<table>
<thead>
<tr>
<th>LOAD COMPONENT</th>
<th>Height (ft.)</th>
<th>Weight (lbs)</th>
<th>Ice Area (sq. ft.)</th>
<th>Wind Area (Face ft.)</th>
<th>Wind Area (Side ft.)</th>
<th>Fatigue Area (Bottom ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6 x Lumber</td>
<td>5.5</td>
<td>2.0</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>7 x Signal</td>
<td>5.5</td>
<td>2.0</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>8 x Signal</td>
<td>5.5</td>
<td>2.0</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>9 x Signal</td>
<td>5.5</td>
<td>2.0</td>
<td>0.1</td>
<td>0.5</td>
<td>0.5</td>
<td>0.5</td>
</tr>
</tbody>
</table>

**NOTES:**

1. Provide pole assemblies designed, manufactured and installed according to 2013 AWWA Standard Specifications for Structural Steel Utility Poles and Fittings with 55' to 65' mastarms.

2. Provide pole to accommodate the maximum length shown in the mastarm data with the given loads, pressures, and embedment requirements.

3. This drawing shows loads and pressures to be used by manufacturers when designing poles. It does not show actual loading or pole locations on individual projects. This mastarm design may be used without further analysis if the following conditions are met:
   - The guide sign (load 60) is attached to the mastarm base section and the pole length is 60 ft.
   - No more than 5 traffic signs/traffic lights are attached to the mastarm.
   - No other loads are attached to the mastarm.

4. The manufacturer is to determine weld sizes, weld patterns and testing before the final design. Provide visual testing (VT) of 100% of welds. Provide magnetic particle testing (MT) of 100% of all welds. Provide dye penetrant testing (PT) of all welds. Provide 100% of all welds.

5. Fabricate pole tubes and mastarm sections from no more than 3 pieces of steel. When using 2 pieces, place the pre-drilled welded seams directly opposite each other, transverse weld seams.

6. Fabricate hardware and connections according to the latest eyeglass standards. Provide permanent tags on all pole sections per section 720 table 7406 of the specifications. Provide a weather proof cap on all exposed sections of the mastarm.

7. The Department will accept damaged or defective poles for any of the following:
   - Sections that do not pass the specified welds, visible imperfections, and visual verification.
   - Sections that do not pass the specified welds for the specified welds.
   - Sections that do not pass the specified welds for the specified welds.

8. To allow for spring, field drill a 1'' diameter hole at each traffic sign bearing location. Drive the holes before the horizontal asymmetry.

9. Install pole non-aligned pole to the structure opposite the mastarm, such that the pole opposite the mastarm is vertical.

10. Clean and remove dirt, hair, rust, and excess galvanization on all facing surfaces and threads before assembly. Lubricate the threads of all bolts and parts with lubricant containing a sulfur base. Tighten all bolts according to section 504 of the specifications.

State of Alaska DOT&PF
ALASKA STANDARD PLAN
SIGNAL POLE WITH 55 TO 65 MASTARM
LOADING & NOTES

Adopted on: 12/01/2011
Reviewed by: Carolyn Woodhouse
2013-07-17
**LOWER SECTION POST TOP DETAIL**

- **C-HOOK DETAIL**
  - Typical construction detail

**REINFORCED HANDHELD DETAILS**

- See material requirements for dimensions

**FABRICATION SPECIFICATIONS**

- **Anchor Bolts**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

- **Base Plate**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

**REINFORCED HANDHELD DETAILS**

- **Handheld**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

**POLE BASE DETAILS**

- **Anchor Bolts**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

- **Base Plate**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

**PLAN VIEW**

- **Base Plate**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

- **Signal Masts**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

**STATE OF ALASKA DOT&PF**

**ALASKA STANDARD PLAN**

**SIGNAL POLE**

**WITH 55 TO 65 MASTARM LOWER SECTION**

**MATERIAL REQUIREMENTS**

- **Steel**
  - Grade 60, A572
  - Size: 3/8" x 4"
  - Spacing: 12" on center

- **Concrete**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

**ADDITIONAL INSTRUCTIONS**

- **Base Plate**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

- **Signal Masts**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

**ADDITIONAL SPECIFICATIONS**

- **Anchor Bolts**
  - Size: 3/8" x 4"
  - Spacing: 12" on center

- **Base Plate**
  - Size: 3/8" x 4"
  - Spacing: 12" on center
UPPER SECTION OPTIONS

SINGLE LUMINAIRE

DOUBLE LUMINAIRE

DAVIT LUMINAIRE

UPPER SECTION OPTIONS

MASTARM SLIP SPICE ELEVATION DETAIL

POST TOP STANDARD UPPER SECTION BASE DETAIL

POST TOP CONNECTING PLATE DETAIL

DAVIT UPPER SECTION BASE DETAIL

STATE OF ALASKA
DOT&PF
ALASKA STANDARD PLAN
WITH 55' TO 65' MASTARM UPPER SECTION

SIGNAL POLE

CAROLYN WITKOWSKI, P.E.
Project Engineer

Adapted under the Alaska Standard Plans

Adapted Date: 07/17/2020

Last Code and Scale Review:
By: Date

Next Code and Standards Review Date: 07/17/2020