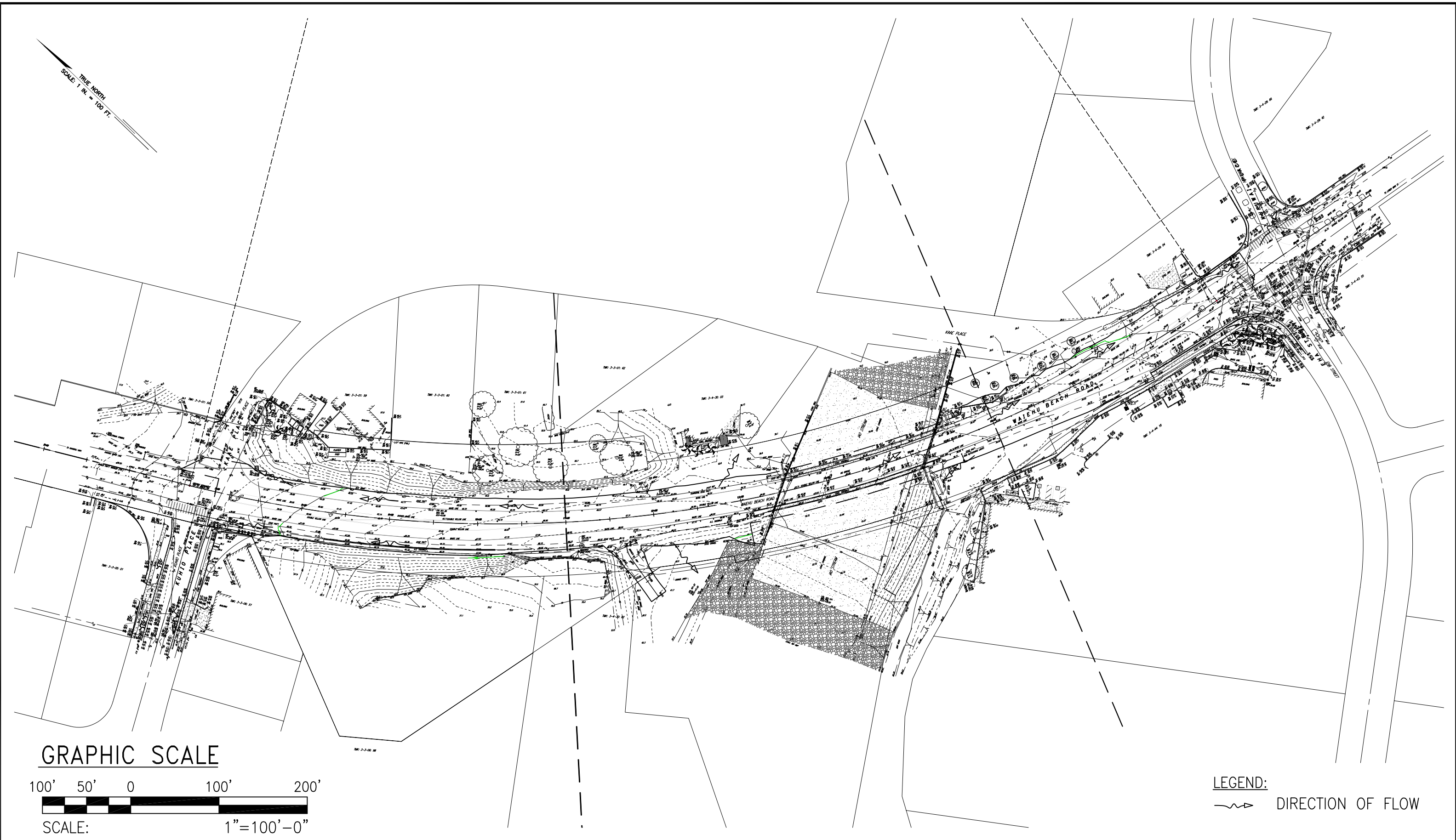


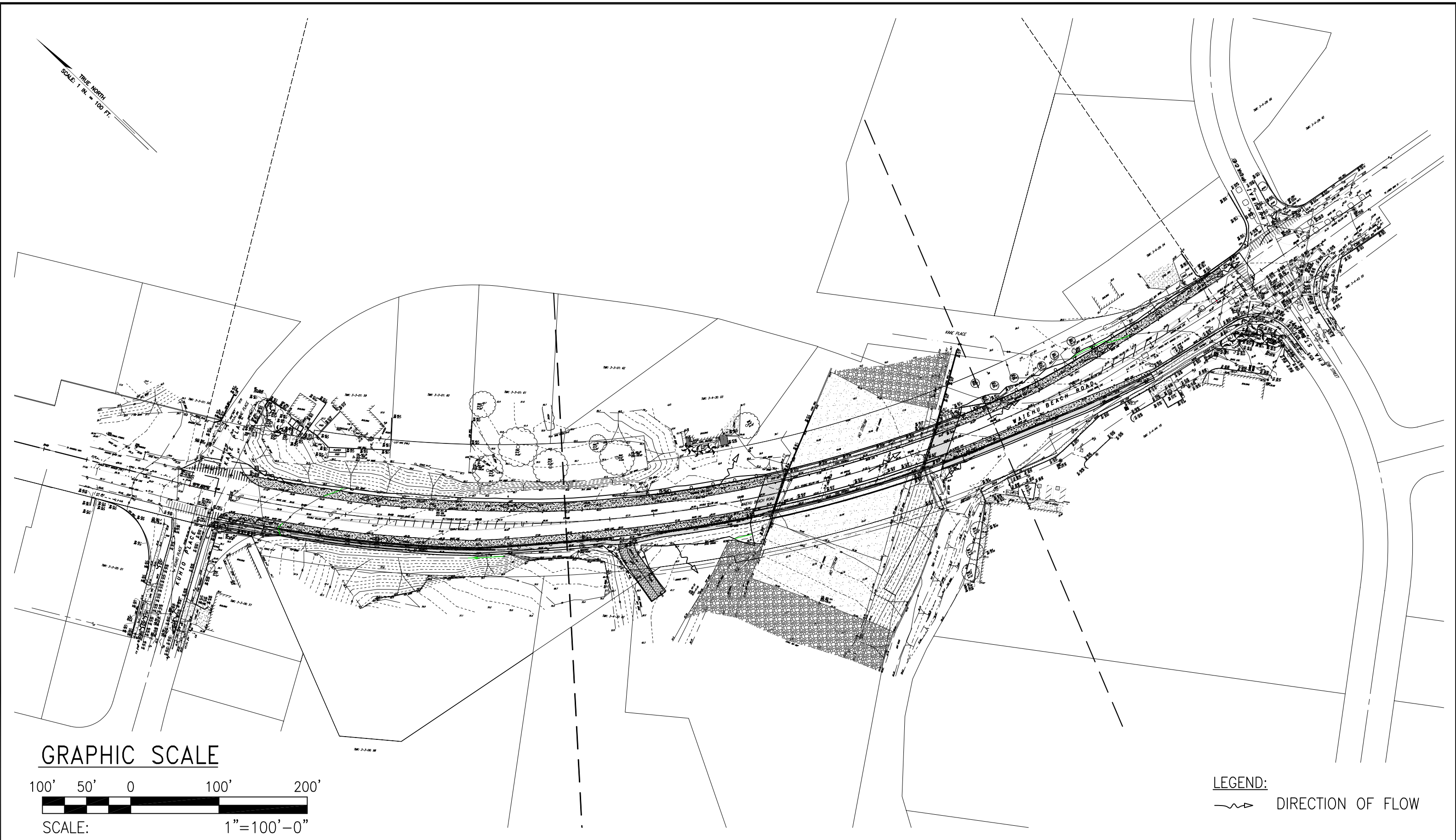
REHABILITATION OF IAO STREAM BRIDGE

PROJECT LOCATION MAP

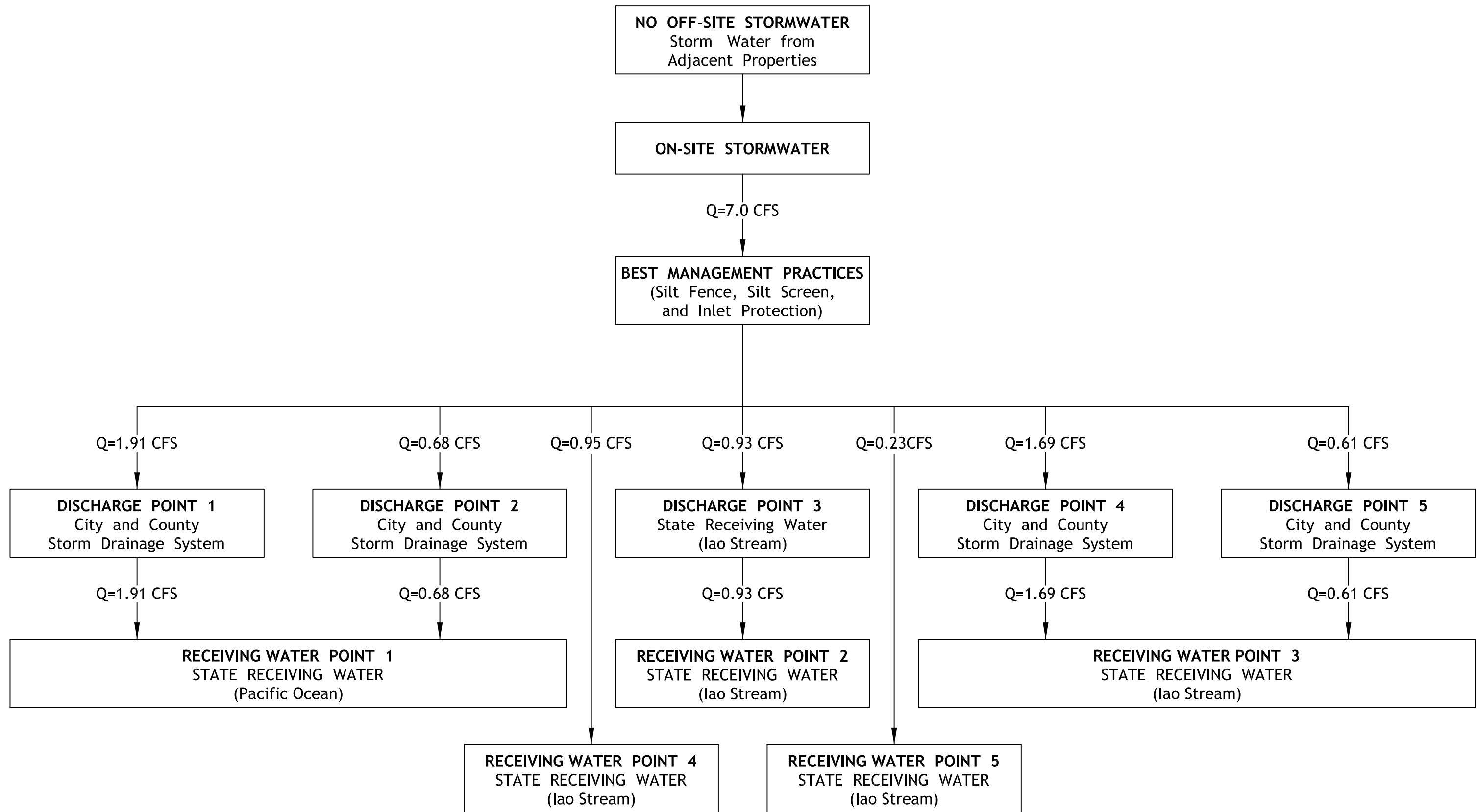
FIGURE

1





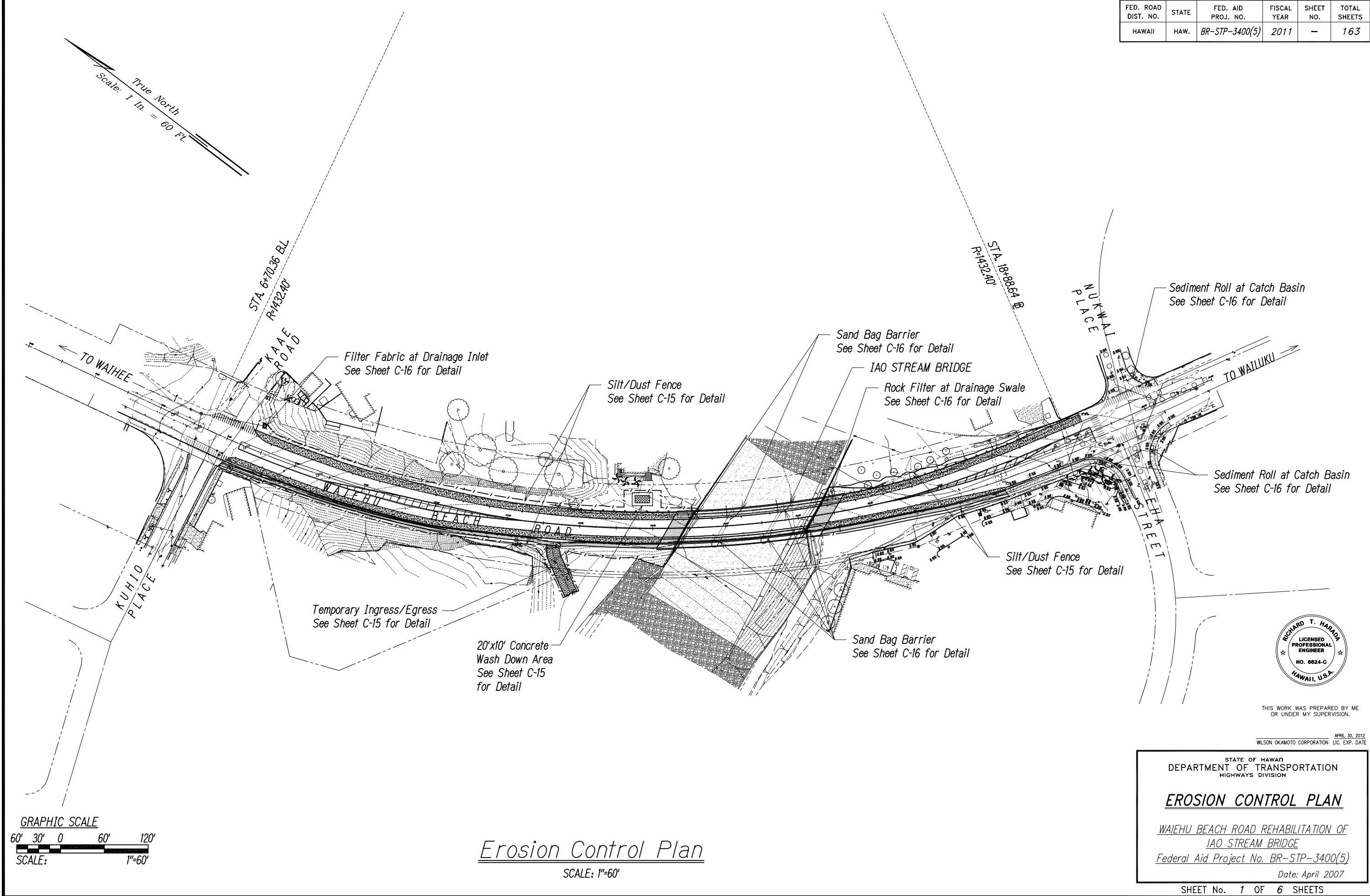




FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	—	163

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

Path: L:\WQA\7213-01 Iao\DWG\ File name: C-9 Plot date: May 11, 2011-03:49:17pm CAD User: BMoeda. Xref File name: | WQC-SITE | 06008-20 | DOTBORD | AUTODATE |



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APRIL 30, 2012
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

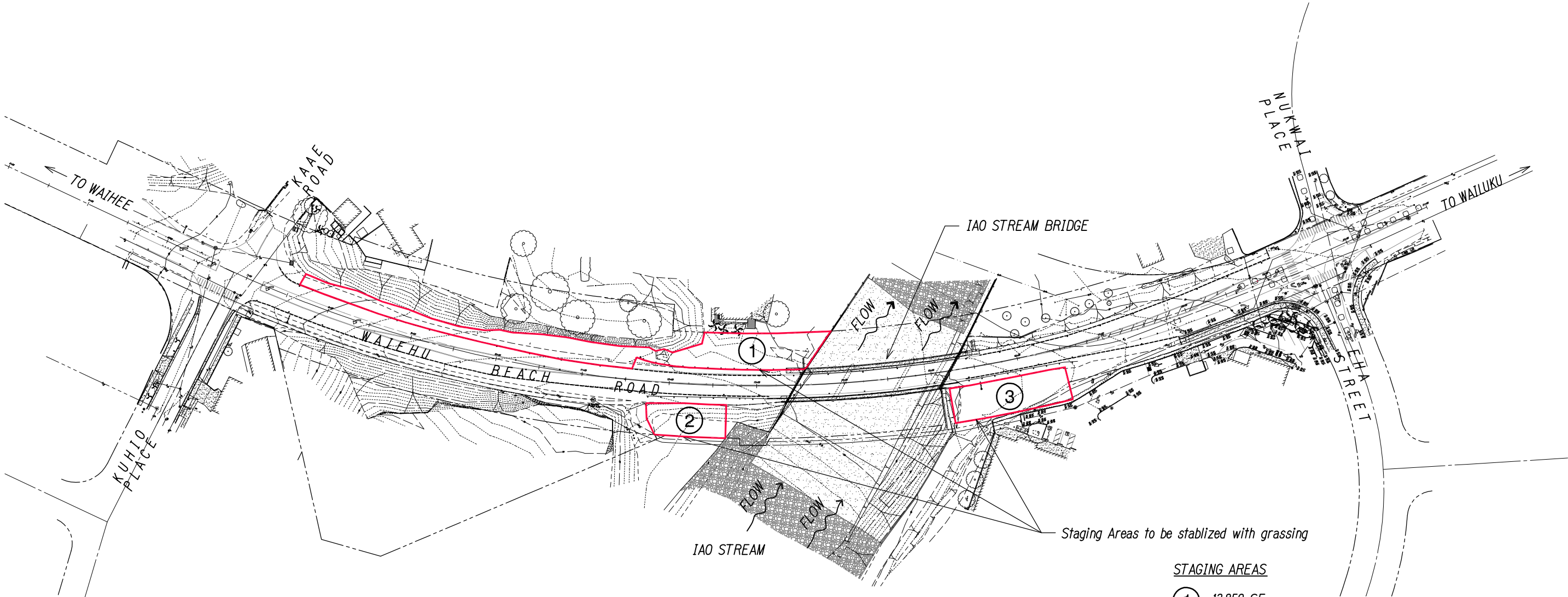
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL PLAN

WAIEHU BEACH ROAD REHABILITATION OF
IAO STREAM BRIDGE
Federal Aid Project No. BR-STP-3400(5)
Date: April 2007
SHEET No. 1 OF 6 SHEETS

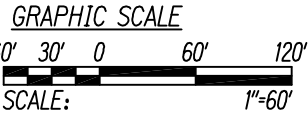
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	13	92

True North
Scale: 1 In. = 60 Ft.



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

Path: L:\WOA\7213-01 Iao\PLANNING\Permits\COE\CIVIL\FIGU Filename: FIGURE 5A Plot date: Sep 16, 2011 -03:26:14pm CAD User: BMaeda Xref Filename: WOC-SITE | 06008-20 | DOTBORD | AUTODATE |



STAGING AREAS
SCALE: 1"=60'

STAGING AREAS

- ① 13,859 SF
- ② 3,306 SF
- ③ 5,379 SF

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STAGING AREAS

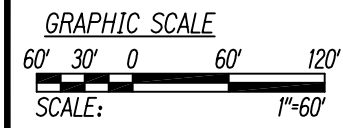
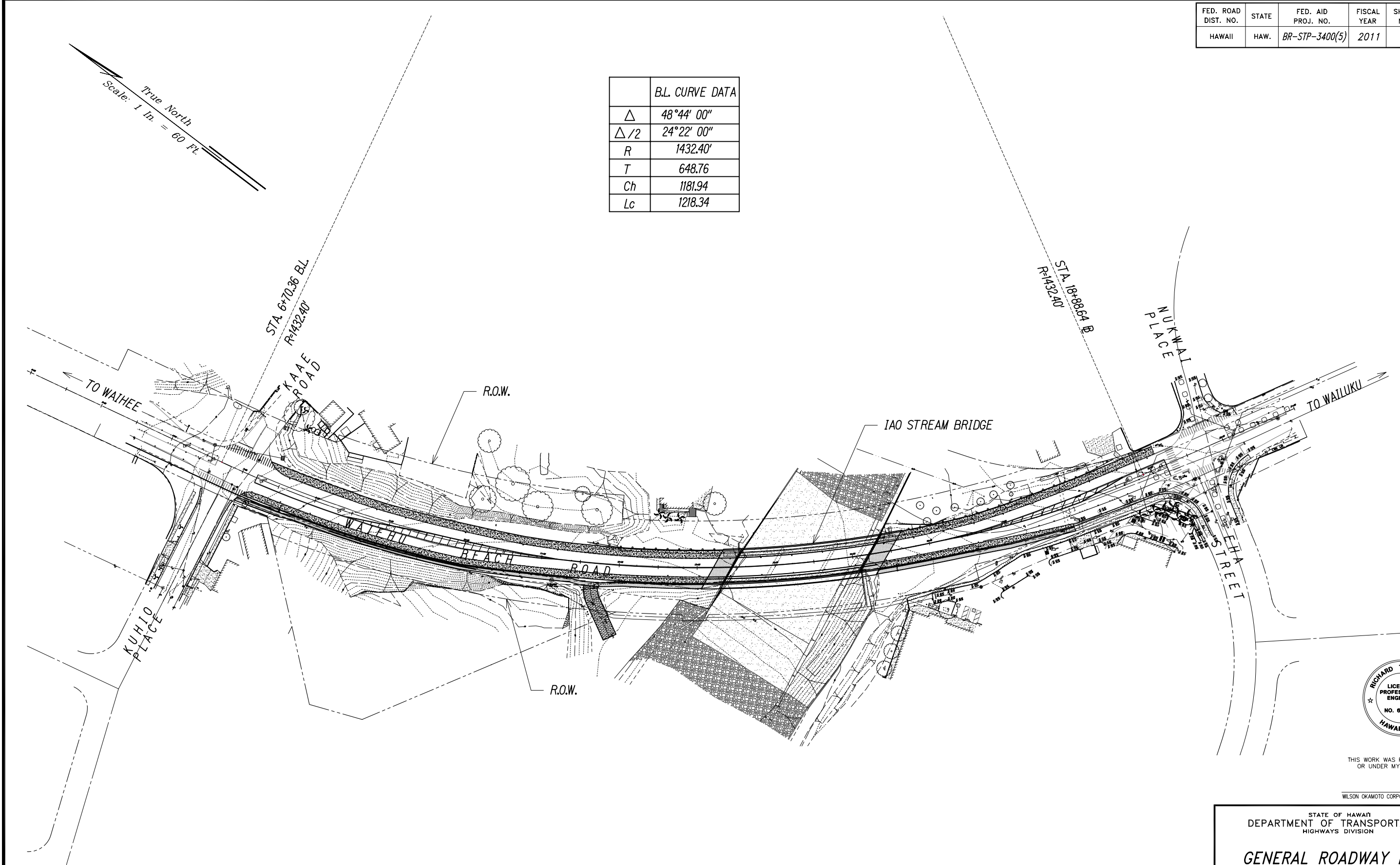
WAIEHU BEACH ROAD REHABILITATION OF
IAO STREAM BRIDGE
Federal Aid Project No. BR-STP-3400(5)
Date: July 2011

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	—	163

B.L. CURVE DATA	
Δ	48°44' 00"
$\Delta/2$	24°22' 00"
R	1432.40'
T	648.76
Ch	1181.94
Lc	1218.34

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

Path: L:\WQA\7213-01 Iao\CVL\ File: Iao CVL.dwg Plot date: May 11, 2011-03:51:11pm CAD User: BMoeda, Xref Filename: WOC-SITE | 06008-20 | DOTBORD | AUTODATE |



GENERAL ROADWAY PLAN SCALE: 1"=60'



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APRIL 30, 2012
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL ROADWAY PLAN

WAIEHU BEACH ROAD REHABILITATION OF
IAO STREAM BRIDGE
Federal Aid Project No. BR-STP-3400(5)
Date: April 2007

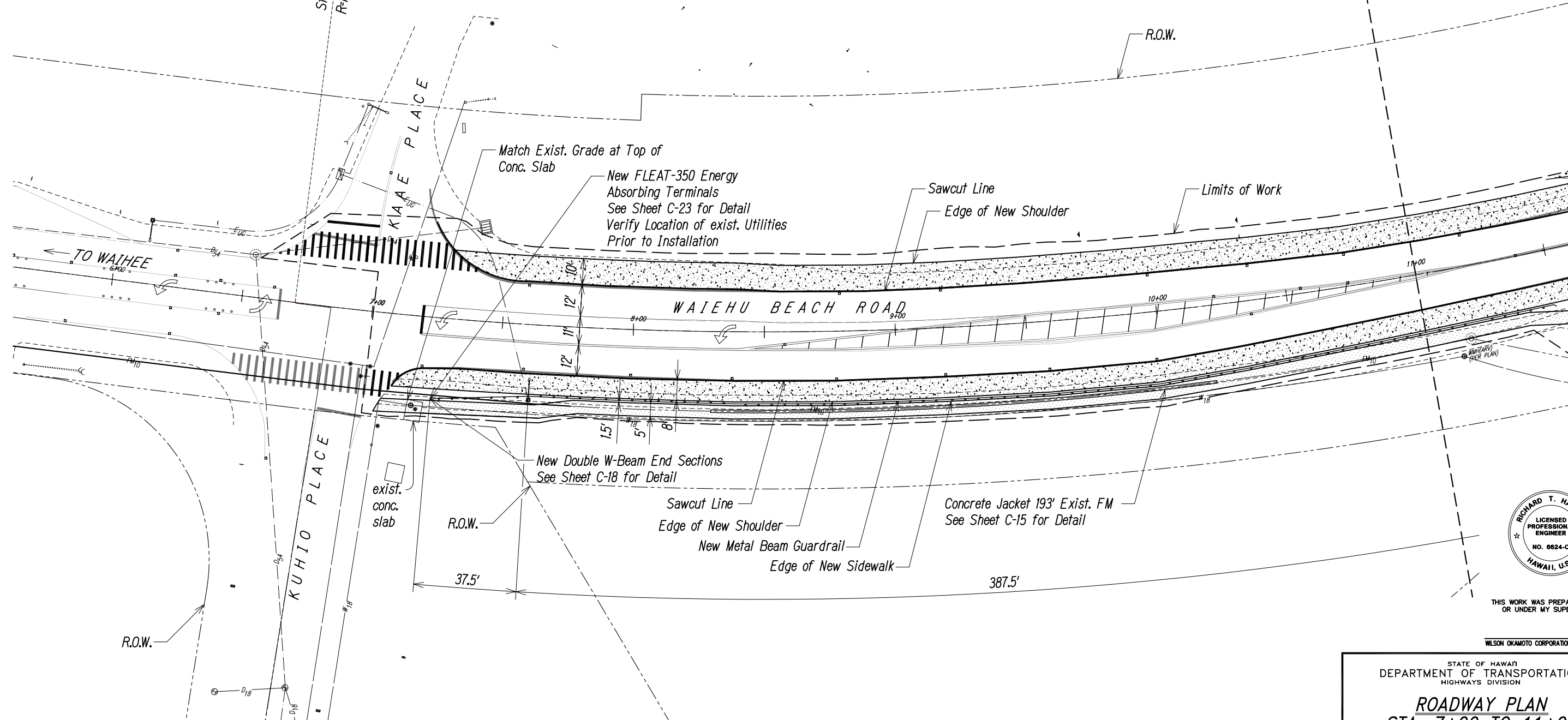
SHEET No. 2 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	-	163

True North
Scale: 1 In. = 20 Ft.

Sta. 6+70.36 B.L.
R=1432.40'

— MATCHLINE
— STA 11+00



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

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WILSON OKAMOTO CORPORATION APRIL 30, 201
LIC. EXP. DA

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

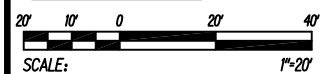
ROADWAY PLAN
STA. 7+00 TO 11+00

WAIHEHU BEACH ROAD REHABILITATION OF
140 STREAM BRIDGE

Federal Aid Project No. BR-STP-3400(5)

Date: April 20

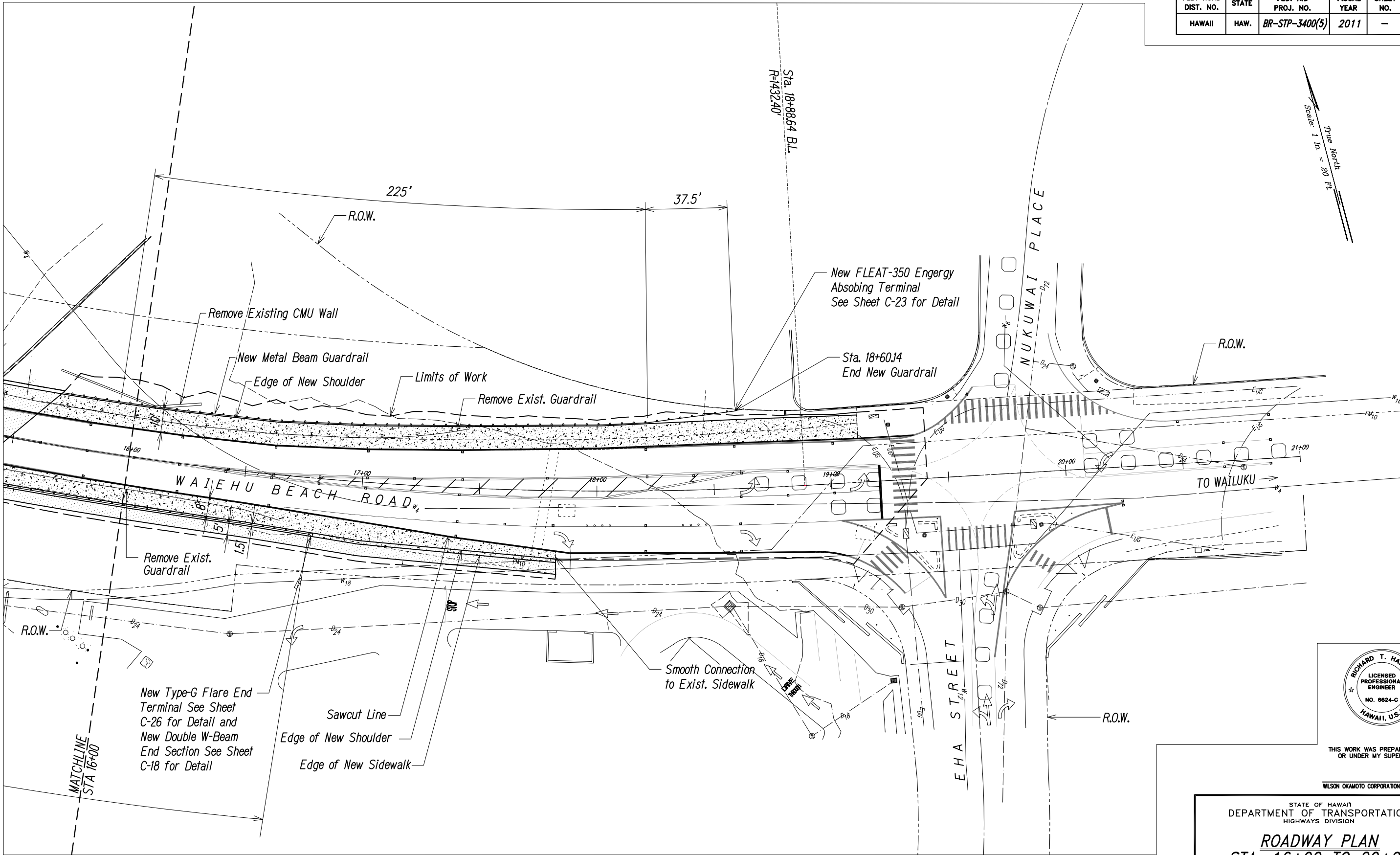
GRAPHIC SCALE



ROADWAY PLAN

SCALE: 1"=20'

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	—	163



True North
Scale: 1 in. = 20 ft.

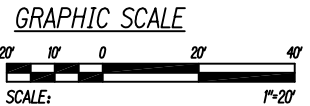


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APRIL 30, 2012
WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

ROADWAY PLAN
STA. 16+00 TO 20+00
WAIEHU BEACH ROAD REHABILITATION OF
IAO STREAM BRIDGE
Federal Aid Project No. BR-STP-3400(5)
Date: April 2007
SHEET No. 5 OF 6 SHEETS

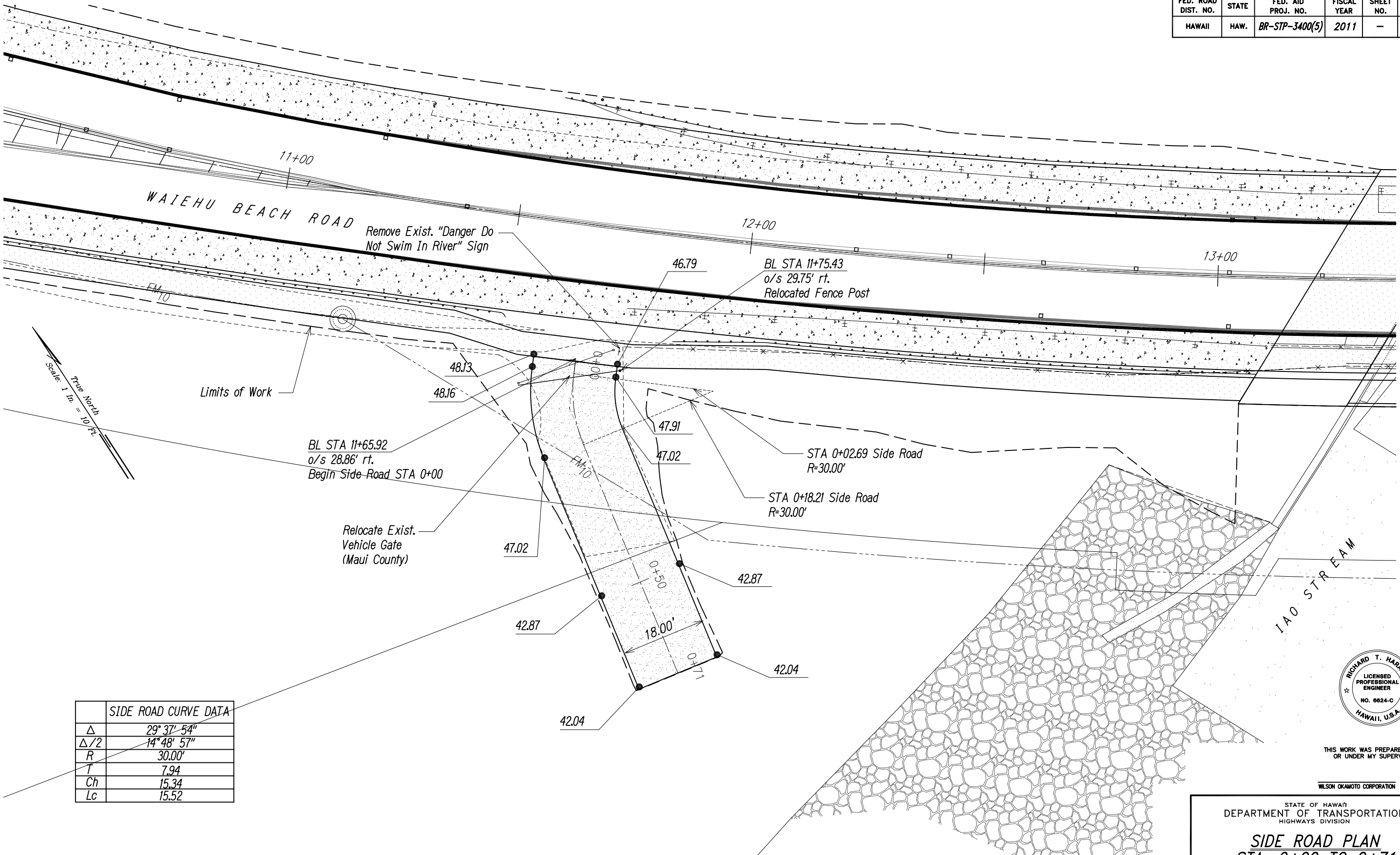


ROADWAY PLAN SCALE: 1"=20'

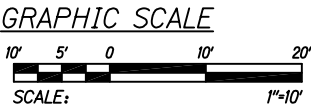
NO.	DATE	REVISION
1		DESIGN
2		CONSTRUCTION
3		AS-BUILT

Path: L:\NOA\7213-01 Iao\DWG\ File: 16+00 STA 16+00.dwg Plot date: May 11, 2011-03:55:23pm CAD User: BMoeda Xref Filename: Bordersht 22x36 | WOC-SITE | 06008-20 | AUTODATE |

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	—	163



SIDE ROAD CURVE DATA	
Δ	29° 37' 54"
$\Delta/2$	14° 48' 57"
R	30.00'
T	7.94
Ch	15.34
Lc	15.52



SIDE ROAD PLAN SCALE: 1"=10'



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APRIL 30, 2012
 WILSON OKAMOTO CORPORATION LIC. EXP. DATE

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

SIDE ROAD PLAN
STA. 0+00 TO 0+71
 WAIIEHU BEACH ROAD REHABILITATION OF
 IAO STREAM BRIDGE
 Federal Aid Project No. BR-STP-3400(5)
 Date: April 2007

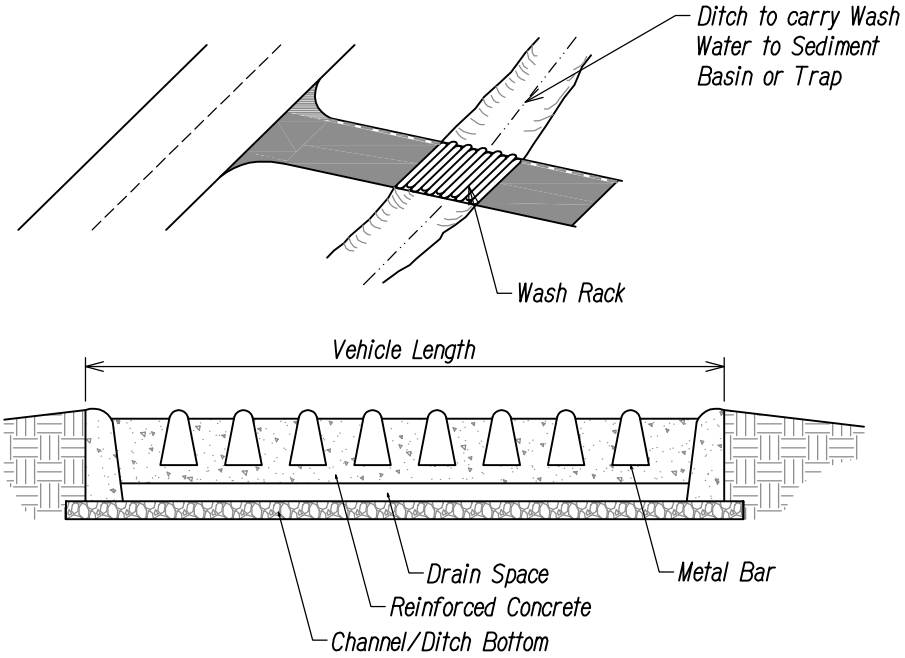
DATE	BY
	DESIGNED BY
	DRAWN BY
	CHECKED BY
	NOTED BY

Path: L:\W0A\7213-01 Iao\CVL\ Filename: C-14 Plot date: May 11, 2011-03:55:54pm CAD User: BMoeda Xref Filename: | Bordersht 22x36 | WOC-SITE | 06008-20 | AUTODATE |

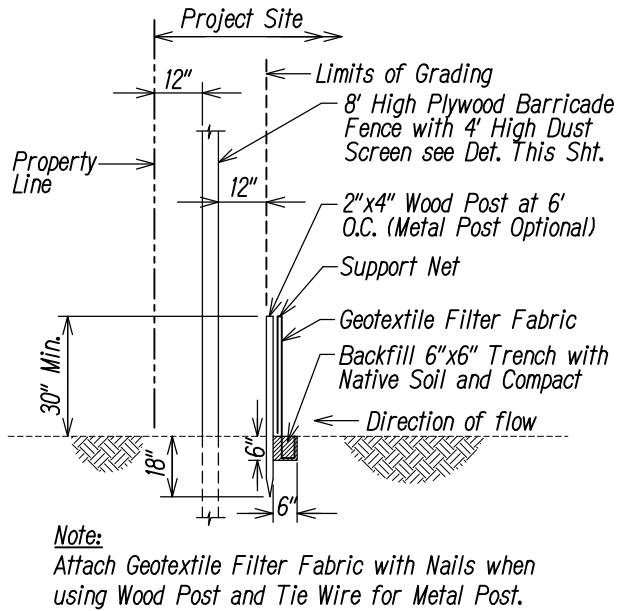
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-STP-3400(5)	2011	19	92

BEST MANAGEMENT PRACTICES (BMP'S)

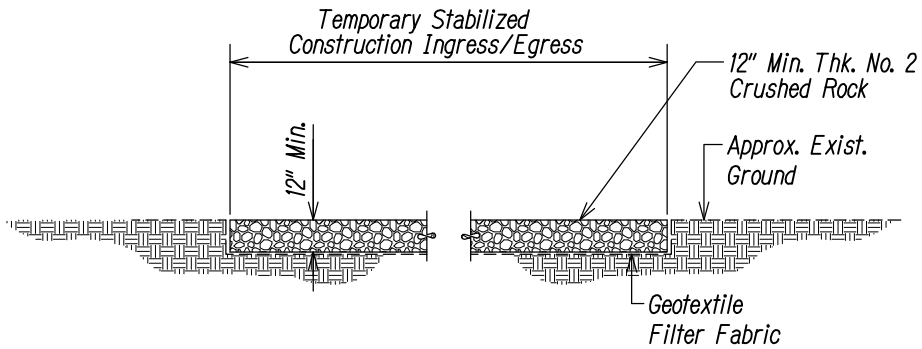
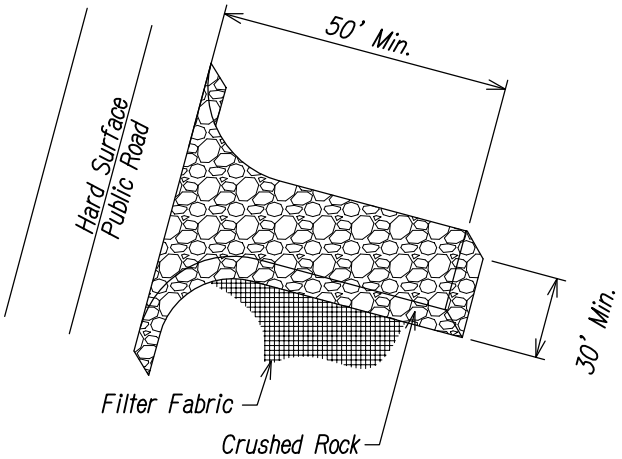
- Erosion Control Measures shall be in place prior to Commencement of Demolition Work.
- Contractor shall repair and/or reinforce Construction Ingress/Egress, as required, to provide continuous BMP.
- Contractor shall prevent dust, resulting from his work, from becoming airborne at all times, including non-working hours, weekends and holidays, in conformance with the State Department of Health Administrative Rules, Title 11, Chapter 60-Air Pollution Control. Contractor shall Provide Dust Control by use of a Water Truck to dampen the area with water.
- Best management practices (BMP's) shall not be removed until all permanent Erosion Controls are in place and established.



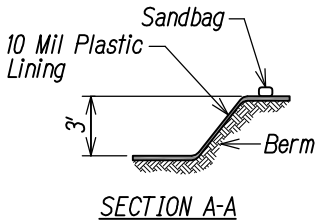
WASH RACK (SCHEMATIC)
NOT TO SCALE



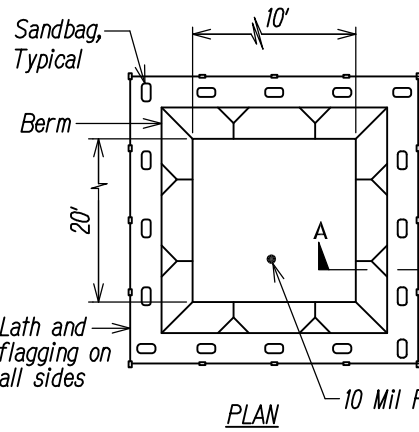
SILT FENCE DETAIL
NOT TO SCALE



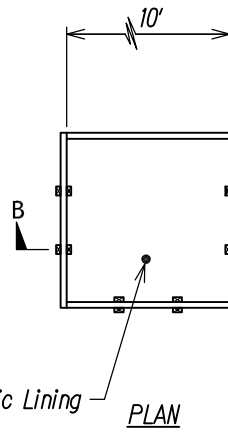
TEMPORARY STABILIZED CONSTRUCTION INGRESS/EGRESS
NOT TO SCALE



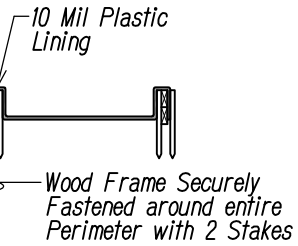
CONCRETE VEHICLE WASH AREA (BELOW GRADE)



PLAN



PLAN



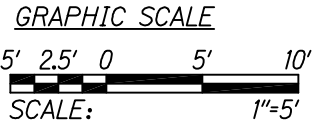
SECTION B-B

CONCRETE VEHICLE WASH AREA (ABOVE GRADE)

Notes:

- Contractor to determine exact layout and whether wash area is above or below grade in field.
- A concrete washout sign shall be installed within 30 feet of the temporary concrete washout facility.

CONCRETE WASHDOWN BASIN
NOT TO SCALE



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

EROSION CONTROL DETAILS 1

WAIHEHU BEACH ROAD REHABILITATION OF
IAO STREAM BRIDGE
Federal Aid Project No. BR-STP-3400(5)

Date: July 2011

SHEET No. 2 OF 13 SHEETS

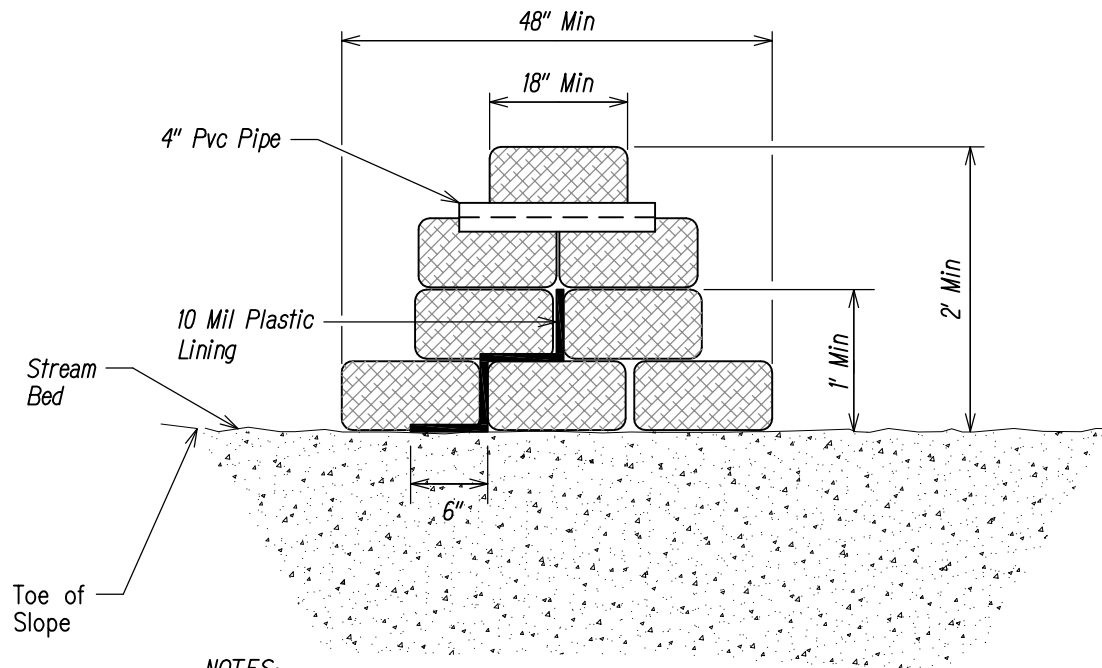
ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____	
	DRAWN BY _____	
NOTE BOOK	TRACED BY _____	
	DESIGNED BY _____	
	QUANTITIES BY _____	
	CHECKED BY _____	
No. _____		

This diagram illustrates the cross-section of a manhole during a repair project. The central opening is covered with a new grating. The surrounding structure consists of new concrete pavement (A.C. Pav't.) and a new ductile iron (D.I.) pipe within the pavement area. The diagram shows the flow of water entering the manhole from the left. The repair area is defined by a 12-inch minimum clearance around the grating. The edges of the fabric are glued or taped onto the concrete slab. The width of the new D.I. pipe varies. The diagram also shows the existing structure, including the old grating and the old concrete pavement, which are being replaced or repaired.

Labels in the diagram include:

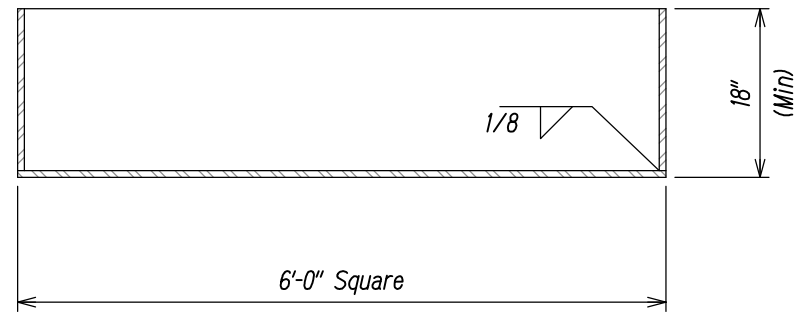
- Cover Opening with Silt Screen Fabric and place Grating over Fabric
- New Grating
- 12" Min. Around Grating
- Glue or Tape edge of Fabric onto Conc. Slab all around
- Flow
- New A.C. Pav't.
- New D.I. within Pav't. Area
- Varies

FABRIC AT GRATED DRAIN INLET
NOT TO SCALE



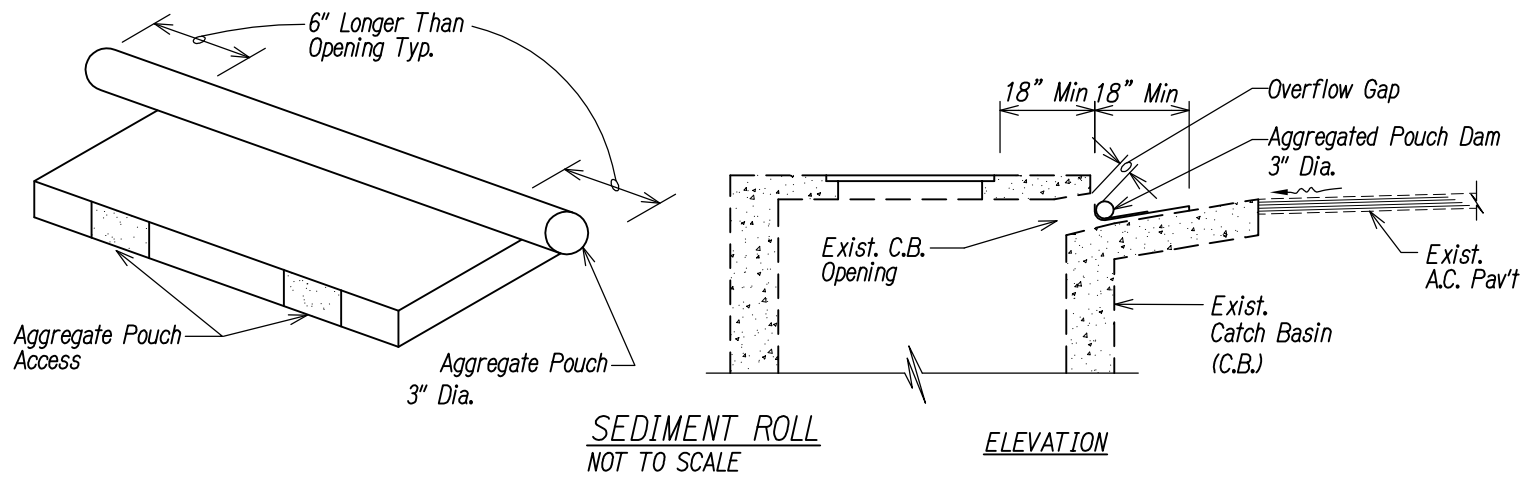
5' 2.5' 0 5' 10'
SCALE: 1"=5'

SAND BAG DETAIL
NOT TO SCALE

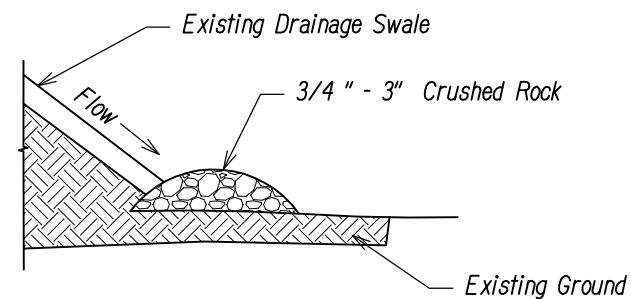


1. Contractor shall perform the work so as to prevent Demolition Debris from entering the Stream Channel by use of a Temporary Catchment System.
2. The Temporary Catchment System shall be a Steel Pan, Minimum plan Dimensions 6 feet x 6 feet, with Minimum 18" High Walls. The Catchment System shall be moved to a location beneath the section of Bridge being Demolished to Prevent Debris from entering the Stream. See Detail "DEBRIS CATCHMENT"
3. Place Sandbags Downstream of Bridge to contain Debris.
4. Empty Catchment System Daily and Dispose Debris Offsite.

DEBRIS CATCHMENT DETAIL
NOT TO SCALE



SEDIMENT ROLL
NOT TO SCALE



CRUSHED ROCK FILTER
NOT TO SCALE

