

GENERAL NOTES

1. The scope of work for this project consists of constructing a drainage system along the inbound shoulder area of Farrington Highway. The work involves: excavating, installing culverts, and backfilling; constructing concrete gutters, storm drain manholes, grated inlets, and CRM outlet structures; restoring A.C. and concrete pavement structures.
2. The Contractor is reminded of the requirements of Subsection 108.01 - Subletting of Contract, which requires him to perform work amounting to not less than 50 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
3. The Contractor's attention is directed to the following Sections of the Special Provisions : Subsection 107.13 - Public Convenience and Safety; Subsection 107.21 - Contractor's Responsibility For Utility Property And Services; and Section 645 -Traffic Control.
4. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
5. The existence and location of underground utilities, manholes, monuments and structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
6. The exact locations and areas to be reconstructed shall be determined in the field by the Engineer.
7. The Contractor shall notify in writing, the Oahu Transit Services, Inc. Roads Supervision Office, 811 Middle St., Hon., HI 96819 (ph. #848-4571) seven (7) days prior to any paving operations.
8. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
9. The Contractor shall remove and dispose of all existing raised pavement markers prior to the overlaying of Asphalt Concrete. This work shall be considered incidental to Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately.
10. Smooth riding connections shall be constructed at all limits of reconstruction, including the connecting approaches and driveways as shown on the plans and/or as directed by the Engineer.
11. The Contractor shall provide for access to and from all existing driveways at all times.
12. All saw cutting work shall be considered incidental to Item 627.1000-Restoration of Existing Pavement.
13. An intersection improvement project along Farrington Highway at Maipalaoa Street will undergo construction simultaneously with this project. The improvement includes shoulder widening from Station 162+37± Rt. to 169+26± Rt. The Contractor shall coordinate work with the other Contractor.

ORIGINAL PLAN	DESIGNED BY	DATE
NOTE BOOK	DESIGNED BY	3/7/96
QUANTITIES BY	QUANTITIES BY	
CHECKED BY	CHECKED BY	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(15)	1996	3	12

LEGEND

	Reconstruction Areas		Existing Sewer Line
	Leveling Areas		New 12" Sewer Line
	Cold Planing Areas		Existing Sewer Manhole
	Resurfacing Limits		Adjusted Sewer MH Frame/Cover
	Existing Electrical Line		New Sewer Manhole
	New Electrical Line		Existing 6" Gas Line
	Existing Joint Pole		New 6" Gas Line
	Existing Power Pole		Existing Gas Valve Box
	Existing Electric Manhole		Adjusted Gas Valve Box
	Adjusted Elec. MH Frame/Cover		New Gas Valve Box
	New Electric Manhole		Existing Gas Manhole
	Existing Telephone Line		Adjusted Gas MH Frame/Cover
	New Telephone Line		New Gas Manhole
	Existing Telephone Pole		Existing Monument
	Existing Telephone Manhole		Adjusted Monument
	Adjusted Tele. MH Frame/Cover		New Monument
	New Telephone Manhole		Existing 24" Drain Line
	Existing Signal Corps Line		New 24 " RCP Drain Line
	New Signal Corps Line		Existing Storm Drain Manhole
	Existing TV Cable		Adjusted Storm Drain MH Frame/Cover
	New TV Cable		New Storm Drain Manhole
	Existing 12" Water Line		Existing Grated Drop Inlet
	New 12" Water Line		Existing Catch Basin
	Existing Water Manhole		Existing Traffic Sign
	Adjusted Water MH Frame/Cover		Existing Highway Lighting Standard
	New Water Manhole		
	Existing Water Air Valve		
	Adjusted Water Air Valve		
	New Water Air Valve		
	Existing Water Valve Box		
	Adjusted Water Valve Box		
	New Water Valve Box		
	Existing Water Meter		
	Adjusted Water Meter		
	New Water Meter		
	Existing Fire Hydrant		
	New Fire Hydrant		

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

GENERAL NOTES AND LEGEND

FARRINGTON HWY. DRAINAGE IMPROVEMENTS

Manuulaula St. to Maili Stream

Fed. Aid Proj. No. STP-093-1(15)

Date: Apr. 1996

SHEET No. 1 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(15)	1996	4	12

DRAINAGE NOTES

- Existing drainage systems will be functional at all times during construction. The Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to accomplish maintenance of flow. The cost shall be incidental to the various Contract Items.
- The Contractor shall verify the locations of all existing culverts and utilities in the field. Any existing culverts and utilities damaged during construction shall be repaired or replaced by the Contractor at his own expense.
- Demolishing, removing, and disposing existing concrete inlet structure and 24" culvert shall not be paid for separately, but shall be considered incidental to Item 206.2020 - Structure Excavation for Drainage System.
- Details of Type 611214P GDI shall be similar to Type 61614 GDI as shown on Standard Plan H-11. Top portion of the GDI structure shall conform to 611214P Frame and Grates. For Typical Details of Type 611214P Frame and Grates, see Plan Sheet No. 11.
- Installing 24" culvert near Station 162+10± Rt. will require removing and replacing existing metal guardrails and posts. The cost shall be incidental to the various Contract Items.
- For Typical Section of Trench Restoration and Gutter, Type 2(611214), see Plan Sheet No. 9.

WATER QUALITY CERTIFICATION

- The project requires an approved Water Quality Certification from the Department of Health.
- Best Management Practices shown in the Water Quality Certification application are suggested pollution control methods for the project. If the Contractor opts to revise the pollution control methods, the Contractor shall submit to the Engineer three (3) sets of revised control plans.
- Installation of structural water pollution controls shall be paid for on a force account basis according to Section 639 - Water Pollution Control.

HECO NOTES

Location of HECO Facilities

The location of HECO's overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines and shall maintain adequate clearance when operating equipment within or under any overhead lines.

Compliance with DOSH

The Contractor shall obtain an excavation permit from HECO's Mapping and Records Division located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction. Please refer to our request number at that time.

Underground Lines

For verification of underground lines or for assistance in supporting and protecting these lines, the Contractor shall call HECO's Underground Division at 543-7345 a minimum of 72 hours in advance.

Excavations

When trench excavation is adjacent to or beneath our existing structures or facilities, the Contractor is responsible for:

- Sheeting and bracing the excavation to prevent slides, cave-ins, and settlements.
- Protecting existing structures or facilities with beams, struts, or under-pinnings.

Pole Bracing

For pole bracing instructions, the Contractor shall call the HECO District Superintendent at (Koolau/261-6085, Wai'au/543-4223, Ward/543-7745) a minimum of 72 hours in advance.

Relocation of HECO Facilities

Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination, and for possible costs if applicable.

Temporary Relocation of HECO Facilities

Should it become necessary to temporarily relocate any of HECO facilities to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations, these temporary relocations will be done by HECO, or by the Contractor under HECO's supervision, with all costs borne by the Contractor.

Unforeseen Conflicts

Any unforeseen conflict that would result in the redesign or relocation (either temporary or permanent) of HECO's electrical facilities may be cause for lengthy delays. To avoid such delays, the Contractor must notify HECO of the conflict a minimum of 30 days prior to the start of construction.

Damage to HECO Facilities

Any damage to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 543-7874.

Liability for Damages to HECO Facilities

All HECO overhead and underground facilities shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities shall be borne by the Contractor. This repair work shall be done by HECO, or by the Contractor under HECO's supervision.

Indemnity

The Contractor shall indemnify, defend and hold harmless HECO from and against all losses, damages, claims and actions, all expenses incidental to such losses, damages, claims or action, based upon or arising out of damage to property of injuries to persons, or other tortious acts caused or contributed to by Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability upon the sole negligence of HECO.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED	DRAWN BY A. Nomura	3/7/96
DESIGNED BY C. Matsuda		
QUANTITIES BY		
CHECKED BY		

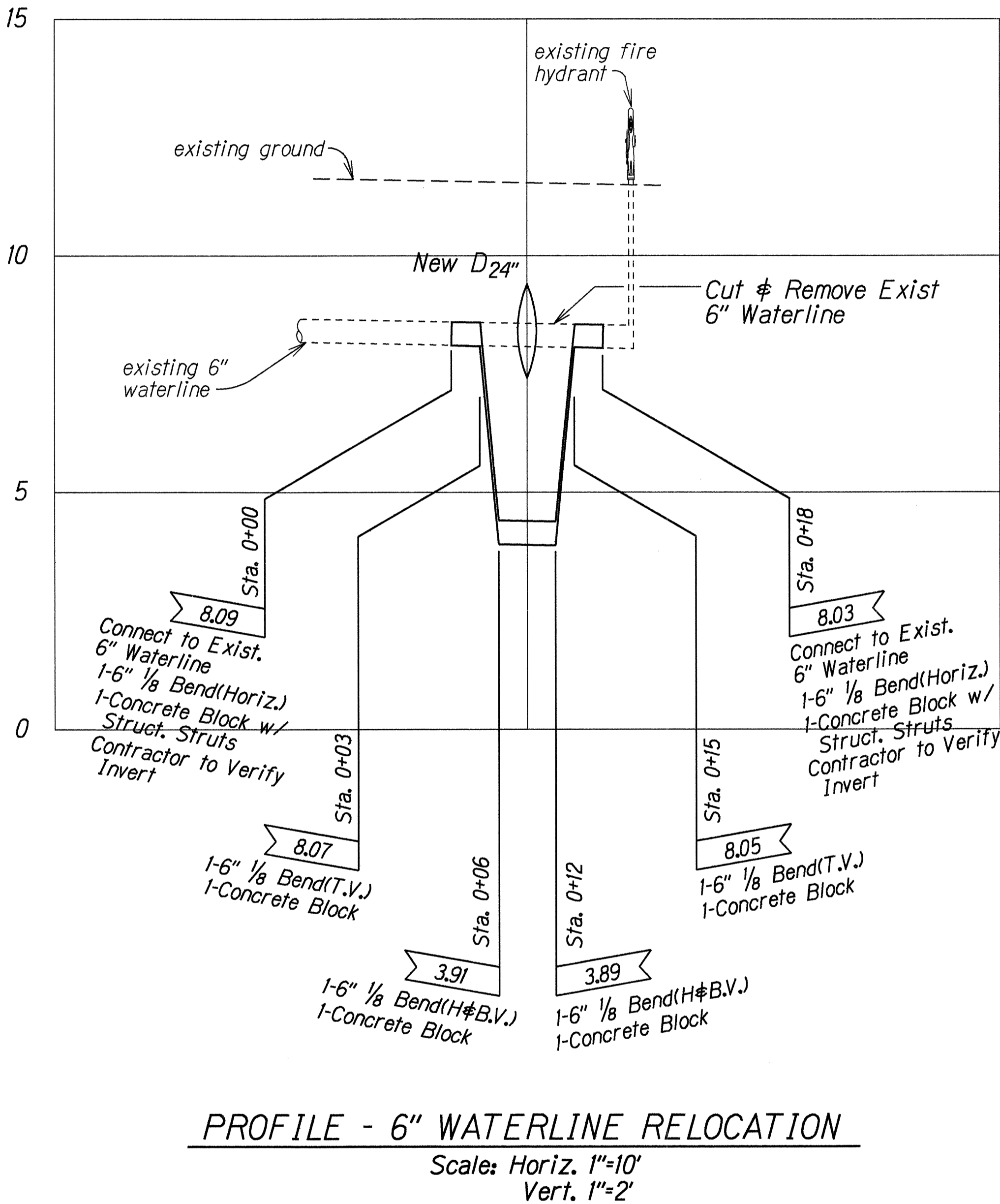
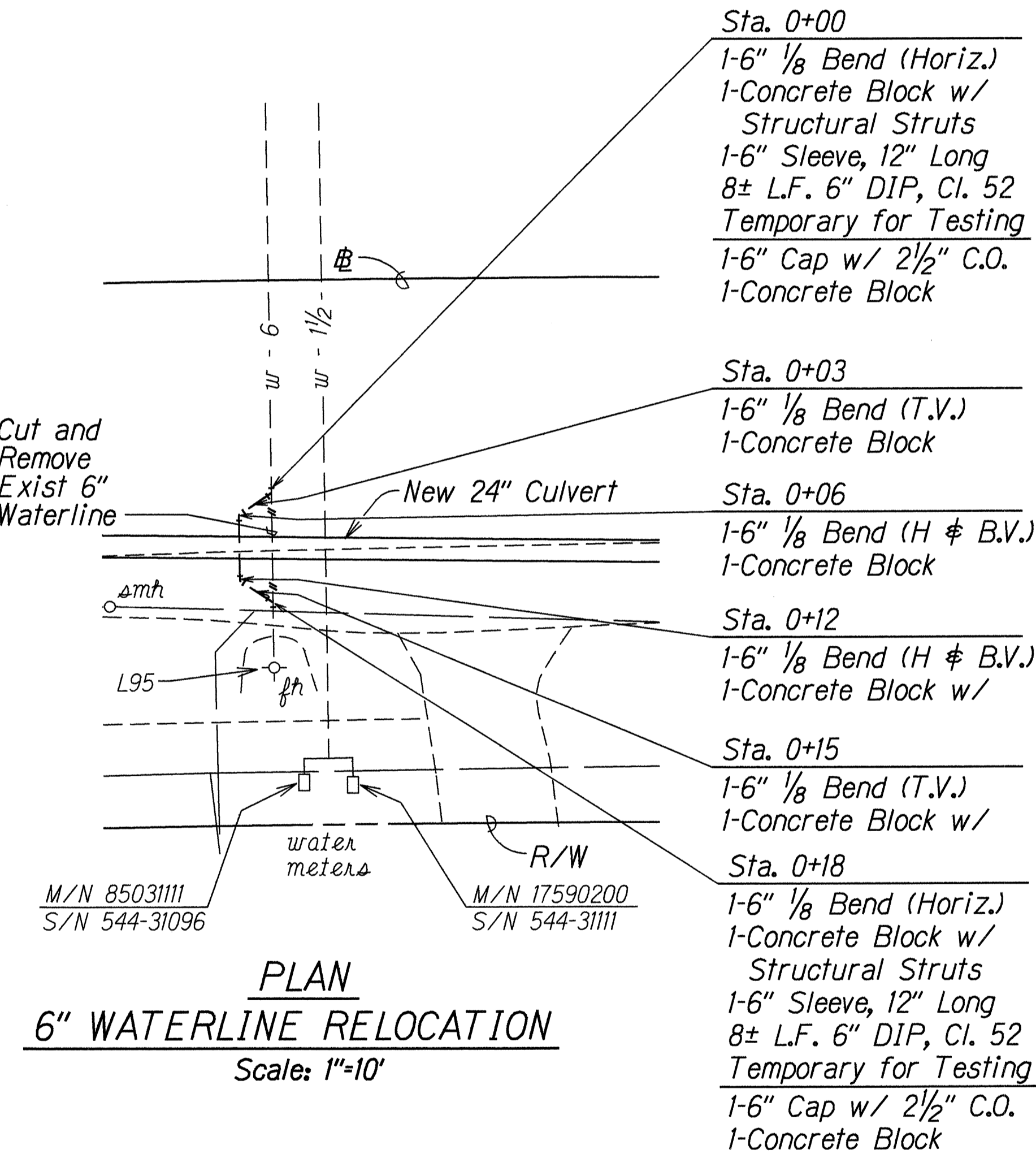
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>GENERAL NOTES</b>
FARRINGTON HWY. DRAINAGE IMPROVEMENTS
Manuulaula St. to Maili Stream
Fed. Aid Proj. No. STP-093-1(15)
Date: Apr. 1996

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(15)	1996	5	12

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, BRIDGE, AND PUBLIC WORKS CONSTRUCTION", dated 1994, as amended, of the Hawaii Department of Transportation, Highways Division, and the City and County of Honolulu, Department of Public Works; the City and County of Honolulu Board of Water Supply's "WATER SYSTEM STANDARDS" VOLUME 1, dated 1985, the "APPROVED MATERIAL LIST AND STANDARD DETAILS FOR WATER SYSTEM CONSTRUCTION", VOLUME 2, dated 1985; the "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS", VOLUME 3, dated 1991, and all subsequent amendments and additions.
2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system, such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.
3. The Contractor shall notify BWS Planning and Engineering Division, Construction Section, one week prior to commencing work on the water system.
4. 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 of encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exists.
5. Prior to installation, the Contractor shall submit for approval by Board of Water Supply, the manufacturer's certification that all cast iron (gray or ductile) fittings for the project conform in all respects to the Water System Standards, dated 1985.
6. Polygon shape for mechanical joint glands as described in AWWA Standard C111 shall be "straight-sided" or an approved equal on a job to job basis.
7. Re-approval shall be required if this project is not under construction within a period of two years.
8. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends whenever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction methods.
9. The Contractor shall verify all existing service lateral locations whether shown or not shown on plans prior to commencing with any of the work and shall not assume that where no services are shown none exist.
10. Any adjustments to the existing water system 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.

11. Maintain 3'-0" minimum cover for all existing waterlines (18" minimum for service laterals) from new finish grade. The Contractor shall probe the waterline and service laterals and submit the probing data to BWS Construction Section. Any adjustments to the existing water system to meet the minimum cover and the requirements of the BWS standards, whether shown on plans or not, shall be done by the Contractor at no cost to Board.



ORIGINAL PLAN	DATE
DRAWN BY A. Nomura	4/23/96
DESIGNED BY C. Malsuda	
CHECKED BY	
APPROVED BY	

APPROVED:  
  
Chief, Planning & Engineering, BWS  
5/21/96  
Date

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**WATER DETAILS**

FARRINGTON HWY. DRAINAGE IMPROVEMENTS  
Manuulaula St. to Maili Stream  
Fed. Aid Proj. No. STP-093-1(15)

Date: Apr. 1996

SHEET No. 1 OF 1 SHEETS