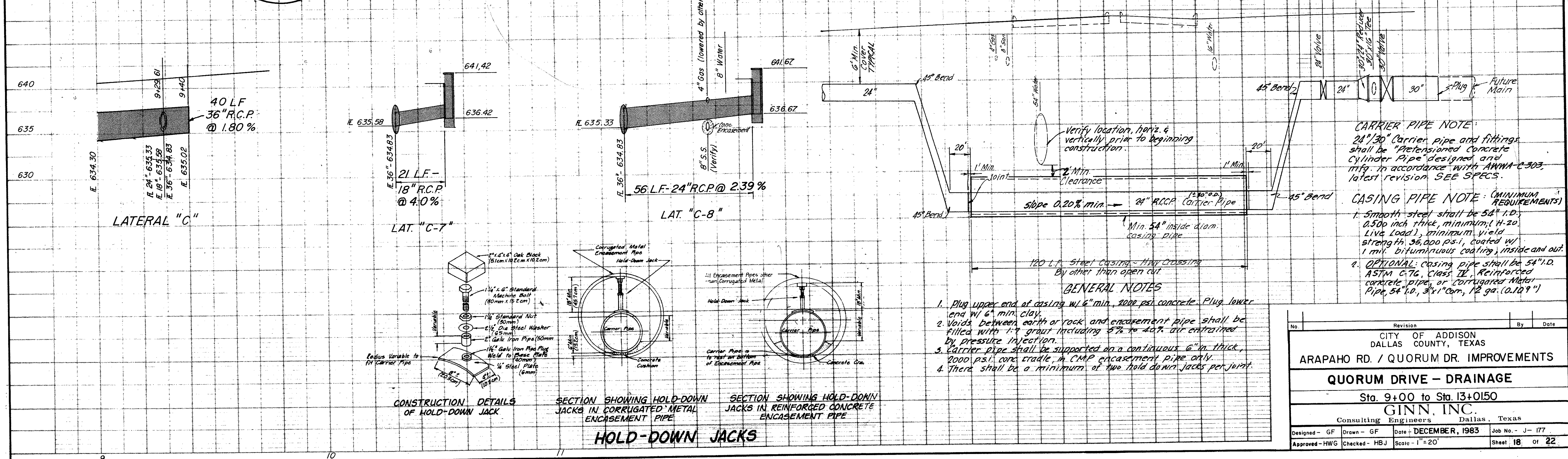


- NOTES:**
1. SAW & REMOVE EXISTING CONCRETE AS REQUIRED TO CONSTRUCT WATER LINES WITH APPURTENANCES, AS SHOWN. REPLACE WITH 8" THICK REINFORCED CONCRETE PAVEMENT. ANY AREAS DESTROYED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED IN KIND OR BETTER, AS DIRECTED BY ENGINEER AT NO ADDITIONAL COMPENSATION.
 2. SPECIAL CARE SHALL BE TAKEN TO NOT DISTURB THE LOOP DETECTORS. IF DESTROYED DURING CONSTRUCTION, REPAIR SHALL BE MADE BY OTHERS. ALL CONDUIT DESTROYED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER.
 3. BORE PITS SHALL BE KEPT TO AS MINIMUM A SIZE AS REQUIRED TO COMPLETE THE CONSTRUCTION.

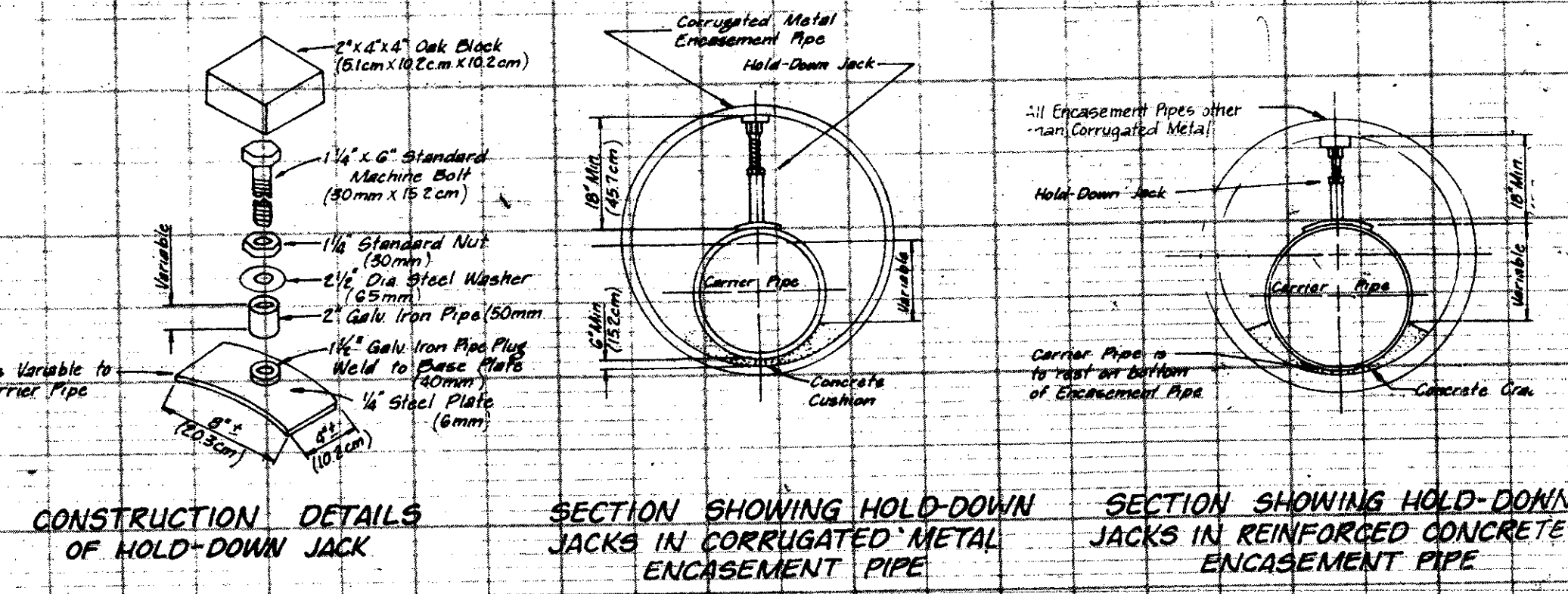


B.M. "□" On S.E. Corner of Retaining Wall at S.E. Corner of Building For Whittaker Metals - 15251 Marcy Road. (Elev. 637.61)
 B.M. "□" On Curb at N.W. Corner of Walk at the N.W. Corner of Shockey's Pizza Belt Line at Marcy Drive (Elev. 646.07)

CARRIER PIPE NOTE:
 24" 30" Carrier pipe and fittings shall be "Prestressed Concrete Cylinder Pipe" designed and mfg. in accordance with ASTM C-303, latest revision. SEE SPECS.

CASING PIPE NOTE: (MINIMUM REQUIREMENTS)
 1. Smooth steel shall be 54" I.D. 0.500 inch thick, minimum (H-20 Live Load), minimum yield strength 36,000 psi, coated w/ 1 mil. bituminous coating, inside and out.
 2. OPTIONAL: casing pipe shall be 54" I.D. ASTM C-76, Class II, Reinforced concrete pipe, or Corrugated Metal Pipe, 54" I.D., 3/4" corr., 12 ga. (0.1019")

- GENERAL NOTES**
1. Plug upper end of casing w/ 6" min. 3000 psi concrete. Plug lower end w/ 6" min. clay.
 2. Voids between earth or rock and encasement pipe shall be filled with 1:7 grout including 5% to 10% air entrained by pressure injection.
 3. Carrier pipe shall be supported on a continuous 6" thick, 2000 psi conc. cradle in CMP encasement pipe only.
 4. There shall be a minimum of two hold down jacks per joint.



No.	Revision	By	Date
CITY OF ADDISON DALLAS COUNTY, TEXAS			
ARAPAHO RD. / QUORUM DR. IMPROVEMENTS			
QUORUM DRIVE - DRAINAGE			
Sta. 9+00 to Sta. 13+01.50			
GINN, INC.			
Consulting Engineers Dallas, Texas			
Designed - GF	Drawn - GF	Date - DECEMBER, 1983	Job No. - J-177
Approved - HWG	Checked - HBJ	Scale - 1" = 20'	Sheet 18 of 22