## **General Notes**

- 1. The Project Scope of Work involves construction of a new bikeway in Waipahu and Ewa, Oahu, Hawaii within the former OR&L 40 foot right—of—way between the vicinity of Waipahu, West Loch, and Ewa. Work includes clearing, grubbing, demolition, grading, asphalt concrete paving, pedestrian and utility bridges, retaining walls, concrete sidewalk and median connection, curb ramp, drain line and catch basin, culvert extension, pole and utility line relocation, mulching, erosion controls, relocate and construct fencing and wall, install Rectangular Rapid Flash Beacon (RRFB), signage and striping.
- 2. All construction work shall be done in accordance with the current version of Standards and Specifications of the State Department of Transportation for Road and Bridge Construction as amended, unless otherwise specified by the contract plans and specifications.
- 3. Construction outside the State Department of Transportation right—of—way are subject to approval by the Engineer and the affected owner.
- 4. The Contractor shall verify all dimensions and details shown on the drawings prior to the start of construction. Any discrepancy shall be immediately brought to the attention of the Engineer.
- 5. The existence and location of utilities, manholes, monuments, pavements, and other features 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 to verify the exact locations and depths of the existing utilities and obstructions. The work shall be incidental to various contract items.
- 6. The Contractor shall notify the Engineer in writing, two (2) weeks prior to starting paving operations.
- 7. Contractor shall dispose or deliver any removed material, as described in Section 201 Clearing and Grubbing, at no cost to the State.
- 8. The Contractor shall be held liable for any damages incurred to the existing facilities, utilities and other features as a result of his operations. All damaged portions shall be replaced in accordance with the requirements of the affected owner or user at the Contractor's expense.
- 9. All existing utilities to remain in use, whether or not shown on the plans, shall be protected at all times by the Contractor unless specified on the plans to be abandoned. Any damage to the existing utilities shall be repaired and paid for by the Contractor.
- 10. Existing utilities shall remain in service and in place at all times. If relocation of the existing utilities is required by the Contract Documents or for the Contractor's convenience, interruption of service shall be kept to a minimum and shall be done at the Contractor's expense, and only with the approval of the Engineer and the affected utility company.
- 11. The Contractor shall field verify the operational status of all existing utilities to be removed, relocated or abandoned in place. Any discrepancy shall be brought to the attention of the Engineer.
- 12. The Contractor shall notify the Engineer and State Historic Preservation Division upon uncovering any potential historical artifacts or items of archaeological significance. See Section 107.13 in the 2005 State Standard Specifications.
- 13. The existing improvements on the premises and in adjacent areas that are not to be removed shall be preserved and protected. Any and all damages resulting from the Contractor's construction operations shall be replaced and repaired to original condition, to the satisfaction of the owner.
- 14. Azimuths and coordinates are referred to government survey triangulation Kapuai New.
- 15. Elevations shown on these plans are referenced to Mean Sea Level (MSL).
- 16. The Contractor shall adjust centerline and reference survey monuments to the finished pavement grade.
- 17. The Contractor shall coordinate, if applicable, construction of electrical, telephone, cable television, water, sewer, fuel, oil, and gas line relocation work with Hawaiian Electric Company, Hawaii Tel Com, Oceanic Cable, Board of Water Supply, Department of Environmental Services, Chevron, Tesoro, HIRI, and GASCO Inc., respectively. All coordination shall be considered incidental to bikeway excavation work.
- 18. The contractor shall coordinate with the land owners and users as needed to carry out the work.
- 19. No material and/or equipment shall be stockpiled or otherwise stored within the former OR&L right—of—way except at locations designated in writing and approved by the Engineer. If use of a location is approved by the Engineer, a permit to use the property within the former OR&L right—of—way shall be obtained from the State Highways.
- 20. The Contractor's attention is directed to the following subsections of the Special Provisions: Section 105.09 Coordination between the Contractors.

# General Notes (Cont.)

FED. ROAD DIST. NO. STATE FED. AID PROJ. NO. FISCAL SHEET NO. SHEETS

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21. Hawaiian Railway Properties (HRS) such as tracks, splices, ties, ties, ballast, spikes, bridge components, bolts and nuts, designated for demolition and removal shall be dismantled in the presence of HRS representative for salvaging and preservation purposes. Salvage approximately 5 foot long end sections of both the mauka and makai steel plate girder walls from the east end of Kapakahi Bridge. Confirm section to be salvaged with the Hawaiian Railway Society and coordinate delivery within 60 days of the demolition. Any material deemed not useable for preservation by the HRS representative shall be disposed accordingly.

# Construction Notes for Work Within State R/W

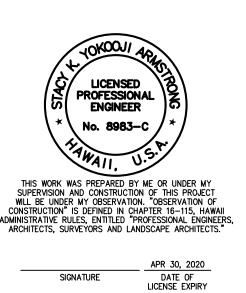
- l. All construction work shall be done in accordance with the Standard Plans and Specifications of the State
  Department of Transportation as amended, unless otherwise specified by the contract plans and specifications.
- 2. Confined Space For entry by SDOT personnel, including inspectors, into a permit required confined space as defined in 29 CFR part 1910.146(b), the Contractor shall be responsible for providing:
  - A. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
    - 1. Full body harnesses for up to two personnel.
    - 2. Lifeline and associated clips.
    - 3. Ingress/egress and fall protection equipment.
    - 4. Two-way radios (walkie-talkies) if out of line-of-sight.
    - 5. Emergency (escape) respirator (10 minute duration).
    - 6. Cellular telephone to call for emergency assistance.
    - 7. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammable (capable of monitoring at a distance at least 20—feet away).
    - 8. Personal multi-gas detector to be carried by the inspector.
  - B. Continuous forced air ventilation adequate to provide safe entry conditions.
  - C. One trained attendant/rescue personnel topside (two, if conditions warrant it)

# Free Service for Locating Underground Utilities

A free service is available to Contractors for locating underground utilities. Service is provided by One Call Concepts, at toll free telephone no. 1-866-423-7287. Call at least five (5) working days prior to the start of any excavation work.

# Public Health, Safety and Convenience Notes:

- 1. The Contractor shall observe and comply with all Federal, State and local laws required for the protection of public health and 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 of the State Department of Health. The State may require supplementary measures as necessary.



11/1/19 Removed WWB Signature line & removed note

DATE REVISION

DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

CONSTRUCTION NOTES — 1

<u>LEEWARD BIKEWAY</u>

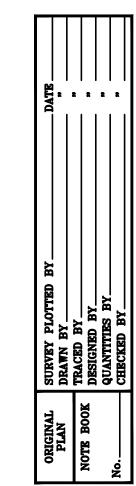
<u>Philippine Sea Rd. to Waipahu Depot Street</u>

<u>Fed. Aid Proj. No. STP-BW-0300(8)</u>

Date: Sept. 1, 2019

SHEET No. CO.2 OF 14 SHEETS

1



### <u>Water Notes</u>

- 1. Unless otherwise specified, all materials and construction of water system facilities and appurtenances shall be in accordance with the Standard Specifications for Road and Bridge Construction, dated 2005, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's Water System External Corrosion Control Standards, dated 2002, The Water System Standards, volume 3, dated 1991, and all subsequent amendments and additions.
- 2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply.
- 3. The Contractor shall notify BWS Capital Projects Division, Construction Section in writing prior to commencing work on the water system.
- 4. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of the work. The Contractor shall be responsible and pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.
- 5. Re—approval shall be required if this project is not under construction within a period of two years.
- 6. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measure necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.
- 7. Prior to any excavating, the Contractor shall verify in the field the location of existing water mains and appurtenances.
- 8. The Contractor shall adjust all manhole frames/valve boxes/meter boxes within the resurfaced area. The these manholes/valve boxes/meter boxes to facilitate the "referencing "Contractor shall be responsible for adjustments."
- 9. Any adjustments to the existing water system required during construction to meet requirements of BWS Standards, whether shown on the plans or not, shall be done by the Contractor at no cost to the Board.

# Sewer Notes 1

- 1. All sewer construction shall be performed in accordance with the City's "Standard Specifications," Sept. 1986, The Department of Environmental Services "Wastewater System Design Standards," July 2017, and "Wastewater System Standard Details," July 2017, current City practices and revised ordinances of Honolulu, 1990 as amended.
- 2. In the event that any change in alignment or grade for the proposed sewers are required due to unforeseen conflict with other utilities, the Engineer in charge or the maker of the plans shall be responsible for the required changes which are to be presented to the Department of Planning and Permitting (DPP) for approval.
- 3. Crushed rock cradle is permitted where soil is stable. In areas of unstable soil, the maker of the plans and the construction engineer will determine the pipe support required.
- 4. The underground pipes, cables or ductlines known to exist by the Engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities, including and affecting sewer lines, in the presence of the Wastewater Inspector and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.
- 5. Sewer laterals shall be clear of and not conflicting with any other utility. Minimum horizontal and vertical clearances shall be strictly observed and followed.
- 6. Slope for sewer laterals shall be 2.00%.
- 7. Building plumbing facilities shall be controlled by sewer lateral inverts.
- 8. The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- 9. The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notifications and press releases.
- 10. The Contractor shall install "Rainstopper" manhole inserts in all sewer manholes with Type "SA" Frame and cover.
- 11. The Contractor shall obtain approval for advance sewer riser agreement at the DPP and obtain building permit for plumbing work before any advance riser is made.
- 12. All sewer pipe joints within easements shall be wrapped with geotextile root barrier.
- 13. Geotextile fabric to envelope the pipe cradle and select backfill material shall be provided where water or unstable soil conditions are encountered.

	FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
	HAWAII	HAW.	STP-BW-0300(8)	2019	12	171

# Sewer Notes (cont.)

#### 14. <u>Confined Space</u>

For entry by City Personnel, including Inspectors, into a permit—required confined space as defined in 29 CFR part 1910.146(b), the Contractor shall be responsible for providing:

- 1. All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
  - A. Full body harnesses for up to two personnel.
  - B. Lifeline and associated clips.
  - C. Ingress/egress and fall protection equipment.
  - D. Two-way radios (walkie-talkies) if out of line-of-sight.
  - E. Emergency (escape) respirator (10 minute duration).
  - F. Cellular télèphone to call for emergency assistance.
  - G. Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20—feet away).
  - H. Personal multi-gas detector to be carried by Inspector.
- 2. Continuous forced air ventilation adequate to provide safe entry conditions.
- 3. One attendant/rescue personnel topside (two, if conditions warrant it).
- 15. When connecting to a live sewer line, the Contractor shall abide by all conditions that the State Department of Health sets forth to mitigate any wastewater spill that may occur. The Contractor shall inform the city inspector five (5) working days prior to the actual connection. The Contractor shall be responsible for any fines and penalties due to any spills resulting from the connection.
- 16. No rungs shall be installed inside new sewer manholes.
- 17. For sewer manhole adjustments upward less than 3", see Std. detail S-28. For SMH adjustments upward greater than 3" or for any adjustments downward, reconstruct SMH top from below the cone section.
- 18. If the Contractor encounters flow monitoring devices such as special sewer manhole covers embedded with solar panels, contact Collection Systems Maintenance, ENV at 768—7272 to coordinate temporary removal.
- 19. The Contractor shall maintain visibility and maintenance access to live sewer manhole locations at all times, including during non-work hours and paving operations.
- 20. The Contractor shall use a manhole debris catching device when performing manhole height adjustment work and remove any construction debris that has fallen into the manhole. Disposal of construction debris in the sewer system is strictly prohibited.

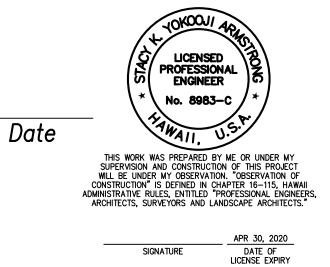
11/1/19 1 Rev. & Renumbered Notes

DATE REVISION

DEPARTMENT OF TRANSPORTATION

APPROVED BY

Manager and Chief Engineer, Board of Water Supply (For work affecting BWS Facilities in City/State R/W and BWS Eastments Only)



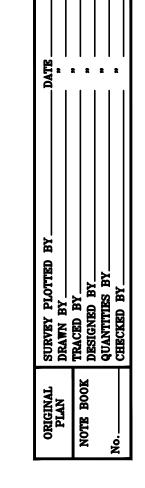
CONSTRUCTION NOTES — 10

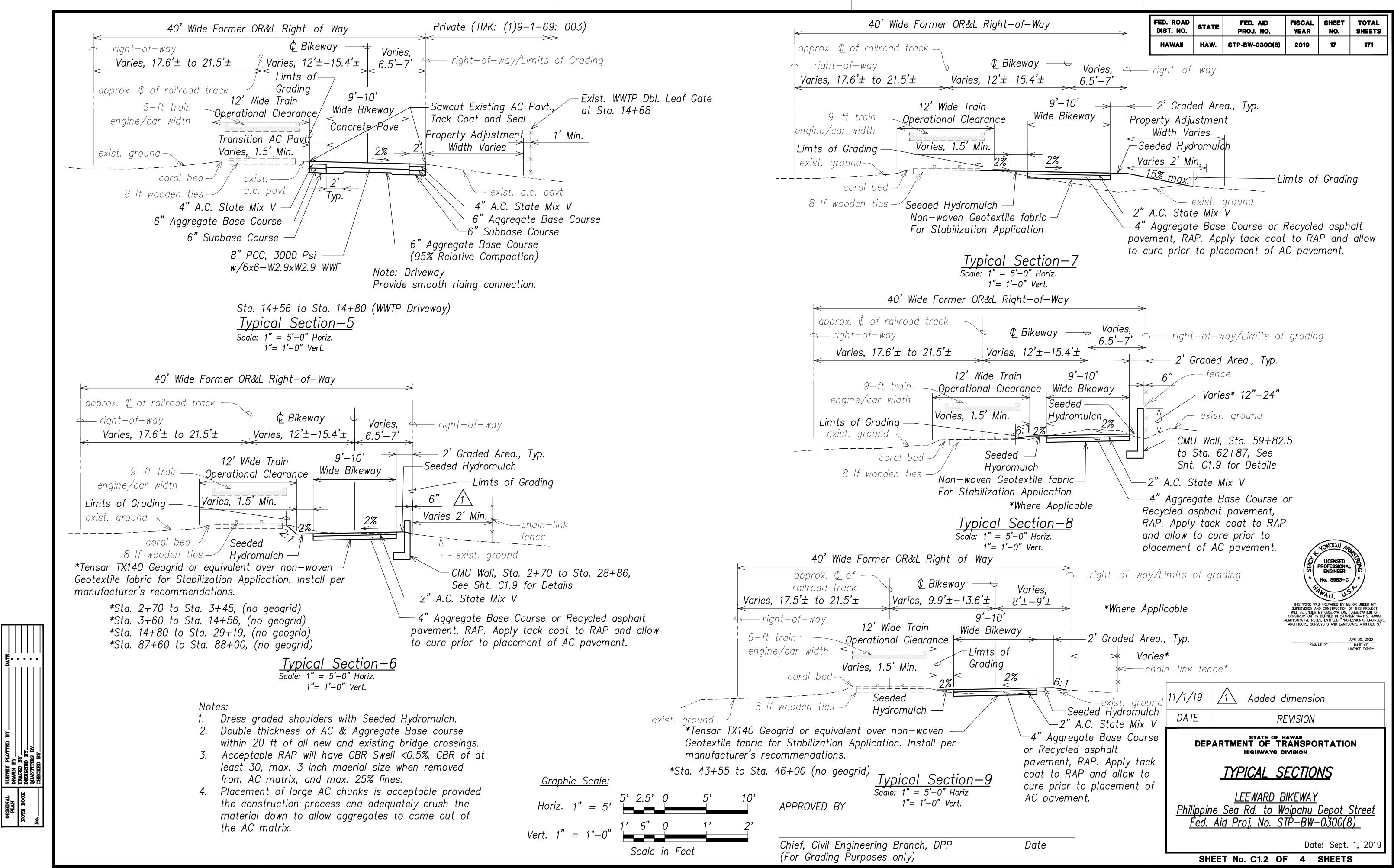
LEEWARD BIKEWAY

Philippine Sea Rd. to Waipahu Depot Street
Fed. Aid Proj. No. STP-BW-0300(8)

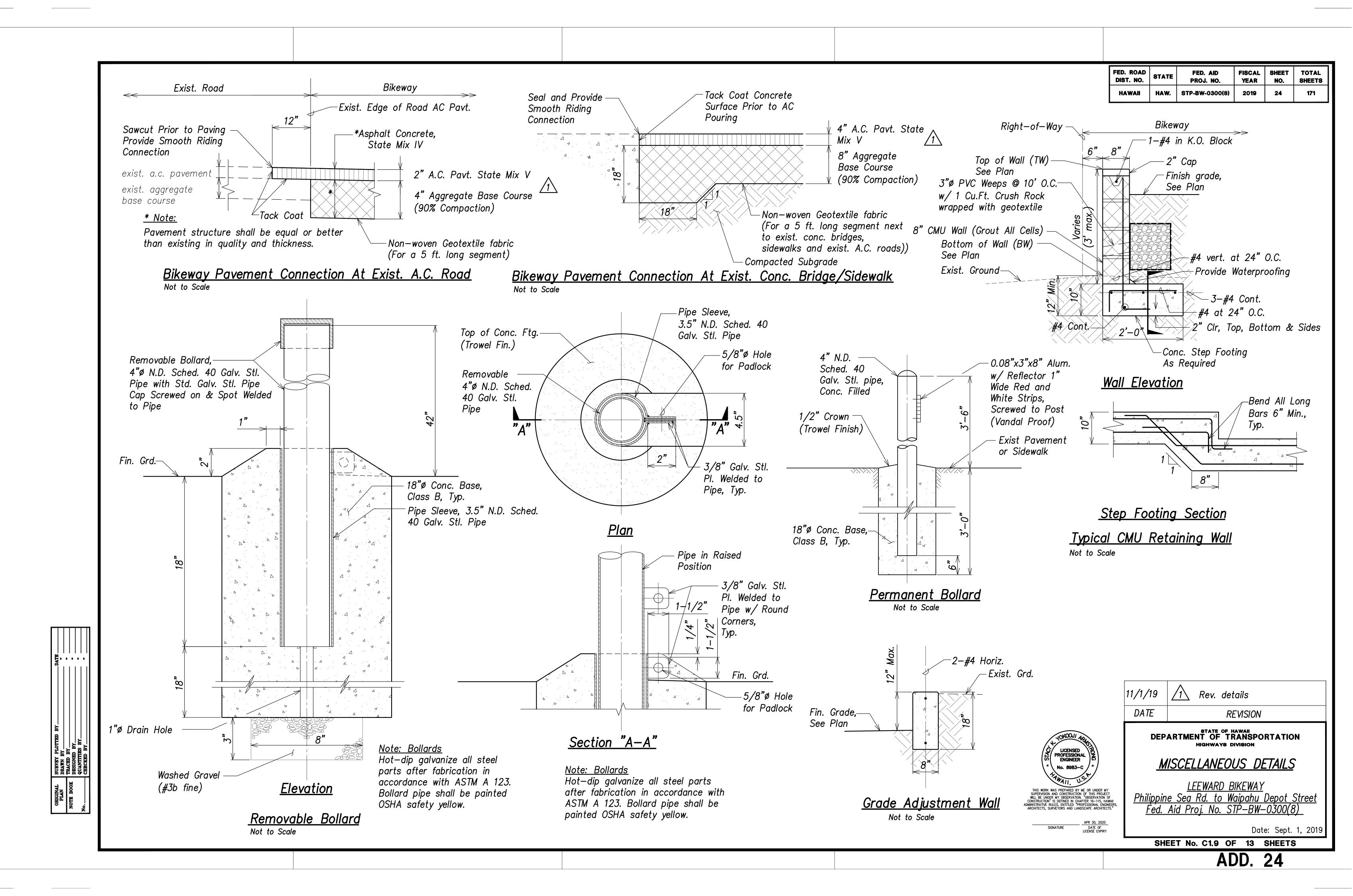
Date: Sept. 1, 2019

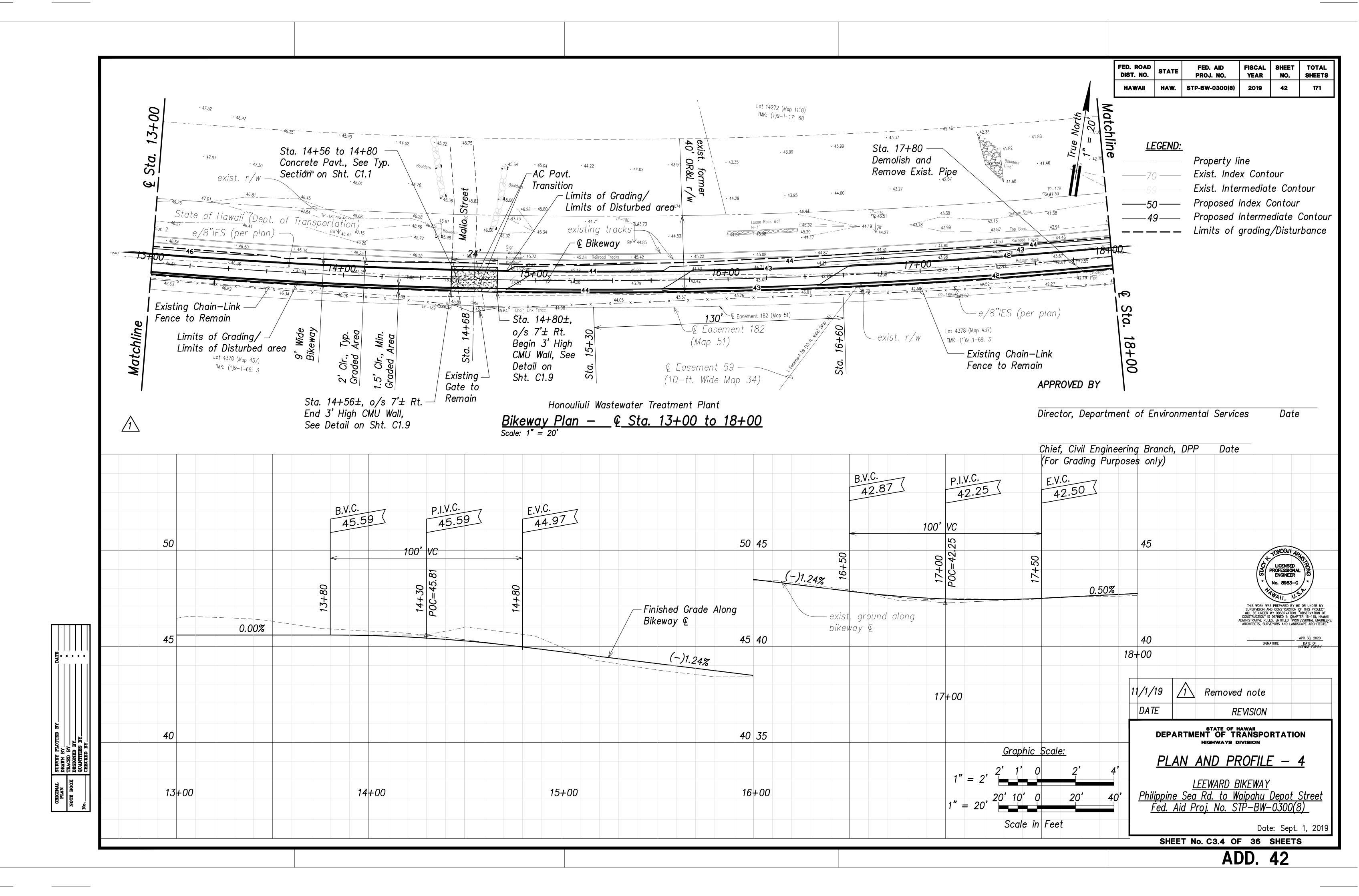
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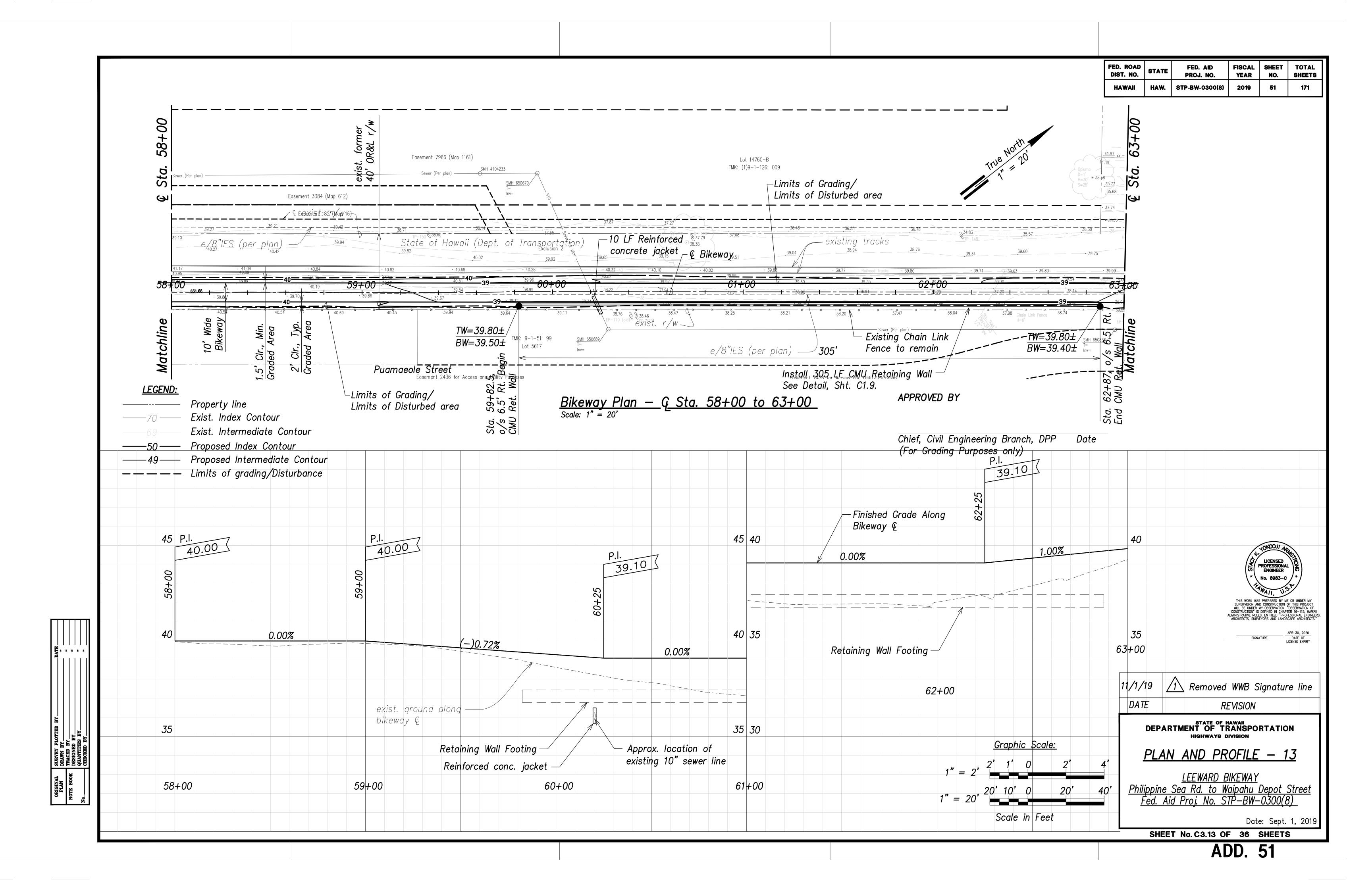


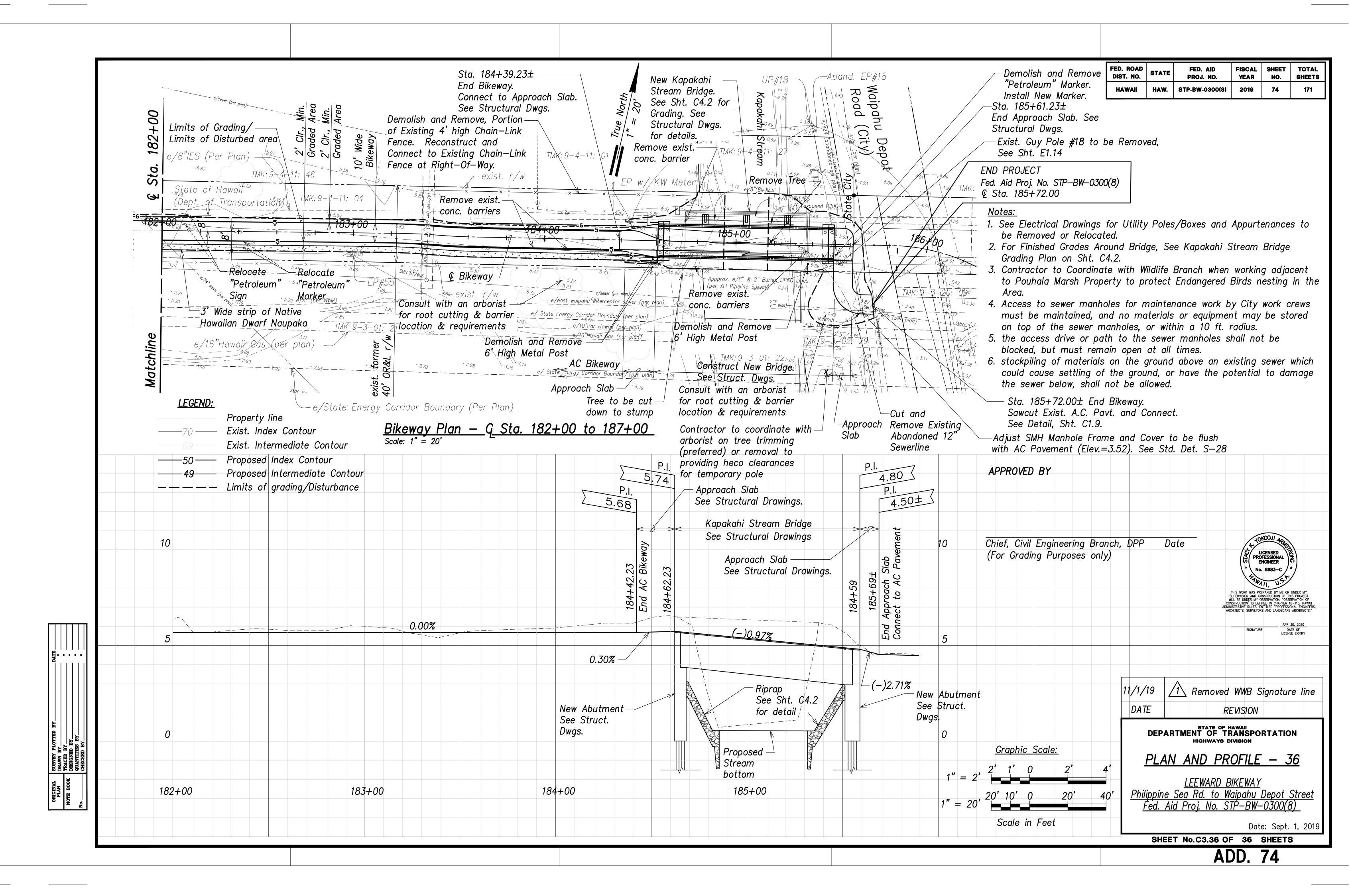


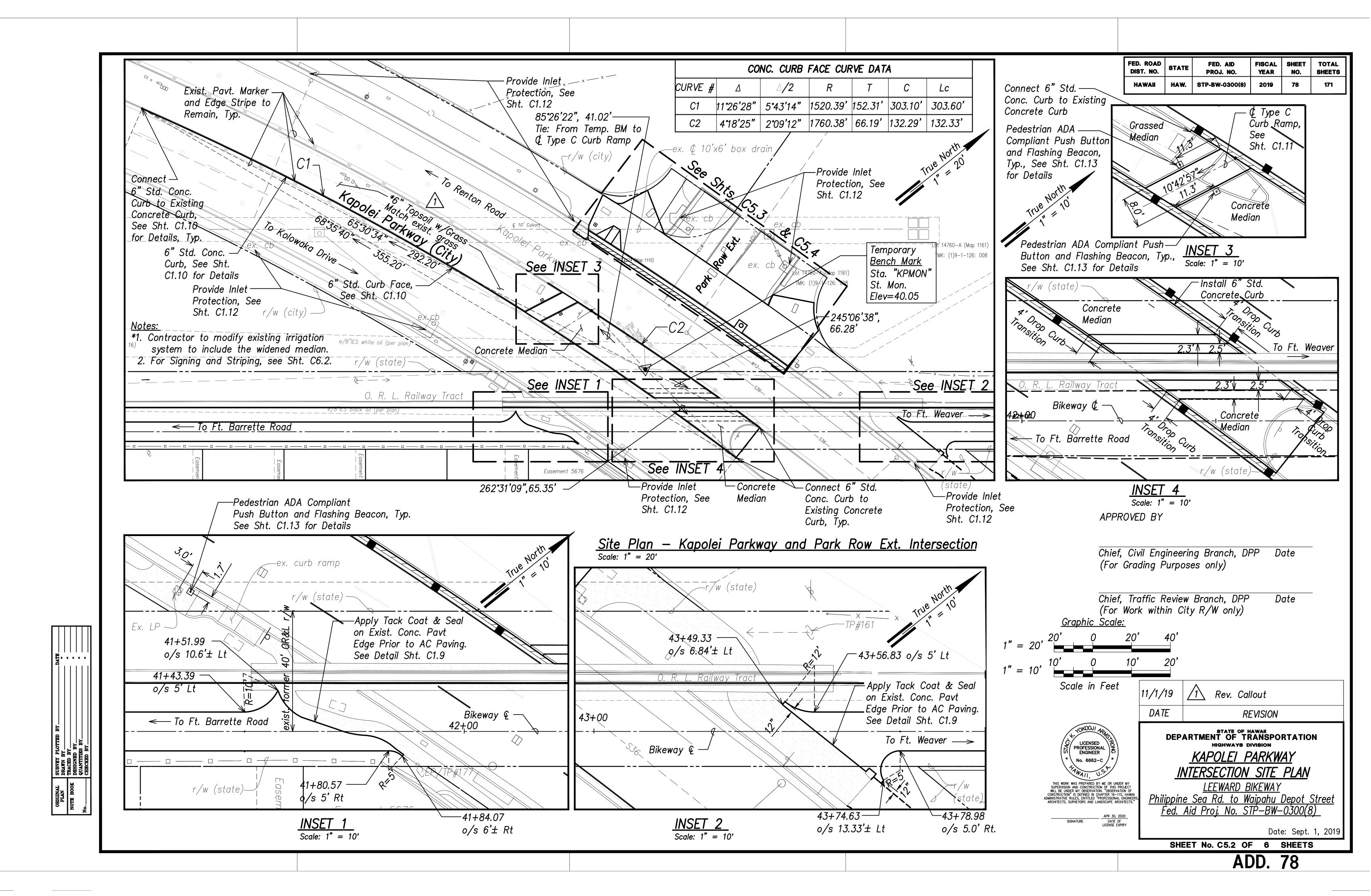
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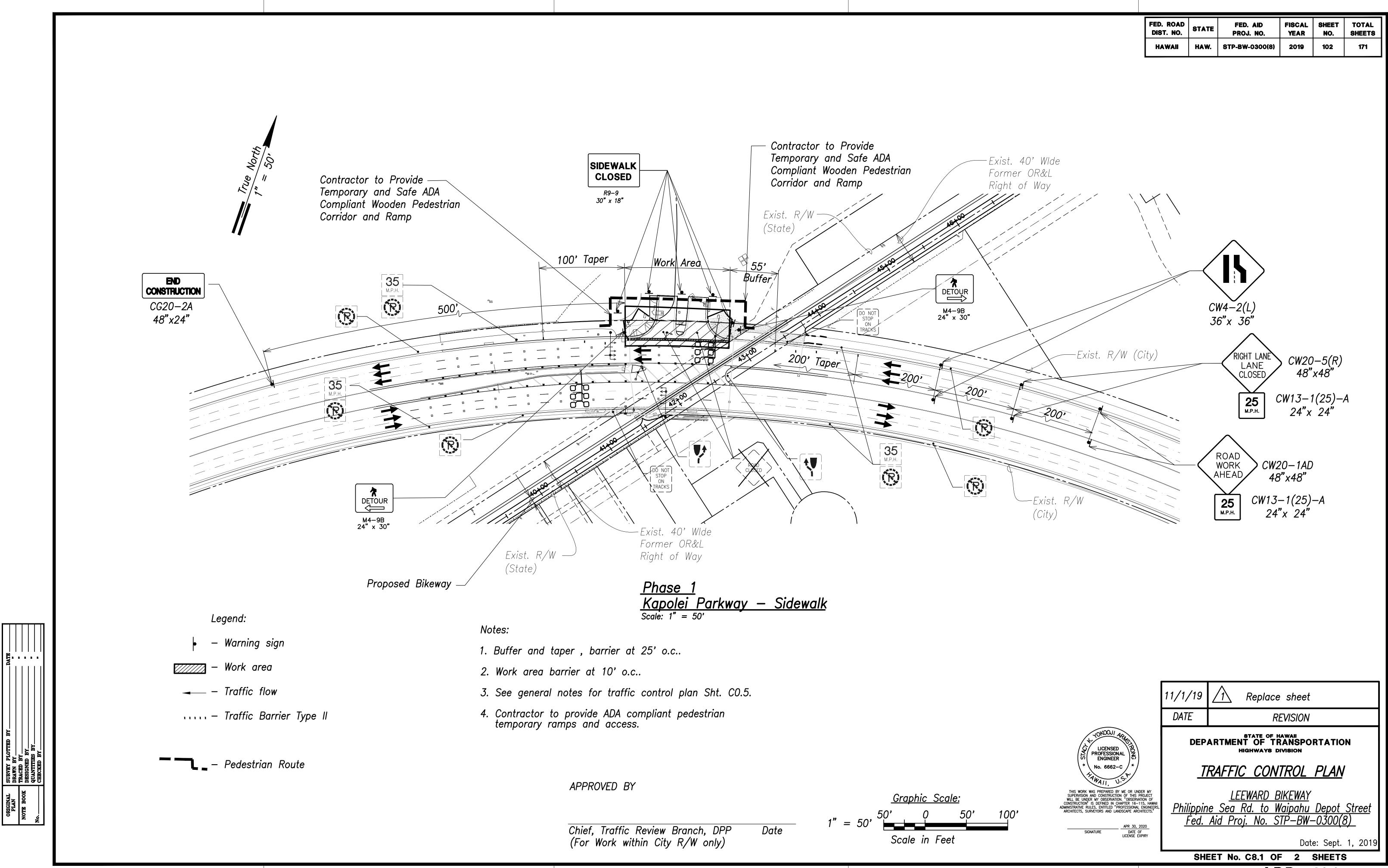




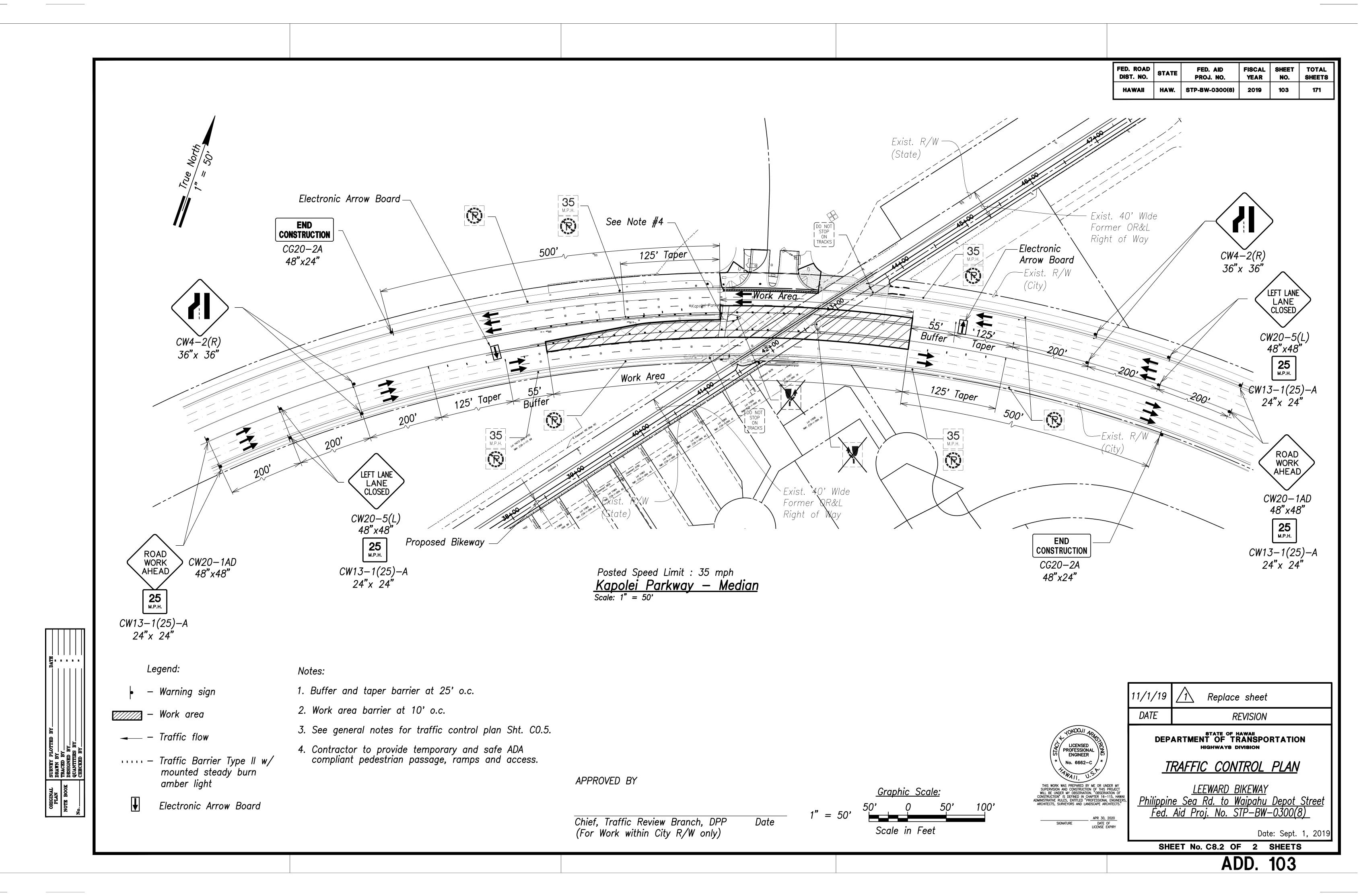




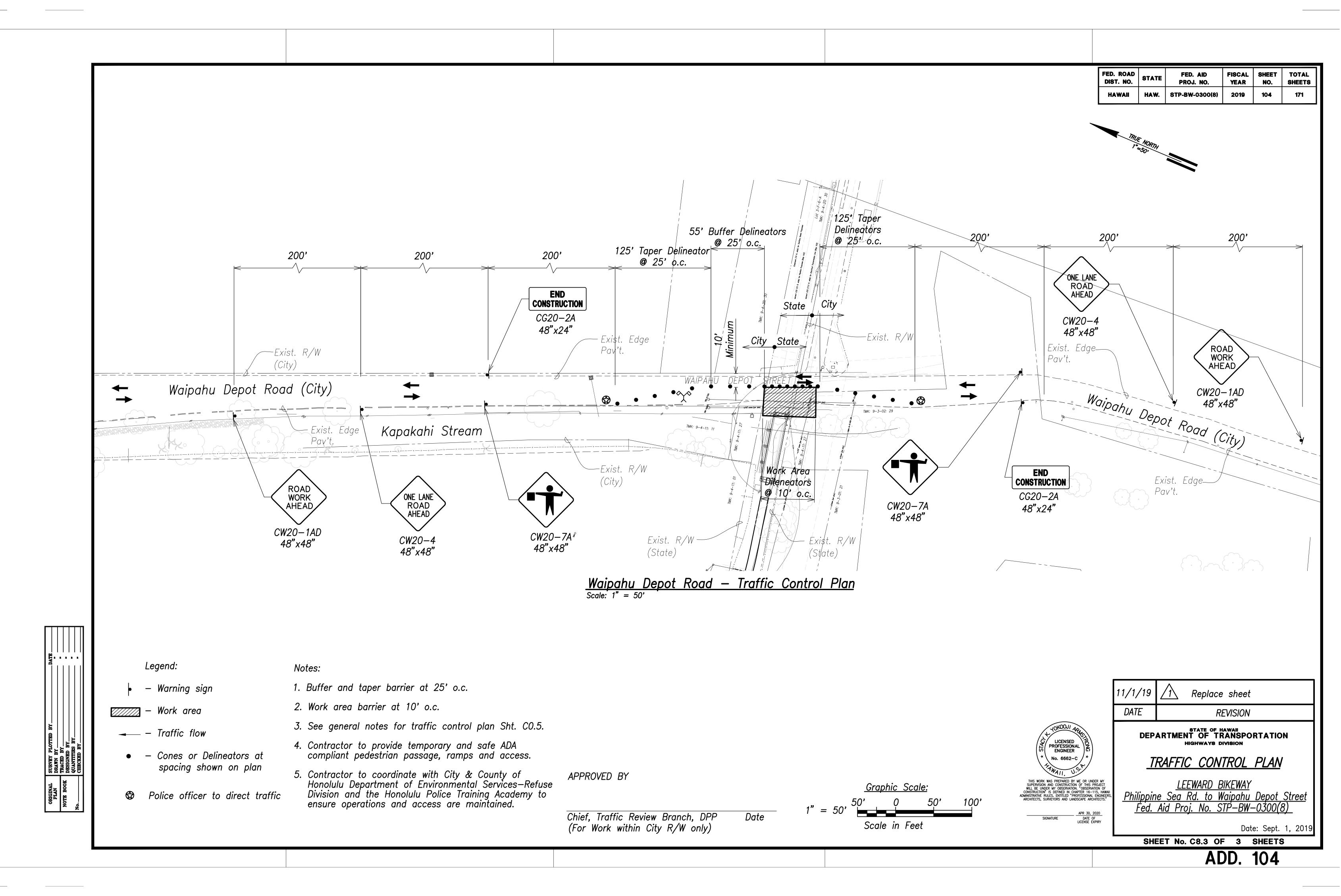




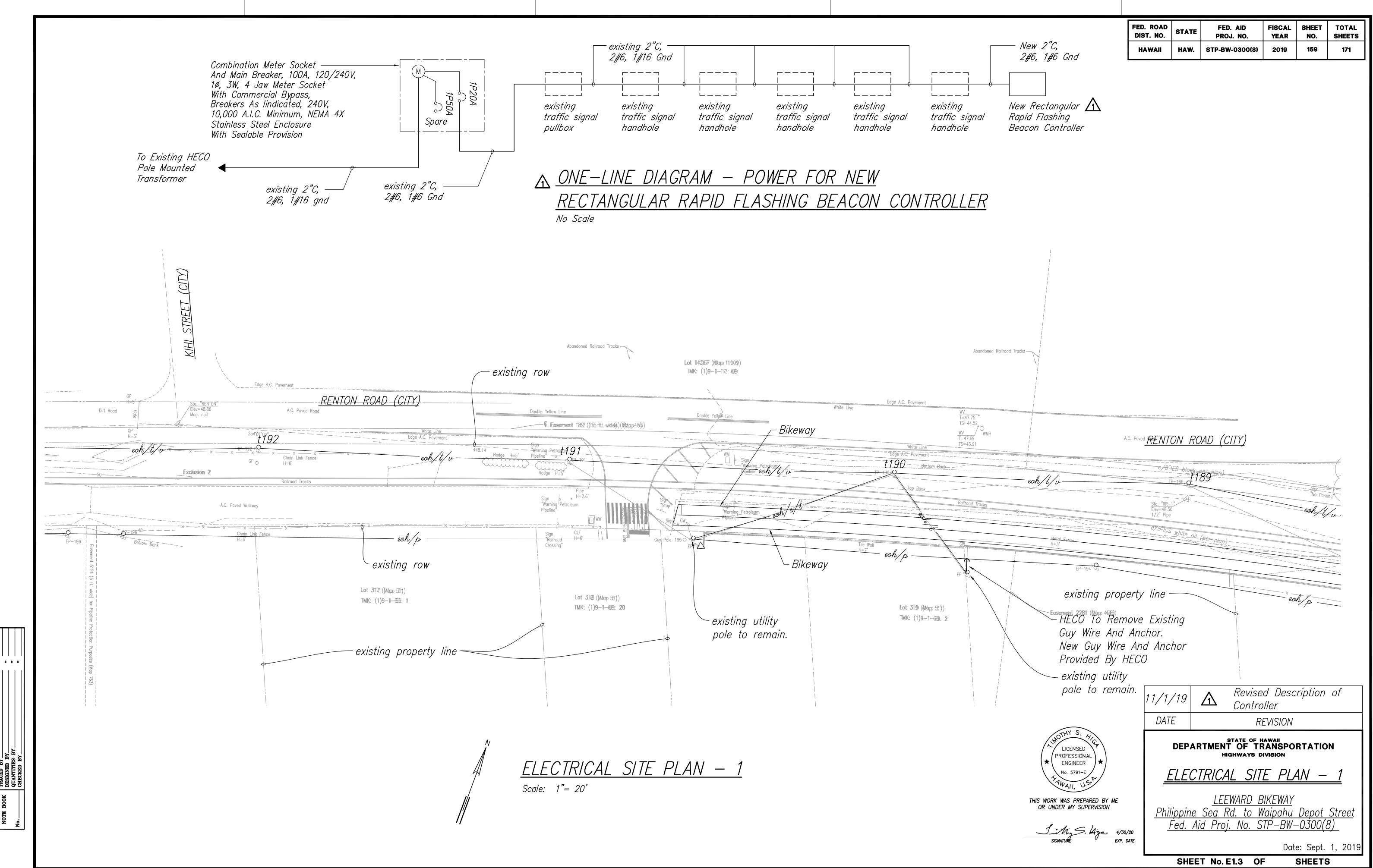
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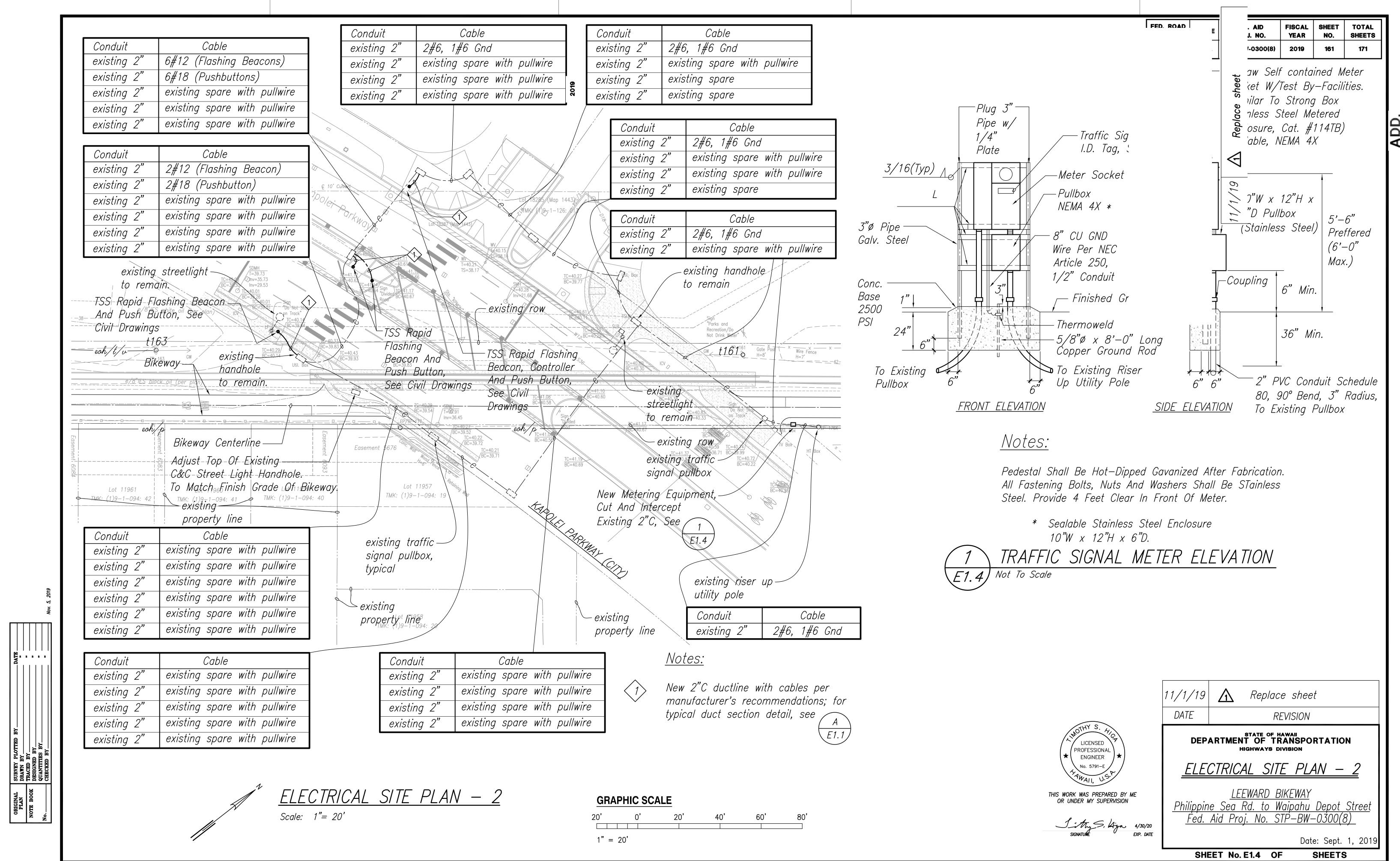


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## **GOOD HOUSEKEEPING BMPS NOTES:**

1. Street Sweeping and Vacuuming.

all pollutants discharged from construction site to off-site areas must be swept or vacuumed each day before leaving the job site.

2. Materials delivery, storage and use management.

Prevent, reduce, or eliminate the discharge of pollutants from material delivery, storage, and use to the storm water system or watercourses by minimizing the storage of hazardous materials onsite, storing materials in a designated area, installing secondary containment. Construction materials, waste, toxic and hazardous substances, stockpiles and other sources of pollution shall not be stored in buffer areas, near areas of concentrated flow, or areas abutting the ms4, receiving waters, or drainage improvements that discharge off-site. Primary and secondary containment controls and covers shall be implemented to the maximum extent practical (MEP).

3. Spill prevention and control.

Create and implement spill prevention and response plans to eliminate and minimize the discharge of pollutants to the MS4 and receiving waters from leaks and spills by reducing the chance for spills, absorbing, containing, and cleaning up spills and properly disposing of spill materials. At a minimum, all projects shall cleanup all leaks and spills immediately.

Hazardous materials.

Prevent or reduce the discharge of pollutants to storm water from hazardous waste through proper material use and waste disposal. In the event that hazardous materials are discharged to the MS4, the property owner or ESCP Coordinator shall immediately notify the Department of Facilities Maintenance, Honolulu Fire Department, and Honolulu Police Department of the discharge by telephone. A written report describing the pollutants that were discharged, the reasons for the discharge, and the measures that have been taken or will be taken to prevent a reoccurrence of the discharge shall be submitted to the Director no less than 3 days after notification by phone.

5. Nonhazardous materials.

In the event that nonhazardous materials are discharged to the MS4, the property owner or ESCP coordinator shall notify the City Department of Facilities Maintenance by telephone no later than the next business day. A written report describing the pollutants that were discharged, the reasons for the discharge, and the measures that have been taken or will be taken to prevent a reoccurrence of the discharge shall be submitted to the Director no less than 3 days after notification by phone.

Vehicle and equipment cleaning.

Eliminate and minimize the discharge of pollutants to storm water from vehicle and equipment cleaning operations by using off-site facilities when feasible, washing in designated, contained areas only, and eliminating discharges to the storm drain system by evaporating and/or treating wash water, as appropriate or infiltrating wash water for exterior cleaning activities that use water only.

Vehicle and equipment fueling.

Prevent fuel spills and leaks by using off-site facilities, fueling only in designated areas, enclosing or covering stored fuel, and implementing spill controls such as secondary containment and active measures using spill response kits.

Vehicle and equipment maintenance.

Eliminate and minimize the discharge of pollutants to storm water from vehicle and equipment maintenance operations by using off-site facilities when feasible, performing work in designated areas only, using spill pads under vehicles and equipment, checking for leaks and spills, and containing and cleaning up spills immediately.

Solid waste management.

Prevent or reduce discharge of pollutants to the land, groundwater, and in storm water from solid waste or construction and demolition waste by providing designated waste collection areas, collect site trash daily, and ensuring that construction waste is collected, removed, and disposed of only at authorized disposal areas.

## GOOD HOUSEKEEPING BMPS NOTES CONT.:

Sanitary/Septic waste management.

Temporary and portable sanitary and septic waste systems shall be mounted or staked in, well—maintained and scheduled for regular waste disposal and servicing. Sources of sanitary and/or septic waste shall not be stored near the MS4 or receiving waters.

11. Stockpile management.

Stockpiles shall not be located in drainage ways, within 50 feet from areas of concentrated flows, and are not allowed in the City Right-of-Way. Sediment barriers or silt fences shall be used around the base of all stockpiles. Stockpiles shall not exceed 15 feet in height. Stockpiles greater than 15 feet in height shall require 8 foot wide benching in accordance with ROH Chapter 14, Article 15. Stockpiles must be covered with plastic sheeting or a comparable material if they will not be actively used within 7 days.

Liquid waste management.

Liquid waste shall be contained in a controlled area such as a holding pit, sediment basin, roll—off bin, or portable tank of sufficient volume and to contain the liquid wastes generated. Containment areas or devices must be impermeable and leak free and should not be located where accidental release of the contained liquid can discharge to water bodies, channels, or storm drains.

Concrete waste management.

Prevent or reduce the discharge of pollutants to storm water from concrete waste by conducting washout offsite or performing onsite washout in a designated area constructed and maintained in sufficient quantity and size to contain all liquid and concrete waste generated by washout operations. plastic lining material should be a minimum of 10 millimeter polyethylene sheeting and should be free of holes, tears, or other defects that compromise the impermeability of the material. Containment areas or devices should not be located where accidental release of the contained liquid can discharge to water bodies, channels, or storm drains. washout facilities must be cleaned, or new facilities must be constructed and ready for use once the washout is 75 percent full. Once concrete wastes are washed into the designated area and allowed to harden, the concrete should be broken up, removed, and disposed of as solid wastes.

14. Contaminated soil management.

At minimum contain contaminated material soil by surrounding with impermeable lined berms or cover exposed contaminated material with plastic sheeting. Contaminated soil should be disposed of properly in accordance with all applicable regulations.

Dust Control.

The Contractor, at his own expense, shall provide effective measures for the control of dust from the project site and haul roads so it shall not be transported or discharged to off-site areas. The work must be in conformance with air pollution control standards contained in the Hawaii Administrative Rules: Title 11 Chapter 60.1, "Air Pollution Control".

BMP and Site Maintenance.

The Contractor shall maintain temporary erosion control measures throughout the project duration. The Contractor shall clean trash and debris around the surrounding area on a weekly basis.

> LICENSED PROFESSIONAL ENGINEER THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

11/1/19 1 New Sheet DATE

FED. ROAD

DIST. NO.

HAW.

FED. AID

PROJ. NO.

STP-BW-0300(8)

FISCAL SHEET

100S-1

YEAR

2019

TOTAL

SHEETS

DEPARTMENT OF TRANSPORTATION

REVISION

EROSION AND SEDIMENT **CONTROL NOTES** 

LEEWARD BIKEWAY Philippine Sea Rd. to Waipahu Depot Street Fed. Aid Proj. No. STP-BW-0300(8)

> Date: Sept. 1, 2019 SHEET No.C7.15AOF 16 SHEETS

AT: SURVEY PLOTTE
DRAWN BY
TRACED BY
DESIGNED BY
QUANTITIES BY
CHECKED BY ORIGINAL PLAN NOTE BOOK

APPROVED BY

Chief, Civil Engineering Branch, DPP (For Grading Purposes only)

Date

**ADD. 100S-1** 

