

**SWPPP Attachment A-1**  
**BMP Maps**

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	64	167

Temporary Erosion Control Notes:

- Follow sequence of operation as recommended on pages 23 and 24 of the "Rules Relating to Soil Erosion Standards and Guidelines", April 1999, of the Department of Planning and Permitting, City & County of Honolulu.
- The Contractor shall minimize the amount of land to be exposed at any time.
- Exposed areas that are not at final grade and are expected to be exposed for more than 30 days shall be covered with temporary vegetation or mulch (at a rate of 45 cubic feet per 1,000 square feet) in order to prevent erosion and silt runoff.
- Temporary Erosion Controls shall not be removed before Permanent Erosion Controls are in place and established.
- Temporary construction access 12" thick with filter fabric beneath shall be used for offsite vehicle sediment tracking at all construction entry and exit locations.
- Contractor to periodically inspect compost filter sock, stabilized construction entrance, catch basin, and inlet filters especially during heavy rainfall. Contractor shall also ensure drainage through filter material is maintained.

- The final lift of each day's work shall be compacted to prevent erosion of fill material.
- Good housekeeping shall be utilized to ensure protection of roadways from mud, dirt, and debris.
- Any dirt or grassed area disturbed shall be restored by re-grassing the area or by seeded hydromulch. The grass shall be fully established at completion of project.
- At the end of grading operations and at the completion of project, Contractor shall inspect all catch basin, drain inlet and drain manhole surrounding the project site. Any accumulated sediment and debris found in the storm drain structures shall be removed. Please note that flushing into the drain structures are prohibited.
- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMPs requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100, Installation, Maintenance, Monitoring, and Removal of BMP.

Permanent Erosion Control Measures:

- Hydroseed all slopes and exposed areas as soon as final grades have been established.
- 2:1 slopes shall be treated with geofabric or treated with soil conditioner to aid in the establishment of planting.

BMP Notes:

Sequence For Sediment Control:

- Install compost filter sock, stabilized construction access entry/exit, drain inlet protection, catch basin protection and washwater trap.
- Commence grading operations.
- Ground cover, such as grassing and mulching to be installed immediately after final grades are established.

Legend

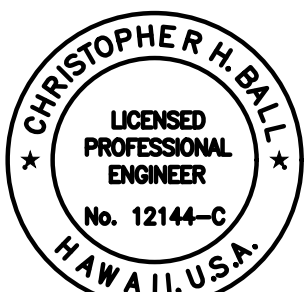
- Property Line  
----- Limits of Construction  
--- -- -- Limits of Grading & Disturbed Area  
- - - 570 - - - Finish Grade Contour  
- - - 570 - - - Exist. Grade Contour  
--- SF --- SF --- Compost Filter Sock, See Det. 02/BMP-6  
--- --- Good Neighbor Construction/Dust Fence, See Det. 06/BMP-6  
----- Straw Wattle, See Det. 01/BMP-5  
--- SD --- SD --- Drain Line  
Stabilized Construction Access, See Det. 01/BMP-6  
Grassed Area  
Flow Arrow  
Drain Inlet  
Drain Inlet Protection, See Det. 04/BMP-6  
Catch Basin Protection, See Det. 03/BMP-6

Temporary Erosion Control Measures:

- Temporary Erosion Control measures, as reflected on plan, shall be installed prior to clearing land for grading with the exception of filters for catch basins and drain inlets to be constructed.
- Construction access shall be established prior to clearing operations. construction access shall be 12" thick, 20' wide and 50' long, minimum.
- Opening and clearing of land for grading shall be performed incrementally to minimize erosion potential.
- Areas not within the limits of grading shall remain vegetated during grading operations.
- When cleared or grubbed areas are not to be graded or disturbed for 30 days or more, the Contractor shall cover with temporary vegetation or mulch.
- The Contractor's equipment storage areas shall be protected through the use of compost filter socks and spill kits to prevent pollutants from discharging into state waters. the contractor shall inspect and maintain storage areas.

Graphic Scale

1" = 40' 40' 20' 0 40' 80'



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Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
EXP. DATE

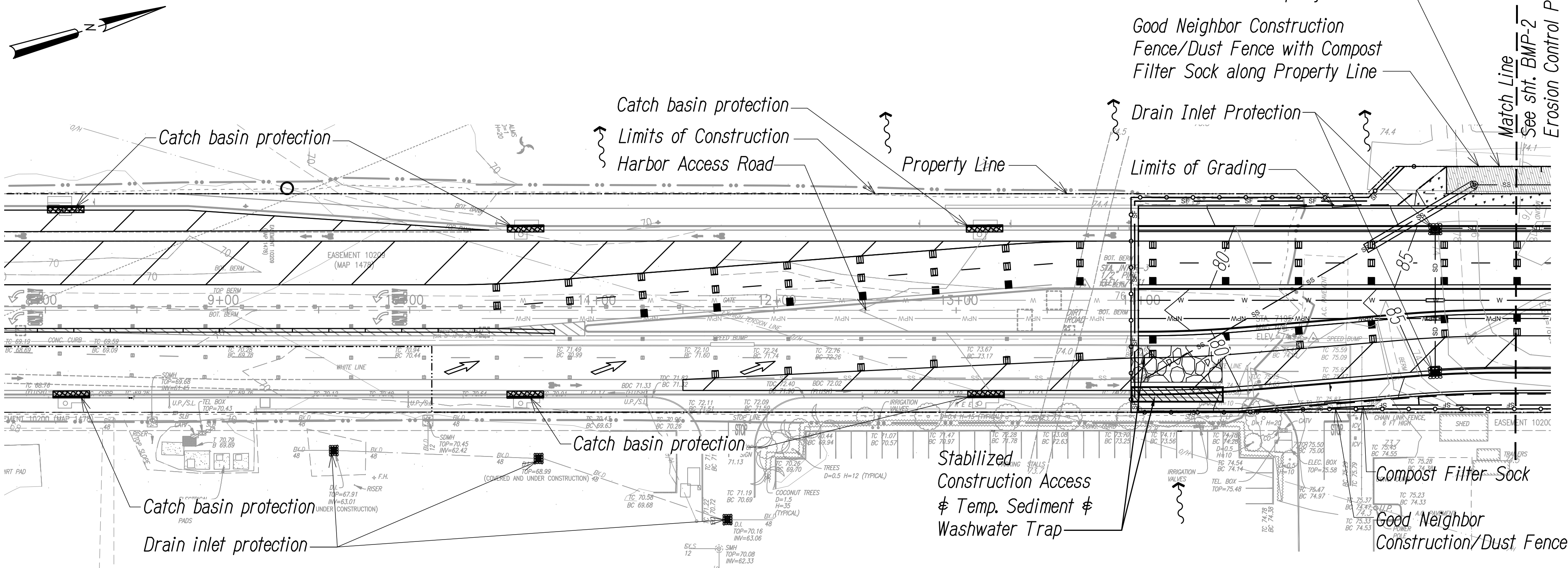
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**EROSION CONTROL PLAN 1**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

SHEET No. **BMP-1** OF **167** SHEETS



EROSION CONTROL PLAN 1

Scale: 1" = 40'

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTED BY	
CHECKED BY	

NOTE: Contractor to check and verify dimensions at job before proceeding with work.



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	65	167

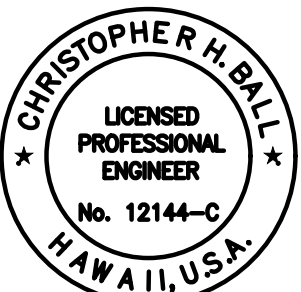
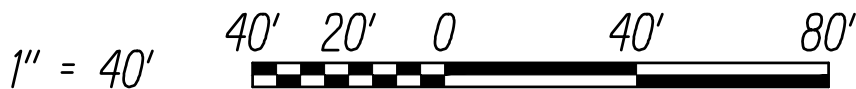
Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
- Exist. Grade Contour
- Compost Filter Sock, See Det. 02/BMP-6
- Good Neighbor Construction/Dust Fence, See Det. 06/BMP-6
- Straw Wattle, See Det. 01/BMP-5
- Drain Line
- Stabilized Construction Access, See Det. 01/BMP-6
- Grassed Area
- Flow Arrow
- Drain Inlet
- Drain Inlet Protection, See Det. 04/BMP-6
- Catch Basin Protection, See Det. 03/BMP-6

Note:

- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100, Installation, Maintenance, Monitoring, and Removal of BMP.

Graphic Scale



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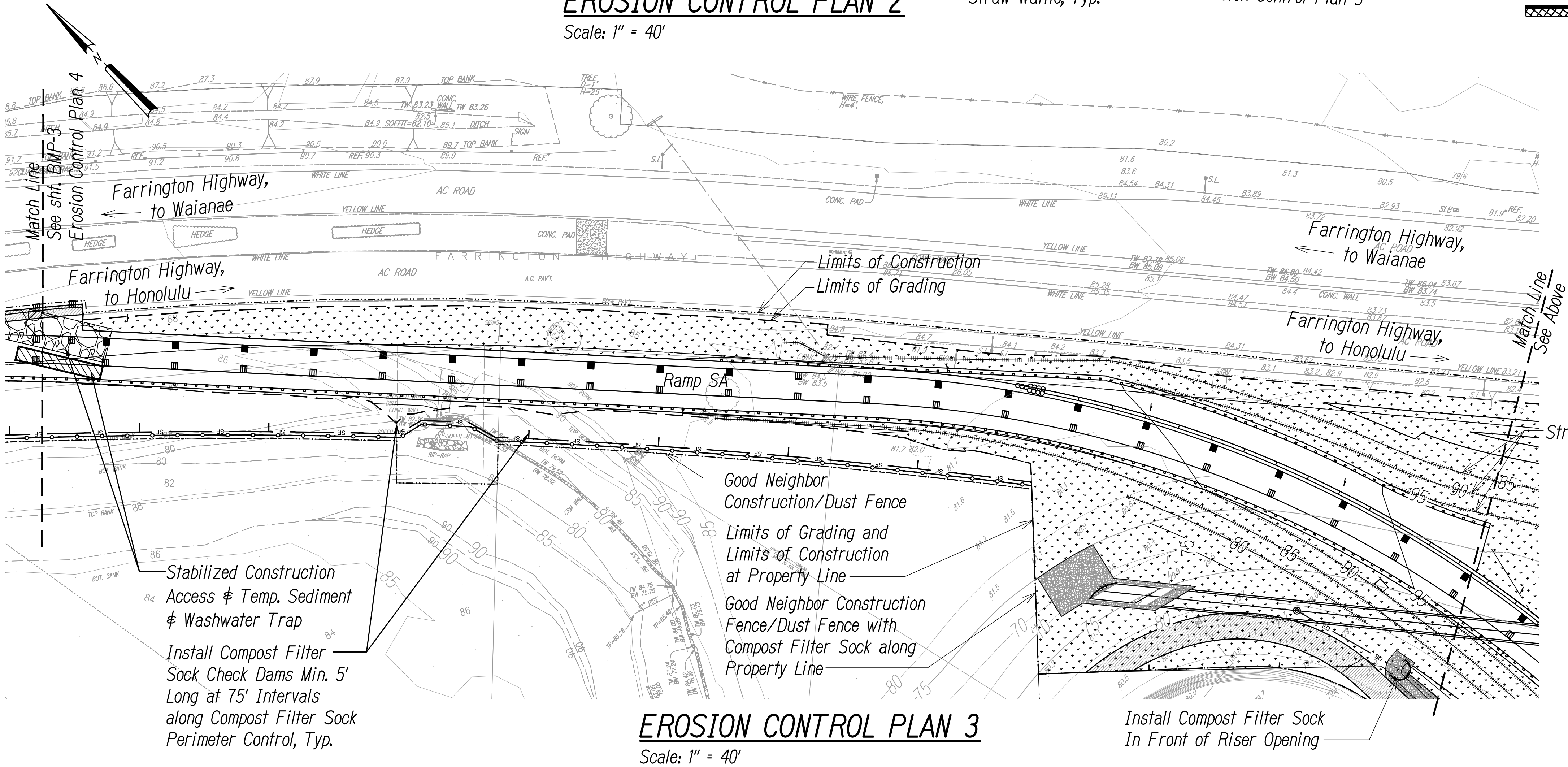
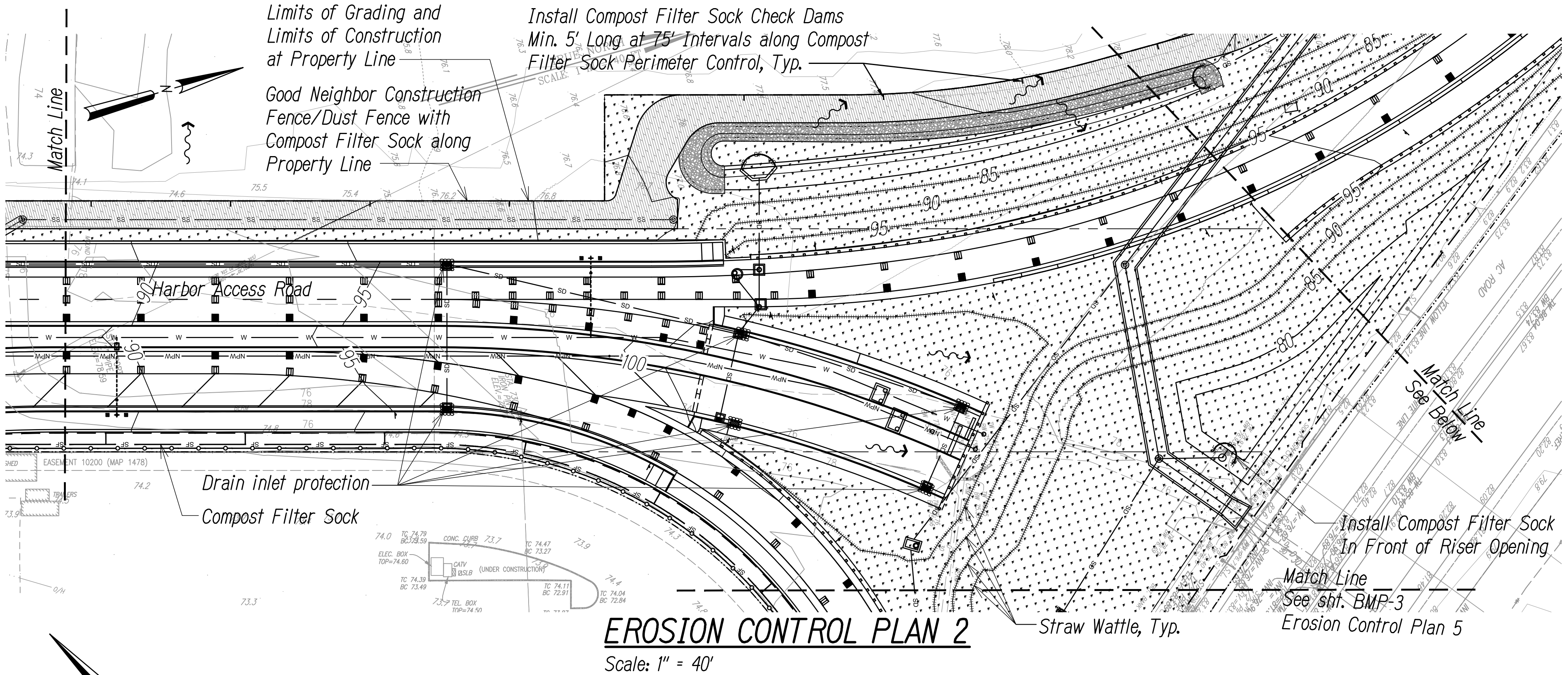
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**EROSION CONTROL PLAN 2**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted      Date: August 2022

SHEET No. **BMP-2** OF **167** SHEETS



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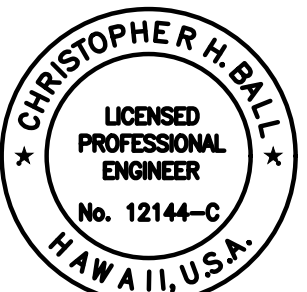
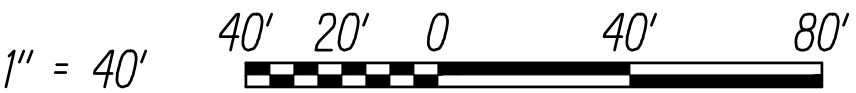
Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
- Exist. Grade Contour
- Compost Filter Sock, See Det. 02/BMP-6
- Good Neighbor Construction/Dust Fence, See Det. 06/BMP-6
- Straw Wattle, See Det. 01/BMP-5
- Drain Line
- Stabilized Construction Access, See Det. 01/BMP-6
- Grassed Area
- Flow Arrow
- Drain Inlet
- Drain Inlet Protection, See Det. 04/BMP-6
- Catch Basin Protection, See Det. 03/BMP-6

Note:

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Graphic Scale



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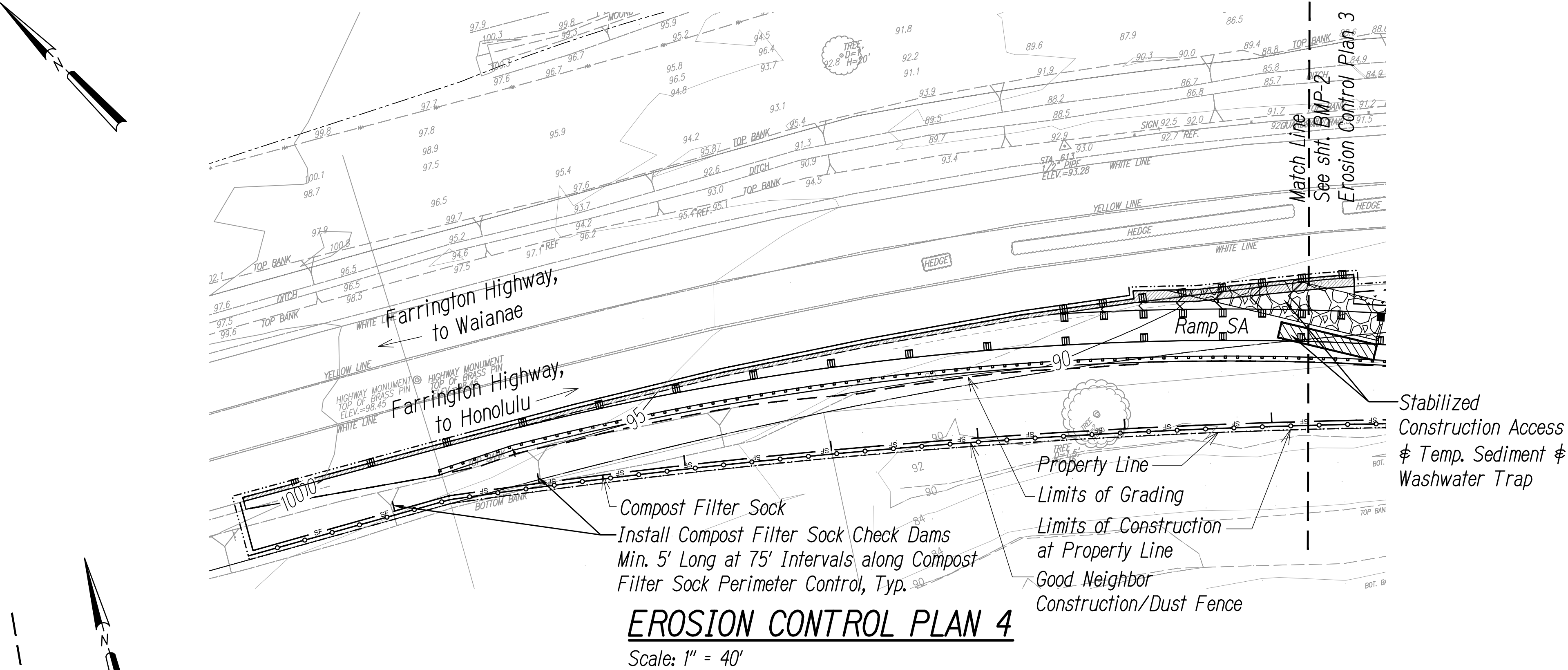
STATE OF HAWAII  
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HIGHWAYS DIVISION

**EROSION CONTROL PLAN 3**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

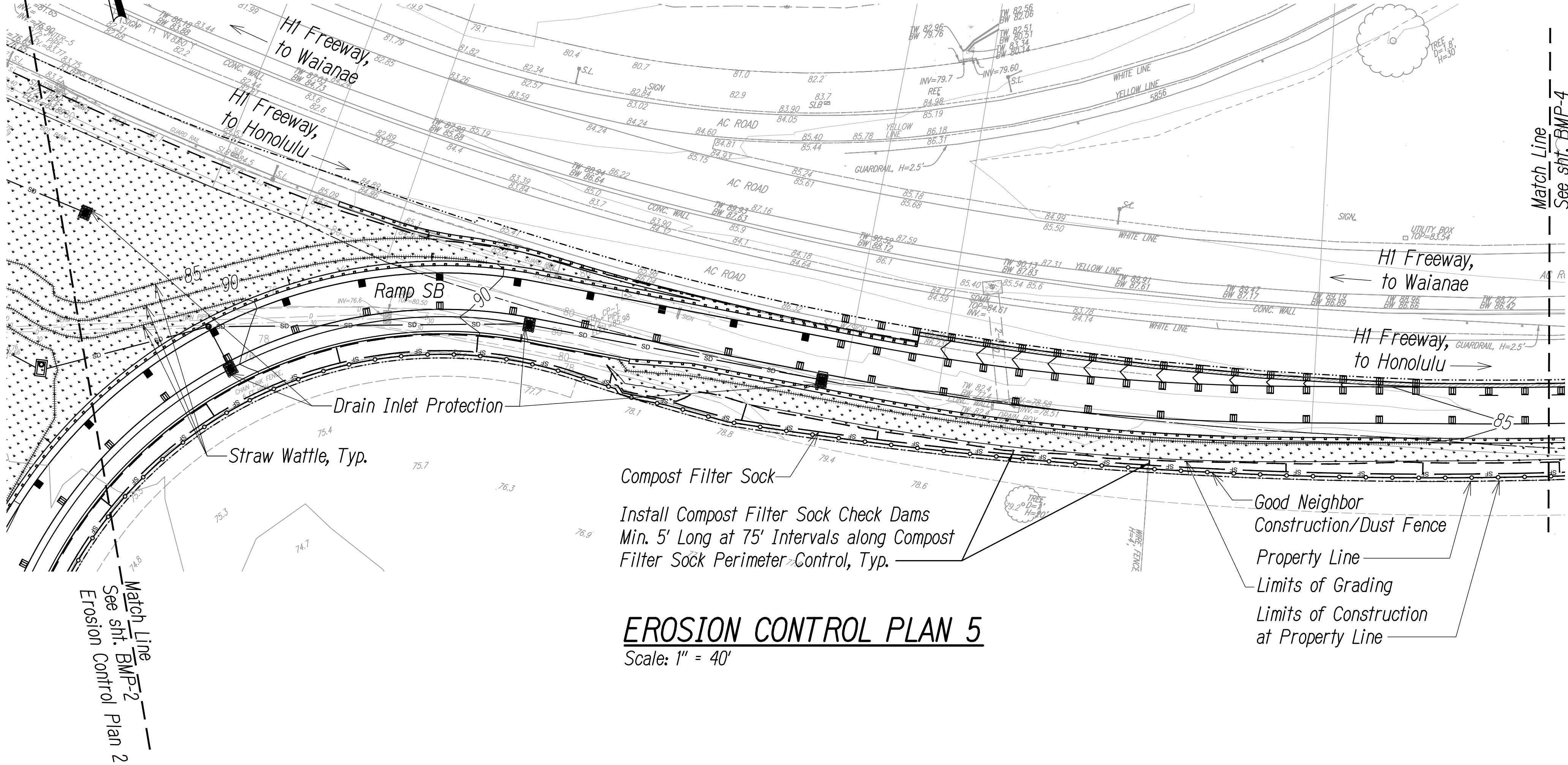
Scale: As Noted      Date: August 2022

SHEET No. **BMP-3** OF **167** SHEETS



**EROSION CONTROL PLAN 4**

Scale: 1" = 40'



**EROSION CONTROL PLAN 5**

Scale: 1" = 40'

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CHECKED BY	



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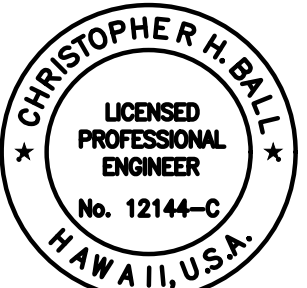
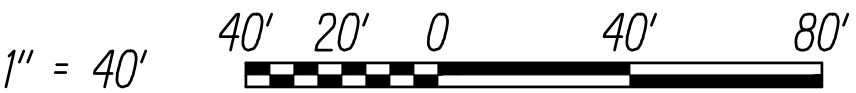
Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
- Exist. Grade Contour
- Compost Filter Sock, See Det. 02/BMP-6
- Good Neighbor Construction/Dust Fence, See Det. 06/BMP-6
- Straw Wattle, See Det. 01/BMP-5
- Drain Line
- Stabilized Construction Access, See Det. 01/BMP-6
- Grassed Area
- Flow Arrow
- Drain Inlet
- Drain Inlet Protection, See Det. 04/BMP-6
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Note:

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Graphic Scale



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4/30/2024  
EXP. DATE

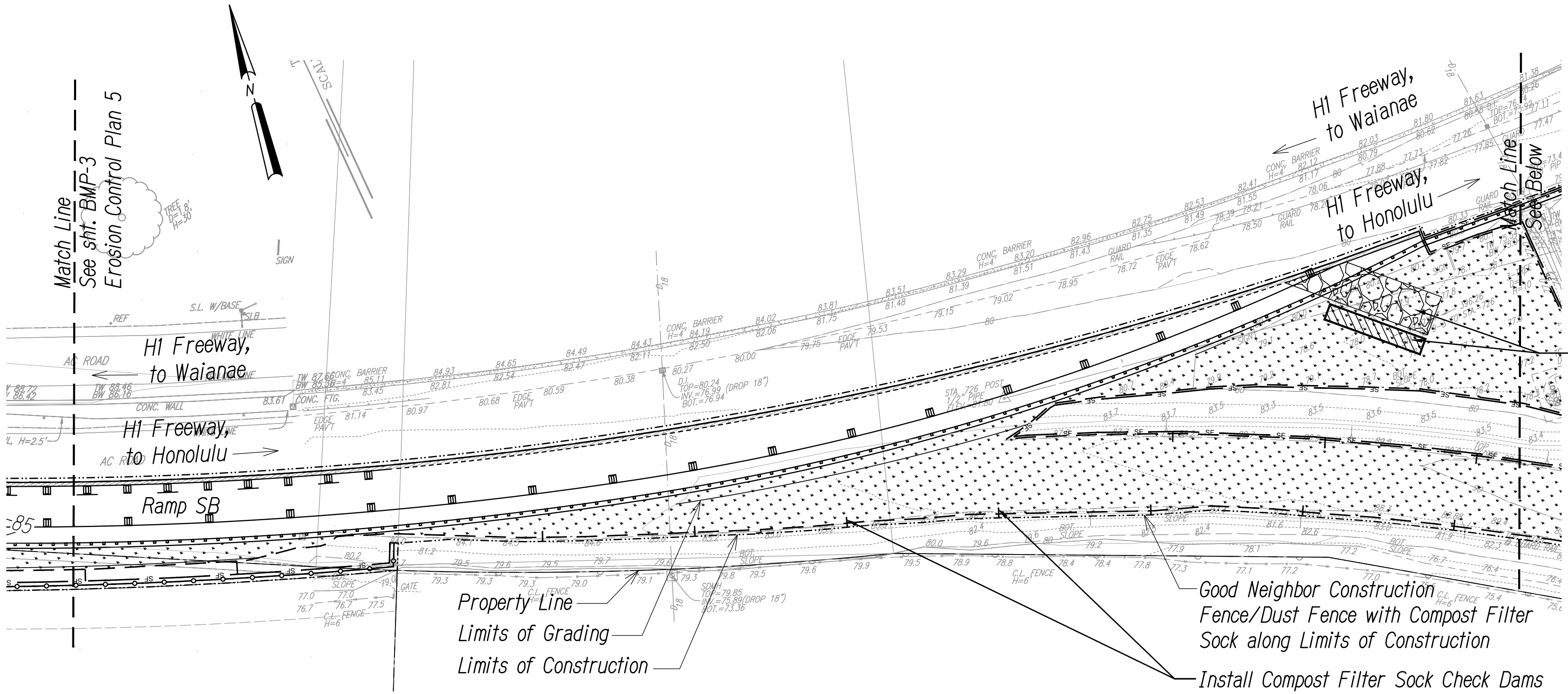
STATE OF HAWAII  
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HIGHWAYS DIVISION

**EROSION CONTROL PLAN 4**

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

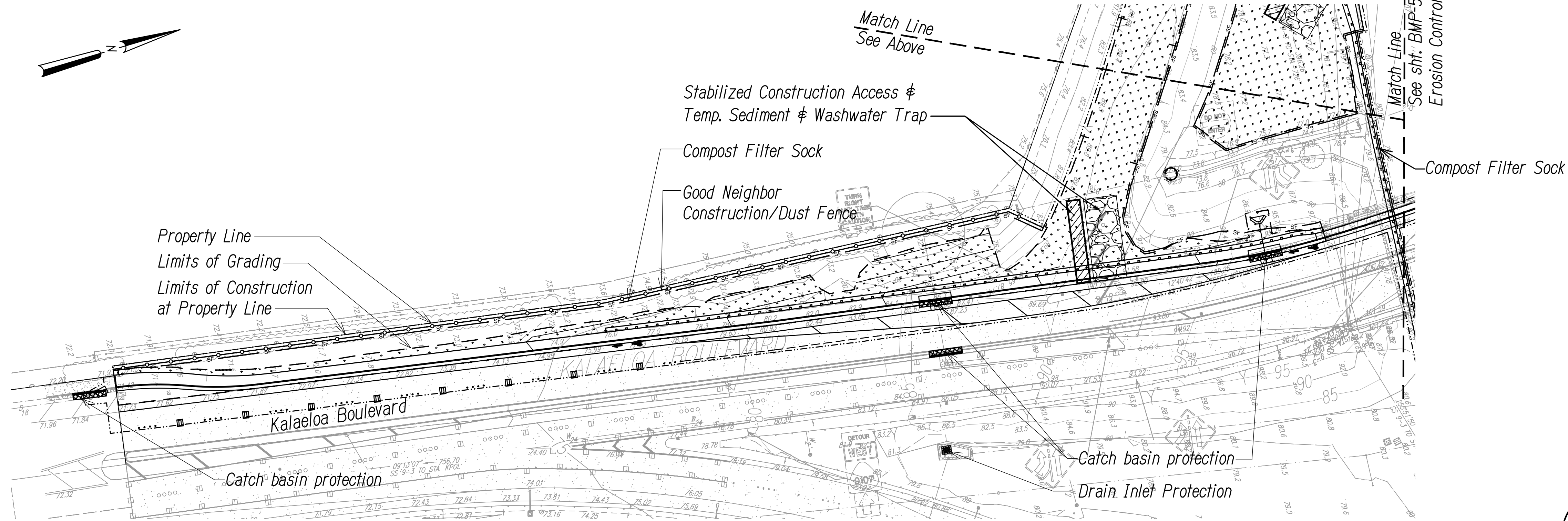
Scale: As Noted      Date: August 2022

SHEET No. **BMP-4** OF **167** SHEETS



EROSION CONTROL PLAN 6

Scale: 1" = 40'



EROSION CONTROL PLAN 7

Scale: 1" = 40'

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QUANTITIES BY	
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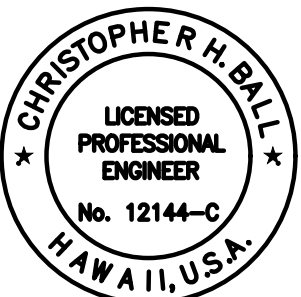
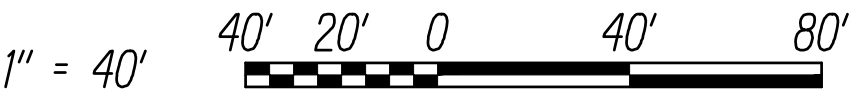
Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
- Exist. Grade Contour
- Compost Filter Sock, See Det. 02/BMP-6
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- Straw Wattle, See Det. 01/BMP-5
- Drain Line
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Graphic Scale



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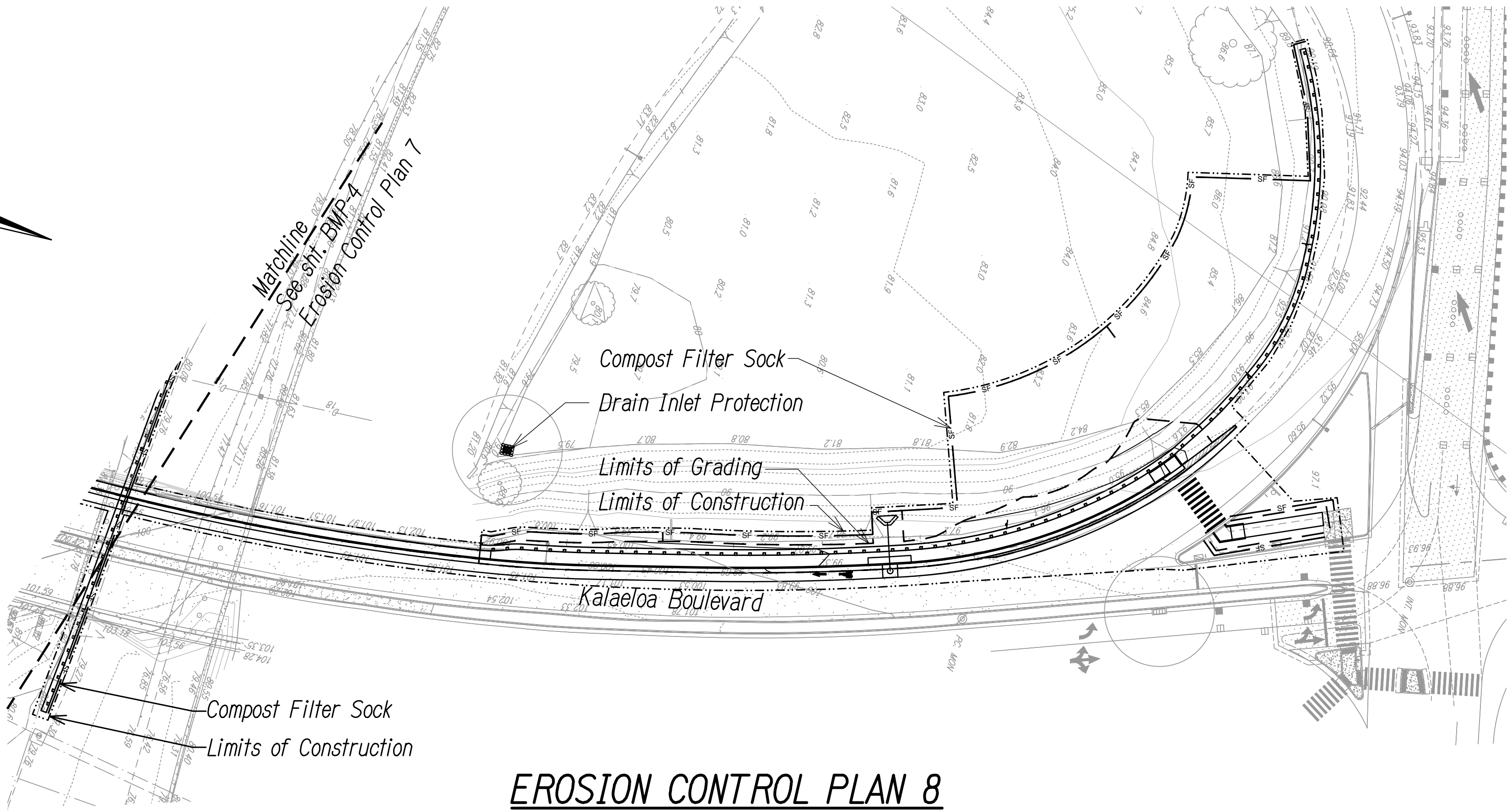
Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**EROSION CONTROL PLAN 5**

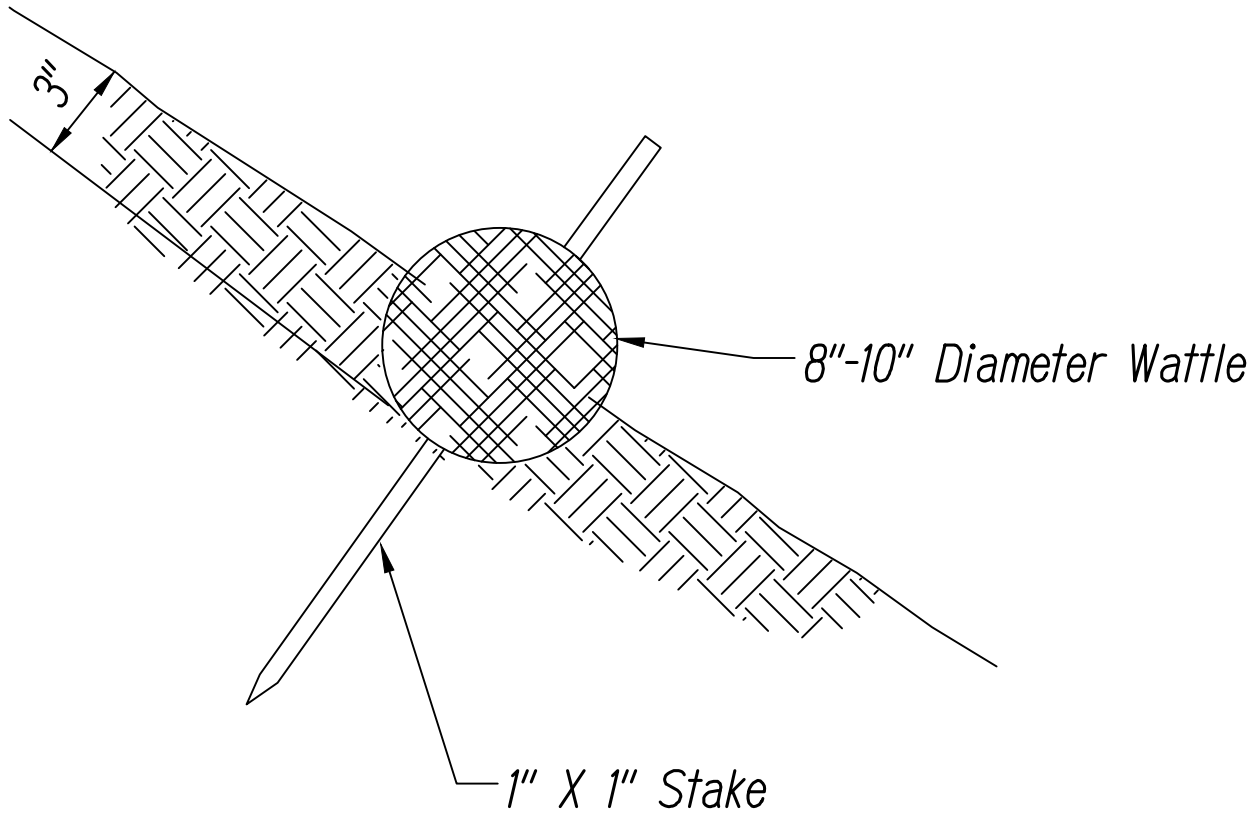
INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

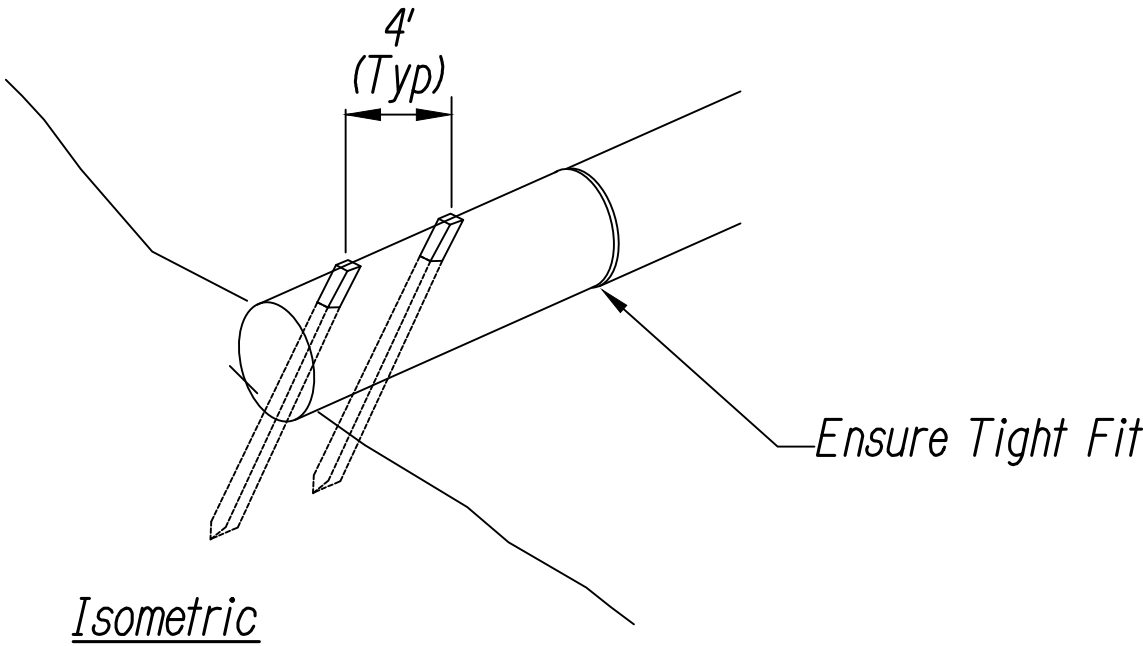


**EROSION CONTROL PLAN 8**

Scale: 1" = 40'



Cross-Section



Isometric

Straw Wattle Notes:

- Place Rolls Along Contour.
- Adjacent Rolls Must Abut Tightly.
- Securely Stake All Rolls In Trench As Shown.
- Ensure Runoff Does Not Flow Around or Under Straw Wattle.
- Straw Shall be made of 100% Certified Weed Free Straw Fibers Stuffed into Tubes of Extra Heavy Duty UV Stabilized Netting.

**STRAW WATTLE DETAIL**

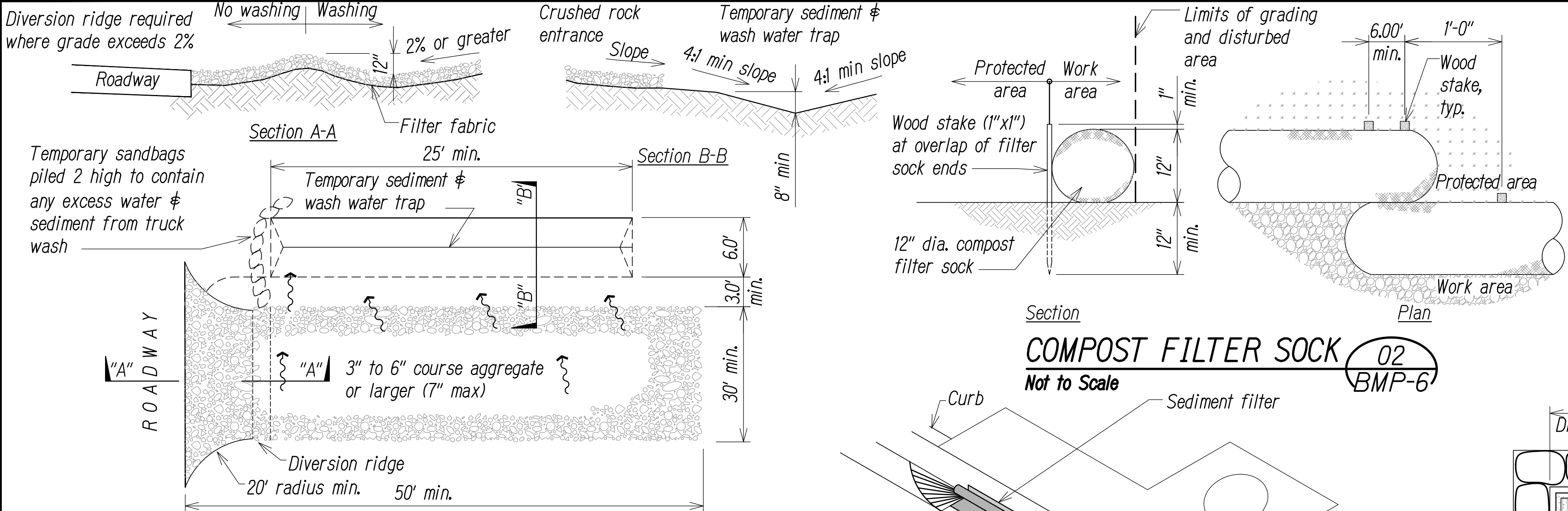
Not to Scale

01  
BMP-5

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	NH-HI-K(271)	2022	69	167



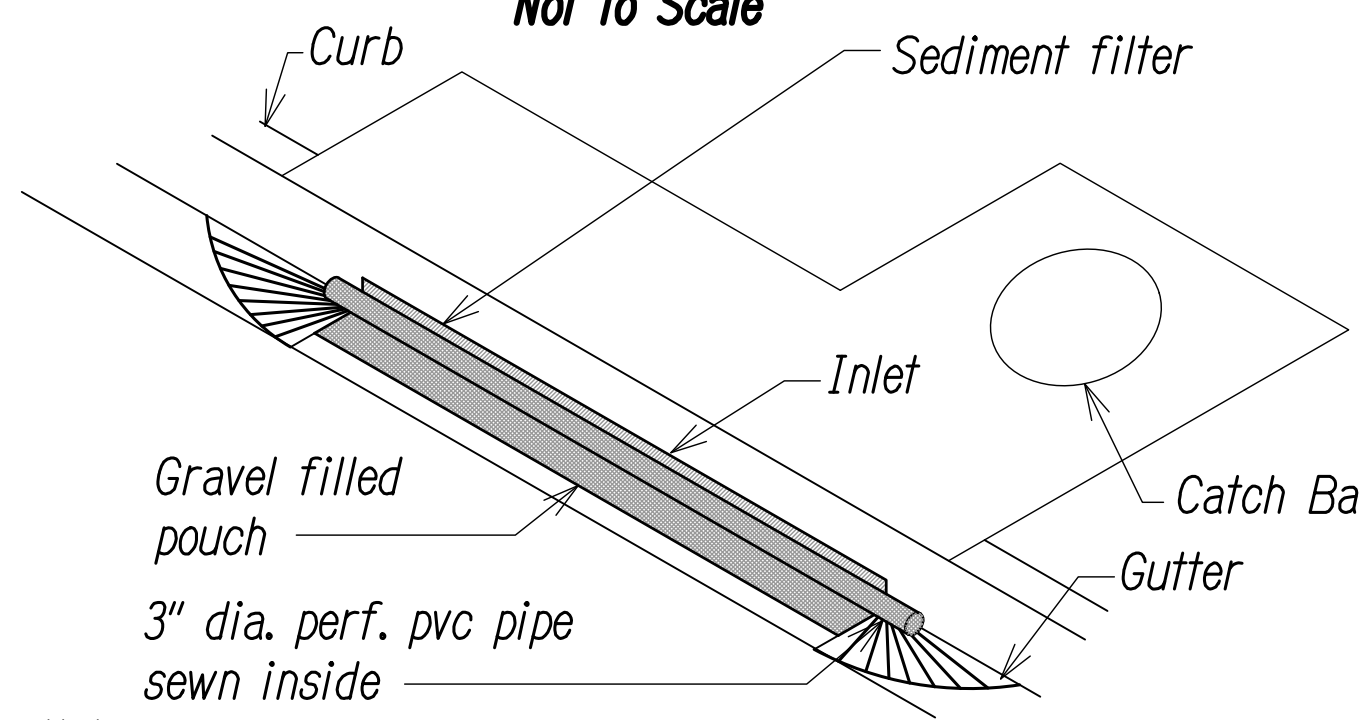
- Notes:**
1. Compost shall not contain biosolids & should be consistent with EPA guidelines.
  2. Wood stakes only required at connection between filter socks as shown on detail plan.
  3. Remove sediment when depth reaches 1/3 the height of filter sock.
  4. At completion of project, all filter sock and compost for filter sock shall be removed from site and disposed of properly.

**BMP Detail Note:**

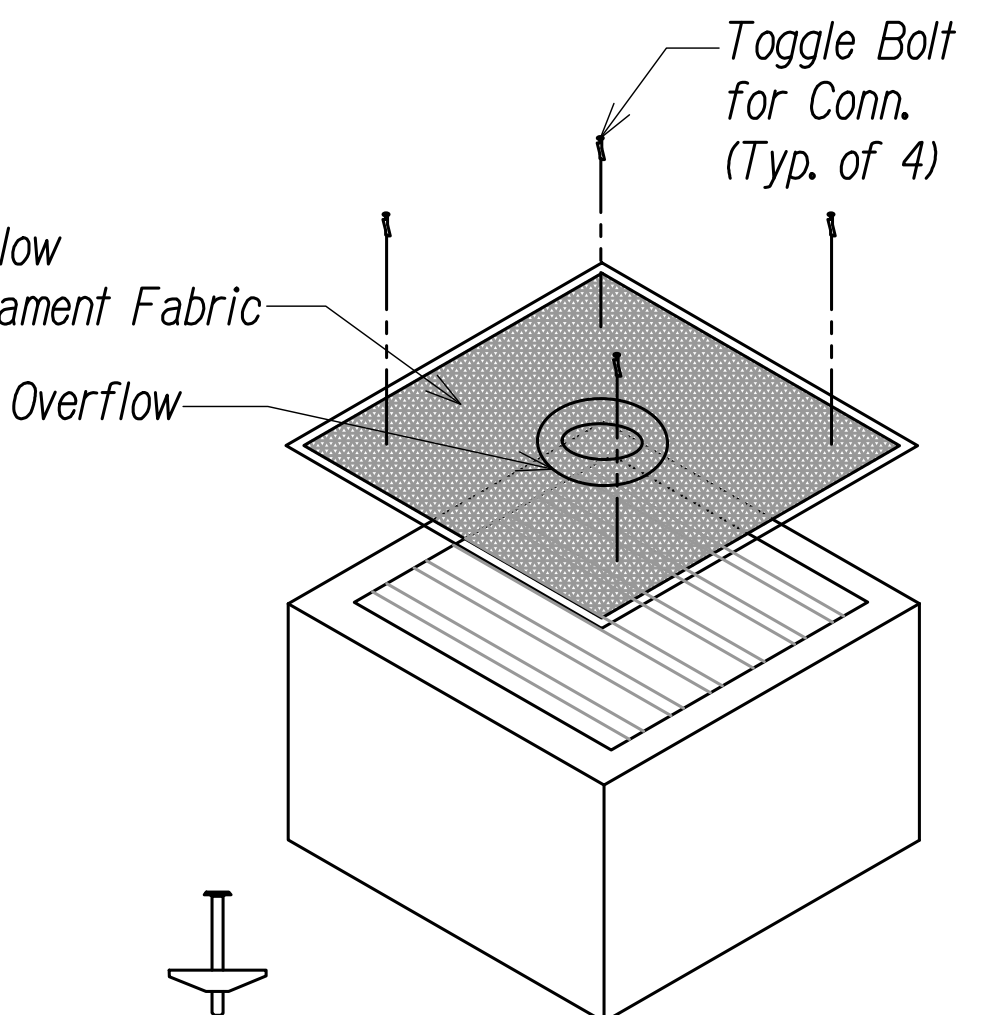
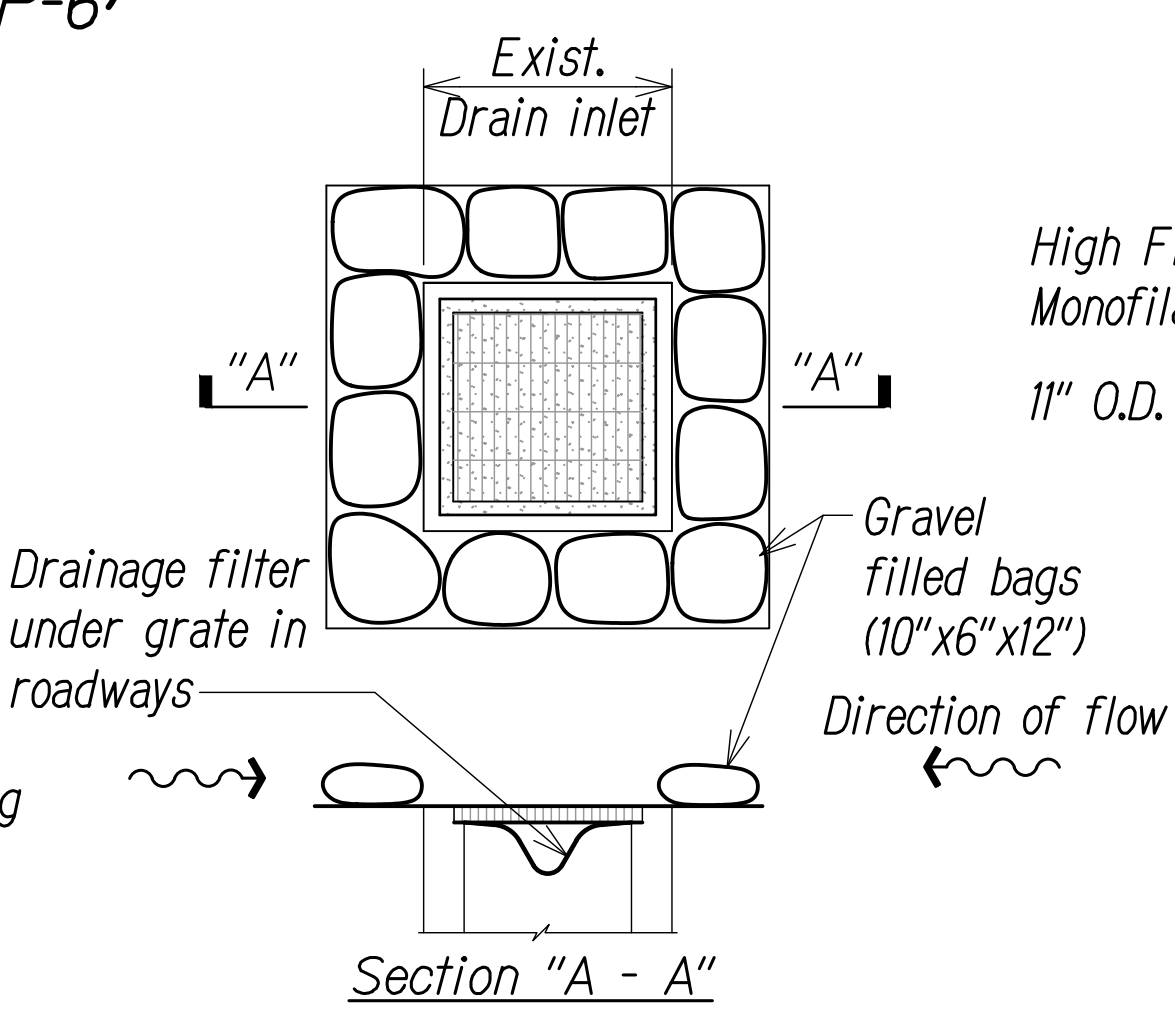
1. All Erosion Control BMP's and Sediment Controls shall conform to the State of Hawaii, DOT Highways Division's "Construction BMP Field Manual"

### COMPOST FILTER SOCK

02  
BMP-6



- Notes:**
1. The contractor shall remove temporary catch basin protection during events of above normal rainfall and replace once the event passes.
  2. Contractor shall provide a submittal for sediment filter.



### STABILIZED CONSTRUCTION ACCESS & TEMPORARY SEDIMENT AND WASH WATER TRAP

Not to Scale

01  
BMP-6

### TEMPORARY CATCH BASIN PROTECTION DETAIL

Not to Scale

03  
BMP-6

### TEMPORARY DRAIN INLET PROTECTION DETAIL

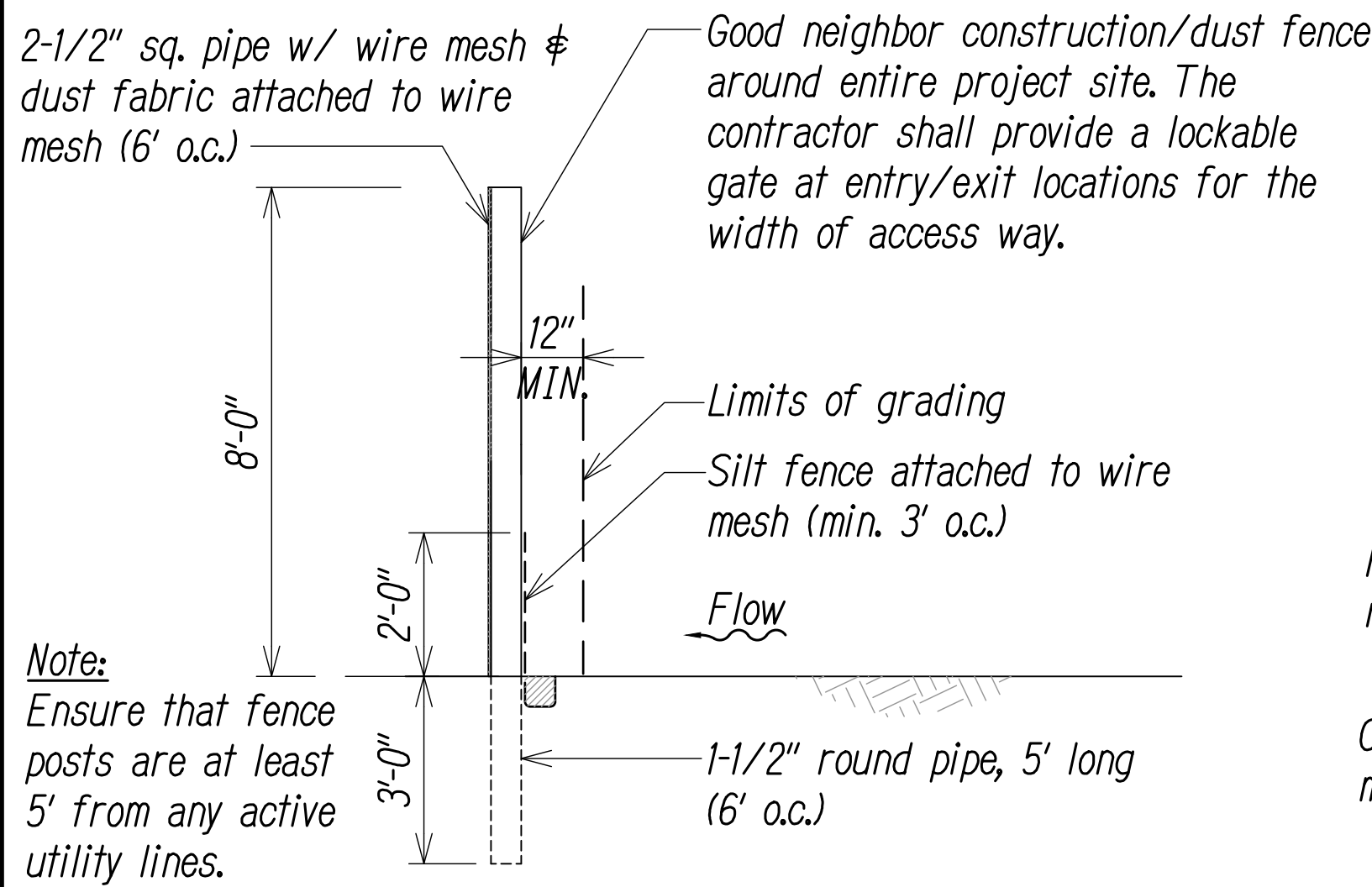
Not to Scale

04  
BMP-6

### TEMPORARY INLET GRATE COVER DETAIL

Not to Scale

05  
BMP-6



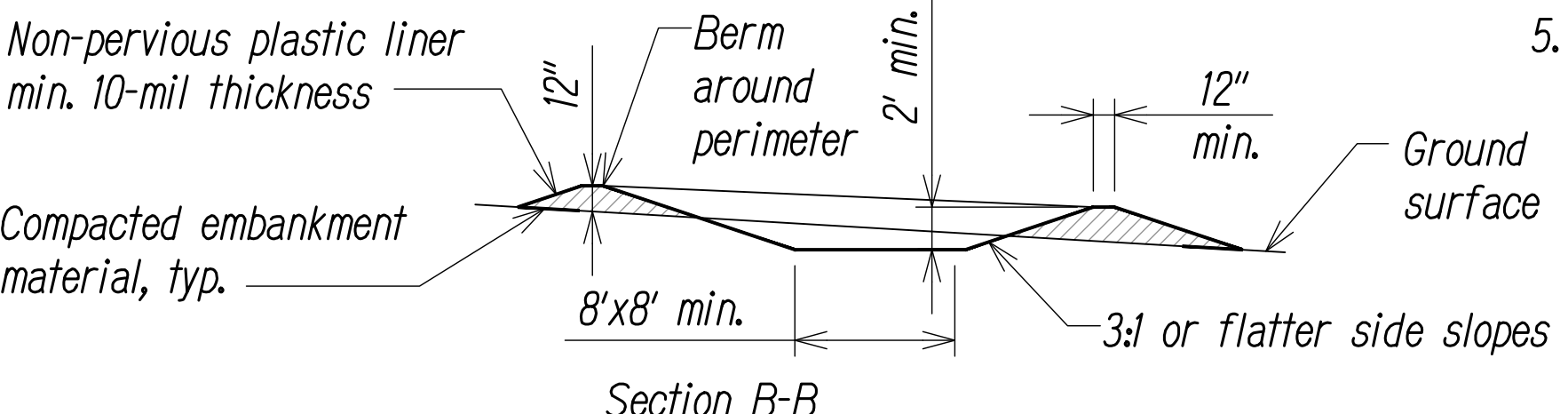
### GOOD NEIGHBOR CONSTRUCTION DUST FENCE DETAIL

Not to Scale

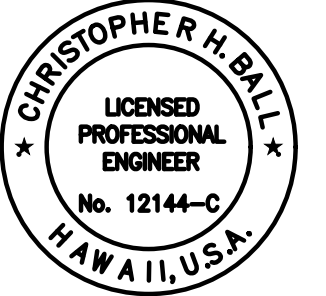
06  
BMP-6

### CONCRETE WASHOUT AREA

Not to Scale



07  
BMP-6



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4/30/2024  
EXP. DATE

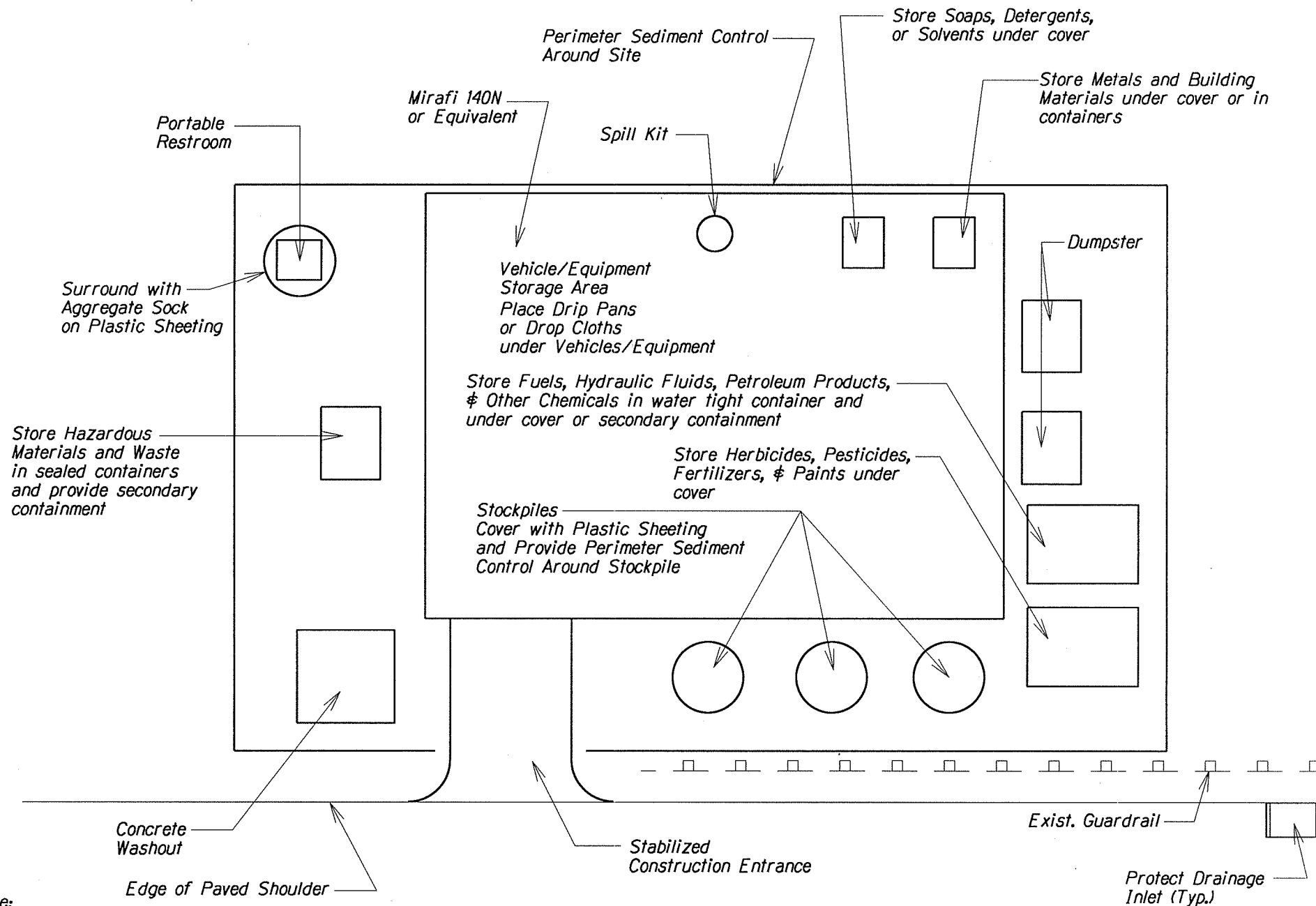
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

### EROSION CONTROL DETAILS

INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

SHEET No. **BMP-6** OF **167** SHEETS



**Note:**

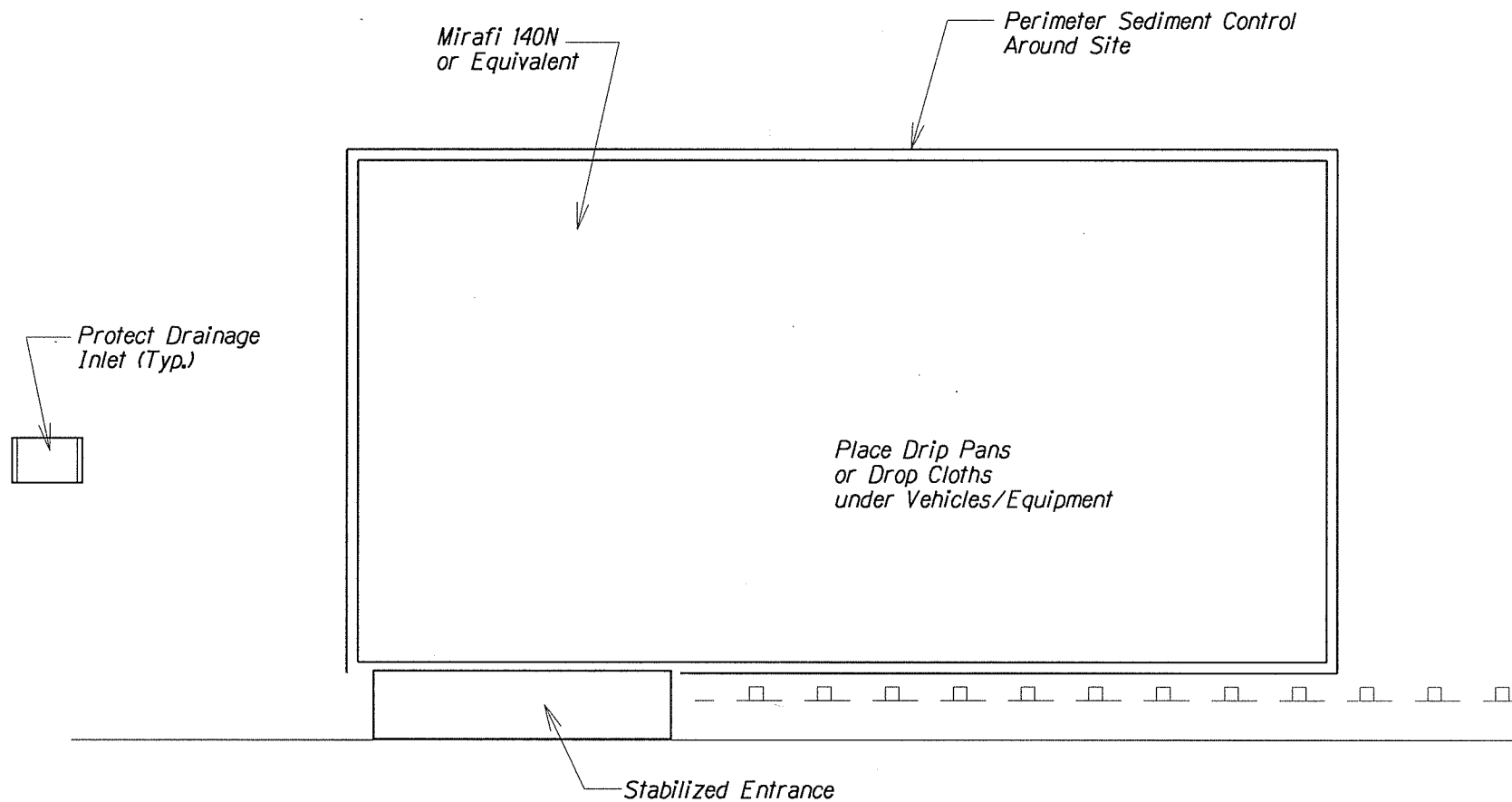
- 1) Restore area to equivalent of original condition once construction is completed.
- 2) Contractor shall ensure proper protection for Staging/Storage Area.
- 3) Do not maintain or wash vehicles on-site. Provide appropriate BMPs if Contractor elects to do so.

## STAGING/STORAGE AREA

Not to Scale

SAMPLE FOR CONTRACTOR





**Note:**

- 1) Restore area to equivalent of original condition once construction is completed.
- 2) Contractor shall ensure proper protection for Equipment Storage Area.

**EQUIPMENT STORAGE AREA**  
**Not to Scale**

**SAMPLE FOR CONTRACTOR**