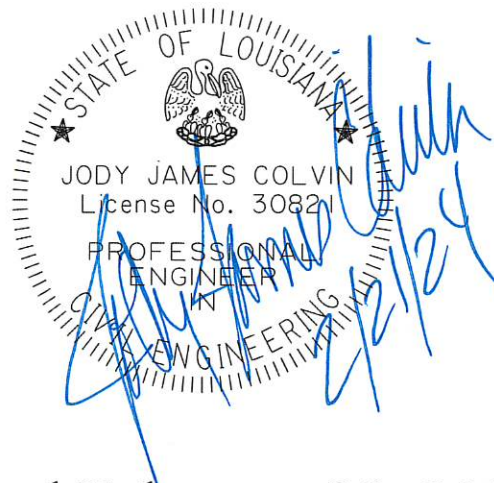


Louisiana
Department of Transportation
And
Development

**Traffic Control Standard
Number 8**

Mast Arm & Twin Mast Arm Steel Poles



Revised February 20, 2024

Traffic Control Standard #8

Mast Arm and Twin Mast Arm Steel Poles

The poles, including transformer base, shall be approximately 16' to 17' high. The height of the arm(s) at the tip shall be a minimum 20' / maximum 21' to the bottom of the transformer base after the deflection from the loaded weight of the arm. The length of the arm(s) will be specified on order. Mast arm shall slip fit to shaft.

For more mast arm specifications, see **Figure 1** for single mast arms

- **(SAP Material Number 11066 (Stock# 14-12-1625),**
- **11067 (14-12-1661)**
- **11068 (14-12-1707)**
- **11069 (14-12-1712)**
- **11070 (14-12-1715)**
- **11071 (14-12-1718)**
- **11072 (14-12-1720)** and

And **Figure 1a** for dual mast arms

- **(SAP Material Number 11073 (Stock# 14-12-1722),**
- **11074 (14-12-1725)**
- **11075 (14-12-1730)**
- **11076 (14-12-1732)**
- **11077 (14-12-1735)**
- **11078 (14-12-1747)**
- **11079 (14-12-1750)**
- **11080 (14-12-1753)**
- **11081 (14-12-1760)**
- **11082 (14-12-1763)**
- **11083 (14-12-1767)**
- **11084 (14-12-1769)**

A hand hole shall be provided at the union of the arm and pole shaft to provide access into wire way. Bosses in the mast arm shall be 1-½" rigid conduit thread and set at 45° from the horizontal (downward rotation at center of boss, 0° toward arm tip). Bosses shall be located at a horizontal distance of 10' apart, with the first located 16" from the tip of arm. The number of bosses required is listed in the following table:

ARM LENGTH	NO. BOSSES	SHAFT DIAMETER (MAX)	SHAFT BASE PLATE BOLT CIRCLE (MAX)
10' - 20'	2	10"	14-1/2"
25' - 30'	3	12"	15"
35' - 50'	4	13"	16"

Bosses shall have galvanized plugs installed to full-thread depth prior to shipment from the manufacturer. These plugs shall be 1-1/2" rigid conduit thread.

A hanger plate and horizontal boss shall be at the tip of the arm. The arm shall have an upsweep design. The traffic support pole shall be designed to be simultaneously loaded, at each boss, with a signal head. Each signal head shall have a designed weight of 100 pounds, have a projected area of 11 square feet, and be subject to a sustained wind velocity of $V = 100$ MPH. The design shall meet the requirements of the latest edition of AASHTO Standard Specification for Structural Supports for Highway Signs, Luminaries, and Traffic Signals.

The pole shaft base is to have an approximate diameter as listed above and shall be bolt coupled to the transformer base utilizing four (4) 1-1/2" threaded bolts conforming to the specifications as shown in **Figure 2**. Pole shaft shall have a 1" and a 3" boss centered on a horizontal line 6" from the base. When facing the bosses, the 1" boss shall be a maximum of 35° to the right of the 3" boss.

The transformer base is to be approximately 20" high and rotate 360°. The top of the transformer base is to have four (4) slots approximately 1-1/2" X 2-1/2" in size for bolting the pole to transformer base.

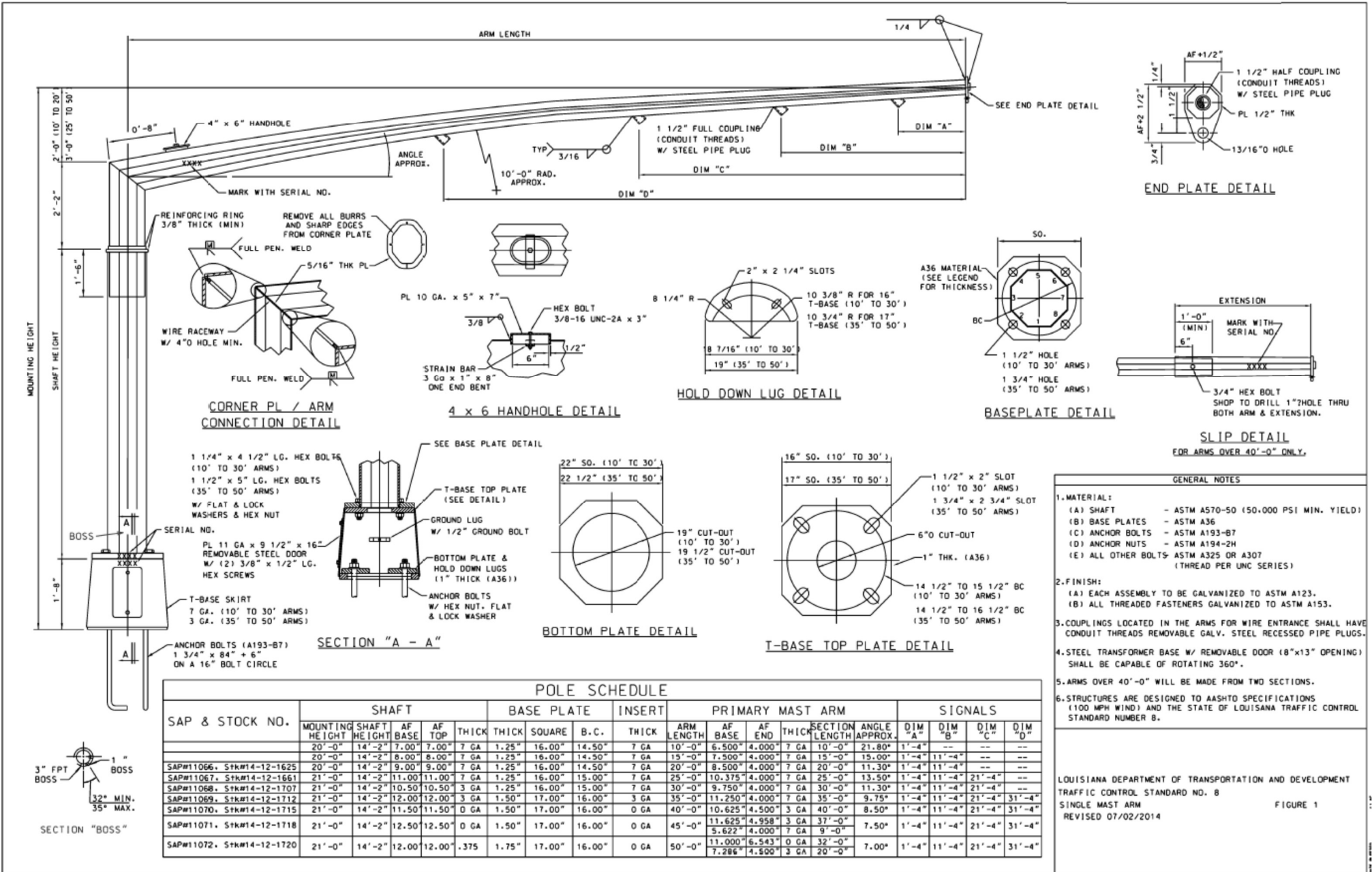
A removable panel shall be provided on the side of the transformer base for access into the base. A 1/2" 13NC threaded grounding nut shall be provided on the sidewall to the left of the panel. A grounding lug shall also be provided with each pole (Fargo GC202 or approved equal). The bottom of the transformer base shall be designed to fit a 16" diameter bolt pattern utilizing four (4) 1-3/4" threaded bolts supplied with each pole. These bolts shall conform to the specifications as shown in **Figure 3**.

The pole shaft and mast arm(s) shall have a suitable wire way throughout their length.

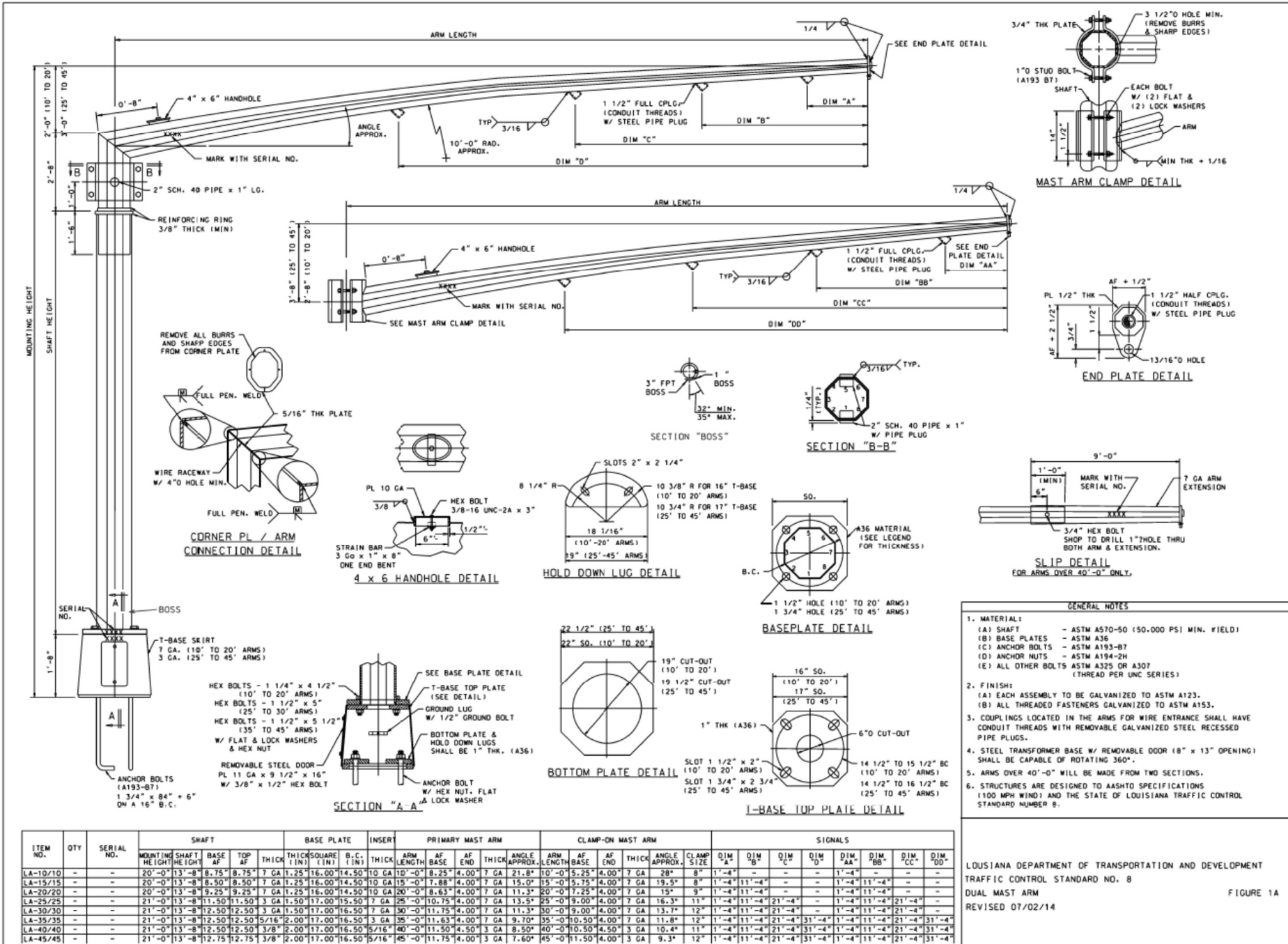
The pole shaft, mast arm(s), and transformer base shall have the manufacturer's name, the primary mast arm length and clamp-on mast arm length respectively. (Example LADOTD 30/20).

All pole hardware shall be packaged together on a per pole basis.

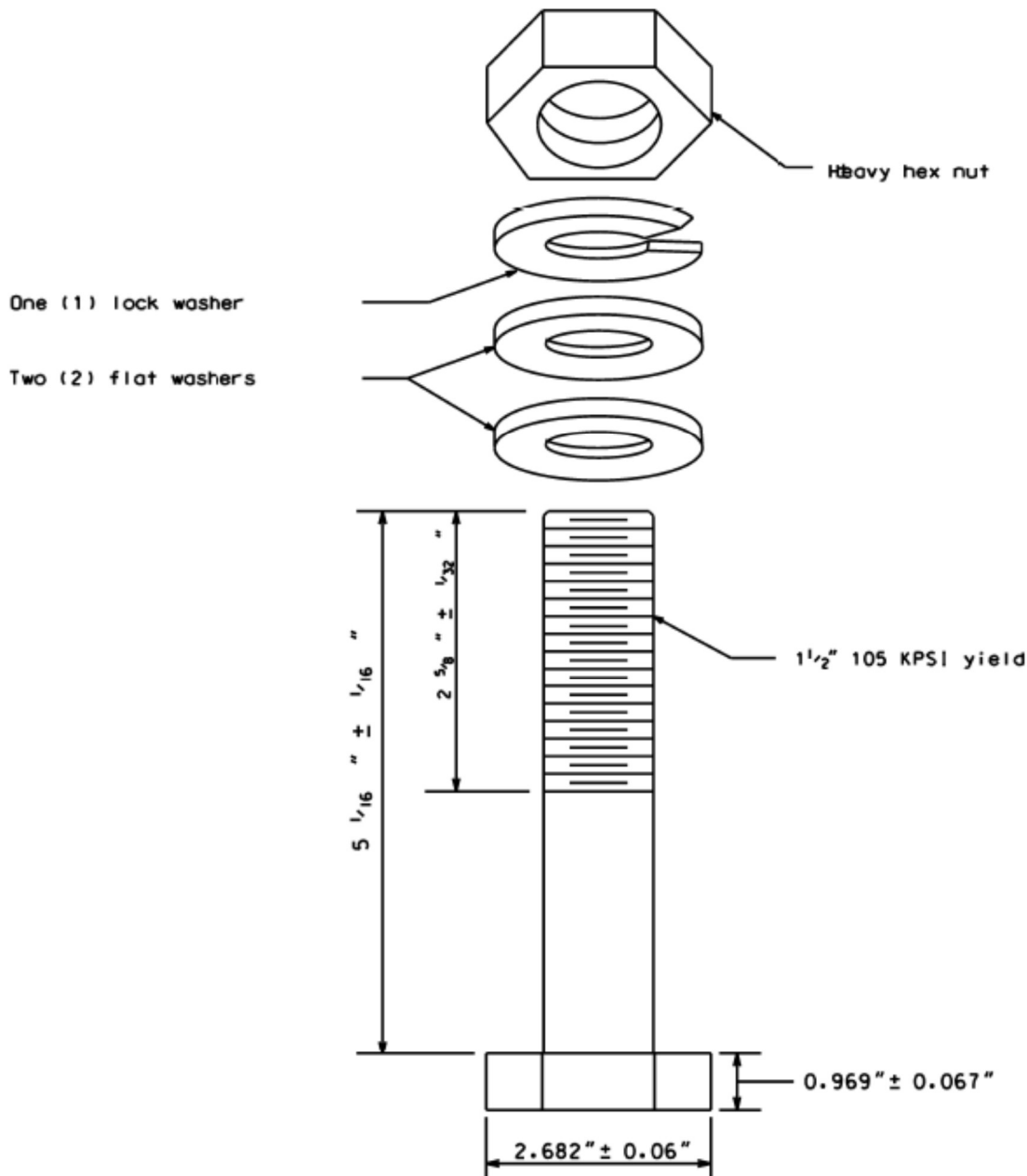
All material shall conform to the Louisiana Standard Specifications for Roads and Bridges, 2016 Edition, Section 1013.



11/20/2024

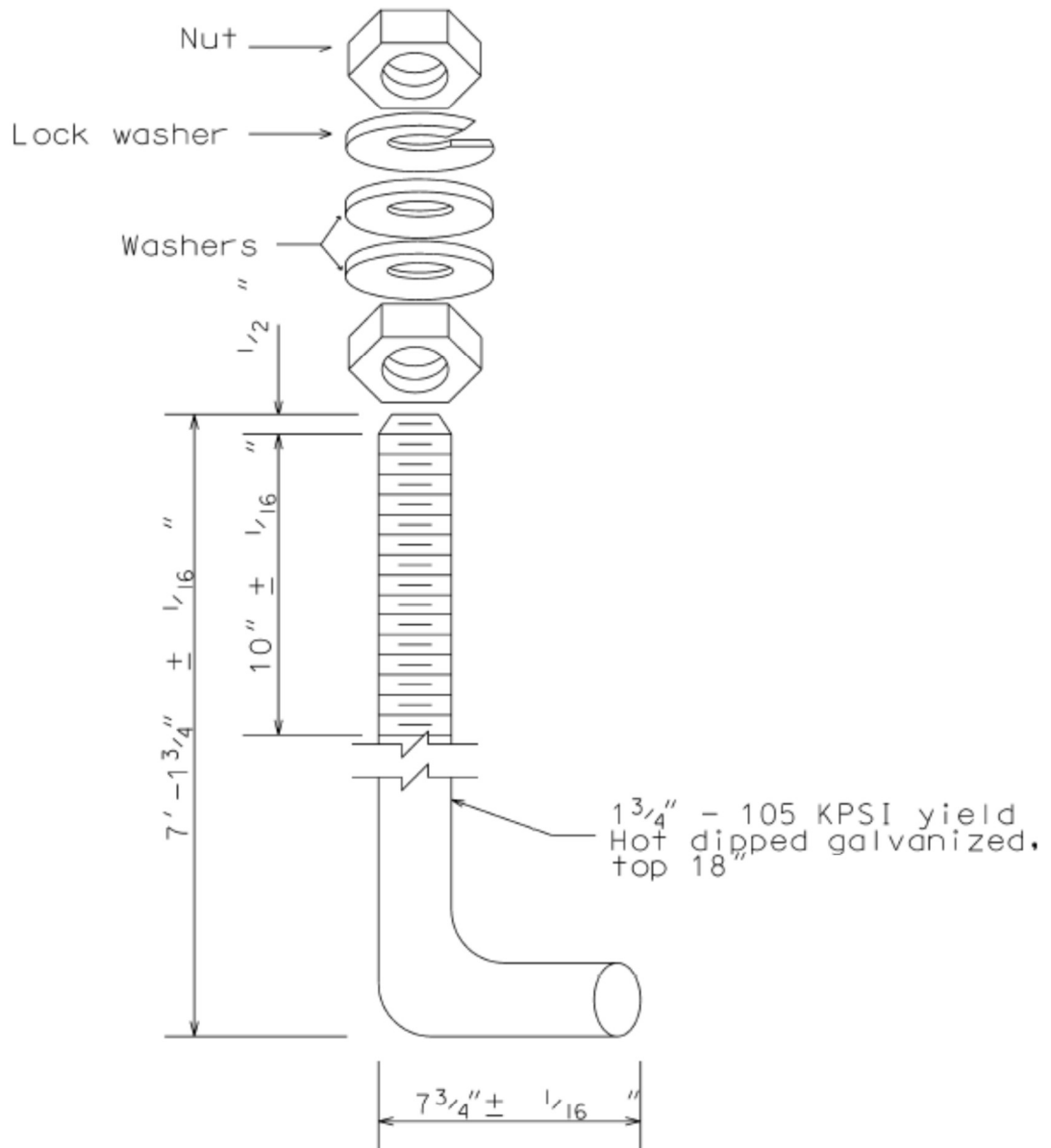


LOUISIANA DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT
 TRAFFIC CONTROL STANDARD NO. 8
 DUAL MAST ARM
 REVISED 07/02/14
 FIGURE 1A



NOTES:

1. Material shall be Hot Dipped Galvanized steel
2. Dimensions and material shall conform to ANSI/ASME B18.2.1 HEAVY HEX BOLTS" and be of ASTM A193-B7 Grade steel.
3. SEE TCS #8 written specifications for more information.



NOTES:

1. Material shall be Hot Dipped Galvanized, steel
2. Dimensions and material shall conform to ANSI/ASME standards be of ASTM A193-B7 Grade steel.
3. SEE TCS #8 written specifications for more information.