

Job Name: 25-2898 - Hunter's Ridge Ph.1
Job Location: Owensboro, KY
Contractor: Ernie Davis & Sons Mechanical, Inc.

Plant: 100
5/29/2026 8:41:20 AM

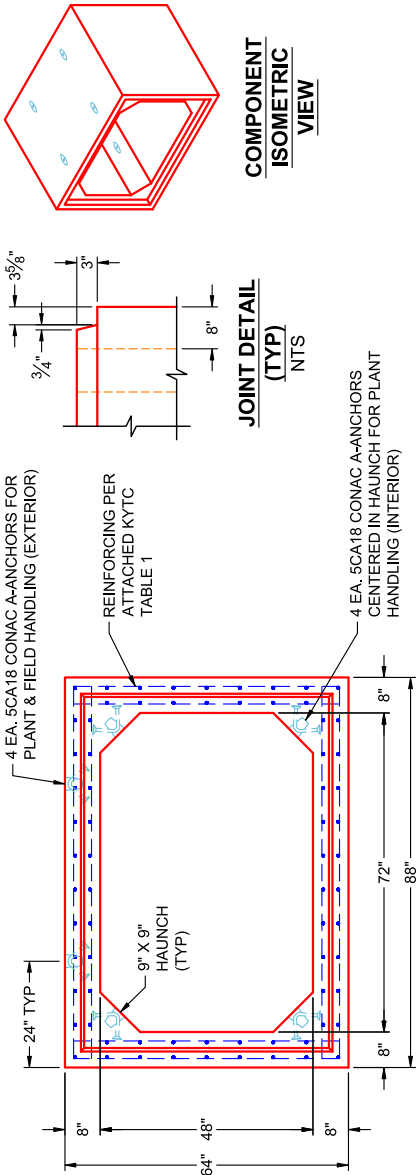
Tech: Jared - A
PC: A. Chambers



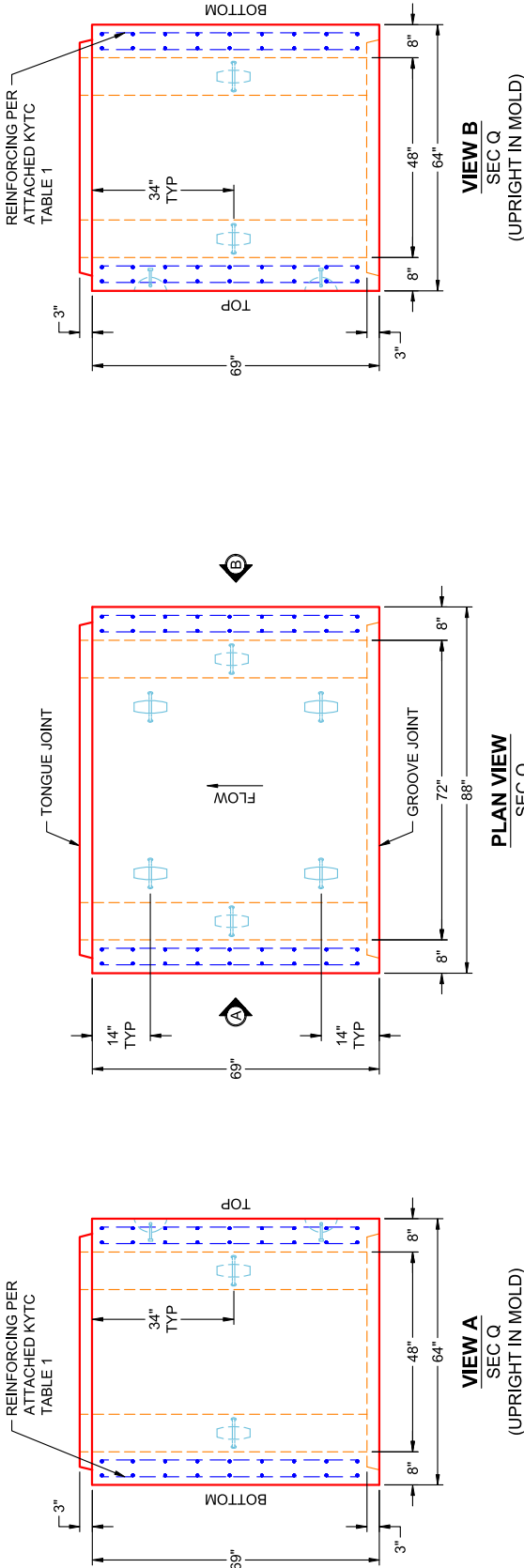
Structure ID: BC 6 x 4 (Sec Q)

P1 BC048072-08WLF-9H

BOX CULVERT (08W/08F/08T) G/T



END VIEW
TYPICAL



- GENERAL NOTES:**
- PER SECTION 605 OF KYTC STANDARD SPECS FOR ROAD & BRIDGE CONSTRUCTION
 - LOAD REQUIREMENTS: KY-HL93 (KY TABLE 1)
 - REINFORCEMENT PER ATTACHED KYTC TABLE 1
 - COVER DEPTH: 0' - 4"
 - CONCRETE: 5,000 PSI AT 28 DAYS
 - JOINT SEALANT: 1" BUTYL MASTIC (CS-102) EXTERIOR JOINT WRAP: 12" WIDE (CS-212)
 - WEIGHT: 6' X 4' RCBC = 2,354 LBS / LF (5'-9" LONG SECTION = 13,537 LBS)

PRODUCTION WORK ORDER



- QUALITY CONTROL CHECKLIST**
- ☐ ALL DIMENSIONS CORRECT.
 - ☐ LIFTERS INSTALLED INSIDE.
 - ☐ RECESS WITH HAUNCHES CORRECT.
 - ☐ REINFORCING CORRECT.
 - ☐ SURFACE QUALITY ACCEPTABLE.
 - ☐ LIFTERS INSTALLED OUTSIDE.
 - ☐ PRODUCT SQUARE.

PRODUCT I.D.: BC048072-08WLF-9H
PRODUCT VIEW: RIGHT SIDE UP
PLANT: BEAVER DAM, KY
WEIGHT: 13,537 LBS
TOP SECTION JOINT: TONGUE
BASE SECTION JOINT: GROOVE
QC CHECK INITIALS:

DESCRIPTION: 72" X 48" X 69" BOX CULVERT (8" WALLS & 9" HAUNCH)
CUSTOMER: ERNIE DAVIS & SONS MECHANICAL, INC.
PROJECT: HUNTER'S RIDGE PH 1
STRUCTURE: BC 6 X 4 (SEC Q)
ORDER NO: 25-2898
PE: J.H. ROSS
DRAWING: K. CARDWELL
DATE: 05/29/26
SCALE: NTS
PG. 1 OF 1



- * <L1> is Splice Length
- * (AS7) is Top Slab Outside
- * (AS8) is Bottom Slab Outside
- * See Box Culvert Design Summary Sheet for transverse and distribution reinforcement, as required.
- * For sidewall thicknesses of 6 in. and above, extend AS2 and AS3 a min. of 4 in. beyond the inside face of the sidewall. For thicknesses less than 6 in., extend AS2 and AS3 at least to within 1-1/2 in. of the outside face of the sidewall.

Notes:

- 1) Other reinforcement schemes that provide the required reinforcement areas at all locations identified in the program output are acceptable.
- 2) Longitudinal reinforcement is not shown for clarity, see AASHTO M259 for longitudinal reinforcement and for additional requirements.

KY Table 1

Precast Culvert KYHL-93 Design Table

Design Earth Cover, ft		As1	As2	As3	As4	As7	As8	As5	As6
6x4x7	0<2*	0.202	0.421	0.266	0.168	0.192	0.168	0.192	0.192
	2<3	0.251	0.368	0.288	0.168	0.168	0.168		
	3-5	0.19	0.271	0.24	0.168	0.168	0.168		
	10	0.168	0.228	0.234	0.168	0.168	0.168		
	15	0.216	0.306	0.313	0.168	0.168	0.168		
	20	0.275	0.391	0.398	0.168	0.168	0.168		
	25	0.338	0.479	0.487	0.168	0.168	0.168		
	30	0.404	0.571	0.579	0.168	0.168	0.168		
	35	0.473	0.667	0.675	0.168	0.168	0.168		
*top slab 8"									

Design Earth Cover, ft		As1	As2	As3	As4	As7	As8	As5	As6
6x5x7	0<2*	0.192	0.449	0.291	0.168	0.192	0.168	0.192	0.192
	2<3	0.22	0.398	0.316	0.168	0.168	0.168		
	3-5	0.168	0.294	0.262	0.168	0.168	0.168		
	10	0.168	0.243	0.252	0.168	0.168	0.168		
	15	0.188	0.326	0.336	0.168	0.168	0.168		
	20	0.238	0.417	0.427	0.168	0.168	0.168		
	25	0.291	0.512	0.522	0.168	0.168	0.168		
	30	0.347	0.611	0.622	0.168	0.168	0.168		
	35	0.406	0.714	0.725	0.168	0.168	0.168		
*top slab 8"									

Design Earth Cover, ft		As1	As2	As3	As4	As7	As8	As5	As6
6x6x7	0<2*	0.192	0.47	0.311	0.168	0.192	0.168	0.192	0.192
	2<3	0.195	0.421	0.337	0.168	0.168	0.168		
	3-5	0.168	0.311	0.277	0.168	0.168	0.168		
	10	0.168	0.252	0.263	0.168	0.168	0.168		
	15	0.168	0.338	0.349	0.168	0.168	0.168		
	20	0.212	0.432	0.444	0.168	0.168	0.168		
	25	0.259	0.531	0.543	0.168	0.168	0.168		
	30	0.308	0.634	0.647	0.168	0.168	0.168		
	35	0.359	0.741	0.755	0.168	0.168	0.168		
*top slab 8"									

Default Configuration Image

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Design Code: 2450110-LL10D

Strength Reduction Factors: Design Code: 1, Flexure: 0.9, Shear: 0.25

Axial Thrust Load Factor: User Specified

Crack Width (CHEDC Only): 0.25 mm

Reinforcement Diameter: 1

Maximum Spacing: 4 in.

Soil Load Data: Soil Unit Weight: 120 pcf, Minimum Lateral Pressure Coefficient: 0.25, Maximum Lateral Pressure Coefficient: 0.5, Vertical Arching Factor: Embankment/Compacted

Reinforcement Details: Sidewall Outside (AS1) to Bottom Outside (AS8) with diameters and thicknesses.

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Data Directory: Jeremiah Littlejohn Documents 3052483

Section Length: 8 ft

Box Geometry: Top Slab Thickness, Bottom Slab Thickness, Sidewall Thickness, Horizontal Haunch Length, Vertical Haunch Length.

Clear Concrete Covers: Top Slab Outside Face, Top Slab Inside Face, Bottom Slab Outside Face, Bottom Slab Inside Face, Sidewall Outside Face, Sidewall Inside Face.

Material Properties: Main Reinforcement Yield Strength (65000 psi), Design Concrete Strength (5000 psi), Concrete Unit Weight (150 pcf), Stirrup Reinforcement Developable Yield Stress (60000 psi), Total Service Stress Limit (100 %).

Reinforcement Type: Welded Wire

Restore Default Settings

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Live Load Data: HS Series, Interstate/Tandem, Cooper Series, CHEDC Truck, Tandem/Tandem, Other, None.

Magnitude (N): 25 tons, 80 kips, 140 kips, 140 kips, 15 kips.

Direction of Traffic: Parallel, To Span.

Impact Factor Options: Design Code: 1.

Impact Factor (User Def): 1.

Lane Load: 0 lb/ft.

Live Load Distribution Factor (LLDF): 1.15.

Fluid Loads: Depth of Fluid (1), Fluid Unit Weight (62.5 pcf).

Surcharge Loads: Uniform Vertical (0 lb/ft), Lateral - Top of Culvert (LLTC) (90 lb/ft), Lateral - Bottom of Culvert (LLBC) (90 lb/ft).

Interstate/Tandem Truck Wheel Layout: Diagram showing 14 ft spacing, 5 ft wheel spacing, 0.67 ft wheel width, 0.5 ft wheel width, 4 ft wheel width, A=4 ft load.

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User Specified (Not by Code): Footprint, Length, Width.

Interstate/Tandem Truck Wheel Layout: Diagram showing 14 ft spacing, 5 ft wheel spacing, 0.67 ft wheel width, 0.5 ft wheel width, 4 ft wheel width, A=4 ft load.

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