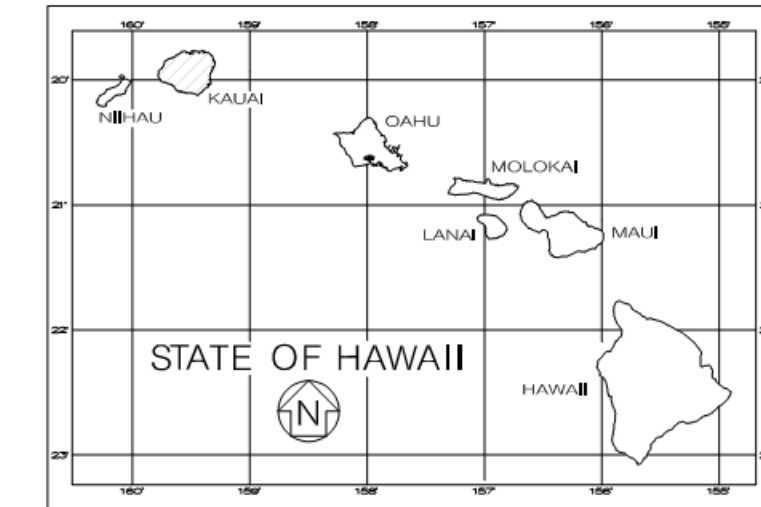


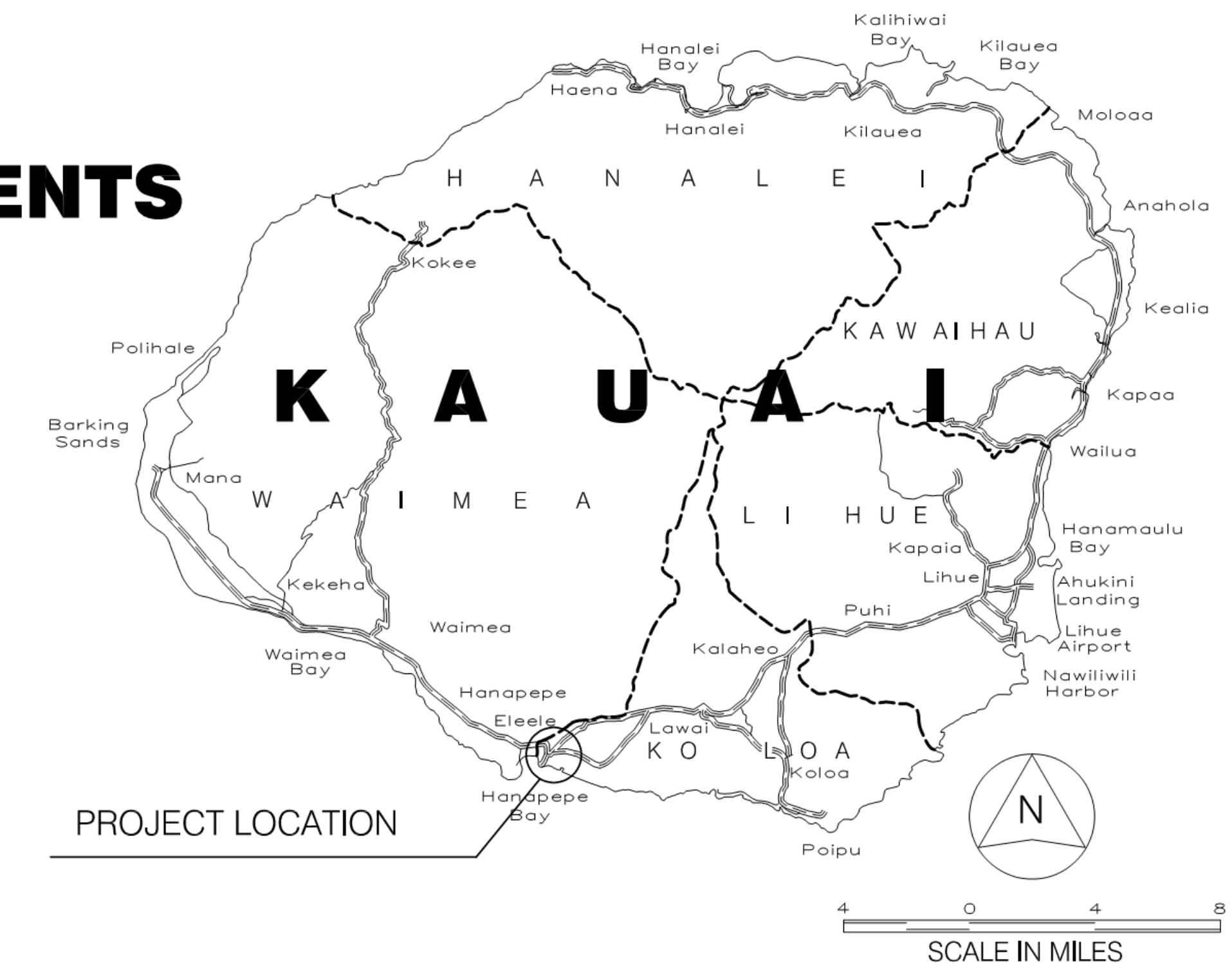
INDEX TO DRAWINGS	
SHEET NO.	DESCRIPTION
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10	RIGHT-OF-WAY MAP
11 - 19	STRUCTURAL PLANS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	1	19



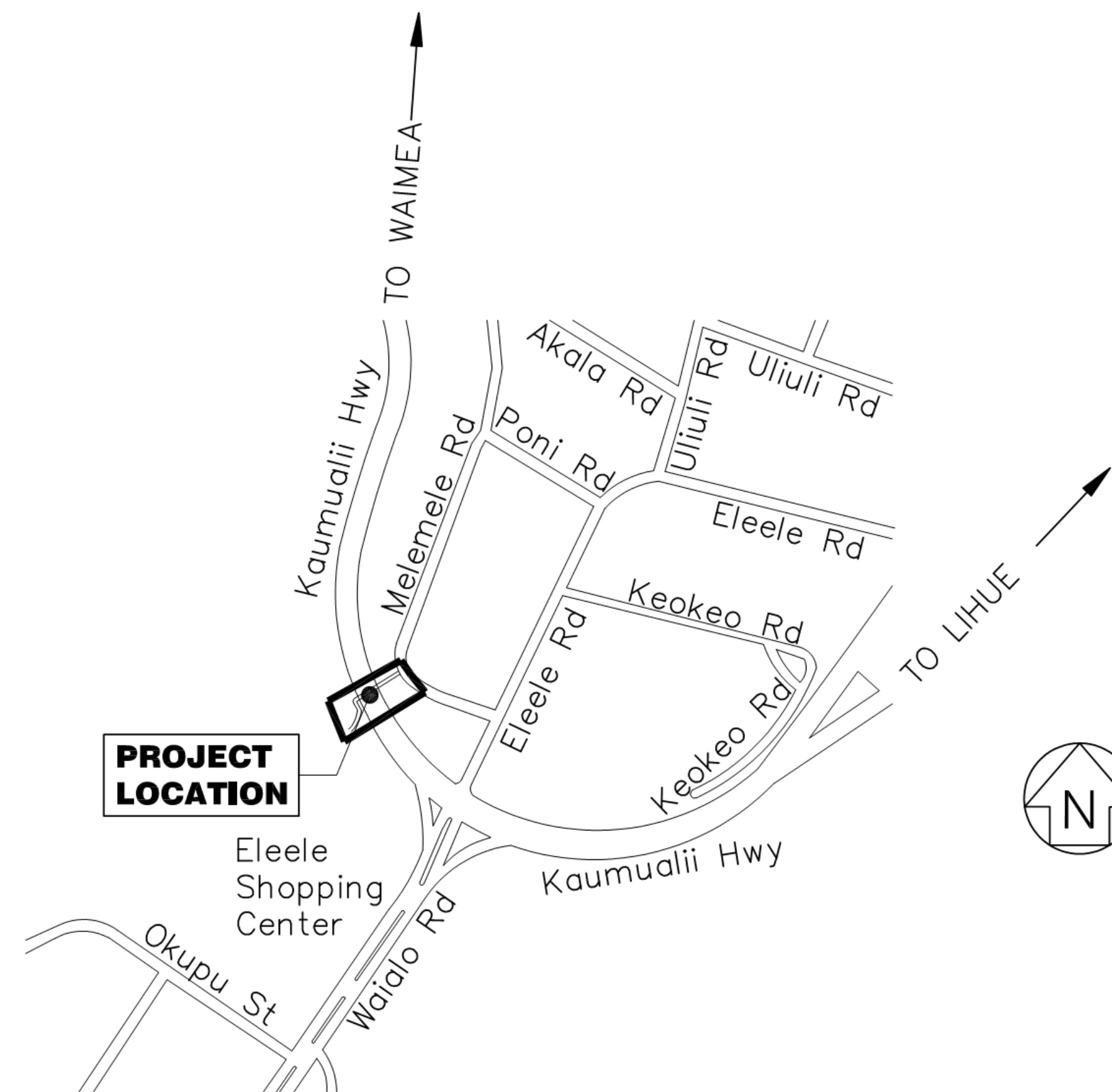
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HONOLULU, HAWAII
PLANS FOR
KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS IMPROVEMENTS
PROJECT NO. 50C-01-19M

DISTRICT OF KOLOA
ISLAND OF KAUAI



----- FEDERAL AID PROJECTS PREVIOUSLY CONSTRUCTED OR UNDER CONSTRUCTION

MILE POST 15.98 TO MILE POST 15.98



DESIGNED BY KAI HAWAII, INC. MANAGED BY HWY-K DATE 241-3000 APR. 2020
PHONE 241-3000

DEPARTMENT OF TRANSPORTATION STATE OF HAWAII	
APPROVED:	
DIR. OF TRANSPORTATION	DATE

STANDARD PLANS SUMMARY

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	2	19

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 CAN DETAILS	05/31/07
B-12A	PRESTRESSED CONCRETE PILES, PILE & COMPRESSION SPLICE CAN DETAILS & NOTES	05/31/07
B-12B	PILE INTERACTION DIAGRAM	05/31/07
B-13	PRESTRESSED CONCRETE PILE BUILD-UP DETAILS	05/31/07

STANDARD PLAN NO.	TITLE	DATE
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

STANDARD PLAN NO.	TITLE	DATE
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 FRAME AND GRATES	05/31/07
H-16	TYPE 61614, 61614P, 61616, 61616P STEEL FRAME AND GRATES	05/31/07
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

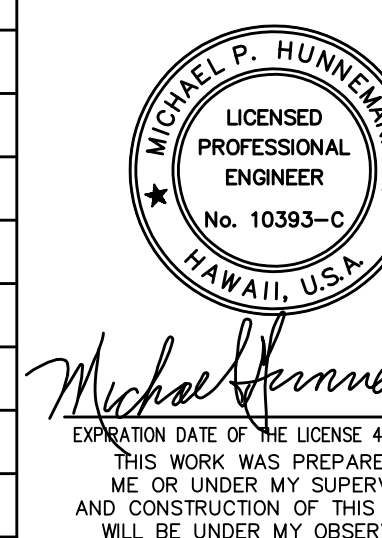
STANDARD PLAN NO.	TITLE	DATE
TE-01	SIGN HEIGHT AND LOCATION	07/11/08
TE-01A	SIGN INSTALLATION	07/11/08
TE-02A	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02B	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-02C	GALVANIZED FLANGED CHANNEL SIGN POST MOUNTING	05/31/07
TE-03A	GALVANIZED 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 GUIDE SIGNS	07/11/08
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 ACCESSORY DETAILS	05/31/07
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	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

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
NO.	_____

P:\451-4600\4600.03 DOT Highways - Eleele Pedestrian Bridge\Drawings\Structural\AutoCAD\Format\2020-04-08_4509-03 Eleele Pedestrian Bridge\4509-03.2.T02 - T04.dwg 5/12/2020 5:01 PM BRANDON CHING



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STANDARD PLANS SUMMARY
KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
 PROJECT NO.: 50C-01-19M
 Scale: As Shown Date: May, 2020
SHEET No. 1 OF 1 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	4	19

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:

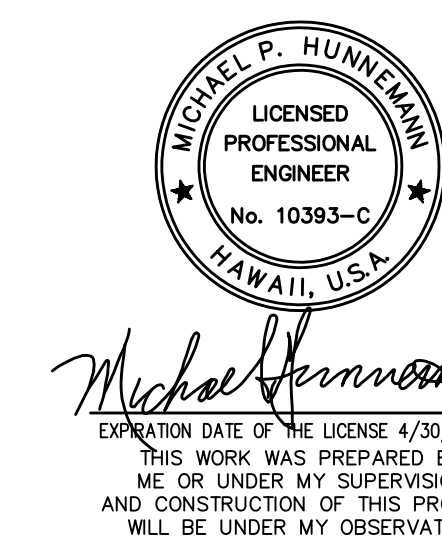
1. **Waste Materials**
Collect and store all waste materials in a securely lidded metal dumpster or roll off container with cover to keep rain out or loss of waste during windy conditions. The dumpster shall meet all local and State solid waste management regulations. Deposit all trash and construction 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.

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

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**WATER POLLUTION &
EROSION CONTROL NOTES**

KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020

SHEET No. 1 OF 3 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	5	19

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
Defergents	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 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

**WATER POLLUTION &
EROSION CONTROL NOTES**

KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020

SHEET No. 2 OF 3 SHEETS

WATER POLLUTION AND EROSION CONTROL NOTES (Cont.):

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	6	19

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.
 - a. Deadlines for initiating and completing initial stabilization
 - b. Increased inspection frequency and installation of rain gage if applicable
 - c. Deadlines to initiate and complete repairs to BMPs
 - d. Reporting requirements and corrective action reports
2. Comply with all applicable State and Federal Permit conditions.

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/contractors-and-consultants> under Construction Best Management Practices Field Manual. Supplemental BMP sheets are located at <http://stormwaterhawaii.com/resources/contractors-and-consultants/storm-water-pollution-prevention-plan-swppp/> under Concrete Curing and Irrigation Water.

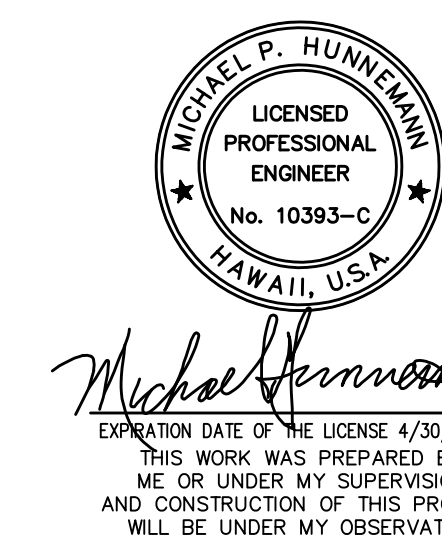
The requirements for Water Pollution, Dust, and Erosion Control submittals are included in Section 209 of the Hawaii Standard Specifications for Road and Bridge Construction dated 2005 and applicable Special Provisions. A list of pollutant sources and corresponding BMP used to mitigate the pollutants 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-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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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
WATER POLLUTION & EROSION CONTROL NOTES
 KAUMUALII HIGHWAY
 ELEELE PEDESTRIAN OVERPASS
 IMPROVEMENTS
 PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020
SHEET No. 3 OF 3 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	7	19

NOTES FOR TRAFFIC CONTROL PLAN

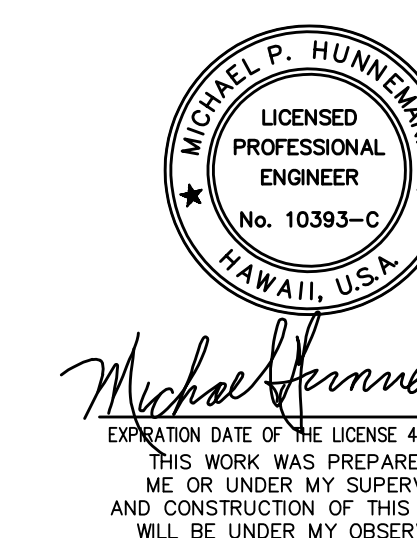
1. Make adjustments at intersections, driveways, bridges, sidewalks, curb ramps, etc. to fit field conditions.
2. Cones or delineators shall be extended to a point where they are visible to approaching traffic.
3. Traffic control devices shall be installed such that the sign or device farthest from the work area shall be placed first. The others shall then be placed progressively toward the work area.
4. Regulatory and warning signs within the construction zone that are in conflict with the traffic control plans shall be removed or covered. All signs shall be restored upon the completion of the work.
5. Flaggers and/or police officers shall be present at all times, in sight of each other, and in direct communication at all times.
6. When required by the issuing office, the permittee shall install a flashing arrow signal as shown on the traffic control plans.
7. Sign spacings (L), taper lengths (T) and spacings of cones or delineators shall be as shown in Table 1, unless otherwise noted on the Traffic Control Plans.
8. All traffic lanes shall be a minimum of 10 feet wide.
9. All construction warning signs shall be promptly removed or covered whenever the message is not applicable or not in use.
10. The backs of all signs used for traffic control shall be appropriately covered to preclude the display of inapplicable sign messages (i.e., when the signs have messages on both faces).
11. At the end of each day's work or as soon as the work is completed, 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 phase of work.
12. Replace permanent pavement markings and traffic signs upon completion of each
13. Three (3) weeks minimum prior to start of work operations, submit for the Engineer's review and acceptance detailed site-specific traffic control plans for each intersection covering all phases of work such as painting of mast arms, and replacing controller. Traffic control devices, signs and flagger positions shall be shown. Construction work shall not proceed until the traffic control plans have been accepted by the Engineer.
14. The Contractor shall be responsible for obtaining permission from the County of Kauai and/or, obtaining a Road Permit for all work within the County R/W. The Contractor shall inform private property owners of the purpose and need of the project, and the specific work to take place onsite prior to work start, as applicable. This coordination work and obtaining permission and permit fee shall be considered incidental to the various contract items.

Summary of Traffic Control Plans (TCP)

During Working Hours	8:30AM-3:30PM	TCP 1
Kaunualii Hwy Closed	10:00PM-5:00AM	TCP 2

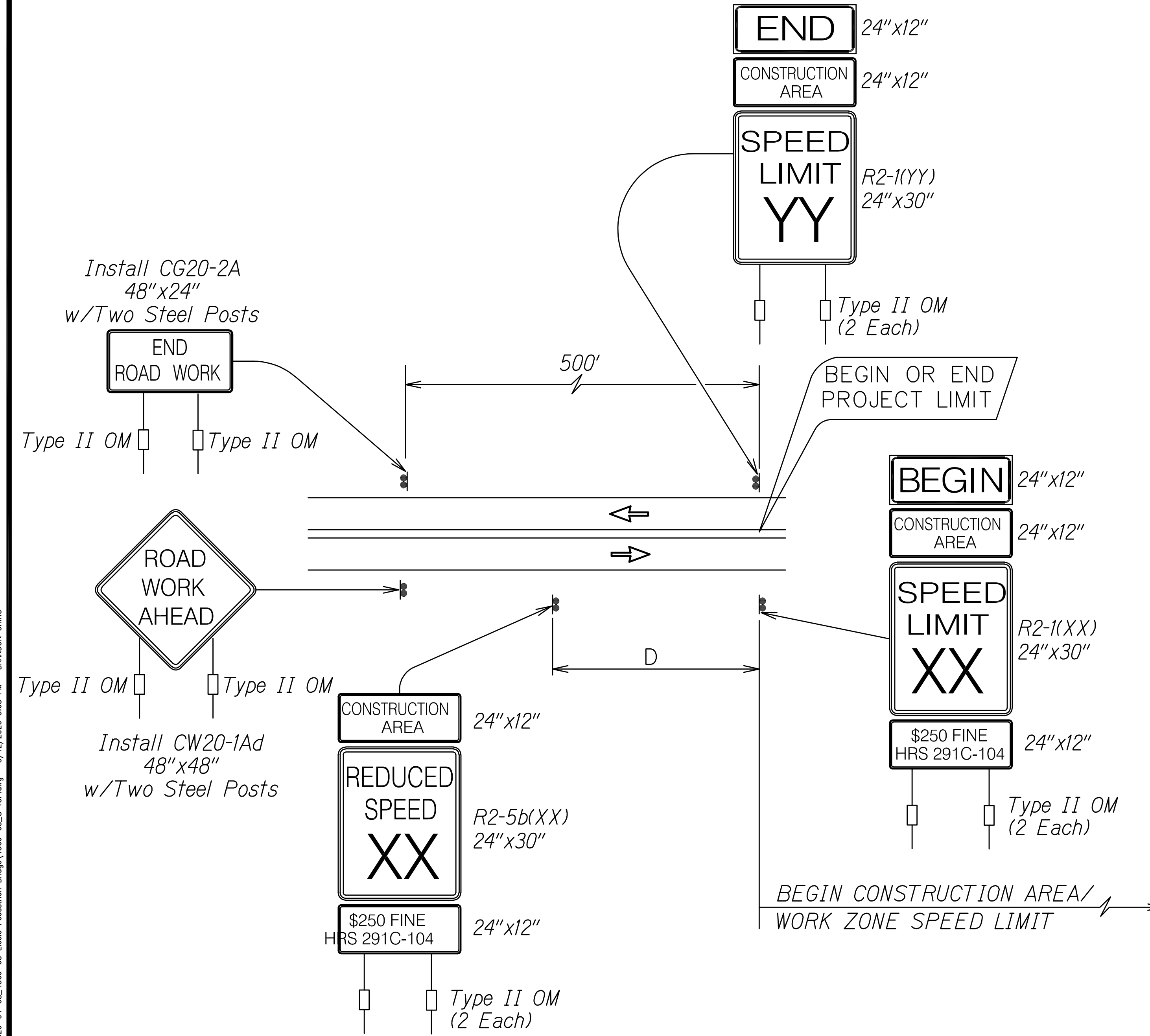
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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
TRAFFIC CONTROL NOTES
 KAUMUALII HIGHWAY
 ELEELE PEDESTRIAN OVERPASS
 IMPROVEMENTS
 PROJECT NO.: 50C-01-19M
 Scale: As Shown Date: May, 2020

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	8	19



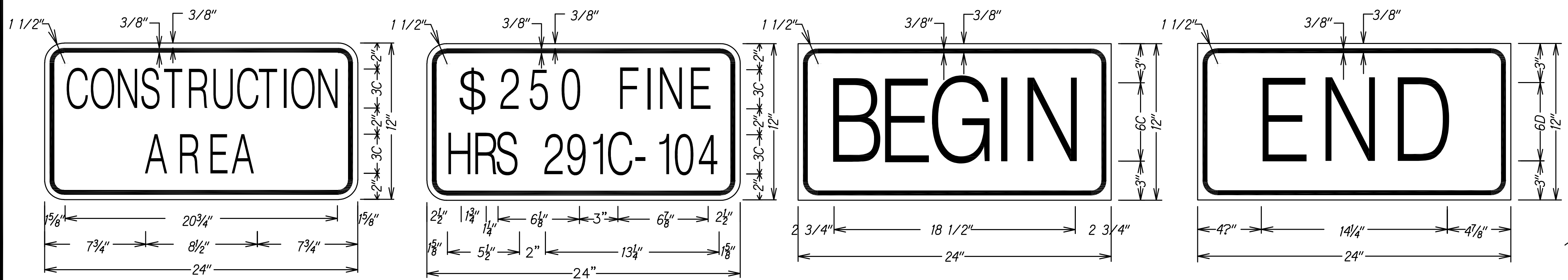
TYPICAL DETAIL FOR CONSTRUCTION SIGNS
ON TWO LANE OR MULTILANE UNDIVIDED LOW SPEED HIGHWAY

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(XX) and R2-5b(XX) 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 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 Item No. 645.0100 - Traffic Control.
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 limits 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 shall be considered incidental to Item No. 645.0100 - Traffic Control.
8. The installation, maintenance and removal of work zone speed limit sign assemblies shall be paid for under Item No. 645.0100 - Traffic Control.
9. The work zone speed limit signs shall be new and become the property of the Contractor.

YY - EXISTING POSTED SPEED LIMIT (MPH)	XX - NEW CONSTRUCTION AREA SPEED LIMIT (MPH)	D-REDUCED SPEED LIMIT SIGN SPACING TO FIRST CONSTRUCTION AREA SPEED LIMIT SIGN (FEET)
≤ 25	EXIST. SPEED LIMIT TO REMAIN	
30	25	100
35	25	175
40	30	175

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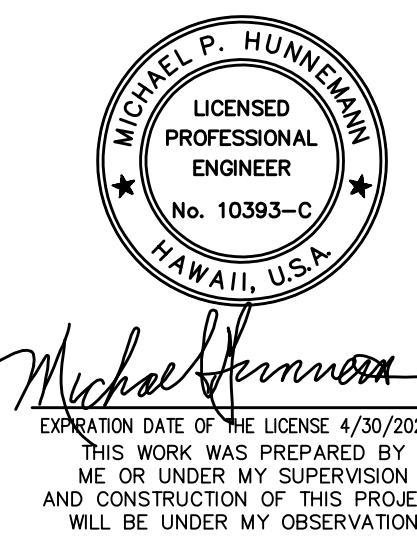


LEGEND: BLACK BACKGROUND: ORANGE

LEGEND: BLACK BACKGROUND: WHITE

LEGEND: BLACK BACKGROUND: ORANGE

LEGEND: BLACK BACKGROUND: ORANGE



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 1

KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020

SHEET No. 2 OF 3 SHEETS

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DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	9	19

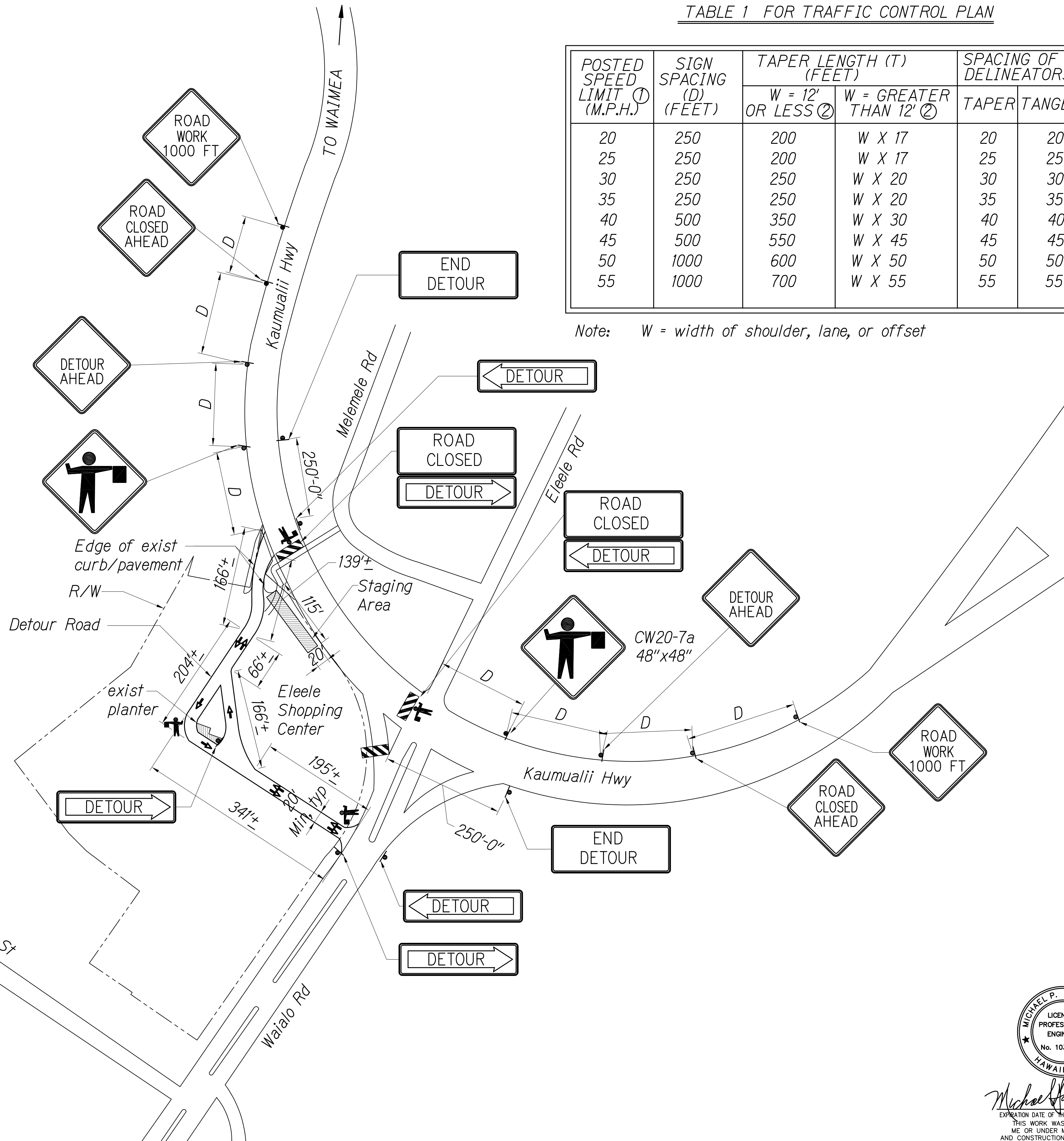
TABLE 1 FOR TRAFFIC CONTROL PLAN

POSTED SPEED LIMIT (M.P.H.) ①	SIGN SPACING (D) (FEET)	TAPER LENGTH (T) (FEET)		SPACING OF CONES OR DELINEATORS (FEET) ③		
		W = 12' OR LESS ②	W = GREATER THAN 12' ②	TAPER	TANGENT	WORK AREA
20	250	200	W X 17	20	20	10
25	250	200	W X 17	25	25	10
30	250	250	W X 20	30	30	10
35	250	250	W X 20	35	35	10
40	500	350	W X 30	40	40	10
45	500	550	W X 45	45	45	10
50	1000	600	W X 50	50	50	10
55	1000	700	W X 55	55	55	10

Note: W = width of shoulder, lane, or offset

Note: Posted Speed Limit = 35 MPH

Detour Road
Approximate Area:
20,000 S.F.

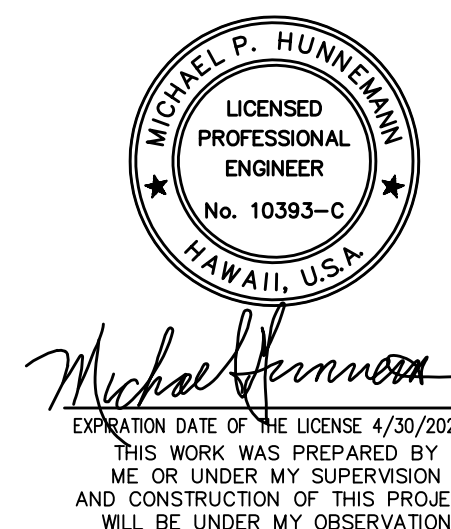


LEGEND

- Flagman / Policeman
- Type III barricade
- Work Area
- Sign (48"x48" unless otherwise noted)
- Direction of Traffic

ORIGINAL PLAN	DATE
NOTE BOOK	
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TRAFFIC CONTROL PLAN 2

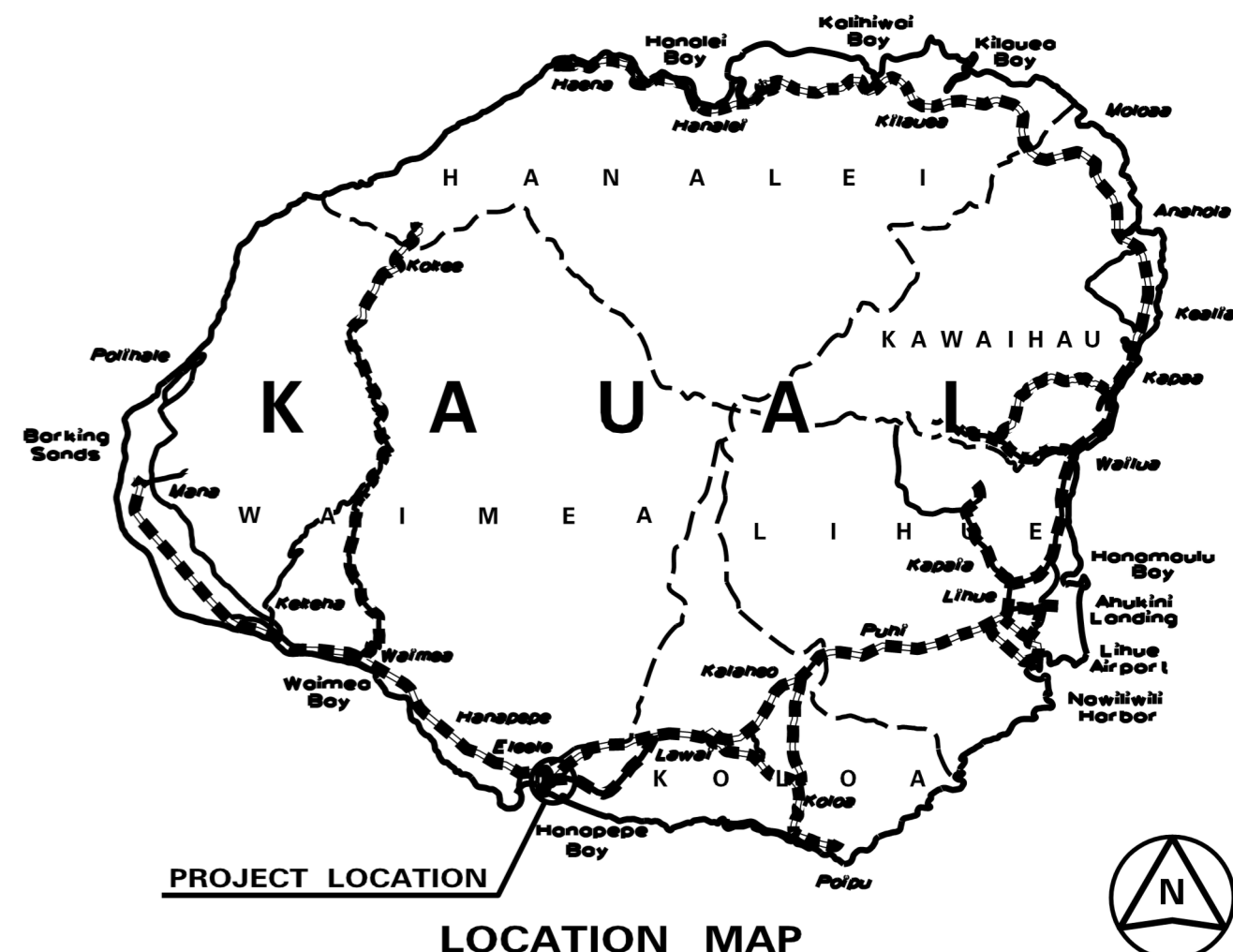
KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020

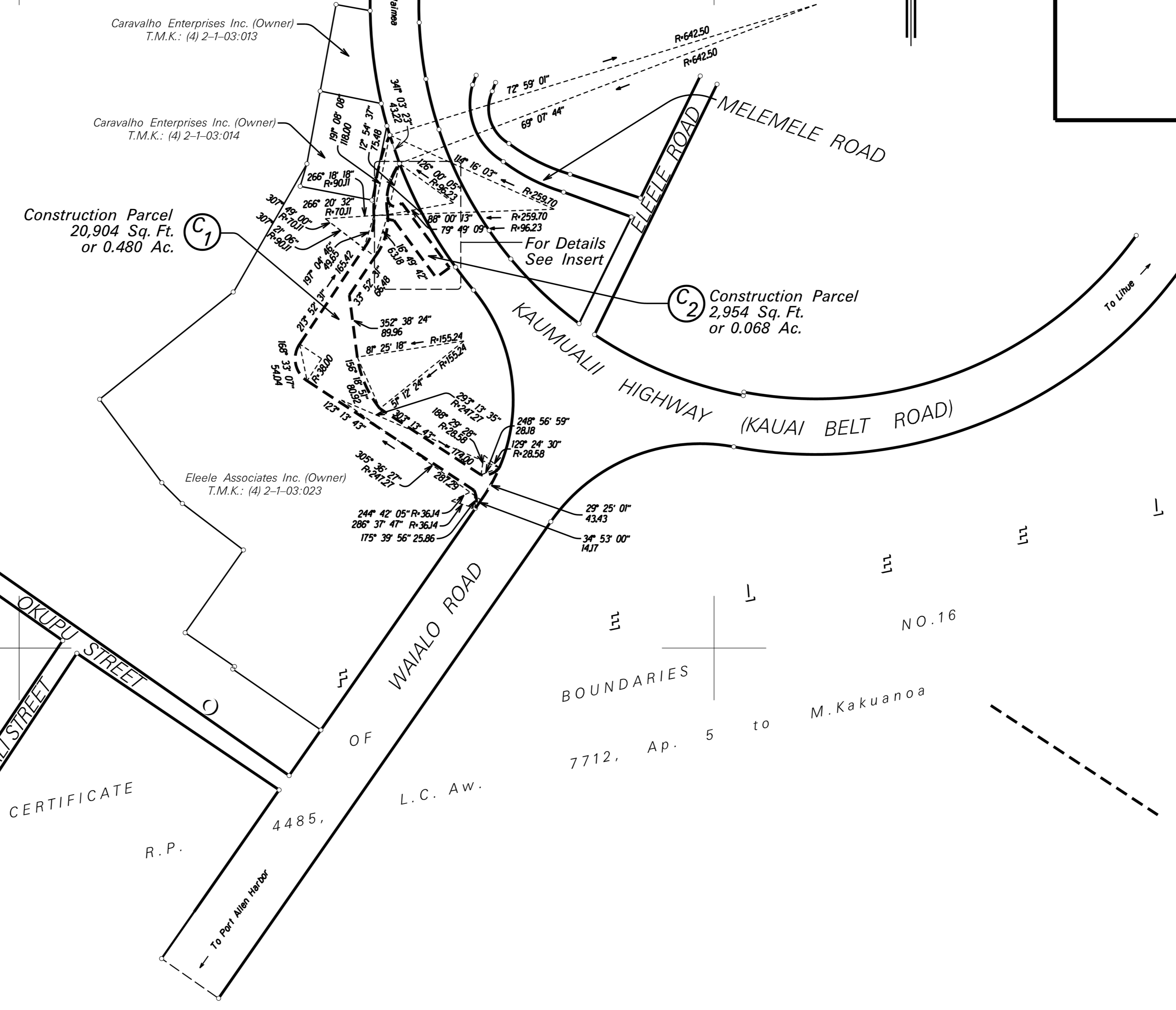
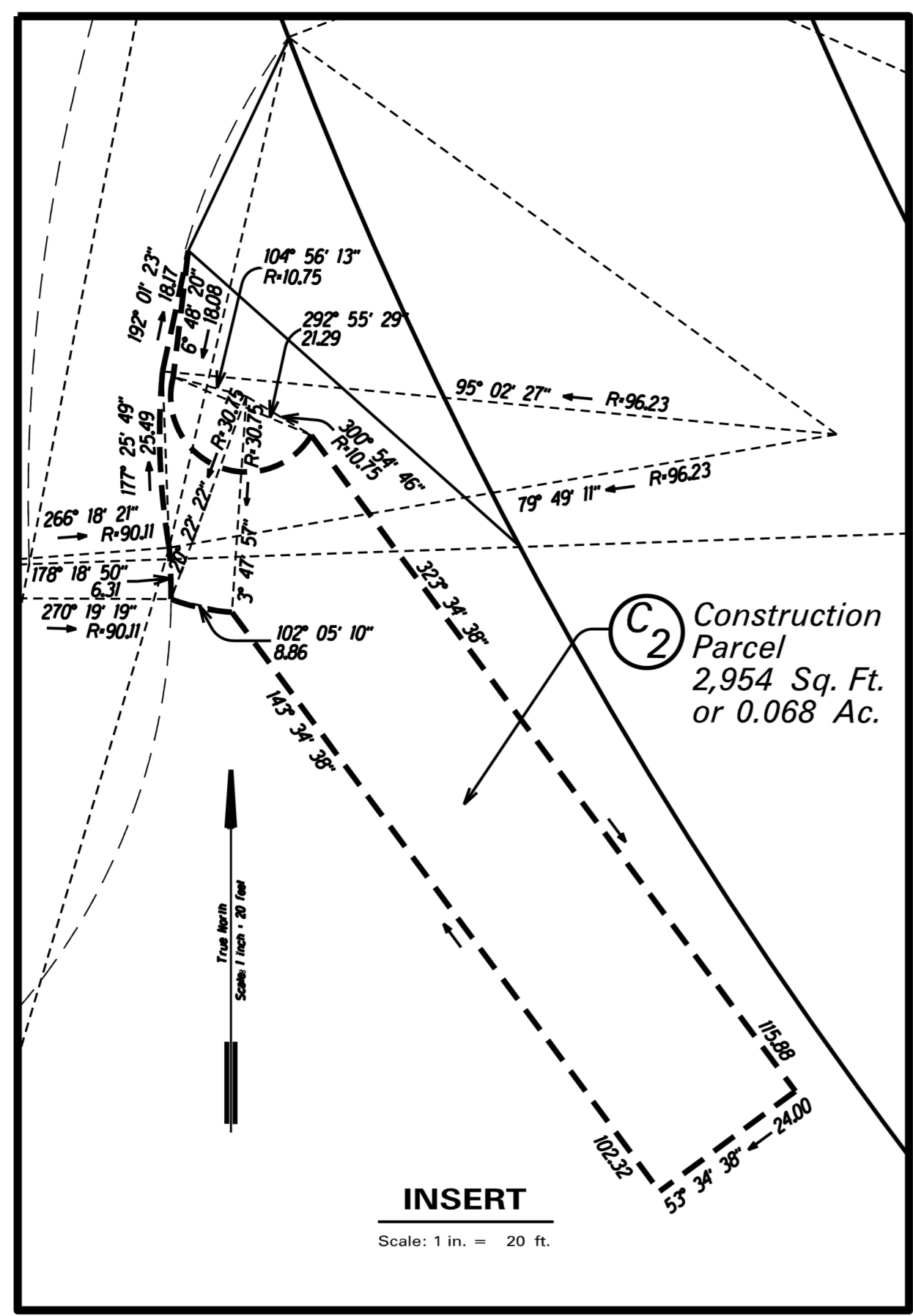
SHEET No. 3 OF 3 SHEETS

TRUE NORTH
SCALE: 1" = 100'-0"

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	10	19



True North
Scale: 1 inch = 100 Feet



HWY.DC17 D:\usr2\Micah\Right Of Way\Kauai\Kaumualii\Eleele Pedestrian Overpass.dgn

PROJ. ENGINEER	_____
FIELD CHIEF	_____
FIELD BROWS	_____
PLATE	_____
DATE	_____
CHK BY	_____
DATE	_____

NOTES:
Origin of Azimuths: "Puolo" Δ
Coordinates referred to: "Puolo" Δ

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
RIGHT OF WAY MAP
KAUMUALII HIGHWAY, ELEELE
PEDESTRIAN OVERPASS REPAIRS
PROJECT NO. 50C-01-19M
AT ELEELE, KOLOA, KAUAI, HAWAII

HONOLULU, HAWAII
APRIL 15, 2020

APPROVED: *Rosen Chun*
CADASTRAL ENGINEER FOR ADMINISTRATOR, HIGHWAYS DIVISION

SCALE: 1" = 100'

NO.	REVISION	APPROVED	DATE

SHEET NO. 1 OF 1 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	11	19

STRUCTURAL NOTES:

1. General:

- A. Workmanship and materials shall conform to the AASHTO LRFD Bridge Design Specifications, 8th Edition, 2017 including its subsequent interim specifications, HDOT Design Criteria for Bridges and Structures, August 8, 2014 and the Hawaii Standard Specifications for Bridge and Road Construction, 2005 as modified by the State of Hawaii Department of Transportation.
- B. The Contractor shall compare all the contract documents with each other and report in writing to the Engineer all inconsistencies or omissions.
- C. The Contractor shall take field measurements and verify field conditions and shall compare such field measurements and conditions with the drawings before commencing the work. Report in writing to the Engineer all inconsistencies or omissions.
- D. The Contractor shall be responsible for coordinating the work of all trades.
- E. The Contractor shall be responsible for means and methods of construction, workmanship and job safety.
- F. The Contractor shall provide temporary shoring and bracing as required for stability of structural members and systems.
- G. Construction loading shall not exceed design live load unless special shoring is provided. Permitted construction loads shall be properly reduced in areas where the structure has not attained full design strength.
- H. The Contractor shall be responsible for protection of the adjacent properties, structures, streets, and utilities during the construction period. Any damage or deteriorated property shall be restored to the condition prior to the beginning of work or better at no cost to the County of Kauai.
- I. Details noted as typical on structural drawings shall apply in all conditions unless specifically shown or noted otherwise.
- J. Elevations and details of the existing bridge as shown on these plans are based on notes on field measurements and conditions. The contractor shall be responsible for verifying all existing elevations and existing structure details and shall notify the engineer of any discrepancies for further action.

2. Design Criteria:

- A. Dead load
Weight of all components of the structures, appurtenances attached thereto, and earth covers.
- B. Live load ----- 90 psf
- C. Seismic
0.2-second spectral response acceleration coefficient ----- $S_s = 0.131$
1.0-second spectral response acceleration coefficient ----- $S_1 = 0.038$
Horizontal peak ground acceleration coefficient ----- $PGA = 0.06$
Site class ----- D
Seismic design zone ----- 1
- D. Bridge railing ----- 0.05 klf transverse and vertical + 0.2 kip in any direction

3. Concrete:

- A. Concrete shall be regular weight and shall have the following minimum 28-day compressive strengths:
 - 1. Deck slab ----- 4,000 psi
 - 2. Stair Extension ----- 4,000 psi
 - 3. All other concrete ----- Class "A"
 All concrete except Class "A" concrete shall have maximum w/c ratio of 0.45.
- B. Concrete delivery tickets shall record all free water in the mix at batching plant, added for consistency by driver, and any additional request by Contractor up to the maximum amount allowed by the mix design.
- C. All inserts, anchor bolts, plates, and other items to be cast in the concrete shall be hot-dipped galvanized according to ASTM A153 unless otherwise noted.
- D. Reinforcing bars, anchor bolts, inserts, and other items to be cast in the concrete shall be secured in position prior to placement of concrete.
- E. Conduits, pipes, and sleeves passing through a slab or footing that do not conform to typical details shall be located and the proposed construction detail submitted to the Engineer for approval.
- F. Conduits, pipes, and sleeves shall not be placed through or embedded in a beam unless specifically detailed.

Concrete continued:

- H. The Contractor shall locate construction joints not shown on the drawings, so as not to impair the strength of the structure and to minimize shrinkage stresses. Submit proposed locations of construction joints to the Engineer for approval. All construction joints shall be cleaned, laitance removed and wetted. see Typical Details for specific requirements.
- I. Unless otherwise noted, chamfer all exposed concrete edges $\frac{3}{4}$ ".
- J. Non-shrink grout shall be a premixed non-metallic formula, capable of developing a minimum compressive strength of 4,000 psi in 1 day and 7,000 psi in 28 days.
- K. Tetraguard AS20 shrinkage reducing admixture, Eclipse Plus shrinkage reducing admixture, or an approved equal, shall be included in the concrete mix for the concrete slab. The required dosage shall be 128 ounces per cubic yard of concrete or as recommended by the manufacturer. Addition of shrinkage reducing admixture shall be as recommended by the manufacturer.
- L. A corrosion inhibiting admixture shall be included in the concrete mix for all concrete. The admixture shall be RHEOCRETE CNI Corrosion Inhibitor from BASF, DCI S corrosion inhibitor from Grace Construction products or an approved equal. Addition of corrosion inhibiting admixture shall be as recommended by the Manufacturer.
- M. Before pouring cast-in-place slab, coat the mating concrete surface with a crystalline waterproofing compound. The waterproofing system shall be of the crystalline type that is a blend of portland cement, fine treated silica sand and active chemicals that, when mixed with water and applied as a cementitious coating, the active chemicals diffuse into the concrete and cause a catalytic reaction which generates a non-soluble crystalline structure within the pores and capillary tracts of concrete.

4. Reinforcing Steel:

- A. Reinforcing steel shall be deformed bars conforming to ASTM A615, Grade 60 unless otherwise noted.
- B. Clear concrete coverage for reinforcing bars shall be as follows, unless otherwise noted:
 - 1. Deck slabs
 - i. Top bars ----- $2\frac{1}{2}$ "
 - ii. Bottom bars ----- $1\frac{1}{2}$ "
 - 2. Footings cast against earth ----- 3"
 - 3. Footings and Walls formed and exposed to earth or weather ----- 2"
 - 4. All others ----- 2"
- C. Splices:
 - a. Reinforcing steel shall be spliced only where indicated on plans. Provide lap splice length per typical details and schedule, sheet 13, unless otherwise noted.
- D. Bar bends and hooks shall be "standard hooks" in accordance with Typical Details Sheet 13.

5. Structural Steel:

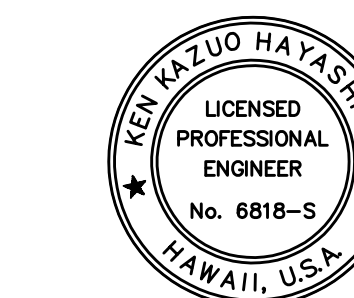
- A. Fabrication and erection of structural steel shall conform to the AASHTO LRFD bridge construction specifications, 4th edition, 2017 including its subsequent interim specifications.
- B. All anchor bolts, plates, and other items to be cast in concrete shall be hot-dip galvanized according to ASTM A153, unless otherwise noted.
- C. All steel members shall be hot-dipped galvanized after fabrication, including, but not limited to girders, all connection elements, handrail posts, rails and pickets.
- D. Structural steel shall conform to ASTM A36 unless otherwise noted.
- E. Steel wide flange sections shall conform to ASTM A709, Grade 50.
- F. Steel pipes shall conform to ASTM A53, Grade B.
- G. Steel tubes (HSS) shall conform to ASTM A500, Grade B.
- H. Stainless steel shall conform to ASTM A240, Type 316L.
- I. Plates and bars shall conform to ASTM A36 or ASTM A588, unless noted otherwise.
- J. Thru bolts for guardrail connection shall conform to AASHTO M164 (ASTM A325), unless otherwise noted.
- K. Welds and welding procedures shall conform to the AWS D1.5 Bridge Welding Code and AWS D1.6 Structural Welding Code - Stainless Steel of the American Welding Society.

Structural Steel Continued:

- L. Welding shall be performed by welders prequalified for welding procedures to be used.
 - M. Welding electrodes shall be E70XX or E316.
 - N. High-strength bolts, nuts, and washers shall conform to section 718.02, 718.03, and 718.04 respectively of the standard specification. Bolts shall be installed with the heads on exterior or exposed side whenever possible.
 - O. Anchor bolts shall conform to ASTM F1554, grade 55.
 - P. Headed stud shear connectors shall conform to ASTM 108, grade 1015, 1018 or 1020 unless otherwise noted.
- 6. Construction Sequence:**
- A. The new girders and deck shall be fabricated off-site such that the new girders and deck can be dropped into position to minimize road closure duration

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
DESIGNED BY	_____
CHECKED BY	_____
NO.	_____

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STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
<h2>STRUCTURAL NOTES</h2>	
KAUMUALII HIGHWAY ELEELE PEDESTRIAN OVERPASS IMPROVEMENTS PROJECT NO.: 50C-01-19M	
Scale: As Shown	Date: May, 2020
SHEET No. 50.1 OF 9 SHEETS	

7. Paint:

1. Contractor shall shop coat all members. Field coating shall consist of touch ups only.
2. The touch up paint shall consist of the following:
 - A. Prepare surface per SSPC-SPI, solvent cleaning.
 - B. Apply first and second coat according to paint schedule
3. Color for top coat shall be green, as proposed by the contractor and approved by the engineer. Finish for top coat shall not be gloss or high gloss.
4. Multiple coats may be required to obtain minimum dry film thickness (DFT).
5. All hot-dip galvanized coating that is damaged shall be repaired. The repairs shall consist of the following:
 - A. Prepare surface per SSPC-SPI, solvent cleaning.
 - B. Apply (2) coats of cold applied, galvanizing compound containing 95% metallic zinc content by weight in dry film and 52% solids content by volume.
 - C. Application rate shall be 1.5 mils dry film thickness per coat.
 - D. Rust scale shall be cleaned per SSPC-SP3.
 - E. The coating shall be applied at sufficient wet film thickness to achieve a minimum dry film.
 - F. The coating shall be well stirred before use so that it is completely homogeneous during application.
 - G. Minimum dry film build is 3 mils, using manufacturer's recoat time directions.
 - H. After galvanizing repairs are complete, apply touch-up paint system according to paint schedule.
6. Cost of galvanizing and painting is incidental to the structural steel.
7. The preparation of newly-galvanized steel surfaces shall conform to ASTM D6386. If the paint is to be applied beyond 48 hours after galvanizing, the surface preparation of the galvanized surface shall be according to the paint schedule. All galvanized surfaces shall be lightly abraded and the surfaces roughened before following surface preparation instructions in paint schedule. If over abraded or roughened, follow guideline from #5 above and repeat the process.

PAINT SCHEDULE *

	Option 1	Option 2	Option 3	Option 4
Preparation for Galvanized Surfaces:	Carboline Thinner #2 Or Surface Cleaner #3, Per SSPS-SPI, Apply Rustbond Penetrating Sealer.	Solvent Clean Per SSPC-SPI, and as Recommended by the Manufacturer	Solvent Clean Per SSPC-SPI, and as Recommended by the Manufacturer	Solvent Clean Per SSPC- SPI. Apply Galvanized Zinc Treatment (acid Etching)
Preparation for Existing Steel:	Prepare all existing metal surfaces in accordance with SSPC-SP 1 Solvent Cleaning. After all oil, grease and other impurities are removed, power tool clean all surfaces in accordance with SSPC-SP 3 Power Tool Cleaning For all steel with any amount of corrosion exhibited, including anchor bolts and base plates, shall be prepared in accordance with SSPC-SP 11 Power Tool Cleaning to Bare Metal, after being prepared according to SSPC-SP 1.			
1st Coat:	Carboline Carboguard 890 Epoxy Dft 5 Mil (min) Wft 7 Mil (min)	Tnemecc High-build Epoxoline II Series N69 Dft 5 Mil (min) Wft 7 Mil (min)	Sherwin Williams Tile Clad High Solids B62 Series Dft 4 Mil (min) Wft 7 Mil (min)	Ameron Amercoat 385 Epoxy Dft 5 Mil (min) Wft 8 Mil (min)
Recoating Time:	8 Hrs (min) 2 Days (max)	10 Hrs (min) 2 Days (max)	8 Hrs (min) 2 Days (max)	8 Hrs (min) 2 Days (max)
Top Coat:	Carboline Carbothane 133hb Alyphatic Polyurethane Dft 5 Mil (min) Wft 7 Mil (max)	Tnemecc Endura-shield Series 75 Dft 4 Mil (min) Wft 7 Mil (min)	Sherwin Williams Corothane II B65 W200 Series/b60v2 Dft 4 Mil (min) Wft 7 Mil (min)	Ameron Amercoat 450 Sa Polyurethane Dft 4 Mil Wft 7 Mil
Top Coat Color:	Green for Steel Girders, Railing, Railing Posts, Submit Color Chips for Approval.			


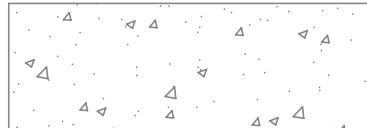
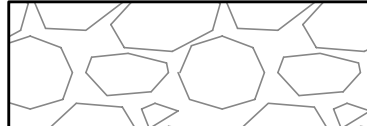





* For Paint Schedule, Use the Brand Names Listed, or Equal as Approved by the Engineer.

ABBREVIATIONS

ABUT	Abutment	Ftg	Footing
⌀	Baseline	Galv	Galvanized
Bot	Bottom	Horiz	Horizontal
Btwn	Between	HSB	High Strength Bolt
⊕	Centerline	I.D.	Inside Diameter
C.I.	Cast Iron	LS	Lap Splice
CJ	Construction Joint	Max	Maximum
Clr	Clear	Mech	Mechanical
Conc	Concrete	Min	Minimum
Cont	Continuous	Misc	Miscellaneous
Dbl	Double	No. or #	Number
Dia	Diameter	N.T.S.	Not to Scale
Dwg	Drawing	O.C.	On center
Ea	Each	O.D.	Outside Diameter
E.F.	Each Face	O.H.W.M.	Ordinary High Water Mark
Elev	Elevation	Opng	Opening
Eq	Equal	Opp	Opposite
E.W.	Each Way	PL or Ⓟ	Plate
Exist	Existing	Prefab	Prefabricated
Expn	Expansion	Ref	Reference
Ext	Exterior	Reinf	Reinforced or Reinforcing
Fin	Finish	Sim	Similar
Fix	Fixed	Sp	Spaces or Spacing
Ft	Foot or Feet	ss	Stainless Steel

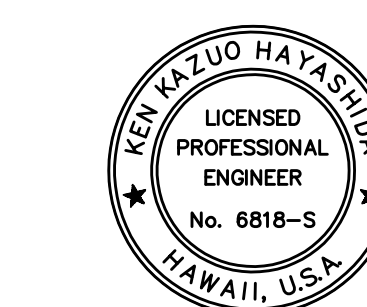
DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	12	19

LEGEND

	Demolition Area
	Existing Concrete
	Existing CRM
	Structural Backfill
	New Concrete
	New AC Overlay
	New CLSM Backfill
	Existing Tree

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
CHECKED BY	_____
NO. _____	

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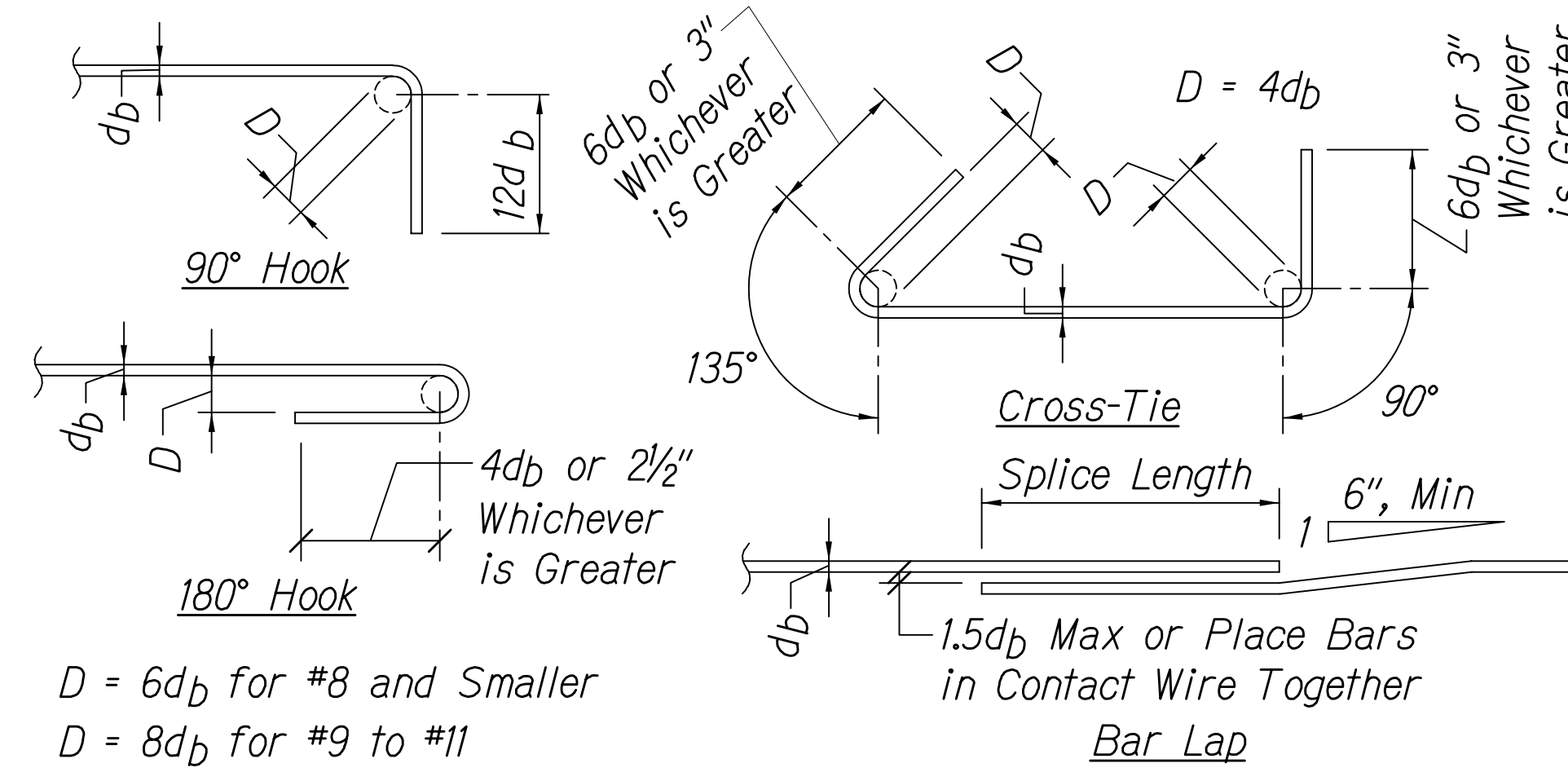
K. K. Hayashida
 LICENSED PROFESSIONAL ENGINEER
 No. 6818-S
 HAWAII, U.S.A.
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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
STRUCTURAL NOTES AND ABBREVIATIONS AND LEGEND
 KAUMUALII HIGHWAY
 ELEELE PEDESTRIAN OVERPASS
 IMPROVEMENTS
 PROJECT NO.: 50C-01-19M
 Scale: As Shown Date: May, 2020
 SHEET No. 50.2 OF 9 SHEETS

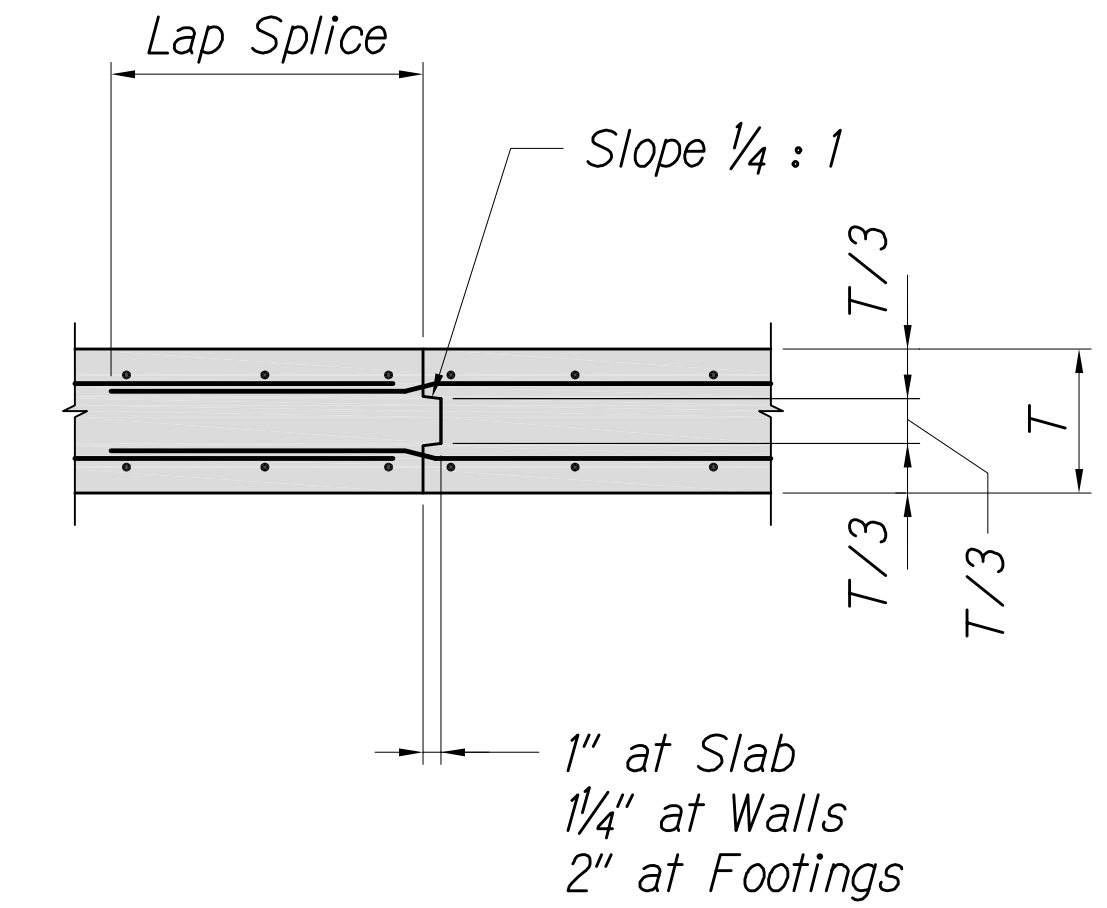
DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	13	19

MINIMUM SPLICE & EMBEDMENT LENGTHS					
Concrete Strength = 4,000 psi					
Bar Size	Lap Splice		Embedment		with Standard 90° Hook
	Top Bars	Other Bars	Straight		
			Top Bars	Other Bars	
#3, #4	29"	21"	17"	12"	10"
#5	36"	26"	21"	15"	12"
#6	43"	31"	26"	18"	16"
#7	54"	39"	32"	23"	18"
#8	71"	51"	42"	30"	20"
#9	90"	64"	53"	38"	22"
#10	114"	81"	67"	48"	26"
#11	140"	100"	82"	59"	28"

Note:
"Top Bars" are horizontal bars with 12" or more of concrete cast below.



$D = 6d_b$ for #8 and Smaller
 $D = 8d_b$ for #9 to #11



TYPICAL REBAR SPLICE AND EMBEDMENT LENGTH SCHEDULE
Not to Scale

1
S0.3 | S0.3

STANDARD HOOKS AND CROSS-TIE DETAIL
Not to Scale

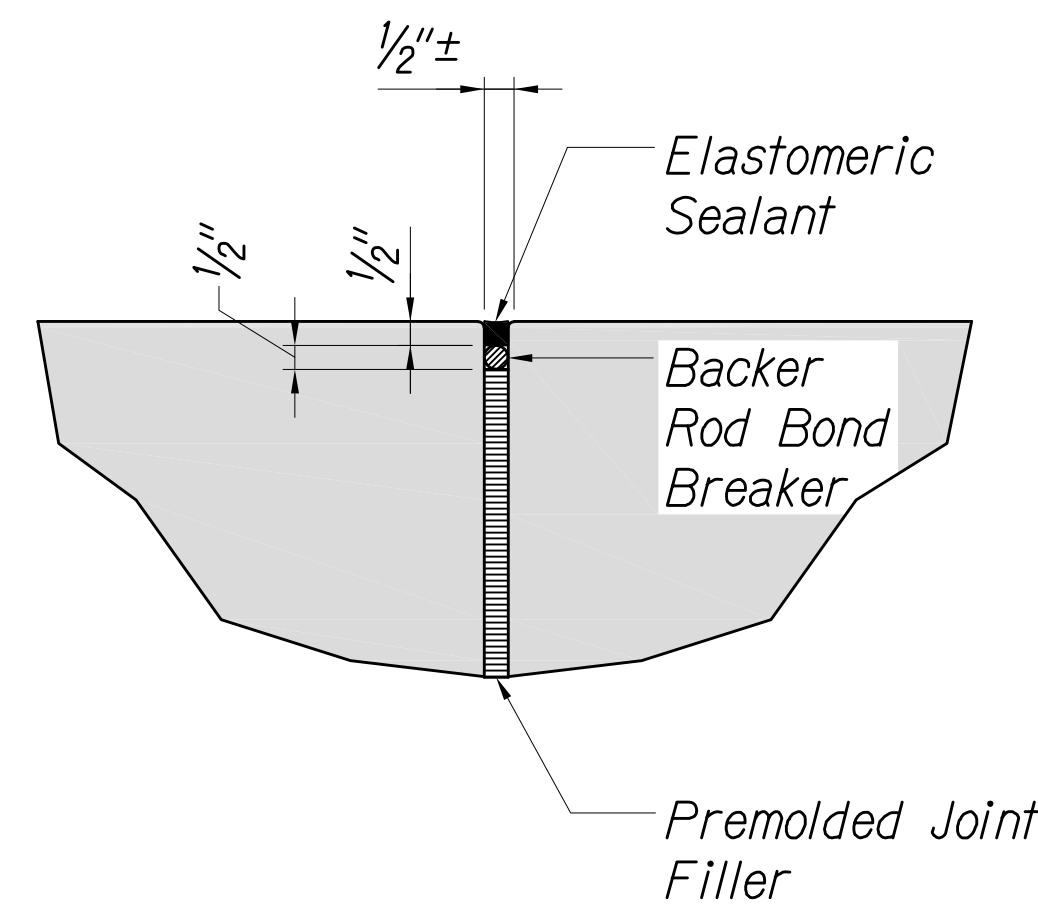
2
S0.3 | S0.3

TYPICAL REBAR CONSTRUCTION JOINT DETAIL
Not Scale

3
S0.3 | S0.3

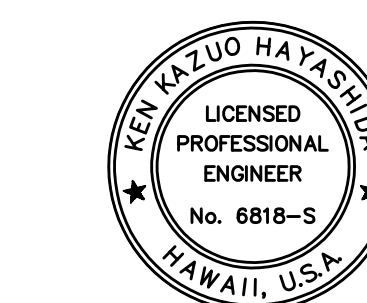
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DRAWN BY	_____
TRACED BY	_____
QUANTITIES BY	_____
CHECKED BY	_____
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EXPANSION JOINT DETAIL
No Scale

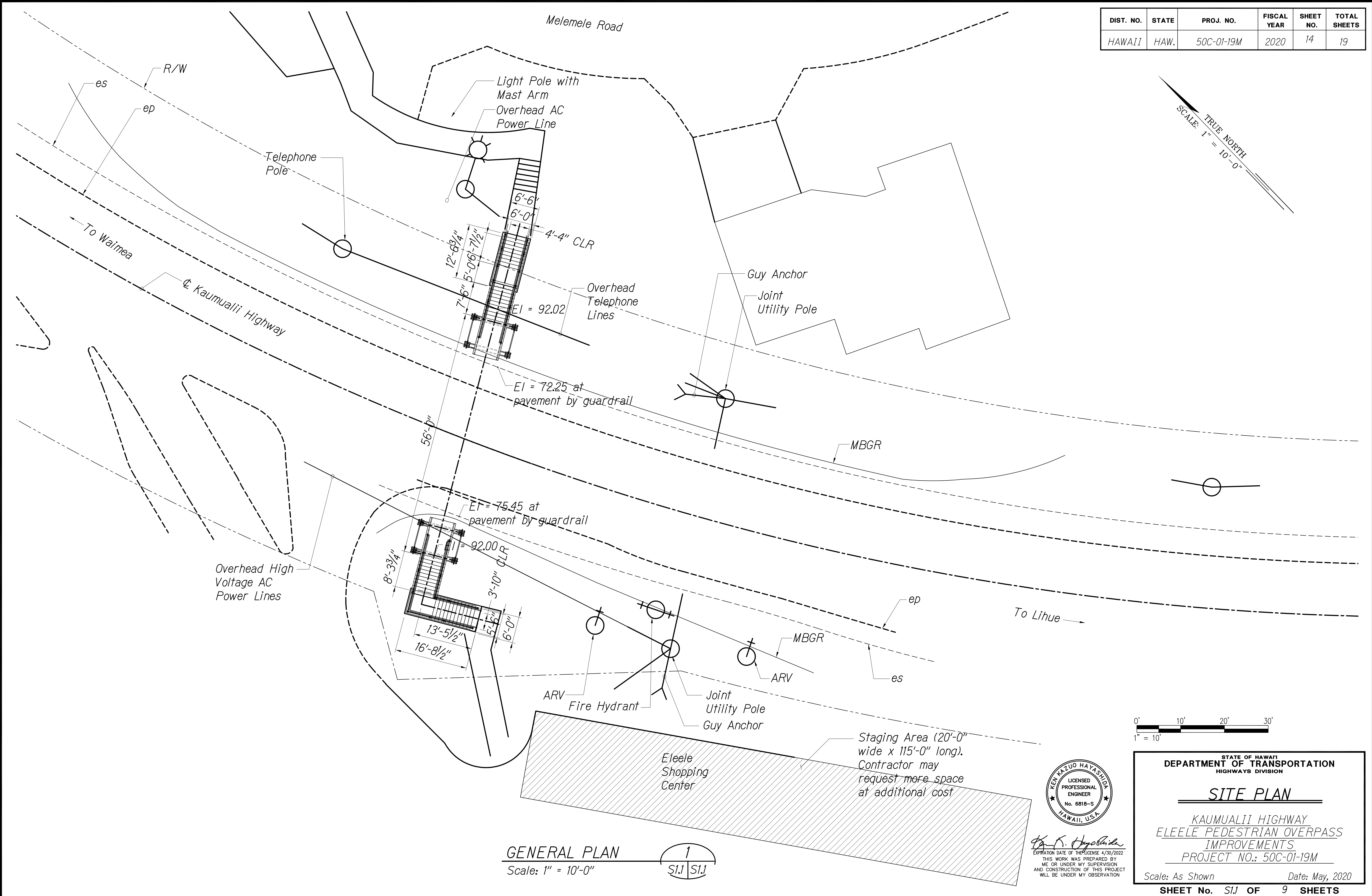
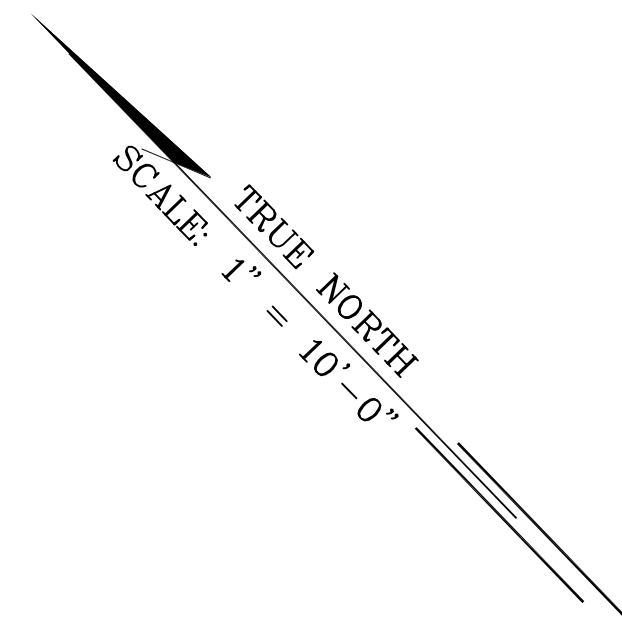
4
S0.3 | S0.3



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL STRUCTURAL DETAILS
KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M
Scale: As Shown Date: May, 2020
SHEET No. S0.3 OF 9 SHEETS

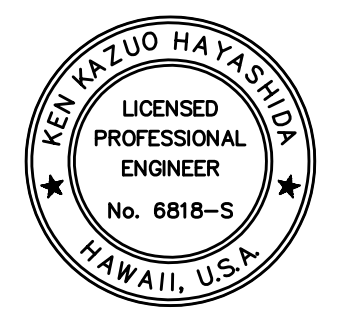
DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	14	19



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

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GENERAL PLAN
 Scale: 1" = 10'-0"
 1
 S1.1 S1.1



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 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

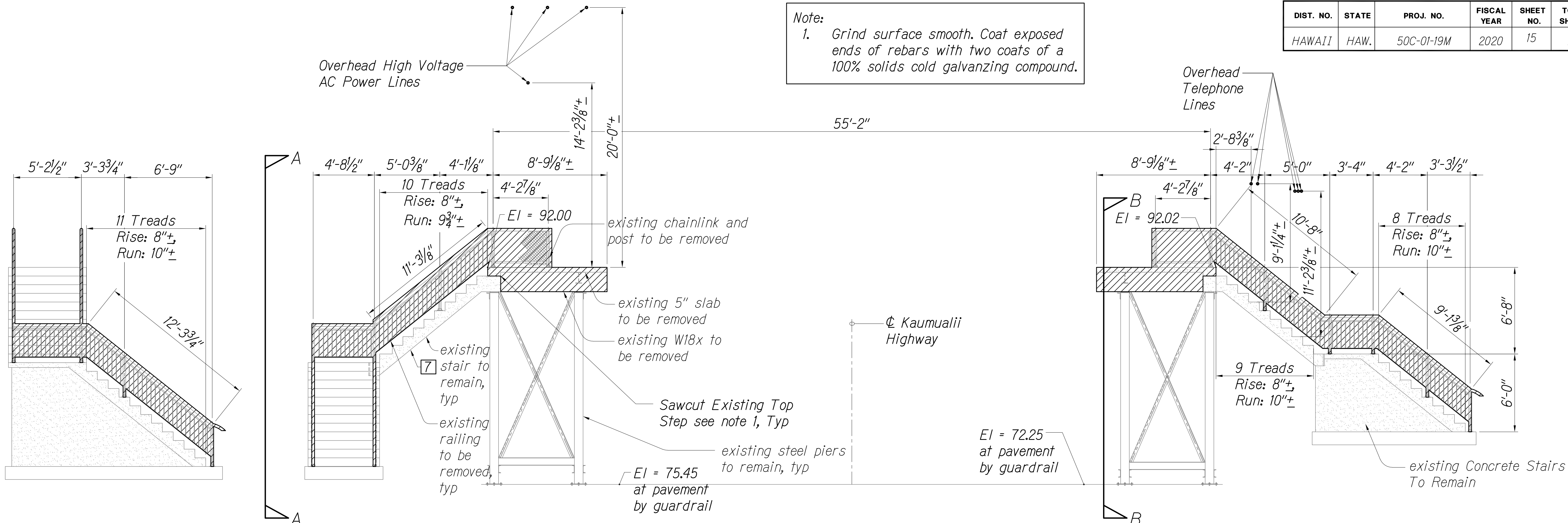
SITE PLAN

KAUMUALII HIGHWAY
 ELEELE PEDESTRIAN OVERPASS
 IMPROVEMENTS
 PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020
SHEET No. S1.1 OF 9 SHEETS

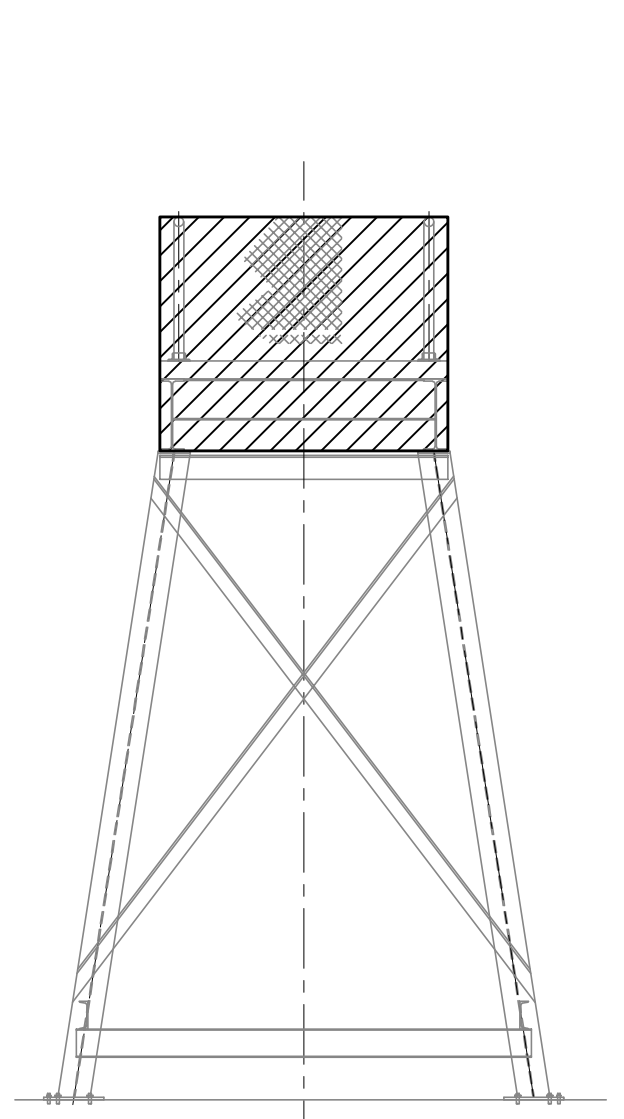
DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	15	19

Note:
1. Grind surface smooth. Coat exposed ends of rebar with two coats of a 100% solids cold galvanizing compound.

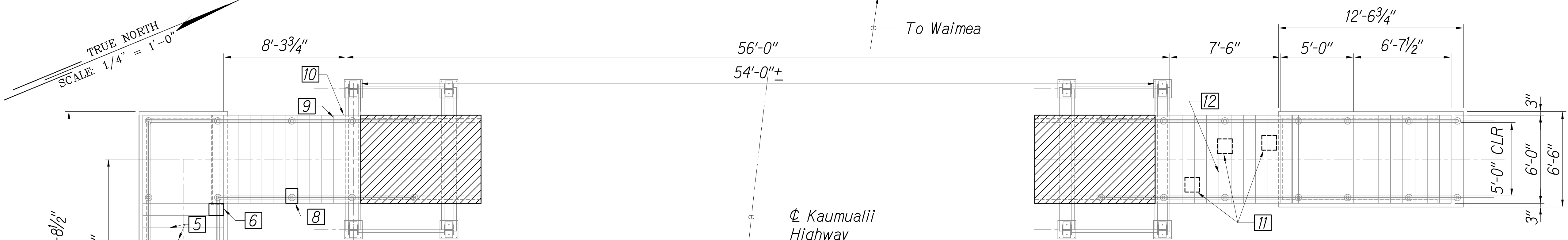


SECTION A-A

ELEVATION



SECTION B-B

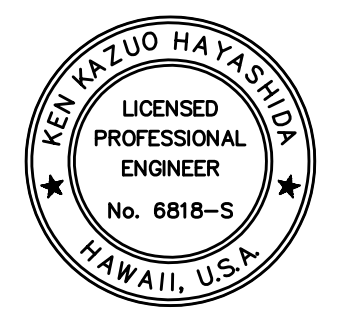


PLAN

Item No.	No. of Locations	Repair Detail	Description (see Sht. No. 19 for Spall Repair Details)
1	1	2/S5.1	4' spall in step
2	1	2/S5.1	5' spall in step
3	1	2/S5.1	5.5' spall in step
4	1	2/S5.1	3' spall in step
5	2	2/S5.1	4' spall in step
6	1	2/S5.1	2' spall in step
7	2	2/S5.1	2' spall near side, 4' spall far side
8	1	1/S5.1	1'x1' delamination
9	1	2/S5.1	0.5' spall in step
10	1	2/S5.1	1' spall at bottom edge of stairs
11	3	1/S5.1	1'x1' delamination in stair slab soffit
12	1	2/S5.1	2' spall in step
13	1	2/S5.1	2' spall in top landing of mauka approach

Contractor to perform sounding of concrete surfaces to verify estimated extent of spall repair prior to commencing repairs.

EXISTING BRIDGE
Scale: 1/4" = 1'-0"

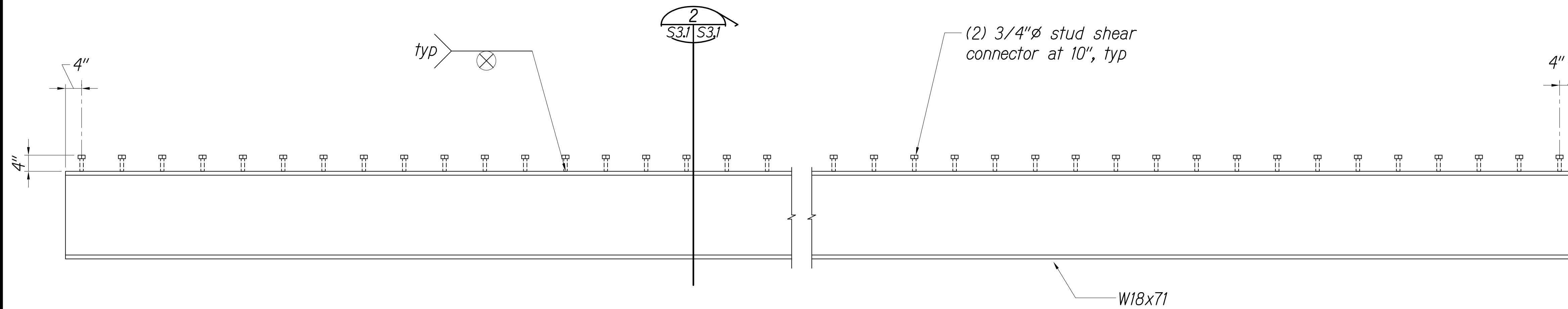


STATE OF HAWAII
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EXISTING BRIDGE DEMOLITION
KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M
Scale: As Shown Date: May, 2020
SHEET No. 15 OF 19 SHEETS

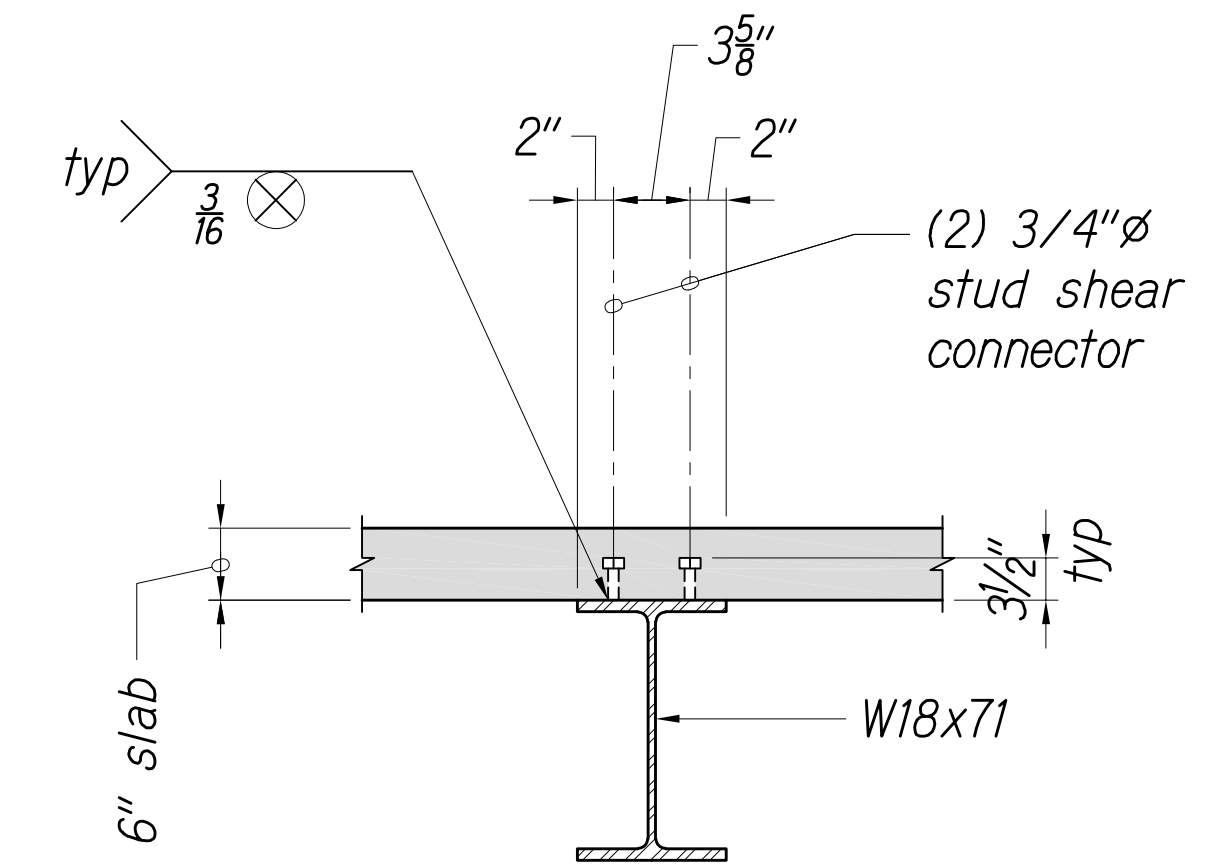
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DRAWN BY	
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QUANTITIES BY	
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ORIGINAL PLAN	
NOTE BOOK	
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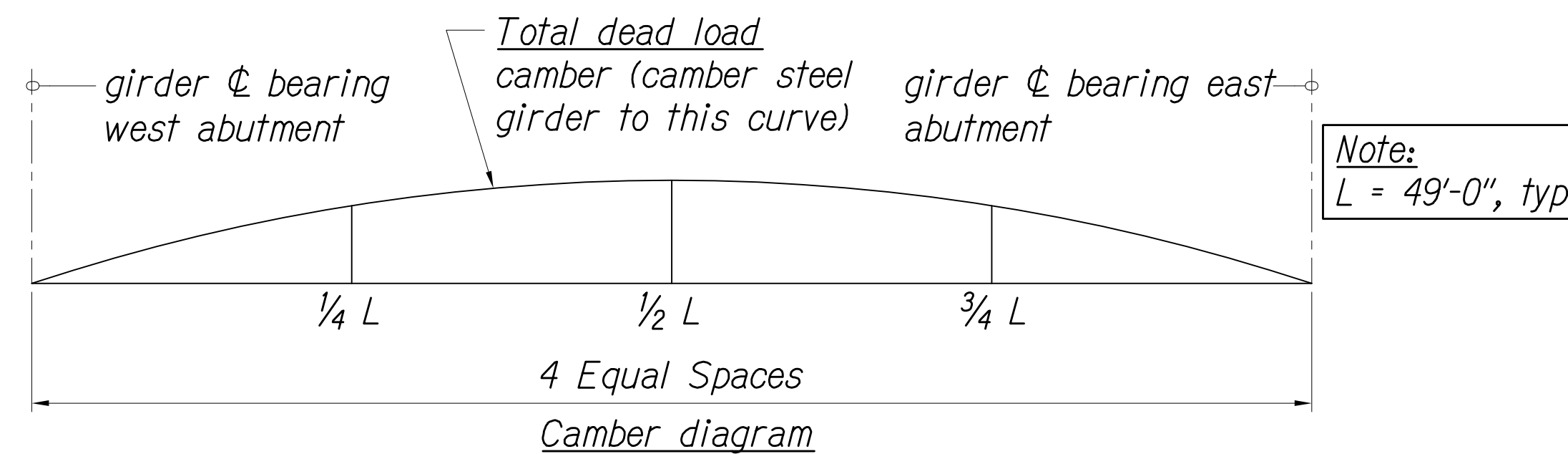
DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	17	19



TYPICAL HEADED STUD SCHEDULE
Scale: 3/4" = 1'-0"
S3.1 | S3.1

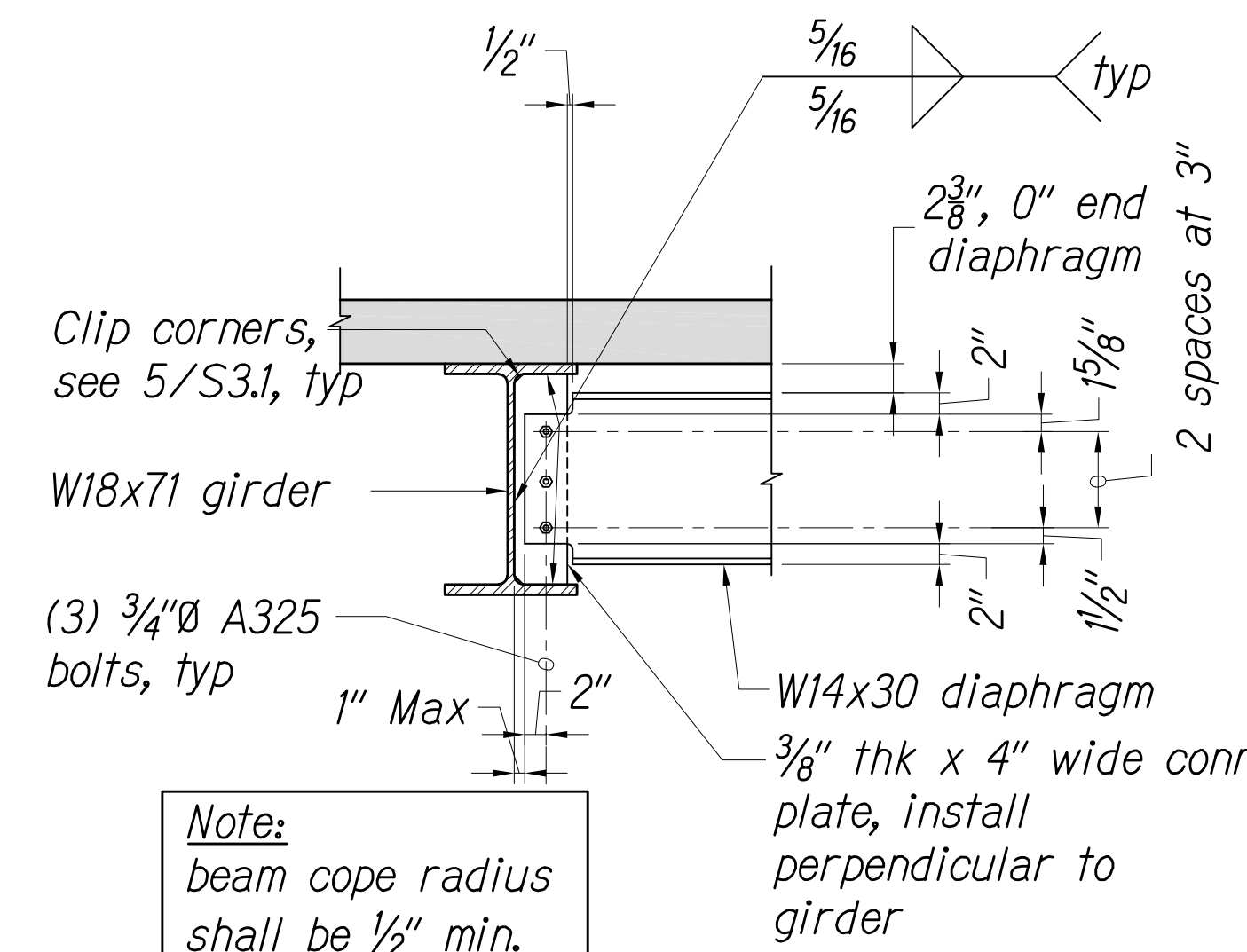


SECTION
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S3.1 | S3.1

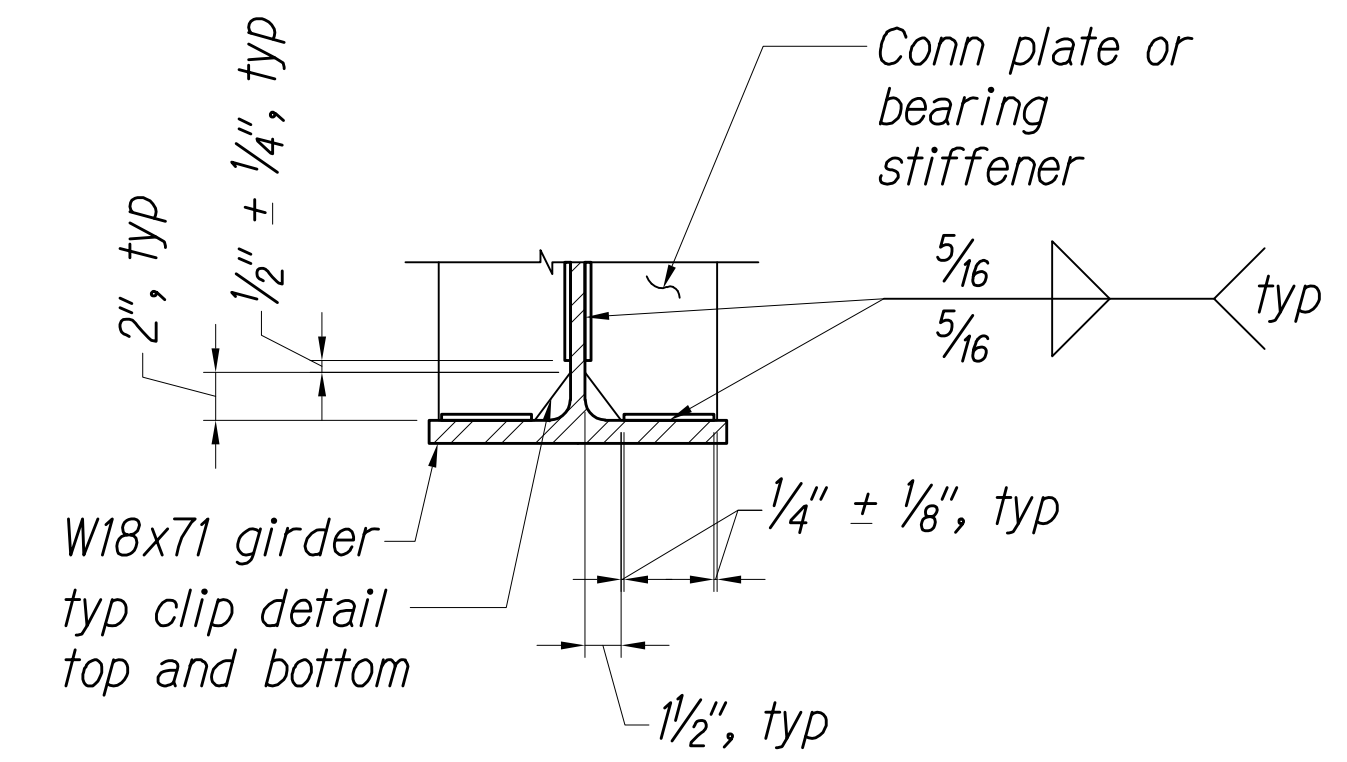


CAMBER SCHEDULE				
Girder	Dead load components	camber (inches)		
		1/4 L	1/2 L	3/4 L
G-1	Steel girder + diaphragms	1/4	3/8	1/4
	Deck slab	3/8	5/8	3/8
	Total dead load	5/8	1	5/8

DEAD LOAD CAMBER SCHEDULE
Not to Scale
S3.1 | S3.1



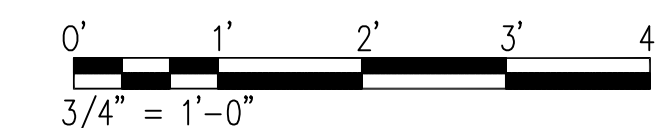
INTERMEDIATE DIAPHRAGM CONNECTION DETAIL
Scale: 3/4" = 1'-0"
S3.1 | S3.1



TYPICAL FILLET WELD TERMINATION DETAIL
Scale: 1 1/2" = 1'-0"
S3.1 | S3.1

DATE	_____
SURVEY PLOTTED BY	_____
DRAWN BY	_____
TRACED BY	_____
DESIGNED BY	_____
CHECKED BY	_____
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HIGHWAYS DIVISION

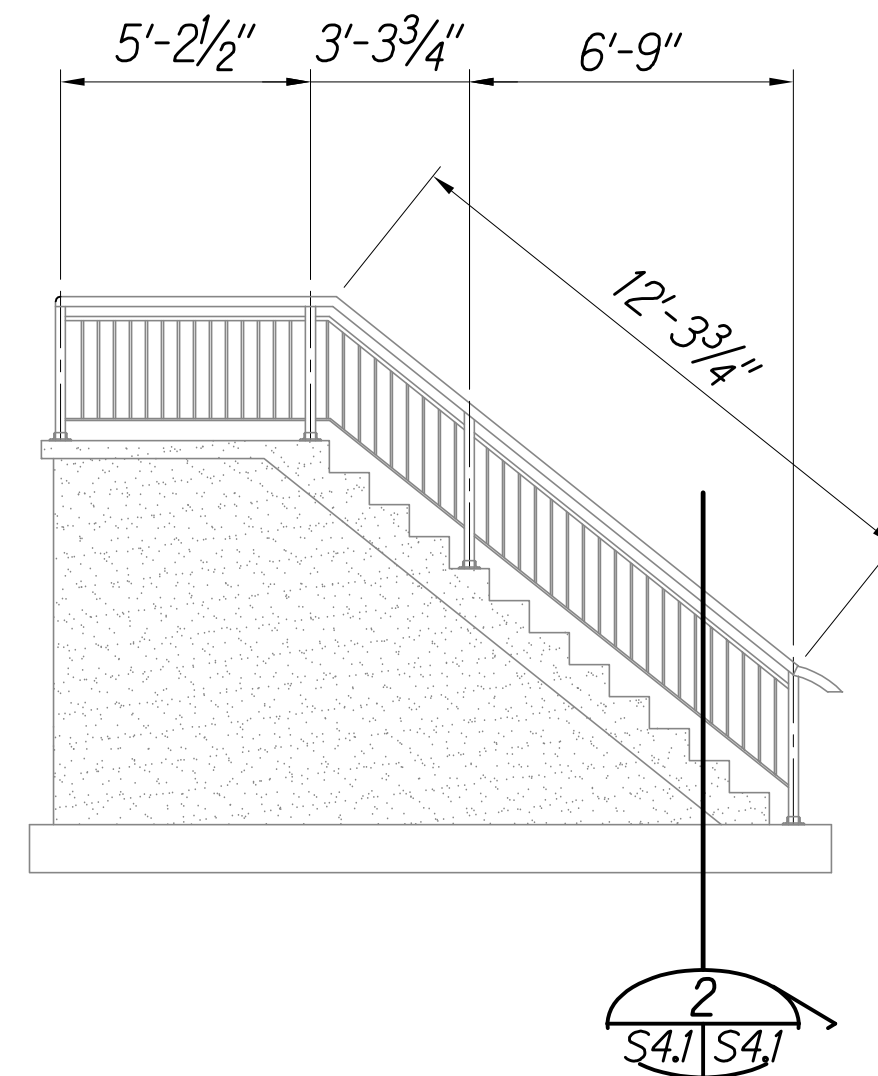
GIRDER DETAILS

KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

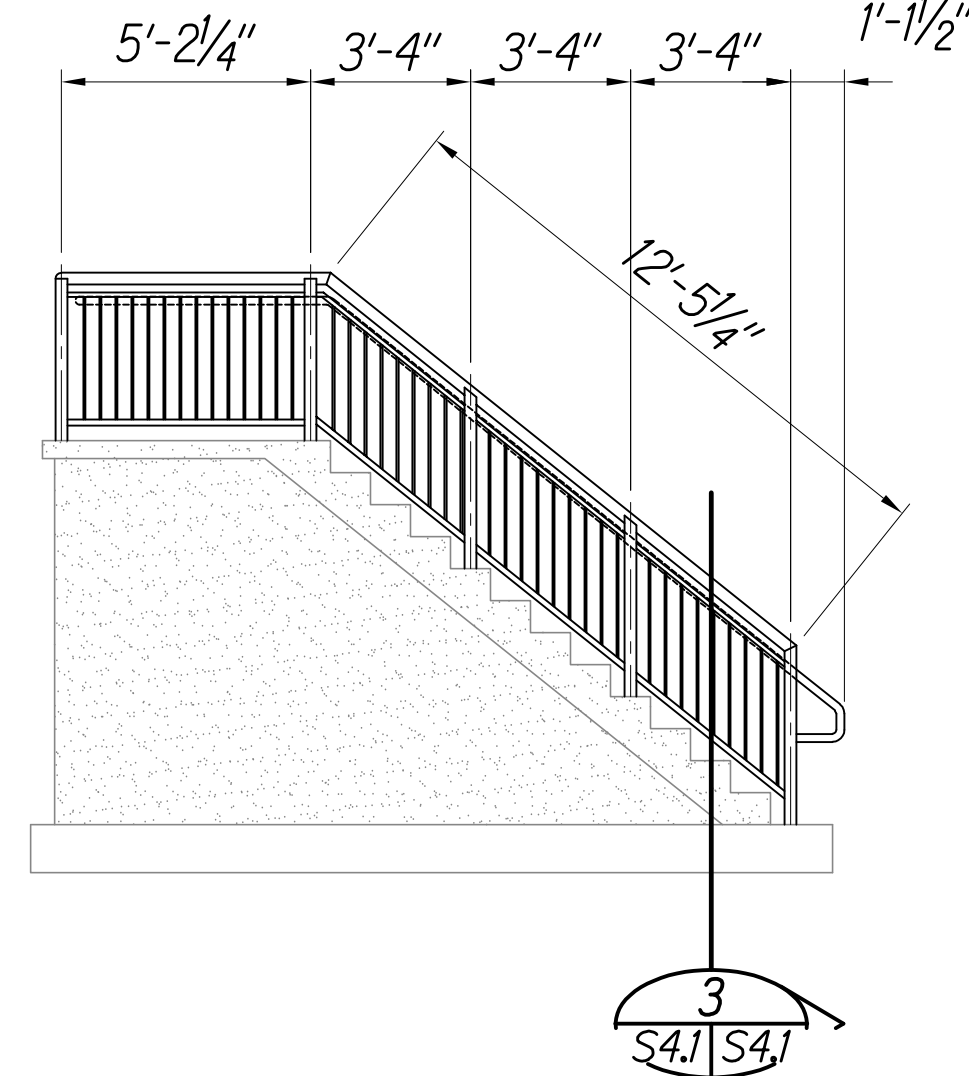
Scale: As Shown Date: May, 2020

SHEET No. S3.1 OF 9 SHEETS

DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50C-01-19M	2020	18	19



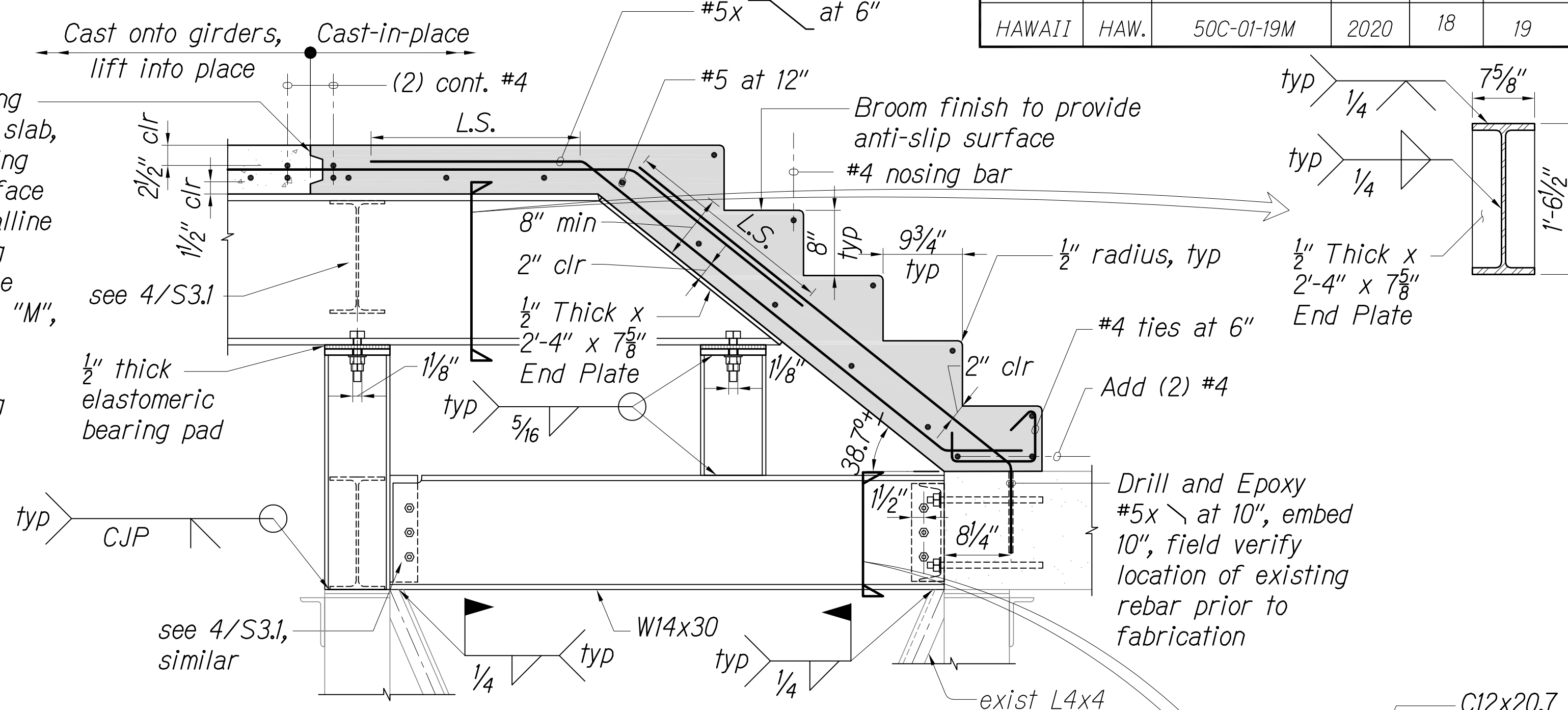
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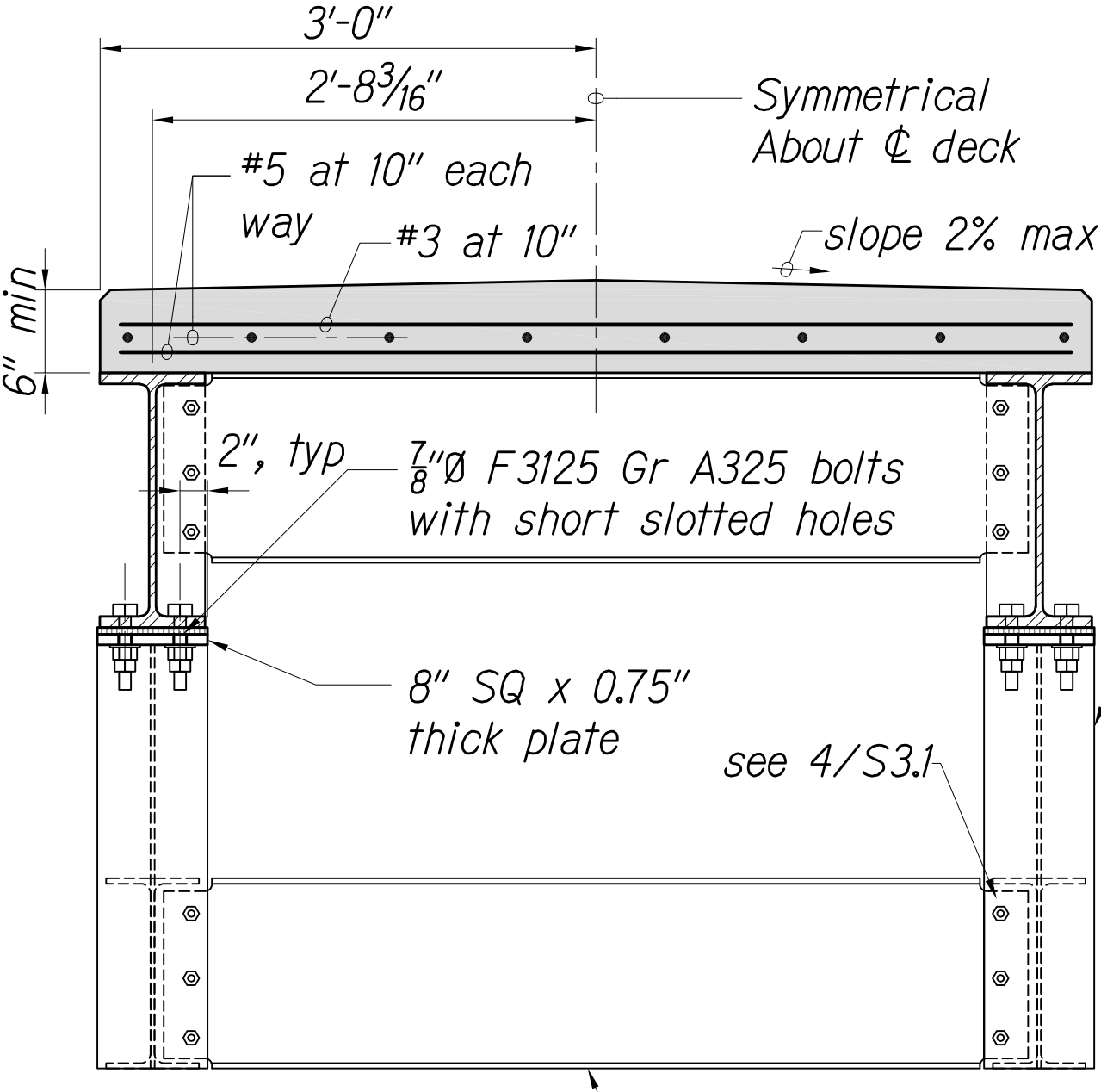
PROPOSED

ELEVATION - HANDRAILING 1
Scale: 1/4" = 1'-0"

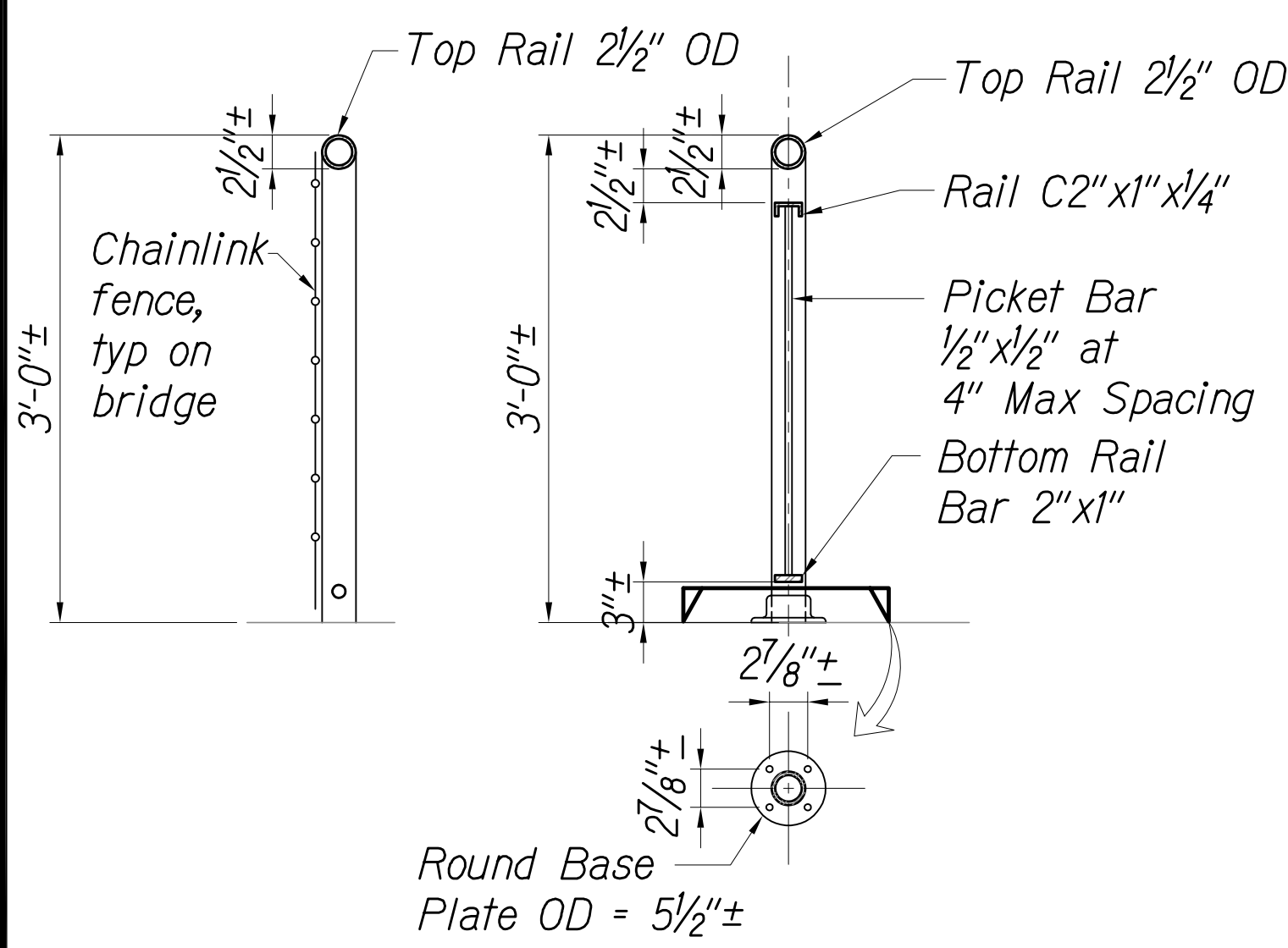
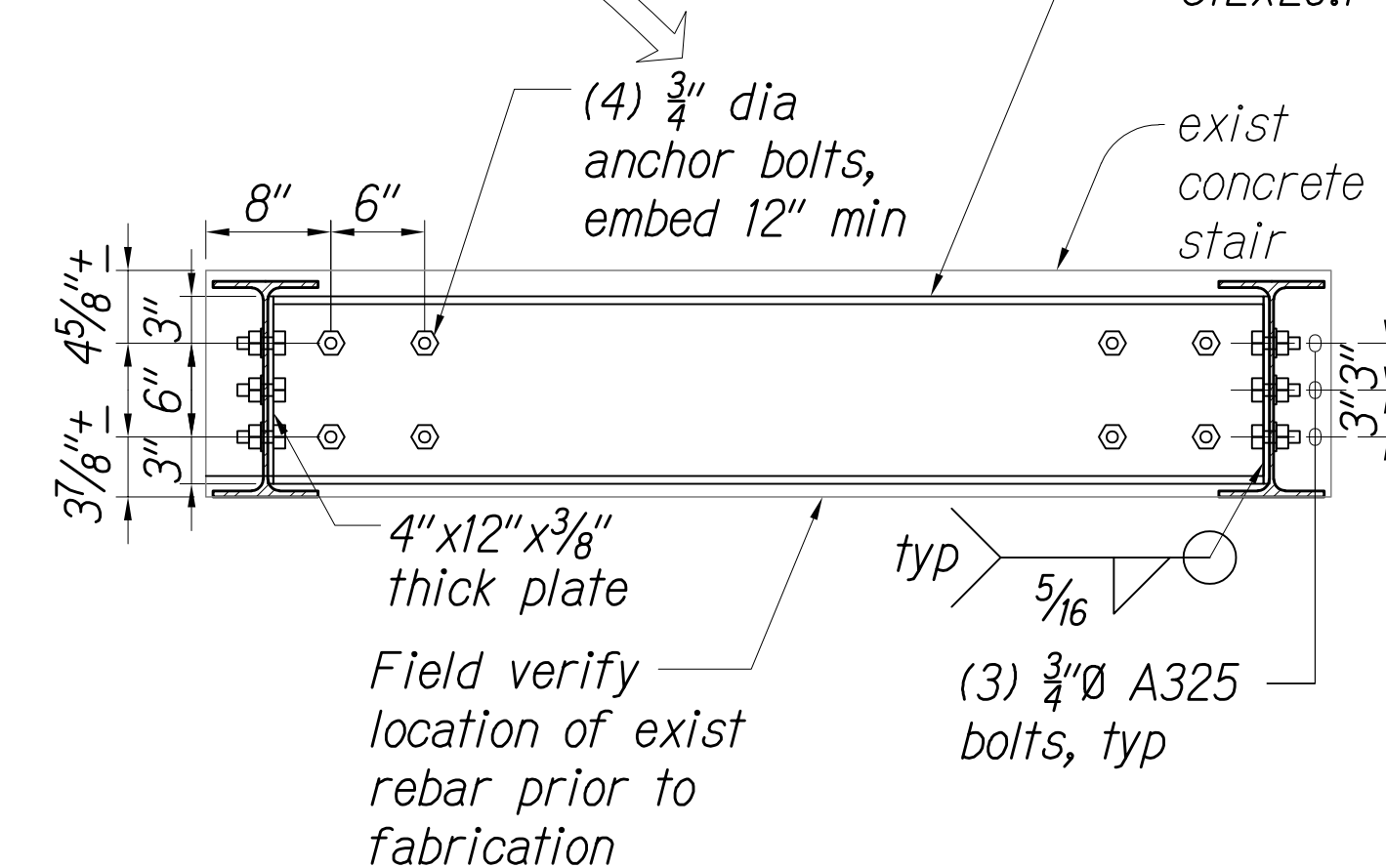
Before pouring cast-in-place slab, coat the mating concrete surface with a crystalline waterproofing compound. See concrete note "M", Sht. S0.1 for crystalline waterproofing specification.



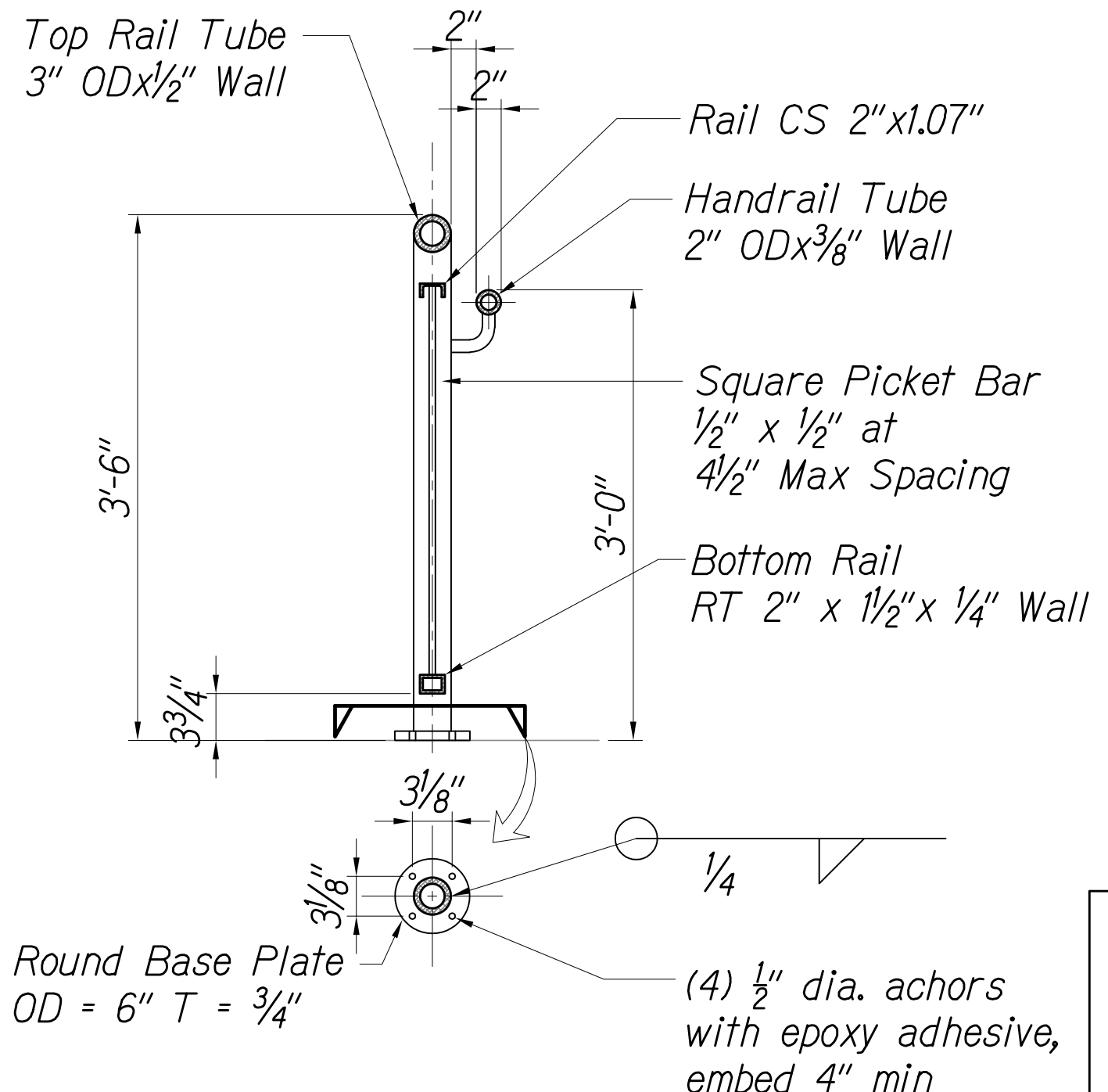
DETAIL 4
Scale: 1" = 1'-0"



DETAIL 5
Scale: 1" = 1'-0"



SECTION 2
Scale: 1" = 1'-0"

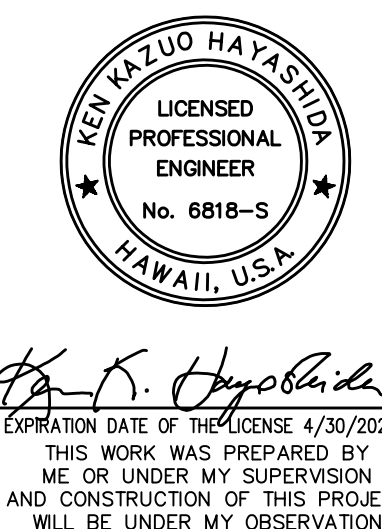


SECTION 3
Scale: 1" = 1'-0"

- Notes:
- All railing welds shall be 3/16" fillet, groove, or flare groove welds unless noted otherwise. Grind welds flush at faying surfaces.
 - Before installing new railing posts onto existing stairs, cut off all post anchor bolts 1" below the concrete surface and repair in accordance with special repair detail Type I. Assume a repair area of 36 sq. in. for each post location.

DATE	
SURVEY PLOTTED BY	
DRAWN BY	
TRACED BY	
QUANTITIES BY	
CHECKED BY	
NO.	

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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

RAILING SECTION AND DETAILS

KAUMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020

SHEET No. S4.1 OF 9 SHEETS

Spall Repair Notes:

A. Existing concrete:

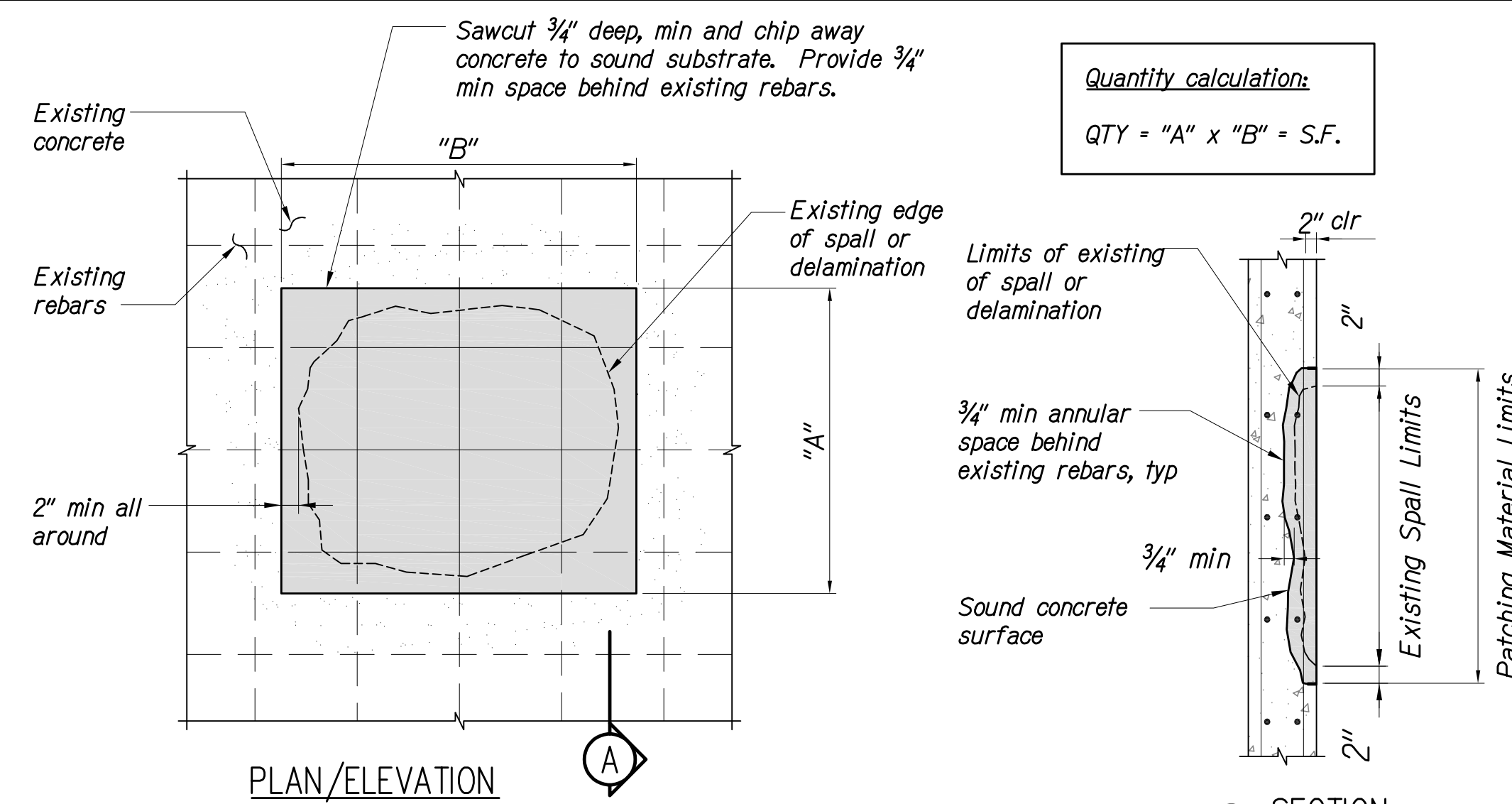
- Contractor shall not damage, cut or drill through existing reinforcing. If reinforcing is damaged, the contractor shall inform the officer-in-charge immediately and shall be responsible for repairing the damage at contractor's sole expense and to the satisfaction of the officer-in-charge.
- The contractor shall review as-built drawings prior to performing the work. Verify location of existing reinforcement with an electromagnetic rebar locator before drilling holes into existing concrete. Holes may need to be adjusted to avoid existing reinforcement.
- All holes which need to be abandoned due to the presence of reinforcing steel shall be filled with non-shrink grout.
- The contractor will not be paid for the holes which need to be filled and abandoned. The officer-in-charge shall review and approve all relocated holes prior to installing dowels.
- All drilled holes for anchors shall be brushed to remove loose material then cleaned with compressed air, prior to injecting the epoxy.
- Anchoring adhesive shall be a two-component 100% solids epoxy based system supplied in manufacturer's standard side-by-side cartridge and dispensed through a static-mixing nozzle supplied by the manufacturer. Epoxy shall meet the minimum requirements of ASTM C-881 specification for Type IV, grade 3, Class C and must develop a minimum of 12,650 psi compressive yield strength after 7 day cure. Epoxy must have a heat deflection temperature of a minimum 136°F (58°C). Epoxy shall be formulated for optimum performance in both cracked and uncracked concrete (Simpson set-xp or approved substitute).

B. Surface preparation notes for spall repairs:

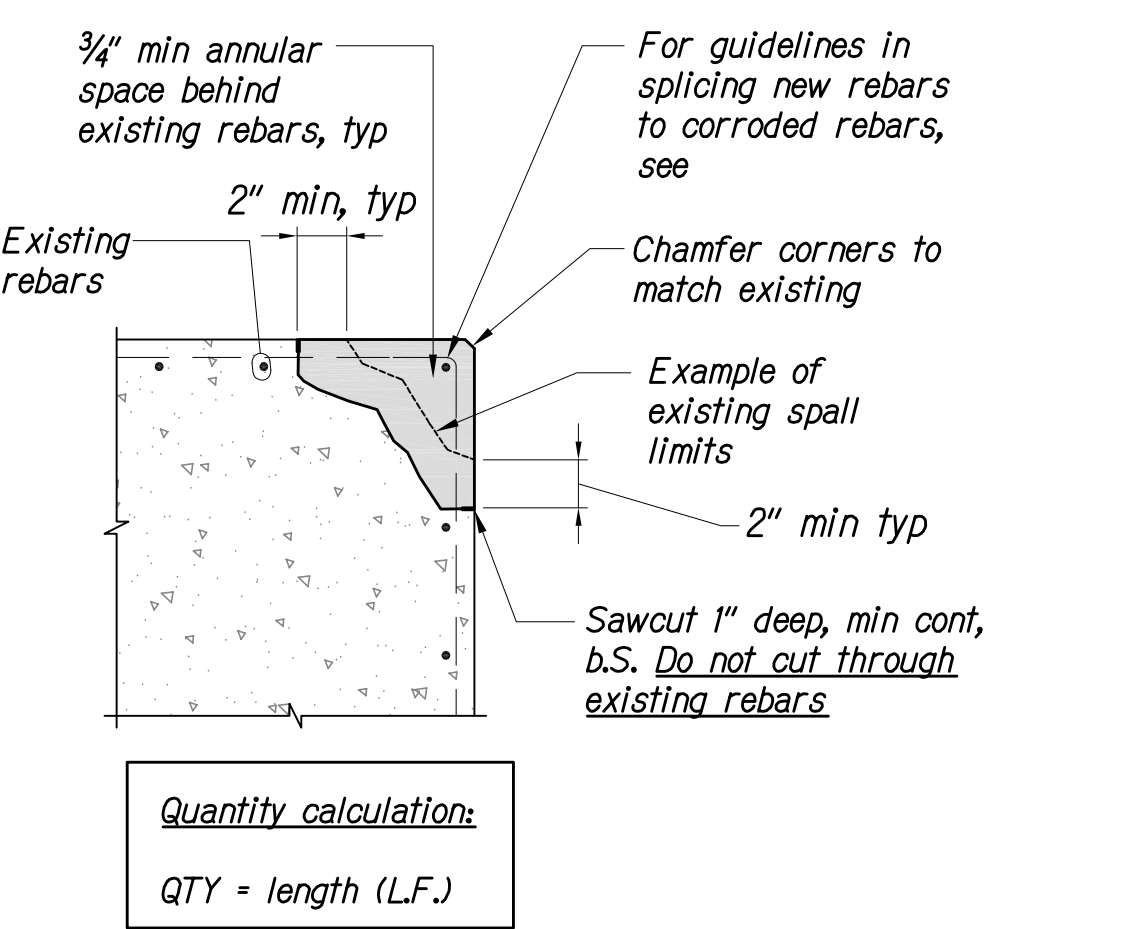
- Deteriorated concrete shall be removed down to sound substrate, or to the specified depth as noted in the spall repair details whichever is greater. Sawcut all edges a minimum of 3/4" deep, no feathering of patching material is allowed. Avoid cutting any reinforcing steel when sawcutting. The exposed concrete shall be roughened to a 1/8" amplitude and shall be cleaned and free of laitance, dust and other bond inhibiting materials.
- All reinforcing steel damaged due to the contractor's operations shall be repaired by the contractor at his/her expense and to the satisfaction of the officer-in-charge.
- Any exposed reinforcing steel, whether fully exposed or only partially exposed, shall be exposed all around, creating a minimum 3/4" annular space around rebar.
- First layer of reinforcing steel, whether exposed or not, shall be exposed all around, creating a minimum 3/4" annular space around rebar.
- Cleaning shall precede application of the patching material by not more than 24 hours.

C. Bonding agent:

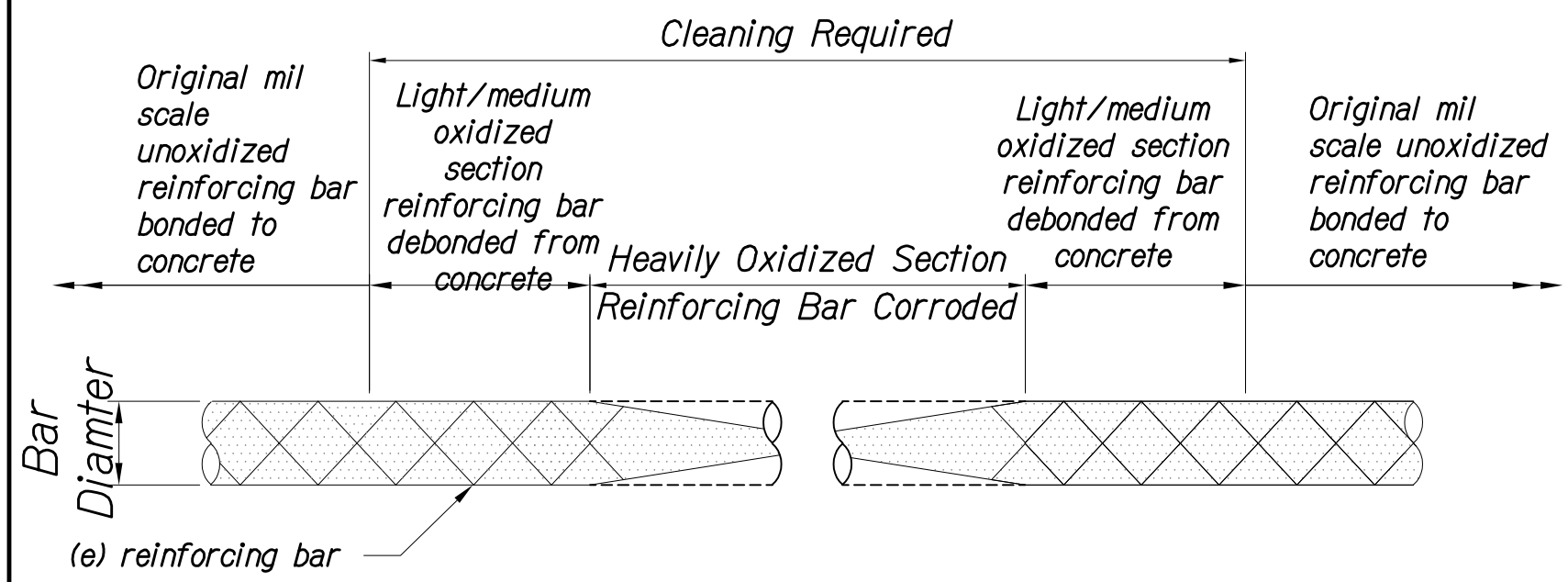
- After the concrete surfaces have been prepared and cleaned, and immediately before placing the concrete patching, a coat of bonding agent shall be applied. The surface shall receive a thorough and even coating, and excess bonding agent shall not be permitted to collect in surface depressions. The area applied with bonding agent shall be limited so that it does not become dry before it is covered with the concrete patching. Should the surface of the bonding agent dry, the dried bonding agent shall be completely removed and fresh bonding agent applied. Removal shall be by abrasion blasting or by another procedure approved by the officer-in-charge. The removal of bonding agent shall be at the expense of the contractor.
- The bonding agent shall be designed to provide corrosion protection to the reinforcing steel and shall act as a bonding agent for the fresh patching mortar. Follow manufacturer's specifications for recommended time between application of bonding agent and patching mortar and coat thickness.



TYPE I SPALL REPAIR 1
NOT TO SCALE S5.1 | S5.1



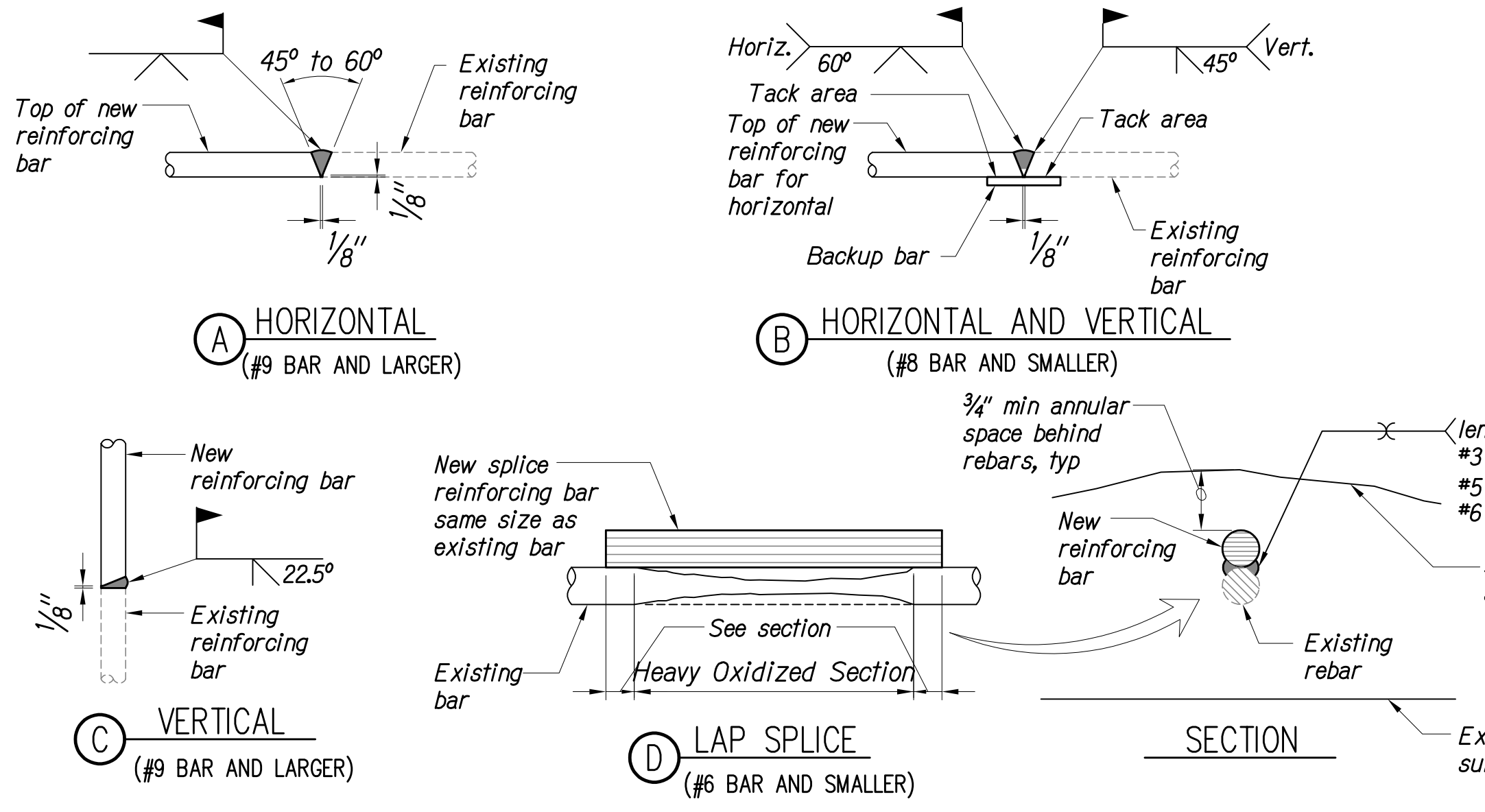
TYPE II SPALL REPAIR 2
NOT TO SCALE S5.1 | S5.1



Minimum allowable bar diameter chart	
Bar size	min diameter
#4	3/8"
#5	1/2"
#6	5/8"
#7	1 1/8"
#8	1 3/8"
#9	1 7/8"

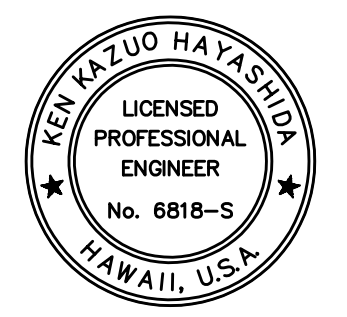
Notes:
1. All heavy oxides, corrosion, scale and bond inhibiting agents shall be removed from reinforcing bar by mechanical means. Abrasive blast shall be free of oil. Tightly bonded light oxide build-up on the surface may result after blast cleaning. This is acceptable unless coating manufacturer requires cleaner reinforcing bar surface.
2. Check remaining section in accordance with chart, when diameter is less than minimum, splice as required, see 4

TYPICAL REINFORCING BAR REPAIR CRITERIA 3
NOT TO SCALE S5.1 | S5.1



TYPICAL REINFORCING BAR WELDED SPLICE DETAIL 4
NOT TO SCALE S5.1 | S5.1

- Notes:**
- Chip, grind, or gouge to sound metal before welding.
 - If material test reports or chemical composition data is unavailable for the existing rebar, the minimum preheat and interpass temperature requirements shall be as follows:
a. Up to #6 bars inclusive..... 300°F [150°C]
b. #7 bars and larger..... 500°F [260°C]
 - If material test reports or chemical composition data are available, refer to AWS D1.4 for minimum preheat and interpass temperature requirements.
 - Preheat the existing reinforcing bars such that the cross-section of the bar is at or above the minimum preheat temperature for at least six inches on each side of the joint to be welded.
 - Use E70 electrodes for stirrups, E90 electrodes for all others.
 - New reinforcing bars shall conform to ASTM A706.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SPALL REPAIR NOTES AND DETAILS
KAUAMUALII HIGHWAY
ELEELE PEDESTRIAN OVERPASS
IMPROVEMENTS
PROJECT NO.: 50C-01-19M

Scale: As Shown Date: May, 2020
SHEET No. S5.1 OF 9 SHEETS

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

P:\451-4600\6580.03 DOT Highways - Eleele Pedestrian Bridge\Reconf Pkg No. 2\1004 Drawings\Structural\AutoCAD\form\2020-04-08_08_4589-03 Eleele Pedestrian Bridge\6580-03_16 S31.dwg 5/12/2020 5:29 PM BRANDON CHING