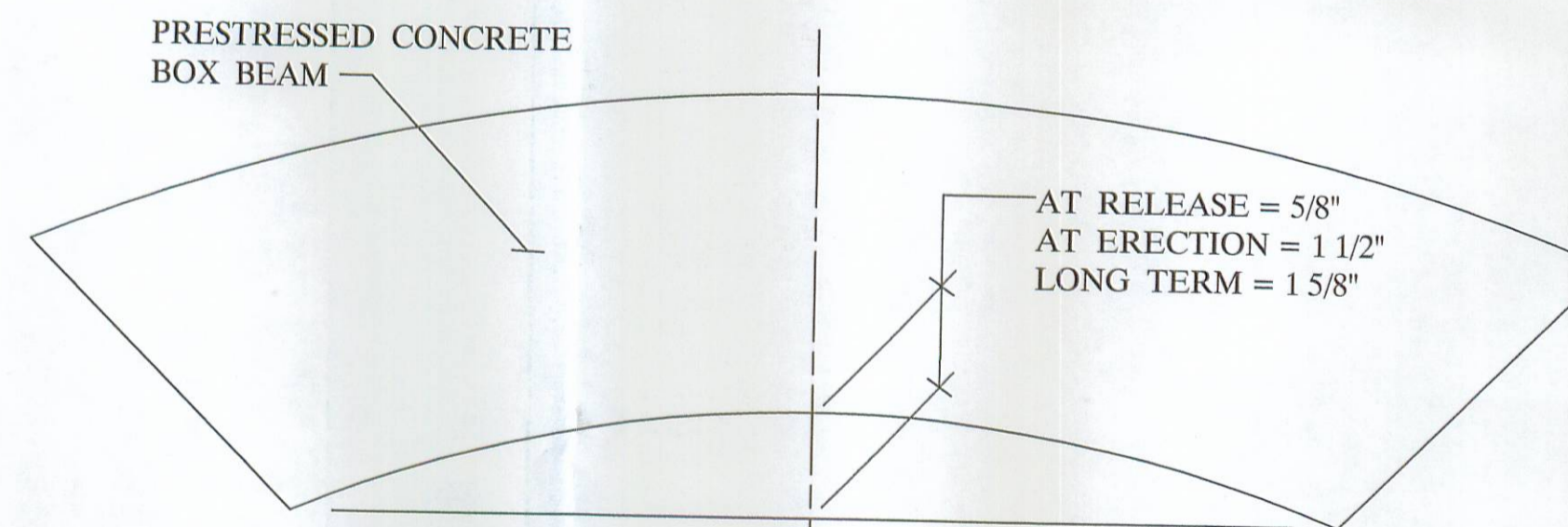
QUALITY CONTROL NOTE :

- STRAND AREA IS .167 SQ. IN.
- STRAND IS LOW LAX.
- INITIAL LOAD IS 33,818 # / STRAND.
- REBAR IS ALL GRADE - 60.
- STIRRUPS UNDER STRAND.
- CONCRETE STRENGTHS: 7000 PSI AT 28 DAYS
5000 PSI AT RELEASE
- ODOT 2005 SPECIFICATION.



B33-48 (6 - REQUIRED) (ELEVATION)

- 4 - #5 BARS FULL LENGTH RUN (TOP)
- 4 - #5 ADDITIONAL BARS 6'-6" LONG AT EACH END OF BEAM (TOP)
- ⊗ 2 - #5 BARS FULL LENGTH RUN (BOTTOM)

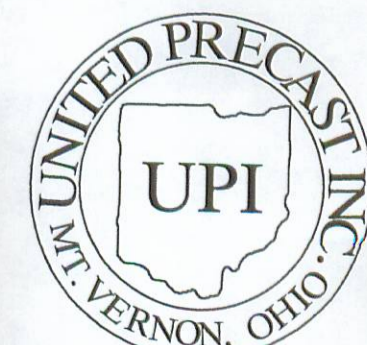


CAMBER DETAIL (ELEVATION)

APPROVED AS NOTED
BY LOGAN CO. ENGINEER
[Signature]
8/28/07

BILL OF MATERIALS

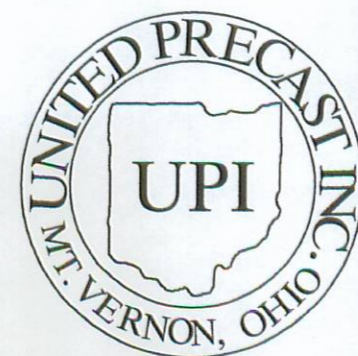
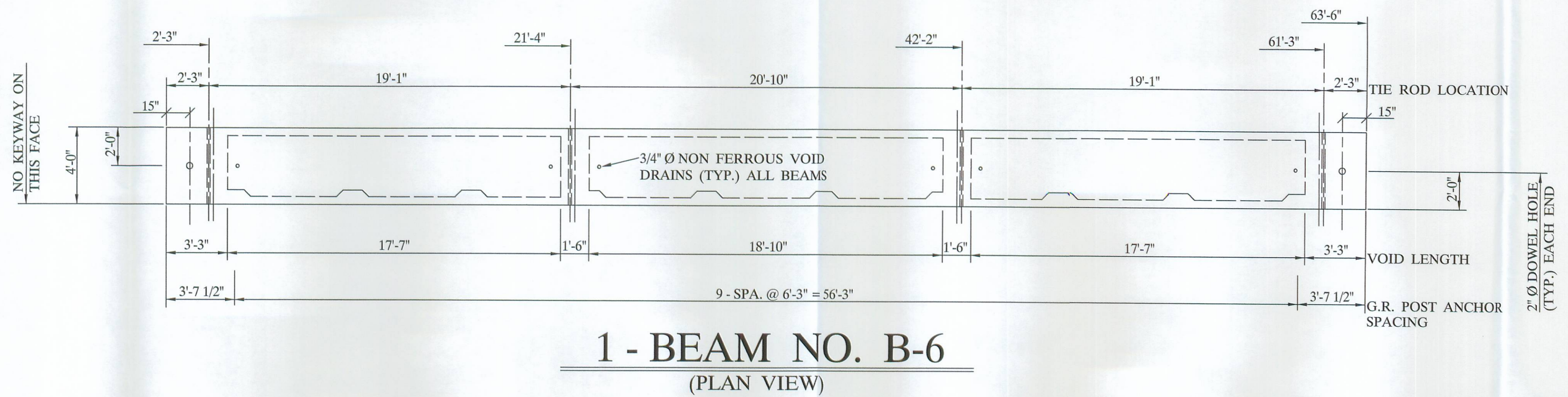
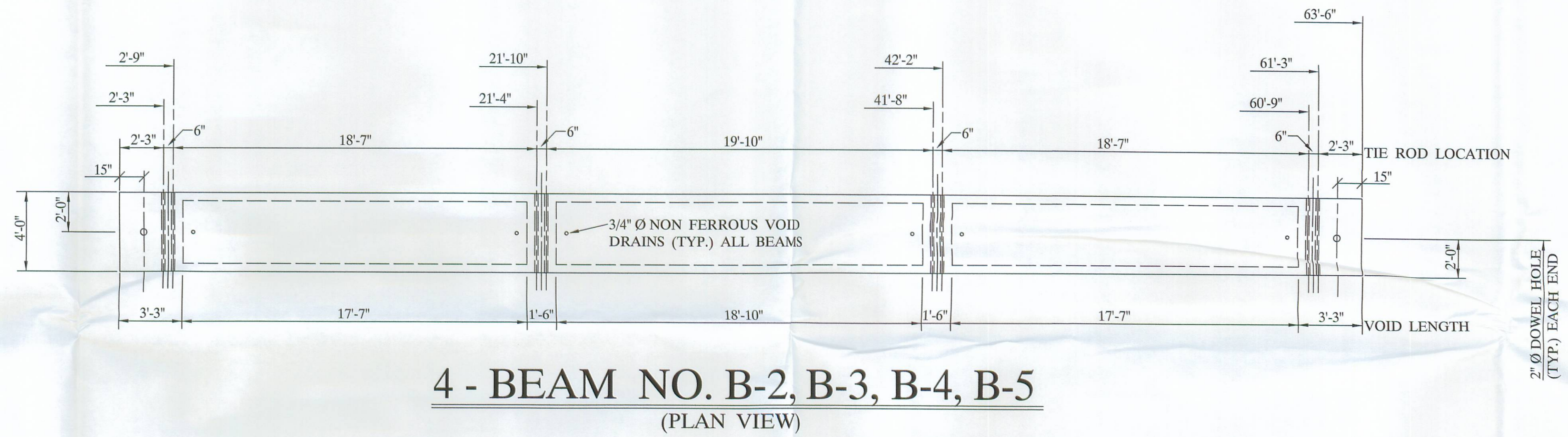
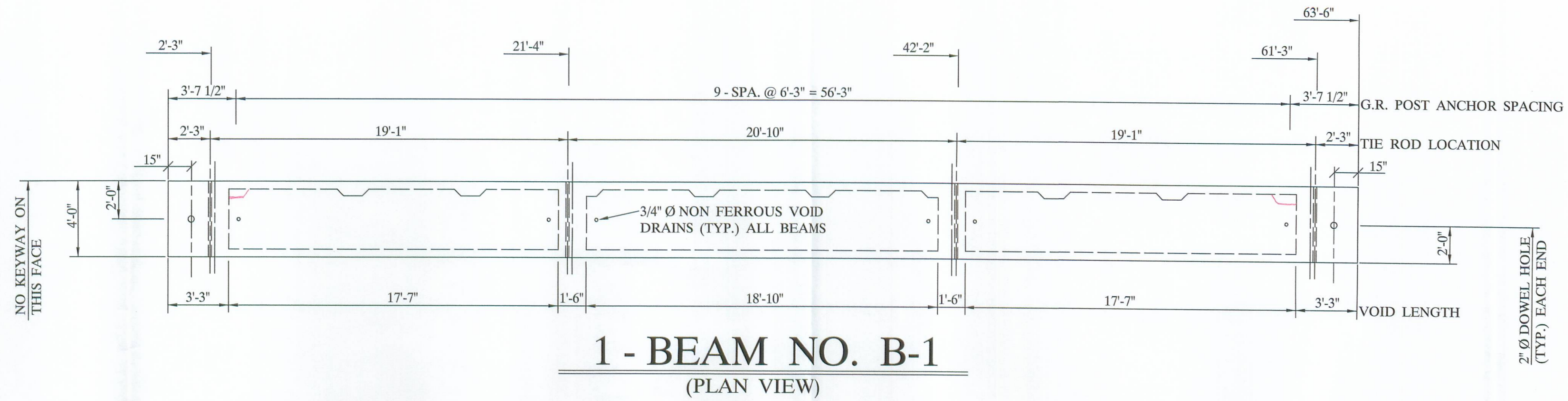
NO	ITEM	QTY / BEAM	NOTES	TOTAL
1	BEAM WEIGHT		59,638 #	
2	CONCRETE	14.3 CY.		85.8 CY.
3	CALCIUM NITRITE	57.2 GAL.		343.2 GAL.
4	STRAND		4 - GAL. / CY. (D.C.I.)	
5	RE - STEEL		1/2" Ø O.S. STRAND 270 KSI LL.	10,560 L.F.
6	VOID		GRADE - 60	9,160 #
7	VOID DRAINS		22 1/2" X 38"	324 L.F.
8	TIE ROD	12'-0" / 8'-0"	3/4" Ø NON FERROUS	36 EA.
			1" Ø STEEL ROD	8 EA.
			1" Ø STEEL ROD	4 EA.
9	TIE ROD SLEEVES			128 L.F.
10	TYPE - B - ANCHORS			40 EA.
11	TYPE - C - ANCHORS			20 EA.
12	DOWELS & SLEEVES			20 EA.
13	WASSER			12 EA.
14	SEALANT EPOXY URETHANE		MC - TAR	0.8 GAL.
15	JUTE		" LIGHT NEUTRAL "	4.0 GAL.
16	BEARING PADS		1 3/8" X 7" X 9" , 3 LAM.	318 L.F.
17	P.E.J.F.		1" X 2" X 48"	24 EA.
18	GUARDRAIL POST		TYPE - 2	48 L.F.
19	GUARDRAIL ELEMENT			20 EA.
20	TUBULAR BACK-UP			137.5 L.F.
21	NON SHRINK GROUT ADDITIVE			137.5 L.F.
				13.5 LBS.



UNITED PRECAST INC.
 ROUNDHOUSE LANE
 MOUNT VERNON, OHIO 43050
 PHONE : (740) 393-1121
 FAX : (740) 393-0044

DESCRIPTION:	BOX BEAM DETAILS		SCALE:	DRAWN BY:
JOB NAME:	ITEM 515	PROJECT NO. LOG - 89 - 1.25	PHIL	
LOGAN COUNTY		PROJECT NO. T.R. 89	REVISED:	
DATE:	JULY 2007	APPROVED BY:	E.O.C.	8/25/07
			DRAWING NO.	1 OF 4

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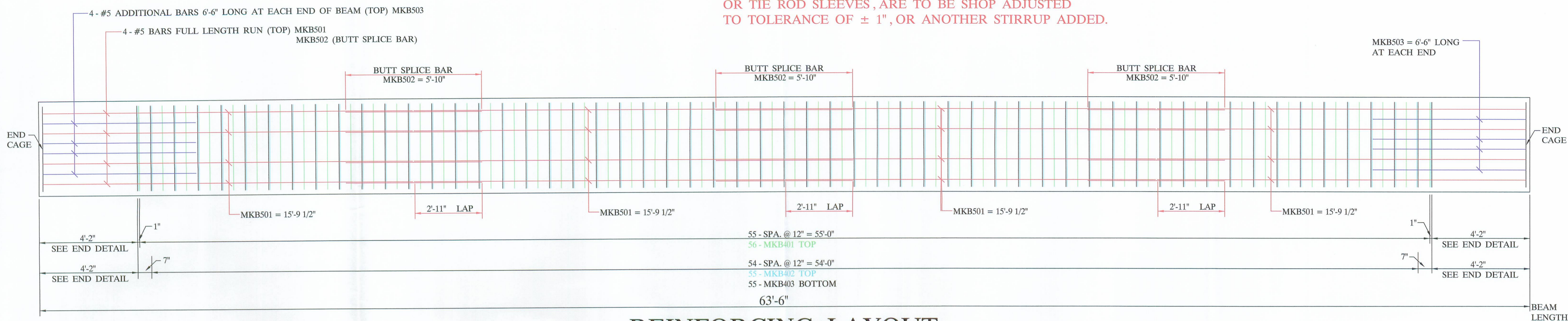
UNITED PRECAST INC.
 ROUNDHOUSE LANE
 MOUNT VERNON, OHIO 43050
 PHONE : (740) 393-1121
 FAX : (740) 393-0044

DESCRIPTION:	BOX BEAM DETAILS	SCALE:	DRAWN BY:
JOB NAME:	ITEM 515 BRIDGE NO. LOG - 89 - 1.25 LOGAN COUNTY	-----	PHIL
DATE:	APPROVED BY:	PROJECT NO. T.R. 89	REVISED:
JULY 2007	E.O.C.	8 / 25 / 07	DRAWING NO. 2 OF 4

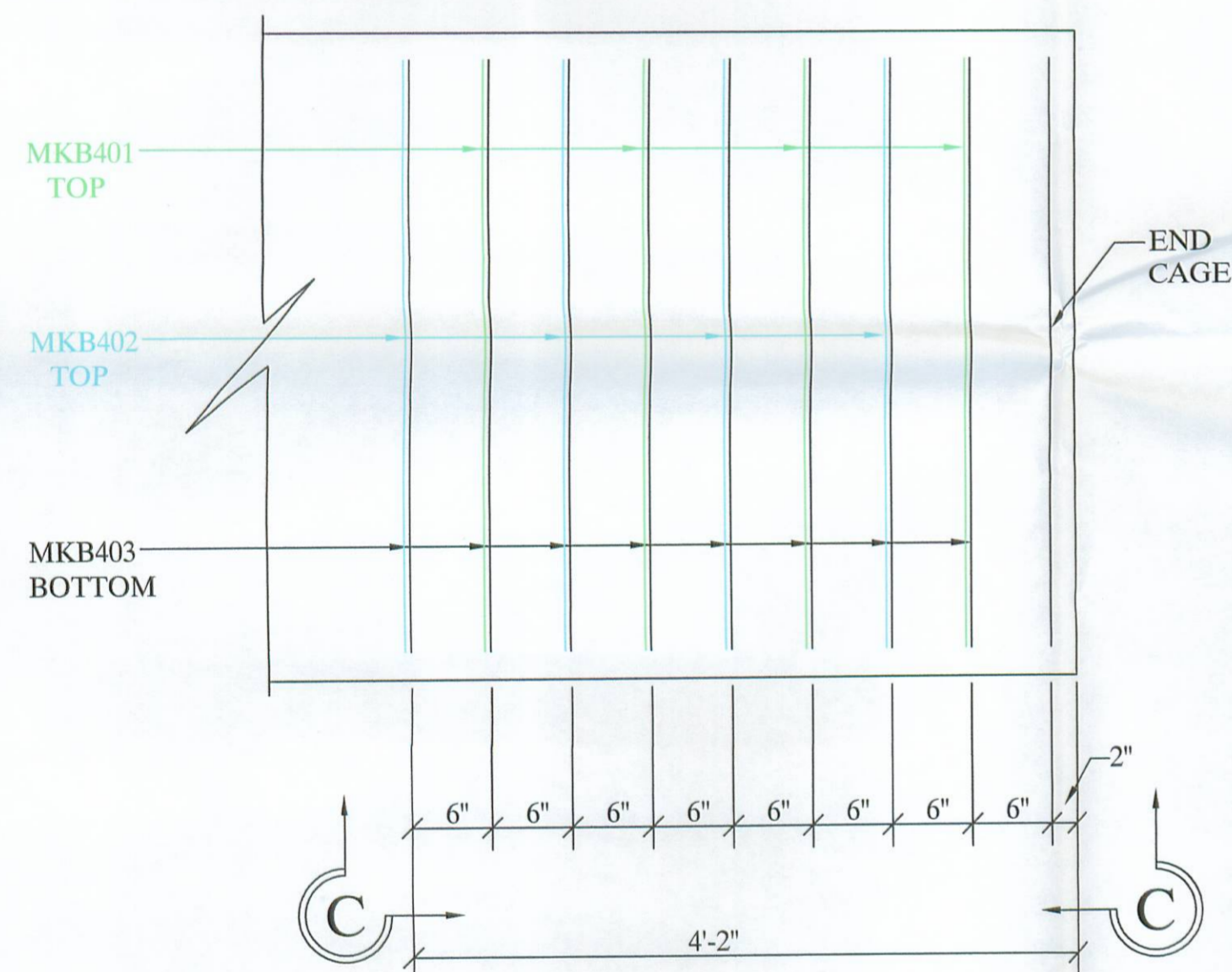
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NOTE :

STIRRUPS IN CONFLICT WITH G.R. ANCHORS AND OR TIE ROD SLEEVES, ARE TO BE SHOP ADJUSTED TO TOLERANCE OF ± 1", OR ANOTHER STIRRUP ADDED.

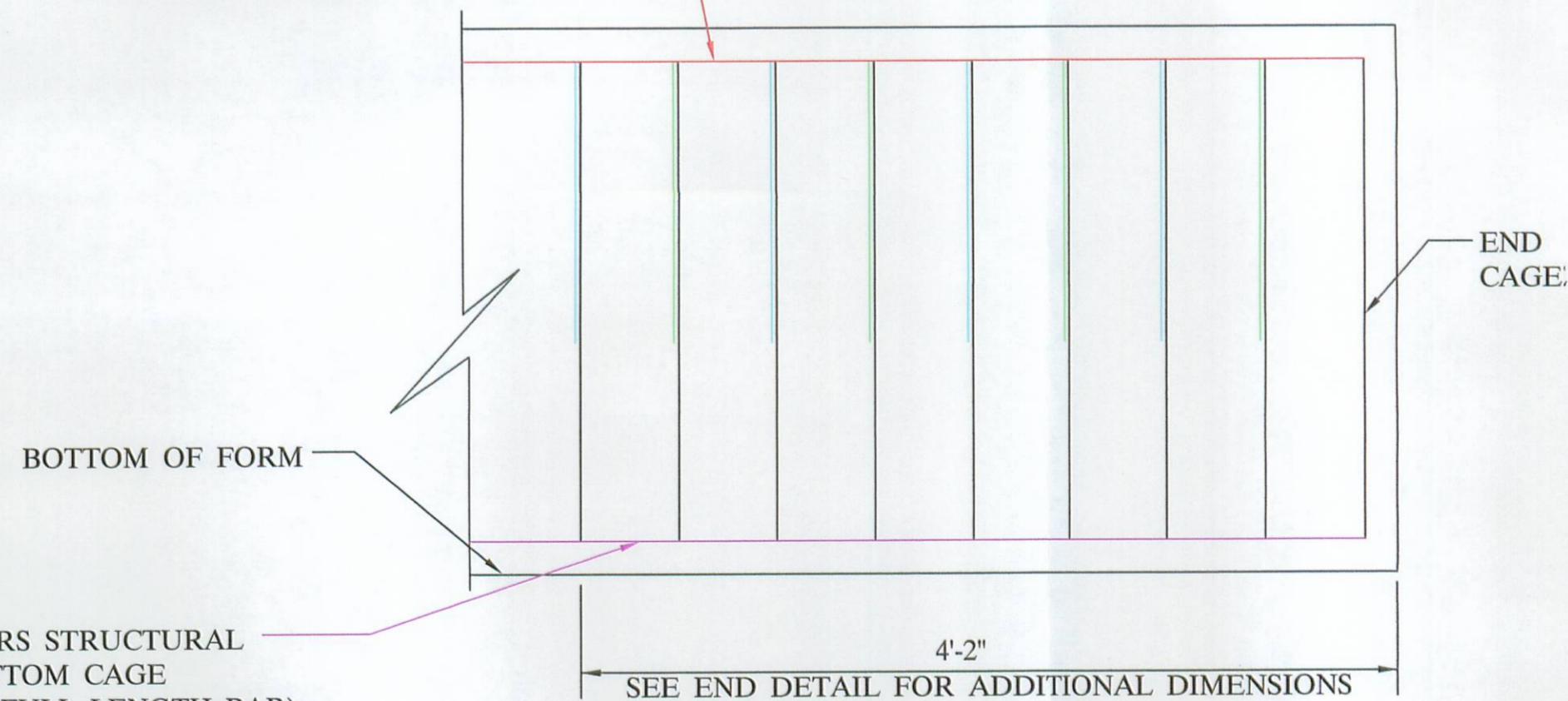


REINFORCING LAYOUT
(PLAN VIEW)

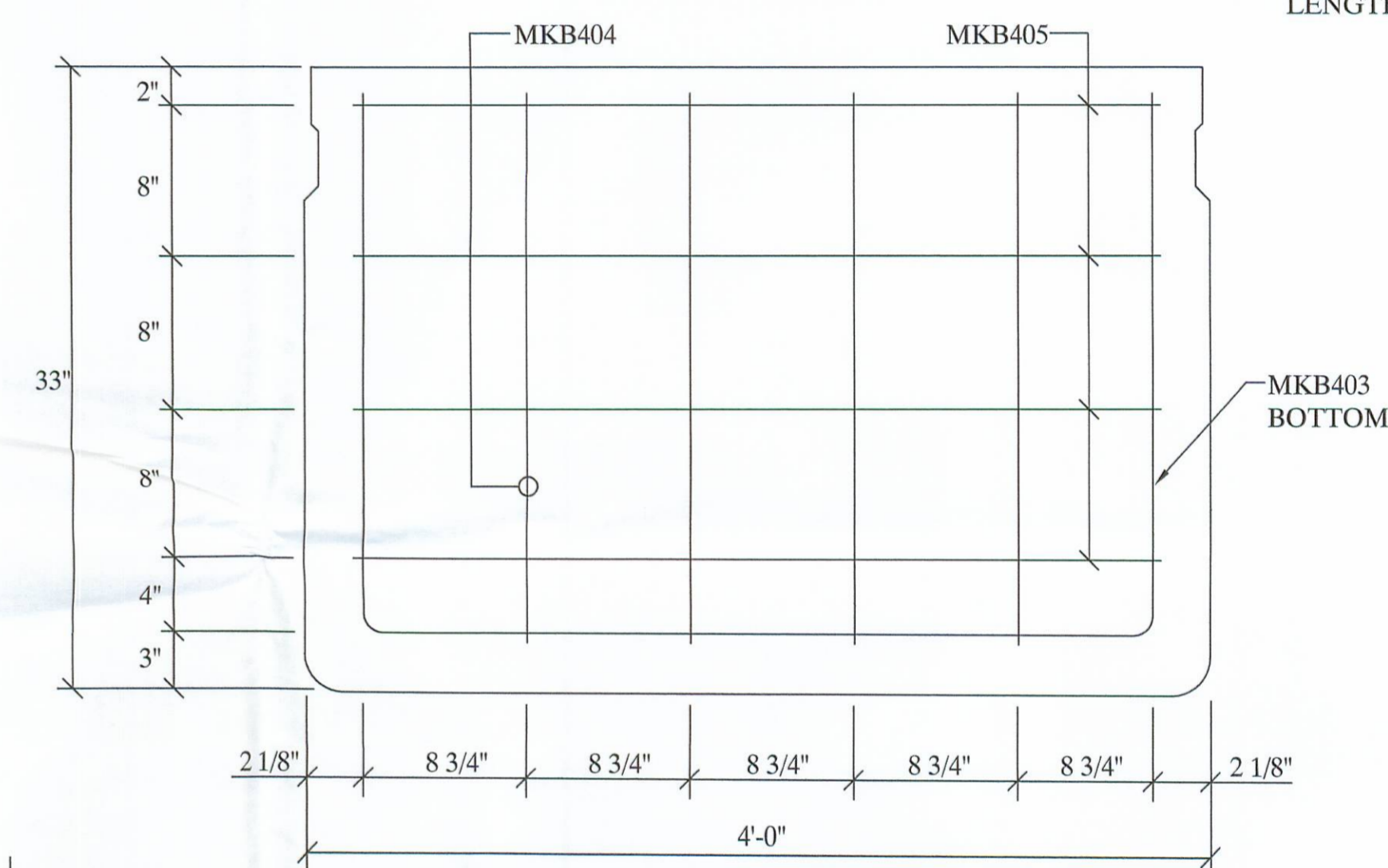


(TYP.) END DETAIL
(PLAN VIEW)

TOP LONGITUDINAL BARS & TOP STIRRUPS ASSEMBLED IN TOP CAGE & PLACED IN BED IN UNITS OF VARIOUS LENGTH WITH TOP BARS BUTT SPLICED AT INTERSECTIONS.



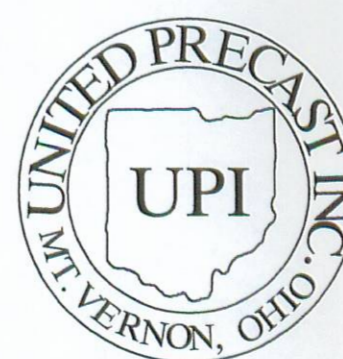
ELEVATION C-C



BEAM END CAGE
(ELEVATION)

6 - B33-48 X 63'-6" WITH NO SKEW
BAR LIST

MARK	SIZE	LENGTH	QUANTITY	SHAPE	A	B	C	D	E
B401	4	6'-2 1/2"	384	TYPE - 1	43"	17"	13"	2"	13"
B402	4	6'-2 1/2"	378	TYPE - 1	43"	17"	7"	2"	25"
B403	4	8'-2 1/2"	438	TYPE - 2	43"	29"			
B404	4	2'-5"	48	TYPE - 3	29"				
B405	4	3'-8 3/4"	48	TYPE - 3	44 3/4"				
B501	5	15'-9 1/2"	144	TYPE - 3	15'-9 1/2"				
B502	5	5'-10"	108	TYPE - 3	5'-10"				
B503	5	6'-6"	48	TYPE - 3	6'-6"				

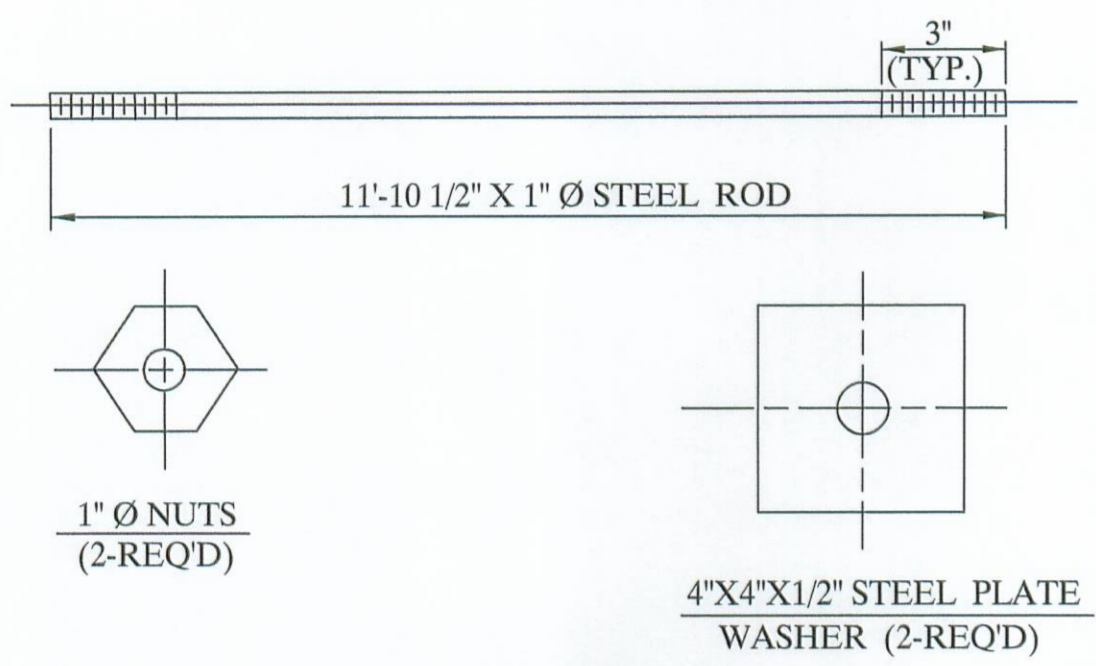


UNITED PRECAST INC.

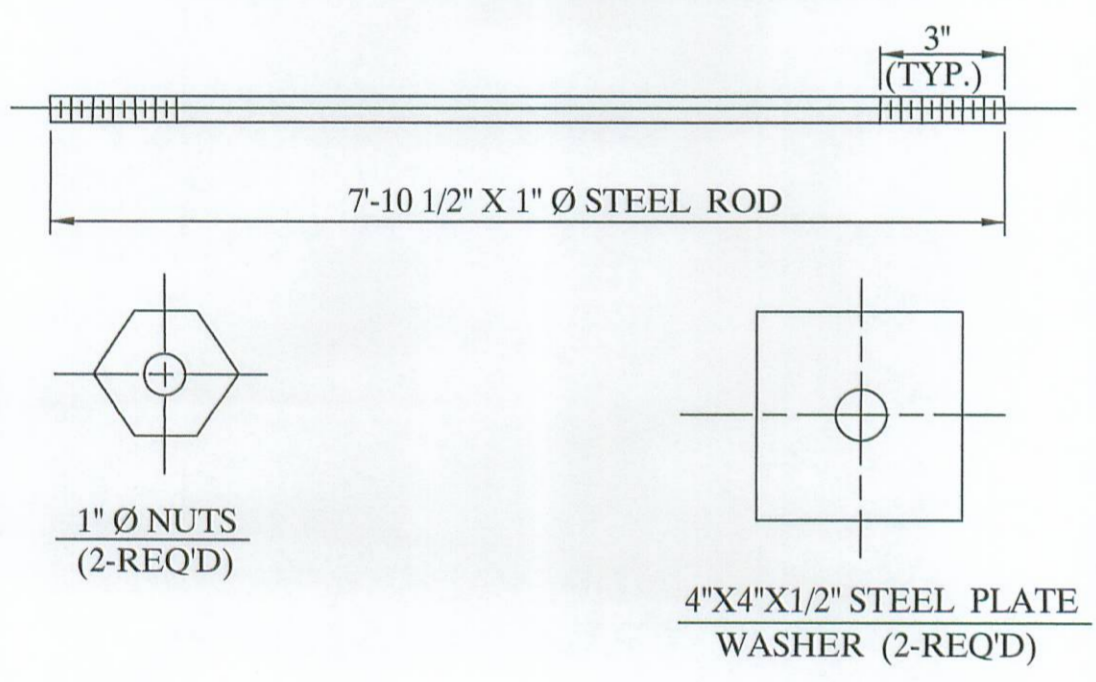
ROUNDHOUSE LANE
MOUNT VERNON, OHIO 43050
PHONE : (740) 393-1121
FAX : (740) 393-0044

DESCRIPTION:	REINFORCING DETAILS		SCALE:	DRAWN BY:
JOB NAME:	ITEM 515 BRIDGE NO. LOG - 89 - 1.25 LOGAN COUNTY		PROJECT NO. T.R. 89	PHIL
DATE:	JULY 2007	APPROVED BY:	E.O.C. 8/25/07	REVISED:
				DRAWING NO. 3 OF 4

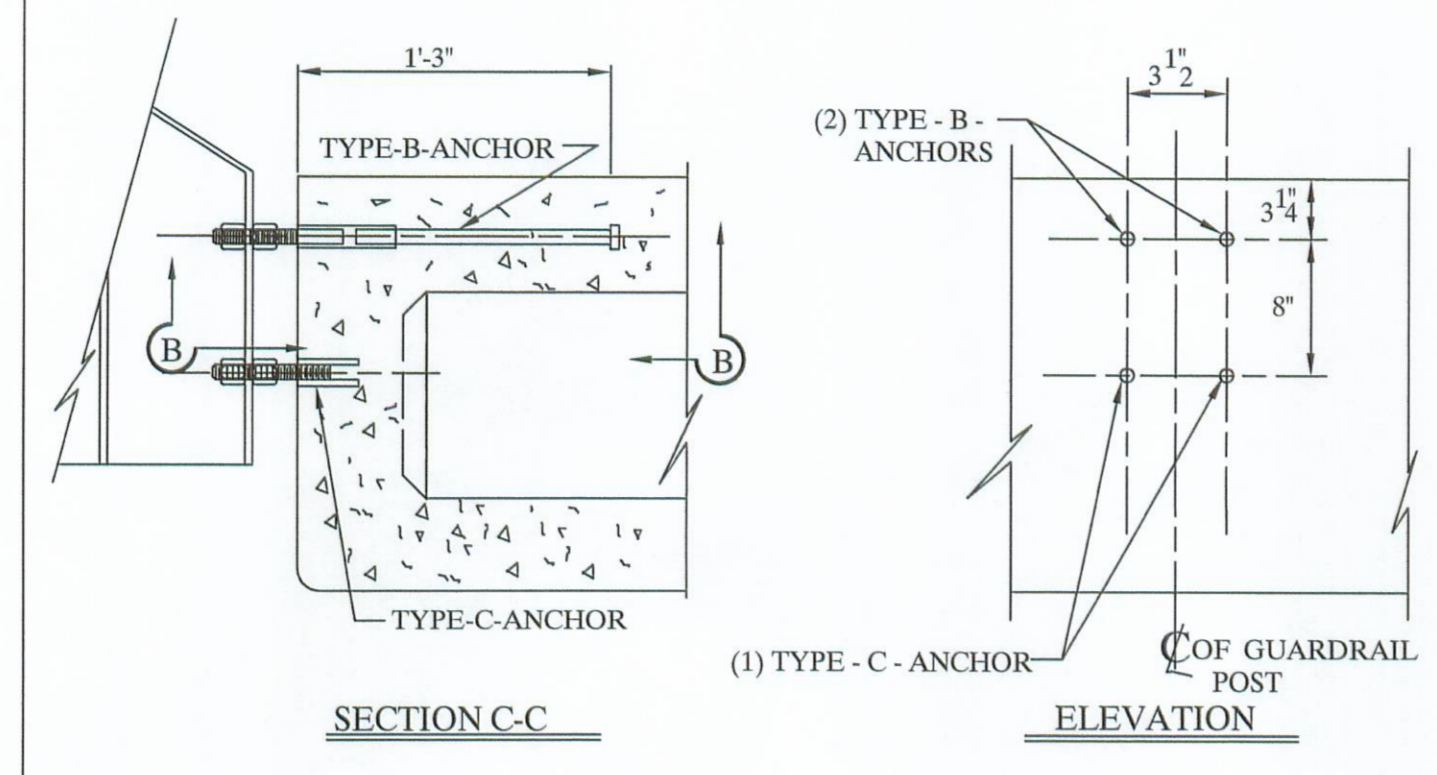
12'-0" TIE ROD ASS'Y



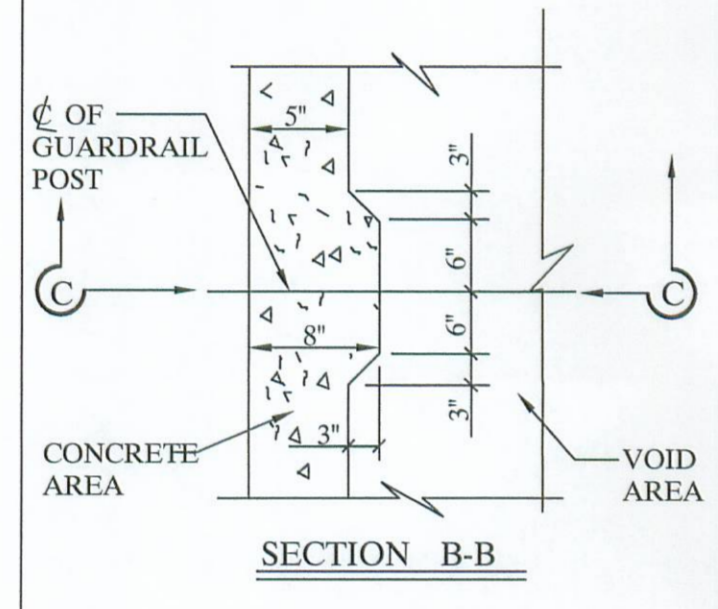
8'-0" TIE ROD ASS'Y



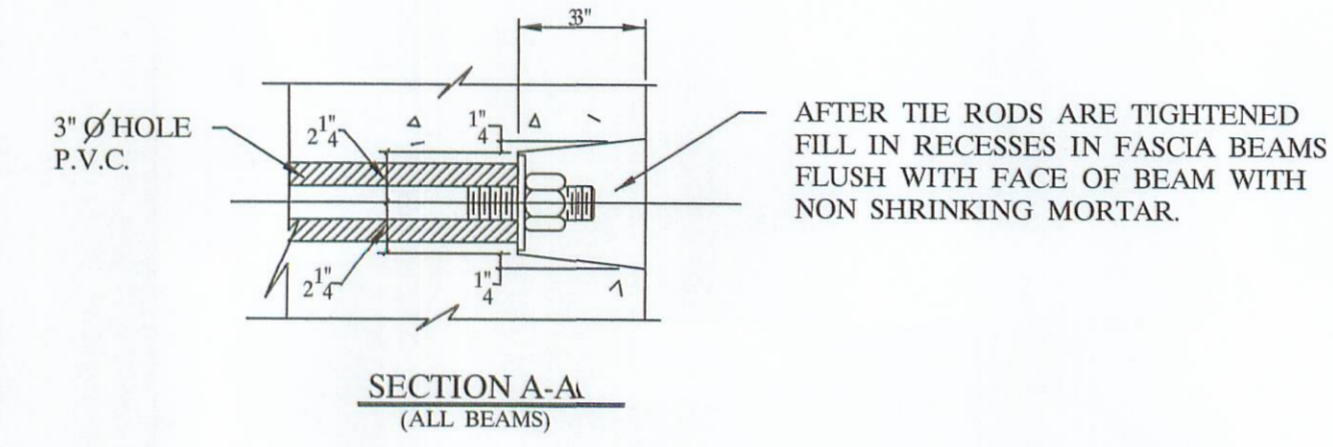
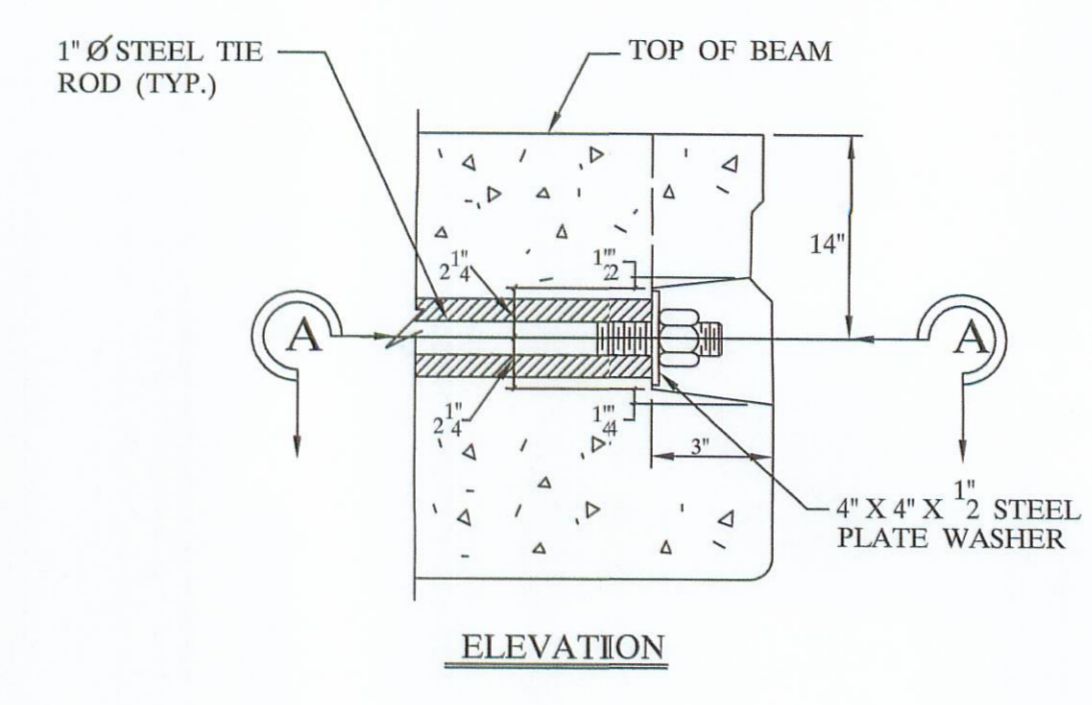
NOTE:
ALL ITEMS INCLUDING TIE RODS ACCESSORIES SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM-123 OR 153. PER CMS 711.02, UNLESS OTHERWISE NOTED.



NOTE:
ONE TYPE 'C' ANCHOR PROVIDE S FOR (2) STUDS (SEE BELOW).

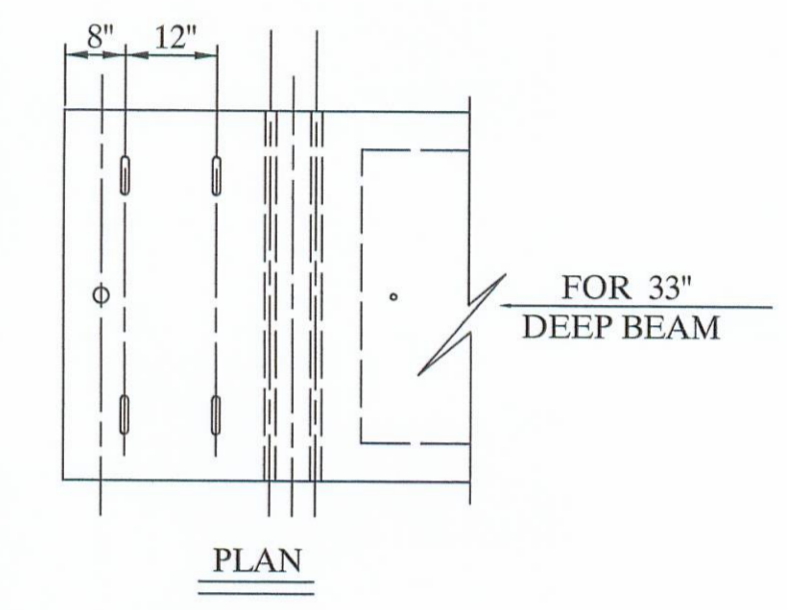
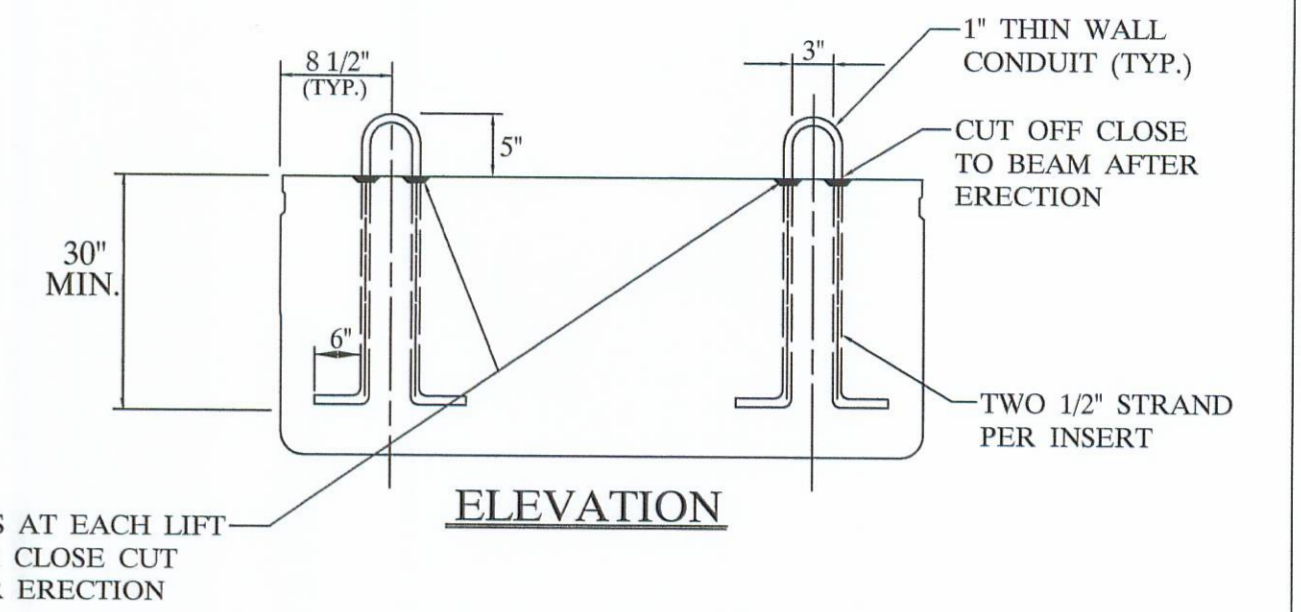


NOTE:
TYPE B & C ANCHOR ASSEMBLIES SHALL CONFORM TO PHYSICAL PROPERTIES OF ASTM-A-325. EXCEPT MIN. ELONGATION SHALL BE 10%. THE CHEMICAL PROPERTIES ARE WAIVED.



NOTE:
TIE RODS SHALL BE A311 - G1018 STEEL, OR A-36 MODIFIED.

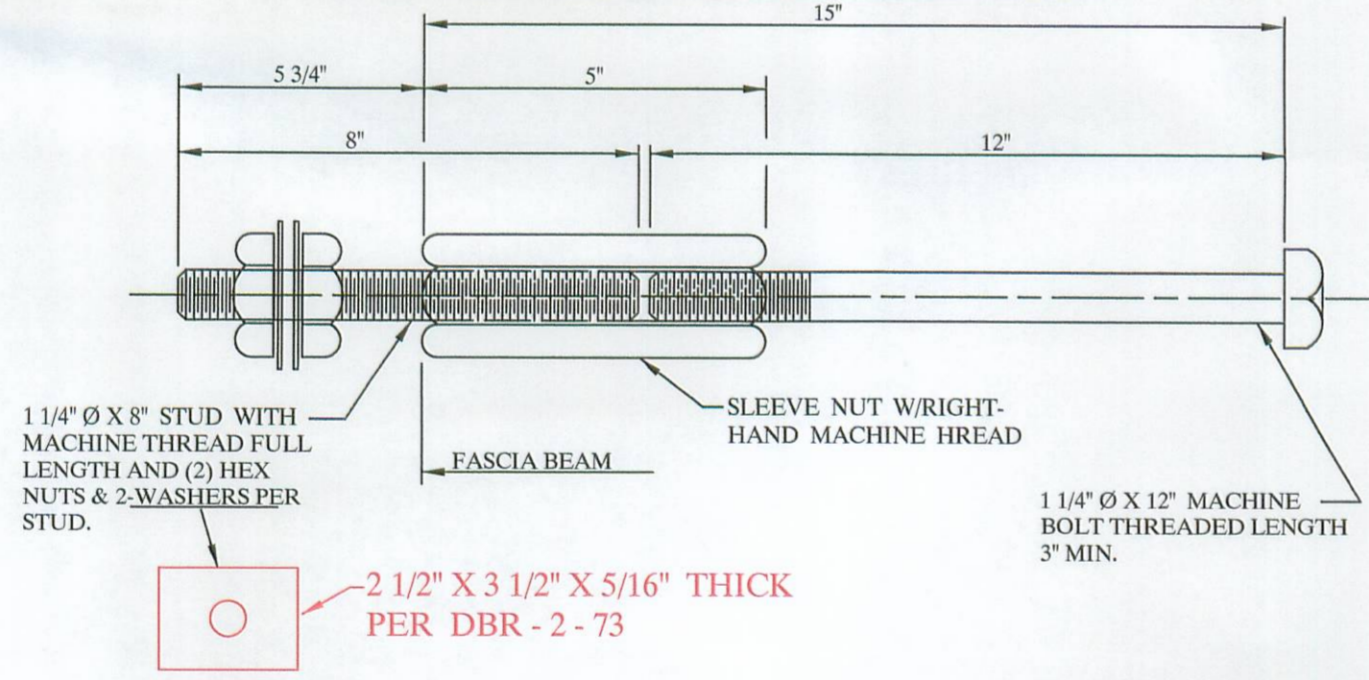
END DETAIL OF TRANSVERSE TIE ROD ANCHORAGE



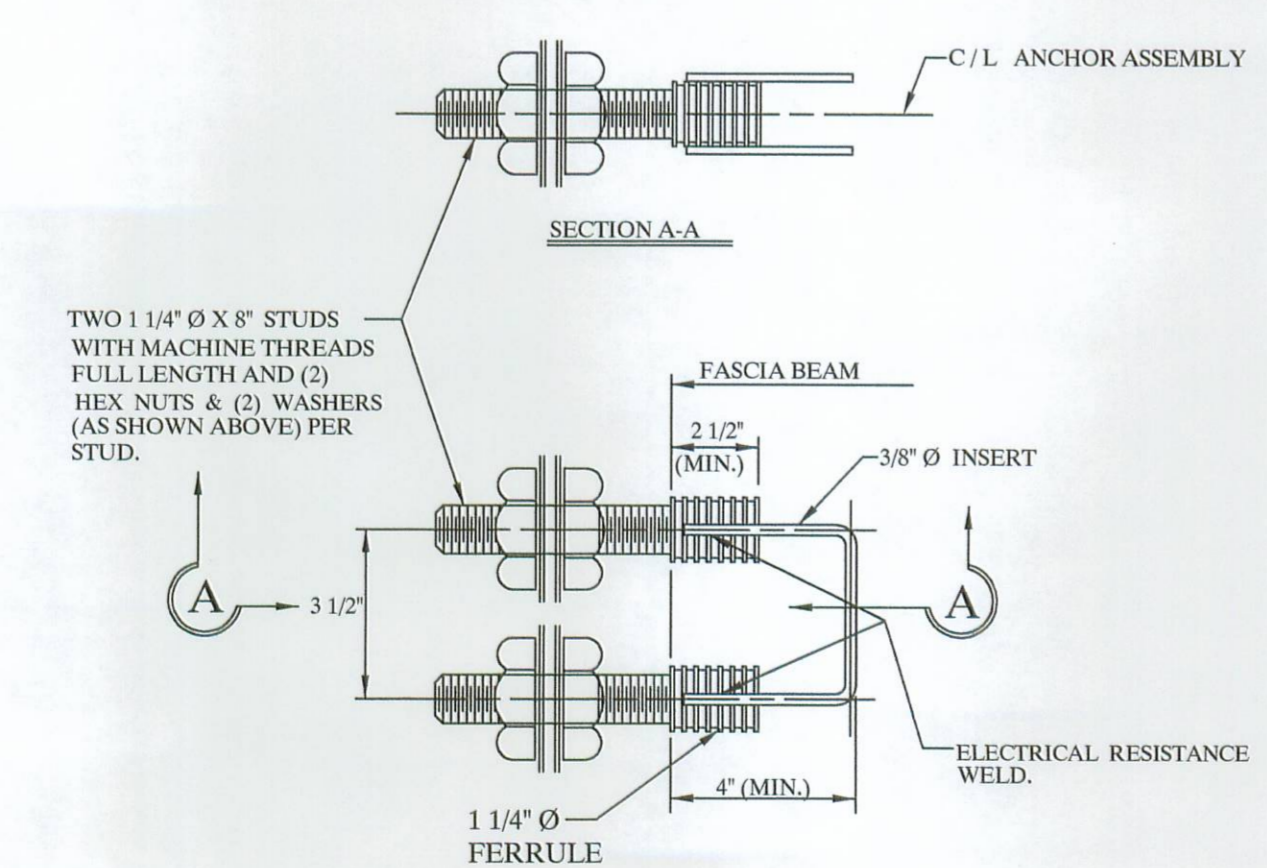
NOTE:
LIFTING INSERTS ARE HAND PLACED IN THE SHOP AND ARE TO BE ADJUSTED TO CLEAR REINFORCEMENT, ANCHOR DOWEL SLEEVES, TIE ROD SLEEVES, OR ANY ADDITIONAL EMBEDDED ITEMS IN THIS REGION.

LIFTING INSERT DETAIL

TYPE "B" ANCHOR



TYPE "C" ANCHOR



"B" & "C" ANCHOR DETAILS

NOTE:

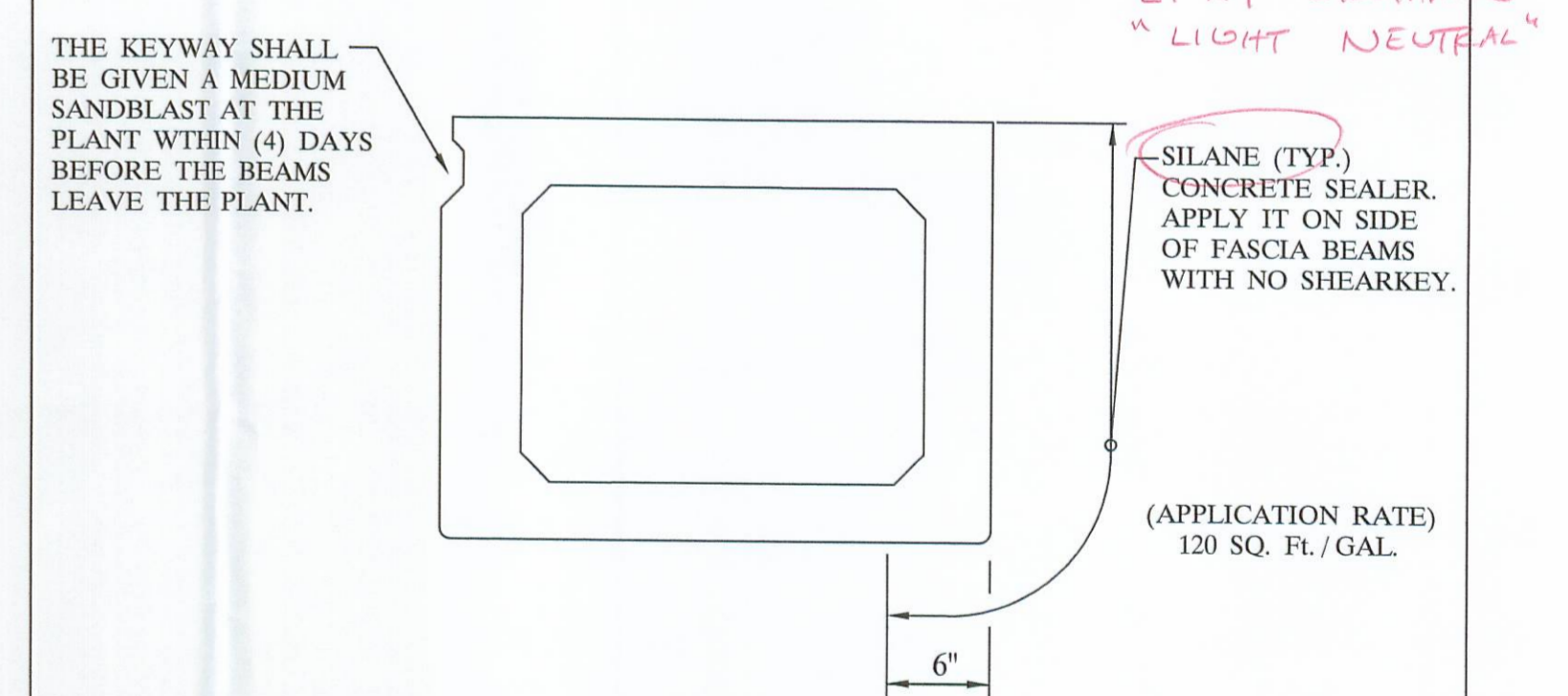
- 1) GALVANIZE ALL HARDWARE PER CMS. 711.02.
- 2) PROVIDE A BROOM FINISH ON TOP SURFACE OF BEAM SUITABLE FOR WATERPROOFING.
- 3) ADD D.C.I. TO CONCRETE (4 - GAL. / CUBIC YARD).
- 4) WATERPROOF BEAM ENDS.
- 5) DETENSION STRAND SYMETRICALLY ABOUT CENTERLINE.

SPECIFICATIONS

DESIGN LOADING: HS25 AND ALTERNATE MILITARY LOADING.

CONCRETE:	COMPRESSIVE STRENGTH, $f_c = 7000$ PSI @ 28 DAYS (SHIPPING), $f_c = 5000$ PSI @ RELEASE.
PRESTRESSING STRAND	ASTM A - 416 GRADE 270, 1/2" O.S. DIAMETER, SEVEN WIRE, UNCOATED LOW RELAXATION STRAND, $A_s = 167$ in ² $f_s = 270$ KSI. INITIAL STRESS: $0.75 f_s = 202.5$ KSI.
REINFORCING STEEL	GRADE - 60: ASTM A - 615, ASTM A - 616, ASTM A - 617. UNIT STRESS 24,000 PSI.

NOTE:
PRESTRESSED CONCRETE BEAMS AND APPURTENANCES CONFORM TO O.D.O.T. STANDARD BRIDGE DRAWINGS PSBD - 1 - 93 SHEETS ONE, TWO, THREE, & FOUR.



TYPICAL FASCIA BEAM

BRIDGE NO. LOG - 89 - 1.25		ITEM 515	
LOGAN COUNTY		PROJECT NO. T.R. 89	
UNITED PRECAST INC.			
ROUNDHOUSE LANE MT. VERNON, OHIO 43050 PHONE: (740)393-1121, FAX: (740)393-0044		SCALE -----	DRAWN BY: PHIL REVISED
DATE JULY 2007	APPROVED BY: E.O.C.	8 / 25 / 07	DRAWING NO. 4 OF 4

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