

WATER POLLUTION AND EROSION CONTROL NOTES:

A. GENERAL:

1. See Special Provisions Section 209 - Water Pollution and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding BMPs used to mitigate the pollutants.
2. Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Not A2, "applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.
3. Follow the guidelines in the Honolulu's City & County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.
4. The Engineer may assess liquidated damages of up to \$27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for everyday of non-compliance. There is no maximum limit on the amount assessed per day.
5. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State. Non-compliance shall be sufficient grounds for Termination of Contract per Special Provisions Subsection 108.11 - Termination of Contract for Cause, at the sole discretion of the Engineer.
6. If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific best management practices are in-place.
7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://www.stormwaterhawaii.com>

B. WASTE DISPOSAL:

1. **Waste Materials**
Collect and store all waste materials in a securely lidded metal dumpster or roll-off container with a cover to keep the rain out or loss of waste during windy conditions. The dumpster shall meet all local, state, and Federal solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds full, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be knowledgeable of the correct procedure for waste disposal. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, or other accessible location acceptable to the Engineer. The Contractor shall follow these procedures. 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 (DOH) Solid and Hazardous Waste Branch to receive solid waste to the Engineer monthly. Include documentation from any DOH permitted intermediary facility where solid waste is handled or processed. The Engineer shall also approve the permitted facility. Solid waste shall not be processed or stored outside of the project limits unless it is taken directly to a DOH permitted facility. Do not transport, store, or process solid waste generated on the project site to any unpermitted facility (that includes but is not limited to the Contractor's or subcontractor's base yard). Solid waste shall be defined as all material removed from the project site that cannot be used on the project. These waste materials include construction and demolition (C&D) wastes, clearing and grubbing material, used BMP devices, inert fill material, inert wastes, and recycling/reuse material. Solid waste shall be handled in accordance with the contract and all applicable local, state, and federal laws and regulations. The Contractor shall not independently reclassify solid waste as inert material. The Contractor may request a reclassification of the solid waste by providing written requests with appropriate sampling plans and supporting documents before construction. Reclassification of materials shall be made only by the discretion of the Engineer. The Contractor is solely responsible for costs associated with (but not limited to) any sampling, testing, and analysis of material in consideration for reclassification.
2. **Hazardous Waste**
Dispose all hazardous waste materials in the manner specified by local or State regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

3. **Sanitary Waste**
Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

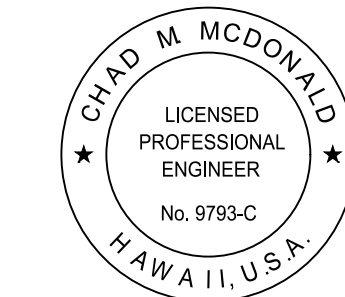
4. Any non-compliance and/or failure to adhere to local and state waste management regulations shall be sufficient grounds for Termination of Contract per Special Provisions Subsection 108.11 - Termination of Contract for Cause, at the sole discretion of the Engineer.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

1. For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.
2. For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.
3. Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.
4. Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from the perimeter sediment control devices when it has reached one-half the height of the device.
5. Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.
6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.
7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.
8. Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold-planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. cover dump trucks hauling material from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.
9. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals
10. Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.
11. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspections and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.
12. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	5	125

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
No.	CHECKED BY	



This work was prepared by me or under my supervision

Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. 4/30/2022
EXP. DATE

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**WATER POLLUTION AND
EROSION CONTROL NOTES**
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020
SHEET No. **C03** OF **125** SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES: -Cont.

13. For projects with an NPDES Permit for Construction Activities, immediately initiate stabilizing exposed soil areas upon completion of earth-disturbing activities for areas where earth-disturbing activities have permanently or temporarily ceased. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future. For construction areas discharging into waters not impaired for nutrients sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities. For construction areas discharging into nutrient or sediment impaired water, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities. Classification of water at the discharge point may be found in the SWPPP.
14. For projects without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

A. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

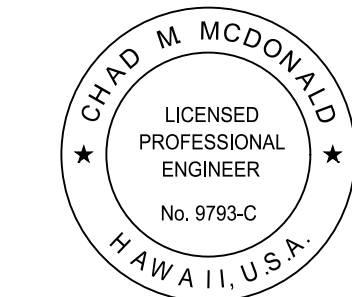
1. Materials Pollution Prevention Plan
- a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.
- | | |
|---------------------------|---------------------------|
| Concrete | Cleaning Solvents |
| Detergents | Wood |
| Paints (enamel and latex) | Masonry Block |
| Metal Studs | Herbicides and Pesticides |
| Tar | Curing Compounds |
| Fertilizers | Adhesives |
| Petroleum Based Products | |
- b. Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.
- c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.
- d. Keep products in their original containers with the original manufacturer's label.
- e. Do not mix substances with one another unless recommended by the manufacturer.
- f. Whenever possible, use a product up completely before disposing of the container.
- g. Follow manufacturer's recommendations for proper use and disposal.
- h. Conduct a daily inspection to insure proper use and disposal of materials onsite.
2. Hazardous Material Pollution Prevention Plan
- a. Keep products in their original containers unless they are not resealable
- b. Retain original labels and Safety Data Sheets (SDS), formerly Material Safety Data Sheets (MSDS).
- c. Dispose of surplus products according to manufacturers' instructions and local and State regulations.

3. Onsite and Offsite Product Specific Plan
- The following product specific practices shall be followed onsite:

- a. Petroleum Based Products
- Monitor all onsite vehicles for leaks and perform regular preventative maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.
- b. Fertilizers:
- Apply fertilizers used only in the minimum amounts recommended by the manufacturer and federal, state, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an are where fertilizer will not come into contact with precipitation or stormwater. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.
- c. Paints:
- Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system or State waters. Dispose properly according to the manufacturers' instructions and State and local regulations
- d. Concrete Trucks
- Washout or discharge concrete truck drum wash water only at designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as required or as requested by the Engineer.
4. Spill Control Plan
- a. Post a spill prevention plan to include measures to prevent and clean up each spill.
- b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other accessible location acceptable to the Engineer in the office trailer onsite.
- c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.
- d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.
- e. Clean up all spills immediately after discovery.
- f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.
- g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424-8802, the Clean Water Branch during regular business hours at 586-4309, and the Hawaii State Hospital Operator at 247-2191 and the Clean Water Branch (DOH-CWB) via email at cleanwaterbranch@doh.hawaii.gov during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. The Engineer will provide this information to the DOH-CWB. The Engineer will provide information to the NRC if requested.

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	6	125

ORIGINAL PLAN	DATE	SURVEY PLOTTED BY	_____
		DESIGNED BY	_____
NOTE BOOK	No.	QUANTITIES BY	_____
		CHECKED BY	_____



This work was prepared by me or under my supervision

Chad M. McDonald
MITSUNAGA & ASSOCIATES, INC. 4/30/2022 EXP. DATE

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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
WATER POLLUTION AND EROSION CONTROL NOTES	
Kamehameha Hwy, Kamananui Rd and Wilikina Dr Rehabilitation Weed Circle to Interstate Route H-2 Project No. NH-099-1(031)	
Scale: As Noted	Date: August 2020
SHEET No. C04 OF 125 SHEETS	

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW	NH-099-1(031)	2020	7	125

WATER POLLUTION AND EROSION CONTROL NOTES: -Cont.

E. PERMIT REQUIREMENTS:

- A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities of one acre or more of disturbed area is required for this project. If the Contractor requires extra land disturbance, including staging and storage areas, that is not covered by the NPDES Permit obtained by the State, the Contractor shall be responsible for obtaining the required NPDES Construction Activities Permit to cover this additional disturbed area. See Hawaii Administrative Rules Chapter 11-55, Appendix C for definition of land disturbance. The Contractor's attention is directed to the applicable NPDES Permit documents on the bid package compact disc.
- Comply with all applicable State and Federal Permit conditions. Permits may include, but not limited to the following:
 - NPDES Permit for Construction Activities

F. SITE SPECIFIC BMP REQUIREMENTS:

Each BMP below is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/> under Construction Best Management Practices Field manual. Supplemental BMP sheets are located at <http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing and Irrigation Water.

Follow the requirements below:

- Protect All Drainage Inlets receiving runoff from disturbed areas (SC-2).
- Contain on-site runoff using Perimeter Sediment Controls
 - SC-1 Silt Fence
 - SC-5 Vegetated Filter Strips and Buffers
 - SC-8 Compost Filter Berm
 - SC-13 Sandbag Barrier
 - SC-14 Brush or Rock Filter
- Control offsite runoff from entering construction area
 - EC-8 Run-On Diversion
 - SC-6 Earth Dike
 - SC-7 Temporary Drains and Swales
- Incorporate applicable Site Management BMP
 - SM-1 Employee Training
 - SM-2 Material Delivery and Storage
 - SM-3 Material Use
 - SM-4 Protection of Stockpiles
 - SM-6 Solid Waste Management
 - SM-7 Sanitary/Septic Waste Management
 - SM-9 Hazardous Waste Management
 - SM-10 Spill Prevention and Control
 - SM-11 Vehicle and Equipment Cleaning
 - SM-12 Vehicle and Equipment Maintenance
 - SM-13 Vehicle and Equipment Refueling
 - SM-14 Scheduling
 - SM-15 Location of Potential Sources of Sediment
 - SM-16 Preservation of Existing Vegetation
 - SM-18 Dust Control
- Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (EC-2) for all areas which exit onto a paved street. Restrict vehicle access to these points.
- Manage Concrete Waste including installing a Concrete Washout Area (SM-5) and properly disposing of Concrete curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).
- Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.

PAVING AROUND MANHOLES

- The Contractor shall first lower manholes more than 4" prior to cold planing. The work shall be considered incidental to the various paving contract items. Upon final paving, the manhole shall be raised and paid under the various contract items pertaining to manhole adjustments.
- The Contractor shall place hot asphalt concrete around manholes and compact properly with a vibrating plate compactor.
- If a plate compactor is not used, the Contractor shall use a pneumatic roller to roll the area around the manhole.
- The Contractor shall fog seal or brush emulsion seal on the material placed as backfill on the area around the manhole that was not compacted by the roller. Black sand shall be used to blot out the area if the fog is too heavy.

ADJUSTMENT TO EXISTING UTILITIES NOTE

- Adjust all utility valve box frames & covers, water meter boxes, manhole frames & covers, street monument covers, etc., to new finish grade. Coordinate with private companies and City agencies for work on each respective utility as required.
- Sewer manhole frame and covers shall be adjusted and reinstated within 60 calendar days of adjacent repaving completion, to allow City maintenance trucks to regain access to manholes to perform sewer maintenance.

HAWAII ONE CALL CENTER

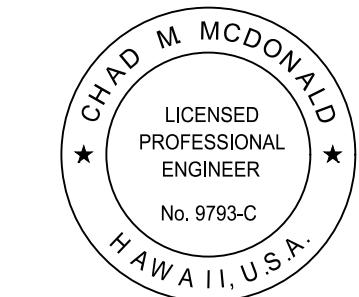
- Before conducting any excavation in the public right of way or on private property, call the Hawaii One Call Center at least five (5) working days before planning to dig. Be sure to give them the address and location of the nearest cross street(s) near where digging is planned.

Call 811 toll-free 24 hours a day.
For more information, go to www.callbeforeyoudig.org

- The Hawaii One Call Center will contact all utility companies to tone, mark, or identify the location of their underground utilities for free. Mark the area where Contractor plans to excavate in white and label all of the other utilities as listed below.

RED	Electric power lines, cables, or conduits, and lighting cables.
YELLOW	Gas, oil, steam, petroleum or other hazardous liquid or gaseous materials.
ORANGE	Communications, cable TV, alarm or signal lines, cables, or conduits.
BLUE	Water, irrigation, and slurry lines.
GREEN	Sewers, storm sewer facilities or other drain lines.
WHITE	Proposed excavation.
PINK	Temporary survey markings.
PURPLE	Reclaimed water, irrigation and slurry lines.

ORIGINAL PLAN	DATE	SURVEY PLOTTED BY	_____
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NOTE BOOK	No.	TRACED BY	_____
		DESIGNED BY	_____
		QUANTITIES BY	_____
		CHECKED BY	_____



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by me or under my supervision

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MITSUNAGA & ASSOCIATES, INC. 4/30/2022 EXP. DATE

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**WATER POLLUTION AND
EROSION CONTROL NOTES**
Kamehameha Hwy, Kamananui Rd and Wilikina Dr
Rehabilitation Weed Circle to Interstate Route H-2
Project No. NH-099-1(031)
Scale: As Noted Date: August 2020
SHEET No. **C05** OF **125** SHEETS