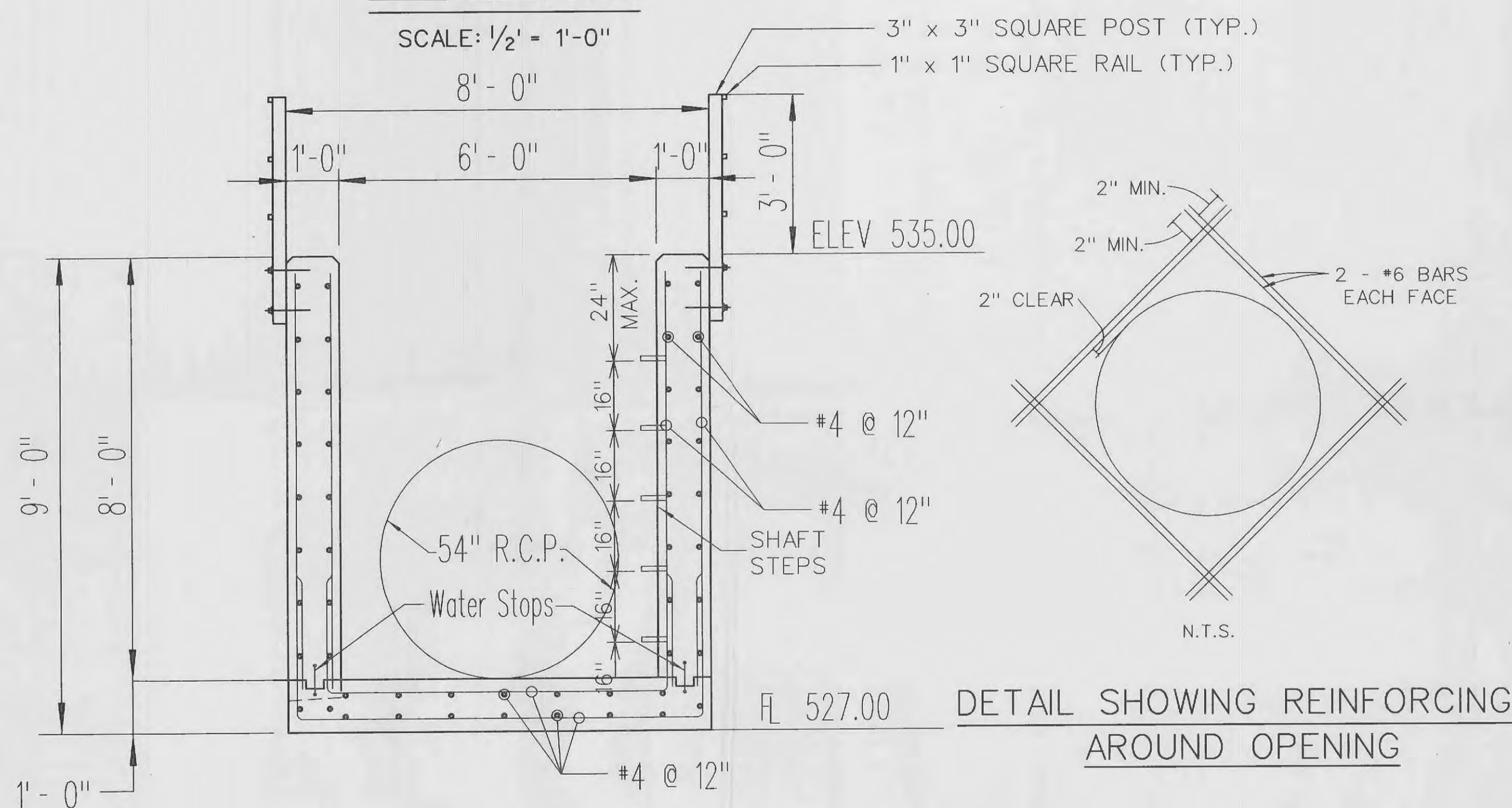


TOP VIEW

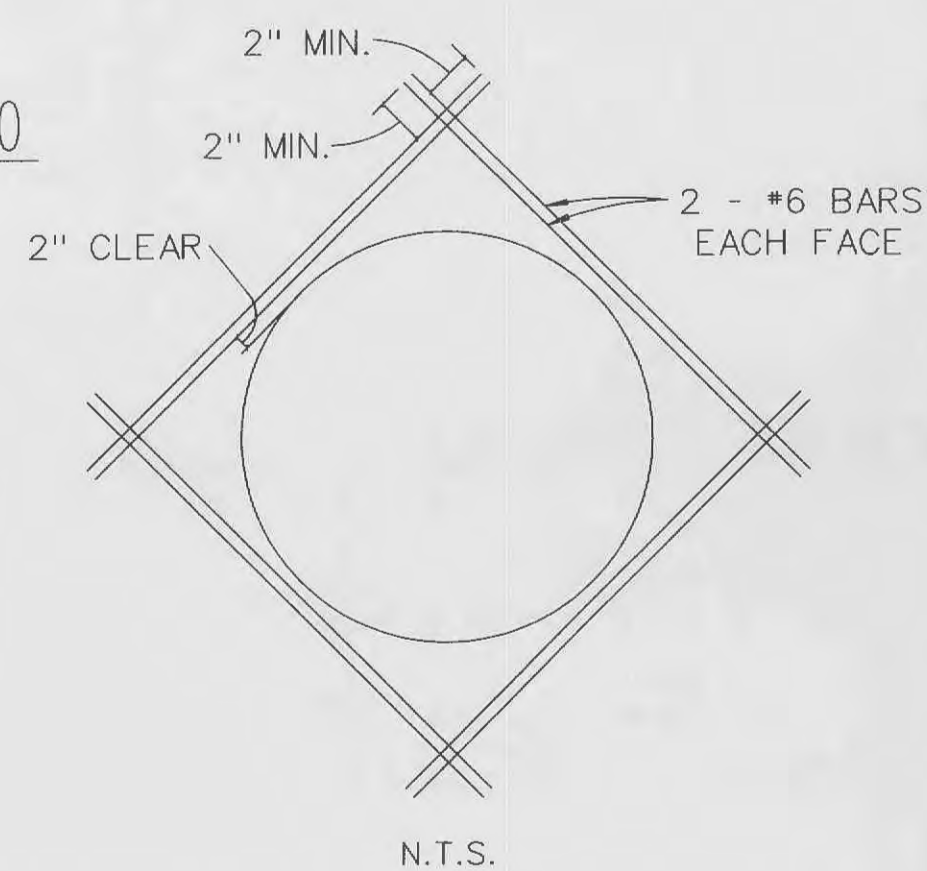
SCALE: 1/2" = 1'-0"



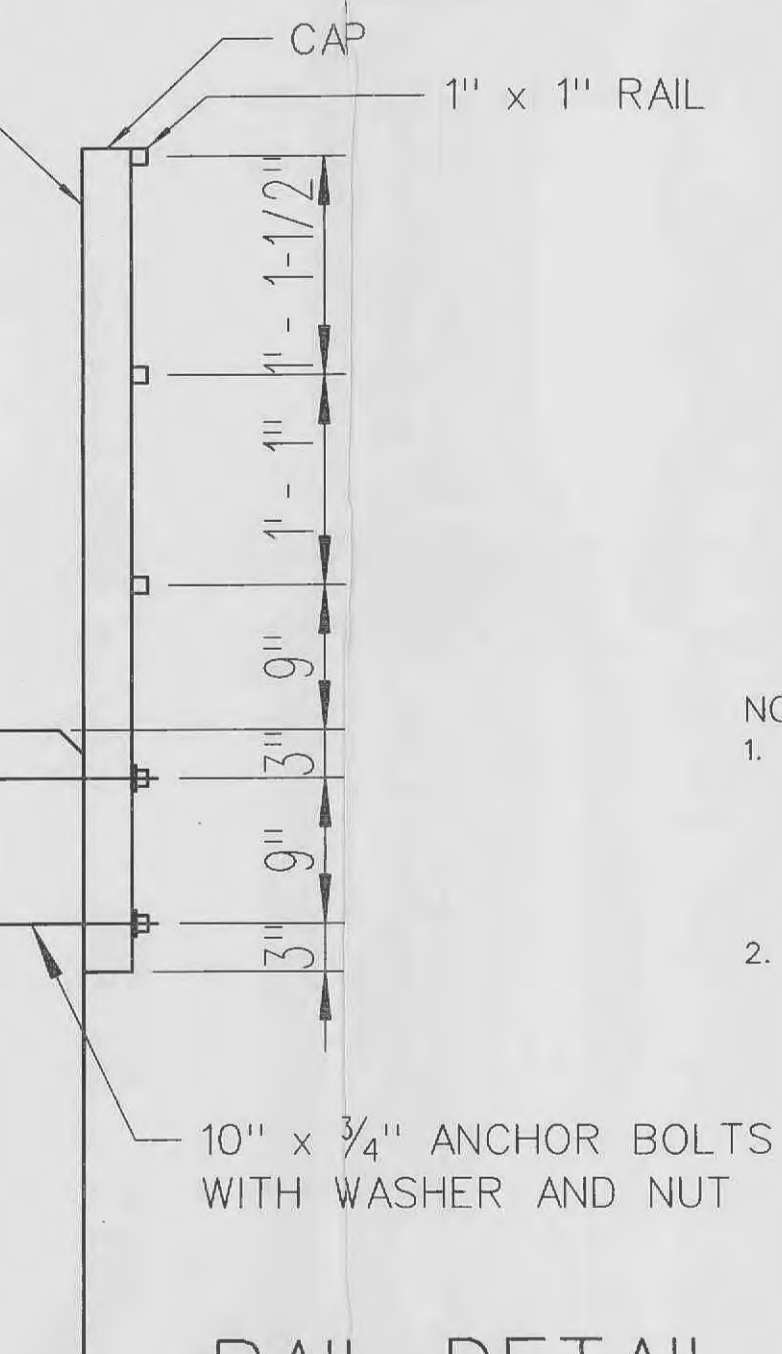
SECTION A - A
REINFORCED DETENTION
STRUCTURE

SCALE: 1/2" = 1'-0"

DETAIL SHOWING REINFORCING
AROUND OPENING

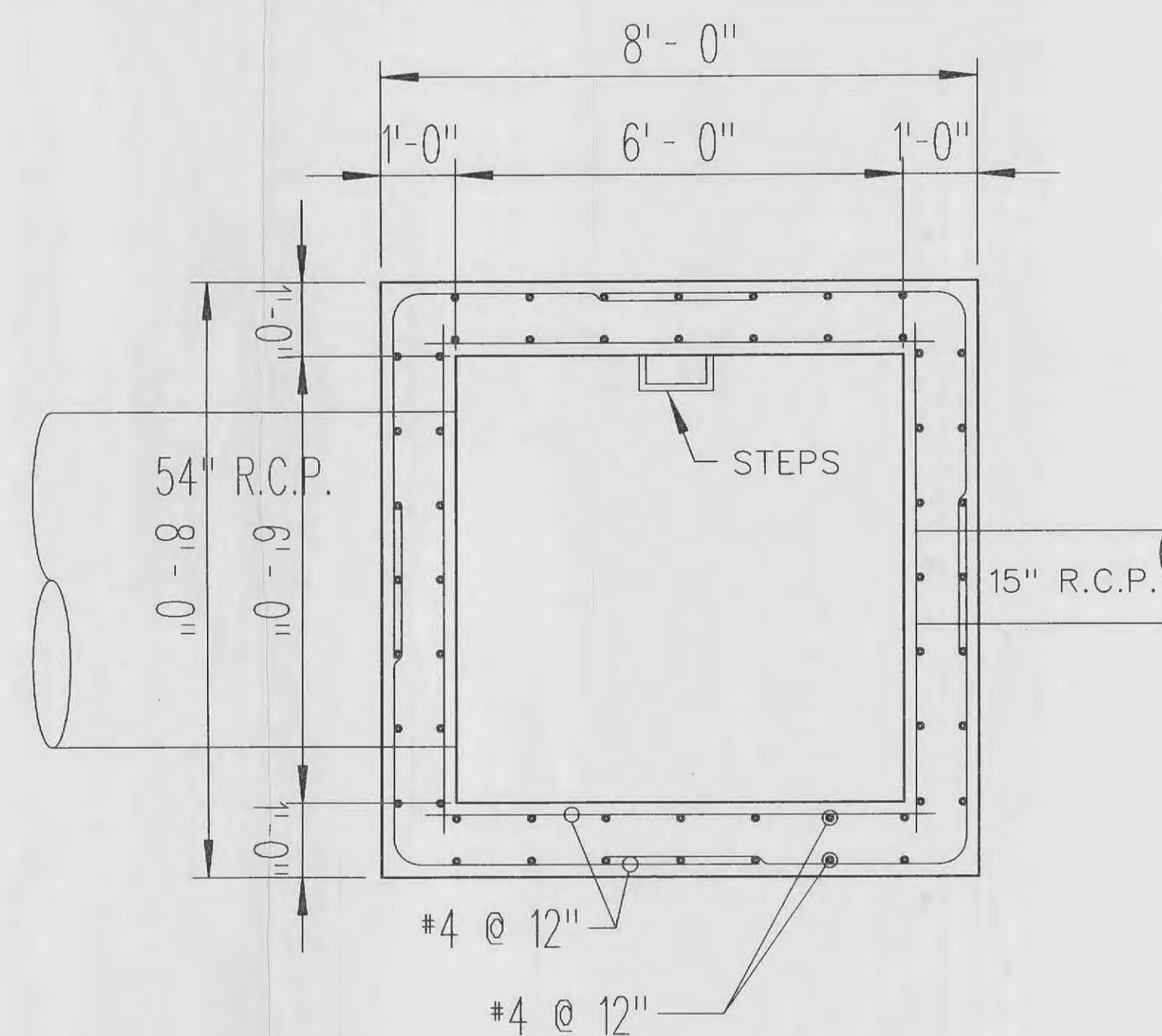


RAIL, POSTS, BOLTS, WASHERS, AND NUTS SHALL BE STAINLESS STEEL. RAIL AND POST WALL THICKNESS SHALL BE 3/32" MINIMUM. TOP OF POST SHALL BE CAPPED BY FABRICATOR. BOTTOM OF POST SHALL BE OPEN. RAILS SHALL BE WELDED TO POSTS.



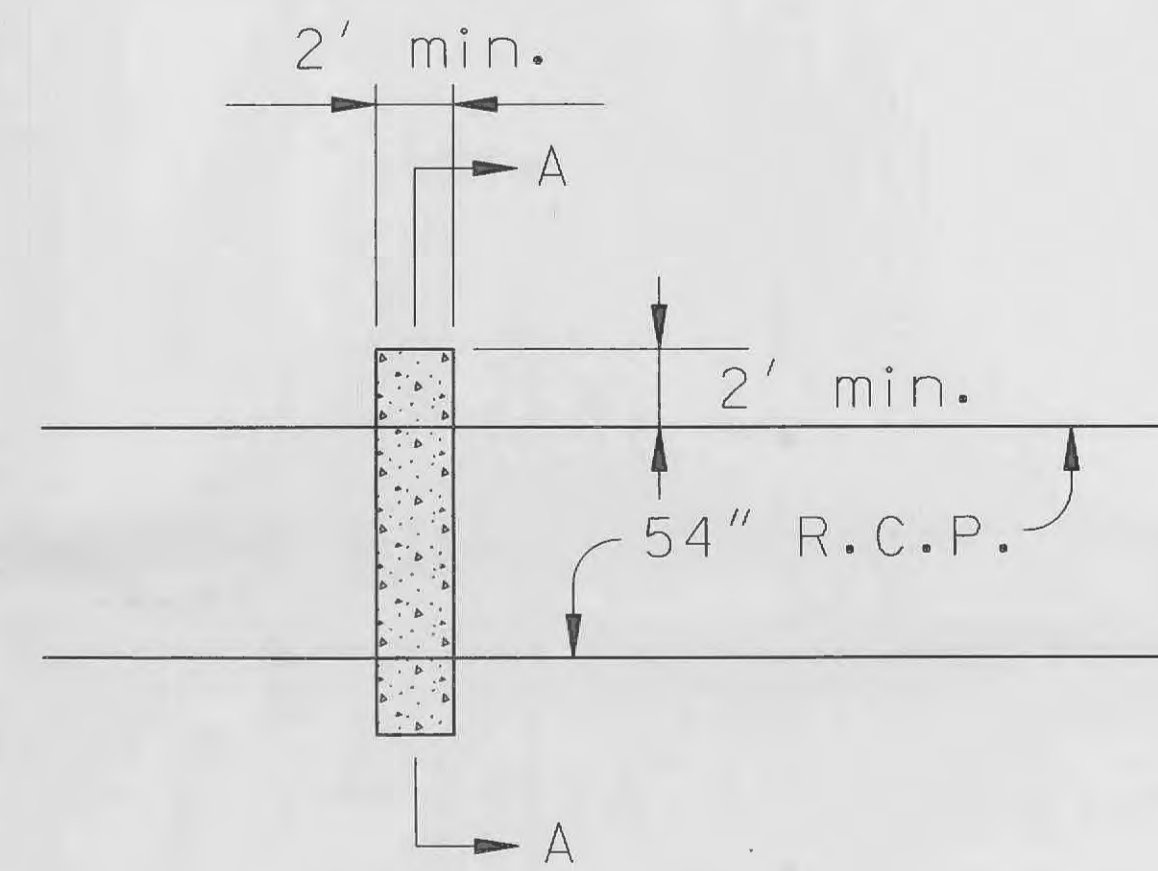
RAIL DETAIL

SCALE: 1" = 1'-0"



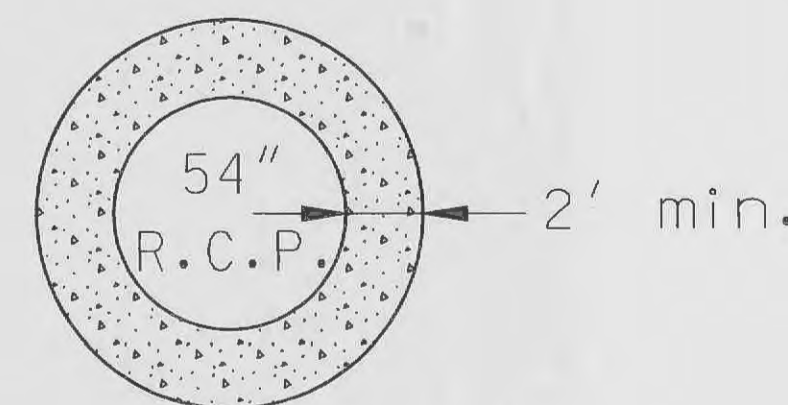
STEEL SPLICE DETAIL

SCALE: 1/2" = 1'-0"



PLAN VIEW

CONCRETE ANTI-SEEPAGE COLLAR



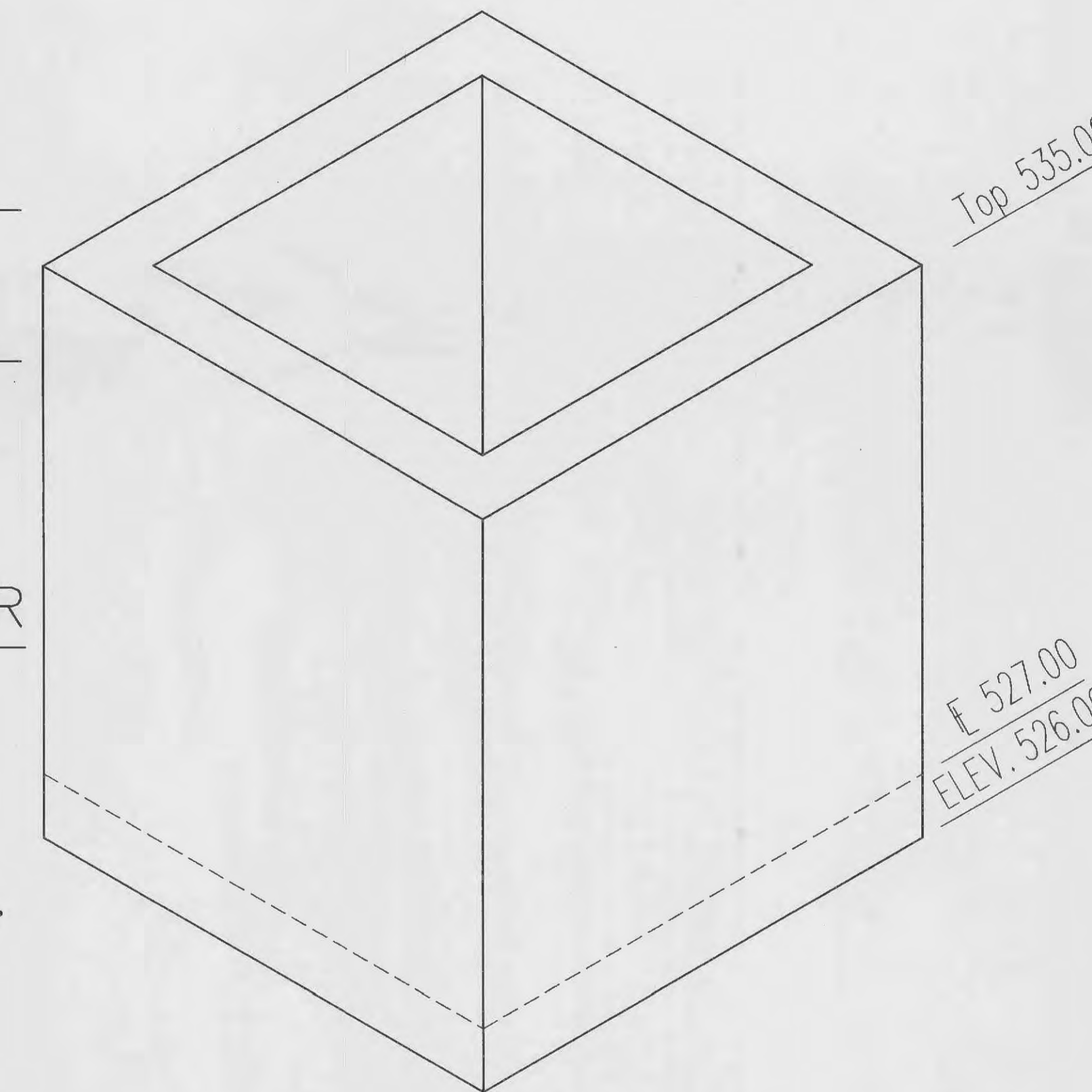
SECT. A-A

NOTES:

1. Pour concrete below pipe against undisturbed earth. Do not form. Above the bottom of the pipe the collar may be formed at contractor's option.
2. Entire collar shall be poured at one time. No joints shall be allowed.

CONSTRUCTION NOTES:

1. Concrete for the structure shall be "air entrained" and contain at least 6 sacks Class "A" Portland Cement per cubic yard. The concrete shall be placed at a slump of 4 inches +/- 1/2 inch. The concrete shall be proportioned and transported in accordance with ASTM C-94.
2. Reinforcing steel shall conform to ASTM C-615-60 with deformations conforming to ASTM A-305 and shall have a minimum cover of 2 inches except for 3 inches where concrete is poured against earth.
3. Laps and/or splices in reinforcing steel shall be a minimum of 30 bar diameters.
4. Keyed joints shown are to be 2-inch x 2-inch keyed construction joints.
5. $f_s = 24,000$ psi.
6. $f_c = 3,750$ psi.
7. All exposed edges to have a 3/4-inch chamfer.
8. Contractor to provide for bypass of stormwater during construction of structure.
9. All soil specifications shall be directed by soils engineer.
10. At contractor's option, the structure may be precast. If the structure is precast, wall and base thickness may not be reduced. The weight of the structure is required to ensure the structure does not float.
11. Sluice gate shall be firmly attached to wall of structure. Gate shall have non-rising stem and shall be watertight up to 15 feet of unseating head.



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VOLZ

REGISTERED PROFESSIONAL ENGINEER
ANTHONY J. CASSELL
NUMBER 15179
EXPIRES 12/31/00
STATE OF MISSOURI

WINGHAVEN™
10 ACRE LAKE

OUTFALL STRUCTURE
DETAIL
Design By: E.A.K.
Drawn By: C.A.F.
Checked By: E.A.K.
5830-1

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