KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, EDITION 2007

Add a new SECTION to DIVISION 700:

SECTION 736

HIGH MAST LIGHT TOWERS

736.1 DESCRIPTION

Construct new high mast light towers as shown in the Contract Documents.
Repair existing high mast light towers as shown in the Contract Documents.
See **SECTION 814** (including latest special provisions), for Electric Lighting System work.

BID ITEM	**UNITS**
High Mast Light Tower (*) (**) (***)	Each
(*) Size	
(**) Foundation	
(***) Repair (Refer to Traffic Standard Sheet TE209)	

736.2 MATERIALS

a. High Mast Light Towers. Provide high mast light tower structures from the KDOT PREQUALIFIED LIST of fabricators. Comply with all requirements and dimensions designated in the Contract Documents.

Use material for High Mast Light Tower structures that comply with the applicable requirements:

Grade 4.0(AE) Concrete ..... **DIVISION 400**
Concrete Admixtures ..... **DIVISION 1400**
Reinforcing Steel (Grade 60) ..... **DIVISION 1600**
Structural Steel Fasteners ..... **DIVISION 1600**

736.3 CONSTRUCTION REQUIREMENTS

a. General. Provide and install all incidental parts which are necessary to complete the electrical system or modify existing systems as shown in the Contract Documents. All utility hookups are subsidiary, unless shown otherwise in the Contract Documents.

b. Removals and Excavations. Perform removals of existing structures and excavations to minimize damage to existing structures and right-of-way.

Remove the existing concrete foundations (including anchor bolts) to the elevation shown in the Contract Documents. Backfill the resulting holes according to **DIVISION 200**. Dispose of the removed foundations and anchor bolts.

Excavate and prepare the foundation according to **DIVISION 200**. Grade the area surrounding the completed structure in accordance with the Contract Documents.

c. Foundations. Form the foundations and place the concrete according to **DIVISION 700**. Hold conduit ends and anchor bolts securely in the proper position when the concrete is placed.

Cure the concrete foundations with wet burlap or polyethylene for a period of 72 hours. Prevent concrete temperatures from falling below 32ºF.

Do not attach poles until the concrete has cured for 14 days.

If a foundation can not be constructed as shown in the Contract Documents because of an obstruction, the Engineer will determine how to construct the foundation.

d. Repair/Replace Existing Structures. Verify the existing anchors will extend a minimum of one thread above the tightened nut in the final condition. Do not damage the existing anchors during the removal of the existing hardware. Clean the threads of all rust and lubricate with an approved wax, prior to placing the new hardware.

Install DTIs on each anchor. Install a hardened washer on each anchor, if required. Use new hardware galvanized according to **SECTION 1616**. Verify the assembly (leveling nut, hardened washer(s), tower base plate, DTI, top nut) is in a snug tight condition before final tightening begins. Using the approved hydraulic wrench, tighten each nut to achieve a minimum of three refusals of the 0.005 gauge. Do not exceed four refusals of the 0.005 gauge. After tightening, score the remaining threads.

e. New Structures. Construct the elements of the structure according to the Contract Documents. Threads of the anchors shall be free of any construction debris.

Install DTIs on each anchor. Install a hardened washer on each anchor, if required. Use hardware galvanized according to **SECTION 1616**. Verify the assembly (leveling nut, hardened washer(s), tower base plate, DTI, top nut) is in a snug tight condition before final tightening begins. Using the approved hydraulic wrench tighten each nut to achieve a minimum of three refusals of the 0.005 gauge. Do not exceed four refusals of the 0.005 gauge. After tightening, score the remaining threads.

f. All Structures.

- Do not use a pipe wrench to tighten nuts on High Mast Light Tower structures;
- Use only a box end or socket wrench to snug tighten nuts;
- Maintain a minimum dimension of 6 inches from the top of foundation to finished grade;
- Repair any marring of the galvanizing caused while lifting the structure into place;
- **Submit specifications for the hydraulic wrench to the Construction Engineer for approval;**
- **If the four refusal maximum is exceeded on any DTI, discontinue tightening and contact the State Bridge Office.**

736.4 MEASUREMENT AND PAYMENT

The Engineer will measure each high mast light tower structure for payment.

Payment for "High Mast Light Tower" structures at the contract unit price is full compensation for the specified work.

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