## **General Notes**

- 1. The Project Scope of Work involves construction of a new bikeway in Waipahu and Ewa, Oahu, Hawaii within the former OR&L 40 foot right—of—way between the vicinity of Waipahu, West Loch, and Ewa. Work includes clearing, grubbing, demolition, grading, asphalt concrete paving, pedestrian and utility bridges, retaining walls, concrete sidewalk and median connection, curb ramp, drain line and catch basin, culvert extension, pole and utility line relocation, mulching, erosion controls, relocate and construct fencing and wall, install Rectangular Rapid Flash Beacon (RRFB), signage and striping.
- 2. All construction work shall be done in accordance with the current version of Standards and Specifications of the State Department of Transportation for Road and Bridge Construction as amended, unless otherwise specified by the contract plans and specifications.
- 3. Construction outside the State Department of Transportation right—of—way are subject to approval by the Engineer and the affected owner.
- 4. 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.
- 5. The existence and location of utilities, manholes, monuments, pavements, and other features as shown on the plans are from the latest available data but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall make an independent check to verify the exact locations and depths of the existing utilities and obstructions. The work shall be incidental to various contract items.
- 6. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- 7. Contractor shall dispose or deliver any removed material, as described in Section 201 Clearing and Grubbing, at no cost to the State.
- 8. The Contractor shall be held liable for any damages incurred to the existing facilities, utilities and other features as a result of his operations. All damaged portions shall be replaced in accordance with the requirements of the affected owner or user at the Contractor's expense.
- 9. All existing utilities to remain in use, whether or not shown on the plans, shall be protected at all times by the Contractor unless specified on the plans to be abandoned. Any damage to the existing utilities shall be repaired and paid for by the Contractor.
- 10. 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, and only with the approval of the Engineer and the affected utility company.
- 11. The Contractor shall field verify the operational status of all existing utilities to be removed, relocated or abandoned in place. Any discrepancy shall be brought to the attention of the Engineer.
- 12. The Contractor shall notify the Engineer and State Historic Preservation Division upon uncovering any potential historical artifacts or items of archaeological significance. See Section 107.13 in the 2005 State Standard Specifications.
- 13. The existing improvements on the premises and in adjacent areas that are not to be removed shall be preserved and protected. Any and all damages resulting from the Contractor's construction operations shall be replaced and repaired to original condition, to the satisfaction of the owner.
- 14. Azimuths and coordinates are referred to government survey triangulation Kapuai New.
- 15. Elevations shown on these plans are referenced to Mean Sea Level (MSL).
- 16. The Contractor shall adjust centerline and reference survey monuments to the finished pavement grade.
- 17. The Contractor shall coordinate, if applicable, construction of electrical, telephone, cable television, water, sewer, fuel, oil, and gas line relocation work with Hawaiian Electric Company, Hawaii Tel Com, Oceanic Cable, Board of Water Supply, Department of Environmental Services, Chevron, Tesoro, HIRI, and GASCO Inc., respectively. All coordination shall be considered incidental to bikeway excavation work.
- 18. The contractor shall coordinate with the land owners and users as needed to carry out the work.
- 19. No material and/or equipment shall be stockpiled or otherwise stored within the former OR&L right—of—way except at locations designated in writing and approved by the Engineer. If use of a location is approved by the Engineer, a permit to use the property within the former OR&L right—of—way shall be obtained from the State Highways.
- 20. The Contractor's attention is directed to the following subsections of the Special Provisions: Section 105.09 Coordination between the Contractors.

## General Notes (Cont.)

FED. ROAD DIST. NO. STATE FED. AID PROJ. NO. FISCAL SHEET NO. SHEETS

HAWAII HAW. STP-BW-0300(8) 2019 3 171

21. Hawaiian Railway Properties (HRS) such as tracks, splices, ties, ties, ballast, spikes, bridge components, bolts and nuts, designated for demolition and removal shall be dismantled in the presence of HRS representative for salvaging and preservation purposes. Salvage approximately 5 foot long end sections of both the mauka and makai steel plate girder walls from the east end of Kapakahi Bridge. Confirm section to be salvaged with the Hawaiian Railway Society and coordinate delivery within 60 days of the demolition. Any material deemed not useable for preservation by the HRS representative shall be disposed accordingly.

## Construction Notes for Work Within State R/W

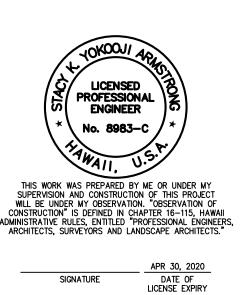
- . All construction work shall be done in accordance with the Standard Plans and Specifications of the State Department of Transportation as amended, unless otherwise specified by the contract plans and specifications.
- 2. Confined Space For entry by SDOT personnel, including inspectors, into a permit 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 oxygen, hydrogen sulfide, carbon monoxide and flammable (capable of monitoring at a distance at least 20—feet away).
    - 8. Personal multi-gas detector to be carried by the inspector.
  - B. Continuous forced air ventilation adequate to provide safe entry conditions.
  - C. One trained attendant/rescue personnel topside (two, if conditions warrant it)

## Free Service for Locating Underground Utilities

A free service is available to Contractors for locating underground utilities. Service is provided by One Call Concepts, at toll free telephone no. 1-866-423-7287. Call at least five (5) working days prior to the start of any excavation work.

## Public Health, Safety and Convenience Notes:

- 1. The Contractor shall observe and comply with all Federal, State and local laws required for the protection of public health and safety and environmental quality.
- 2. The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in conformance with the Air Pollution Standards of the State Department of Health. The State may require supplementary measures as necessary.



11/1/19 Removed WWB Signature line & removed note

DATE REVISION

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

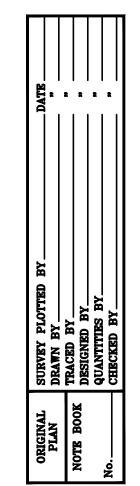
CONSTRUCTION NOTES \_ 1

<u>CONSTRUCTION NOTES — 1</u> LEEWARD BIKEWAY

Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

SHEET No. CO.2 OF 14 SHEETS

VDD 3



Date: Sept. 1, 2019

#### Construction Notes (City and County of Honolulu)

- All applicable construction work shall be done in accordance with the Standard Specifications for Public Works Construction, September 1986 and Standard Details for Public Works Construction, September 1984, as amended, of the Department of Public Works, City and County of Honolulu and the Counties of Kauai, Maui, and Hawaii.
- 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 to existing 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 excavation for the new lines.
- 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.
- The General cContractor/Developer/Owner of the project shall be responsible for conformance with applicable provisions of the Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards," and Title 11, Chapter 55, "Water Pollution Control," as well as chapter 14 of the revised ordinances of Honolulu, as amended. Best management practices shall be employed at all times durina

The General Contractor/Developer/Owner of the project shall obtain National Pollutant Discharge Elimination System (NPDES) permit coverage(s) for the following:

- a. Storm water discharges associated with construction activities that disturb one (1) acre or more, and
- b. Discharges of hydrotesting effluent, dewatering effluent, and well drilling effluent to state waters.

In accordance with State law, all discharges related to project construction or operations are required to comply with State water quality standards (Hawaii Administrative Rules, Chapter 11–54). Best management practices shall be used to minimize or prevent the discharge of sediment, debris, and other pollutants to state waters. Permit coverage is available from the Department of Health, Clean Water Branch at http://health.hawaii.gov/cwb. The Owner/Developer/Contractor is responsible for obtaining other Federal, State, or local authorizations as required by law.

- For non-City projects, the Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting, at 768-8084 to arrange for inspectional services and submit two (2) sets of approved Construction Plans seven (7) days prior to commencement of construction work. For City projects, the Contractor shall coordinate inspectional services with the responsible City agency.
- The Contractor may submit a substitution request to precast any city owned and/or maintained drainage structure (ex., catch basins, drain manholes, drain inlets, culverts, etc). However, prior to construction and installation of any precast structure, the Contractor shall a) submit six (6) sets of shop drawings to the Civil Engineering Branch, Department of Planning and Permitting and obtain written approval and b) notify the Civil Engineering Branch, Department of Planning and Permitting at 768-8084 to arrange for inspectional services. Non-compliance with any of these requirements shall mean immediate suspension of all precast construction work and rejection of all precast structures already constructed.

For City projects, the Contractor shall submit shop drawings to the responsible City agency for review and approval. Also, the Contractor shall coordinate inspectional services with the responsible City agency.

- 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 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 téléphone to call for emergency assistance.
  - 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 carried by Inspector.

  - II. Continuous forced air ventilation adequate to provide safe entry conditions.
  - III. One attendant/rescue personnel topside (two, if conditions warrant it).
- Pursuant to Chapter 6E, HRS, 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). In addition, for non-City projects, the Contractor shall inform the Civil Engineering Branch, Department of Planning and Permitting (768–8084); and for City projects, notify the responsible City agency.
- 9. For projects abutting State Highways' right of way, the Owner or his Authorized representative shall notify the State Department of Transportation, Highways Division, Oahu District, Drainage Discharge Unit at 831–6793 for an assessment of State highways permit
- For Benchmarks, see sheets C2.1 for Ewa Baseline alignment, C2.6 for Waipahu Baseline alignment, and C5.4 for work at Kapolei

#### Construction Notes (City and County of Honolulu) (Cont.)

FED. ROAD DIST. NO. FED. AID PROJ. NO. FISCAL SHEET TOTAL YEAR NO. SHEETS STATE 2019 HAWAII HAW. STP-BW-0300(8)

- 11. Transverse and Longitudinal Contraction Joints for sidewalk (See Note 13) shall be considered incidental to Concrete Sidewalk pay item.
- 12. Installation of dowels and tie bars, including drilling and epoxy grout shall be incidental to Concrete Sidewalk pay item.
- 13. Contractor to comply with City & County of Honolulu "Jointing requirement for concrete sidewalks and driveways" Policy Memorandum CEB-1-09 dated April 6, 2009.
- 14. Reconstruction of existing City sidewalk shall be to nearest joint or scoreline.

#### Construction Notes For Work Within The Hawaiian Railway Society Right-of-Way

- 1. Reconstruction method and material shall conform to the current edition of the American Railway Engineering Association (A.R.E.A.) Manual for Railway Engineering and State of Hawaii Highway Division "Standard Specifications for Road and Bridge Construction."
- Ballast shall be 1-inch to 1-1/2-inch coral screened.
- 3. Cross ties shall be 6" x 8" x 6'-0" or 6" x 8" x 8'-0" heart Douglas Fir. All ties shall be free from any defects that may impair their strength or durability as cross ties, such as decay, large splits, large snakes, large or numerous holes or knots, grain with slant greater than 1 in 15.
- 4. Cross ties shall be treated with a Creosote-Coal tar solution conforming to A.R.E.A. manual.
- 5. Existing ties, if found in usable condition, may be reused. Any existing spike holes must be plugged with Cedar or Redwood plugs prior to reuse, otherwise new ties must be supplied.
- 6. Existing track rails reused unless physical condition has deteriorated beyond safety limits as determined by Hawaiian Railway Society. The Contractor shall take extreme care while removing, storing and replacing the rails. Any damage to the rails shall be the sole responsibility of the Contractor, and the Contractor shall replace the damaged rails at his own expense.
- 7. Rail splice bolts, nuts and washers shall conform to the A.R.E.A. Manual for Railway Engineering.
- 8. Steel cut track spikes shall be 9/16" reinforced throat track spike 5-1/2" underhead. There shall be four (4) spikes per tie placed inside and outside of rail staggered.
- 9. Length of all track rails between splices = 30'-0" or 33'-0".
- 10. Rails must be machine cut. (Note: rails cut with torch will not be acceptable.)
- 11. Existing r.r. track and splices to be removed for new construction work and replaced. Reuse existing rails and splices, unless they have deteriorated beyond safe use as determined by Hawaiian Railway Society. Contractor furnishes new bolts, nuts and washers for splices.
- 12. Salvage 3 to 5 feet of the existing makai side of the Kapakahi Bridge. Confirm section to be salvaged with the Hawaiian Railway Society and coordinate delivery.
- 13. One week prior to starting work on the railroad track, contact Larry Howard or Robert Yatchmenoff at the Hawaiian Railway Society, 681-5461. Work on the railroad bed shall be coordinated with and approved by The Hawaiian Railway Society, P.O. Box 60369, Ewa Station, Ewa Beach, Hawaii 96706.
- 14. Contractor shall notify State of Hawaii Department of Land and Natural Resources (Attn: State Historic Preservation Division, telephone no. 692-8015) and DOT Highways Division (Oahu District Office, telephone no. 831-6712), prior to completion of this project, so that a final inspection can be conducted to verify successful reinstallation of tracks.
- 15. Electric, fuel, gas, and oil lines are known to be located near or within the existing former OR&L 40-foot railroad right-of-way. Contractor to contact HECO, Chevron, GASCO Inc., Tesoro, prior to excavation.

APPROVED BY

Director, Department of Planning and Permitting City and County of Honolulu (For Grading and Construction within City Right-of-Way Only)

AS Kyling as AFR 30, 2020
DATE OF

CONSTRUCTION NOTES - 2

DEPARTMENT OF TRANSPORTATION

LEEWARD BIKEWAY <u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

> Date: July 1, 2019 SHEET No. CO.3 OF 14 SHEETS

Chief, Civil Engineering Branch, DPP

4

#### **Grading Notes**

- All grading work shall be done in accordance 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, and Soils Report by Geolabs, Inc. dated September 20, 2018.
- No contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto 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, Title 11, Chapter 60.1, "Air Pollution Control."
- 4. 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 excavation 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 run off from leaving the site.
- 6. 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.
- 7. Fills on slopes steeper than 5:1 shall be keyed.
- 8. The city shall be informed of the location of the borrow/disposal site for the project when the application for a 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 Director, D.P.P., provided such grading work is also in conformance with the community noise control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 46, "Community Noise Control".
- The limits of the area to be graded shall be flagged before the commencement of the grading work.
- 11. The General Contractor/Developer/Owner of the project shall be responsible for conformance with applicable provisions of the Hawaii Administrative Rules, Title 11, Chapter 54, "Water Quality Standards," and Title 11, Chapter 55, "Water Pollution Control," as well as Chapter 14 of the Revised Ordinances of Honolulu, as amended. Best management practices shall be employed at all times during construction. The General Contractor/Developer/Owner of the project shall obtain National Pollutant Discharge Elimination System (NPDES) permit coverage(s) for the following:
  - Storm water discharges associated with construction activities that disturb one (1) acre or more, and
  - 2. Discharges of hydrotesting effluent, dewatering effluent, and well drilling effluent to State waters.

In accordance with State law, all discharges related to project construction or operations are required to comply with State water quality standards (Hawaii Administrative Rules, Chapter 11–54). Best management practices shall be used to minimize or prevent the discharge of sediment, debris, and other pollutants to State waters. Permit coverage is available from the Department of Health, Clean Water Branch at http://health.hawaii.gov/cwb. The Owner/Developer/Contractor is responsible for obtaining other Federal, State, or local authorizations as required by law.

- 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.

#### <u>Grading Notes</u> (Cont.)

- Temporary erosion control procedures shall be submitted for approval prior to application for grading permit.
- 15. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable State and Federal requirements.
- Building permit for retaining walls shall be obtained prior to commencement of grading work on site.
- 17. For Non-City projects, the Contractor shall notify the Civil Engineering Branch, D.P.P. at 768-8084 to arrange for inspectional services and submit two (2) sets of approved Construction Plans seven (7) days prior to commencement of construction work. For City projects, the Contractor shall coordinate inspectional services with responsible City agency.
- Place topsoil prior to placement of erosion control matting, in accordance with the requirements of Section 617—Topsoil, and Section 663—Erosion Control Matting.
- Any loose/soft soils encountered shall be removed and backfilled with proper compacted fill prior to mass grading.
- 20. Pursuant to Chapter 6e, HRS, 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). In addition, for non-city projects, the Contractor shall notify the Civil Engineering Branch, D.P.P. (768–8084); and for city projects, notify the responsible City agency.
- 21. For all projects, which will disturb one (1) acre or more of land, the Contractor shall not start construction until a Notice of General Permit Coverage (NGPC) is received from the Department of Health, State of Hawaii, and has satisfied any other applicable requirements of the NPDES permit program. Also, for non-city and other non-governmental agency projects, the Contractor shall provide a written copy of the NGPC to the Permitting and Inspection Section, Civil Engineering Branch, DPP, at least seven (7) calendAr days before the start of the construction. For City or other governmental projects, the Contractor should provide a written copy of the NGPC to the appropriate City department or governmental agency per their requirements.
- 22. All grading and construction work shall implement measures to ensure that the discharge of pollutants from the construction site will be reduced to a maximum extent praticable and will not cause or contribute to an exceedance of water quality standards.
- 23. 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.
- 24. For Benchmarks, see sheets C2.1. for Ewa Baseline alignment, C2. for Waipahu Baseline alignment, and C5.4 for work at Kapolei Parkway.

#### <u>Drainage Notes</u>

- The Contractor shall verify the locations of all existing culverts, drainage facilities and utilities in the field. Any existing culverts, drainage facilities and utilities damaged during construction shall be repaired or replaced by the contractor at his/her own expense.
- Storm drain pipes shall be high density polyethylene (HDPE) Type S or reinforced concrete pipe (RCP), Class III, or aluminum spiral rib pipe, Sht. "t"=0.105, unless noted otherwise.
- 3. All drainlines under paved areas shall have 2 feet minimum cover or be below the pavement structure, whichever is greater. Drainlines in other areas shall have a minimum 2 foot cover.
- 4. Concrete shall be Class A unless otherwise noted.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-BW-0300(8)	2019	5	171

#### Division of Forestry and Wildlife Notes:

- I. The State and Federally listed Hawaiian hoary bat or 'Ope'ape'a (Lasiurus cinereus semotus) has the potential to occur in the vicinity of the proposed project. DOFAW recommends avoiding using barbed wire, as bat mortalities have been documented as a result of becoming ensnared by barbed wire during flight. Hawaiian hoary bats roost in both exotic and native trees. If any trees are planned for removal during the bat breeding season there is a risk of injury or mortality to juvenile bats.
- To minimize the potential for impacts to this species, woody plants greater than 15 feet (4.6 meters) tall should not be disturbed, removed, or trimmed during the bat birthing and pup rearing season (June 1 through September 15). Site clearing should be timed to avoid disturbance to breeding Hawaiian hoary bats.
- 3. The State endangered Hawaiian short—eared owl or Pueo (Asia flammeus sandwichensis) has the potential to occur in the project vicinity site. Pueo are a crepuscular species, most active during dawn and dusk twilights. DOF AW recommends twilight pre—construction surveys by a qualified biologist prior to clearing vegetation. If Pueo nests are present, a buffer zone should be established in which no clearing occurs until nesting ceases and notify DOF AW staff.
- 4. State and Federally listed waterbirds such as the Hawaiian duck (Anas wyvilliana), Hawaiian stilt (Himantopus mexicanus knudseni), Hawaiian moorhen (Gallinula chloropus sandvicensis) and Hawaiian coot (Fulica alai), are likely to occur in the vicinity of the proposed project site due to the proximity of Pearl Harbor National Wildlife Refuge and Pouhala Marsh Wildlife Sanctuary. To minimize the potential for take, surveys for waterbirds by a qualified biologist are recommended before any land clearing or excavation activities occur, and should be repeated if these activities are delayed more than three days. If a nest is discovered at any point, please contact DOFAW staff. If a bird is present during ongoing activities, then all activities within 100 feet (30 m) of the bird should cease, and the bird should also not be approached. Work may continue after the bird leaves the area of its own accord.
- 5. DOFAW would like to ensure that effective avoidance measures are in place to prevent adverse impacts to native seabirds. DOFAW notes that artificial lighting can adversely impact seabirds that may pass through the area at night causing disorientation which could result in collision with manmade artifacts or grounding of birds. If nighttime lighting is required DOFAW recommends that any lights used be fully shielded and downward facing to minimize impacts.
- Should it become apparent that threatened or endangered species may be impacted, please contact our staff as soon as possible. If you have any questions, please contact James Cogswell, Wildlife Program Manager (808)587—4187 or James.M.Cogswell@hawaii.gov.

APPROVED BY

Chief, Civil Engineering Branch, DPP

Date

DEPARTMENT OF TRANSPORTATION



AS Myling as APR 30, 2020
DATE OF

<u>CONSTRUCTION NOTES - 3</u>

<u>LEEWARD BIKEWAY</u>

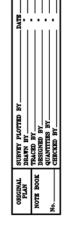
<u>Philippine Sea Rd. to Waipahu Depot Street</u>

Fed. Aid Proj. No. STP-BW-0300(8)

Date: July 1, 2019

5

SHEET No. CO.4 OF 14 SHEETS



#### Sidewalk Notes

- All sidewalks shall provide a minimum clear width of 3'-0" (excluding curb) for pedestrian circulation. If this cannot be met, a minimum 32-inch clear width is allowed for a maximum distance of 24 inches.
- 2. Narrow sidewalks (3'-0" min. width, excluding curb) may prohibit the installation of any sign posts, utility poles, fire hydrants, traffic signal standards, light poles, etc. in the
- Passing spaces along new sidewalks with 5' clear width or less shall be provided at maximum 200' intervals as required by ADA guidelines. The passing area shall be a minimum 5' wide by 5' long as feasible.
- For new construction, the minimum sidewalk width shall be 6'-0" (excluding curb). The cross slope shall not exceed 2%.
- Objects protruding from utility poles and walls adjacent to the sidewalks (i.e. wall mounted firé hydrants, telephones, meters on poles, etc.) shall be mounted to meèt the current Americans with Disabilities Act Accessibility Guidelines (ADAAG) and will be subject to Engineer's approval.
- All new wheelchair-accessible curb ramps and flares shall be no steeper than 12H:1V. Ramps and flares shall be lengthened as required to achieve this maximum slope.

#### General Notes for Traffic Control Plan:

- The Permittee shall make minor adjustments at intersections, driveways, bridges, structures, etc., to fit field conditions.
- Cones or delineators shall be extended to a point where they are visible to approaching
- Traffic control devices shall be installed such that the sign or device farthest from the work area is placed first. The others shall then be placed progressively towards the work
- Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered.
- Flaggers and/or Police Officers shall be in sight of each other or in direct communication
- When required by the issuing office, the Permittee shall install a flashing arrow signal as shown on the traffic control plans.
- All traffic lanes shall be a minimum of 10 feet wide.
- All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
- The back of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when signs have messages on both faces).
- Lane closure shall be limited only to the extent of accomplishing each day's work. As soon as each day's work is completed, the Permittee shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation. Existing faded or obliterated pavement markings that are with temporary or permanent markings before opening the roadway to public traffic each day.
- Permanent pavement markings and traffic signs shall be replaced upon completion of each phase of work.
- Cones and delineators shall spaced at a maximum distance of 20 feet apart. a minimum of six channelizing devices shall be used for each taper length.
- Driveways shall be kept open unless the owners of the property using the right-of-way are otherwise provided for satisfactorily. Further, the Permittee shall control traffic going in and out of driveways.
- Buffer and taper areas on approach to any work area shall be kept clear of vehicles and
- A high level warning device (flag tree) shall be installed on approach top all work areas.
- "No Parking" signs shall be posted within any work area and for the buffer and taper area approaching the work area.
- Traffic control plans are approved for work on any city street area only between the hours of 8:30 a.m. and 3:30 p.m.

#### Water Pollution and Erosion Control Notes

- 1. See Special Provisions Section 209 Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water Water Pollution and Erosion Control Notes (cont.) pollution and erosion control conference with the Engineer: construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
- 2. Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
- 3. Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
- 4. The Engineer may assess liquidated damages of up to \$27,500 per HDOT's Enforcement Response Plan for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.
- 5. 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.
- 6. If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
- 7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from http://www.stormwaterhawaii.com
- B. WASTE DISPOSAL:
- Waste Materials: Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.
- Hazardous Waste: Dispose all hazardous waste materials in the manner specified by local or State regulations and 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.

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- 3. Sanitary Waste: Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.
- C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE
- For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
- 2. For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.
- 3. Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work
- 4. Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.

APPROVED BY

Chief, Traffic Review Branch, DPP (For Work within City R/W only)

Date

A5 kyhon a5 APR 30, 2020
DATE OF

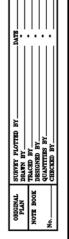
DEPARTMENT OF TRANSPORTATION

CONSTRUCTION NOTES - 4

LEEWARD BIKEWAY <u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

Date: July 1, 2019

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#### Water Pollution and Erosion Control Notes (cont.)

- 5. Inspect silt screen or fence 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. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
- 6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
- 7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.
- 8. Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo—textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold—planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. Cover dump trucks hauling material from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track—out occurs.
- 9. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.
- Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
- 11. 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.
- 12. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.
- 13. For projects with an NPDES Permit for Construction Activities, immediately initiate stabilizing exposed soil areas upon completion of earth—disturbing activities for areas where earth—disturbing activities have permanently or temporarily ceased. Earth—disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth
  - disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future. For construction areas discharging into waters not impaired for nutrients sediments, complete initial stabilization within 14 calendar days after the
  - temporary or permanent cessation of earth—disturbing activities. For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth—disturbing activities. Classification of water at the discharge point may be found in the SWPPP.
- For projects without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth—disturbing activities.

#### Water Pollution and Erosion Control Notes (cont.)

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

- . 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.

Concrete Cleaning Solvents
Detergents Wood

Paints (enamel and latex) Masonry Block

Metal Studs Herbicides and Pesticides
Tar Curing Compounds

Fertilizers Adhesives Petroleum Based Products

- b. Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.
- c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Keep products in their original containers with the original manufacturer's
- e. Do not mix substances with one another unless recommended by the manufacturer.
- f. Whenever possible, use a product up completely before disposing of the container.
- p. Follow manufacturer's recommendations for proper use and disposal.
- h. Conduct a daily inspection to ensure proper use and disposal of materials onsite
- 2. Hazardous Material Pollution Prevention Plan
  - a. Keep products in original containers unless they are not resealable.
  - Retain original labels and Safety Data Sheets (SDS), formerly Material Safety Data Sheets (MSDS).
  - c. Dispose of surplus products according to manufacturers' instructions and local and State regulations.
- 3. Onsite and Offsite Product Specific Plan
  - The following product specific practices shall be followed onsite:
  - a. Petroleum Based Products: Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.
  - b. Fertilizers: Apply fertilizers used only in the minimum amounts recommended by the manufacturer and federal, state, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an area where fertilizer will not come into contact with precipitation o stormwater. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.

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#### Water Pollution and Erosion Control Notes (cont.)

- Paints: Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacturers' instructions and State and local regulations.
- Concrete Trucks: Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.
- 4. Spill Control Plan
  - Post a spill prevention plan to include measures to prevent and clean up each spill.
  - b. The Contractor shall be the spill prevention and cleanup coordinator. 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. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other accessible location acceptable to the Engineer and in the office trailer onsite.
  - c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.
  - d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.
  - e. Clean up all spills immediately after discovery.
  - f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
  - Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424-8802, the Clean Water Branch during regular business hours at 586-4309, and the Hawaii State Hospital Operator at 247-2191 and the Clean Water Branch (DOH-CWB) via email at cleanwaterbranch@doh.hawaii.gov during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. The Engineer will provide this information to the DOH-CWB. The Engineer will provide information to the NRC if requested.



DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

<u>CONSTRUCTION NOTES — 5</u>

<u>LEEWARD BIKEWAY</u> <u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

Date: July 1, 2019

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#### Water Pollution and Erosion Control Notes (cont.)

- E. PERMIT REQUIREMENTS:
- 1. A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities of one acre or more of disturbed area is required for this project. If the Contractor requires extra land disturbance, including staging and storage areas, that is not covered by the NPDES Permit obtained by the State, the Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit to cover this additional disturbed area. See Hawaii Administrative Rules Chapter 11–55, Appendix C for definition of land disturbance. The Contractor's attention is directed to the applicable NPDES Permit documents on the bid package compact disc.
- 2. Comply with all applicable State and Federal Permit conditions. Permits may include, but not limited to the following:
  - d. NPDES Permit for Construction Activities
  - e. NPDES Permit for Construction Dewatering
  - f. NPDES Permit for Hydrotesting Waters
  - g. Water Quality Certification
  - h. Stream Channel Alteration Permit
  - i. Section 404 Army Corps of Engineer Permit
- F. SITE-SPECIFIC BMP REQUIREMENTS:

Each BMP below is referenced to the corresponding section of the current HDOT Construction best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at

http://www.stormwaterhawaii.com/resources/contractors—and—consultants/ under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at

http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/ under Concrete Curing and Irrigation Water

The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants are included in Section 209 of the Special Provisions under Appendix A.

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#### Water Pollution and Erosion Control Notes (cont.)

F. (Continued)

Follow the requirements below:

- 1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC-2).
- 2. Contain on-site runoff using Perimeter Sediment Controls
  - a. SC-1 Silt Fence
  - b. SC-5 Vegetated Filter Strips and Buffers
  - c. SC-8 Compost Filter Berm
  - d. SC-13 Sandbag Barrier
  - e. SC-14 Brush or Rock Filter
- 3. Control offsite runoff from entering construction area
  - a. EC-8 Run-On Diversion
  - b. SC-6 Earth Dike
  - c. SC-7 Temporary Drains and Swales
- 4. Incorporate applicable Site Management BMP
  - a. SM-1 Employee Training
  - b. SM-2 Material Delivery and Storage
  - c. SM-3 Material Use
  - d. SM-4 Protection of Stockpiles
  - e. SM-6 Solid Waste Management
  - f. SM-7 Sanitary/Septic Waste Management
  - g. SM-9 Hazardous Waste Management
  - h. SM-10 Spill Prevention and Control
  - i. SM-11 Vehicle and Equipment Cleaning
  - i. SM-12 Vehicle and Equipment Maintenance
  - k. SM-13 Vehicle and Equipment Refueling
  - SM-14 Scheduling
  - m. SM-15 Location of Potential Sources of Sediment
  - n. SM-16 Preservation of Existing Vegetation
  - o. SM-18 Dust Control
- 5. Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC-2) for all areas which exit onto a paved street. Restrict vehicle access to these points.
- 6. Manage Concrete Waste including installing a Concrete Washout Area (SM-5) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).
- 7. Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.
- 8. The FHWA and their chosen contractor(s) should conduct work during dry season when possible stop work during storms or heavy rains.
- The FHWA and their chosen contractor(s) should inspect all equipment prior to beginning work each day to ensure the equipment is in good working condition, and there are no contaminant (oil, fuel, etc.) leaks.
- 10. The FHWA and their chosen contractor(s) should ensure that all equipment found to be leaking contaminants is removed form service until repaired.
- 11. The FHWA and their chosen contractor(s) should ensure that all fueling and repairs to equipment is done in a location that prevents the introduction of contaminants to essential fish habitat (EFH).

- 12. The FHWA and their chosen contractor(s) should prevent the discharge of chemicals and other fluids dissimilar from seawater into the water column.
- The FHWA and their chosen contractor(s) should prevent trash and debris from entering the marine environment through the use of nets or barriers.
- 14. The FHWA and their chosen contractor(s) should use materials that are nontoxic to aquatic organisms, such as untreated wood, concrete, or steel (avoid pressure—treated lumber).
- 15. The FHWA and their chosen contractor(s) should ensure that all construction equipment used for in—water work does not pose a risk of introducing new invasive species and will not increase the abundance of those invasive species present at the project location.
- 16. The FHWA and their chosen contractor(s) should ensure that appropriate BMPs are developed and implemented to minimize erosion and stormwater runoff during all proposed activities (e.g., bikeway construction, bridge replacement, and maintenance dredging) to minimize adverse effects from turbidity and sedimentation to EFH in Pearl Harbor.



DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

<u>CONSTRUCTION NOTES — 6</u>

<u>LEEWARD BIKEWAY</u> <u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

Date: July 1, 2019

SHEET No. CO.7 OF 14 SHEETS

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#### <u>Island Energy Services LLC (IES) Guidelines For Work</u> Near IES Pipelines

Island Energy Services LLC (IES) has one or more petroleum product pipelines in an easement that runs through or immediately adjacent to Contractor's proposed project. These pipelines are used for the transmission of petroleum products at high temperatures and pressures. The pipelines are coated and cathodically protected. They require frequent inspection and maintenance.

It is absolutely necessary that IES be provided access to these buried pipelines at all times, 24 hours a day, seven days a week. Therefore, Contractor's proposed project must adhere to the following guidelines:

- If the easement area is fenced or walled in, IES must have a gate key unless the area is attended on a 24-hour basis.
- 2. Storage of material on the easement shall be avoided. This includes parking lots.
- A minimum overhead clearance of 15 feet must be maintained within the easement.
- 4. Heavy landscaping (trees, shrubs, sprinklers, etc.) should be kept off the easement.
- Heavy obstructions should be kept off the easement (e.g. buildings, walls, equipment pads, etc.).
- No top-to-bottom obstructions will be permitted in the easement (e.g. power poles, sewer manholes, sewer clean-outs, bridge abutments, etc.).
- 7. Light obstructions (e.g. grass, paving (asphaltic concrete), curb crossings, etc.) are considered reasonable. Grassed areas must be suitable for all—weather vehicular travel.
- IES's Company Representative will stake the pipelines at Contractor's request.
   Determination of pipeline elevations shall be Contractor's responsibility and at Contractor's expense.
- The pipeline easement access road must be kept open at all times. Authorization to block access roads at any time during your construction period must be obtained from IES.
- 10. Avoid running any sewers, fences, sprinkler lines, pipelines, cables, curbs, etc., within the easement in a parallel orientation to the easement centerline. Crossings are permitted but must be held to a minimum of 45 degrees to easement centerline.
- 11. Sewer and electrical conduit crossings should be kept a minimum of four feet clear below IES's pipelines for the full easement width. If this condition cannot be met, the crossings should be encased in six inches of concrete, with a minimum two feet clear below IES's pipelines.
- 12. Except for Item 11 above, all crossing facilities should be at least 24 inches clear below IES's pipelines for the full easement width. Crossings above IES's pipelines are not permitted.
- 13. Removal of fill from the easement should not result in there being less than three feet minimum cover over the lines.
- 14. Trenches across the pipelines shall be limited to a maximum width of five feet less unless the lines are supported in a manner accepted in advance by IES.
- 15. All excavations and backfilling operations in IES's easement must be witnessed by an IES Representative. Contractor shall provide IES with 48 hours notice prior to beginning work within IES's easement. All backfill material within six inches of our pipelines must be of finely graded dirt or sand. All excavations within two feet of our pipelines must be accomplished by hand digging. Work shall be handled in an expeditious manner in order to keep IES's pipelines uncovered for as short a period as possible.
- 16. Fill in IES's easement should be limited to four feet maximum cover over IES's pipelines. IES will stake the pipelines upon request so that Contractor can excavate to determine the depth of the pipelines.

#### <u>Island Energy Services LLC (IES) Guidelines For Work</u> Near IES Pipelines (Con't)

- Regrading of adjacent property should not adversely affect drainage of the easement area or pose a hazard to the easement such as landslides or erosion.
- 18. The slope must be kept reasonably level across the easement. Maximum should be 5:1 to provide for backhoe operation.
- 19. All costs pertaining to damage of IES's pipelines, their coatings, or the cathodic protection devices, or damage of property and injury to persons caused directly or indirectly by this work, will be to Contractor's account. Any repair work on the lines resulting from Contractor's project shall be performed by IES and billed to Contractor.
- 20. IES/Contractor requires 30 days advance notice prior to construction commence.
- 21. IES/Contrator will be working in parallel with Bridge contractor to install temporary and permanent supports for pipelines. An estimated 4 days duration for work on each bridge (2 days for temporary and 2 days for permanent).

#### Construction Notes for Hawaii Gas Co. Facilities

- The Hawaii 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.
- Written clearances must be obtained from Hawaii Gas Company, Maps and Records Department, 515 Kamakee Street, at least five (5) working days prior to starting excavation near these gas pipelines.
- Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call One Call Concepts a minimum of five (5) working days before starting excavation to arrange for field location of the existing gas pipelines. The telephone number is 1-866-423-7287.
- The contractor shall excavate and backfill around gas pipelines in the
  presence of a representative of Hawaii Gas Company. All backfill within six
  inches of any gas pipeline shall be select cushion material approved by
  Hawaii Gas Company.
- 5. For relocation of any gas pipeline, the Contractor shall notify Hawaii Gas Company five (5) working days before starting work. The telephone number is 594-5574. 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 Hawaii Gas Company and paid for by the Contractor.
- 6. The Contractor shall notify the Hawaii Gas Company immediately after any damage has been caused to existing gas pipelines, coatings, or its cathodic protection devices. The telephone number is 5.35—5.933, 24 hours a day. The Contractor shall be liable for any damage to Hawaii Gas Company facilities. Repair work on such damage shall be done by Hawaii Gas Company with payment for this work to be borne by the Contractor.
- 7. 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 Hawaii Gas Company.
- 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.

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#### Construction Notes For 16" Gas Transmission Line

- The Hawaii Gas Company 16—inch high pressure gas transmission line is plastic coated and cathodically protected. The Contractor shall be extremely careful when working near the gas pipeline.
- Prior written clearance must be obtained from The Hawaii Gas Company, Maps and Records Department, 515 Kamakee Street, at least five (5) working days before starting excavation near any of The Hawaii Gas Company pipelines.
- Since pipeline locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call One Call Concepts, a minimum of five (5) working days before starting excavation to arrange for field location of existing gas lines. The telephone number is 1-866-423-7287.
- 4. The Contractor shall notify The Hawaii Gas Company, Distribution Department, 24 hours prior to excavating and backfilling any pipeline. The telephone number is 594–5556.
- 5. The Contractor shall have the sole responsibility to perform field verification, including hand digging methods.
- The Contractor shall excavate and backfill around the pipeline in the presence of a representative of The Hawaii Gas Company. All backfill within 12 inches of the pipeline shall be sand, mansand or select cushion material approved by The Hawaii Gas Company.
- 7. Minimum vertical and horizontal clearance between gas pipeline and other pipelines, conduits, or other structures shall be 24 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by The Hawaii Gas Company.
- 8. The Contractor shall work in an expeditious manner in order to keep uncovered gas line exposure to a minimum.
- 9. The Contractor shall notify Hawaii Gas Company, immediately after any damage has been caused to the existing gas pipelines, their coatings or their cathodic protection devices. The telephone number is 535-5933, 24 hours a day. The Contractor shall be liable for any damage to The Hawaii Gas Company facilities. Repair work on such damage shall be performed by The Hawaii Gas Company with payment for this work to be borne by the Contractor.
- Hawaii Gas Company/Contractor requires 4 months advance notice (to order pipe) prior to construction commence.
- 11. Hawaii Gas Company/Contractor requires 35 working days to complete the installation of the new gas line and removal of existing.

  A 4" Bypass will be installed in order to maintain service. Gas line installation will be in the same temporary support as IES lines to keep it out of the way while installing the new 16" line.



DEPARTMENT OF TRANSPORTATION

CONSTRUCTION NOTES - 7

<u>LEEWARD BIKEWAY</u> <u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

Date: July 1, 2019

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### Traffic Notes for Work on City & County Streets

- 1. 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.
- 2. The Contractor shall provide, install and maintain all necessary signs and other Protective facilities, Control Devices at Work Sites On or Adjacent to Public Street and Highways" adopted by the Director of Transportation, and the current U.S. Federal Highways Administration's "Manual on Uniform Traffic Control Devices for Streets and Highways, Part IV - Traffic Control for Streets 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 3:30 p.m., Monday through Friday, unless otherwise permitted by the Department of Transportation Services.
- 4. 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.
- The Contractor shall hire off-duty Honolulu Police Department officers to control the flow of traffic at each site.
- 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.
- 7. Driveways shall be kept open unless the owners of the property using these rights-of-way are otherwise provided satisfactorily.
- 8. Contractor shall reference to the approval of the Department of Transportation Services and the Department of Plannina and Permittina, 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.
- 9. The Contractor shall notify the Department of Planning and Permitting at 768-8084 one (1) week prior to any work to be done on signs, posts and pavement markings.
- 10. 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.
- 11. The State of Hawaii, Department of Transportation, Highways Division shall ensure that the Contractor shall installs the construction traffic control devices in accordance with the MUTCD and the Hawaii Administration Rules as specified in Traffic note #2.

#### Signs & Markings Notes

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- 1. All traffic sign and pavement marking installations shall be done in accordance with the "Manual on Uniform Traffic Control Devices for Streets and Highways,"2009 Edition, as amended, the latest specifications from the Traffic Review Branch, Department of Planning and Permitting, and as shown on the plans.
- Contractor shall notify and coordinate work with the Civil Engineering Branch, Department of Planning and Permitting, one (1) week in advance of commencing work at 768-8084.
- 3. Contractor shall submit material brochures for all signs and paint materials to the Civil Engineering Branch, Department of Planning and Permitting.
- The signing and/or striping contractor shall keep one (1) set of approved plans at the project site at all times during construction
- Contractor shall paint temporary guidelines and outline of arrows, legends, and crosswalks with a two inch (2") wide brushed line on the day the roadway is opened to traffic. These markings must be approved by the inspector from the Civil Engineering Branch, Department of Planning and Permitting.
- 6. Contractor shall notify the Civil Engineering Branch, Department of Planning and Permitting at 768-8084, three (3) days in advance
- 7. Contractor shall meet with the inspector from the Civil Engineering Branch, Department of Planning and Permitting during the final
- Within ten (10) days following notification of award of contract, the Contractor shall submit to the Department of Planning and Permitting (Phone: 768-8084) for approval, a list of any signing and pavement marking material which he proposes to install. The list shall be complete as to the name of manufacturer, catalog number, and shall be supplemented with material brochures.
- Upon final inspection of the project, the Contractor shall submit a letter of certification for all traffic signing and pavement marking
- 10. Signs shall be attached to brackets with 5/16" zinc plated steel bolts, nuts and washers. signs 48" wide or larger than 10 sq. ft. in area shall be mounted on two 2" galv. pipe post, the sign shall be installed with at least (1) one foot clearance from the sign edge to the curb face.
- 11. All traffic signs shall be reflectorized.
- 12. Raised Pavement Markers shall be installed in accordance with the Department of Planning and Permitting Standards.
- 13. Location of "STOP" sign:
  - A. Install "STOP" sign at curb tangent point.
  - B. Install "STOP" sign on metal street light standard if a standard is located within 10 feet of curb return.
  - C. Install "STOP" sign in front of utility pole if a pole is located within 10 feet of curb return.
- 14. Pavement word and symbol markings shall be in accordance with the Department of Planning and Permitting Standards.
- 15. The Contractor shall use thermoplastic material, approved by the Civil Engineering Branch, Department of Planning and Permitting, for all crosswalks, stop bars, pavement arrows, center lines, lane lines, arc lines, channelized traffic islands, and legends.

APPROVED BY

Chief, Traffic Review Branch, DPP (For Work within City R/W only)

Date

45 kyhong az APR 30, 2020

CONSTRUCTION NOTES - 8

LEEWARD BIKEWAY Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

DEPARTMENT OF TRANSPORTATION

Date: July 1, 2019

SHEET No. CO.9 OF 14 SHEETS

#### Construction Notes For Work Within The State Energy Corridor (SEC)

- Unless otherwise noted, all applicable construction work shall be done in accordance with: the Hawaii Standard Specifications For Road and Bridge Construction, 2005, and Standard Plans, 2008, of the Department of Transportation, State of Hawaii, as amended; and the Standard Specifications For Public Works Construction, September 1986, and Standard Details For Public Works Construction, September 1984, as amended, of the Department of Public Works, City and County of Honolulu, and the Counties of Kauai, Maui, and Hawaii.
- 2. The underground pipes, cables or ductlines known to exist by the Design 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 to existing 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 excavation for the new lines.
- 3. The existing utilities have been shown on these plans insofar as it is possible to do so. Their locations as shown are approximate only and the Contractor shall make an independent check on the ground by probing and with the various utility companies and governmental agencies to ascertain their exact locations.
- 4. The Contractor shall protect all existing utilities whether shown on the plans or not. Before disrupting service of any utility, the Contractor shall contact the Construction Engineer and the responsible utility authority. Damage to existing utilities as a result of construction activities shall be repaired by the Contractor at no additional cost to the State, and at no cost to the affected utility authority.
- 5. The Contractor shall make arrangements for utilities such as electricity, etc. required for his operations, and all costs for these utilities shall be borne by the Contractor.
- 6. All existing utilities to remain in use, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. Any damage to the existing utilities shall be repaired and paid for by the Contractor.
- 7. Unless relocation is called for on the plans, existing utilities shall remain in—service and in place. If relocation of existing utilities is required for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense, and only with the approval of the Construction Engineer. Prior to relocating existing utilities, the Contractor shall coordinate the work with Harbors Division in order to minimize any disruption.
- 8. The Contractor shall verify and check 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 Construction Engineer for clarification.
- 9. The Contractor shall observe and comply with all Federal, State and local laws required for the protection of public health, safety, and environmental quality.
- 10. The Contractor shall provide, install and maintain all necessary signs, barricades and other protective facilities and shall take all necessary precautions for the protection, convenience and safety of the public.
- 11. The Contractor shall apply for a permit with a noise control plan and other required pollution control plans.

- 12. If there are any fuel spillages, existing leaks, etc. found during construction, report the foregoing to the Hazard Evaluation and Emergency Response Unit (ph. no. 586-4248) of the Department of Health. For non-working hours, call the State Hospital Operator (ph. no. 247-2191).
- The Contractor shall notify the Construction Engineer and State
   Historic Preservation Division upon uncovering any potential historical
   artifacts or items of archaeological significance.
- 14. No contractor shall perform any construction activity so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the costs incurred for any remedial action by the state shall be payable by the Contractor.
- 15. The Contractor shall be responsible for conformance with the applicable provisions of Chapter 54, Water Quality Standards and Chapter 55, Water Pollution Control, of Title 11, Administrative Rules of the State Department of Health.
- All existing improvements that are disturbed and not planned to be demolished shall be replaced or restored to their original or better condition.
- 17. The Contractor shall coordinate the work with State Harbors Division (Mr. Herbert Ching).
- The Contractor shall comply with all safety requirements defined by the State DOT-Harbors Division.
- 19. The Contractor shall follow appropriate procedures for handling asbestos—containing materials as indicated in the Specifications, and shall conform to all applicable Federal, State and local regulations regarding asbestos—containing materials, when tapping, cutting, handling or otherwise disturbing pipes or ducts containing asbestos material.
- 20. The Contractor will not be allowed to discharge dewatering effluent directly into the drainage system. Dewatering required for construction shall be in accordance with Hawaii Administrative Rules, Chapter 11-54, Water Quality Standards, and the approved Notice of General Permit Coverage (NGPC) for this project.

#### <u>Grading Notes For Work Within</u> <u>The State Energy Corridor (SEC)</u>

- 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, and Geotechnical Engineering Exploration by Geolabs Hawaii, dated February 8, 2007.
- No contractor shall perform any grading operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the costs incurred for any remedial action by the State shall be payable by the Contractor.
- 3. 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 Chapter 11-60, "Air Pollution Control."

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HAWAII	HAW.	STP-BW-0300(8)	2019	11	171

## <u>Grading Notes For Work Within</u> <u>The State Energy Corridor (SEC)</u>

- 4. The underground pipes, cables or ductlines known to exist by the Design 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 excavation for the new lines.
- 5. 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.
- 6. Harbors Division shall be informed of the location of the borrow/disposal site for the project. The borrow/disposal site must also fulfill the requirements of the Grading Ordinance.
- 7. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice to Harbors Division, provided such grading work is also in conformance with Hawaii Administrative Rules, Chapter 11–43, "Community Noise Control for Oahu."
- 8. The limits of the area to be graded shall be flagged before the commencement of the grading work.
- All grading operations shall be performed in conformance with the applicable provisions of the Water Pollution Control and Water Quality Standards contained in Hawaii Administrative Rules, Chapter 11-55, "Water Pollution Control" and Chapter 11-54, "Water Quality Standards," and if applicable, the NPDES permit for the project.
- 10. 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.
- 11. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.
- 12. Temporary erosion control procedures shall be submitted for Harbors Division approval prior to construction.
- 13. If the grading work involves contaminated soil, then all grading work shall be done in conformance with applicable State and Federal requirements.
- 14. Non-compliance with 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 Contractor. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.
- 15. The Contractor shall file and process the site specific Best Management Practices, National Pollutant Discharge Elimination Permit with the State Department of Health no later than 7 days after the Notice to Proceed.



DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES - 9

<u>LEEWARD BIKEWAY</u> <u>Philippine Sea Rd. to Waipahu Depot Street</u> Fed. Aid Proj. No. STP-BW-0300(8)

Date: July 1, 2019

SHEET No. CO.10 OF 14 SHEETS

## <u>Water Notes</u>

- 1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the Standard Specifications for Road and Bridge Construction, dated 2005, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's Water System External Corrosion Control Standards, dated 2002, The Water System Standards, volume 3, dated 1991, and all subsequent amendments and additions.
- 2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply.
- 3. The Contractor shall notify BWS Capital Projects Division, Construction Section in writing prior to commencing work on the water system.
- 4. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
- 5. Re-approval shall be required if this project is not under construction within a period of two years.
- 6. 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 measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
- 7. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.
- 8. The Contractor shall adjust all manhole frames/valve boxes/meter boxes within the resurfaced area. The these manholes/valve boxes/meter boxes to facilitate the "referencing "Contractor shall be responsible for adjustments."
- 9. Any adjustments to the existing water system required during construction to meet requirements of BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.

# Sewer Notes 1

- 1. All sewer construction shall be performed in accordance with the City's "Standard Specifications," Sept. 1986, The Department of Environmental Services "Wastewater System Design Standards," July 2017, and "Wastewater System Standard Details," July 2017, current City practices and revised ordinances of Honolulu, 1990 as amended.
- 2. In the event that any change in alignment or grade for the proposed sewers are required due to unforeseen conflict with other utilities, the Engineer in charge or the maker of the plans shall be responsible for the required changes which are to be presented to the Department of Planning and Permitting (DPP) for approval.
- 3. Crushed rock cradle is permitted where soil is stable. In areas of unstable soil, the maker of the plans and the construction engineer will determine the pipe support required.
- 4. 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.
- 5. Sewer laterals shall be clear of and not conflicting with any other utility. Minimum horizontal and vertical clearances shall be strictly observed and followed.
- 6. Slope for sewer laterals shall be 2.00%.
- 7. Building plumbing facilities shall be controlled by sewer lateral inverts.
- 8. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- 9. 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.
- 10. The Contractor shall install "Rainstopper" manhole inserts in all sewer manholes with Type "SA" Frame and cover.
- 11. The Contractor shall obtain approval for advance sewer riser agreement at the DPP and obtain building permit for plumbing work before any advance riser is made.
- 12. All sewer pipe joints within easements shall be wrapped with geotextile root barrier.
- 13. Geotextile fabric to envelope the pipe cradle and select backfill material shall be provided where water or unstable soil conditions are encountered.

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HAWAII	HAW.	STP-BW-0300(8)	2019	12	171

## <u>Sewer Notes (cont.)</u>

## 14. <u>Confined Space</u>

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:

- 1. 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 harnesses for up to two personnel.
  - B. Lifeline and associated clips.
  - C. Ingress/egress and fall protection equipment.
  - ). Two-way radios (walkie-talkies) if out of line-of-sight.
  - E. Emergency (escape) respirator (10 minute duration).
  - F. Cellular télèphone to call for emergency assistance.
  - 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 carried by Inspector.
- 2. Continuous forced air ventilation adequate to provide safe entry conditions.
- 3. One attendant/rescue personnel topside (two, if conditions warrant it).
- 15. When connecting to a live sewer line, the Contractor shall abide by all conditions that the State Department of Health sets forth to mitigate any wastewater spill that may occur. The Contractor shall inform the city inspector five (5) working days prior to the actual connection. The Contractor shall be responsible for any fines and penalties due to any spills resulting from the connection.
- 16. No rungs shall be installed inside new sewer manholes.
- 17. For sewer manhole adjustments upward less than 3", see Std. detail S-28. For SMH adjustments upward greater than 3" or for any adjustments downward, reconstruct SMH top from below the cone section.
- 18. If the Contractor encounters flow monitoring devices such as special sewer manhole covers embedded with solar panels, contact Collection Systems Maintenance, ENV at 768—7272 to coordinate temporary removal.
- 19. The Contractor shall maintain visibility and maintenance access to live sewer manhole locations at all times, including during non-work hours and paving operations.
- 20. The Contractor shall use a manhole debris catching device when performing manhole height adjustment work and remove any construction debris that has fallen into the manhole. Disposal of construction debris in the sewer system is strictly prohibited.

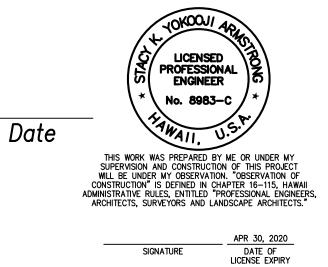
11/1/19 1 Rev. & Renumbered Notes

DATE REVISION

DEPARTMENT OF TRANSPORTATION

APPROVED BY

Manager and Chief Engineer, Board of Water Supply (For work affecting BWS Facilities in City/State R/W and BWS Eastments Only)



<u>CONSTRUCTION NOTES - 10</u>
<u>LEEWARD BIKEWAY</u>

Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

Date: Sept. 1, 2019

SHEET No. CO.11 OF 14 SHEETS ADD. 12

