

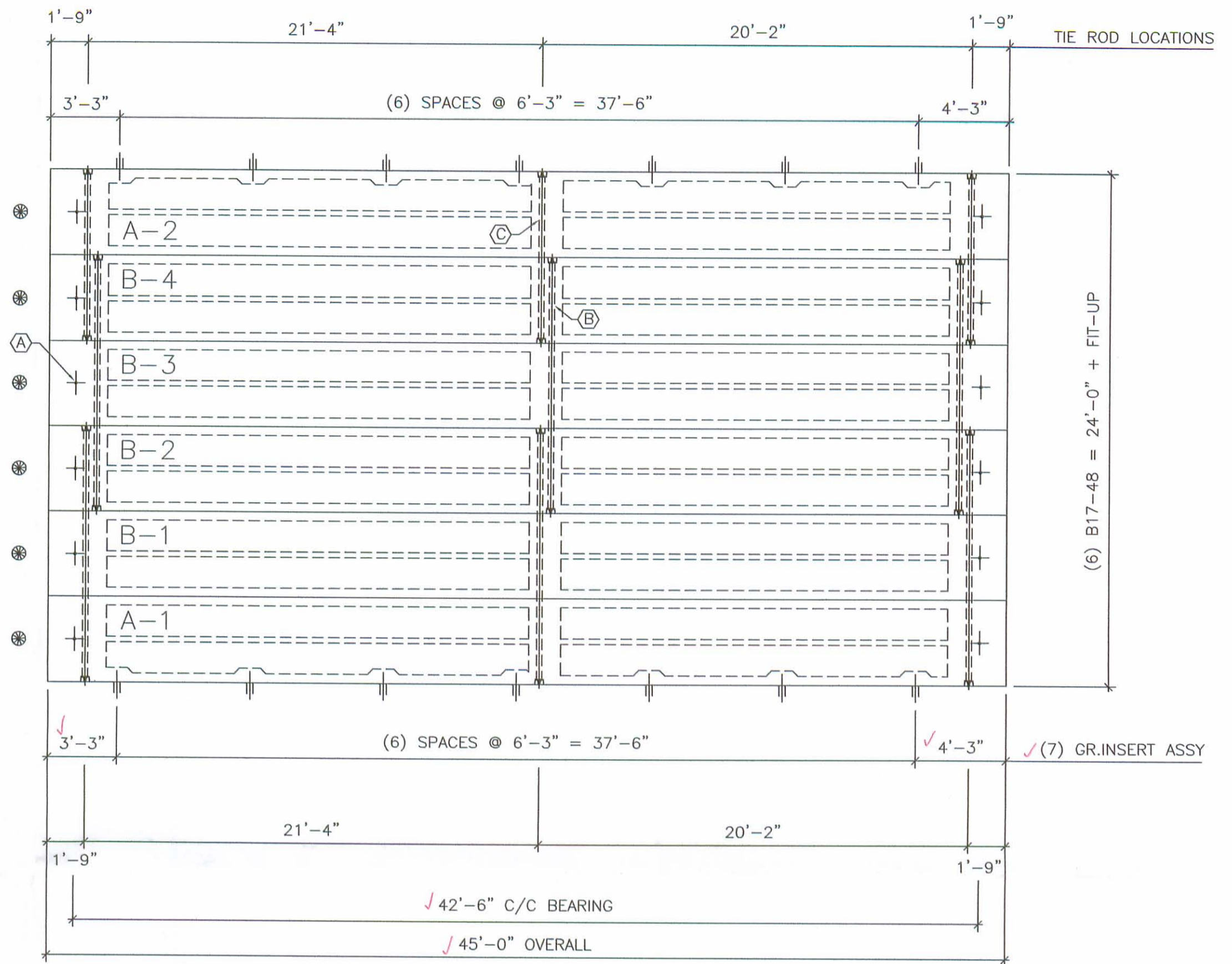
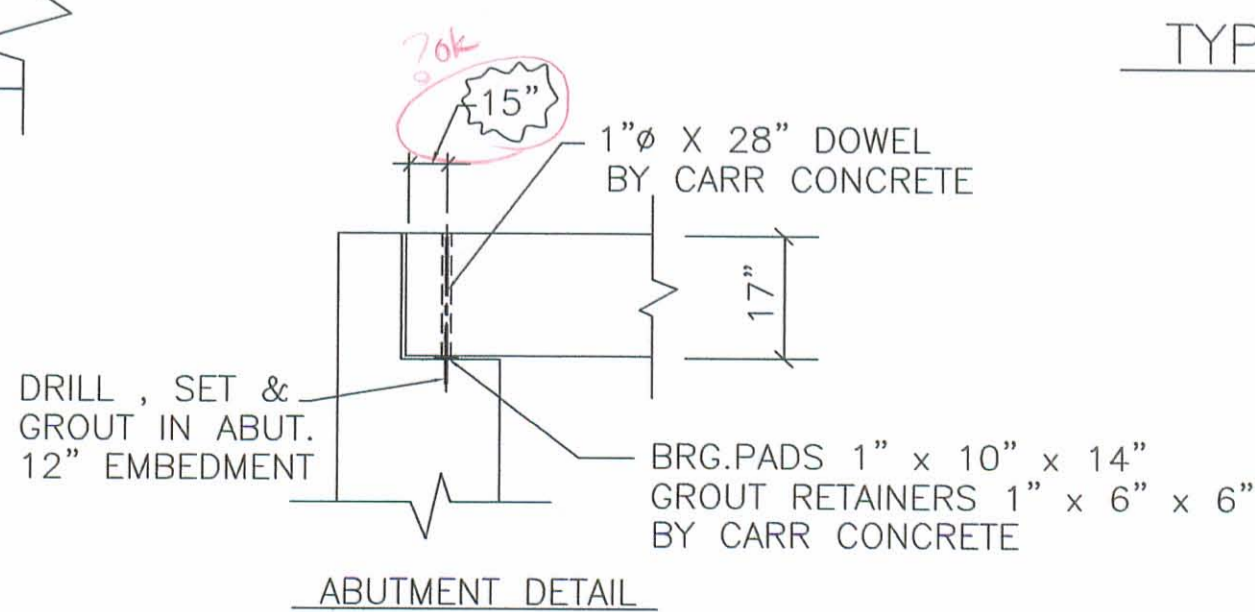
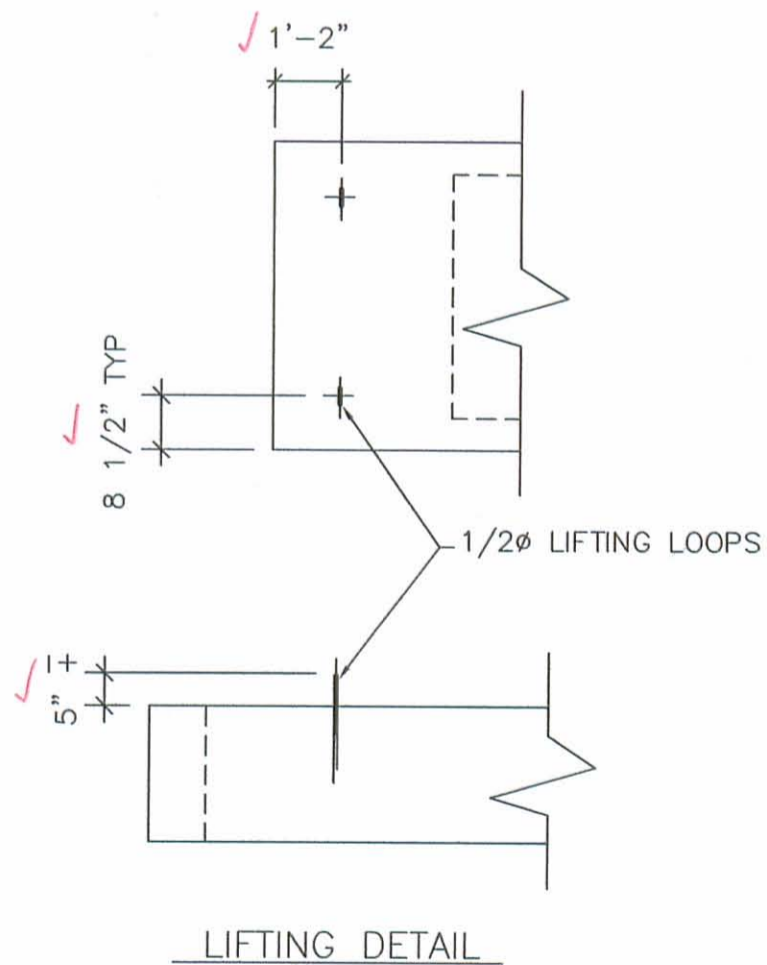
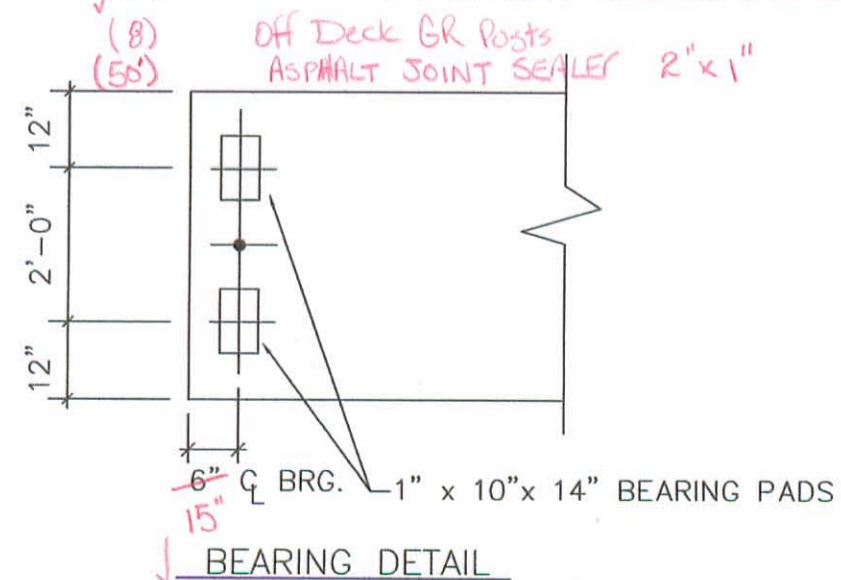
BRIDGE BEAM FABRICATION NOTES

- ✓ COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS (f'_c) SHALL NOT BE LESS THAN 5500 PSI.
- ✓ COMPRESSIVE STRENGTH OF CONCRETE AT TIME OF DETENSIONING (f'_c) SHALL NOT BE LESS THAN 4000 PSI.
- ✓ PRESTRESSING STEEL SHALL BE SEVEN WIRE UNCOATED LOW RELAXATION STRAND IN ACCORDANCE WITH ASTM A416 GRADE 270, 1/2" DIAMETER. (AREA 0.153)
- ✓ ALL PRESTRESSING STRANDS SHALL BE STRESSED TO AN INITIAL TENSIONING FORCE PER STRAND EQUAL TO 3,000 lbs. ALL PRESTRESSING STRANDS SHALL BE STRESSED TO A FINAL TENSIONING FORCE PER STRAND EQUAL TO 30,982 lbs. (BEFORE LOSSES).
- ✓ DETENTION STRANDS SYMMETRICALLY ABOUT CENTERLINE OF BEAM IN ACCORDANCE WITH STANDARD RECOGNIZED PRACTICES.
- ✓ ALL REINFORCING BARS SHALL CONFORM TO ASTM A615, A616, OR A617 GRADE 60 BLACK STEEL, UNLESS OTHERWISE NOTICED.
- ✓ ALL ANCHOR BOLTS, NUTS AND STUDS SHALL CONFORM TO THE PHYSICAL PROPERTIES OF ASTM-A325 EXCEPT THAT THE MINIMUM ELONGATION SHALL BE 10%.
- ✓ ALL GUARDRAIL EMBEDDED ACCESSORIES AND TRANSVERSE TIE RODS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM 711.02.
- ✓ KEYWAYS TO BE GIVEN A MEDIUM SANDBLAST AT THE PLANT (WITHIN (4) DAYS OF SHIPMENT)
- ✓ TOP OF BEAM FINISH TO BE TRANSVER BROOMED.
- ✓ TRANSVERSE TIE RODS SHALL BE 1" DIAMETER STEEL ROD OF GRADE A311 G1018 STEEL.
- ✓ CORROSION INHIBITOR SHALL BE ADDED AT THE RATE OF 3/4 GAL. PER CU / YD OF CONCRETE (CNI)
- ✓ BRIDGE BEAMS ARE DESIGNED IN ACCORDANCE WITH ODOT STANDARDS PSBD-1-93M AND SUPPLEMENTAL SPECIFICATION 865, DATED 5-11-99

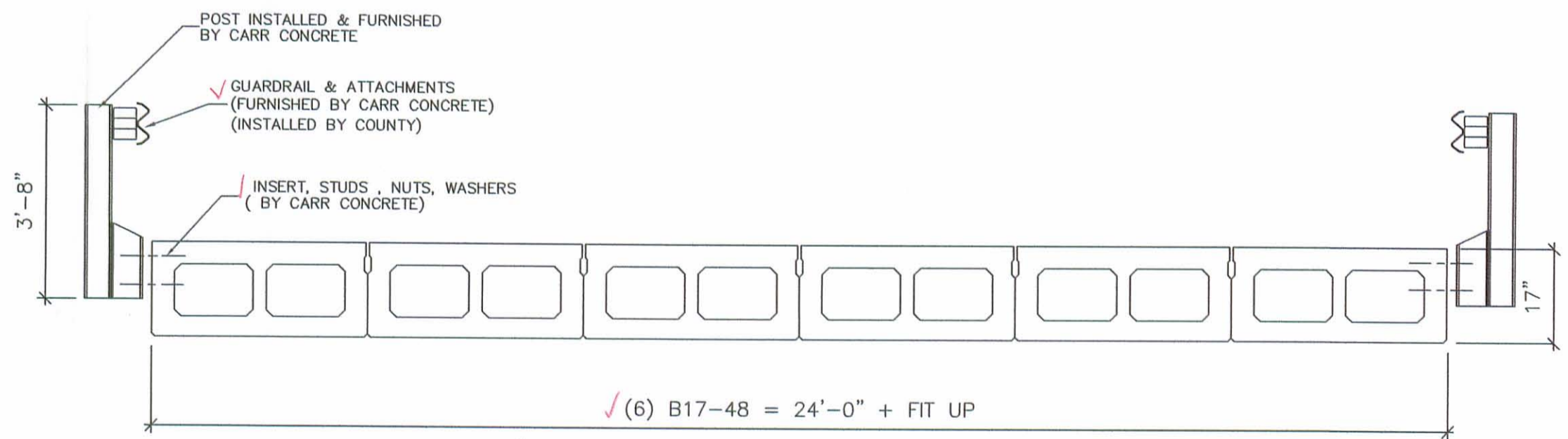
BEAM ENDS SHALL HAVE BITUMINOUS COATING

ITEMS FURNISHED BY CARR CONCRETE

- (A) ✓ (12) 1" ϕ X 28" ANCHOR DOWEL
- (B) ✓ (6) 1" ϕ X 11'-11" TIE ROD
- (C) ✓ (3) 1" ϕ X 7'-11" TIE ROD
- ✓ (18) 1" HVY. HEX NUTS
- ✓ (18) 4" X 4" X 1/2" PLATE WASHERS
- (225') 1/2" ϕ BACKER ROD
- ✓ (12) 6" X 6" X 1" GROUT RETAINERS
- (56) 1 1/4" dia. X 8" STUDS
- (112) 1 1/4" dia. HVY. HEX NUTS
- (112) 1 1/4" dia. FLAT WASHERS
- ✓ (24) 1" X 10" X 14" BEARING PADS
- ✓ (163) GAL. CORROSION INHIBITOR
- ✓ (14) TYPE 2 GAURDRAIL POST
- ✓ (2) RUNS GAURDRAIL & TUBULAR BACKUP X 50'-0"



TYPICAL PLAN VIEW



TYPICAL CROSS SECTION

⊗ INDICATES MARKED END OF BEAM

APPROVED
BY LOGAN CO. ENGINEER
Quinn D. By 1/23/2007
*AS NOTED



BR 34-7.20

DRAWN BY: JNN
DATE: 4-11-07

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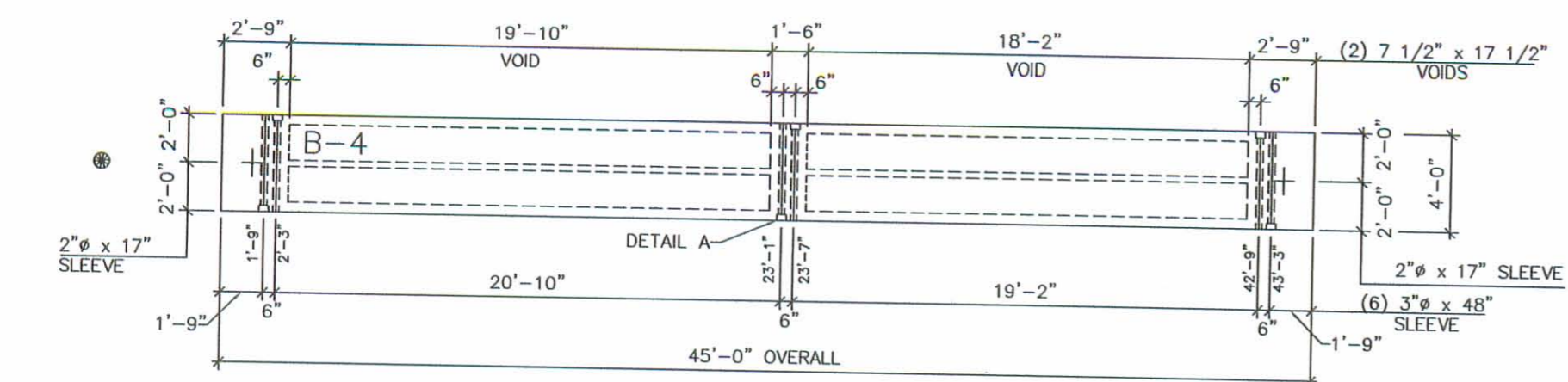
LOGAN COUNTY OHIO

CCC JOB B71056

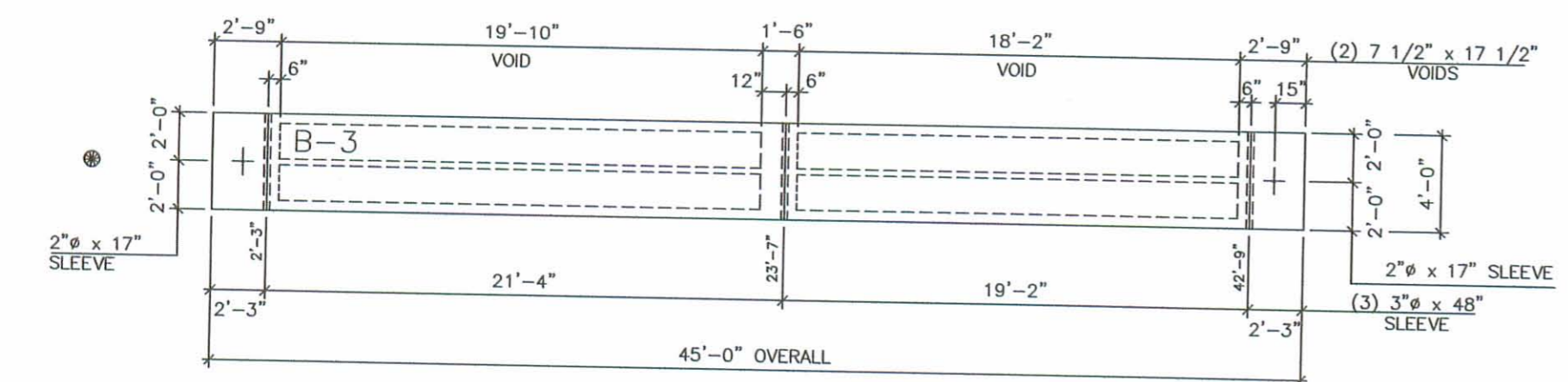
LOGAN COUNTY ENGINEER

SHEET: 1 of 3

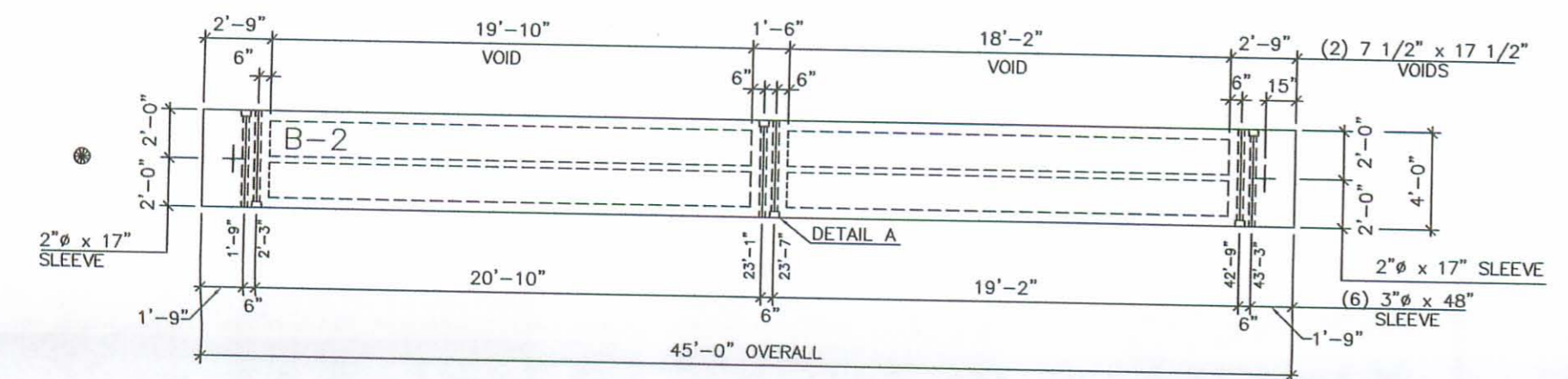
DATE	DESCRIPTION OF REVISION	BY



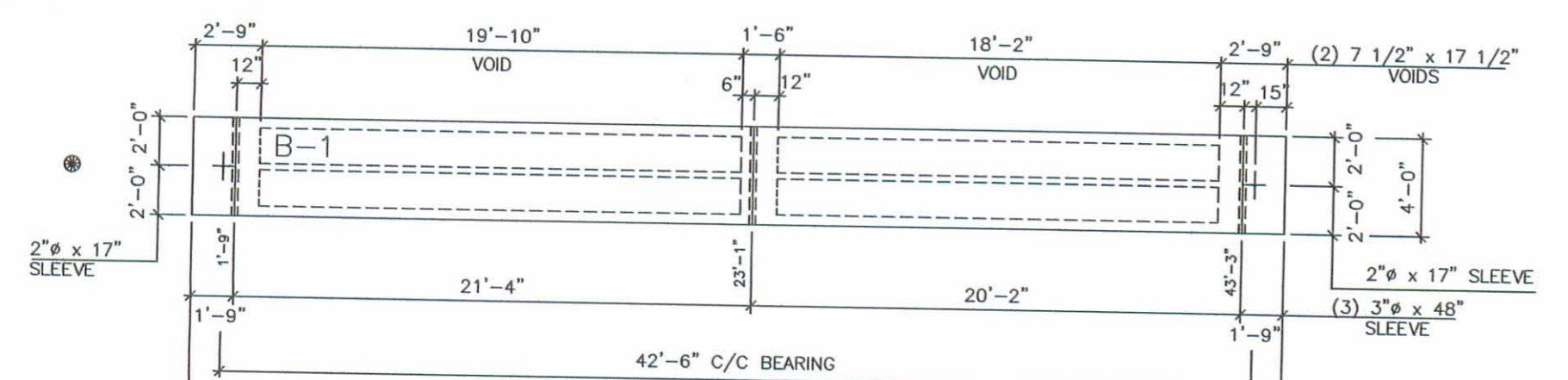
B-4 6.88cy VOL
1 REQ'D. 13.93 tons WT



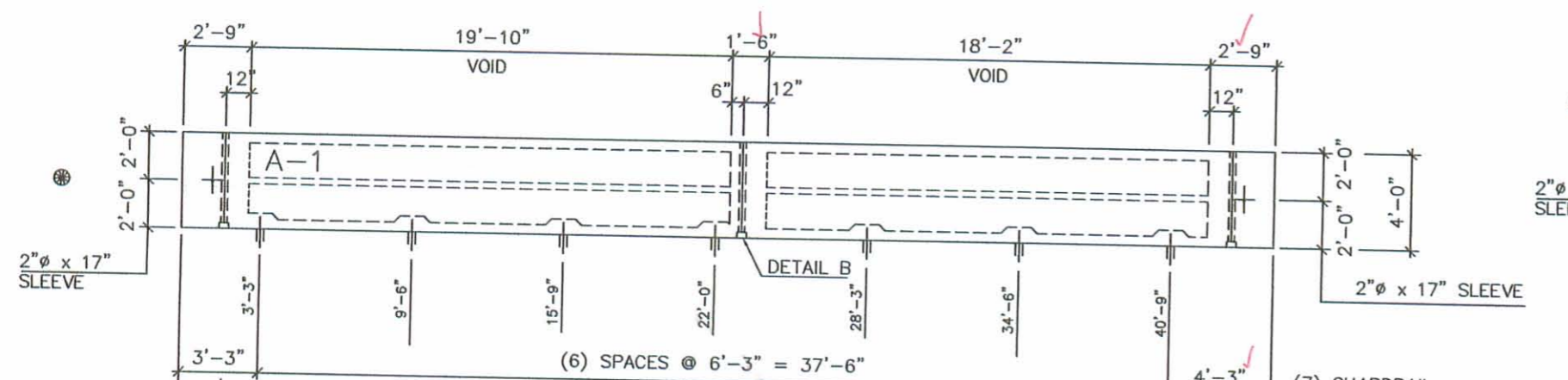
B-3 6.88cy VOL
1 REQ'D. 13.93 tons WT



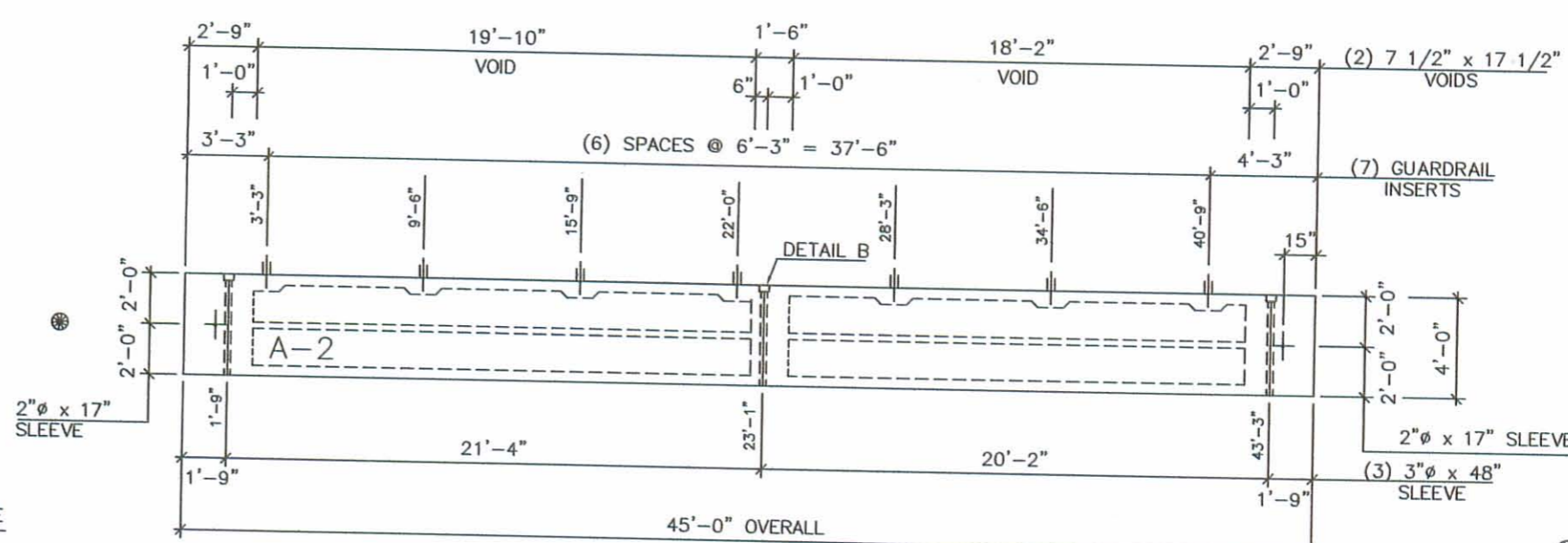
B-2 6.88cy VOL
1 REQ'D. 13.93 tons WT



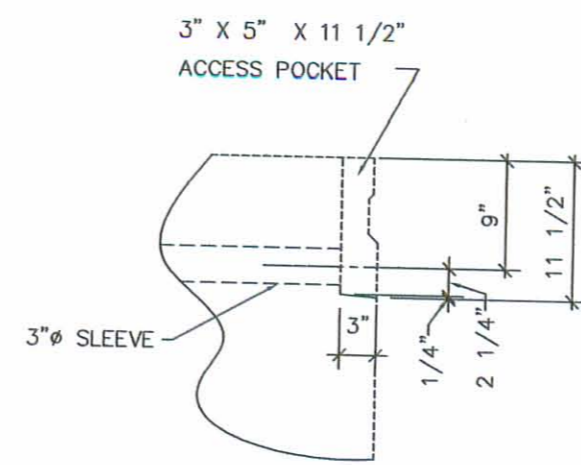
B-1 6.88cy VOL
1 REQ'D. 13.93 tons WT



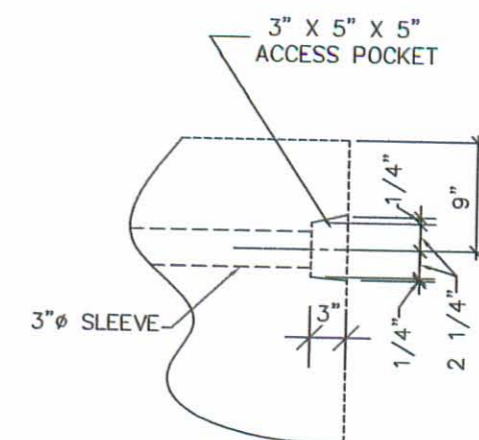
A-1 6.92cy VOL
1 REQ'D. 14.02 tons WT



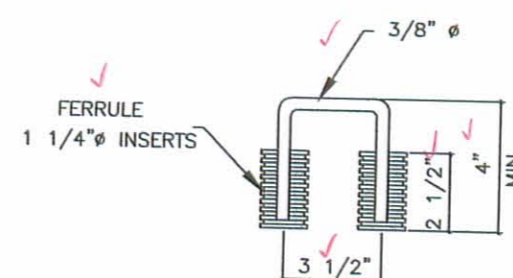
A-2 6.92cy VOL
1 REQ'D. 14.02 tons WT



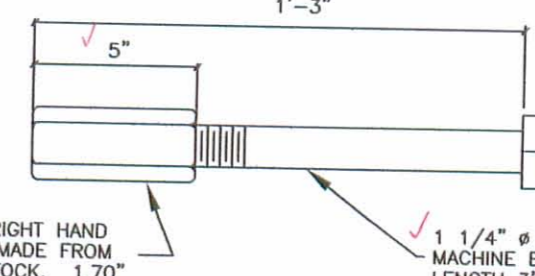
DETAIL "A"



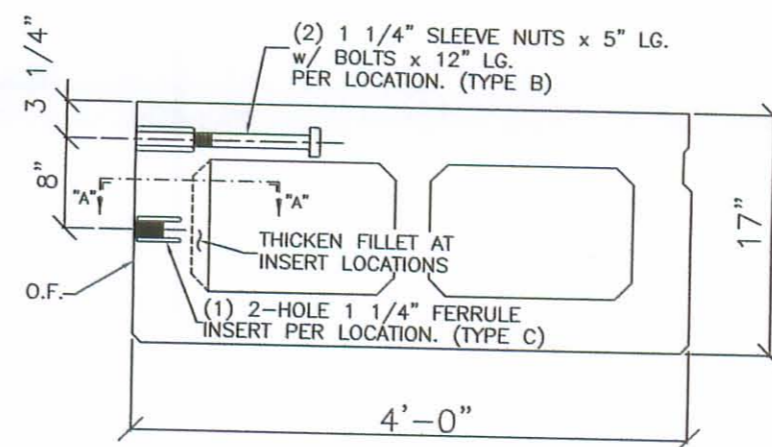
DETAIL "B"



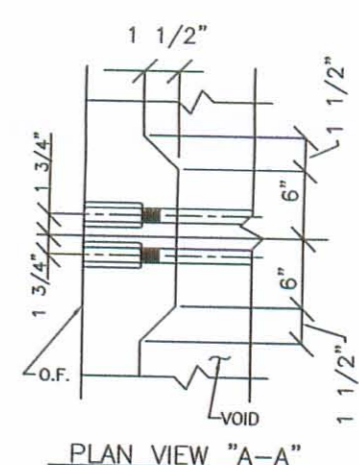
TYPE C INSERT



TYPE B INSERT



SECTION 1

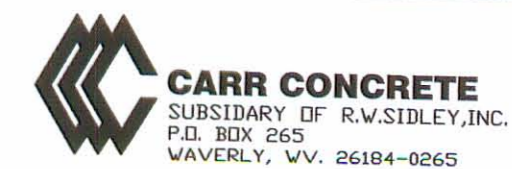


PLAN VIEW "A-A"

FABRICATION BILL OF MATERIALS

QUAN. PER PC.	DESCRIPTION	TOTAL QUAN.
A-1 (1) BEAM		
2	2" x 17" SLEEVE	2
3	3" x 48" SLEEVE	3
2	7 1/2" x 17 1/2" VOID x 19'-10"	2
2	7 1/2" x 17 1/2" VOID x 18'-2"	2
8	4 1/2" VOID DRAINS	8
14	TYPE B GUARDRAIL INSERTS	14
7	TYPE C GUARDRAIL INSERTS	7
A-2 (1) BEAM		
2	2" x 17" SLEEVE	2
3	3" x 48" SLEEVE	3
2	7 1/2" x 17 1/2" VOID x 19'-10"	2
2	7 1/2" x 17 1/2" VOID x 18'-2"	2
8	4 1/2" VOID DRAINS	8
14	TYPE B GUARDRAIL INSERTS	14
7	TYPE C GUARDRAIL INSERTS	7
B-1 (1) BEAM		
2	2" x 17" SLEEVE	2
3	3" x 48" SLEEVE	3
2	7 1/2" x 17 1/2" VOID x 19'-10"	2
2	7 1/2" x 17 1/2" VOID x 18'-2"	2
8	4 1/2" VOID DRAINS	8
B-2 (1) BEAM		
2	2" x 17" SLEEVE	2
6	3" x 48" SLEEVE	6
2	7 1/2" x 17 1/2" VOID x 19'-10"	2
2	7 1/2" x 17 1/2" VOID x 18'-2"	2
8	4 1/2" VOID DRAINS	8
B-3 (1) BEAM		
2	2" x 17" SLEEVE	2
3	3" x 48" SLEEVE	3
2	7 1/2" x 17 1/2" VOID x 19'-10"	2
2	7 1/2" x 17 1/2" VOID x 18'-2"	2
8	4 1/2" VOID DRAINS	8
B-4 (1) BEAM		
2	2" x 17" SLEEVE	2
6	3" x 48" SLEEVE	6
2	7 1/2" x 17 1/2" VOID x 19'-10"	2
2	7 1/2" x 17 1/2" VOID x 18'-2"	2
8	4 1/2" VOID DRAINS	8

⊙ INDICATES MARKED END OF BEAM

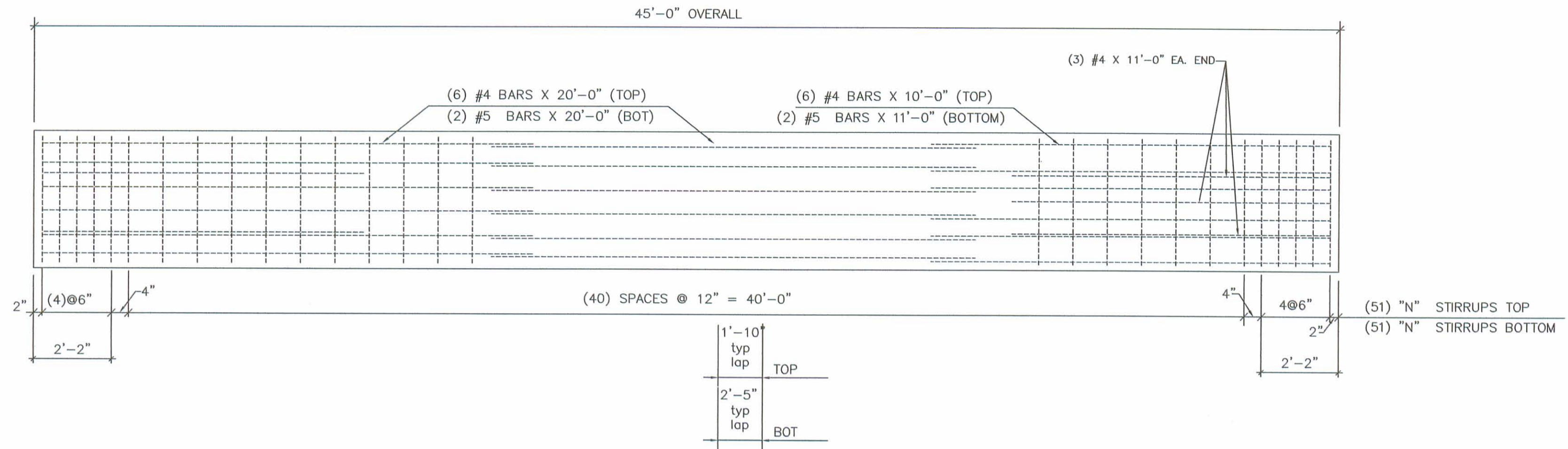


BR 34-7.20

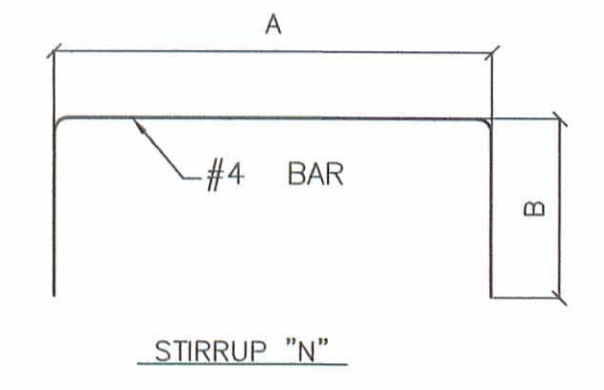
DRAWN BY: JNN
DATE: 4-11-07
CHECKED BY:

LOGAN COUNTY OHIO
LOGAN COUNTY ENGINEER

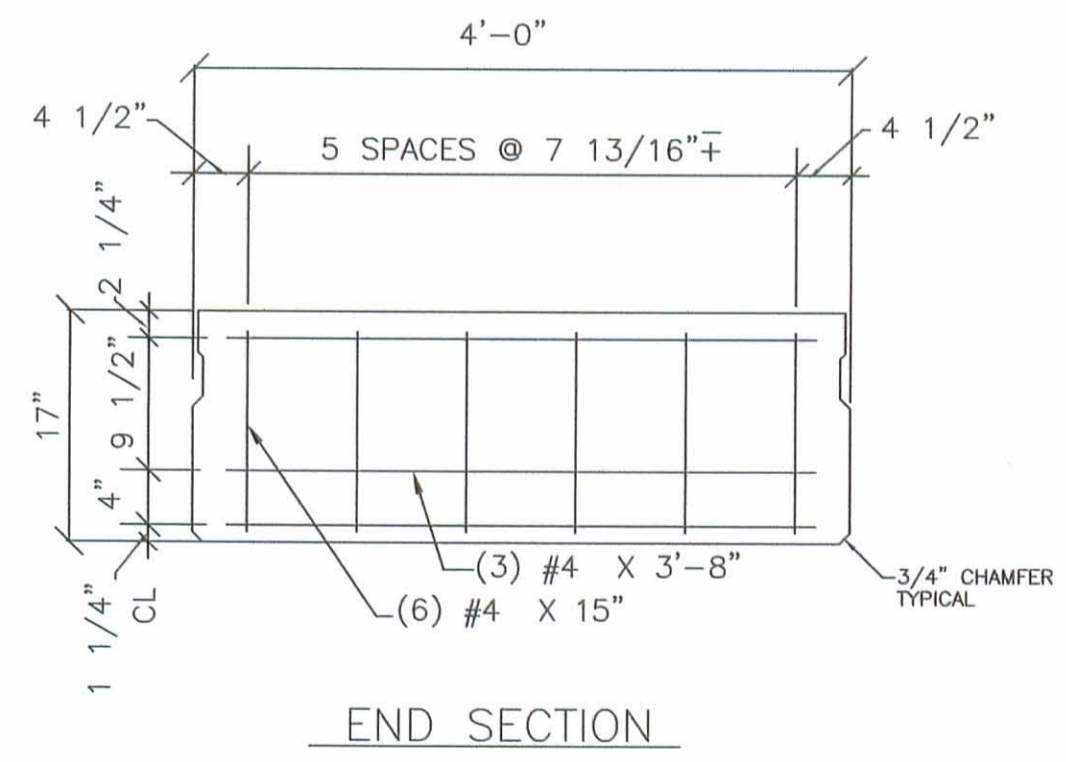
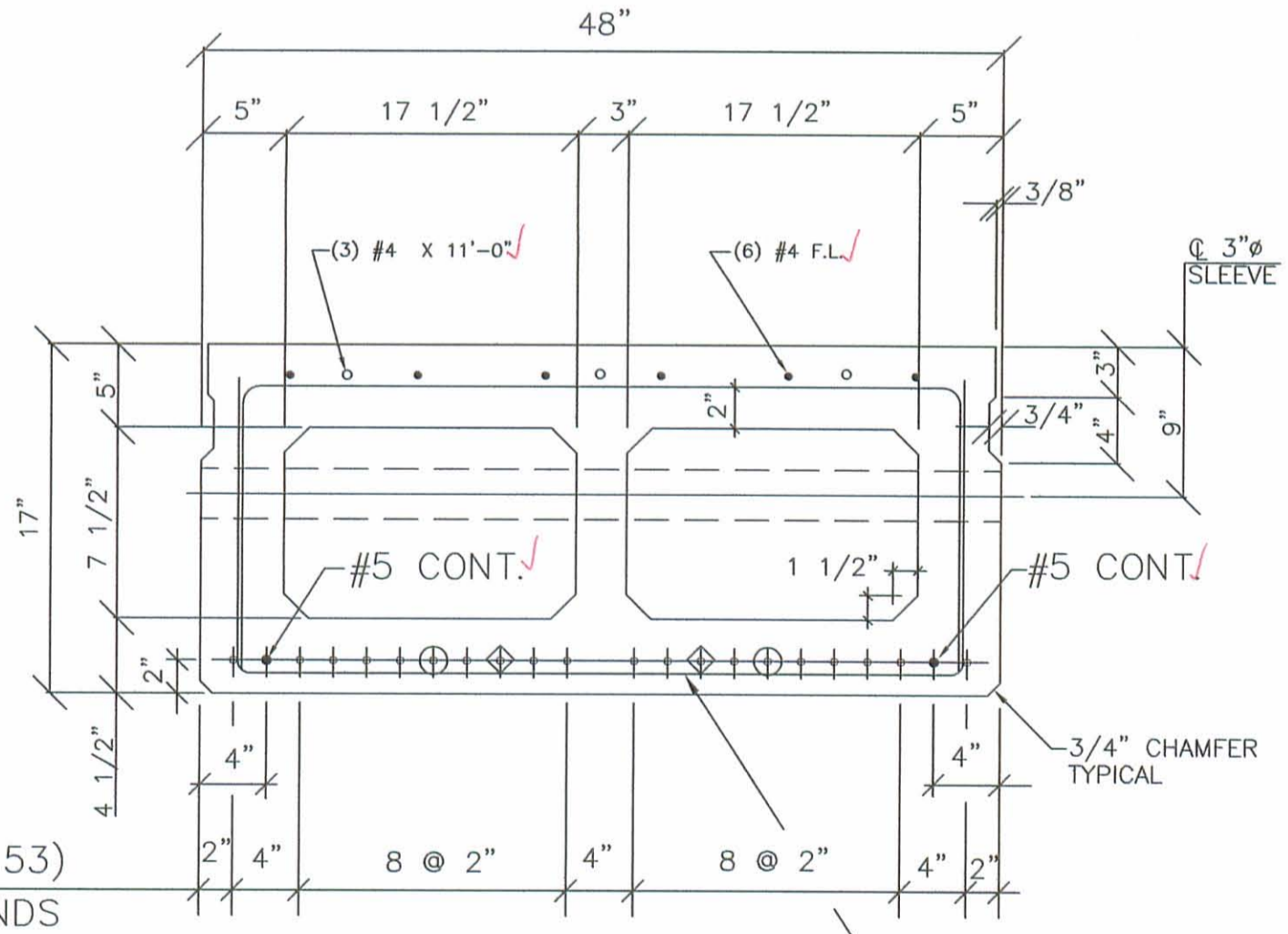
CCC JOB B71056
SHEET: 2 of 3



BILL OF MATERIAL				
QUAN. PER PC.	MARK NUMBER	DESCRIPTION		TOTAL QUAN.
REINFORCING FOR ALL (6) BEAMS				
102	N	#4 STIRRUP (BLACK)		612
12	STR	#4 BAR x 20'-0" (BLACK)		72
6	STR	#4 BAR x 10'-0" (BLACK)		36
4	STR	#5 BAR x 20'-0" (BLACK)		24
2	STR	#5 BAR x 11'-11" (BLACK)		12
6	STR	#4 BAR x 11'-0" (BLACK)		36
6	STR	#4 BAR x 3'-8" (BLACK)		36
12	STR	#4 BAR x 15" (BLACK)		72



STIRRUP SIZES						
MARK	TYPE	DIMENSIONS				
		A	B	C	D	E
N	1	43"	13"			



(20) 1/2"Ø 270 k (0.153)
LOW RELAXATION STRANDS

SECTION 2

N BARS @ 12"
(4) @ 6" EACH END
TOP & BOT
✓◇ INDICATES 2'-6" DEBONDING
✓○ INDICATES 1'-6" DEBONDING

⊗ INDICATES MARKED END OF BEAM

CARR CONCRETE
SUBSIDIARY OF R.W.SIDLEY, INC.
P.O. BOX 265
WAVERLY, WV. 26184-0265

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LOGAN COUNTY ENGINEER	CCC JOB B71056 SHEET: 3 of 3