

**Form C Attachment A-3**  
**Portions of Contract Plans**

INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	STANDARD PLANS SUMMARY
3 - 4	GENERAL NOTES AND LEGEND
5 - 7	WATER POLLUTION & EROSION CONTROL NOTES
8 - 11	TYPICAL SECTIONS
X	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X
X	X

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HONOLULU, HAWAII

PLANS FOR

FARRINGTON HIGHWAY RESURFACING

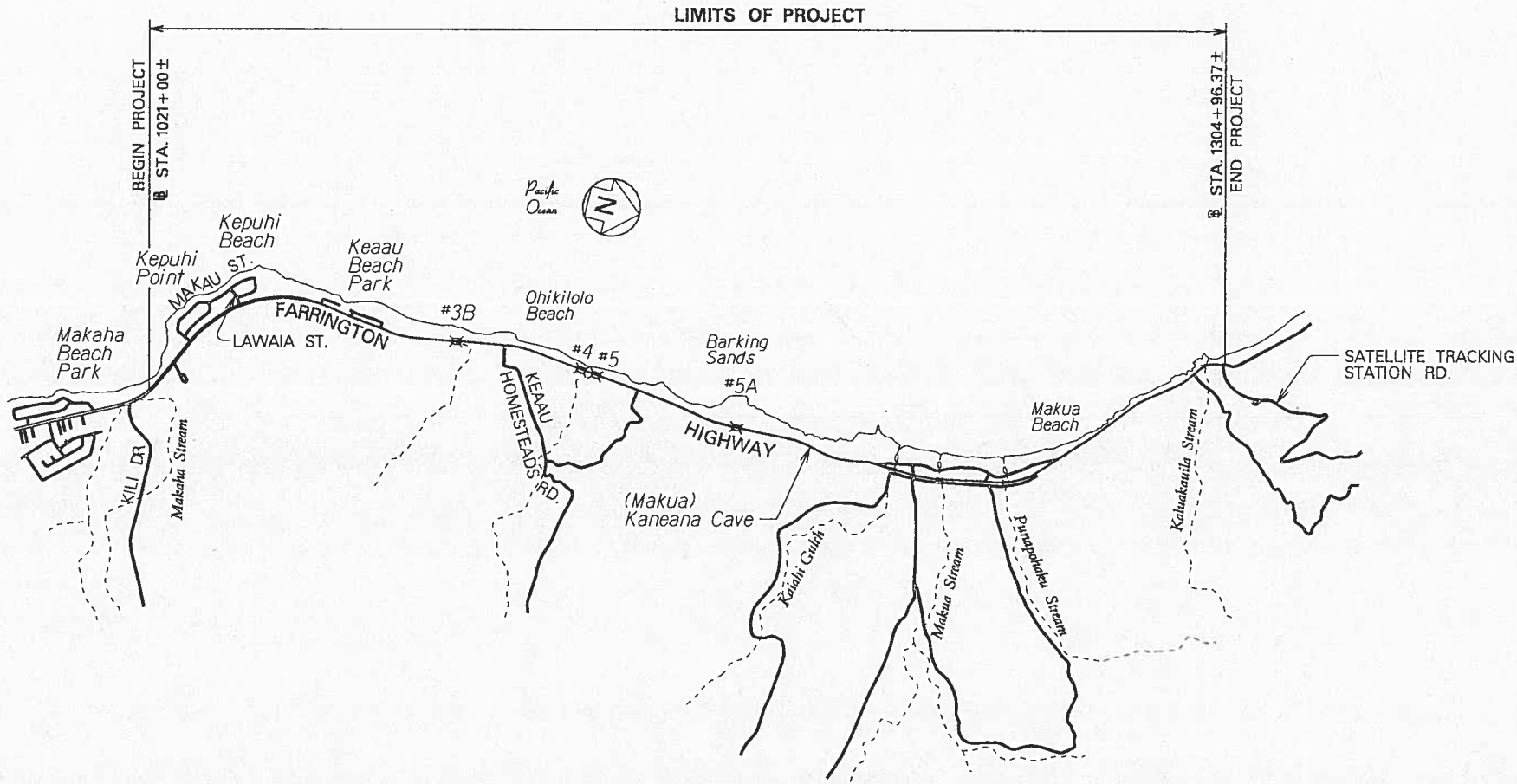
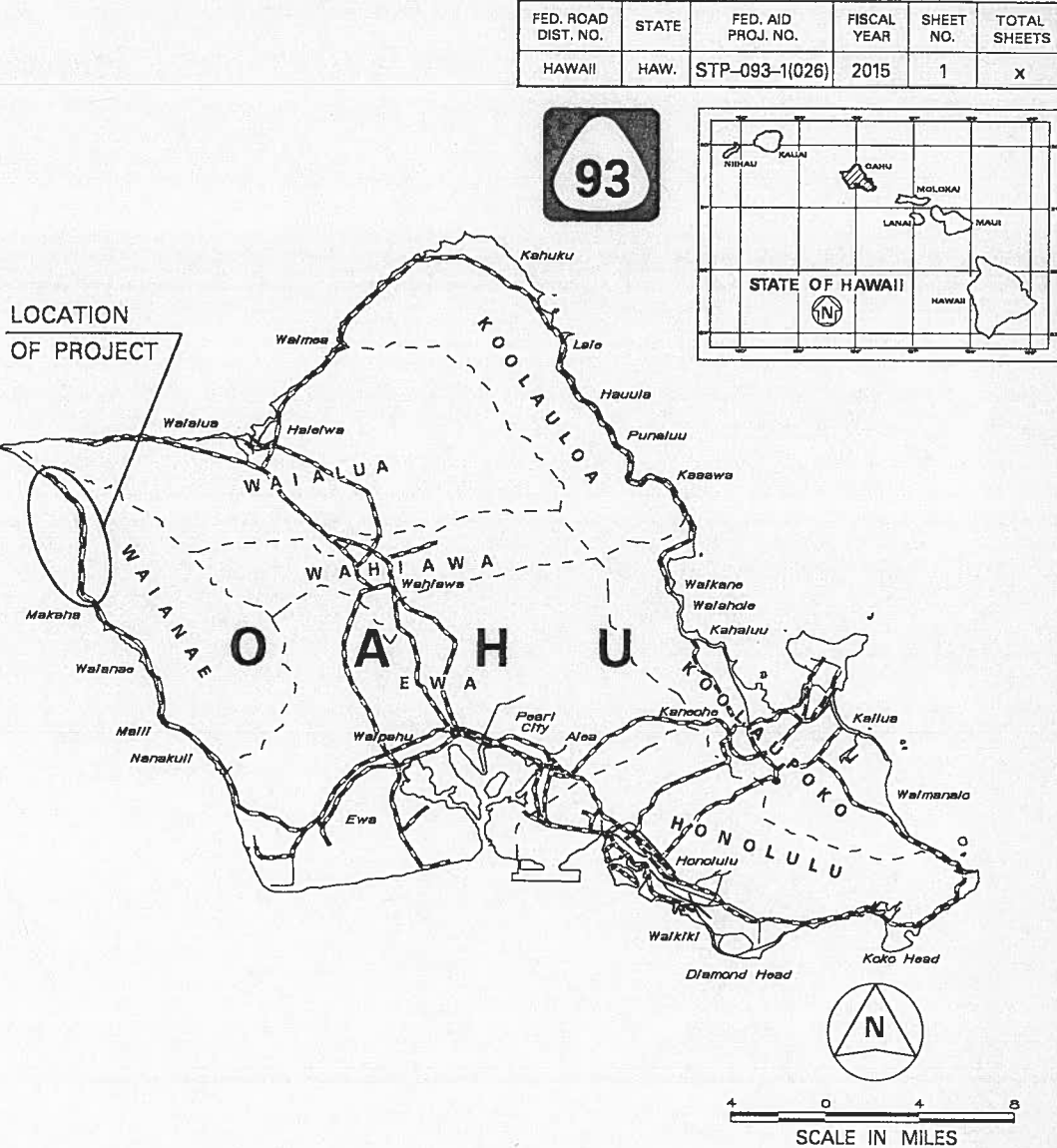
VICINITY OF KILI DRIVE TO

SATELLITE TRACKING STATION ROAD

FEDERAL AID PROJECT. NO. STP-093-1(026)

DISTRICT OF WAIANAE

ISLAND OF OAHU



FEDERAL AID PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

MILE POST 14.10 TO MILE POST 19.53

Design Designation	Farrington Hwy Water Street to Lawaia St.	Farrington Hwy Lawaia Street to Kaena Point State Park
ADT (2011)	5,000	1,200
ADT (2021)	5,800	1,400
DHV	460	140
D	55/45	55/45
T	4.0%	3.0%
T24	5.0%	3.5%
K	8.0%	10.0%

DEPARTMENT OF TRANSPORTATION

STATE OF HAWAII

APPROVED:

DIR. OF TRANSPORTATION

DATE

NOV 2010

DATE

692-7570

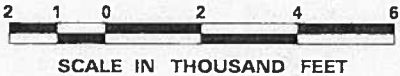
PHONE

HWY-DD

MANAGED BY

HWY-D

DESIGNED BY



GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	3	x

- The scope of work for this project consists of cold planing; resurfacing; reconstruction of weakened pavement areas; utility adjustment; upgrading of existing guardrail, end treatments, and bridge end post transitions; installation of guardrails, bridge pedestrian railing, milled centerline and shoulder rumble strips, safety edge, shoulder dressing, reflector markers, milepost reference markers, pavement markings, and striping; replacement of signage; stabilization and realignment of portion of existing road; and hydromulch-seeding.
- The Contractor is reminded of the requirements of Subsection 105.16 - Subcontracts, which requires him to perform work amounting to not less than 30 percent of the total contract cost less deductible items. Non-compliance with this Subsection may be grounds for rejection of bid.
- The Contractor's attention is directed to the following Sections of the Special Provisions: Subsection 104.09 - Maintenance of Traffic; Subsection 104.11 - Utilities and Services; Subsection 107.06 - Contractor Duty Regarding Public Convenience; and Section 645 - Work Zone Traffic Control.
- 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.
- 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 tone for the exact locations and depths of all underground facilities, either shown on or omitted from the plans, in areas where work, such as the placement of sign posts, stabilization of existing road, etc. may affect these properties. Toning shall be considered incidental to the various contract items and will not be paid for separately. The Contractor shall be held liable for any damages incurred to the existing facilities and/or improvements as a result of his operations.
- The Contractor shall verify the presence of existing aerial and underground utilities which may conflict with construction activities and shall coordinate with the utility company for temporary relocations, as necessary. All costs associated with temporary relocations shall be borne by the contractor.
- The Contractor is to take special measures to reduce dust from cold planing operations including but not limited to use of water misters on cold planing equipment and vacuum sweepers. Use of power brooms to sweep road is not allowed if a dust nuisance is created.
- The Contractor shall notify the Department of Transportation Services, Public Transit Division at ph. #768-8396 and the Oahu Transit Services, Inc. Bus Operations (ph. #848-4578 or 852-6016) and Paratransit Operations (ph. #454-5041 or 454-5020) of the scope of work, location, proposed closure of any street, traffic lane, sidewalk, or bus stop, and duration of project at least two (2) weeks prior to starting construction operations.
- The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting construction operations.
- The Contractor shall obtain all necessary permits prior to start of work at his own cost.
- 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.
- The Contractor shall remove and dispose of all existing raised pavement markers and traffic tapes prior to the overlaying of Asphalt Concrete. This work shall be considered incidental to Hot Mix Asphalt Pavement, Mix No. IV and will not be paid for separately.
- All holes, depressions and wheel ruts shall be filled and compacted with Hot Mix Asphalt Pavement, Mix No. V prior to resurfacing. This work shall be considered incidental to various contract items.
- Tack coat shall be incidental to the various Asphalt Concrete Pavement items.
- Dressing of shoulder, sidewalk and bus turnout shall consist of clearing, grubbing, grading, reshaping and compacting the unpaved shoulders with suitable material as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
- The existing drainage system shall be kept functional at all times during construction. The Contractor shall furnish materials, equipment, labor, tools and incidentals necessary to maintain flow. This work shall be considered incidental to the various contract items.
- Earth swale shall be graded to drain. This work shall be considered incidental to various contract items.
- Smooth riding connections shall be constructed at all limits of resurfacing including the beginning and end of project, connecting approaches, side streets, walkways and driveways as shown on the plans and/or as directed by the Engineer. This work shall be considered incidental to the various contract items.
- The Contractor shall clean and remove any accumulation of aggregates along the roadside within 10 feet of the edge of pavement. This work shall be considered incidental to the various contract items.
- The Contractor shall provide for vehicles and pedestrians access to and from all existing side streets and driveways at all times.
- Removal and disposal of existing curb and gutter, curb, sidewalk and asphalt concrete pavement, curb, sidewalk and any debris shall be considered incidental to their respective bid items.
- All saw cutting work shall be considered incidental to the various contract items.
- Prior to placement of new aggregate subbase course, the existing subbase shall be compacted to a relative compaction greater than or equal to 95%.
- The exact locations and limits of guardrail improvements shall be determined in the field by the Engineer.
- No section where guardrails have been removed shall be left unshielded at the end of each work day. Open sections shall be shielded by portable physical barriers. Furnishing, installing and maintaining physical barriers shall be considered incidental to the various contract items.
- Existing facilities 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.
- All regraded areas and all grassed areas damaged by construction activities shall be planted in accordance with Specifications Section 619 - Planting. Contractor shall restore to its original condition at no cost to the State.
- The contractor shall be held liable for any damages incurred to the existing landscaping as a result of his operations.
- Contractor shall dispose or deliver any removed material at no cost to the State.
- All existing utilities, 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. The Contractor shall be held liable for any damages incurred to the existing utilities as a result of his operations. All damaged portions shall be replaced in accordance with the Standards and Specifications of the affected utility company at no cost to the State.
- All work specified in the contract but not listed separately in the proposal schedule shall be considered incidental to the other various contract items and shall not be paid for separately.
- The Contractor shall provide and maintain for access to and from all existing driveways, sidewalks, ADA access routes complying with 2010 ADAAG Section 206.1, and cross streets at all times. This work shall be considered incidental to various contract items and will not be paid for separately.
- No material and/or equipment shall be stockpiled or otherwise stored within the highway right-of-way except at locations designed in writing and approved by the Engineer. If use of location is approved by the Engineer, the Contractor shall obtain a permit to use the property within the highway right-of-way from the State Highways Right-of-Way Branch at ph. #692-7332.
- Prior to resurfacing operations, the Contractor shall be responsible for locating, preserving and marking all utility and highway facilities that will require adjustments to the new finished pavement grade. Additionally, the Contractor shall submit to the Engineer a list of all items, including water, drainage, sewer, electrical, telephone, and cable utilities to be adjusted to the new finished grade. This work shall be considered incidental to the various contract items.
- After completion of resurfacing, the Contractor and the Engineer will test for and determine ponding areas (i.e. low spots within resurfaced area). It shall be the responsibility of the Contractor to correct and resurface and/or repair all such ponding areas. Corrective measures shall be approved by the Engineer.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	X
dd/mile	DESIGNED BY	
in. 41/1000	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION <b>GENERAL NOTES</b> <b>FARRINGTON HIGHWAY RESURFACING</b> <b>Vicinity of Kili Drive to</b> <b>Satellite Tracking Station Road</b> <b>Federal Aid Project No. STP-093-1(026)</b> Date: January, 2015
SHEET No. 1 OF 2 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	4	X

## PAVING AROUND MANHOLES

- The Contractor shall first lower manholes more than cold planing thickness indicated on typical sections prior to cold planing. The work shall be considered incidental to the various paving contract items. Upon final paving, the manhole shall be raised and paid under the various contract items pertaining to manhole adjustments.
- The Contractor shall place hot asphalt concrete around manholes and compact properly with a vibrating plate compactor.
- If a plate compactor is not used, the Contractor shall use a pneumatic roller to roll the area around the manhole which is not rolled by the steel roller.
- The Contractor shall fog seal or brush emulsion seal on the material placed as backfill on the area around the manhole that was not compacted by the roller. Black sand shall be used to blot our the area if the fog is too heavy.

## HAWAII ONE CALL CENTER


- Before conducting any excavation in the public right of way or on private property, the Contractor shall call the Hawaii One Call Center at least five (5) working days before beginning excavation operations. Be sure to give them the address and location of the nearest cross street(s) near the planned excavation site.


Call 811 toll-free 24 hours a day.  
For more information, go to [www.callbeforeyoudig.org](http://www.callbeforeyoudig.org)


- The Hawaii One Call Center will contact all utility companies to tone, mark, or identify the location of their underground utilities for free. Mark the area where you plan to excavate in White and label all of the other utilities as listed below.


RED	Electric power lines, cables, or conduits, and lighting cables.
YELLOW	Gas, oil steam, petroleum or other hazardous liquid or gaseous materials.
ORANGE	Communications, cable TV, alarm or signal lines, cables, or conduits.
BLUE	Water, irrigation, and slurry lines.
GREEN	Sewers, storm sewer facilities or other drain lines.
WHITE	Proposed excavation.
PINK	Temporary survey markings.
PURPLE	Reclaimed water, irrigation and slurry lines.


## LEGEND


 Reconstruction Areas


 Stabilization Areas


 Resurfacing Limits

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
 New Electrical Line


 Existing Joint Pole


 Existing Power Pole


 Existing Electric Manhole


 Adjusted Elec. MH Frame/Cover


 New Electric Manhole


 Existing Telephone Line


 New Telephone Line


 Existing Telephone Pole


 Existing Telephone Manhole


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
 New Telephone Manhole


 Existing Signal Corps Line


 New Signal Corps Line


 Existing TV Cable

 New TV Cable


 Existing Sandwich Isles Communication Line


 Existing 12" Water Line


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
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
 Adjusted Water MH Frame/Cover


 New Water Manhole


 Existing Water Air Valve


 Adjusted Water Air Valve


 New Water Air Valve


 Existing Water Valve Box


 Adjusted Water Valve Box


 New Water Valve Box


 Existing Water Meter


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
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
 Existing Fire Hydrant


 New Fire Hydrant


 Existing Sewer Line


 New 12" Sewer Line


 Existing Sewer Manhole


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
 New Sewer Manhole


 Existing 6" Gas Line


 New 6" Gas Line


 Existing Gas Valve Box


 Adjusted Gas Valve Box


 New Gas Valve Box


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
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
 New Gas Manhole


 Existing Monument


 Adjusted Monument

 New Monument


 Existing 24" Drain Line


 New 24 " RCP Drain Line


 Existing Storm Drain Manhole


 Adjusted Storm Drain MH Frame/Cover


 New Storm Drain Manhole


 Existing Grated Drop Inlet


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
 Existing Traffic Sign


 Existing Highway Lighting Standard


 Existing Highway Lighting Pullbox


 Existing Traffic Signal Pole


 New Traffic Signal Pole

 Existing Traffic Signal Pullbox

 Adjusted Traffic Signal Pullbox

 New Traffic Signal Pullbox

 Existing Metal Guardrail

 New Metal Guardrail

ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
CHECKED BY	
DATE	

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>GENERAL NOTES AND LEGEND</b>
<b>FARRINGTON HIGHWAY RESURFACING</b>
Vicinity of Kili Drive to Satellite Tracking Station Road
Federal Aid Project No. STP-093-1(026)
Date: January, 2015
SHEET No. 2 OF 2 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES:

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-K026	2015	5	X

A. GENERAL:

1. See Special Provisions Section 209 - Water Pollution 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 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 documents, the Contractor shall notify the Engineer immediately for interpretation. For the purposes of clarification under Note A.2, "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 & 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 best management practices are in-place.
7. Submit Site-Specific BMP Plan to the Engineer along with a completed Site-Specific BMP Review Checklist within 30 calendar days of contract execution. The Site-Specific BMP Review Checklist may be obtained from <http://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 or 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 full, 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. Post notices stating these practices in the office trailer, on a weatherproof bulletin board, 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 30 calendar days of contract execution. Provide a copy of all the disposal receipts from the facility permitted by the Department of Health to receive solid waste 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 or State 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 dump trucks hauling material 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.



STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>WATER POLLUTION &amp; EROSION CONTROL NOTES</b>
<b>FARRINGTON HIGHWAY RESURFACING</b>
Vicinity of Kili Drive to Satellite Tracking Station Road
Federal Aid Project No. STP-093-K026
Date: January, 2015
SHEET No. 1 OF 3 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	2/10/14
DATA	DESIGNED BY	
No. X.dgn	QUANTITIES BY	
	CHECKED BY	



WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	6	X

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.

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 Block
Metal Studs	Herbicides and Pesticides
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:

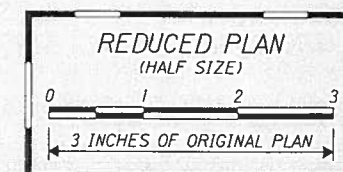
Seal and store all containers when not required for use. Do not discharge excess paint to the drainage system, sanitary sewer system, or State waters. Dispose properly according to manufacturers' instructions and State and local regulations.

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 required 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 586-4309, and the Hawaii State Hospital Operator at 247-2191 and the Clean Water Branch (DOH-CWB) via email at [cleanwaterbranch@doh.hawaii.gov](mailto:cleanwaterbranch@doh.hawaii.gov) during non-business hours immediately. The Contractor shall also provide to the Engineer, within 7 calendar days 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.



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>WATER POLLUTION &amp; EROSION CONTROL NOTES</b>
<b>FARRINGTON HIGHWAY RESURFACING</b>
Vicinity of Kili Drive to Satellite Tracking Station Road
Federal Aid Project No. STP-093-1(026)
Date: January, 2015
SHEET No. 2 OF 3 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	7	X

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 required NPDES Construction Activities Permit to cover this additional disturbed 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

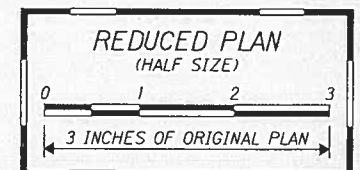
F. SITE-SPECIFIC BMP REQUIREMENTS:

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> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at [http://stormwaterhawaii.com/contractors/contractors\\_BMPmanual.aspx](http://stormwaterhawaii.com/contractors/contractors_BMPmanual.aspx) 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:

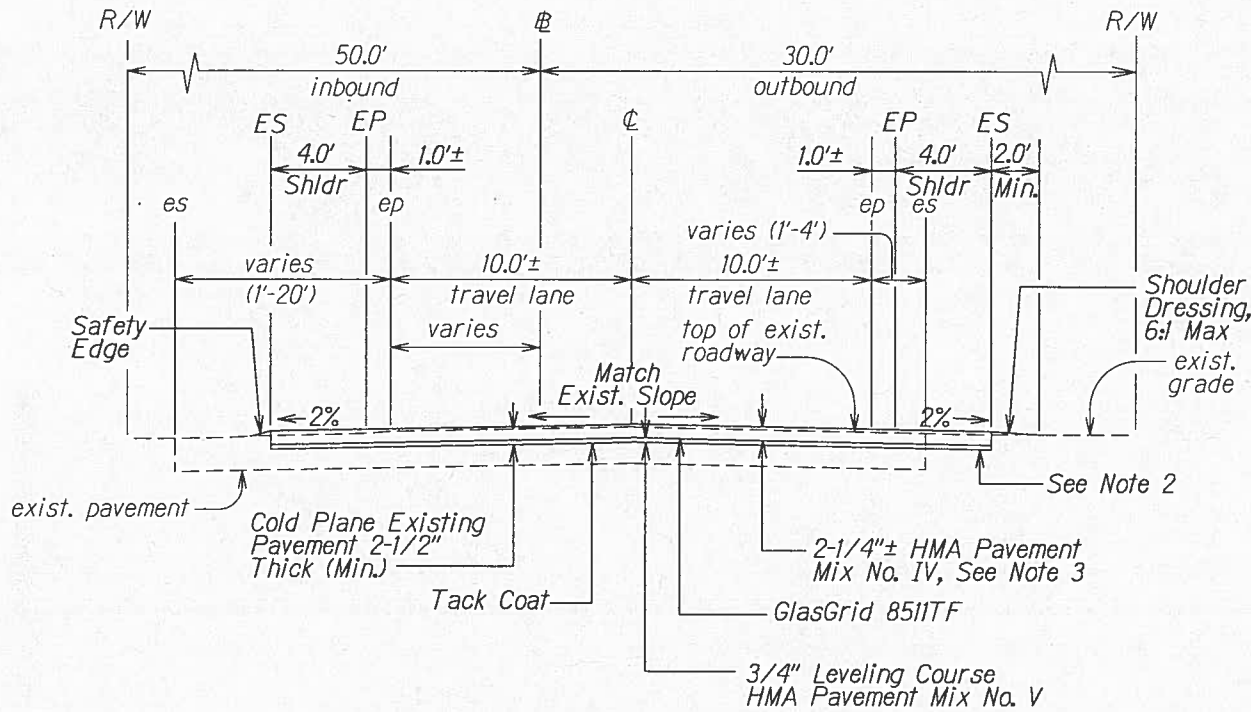
1. Protect all Drainage Inlets receiving runoff from disturbed areas (SC-2).
2. Contain on-site runoff using Perimeter Sediment Controls
  - a. SC-1 Silt Fence
  - b. SC-5 Vegetated Filter Strips and Buffers
  - c. SC-8 Compost Filter Berm
  - d. SC-13 Sandbag Barrier
  - e. SC-14 Brush or Rock Filter
3. Control offsite runoff from entering construction area
  - a. EC-8 Run-On Diversion
  - b. SC-6 Earth Dike
  - c. SC-7 Temporary Drains and Swales
4. Incorporate applicable Site Management BMP
  - a. SM-1 Employee Training
  - b. SM-2 Material Delivery and Storage
  - c. SM-3 Material Use
  - d. SM-4 Protection of Stockpiles
  - e. SM-6 Solid Waste Management
  - f. SM-7 Sanitary/Septic Waste Management
  - g. SM-9 Hazardous Waste Management
  - h. SM-10 Spill Prevention and Control
  - i. SM-11 Vehicle and Equipment Cleaning
  - j. SM-12 Vehicle and Equipment Maintenance
  - k. SM-13 Vehicle and Equipment Refueling
  - l. SM-14 Scheduling
  - m. SM-15 Location of Potential Sources of Sediment
  - n. SM-16 Preservation of Existing Vegetation
  - o. SM-18 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 (EC-2) 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-5) 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.



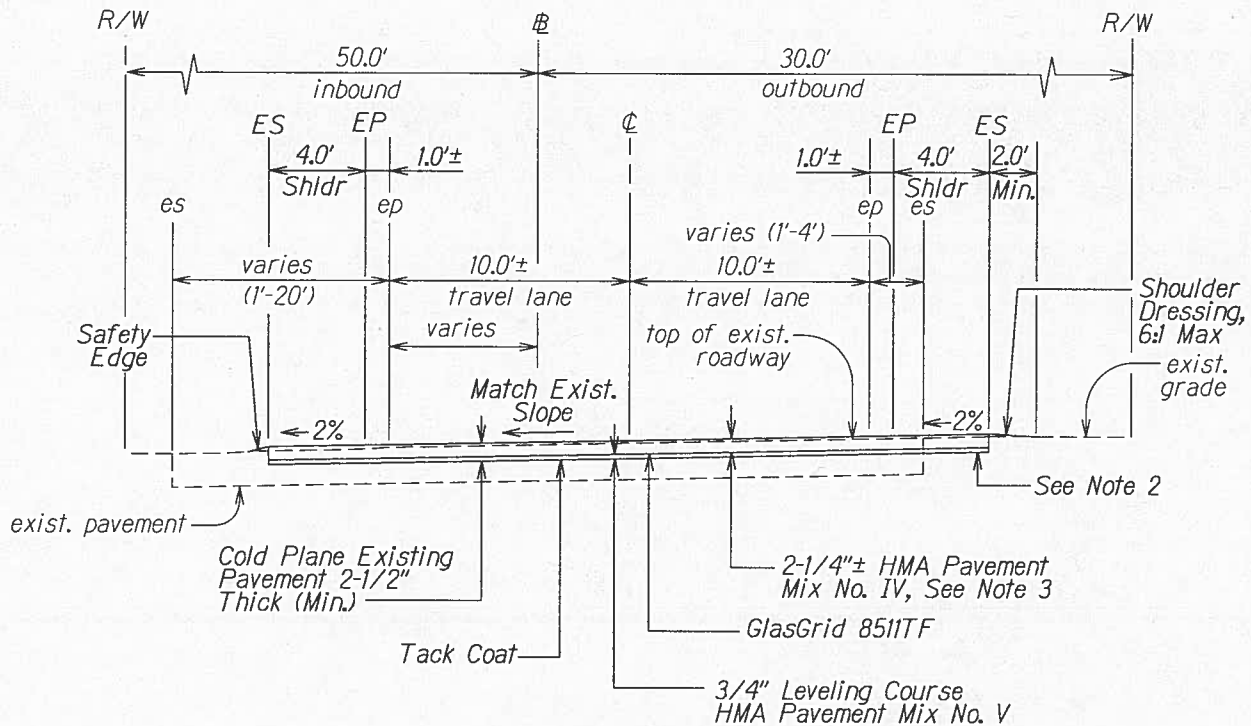
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NOTE BOOK	DRAWN BY	2/10/14
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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION
<b>WATER POLLUTION &amp; EROSION CONTROL NOTES</b>
<b>FARRINGTON HIGHWAY RESURFACING</b>
Vicinity of Kili Drive to Satellite Tracking Station Road
Federal Aid Project No. STP-093-1(026)
Date: January, 2015
SHEET No. 3 OF 3 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	8	X



**TYPICAL SECTION ON TANGENT**  
 # STA. 1021+00 TO # STA. 1036+30±  
 Not to Scale



**TYPICAL SECTION ON CURVE**  
 # STA. 1021+00 TO # STA. 1036+30±  
 Not to Scale

**Notes:**

- Existing AC shall be cleaned of sand prior to cold planing.
- Prior to placement of HMA pavement, existing subgrade shall be proof-rolled with a 10-ton or heavier roller for minimum 15 passes. Contractor shall verify that existing subgrade consists of dense coralline deposit.
- New pavement thickness may vary at existing shoulders due to varying grades.

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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL SECTIONS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale: Not to Scale      Date: January, 2015

SHEET No. 1 OF X SHEETS

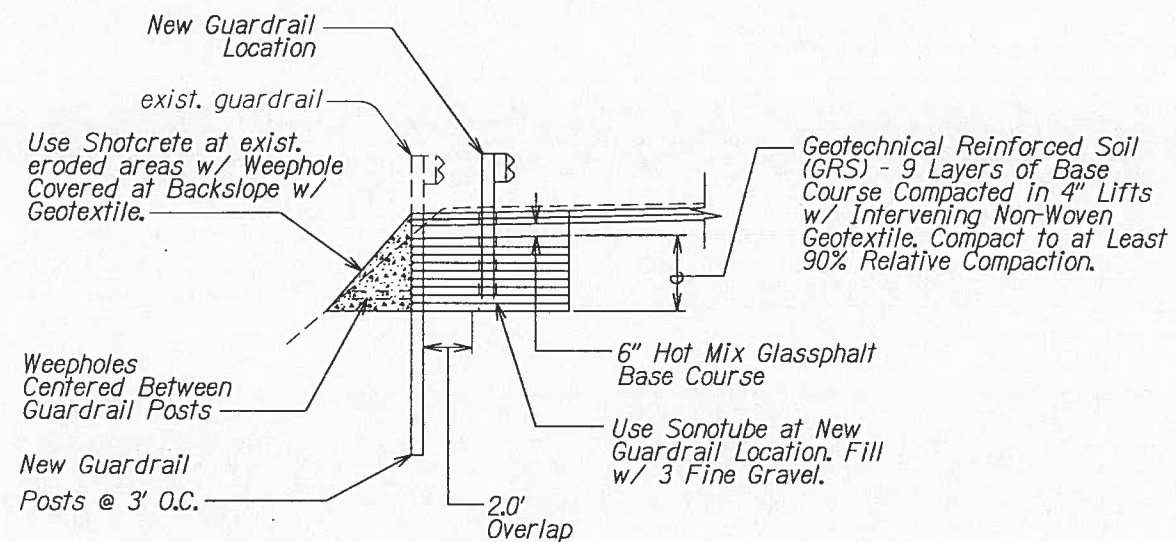




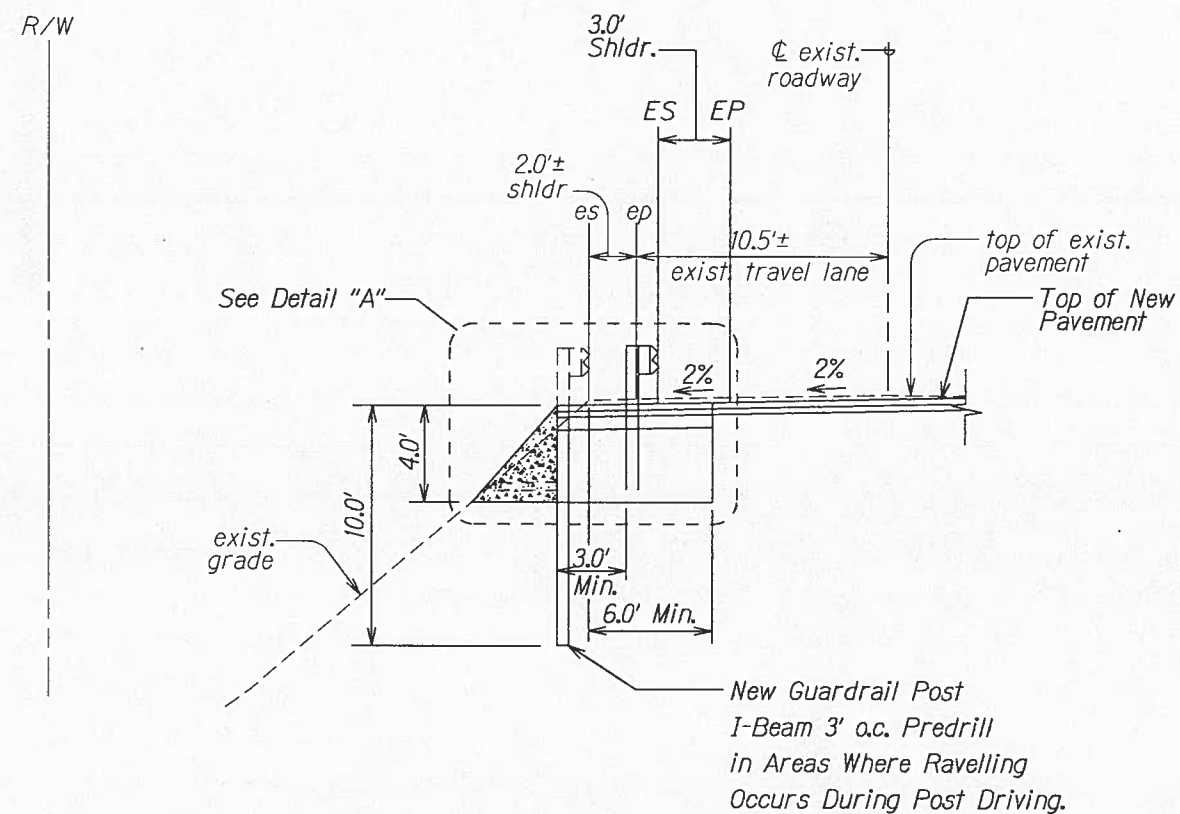




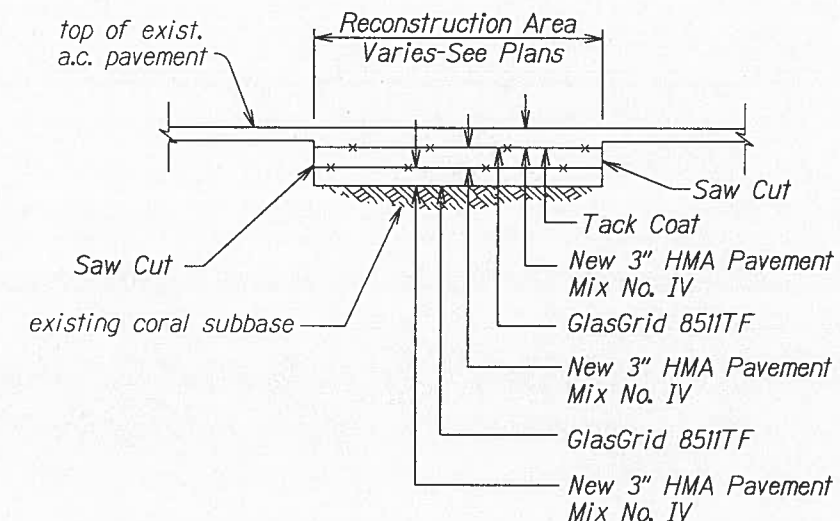
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	11	X



DETAIL "A"  
 Not to Scale



PARTIAL TYPICAL SECTION AT ROAD STABILIZATION  
 @ STA. 3+75 TO @ STA. 5+25  
 Not to Scale



Notes:

- For reconstruction area location, see Roadway Plans
- Recompact the top of existing coral subbase with at least 5 passes of the roller compactor.

A.C. PAVEMENT RECONSTRUCTION DETAIL  
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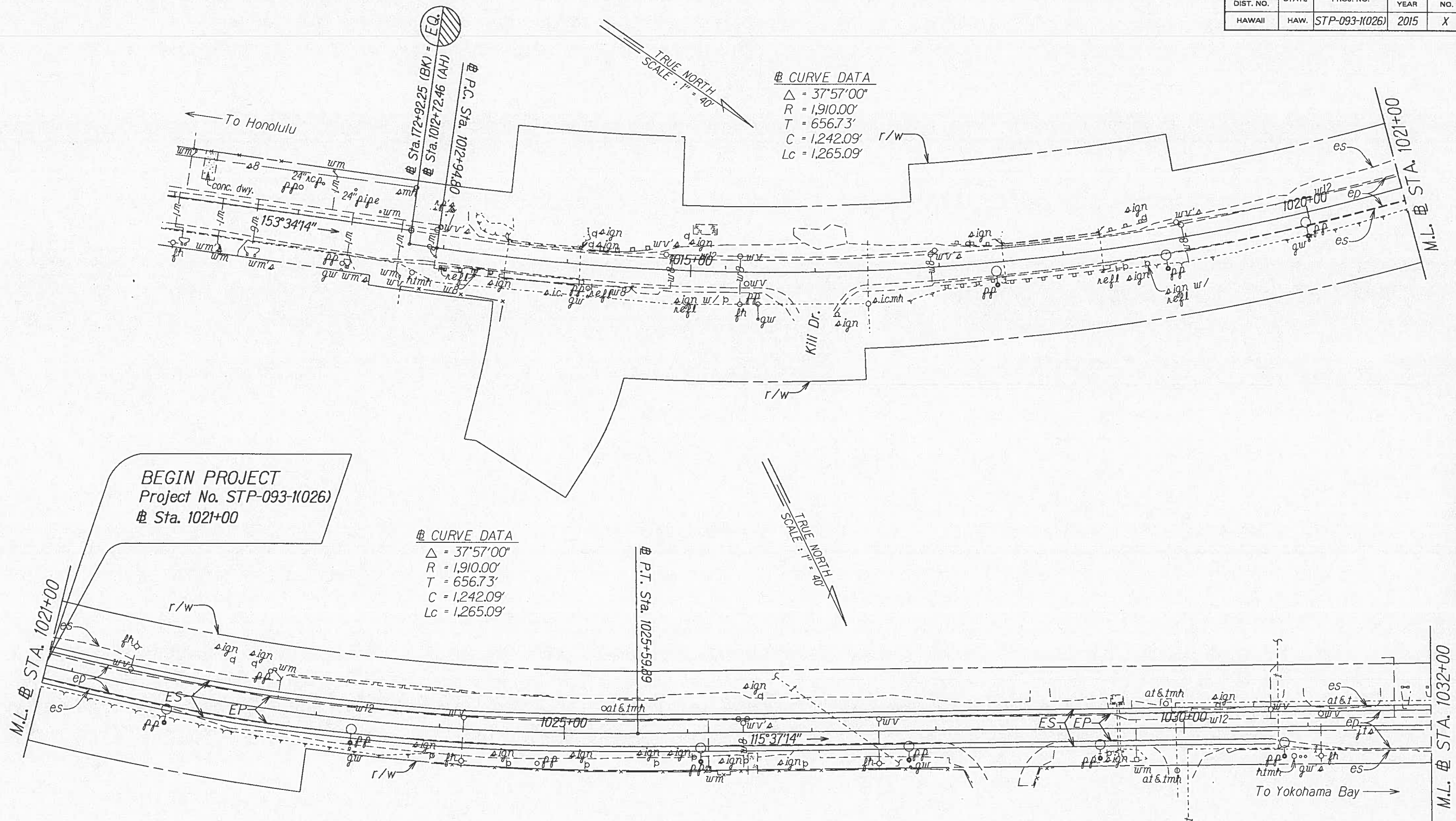
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**TYPICAL SECTIONS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale: Not to Scale Date: January, 2015

SHEET No. 4 OF X SHEETS

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FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



DATE	X
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STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

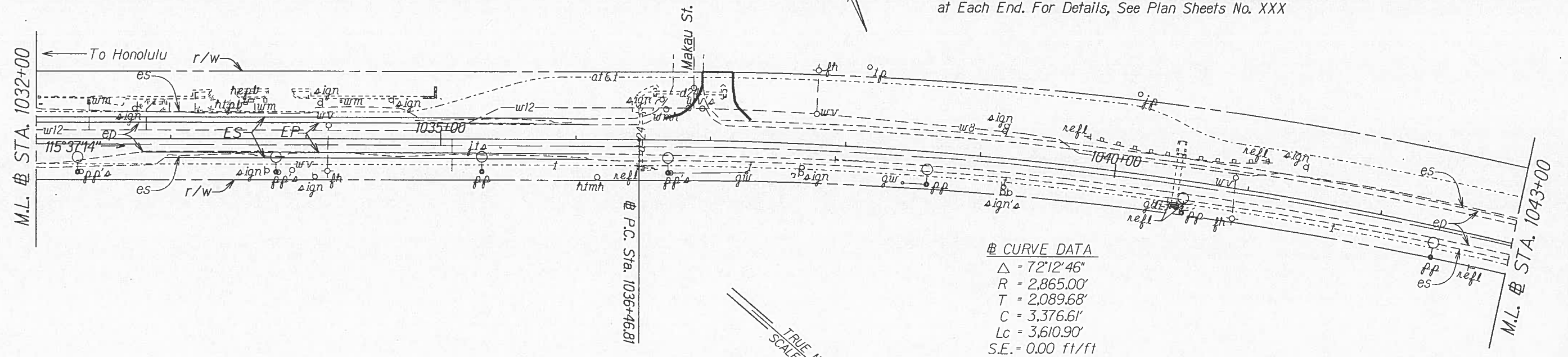
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SHEET No. 1 OF 14 SHEETS

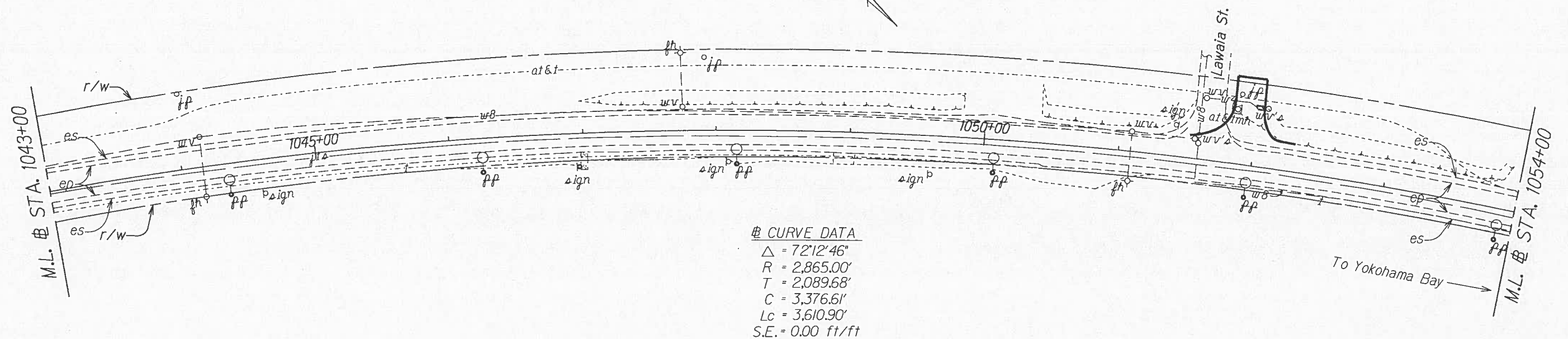


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X

# Sta. 1039+XX.XX± Lt. to # Sta. 1041+XX.XX± Lt.  
 Remove 75.0'± LF of Existing Guardrail and Existing End Terminals. Install 87.5'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal at Each End, or Install 137.5'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal at Each End. For Details, See Plan Sheets No. XXX



# CURVE DATA  
 $\Delta = 72^{\circ}12'46''$   
 $R = 2,865.00'$   
 $T = 2,089.68'$   
 $C = 3,376.61'$   
 $Lc = 3,610.90'$   
 $S.E. = 0.00 \text{ ft/ft}$



# CURVE DATA  
 $\Delta = 72^{\circ}12'46''$   
 $R = 2,865.00'$   
 $T = 2,089.68'$   
 $C = 3,376.61'$   
 $Lc = 3,610.90'$   
 $S.E. = 0.00 \text{ ft/ft}$

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	X
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011.0/00	QUANTITIES BY	
	CHECKED BY	

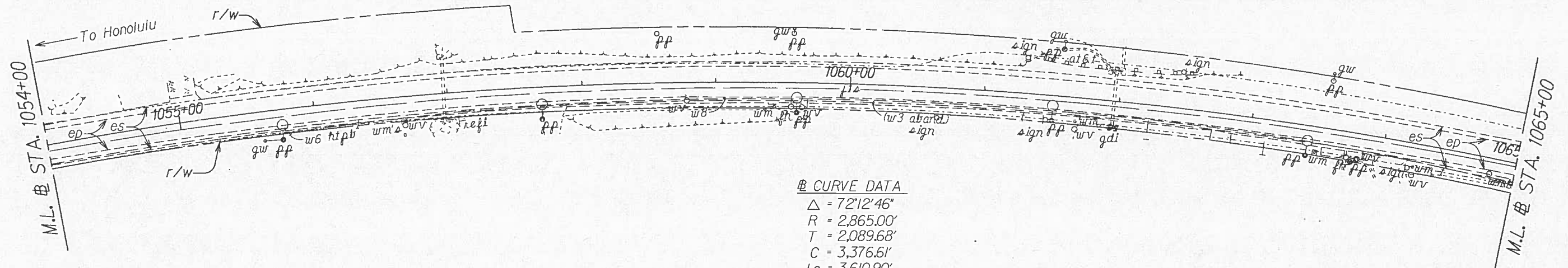
STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale 1"=40'      Date: January, 2015

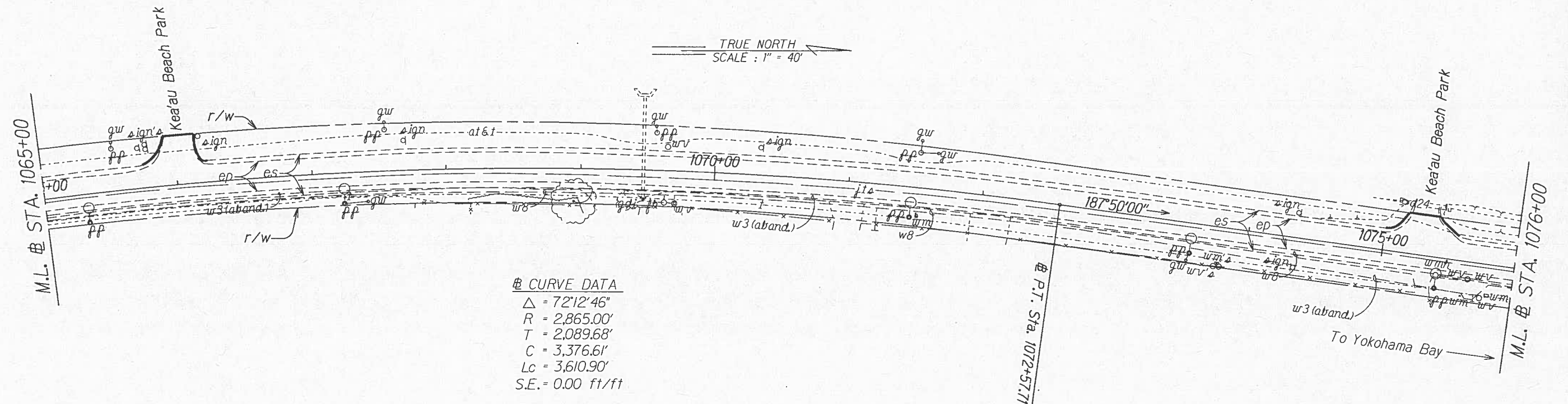
SHEET No. 2 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X

# Sta. 1061+XX.XX± Lt. to # Sta. 1062+XX.XX± Lt.  
 Remove 125.0± LF of Existing Guardrail and Existing End Terminals. Install 62.5± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal at Each End, or Install 112.5± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal at Each End. For Details, See Plan Sheets No. XXX



# CURVE DATA  
 $\Delta = 72^\circ 12' 46''$   
 $R = 2,865.00'$   
 $T = 2,089.68'$   
 $C = 3,376.61'$   
 $Lc = 3,610.90'$   
 $S.E. = 0.00 \text{ ft/ft}$



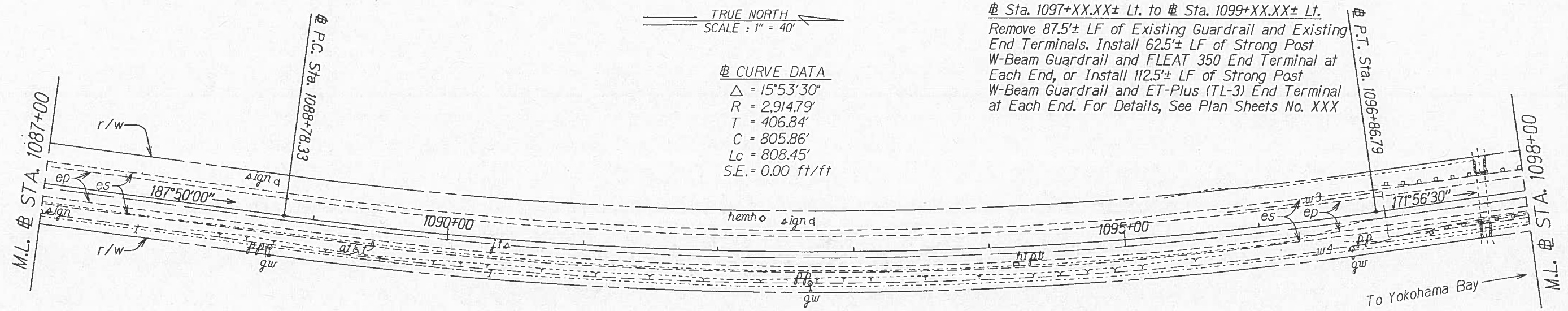
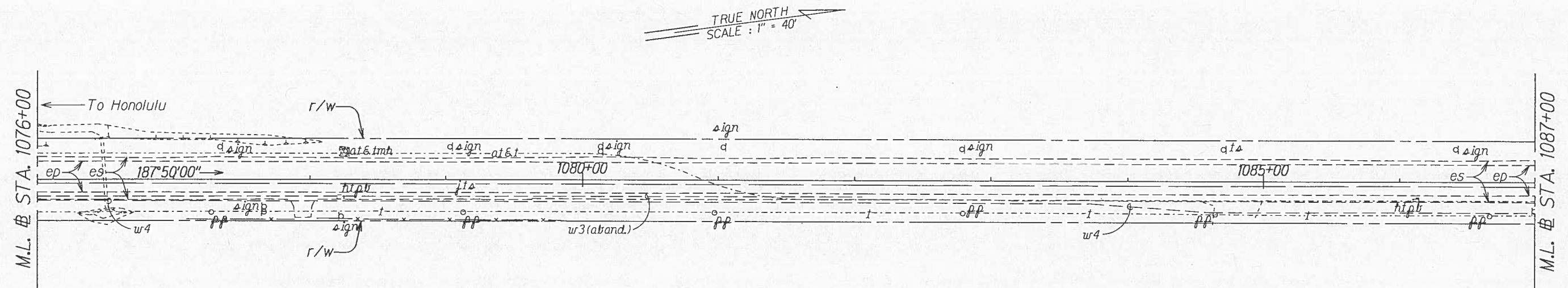
# CURVE DATA  
 $\Delta = 72^\circ 12' 46''$   
 $R = 2,865.00'$   
 $T = 2,089.68'$   
 $C = 3,376.61'$   
 $Lc = 3,610.90'$   
 $S.E. = 0.00 \text{ ft/ft}$

ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
CHECKED BY	

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION  
**ROADWAY PLANS**  
 FARRINGTON HIGHWAY RESURFACING  
 Vicinity of Kili Drive to  
 Satellite Tracking Station Road  
 Federal Aid Project No. STP-093-1(026)  
 Scale 1"=40' Date: January, 2015  
 SHEET No. 3 OF 14 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



CURVE DATA  
 $\Delta = 15^\circ 53' 30''$   
 $R = 2,914.79'$   
 $T = 406.84'$   
 $C = 805.86'$   
 $L_c = 808.45'$   
 $S.E. = 0.00 \text{ ft/ft}$

Sta. 1097+XX.XX± Lt. to Sta. 1099+XX.XX± Lt.  
 Remove 87.5'± LF of Existing Guardrail and Existing End Terminals. Install 62.5'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal at Each End, or Install 112.5'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal at Each End. For Details, See Plan Sheets No. XXX

Sta. 1096+XX.XX± Rt. to Sta. 1098+XX.XX± Rt.  
 Remove 75.0'± LF of Existing Guardrail and Existing End Terminals. Install 87.5'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal at Each End, or Install 137.5'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal at Each End. For Details, See Plan Sheets No. XXX

ORIGINAL PLAN	DATE
DRAWN BY	X
DESIGNED BY	
NOTED BY	
CHECKED BY	
DATE	

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

**ROADWAY PLANS**

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
 Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

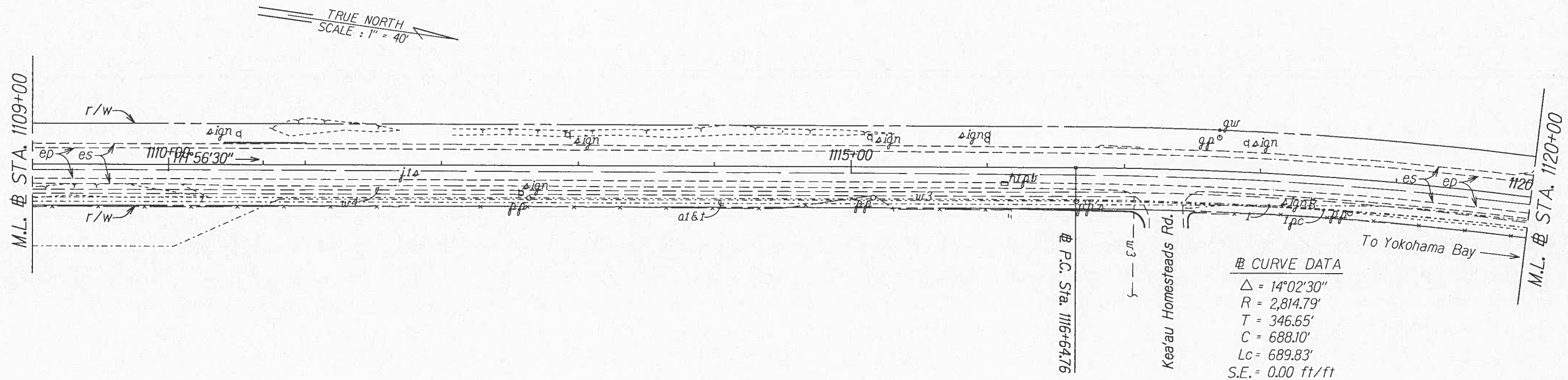
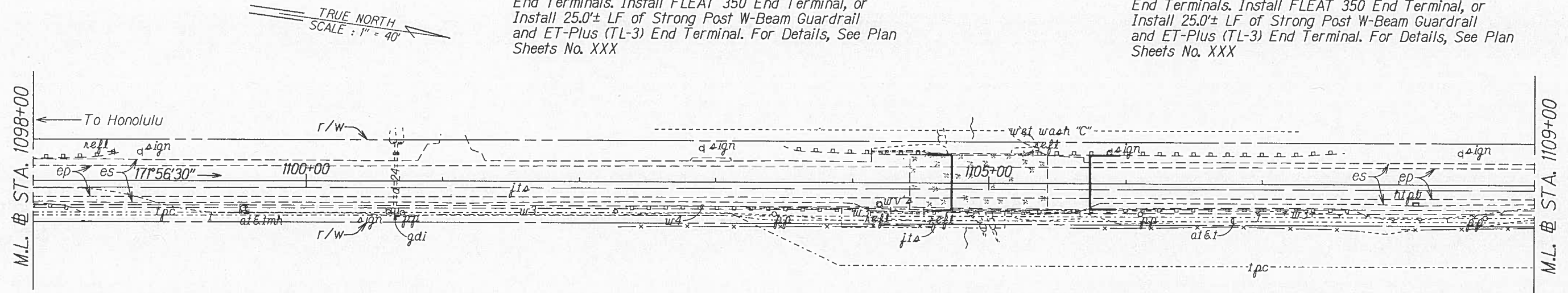
Scale 1"=40' Date: January, 2015

SHEET No. 4 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X

⊕ Sta. 1102+XX.XX± Rt. to ⊕ Sta. 1102+XX.XX± Rt.  
⊕ Sta. 1108+XX.XX± Rt. to ⊕ Sta. 1109+XX.XX± Rt.  
⊕ Sta. 1103+XX.XX± Lt. to ⊕ Sta. 1104+XX.XX± Lt.  
Remove 25.0'± LF of Existing Guardrail and Existing  
End Terminals. Install FLEAT 350 End Terminal, or  
Install 25.0'± LF of Strong Post W-Beam Guardrail  
and ET-Plus (TL-3) End Terminal. For Details, See Plan  
Sheets No. XXX

⊕ Sta. 1108+XX.XX± Lt. to ⊕ Sta. 1108+XX.XX± Lt.  
Remove 37.5'± LF of Existing Guardrail and Existing  
End Terminals. Install FLEAT 350 End Terminal, or  
Install 25.0'± LF of Strong Post W-Beam Guardrail  
and ET-Plus (TL-3) End Terminal. For Details, See Plan  
Sheets No. XXX



⊕ CURVE DATA	
$\Delta$	= 14°02'30"
R	= 2,814.79'
T	= 346.65'
C	= 688.10'
Lc	= 689.83'
S.E.	= 0.00 ft/ft

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DESIGNED BY	
003/1/16	QUANTITY BY	
N. 4/17/2011	CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
Satellite Tracking Station Road

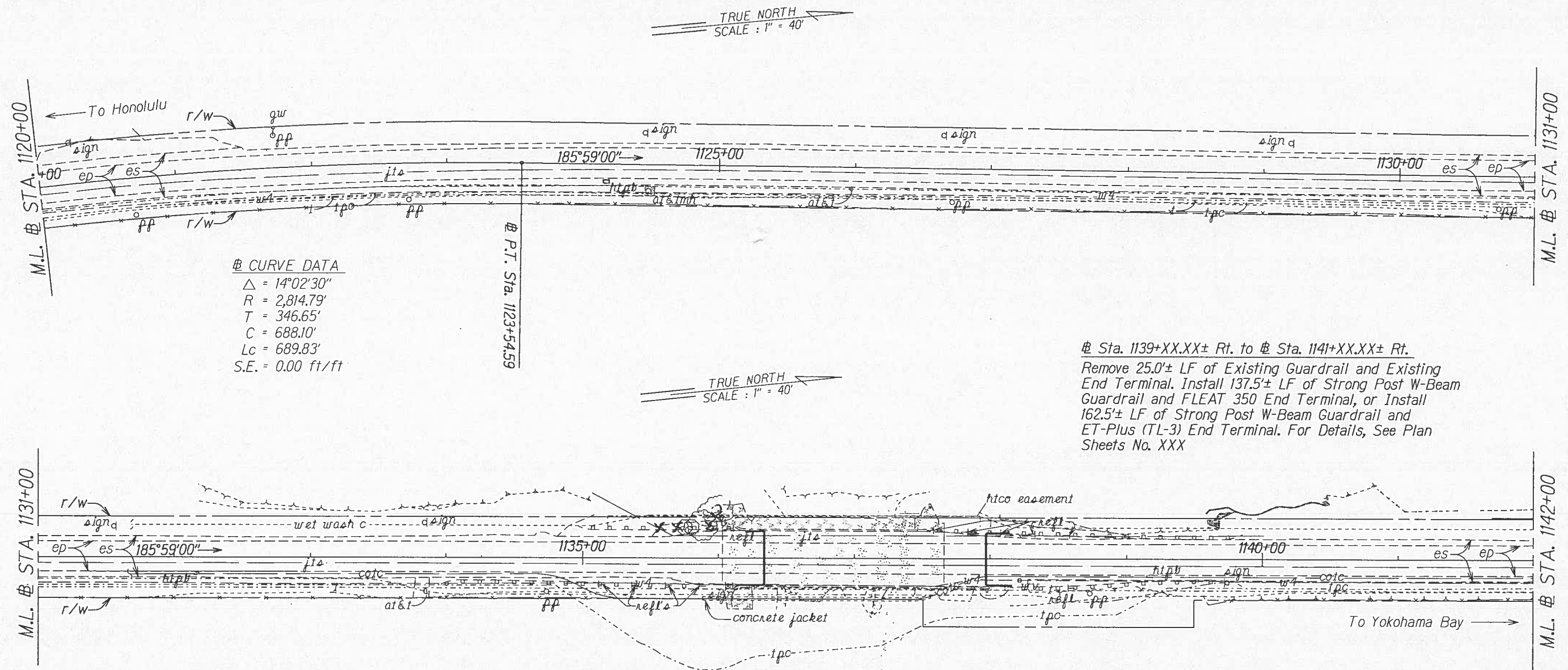
Federal Aid Project No. STP-093-1(026)

Scale 1"=40'      Date: January, 2015

SHEET No. 5 OF 14 SHEETS



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
003/10/10	DESIGNED BY	
003/10/10	QUANTITIES BY	
003/10/10	CHECKED BY	

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

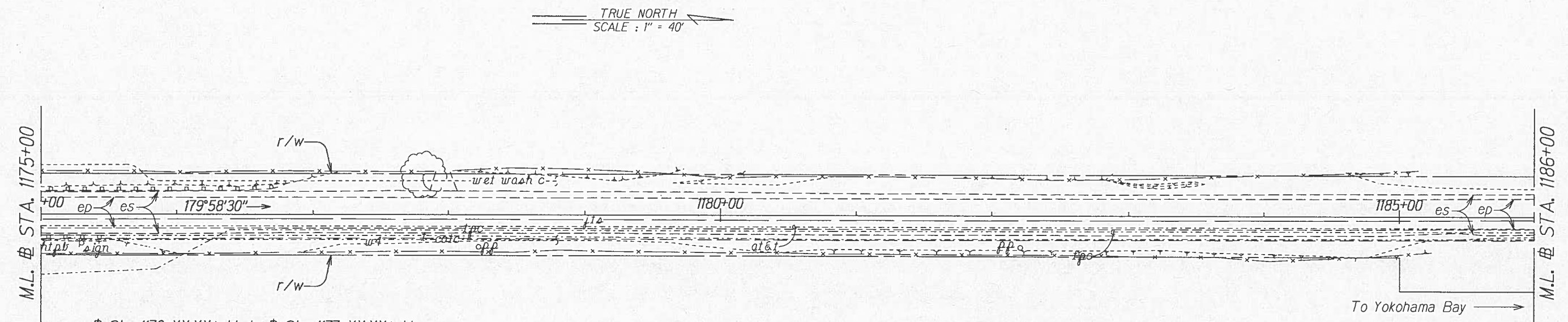
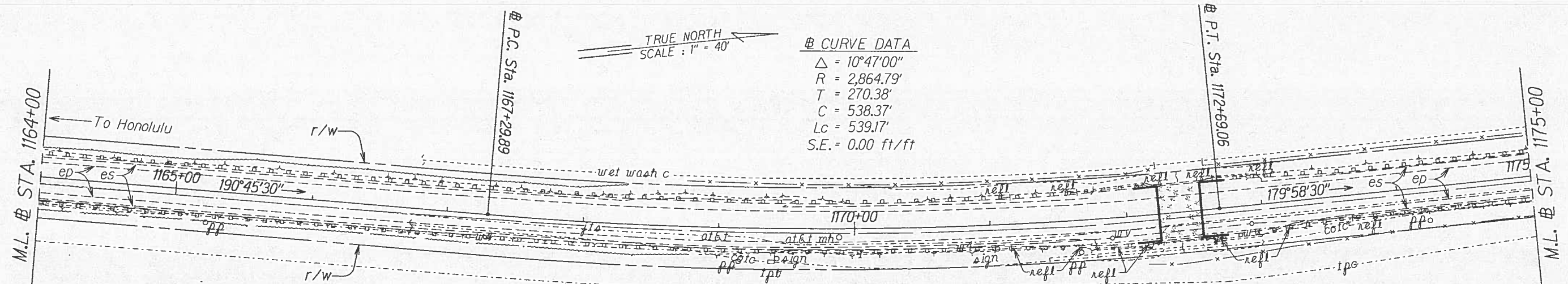
Scale 1"=40' Date: January, 2015

SHEET No. 6 OF 14 SHEETS





FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



Stn. 1176+XX.XX± Lt. to Stn. 1177+XX.XX± Lt.  
Stn. 1175+XX.XX± Rt. to Stn. 1175+XX.XX± Rt.  
 Remove 37.5± LF of Existing Guardrail and Existing  
 End Terminal. Install FLEAT 350 End Terminal, or  
 Install 25.0± LF of Strong Post W-Beam Guardrail  
 and ET-Plus (TL-3) End Terminal. For Details, See Plan  
 Sheets No. XXX

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY <u>X</u>	• <u>X</u>
	TRACED BY _____	• _____
	DESIGNED BY <u>X</u>	• _____
	QUANTITIES BY _____	• _____
9. Apr 1960	CHECKED BY _____	_____

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

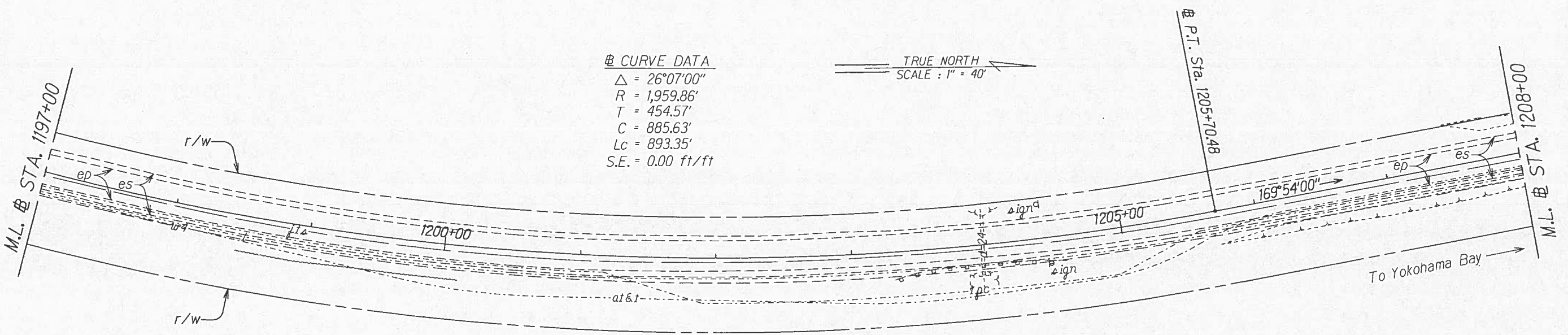
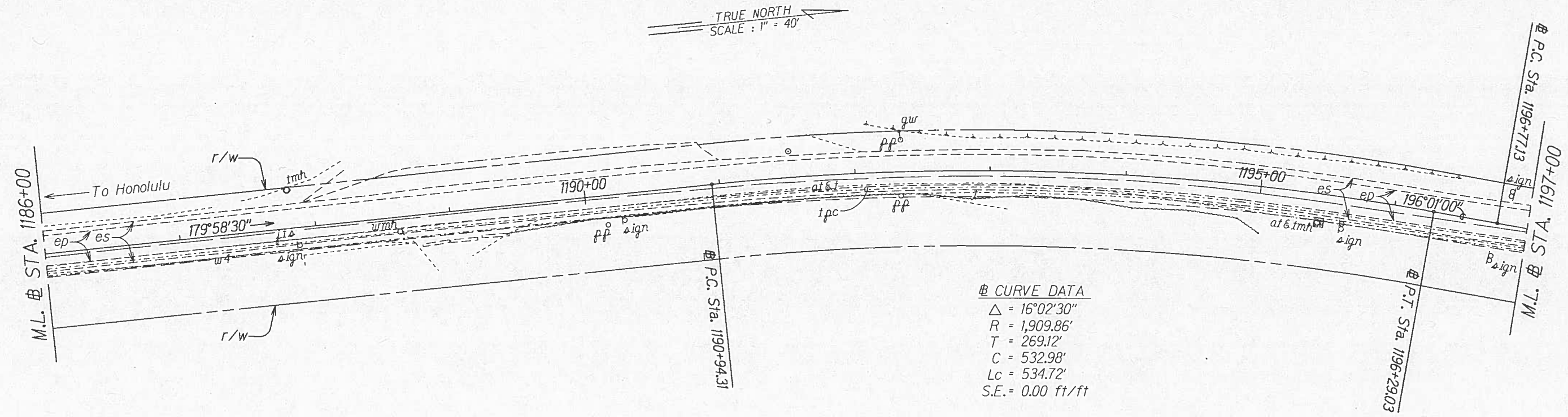
Vicinity of Kili Drive to  
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale 1"=40'                      Date: January, 2015

SHEET No. 8 OF 14 SHEETS

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



@ Sta. 1202+XX.XX± Rt. to @ Sta. 1205+XX.XX± Rt.  
 Remove 62.5'± LF of Existing Guardrail and Existing  
 End Terminals. Install 75.0'± LF of Strong Post W-Beam  
 Guardrail and FLEAT 350 End Terminal at Each End,  
 or Install 125.0'± LF of Strong Post W-Beam Guardrail and  
 ET-Plus (TL-3) End Terminal at Each End. For Details,  
 See Plan Sheets No. XXX

STATE OF HAWAII  
 DEPARTMENT OF TRANSPORTATION  
 HIGHWAYS DIVISION

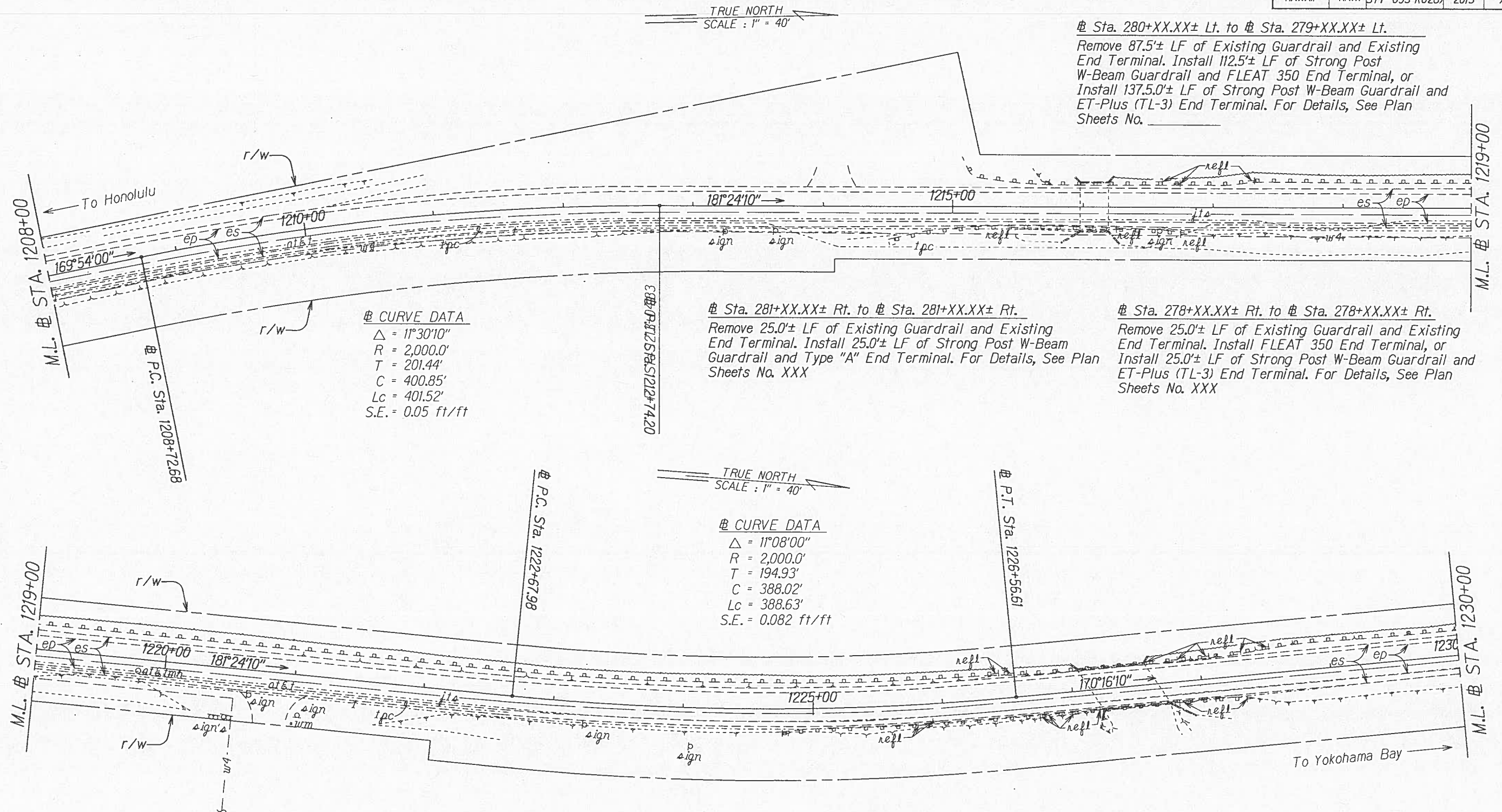
**ROADWAY PLANS**  
 FARRINGTON HIGHWAY RESURFACING  
 Vicinity of Kili Drive to  
 Satellite Tracking Station Road  
 Federal Aid Project No. STP-093-1(026)  
 Scale 1"=40'      Date: January, 2015

SHEET No. 9 OF 14 SHEETS

ORIGINAL PLAN	DATE
DESIGNED BY	XX
CHECKED BY	XX
NOTED BY	XX
DATE	01/11/2015



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



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

⊕ Sta. 271+XX.XX± Rt. to ⊕ Sta. 270+XX.XX± Rt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install 137.5'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal, or Install 187.5'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. XXX

⊕ Sta. 271+XX.XX± Rt. to ⊕ Sta. 270+XX.XX± Rt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install 25.0'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal, or Install 75.0'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. XXX

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLANS

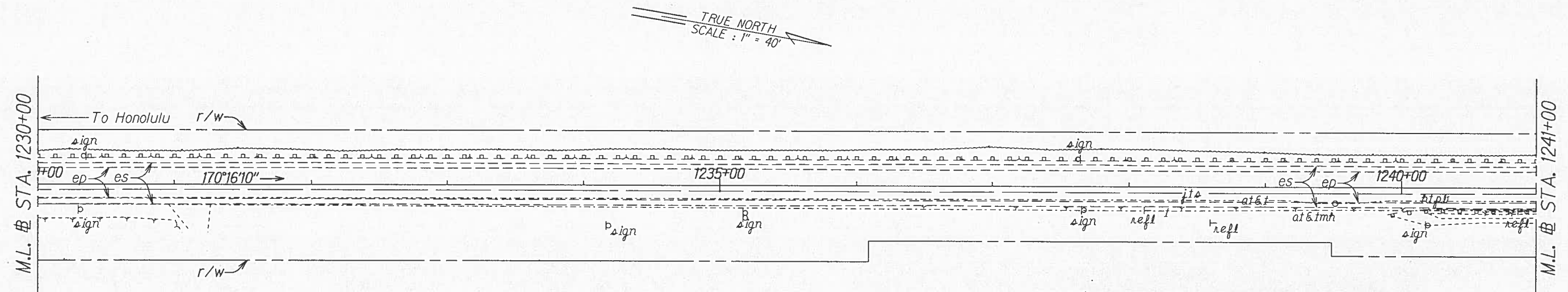
FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
Satellite Tracking Station Road

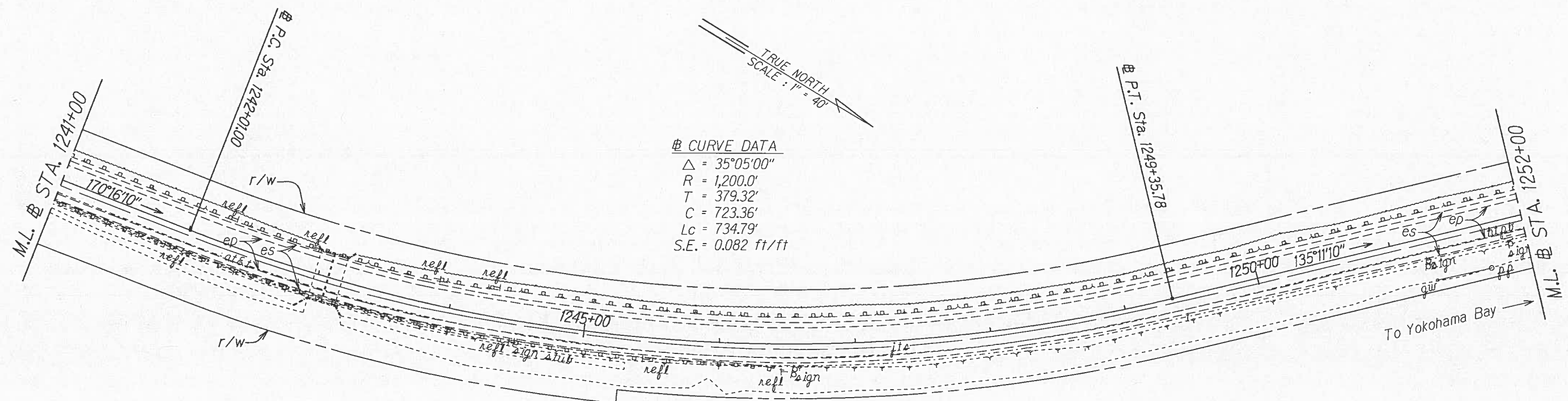
Federal Aid Project No. STP-093-1(026)

Scale 1"=40'      Date: January, 2015

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



At Sta. 256+XX.XX± Rt. to At Sta. 255+XX.XX± Rt.  
Remove 25.0'± LF of Existing Guardrail and Existing  
End Terminal. Install FLEAT 350 End Terminal, or  
Install 25.0'± LF of Strong Post W-Beam Guardrail and  
ET-Plus (TL-3) End Terminal. For Details, See Plan  
Sheets No.



At Sta. 249+XX.XX± Rt. to At Sta. 248+XX.XX± Rt.  
Remove 25.0'± LF of Existing Guardrail and Existing  
End Terminal. Install FLEAT 350 End Terminal, or  
Install 25.0'± LF of Strong Post W-Beam Guardrail and  
ET-Plus (TL-3) End Terminal. For Details, See Plan  
Sheets No.

ORIGINAL PLAN	SURVEY PLOTTED BY _____	DATE _____
NOTE BOOK	DRAWN BY <u>X</u>	<u>X</u>
<u>62314</u>	TRACED BY _____	_____
<u>4771.000</u>	DESIGNED BY <u>X</u>	_____
	QUANTITIES BY _____	_____
	CHECKED BY _____	_____

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale 1"=40'      Date: January, 2015

SHEET No. 11 OF 14 SHEETS



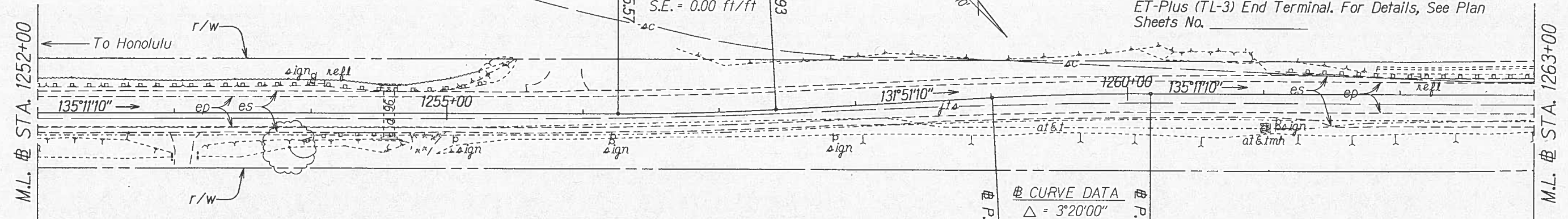
FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X

# Sta. 240+XX.XX± Lt. to # Sta. 239+XX.XX± Lt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install XX± LF of Strong Post W-Beam Guardrail and Type "G" End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

# P.C. Sta. 1256+25.57  
# CURVE DATA  
 $\Delta = 3^{\circ}20'00''$   
 $R = 2,000.0'$   
 $T = 58.19'$   
 $C = 116.34'$   
 $Lc = 116.36'$   
 $S.E. = 0.00 \text{ ft/ft}$

# P.T. Sta. 1257+41.93

# Sta. 234+XX.XX± Lt. to # Sta. 233+XX.XX± Lt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install FLEAT 350 End Terminal, or Install 25.0'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_



# Sta. 241+XX.XX± Rt. to # Sta. 240+XX.XX± Rt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install 50.0'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal, or Install 75.0'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

# Sta. 240+XX.XX± Rt. to # Sta. 240+XX.XX± Rt.  
Remove 12.5'± LF of Existing Guardrail and Existing End Terminal. Install 25.0'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal, or Install 50.0'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

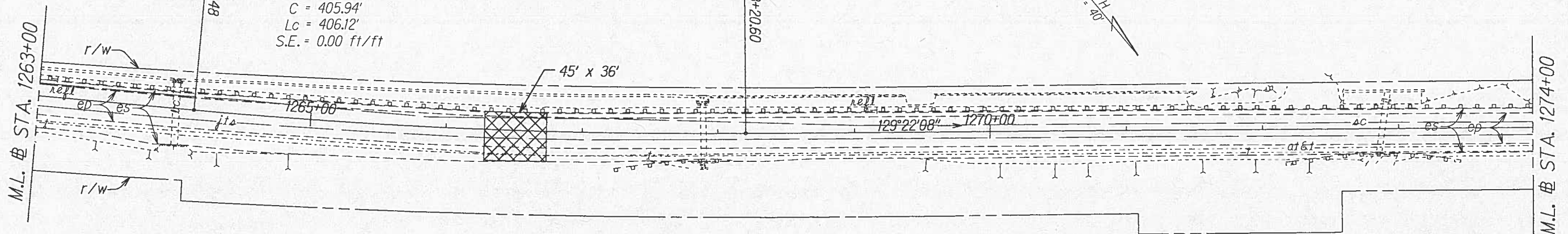
# P.C. Sta. 1259+00.73  
# CURVE DATA  
 $\Delta = 3^{\circ}20'00''$   
 $R = 2,000.0'$   
 $T = 58.19'$   
 $C = 116.34'$   
 $Lc = 116.36'$   
 $S.E. = 0.00 \text{ ft/ft}$

# P.T. Sta. 1260+17.08

# CURVE DATA  
 $\Delta = 5^{\circ}49'02''$   
 $R = 4,000.0'$   
 $T = 203.23'$   
 $C = 405.94'$   
 $Lc = 406.12'$   
 $S.E. = 0.00 \text{ ft/ft}$

# P.C. Sta. 1264+14.48

# P.T. Sta. 1268+20.60



# Sta. 228+80± to Sta. 228+35±  
Reconstruct Existing Weakened Pavement Areas. For Details, See Plan Sheet No. \_\_\_\_.

# Sta. 227+XX.XX± Rt. to # Sta. 226+XX.XX± Rt.  
Remove 50.0'± LF of Existing Guardrail and Existing End Terminal. Install 50.0'± LF of Strong Post W-Beam Guardrail and Type "A" End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

# Sta. 227+XX.XX± Rt. to # Sta. 227+XX.XX± Rt.  
# Sta. 221+XX.XX± Rt. to # Sta. 221+XX.XX± Rt.  
# Sta. 221+XX.XX± Rt. to # Sta. 221+XX.XX± Rt.  
Remove 37.5'± LF of Existing Guardrail and Existing End Terminal. Install 37.5'± LF of Strong Post W-Beam Guardrail and Type "A" End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

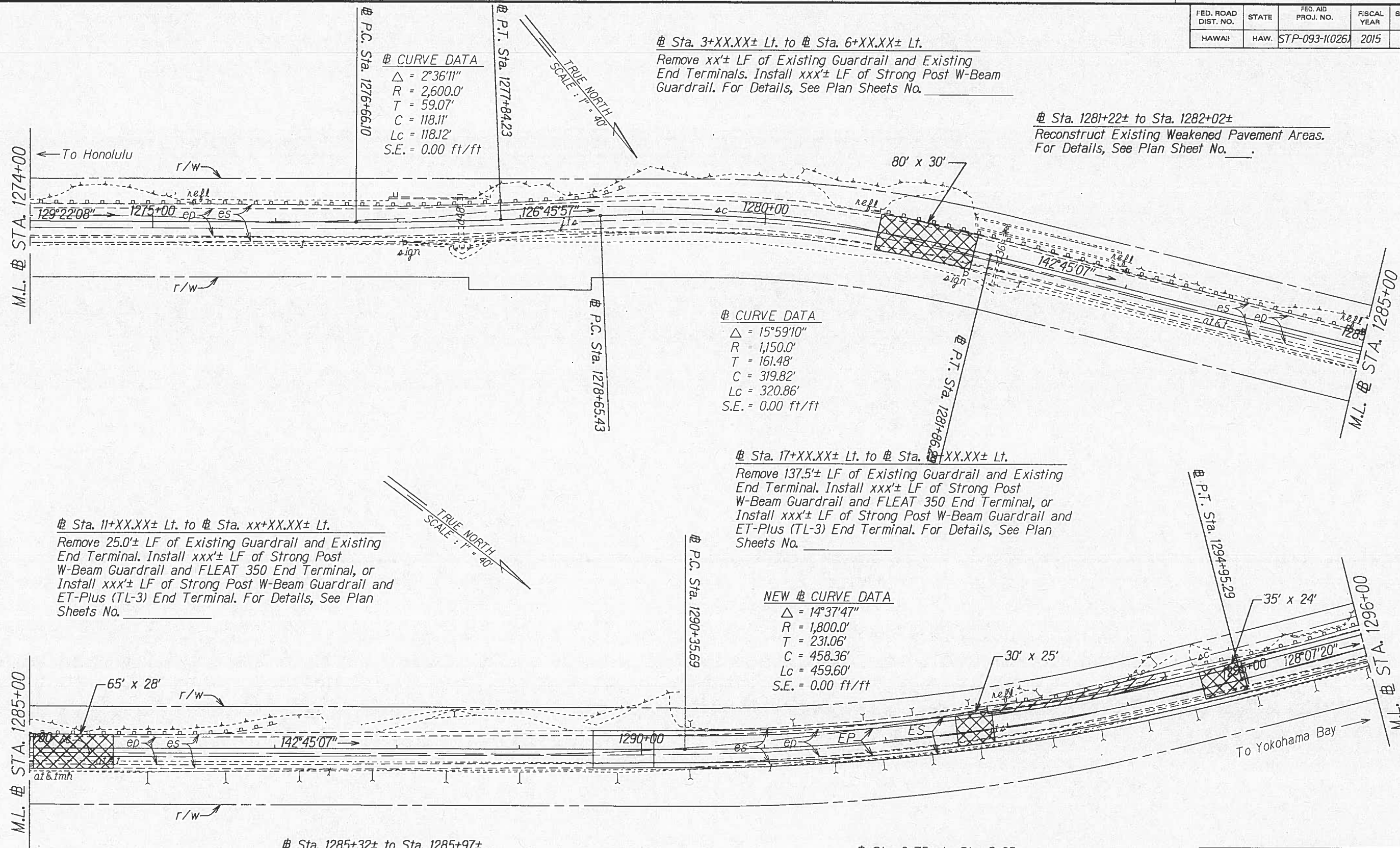
**ROADWAY PLANS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale 1"=40' Date: January, 2015

SHEET No. 12 OF 14 SHEETS

ORIGINAL PLAN	DATE
DRAWN BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	
NOTE BOOK	
dd/mite	
10/17/2015	



FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X



ORIGINAL PLAN	DATE	BY
NOTE BOOK		
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**ROADWAY PLANS**  
**FARRINGTON HIGHWAY RESURFACING**  
Vicinity of Kili Drive to  
Satellite Tracking Station Road  
Federal Aid Project No. STP-093-1(026)  
Scale 1"=40'      Date: January, 2015

SHEET No. 13 OF 14 SHEETS  
XX

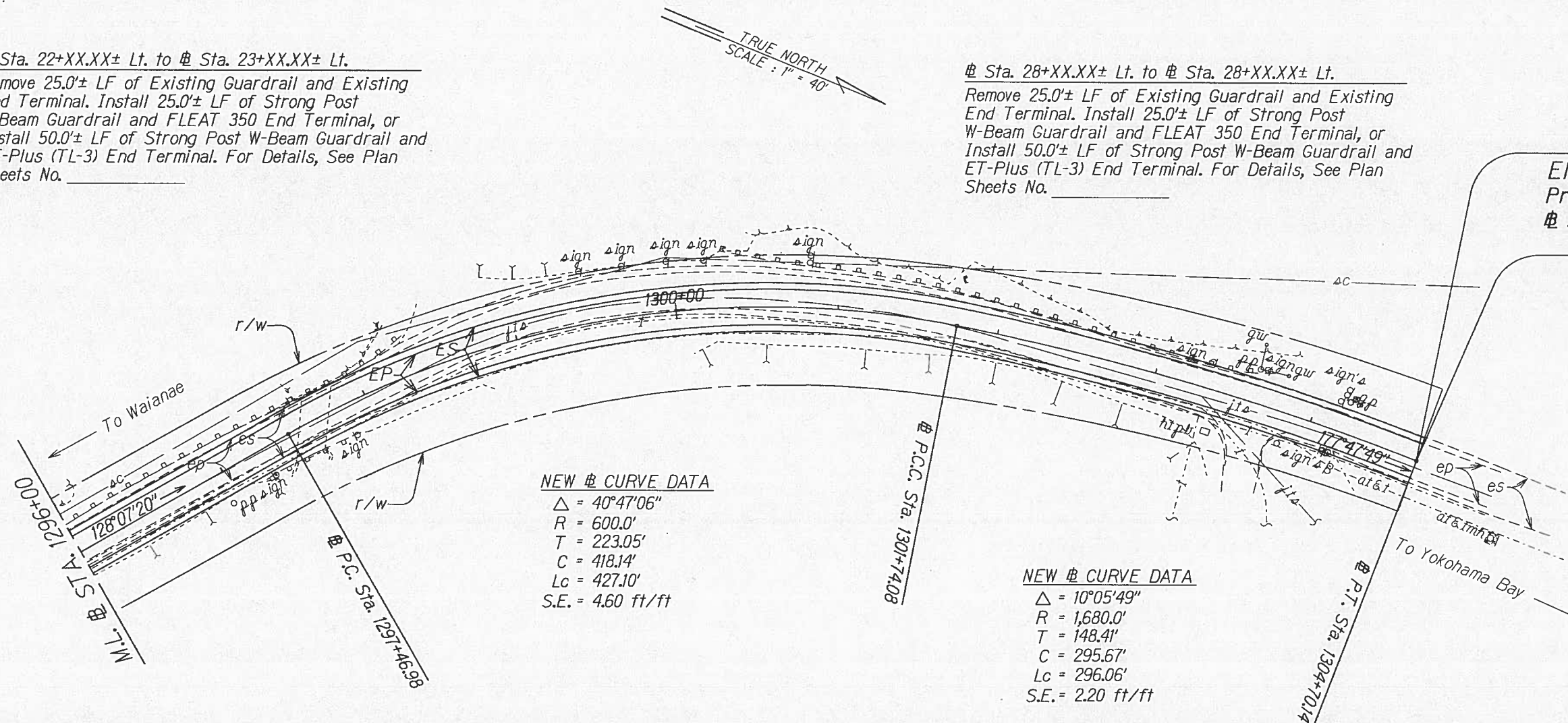


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-093-1(026)	2015	X	X

Sta. 22+XX.XX± Lt. to Sta. 23+XX.XX± Lt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install 25.0'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal, or Install 50.0'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

Sta. 28+XX.XX± Lt. to Sta. 28+XX.XX± Lt.  
Remove 25.0'± LF of Existing Guardrail and Existing End Terminal. Install 25.0'± LF of Strong Post W-Beam Guardrail and FLEAT 350 End Terminal, or Install 50.0'± LF of Strong Post W-Beam Guardrail and ET-Plus (TL-3) End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

END PROJECT  
Project No. STP-093-1(026)  
Sta. 1304+70.14



Sta. 21+XX.XX± Rt. to Sta. 22+XX.XX± Rt.  
Remove 12.5'± LF of Existing Guardrail and Existing End Terminal. Install 25.0'± LF of Strong Post W-Beam Guardrail and Type "A" End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

Sta. 22+XX.XX± Rt. to Sta. 22+XX.XX± Rt.  
Remove 12.5'± LF of Existing Guardrail and Existing End Terminal. Install 12.5'± LF of Strong Post W-Beam Guardrail and Type "A" End Terminal. For Details, See Plan Sheets No. \_\_\_\_\_

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
003 Mile	CHECKED BY	
N. 4/11/2015		

STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

ROADWAY PLANS

FARRINGTON HIGHWAY RESURFACING

Vicinity of Kili Drive to  
Satellite Tracking Station Road

Federal Aid Project No. STP-093-1(026)

Scale 1"=40'      Date: January, 2015