GENERAL NOTES:

- The scope of this project includes construction of new pedestrian ramps and sidewalks; demolition and reconstruction of existing sidewalks; removing and installing of signs; removal and installation of pavement markers for parking and traffic control; installation of handrails; relocation of utilities; adjusting drainage facilities; installing GRP; adjusting water valves and water meter boxes; and grassing.
- 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; and Section 645 -Traffic Control.
- 4. The Contractor shall verify the locations of all existing valve boxes, utility manholes, drainage gratings, centerline monuments, etc. and shall raise them to meet new pavement or sidewalk grade.
- 5. All construction shall be performed in accordance with the Standard Specifications for Road, Bridge, and Public Works Construction dated 1994 unless otherwise specified on the plans and specifications.
- 6. Existing pavement shall be cleaned and shall receive a tack coat of 0.15 gallon per square yard of emulsified asphalt (SS-1) before placing A.C. Pavement. The cost of the tack coat shall be incidental to the A.C. Pavement.
- 7. The Contractor shall provide smooth—riding connection to existing streets, sidewalks and driveways as directed by the Engineer. This work shall be considered incidental to the various contract items.
- 8. The Contractor shall keep at least one lane open to traffic at all times between 8:30 am and 3:00 p.m.. Both lane shall be kept open to traffic during other hours.
- 9. Any sidewalks, curb ramps, pavement, pavement markings, structures, signs, and other appurtenances damaged by the Contractor as a result of construction shall be restored to its original, or better condition.
- 10. No encroachment will be allowed within the 36 inch minimum accessible route.
- 11. Dressing of shoulder and adjacent slopes shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable excavated material as shown on the plans and/or as directed by the Engineer. The work shall be considered incidental to the Section 608 -Sidewalk.
- 12. Contractor shall provide and maintain for access to and from all existing driveways, sidewalk and ADA access routes, and side streets and cross streets at all times. This work shall be considered incidental to the variuos contract items and will not be paid for separately.
- 13. All saw cutting work must be cleaned while wet and shall be considered incidental to Section 650 — Curbramps and will not be paid for separately. Saw cutting limits to be determined in the field by the Engineer.
- Unprotected pavement dropoffs shall not be allowed during non-working hours, except where approved by the Engineer in writing. Suitable excavated material shall be used as directed by the Engineer for item #9 work.
- Public notices are required for lane closures. Contractor shall submit notice to the Engineer for approval a minimum of six weeks to publication. Pre-approval of notices, with dates left blank, is permissible.

GENERAL NOTES: (CONT'D.)

- 16. Contractor shall maintain at least one shoulder free and clear of debris for pedestrians at all times.
- 17. Confined Space

For Entry By County Personnel, Including Inspectors, Into A Permit Required Confined Space As Defined In 29 CFR Part 1910.146(b), The Contractor Shall Be Responsible For Providina:

- All Safety Equipment Required By The Confined Space Regulations Applicable To All Parties Other Than The Construction Industry, To Include, But Not Limited To, The Following:
 - a. Full Body Harness For Up To Two (2) Personnel
 - b. Lifeline And Associated Clips
 - c. Ingress/Egress And Fall Protection Equipment
 - d. Two-Way Radios (Walkie-Talkies) If Out of Line-Of-Sight
 - e. Emergency (Escape) Respirator (10 Minute Duration)
 - Cellular Telephone To Call Emergency Assistance
 - g. Continuous Gas Detector (Calibrated) To Measure Oxygen Hydrogen Sulfide, Carbon Monoxide And Flammables (Capable of Monitoring At A Distance At least 20-Feet Away)
 - h. Personal Multi-Gas Detector To Be Clarified By Inspector
- Continuous Forced Air Ventilation Adequate To Provide Safe Entry
- III. One Attendant/Rescue Personnel Topside (Two, If Conditions Warrant It)
- 18. In the event any artifacts or human remains are uncovered, all work shall cease in the immediate area and the DLNR, Historic Preservation Division (933-0482) shall be notified. No work shall resume until clearance has been obtained from Historic Preservation Division.
- 19. Non-compliance to any of the requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. Violators shall be subject to administrative, civil and/or criminal penalties.
- 20. 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.
- 21. The existence and location of underground utilities, manholes, monuments, Buried railroad tracks, and concrete pavements, and other structures as shown on the plans are from the latest available data but the accuracy is not guaranteed. The Contractor shall make an independent check on the ground by probing and/or with the various utility companies and governmental agencies to verify the exact locations and depths of the existing utilities and obstructions. The Contractor shall exercise proper care in excavating in the area. Whenever connections of new utilities to existing utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connection to verify their location and depth prior to excavating for the new lines. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.

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ABBREVIATIONS

Asplalt Comcrete American's with Disabilities Act

Bottom Curb

Bottom Wall Bench Mark

Board of Water Supply Cable Television Company

Catch Basin Conc Concrete

Conrete Rubble Masonry Detail

Drain Inlet

Department of Water Supply Elevation

Edge of Pavement, Electrical Pole

Exist Existing

Fire Hydrant Hawaiian Electric Comapny **HELCO**

Hawaii Electric and Light Comapny Inter Intersection Linear Feet

Manhole Maximum Minimum Monument

Pavt Pavement Point of Intersection Pedestrian Pushbutton

Pedestrian Signal Light Right of Way

Reflectorized Pavement Marker

Schedule Sheet Street Light Station Standard Std

Sidewalk Top of Curb Telephone Tax Map Key

Traffic Signal Light Traffic Signal Light Pole Traffic Signal Box

Traffic Signal Pole Traffic Signal Standard Top of Wall

Typical with Water Meter Water manhole

Water Valve Welded Wire Fabric

PROFESSIONAL ENGINEER No. 4739-C

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

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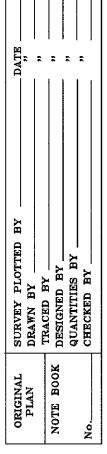
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

<u>NOTES - 1</u>

Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii Federal Aid Project No. CMAQ-0100 (66)

Scale: None

Date: August 2004 SHEET No. G-2 OF 12 SHEETS



GENERAL NOTES (CONT'D.)

- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- Existing drainage system will be functional at all times during construction. The Contractor is to furnish material, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to various contract items.
- Temporary bench marks indicated on the plans may fall within the new curb ramps. The Contractor shall establish new temporary benchmarks, under the supervision of a licensed surveyor, outside the limits of the new work. This work shall be considered incidental to Section 650 — Curb Ramps.
- The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing structures from the damages due to construction. Repairing of any damage shall be at the Contractor's own expense, to the satisfaction of the owner.
- The Contractor shall clean and remove all accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental too the various contract items and will not be paid for separately.
- Removal and disposal of existing curb and gutter, curb, sidewalk and asphalt concrete pavement, curb, sidewalk and any debris shall be considered incidental to Section 650 — Curb Ramps and will not be paid for separately.
- All curb angle points within the curb ramps shall be rounded with R=6".
- The Contractor shall provide and maintain a temporary pedestrian—safe and easily accessible route or detour with barricades in or near the work zone. This temporary route or detour shall be stable, firm and slip—resistant and shall be American With Disabilities Act compliant (This only applies if existing surface in non-ADA compliant). This work shall be incidental to all contract items and will not be paid for separately.
- The Contractor shall remove and dispose of all existing raised pavement marker, thermo line markings, traffic tapes, and epoxy adhesives prior to the overlaying of Asphalt Concrete Pavement, Mix No. IV and will not be paid for separately. These work items shall be considered incidental to Section 650 — Curb Ramps.
- No material and/or equipment shall be stockpiled or otherwise stored within the highway right—of—way except at locations designated in writing and approved by the Engineer. If use of a location is approved by the Engineer, the Contractor shall obtain a permit to use the property within the highway right-of-way from the State Highways Right-Of-Way branch at telephone no. (808)692-7332.

GENERAL NOTES (CONT'D.)

- After the project is completed, the Contractor shall restore grades and ground cover disturbed as a result of the project to a condition equal or better than existing before such damage or injury was done.
- Existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required by the Contract Documents or for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense with the approval of the affected utility company.
- The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.
- Construction outside the Hawaii Department of Transportation (HDOT) right-of-way and State acquired parcels are subject to approval by HDOT and the affected owner.
- All construction work shall be done in accordance with the standards and specifications of the HDOT as amended, unless otherwise specified by the contract plans and specifications.
- 37. No Contractor shall perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing City drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.
- 38. Bench mark and elev. are indicated on each sheet.
- 39. The Contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
- The Contractor shall hire a professional surveyor with a current license to practice in the State of Hawaii to establish and verify boundary lines.
- Contractor shall notify the State construction inspector before commencement of work on any site with trees in close proximity $(20'\pm)$.
- Contractor shall comply with conditions as stated in the project NPDES Notice of General Permit Coverage (NGPC).
- The Contractor must notify the Cadastral Section prior to removal of any State Survey Monument (Brass Disk) so that Cadastral can reference the monument prior to demolition of the existing monument. The Contractor shall bear all costs involved in restoring the State Survey Monuments which are affected by their
- The Contractor shall be responsible for the protection of all HELCO surface and subsurface utilities and shall be responsible for any damages to HELCO's facilities as a result of his operations. The Contractor shall immediately report such damages to HELCO's trouble dispatcher at 969-6666 for Hilo-Puna-Kau District, 329—3584 for Kona District and 885—4605 for Kamuela District. Repair work shall be done by HELCO or by the Contractor under HELCO's supervision. Costs for damages to HELCO's facilities shall be borne by the Contractor.

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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

<u>NOTES - 2</u>

Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii Federal Aid Project No. CMAQ-0100 (66)

Scale: None

SHEET No. G-3 OF 12 SHEETS

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DESIGNED BY
QUANTITIES BY
CHECKED BY

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY

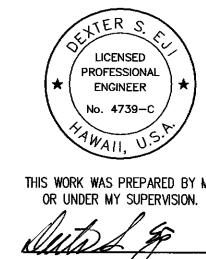
- The Ccontractor shall obtain a Permit to Perform Work upon State Highway from the Hawaii District, State Highways, prior to commencement of Work within the State highway right-of-way.
- Construction and restoration of all existing highway facilities within State right—of—way shall be done in accordance with all applicable sections of the 1994 Standard Specifications for Road, Bridges and Public Works Construction, and the Specifications for Installation of Miscellaneous Improvements within State Highways of the State Highways Division.
- Work may be performed only between the hours of 8:00 a.m. and 3:30 p.m., Monday through Friday, except holidays, unless otherwise permitted by the Engineer.
- The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities, and shall take necessary precautions for the protection, convenience, and safety of public traffic. All such protective facilities and precautions to be taken shall conform with the "Administrative Rules of Hawaii Governing the Use of Traffic Control Devices at Work Sites on or Adjacent to Public Streets and Highways". Adopted by the Director of Transportation, and the 2000 edition of the U.S. Federal Highway Administration "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI — Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations" and NCHRP 350.
- The Contractor shall be required to provide adequate, safe, non—skip bridging material over any trench, including shoring, when trenching in pavement areas to handle all types of vehicular traffic. The use of steel plates shall not be used in the freeway travelway.
- No trench shall be open more than 200 feet in advance of the installed and tested pipe and/or ductline. No jumps or spaces will be permitted unless approved in writing by the Engineer.
- Longitude drainage along the highway shall be maintained, at all times to allow free
- All regulatory, guide and construction signs and barricades shall be high intensity reflective sheering.
- Stop work and contact the State Historic Site Office, at 587-0014 immediately should any unidentified archaeological site or remains (such artifacts, shells, bones, charcoal deposits, road or coral alignments, paving or walls) been encountered during construction.
- The Contractor shall inform the State Permit Office at 831–6712 at least five (5) working days prior to any lane closures or changes to lane closures.

All signs, pavement markings, striping, etc. removed or damaged by the Contractor shall be replaced by the by the Contractor at no additional cost to the State.

CATV NOTES:

- The Contractor shall procure and pay for all licenses and permit and shall give all necessary and incident to the due and lawfull prosecution of the work.
- The Contractor shall take necessary precaution not to damage existing cables or ducts. Any work involving existing cables or ducts shall be done in the presence of the Time Warner Oceanic Cable Company inspector or his representative.
- The Contractor shall notify the Time Warner Oceanic Cable Company inspector 48 hours prior to start of pullbox adjustments.
- Contractor shall provide all materials and furnish all labor and equipment necessary to re—adjust the pullbox.
- The location of CATV facilities shown on plans are from existing records with varying degrees of accuracy as to its actual fixed location. The Contractor shall use extreme caution when working in close proximity of CATV.
- Any work required to relocate CATV facilities shall be done by Time Warner Oceanic Cable and the Contractor shall be responsible for all coordination requirements and associated costs.
- Any damage to Time Warner Oceanic's facilities shall be reported to OCI's Repair Dispatch Department at 961-0443 for Hilo or 329-2418 for Kona.
- At no time shall cement mortar, wood, or any other material be used between precast sections. Leveling or raising of boxes to grade must be done at brickwork section using cement mortar. The permanent installation of wooden wedges to accomplish this purpose will not be accepted.
- Trenching to be by hand digging near and across existing utility lines.
- 10. For underground cable locating and marking, five working days advance notice is required. Three working days advance notice is required for any inspection by a designate representative. Contractor shall take necessary precaution not to damage any existing cables or ducts. Oceanic's inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain Time Warner Oceanic

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DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

NOTES -3

Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii Federal Aid Project No. CMAQ-0100 (66) Scale: None Date: August 2004

SHEET No. G-4 OF 12 SHEETS

THIS WORK WAS PREPARED BY ME

SEWER NOTES

- 1. The underground pipes, cables or ductlines known to exist by the engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities including and affecting sewer lines, in the presence of the wastewater inspector, and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.
- 2. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- 3. The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notifications and press releases.
- 4. Adjust all utility valve box frames and covers, water meter boxes, manhole frames and covers, etc., to new finish grade. Coordinate with private companies and County agencies for work on each respective utility.
- 5. For sewer manhole adjustments upward less than 3", see Std. Detail S-25. For smh adjustments upward greater 3" or for any adjustments downward reconstruct smh top from below the cone section.

Confined space

- 6. For entry by County personnel, including inspectors, into a permit required confined space as defined in 29 CFR part 1910.146(b), the Contractor shall be responsible for providing:
 - A. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
 - 1. Full body harnesses for up to two personnel.
 - 2. Lifeline and associated clips.
 - 3. Ingress/egress and fall protection equipment.
 - 4. Two-way radios (walkie-talkies) if out of line-of-sight.
 - 5. Emergency (escape) respirator (10 minute duration).
 - 6. Cellular telephone to call for emergency assistance.
 - 7. Continuous gas detector (calibrated) to measure 02, H2S, CO and flammables (capable of monitoring at a distance at least 20 feet away).
 - 8. Personal multi-gas detector to be carried by inspector.
 - B. Continuous forced air ventilation adequate to provide safe entry conditions.
 - C. One attendant/rescue personnel topside (two, if conditions warrant it).

VERIZON HAWAII GENERAL CONSTRUCTION/DESIGN NOTES

- 1. The Contractor shall procure and pay for all licenses and permits and shall give all notices necessary and incident to the due and lawful prosecution of the work.
- 2. The Contractor shall obtain an toning request from Verizon Hawaii, call 933-6488 30 days prior to the start construction. Hours of business are 7:00 a.m. to 3:30 p.m. Monday through Friday, except holidays.
- 3. Prior to the excavation of the ductline, the Contractor shall request Verizon Hawaii to locate existing ductline wherever required. For underground cable locating and marking, five (5) days advance notice is required. Three (3) working days advance notice is required for any inspection by a designated representative.
- 4. The locations of existing utilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of Verizon Hawaii facilities. The Contractor shall verify their locations and shall be liable for any damages to Verizon Hawaii facilities. Any damages shall be reported immediately to Verizon Hawaii's repair section at #611 (24 hours) or for Hilo to Naalehu call Eric Tiffany at 933–6561 and for Kona to Kamuela call Wallace Wong at 887–6277 (normal working hours, Monday through Friday, except holiday). As a result of his operations, adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.
- 5. The Contractor shall take necessary precaution not to damage existing cables or ducts. A Verizon Hawaii inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain Verizon Hawaii facilities. Temporary cable and duct supports shall be provided wherever necessary.
- 6. The Contractor shall notify Verizon Hawaii's inspector Samuel Kamakau at 329-4756 or designated representative a minimum of 72 hours prior to excavation, bracing, or backfilling of Verizon Hawaii's structures or facilities.

All applicable construction work shall be done in accordance with the "Verizon Hawaii Standard Specifications for Placing Underground Telephone Systems", dated March 1999. All subsequent amendments and additions, and all other pertinent standards

- 7. for telephone construction. Contractor shall familiarize his personnel by obtaining applicable specifications.
- B. When excavation is adjacent to or beneath Verizon Hawaii's existing structures or facilities, the Contractor shall:
- A. Sheet and/or brace the excavation to prevent slides, cave—ins, or settlements to ensure no movement to Verizon Hawaii's structures or facilities.
- B. Protect existing structures and/or facilities with beams, struts, or underpinning while excavating beneath them to ensure no movement to Verizon Hawaii's structures or facilities.
- 9. The underground pipes, cables, or ductlines known to exist by the engineer from his search and records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area.
- O. The Contractor, at his own expense, shall keep the project and surrounding area free from dust nuisance. The cost for supplementary measures, which will be required by the County, shall be borne by the Contractor.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

NOTES - 4

<u>Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii</u> <u>Federal Aid Project No. CMAQ-0100 (66)</u>

SHEET No. G-

SHEET No. G-5 OF 12 SHEETS

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MECHANICAL / ELECTRICAL DIVISION NOTES

- The Contractor shall notify the Traffic Division, Department of Public Works, three (3) working days prior to commencing work on the street light system.
- 2. The street lighting system shall be kept operational during construction. Any relocation required shall be approved by the Traffic Division, Department of Public Works and paid for by the Contractor.
- 3. The locations of the existing underground street light facilities shown on the plans are from existing plans and are approximate only. The Contractor shall exercise caution when construction crosses or is in close proximity to the existing street light facilities. The Contractor shall be responsible for any damages to the existing street light facilities. Any and all damages to These facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the Traffic Division, Department of Public Works.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) REQUIREMENTS

- The Contractor shall obtain and comply with the National Pollutant Discharge Elimination System (NPDES) requirements for Hawaii District permit projects. Due to potential cost impacts, the Contractor needs to be aware of these requirements.
- 2. The contractor shall complete and submit a contractor's certification of NPDES compliance, including completion of the best management practice (BMP) checklist and submittal of a written BMP plan and drawings, prior to issuance of the permit to perform work upon State highways.

FREE SERVICE FOR LOCATING UNDERGROUND UTILITIES

A free service is available to Contractors for locating underground utilities. Service is provided by Underground Service Alert North, at toll free telephone no. 1-800-227-2600. Call Underground Service Alert North at least two days prior to the start of any excavation work.

PAVING AROUND MANHOLES

- 1. The Contractor shall place hot asphalt concrete around manholes and compact properly with a vibrating plate compactor.
- 2. If a plate compactor is not used, the Contractor shall use a pneumatic roller to roll the area around the manhole which is not rolled by the steel roller.
- 3. The Contractor shall fog seal or brush emulsion seal on the material placed as backfill on the area around the manhole that was not compacted by the roller. Black sand shall be used to blot out the area if the fog is too heavy.

GAS COMPANY NOTES

- The Gas Company gas pipelines in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.
- 2. Since gas line locations on field maps are approximate, the Contractor, shall call USA North a minimum of two (2) working days before starting excavation to arrange for field location of the existing gas pipelines. The telephone number is 1-800-227-2600.
- The Contractor shall excavate and backfill around gas pipelines in the presence of a representative of The Gas Company. All backfill within six inches of any gas pipeline shall be select cushion material approved by The Gas Company.
- 4. For relocation of any gas pipeline, the Contractor shall notify. The Gas Company five (5) working days before starting work. The telephone number is 935-0021. The Contractor shall provide the necessary excavation and backfill, obtain traffic permits, and restore pavement, sidewalks, and other facilities. Any relocation of gas facilities shall be done by The Gas Company and paid for by the Contractor.
- 5. The Contractor shall notify The Gas Company immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. The telephone number is 935-0021, 24 hours a day. The Contractor shall be liable for any damage to The Gas Company facilities. Repair work on such damage shall be done by The Gas Company with payment for this work to be borne by the Contractor.
- 6. Minimum vertical and horizontal clearance between the gas pipelines and other pipelines, conduits, ductlines, or other facilities shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by The Gas Company.
- 7. The Contractor shall work in an expeditious manner in order to keep the uncovered gas pipelines exposed for as short a period of time as possible.

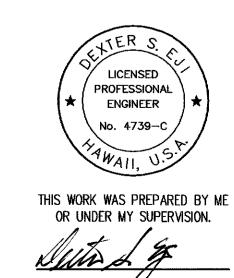
TRAFFIC SIGNAL AND TECHNOLOGY DIVISION NOTES:

- The Contractor shall notify the State of Hawaii, Department of Transportation, Highways Division, three (3) working days prior to commencing work on the traffic signal system.
- The traffic signal system shall be kept operational during construction. relocation required shall be approved by the Traffic Signal and Technology Division, Department of Transportation Services, and paid for by the Contractor.
- The Contractor shall be responsible for any damages to the existing traffic signal facilities, including the traffic signal interconnect system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the State of Hawaii, Department of Transportation, Highways Division.
- The Ccontractor shall be responsible for any damages to the existing traffic signal fiber optic cable system. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the State of Hawaii, Department of Transportation, Highways Division.

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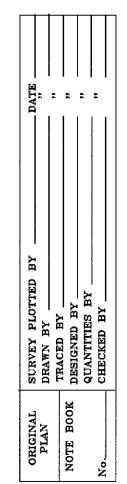
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

<u>NOTES - 5</u>

Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii Federal Aid Project No. CMAQ-0100 (66)

Scale: None

Date: August 2004 SHEET No. G-6 OF 12 SHEETS



CONSTRUCTION NOTES:

- The Engineer reserves the right to make changes to the drainage system as such changes are found to be neccessary as the land is cleared and erosion control construction progresses.
- 2. The Contractor shall conduct all tests as requested by the Engineer and be responsible for all expenses incurred in conducting these tests.
- 3. The Contractor shall verify the location of all existing utilities, whether shown on the plan or not, and shall be responsible for the repair or replacement of same in the event of damages due to his contraction practices. The Contractor shall coordinate his work with respective utility companies. The Contractor shall notify the Engineer of any proposed adjustments or other discrepancy with the plans.
- 4. The Contractor shall provide and install all traffic control devices in conformance with the "Manual on Uniform Traffic Control Devices for Streets and Highways", and to the satisfaction of the Engineer.
- 5. All work called for on the plans and not itemized in the proposal and all work not called for but required for the construction of this Project, shall be considered incidental.
- 6. All ties are to the top of curbs and sidewalks.
- 7. When removing portion of existing sidewalk, the Contractor shall sawcut at existing score lines.

PUBLIC HEALTH SAFETY AND CONVENIENT NOTES:

- 1. Contractor shall observe and comply with all federal, state, and local laws required for the protection of public health, safety and environmental quality.
- 2. The Contractor at his/her expense, shall keep the project area and surrounding area free from rubbish, dust, noise, erosion, etc. The work shall be done in conformance with the Air and Water Pollution Control Standards and Regulations of the State Department of Health.
- 3. No Contractor shall perform any construction operation so as to cause falling rocks, silt or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violation occur, the Contractor shall immediately make all remedial actions as necessary.
- 4. The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities and shall take all necessary precautions for the protection, convenience and safety of the public.
- 5. The Contractor's attention is directed to Chapter 46, Public Health Regulations, Department of Health, State of Hawaii, "Community Noise Control", in which maximum permissible noise levels have been set. If the construction work requires a permit from the Director of Health, the Contractor shall obtain a copy of Chapter 46 and become familiar with the noise level restrictions and the procedures for obtaining a permit for the construction activities. Application and information on variances are available from the Environmental Protection and Health Services Division, 1250 Puncbowl St., Honolulu, HI 96813 or by telephone (808-548-6455).

<u>CONSTRUCTION NOTES — SOLID WASTE:</u>

- 1. Unless otherwise specified, the Contractor is responsible for the proper handling, storage and/or disposal of all waste generated by this construction including grubbing and excess material. Any material brought to the county landfills will be subject to the instituted tipping fee system, with no exceptions or exemptions.
- 2. All wastes generated by construction, including grubbing, demolition and excess excavation material may be brought to the West Hawaii or the Hilo Landfill. The landfill fee shall be incidental to the various removal items.
- 3. Construction, demolition and grubbing material shall not be deposited at any of the county transfer stations, but shall be transported for disposal at either the West Hawaii or the Hilo Landfill.
- 4. Asbestos material must be separated, double bagged and landfilled in accordance with Regulations of the Solid Waste Division, Department of Public Works. Information may be obtained by calling the division at (808) 961-8339 between 7:00 A.M. and 4:00 P.M. Monday through Friday.

ADJUSTMENT OF EXISTING UTILITY STRUCTURES TO FINISHED GRADE

A. Materials:

- All materials used in the adjustment shall meet the specifications under the respective sections for concrete and mortar, bricks, manholes, frames and covers and other castings.
- 2. All frames and covers and castngs shall be salvaged, cleaned and re-used unless directed by the Engineer.

B. Construction requirements:

- 1. The existing structures shall not be adjusted until the resurfacing is completed.
- 2. The newly resurfaced pavement shall be neatly cut in straight lines or circles.
- 3. Underground structure walls shall be cleaned and built—up to the required elevations to receive the cover frames or castings.
- 4. Backfill shall be constructed with aggregate base course and shall be thoroughly compacted to not less than 95% of its maximum density.
- 5. The finished surface over the compacted backfill shall be constructed of A.C. with a minimum compacted thickness of 2-1/2 inches.
- 6. Upon completion of installation, all frames and covers shall be cleaned and painted with one coat of approved asphaltum paint.

LICENSED PROFESSIONAL ENGINEER OR UNDER MY SUPERVISION.

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

FED. ROAD STATE

HAWAII HAW. CMAQ-0100(66) 2004

FISCAL SHEET TOTAL YEAR NO. SHEETS

9

<u>NOTES - 6</u>

Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii Federal Aid Project No. CMAQ-0100 (66) Scale: None

SHEET No. G-7 OF 12 SHEETS

ORIGINAL PLAN NOTE BOOK

THIS WORK WAS PREPARED BY ME Settings.

STANDARD TRAFFIC NOTES:

- 1. All traffic signs and pavement markings shall conform to the 2000 edition of the "Manual on Uniform Traffic Control Devices", as amended, and applicable sections of Part V of the "Standard Details for Public Works Construction", dated September, 1984, and the "Hawaii Standard Specifications for Road, Bridge and Public Works Construction", 1994 Edition, unless otherwise specified on the plans, specifications, or the standard traffic notes.
- 2. The Contractor shall install permanent or temporary pavement markers, striping and markings as required by section 629 of the "Hawaii Standard Specifications for Road, Bridge and Public Works Construction," 1994 Edition. The temporary striping must be installed as close as possible to the final location to ensure proper lane widths and safe flow of traffic.
- 3. The Contractor shall coordinate and hire special duty police officer(s) as needed to provide traffic control while working within the the county right of way.
- 4. The Contractor shall inform the the traffic division at least six (6) working days prior to any work on pavement markings operations and/or sign installations to schedule a review and approval of the striping and/or signing plans.
- 5. The approved striping plan shall be laid out using thinned—out paint or other approved methods. Field adjustments shall be made as directed by the engineer before the final markings are applied.
- 6. All pavement markings that become inapplicable shall be removed by the contractor at his own expense. Removal shall be by eradication or by other methods approved by the Engineer before the new pavement markings are applied. Excessive gouging of the pavement is not acceptable and shall be repaired at the contractor's expense.
- 7. Pavement striping <u>for all crosswalks</u>, <u>stoplines</u>, <u>& pavement arrows</u> shall be with <u>Type III preformed pavement marking tape</u>, <u>A440 or equal</u> as approved by the Engineer.
- 8. All traffic paints shall be approved by the State of Hawaii, Department of Transportation, Highways Division prior to order.
- 9. The Contractor shall coordinate and submit for approval Traffic Control Plans for lane closures and sidewalk closures 10 days prior to starting work.
- 10. All painted pavement striping shall be applied in two separate coats of 0.015 inch nominal thickness each. Second coat shall be applied only after complete drying of first coat. Wait at least 2 hours between coats.
- 11. Reflectorized raised pavement markers shall be the regular sized markers with approximate dimensions of 4"x4"x0.7".
- 12. All traffic signs shall be completely reflectorized with type B high intensity reflectorized sheeting except that parking/no parking & street name signs may be engineer grade reflective sheeting.
- 13. The 2 1/4 inch square anchor post for signs shall be driven into the ground, A.C. pavement or concrete sidewalk in accordance with the plans. All damages to the surrounding area shall be repaired to its original condition or better. Before driving into concrete, a neat hole of approximately 3 inch diameter shall be drilled through the concrete prior to the installation of the anchor post. If driving into the concrete or A.C. pavement is not possible without damage to the surrounding concrete or A.C. pavement, a 12"x12" square shall be sawcut and removed prior to the installation of the anchor post and then patched with hot mix to match existing A.C. Pavement, and concrete to match the existing concrete sidewalk.

STANDARD TRAFFIC NOTES (CONT'D.)

- 14. Upon completion of the construction work the Contractor shall restripe all pavement markings within the construction work area and adjacent roadway pavements up to 300 feet beyond the construction area. All signs & markings within the construction area and adjacent area that have been damaged, removed or adversely affected by the construction work shall be restored to its original condition or better by the Contractor.
- 15. Contractor shall submit material brochures for all signs and paint materials to the HDOT.
- 16. The Contractor shall keep one (1) set of approved signing and/or striping plans at the project site at all times during construction work.
- 17. Upon final inspection of the project, the Contractor shall submit a letter of certification for all traffic signing and pavement marking material installed.
- 18. Signs shall be installed with at least one (1) feet of clearance from sign edge to curb face.

WATERLINE NOTES:

- l. All work shall be done according to the Water System Standards, State of Hawaii, dated 2002.
- 2. The Contractor shall inform the D.W.S. Engineer 72 hours prior to the beginning of any waterline work and one week prior to any connection, chlorination, shut—off or relocation work.
- 3. All work and material furnished by the D.W.S. shall be paid for by Contractor.
- 4. All existing waterlines, waterline appurtenances and other utility locations shown on the plans are obtained from latest reliable sources. The Contractor shall be responsible to verify the exact location of all utilities in the field and shall bear all costs for damages done unto them during the contract period.
- 5. All hook—ups to existing waterlines shall be done by the Department of Water Supply. The Contractor shall provide all excavation, backfill, road repair, traffic control, landscaping, etc.
- 6. Where water shut off of more than 3 hours becomes necessary, the Contractor, at his own cost, shall provide a temporary by—pass line. The by—pass size shall be determined by the D.W.S. Engineer. If necessary, the D.W.S. Engineer may require a by—pass line, regardless of the expected water shut off period.
- 7. Minimum horizontal clearance between waterlines and other utilities shall be 8-feet for road right-of-ways of 50 feet or less, minimum vertical clearance between waterline and other utilities shall be 12-inches provided the other utility is concrete jacketed and 18-inches if no concrete jackets are used. In all applicable instances, the waterlines shall be at a grade higher than other utilities. Minimum horizontal clearance between waterline and other utilities shall be 10-feet for road right-of-ways of more than 50-feet.
- 8. All fittings (class 250) and all gate valves (class 200) shall be ductile iron, with mechanical joints unless otherwise specified. Butterfly valves shall be class 250 with epoxy coated interior unless otherwise specified.
- 9. The waterline shall be tested at a minimum of 225 P.S.I. or one and a half times the static pressure at the low point under D.W.S. supervision just prior to paving the roadways.
- 10. The Contractor shall be responsible for the chlorination of the water system and shall bear all cost. The persons engaged to do the chlorination work must have the appropriate license to perform the work in the State of Hawaii.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR		TOTAL SHEETS
HAWAII	HAW.	CMAQ-0100(66)	2004	10	105

LICENSED
PROFESSIONAL
ENGINEER
No. 4739-C

YAWAII, U.S.

THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

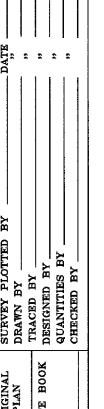
NOTES - 7

<u>Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii</u> <u>Federal Aid Project No. CMAQ-0100 (66)</u>

SHEET No. G-8 OF 12 SHEETS

Scale: None

9-0 OF 12 3



WATERLINE NOTES (CONT'D.)

- 11. All service laterals shall be soft copper, type "K", with brass fittings.
- 12. Pipe cushion for copper pipes shall be No. 4 fine, manufactured sand.
- 13. Solder and flux shall contain not more than 0.2 percent lead.
- 14. Service lateral(s) shall be flushed by the Contractor under D.W.S. supervision.
- 15. Existing 5/8" Water Meter Boxes to be adjusted shall be replaced with Type "X" Water Meter Box per DWS Standard Details M-3 (Sheets 43; 46; 64). Contractor to furnish Type "X" Water Meter Box, cost shall be considered incidental to item 604.4570.
- 16. Electrical Conduits crossing existing waterlines/laterals shall cross at a minimum of 12" clearance below the existing waterline/lateral (Sheets 48; 66; 80).
- 17. Existing square valve box frames and covers to be adjusted shall be replaced with valve box frames and covers per DWS Standard Details V-14 thru V-17. (Sheets 61; 64). Contractor to furnish new DWS standard valve box frame and cover, cost shall be considered incidental to item 604.4580.

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

- 1. The Contractor is reminded of the requirements of Section 209-Water Pollution and Erosion Control, in the Special Provisions. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment.
- 2. The Contractor shall follow the guidelines in the "Erosion And Sedimentation Control Standards and Guidelines, Department of Public Works, County of Hawaii, State of Hawaii", in developing, installing and maintaining the Best Management Practices (BMP) for the project.
- 3. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- 4. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.
- B. WASTE DISPOSAL:
- Waste Material

All waste materials shall be collected and stored in a securely lidded metal dumpster. The dumpster shall meet all local and State solid waste management regulations. All trash and construction debris from the site shall be deposited in the dumpster. The dumpster shall be emptied a minimum of twice per week or as often as deemed necessary. No construction waste materials shall be buried onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Notices stating these practices shall be posted in the office trailer and the Contractor shall be responsible for seeing that these procedures are followed.

2. Hazardous Waste

All hazardous waste materials shall be disposed of in the manner specified by local or State regulations or by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

3. Sanitary Waste

All sanitary waste shall be collected from the portable units a minimum of once per week, or as required.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT'D.)

- C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:
- All control measures shall be inspected at least once each week and within 24 hours following any rainfall event of 0.5 inches or greater.
- 2. All measures shall be maintained in good working order. If repair is necessary, it shall be initiated within 24 hours after the inspection.
- 3. Built-up sediment shall be removed from silt fence when it has reached one-third the height of the fence.
- 4. Silt screen or fence shall be inspected for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. The bottom of the silt screen shall be inspected and verified that it is buried a minimum of 6 inches below the existing ground.
- Temporary and permanent seeding and planting shall be inspected for bare spots, washouts and healthy growth.
- A maintenance inspection report shall be made promptly after each inspection by the Contractor.
- The Contractor shall select a minimum of three personnel who shall be responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- 8. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
- GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICE:
- Materials Pollution Prevention Plan
 - a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory of the Construction Contructor's site—specific BMP plan.

Concrete Detergents Fertilizer

Petroleum Based Products

Paints (enamel and latex)

Cleaning Solvents Wood

Metal Studs

Masonry Block

- Material Management Practices shall be used to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. An effort shall be made to store only enough product as is required to do the job.
- c. All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Products shall be kept in their original containers with the original manufacturer's
- e. Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, a product shall be used up completely before disposing of the container.

FED. ROAD STATE DIST. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS PROJ. NO. HAWAII | HAW. | CMAQ-0100(66) | 2004 | 11

Manager, Department of Water Supply, County of Hawaii

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION

<u> NOTES - 8</u>

Pedestrian Facilities & ADA Compliance at Various Locations on Hawaii Federal Aid Project No. CMAQ-0100 (66) Date: August 2004

SHEET No. G-9 OF 12 SHEETS

LICENSED **PROFESSIONAL ENGINEER** No. 4739-C THIS WORK WAS PREPARED BY ME

OR UNDER MY SUPERVISION. Scale: None

WATER POLLUTION AND EROSION CONTROL NOTES (CONT'D.)

- g. Manufacturer's recommendations for proper use and disposal shall be followed.
- h. The Contractor shall conduct a daily inspection to ensure proper use and disposal of material on site.
- 2. Hazardous Material Pollution Prevention Plan
 - a. Products shall be kept in original containers unless they are not resealable.
 - b. Original labels and material safety data sheets (MSDS) shall be retained.
 - c. Surplus products shall be disposed of according to manufacturer's instructions or local and State recommended methods.
- 3. Onsite and offsite Product Specific Plan
 - a. The following product specific practices shall be followed onsite:
 - 1) Petroleum Based Products
 All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers which are clearly labeled. Any asphalt substances used onsite shall be applied according to the manufacturer's recommendation.
 - 2) Fertilizers
 Fertilizers used shall be applied only in the minimum amounts
 recommended by the manufacturer. Once applied, fertilizer shall be
 worked into the soil to limit exposure to the storm water. Storage
 shall be in a covered shed. The contents of any partially used bags
 of fertilizer shall be transferred to a sealable plastic bin to avoid
 - 3) Paints
 All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the highway drainage system but shall be properly disposed of according to manufacturer's instructions or State and local regulations.
 - 4) Concrete Trucks
 Concrete trucks shall be allowed to wash out or to discharge drum
 wash water only at a designated site. Water shall not be discharge
 in the highway drainage system or waters of the United States. The
 Contractor shall contact Drinking Water Branch, Department of Health
 at 586–4258 to receive permission to designate a disposal site.
 The Contractor shall clean disposal site as required or as requested
 by the Owner's representative.
 - b. Offsite Vehicle Tracking

A stabilized construction entrance shall be provided to help reduce vehicle tracking of sediments. The paved street adjacent to the site entrance shall be cleaned daily or as required to remove any excess mud, cold planed materials, dirt or rock tracked from the site. Dump trucks hauling material from the construction site shall be covered with a tarpaulin.

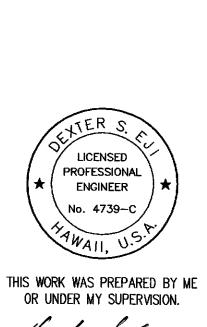
- 4. Spill Control Plan
 - a. A spill prevention plan shall be posted to include measures to prevent and clean up each spill.

WATER POLLUTION AND EROSION CONTROL NOTES (CONT'D.)

- b. The Contractor shall be the spill prevention and cleanup coordinator. The Contractor shall designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. The names of responsible spill personnel shall be posted in the material storage area and in the office trailer onsite.
- c. Manufacturers' recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the location of the information and cleanup supplies.
- d. Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite.
- e. All spills shall be cleaned up immediately after discovery.
- f. The spill area shall be kept well ventilated and personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Spills of toxic hazardous material shall be reported to the appropriate State or local government agency, regardless of the size.

BEST MANAGEMENT PRACTICES (BMPS):

- 1. Measures to control erosion and other pollutants shall be in place before any earth moving work is initiated. These measures shall be properly constructed and maintained throughout the construction period.
- 2. Construction shall be sequenced to minimize the exposure time of cleared surface area.
- 3. Construct facilities to retain on—site wastewater such as chlorinated water, hydrostatic testing water, wash water after cleaning concrete trucks, etc. and percolate into the soil.
- 4. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.
- 5. Pre-construction vegetative ground cover shall not be destroyed, removed or disturbed more than twenty (20) calendar days prior to site disturbance.
- Temporary soil stabilization with appropriate vegetation shall be applied on areas that will remain unfinished for more than thirty (30) calendar days.
- 7. Permanent soil stabilization with perennial vegetation shall be applied as soon as practical after final grading.
- 8. At the end of the grading operations, exist. catch basins and inlets surrounding the project site shall be inspected and any accumulated sediment and debris found in the catch basins shall be removed. Flushing into the catch basins is prohibited.
- 9. Storm water flowing toward the construction area shall be diverted by using appropriate control measures as practical.
- 10. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. All costs incurred shall be billed to the violator. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.
- 11. Contractor shall provide site specific erosion and sediment control plans.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FED. ROAD DIST. NO.

PROJ. NO.

HAW. CMAQ-0100(66) 2004 12 105

FISCAL SHEET TOTAL YEAR NO. SHEETS

<u>NOTES — 9</u>

Pedestrian Facilities & ADA Compliance at

Various Locations on Hawaii

Federal Aid Project No. CMAQ-0100 (66)

Scale: None

Date: August 2004

SHEET No. G-10 OF 12 SHEETS

 ORIGINAL
 SURVEY PLOTTED BY
 DATE

 PLAN
 DRAWN BY
 "

 NOTE BOOK
 DESIGNED BY
 "

 QUANTITIES BY
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 No.
 CHECKED BY
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12