

## CITY COUNCIL AGENDA MEMORANDUM

### **SUBJECT:**

Resolution No. 7938 authorizing execution of a Consultant Agreement with DKS Associates to determine system requirements and finalists for Bellevue's new traffic signal control system.

### **FISCAL IMPACT:**

This action will obligate the City for up to \$150,000 for consulting services. This agreement will be fully funded through the CIP.

<b>CIP Plan No.</b>	<b>Description</b>	<b>Total</b>
PW-R-155	Traffic Computer System Upgrade	\$ 150,000

Sufficient budget exists in this program to fully fund this project.

### **STAFF CONTACT:**

Goran Sparrman, Director, 452-4338  
Laurie Gromala, Assistant Director-Traffic Management, 452-6013  
Mark Poch, Traffic Engineering Manager, 452-6137  
Mike Whiteaker, ITS Manager, 452-4230  
*Transportation Department*

### **POLICY CONSIDERATION:**

Should Council continue to support the implementation of the Bellevue Mobility Initiative and Transit Signal Priority through awarding this contract to determine system requirements and finalists for Bellevue's new traffic signal control system?

### **BACKGROUND:**

Bellevue has recently launched the Bellevue Mobility Initiative (BMI) to maintain the long-term health of its transportation system in the face of rapidly growing population and employment, especially in downtown Bellevue. The initiative is the result of awareness by policymakers that Bellevue's future transportation system must be more efficient, "multi-modal", and urban to meet current and future mobility challenges.

As presented at the May 26 Extended Study Session, a key piece of the Bellevue Mobility Initiative's strategy is the replacement of Bellevue's legacy signal control system. Four main tasks have been identified to upgrade the signal control system:

- Task 1 – Determine system requirements, concept of operations, and finalist systems
- Task 2 – Evaluate finalist traffic control systems and select new system
- Task 3 – System engineering, procurement, and implementation in Downtown
- Task 4 – System implementation in other areas of Bellevue.

Council is being asked to approve this consultant agreement so work can be completed on Task 1. The objective of Task 1 is to determine finalists of currently available signal systems that can move forward to the final evaluation and selection process (Task 2). Task 1 will be accomplished by:

- Defining the signal operational goals
  - Items or outcomes we want the system to do that we currently do not meet.
- Document Infrastructure Needs
  - The various signal systems are data intensive and are calibrated to obtain this data at certain locations or methods for optimum results. This item will provide some of the benefit/cost analysis of what the systems want versus what we currently have.
- Define the system requirements
  - Prioritizing signal system features that are either required “must haves” (i.e. Transit Signal Priority) or desired “like to haves” (i.e. interaction with WSDOT ramp meters)
- Evaluate the systems
  - Determining available signal systems that best meet Bellevue’s requirements and short list the finalist systems
- Perform a scan tour of Finalist systems.
  - Select members of the project team would visit an actual installation of the finalist systems, interview the City/County staff, and observe the system in live operation. The consultant and staff believe the scan tour may greatly reduce Task 2 scope of work (evaluation of finalists), or separate the systems enough to decide on a single finalist to proceed directly to Task 3 (implementation).

All work under Task 1 will be conducted by the Consultant and the Technical Team under the guidance of the project’s Oversight Committee. The Oversight Committee consists of Goran Sparrman (Transportation Director), Dave Berg (Deputy Director), Laurie Gromala (Assistant Director), Mark Poch (Traffic Engineering Manager), Mike Whiteaker (ITS Manager), and Nancy LaCombe (Capital Project Manager). The Consultant, DKS Associates, was selected based on their response to Bellevue’s Request for Proposal (RFP), and is recognized as a leading firm in the area of Intelligent Transportation Systems (ITS). DKS Associates completed Bellevue’s first ITS Master Plan in 2004.

Work on Task 1 is scheduled to end in October, 2009 and it is anticipated that Council will be asked to award a contract for Task 2 in the 4<sup>th</sup> Quarter of 2009.

Approving this contract for Task 1 is anticipated to result in the selection of finalist signal systems to replace the current obsolete system in Bellevue. This will lead to a contract for Task 2 in the 4<sup>th</sup> quarter 2009, to evaluate the finalist systems and select the preferred system for Bellevue. A contract to implement the new system in the Bellevue Downtown (Task 3) will follow in early 2010.

**EFFECTIVE DATE:**

If adopted by Council, this Resolution becomes effective immediately upon adoption.

**OPTIONS:**

1. Adopt Resolution No. 7938 authorizing execution of a Consultant Agreement with DKS Associates to determine system requirements and finalists for Bellevue's new traffic signal control system.
2. Do not adopt Resolution No. 7938 and provide alternative direction to staff.

**RECOMMENDATION:**

Adopt Resolution No. 79 authorizing execution of a Consultant Agreement with DKS Associates, in the amount of \$150,000, to determine system requirements and finalists for Bellevue's new traffic signal control system.

**MOTION:**

Move to adopt Resolution No. 7938 authorizing execution of a Consultant Agreement with DKS Associates, in the amount of \$150,000, to determine system requirements and finalists for Bellevue's new traffic signal control system.

**ATTACHMENTS:**

CIP Project Description

Proposed Resolution No. 7938

See also minutes of May 26 discussion with Council located under the minutes tab

**AVAILABLE IN COUNCIL OFFICE:**

Consultant Agreement

FY 2009 - FY 2015 Capital Investment Program

**PW-R-155 Traffic Computer System Upgrade**

Category: Roadways  
Department: Transportation

Status: Approved and Begun  
Location: Citywide

Programmed Funding

Programmed Funding	Appropriated To Date	FY 2009 Budget	FY 2010 Budget	FY 2011 Budget	FY 2012 Budget	FY 2013 Budget	FY 2014 Budget	FY 2015 Budget
3,308,000	271,000	1,255,000	1,024,000	758,000	-	-	-	-

Description and Scope

This project will replace the existing traffic computer system software and hardware, and upgrade the field communications systems connecting the computer with remote traffic control equipment citywide.

The project budget will also fund four staff positions, three in the Transportation Department and one in the Information Technology Departments, charged with the design, implementation, and ongoing operations of the new systems.

Rationale

The primary benefit to replacing the current system with a system with modern features is that it will enhance the city's ability to coordinate traffic signals and make signal-timing adjustments in real-time. These enhanced capabilities are essential to manage traffic during commute times, emergencies, special events, around construction and accident sites, and during the holiday shopping season. This project allows the City to move forward with the implementation of the Intelligent Transportation Systems strategy. The existing traffic computer asset is due for replacement in 2010, and this project will supplement Electronic Equipment Replacement Fund (EERF) resources to implement the new control system.

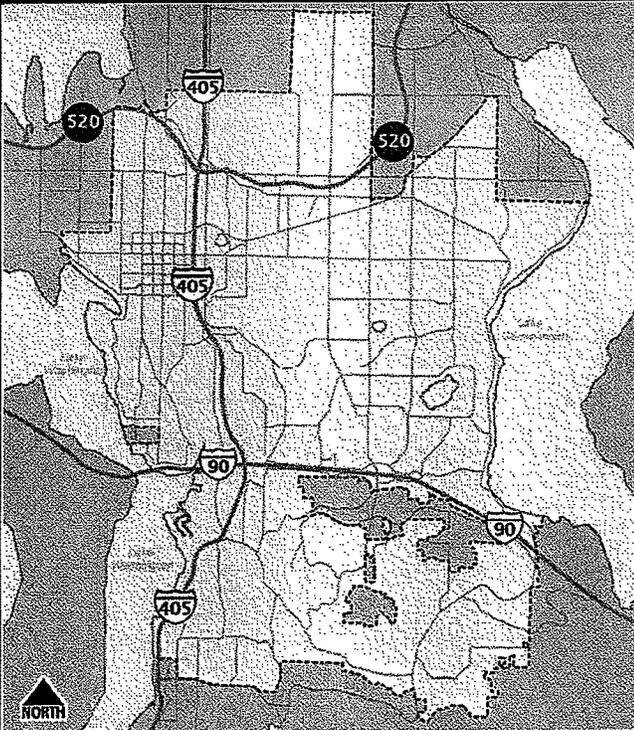
Environmental Impacts

Not applicable

Operating Budget Impacts

Operating budget costs will increase due to maintenance of the traffic computer system. Additional operating costs will be approximately \$29,369 per year, adjusted for inflation, beginning in 2009.

Project Map



Schedule of Activities

Project Activities	From - To	Amount
Project Costs	2009 - 2011	3,308,000
<b>Total Budgetary Cost Estimate:</b>		<b>3,308,000</b>

Means of Financing

Funding Source	Amount
General Taxes	3,307,714
Real Estate Excise Tax	286
<b>Total Programmed Funding:</b>	<b>3,308,000</b>
<b>Future Funding Requirements:</b>	<b>0</b>

This project is in multiple or non-specific locations throughout the City.

Capital Costs/Revenue: Enhanced funding of \$1,793,000 (\$1,673,000 of new funding and \$120,000 for inflation).

Enhanced Funding - Provides funding for four new staff members to deliver specialized network engineering, monitoring, response and trouble shooting services in support of the upgrade to the City's traffic computer system from obsolete copper wiring to a new fiber optic system.

CITY OF BELLEVUE, WASHINGTON

RESOLUTION NO. 7938

A RESOLUTION authorizing execution of a Consultant Agreement with DKS Associates, in an amount not to exceed \$150,000, plus any applicable taxes, to determine system requirements and finalists for Bellevue's new traffic signal control system.

THE CITY COUNCIL OF THE CITY OF BELLEVUE, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. The City Manager or his designee is hereby authorized to execute a Consultant Agreement with DKS Associates, in an amount not to exceed \$150,000, plus any applicable taxes, to determine system requirements and finalists for Bellevue's new traffic signal control system, a copy of which Consultant Agreement has been given Clerk's Receiving No. \_\_\_\_\_.

Passed by the City Council this \_\_\_\_\_ day of \_\_\_\_\_, 2009, and signed in authentication of its passage this \_\_\_\_\_ day of \_\_\_\_\_, 2009.

(SEAL)

\_\_\_\_\_  
Grant S. Degginger, Mayor

Attest:

\_\_\_\_\_  
Myrna L. Basich, City Clerk