

WATER NOTES

1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, dated 1976, as amended, of the Hawaii Highways Division, Department of Transportation.
2. The BWS Standard Details, Figures 1 to 62 inclusive, bound in the "Water System Standards" of the BWS, dated March 1977, as amended, are applicable to this Project.
3. Prior to excavating for new drain, sewer and other utility lines, the Contractor shall verify in the field the location of existing water mains and appurtenances.

Where the installation of new drain, sewer, or other utility lines are to cross over or under existing water mains, the Contractor shall expose the existing water mains prior to trenching. Excavation around water mains shall be done by hand.

4. Items indicated as "relocate" on the plans shall be removed, cleaned, painted, and reinstalled at the new location by the Contractor unless otherwise specified.
5. The minimum clearance between fire hydrants and utility poles or light standards shall be 3.0 feet.
6. The Contractor shall notify the Board of Water Supply in writing one week prior to commencing work on the water system.
7. Approval by the Board of Water Supply is based solely on the adequacy of the water supply.

Discrepancies, if any, of alignment, grades, fittings, etc., shall not be the responsibility of the Board of Water Supply.

8. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and shall pay for all damages to existing utilities.
9. Any adjustments to the existing water system, including manholes, meter boxes, and meters, required during construction to meet requirements of BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.

10. Valve I.D. Tags shall be affixed on the underside of all new manholes and valve box covers. See Details.

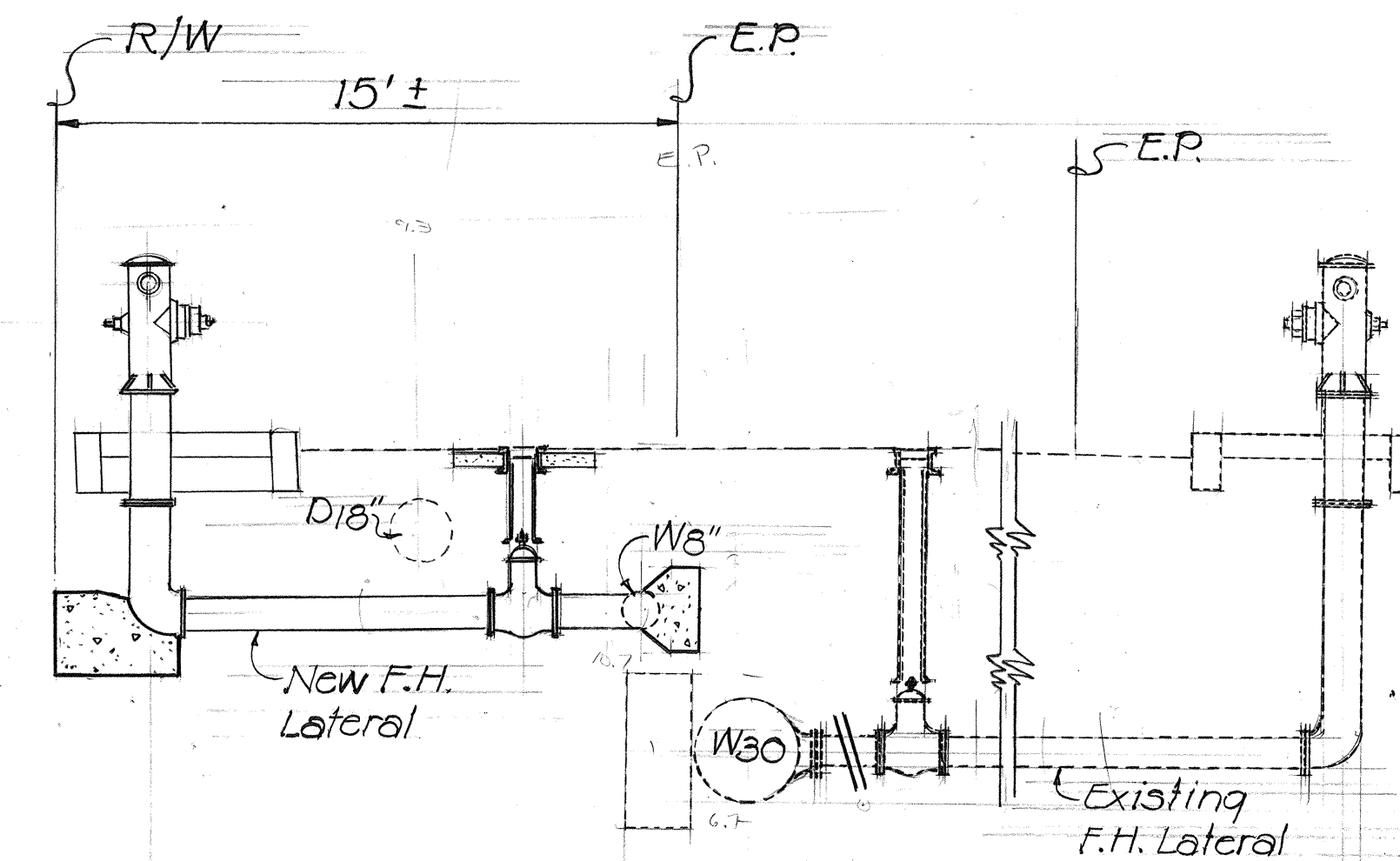
11. Unless otherwise specified, connections to existing water mains and chlorination of new mains shall be done by the Contractor, with the BWS Inspector coordinating the work. For details, contact BWS Planning and Engineering Division, Engineering Branch, Construction Section.

12. In the event that water mains other than Ductile Iron is to be used, the plans shall be resubmitted for approval.

13. Fire Hydrants shall be as approved by BWS. Break-off Bolts shall be drilled $\frac{1}{32} \times 1\frac{1}{8}$ inches.

14. Contractor shall furnish and install additional fittings if necessary to meet field conditions.

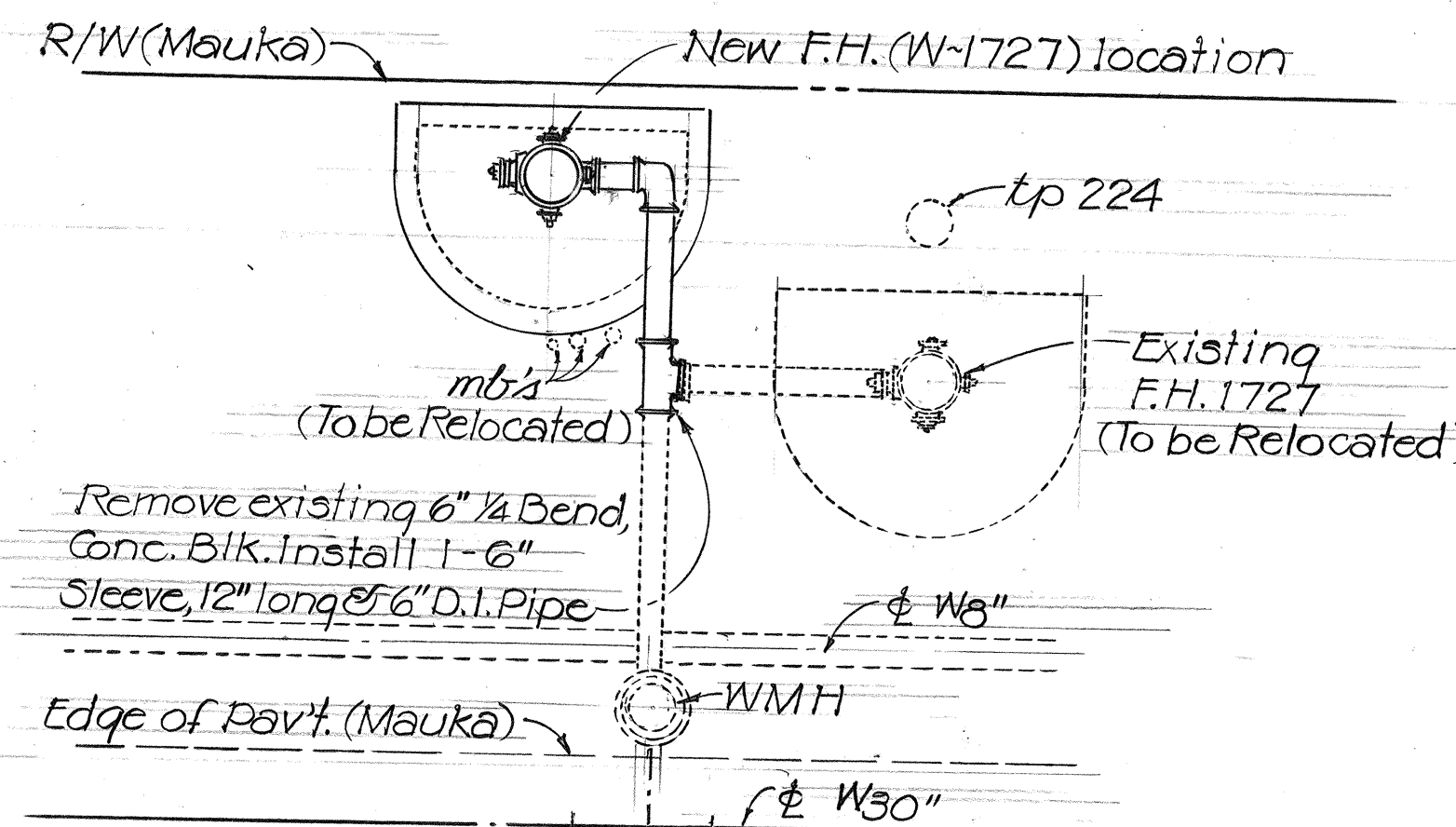
15. After installation of Tapping Sleeve and Valve, the assembly shall be tested with prevailing line pressure prior to actual tapping operations.



PROFILE

RELOCATION OF F.H. W-1728 STA. 475 + 65± RT.
RELOCATE TO STA. 476 + 80± LT.

Scale: 1" = 4'



PLAN

RELOCATION OF F.H. W-1727
STA. 486 + 68± LT.

Scale: 1" = 4'

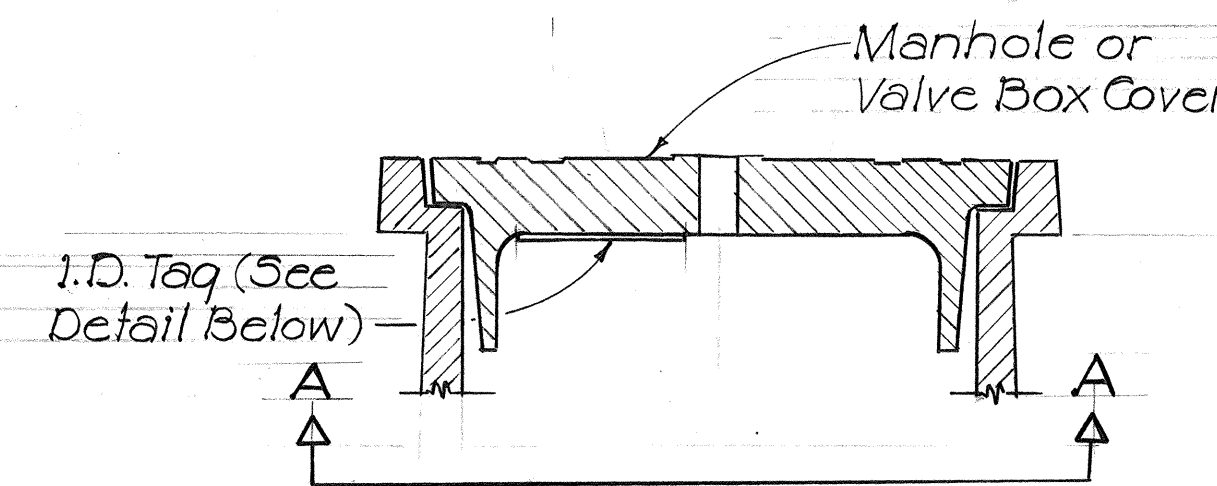
16. Reapproval shall be required if this project is not under construction within a period of one year. (See Rules and Regulations of the Board of Water Supply.)

17. All Cast Iron (Gray or Ductile) Pipes, Fittings, and Valves shall be enclosed in Plastic Material in accordance with ANSI Specifications C105-72 "Polyethylene Encasement for Gray and Ductile Cast Iron Piping for Water and Other Liquids."

18. Test Pressure shall be 150 psi.

19. Waterline connections to existing mains can be made during normal working hours. Connection time at Station 470+44 must not exceed 6 hours.

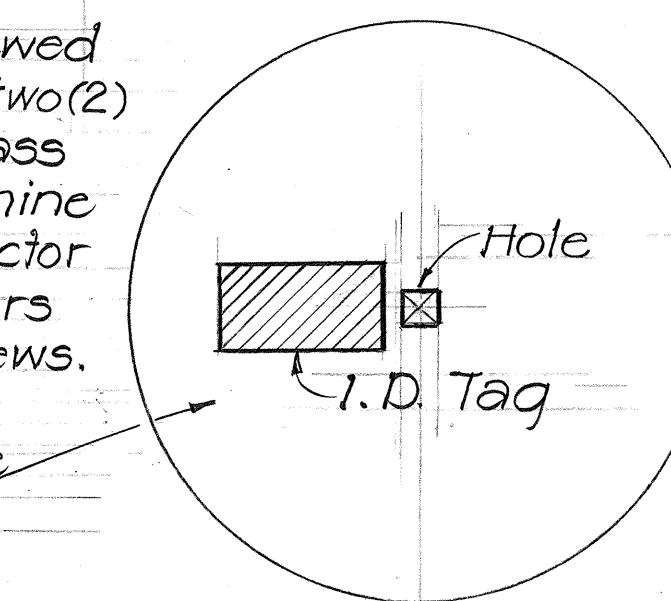
20. The plans show the location of a future 30-inch water main for the information of the Contractor only and not considered a part of this contract. The exact location and alignment is still pending review and approval by the State Department of Transportation.



SECTION

Tag shall be screwed to the cover with two (2) $\frac{1}{4} \times \frac{1}{4}$ long brass round head machine screws. The Contractor shall tap the Covers to receive the screws.

Manhole or Valve Box Cover



SECTION A-A

IDENTIFICATION TAG FOR MANHOLE OR VALVE BOX COVER

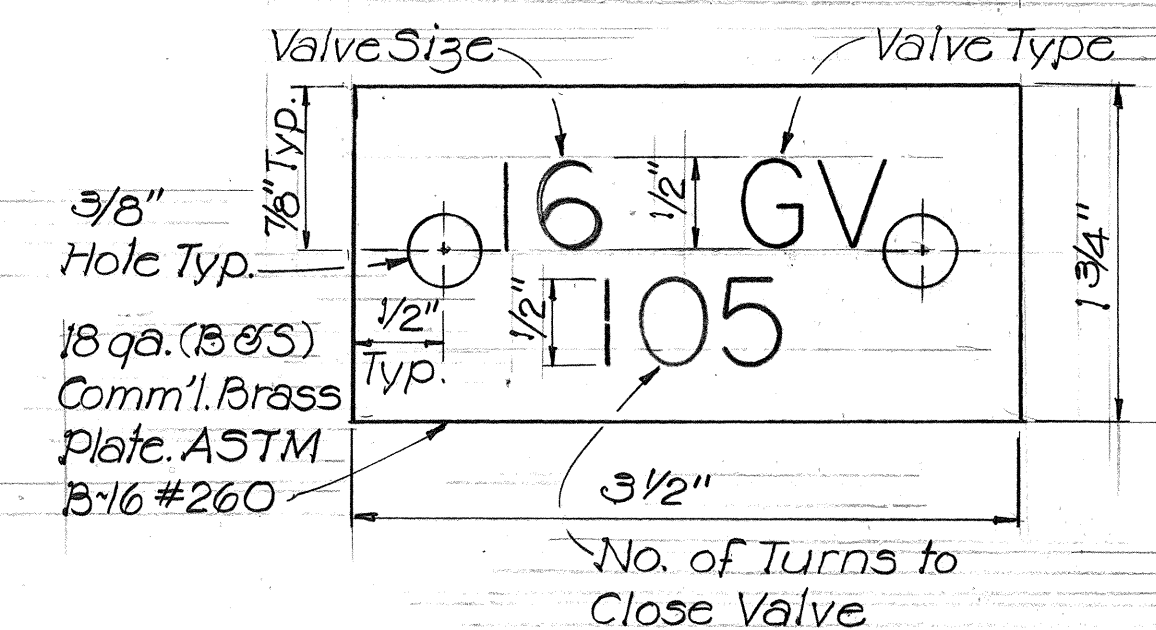
Not to Scale

NOTE:

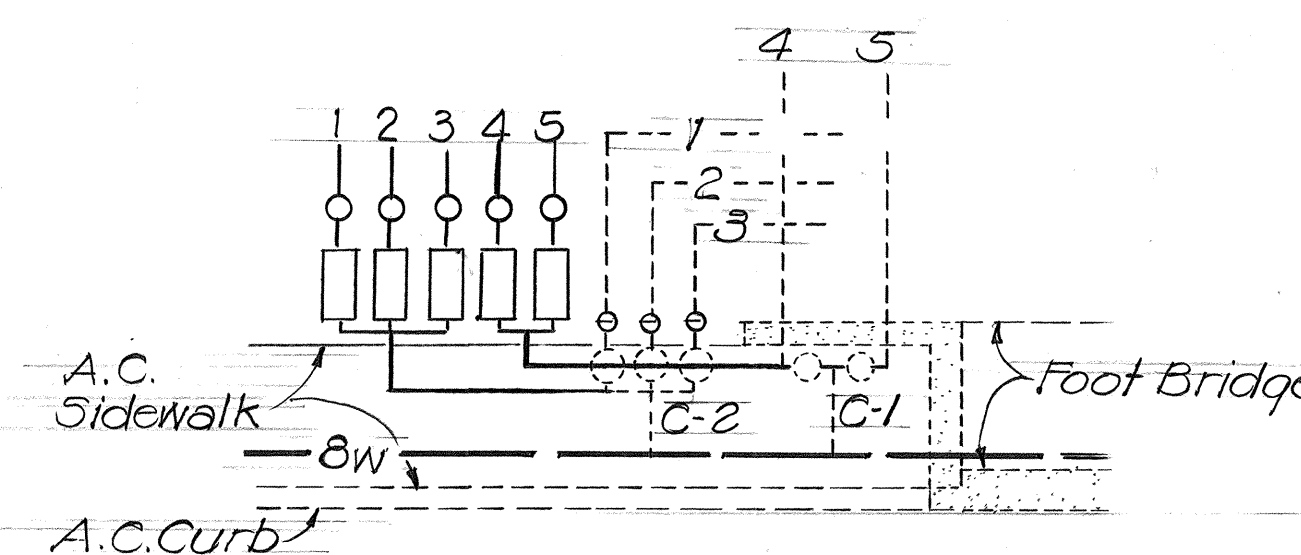
1. The Contractor shall verify valve data with the valve manufacturer prior to stamping I.D. Tag.
2. I.D. Tag shall be installed on the underside of all new Manhole or Valve Box Cover.
3. Payment for the furnishing and installation of I.D. Tags will not be made directly but shall be included in the Unit Price Bids for Valves.

VALVE TYPE ABBREVIATIONS

Gate Valve ----- G.V.
Bevel Gear Gate Valve --- BGGV
Butterfly Valve ----- BV

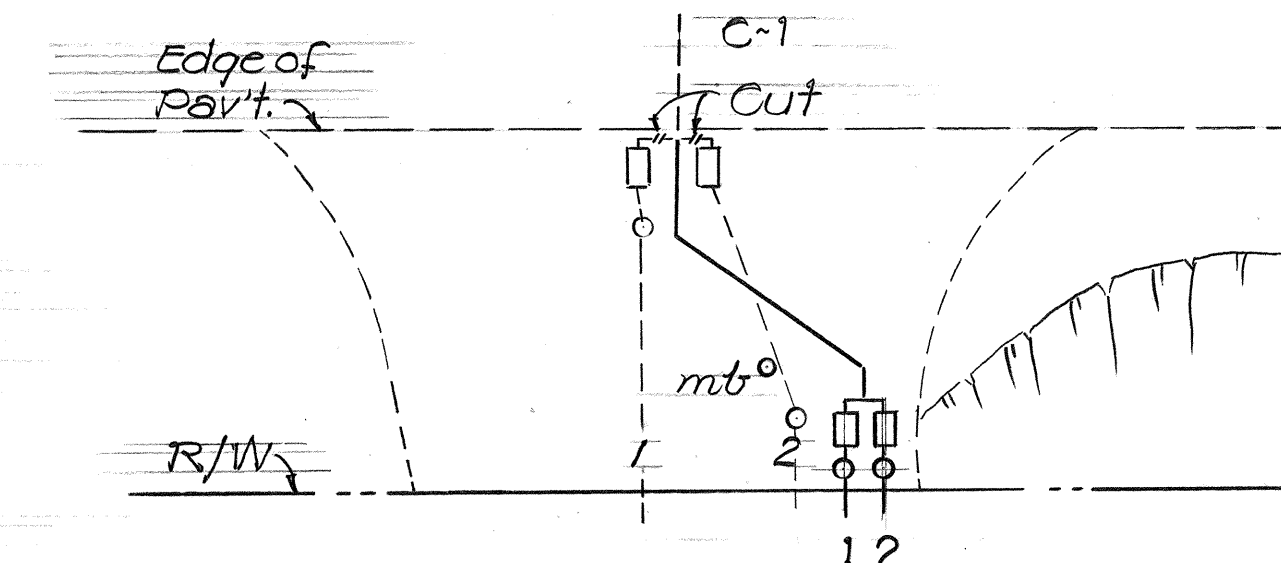


TYPICAL TAG



KAMEHAMEHA HWY. WATER METER RELOCATION @ STA. 454 + 05± LT.

Not to Scale



WATER METER RELOCATION @ STA. 458 + 00± RT.

Not to Scale

REAPPROVAL: Date Sept

Chief, Planning & Engineering, BWS

APPROVED:

Chief, Planning & Engineering, BWS DATE 6-2-83

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
LAND TRANSPORTATION FACILITIES DIVISION

WATER NOTES & DETAILS

KAMEHAMEHA HIGHWAY
SAFETY IMPROVEMENTS
KAALAEA RD. TO WAIHOLE VALLEY RD.
F.A. PROJ. NO. HES-ROS-083-1(12)

Scale: As Noted Date Oct. 1982

SHEET NO. OF SHEETS