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6587 SR 21 - Keystone Heights, Florida 32656

## BRIDGE SPECIFICATIONS

( CHECK APPLICABLE ITEMS)

### GENERAL

These specifications are for a single span bridge of aluminum construction. Bridge(s) shall be designed and manufactured by G&A Manufacturing, Inc.

### BRIDGE DIMENSIONS

1. Clear span distance shall be: \_\_\_\_\_ feet \_\_\_\_\_ inches (maximum 80 ft single span).
2. Bridge inside (clear) width shall be: \_\_\_\_\_ feet \_\_\_\_\_ inches.

### ENGINEERING

1. Uniform live load specifications:

- 1.1 Pedestrian Bridges with a deck influence area up to 400 square feet shall be designed for an evenly distributed live load of 85 pounds per square foot. For deck influence areas exceeding 400 square feet, the pedestrian live load may be reduced per Section 1.2.1 of AASHTO's Guide Specifications for Design of Pedestrian Bridges. However, in no case shall the pedestrian live load be less than 65 pounds per square foot.

- 1.2 Custom bridges with live loads up to 100 pounds per square foot are available upon request.

2. Custom designs to accommodate specialized load conditions, water piping, electrical conduits, etc., are available per your request.

3. Allowable design stresses:

- 3.1 All bridges shall conform to the current edition of the Aluminum Association Specification for aluminum structures.

### BRIDGE GEOMETRY

1. Low profile design

2. High profile design

3. Bridge railing height:

- 3.1 Railing height shall meet or exceed that specified by the American Association of State Highway and Transportation Officials.

- 3.2 Railing height shall be \_\_\_\_\_ feet \_\_\_\_\_ inches above the deck.

4. Bridge truss diagonals:

- 4.1 Single diagonal (per panel)

- 4.2 Dual diagonal (per panel)

5. Bridge camber:

- 5.1 Bridge camber at the center of the bridge span shall equal 2.5% of the total bridge span. This will produce deck slopes, which are less than that required for disabled accessibility.

- 5.2 Bridge camber at center of bridge shall be \_\_\_\_\_ feet \_\_\_\_\_ inches.

- 5.3 Flat bridges shall be cambered to offset self-induced bridge dead load deflection.

6. Bridges can be provided to accommodate differences in abutment elevations.

### MATERIALS

1. Aluminum bridges shall be constructed using 6000 series aluminum alloy with 6061-T6 for primary structural components.

2. Fasteners for aluminum structures shall be stainless steel series 18-8 (grade 304).

3. All aluminum welding shall be done using 5356 series aluminum filler wire and in accordance with the ANSI/AWS D1.2-97 GMAW process.

4. Decking materials:

- 4.1 Aluminum decking shall be 1" X 12" I-beam slip-resistant "Knurled" extruded aluminum planks with no gaps.

- 4.2 Various wood products are available upon request (CCA treatment is not available).

- 4.3 PVC vinyl deck

- 4.4 Composite deck

5. Attachments:

- 5.1 Handrails shall be 1 1/2" X 1/8" OD Round Tube located 34" above the top of the deck on the inside of the bridge railing.
- 5.2 Continuous horizontal guardrail shall be provided along the bridge railing with a maximum opening of \_\_\_\_\_ Inches.
- 5.3 Vertical picket barrier shall be provided along the bridge railing with a maximum opening of 4 inches.

**FABRICATION**

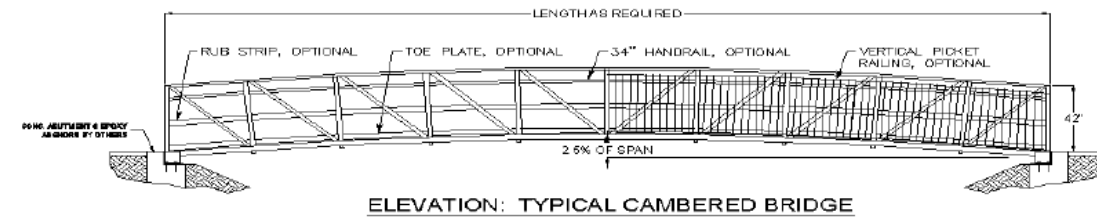
- 1. Welding shall be performed by experienced operators. Each shall demonstrate satisfactory evidence of experience and ability to perform the type and quality of welding required.

**FINISHING**

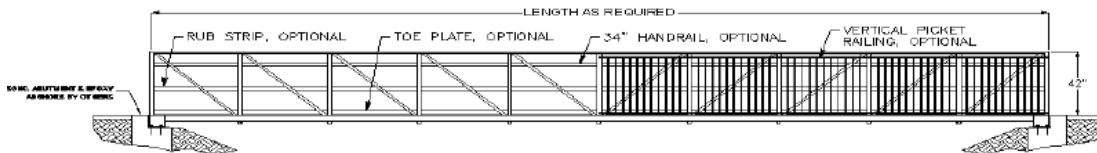
- 1. Aluminum bridges shall be mill finish.

**FOUNDATIONS**

- 1. Buyer shall obtain all necessary information about the site and soil conditions. Any soil tests required shall be the responsibility of the buyer.
- 2. Design, engineering, and construction of any and all bridge supports (including but not limited to: piers, footings, and/or abutments) are the responsibility of the buyer/owner.



**ELEVATION: TYPICAL CAMBERED BRIDGE**



**ELEVATION: TYPICAL FLAT BRIDGE**

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