

STRUCTURAL GENERAL NOTES

FED. ROAD DIST. NO.	STATE	FEDERAL AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	56A-01-16M	2017	9	17

1. General Specifications: Hawaii Department of Transportation, Standard Specifications for Road and Bridge Construction, 2005, together with Special Provisions prepared for this contract.
2. Design Specifications:
- A. AASHTO LRFD Bridge Design Specifications Seventh Edition (2014) including all subsequent interim revisions and editions.
- B. State of Hawaii Department of Transportation Highways Division "Design Criteria for Bridges and Structures" dated August 8, 2014.
3. Loads:
- A. HS20 Truck
4. Materials:
- A. All concrete strengths shall have a 28-day compressive strength of 4,000 psi unless otherwise noted. All concrete shall have a maximum W/C Ratio of 0.45.
- B. The use of any calcium chloride in any concrete is prohibited.
- C. All reinforcing steel shall be ASTM A615 Grade 60 deformed bars unless otherwise noted.
- D. Reinforcing steel shall be ASTM A706 where welded connections are required.
- E. All structural steel shall be ASTM A36 unless otherwise noted.
- F. All wide flange beams shall be ASTM A709, Fy = 50ksi unless otherwise noted.
- G. All structural steel members shall be zinc coated. See General Specifications referred to in Structural General Note 1.
- H. All anchor bolts, washers and nuts shall be AASHTO M164, hot-dipped galvanized after fabrication, unless otherwise noted.
- I. All welding shall conform to the latest ANSI / AASHTO / AWS D1.5 Bridge Welding Code. Unless noted otherwise, all welding shall be shielded arc welding done with E70 electrodes.

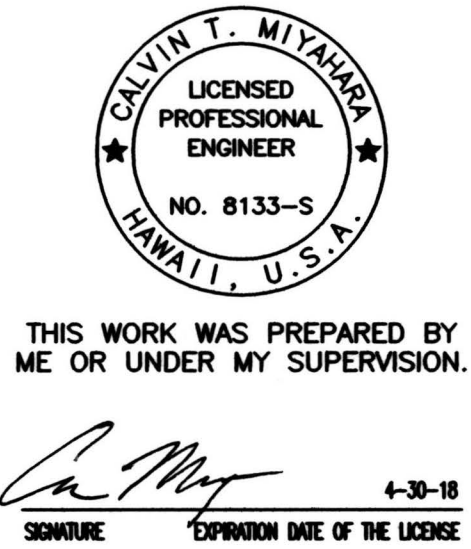
5. Reinforcement:
- A. The covering measured from the surface of the concrete to the face of any reinforcing bars shall be as follows, except as otherwise shown:
- (1) Deck Slabs
- a. Top Bars = 2 1/2"
- b. Bottom Bars = 1 1/2"
- (2) Concrete cast against and permanently exposed to earth = 3"
- (3) All others unless otherwise noted = 2"

5. Reinforcement (Cont.):
- B. Reinforcing bars shall be detailed in accordance with the latest edition of the AASHTO LRFD bridge design specifications unless otherwise noted.
- C. Minimum clear spacing between parallel bars shall be 1 1/2 times the diameter of bars (for non bundled bars). In no case shall the clear distance between the bars be less than 1 1/2 times the maximum size of the coarse aggregate or 1 1/2".
- D. All dimensions relating to reinforcing bars are to centers of bars unless otherwise noted.
- E. Reinforcing bars shall be securely tied at all intersections and lap splices except where the spacing of intersections is less than one foot in each direction, in which case alternate intersections shall be tied.
6. Construction Notes:
- A. The Contractor shall verify all dimensions and site conditions and shall report any discrepancies in writing to the Engineer before commencing work or ordering materials.
- B. The Contractor shall verify all site conditions and not rely upon these plans for existing, dimensions, elevations and azimuths, stream channel location, roads, roadway gutters, curbs and sidewalks, etc. Conditions may differ from those shown.
- C. The Contractor shall be solely responsible for the protection of adjacent properties, utilities and existing and new structures from damage due to construction. Repairing any damage shall be at the Contractor's own expense, to the satisfaction of the Engineer.
- D. The Contractor shall verify the location of all utility lines and notify the respective owners before commencing with excavation, and any temporary piling or sheeting.
- E. Except as otherwise noted, all vertical dimensions are measured plumb.
- F. For concrete finish see Standard Specifications and Special Provisions.
- G. Construction joints may be relocated or additional ones added subject to the approval of the Engineer.
- H. Unless otherwise noted, all exposed concrete edges shall be chamfered 3/4" x 3/4".
- I. The Contractor shall verify the location and size of all existing reinforcing bars prior to drilling.
- J. Location of drilled holes shown in plans are approximate. Prior to placing holes in concrete, the Contractor shall locate all reinforcing steel anchor bolts, thru bolts holes, etc. and adjust the location of the drilled holes to clear of them. Final hole locations are subject to the approval of the Engineer.

6. Construction Notes (Cont.):
- K. Drilled holes in existing concrete for reinforcing steel dowels shall not be left unfilled for more than 8 hours. Epoxy in drilled holes shall be able to develop the full strength of the dowels prior to pouring concrete around reinforcing steel dowels. Follow all manufacturer's recommendations for dowel and epoxy.
- L. Contractor shall unplug, clean and maintain existing drains during construction of the project.
- M. When only portions of concrete are to be demolished, the interface between the demolished concrete and the concrete that is to remain shall have a 3/4 inch deep sawcut around the entire perimeter of the demolished area.
- N. The concrete surfaces which new concrete is poured against shall be roughened to a full amplitude of 1/4 of an inch and cleaned.
- O. All existing reinforcing shall remain in place and shall not be damaged in any way unless otherwise noted.
- P. All existing reinforcing that is to remain in place shall have a minimum concrete cover of 2".
- Q. New concrete surfaces shall match the finish of the existing structure. Reveals, patterns, or decorative features shall also match the existing structure.
7. General:
- A. All items not shown on the proposal schedule will not be paid for separately and shall be considered incidental to the various pay items.
- B. Standard Plans refer to all structures in general, except for modifications as may be required for special conditions. For such modifications refer to the corresponding detailed drawings.
- C. Plans of the existing bridge are available for review from the Highways Design Branch located at the State Department of Transportation, Highways Division, Kakuhihewa Building, Room 609, 601 Kamokila Boulevard, Kapolei, HI 96707.

ORIGINAL PLAN	DATE
NOTED BY	
DESIGNED BY	
QUANTITIES BY	
CHECKED BY	

DRAWING NAME: 2A-00-ONGONGA-12-033.3-HF1 WAILUA BR TEMP RPR DOT-HA-01 CA0104-18-17 NEW PROJ# VELLUNSOB XLUOKS01.DWG PLOT TIME: 04-17-17, 7:11 PM



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

STRUCTURAL GENERAL NOTES

Kuhio Highway
Bearing Repairs at
Wailua River Bridge (Pier 1)
Project No. 56A-01-16M

Scale: None Date: Mar. 2017

SHEET No. 501 OF 1 SHEETS