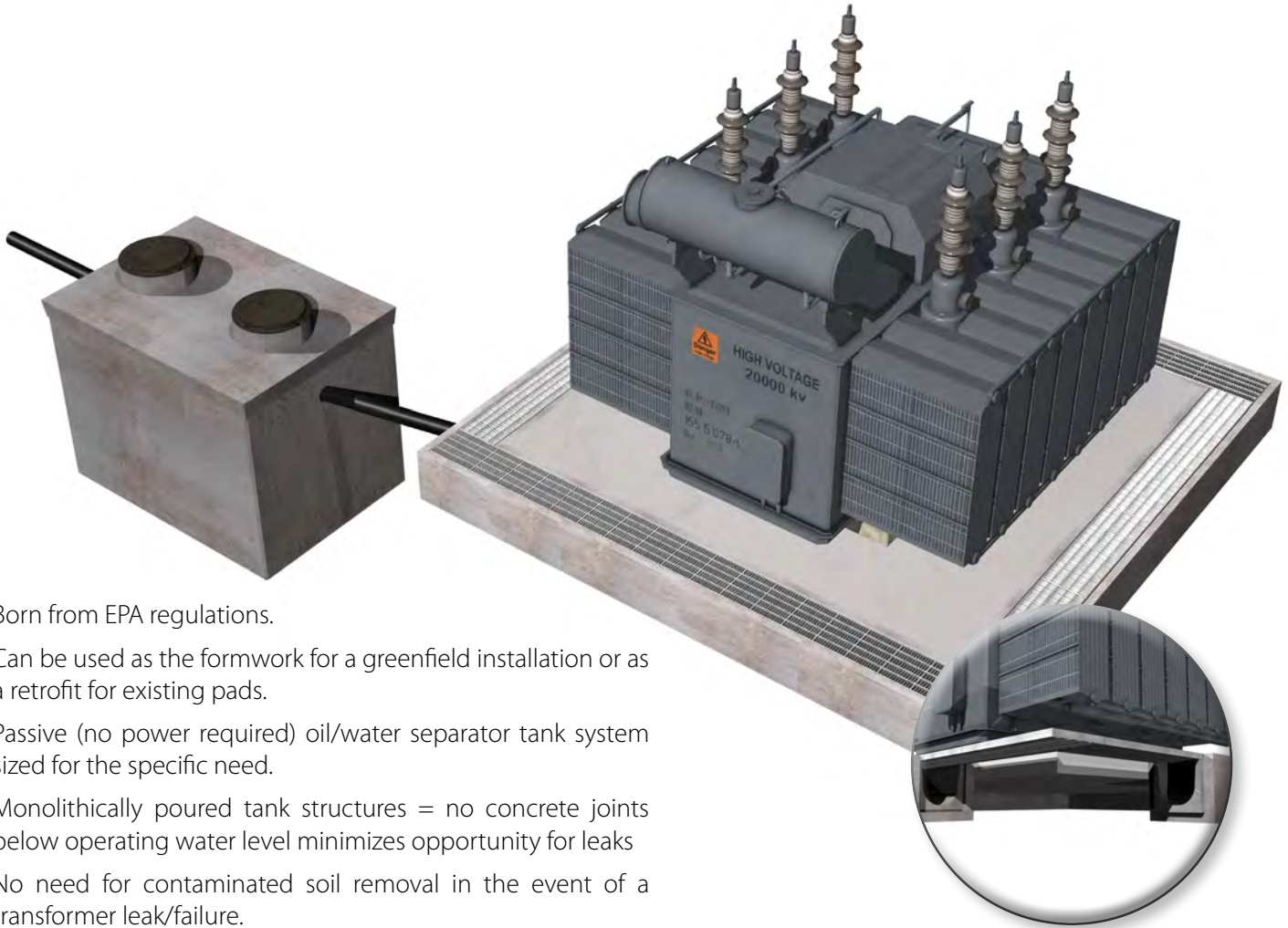


# Transformer Pad Gutter System



- Born from EPA regulations.
- Can be used as the formwork for a greenfield installation or as a retrofit for existing pads.
- Passive (no power required) oil/water separator tank system sized for the specific need.
- Monolithically poured tank structures = no concrete joints below operating water level minimizes opportunity for leaks
- No need for contaminated soil removal in the event of a transformer leak/failure.



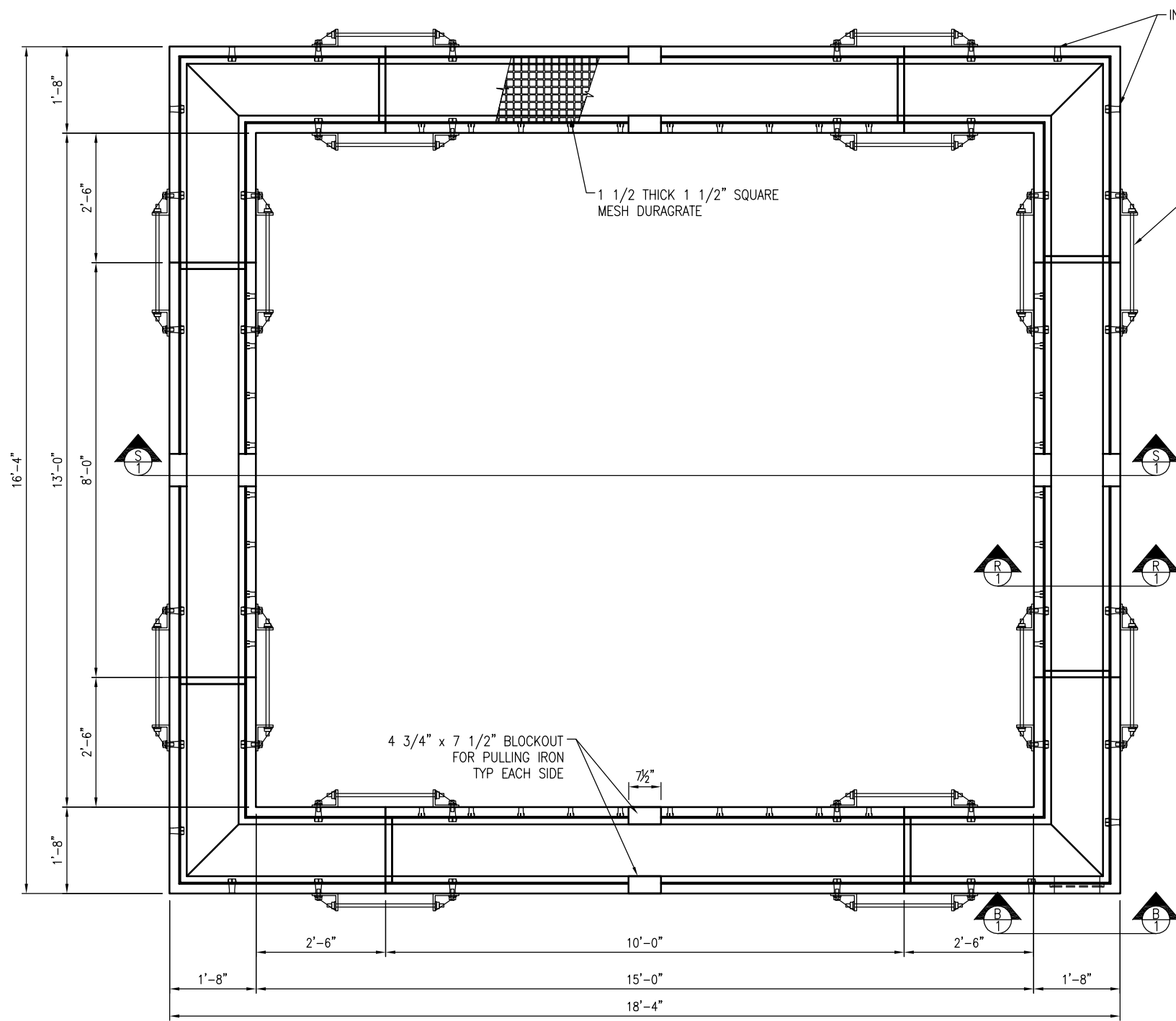
**Easy Installation** and lightweight sections do not require a crane to set in place



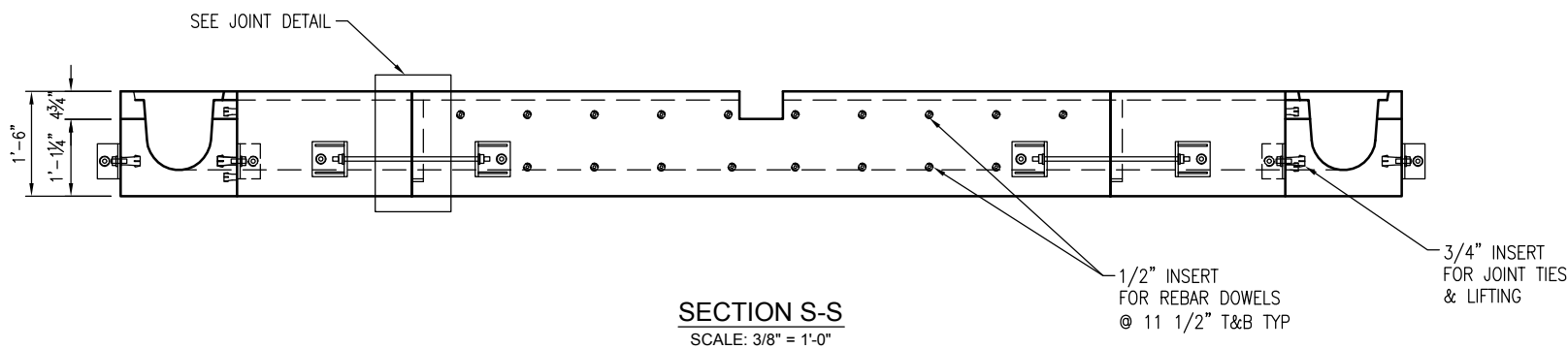
**Modular System** can be sized as needed



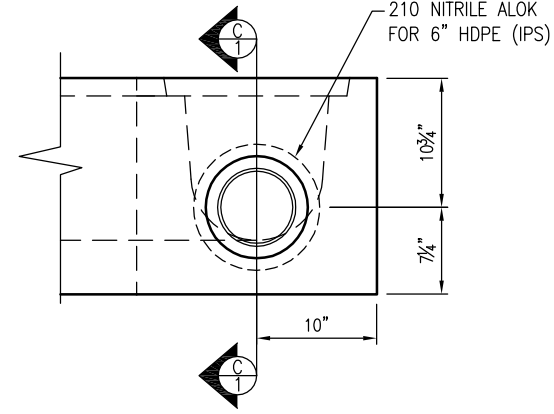
**Rounded bottom trench** minimizes standing water without the need for sloped floor



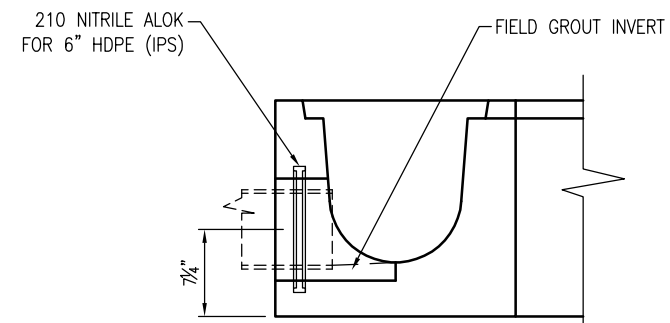
**PLAN VIEW**  
SCALE: 3/8" = 1'-0"



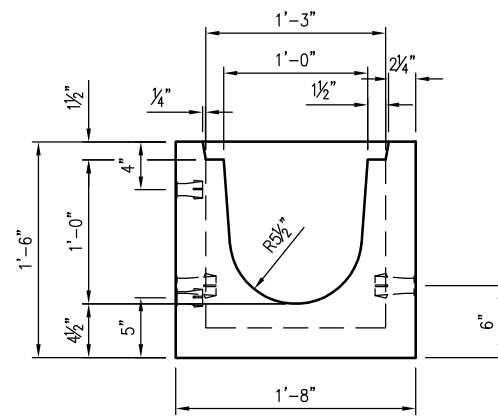
**SECTION S-S**  
SCALE: 3/8" = 1'-0"



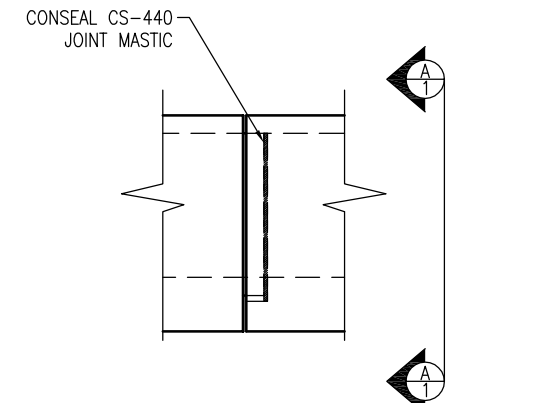
**VIEW B-B**  
SCALE: 3/4" = 1'-0"



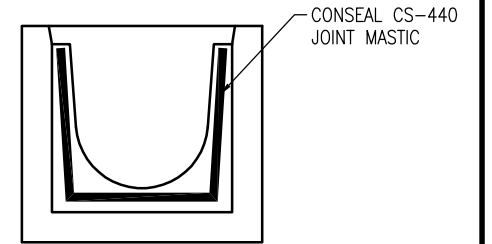
**SECTION C-C**  
SCALE: 3/4" = 1'-0"



**SECTION R-R**  
SCALE: 3/4" = 1'-0"



**JOINT DETAIL**  
SCALE: 3/4" = 1'-0"



**VIEW A-A**  
SCALE: 3/4" = 1'-0"

**DESIGN NOTES**

1. REBAR: ASTM A-615 GRADE 60
2. CONCRETE: 28 DAY COMPRESSIVE STRENGTH  $f_c = 5000$  psi (MIN)
3. CEMENT: ASTM C-150 SPECIFICATIONS

**BILL OF MATERIALS**

QUANTITY	DESCRIPTION
3 EA	CORNER TRENCH SECTION
1 EA	CORNER TRENCH WITH DRAIN
2 EA	10' TRENCH SECTION
2 EA	8' TRENCH SECTION
16 EA	S.S. JOINT TIE KITS
64 EA	THREADED #4 REBAR DOWELS
2 ROLLS	CONSEAL CS-440 MASTIC
4 EA	1 1/2 THICK 1 1/2" SQ. MESH DURAGRATE 1'-2 7/8 x 7'-11 3/8"
4 EA	1 1/2 THICK 1 1/2" SQ. MESH DURAGRATE 1'-2 7/8 x 7'-8 1/8"

**WEIGHTS**

10' SECTION	2100 LBS
8' SECTION	1680 LBS
CORNER SECTION	1400 LBS
<b>TOTAL</b>	<b>13,160 LBS</b>

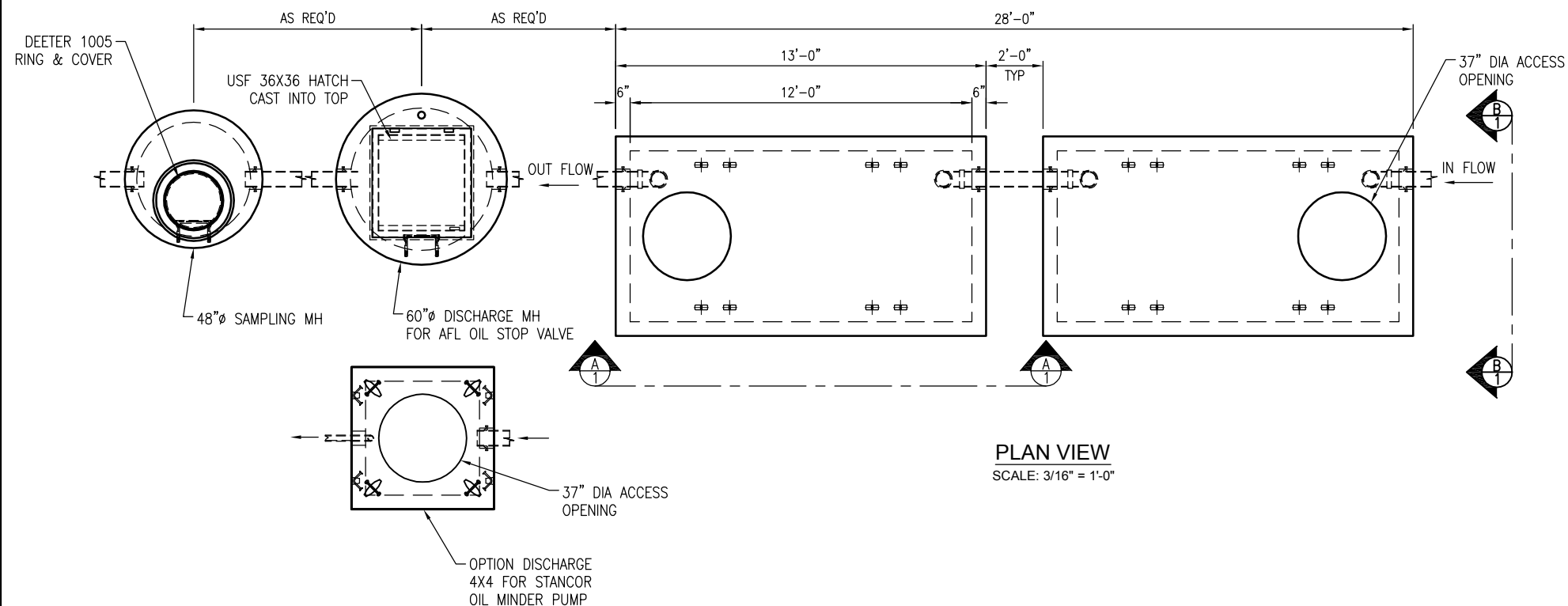
**Oldcastle Precast**  
2330 N.W. 17th TOPEKA, KS 66618  
PHONE: 785-232-2982 FAX: 785-232-8842

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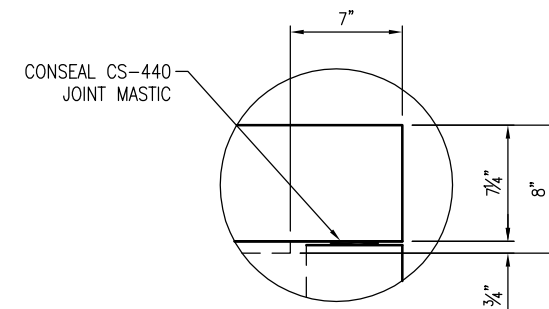
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**13X15 TRENCH - 6" OUTLET**  
STANDARD 13x15 LAYOUT  
CONTAINMENT TRENCH  
ST. LOUIS, MO

CUSTOMER: **AMEREN**

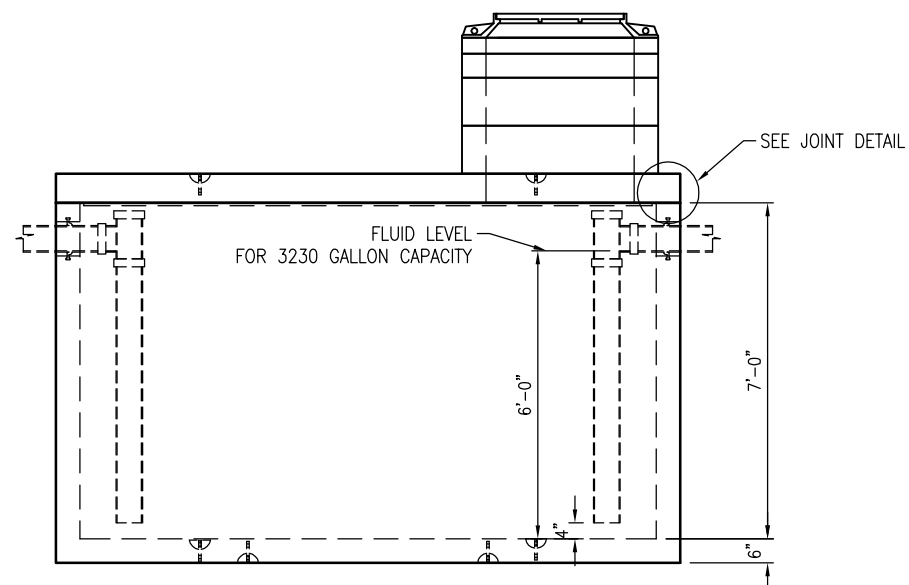
DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
9/16/13	JPC	DLF			
DRAWING NUMBER 120-13X15-TRENCH-6				REVISION 1 REV DATE 10/7/13	SHEET 1 OF 1



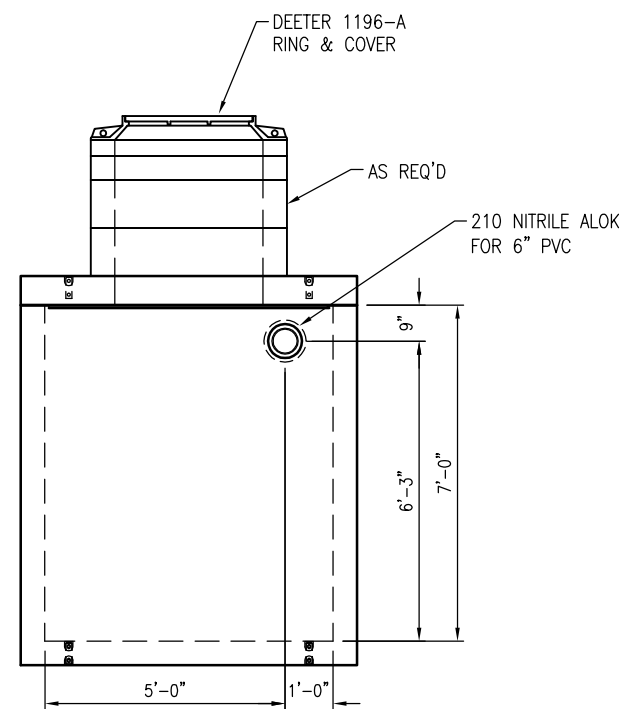
DESIGN ALLOWS FOR DIFFERENT LAYOUT CONFIGURATIONS



**JOINT DETAIL**



**VIEW A-A**  
SCALE: 1/4" = 1'-0"



**VIEW B-B**  
SCALE: 1/4" = 1'-0"

**6x12 (7' Deep) Generic drawing.**  
The capacity of each, with 6" PVC, is 432 ft<sup>3</sup> / 3230 gallons.

**DESIGN NOTES**

1. REBAR: ASTM A-615 GRADE 60
2. CONCRETE: 28 DAY COMPRESSIVE STRENGTH f<sub>c</sub> = 6000 psi (MIN)
3. CEMENT: ASTM C-150 SPECIFICATIONS
4. LOADS:
  - A. AASHTO HS-20-44, W/ IMPACT
  - B. SOIL WEIGHT = 120 PCF
  - C. DEPTH OF OVERBURDEN 0' MIN, 5' MAX
  - D. ASSUMED WATER TABLE: 10'
  - E. EQUIV. FLUID PRESSURE = 40 PCF
  - F. 80 PSF LATERAL LIVE LOAD SURCHARGE

**WEIGHTS**

LID EACH	8,400 LBS
BASE SECTION EACH	26,800 LBS
<b>TOTAL OF 2 VAULTS</b>	<b>70,400 LBS</b>

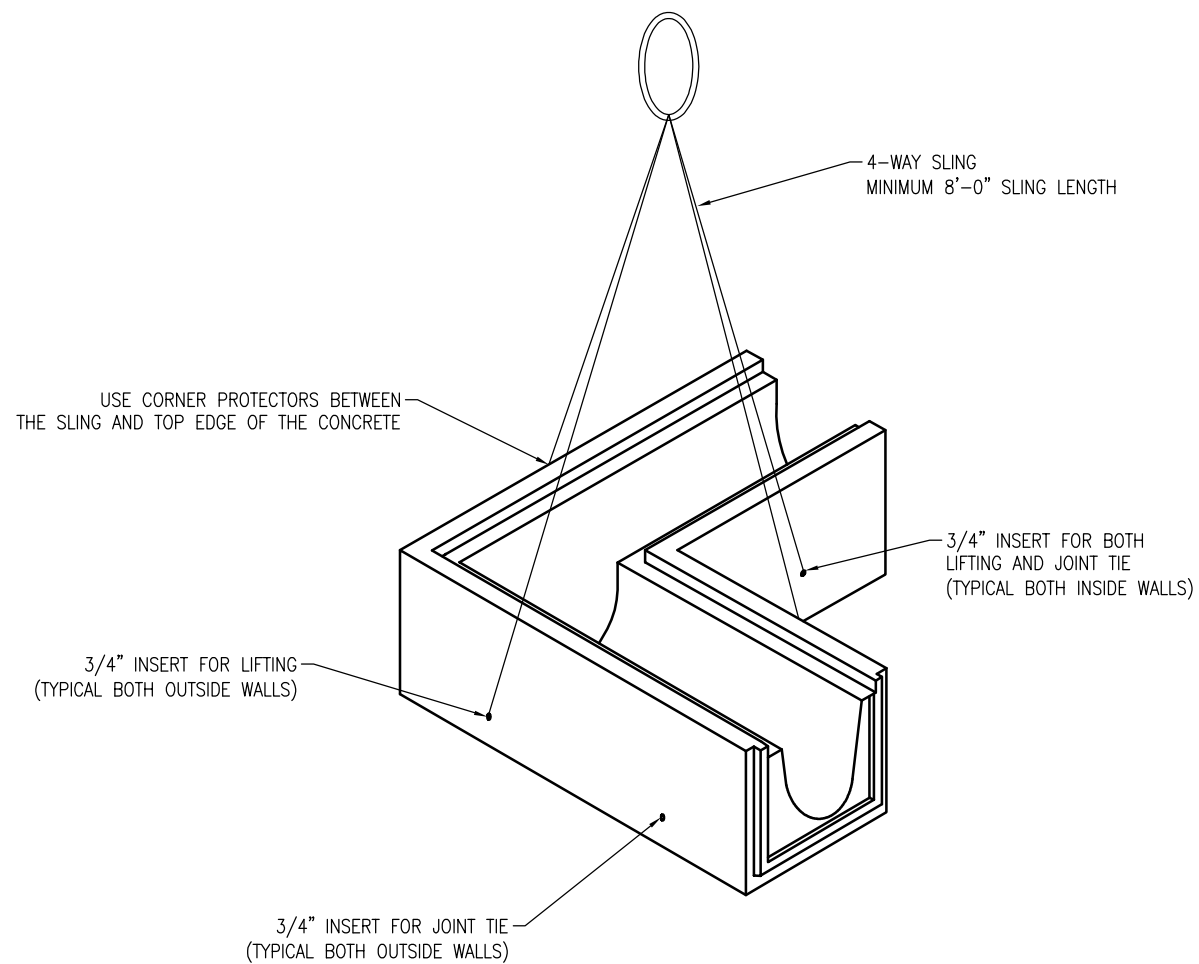


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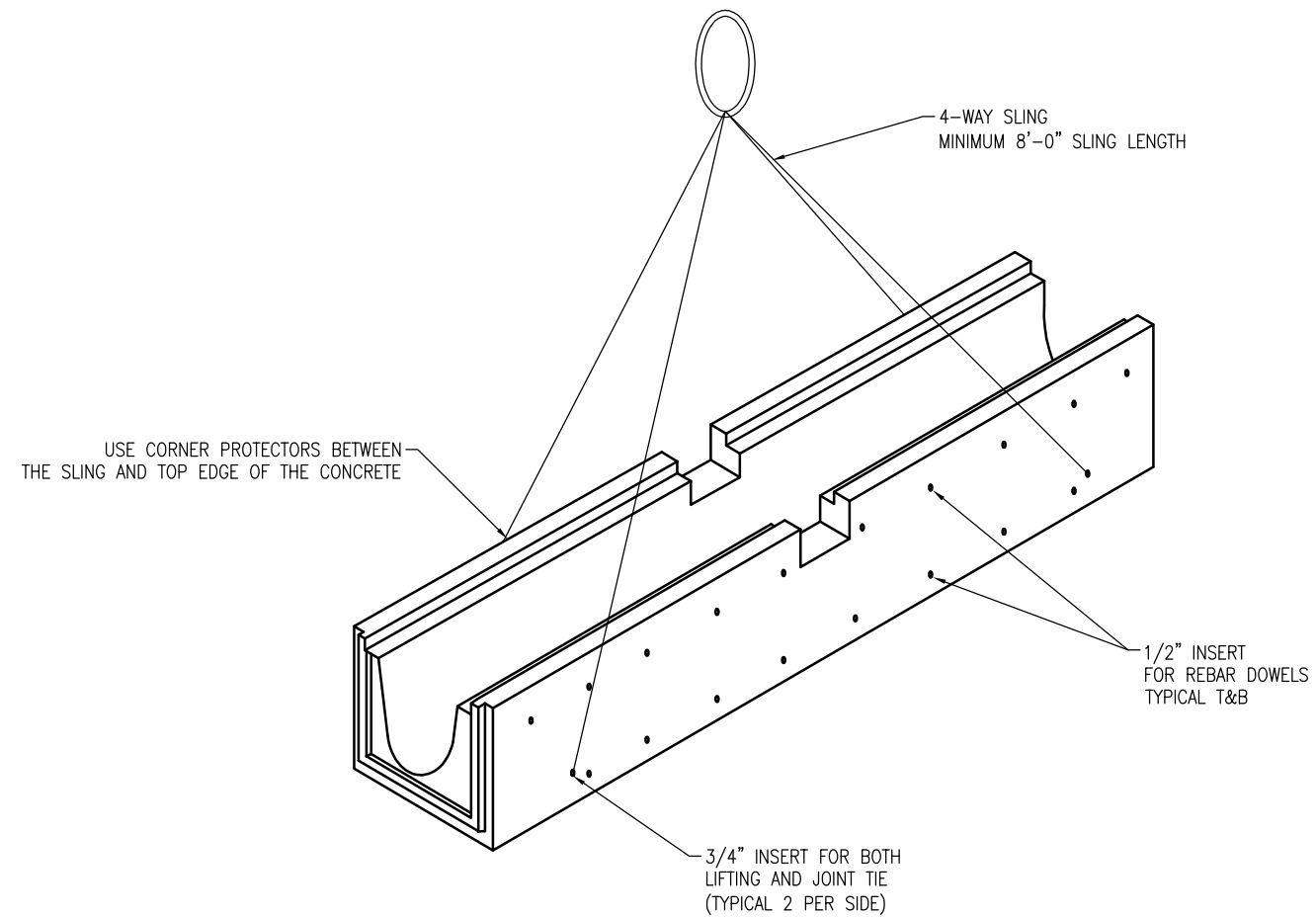
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**6X12 CONTAINMENT VAULTS - 2**  
GENERAL LAYOUT

CUSTOMER					
DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
6/2/14	JP	DLF			
DRAWING NUMBER				REVISION	SHEET
120-6X12-CONT-2				REV DATE	1 OF 1



**CORNER SECTIONS**  
SCALE: 1/2" = 1'-0"



**STRAIGHT SECTIONS**  
SCALE: 1/2" = 1'-0"

WEIGHTS	
10' SECTION	2,100 LBS
8' SECTION	1,680 LBS
CORNER SECTION	1,400 LBS

**Oldcastle Precast**<sup>®</sup>  
 5230 N.W. 17th Topeka, KS 66618  
 PHONE: 785-232-2982 FAX: 785-232-5842

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**CONTAINMENT GUTTER**  
 LIFTING DIAGRAM  
 CONTAINMENT TRENCH

CUSTOMER					
DATE	SALES	DRAWN	ENGINEER	CHECKED	SALES ORDER
11/20/13	JPC	DLF			
DRAWING NUMBER				REVISION	SHEET
120-GUTTER-LIFT				REV DATE	1 OF 1

Oldcastle Transformer Gutter Installation Instructions

Tools needed: 1-1/8" wrenches/sockets, pry bars, (4)-way lifting sling, 8"x16" patio blocks

Items supplied: stainless steel assembly hardware, oil resistant joint mastic, threaded rebar dowels, fiberglass grating, and "dog bone" lifting clutches (loaned)

1) Grade to approximately 2" below bottom of gutter, pull string lines square on inside lines of finished gutter installation, set a patio block at each joint location (plus one, or a half of one, on the outside of each of the corner sections) at correct grade, place and screed sand between to the top of the blocks:



Note: ideally the rebar mats for the transformer pad would not be in place prior to gutter installation to aid in ease of assembly of the components and hardware (see picture for step 6 below).

2) Install the stainless steel attachment brackets to the sections using (1)-bolt and (1)-washer (4 brackets per section):



3) Begin component installation, starting (and ending) with a corner section, using a (4)-way sling and the "dog bone" lifting clutches:



4) Following the layout drawing, install the sections using the mastic installed in the groove part of the joint prior to mating the sections while taking care that the assembly will be square and level:



5) Attach the sections together using the threaded rod, (2)-washers, and (2)-nuts each, one assembly on each side of the joint. (Note it will be helpful to leave a little gap until all pieces are in place and then tighten fully):



6) Install the ½" threaded rebar dowels (Note: pad rebar not in place here yet for easier installation):



7) Install the transformer pad rebar mats tying to threaded rebar (and pull irons if needed), pour the concrete, screed to the top of the precast gutter, and finish as detailed:



8) Install fiberglass grating per diagram.