ATTACHMENT G EROSION CONTROL NOTES

EROSION CONTROL NOTES:

- 1. State of Hawaii. Department of Transportation. Highways Division, Construction Best Management Practices (BMP) Field Manual, dated January 2008, provides guidance on BMP installation and maintenance for the project site. The Construction BMP Field Manual is a reference quideline. Actual BMP placement and installation shall be according to the Erosion Control Plan on Sheet EC-2. Contractor is responsible for ensuring proper function, proper performance and maintenance of all temporary BMP's installed as a part of this project.
- 2. Prior to installation of temporary BMP's for the project. Contractor shall clean the entire length of the existing H-1 double cell box culvert of accumulated debris and trash, including its inlet and outlet structures within the Highways right-of-way. Debris and trash materials shall be hauled off site in water tight trailer beds and disposed of to an approved disposal site accepted by Engineer.
- 3. Contractor shall check weather forecast each calendar day. Contractor shall immediately notify the Engineer of a forecast of a severe storm event that may require immediate removal of equipment and material in stream. Contractor shall prepare a contingency action plan as part of its site specific BMP plan submittal to address the possibility or occurrence of a severe storm event.
- 4. Provide access to the Water Quality Monitoring personnel as specified in Subsection 209.03 (A)(2) - Water Quality Monitoring and Assessment.
- 5. Cut existing 42" cmp and install temporary BMP's to contain any pollutants from cutting of the existing 42" cmp pipe as shown on the plans. After the 42" cmp pipe is cut, Contractor shall install a temporary 12" HDPE Bypass Pipe connection to the existing 42" cmp. Contractor shall secure the 12" HDPE Bypass Pipe within the existing 42" cmp as shown on the plans and provide fittings as necessary. Submit plan to Engineer for acceptance prior to construction. Payment for this work will be considered incidental to various contract items.
- 6. Install sandbag barrier across entire width of outlet of existing H-1 double cell box culvert as indicated on Sht. No. EC-2. Install two temporary 36-inch HPDE pipes to divert Aiea Stream flow during construction. Start installation from the upstream to downstream along streambed. Remove trash and debris, move boulders and other materials as necessary to install sandbags and temporary HDPE pipes.
- 7. Provide and maintain sufficient HDPE pipe tie-down devices to secure pipes against buoyant forces. Submit plan to Engineer for acceptance prior to construction.

- 8. The 12 mil HDPE composite liner for the temporary BMP's shall be installed such that the upstream portion covers over the downstream portion with at least an 18-inch overlap.
- 9. Excess materials as a result of grading, excavation. clearing, grubbing and other related construction work shall be hauled off site in water tight trailer beds and disposed of to a disposal site accepted by the Engineer. Contractor shall comply with all statutes, ordinance, rules and regulations with regard to dewatering liquid wastes prior to disposal at solid waste landfills.
- 10. Contractor shall send the green waste material to be recycled at a green waste facility.
- 11. Temporary HDPE pipes shall be smooth interior pipe including fittings as accepted by Engineer.
- 12. Install a one-foot high sandbag barrier with impervious sheeting across the entire left-hand side (looking upstream) of the inlet structure of the existing H-1 double cell box culvert to divert low stream flow to the right cell of the box culvert. Location and installation of sandbags as shown on plans. Payment for the installation of sandbag barrier will be considered incidental to various contract items.
- 13. The Contractor has available for its use designated Staging Areas #1 (Approx. 2,500 SF) and #2 (Approx. 7,600 SF) to access the project work site and for storage of materials and equipment (See Sht. TCP-2). Contractor shall restore and stabilize stream bank slope affected by a construction access road as shown on the plans. Trim existing trees on the Diamond Head side of Aiea Stream as necessary to attain adequate vertical and horizontal clearances for construction vehicle and equipment via Temporary Stream Crossing. No overcutting will be allowed. Payment for the trimming of trees as accepted by Engineer will be considered incidental to various contract items.
- 14. Place coarse aggregate, sandbag barrier, geotextile, silt fences and other BMPs as shown on plans to fully isolate and contain Contractor work area from discharging pollutants to diverted portion of Aiea Stream. Coarse aggregate shall be clean water washed offsite prior to placement for stabilized construction entrance/exit, temporary stream crossing, and construction access.

- 15. Install and maintain Stabilized Construction Entrance/Exit as shown on plans according to quidelines of Construction BMP Field Manual EC-2. Depth of coarse aggregate shall be 12 inches. Coarse aggregate shall be between 3 to 6 inches in size. Place geotextile fabric beneath coarse aggregate layer.
- 16. Approximately 83 LF of Dust Screen, 12 feet high, shall be installed and maintained along the entire length of existing CMU Wall to top of stream bank, as accepted by Engineer, to minimize project impact on adiacent properties.
- 17. Contractor shall monitor build-up of debris behind sandbag dams on a daily basis. Maintain to prevent clogging for the duration of the project.
- 18. Contractor is advised that any modifications to the temporary BMP Plans contained in these contract documents will require a resubmittal for approval to the Hawaii Department of Health of the Project's Section 401 Water Quality Certification (WQC). Any delay resulting from a resubmittal of the 401 WQC will be considered as a Contractor caused delay.
- 19. The location of the concrete washout area shall be limited to the vicinity of the cul-de-sac staging area and not within the stream.
- 20. Payment for all work prescribed in the following sheets:

Erosion Control Notes EC-1

EC-2 Erosion Control Plan

EC-3 Erosion Control Detail - 1

EC-4 Erosion Control Detail - 2

Site Restoration Plan

will be paid on a lump sum basis under Pay Item 209.0100. "Installation. Maintenance. Monitoring and Removal of BMP", in the Proposal Schedule.





EXPIRATION DATE OF THE LICENSE

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

EROSION CONTROL *NOTES*

INTERSTATE ROUTE H-1 AIEA STREAM EROSION CONTROL Project No. H1E-01-11MR

Date: September 2012 SHEET No. EC-1 OF 4 SHEETS

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SHEET NO.

40

FISCAL YEAR

2013

PROJ. NO.

H1E-01-11MR

DIST. NO. HAWAII

HAW.

TOTAL

49