

State of Hawaii  
DEPARTMENT OF LAND AND NATURAL RESOURCES  
Engineering Division  
Honolulu, Hawaii 96813

October 26, 2012

Board of Land and Natural Resources  
State of Hawaii  
Honolulu, Hawaii

**APPROVAL OF AN APPLICATION FOR A DLNR DAM SAFETY  
CONSTRUCTION/ALTERATION PERMIT FOR  
MAUNAOLU 530 NON-POTABLE RESERVOIR DRAINAGE IMPROVEMENTS  
(OA-0149) MAKAHA, OAHU, TMK: 8-4-29:135**

The Engineering Division (Division) hereby submits an application for your approval and authorization for the Chairperson to issue and stipulate conditions for a Dam Safety Construction/Alteration Permit for the subject application, "Maunaolu 530 Non-Potable Reservoir Drainage Improvements" (HI00149), pursuant to Chapter 179D Hawaii Revised Statutes.

APPLICANT:

Mr. David Bills  
Bills Engineering Inc.  
1124 Fort Street Mall, Suite 200  
Honolulu, HI 96813

OWNER

Honolulu Board of Water Supply  
630 South Beretania Street  
Honolulu, HI 96813

SUMMARY OF REQUEST:

Application for work to abandon existing drain overflow and construct a new replacement 36" Reinforced Concrete Pipe (RCP) drain overflow pipe with CRM headwall. (See Exhibit 1)

LOCATION: Makaha, Oahu, Hawaii, TMK: 8-4-29:135. (See Exhibit 2)

BACKGROUND:

Maunaolu 530 Reservoir was originally constructed in the late 1960s by Capital Investment Co., Ltd. to provide an irrigation water source for the Makaha Valley Golf Course. The water originates from the Glover Tunnel, located north of the site above the Mauna Olu Estates Subdivision.

PROJECT DESCRIPTION:

The Honolulu Board of Water Supply (BWS) proposes to abandon the existing overflow line and box, which is located in the north end of the reservoir, and replace the old overflow line with a new 36" overflow line, an overflow box, and concrete rubble masonry (CRM) headwall at the south end of the reservoir. (See Exhibit 3)

CHAPTER 343-HRS – ENVIRONMENTAL ASSESSMENT:

The project is funded by the BWS, City and County of Honolulu, and meets one of the triggers for the requirement of an environmental assessment (EA); however an EA is not required because the proposed action is included on the list of approved exempt actions. (See Exhibit 4 for evaluation)



REMARKS:

The owner (BWS), and its consultant, Bill Engineering, Inc., have completed a basis of design, plans and specifications and application for the approval of a dam safety construction/alteration permit. The Division and their consultant, has reviewed the documents and concluded that the proposed improvements are sufficient for its intended purposes and the proposed work will improve the safety conditions at the dam. (See Exhibit 5)

Therefore, staff recommends approval of this permit application with the inclusion of the Dam Safety Permit General Conditions. (See Exhibit 6)

RECOMMENDATION:

That the Board:

1. Approve the subject application and authorize the issuance of the Dam Safety Construction/Alteration Permit for the subject project; and
2. Direct the Chairperson to issue a dam safety construction/alteration permit for the Maunaolu 530 Non-Potable Reservoir Drainage Improvements, subject to the Dam Safety Permit General Conditions and any additional terms and conditions as may be prescribed by the Chairperson to best serve the interests of the State.
3. Authorize the Division to oversee performance of the permitted work and take appropriate action including but not limited to selecting and procuring testing or professional services to verify the integrity of the construction work; approval of minor revisions and changes; issuance of fines; and revocation of the permit, if necessary.

Respectfully submitted,

  
CARTY S. CHANG  
Chief Engineer

APPROVED FOR SUBMITTAL:



WILLIAM J. AILA, JR.  
Chairperson

- Exhibit(s):
- 1 Owner Permit Application
  - 2 Location map
  - 3 Construction Drawing pages
  - 4 Chapter 343 Environmental Assessment evaluations
  - 5 Kleinfelder, Inc. correspondence on resolution of the comments
  - 6 Dam Safety Permit General Conditions



State of Hawaii  
BOARD OF LAND AND NATURAL RESOURCES  
Department of Land and Natural Resources  
Engineering Division

APPLICATION FOR APPROVAL OF PLANS AND SPECIFICATIONS FOR CONSTRUCTION,  
ENLARGEMENT, REPAIR, ALTERATION, OR REMOVAL OF A DAM

Applicant: \_\_\_\_\_ Date of Application: 2/27/2012  
Contact Name: DAVID BILLS Firm / Company: BILLS ENGINEERING INC.  
Mailing Address 1124 FORT STREET MALL STE 200, HONOLULU, HI 96813  
Telephone: 792-2022 Fax: 792-2033 Email: DBILLS@BILLSENGINEERING.COM

The Applicant hereby applies to the Board of Land and Natural Resources for the approval of the attached plans and specification for the MAUNAOLU 530 RES DRAINAGE IMPROVEMENTS (construction, etc.) in accordance with Chapter 179D HRS (as amended by Act 262, SLH 2006), and subject to the provisions, conditions, and limitations of the current Hawaii Administrative Rules and various DLNR dam safety guidelines.

Accompanying this application are:

- |   |                |
|---|----------------|
|   | (please check) |
| 1. Filing fee (\$25.00) (Waived for government agencies)            | <u>N/A</u>     |
| 2. Three (3) copies of the Detailed Cost Estimate                   | <u>X</u>       |
| 3. Three (3) copies of the Final Design Report                      | <u>X</u>       |
| 4. Three (3) copies of the Plans                                    | <u>X</u>       |
| 5. Three (3) copies of the Specifications                           | <u>X</u>       |
| 6. Proposed Construction Schedule (Included in Final Design Report) | <u>X</u>       |
| 7. Supporting documents:  | _____          |
| _____   | _____          |
| _____   | _____          |
| _____   | _____          |

NAME OF STRUCTURE: MAUNAOLU 530 NONPOTABLE RESERVOIR

DAM OR RESERVOIR LOCATION: MAKAHA VALLEY

Island: OAHU Tax Map Key: 8-4-29:135

Attach USGS topographic map (scale 1" = 2000') and property tax map (showing location access to site, proposed work)

State Land Use District:  Agriculture  Urban  Rural  Conservation

BRIEF DESCRIPTION OF WORK TO BE PERFORMED  
ABANDON EXISTING DRAIN OVERFLOW, CONSTRUCT NEW 36" RCP DRAIN OVERFLOW PIPE WITH CRM HEADWALL.

EXHIBIT 1

**TECHNICAL INFORMATION:**

1. Drainage Area \_\_\_\_\_ sq. miles or 4.1 acres
2. Classification of Dam PROPOSED HIGH HAZARD
3. Type of Structure WATER RESERVOIR, EARTHEN DAM WITH BUTYL LINER
4. Elevation-Area-Capacity Data:
 

	Elevation	Surface Area (acres)	Total Storage Volume (acre-feet)
Natural Streambed	534.5	0	0 (TOP CHNL WALL)
Primary Spillway	541.6	2.6	23.4 (OVERFLOW BOX)
Secondary Spillway	N/A		
Top of Dam	544.0	2.82	29.8
Design Water Level	540.0	2.38	19.0
Invert of Drain	530.0	1.43	0 (BOTTOM RESERVOIR)
5. Spillway Details (Type, Dimensions, Material)
 

Primary: OVERFLOW BOX WITH 36" DIA. RCP CL III OUTLET PIPE

Secondary: N/A
6. Purpose of Structure IRRIGATION  
(water supply, irrigation, recreation, real estate development, etc.)
7. Attach rainfall and stream flow records, and flood-flow records and estimates (as accurately as may be readily obtained)

**ADDITIONAL INFORMATION**

1. Primary Owner Contact (if different from applicant) DAVID BILLS  
 Owner Company or Entity: BILLS ENGINEERING INC.  
 Mailing Address 1124 FORT ST MALL STE 200, HONOLULU, HI 96813  
 Telephone: 792-2022 Fax: 792-2033 Email: DBILLS@BILLSENGINEERING.COM
2. Registered Hawaii Professional Engineer who prepared the plan DAVID BILLS  
 Mailing Address 1124 FORT ST MALL STE 200, HONOLULU, HI 96813  
 Registration No. 4516-C  
 Telephone: 792-2022 Fax: 792-2033 Email: DBILLS@BILLSENGINEERING.COM
3. Registered Professional Engineer to be responsible for inspection during construction \_\_\_\_\_
4. Contractor (If known) TBD  
 Mailing Address \_\_\_\_\_  
 Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_ Email: \_\_\_\_\_
5. List all other permits applications submitted to other governmental agencies:  
NONE
6. Anticipated effect of proposed structure on natural environment: NONE. DISCHARGE TO GO INTO EXISTING LINED DRAINAGE CHANNEL.

7. List all other parties that have ownership or other interest on the parcels where the dam and reservoir are located and identify their interest in the property. The Owners herein listed below concur with the work proposed within this application by the applicant and by his/her signing hereto, the owner of the land extends to the Board of Land and Natural Resources, and its designated representatives, a right-of-entry onto the project site to conduct any investigations or inspections required in compliance with the provisions of Chapter 13-190, Hawaii Administrative Rules. (Submit additional copies of this sheet should there be more owners)

  
(Signature of Owner)

\_\_\_\_\_  
(Address / Interest in Dam or Reservoir)

\_\_\_\_\_  
(Signature of Owner)

\_\_\_\_\_  
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\_\_\_\_\_  
(Address / Interest in Dam or Reservoir)

I, David B. Bills, the applicant, hereby certify that the information herein is true and factual to the best of my knowledge. Signing below indicates that the applicant understands that, if the permit requested is granted by the Board of Land and Natural Resources, the proposed work is to be initiated and completed within two (2) years of the approval date, unless specifically permitted in the approved permit terms and conditions.

  
, President  
(Signature of Applicant & Title)

Date: February 28, 2012



City & County of Honolulu  
**Department of Planning & Permitting (DPP)**

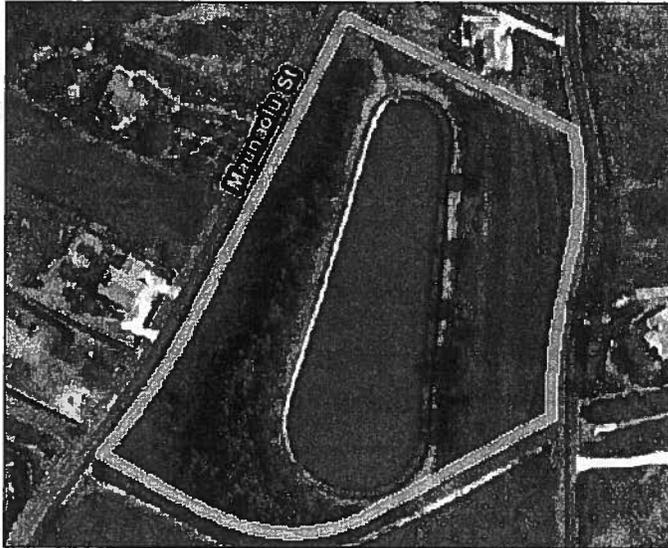
Property Information

**84 1069 MAUNAOLU ST**

Thursday, September 27, 2012 | 2:28:10 PM

**General Information**

TMK: 84029135:0000  
 Building Value: \$0.00  
 Building Exemption: \$0.00  
 Land Value: \$104,700.00  
 Land Exempt: \$104,700.00  
 Acres: 0  
 Square Feet 368,285  
Property Tax Class: Residential  
 City: Waianae  
 Zip Code: 96792  
 Realtor Neighborhood: Makaha  
 Nearest Park: Mauna Lahilahi Beach Park [show route](#)



**Tax Bill Owner Information**

Name	Type	Address	Address 2	City	State	Zip
CITY AND COUNTY OF HONOLULU	Fee Owner >	>				

**2010 Census Information**

Tract Number: 009801  
 Block Number: 2023  
 Population (block): 49

**Voting Information**

City Council Member: Tom Berg  
 Polling Place: Makaha Elem Sch  
 Address: 84-760 Lahaina St  
 Neighborhood Board: WAIANAE

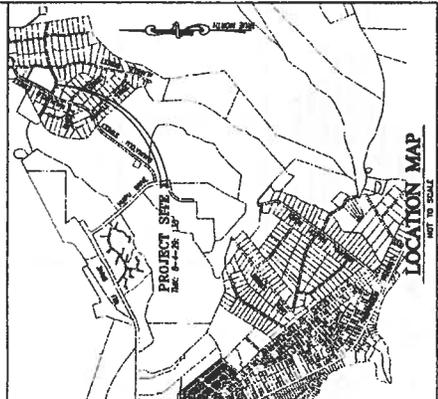
**School and Transit Information**

Elementary School: Makaha  
 High School: WAI'ANAE  
 Near Transit Route: Yes

**Zoning and Flood Information**

Zoning (LUO) Designation: COUNTRY  
 Ohana Zoning Designation: Ineligible  
 FEMA Flood Designation: D  
 Tsunami Evacuation Zone: No  
[more public safety info >>](#)

**EXHIBIT 2**



SHEET NO.	DESCRIPTION
1	TITLE SHEET, NOTES, VIGNETTES & LOCATION MAPS
2	DRAIN LINE 'A' PLAN & PROFILE, DEMOLITION PLAN
3	DETAILS & PHOTOS
4	TYPICAL SECTIONS
5	OVERFLOW BOX DETAILS - 1
6	OVERFLOW BOX DETAILS - 2
7	EROSION CONTROL PLAN

**APPROVED**

MANAGER'S OFFICE ENGINEER, BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU

CHEF, CHEMICAL/HAZARD MANAGEMENT DIVISION, DEPARTMENT OF HEALTH  
STATE OF HAWAII

DATE: 09-24-2012

FILE NO. PROJECT NUMBER SHEET NUMBER OF SHEETS

# BOARD OF WATER SUPPLY CITY AND COUNTY OF HONOLULU JOB 12-020 MAUNAOLU 530 NON-POTABLE RESERVOIR DRAINAGE IMPROVEMENTS MAKAHA, OAHU, HAWAII TAX MAP KEY : 8 - 4 - 29 : 135

**CONSTRUCTION NOTES**

- ALL APPLICABLE CONSTRUCTION WORK SHALL BE DONE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS, AS ADOPTED BY THE BOARD OF WATER SUPPLY, CITY AND COUNTY OF HONOLULU AND THE CODES OF HAWAII, MAUI AND MOLOKAI.
- THE UNDERGROUND PIPES, CABLES OR DUCTILES SHALL BE INSTALLED BY THE CONTRACTOR FROM THE EXISTING OR PROPOSED MAINS TO THE POINT OF CONNECTION WITH THE EXISTING OR PROPOSED MAINS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE CITY AND COUNTY OF HONOLULU AND THE STATE OF HAWAII.
- NO CONTRACTOR SHALL PERFORM ANY CONSTRUCTION OPERATIONS AS TO CAUSE FALLING ROCKS, SOIL OR OTHER MATERIAL TO FALL FROM THE PROJECT AREA OR SURROUNDING AREA. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PREVENT SUCH FALLING MATERIAL FROM OCCURRING. THE CONTRACTOR SHALL IMMEDIATELY MAKE ALL NECESSARY REPAIRS TO ANY DAMAGE TO THE PROJECT AREA OR SURROUNDING AREA.
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**RECONSTRUCTION NOTES, GEOTECHNICAL REPORT (CONTINUED)**

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**INDEX OF DRAWINGS**

1. TITLE SHEET, NOTES, VIGNETTES & LOCATION MAPS

2. DRAIN LINE 'A' PLAN & PROFILE, DEMOLITION PLAN

3. DETAILS & PHOTOS

4. TYPICAL SECTIONS

5. OVERFLOW BOX DETAILS - 1

6. OVERFLOW BOX DETAILS - 2

7. EROSION CONTROL PLAN

**APPROVED**

MANAGER'S OFFICE ENGINEER, BOARD OF WATER SUPPLY  
CITY AND COUNTY OF HONOLULU

CHEF, CHEMICAL/HAZARD MANAGEMENT DIVISION, DEPARTMENT OF HEALTH  
STATE OF HAWAII

DATE: 09-24-2012

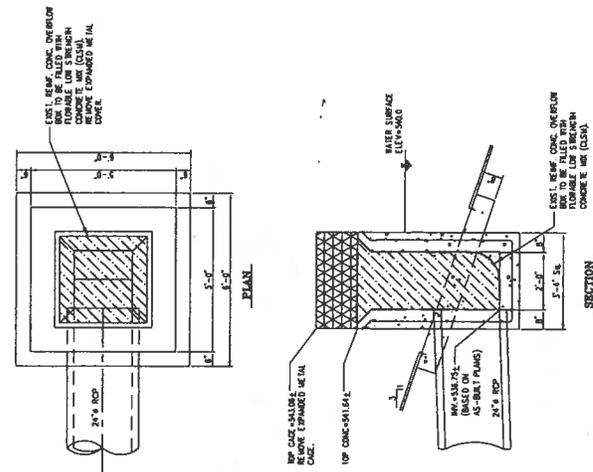
FILE NO. PROJECT NUMBER SHEET NUMBER OF SHEETS

**RECONSTRUCTION NOTES, GEOTECHNICAL REPORT (CONTINUED)**

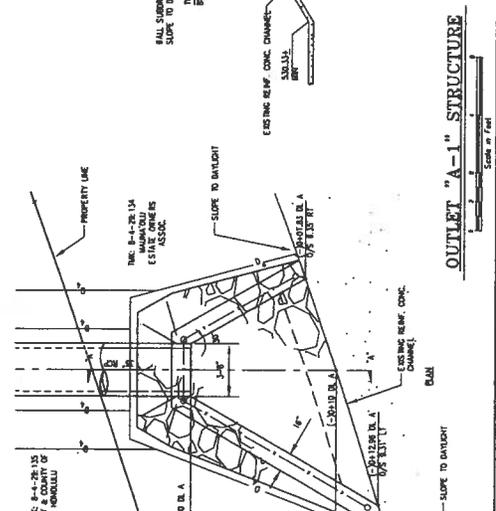
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EXHIBIT 3





EXIST. OVERFLOW STRUCTURE - DEMOLITION DETAIL



OUTLET "A-1" STRUCTURE

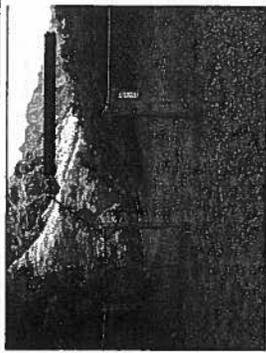


PHOTO - 2



PHOTO - 4

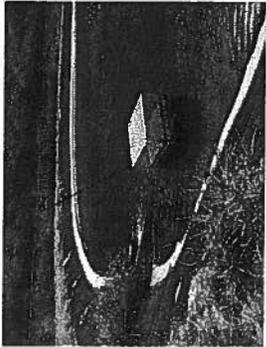


PHOTO - 1

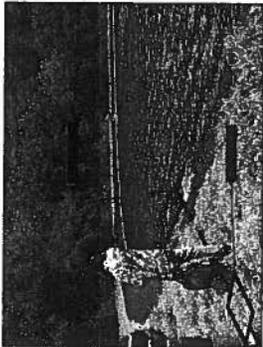


PHOTO - 3

WE WORK AND OPERATE IN THE CITY OF HONOLULU, HAWAII. THE BOARD OF WATER SUPPLY IS THE AUTHORITY FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT. THE BOARD OF WATER SUPPLY IS THE AUTHORITY FOR THE DESIGN AND CONSTRUCTION OF THE PROJECT.

**BOARD OF WATER SUPPLY**  
 JOB 12-020  
 MAUNALOULU 530 NON-ROTATABLE RESERVOIR  
 DRAINAGE IMPROVEMENTS  
 WARDEN, HONOLULU, HAWAII

APPROVED: [Signature] DATE: MAR 2012  
 DRAWN BY: [Signature] CHECKED BY: [Signature] PROJECT NO.: [Signature]  
 SCALE: AS SHOWN SHEET 7 OF 7

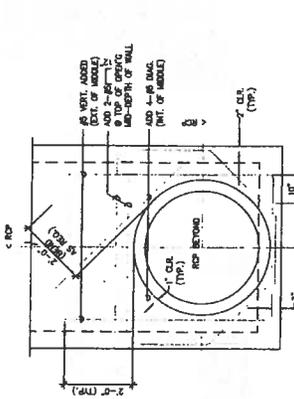
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 TERRITORIAL ENGINEERING DIVISION  
 HONOLULU, HAWAII



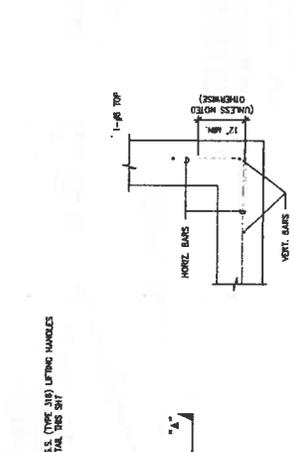


**DRAINAGE STRUCTURE NOTES**

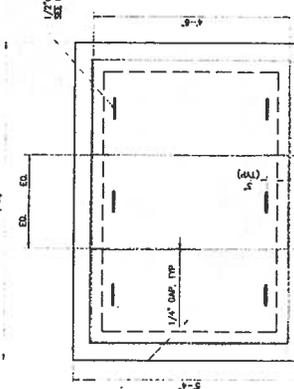
1. ALL WORK SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION (LATEST).
2. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH & A MINIMUM WATER TO CEMENT RATIO AS FOLLOWS:  
 STRENGTH: 4000 PSI  
 W/C RATIO: 0.45
3. ALL REINFORCING STEEL SHALL CONFORM TO ASTM A615 GRADE 60.
4. MINIMUM COVER IN INCHES FOR REBAR FOR CAST-IN-PLACE AND PRECAST CONCRETE EXCEPT AS NOTED:  
 CONCRETE CAST AGAINST EARTH (C.I.P.): 3"  
 FORMED CONCRETE EXPOSED TO EARTH OR WEATHER: 2"
5. UNLESS OTHERWISE NOTED, SPICES, LAPS, JOINTS, EXTENSION AND EMBEDMENTS SHALL BE TO DIMENSIONS MINIMUM.
6. ALL REINFORCING BARS MARKED "CONC." OR "TEMP." SHALL BE LAPPED 40 DIAMETERS MINIMUM.
7. STAGGER ALL SPICES WHERE POSSIBLE.
8. REBAR SHALL BE SUPPORTED, BENT AND PLACED AS PER "MANUAL OF STANDARD PRACTICE FOR DETAILING CONCRETE STRUCTURES" (LATEST).
9. LAPPING FOR ONE'S PLACES REINFORCING SHALL BE DONE FROM END OR CENTER OF BAR. LAPPING SHALL BE DONE ON THE FLANGE REGION OF THE STANDARD SECTION OF THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (STANDARD DETAILS).
10. FOR REINFORCING USE SHOWN ON THE DRAWING, REFER TO THE STANDARD SECTION OF THE STANDARD DETAILS FOR PUBLIC WORKS CONSTRUCTION (STANDARD DETAILS).
11. REINFORCEMENT, ANCHOR BOLTS, DOMELS, AND ALL OTHER EMBEDDED ITEMS SHALL BE POSITIONED BEFORE POURING.
12. ALL WELD. STEEL, GRATING, ANGLE IRON FRAME, CRENDERED PLATES, ANCHORS AND ACCESSORIES SHALL BE OF STAINLESS STEEL (GRADE 304 OR TYPE 316).



**ELEVATION**  
 TYP. ADDED REINFP. AT PIPES  
 NOT TO SCALE



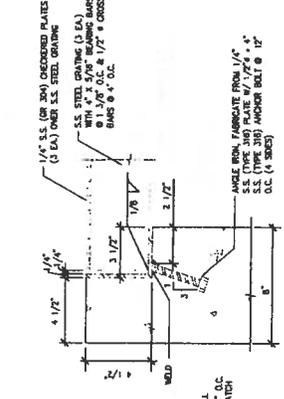
**PLAN - TYP. CORNER REINFORCEMENT LAPPING**  
 NOT TO SCALE



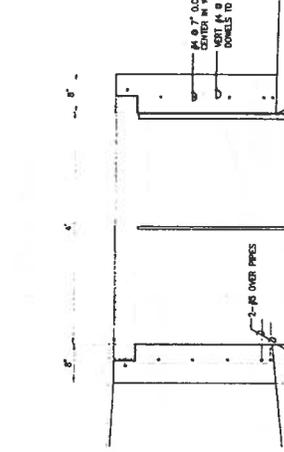
**PLAN**  
 SCALE: 3/4"=1'-0"  
 CENTERLINE OF PLATE



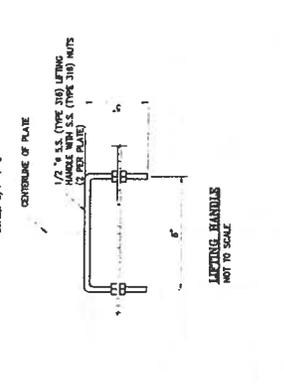
**LIFTING HANDLES**  
 NOT TO SCALE



**SUPPORT ANGLE**  
 SC: 3" = 1'-0"



**SECTION "1-1"**  
 SC: 3" = 1'-0"



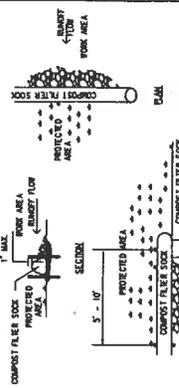
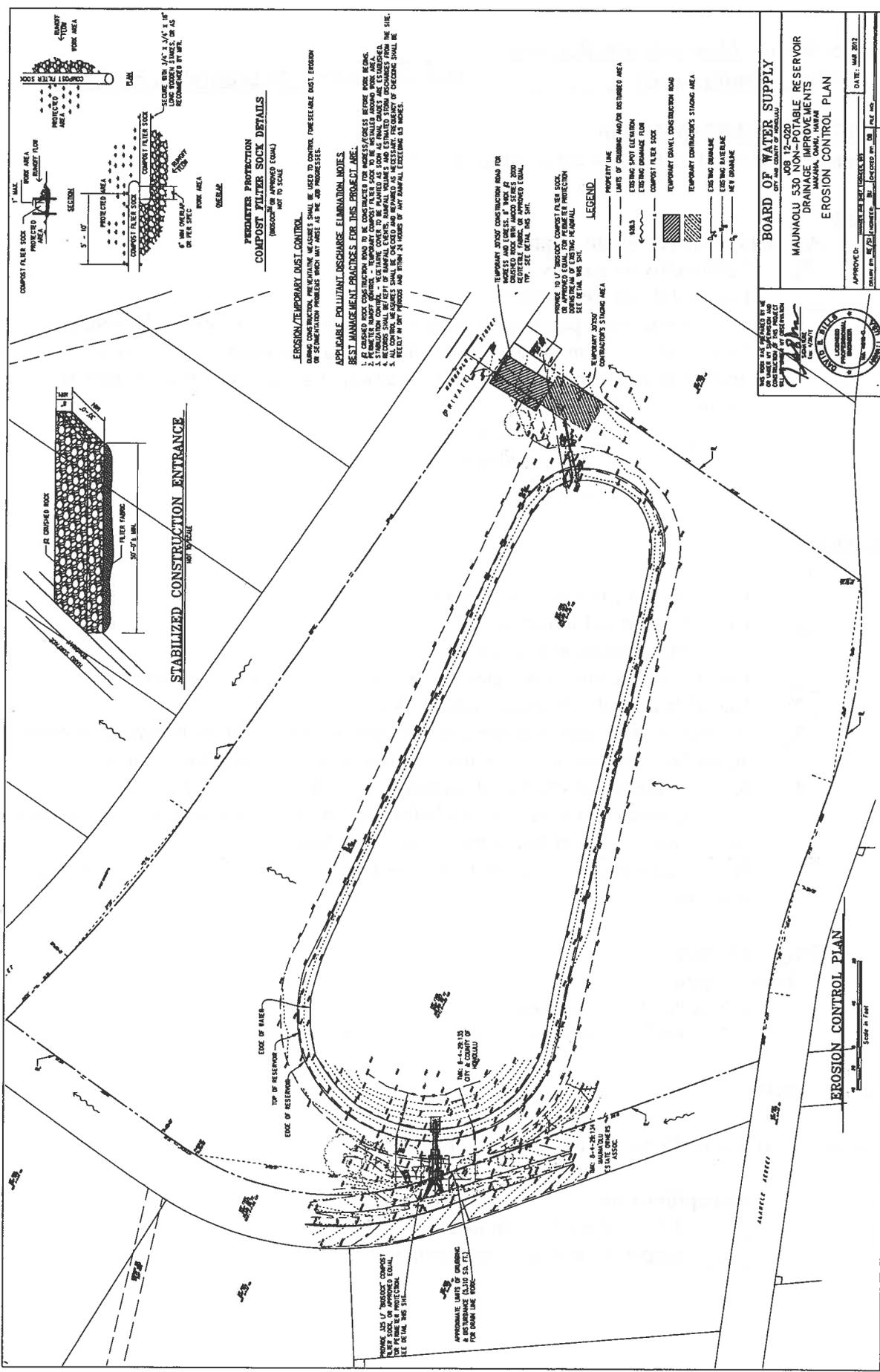
**LAPPING HANDLES**  
 NOT TO SCALE

**BOARD OF WATER SUPPLY**  
 JOB 12-020  
 MAUNAOLU 530 NON-POTABLE RESERVOIR  
 DRAINAGE IMPROVEMENTS  
 HAWAII, OAHU, MOLOKAI, MAUI, HAWAII

APPROVED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 DRAWN BY: \_\_\_\_\_ REVISION NO. \_\_\_\_\_  
 CHECKED BY: \_\_\_\_\_



**OVERFLOW BOX DETAILS**  
 SCALE AS NOTED



**PERIMETER PROTECTION**  
**COMPOST FILTER SOCK DETAILS**  
 (APPROVED OR APPROVED EQUAL)  
 NOT TO SCALE

**EROSION/TEMPORARY DUST CONTROL**  
 BEING CONSTRUCTION MEASURES SHALL BE USED TO CONTROL PREDICTABLE DUST, EROSION OR SEDIMENTATION PROBLEMS WHICH MAY ARISE AS THE JOB PROGRESSES.

**APPLICABLE POLLUTANT DISCHARGE ELIMINATION NOTES**  
 BEST MANAGEMENT PRACTICES FOR THIS PROJECT ARE:  
 1. CHANGING ROCK CONSTRUCTION ROAD TO BE CONSTRUCTED FOR ADDRESS ACCESS BEFORE ROCK WORK.  
 2. CONSTRUCTION ROAD TO BE CONSTRUCTED WITH 18" MINIMUM GRAVEL SURFACE AND 18" MINIMUM GRAVEL SHOULDER.  
 3. STABILIZATION CONTROL - 18" MINIMUM GRAVEL TO BE MAINTAINED AS LONG AS PRACTICABLE AND FEASIBLE.  
 4. RECORDS SHALL BE KEPT OF RAINFALL EVENTS, RAINFALL VOLUMES AND ESTIMATED STORM DISCHARGES FROM THE SITE.  
 5. RECORDS SHALL BE KEPT OF RAINFALL EVENTS, RAINFALL VOLUMES AND ESTIMATED STORM DISCHARGES FROM THE SITE.  
 6. RECORDS SHALL BE KEPT OF RAINFALL EVENTS, RAINFALL VOLUMES AND ESTIMATED STORM DISCHARGES FROM THE SITE.  
 7. RECORDS SHALL BE KEPT OF RAINFALL EVENTS, RAINFALL VOLUMES AND ESTIMATED STORM DISCHARGES FROM THE SITE.  
 8. RECORDS SHALL BE KEPT OF RAINFALL EVENTS, RAINFALL VOLUMES AND ESTIMATED STORM DISCHARGES FROM THE SITE.

**LEGEND**  
 PROPERTY LINE  
 LIMITS OF EXISTING AND/OR EXISTING AREA  
 EXISTING SPOT ELEVATION  
 EXISTING DRAINAGE TIE-IN  
 COMPOST FILTER SOCK  
 TEMPORARY GRAVEL CONSTRUCTION ROAD  
 TEMPORARY CONTRACTOR'S STAGING AREA  
 EXISTING DRAINAGE  
 EXISTING PAVEMENT  
 NEW DRAINAGE

TEMPORARY STAGING AREA FOR ADDRESS ACCESS BEFORE ROCK WORK.  
 CHANGING ROCK CONSTRUCTION ROAD TO BE CONSTRUCTED FOR ADDRESS ACCESS BEFORE ROCK WORK.  
 CONSTRUCTION ROAD TO BE CONSTRUCTED WITH 18" MINIMUM GRAVEL SURFACE AND 18" MINIMUM GRAVEL SHOULDER.  
 STABILIZATION CONTROL - 18" MINIMUM GRAVEL TO BE MAINTAINED AS LONG AS PRACTICABLE AND FEASIBLE.  
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APPROXIMATE LIMITS OF EXISTING AND/OR EXISTING AREA FOR PERIMETER PROTECTION FOR DRAINAGE CONTROL.  
 SEE DETAIL SHEET 111.

APPROXIMATE LIMITS OF EXISTING AND/OR EXISTING AREA FOR PERIMETER PROTECTION FOR DRAINAGE CONTROL.  
 SEE DETAIL SHEET 111.

**BOARD OF WATER SUPPLY**  
 JOB 12-000  
 MAUNALO 530,000-GALLON POTABLE RESERVOIR  
 DRAINAGE IMPROVEMENTS  
 MAUNALO, OAHU, HAWAII  
**EROSION CONTROL PLAN**

APPROVED: [Signature] DATE: MAR 2012  
 DRAWN BY: [Signature] CHECKED BY: [Signature]  
 SCALE: AS SHOWN SHEET 7 OF 8 SHEETS

MAUNALO WATER SUPPLY  
 HAWAIIAN WATERWORKS  
 1000 W. BEECHER ST.  
 HONOLULU, HI 96813  
 TEL: 808-943-2100  
 FAX: 808-943-2101

JOB NO. 412-00

CHAPTER 343 ANALYSIS

Project Name: Maunaolu 530 Reservoir

Reviewer: Jimmy Leung

Date of Review: 28 September, 2012

**TRIGGERS (HRS §343-5(a))**

Is there an "action" that triggers the need for an EA?

Action

An "action" is a program or project:

- Initiated by an agency
- Initiated by an "applicant"

Any person who, pursuant to statute, ordinance, or rule, officially requests "approval" for a proposed action (discretionary consent required from an agency prior to actual implementation of an action, distinguished from a ministerial consent)

- Statute
- Ordinance
- Rule

Triggers

Yes No

- Use of state or county lands or funds
- Use of conservation district lands
- Use within shoreline setback area
- Use of historic site designated on the National or Hawaii registers
- Use of land in the Waikiki Special District
- Amendment to county general plan which would result in designations other than agriculture, conservation, or preservation unless initiated by a county
- Reclassification of conservation lands by the Land Use Commission
- Construction or modification of helicopter facilities that may affect conservation district lands, a shoreline setback area, or a historic site
- Wastewater facilities, waste-to-energy facility, landfill, oil refinery, or power-generating facility

Triggers summary:

Is there a trigger?

If Yes, Go to Exemptions

If No, No Environmental Assessment required

**EXEMPTIONS**

Two sources of exemptions: exemption lists or exemptions contained in HAR §11-200-8(a)

1. Exemption Lists
  - Division exemption lists
  - Department-wide exemption list

## CHAPTER 343 ANALYSIS

Explain (which exemption list, which exemption, how it applies):

See attached explanation provided by Honolulu Board of Water Supply

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### 2. HAR §11-200-8(a) exemptions

Operations, repairs, or maintenance of existing structures, facilities, equipment, or topographical features, involving *negligible or no expansion or change of use* beyond that previously existing

Replacement or reconstruction of existing structures and facilities where the new structure will be located generally on the same site and will have *substantially the same purpose, capacity, density, height, and dimensions* as the structure replaced

Construction and location of a single, *new, small facilities* or structures and the alteration and modification of the same and installation of new, small, equipment and facilities and the alteration and modification of same, including, but not limited to:

- (a) *Single family residences less than 3,500 square feet* not in conjunction with the building of two or more such units;
- (b) Multi-unit structures designed for *not more than four dwelling units* if not in conjunction with the building of two or more such structures;
- (c) Stores, offices, and restaurants designed for total occupant load of *twenty persons or less* per structure, if not in conjunction with the building of two or more such structures; and
- (d) Water, sewage, electrical, gas, telephone, and other essential public utility services extensions *to serve such structures* or facilities; accessory or appurtenant structures including garages, carports, patios, swimming pools, and fences; and acquisition of utility easements

*Minor alterations* in the conditions of land, water, or vegetation

Basic data collection, research, experimental management, and resource evaluation activities that *do not result in a serious or major disturbance* to an environmental resource

Construction or placement of *minor structures accessory* to existing facilities

**CHAPTER 343 ANALYSIS**

- \_\_\_ *Interior alterations* involving things such as partitions, plumbing, and electrical conveyances
- \_\_\_ Demolition of structures, *except* those structures located on any *historic site* as designated on the National or Hawaii registers
- \_\_\_ Zoning variances *except shoreline* set-back variances
- \_\_\_ Continuing administrative activities including, but not limited to purchase of supplies and personnel related actions; and
- \_\_\_ Acquisition of land and existing structures, including single or multi-unit dwelling units, for the provision of *affordable housing*, involving *no material change of use* beyond that previously existing, and for which the *legislature has appropriated* or otherwise authorized *funding*

Explain (how the exemption indicated above applies):

See attached

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Exemptions summary:

Does the Project qualify for an exemption? Yes X No \_\_\_

If Yes, Exemption noted above

If No, Project requires Environmental Assessment

**CUMULATIVE IMPACT**

Exemptions are inapplicable when the cumulative impact of planned successive actions in the same place, over time, is significant, or when an action that is normally insignificant in its impact on the environment may be significant in a particularly sensitive environment.

Additional Notes

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**BOARD OF WATER SUPPLY**

CITY AND COUNTY OF HONOLULU  
630 SOUTH BERETANIA STREET  
HONOLULU, HI 96843



April 4, 2012

PETER B. CARLISLE, MAYOR

RANDALL Y. S. CHUNG, Chairman  
MAHEALANI CYPHER, Vice Chair  
THERESIA C. McMURDO  
DUANE R. MIYASHIRO  
ADAM C. WONG

WESTLEY K.C. CHUN, Ex-Officio  
GLENN M. OKIMOTO, Ex-Officio

ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

ELLEN E. HIRAYAMA, P.E.  
Deputy Manager and Chief Engineer

DECLARATION OF EXEMPTION

from the preparation of an environmental assessment under the authority of Chapter 343, HRS and Chapter 11-200, HAR

**Project Title:** Mauna Olu Non-potable Reservoir Drainage Improvements

**Project Number:** 12-020

**Project Description:** Demolition and removal of existing overflow box and installation of a new buried drainage system to accommodate the reservoir overflow.

**Consulted Parties:** Board of Water Supply Personnel

**Exemption Class:** 3, Construction and location of single, new small facilities or structures and the alteration and modification of the same and installation of new small equipment and facilities and the alteration and modification of the same including but not limited to: (a) single family residences less than 3,500 square feet, if not in conjunction with the building of two (2) or more such units; (b) multi-unit structures design for not more than four (4) dwelling units, if not in conjunction with the building of two (2) or more such structures; (c) stores, officers and restaurants designed for total occupant load of twenty (20) persons or less, if not in conjunction with the building of two (2) or more such structures; (d) water, sewage, electrical, gas, telephone, and other essential public utility services extensions to serve such structures of facilities; and (e) accessory or appurtenance structures including garages, carports, patios, swimming pools, and fences; and acquisition of utility easements.

**Exemption Item Number:** 2c

**Exempt Item Description:** Installation and modification of: Storm drain lines

**Date of Agency Exemption List:** July 27, 2009

I have considered the potential effects of the above listed project as provided by Chapter 343, HRS and Chapter 11-200 HAR. I declare that this project will probably have minimal or no significant effect on the environment and is therefore exempt from the preparation of an environmental assessment.

*for*   
ERNEST Y. W. LAU, P.E.  
Manager and Chief Engineer

04/04/2012  
Dated

cc: Support



October 4, 2012

Jimmy Leung, P.E.  
State of Hawaii  
Department of Land and Natural Resources  
P.O. Box 373  
Honolulu, HI 96809

RE: Permit Review for Maunaolu 530 Non-Potable Reservoir

Dear Jimmy,

We are providing this letter to state that Kleinfelder has completed a review of the design and construction documents for the modifications to Maunaolu 530 Non-Potable Reservoir prepared by Bills Engineering, Inc. (Bills). These documents consisted of the Design Report, Construction Specifications, Drawings, and Drainage Study. Comments were provided to the DLNR and copied to Bills. Bills provided responses to these comments, and have responded to our comments satisfactorily. The comment response document is attached for your use.

We appreciate this opportunity to be of service to you. Please call me at (303) 237-6601 ext. 221 or email [llariviere@kleinfelder.com](mailto:llariviere@kleinfelder.com) if you have any questions.

Respectfully submitted,

**KLEINFELDER WEST, INC.**

Laura A. LaRiviere, P.E.  
Project Manager

## **DAM SAFETY PERMIT GENERAL CONDITIONS**

### **APPROVAL OF PLANS AND SPECIFICATIONS FOR DAM AND RESERVOIR CONSTRUCTION, ENLARGEMENT, REPAIR, ALTERATION OR REMOVAL**

The following General Conditions shall be adhered to for all Dam Safety permits unless otherwise authorized in writing.

1. Actual construction, enlargement, repair, alteration or removal shall be completed within 5 years of issuance of the permit application approval unless an extension authorized in writing by the Board is issued.
2. Prior to the start of work the owner or applicant shall provide a construction engineer to ensure compliance with the approved plans and specifications and who shall have ultimate responsibility for the supervision of all inspection tasks. The construction engineer may assign some inspection tasks to a duly authorized agent under the construction engineer's supervision. The engineer shall be licensed in the State of Hawaii.
3. The construction engineer shall maintain a record of construction that at a minimum, shall include, daily activity, and progress reports, all test results pertaining to construction; photographs sufficient to provide a record of foundation conditions and various stages of the construction through completion, all geologic information obtained; and construction problems and remedies.
4. A construction quality assurance plan shall be prepared and submitted to the Department for approval prior to the start of construction, which details the minimum requirements of the construction engineer's observation of construction.
5. A construction schedule, which includes the notice to proceed date and estimated project duration and a construction emergency action plan shall be submitted prior to the preconstruction meeting.
6. A preconstruction meeting shall be held subsequent to submitting the quality assurance plan, construction schedule and construction emergency action plan, but not later than 14 days prior to the start of construction. All parties actively involved in the construction should be requested to attend, such as the dam owner, the design engineer, the construction engineer, the contractor and the Department.
7. The Department shall be notified 5 calendar days prior to the commencement of construction.
8. Any changes from the approved plans and specifications shall be approved by the design engineer and a change order, including details and supporting calculations, must be provided to the Department. Major changes must be submitted in writing with supporting documentation and approved in writing by the Department. No work shall be initiated until the approval by the Department or Board is received. Minor changes may be transmitted verbally and approved by the Department verbally provided that documentation of the change is provided to the Department within 10 days of the approval.

9. For new dam construction and for dams and reservoirs that have lowered the water level or have been drained to facilitate construction, the construction engineer shall file and obtain approval of a filling plan with the Department. The applicant/owner shall not proceed with the filling of the reservoir until it receives permission from the Department. The construction engineer shall provide documentation of monitoring during the filling operation.
10. Prior to the filling of the reservoir, the construction engineer shall submit one copy each of the approved Operations Manual and the approved Emergency Action Plan for the facility upon completion of the project as applicable.
11. The construction engineer shall give the Department at least ten days advanced notice of initial materials placement of the dam's foundation, in the cutoff trench, outlet backfill, outlet foundation, and any appurtenance requested by the Department in the approval of the plan for construction observation, to allow for observation by the Department.
12. Notice of substantial completion shall be issued by the construction engineer to the Department stating that the permitted improvements are functionally complete such that filling of the reservoir can be initiated with an approved filling plan.
13. The construction engineer shall give the Department fifteen (15) calendar days advance written notice prior to the project's final construction inspection. The construction engineer shall coordinate with the Department to conduct this inspection in the presence of the Department's dam safety personnel.
14. The construction engineer shall provide notice at least ten (10) days prior to initiating filling the reservoir, unless agreed at the final inspection.
15. If conditions are revealed which will not permit the construction, enlargement, repair, alteration, or removal of a safe dam or reservoir, the application for approval for construction, enlargement, repair, alteration, or removal shall be revoked.
16. A topographic survey of completed work including all monuments, inverts, crest alignment, spillways, and significant appurtenant features, when required by the Department shall be completed.
17. The applicant/owner shall utilize appropriate erosion control best management practice measures during construction to minimize turbidity (such as scheduling of work during period of low stream flow) and prevent debris and construction materials, including concrete, petroleum products, and other pollutants from enter the waters of the State. Construction related water and debris should be properly disposed of in a legal and environmentally safe manner and in accordance with the Department of Health and other Federal regulations.
18. The applicant/owner shall submit a copy of the dam safety application and the plans and specifications of the proposed improvements to the County Engineer of the County for which the dam resides for compliance with County codes.
19. Within fifteen (15) calendar days of completing the project, the applicant/owner or its representative shall provide the Department with a confirmation letter of compliance, signed and stamped by the construction engineer, indicating that the construction

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was completed in accordance to approved plans and specifications including any field changes. The construction engineer shall submit the remaining construction completion documents which may include, but not be limited to, as-constructed drawing, final construction report, topographic survey, record of the location of permanent monuments, log of recorded water levels and other readings from the refilling operation, long-term instrumentation monitoring plan, and affidavit showing the actual cost of construction including engineering costs, within 60 calendar days of the submittal of the final construction inspection.

20. Construction completion documents and the construction engineer's certification shall be provided to the Department within 60 days of the final construction inspection. The Department will review the submitted items and furnish acceptance or denial within 60 days of receipt of satisfactorily completed construction completion documents and close out the dam safety permit.
21. This permit does not relieve the applicant/owner of their obligations to comply with all applicable Federal, State, and County regulations.

