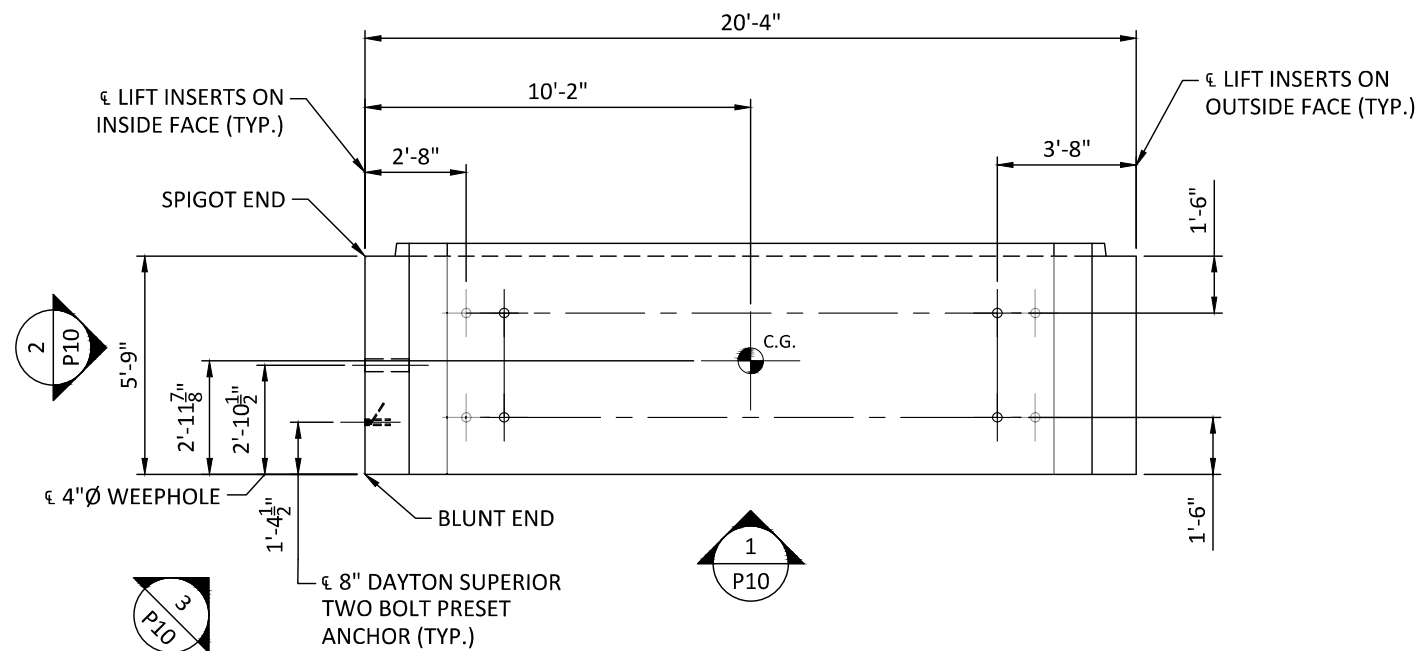
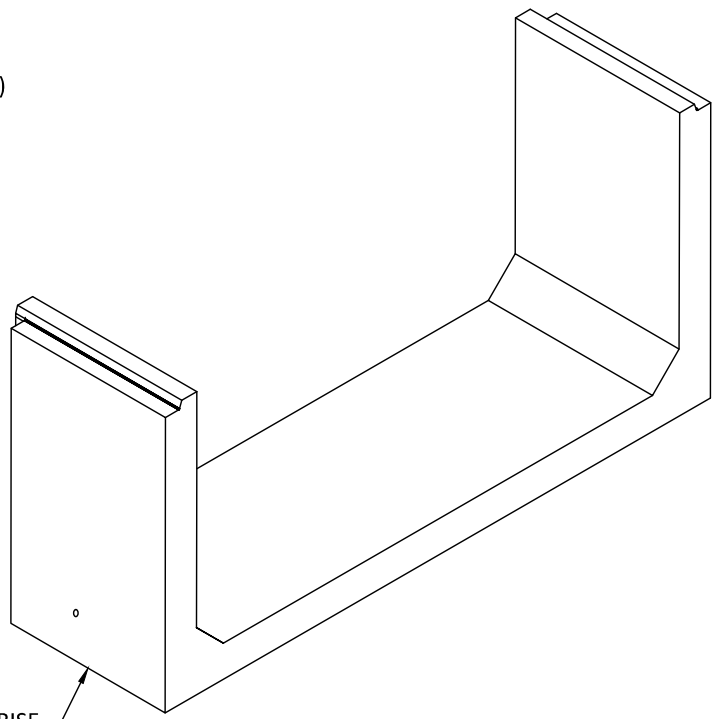


**25-3437 - TDOT Jackson CO CNZ250  
SR 53 CULVERT REPLACEMENT  
B3 - 1 TOTAL REQUIRED**

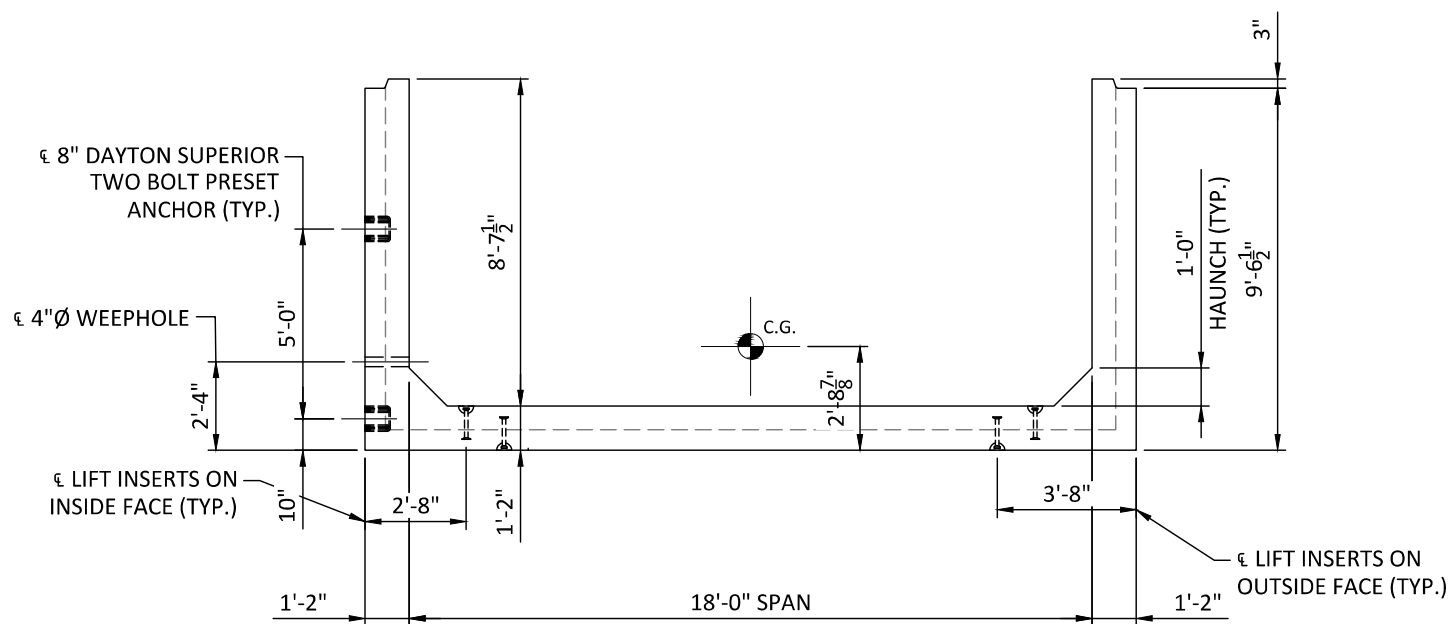


**PLAN VIEW TYPE B3 (BOTTOM)**  
UNIT WEIGHT = 19.9 TONS  
1 (B3) UNIT(S) NEEDED

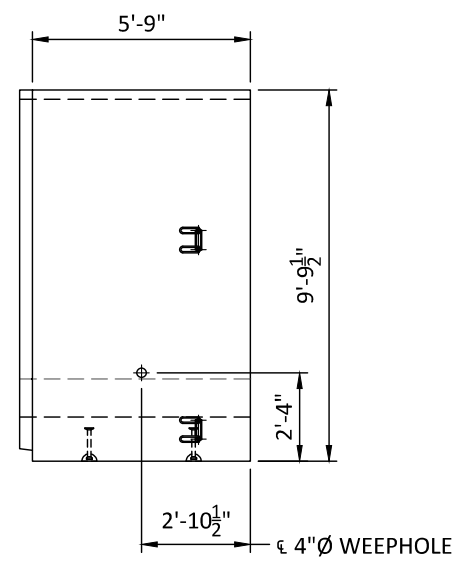


**ISOMETRIC**  
NOT TO SCALE

18'-0" SPAN x HALF OF 17'-0" RISE  
TOP BOX CULVERT UNIT



**ELEVATION**  
END VIEW



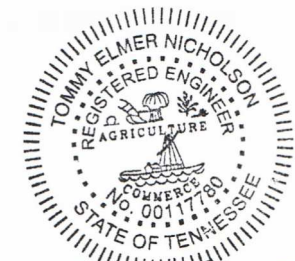
**ELEVATION**  
SIDE VIEW

**DESIGN NOTES**

1. F'c = 5,000 PSI.
2. SEE SHEET P4 FOR UNIT STEEL REINFORCING
3. ANY REINFORCING CUT AROUND OPENINGS OR INSERTS MUST BE REPLACED WITH EQUIVALENT
4. UNIT MAY NOT HANG LEVEL, ADJUST LIFTING CABLES AS NECESSARY

**APPROVED**  
1/15/2026

*Del A. King*  
ENGR. DIRECTOR, STRUCTURES



*T. King*  
01/14/2026

**FOR APPROVAL**

DATE	DESCRIPTION	ENG	STATE PROJECT # 445053-M3-005	PIN NO. 136243.00	BRIDGE ID # 445R0530017
7					
6					
5					
4					
3					
2					
1	1/14/26	JJC	NO CHANGES THIS SHEET	LOCALE: JACKSON COUNTY	STATE: TN

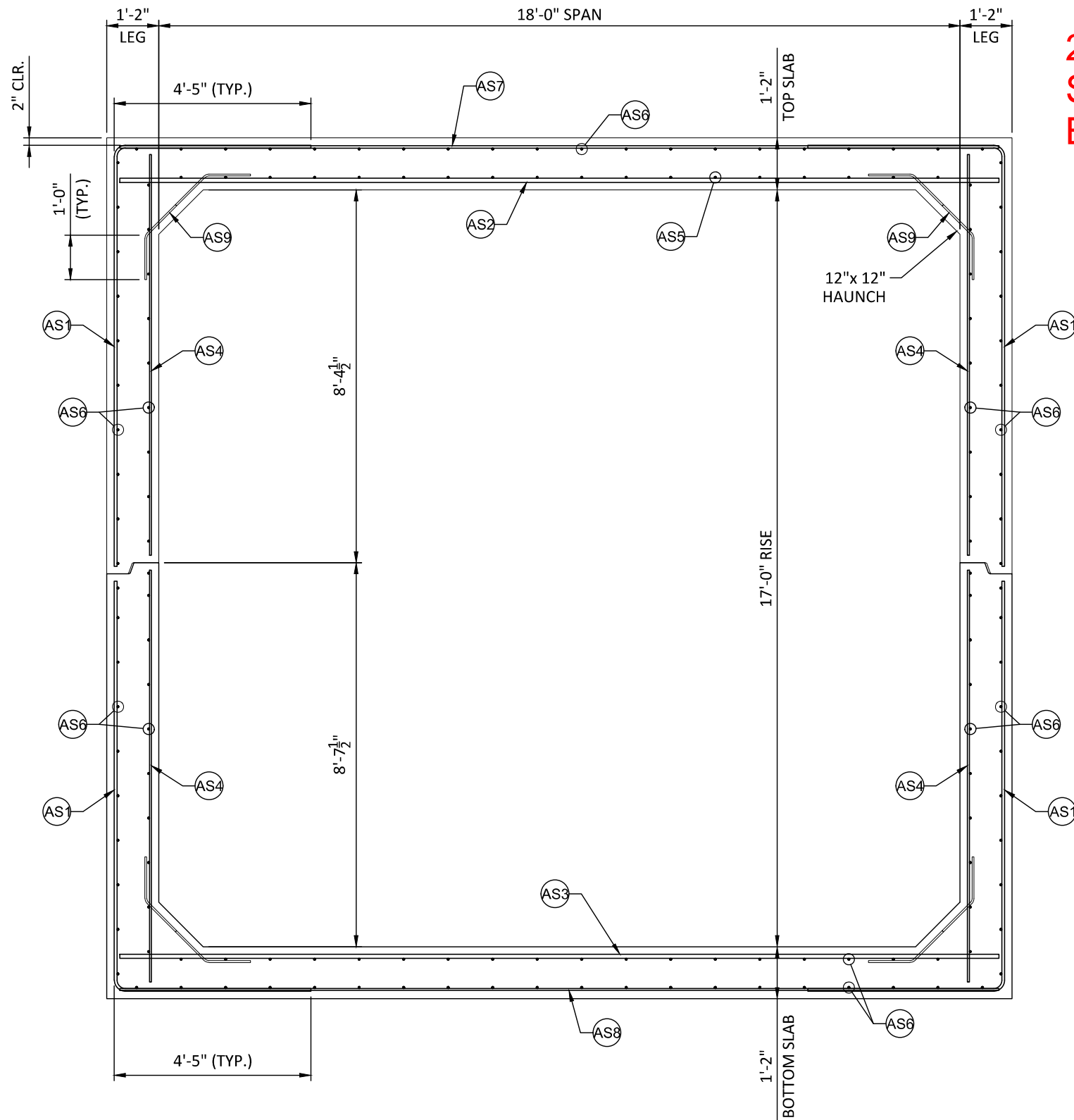
**SR 53 CULVERT REPLACEMENT**

PROVIDED BY:  
**ICAST**  
981 W 7TH STREET  
BEAVER DAM, KY 42320  
270.363.2238

DESIGNED BY:  
**PRETEK GROUP**  
P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

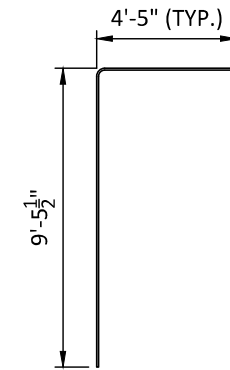
PROJECT NUMBER: 25-429
DATE: 12/17/2025
DESIGNED BY: KDK
DRAWN BY: SP
CHECKED BY: TEN

**P10**

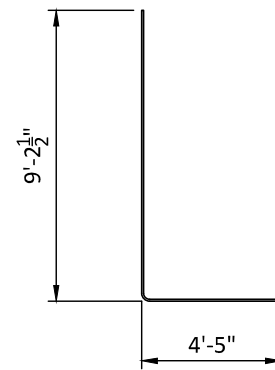


**SPLIT PRECAST (TYPE 2) CULVERT  
TYPICAL REINFORCING SECTION**

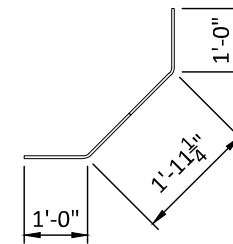
**25-3437 - TDOT Jackson CO CNZ250  
SR 53 CULVERT REPLACEMENT  
B3 - 1 TOTAL REQUIRED**



**AS1 (TOP)**



**AS1 (BOTTOM)**



**AS9**

**DESIGN DATA:**

1. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 5,000 PSI MINIMUM AT 28 DAYS.  
F'C = 3,500 PSI (MIN STRIPPING STRENGTH).
2. REINFORCING STEEL SHALL CONFORM TO ASTM A615 OR A706 AND HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI.
3. DESIGN LOAD: HL-93
4. ROADWAY SKEW ANGLE: ≈15°
5. 2" REINFORCING CLR. ON ALL SURFACES.
6. DEPTH OF EARTH COVER = 2'-0" MIN. TO 11'-0" MAX.
7. CULVERT TO BE MANUFACTURED IN ACCORDANCE WITH ASTM C1786.

**SECTION CHARACTERISTICS:**

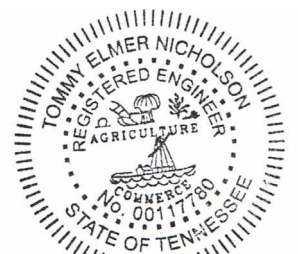
SPAN: 18'-0"  
RISE: 17'-0"  
WT: 14"  
TS: 14" (TOP SLAB)  
BS: 14" (BOTTOM SLAB)  
HAUNCH: 12"

**AREA OF STEEL REQUIRED (IN<sup>2</sup>/FT):**

As1 = 1.32 (#6 @ 4" O.C.)  
As2 = 3.00 (#9 @ 4" O.C.)  
As3 = 3.43 (#9 @ 3 1/2" O.C.)  
As4 = 0.34 (#4 @ 7" O.C.)  
As5 = 0.20 (#4 @ 12" O.C.)  
As6 = 0.20 (#4 @ 12" O.C.)  
As7 = 0.62 (#5 @ 6" O.C.)  
As8 = 0.34 (#4 @ 7" O.C.)  
As9 = 0.34 (#4 @ 7" O.C.)

**APPROVED  
1/15/2026**

*Del A. Krumpal*  
ENGR. DIRECTOR, STRUCTURES



*T. Elmer Nicholson*  
01/14/2026

**FOR APPROVAL**

DATE	DESCRIPTION	ENG	STATE PROJECT # 445053-M3-005	PIN NO. 136243.00	BRIDGE ID # 445R0530017
7					
6					
5					
4					
3					
2					
1	1/14/26	JJC	NO CHANGES THIS SHEET	JJC	LOCALE: JACKSON COUNTY

**SR 53 CULVERT REPLACEMENT**

PROVIDED BY:



981 W 7TH STREET  
BEAVER DAM, KY 42320  
270.363.2238

DESIGNED BY:



P.O. BOX 351  
BELLBROOK, OH 45305  
800.241.0925

PROJECT NUMBER: 25-429

DATE: 12/17/2025

DESIGNED BY: KDK

DRAWN BY: SP

CHECKED BY: TEN

**P4**

STATE: TN