COMMUNITY OPEN HOUSE

NOVEMBER 2020







Visit the website to view all the displays from the Innovate Mound 201 event and learn more about the project.

www.innovatemound.org 1-855-MOUND4U (668-6348) Info@InnovateMound.org

PROJECT OVERVIEW & PUBLIC ENGAGEMENT









Full reconstruction: Mound Rd from 11 Mile Rd to M-59

Road widening: Add fourth lane northbound and southbound on Mound Rd from 17 Mile Rd to M-59



Outcomes:

- Improved pavement surface
- Traffic flow safety
 improvements
- Enhanced landscaping
- Unified lighting

- Improved pedestrian access
- Improved transit accessibility
- Emerging mobility features



PROJECT TIMELINE





- Project partners
- Emerging Mobility Innovation Council with 28 Members
- Local stakeholders
- Community members
 and businesses









Federal Highway Administration





- 86+ individual meetings with a wide range of stakeholders including major, mid-sized and small businesses, school districts, social service organizations, chambers of commerce and others.
- Community wide events and community outreach partnerships.
- 2 access management workshops, 3 on-site meetings, and 30+ stakeholder meetings on access management.
- One community-wide public meeting prior to this week.





- Met with Heathdale residents who expressed concerns about current access to Mound Rd and signage.
- Studied traffic operations and crash history.
- Proposed solutions in the new design.
- Collaborative process helped solve longstanding problems for residents.



PROJECT STATUS UPDATE & NEXT STEPS







PROJECT STATUS AND NEXT STEPS

Project Update:

- Environmental
- Access Management
- Traffic Operations
- Non-Motorized Planning
 and Aesthetics
- Engineering
- Emerging Mobility
- Procurement

Next Steps:

 Construction and Maintenance of Traffic

INNOVATE MOUND 201

ENVIRONMENTAL





Evaluated Resources:

- Residential
- Business
- Environmental justice
- Threatened and endangered species
- Historic properties and districts
- Hazardous and toxic materials
- Section 4(f) and Section 6(f) properties
- Traffic
- Noise
- Air quality
- Wetlands
- Streams
- Water quality
- 100-year floodplain

Documentation:

• Enhanced Categorial Exclusion (CE)



ACCESS MANAGEMENT







ACCESS MANAGEMENT OVERVIEW

Objective: Use standards for the placement and design of access points and crossovers that improve safety and traffic flow along Mound Road.

Techniques:







Driveway Consolidation Managing Median Crossovers Redesigning Driveways

GOALS

Improved access management along the Mound Road corridor could achieve the following goals:



Decrease the frequency and severity of crashes



Smooth and efficient traffic flow



Improve safety for those walking



Provide reasonable access to businesses and support economic development



ACCESS MANAGEMENT PROCESS

Identified "Hot Spots" of high crash/congested locations:

- Past crashes were mapped;
- Intersection delay was evaluated;
- Most "Hot Spots" are near major intersections, congested areas or related to crossover maneuvers.





Relocate SB-NB crossover at Heathdale Ave further south of intersection:



- Existing Weaving Conflict
- Crossover Relocation
- Removal of Weaving Conflict with Crossover Relocation

Relocate SB-NB crossover directly north of 18 Mile Rd further north:



TRAFFIC OPERATIONS & SAFETY







01 TRAFFIC OPERATIONS

What is Level of Service (LOS)?

Level of Service is a quantitative measure that describes the operational conditions within a traffic stream as defined by the delay experienced.

LOS FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

LOS	SIGNALIZED	UNSIGNALIZED
A	≤10 Stable tra only minor de	≤10 ffic flow with elays for travelers
В	>10-20 Stable tra only minor de	>10-15 ffic flow with elays for travelers
C	>20-35 Stable traffic flow	>15-25 with tolerable delays
D	>35-55 Stable traffic flow	>25-35 with tolerable delays
E	>55-80 Unstable flow but tolera	>35-50 ble delay in short durations
6	>80 Congested conditio	>50 ns with excessive delay



EXISTING CONDITIONS (2019):

Existing AM peak hour congested segments (southbound segments)

- 17 Mile Rd to 16 Mile Rd
 - Mound Rd at 16 Mile Rd intersection a major focus for improvements

Existing PM peak hour congested segments (northbound segments)

- 16 Mile Rd to M-59 (Dobry Dr)
 - 3 lanes in each direction between 17 Mile Rd and M-59 (Dobry Dr)

Mound Road – mainline	Distance	Travel Time (minutes)	
	(miles)	AM	PM
Northbound (Stephens Rd to W. Utica Rd)	11.3	17.5	22.2
Southbound (W. Utica Rd to Stephens Rd)	11.1	19.4	20.4



FUTURE NO-BUILD CONDITIONS (FUTURE YEAR 2050):

Congestion northbound segments:

• 12 Mile Rd to I-696

Congested southbound segments:

- 17 Mile Rd to 16 Mile Rd
- Chicago Rd to 12 Mile Rd

Mound Road - mainline	AM Travel Time (minutes)		
	Existing	Future No-Build	
Northbound (Stephens Rd to W. Utica Rd)	17.5	19.8	
Southbound (W. Utica Rd to Stephens Rd)	19.4	30.3	

Congestion northbound segments:

- 18 Mile Rd to 17 Mile Rd
- 16 Mile Rd to 14 Mile Rd

Congested southbound segments:

• 12 Mile Rd to I-696

	PM Travel T	ime (minutes)
Mound Road – mainline	Existing	Future No-Build
Northbound (Stephens Rd to W. Utica Rd)	22.2	30.3
Southbound (W. Utica Rd to Stephens Rd)	20.4	25.2



BUILD CONDITIONS (FUTURE YEAR 2050):

Build Improvements:

- New traffic signal technology to improve signal coordination and progression.
- Signalized cross-overs on 16 Mile Rd (East and West of Mound Rd)
- Continue 4th lane in each direction between 17 Mile Rd and M-59 (Dobry Dr).
- Relocate and consolidate cross-overs to improve safety and efficiency of the corridor.

Mound Road - mainline	AM Travel Time (minutes)		
	Existing	Future No-Build	Build
Northbound (Stephens Rd to W. Utica Rd)	17.5	19.8	19.4
Southbound (W. Utica Rd to Stephens Rd)	19.4	30.3	21.1

Mound Road - mainline	PM Travel Time (minutes)			
	Existing	Future No-Build	Build	
Northbound (Stephens Rd to W. Utica Rd)	22.2	30.3	21.8	
Southbound (W. Utica Rd to Stephens Rd)	20.4	25.2	20.7	

NON-MOTORIZED PLANNING & AESTHETICS











STANDARD NON-MOTORIZED CROSSING DESIGN



ENHANCED NON-MOTORIZED CROSSING DESIGN







INTERSECTION LANDSCAPE TREATMENT



FEATURE MOUNDS :

- Create wide sweeping curves to provide visual interest and varying views as vehicles travel by.
- Elevated mounds provide a platform to display plant material and light features creating year long interest through color, texture and light.
- Provides a visual cue for drivers that are approaching a signalized intersection, even in winter months.





MEDIAN LANDSCAPE TREATMENT

SECTION



Evergreens comprise most of this typology. Pines, spruces, and other coniferous species will continue to create interest in winter. Several large shade trees, with striking autumn color, are set in a row at each end of the stretch.

VIEW





HISTORIC VILLAGE OF WARREN

INNOVATE MOUND

201



ENGINEERING











- Survey
- Geotechnical Investigations
- Contaminated Materials
- Utility Investigation









- Roadway
- Hydraulics
- Structures
- Cost Estimating









EMERGING MOBILITY







01 EMERGING MOBILITY OVERVIEW

Innovative technologies for Mound Road to support:

- Connected and Autonomous Vehicles (CAVs)
- Electric Vehicles
- Advanced Traffic Signal Operations
- Intelligent Transportation Systems (ITS) like travel time sensors and traffic cameras







PROCUREMENT







201 DESIGN-BUILD PROCUREMENT







Two-phase procurement process



What are the benefits of Design-Build?

- SINGLE CONTRACT from design through construction
- TIME SAVINGS through the ability to schedule design and construction in overlapping phases
- INCREASED INNOVATION as a result of collaborative problem-solving
- QUICK RESPONSE AND DISPUTE RESOLUTION through a team effort

NEXT STEPS

CONSTRUCTION & MAINTENANCE OF TRAFFIC









Summer 2021 to end of 2023:

- Construction staged over multiple years
- Minimum access requirements
- Communication during construction
 - Traffic Advisories
 - Project Website
 - Ombudsman





SEGMENT 1 CONSTRUCTION (2021)

Dobry Drive to just south of 18 Mile Road

DURATION	Contract Award to
	December 15, 2021
INTERSECTIONS	19 Mile Road
	18 1/2 Mile Road
	18 Mile Road
BRIDGE WORK	NB Mound over Plum Brook
	SB Mound over Plum Brook

SEGMENT 2 CONSTRUCTION (2022)

just south of 18 Mile Road to just south of 14 Mile Road

DURATION	March 1, 2022 to
	November 15, 2022
INTERSECTIONS	17 Mile Road
	16 Mile Road
	15 Mile Boad
	14 Mile Road
BRIDGE WORK	Mound over Sterling Relief Drain
1000 C C C C C C C C C C C C C C C C C C	Mound over Big Beaver Creek

SEGMENT 3 CONSTRUCTION (2023)

just south of 14 Mile Road to north of 11 Mile Road

DURATION	March 1, 2023 to November 15, 2023
INTERSECTIONS	Chicago Road 13 Mile Road 12 Mile Road
BRIDGE WORK	Mound over Red Run Drain Mound over Bear Creek



PROPOSED MAINTENANCE OF TRAFFIC

Proposed Stage 1





PROPOSED MAINTENANCE OF TRAFFIC

Proposed Stage 2





PROPOSED MAINTENANCE OF TRAFFIC

Proposed Stage 3



CONTACT US

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MEDIA INQUIRIES

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