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11-13	UTILITY NOTES
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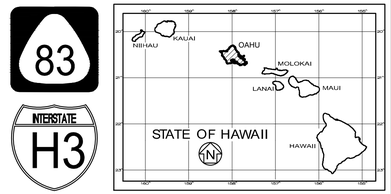
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	1	38

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HONOLULU, HAWAII



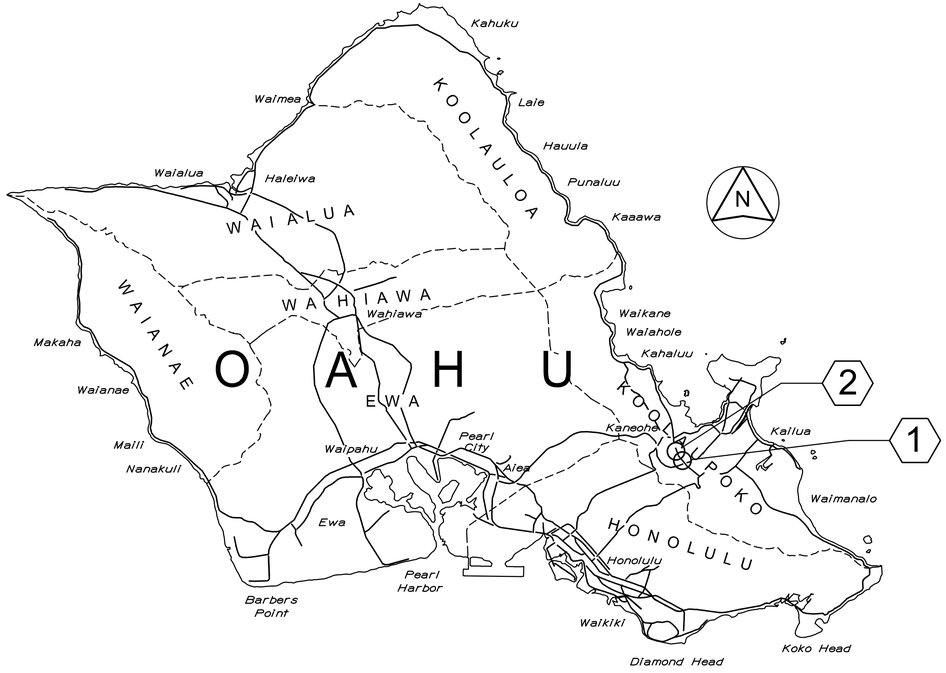
PLANS FOR

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU

PROJECT NO. HWY-O-04-26

DISTRICT OF KOOLAUPOKO

ISLAND OF OAHU



PROJECT SITES

1 LOCATION PLAN - PID 207
INTERSTATE ROUTE H-3
BEGIN MILEPOST: 11.00
END MILEPOST: 11.10

2 LOCATION PLAN - PID 416
KAMEHAMEHA HIGHWAY 83
BEGIN MILEPOST: 42.39
END MILEPOST: 42.55

MARCH 2026	DATE
692-7589	PHONE
HWY-OW	MANAGED BY
LIMTIACO CONSULTING GROUP	DESIGNED BY

DEPARTMENT OF TRANSPORTATION
STATE OF HAWAII

APPROVED:

04/02/2026

for DIR. OF TRANSPORTATION — DATE

STANDARD PLANS SUMMARY

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	2	38

STANDARD PLAN NO.	TITLE	DATE
B-01	NOTES & MISCELLANEOUS DETAILS	05/31/07
B-03	BACKFILL DETAILS AT EARTH RETAINING STRUCTURES	05/31/07
B-12	PRESTRESSED CONCRETE PILES & COMPRESSION SPLICE	05/31/07
	CAN DETAILS	
B-12A	PRESTRESSED CONCRETE PILES, PILE & COMPRESSION	05/31/07
	SPLICE CAN DETAILS & NOTES	
B-12B	PILE INTERACTION DIAGRAM	05/31/07
B-13	PRESTRESSED CONCRETE PILE BUILD-UP DETAILS	05/31/07

D-01	CATTLE GATE	05/31/07
D-02	CHAIN LINK FENCE WITH TOPRAIL	05/31/07
D-03	CHAIN LINK FENCE WITHOUT TOPRAIL	05/31/07
D-04	WIRE FENCE WITH METAL POSTS	05/31/07
D-05	TYPICAL DETAILS OF CURBS AND/OR GUTTERS	05/31/07
D-06	TYPICAL DETAIL OF REINFORCED CONCRETE DROP DRIVEWAY	05/31/07
D-07	CENTERLINE AND REFERENCE SURVEY MONUMENTS	05/31/07
D-08	STREET SURVEY MONUMENT	05/31/07
D-15	CONCRETE SIDEWALK	05/31/07
D-16	P.C.C. BUS PAD	05/31/07
D-17	P.C.C. BUS PAD	05/31/07
D-18	P.C.C. PAVEMENT LAYOUT	05/31/07
D-19	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-20	P.C.C. PAVEMENT W/ PERMEABLE BASE JOINT DETAILS	05/31/07
D-21	P.C.C. LONGITUDINAL JOINT DETAILS	05/31/07
D-22	P.C.C. CONNECTION TO CURBS AND GUTTERS	05/31/07
D-23	JOINTS	05/31/07

L-01	TREE PLANTING	08/16/06
L-02	TREE PLANTING	08/16/06
L-03	TREE TRANSPLANTING	08/16/06
L-04	PALM PLANTING	08/16/06
L-05	SHRUB PLANTING	08/16/06
L-06	LANDSCAPE DETAILS	08/16/06
L-07	LANDSCAPE DETAILS	08/16/06
L-08	LANDSCAPE DETAILS	08/16/06
L-09	LANDSCAPE DETAILS	08/16/06
L-10	LANDSCAPE DETAILS	08/16/06
L-11	PLANTING NOTES	08/16/06
L-12	IRRIGATION DETAILS	08/16/06
L-13	IRRIGATION DETAILS	08/16/06
L-14	IRRIGATION DETAILS	08/16/06
L-15	IRRIGATION DETAILS	08/16/06
L-16	IRRIGATION DETAILS	08/16/06
L-17	IRRIGATION DETAILS	08/16/06
L-18	IRRIGATION DETAILS	08/16/06
L-19	IRRIGATION DETAILS	08/16/06
L-20	IRRIGATION DETAILS	08/16/06
L-21	IRRIGATION DETAILS	08/16/06
L-22	IRRIGATION DETAILS	08/16/06
L-23	IRRIGATION DETAILS	08/16/06
L-24	IRRIGATION NOTES	08/16/06

STANDARD PLAN NO.	TITLE	DATE
H-01A	TYPE A CATCH BASIN	05/31/07
H-01B	TYPE B CATCH BASIN	05/31/07
H-01C	TYPE C CATCH BASIN	05/31/07
H-01D	TYPE D CATCH BASIN	05/31/07
H-01E	CATCH BASIN SECTIONS	05/31/07
H-02A	TYPE A1 CATCH BASIN	05/31/07
H-02B	TYPE B2 CATCH BASIN	05/31/07
H-02C	TYPE C1 CATCH BASIN	05/31/07
H-02D	TYPE D1 CATCH BASIN	05/31/07
H-02E	CATCH BASIN SECTION	05/31/07
H-03	TYPE A,B, AND C STORM DRAIN MANHOLE	05/31/07
H-04	TYPE D STORM DRAIN MANHOLE	05/31/07
H-05	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-06	TYPICAL REINFORCING DETAILS FOR DRAINAGE STRUCTURES	05/31/07
H-07	CATCH BASIN AND MANHOLE CASTINGS	05/31/07
H-08	TYPE 1A-9 AND 1A-9P GRATED DROP INLET	05/31/07
H-09	TYPE 2A-9 AND 2A-9P GRATED DROP INLET	05/31/07
H-10	TYPE A-9 OR A-9P STEEL FRAMES	05/31/07
H-11	TYPE A-9 AND A-9P STEEL GRATES	05/31/07
H-12	TYPE 61614P AND 1211214P GRATED DROP INLET	05/31/07
H-13	TYPE 61616P AND 1211216P GRATED DROP INLET	05/31/07
H-14	TYPE 61214P GRATED DROP INLET	05/31/07
H-15	TYPE 1211214, 1211214P, 1211216, 1211216P STEEL	05/31/07
	FRAME AND GRATES	
H-16	TYPE 61614, 61614P, 61616, 61616P STEEL FRAME	05/31/07
	AND GRATES	
H-17	TYPE 61214 STEEL FRAMES AND GRATES	05/31/07
H-18	TYPE 61214P STEEL GRATES	05/31/07
H-19	TYPE 61614B STEEL FRAME AND GRATES	05/31/07
H-20	CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-21	CONCRETE AND CEMENT RUBBLE MASONRY STRUCTURES	05/31/07
H-22	INLET/OUTLET STRUCTURE	05/31/07
H-23	INLET/OUTLET STRUCTURE	05/31/07
H-24	FLARED END SECTION FOR CULVERTS	05/31/07
H-25	FLARED END SECTION FOR CULVERTS	05/31/07
H-26	CONCRETE SPILLWAY INLET	05/31/07
H-27	CAP COUPLING DETAILS STANDARD JOINT	05/31/07
H-28	REINFORCED CONCRETE COLLAR & JACKET	05/31/07
H-29	UNDERDRAIN CLEANOUT STEEL FRAME AND COVER	05/31/07
H-30	UNDERDRAIN CONNECTION TO DRAINAGE STRUCTURE	05/31/07

TE-01	SIGN HEIGHT AND LOCATION	07/11/08
TE-1A	SIGN INSTALLATION	07/11/08
TE-02A	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02B	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02C	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-03A	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-03B	GALVANIZED SQUARE TUBE SIGN POST MOUNTING	05/31/07
TE-04	REGULATORY SIGNS	07/11/08
TE-05 ●	WARNING SIGNS	07/11/08
TE-06	MISCELLANEOUS SIGNS	07/11/08
TE-07 ●	CONSTRUCTION SIGNS	07/11/08
TE-08	MISCELLANEOUS INTERSECTION SIGNS	07/11/08

STANDARD PLAN NO.	TITLE	DATE
TE-09	BIKE ROUTE SIGN & SUPPLEMENTARY PLATES	07/11/08
TE-10	INTERSTATE ROUTE MARKER	07/11/08
TE-11	STATE ROUTE MARKER AND AUXILIARY MARKERS	07/11/08
TE-12	STATE ROUTE MARKER AND BORDER DETAIL FOR	07/11/08
	GUIDE SIGNS	
TE-12A	ROUTE SIGN ASSEMBLIES	07/11/08
TE-13	STREET NAME SIGN ON MAST ARM	07/11/08
TE-14	MISCELLANEOUS REFLECTOR MARKERS	07/11/08
TE-15	OBJECT MARKERS	07/11/08
TE-16	MILE POSTS	07/11/08
TE-17A	CANTILEVER OVERHEAD SIGN ELEVATION & DETAILS	05/31/07
TE-17B	CANTILEVER SIGN FRAME DETAIL AND SECTION	05/31/07
TE-17C	CANTILEVER SIGN FRAME DETAIL	05/31/07
TE-17D	CANTILEVER SIGN FRAME SECTION	05/31/07
TE-17E	CANTILEVER SIGN FRAME DETAILS	05/31/07
TE-18A	TWO POST OVERHEAD SIGN FRAME ELEVATIONS	05/31/07
TE-18B	TWO POST SIGN FRAMING PLAN SECTION	05/31/07
TE-18C	TWO POST SIGN FRAMING SECTIONS AND DETAILS	05/31/07
TE-18D	TWO POST SIGN FRAME DETAILS	05/31/07
TE-18E	TWO POST SIGN FRAME DETAILS	05/31/07
TE-19A	OVERHEAD SIGN FRAMING SCHEDULE	05/31/07
TE-19B	SIGN POST DRILLED SHAFT FOUNDATION	05/31/07
TE-19C	SPREAD FOOTING	05/31/07
TE-19D	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.1	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.2	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.3	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.4	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19D.5	SIGN FRAME FOUNDATION SCHEDULE	05/31/07
TE-19E	ANCHORAGE DETAILS	05/31/07
TE-19F	ANCHORAGE DETAILS	05/31/07
TE-19G	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-19H	LUMINAIRE WALKWAY SUPPORT	05/31/07
TE-19J	FIXED MESSAGE LUMINAIRE SUPPORT	05/31/07
TE-19K	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19L	MISCELLANEOUS SIGN DETAILS	05/31/07
TE-19M	MISCELLANEOUS SIGN FRAME DETAILS	05/31/07
TE-20	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20A	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20B	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-20C	SUPPORTS FOR GROUND MOUNTED GUIDE SIGN	05/31/07
TE-21A	SIGN BREAKAWAY MOUNTS	05/31/07
TE-21B	SIGN BREAKAWAY MOUNTS	05/31/07
TE-22	LAMINATED ALUMINUM SIGN PANELS (OVERHEAD)	05/31/07
TE-23	LAMINATED ALUMINUM SIGN PANELS (GROUND MOUNTED)	07/11/08
TE-24	SOLID ALUMINUM EXTRUDED SIGN PANEL AND	05/31/07
	ACCESSORY DETAILS	
TE-25	GUIDE SIGNS LUMINAIRE MOUNTINGS	05/31/07
TE-26	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-27	RAISED PAVEMENT MARKERS AND STRIPING	07/11/08
TE-28	ENTRANCE AND EXIT PAVEMENT MARKINGS	07/11/08
TE-28A	ENTRANCE AND EXIT PAVEMENT MARKINGS	07/11/08
TE-28A	MISCELLANEOUS PAVEMENT MARKINGS	07/11/08
TE-29	PAVEMENT ARROWS AND SYMBOLS	07/11/08
TE-30	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08

STANDARD PLAN NO.	TITLE	DATE
TE-31	PAVEMENT ALPHABETS, NUMBERS & SYMBOLS	07/11/08
TE-32	TYPE I & II TRAFFIC SIGNAL SYSTEM MISC. DETAILS	05/31/07
TE-33	TYPE II TRAFFIC SIGNAL SYSTEM	08/16/06
TE-33A.1	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-33A.2	TYPE II TRAFFIC SIGNAL STANDARD	05/31/07
TE-34	LOOP DETECTOR DETAILS	07/11/08
TE-35	LOOP DETECTORS & DUCT DETAILS	07/11/08
TE-36	TRAFFIC SIGNAL DETAILS	07/11/08
TE-37	PULLBOX & COVER DETAILS	07/11/08
TE-37A	TYPE "A" TRAFFIC PULLBOX	05/31/07
TE-37B	TYPE "A" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37C	TYPE "B" TRAFFIC PULLBOX	05/31/07
TE-37D	TYPE "B" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37E	TYPE "B" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37F	TYPE "C" TRAFFIC PULLBOX	05/31/07
TE-37G	TYPE "C" TRAFFIC PULLBOX REINFORCING	05/31/07
TE-37H	TYPE "C" TRAFFIC PULLBOX FOUNDATION	05/31/07
TE-37J	TRAFFIC PULLBOX COVER AND DETAILS	05/31/07
TE-38	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.1	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-38A.2	TYPE III TRAFFIC SIGNAL STANDARD	05/31/07
TE-39	METAL GUARDRAIL CONNECTION TO CONCRETE BARRIER	07/11/08
TE-40	CONCRETE BARRIER TRANSITION	05/31/07
TE-40A	CONCRETE BARRIER TRANSITION SECTIONS	05/31/07
TE-41	GUARDRAIL TYPE 4 (RIGID BARRIER)	05/31/07
TE-42	PORTABLE CONCRETE BARRIER	05/31/07
TE-43	PORTABLE CONCRETE BARRIER	05/31/07
TE-44	GUARDRAIL TYPE 4 MISCELLANEOUS DETAILS	07/11/08
TE-45	BARRICADES	07/11/08
TE-46	DELINEATION & PAVEMENT MARKINGS AT NARROW BRIDGES	07/11/08
TE-47	HIGHWAY LIGHT STANDARD	05/31/07

NOTE:

STANDARD PLANS APPLICABLE TO THIS PROJECT ARE INDICATED BY A " ● " NEXT TO THE STANDARD PLAN NO. (FOR EXAMPLE: D-07 ●)

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

DLNOTSUMMARYSHEET.DWG 1/27/2026 8:08:59 PM

TREVOR R. VAGAY
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.
4/30/28
EXP. DATE
This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

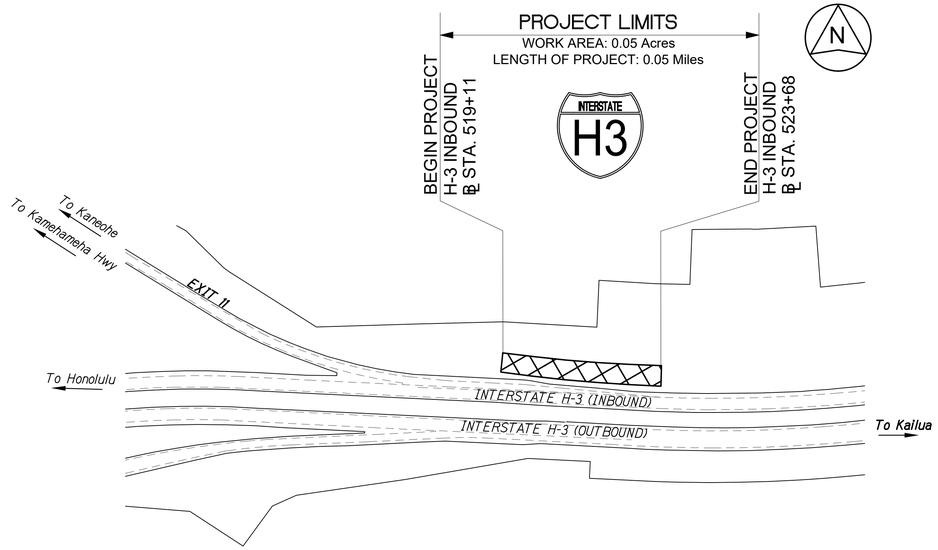
STANDARD PLANS SUMMARY

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

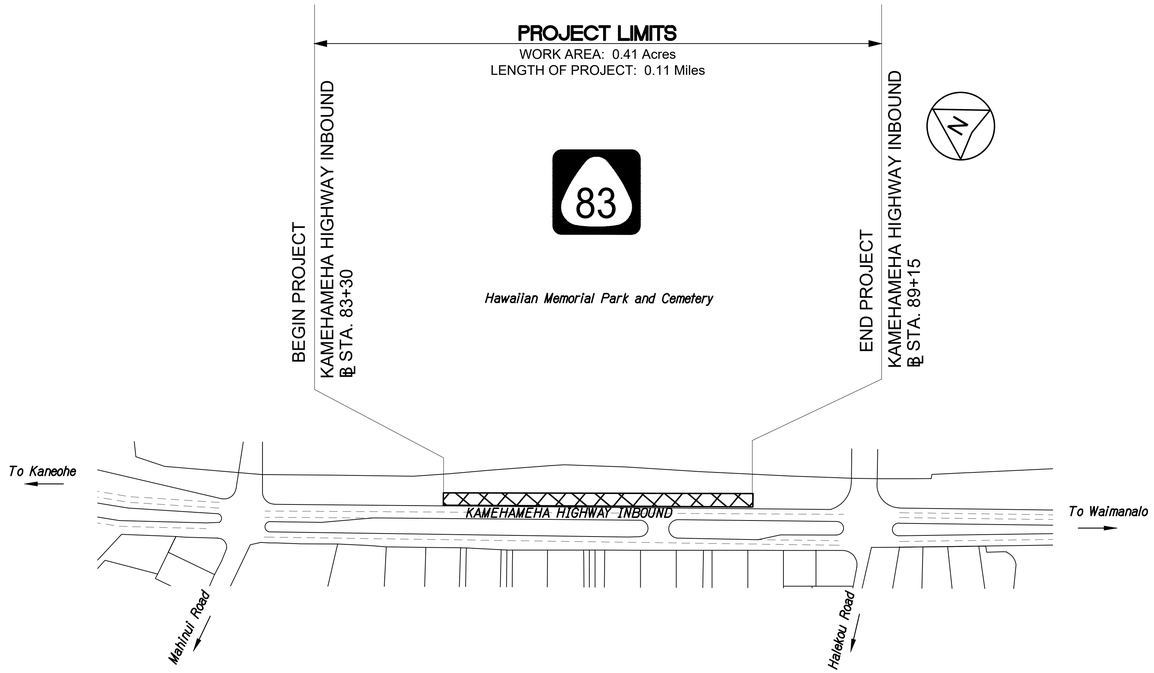
Scale: None Date: March 2026

SHEET No. G-01 OF 2 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	3	38



INTERSTATE ROUTE H-3
1 LOCATION PLAN - PID 207
NOT TO SCALE



KAMEHAMEHA HIGHWAY
2 LOCATION PLAN - PID 416
NOT TO SCALE

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

03_LOCATIONPLANS.DGN 3/31/2026 10:57:37 AM

TREVOR R. VAGAY
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.
4/30/28
EXP. DATE
This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LOCATION PLANS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: None Date: March 2026

SHEET No. G-02 OF 2 SHEETS

GENERAL NOTES

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	4	38

1. The scope of work for this project includes preparing slope surfaces; clearing vegetation; recontouring existing slopes; planting; hydro-mulching; installation of erosion control matting; installation and maintenance of temporary BMPs and providing traffic control.

2. The Contractor's attention is directed to the following Specification Sections of the Standard Specifications: Subsection 104.11 - Utilities and Services; Subsection 105.16 - Subcontracts; Subsection 107.02 - Permits and Licenses; Subsection 107.06 - Contractor Duty Regarding Public Convenience; and Section 645 - Work Zone Traffic Control.

3. The Contractor shall notify the Hawaii One Call Center (811 or 866-423-7287) no less than five (5) working days prior to excavation, on each or all locations, for locating underground facilities pursuant to HRS Section 269E-7.

4. The Contractor shall independently tone areas of excavation not more than 30 days prior to excavation. Provide written notice of scheduled toning and specific locations to the Engineer at least one week ahead of toning. The Contractor shall obtain DOT as-builts at the DOT Kapolei Kakuhihewa Building to locate potential conflicts with utilities prior to excavation. If there is a potential conflict, Contractor shall inform DOT within 24 hours of discovery. Contractor shall probe around area and take precautions to not damage utilities. This work shall be incidental to various contract items and shall not be paid for separately.

5. Pursuant to HRS Chapter 6E Historic Preservation, in the event any historic resources, including cultural deposits or human skeletal remains, are uncovered during construction operations, the Contractor shall suspend work in the immediate vicinity of the find, protect the find from additional disturbance, and notify the Honolulu Police Department and the State Department of Transportation.

6. At the end of each day's work, the Contractor shall remove all equipment and other obstructions to permit free and safe passage of public traffic.

7. The existence and location of underground utilities, manholes, monuments, and structures as shown on the plans are from the latest available data, but the accuracy is not guaranteed. The encountering of other obstacles during the course of work is possible. The Contractor shall make an independent check on the ground by probing and/or checking with the various utility companies or government agencies to verify the exact location and depths of the existing utilities and obstructions. The Contractor shall exercise proper care in excavating in the area.

8. The Contractor shall verify the presence of existing utilities which may conflict with activities and shall coordinate with the utility company for temporary relocation, as necessary. All costs associated with the temporary relocation shall be borne by the Contractor. The Contractor shall comply with utility coordination requirements per Standard Specification Section 104.11. As a part of coordination communication/ correspondence requirements, the Contractor shall include the Engineer in all email correspondences with utilities, facilities, and agencies.

9. The Contractor shall notify the Engineer in writing two (2) weeks prior to starting construction operations.

10. Whenever connections of new utilities are shown on the plans, the contractor shall expose the existing lines at the proposed connections to verify their locations and depths prior to excavating. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his/her operations. All damaged portions shall be replaced or repaired and shall include all upgrades and betterments to the standard of the utility or agency.

11. All dimensions and details shown on the drawings shall be checked and verified prior to the start of construction, and any discrepancies shall be immediately brought to the attention of the Engineer for clarification.

12. The exact locations and limits of areas to be cleared or prepared shall be located in the field by the Contractor and accepted by the Engineer. The Contractor shall not begin any work until the Engineer verifies and accepts the location and limits of the area. Any area that is not accepted by the Engineer will be considered unauthorized work and shall not be paid for.

13. All existing utilities to remain in use, whether or not shown on the plans, shall be protected at all times by the Contractor during construction unless specified on the plans to be abandoned. Any damages to existing utilities shall be repaired and paid for by the Contractor.

14. Existing drainage system shall be functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain. This work shall be considered incidental to any culvert work or the various contract items and will not be paid for separately.

15. Existing facilities, guardrail, landscaping and/or pavement to remain which has been damaged by the Contractor shall be restored to its original condition at no cost to the State.

16. All regraded areas and all grassed areas damaged by construction activities shall be planted in accordance with Specification Section 619 - Planting. Contractor shall restore to its original condition at no cost to the State.

17. When excavating in close proximity to walls, fences, and other improvements, the Contractor shall protect, support, secure, and take all precautions to prevent damaging these facilities and improvements.

18. No material or equipment shall be stockpiled or otherwise stored within highway right-of-way except at locations designated in writing and approved by the Engineer.

19. The Contractor shall be responsible for conformance with applicable provisions of the Hawaii Administrative Rules, Title 11, Chapter 54, "Water Pollution Control", Best Management Practices shall be employed during construction.

20. All material generated by the project and taken off-site shall be considered solid waste. The Contractor shall dispose of all removed material at an approved Department of Health waste management facility at no additional cost to the State. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste to the Engineer within one week of disposal. Provide documentation from any intermediary facility where solid waste is handled or processed, haul tags, or any documentation as required by the Engineer. If the contractor elects to reclassify material as inert fill, DOH HEER testing guidance must be followed. No material generated from this project shall be classified as inert fill material for reuse without testing, obtaining required approvals/permits, providing disposal locations/quantities, and obtaining prior written approval from the Engineer. Failure to comply with these requirements will result in fines/liquidated damages in accordance with Special Provision Section 209 and HDOT's Enforcement Response Plan.

21. After the project is completed, the Contractor shall restore grades and groundcover within the project limits to a condition equal to or better than existing condition prior to construction.

22. Project activities shall comply with Chapter 11-46, Community Noise Control of the Department of Health Administrative Rules.

23. All work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to other various contract items and shall not be paid for separately.

24. The Contractor shall indemnify and be solely responsible for the protection of adjacent properties, utilities, and existing structures from damages due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.

25. The Contractor shall provide oversight for quality control of work. The Contractor shall submit copies of all measurements and test results to the Engineer once obtained. This includes, but is not limited to, compaction, density, strength, and core data for concrete, asphalt, and soils. All sampling and testing shall be done by a person certified in the material test method. Submit certification to the Engineer prior to testing.

26. All materials shall be new and free of defects, such as rust, damage, or corrosion. The Engineer will determine acceptability. No payment will be made for material that is not accepted by the Engineer.

27. Vendors shall not be considered as subcontractors. No work shall be performed by vendors under this contract.

28. The Contractor shall obtain a Permit To Perform Work Upon State Highway from the HDOT Highways Division Oahu District Engineer, at 727 Kakoi Street, prior to commencing work within the State right-of-way. The Permit To Perform Work Upon State Highway may be revoked due to defaulting on contract requirements, including, but not limited to, the following:

    1) Performing work before or after permitted hours.

    2) Failure to maintain the roadway in a smooth and safe condition.

    3) Failure to clean up construction debris generated from project work.

    4) Failure to provide or maintain proper traffic control.

    5) Failure to replace damaged pavement markings and signs.

    6) Failure to replace highway lighting and/or traffic signal systems.

    7) Failure to address public complaints to the satisfaction of the Engineer.

Any revocation of the permit shall be at the Contractor's expense and no additional cost to the State and no additional contract time will be added.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

Scale: None Date: March 2026

SHEET No. N-01 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	5	38

GENERAL NOTES (CONT.)

29. The Contractor shall inform the Engineer of all scheduled work to facilitate inspection per Subsection 105.11 – Inspection of the Work and Materials. See schedule requirements in Subsections 108.06 – Progress Schedules and 108.07 – Weekly Meetings. Failure to inform the Engineer may result in withholding payment or the work being considered unauthorized and subject to Subsection 105.12 – Removal of Non-Conforming and Unauthorized Work.

30. The Contractor shall allow access to all materials that will be used in the project for inspection and/or testing (this includes but is not limited to access to Contractor or Subcontractor's base yards, manufacturers' yards, production plants, and separate storage areas). The Engineer reserves the right to reject any material for which access or inspection is not allowed.

31. All public notices and advertisements shall be incidental to the Traffic Control contract item, and shall not be paid for separately, unless otherwise directed by Engineer.

32. The exact locations and limits of areas to be cleared or prepared shall be located in the field by the Contractor and accepted by the Engineer. The Contractor shall not begin any work until the Engineer verifies and accepts the location and limits of the area. Any area that is not accepted by the Engineer will be considered unauthorized work and shall not be paid for.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
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GENERAL NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: None Date: March 2026

SHEET No. N-02 OF 10 SHEETS

PUBLIC HEALTH, SAFETY, AND CONVENIENCE NOTES

1. Contractor shall observe and comply with all federal, state, and local laws required for the protection of public health, safety and environmental quality.

2. The Contractor, at his own expense, shall keep the project and its surrounding areas free from dust nuisance. The work shall be in conformance with the Air Pollution Standards and Regulations of the State Department of Health. The State shall require supplementary measures if required.

3. The Contractor shall be responsible for the cleaning and removal of all silt and debris generated by his work and deposited and accumulated within downstream waterways, ditches and drain pipes and public and private roadways. The Contractor agrees to reimburse the State for all costs expended in performance of above work if required for public health and safety or made necessary by non-performance by the Contractor.

4. The Contractor shall not perform any construction operation so as to cause falling rocks, soil or debris in any form to fall, slide or flow into existing city drainage systems, or adjoining properties, streets or natural watercourses. Should such violations occur, the Contractor may be cited and the Contractor shall immediately make all remedial actions necessary.

5. The Contractor shall provide, install and maintain all necessary signs, lights, flares, barricades, markers, cones, and other protective facilities and shall take all necessary precautions for the protection, convenience and safety of the public.

6. The Contractor's attention is directed to HAR Title 11 Chapter 46, Public Health Regulations, Department of Health, State of Hawaii, "Community Noise Control," in which maximum permissible noise levels have been set. If the construction work requires a permit from the Director of Health, the Contractor shall obtain a copy of Chapter 46 and become familiar with the noise level restrictions and the procedures for obtaining a permit for the construction activities. Application and information on variances are available from the Environmental Protection and Health Services Division, Indoor and Radiological Health Branch, 99-945 Halawa Valley Street, Aiea, HI 96701 or by telephone (586-4700).

GRADING NOTES

1. All grading work shall be done in accordance with Chapter 14, Articles 13, 14, 15 and 16, as related to grading, soil erosion and sediment control, of the Revised Ordinances of Honolulu, 1990, as amended and applicable provisions of Chapter 54, Water Quality Standards and Chapter 55, Water Pollution Control, Title II, Administrative Rules of the State Department of Health.

2. No Contractor shall perform any grading operation as to cause falling rocks, soil or debris in any form to fall, slide or flow onto adjoining properties, streets or natural watercourses. Should such violations occur, the contractor may be cited and the Contractor shall immediately make all remedial actions necessary.

3. The Contractor, at his own expense, shall keep the project area and surrounding area free from dust nuisance. The work shall be in conformance with the air pollution control standards contained in the Hawaii Administrative Rules, Title 11, Chapter 60.1, "Air Pollution Control".

4. The underground pipes, cables or ductlines known to exist by the Engineer from his search of records are indicated on the plans. The Contractor shall verify the locations and depths of the facilities and exercise proper care in excavating in the area.

GRADING NOTES (CONT.)

5. Best Management Practices shall be installed to prevent surface waters from damaging the cut face of an excavation or the sloped surfaces of a fill. Furthermore, Best Management Practices shall be installed to prevent sediment-laden runoff from leaving the site.

6. All slopes and exposed areas shall be sodded or planted as soon as final grades have been established. Planting shall not be delayed until all grading work has been completed. Grading to final grade shall be continuous, and any area within which work has been interrupted or delayed for longer than 14 days shall be planted.

7. Fills on slopes steeper than 5:1 shall be continuously keyed and benched as the fill is brought up in lifts.

8. No grading work shall be done on Saturdays, Sundays and holidays at any time without prior notice and approval from the Engineer.

9. The limits of the area to be graded shall be flagged before the commencement of the grading work.

10. Where applicable and feasible, the measures to control erosion and other pollutants shall be in place before any earth moving phase of the grading is initiated.

11. Temporary erosion controls shall not be removed before permanent erosion controls are in-place and established.

12. Construction debris and waste shall be deposited at an appropriate site. The Contractor shall inform the Engineer of the location of disposal sites. The Disposal site must also fulfill the requirements of the grading ordinance.

13. All grading and construction work shall implement measures to ensure that the discharge of pollutants from the construction site will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of water quality standards.

14. Non-compliance to any of the above requirements shall mean immediate suspension of all work, and remedial work shall commence immediately. All costs incurred shall be billed to the violator. Furthermore, violators shall be subjected to administrative, civil and/or criminal penalties.

PUBLIC TRANSIT DIVISION, DTS NOTE

This project will affect bus routes, bus stops, and para-transit operations. At least two (2) weeks prior to construction, the Contractor shall provide notification of the scope of work, location, detour, proposed closure of any street, traffic lane, sidewalk, or bus stop and duration of project to:

Department of Transportation Services, Public Transit Division:
768-8396 and TheBusStop@honolulu.gov

Oahu Transit Services, Inc.:
Bus Operations: 768-9520 and 848-4565 and
Field_Operation_Mgr@thebus.org
Para-transit Operations: 454-5007 and 768-9852

ABBREVIATIONS

AC, ac	Asphalt Concrete	Max.	Maximum
AH	Ahead	M.L.A.	Matchline
BK.	Back	Min.	Minimum
℄, BL	Baseline	NTS	Not to Scale
BMP	Best Management Practices	o.c.	On Center
		O/H	Overhead
Bott.	Bottom	o/s	Offset
℄	Centerline	PC	Point of Curvature
CL	Chain Link	PERM.	Permanent
Clr.	Clearance	PI	Point on Intersection
Conc.	Concrete	PID	Project Identification Number
Det.	Detail		
Dia.	Diameter	P.O.C.	Point on Curvature
EA	Each	P.O.T.	Point of Tangency
EB	Eastbound	R	Radius
EC	Erosion Control	Rt.	Right
ECM	Erosion Control Mat	r/w	Right-of-Way
Elev	Elevation	S	Slope
EQ	Equal	sl	Street Light
ep	Edge of Pavement	SLB	Street Light Box
es	Existing Edge of Shoulder	Sta.	Station
		Std.	Standard
etw	Existing Edge of Travel Way	ST.	Street Monument
		Sym.	Symmetrical
exits.	Existing	t	Telephone
ftg.	Footing	T/thk	Thick
gdi	Grated Drain Inlet	TC	Traffic Control
grp	Guard Rail Protection	TCP	Traffic Control Plan
I.D.	Inside Diameter	Typ.	Typical
Inv.	Invert Elevation	UG	Underground
L	Length	U.P	Utility Pole
Lt.	Left	w	Water
ltstd	Light Standard	W	Width

LEGEND

- Property Line
- Limits of Work
- Centerline
- Existing Guardrail
- Temporary Filter Sock
- Runoff Direction
- Type 2 ECM and Landscape Planting
- Access Permitted
- No Vehicular Access Permitted
- No Access Permitted
- Limited Access as Noted on Plans
- Top of Slope
- Type 3 ECM and Landscape Planting

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	6	38

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES, LEGEND, AND ABBREVIATIONS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: None Date: March 2026

SHEET No. N-03 OF 10 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	7	38

A. GENERAL:

1. See Special Provision Section 209 - Temporary Water Pollution, Dust, and Erosion Control. Section 209 describes but is not limited to: submittal requirements; scheduling of a water pollution and erosion control conference with the Engineer; construction requirements; method of measurement; and basis of payment. In addition, Appendix A lists potential pollutant sources and corresponding Best Management Practices (BMPs) used to mitigate the pollutants.

2. Follow the guidelines in the current HDOT Construction Best Management Practices Field Manual in developing, installing and maintaining the Best Management Practices (BMP) for the project. For any conflicting requirements between the Manual and applicable bid documents, the applicable bid documents will govern. Should a requirement not be clearly described within the applicable bid document, the Contractor shall notify the Engineer immediately for interpretation. For the purpose of clarification under Note A, " applicable bid documents" include the construction plans, standard specifications, Special Provisions, Permits, and the Storm Water Pollution Prevention Plan (SWPPP) when applicable.

3. Follow the guidelines in the Honolulu's City and County "Rules Relating to Soil Erosion Standards and Guidelines" along with applicable Soil Erosion Guidelines for projects on Maui, Molokai, Kauai, and Hawaii.

4. The Engineer may assess liquidated damages of up to $27,500 for non-compliance of each BMP requirement and each requirement stated in Section 209 and special provisions, for every day of non-compliance. There is no maximum limit on the amount assessed per day.

5. The Engineer will deduct the cost from the progress payment for all citations received by the Department for non-compliance, or the Contractor shall reimburse the State for the full amount of the outstanding cost incurred by the State.

6. If necessary, install a rain gage prior to any field work including the installation of any site-specific best management practices. The rain gage shall have a tolerance of at least 0.05 inches of rainfall. Install the rain gage on the project site in an area that will not deter rainfall from entering the gage opening. Do not install in a location where rain water may splash into rain gage. The rain gage installation shall be stable and plumbed. Do not begin field work until the rain gage is installed and site-specific BMPs are in-place.

7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 21 calendar days of date of award. The Site-Specific BMP Review Checklist may be obtained from https://www.stormwaterhawaii.com

B. WASTE DISPOSAL:

1. Waste Materials
Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out of loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction debris from the site in the dumpster. Empty the dumpster weekly or when the container is two-thirds fill, whichever is sooner. Do not bury construction waste materials onsite. The Contractor's supervisory personnel shall be instructed regarding the correct procedure for waste disposal, or other accessible location acceptable to the Engineer. The Contractor shall be responsible for seeing that these procedures are followed. Submit the Solid Waste Disclosure Form for Construction Sites to the Engineer within 21 calendar days of date of award. Provide a copy of all the disposal receipts to the Engineer monthly. This should also include documentation from any intermediary facility where solid waste is handled or processed.

2. Hazardous Waste
Dispose all hazardous waste materials in the manner specified by local, State, and Federal regulations and by the manufacturer. The Contractor's site personnel shall be instructed in these practices and shall be responsible for seeing that these practices are followed.

3. Sanitary Waste
Collect all sanitary waste from the portable units a minimum of once per week, or as required. Position sanitary facilities where they are secure and will not be tipped over or knocked down.

C. EROSION AND SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES:

1. For projects with an NPDES Permit for Construction Activities, inspect at the following intervals. For construction areas discharging to nutrient or sediment impaired waters, inspect all control measures at least once each week and within 24 hours of any rainfall event of 0.25 inches or greater within a 24 hour period. For construction areas discharging to waters not impaired for nutrient or sediments, inspect all control measures weekly. Inspections are only required during the project's normal working hours. The discharge point water classification may be found in the SWPPP.

2. For projects without an NPDES Permit for Construction Activities, inspect all control measures weekly.

3. Maintain all erosion and sediment control measures in good working order. If repair is necessary, initiate repair immediately and complete by the close of the next work day if the problem does not require significant repair or replacement, or if the problem can be corrected through routine maintenance. When installation of a new erosion or sediment control or a significant repair is needed, install the new or modified control or complete the repair no later than 7 calendar days from the time of discovery. "Immediately" means the Contractor shall take all reasonable measures to minimize or prevent discharge of pollutants until a permanent solution is installed and made operational. If a problem is identified at a time in the day in which it is too late to initiate repair, initiation of repair shall begin on the following work day.

4. Remove built-up sediment from silt fence when it has reached one-third the height of the fence. Remove sediment from other perimeter sediment control devices when it has reached one-half the height of the device.

5. Inspect silt screen or fence for depth of sediment, tears, to verify that the fabric is securely attached to the fence posts or concrete slab and to verify that the fence posts are firmly in the ground. Inspect and verify the bottom of the silt screen is buried a minimum of 6 inches below the existing ground.

6. Inspect temporary and permanent seeding and planting for bare spots, washouts and healthy growth.

7. Complete and submit to the Engineer a maintenance inspection report within 24 hours after each inspection.

8. Provide a stabilized construction entrance at all points of exit onto paved roads to reduce vehicle tracking of sediments. Include stabilized construction entrance in the Water Pollution, Dust, and Erosion Control submittals. Minimum length should be 50 feet. Minimum width should be 30 feet. Minimum depth should be 12 inches or as recommended by the soils engineer and underlain with geo-textile fabric. If minimum dimensions cannot be met, provide other stabilization techniques that remove sediment prior to exit. Clean the paved street adjacent to the site entrance daily or as required to remove any excess mud, cold-planed materials, dirt or rock tracked from the site. Do not hose down the street without containing or vacuuming wash water. Cover material being hauled from the construction site with a tarpaulin. Remove sediment tracked onto the street, sidewalk, or other paved area by the end of the day in which the track-out occurs.

9. Include designated Concrete Washout Area(s) in the Water Pollution, Dust, and Erosion Control submittals.

10. Submit the name of a specific individual designated responsible for inspections, maintenance and repair activities and filling out the inspection and maintenance report.

11. Personnel selected for the inspection and maintenance responsibilities shall receive training from the Contractor. They shall be trained in all the inspection and maintenance practices necessary for keeping the erosion and sediment controls used onsite in good working order.

12. Contain, remove, and dispose slurry generated from saw cutting of pavement in accordance with approved BMP practices. Do not allow discharge into the drainage system or State waters.

13. For projects with an NPDES Permit for Construction Activities, immediately initiate stabilizing exposed soil areas upon completion of earth-disturbing activities for areas where earth-disturbing activities have permanently or temporarily ceased. Earth-disturbing activities have permanently ceased when clearing and excavation within any area of the construction site that will not include permanent structures has been completed. Earth-disturbing activities have temporarily ceased when clearing, grading, and excavation within any area of the site that will not include permanent structures will not resume (i.e., the land will be idle) for a period of 14 or more calendar days, but such activities will resume in the future. For construction areas discharging into waters not impaired for nutrients sediments, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities. For construction areas discharging into nutrient or sediment impaired waters, complete initial stabilization within 7 calendar days after the temporary or permanent cessation of earth-disturbing activities. Classification of water at the discharge point may be found in the SWPPP.

14. For projects without an NPDES Permit for Construction Activities, complete initial stabilization within 14 calendar days after the temporary or permanent cessation of earth-disturbing activities.

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WATER POLLUTION AND EROSION CONTROL NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-0-04-26

Scale: None Date: March 2026

WATER POLLUTION AND EROSION CONTROL NOTES (CON'T.)

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	8	38

D. GOOD HOUSEKEEPING BEST MANAGEMENT PRACTICES:

1. Materials Pollution Prevention Plan

a. Applicable materials or substances listed below are expected to be present onsite during construction. Other materials and substances not listed below shall be added to the inventory.

Concrete	Cleaning Solvents
Detergents	Wood
Paints (enamel and latex)	Masonry Blocks
Metal Studs	Herbicides and Pestides
Tar	Curing Compounds
Fertilizers	Adhesives
Petroleum Based Products	

b. Use Material Management Practices to reduce the risk of spills or other accidental exposure of materials and substances to storm water runoff. Make an effort to store only enough product as is required to do the job.

c. Store all materials stored onsite in a neat, orderly manner in their appropriate containers and if possible under a roof or other enclosure.

d. Keep products in their original containers with the original manufacturer's label.

e. Do not mix substances with one another unless recommended by the manufacturer.

f. Whenever possible, use a product up completely before disposing of the container.

g. Follow manufacturer's recommendations for proper use and disposal.

h. Conduct a daily inspection to ensure proper use and disposal of materials onsite.

2. Hazardous Material Pollution Prevention Plan

a. Keep products in original containers unless they are not resealable.

b. Retain original labels and safety data sheets (SDS), formerly Material Safety Data Sheets (MSDS).

c. Dispose of surplus products according to manufacturers' instructions and local and State regulations.

3. Onsite and Offsite Product Specific Plan
The following product specific practices shall be followed onsite:

a. Petroleum Based Products:
Monitor all onsite vehicles for leaks and perform regular preventive maintenance to reduce the chance of leakage. Store petroleum products in tightly sealed containers which are clearly labeled. Apply asphalt substances used onsite according to the manufacturer's recommendation.

b. Fertilizers:
Apply fertilizers used only in the minimum amounts recommended by the manufacturer and federal, state, and local requirements. Avoid applying just before a heavy rain event. Apply at the appropriate time of year for the location, and preferably timed to coincide as closely as possible to the period of maximum vegetation uptake and growth. Once applied, work fertilizer into the soil to limit exposure to storm water. Do not apply to storm conveyance channels with flowing water. Storage shall be in a covered shed or in an area where fertilizer will not come into contact with precipitation or stormwater. Transfer the contents of any partially used bags of fertilizer to a sealable plastic bin to avoid spills.

c. Paints:
Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacture's instructions or State and Local regulations.

d. Concrete Trucks:
Washout or discharge concrete truck drum wash water only at a designated site as far as practicable from storm drain inlets or State waters. Do not discharge water in the drainage system or State waters. Disposal by percolation is prohibited. Clean disposal site as requited or as requested by the Engineer.

4. Spill Control Plan

a. Post a spill prevention plan to include measures to prevent and clean up each spill.

b. The Contractor shall be the spill prevention and cleanup coordinator. Designate at least three site personnel who shall receive spill prevention and cleanup training. These individuals shall each become responsible for a particular phase of prevention and cleanup. Post the names of responsible spill personnel in the material storage area on a weatherproof bulletin board or other accessible location acceptable to the Engineer and in the office trailer onsite.

c. Clearly post manufacturers' recommended methods for spill cleanup. Make site personnel aware of the procedures and the location of the information and cleanup supplies.

d. Keep ample materials and equipment necessary for spill cleanup in the material storage area onsite.

e. Clean up all spills immediately after discovery.

f. Keep the spill area well ventilated. Personnel shall wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

g. Report spills of toxic hazardous material to the appropriate State or local government agency, regardless of the size. Where a leak, spill, or other release containing a hazardous substance or oil in an amount equal to or in excess of a reportable quantity established under either 40 CFR Part 110, 40 CFR Part 117, or 40 CFR Part 302 occurs during a 24-hour period, the Contractor shall notify the Engineer as soon as the Contractor has knowledge of the discharge. The Engineer will notify the National Response Center (NRC) at (800) 424-8802, the Clean Water Branch during regular business hours at (808) 586-4309, and the Hawaii State Hospital Operator at (808) 247-2191 and the Clean Water Branch (DOH-CWB) via email at cleanwaterbranch@doh.hawaii.gov during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar day of knowledge of the release, a description of the release, the circumstances leading to the release, and the date of the release. The Engineer will provide this information to the DOH-CWB. The Engineer will provide information to the NRC if requested.

E. PERMIT REQUIREMENTS:

1. A National Pollutant Discharge Elimination System (NPDES) Permit for Construction Activities of one acre or more of disturbed area is required for this project. If the Contractor requires extra land disturbance, including staging and storage areas, that is not covered by the NPDES Permit obtained by the State, the Contractor shall be responsible for obtaining the requited NPDES Construction Activities Permit to cover this additional disturbance area. See Hawaii Administrative Rules Chapter 11-55, Appendix C for definition of land disturbance. The Contractor's attention is directed to the applicable NPDES Permit documents on the bid package compact disc.

2. Comply with all applicable State and Federal Permit conditions. Permits may include, but not limited to the following:

a. NPDES Permit for Construction Activities

b. NPDES Permit for Construction Dewatering

c. NPDES Permit for Hydrotesting Waters

d. Water Quality Certification

e. Stream Channel Alteration Permit

f. Section 404 Army Corps of Engineer Permit

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WATER POLLUTION AND EROSION CONTROL NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-0-04-26
Scale: None Date: March 2026

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WATER POLLUTION AND EROSION CONTROL NOTES (CON'T.)

F. SITE SPECIFIC REQUIREMENTS:
Each BMP below is referenced to the corresponding section of the current HDOT Construction Best Management Practices Field Manual and appropriate Supplemental Sheets. The Manual may be obtained from the HDOT Statewide Stormwater Management Program Website at http://www.stormwaterhawaii.com/resources/contractors-and-consultants under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at http://www.stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp under Concrete Curing and Irrigation Water.

The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants are included in Section 209 of the Special Provisions under Appendix A.

Follow the requirements below:

1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC-1).

2. Contain on-site runoff using Perimeter Sediment Controls
   a. SC-7 Silt Fence or Filter Fabric Fence
   b. SC-2 Vegetated Filter Strips and Buffers
   c. SC-6 Compost Filter Berm/Sock
   d. SC-8 Sandbag Barrier
   e. SC-9 Brush or Rock Filter

3. Control offsite runoff from entering construction area
   a. EC-3 Run-On Diversion
   b. EC-6 Earth Dike, Swales, and Ditches

4. Incorporate applicable Site Management BMP
   a. SM-1 Employee Training
   b. SM-2 Material Storage and Handling
   c. SM-3 Stockpile Management
   d. SM-6 Solid Waste Management
   e. SM-7 Sanitary Waste Management
   f. SM-9 Hazardous Materials and Waste Management
   g. SM-10 Spill Prevention and Control
   h. SM-11 Vehicle and Equipment Cleaning
   i. SM-12 Vehicle and Equipment Maintenance
   j. SM-13 Vehicle and Equipment Refueling
   k. SM-14 Scheduling
   l. SM-15 Location of Potential Sources of Sediment
   m. SM-16 Staging Area
   n. SM-17 Preservation of Existing Vegetation
   o. SM-19 Dust Control

5. Contain pollutants within the Construction Staging/Storage Area BMP with applicable Perimeter Sediment Controls and Site Management BMP. Include a Stabilized Construction Entrance/Exit (SC-11) for all areas which exit onto a paved street. Restrict vehicle access to these points.

6. Manage Concrete Waste including installing a Concrete Washout Area (SM-4) and properly disposing of Concrete Curing Water (California Stormwater BMP Handbook NS-12 Concrete Curing).

7. Remove saw cut slurry and hydrodemolition water from the site by vacuuming. Provide storm drain protection and/or perimeter sediment controls during saw cutting and hydrodemolition work.

EROSION CONTROL/BEST MANAGEMENT PRACTICES NOTES

1. The Contractor, at his own expense, shall keep the project areas and surrounding areas free from dust nuisance. The work shall be done in conformance with air pollution control standards contained in Hawaii Administrative Rules: Chapter 11-60, "Air Pollution Control".

2. Measures to control erosion and other pollutants shall be in place before any grading work is initiated. These measures shall be properly constructed and maintained throughout the construction period of each site.

3. Construction shall be sequenced to avoid disturbance at all project sites at one time and minimize exposure time of the cleared surface area.

4. The Contractor shall observe and comply with the State Department of Health regulations regarding storm water discharge.

5. Inlet protection shall be implemented at all storm drain inlets and catch basins as indicated to prevent any sediment laden runoff from leaving the site. Inlet protection devices shall be removed during any event where flooding could occur if devices remain in place and replace after the event has passed. For inlet protection details, see Sheet N-06.

6. The Contractor shall install check dams and culvert protection as shown on plans.

7. Good housekeeping shall be utilized to ensure protection of roadways from mud, dirt, and debris.

8. The Contractor shall provide erosion control measures for their construction, staging, and storage areas and shall inspect and monitor his construction, staging, and storage areas to ensure that no non-storm water discharges are emitted. If such sources are identified the Contractor shall provide immediate mitigative measures.

9. No sediment laden runoff shall leave the site.

10. Water trucks shall be utilized to minimize the amount of airborne dust.

11. Contractor shall ensure the proper working order and conduct regular maintenance of all construction equipment. All construction equipment shall be serviced offsite and no oil or fuel shall be stored on the site.

12. The Contractor shall dispose of vegetation and equipment and hydraulic oils off-site and in accordance with County, State, and Federal regulations.

13. At the end of the construction, existing catch basins and drain inlets surrounding the project site shall be inspected and any accumulated sediment and debris found shall be removed. Flushing into the catch basins or drain inlets is prohibited.

14. Clearing and grubbing shall be held to the minimum necessary to complete the work.

15. Construction shall be staged and phased for large projects. Areas of one phase shall be stabilized before another phase is initiated. Stabilization shall be accomplished by temporarily or permanently protecting the disturbed soil surface from rainfall impacts and runoff.

16. Storm water flowing toward the construction area shall be diverted by using appropriate control measures, as practical.

17. Water must be discharged in a manner that the discharge shall not cause or contribute to a violation of the basic water quality criteria as specified in the Hawaii Administrative Rules, Section 11-54-04.

EROSION CONTROL/BEST MANAGEMENT PRACTICES NOTES (CON'T.)

18. All grading work shall be done in conformance with Chapter 14, Articles 13, 14, 15 and 16, as related to grading, soil erosion and sediment control, of the Revised Ordinances of Honolulu, 1990, as amended and applicable provisions of Chapter 54, Water Quality Standards and Chapter 55, Water Pollution Control, Title II, Administrative Rules of the State Department of Health.

19. The Contractor shall schedule construction during the dry weather periods and shall be prepared in case of rainfall events. The Contractor shall provide for temporary bypass or detention of storm water flows or other measures to avoid flooding of properties upstream or adjacent to the site.

20. Sediment and Erosion Control BMP measures shown or referenced in the contract documents are minimum BMP requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon means and methods considering site conditions, runoff flows, and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be incidental to Installation, Maintenance, Monitoring, and Removal of BMP item.

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LICENSED PROFESSIONAL ENGINEER No. 14993-C
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HAWAII U.S.A.
4/30/28
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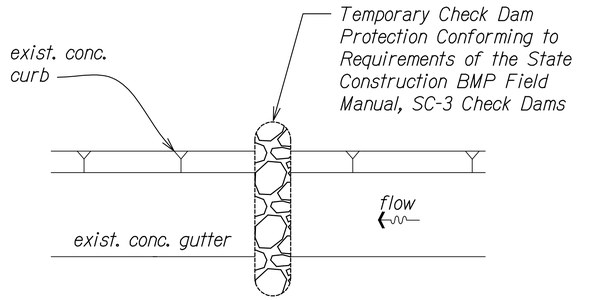
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-0-04-26
Scale: None Date: March 2026

SHEET No. N-06 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	10	38



PLAN

CHECK DAM DETAIL

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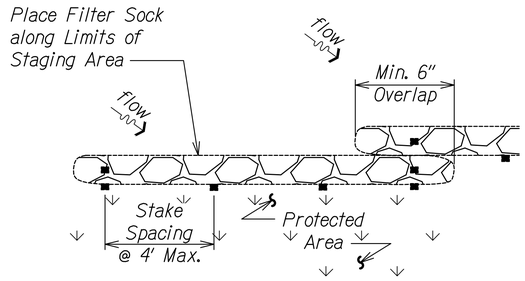
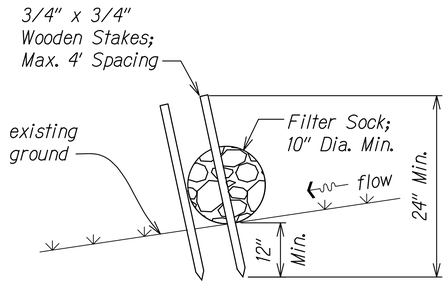


PLAN



SECTION

Note:

1. Filter sock shall meet the requirements of the State Construction BMP Field Manual, SC-6 Compost Filter Berm/Sock.
2. Contractor shall remove debris behind filter sock when it has reached one-half the height of the filter sock.

FILTER SOCK DETAIL

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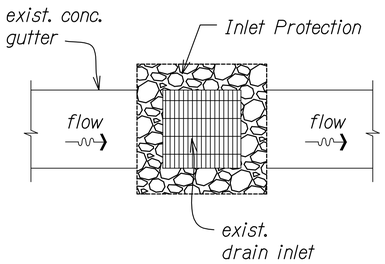

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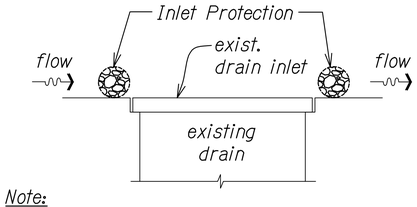

Note:
Temporary inlet protection shall meet the requirements of the State Construction BMP Field Manual, SC-1 Storm Drain Inlet Protection.

SECTION

DRAIN INLET PROTECTION

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HIGHWAYS DIVISION

WATER POLLUTION AND EROSION CONTROL DETAILS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU

Project No. HWY-O-04-26

Scale: Not to Scale Date: March 2026

SHEET No. N-07 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	11	38

SPECTRUM CABLE GENERAL NOTES:

1. The location of Spectrum Company's existing facilities are approximate only. The contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is close proximity of Spectrum Company facilities. The contractor shall verify their locations and any damages shall be reported immediately to Spectrum Company's repair service.

2. For underground cable locating and marking, five (5) working days advance notice is required. Three (3) working days advance notice is required for any inspection by a designated representative.

3. The Contractor shall take necessary precaution not to damage any existing cables or conduits. Any work involving existing Spectrum Company cables or conduits, shall be done in the presence of an Spectrum Company inspector or designated representative.

4. The Contractor shall request toning from Spectrum Company two (2) weeks prior to the start of construction.

5. The Contractor shall notify Spectrum Company's inspector or designated representative a minimum of 72 hours prior to excavation, bracing or backfilling of Spectrum Company's structures or facilities.

6. When excavation is adjacent to or beneath Spectrum Company's existing structures or facilities, the Contractor shall:
   A. Sheet and/or brace the excavation to prevent slides, cave-ins or settlements to ensure no movement to Spectrum Company's structures or facilities.
   B. Protect existing structures and/or facilities with beams, struts or underpinning while excavating beneath them to ensure no movement to Spectrum Company's structures of facilities.

HAWAIIAN TELCOM TELEPHONE GENERAL NOTES

1. The Contractor shall procure and pay for all licenses and permits and shall give all notices necessary and incident to the due and lawful prosecution of the work.

2. The locations of existing utilities are approximate only. The Contractor shall exercise extreme caution and shall maintain proper clearances whenever construction crosses or is in close proximity of Hawaiian Telcom facilities. The Contractor shall verify their locations and shall be liable for any damages to Hawaiian Telcom facilities. Any damages shall be reported immediately to Hawaiian Telcom's Repair Section at #611 (24 hours) or to the Excavation Permit Section at 546-7746 (normal working hours, Monday through Friday, except holidays). As a result of his operations, adjustments to the new ductline alignment, if required, shall be made to provide the required clearances.

3. The Contractor shall take necessary precaution not to damage existing cables or ducts. A Hawaiian Telcom inspector or designated representative is required to be at any job site whenever there will be a breakage into or entry into any structure that contain Hawaiian Telcom facilities. Temporary cable and duct supports shall be provided wherever necessary.

4. The Contractor shall notify Hawaiian Telcom's inspector or designated representative a minimum of 72 hours prior to excavation, bracing, or backfilling of Hawaiian Telcom's structures or facilities.

5. All applicable construction work shall be done in accordance with the "Hawaiian Telcom Standard Specifications for placing underground telephone systems" dated March 1999, all subsequent amendments and additions, and all other pertinent standards for telephone construction. Contractor shall familiarize his personnel by obtaining applicable specifications.

6. When excavation is adjacent to or beneath Hawaiian Telcom's existing structures or facilities, the Contractor shall:
   A. Sheet and/or brace the excavation to prevent slides, cave-ins, or settlements to ensure no movement to Hawaiian Telcom's structures or facilities.
   B. Protect existing structures and/or facilities with beams, struts, or underpinning while excavating beneath them to ensure no movement to Hawaiian Telcom's structures or facilities.

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

Scale: None Date: March 2026

SHEET No. N-08 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	12	38

HECO NOTES

1. The location of HECO's overhead and underground facilities shown on the plans are from existing records with varying degrees of accuracy and are not guaranteed as shown. The Contractor shall verify in the field the locations of the facilities and shall exercise proper care in excavating and working the area. Wherever connections of new utilities to existing utilities and utility crossings are shown, the Contractor shall expose the existing lines at the proposed connections and crossings to verify the depths prior to excavation for the new lines. The Contractor shall be responsible for any damages to HECO's facilities whether shown or not shown on the plans.

2. The Contractor shall comply with the State of Hawaii's Occupational Safety and Health laws and regulations, including without limitation, those related to working on or near exposed or energized electrical lines and equipment.

3. The Contractor shall obtain an excavation clearance from HECO's Planning and Design Section of the Customer Installations Department (543-5654) located at 820 Ward Avenue, 4th Floor, a minimum of ten (10) working days prior to starting construction.

4. Existing HECO overhead and underground lines are energized and will remain energized during construction unless prior special arrangements have been made with HECO. Only HECO personnel are to handle these energized lines and erect temporary guards to protect these lines from damage. The Contractor shall work cautiously at all times to avoid accidents and damage to existing HECO facilities, which can result in electrocution.

5. State law (OSHA 1910.269(k)(2b)) requires that a worker and the longest object he or she may contact cannot come closer than a minimum radial clearance of 10 feet when working close to or under any overhead lines rated 50kV and below. For each additional 10kV above 50kV, an additional 4 inches shall be added to the 10-foot clearance requirement. The preceding information on line clearance requirements is provided as a convenience and it is the Contractor's responsibility to be informed of and comply with any revisions or amendments to the law.

   Should the Contractor anticipate that his work will result in the need to encroach within the minimum required clearance at any time, the Contractor shall notify HECO at least four (4) weeks prior to the planned encroachment so that, if feasible, the necessary protections (e.g. relocate or de-energize HECO lines) can be investigated. HECO may also be able to blanket its distribution (12kV and below) lines to provide a visual aid in preventing accidental contact. HECO's cost of safeguarding or identifying its lines will be charged to the Contractor.

   Contact HECO's Customer Installations Department at 543-7846 for assistance in identifying and safeguarding overhead power lines.

6. A minimum clearance of 10 feet must be maintained when excavating around utility poles and/or their anchor system to prevent weakening or pole support failure. Should work require excavating within 10 feet of a pole and/or its anchor system, the Contractor shall protect, support, secure, and take all other precautions to prevent damage to or leaning of these poles. The Contractor is responsible for all pole bracing designs and structural calculations, as well as associated costs to brace, repair, or straighten poles. All means of structural support for the pole and or anchor system proposed by the Contractor shall be submitted to HECO's Customer Installations Department (543-7846) for review a minimum of ten (10) working days prior to implementation. The cost of HECO's review/assistance in providing proper support and protection of its poles will be charged to the Contractor.

7. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of underground lines. HECO's existing electrical cables are energized and will remain energized during construction. Only HECO personnel are to break into existing HECO facilities, handle these cables and erect temporary guards to protect these cables from damage. The cost of HECO's assistance in providing proper support and protection of its underground lines will be charged to the Contractor. For assistance/coordination in providing proper support and protection of these lines, the Contractor shall call HECO's Customer Installations Department at 543-7846 a minimum of ten (10) working days in advance.

   Special precautions are required when excavating near HECO's 138kV underground lines (See HECO Instructions to Consultants/Contractors on "Excavation near HECO's Underground 138kV Lines" for detail requirements).

   For verification of underground lines, the Contractor shall call the Hawaii One Call Center at 866-423-7287 a minimum of five (5) working days in advance.

8. The Contractor shall exercise extreme caution whenever construction crosses or is in close proximity of HECO's underground fuel oil pipelines. Special precautions are required when excavating near HECO's underground fuel oil pipelines (See HECO's Instructions to Consultants/Contractors on "Excavation near HECO's Underground Fuel Pipelines" for detailed requirements).

9. When trench excavation is adjacent to or beneath HECO's existing structures or facilities, the Contractor is responsible for:
   a. Arranging for HECO standby personnel to observe work at Contractor's cost.
   b. Sheeting, bracing, or otherwise supporting the excavation and stabilizing the existing ground to render it safe and secure and to prevent possible slides, cave-ins, and settlements.
   c. Properly supporting existing structures or facilities with beams, struts, under-pinnings, or other necessary methods to fully protect it from damage.
   d. Backfilling with proper backfill material including special thermal backfill where existing (refer to Engineering Department for thermal backfill specifications).

10. Any work required to relocate or modify HECO facilities shall be done by HECO, or by the Contractor under HECO's supervision. The Contractor shall be responsible for all coordination and shall provide necessary support for HECO's work, which may include, but not be limited to, staking of pole/anchor locations, identifying right of way and property lines, excavation and backfill, permits and traffic control, barricading, and restoration of pavement, sidewalks, and other facilities.

    All costs associated with any relocation or modification (either temporary or permanent) for the convenience of the Contractor, or to enable the Contractor to perform work in a safe and expeditious manner in fulfilling his contract obligations shall be borne by the Contractor.

11. Any redesign or relocation of HECO's facilities not shown on the plans may be cause for lengthy delays. The Contractor acknowledges that HECO is not responsible for any delay or damage that may arise as a result of any conflicts discovered or identified with respect to the location or construction of HECO's electrical facilities in the field, regardless of whether the Contractor has met the requested minimum advance notices. In order to minimize any delay or impact arising from such conflicts, HECO should be notified immediately upon discovery or identification of such conflict.

12. The Contractor shall be responsible for the protection of all HECO surface and subsurface utilities and shall be responsible for any damages to HECO's facilities as a result of his operations. The Contractor shall immediately report such damages or any hazardous conditions related to HECO's lines to HECO's Trouble Dispatcher at 548-7961. Repair work shall be done by HECO or by the Contractor under HECO's supervision. Costs for damages to HECO's facilities shall be borne by the Contractor.

    In case of damage or suspected damage to HECO's fuel pipeline, the Contractor shall immediately notify HECO's Honolulu Power Plant shift supervisor at 533-2102 (a 24-hour number) so HECO personnel can secure the damaged section and report any oil spills to the proper authorities. In case of damage or suspected damage to the Waiau or Kahe fuel pipelines, the Contractor shall also notify Island Energy Services at 682-2227. All costs associated with the damage, repair, and oil spill cleanup shall be borne by the Contractor.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: None Date: March 2026

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	13	38

HECO NOTES (CON'T.)

13. The Contractor may request HECO to provide an inspector to stand-by during construction near HECO's facilities. The cost of such inspection will be charged to the Contractor.

    The Contractor shall call the HECO's Customer Installations Department at 543-7846 a minimum of five (5) working days in advance to arrange for HECO stand-by personnel.

14. The Contractor shall indemnify, defend and hold harmless HECO from and against all losses, damages, claims, and actions, including but not limited to reasonable attorney's fees and costs based upon or arising out of damage to property or injuries to persons, or other tortuous acts caused by or attributed to the Contractor or anyone acting under its direction or control or on its behalf; provided Contractor's indemnity shall not be applicable to any liability based upon the sole negligence of HECO.

15. The following clearances shall be maintained between HECO's ductline and all adjacent structures (charted and uncharted) in the trench:

Minimum Separation Clearances to Existing Underground Ductlines Horizontal (Parallel)

Utility Being Installed	Existing Direct Buried Cable	Existing Direct Buried in Conduit (No Concrete Encasement)	Existing 3" Concrete Encasement	Applicable Notes:
HECO DB Conduits	12"	3"	0"	
HECO 3" Encasement	0"	0"	0"	
Telephone/CAT V DB	12"	12"	6"	
Telephone/CAT V DB Ducts	12"	12"	6"	
Telephone/CAT V 3" Encasement	0"	0"	0"	E
Traffic Signal	12"	12"	12"	
Water DB	36"	36"	36"	A, D
Water Service Laterals	12"	12"	12"	
Water (Concrete Jacketed)	36"	36"	36"	A, D
Gas DB	12"	12"	12"	A
Gas (Concrete Jacketed)	12"	12"	12"	A
Sewer DB	36"	36"	36"	A, B
Sewer (Concrete Jacketed)	36"	36"	36"	A, B
Drain	12"	12"	12"	A
Fuel Pipelines	48"	48"	48"	C

15. (Continued)
    Notes for Horizontal (Parallel) Clearance Table:
    A. Where space is available, parallel clearance to other utilities, or foreign structures other than communication or traffic signal shall be 36".
    B. If 36" clearance cannot be met:
       - If clearance is less than 12", jacket sewer line with reinforced concrete (per HECO's Std. 30-1030) for a distance of 5' plus pipe diameter.
       - If clearance is between 12" and 36", jacket sewer line with plain concrete.
    C. Electrical conduit crossings of fuel lines should be kept to a minimum of 48" clear below fuel line for the full easement width. If the 48" clearance cannot be met but there is a minimum of 24", the fuel line must be encased with 6" of concrete.
    D. 5 feet clear to water mains 16" and larger.
    E. For situations with 0" minimum separation, a 6" separation is recommended.
    F. Clearances measured from outer edges or diameters of utilities.

Minimum Separation Clearances to Existing Underground Ductlines Vertical (Crossing)

Utility Being Installed	Existing Direct Buried Cable	Existing Direct Buried in Conduit (No Concrete Encasement)	Existing 3" Concrete Encasement	Applicable Notes:
HECO DB Conduits	6"	3"	0"	
HECO 3" Encasement	0"	0"	0"	
Telephone/CAT V DB	12"		6"	
Telephone/CAT V DB Ducts	12"	12"	6"	
Telephone/CAT V 3" Encasement	0"	0"	0"	E
Traffic Signal	12"	12"	6"	
Water DB	6"	6"	6"	B
Water Service Laterals	6"	6"	6"	
Water (Concrete Jacketed)	6"	6"	6"	B
Gas DB	12"	12"	12"	
Gas (Concrete Jacketed)	12"	12"	12"	
Sewer DB	24"	24"	24"	A
Sewer (Concrete Jacketed)	24"	24"	24"	A
Drain	12"	12"	12"	
Fuel Pipelines	48"	48"	48"	C

15. (Continued)
    Notes for Vertical (Crossing) Clearance Table:
    A. If clearance cannot be met:
       - If clearance is less than 12", jacket sewer line with reinforced concrete (per HECO's Std. 30-1030) for a distance of 5' plus pipe diameter.
       - If clearance is between 12" and 24", jacket sewer line with plain concrete.
    B. 12" vertical clearance for pipe diameters greater than 16".
    C. Electrical conduit crossings of fuel lines should be kept to a minimum of 48" clear below fuel line for the full easement width. If the 48" clearance cannot be met but there is a minimum of 24", the fuel line must be encased with 6" of concrete.
    D. 5 feet clear to water mains 16" and larger.
    E. For situations with 0" minimum separation, a 6" separation is recommended.
    F. Clearances measured from outer edges or diameters of utilities.

The Contractor shall notify the Construction Manager & HECO of any heat sources (power cable duct bank, streamline, etc.) encountered that are not properly identified on the drawing.

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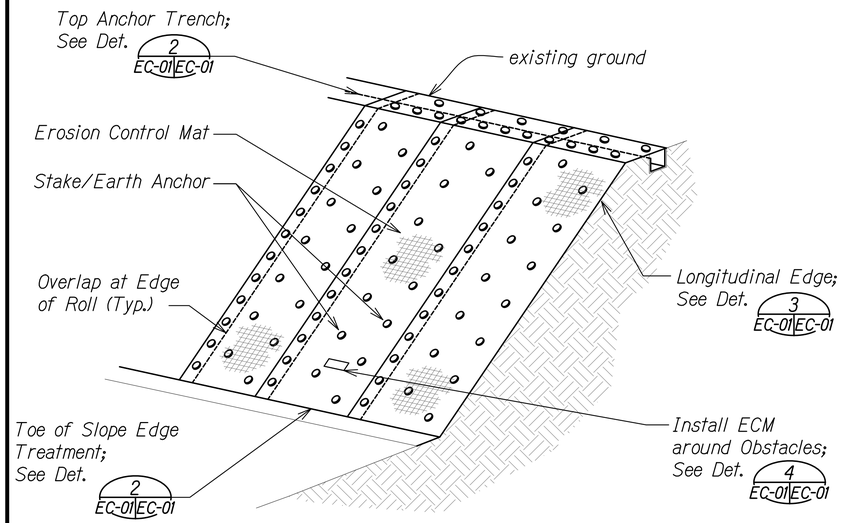
UTILITY NOTES

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: None Date: March 2026

SHEET No. N-10 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	14	38



OVERVIEW OF PERMANENT EROSION CONTROL MATTING SYSTEM 1 EC-01 EC-01
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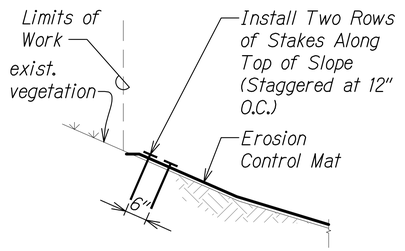
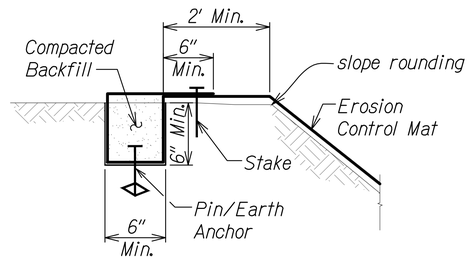
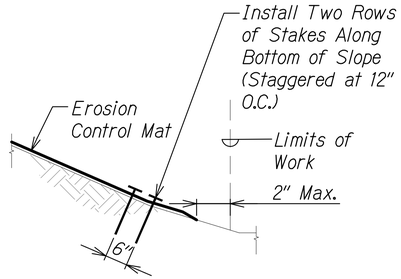


MID-SLOPE



TOP ANCHOR TRENCH



TOE OF SLOPE

EDGE TREATMENT DETAILS 2 EC-01 EC-01
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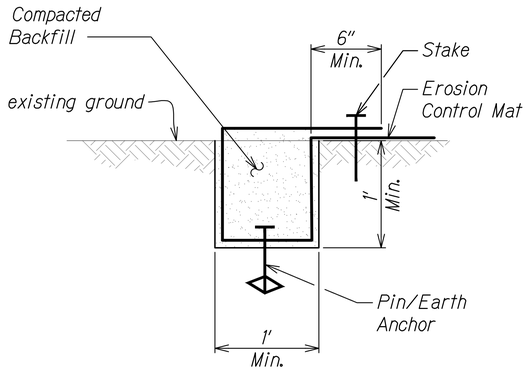

LONGITUDINAL EDGE TRENCH DETAIL 3 EC-01 EC-01
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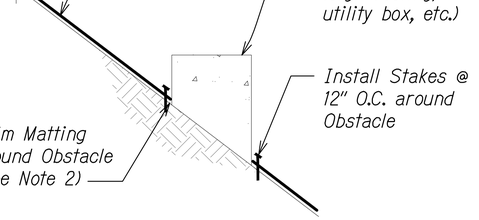

TYPICAL SECTION AROUND EXISTING OBSTACLES 4 EC-01 EC-01
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Notes:

1. Matting shall be placed and secured in direct contact with the finish grade.
2. Maximum gap between edge of trimmed matting and obstacle shall be 1 inch.
3. Contractor shall locate and expose exist. utility boxes prior to installing matting.
4. Contractor shall ensure that erosion control matting does not cover existing utility boxes when installed.
5. For installation of matting around existing trees, see Landscape drawings.

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NOTE BOOK | N.

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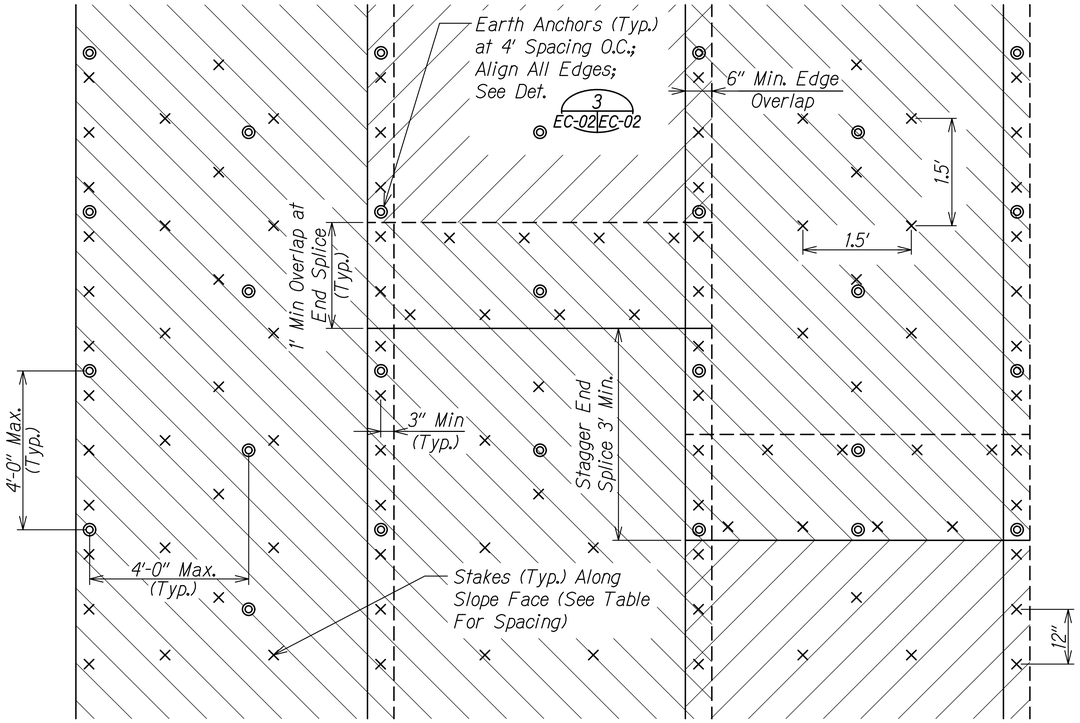
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL DETAILS
EROSION CONTROL MATTING

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: Not to Scale Date: March 2026

SHEET No. EC-01 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	15	38



Notes:

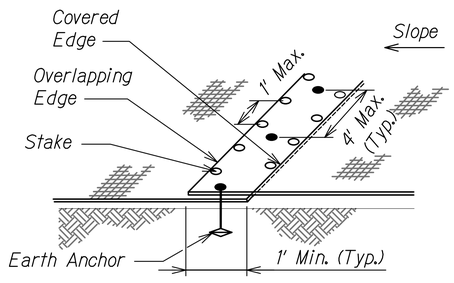
1. *Secure all erosion control mat edges with stakes or earth anchors at the spacing indicated or the manufacturer's recommended spacing, whichever is more stringent.*
2. *Stakes shall be a minimum of 12" in length.*
3. *Stake shall be made of a biodegradable polypropylene-based resin as indicated in Section 659.*
4. *Earth anchors in trenches shall extend a minimum depth of 3' from the bottom of trench.*
5. *For PID 207 and PID 416, install Type 2 ECM using stakes and percussion driven earth anchors to secure matting to the slope face.*
6. *For PID 416, Type 3 ECM using stakes to secure matting to the slope face.*

Max. Stake/Earth Anchor Spacing (See Note 1)		
Fastener Type	Along Slope Face	Top & Edge Trenches
Stakes	1.5'	–
Earth Anchor	3'	3'

TYPICAL PERMANENT EROSION CONTROL MAT AND EARTH ANCHOR/STAKE LAYOUT

Scale: Not to Scale

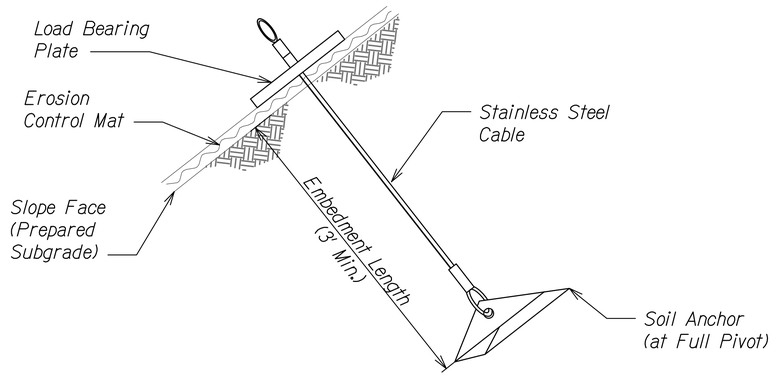
1 EC-02 EC-02



OVERLAP END DETAIL

Scale: Not to Scale

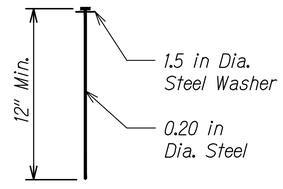
2 EC-02 EC-02



EARTH ANCHOR DETAIL

Scale: Not to Scale

3 EC-02 EC-02



Notes:

1. *For clayey soils, pins shall be a minimum of 12" in length.*
2. *For sandy soils, pins shall be a minimum of 18" in length.*

PIN DETAIL

Scale: Not to Scale

4 EC-02 EC-02

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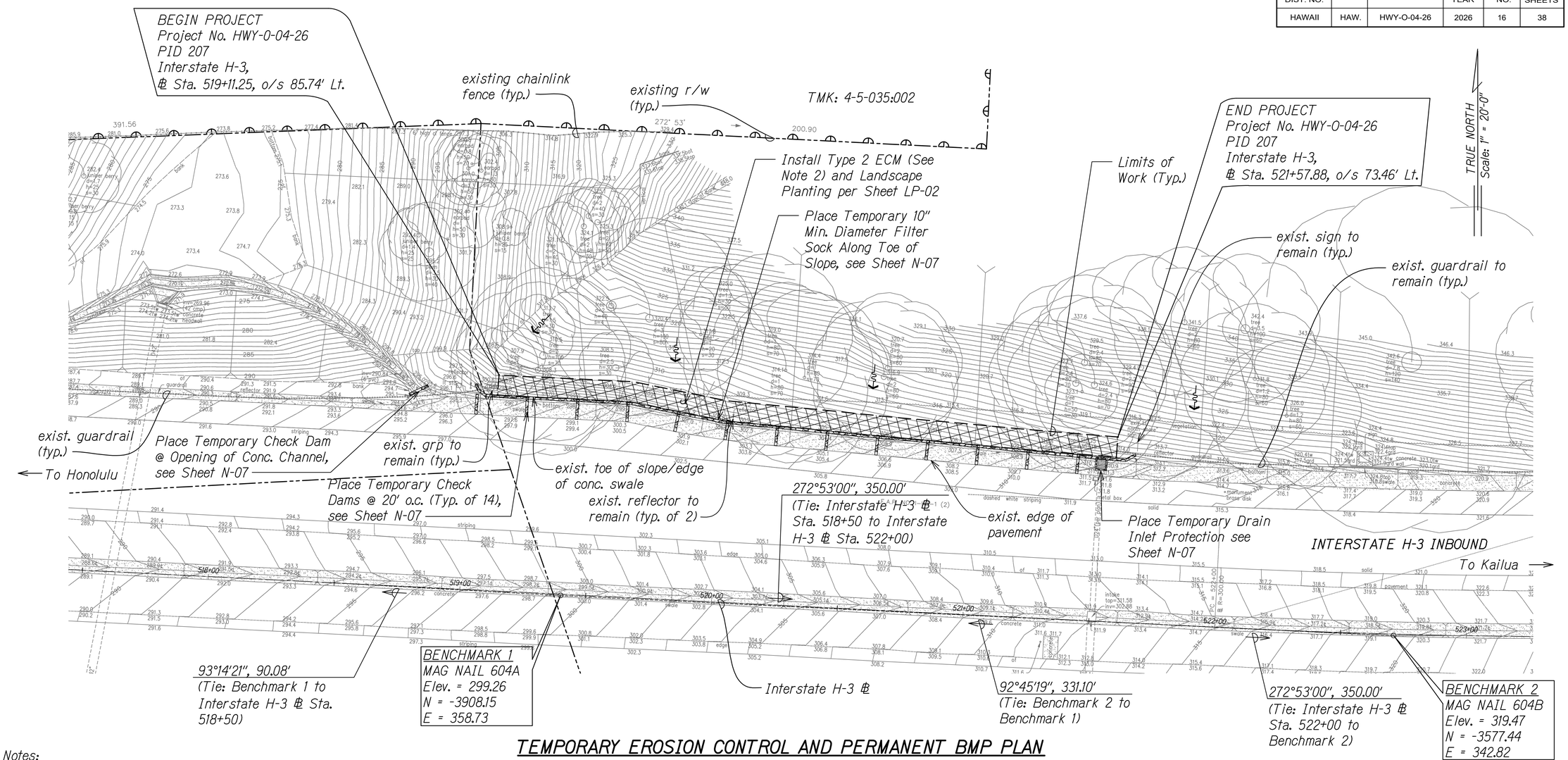
TYPICAL DETAILS
EROSION CONTROL MATTING

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: Not to Scale Date: March 2026

SHEET No. EC-02 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	16	38



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 207

Scale: 1" = 20'-0"

Notes:

1. Contractor shall field verify site conditions and ECM limits.
2. For ECM details, see Sheets EC-01 ⫞ EC-02.
3. For installation of ECM around obstacles, see Detail 4 on sheet EC-01.
4. For ESCP Notes and Details; see Sheets N-04, N-05, N-06, ⫞ N-07.
5. Contractor shall remove debris from the existing concrete swale prior to placement of check dams.
6. Coordinates are referred to government survey triangulation station "KAILUA RESET"Δ .

Legend

Type 2 ECM and Landscape Planting

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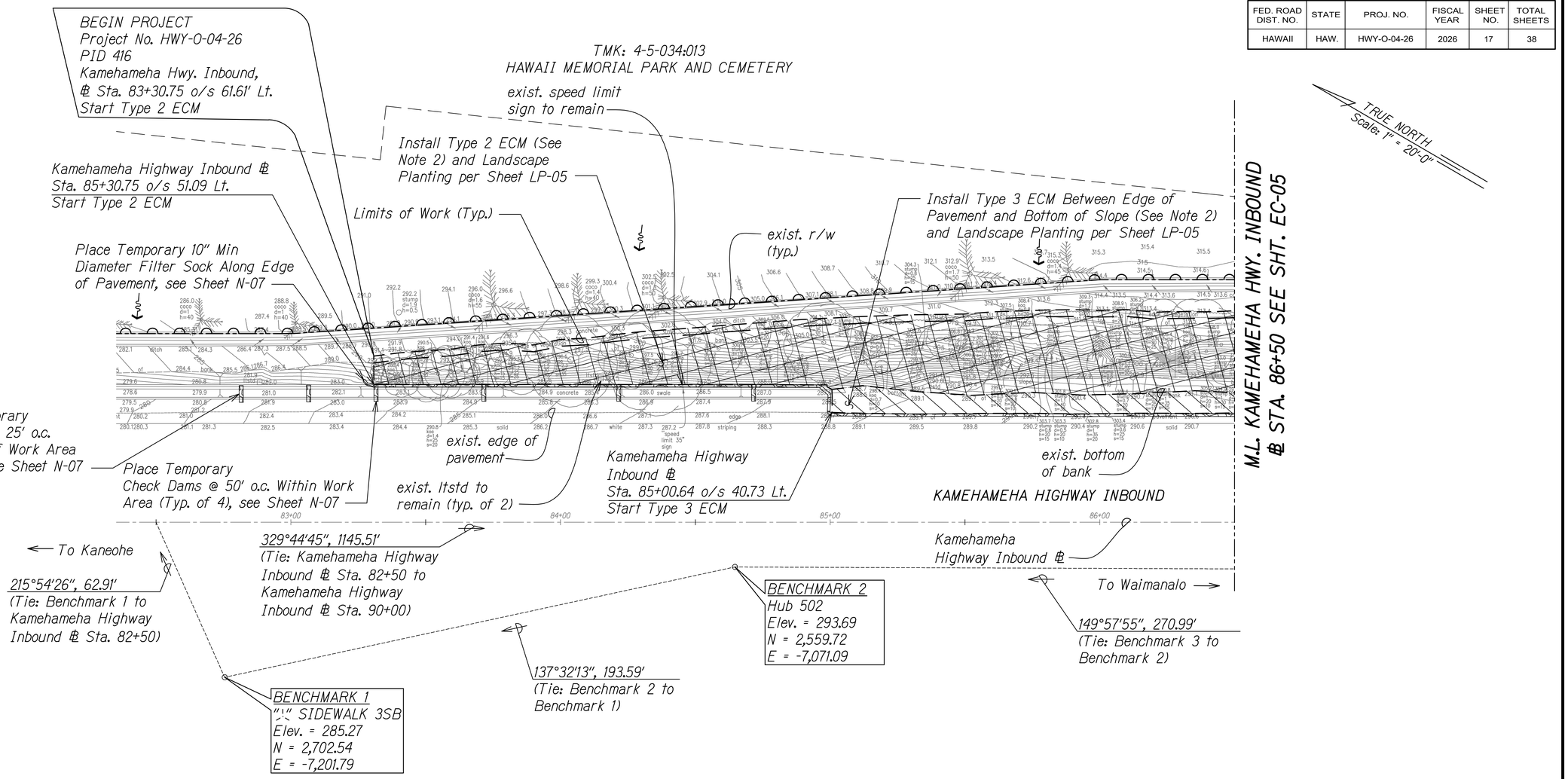
TEMP. EC AND PERMANENT BMP PLAN
PID 207

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

Scale: 1" = 20' Date: March 2026

SHEET No. EC-03 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	17	38



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 416

Scale: 1" = 20'-0"

Notes:

1. Contractor shall field verify site conditions and ECM limits.
2. For ECM details, see Sheets EC-01 & EC-02.
3. For installation of ECM around obstacles, see Detail 4 on sheet EC-01.
4. For ESCP Notes and Details; see Sheets N-04, N-05, N-06, & N-07.
5. For Landscape Drawings for tree protection, planting, and removal; see Sheets LP-03, LP-04, & LP-05.
6. Contractor shall remove debris from the existing concrete swale prior to placement of check dams.
7. Coordinates are referred to government survey triangulation station "KAILUA"Δ .

Legend

- Type 2 ECM and Landscape Planting
- Type 3 ECM and Landscape Planting

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NOTE BOOK
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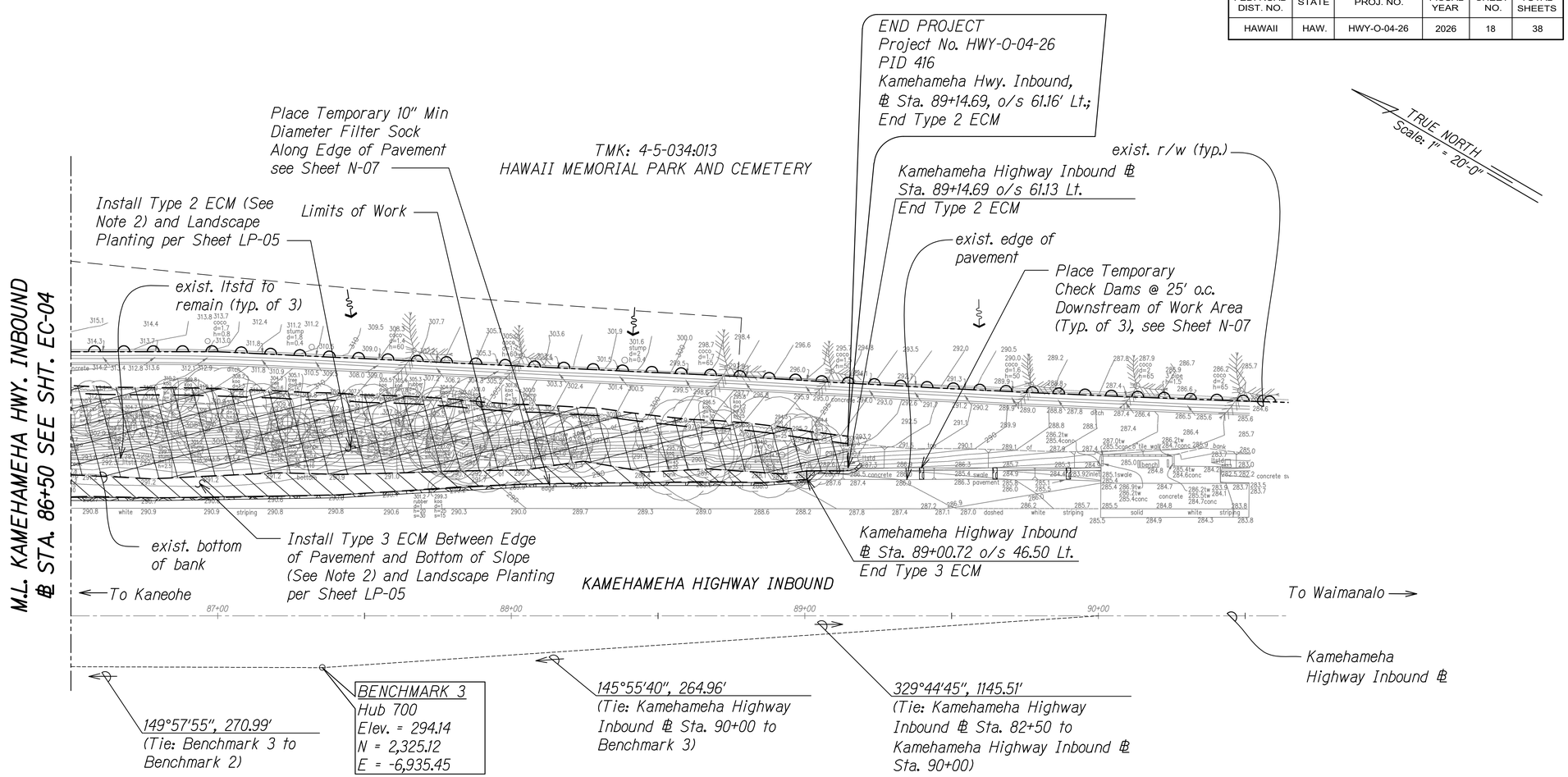
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 416
EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 20' Date: March 2026

SHEET No. EC-04 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	18	38



TEMPORARY EROSION CONTROL AND PERMANENT BMP PLAN
PID 416

Scale: 1" = 20'-0"

Notes:

1. Contractor shall field verify site conditions and ECM limits.
2. For ECM details, see Sheets EC-01 & EC-02.
3. For installation of ECM around obstacles, see Detail 4 on sheet EC-01.
4. For ESCP Notes and Details; see Sheets N-04, N-05, N-06, & N-07.
5. For Landscape Drawings for tree protection, planting, and removal; see Sheets LP-03, LP-04, & LP-05.
6. Contractor shall remove debris from the existing concrete swale prior to placement of check dams.
7. Coordinates are referred to government survey triangulation station "KAILUA"Δ .

Legend

- Type 2 ECM and Landscape Planting
- Type 3 ECM and Landscape Planting

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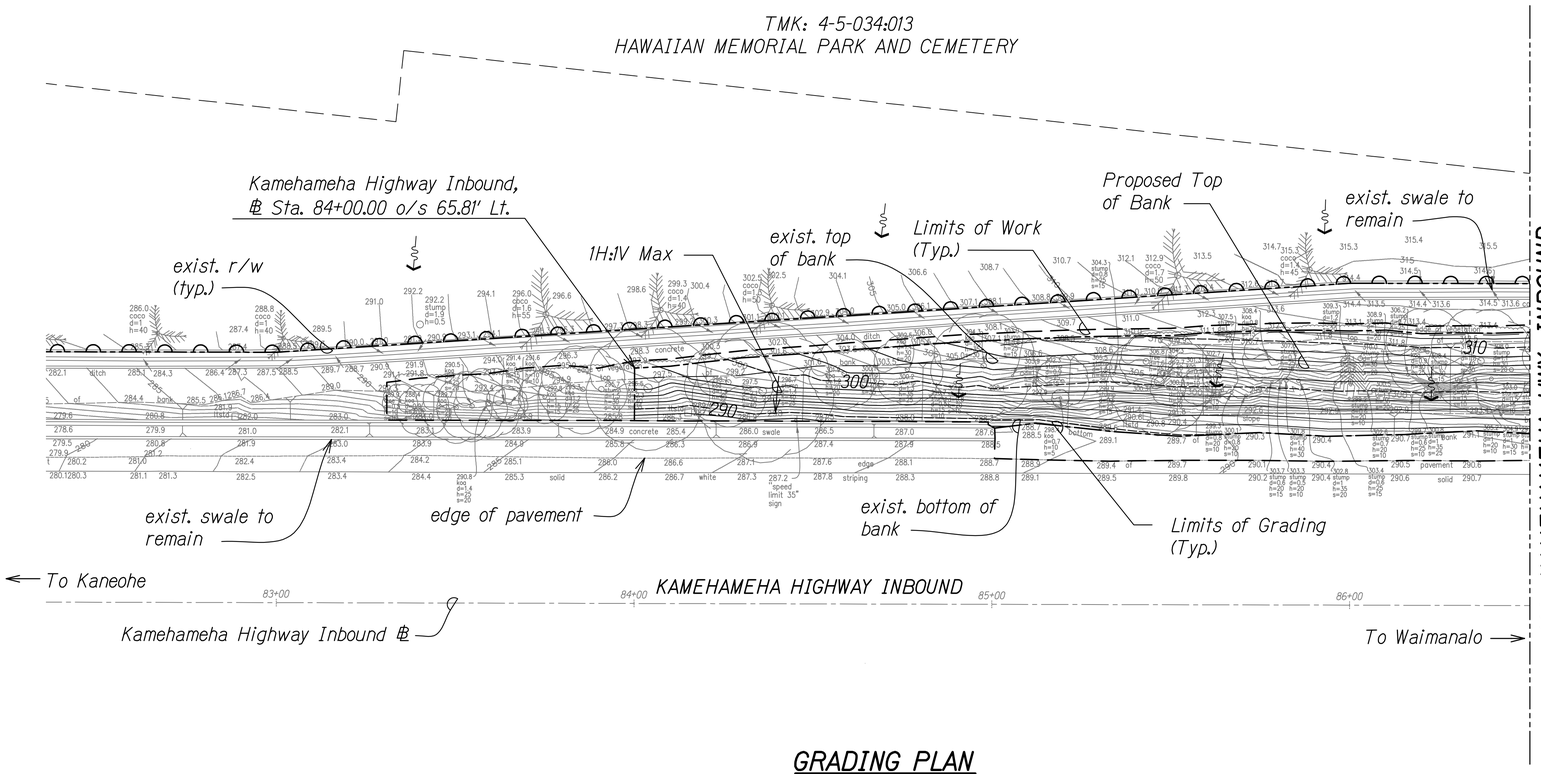
HIGHWAYS DIVISION

TEMP. EC AND PERMANENT BMP PLAN
PID 416
EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 20' Date: March 2026

SHEET No. EC-05 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	19	38

TRUE NORTH
Scale: 1" = 20'-0"



GRADING PLAN
PID 416
Scale: 1" = 20'-0"

LEGEND

- `--290--` Existing Contour
- `---290---` Finish Contour
- `— — — —` Limits of Work
- `—·—·—` Limits of Grading
- `----------` Existing Top of Bank
- `—— ——` Proposed Top of Bank

Earthwork Quantities*	
Excavation	= 365 C.Y.
Embankment	= 80 C.Y.
Area to be Graded	= 0.33 Acres
Area to be Disturbed	= 0.41 Acres

*For Grading Permit Purposes Only

Notes:
1. Contractor shall be responsible for applying for, payment of, and obtaining a grading permit from the City. Contractor shall coordinate with the Engineer for supplemental documents for the grading permit application and perform all grading work in accordance with the permit requirements.
2. Eroded areas along the slope identified by the Engineer to be backfilled as required to match existing slope.

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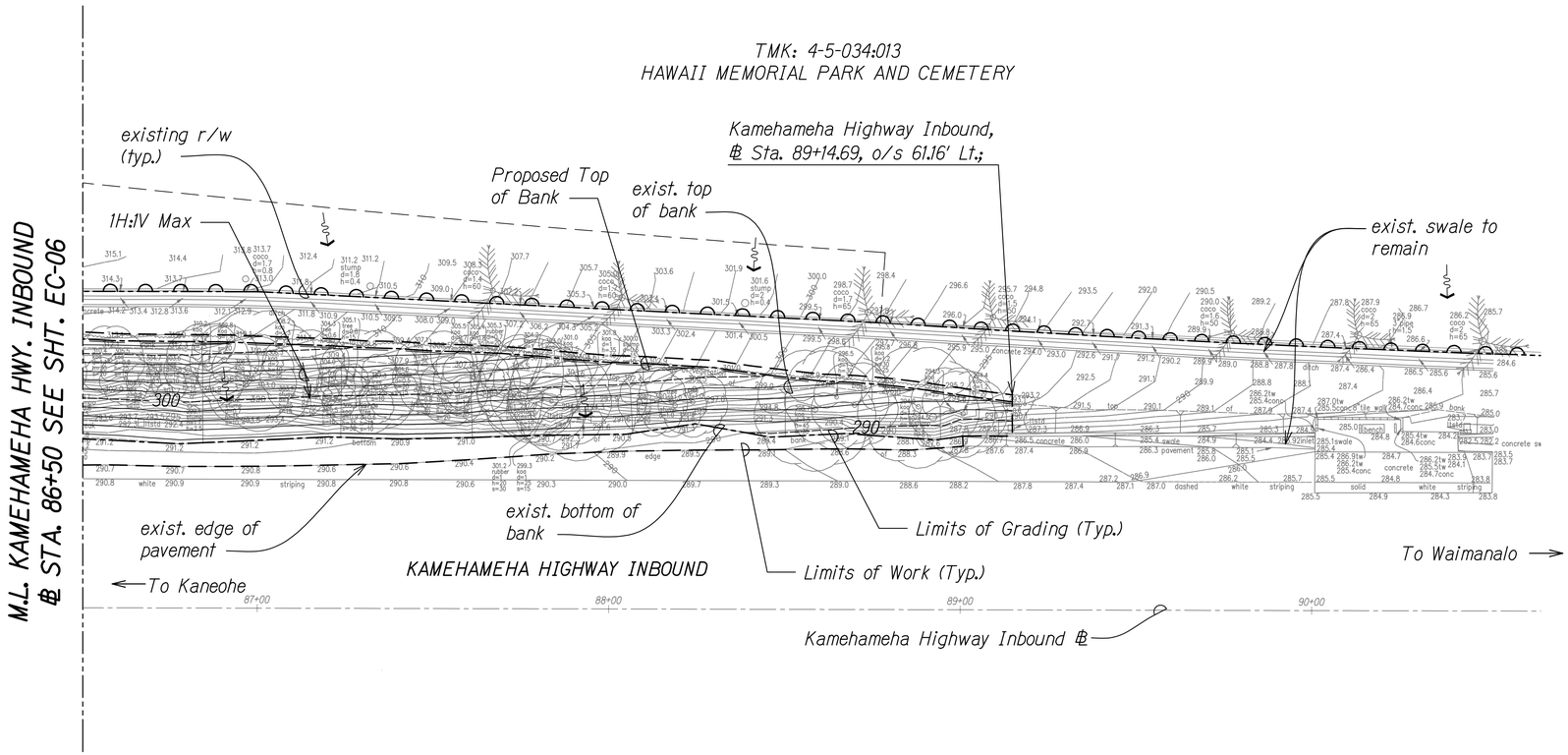
GRADING PLAN
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 20' Date: March 2026

SHEET No. EC-06 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	20	38

TRUE NORTH
Scale: 1" = 20'-0"



GRADING PLAN
PID 416
Scale: 1" = 20'-0"

LEGEND

- 290 — Existing Contour
- 290 — Finish Contour
- Limits of Work
- Limits of Grading
- Existing Top of Bank
- Proposed Top of Bank

Notes:

1. Contractor shall be responsible for applying for, payment of, and obtaining a grading permit from the City. Contractor shall coordinate with the Engineer for supplemental documents for the grading permit application and perform all grading work in accordance with the permit requirements.
2. Eroded areas along the slope identified by the Engineer to be backfilled as required to match existing slope.

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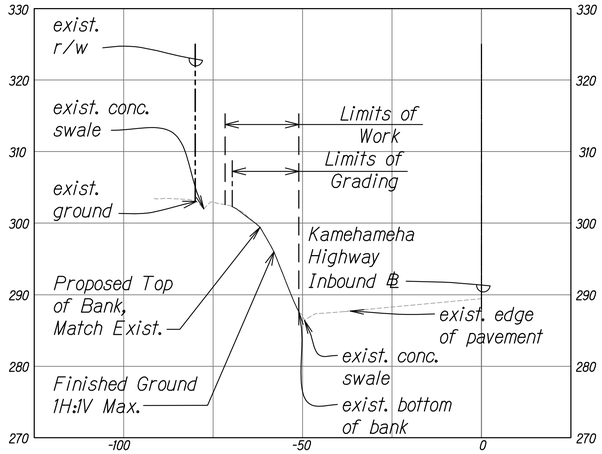
HIGHWAYS DIVISION

GRADING PLAN
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 20' Date: March 2026

SHEET No. EC-07 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	21	38



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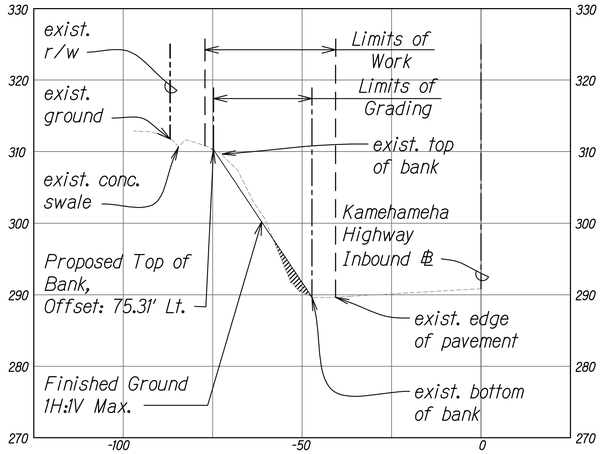

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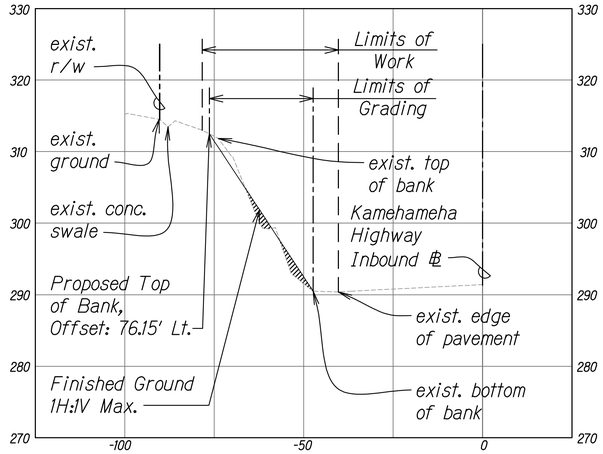

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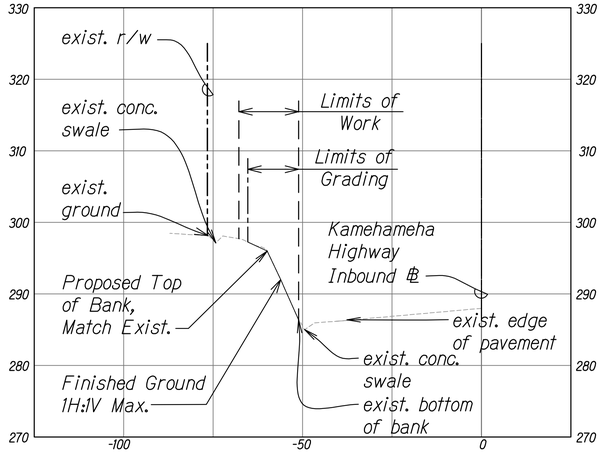

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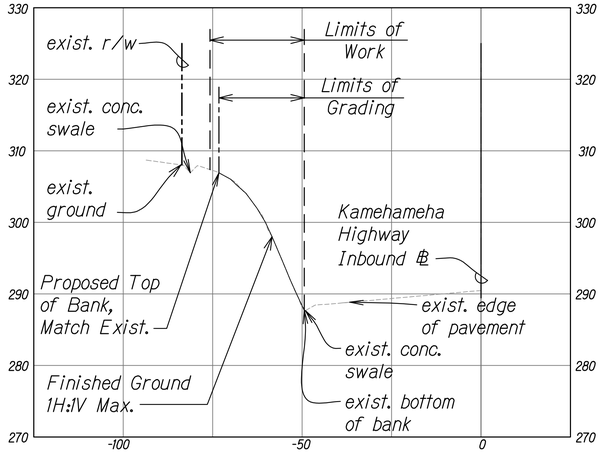

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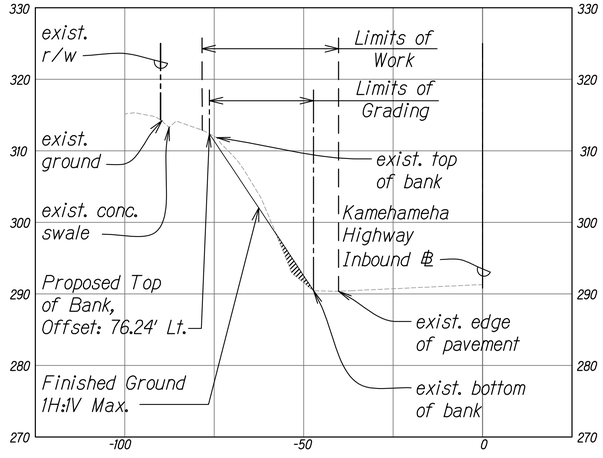

STA. 85+95.87

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Notes:
1. Contractor shall verify location and elevation of existing and proposed top of bank prior to the start of construction.

CROSS SECTIONS
PID 416

Scale: Horiz. 1" = 20'-0"
Vert. 1" = 10'-0"

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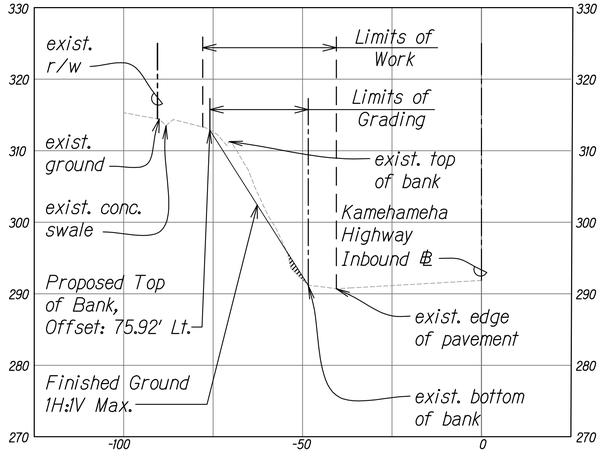
CROSS SECTIONS
PID 416

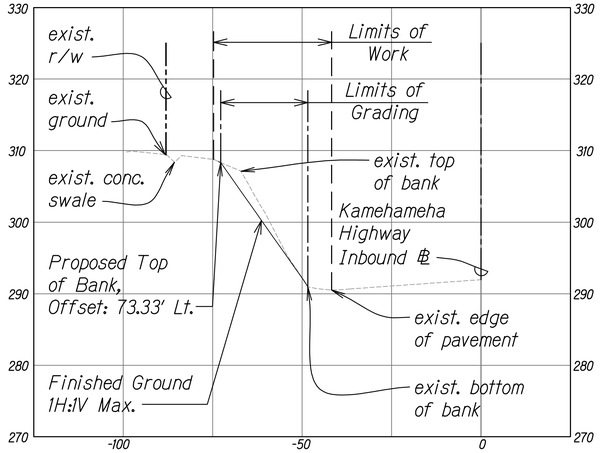
EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-0-04-26
Scale: As Shown Date: March 2026

SHEET No. EC-08 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	22	38



STA. 86+50.00



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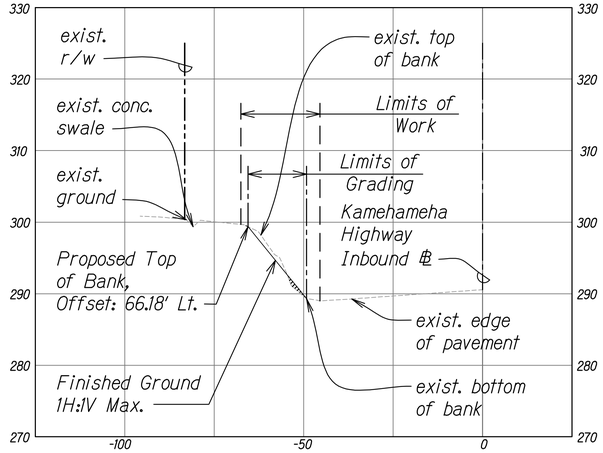

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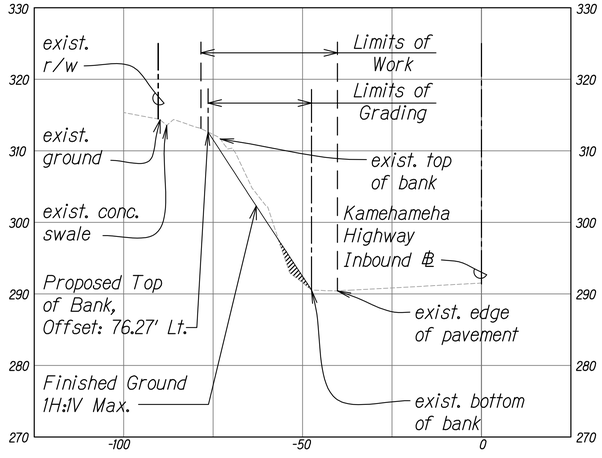

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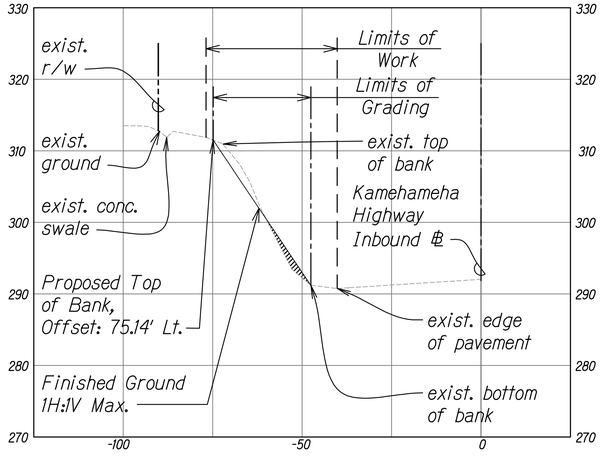

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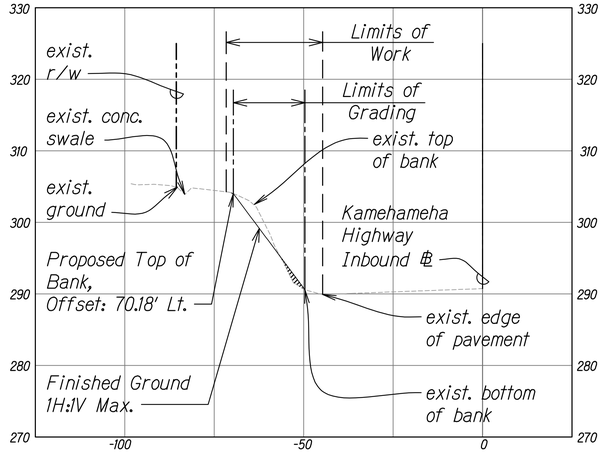

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CROSS SECTIONS
PID 416

Scale: Horiz. 1" = 20'-0"
Vert. 1" = 10'-0"

Notes:

1. Contractor shall verify location and elevation of existing and proposed top of bank prior to the start of construction.

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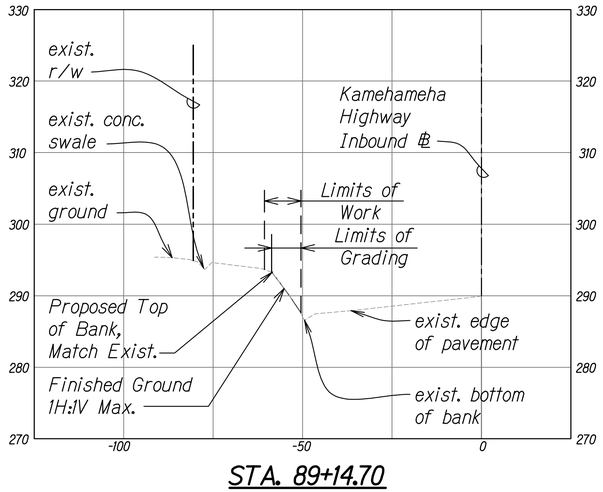
CROSS SECTIONS
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: As Shown Date: March 2026

SHEET No. EC-09 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	23	38



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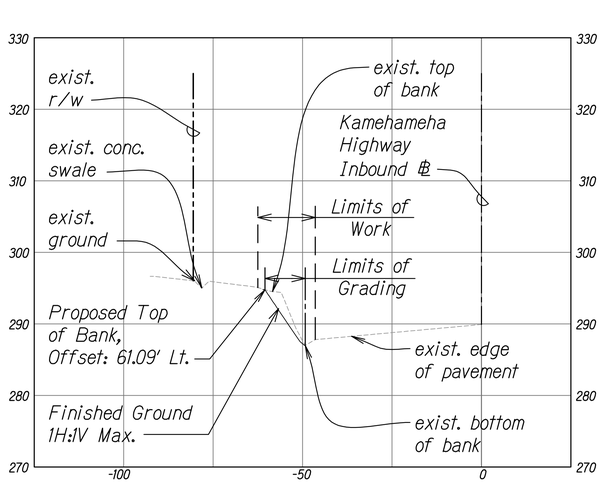

STA. 89+00.00

Notes:

1. Contractor shall verify location and elevation of existing and proposed top of bank prior to the start of construction.

ORIGINAL PLAN
NOTE BOOK
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QUANTITIES BY
CHECKED BY
DATE

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CROSS SECTIONS
PID 416

Scale: Horiz. 1" = 20'-0"
Vert. 1" = 10'-0"

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No. 14993-C
HAWAII U.S.A.

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HIGHWAYS DIVISION

CROSS SECTIONS
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: As Shown Date: March 2026

SHEET No. EC-10 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	24	38

PLANT NOTES:

1. Contractor shall field verify all plant quantities and dimensions prior to installation. Contractor shall determine quantities of plant materials to be provided. In all cases, Contractor shall install plant material on all areas affected by construction.

2. Contractor shall be responsible for locating and protecting existing utilities.

3. Do not perform planting operations until ground has been prepared and site is neat, orderly, and the Engineer accepts site for planting.

4. Notify Engineer of any discrepancies in plant locations.

5. The Contractor's submission of a bid shall constitute certification of availability of plants of the required type, size, and quantity. Engineer shall inspect and approve plants at time of delivery and acceptance. Plants shall meet size indicated and shall be undamaged, sound, healthy, vigorous and free of disease and insect infestation. Plants not conforming to these requirements on delivery to the project and at the end of the plant establishment period will be rejected.

6. Contractor shall be solely responsible for the complete removal and damages resulting from planting any plant species listed on the Hawaii Department of Agriculture 'Noxious Weed Rules' as defined in the statute, Hawaii Administrative Rules 4:68:1 or the 'Federal Noxious Weed List' as defined in Title 7 of the Code of Federal Regulations (CFR), parts 360 and 361.

7. All tree work must adhere to American National Standard Institute (or ANSI) - a300 Tree Care Standards and ANSI-z133 safety standards for tree work. Work shall be contracted to arborists that have been certified in good standing as an ISA Certified Arborist for at least 10 continuous years to assure that tree work is performed properly and trees are not damaged by practices such as topping, flush cuts, over-thinning, or climbing with spikes. Contractor shall submit a copy of the ISA arborist certification of good standing of 10 years to the Engineer a minimum of 7 days prior to tree pruning. The cost for arborist services shall be considered incidental to Specification Section 619 - Planting.

8. Representative samples of soil from project site shall be submitted to Crop Nutrient Solutions Inc., the University of Hawaii Agricultural Extension Service, or laboratory acceptable to the Engineer for analysis of required soil amendments, fertilizers, application rates, and application schedules. Collect soil samples of existing soils inside the project limits for each of the individual project sites. Soil sample shall consist of a composite sample of 1 gallon of soil collected from a minimum of 5 holes to a depth of 6-inches from each individual site. Sample hole locations shall be spread evenly throughout the individual site to proved a more accurate representation of the soil present on the site. Contractor shall keep soils from each individual site separate and shall not intermix soils from different sites. The label for the composite sample from each individual site shall correspond to the individual project site from which it was taken. Samples shall only be collected in accordance with the procedures described by the "Methods of Soil Analysis" by the Soil Science Society of America. A separate soil analysis and recommendations shall be provided for each individual site. Soil analysis shall be performed in accordance with the "Methods of Soil Analysis" by the Soil Science Society of America. The soil analysis for each site shall include particle size analysis, percentage organic carbon, chemical analysis, moisture content, Cation Exchange Capacity (CEC) per EPA Method 9081, Bulk Density, and soluble salts, sieve analysis per ASTM D422M, total nitrogen per ASTM D3590-17 and EPA Method 353.2, total phosphorus per EPA Method 365.3, and major cations (K+, Ca++, and Mg++) per EPA Method 6010. The soil analysis results shall also include a summary of the findings and recommendations to correct soil deficiencies including, but not limited to, types of amendment and fertilizers to be added, application rates for amendments and fertilizers, and a schedule for applying amendments and fertilizers at pre-planting, planting, and plant establishment periods. Recommendations to correct soil deficiencies shall be specific to each individual site. The list of proposed amendments and recommendations for correcting soil deficiencies shall be limited to those which can be applied to the soil surface without tilling for sloped areas of all sites where tilling is not allowed. Test results and fertilization schedule shall be presented to the Engineer for review and acceptance before placing planting soil or amending existing soil. Uniformly distribute fertilizer and amendments over planting areas as recommended by the soil analysis report. For slopes flatter than 3H:1V, loosen soil by turning to depth of 18-inches and till top 6-inches of soil to evenly incorporate fertilizer and amendments. For slopes steeper than 3H:1V, no tilling is required. Refer to Specification Section 618 - Soil Preparation for additional requirements for soil analysis and site preparation.

9. For the duration of construction within the drip line of trees to remain there must be: no changes, alterations or disturbance to the grade by adding fill, excavating or scraping except as noted on plans; no storage of construction material or equipment; no stockpiling of any construction material or any excavated material; no disposal of any liquids (e.g. concrete slurry, gas, oil, paint); no vehicular traffic, equipment or excessive pedestrian traffic; no attachment of any wires, ropes, lights, or any other such attachment other than those of protective nature to any tree to be preserved; and no cleaning of equipment or material under the canopy of any tree or group of trees to remain.

10. Guy wires, flagging, stakes, windbreakers, etc. shall be maintained and replaced if necessary by the Contractor until acceptance by Engineer. The Contractor shall remove and dispose of these items at the end of plant establishment period.

11. Provide water for all plant material for the duration of the project, including plant establishment period. Water trees, shrubs, ground cover and all grassed areas. Water for planting shall not cause erosion damage to the slopes. The Contractor shall be responsible for repairing any damage cause by the watering of plants.

12. Temporary irrigation shall be provided and installed by the Contractor for the duration of the project. Temporary irrigation system shall be considered incidental to Specification Section 641 - Hydro-Mulch Seeding. Refer to Specification Sections 641.03(C), 641.03(D), and 641.03(E). The Contractor shall be responsible for locating, determining, and establishing the water source and delivery method of the water to the project site. Contractor shall be responsible for obtaining and maintaining all necessary permits and agreements for the source of water for the irrigation system as well as ensuring water is delivered to the site for the duration of the project. Replace watering equipment that cause erosion or runoff. Water will be considered an incidental cost to the project. The Contractor shall provide and maintain all equipment required to deliver water to the project site. Contractor shall also be responsible for obtaining all necessary permits and agreements for the source of water for the temporary irrigation system. Contractor shall remove and dispose of temporary irrigation system components upon final acceptance or as directed by the Engineer.

13. Contractor shall be responsible for weeding throughout the 9-month plant establishment period. All removed weeds shall be immediately placed in plastic bags to minimize the spread of weed seeds. Contractor shall keep all new planting areas at least 90 percent free of weeds and grass considered undesirable by the Engineer. Keeping new planting areas at least 90 percent free of weeds and grass considered undesirable by the Engineer is required as a condition of acceptance for the planting period, plant establishment period, and final acceptance. Refer to Specification Sections 641.03(D), 641.03(E) and 641.03(F).

14. Tree roots greater than 2 inches in diameter shall not be disturbed. Cutting of trees roots larger than 2 inches in diameter must be approved by an ISA Certified Arborist with a minimum of 10 years of continuous licensure and experience, and, accepted by the Engineer. Contractor to submit arborist's qualifications and a tree root assessment report to the Engineer for approval prior to cutting tree roots. Root pruning shall be done in conformance with ANSI a300 (Part 8) latest edition. Root pruning shall take place under the supervision of the approved arborist at all times.

15. Sites contain stands of koa haole (Leucaena leucocephala). Contractor shall demolish, remove, and dispose of koa haole in such a way as to minimize the spread of koa haole seeds. Contractor shall present a demolition and removal plan to the Engineer for review and acceptance prior to clearing and grubbing operations. Demolition and removal plan shall be reviewed through HWY-DL for assurance of disposal and demolition in accordance with the HDOT S.N.I.P.P. (Statewide Noxious and Invasive Pest Program) recommendations for koa haole (Leucaena leucocephala).

16. The Contractor may procure plant material after Contract Award and prior to the agreed Notice To Proceed with approval of the Engineer. The Contractor shall present the list of plant material for procurement to the Engineer for review and acceptance before procuring plants. Plants not conforming to contract document requirements will be rejected.

17. Any planting that obstructs sight distance, signs, or traffic lights shall be pruned, relocated, or removed as determined by the Engineer, at no expense to the State.

18. Unless specifically identified to remain, Contractor shall demolish and remove invasive and/or nonnative trees and shrubs, within the project limits, with trunk caliper of less than 8-inches.

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE NOTES

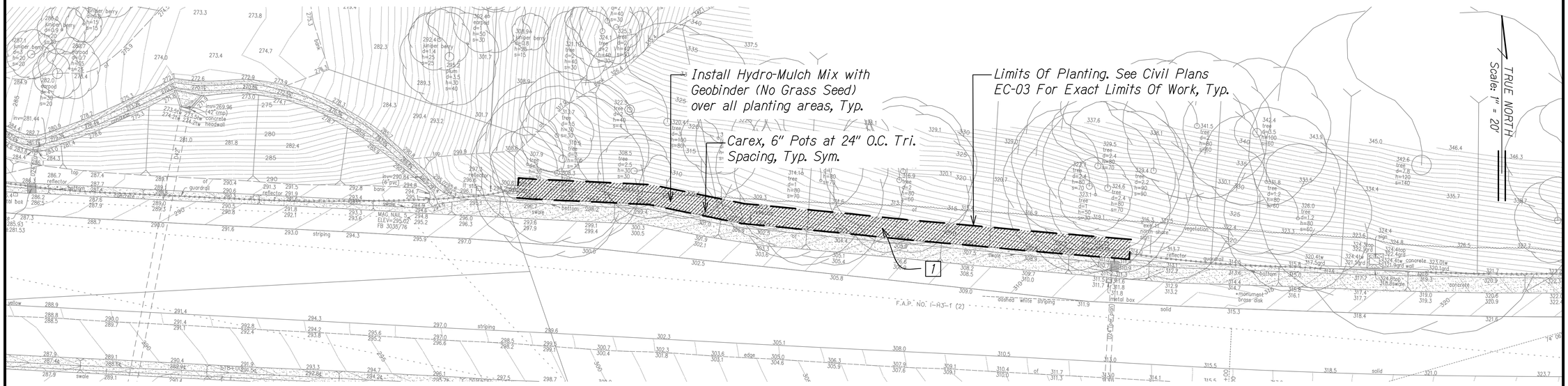
EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

Scale: None Date: March 2026

SHEET No. LP-01 OF 09 SHEETS

LP-01_LANDSCAPE_NOTES-SITE 2.DWG 3/18/2026 9:30:44 PM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	25	38



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GRAPHIC SCALE: 1"=20'

PLANT SCHEDULE PID 207

GROUNDCOVER	BOTANICAL NAME	COMMON NAME
	Carex wahuensis	Carex

REFERENCE NOTES SCHEDULE PID 207

SYMBOL	DESCRIPTION
1	Install erosion control matting on disturbed areas (see Civil plan EC-03). Install per manufacturer's instructions and recommendations. See Civil sheets EC-01 to EC-03 for plans, details, and project limits.

Notes:

1. Demolish and remove all invasive and/or non-native shrubs within project limits. Trees not marked for removal shall remain and be protected. Contractor is responsible for verifying existing site conditions.
2. Trees not marked for removal shall remain and be protected. Refer to Detail 1, Sheet LP-06 for Tree Protection Detail. Refer to Detail 1, Sheet LP-08 for Erosion Control Matting (ECM) installation around trees and Detail 2, Sheet LP-08 for Typical Planting Through ECM. Contractor is responsible for verifying existing site conditions.
3. Install hydro-mulch mix with geobinder (no grass seed) over all planting areas. Refer to Specification Section 209 - Temporary Water Pollution, Dust, And Erosion Control for installation sequence of erosion control matting, hydro-mulch, and plantings.
4. Contractor shall be responsible for weeding throughout the 9-month plant establishment period. Refer to Specification Section 641 - Hydro-Mulch Seeding.
5. Prune low branches of existing trees to avoid damage by construction activities. Pruning work shall be done by a certified arborist and shall be done in accordance with ANSI-a300 and ANSI-z133 safety standards for tree work. Flush cuts or stub cuts will not be accepted. Refer to Detail 2, Sheet LP-06 for tree pruning detail.
6. Refer to Civil EC sheets for erosion control matting details and plans.

PID 207 PLANTING PLAN

Scale: 1" = 20'-0"

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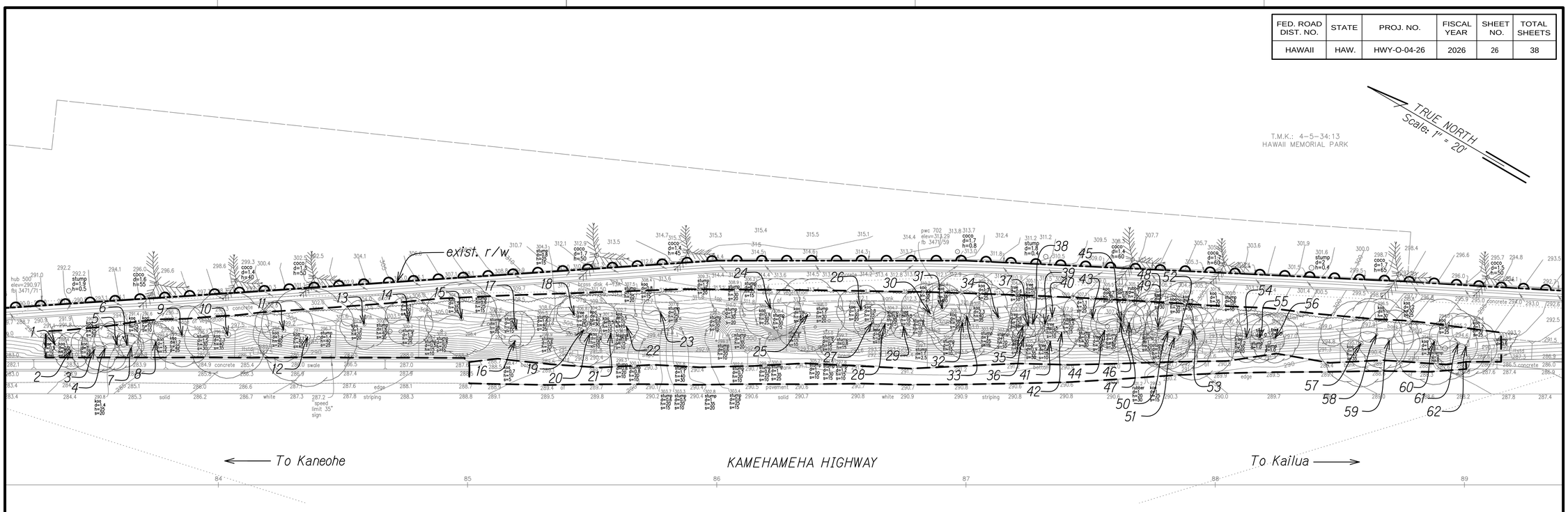
PID 207 PLANTING PLAN

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 20'-0" Date: March 2026

SHEET No. LP-02 OF 09 SHEETS

LP-02_PID 207.DWG 3/30/2026 9:59:23 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	26	38



Notes:

1. *Demolish and remove all trees and shrubs marked for removal within project limits. Refer to Sheet LP-04 for status summary table of trees. Trees not marked for removal shall remain and be protected. Table is provided for convenience only. Contractor is responsible for verifying existing site conditions.*

2. *Trees not marked for removal shall remain and be protected. Refer to Detail 1, Sheet LP-06 for Tree Protection Detail. Refer to Detail 1, Sheet LP-08 for Erosion Control Matting (ECM) installation around trees.*

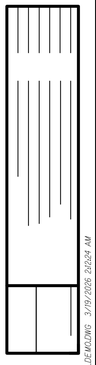
3. *Trees to be removed but rootballs to remain shall be cut as close as possible to finish grade. Angle of cut shall match angle of slope. Contractor shall install matting around stump remnants. Remove tree roots if required for grading or as directed by the Engineer.*

4. *Immediately upon cutting of tree, liberally apply undiluted, State Department of Agriculture approved chemical herbicide (containing either or both glyphosate and cacodylic acid) to the ring of cambium at the cut line around the circumference of the tree just beneath the bark. Recut the stump to fresh wood if tree has been cut longer than 4-hours before chemical herbicide is applied. Continue to cut all new growth from tree stump immediately or as directed by the Engineer.*

5. *Areas of rock or hard pan may be encountered. Remove and dispose of any rocks and any hardpan material as necessary to complete the work. Any voids shall be filled with suitable material. Contractor shall provide all equipment necessary to perform the work required for the project.*

6. *Prior to site clearing, Contractor shall mark and coordinate removal of tree stumps with Engineer.*

7. *Refer to Sheet LP-05 for landscape planting plan.*



LP-03_PID 416_DEMOLITION 3/19/2026 10:20:31 AM

TREE DEMOLITION PLAN PID 416
Scale: 1" = 20'-0"

20 10 0 20 40
GRAPHIC SCALE: 1"=20'

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TREE DEMOLITION PLAN PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU

Project No. HWY-O-04-26

Scale: 1" = 20'-0" *Date: March 2026*

SHEET No. *LP-03* OF *09* SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	27	38

Note:
1. Table is provided for convenience only. Contractor is responsible for verifying existing site conditions.

TREE NUMBER	TREE TYPE	APPROX. TRUNK DIAMETER (FEET)	APPROX. HEIGHT (FEET)	APPROX. CANOPY SPREAD (FEET)	STATUS
1	Canopy Tree	0.5	10	10	Remain
2	Canopy Tree	09	15	20	Remain
3	Canopy Tree	1	20	20	Remain
4	Canopy Tree	1.2	20	25	Remain
5	Canopy Tree	1.4	20	25	Remain
6	Canopy Tree	0.5	10	15	Remain
7	Canopy Tree	0.7	10	10	Remain
8	Canopy Tree	1	15	15	Remain
9	Canopy Tree	1.2	25	25	Remain
10	Canopy Tree	2.3	35	40	Remain
11	Canopy Tree	1.4	25	40	Remain
12	Canopy Tree	2.1	40	50	Remain
13	Canopy Tree	1.2	20	20	Remain
14	Canopy Tree	1.1	20	30	Remain
15	Canopy Tree	1.5	30	35	Remain
16	Canopy Tree	0.7	5	10	Remain
17	Canopy Tree	0.9	15	25	Remain
18	Canopy Tree	1.6	15	25	Remain
19	Canopy Tree	2.7	30	40	Remain
20	Canopy Tree	0.6	10	15	Remain
21	Canopy Tree	0.5	10	15	Remain
22	Canopy Tree	0.5	10	15	Remain
23	Canopy Tree	0.8	15	20	Remain
24	Canopy Tree	0.9	25	30	Remain
25	Canopy Tree	1.8	30	40	Remain
26	Canopy Tree	1.1	20	30	Remain
27	Canopy Tree	0.8	15	25	Remain
28	Canopy Tree	0.9	10	20	Remain
29	Canopy Tree	0.5	10	15	Remain
30	Canopy Tree	2.5	25	35	Remain
31	Canopy Tree	1.4	20	35	Remain

TREE NUMBER	TREE TYPE	APPROX. TRUNK DIAMETER (FEET)	APPROX. HEIGHT (FEET)	APPROX. CANOPY SPREAD (FEET)	STATUS
32	Canopy Tree	1.3	25	35	Remain
33	Canopy Tree	2.3	35	40	Remain
34	Canopy Tree	1.3	25	35	Remain
35	Canopy Tree	0.6	10	15	Remain
36	Canopy Tree	0.5	10	15	Remain
37	Canopy Tree	0.6	10	20	Remain
38	Canopy Tree	0.8	10	15	Remain
39	Canopy Tree	0.9	30	35	Remain
40	Canopy Tree	0.5	10	15	Remain
41	Canopy Tree	0.6	10	15	Remain
42	Canopy Tree	0.5	15	20	Remain
43	Canopy Tree	1.1	25	35	Remain
44	Canopy Tree	0.5	20	20	Remain
45	Canopy Tree	0.8	25	30	Remain
46	Canopy Tree	0.7	20	30	Remain
47	Canopy Tree	0.7	10	20	Remain
48	Canopy Tree	1	30	35	Remain
49	Canopy Tree	1	30	35	Remain
50	Canopy Tree	1	30	20	Remain
51	Canopy Tree	1	15	25	Remain
52	Canopy Tree	1.5	30	35	Remain
53	Canopy Tree	1	40	35	Remain
54	Canopy Tree	1.2	20	35	Remain
55	Canopy Tree	1	-	-	Remain
56	Canopy Tree	1	-	-	Remain
57	Canopy Tree	1.5	35	45	Remain
58	Canopy Tree	1	30	30	Remain
59	Canopy Tree	1.2	25	30	Remain
60	Canopy Tree	1.2	35	40	Remain
61	Canopy Tree	1.2	25	30	Remain
62	Canopy Tree	1.2	25	30	Remain

LP-04_PID 416_REVISIONS 3/19/2026 10:02 AM

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HIGHWAYS DIVISION

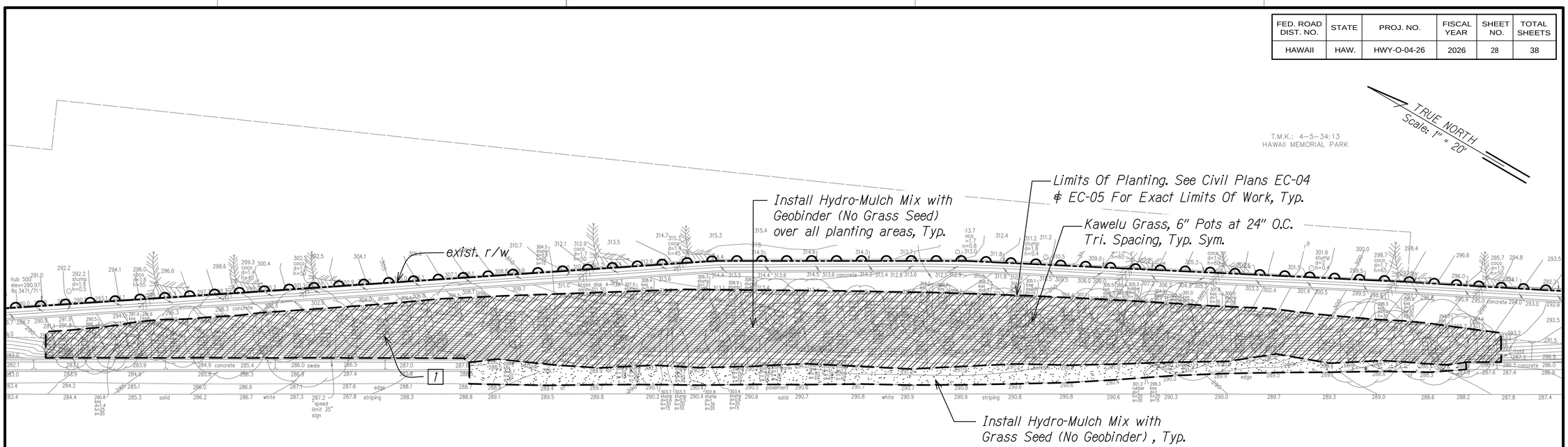
TREE DEMOLITION TABLE
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

Scale: None Date: March 2026

SHEET No. LP-04 OF 09 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	28	38



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GRAPHIC SCALE: 1"=20'

PLANT SCHEDULE PID 416

GROUNDCOVER	BOTANICAL NAME	COMMON NAME
	Eragrostis variabilis	Kawelu Grass
	Cynodon dactylon	Common Bermuda Grass

REFERENCE NOTES SCHEDULE PID 416

SYMBOL	DESCRIPTION
1	Install erosion control matting on disturbed areas (see Civil plans EC-04 and EC-05). Install per manufacturer's instructions and recommendations. See Civil sheets EC-01 and EC-02 for details and project limits.

Notes:

1. Trees not marked for removal shall remain and be protected. Contractor is responsible for verifying existing site conditions.
2. Trees not marked for removal shall remain and be protected. Refer to Detail 1, Sheet LP-06 for Tree Protection Detail. Refer to Detail 1, Sheet LP-08 for Erosion Control Matting (ECM) installation around trees and Detail 2, Sheet LP-08 for Typical Planting Through ECM. Contractor is responsible for verifying existing site conditions.
3. Install hydro-mulch mix with geobinder (no grass seed) over all groundcover planting areas. Install hydro-mulch mix with grass seed (no geobinder) over all turf areas. Refer to Specification Section 209 - Temporary Water Pollution, Dust, And Erosion Control for installation sequence of erosion control matting, hydro-mulch, and plantings.
4. Contractor shall be responsible for weeding throughout the 9-month plant establishment period. Refer to Specification Section 641 - Hydro-Mulch Seeding.
5. Prune low branches of existing trees to avoid damage by construction activities. Pruning work shall be done by a certified arborist and shall be done in accordance with ANSI-a300 and ANSI-z133 safety standards for tree work. Flush cuts or stub cuts will not be accepted. Refer to Detail 2, Sheet LP-06 for Tree Pruning Detail.
6. Refer to Civil EC sheets for erosion control matting plans and details.

PID 416 PLANTING PLAN

Scale: 1" = 20'-0"

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PID 416 PLANTING PLAN

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 20'-0" Date: March 2026

SHEET No. LP-05 OF 09 SHEETS

LP-05_PID 416.DWG 7/18/2025 4:05:05 AM

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	29	38

TREE PROTECTION ZONE:

1. *All trees 8-inch caliper or greater (as measured at 4½-feet height) shall be protected unless noted otherwise. If trees other than those designated for removal are damaged beyond survival condition as determined by the Engineer, the Contractor shall remove such trees and replace with a tree of the same species and size and maintain for the duration of the construction or 12 months whichever is greater at no cost to the State.*

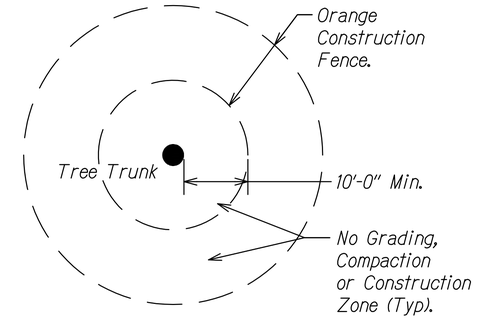
2. *The recommended tree protection zone should be located at the outer drip line of the canopy of the tree. However, the minimum protection zone around a tree should be at least 10-feet from the external surface of the tree's trunk.*

3. *All underground utilities and irrigation lines should be routed outside of the tree protection zone. If utilities must traverse the tree protection zone, they shall be tunneled or bored at a depth of 4-feet or greater within the tree protection zone.*

4. *All protected trees shall be listed on the demolition, landscape, grading and utilities plans. If there is a discrepancy with all plans, Contractor shall contact Engineer immediately.*

5. *For the duration of construction within the drip line of the trees to remain there shall be:*
   - *No changes, alteration or disturbance to the grade by adding fill, excavating or scraping except as noted on plans;*
   - *No storage on construction materials or equipment;*
   - *No stockpiling of any construction materials or excavated materials;*
   - *No disposal of any liquids (e.g. concrete slurry, gas, oil, paint);*
   - *No vehicular traffic, equipment or excessive pedestrian traffic;*
   - *No attachment of any wires, ropes, lights or any other such attachment other than those of a protective nature to any tree to be preserved; and*
   - *No cleaning of equipment or material under the canopy of any tree or group of trees to be preserved*

7. *Contractor shall refer to Specification Section 201 - Clearing And Grubbing for additional tree protection instructions.*



PLAN VIEW
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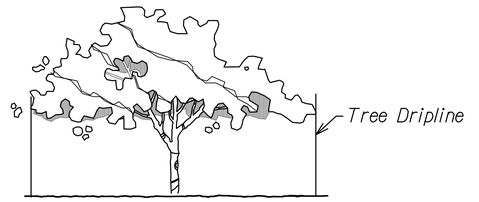

SECTION
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TREE PROTECTION (1 / LP-06 | LP-06)
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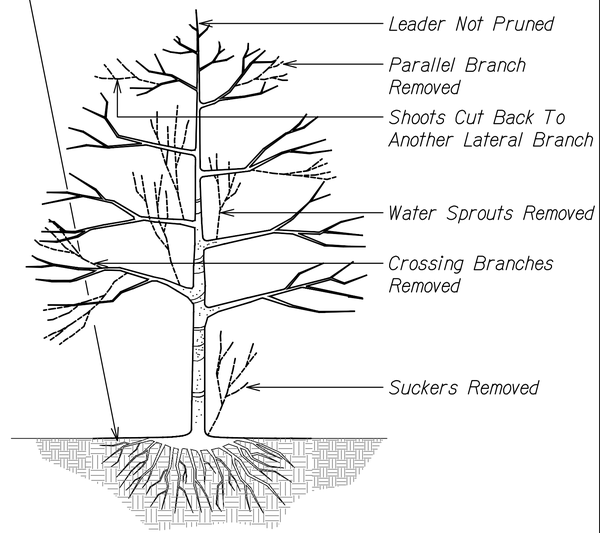
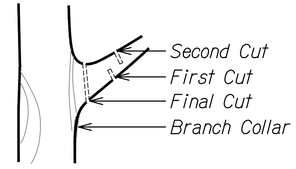
Tree Roots Shall Not Be Cut Unless Cutting Is Unavoidable. When Root Cutting Is Unavoidable, A Clean, Sharp Cut Shall Be Made To Avoid Shredding Or Smashing. Root Cuts Shall Be Made Back To A Lateral Root Whenever Possible. Roots 2-inches Or Greater In Diameter Shall Be Tunneled Or Bored Under And Shall Be Covered To Prevent Dehydration. Exposed Roots Shall Be Covered Immediately With Soil Or Burlap And Kept Moist. No Roots Larger Than 2-inches Shall Be Cut Unless No Other Alternative Is Feasible, Approved By A Certified Arborist, And Accepted By The Engineer. Fertilize And Water To Minimize Shock As Directed By A Certified Arborist Or Engineer.



Notes:

1. *Positions of first and second cuts may be reversed in some cases, particularly when cutting a large branch with a chainsaw.*
2. *Do not make flush cuts or leave stubs.*
3. *Do not paint cuts.*
4. *Remove dead, broken or malformed branches.*
5. *Remove all vines entwined in the tree or around its trunk.*
6. *All pruning shall be completed using clean sharp tools. All cuts shall be clean and smooth, with the bark intact with no rough edges or tears.*
7. *Dispose of all cuttings in accordance with Specification Section 201 - Clearing And Grubbing.*
8. *Retain the normal shape of the plant.*
9. *All work shall be done in the presence of an ISA Certified Arborist.*



TYPICAL BRANCH REMOVAL
Scale: Not To Scale

TREE PRUNING DETAIL (2 / LP-06 | LP-06)
Scale: Not to Scale

LP-06_DETAILS.DWG 3/30/2026 08:48 AM

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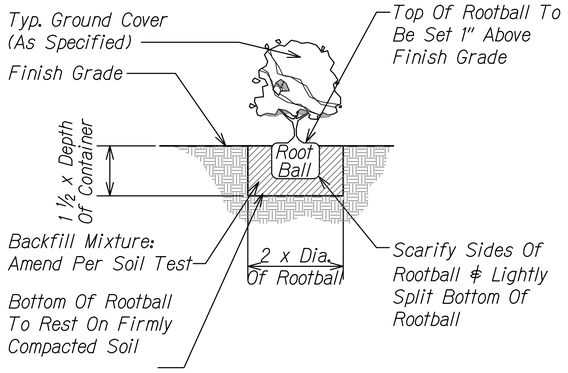
LANDSCAPE DETAILS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-0-04-26
Scale: Not To Scale Date: March 2026

SHEET No. LP-06 OF 09 SHEETS

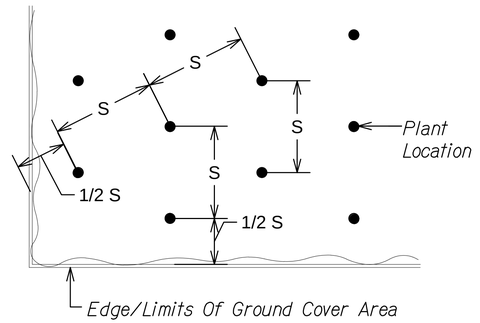
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	30	38

Notes:
1. Ground covers shall be plumb. If ground cover is leaning at the end of the plant establishment period, it shall be replaced at the contractor's expense.
2. Immediately after planting, water heavily to ensure soil settles around roots.



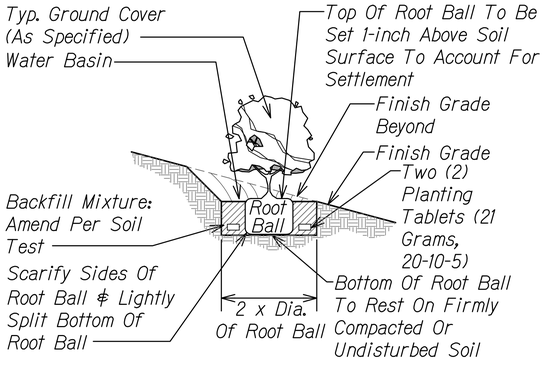
GROUND COVER PLANTING — 1 LP-07|LP-07
Scale: Not to Scale

Note:
1. S = Spacing, (refer to plant list for spacing)
2. Use spacing layout for shrubs, ground covers, and annuals



TRIANGULAR SPACING — 3 LP-07|LP-07
Scale: Not to Scale

Notes:
1. Ground covers shall be plumb. If ground cover Is leaning at the end of the plant establishment period, it shall be replaced at the contractor's expense.
2. Immediately after planting, water heavily to ensure soil settles around roots.



GROUND COVER PLANTING ON SLOPE — 2 LP-07|LP-07
Scale: Not to Scale

Hydro-Mulch:
Mulch Shall Be Specifically Processed Fiber Containing No Growth Or Germination Inhibiting Factors. It Shall Be Such That After Addition And Agitation In The Hydraulic Equipment With Seeds, Fertilizer, Water, Geobinders, And Other Additives Not Detrimental To Plant Growth, The Fibers Will Form A Homogeneous Slurry When Hydraulically Sprayed On The Soil. The Fibers Shall Form A Blotter-like Ground Cover Which Readily Absorbs Water And Allows Infiltration. Complete Coverage Of The Surface Shall Be Attained.

HYDRO-MULCHING DETAIL — 4 LP-07|LP-07
Scale: Not to Scale

MARC K. SHIMATSU
LICENSED PROFESSIONAL LANDSCAPE ARCHITECT
No. 13602
HAWAII, U.S.A.
4/30/26
EXPIRATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

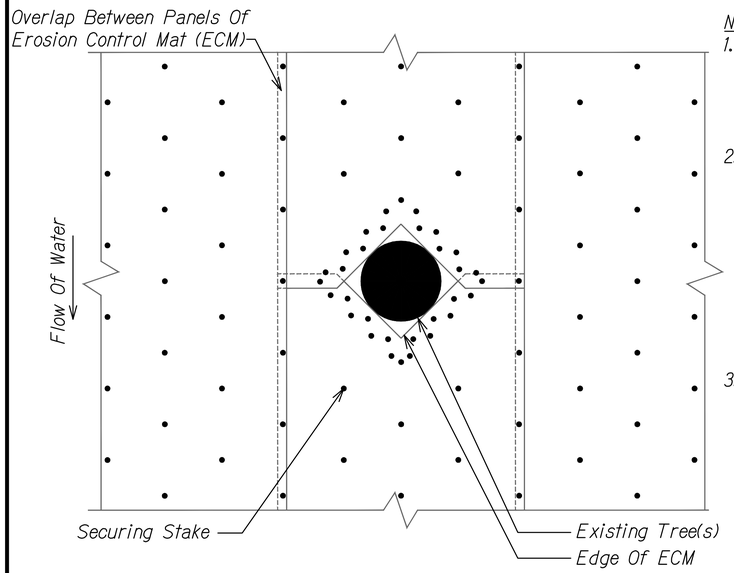
LANDSCAPE DETAILS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: Not To Scale Date: March 2026

SHEET No. LP-07 OF 09 SHEETS

LP-07_DETAILS.DWG 3/30/2026 8:39:27 AM

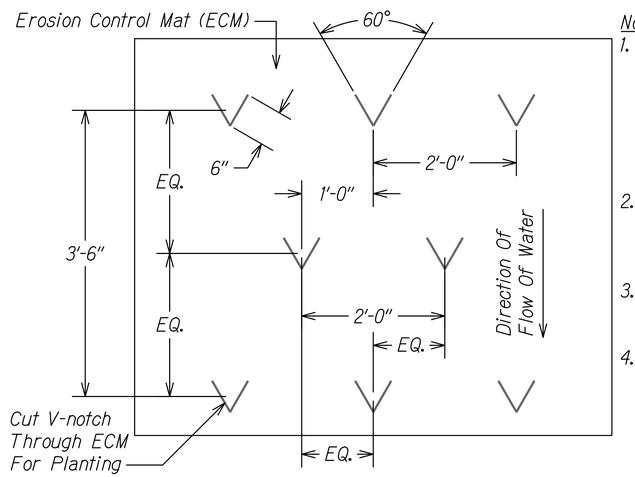
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	31	38



Notes:

1. Contractor shall join overlapping sections of Erosion Control Mat (ECM) in accordance with the contract documents.
2. Contractor shall create an opening around the circumference of each existing tree to ensure ECM maintains direct contact with the ground surface. For densely growing trees, ECM openings may be created to encompass multiple trees. Contractor shall create opening in ECM using methods approved or recommended by the manufacturer.
3. Contractor shall secure ECM with stakes. Stake placement may require modification in the field due to root location, trunk structure, or other obstacles. Contractor shall install additional stakes to ensure ECM maintains direct contact with ground surface. Refer to erosion control plans for stake placement.
4. When placing matting between clusters of existing trees, Contractor may install ECM around cluster if spacing between trees is 12-inches or less with Engineer's approval. Contractor shall plant ground cover where space permits between trees or as directed by the Engineer.

TYPICAL ECM INSTALLATION AROUND EXISTING TREES (1 / LP-08)
Scale: Not to Scale



Notes:

1. Install Erosion Control Mat (ECM) in accordance with the contract documents or per manufacturer's standard guidelines for trenching, overlaps, and stapling. Consult the ECM manufacturer's installation guidelines for full installation details.
2. Install the live plant material using a V-notch design approved or recommended by the ECM manufacturer.
3. Contractor shall remove soil material from V-shaped opening for planting pit.
4. After placing tree, shrub, or ground cover in planting pit, backfill pit and compact soil. Secure ECM flaps back down to the soil with securing stakes per ECM manufacturer's recommendations. Additional stakes shall be installed around the notch as necessary, or as directed by the Engineer, to ensure the matting maintains direct contact with the ground surface.

TYPICAL PLANTING THROUGH ECM (2 / LP-08)
Scale: Not to Scale

LP-08_DETAILS.DWG 3/31/2026 10:58 AM

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4/30/26
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE DETAILS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: Not To Scale Date: March 2026

SHEET No. LP-08 OF 09 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	32	38

PLANT SCHEDULE PID 207

GROUNDCOVERS	BOTANICAL NAME	COMMON NAME	CONT	SPACING	REMARKS
	Carex wahuensis	Carex	6" Pot	24" O.C.	Triangular Spacing Ensure No Conflict with ECM Securing Stakes

PLANT SCHEDULE PID 416

GROUNDCOVERS	BOTANICAL NAME	COMMON NAME	CONT	SPACING	REMARKS
	Eragrostis variabilis	Kawelu Grass	6" Pot	24" O.C.	Triangular Spacing Ensure No Conflict with ECM Securing Stakes
HYDRO-MULCH SEEDING					
	Cynodon dactylon	Common Bermuda Grass	Seed		See Specification Section 641 - Hydro-mulch Seeding for grass seeding rate

LP-09_PLANT LIST.DWG 3/19/2026 2:56:03 AM

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4/30/26
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

PLANTING SCHEDULE

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26

Scale: None Date: March 2026

SHEET No. LP-09 OF 09 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	33	38

GENERAL NOTES FOR TRAFFIC CONTROL PLAN (FOR STATE RIGHT-OF-WAY)

1. Only Traffic Control Plans for major construction activities are shown. The Contractor shall develop his/her own Traffic Control Plans in accordance with Section 645 of the Special Provisions or the current US Federal Highways Administration "Manual on Uniform Control Devices, Part 6-Temporary Traffic Control" (MUTCD 2009) for activities to complete work not covered by the Traffic Control Plans. The Contractor shall follow the more stringent guidelines. The Contractor shall submit the Traffic Control Plans to the Engineer for approval. Payment for development and implementation of the Traffic Control Plans shall be considered incidental to the various contract items.

2. All lane closures and traffic pattern changes (detours) not shown on the plan shall be submitted to the Engineer for approval in accordance with Specifications Section 645 - Work Zone Traffic Control. For restrictions on lane closures, detours, construction work during peak hours, and other requirements regarding maintaining vehicular and pedestrian traffic, see Section 107.06 - Contractor Duty Regarding Public Convenience, and Section 645 - Work Zone Traffic Control.

3. Sites requiring lane closures are as indicated in the plans. Additional lane closures are prohibited unless otherwise approved by the Engineer. Fees for unauthorized lane closures shall be borne by the Contractor, in accordance with Section 108-Prosecution and Progress of the Special Provisions.

4. The Contractor shall make minor adjustments at intersections, driveways, bridges, structures, etc. to fit field conditions.

5. Cones or delineators shall be extended to a point where they are visible to approaching traffic.

6. Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area. Likewise, removal of traffic control should begin with the device closest to the work area and progressively away from the work area.

7. Promptly cover or remove any signs within the construction zone that conflict with the traffic control plan and restore the signs upon removal of the traffic controls. This work shall be considered incidental to the traffic control items and shall not be paid separately.

8. Flaggers and/or police officers shall be in sight of each other or in direct communications at all times.

9. Sign spacings (L), taper lengths (T), and spacings of cones or delineators shall be as shown in Table 1 of Section 645 in the Specifications, unless otherwise noted on HDOT's Traffic Control Plans.

10. All traffic lanes shall be a minimum of 11 feet wide.

11. All signs shall be promptly removed or covered whenever the message is not applicable or not in use. If sign is covered, the sign's wording shall not be visible under all light conditions.

12. The backs of all signs for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when signs have messages on both faces).

13. At the end of each day's work or as soon as the work is completed, the Contractor shall remove all traffic control devices no longer needed to permit free and safe passage of public traffic. Removal shall be in the reverse order of installation. The Contractor shall immediately restore or replace any pavement markers and markings that have been damaged or removed with temporary or permanent markers and markings by shifts end.

GENERAL NOTES FOR TRAFFIC CONTROL PLAN (FOR STATE RIGHT-OF-WAY) (CONT.)

14. Replace permanent pavement markings and traffic signs upon completion of each phase of work. Temporary pavement markings and traffic signs shall be used in the interim. Existing conflicting pavement markings shall be removed and temporary pavement markings shall be installed before traffic patterns are changed. After completion of the work, temporary pavement markings shall be removed. Payment for removal of existing pavement markings; and furnishing, installing, and removal of temporary pavement markings, whether or not shown on the Traffic Control Plans shall be considered incidental to the various contract items. Payment for replacement or restoration of permanent pavement markings and traffic signs shall be considered incidental to the various contract items and shall not be paid for separately.

15. The locations of pavement markings, signs, and delineators used in the Traffic Control shall be as shown on the plans, Contractor's approved Traffic Control Plans, and/or as determined in the field by the Engineer.

16. Damage to signs, temporary pavement markers, and delineators shall be repaired or replaced by the Contractor at the Contractor's expense. Worn signs, pavement markings, and other traffic control devices shall be considered damaged.

17. Signs for night work shall be retroreflective and shall be mounted with a Type B high intensity flasher.

18. Work zone limits shown for each traffic control phase encompass all work items to be completed in that particular phase. The length of the work zone may be reduced to accommodate the Contractor's actual work zone for that time period, provided it has been accepted by the Engineer, and all tangents, tapers, and buffer lengths are maintained.

19. The Contractor is responsible for providing all sign supports and/or posts for construction warning signs.

20. For intermittent work zones within a particular traffic control phase, only cones along the actual work zone need to be placed at 10' o.c.All other traffic control cones can be placed at 35' o.c.

21. All temporary striping shall be 6" wide.

22. The Contractor shall submit requests for detours and routine lane closures in accordance with Subsection 645.03(F). Refer to minimum timeframes required for implementation. Approval may be denied if submittal timeframe is not met. Once the request has been approved by HDOT, the Contractor is required to provide a written Weekly Lane Closure Request to the HDOT Construction Field Office at least two (2) weeks prior to the scheduled work.

23. If the traffic control plan or any traffic control device is not installed per manufacturer's recommendation, plan, or specifications, or is deemed unsafe, work may be shut down at no additional cost/time and payment withheld. Lane closures that are unauthorized or not on the approved lane closure schedule will not be allowed and shall be subject to rental fees in accordance with Specification Section 108.09.

LEGEND

- Sign
- Existing Sign
- Direction of Traffic
- Cones with Retroreflective bands (All cones in work area shall be 28" high).
- Work Area
- Type 2 Barricade
- Police Officer

ORIGINAL PLAN | NOTE BOOK | N.
SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE

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TREVOR R. VAGAY
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.
4/30/28
EXP. DATE
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL NOTES AND LEGEND

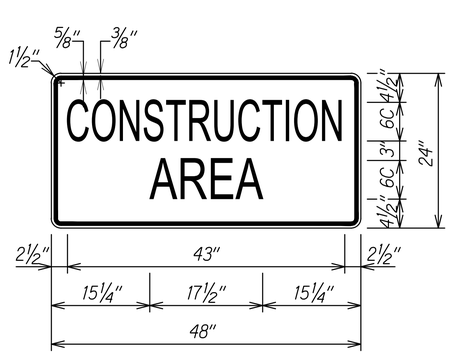
EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: None Date: March 2026

SHEET No. TC-01 OF 6 SHEETS

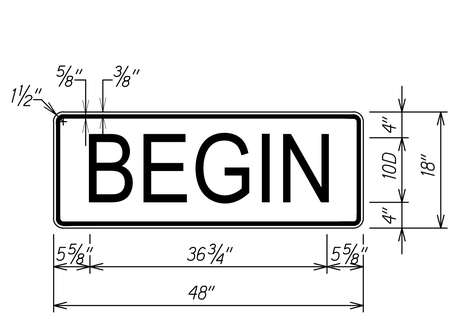
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	34	38

Work Zone Note:

1. *All existing regulatory speed limit signs within the work zone/project limits shall be covered and work zone speed limit sign assemblies (R2-1(45)-A and R2-5b(45)-A with "CONSTRUCTION AREA" and "$250 FINE HRS 291C-104" Supplemental Signs) shall be displayed during lane closure hours.*
2. *Upon removal of the lane closure, all work zone speed limit signs shall be covered and existing speed limit signs within the work zone/project limits shall be restored.*
3. *Construction signs shall be installed on both the approaching and trailing ends of each work zone.*
4. *Each construction sign and work zone speed limit assembly shall have a minimum of two (2) Type II OM. Installation of each Type II OM shall be considered incidental to Traffic Control Item.*
5. *All work zone speed sign assembly shall be mounted on three (3) 4.00 lbs./ft. galvanized flanged channel sign posts with a sign clearance height of five (5) feet. Sign stiffeners as specified by Standard Plan Sheet TE-02 shall be installed as needed or as directed by the Engineer.*
6. *The daily covering and uncovering of existing regulatory speed limit signs along with the installation; maintenance, removal and daily covering and uncovering of work zone speed limit sign assemblies shall be considered incidental to Traffic Control Item.*
7. *All work zone signs shall have the project number and Contractor's name on the back of the sign in 1½" high letters, black paint.*
8. *All traffic cones, delineators, and barrels, etc. shall have retroreflective bands.*
9. *All cones shall be retroreflective as required by MUTCD and be a min. of 28" high & weigh a minimum 10 pounds.*



LEGEND: BLACK
BACKGROUND: ORANGE



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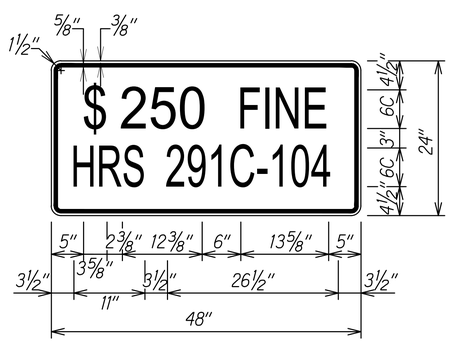

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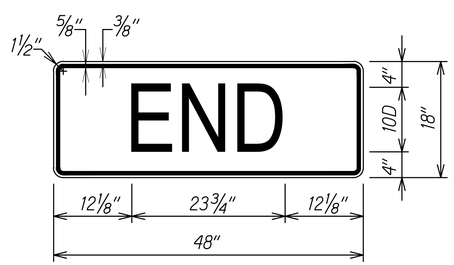
BACKGROUND: WHITE



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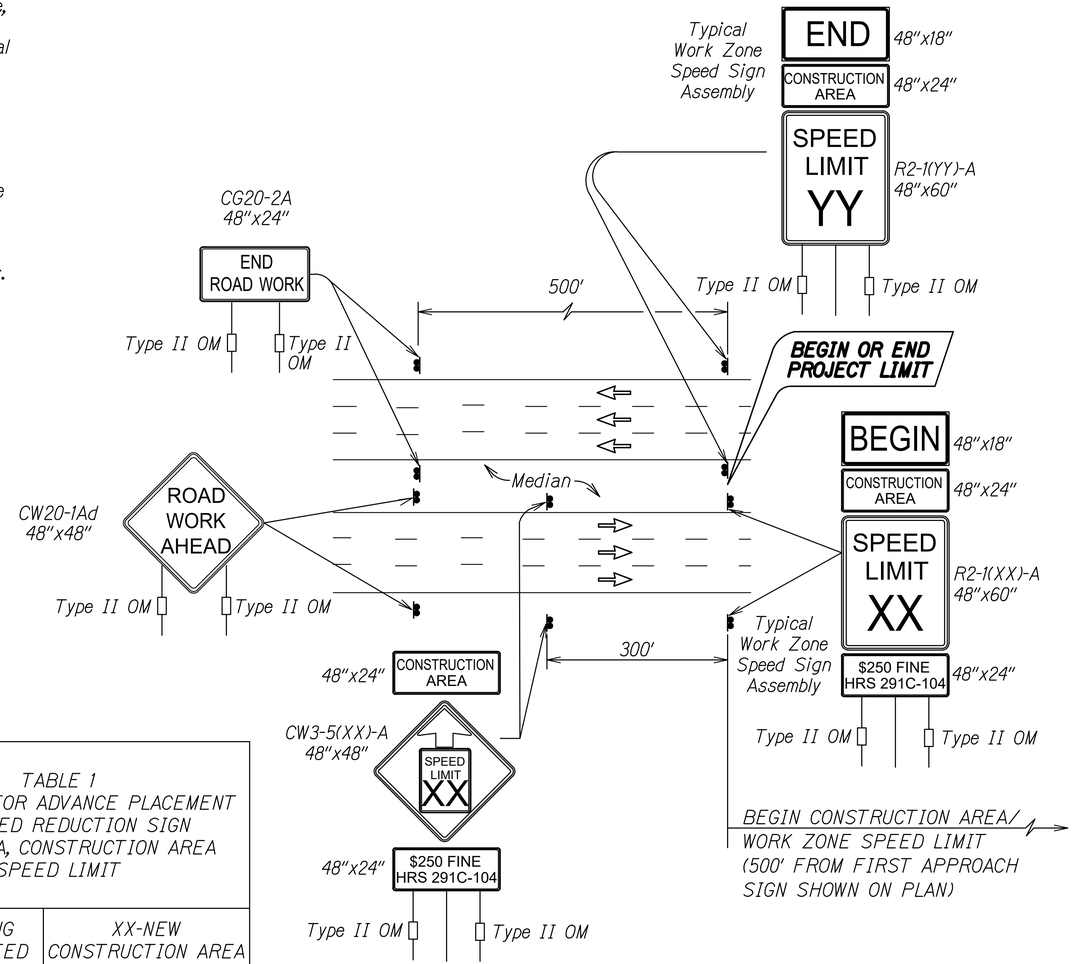

TABLE 1
GUIDELINE FOR ADVANCE PLACEMENT OF SPEED REDUCTION SIGN R2-5b(XX)-A, CONSTRUCTION AREA SPEED LIMIT

YY-EXISTING POSTED SPEED LIMIT (MPH)	*XX-NEW CONSTRUCTION AREA SPEED LIMIT (MPH)*
45	*35*
55	*45*

TYPICAL DETAIL FOR CONSTRUCTION SIGNS ON HIGH SPEED HIGHWAY

Not to Scale

(APPLIES TO PID 207)

ORIGINAL PLAN | SURVEY PLOTTED BY | DRAWN BY | TRACED BY | DESIGNED BY | QUANTITIES BY | CHECKED BY | DATE | NOTE BOOK | N.

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No. 14993-C
HAWAII U.S.A.
4/30/28
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

FREEWAY WORK ZONE SIGNING PLAN, NOTES & DETAILS

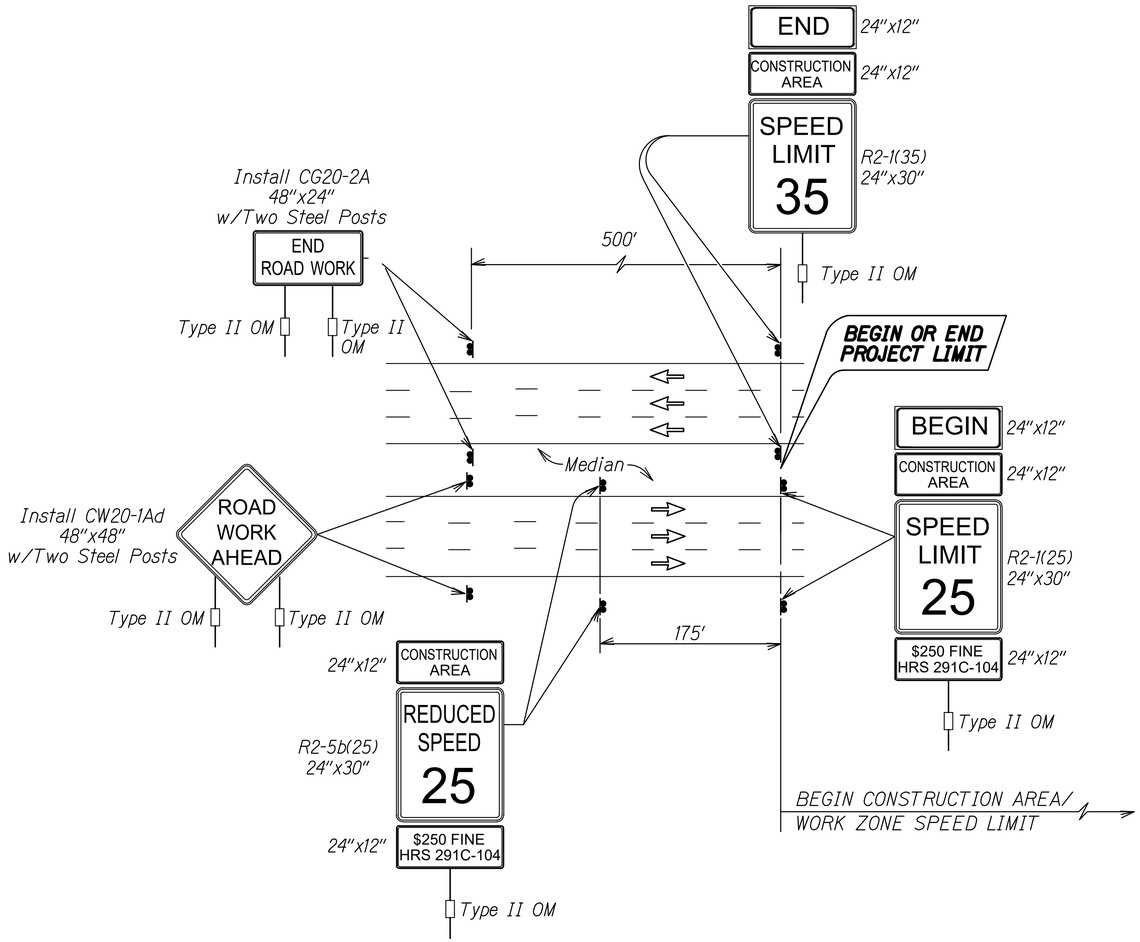
EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU

Project No. HWY-O-04-26

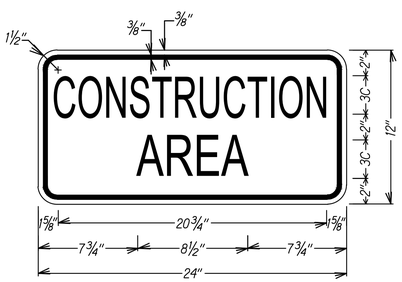
Scale: Not to Scale *Date: March 2026*

SHEET No. *TC-02* OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	35	38



TYPICAL DETAIL FOR CONSTRUCTION SIGNS ON MULTILANE DIVIDED LOW SPEED HIGHWAY



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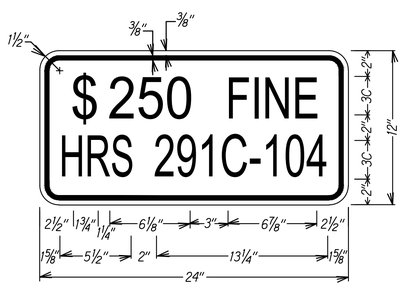
BACKGROUND: ORANGE



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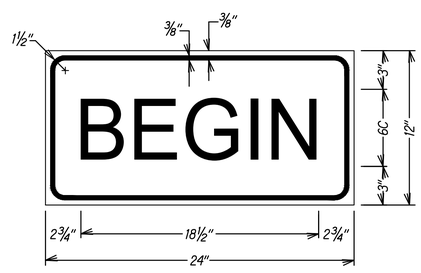

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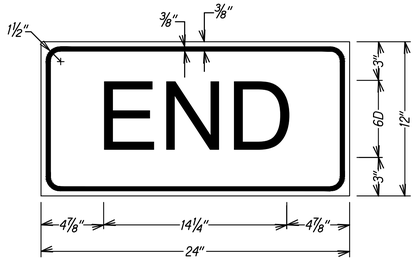
BACKGROUND: ORANGE



LEGEND: BLACK
BACKGROUND: ORANGE

Work Zone Note:

1. *This Work Zone Sign Plan is intended for use on long-term stationary work zones/construction phases (3 days or more). All work zones or construction phases less than 3 days duration will use Traffic Control Plans shown in Section 645 of the Special Provisions.*
2. *All existing regulatory speed limit signs with posts within the work zone/project limits shall be removed and replaced with work zone speed limit sign assemblies (R2-1(25) and R2-5b(25) with "CONSTRUCTION AREA" and "$250 FINE HRS 291C-104" Supplemental Signs).*
3. *Construction sign assemblies shall be installed on both the approaching and trailing ends of each work zone as shown on this plan.*
4. *Each construction warning sign shall have a minimum of two (2) Type II OM. Each work zone speed limit assembly shall have a minimum of one (1) Type II OM. Installation of each Type II OM shall be considered incidental to the various contract items.*
5. *Upon the completion of all physical work or as directed by the Engineer, all construction signs and work zone speed limit assemblies shall be removed. All speed limit signs and posts that were existing at the start of the project within the work zone/project imits shall be restored back to their original locations and configurations.*
6. *Placement of construction signs shall not obstruct the path of pedestrians and bicyclists.*
7. *The removal and restoration of existing regulatory speed limit signs with new posts along with the installation, maintenance and removal of work zone speed limit sign assemblies shall be considered incidental to the various contract items.*

(APPLIES TO PID 416)

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

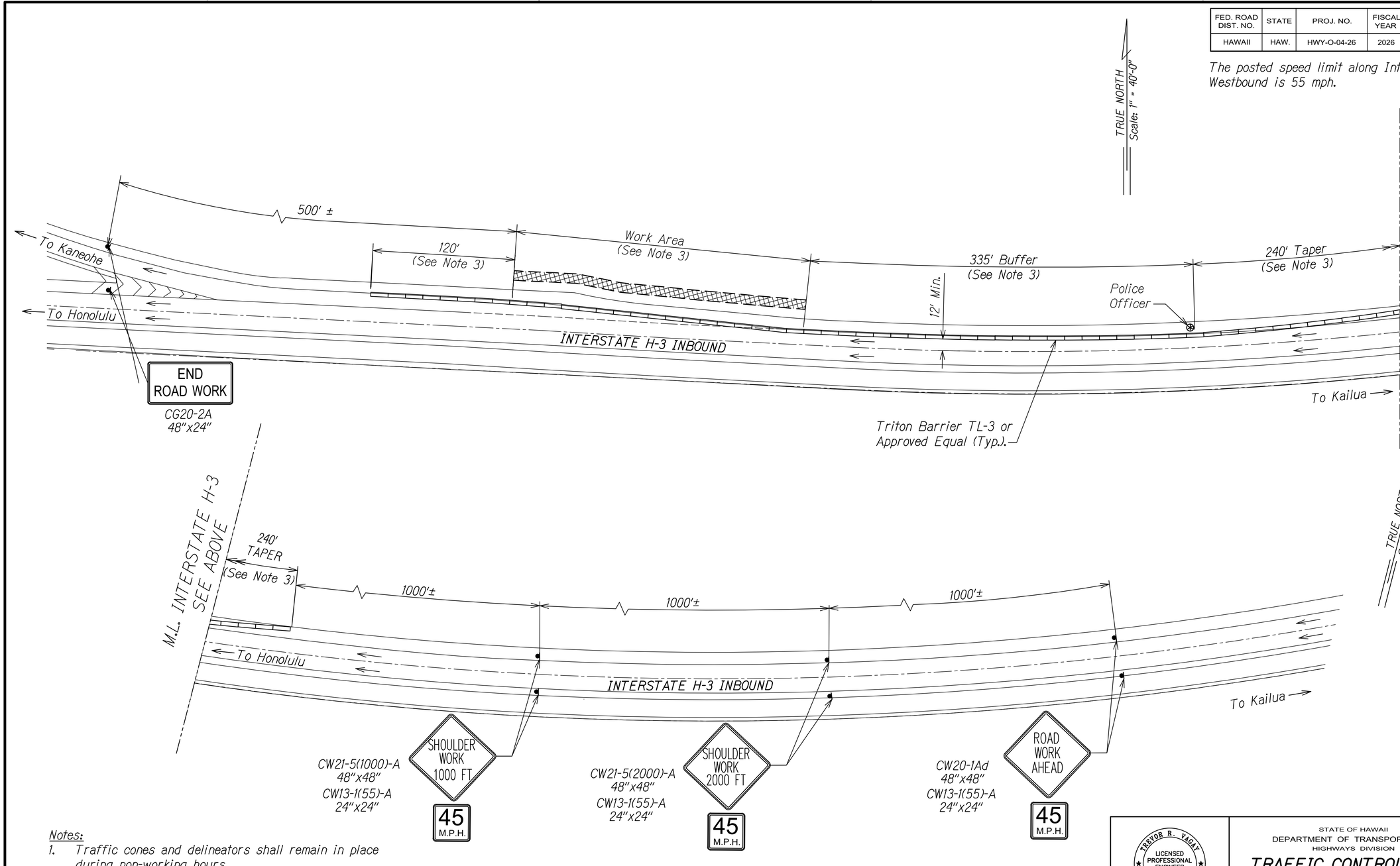
LOW SPEED DIVIDED HIGHWAY
WORK ZONE SIGNING PLAN, NOTES & DETAILS

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: Not to Scale Date: March 2026

SHEET No. TC-03 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	36	38

The posted speed limit along Interstate H-3 Westbound is 55 mph.



Notes:

1. Traffic cones and delineators shall remain in place during non-working hours.
2. See sheet TC-01 for additional requirements for traffic control devices during non-working hours.

TRAFFIC CONTROL PLAN
PID 207

Scale: 1" = 40'-0"

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

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TREVOR R. VACAY
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No. 14993-C
HAWAII U.S.A.
4/30/28
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

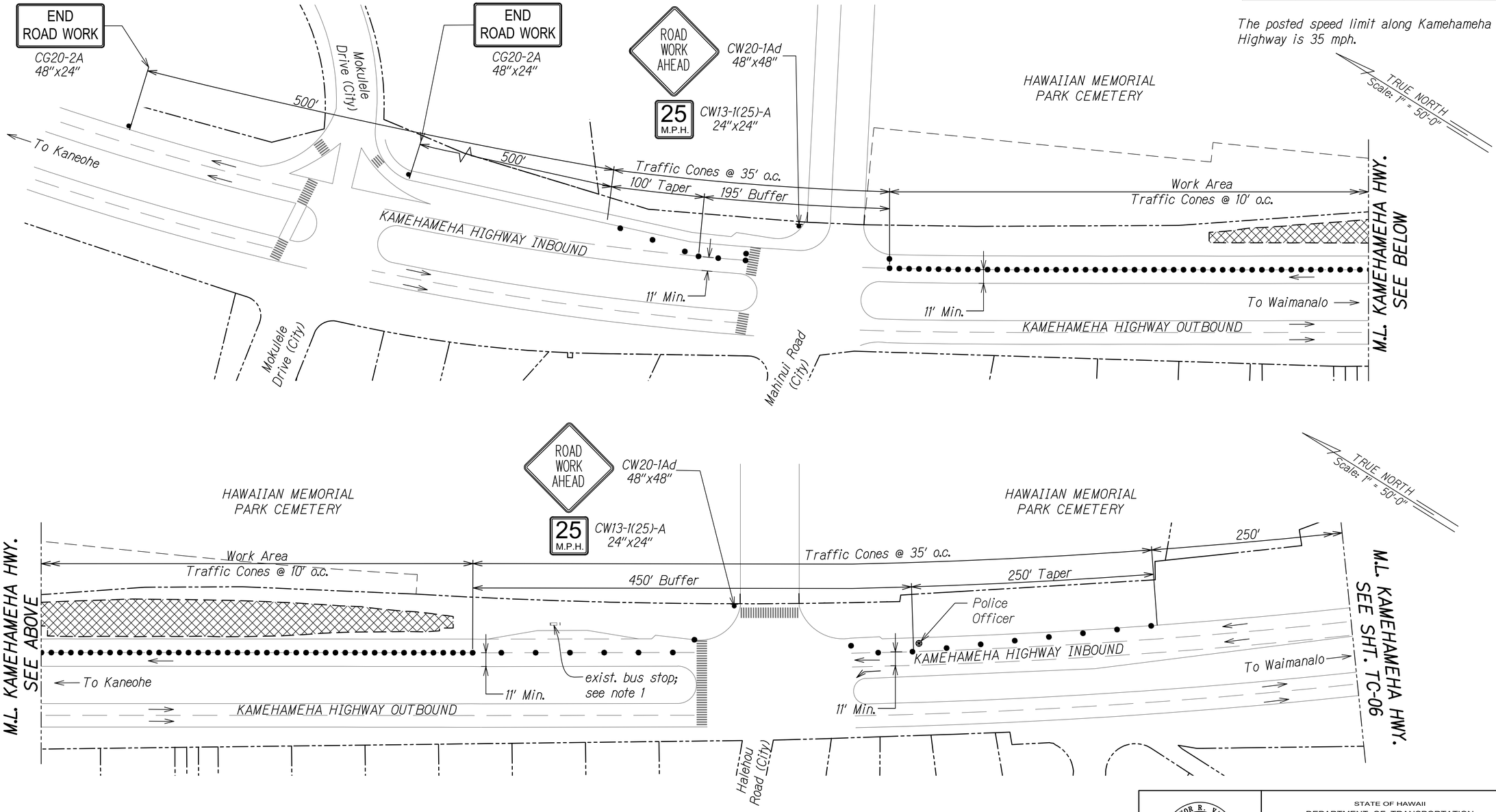
TRAFFIC CONTROL PLAN
PID 207

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 40' Date: March 2026

SHEET No. TC-04 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	37	38

The posted speed limit along Kamehameha Highway is 35 mph.



Notes:

1. Existing bus stop shall remain operational during construction. If the existing bus stop location cannot remain open, the Contractor shall coordinate with Oahu Transit Services for bus stop relocation during construction.
2. Driveways to Hawaii Memorial Park Cemetery shall remain open.

TRAFFIC CONTROL PLAN
PID 416

Scale: 1" = 50'-0"

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

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TREVOR R. YAGAY
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4/30/28
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

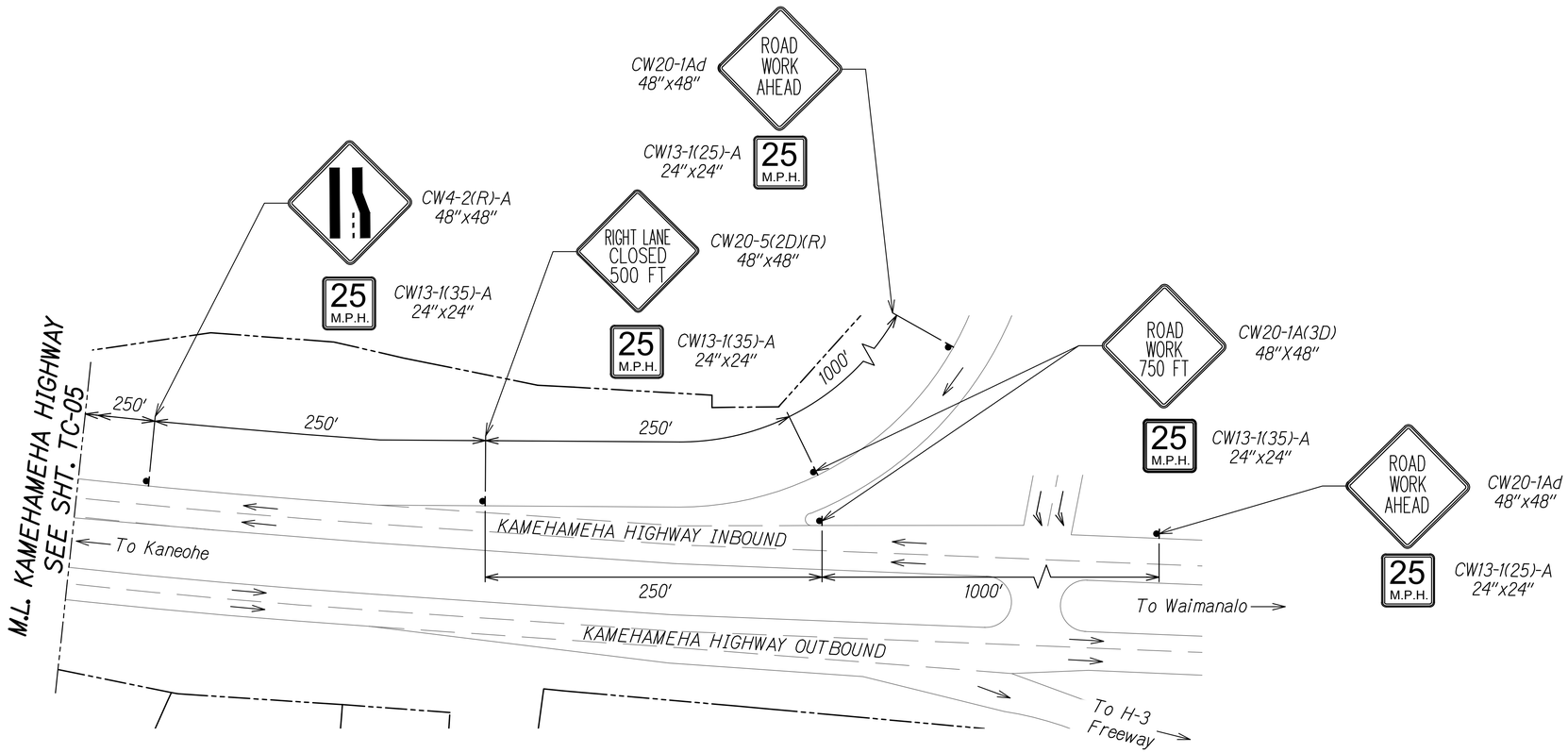
TRAFFIC CONTROL PLAN
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 50' Date: March 2026

SHEET No. TC-05 OF 6 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HWY-O-04-26	2026	38	38

The posted speed limit along Kamehameha Highway is 35 mph.



TRAFFIC CONTROL PLAN
PID 416

Scale: 1" = 50'-0"

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
N-	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	

TCP_PIDHICNG 4/13/2026 7:46:55 AM

TREVOR R. VAGAY
LICENSED PROFESSIONAL ENGINEER
No. 14993-C
HAWAII U.S.A.
4/30/28
EXP. DATE
This work was prepared by me or under my supervision.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN
PID 416

EROSION CONTROL AND BEST MANAGEMENT PRACTICES FOR STORM WATER PERMIT COMPLIANCE, PHASE IV, OAHU
Project No. HWY-O-04-26
Scale: 1" = 50' Date: March 2026

SHEET No. TC-06 OF 6 SHEETS