

NOTES FOR CONSTRUCTION WITHIN STATE RIGHT-OF-WAY:

GENERAL:

1. The project includes installing roadway lighting system, associated lighting duct and pullbox, asphalt concrete paving, installing pavement marking, signing, loop detector, constructing concrete sidewalk and curb ramp, modifying existing guardrail, installing guardrail end treatment and constructing drain facility.
2. 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.
3. Approval of permit construction plans shall be valid for a period of one (1) year from the date of notification of approval to the applicant. In the event construction does not commence within this one-year period, the applicant will be required to resubmit the construction plans for the Division's review and approval.

NOTIFICATION:

4. The Contractor shall obtain a Permit to Perform Work Upon State Highways from the Oahu District Engineer, State Highways, at 727 Kakoi Street, prior to commencement of work within the State's highway right-of-way.
5. The Permit to Perform Work Upon State Highways may be revoked because of default in any of the following, but not limited to, conditions:
- a. Work performed before or after permitted hours.
 - b. Failure to maintain roadway surfaces in a smooth and safe condition.
 - c. Failure to clean up construction debris generated from project work.
 - d. Failure to provide proper traffic control.
 - e. Failure to replace damaged pavement markings and signs.
6. The Contractor shall obtain a lane closure permit from the State's Highways District Engineer at 727 Kakoi Street, phone: 831-6712, prior to commencement of work within State Right-of-Way.
7. All necessary permits for work within the jurisdiction of the City and County of Honolulu shall be obtained by the Contractor at his own cost.
8. The Contractor shall notify in Oahu Transit Services, Inc. (OTS), Ed Sniffen (848-4571) or Lowell Tom (848-4578), two weeks prior to commencing any work. The Contractor shall inform OTS of the location and scope of work, proposed closure of any street or traffic lanes, and the need to relocate any bus stop.
9. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
10. The Contractor shall inform the State Highways Permit Office (831-6712) at least two (2) days prior to closing any lanes or performing any trench restoration work. This work shall include any backfilling and compacting of trench material; and placing and compacting of base course material; and any paving operations. Any trench restoration work performed by the Contractor that is not witnessed by a State representative will be required to be removed and restored with a State Representative present. All restoration work will be at the Contractor's expense.
11. The Contractor shall notify the State Highways' Highway Lighting and Traffic Signal Supervisor (837-8056) three (3) working days prior to commencing work.
12. 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, the State Department of Land and Natural Resources-Historic Preservation Division (692-8015), and the State's Engineer.
13. All traffic control devices including: signs, barricades, vertical panels, drums, warning lights, arrow boards, changeable message signs, cones and tubular markers that meet the requirements of American Traffic Safety Services Association (ATSSA) "Quality Standard for Work Zone Traffic Control Devices", dated 1992 shall be used on this project. No "unacceptable" control devices shall be used and "marginal" control devices shall not exceed 50% of the total. Compliance with these requirements will be considered incidental to the Contract and no additional compensation for compliance will be allowed.
14. All regulatory, guide and construction signs and barricades shall be of high intensity reflective sheeting. Portable concrete barriers shall be reflectorized in accordance to the "Standard Plans", State of Hawaii, Department of Transportation.
15. Minimum clear width of 36" shall be maintained along sidewalk and potential walkways.

CONSTRUCTION:

16. Construction and restoration of all existing highway facilities within state right-of-way shall be done in accordance with all applicable sections of the current "Standard Specifications For Road and Bridge Construction", "Specification for Installation of Miscellaneous Improvements Within State Highways", and the Standard Plans and Special Provisions of the State Highways Division.
17. The Contractor shall exercise care to minimize damages to existing highway improvements. All damages shall be repaired by the Contractor, at his expense, to the satisfaction of the Engineer.
18. The Contractor shall exercise care when performing work in or adjacent to the State highway right-of-way. Damages to the existing facilities shall be immediately reported to the respective utility companies, and/or City or State agencies. The repair work shall be done at the Contractor's expense.
19. The Contractor shall exercise care when performing excavation or trenching work. Damages to the existing facilities shall be immediately reported to the respective utility companies, City or State agency. The repair work shall be done at the Contractor's expense.
20. The Contractor shall reference to the satisfaction of the Engineer, all existing traffic signs, posts & pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts & pavement markings disturbed by his activities, unless directed otherwise by the Engineer or his representative.
21. 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 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 Right-Of-Way Branch (692-7332).
22. Work may be performed only between the hours of 8:30 a.m. and 3:00 p.m., Monday through Friday, except holidays, unless otherwise permitted by the Engineer.
23. The Contractor shall provide, install, and maintain all necessary signs, lights, flares, markers, barricades, cones, and other protective facilities, and shall take all 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 current U.S. Federal Highways Administration "Manual on Uniform Traffic Control Devices, Part VI - Standards and Guides for Traffic Controls for Street and Highway Construction, Maintenance, Utility and Incident Management Operations".
24. Prior to commencing trench excavation work, the Contractor shall take a profile along the centerline of the proposed utility trench. This information shall be used in the verification of restoring the roadway to its original condition. A copy of the profile shall be submitted to the Engineer.
25. The Contractor shall provide an adequate and safe non-skid bridging material, including shoring, over trenches in pavement areas. The bridging shall be able to support all types of vehicular traffic.
26. The Contractor will make every effort to minimize the use and the duration of use of steel plates. All steel plates shall have a non-skid surface. The State may require the backfilling of patches of trenches due to the excessive usage of steel plates.
27. Unless otherwise noted, no trench shall be opened more than 300 feet in advance of installed and tested pipeline and/or ductline.
28. Temporary cold mix trench patches will be permitted in any given area for a maximum duration of two weeks, and shall be a minimum of 2-inches thick. All temporary patches shall be placed over properly placed and compacted backfill and base course layers. The Contractor shall be responsible for maintaining all temporary patches and to make repairs to unsatisfactory patches within 24 hours.
29. All saw cutting work shall be considered incidental to roadway excavation.
30. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of traffic.
31. The Contractor shall provide for access to and from all existing side streets at all times.

UTILITIES:

32. Locations of existing underground structures and utilities such as pipelines, conduits, cables, etc., manholes, monuments, and structures as shown on the plans are approximate only. It is not the intent of these plans to show the exact location of all underground utilities and structures. It is the responsibility of the Contractor to verify the locations of all existing utilities with the respective owners. Existing utilities damaged by the Contractor shall be repaired by the Contractor at his own cost.
33. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but are not guaranteed as to accuracy, nor that other obstacles may not be encountered during the course of the work. The Contractor shall exercise extreme caution when the construction is in close proximity of underground utility facilities. The Contractor shall be responsible and shall pay for all damages to the existing utilities.
- Telephone/ CATV Lines: Contractor to obtain excavation clearance 3 working days prior to any excavation work. Use extreme caution during excavation.
- Water Lines: Contractor to call Board of Water Supply, City and County of Honolulu, for field locations of water mains and appurtenances a minimum of 48 hours before starting project excavation.
34. The minimum clearance around fire hydrants, utility poles, light standard, or any other obstruction shall be 3'-0".
35. The Contractor shall trim or remove all trees, shrubs, bushes, etc. encroaching upon the newly installed highway lighting standards. Foliage shall be trimmed so as not to interfere with the luminaire's light distribution pattern. All trimming, removal and disposal shall be incidental to the various highway lighting items.
36. Traffic signals shall be kept operational during construction, and if deemed necessary by the Engineer or his representative, a temporary vehicle detection device shall be installed. All work shall be done in accordance to the requirements of the Department of Transportation Services Contractor's expense.
37. Existing street lighting shall be operational at the end of each work day. Any work on existing street lighting systems shall be completed by the end of each work day to allow for operation of street lighting at night.
38. Contractor shall take proper precautions when working near overhead lines.

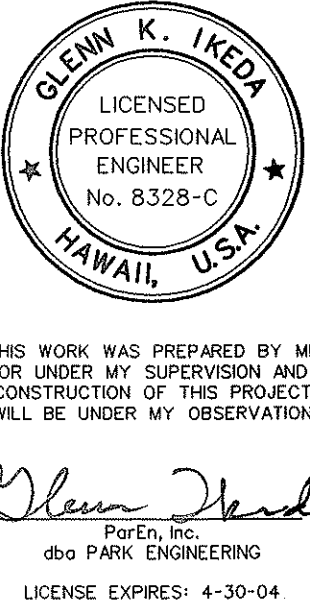
DRAINAGE:

39. 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.
40. 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.
41. Only non-pneumatic type of drill as approved by the Engineer will be permitted for drilling holes in concrete. Where indicated on Plans, the approximate diameter of drilled holes for installation of dowels shall be 7/8", and voids after installing dowels shall be filled with non-gaseous, non-shrink epoxy grout.
42. The existing drainage system and longitudinal drainage along the highway will be maintained and be functional at all times during construction. The 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.

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	3	98

SURVEY PLOTTED BY	DATE
DRAWN BY	
TRACED BY	
NOTED BY	
QUANTITIES BY	
CHECKED BY	

ORIGINAL PLAN
NOTE BOOK
DATE



STATE OF HAWAII	
DEPARTMENT OF TRANSPORTATION	
HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS	
Haiku Road to Ahuimanu Place	
Project No. 83F-02-00M	
Scale: None	Date: Sept. 2002
SHEET No. 1 OF 3 SHEETS	

SURVEY PLOTTED BY	DATE
DESIGNED BY	
PLANNED BY	
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	

GRADING NOTES:

- All grading work shall be done in accordance with Chapter 14, Articles 13, 14, 15 and 16, as related to grading, soil erosion and sediment control, of the Revised Ordinances of Honolulu, 1990, as amended.
- No Contractor shall perform any grading operation so as to cause falling rock, soil or debris in any form to fall, slide or flow onto to 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.
- The Contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the Air Pollution Control Standards contained in the Hawaii Administrative Rules, Chapter 11-60, "Air Pollution Control".
- The underground pipes, cables or ductlines known to exist by the Engineer from his search of 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. Wherever connections of new utilities are shown on the plans, the Contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavating for the new lines.
- Adequate provisions shall be made to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, adequate provisions shall be made to prevent sediment-laden runoff from leaving the site.
- All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed shall be planted.
- Fill on slopes steeper than 5:1 shall be benched.
- The State shall be informed of the location of the borrow/disposal site for the project when the application for grading permit is made. The borrow/disposal site must also fulfill the requirements of the grading ordinance.
- No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to the Engineer.
- The limits of the area to be graded shall be flagged by the contractor before the commencement of the grading work.
- All grading operations shall be performed in conformance with the applicable provisions of the Water Quality and Water Pollution Control Standards contained in Hawaii Administrative Rules, Chapter 11-54, "Water Quality Standards" and Chapter 11-55, "Water Pollution Control" and the NPDES permit for the project.
- Where applicable and feasible, the measures to control erosion and other pollutants shall be in place before any earth moving phase of the grading is initiated.
- Temporary erosion controls shall not be removed before permanent erosion controls are in place and established.
- Temporary erosion control procedures shall be submitted for approval prior to application for grading permit.
- If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable State and Federal requirements.
- The Contractor shall notify the Engineer to arrange for inspectional services and submit three (3) sets of approved Construction Plans seven (7) days prior to commencement of construction work.
- 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). In addition, the Contractor shall notify the State Engineer.
- Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work should commence immediately. All costs incurred shall be billed to the violator. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.

NOTES FOR CONSTRUCTION WITHIN CITY RIGHT OF WAY:

- A permit shall be obtained from the Department of Transportation Services before work on any portion of a public street or highway may begin. Construction Traffic Control Plans approved by the Department of Transportation Services and/or the Department of Planning and Permitting must be provided when applying for the permit.
- The Contractor shall provide, install and maintain all necessary signs and other protective facilities, which shall conform with the "Hawaii Administrative Rules 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 current U.S. Federal Highway Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations".
- Work on any City Street area may be performed only between the hours of 8:30 a.m. to 3:00 p.m., Monday to Friday, unless otherwise permitted by the Department of Transportation Services.
- During working hours, the Contractor shall provide for through traffic. During non-working hours, all trenches shall be covered with a safe non-skid bridging material and all lanes shall be open to traffic.
- As required by the Department of Transportation Services, the Contractor shall provide off-duty police officers to control the flow of traffic.
- Where pedestrian walkways exist, they shall be maintained in passable condition or other facilities for pedestrians shall be provided. Passage between walkways at intersections shall likewise be provided.
- Driveways shall be kept open unless the owners of the property using these Rights-of-Way are otherwise provided for satisfactorily.
- Contractor shall reference, to the approval of the Department of the Transportation Services and the Department of Planning and Permitting, all existing traffic signs, posts and pavement markings prior to the commencement of construction. The Contractor shall replace or repair all traffic signs, posts and pavement markings disturbed by his activities.
- The Contractor shall notify the Department of Planning and Permitting at 523-4881 one (1) week prior to any work to be done on signs, posts and pavement markings.
- No material and/or equipment shall be stockpiled or otherwise stored within street Rights-of-Way except at locations designated in writing and approved by the Department of Transportation Services.
- The State of Hawaii Department of Transportation shall ensure that the Contractor installs the construction traffic control devices in accordance with the MUTCD and Hawaii Administrative Rules as specified in Traffic Note No. 2.
- 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). In addition, the Contractor shall notify the Civil Engineering Branch, D.P.P. (523-4881).

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	4	98

MECHANICAL/ELECTRICAL DESIGN AND ENGINEERING DIVISION NOTES:

- The Contractor shall notify the Joint Pole Committee two (2) weeks in advance of any relocation of utility pole(s) that may be necessary.
- The Contractor shall notify the Mechanical/Electrical Design and Engineering Division, Department of Design and Construction, three (3) working days prior to commencing work on the Street Lighting and Communication Fiber Optic System (phone: 523-4106).
- The Street Lighting and Communication Fiber Optic Systems shall be kept operational during construction. Any relocation or changeover required shall be approved by the Mechanical/Electrical Design and Engineering Division, Department of Design and Construction, and performed and paid for by the Contractor.
- The Contractor shall be responsible for any damages to existing street lighting and communication fiber optic cable facilities. Any and all damages to these facilities shall be repaired by the Contractor at his cost in accordance with the requirements of the City and County of Honolulu.

TRAFFIC SIGNAL & TECHNOLOGY DIVISION NOTES:

- The Contractor shall notify the Traffic Signal & Technology Division, Department of Transportation Services, three (3) working days prior to the commencement of work on the Traffic Signal System (phone: 523-4589).
- The Traffic Signal System shall be kept operational during construction and any relocation required shall be approved by the Traffic Signal & 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 no cost to the State.
- The Contractor 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 no cost to the State.

DISABILITY AND COMMUNICATION ACCESS BOARD NOTE:

- Existing Pedestrian routes must be maintained in accessible condition or an alternate route must be provided around the construction area.

APPROVED: DATE:

CHIEF, TRAFFIC REVIEW BRANCH, DPP
(FOR CONSTRUCTION W/IN CITY R/W ONLY)

M. J. J. 7/3/03
CHIEF, CIVIL ENGINEERING BRANCH, DPP

DIRECTOR, DEPARTMENT OF PLANNING AND PERMITTING
CITY AND COUNTY OF HONOLULU
(FOR CONSTRUCTION WITHIN CITY R/W ONLY)



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION
Glenn K. Ikeda
dbs PARK ENGINEERING
LICENSE EXPIRES: 4-30-04

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS Haiku Road to Ahuimanu Place Project No. 83F-02-00M	
Scale: None	Date: Sept. 2002
SHEET No. 2 OF 3 SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83F-02-00M	2004	5	98

REPAVING NOTES:

- Whenever a lane of travel is disturbed, it shall be repaved from gutter/edge of pavement/6" away from centerline of lane striping to edge of pavement/6" away from centerline of striping. (Note: 6" clear distance based upon 4" clearance to center of a 4" wide lane stripe)
- Whenever the shoulder is disturbed, it shall be repaved from gutter/edge of pavement to 6" away from edge striping.
- Whenever Trench Restoration Width Limits (trench width + 12" on each side) encroaches within 6" of centerline of lane striping, pave the adjacent lane.
- Longitudinal limits of paving in a lane shall be one lane width (min. 12 feet) before or past either: A) The pavement disturbance or B) The encroachment by the Trench Restoration Width Limits within 6" of centerline of lane striping. Pavement disturbance shall be the center of pipe work.
- Lateral Limits of Paving in a lane shall be edge of pavement or 6" away from centerline of lane striping. For roadways with no striping and width less than 12 feet, pave the entire width of roadway. For roadways with no striping and width between 12 and 28 feet, as well as terminus to dead-end streets, pave half of the roadway (to avoid leaving a strip of unpaved roadway less than two feet and visual aesthetics) if trench resotration width is entirely on one side of the apparent centerline; otherwise, repave the entire roadway according to detail showing pavement striping. For roadways with no striping and greater than 28 feet wide, pave a 12 foot wide travelway.
- See the Plan drawings for locations of all striping, traffic loop detectors, and physical objects (manhole covers, valve covers, street monuments, etc.) that need to be reconstructed or replaced.
- Removal and replacement of any existing regulatory and warning signs required for the repaving operations shall be considered incidental to the various paving items.
- All trench restoration work performed shall be subject to inspection by the State and shall be to the State's satisfaction.
- Construct the trench restoration in accordance with the Hawaii Standard Specifications for Road, Bridge, and Public Works Construction and its Special Provisions, and the Specification of Installation of Miscellaneous Improvements within State Highways.
- Pavement Smoothness:
 - Obtain a profile of the existing roadway surface that is to have a new surface as a result of the restoration of the trench excavation and submit the profile to the District Engineer before any work for trench excavation begins.
 - Obtain a profile of the roadway surface after the roadway surface has been repaved and submit the profile of the District Engineer. The profile of the roadway surface after repaving shall be equal to or smoother than the profile obtained before trench excavation began.
 - The distance from the paved surface to the testing edge of a ten-foot long straight edge between two points of contact shall not exceed 3/16-inch
- Place all unbound materials in the trench as follows:
 - Compaction by water jetting or ponding is not permitted.
 - All unbound materials, except permeable base and ASTM C33 Size 67:
 - Place material in accordance with Subsection 206.03 (E) Structure and Trench Backfill of the Hawaii Standard Specifications for Road, Bridge, and Public Works Construction.
 - Take one compaction test for 300 lineal feet of trench. Submit compaction test results to the District Engineer.
 - Permeable Base:
 - Place permeable material in uniform horizontal layer not exceeding 9 inches in compacted thickness.
 - Compact each layer with 8 passes of a vibrating plate compactor. Use hand tamper if trench is too narrow to accommodate the vibrating plate compactor.
 - ASTM C-33, Size 67:
 - Material placed under water need not be compacted.
 - Material placed above water:
 - Place maerial in uniform horizontal layer not exceeding 9 inches in loose thickness.
 - Compact each layer with 8 passes of a vibrating plate compactor. Use hand tamper if trench is too narrow to accommodate the vibrating plate compactor.

WATER NOTES:

- Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with 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.
- 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.
- The Contractor shall notify BWS Maintenance Unit - Engineering, Construction Section in writing and submit five (5) sets of approved construction plans one week prior to commencing work on the water system.
- 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 the encountering of other obstacles during the course of the work. The Contractor shall not assume that where there are no utilities shown, that none exists.
- Any adjustments to the existing water system required during construction to meet requirements of the Board of Water Supply Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.
- The Contractor shall have existing water mains toned before construction of work in the vicinity of water mains, call the investigation section at 527-5296 for toning services. Guardrail post locations are to be kept to a minimum clear distance of 18 inches to any 2-1/2 inch water lines and meter boxes. No post driving will be allowed when post is to be installed closer than 3 feet from water main. Excavated areas shall be restored to their original condition.
- The Contractor shall verify all existing service lateral locations whether shown or not shown on the plans prior to commencing with any of the work and shall not assume that where no services are shown none exists.
- Re-approval shall be required if this project is not under construction within a period of 2 years.
- Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.
- 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 wherever 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 measures necessary to protect water lines, such as constructing special reaction blocks (with Board of Water Supply approval) and/or modifying his construction methods.
- At the electrical/signal ductline water crossings, adjust all electrical/signal ductline elevations to maintain 6" vertical clear separation from all waterlines (12" clear for all electrical/signal ductline structures larger than 16") at no cost to the Board of Water Supply.
- Maintain 3'-0" min. horizontal clear separation between all waterline systems and the nearest electrical/signal ductlines paralleling the water system at no cost to the Board of Water Supply.
- Maintain 3'-0" min. horizontal clear separation between street light/traffic signal standards (including any modular units) and the nearest water system. Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the Contractor shall coordinate with the Engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the Board of Water Supply.

SEWER NOTES:

- All sewer construction shall be performed in accordance with the City's standard specifications, Sept. 1986, the Department of Public Works standard details, Sept. 1984, current city practices and Revised Ordinances of Honolulu, 1990 as amended, and the Design Standards of the Department of Wastewater Management Vol. 1, July 1993.
- The contractor shall notify the Inspection Section, Wastewater Branch, DDC, at 527-5842 or 523-4345 to arrange for inspection services and submit four (4) sets of approved construction plans seven (7) days prior to commencement of sewer work. The contractor shall pay for all inspection costs.
- 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.
- The contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- 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.
- Confined Space: For entry by city 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:
 - All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not be limited to, the following:
 - Full body harnesses for up to two personnel.
 - Lifeline and associated clips.
 - Ingress/egress and fall protection equipment.
 - Two-way radios (walkie-talkies) if out of line-of-sight.
 - Emergency (escape) respirator (10 minute duration).
 - Cellular telephone to call for emergency assistance.
 - Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammable (capable of monitoring at a distance of 20-feet away).
 - Personal multi-gas detector to be carried by inspector.
 - Continuous forced air ventilation adequate to provide safe entry conditions.
 - One attendant/rescue personnel topside (two, if conditions warrant it).
- At the electrical/signal ductline sewer crossing, adjust all electrical/signal elevations to maintain 24 inches vertical clear separation from all sewer lines, at no cost to the City.
- Maintain 3'-0" minimum horizontal clear separation between all sewer line system and nearest electrical/signal ductline & pullboxes/handholes paralleling the sewer system at no cost to the City.
- Maintain 5'-0" minimum horizontal clear separation between street light/traffic signal, standards (including any modular units), and the nearest sewer system. Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the contractor shall coordinate with the project engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the City.

SURVEY PLOTTED BY	DATE
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NOTE BOOK	
DATE	

APPROVED:

DATE:

for Robert Chun
PRINCIPLE EXECUTIVE, MAINTENANCE UNIT, BWS

7/22/03

Dennis M. Nakamura
CHIEF, WASTEWATER BRANCH, DPP

7/10/03



THIS WORK WAS PREPARED BY ME
OR UNDER MY SUPERVISION AND
CONSTRUCTION OF THIS PROJECT
WILL BE UNDER MY OBSERVATION
Dennis M. Nakamura
DPP
LICENSE EXPIRES: 4-30-04

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES

KAHEKILI HIGHWAY LIGHTING IMPROVEMENTS
Haiku Road to Ahimanu Place
Project No. 83F-02-00M

Scale: None

Date: Sept. 2002

SHEET No. 3 OF 3 SHEETS