CITY COUNCIL COMMUNICATION:

98-359

AGENDA:
AUGUST 24, 1998

SUBJECT:
IOWA DEPARTMENT OF TRANSPORTATION (IDOT) CONGESTION MITIGATION AND AIR QUALITY (CMAQ) IMPROVEMENT FUND APPLICATION

TYPE:
RESOLUTION
ORDINANCE
RECEIVE/FILE

SUBMITTED BY:
HAROLD SMITH
CITY ENGINEER

ITEM ____

OFFICE OF THE CITY MANAGER
CITY OF DES MOINES, IOWA

SYNOPSIS –

City staff has prepared applications for Iowa Department of Transportation (IDOT) Congestion Mitigation and Air Quality (CMAQ) funds for two projects. The Indianola Avenue Connector Project, consists of constructing a new connection to Indianola Avenue from near the south end of the SW 3rd Street bridge at Jackson Street to Hillside Avenue on new alignment. The Second Avenue/Sixth Avenue Traffic Signal Interconnection Upgrading project, consists of upgrading the signal interconnection of 16 traffic signals along these two arterial streets from University Avenue to the North City Limits, and a contract employee (traffic engineer) to concentrate on monitoring and retiming traffic signals citywide.

FISCAL IMPACT –

The Indianola Avenue Connector project costs is estimated to be $5,500,000, with CMAQ funding requested in the amount of $4,000,000. This funding is proposed to be divided into two allocations over the next two years. The phase one amount of $2,080,000 CMAQ funds for right-of-way acquisition was approved by IDOT under last year's funding application. The phase two funding request in the amount of $1,920,000 will be utilized for construction of the new roadway. The City's share of $1,500,000 is programmed in the 1998-99/2003-04 Capital Improvements Program, page 336, Index Code 482943.

The Second Avenue/Sixth Avenue Traffic Signal Interconnection Upgrading project cost is estimated to be $660,000, with CMAQ funding requested for 80 percent of the total cost. The City's share of construction costs would be $104,000, which is included in the Capital Improvements Program, City-wide Traffic Signal Interconnection (Index Code 389742). The City's share

of $28,000 for two years salary and benefits for the contracted traffic signal engineer would also be paid from the CIP, partially from the City-wide Traffic Signal Interconnection and partially from the City-wide Traffic Signals, Channelization and School Crossing Protection Program (Index Code 389148) for designing traffic signal improvements.

RECOMMENDATION –

Authorize the City manager to submit these two applications through the Des Moines Metropolitan Planning Organization to the Iowa Department of Transportation.

BACKGROUND –

The Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) established a CMAQ program which directs federal transportation funds toward projects to reduce congestion and air pollution. Iowa's share of the funding has been $4.7 million annually. This funding program has been continued in the new federal transportation funding bill, the 1998 Transportation Equity Act.

The IDOT has established guidelines to prioritize the disbursement of these funds. Their program is implemented through a statewide competitive application procedure which evaluates each proposed project, based on reducing congestion and pollution, and thereby maintaining the clean air quality that Iowa now enjoys. Types of projects that are eligible for this funding include Traffic Flow Improvements, Shared-Ride Services, Transit Improvements, Pedestrian and Bicycle Programs, and others. Project applications are required to be submitted to the Metropolitan Planning Organization (MPO) for review and concurrence at their September meeting, and then submitted to the IDOT no later than October 1, 1998.

The City has previously received funding for five projects through this program: Downtown Signal System ($3,000,000); East 14th Signal System ($800,000); East Side Traffic Signal Interconnection ($580,000); Northwest Side Traffic Signal Interconnection ($400,000);

Grand/Ingersoll/University Corridor Traffic Signal Interconnection ($1,000,000); and Phase One (Right-of-Way) of the Indianola Avenue Connector Project ($2,600,000). These projects were all approved for 80 percent federal CMAQ funding through the IDOT.

It is proposed that the City submit two projects for this year's funding: (1) the Indianola Avenue Connector (phase two); and (2) the Second Avenue/Sixth Avenue Traffic Signal Interconnection Upgrading. The **Indianola Avenue Connector** project consists of a new roadway that extends Indianola Avenue diagonally on a new alignment from the Southwest Third Street Bridge (over the Raccoon River) to Hillside Avenue. The roadway will consist of two lanes in each direction with raised channelization, including left-turn lanes at the intersections (see drawing attached to Roll Call).

This project will reduce congestion and pollution and promote cleaner air by providing an improved facility with a shorter travel distance through the area. The project will provide a direct link from the Central Business District to the southeastern part of the City, where substantial growth is taking place. Vehicular travel time, traffic flow and safety will be improved by eliminating the existing left and right turns that must currently be made along Indianola Avenue, Southeast First Street, and Jackson Avenue due to the existing discontinuous street system.

FUNDING AND SCHEDULE:

The project cost is estimated to be $5,500,000, with CMAQ funding requested in the amount of $4,000,000. This funding is proposed to be divided into two allocations over the next two years. The phase one amount of $2,080,000 CMAQ funds for right-of-way acquisition was approved by IDOT under last year's funding application. The phase two funding request in the amount of $1,920,000 will be utilized for construction of the new roadway. The City's share of $1,500,000 is programmed in the 1998-99/2003-04 Capital Improvements Program, page 336, Index Code 482943. If approved, the project would be scheduled for right-of-way acquisition in 1999-2000 and construction in 2000-01.

The **Second Avenue / Sixth Avenue Traffic Signal**

Interconnection project consists of upgrading the existing signal interconnection along Second Avenue and Sixth Avenue from University Avenue north to the North City Limits, and hiring a contracted traffic signal engineer for a two-year period to concentrate on retiming of traffic signals and signal systems throughout the City. The project will upgrade the interconnection of 16 signals into a " closed loop" system, which will be capable of monitoring the traffic flows and modifying signal timing plans to adjust to changing conditions.

The traffic signals along these two arterial corridors are currently interconnected using leased telephone circuits as part of the city's " Monotrol" signal system, which was installed in the early 1970's. Although the existing signals are tied together into a system, it does not have the capability of monitoring traffic flows nor of making " real time" changes in the signal timings to adjust to increased or decreased traffic flows.

Improving traffic signal systems to computerized " closed loop" operation has long been demonstrated as producing significant benefits in reducing vehicle emissions and fuel consumption. The retiming of existing " closed loop" signal systems to better accommodate changing traffic conditions has also been shown to have significant air quality and fuel consumption benefits. Due to many other responsibilities, the existing traffic engineering staff have been unable to devote the necessary time to monitor and upgrade the timing plans for the existing signal systems. This project includes requested funding for hiring a contracted traffic signal engineer for a two-year period. This signal engineer would concentrate on retiming traffic signals and signal systems throughout the city, and would also monitor signal system operation in the signal control center being constructed as part of the Downtown Signal System.

FUNDING AND SCHEDULE:

The estimated cost for this project is $660,000, with CMAQ funding requested for 80 percent of the total cost. The City's share of construction costs would be $104,000, which is included in the Capital Improvements Program, City-wide Traffic Signal Interconnection (Index Code 389742). The City's share of $28,000 for two years

	salary and benefits for the contracted traffic signal engineer would also be paid from the CIP, partially from the City-wide Traffic Signal Interconnection and partially from the City-wide Traffic Signals, Channelization and School Crossing Protection Program (Index Code 389148) for designing traffic signal improvements. If approved for funding, the traffic signal engineer is proposed to be contracted beginning in October 1999, with the traffic signal interconnection project scheduled for construction in 2000. The signal engineer would be directly involved in the design, construction engineering, and signal timing plans for the signal interconnection project.