GENERAL NOTES

1. REFER TO THE ROADWAY PLANS FOR THE ACTUAL CONFIGURATION AND LOCATION OF TRAFFIC SIGNAL HEADS AND SIGNS MARKED WITH A •.

2. ALL POLES SHALL BE FABRICATED WITH ASTM A572 GRADE 65 STEEL.

3. ALL ARMS SHALL BE FABRICATED WITH ASTM A572 GRADE 65 STEEL OR ASTM A595 GRADE A STEEL WITH A MINIMUM YIELD POINT OF 55 KSI.

4. TRAFFIC SIGNAL STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES, AND TRAFFIC SIGNS, EDITION 2001.

5. SOIL DENSITY:

\[ y = \begin{cases} 
750 \text{ LB./ISO .FT.} & \text{FOR MEDIUM STIFF COHESIVE SOIL} \\
30^\circ & \text{FOR MEDIUM DENSE COHESIONLESS SOIL} 
\end{cases} \]

6. All signal heads, signs, and hardware shall be field positioned.

7.ハードENED WASHERS SHALL CONFORM TO ASTM F436.

8. THREAD UPPER 12 INCHES AND GALVANIZE UPPER 13 INCHES OF THE ANCHOR BOLTS . FIELD WELDING OF ANCHOR BOLTS TO REBAR DURING ERECTION WILL NOT BE ALLOWED . ANCHOR BOLTS SHALL BE SET WITH A STEEL TEMPLATE UNTIL THE CONCRETE HAS AIR IMPACT WRENCH .

9. DESIGN WIND VELOCITY OF 100 MPH AND ONE 12' LANE WITH A 65 MPH TRUCK INDICATED: "GUST LOADING HAVE BEEN USED FOR THE DESIGNS HEREIN . P=75 LB.

10. CAST POLE END CAP TO BE SECURED IN PLACE WITH 3 SET SCREWS.

11. END SECTION DIAMETERS MUST BE INCREASED TO ACCOMMODATE OUT-OF-ROUNDNESS, GALVANIZING THICKNESS AND SEAM WELD PROFILES TO PROVIDE ENOUGH CLEARANCE TO ENSURE COMPLETE SEAT OF THE FLANGE PLATE.

12. ALL ARM ASSEMBLIES SHALL BE TEMPROARILY SUPPORTED TO REMOVE LOAD FROM FIELD CONNECTIONS WHILE BOLTS ARE TIGHTENED IN ORDER TO FIRMLY SEAT THE FLANGE PLATE .

13. ALL PLATES SHALL BE FABRICATED WITH AASHTO M270 (ASTM A709) GRADE 36 STEEL AND SHALL COMPLY WITH THE DIMENSIONAL TOLERANCES AVAILABLE .

14. ALL PLATES SHALL BE FABRICATED WITH AASHTO M270 (ASTM A709) GRADE 36 STEEL AND SHALL COMPLY WITH THE DIMENSIONAL TOLERANCES AVAILABLE .

15. LEVELING CONCRETE SHALL BE 3000 PSI AR-ENTRAINED CONCRETE VIBRATED IN PLACE BELOW THE POLE BASE PLATE.

16. ALL ELECTRICAL CONNECTIONS TO THE SIGNALS SHALL BE GROUNDED IN ACCORDANCE WITH APPLICABLE ELECTRICAL CODES.

17. CERTIFIED TEST REPORTS INCLUDING CHIRP Y-NOCH (CNO) TEST RESULTS, WELD INSPECTION REPORTS AND ENHANCED MAGNETIC PARTICLE TEST REPORTS SHALL BE SUBMITTED TO CUSTOMER SERVICES 4200 E. ARKANSAS AVE. DENVER COLORADO 80220 AS SOON AS THEY BECOME AVAILABLE .


19. END SECTION DIAMETERS MUST BE INCREASED TO ACCOMMODATE OUT-OF-ROUNDNESS, GALVANIZING THICKNESS AND SEAM WELD PROFILES TO PROVIDE ENOUGH CLEARANCE TO ENSURE COMPLETE SEAT OF THE FLANGE PLATE .

20. TRAFFIC SIGNALS MOUNTED ON MUST BE FABRICATED WITH ASTM A572 GRADE 50 STEEL.

21. ARM ASSEMBLIES SHALL BE TEMPROARILY SUPPORTED TO REMOVE LOAD FROM FIELD CONNECTIONS WHILE BOLTS ARE TIGHTENED IN ORDER TO FIRMLY SEAT THE FLANGE PLATE .

22. ALL ARM ASSEMBLIES SHALL BE TEMPROARILY SUPPORTED TO REMOVE LOAD FROM FIELD CONNECTIONS WHILE BOLTS ARE TIGHTENED IN ORDER TO FIRMLY SEAT THE FLANGE PLATE .

23. IF THE VERTICAL DEFLECTION DURING A 10 TO 20 MPH WIND EXCEEDS THE CALLOPing DEFLECTION LIMITS LISTED IN THE TABLE ON SHEET 2 OF 4, THE DRIVER SHALL INSTALL AN ALUMINUM SIGNS OVER PERPENDICULAR TO THE FREE END OF THE TRAFFIC SIGNAL MAST ARM SAVED SIGN.

24. SEE S-614-42 AND S-614-43 FOR CATALOG FLOOR TONGUETAILS AND MISC. CONNECTIONS.

25. THE DESIGN LENGTH "L" FOR EACH SERIES IS SHOWN IN PARENTHESES.

26. THE MAST ENDS MOUNTED TO THE ROADWAY EARTHWORK PRISM.

27. THREAD UPPER 12 INCHES AND GALVANIZE UPPER 13 INCHES OF THE ANCHOR BOLTS . FIELD WELDING OF ANCHOR BOLTS TO REBAR DURING ERECTION WILL NOT BE ALLOWED . ANCHOR BOLTS SHALL BE SET WITH A STEEL TEMPLATE UNTIL THE CONCRETE HAS AIR IMPACT WRENCH .

28. SEE GENERAL NOTE 28.

29. ALL POLES AND ARMS SHALL BE GALVANIZED INSIDE AND OUTSIDE AFTER FABRICATION IN ACCORDANCE WITH ASTM A232, UNLESS PAINTING IS CALLED FOR ON THE PLANS. PAINTING SHALL CONFORM TO SECTION 302, DOUBLE COATING SYSTEM.

30. TRAFFIC SIGNAL STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES, AND TRAFFIC SIGNS, EDITION 2001.

31. ALL POLES AND ARMS SHALL BE GALVANIZED IN SIDE AND OUTSIDE AFTER FABRICATION IN ACCORDANCE WITH ASTM A232, UNLESS PAINTING IS CALLED FOR ON THE PLANS. PAINTING SHALL CONFORM TO SECTION 302 DOUBLE COATING SYSTEM.

32. TRAFFIC SIGNAL STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES, AND TRAFFIC SIGNS, EDITION 2001.

33. ALL POLES AND ARMS SHALL BE GALVANIZED IN SIDE AND OUTSIDE AFTER FABRICATION IN ACCORDANCE WITH ASTM A232, UNLESS PAINTING IS CALLED FOR ON THE PLANS. PAINTING SHALL CONFORM TO SECTION 302 DOUBLE COATING SYSTEM.

34. TRAFFIC SIGNAL STRUCTURES HAVE BEEN DESIGNED IN ACCORDANCE WITH THE AASHTO STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES, AND TRAFFIC SIGNS, EDITION 2001.
**MAST ARM DATA**

<table>
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<th>GALLOPING DEFORMATION LIMITS (IN)</th>
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- **BASE SECTION LENGTH** includes the splice length as per the "MAST ARM SLIP SPLICE DETAIL" below.
- **See General Note 26 on Sheet 1 of 4.**
- **See General Note 28 on Sheet 1 of 4.**
- **Deflection too small to measure.**
- **Stop all welds 5/8" short of plate edges and bolt holes.**

**ALTERNATE TRAFFIC SIGNAL**

- **25' - 55' SINGLE MAST ARMS**
- **STANDARD PLAN NO. S-614-40A**
- **Standard Sheet No. 2 of 4**

**Traffic & Safety Engineering**

**MKB**

**Issued By:** Traffic & Safety Engineering Branch July 31, 2019

**Project Sheet Number:**
• Bend radius measured to the § of each U-bolt. Increase radius as needed to accommodate out-of-roundness, galvanizing thickness and seam weld profiles. U-bolts shall be tightened by turn (10", a 9") past snug tight; then threads after tightening. U-bolts and faceplate shall be mounted on base section prior to shipment.

• Watch fit stop bar to side plate using tack welds to ensure uniform reading.

• Stop all welds 1/2" short of plate edges and bolt holes.

• Stop bend stop bar to match pole curvature.

• Tapered washer details

• Bend radius = 6.60"