STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ADDENDUM NO. 3
FOR
KEAAU-PAHOA ROAD, INTERSECTION IMPROVEMENTS
AT OLD GOVERNMENT ROAD
FAP NO. HSIP-0130 (031)

The following amendments shall be made to the Bid Documents:

A. SPECIFICATIONS

1. Replace Table of Contents pages 1 through 4 dated 11/6/13 with the attached pages 1 through 4 dated r2/21/14.

2. Add Special Provision Section 206 – Excavation and Backfill for Drainage Facilities dated r2/21/14.

3. Replace Special Provision Section 209 - Temporary Water Pollution, Dust, and Erosion Control with the attached Special Provision Section 209 – Temporary Water Pollution, Dust, and Erosion Control dated r2/18/14.

4. Replace Special Provision Section 623A – Temporary Traffic Signal System with the attached Special Provision Section 623A – Temporary Traffic Signal System dated r2/21/14.

5. Replace Special Provision Section 645 – Work Zone Traffic Control with the attached Special Provision Section 645 – Work Zone Traffic Control dated r2/21/14.

6. Revise Special Provision Section 680 – Electric and Communication Systems by replacing Subsections 680.04 – Method of Payment and 680.05 – Basis of Payment with the following:

   "**680.04 Method of Measurement.** The pay items listed below except Utility Charges for Electric Services will be paid on a lump sum basis. Measurement for payment will not apply. The Engineer will measure Utility Charges for Electric Services a force account basis in accordance with Subsection 109.06 – Force Account Provisions and Compensation.

680.05 Basis of Payment. The Engineer will pay for accepted pay items listed below at contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for each of the following pay items when included in the proposal schedule:

Pay Item	Pay Unit
_____Inch PVC Schedule 40 HELCO Conduits	Lump Sum
____- Feet x____- Feet HELCO Handholes	Lump Sum
____Inch HELCO Riser	Lump Sum
Utility Charges for Electric Services	Force Account"

7. Revise Special Provision Section 213 – Reinforced Soil Slope by replacing Subsection 213.07 Basis of Payment with the following:

"**213.07 Basis of Payment.** The Engineer will pay for the accepted reinforced soil slope on a lump sum basis complete in place.

The price includes full compensation for furnishing all labor, materials, tools and equipment for performing all reinforced soil slope work completed in place including excavation, geosynthetic reinforcement, select granular backfill, and structure excavation and backfill for the adjacent drainage ditch and sidewalk.

The Engineer will make payment under:

Pay Item	**Pay Unit**
Reinforced Soil Slope	Lump Sum"

B. PROPOSAL

1. Replace Pages P-8 through P-15 dated r2/7/14 with the attached pages P-8 through P-15 dated r2/21/14.

C. PLANS

1. Revise Plan Sheet No 11 by replacing the note (B) "Install Detour Pavement Markings and Signage, See Detour Pavement Marking Plan, Sheet 17-19, and Traffic Control Plans, Sheet 22-21" with "Install Detour Pavement Markings and Signage, See Detour Pavement Marking Plan, Sheet 17-19, and Traffic Control Plans, Sheet 22-23".

2. Revise Plan Sheet No. 15 by adding the following notes:

   "3. The 12-inch drain line shown on this sheet shall be of High-density Polyethylene (HDPE) pipe, Type S.
   4. The drain line and inlet and outlet structures on this sheet are temporary facilities, and shall be removed prior to final roadway construction. Restore the disturbed area to existing condition or better. Removal and restoration are incidental to the drain line construction."

3. Revise Plan Sheets Nos. 28 & 29 by replacing the note "See Reinforced Slope Plan, Sheet No. 43 for plan location" with "See Reinforced Slope Plan, Sheet No. 45 for plan location"

4. Replace Plan Sheet Nos. 7, 38, 45, 63-64, 85-88 and 92 with the attached Plan Sheet Nos. ADD. 7, 38, 45, 63-34, 85-88 and 92.

5. Add attached Plan Sheet No. ADD.7S-1 after Plan Sheet No. ADD. 7.

D. NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT

The intent of including applicable permit documents is to assist potential bidders to determine a lump sum cost for various environmental-related line items in the Proposal Schedule. The compact disc includes the following permit documents: the Individual NPDES Form, NPDES Form C (including a Site-Specific Best Management Practices Plan), and the Authorization to Discharge (Permit No. HIS000292).

E. RESPONSES TO QUESTIONS

1. Responses to various questions are attached.

Please acknowledge receipt of this Addendum No. 3 by recording the date of its receipt in the space provided on page P-4 of the Proposal.

Glenn M. Okimoto, Ph.D.
Director of Transportation

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SECTION 206 – EXCAVATION AND BACKFILL FOR DRAINAGE FACILITIES

Make the following amendments to said section:

(I) Amend **206.05 Payment** by revising lines 160 to 163 to read as follows:

"The Engineer will not pay for structure excavation and backfill for drainage structures or trench excavation and backfill for culverts and structural plate culverts separately and will consider the cost for those items as included in the contract prices for the various culvert contract pay items. The cost is for the work prescribed in this section and the contract documents."

END OF SECTION 206

Amend **Section 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL** to read as follows:

"SECTION 209 - TEMPORARY WATER POLLUTION, DUST, AND EROSION CONTROL

209.01 Description. This section describes the following:

(A) Including detailed plans, diagrams, and written Site-Specific Best Management Practices (BMP); constructing, maintaining, and repairing temporary water pollution, dust, and erosion control measures at the project site, including local material sources, work areas and haul roads; removing and disposing hazardous wastes; control of fugitive dust (defined as uncontrolled emission of solid airborne particulate matter from any source other than combustion); and complying with applicable State and Federal permit conditions.

(B) Work associated with construction stormwater, dewatering, and hydrotesting activities and complying with conditions of the National Pollutant Discharge Elimination System (NPDES) permit(s) authorizing discharges associated with construction stormwater, dewatering, and hydrotesting activities.

(C) Potential pollutant identification and mitigation measures are 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 outside the 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.

209.02 Materials. Comply with applicable materials described in Chapters 2 and 3 of the HDOT "Construction Best Management Practices Field Manual" dated January 2008. In addition, the materials shall comply with the following:

(A) Grass. Grass shall be a quick growing species such as rye grass, Italian rye grass, or cereal grasses. Grass shall be suitable to the area and

provide a temporary cover that will not compete later with permanent cover. Alternative grasses are allowable if acceptable to the Engineer.

(B) Fertilizer and Soil Conditioners. Fertilizer and soil conditioners shall be a standard commercial grade acceptable to the Engineer. Fertilizer shall conform to Subsection 619.02(H)(1) - Commercial Fertilizer.

(C) Hydro-mulching. Hydro-mulching used as a temporary vegetative stabilization measure shall consist of materials in Subsections 209.02(A) - Grass, and 209.02(B) – Fertilizer and Soil Conditioners. Mulches shall be recycled materials including bagasse, hay, straw, wood cellulose bark, wood chips, or other material acceptable to the Engineer. Mulches shall be clean and free of noxious weeds and deleterious materials. Potable water shall meet the requirements of Subsection 712.01 - Water. Submit alternate sources of irrigation water for the Engineer's acceptance if deviating from 712.01 - Water. Installation and other requirements shall be in accordance with portions of Section 641- Hydro-Mulch Seeding including 641.02(D) - Soil and Mulch Tackifier, 641.03(A) – Seeding, and 641.03(B) - Planting Period. Install non-vegetative controls including mulch or rolled erosion control products while the vegetation is being established. Water and fertilize grass. Apply fertilizer as recommended by the manufacturer. Replace grass the Engineer considers unsuitable or sick. Remove and dispose of trash and debris. Remove invasive species. Mow as needed to prevent site or signage obstructions, fire hazard, or nuisance to the public. Do not remove down stream sediment control measures until the vegetation is uniformly established, including no large bare areas, and provides 70 percent of the density of pre-disturbance vegetation. Temporary vegetative stabilization shall not be used longer than one year.

(D) Silt Fences. Comply with ASTM D6462, Standard Practice for Silt Fence Installation.

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

209.03 Construction.

(A) Preconstruction Requirements.

(1) Water Pollution, Dust, and Erosion Control Meeting. Schedule a water pollution, dust, and erosion control meeting with the Engineer after Site-Specific BMP is accepted in writing by the Engineer. Meeting shall be scheduled a minimum of 14 calendar days prior to the issuance of Notice to Proceed. Discuss sequence of work, plans and proposals for water pollution, dust, and erosion control.

(2) Water Pollution, Dust, and Erosion Control Submittals. Submit a Site-Specific BMP Plan within 30 calendar days of contract execution. Submission of 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:

(a) Written description of activities to minimize water pollution and soil erosion into State waters, drainage or sewer systems. BMP shall include the following:

1. An identification of potential pollutants and their sources.

2. A list of all materials and heavy equipment to be used during construction.

3. Descriptions of the methods and devices used to minimize the discharge of pollutants into State waters, drainage or sewer systems.

4. Details of the procedures used for the maintenance and subsequent removal of any erosion or siltation control devices.

5. Methods of removing and disposing hazardous wastes encountered or generated during construction.

6. Methods of removing and disposing concrete and asphalt pavement cutting slurry, concrete curing water, and hydrodemolition water.

7. Spill Control and Prevention and Emergency Spill Response Plan.

8. Fugitive dust control, including dust from grinding, sweeping, or brooming off operations or combination thereof.

9. Methods of storing and handling of oils, paints and other products used for the project.

10. Material storage and handling areas, and other staging areas.

11. Concrete truck washouts.

12. Concrete waste control.

13. Fueling and maintenance of vehicles and other equipment.

14. Tracking of sediment offsite from project entries and exits.

15. Litter management.

16. Toilet facilities.

17. Other factors that may cause water pollution, dust and erosion control.

(b) Provide plans indicating location of water pollution, dust and erosion control devices; provide plans and details of BMPs to be installed or utilized; show areas of soil disturbance in cut and fill, indicate areas used for construction staging and storage including items (1) through (17) above, storage of aggregate (indicate type of aggregate), asphalt cold mix, soil or solid waste, equipment and vehicle parking, and show 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. Indicate approximate date when device will be installed and removed.

(c) Construction schedule.

(d) Name(s) of specific individual(s) designated responsible for water pollution, dust, and erosion controls on the project site. Include home, cellular, and business telephone numbers, fax numbers, and e-mail addresses.

(e) Description of fill material to be used.

(f) For projects with an NPDES Permit for Construction Activities, submit information to address all sections in the NPDES Form C and Attachments.

(g) Information required for compliance with the conditions

of the NPDES Permit.

(h) Site-Specific BMP Review Checklist. The checklist may be downloaded from HDOT's Stormwater Management website at http://stormwaterhawaii.com.

Date and sign Site-Specific BMP Plan. Keep accepted copy 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/HDOT Third Party Inspector/DOH/EPA. Amendments to the Site-Specific BMP Plan shall be included with original Site-Specific BMP Plan. Modify Site-Specific BMP plan to conform to revisions. Include date of installation and removal of Site-Specific BMP measures. Obtain written acceptance by the Engineer before implementing revised Site-Specific BMPs in the field.

Follow the guidelines in the current HDOT "Construction Best Management Practices Field Manual" dated January 2008, in developing, installing, and maintaining Site-Specific BMPs for all projects. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, notify the Engineer immediately for interpretation. For the purposes of clarification "applicable bid documents" include the construction plans, standard specifications, special provisions, Permits, and the NPDES Form C and Attachments.

Follow Honolulu's City and County "Rules for Soil Erosion Standards and Guidelines" for all projects on Oahu. Use respective Soil Erosion Guidelines for Maui, Kauai and Hawaii projects.

(B) Construction Requirements. Do not begin work until submittals detailed in Subsection 209.03(A)(2) - Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Engineer.

Install, maintain, monitor, repair and replace site-specific BMP measures, 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 hydrodemolition water. Site-Specific BMP measures shall be in place, functional and accepted by HDOT personnel prior to initiating any ground disturbing activities.

If necessary, furnish and install rain gage in a secure location prior to field work including installation of site-specific BMP. Provide rain gage with a tolerance of at least 0.05 inches of rainfall. Install rain gage on project site in an area that will not deter rainfall from entering the gate opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Maintain rain gage and replace rain gage that is stolen, does not function properly or accurately, is worn out, or needs to be relocated. Do not begin field work until rain gage is installed and Site-Specific BMPs are in place. Rain gage data logs shall be readily available. Submit rain gage data logs weekly to the Engineer.

Address all comments received from the Engineer.

Modify and resubmit plans and construction schedules to correct conditions that develop during construction which were unforeseen during the design and pre-construction stages.

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

Limit maximum surface area of earth material exposed at any time to 300,000 square feet. Do not expose or disturb surface area of earth material (including clearing and grubbing) until BMP measures are installed and accepted in writing by the Engineer. Protect temporarily or permanently disturbed soil surface from rainfall impact, runoff and wind before end of the work day.

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, and excavation within any area of the site that will not include permanent structures 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.

Complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

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) Seeding or 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; or

(5) Finalizing arrangements to have stabilization product fully installed in compliance with the deadline for completing initial stabilization activities.

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

(1) For vegetative stabilization, all activities necessary to initially seed or 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 unable to meet the deadlines above due to circumstances beyond the Contractor's control, and the Contractor is using vegetative cover for temporary or permanent stabilization, the Contractor may comply with the following stabilization deadlines instead as agreed to by the Engineer:

(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, seeding, 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; and

(3) Notify and provide documentation to the Engineer the circumstances that prevent the Contractor from meeting the deadlines above for stabilization and the schedule the Contractor will follow for initiating and completing initial stabilization and as agreed to by the Engineer.

Follow the applicable requirements of the specifications and special provisions including Section 619 and Section 641.

Immediately after seeding or planting the area to be vegetatively stabilized, to the extent necessary to prevent erosion on the seeded or planted area, select, design, and 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, grass seeds or hydromulch. Spray mulches at a rate of 2,000 pounds per acre. Add tackifier to mix at a rate of 85 pounds per acre. Apply grass seeds at a rate of 125 pounds per acre. For hydromulch, use the ingredients and rates required for mulches and grass seeds. Submit recommendations from a licensed Landscape Architect when deviating from the application rates above.

Apply fertilizer to mulches, grass seed or hydromulch per manufacturer's recommendations. Submit recommendations from a licensed Landscape Architect when deviating from the 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 work day or as required by Section 209.03(B).

Install and maintain either or both stabilized construction entrances and wheel washes to minimize tracking of dirt and mud onto roadways. Restrict traffic to stabilized construction 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. Modify stabilized construction entrances to prevent mud from being tracked onto road. Stabilize entire access roads if necessary.

Chemicals may be used as soil stabilizers for either or both erosion and dust control if acceptable to the Engineer.

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 Engineer.

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

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

Cleanup and remove any pollutant that can be attributed to the Contractor.

Install or modify Site-Specific BMP measures due to change in the Contractor's means and methods, or for omitted condition that should have been allowed for in the accepted Site-Specific BMP or a Site-Specific BMP that replaces an accepted Site-Specific BMP that is not satisfactorily performing. Modifications to Site-Specific BMP measures shall be accepted in writing by the Engineer prior to implementation.

Properly maintain all Site-Specific BMP measures.

Inspect, prepare a written report, and make repairs to BMP measures at the following intervals:

(a) Weekly.

(b) Within 24 hours of any rainfall of 0.5 inch or greater which occurs in a 24-hour period.

(c) Daily during periods of prolonged rainfall.

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

Temporarily remove, replace or relocate any Site-Specific BMP that must be removed, replaced or relocated due to potential or actual flooding, or potential danger or damage to project or public.

Maintain records of inspections of Site-Specific BMP work. Keep continuous records for duration of the project. Submit copy of Inspection

Report to the Engineer within 24 hours after each inspection.

The Contractor's designated representative specified in Subsection 209.03(A)(2)(d) shall address any Site-Specific BMP deficiencies brought up by the Engineer immediately, including weekends and holidays, and complete work to fix the deficiencies by the close of the next day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. Address any Site-Specific BMP deficiencies brought up by the State's Third Party Inspector in the timeframe above or as specified in the Consent Decree or MS4 NPDES Permit, whichever is more stringent. The Consent Decree timeframe requirement applies statewide. The MS4 NPDES Permit only applies to Oahu. In this section, "immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following day. When installation of a new pollution prevention control or a significant repair is needed, complete installation or repair no later than seven calendar days from the time of notification/Contractor discovery. Notify the Engineer and document why it is infeasible to complete the installation or repair within seven calendar days and complete the work as soon as practicable and as agreed to by the Engineer. Address Site-Specific BMP deficiencies discovered by the Contractor within the timeframe above. The Contractor's failure to satisfactorily address these Site-Specific BMP deficiencies, the Engineer reserves the right to employ outside assistance or use the Engineer's own labor forces to provide necessary corrective measures. The Engineer will charge the Contractor such incurred costs plus any associated project engineering costs. The Engineer will make appropriate deductions from the Contractor's monthly progress estimate. Failure to apply Site-Specific BMP measures may result in one or more of the following: assessment of liquidated damages, suspension, or cancellation of Contract with the Contractor being fully responsible for all additional costs incurred by the State.

(C) Discharges of Storm Water Associated with Construction Activities. If work includes disturbance of one acre or more, an NPDES Permit authorizing Discharges of Storm Water Associated with Construction Activity (CWB-NOI Form C) or Individual Permit authorizing storm water 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 209.03(A)(2) – Water Pollution, Dust, and Erosion Control Submittals are completed and accepted in writing by the Engineer.

(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 from DOH-CWB 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 from DOH-CWB 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. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed, or as directed by the Engineer.

(G) Construction BMP Training. The Contractor's representative responsible for development of the Site-Specific BMP Plan and implementation of Site-Specific BMPs in the field shall attend the State's Construction Best Management Practices Training. The Contractor shall keep training logs updated and readily available.

209.04 Measurement.

(A) Installation, maintenance, monitoring, and removal of BMP will be paid on a lump sum basis. Measurement for payment will not apply.

(B) The Engineer will only measure additional water pollution, dust and erosion control required and requested by the Engineer on a force account basis in accordance with Subsection 109.06 – Force Account Provisions and

Compensation.

209.05 Payment. The Engineer will pay for accepted pay items listed below at contract price per pay unit, as shown in the proposal schedule. Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for each of the following pay items when included in proposal schedule:

Pay Item	**Pay Unit**
Installation, Maintenance, Monitoring, and Removal of BMP	Lump Sum
Additional Water Pollution, Dust, and Erosion Control	Force Account

An estimated amount for force account is allocated in proposal schedule under 'Additional Water Pollution, Dust, and Erosion Control', but actual amount to be paid will be the sum shown on accepted force account records, whether this sum be more or less than estimated amount allocated in proposal schedule. The Engineer will pay for BMP measures requested by the Engineer that are beyond scope of accepted Site-Specific BMP on a force account basis.

No progress payment will be authorized until the Engineer accepts in writing Site-Specific BMP or when the Contractor fails to maintain project site in accordance with accepted BMP.

For all citations or fines received by the Department for non-compliance, including compliance with NPDES Permit conditions, the Contractor shall reimburse State within 30 calendar days for full amount of outstanding cost State has incurred, or the Engineer will deduct cost from progress payment.

The Engineer will assess liquidated damages up to $27,500 per day for non-compliance of each BMP requirement and all other requirements in this section.

Appendix A

The following list identifies potential pollutant sources and corresponding BMPs used to mitigate the pollutants. Each BMP is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual or appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at *http://www.stormwaterhawaii.com/resources* under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at *http://stormwaterhawaii.com/contractors/contractors_BMPmanual.aspx* under Concrete Curing and Irrigation Water.

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Construction debris, green waste, general litter	• *Separate contaminated clean up materials from construction and demolition (C&D) wastes.* • *Provide waste containers (e.g., dumpster or trash receptacle) of sufficient size and number to contain construction and domestic wastes.* • *Inspect construction waste and recycling areas regularly.* • *Schedule solid waste collection regularly.* • *Schedule recycling activities based on construction/demolition phases.* • *Empty waste containers weekly or when they are two-thirds full whichever is sooner.* • *Do not allow containers to overflow. Clean up immediately if they do.* • *On work days, clean up and dispose of waste in designated waste containers.* • *See Solid Waste Management Section SM-6 for additional requirements.* • *Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.*	*See Solid Waste Management Section SM-6. Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.*
Materials associated with the operation and maintenance of equipment, such as oil, fuel, and hydraulic fluid leakage	• *Use off-site wash racks, repair and maintenance facilities, and fueling sites when practical.* • *Designate bermed wash area if cleaning on site is necessary.* • *Place drip pans or drop cloths under vehicles and equipment to absorb spills or leaks.* • *Provide an ample supply of readily available spill cleanup materials.*	*See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM-13, and Material Delivery, Storage*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	• *Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.* • *Do not clean surfaces or spills by hosing the area down.* • *Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.* • *Inspect on-site vehicles and equipment regularly and immediately repair leaks.* • *Regularly inspect fueling areas and storage tanks.* • *Train employees on proper maintenance and spill practices and procedures and fueling and cleanup procedures.* • *Store diesel fuel, oil, hydraulic fluid, or other petroleum products or other chemicals in water-tight containers and provide cover or secondary containment.* • *Do not remove original product labels and comply with manufacturer's labels for proper disposal.* • *Dispose of containers only after all the product has been used.* • *Dispose of or recycle oil or oily wastes according to Federal, State, and Local requirements.* • *Store soaps, detergents, or solvents under cover or other means to prevent contact with rainwater.* • *See Vehicle and Equipment Cleaning, Maintenance, and Refueling, Sections SM-11, SM-12, and SM-13 and Material Use Section*	*and Material Use Sections SM-2 and SM-3, and Spill Prevention and Control SM-10.*

Pollutant Source	Appropriate Site-Specific BMP to be Implemented	BMP Requirements
	SM-3 for additional requirements.	
Soil erosion from the disturbed areas	• *Provide Soil Stabilization, Slope Protection, Storm Drain Inlet Protection SC-2, Perimeter Controls and Sediment Barriers, Sediment Basins and Detention Ponds, Check Dams SC-9 ,Level Spreader SC-10, Paving Operations SM-19, Construction Road Stabilization EC-1, Controlling Storm Water Flowing Onto and Through the Project, Post-Construction BMPs, and Non-Structural BMPs (Employee Training SM-1, Scheduling SM-14, Location of Potential Sources of Sediment SM-15, Preservation of Existing Vegetation SM-16) .* • *Delineate, and clearly mark off, with flags, tape, or other similar marking device all natural buffer areas defined in the SWPPP.* • *Preserve native topsoil where practicable.* • *In areas where vegetative stabilization will occur, restrict vehicle/equipment use in areas to avoid soil compaction or condition soil to promote vegetative growth.* • *For Storm Drain Inlet Protection, clean, or remove and replace, the protection measures as sediment accumulates, the filter becomes clogged, and/or performance is compromised.* • *Where there is evidence of*	*Soil Stabilization* 1. *SM-21 Topsoil Management* 2. *EC-5 Seeding and Planting* 3. *EC-6 Mulching* 4. *EC-7 Geotextiles and Mats* *Slope Protection* 1. *EC-5 Seeding and Planting* 2. *EC-6 Mulching* 3. *EC-7 Geotextiles and Mats* 4. *EC-9 Slope Roughening, Terracing, and Rounding* 5. *SC-11 Slope Drains and Subsurface Drains* 6. *SC-12 Top and Toe of Slope Diversion Ditches and Berms* *SC-2 Storm Drain Inlet Protection* *Perimeter Controls and Sediment Barriers* 1. *SC-1 Silt*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	sediment accumulation adjacent to the inlet protection measure, remove the deposited sediment by the end of the same day in which it is found or by the end of the following day if removal by the same day is not feasible. • *Sediment basins shall be designed and maintained in accordance with HAR 11-55.* • *Minimize disturbance on steep slopes (Greater than 15% in grade).* • *If disturbance of steep slopes are unavoidable, phase disturbances and use stabilization techniques designed for steep grades.* • *For temporary drains and swales use velocity dissipation devices within and at the outlet to minimize erosive flow velocities.*	*Fence* 2. *SC-5 Vegetated Filter Strips and Buffers* 3. *SC-8 Compost Filter Berm* 4. *SC-13 Sandbag Barrier* 5. *SC-14 Brush or Rock Filter* *Sediment Basins and Detention Ponds* 1. *SC-15 Sediment Trap* 2. *SC-16 Sediment Basin* *SC-9 Check Dams* *SC-10 Level Spreader* *SM-19 Paving Operations EC-1 Construction Road Stabilization* *Controlling Storm Water Flowing onto and Through the Project* 1. *EC-8 Run-On Diversion* 2. *SC-6 Earth Dike*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
		3. *SC-7 Temporary Drains and Swales* *Post Construction BMPs* 1. *EC-4 Flared Culvert End Sections* 2. *SC-3 Rip-Rap and Gabion Inflow Protection* 3. *SC-4 Outlet Protection and Velocity Dissipation Devices* 4. *SM-21 Topsoil Management* *Non-Structural BMPs* 1. *SM-1 Employee Training* 2. *SM-14 Scheduling* 3. *SM-15 Location of Potential Sources of Sediment* 4. *SM-16 Preservation of Existing Vegetation*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Sediment from soil stockpiles	• *Locate stockpiles a minimum of 50 feet or as far as practicable from concentrated runoff or outside of any natural buffers identified on the SWPPP.* • *Place bagged materials on pallets and under cover.* • *Provide physical diversion to protect stockpiles from concentrated runoff.* • *Cover stockpiles with plastic or comparable material when practicable.* • *Place silt fence, fiber filtration tubes, or straw wattles around stockpiles.* • *Do not hose down or sweep soil or sediment accumulated on pavement or other impervious surfaces into any storm water conveyance (unless connected to a sediment basin, sediment trap, or similarly effective control), storm drain inlet, or state water.* • *Unless infeasible, contain and securely protect stockpiles from the wind.* • *Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.* • *See Protection of Stockpiles Section SM-4 for additional requirements.*	*See Protection of Stockpiles Section SM-4. Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.*
Emulsified asphalt or prime/tack coat	• *Provide training for employees and contractors on proper material delivery and storage practices and procedures.* • *Restrict paving operations during wet weather to prevent paving materials from being discharged.*	*See Material Delivery and Storage Section SM-2 and Material Use Section SM-3, Paving*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	• *Use asphalt emulsions such as prime coat when possible.* • *Protect drain inlet structures and manholes during application of tack coat, seal coat, slurry seal, and fog seal.* • *Keep ample supplies of drip pans and absorbent materials on site.* • *Inspect inlet protection devices.* • *See Material Delivery and Storage Section SM-2 and Paving Operations Section SM-19 for additional requirements.* • *Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.*	*Operations Section SM-19, Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Materials associated with painting, such as paint and paint wash solvent	• *Hazardous chemicals shall be well-labeled and stored in original containers.* • *Keep ample supply of cleanup materials on site.* • *Dispose container only after all of the product has been used.* • *Remove as much paint from brushes on painted surface.* • *Rinse from water-based paints shall be discharged into the sanitary sewer system where possible. If not, direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.* • *Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.* • *. Do not dump liquid wastes into the storm drainage system.* • *Filter and re-use solvents and thinners.* • *Dispose of oil-based paints and residue as a hazardous waste.* • *Ensure collection, removal, and disposal of hazardous waste complies with regulations.* • *Immediately clean up spills and leaks.* • *Properly store paints, solvents, and epoxy compounds.* • *Properly store and dispose waste materials generated from painting and structure repair and construction activities.* • *Mix paints in a covered and contained area when possible to*	*See Material Delivery and Storage Section SM-2, Material Use Section SM-3, Hazardous Waste Management Section SM-9, Waste Management, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-20, Protect Storm Drain Inlets SC-2, and Perimeter Sediment Controls where applicable.*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	minimize adverse impacts from spills. • *Do not apply traffic paint or thermoplastic if rain is forecasted.* • *See Material Delivery and Storage Section SM-2, Material Use SM-3, Waste Management, Hazardous Waste Management Section SM-9, Waste Management, Spill Prevention and Control Section SM-10, and Structure Construction and Painting Section SM-20 for additional requirements.* • *Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.*	

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Industrial chemicals, fertilizers, and/or pesticides	• *Hazardous chemicals shall be well-labeled and stored in original containers.* • *Keep ample supply of cleanup materials on site.* • *Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.* • *Do not clean surfaces or spills by hosing the area down.* • *Eliminate the source of the spill to prevent a discharge or a furtherance of an ongoing discharge.* • *Dispose container only after all of the product has been used.* • *Retain a complete set of material safety data sheets on site.* • *Store industrial chemicals in water-tight containers and provide either cover or secondary containment.* • *Provide cover when storing fertilizers or pesticides to prevent these chemicals from coming into contact with rainwater.* • *Restrict amount of pesticide prepared to quantity necessary for the current application.* • *Do not apply fertilizers or pesticides during or just before a rain event.* • *Do not apply to stormwater conveyance channels with flowing water.* • *Comply with fertilizer and pesticide manufacturer's recommended usage instructions.* • *Follow federal, state, and local laws regarding fertilizer application.* • *Do not dispose of toxic liquid wastes (solvents, used oils, and*	*See Material Delivery and Storage Section SM-2, Material Use Section SM-3, and Hazardous Waste Management Section SM-9, and Spill Prevention and Control SM-10*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	paints) or chemicals (additives, acids, and curing compounds) in dumpsters allocated for construction debris. • *Ensure collection, removal, and disposal of hazardous waste complies with regulations. Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.* • *See Material Delivery and Storage Section SM2, Material Use SM-3, and Waste Management, Hazardous Waste Management Section SM-9 for additional requirements.*	
Hazardous waste (Batteries, Solvents, Treated Lumber, etc.)	• *Do not dispose of toxic materials in dumpsters allocated for construction debris.* • *Ensure collection, removal, and disposal of hazardous waste complies with regulations.* • *Hazardous waste that cannot be reused or recycled shall be disposed of by a licensed hazardous waste hauler.* • *Segregate and recycle wastes from vehicle/equipment maintenance activities such as used oil or oil filters, greases, cleaning solutions, antifreeze, automotive batteries, and hydraulic and transmission fluids.* • *Store waste in sealed containers, which are constructed of suitable materials to prevent leakage and corrosion, and which are labeled in accordance with applicable Resource Conservation and Recovery Act (RCRA) requirements and all other applicable federal,*	*See Hazardous Waste Management Section SM-9 and Vehicle and Equipment Maintenance SM-12*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	state, and local requirements. • *All containers stored outside shall be kept away from surface waters and within appropriately-sized secondary containment (e.g., spill berms, decks, spill containment pallets). Provide cover if possible.* • *Clean up spills immediately, using dry clean-up methods where possible, and dispose of used materials properly.* • *Do not clean surfaces or spills by hosing the area down.* • *Eliminate the source of the spill to prevent a discharge or a continuation of an ongoing discharge.* • *Ensure collection, removal, and disposal of hazardous waste complies with manufacturer's recommendations and is in compliance with federal, state, and local requirements.* • *See Hazardous Waste Management Section SM-9 and Vehicle and Equipment Management, Vehicle and Equipment Maintenance SM-12 for additional requirements.*	

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Metals and Building Materials	• *Inspect construction waste and recycling areas regularly.* • *Schedule solid waste collection regularly.* • *If building materials or metals are stored on site (such as rebar or galvanized poles) store under cover under tarps or in containers.* • *Minimize the amount of material stored on site.* • *Do not stockpile uncovered metals or other building materials in close proximity to discharge points.* • *See Solid Waste Management Section SM-6 for additional requirements.*	*See Solid Waste Management Section SM-6*
Contaminated Soil	• *See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Waste Management Section SM-9 for additional requirements.* • *At minimum contain contaminated material soil by surrounding with impermeable lined berms or cover exposed contaminated material with plastic sheets.*	*See Waste Management, Contaminated Soil Management Section SM-8 and/or Hazardous Waste Management Section SM-9*
Dust Control Water	• *Do not over spray water for dust control purposes which will result in runoff from the area.* • *Apply water as conditions require.* • *Washing down of debris or dirt into drainage, sewage systems, or State waters is not allowed.* • *See Dust Control Section SM-18 for additional requirements.*	*See Dust Control Section SM-18*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Concrete Truck Wash Water	• *Disposal of concrete truck wash water via percolation is prohibited.* • *Wash concrete-coated vehicles or equipment off-site or in the designated wash area.* • *Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.* • *Runoff from the on-site concrete wash area shall be contained in a temporary pit or level bermed area where the concrete can set.* • *Design the area so that no overflow can occur due to inadequate wash area sizing or precipitation.* • *The temporary pit shall be lined with plastic to prevent seepage of wash water into the ground.* • *Allow wash water to evaporate or collect wash water and all concrete debris in a concrete washout system bin.* • *Do not dump liquid wastes into storm drainage system.* • *Dispose of liquid and solid concrete wastes in compliance with federal, state, and local standards.* • *See Waste Management, Concrete Waste Management*	*See Waste Management, Concrete Waste Management Section SM-5*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	Section SM-5 for additional requirements.	
Sediment Track-Out	• *Include Stabilized Construction Entrance at all points that exit onto paved roads.* • *A sediment trapping device is required if a wash rack is used in conjunction with the stabilized construction entrance/exit.* • *The pavement shall not be cleaned by washing down the street.* • *If sweeping is ineffective or it is necessary to wash the streets, wash water must be contained either by construction of a sump, diverting the water to an acceptable disposal area, or vacuuming the wash water.* • *Use BMPs for adjacent drainage structures.* • *Remove sediment tracked onto the street by the end of the day in which the track-out occurs.* • *Restrict vehicle use to properly designated exit points.* • *Include additional BMPs which remove sediment prior to exit when minimum dimensions can not be met.* • *See Stabilized Construction Entrance Section EC-2 for additional requirements.*	*See Stabilized Construction Entrance Section EC-2*
Irrigation Water	• *Consider irrigation requirements.*	*See Seeding and Planting Section*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	• *Where possible, avoid species which require irrigation.* • *Design timing and application methods of irrigation water to eliminate the runoff of excess irrigation water into the storm water drainage system.* • *See Seeding and Planting Section EC-5 and California Stormwater BMP Handbook SD-12 Efficient Irrigation at http://stormwaterhawaii.com/contractors/ contractors_BMPmanual.aspx under Irrigation Water for additional requirements.*	*EC-5 and California Stormwater BMP Handbook SD-12 Efficient Irrigation*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Hydrotesting Effluent	• *If work includes removing, relocation or installing waterlines, and Contractor elects to flush waterline or discharge hydrotesting effluent into State waters or drainage systems, the Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form F application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Hydrotesting Activities if necessary. Site-Specific BMPs will be included in the NOI/NPDES Permit Form F submittal.*	*Site-Specific BMPs will be included in the NOI/NPDES Permit Form F submittal.*
Dewatering Effluent	• *If excavation or backfilling operations require dewatering, and Contractor elects to discharge dewatering effluent into State waters or existing drainage systems, Contractor shall prepare and obtain HDOT acceptance of a NOI/NPDES Permit Form G application for HDOT submittal to DOH CWB at least 30 calendar days prior to the start of Dewatering Activities if necessary. See Site Planning and General Practices, Dewatering Operations Section SM-17 for additional requirements.*	*See Dewatering Operations SM-17. Site-Specific BMPs will be included in the NOI/NPDES Permit Form G submittal.*
Saw-cutting Slurry	• *Saw cut slurry shall be removed from the site by vacuuming.* • *Provide storm drain protection*	*See Paving Operations Section SM-19, Storm Drain Inlet*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	during saw cutting. See Paving Operations Section SM-19 for additional requirements. • *Provide Storm Drain Inlet Protection and/or Perimeter Sediment Controls as applicable.*	*Protection SC-2, Perimeter sediment controls where applicable*
Concrete Curing Water	• *Avoid overspraying of curing compounds.* • *Apply an amount of compound that covers the surface, but does not allow any runoff of the compound.* • *See California Stormwater BMP Handbook NS-12 Concrete Curing at http://stormwaterhawaii.com/contractors/ contractors_BMPmanual.aspx under Concrete Curing for additional requirements.*	*See California Stormwater BMP Handbook NS-12 Concrete Curing*
Plaster Waste Water	• *Direct all washwater into a leak-proof container or leak-proof pit. The container or pit must be designed so that no overflows can occur due to inadequate sizing or precipitation.* • *Locate on-site wash area a minimum of 50 feet away or as far as practicable from storm drain inlets, open drainage facilities, or water bodies.* • *Any significant residual materials remaining on the ground after the completion of construction shall be removed and properly disposed. If the residual materials contaminate the soil, then the contaminated soil*	*See Material Delivery and Storage Section SM-2, Material Use Section SM-3, and Hazardous Waste Management Section SM-9*

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
	shall also be removed and properly disposed of. • *Plaster waste water shall not be allowed to flow into drainage structures or State waters.* • *See Material Delivery and Storage Section SM-2, Material Use SM-3, and Hazardous Waste Management Section SM-9 for additional requirements.*	

Pollutant Source	*Appropriate Site-Specific BMP to be Implemented*	*BMP Requirements*
Water-Jet Wash Water	• *For Water-Jet Wash Water used to clean vehicles, use off site wash racks or commercial washing facilities when practical.* • *See Vehicle and Equipment Cleaning Section SM-11 for additional information.* • *For Water-Jet Wash Water used to clean impervious surfaces, the runoff shall not be allowed to flow into drainage structures or State Waters.*	*See Vehicle and Equipment Cleaning Section SM-11*
Sanitary/Septic Waste	• *Locate Sanitary facilities in a convenient place away from drainage facilities.* • *Position sanitary facilities so they are secure and will not be tipped over or knocked down.* • *Wastewater shall not be discharged to the ground or buried.* • *A licensed service provider shall maintain sanitary/septic facilities in good working order.* • *Schedule regular waste collection by a licensed transporter.* • *See Sanitary/Septic Waste Section SM-7 for additional requirements.*	*See Sanitary/Septic Waste Section SM-7.*

"

END OF SECTION 209

Make this section a part of the Standard Specifications:

"SECTION 623A – TEMPORARY TRAFFIC SIGNAL SYSTEM

623.01 Description. This section describes the following:

(A) Furnishing and installing temporary traffic signal system at the intersection of Kahakai Boulevard and Pahoa Village Road, including materials necessary for operating and controlling temporary traffic signal system. The system shall be MUTCD compliant.

623.02 Materials.

Structural Concrete (Class B)	601
Reinforcing Steel	602
Cullet and Cullet-Made Materials	717
Metal Beam Rails	710.04
Guardrail Posts	710.07
Guardrail Hardware	710.08
Planting Material	619.02
Portable Traffic Signal System	

Structural steel anchor bolts and steel plates shall conform to AASHTO M 164 and ASTM A 36, respectively. Exposed anchor bolts, nuts, and washers shall be zinc-coated, in accordance with AASHTO M 232. Anchor bolts and nuts shall be galvanized after threads are cut. After galvanizing, ensure that all nuts will turn on bolts to full thread depth. Coat threads with paraffin wax.

623.03 Design. Design a temporary traffic signal system at T-intersection of Kahakai Boulevard and Pahoa Village Road in compliance with the latest MUTCD. Make adjustment and maintain traffic signal system during the construction and coordinate with respective utility companies to maintain required clearances to existing overhead utility facilities. The portable traffic signal system shall, at a minimum, have the following features:

(A) 12 volt 115-amphour heavy duty battery operated trailers with solar cell charging or auto-start generator system. Ensure that the system is fail-safe.

(B) Each Controller with touchscreen shall have minimum/maximum green time and five (5) automatic changes standard with flash and fault result modes and a test mode. All times shall be set to a minimum of a second.

(C) Three section signal heads for 12" LED signal modules in compliance with ITE VTCSH LED traffic signal lamp specifications. Trailer arm extension shall be adjusted to fit the project site conditions.

(D) The traffic sensors shall be camera vehicle detectors, which trigger the operation of traffic controllers.

(E) The system shall have multiple time of day "rush hour" extended green time settings.

(F) The system shall be in conformance with NEMA conflict monitoring standards and be designed to be in compliance with AASHTO 80 mph wind load.

(G) The site shall be graded to accommodate the traffic trailers. Design grading features, including but not limited to topographic survey, retaining wall and slope stabilization. Restore to match existing condition or better after construction.

623.04 Construction. Perform work in accordance with requirements of the contract documents and the following: NEC; General Order Nos. 6 and 10 of the Hawaii Public Utilities Commission; ASTM; ANSI; local utility company rules; and local ordinances that may apply.

(A) Equipment List and Drawings. Submit within seven days following contract award, 10 copies of shop drawings for temporary traffic signal for review and approval.

(B) Excavation and Backfill. Excavate and backfill in accordance with Section 204- Excavation and Backfill for Miscellaneous Facilities.

(C) Installation.

Follow Manufacturer's instruction and installation procedures. Coordinate with County of Hawaii Traffic Engineer for temporary traffic signal work.

(D) Restoring Pavements and Other Improvements. Restore to their original condition, existing pavements and other improvements, such as

driveways, sidewalks, slopes, various utilities, curbs, and gutters, disturbed by excavation. Use replacement material equal to or better in quality than existing materials. Match existing grades, thickness, texture, and color whenever applicable.

623.05 Measurement. Temporary traffic signal system will be paid on a lump sum basis. Measurement for payment will not apply.

623.06 Payment. The Engineer will pay for the accepted temporary traffic signal system on a contract lump sum basis. Payment will be full compensation for the work prescribed in this section and the contract documents.

The Engineer will pay for the following pay item when included in the proposal schedule:

Pay Item	Pay Unit
Temporary Traffic Signal System	Lump Sum"

END OF SECTION 623

SECTION 645 – WORK ZONE TRAFFIC CONTROL

Make the following amendments to said Section:

(I) Amend **645.03 (B) Construction Signs** from line 162 to 169 by changing all references to "Construction Signs" to read "**Work Zone Signs**".

(II) Amend **645.03 (F) Lane Closure** from line 248 to 270 to read as follows:

"**(F) Lane Closures.** Lane closures will be allowed only from 8:30 a.m. to 3:00 p.m., Monday through Friday. Exceptions to lane closure hours specified require written acceptance by the Engineer. No increase in contract price or contract time will be given for lane closure restrictions specified.

For island of Hawaii, no lane closures will be allowed during 24-hour periods as follows:

(1) Holidays (Midnight to Midnight).

(2) Day before and day after Thanksgiving Day (Midnight to Midnight).

(3) Holiday period for Christmas and New Years (Two Weeks prior to Christmas and the week between Christmas and New Years).

(4) Other dates of events indicated in the contract documents."

END OF SECTION 645

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
201.0100	Clearing and Grubbing	L.S.	L.S.	L.S.	$_____
203.0100	Roadway Excavation	3,400	C.Y.	$ _____	$_____
209.0100	Installation, Maintenance, Monitoring, and Removal of BMP	L.S.	L.S.	L.S.	$_____
209.0200	Additional Water Pollution, Dust, and Erosion Control	F.A.	F.A.	F.A.	$ 50,000.00
212.0100	Archaeological Monitoring	F.A.	F.A.	F.A.	$ 10,000.00
213.0100	Reinforced Soil Slope	L.S.	L.S.	L.S.	$_____
301.0100	Hot Mix Asphalt Base Course	L.S.	L.S.	L.S.	$_____
305.0100	Aggregate Subbase	1,250	C.Y.	$ _____	$_____
306.0100	Untreated Permeable Base	L.S.	L.S.	L.S.	$_____
401.0100	HMA Pavement, Mix No. IV	L.S.	L.S.	L.S.	$_____
411.0100	Concrete Pavement	L.S.	L.S.	L.S.	$_____
411.0200	Transverse Contraction Joint	L.S.	L.S.	L.S.	$_____
413.0100	Truck Apron Paving Brick	L.S.	L.S.	L.S.	$_____
415.0100	Cold Planing	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
503.0100	Concrete Lined Ditch and Integral Sidewalk/Gutter	L.S.	L.S.	L.S.	$_____
511.0100	Street Lightpole Drilled Shaft Concrete Foundations	L.S.	L.S.	L.S.	$_____
603.0100	Sidewalk Culvert	L.S.	L.S.	L.S.	$_____
603.0200	48-inch Spiral Rib Aluminum Pipe, No. 10 Gage	L.S.	L.S.	L.S.	$_____
603.0210	60-inch Spiral Rib Aluminum Pipe, No. 10 Gage	L.S.	L.S.	L.S.	$_____
603.0300	12-inch High Density Polyethylene (HDPE) Pipe, Type S	L.S.	L.S.	L.S.	$_____
603.1000	Cleaning Existing Culverts	F.A.	F.A.	F.A.	$ 10,000.00
604.0100	Type 1A-9 Drop Inlet, 2 feet to 4 feet	1	Each	$ _____	$_____
604.0200	60-inch and 48-inch CMP Culvert Concrete Support	L.S.	L.S.	L.S.	$_____
605.0100	6-inch Underdrain	L.S.	L.S.	L.S.	$_____
605.0200	Type Riprap Underdrain Outlet	L.S.	L.S.	L.S.	$_____
605.0300	Cleanout	L.S.	L.S.	L.S.	$_____
606.0100	Guardrail, Type 3	L.S.	L.S.	L.S.	$_____
606.0200	Terminal Section, Type G Flare	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
607.0100	4-foot Chain-Link Fence	L.S.	L.S.	L.S.	$_____
611.0100	Hand-Laid Riprap	L.S.	L.S.	L.S.	$_____
616.0100	Temporary Irrigation System	L.S.	L.S.	L.S.	$_____
617.0100	Imported Planting Soil	L.S.	L.S.	L.S.	$_____
619.0100	Tree (Hapu'u – *Cibotium glaucum,* Field Stock)	L.S.	L.S.	L.S.	$_____
619.0200	Shrub ('Uki'uki – *Dianella sandwicensis*, 6" Pots)	L.S.	L.S.	L.S.	$_____
619.0210	Shrub (Koki'o Kea – *Hibiscus waimeae*, 3 Gallon Pots)	L.S.	L.S.	L.S.	$_____
619.0300	Ground Cover (Carex – *Carex wahuensis*, 4" Pots)	L.S.	L.S.	L.S.	$_____
619.0400	Ground Cover ('Ilie'e – *Plumbago zeylanica*, 4" Pots)	L.S.	L.S.	L.S.	$_____
622.0010	Roadway Lighting Standard, 30-Foot (Nominal) Mounting Height, 6-Foot, 24-Inch Rise Luminaire Arm, 75 Watt Luminaire, LED, Photocell, Wiring, Ground Rod(s), Connections & Non Break-Away Transformer Base, Mounted on Concrete Foundation.	L.S.	L.S.	L.S.	$_____
622.0101	2-Inch PVC Schedule 40 Conduits, Concrete Encased	L.S.	L.S.	L.S.	$_____
622.0102	2-2-Inch PVC Schedule 40 Conduits, Concrete Encased	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
622.0103	4-2-Inch PVC Schedule 40 Conduits, Concrete Encased	L.S.	L.S.	L.S.	$_____
622.0201	Roadway Light Conductors - #8 RHW-USE	L.S.	L.S.	L.S.	$_____
622.0202	Roadway Light Conductors - #4 RHW-USE	L.S.	L.S.	L.S.	$_____
622.0203	Roadway Light Ground Conductors - #8 RHW-USE	L.S.	L.S.	L.S.	$_____
622.0204	Electrical Service Conductors - #2 RHW-USE	L.S.	L.S.	L.S.	$_____
622.0301	Type B Highway Light Pullbox	L.S.	L.S.	L.S.	$_____
622.0401	Electrical Metering and Lighting Controller Equipment, Wiring, Cabinet and Concrete Foundation	L.S.	L.S.	L.S.	$_____
622.0402	Overhead Roadway Light Conductors, #2	L.S.	L.S.	L.S.	$_____
622.0403	New 75 Watt LED Street Light Luminaire, 6-Foot, 24-Inch Rise Luminaire Arm, Photocell, Wiring, Ground Rod(s), Mounted on Existing Wood Pole	L.S.	L.S.	L.S.	$_____
622.0404	Remove LPS Luminaire on Existing Wood Pole	L.S.	L.S.	L.S.	$_____
622.0501	Remove Existing Roadway Light Standard	L.S.	L.S.	L.S.	$_____
622.0502	Remove Existing Roadway Light Conductors	L.S.	L.S.	L.S.	$_____
623.0100	Temporary Traffic Signal System	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
624.0100	Water System	L.S.	L.S.	L.S.	$_____
628.0100	Shotcrete for Reinforced Slope (8" thick conc.)	L.S.	L.S.	L.S.	$_____
629.0100	4-inch White Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0200	8-inch White Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0300	12-inch White Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0400	4-inch Yellow Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0500	8-inch Yellow Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0600	12-inch White Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0700	4-inch Double Yellow Pavement Striping (Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.0800	Type A Raised Pavement Markers	L.S.	L.S.	L.S.	$_____
629.0900	Type C Raised Pavement Markers	L.S.	L.S.	L.S.	$_____
629.1000	Type D Raised Pavement Markers	L.S.	L.S.	L.S.	$_____
629.1100	Type H Raised Pavement Markers	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
629.1200	Crosswalk Markings (Tape, Type III or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1300	Pavement Word (Tape, Type III or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
629.1400	Pavement Arrow (Tape, Type III or Thermoplastic Extrusion)	L.S.	L.S.	L.S.	$_____
630.0100	Panel for Destination Sign	L.S.	L.S.	L.S.	$_____
630.0200	Breakaway Steel Post and Foundations for Ground-Mounted Destination Signs	L.S.	L.S.	L.S.	$_____
631.0100	Regulatory Signs (10 Square Feet or less)	L.S.	L.S.	L.S.	$_____
631.0200	Guide Signs (Greater than 10 Square Feet)	L.S.	L.S.	L.S.	$_____
631.0300	Warning Signs (10 Square Feet or less)	L.S.	L.S.	L.S.	$_____
631.0400	Relocation of Existing Signs	L.S.	L.S.	L.S.	$_____
632.0100	Reflector Markers (RM3), Yellow & White; 48" Ground Mounted w/flexible posts	L.S.	L.S.	L.S.	$_____
632.0300	Milepost Marker with Post (Bi-Directional)	L.S.	L.S.	L.S.	$_____
634.0100	Portland Cement Concrete Sidewalk	L.S.	L.S.	L.S.	$_____
638.0100	Curb, Type 2D	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE					
ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
638.0200	Curb and Gutter, Type 2DG	L.S.	L.S.	L.S.	$_____
638.0400	Curb and Gutter, Mountable	L.S.	L.S.	L.S.	$_____
639.0100	AC Curb, Type 6	L.S.	L.S.	L.S.	$_____
645.1000	Traffic Control	L.S.	L.S.	L.S.	$_____
645.2000	Additional Police Officers, Additional Traffic Control Devices, and Advertisement	F.A.	F.A.	F.A.	$ 50,000.00
648.0100	Field-Posted Drawings	L.S.	L.S.	L.S.	$_____
650.0100	Curb Ramps, Modified Type "B"	L.S.	L.S.	L.S.	$_____
650.0200	Curb Ramps, Type "C"	L.S.	L.S.	L.S.	$_____
650.0300	Curb Ramps, Type "D"	L.S.	L.S.	L.S.	$_____
650.0400	Curb Ramps, Modified Type "D"	L.S.	L.S.	L.S.	$_____
650.0500	Curb Ramps, Combination Type	L.S.	L.S.	L.S.	$_____
651.0100	Hydro-Mulch Sprigging	L.S.	L.S.	L.S.	$_____
680.0101	3-Inch PVC Schedule 40 HELCO Conduits	L.S.	L.S.	L.S.	$_____
680.0301	2-Foot x 4-Foot HELCO Handhole	L.S.	L.S.	L.S.	$_____

PROPOSAL SCHEDULE

ITEM NO.	ITEM	APPROX. QUANTITY	UNIT	UNIT PRICE	AMOUNT
680.0401	3-Inch HELCO Conduit Pole Riser	L.S.	L.S.	L.S.	$_____
680.9999	Utility Charges for Electric Services	F.A.	F.A.	F.A.	$ 25,000.00
696.0000	Maintenance of Trailers	L.S.	L.S.	L.S.	$_____
696.0200	Field Office Trailer (Not to Exceed $32,000.00)	L.S.	L.S.	L.S.	$_____
696.0300	Project Site Laboratory Trailer (Not to Exceed $22,000.00)	L.S.	L.S.	L.S.	$_____
699.1000	Mobilization (Not to Exceed 6 Percent of the Sum of All Items Excluding the Bid Price of this Item)	L.S.	L.S.	L.S.	$_____

a. Sum of All Items ..... $ _____

b. Either Furnish Foreign Steel Not to Exceed Minimal Amount (Fill in '0') or
Furnish Foreign Steel in Excess of Minimal Amount (Fill in 25% x a) ..... $ _____

c. Amount for Comparison of Bids (a + b) ..... $ _____

All bidders must fill in b and complete c

NOTE: Bidders must complete all unit prices and amounts. Failure to do so may be grounds for rejection of bid.

RESPONSES TO QUESTIONS

Project: Keaau-Pahoa Road, Intersection Improvements at Old Government Road
Federal-aid Project No. HSIP-0130(031)

Subject: Responses to Various Questions from Contractors

1. Contractor question: For Item 680.9999 – Allowance for Utility Charges for Electric Services, what does this item cover?
   HDOT response: See Addendum No. 3 and revised proposal schedule dated r2/21/14.
2. Contractor question: There is no Sheet 68a in Addendum No. 1. What sheet is supposed to be referenced?
   HDOT response: Sheet 68a will not be necessary since chain link fence is located outside of sidewalk as shown in the typical sections.
3. Contractor question: There are two items with the same number 630.0100. (Panel for Destination Sign and Breakaway Steel Post Foundations for Ground-Mounted Destination Signs.
   HDOT response: Breakaway Steel Post Foundations for Ground-Mounted Destination Signs is changed to 630.0200. See revised proposal schedule dated r2/21/14.
4. Contractor question: Spec Section 623A - Temporary Traffic Signal System requires color touch screen and other specific parameters, which lead to limited available suppliers. Also coordination with the County is required per specification and currently the County does not use the system as identified in the specification. Training would be required for the County Engineer to be familiar with new equipment.
   HDOT response: The specification has been revised to be more generic. See Addendum No. 3, revised Special Provision Section 623A.
5. Contractor question: Electrical plan sheetE-4 calls out 14 street light standards, but E-8 shows 25 light standards. Please clarify.
   HDOT response: See revised Plan Sheet ADD.92.
6. Contractor question: Item 603.0300 12-inch HDPE Pipe, Type S: Where is this work shown on the plans?
   HDOT response: The bid item 603.0300 refers to the pipe (D12) on plan sheet 15. See Addendum No.3
7. Contractor question: Item 604.0100 Type 1A-9 Drop Inlet, 2 feet to 4-feet: Where is this work shown on the plans?
   HDOT response: The bid item 604.0100 is shown on plan sheet 15.
8. Contractor question: Item 611.0100 Hand-Laid Riprap: Where is this work to be done? Item 605.0200 Type Riprap Underdrain Outlet is shown on the plans, but is there any other riprap work?
   HDOT response: The bid item 605.0200 is for the underdrain riprap outlet. Bid item 611.0100 is for the riprap at the drain outlet on plan sheet 15.
9. Contractor question: Bid items 205.1001, 205.1002, 213.0100 and 628.0100. Since these items are all in the same area, which work is the slope treated with the shotcrete?

HDOT response: For clarification, Items 205.1001 and 205.1002 are deleted from the proposal schedule. All excavation and backfill in this area for the reinforced slope, shotcrete, drainage ditch, and sidewalk is to be included in Item 213.0100. See revised proposal schedule dated r2/21/14.

10. Contractor question: Please clarify what is included in each of the proposal item numbers 622.0403 and 622.0600. It seems that the work on plan sheet 87 may be the temporary lighting system, but the work remains on plan sheet 88, which is the new electrical system.
    HDOT response: The work called out on plan sheet 87 is not actually temporary work, as the lighting that is being installed for the detour condition will remain after the final roadway configuration is in place. The work to provide the lights on the existing wood poles is to be included in Item 622.0403. Item 622.0600 – Temporary Lighting System has been deleted. See revised proposal schedule dated r2/21/14.
11. Contractor question: Where is Item 638.0300 – Curb, Type 3D on the plans?
    HDOT response: Item 638.0300 has been deleted from the proposal schedule. See revised proposal schedule dated r2/21/14.
12. Contractor question: Plan sheet 45 indicates shotcrete for the lined ditch area, however sheet 80 indicates concrete. Please clarify that either method would be acceptable for the lined ditch area and the reinforced shotcrete facing area as well.
    HDOT response: The ditch is to be concrete lined as shown on plan sheet 80. Plan sheet 45 has been revised to indicate concrete for the ditch. The reinforced slope facing shall be shotcrete. See Addendum No. 3.