FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-H-03-04M	2005	2	32

GENERAL NOTES

1. The project includes demolition and disposal of structures containing lead based paint; installation of a covered mobile office, storage container and work patio; providing temporary utilities to a state furnished office trailer; removal and disposal of lead based paint at the gas pump island; site grading; leach field; asphalt paving for driveway and accessible parking and electrical and water system upgrade.
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 30 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.
4. The Contractor shall notify the State in writing, two (2) weeks prior to starting construction.
5. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of baseyard traffic.
6. The existence and location of underground utilities 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 the 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.
7. Smooth riding connections shall be constructed at all connections to existing pavement.
8. Existing drainage system will be functional at all times during construction Contractor is to furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.
9. Contractor shall provide for access to and from existing equipment at all times.
10. All saw cutting work shall be considered incidental to Item No. 401.1000- Concrete Pavement, Mix No. IV and will not be paid for separately.
11. Work hours shall be from 7:00 a.m. to 3:30 p.m. Monday thru Friday, except for holidays.
12. The Contractor shall coordinate their construction schedule and security and access responsibilities with baseyard personnel. The Contractor shall contact the State Department of Transportation, Highways Division at 808-933-8866. Baseyard to remain operational at all times.
13. The Contractor shall comply with ADAAG 4.1.1(3), 4.1.1.(4) and 4.3 as per HRS 103-50.
14. The Contractor at his own expense, shall keep the project area and surrounding area from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards and Regulations of the State Department of Health.
15. The Contractor shall be solely responsible for the protection of adjacent properties, utilities, and existing structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense and to the satisfaction of the Engineer.

GENERAL NOTES (CON'T)

16 All work specified in the contract, but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.

17. In the event any artifacts or human remains are uncovered during construction operations, the Contractor shall immediately suspend work and notify the Honolulu Police Department, and the State Department of Land and Natural Resources, Historic Preservation Division (692-8015).
18. Fuel pumps shall remain operational during construction. One week down time for lead-paint removal and one week for electrical upgrades will be allowed.

SEPTIC TANK INSTALLATION NOTES:

1. Where not otherwise specified, the construction of the septic tank shall conform to the Hawaii Administration Rules, Chapter 62, wastewater system.
2. Excavation: pit shall be excavated to provide a minimum 12 inches (maximum 18 inches) side wall clearance around tank wall, minimum 12 inch thickness level tank bedding, and approximately 12 inch (min) Backfill over tank. The area shall be clear of sharp rocks and foreign objects. Excavate sewerlines and soil absorption bed To lines and grades shown on the plan.
3. Tank bedding: the bedding and backfill material must provide a Reaction modulus of 3000. Backfill bottom of excavation with 1/8" to 1/2" gravel or crushed rock (pea gravel preferred) in 6 inch lifts. Compact backfill material to 95% standard proctor density to provide minimum 12 inch thick level bedding for tank. Check bedding elevation so invert of inlet and outlet stubs will be at the proper elevation when tank is placed on the bedding.
4. Tank placement: use manufacturer's recommendation or a lifting sling or cable fastened to the lifting lugs or wrapped around The tank to lift and set the tank. Do not lift tank by the inlet or outlet stubs. Align and level tank, so invert of the inlet and outlet stubs are at the elevations shown on the plan.
5. Initial backfill and filling of water: place same material as bedding or backfill. Backfill uniformly around the sides of the tank in 6 inch lifts compacted to 95% of standard proctor density. Backfill under the haunches of the tank and distribute to provide uniform support without voids. Introduce water into the tank while backfilling. The water level in the tank should not exceed 2 feet above the fill material and per manufacturer's recommendations. Conduct water tests after the backfill support has been placed under the tank and to at least to the spring line Of the tank.
6. Septic tank water tightness test: fill tank with water, observe septic Tank for 48 hours making sure there is no presence of leaks or change in liquid level. The septic tank must be repaired if necessary.
7. Finish backfill: upon approval of connection work and notification By engineer to proceed with finish backfill, backfill uniformly Around remaining sides of the tank in 6 inch lifts compacted To 95% of standard proctor density to a minimum of 6 inches above the tank. Compact area around inlet and outlet with care to avoid settling or misaligning the pipes. Complete the backfilling operation using excavated or imported soil after the tank has been covered to a 6 inch depth with select backfill. Remove stones greater than 2 inches in dimension from the soil material. Hand tamp to grade or slightly higher. Use top of manhole cover as finish grade.

ABSORPTION BED (LEACHING FIELD) & SEWER SYSTEM INSTALLATION:

1. Where not otherwise specified, the construction of the absorption bed shall conform to chapter 62, wastewater rules and regulations, section 11-62-34, state of hawaii.
2. Bed excavation: excavate bed neatly to line and grade shown on plans. Waste unusable excavated material as directed by the engineer.
3. Contractor to conduct percolation test/capacity test to verify the absorption bed soil infiltration rate. Contractor shall notify the engineer of the testing. The soil infiltration rate must be acceptable to the engineer and department of health. Percolation/capacity test consists of introducing/pumping water in the excavated bed at 100-150 gallons per minute until the daily flow volume of approximately 200 gallons is reached.
4. Aggregate backfill and drainage unit: backfill excavated bed with #4 rock up to 12 inch below infiltration units. Place rock in 12 inch (max.) lifts and back blade each layer to compact lightly. Install line from distribution box to infiltrator units. Install infiltrator units following manufacturer's instructions. Upon approval of drain line installation by the department of health and engineer. Place #4 coarse crushed rock (1-1/2" to 3/4") backfill between and to the top of infiltrator units. "walk-on" fill into place to give proper support to sides.
5. Hydraulic testing: conduct hydraulic testing of septic system after septic tank, piping and infiltrator units installation and before installation of finish backfill. Clean water shall be introduced in the drain pipe from the septic tank for a minimum of two hours to verify the septic system performance and that the water is equally distributed in the absorption field.
6. Finish backfill: place native soil from the bed excavation or import soil over fabric filter to 6 inches below finish grade. Remove stones greater than 2 inches in dimension from the soil material. Hand tamp to finish grade.
7. Rope off area to avoid construction traffic on system before final completion and after construction.

ORIGINAL PLAN
NOTE BOOK
No.
SURVEY PLOTTED BY
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY
DATE

CHAD M. MCDONALD
LICENSED PROFESSIONAL ENGINEER
No. 9793-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION

MITSUNAGA & ASSOCIATES

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

NORTH KONA BASEYARD RENOVATIONS
REMOVE LEAD PAINT AND
UPGRADE ELECTRICAL
Project No. HWY-H-03-04M

Scale: As Noted Date: April 2005

SHEET No. **T-2** OF **T-2** SHEETS