

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS

SPECIFICATIONS AND PROPOSAL

FOR

SEWER INSPECTION AND REPAIR

AT DANIEL K. INOUE INTERNATIONAL AIRPORT

HONOLULU, OAHU, HAWAII

PROJECT NO. B01427-73

NOTICE TO BIDDERS
(Chapter 103D, HRS)

SEALED BIDS for SEWER INSPECTION AND REPAIR AT DANIEL K. INOUE INTERNATIONAL AIRPORT, HONOLULU, OAHU, HAWAII, PROJECT NO. BO1427-73, will begin as advertised in HIePRO. Bidders shall register and submit complete bids through HIePRO only. Refer to the following HIePRO link for important information on registering: <https://hiepro.ehawaii.gov/welcome.html>.

Specifications, proposal, and other documents designated or incorporated by reference shall be available in HIePRO.

DEADLINE TO SUBMIT BIDS is November 15, 2023, at 2:00 p.m., Hawaii Standard Time (HST). **Bidders shall submit and upload the complete proposal to HIePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HIePRO. Do not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection. FAILURE TO UPLOAD THE PROPOSAL TO HIePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.**

The Base Bid scope of work consists of sewer cleaning, inspection, sewer line repair through the use of cured in place pipe lining and trouble call work for sewer repair. Additive Alternate scope of work consist of the cured in place pipe lining of 24” and 36” diameter sewer line. The estimated cost of construction is between \$1,300,000 and \$2,000,000.

To be eligible for award, bidders shall possess a valid State of Hawaii (include the appropriate license required i.e., General Engineering "A" or Specialty Contractors "C-43" or "C-43a" license **at the time of bidding**.

The GENERAL PROVISIONS dated 2016 applicable to this project are available on the internet at <http://hidot.hawaii.gov/administration/con/>.

A pre-bid conference is scheduled for October 25, 2023, at 9:00 a.m., at Daniel K. Inouye International Airport, Terminal 2 – Administration Tower 5th floor conference room, Honolulu, Hawaii 96819. Persons needing special accommodations at the pre-bid conference due to a disability may contact Gary Kam, the State’s Project Manager, by phone, at (808) 834-6091, or email at gary.yt.kam@hawaii.gov.

All prospective bidders and/or their respective representatives are encouraged to attend, however, attendance is not mandatory. All information presented at the pre-bid conference is provided for clarification and information only. Any amendments to the bid documents shall be made by formal addendum and posted in HiePRO.

All Request for Information (RFI) questions and substitution requests shall be submitted via HiePRO **no later than fourteen (14) calendar days** before bid opening. RFI questions received after the stated deadline will not be addressed. Verbal RFIs will not receive a response. All responses to RFI questions shall be issued by formal addendum and posted in HiePRO.

Apprenticeship Preference. A 5% bid adjustment for bidders that are party to apprenticeship agreements pursuant to §103-55.6, Hawaii Revised Statutes (HRS), is applicable to this project.

Employment of State Residents on Construction Procurement Contracts. Compliance with §103B-3, HRS, is a requirement for this project whereby a minimum of 80% of the bidder's work force on this project shall consist of Hawaii residents.

Campaign contributions by State and County Contractors. Contractors are hereby notified of the applicability of §11-355, HRS, which states that campaign contributions are prohibited from specified State or county government contractors during the term of the contract if the contractors are paid with funds appropriated by a legislative body. For more information, contact the Campaign Spending Commission at (808) 586-0285.

Protests. Any protest of this solicitation shall be submitted in writing to the Director of Transportation, in accordance with §103D-701, HRS, and §3-126, Hawaii Administrative Rules.

The Equal Employment Opportunity Regulations of the Secretary of Labor implementing Executive Order 11246, as amended, shall be complied with on this project.

The U.S. Department of Transportation Regulation entitled "Nondiscrimination in Federally Assisted Programs of the U.S. Department of Transportation," Title 49, Code of Federal Regulations (CFR), Part 21 is applicable to this project. Bidders are hereby notified that the Department of Transportation will affirmatively ensure that the contract entered into pursuant to this advertisement will be awarded to the lowest responsible bidder without discrimination on the grounds of race, color, national origin or sex (as directed by 23 CFR Part 200).

For additional information, contact Mr. Gary Kam, our Airports State Project Manager at (808) 834-6091 or email at gary.yt.kam@hawaii.gov.

The State reserves the right to reject any or all proposals and to waive any defects in said proposals in the best interest of the public.

Ford Fuchigami

FORD N. FUCHIGAMI
Deputy Director of Transportation for Airports

Posted on HlePRO: September 18, 2023

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INSTRUCTIONS FOR CONTRACTOR'S LICENSING

"A" general engineering contractors and "B" general building contractors are reminded that due to the Hawaii Supreme Court's January 28, 2002 decision in Okada Trucking Co., Ltd. v. Board of Water Supply, et al., 97 Haw. 450 (2002), they are prohibited from undertaking any work, solely or as part of a larger project, which would require the general contractor to act as a specialty contractor in any area where the general contractor has no license. Although the "A" and "B" contractor may still bid on and act as the "prime" contractor on an "A" or "B" project (*See, HRS § 444-7 for the definitions of an "A" and "B" project.*), respectively, the "A" and "B" contractor may only perform work in the areas in which they have the appropriate contractor's license (*An "A" or "B" contractor obtains "C" specialty contractor's licenses either on its own, or automatically under HAR § 16-77-32.*). The remaining work must be performed by appropriately licensed entities. It is the sole responsibility of the contractor to review the requirements of this project and determine the appropriate licenses that are required to complete the project.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

SPECIAL PROVISIONS

SPECIAL PROVISIONS

The following additional amendments to the General Provisions are applicable to this project:

1.3 DEFINITIONS

1. Section 1.3 Definitions: The definition for "Subcontractor" is amended by deleting it and replacing it with the following:

"Subcontractor - An individual, partnership, firm, corporation, or joint venture, or other legal entity, as licensed or required to be licensed under Chapter 444, Hawaii Revised Statutes, as amended, which enters into an agreement with the Contractor to perform a portion of the work."

2. Add the following to 1.3 Definitions.

"HAWAII ePROCUREMENT SYSTEM (HIePRO) - The State of Hawaii eProcurement System for issuing solicitations, receiving proposals and responses, and issuing notices of award."

"PROPOSAL (OR BID) - The offer of a Bidder, on the prescribed HDOT form, to perform the work and to furnish the labor and materials at the prices quoted."

2.7 REQUEST FOR SUBSTITUTION OF SPECIFIED MATERIALS AND EQUIPMENT BEFORE BID OPENING is amended as follows:

1. The last sentence in the first paragraph (line 147 to 152) shall be replaced with the following:

"Where a bidder intends to use a material or equipment of an unspecified brand, make, or model, the bidder must submit a request to the Department for review and approval at the earliest date possible. Requests shall be submitted via email to the Contact person listed in HIePRO for the solicitation and also posted as a question in HIePRO under the question/answer tab referencing the email with the request. The request must be posted in HIePRO no later than fourteen (14) calendar days before the bid opening date."

2. The first sentence in the second paragraph (line 154 to 156) shall be replaced with the following:

"It shall be the responsibility of the bidder to submit sufficient evidence based upon which a determination can be made by the Department that the alternate brand is a qualified equivalent."

2.8 PREPARATION AND DELIVERY OF BID is amended as follows: Last Paragraph (line 189 to 192) shall be replaced with the following:

"Bidders shall submit and upload the complete proposal to HIePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered. Original (wet ink, hard copy) proposal documents are not required to be submitted. Contract award shall be based on evaluation of proposals submitted and uploaded to HIePRO. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HIePRO. Do not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection.

FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HIePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.

If there is a conflict between the specification document and the HIePRO solicitation, the specifications shall govern and control, unless otherwise specified."

2.11 BID SECURITY

"(a) Unless directed otherwise in the invitation for bids, each bid shall be accompanied by bid security which is intended to protect the Department against the failure or refusal of a bidder to execute the contract for the work bid or to supply the required performance and payment bonds. Bid security shall be in an amount equal to at least five percent of the base bid and additive alternates. Bid security shall be in one of the following forms:

- (1) A deposit of legal tender;
- (2) A valid surety bid bond, underwritten by a company licensed to issue bonds in the State of Hawaii; or
- (3) A certificate of deposit; credit union share certificate; or cashier's, treasurer's, teller's, or official check drawn by or a certified check accepted by a bank, savings institution, or credit union insured by the Federal Deposit Insurance Corporation (FDIC) or the National Credit Union Administration (NCUA) and payable at sight or unconditionally assigned to the Department. These instruments may be utilized only to a maximum of one hundred thousand

dollars (\$100,000.00). If the required amount totals over one hundred thousand dollars (\$100,000.00), more than one instrument not exceeding one hundred thousand dollars (\$100,000.00) each and issued by different financial institutions shall be accepted.

If bidder elects options (1) or (3) above for its bid security, said bid security shall be in its original form and shall be submitted before the bid deadline to the Contract Office, Department of Transportation, Aliiainoku Hale, 869 Punchbowl Street, Room 105, Honolulu, Hawaii 96813. Original surety bid bonds do not need to be submitted to the Contracts Office. Bidders are reminded that a copy of its surety bid bond shall be included with its bid submitted and uploaded to HIePRO."

2.12 PRE-OPENING MODIFICATION OR WITHDRAWAL OF BIDS is amended by deleting 2.12 PRE-OPENING MODIFICATION OR WITHDRAWAL OF BIDS in its entirety and replacing with the following:

"2.12 PRE-OPENING MODIFICATION OF WITHDRAWAL OF BIDS. A bidder may withdraw or modify a proposal after the bidder submits the proposal in HIePRO. Withdrawal or modification of proposal must be completed before the time set for the receiving of bids."

2.14 PUBLIC OPENING OF BIDS is amended by deleting 2.14 PUBLIC OPENING OF BIDS in its entirety.

4.12 UTILITIES AND SERVICES is amended as follows:

Add the following after the last paragraph:

"(e) Repairs and Outages.

- (1) The Contractor shall have available on 24-hour call sufficient specialty contractors, such as electrical and plumbing contractors, to repair any damage to existing facilities that might occur as a result of construction operations regardless of when the damage might occur.
- (2) Outage: Written requests for power outage, communication changes, and water and sewer connection outages shall be submitted to the Engineer at least seven (7) days in advance or as specified in other sections of these specifications. Outages will be restricted to non-peak operational hours between midnight and 6:00 a.m."

7.21 PUBLIC CONVENIENCE AND SAFETY - is hereby added to the General Provisions:

"It shall be especially noted by the Contractor that the

area directly adjacent to the existing in use runways and taxiways, is an extremely hazardous area and that very strict controls will apply throughout the entire period required to complete all work within 500 feet from the edge of an in use runway and 180 feet from the edge of an in use taxiway.

The Contractor shall familiarize himself with the Airport Certification Manual available for review at the Airport Manager's Office and shall comply with its requirements.

The Contractor is responsible for the security of access points to the Airport Operational Area that are located within the limits of construction and will be fined \$1,000 per incident for any breach of security at these locations. All gates leading into the AOA shall be kept locked and if required to be open, the Contractor shall provide professional security guards to attend gates. The guards must be approved by the Director and shall be required to attend a training session conducted by the Airport Manager prior to gate assignment."

8.20 LIMITATION OF OPERATIONS: is hereby added to the General Provisions:

"The following limitations shall be observed by the Contractor when operating within 75 feet from the edge of any taxiway.

General - The Contractor shall schedule his operations to minimize interference with the movement of aircraft or passengers as may be required by the Engineer. The Contractor shall be responsible to alert all of his personnel to the location of power and signal cables installed for the operation of the airport. The Contractor shall control his operations in a manner to preclude any possible damage to those cables. Utility companies shall be notified by the Contractor one week before commencement of work. The Contractor shall give notice to the Engineer in writing, at least 168 hours before operating within 75 feet from the edge of any taxiway and the Engineer will assure himself that the Airport Management personnel are notified in sufficient time to publish the warning (NOTAM). The Contractor shall immediately repair any damages to the existing perimeter fence to prevent inadvertent entry to the Airport Operation Area (AOA).

Work in Vicinity of Runways and Taxiways in Use - Under the terms of this contract, it is intended that work shall be completed without disturbing the paved surface of existing runways and taxiways, unless shown otherwise on the plans. Aircraft traffic shall not be interrupted. The Contractor shall schedule to work within 75 feet of the taxiway as directed by the Airport Management. No ruts, holes, or open trenches of 3 inches

or more in depth and no objects or material 3 inches or more in height shall be permitted within the safety area when the airfield is in operation in conformance to Federal Aviation Regulation Part 139. The Contractor is also informed that Airport Zoning Regulations dictate that a 'clear zone' be maintained 500 feet on each side of an active runway, to be known as a hazardous area. The Contractor shall comply with all regulations governing ground operations within hazardous areas. The following FAA Advisory Circulars or later versions and FAA Regulations specify these requirements:

AC 150/5210-5C Painting, Marking, and Lighting Vehicles
Used on an Airport, dated August 2007

AC 150/5340-1J Standards for Airport Markings

AC 150/5370-2E Operational Safety on Airports During
Construction, dated 1/17/03

FAA Regulations Objects Affecting Navigable Airspace Part
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The Contractor shall keep all personnel and equipment off the areas not specifically designated for work under this Contract. At all times when the Contractor's equipment is not in use, the equipment shall be moved outside the hazardous areas to an area designated by the Engineer. Under no condition shall equipment be parked or material stored within the hazardous areas.

Failure on the part of the Contractor to abide by the above will result in suspension of work.

Authority of Control Tower Personnel - With the exception of actual construction methods, the airport control tower personnel will have full authority to control the Contractor's movements within the existing taxiway. When required, the Contractor shall maintain a constant radio vigil within all work areas and in addition shall keep at least one flagman on duty with the radio man. When notified by the control tower to temporarily halt operations, it shall be the duty of the flagman, through the use of appropriate methods (lighted flares shall not be used under any circumstances), to notify all operators of equipment and other personnel to cease work and move men and equipment off of hazardous areas.

Contractor shall provide, at his own expense, the necessary radio and equipment including a radio equipped mobile vehicle to maintain contact with control tower personnel at all times during job performance. A transceiver operating at a frequency designated by the Engineer to communicate with the

Control Tower.

Marking of Hazardous Areas - The Engineer will designate areas that are hazardous for aircraft. The Contractor shall provide red blinker lights spaced not more than 50 feet apart around all hazardous areas and areas of work within 75 feet of any taxiway. Such systems shall be subject to approval by the Engineer. The Contractor shall have personnel on call 24 hours per day for the emergency maintenance of hazard markings.

The Contractor shall provide red flags not less than 20 inches square in addition to the red blinker lights. When danger flags are made of fabric, a wire stiffener shall be used to hold the flags in an extended position. Flags shall be so mounted that they do not produce a hazard. The red danger flags shall be spaced not more than 50 feet apart around all areas of work within 75 feet of any taxiway.

All systems proposed by the Contractor for lighting and barricading shall be submitted to the Engineer for review prior to installation. The Contractor shall install all flags, lighting and barricades as required by the Engineer. Such systems shall be subject to approval by the Engineer.

Storage of Equipment and Materials - At the end of each working shift, all of the Contractor's equipment shall be withdrawn to an area designated by the Engineer. The Contractor shall park all equipment in an orderly fashion and place a sufficient number of red flasher lights to identify these areas. Materials stored within the airport shall be so placed and the work shall, at all times, be so conducted as to cause no greater obstruction to the air and ground traffic than is considered necessary by the Engineer. No runways, taxiways or roadways shall be closed or opened, except by permission of the Engineer.

Blasting Operations - The Contractor shall notify the Engineer at least three (3) days before performing blasting operations as to the extent and timing of such operations, so that the Control Tower and other concerned parties can be informed.

Utilities - The Contractor shall provide for the protection of all utilities from damages in areas to be traversed by his vehicles and equipment. If required, buried cables and utility lines shall be protected by mounding earth over the cables or by any other method approved by the Engineer.

The Contractor shall notify representatives of the owner, agencies, and other affected organizations at least 48 hours prior to working in any area containing the facilities of these

organizations.

Failure to notify the owning organization will prevent authorization to work in a specific area.

Archaeological Features - Any archaeological features such as petroglyphs, burial sites, and artifacts discovered or unearthed during the performance of the work shall immediately be brought to the attention of the Engineer and all work that would damage or destroy these features shall be discontinued. The Engineer will decide, after proper investigation, to salvage or abandon such artifacts."

8.21 OPERATION OF CONTRACTOR'S MOTOR VEHICLE AND PERSONNEL IN RESTRICTED AIR OPERATIONS AND MOVEMENT AREAS is hereby added to the General Provisions:

"The Contractor shall conform with the all sections of the "State of Hawaii, Department of Transportation, Airports Division, Contractor's Training Guide" pertaining to access and operation in the Airport Operation Area (AOA) hereinafter described as follows:

A. Motor Vehicles in Airport Operation Area

For safety reasons, the operation of motor vehicles in the AOA must conform with all applicable State Airport rules and regulations."

B. Motor Vehicle Access Permit

Each motor vehicle operated in the AOA is required to:

1. Meet all State licensing registration and safety requirements and be specifically licensed for operation in the AOA.
2. Meet all insurance requirements.
3. Be restricted to operation by those persons qualified to drive the vehicle and in possession of a current Ramp Driver's License and applicable Motor Vehicle Operator's License.

C. The operators of motor vehicles in the AOA shall be responsible for meeting the following insurance requirements.

1. Licensed Vehicles

As a condition for authorization to enter the AOA, the Contractor shall provide evidence of vehicle liability insurance in the form of a Certificate of Insurance issued by an authorized insurance carrier. Automobile Liability and general Liability (combined single limit, Bodily Injury and Property Damage, per occurrence) shall be required in the applicable minimum limits specified below:

a. Daniel K. Inouye International Airport

- (1) Standard AOA clearance....\$5,000,000
- (2) Limited AOA clearance.....\$1,000,000
Limited AOA clearance is defined as operations restricted to Diamond head and Ewa Concourses second level roadways and connecting third level main terminal roadway only, with entry and exit via Security Access Point "C" (Primary) and Access Point "A" (Secondary)

b. Other Airports

Standard AOA clearance.....\$1,000,000

Standard AOA clearance is defined as any portion of a public Airport from which the public is restricted by fences or appropriate signs and not leased or demised to anyone for exclusive use and shall include runways, taxiways, all ramp and apron areas, aircraft parking and storage areas, fuel storage areas, maintenance areas, and any other area of a public Airport used or intended to be used for landing, takeoff, or surface maneuvering of aircraft or used for embarkation or debarkation of passengers.

2. Unlicensed Vehicles

Airport Liability (or General Liability) shall be required in the applicable minimum limits specified below:

a. Daniel K. Inouye International Airport, Kahului Airport and Kona International Airport at Keahole

AOA clearance.....\$5,000,000

b. All other Airports

AOA clearance..... \$1,000,000

3. Specifically name the State of Hawaii as additionally insured.
4. Indicate that the Airport Engineer will be provided with a 30-day written prior notice of policy cancellation or material change in coverage or conditions.

D. Operator's Permit

1. No person shall operate a motor vehicle on the AOA unless he holds and carries on his person a current Airport Motor Vehicle operator's permit issued by the State of Hawaii, Department of Transportation, Airports Division.
2. Operator's permits will only be issued to persons who apply through the Airport District Security Office and pass a written exam covering those portions of the Airport Rules and Regulation relating to the operation of vehicles in Airport Operations Areas.

E. Authorized Vehicles

1. Only vehicles considered operationally safe and necessary for the performance of this contract may be allowed to operate in the AOA.
2. All motor vehicles must be painted in such a manner so as to be easily identifiable and must carry the Contractor's name on each side. These signs may be of a temporary nature applied to the side windows or doors.

The lettering shall be in bold characters of a minimum of four (4) inches in height and one and one-half (1-1/2) inches in widths, the height of logos should be a minimum of six (6) inches.

3. The Contractor's operations on, over, across, and/or immediately adjacent to any runway and/or taxiway at a towered airport shall require the use of two-way radio communication. The Contractor shall obtain the necessary equipment at his own expense.
4. No person shall operate a motor vehicle on the AOA unless he holds and carries on his person a current Motor Vehicle Operator's Permit issued by the Airport Manager.

- a. The Motor Vehicle Operator's Permit will be issued only to persons who apply through the Airport Security Section and pass a written exam covering those portions of the Airport Rules and Regulations relating to the operation of vehicles in the AOA.
- b. Permits issued may be suspended or revoked for cause at any time by the Airports Division.

F. Airport Operation Area Construction Pass

1. Issuance of Airport Operation Area (AOA) Construction Passes shall be limited to contractors, subcontractors, companies, organizations, individuals engaged in authorized and approved construction activity which requires a continuing need for entry into the AOA or Airfield Movement Areas. Request letters for such passes must be made to the Airport District Manager's Office in accordance with the Contractors Training Guide or applicable District requirements.
2. As a condition for security area clearance, applicants must comply with Transportation Security Regulation 1542 which requires a ten-year background Criminal History Records Check for those individuals employed under this contract.

G. Access to Movement Areas

1. Movement areas shall mean all of the runways and taxiways of the Airport which are utilized for taxiing, takeoff, and landing of aircraft.
 - a. Any vehicle which requires access to the movement area shall be equipped with operational radio equipment capable of positive two-way contact with Tower/Ground Control.
 - b. Operators of vehicles in movement areas must possess knowledge and familiarity with restricted and airfield movement areas, operational rules, regulations, and procedures, or be under direct escort by individuals meeting all of the above requirements.
2. Vehicle Operations on Movement Areas
 - a. No vehicle shall proceed across any runway

unless specifically cleared by Tower/Ground Control.

- b. The operator of a vehicle in the movement area shall not leave his vehicle unless continuous radio contact is maintained with the Tower/Ground Control while he is away from his vehicle.
- c. Any vehicle proceeding onto the movement area between the hours of sunset and sunrise shall be equipped with an overhead flashing light which is visible for one (1) mile, unless such vehicle is being escorted by another vehicle so equipped.
- d. All vehicles operated on the movement area between sunrise and sunset except those being escorted, shall operate an overhead amber or red flashing beacon visible for at least one (1) mile; or display a flag at least three (3) feet square with orange and white checkered squares of not less than one (1) foot on each side.

H. Runway and Taxiway Closure

1. Requests for runway or taxiway closures, or for any work which affect operational conditions at the airport must be made in writing through the Airport Engineering Branch.
2. Temporarily closed runways require placement of yellow "X" markings (constructed of material such as fabric or plywood or other acceptable material) on top of the runway identification numerals at both ends of the closed runway.
3. Taxiway closures require placement of barricades with alternate orange and white markings at each end of the closed taxiway segment. Barricades must be supplemented with flashing red lights. The intensity of the lights and spacing for barricades, and lights must adequately define and delineate the hazardous area.

I. Gate Guards Furnished by Contractors

1. If a contractor is permitted by the airport to maintain operational control of an AOA Access Gate, entry through such gate shall be controlled by the posting of a gate guard.

- a. Written instruction will be provided, outlining the guard's duties to enforce those requirements and provisions prescribed by the airport's security program to include all personnel and vehicle entry and access requirements.
- b. Procedures will be established to identify the actions which will be undertaken by the guard in calling for assistance.
- c. An approved emergency communications procedure will be established.

J. Compliance

1. The contractor shall comply with all regulations and rules governing the Air Operations Areas during construction, as specified in the following or later versions:
 - a. Hawaii Revised Statutes, Title 19, Administrative Rules for Public Airports.
 - b. Federal Aviation Administration Advisory Circular AC 150/5340 1J
 - c. Marking of Paved Areas on Airport; AC 150/5370-2E, Operational Safety on Airports During Constructions.

K. Enforcement Authorization

Act 21, Section 1, Section 261-17(a), HRS; Federal Aviation Administration Regulations, Part 139, Part 107.

L. Right of Rejection or Revocation

The State of Hawaii, Airports Division, reserves the right to withhold, deny or revoke any airport security clearance, licenses or permits to any individual or organization who fails to meet the prescribed or required access area clearance criteria to include background investigation information, or fails to observe or comply with established rules, regulations, and directives.

It should be clearly understood that such denial or revocation is based solely on airport security or safety considerations and does not in any way constitute a determination by the State with regard to private employment by any individual or organization."

- END OF SECTION -

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

S P E C I F I C A T I O N S

PART I - GENERAL PROVISIONS FOR CONSTRUCTION PROJECTS 2016

(Not Physically included in the Bid documents)

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

S P E C I F I C A T I O N S

PART II - TECHNICAL PROVISIONS

DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01010 - DESCRIPTION OF WORK

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

The General Provisions, Special Provisions and Airport Division Supplement of the Specifications apply to the work specified in this document.

1.02 DESCRIPTION

Closed Circuit Television (CCTV) Inspection and Sewer Cleaning - The work to be performed under this contract shall consist of the furnishing of all labor, supervision, equipment, materials, supplies and incidentals necessary to conduct the CCTV inspection, and cleaning of sewer system at the Daniel K. Inouye International Airport in accordance with these specifications. CCTV inspection and cleaning shall be performed on an annual basis with one cleaning cycles per the twelve (12) month contract period.

General layout of sewer system is as shown per Exhibits A-1 to Exhibit A-13, the contractor shall be responsible to verify sewer system layout. The intent of the contract is to inspect and clean all gravity sewer lines within the Airport area once per year.

Contractor shall notify the Project Manager of any sewer system deficiency or condition observed during the cleaning process which would result in safety or health violation or problems. The Project Manager will review these deficiencies and determine the best course of action for correction.

At the direction of the project manager, more frequent inspection and cleaning of certain areas shall be performed at the established proposal price.

Cured-In Place Pipe Lining – Work shall be performed on an “as needed” basis at the direction and concurrence by the project manager.

Trouble Call / Emergency Work – Work shall be performed on an “as needed” basis for maintenance and operation of sewer system at the Airport. Work may include but is not limited to sewage spill clean-up, sewer cleaning, sewer pipe repair, and other work related to the operation and maintenance of the sewer system as determined by the project manager.

Additive Alternate Work – The State has identified several segments of the Airport sewer system in need of rehabilitation shown in Exhibit B-1 of the Contract. Dependent upon the availability of funds, the State may elect to perform this work as a part of this Contract.

1.03 GENERAL REQUIREMENTS

- A. The Contractor shall possess a General Engineering Contractors “A” license, or a Specialty Contractors “C-43”, Sewer, Sewage Disposal, Drain, and Pipe Laying Contractor, or Specialty “C-43a”, Reconditioning and Repairing Pipeline Contractor AND the Contractor shall have the minimum experience as specified in this section.
- B. Contingent to award, the Contractor shall complete a Qualification Questionnaire for review by the Project Manager. The Contractor shall return the completed questionnaire for review within 15 working days of receipt. Failure to respond or to provide a completed questionnaire may deem the Contractor “unresponsive” and disqualify his/her bid proposal.
- C. The Contractor shall have successfully performed a minimum of 3,000 linear feet of television inspection work in sewer lines 6-inches to 24-inches in diameter within the past five (5) years.
- D. The Contractor shall have successfully performed a minimum of 3,000 linear feet of Sewer line cleaning work on sewer lines 6-inches to 24-inches in diameter within the past five (5) years.
- E. The Contractor shall have successfully performed a minimum of 15 CIPP part-liner section installations for sewer lines of 4-inch to 12-inches in diameter within the past 5 years, using the proposed product materials and methods or equal with a track record of at least 3 years, as approved by the Project Manager.

1.04 SECURITY REQUIREMENTS

The Contractor shall comply with all security requirements for work within AOA areas.

AOA Badges – Shall only be issued to people that apply through the Airport Security Office, and complete all of the fingerprinting requirements. Contractor shall note that it may take approximately three (3) to four (4) weeks to obtain badges.

All personnel accessing the AOA must possess an AOA Badge with unescorted access. AOA temporary escort badges will only be issued when the State deems an emergency situation requires their use. All fees associated with obtaining personnel and vehicle security clearance shall be borne by the Contractor. Information regarding fees may be found at: <https://airports.hawaii.gov/hnl/passid/>

1.05 SCHEDULING OF WORK AND LIQUIDATED DAMAGES

CCTV Inspection and Sewer Cleaning – Inspection and Cleaning work shall be completed on an annual (12 month) cycle. The Contractor shall submit a proposed schedule for review and approval. All work shall be coordinated with Airport operations

and scheduled to minimize impact to airport operations. Failure to complete the work within the agreed scheduled period shall result in the assessment of \$100.00 per calendar day in liquidated damages.

CIPP and Additive Alternative Work – The Contractor upon receiving a work order from the project manager, shall promptly provide a schedule for review and approval. All work shall be coordinated with Airport operations and scheduled to minimize impact to airport operations. Failure to complete the work within the agreed scheduled period shall result in assessment of \$100.00 per calendar day in liquidated damages.

Trouble Call/Emergency Work – Upon notification of Trouble Call work the contractor shall respond to the Trouble Calls within 4 hours of notification. The contractor shall coordinate a schedule of work with the project manager to immediately address any needed work. Failure to respond to Trouble calls or Emergency calls shall be assessed \$100.00 per calendar day in liquidated damages per trouble call.

1.06 TERM OF CONTRACT AND OPTION TO EXTEND

The term of this contract shall be for twelve (12) months beginning from the date indicated in the Notice to Proceed from the State unless renewed.

Subject to the availability of State funds, this contract may be extended for three additional twelve (12) month periods at the option of the State, provided:

- A. The option to extend is exercised by the State not less than thirty days prior to the expiration of the term of the contract.
- B. The term, including extensions, shall not exceed forty-eight (48) months.
- C. Payment to the Contractor for each of the additional terms is based on the unit bid prices listed in the Proposal Schedule of the original contract with no adjustments.

The Contractor is advised that a contract similar in all essentials to this contract may be advertised for bids by the State so that bids will be received prior to thirty days before the expiration of the term of the contract. The Contractor may submit a bid in response to any such advertisement for bids upon compliance with the applicable requirements.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 PERFORMANCE OF WORK

- A. Contractor personnel assigned to this project shall be trained and experienced to

perform the specified work in a first-class manner.

- B. Contractor shall provide all tools and other equipment necessary for performing the work specified herein.
- C. Water for this project may be provided to the Contractor at a specified fire hydrant upon approval of a water use application and approved temporary meter and backflow. The installation and testing of the temporary meter and backflow shall be borne by the Contractor. The Contractor will be billed monthly at the current Airport water use rate for any water used.
- D. Contractor shall take all necessary precautionary and safety measures to prevent hazardous circumstances from occurring as a result of the work. The Contractor shall at all times conduct the work to assure the least amount of interference, disruption or disturbance to airport operators or the general public. The Contractor shall provide, erect and maintain all necessary barricades, danger signals, flags, ropes, stanchions or other safety warning and control devices to identify work areas and insure the safety of bystanders or passersby.
- E. Contractor shall be held accountable for any damage caused to building surfaces, fixtures, landscaping, or other features resulting from work for this project. Property damaged by the action of the Contractor or his employees shall be replaced or repaired to the satisfaction of the State by the Contractor at his expense.
- F. Contractor shall leave work areas in a clean and safe condition.
- G. Traffic Control shall be provided by the Contractor for work along roadway areas. Traffic control shall be in accordance with guidelines from the latest Manual on Uniform Traffic Control Devices (MUTCD) as applicable to the project work site.

3.02 REMOVAL AND DISPOSAL

Contractor shall remove all waste materials from the airport to an appropriate disposal site. Waste materials removed by vacuuming must be vacuumed into a sealed tanker for safe disposal. Disposal of all waste material shall be in strict compliance with Environmental Protection Agency (EPA), State of Hawaii Department of Health (DOH) and City and County of Honolulu (CCH) policies and regulations

3.03 CONTROL OF WORK

The Contractor's access to and movements within the various areas of work shall be coordinated through the Project Manager on a priority and availability basis. The Contractor's work and material deliveries shall be scheduled so as to insure a minimum of interference with the public and normal airport operations.

3.04 WORK SCHEDULE

- A. Work Days shall be weekdays only, Monday through Friday. No work shall be performed on weekends and on State holidays unless authorized by the Airport Manager.
- B. Work Hours – The Contractor shall work between the hours of 7:00 a.m. and 5:00 a.m., Monday through Friday. All work shall be scheduled during non-peak hours to avoid impact to Airport Operations. No work shall be performed on weekends and on State holidays unless authorized by the Airport Manager.

3.05 CONTRACTOR STORAGE

No provision or space will be provided the Contractor for equipment, material or supplies storage at the airport. All equipment and supplies shall be removed from the airport at the completion of each day's activities.

3.06 SAFETY

- A. The Contractor shall at his expense, promptly and fully comply with and carry out safety, sanitation and medical requirements as prescribed by Federal State, and Local laws, rules and regulations, and shall take such other measure as may be necessary to the end that proper work is done and that the safety and health of the employer and all other personnel are safeguarded.
- B. FAA approved barricades, warning signs and blinkers shall be erected by the Contractor in the work area to properly protect all personnel in the area.
- C. During the progress of the work all debris, empty containers, waste, resins, lubricants, etc., shall be removed by the Contractor at the end of each work day, and the work area shall be left clean and orderly.

3.07 PERMITS

- A. Contractor shall be responsible for obtaining and paying for all necessary permits.
- B. The Contractor shall conform with all sections of the "State of Hawaii Department of Transportation, Airports Division, Contractor's Training Guide" pertaining to access and operation in the Airport Operational Area and acquire all

necessary permits and passes including Motor Vehicle Access Permit, Operator's Permit, and Air Operational Area Construction Pass.

3.08 OPERATION OF AIRPORT FACILITIES DURING CONSTRUCTION

Outages for water, power, communications, or any other utility, if necessary, shall be kept at a minimum and scheduled for off-peak hours generally from 12:00 a.m. to 6:00a.m. whenever possible. Written request for such outages must be obtained by the State not later than fourteen (14) calendar days in advance. The Contractor shall not proceed with such outages until written approval is received.

3.09 PROTECTION AND RESTORATION OF PROPERTY

The Contractor shall be responsible for the preservation of all public and private property.

- A. The Contractor shall be responsible for all damage or injury to property of any character, during the prosecution of the work, resulting from any act, omission, neglect, or misconduct in his manner or method of executing the work, or due to defective work or materials.
- B. When or where any direct or indirect damage or injury is done to public or private property by or on account of any act, omission, neglect, or misconduct of the Contractor, his employees or agents, the Contractor shall, at his own expense, restore, repair, or rebuild such property to a condition similar or equal to that existing before such damage or injury was done or make restitution in an acceptable manner.

PART IV – MEASUREMENT AND PAYMENT

Work under this section, not specified in the Proposal Schedule shall be considered incidental to and included in the various items in the Proposal Schedule.

Closed Circuit Sewer Inspection work shall be paid per the proposal schedule after review and acceptance by the Project Manager. Sewer cleaning shall be performed prior to CCTV inspection to provide adequate visibility of pipe conditions. Sewer segments with inspection areas that are deemed inadequate, shall be re-inspected at no cost to the State until areas are deemed adequately reviewed.

Cured-In Place Part Liner (6" to 12" Pipe) shall be paid per lineal foot per the proposal schedule. Work shall include all labor, materials, and equipment necessary for the lining repair of the damaged pipe. Work shall include CCTV inspection of repaired pipe to verify repair.

Trouble Call/Emergency Work shall be addressed as force account work per Section 9.6 of the General Provisions.

Additive Alternate Work shall be performed on a lump sum basis and shall include all labor, equipment, and materials including all incidental work necessary for the complete Cured-In Place Pipe Lining of the specified 24" and 36" diameter pipe per Exhibit B.

--END OF SECTION--

SECTION 01533 - BARRICADES

PART 1 – GENERAL

1.01 RELATED DOCUMENTS

The General Provisions, Special Provisions and Airport Division Supplement of the Specifications apply to the work specified in this document.

1.02 BARRICADES

- A. The Contractor shall take precaution to protect people and property from injury and damage. He shall erect barricades to delineate his work areas and provide the appropriate signing, hazard lights and temporary paint striping as directed by the Engineer, to aid public and airport pedestrian and vehicular traffic around his work areas. Barricades shall be traffic cones, delineators, blinker barricades, caution tape, sawhorses, plywood barricades or other barriers as approved by the Engineer to effectively provide proper protection.
- B. The Contractor shall be responsible for his own security and protection of his property, including mobilization yard and staging area barricades.
- C. Barricades, in general shall be neat and in good condition, as required for protection. In areas frequented by the general public, the barricades shall be visually presentable and plywood partitions shall be painted. Where dust is a problem, the Contractor shall erect floor to ceiling dust proof partitions.
- D. The Contractor shall coordinate and sequence this work with the Engineer to permit the continuing operation of the existing Airport facility. Barricades shall be removed upon the completion of each shift and the premises left clean and operational.

PART 2 – PRODUCTS (Not applicable)

PART 3 – EXECUTION (Not applicable)

PART IV – MEASUREMENT AND PAYMENT

Work under this section will not be measured nor paid for separately, but shall be considered incidental to and included in the bid prices for the various items of work in this project.

--END OF SECTION--

SECTION 01560 - ENVIRONMENTAL CONTROLS

PART I – GENERAL

1.1 RELATED DOCUMENTS

- A. The General Provisions, Special Provisions, and Technical Provisions, apply to the work specified in this section. Special attention is directed to the following Articles:
1. State of Hawaii, Air and Water Transportation Facilities Division, General Provisions for Construction Projects, Article VI, Control of Materials, Paragraph 6.8 Non-Conforming Materials.
 2. State of Hawaii, Air and Water Transportation Facilities Division, General Provisions for Construction Projects, Article VII, Legal Relations and Responsibility to Public, Paragraph 7.14 Pollution Control and Protection of Archeological Historical, and Burial Sites.
 3. State of Hawaii, Air and Water Transportation Facilities Division, General Provisions for Construction Projects, Article VII, Legal Relations and Responsibility to Public, Paragraph 7.17 Contaminated or Hazardous Items and Material; Regulated Items and Material; Waste.
 4. Section 01561 Construction Site Runoff Control Program.
 5. Section 01562 Management of Contaminated Media.
- B. The latest version of the State of Hawaii, Department of Transportation, Airports Division (DOTA) Construction Activities BMP Field Manual.

1.2 ENVIRONMENTAL PROTECTION

With the exception of those measures set forth elsewhere in these specifications, environmental protection shall consist of the prevention of environmental pollution as the result of construction operations under this contract. For the purpose of this specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare, unfavorably alter ecological balances of importance to human life, affect other species of importance to man, or degrade the utilization of the environment for aesthetic and recreational purposes.

1.3 APPLICABLE REGULATIONS

In order to provide abatement and control of environmental pollution arising from the construction activities of the Contractor and their Subcontractors in the performance of this contract, the work performed shall comply with the intent of all applicable Federal, State, and Local laws and regulations concerning environmental pollution control and abatement, including, but not limited to, the following regulations:

- A. State of Hawaii, Department of Health, Administrative Rules, Chapter 55, WATER POLLUTION CONTROL; Chapter 54, WATER QUALITY STANDARDS.
- B. State of Hawaii, Department of Health, Administrative Rules, Chapter 59, AMBIENT AIR QUALITY, Chapter 60.1, AIR POLLUTION CONTROL.
- C. State of Hawaii, Department of Health, Administrative Rules, Chapter 42, VEHICULAR NOISE CONTROL.
- D. State of Hawaii, Department of Health, Administrative Rules, Chapter 46, COMMUNITY NOISE CONTROL.
- E. State of Hawaii, Occupational Safety and Health Standards, Title 12, Department of Labor and Industrial Relations, Subtitle 8, Division of Occupational Safety and Health, Part 3 Construction Standards, Chapter 145 Asbestos.
- F. Environmental Protection Agency, Code of Federal Regulations Title 40, Part 61, Subpart M (Revised Subpart B), NATIONAL EMISSION STANDARDS FOR AIR POLLUTANTS and Subpart B, NATIONAL EMISSION STANDARDS FOR ASBESTOS; Final Rule dated November 20, 1990.
- G. State of Hawaii, Department of Health, Title 11, Chapter 501, Asbestos Requirements.
- H. U.S. Department of Labor - Occupational Safety and Health Administration (OSHA) Asbestos Regulations, Code of Federal Regulations Title 29, Parts 1910, 1915 and 1926, Occupational Exposure to Asbestos, Final Rule dated August 10, 1994.

1.4 SUBMITTALS

The Contractor shall submit the following items within 30 calendar days after the Notice to Proceed Date:

- A. Submit proposed means, methods, techniques and procedures to be used for environmental control.
- B. Submit a State of Hawaii Department of Health Asbestos Notification of Demolition and Renovation Form for all demolition projects (including facilities which no asbestos is present) and renovation projects per HAR 11-501.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION

3.1 AIR POLLUTION CONTROL

- A. Emission: The Contractor shall not be allowed to operate equipment and vehicles that show excessive emissions of exhaust gases until corrective repairs or adjustments are made, as determined by the Engineer.
- B. Dust: The Contractor, for the duration of the contract, shall maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, and all other work areas within or without the project limits free from dust which would cause a hazard to the work or operations of other Contractors, or to persons or property. Industry-accepted methods of stabilization suitable for the area involved, such as sprinkling or similar methods, will be permitted. Chemical or oil treating shall not be used.
- C. Burning on Airport property shall not be permitted.

3.2 WATER POLLUTION CONTROL

- A. Wastes: The Contractor shall not deposit, at the airport site or in its vicinity, solid waste or discharge liquid waste, such as fuels, lubricants, bituminous waste, untreated sewage, and other pollutants which may contaminate the body of ground water.
- B. Spillages: No petroleum products, bituminous materials, or other deleterious substances, including debris, are allowed to fall, flow, leach, or otherwise enter the sewage systems or storm drains. All spills shall be immediately reported by following the instructions found on the Spill Reporting Fact Sheet for the appropriate airport and completing the Spill Reporting Form. The Spill Reporting Fact Sheet and Form can be found at:

<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program>

Any fines assessed to DOTA, as a result of Contractor's spillages or the Contractor's failure to report spillages, shall be paid by the Contractor.

Reference Specification Section 01562, Paragraph 3.3(C) Release Reporting for additional information and requirements.

- C. Erosion: The Contractor shall provide any necessary temporary drainage, dikes, and similar facilities to prevent erosion damage to the site. Run-off shall be controlled to prevent damage to the surrounding area.

3.3 NOISE CONTROL

- A. At all times keep objectionable noise generation to a minimum by:
 - 1. Equipping air compressors with silencing packages.
 - 2. Equipping jackhammers with silencers on the air outlet.
 - 3. Equipment that can be electrically driven instead of gas or diesel is preferred. If noise levels on equipment cannot reasonably be brought down to criteria, listed as follows, either the equipment will not be allowed on the job or use time will have to be scheduled subject to approval of the Engineer.
 - 4. All construction vehicles and equipment on the project operating between 10:00 p.m. and 7:00 a.m. shall be equipped with an ambient noise sensing variable volume backup alarm system. The system shall be in compliance with Title 29 of the Code of Federal Regulations, Part 1926.601(b)(4)(i).
- B. Objectionable noise received on neighboring properties is defined as any noise exceeding the noise limits of State Regulations (Title 11, Hawaii Administrative Regulations, Department of Health, Chapter 46 – Community Noise Control) or City and County of Honolulu ordinance, as stated below, or as any noise causing a public nuisance in a residential area, as determined by the State and community representatives, or by the nuisance provisions of local ordinances.
 - 1. The noise limitations established are as set forth in the following table after any applicable adjustments provided for herein are applied:

RECEIVING PROPERTY

<u>Noise Source</u>	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>
Airport	50 dBA	65 dBA	70 dBA

- 2. Between the hours of 6:00 pm to 5:00 am on weekdays and weekends, the noise limitations above may be exceeded for any receiving property by no more than:
 - a. Five dBA for a total of 15 minutes in any one hour period; or
 - b. Ten dBA for a total of 5 minutes in any one hour period; or
 - c. 15 dBA for a total of 1.5 minutes in any one hour period.
- C. In addition to the noise controls specified, demolition and construction activities conducted within 1,000 feet of residential areas may have additional noise controls required.

- D. The Contractor and its subcontractor operations shall, at all times, comply with all State of Hawaii and City and County of Honolulu requirements.
- E. For work conducted within Airport buildings, noise levels from work activities shall not exceed 85 dBA on the slow scale at the project boundary.

3.4 DISPOSAL

Construction waste, such as crates, boxes, building materials, pipes, and other rubbish shall be properly disposed of at a licensed landfill. Please consult with the local landfill to ensure that objects meet the specific landfill's requirements for size, type, etc. Other areas or methods proposed by the Contractor will be approved only if the Engineer determines that their effect on the environment is equal to or less than those described herein.

3.5 HAZARDOUS MATERIALS CONTROL

- A. The use of hazardous materials, i.e., asbestos and PCB, in the construction of this project shall be strictly prohibited. Any corrective action to remove and replace the hazardous material and contaminated work shall be at the sole expense of the Contractor.

B. DEFINITIONS

1. HAZARDOUS SUBSTANCE – Any substance designated pursuant to Section 311(b)(2)(A) of the Clean Water Act; any element, compound, mixture, solution, or substance designated pursuant to Section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); any hazardous waste having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act; any toxic pollutant listed under Section 307(a) of the Clean Water Act; any hazardous air pollutant listed under Section 112 of the Clean Air Act, as amended (42 U.S.C. §§7401-7626); any imminently hazardous chemical substance or mixture regulated under Section 7 of the Toxic Substances Control Act, as amended (15 U.S.C. §§2601-2671), oil, trichloro propane, and any other substance or pollutant or contaminant designated by rules adopted pursuant to this chapter (Chapter 128D, Hawaii Revised Statutes)
2. OIL – Oil Waste of any kind or in any form, including, but not limited to, petroleum, fuel oil, sludge, oil refuse, oil mixed with waste, crude oil or any fraction or residue.
3. POLLUTANT OR CONTAMINANT – Any element, substance, compound, or mixture, which after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism either directly from the environment or indirectly by ingestion through food chains, will or may

reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformation, in such organism or their offspring.

PART 4 – MEASUREMENT AND PAYMENT

4.1 BASIS OF MEASUREMENT AND PAYMENT

All work specified in this Section shall not be measured nor paid for separately but shall be considered incidental to item 01561, Construction Site Runoff Control Program.

END OF SECTION

SECTION 01561 – CONSTRUCTION SITE RUNOFF CONTROL PROGRAM

PART 1 – GENERAL

1.1 DESCRIPTION

This Section describes the following:

- (A) The Contractor shall comply with the following referenced documents:
- State of Hawaii, Department of Transportation, Airports Division (DOTA) Construction Activities Best Management Practices (BMP) Field Manual, in developing, installing, and maintaining Site-Specific BMPs for all projects.
 - DOTA's Storm Water Programs (SWMPP) for the Daniel K. Inouye International Airport (HNL) and Kahului Airport (OGG), as applicable.
 - Hawaii Administrative Rules (HAR) Chapters 11-54, 11-55, and 11-60.
 - Honolulu's City and County "Rules Relating to Water Quality" for all projects on Oahu. Use respective Soil Erosion Guidelines for Maui, Kauai and Hawaii projects.
 - Applicable Federal, State and Local Permit Conditions.
 - All other documents referenced in this Section.

For any conflicting requirements between the referenced documents and applicable bid documents, the stricter requirement will prevail and govern. Should a requirement not be clearly described within the applicable bid documents, notify the Engineer immediately for interpretation. For the purposes of clarification, "applicable bid documents" include the construction plans, specifications, and Permits.

- (B) Detailed plans, diagrams, and written Site-Specific Best Management Practices (BMPs); construction, maintenance, and repair of temporary water pollution, dust, and erosion control measures at the project site, including local material sources, work areas, and haul roads; removal and disposal of hazardous wastes; control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion).
- (C) Work associated with construction stormwater, dewatering, and hydrotesting activities and compliance with conditions of the Notice of General Permit Coverage (NGPC) or National Pollutant Discharge Elimination System (NPDES) permit(s) authorizing discharges associated with construction stormwater, dewatering, and hydrotesting activities.
- (D) Potential pollutant identification and mitigation measures, listed in Appendix A for use in the development of the Contractor's Site-Specific BMP.

Requirements of this Section also apply to construction support activities including: concrete or asphalt batch plants, rock crushing plants, equipment staging yards/areas,

material storage areas, excavated material disposal areas, and borrow areas located both inside and outside of the Airport Property and State Right-of-Way. For areas serving multiple construction projects or operating beyond the completion of the construction project in which it supports, the Contractor shall be responsible for securing the necessary permits, clearances, and documents, and following the conditions of the permits and clearances, at no cost to the State.

The Contractor shall be responsible for all applicable subcontractors, suppliers and vendors, and shall ensure that the means and methods of construction activities of applicable subcontractors, suppliers and vendors are in full compliance with this Section.

PART 2 PRODUCTS

2.1 MATERIALS

Comply with applicable materials described in the current DOTA "Construction Activities BMP Field Manual" and Section 3 and 4 of the current City and County of Honolulu "Storm Water Best Management Practice Manual." Refer to FAA Advisory Circulars and DOTA District, including Wildlife Hazard Management Plan, for additional guidance and conditions.

In addition, materials shall comply with the following:

- (A) Grass. The FAA and USDA recommend the following grass species when requiring grass: "No-Mow" bermudagrass ("Green Velvet") (*Cynodon dactylon*) or Seashore paspalum (*Paspalum vaginatum*). These species both possess higher than average drought resistance, saline soil tolerances, and, most importantly, do not produce seed heads attractive to the majority of hazardous avian species. It is recommended that stolons, sprigs, or plugs be used to avoid providing hazardous species with a readily available food source. The use of seeds shall not be allowed.

Alternative grass species shall only be applied with the approval of the DOTA Environmental Section. This includes, but not limited to, sodding, cuttings, and planting. Grass shall be a quick-growing species. Grass shall be suitable to the area and provide a temporary cover that will not compete later with permanent cover. The grass label or tag shall be provided to the DOTA Environmental Section.

Irrigation of these grass shall be done during the hours of darkness to avoid providing another hazardous wildlife attractant.

- (B) Fertilizer and Soil Conditioners. Fertilizer and soil conditioners shall conform to Hawaii Standard Specifications for Road and Bridge Construction 2005 or latest edition, Subsection 619.02(H)(1) – Commercial Fertilizer. Fertilizers shall not be applied during inclement weather or rain events.

The use of alternative types of fertilizer and soil conditioners shall be subject to the approval of the DOTA Environmental Section.

- (C) Hydro-mulching. Hydro-mulching used as a temporary stabilization measure shall consist of specially processed fiber which shall form a homogeneous slurry after addition and agitation in hydro-mulch applicator equipment.
1. Mulches shall be recycled materials including bagasse, hay, straw, wood cellulose bark, wood chips, or other material acceptable to the DOTA Environmental Section. Mulches shall be clean and free of noxious weeds and deleterious materials.
 2. Potable water shall meet the requirements of Hawaii Standard Specifications for Road and Bridge Construction 2005 or latest edition, Subsection 712.01 – Water. Submit alternate sources of irrigation water to the Engineer for acceptance by the DOTA Environmental Section if deviating from 712.01 – Water.
 3. Soil and Mulch Tackifier shall meet the requirements and installation in accordance with portions of Hawaii Standard Specifications for Road and Bridge Construction 2005 or latest edition, Section 641 – Hydro-Mulch Seeding, including 641.02(D) – Soil and Mulch Tackifier. The use of seeds in the hydro-mulch mixtures shall not be allowed.

Alternative materials or methods to control, prevent, remove, and dispose pollution are allowable if acceptable to the DOTA Environmental Section.

PART 3 EXECUTION

3.1 PRECONSTRUCTION REQUIREMENTS

- (A) Water Pollution, Dust, and Erosion Control Meeting.
Schedule a water pollution, dust, and erosion control meeting with the Engineer after the Site-Specific BMP Plan is submitted to the Engineer and accepted in writing by the DOTA Environmental Section. The meeting shall be scheduled a minimum of 14 calendar days prior to the Start Work Date. At a minimum, the meeting shall be attended by the Contractor, applicable subcontractors, Engineer, DOTA Environmental Section and/or any authorized representatives of the designated attendees. The meeting will discuss the sequence of work, and plans and proposals for water pollution, dust, and erosion controls.
- (B) Water Pollution, Dust, and Erosion Control Submittals.
Submit a Site-Specific BMP Plan within 30 calendar days of Contract Execution to the Engineer for acceptance by the DOTA Environmental Section. Submission of the complete and acceptable Site-Specific BMP Plan is the sole responsibility of

the Contractor, and additional contract time will not be issued for delays due to incompleteness.

Include the following:

1. Written description of activities to minimize water pollution and soil erosion into drainage systems, sewer systems, and State waters. Include proposed means, methods, techniques, and procedures to be used for environmental control. BMP shall include, but not limited to, the following:
 - a. An identification of potential pollutants and their sources.
 - b. A list of all materials and heavy equipment to be used during construction.
 - c. Descriptions of the methods and devices used to minimize the discharge of pollutants into drainage systems, sewer system, and State waters.
 - d. Details of the procedures used for the maintenance and subsequent removal of any erosion or siltation control devices.
 - e. Methods of removing and disposing hazardous wastes encountered or generated during construction.
 - f. Methods of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydro-demolition water.
 - g. Spill Control and Prevention, and Emergency Spill Response Plan.
 - h. Fugitive dust control, including dust from earth-disturbing, hauling, grinding, sweeping, or brooming off operations, or combination thereof.
 - i. Methods of storing and handling of oils, paints, and other products used for the project.
 - j. Material storage and handling areas, and other staging areas, including storage of reinforcing steel and building material.
 - k. Concrete truck washouts.
 - l. Concrete waste and asphalt concrete waste control.
 - m. Fueling and maintenance of vehicles and other equipment.
 - n. Tracking of sediment offsite from project entries and exits.

- o. Litter management. Prevention of Foreign Object Debris (FOD) is essential.
 - p. Sanitary/Septic Waste Management and Facilities.
 - q. Stockpiles of Aggregates, Soils, Asphalt Concrete Material, Concrete Waste, and Asphalt Concrete Waste.
 - r. Methods of Handling and Removal of Contaminated Soils and Groundwater encountered or generated during construction.
 - s. Methods and Procedures for Dewatering.
 - t. Methods and Procedures for Hydro-Testing.
 - u. Methods and Practices for proper Housekeeping, including excessive sawdust; concrete spill prevention and removal; and collection and removal of building materials waste, such as tie wires, reinforcing steel, and lumber.
 - v. Other factors that may cause water pollution, dust, and erosion control.
2. Plans indicating location of water pollution, dust and erosion control devices; plans and details of BMP measures and devices to be installed or utilized; identify areas of soil disturbance in cut and fill; indicate areas used for construction staging and storage, including items (1) through (22) above, storage of aggregate (indicate type of aggregate), asphalt cold mix, soil or solid waste, equipment and vehicle parking, and areas where vegetative practices are to be implemented. Indicate intended drainage pattern on plans. Include flow arrows. Include separate drawing for each phase of construction that alters drainage patterns.
 3. Dates when BMP measures will be installed and removed.
 4. Name(s) of specific individual(s) designated responsible for the Contractor's Construction Site Runoff Control Program. Include cellular and business telephone numbers, fax numbers, and e-mail addresses. These individuals shall be available 24 hours a day, 7 days a week.
 5. Description of fill material to be used.
 6. For projects with an NGPC or NPDES Permit for Construction Activities, submit information to address all sections in the Storm Water Pollution Prevention Plan (SWPPP), as described in HAR Chapter 11-55, Appendix C, Section 7.

7. For projects with an NGPC or NPDES Permit, submit information required for compliance with the conditions of the Notice of General Permit Coverage (NGPC)/NPDES Permit.
8. Date and sign the Site-Specific BMP Plan.

Modify, as necessary, and resubmit amended Site-Specific BMP plans and construction schedules to the Engineer for acceptance by DOTA Environmental Section. Modify the Site-Specific BMP Plan to address, but not limited to, the following.

1. To correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.
2. Changes to the Contractor's Means and Method of Construction.
3. Omitted conditions that should have been allowed for in the accepted Site-Specific BMP Plan.
4. A Site-Specific BMP measure that replaces an accepted Site-Specific BMP measure that was not satisfactorily performing.
5. Revised dates of installation and/or removal of Site-Specific BMP measures.

The modifications shall be submitted to the Engineer and accepted in writing by DOTA Environmental Section before implementing the revised Site-Specific BMPs in the field. Amendments to the Site-Specific BMP Plan shall be included with the original Site-Specific BMP Plan.

A copy of the accepted original Site-Specific BMP Plan and all accepted amended Site-Specific BMP Plans, with the signed certification by the authorized representative listed in the NGPC or NPDES Permit, shall be kept on site or at an accessible location so that it can be made available at the time of an on-site inspection, or upon request by the Engineer, DOTA Environmental Section, DOTA's Third Party Inspector, and/or DOH/EPA Representative.

- (C) Discharges of Stormwater Associated with Construction Activities. If the project scope consists of ground disturbing activities and the total work area, including all construction support activity areas (i.e. storage and/or staging areas), is one acre or more, an NPDES Permit authorizing Discharges of Storm Water Associated with Construction Activity (CWB-NOI Form C) or Individual Permit authorizing stormwater discharges associated with construction activity is required from the Department of Health Clean Water Branch (DOH-CWB).

Do not begin construction activities until all required conditions of the permit are met and submittals detailed in Subsection 01561.3.1(B) – Water Pollution, Dust, and Erosion Control Submittals are completed, submitted to the Engineer and accepted in writing by the DOTA Environmental Section.

- (D) Discharges Associated with Hydrotesting Activities. If hydrotesting activities require effluent discharge into State waters or drainage systems, an NPDES Hydrotesting Waters Permit (CWB-NOI Form F) or Individual Permit authorizing discharges associated with hydrotesting is required from the DOH-CWB.

Do not begin hydrotesting activities until the DOH-CWB has issued an Individual NPDES Permit or Notice of General Permit Coverage (NGPC). Conduct Hydrotesting operations in accordance with the conditions of the permit or NGPC.

- (E) Discharges Associated with Dewatering Activities. If dewatering activities require effluent discharge into State waters or drainage systems, an NPDES Dewatering Permit (CWB-NOI Form G) or Individual Permit authorizing discharges associated with dewatering is required from the DOH-CWB.

Do not begin dewatering activities until the DOH-CWB has issued an Individual NPDES Permit or Notice of General Permit Coverage (NGPC). Conduct dewatering operations in accordance with the conditions of the permit or NGPC.

- (F) Solid Waste Disclosure. Submit the Solid Waste Disclosure Form for Construction Sites, if applicable, to the Engineer within 30 calendar days of Contract Execution or upon the discovery of the solid waste. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer. This should also include documentation from any intermediary facility where solid waste is handled or processed.

- (G) Construction BMP Training. The Contractor's representative(s), identified in Section 01561.3.1(B)(4), responsible for the Contractor's Construction Site Runoff Control Program, site managers, and appropriate subcontractors' personnel shall be properly trained on environmental compliance by attending a designated DOTA training seminar (e.g. HDOT's Protect Our Water Conference) or viewing the DOTA construction and post-construction training available at:

<http://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program>

Submit completed Training Roster and Construction Training Quizzes to the DOTA Environmental Section (fax: 808-838-8017 or email to dot.air.environmental@hawaii.gov) prior to the start of construction activities.

Individual workers must be trained on their site-specific BMPs by the Contractor's representative(s) and managers who are knowledgeable in the proper

manufacturer's installation, maintenance, and repair of the BMP product, or the manufacturer's authorized instructor. The Contractor shall keep training logs updated and readily available.

- (H) Health and Safety Plan. A site-specific Health and Safety Plan for excavation work conducted in the known or suspected area of contamination shall be prepared and submitted at least 15 calendar days prior to initiating any excavation work. The Plan shall be applicable to Federal and State regulations.

The Contractor shall retain and pay for the services of a Certified Industrial Hygienist (CIH), certified by the American Board of Industrial Hygiene, to certify training, and review and approve the Health and Safety Plan, excavation procedures, including the determination of the need for personal protective equipment.

The Health and Safety Plan shall describe methods, techniques, and phases for handling the contaminated soil and groundwater, if present, including:

1. A sequence of operations.
2. Method of excavation, transporting, and disposal.
3. Soil Stockpiling and Groundwater Storage procedures.
4. Proposed equipment.
5. Provisions to ensure that chemical and petroleum constituent concentrations, both airborne and in the soil, are below the Department of Health Environmental Action Level (EAL), Permissible Exposure Limit (PEL) and below the Lower Explosive Limit (LEL). Provide soil testing, air monitoring, personnel monitoring, and air sampling to ensure worker safety as determined by CIH. If airborne concentrations exceed the PEL or the LEL at the control area boundary, then, work must stop immediately and the Engineer and DOTA Environmental Section notified.

3.2 CONSTRUCTION REQUIREMENTS

Do not begin work until submittals detailed in Subsection 01561.3.1(B) – Water Pollution, Dust, and Erosion Control Submittals are completed, submitted to the Engineer and accepted in writing by the DOTA Environmental Section, and required conditions of the NPDES Permit and other applicable permits are met.

Do not expose or disturb surface area of earth material, or initiate any ground-disturbing activities (including clearing and grubbing) until BMPs are installed, functional and accepted in writing by DOTA Environmental Section and/or their designated authorized representative. Only the soil, to the extent that is required to install the BMP measures and devices, shall be disturbed and minimized to the extent possible.

Install, maintain, monitor, repair and replace BMPs, such as for water pollution, dust, and erosion control; installation, monitoring, and operation of hydrotesting activities; removal and disposal of hazardous waste indicated on plans, concrete cutting slurry, concrete curing water; or hydro-demolition water. Address all comments received from the Engineer, DOTA Environmental Section and/or DOTA's Third-party inspector.

Coordinate temporary control provisions with permanent control features throughout the construction and post-construction period.

Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff, and wind before the end of each work day. Coordinate and schedule the work to the maximum extent possible to minimize the amount of exposed or disturbed surface area of earth material.

Immediately *initiate* stabilizing exposed soil areas upon completion of earth disturbing activities for areas permanently or temporarily ceased on any portion of the site. 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, or excavation within any area of the site will not resume for a period of 14 or more calendar days, but such activities will resume in the future. The term "immediately" is used in this section to define the deadline for *initiating* stabilization measures. "Immediately" means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased.

Any of the following types of activities constitutes *initiation of stabilization*:

1. Prepping the soil for vegetative or non-vegetative stabilization;
2. Applying mulch or other non-vegetative product to the exposed area;
3. Planting the exposed area;

4. Starting any of the activities in items (1) – (3) above on a portion of the area to be stabilized, but not on the entire area; and
5. Finalizing arrangements to have stabilization product fully installed in compliance with the deadline for completing initial stabilization activities.

After the initiation of stabilization, stabilization activities shall be completed by the following deadline.

1. For projects with an NGPC or NPDES Permit for Construction activities:
 - (a) For construction areas discharging into waters not impaired for nutrients or sediments, complete stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.
 - (b) For construction areas discharging into nutrient or sediment impaired waters, complete stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities.
2. For projects without an NGPC or NPDES Permit for Construction activities, complete stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

Any of the following types of activities constitutes completion of stabilization activities:

1. For vegetative stabilization, all activities necessary to initially plant the area to be stabilized; and/or
2. For non-vegetative stabilization, the installation or application of all such non-vegetative measures.

If the Contractor is using vegetative cover for temporary or permanent stabilization and is unable to meet the deadlines above due to circumstances beyond the Contractor's control, the Contractor shall notify and provide documentation of the circumstances to the Engineer for acceptance by DOTA Environmental Section. The Contractor shall include in their documentation the schedule that the Contractor will follow for initiating and completing stabilization. If agreed to by DOTA Environmental Section, the Contractor may, instead, comply with the following stabilization deadlines:

1. Immediately initiate, and complete within the timeframe shown above, the installation of temporary non-vegetative stabilization measures to prevent erosion;
2. Complete all soil conditioning, planting, watering or irrigation installation, mulching, and other required activities related to the planting and initial establishment of vegetation as soon as conditions or circumstances allow it on the site.

Follow the applicable requirements of the contract documents including Hawaii Standard Specifications for Road and Bridge Construction 2005 or latest edition, Section 619 and Section 641, as amended.

Where necessary to prevent erosion on the planted area, immediately install non-vegetative erosion controls that provide cover (e.g., mulch, rolled erosion control products) to the area while vegetation is becoming established.

Protect exposed or disturbed surface area with mulches or hydro-mulch with no seeds. Spray mulches at a rate of 2,000 pounds per acre. Add tackifier to mix at a rate of 85 pounds per acre. For hydro-mulch, use the ingredients and rates required for mulches. Apply fertilizer, if applicable, per the manufacturer's recommendations. Mulches, hydro mulch, and/or fertilizers shall not be applied during inclement weather or rain events. Submit recommendations from a licensed Landscape Architect when deviating from the application rates above or manufacturer's recommendations.

Install velocity dissipation measures when exposing erodible surfaces greater than 15 feet in height.

BMP measures shall be in place and operational at the end of each work day or as required by Section 01561.3.1(B).

Install and maintain stabilized construction entrances, including any wheel washes, to minimize tracking of dirt and mud onto roadways, sidewalks, and other paved areas. Restrict traffic to stabilized construction entrance areas only. Clean dirt, mud, or other material tracked onto the road, sidewalk, or other paved area by the end of the same day in which the track-out occurs. If tracking is excessive or sediment is being transported farther along the pavement or sidewalk by other vehicles traveling outside of the construction site, then, conduct cleaning and sweeping immediately. Modify stabilized construction entrances, as needed, to prevent mud from being tracked onto road. Stabilize entire access roads if necessary.

Maintain all excavations, embankments, haul roads, permanent access roads, plant sites, waste disposal areas, borrow areas, and all other work areas within the project limits free from dust which would cause a hazard to the work, airport operations, operations of other contractors, or to persons or property. Chemicals may be used as soil stabilizers for erosion and dust control. Submit the manufacturer's product data sheets of the chemicals to the Engineer for acceptance by the DOTA Environmental Section. Oil treating shall not be used. When using water for dust control, only potable water, that conform to Hawaii Standard Specifications for Road and Bridge Construction 2005 or latest edition, Subsection 712.01 – Water, shall be used. Dust screens and fabrics are not allowed on, or inhibit the view of, the TSA and AOA Security Fences.

Cover exposed surface of materials completely with tarpaulin or a similar device when transporting aggregate, soil, excavated material, or other materials that may be a source of fugitive dust.

Provide temporary slope drains of rigid or flexible conduits to carry runoff from cuts and embankments. Provide portable flume at the entrance. Shorten or extend temporary slope drains to ensure proper function.

Protect ditches, channels, and other drainageways leading away from cuts and fills at all times by either:

1. Hydro-mulching the lower region of embankments in the immediate area.
2. Installing check dams and siltation control devices.
3. Other methods acceptable to the DOTA Environmental Section.

Provide for controlled discharge of waters impounded, directed, or controlled by project activities or erosion control measures.

Cleanup and remove any pollutant that is attributed to the Contractor. Deposit of solid waste or the discharge of liquid waste, such as fuels, lubricants, bituminous waste, untreated sewage and other pollutants which may contaminate the body of ground water shall not be permitted. Care shall be taken to ensure that no petroleum products, bituminous materials, or other deleterious substances, including debris, are allowed to fall, flow, leach, or otherwise enter the sewage systems or storm drains.

Burning of matter or waste material on Airport property shall not be permitted.

The use of hazardous materials is prohibited without the approval of the Engineer. Any corrective actions to remove and replace the hazardous material and contaminated work shall be at the sole expense of the Contractor. Hazardous materials shall be properly stored and handled.

3.3 INSPECTIONS

For all projects with earth-disturbing activities, including construction support activity areas, the following inspections shall be conducted:

- (A) Initial Inspection of BMPs. Prior to the start of construction activities, the DOTA Environmental Section, or their designated authorized representative, will conduct an initial site inspection of the BMPs.

The Contractor shall submit their request for this inspection in writing to the Engineer. The inspection is subject to the availability of the DOTA Environmental Section or their designated authorized representative.

Prior to this inspection, only the soil, to the extent that is required to install the BMP measures and devices, shall be disturbed. During the inspection, the inspector will note any deficiencies in the BMP measures and devices, including identifying any site conditions that have the potential to result in the discharge of pollutants. The

Contractor is responsible for the correction of the deficiencies. Corrective Action shall be documented and submitted to the Engineer for acceptance by the DOTA Environmental Section and/or their designated authorized representative. The deficiencies must be corrected and accepted before construction activities are allowed to commence.

Initial Inspections shall be conducted separately for each new construction phase, new work areas, and additional construction support areas that occur during the construction period.

- (B) Contractor's Inspection of BMPs. Commencing immediately after the Initial BMP Inspection and until the acceptance of the Final BMP Inspection, the Contractor shall conduct inspections of the sites to ensure that BMPs are effective and activities do not have the potential of causing a polluted discharge.

The Contractor's Inspections shall be conducted at the following intervals:

1. Weekly.
2. Within 24 hours of any rainfall of 0.25 inch or greater which occurs in a 24-hour period.

The Contractor shall use on-line rainfall measurements data sources and providers. Rainfall measurements shall be taken from the same airport as the location of the project or within one (1) mile distance from the disturbed areas. Submit the identity of the provider, with the location of their measuring device, to the Engineer for approval by DOTA Environmental Section.

In lieu of using any on-line rainfall provider or if there are no measuring device of an on-line provider on the airport or within one (1) mile from the disturbed area, the Contractor shall furnish and install a rain gauge in a secure location prior to field work including installation of site-specific BMPs. Provide a rain gauge with a tolerance of at least 0.05 inches of rainfall. Install the rain gauge on the project site in an area that will not deter rainfall from entering the gauge opening. Do not install in a location where rain water may splash into the rain gauge. The rain gauge installation shall be stable and plumbed. Maintain rain gauge and replace any rain gauge that is stolen, does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until the rain gauge is installed and Site-Specific BMPs are in place. Rain gauge data logs shall be readily available.

Submit rain gage data logs weekly with the Contractor's BMP Inspection Report to the Engineer for acceptance by the DOTA Environmental Section.

3. When existing erosion control measures are damaged or not operating properly as required by Site-Specific BMP.

Prepare a written report of the inspection and submit a copy of the report within 24-hours to the Engineer for acceptance by the DOTA Environmental Section. The report must include any deficiencies of the Site-Specific BMPs observed and the correction of these deficiencies. Corrective actions can be documented in a separate report and submitted upon completion of the corrective actions. Submit the report(s) to the Engineer for acceptance by DOTA Environmental Section.

The initiation of the work to repair or correct the deficiency shall begin immediately. However, except for those deficiencies that pose an immediate threat for the discharge of pollutants to the drainage system, surface waters, or receiving water, if the deficiency is identified at a time in the day in which it is too late to initiate the work, the initiation of the work shall begin on the following day.

After the initiation of the work to repair or correct the deficiency, the work shall be completed as follows:

1. If the deficiency poses an immediate threat for the discharge of pollutants to the drainage system, surface waters, or receiving waters, the work to fix the deficiency shall be completed by the close of the same day of discovery of the deficiency. Examples of these deficiencies included, but not limited to, illicit discharge, absence of perimeter controls in an area with evidence of sediment transporting off-site, and spills near a drain or waterway that have not been cleaned.
2. If the deficiency poses a significant threat for the discharge of pollutants to the drainage system, surface waters, or receiving waters, the work to fix the deficiency shall be completed by five (5) calendar days or before the next forecasted rain event, whichever is sooner. Examples of these deficiencies include, but not limited to, perimeter controls that are not functional or require maintenance, drain inlet protections that are not functional or require maintenance, installation of a new pollution prevention control, and deficiencies requiring significant repair for the correction of the deficiency.
3. If the deficiency does not pose a threat for the discharge of pollutants to the drainage system, surface waters, or receiving waters, but are not in strict conformance with the SWPPP, SSBMP Plan, or DOTA's Construction Activities BMP Field Manual, the work to correct the deficiency shall be completed by ten (10) calendar days or within the time specified by the Engineer, whichever is sooner. These deficiencies include all deficiencies except those deficiencies included in (1) and (2), above.
4. If it is infeasible to complete the correction of the deficiency or installation of a new pollution prevention control within the respective timeframe above,

notify the Engineer who will consult with DOTA Environmental Section. Document why it is infeasible to complete the work within the required timeframe. Complete the work as soon as practicable and as agreed to by both the Engineer and DOTA Environmental Section.

Retain copies of these inspection reports on-site or at an accessible location for the duration of the project so that they can be made available at the time of an on-site inspection, or upon request by the Engineer, DOTA Environmental Section, DOTA's Third Party Inspector, and/or DOH/EPA Representative. Present these inspection reports to the DOTA's Third-Party Inspectors at the time of their inspection for review.

- (C) Final Inspection / Post-construction BMP Initial Inspection. The DOTA Environmental Section, or their designated authorized representative, shall conduct a Final Inspection / Post-Construction BMP initial inspection when the Contractor has completed construction, including installing permanent BMPs and stabilizing exposed soil.

The Contractor shall submit the request for this inspection in writing to the Engineer. The inspection is subject to the availability of the DOTA Environmental Section or their designated authorized representative.

All deficiencies noted must be addressed before the Contractor can remove temporary BMPs and close the site. The Contractor is responsible for correction of the deficiencies. Corrective Action shall be documented and submitted to the Engineer for acceptance by the DOTA Environmental Section. Any deficiencies noted during the final inspection must be corrected before the State will issue the project final acceptance and make final payment.

Partial Final Inspection of construction phases or partial areas of the project shall be conducted during the construction of the project for areas that are to be transferred for DOTA's use.

- (D) Routine Inspections Conducted by DOTA. The Contractor's designated representative specified in Subsection 01561.3.1(B)(4) shall address any Site-Specific BMP deficiencies brought up by the Engineer or their authorized representative (i.e. Quality Control Engineer, Project Inspector, etc.) taking all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational.

The initiation of the work to repair and correction of the deficiency shall be completed within the same timelines as required in Subsection 01561.3.3(B).

- (E) DOTA's SWMPP Inspections. *For Projects located at the Daniel K. Inouye International Airport (HNL) or the Kahului Airport (OGG)* that have a NGPC or NPDES Permit, or disturb one acre or more, including the construction support activity areas, the following additional inspections shall be conducted:

1. Third-Party Inspections. The DOTA Environmental Section's Third-Party inspector will conduct routine inspections. Third-party inspections shall be conducted monthly. The frequency of the inspections may increase if deficiencies are identified as determined by the inspector. Deficiencies must be corrected within the timeline defined in DOTA's SWMPP, Section C, Construction Site Runoff Control Program, which can be downloaded from the website:

<http://hidot.hawaii.gov/airports/doingbusiness/engineering/environmental/construction-site-runoff-control-program/>

The Contractor shall be responsible for the correction of ALL deficiencies identified during any of the above inspections. Corrective Action shall be documented and submitted to the Engineer for acceptance by the DOTA Environmental Section or their designated authorized representative.

If the Contractor fails to satisfactorily address Site-Specific BMP deficiencies, the DOTA reserves the right to employ outside assistance or use the State's own labor forces to provide necessary corrective measures. The Contractor will be fully responsible for all cost and time. The State will charge the Contractor such incurred costs plus any associated project engineering costs and will make appropriate deductions from the Contractor's monthly progress payment.

Failure to apply or maintain Site-Specific BMP measures may result in the assessment of liquidated damages (Appendix B). Depending on the severity of the deficiencies, additional enforcement actions, such as, suspension of work and/or termination of the contract (with the Contractor's Surety being fully responsible for all additional costs incurred by the State) can be conducted and assessed against the Contractor.

For all citations or fines received by the DOTA for non-compliance, including non-compliance with NGPC/NPDES Permit conditions, the Contractor shall reimburse the State within 30 calendar days for the full amount of outstanding cost that the State has incurred, or the State shall deduct all incurred costs from the Contractor's monthly progress payments.

The Contractor shall be responsible for all citations, fines and penalties levied by DOH or EPA against the State due to the Contractor's failure to satisfactorily address Site-Specific BMP deficiencies and/or any Contractor's illicit discharges. The State will make the appropriate deductions from the Contractor's monthly progress payment.

PART 4 MEASUREMENT AND PAYMENT

4.1 BASIS OF MEASUREMENT AND PAYMENT

The work specified in this Section will be paid for at the contract lump sum price. Payment shall be full compensation for work prescribed in this Section and contract documents,

including but not limited to, all labor, materials, tools, equipment, and all incidentals necessary to install, maintain, monitor, repair, replace, modify, and remove Site-Specific BMP measures.

<u>Item</u>	<u>Unit</u>
Construction Site Runoff Control Program	Lump Sum

Partial payments shall be paid in the Monthly Progress Payment as follows:

1. 20% of the line item price shall be paid upon DOTA Environmental Section's acceptance in writing of the Site-Specific BMP Plan and the satisfactory completion of the Initial Inspection of BMPs defined in Section 01561.3.3(A), above.
2. 60% of the line item price shall be paid in equal monthly payments over the duration of the contract. Failure to satisfactorily apply, maintain, or modify BMP measures and devices, and/or submittals shall result in the withholding of monthly progress payments for this line item.

For projects located at the Daniel K. Inouye International Airport (HNL) or the Kahului Airport (OGG) that have a NGPC or NPDES Permit, or disturb one (1) acre or more, including construction support activity areas, payments shall be made only after the DOTA's Third-Party Inspection defined in Section 01561.3.3(E), above, have been satisfactorily completed and accepted by the DOTA Environmental Section. Any deficiencies classified as Major or above will result in the withholding of monthly progress payments for this line item.

3. The remaining 20% of the line item price shall be paid after all BMP measures have been satisfactorily removed.

Payment will be made only after the satisfactory completion of the Final Inspection / Post-Construction BMP Initial Inspection defined in Section 01561.3.3(C), above, and acceptance of the Post-Construction BMPs by the DOTA Environmental Section.

Liquidated Damages, up to \$25,000 per day (Appendix B), shall be assessed for each non-compliance of the BMP requirements described in this Section. The Contractor shall not be entitled to recover any Liquidated Damages assessed, even after the deficiencies have been corrected.

Appendix A

The current DOTA's Construction Activities Best Management Practices (BMP) Field Manual can be found on DOTA's Environmental Website at

<https://hidot.hawaii.gov/airports/doing-business/engineering/environmental/construction-site-runoff-control-program/>

The manual is periodically updated and should be downloaded via the website to ensure that the latest version is applied. The manual identifies potential pollutant sources and BMPs that should be used to mitigate pollutants.

Additional information and requirements for stormwater programs at all airports can also be found at the above website, including additional requirements for Daniel K. Inouye International Airport (HNL) and Kahului Airport (OGG).

Appendix B Liquidated Damages Schedule for Non-Compliances.

Non-Compliance	Amount
Failure to submit a Notice of Intent or otherwise obtain a permit for Staging and/or Storage Area beyond the project limits.	\$1,000 per calendar day per violation.
Failure to comply with the conditions specified in the Notice of General Permit Coverage (NGPC) or Individual NPDES Permit, or any other applicable permit.	\$1,000 per calendar day per violation.
Failure to have the accepted SSBMP Plan and Amendments or the accepted SWPPP and Amendments available at a project construction site.	\$1,000 per calendar day per violation.
Failure to install a BMP specified by the SSBMP Plan or SWPPP, or permit.	\$2,000 per calendar day per violation.
Failure to properly install or maintain appropriate Site-Specific BMPs in accordance with applicable plans, permits, and guidance documents.	\$2,000 per calendar day per violation.
<p>Failure to have an accepted Amendment to the SSBMP Plan or an accepted Amendment to the SWPPP prior to implementation of the proposed BMPs.</p> <p>Note: Advance review and acceptance can be provided via email which will satisfy this non-compliance. However, the written Amendment must still be formally submitted for certification and signature by the authorized representative identified in the NGPC or NPDES Permit.</p>	\$2,000 per calendar day per violation.
Failure to conduct required inspections.	<p>\$1,000 for each of the first ten violations,</p> <p>\$2,500 for each of the next ten violations,</p> <p>\$5,000 for each subsequent violation.</p>
Failure to submit required reports such as BMP inspection reports, rain gauge data logs, etc.	<p>\$500 per calendar day for the first ten days of each violation,</p> <p>\$1,000 per calendar day for the next ten days of each violation,</p> <p>\$2,500 per calendar day for each subsequent day of violation.</p>

Non-Compliance	Amount
Any "major" or "critical" non-compliance violation with the applicable plans, permits, and guidance documents.	Up to \$25,000 per calendar day per violation.
Any violation resulting in a polluted discharge.	Up to \$25,000 per calendar day per violation.

Note: Liquidated Damages shown in the Table shall be assessed at the discretion of the DOTA.

Assessment of Liquidated Damages for Non-Compliance:

The Contractor may be assessed liquidated damages by issuance of an Enforcement Letter. The Enforcement Letter shall indicate the amount of liquidated damages that are assessed for the non-compliances which shall be deducted from the Contractor's next progress payment. The Enforcement Letter will be sent electronically via e-mail and a hard copy to the Contractor's designated representative(s), identified in Section 01561.3.01(2)(d), responsible for the Contractor's Construction Site Runoff Control Program. An Enforcement Letter may be issued with or without a previous Verbal Notification, Warning Letter, or Notice of Apparent Violation (NAV).

Liquidated Damages may be assessed for the following:

- Non-compliances listed in the Table, herein, included in Appendix B.
- Non-compliances have not been corrected in the timeframes noted.
- Corrective actions are not completed after a Verbal Notification, Warning Letter, or Notice of Apparent Violation is issued.
- Contractors are non-responsive to DOTA's directives.
- Repeated non-compliance.
- A polluted discharge has occurred.

The number of days used for the liquidated damages calculations shall start on the day that the non-compliance was required to be corrected and shall end on the day that the non-compliance is corrected and accepted. If DOTA's personnel are not able to go out in the field to verify that the BMP deficiencies are corrected in the timeframe specified, the Contractor can send photographs showing the corrected deficiency via e-mail to the Engineer and DOTA Environmental Section along with documentation on how the deficiency was corrected. The Engineer and DOTA Environmental Section may visit the site to verify the corrective actions are acceptable. If the

corrective actions are acceptable, then the clock stops on the day that the documentation was received.

END OF SECTION

SECTION 01562 – MANAGEMENT OF CONTAMINATED MEDIAS

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

The General Provisions, Special Provisions, and General Requirements of the Specifications apply to the work specified in this section.

1.2 DESCRIPTION AND SCOPE OF WORK

- A. This Section describes procedures for the management of contaminated media (soil, groundwater, and soil vapor) that may be disturbed during excavation activities associated with this project.
- B. The Contractor shall supply all labor, materials, and equipment necessary for the removal, temporary storage, testing, handling, soil backfilling and management of contaminated media to carry out the work in accordance with these specifications, and all applicable Federal, State, and local regulations and latest amendments.
- C. The Contractor shall examine the State of Hawaii, Department of Transportation, Airports Division (DOTA) Programmatic Environmental Hazard Evaluation and Environmental Hazard Management Plan (DOTA EHE-EHMP) and, if included as part of these specifications, the Environmental Site Assessment (ESA) Phase II, to understand the conditions that may affect work and performance. Should the Contractor deviate from the DOTA EHE-EHMP or ESA, the Contractor shall be responsible to prepare a Site-Specific Environmental Hazard Management Plan (Site-Specific EHMP). Any deviation will require approval by the State of Hawaii, Department of Health (HDOH) and DOTA Environmental Section (DOTA AIR-EE) prior to implementation, using the forms provided in Appendix B of the DOTA EHE-EHMP. The forms should detail deviations from standard practices in the text and explain how those deviations will be protective of human health and the environment. The forms should be submitted to HDOH and DOTA AIR-EE for review and approval if deviations are requested or if notifying of a release.
- D. It should be noted that the DOTA EHE-EHMP is for Contaminants of Potential Concern (COPCs) which include, but not limited to, the following:
- Petroleum Substances, e.g., TPH, TPH-g, TPH-d, TPH-o, BTEX, and PAHs.
 - Chlorinated Solvents, e.g., VOCs
 - Polychlorinated Biphenyls (PCBs)
 - Pesticides, e.g., chlordane
 - Heavy Metals, e.g., Arsenic, Barium, Cadmium, Total Chromium, Lead, Mercury, Selenium, and Silver.

In addition, free product (e.g., gasoline, diesel fuel, fuel oils, lubricating oils, benzene, toluene, xylenes) may be encountered in areas of previous petroleum releases.

Should the ESA Phase II identify contaminants other than those listed above, the

Contractor shall be responsible to prepare a Site-Specific EHMP. The Contractor shall coordinate with, as well as have their Site-Specific EHMP approved by HDOH prior to the start of any ground disturbing activities.

1.3 REFERENCES

- A. Programmatic Environmental Hazard Evaluation and Environmental Hazard Management Plan dated July 2019, or its latest edition.
- B. DOTA's Storm Water Management Program Plan (SWMPP) for the Daniel K. Inouye International Airport (HNL) and Kahului Airport (OGG), including DOTA's Construction Activities BMP Field Manual dated August 2019, or its latest edition.
- C. All work under this contract shall be performed in strict accordance with all applicable Federal, State, and local regulations, standards, and codes governing contaminated media.
- D. The most recent editions of any relevant regulations, standards, documents, or codes shall be in effect, including, but not limited to, the following. Where conflicts among the requirements or with these specifications exists, the most stringent requirements shall apply.
 - 1. Title 29, Part 1910 of the Code of Federal Regulations (CFR), "Occupational Safety and Health Standards" (General Industry Standards).
 - 2. 29 CFR 1910.120, "Hazardous Waste Operations and Emergency Response".
 - 3. 29 CFR 1910.134, "Respiratory Protection".
 - 4. 29 CFR 1910.1000, "Air Contaminants".
 - 5. 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records".
 - 6. 29 CFR 1910.1200, "Hazard Communication".
 - 7. 29 CFR 1926, "Safety and Health Regulations for Construction" (Construction Industry Standards).
 - 8. 40 CFR 50, "National Primary and Secondary Ambient Air Quality Standards A".
 - 9. 40 CFR 122, "EPA Administered Permit Program: The National Pollutant Discharge Elimination System".
 - 10. 40 CFR 261, "Identification and Listing of Hazardous Waste".
 - 11. 40 CFR 263, "Standards Applicable to Transporters of Hazardous Waste".
 - 12. 40 CFR 302, "Designation, Reportable Quantities, and Notification".
 - 13. 49 CFR 172, Subpart E, "Labeling".
 - 14. 49 CFR 172, Subpart F, "Placarding".

15. 12-8-3-148.1, "State of Hawaii, Safety and Health Regulation for Construction" (Construction Industry Standard).
16. 12-202-33, "A Hawaii Occupational Safety and Health Standards".
17. The Hawaii Environmental Response Law (Hawaii Revised Statutes [HRS] Chapter 128D) and the State Contingency Plan (Hawaii Administrative Rules [HAR] Title 11, Chapters 451-1–451-24).
18. The Hazard Evaluation and Emergency Response Office Technical Guidance Manual (TGM) for Implementation of the State Contingency Plan (Interim Final, June 21, 2009).
19. Hawaii Hazardous Waste Laws and Regulations (HRS Chapter 342J, HAR Title 11, Chapters 260.1–279.1).
20. Hawaii Solid Waste Laws and Regulations (HRS Chapters 342H and I, HAR Title 11, Chapter 58.1).
21. Hawaii Underground Storage Tank Laws and Regulations (HRS Chapter 342L; HAR Title 11, Chapter 280.1).
22. Hawaii Water Quality Standards (HAR Title 11, Chapter 54).
23. Hawaii Ambient Air Quality Standards (HAR Title 11, Chapter 59).
24. Hawaii Occupational Safety and Health Standards (HAR Title 12, Chapter 99).
25. Hawaii Department of Health, Office of Hazard Evaluation and Emergency Response. Screening for Environmental Hazards at Sites with Contaminated Soil and Groundwater. Website URL: <http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/EALs>. Fall 2011 (and updates).
26. Hawaii Department of Health, Office of Hazard Evaluation and Emergency Response. Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material. Website URL: <http://eha-web.doh.hawaii.gov/eha-cma/Leaders/HEER/technical-guidance-and-fact-sheets>. October 8, 2017 (and updates).
27. U.S. Environmental Protection Agency (EPA): Comprehensive Environmental Restoration, Compensation, and Liability Act, Section 107(1), 1980, exemption for cleanup of legally applied pesticide products.

PART 2 – PRODUCTS

2.1 PERSONAL PROTECTIVE EQUIPMENT

- A. A minimum of Occupational Safety and Health Administration (OSHA) Level D Personal Protective Equipment (PPE) should be used for activities involving disturbance, movement, sampling, or management of hazardous materials, contaminated water, or contaminated soil. Additional PPE may be required in response to project-specific hazards or unusual conditions, such as possible close

contact of workers with oil seeping from soils or floating on groundwater.

- B. Warning Signs and Labels: Provide warning signs at approaches to the work area. Locate signs at such a distance that personnel may read the sign and take necessary precautions before entering the area. Provide and affix appropriate labels to waste drums and other containers of contaminated materials.

2.2 POLYETHYLENE SHEETING

Sheet plastic shall be new, and clear or black with at least 20-mil thickness. A 6-mil plastic sheet can be used to cover the stockpiles.

PART 3 – EXECUTION

3.1 GENERAL WORK PROCEDURES

- A. Prior to beginning work, the Contractor, the Contractor's Qualified Environmental Professional, and DOTA Engineer or its representative shall discuss the approved Work Plan, as described in Paragraph 3.2 below, including work procedures and safety precautions.
- B. A daily on-site "tailgate" safety meeting shall occur. These meetings shall include a discussion of the day's work and an analysis of hazards that may be encountered. This includes hazardous materials, contaminated water, contaminated soil, and soil vapors. The workers shall be aware of the need for proper safety procedures and be familiar with the Contractor's Work Plan.
- C. Boundaries shall be established at each area where soil excavation is to be performed. The area shall be clearly identified to prevent unauthorized entry. Establish a control area by completely enclosing/roping-off the area where contaminated soil excavation, removal, stockpiling and disposal operations will be performed.
- D. Provide physical boundaries around the control area by roping-off the area to ensure that airborne concentrations of COPC will not exceed permissible exposure limits outside the control area.
- E. Caution signs shall be placed at the entrances to each work area, located such that approaching personnel may read the signs and take necessary precautions before entering the work area. No one will be permitted in the work area unless the person is provided with appropriate training and protective equipment and their presence is necessary to the removal work.
- F. It should be noted that, in some cases, the contamination may not be identifiable through visual and/or olfactory observation (e.g., soil contaminated with metals, PCBs, pesticides, etc.) and contaminant-specific field screening techniques may need to be implemented.
- G. There shall be no eating, smoking, drinking, or storing of food or drink within work areas.

- H. Avoid skin contact with oil and other hazardous materials, contaminated water, or contaminated soil, and avoid inhalation of dust particles.
- I. Monitor workspace air conditions during work activities to verify that safe conditions are maintained. Use field monitoring devices to monitor workspace air conditions.
- J. Select and conduct the removal procedure to minimize the potential spread of contamination. Handle contaminated items such that no skin contact occurs. Contaminated materials shall not be exposed to open flames or other high temperatures.
- K. Before exiting the controlled area and before food breaks, each worker shall remove all PPE, place disposable items in a labeled, impermeable disposal bag, and then exit the area. Workers shall wash their hands thoroughly with a detergent soap to remove contamination. Boots shall be cleaned to minimize tracking of contaminated material from the work area.
- L. At the completion of work in an area, the work area shall be cleaned as necessary and all contaminated clothing, disposable PPE surface coverings, and waste material shall be disposed of as contaminated items.
- M. Soil excavation activities, grading, and any disturbance of impacted soil may cause a potential exposure to Contractor's employees and the general public due to fugitive dust. The routes of exposure of dusts are by inhalation, ingestion, and dermal contact. The Contractor shall use engineering controls such as water spraying and wind barriers to control fugitive dust.
- N. The Contractor shall test residual soils not used as backfill for COPC. Soils with concentrations above regulatory and/or unrestricted use environmental action levels shall be disposed of in accordance with regulatory requirements.
- O. Report construction activities in areas with contaminated soil or groundwater by completing the appropriate forms in the DOTA EHE-EHMP, Appendix B.3 Construction Activities Release Response Plan. Submit the forms to the HDOH Office of Hazard Evaluation and Emergency Response (HEER Office) and provide a copy of the forms to the DOTA Engineer and DOTA AIR-EE.

3.2 PRECONSTRUCTION REQUIREMENTS

- A. Submit the following a minimum of 30 calendar days prior to beginning any ground disturbing activities, for approval by DOTA AIR-EE.
 - 1. Contractor's Work Plan for Known or Suspected Areas of Contaminated Media:
 - a. The Contractor shall submit their work plan which shall include, but not limited to, a Site-Specific Health and Safety Plan (HASP) and if needed, a Site-Specific EHMP. The work plan shall describe the procedures, engineering controls, and methods the Contractor will use during the excavation, temporary storage, handling, treatment, backfilling, and disposal of soil and/or water at the project site. The plan shall also include soil

stockpiling and segregation, testing, contaminated soil and water quality testing, contaminated soil and water disposal procedures, backfilling procedures, personal protection requirements, work area isolation, construction barriers, wetting methods, decontamination procedures, and emergency procedures. The work plan shall be in accordance to all applicable Federal, State, and local regulations and latest amendments.

For locations within the airport which DOTA has already established a Site-Specific EHMP from previous projects, the DOTA's Site-Specific EHMP, shall govern, where applicable.

- b. The plan shall include the names of the Contractor's and their subcontractor's qualified personnel who will be supervising or managing the management of contaminated materials at the site. Include the personnel's phone number and qualifications.
- c. The plan shall include the name(s) of the Contractor's Qualified Environmental Professional, including their qualifications.
- d. The plan shall also include copies of current training and certification of all workers by an EPA-approved Hazardous Waste Operations and Emergency Response course, respirator fit testing documentation, and medical clearances.
- e. Proposed schedule of work.
- f. A sketch identifying the location of temporary soil stockpiling and water storage devices, including pipes and appurtenances, if applicable.
- g. A map showing the location of the work and nearest medical facilities and hospitals.
- h. A copy of this Work Plan must be on the construction site and available at all times.
- i. The Work Plan shall be amended to reflect changes to the site or work conditions, as needed.

B. QUALIFIED ENVIRONMENTAL PROFESSIONAL

The Contractor shall employ a Qualified Environmental Professional who possesses five (5) years, minimum, experience providing environmental oversight for the management of contaminated media during construction activities. The Environmental Professional shall assist in the preparation of the Contractor's Work Plan by reviewing the work procedures, including the determination of the need for PPE, and to provide environmental oversight during construction. The Environmental Professional shall be identified in the Work Plan, including a list of their environmental qualifications, for approval by DOTA AIR-EE.

C. CONTRACTOR TRAINING

Each employee who may be exposed to hazardous materials, contaminated water, or contaminated soil shall be instructed for a minimum of 40 hours by a trained professional in hazardous materials operations and emergency response, awareness and work practices, safety and health precautions, and the use and requirements for PPE in accordance with 40 CFR 1910.120. A certificate of training, signed and dated by the trainer, shall be provided for each worker.

3.3 CONSTRUCTION REQUIREMENTS

A. SOIL EXCAVATION AND STOCKPILING

1. Notify the HDOH Clean Water Branch (CWB) at least 90 calendar days prior to disturbing contaminated soil from known areas of contamination. Notify the HDOH HEER Office at least seven (7) calendar days prior to construction activities that could disturb contaminated soil.
2. The HDOH HEER Office shall be immediately notified if contaminated soils are encountered. The disturbance of contaminated soil shall be performed in accordance with the Contractor's approved Work Plan, the DOTA EHE-EHMP, or a Site-Specific EHMP where applicable. HDOH HEER Office will determine whether additional sampling is required. Provide a location map with Global Positioning System (GPS) coordinates and approximate depth (bgs) at which the contaminated soils were encountered to the DOTA Engineer and DOTA AIR-EE.
3. During excavation and disturbance of impacted soil, all workers, supervisory personnel, subcontractors, and consultants must take precautionary measures as necessary to prevent exposure of Contractor's employees and the general public to chemicals of concern (COCs) by contaminated soil dust and inhalation of associated vapors.
4. The Contractor's Qualified Environmental Professional shall direct the segregation of the soil into three (3) separate soil piles: Pile No. 1 will consist of clean soil; Pile No. 2 will consist of soil excavated from areas found to be contaminated or suspected to be contaminated; and Pile No. 3 will consist of soil that is grossly contaminated. Contaminated soil stockpiles, suspected contaminated soil stockpiles, and grossly contaminated soil stockpiles shall be placed onto 20-mil plastic sheeting. Underlay edges of the plastic sheeting with bermed soil. Ensure that the height of the bermed soil will be sufficient to prevent stormwater runoff from breaching it. Place the excavated soil inside the bermed area on top of the plastic sheeting. Cover the stockpiles with 6-mil plastic sheeting in the bermed area to mitigate dust concerns caused by wind and prevent contact with rainwater and stormwater runoff. Secure the plastic cover with sufficient ballast and place sediment control devices along the entire toe of each stockpile.
5. Each stockpile shall not exceed 100 cubic yards and shall be located away from drainage features, surface waters, and stormwater drainage paths. Or, the soils can be placed in watertight containers, such as 20-yard steel roll-off bins, drums, etc. These containers shall be covered.

6. The Contractor shall have representative soil samples taken from each stockpile (Pile No. 1, 2, and 3) and tested in accordance with HDOH guidelines, standards, and regulations, such that the soil sample report, prepared by the Contractor's Qualified Environmental Professional, can specifically state one of the following:
 - a. "The soil is not a regulated hazardous waste and is acceptable for disposal at a HDOH permitted facility."; or
 - b. "The soil is acceptable for unrestricted reuse."

Sampling and testing of the stockpiles shall be, at a minimum, in accordance to the latest edition of the HDOH's *Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material*. The Contractor's Qualified Environmental Professional shall direct the soil sampling collection and testing methods in accordance with the most current guidelines. Stockpiles shall be tested using multi-increment (MI) sampling approaches. Appropriate decision unit (DU) volumes for larger stockpiles of soil should be discussed with the HDOH HEER Office on a case-by-case basis.

The Contractor shall also confirm, with the HDOH permitted facility, the facility's sampling requirements, as well as their standards for disposal.

7. Any liquid-phase oil or free product associated with the contaminated soil shall be drained prior to stockpiling. If feasible, the free product should be separated from the soil, properly stored, profiled, and disposed of at an approved recycling/disposal facility.
8. For any soils hauled off Airport property, the Contractor shall be responsible for the legal disposal of any soil. The Contractor shall implement and maintain the following:
 - a. A form, signed by the Contractor and haul truck driver. The form shall contain the following information:
 - i. The date the material is being taken off Airport property.
 - ii. The name of the haul trucking company.
 - iii. The haul truck number and license plate number.
 - iv. The quantity of material being loaded into the haul truck.
 - v. The disposal facility or location of where the material is to be taken.
 - vi. The time the truck left the project site.
 - b. The form and waste manifest from the HDOH permitted facility shall be provided to the Engineer or its representative by the close of the next working day. The Contractor shall verify that the quantity of material loaded into the truck, as indicated on the form, exactly matches the quantity of material disposed at the HDOH permitted facility, as indicated on the waste manifest.
 - c. The Contractor shall maintain a log that summarizes each form and waste manifest for ease of tracking and monitoring.

- d. **All forms, waste manifest, and summary log shall be a condition of payment being made to the Contractor and shall be submitted with each progress payment. Failure to submit the above and/or should any quantity of material loaded into the truck, as indicated on the form, not exactly match the quantity of material disposed at the HDOH permitted facility, as indicated on the waste manifest, shall be reason for the State to withhold payment to the Contractor.**
9. Excavated soils can be reused onsite (within the construction site boundaries) with the prior approval of the DOTA AIR-EE, HDOH HEER Office, and subject to the following conditions:
- a. Representative soil samples have been taken and tested in accordance with HDOH standards and regulations.
 - b. The contaminated soil can only be reused within proximity of its original excavation.
 - c. The contaminated soil is placed within areas more than 150 meters from surface water and drainage features.
 - d. The contaminated soil cannot be placed beneath or within the footprint of a planned building structure.
 - e. The contaminated soil can only be placed at an elevation above the tidally influenced high water table and at least 1-foot below the finish surface grade. The more highly impacted soil should be placed at the bottom of the excavation and the cleanest soil at the top of the excavation. At least 1-foot of clean soil must be placed as the final backfill layer at the top. The excavation shall then be capped with an impervious layer, such as concrete and asphalt.
 - f. The contaminated soil cannot contain any free oil, oil sheens, oil stains, or total petroleum hydrocarbon (TPH) concentrations exceeding 5,000 parts per million (ppm).
 - g. The contaminated soil is not considered a hazardous waste pursuant to Federal and State laws.
 - h. Contaminated soil shall not be reused in areas that are uncontaminated.
10. Excavated soils can be reused offsite (off Airports property) with the prior approval of the DOTA AIR-EE, HDOH HEER Office, and subject to the following conditions:
- a. Representative soil samples have been taken and tested in accordance with HDOH standards and regulations.
 - b. The work shall be performed in accordance to the latest edition of the

HDOH's Guidance for Soil Stockpile Characterization and Evaluation of Imported and Exported Fill Material.

- c. A signed agreement with the receiving facility acknowledging the test results of the soil samples and acceptance of the soil is required to be submitted to the DOTA Engineer and DOTA AIR-EE ten (10) calendar days prior to hauling of the soil to the receiving facility.
 - d. The contaminated soil shall not contain any free oil, oil sheens, oil stains, or total petroleum hydrocarbon (TPH) concentrations exceeding 5,000 parts per million (ppm).
 - e. The contaminated soil is not considered a hazardous waste pursuant to Federal and State laws.
11. All soil that is reused onsite or offsite shall be included in the Closeout Report. The report shall include, at a minimum, a copy of the signed agreement from the receiving facility accepting the soil, a copy of the soil test results, the quantity of soil received by the facility, a location map of the reused soil including GPS coordinates of its limits, the depth and thickness of the soil's placement, a brief description of the purpose of the soil's re-use, and photos of the site conditions after placement has been completed.

B. GROUNDWATER MANAGEMENT

Soil and groundwater may be impacted by petroleum hydrocarbons, dissolved metals, and/or pesticides, and may be encountered during soil excavation.

1. The disturbance of contaminated groundwater shall be performed in accordance with the approved Work Plan, DOTA EHE-EHMP, or Site-Specific EHMP, where applicable. HDOH HEER Office will determine whether additional sampling is required.
2. If contaminated groundwater is uncovered at a previously unknown source or site on the project, the Contractor shall immediately notify the DOTA Engineer, Airport Duty Manager (CODE 22), DOTA AIR-EE, and HDOH HEER Office of its discovery. Provide a location map with GPS coordinates and approximate depth of the groundwater (bgs) at which the discovery was encountered.

3. During excavation and disturbance of impacted groundwater, all workers, supervisory personnel, subcontractors and consultants must take precautionary measures as necessary to prevent exposure of Contractor's employees and the general public to COCs and inhalation of associated vapors. Free product, sheen, and impacted groundwater must be managed properly.
4. Groundwater that exhibits evidence of possible contamination, i.e., odor, visual sheen, free product, coloration, and PID measurement, shall be properly stored when removed from the ground. Storage devices shall be watertight and leak-free to prevent discharge of the water into the surrounding ground, drainage system, and surface waters.

When disconnecting pipes and hoses from storage devices and equipment, residual waters contained in the pipes and hoses shall also be prevented from discharging into the surrounding ground, drainage system, and surface waters.

5. Representative water samples shall be taken and tested in accordance with Federal and State guidelines, standards, and regulations.
6. If free product is present in the extracted groundwater, it must be separated from the groundwater, profiled, and disposed of at an HDOH approved recycling/disposal facility. Free product shall not be moved from one excavation to another. Engineering measures shall be taken to prevent the transfer of the free product during dewatering. Under no circumstances shall water contaminated with free product be discharged from a dewatering pit.
7. At least once daily, remove oil observed floating on the groundwater during excavation activities using a vacuum truck, absorbent pad, or other methods approved by HDOH HEER Office. Excavations shall not be backfilled until the floating oil is removed to the maximum extent practicable, which is when further use of vacuum trucks, absorbent pads, or other approved methods do not result in further floating oil removal. Backfilling of any excavation shall not occur without concurrence from DOTA AIR-EE and HDOH HEER Office.
8. Avoid any releases of contaminated groundwater to surface water bodies or areas beyond the work area.
9. Groundwater shall only be re-infiltrated in the ground with the prior approval of DOTA AIR-EE and HDOH HEER Office, and subject to the following conditions:
 - a. Within 200-feet of its original location or source and returned to the same aquifer which is not a current or potential drinking water source. Re-infiltration shall not contaminate uncontaminated areas.
 - b. More than 150 meters from surface waters, drainage features, and drainage structures.
 - c. Groundwater does not contain any gross contaminants.

- d. If petroleum free product is present in the groundwater, the free product shall be removed prior to transfer of the groundwater to the re-infiltration site. Free product shall be removed at least once daily until no free product is observed after 24 hours. The free product shall be disposed at an HDOH-approved facility.
 - e. Groundwater is not considered a hazardous waste pursuant to Federal and State law.
 - f. Re-infiltration shall be conducted at a slow enough rate so that it does not flow past the designated infiltration area, enter storm drains, or impact surface water in the area.
 - g. If discharging to a re-infiltration trench, the trench must not be an underground injection control (UIC) well by HDOH's Safe Drinking Water Branch (SDWB) definitions. If some part of the trench system is deemed to be a UIC well, then the whole system shall be considered an injection well.
 - h. Advance clearance from HDOH SDWB is required if a re-infiltration trench is deeper than 10 feet.
 - i. If a UIC well is used for re-infiltration, the Contractor is responsible to obtain the necessary permits, including, but not limited to, HDOH's UIC Permit. The Contractor shall meet and comply with all permit requirements, including, but not limited to, well construction, placement, use, and closure.
10. Under circumstances where contaminated groundwater cannot be re-infiltrated, proper disposal must be conducted with the prior approval of the DOTA AIR-EE, HDOH SDWB, HDOH Solid and Hazardous Waste Branch (SHWB), and HDOH HEER Office. This is also subject to the following conditions:
- a. Discharge to the local or municipal sanitary sewer system after acquiring appropriate permit(s) from City and County (if applicable and if allowable by the receiving governmental agency) prior to discharge. If discharge water was generated within contaminated areas, additional coordination with HDOH HEER Office is required, and Aquatic Habitat Criteria (Chronic Toxicity) shall apply to discharge within these areas, in addition to any criteria applicable to the National Pollutant Discharge Elimination System (NPDES) permit or pretreatment facility. Water discharged to a sanitary sewer may be required to meet Water Quality Standards.
 - b. Notification to the appropriate agencies and other pertinent information related to the discharge must be provided upon request.
 - c. The Contractor is responsible for the legal disposal or discharge of any groundwater that is not re-infiltrated, and shall provide the DOTA AIR-EE with copies of waste manifests.
 - d. For any groundwater hauled off Airport property, the Contractor shall have

representative samples taken and tested in accordance with HDOH guidelines, standards, and regulations. A copy of the groundwater test result shall be submitted to DOTA AIR-EE. The groundwater shall not be disposed offsite without the approval of DOTA AIR-EE and the HDOH permitted facility that is receiving the groundwater. Furnish documentation from the receiving facility indicating that they acknowledge the groundwater test results, including their approval to dispose the groundwater at their facility.

C. RELEASE REPORTING

Encountering previously unknown, suspected, or confirmed contaminated soil or groundwater during subsurface construction activities is considered a release and shall be reported to HDOH HEER Office (phone: 808-586-4249, or after hours at 808-247-2191). Copies of the HDOH Release Report, HDOH issued Release Number, and email correspondence (if applicable), shall be furnished to the DOTA Engineer and DOTA AIR-EE.

1. Upon the discovery of contaminated soil and/or groundwater, the Contractor shall immediately notify the DOTA Engineer, DOTA AIR-EE, and the Airport Duty Manager (CODE 22). The Contractor shall also immediately notify the Hawaii State Emergency Response Commission (HSERC/HEER) and the Local Emergency Planning Committee (LEPC) of the discovery.
2. A reportable release of hazardous substances or contaminated soil or groundwater may be indicated by, but not limited to, any of the following:
 - A petroleum sheen on the groundwater in an excavation.
 - Any free product that appears on groundwater.
 - Visual or olfactory evidence of contamination (e.g., unusual discoloration, buried containers, fumes, unknown liquids).
3. Comply with DOTA and HDOH HEER Office requirements. A written report shall be provided to the HDOH HEER Office. The *Hawaii Hazardous Substance Written Follow-up Notification Form* is provided in the DOTA EHE-EHMP, Appendix B.1. Photos shall be included to document the incident. The Contractor shall keep a copy of the completed Form B.1 and provide copies of the written report to the DOTA Engineer and DOTA AIR-EE.
4. If free product is encountered, report the release in accordance with HAR § 11-451.

Releases that occur during construction activities or releases due to unforeseen events (spill) shall also be reported.

1. Report all spills to the Airport Duty Manager (CODE 22) and DOTA AIR-EE immediately.
2. In the event of a release of a hazardous substance that causes an imminent threat to human health or the environment, the first call shall be to 911.

3. Small spills of petroleum or hazardous substances (less than 25 gallons) which are capable of being cleaned up within 72 hours and do not threaten ground or surface waters shall be cleaned up immediately.
4. Report spills of a certain size (e.g., volume of greater than 25 gallons or not contained within 72 hours), per HAR § 11-451, to HDOH HEER Office and the National Response Center immediately. Comply with the HDOH HEER Office requirements. A written report shall be provided to the HDOH HEER Office within 30 calendar days of a Reportable Quantity spill cleanup. The *Hawaii Hazardous Substance Written Follow-up Notification Form* is provided in the DOTA EHE-EHMP, Appendix B.1. Photos shall be included to document the incident. The Contractor shall keep a copy of the completed Form B.1, and provide copies of the written report, the HDOH issued Release Number, and email correspondence (if applicable) to the DOTA Engineer and DOTA AIR-EE.
5. Any spill that enters a body of water, onto an adjoining shoreline, or discharges into the storm drain system, HDOH CWB must also be immediately notified and the National Response Center notified within 24 hours. Report significant spills to the U.S. Coast Guard.

D. FINAL CLEANUP

1. When work which disturbs contaminated soil has been completed, the State will visually inspect the work area for evidence of contaminated materials and direct the Contractor to clean and remove remaining contaminated materials. The Contractor shall not dismantle the work area boundaries prior to authorization by the State.
2. Any equipment which contacts contaminated materials shall be cleaned with a water spray immediately upon completion of work. The wash location shall be located immediately adjacent to the contaminated area. All wash water and solid waste shall be disposed of in accordance with the Work Plan. The wash water shall not be allowed to discharge into the drainage system and surface waters.

E. AIR MONITORING

1. Air monitoring shall be conducted when petroleum-contaminated soil (PCS), contaminated groundwater, free product, or chlorinated solvents (e.g., PCE, TCE, etc.) is present in an excavated area. The monitoring shall include both work area and perimeter measurements of volatile organic compound (VOC) vapors. Appropriate response actions shall be taken in conformance to Federal and State regulatory requirements and guidelines. The response actions shall include ensuring that on-site workers have the appropriate level of PPE and the general public is not affected adversely.

2. Air monitoring shall be conducted with a conventional photoionization detector (PID) to measure total VOC vapor concentrations. If high levels of benzene are anticipated, an Ultra-Rae PID, which is benzene-specific, shall also be used.
3. If toxic gases are a potential concern, air monitoring of the lower explosive limit (LEL) shall be conducted using a multi-gas meter to determine if a hazardous atmosphere exists.
4. Air monitoring shall be conducted for at least three (3) full 8-hour shifts to establish a negative exposure assessment for worker's exposure to airborne contaminants. After the establishment of the negative worker's exposure, periodic monitoring shall be conducted once every seven (7) calendar days to document worker exposure for the duration of the contaminated soil work.
5. Work area and perimeter air monitoring shall be conducted throughout the entire duration of the contaminated soil work to ensure unprotected personnel are not exposed above permissible exposure limits at all times. If the outside boundary levels are at or exceed permissible exposure limits, work shall be stopped, and the Contractor's Qualified Environmental Professional and DOTA Engineer shall be immediately contacted to address the situation causing the increased levels.
6. Submit air sampling results to the DOTA Engineer within five (5) calendar days after the samples are collected, signed by the testing laboratory employee performing the air monitoring.

F. UNDERGROUND STORAGE TANKS (UST) AND UTILITY PIPES

1. For any UST or pipeline discovered or planned removal, the nature of the UST or pipeline, and whether they are inactive, shall be determined prior to removal. Immediately notify the DOTA Engineer and DOTA AIR-EE of the discovery.

If unanticipated petroleum pipelines are discovered, contact HDOH HEER Office within 24 hours after encountering them.

2. The Contractor shall record field observations of the UST and pipelines. These observations shall include, but are not limited to, the following:
 - a. Location relative to fixed landmarks, including GPS coordinates. Provide a location map that shows the UST and pipelines that were encountered. The map must include a North arrow and a scale.
 - b. Depth, diameter, length, and type of pipe, if applicable. Describe the condition of the pipe.
 - c. Type of fuel or product, including analytical laboratory reports for the product that is recovered.
 - d. Beginning and ending fluid levels, if applicable.
 - e. Volume of each type of product removed.

- f. Flow rates, if applicable.
- g. Direction of flow.
- h. Detailed photographs.
- i. Detailed description of actions taken following the discovery, such as, cutting, product removal, and disposal.

Provide records of the field observations to the DOTA Engineer, DOTA AIR-EE, and HDOH HEER Office.

- 3. Prior to removal of a UST, the Contractor shall prepare and submit to the DOTA Engineer, for review by DOTA AIR-EE, a Site-Specific plan. All work associated with USTs shall be in compliance with HAR § 11-280.1 requirements, and HDOH HEER Office and HDOH SHWB requirements.

The contractor shall also complete the HDOH *Notice of Intent to Close Underground Storage Tanks* form and submit it to the DOTA Engineer for submission to HDOH SHWB (UST Section) by DOTA AIR-EE.

Prior to the removal of the UST, the Contractor shall receive approval from DOTA AIR-EE and HDOH HEER Office.

- 4. The UST or pipeline segment must be drained of its content or determined that it is empty of liquids or flammable vapors prior to the removal. Any petroleum fluids recovered must be representatively sampled and tested to determine how they can be recycled or disposed in full accordance with HAR § 11-58.1 and § 11-260–279, and any other Federal and State regulations.
- 5. Only personnel knowledgeable and trained in pipeline and UST removal shall cut, drain, and remove USTs and pipelines. Prior to cutting, plastic sheeting and absorbent material shall be placed below and adjacent to the cutting location. Any residual fluid in the UST or pipeline must be properly contained on the sheeting and prevented from discharging into the surrounding soil or entering any drainage system and surface waters.
- 6. The cut-off ends of the pipeline segments, that remain in-place, must be filled with concrete and appropriately sealed to prevent any potential leakage and contact with groundwater.
- 7. If the waste pipe or UST are to be stored onsite prior to disposal, the area shall be lined with polyethylene plastic sheeting, 10 mil or thicker, and bermed to contain any free product. Some viscous products may appear to be immobile, however, after exposed to atmosphere heating, can liquefy. The waste pipe segment shall be stored on appropriate dunnage with the ends of the pipe sealed or covered to protect the interior of the pipe from contact with rainwater and wind.
- 8. All removed pipelines and USTs shall be properly disposed or recycled.
- 9. For USTs, a UST Removal Report including all sampling activities required under

HAR § 11-280.1 shall be prepared and submitted to the DOTA Engineer, DOTA AIR-EE, and HDOH SHWB (UST Section).

3.4 POST-CONSTRUCTION REQUIREMENTS

A. Submit the following within 30 calendar days after work is completed.

1. Close-out Report

- a. A signed certificate stating that the removal and disposal of all contaminated materials were completed in accordance with the Contractor's approved Work Plan or Site-Specific Plan, and all applicable Federal, State, and local rules and regulations.
- b. All approved DOTA EHE-EHMP deviation request forms. (Reference Appendix B of the DOTA EHE-EHMP.)
- c. All Site-Specific EHMP, if applicable.
- d. All testing, laboratory results, and reports for any soil, groundwater, soil vapor, UST, pipeline, and other samplings taken.
- e. All disposal forms, waste manifests, and summary logs.
- f. Any results from project air monitoring.
- g. Record of Field Observations, including location map with GPS coordinates, limits, and depths of any contaminated media (soil, groundwater, etc.) that were encountered at previously unknown source or sites on the project. Include a copy of the completed *Hawaii Hazardous Substance Written Follow-up Notification* form that was submitted to HDOH and all other associated documents.
- h. If any contaminated soil was removed offsite (off of Airport Property), at a minimum, include the following:
 - A copy of the signed agreement from the receiving facility acknowledging the test result of the soil samples and indicating acceptance of the soil for reuse.
 - Copies of the test results of the soil sampling.
- i. If any contaminated soil was re-used onsite (within the construction site boundaries), at a minimum, include the following:
 - Copies of the test results of the soil sampling.
 - The quantity of soil that is re-used on-site.
 - Location map of the re-used soil. Include GPS coordinates of its limits, if the area is accessible.
 - A brief description of the purpose of the re-used soil (e.g., general fill, utility trench backfill material, etc.). Include the depth and thickness of

- its placement.
 - Photos of the site after placement of the re-use soil has been completed.
- j. Record of Field Observation of any unanticipated UST or pipeline discovered during construction activities, including a copy of the completed HDOH *Notice of Intent to Close Underground Storage Tanks* form and all other associated documents.

The Close-out Report shall be by each individual contaminated media and shall include all appropriate documentations. The Close-out Reports for each contaminated media can be submitted separately or combined in a 3-ring binder with divider tabs.

PART 4 – MEASUREMENT AND PAYMENT

4.1 BASIS OF MEASUREMENT AND PAYMENT

Work under this Section will be paid for under the various contract items as shown below.

For ALLOWANCE items in the Proposal Schedule, the allowance is an estimate and the amount shall not exceed the maximum amount shown in the Proposal Schedule. Payment shall be the actual cost as invoiced by the Contractor and approved by the DOTA Engineer. The Contractor shall be allowed to include overhead, profit, insurance and/or other mark-ups, as stipulated in Section 9.5 of the 2016 General Provisions for Construction Projects, Air and Water Transportation Facilities Divisions.

<u>Item</u>	<u>Unit</u>
Management of Contaminated Medias	Allowance

Should the DOTA receive reports of any illegal dumping of material, and if illegal dumping is confirmed to have occurred, the DOTA will assess a Liquidated Damage amount of \$5,000 per truck per day, until the illegal dumped material has been cleaned up or the incident has been remedied to the HDOH’s concurrence. The Contractor shall not be entitled to recover any Liquidated Damages assessed, even after the non-compliance has been corrected.

The Contractor shall also be responsible for all citations, fines, and penalties levied by HDOH or EPA against the State due to the Contractor’s failure to properly manage contaminated medias, including non-compliance with the DOTA EHE-EHMP or Site-Specific EHMP. The Contractor shall reimburse the State within 30 calendar days for the full amount of outstanding cost that the State has incurred, or the State shall deduct all incurred costs from the Contractor’s monthly progress payments.

If the Contractor fails to satisfactorily address the non-compliance item, DOTA reserves the right to employ outside assistance or use the State’s own labor forces to provide necessary corrective measures. The Contractor shall be fully responsible for all cost and time. The State shall charge the Contractor such incurred costs plus any associated project engineering costs and shall make appropriate deductions from the Contractor’s

monthly progress payment.

END OF SECTION

DIVISION 2 – SITE CONSTRUCTION

SECTION 02538a - SEWER LINE AND MANHOLE CLEANING

PART 1 – GENERAL

1.01 REQUIREMENTS

Sewer line and manhole cleaning shall be performed on an annual inspection and cleaning cycle.

Unless otherwise indicated, the term "clean" as used in these specifications shall be defined as the removal of sufficient materials to render the sewer line to 95% of its original capacity or to allow passage of the necessary inspection and rehabilitation equipment and materials, whichever is greater.

The work covered by this special provision shall consist of furnishing all labor, materials, equipment, and supervision to perform all work necessary to clean the designated sewer lines and manholes. Television inspection as specified in Section 02538b – Closed Circuit Television Inspection of Sewer System shall be performed after completion of the sewer line and manhole cleaning to verify that the cleaning has been satisfactorily performed and to inspect for damage and defects.

All work will be performed by experienced personnel using equipment and materials which meet the requirements hereinafter specified. The Contractor shall obtain a fire hydrant use permit from the DOTA at HNL prior to any use of water from a fire hydrant. The Contractor shall obtain all necessary permits required for the proper disposal of debris and other materials resulting from the cleaning work.

1.02 SAFETY

The Contractor shall have a documented, in place safety program which meets or exceeds all Federal and State OSHA regulations, with special emphasis on hazard free work in confined spaces and sewage environment.

1.03 EQUIPMENT

All designated sewer manhole sections shall be cleaned using vacuum and/or high velocity sewer cleaning equipment or other suitable method of cleaning, the selection of equipment to be used shall be based on the condition of the sections at the time the work commences. The equipment and the methods selected for cleaning shall be capable of removing all deposits, roots, obstacles and other deleterious materials from the sewer lines.

All sewer cleaning equipment shall be used in a manner to ensure that all deposits, roots, obstacles and other deleterious materials have been removed. Satisfactory

precautions shall be taken to protect the sewer lines and manholes from damage that might be inflicted by the use of the cleaning equipment.

When additional quantities of water from nearby fire hydrants are necessary to avoid delays in the normal working procedure and use of such quantities of water have been approved by BWS, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed at any time. All solid or semi-solid materials (tuberculation debris, grease, rocks, sand, ragging, roots, sludge, etc.) resulting from all types of cleaning operations shall be trapped and removed at the downstream manhole of the section being cleaned. Passing materials from manhole section to manhole section shall not be permitted. All solid or semi-solid materials resulting from the cleaning operations shall be removed from the work area and properly disposed of by the Contractor in accordance with the City and State requirements. An appropriate disposal site shall be arranged for by the Contractor and approved by the Project Manager. All permits required for the proper transportation and disposal of the materials shall be the sole responsibility of the Contractor.

A. Vacuum Removal/Cleaning Equipment

This equipment shall be truck mounted for ease of operation and designed to use air movement or positive displacement for cleaning and vacuuming of materials in the sewer pipes and manholes. The equipment shall be capable of removal of materials a distance of 500 feet from the operating manhole. The equipment used shall have the capability of moving a minimum of 8,500 cfm.

B. High Velocity Hydrocleaning Equipment

All high velocity sewer cleaning equipment shall be truck mounted for ease of operation. The equipment shall have a minimum of 500 feet of one inch I.D. high pressure hose with a selection of four or more cleaning nozzles.

The equipment shall have a minimum capacity of 60 gpm and a working pressure of 1,800 psi. The nozzles shall be capable of producing a scouring action from 15° to 45° in all line sizes designated to be cleaned. The equipment shall also include a high velocity gun for washing and scouring manhole walls and floors. Manholes shall be pressure washed at a minimum pressure of 4,000 psi.

The equipment shall carry its own 1,200-gallon water tank capable of holding corrosive or caustic cleaning or sanitizing chemicals, auxiliary engines, pumps and a hydraulically driven hose reel. Any proposed cleaning chemicals shall first be approved for use by the Project Manager.

All controls shall be located so that the equipment can be operated from above ground with minimal interference to existing traffic and/or danger to the operator.

Manhole and hose guides shall be used to protect the hose from wear and to lead

the hose around buildings, trees, stationary equipment, etc.

Root cutter attachments shall be hydraulically operated and designed to clear 6-inch and larger diameter sewer lines. Cutters shall have rear propelling jets, revolving jets and replaceable cutting blades inside a protective cage.

Pipe reaming attachments for removal of corrosion products from cast iron pipe may consist of flailing chains, rotary cutters, and other suitable attachments for the specialized descaling operations.

C. Portable Non-Truck Mounted Jetting Equipment

This equipment shall be made available for cleaning required in easements or other areas where accessibility is restricted.

Portable system shall at minimum include a 3.5 hp motor, root cutter attachments, and flexible sectional rods.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

3.01 CLEANING PROCEDURES

- A. Cleaning shall commence at the upstream manhole section and proceed downstream.
- B. All materials resulting from the cleaning operations shall be trapped and removed from the downstream manhole of the manhole section being cleaned. The term "manhole section" as used in these specifications shall mean the length of sewer pipe connecting two adjacent manholes. No materials shall be allowed to continue through the downstream manhole into an adjacent manhole section at any time. The Contractor shall be responsible for properly disposing of all materials removed. Under no circumstances shall sewage or solids be dumped onto streets, or into streams, ditches, catch basins, storm drains, or the ocean. A vacuum truck shall be used to remove heavy accumulations of material.
- C. If cleaning of an entire section cannot be successfully performed from one manhole or the equipment fails to traverse the entire manhole section, it will be assumed that a blockage exists and either the equipment shall be set up on the other manhole or removal of the obstruction shall be attempted before the cleaning effort is abandoned, and only at the direction of the Project Manager.
- D. Where hydraulically propelled cleaning tools are utilized, precautions shall be

taken to ensure that the water pressure created does not cause damage or flooding to public or private property.

- E. The sewer lines shall be cleaned to a degree of cleanliness as specified and as necessary for subsequent television inspection and/or Cured-in-Place Pipe type (CIPP) rehabilitation operations.
- F. The Contractor shall comply with all applicable traffic control requirements.
- G. No open manholes shall be left unattended during the Contractor's operations.
- H. The Contractor is responsible for maintaining sewer service at all times during work.
- I. The Contractor shall be responsible for making all necessary arrangements for gaining access to work sites in private property. The Contractor shall be responsible for locating hidden or buried manholes.
- J. Damage to private property, sewer pipes, manholes and appurtenances caused by the Contractor's work shall be repaired by the Contractor at no additional cost to the State.

3.02 SUBMITTALS

A. Work Procedure

Submit for review a description of the procedures to be followed to accomplish the work and the necessary equipment to be used. Submittal shall be made fourteen (14) calendar days prior to initiating the work.

B. Records

Maintain printed records of all cleaning performed, including the sewer main number, manhole section (start manhole number to end manhole number) or manhole, line size, length of the section, type of pipe, length cleaned, cleaning method(s) used, special remarks and observations, and other pertinent data. These records shall be available to the Project Manager for inspection during the performance of work and shall become the property of the State after completion of the Project.

PART 4 - MEASUREMENT AND PAYMENT

- 4.01 Sewer System Cleaning: Sewer cleaning shall be paid per area as shown in Exhibit A and as described in the proposal schedule.

- 4.02 Manholes Cleaning: Manhole cleaning work shall be considered incidental to the sewer system cleaning work.
- 4.03 Deficient or Re-work:
For work related to Items 4.01, 4.02 listed above, and in this section (4.03) no additional payment shall be made for additional cleaning and material removal necessary to achieve the specified degree of cleaning as stated in 1.01 of this section.

--END OF SECTION--

SECTION 02538b - CLOSED CIRCUIT TELEVISION INSPECTION
OF SEWER SYSTEM

PART 1 – GENERAL

1.01 DESCRIPTION

National Association for Sewer Services Companies (NASSCO), Pipeline Assessment Certification Program (PACP) closed circuit television (CCTV) inspection of sewer lines shall be required. Sewer lines shall be internally inspected by insertion of a closed circuit camera, which records colored imagery, into the sewer line for the purpose of remote visual inspection to determine the condition of the pipe and joints, the location and extent of any breaks or obstructions, the degree of any infiltration, the location of service connections, and presence of abnormal line and grade conditions. Television inspection of sewer manhole conditions shall be by the same method unless otherwise authorized by the Project Manager.

Upon completion of sewer system cleaning and CIPP Part- Liner repair work, CCTV inspection shall be performed to verify that cleaning or rehabilitation has been satisfactorily performed and lateral and drop manhole connection openings satisfactorily reinstated. Both pre-rehabilitation and post-rehabilitation video inspections shall utilize digital video on Compact Digital Video Disk (DVD) as the primary source of documentation, with secondary field logs and written reports also being submitted to the State.

1.02 SAFETY

The Contractor shall have a documented, in place safety program which meets or exceeds all Federal and State OSHA regulations, with emphasis on hazard free operations in confined space.

1.03 SUBMITTALS

A. Video Picture Quality Assurance

Within 14 calendar days of contract execution, the Contractor shall furnish the Project Manager with a video recording of actual prior sewer line inspection performed by the Contractor on another recent project which meets these job specifications and, upon approval, use this video recording throughout the Project as a standard which the Contractor's video picture quality must meet. This video recording shall become the property of the State.

B. Work Procedure

Submit a description of the set up and work procedure to be followed to accomplish the work and the necessary equipment to be used for approval prior to start of closed circuit television inspection work.

C. Documentation

Documentation shall consist of electronic video files in DVD quality, color video in MPEG 2 format or better, log sheets, and written reports detailing the pre-rehabilitation and post-rehabilitation conditions of the sewer lines, pipe grade, pipe joints, lateral connections, manholes, plastic linings, and manhole connections. The reports shall note the time and date of video inspection, sewer main, upstream and downstream manhole, direction of view, direction of flow, surface material, pipeline length, pipe section length, pipe size, pipe material, lateral connections, video tape number, counter number, and a detailed logging of defects encountered. A map shall be provided in the report showing the sewer lines with manholes clearly labeled.

All records shall be available to the Project Manager for inspection during the performance of work and shall become the property of the State after completion of the Project.

- D. Television Inspection Forms. Computer generated location records shall be kept by the Contractor, which clearly show points of significance in relation to an adjacent manhole. Points of significance such as locations of laterals, infiltration, unusual conditions, roots, side main connections, broken pipe sections, presence of scaling and corrosion, pipe grade deficiencies, and other discernible features shall also be recorded and a copy of such records shall be submitted to the Project Manager. These records shall be recorded on the "Television Inspection Report."

E. Photographs

Digital photographs of the television picture of pipeline problems or unusual conditions found shall be taken by the Contractor upon request by the Project Manager. The Contractor shall record, on still photograph, sources and potential sources of infiltration/inflow, structural defects, and abnormal conditions for subsequent review.

F. Video Recordings

Video recording playback shall be at the same speed that the video was recorded at. Slow motion and/or stop motion playback features may be supplied at the option of the Contractor. The Contractor shall have all video and necessary playback equipment readily available for review by the State throughout the contract. Recordings shall be taken and narrated by the operating technician during all phases of inspection and the work and shall be submitted in a format capable of replay on Windows Media Player. All original files of the video inspections shall be submitted to the State upon completion of the video inspections. Two copies of the DVD quality, MPEG-2 color video files shall be submitted to the State upon completion of the CCTV inspections.

1.04 EQUIPMENT

Equipment used in the work of this section shall be produced by manufacturers regularly engaged in the manufacture of equipment specifically designed for sewer line inspection. CCTV equipment shall include television cameras, television monitor, cables, power sources, and other equipment. The remote-reading footage counter shall be accurate to less than 1% error over the length of the section of sewer line being inspected. The distance shall be measured from the centerline of the upstream manhole to the centerline of the adjacent downstream manhole. Telephones, radios, or other suitable means of communication shall be set up to ensure that adequate communication exists between members of the CCTV crew. The CCTV inspection system to be utilized for this contract shall be approved by the Project Manager prior to the work being performed.

The video camera shall be mounted on a skid, floatable raft system, or transporter based on the existing conditions of the sewer line to be televised. The camera and the skid, raft, or transporter system shall be furnished with emergency pullback cables of sufficient strength for all retrieving situations.

Cameras shall be of the "articulating head" type to allow laterals, pipe joints, and pipeline defects to be viewed directly. The inspection will be done in one manhole section at a time, and the section being inspected shall be suitably isolated from the remainder of the sewer line system and incoming sewer flows as required or as directed by the Project Manager.

The television camera used for the inspection shall be of color format, and specifically designed and constructed for such sewer line inspections. It shall be operative in 100% humidity and underwater conditions. Lighting for the camera shall provide minimal relative glare. Lighting and camera quality shall be suitable to allow a clear, in-focus picture of a minimum of six (6) linear feet of the entire inside periphery of the sewer pipe. The camera shall have a minimum resolution capability of 350 lines. To ensure peak picture quality throughout all conditions encountered during the video survey, a variable intensity control of camera lighting and remote control adjustments for focus shall be located at the monitoring station. Focal distance shall be adjustable through a range from 6 inches to infinity.

Camera monitors shall be located within a temperature controlled studio which will allow seating for viewing by two State personnel in addition to the Contractor's operating technician. There shall be available within the studio two or more viewing monitors operating simultaneously and have a proper size to allow all persons in the studio to have a satisfactory and comfortable view of the video presentation. Monitors shall have a resolution capability of no less than 650 lines. Continuously displayed on the monitors as part of the video presentation shall be the date of the survey, number designation of the manhole section being surveyed, and a continuous forward and reverse read-out of the camera distances from the manhole of reference.

Video equipment independent from the equipment used for monitoring of sewer line

television inspections shall be made available to State personnel for viewing of video in the field. The video equipment may be mounted in the same truck as with the sewer line television inspection equipment, located in the Contractor's field office, or located at a nearby site approved by the Project Manager.

The audio portion of the composite signal shall be sufficiently free from electrical interference and background noise to provide complete intelligibility of the oral report. Audio reports shall be recorded by the operating technician on the video DVDs as they are being produced and shall include the location of the sewer, the names or numbers of the manholes involved, a manhole-to- manhole direction of travel, and a description of the conditions in the sewer line as they are encountered.

The video recording and the monitoring equipment shall have the capability to instantly review both video and audio quality of the DVD productions at all times during the television survey. The purpose of video recording shall be to supply a permanent visual and audio record of the manhole section surveyed. Two copies of the video files on DVD shall be submitted to and become the property of the State upon completion of each work order assignment.

Still photos shall be taken at the request of the Officer-in-Charge or the discretion of the operating technician to record conditions of interest during the survey.

The operating technician shall have full control of the movement of the television camera at all times. Remote control, manual winches, power winches, TV cables, and powered rewinds or other devices that do not obstruct the camera view or interfere with proper documentation of the sewer line and manhole conditions shall be used to move the camera. The travel speed of the camera shall be uniform and shall not exceed 30 feet per minute (fpm). Any means of propelling the camera through the sewer, which exceeds a speed of 30 fpm or produces a non-uniform or jerky movement will not be acceptable. At no time shall the hose of high velocity water cleaning machine substitute for a tow cable. Devices using elastic tow cables shall not be used. At the Contractor's discretion or at the discretion of the Project Manager, the camera shall be stopped and/or backed up to view and analyze in detail the conditions that appear unusual or uncommon to a good, sound sewer line. The operating technician shall at all times be able to move the camera through the line in either direction without loss of quality in the video presentation on the monitor or accuracy in footage measurement. The picture shall provide a clear, stable image of the resolutions specified.

The Contractor shall have available on site transmitters, which can be attached to the internal television camera and can transmit a signal from up to 16 feet in depth to an above ground receiver. Variable speed powered, remote controlled winches shall be furnished for upstream and downstream manhole locations to control two-way movement of the camera. Footage meter for recording the location of defects shall be used.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

The Contractor shall comply with all applicable traffic control requirements. No open manholes shall be left unattended during the Contractor's operations.

The Contractor is responsible for maintaining sewer service at all times during work.

The Contractor shall be responsible for making all necessary arrangements for gaining access to work sites and manholes in tenant space. In cases where manholes are hidden or buried, State personnel may be contacted to help locate and expose manholes.

Damage to private property, sewer pipes, manholes and appurtenances caused by the Contractor's work shall be repaired by the Contractor at no additional cost to the State.

The camera shall be moved through the pipeline in a downstream direction at a uniform rate without loss of quality in the video presentation. In no case shall the television camera be pulled at a speed greater than 30 feet per minute. The picture at all times shall be free of electrical disturbances and provide a clear and stable image of the resolution specified.

The operating technician shall stop the camera as necessary to permit proper documentation of the conditions of the sewer lines. Camera travel shall be stopped at locations where any of the following conditions are observed: infiltration or inflow; deformed pipe, structural defects, including broken pipe, collapsed pipe, cracks, deterioration, punctures, etc.; and abnormal conditions, including horizontal and vertical misalignments, open joints, joints not fully seated, root intrusions, protruding pipes, material deposits, and other abnormal conditions.

The operating technician shall pan the camera at all laterals. If flow is being discharged from the lateral, the camera shall be focused on the lateral for a minimum of 30 seconds to help determine if the flow is steady and due to infiltration.

Accurate distance measurements shall be required. Measurement for locations of defects shall be made above ground by means of a metering device unless otherwise directed by the Project Manager. The Contractor shall mark these locations as directed by the Project Manager. Marking on cables, or the like, which would require interpolation and adjustments for depth of manhole, will not be allowed. Accuracy of the distance meter shall be checked by use of a walking meter, roll tape, or other suitable device and the accuracy shall be satisfactory to the Project Manager. The meter shall be accurate to 1% of the total distance as determined by a walking meter, roll tape, or other suitable device.

During any video inspection, if the television camera will not pass through the entire manhole section, the Contractor shall reset the equipment at the downstream manhole and attempt to inspect the section from the opposite direction. If the camera again fails to pass through the entire section, it shall be assumed that an obstruction exists. Efforts to televise that section of

sewer line shall be temporarily suspended and the Contractor shall notify the Project Manager.

If the television camera lens becomes submerged during the inspection operation due to a sag in the pipeline, the Contractor shall record the conditions of the sag (i.e., length, maximum water depth noted) before continuing inspection on the remainder of the manhole section. Water depth shall be noted in 5 percent increments.

After the pre-rehabilitation video inspection has been completed, should it be determined by the Project Manager that cleaning of the sewer lines do not meet the requirements of the Contract Documents, the Contractor shall re-clean and re-inspect the sewer lines at no additional cost to the State. Likewise, after the post-rehabilitation video inspection has been completed, should it be determined by the Project Manager that CIPP rehabilitation work does not meet the requirements of the Contract Documents, the Contractor shall make the necessary repairs and re-inspect the sewer line at no additional cost to the State. This additional video inspection by the Contractor may be required by the Project Manager, at no additional cost to the State, as many times as it is necessary until it has been documented on video that cleaning or CIPP rehabilitation has been satisfactorily completed. All CCTV, both Pre and Post, shall be submitted within 10 days of the actual video inspection.

If the quality of any video recording is deemed to be unacceptable by the Officer-in-Charge, the sewer line shall be re-televised at no additional cost to the State.

PART 4 – MEASUREMENT AND PAYMENT

Payment for CCTV inspection work shall be incidental to the Sewer System Cleaning and CIPP Lining work and shall include all reports, documentation, and all incidentals necessary to complete the work. No additional payments shall be made for any additional television inspection work required due to inadequate sewer line cleaning.

-- END OF SECTION--

SECTION 02538c - CURED-IN-PLACE PIPE LINING
REPAIR OF SEWER SYSTEM

PART 1 – GENERAL

1.01 DESCRIPTION

It is the intent of this section to provide for the rehabilitation of existing 6” to 30” diameter sewer lines by the installation of CIPP part-liner.

1.02 REFERENCED DOCUMENTS

This special provision references American Society for Testing and Materials (ASTM) F1216, F1743 and their reference standards, which are made a part hereof by such reference and shall be the latest edition and revision thereof. All work shall comply with the reference standard unless specifically stated otherwise in this Section.

1.03 SCOPE OF WORK

The rehabilitation will be accomplished by curing in place a section of pipe against and bonding to the host pipe. The composite shall use an epoxy resin reinforced with a non-woven fabric and woven fiberglass stitched together. The width of the textile shall be that of the required length of the repair or that which can be installed with a device capable of allowing wastewater to flow through during installation and curing. The finished composite shall have the physical properties satisfying the physical strength requirements specified herein. The laminate is vacuum impregnated on hand rollers designed for impregnation with the resin then placed around a carrying device and positioned in the existing pipe. When the carrying device is properly positioned a bladder on the device is inflated with air or water to compress and hold the composite in contact with the interior surface of the host pipe with sufficient pressure as to form a bond and seal out infiltration and exfiltration of water vapors that attract roots.

Basic procedure for the sewer line repair shall include an access shaft, which may involve the temporary removal of the upper half of a manhole, sewer flow control and bypassing, cleaning, pre- and post-rehabilitation television inspection, liner installation, and restoration. After completion, the CIPP part-liner shall provide a continuous, watertight, corrosion resistant conduit within the existing sewer line.

Prior to ordering sewer liner materials, the Contractor shall be responsible for inspecting and confirming the inside dimension, alignment, pipe material, and condition of the existing sewer pipe section to be lined with CIPP part-liner.

The Contractor shall be responsible for performing all CIPP part-liner and related work, including video inspection, excavations, and cleaning in accordance with applicable Federal, State, and City safety regulations, including current OSHA safety standards. Prior to entering manholes to perform sewer repair work, the Contractor shall evaluate

the atmosphere in and near the sewer to determine the presence of toxic or flammable vapors and shall ventilate the rehabilitation work area as necessary to render it safe.

The Contractor shall be responsible for odor and noise mitigation on this Contract in accordance with applicable Federal, State, and City regulations. The Contractor shall monitor the surrounding area and minimize any odors and noise that may occur due to his work activities.

PART 2 – PRODUCT

2.01 PRODUCT QUALIFICATION

CIPP part-liner product (combination of tube and resin) proposed for use shall have a history of successful commercial viability. Products not meeting the minimum requirements established by the State for successful commercial viability shall be rejected. The State shall be the sole judge as to whether the requirements have been met. For a proposed CIPP part-liner product to qualify as a commercially acceptable product for the Contract, the following requirements must be met:

A minimum of 25 successful wastewater collection system CIPP part-liner installations in the U.S. shall be documented, ranging in size from 6 to 24-inch in pipe diameter, for the proposed tube and resin used together as one product, to assure commercial viability of the materials and the process. In addition, the CIPP part-liner product shall have been in service within wastewater collection facilities in the United States for a minimum of three years, unless otherwise approved by the Project Manager.

The manufacturer(s) for both proposed resin and tube shall have successfully produced the material in the U.S. continuously for a minimum of **three years**, unless otherwise approved by the Project Manager.

The Contractor shall submit documentation that the proposed product meets the above minimum CIPP requirements. The documentation shall include for each project the name, address and reference telephone numbers of the owner of the pipeline system that was CIPP part-lined; date of owner acceptance of the completed product installation; length and number of CIPP part-liner(s) installed; diameter of host pipe; and installer name, address and reference telephone numbers. In addition, the Contractor shall submit documentation in the form of a notarized letter(s) from the manufacturer(s) verifying that the proposed resin and tube materials have been manufactured for a minimum of three years.

The above documentation of product qualification and notarized Manufacturer's letter(s) shall be provided to the Project Manager within 14 calendar days of contract execution.

2.02 PRODUCT TEST DATA

No product shall be allowed to be installed without submittal of test data supporting the product strength requirements specified under Subsection 2.05 - DESIGN PARAMETERS. The proposed liner material and resin to be used together shall have been previously tested in order to assure the product strength requirements will be similar to those proposed for use in the Contract. All test samples shall be prepared so as to simulate the conditions and procedures the product will experience during the Contract. All testing shall have been performed by an independent third party qualified to perform such testing.

- A. Chemical resistance - Tests shall be conducted for standard domestic sewage application in accordance with ASTM F1216 or F1743 and meet the minimum requirements listed therein.
- B. Flexural modulus and strength - In order to verify the proposed product's past performance, the Contractor shall submit detailed test results from a minimum of 5 previous successful installations of the proposed product. The test results of field samples from each of the 5 previous installations shall verify that the minimum requirements for short term flexural modulus and flexural strength specified in this special provision had been achieved.

2.03 SUBMITTALS

Provide sufficient detail to allow the Project Manager to judge whether or not the proposed materials, equipment, and procedures will meet the Contract requirements. No materials shall be manufactured prior to approval of the submittals by the Project Manager.

A. Design Analysis

The CIPP part-liner shall be designed per ASTM F1216 or ASTM F1743, Fully Deteriorated Gravity Pipe Condition. The design used for the product shall be submitted for review and approval. Physical properties used in design equations shall be validated by independent testing.

B. Manufacturing and Quality Control

- 1. Engineering design guides and detailed quality control procedures for rehabilitation materials, manufacturing and installation shall be submitted for review. This shall include inspection requirements, testing procedures and allowable manufacturing tolerance levels.
- 2. The Contractor shall submit certification provided by the product Manufacturer as to the country of manufacture of all major components to be used to produce the final installed work.

C. Installation

1. The Contractor shall submit to the Project Manager documentation provided by the Manufacturer that the Contractor is qualified to properly install the proposed product. The documentation shall consist of evidence of Contractor training, testing and/or certification of being trained to install the Manufacturer's product.
2. An itemized list detailing the installation procedures to be used shall be submitted. This shall include estimated times for each task, the number of required excavations, and any other items unique to each process.
3. All related ASTM standards or any nationally recognized standards for installation of the product shall be submitted.
4. Detailed procedures shall be submitted for repairing the product in the event of failure or future damage.

2.04 MATERIAL

The reinforcement textile shall be multiple layers of woven fiberglass stitched together with non-woven fabric and/or woven fiberglass stitched together non-woven fiberglass laminate reinforcement. Laminates required to be greater than 3/16" thick may include a flexible needled felt in the middle with equally thick layers of fiberglass material on both sides. The textile shall be continuous in length and the wall thickness shall be uniform except at the overlap. The design wall thickness is a function of many factors including, but not limited to, product materials and condition of the existing sewer line. The materials used shall have the capability to address variations in the existing pipe conditions (i.e. circumferences, deterioration, etc.) and design considerations for a fully deteriorated host pipe.

Overlapping sections shall have at least 1-inch overlap in the length of the part-liner. The laminate will be capable of conforming to offset joints less than 25% of the pipe diameter, bells, and disfigured pipe sections. The textile tube shall be compatible with the epoxy resin system used. The textile tube shall be fabricated to a size that, when installed, will fit the internal circumference of the existing pipe. The Contractor shall verify the length and inside dimension of the existing sewer section before the textile tube fabrication.

The resin shall be epoxy containing no styrene. Each installation shall have a design report documenting the design criteria for a fully deteriorated pipe section, relative to the hydrostatic pressures, depth of soil cover, and type of soil.

2.05 DESIGN PARAMETERS

Minimum CIPP Resin Requirements:

Flexural Modulus (short term)	400,000 psi
Flexural Modulus (long term)*	200,000 psi
Flexural Strength	8,000 psi

* The long term flexural modulus is defined as fifty years as determined by ASTM D2990 Test Method

PART 3 – EXECUTION

3.01 INSTALLATION OF LINER

- A. The Contractor shall clean and CCTV inspect the entire sewer line section, from nearest upstream or downstream manhole, immediately prior to lining, utilizing a pan/tilt camera capable of verifying active or inactive service connections and the overall structural condition of the pipeline. All roots, debris, and protruding service connections will be removed prior to lining. The current condition of the pipe will be compared to the original designed condition to verify that design parameters have not changed.
- B. The tube shall be free of any tears and frayed sections. The tube shall be impregnated with resin using a process approved by the Project Manager. All air in the tube shall be removed allowing the resin to thoroughly impregnate the tube. All resin shall be contained to ensure no public property or persons are exposed to the liquid resin.
- C. During installation of the CIPP part-liner, flows within the pipe upstream of the section to be lined shall not become surcharged (full flow condition) at any time. Should a surcharged condition occur or should the Contractor anticipate a surcharged condition will occur while performing his work, a temporary bypass pumping system shall be implemented. The bypass pumping system shall be sufficiently sized as determined by the Contractor.
- D. While the tube is being pulled into the pipe, no resin shall be lost by contact with manhole walls or the pipe. The resin should not be contaminated or diluted by exposure to dirt, debris, or water during the pull. The resin that provides a structural seal shall not contact the pipe until positioned at the point of repair.
- E. The Contractor shall be capable of viewing the entire liner contacting the host pipe from the beginning to the end of the liner verifying the entire damaged section has been covered by the liner. The tube shall be held tightly in place against the wall of the host pipe until the cure is complete.
- F. When the curing process is complete, the pressure will be released. The bladder packer device shall be removed from the host pipe. No barriers, coatings, or any

material other than the cured tube/resin composite, specifically designed for desirable physical and chemical resistance properties, shall be left in the host pipe. Any materials used in the installation other than the cured tube/resin composite are to be removed from the pipe by the Contractor.

- G. Any service lateral or chimney connection covered by the part-liner repair is to be reinstated using a hydraulic or pneumatic powered robotic cutting device specifically designed for cutting cured-in-place pipe made from these materials.”

3.02 INSPECTION AND WORKMANSHIP

Inspection - The finished installation shall be inspected by the Contractor by closed-circuit television camera in the presence of the Project Manager or Project Inspector, or unless otherwise directed by the Project Manager. Variations from true line and grade will only be acceptable if proven by the Contractor that the variations existed under the original conditions of the existing sewer lines.

Workmanship - The finished part-liner shall be free of such defects as holidays, foreign inclusions, dry spots, lifts, delamination, buckling, wrinkles in excess of 1/8” height, and other deformities. If defects are present, the Contractor shall remove and replace the liner, using a method approved by the Project Manager, at no cost to the State.

3.03 CLEAN-UP

Upon acceptance of the CIPP part-liner installation, the Contractor shall restore the Project area to original conditions or as directed by the Project Manager.

PART 4 – MEASUREMENT AND PAYMENT

- 4.01 Measurement: The quantity for which payment will be made for sewer line rehabilitation shall be the actual length of CIPP part-liner installed, measured in linear feet.

- 4.02 Cured-In Place Pipe Lining (6” to 12” Pipe): Payment for CIPP part liner rehabilitation work shall be based on the unit price bid per Lineal Feet as listed in the Proposal Schedule. This payment shall include full compensation for all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the part liner, removal and restoration of sewer manhole cone (if required for access), necessary bypass pumping, and for all other related work covered by this special provision.

Sewer line cleaning prior to installation of part-liner is considered incidental and included in the payment for the CIPP part liner.

Payment for CCTV Inspection prior to and after installation of part-liner shall be considered incidental and included in the payment for the CIPP part liner.

4.03 **Additive Alternate Work:** Payment for CIPP part liner rehabilitation work shall be based on the Lump Sum Price as listed in the Proposal Schedule for lining of larger diameter 24" and 36" sewer line segments as detailed in Exhibit B of this specifications. Payment shall include full compensation for all labor, materials, supplies, equipment, tools, and incidentals for the complete installation of the part liner, including removal and restoration of sewer manhole cone (if required for access), bypass pumping, and for all other related work covered by this special provision.

Sewer line cleaning prior to installation of part-liner is considered incidental and included in the payment for the CIPP part liner.

Payment for CCTV Inspection prior to and after installation of part-liner shall be considered incidental.

-- END OF SECTION --

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

EXHIBITS

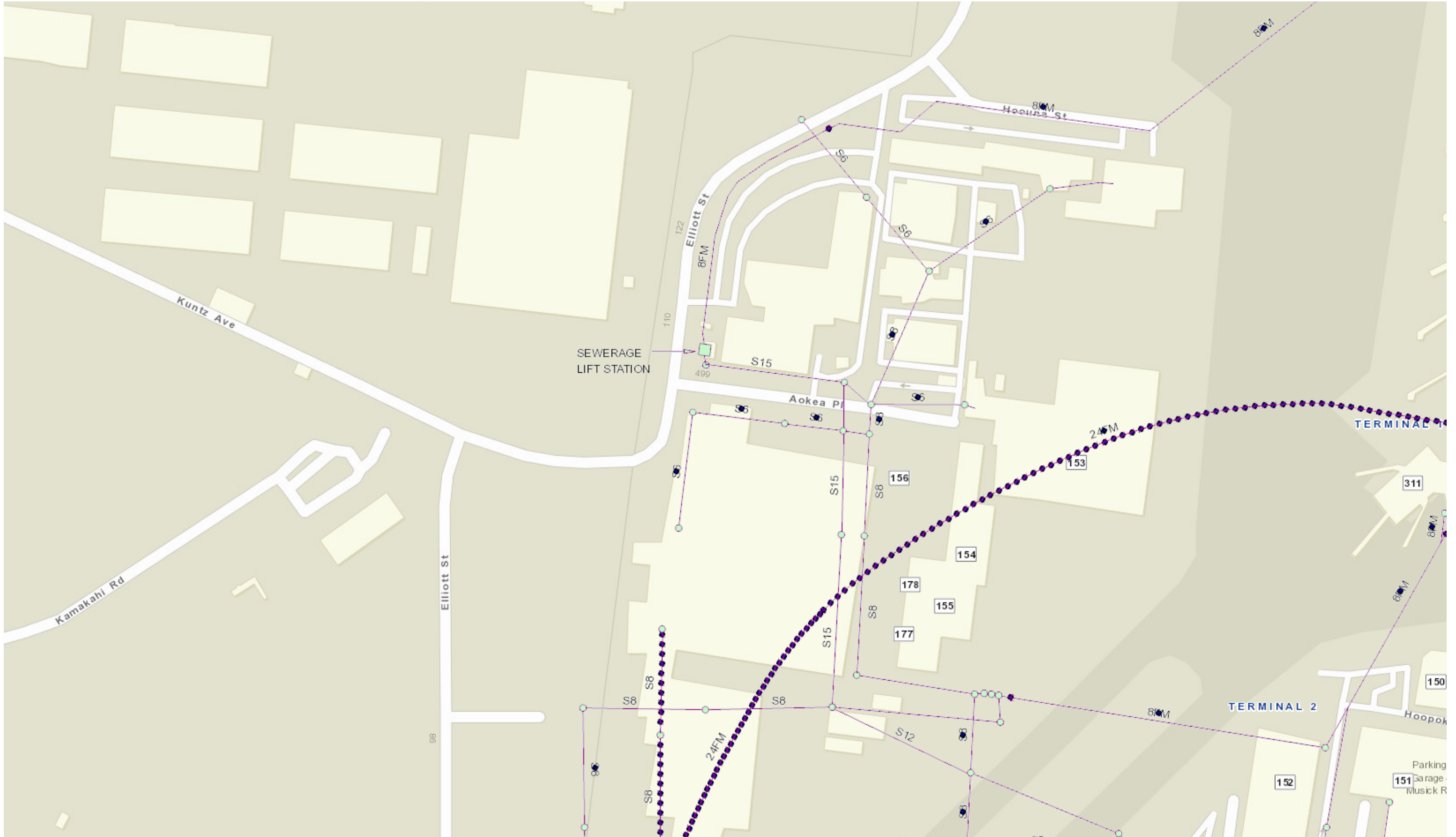




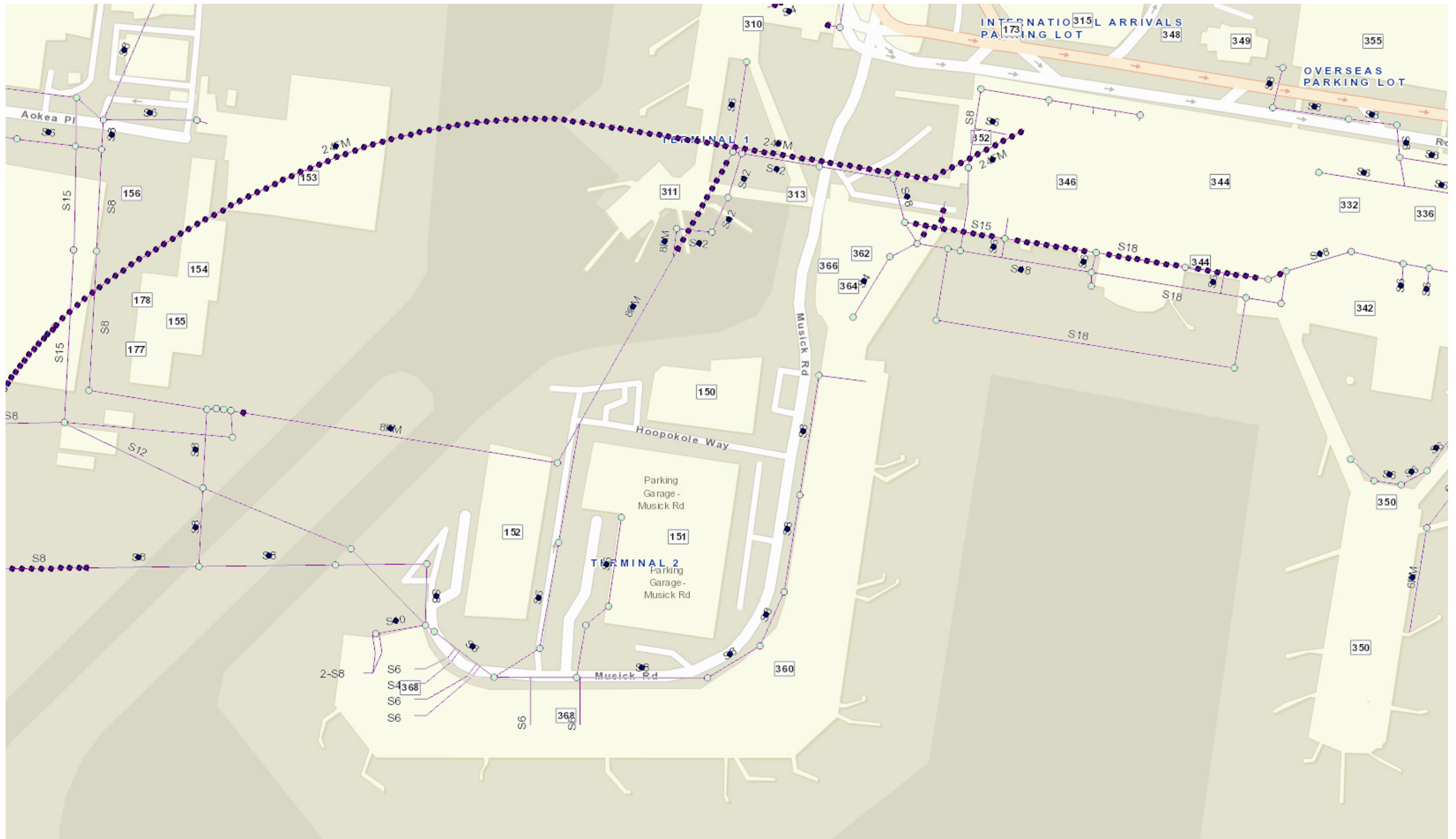


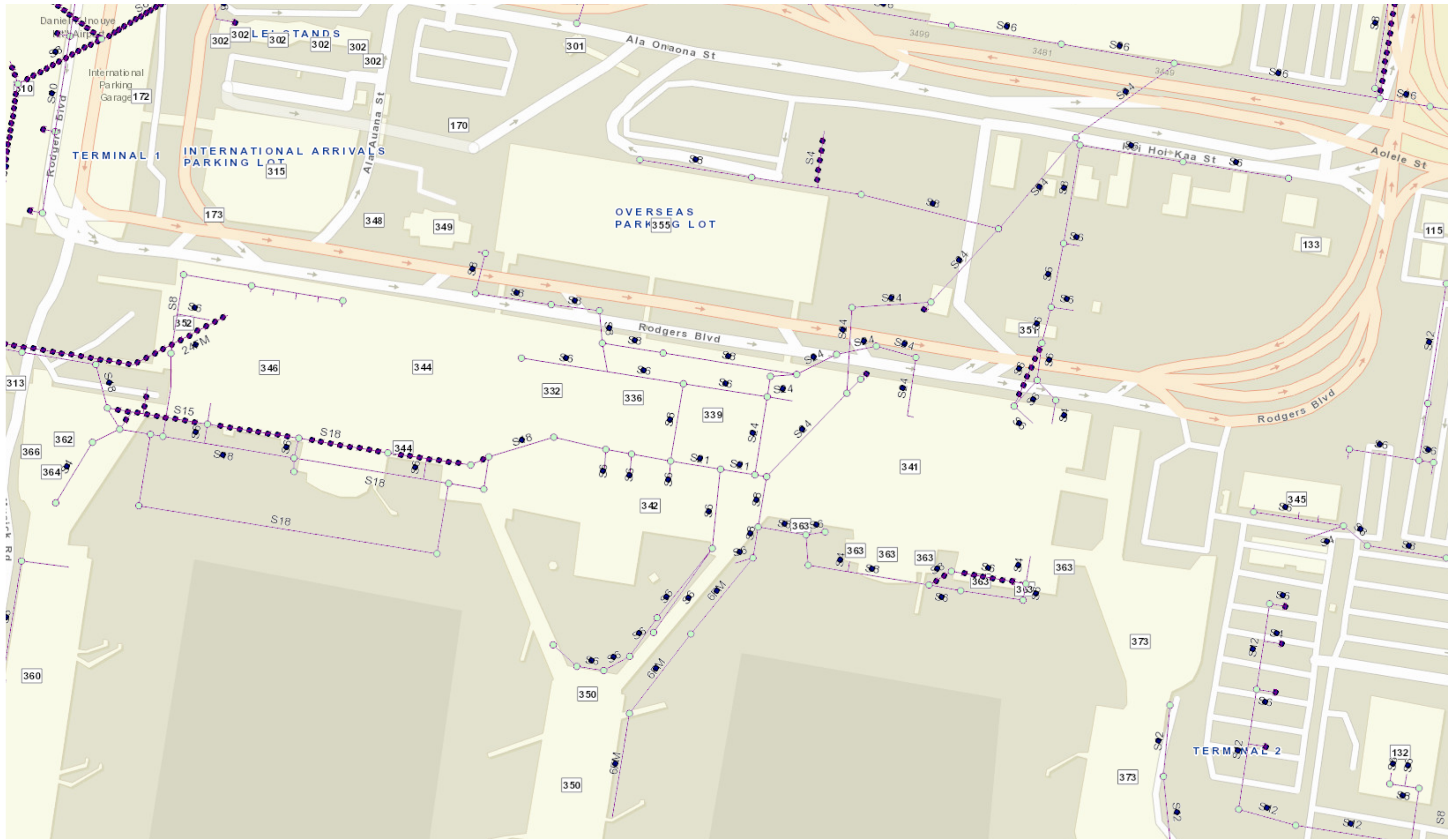


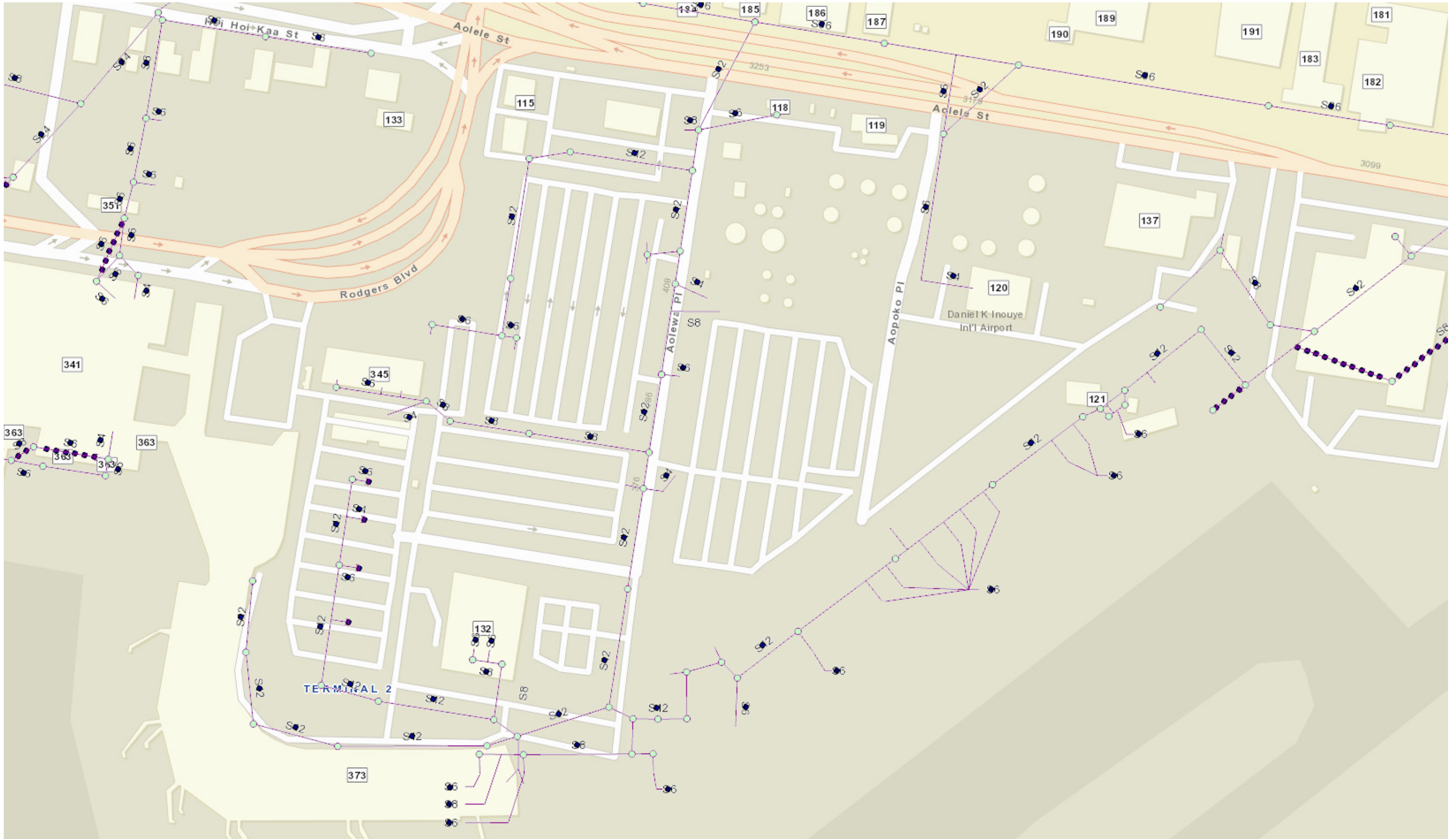


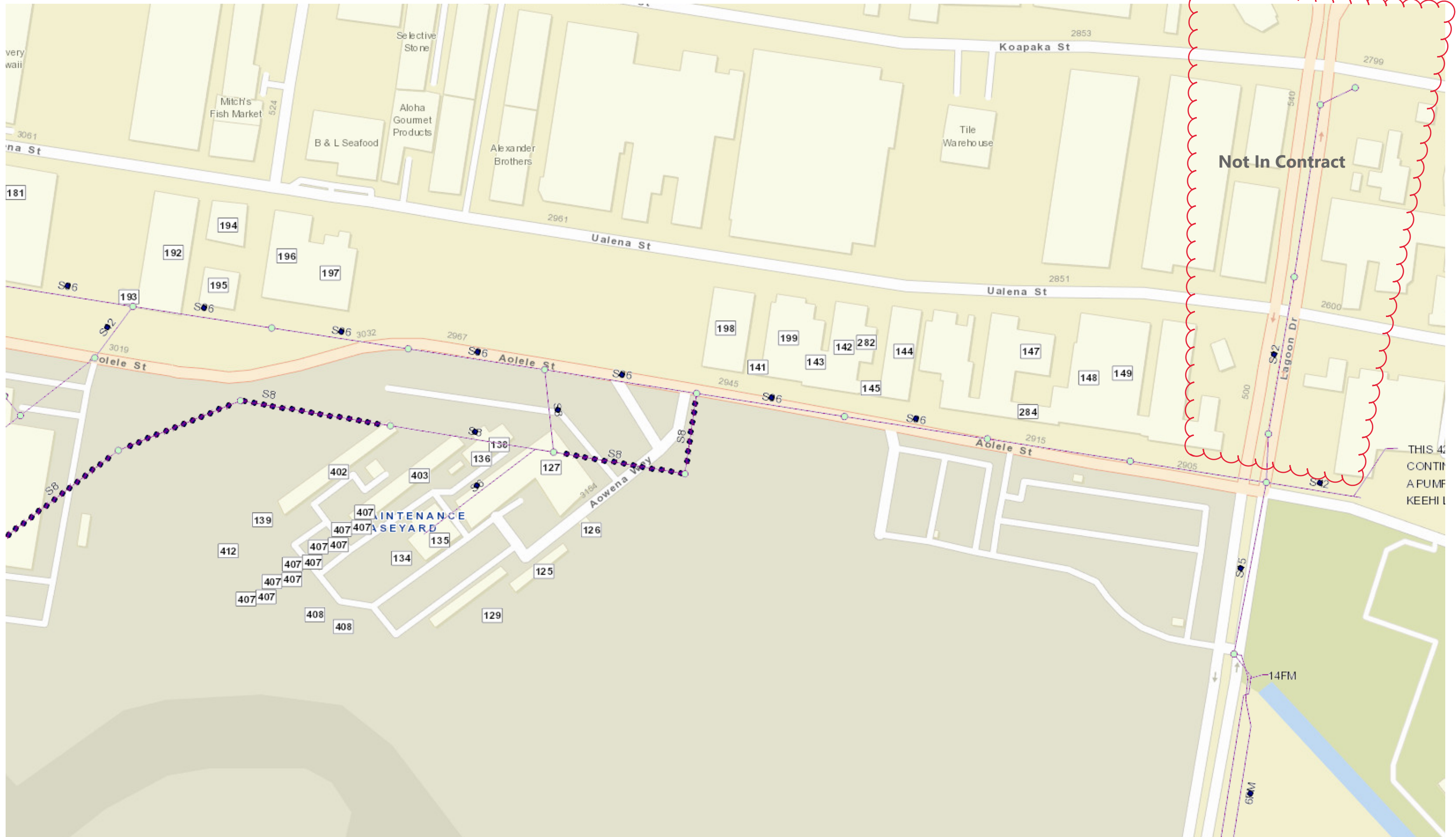


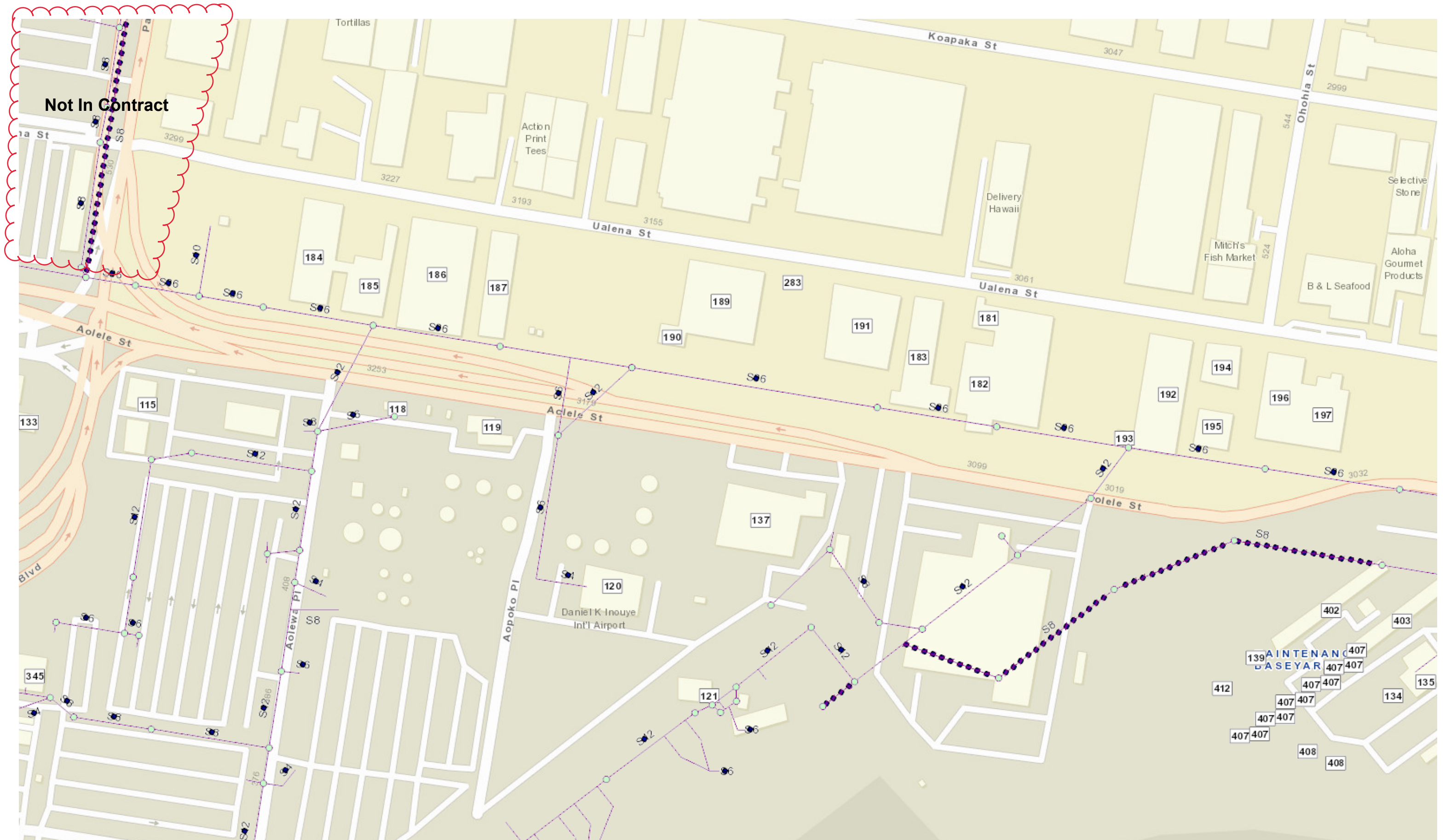


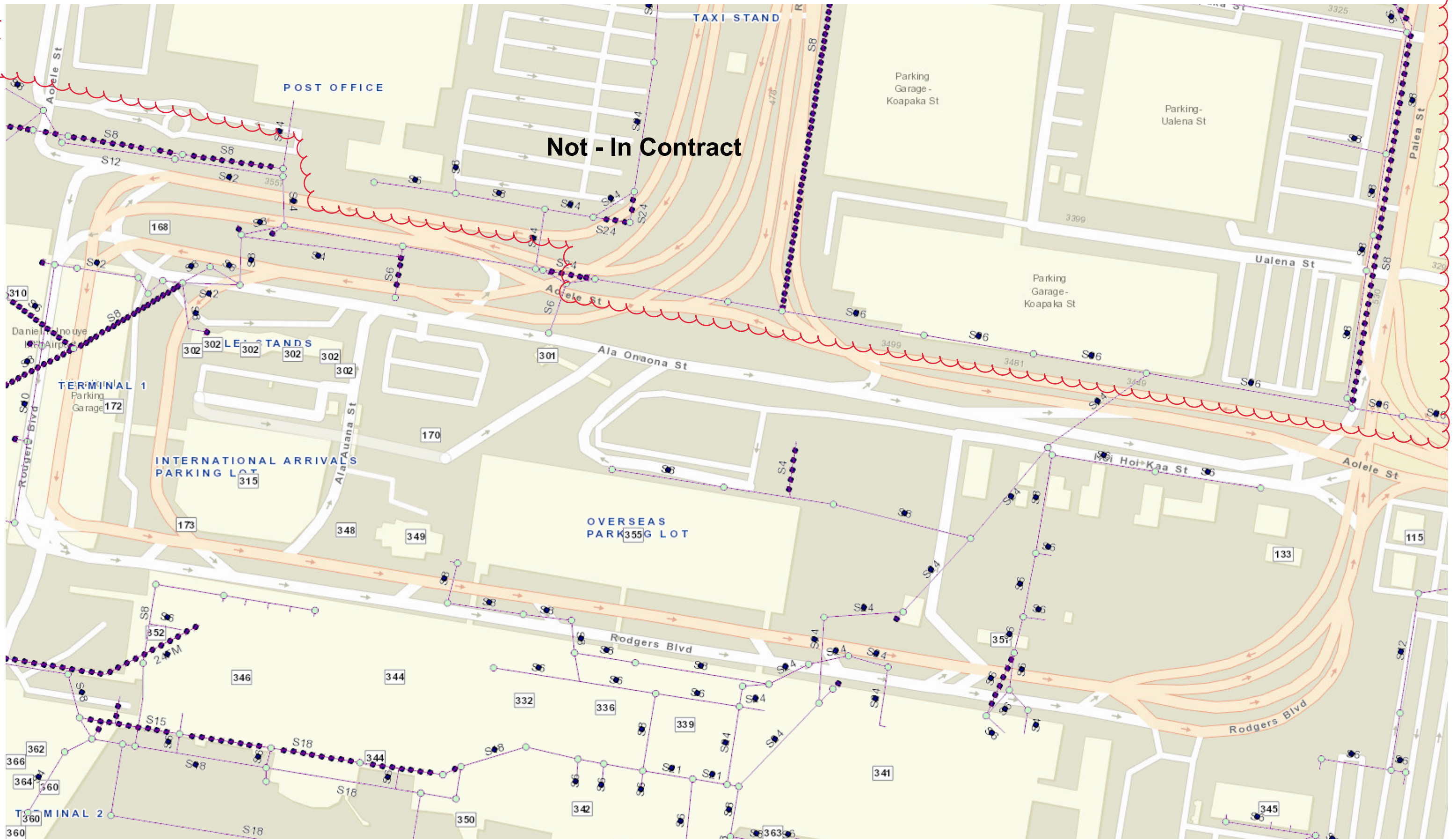












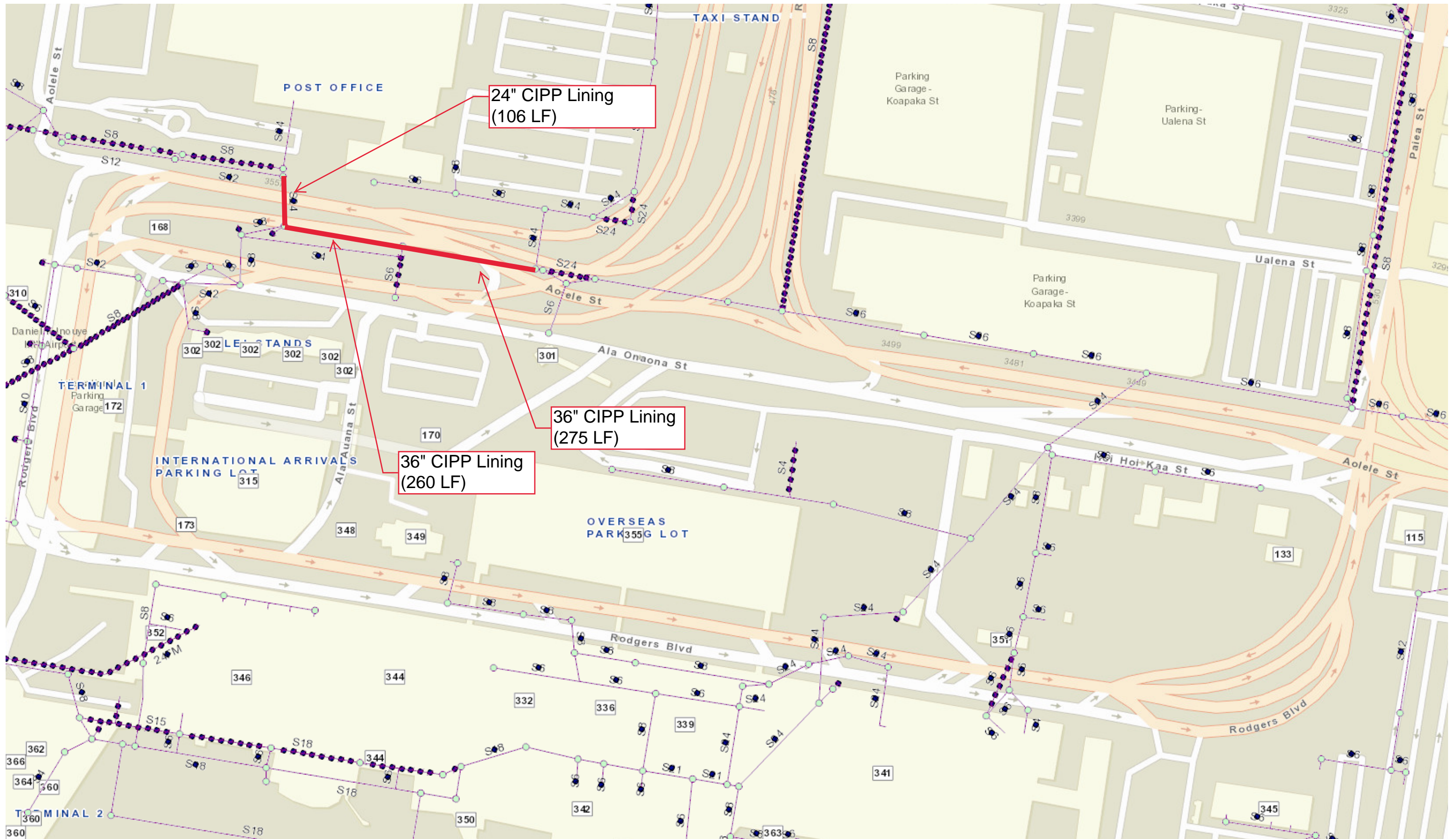


Exhibit B - Additive Alternate
24" and 36" CIPP Lining



Eckard Brandes, Inc.
PO Box 1082
Kailua, HI. 96734

License # C-17145
PH. 808-486-0016

August 14, 2023

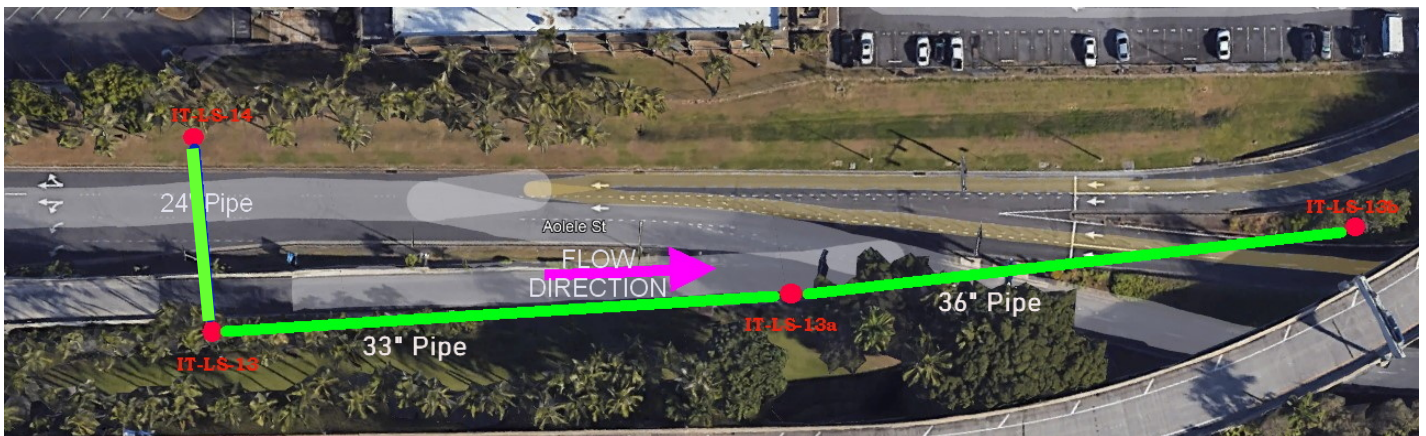
Gary Kam
Daniel K. Inouye International Airport
400 Rodgers Blvd, #700
Honolulu, Hawaii 96819-18380

Ph: 808-834-6091
Email: gary.yt.kam@hawaii.gov

Re: Large Pipe by Post Office

Gary & Derick

The pipes are cleaned as discussed. EBD removed the debris from the bottom of the pipes without causing any damage to the upper corroded areas. ** (see note at end of letter)



- 24" pipe under Aolele St. is the worst shape with reinforcement bars showing in the top of the pipe.
- 36" Pipe (measured X=34 & Y= 36) has a lot of corrosion and slabs of concrete hanging.
- 36" Pipe (measures X=35 ½ & Y=36) under Aolele St. is in the best shape of the (3) three pipes.

The pipes downstream from these pipes are owned by the City & County of Honolulu and were CIPP lined in 2014.

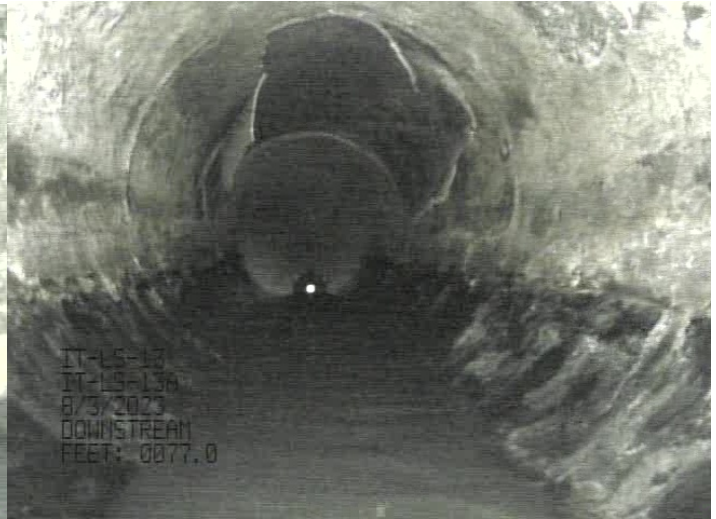
These (3) three sewer lines are moving toward failure (over time) and recommend these lines be repaired soon. They run under Aolele St. and provide sewer services for the Inter-Island terminal and are large and difficult to bypass in case of failure. (In case of emergencies)

These pipes should be scheduled for CIPP lining as soon as the money and the next contract allows to avoid the risk of failure.

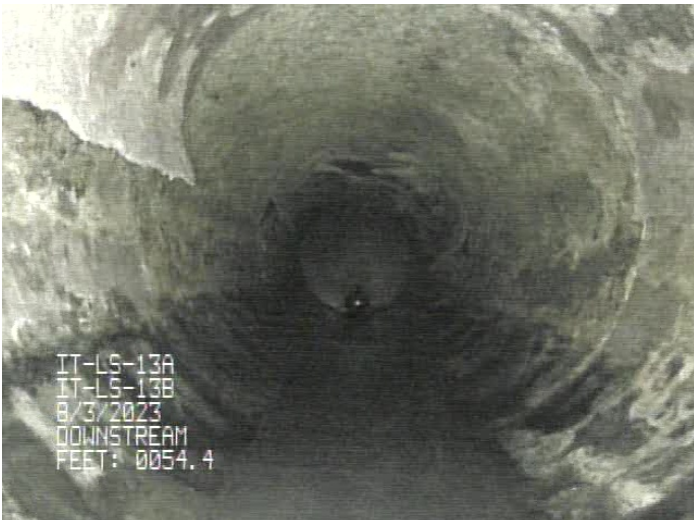
IT-LS-14 to 13



IT-LS-13 to 13a



IT-LS-13a to 13b



The special cleaning gives us important information for maintenance/repair of these large sewer lines.

Debris removed from Pipes



The debris is mostly decomposed pipe above the sewage flow line/level.

** (see note at end of letter)

NOTE ** The decomposing sewage gives off Hydrogen Sulfide (H₂S) gas into the concrete pipes above the water line. The H₂S combines with other gases & water to form Hydro-Chloric Acid (H₂SO₄). This condenses on the pipe above the flow level to dissolve the pipes. It also allows it (dissolved concrete/H₂SO₄ mixture) to run down below the flow level and re-calcify, attaching to the pipe below the sewage flow line.

Thank-you,
Charles A Higbee 808-479-0980
chuckh@ebdhi.com

copy to: Derick Ebesuno derick.t.ebesuno@hawaii.gov
Westley Matsunaga westley.matsunaga@hawaii.gov

Requirements of Chapter 104, HRS Wages and Hours of Employees on Public Works Law

Chapter 104, HRS, applies to every public works construction project over \$2,000, regardless of the method of procurement or financing (purchase order, voucher, bid, contract, lease arrangement, warranty, SPRB).

Rate of Wages for Laborers and Mechanics

- Minimum prevailing wages (basic hourly rate plus fringe benefits), as determined by the Director of Labor and Industrial Relations and published in wage rate schedules, shall be paid to the various classes of laborers and mechanics working on the job site. [§104-2(a), (b), Hawaii Revised Statutes (HRS)]
- If the Director of Labor determines that prevailing wages have increased during the performance of a public works contract, the rate of pay of laborers and mechanics shall be raised accordingly. [§104-2(a) and (b), HRS; §12-22-3(d) Hawaii Administrative Rules (HAR)]

Overtime

- Laborers and mechanics working on a Saturday, Sunday, or a legal holiday of the State or more than eight hours a day on any other day shall be paid overtime compensation at not less than one and one-half times the basic hourly rate plus the cost of fringe benefits for all hours worked. If the Director of Labor determines that a prevailing wage is defined by a collective bargaining agreement, the overtime compensation shall be at the rates set by the applicable collective bargaining agreement [§§104-1, 104-2(c), HRS; §12-22-4.1, HAR]

Weekly Pay

- Laborers and mechanics employed on the job site shall be paid their full wages at least once a week, without deduction or rebate, except for legal deductions, within five working days after the cutoff date. [§104-2(d), HRS]

Posting of Wage Rate Schedules

- Wage rate schedules with the notes for prevailing wages and special overtime rates, shall be posted by the contractor in a prominent and easily accessible place at the job site. A copy of the entire wage rate schedule shall be given to each laborer and mechanic employed under the contract, except when the employee is covered by a collective bargaining agreement. [§104-2(d), HRS]

Withholding of Accrued Payments

- If necessary, the contracting agency may withhold accrued payments to the contractor to pay to laborers and mechanics employed by the contractor or subcontractor on the job site any difference between the wages required by the public works contract or specifications and the wages received. [§104-2(e), HRS]

Certified Weekly Payrolls and Payroll Records

- A certified copy of all payrolls shall be submitted weekly to the contracting agency. [§104-3(a), HRS; §12-22-10, HAR]
- The contractor is responsible for the submission of certified copies of the payrolls of all subcontractors. The certification shall affirm that the payrolls are correct and complete, that the wage rates listed are not less than the applicable rates contained in the applicable wage rate schedule, and that the classifications for each laborer or mechanic conform with the work the laborer or mechanic performed. [§104-3(a), HRS; §12-22-10, HAR]
- Payroll records shall be maintained by the contractor and subcontractors for three years after completion of construction. The records shall contain: [§104-3(b), HRS; §12-22-10, HAR]
 - the name and home address of each employee
 - the last four digits of social security number
 - a copy of the apprentice's registration with DLIR
 - the employee's correct classification
 - rate of pay (basic hourly rate + fringe benefits)
 - itemized list of fringe benefits paid
 - daily and weekly hours worked
 - weekly straight time and overtime earnings
 - amount and type of deductions
 - total net wages paid
 - date of payment
- Records shall be made available for examination by the contracting agency, the Department of Labor and Industrial Relations (DLIR), or any of its authorized representatives, who may also interview employees during working hours on the job. [§§104-3(c), 104-22(a), HRS; §12-22-10, HAR]

Termination of Work on Failure to Pay Wages

- If the contracting agency finds that any laborer or mechanic employed on the job site by the contractor or any subcontractor has not been paid prevailing wages or overtime, the contracting agency may, by written notice to the contractor, terminate the contractor's or subcontractor's right to proceed with the work or with the part of the work in which the required wages or overtime compensation have not been paid. The contracting agency may complete this work by contract or otherwise, and the contractor or contractor's sureties shall be liable to the contracting agency for any excess costs incurred. [§104-4, HRS]

Apprentices

- Apprentice wage rates apply to contractors who are a party to a bona fide apprenticeship program which has been registered with the DLIR. In order to be paid apprentice rates, apprentices must be parties to an agreement either registered with or recognized as a USDOL nationally approved apprenticeship program by the DLIR, Workforce Development Division, (808) 586-8877, and the apprentice must be individually registered by name with the DLIR. [§12-22-6(1) and (2), HAR]
- The number of apprentices on any public work in relation to the number of journeyworkers in the same craft classification as the apprentices employed by the same employer on the same public work may not exceed the ratio allowed under the apprenticeship standards registered with or recognized by the DLIR. A registered or recognized apprentice receiving the journeyworker rate will not be considered a journeyworker for the purpose of meeting the ratio requirement. [§12-22-6(3), HAR]

Enforcement

- To ensure compliance with the law, DLIR and the contracting agency will conduct investigations of contractors and subcontractors. If a contractor or subcontractor violates the law, the penalties are: [§104-24, HRS]
 - First Violation Equal to 25% of back wages found due or \$250 per offense up to \$2,500, whichever is greater.
 - Second Violation Equal to amount of back wages found due or \$500 for each offense up to \$5,000, whichever is greater.
 - Third Violation Equal to two times the amount of back wages found due or \$1,000 for each offense up to \$10,000, whichever is greater; and
Suspension from doing any new work on any public work of a governmental contracting agency for three years.
- A violation would be deemed a second violation if it occurs within two years of the **first notification of violation**, and a third violation if it occurs within three years of **the second notification of violation**. [§104-24, HRS; §12-22-25(b), HAR]
- **Suspension:** For a first or second violation, the department shall immediately suspend a contractor who fails to pay wages or penalties until all wages and penalties are paid in full. For a third violation, the department shall penalize and suspend the contractor as described above, **except that if the contractor continues to violate the law, then the department shall immediately suspend the contractor for a mandatory three years. The contractor shall remain suspended until all wages and penalties are paid in full.** [§§104-24, 104-25, HRS]
- **Suspension:** Any contractor who fails to make payroll records accessible or provide requested information within 10 days, or fails to keep or falsifies any required record, shall be assessed a penalty including suspension as provided in Section 104-22(b) and 104-25(a)(3), HRS. [§104-3(c), HRS; §12-22-26, HAR]
- If any contractor interferes with or delays any investigation, the contracting agency shall withhold further payments until the delay has ceased. Interference or delay includes failure to provide requested records or information within ten days, failure to allow employees to be interviewed during working hours on the job, and falsification of payroll records. The department shall assess a penalty of \$10,000 per project, and \$1,000 per day thereafter, for interference or delay. [§104-22(b), HRS; §12-22-26, HAR]
- Failure by the contracting agency to include in the provisions of the contract or specifications the requirements of Chapter 104, HRS, relating to coverage and the payment of prevailing wages and overtime, is not a defense of the contractor or subcontractor for noncompliance with the requirements of this chapter. [§104-2(f), HRS]

For additional information, visit the department's website at <http://labor.hawaii.gov/wsd> or contact any of the following DLIR offices:



Oahu (Wage Standards Division).....(808) 586-8777
Hawaii Island(808) 974-6464
Maui and Kauai(808) 243-5322

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

P R O P O S A L

**PROPOSAL TO THE STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
AIRPORTS**

PROJECT: SEWER INSPECTION AND REPAIR
AT DANIEL K. INOUE INTERNATIONAL AIRPORT
HONOLULU, OAHU, HAWAII

PROJECT NO.: BO1427-73

CONTRACT TIME: Twelve (12) Month from the date indicated in the Notice to Proceed. At the discretion of the State, the contract period may be extended for three (3) additional twelve (12) month periods not to exceed forty-eight (48) months per Technical Provisions Section 01010-1.06.

LIQUIDATED DAMAGES: \$100.00 per calendar day (Technical Provisions Section 01010 - 1.05)

PROJECT MANAGER: Gary Kam
Daniel K. Inouye International Airport
300 Rodgers Boulevard, #12
Honolulu, Hawaii 96819
Ph. 834-6091
gary.yt.kam@hawaii.gov

ELECTRONIC SUBMITTAL: **Bidders shall submit and upload the complete proposal to HiePRO prior to the bid opening date and time. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HiePRO. Bidders shall refer to SPECIAL PROVISIONS 2.8 PREPARATION AND DELIVERY OF BID for complete details. FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HiePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.**

Director of Transportation
869 Punchbowl Street
Honolulu, Hawaii 96813

Dear Sir:

The undersigned Bidder declares the following:

1. It has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal.
2. It has not been assisted or represented on this matter by any individual who has, in a State capacity, been involved in the subject matter of this contract within the past two years.
3. It has not and will not, either directly or indirectly offered or given a gratuity (i.e. an entertainment or gift) to any State or County employee to obtain a contract or favorable treatment under a contract.

The undersigned Bidder further agrees to the following:

1. If this proposal is accepted, it shall execute a contract with the Department to provide all necessary labor, machinery, tools, equipment, apparatus and any other means of construction, to do all the work and to furnish all the materials specified in the contract in the manner and within the time therein prescribed in the contract, and that it shall accept in full payment therefore the sum of the unit and/or lump sum prices as set forth in the attached proposal schedule for the actual quantities of work performed and materials furnished and furnish satisfactory security in accordance with Section 103D-324, Hawaii Revised Statutes, within 10 days after the award of the contract or within such time as the Director of Transportation may allow after the undersigned has received the contract documents for execution, and is fully aware that non-compliance with the aforementioned terms will result in the forfeiture of the full amount of the bid guarantee required under Section 103D-323, Hawaii Revised Statutes.
2. That the quantities given in the attached proposal schedule are approximate only and are intended principally to serve as a guide in determining and comparing the bids.
3. That the Department does not either expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work, or to omit portions of the work, as may be deemed necessary or advisable by the Director of Transportation, and that all increased or decreased quantities of work shall be performed at the unit prices set forth in the attached proposal schedule except as provided for in the specifications.

4. In case of a discrepancy between unit prices and the totals in said Proposal Schedule, the unit prices shall prevail.
5. Agrees to begin work within 10 working days after the date of notification to commence with the work, which date is in the notice to proceed, and shall finish the entire project within the time prescribed.
6. The Director of Transportation reserves the right to reject any or all bids and to waive any defects when in the Director's opinion such rejections or waiver will be for the best interest of the public.

The Bidder acknowledges receipt of and certifies that it has completely examined the following listed items: the Hawaii Department of Transportation, Air and Water Transportation Facilities Division General Provisions for Construction Projects dated 2016, the Notice to Bidders, the Special Provisions, if any, the Technical Provisions, the Proposal, the Contract and Bond Forms, and the Project Plans.

In accordance with Section 103D-323, Hawaii Revised Statutes, this proposal is accompanied with a bid security in the amount of 5% of the total amount bid, in the form checked below. (Check applicable bid security submitted with bid.)

Surety Bid Bond (Use standard form),

Cash,

Cashier's Check,

Certified Check, or

(Fill in other acceptable security.)

The undersigned Bidder acknowledges receipt of any addendum issued by the Department by recording in the space below the date of receipt.

Addendum No. 1 _____

Addendum No. 3 _____

Addendum No. 2 _____

Addendum No. 4 _____

In accordance with Section 103D-302, Hawaii Revised Statutes, the undersigned as Bidder, has listed the name of each person or firm, who will be engaged by the Bidder on the project as a Subcontractor or Joint Contractor and the nature of work to be done by each. The Bidder must adequately and unambiguously disclose the unique nature and scope of the work to be performed by each Subcontractor or Joint Contractor. For each listed firm, the Bidder declares the respective firm is a Subcontractor or Joint Contractor and is subject to evaluation as a Subcontractor or Joint Contractor. It is understood that failure to comply with the aforementioned requirements may be cause for rejection of the bid submitted.

<u>Name of Subcontractor</u>	<u>Nature and Scope of Work</u>
1. _____	_____
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____
6. _____	_____
7. _____	_____
8. _____	_____

<u>Name of Joint Contractor</u>	<u>Nature and Scope of Work</u>
1. _____	_____
2. _____	_____
3. _____	_____

("None" or if left blank indicates no Subcontractor or Joint Contractor; if more space is needed, attach additional sheets.)

The undersigned hereby certifies that the bid prices contained in the attached proposal schedule have been carefully checked and are submitted as correct and final.

This declaration is made with the understanding that the undersigned is subject to the penalty of perjury under the laws of the United States and is in violation of the Hawaii Penal Code, Section 710-1063, unsworn falsification to authorities, of the Hawaii Revised Statutes, for knowingly rendering a false declaration.

Bidder (Company Name)

By _____
Authorized Signature

Print Name and Title

Business Address

Business Telephone Email

Date

Contact Person (If different from above)

Phone: _____ Email: _____

NOTE:

If Bidder is a CORPORATION, the legal name of the corporation shall be set forth above, the corporate seal affixed, together with the signature(s) of the officer(s) authorized to sign contracts for the corporation. Please attach to this page current (not more than six months old) evidence of the authority of the officer(s) to sign for the corporation.

If Bidder is a PARTNERSHIP, the true name of the partnership shall be set forth above, with the signature(s) of the general partner(s). Please attach to this page current (not more than six months old) evidence of the authority of the partner authorized to sign for the partnership.

If Bidder is an INDIVIDUAL, the bidder's signature shall be placed above.

If signature is by an agent, other than an officer of a corporation or a partner of a partnership, a POWER OF ATTORNEY must be on file with the Department before opening bids or submitted with the bid. Otherwise, the Department may reject the bid as irregular and unauthorized.

PREFERENCES

Bidders agree that preferences shall be taken into consideration to determine the low bidder in accordance with said Sections and the rules promulgated, however, the award of contract will be in the amount of the bid offered exclusive of any preferences.

A. HAWAII PRODUCTS PREFERENCE

In accordance with ACT 174, SLH 2022, effective June 27, 2022, Hawaii Products Preference shall not apply to solicitations for public works construction. Therefore, the Hawaii Products Preference shall not apply to this project.

B. APPRENTICESHIP PROGRAMS PREFERENCE

In accordance with ACT 17, SLH 2009 – Apprenticeship Program, a 5% bid adjustment for bidders that are parties to apprenticeship agreements pursuant to Hawaii Revised Statutes (HRS) Section 103-55.6 may be applied to the bidder's price for evaluation purposes.

Any bidder seeking this preference must be a party to an apprenticeship agreement registered with the Department of Labor and Industrial Relations at the time the offer is made for each apprenticeable trade the bidder will employ to construct the public works projects for which the offer is being made.

The bidder is responsible for complying with all submission requirements for registration of its apprenticeship program before requesting the preference.

() Yes, I wish to be considered for the Apprenticeship Programs Preference. I have included Certification Form(s) 1 with my bid.

C. RECYCLED PRODUCT PREFERENCE

Recycled product preference shall not apply to this proposal.

SEWER INSPECTION AND REPAIR
 AT DANIEL K. INOUE INTERNATIONAL AIRPORT
 HONOLULU, OAHU, HAWAII
 STATE PROJECT NO. BO1427-73

PROPOSAL SCHEDULE
 BASE BID

Item No.	Description	Quantity (A)	Unit	Unit Price (B)	Amount (AxB)
1	Construction Site Runoff Control Program	1	LS	LS	\$ _____
2	Lagoon Drive – Kalewa Street Area Sewer System Cleaning (Exhibit 1)	1	Each	\$ _____/Each	\$ _____
3	Lagoon Drive – Iolana Place to Kapalulu Place Sewer System Cleaning (Exhibit 2)	1	Each	\$ _____/Each	\$ _____
4	Lagoon Drive – Kapalulu Place to Mokuea Place Sewer System Cleaning (Exhibit 3)	1	Each	\$ _____/Each	\$ _____
5	Lagoon Drive – Mokuea Place to Lauhoe Place Sewer System Cleaning(Exhibit 4)	1	Each	\$ _____/Each	\$ _____
6	Lagoon Drive – Lauhoe Place to End of Lagoon Drive Sewer System Cleaning (Exhibit 5)	1	Each	\$ _____/Each	\$ _____
7	Elliott Street Sewer System Cleaning (Exhibit 6)	1	Each	\$ _____/Each	\$ _____
8	Elliott Street Sewer System Cleaning (Exhibit 7)	1	Each	\$ _____/Each	\$ _____
9	Ewa Concourse Sewer System Cleaning (Exhibit 8)	1	Each	\$ _____/Each	\$ _____
10	Central Concourse Sewer System Cleaning (Exhibit 9)	1	Each	\$ _____/Each	\$ _____
11	Diamondhead Concourse Sewer System Cleaning (Exhibit 10)	1	Each	\$ _____/Each	\$ _____

Item No.	Description	Quantity (A)	Unit	Unit Price (B)	Amount (AxB)
12	Aolele Street Sewer System Cleaning (Exhibit 11 to 13)	1	Each	\$_____/Each	\$_____
13	Cured-in Place Pipe Lining (6" to 12" Pipe)	200	LF	\$_____/LF	\$_____
14	Trouble Call / Repair	ALLOW.		ALLOW.	\$ 250,000.00
15	Management of Contaminated Medias	ALLOW.		ALLOW.	\$ 50,000.00
TOTAL BASE BID					\$_____

SEWER INSPECTION AND REPAIR
 AT DANIEL K. INOUE INTERNATIONAL AIRPORT
 HONOLULU, OAHU, HAWAII
 STATE PROJECT NO. BO1427-73

PROPOSAL SCHEDULE
 ADDITIVE ALTERNATE

Item No.	Description	Quantity (A)	Unit	Unit Price (B)	Amount (AxB)
24" AND 30" CIPP LINING (EXHIBIT B)					
14	24" Cured-in Place Pipe – Part Liner (approx. 106 LF)	1	LS	LS	\$ _____
15	36" Cured-in Place Pipe – Part Liner (approx. 535 LF)	1	LS	LS	\$ _____
TOTAL ADDITIVE ALTERNATE					\$ _____

SEWER INSPECTION AND REPAIR
DANIEL K. INOUE INTERNATIONAL AIRPORT
HONOLULU, HAWAII
STATE PROJECT NO. BO1427-73

BID SUMMARY

TOTAL BASE BID	\$ _____
TOTAL ADDITIVE ALTERNATE	\$ _____
TOTAL AMOUNT FOR COMPARISON OF BIDS	\$ _____

PROPOSAL SCHEDULE NOTES:

1. Bids shall include all Federal, State, County and other applicable taxes and fees.
2. The TOTAL AMOUNT FOR COMPARISON OF BIDS shall be used to determine the lowest responsible bidder.
3. Bidders shall complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.
4. If a discrepancy occurs between unit bid price and the bid price, the unit bid price shall govern.
5. **Bidders shall submit and upload the complete proposal to HiePRO prior to the bid opening date and time. Proposals received after said due date and time shall not be considered.** Original (wet ink, hard copy) proposal documents are not required to be submitted. **Contract award shall be based on evaluation of proposals submitted and uploaded to HiePRO. Any additional support documents explicitly designated as confidential and/or proprietary shall be uploaded as a separate file to HiePRO. Do not include confidential and/or proprietary documents with the proposal. The record of each bidder and respective bid shall be open to public inspection.**

FAILURE TO UPLOAD THE COMPLETE PROPOSAL TO HiePRO SHALL BE GROUNDS FOR REJECTION OF THE BID.

If there is a conflict between the specification document and the HiePRO solicitation, the specifications shall govern and control, unless otherwise specified.

SURETY BID BOND

Bond No. _____

KNOW TO ALL BY THESE PRESENTS:

That we, _____
(full name or legal title of offeror)

as Offeror, hereinafter called the Principal, and

(name of bonding company)

as Surety, hereinafter called Surety, a corporation authorized to transact business as a
Surety in the State of Hawaii, are held and firmly bound unto

(State/county entity)

as Owner, hereinafter called Owner, in the penal sum of

(required amount of bid security)

Dollars (\$ _____), lawful money of the United States of America,
for the payment of which sum well and truly to be made, the said Principal and the said
Surety bind ourselves, our heirs, executors, administrators, successors and assigns, jointly
and severally, firmly by these presents.

WHEREAS:

The Principal has submitted an offer for

(project by number and brief description)

NOW, THEREFORE:

The condition of this obligation is such that if the Owner shall reject said offer, or in
the alternate, accept the offer of the Principal and the Principal shall enter into a contract
with the Owner in accordance with the terms of such offer, and give such bond or bonds
as may be specified in the solicitation or Contract Documents with good and sufficient
surety for the faithful performance of such Contract and for the prompt payment of labor
and material furnished in the prosecution thereof as specified in the solicitation then this
obligation shall be null and void, otherwise to remain in full force and effect.

Signed this _____ day of _____, _____

Name of Principal (Offeror) (Seal)

Signature

Title

Name of Surety (Seal)

Signature

Title

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HONOLULU, HAWAII

F O R M S

CONTRACT

THIS AGREEMENT, made this day of _____, by and between the STATE OF HAWAII, by its Director of Transportation, hereinafter referred to as "STATE", and «CONTRACTOR», «STATE_OF_INCORPORATION», whose business/post office address is «ADDRESS», hereinafter referred to as CONTRACTOR";

WITNESSETH: That for and in consideration of the payments hereinafter mentioned, the CONTRACTOR hereby covenants and agrees with the STATE to complete in place, furnish and pay for all labor and materials necessary for "«PROJECT_NAME_AND_NO»", or such a part thereof as shall be required by the STATE, the total amount of which labor, material and construction shall be computed at the unit and/or lump sum prices set forth in the attached proposal schedule and shall be the sum of «BASIC»----DOLLARS (\$«BASIC_NUMERIC») as follows:

TOTAL AMOUNT FOR COMPARISON OF BIDS.....\$«BASIC_NUMERIC»

which sum shall be provided from State funds, all in accordance with the specifications, the special provisions, if any, the notice to bidders, the instructions to bidders, the proposal and plans for «PROJECT_NO_ONLY», and any supplements thereto, on file in the office of the Director of Transportation. These documents, together with all alterations, amendments, and additions thereto and deductions therefrom, are attached hereto or incorporated herein by reference and made a part of this contract.

The CONTRACTOR hereby covenants and agrees to complete such construction within «WORKING_DAYS» from the date indicated in the Notice to Proceed from the State subject, however, to such extensions as may be provided for in writing under the specifications.

For and in consideration of the covenants, undertakings and agreements of the CONTRACTOR herein set forth and upon the full and faithful performance thereof by the CONTRACTOR, the STATE hereby agrees to pay the CONTRACTOR the sum of «BASIC»---DOLLARS (\$«BASIC_NUMERIC») in lawful money, but not more than such part of the same as is actually earned according to the STATE's determination of the actual quantities of work performed and materials furnished by the CONTRACTOR at the unit or lump sum prices set forth in the attached proposal schedule. Such payment, including any extras, shall be made, subject to such additions or deductions hereto or hereafter made in the manner and at the time prescribed in the specifications and this contract.

An additional sum of «EXTRAS»-----DOLLARS (\$«EXTRA_NUMERIC») is hereby provided for extra work.

All words used herein in the singular shall extend to and include the plural. All words used in the plural shall extend to and include the singular. The use of any gender shall extend to and include all genders.

IN WITNESS WHEREOF, the parties hereto have caused this instrument to be duly executed the day and year first above written.

STATE OF HAWAII

Director of Transportation

«CONTRACTOR»

(Seal)

Signature

Print name

Print Title

Date

PERFORMANCE BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a
surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Obligee, in the amount of _____

_____ DOLLARS (\$ _____), to which payment Principal and Surety bind themselves,
their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by
these presents.

WHEREAS, the above-bound Principal has signed a Contract with Obligee on
_____, for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part
hereof.

NOW THEREFORE, the condition of this obligation is such that:

If the Principal shall promptly and faithfully perform, and fully complete the Contract in
strict accordance with the terms of the Contract as said Contract may be modified or amended
from time to time; then this obligation shall be void; otherwise to remain in full force and effect.

Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

In the event of Default by the Principal, of the obligations under the Contract, then after written Notice of Default from the Oblige to the Surety and the Principal and subject to the limitation of the penal sum of this bond, Surety shall remedy the Default, or take over the work to be performed under the Contract and complete such work, or pay moneys to the Oblige in satisfaction of the surety's performance obligation on this bond.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

PERFORMANCE BOND

KNOW TO ALL BY THESE PRESENTS:

That we, _____
(full legal name and street address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto the

_____ *(State/County entity)*

its successors and assigns, as Obligee, hereinafter called Obligee, in the amount

_____ DOLLARS \$ _____),
(Dollar amount of Contract)

lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heir, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- Legal Tender;**
- Share Certificate** unconditionally assigned to or made payable at sight to _____
Description: _____;
- Certificate of Deposit**, No. _____, dated _____ issued by _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Cashier's Check** No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Teller's Check** No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Treasurer's Check** No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Official Check** No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Certified Check** No. _____, dated _____ accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligee for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE,

The Condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, and shall deliver the Project to the Obligee, or to its successors or assigns, fully completed as in the Contract specified and free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder.

Signed and sealed this _____ day of _____, _____.

(Seal) _____

Name of Contractor

Signature*

Title

*ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC

LABOR AND MATERIAL PAYMENT BOND (SURETY)
(6/21/07)

KNOW TO ALL BY THESE PRESENTS:

That _____,
(Full Legal Name and Street Address of Contractor)

as Contractor, hereinafter called Principal, and _____

(Name and Street Address of Bonding Company)

as Surety, hereinafter called Surety, a corporation(s) authorized to transact business as a surety in the State of Hawaii, are held and firmly bound unto the _____,
(State/County Entity)

its successors and assigns, hereinafter called Oblige, in the amount of _____

_____ Dollars (\$ _____), to which payment Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above-bound Principal has signed Contract with the Oblige on _____ for the following project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE, the condition of this obligation is such that if the Principal shall promptly make payment to any Claimant, as hereinafter defined, for all labor and materials supplied to the Principal for use in the performance of the Contract, then this obligation shall be void; otherwise to remain in full force and effect.

1. Surety to this Bond hereby stipulates and agrees that no changes, extensions of time, alterations, or additions to the terms of the Contract, including the work to be performed thereunder, and the specifications or drawings accompanying same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such changes, extensions of time, alterations, or additions, and agrees that they shall become part of the Contract.

2. A "Claimant" shall be defined herein as any person who has furnished labor or materials to the Principal for the work provided in the Contract.

Every Claimant who has not been paid amounts due for labor and materials furnished for work provided in the Contract may institute an action against the Principal and its Surety on this bond at the time and in the manner prescribed in Section 103D-324, Hawaii Revised Statutes, and have the rights and claims adjudicated in the action, and judgment rendered thereon; subject to the Obligee's priority on this bond. If the full amount of the liability of the Surety on this bond is insufficient to pay the full amount of the claims, then after paying the full amount due the Obligee, the remainder shall be distributed pro rata among the claimants.

Signed this _____ day of _____, _____.

(Seal)

Name of Principal (Contractor)

*

Signature

Title

(Seal)

Name of Surety

*

Signature

Title

***ALL SIGNATURES MUST BE ACKNOWLEDGED
BY A NOTARY PUBLIC**

LABOR AND MATERIAL PAYMENT BOND

KNOW TO ALL BY THESE PRESENTS:

That we, _____
(full legal name and street address of Contractor)

as Contractor, hereinafter called Contractor, is held and firmly bound unto _____
(State/County entity)

its successors and assigns, as Obligee, hereinafter called Obligee, in the amount
_____ DOLLARS (\$ _____)
(Dollar amount of Contract)

lawful money of the United States of America, for the payment of which to the said Obligee, well and truly to be made, Contractor binds itself, its heir, executors, administrators, successors and assigns, firmly by these presents. Said amount is evidenced by:

- Legal Tender;
- Share Certificate unconditionally assigned to or made payable at sight to _____
Description: _____
- Certificate of Deposit, No. _____, dated _____ issued by _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Cashier's Check No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Teller's Check No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Treasurer's Check No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Official Check No. _____, dated _____ drawn on _____ a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;
- Certified Check No. _____, dated _____ accepted by a bank, savings institution or credit union insured by the Federal Deposit Insurance Corporation or the National Credit Union Administration, payable at sight or unconditionally assigned to _____;

WHEREAS:

The Contractor has by written agreement dated _____ entered into a contract with Obligee for the following Project: _____

hereinafter called Contract, which Contract is incorporated herein by reference and made a part hereof.

NOW THEREFORE,

The condition of this obligation is such that, if Contractor shall promptly and faithfully perform the Contract in accordance with, in all respects, the stipulations, agreements, covenants and conditions of the Contract as it now exists or may be modified according to its terms, free from all liens and claims and without further cost, expense or charge to the Obligee, its officers, agents, successors or assigns, free and harmless from all suits or actions of every nature and kind which may be brought for or on account of any injury or damage, direct or indirect, arising or growing out of the doing of said work or the repair or maintenance thereof or the manner of doing the same or the neglect of the Contractor or its agents or servants or the improper performance of the Contract by the Contractor or its agents or servants or from any other cause, then this obligation shall be void; otherwise it shall be and remain in full force and effect.

AND IT IS HEREBY STIPULATED AND AGREED that suit on this bond may be brought before a court of competent jurisdiction without a jury, and that the sum or sums specified in the said Contract as liquidated damages, if any, shall be forfeited to the Obligee, its successors or assigns, in the event of a breach of any, or all, or any part of, covenants, agreements, conditions, or stipulations contained in the Contract or in this bond in accordance with the terms thereof.

AND IT IS HEREBY STIPULATED AND AGREED that this bond shall inure to the benefit of any and all persons entitled to file claims for labor performed or materials furnished in said work so as to give any and all such persons a right of action as contemplated by Sections 103D-324(d) and 103D-324(e), Hawaii Revised Statutes.

The amount of this bond may be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payments of mechanics' liens which may be filed of record against the Project, whether or not claim for the amount of such lien be presented under and against this bond..

Signed this _____ day of _____, _____.

(Seal) _____

Name of Contractor

Signature*

Title

ALL SIGNATURES MUST BE ACKNOWLEDGED BY A NOTARY PUBLIC

CHAPTER 104, HRS COMPLIANCE CERTIFICATE

The undersigned bidder does hereby certify to the following:

1. Individuals engaged in the performance of the contract on the job site shall be paid:
 - A. Not less than the wages that the director of labor and industrial relations shall have determined to be prevailing for corresponding classes of laborers and mechanics employed on public works projects; and
 - B. Overtime compensation at one and one-half times the basic hourly rate plus fringe benefits for hours worked on Saturday, Sunday, or a legal holiday of the State or in excess of eight hours on any other day.
2. All applicable laws of the federal and state governments relating to workers' compensation, unemployment compensation, payment of wages, and safety shall be fully complied with.

DATED at Honolulu, Hawaii, this _____ day of _____.

Name of Corporation, Partnership, or Individual

Signature and Title of Signer

Subscribed and sworn before me this
_____ day of _____.

Notary Public, _____ Judicial Circuit,
State of Hawaii
My Commission Expires: _____

Doc. Date: _____ # Pages: _____.

Notary Name: _____ Circuit
Doc. Description: _____

Notary Signature Date
NOTARY CERTIFICATION