

**Memorandum**  
**City of Lawrence**  
**Department of Public Works**

**TO:** David L. Corliss, City Manager  
**FROM:** Shoeb Uddin, City Engineer  
**CC:** Chuck Soules, Mark Thiel, David Woosley  
**Date:** November 15, 2010  
**RE:** November 23, 2010 City Commission Meeting Agenda Item  
Reconstruction of Iowa Street, Harvard to Irving Hill overpass  
Scope of Work – various options, cost and funding scenarios

**Background**

Efforts to reconstruct Iowa Street began this past winter 2010 when excessive cold temperatures and record snowfalls left a significant amount of pavement damage, potholes and deterioration requiring immediate corrective measures. Over the past several months, various aspects of the Iowa street reconstruction project have been discussed at various public meetings. Staff has been working with KDOT to resolve differences on important design issues and concerns. Staff has also had discussions with KU staff about potential impacts on KU traffic, facilities, and schedule.

Bartlett and West, a local engineering firm, has been selected as the consultant for the project. On August 18, 2010 the Commission authorized a contract with Bartlett and West to perform the Topographic Survey extending from Harvard to BBP. The survey work is now complete, and has been helpful in the analysis of various design features and alternatives. Early resolution of issues and concerns will reduce the Engineering Design cost and expedite the project in the long run, and help deliver a successful project in the end.

**Project Description**

The main objectives of this project are twofold - add a Center Turn Lane extending from south of Harvard to approximately 250 feet south of Terrace Road, and rebuild the pavement structure. The addition of a Center Turn Lane will require widening of the existing roadway on the west side by 10 feet. Geometric improvements at the intersection of 15<sup>th</sup>/BBP and Iowa to add right turn lanes at all approaches are also being recommended to be included in this project. The addition of the Center Turn Lane along with geometric improvements at 15<sup>th</sup>/BBP and Iowa will improve traffic flow and safety along this important corridor for the long term.

The major items of work would include removing and replacing the existing pavement structure, sub-grade preparation, removal and replacement of curb and gutter, storm water inlets, sidewalks and installation of under-drain system, where necessary.

### **Project Issues, Ideas and Concerns - Staff Recommendation**

The attached Preliminary Design Report provides a detailed overview of various issues, ideas and concerns related to the Iowa Street Reconstruction project. Following is a summary of staff findings and recommendations.

1. Project Limit – The current project limit extends from Yale Road to 15<sup>th</sup> Street/BBP. Based on further analysis of the pavement core samples, staff is recommending that the project limit be revised as follows.  
North End - approximately 200 south of Harvard Road  
South End – Irving Hill Overpass
2. Lane Width – Provide a 5 lane section consisting of 4 Thru Lanes, 11 feet each and a 12 foot Center Turn Lane.
3. Sidewalk along the East Side of Iowa (from University to 15<sup>th</sup>) – is not recommended due to high cost and safety concerns through the ravine area and the rock cliff.
4. Intersection Improvements at 15<sup>th</sup> and Iowa – Staff is recommending geometric improvements / widening to provide dedicated right turn lanes for north, east and west bound traffic. Dual left turn lanes for north and south bound traffic are also recommended and can be accommodated within the existing footprint of the roadway.
5. It appears that all necessary widening to construct the Center Turn Lane (including sidewalk on both sides) and the proposed geometric improvements at the intersection of 15<sup>th</sup> and Iowa can be accommodated within the existing right of way. Additional R/W or easement would be required to accommodate a shared-use path along the west side of Iowa. In addition, a shared-use path will also require removal of a number of mature trees including 5 additional Westar power poles.
6. A Shared-use path between Harvard and 15<sup>th</sup> street can be constructed for a total city cost of approximately \$538,000.00 whereas a 6 foot sidewalk along the west side of Iowa would cost the city approximately \$189,000.00 - the shared-use path option costing an estimated \$349,000.00 more than the sidewalk option. If the cost of relocating power poles and fiber optics (necessary for the shared-use path) is included, the total cost of the Shared-use path would be approximately \$693,000.00 – an estimated \$504,000.00 more than the total cost of a 6 foot sidewalk along this corridor. The original project budget was prepared based on a 6 foot sidewalk option along the west side of Iowa. Considering the higher cost, AASHTO Guidelines and safety concerns, and input from area residents and BAC, staff would not recommend a Shared-use path in this corridor. [See Preliminary Design Report for details]

### **Project Cost / Funding**

On April 27, 2010, the Commission approved a budget of \$6.0 million for this project. Based on our preliminary estimates, all improvements (including geometric

improvements at 15<sup>th</sup> and Iowa) recommended and outlined in this memo can be completed within the approved project budget [see attached Project Cost Estimate]. The additional cost of the Shared-use path was not included in the original project budget. As the Engineering Design moves forward, the cost estimate will be revised periodically to ensure that the project remains within the approved budget.

As part of the T-Works, a 10 year transportation program recently passed by the State Legislature, early next year, KDOT will be soliciting applications for funding for projects involving geometric improvements. Based on our preliminary conversations with KDOT staff, the proposed geometric improvements at 15<sup>th</sup> and Iowa may be a very worthy candidate for this funding option – if selected, the total funding from this program would likely be in the \$300,000 to \$500,000 range.

The current project budget includes \$3.0 million from Surface Transportation Program (STP) funds – this is a program, administered by KDOT, under which the City receives federal funds on an annual basis. In order to allocate \$3.0 million of STP funds for the Iowa Street Reconstruction project, a City-State Agreement has to be executed. (See attached)

### **Action Request**

1. Approve recommended sidewalks/shared use path as follows:
  - a) Approve staff recommended 6 foot sidewalk along the west side of Iowa between Harvard and 15<sup>th</sup>.
  - b) Approve staff recommendation not to construct a shared use path on the west side of Iowa.
  - c) Approve staff recommendation not to extend the existing sidewalk on the east side of Iowa from University Drive to 15<sup>th</sup> Street.
2. Approve Project Limit as described below, if appropriate.
  - North End: approximately 200 feet south of Harvard.
  - South End: Irving Hill Overpass
3. Approve geometric improvements at the intersection of 15<sup>th</sup> and Iowa to include 3 right turn lanes - south bound, east bound and west bound, if appropriate.
4. Authorize staff to negotiate an Engineering Design Services Agreement with Bartlett and West including additional Field Survey of Iowa (from 15<sup>th</sup> to Irving Hill) and 15<sup>th</sup> street, approximately 500 feet to the east and 600 feet to the west.
5. Authorize Mayor to sign the City-State agreement allocating \$3.0 million of federal funds for Iowa Street reconstruction project.

### **Attachments**

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| A | Project Cost / Funding Details |
| B | City State Agreement           |
| C | Preliminary Design Report      |