Job Name: 26-1453 Clarksville, TN SPC13A Job Location: Clarksville, TN Contractor: Cleary Construction, Inc.	Plant: Beaver Dam 4/23/2026 7:30:29 AM	Tech: J. Coppage PC: C. Goff	

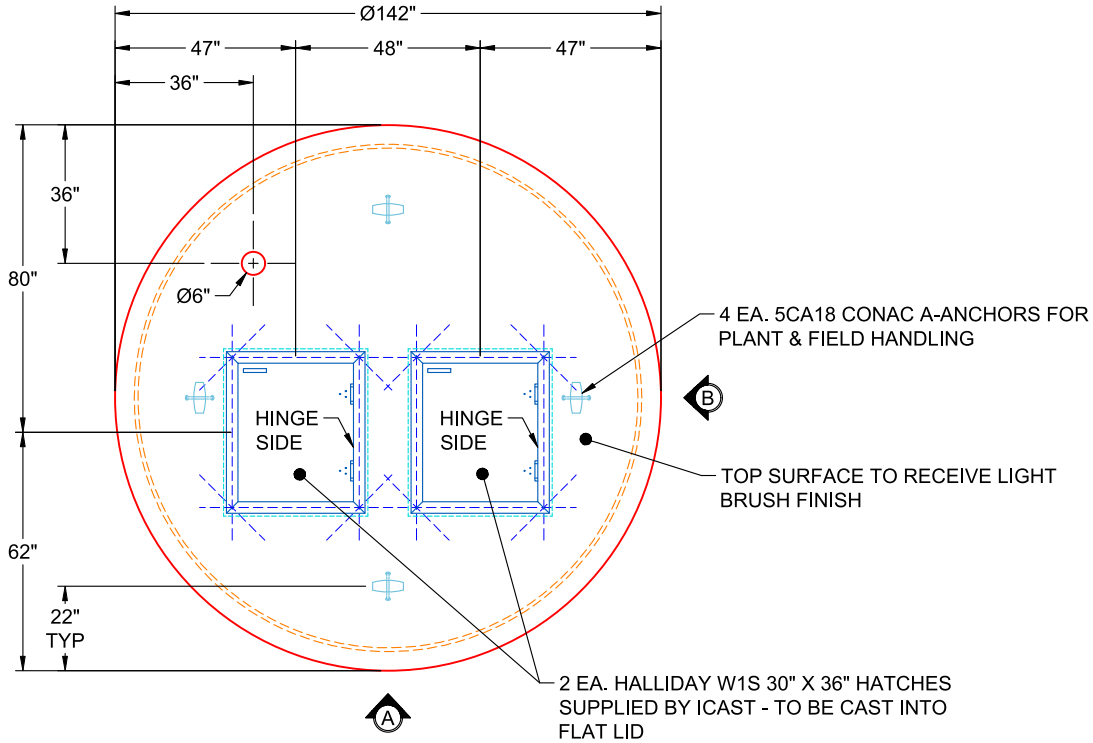
Structure ID: Wet Well-11-11

P5 MH120LD18SCDARED MH FLAT TOP w/2x 30"x36" Hatches CONBLOCK CDA RED F/G

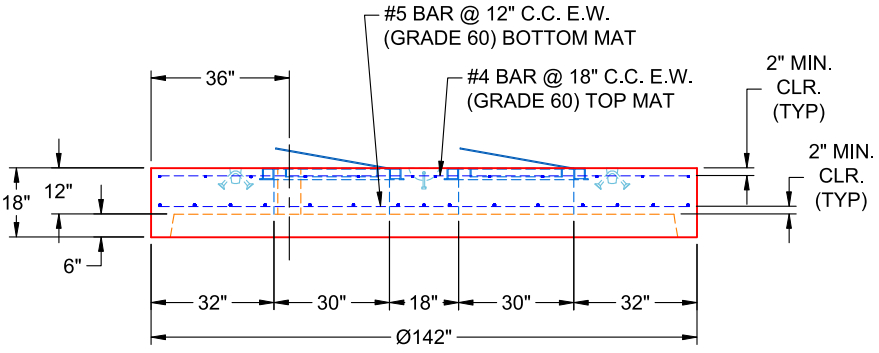
P6) 30" x 36" - HATCH (CAST FLUSH) - 0"	0 lb
P5) 120" - MH FLAT TOP w/2x 30"x36" Hatches CONBLOCK CDA RED F/G - 18"	15235 lb
P4) 120" - MH RISER w/CONBLOCK CDA RED T/G - 84"	31843 lb
P3) 120" - MH RISER w/CONBLOCK CDA RED T/G - 96"	36468 lb
P2) 120" - MH RISER w/CONBLOCK CDA RED T/G - 96"	36399 lb
P1) 120" - MH BASE SLAB w/CONBLOCK CDA RED T/n - 12"	22837 lb
4) JOINT WRAP - 12" WD x 120" MAC WRAP	0 lb
2) HATCH (Alum.) - HALLIDAY W1S 30"x36"	138 lb
1) This Structure Includes a Cast-in Item - Halliday W1S 30" x 36" Hatches (Supplied by iCast)	0 lb
1) ADMIXTURE CONBLOCK CDA RED	0 lb
4) 120" - Conseal CS-231 1.00" (Double)	0 lb
2) Z-Lok - C107-3	2 lb
1) A-Lok - 0285	1 lb
Structure Total:	142923 lb

Structure Notes:

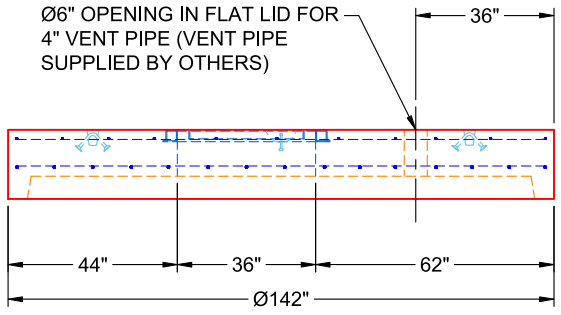
1. PER ASTM C-478 SPECIFICATIONS
2. CONCRETE: 4,000 PSI AT 28 DAYS
3. REINFORCEMENT - 2" MIN. REBAR CLEARANCE (TYP):
   - TOP MAT: #4 BAR @ 18" C.C. E.W. (GRADE 60)
   - BOTTOM MAT: #5 BAR @ 12" C.C. E.W. (GRADE 60)
4. CONBLOCK CDA RED ADMIXTURE REQUIRED
5. 2 EA. HALLIDAY W1S 30" X 36" HATCHES SUPPLIED BY ICAST - TO BE CAST INTO FLAT LID
6. VENT PIPE SUPPLIED BY OTHERS
7. LIFTERS: 4 EA. 5CA18 CONAC A-ANCHORS FOR PLANT & FIELD HANDLING - INSTALLED AS SHOWN
8. TOP SURFACE TO RECEIVE LIGHT BRUSH FINISH



PLAN VIEW
(RIGHT SIDE UP)



VIEW A
(RIGHT SIDE UP)



VIEW B
(RIGHT SIDE UP)

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 11"	Height (Ext): 18"	Weight (Net): 15235 lb Volume (Net): 3.89cu.yd

Job Number:

26-1453

Job Name:

SPC13A

Structure:

Wet Well-11-11

Note:

2 Each Halliday W1S 30” x 36” Hatches Supplied By iCast To Be Cast Into Flat Lid

Job Name: 26-2485 855358 Fuqua Development
Job Location: Nicholasville, KY
Contractor: Contech Engineering Solutions

Plant: Beaver Dam
6/5/2026 8:56:27 AM

Tech: S. Felletter
PC: C. Goff

Structure ID: 15-CS-12

P1 MH144BVF — MH MONOBASE 14F, Custom Ht T/n

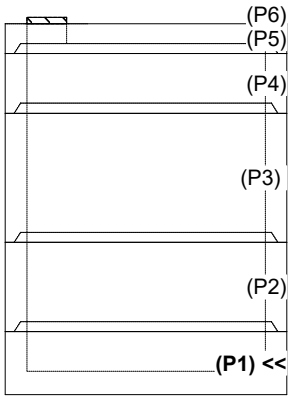
P6) 24" - CASTING HEIGHT - 4"	0 lb
P5) 144" - MH FLAT TOP SPEC. (2 - 24"ø HOLES) F/G - 18"	23623 lb
P4) 144" - MH RISER T/G - 36"	19370 lb
P3) 144" - MH RISER T/G - 78"	37954 lb
P2) 144" - MH RISER T/G - 54"	29054 lb
P1) 144" - MH MONOBASE 14F, Custom Ht T/n - 24"	39578 lb
1) ASSEMBLY REQUIRED - BRACKETS ONLY	0 lb
1) CVSTENCILING	0 lb
4) 144" - Conseal CS-102 1.00"	0 lb
1) 24" - Conseal CS-102 1.00"	0 lb
2) Hole - 48	0 lb
Structure Total:	149579 lb

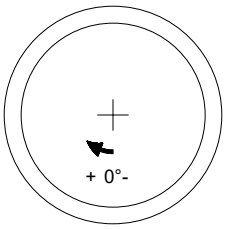
Rim: 1019.05' Rim to Invert: 9.75' Slack: 11.036" Sump: 108.036" Step Position:

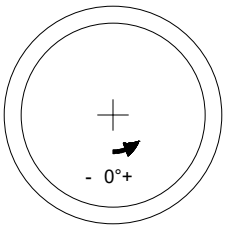
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. 4" CASTING BY OTHERS
4. LIFTING ANCHORS TO BE INSTALLED ON THE OUTSIDE OF THE STRUCTURE
5. ICAST TO INSTALL BRACKETS ONLY
6. CONTECH'S LOGO AS WELL AS THE INLET AND OUTLET MUST BE STENCILED ONTO THE STRUCTURE
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .36)
- FLOOR (As .47) #5 BARS AT 8" C.C.E.W.

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

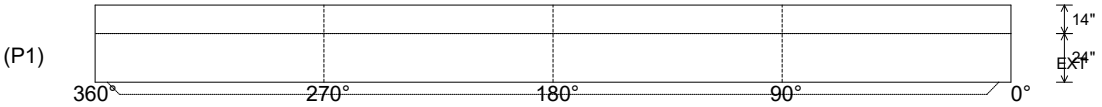
RIGHT-SIDE UP VIEW (int. dimensions) UPSIDE-DOWN VIEW (int. dimenions)







INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Tongue	Wall Thickness: 13"	Height (Int): 24"	Weight (Net): 39578 lb
Coating (Ext):	Seam Dn: n/a	Floor Height: 14"	Height (Ext): 38"	Volume (Net): 10.11cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:39:14 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 29 ST-CI

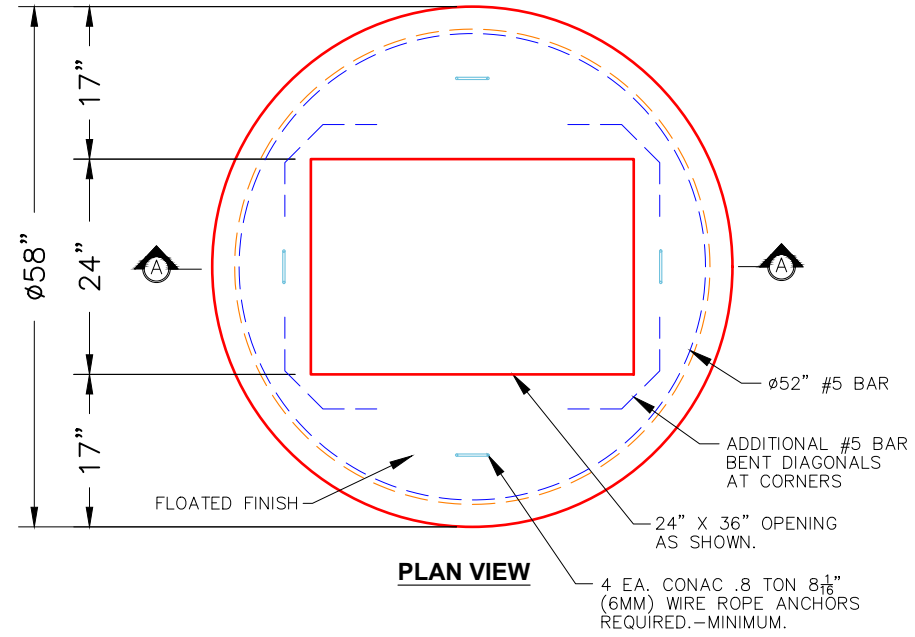
P2 MH048LD12-24X36RECT MH FLAT TOP w/24"x36" Hole F/G

P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 45"	3877 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
1) Hole - 32	0 lb
1) Hole - 26	0 lb
Structure Total:	5619 lb

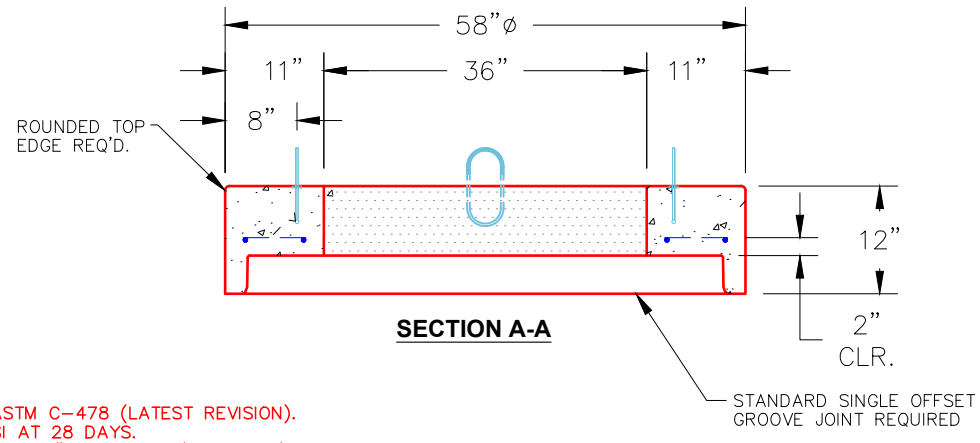
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.

.

REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:
1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" O.C. E.W. (GRADE 60).

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 5"	Height (Ext): 12"	Weight (Net): 1300 lb Volume (Net): 0.46cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:39:13 PM	Tech: Jared - F PC: E. Bardley	

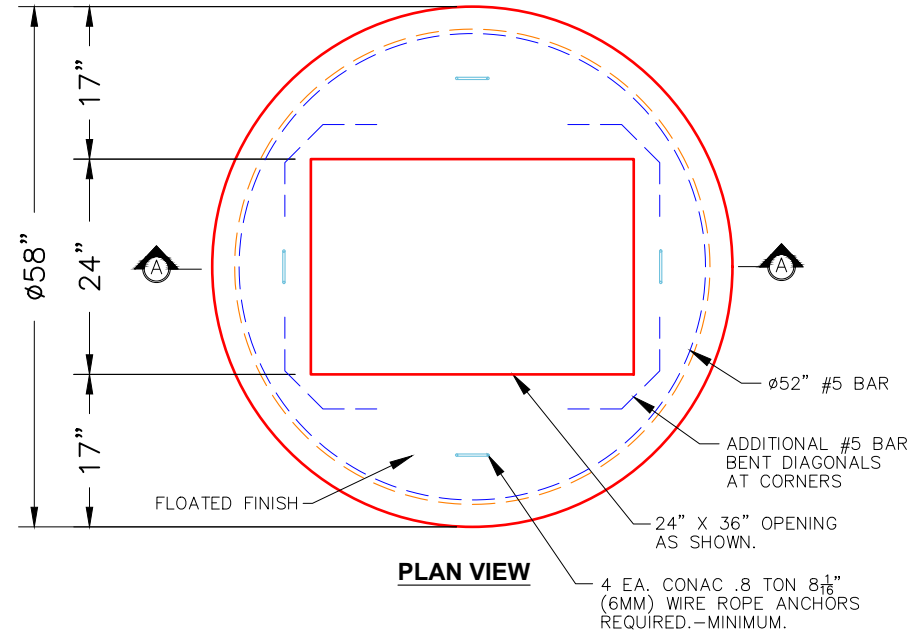
Structure ID: 28 ST-CI

P2 MH048LD12-24X36RECT MH FLAT TOP w/24"x36" Hole F/G

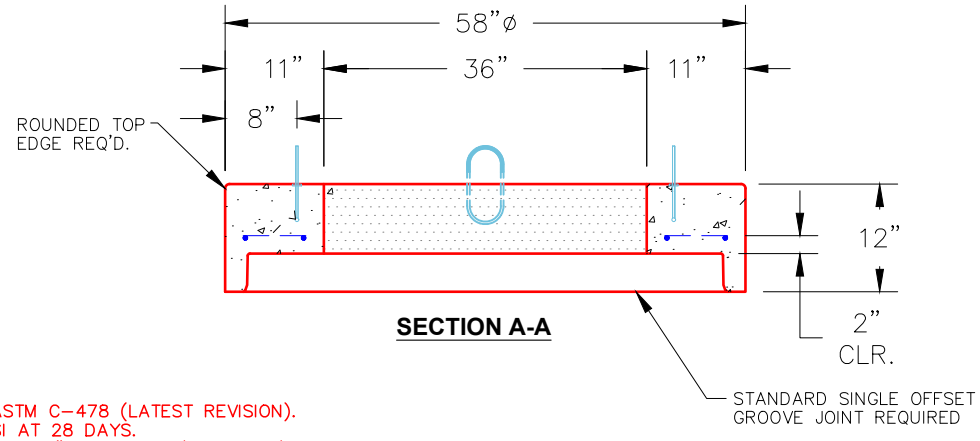
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 45"	3747 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
2) Hole - 32	0 lb
Structure Total:	5489 lb

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.

.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:
1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" O.C. E.W. (GRADE 60).

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 5"	Height (Ext): 12"	Weight (Net): 1300 lb Volume (Net): 0.46cu.yd

Job Name: 26-2171 - Lake Malone Campground Multi Park West
Job Location: Lewisburg, KY
Contractor: Sensabaugh Design & Construction, LLC

Plant: 100
6/11/2026 3:15:50 PM

Tech: Jared - F
PC: M. Sullivan

Structure ID: SSMH-E1

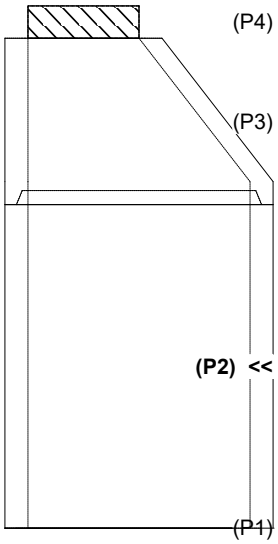
P2 MH048RSVF — **MH RISER Custom Ht T/F**

P4) 24" - CASTING HEIGHT - 7"	0 lb
P3) 48" - ECC CONE w/ 24" HOLE F/G - 36"	3000 lb
P2) 48" - MH RISER Custom Ht T/F - 70"	4637 lb
P1) 48" - P.I.P. BY OTHERS - BTM SLAB F/n - 0"	0 lb
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212	0 lb
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)	0 lb
1) 48" - MH INVERT CHANNEL - FULL HEIGHT	1440 lb
1) CASTING - HOE MC-315 F/C Sanitary	258 lb
2) 48" - Conseal CS-102 1.00" (Double)	0 lb
1) 24" - Conseal CS-102 1.00" (Double)	0 lb
2) DOGHOUSE - 12"x18"	0 lb
1) PSX - 8QRS-S NYLO	6 lb
1) PSX - 12-06 NYLO	8 lb
9) MH Step ML-10-TDS-NCR - 10"	0 lb
Structure Total:	9350 lb

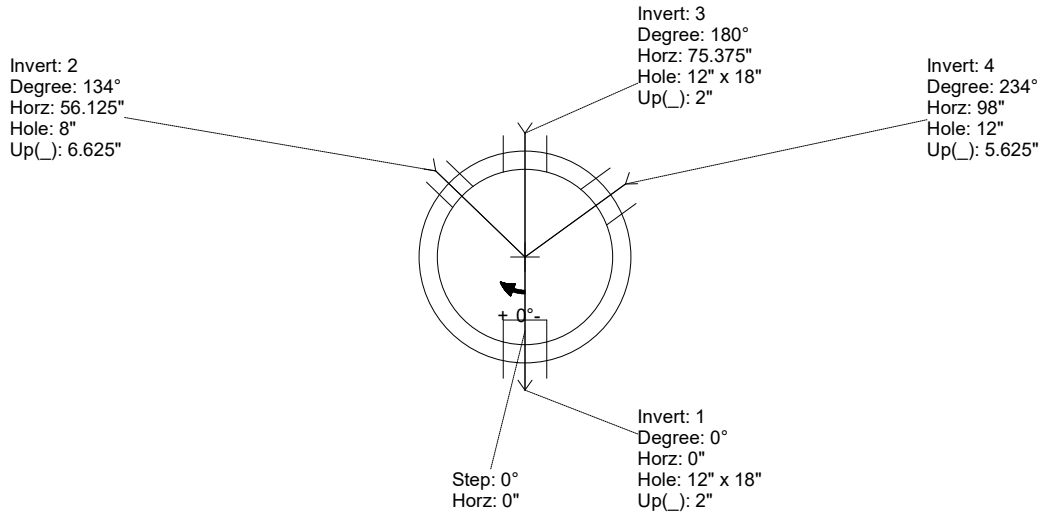
Rim: 567.82' Rim to Invert: 8.87' Slack: 1.44" Sump: 8" Step Position: 0°

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING SUPPLIED BY ICAST (HOE MC-315 F/C "SANITARY").
.
REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)

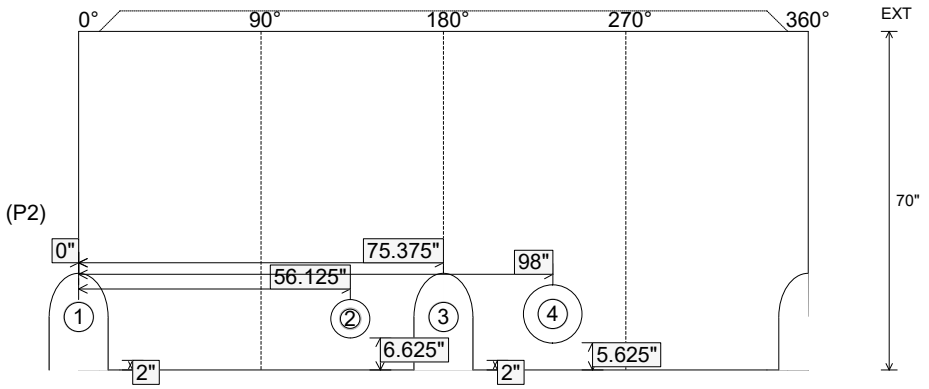
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	558.95'	0°	0"	6" PVC SDR35	6.25"	DOGHOUSE 12"x18"	12" x 18"	12.129"	2"	0"
Invert 2	559'	134°	67.875"	4" PVC SCH40	4.5"	PSX 8QRS-S NYLO	8"	8.038"	6.625"	0"
Invert 3	558.95'	180°	91.125"	6" PVC SDR35	6.25"	DOGHOUSE 12"x18"	12" x 18"	12.129"	2"	0"
Invert 4	559'	234°	118.5"	6" PVC SDR35	6.25"	PSX 12-06 NYLO	12"	12.129"	5.625"	0"
Invert 5										
Invert 6										
Invert 7										
Invert 8										



RIGHT-SIDE UP VIEW (int. dimensions)



INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Tongue	Wall Thickness: 5"	Height (Int): 70"	Weight (Net): 4637 lb
Coating (Ext):	Seam Dn: Flat	Floor Height: 0"	Height (Ext): 70"	Volume (Net): 1.18cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:34:08 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 28 ST-CI

P1 MH048BAVF **MH BASE Custom Ht T/n**

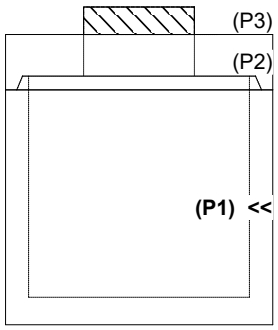
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 45"	3747 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
2) Hole - 32	0 lb
Structure Total:	5489 lb

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.

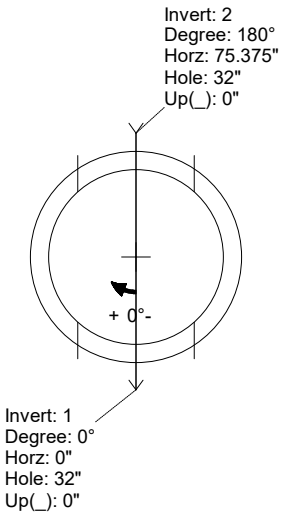
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 687.61' Rim to Invert: 5' Slack: 0" Sump: 3" Step Position:

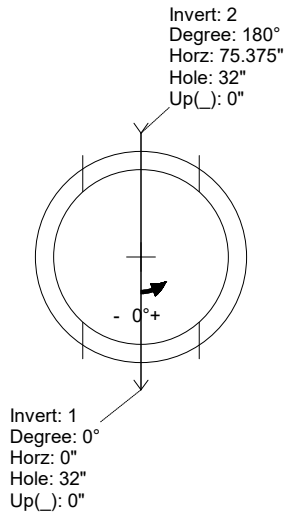
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	682.61'	0°	0"	24" RCP B WALL	30"	Hole 32	32"	35.027"	0"	0"
Invert 2	682.61'	180°	91.125"	24" RCP B WALL	30"	Hole 32	32"	35.027"	0"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



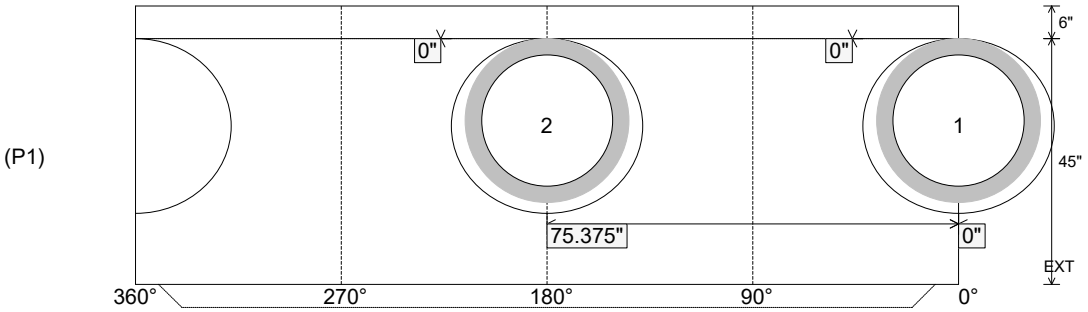
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 45" Height (Ext): 51"	Weight (Net): 3747 lb Volume (Net): 0.96cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:33:56 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 5 ST-CI

P1 MH048BAVF MH BASE Custom Ht T/n

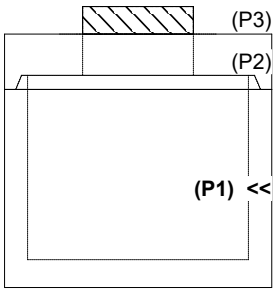
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 37"	3586 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
2) Hole - 22	0 lb
Structure Total:	5328 lb

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.

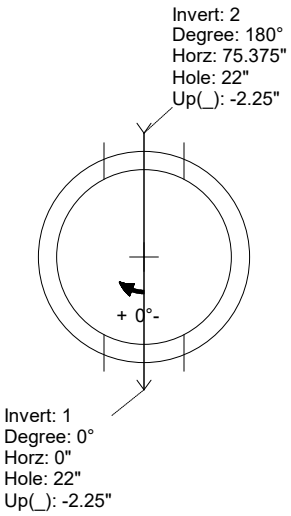
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 680.49' Rim to Invert: 4.6' Slack: 0.2" Sump: 0" Step Position:

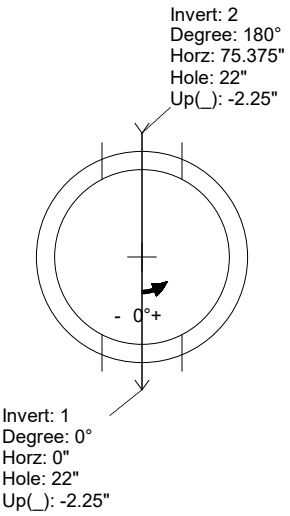
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	675.89'	0°	0"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 2	675.89'	180°	91.125"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



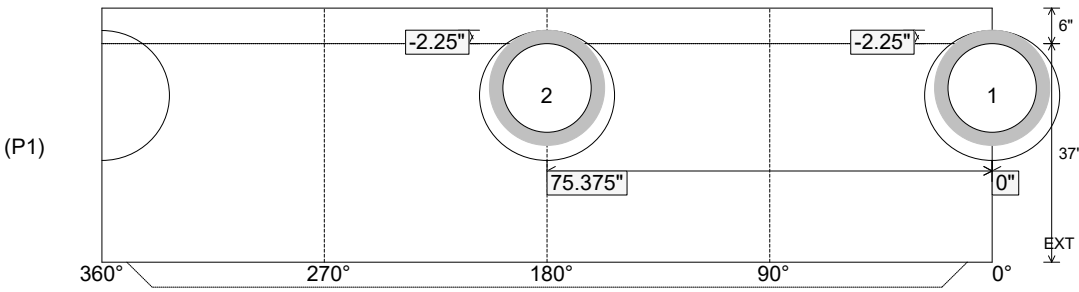
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 37" Height (Ext): 43"	Weight (Net): 3586 lb Volume (Net): 0.92cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:33:56 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 4 ST-CI

P1 MH048BAVF **MH BASE Custom Ht T/n**

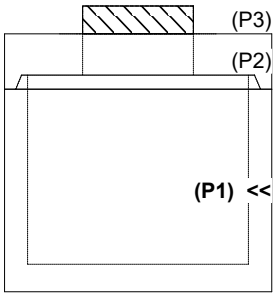
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 38"	3491 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
3) Hole - 22	0 lb
Structure Total:	5233 lb

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.

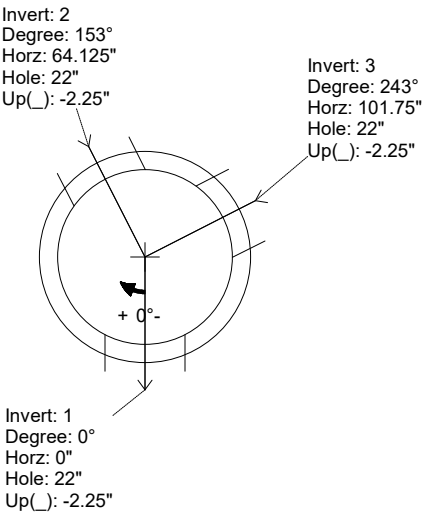
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 680.01' Rim to Invert: 4.7' Slack: 0.4" Sump: 0" Step Position:

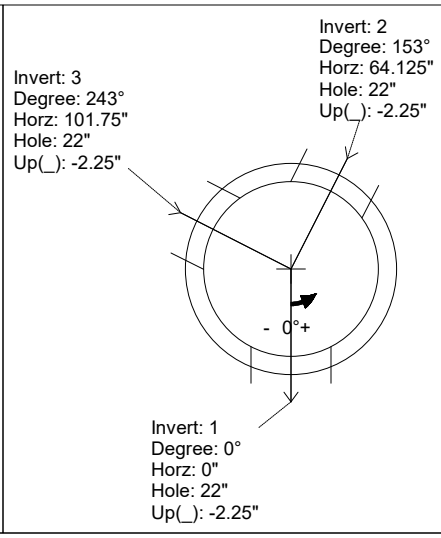
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	675.31'	0°	0"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 2	675.31'	153°	77.5"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 3	675.31'	243°	123"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



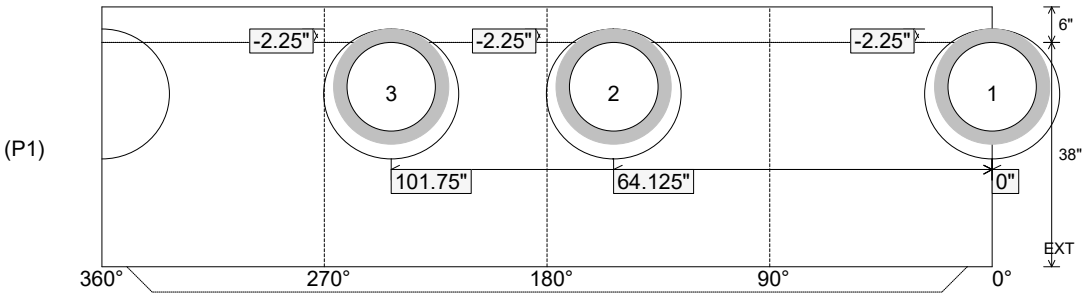
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 38" Height (Ext): 44"	Weight (Net): 3491 lb Volume (Net): 0.89cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:33:55 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 2 ST-MH

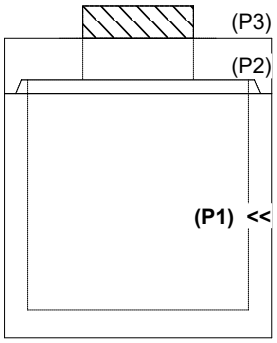
P1 MH048BAVF **MH BASE Custom Ht T/n**

P3) 24" - CASTING HEIGHT - 7"	0 lb
P2) 48" - MH FLAT TOP w/ 24" Center Hole F/G - 12"	1580 lb
P1) 48" - MH BASE Custom Ht T/n - 47"	3983 lb
1) CASTING - HOE MC-375 F/C Storm	271 lb
1) 48" - Conseal CS-102 1.00"	0 lb
2) Hole - 26	0 lb
1) Hole - 22	0 lb
4) MH Step ML-10-TDS-NCR - 10"	0 lb
Structure Total:	5834 lb

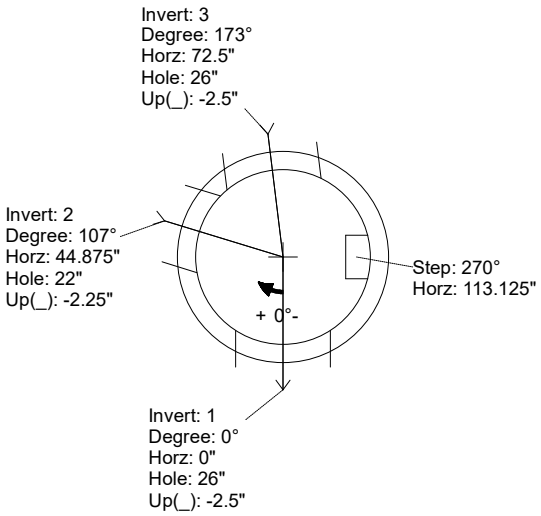
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE MC-375 F/C STORM).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 679.3' Rim to Invert: 5.53' Slack: 0.36" Sump: 0" Step Position: 270

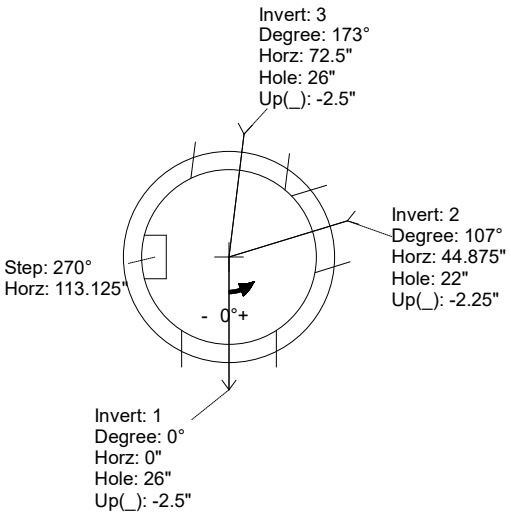
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	673.77'	0°	0"	18" RCP B WALL	23"	Hole 26	26"	27.476"	-2.5"	0"
Invert 2	673.77'	107°	54.125"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 3	673.77'	173°	87.625"	18" RCP B WALL	23"	Hole 26	26"	27.476"	-2.5"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



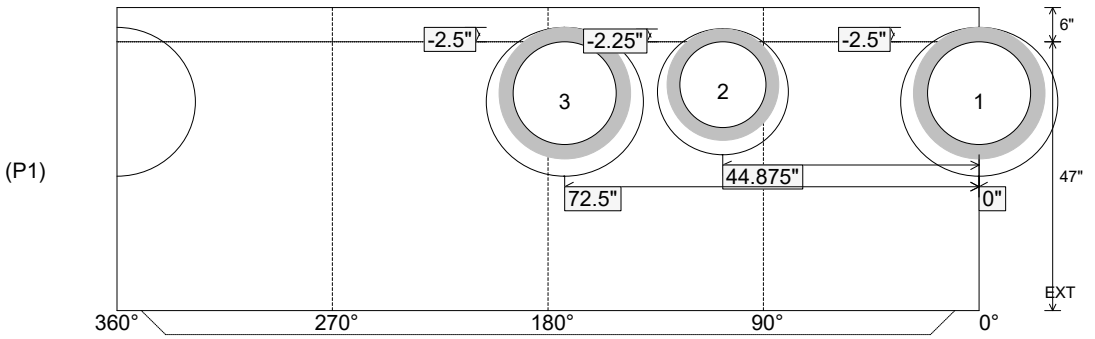
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 47" Height (Ext): 53"	Weight (Net): 3983 lb Volume (Net): 1.02cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:34:11 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 32 ST-CI

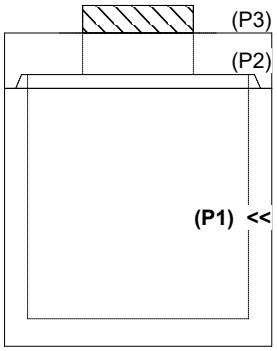
P1 MH048BAVF **MH BASE Custom Ht T/n**

P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 50"	4659 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
1) Hole - 22	0 lb
Structure Total:	6401 lb

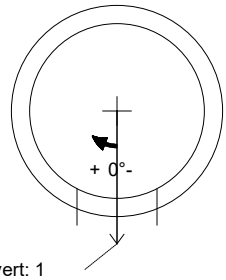
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 687.4' Rim to Invert: 5.7' Slack: 0.4" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	681.7'	0°	0"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

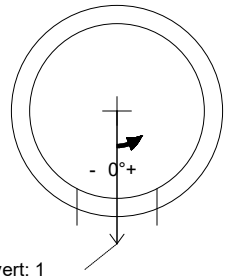


RIGHT-SIDE UP VIEW (int. dimensions)



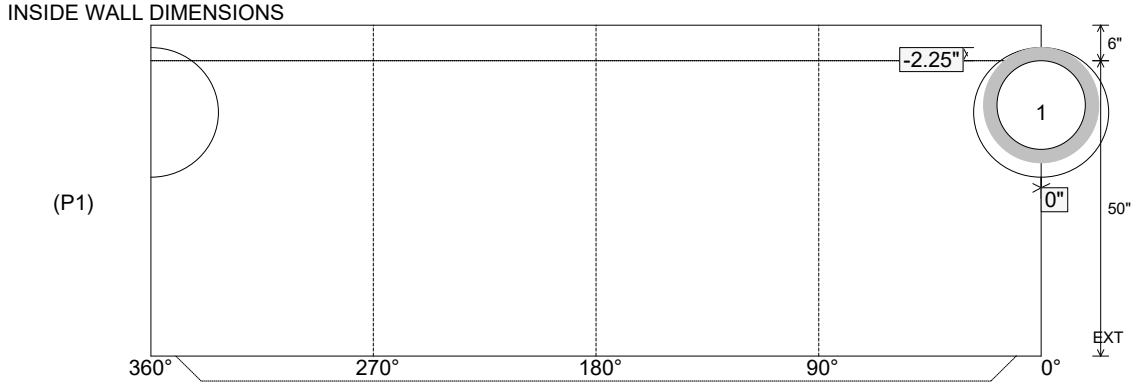
Invert: 1
Degree: 0°
Horz: 0"
Hole: 22"
Up(_): -2.25"

UPSIDE-DOWN VIEW (int. dimenions)



Invert: 1
Degree: 0°
Horz: 0"
Hole: 22"
Up(_): -2.25"

INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 50" Height (Ext): 56"	Weight (Net): 4659 lb Volume (Net): 1.19cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:34:10 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 31 ST-CI

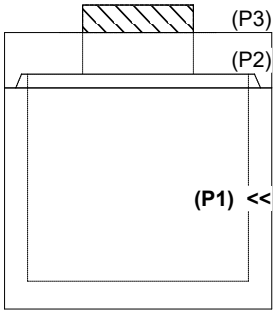
P1 MH048BA42 MH BASE T/n

P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE T/n - 42"	3633 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
2) Hole - 26	0 lb
1) Hole - 22	0 lb
Structure Total:	5375 lb

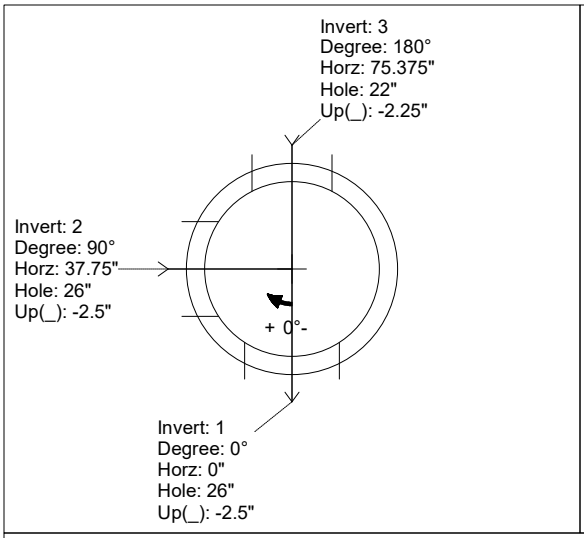
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 690.89' Rim to Invert: 5' Slack: 0" Sump: 0" Step Position:

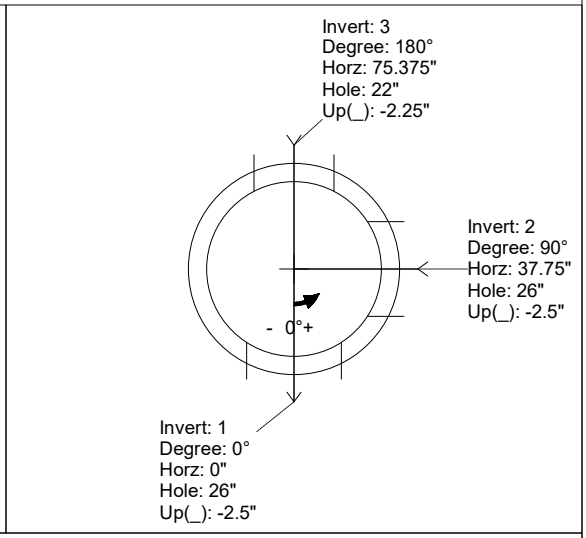
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	685.89'	0°	0"	18" RCP B WALL	23"	Hole 26	26"	27.476"	-2.5"	0"
Invert 2	685.89'	90°	45.5"	18" RCP B WALL	23"	Hole 26	26"	27.476"	-2.5"	0"
Invert 3	685.89'	180°	91.125"	15" RCP B WALL	19.5"	Hole 22	22"	22.854"	-2.25"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



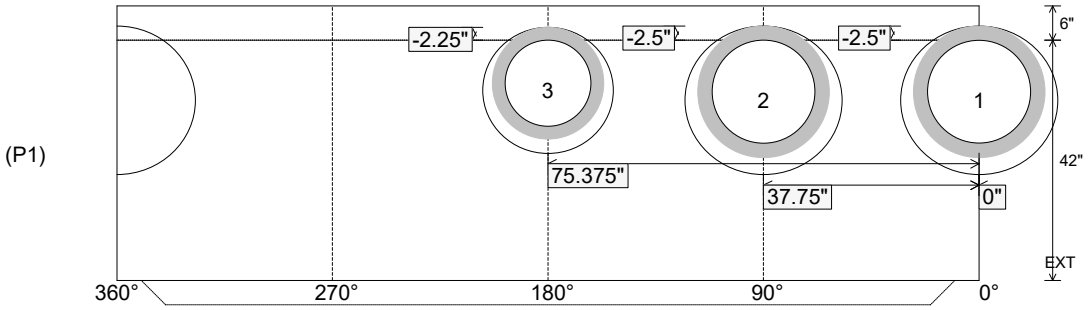
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 42" Height (Ext): 48"	Weight (Net): 3633 lb Volume (Net): 0.93cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 6/4/2026 4:34:09 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 29 ST-CI

P1 MH048BAVF **MH BASE Custom Ht T/n**

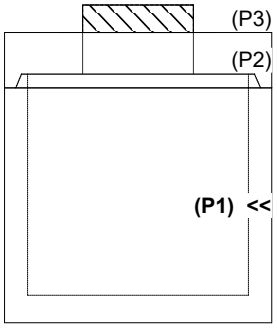
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 48" - MH FLAT TOP w/24"x36" Hole F/G - 12"	1300 lb
P1) 48" - MH BASE Custom Ht T/n - 45"	3877 lb
1) CASTING - HOE 525 SET FLAT GRATE (F/G/H)	442 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
1) Hole - 32	0 lb
1) Hole - 26	0 lb
Structure Total:	5619 lb

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 SET FLAT GRATE (F/G/H)).
5. CITY OF BGKY-CBI TYPE F.

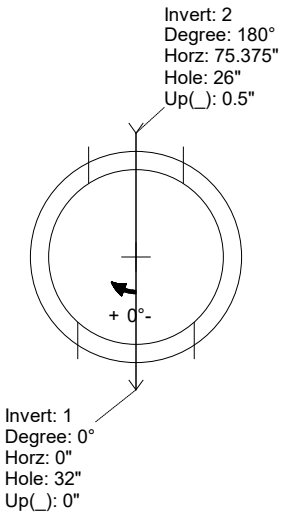
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 688.28' Rim to Invert: 5' Slack: 0" Sump: 3" Step Position:

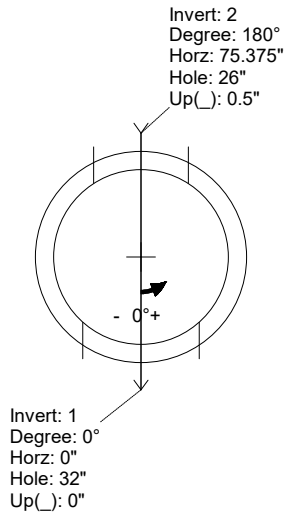
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	683.28'	0°	0"	24" RCP B WALL	30"	Hole 32	32"	35.027"	0"	0"
Invert 2	683.28'	180°	91.125"	18" RCP B WALL	23"	Hole 26	26"	27.476"	0.5"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



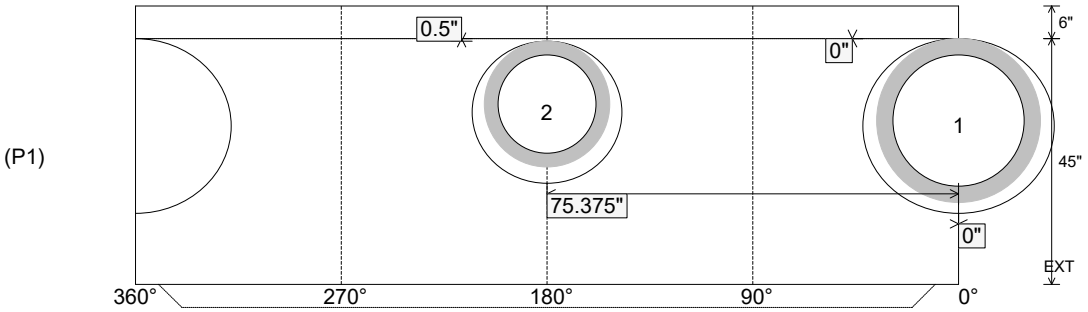
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 45" Height (Ext): 51"	Weight (Net): 3877 lb Volume (Net): 0.99cu.yd

Job Name: 26-2484 Bass Pro Shops Outpost Paducah Job Location: Paducah, KY Contractor: Central Paving Co. of Paducah, Inc.	Plant: Beaver Dam 6/16/2026 8:02:39 AM	Tech: S. Felletter PC: A. Chambers	

Structure ID: Y8.2 ST-MH

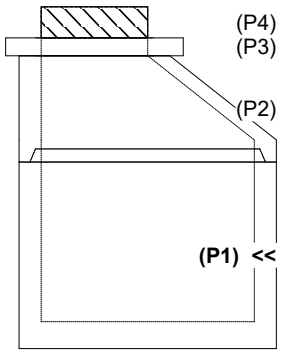
P1 MH048BA36 MH BASE T/n

P4) 24" - CASTING HEIGHT - 7"	0 lb
P3) 24" - GRADE RING F/F - 4"	270 lb
P2) 48" - ECC CONE w/ 24" HOLE F/G - 24"	1550 lb
P1) 48" - MH BASE T/n - 36"	3253 lb
1) CASTING - HOE MC-375 F/C Storm	271 lb
1) 48" - Conseal CS-102 1.00"	0 lb
2) 24" - Conseal CS-102 1.00"	0 lb
3) Hole - 24	0 lb
Structure Total:	5344 lb

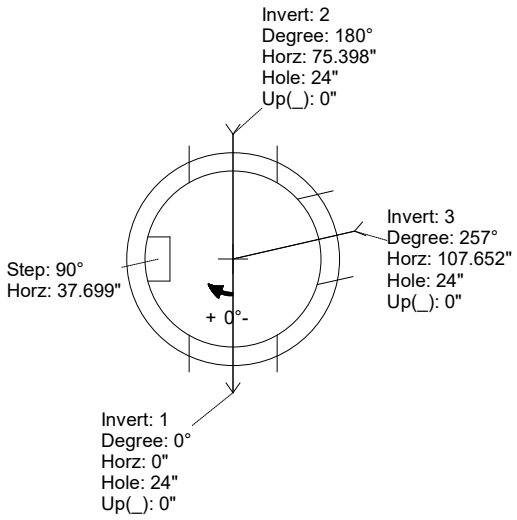
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING BY ICAST (HOE MC-375 F/C).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 372.38' Rim to Invert: 5.89' Slack: 1.28" Sump: 1.6" Step Position: 90°

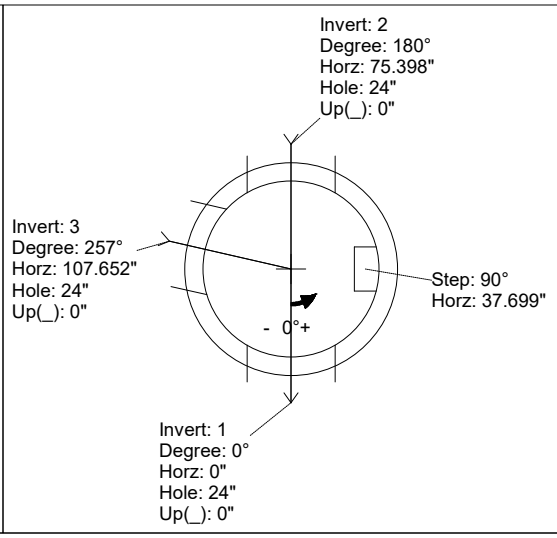
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	366.49'	0°	0"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 2	366.49'	180°	91.106"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 3	366.49'	257°	130.079"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



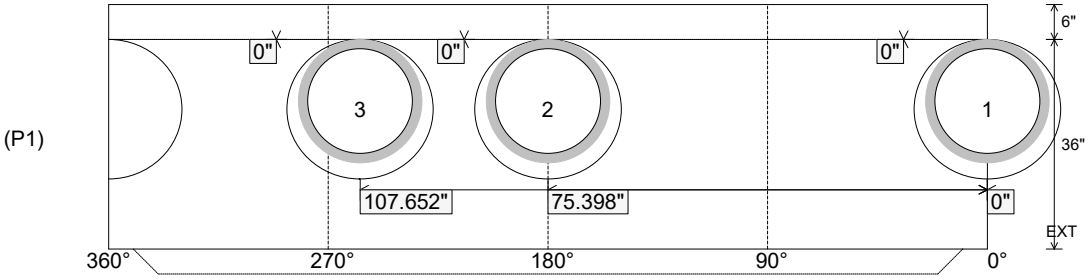
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 36" Height (Ext): 42"	Weight (Net): 3253 lb Volume (Net): 0.83cu.yd

Job Name: 26-2484 Bass Pro Shops Outpost Paducah Job Location: Paducah, KY Contractor: Central Paving Co. of Paducah, Inc.	Plant: Beaver Dam 6/16/2026 8:02:38 AM	Tech: S. Felletter PC: A. Chambers	

Structure ID: Y8 ST-IN

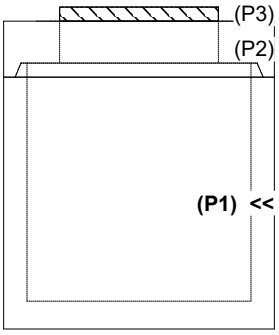
P1 MH048BA48 MH BASE T/n

P3) 34" x 34" - CASTING HEIGHT - 3"	0 lb
P2) 48" - MH FLAT TOP w/34"x34" Hole F/G - 12"	1194 lb
P1) 48" - MH BASE T/n - 48"	4289 lb
1) CASTING - HOE 595 F/G	376 lb
1) 48" - Conseal CS-102 1.00"	0 lb
2) Hole - 24	0 lb
Structure Total:	5859 lb

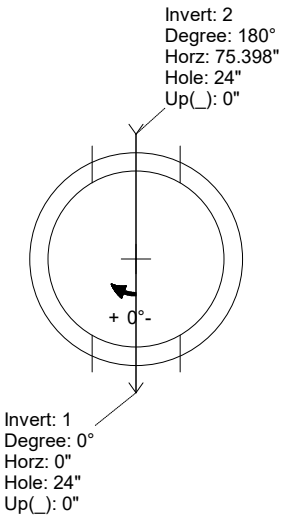
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING BY ICAST (HOE 595 F/G).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 371.26' Rim to Invert: 5.26' Slack: 1.72" Sump: 1.6" Step Position: 0°

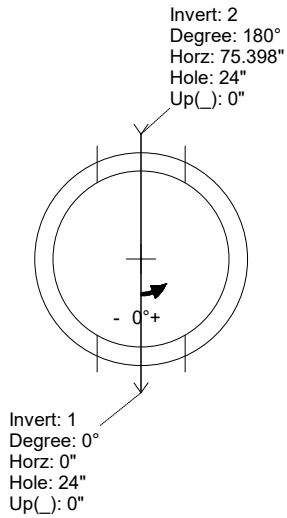
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	366'	0°	0"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 2	366'	180°	91.106"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



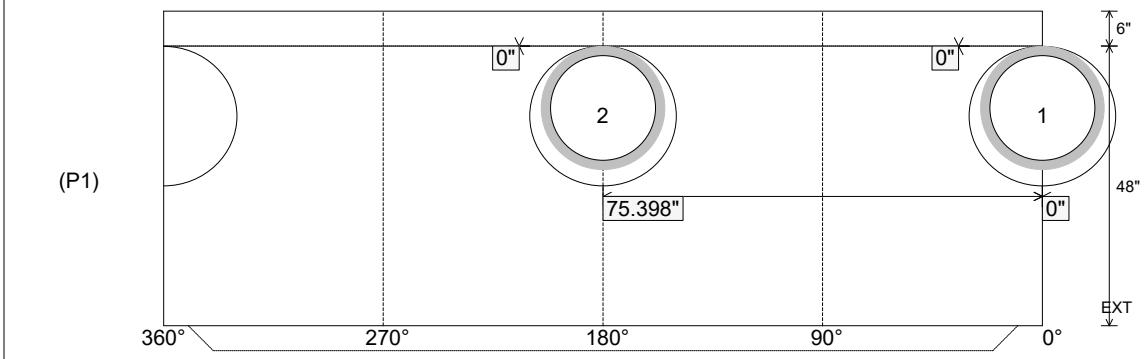
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 48" Height (Ext): 54"	Weight (Net): 4289 lb Volume (Net): 1.1cu.yd

Job Name: 26-2484 Bass Pro Shops Outpost Paducah
Job Location: Paducah, KY
Contractor: Central Paving Co. of Paducah, Inc.

Plant: Beaver Dam
6/16/2026 8:02:37 AM

Tech: S. Felletter
PC: A. Chambers

Structure ID: Y7 ST-IN

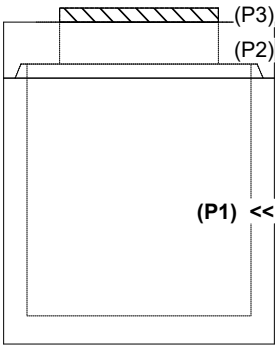
P1 MH048BAVF MH BASE Custom Ht T/n

P3) 34" x 34" - CASTING HEIGHT - 3"	0 lb
P2) 48" - MH FLAT TOP w/34"x34" Hole F/G - 12"	1194 lb
P1) 48" - MH BASE Custom Ht T/n - 51"	4413 lb
1) CASTING - HOE 595 F/G	376 lb
1) 48" - Conseal CS-102 1.00"	0 lb
2) Hole - 24	0 lb
1) Hole - 16	0 lb
Structure Total:	5983 lb

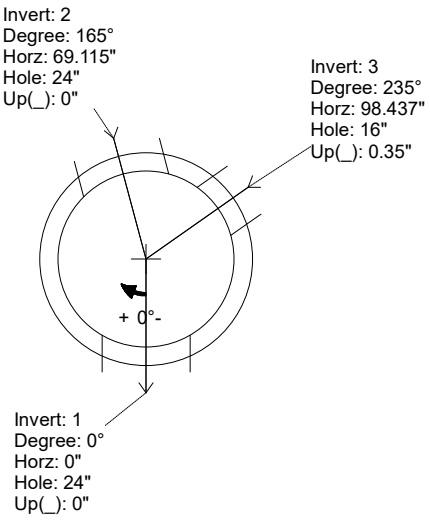
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING BY ICAST (HOE 595 F/G).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 370.4' Rim to Invert: 5.4' Slack: 0.4" Sump: 1.6" Step Position: 0°

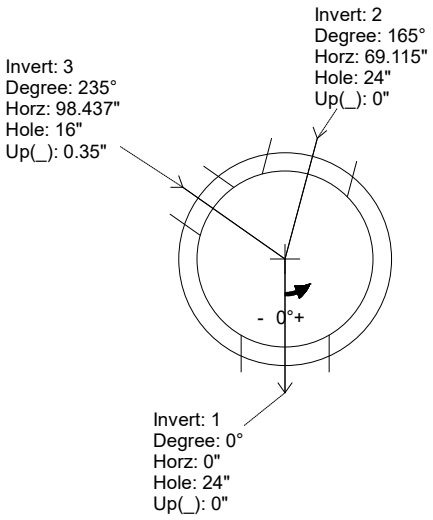
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	365'	0°	0"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 2	365'	165°	83.514"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 3	365'	235°	118.944"	12" HDPE	14.5"	Hole 16	16"	16.312"	0.35"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



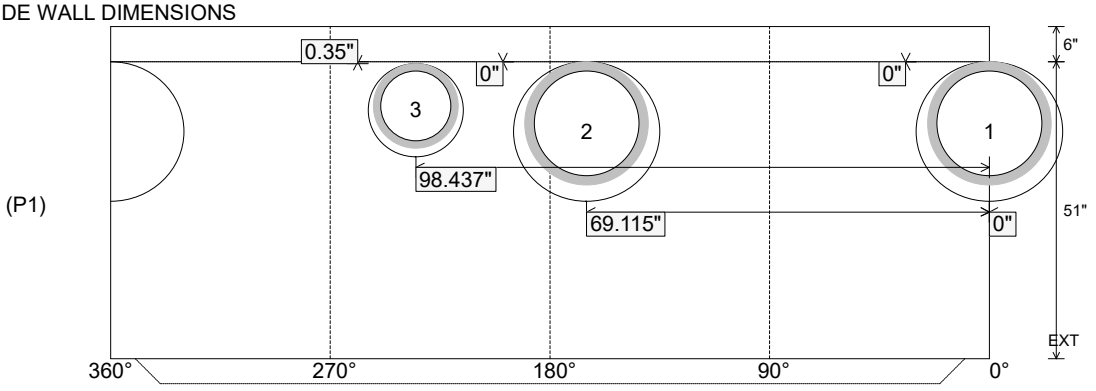
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Tongue	Wall Thickness: 5"	Height (Int): 51"	Weight (Net): 4413 lb
Coating (Ext):	Seam Dn: n/a	Floor Height: 6"	Height (Ext): 57"	Volume (Net): 1.13cu.yd

Job Name: 26-2484 Bass Pro Shops Outpost Paducah Job Location: Paducah, KY Contractor: Central Paving Co. of Paducah, Inc.	Plant: Beaver Dam 6/16/2026 8:02:37 AM	Tech: S. Felletter PC: A. Chambers	

Structure ID: Y6 ST-CI

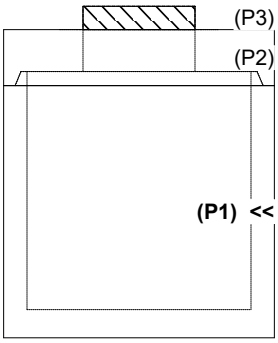
P1 MH048BA48 MH BASE T/n

P3) 24" x 24" - CASTING HEIGHT - 5"	0 lb
P2) 48" - MH FLAT TOP w/24"x24" Hole F/G - 12"	1500 lb
P1) 48" - MH BASE T/n - 48"	4289 lb
1) CASTING - HOE KY-465 SET (CBI TY F)	465 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 24" - Conseal CS-102 1.00"	0 lb
2) Hole - 24	0 lb
Structure Total:	6254 lb

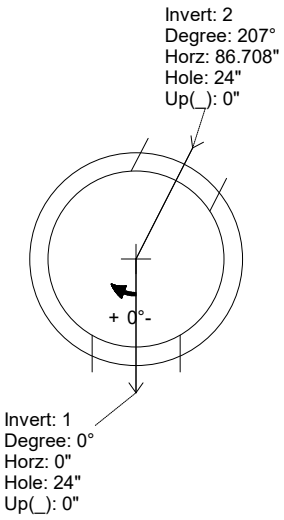
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING BY ICAST (HOE 465 F/G/H).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 369.5' Rim to Invert: 5.5' Slack: 2.6" Sump: 1.6" Step Position: 0°

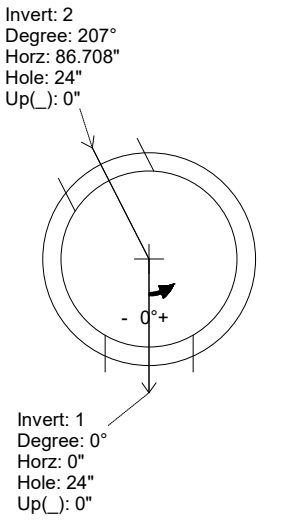
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	364'	0°	0"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 2	364'	207°	104.772"	18" HDPE	21.2"	Hole 24	24"	25.133"	0"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



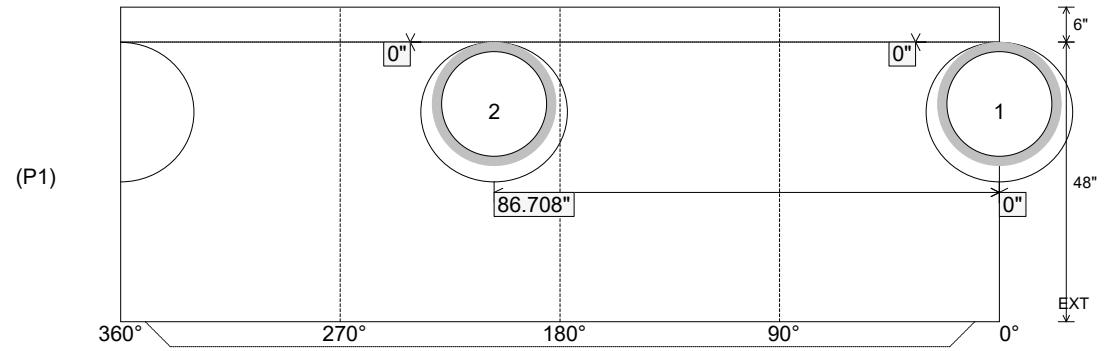
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 48" Height (Ext): 54"	Weight (Net): 4289 lb Volume (Net): 1.1cu.yd

Job Name: 26-2484 Bass Pro Shops Outpost Paducah Job Location: Paducah, KY Contractor: Central Paving Co. of Paducah, Inc.	Plant: Beaver Dam 6/16/2026 8:02:36 AM	Tech: S. Felletter PC: A. Chambers	

Structure ID: Y5 ST-CI

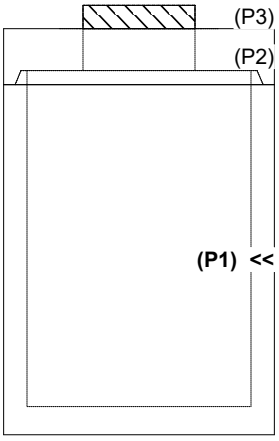
P1 MH048BAVF **MH BASE Custom Ht T/n**

P3) 24" x 24" - CASTING HEIGHT - 5"	0 lb
P2) 48" - MH FLAT TOP w/24"x24" Hole F/G - 12"	1500 lb
P1) 48" - MH BASE Custom Ht T/n - 69"	5551 lb
1) CASTING - HOE KY-465 SET (CBI TY F)	465 lb
1) 48" - Conseal CS-102 1.00"	0 lb
1) 24" x 24" - Conseal CS-102 1.00"	0 lb
1) Hole - 30	0 lb
1) Hole - 24	0 lb
1) Hole - 16	0 lb
Structure Total:	7516 lb

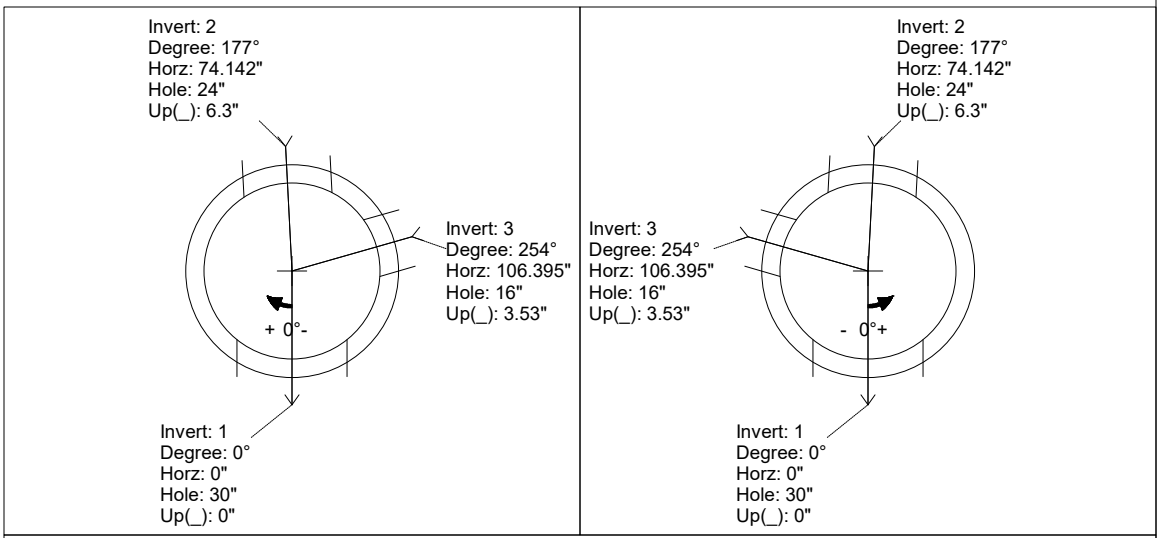
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING BY ICAST (HOE 465 F/G/H).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 369.8' Rim to Invert: 7.04' Slack: 0.38" Sump: 1.9" Step Position: 0°

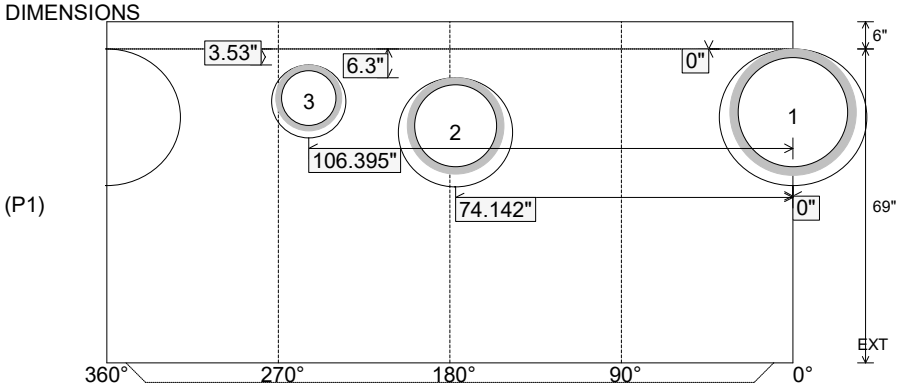
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	362.76'	0°	0"	24" HDPE	27.8"	Hole 30	30"	32.406"	0"	0"
Invert 2	363.26'	177°	89.588"	18" HDPE	21.2"	Hole 24	24"	25.133"	6.3"	0"
Invert 3	363'	254°	128.561"	12" HDPE	14.5"	Hole 16	16"	16.312"	3.53"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



RIGHT-SIDE UP VIEW (int. dimensions) UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 5" Floor Height: 6"	Height (Int): 69" Height (Ext): 75"	Weight (Net): 5551 lb Volume (Net): 1.42cu.yd

Job Name: 25-3452 - Churchill Downs Skye Terrace Improvements Job Location: Louisville, KY 40208 Contractor: Louisville Paving and Construction	Plant: 100 4/30/2026 1:22:59 PM	Tech: Jared - F PC: J. Jarvis	

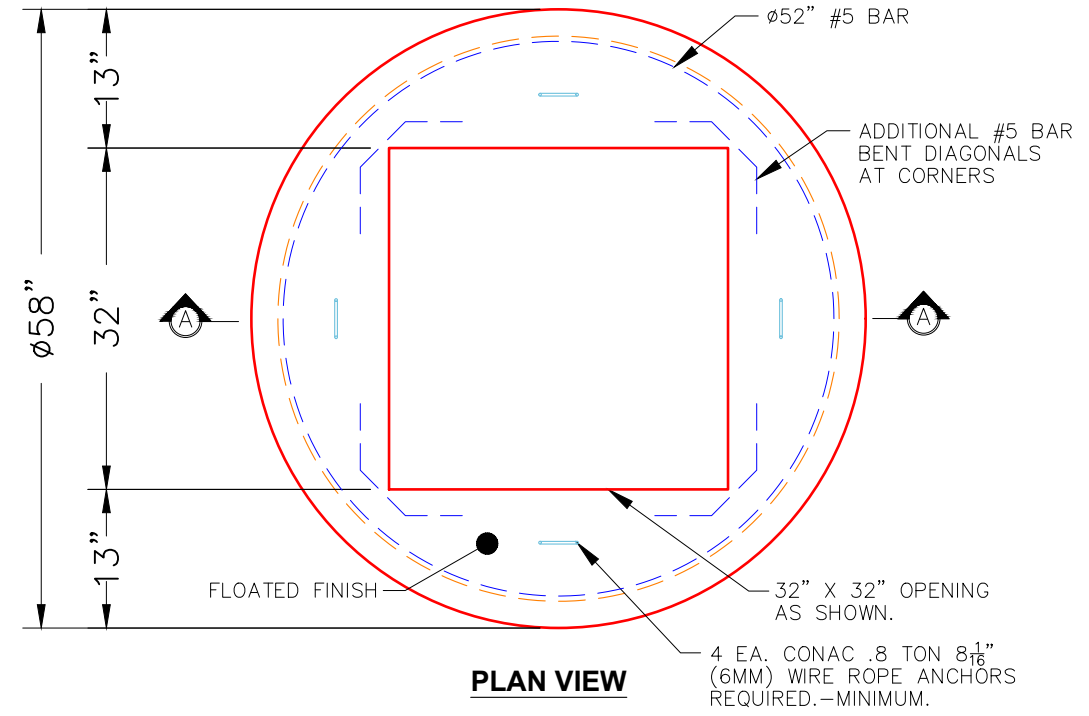
Structure ID: S115

P3 MH048LD12S — **MH FLAT TOP w/32"x32" Hole F/G**

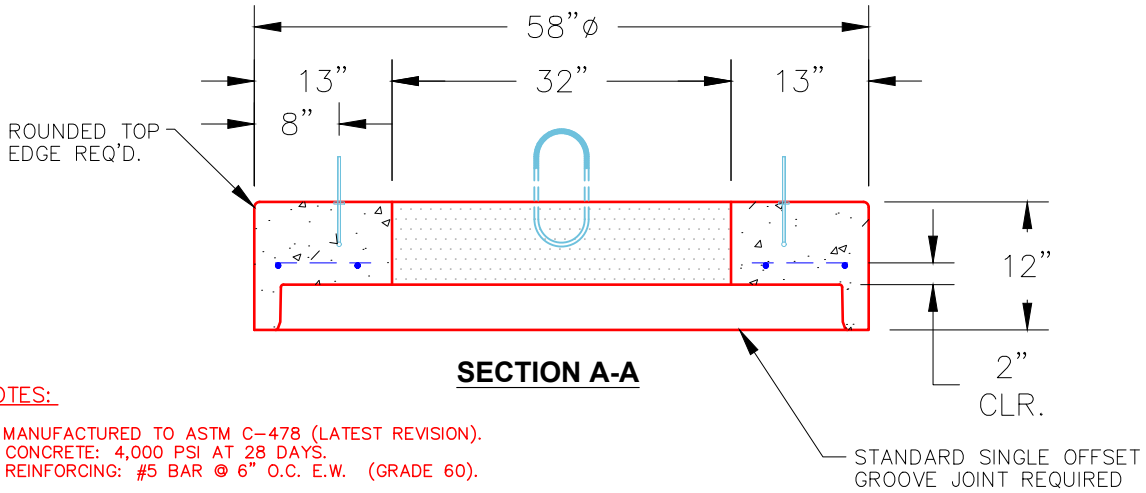
P4) 32" x 32" - CASTING HEIGHT - 3"	0 lb
P3) 48" - MH FLAT TOP w/32"x32" Hole F/G - 12"	1629 lb
P2) 48" - MH RISER T/G - 48"	3267 lb
P1) 48" - MH BASE Custom Ht T/n - 40"	3611 lb
1) CASTING - HOE 595 F/G	376 lb
2) 48" - Conseal CS-102 1.00"	0 lb
1) 32" x 32" - Conseal CS-102 1.00"	0 lb
1) Hole - 30	0 lb
1) Hole - 16	0 lb
1) Hole - 24	0 lb
Structure Total:	8884 lb

Structure Notes:
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 595 F/G)

REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:

1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" O.C. E.W. (GRADE 60).

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 5"	Height (Ext): 12"	Weight (Net): 1629 lb Volume (Net): 0.42cu.yd

Job Name: 25-3452 - Churchill Downs Skye Terrace Improvements Job Location: Louisville, KY 40208 Contractor: Louisville Paving and Construction	Plant: 100 4/30/2026 1:23:02 PM	Tech: Jared - F PC: J. Jarvis	

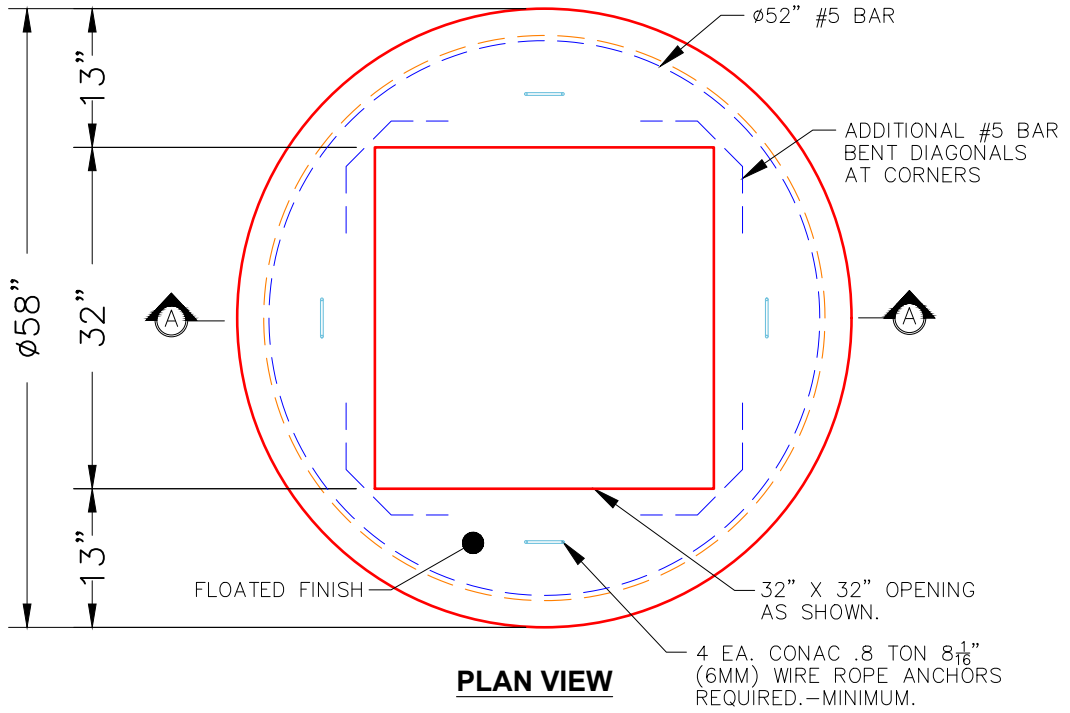
Structure ID: S116

P3 MH048LD12S — **MH FLAT TOP w/32"x32" Hole F/G**

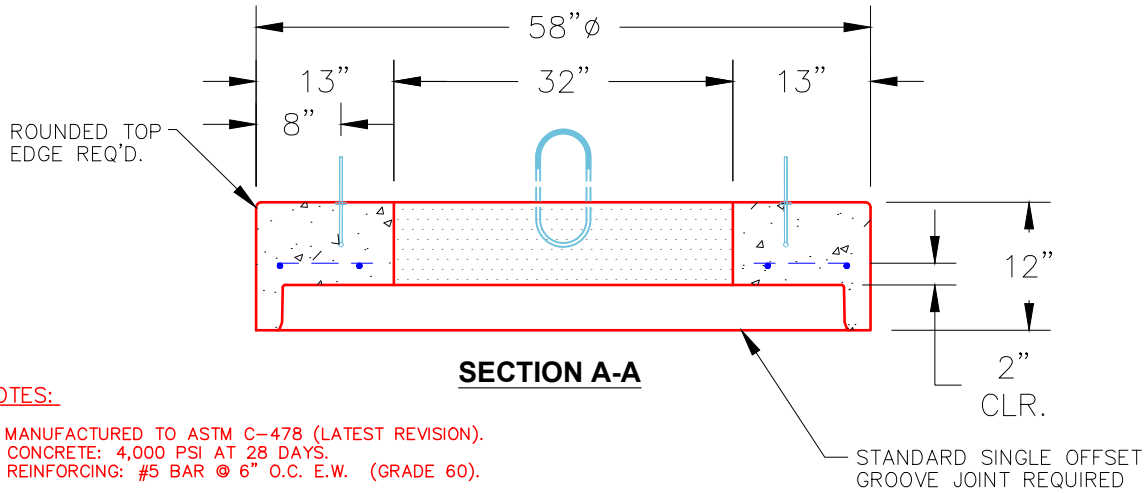
P4) 32" x 32" - CASTING HEIGHT - 3"	0 lb
P3) 48" - MH FLAT TOP w/32"x32" Hole F/G - 12"	1629 lb
P2) 48" - MH RISER T/G - 48"	3353 lb
P1) 48" - MH BASE Custom Ht T/n - 55"	4540 lb
1) CASTING - HOE 595 F/G	376 lb
2) 48" - Conseal CS-102 1.00"	0 lb
1) 32" x 32" - Conseal CS-102 1.00"	0 lb
2) Hole - 30	0 lb
Structure Total:	9899 lb

Structure Notes:
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 595 F/G)

REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.



PLAN VIEW



SECTION A-A

NOTES:

1. MANUFACTURED TO ASTM C–478 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" O.C. E.W. (GRADE 60).

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 5"	Height (Ext): 12"	Weight (Net): 1629 lb Volume (Net): 0.42cu.yd

Job Name: 25-4445 Montgomery LS/FM Improvements Job Location: Montgomery, IN Contractor: Koberstein Contracting, Inc.	Plant: Beaver Dam 6/18/2026 11:02:47 AM	Tech: S. Felletter PC: A. Chambers	

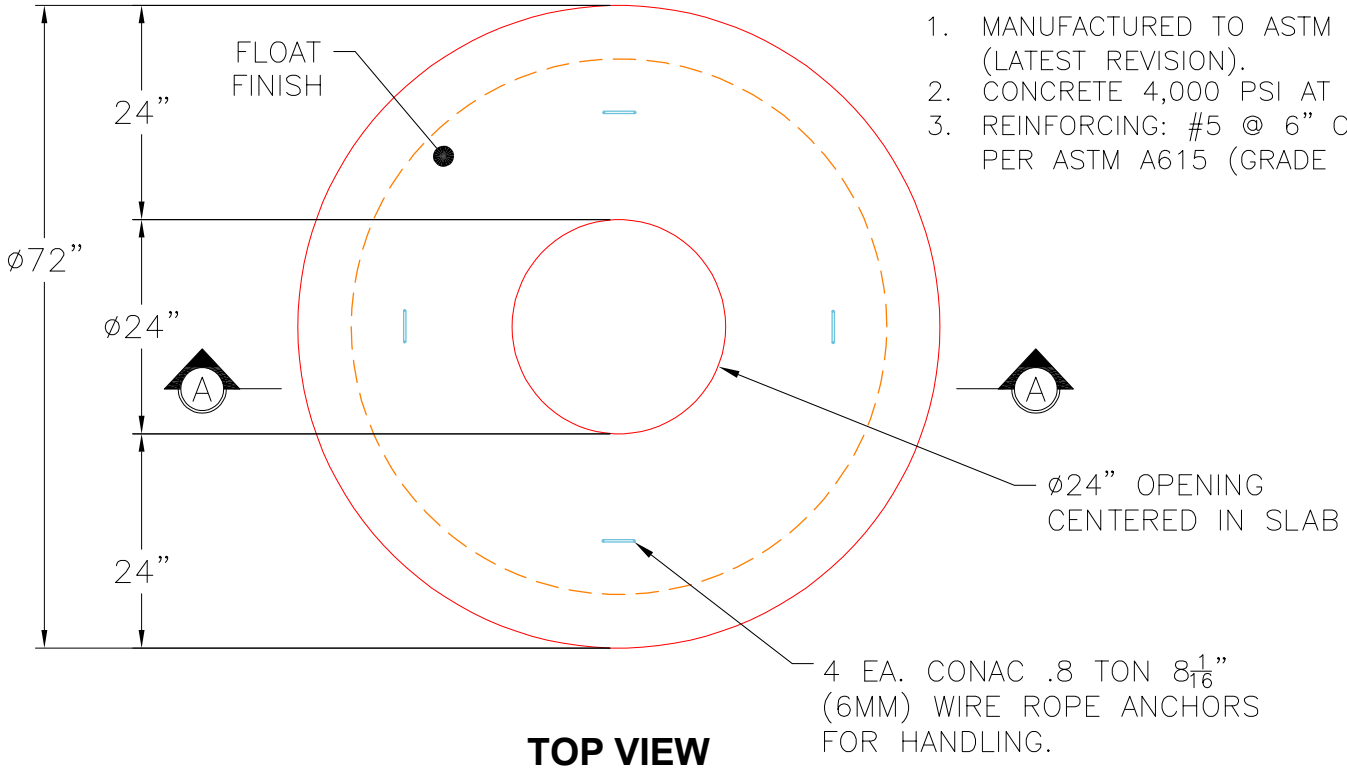
Structure ID: MAG (2)

P2 MH060LD13CC **MH FLAT TOP w/24" Ctr. Hole F/G**

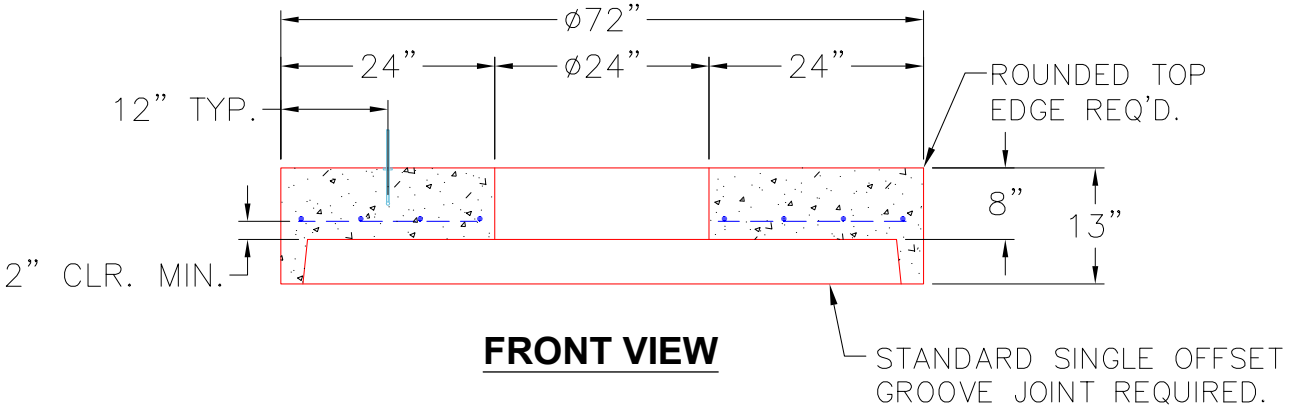
P3) 24" - CASTING HEIGHT - 7"	0 lb
P2) 60" - MH FLAT TOP w/24" Ctr. Hole F/G - 13"	2674 lb
P1) 60" - MH BASE w/FLANGE (12F/07EF) T/n - 52"	11198 lb
1) CASTING - HOE MC-315 F/C Sanitary	258 lb
1) 60" - Conseal CS-102 1.00" (Double)	0 lb
1) 24" - Conseal CS-102 1.00" (Double)	0 lb
2) Hole - 10	0 lb
3) MH Step ML-10-TDS-NCR - 10"	0 lb
Structure Total:	14130 lb

Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. CASTING BY ICAST (HOE 315 F/C "SANITARY").
4. 12" SUMP HOLE CENTERED IN BASE.
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- RISER/WALLS (As .18)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

GENERAL NOTES:
1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 @ 6" C.C. E.W. PER ASTM A615 (GRADE 60)



TOP VIEW



FRONT VIEW

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 6"	Height (Ext): 13"	Weight (Net): 2674 lb Volume (Net): 0.68cu.yd

Job Name: 26-1453 Clarksville, TN SPC13A
Job Location: Clarksville, TN
Contractor: Cleary Construction, Inc.

Plant: Beaver Dam
6/18/2026 7:40:27 AM

Tech: J. Coppage
PC: C. Goff

Structure ID: 13A-SS-MH-004

P2 MH060RS48CDARED MH RISER w/ConBlock-CDA Red

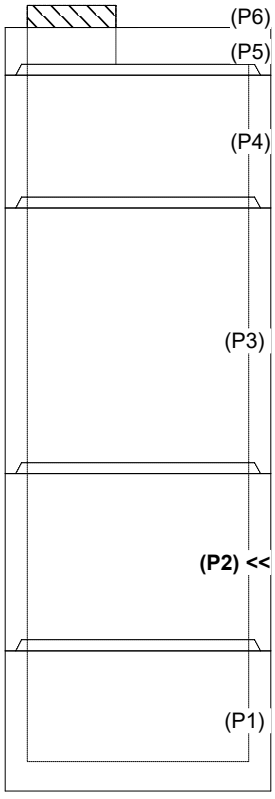
P6) 24" - CASTING HEIGHT - 6"	0 lb
P5) 60" - MH FLAT TOP w/24" Hole ECC w/ConBlock-CDA Red - 13"	2800 lb
P4) 60" - MH RISER w/ConBlock-CDA Red - 36"	3758 lb
P3) 60" - MH RISER SPECIAL w/ConBlock-CDA Red - 72"	7440 lb
P2) 60" - MH RISER w/ConBlock-CDA Red - 48"	5011 lb
P1) 60" - MH BASE w/ConBlock-CDA Red - 30"	5752 lb
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212	0 lb
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)	0 lb
1) 60" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT	2962 lb
4) 60" - Conseal CS-102 1.00" (Double)	0 lb
1) 24" - Conseal CS-102 1.00" (Double)	0 lb
2) A-Lok - 0285	2 lb
1) A-Lok - 0410	1 lb
2) A-Lok - 0200	2 lb
15) MH Step ML-10-TDS-NCR - 10"	0 lb
Structure Total:	27728 lb

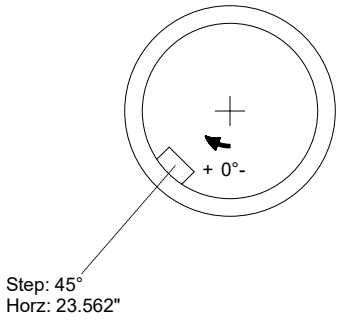
Rim: 543.08' Rim to Invert: 17.02' Slack: 1.24" Sump: 2" Step Position: 45°

Structure Notes: .
1. JBS-1155 SANITARY PROVIDED BY ICAST.
2. PER ASTM C478 SPECIFICATIONS.
3. CONCRETE = 4,000 PSI AT 28 DAYS.
4. REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

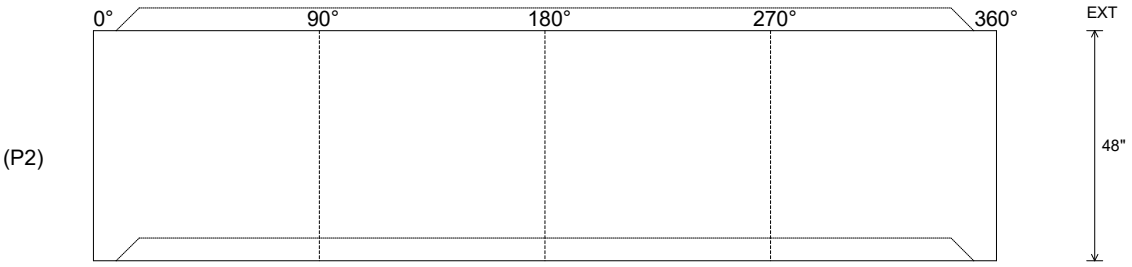
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)





INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Tongue	Wall Thickness: 6"	Height (Int): 48"	Weight (Net): 5011 lb
Coating (Ext):	Seam Dn: Groove	Floor Height: 0"	Height (Ext): 48"	Volume (Net): 1.28cu.yd

Job Name: 26-1453 Clarksville, TN SPC13A Job Location: Clarksville, TN Contractor: Cleary Construction, Inc.	Plant: Beaver Dam 6/18/2026 7:40:28 AM	Tech: J. Coppage PC: C. Goff	

Structure ID: 13A-SS-MH-004

P4 MH060RS36CDARED MH RISER w/ConBlock-CDA Red

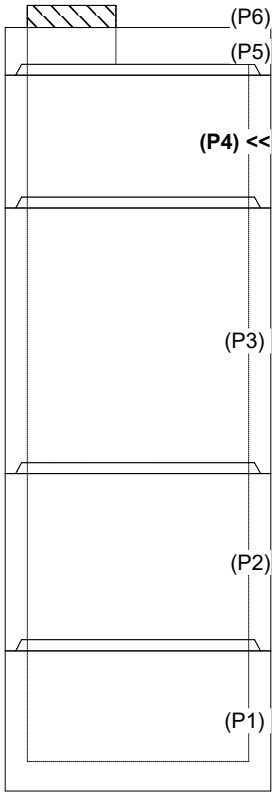
P6) 24" - CASTING HEIGHT - 6"	0 lb
P5) 60" - MH FLAT TOP w/24" Hole ECC w/ConBlock-CDA Red - 13"	2800 lb
P4) 60" - MH RISER w/ConBlock-CDA Red - 36"	3758 lb
P3) 60" - MH RISER SPECIAL w/ConBlock-CDA Red - 72"	7440 lb
P2) 60" - MH RISER w/ConBlock-CDA Red - 48"	5011 lb
P1) 60" - MH BASE w/ConBlock-CDA Red - 30"	5752 lb
1) JOINT WRAP - 0.065"x6"x50' CONSEAL CS212	0 lb
1) JOINT WRAP PRIMER - CONSEAL CS-75 (1 gal.)	0 lb
1) 60" - MH INVERT CHANNEL w/ConBlock-CDA Red - FULL HEIGHT	2962 lb
4) 60" - Conseal CS-102 1.00" (Double)	0 lb
1) 24" - Conseal CS-102 1.00" (Double)	0 lb
2) A-Lok - 0285	2 lb
1) A-Lok - 0410	1 lb
2) A-Lok - 0200	2 lb
15) MH Step ML-10-TDS-NCR - 10"	0 lb
Structure Total:	27728 lb

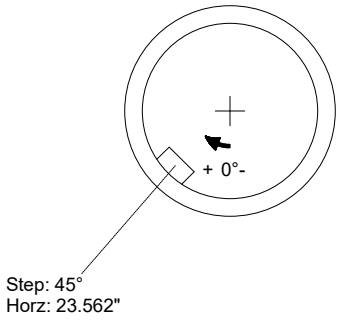
Rim: 543.08' Rim to Invert: 17.02' Slack: 1.24" Sump: 2" Step Position: 45°

Structure Notes: .
1. JBS-1155 SANITARY PROVIDED BY ICAST.
2. PER ASTM C478 SPECIFICATIONS.
3. CONCRETE = 4,000 PSI AT 28 DAYS.
4. REINFORCING PER ASTM A615 (GRADE 60).
- CONE (As .12)
- RISER/WALLS (As .12)
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

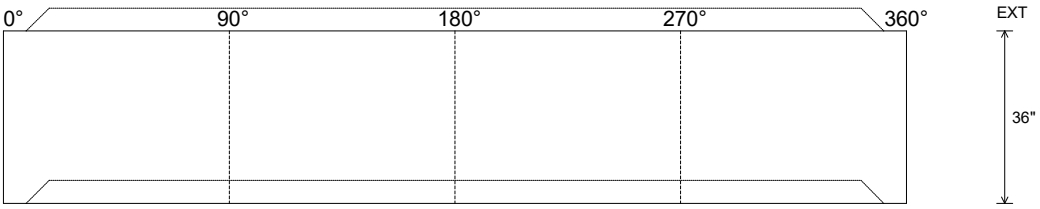
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)





INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: Groove	Wall Thickness: 6" Floor Height: 0"	Height (Int): 36" Height (Ext): 36"	Weight (Net): 3758 lb Volume (Net): 0.96cu.yd

Job Name: 25-2471 - Texas Roadhouse Job Location: Danville, KY Contractor: McCain Bros Excavating LLC	Plant: 100 6/11/2026 11:35:20 AM	Tech: Jared - F PC: M. Sullivan	

Structure ID: 3

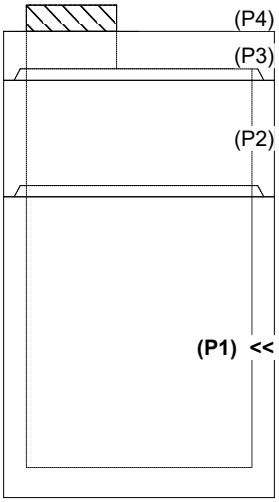
P1 MH060BA72 MH BASE T/n

P4) 24" - CASTING HEIGHT - 7"	0 lb
P3) 60" - MH FLAT TOP w/ 24" ECC Hole F/G - 13"	2869 lb
P2) 60" - MH RISER Custom Ht T/G - 31"	3236 lb
P1) 60" - MH BASE T/n - 72"	9101 lb
2) 60" - Conseal CS-102 1.00"	0 lb
1) 24" - Conseal CS-102 1.00"	0 lb
2) Hole - 30	0 lb
1) DOGHOUSE INVRTD - 30"x29"	0 lb
4) MH Step ML-10-TDS-NCR - 10"	0 lb
Structure Total:	15206 lb

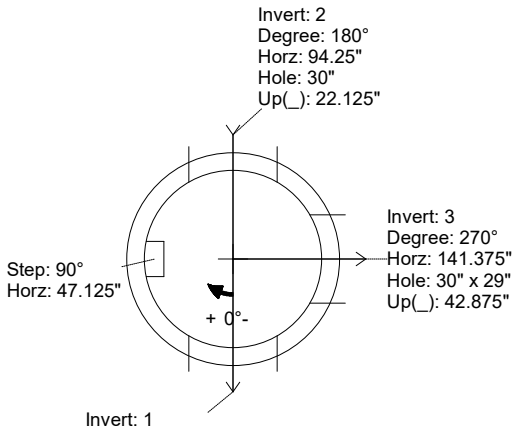
Structure Notes: .
1. PER ASTM C478 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. (7" TALL CASTING BY OTHERS)
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W..
- RISER/WALLS (As .18)
- FLOOR (As .37) #5 BARS AT 10" C.C.E.W.

Rim: 1036' Rim to Invert: 8.31' Slack: 0.72" Sump: 24" Step Position: 90°

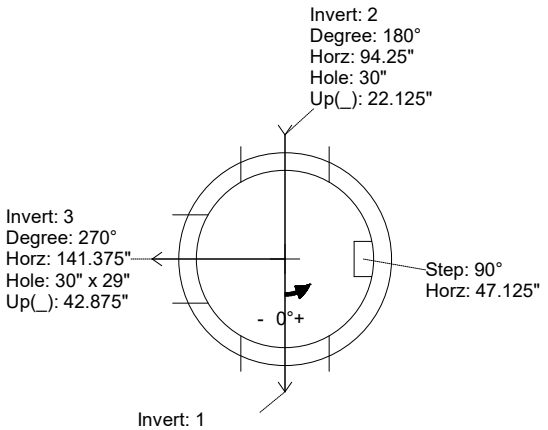
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	1027.69'	0°	0"	24" HDPE	27.8"	Hole 30	30"	31.416"	22.125"	0"
Invert 2	1027.69'	180°	113.125"	24" HDPE	27.8"	Hole 30	30"	31.416"	22.125"	0"
Invert 3	1029.42'	270°	169.625"	24" HDPE	27.8"	DOGHOUSE INVRTD 30"x29"	30" x 29"	31.416"	42.875"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



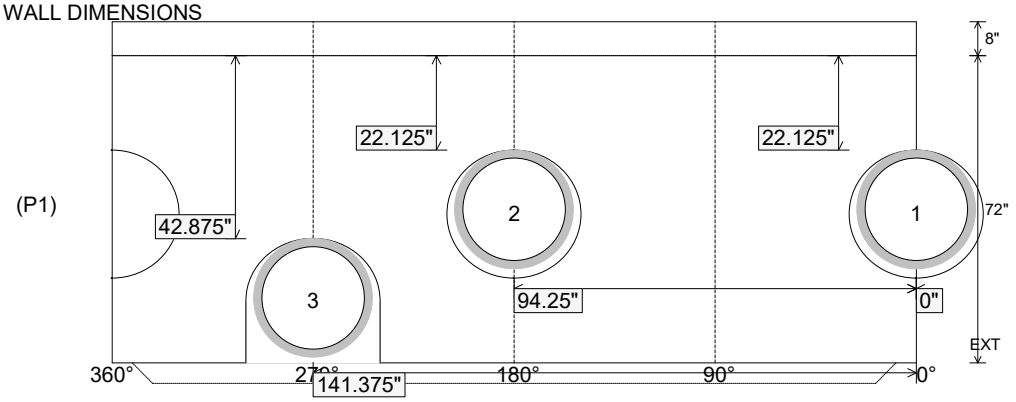
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 6" Floor Height: 8"	Height (Int): 72" Height (Ext): 80"	Weight (Net): 9101 lb Volume (Net): 2.33cu.yd

Job Name: 26-2659 879027 Kroger Marketplace Dearborn Job Location: CPU Contractor: Contech Engineering Solutions	Plant: Beaver Dam 6/18/2026 1:07:38 PM	Tech: S. Felletter PC: C. Goff	

Structure ID: 10-CS-6

P2 MH072RS84 MH RISER T/G

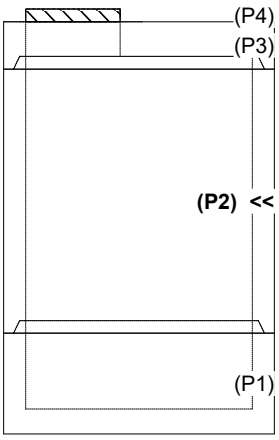
P4) 30" - CASTING HEIGHT - 4"	0 lb
P3) 72" - MH FLAT TOP SPEC. (30" ECC HOLE) F/G - 15"	4661 lb
P2) 72" - MH RISER T/G - 84"	11506 lb
P1) 72" - MH BASE T/n - 24"	7398 lb
1) ASSEMBLY REQUIRED	0 lb
1) CVSTENCILING	0 lb
2) 72" - Conseal CS-102 1.00"	0 lb
2) Hole - 28	0 lb
Structure Total:	23565 lb

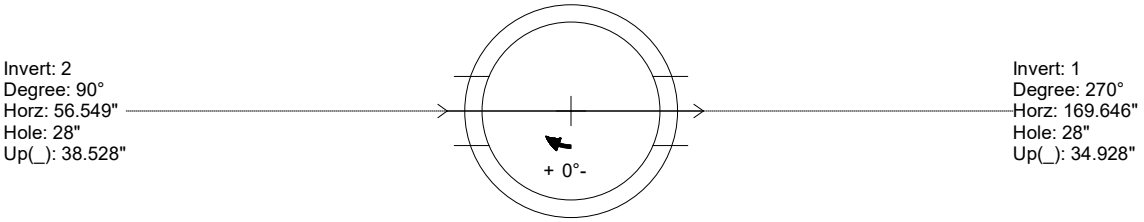
Structure Notes: .
4" CASTING BY OTHERS
.
LIFTING ANCHORS TO BE INSTALLED ON THE OUTSIDE OF THE STRUCTURE
.
ICAST TO INSTALL THE INTERNALS
.
CONTECH'S LOGO AS WELL AS THE INLET AND OUTLET MUST BE STENCILED ONTO THE STRUCTURE

Rim: 598.5' Rim to Invert: 6.5' Slack: 19.928" Sump: 68.928" Step Position: 0°

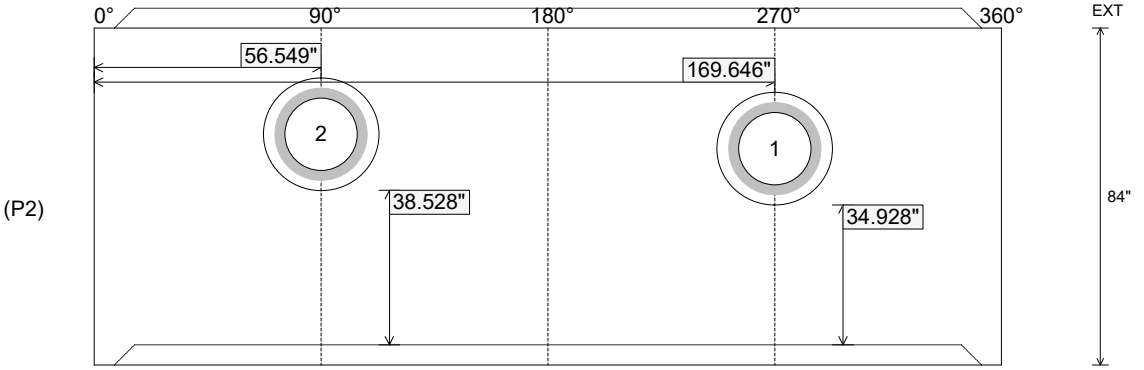
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	592'	270°	202.633"	18" RCP B WALL	23"	Hole 28	28"	28.759"	34.928"	0"
Invert 2	592.3'	90°	67.544"	18" RCP B WALL	23"	Hole 28	28"	28.759"	38.528"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)





INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: Groove	Wall Thickness: 7" Floor Height: 0"	Height (Int): 84" Height (Ext): 84"	Weight (Net): 11506 lb Volume (Net): 2.94cu.yd

Job Name: 26-2659 879027 Kroger Marketplace Dearborn Job Location: CPU Contractor: Contech Engineering Solutions	Plant: Beaver Dam 6/18/2026 1:07:20 PM	Tech: S. Felletter PC: C. Goff	

Structure ID: 10-CS-6

P1 MH072BA24 MH BASE T/n

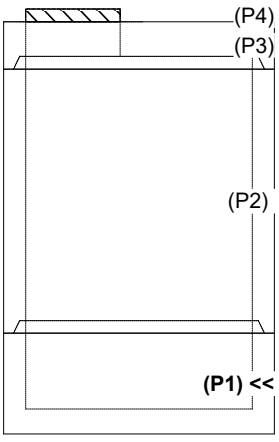
P4) 30" - CASTING HEIGHT - 4"	0 lb
P3) 72" - MH FLAT TOP SPEC. (30" ECC HOLE) F/G - 15"	4661 lb
P2) 72" - MH RISER T/G - 84"	11506 lb
P1) 72" - MH BASE T/n - 24"	7398 lb
1) ASSEMBLY REQUIRED	0 lb
1) CVSTENCILING	0 lb
2) 72" - Conseal CS-102 1.00"	0 lb
2) Hole - 28	0 lb
Structure Total:	23565 lb

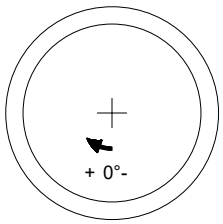
Structure Notes: .
4" CASTING BY OTHERS
.
LIFTING ANCHORS TO BE INSTALLED ON THE OUTSIDE OF THE STRUCTURE
.
ICAST TO INSTALL THE INTERNALS
.
CONTECH'S LOGO AS WELL AS THE INLET AND OUTLET MUST BE STENCILED ONTO THE STRUCTURE

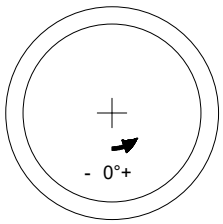
Rim: 598.5' Rim to Invert: 6.5' Slack: 19.928" Sump: 68.928" Step Position: 0°

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1										
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

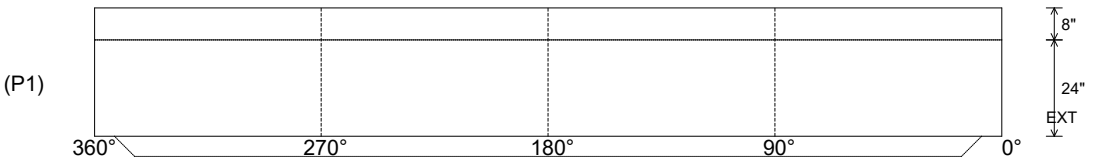
RIGHT-SIDE UP VIEW (int. dimensions) UPSIDE-DOWN VIEW (int. dimenions)







INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: n/a	Wall Thickness: 7" Floor Height: 8"	Height (Int): 24" Height (Ext): 32"	Weight (Net): 7398 lb Volume (Net): 1.89cu.yd

Job Name: 26-2659 879027 Kroger Marketplace Dearborn Job Location: CPU Contractor: Contech Engineering Solutions	Plant: Beaver Dam 6/18/2026 1:07:28 PM	Tech: S. Felletter PC: C. Goff	

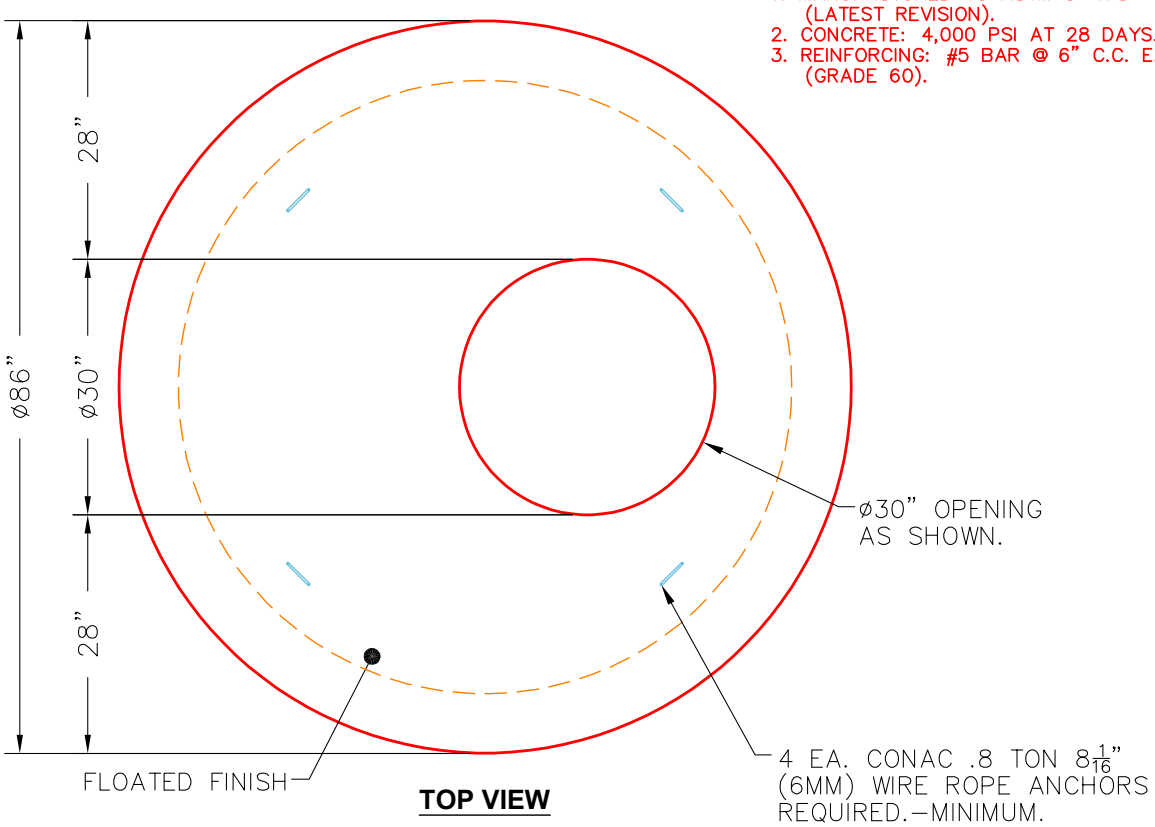
Structure ID: 10-CS-6

P3 MH072LD15-30ECC MH FLAT TOP SPEC. (30" ECC HOLE) F/G

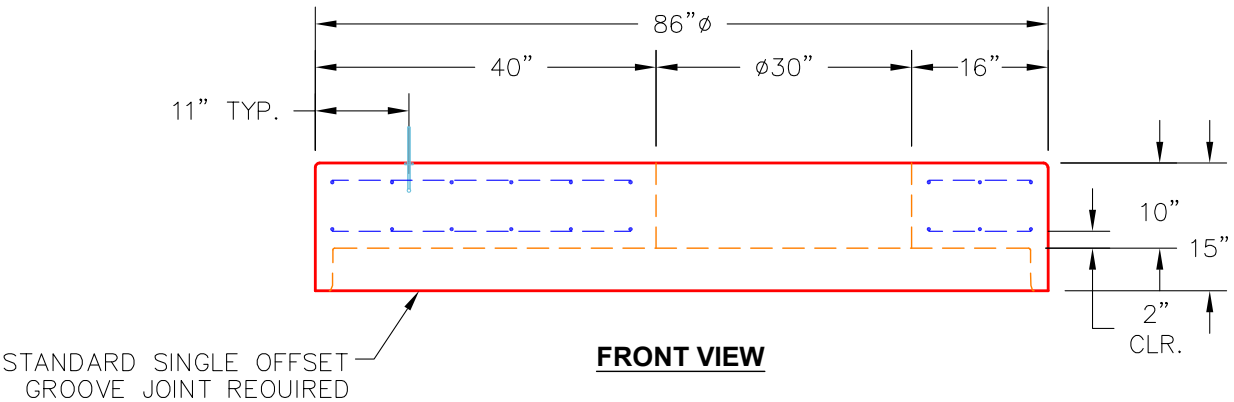
P4) 30" - CASTING HEIGHT - 4"	0 lb
P3) 72" - MH FLAT TOP SPEC. (30" ECC HOLE) F/G - 15"	4661 lb
P2) 72" - MH RISER T/G - 84"	11506 lb
P1) 72" - MH BASE T/n - 24"	7398 lb
1) ASSEMBLY REQUIRED	0 lb
1) CVSTENCILING	0 lb
2) 72" - Conseal CS-102 1.00"	0 lb
2) Hole - 28	0 lb
Structure Total:	23565 lb

Structure Notes: .
4" CASTING BY OTHERS
.
LIFTING ANCHORS TO BE INSTALLED ON THE OUTSIDE OF THE STRUCTURE
.
ICAST TO INSTALL THE INTERNALS
.
CONTECH'S LOGO AS WELL AS THE INLET AND OUTLET MUST BE STENCILED ONTO THE STRUCTURE

NOTES:
1. MANUFACTURED TO ASTM C-478 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6" C.C. E.W. (GRADE 60).



TOP VIEW



FRONT VIEW

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Groove	Wall Thickness: 7"	Height (Ext): 15"	Weight (Net): 4661 lb Volume (Net): 1.19cu.yd

Job Name: 26-2582 - 739729 Teal Drive Job Location: Nashville, TN Contractor: Contech Engineering Solutions	Plant: Beaver Dam 6/16/2026 1:01:56 PM	Tech: J. Coppage PC: T. Sekula	

Structure ID: 10-CS-8

P3 MH096RS72 **MH RISER T/G**

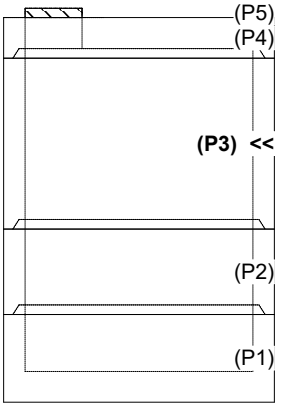
P5) 24" - CASTING HEIGHT - 4"	0 lb
P4) 96" - MH FLAT TOP SPEC. (2 - 24"ø HOLES) F/G - 17"	10015 lb
P3) 96" - MH RISER T/G - 72"	15782 lb
P2) 96" - MH RISER T/G - 36"	8968 lb
P1) 96" - MH MONOBASE 13F, Custom Ht T/n - 24"	17113 lb
1) ASSEMBLY REQUIRED	0 lb
1) CVSTENCILING	0 lb
3) 96" - Conseal CS-102 1.00"	0 lb
1) 24" - Conseal CS-102 1.00"	0 lb
2) Hole - 42	0 lb
Structure Total:	51879 lb

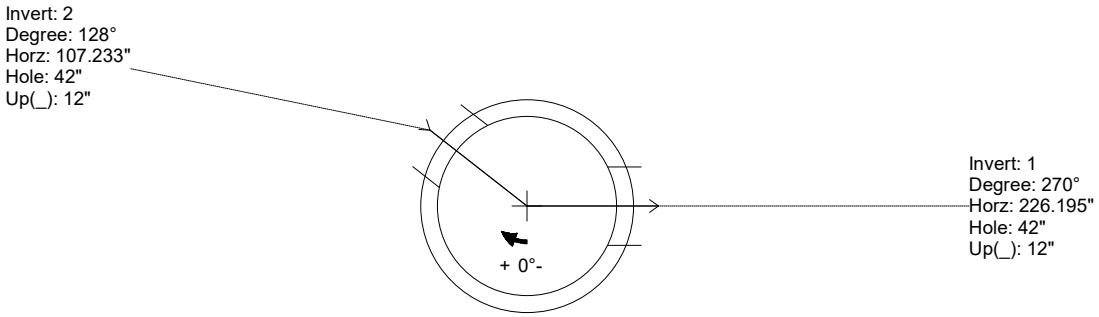
Structure Notes: .
SITE DESIGNATION: STM-C2
.
(4" TALL CASTING PROVIDED BY OTHERS)
.
CONTROL RISER TO BE MECHANICALLY ATTACHED TO THE BOTTOM OF THE 72" TALL RISER.
.
ICAST TO INSTALL THE INTERNALS
.
CONTECH'S LOGO AS WELL AS THE INLET AND THE OUTLET MUST BE STENBCILED ONTO THE STRUCTURE

Rim: 471.23' Rim to Invert: 6.47' Slack: 7.64" Sump: 83" Step Position:

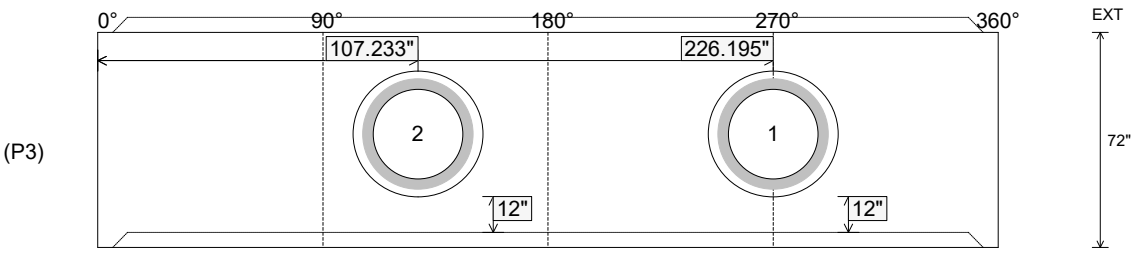
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	464.76'	270°	268.606"	30" RCP B WALL	37"	Hole 42	42"	43.47"	12"	0"
Invert 2	464.76'	128°	127.339"	30" RCP B WALL	37"	Hole 42	42"	43.47"	12"	0"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)





INSIDE WALL DIMENSIONS

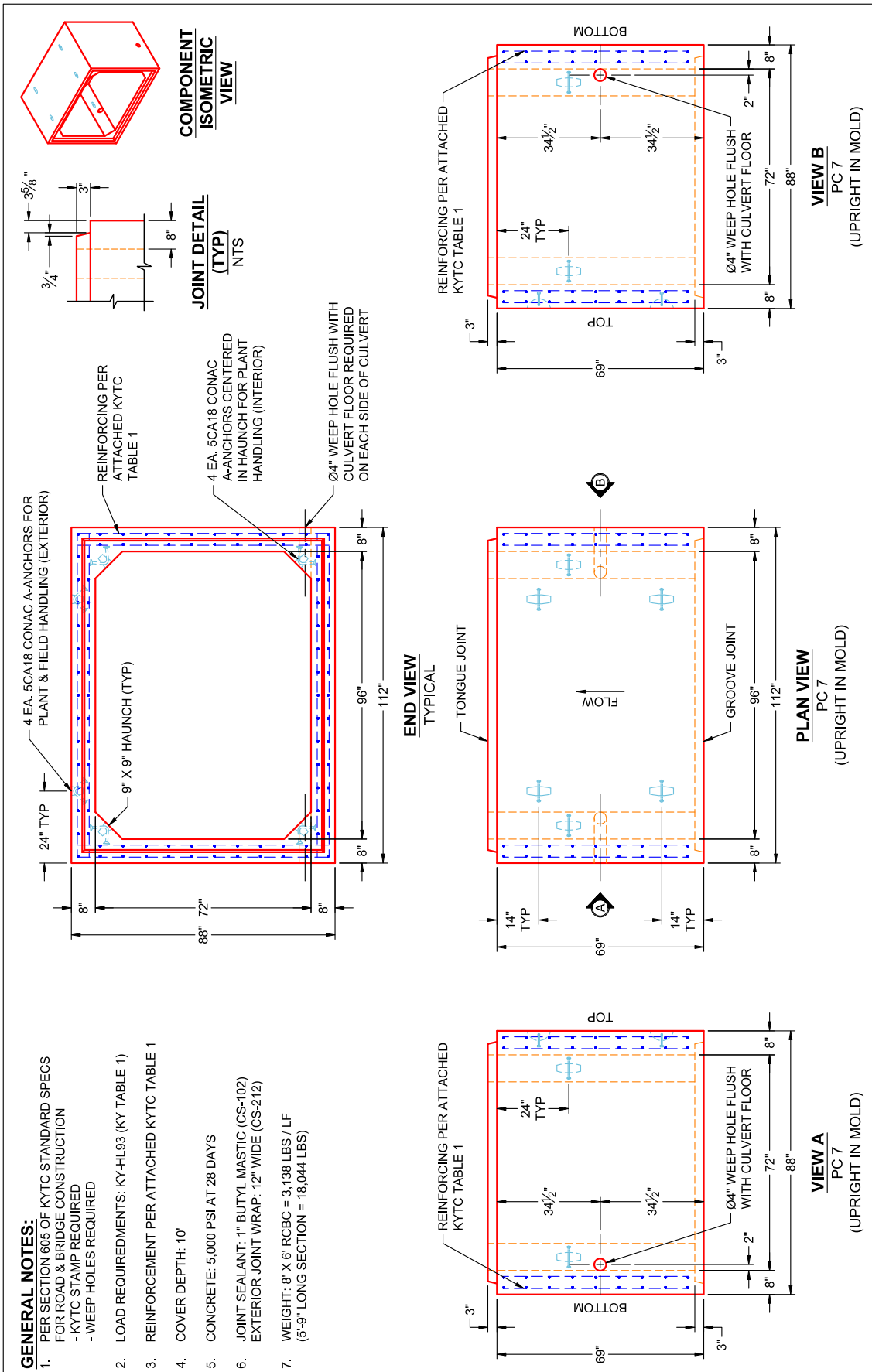


Coating (Int): Coating (Ext):	Seam Up: Tongue Seam Dn: Groove	Wall Thickness: 9" Floor Height: 0"	Height (Int): 72" Height (Ext): 72"	Weight (Net): 15782 lb Volume (Net): 4.03cu.yd

Job Name: 24-1643B - KYTC McCracken Co. Call 200 (ID 241301) Job Location: Paducah, KY Contractor: Jim Smith Contracting Co, LLC	Plant: 100 5/28/2026 7:51:16 AM	Tech: J. Horsley PC: C. Goff	

Structure ID: St. 43+62 (PC 7)

P1 BC096072-08WLF-9HC BOX CULVERT (08W/08F/08T) G/T



GENERAL NOTES:

1. PER SECTION 605 OF KYTC STANDARD SPECS FOR ROAD & BRIDGE CONSTRUCTION
   - KYTC STAMP REQUIRED
   - WEEP HOLES REQUIRED
2. LOAD REQUIREDMENTS: KY-HL93 (KY TABLE 1)
3. REINFORCEMENT PER ATTACHED KYTC TABLE 1
4. COVER DEPTH: 10'
5. CONCRETE: 5,000 PSI AT 28 DAYS
6. JOINT SEALANT: 1" BUTYL MASTIC (CS-102) EXTERIOR JOINT WRAP: 12" WIDE (CS-212)
7. WEIGHT: 8' X 6' RCBC = 3,138 LBS / LF (5'-9" LONG SECTION = 18,044 LBS)

PRODUCTION WORK ORDER

PRODUCT I.D.: BC096072-08WLF-9H

PRODUCT VIEW: RIGHT SIDE UP

PLANT: BEAVER DAM, KY

WEIGHT: 18,044 LBS

TOP SECTION JOINT: TONGUE

BASE SECTION JOINT: GROOVE

QC CHECK INITIALS:

DESCRIPTION: 96" X 72" X 69" BOX CULVERT (8" WALLS & 9" HAUNCH)

CUSTOMER: JIM SMITH CONTRACTING

PROJECT: KYTC MCCRACKEN CO. CALL 200 (ID 241301)

STRUCTURE: ST. 43+62 (PC 7)

ORDER NO: 24-1643B

PE: J.H. ROSS | DRAWING: K. CARDWELL

DATE: 05/28/26 | SCALE: NTS | PG. 1 OF 1

QUALITY CONTROL CHECKLIST

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

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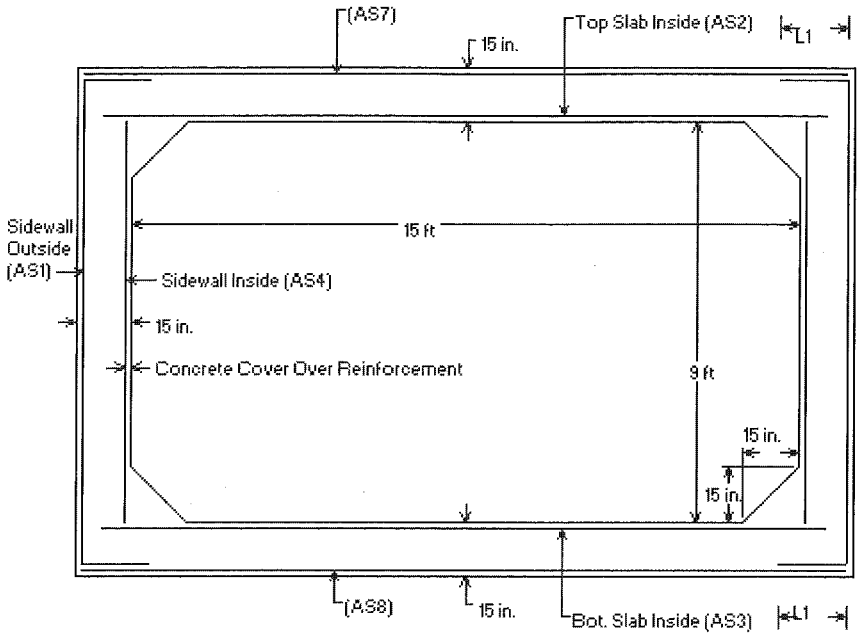


* <L1> is Splice Length
* (AS7) is Top Slab Outside
* (AS8) is Bottom Slab Outside
* See Box Culvert Design Summary Sheet for transverse and distribution reinforcement, as required.
* For sidewall thicknesses of 6 in. and above, extend AS2 and AS3 a min. of 4 in. beyond the inside face of the sidewall. 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
8x6x8	0<2	0.267	0.536	0.382	0.192	0.192	0.192	0.192	0.192
	2<3	0.266	0.458	0.382	0.192	0.192	0.192	0.192	0.192
	3-5	0.237	0.392	0.359	0.192	0.192	0.192		
	10	0.244	0.365	0.38	0.192	0.192	0.192		
	15	0.321	0.489	0.505	0.192	0.192	0.192		
	20	0.408	0.627	0.644	0.192	0.192	0.192		
	25	0.502	0.774	0.791	0.192	0.192	0.192		
	30	0.602	0.928	0.946	0.192	0.192	0.192		
	35	0.708	1.089	1.108	0.192	0.192	0.192		

	Design Earth Cover, ft	As1	As2	As3	As4	As7	As8	As5	As6
8x7x8	0<2	0.245	0.557	0.403	0.192	0.192	0.192	0.197	0.192
	2<3	0.243	0.479	0.403	0.192	0.192	0.192	0.192	0.192
	3-5	0.215	0.409	0.378	0.192	0.192	0.192		
	10	0.225	0.378	0.396	0.192	0.192	0.192		
	15	0.295	0.507	0.526	0.192	0.192	0.192		
	20	0.374	0.651	0.671	0.192	0.192	0.192		
	25	0.459	0.804	0.825	0.192	0.192	0.192		
	30	0.549	0.965	0.987	0.192	0.192	0.192		
	35	0.644	1.134	1.157	0.192	0.192	0.192		

	Design Earth Cover, ft	As1	As2	As3	As4	As7	As8	As5	As6
8x8x8	0<2	0.226	0.575	0.42	0.192	0.192	0.192	0.203	0.192
	2<3	0.224	0.494	0.42	0.192	0.192	0.192	0.192	0.192
	3-5	0.201	0.423	0.393	0.192	0.192	0.192		
	10	0.211	0.386	0.407	0.192	0.192	0.192		
	15	0.276	0.518	0.54	0.192	0.192	0.192		
	20	0.349	0.665	0.688	0.192	0.192	0.192		
	25	0.427	0.822	0.846	0.192	0.192	0.192		
	30	0.51	0.988	1.013	0.192	0.192	0.192		

Default Configuration (page 1)

Default Parameters

Data Directory: c:

Jeremiah.Littleton
Documents
BOXCAR3.1

○ SI Unit File ◉ Customary US Unit File

Section Length 3 ft

Box Geometry

	SPAN ≤ / ft				SPAN > / ft			
Top Slab Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Bottom Slab Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Sidewall Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Horizontal Haunch Length	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Vertical Haunch Length	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.

Clear Concrete Covers

Top Slab Outside Face	2	in. (MINIMUM DEPTH OF FILL < 2 ft)
Top Slab Outside Face	1	in. (MINIMUM DEPTH OF FILL >= 2 ft)
Bottom Slab Outside Face	1	in.
Sidewall Outside Face	1	in.
Top Slab Inside Face	1	in.
Bottom Slab Inside Face	1	in.
Sidewall Inside Face	1	in.

Reinforcement Type: Welded Wire

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	%

Restore Default Settings

Next Page >> | Return to Main Menu

Default Configuration (page 2)

Design Code: AASHTO - LRFD

Strength Reduction Factors

Design Code

Flexure 1

Shear 0.9

Axial Thrust Load Factor: User Specified 1

Crack Width (CHBDC Only) 0.25 mm

Reinforcement Diameter

		Diameter			Maximum Spacing	
Sidewall Outside	(AS1)	0.05 * Sidewall Thickness	+ 0	in.	4	in.
Top Inside	(AS2)	0.05 * Top Slab Thickness	+ 0	in.	4	in.
Bottom Inside	(AS3)	0.05 * Bottom Slab Thickness	+ 0	in.	4	in.
Sidewall Inside	(AS4)	0.05 * Sidewall Thickness	+ 0	in.	4	in.
Top Outside	(AS7)	0.05 * Top Slab Thickness	+ 0	in.	4	in.
Bottom Outside	(AS8)	0.05 * Bottom Slab Thickness	+ 0	in.	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

<<Previous Page | Next Page >> | Return to Main Menu

Boxcar - Default (page 3) [Interstate/Tandem]

Live Load Data

Live Load Type (Max 2)	Magnitude (N)		Footprint	User Specified (Not by Code) Length		Width	
☑ HS-Series	25	tons	☑ By Code	10	in.	20	in.
☑ Interstate/Tandem	25	kips	☑ By Code	10	in.	20	in.
☐ Cooper Series	80	kips	☑ By Code	0	in.	0	in.
☐ CHBDC Truck	140	kips	☑ By Code	10	in.	24	in.
☐ Tandem/Tridem	140	kips	☐ By Code	10	in.	20	in.
☐ Other	10	kips	☐ By Code	10	in.	20	in.
☐ None							

Direction of Traffic: Parallel To Span

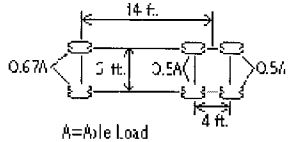
Impact Factor Options: Design Code

Impact Factor (User Def) 1

Lane Load 0 lb/ft

Live Load Distribution Factor (LLDF): Design Code — 1.15

Interstate/Tandem Truck Wheel Layout



A=Axle Load

Fluid Loads

Depth of Fluid 1 * Rise

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

<<Previous Page | Next Page >> | Return to Main Menu

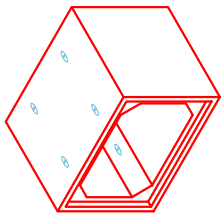
Job Name: 25-2898 - Hunter's Ridge Ph.1
Job Location: Owensboro, KY
Contractor: Ernie Davis & Sons Mechanical, Inc.

Plant: 100
5/29/2026 8:41:22 AM

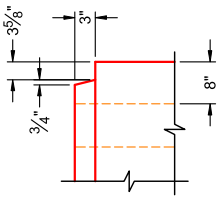
Tech: Jared - A
PC: A. Chambers

Structure ID: BC 6 x 4 (Sec S)

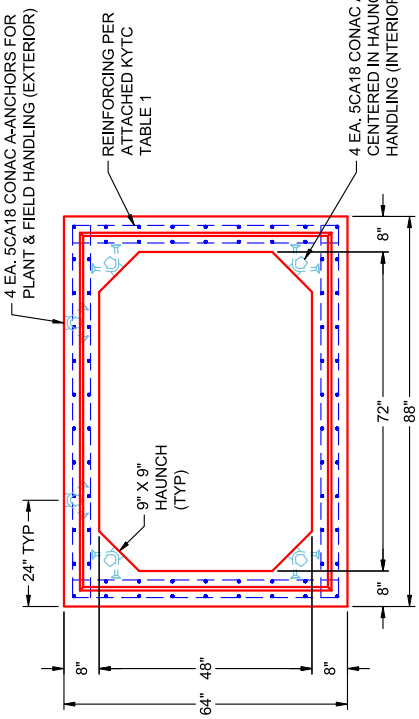
P1 **BC048072-08WLF-9H** **BOX CULVERT (08W/08F/08T) G/T**



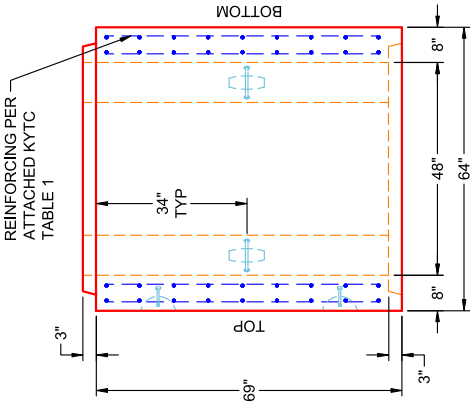
COMPONENT ISOMETRIC VIEW



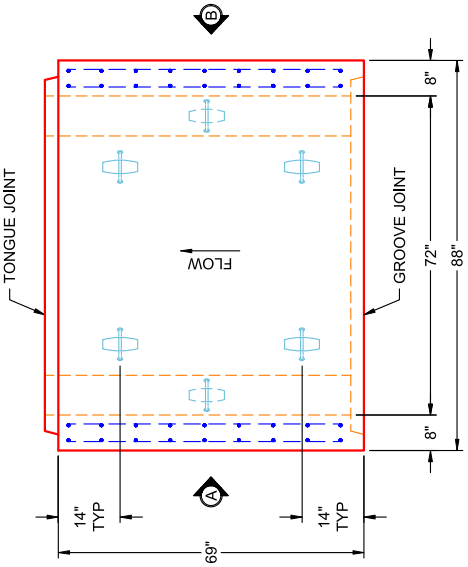
JOINT DETAIL (TYP) NTS



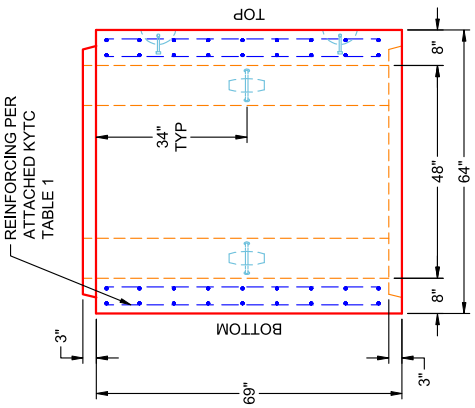
END VIEW TYPICAL



VIEW B SEC S (UPRIGHT IN MOLD)



PLAN VIEW SEC S (UPRIGHT IN MOLD)



VIEW A SEC S (UPRIGHT IN MOLD)

GENERAL NOTES:

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

PRODUCTION WORK ORDER

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 S)
ORDER NO: 25-2898
PE: J.H. ROSS | DRAWING: K. CARDWELL
DATE: 05/29/26 | SCALE: NTS | PG. 1 OF 1

QUALITY CONTROL CHECKLIST

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

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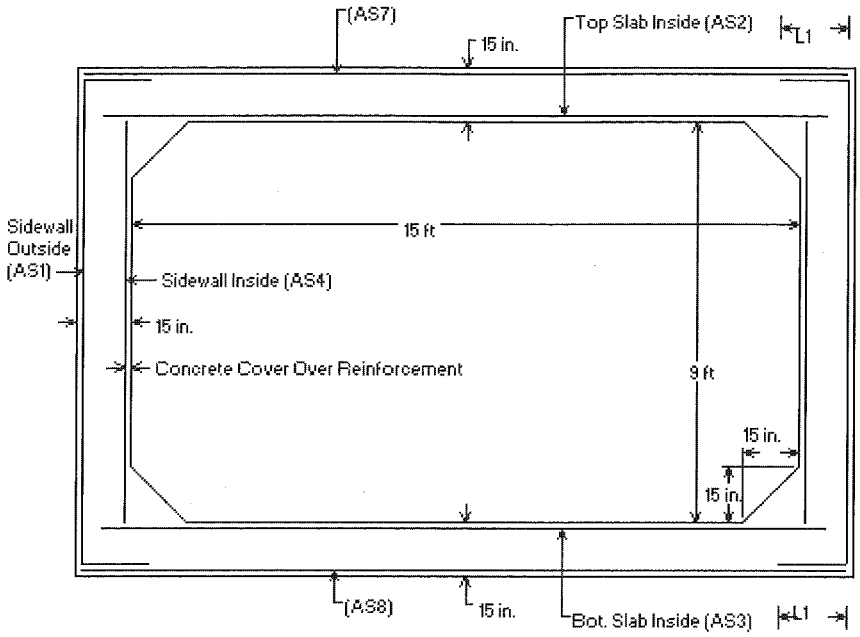

* <L1> is Splice Length
* (AS7) is Top Slab Outside
* (AS8) is Bottom Slab Outside
* See Box Culvert Design Summary Sheet for transverse and distribution reinforcement, as required.
* For sidewall thicknesses of 6 in. and above, extend AS2 and AS3 a min. of 4 in. beyond the inside face of the sidewall.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

Default Parameters

Data Directory: c:

Jeremiah.Littleton
Documents
BOXCAR3.1

○ SI Unit File ◉ Customary US Unit File

Section Length 3 ft

Box Geometry

	SPAN ≤ / ft				SPAN > / ft			
Top Slab Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Bottom Slab Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Sidewall Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Horizontal Haunch Length	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Vertical Haunch Length	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.

Clear Concrete Covers

Top Slab Outside Face	2	in. (MINIMUM DEPTH OF FILL < 2 ft)
Top Slab Outside Face	1	in. (MINIMUM DEPTH OF FILL >= 2 ft)
Bottom Slab Outside Face	1	in.
Sidewall Outside Face	1	in.
Top Slab Inside Face	1	in.
Bottom Slab Inside Face	1	in.
Sidewall Inside Face	1	in.

Reinforcement Type: Welded Wire

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	%

Restore Default Settings

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Default Configuration (page 2)

Design Code: AASHTO - LRFD

Strength Reduction Factors

Design Code

Flexure 1

Shear 0.9

Axial Thrust Load Factor: User Specified 1

Crack Width (CHBDC Only) 0.25 mm

Reinforcement Diameter

		Diameter			Maximum Spacing	
Sidewall Outside	(AS1)	0.05 * Sidewall Thickness	+ 0	in.	4	in.
Top Inside	(AS2)	0.05 * Top Slab Thickness	+ 0	in.	4	in.
Bottom Inside	(AS3)	0.05 * Bottom Slab Thickness	+ 0	in.	4	in.
Sidewall Inside	(AS4)	0.05 * Sidewall Thickness	+ 0	in.	4	in.
Top Outside	(AS7)	0.05 * Top Slab Thickness	+ 0	in.	4	in.
Bottom Outside	(AS8)	0.05 * Bottom Slab Thickness	+ 0	in.	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

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Boxcar - Default (page 3) [Interstate/Tandem]

Live Load Data

Live Load Type (Max 2)	Magnitude (N)		Footprint	User Specified (Not by Code) Length		Width	
☑ HS-Series	25	tons	☑ By Code	10	in.	20	in.
☑ Interstate/Tandem	25	kips	☑ By Code	10	in.	20	in.
☐ Cooper Series	80	kips	☑ By Code	0	in.	0	in.
☐ CHBDC Truck	140	kips	☑ By Code	10	in.	24	in.
☐ Tandem/Tridem	140	kips	☐ By Code	10	in.	20	in.
☐ Other	10	kips	☐ By Code	10	in.	20	in.
☐ None							

Direction of Traffic: Parallel To Span

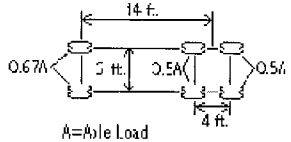
Impact Factor Options: Design Code

Impact Factor (User Def) 1

Lane Load 0 lb/ft

Live Load Distribution Factor (LLDF): Design Code — 1.15

Interstate/Tandem Truck Wheel Layout



A=Axle Load

Fluid Loads

Depth of Fluid 1 * Rise

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

<<Previous Page | Next Page >> | Return to Main Menu

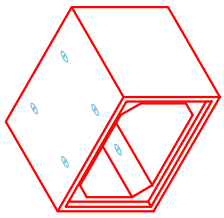
Job Name: 25-2898 - Hunter's Ridge Ph.1
Job Location: Owensboro, KY
Contractor: Ernie Davis & Sons Mechanical, Inc.

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

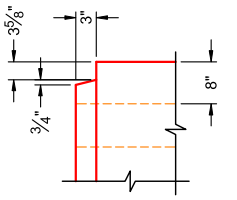
Tech: Jared - A
PC: A. Chambers

Structure ID: BC 6 x 4 (Sec P)

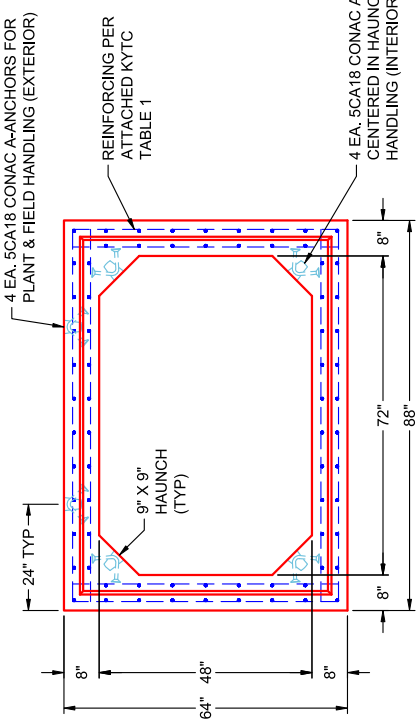
P1 **BC048072-08WLF-9H** **BOX CULVERT (08W/08F/08T) G/T**



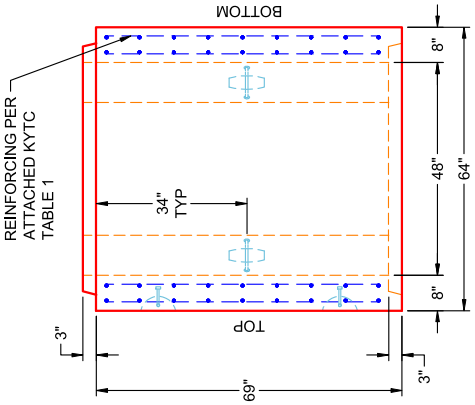
COMPONENT ISOMETRIC VIEW



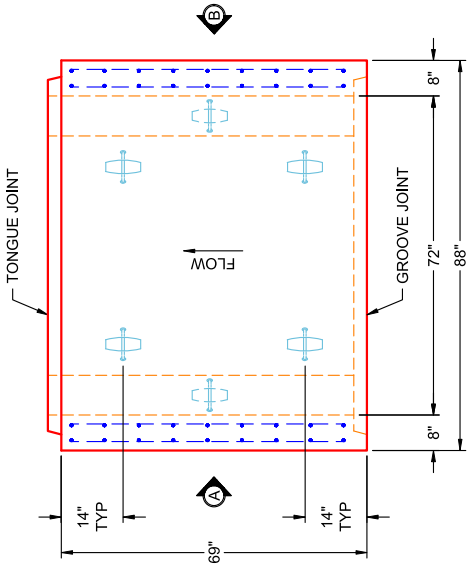
JOINT DETAIL (TYP) NTS



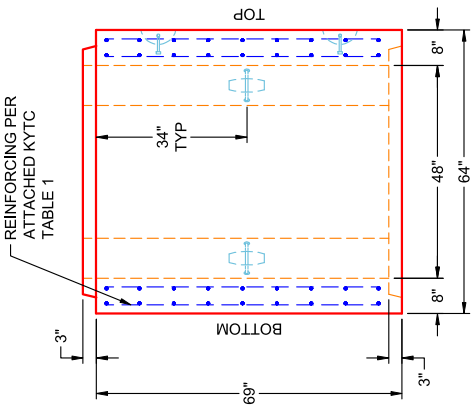
END VIEW TYPICAL



VIEW B SEC P (UPRIGHT IN MOLD)



PLAN VIEW SEC P (UPRIGHT IN MOLD)



VIEW A SEC P (UPRIGHT IN MOLD)

GENERAL NOTES:

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

PRODUCTION WORK ORDER

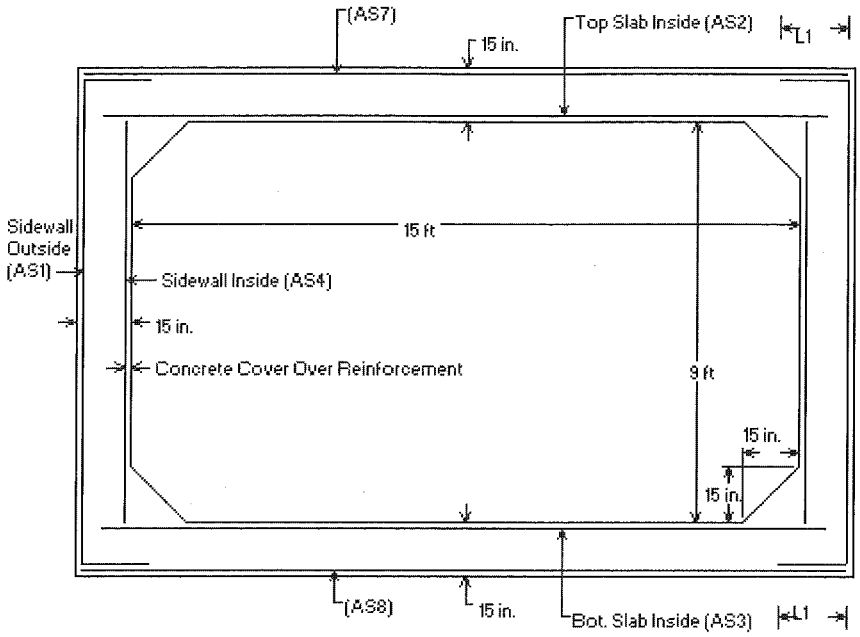
PRODUCT I.D.:	BC048072-08WLF-9H
PRODUCT VIEW:	RIGHT SIDE UP
PLANT:	BEAVER DAM, KY
WEIGHT:	13,537 LBS
TOP SECTION JOINT:	TONGUE
BASE SECTION JOINT:	GROOVE
QC CHECK INITIALS:	

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 P)
ORDER NO: 25-2898
PE: J.H. ROSS
DRAWING: K. CARDWELL
DATE: 05/29/26
SCALE: NTS
PG. 1 OF 1

QUALITY CONTROL CHECKLIST

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

THIS DRAWING IS THE PROPERTY OF INFRASTRUCTURE PRECAST, INC. ANY USE OR DUPLICATION OF THIS DRAWING WITHOUT PRIOR AUTHORIZATION IS STRICTLY PROHIBITED.



* <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 (page 1)

Default Parameters

Data Directory: c:

Jeremiah.Littleton
Documents
BOXCAR3.1

○ SI Unit File ◉ Customary US Unit File

Section Length 3 ft

Box Geometry

	SPAN ≤ / ft				SPAN > / ft			
Top Slab Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Bottom Slab Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Sidewall Thickness	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Horizontal Haunch Length	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.
Vertical Haunch Length	(Span/	12	+ 1	in.	(Span/	12	+ 0	in.

Clear Concrete Covers

Top Slab Outside Face	2	in. (MINIMUM DEPTH OF FILL < 2 ft)
Top Slab Outside Face	1	in. (MINIMUM DEPTH OF FILL >= 2 ft)
Bottom Slab Outside Face	1	in.
Sidewall Outside Face	1	in.
Top Slab Inside Face	1	in.
Bottom Slab Inside Face	1	in.
Sidewall Inside Face	1	in.

Reinforcement Type: Welded Wire

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	%

Restore Default Settings

Next Page >> | Return to Main Menu

Default Configuration (page 2)

Design Code: AASHTO - LRFD

Strength Reduction Factors

Design Code

Flexure 1

Shear 0.9

Axial Thrust Load Factor: User Specified 1

Crack Width (CHBDC Only) 0.25 mm

Reinforcement Diameter

		Diameter			Maximum Spacing	
Sidewall Outside	(AS1)	0.05 * Sidewall Thickness	+ 0	in.	4	in.
Top Inside	(AS2)	0.05 * Top Slab Thickness	+ 0	in.	4	in.
Bottom Inside	(AS3)	0.05 * Bottom Slab Thickness	+ 0	in.	4	in.
Sidewall Inside	(AS4)	0.05 * Sidewall Thickness	+ 0	in.	4	in.
Top Outside	(AS7)	0.05 * Top Slab Thickness	+ 0	in.	4	in.
Bottom Outside	(AS8)	0.05 * Bottom Slab Thickness	+ 0	in.	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

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Boxcar - Default (page 3) [Interstate/Tandem]

Live Load Data

Live Load Type (Max 2)	Magnitude (N)		Footprint	User Specified (Not by Code) Length		Width	
☑ HS-Series	25	tons	☑ By Code	10	in.	20	in.
☑ Interstate/Tandem	25	kips	☑ By Code	10	in.	20	in.
☐ Cooper Series	80	kips	☑ By Code	0	in.	0	in.
☐ CHBDC Truck	140	kips	☑ By Code	10	in.	24	in.
☐ Tandem/Tridem	140	kips	☐ By Code	10	in.	20	in.
☐ Other	10	kips	☐ By Code	10	in.	20	in.
☐ None							

Direction of Traffic: Parallel To Span

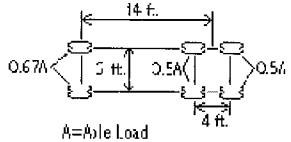
Impact Factor Options: Design Code

Impact Factor (User Def) 1

Lane Load 0 lb/ft

Live Load Distribution Factor (LLDF): Design Code — 1.15

Interstate/Tandem Truck Wheel Layout



A=Axle Load

Fluid Loads

Depth of Fluid 1 * Rise

Fluid Unit Weight 62.5 pcf

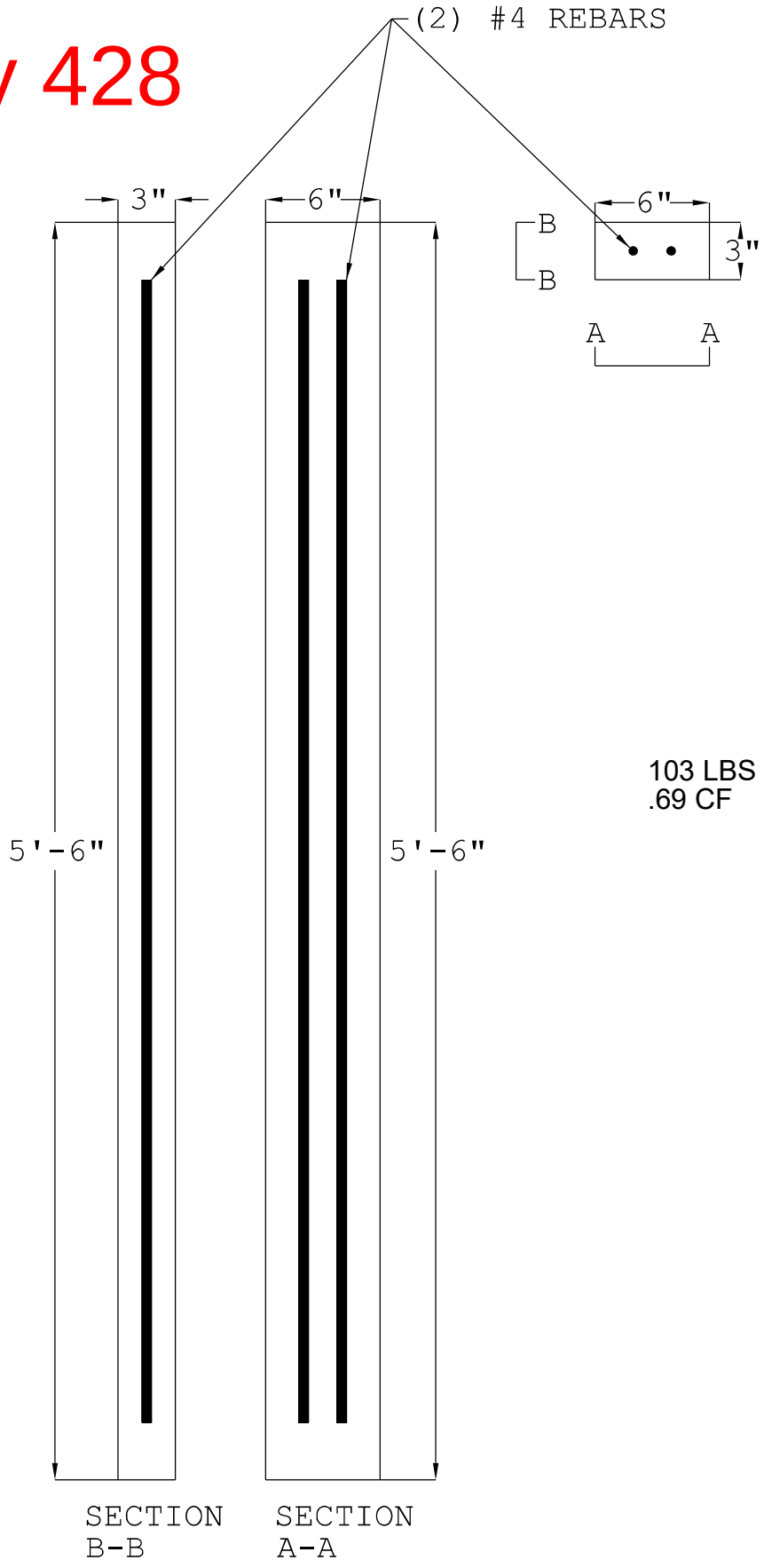
Surcharge Loads

Uniform Vertical	0	lb/ft
Lateral - Top of Culvert (LLTC)	90	lb/ft
Lateral - Bottom of Culvert (LLBC)	90	lb/ft

<<Previous Page | Next Page >> | Return to Main Menu

ALCOA CONCRETE LOGS

Quantity 428



103 LBS
.69 CF

Job Name: 26-1456 Double Kwik
Job Location: Whitesburg, KY
Contractor: Rising Sun Development Company

Plant: Beaver Dam

6/18/2026 3:05:41 PM

Tech: S. Felletter

PC: E. Bradley

Structure ID: 87 59-7 DBI10

P1 BX24300808VF BOX BASE 8inW, 8inF, Variable Ht F/n

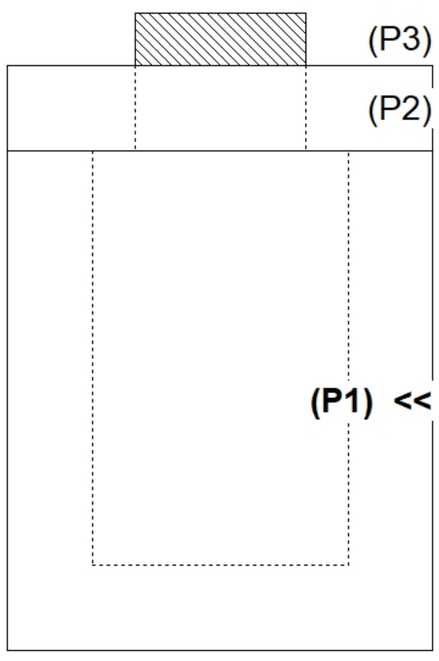
P3) 16" x 28" - CASTING HEIGHT - 5"	0 lb
P2) 24" x 30" - BX FLAT LID 8inW w/16"x28" HOLE F/F - 8"	934 lb
P1) 24" x 30" - BOX BASE 8inW, 8inF, Variable Ht F/n - 39"	4498 lb
1) CASTING - HOE KY-550 F/G (DBI TY 10)	550 lb
1) 24" x 30" - Conseal CS-102 1.00"	0 lb
2) Hole - 18	0 lb
1) Hole - 10	0 lb
Structure Total:	5982 lb

Structure Notes: .
1. KYTC DBI TYPE 10 / ASTM C-913 SPEC'S.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. NO STEPS.
5. CASTING BY ICAST (HOE KY-550 F/G).

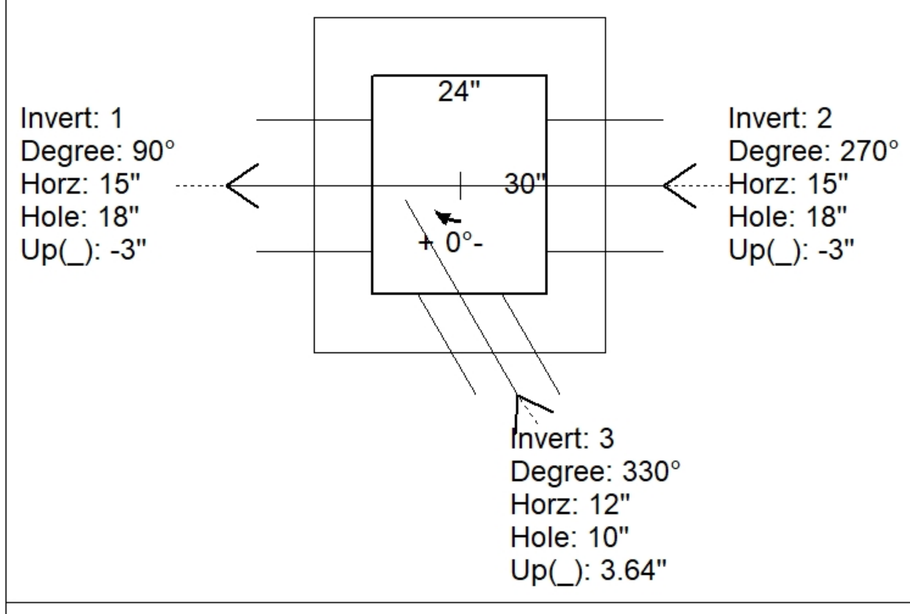
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .31) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 1192' Rim to Invert: 4.41' Slack: 0.92" Sump: 0" Step Position:

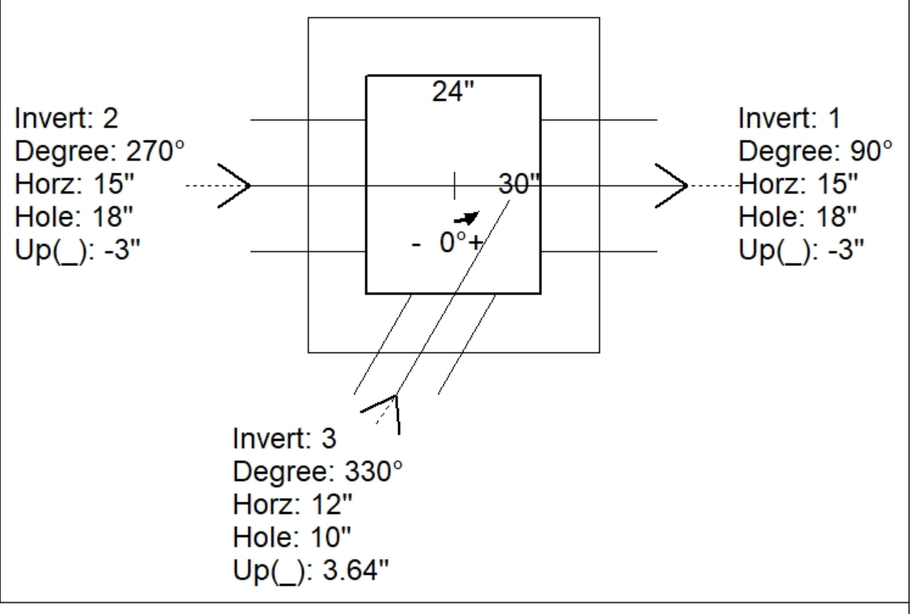
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	1187.59'	90°	23"	12" HDPE	14.5"	Hole 18	18"	18"	-3"	0"
Invert 2	1187.59'	270°	23"	12" HDPE	14.5"	Hole 18	18"	18"	-3"	0"
Invert 3	1188.06'	330°	15.381"	6" PVC SDR35	6.25"	Hole 10	10"	11.547"	3.64"	7.5"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



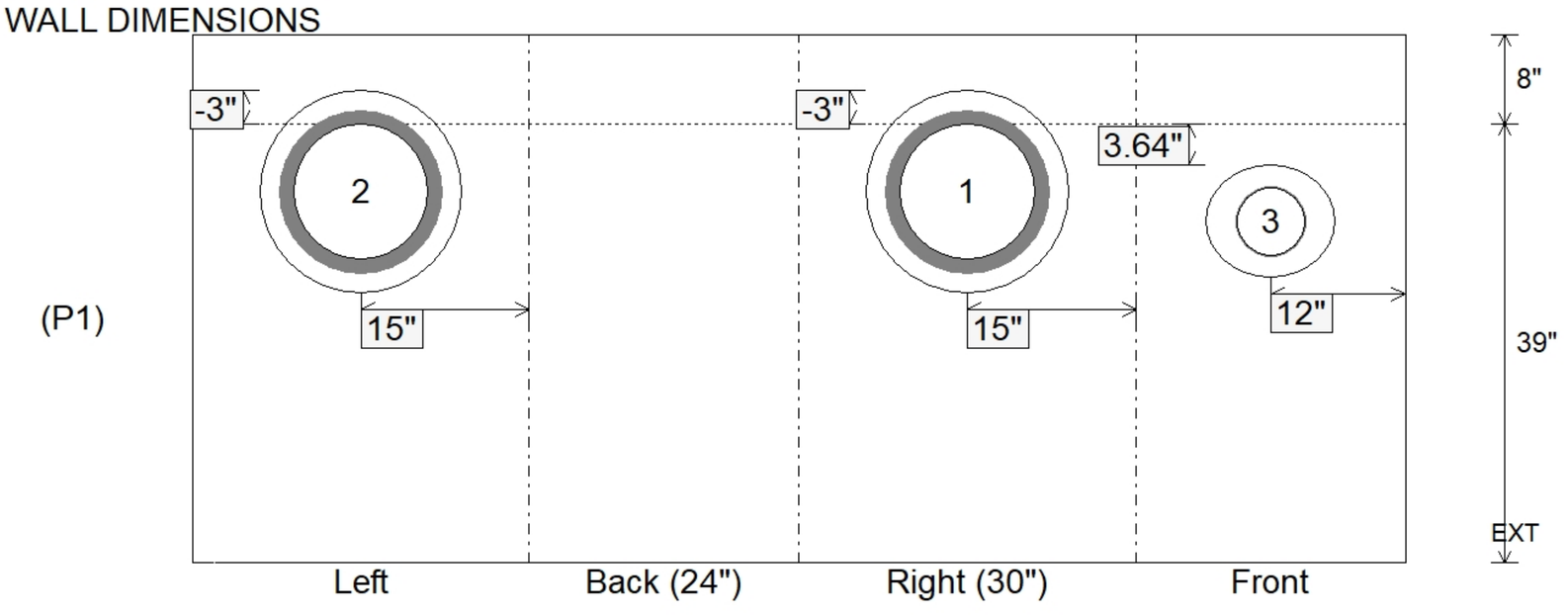
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: n/a	Wall Thickness: 8" Floor Height: 8"	Height (Int): 39" Height (Ext): 47"	Weight (Net): 4498 lb Volume (Net): 1.15cu.yd

Job Name: 26-2171 - Lake Malone Campground Multi Park West
Job Location: Lewisburg, KY
Contractor: Sensabaugh Design & Construction, LLC

Plant: 100
6/16/2026 10:48:07 AM

Tech: Jared - F
PC: M. Sullivan

Structure ID: CB-A2

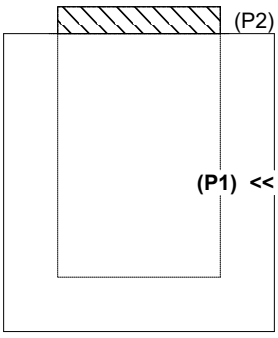
P1 BX2424-08BA36 BOX BASE 8inW, 8inF F/n

P2) 24" x 24" - CASTING HEIGHT - 4"	0 lb
P1) 24" x 24" - BOX BASE 8inW, 8inF F/n - 36"	3820 lb
1) CASTING - HOE 280T F/G	182 lb
1) 24" x 24" - Conseal CS-102 1.00"	0 lb
2) Hole - 16	0 lb
1) Hole - 10	0 lb
Structure Total:	4002 lb

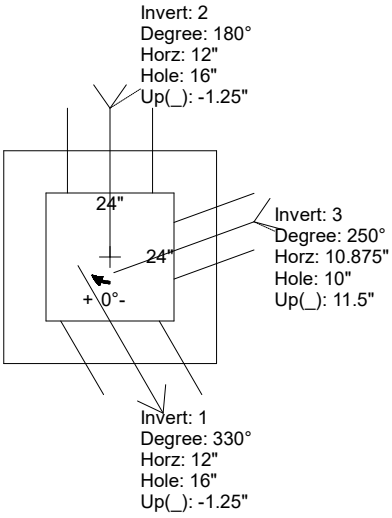
Structure Notes: .
1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 280T F/G).
.
REINFORCING PER ASTM A615 (GRADE 60).
- WALLS (As .12) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .12) #5 BARS AT 12" C.C.E.W.

Rim: 570.1' Rim to Invert: 3.4' Slack: 0.8" Sump: 0" Step Position:

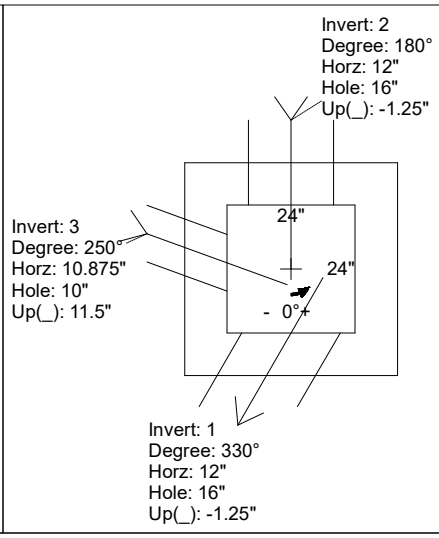
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	566.7'	330°	15.375"	12" HDPE	14.5"	Hole 16	16"	18.475"	-1.25"	6"
Invert 2	566.7'	180°	20"	12" HDPE	14.5"	Hole 16	16"	16"	-1.25"	0"
Invert 3	567.7'	250°	15.875"	6" HDPE	6.9"	Hole 10	10"	10.642"	11.5"	3"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



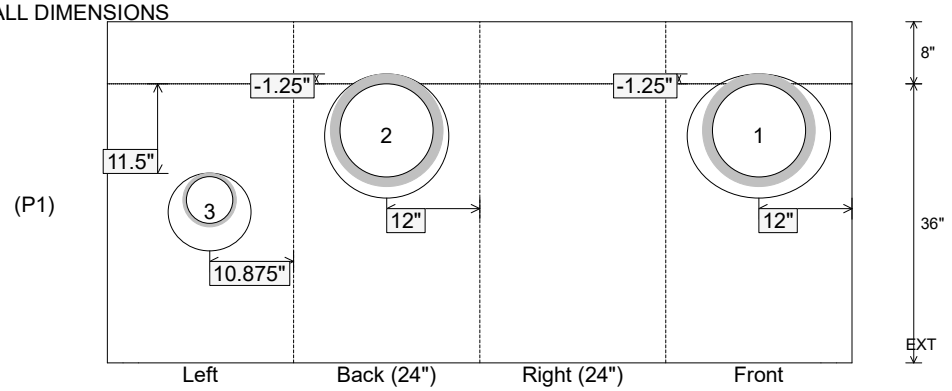
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Flat	Wall Thickness: 8"	Height (Int): 36"	Weight (Net): 3820 lb
Coating (Ext):	Seam Dn: n/a	Floor Height: 8"	Height (Ext): 44"	Volume (Net): 0.98cu.yd

Job Name: 26-2030 - KYTC McCracken Co. Call 111 (ID 264505)
Job Location: Paducah, KY
Contractor: Jim Smith Contracting Co, LLC

Plant: 100
6/12/2026 7:49:34 AM

Tech: J. Horsley
PC: J. Jarvis

Structure ID: 145+59 LT S-14 CBIB

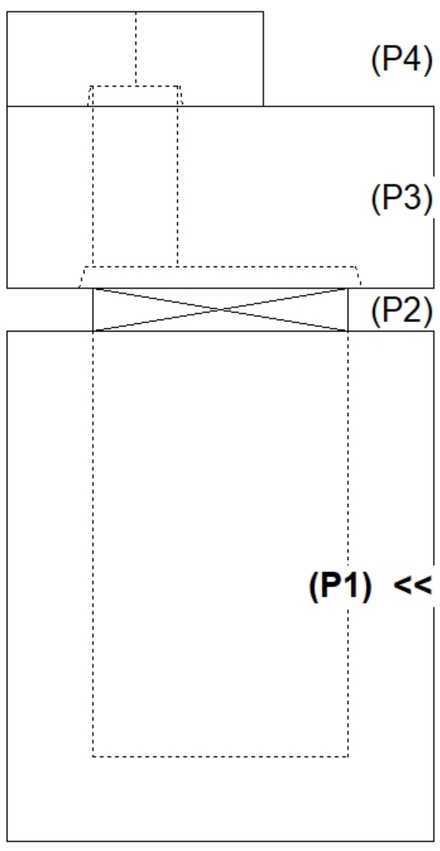
P1 BX2424-08BAVF BOX BASE 8inW, 8inF, Variable Ht F/n

P4) 8" x 120" - CB INLET KY B 10' TOP F/G - 9"	1660 lb
P3) 24" x 120" - CB INLET KY B 10' BOTTOM RIGHT T/G - 17"	2650 lb
P2) 24" x 24" - FIELD ADJUSTMENT - 4"	0 lb
P1) 24" x 24" - BOX BASE 8inW, 8inF, Variable Ht F/n - 40"	3999 lb
1) CASTING - HOE KY-345 SET (CBI B)	290 lb
1) 24" x 24" - Conseal CS-102 1.00"	0 lb
3) Hole - 18	0 lb
Structure Total:	8599 lb

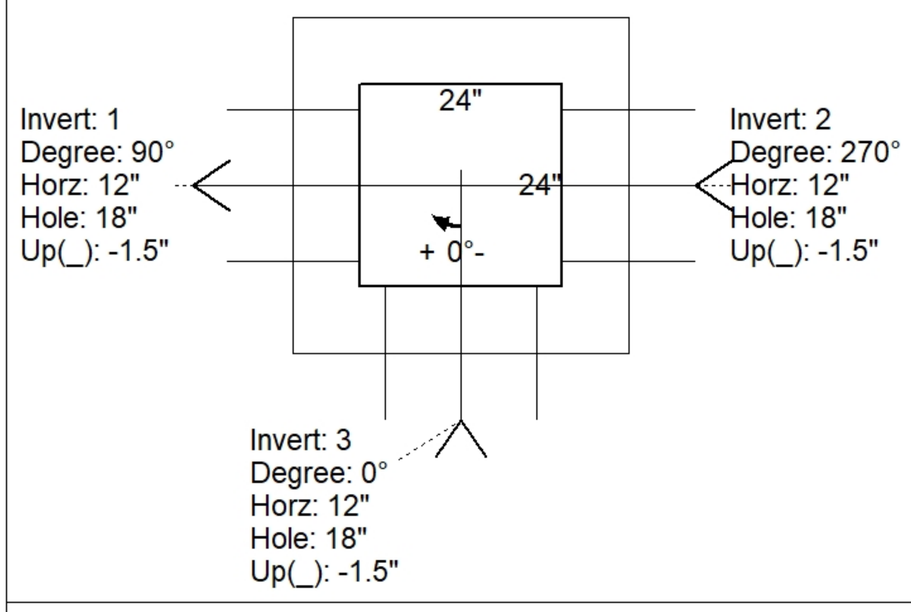
Structure Notes: .
** KYTC STATE PROJECT **
1. PER KYTC CBI TYPE B / ASTM C913 SPEC'S.
2. CONCRETE = 4,000 PI AT 28 DAYS.
3. CASTING BT ICAST (HOE KY-345 F/G(CBI-B)
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP PHASE (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .31) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

Rim: 372.78' Rim to Invert: 5.84' Slack: 0.08" Sump: 0" Step Position:

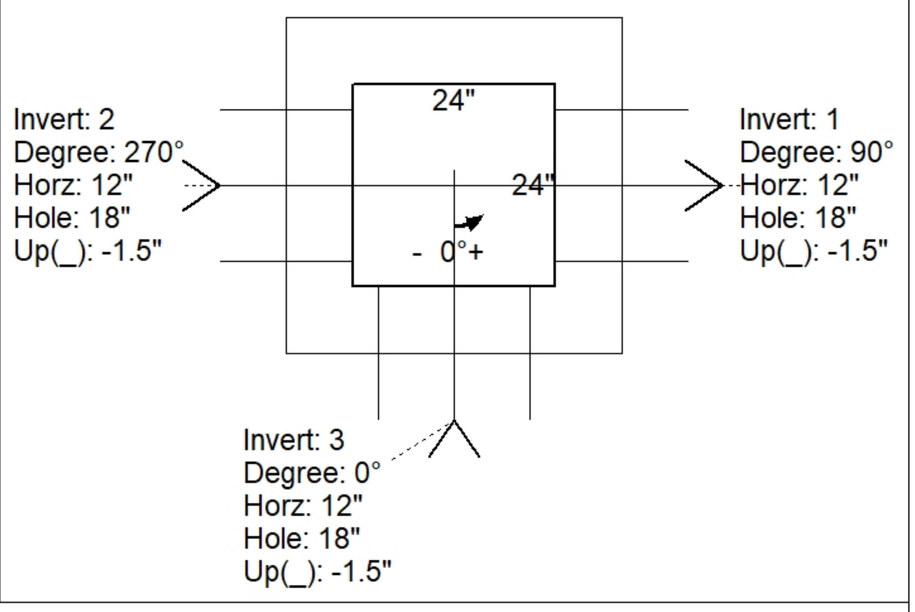
Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	366.94'	90°	20"	15" CMP	16"	Hole 18	18"	18"	-1.5"	0"
Invert 2	366.94'	270°	20"	15" CMP	16"	Hole 18	18"	18"	-1.5"	0"
Invert 3	366.94'	0°	20"	15" CMP	16"	Hole 18	18"	18"	-1.5"	0"
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										



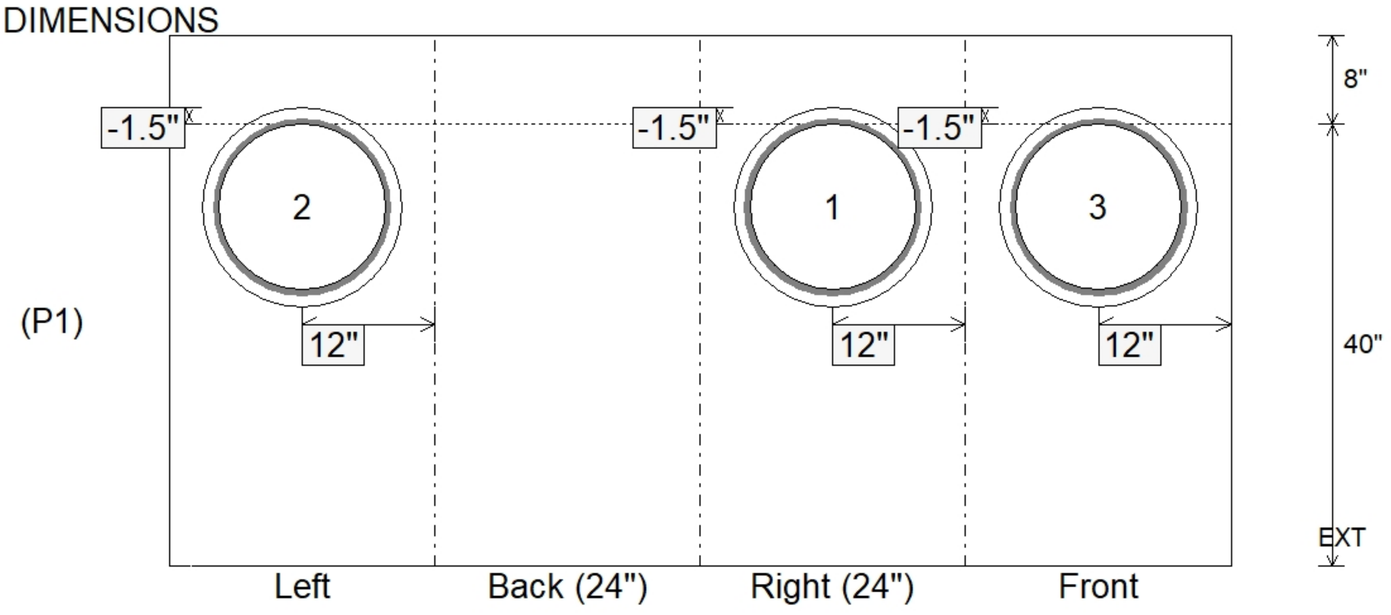
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: n/a	Wall Thickness: 8" Floor Height: 8"	Height (Int): 40" Height (Ext): 48"	Weight (Net): 3999 lb Volume (Net): 1.02cu.yd

Job Name: 25-3062 Portland Bypass
Job Location: Portland, TN
Contractor: Scotty's Contracting & Stone, LLC

Plant: Beaver Dam
6/1/2026 8:23:22 AM

Tech: J. Coppage
PC: C. Goff

Structure ID: MD-8

P1 BX4848-08BAVF BOX BASE 8inW, 8inF, Variable Ht

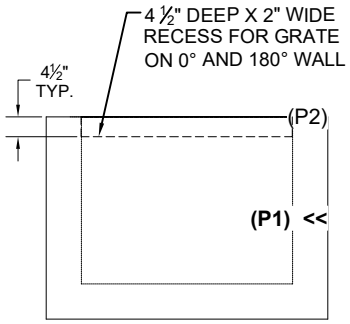
P2) 48" x 48" - CASTING HEIGHT - 0"	0 lb
P1) 48" x 48" - BOX BASE 8inW, 8inF, Variable Ht - 38"	8107 lb
1) CASTING - JBS TYPE 39 TDOT GRATES (48" X 48")	459 lb
1) Hole - 26	0 lb
Structure Total:	8566 lb

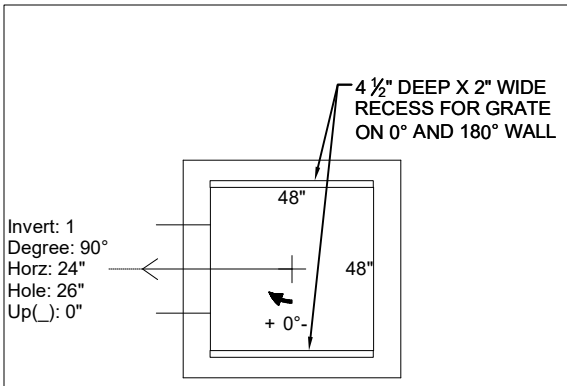
Structure Notes:
1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. JBS TDOT TYPE 39 BY ICAST
4. REINFORCING PER TDOT DRAWING D-CB-39S ASTM A615 (GRADE 60).
5. PRODUCTION TO PLACE A 4.5" DEEP X 2" WIDE RECESS IN THE TOP INSIDE OF THE 0 DEGREE AND THE 180 DEGREE WALL OF THE BASE.

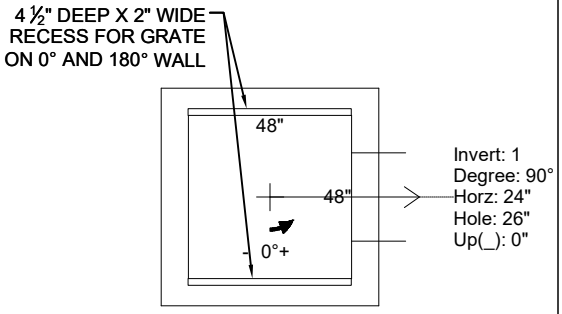
Rim: 816.45' Rim to Invert: 2.99' Slack: 0.38" Sump: 2.5" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	813.46'	90°	32"	18" RCP B WALL	23"	Hole 26	26"	26"	0"	0"
Invert 2										
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

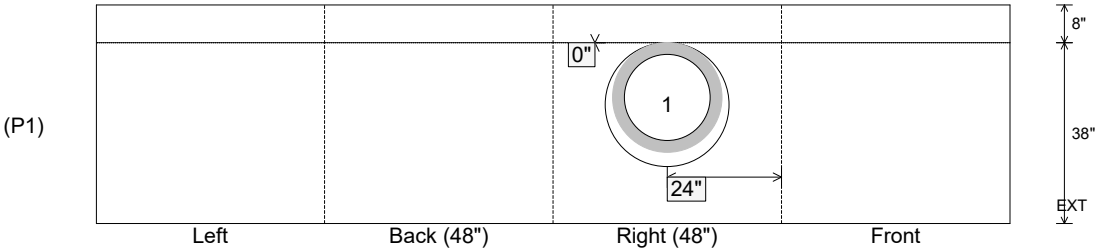
RIGHT-SIDE UP VIEW (int. dimensions) UPSIDE-DOWN VIEW (int. dimenions)







INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Flat	Wall Thickness: 8"	Height (Int): 38"	Weight (Net): 8107 lb
Coating (Ext):	Seam Dn: n/a	Floor Height: 8"	Height (Ext): 46"	Volume (Net): 2.07cu.yd

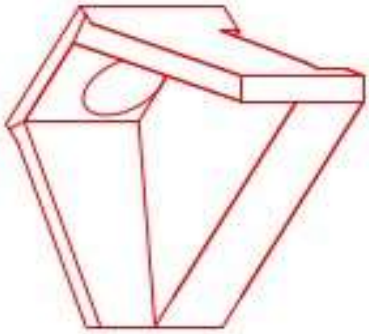
Job Name: 26-1899 - Gateway 65 Industrial Road Job Location: Franklin, KY Contractor: RD Sitework LLC	Plant: 100 4/20/2026 1:53:54 PM	Tech: Jared - F PC: E. Bardley	

Structure ID: 37 HW

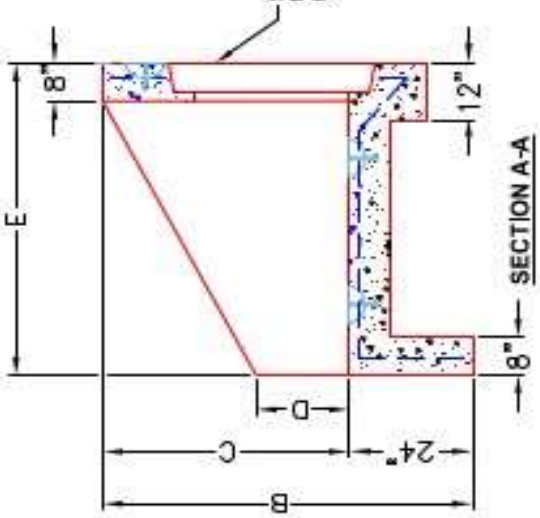
P1 HWPC48

48" - PIPE CULVERT HEADWALL F/F

DIMENSIONS											
PIPE Ø	A	B	C	D	E	F	G	H	WEIGHT
30"	6'-4"	6'-4"	4'-4"	1'-4"	5'-4"	3'-4"	8'-8"	5'-4"	6,820 lbs.
36"	6'-4"	6'-4"	4'-4"	1'-4"	5'-4"	4'-0"	8'-8"	5'-4"	6,820 lbs.
42"	6'-4"	6'-7"	5'-5"	2'-4"	6'-4"	4'-8"	11'-8"	6'-10"	13,233 lbs.
48"	6'-4"	6'-7"	5'-5"	2'-4"	6'-4"	5'-4"	11'-8"	6'-10"	13,233 lbs.
54"	7'-4"	7'-4"	6'-4"	2'-4"	7'-4"	5'-4"	13'-8"	6'-10"	18,422 lbs.
60"	7'-4"	7'-4"	6'-4"	2'-4"	7'-4"	6'-4"	13'-8"	6'-10"	18,422 lbs.



ISOMETRIC VIEW



SECTION A-A

APPROVED FOR DESIGN ONLY

APPROVED

By: —

DATE: 1/20/2021 9:50 am

ISTRUCTION

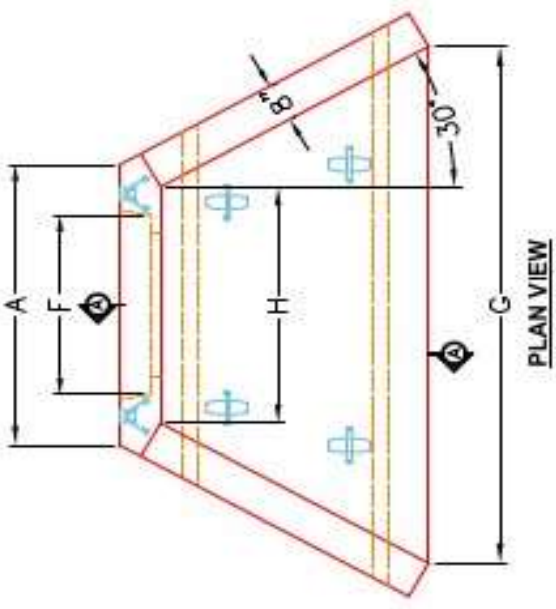
INFRASTRUCTURE PRECAST, INC.
401 WEST 7TH ST., BEAVER DAM, KY. 42320
PHONE: (270) 356-2235, FAX: (270) 356-9604

KYTC 30"-60" PIPE CULVERT HEADWALL

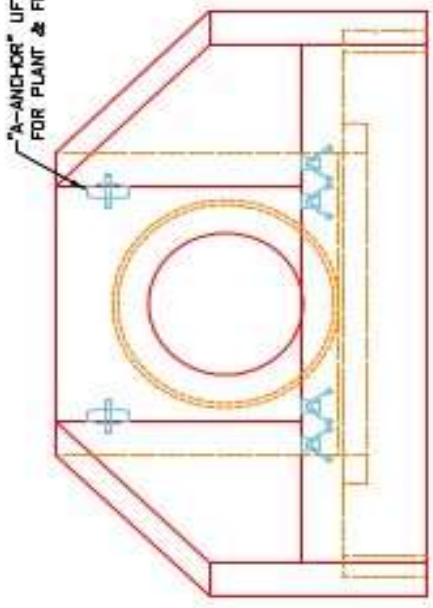
DRAWING NO.: KYTC PC-748 | DATE: 12-14-20

DESIGNED BY: J.H. ROSS, PE | DRAWN BY: M. RICHARDS

WEB: WWW.ICASTKY.COM | SCALE: NTS



PLAN VIEW



FRONT ELEVATION

~NOTES:

1. CONCRETE: KYTC APPROVED.
2. REINFORCING: #5 BAR @ 12" C/C E.W.-GRADE 60, (WITH 2" CONCRETE COVER MINIMUM)
3. REINFORCING BARS TO BE TACK WELDED OR TIED.
4. PIPE AND LIFTING ANCHOR POCKETS TO BE GROUTED WITH KYTC APPROVED NON-SHRINK GROUT.
5. DRAWING TO BE USED IN CONJUNCTION WITH KYTC STD. DRAWING RDH-110-02, RDH-210-03 AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. ¾" CHAMFER ON ALL EXPOSED EDGES.
7. PREFORMED STEPPED HOLE SIZED AS PER O.D. OF PIPE + 3"-4".

THIS DRAWING IS THE PROPERTY OF INFRASTRUCTURE PRECAST INC. ANY USE OR DUPLICATION OF THIS DRAWING WITHOUT PRIOR AUTHORIZATION IS STRICTLY PROHIBITED.

Job Name: 26-1899 - Gateway 65 Industrial Road
Job Location: Franklin, KY
Contractor: RD Sitework LLC

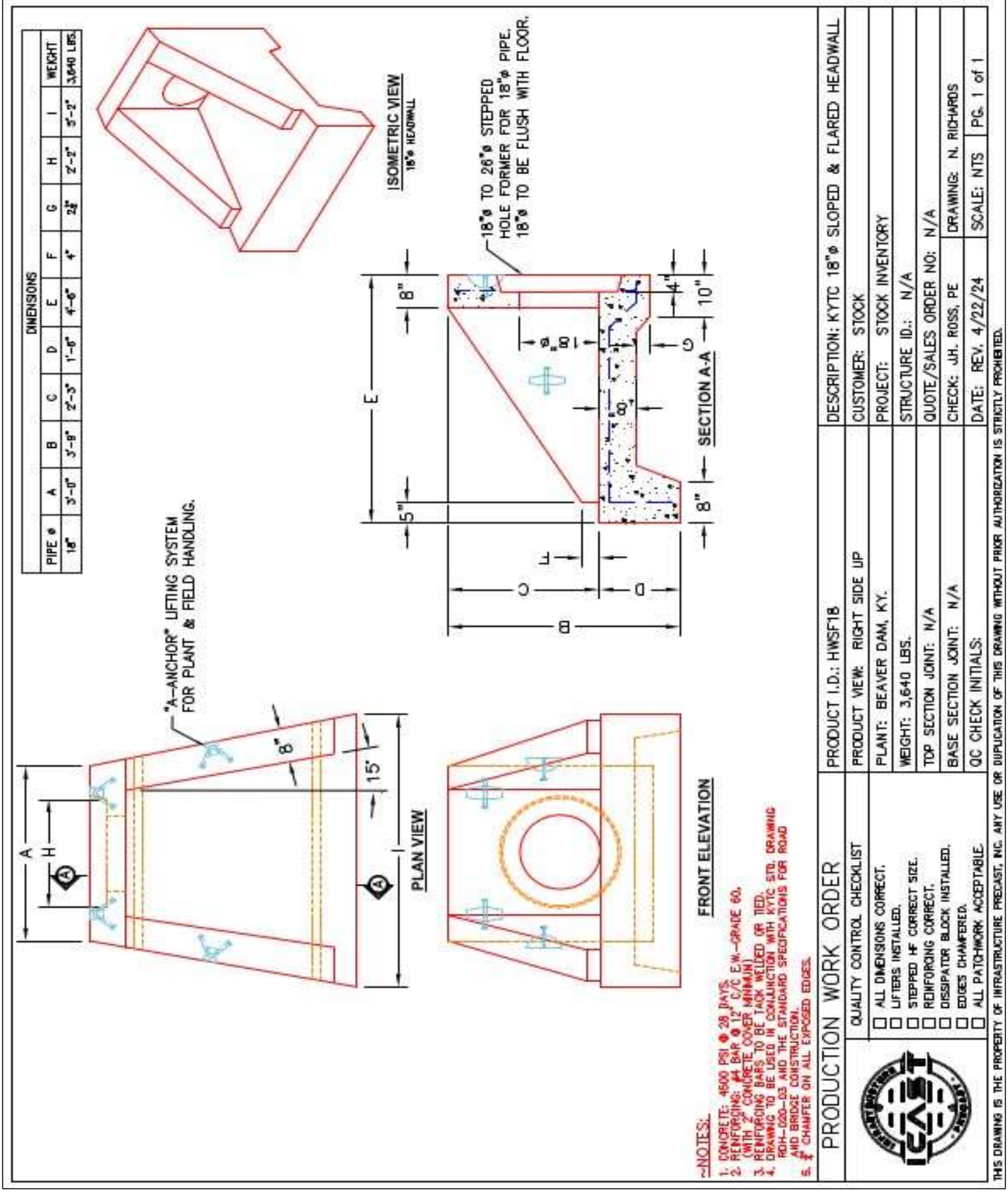
Plant: 100
4/20/2026 1:53:54 PM

Tech: Jared - F
PC: E. Bardley

Structure ID: 36 HW

P1 HWSF18

18" - SLOPED & FLARED HEADWALL F/F



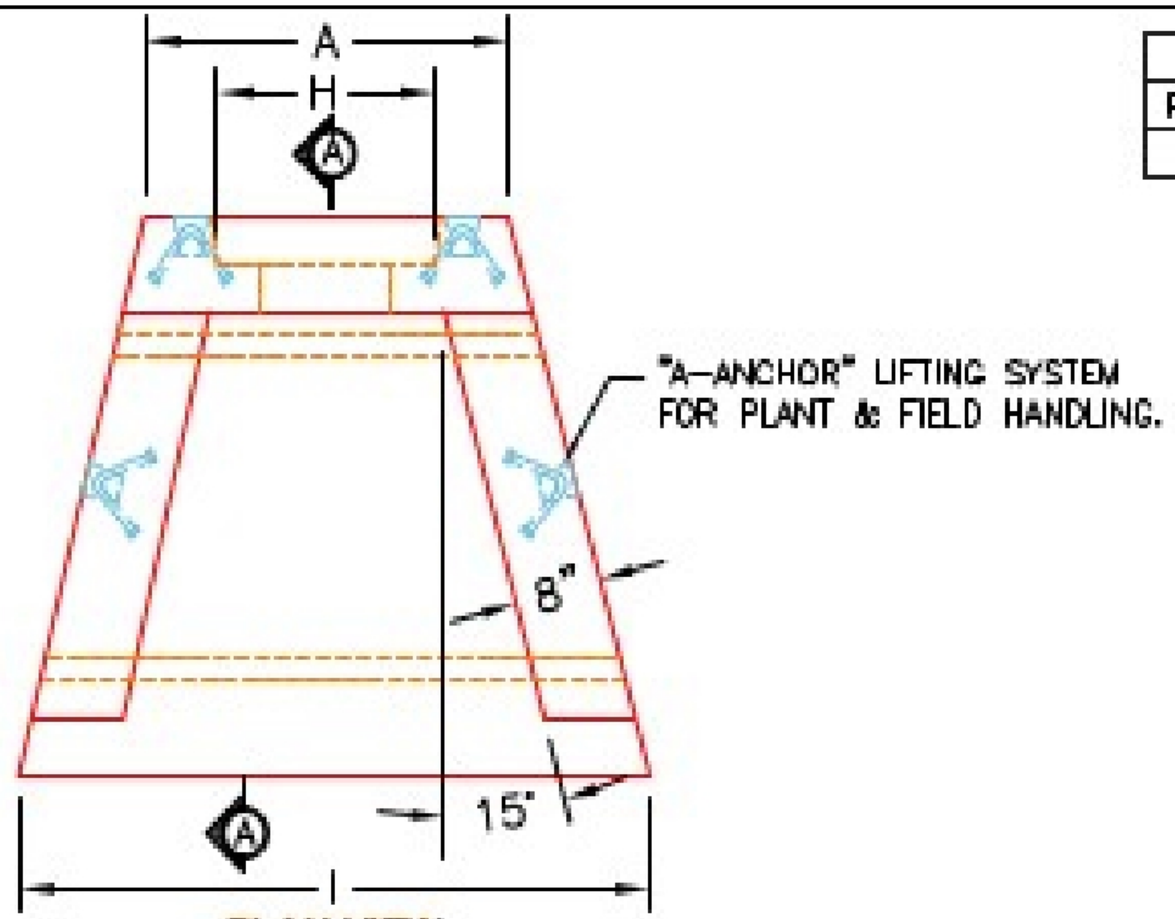
Job Name: 26-1456 Double Kwik
Job Location: Whitesburg, KY
Contractor: Rising Sun Development Company

Structure ID: 2 HW (1)

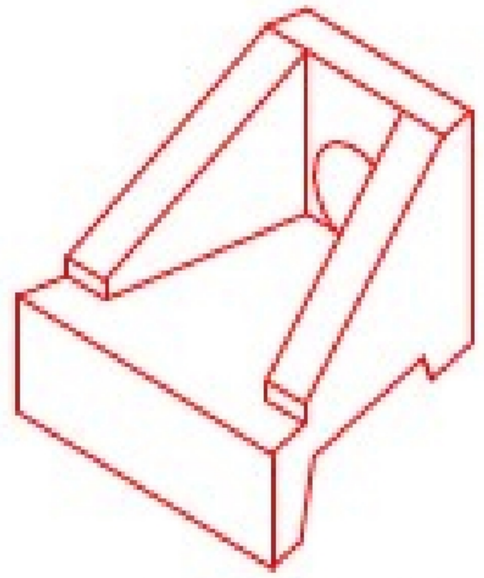
P1 HWSF12

12" - SLOPED & FLARED HEADWALL F/F

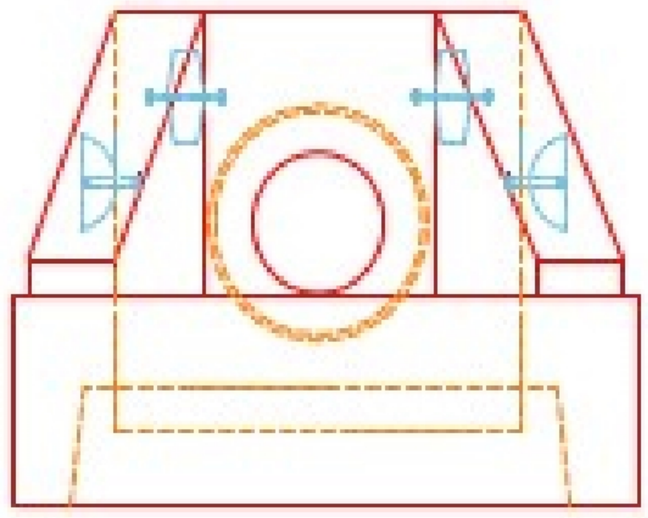
DIMENSIONS										
PIPE ⌀	A	B	C	D	E	F	G	H	I	WEIGHT
12"	2'-8"	3'-6"	2'-0"	1'-6"	4'-0"	3"	28"	1'-8"	4'-8"	3,161 LBS.



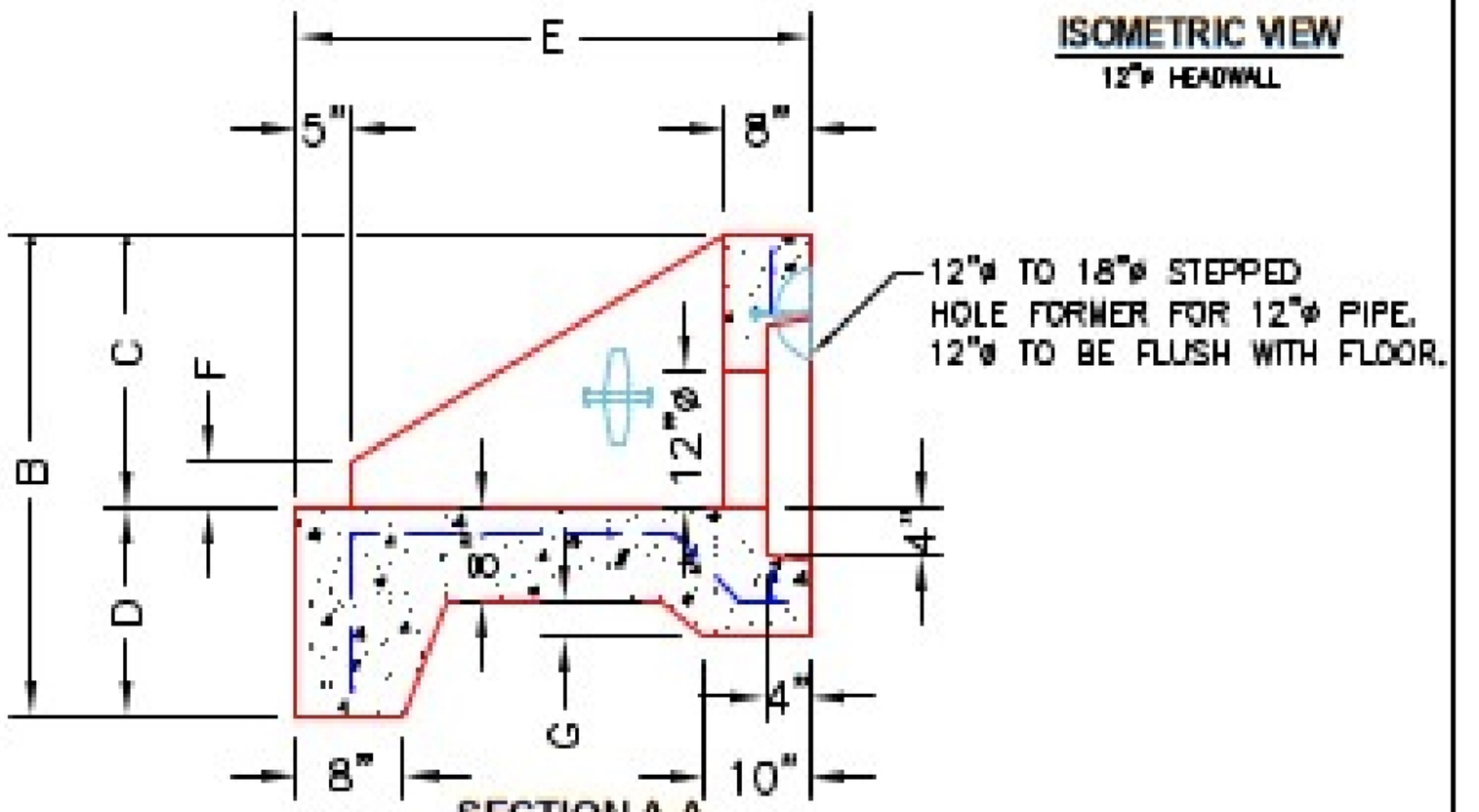
PLAN VIEW



ISOMETRIC VIEW
12"⌀ HEADWALL



FRONT ELEVATION



SECTION A-A

~NOTES:

1. CONCRETE: 4500 PSI @ 28 DAYS.
2. REINFORCING: #4 BAR @ 12" C/C E.W.-GRADE 60. (WITH 2" CONCRETE COVER MINIMUM)
3. REINFORCING BARS TO BE TACK WELDED OR TIED.
4. DRAWING TO BE USED IN CONJUNCTION WITH KYTC STD. DRAWING RDH-020-03 AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
5. ¾" CHAMFER ON ALL EXPOSED EDGES.

PRODUCTION WORK ORDER					
QUALITY CONTROL CHECKLIST	PRODUCT I.D.: HWSF12	DESCRIPTION: KYTC 12"⌀ SLOPED & FLARED HEADWALL			
☐ ALL DIMENSIONS CORRECT.	PRODUCT VIEW: RIGHT SIDE UP	CUSTOMER: STOCK			
☐ LIFTERS INSTALLED.	PLANT: BEAVER DAM, KY.	PROJECT: STOCK INVENTORY			
☐ STEPPED HF CORRECT SIZE.	WEIGHT: 3,161 LBS.	STRUCTURE ID.: N/A			
☐ REINFORCING CORRECT.	TOP SECTION JOINT: N/A	QUOTE/SALES ORDER NO: N/A			
☐ DISSIPATOR BLOCK INSTALLED.	BASE SECTION JOINT: N/A	CHECK: J.H. ROSS, PE	DRAWING: N. RICHARDS		
☐ EDGES CHAMFERED.	QC CHECK INITIALS:	DATE: 09/15/22	SCALE: NTS	PG. 1 of 1	
☐ ALL PATCHWORK ACCEPTABLE.					

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Plant: Beaver Dam
6/18/2026 3:06:07 PM
Tech: S. Felletter
PC: E. Bradley

Job Name: 25-3062 Portland Bypass
Job Location: Portland, TN
Contractor: Scotty's Contracting & Stone, LLC

Plant: Beaver Dam
6/1/2026 12:50:58 PM

Tech: J. Coppage
PC: C. Goff

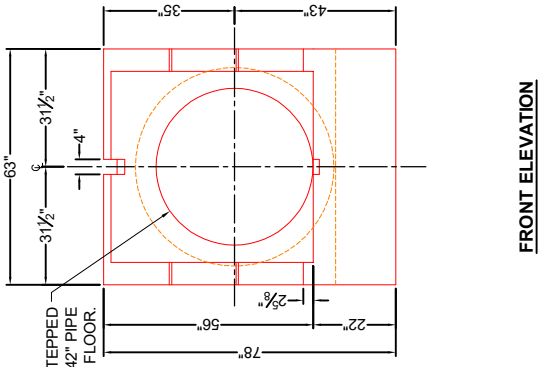
Structure ID: EW-11 465+50.00

P1 HWTDOT6-1TU42

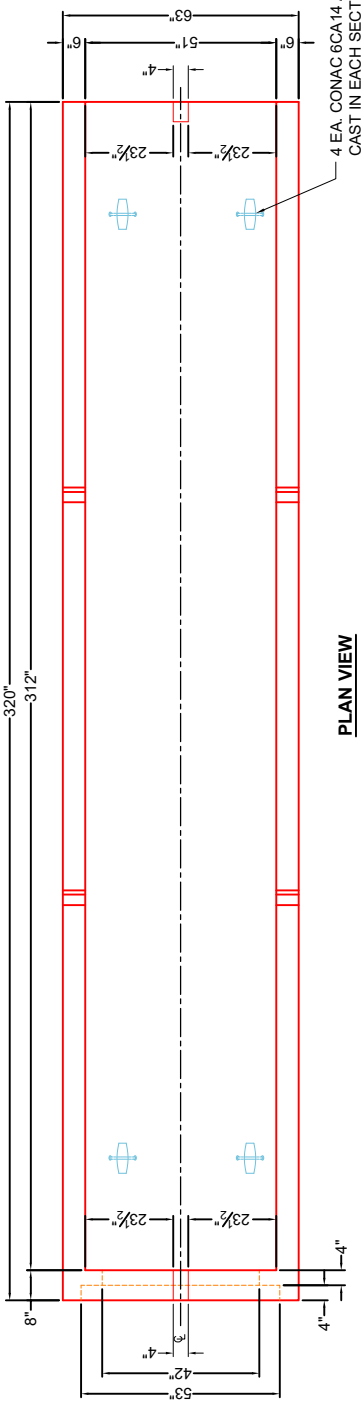
42" - HW TDOT 6:1 Type U Cross Drain Endwall

GENERAL NOTES:

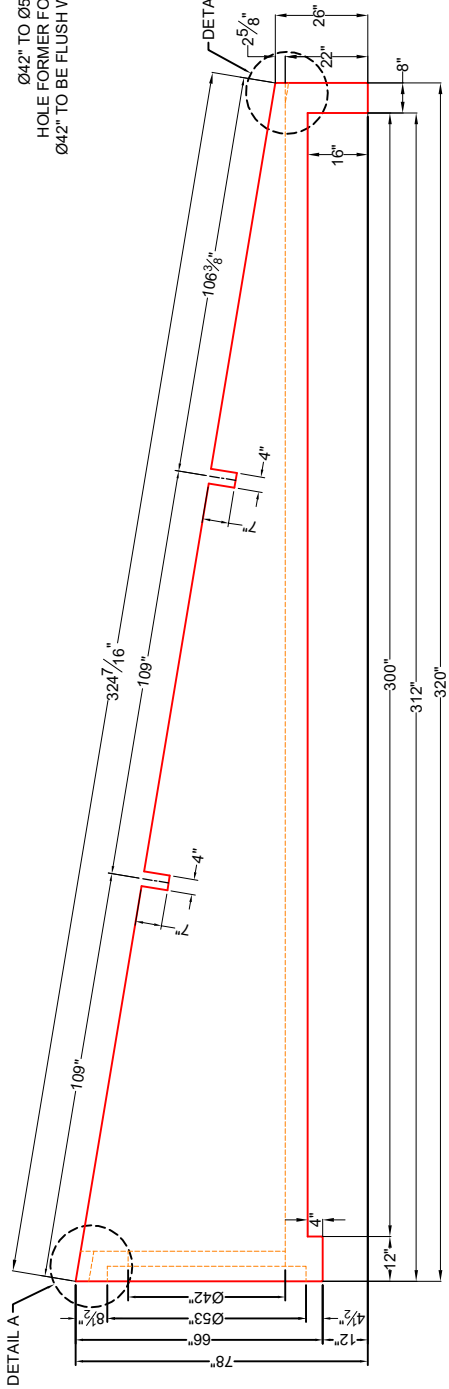
1. MANUFACTURED TO ASTM C-913 (LATEST REVISION).
2. CONCRETE: 5,000 PSI AT 28 DAYS.
3. WEIGHT: 22,500 LBS EACH
4. REINFORCEMENT: PER ASTM A615 (GRADE 60) TO FOLLOW TDOT DWGS D-PE-42A & D-PE-42B



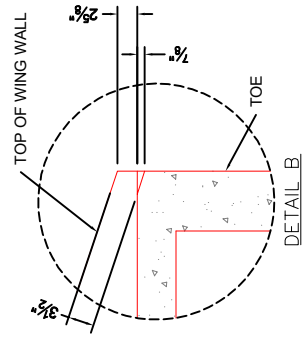
FRONT ELEVATION



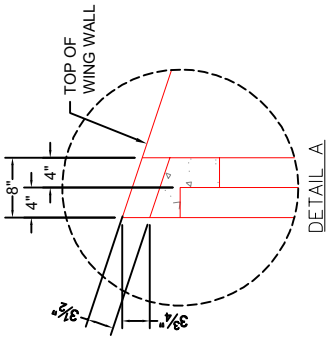
PLAN VIEW



SIDE VIEW



DETAIL B



DETAIL A

Job Name: 25-3062 Portland Bypass
Job Location: Portland, TN
Contractor: Scotty's Contracting & Stone, LLC

Plant: Beaver Dam
6/1/2026 12:50:58 PM

Tech: J. Coppage
PC: C. Goff

Structure ID: EW-11 465+50.00

P1 HWTDOT6-1TU42

42" - HW TDOT 6:1 Type U Cross Drain Endwall

GENERAL NOTES:

1. MANUFACTURED TO ASTM C-913 (LATEST REVISION).
2. CONCRETE: 5,000 PSI AT 28 DAYS.
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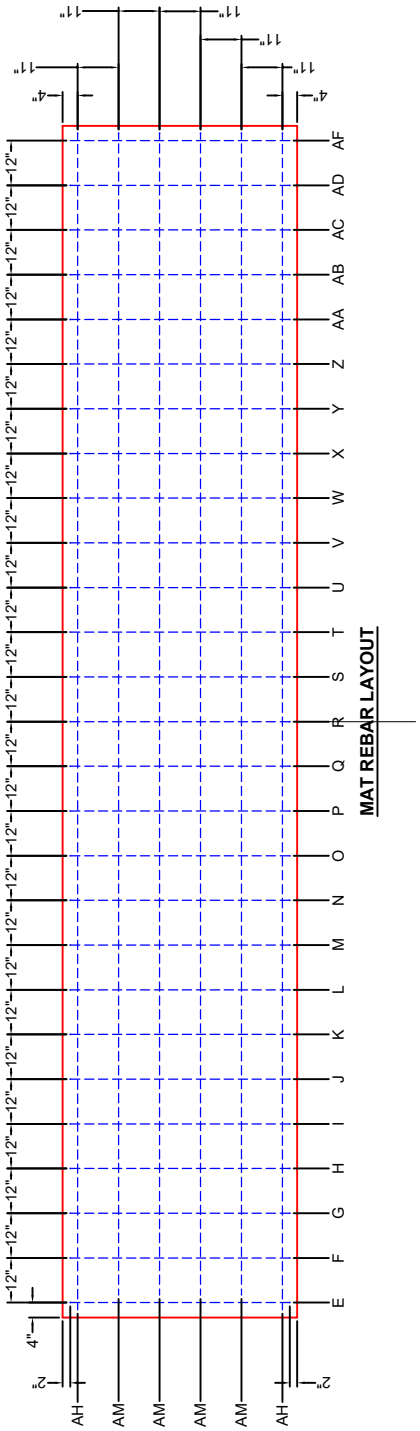
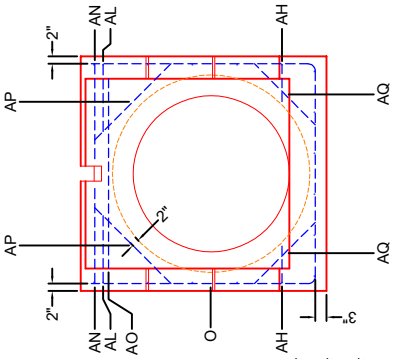
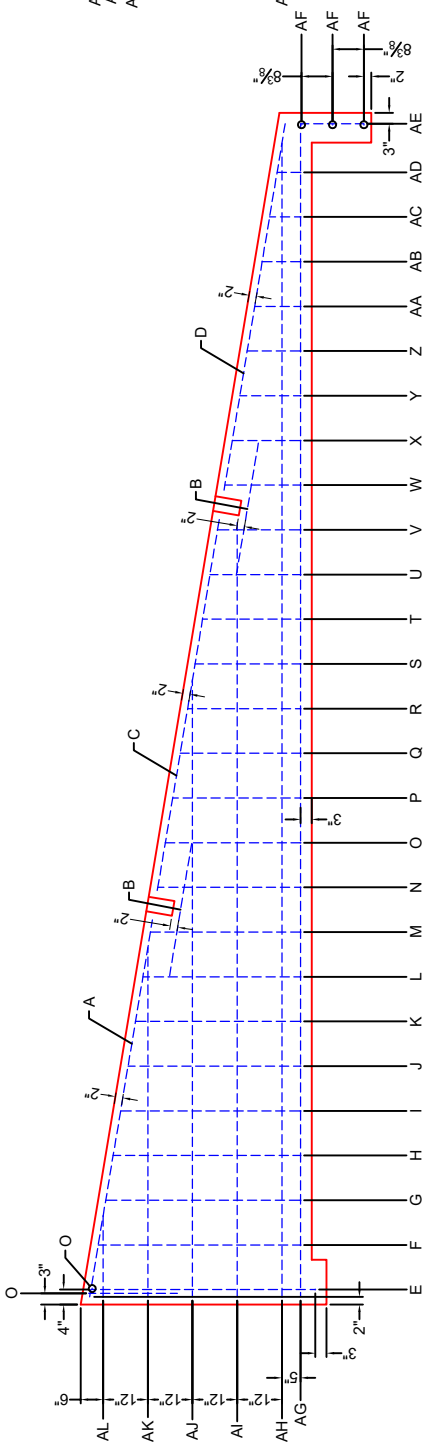
4. REINFORCEMENT: PER ASTM A615 (GRADE 60) TO FOLLOW TDOT DWGS D-PE-42A & D-PE-42B







Job Name: 25-3062 Portland Bypass
Job Location: Portland, TN
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Plant: Beaver Dam
6/1/2026 12:50:58 PM

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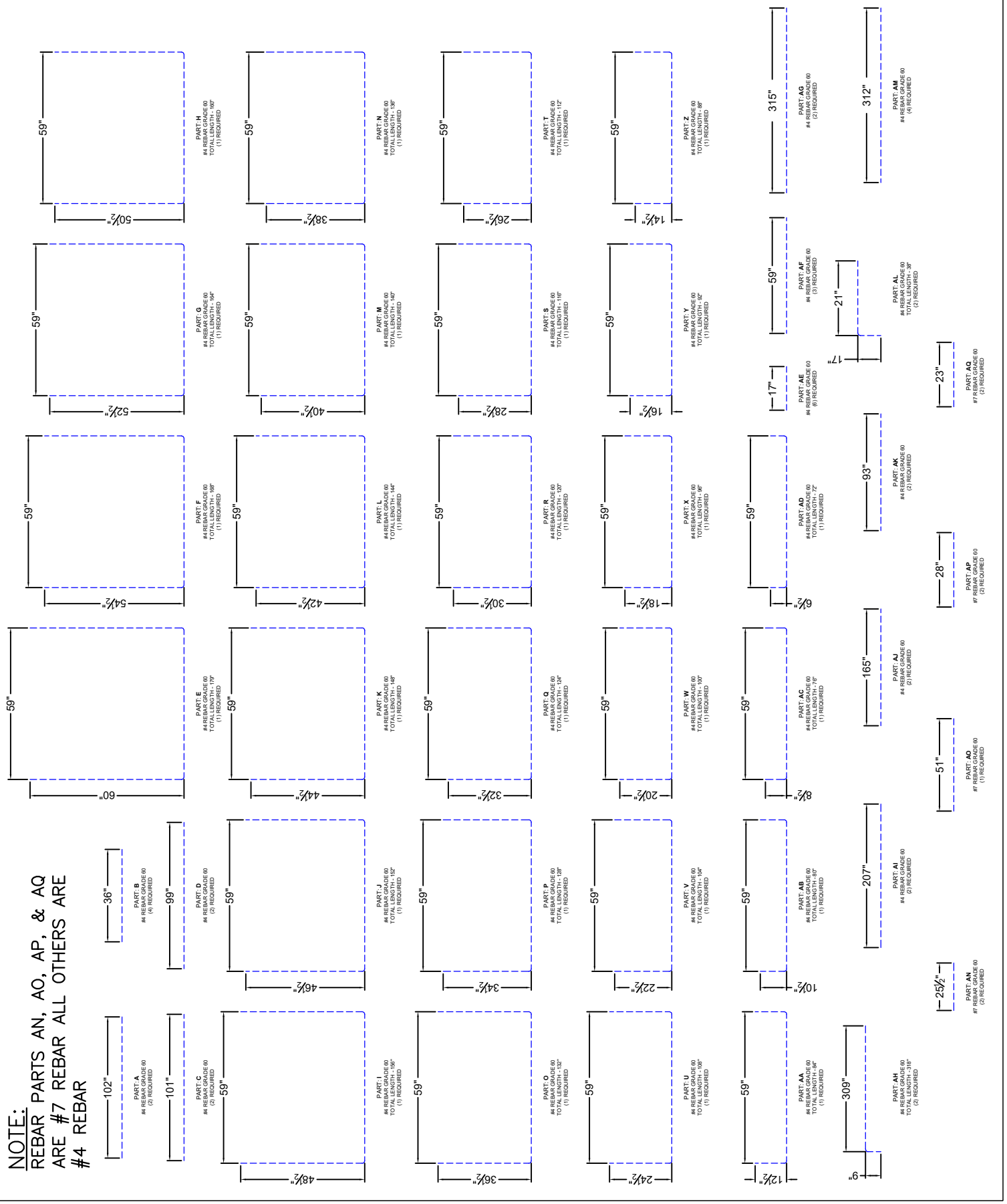
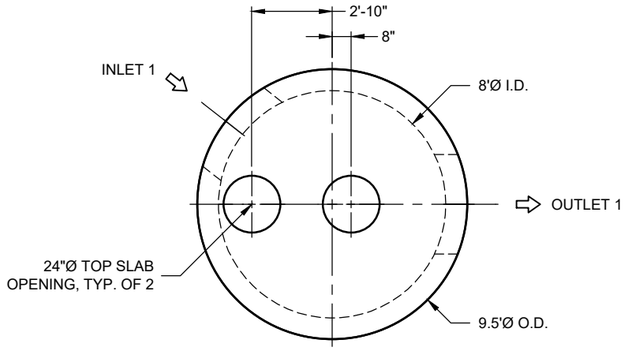
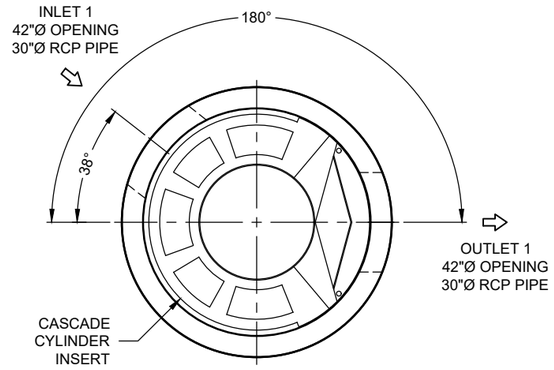


26-2582 739729 Teal Drive



⚠1 PLAN VIEW
INTERNALS NOT SHOWN



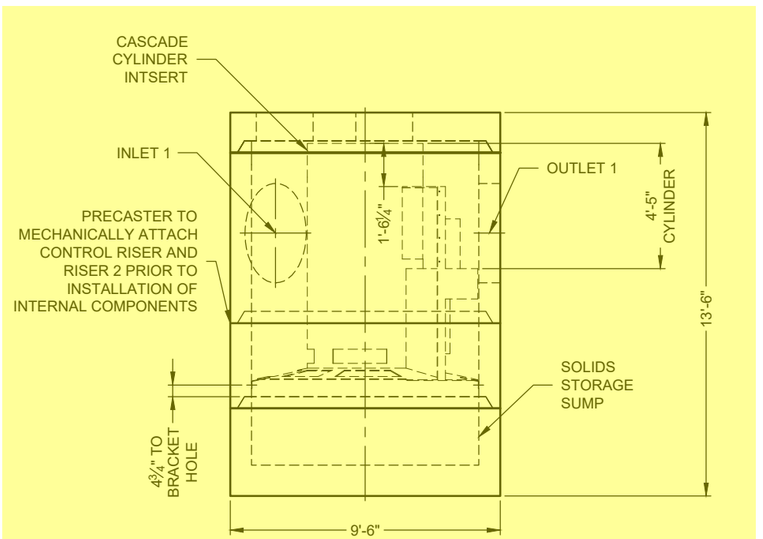
⚠1 PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

MATERIAL LIST

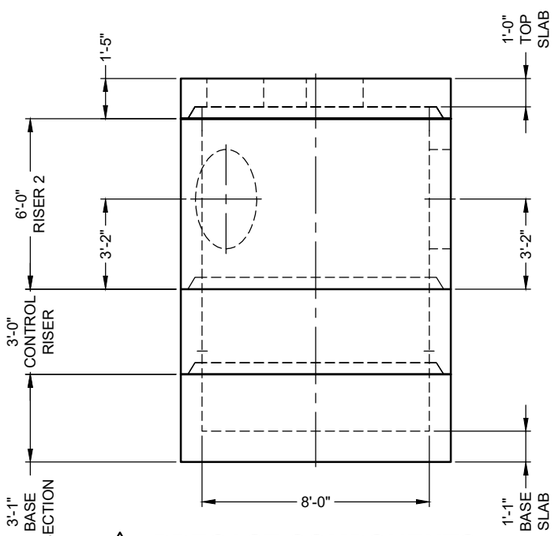
COUNT	DESCRIPTION	PART NUMBER	PROVIDED BY	INSTALLED BY
1	CS-8 CYLINDER INSERT, STD.	325-003952	CONTECH	CONTRACTOR
6	CS-8 ALUMINUM INSTALLATION BRACKETS	325-003971	CONTECH	PRECASTER
1	CS-8 HARDWARE KIT	325-003970	CONTECH	CONTRACTOR
1	SEALANT FOR JOINTS		PRECASTER	CONTRACTOR
2	24"Ø X 4" FRAME AND COVER, EJ #41600389, OR EQUIV.	325-000350	CONTECH	CONTRACTOR

10-CS-8
ICAST to fully pre-assemble internal materials prior to shipment

SEE INSTALLATION NOTE A



⚠1 ELEVATION VIEW



⚠1 PRECAST COMPONENTS
INTERNALS NOT SHOWN

ICAST
5888 / 757440
LAYOUT 1A
27.18TS

CONTECH
FABRICATION
DRAWING

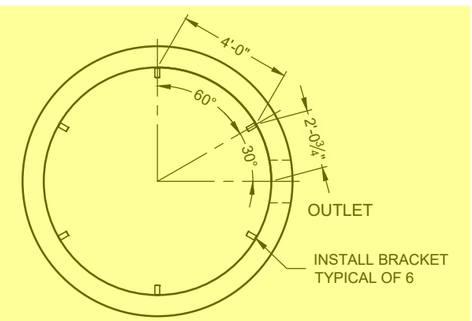
GENERAL NOTES
1. DESIGN LOADING - AASHTO HS-20
2. ALL PRECAST CONCRETE MANUFACTURED PARTS SHALL CONFORM TO ASTM C-478, WITH MINIMUM CONCRETE STRENGTH OF 4000 PSI AT 28 DAYS
3. JOINT SEALANT SHALL CONFORM TO ASTM C-990 OR ASTM C-443
4. GROUND WATER ELEVATION ASSUMED AT OUTLET INVERT
5. MANUFACTURING TOLERANCE = +/- 1/2-INCH
6. SOME HIDDEN LINES MAY BE OMITTED FOR CLARITY

INSTALLATION NOTES
A. PRECASTER TO SHIP ACCESS CASTINGS WITH STRUCTURE
B. REFER TO CONTECH ASSEMBLY INSTRUCTIONS FOR ADDITIONAL INFORMATION.
C. PRECASTER TO INSTALL INTERNAL COMPONENTS PRIOR TO SHIPPING UNLESS INSTRUCTED OTHERWISE BY CONTECH
D. PIPE OPENINGS SHALL BE STENCILED "INLET" OR "OUTLET" AS APPROPRIATE
E. APPLYING ALIGNMENT MARKS ON ALL PIECES OF MULTIPLE PIECE ASSEMBLIES IS ENCOURAGED
F. IF STRUCTURE IS DELIVERED IN MULTIPLE SECTIONS, EACH PIECE SHALL BE LABELED WITH THE CONTECH PROJECT NUMBER, SEQUENCE NUMBER AND SITE DESIGNATION

SITE INFORMATION
RIM ELEV. = 471.23+/-
TOP OF STRUCTURE = 470.26
INLET PIPE 1 INVERT ELEV. = 464.76
INLET PIPE 1 DIAMETER AND MATERIAL = 30"Ø RCP
OUTLET PIPE INVERT ELEV. = 464.76
OUTLET PIPE DIAMETER AND MATERIAL = 30"Ø RCP
OUTSIDE BOTTOM OF STRUCTURE ELEV. = 456.76

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 27000 LBS.
STRUCTURE IS DELIVERED IN 3 PIECES

TOP SLAB = 11000 LBS.
RISER 2 = MECHANICALLY ATTACHED TO CONTROL RISER
CONTROL RISER = 27000 LBS.
BASE SECTION = 19000 LBS.



SUPPORT BRACKET LAYOUT PLAN VIEW

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If discrepancies between the supplied information upon which this drawing is based and actual field conditions are encountered as site work progresses, these discrepancies must be reported to CONTECH immediately for re-evaluation of the design. CONTECH accepts no liability for designs based on incomplete or inaccurate information supplied by others.

MARK	DATE	REVISION DESCRIPTION	BY
1	5/28/2026	REVISED PRECASTER	EDM

CS-8 - 739729-010
TEAL DRIVE
NASHVILLE, TN
SITE DESIGNATION: STM-C2

CONTECH ENGINEERED SOLUTIONS LLC
A QUIKRETE COMPANY
901 Elkridge Landing Road, Suite 350, Linthicum, MD 21090
443-457-1500 410-740-8480 410-740-8492 FAX
CASCADE separator®
FOR PATENT INFORMATION, GO TO www.ContechES.com/IP

DATE: 12/11/2025

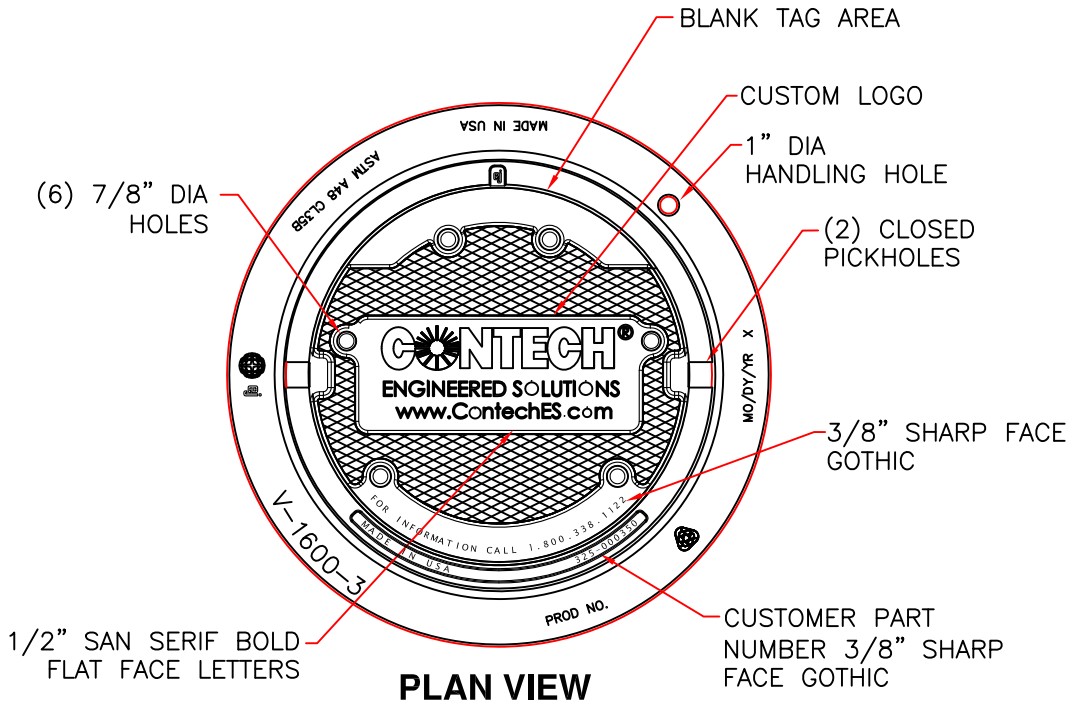
DESIGNED:	DRAWN:
MJS	EDM
CHECKED:	APPROVED:
MJS	MJS
PROJECT No.:	SEQUENCE No.:
739729	010

SHEET: 1 OF 1

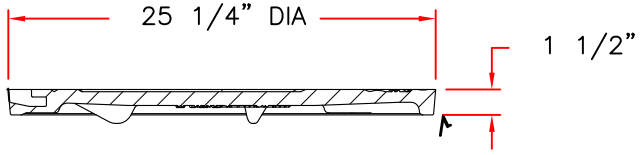
C:\USERS\ERIC.MOWELL\ONEDRIVE - THE QUIKRETE COMPANIES\DYNAMICS365 - CONTECH - PROJECTS\739729\PRODUCTS\739729-10-CASCADE\DRAWINGS\739729-10-CS-8-CONFAB.DWG 5/29/2026 8:46 AM

26-2582 739729 Teal Drive

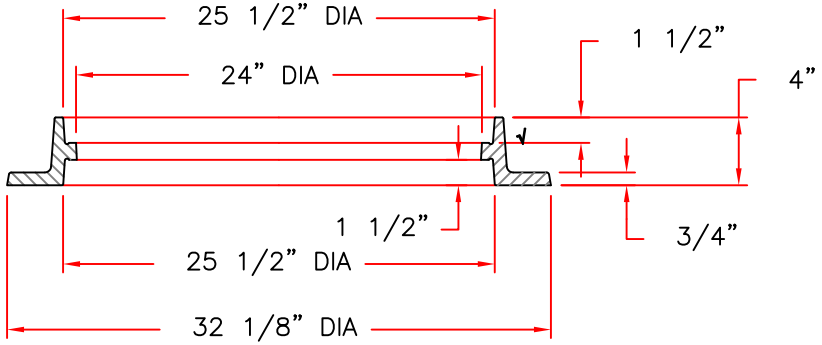
V1600-3 V1610-3 Assembly



PLAN VIEW



COVER SECTION



RING SECTION

Product Number

41600389

Design Features

-Materials
  Frame
    Gray Iron (CL35B)
  Cover
    Gray Iron (CL35B)

-Design Load
  Heavy Duty
-Open Area
  n/a
-Coating
  Undipped
-√Designates Machined Surface

Certification

-
-ASTM A48
-
-Country of Origin: USA

Major Components

41600310
41600374

Drawing Revision

05/02/2008 Designer: DEW
6/20/2017 Revised By: DAE

Disclaimer

Weights (lbs./kg) dimensions (inches/mm) and drawings provided for your guidance. We reserve the right to modify specifications without prior notice.

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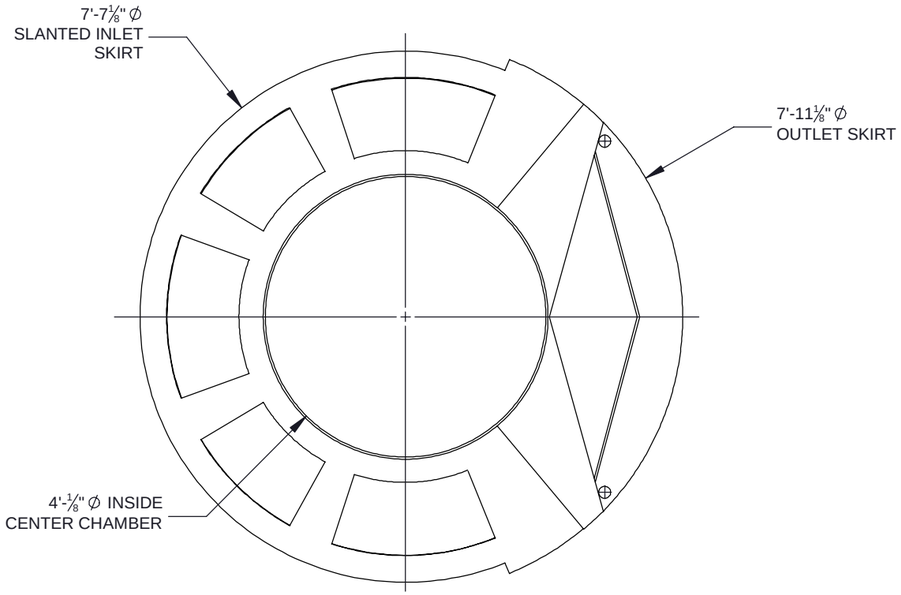
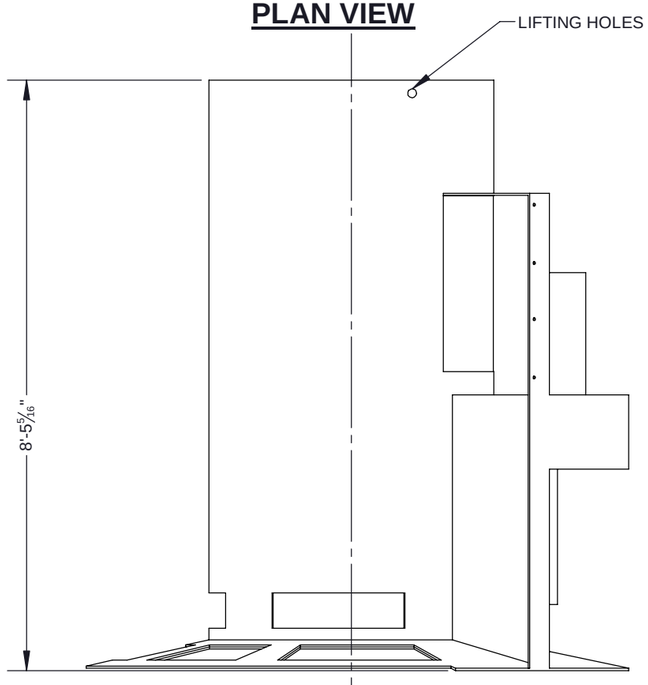
Contact

800 626 4653
ejco.com

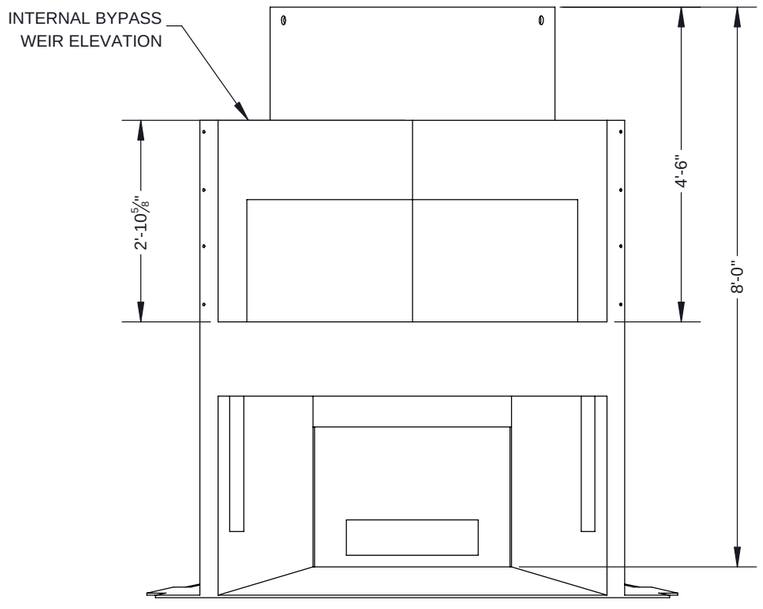
26-2582 739729 Teal Drive



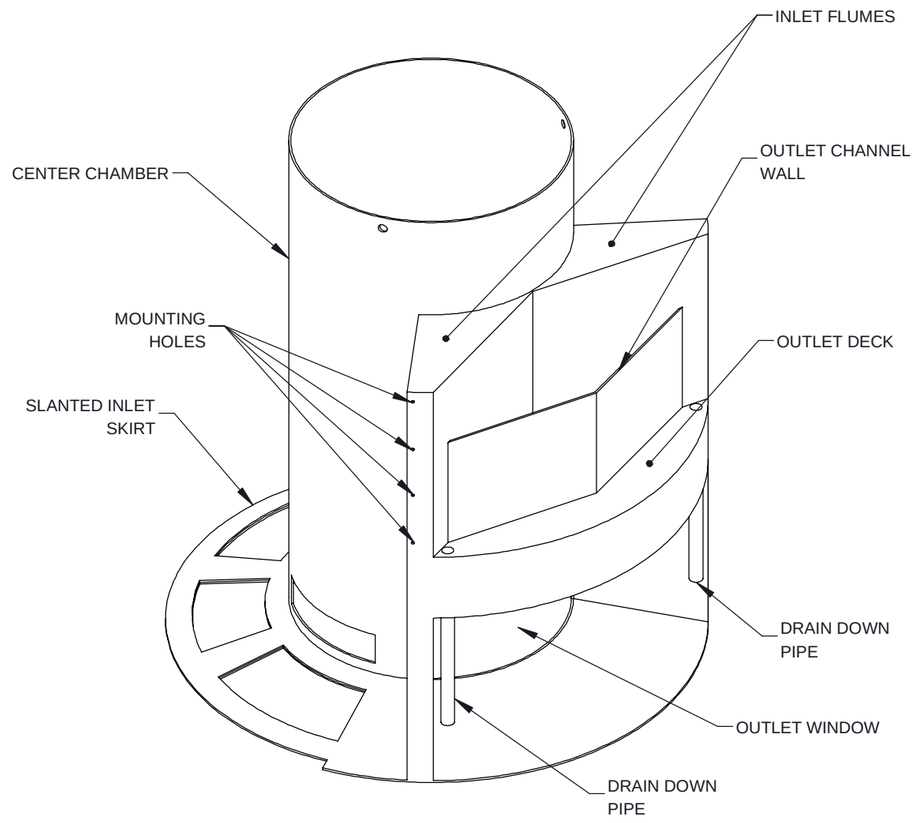
PLAN VIEW



ELEVATION VIEW



ELEVATION VIEW: OUTLET SIDE



ISOMETRIC VIEW

NOTES:
1. SEE CASCADE SEPARATOR INSTALLATION GUIDE FOR ADDITIONAL INFORMATION

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REFERENCE DETAIL
INTERNALS CS-8
CASCADE SEPARATOR

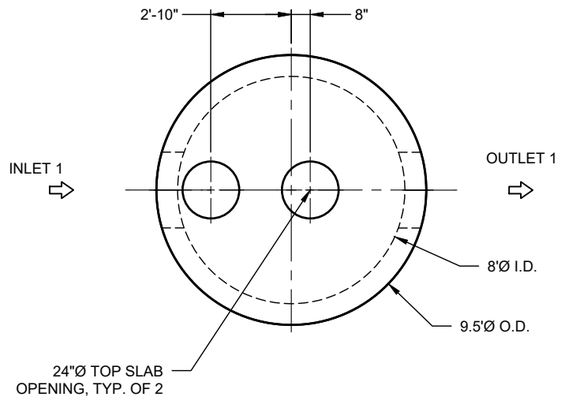
THIRD ANGLE PROJECTION

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN INCHES

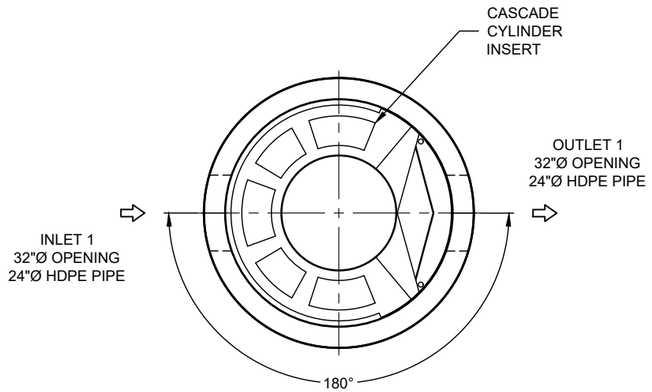
TOLERANCES:
FRACTIONAL ± 1/16
ANGLES ± 1 DEGREE
TWO PLACE DECIMAL ± 0.06
THREE PLACE DECIMAL ± 0.030

PART NUMBER: 325-003952		
APPROVED BY: M. BROOKS	DRAWN BY: J. BELL	
APPROVED BY DATE: 2021.10.21	DRAWN BY DATE: 2021.09.15	REV: C
SCALE: N/A	SHEET 1 OF 1	

26-2644 881922 Hawkin School Tennis



PLAN VIEW
INTERNALS NOT SHOWN

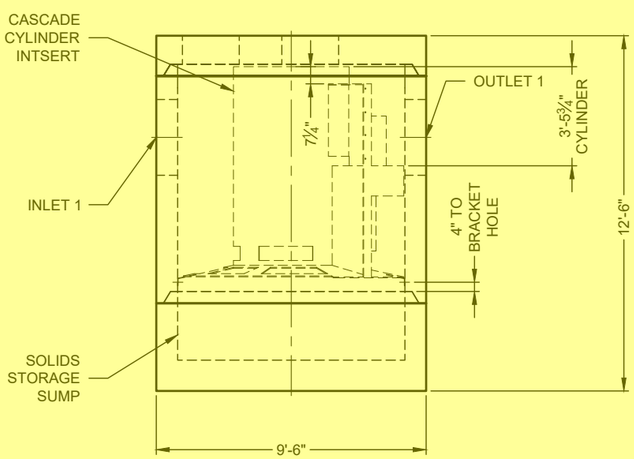


PLAN VIEW FOR PIPE ORIENTATION
TOP SLAB NOT SHOWN

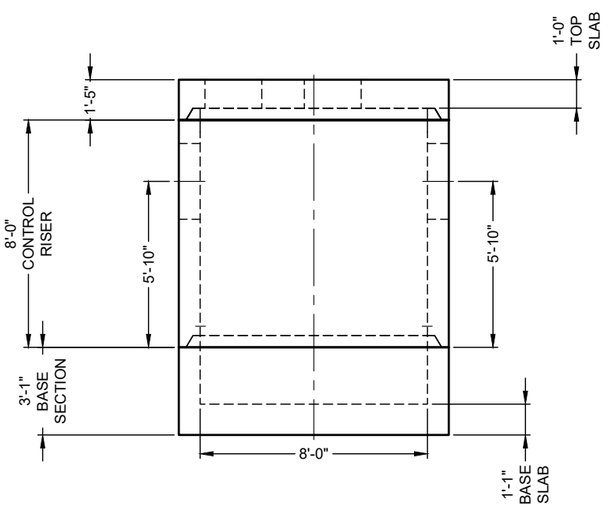
INSTALLER TO TRIM CYLINDER TO DIMENSIONED HEIGHT

15-CS-8
ICAST to fully pre-assemble internal materials prior to shipment

SEE INSTALLATION NOTE A



ELEVATION VIEW



PRECAST COMPONENTS
INTERNALS NOT SHOWN

ICAST
5888 / 757440
LAYOUT 1A
26.08TS

CONTECH
FABRICATION
DRAWING

MATERIAL LIST

COUNT	DESCRIPTION	PART NUMBER	PROVIDED BY	INSTALLED BY
1	CS-8 CYLINDER INSERT, STD.	325-003952	CONTECH	PRECASTER
6	CS-8 ALUMINUM INSTALLATION BRACKETS	325-003971	CONTECH	PRECASTER
1	CS-8 HARDWARE KIT	325-003970	CONTECH	PRECASTER
1	SEALANT FOR JOINTS		PRECASTER	CONTRACTOR
2	24"Ø X 4" FRAME AND COVER, EJ #41600389, OR EQUIV.	325-000350	CONTECH	CONTRACTOR

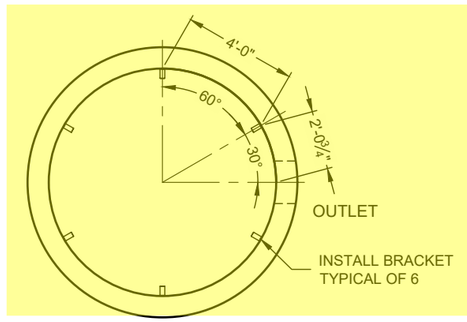
GENERAL NOTES
1. DESIGN LOADING - AASHTO HS-20
2. ALL PRECAST CONCRETE MANUFACTURED PARTS SHALL CONFORM TO ASTM C-478, WITH MINIMUM CONCRETE STRENGTH OF 4000 PSI AT 28 DAYS
3. JOINT SEALANT SHALL CONFORM TO ASTM C-990 OR ASTM C-443
4. GROUND WATER ELEVATION ASSUMED AT OUTLET INVERT
5. MANUFACTURING TOLERANCE = +/- 1/2-INCH
6. SOME HIDDEN LINES MAY BE OMITTED FOR CLARITY

INSTALLATION NOTES
A. PRECASTER TO SHIP ACCESS CASTINGS WITH STRUCTURE
B. REFER TO CONTECH ASSEMBLY INSTRUCTIONS FOR ADDITIONAL INFORMATION.
C. PRECASTER TO INSTALL INTERNAL COMPONENTS PRIOR TO SHIPPING UNLESS INSTRUCTED OTHERWISE BY CONTECH
D. PIPE OPENINGS SHALL BE STENCILED "INLET" OR "OUTLET" AS APPROPRIATE
E. APPLYING ALIGNMENT MARKS ON ALL PIECES OF MULTIPLE PIECE ASSEMBLIES IS ENCOURAGED
F. IF STRUCTURE IS DELIVERED IN MULTIPLE SECTIONS, EACH PIECE SHALL BE LABELED WITH THE CONTECH PROJECT NUMBER, SEQUENCE NUMBER AND SITE DESIGNATION

SITE INFORMATION
RIM ELEV. = 1028.15+/-
TOP OF STRUCTURE = 1026.83
INLET PIPE 1 INVERT ELEV. = 1022.25
INLET PIPE 1 DIAMETER AND MATERIAL = 24"Ø HDPE
OUTLET PIPE INVERT ELEV. = 1022.25
OUTLET PIPE DIAMETER AND MATERIAL = 24"Ø HDPE
OUTSIDE BOTTOM OF STRUCTURE ELEV. = 1014.33

STRUCTURE WEIGHT
APPROXIMATE HEAVIEST PICK = 24500 LBS.
STRUCTURE IS DELIVERED IN 3 PIECES

TOP SLAB = 11000 LBS.
CONTROL RISER = 24500 LBS.
BASE SECTION = 19000 LBS.



SUPPORT BRACKET LAYOUT PLAN VIEW

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MARK	DATE	REVISION DESCRIPTION	BY

CS-8 - 881922-15
HAWKEN SCHOOL TENNIS COURTS
CLEVELAND, OH
SITE DESIGNATION: ST-34

CONTECH ENGINEERED SOLUTIONS LLC
A QUIKRETE COMPANY
9100 Centre Pointe Dr., Suite 400, West Chester, OH 45069
800-338-1122 513-645-7000 513-645-7993 FAX

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DATE: 6/1/2026

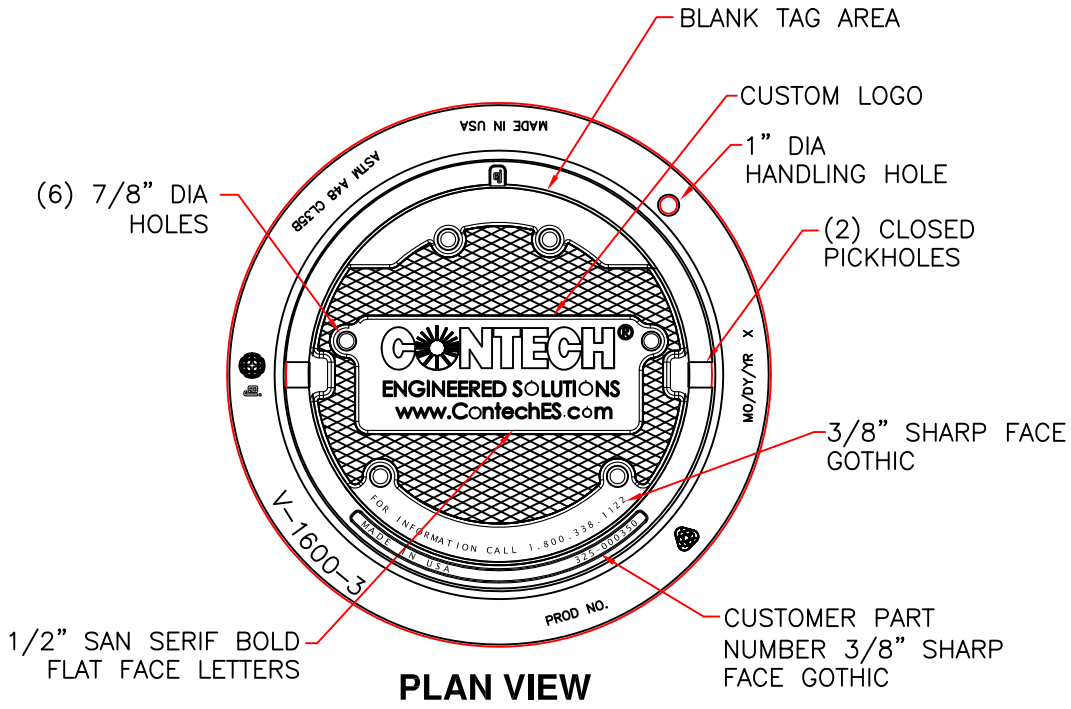
DESIGNED:	DRAWN:
MDB	MDB
CHECKED:	APPROVED:
LJK	MDB
PROJECT No.:	SEQUENCE No.:
881922	15

SHEET: 1 OF 1

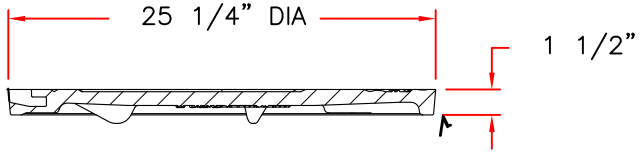
C:\USERS\MICHAEL.BEAVER\ONEDRIVE - THE QUIKRETE COMPANIES\DYNAMICS365 - CONTECH - PROJECTS\881922\PRODUCTS\15-CASCADE 81\DRAWINGS\881922-15-CS-8-CONFAB.DWG 6/1/2026 2:41 PM

26-2644 881922 Hawkin School Tennis

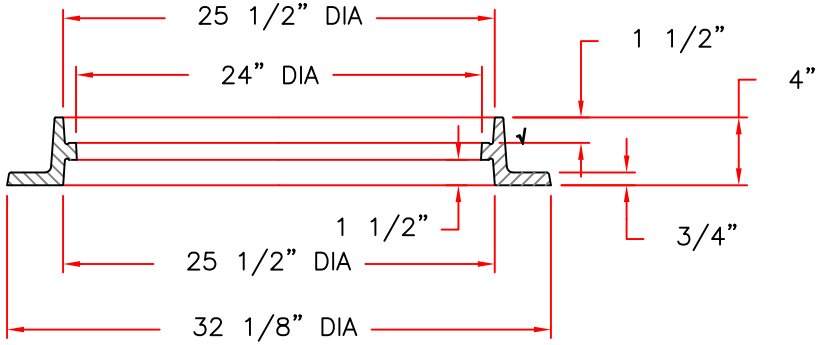
V1600-3 V1610-3 Assembly



PLAN VIEW



COVER SECTION



RING SECTION

Product Number

41600389

Design Features

-Materials
  Frame
    Gray Iron (CL35B)
  Cover
    Gray Iron (CL35B)

-Design Load
  Heavy Duty
-Open Area
  n/a
-Coating
  Undipped
-√Designates Machined Surface

Certification

-
-ASTM A48
-
-Country of Origin: USA

Major Components

41600310
41600374

Drawing Revision

05/02/2008 Designer: DEW
6/20/2017 Revised By: DAE

Disclaimer

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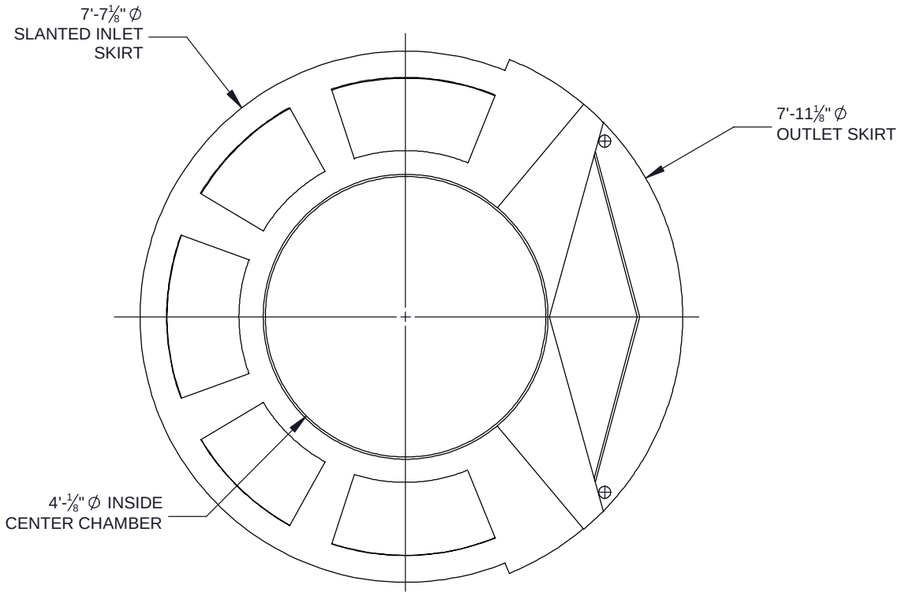
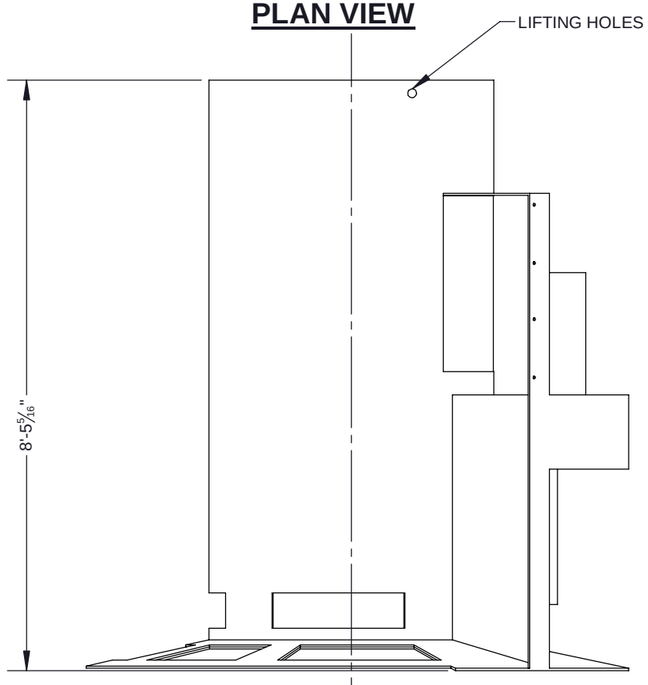
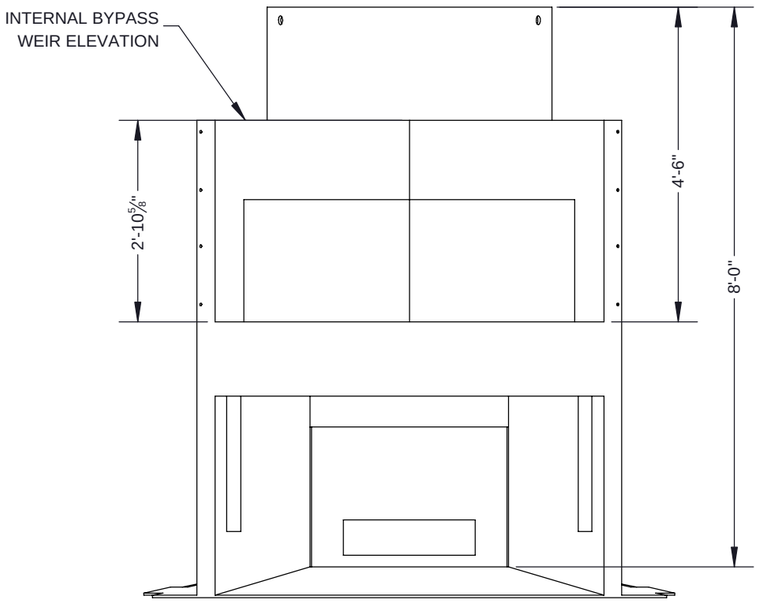


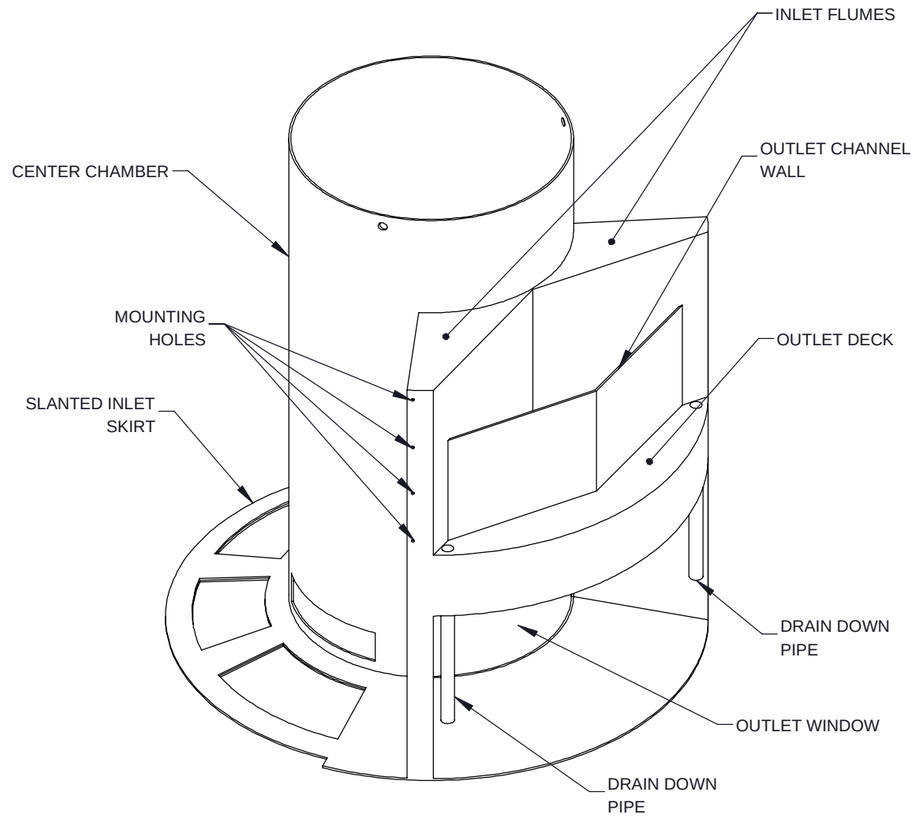
PLAN VIEW



ELEVATION VIEW



ELEVATION VIEW: OUTLET SIDE



ISOMETRIC VIEW

NOTES:
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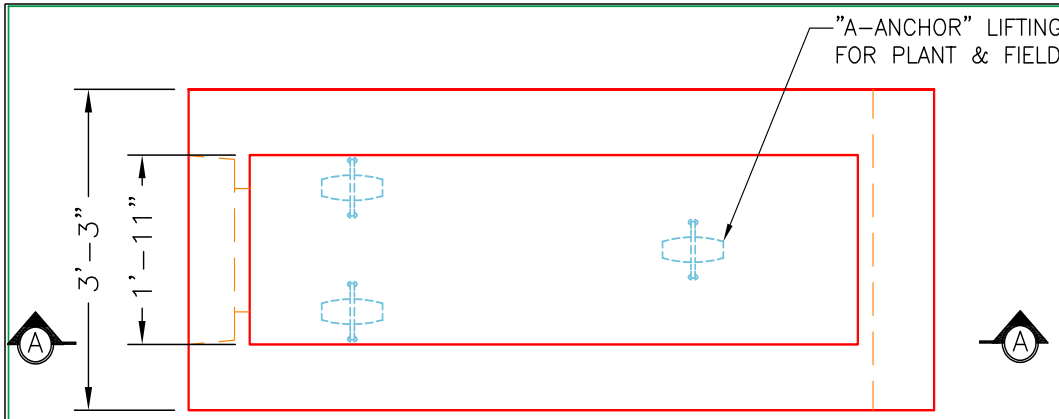
REFERENCE DETAIL
INTERNALS CS-8
CASCADE SEPARATOR

THIRD ANGLE PROJECTION

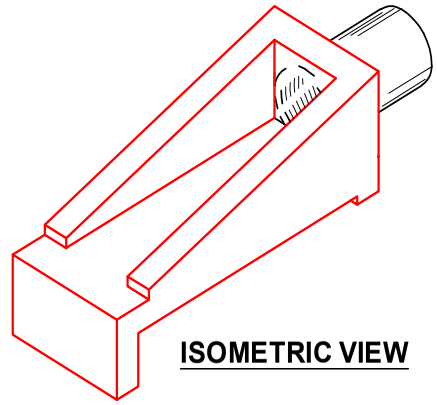
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

TOLERANCES:
FRACTIONAL ± 1/16
ANGLES ± 1 DEGREE
TWO PLACE DECIMAL ± 0.06
THREE PLACE DECIMAL ± 0.030

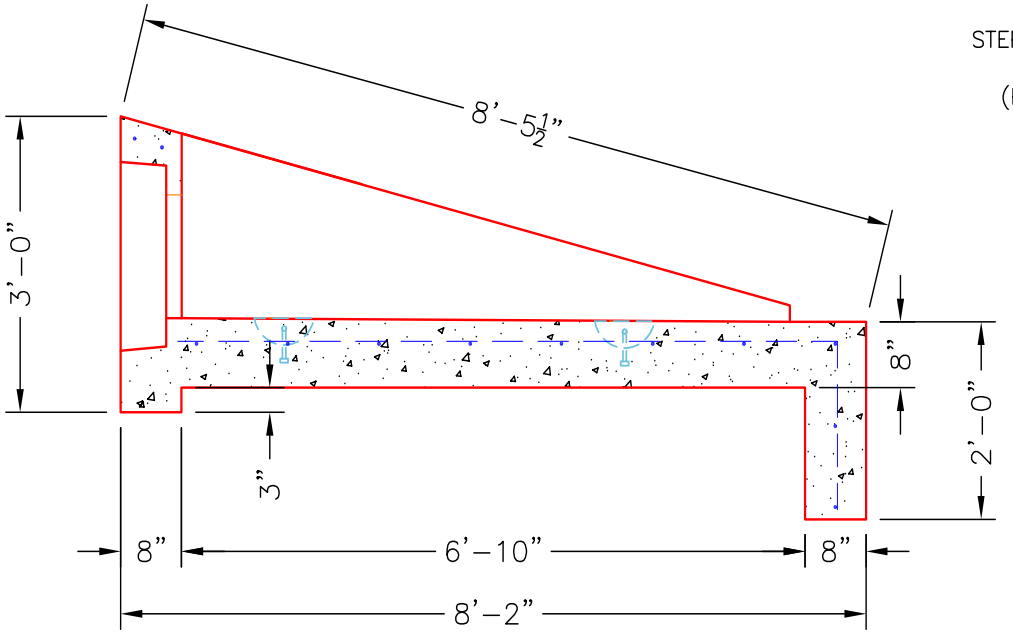
PART NUMBER:		
325-003952		
APPROVED BY: M. BROOKS	DRAWN BY: J. BELL	
APPROVED BY DATE: 2021.10.21	DRAWN BY DATE: 2021.09.15	REV: C
SCALE: N/A	SHEET 1 OF 1	



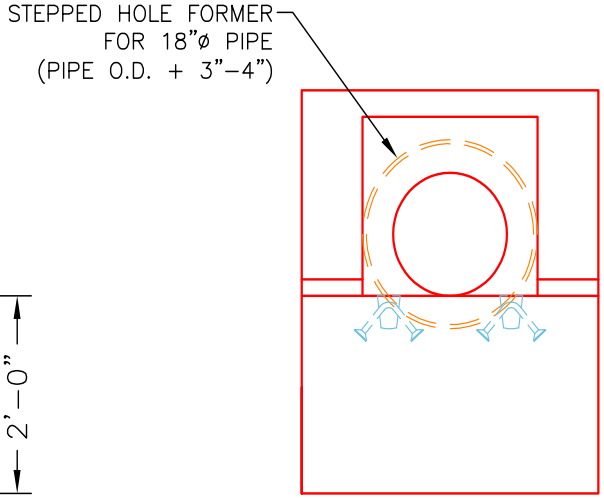
PLAN VIEW



ISOMETRIC VIEW



SECTION A-A



FRONT ELEVATION

~NOTES:

1. CONCRETE: KYTC APPROVED.
2. REINFORCING: #4 BAR @ 12" C/C E.W.–GRADE 60, (WITH 2" CONCRETE COVER MINIMUM)
3. REINFORCING BARS TO BE TACK WELDED OR TIED.
4. PIPE AND LIFTING ANCHOR POCKETS TO BE GROUTED WITH KYTC APPROVED NON–SHRINK GROUT.
5. DRAWING TO BE USED IN CONJUNCTION WITH KYTC STD. DRAWING RDH–030–03 AND THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. ¾" CHAMFER ON ALL EXPOSED EDGES.
7. PREFORMED STEPPED HOLE SIZED AS PER O.D. OF PIPE + 3"–4".

INFRASTRUCTURE PRECAST, INC.
981 WEST 7TH ST., BEAVER DAM, KY. 42320
PHONE: (270) 363–2238, FAX: (270) 298–7424

KYTC 12"–18" SLOPED & PARALLEL HEADWALLS

DRAWING NO.: KYTC 12"–18" S&P	DATE: 01–31–23
REVIEWED BY: J.H. ROSS, PE	DRAWN BY: N. RICHARDS
WEB: WWW.ICASTINC.COM	SCALE: NTS

Structure ID: 1 HW

P1 HWSP18

18" - SLOPED & PARALLEL HEADWALL F/F

Job Name: 26-1899 - Gateway 65 Industrial Road
Job Location: Franklin, KY
Contractor: RD Sitework LLC

Plant: 100
4/20/2026 1:53:53 PM
Tech: Jared - F
PC: E. Bardley

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Job Name: 26-1456 Double Kwik Job Location: Whitesburg, KY Contractor: Rising Sun Development Company	Plant: Beaver Dam 6/17/2026 2:56:33 PM	Tech: S. Felletter PC: E. Bradley	

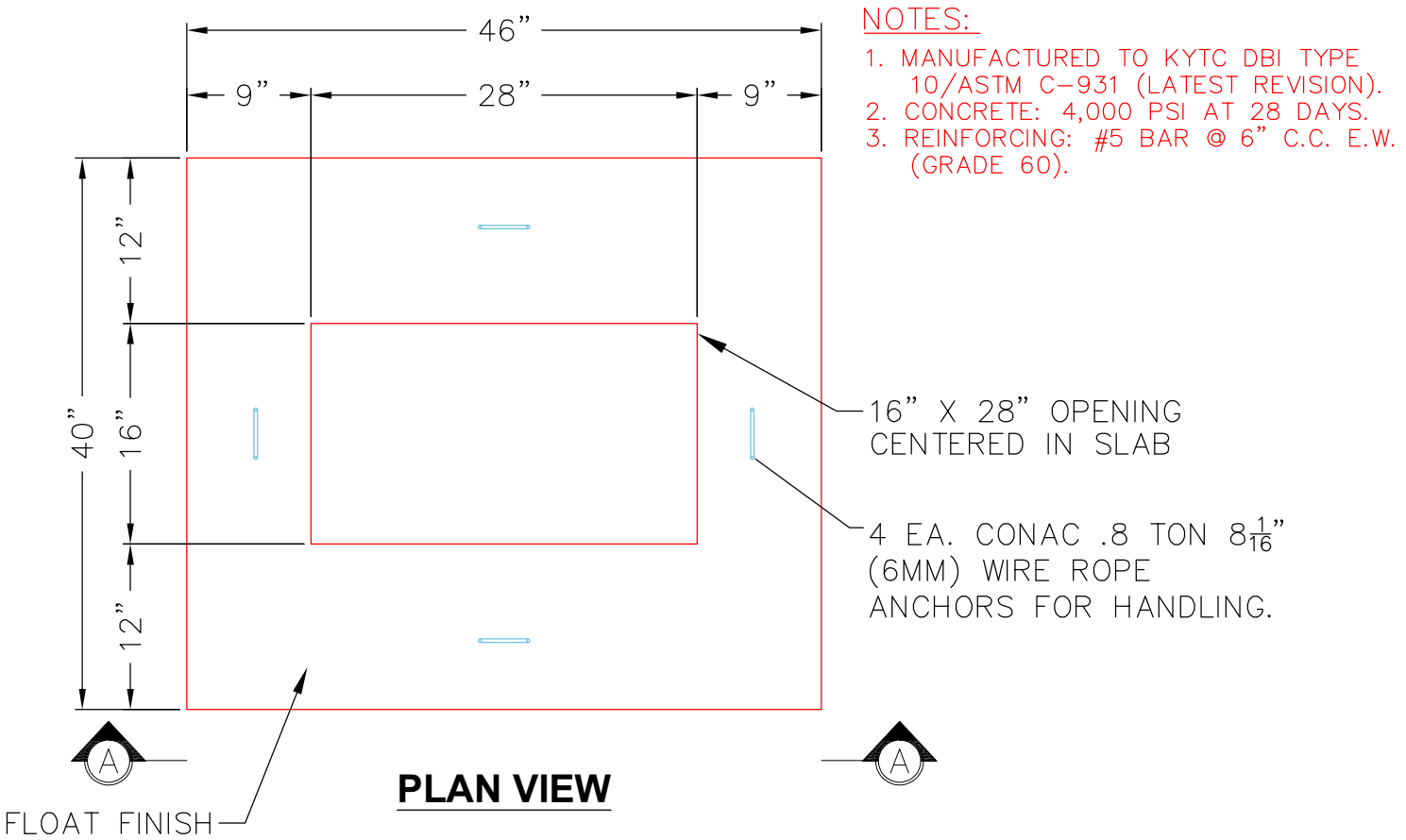
Structure ID: 87 59-7 DBI10

P2 BX024030-08LD08-16x28 BX FLAT LID 8inW w/16"x28" HOLE F/F

P3) 16" x 28" - CASTING HEIGHT - 5"	0 lb
P2) 24" x 30" - BX FLAT LID 8inW w/16"x28" HOLE F/F - 8"	934 lb
P1) 24" x 30" - BOX BASE 8inW, 8inF, Variable Ht F/n - 39"	4498 lb
1) CASTING - HOE KY-550 F/G (DBI TY 10)	550 lb
1) 24" x 30" - Conseal CS-102 1.00"	0 lb
2) Hole - 18	0 lb
1) Hole - 10	0 lb
Structure Total:	5982 lb

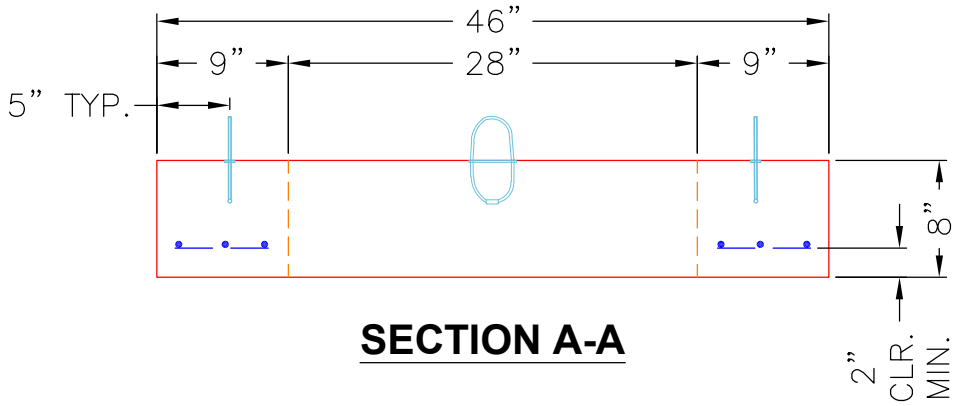
Structure Notes: .
1. KYTC DBI TYPE 10 / ASTM C-913 SPEC'S.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. NO STEPS.
5. CASTING BY ICAST (HOE KY-550 F/G).

.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .31) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.



NOTES:
1. MANUFACTURED TO KYTC DBI TYPE 10/ASTM C-931 (LATEST REVISION).
2. CONCRETE: 4,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 6” C.C. E.W. (GRADE 60).

PLAN VIEW



SECTION A-A

Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: Flat	Wall Thickness: 8"	Height (Ext): 8"	Weight (Net): 934 lb Volume (Net): 0.24cu.yd

Job Name: 26-1456 Double Kwik
Job Location: Whitesburg, KY
Contractor: Rising Sun Development Company

Plant: Beaver Dam
6/17/2026 2:56:19 PM

Tech: S. Felletter
PC: E. Bradley

Structure ID: 88 70-9 DBI10

P1 BX1628-08BAVF BOX BASE 8inW, 8inF, Variable Ht F/n

P2) 16" x 28" - CASTING HEIGHT - 5"	0 lb
P1) 16" x 28" - BOX BASE 8inW, 8inF, Variable Ht F/n - 19"	2266 lb
1) CASTING - HOE KY-550 F/G (DBI TY 10)	550 lb
1) Hole - 18	0 lb
1) Hole - 8	0 lb
Structure Total:	2816 lb

First pour drawing
First pour weight = 957 LBS

Second pour weight = 1309 LBS

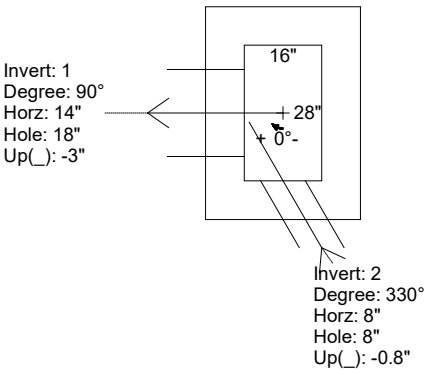
Structure Notes: .
1. KYTC DBI TYPE 10 / ASTM C-913 SPEC'S.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. NO STEPS.
5. CASTING BY ICAST (HOE KY-550 F/G).

.
REINFORCING PER ASTM A615 (GRADE 60).
- WALLS (As .31) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

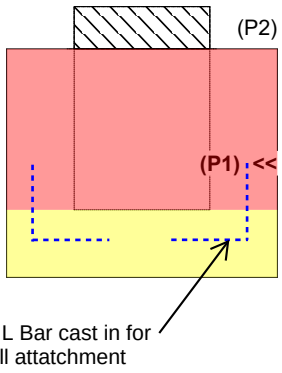
Rim: 1190.7' Rim to Invert: 2' Slack: 0" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	1188.7'	90°	22"	12" HDPE	14.5"	Hole 18	18"	18"	-3"	0"
Invert 2	1188.8'	330°	11.381"	4" PVC SDR35	4.25"	Hole 8	8"	9.238"	-0.8"	7"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

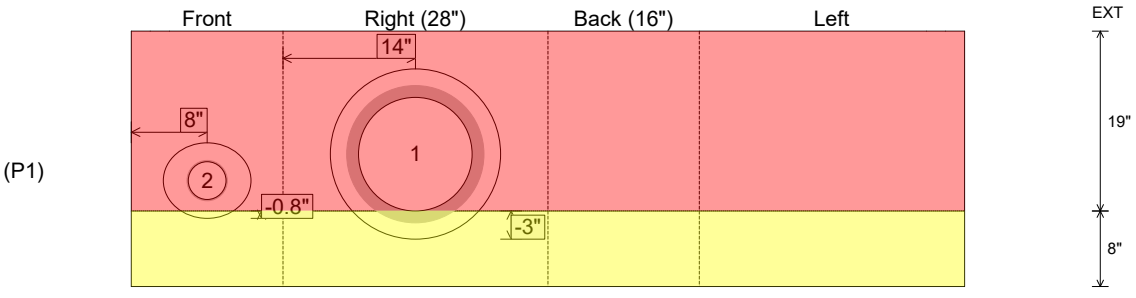
RIGHT-SIDE UP VIEW (int. dimensions)



UPSIDE-DOWN VIEW (int. dimenions)



INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Flat	Wall Thickness: 8"	Height (Int): 19"	Weight (Net): 2266 lb
Coating (Ext):	Seam Dn: n/a	Floor Height: 8"	Height (Ext): 27"	Volume (Net): 0.58cu.yd

Job Name: 26-1456 Double Kwik
Job Location: Whitesburg, KY
Contractor: Rising Sun Development Company

Plant: Beaver Dam
6/17/2026 2:56:19 PM

Tech: S. Felletter
PC: E. Bradley

Structure ID: 88 70-9 DBI10

P1 BX1628-08BAVF BOX BASE 8inW, 8inF, Variable Ht F/n

P2) 16" x 28" - CASTING HEIGHT - 5"	0 lb
P1) 16" x 28" - BOX BASE 8inW, 8inF, Variable Ht F/n - 19"	2266 lb
1) CASTING - HOE KY-550 F/G (DBI TY 10)	550 lb
1) Hole - 18	0 lb
1) Hole - 8	0 lb
Structure Total:	2816 lb

Second pour drawing

First pour weight = 957 LBS

Second pour weight = 1309 LBS

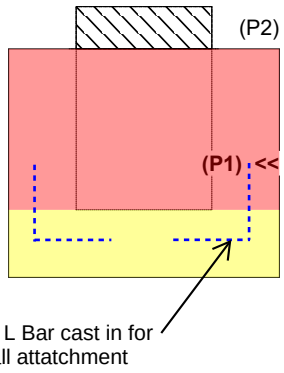
Structure Notes: .
1. KYTC DBI TYPE 10 / ASTM C-913 SPEC'S.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO INVERT CHANNEL.
4. NO STEPS.
5. CASTING BY ICAST (HOE KY-550 F/G).

.
REINFORCING PER ASTM A615 (GRADE 60).
- WALLS (As .31) #5 BARS AT 12" C.C.E.W.
- FLOOR (As .31) #5 BARS AT 12" C.C.E.W.

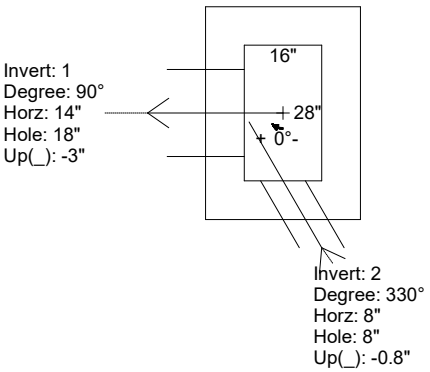
Rim: 1190.7' Rim to Invert: 2' Slack: 0" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	1188.7'	90°	22"	12" HDPE	14.5"	Hole 18	18"	18"	-3"	0"
Invert 2	1188.8'	330°	11.381"	4" PVC SDR35	4.25"	Hole 8	8"	9.238"	-0.8"	7"
Invert 3										
Invert 4										
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

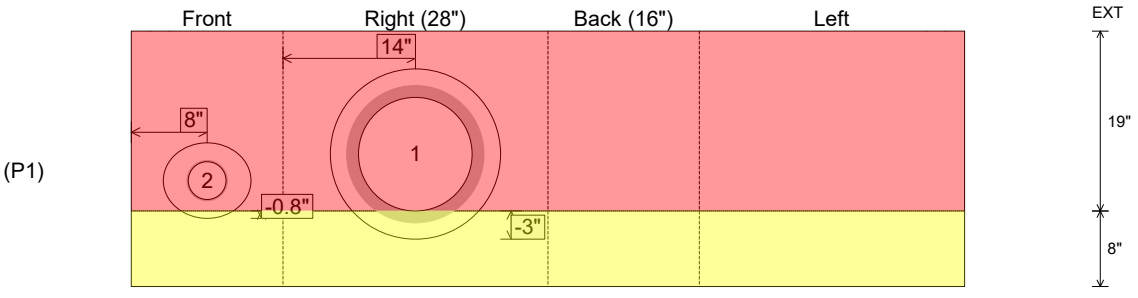


#5 L Bar cast in for wall attatchment



UPSIDE-DOWN VIEW (int. dimenions)

INSIDE WALL DIMENSIONS



Coating (Int): Coating (Ext):	Seam Up: Flat Seam Dn: n/a	Wall Thickness: 8" Floor Height: 8"	Height (Int): 19" Height (Ext): 27"	Weight (Net): 2266 lb Volume (Net): 0.58cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road
Job Location: Franklin, KY
Contractor: RD Sitework LLC

Plant: 100
6/4/2026 4:34:07 PM

Tech: Jared - F
PC: E. Bardley

Structure ID: 25 ST-DCI

P1 BX036084-08BAVF BOX BASE 8inW, 8inF, Variable Ht F/n

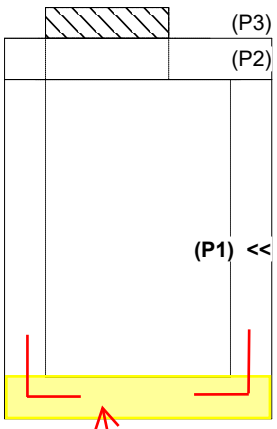
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 36" x 84" - CB FLAT TOP 8"W SPEC. (2 - 24x36 HOLES) F/F - 8"	2911 lb
P1) 36" x 84" - BOX BASE 8inW, 8inF, Variable Ht F/n - 58"	11612 lb
1) CASTING - HOE 525 DBL SET FLAT GRATE (F/G/H)	442 lb
1) 36" x 84" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
1) Hole - 46	0 lb
2) Hole - 22	0 lb
1) Hole - 40	0 lb
Structure Total:	14964 lb

Structure Notes: .
1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 DBL SET FLAT GRATE (F/G/H)).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .47) #5 BARS AT 8" C.C.E.W.
- FLOOR (As .47) #5 BARS AT 8" C.C.E.W.

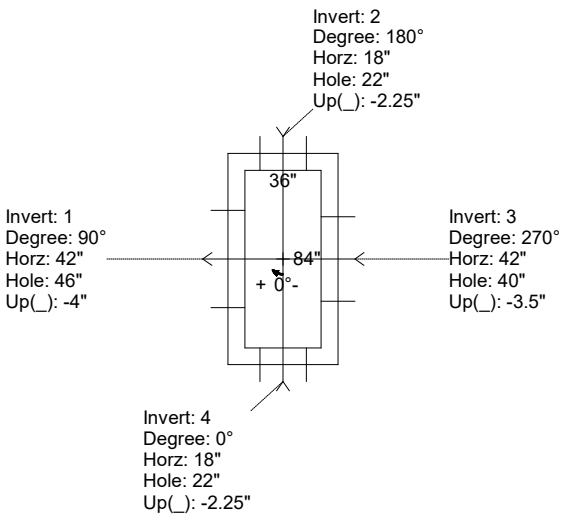
Rim: 687.19' Rim to Invert: 6' Slack: 0" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	681.19'	90°	50"	36" RCP B WALL	44"	Hole 46	46"	46"	-4"	0"
Invert 2	681.19'	180°	26"	15" RCP B WALL	19.5"	Hole 22	22"	22"	-2.25"	0"
Invert 3	681.19'	270°	50"	30" RCP B WALL	37"	Hole 40	40"	40"	-3.5"	0"
Invert 4	681.19'	0°	26"	15" RCP B WALL	19.5"	Hole 22	22"	22"	-2.25"	0"
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)



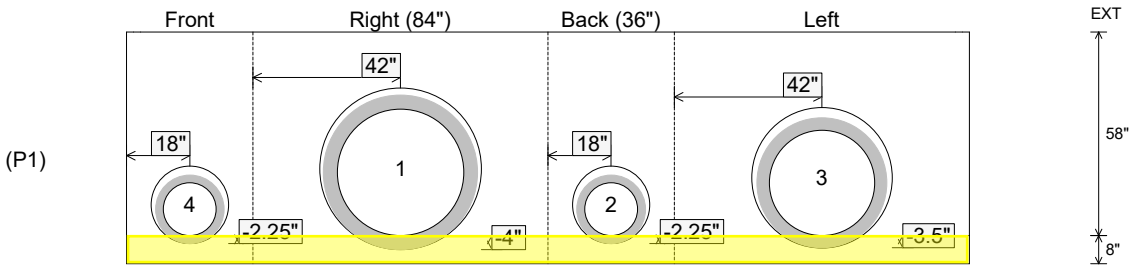
1ST POUR (FLOOR) STUB #5 L BARS OUT TOP FLOOR, SPA AT 12" C/C FOR CONNECTING WALLS



UPSIDE-DOWN VIEW (int. dimenions)

1ST POUR (FLOOR) = 3,490 LBS
2ND POUR (WALLS) = 8,122 LBS

INSIDE WALL DIMENSIONS



Coating (Int):	Seam Up: Flat	Wall Thickness: 8"	Height (Int): 58"	Weight (Net): 11612 lb
Coating (Ext):	Seam Dn: n/a	Floor Height: 8"	Height (Ext): 66"	Volume (Net): 2.97cu.yd

Job Name: 26-1899 - Gateway 65 Industrial Road
Job Location: Franklin, KY
Contractor: RD Sitework LLC

Plant: 100
6/4/2026 4:34:07 PM

Tech: Jared - F
PC: E. Bardley

Structure ID: 25 ST-DCI

P1 BX036084-08BAVF BOX BASE 8inW, 8inF, Variable Ht F/n

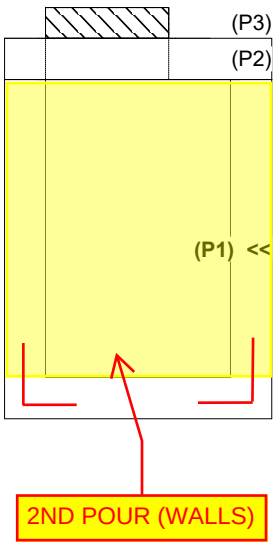
P3) 24" x 36" - CASTING HEIGHT - 6"	0 lb
P2) 36" x 84" - CB FLAT TOP 8"W SPEC. (2 - 24x36 HOLES) F/F - 8"	2911 lb
P1) 36" x 84" - BOX BASE 8inW, 8inF, Variable Ht F/n - 58"	11612 lb
1) CASTING - HOE 525 DBL SET FLAT GRATE (F/G/H)	442 lb
1) 36" x 84" - Conseal CS-102 1.00"	0 lb
1) 24" x 36" - Conseal CS-102 1.00"	0 lb
1) Hole - 46	0 lb
2) Hole - 22	0 lb
1) Hole - 40	0 lb
Structure Total:	14964 lb

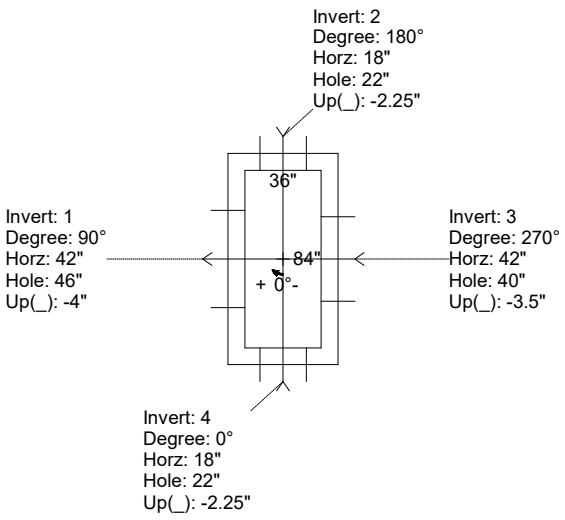
Structure Notes: .
1. PER ASTM C913 SPECIFICATIONS.
2. CONCRETE = 4,000 PSI AT 28 DAYS.
3. NO STEPS AND NO INVERT CHANNEL.
4. CASTING BY ICAST (HOE 525 DBL SET FLAT GRATE (F/G/H)).
.
REINFORCING PER ASTM A615 (GRADE 60).
- TOP SLAB (As .62) #5 BARS AT 6" C.C.E.W.
- WALLS (As .47) #5 BARS AT 8" C.C.E.W.
- FLOOR (As .47) #5 BARS AT 8" C.C.E.W.

Rim: 687.19' Rim to Invert: 6' Slack: 0" Sump: 0" Step Position:

Position	Elev	Angle	Ext. (cw)	Pipe	Pipe OD	Connector	Hole	Horz Size	Up (_)	Offset
Invert 1	681.19'	90°	50"	36" RCP B WALL	44"	Hole 46	46"	46"	-4"	0"
Invert 2	681.19'	180°	26"	15" RCP B WALL	19.5"	Hole 22	22"	22"	-2.25"	0"
Invert 3	681.19'	270°	50"	30" RCP B WALL	37"	Hole 40	40"	40"	-3.5"	0"
Invert 4	681.19'	0°	26"	15" RCP B WALL	19.5"	Hole 22	22"	22"	-2.25"	0"
Invert 5										
Invert 6										
Invert 7										
Invert 8										

RIGHT-SIDE UP VIEW (int. dimensions)

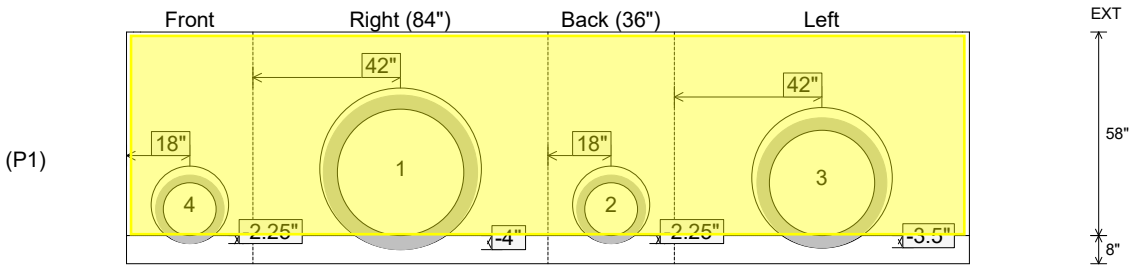




UPSIDE-DOWN VIEW (int. dimenions)

1ST POUR (FLOOR) = 3,490 LBS
2ND POUR (WALLS) = 8,122 LBS

INSIDE WALL DIMENSIONS



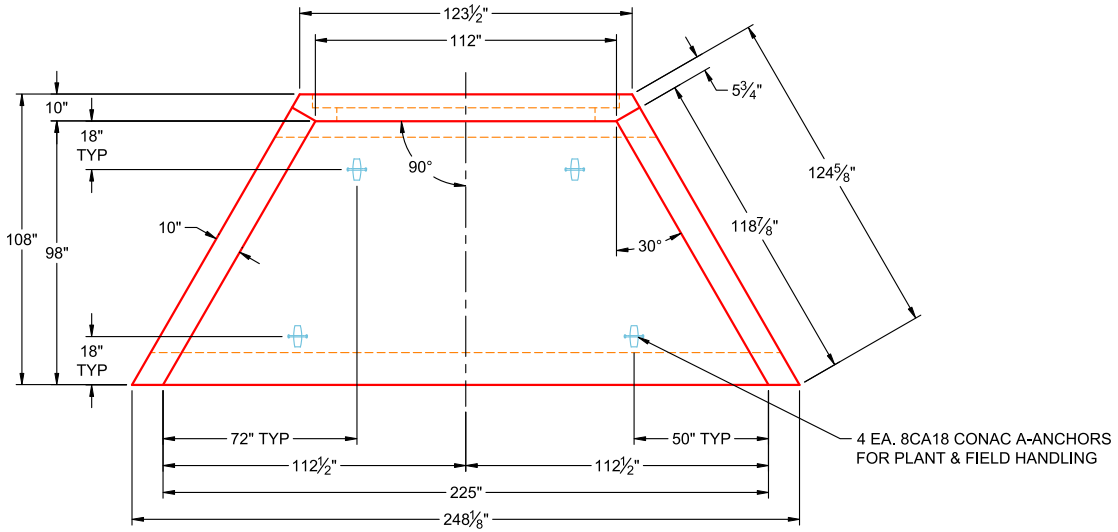
Coating (Int):
Coating (Ext):

Seam Up: Flat
Seam Dn: n/a

Wall Thickness: 8"
Floor Height: 8"

Height (Int): 58"
Height (Ext): 66"

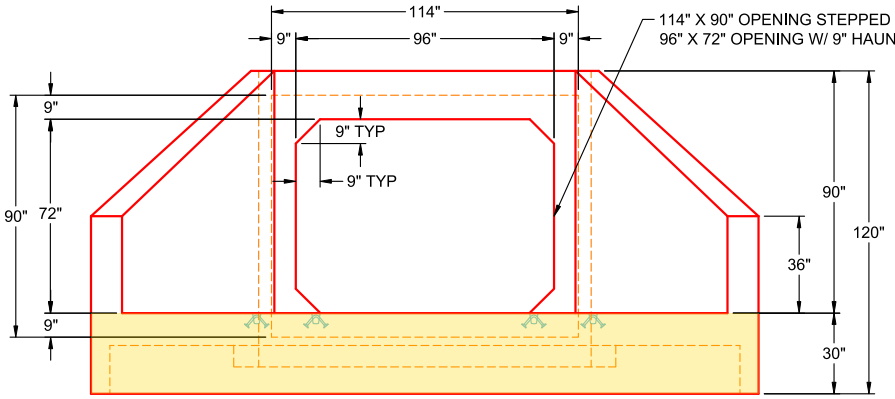
Weight (Net): 11612 lb
Volume (Net): 2.97cu.yd



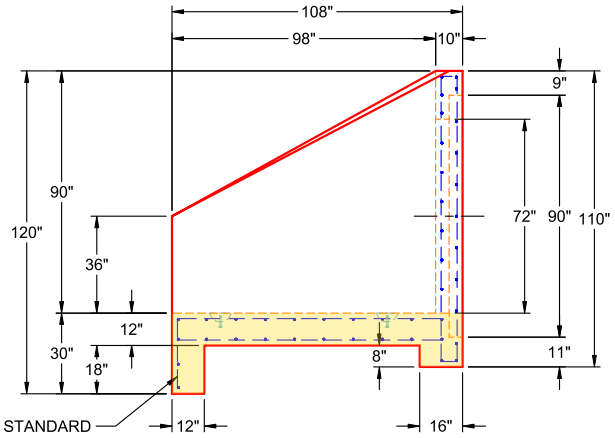
PLAN VIEW
(RIGHT SIDE UP)

GENERAL NOTES:

1. DRAWING TO BE USED IN CONJUCTION WITH KYTC STANDARD DRAWINGS RDH-1005-02, RDH-1105-02, RDH-1200-02, & RDH-1302-03
2. REINFORCEMENT PER KYTC STANDARD DRAWINGS RDH-1005-02, RDH-1200-02, & RDH-1302-03 - 2" MIN. REBAR CLEARANCE (TYP)
3. CONCRETE: 5,000 PSI AT 28 DAYS
4. TOTAL WEIGHT: 40,775 LBS
   - FIRST POUR: 25,575 LBS
   - SECOND POUR: 15,200 LBS



FRONT VIEW
(RIGHT SIDE UP)



SIDE VIEW
(RIGHT SIDE UP)

PRODUCTION WORK ORDER	PRODUCT I.D.: HWCUSTOM	DESCRIPTION: 96" X 72" BOX CULVERT HEADWALL - 0° SKEW	
QUALITY CONTROL CHECKLIST	PRODUCT VIEW: RIGHT SIDE UP	CUSTOMER: JIM SMITH CONTRACTING	
☐ ALL DIMENSIONS CORRECT. ☐ LIFTERS INSTALLED ☐ OPENING CENTERED. ☐ REINFORCING CORRECT. ☐ SURFACE QUALITY ACCEPTABLE. ☐ EDGES CHAMFERED. ☐ ALL PATCHWORK ACCEPTABLE.	PLANT: BEAVER DAM, KY	PROJECT: KYTC MCCRACKEN CO. CALL 200 (ID 241301)	
	WEIGHT: 40,775 LBS	STRUCTURE: ST. 43+62 HW (1)	
	TOP SECTION JOINT: N / A	ORDER NO: 24-1643B	
	BASE SECTION JOINT: N / A	PE: J.H. ROSS	DRAWING: K. CARDWELL
	QC CHECK INITIALS:	DATE: 05/28/26	SCALE: NTS | PG. 1 OF 1

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P1 HWCUSTOM 96" x 72" - BOX CULVERT HEADWALL F/F

Structure ID: St. 43+62 HW (1)

Job Name: 24-1643B - KYTC McCracken Co. Call 200 (ID 241301)
Job Location: Paducah, KY
Contractor: Jim Smith Contracting Co, LLC

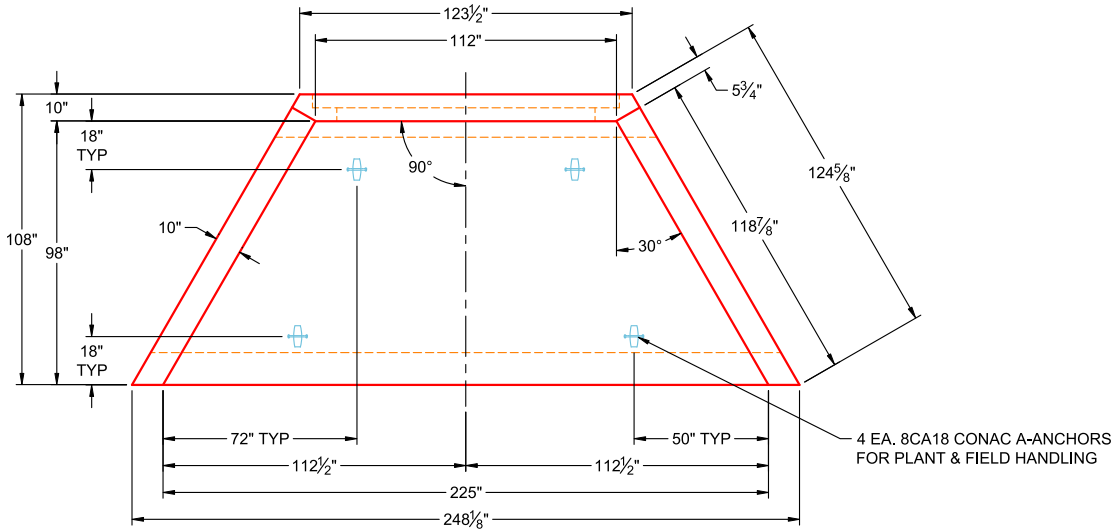
Plant: 100
5/28/2026 1:31:47 PM

Tech: J. Horsley
PC: C. Goff

Job Name: 24-1643B - KYTC McCracken Co. Call 200 (ID 241301)
Job Location: Paducah, KY
Contractor: Jim Smith Contracting Co, LLC

Structure ID: St. 43+62 HW (1)

P1 HWCUSTOM 96" x 72" - BOX CULVERT HEADWALL F/F



PLAN VIEW
(RIGHT SIDE UP)

GENERAL NOTES:

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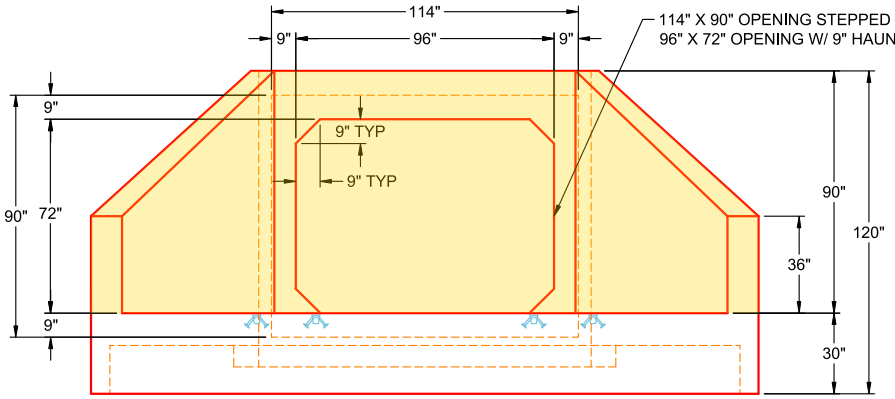
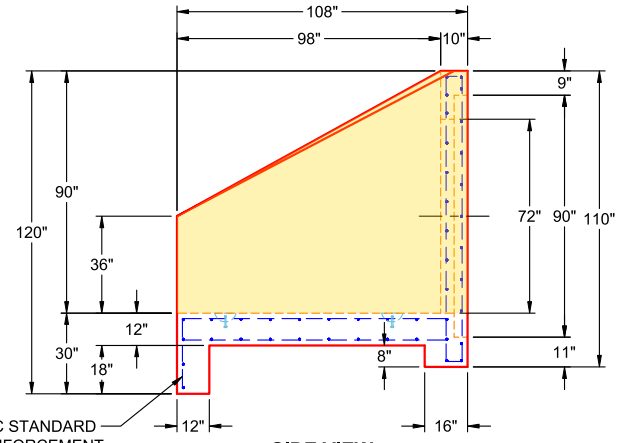
2. REINFORCEMENT PER KYTC STANDARD DRAWINGS RDH-1005-02, RDH-1200-02, & RDH-1302-03 - 2" MIN. REBAR CLEARANCE (TYP)
3. CONCRETE: 5,000 PSI AT 28 DAYS
4. TOTAL WEIGHT: 40,775 LBS
   - FIRST POUR: 25,575 LBS
   - SECOND POUR: 15,200 LBS



FRONT VIEW
(RIGHT SIDE UP)



SEE ATTACHED KYTC STANDARD DRAWINGS FOR REINFORCEMENT DETAILS

SIDE VIEW
(RIGHT SIDE UP)

PRODUCTION WORK ORDER	PRODUCT I.D.: HWCUSTOM	DESCRIPTION: 96" X 72" BOX CULVERT HEADWALL - 0° SKEW	
QUALITY CONTROL CHECKLIST	PRODUCT VIEW: RIGHT SIDE UP	CUSTOMER: JIM SMITH CONTRACTING	
☐ ALL DIMENSIONS CORRECT. ☐ LIFTERS INSTALLED ☐ OPENING CENTERED. ☐ REINFORCING CORRECT. ☐ SURFACE QUALITY ACCEPTABLE. ☐ EDGES CHAMFERED. ☐ ALL PATCHWORK ACCEPTABLE.	PLANT: BEAVER DAM, KY	PROJECT: KYTC MCCRACKEN CO. CALL 200 (ID 241301)	
	WEIGHT: 40,775 LBS	STRUCTURE: ST. 43+62 HW (1)	
	TOP SECTION JOINT: N / A	ORDER NO: 24-1643B	
	BASE SECTION JOINT: N / A	PE: J.H. ROSS	DRAWING: K. CARDWELL
	QC CHECK INITIALS:	DATE: 05/28/26	SCALE: NTS | PG. 1 OF 1

Plant: 100
5/28/2026 1:31:47 PM
Tech: J. Horsley
PC: C. Goff

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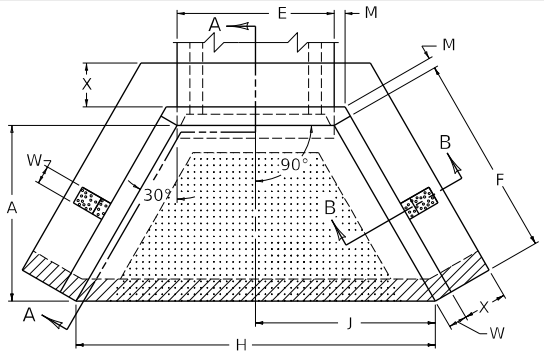
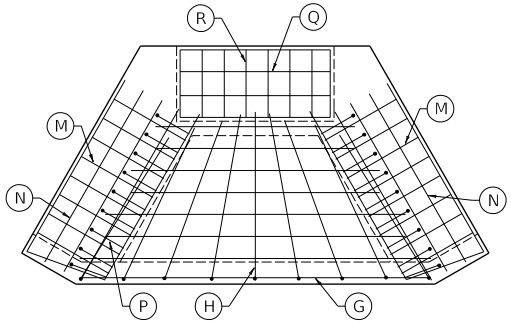
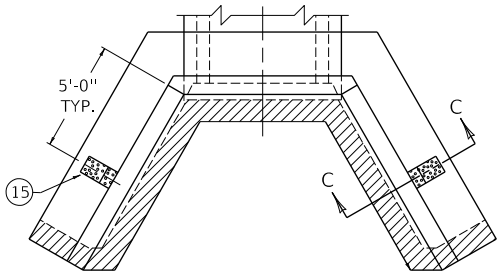
DRAWING SCALE:
¾" : 1'



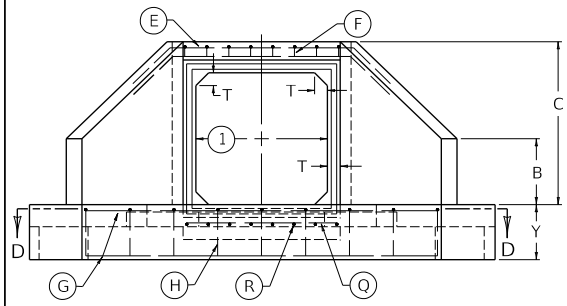
PLAN VIEW



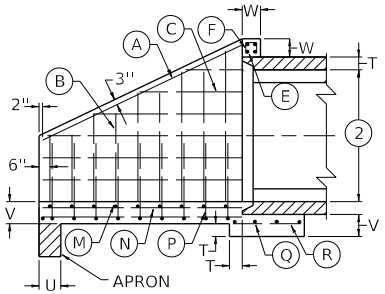
SECTION D-D



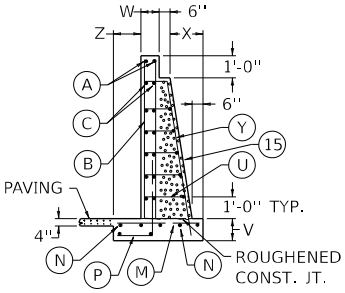
PLAN VIEW
WITHOUT PAVING



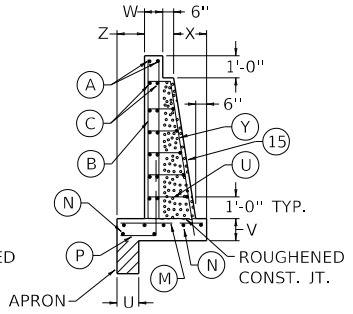
FRONT ELEVATION



SECTION A-A



SECTION B-B



SECTION C-C

NOTES

(1) SPAN OF BOX CULVERT

(2) RISE OF BOX CULVERT

3. FOR DIMENSIONS, QUANTITIES, AND BILL OF REINFORCEMENT SEE CUR. STD. DWGS. RDH-1100, RDH-1200 AND RDH-1300 SERIES.
4. DIMENSIONS FROM FACE OF CONCRETE TO STEEL SHALL BE 2" CLEAR DISTANCE.
5. ENCIRCLED LETTERS, ◯, INDICATE STEEL BAR LOCATIONS.
6. BARS (B), (C), (G), (M), (P) AND (U) ARE SPACED 1'-0" O.C. ALL OTHER BARS SHALL BE EVENLY SPACED.
7. BARS (B), (C) AND (U) ARE PLACED IN ORDER OF INCREASING LENGTH, BEGINNING AT THE END OF WING, TOP OF WING AND TOP OF COUNTERFORT RESPECTIVELY.
8. HEADWALLS LOCATED AT SHOULDER EDGE SHALL BE PARALLEL TO CENTERLINE OF ROAD.
9. ▨ LIMITS OF APRON.
10. ⁙ LIMITS OF PAVING.
11. ⁙ LIMITS OF COUNTERFORTS.
12. THESE HEADWALLS ARE DESIGNED BOTH WITH AND WITHOUT PAVING BETWEEN THE WINGS. (SEE PLANS)
13. WHEN PAVING IS REQUIRED; PAVING SHALL BE SLOPED IN DIRECTION OF FLOW EQUAL TO SLOPE OF BOX. FRONT FACE OF HEADWALL AND ENDS OF WINGS SHALL REMAIN VERTICAL.
14. WHEN PAVING IS NOT REQUIRED BARS (H) AND (G) SHALL BE ELIMINATED.
15. A COUNTERFORT SHALL BE REQUIRED ON A WING WALL WHEN THE BOX RISE IS 8'-0" OR GREATER AND THE WING WALL IS 15'-0" OR LONGER.

(LAYOUT AND STEEL PATTERN)

KENTUCKY
DEPARTMENT OF HIGHWAYS

PRECAST BOX CULVERT HEADWALLS – 0° SKEW

(BOX RISE 6'-0" OR GREATER)

STANDARD DRAWING NO. RDH-1005-02

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

APPROVED _____ _____ DATE

DIMENSION	PRECAST BOX CULVERT														DIMENSION
	7'x4'	7'x5'	7'x6'	7'x7'	8'x4'	8'x5'	8'x6'	8'x7'	8'x8'	9'x5'	9'x6'	9'x7'	9'x8'	9'x9'	
A	6'-0"	7'-0"	8'-2"	9'-2"	6'-0"	7'-0"	8'-2"	9'-2"	10'-2"	7'-2"	8'-4"	9'-4"	10'-4"	11'-4"	A
B	2'-0"	2'-6"	3'-0"	3'-6"	2'-0"	2'-6"	3'-0"	3'-6"	4'-0"	2'-6"	3'-0"	3'-6"	4'-0"	4'-6"	B
C	5'-4"	6'-4"	7'-6"	8'-6"	5'-4"	6'-4"	7'-6"	8'-6"	9'-6"	6'-5"	7'-7"	8'-7"	9'-7"	10'-7"	C
E	8'-4"				9'-4"					10'-6"					E
F	6'-11"	8'-1"	9'-5"	10'-7"	6'-11"	8'-1"	9'-5"	10'-7"	11'-9"	8'-3"	9'-7"	10'-9"	11'-11"	13'-1"	F
H	15'-3"	16'-5"	17'-9"	18'-11"	16'-3"	17'-5"	18'-9"	19'-11"	21'-1"	18'-9"	20'-1"	21'-3"	22'-5"	23'-7"	H
J	7'-8"	8'-2"	8'-11"	9'-6"	8'-2"	8'-8"	9'-5"	10'-0"	10'-6"	9'-5"	10'-1"	10'-8"	11'-3"	11'-10"	J
M	0'-5"		0'-6"		0'-5"		0'-6"			0'-5"	0'-6"				M
T	0'-8"									0'-9"					T
U	1'-0"														U
V	0'-8"		1'-0"		0'-8"		1'-0"			0'-8"	1'-0"				V
W	0'-8"		0'-10"		0'-8"		0'-10"			0'-8"	0'-10"				W
X	----		2'-0"		----		2'-0"		2'-6"	----	2'-0"		2'-6"		X
Y	2'-0"		2'-6"		2'-0"		2'-6"		3'-0"	2'-0"	2'-6"		3'-0"		Y
Z	----		1'-3"		----		1'-3"		1'-9"	----	1'-3"		1'-9"		Z

KENTUCKY
DEPARTMENT OF HIGHWAYS

DIMENSIONS
7'x4' – 9'x9' HEADWALLS
PRECAST BOX CULVERT
0° SKEW

STANDARD DRAWING NO. RDH-1105-02

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

APPROVED _____ STATE HIGHWAY ENGINEER _____ DATE

BOX SIZE ①	CONCRETE 2 HEADWALLS ②	③	④	⑤	⑥	REINFORCEMENT 2 HEADWALLS ⑦	⑧
3 X 2	3.17	0.82	———	———	———	271	———
3 X 3	4.39	0.94	———	———	———	365	———
4 X 2	3.74	0.96	———	———	———	311	———
4 X 3	5.06	1.07	———	———	———	389	———
4 X 4	6.60	1.18	———	———	———	497	———
5 X 3	5.76	1.20	———	———	———	430	———
5 X 4	7.39	1.32	———	———	———	576	———
5 X 5	9.24	1.43	———	———	———	681	———
6 X 3	6.51	1.34	———	———	———	483	———
6 X 4	8.22	1.45	———	———	———	603	———
6 X 5	10.16	1.57	———	———	———	738	———
6 X 6	19.81	2.39	2.24	3.26	18.43	1619	273
7 X 4	9.10	1.59	———	———	———	652	———
7 X 5	11.13	1.70	———	———	———	796	———
7 X 6	21.08	2.54	2.56	3.43	19.40	1678	292
7 X 7	24.13	2.67	3.00	3.69	22.15	2092	353
8 X 4	9.59	1.68	———	———	———	693	———
8 X 5	11.67	1.80	———	———	———	805	———
8 X 6	21.80	2.65	2.78	3.54	19.90	1736	325
8 X 7	24.88	2.78	3.25	3.80	22.64	2117	350
8 X 8	31.42	4.03	3.34	5.47	29.52	2749	427

BOX SIZE ①	CONCRETE 2 HEADWALLS ②	③	④	⑤	⑥	REINFORCEMENT 2 HEADWALLS ⑦	⑧
9 X 5	12.70	1.93	———	———	———	877	———
9 X 6	23.13	2.81	3.12	3.71	20.91	1791	327
9 X 7	26.26	2.93	3.62	3.97	23.68	2204	397
9 X 8	33.01	4.23	3.73	5.70	30.75	2846	479
9 X 9	36.81	4.40	4.25	6.04	34.20	3431	509
10 X 5	13.79	2.07	———	———	———	971	———
10 X 6	24.50	2.96	3.47	3.89	21.96	1972	376
10 X 7	27.69	3.09	4.00	4.14	24.75	2419	444
10 X 8	34.64	4.43	4.12	5.93	32.01	3081	482
10 X 9	38.50	4.60	4.68	6.27	35.49	3539	565
10 X 10	53.89	7.29	5.40	9.95	51.16	4748	674
11 X 4	12.60	2.09	———	———	———	870	———
11 X 6	25.92	3.11	3.83	4.06	23.04	2049	413
11 X 8	36.32	4.63	4.53	6.16	33.32	3180	534
11 X 10	56.04	7.59	5.89	10.29	52.85	4801	677
11 X 11	69.84	7.77	6.93	10.66	65.81	5688	778
12 X 4	13.72	2.22	———	———	———	903	———
12 X 6	27.39	3.26	4.19	4.23	24.17	2134	457
12 X 8	38.05	4.84	4.94	6.39	34.66	3424	587
12 X 10	60.16	7.88	6.38	10.62	56.52	5075	740
12 X 12	92.85	8.01	8.83	10.98	86.98	6916	929

① PRECAST CONCRETE BOX CULVERT SECTIONS EQUALS THE INTERIOR SPAN (S) BY THE INTERIOR RISE (R) IN FEET.
② CU. YDS. OF CONCRETE IN TWO HEADWALLS WITH PAVING.
③ CU. YDS. OF CONCRETE IN TWO APRONS (HEADWALLS WITH PAVING).
④ CU. YDS. OF CONCRETE IN TWO PAVED AREAS OF THE HEADWALLS.
⑤ CU. YDS. OF CONCRETE IN TWO APRONS (HEADWALLS WITHOUT PAVING).
⑥ CU. YDS. OF CONCRETE IN TWO HEADWALLS WITHOUT PAVING.
⑦ POUNDS OF REINFORCING STEEL IN TWO HEADWALLS WITH PAVING.
⑧ POUNDS OF REINFORCING STEEL TO DEDUCT WHEN PAVING FOR TWO HEADWALLS IS ELIMINATED.

KENTUCKY
DEPARTMENT OF HIGHWAYS

QUANTITIES
3' x 2' – 12' x 12' H-WALLS
PRECAST BOX CULVERTS
0° SKEW

STANDARD DRAWING NO. RDH-1200-02

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

APPROVED _____ STATE HIGHWAY ENGINEER _____ DATE

7' X 5'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	8	9		
C_1	4	2	2	6		
C_2	4	2	4	7		
C_3	4	2	6	8		
C_4	4	4	7	11		
E_1	5	2	11	6	8	7
E_2	5	2	11	11	8	11
F	4	9	0	11	0	4
G_1	4	1	9	3		
G_2	4	2	11	5		
G_3	4	2	13	9		
G_4	4	3	16	0		
H	4	9	8	4	6	8
N	4	6	7	11		
Q	4	2	8	0		
R	4	9	1	0		
V_1	5	4	4	5	3	2
V_2	5	4	5	4	4	1
V_3	5	4	6	3	5	0
V_4	5	4	7	3	6	0

7' X 6'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	10	3		
B_1	5	8	3	1		
B_2	5	8	4	0		
B_3	5	8	4	11		
B_4	5	8	5	11		
B_5	5	4	6	10		
C_1	4	4	2	9		
C_2	4	4	4	10		
C_3	4	4	7	0		
C_4	4	4	9	1		
C_5	4	8	9	3		
E_1	5	2	13	7	8	7
E_2	5	2	14	1	9	1
F	4	9	1	5	0	6
G_1	4	3	9	9		
G_2	4	2	11	10		
G_3	4	2	13	11		
G_4	4	3	16	0		
H	4	9	10	0	7	10
M	4	18	3	9		
N	4	14	9	3		
P	5	18	5	3	3	6
Q	5	4	8	0		
R	5	9	3	2		

7' X 7'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	11	6		
B_1	5	8	3	6		
B_2	5	8	4	6		
B_3	5	8	5	5		
B_4	5	8	6	4		
B_5	5	8	7	4		
B_6	5	4	8	3		
C_1	4	4	2	9		
C_2	4	4	4	11		
C_3	4	4	7	0		
C_4	4	4	9	1		
C_5	4	12	10	5		
E_1	5	2	13	7	8	7
E_2	5	2	14	1	9	1
F	4	9	1	5	0	6
G_1	4	2	9	6		
G_2	4	2	11	4		
G_3	4	2	13	7		
G_4	4	2	15	10		
G_5	4	3	18	0		
H	4	10	11	0	8	10
M	4	22	3	9		
N	4	14	10	5		
P	5	22	5	9	4	0
Q	5	4	8	0		
R	5	9	3	2		

8' X 4'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	7	6		
C_1	4	2	2	5		
C_2	4	2	4	6		
C_3	4	2	6	7		
C_4	4	2	6	9		
E_1	5	2	12	7	9	7
E_2	5	2	12	11	9	11
F	4	10	0	11	0	4
G_1	4	2	11	4		
G_2	4	2	13	8		
G_3	4	3	16	0		
H	4	9	7	4	5	8
N	4	6	6	9		
Q	4	2	9	0		
R	4	10	1	0		
V_1	5	4	3	10	2	7
V_2	5	4	4	9	3	6
V_3	5	4	5	9	4	6
V_4	5	2	6	8	5	5

8' X 5'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	8	9		
C_1	4	2	2	5		
C_2	4	2	4	6		
C_3	4	2	6	8		
C_4	4	4	7	11		
E_1	5	2	12	7	9	7
E_2	5	2	12	11	9	11
F	4	10	0	11	0	4
G_1	4	1	9	0		
G_2	4	2	11	5		
G_3	4	2	13	8		
G_4	4	3	16	0		
H	4	9	8	4	6	8
N	4	6	7	11		
Q	4	2	9	0		
R	4	10	1	0		
V_1	5	4	4	3	3	0
V_2	5	4	5	3	4	0
V_3	5	4	6	2	4	11
V_4	5	4	7	2	5	11

8' X 6'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	10	4		
B_1	5	8	3	0		
B_2	5	8	4	0		
B_3	5	8	4	11		
B_4	5	8	5	11		
B_5	5	4	6	11		
C_1	4	4	2	9		
C_2	4	4	4	11		
C_3	4	4	6	11		
C_4	4	4	9	0		
C_5	4	8	9	3		
E_1	5	2	14	7	9	7
E_2	5	2	15	1	10	1
F	4	10	1	5	0	6
G_1	4	1	9	0		
G_2	4	2	11	1		
G_3	4	2	13	5		
G_4	4	2	15	9		
G_5	4	3	18	0		
H	4	10	10	0	7	10
M	4	18	3	9		
N	4	14	9	3		
P	5	18	5	3	3	6
Q	5	4	9	0		
R	5	10	3	2		

8' X 7'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	11	6		
B_1	5	8	3	6		
B_2	5	8	4	6		
B_3	5	8	5	5		
B_4	5	8	6	5		
B_5	5	8	7	4		
B_6	5	4	8	4		
C_1	4	4	2	10		
C_2	4	4	5	0		
C_3	4	4	7	1		
C_4	4	4	9	1		
C_5	4	12	10	5		
E_1	5	2	14	7	9	7
E_2	5	2	15	1	10	1
F	4	10	1	5	0	6
G_1	4	2	8	10		
G_2	4	2	11	1		
G_3	4	2	13	5		
G_4	4	2	15	9		
G_5	4	3	18	0		
H	4	10	11	0	8	10
M	4	22	3	9		
N	4	14	10	5		
P	5	22	5	9	4	0
Q	5	4	9	0		
R	5	10	3	2		

8' X 8'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	12	9		
B_1	5	8	4	1		
B_2	5	8	5	0		
B_3	5	8	5	11		
B_4	5	8	6	10		
B_5	5	8	7	9		
B_6	5	8	8	9		
C_1	4	4	2	10		
C_2	4	4	5	0		
C_3	4	4	7	1		
C_4	4	4	9	3		
C_5	4	4	11	4		
C_6	4	12	11	7		
E_1	5	2	14	7	9	7
E_2	5	2	15	1	10	1
F	4	10	1	5	0	6
G_1	4	1	8	9		
G_2	4	2	10	9		
G_3	4	2	13	1		

8' X 8' (CONTINUED)

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
G_4	4	2	15	4		
G_5	4	2	17	8		
G_6	4	3	20	0		
H	4	11	12	6	9	10
M	4	24	4	9		
N	4	16	11	7		
P	6	24	6	9	4	6
Q	5	5	9	0		
R	5	10	3	8		

9' X 5'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	9	0		
C_1	4	2	2	8		
C_2	4	2	4	9		
C_3	4	2	6	11		
C_4	4	4	8	1		
E_1	5	2	13	9	10	9
E_2	5	2	14	1	11	1
F	4	12	0	11	0	4
G_1	4	2	11	1		
G_2	4	2	13	4		
G_3	4	2	15	8		
G_4	4	3	18	0		
H	4	10	10	0	6	10
N	4	6	8	1		
Q	4	2	10	2		
R	4	11	1	1		
V_1	5	4	4	1	3	1
V_2	5	4	5	3	4	0
V_3	5	4	6	2	4	11
V_4	5	4	7	2	5	11

9' X 6'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	10	6		
B_1	5	8	3	1		
B_2	5	8	4	0		
B_3	5	8	5	0		
B_4	5	8	5	11		
B_5	5	8	6	10		
B_6	5	8	7	10		
C_1	4	4	3	0		
C_2	4	4	5	1		
C_3	4	4	7	2		
C_4	4	4	9	3		
C_5	4	4	11	4		
C_6	4	12	11	7		
E_1	5	2	15	1	10	1
E_2	5	2	16	2	11	2
F	4	11	1	6	0	7
G_1	4	2	10	11		
G_2	4	2	12	1		
G_3	4	2	13	6		
G_4	4	2	15	10		
G_5	4	3	18	1		
H	4	11	11	3	9	1
M	4	22	3	10		
N	4	14	10	8		
P	5	22	5	10	4	1
Q	5	4	9	1		
R	5	10	3	3		

9' X 6' (CONTINUED)

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
E_2	5	2	16	3	11	3
F	4	11	1	5	0	6
G_1	4	1	8	10		
G_2	4	2	11	1		
G_3	4	2	13	5		
G_4	4	2	15	9		
G_5	4	3	18	0		
H	4	10	10	2	8	2
M	4	20	3	9		
N	4	14	9	5		
P	5	20	5	3	3	6
Q	5	4	10	2		
R	5	11	3	3		

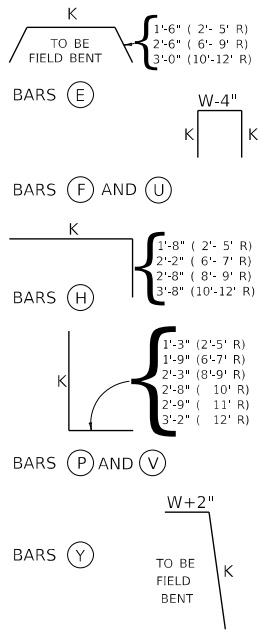
9' X 7'

MARK	SIZE	NO ①	LGTH FT	LGTH IN	K FT	K IN
A	5	4	11	9		
B_1	5	8	3	6		
B_2	5	8	4	6		
B_3	5	8	5	5		
B_4	5	8	6	5		
B_5	5	8	7	4		
B_6	5	4	8	3		
C_1	4	4	3	0		
C_2	4	4	5	1		
C_3	4	4	7	3		
C_4	4	4	9	4		
C_5	4	12	10	7		
E_1	5	2	15	9	10	9
E_2	5	2	16	3	11	3
F	4	11	1	5	0	6
G_1	4	2	10	10		
G_2	4	2	13	1		
G_3	4	2	15	5		
G_4	4	2	17	9		
G_5	4	3	20	0		
H	4	11	11	2	9	0
M	4	22	3	9		
N	4	14	10	7		
P	5	22	5	9	4	0
Q	5	4	10	2		
R	5	11	3	3		

NOTES

① NUMBER OF BARS IN ONE HEADWALL.
2 DIMENSIONS ARE 0. TO 0. OF BARS.
3 ALL BARS ARE STRAIGHT EXCEPT THOSE SHOWN BELOW.
4 R = BOX OR PIPE RISE
5 W = WING WALL WIDTH

BENT BAR SHAPES



KENTUCKY DEPARTMENT OF HIGHWAYS

BILL OF REINFORCEMENT
7' X 5' – 9' X 7' HEADWALLS
PRECAST BOX CULVERTS
0° SKEW

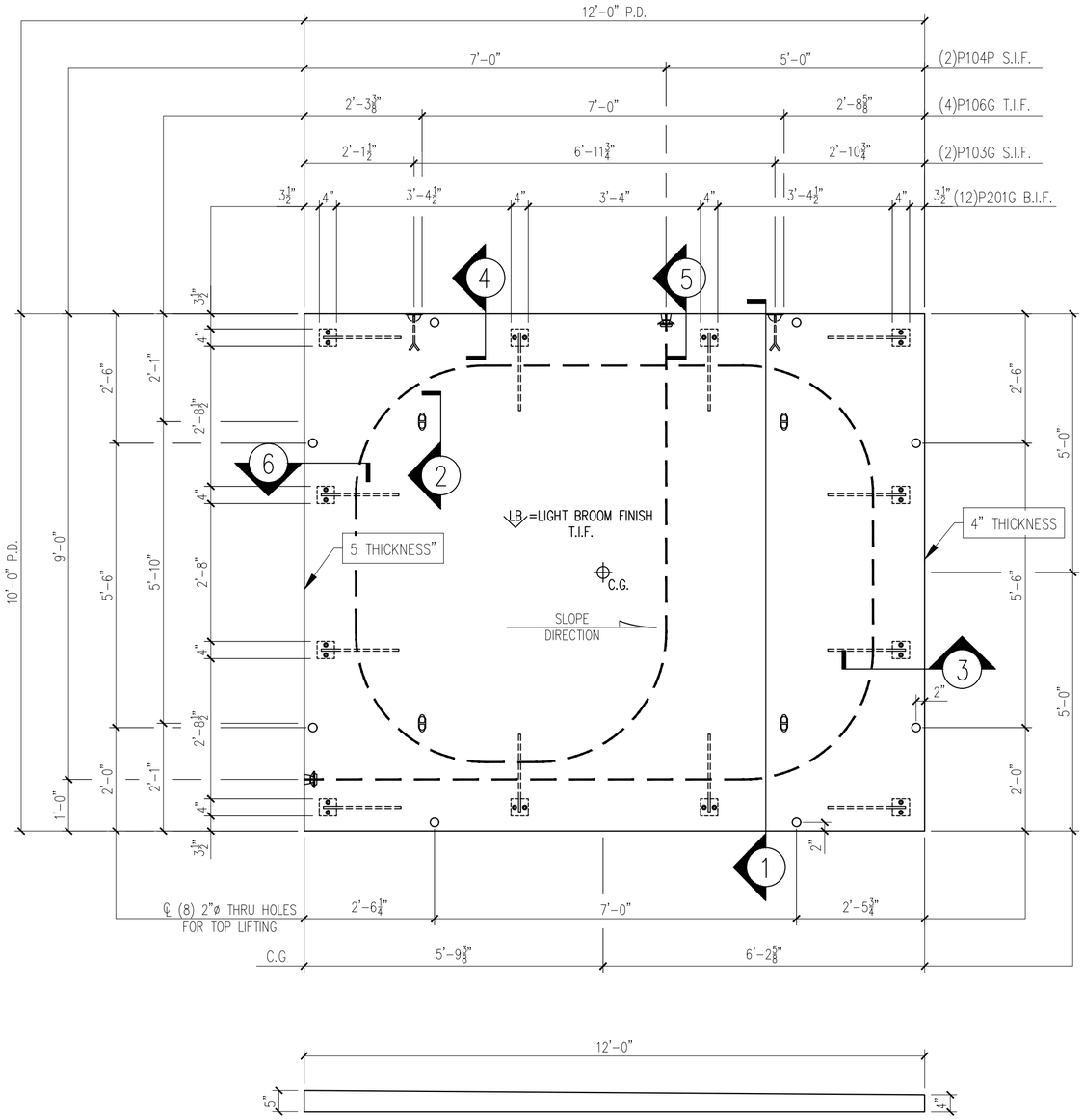
STANDARD DRAWING NO. RDH-1302-03

SUBMITTED _____ DIRECTOR DIVISION OF DESIGN _____ DATE

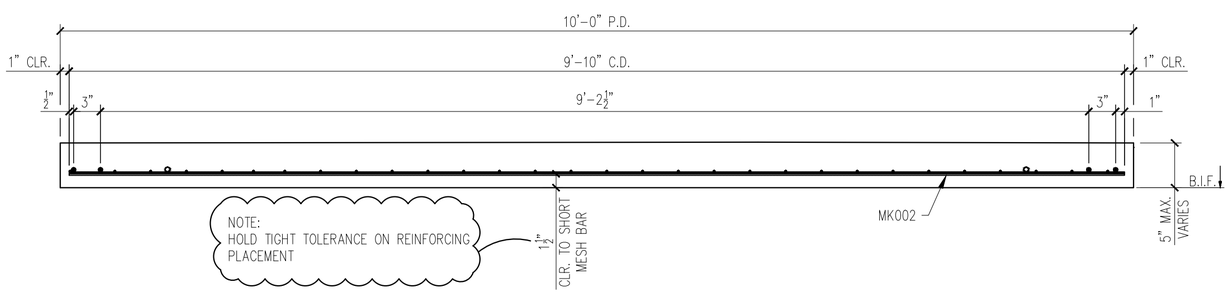
APPROVED _____ STATE HIGHWAY ENGINEER _____ DATE

RELEASED FOR PRODUCTION 05.08.26

26-1206 - Honeywell Telecommunication Room
Precast Building
Product ID - CVT
ROOM - RF-01
Weight - 6,740 LBS Each
1 Required



ROOF FORM VIEW
SCALE: ½" = 1'-0"



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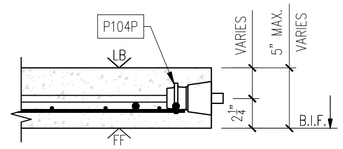

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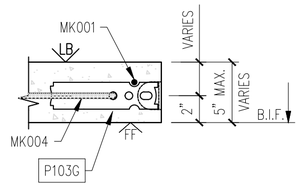

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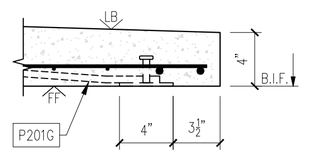

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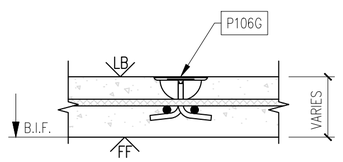


PATCH LIFTERS AFTER INSTALLATION

2

MESSAGE CENTER

1. REFER TO DETAILS FOR REINFORCEMENT/CABLE PLACEMENT

2. SHOP TICKET SHOWS EXTERIOR FINISH CAST FACE UP

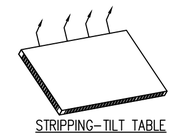
CHECKED BY: DATE:

APPROVED BY: DATE:

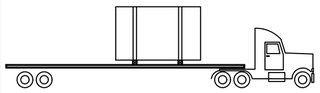
BILL OF MATERIALS

MARK #	DESCRIPTION	QTY.
P201G	4"X4"X⅜"W/(2) ⅜"ø X 1½" H.A.S. W/ 1'-4" BENT REBAR (GALVANIZED)	12
P103G	2 TON RL-4 TECH ERECTION ANCHOR (79527SP) (GALV.)	2
P104P	U-5 POST TENSION ANCHOR (PLAIN) WITH PLASTIC POCKET	2
P106G	2 TON PLATE ANCHOR (79128) (GALV.)	4

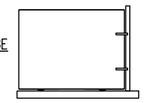
HANDLING INSTRUCTIONS



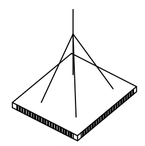
STRIPPING–TILT TABLE



SHIPPING



YARD STORAGE



ERECTION

CONCRETE INSTRUCTIONS

CONCRETE RELEASE @: 2,500 P.S.I.
CONCRETE @ 28 DAYS: 5,000 P.S.I.
POST-TENSION @ 3,500 P.S.I.

CONCRETE MIXES

CONCRETE – GRAY	VOLUME = 1.66	C.Y.
CONCRETE – MIX 1	VOLUME = –	C.Y.
CONCRETE – MIX 2	VOLUME = –	C.Y.
SOFT SOUND	VOLUME = –	C.Y.
TOTALS	VOLUME = 1.66	C.Y.

WEIGHT: 6,740 LBS.

FINISHING INSTRUCTIONS

LB = LIGHT BROOM FINISH

FF = FORM FINISH

L = 10'-0"	SQ.FT.(T.I.F.) =119.82
W = 12'-0"	SQ.FT.(T.I.F.) = –
D = VARIES	SQ.FT.(T.I.F.) = –

CONTROL NUMBERS:
–
–

PRODUCT	SALES ORDER NUMBER
ESW BUILDING	–
SHEET NUMBER	NUMBER REQUIRED
1 OF 2	1

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REV	INI.	DESCRIPTION	DATE
1			
2			
3			
4			
5			

PROJECT: 10'x12'x9' EASI-SET BUILDING
HONEYWELL TELECOMM BUILDING
KANSAS CITY, MO
CONTRACTOR: MUSSELMAN AND HALL CONT.

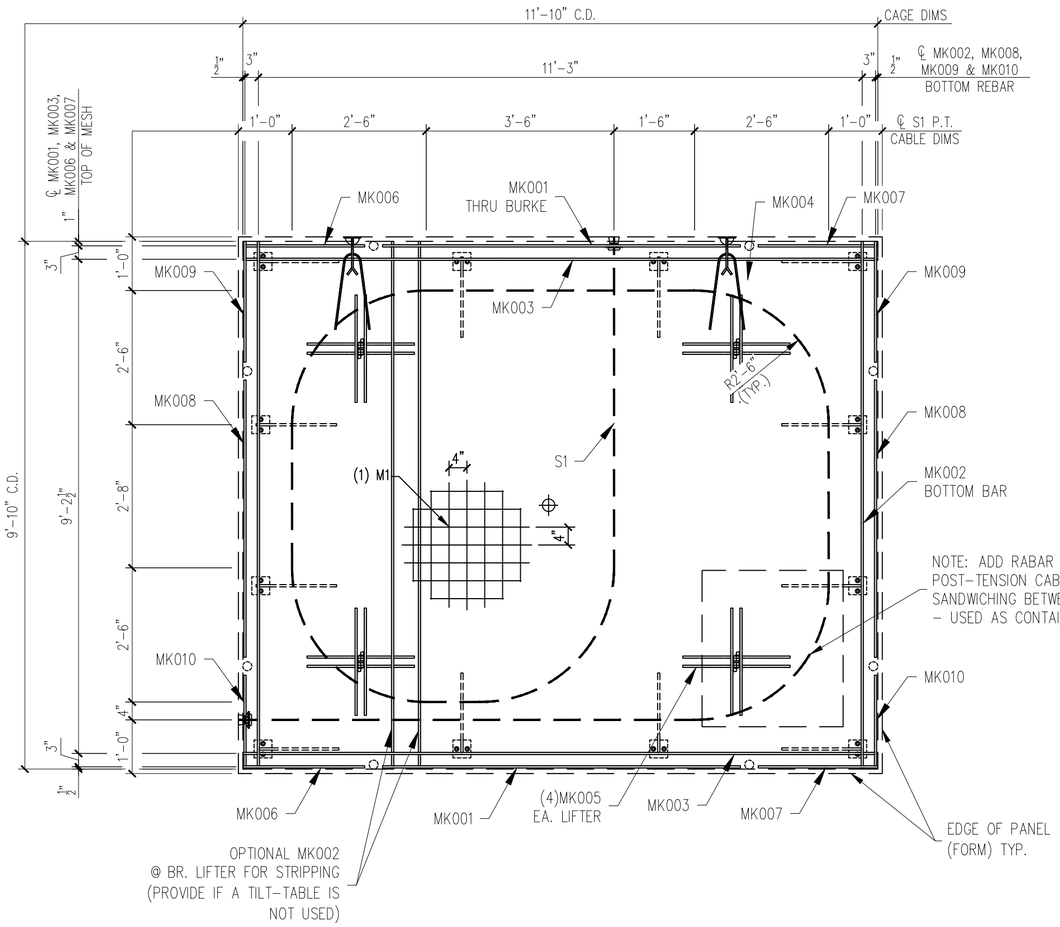
SCALE NTS
DRAWN BY FTL
CHECK BY WCR
ISSUE DATE 05.11.26

PIECE MARK
RF-01

RELEASED FOR PRODUCTION 05.08.26

26-1206 - Honeywell Telecommunication Room
Precast Building
Product ID - CVT
ROOM - RF-01
Weight - 6,740 LBS Each
1 Required

NOTE:
DIMENSIONS PROVIDED ARE PULLED FROM EDGE OF CAGE TO CENTERLINE OF REBAR AND TO CENTER OF REBAR TO CENTER OF REBAR (EXCEPT PT CABLE LOCATION)



ROOF REINFORCING
SCALE: ½" = 1'-0"

REINFORCING SCHEDULE			
MARK #	DESCRIPTION		QTY.
MK001	#3 X 6'-8"	6'-8"	2
MK002	#3 X 9'-10"	9'-10"	2
MK003	#3 X 11'-10"	11'-10"	2
MK004	#3 X 3'-0"	1'-6", 8", 8", 1'-6"	2
MK005	#4 X 1'-6"	1'-6"	16
MK006	#3 X 2'-3¼"	2'-3 1/4"	2
MK007	#3 X 2'-2¾"	2'-2 3/4"	2
MK008	#3 X 5'-2"	5'-2"	2
MK009	#3 X 2'-3"	2'-3"	2
MK010	#3 X 1'-9"	1'-9"	2
S1	½"ø X 49'-0" LONG P.T. CABLE		1

MESH SCHEDULE		
MARK #	DESCRIPTION	QTY.
M1	W4XW4 4"X4" WWF 11'-10" X 9'-10"	1

NOTES:

1. TRIM PLASTIC SHEATH AT BOTH ENDS OF THE PT CABLE TO FIT BETWEEN U-5 ANCHOR PLATES

2. CONSTRUCT REBAR-MESH CAGE ACCORDING TO THE DRAWINGS. SECURE LIFTING APPARATUS TO FORM AND ADD PROPER REINFORCEMENT. PLACE REBAR-MESH CAGE AND HAIRPINS AT INSERTS WITH PROPER CLEARANCES (PER DRAWINGS).

3. PLACE AND SECURE PT CABLE AS INDICATED ON THE DRAWINGS (REINFORCING VIEW)

MESSAGE CENTER

1. REFER TO DETAILS FOR REINFORCEMENT/CABLE PLACEMENT

2. SUPPLEMENTAL STEEL FOR STRIPPING AND HANDLING MAY BE ADDED AS REQUIRED.

CHECKED BY: DATE:
APPROVED BY: DATE:

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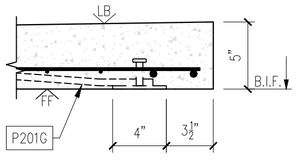
REV	DESCRIPTION	DATE	INI.
1	-	-	-
2	-	-	-
3	-	-	-
4	-	-	-
5	-	-	-

PROJECT: 10'x12'x9' EASI-SET BUILDING
HONEYWELL TELECOMM BUILDING
KANSAS CITY, MO
CONTRACTOR: MUSSELMAN AND HALL CONT.

SCALE NTS
DRAWN BY FTL
CHECK BY WCR
ISSUE DATE 05.11.26
PIECE MARK RF-01

PRODUCT	SALES ORDER NUMBER
ESW BUILDING	-
SHEET NUMBER	NUMBER REQUIRED
2 OF 2	1



6 7 8 9 10 11 12

RELEASED FOR PRODUCTION 05.08.26

STRESSING PROCEDURES For Roofs and Floors – Model 101209C

1. Remove form rails. Verify concrete strength with Schmidt Hammer or cylinder breaks. Concrete shall be a minimum of 3,750 PSI before cable can be stressed.

2. Remove recessed plastic pocket–formers at the post–tensioning anchor.

3. Remove the plastic sheath from the strand all the way from the base of the anchor to the end of the strand. Clean off grease from exposed portion of cable. Use a suitable solvent. Never heat or use flame on the cable.

4. Insure that the tapered holes in the anchors are cleaned and free of any debris or cement paste, which might interfere with proper wedge seating.

5. Install wedge sets around the strand at each anchor. Press the wedges in with the fingers evenly. Then, using a hand wedge setter, engage the wedges securely so that the stress will be evenly distributed over the wires of the strand.

6. Slide the stressing jack over the cable and place against the wedges installed in the cast–in anchors (see details A & B).

7. Using manufacturer recommendations, properly secure the stressing jack to the strand.

9. Standing back from the system, engage the jack to stress the strands until the pump pressure gauge corresponds to 33 K required tension on the ½" cable and note the elongation achieved. Whenever stressing, be sure to observe safety precautions and operator positioning in anticipation of unexpected failures.
NOTE: Force in the tendons shall always be measured by gauge readings and verified by elongation. Compare the elongation noted during stressing to the theoretical (calculated) elongation to ensure proper pull (tension) is reached. Refer to industry manuals (PCI) for the proper methods of calculating elongation.

10. Release pump pressure slowly and remove the jacking system and temporary stressing anchor. Your post release tension on the cable will be 28.5 K.

11. Cut off strand tails at 1" from the wedge and pack the holes with permanent grout. Repeat procedure for other end of cable.

SAFETY INSTRUCTIONS:

NOTE: Stressing units are calibrated against load cells to determine the gauge pressures for a particular unit which will produce the desired engineering force. Gauge pressure versus actual load calibration should be checked every six months against a load cell. Never use equipment which has not been tested in the last 6 months. The Quality Control Department has the responsibility to insure the stressing unit is calibrated semi–annually. Refer to manufacturer for calibration charts specifically relating to the particular unit (stressing jack).
ROOF AND FLOOR POST–TENSIONING Stressing System Safety Instructions:
This equipment is designed and built to provide safety during equipment operation. It must be operated and maintained by personnel who are trained in and follow safe procedures. Since the forces involved in tendon stressing are in the order of 33 to 46 kips, it is obvious that failure from any cause could be damaging to personnel and property. Accordingly, stressing equipment operators are expected to observe all applicable safety precautions including the following but not limited to:

1. Before activating the pump, visually check all elastomeric tubing for nicks, cracks, or other damage and repair or replace if required.

2. See that all tubing joints are tightly connected.

3. Be sure that pump is supported in a stable manner and positioned to avoid strain on connection lines.

4. Be sure that protective dunnage and appropriate safety barriers are erected to protect the operator and any others in the area.

5. Observe the gauge pressure that will develop the required tensile force as marked on the tag attached to the pump. Locate this reading on gauge face.

6. Be certain that tensioning twin–rams are positively engaged and correctly aligned.

7. Activate pump and observe gauge. If pressure does not build up promptly, check system for leakage and make sure that anchors and wedges on both ends of the POLYSTRAND®tendons are properly engaged. After an initial tension on the strand (5K), stop and check for alignment. Make sure that the strand is at the top of the slot provided in the tension jack cylinder connector plates.

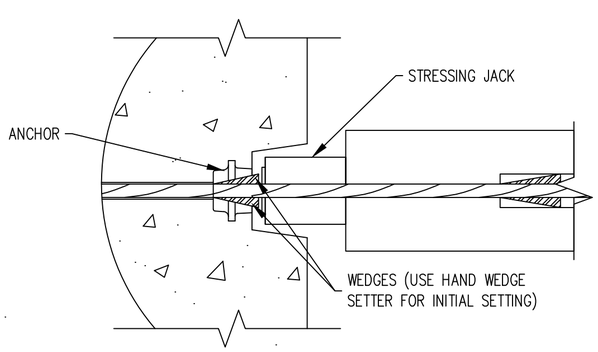
8. Continue pumping until final pressure/force is attained. When stressing long tendons, multiple strokes and resetting the temporary anchor will be required. – – CAUTION – – pressure will build extremely fast if rams are fully extended. Monitor ram extension and gauge readings continuously.

9. When the correct force has been applied to the tendon, stop the pump motor and release the pressure on the pack by opening the hydraulic valve.

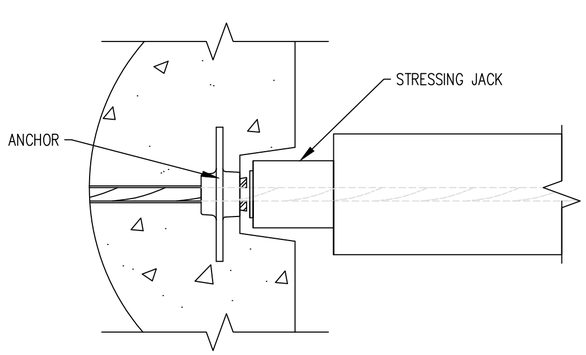
10. Use care in moving and storing equipment to insure that gauge and tubing are not damaged.

11. Observe site rules pertaining to frequency of gauge calibration.

25-1206 - Honeywell Telecommunication Room
Precast Building
Product ID - CVT
ROOM - RF-01
Weight - 6,740 LBS Each
1 Required



A



B

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DESCRIPTION	INI.	REV	DATE
	-	-	-
	-	-	-
	-	-	-
	-	-	-
	-	-	-

PROJECT:10'x12'x9' EASI–SET BUILDING
HONEYWELL TELECOMM BUILDING
KANSAS CITY, MO
CONTRACTOR:MUSSELMAN AND HALL CONT.

STRESSING PROCEDURES

SCALE NTS
DRAWN BY FTL
CHECK BY WCR
ISSUE DATE 05.11.26

SHEET P–02

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EASI-SET BUILDINGS

PT Check for Roof Panel RF-01 (PCI MNL - 116)

Material Data
(7) Wire lo-lax Strand - ASTM A416

Φps	0.500 in,
A=	0.153 in²
E=	28500000 psi
fpu=	270 ksi
Strand Length	552 in

Assume (Info supplied by strand manufacturer)

Cable Configuration

k=	0.0007	Wobble Friction Coeff.
μ=	0.05	Curvature friction coeff. (Initial tension of 3,000 lbs)

Strand is to be stressed 70% of ultimate
= 28917 lbs

25-1206 - Honeywell Telecommunication Room
Precast Building
Product ID - CVT
ROOM - RF-01
Weight - 6,740 LBS Each
1 Required

Adjustments to tensioning

1) Dead end anchor wedge seating loss
~ Expected to be 1/8 in
2) Live end anchor wedge seating loss
~ Expected to be 1/8 in, recommend over pull 1/8"
3) Elastic Shortening
Neglect for this pnl
4) Friction Loss
Additional force to overcome frictional forces between strand and sheathing

Tensioning Computations

$$\text{Basic Elongation} = \frac{(\text{Force required beyond intial tension})(\text{Length of strand between anchorages})}{(\text{Area of strand})(\text{Modulus of Elasticity})}$$

= 3.28 in

Adjustments
a) Dead end anchor wedge seating: Add 1/8" to elong. No force adjustment req'd
Add 1/8 in
b) Live end seating: over pull by 1/8"
1/8 in
Force adjustment t = 987 lbs lbs α = curvature = π(2.5) 7.85 radians
c) Friction losses $\frac{PD}{PS} = e^{-(kL+\mu\alpha)}$

= 0.654
Avg. strand force = 0.827 17.31% Loss

Recommend sequencial jacking at both ends of the tendon be used to reduce the overstressing the strand at the live end

Friction loss at mid-point of tendon
$\frac{PD}{PS} = e^{\frac{-(kL+\mu\alpha)}{2}}$

= 0.809
Avg. strand force over half of tendon = 0.904 9.57% Loss

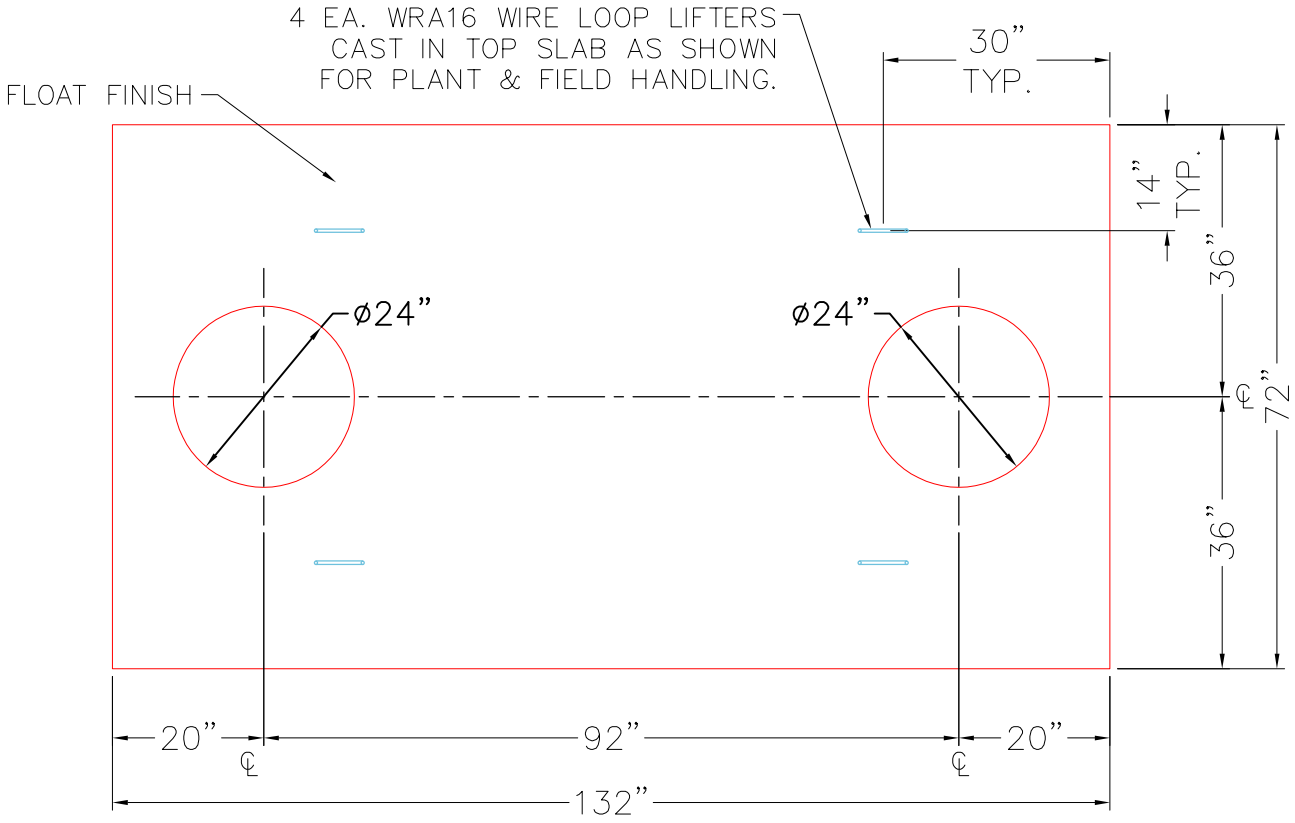
Total force and elongation at live end must be increased to compensate for friction losses

Elong. Adjustment = 0.314 in
Force Adjustment = 2767 lbs

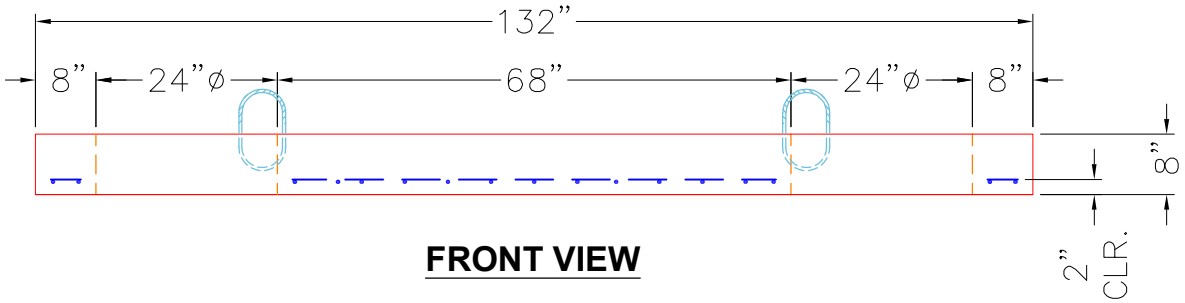
Total Force Required = 32672 lbs OK

Elongation Summary:

		Gross Theoretical Elongation	
Basic Elongation		3.28 in	
Dead End Seating Loss		0.125 in	
Live End Seating Loss		0.125 in	
Friction Losses		0.314 in	
	Total Elongation	3.84 in	
	Rounded	3 14/16 in	
Tolerance limits	-7.0%	3.58 in	3 9/16 in
	+7.0%	4.11 in	4 2/16 in



TOP VIEW



FRONT VIEW

NOTES:

1. PER ASTM C-890-13 LATEST REVISION. (H-20 TRAFFIC RATED DESIGN)
2. CONCRETE = 5,000 PSI AT 28 DAYS.
3. REINFORCING: #5 BAR @ 8" C/C E.W. (GRADE 60). PER ASTM A615

PRODUCTION WORK ORDER	PRODUCT I.D.: BX060120-06LD08	DESCRIPTION: 72" X 132" X 8" GREASE TRAP TOP SLAB	
QUALITY CONTROL CHECKLIST	PRODUCT VIEW: RIGHT SIDE UP	CUSTOMER: INFINITY PIPELINE INC	
☐ ALL DIMENSIONS CORRECT. ☐ LIFTERS INSTALLED. ☐ HOLE LOCATION(S) CORRECT. ☐ REINFORCING CORRECT. ☐ FLAT ON BOTTOM OF SLAB. ☐ LIGHT BRUSHED FINISH. ☐ SURFACE QUALITY ACCEPTABLE.	PLANT: BEAVER DAM, KY.	PROJECT: 1,000 GAL GREASE TRAP	
	WEIGHT: 5,775 LBS.	STRUCTURE: QL1 OW1000	
	TOP SECTION JOINT: N/A	ORDER NO: 26-1790	
	BASE SECTION JOINT: N/A	PC: E. BRADLEY	DRAWING: S. FELLETTER
	QC CHECK INITIALS:	DATE: 05/12/26	SCALE: NTS / PG. 1 of 1

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