Agenda:

Fleur Drive Reconstruction Project Scope & Cost Overview

Fleur Drive Cross Section Elements
- Travel Lane Widths
- Sidewalk Widths
- Parkway Widths
- Review Sample Cross Sections

Project Schedule
Scope of Project:

Complete Reconstruction of Pavement with new Hot-Mix Asphalt Pavement (Full depth removal of pavement and constructing 9” Hot-Mix Asphalt over 12” Granular Base)

New Curb and Gutter for Outside Lanes; Medians will Remain

Water Main Replacement in Northbound Lanes (Phase 1)

Installation of Sidewalks
Proposed Sidewalk

Red = Phase 1 (NB)

Blue = Phase 2 (SB)

Yellow = Acquisition for Future Sidewalk
Estimated Construction Costs

Phase 1 - northbound lanes, Bell Avenue to Watrous Avenue
$4.2 Million (w/out Water Main)

Phase 2 – southbound lanes, Bell Avenue to Watrous Avenue
$4 Million

Phase 3 – Watrous Avenue to McKinley Avenue
$4 Million
Reasons for proposed 11’ travel lane widths:

• 11’ lane-widths meet the Statewide Urban Design and Specifications (SUDAS) Acceptable criteria for single-lane widths along urban arterials.

• The lane-width reduction along the NB lanes provides additional space to construct sidewalks. Without the lane-width reduction, new sidewalks would impact numerous trees and require additional right-of-way adjacent to the project.

• AASHTO’s A Policy on the Geometric Design of Highways and Streets (6th Edition), states that 10 ft lanes should generally be used on roadways that have little or no truck traffic, and recommends 11 ft lanes for urban Arterials and 12 ft lanes for higher speed (over 45 mph), free-flowing principal Arterials.
Reasons for proposed 11’ travel lane widths (continued):

- Use of National Association of City Transportation Officials (NACTO) guidelines has recently been encouraged to make City streets more walkable and pedestrian-friendly. NACTO indicates the following:
  - ‘Lanes greater than 11 feet should not be used as they may cause unintended speeding and assume valuable right of way at the expense of other modes.’
  - ‘Travel lane widths of 10 feet generally provide adequate safety in urban settings while discouraging speeding. Cities may choose to use 11-foot lanes on designated truck and bus routes (one 11-foot lane per direction) or adjacent to lanes in the opposing direction.’
Reasons for proposed 11’ travel lane widths (*continued*):

• Don’t correlate between lane widths and traffic volumes, increased Lane Widths don’t necessarily provide increased roadway capacity for urban environments.
  
  o Measured saturation traffic flow rates have been shown to be similar for lane widths between 10 feet and 12 feet (National Association of City Transportation Officials and Florida DOT study)

  o So long as all other geometric and traffic signalization conditions remain constant, there is no measurable decrease in urban street capacity when through lane widths are narrowed from 12 feet to 10 feet.
Reasons for proposed 5’ wide sidewalks:

• The minimum width of the pedestrian access route is 4 feet.

• 5 foot sidewalks are encouraged and may be required by Jurisdiction (Iowa DOT will design 5 foot sidewalks).

• When the clear width of the pedestrian access route is less than 5 feet, passing spaces (5’ x 5’ minimum) are required at maximum intervals of 200 feet.

• Typically, a five foot wide sidewalk supports two people walking side by side or two wheel chairs passing each other.

• City’s recent and current practice is to build 5’ sidewalks and require site developments to build 5’ sidewalks.
SUDAS identifies three classes of sidewalks. Class A sidewalks are typical in downtown. Class B and C sidewalks provide a grass strip between the back of curb and the sidewalk, often referred to as the “parking” or “parkway.”

Reasons for proposed 5’ wide sidewalks:
Reasons for proposed 4’ minimum parkway:

• The preferred minimum width of the parkway (sometimes called “parking”) is 5 feet, however, there is no written standard for parkways in SUDAS, so 4’ has been proposed in conjunction with the 18” curb and gutter as a buffer between the sidewalk and travel lane.

• A pedestrian’s safety and comfort in the roadway environment is largely dependent on the width of the buffer/parkway between the sidewalk and roadway.

• The width provides:
  • Buffer zone between motorists and pedestrians.
  • Improved site distance at driveways.
  • Adequate width for landscaping and utilities.
Reasons for proposed 4’ minimum parkway (continued):
E University Avenue (east of E 22\textsuperscript{nd} Street, north parkway)
Reasons for proposed 4’ minimum parkway (continued):
E University Avenue (east of E 22\textsuperscript{nd} Street, south parkway)
CROSS SECTION 3
~730' NORTH OF WAKONDA DRIVEWAY
ADJACENT TO WAKONDA CLUB FENCE

Existing Roadway Section
2 x 12' Thru-Lanes
(24' Face/Face)
0.5' Back-of-Curb Offset

1' Median Curb
12' Thru Lane
12' Thru Lane
12' Thru Lane
0.5' Outside Curb
7.2' Ex. BOC to Ex. ROW

Ex. Median Curb

2 x 11' Thru-Lanes
(23' Face/Face)
1.5' Back-of-Curb Offset
CROSS SECTION 4
~500' SOUTH OF PARK AVENUE
ADJACENT TO WAKONDA CLUB NO. 3 TEE BOX
CROSS SECTION 6
~75’ NORTH OF PARK AVENUE
ADJACENT TO PARK-FLEUR

SECTION 6
STA 58+00.00
CROSS SECTION 7
~1,500’ NORTH OF PARK AVENUE
ADJACENT TO DRUID HILL TOWNHOMES
2 x 12' Thru-Lanes
(25.5' Face/Face)
2' Back-of-Curb Offset

2 x 11' Thru-Lanes
(23' Face/Face)
1.5' Back-of-Curb Offset

Remove Tree with Parking Width at 0'.

Transition sidewalk around tree. Reduce parking width to 1' to reduce excavation near tree.
CROSS SECTION 2
~600' NORTH OF WAKONDA DRIVEWAY
ADJACENT TO WAKONDA CLUB FENCE
CROSS SECTION 2
~600' NORTH OF WAKONDA DRIVEWAY
ADJACENT TO WAKONDA CLUB FENCE

1 x 12' Left Turn Lane + 2 x 12' Thru-Lanes
(37.5' Front/Front)
2' Back-of-Curb Offset

1 x 12' Left Turn Lane + 2 x 11' Thru-Lanes
(35' Front/Front)
1.5' Back-of-Curb Offset

Transition sidewalk around tree,
Reduce parking width to 0'
to reduce excavation near tree.
Current Schedule

2019 – northbound lanes, Bell Avenue to Watrous Avenue
2020 – southbound lanes, Bell Avenue to Watrous Avenue
2021 – Watrous Avenue to McKinley Avenue

Google Street View Photo – Fleur Drive along Wakonda Country Club looking north (Aug 2017)
Current ROW Status

2019 – northbound lanes, Bell Avenue to Watrous Avenue

14 – Total Number of Parcels Needing Some Acquisition

2 – Number of Parcels Signed Agreements for Acquisition

9 – Number of Parcels Verbally Accepted Acquisition

3 – Number of Parcels Still in Negotiation
# Current Schedule

2019 – northbound lanes, Bell Avenue to Watrous Avenue

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<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>December 26, 2018</td>
<td>Contracts Due</td>
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<tr>
<td>January 14, 2019</td>
<td>Council Order Construction</td>
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<td>January 29, 2019</td>
<td>Bid Date</td>
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<td>February 11, 2019</td>
<td>Hearing Date (Award)</td>
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<td>Spring 2019</td>
<td>Start Construction</td>
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<tr>
<td>Spring 2020</td>
<td>Targeted Completion</td>
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2020 – southbound lanes, Bell Avenue to Watrous Avenue

2021 – Watrous Avenue to McKinley Avenue