



CITY OF CONCORD

REPORT TO THE MAYOR AND CITY COUNCIL

FROM: Edward L. Roberge, PE, City Engineer

DATE: October 27, 2015

SUBJECT: Supplemental report from the City Engineer outlining lighting alternatives for the Downtown Complete Streets Improvement Project (CIP460)

Recommendation

Accept this report.

Background

Staff presented Downtown lighting design options to City Council at its October 13, 2015 meeting. At that meeting, City Council requested additional information related to lighting design options and costs for their consideration.

Discussion

As requested, the following information is provided.

Impacts of Programmable, Multi-Colored Uplights in Other Communities

Following a comparative discussion on white lights versus colored, Councilor Shurtleff requested that staff inquire with the project lighting designer on what issues other communities have dealt with regarding programmable, colored uplighting in public spaces.

Horton Lees Brogden (HLB), the project lighting designer, considers Main Street Concord to be "quaint urban" and most appropriate for white lighting. Generally, HLB would only consider color-changing lighting in more urban settings, such as the center of Boston or New York City type locations. For context, HLB reports that programmable, color-changing lighting was recently installed in a couple of locations along the Rose Kennedy Greenway in Boston, as well as at South Station, and at Rowe's Wharf. While there have been mixed reviews on the installations, HLB was aware of comments made about the South Station installation looking tacky since the building is historic, and similar comments about Rowe's Wharf. Where the Greenway project is relatively new construction, reviews have been quite positive.

Limited Color Changing Capability on Colored LED Tree Uplighting

Council will recall that staff presented two (2) tree uplighting options: warm white LED, and programmable, multi-colored LED lighting in trees along Main Street. Following a detailed discussion about colored uplight programming, its system requirements, and related costs, Mayor Pro Tem St. Hilaire asked if the colored uplighting system could be controlled manually thus saving costs on program controllers and special wiring and cabling.

Staff noted at the October Council meeting that this alternative was reviewed with the lighting designer and contractor and reported that individual colored lights could be programmed remotely with a hand-held tool without need for programmable controllers and cabling. If this option were considered by Council, the lighting fixtures would be ordered with a wireless communication driver and a unique hand-held tool to assign color. The system would rest on a pre-set color (say white) and each fixture would be changed individually. Capital cost savings for this alternative is estimated to be about \$30,000. Additional labor would be needed to remotely change each fixture (70 uplit trees in the final lighting program), likely several hours in total.

Alternative for Holiday Tree Lighting

Council will recall that the project lighting design team presented holiday tree lighting alternatives at its presentation on December 8, 2014. Holiday lighting was shown at locations throughout New England as examples but was ultimately not included in the base lighting program. As the lighting discussion concluded, Mayor Bouley requested that staff update Council on potential costs to install and remove holiday tree lighting on Downtown trees.

Staff invited two (2) lighting firms to Concord to review conditions and provide budgetary pricing for Council consideration. The general scope of work discussed included the lighting contractor furnishing and installing holiday tree lighting on Main Street trees (current completed phase has 42 trees) generally before Thanksgiving for removal in early February. Estimated costs range from \$18,000 to \$25,000 depending on lighting fixture type (LED versus non-LED standard), schedule, and power supply conditions. Service contracts like this typically require the contractor to purchase and own all materials and maintain throughout the season. Competitively bidding multi-year contracts could reduce annual costs further. Further details including schedule and costs can be developed if Council opts to consider this alternative.

Council Considerations

As outlined at the October City Council meeting, Council is requested to consider the uplighting alternative below.

1. Base uplighting program with warm white LED uplighting.

- a. Warm White LED Tree Uplighting: \$200,000.00
- b. Warm White LED Accent Uplighting: \$ 90,000.00 (approved 10/13/15)
\$290,000.00

2. Base uplighting program with colored, programmable LED uplighting.

- a. Colored, programmable LED Tree Uplighting: \$330,000.00
- b. Warm White LED Accent Uplighting: \$ 90,000.00 (approved 10/13/15)
\$420,000.00

3. Base uplighting program with limited color-changing LED uplighting.

- a. Limited Color-Changing LED Tree Uplighting: \$300,000.00
- b. Warm White LED Accent Uplighting: \$ 90,000.00 (approved 10/13/15)
\$390,000.00

4. Holiday Tree Lighting.

- a. Warm White LED Holiday Tree Lighting: Up to \$25,000.00
(Annual Service Contract Value) \$25,000.00

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