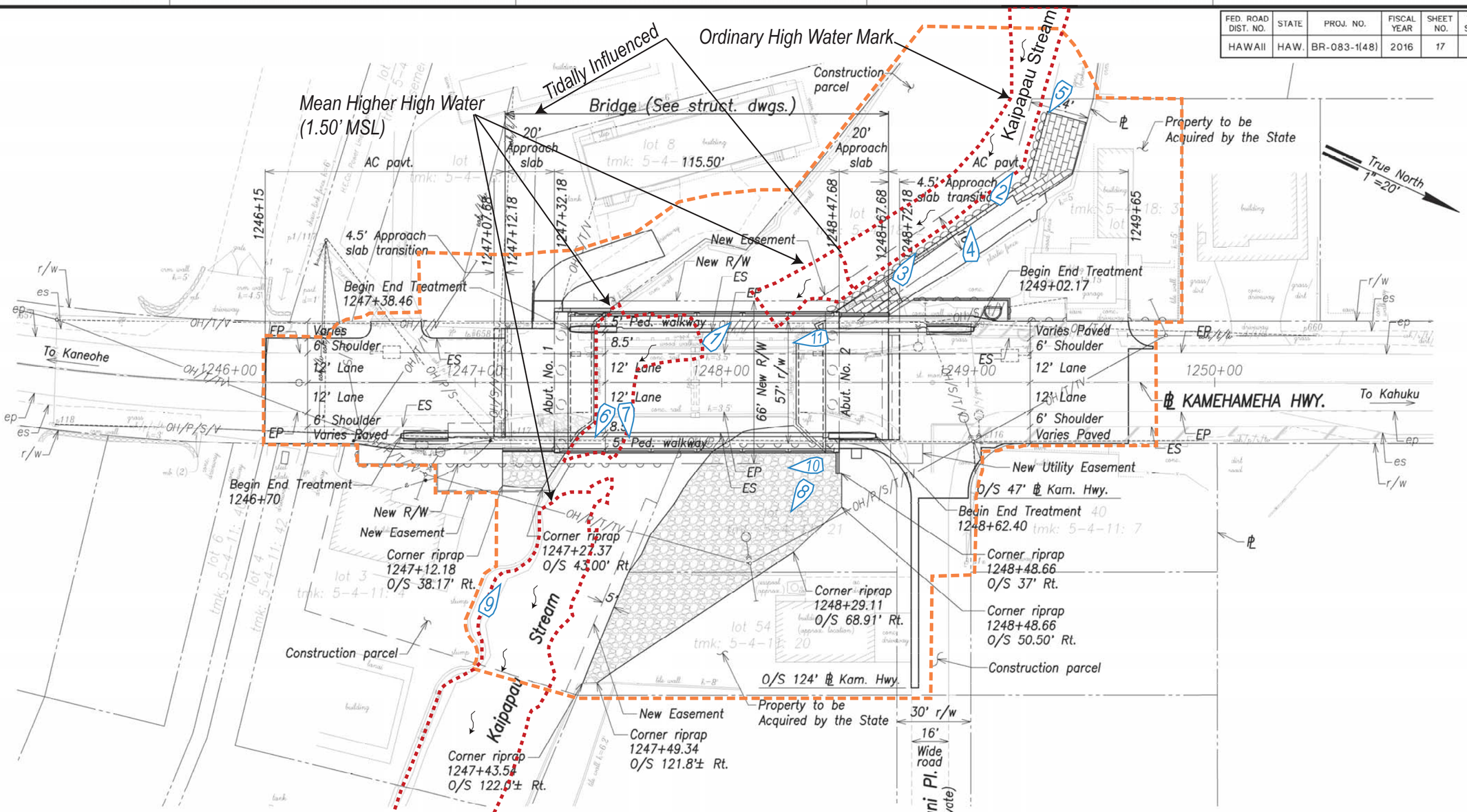
Attachment A-3
Army Corps Jurisdictional Boundary Maps

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2016	17	142



SITE LAYOUT PLAN

SCALE 1"=20'

Pavement Note:

Contractor shall submit a pavement phasing plan and schedule for the AC pavement work to the State Engineer for review and approval. Contractor shall be responsible for providing temporary traffic controls, temporary pavement transitions, notifying affected residences of the work schedule and providing safe temporary access at all times to driveways and streets. Continuous two way traffic shall be maintained at all times. Work shall be considered incidental to various items of work.

Legend:

- Dumped Riprap
- Project Boundary
- Army Corps Jurisdiction
- Photo Key

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	RSY
	TRACED BY	
NOTE BOOK	DESIGNED BY	WC
	QUANTITIES BY	
No.	CHECKED BY	

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

4/30/16

SIGNATURE — LIC. EXPIRATION

R. M. TOWILL CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

SITE LAYOUT PLAN

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

Scale: As Noted — Date: April 2015

SHEET No. C-16 OF SHEETS

RMTC JOB NO. : 1-19548-0E

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

1. Kaipapa'u Stream – Upstream View

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

3. Kaipapa'u Stream – Upstream from Project Site

4. Kaipapa'u Stream – Upstream View from Bridge – During Storm

5. Kaipapa'u Stream Bridge – Upstream Side

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

7. Kahuku Makai Bank – Downstream Side

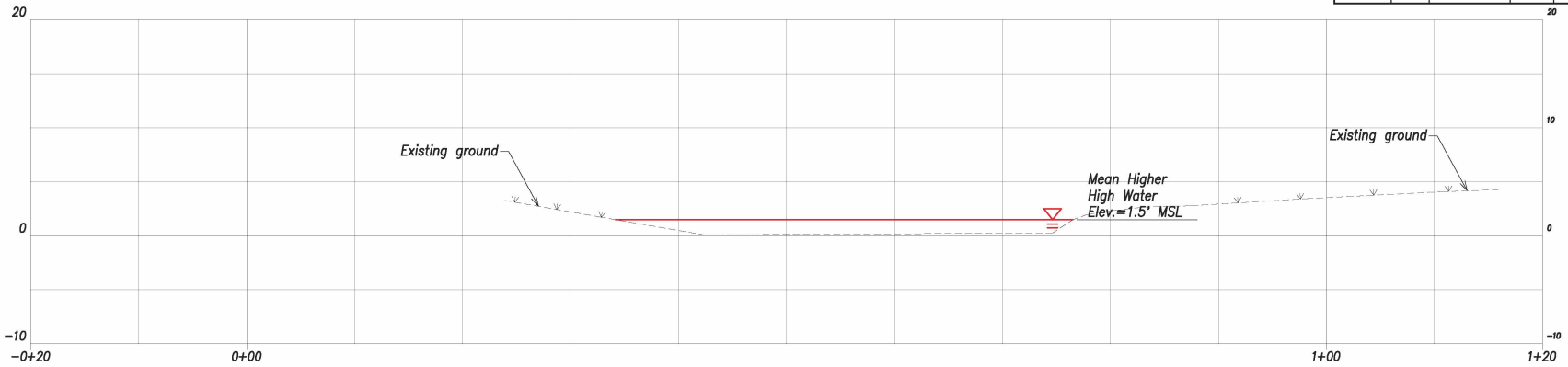
8. From Kahuku Makai Bank – View to Ocean – During Storm

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

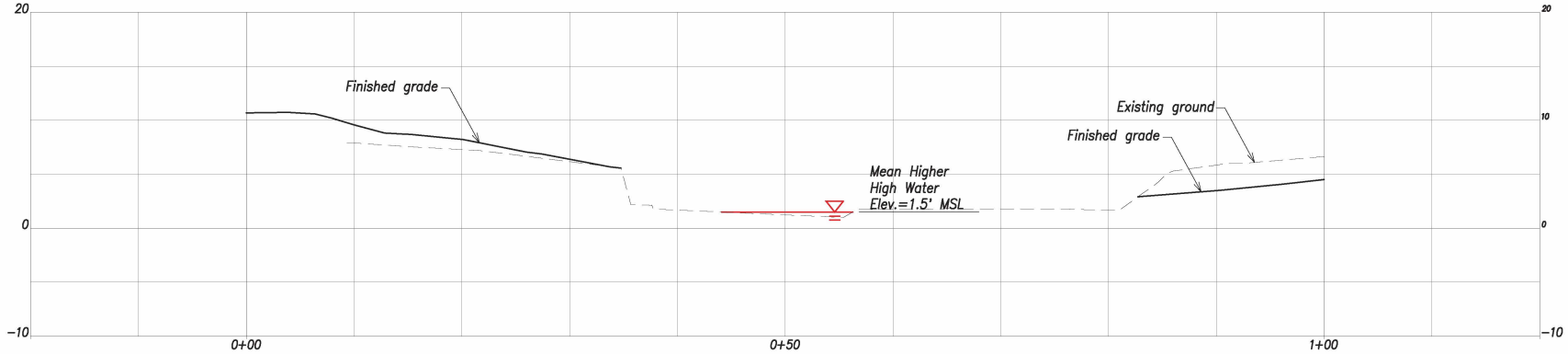
10. Kaipapa‘u Stream Bridge – Downstream Side – During Storm

11. Kaipapaʻu Stream Bridge – Looking to Kāneʻohe – After Storm

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



A 1 2 **SECTION**
Scale: 1"=5'



B 1 2 **SECTION**
Scale: 1"=5'

Graphic Scale:
1" = 5' 5' 0 5' 10'
Scale in Feet

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER OF CONSTRUCTION AS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

4/30/14
SIGNATURE: LIC. EXPIRATION
R. M. TOWILL 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)

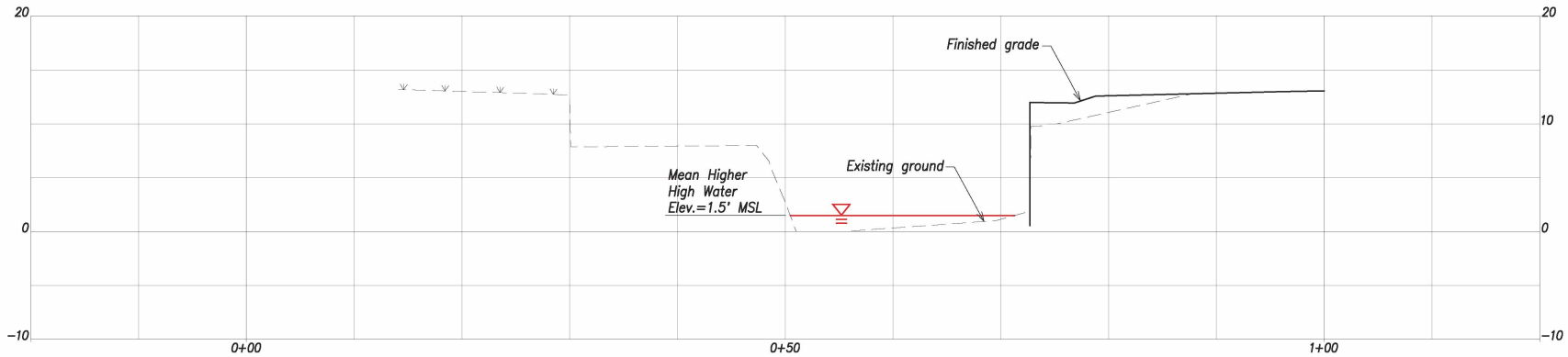
Scale: AS NOTED Date: DECEMBER 2013

SHEET No. 2 OF 4 SHEETS

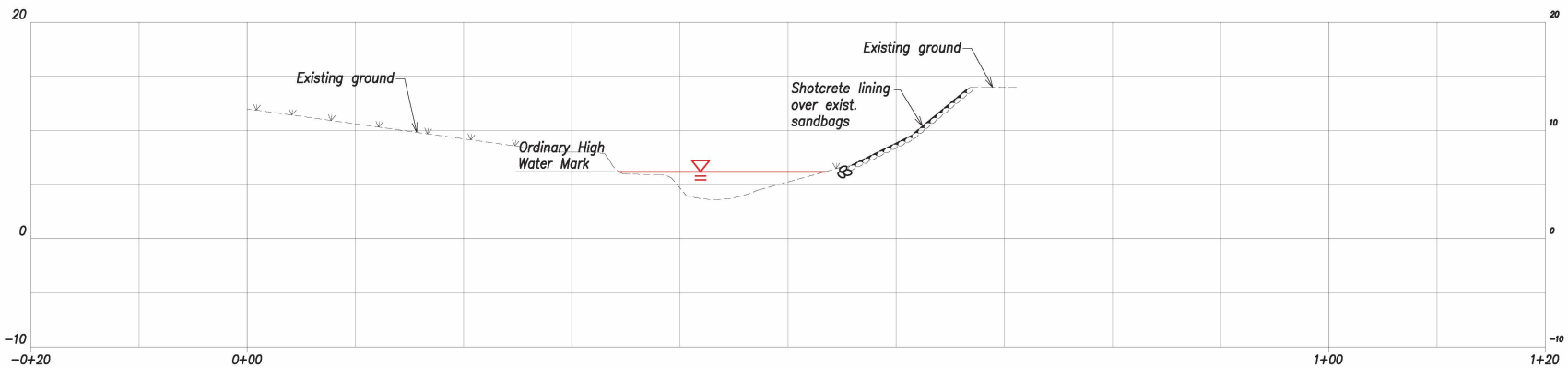
ORIGINAL PLAN	SURVEY CHAPTED BY	DATE
	DRAWN BY	DEPT
	TRACED BY	
NOTE SHEET	DESIGNED BY	WC
	QUANTITIES BY	
No.	CHECKED BY	

RMTC JOB NO. : 1-19548-OE

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



C 1 3 **SECTION**
Scale: 1"=5'



D 1 3 **SECTION**
Scale: 1"=5'

Graphic Scale:
1" = 5' 5' 0 5' 10'
Scale in Feet

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER OF CONSTRUCTION AS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

4/30/14
SIGNATURE: LIC. EXPIRATION
R. M. TOWILL CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

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

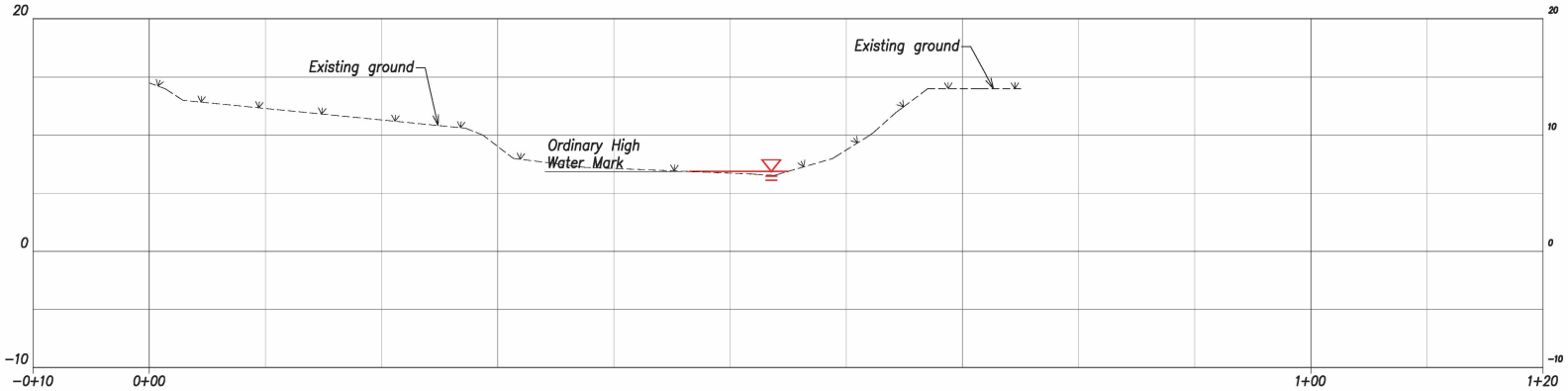
Scale: AS NOTED Date: DECEMBER 2013

SHEET No. 3 OF 4 SHEETS

ORIGINAL PLAN	SURVEY CHIEF	DRAWN BY	TRACED BY	TRACED BY	QUANTITIES BY	CHECKED BY	DATE
NOTE DATE							
No.							

RMTC JOB NO. : 1-19548-OE

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	4	xx



E 1 4 **SECTION**
Scale: 1"=5'

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
	DRAWN BY	BRST
	TRACED BY	
NOTE SHEET	DESIGNED BY	WC
	QUANTITIES BY	
No.	CHECKED BY	

Graphic Scale:
1" = 5' 5' 0 5' 10'
Scale in Feet

THIS WORK WAS PREPARED BY ME, OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE SUPERVISED BY A LICENSED PROFESSIONAL ENGINEER IN ACCORDANCE WITH THE STATE OF HAWAII BOARD OF CONTRACTORS AS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

4/30/14
SIGNATURE LIC. EXPIRATION
R. M. TOWILL CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

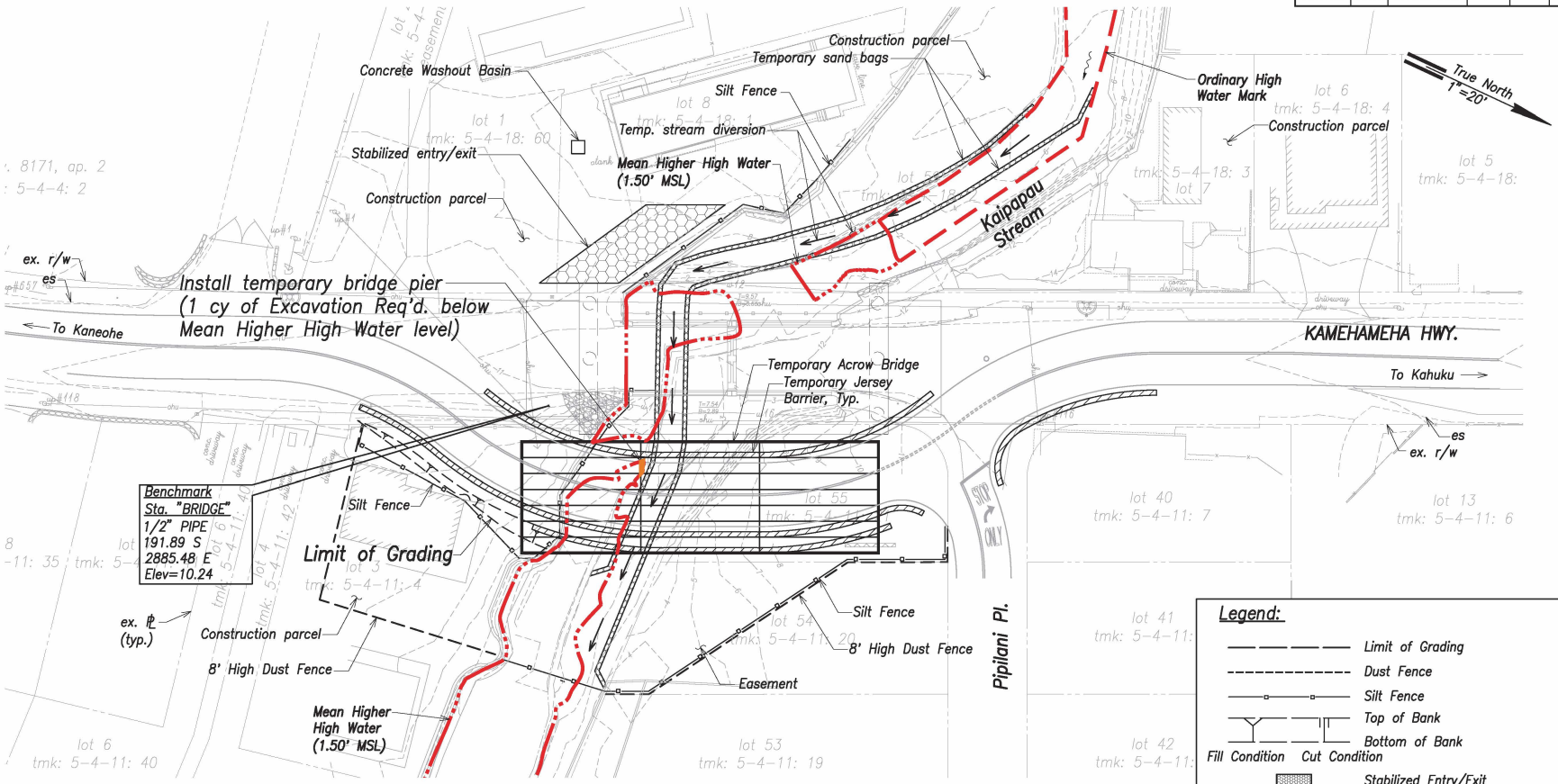
EXHIBIT 4
SECTIONS – 3
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Project No. BR-083-1(48)

Scale: AS NOTED Date: DECEMBER 2013

SHEET No. 4 OF 4 SHEETS

RMTC JOB NO. : 1-19548-0E

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

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION TO THIS PROJECT WILL BE SUPERVISED BY A LICENSED "PROFESSIONAL ENGINEER OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

SIGNATURE: 4/30/14
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R. M. TOWILL CORPORATION

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TEMPORARY DETOUR ROADWAY PLAN

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

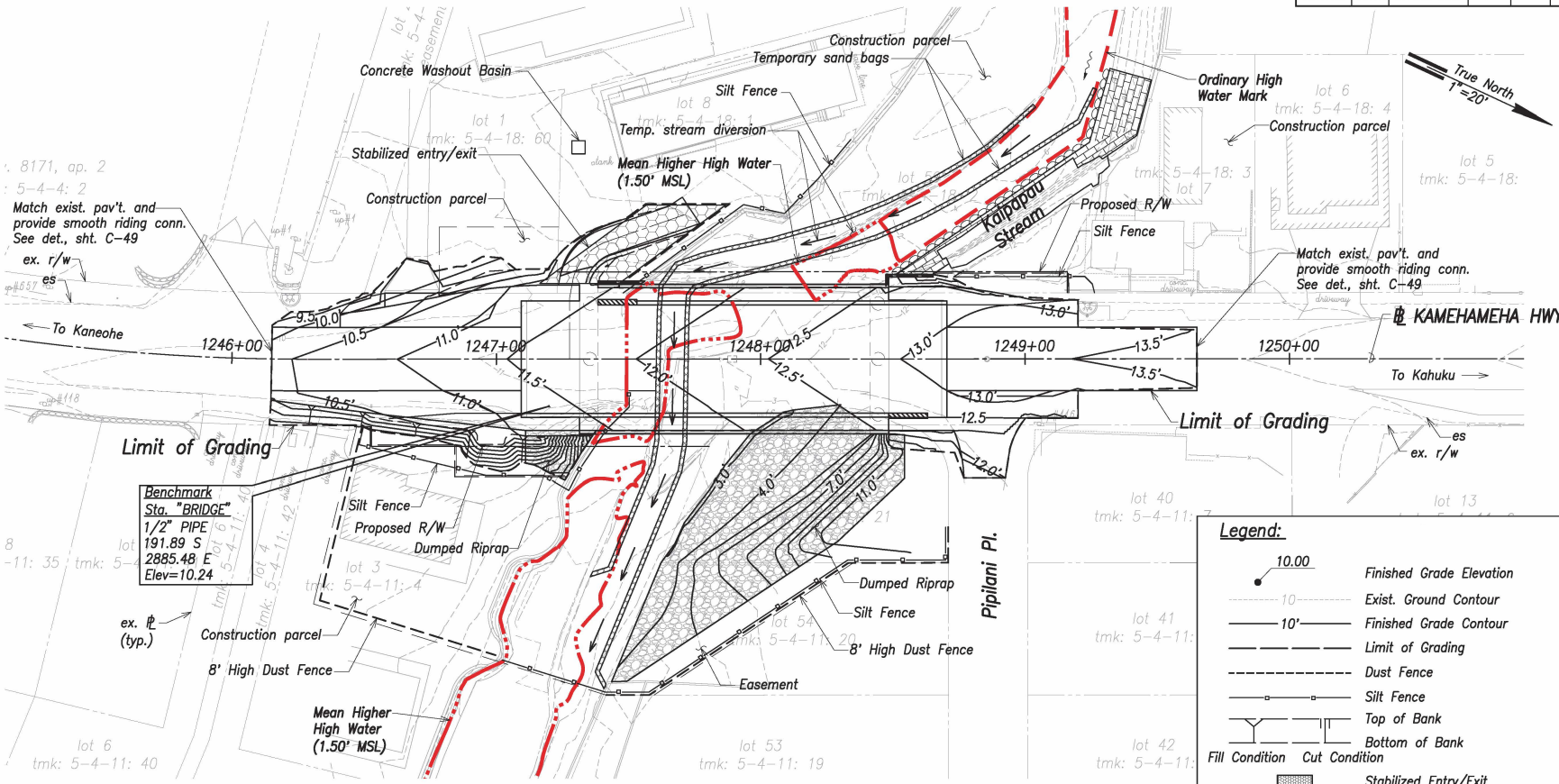
Scale: AS NOTED Date: DECEMBER 2013

SHEET No. OF SHEETS

ORIGINAL PLAN	SURVEY CHAPTED BY	DATE
	DRAWN BY	DEPT
	TRACED BY	
NOTE SHEET	DESIGNED BY	WC
	CHECKED BY	
No.	QUANTITIES BY	
	CHECKED BY	

RMTC JOB NO. : 1-19548-OE

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



GRADING, EROSION AND SEDIMENT CONTROL PLAN

Scale: 1"=20'

Graphic Scale:

1" = 20' 20' 10' 0 20' 40'

Scale in Feet

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSIDERATION. "CERTIFICATE OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115 "CERTIFICATE OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115 HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

4/30/14

SIGNATURE: LIC. EXPIRATION

R. M. TOWILL CORPORATION

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)

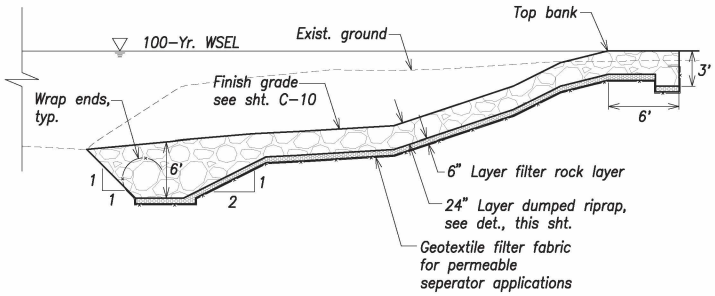
Scale: AS NOTED Date: DECEMBER 2013

SHEET No. OF SHEETS

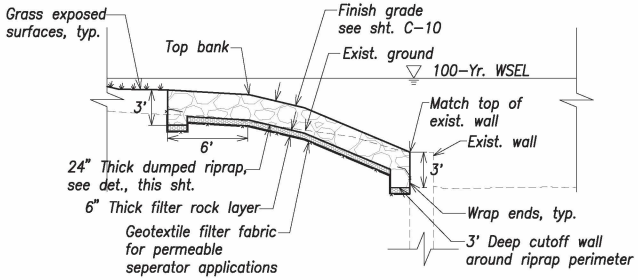
ORIGINAL PLAN	SURVEY CHAIRED BY	DATE
	DRAWN BY	DEPT
	TRACED BY	
NOTE BOOK	VERIFIED BY	WC
	QUANTITIES BY	
No.	CHECKED BY	

RMTC JOB NO. : 1-19548-0E

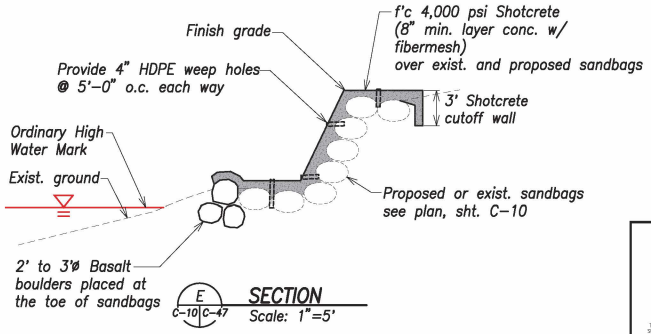
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2015	48	xx



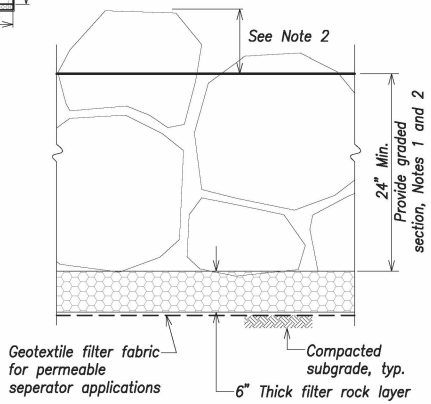
C C–10 C–47 **SECTION**
Scale: 1"=5'



D C–10 C–47 **SECTION**
Scale: 1"=5'



E C–10 C–47 **SECTION**
Scale: 1"=5'



Notes:

1. Riprap shall be basalt rock and consist of 18"ø average stone size, 30"ø maximum stone size.
2. Riprap gradation:
   D_{85} = 2–0"
   D_{50} = 1'–6"
   D_{15} = 6"
3. 12" Max. from highest adjacent rock finish top.

DUMPED RIPRAP
Not to Scale

Graphic Scale:
1" = 5' 5' 2.5' 0 5' 10'
Scale in Feet

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSIDERATION OF THIS PROJECT WAS BASED ON ACCEPTED ENGINEERING PRACTICE OF CONSTRUCTION AS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

4/30/14
SIGNATURE: LIC. EXPIRATION
R. M. TOWILL 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

ORIGINAL PLAN | SURVEY CHAPTED BY DATE | DRAWN BY BRST | TRACED BY | DESIGNED BY TC | QUANTITIES BY | CHECKED BY | NOTE SHOWS | No.

RMTC JOB NO. : 1-19548-OE