

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

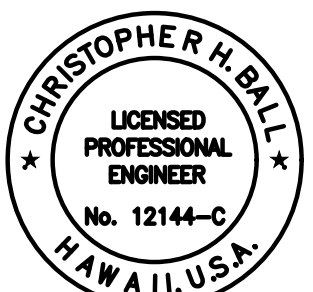
- Property Line
----- Limits of Construction
- - - - - Limits of Grading & Disturbed Area
- - - 570 - - - Finish Grade Contour
- - - 570 - - - Exist. Grade Contour
--- SF --- SF --- Compost Filter Sock, See Det. 02/BMP-6
--- SD --- SD --- Drain Line
----- Straw Wattle, See Det. 01/BMP-5
----- Stabilized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

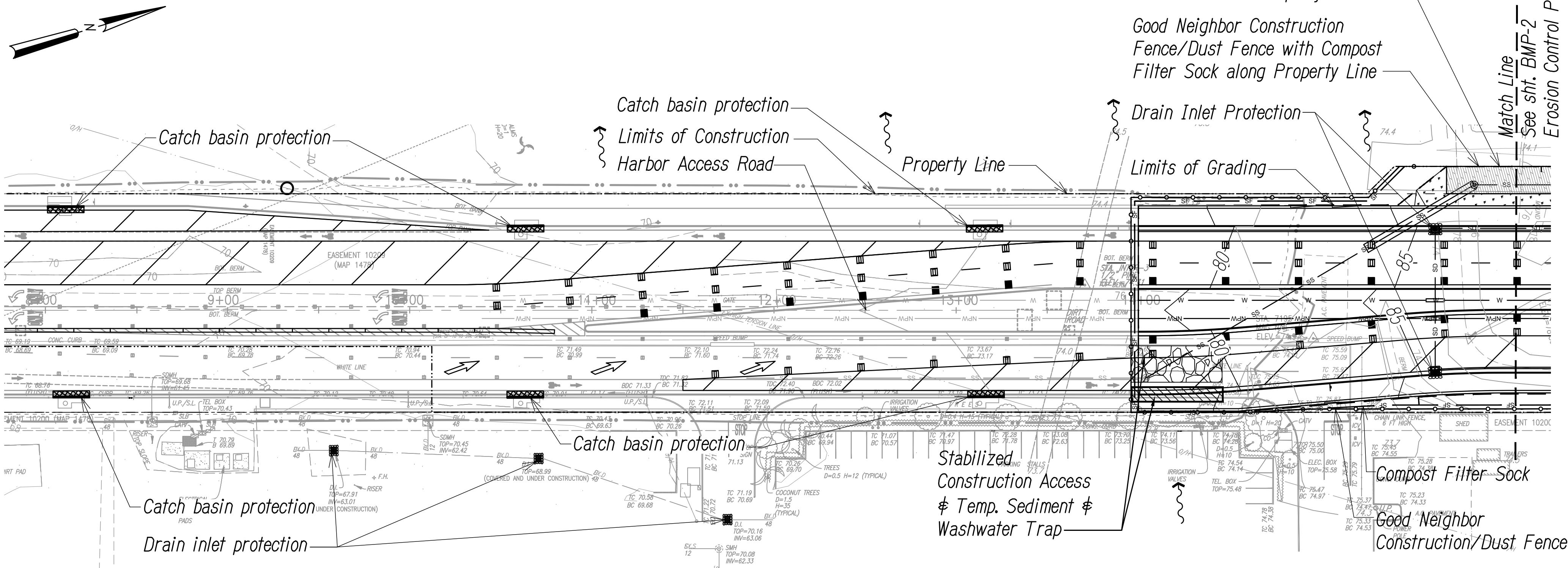
**EROSION CONTROL PLAN 1**

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

**EROSION CONTROL PLAN 1**

Scale: 1" = 40'



|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
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| CHECKED BY        |      |



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|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | NH-HI-K(271)       | 2022        | ADD. 65   | 167          |

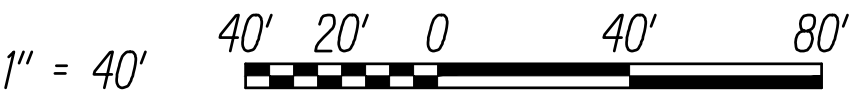
Legend

- Property Line
- Limits of Construction
- Limits of Grading & Disturbed Area
- Finish Grade Contour
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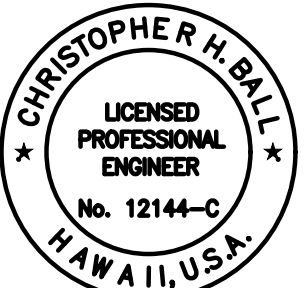
Note:

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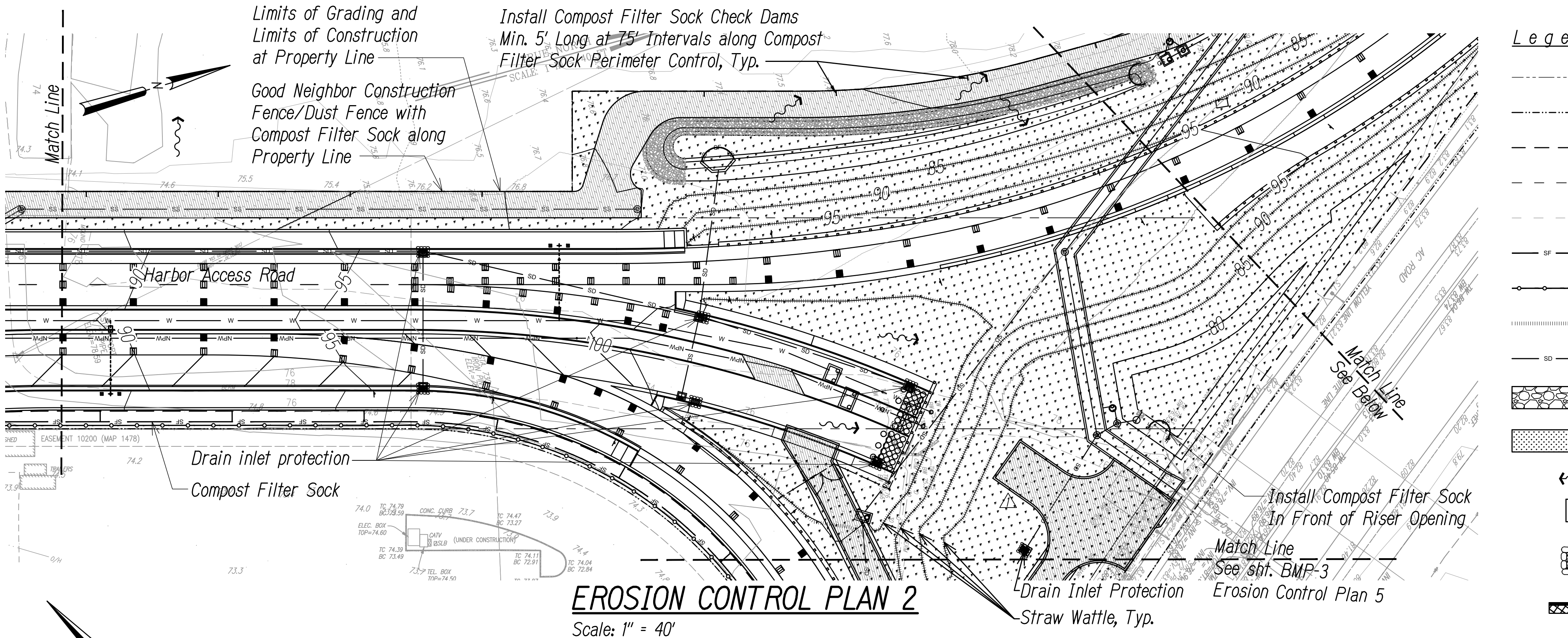
Graphic Scale



|                                                                                                                                                       |                               |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 11/17/2022                                                                                                                                            | Added Maintenance Access Road |
| DATE                                                                                                                                                  | REVISION                      |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION                                                                                  |                               |
| <b>EROSION CONTROL PLAN 2</b>                                                                                                                         |                               |
| INTERSTATE ROUTE H-1<br>ADDITION AND MODIFICATION OF FREEWAY ACCESS<br>(Kapolei Interchange Complex), Phase 3<br>Federal Aid Project No. NH-HI-K(271) |                               |
| Scale: As Noted                                                                                                                                       | Date: August 2022             |

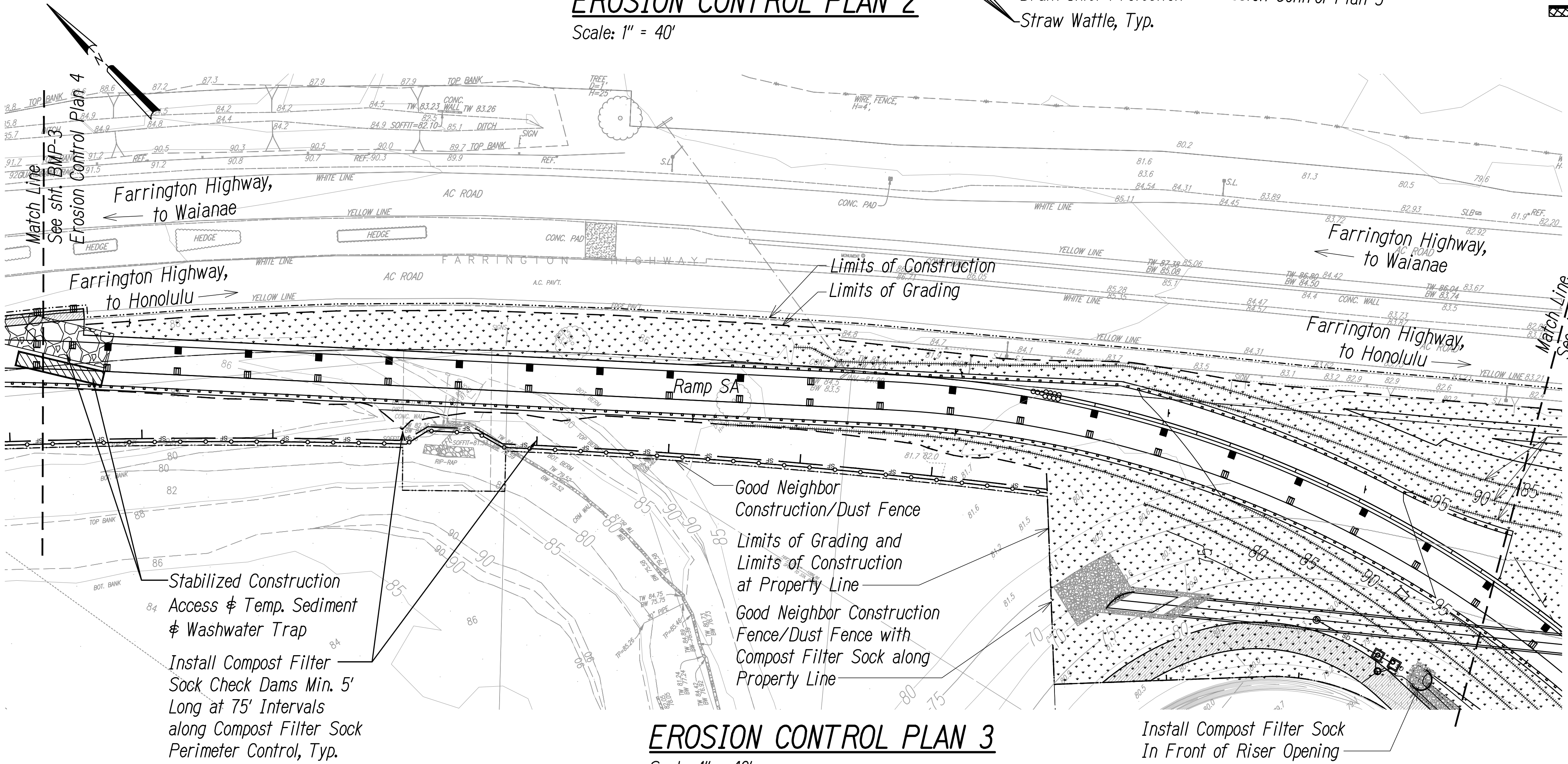


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MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
NOTE: Contractor to check and verify dimensions at job before proceeding with work.



EROSION CONTROL PLAN 2

Scale: 1" = 40'



EROSION CONTROL PLAN 3

Scale: 1" = 40'

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
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| TRACED BY         |      |
| NOTED BY          |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     | No.  |



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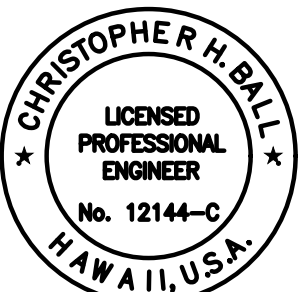
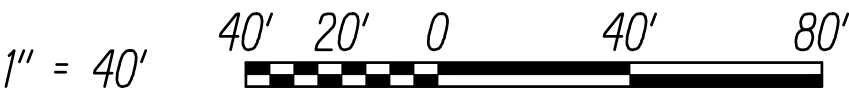
Legend

- 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
- 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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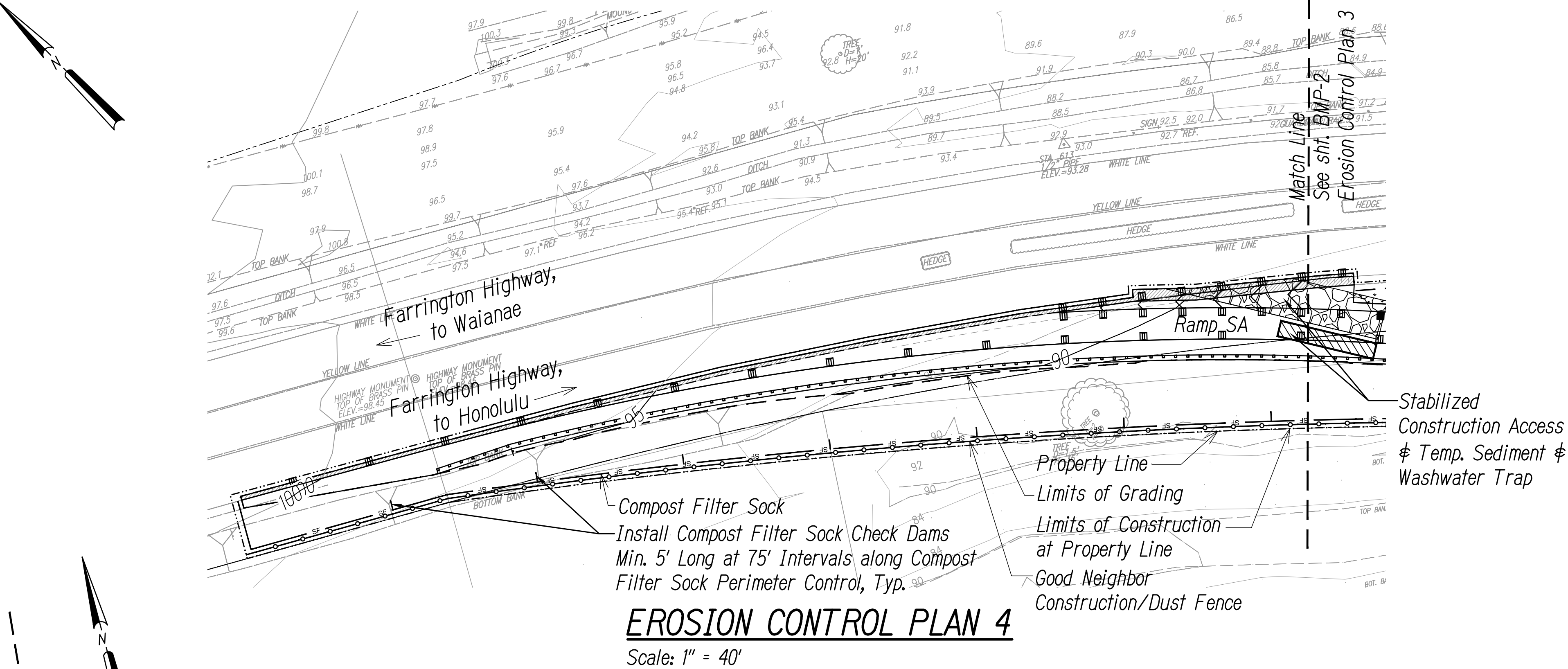
Graphic Scale



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4/30/2024  
EXP. DATE

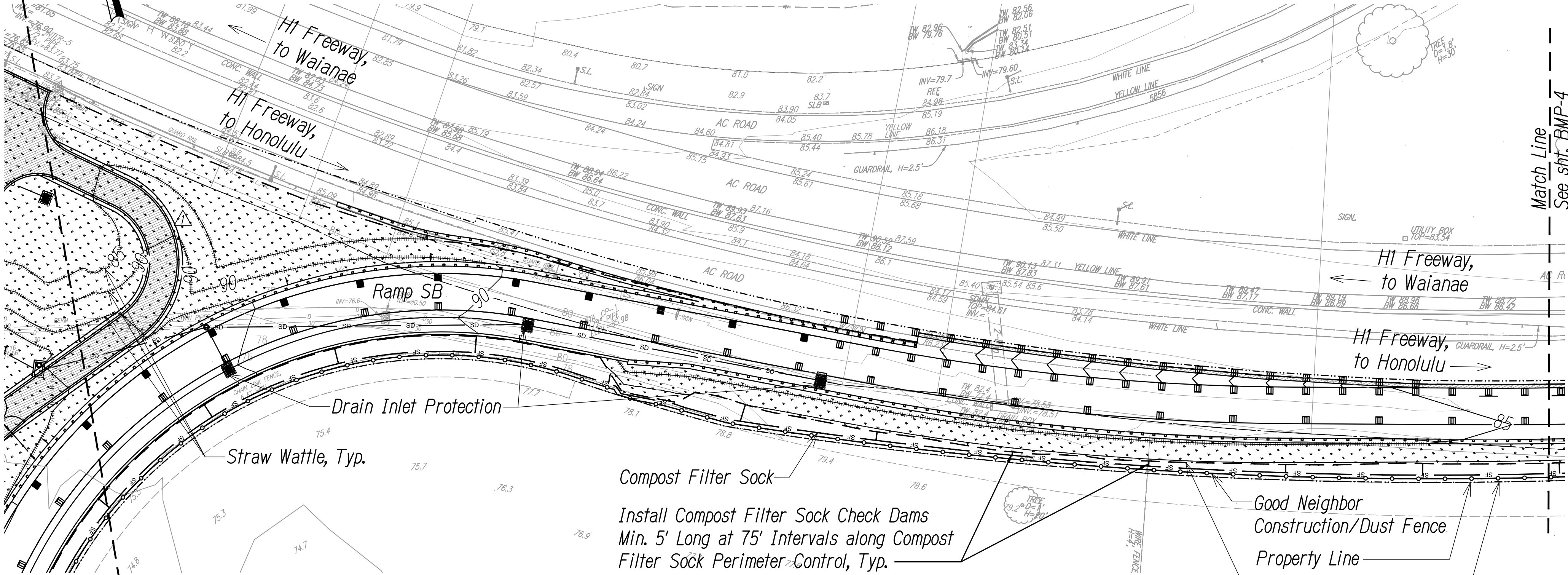
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| 11/17/2022                                                                                                                                            | Added Maintenance Access Road |
| DATE                                                                                                                                                  | REVISION                      |
| STATE OF HAWAII<br>DEPARTMENT OF TRANSPORTATION<br>HIGHWAYS DIVISION                                                                                  |                               |
| <b>EROSION CONTROL PLAN 3</b>                                                                                                                         |                               |
| INTERSTATE ROUTE H-1<br>ADDITION AND MODIFICATION OF FREEWAY ACCESS<br>(Kapolei Interchange Complex), Phase 3<br>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'

|                   |      |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DESIGNED BY       |      |
| TRACED BY         |      |
| NOTED BY          |      |
| CHECKED BY        |      |
| ORIGINAL PLAN     | No.  |
| NOTE BOOK         | No.  |



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| HAWAII              | HAW.  | NH-HI-K(271)       | 2022        | 67        | 167          |

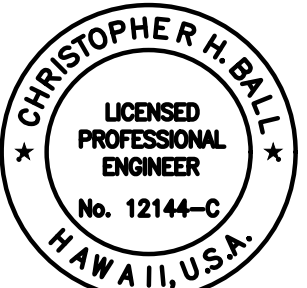
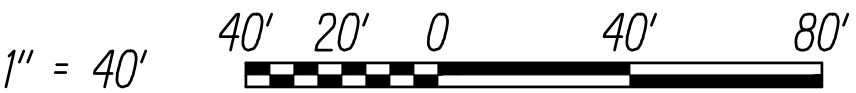
Legend

- Property Line
- Limits of Construction
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- 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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- Grassed Area
- Flow Arrow
- Drain Inlet
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Graphic Scale



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

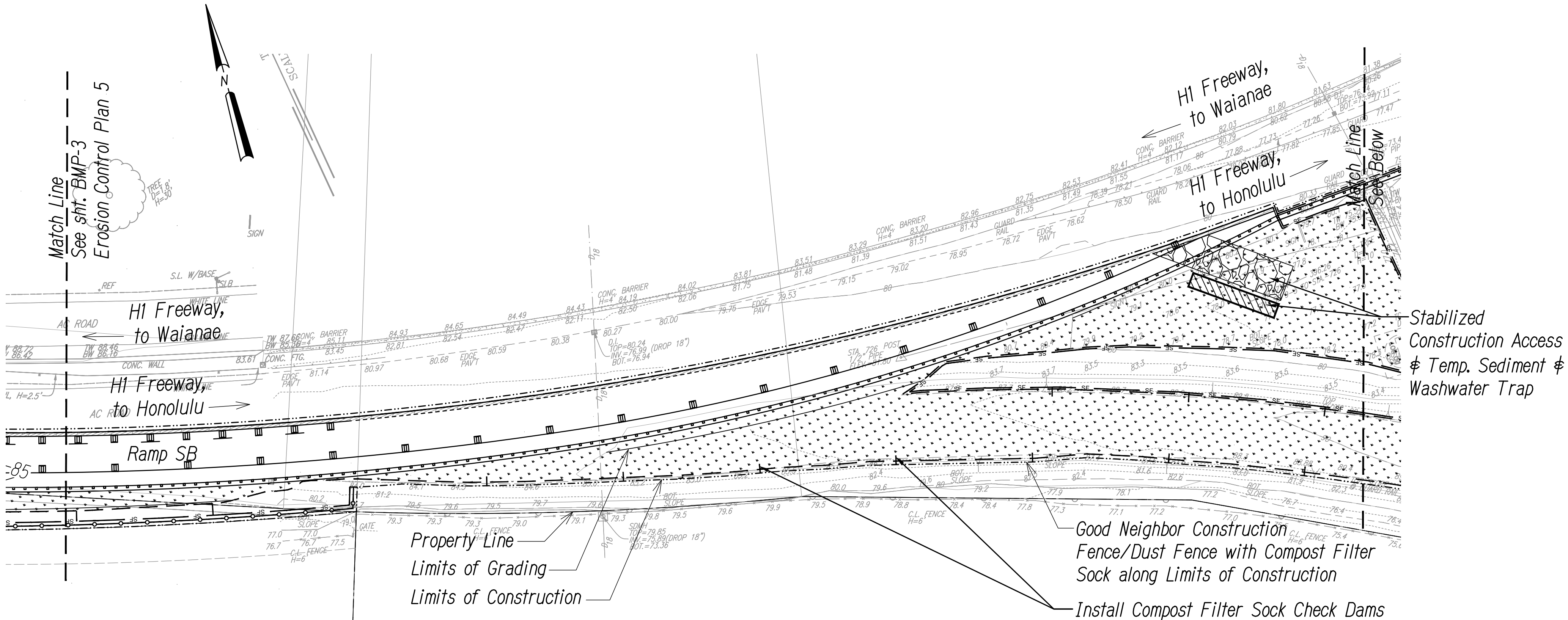
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**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)

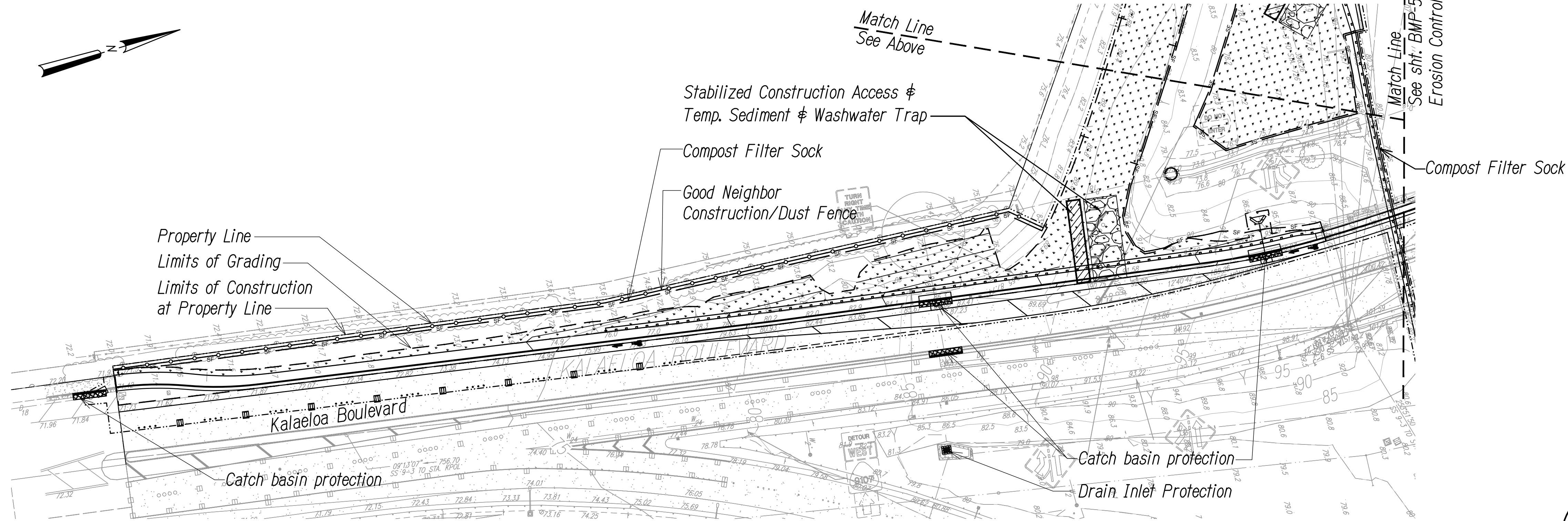
Scale: As Noted Date: August 2022

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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| DESIGNED BY       |      |
| TRACED BY         |      |
| NOTED BY          |      |
| QUANTITIES BY     |      |
| CHECKED BY        |      |

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| HAWAII              | HAW.  | NH-HI-K(271)       | 2022        | 68        | 167          |

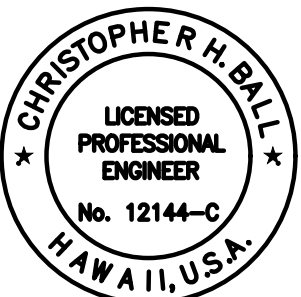
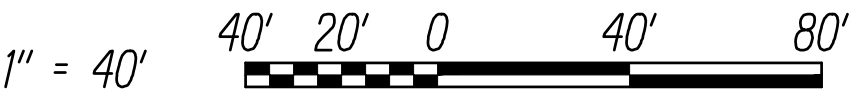
Legend

- 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
- o — o — o — 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
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- 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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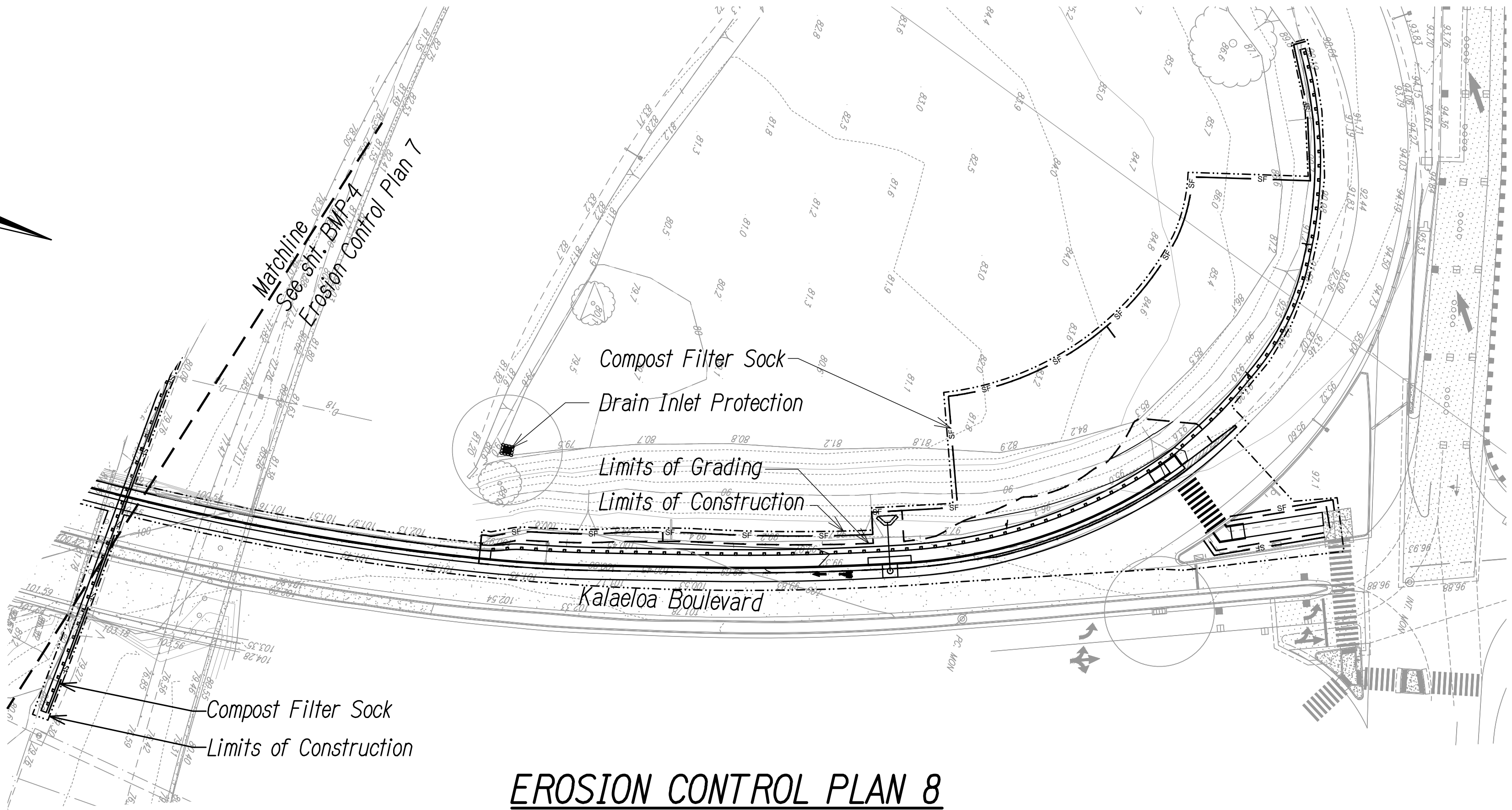
Chris Ball  
MITSUNAGA & ASSOCIATES, INC. 4/30/2024  
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**EROSION CONTROL PLAN 5**

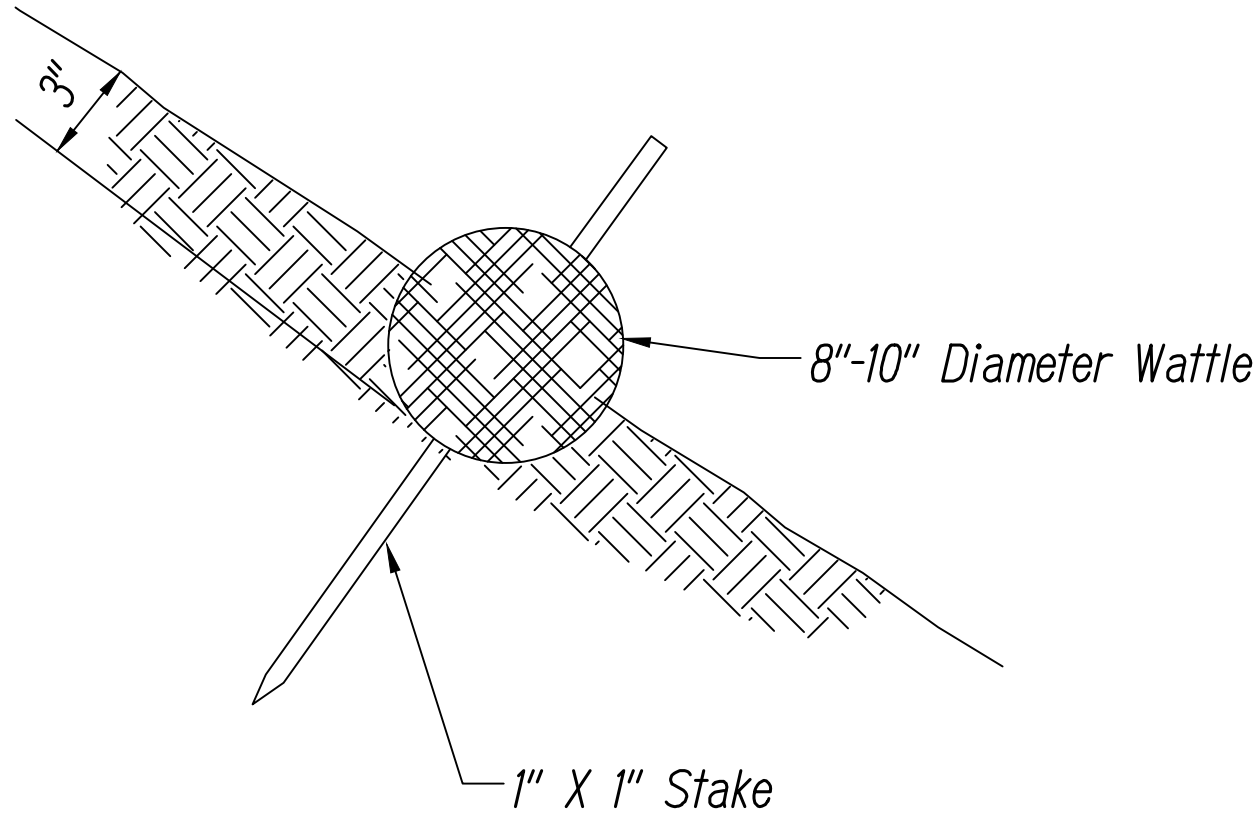
INTERSTATE ROUTE H-1  
ADDITION AND MODIFICATION OF FREEWAY ACCESS  
(Kapolei Interchange Complex), Phase 3  
Federal Aid Project No. NH-HI-K(271)

Scale: As Noted Date: August 2022

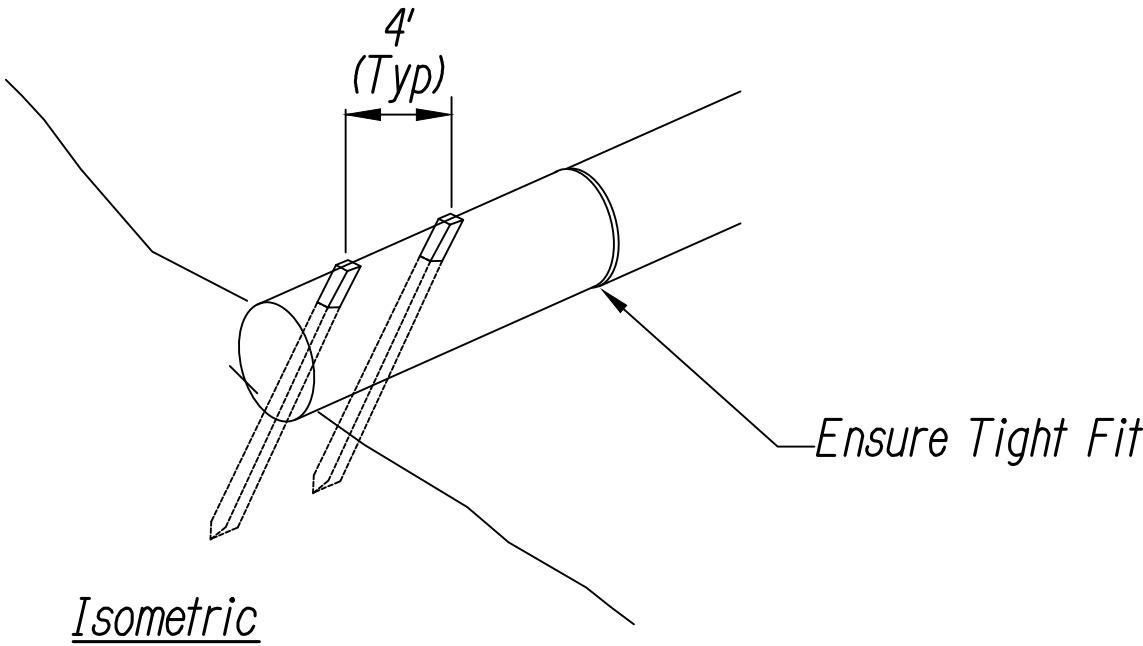


**EROSION CONTROL PLAN 8**

Scale: 1" = 40'



Cross-Section



Isometric

Straw Wattle Notes:

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

**STRAW WATTLE DETAIL**

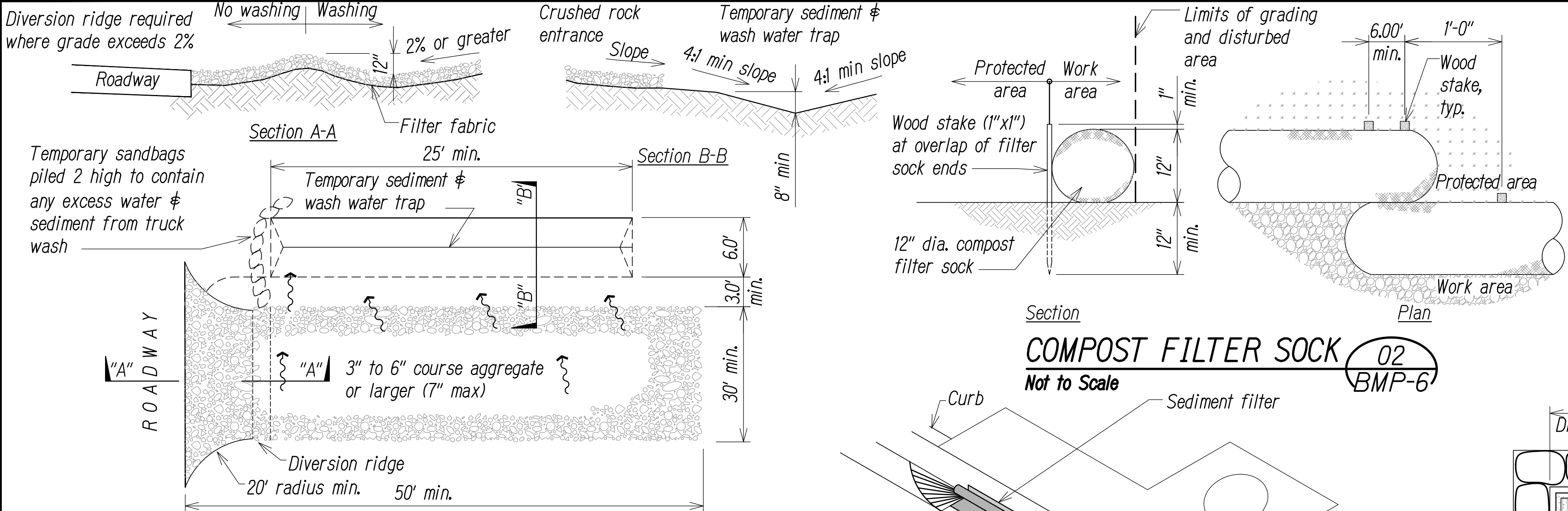
Not to Scale

01  
BMP-5

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



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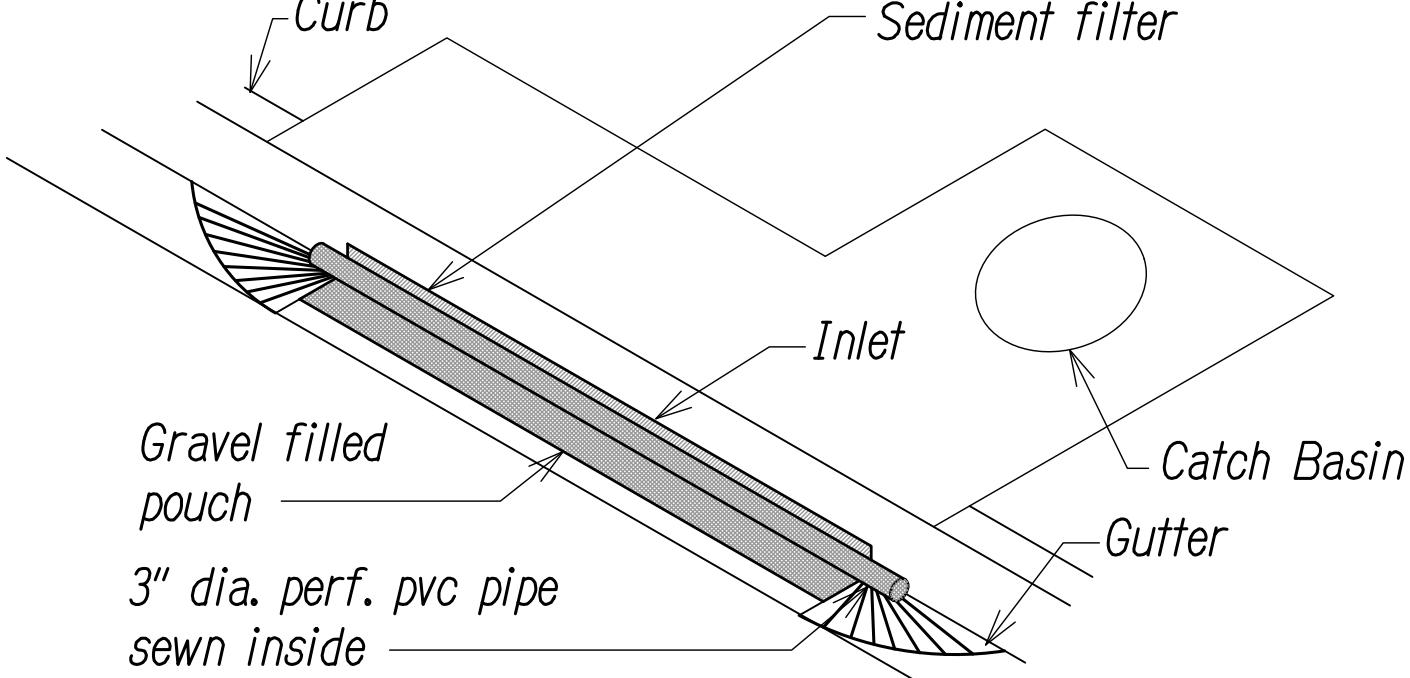


- Notes:**
1. Compost shall not contain biosolids & should be consistent with EPA guidelines.
  2. Wood stakes only required at connection between filter socks as shown on detail plan.
  3. Remove sediment when depth reaches 1/3 the height of filter sock.
  4. At completion of project, all filter sock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

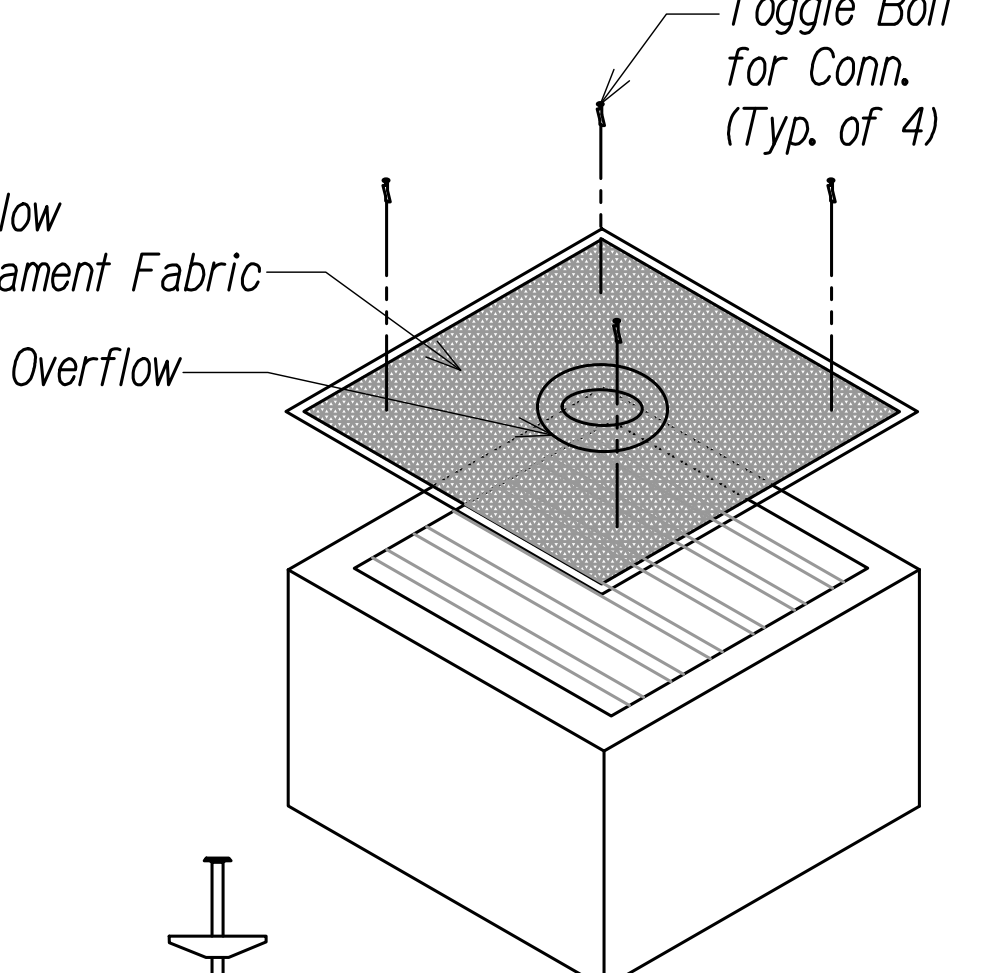
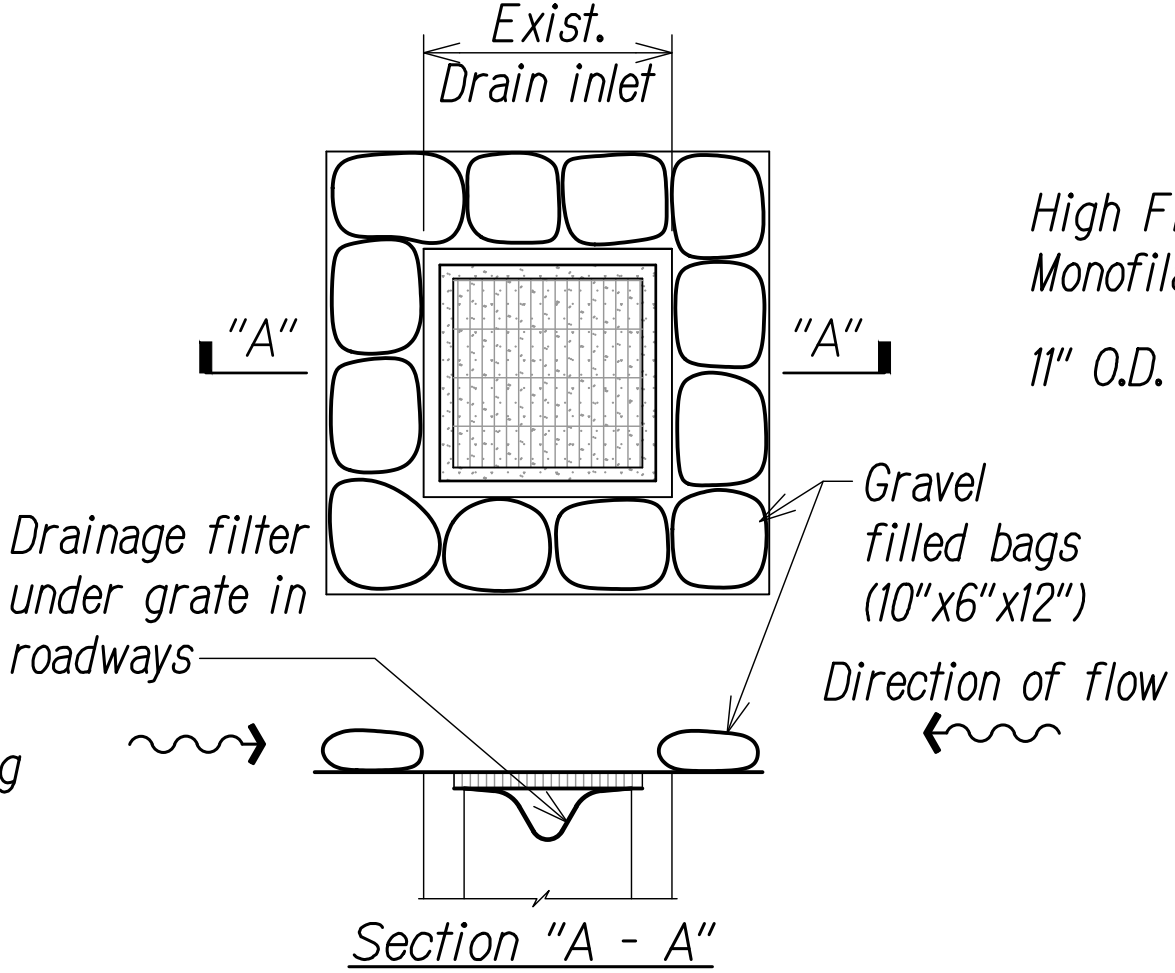
**BMP Detail Note:**

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**  
**Not to Scale** **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.

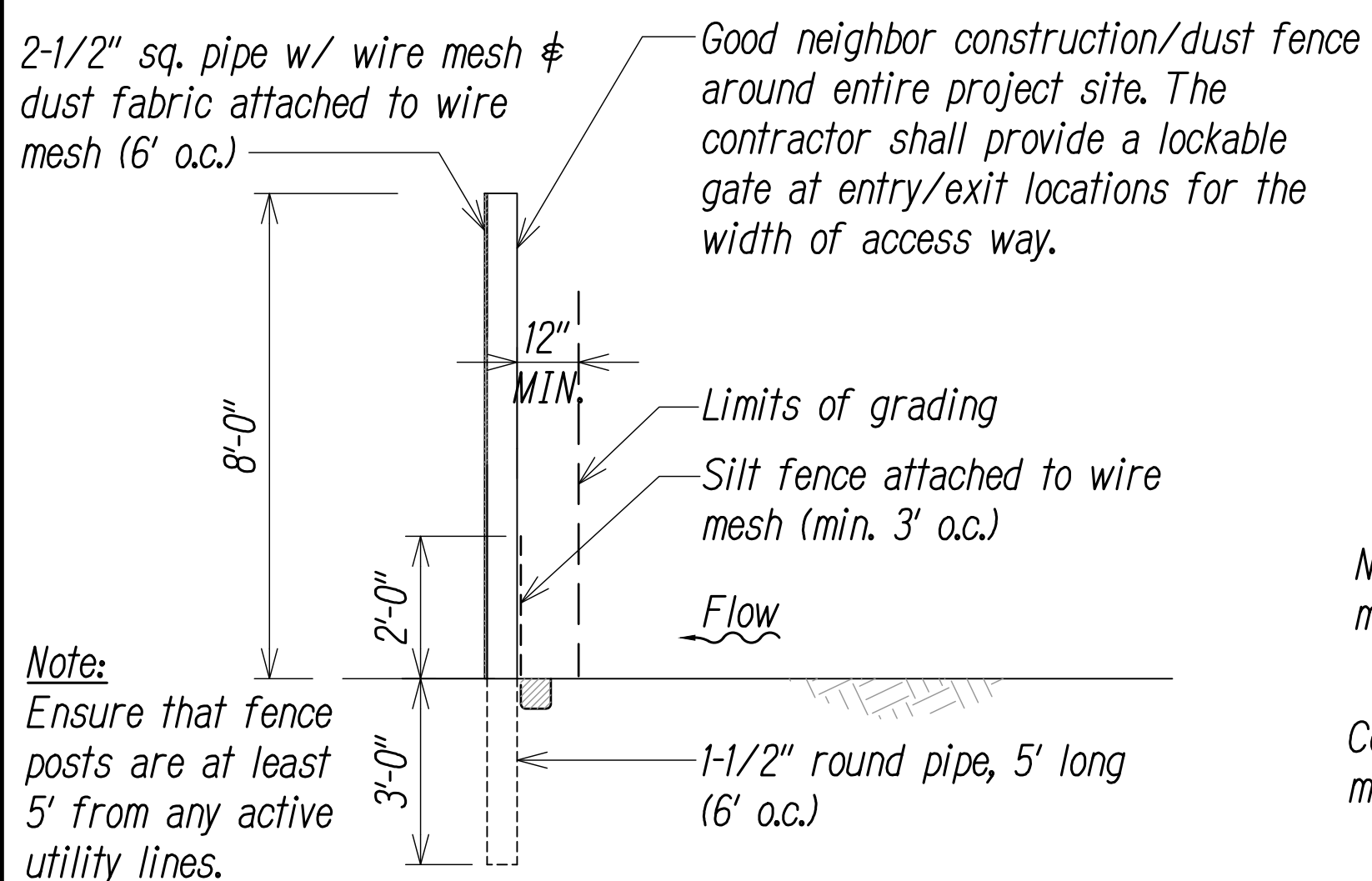


Toggle Bolt Detail

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

Not to Scale

**01**  
**BMP-6**



**GOOD NEIGHBOR CONSTRUCTION DUST FENCE DETAIL**

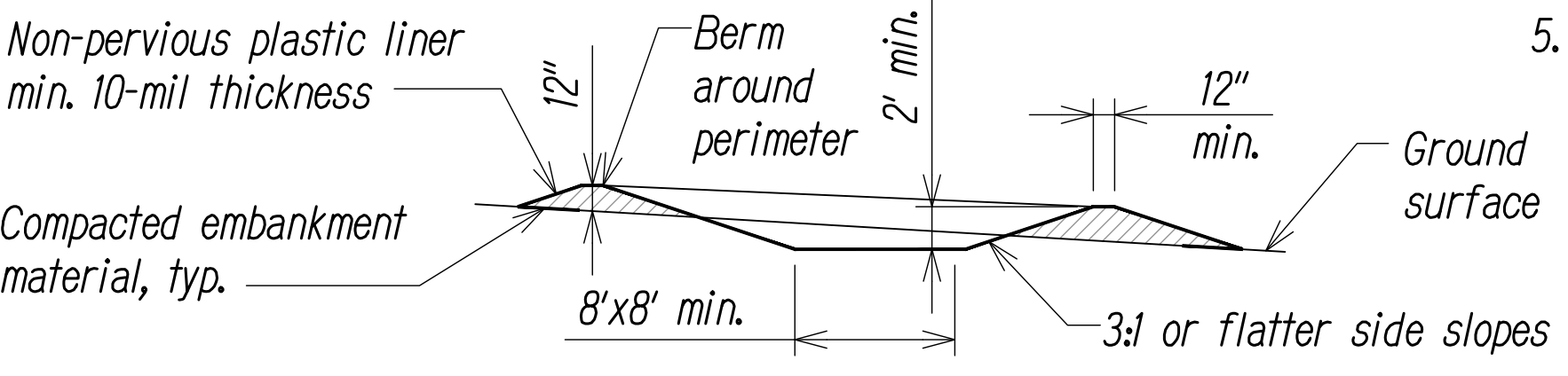
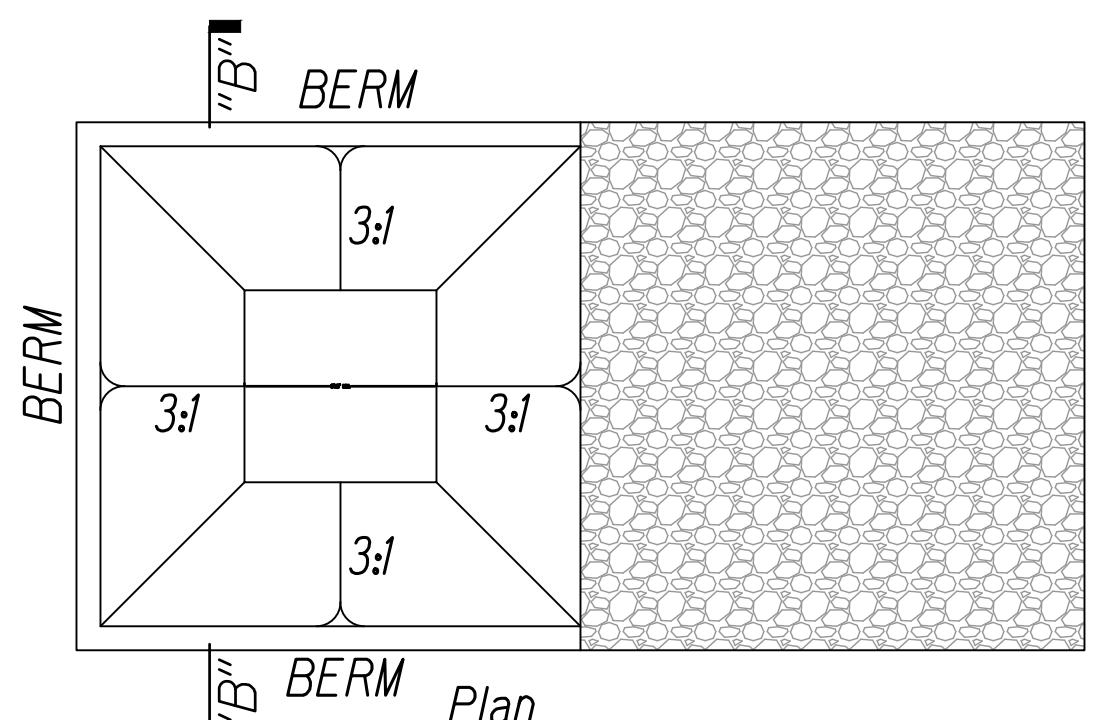
Not to Scale

**06**  
**BMP-6**

**TEMPORARY CATCH BASIN PROTECTION DETAIL**

Not to Scale

**03**  
**BMP-6**



**CONCRETE WASHOUT AREA**

Not to Scale

**07**  
**BMP-6**

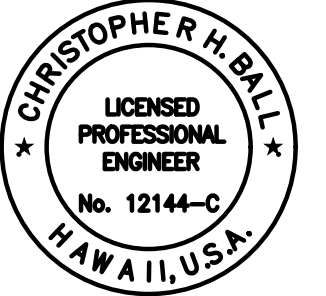
**TEMPORARY DRAIN INLET PROTECTION DETAIL**

Not to Scale

**04**  
**BMP-6**

- Notes:**
1. Contractor to locate conc. washout area on site.
  2. The conc. washout area shall be installed prior to any conc. placement on site.
  3. Crushed rock access is required at the access point.
  4. Signs shall be placed at the construction entrance, at the washout area, and elsewhere as necessary to clearly indicate the location of the conc. washout area to operators of conc. trucks and pump rigs.
  5. Excavated material shall be utilized in perimeter berm construction.

- Notes (cont.):**
6. The concrete washout area shall be repaired and enlarged or cleaned out as necessary to maintain capacity for wasted conc.
  7. At the end of construction, all conc. shall be removed from the site and disposed of at an approved waste site.
  8. When the conc. washout area is removed, the disturbed area shall be drill seeded and crimp mulched or otherwise stabilized.
  9. Inspect weekly, during and after any storm event.



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

STATE OF HAWAII  
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**EROSION CONTROL DETAILS**

INTERSTATE ROUTE H-1  
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