



**Request for City Council Committee Action
From the Department of**

Date: June 27, 2002
To: Transportation & Public Works Committee
Referral to: Ways & Means

Subject: LED Pedestrian Indication Replacement Program

Recommendation:

1. Transfer \$375,000 from the 2002 Controller Conversion Capital Appropriation to an LED Replacement program

Previous Directives:

None

Prepared or Submitted by: Steven Mosing, P.E.

Approved: David J. Sonnenberg, P. E., City Engineer, Director of Public Works

By: Gregory A. Finstad, P.E., Director, Transportation and Parking Services

Presenters in Committee: Gregory A. Finstad, P.E.

Financial Impact (Check those that apply)

No financial impact - or - Action is within current department budget.
(If checked, go directly to Background/Supporting Information)

Action requires an appropriation increase to the Capital Budget

Action requires an appropriation increase to the Operating Budget

Action provides increased revenue for appropriation increase

Action requires use of contingency or reserves

Other financial impact (Explain):

Request provided to the Budget Office when provided to the Committee Coordinator

Community Impact

Comprehensive Plan Policies

Policy No. 8 – Strengthen our city through infrastructure investment

Background/Supporting Information Attached

Summary

The Transportation and Parking Services Division (T&PS) is proposing to transfer funds from Transportation Field Operations Capital T63 (Controller Conversion) to the T61 (LED Replacement Program) identified for initial capital funding in 2006. The reasoning for this proposal revolves around the current limitations on hiring and Division budget reduction strategies.

History and Logic

Since 1988 the Transportation and Parking Services Division has had an ongoing program (Controller Conversion) for the replacement of existing electro-mechanical and other obsolete traffic signal controllers. Current funding appropriations has the estimated completion of this program taking place in approximately 15 to 20 years. In the past T&PS has hired seasonal staff to complete the tasks necessary to keep this program on track and utilize the funds as appropriated. This year however, with the limitations on hiring, it is not anticipated that these funds will be utilized in a timely manner.

Currently the City operates and maintains approximately 800 signalized intersections, which includes 6,400 incandescent pedestrian indications (see attachment A). Each of these indications consumes 69 watts of electricity hourly totaling 10600 kilowatt-hours per day for the entire City. Technology currently exists where these same indications can be illuminated using Light Emitting Diodes (LED) (see attachment B). These LED indications utilize about 10 watts of electricity each, which would reduce the power consumption from the incandescent indications by about 85%.

A substantial portion of the T&PS budget is the cost of electricity (i.e. signals and street lighting). To reduce this electrical usage, T&PS is proposing transferring the current capital fund appropriation for controller conversion to an LED (Light Emitting Diode) replacement program. The amount of funds proposed to be transferred (\$375,000) would allow T&PS to replace 1280 indications during 2002, which will produce an estimated electrical savings of \$50,000/year. Since, this program is not seasonally limited and is less labor intensive than the controller conversion program, it is anticipated that current staffing levels will be adequate to complete the project.

Other Benefits

Long life and low maintenance. LED life expectancy is 15 years compared to about 1.5 years for incandescent bulb indications.

Pedestrian LED indications are brighter.

Xcel Energy currently is offering a rebate of \$40 for each pedestrian LED indication installed through 2003. This would add an additional \$51,200 of savings after the first year.

By **Council Members Colvin Roy and Johnson**

Amending the Capital Improvement appropriation Resolution 2001R-507 of 2001.
passed December 13, 2001, as amended.

Resolved by the City Council of the City of Minneapolis

That the above entitled Resolution, as amended, be further amended by reducing the Controller Conversion Project B1686020 T63 in the amount of \$375,000 and increasing the LED Replacement Project by \$375,000, by transferring \$296,000 (4100-943-9440 3910) and \$79,000 (4100-943-9440 3810) from Controller Conversion to the LED Replacement Program in the Transportation Field Operations Capital Appropriation in the Permanent Improvement Tax Fund (4100-943-9440)