FED. ROAD STATE PROJ. NO. HAWAII HAW. 78A-01-02M 2002

A. MATERIALS

UNLESS OTHERWISE NOTED

- 1. CONCRETE SHALL BE CLASS A OR BETTER.
- 2. REINFORCING STEEL SHALL BE ASTM A 615 GRADE 60.
- 3. STRUCTURAL SHAPES SHALL CONFORM TO THE FOLLOWING ASTM AND GRADE: W-SHAPES: ASTM A992 ANGLES, PLATESASTM A36
- 4. ALL BOLTS AND NUTS SHALL CONFORM TO AASHTO M164, HOT-DIPPED GALVANIZED.
- 5. ALL STRUCTURAL STEEL AND BOLTS SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION. STRUCTURAL STEEL SHALL BE PRIMED AND PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS.

B. REINFORCEMENT

- 1. THE MINIMUM COVERING MEASURED FROM THE SURFACE OF THE CONCRETE TO THE FACE OF ANY REINFORCING BAR SHALL BE AS FOLLOWS, EXCEPT AS OTHERWISE NOTED: a) LIGHTPOLE FOUNDATIONS, ETC. POURED AGAINST EARTH = 3"
- b) LIGHTPOLE FOUNDATIONS, ETC., POURED AGAINST FORMS AND LATER REMOVED = 2"
- 2. REINFORCING SHALL BE DETAILED IN ACCORDANCE WITH THE LATEST EDITIONS OF CRSI'S "PLACING REINFORCING BARS" AND "MANUAL OF STANDARD PRACTICE" AND THE "ACI DETAILING MANUAL" UNLESS OTHERWISE NOTED.
- 3. MINIMUM SPACING BETWEEN PARALLEL BARS SHALL BE 2 1/2 TIMES THE DIAMETER OF BARS (FOR NON BUNDLED BARS), BUT IN NO CASE SHALL THE CLEAR DISTANCE BETWEEN THE BARS BE LESS THAN 1 1/2 TIMES THE MAXIMUM SIZE OF THE COARSE AGGREGATE.
- 4. ALL DIMENSIONS RELATING TO REINFORCING ARE TO CENTERS OF BARS UNLESS OTHERWISE NOTED.

C. DRILLED SHAFT

1. SEE SPECIFICATIONS.

D. <u>CONSTRUCTION METHODS</u>

1. SEE CURRENT EDITION OF HAWAII STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SPECIAL PROVISIONS.

E. GENERAL

- 1. ALL ITEMS NOTED INCIDENTAL WILL NOT BE PAID FOR SEPARATELY.
- 2. THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITY LINES AND NOTIFY THE RESPECTIVE OWNERS BEFORE COMMENCING WITH WORK.
- 3. EXCEPT AS OTHERWISE NOTED ON DRAWINGS, ALL EXTERIOR CORNERS AND RE-ENTRANT ANGLES 90° OR LESS IN CONCRETE WORK SHALL BE CHAMFERED 3/4" X 3/4".
- 4. FOR CONCRETE FINISH SEE STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
- 5. STANDARD DETAIL DRAWINGS REFER TO ALL STRUCTURES IN GENERAL EXCEPT FOR MODIFICATIONS AS MAY BE REQUIRED FOR SPECIAL CONDITIONS. FOR SUCH MODIFICATIONS REFER TO CORRESPONDING DETAILED DRAWINGS.

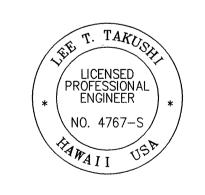
F. <u>DESIGN DATA</u>

- 1. WIND: 105 MPH DESIGN WIND SPEED.
- 2. REFERENCES:
- A. AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS (1994).
- B. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS.

3. FOUNDATION:

ASSUMED ALLOWABLE BEARING PRESSURE = 1,500 PSF (SAND, SILTY SAND, CLAYEY SAND, SILTY GRAVEL AND CLAYEY GRAVEL)

LATERAL BEARING PRESSURE = 150 PSF/FT OF DEPTH BELOW GRADE



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION. The Dall

STATE OF HAWAII **DEPARTMENT** OF TRANSPORTATION **HIGHWAYS DIVISION**

MOANALUA FREEWAY LIGHTING IMPROVEMENTS Kamehameha Hwy to H1 Halawa Interchange Project No. 78A-01-02M

SHEET No. S-1 OF 6

41