



WINGHAVEN

WINGHAVEN RESIDENTIAL L.L.C.

DETENTION BASIN
TIMBER CREEK & HAWTHORNE VILLAGES



The existing sewer lengths, sizes, flowlines, depths of structures and sewers and locations with respect to existing or proposed easements have been measured. The results of those measurements are shown on this set of Final Measurement plans. Since the wye locations have been plotted from information provided by the sewer contractor or other sources, I disclaim any responsibility for that specific information.

All public sewers are located within designated existing or proposed easements except as shown on this drawing.

The results of those measurements are shown on this drawing by lining out the planned number and indicating the measured number adjacent to the planned number. All other numbers shown have not been measured or verified.

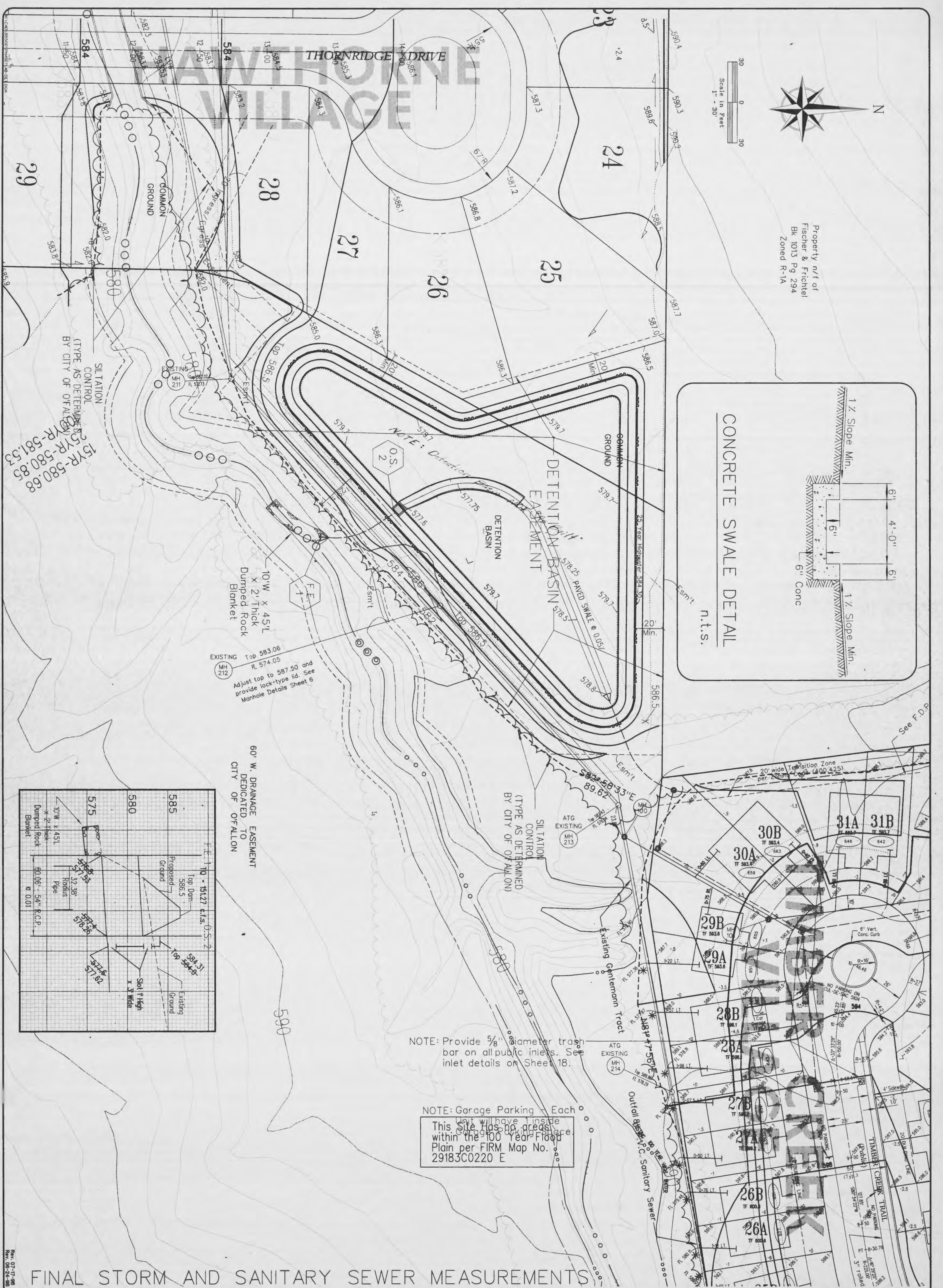
The locations of the sewers were determined by locating the manholes and traversing in a straight line between them.

No hydraulic computations have been done on the measured lines to verify or confirm the capacity, freeboard or design requirements of the sewers.

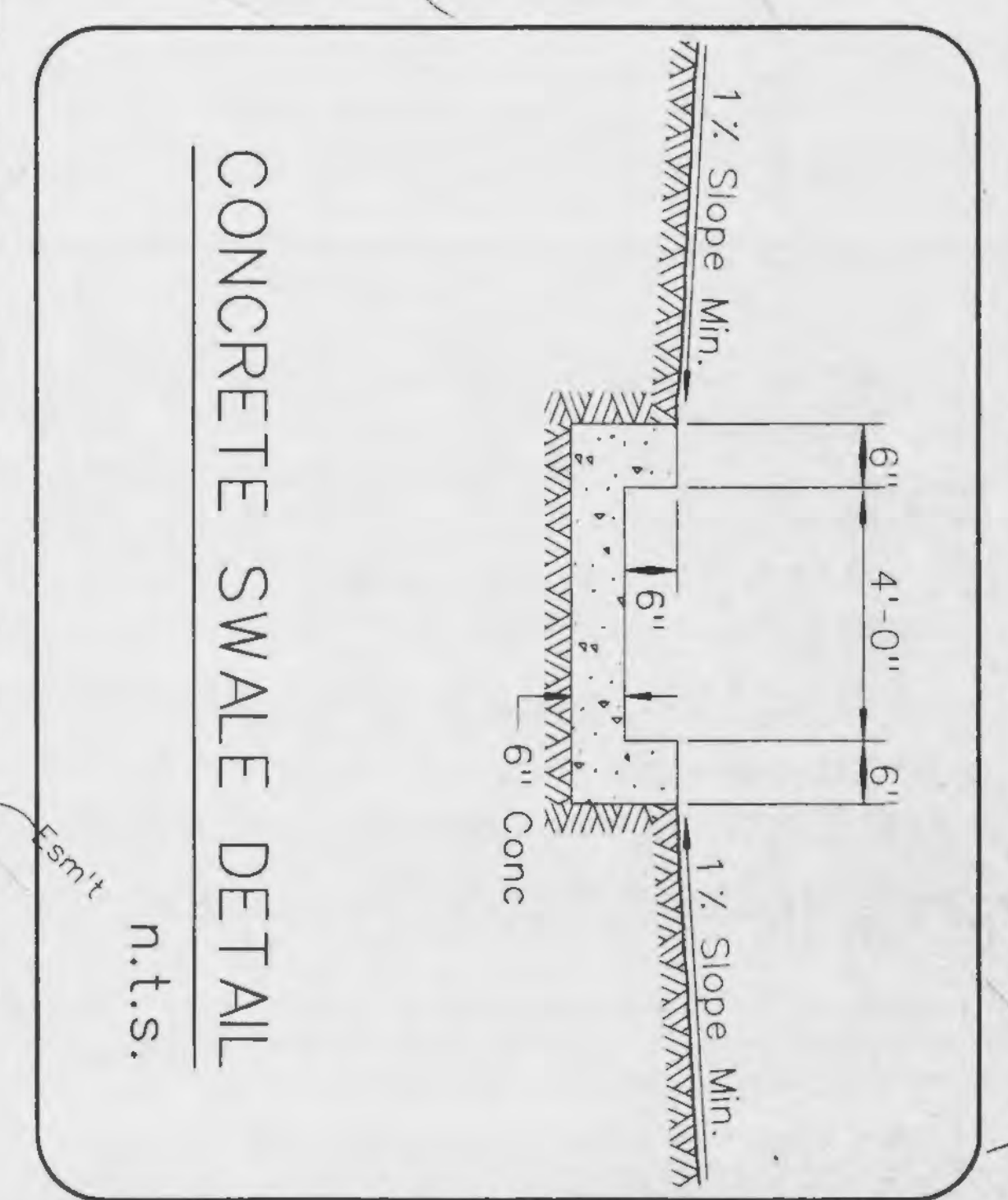


Christopher Ferrante
Mo. Reg. L.S. #2494

FINAL STORM AND SANITARY SEWER MEASUREMENTS



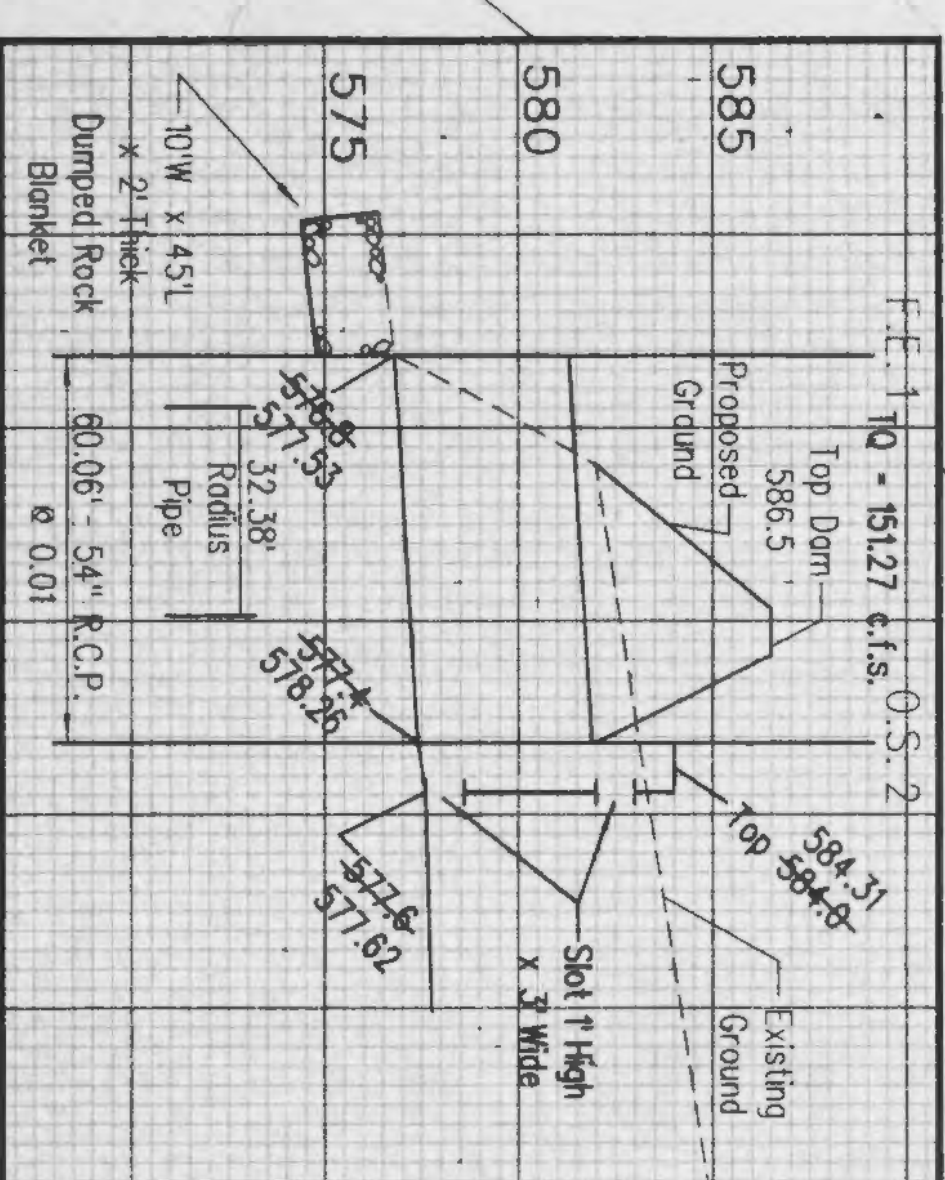
Property n/f of
Fischer & Fricheal
Bk 1013 Pg 294
Zoned R-1A



15-YR-580.85
15-YR-581.53
15-YR-580.85
SILTATION CONTROL
(TYPE AS DETERMINED BY CITY OF OFALLOM)

EXISTING Top 583.06
MH 212
R 574.05
Adjust top to 587.50 and
provide lock-type lid. See
Manhole Details Sheet 6

60' W. DRAINAGE EASEMENT
DEDICATED TO
CITY OF OFALLOM



NOTE: Provide 5/8" diameter trash bar on all public inlets. See inlet details on Sheet 18.

NOTE: Garage Parking - Each lot will have 20 spaces inside this site. See 100 Year Flood Plain per FIRM Map No. 29183C0220 E

FINAL STORM AND SANITARY SEWER MEASUREMENTS

DETENTION BASIN PLAN

06-15-98

Design By: G.A.S.
Drawn By: G.A.S.
Checked By: W.G.K.

B-5500-8

WINGHAVEN

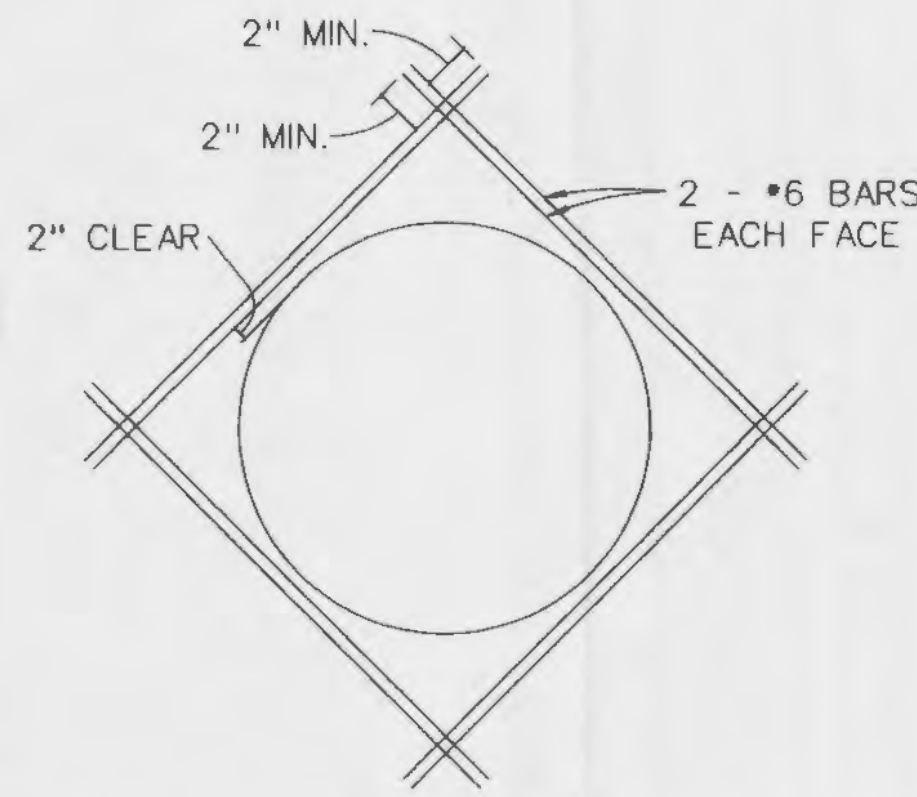
VOLZ

WINGHAVEN RESIDENTIAL L.L.C.

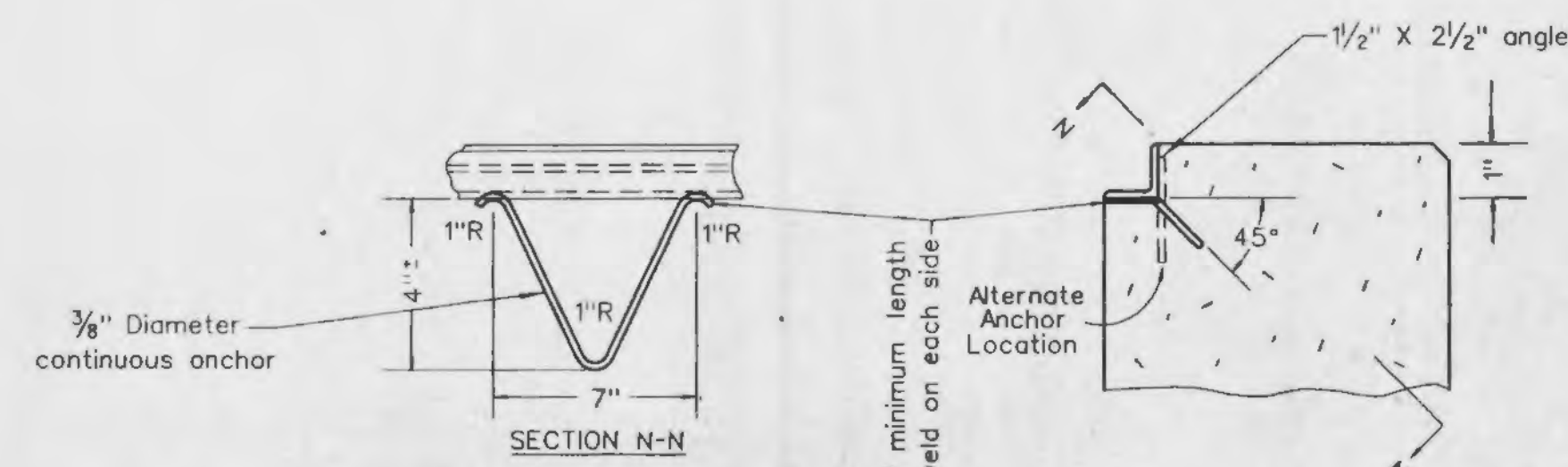
#11 MCBRIDE & SON
CORPORATE CENTER DRIVE
ST. LOUIS, MISSOURI 63005
PHONE (314) 537-2000

CONSTRUCTION NOTES:

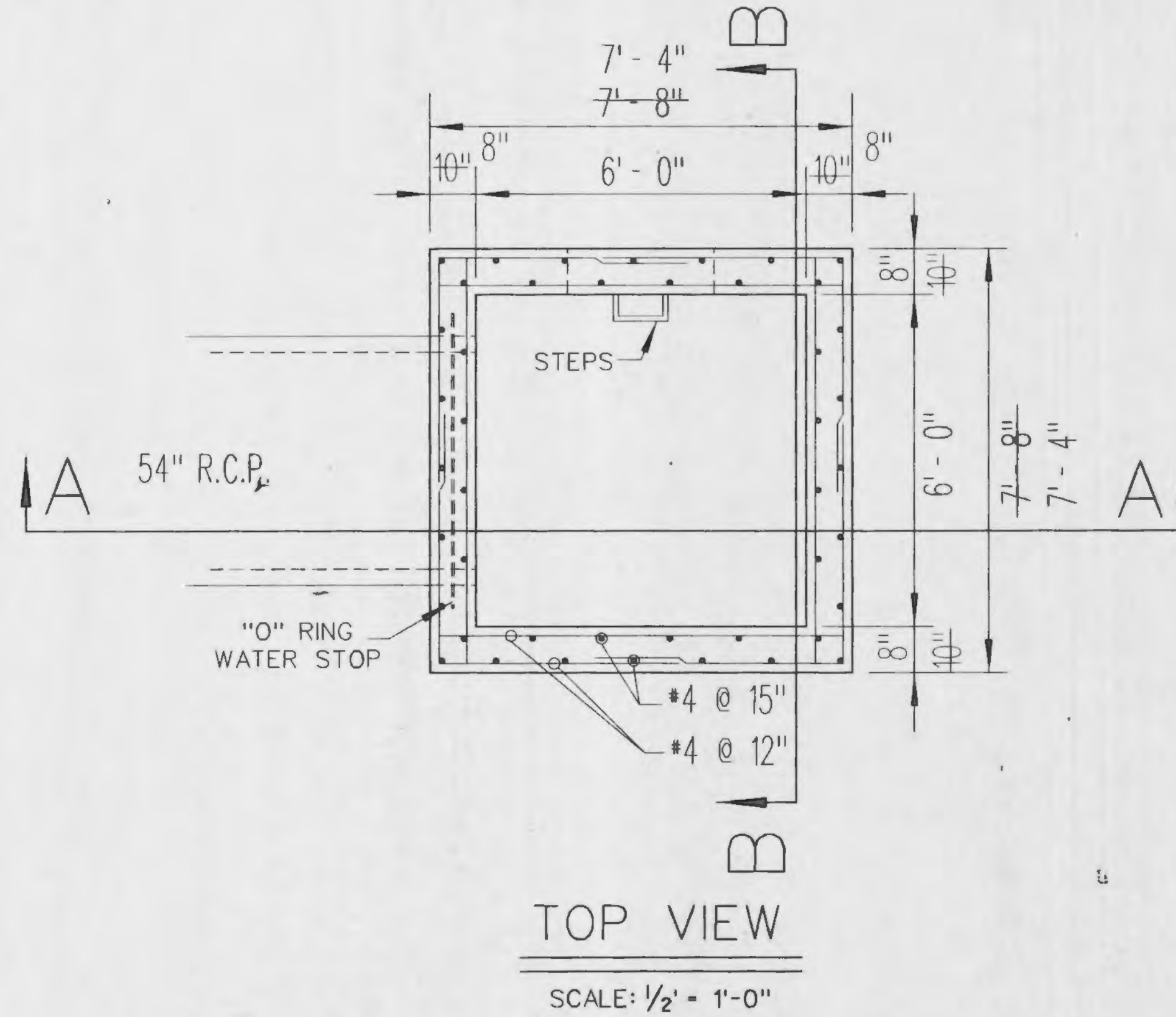
1. Concrete for the structure shall be "air entrained" and contain at least 6 sacks Class "A" Portland Cement per cubic yard. The concrete shall be placed at a slump of 4 inches \pm 1/2 inch. The concrete shall be proportioned and transported in accordance with ASTM C-94.
2. Reinforcing steel shall conform 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 4-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.



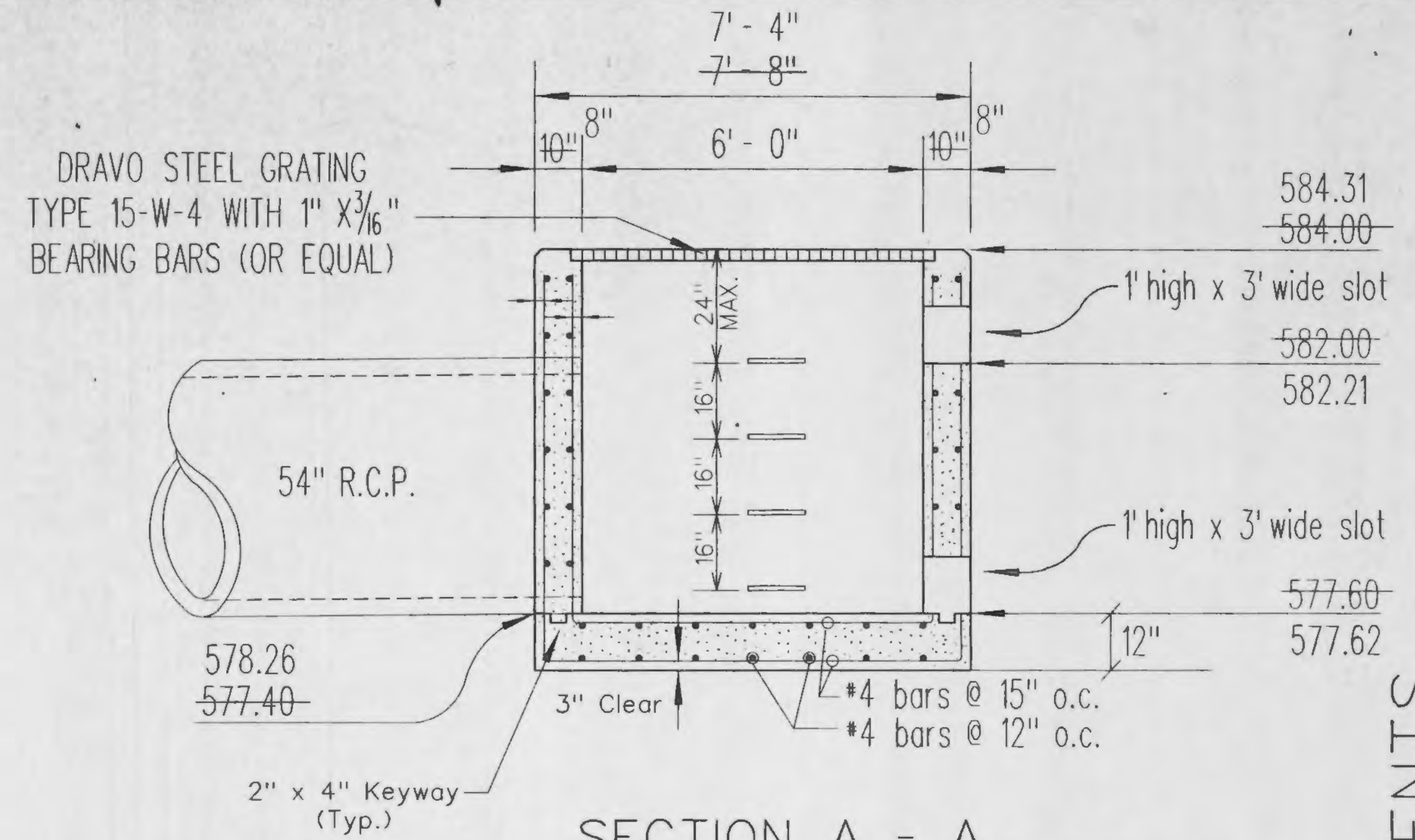
DETAIL SHOWING REINFORCING
AROUND OPENING
N.T.S.



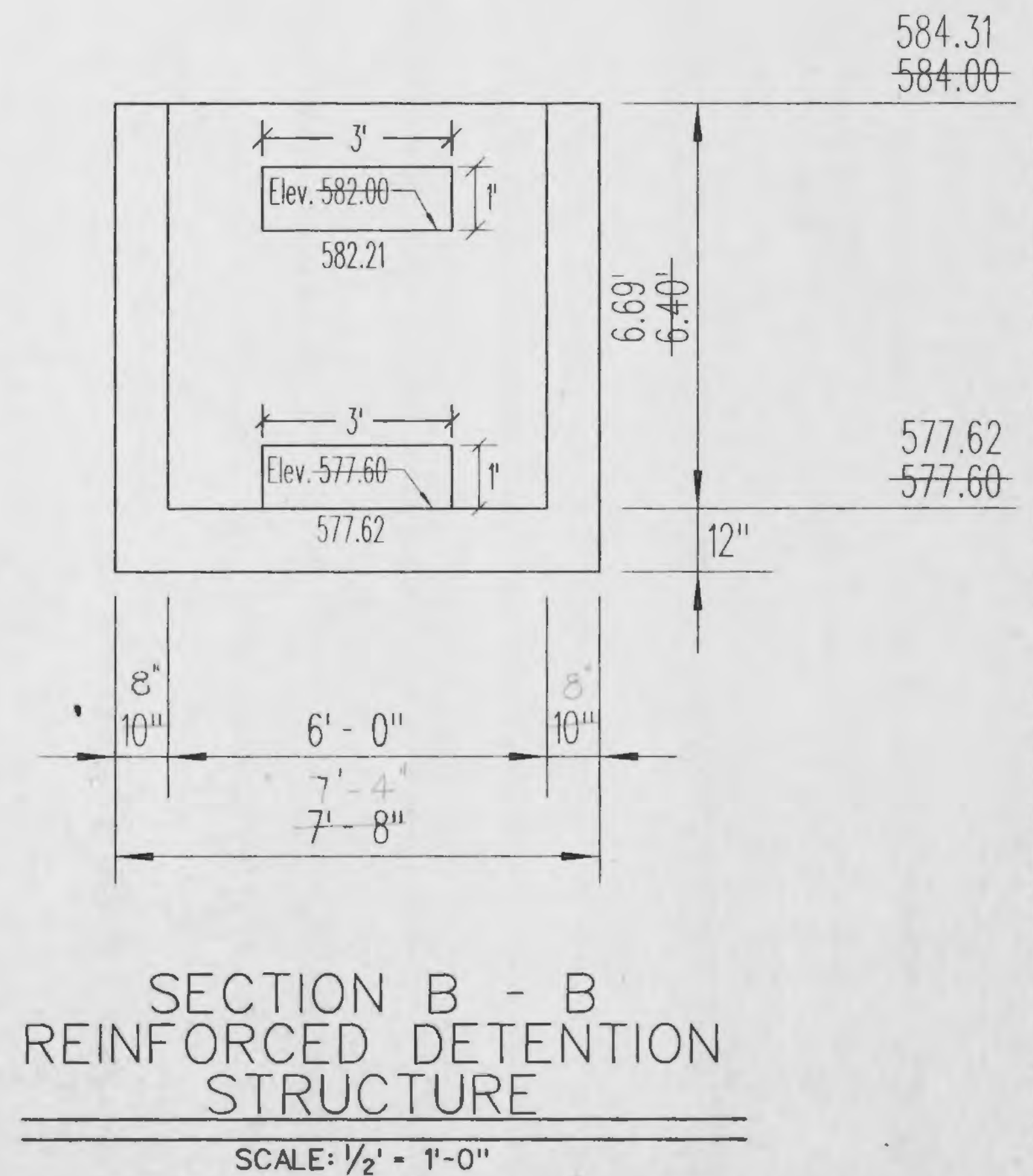
DETAIL OF CONTINUOUS ANCHOR
FOR ANGLE SEAT
N.T.S.



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



SECTION A - A
REINFORCED DETENTION
STRUCTURE
SCALE: 1/2' = 1'-0"



SECTION B - B
REINFORCED DETENTION
STRUCTURE
SCALE: 1/2' = 1'-0"

FINAL STORM AND SANITARY SEWER MEASUREMENTS

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111 MCBRIDE & SON
CORPORATE CENTER DRIVE
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VOLZ

WINGHAVEN

OUTFALL STRUCTURE
DETAILS

Design By: W.G.K.
Drawn By: M.E.K.
Checked By: E.A.K.

B-5500

06-15-98

02