

# Ashman St./Rodd St. OHM Conversion Study Results and Review

---

December 19, 2022



## Background

---

- City engaged OHM Advisors in May 2022 to conduct a capacity analysis of Ashman and Rodd Streets to determine traffic flow impact of conversion from one-way to two-way traffic.



## Background

- **Ashman and Rodd Streets were converted in the 1960s**
  - Addressed peak traffic issues coming to/from Dow Michigan Operations facility
  - Reflected standard roadway design practices of the era
  - Did not reflect contemporary roadway design considerations



## Background

- **Two-way conversion concept arises from earlier planning work**
  - Downtown Streetscape Plan (2016)
  - Midtown Design Charrette (2018)
  - Center City Redevelopment Plan (2019)



## Downtown Streetscape Plan

- Adopted by City Council in 2016
- Established vision for streets in Downtown Midland
- Partially realized through Main Street streetscaping (2019)
- Recommended two-way conversion of Ashman and Rodd Streets



## Downtown Streetscape Plan

- Traffic modeling showed that current levels of service could be maintained
- Advanced several district objectives:
  - Making it easier for visitors to access downtown from Indian and Buttles Streets;
  - Improving safety by addressing current issues with wrong way traffic on downtown streets;
  - Helping motorists more easily navigate downtown streets;
  - Supporting economic development by increasing business visibility and access; and
  - Increasing the visibility and use of the Larkin Parking Ramp.



## Midtown Design Charrette

- Not primarily focused on roadways
- Participants expressed concerns with safety, speed, and access due to current Ashman and Rodd configuration



## Center City Redevelopment Plan

- Adopted by City Council in 2019
- Considered two-way conversion of Ashman and Rodd Streets in district
  - Found to be viable with other elements of plan



## MDOT Project

- Design in progress for Business Route US-10
- Decision from the City required to complete design of four intersections:
  - Ashman at Indian and Buttles
  - Rodd at Indian and Buttles



## Ashman/Rodd Conversion Study Review



## Ashman/Rodd Conversion Study Review

---

- **OHM Study to determine potential benefits and costs of two-way conversion**
  - Traffic-centric study
  - Focuses on level of service for vehicles along corridor
  - Analyzes multiple scenarios



## Ashman/Rodd Conversion Study Review

---

- **What scenarios were analyzed?**
  - Existing conditions
  - **Two-way traffic conversion with center left-turn lane**
  - **Two-way traffic conversion with potential multi-use path or other purpose for excess pavement**
  - **Two-way traffic conversion with combination of center left-turn lane and excess pavement**



# Ashman/Rodd Conversion Study Review

## Level of service criteria for intersections

Level of Service	Average Delay/Vehicle (seconds)	Description
A	0 to 10	Little or no delay, very low main street traffic
B	> 10 to 15	Short traffic delays, many acceptable gaps
C	> 15 to 25	Average traffic delays, frequent gaps still occur
D	> 25 to 35	Longer traffic delays, limited number of acceptable gaps
E	> 35 to 50	Very long traffic delays, very small number of acceptable gaps
F	>50	Extreme traffic delays, virtually no acceptable gaps in traffic

LOS Criteria for Unsignalized Intersections

LOS Criteria for Signalized Intersections

Level of Service	Average Delay/Vehicle (seconds)	Description
A	0 to 10	Most vehicles do not stop at all. Most arrive during the green phase. Little or no delay.
B	> 10 to 20	More vehicles stop than for LOS A. Still good progression thru lights. Short traffic delays.
C	> 20 to 35	Significant number of vehicles stop, although many pass thru without stopping.
D	> 35 to 55	Many vehicles stop. Individual signal cycle failures are noticeable. Progression is intermittent.
E	> 55 to 80	Considered to be the limit of acceptable delay. Individual cycle failures are frequent, and progression is poor.
F	>80	Extreme and unacceptable traffic delays.



# Ashman/Rodd Conversion Study Review

## What do the results say?

- Ashman

- Comparable LOS results between existing and evaluated alternatives
- Ashman/Carpenter existing NW LOS is 'D', alternatives reduce delay
- Ashman/Saginaw generally LOS 'C' and 'D', alternatives redistribute delay but no real improvement/worsening



# Ashman/Rodd Conversion Study Review

## What do the results say?

- **Rodd**

- Comparable LOS results between existing and evaluated alternatives
- All existing conditions operate at LOS 'C' or better
- All locations operate at LOS 'C' or better under each evaluated alternative



# Ashman/Rodd Conversion Study Review

## What do the results say?

Operational delay change in seconds	2-Way & Left Turn Lane		2-Way 2-Lane		2-Way Combination	
	AM	PM	AM	PM	AM	PM
Ashman and Main	0	0.2	0	0.2	0	0.3
Ashman and Buttles	1.7	4.1	2.3	4.4	3.6	4.8
Ashman and Indian	-2.3	-1	-2.9	-1.2	-2.4	0
Ashman and Carpenter	0.3	-0.2	0.2	0.9	0.5	-0.6
Ashman and Nelson	-3.5	-5.3	1.2	-0.4	-3.3	-0.8
Ashman and Saginaw	0.6	-0.8	-3	-3	0.7	2.3
Ashman and Cambridge	0.9	2.1	0.9	2.1	0.6	0.5
Rodd and Main	0.9	0	0.5	-0.1	0.5	-0.2
Rodd and Buttles	0	6.0	0.4	-1.9	1.2	6.3
Rodd and Indian	-0.5	-0.3	-0.6	0.5	2.1	-1.9
Rodd and Carpenter	1.1	-4.6	2.7	-4.5	2	-1
Rodd and Nelson	2.6	6.1	2.2	5.8	2.9	7.6
Rodd and Jefferson	2.6	1.2	3.1	1.7	3.7	4.1
Rodd and Saginaw	1.4	3.6	2.1	3.7	1	-3.1
Rodd and Cambridge	0.5	0.3	0.6	0.4	0.4	-0.5





## Ashman/Rodd Conversion Study Review

---

- **Conversion Considerations**
  - Roadway Capacity – no issues
  - Roadway Speeds – two-way reduces speeds
  - System Navigation – direct routes to locations
  - Access and Safety – increase in conflict points
  - Non-motorized mobility – some scenarios provide opportunity for increased non-motorized use



## Ashman/Rodd Conversion Study Review

---

- **Conversion Considerations continued**
  - Emergency/maintenance – modified but more direct routes
  - Implementation – signage and pavement marking changes
  - Additional opportunity – more flexibility under two-way conditions
  - Cost of conversion – reported \$3.7 million in OHM study
    - No detailed breakdown
    - Confident we can reduce that cost significantly



## Resolution Summary

- **Receives the capacity analysis review by OHM Advisors**
- **Reaffirms the conversion of Ashman Street from Indian Street to Ann Street and Rodd Streets from Indian Street to Main Street to two-way traffic, consistent with City Council action in 2016**
- **Authorizes a Request for Proposals (RFP) for contracted services to complete the corridor study and provide design recommendations for the conversion of Ashman and Rodd Streets north of Indian Street and south of Cambridge Street to two-way traffic**



## Basis for Recommendation

- **Prior study, current study, and community engagement demonstrate feasibility, desirability, and support for conversion south of Indian**
- **MDOT requires timely guidance to continue design work for Indian and Buttles**



## Basis for Recommendation

- **Current study demonstrates feasibility of conversion north of Indian**
- **Additional review, including community engagement, was postponed pending those results**
- **Decision north of Indian not currently time sensitive**
  - Will eventually need direction for Phase II of the Saginaw Road streetscape project




## Public Comments

- **Four written comments received, two in favor and two in opposition**



**Questions?**



The image shows a large rectangular frame with a black border. Inside the frame, the word "Questions?" is written in a bold, black, sans-serif font. A horizontal line is drawn across the frame, passing through the text. In the bottom-left corner of the frame, there is a logo for the City of Midland, which includes a stylized tree and the text "CITY OF Midland". On the right side of the frame, there is a faint, light green illustration of a tree.