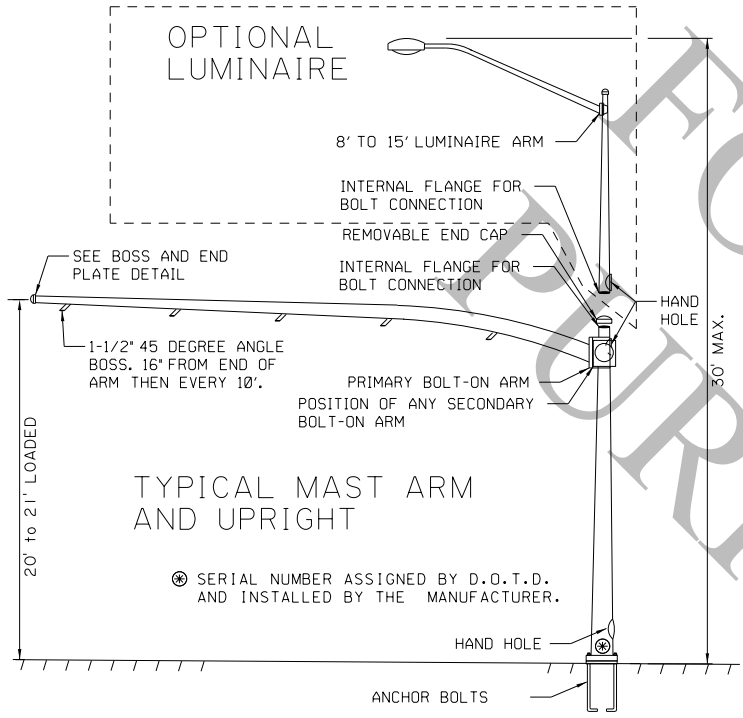
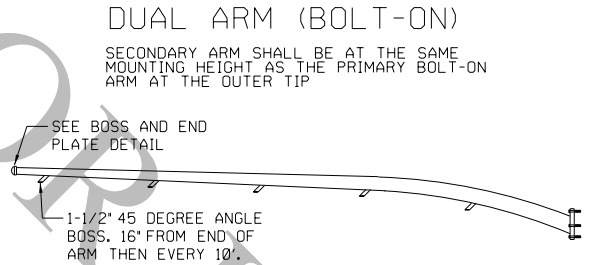


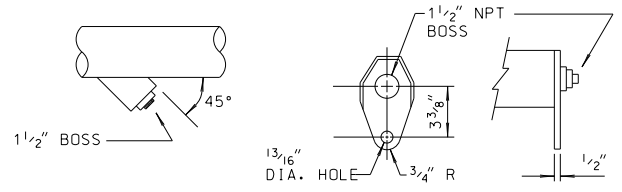
55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM DETAIL



- NOTE:
1. ALL BOSSES SHALL BE PLUGGED WITH A 1 1/2" GALVANIZED STEEL CONDUIT PLUG WITH A SQUARE HEAD HDG. WHEN CABLE IS ROUTED THROUGH THE BOSS A RUBBER COMPRESSION BUSHING SHALL BE USED TO SEAL AND HOLD CABLE IN BOSS. CABLE SHALL BE SECURED TO MAST ARM FROM BOSS TO SIGNAL HEAD WITH 1/2" WIDE WEATHER RESISTANT TIE WRAPS.
 2. TEN (10) CONDUCTOR SIGNAL CABLE FROM CONTROLLER MAY BE SPLICED IN POLE BASE TO TWO (2) - SIX (6) CONDUCTOR SIGNAL CABLES ROUTED TO TWO (2) - THREE (3) SECTION SIGNAL HEADS ON THE MAST ARM. NO OTHER SPLICING SHALL BE ALLOWED.
 3. ALL SPLICES SHALL BE MADE WITH AN ALL COPPER OPEN-ENDED COMPRESSION SPLICE CAP INSTALLED TO THE MANUFACTURES RECOMMENDED METHOD AND INSULATED. (WIRE NUTS SHALL NOT BE ALLOWED)
 4. A 1/2 "-13NC GROUND LUG SHALL BE REQUIRED AND BE ACCESSABLE BY THE HAND HOLE.



BOSS AND END PLATE DETAIL



LOADING TREE



- NOTE:
- ① EFFECTIVE PROJECTED AREA

| DEVICE | DESCRIPTION | PROJ. AREA (SQ. FT) | WEIGHT (LBS) |
|-------------|---|---------------------|--------------|
| A SIGNAL | 12"-3 SEC. SIGNAL W/BACKPLATES | 10.40 ① | 56 |
| B SIGN | 72" X 18" STREET NAME SIGN | 9.00 | 36 |
| C SIGNAL | 12"-3 SEC SIGNAL HEAD NO BACKPLATE | 4.90 ① | 50 |
| D SIGNAL | DUAL 2 SECTION PEDESTRIAN SIGNAL | 8.00 ① | 80 |
| E SIGNAL | 12"-5 SEC SIGNAL WITH BACKPLATES | 16.00 ① | 85 |
| F SIGN | 24" X 30" REGULATORY SIGN | 5.00 | 20 |
| G LUMINAIRE | LUMINAIRE | 3.30 | 75 |
| H SIGN | 36" X 36" BLANK OUT REGULATORY SIGN (40" X 40" OVERALL) | 11.20 | 94 |
| I SIGN | 30" X 36" REGULATORY SIGN | 7.50 | 30 |

- MAST ARM DESIGN CRITERIA:
- THESE TRAFFIC SIGNAL SUPPORT STRUCTURES SHALL BE DESIGNED IN ACCORDANCE WITH LOADING AND ALLOWABLE STRESS REQUIREMENTS OF 2009 AASHTO "STANDARDS SPECIFICATION FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS", FOURTH EDITION. WIND LOADS ARE BASED ON A BASIC WIND SPEED OF 130 MPH WITH A RECURRENCE INTERVAL OF 50 YEARS AND A FATIGUE CATAGORY OF 2. FATIGUE LOADS ARE BASED ON THE REQUIREMENTS OF SECTION 11.7 AND THE FOLLOWING DESIGN LOADS.
- * VORTEX SHEDDING: NOT APPLICABLE FOR STRUCTURES WITH A TAPER OF AT LEAST 0.14"/FT. PER AASHTO.
 - * NATURAL WIND GUSTS: THE YEARLY MEAN WIND SPEED FOR NATURAL WIND GUSTS WILL BE ASSUMED TO BE 11.2 MPH.
 - * GALLOPING: STRUCTURES ARE NOT DESIGNED TO RESIST PERIODIC GALLOPING FORCES.
 - * TRUCK-INDUCED GUST: STRUCTURES ARE NOT DESIGNED TO INCLUDE TRUCK-INDUCED GUSTS.
 - * ARMS MAY BE CURVED OR STRAIGHT.

SHEET NUMBER

PARISH

DESIGN S. MCCARROLL

CHECK D. LORIO

DETAIL S. MCCARROLL

CHECK L. WANG

REVIEW

SERIES # 5 OF 14

APPROVED BY CHIEF ENGINEER:

DATE: Oct 1, 2025

REVISION OR CHANGE ORDER DESCRIPTION

NO.

DATE

BY

STATE OF LOUISIANA

TRAFFIC SIGNAL DETAILS

55' SINGLE, 50'X35' DUAL, AND OVER MAST ARM

TSD-04

DOTD

LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT

STANDARD PLAN