

Site-Specific Construction BMP Control Measures

Construction Activities

Construction includes the site development of T.M.K.: (3) 1-4-001 : 073 to include: curb & sidewalk, drywell, striping, concrete building pad additional pavement width, waterline installation, septic system installation.

Site work consists of : site grading, waterline & septic system installation, drywells, pad grading, building construction, electrical conduits, asphalt paving, landscape installation, and trenching.

All construction activity will incorporate these BMPs, without modification. In case where concrete curing water scheduling and quantity is such that runoff is generated, the runoff will be channeled via temporary swales into temporary dug-up or bermed detention/percolation basins, with the basin(s) sized so that there will be no overflows. Construction site manager will conduct a site inspection daily for site potential pollution sources. All equipment stored on site will be in good working order with no fuel, oil, transmission fluid, or hydraulic leaks. Any equipment found to be faulty will be repaired immediately with necessary BMP precautions taken to prevent and contain storm water contamination. Equipment which cannot be repaired within the same working day, shall be removed from the site to an appropriate repair facility.

Construction equipment includes: excavator, loader, drum roller/compactor, and paving equipment.

Quality of Discharge

The existing soil is rocky, ground cover is primarily brush and grass. Proposed fill material is volcanic rock and granular material. A majority of the work area will be asphalt. The remainder of the site will be home lots. Discharge from the roadway section fronting the site will be handled by a new drywell. Seven drywells will capture oil storm run-off requirements. Discharge from the roadway run-off requirements drywells construction will be original. Discharge during construction will be controlled by berms, check dams, and silt fences.

Control for Land Disturbances

The owner and/or general contractor shall comply with the Special Conditions for Land Disturbances (from HAR, Chapter 11-55, Appendix C). Refer to the "Notes on Controls for Land Disturbances" on this sheet.

Erosion and Sediment Control Requirements

The contractor shall have the county-approved grading permit available for inspection 30 days before the start of construction activities.

Potential Pollutants

Removed vegetation and other debris will be disposed of at Keolu and Keoluou Transfer Stations. Debris will not be stored on site.

No fuel, oil, and hydraulic fluid shall be stored on site. Drip pans will be placed under vehicles on spill from equipment; the flow of fuel will be stopped and oil sources of ignition will be removed. The spill will be contained by placing sand bags around the spill area. The contaminated earth will be placed in containers. In the case of ponding fuel, a hazardous materials vacuum truck will remove the fuel.

Disturbed areas will be protected with check dams, and silt fences during construction. All unpaved areas will be seeded and landscaped after construction.

Product Specifications for BMPs

- Filter Fabric shall be: 8.0 oz/sq yd geotextile
- Grovel Filter shall be: 3/4" for Grovel Filter Bogs & Drop Inlets

Construction Schedule

Contractor Selection Date TBD.
 Construction is estimated to begin in January 2008
 Construction is estimated to end between February 2009
 BMPs will be implemented from the first day of construction and will be removed when all civil work items are complete and vegetation cover is reestablished.

All major construction activities will proceed in a logical sequence. Major construction activities will be concurrent when appropriate.

Construction Timetable

- Overall Site Preparation - 2 weeks
- Site Grading - 2 month
- Waterline & Septic System Construction - 3 months
- Drywell Construction - 2 months
- Electrical Conduit Installation - 2 months
- Asphalt Paving of Site & Roadway - 1month
- Traffic Striping & Signage- 1 month
- Overall Duration: 11 to 13 months

The following BMPs will be implemented the first day of construction

- ① Construct Silt Fence Along Perimeter of Site Work
- ② Construct Stabilized Construction Entrance with Vehicle/Equipment Wash Rack
- ③ The following BMPs will be implemented during Roadway and Site Grading Activities
- ④ Construct Protected Stockpile/Vehicle/Equipment Storage Area per SWPP Plan
- ⑤ Place Staked Sediment Waddles at Bottom of Cut Slopes or Per Plan
- ⑥ Construct Block and Grovel Drop Inlet Protection
- ⑦ Place Sediment Waddles Per Plan and Details
- ⑧ The following BMP will be implemented following any site grading or disturbance of the roadway areas
- ⑨ Installation of Seeded Erosion Control Turf Mat or Hydro-Seeding

Notes on Controls for Land Disturbances

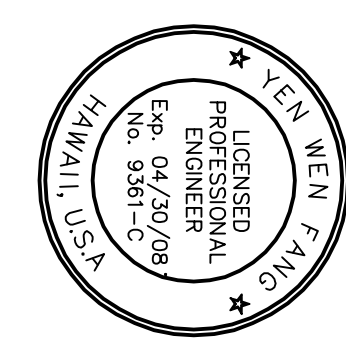
HAR CHAPTER 11-55 APPENDIX C REQUIREMENTS
 The following special conditions apply to all land disturbance work conducted under this general permit:

(a) Construction Management Techniques

- (1) Clearing and grubbing shall be held to the minimum necessary for grading and equipment operation.
- (2) Construction shall be sequenced to minimize the exposure time of the cleared surface area.
- (3) Construction shall be staged or phased for large projects. Areas to be disturbed shall be established before other areas are accomplished by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.
- (4) Erosion and sediment control measures shall be in place and functional before earth moving operations begin. These measures shall be properly constructed and maintained throughout the construction period.
- (5) All control measures shall be checked and repaired as necessary, for example, weekly in dry periods and within twenty-four hours after any rainfall of 0.5 inches or greater within a 24-hour period. During prolonged rainfall, daily checking is necessary. The permittee shall maintain records of checks and repairs, checks and repairs.
- (6) The permittee shall maintain records of the duration and estimated volume of
- (7) A specific individual shall be designated to be responsible for erosion and sediment controls on each project site.

(b) Vegetation Controls

- (1) Pre-construction vegetative ground cover shall not be destroyed, removed, or disturbed more than twenty calendar days prior to land disturbance.
- (2) Temporary soil stabilization with appropriate vegetation shall be applied on areas that will remain unfinished for more than thirty calendar days.
- (3) Permanent soil stabilization with perennial vegetation or pavement shall be applied as soon as practical after final grading, irrigation and maintenance of the perennial vegetation shall be provided for thirty calendar days or until the vegetation takes root, whichever is shorter.
- (c) Structural Controls
 - (1) Storm water flowing toward the construction area shall be diverted by using appropriate control measures, as practical.
 - (2) Erosion control measures shall be designed according to the size of disturbed or drainage areas to detain runoff and trap sediment.
 - (3) Water must be discharged in a manner that the discharge shall not cause or contribute to a violation of the basic water quality criteria as specified in section 11-54-04.

<p>STORM WATER POLLUTION PREVENTION PLAN NOTES</p> <p>DATE: MAY 2007 REV. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>REV. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>REV. <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p>	<p>JOB NO. 06-025</p>	<p>SUBDIVISION IMPROVEMENT PLAN FOR:</p> <p>HELLSTERN SUBDIVISION</p> <p>PUUA-KAPOHO, PUNA, ISLAND OF HAWAII, HAWAII</p> <p>T.M.K.: (3) 1-4-001 : 073</p>	<p>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION, CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION.</p> <p><i>[Signature]</i></p> <p>SIGNATURE</p>		<p>Engineering Partners, Inc. <i>Consulting Engineers</i></p> <p>P.O. Box 4159 Hilo, Hawaii 96720 Phone: (808) 933-7900 Fax: (808) 933-3533 eplic@lava.net</p>
<p>DWG. NO. C-12</p> <p>SHEET NO. OF</p>					