



# City of Denton

City Hall  
215 E. McKinney Street  
Denton, Texas  
[www.cityofdenton.com](http://www.cityofdenton.com)

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## AGENDA INFORMATION SHEET

**DEPARTMENT:** Denton Municipal Electric

**CM/ DCM/ ACM:** Bryan Langley

**DATE:** July 25, 2017

### **SUBJECT**

Consider adoption of an ordinance of the City of Denton, Texas authorizing the approval of a Continuous Highway Lighting Agreement between the City of Denton and the Texas Department of Transportation regarding the 35Express project.

### **BACKGROUND**

The Texas Department of Transportation (TxDOT) is nearing completion of a portion of the 35Express project and has asked the City of Denton whether proposed highway lighting will be covered under a Safety Lighting Agreement or a Continuous Lighting Agreement. After consultation with City Engineering and Legal, Denton Municipal Electric calculated estimated electric costs for lighting included in TxDOT's IH-35E widening project. The City Council will have the choice of deciding what type of lighting will be installed on a stretch of IH-35E within the city limits.

All lighting on the interstate will be installed by TxDOT. Safety lighting, as defined by the TxDOT Highway Illumination Manual requires lighting at interchanges, intersections and other points of nighttime hazard. Continuous lighting is defined as providing uniform illumination on all main lanes and direct connections and complete lighting for all interchanges. Many cities along IH-35E included in the project have elected to install continuous lighting in addition to the required safety lighting in order to create safer driving conditions.

Although both safety and continuous lighting are installed by TxDOT, the costs associated with electricity usage and maintenance of the lighting varies depending on the type of lighting scenario. Safety lighting monthly electricity bills and maintenance costs will be covered by TxDOT as this type of lighting is required. If the City Council elects to have TxDOT install continuous lighting, the monthly electricity bills and maintenance costs for all lighting will be paid by the City. Safety lighting for this particular stretch of IH-35E will require 114 lamps and 56 wallpacks and the electricity is estimated to cost around \$10,500 a year. The continuous lighting would add an additional 164 lamps and double the annual electricity cost to around \$20,600.

Regarding maintenance costs, changing out a bulb takes approximately 1 hour of labor and \$60 in material. Therefore, the maintenance cost to replace a bulb is approximately \$188. Replacing a concrete street pole typically takes about 6 hours and \$686 in materials. Therefore, the maintenance cost to replace a concrete streetlight pole is approximately \$1,450. DME replaces approximately 5 – 10 streetlight poles and approximately 700-900 bulbs annually across all of Denton. Initially, DME anticipates once the IH35 work is complete, that we will only have to replace 2 or 3 streetlight poles knocked down due to vehicular accidents, and around a dozen bulbs due to failure or lightning damage, for a total estimated annual maintenance cost for the Interstate around \$11,000.

## **OPTIONS**

Approve adoption of the ordinance.

Do not approve adoption of the ordinance and provide staff with further direction.

## **RECOMMENDATION**

Staff recommends approving adoption of the ordinance.

## **ESTIMATED SCHEDULE OF PROJECT**

The highway lighting is expected to be installed as a component of the 35Express project in August of 2017.

## **PRIOR ACTION/REVIEW (Council, Boards, Commissions)**

Staff presented the options to the Public Utilities Board on July 10, 2017. The Public Utilities Board recommends approval of the continuous lighting agreement. A work session with Council was held on July 18, 2017 to discuss the options and Council gave the direction to go with continuous lighting.

## **FISCAL INFORMATION**

If City Council elects to have TxDOT install the continuous lighting, it will cost the City an estimated \$20,600 a year in electricity costs to operate the lamps and wallpacks along IH-35E and an estimated \$11,000 per year for maintenance of the lighting systems.

The cost to install the lighting, whichever type is chosen, is borne by TxDOT as part of their project expenses.

## **STRATEGIC PLAN RELATIONSHIP**

The City of Denton's Strategic Plan is an action-oriented road map that will help the City achieve its vision. The foundation for the plan is the five long-term Key Focus Areas (KFA): Organizational Excellence; Public Infrastructure; Economic Development; Safe, Livable, and Family-Friendly Community; and Sustainability and Environmental Stewardship. While individual items may support multiple KFAs, this specific City Council agenda item contributes most directly to the following KFA and goal:

**Related Key Focus Area: Public Infrastructure**

**Related Goal: 2.2 Seek solutions to mobility demands and enhance connectivity**

## **EXHIBITS**

1. Agenda Information Sheet
2. Agreement
3. Ordinance

Respectfully submitted:  
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and  
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