

# Memorandum

## City of Lawrence

### Public Works Department

TO: David Cronin, City Engineer  
FROM: Zach Baker, Project Engineer  
DATE: March 5, 2018  
RE: Agenda Item for Transportation Commission 3/5/2018:  
PW1722 / UT1720 - 23<sup>rd</sup> Street, Iowa Street to Learnard Avenue  
Mill & Overlay, Geometric & Waterline Improvements

#### **Background**

In 2012 the City and State entered into an agreement for the construction of the South Lawrence Trafficway (SLT). Upon completion the city agreed to accept ownership and maintenance responsibilities of 23<sup>rd</sup> Street from Iowa to East Hills Drive. Both parties agreed the State would provide funding for improvements as part of a "turnback" agreement.

The turnback agreement included \$800,000 of KDOT funds: \$500,000 for a center turn-lane on 23<sup>rd</sup> Street between Louisiana and Massachusetts and \$300,000 for a mill and overlay. Public Works budgeted \$400,000 in the 2018 CIP to complete the street maintenance work and Utilities budgeted \$800,000 to replace the waterline from Louisiana St. to Barker Ave. The total project budget is \$2,000,000.

In November, the Transportation Commission reviewed the scope of the project and further directed staff to include a review of the feasibility of a shared-use path on 23<sup>rd</sup> Street.

The sidewalk and ADA ramps at the intersections of 23<sup>rd</sup> & Louisiana and 23<sup>rd</sup> & Massachusetts will be upgraded with this project.

#### **Existing Conditions 23<sup>rd</sup> Street**

| 23rd Street, Louisiana to Massachusetts Street Information |             |                      |                     |                             |                       |   |
|--|-------------|----------------------|---------------------|-----------------------------|-----------------------|---|
| Street Classification                                      | Speed Limit | Safe Route to School | Bus / Transit Route | Douglas County Bikeway Plan | Sidewalk along Street | Street Cross Section/Pavement Data                      |
| Arterial   | 35 mph      | NO                   | YES                 | YES, Prop. SUP              | YES, SOUTH SIDE       | Asphalt Pavement Width of 48 feet. Has curb and gutter. |

### **Crash History**

| <b>23rd Street, between Louisiana and Massachusetts Streets<br/>1 Year Crash Data (Sept. 2016 - Sept. 2017)</b> |    |
|---|----|
| Total # Crashes   | 22 |
| Injury Crashes  | 6  |
| # of the Total Crashes a Center Turn Lane Could Mitigate  | 13 |
| # of the Injury Crashes a Center Turn Lane Could Mitigate   | 5  |

### **Shared-use path**

The design consultant reviewed the feasibility of adding a shared-use path to the project. Due to location of utilities and limited right-of-way, the south side of the street would be the preferred location of a shared-use path. To add a 6' sidewalk on the north and south side of 23<sup>rd</sup> Street the estimated cost is \$120,000. This cost includes acquisition of right-of-way. The cost to add a 10' shared-use path on the south side of 23<sup>rd</sup> Street would be an additional \$150,000 including right-of-way.

### **Traffic Calming**

The consultant collected traffic data for Ohio Street and Tennessee Street north of 23<sup>rd</sup> Street. Traffic data was also collected on Vermont Street south of 23<sup>rd</sup> Street to review for the need of potential traffic calming elements to be included with this project. Traffic volumes and speeds on for the side streets are attached with this report.

Based on the city's Traffic Calming Policy, Ohio Street meets the speed requirement (>5mph over posted speed limit) and Tennessee Street meets the volume requirement for a residential street (>1000 vpd). Vermont Street did not meet the speed or volume requirements. At this time staff does not recommend including traffic calming in the project, with the current moratorium on traffic calming projects while the policy is reviewed. Staff recommends re-conducting traffic counts following the completion to review if traffic patterns have changed and determine if warrants are met with the new policy.

| <b>Ohio Street, North of 23<sup>rd</sup> Street Information</b> |             |                      |                     |                             |                                  |   |
|---|-------------|----------------------|---------------------|-----------------------------|----------------------------------|---|
| Street Classification   | Speed Limit | Safe Route to School | Bus / Transit Route | Douglas County Bikeway Plan | Sidewalk along Street            | Street Cross Section/Pavement Data  |
| Local   | 20 mph      | NO                   | NO                  | NO                          | NO, Partial segment on West SIDE | Asphalt Pavement Width of 27 feet. Has curb and gutter. No Parking on West Side |

| Tennessee Street, North of 23 <sup>rd</sup> Street Information |             |                      |                     |                             |                       |   |
|--|-------------|----------------------|---------------------|-----------------------------|-----------------------|---|
| Street Classification  | Speed Limit | Safe Route to School | Bus / Transit Route | Douglas County Bikeway Plan | Sidewalk along Street | Street Cross Section/Pavement Data  |
| Local  | 30 mph      | NO                   | NO                  | NO                          | NO                    | Asphalt Pavement Width of 31 feet. Has curb and gutter. No Parking on East Side |

| Vermont Street, South of 23 <sup>rd</sup> Street Information |             |                      |                     |                             |                       |   |
|--|-------------|----------------------|---------------------|-----------------------------|-----------------------|---|
| Street Classification  | Speed Limit | Safe Route to School | Bus / Transit Route | Douglas County Bikeway Plan | Sidewalk along Street | Street Cross Section/Pavement Data  |
| Local  | 30 mph      | NO                   | NO                  | NO                          | YES, EAST SIDE        | Asphalt Pavement Width of 27 feet. Has curb and gutter. No Parking on West Side |

### **Project Budget and Recommendations**

The 2018 Capital Improvement Plan has \$2,000,000 budgeted for this project with \$1,200,000 for street/sidewalk construction and \$800,000 for the waterline replacement. The current cost estimate (including sidewalks on both sides) is \$1,285,000 (without contingencies) for street/sidewalk construction.

Staff does not recommend installing a shared-use path on 23<sup>rd</sup> Street with this project. The limited right-of-way and high number of driveways/conflict points along the 23<sup>rd</sup> Street corridor are not conducive to installing a shared-use path. During 2018/2019 the MPO will be pursuing a bikeway plan update and discussion about bikeway design and the bikeway network will be part of the plan update process.

### **Project Schedule**

Engineering Design and Construction Plans  
 Bid Project  
 Construction

January 2018 – March 2018  
 April 2018  
 May 2018 – August 2018

### **Action Request**

Provide feedback on the project design for a center turn lane and sidewalk improvements on 23<sup>rd</sup> Street between Louisiana Street and Massachusetts Street.

### **Attachments:**

Field Check Design Plans  
 Side Street Traffic Volumes & Speed Data