

GENERAL NOTES

1. The scope of work for this project includes clearing vegetation; site grading; demolition and removal of existing concrete channels; installation of new drainage culverts; installation of concrete baffle box, installation of hand placed rip rap; retrofit of existing drainage structures; installation and maintenance of permanent BMPs; hydro-mulching; installation and maintenance of temporary erosion control BMPs; and providing traffic control.
2. The Contractor's attention is directed to the following Specification Sections of the Standard Specifications: Subsection 104.11 - Utilities and Services; Subsection 107.06 - Contractor Duty Regarding Public Convenience; and Section 645 - Work Zone Traffic Control.
3. The Contractor shall notify the Hawaii One Call Center (811 or 866-423-7287) no less than five (5) working days prior to excavation, on each or all locations, for locating underground facilities pursuant to HRS Section 269E-4.
4. Pursuant to Chapter 6E, HRS, in the event any historic resources, including cultural deposits or human skeletal remains, are uncovered during construction operations, the Contractor shall suspend work in the immediate vicinity of the find, protect the find from additional disturbance, and notify the Honolulu Police Department, the State Department of Land and Natural Resources - Historic Preservation Division (692-8015), and the State Department of Transportation.
5. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.
6. The existence and location of underground utilities, manholes, monuments, guardrail and structures as shown on the plans are from the latest available data, but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
7. All dimensions and details shown on the drawings shall be checked and verified prior to the start of construction, and any discrepancies shall be immediately brought to the attention of the Engineer for clarification.
8. All existing utilities to remain in use, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. Any damages to existing utilities shall be repaired and paid for by the Contractor.
9. Unless relocation is called for on the plans, existing utilities shall remain in service and in place. If relocation of existing utilities is required for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense and only with the approval of the Engineer.
10. The Contractor shall provide for vehicle and pedestrian access to and from all existing public streets and driveways at all times.
11. Existing drainage system shall be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to any culvert work or the various contract items and will not be paid for separately.

12. Existing facilities, guardrail, landscaping and/or pavement to remain which has been damaged by the Contractor shall be restored to its original condition at no cost to the State.
13. All regraded areas and all grassed areas damaged by construction activities shall be planted in accordance with Specification Section 619 - Planting. Contractor shall restore to its original condition at no cost to the State.
14. When excavating in close proximity to walls, fences, and other improvements, the Contractor shall protect, support, secure, and take all precautions to prevent damaging these facilities and improvements.
15. No material or equipment shall be stockpiled or otherwise stored within highway right-of-way except at locations designated in writing and approved by the Engineer.
16. Contractor shall dispose of any removed material at an approved DOH waste management facility, as stated in the Contractor's BMP plan, at no extra cost to the State.
17. After the project is completed, the Contractor shall restore grades and groundcover within the project limits to a condition equal to or better than existing condition prior to construction.
18. All work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.
19. The Contractor shall verify the presence of existing aerial and underground utilities which may conflict with construction activities and shall coordinate with the utility company for temporary relocation, as necessary. All costs associated with temporary relocations shall be borne by the Contractor.
20. Confined Space
For entry into a permit required confined space as defined in 29 CFR Part 1910.146(b), the Contractor shall be responsible for providing:
I. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
a. Full body harness for up to two personnel.
b. Lifeline and associated clips.
c. Ingress/egress and fall protection equipment.
d. Two-way radio (walkie-talkies) if out of line-of-sight.
e. Emergency (escape) respirator (10 minute duration).
f. Cellular telephone to call for emergency assistance.
g. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20-feet away).
h. Personal multi-gas detector to be carried by inspector.
II. Continuous forced air ventilation adequate to provide safe entry conditions.
III. One attendendant/rescue personnel topside (two, if conditions warrant it).

ABBREVIATIONS

AC, ac	Asphalt Concrete	Lt.	Left
AH.	Ahead	Max.	Maximum
ARS	Automatic Retractable Screen	M.L.	Matchline
BK.	Back	Min.	Minimum
BL	Baseline	NSBB	Nutrient Separating Baffle Box
BMP	Best Management Practices	NTS	Not to Scale
Bott.	Bottom	o.c.	On Center
CL	Chain Link	O/H	Overhead
Clr.	Clearance	o/s	Offset
Conc.	Concrete	PC	Point of Curvature
CRM	Concrete Rubble Masonry	PERM.	Permanent
Det.	Detail	PI	Point on Intersection
Dia.	Diameter	PID	Project Identification Number
EA	Each	POC	Point on Curvature
EB	Eastbound	PT	Point of Tangency
EC	Erosion Control	R	Radius
ECM	Erosion Control Mat	Rt.	Right
Elev	Elevation	r/w	Right-of-Way
EQ	Equal	S	Slope
ep	Edge of Pavement	SFM	Sewer Force Main
es	Existing Edge of Shoulder	sl	Street Light
etw	Existing Edge of Travel Way	SLB	Street Light Box
exist.	Existing	Sta.	Station
ftg.	Footing	Std.	Standard
gdi	Grated Drain Inlet	ST. MON.	Street Monument
GFRP	Glass Fiber Reinforced Polymer	sym.	Symbol
GRP	Grouted Rubble Paving	t	Telephone
G.H.	Guy Wire	T/thk	Thick
I.D.	Inside Diameter	TC	Traffic Control
I.E./inv.	Invert Elevation	TCP	Traffic Control Plan
L	Length	Typ.	Typical
		UG	Underground
		U.P.	Utility Pole
		w	Water
		W	Width

LEGEND

---	Property Line	— d — b —	Access Permitted
---	Limits of Work	— o — o —	No Vehicular Access Permitted
---	Centerline	— o — o —	No Access Permitted
— o — o —	Existing Guardrail	— o — o —	Limited Access as Noted on Plans
— o — o —	Temporary Fiber Roll	— o — o —	Top of Slope
— o — o —	Runoff Direction	— o — o —	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	83G-01-17M	2017	3	48

ORIGINAL PLAN	DATE
NOTED BY	DATE
DESIGNED BY	DATE
CHECKED BY	DATE

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ALISON R. LEO

LICENSED PROFESSIONAL ENGINEER

NO. 9360-C

HAWAII USA

4/30/18

EXP. DATE

This work was prepared by me or under my supervision.

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

GENERAL NOTES, LEGEND AND ABBREVIATIONS

KAWA WATERSHED STORM WATER BEST MANAGEMENT PRACTICES ON OAHU, PHASE 1

Project No. 83G-01-17M

Scale: None

Date: April 2017