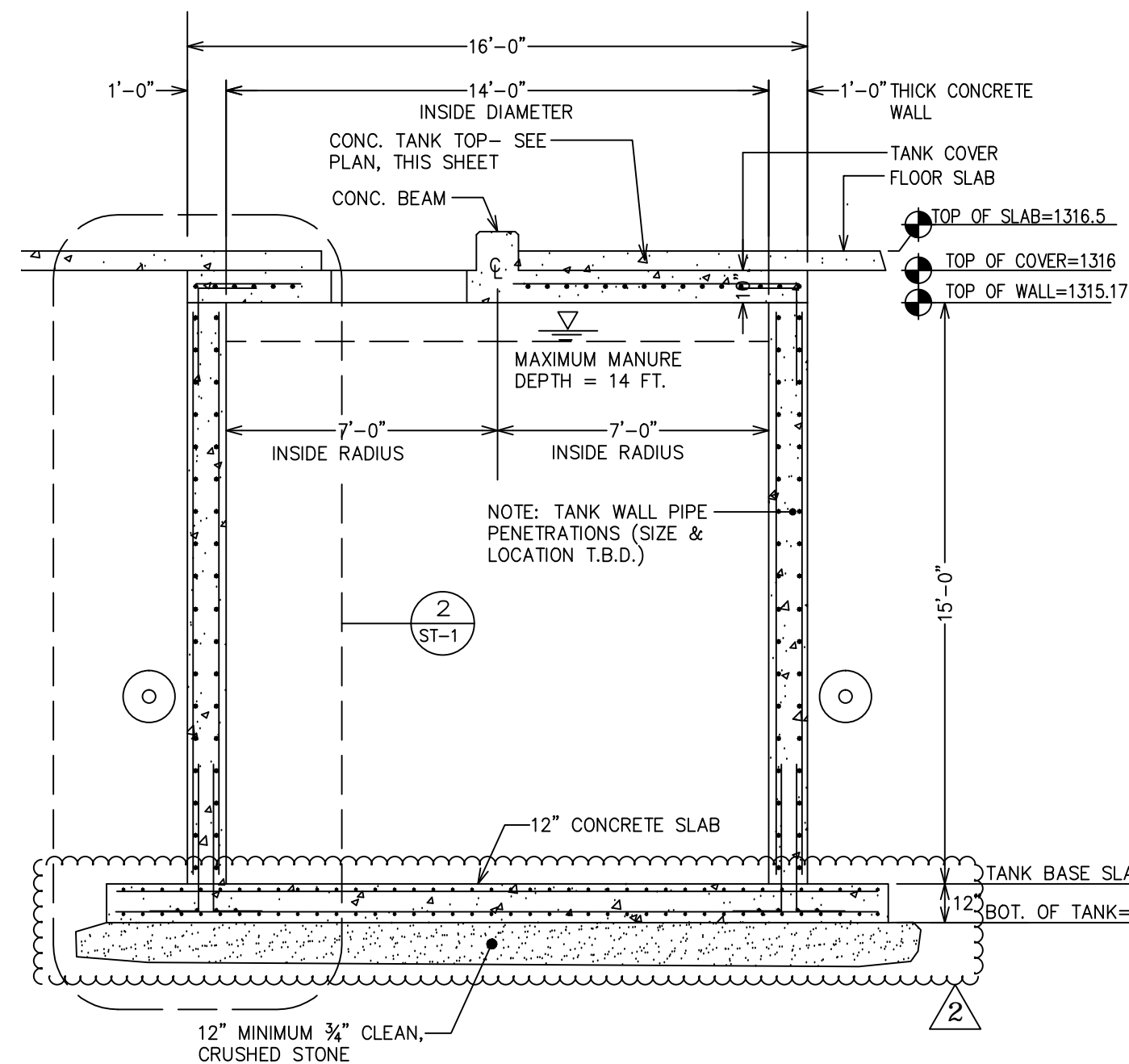


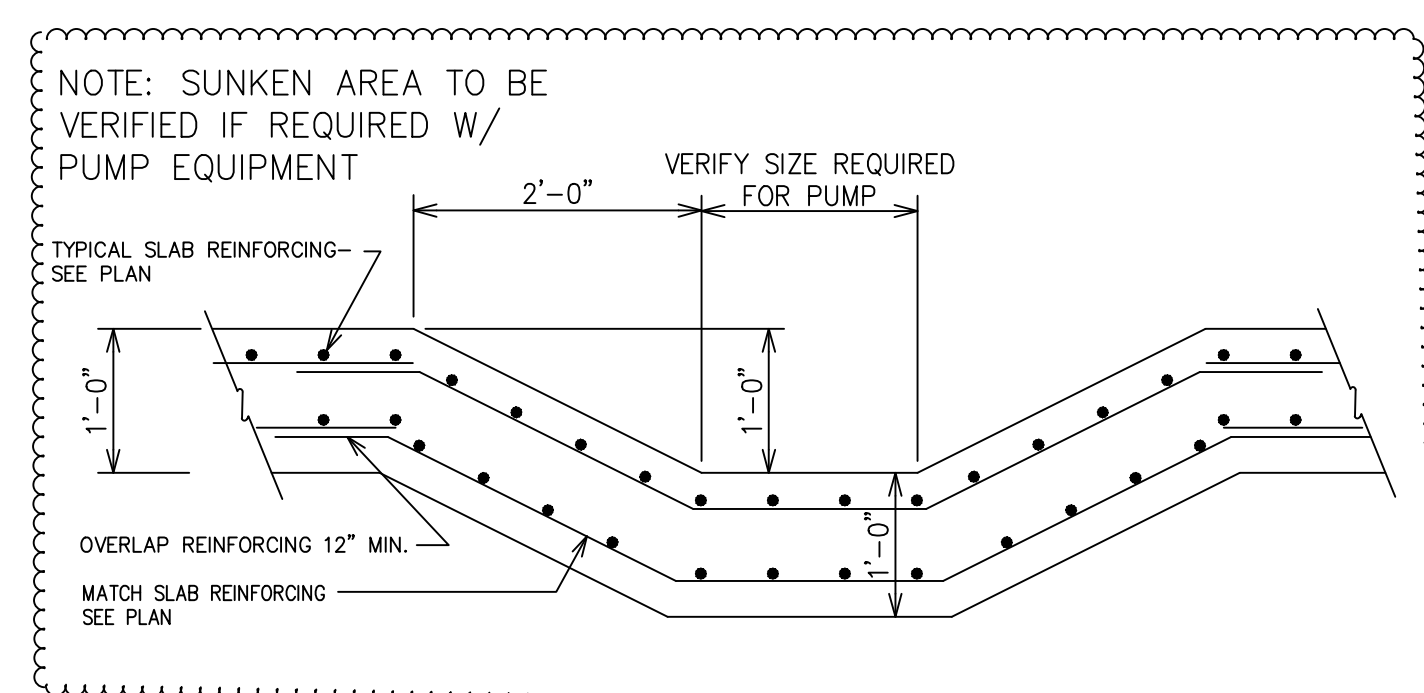
Preparation Tank Foundation Plan

SCALE: 1/4" = 1'-0"



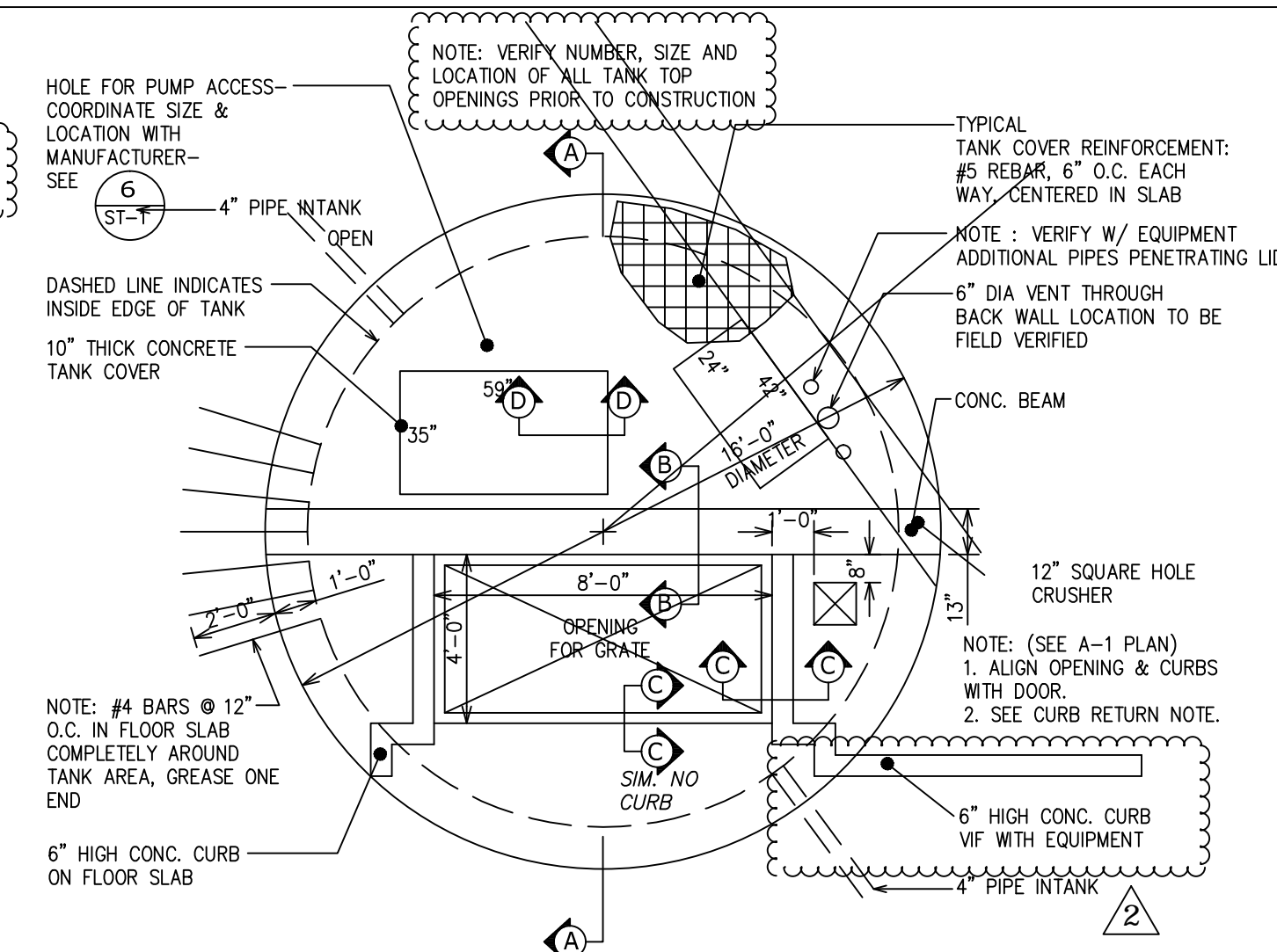
1 Preparation Tank Section A - A

SCALE: 1/4" = 1'-0"



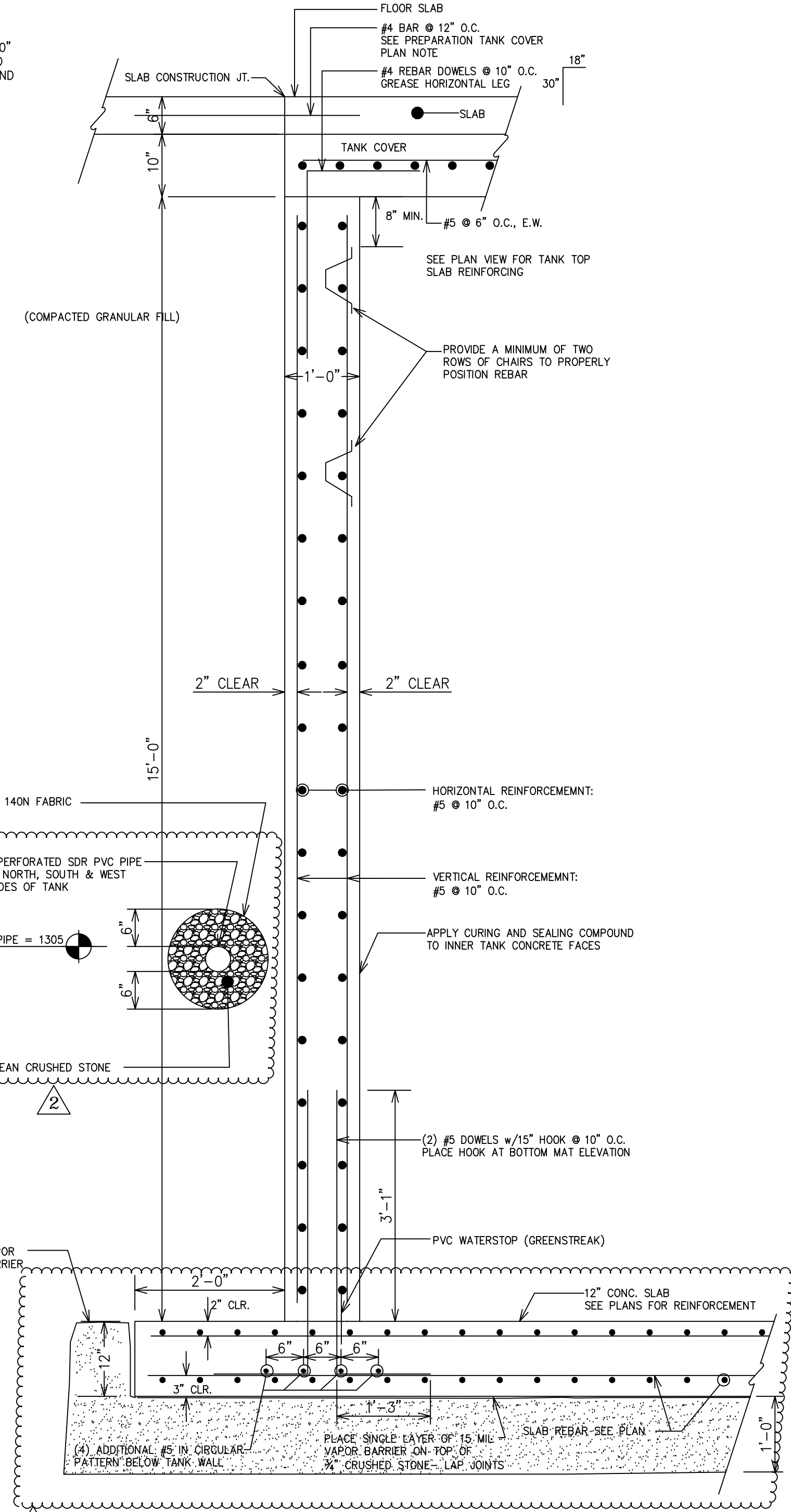
3 Lowered Base Slab @ Pump

SCALE: 3/4" = 1'-0"



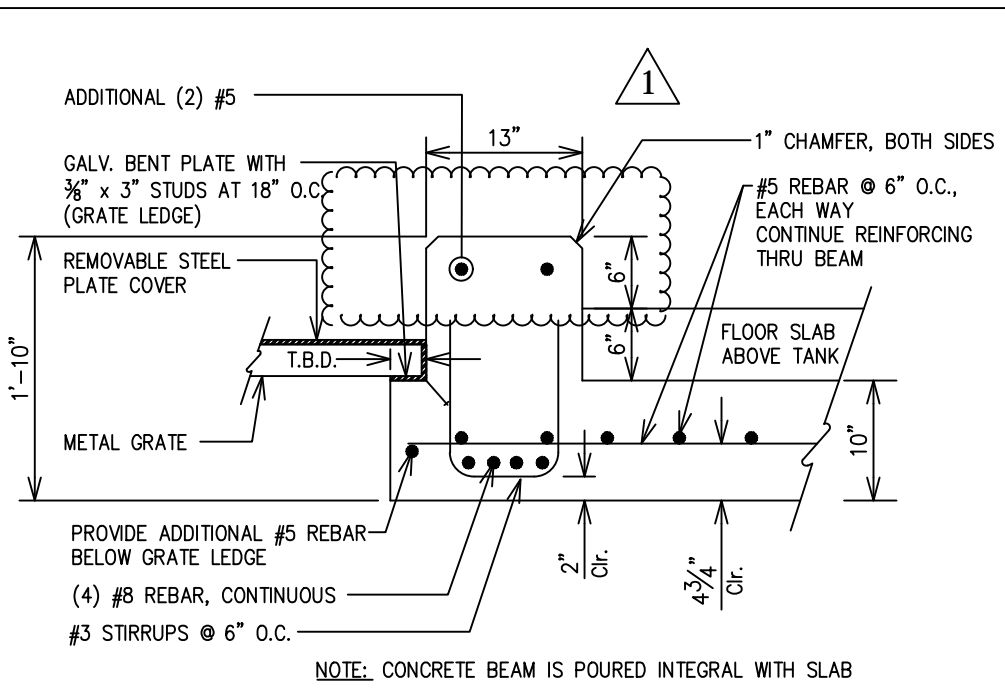
Preparation Tank Cover Plan

SCALE: 1/4" = 1'-0"



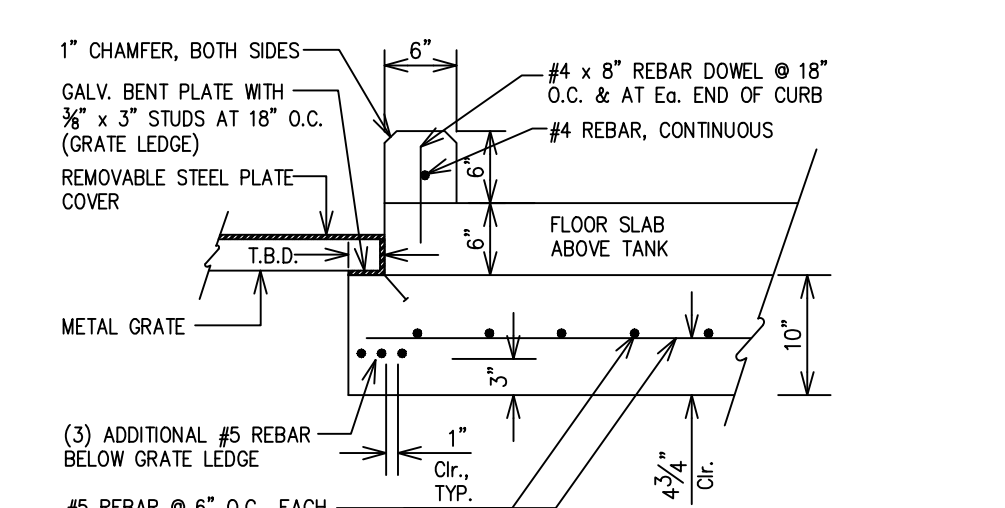
2 Concrete Tank Wall Section

SCALE: 3/4" = 1'-0"



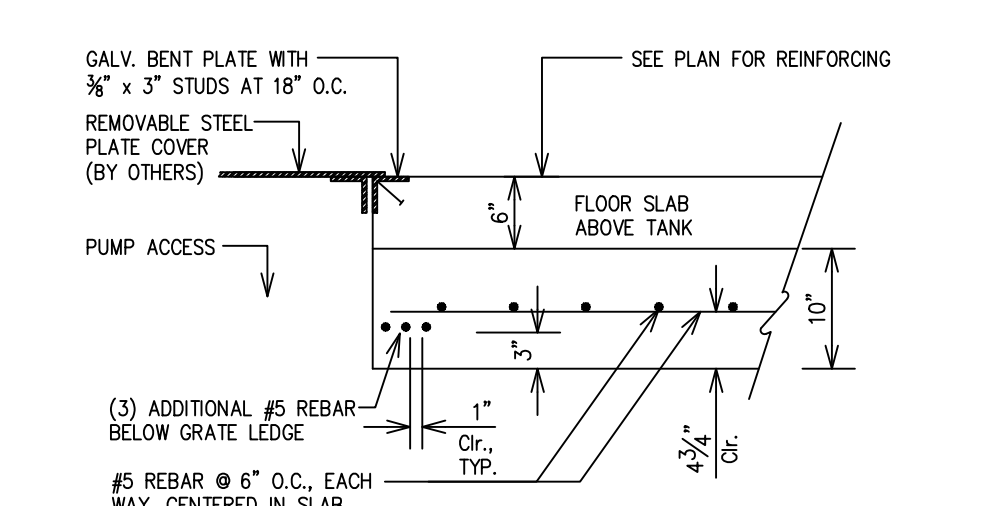
Section B - B

SCALE: 3/4" = 1'-0"



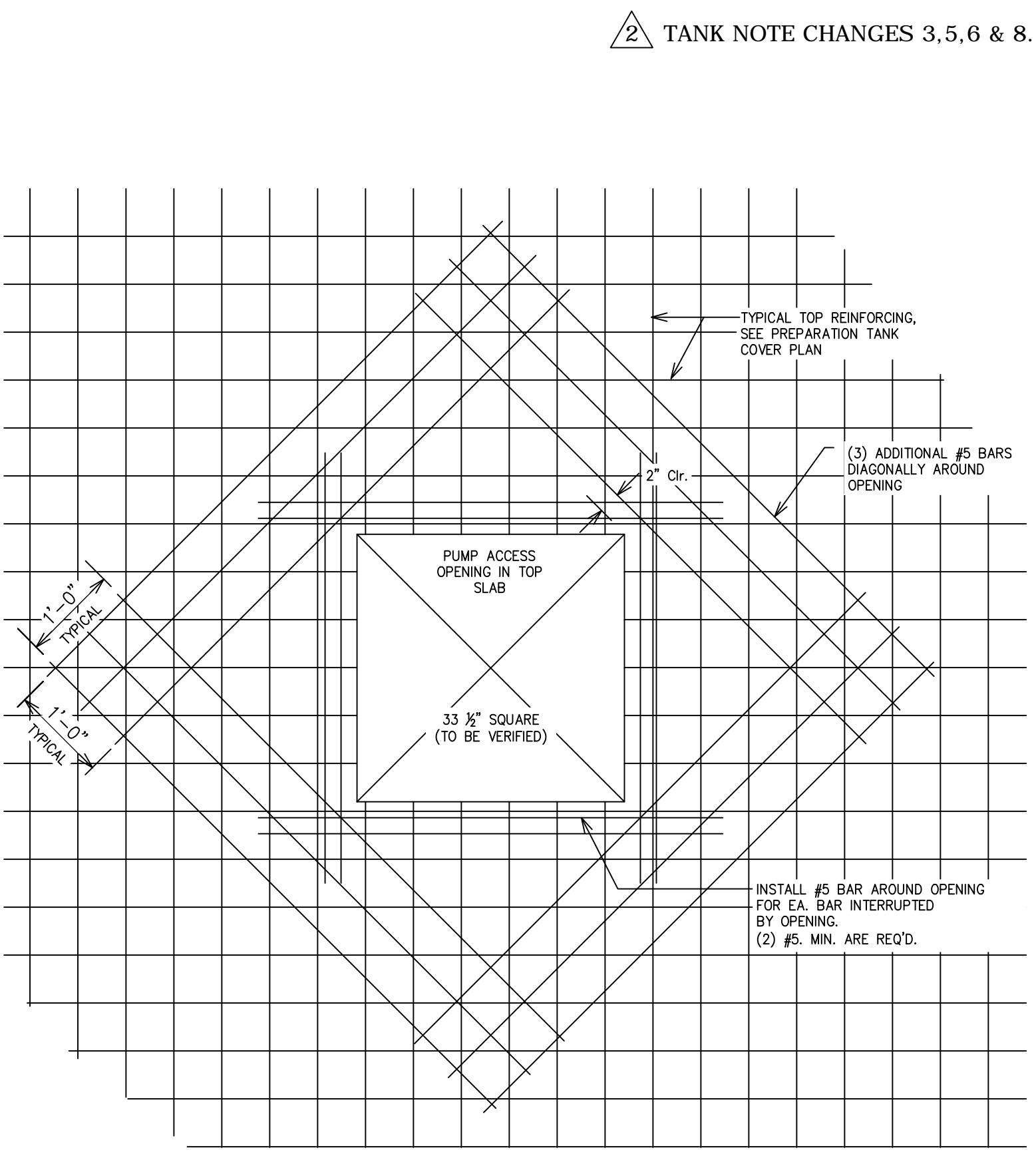
Section C - C

SCALE: 3/4" = 1'-0"



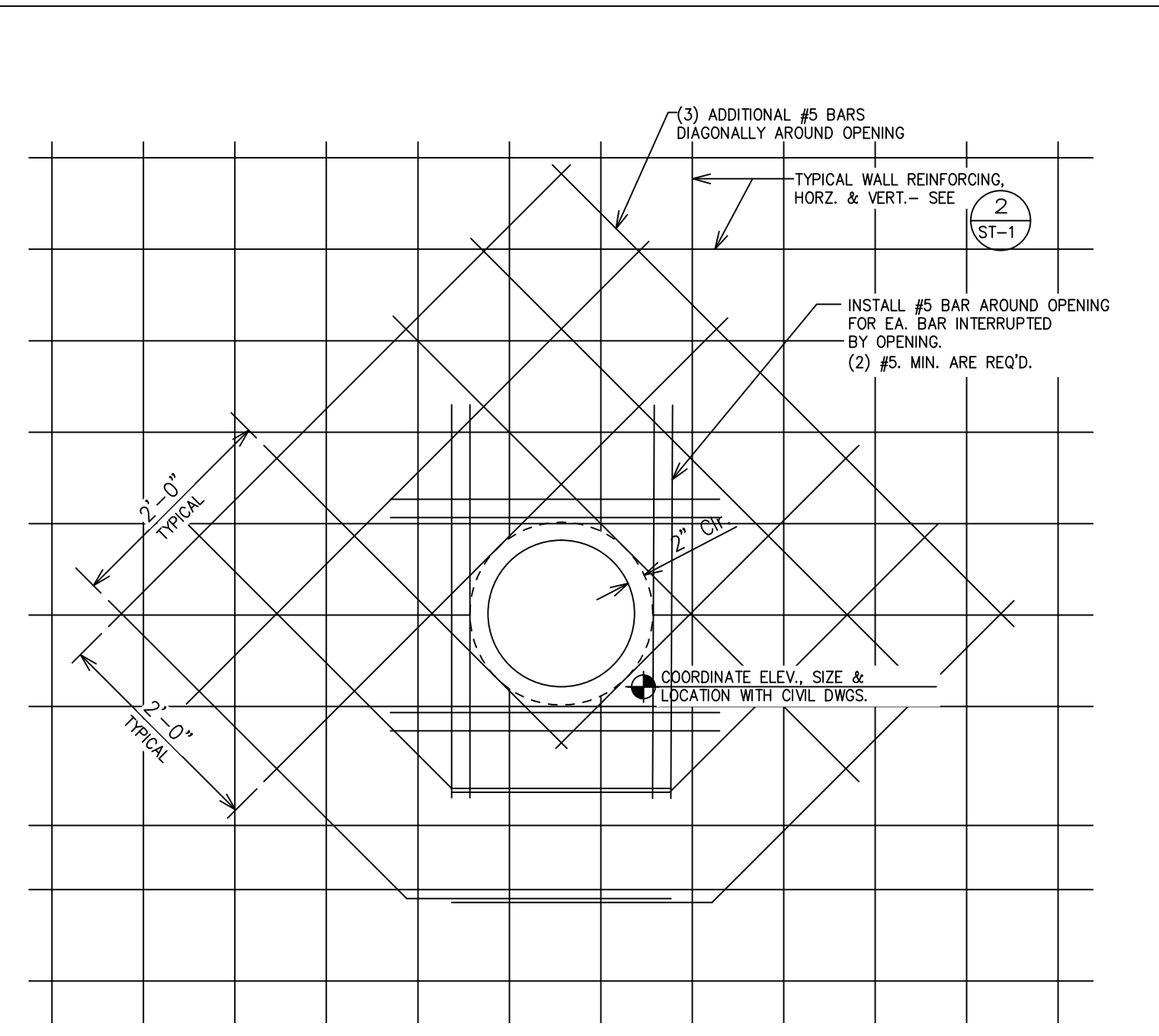
Section D - D

SCALE: 3/4" = 1'-0"



6 Tank Cover Penetration Reinforcement

SCALE: 3/4" = 1'-0"



5 Tank Wall Penetration Reinforcement

SCALE: 3/4" = 1'-0"

VERIFY PENETRATION(S) REQ'D PRIOR TO CONSTRUCTION

Concrete Tank Notes:

- DESIGN CRITERIA: Concrete shall be 4,000 psi, air entrained, type II cement. Rebar shall be 60,000 psi. Max. depth = 15'-0". Max. operating/available depth = 14'-0". Design Freeboard = 1'-0". Design weight of liquid manure = 65 lb./ft per NRCS 313. Applicable codes: N.R.C.S. Code 313 - Waste Storage Facility, ACI 318-08.
- Design soil bearing capacity: 2,000 pounds per square foot. Notify the engineer, in writing, of unsatisfactory soil conditions.
- This structure is designed for 6'-0" of water hydrostatic uplift with the use of drainage.
- The Contractor shall be responsible for verifying and determining the location, size and elevation of all existing utilities shown or not shown on this plan prior to the start of construction. The Engineer shall be notified, in writing of any utilities found interfering with the proposed construction and appropriate remedial action shall be taken before proceeding with the work. The Contractor shall verify all dimensions and elevations before commencing construction and notify engineer, in writing, of any discrepancy found.
- Wet cure and seal slab and walls. Submit proposed products to Engineer for approval.
- Dewatering of excavations by Site Contractor.
- Provide watertight seals for through-wall penetrations.
- Allow adequate curing time before stripping forms. Construction shall conform to ACI 350.
- Prior to each concrete placement, notify Engineer with 24 hours notice.
- Allow 5 days between pours at all construction joints.
- Form ties shall be removed on both sides of all perimeter walls. Form tie holes shall be filled with hydraulic cement on both sides of walls to make watertight.
- Waterstop shall be Greenstreak Waterstop or approved equal. Install where shown on the plans in accordance with manufacturers' instructions. Provide minimum 2 inch clearance to face of concrete.
- Vapor barrier shall be 15 mil Stego Wrap by Stego Industries or approved equal. Tape all joints and install per manufacturers' instructions.
- Concrete testing shall be paid for by the owner. Testing frequency to be determined.
- It is the intent of these plans to provide a watertight structure. Provide waterstops at all cold joints separating the tank from the exterior.
- All items shall be constructed to the dimensions and elevations shown on the drawings. Any changes to the design must be approved by the Engineer.
- It is the Contractor's responsibility to read the specifications that accompany this design. It is also the contractor's responsibility to contact the Engineer immediately when unforeseen problems arise.
- It is the Excavation Contractor's responsibility to call "Dig-Safe" (1-800-344-7233) prior to any earthmoving activities and to comply with all Vermont laws and regulations regarding the location and work around underground utilities.
- All permits, easements and Rights-of-Way are the responsibility of the Landowners.
- All "L" bars or dowels shall be securely in place for the placement of concrete. Installing rebar in "wet" concrete (or "plunking") will not be allowed.
- Piping shall be installed through the structure wall as shown in the drawings.

TANK NOTE CHANGES 3.5,6 & 8.

**ISSUED FOR CONSTRUCTION
7 AUGUST 2013**

PROJECT: 12013
DATE: AUG. 7, 2013
DESIGN: JK
DRAWN: WHP, VAE
CHECKED: PHC
APPROVED: PHC
SCALE: As Noted

103 Fairfax Rd.
St. Albans, Vermont 05478
Cross Consulting Engineers, P.C.
CONSULTING ENGINEERS, P.C.
CCE CROSS

Preparation Tank
Plan & Details

Bio-Methatech
Montreal, Quebec, Canada
New Methane Digester
Vermont Technical College Randolph Center, Vt.

STRUCTURAL

ST-1

SHEET 1 OF 1