

<u>General Notes</u>

- 1. All work, materials and services not shown on the plans which may be necessary for complete and proper construction shall be performed, furnished and installed by the Contractor. Faulty fabrication or poor workmanship in any material, equipment or installation will be considered justification for rejection. Where manufacturers provide warranties or quarantees as a customary trade practice, Contractor shall furnish to the Department such warranties or guarantees. The location of poles and fixtures are diagrammatic only and may be shifted by the Engineer to accommodate local conditions. Erection and/or removal of poles and luminaires located near overhead electrical lines shall be accomplished using established industry and utility safety practices and in accordance with laws governing such work. The Contractor shall consult with the appropriate utility company prior to beginning such work.

A. Standard Steel Pole Designs:
Steel poles fabricated in accordance with the details and dimensions shown herein, shall be considered standard designs. Submission of shop drawings for standard designs are required for project records but does not require ODOT approval

- B. Optional Steel Pole Designs:
 - putonal Steel Pole Designs: Optional Steel Poles shall be limited to: 1) aesthetic steel poles (architectural treatments or ornamental designs) approved in Traffic Engineering Division's Qualified Product List or 2) round steel poles not covered by these Standards. In the case of #2, design alternatives to round steel poles shall not be allowed except if called for in the Plans or the Contractor obtained pre-approval from Traffic Engineering Division. Optional Steel Poles shall meet the following requirements

1. Shop Drawings.
Optional designs require submission of shop drawings and design calculations bearing the seal of an Engineer registered in the State of Oklahoma, in accordance with Section 724, "Structural Steel." The Department may elect to pre-approve some shop drawings for optionally designed poles. Submission of shop drawings and design calculations is not required for structures fabricated in accordance with the details of shop drawings on the pre-approved list maintained by the ODOT Traffic Operations Division. Any deviation from the pre-approved shop drawings will require submission of shop drawings of the complete assembly and design calculations as described above.

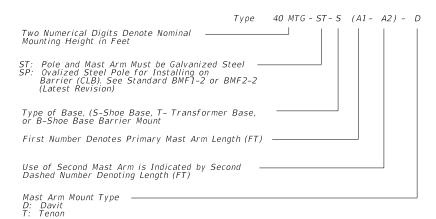
- 2. Structural Support Design for Luminaires: Lighting support structures shall be designed for a 50 year design life in accordance with the 2013 edition of the AASHTO "Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals." All poles shall be designed for 90 MPH 3-second gust wind speeds at 33 FT above ground for Exposure C Category. An additional 1.14 gust factor shall be applied to the wind loads. For transformer base poles, Fabricator shall include transformer base and connecting hardware in design calculations and shop drawing submittal's. All transformer bases shall have been structurally tested to resist 150% of the design moment. Certification of the load test and FHWA breakaway requirement test of the model of base being furnished shall be submitted with the shop drawings. Shop drawings shall show breakaway base model number, and manufacturer's name and logo. Manufacturer's shop drawings shall include the ASTM designations for all materials to be used.

All poles and attachments shall be structurally designed to support two 12-foot mast arms and luminaires. Poles shall be supplied with mast arm combinations as shown in the plans. All mast arms shall be designed for a 50-pound luminaire having an effective projected area of 2.0 square feet.

4. Anchor Bolt Assembly:

Anchor bolt assemblies for optionally designed poles shall be the same as those shown berein.

Explanation of Roadway Lighting Assembly Pay Items



| Basis of Payment | | |
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| Item No. | Item | Unit |
| 806(C) | Highway Lighting Pole and Mast Arm | EA |
| 806(D) | Highway Lighting Post Top Pole (Tenon Mount) | EA |

