

Attachment A
Jurisdictional Boundary Maps

Kaipapa'u Stream Bridge Replacement
Site Photos with Designated OHWM and MHHW

1. Kaipapa'u Stream – Upstream View

01-02-2010



MHHW → OHWM →

2. Kaipapa'u Stream Wall Repair – Close-up

02-19-2010



OHWM →

3. Kaipapa'u Stream – Upstream from Project Site

02-19-2010



4. Kaipapa'u Stream – Upstream View from Bridge – During Storm 02-09-2014



5. Kaipapa'u Stream Bridge – Upstream Side

02-19-2010



OHWM

6. Kaipapa'u Stream – View Towards Ocean – After Storm

12-13-2008



MHHW

7. Kahuku Makai Bank – Downstream Side

03-19-2011



8. From Kahuku Makai Bank – View to Ocean – During Storm

02-09-2014



9. Kaipapa'u Stream Bridge – Downstream Side – After Storm

12-13-2008



10. Kaipapa'u Stream Bridge – Downstream Side – During Storm

02-09-2014



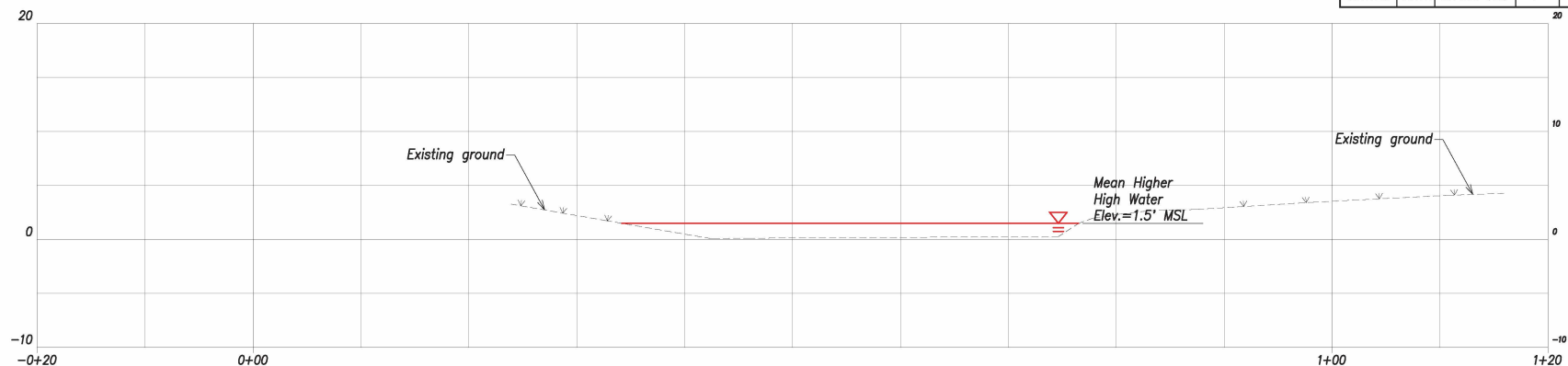
11. Kaipapa'u Stream Bridge – Looking to Kāne'ohe – After Storm 12-13-2008



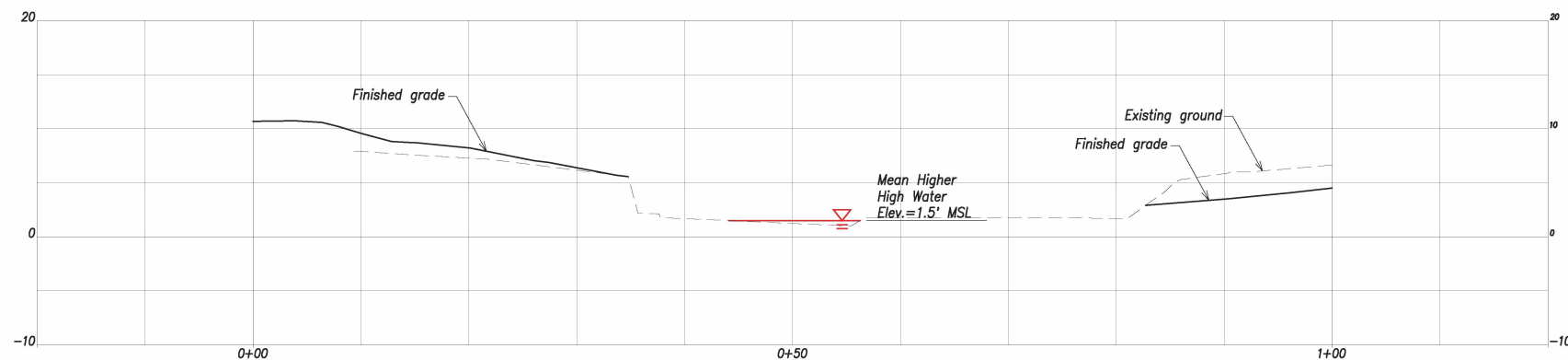
MHHW

OHWM

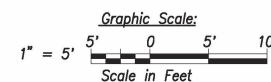
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	2	xx



SECTION A
Scale: 1"=5'



SECTION B
Scale: 1"=5'



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DATE: 4/20/14
ENGINEER: R. W. TOWELL CORPORATION

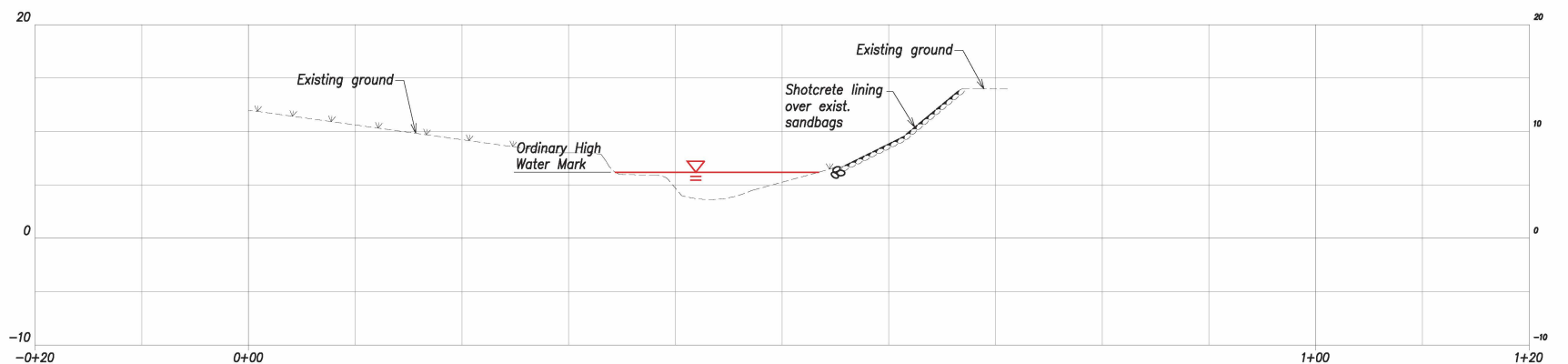
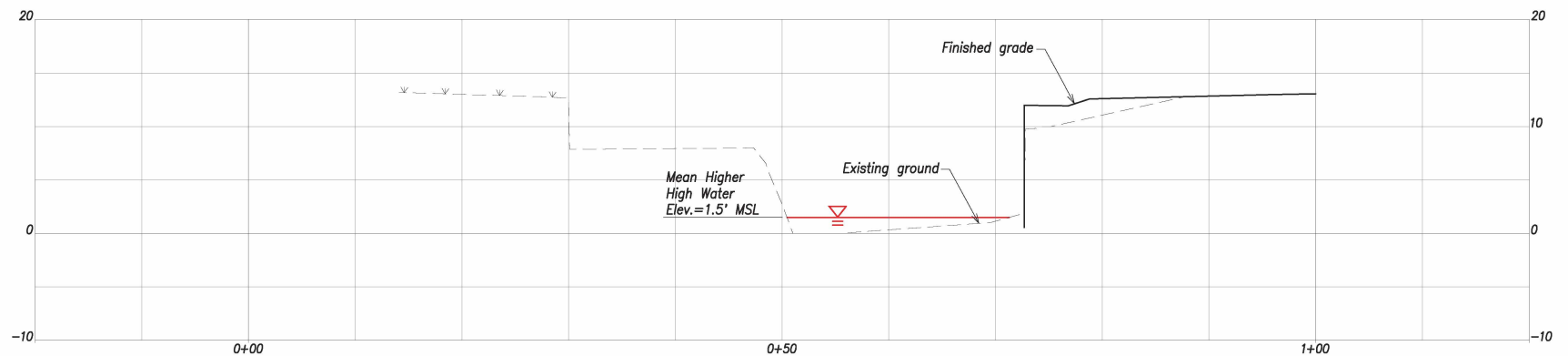
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
EXHIBIT 2
SECTIONS - 1
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Project No. BR-083-1(48)

Scale: AS NOTED Date: DECEMBER 2013

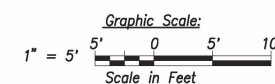
SHEET No. 2 OF 4 SHEETS

DESIGNED BY	REVIEWED BY
DRAWN BY	CHECKED BY
IN CHARGE	APPROVED BY
DATE	DATE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	3	XX



DESIGNED BY	ENGINEER
CHECKED BY	ENGINEER
APPROVED BY	ENGINEER
DATE	12/15/13



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EXHIBIT 3
SECTIONS - 2
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Project No. BR-083-1(48)

Scale: AS NOTED Date: DECEMBER 2013

SHEET No. 3 OF 4 SHEETS

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DATE: 12/15/13
SIGNATURE: [Signature]
FIRM: R. W. TORRELL CORPORATION

Graphic Scale:

1" = 5'



Scale in Feet

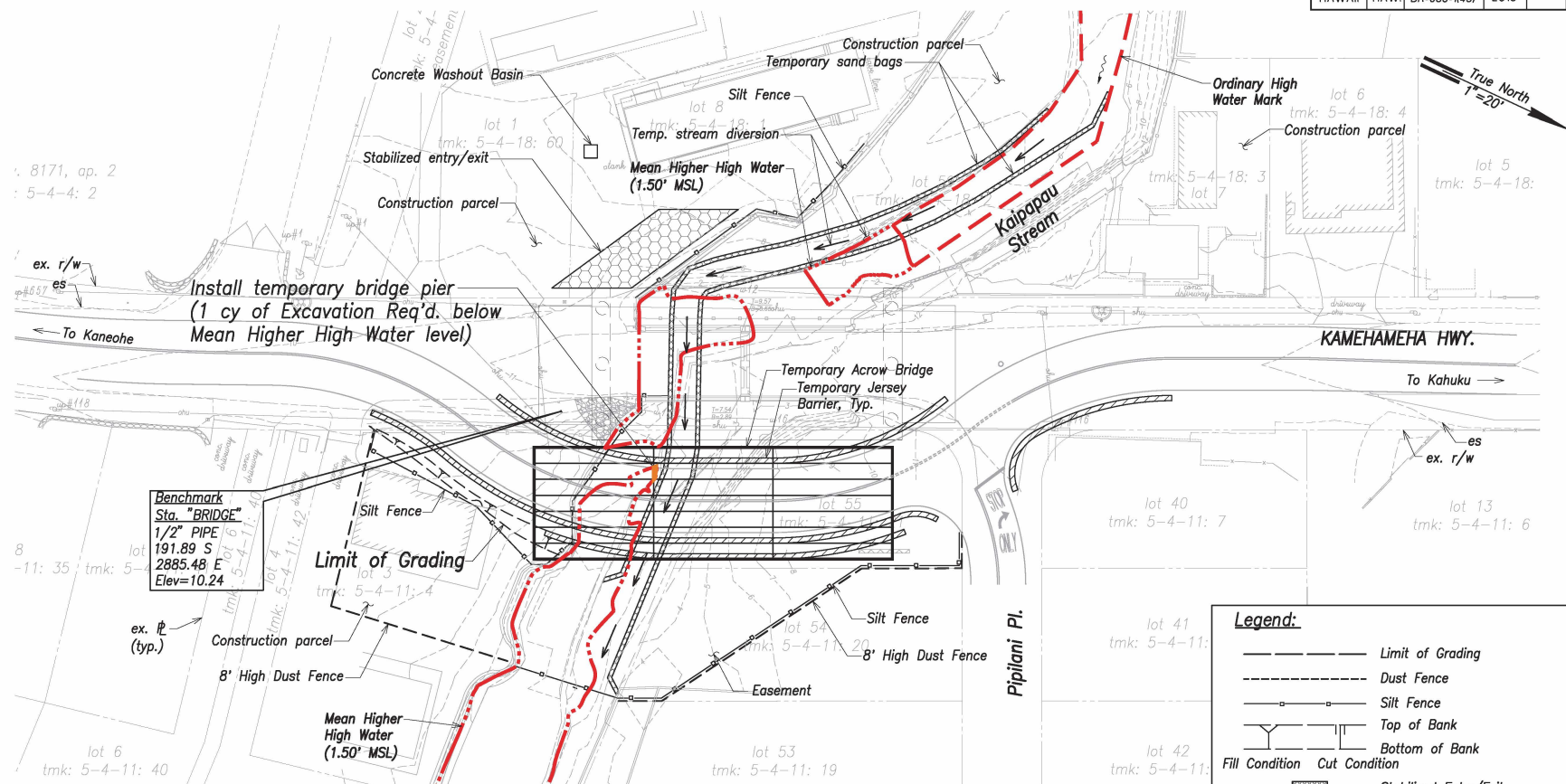
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
EXHIBIT 4
SECTIONS - 3
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Project No. BR-083-1(48)

Scale: AS NOTED Date: DECEMBER 2013

SHEET No. 4 OF 4 SHEETS

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

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	XX	XX



TEMPORARY DETOUR ROADWAY PLAN
Scale: 1"=20'

Legend:

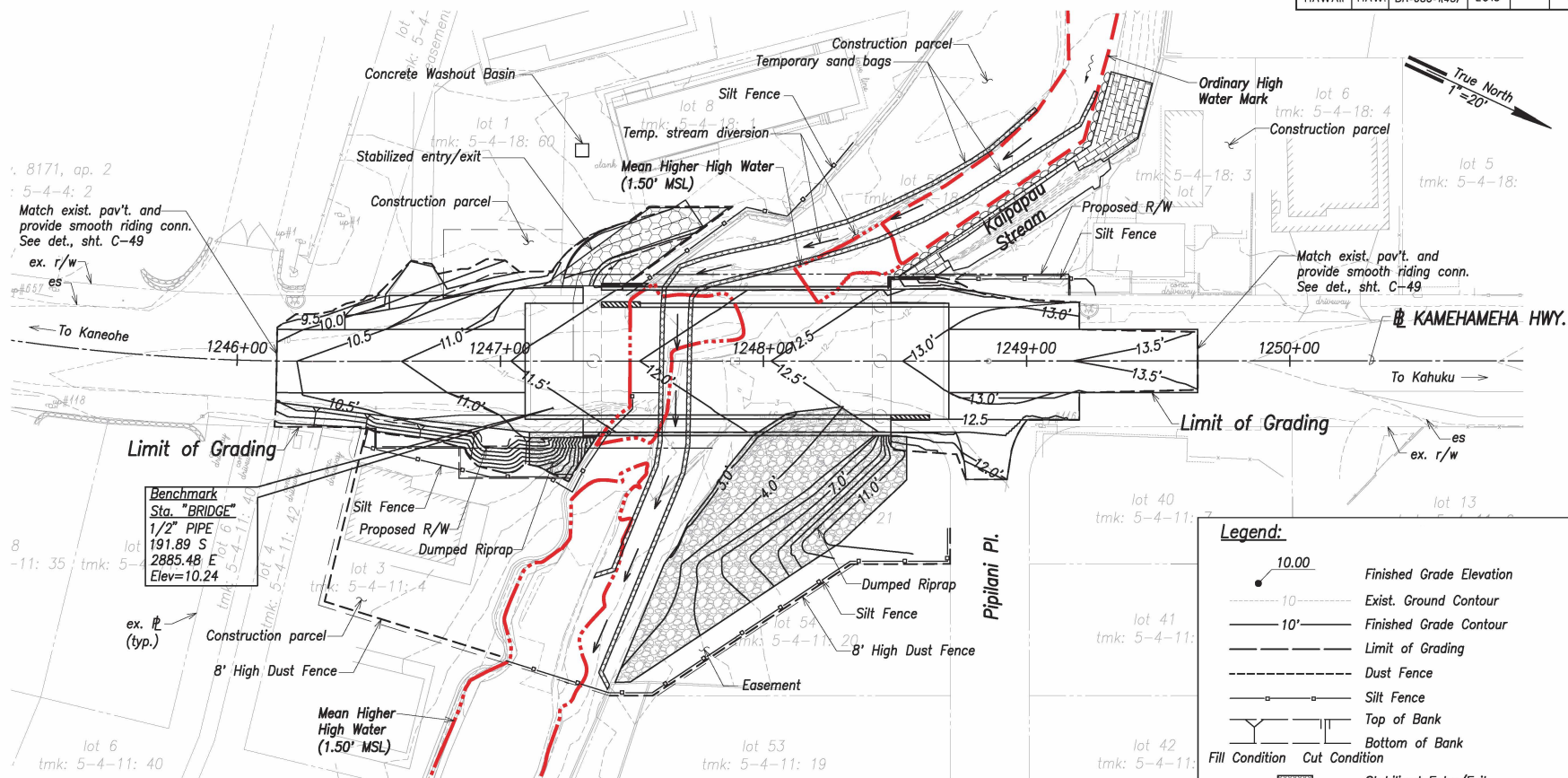
- Limit of Grading
- - - - - Dust Fence
- - - - - Silt Fence
- - - - - Top of Bank
- - - - - Bottom of Bank
- Fill Condition Cut Condition
- Stabilized Entry/Exit
- Ordinary High Water Mark
- Mean Higher High Water

Graphic Scale:
1" = 20' 20' 10' 0' 20' 40'
Scale in Feet

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**TEMPORARY DETOUR
ROADWAY PLAN**
Kamehameha Highway
Kaipapou Stream Bridge Replacement
Project No. BR-083-1(48)
Scale: AS NOTED Date: DECEMBER 2013
SHEET No. OF SHEETS

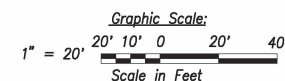
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	XX	XX



GRADING, EROSION AND SEDIMENT CONTROL PLAN
Scale: 1"=20'

Legend:

- 10.00 Finished Grade Elevation
- 10' Exist. Ground Contour
- 10' Finished Grade Contour
- Limit of Grading
- Dust Fence
- Silt Fence
- Top of Bank
- Bottom of Bank
- Fill Condition
- Cut Condition
- Stabilized Entry/Exit
- Ordinary High Water Mark
- Mean Higher High Water



DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

HWY JOB NO. : 1-19548-02

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

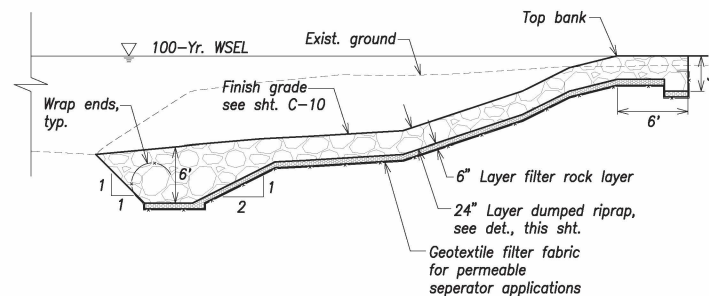
GRADING, EROSION AND SEDIMENT CONTROL PLAN

*Kamehameha Highway
Kaipapau Stream Bridge Replacement
Project No. BR-083-1(48)*

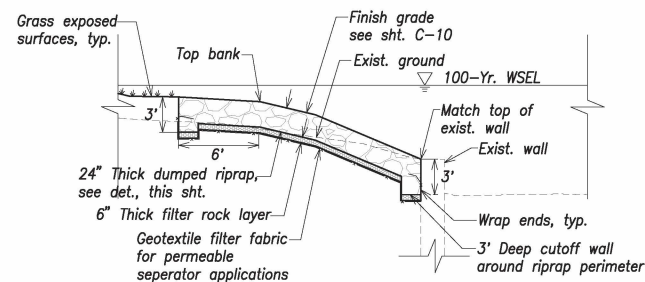
Scale: AS NOTED Date: DECEMBER 2013

SHEET No. OF SHEETS

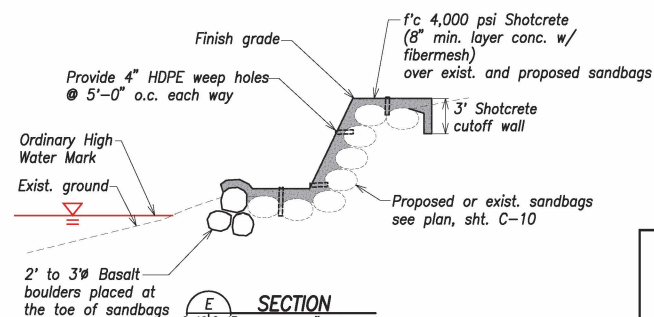
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	48	xx



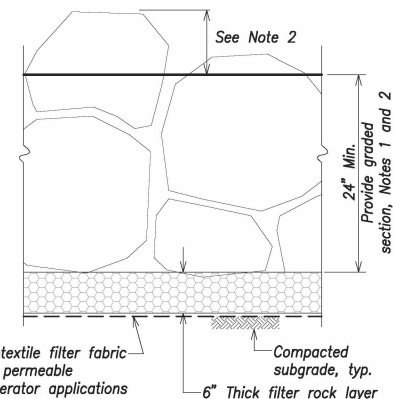
SECTION C-10/C-47
Scale: 1"=5'



SECTION D-10/C-47
Scale: 1"=5'

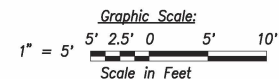


SECTION E-10/C-47
Scale: 1"=5'



- Notes:**
- Riprap shall be basalt rock and consist of 18" average stone size, 30" maximum stone size.
 - Riprap gradation:
 $D_{60} = 2-0"$
 $D_{30} = 1'-6"$
 $D_{10} = 6"$
 - 12" Max. from highest adjacent rock finish top.

DUMPED RIPRAP
Not to Scale



DESIGNED BY	DATE
DRAWN BY	DATE
CHECKED BY	DATE
APPROVED BY	DATE

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DATE: 4/20/14
 SIGNATURE: [Signature]
 FIRM: M. W. TOWELL CORPORATION

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STREAM BANK STABILIZATION & MISCELLANEOUS SECTIONS
*Kamehameha Highway
 Kaipapau Stream Bridge Replacement
 Project No. BR-083-1(48)*

Scale: AS NOTED Date: DECEMBER 2013

SHEET No. C-47 OF SHEETS