



APPENDIX

Funding for this project was provided in part by the National Oceanic and Atmospheric Administration and the Indiana Department of Natural Resources Lake Michigan Coastal Program.

- A1 – Meeting + Event Summaries**
- A2 – Neighborhood Poll Summaries**
- A3 – Existing Conditions Report**
- A4 – TOD Roadway Planning Memo**
- A5 – Calumet Ave Bridge Concepts**
- A6 – Traffic Signals + Vehicular Lighting Specs**

A1 – Meeting + Event Summaries



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CALUMET-RIDGE STREETScape PLAN

STAFF KICKOFF MEETING SUMMARY

June 18, 2020 | Munster Town Hall | 9:30 am

The purpose of the staff kickoff meeting was to review the project scope with Town Staff and to receive inputs regarding the corridor study area. The following participants attended this meeting.

Town of Munster

- Tom Vander Woude, Community Development
- Dustin Anderson, Town Manager
- Stephen Gunty, Public Works Director
- Jill DiTommaso, Engineering
- Chris Spolnik, Superintendent, Public Works
- Anton Petrashevic, Water & Sewer Maintenance
- David White, Public Works, Water & Sewer Division
- Mark Hajduk, Munster Fire Department and Building Department
- Chuck Collins, Community Development, Building Department

Consultant Team

- Jodi Mariano, Teska Associates
- Heather Faivre, Teska Associates
- Sara Disney-Haufe, Sam Schwartz Consulting

Key topics and discussion points are summarized below.

Following introductions, Teska presented the project scope, goals, timeline, and deliverables.

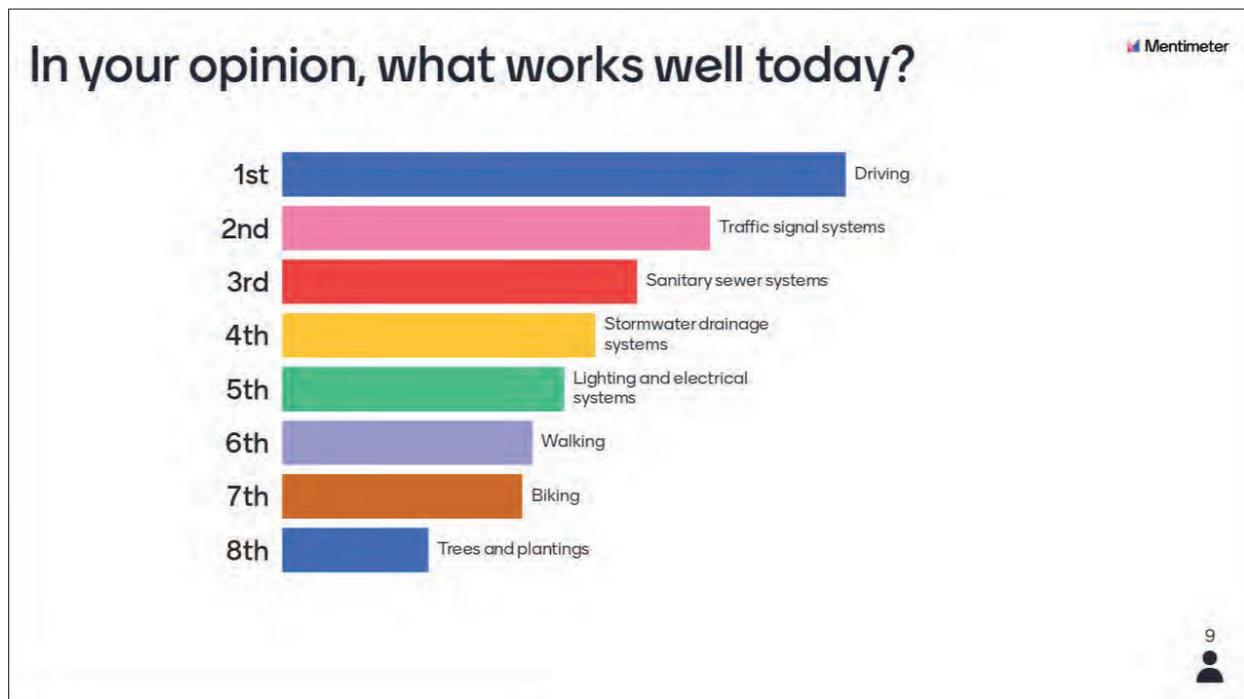
The group participated in a group discussion activity that was guided by a web-based polling program.

Discussion items are listed below:



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Question #1: In your opinion, what works well today?



The group was asked to rank items and prioritize those that generally work well and should be protected. The following 5 items were identified and are described below:

1. Driving

- There was consensus that Calumet – Ridge are heavily auto focused.
- Curb cuts (access to businesses) should be evaluated and reduced where possible.
- It was noted that drivers tend to cut thru parking lots and side streets. These movements should be discouraged in the streetscape.

2. Traffic signal systems

- Signals are managed by Midwestern and generally operate well.
- Signal modifications were made following a traffic study by Robinson Engineers (the planning team has a copy of this study) and will be needed again after Calumet/42nd is finished.



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- c. In the future, signals should be reevaluated following planned new developments and associated traffic.
- d. Signals should be updated to smart signals for improved pedestrian / bike movements and to meet current standards (like flashing yellow arrows).
- e. Signals along Ridge will be affected by two future events: the new South Shore Line station at Manor and improvements at Calumet/Ridge.
- f. It was noted that the design team is cognizant of the impacts to traffic due to the coronavirus health emergency. The team was provided with recent historical traffic data that will be referenced as the study begins. Traffic counts are anticipated to take place in the fall, when school is anticipated to be back in session.

3. Sanitary sewer systems

4. Stormwater drainage systems

- a. The inlets along Ridge Road tend to get clogged.
- b. Systems tend to become overloaded during high frequency rain events.
- c. The group agreed that slowing drainage via raingardens could potentially address overloaded drainage systems.

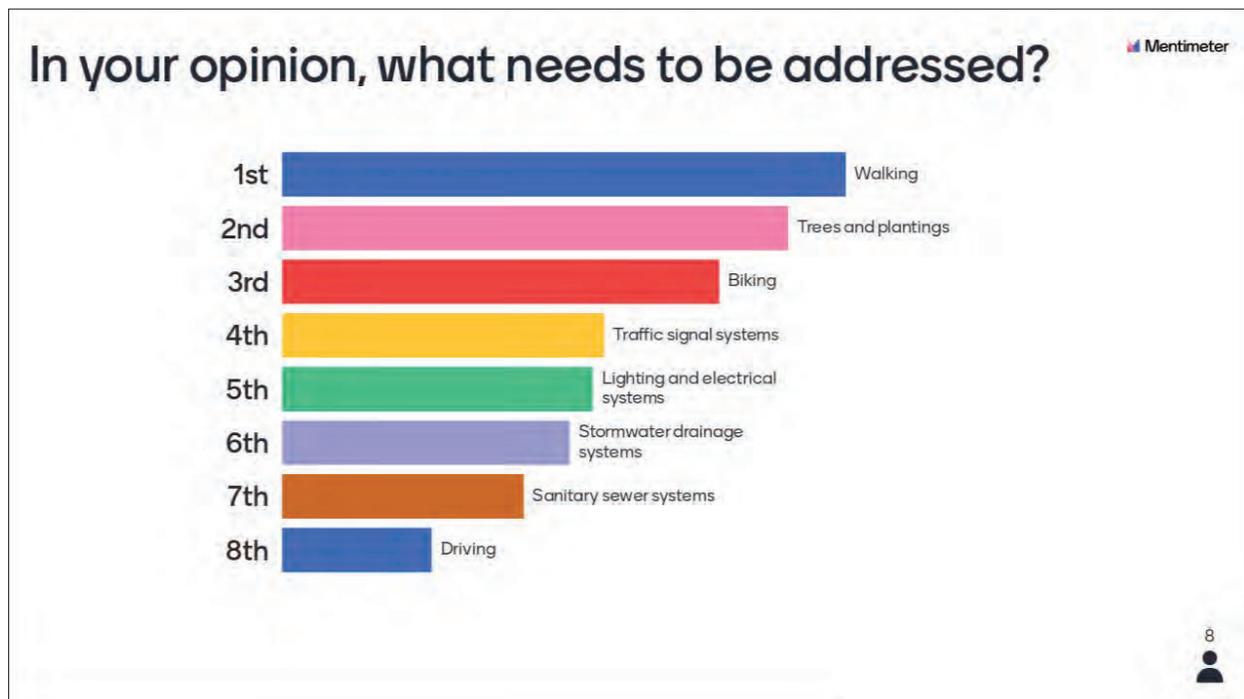
5. Lighting and electrical systems

- a. The current lighting system includes HPS roadway and pedestrian light poles.
- b. The Town would like to upgrade all lighting to LED.
- c. There was a general sense that there are too many decorative pedestrian lights and that they are spaced too closely together.
- d. It was noted that the roadway lights provide sufficient lighting to the roadway and sidewalk. The pedestrian lights were added at some corridor locations as a decorative element. The group generally felt the roadway and pedestrian lights are not visually compatible.
- e. It was noted that the original decorative pedestrian light poles are no longer manufactured, causing issues with part replacements and maintenance.



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Question #2: In your opinion, what needs to be addressed?



The group was asked to rank items and prioritize those that need to be improved. The following 3 items were identified as priorities for improvement:

1. Walking

- a. The corridor prioritizes auto movements. Traffic speeds, roadway widths, a lack of landscaping and buffering all contribute to an uncomfortable walking environment.
- b. Several utility poles are placed in the center of sidewalks making walkways difficult to traverse.
- c. During the site walk, it was noted that several intersections lack ADA compliant paving. In some cases, non-code compliant detectable warnings direct pedestrians into the street at non-signalized intersections.



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2. Trees and Plantings

- a. It was noted that preexisting canopy trees planted in the corridor became root bound and were difficult to maintain. As such they were eventually removed.
- b. Where overhead wires exist, small ornamental trees should be selected.
- c. Regarding overhead wires, it was noted that some utilities in the corridor support large scale transmission lines and would be very costly to bury underground. During the site walk it was suggested that utility poles be relocated to the rears of businesses and alleyways.

3. Biking

- a. The Monon and Calumet bike trails are well-traveled regional trails. However, the corridor lacks bike features and amenities which can improve bike comfort, safety and access to corridor businesses.
- b. The Manor/Ridge crosswalk is a poor crossing and should be reviewed for improvements.
- c. A bike share system should be considered.



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Question #3: What opportunities do you see?

What opportunities do you see? Mentimeter

Improvement

Pedestrian safety, Outdoor dining, Streetscape.

Roundabout at Calumet-Ridge

Green infrastructure

Attractive similar themed streetscaping improvements to create a Munster identity & sense of place...similar to Centennial Park "wow" effect.

New planters

6

The group was asked to describe opportunities for improvements. The following items were discussed.

1. Currently, housing in Munster is growing rapidly. Additionally, the future transit station will bring additional activity to the area. New residents will likely expect Munster’s commercial corridors to provide improved walkability and character. In particular, Ridge Road has an opportunity to establish a unique streetscape experience.
2. There is an interest in incentivizing Transit-Oriented Development near the future train station. While there are lots of legacy properties in the area, there is an appetite for redevelopment. The Town wants to be prepared for those developments to fit the efforts of this project.
3. The streetscape should promote pedestrian safety and outdoor dining.
4. Green infrastructure treatments should be incorporated, such as permeable paving and rain gardens.
5. Consider a Roundabout at Calumet – Ridge (if it does not impact private properties).



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6. Provide attractive similar themed streetscaping improvements to create a Munster identity and a sense of place... similar to the Centennial Park “wow” effect (when looking over the landscape and lake).
7. Public art should be incorporated throughout the corridor. It was noted that the Town has an established public art program that is funded by a tax abatement.
8. Manhole covers are opportunities to include the Town’s logo or other graphic identifier.
9. There was a comment regarding the lack of public parking in the corridor and whether opportunities exist to include additional public parking.
10. Fiber optic cable installations occur throughout the corridors. The equipment associated with these items tend to be visually unattractive and poorly placed.
11. The existing precast concrete planters should be replaced. It was noted that the model used is no longer available by the manufacturer.
12. During the walking tour, it was noted that some parkways on side streets adjacent to businesses have been paved and are used for auto parking. Moving the parking to the streets is an opportunity for additional on-street parking and enhanced aesthetics.

Following the discussion activity, Teska discussed next steps, including meeting with the steering committee, stakeholder interviews and potential attendance at an upcoming farmers market. Following these activities, a streetscape assessment report would be produced. As concepts are developed during the next phase of work, Town staff will have opportunities to comment.

The meeting adjourned at approximately 10:45am.

Following the meeting, some meeting participants walked the corridor areas to review site conditions.



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CALUMET-RIDGE STREETScape PLAN

COMMITTEE MEETING #1 SUMMARY

July 15, 2020 | Munster Town Hall | 4:00 pm

The purpose of Committee Meeting #1 was to review the project scope with the Committee and to receive inputs to help guide the preparation of concepts and alternatives. The following participants attended this meeting.

Due to the current health crisis, most committee members participated in person with safety measures in place (*masks, socially distant seating, online polling*). Some committee members participated via Zoom teleconference.

COMMITTEE MEMBERS	CONSULTANT TEAM
<ul style="list-style-type: none"> • Tom Vander Woude, Community Development, Town of Munster • Daniel Straka, Business Owner, Sweet Tooth • Eman Ibrahim, NIRPC • Paul Rotatori, Local Cyclist • Lee Ann Mellon, Town Council • Ken Schoon, Town Council • Anthony Christopher, Business Owner, Top Tier Nutrition • Steve Tripenfeldas, Assistant Superintendent • Katie Vallis, Planner IDNR LMCP • Hope Martin, Resident, Civil Engineer • Scott Milne, Business Owner • Don Erminger, Local Business, Strack & Van Til • Rachel Branagan, Resident, Architect 	<ul style="list-style-type: none"> • Jodi Mariano, Teska Associates • Heather Faivre, Teska Associates • Sara Disney-Haufe, Sam Schwartz Consulting



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Key topics and discussion points are summarized below.

Following introductions, Teska presented a slide show presentation. The presentation was organized to address the following items:

1. Project scope, goals, schedule, and themes;
2. Existing conditions related to transportation, streetscape and corridor character;
3. Example photos from other communities who have enhanced their corridors and streetscapes.

Following the presentation, the Committee participated in a guided discussion via a web-based polling program.

Outcomes from the polling program and discussion points are provided on the following pages:



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Question #1: How is Munster unique from surrounding communities?

How is Munster unique from surrounding communities?

Mentimeter



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Munster is generally perceived to be a safe and attractive community with a small-town feel and access to quality neighborhoods, schools, well landscaped parks and vibrant arts and cultural destinations. There was a common sense that while these characteristics are perceived for the Town as a whole, they are not conveyed in the Calumet / Ridge corridors.



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Question #3: Describe your vision for Calumet Ave / Ridge Road in the future.

Describe your vision for Calumet Ave / Ridge Road in the future. Mentimeter

A destination	Livable	Safe and walkable with character and charm
welcoming space	Added green space with safe passage for all modes of travel	Eating ice cream under a tree
A place to ride bikes to	Cohesive destination with a small-town feel	Slow down traffic, reduce pass through, better off street parking.
Aesthetically Appealing	Want to come into town	Small, walkable blocks
Economically and environmentally sustainable	Unique identity	Plazas, landscapes medians, combine curb cuts,
Combined access	Quaint feel	Outside dining

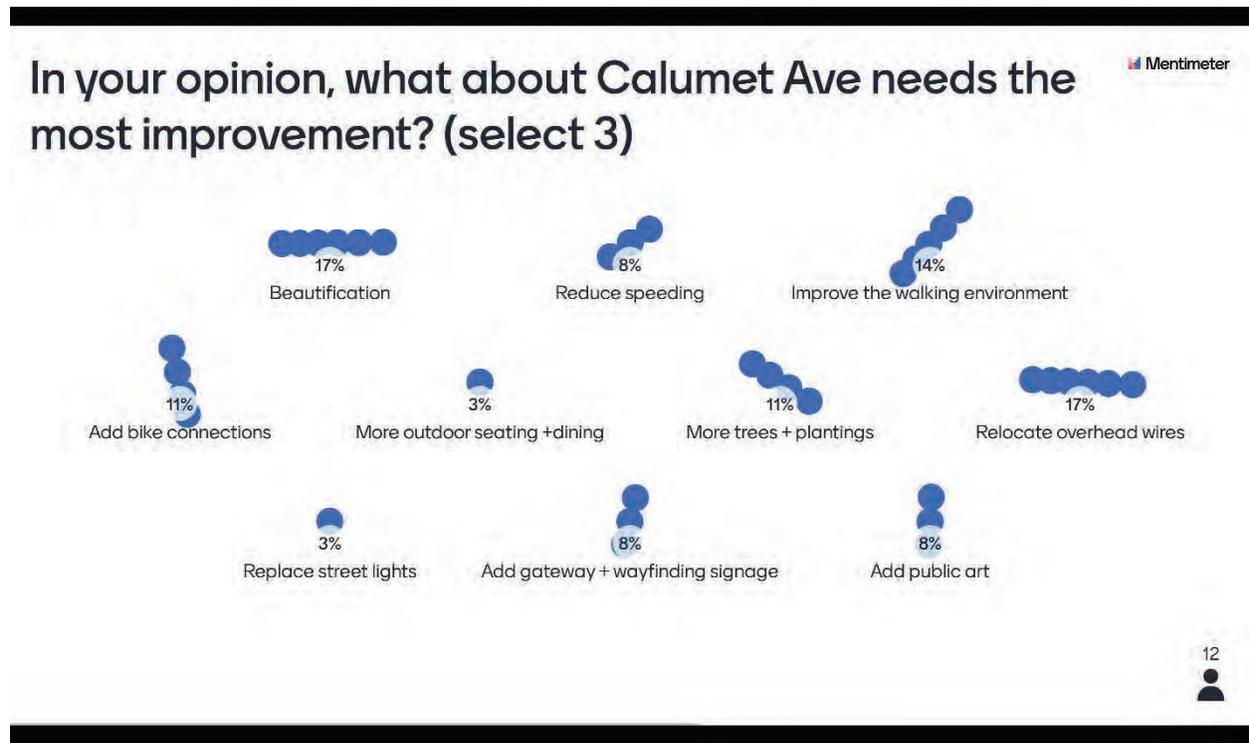
The Committee’s vision can be organized as follows:

- A welcoming and livable space that prioritizes pedestrians and bicyclists.
- A cohesive destination with a small-town feel, including a quaint feel and pedestrian friendly features, such as walkable blocks, plazas, and outside dining.
- An economically and environmentally sustainable place that includes public parking, green spaces and landscaping.



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Question #4: In your opinion, what about Calumet Ave needs the most improvement? (select 3)



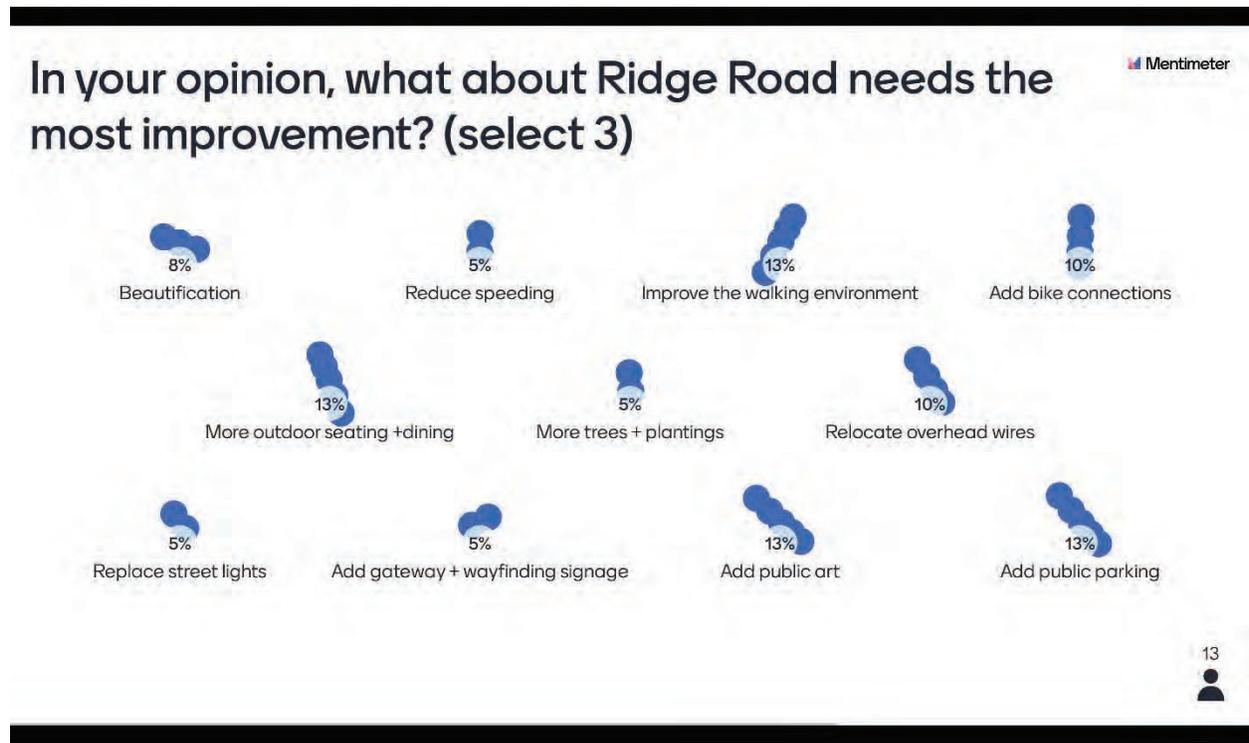
The following priority items were discussed for Calumet Avenue:

- Relocate overhead wires – consider relocating overhead wires instead of burying overhead wires to save on costs.
- Beautification
- Improve the walking environment



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Question #5: In your opinion, what about Ridge Road needs the most improvement? (select 3)



The following priority items were discussed for Ridge Road:

- Improve the walking environment
- More outdoor seating and dining
- Add public parking
- Add public art



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Question #6: In your opinion, what near term streetscape projects offer the most value?

In your opinion, what near term streetscape projects offer the most value?

Mentimeter



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Murals and public art as well as gateway and wayfinding signage were ranked as potential near-term projects over pop up placemaking. This led to a discussion about the benefits of a unified gateway and wayfinding signage program. The group discussed the following signage types that may be considered for the corridor:

- Gateway signs
- Bike directional signs
- Business sign kiosks



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Question #7: As we embark on concept development, what else should we focus on?

As we embark on concept development, what else should we focus on? Mentimeter

Use this as a way to brand the town	Not sure, I think you're off to a great start.	How it will impact the existing business
Create a down town character	Long term sustainability	Focus on community and small businesses
Ease of maintenance	Consider how people get to this corridor and what other options are around for using or bypassing it.	Desires of the business community.
Walkable shops and dining safely.	Use current character to guide project by districts. i.e. Ridge Road East of Calumet has several bungalow, arts and crafts design. Plus the south shore arts. This could be the "Art District"	Some feature that is unique to Munster.
There's no safe way to bike east/west to get to the train and connect the east side quadrant of the town		

The following items were noted and discussed

- **Promote Munster's brand and character.** Establish a positive brand identity and downtown character for Munster. Consider building upon character rich areas, such as established neighborhoods and the South Shore Arts Center.
- **Support community and small businesses.** Reach out to the business community and incorporate business friendly improvements in the streetscape plans.
- **Provide connectivity.** Establish better connections between the future train station and surrounding businesses and neighborhoods.
- **Consider maintenance.** The streetscape should balance aesthetics with maintenance to ensure long term success.



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The following additional items were discussed:

1. Little Calumet Bike Trail bridge project. It was noted that Hammond is planning a bike bridge at the Little Calumet Bike Trail crossing over Calumet Avenue. The Town may consider this as an opportunity to partner with Hammond on a gateway entry signage project.
2. Consider promoting the corridor as an Arts and Culture district in partnership with South Shore Arts.
3. Incorporate bike trail signage that encourages visitors to community destinations on and off of the trails.
4. Consider business blade signs and pedestrian kiosks to promote corridor businesses.
5. Broadmoor is a bike route that runs east-west. However bike lanes are not respected by cars.
6. The roadways appear to have peaks and lulls which should be considered in planning.
7. Nearby neighborhoods with character include restored bungalows, arts and crafts buildings and brownstones. Wicker Park Ave and Hollywood Manor were noted as distinct streets.
8. Include truck traffic assessments on the transportation exhibits.

Following the discussion activity, Teska discussed next steps, including attendance at the upcoming Farmers Market (August 4), stakeholder interviews and preparation of a streetscape assessment report. These items will be used as a guide to develop concepts and alternatives during the next phase of work.

The next Committee meeting was preliminarily discussed to occur prior to the Thanksgiving holiday.

Committee members were invited to provide the following:

1. Website distribution. Share the website with friends and neighbors: munster-streetscape.org
2. Farmers Market event. Bring friends and neighbors August 4th, Community Park, 3-8pm
3. Stakeholder interviews. Who should we talk with?

The meeting adjourned at approximately 5:30pm.

COMMUNITY MARKET HIGHLIGHTS

Thanks to everyone who visited our Munster Market Idea Booth to share innovative ideas and input on the Calumet Ridge Streetscape!

Event Date: August 4th, 2020 | 3pm – 7pm

Stationed in Community Park, near the Lions Club Shelter, the booth featured tools for folks to share input. Farm fresh-themed idea posters were pinned up, comment maps and image preference boards were posted, open-ended comment sheets were rolled out, and plenty of sanitizer and wipes, of course. Especially in the age of COVID, public placemaking and safer streets continue to be at the forefront of all our minds. From jotting down and mapping ideas to conversation with residents and visitors, the planning team scored so much knowledge, input and ideas on what people viewed as important issues and key opportunities for the Calumet-Ridge Streetscape areas.



Safety, safety, safety...

First and foremost, one thing was made crystal clear... Calumet Avenue and Ridge Road need to maintain vehicular access while also supporting safer pedestrian and bike movements along and across the corridors. Especially given the proximity to major bike routes along the Monon Trail and Little Calumet River Trail, Calumet Avenue and Ridge Road today are perceived to fall short when it comes to safety and accessibility.



Questions come with answers...

While chatting with residents and passersby we fielded a few questions about the planning process that are worth circling back on!

What is a streetscape and why should we care about it? Streetscape refers to the public rights of way associated with a roadway. This generally includes the roadway itself, sidewalks, parkways and the open spaces in-between. As Munster continues to plan for new high-quality developments, the Calumet-Ridge corridors are opportunities to support walking, biking, and an overall sense of place in the community.

How is this study funded? This project is partially funded by the *Indiana Lake Michigan Coastal Program*. The plan will include a potential funding plan for implementing the improvements. Funding for long term projects is available through a variety of public infrastructure grants. Near term projects may be funded by the Town through its capital improvement budget. Some projects can be implemented by private developers as part of a redevelopment project.

What is going on with the Train Station? So glad you asked! The Northern Indiana Commuter Transportation District (NICTD) is proposing a southern branch extension of the existing South Shore Railroad to reach Munster. The planned station area is at the northeast corner of Ridge Road and Manor Avenue, just west of the Monon Trail. For more information, please visit the [West Lake Corridor website](#).

Who is the planning team? There are four primary members of our planning team and that starts with you! **(1)** Residents, business owners and stakeholders, you are the guiding element of this plan -- share what you want both in-person (workshop to come) and online via the tools herein. Take the [streetscape poll](#) and [share ideas](#). **(2)** Munster's Town staff. **(3)** Our steering committee, which is comprised of community partners, business owners and residents just like you! And lastly, **(4)** creative consultants - we hate that word "consultants" -- we promise we aren't robots. Our consultant team includes urban design and engagement specialists (Teska Associates), and transportation planners (Sam Schwartz Engineering).





You Said It / We Wrote It / Doodled It...

Now let's get into the good stuff.

Connections and Gaps. When asked about connections and gaps along and across the corridor, one thing was common: Calumet Avenue and Ridge Road are generally avoided as pedestrian routes, even for those folks who may live or work nearby. Some specific comments follow below:

- Signal timings at Calumet/Ridge and Calumet/Broadmoor were perceived to be not long enough for pedestrians (especially elderly) to safely cross.
- Where residential neighborhoods abut commercial properties, some reported they would like to see better connections at the rear sides of businesses.
- Sidewalks along Calumet/Ridge are perceived to be too narrow for families with children to feel safe using them.
- Many felt that the South Shore Railroad expansion would bring new development and activity to the area and looked forward to a more walkable character for Ridge Road.
- Calumet Avenue is perceived to be a high-speed corridor and many folks requested street treatments that would calm traffic in this area.

Street Treatments. Participants were asked to review a series of images and voted on which street treatments provide the most value. Images and rankings are listed below:

- Plazas + Flex Spaces (11 votes)
- Murals + Public Art (7 votes)
- Protected Bike Lanes (5 votes)
- Wayfinding Signage (4 votes)
- Updated Lighting (3 votes)
- Trees + Plantings (3 votes)
- Safer Intersections (3 votes)
- Wider sidewalks (2 votes)



Of all the great ideas you shared with us at the Community Market in terms of "wants" - the following ideas were the ones reiterated the most:

- Make the streetscape safe and functional first.
- More pedestrian and bike friendly amenities.
- More softscape and greening, including trees, planters, and lawn parkways.
- Calm traffic – cars drive too fast today!
- Bury – or relocate – the overhead utility lines.
- Refer to positive streetscape examples, such as Lansing, Downtown Crown Point Indianapolis, and Arlington Heights (IL).
- Incorporate public art, such as at Highland or Centennial Park.
- Make Ridge Road a destination with unique experiences such as outdoor dining, seating, public art, and food trucks.



Missed the event? Want to tell us more? Our ears are open...

Use the tools on this website! Take the [streetscape poll](#) and [share ideas](#). Stay tuned -- a second neighborhood poll and community workshop are in the works. Click the 'follow' button today to receive project updates direct to your inbox.



3-Quick Steps to Get Involved

1. Visit the [website](https://munster-streetscape.org) and click 'follow' today to receive project updates
2. Take the [streetscape poll](#)
3. Send your comments to the [share ideas](#) page

Thank you, Munster!

Most importantly... thank you for supporting the Town of Munster and taking the time to be a part of the Streetscape Planning effort! We truly value your feedback and look forward to working with you to create a streetscape plan that brings out the best of Munster.

Cheers,
The Planning Team



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CALUMET-RIDGE STREETScape PLAN

COMMITTEE MEETING #2 SUMMARY

November 18, 2020 | videoconference | 2:30 pm

The purpose of Committee Meeting #2 was to review outcomes from public outreach activities conducted to date and to present preliminary streetscape concepts and alternatives. Due to the current health crisis, the meeting was conducted via Zoom videoconference. A packet containing outreach and concept materials was emailed to the committee in advance of the meeting. A recording of the meeting was forwarded to all committee members and posted to the project website. A direct link follows:

Munster Streetscape - Committee Mtg #2 Recording | Start Time: Nov 18, 2020 02:24 PM

<https://zoom.us/rec/share/7jHD12vnxBo39GOSrWx4h1OO2xHJBRnPLztcwwptMz1RcVyZ3tkIJ5sPjli7XXvy.WT3gg-8ilXIZUtwN>

The following participants attended this meeting.

COMMITTEE MEMBERS	CONSULTANT TEAM
<ul style="list-style-type: none"> • Tom Vander Woude, Community Development, Town of Munster • Dustin Anderson, Town Manager, Town of Munster • Bill Baker, Plan Commission Chair • Chuck Gardiner, Town Council • Paul Rotatori, Resident, South Shore Trails Member • Ken Schoon, Town Council • Anthony Christopher, Business Owner, Top Tier Nutrition • Steve Tripenfeldas, Assistant Superintendent • Katie Vallis, Planner IDNR LMCP • Hope Martin, Resident, Civil Engineer • Scott Milne, Business Owner • Don Erminger, Local Business, Strack & Van Til 	<ul style="list-style-type: none"> • Jodi Mariano, Teska Associates • Heather Faivre, Teska Associates • Sara Disney-Haufe, Sam Schwartz Consulting



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The meeting agenda and presentation topics follow below:

- 1. Introductions, Project Goals + Scope Review**
- 2. Community Outreach:** *Community Market Summary, Community Poll #1 Results Summary, Stakeholder Interviews Summary*
- 3. Concept Plan Presentation:** *Streetscape Elements, Concept Plans + Alternatives*
- 4. Traffic Considerations:** *Methodologies for Data Review + Concept Level Traffic Impacts*
- 5. Agency Outreach + Considerations**
- 6. Workshop Activity + Discussion**
- 7. Next Steps: Community Poll #2, Public Meeting**

Following the presentation, the Committee participated in a workshop activity and guided discussion via a web-based polling program.

Outcomes from the polling program and discussion points are provided on the following pages:

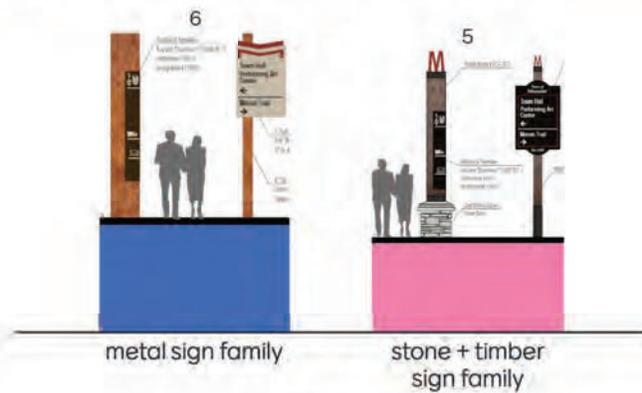




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In your opinion, which signage concept best matches Munster's character and identity?

Mentimeter



In your opinion, which furnishings family best matches Munster's character and identity?

Mentimeter

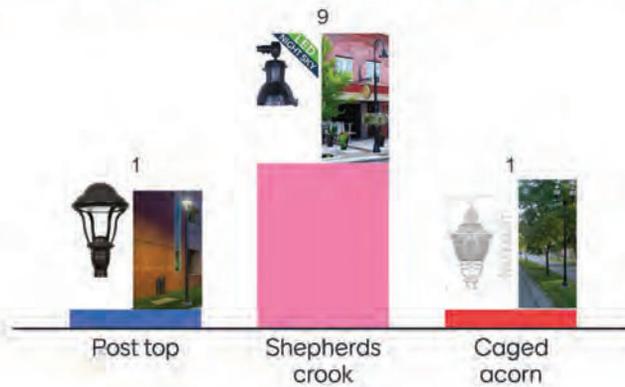




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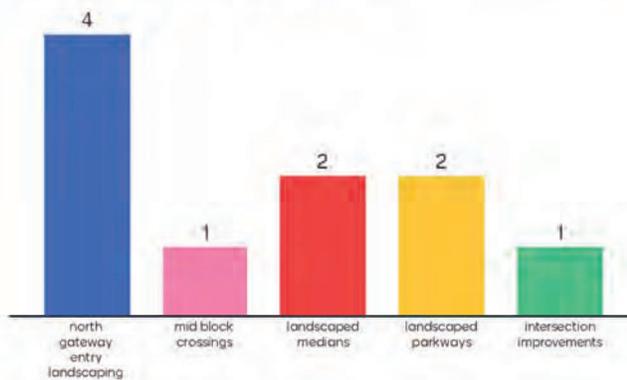
In your opinion, which pedestrian scale lighting best supports Munster's character along Ridge Road?

Mentimeter



Calumet Avenue Min Concept: Select one item that represents the best value for Munster.

Mentimeter

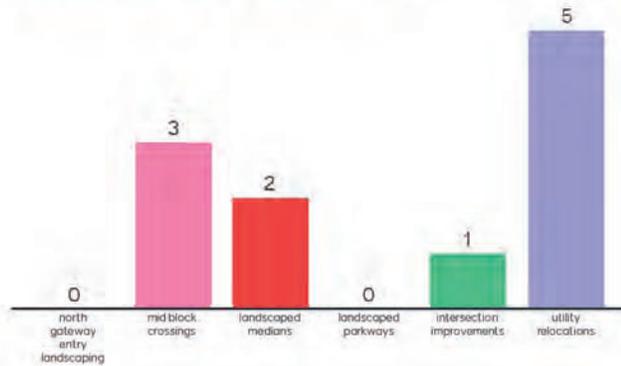




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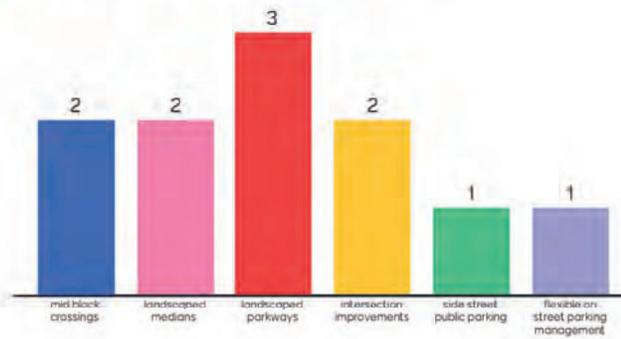
Calumet Avenue Max Concept: Select one item that represents the best value for Munster.

Mentimeter



Ridge Road Min Concept: Select one item that represents the best value for Munster.

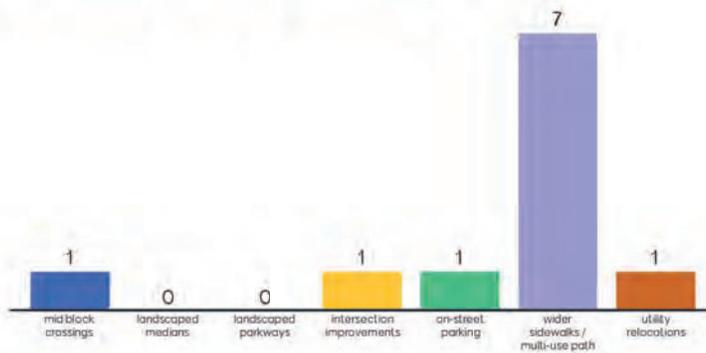
Mentimeter





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Ridge Road Max Concept: Select one item that represents the best value for Munster.



Which pilot project should Munster focus on implementing first?





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What else should we be thinking about? Please list any additional comments here for the Q+A.

Mentimeter

I really think the median landscape
are the best idea





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ROAD DIET DISCUSSION | The group discussed the road diet as part of the Ridge Road Max Concept

The existing Ridge Road section includes 5 travel lanes (2 eastbound, 2 westbound, and 1 turning lane). The road diet concept considers 3 travel lanes (1 eastbound, 1 westbound, and 1 turning lane), with adequate transitions at key intersections, including the Calumet Ave / Ridge Road intersection.

Reducing travel lanes along Ridge Road provide additional space for other desired functions, including:

- On-street parking (potential for permeable paving)
- Multi-use trail
- Wider sidewalks
- Wider parkways (potential for raingardens)

Concept level traffic impacts were presented, including conceptual projections that the road diet may result in approximately 1-3 minutes travel delay along Ridge Rd from Hohman Avenue to Calumet Avenue.

Committee comments and discussion points regarding the road diet follow below:

1. 1-3 minutes travel delay time is worth it. *It was noted that the existing travel time along Ridge Road between State Line Road and Columbia Avenue is approximately 3 minutes.*
2. We want people to stop and walk in our community and this concept will provide that function.
3. What about pushing traffic to the side streets (cut thru traffic)? *This is certainly something that needs to be evaluated as part of a more regional approach to the Town's transportation system. It was noted that the Town is preparing to look more holistically at these items concurrent with the streetscape plan.*
4. Any work in this area should limit the disruption to businesses in the area. *Other communities have bid and built streetscape projects that direct contractors to prioritize businesses during construction, this may include incorporating items to the bid documents such as special signage, access control and special campaigns dedicated to driving attention to local businesses during construction.*
5. How does the Town plan for the new station area and the additional traffic that will be generated? *NIRPC expects a slight overall reduction in vehicular traffic after the station opens due to a commuter mode shift toward transit, and NICTD provided data to the team about how many commuters are expected to utilize the station by parking on site or pick-up/drop-off via kiss-and-ride. Station-area development projections were also obtained from the Regional Development Authority and reviewed together with Town staff to determine appropriate development assumptions for the station area. These factors were accounted for in the traffic methodologies and concept planning.*



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6. Considerations for calming traffic on side streets. *The Town will be looking into these items further. Other communities have implemented traffic calming via devices such as chicanes, speed tables and roadway closures. These will be studied further as needed.*

OTHER DISCUSSION ITEMS

1. Will the improvements shown in the Ridge Road Max (Road Diet) Concept have a negative impact on emergency vehicle access? *The streetscape options presented herein are concept level at this time. The outcome of this plan is intended to provide guidance to the Town of Munster as to which projects should be undertaken. Any project that has an impact on traffic (such as a road diet), would require further study prior to implementation.*
2. How does snow removal function in the Flex Parking Lanes shown in Ridge Road Min (Flex Parking Concept) Concept? *Implementation of curb bump outs associated with on street parking will require coordination with Public Works as to the Town's ability to maintain this project. Other communities have made accommodations for these types of improvements via internal practices or by contracting out snow removal services.*
3. Some businesses have suggested painting murals on walls. Is this a good idea? *The streetscape concepts support placemaking features such as mural art. Many communities have implemented mural art programs. Those programs take into consideration things such as supporting appropriate art content for public places, durable materials, support for local artists and maintenance considerations.*
4. The Town should consider smart traffic signals as part of this project. *The team can further review this item as planning progresses.*
5. What will the parkway plantings look like? Will they include raised curbs? *The concept identifies planting opportunities in the parkway areas. Along Calumet Avenue, the parkways should be relatively simple as salt and urban tolerant trees planted in lawn parkways. Along Ridge Road, the planting areas should follow the selected design. For instance rain gardens would require a raised curb and; trees in grates would be appropriate in areas between on street parking and businesses.*



munster-streetscape.org

6. We should consider adding more plazas and open spaces to the corridor. *Separate from the on-street parking and events plaza spaces, the existing Ridge Road rights of way are relatively narrow and the existing spaces are occupied by sidewalks, multi use paths and landscaping. The Town of Munster's adopted Character Based Code provides recommendations for additional outdoor gathering spaces adjacent to the public way.*

Next steps include the following:

- Public meeting. Present the conceptual materials at a public meeting in December, date TBD.
- Community poll #2, concurrent with the public meeting.
- Concept refinement for the next committee presentation in early spring 2021.

The meeting adjourned at 4:30 pm.



CALUMET AVENUE & RIDGE ROAD STREETScape

TOWN OF MUNSTER

COMMITTEE MEETING #2 | NOVEMBER 18, 2020 | VIDEO-CONFERENCE



Sam
Schwartz

INTRODUCTIONS + PROJECT TEAM



Teska Associates | Community Planning + Landscape Architecture

Jodi Mariano, PLA, Principal Landscape Architect

Heather Faivre, PLA, Associate Landscape Architect

Sam
Schwartz

Sam Schwartz Consulting | Transportation + Traffic Planning

Sara Disney Haufe, PE, PTOE, Associate + Deputy Director of Traffic Engineering

PROJECT GOAL

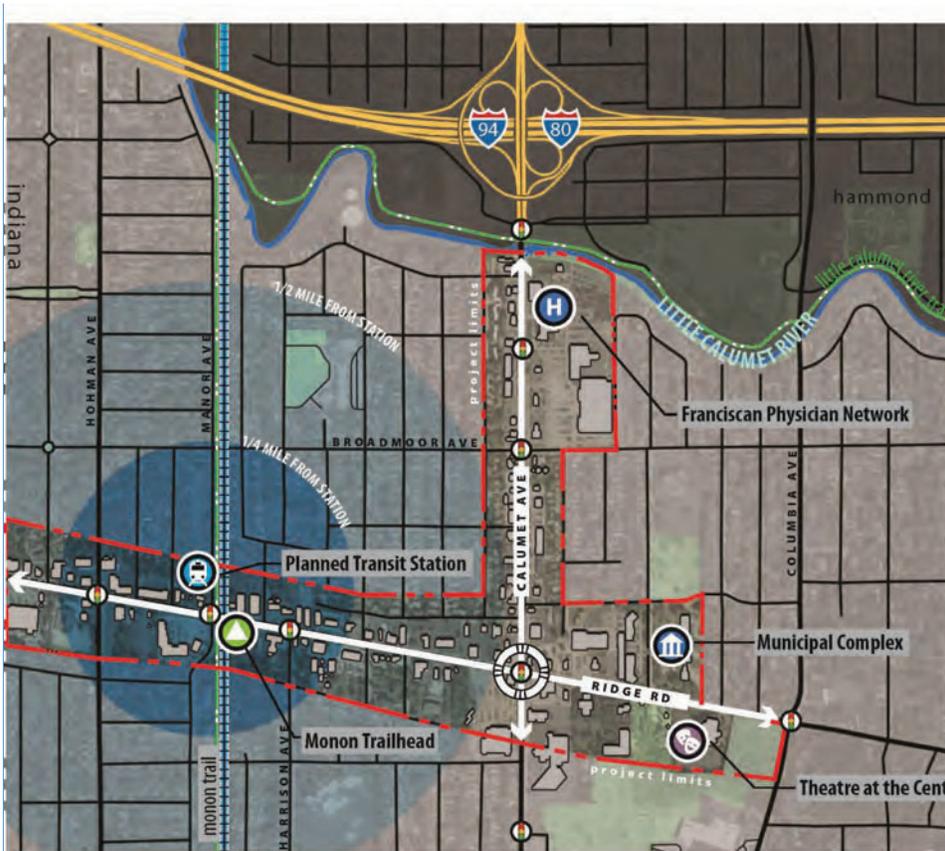
The goal of this project is to develop a **more welcoming environment for walking, biking, to reinforce a sense of place in our community, and to enhance the ability to absorb stormwater and reduce flooding.**

KEY THEMES

- A **safe and comfortable** pedestrian environment
- A functional streetscape providing **stormwater benefits**
- A consistent and **beautiful public realm**
- A **sense of arrival** and identity
- A multimodal system that balances **access and mobility**

FUNDING FOR THE STREETScape PLAN

National Oceanic and Atmospheric Administration + the Indiana Department of Natural Resources Lake Michigan Coastal Program. **“The Coastal Grant”**



STUDY AREA



AGENDA

1. **Introductions, project goals + scope review**
2. **Community outreach:** stakeholder interviews, poll #1 results
3. **Concept plan presentation:** elements + concept plans
4. **Traffic considerations:** methodologies + traffic impacts
5. **Agency outreach + considerations**
6. **Workshop activity + discussion**
7. **Next Steps:** poll #2, public meeting



OUTREACH

- Project Website
- Stakeholder Interviews
- Munster Community Market
- Neighborhood Poll #1

596 Responses +
677 Individual Comments!



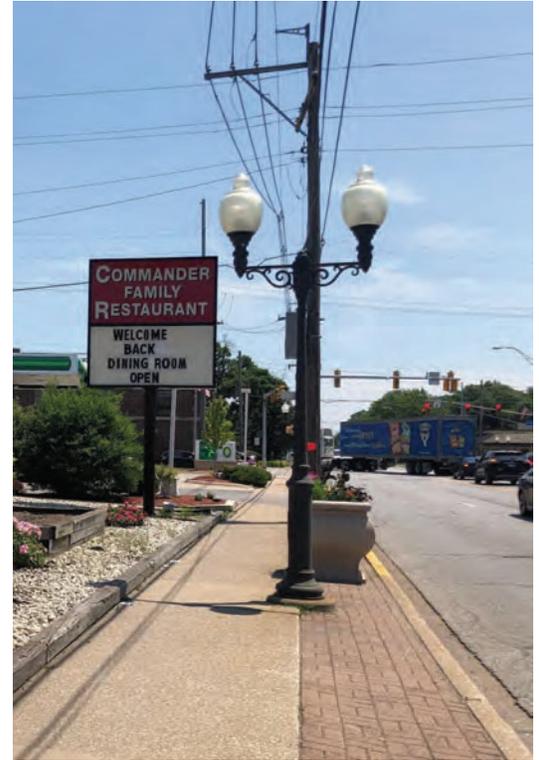
OUTREACH | Calumet Avenue key takeaways

1. Sidewalks and crossings are generally perceived as unsafe.
2. Speeding traffic should be calmed.
3. Left turning movements are perceived as challenging and unsafe.
4. Utility poles are unsightly.
5. Trees and greening are lacking.
6. The corridor needs an attractive entry to Munster.



OUTREACH | Ridge Road key takeaways

- 1. Sidewalks and crossings are generally perceived as unsafe.**
- 2. Additional traffic on Ridge Road seems to coincide with I-94 backups.**
- 3. Outdoor seating + dining are positive trends that should be supported in the public way.**
- 4. Businesses need more parking.**
- 5. Trees and greening are lacking.**
- 6. The planter pots and decorative lights are mismatched and appear 'tired'.**
- 7. The corridor has attractive features but lacks a sense of place.**

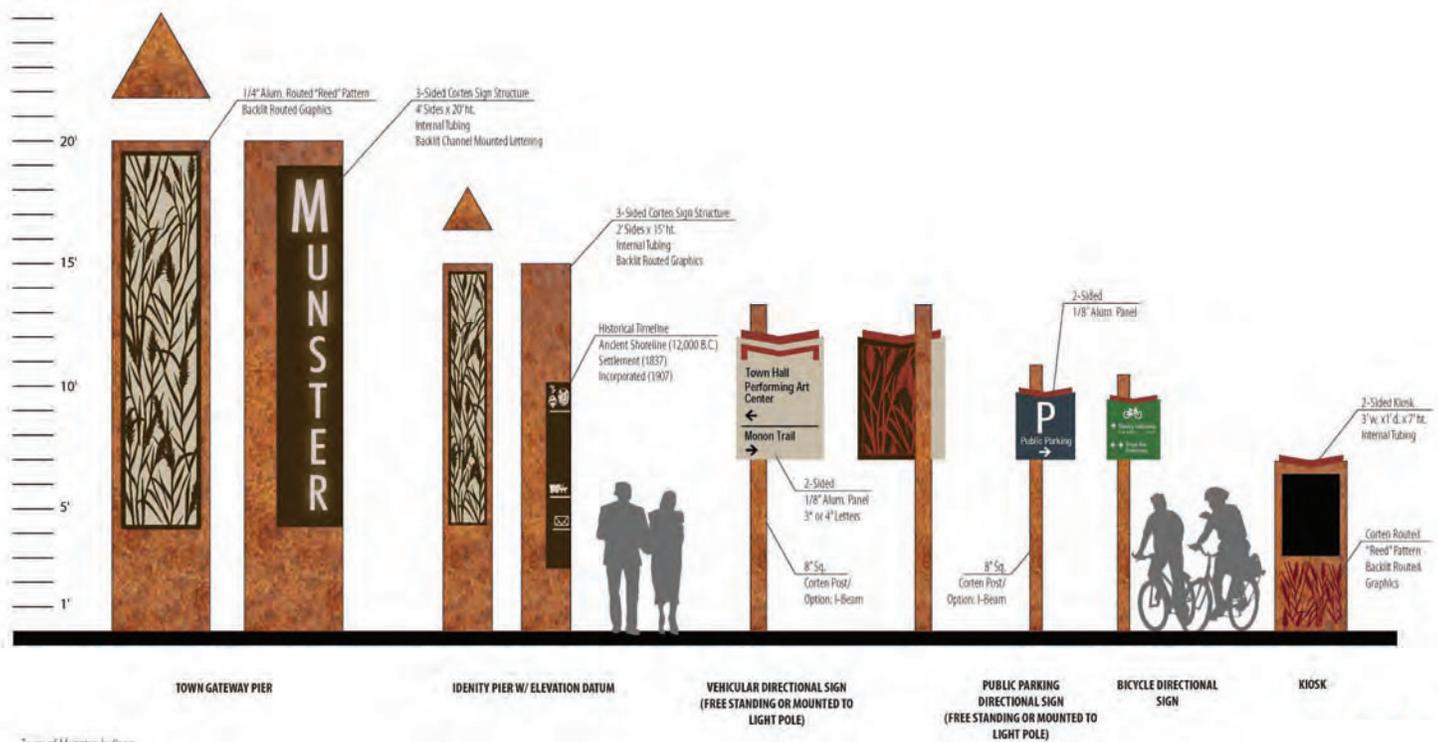


OUTREACH | Community poll #1

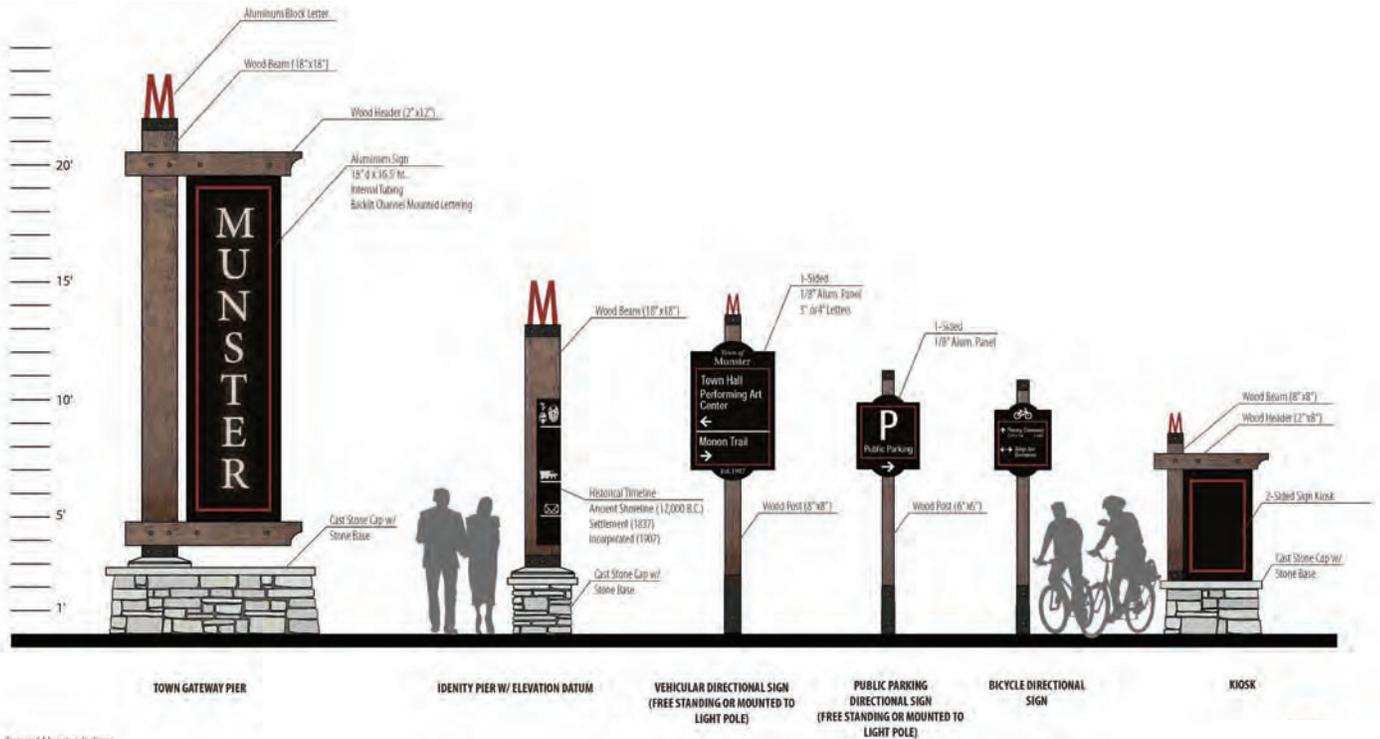
If you had a magic wand, what would you do to improve the Calumet Ave / Ridge Road Corridor?

- 1. Safety first**
- 2. Calm traffic**
- 3. Improve biking and walking**
- 4. Create an attractive atmosphere**
- 5. Declutter the streetscape**
- 6. Make it greener**
- 7. Work with property owners to improve their curb appeal**
- 8. Maintenance is key**

CONCEPT PLAN PRESENTATION | Metal Sign Family



CONCEPT PLAN PRESENTATION | Stone + Timber Sign Family



CONCEPT PLAN PRESENTATION | Furnishings - Rustic



CONCEPT PLAN PRESENTATION | Furnishings - Refined



CONCEPT PLAN PRESENTATION | Plantings

 <p>American Hornbeam <i>Copalis coccinea</i> Mature Height: 2' Mature Width: 3'</p>	 <p>Ohio Buckeye <i>Aesculus glabra</i> Mature Height: 35' Mature Width: 30'</p>	 <p>Dwarf Bush Honeysuckle <i>Diervilla lonicera</i> Mature Height: 1'-3' Mature Width: 3'-5'</p>	 <p>New Jersey Tea <i>Ceanothus americanus</i> Mature Height: 2'-3' Mature Width: 2'-3'</p>
 <p>Black Tupelo <i>Nyssa sylvatica</i> Mature Height: 40' Mature Width: 50'</p>	 <p>Red Maple <i>Acer rubrum</i> Mature Height: 45' Mature Width: 40'</p>	 <p>Flower Color: Red/Orange/Yellow Pollinators: Butterflies & Hummingbirds</p>	 <p>Flower Color: White Pollinators: Bees, Butterflies/Moths, & Hummingbirds</p>
 <p>Common Hackberry <i>Celtis occidentalis</i> Mature Height: 50' Mature Width: 50'</p>	 <p>Swamp White Oak <i>Quercus bicolor</i> Mature Height: 50' Mature Width: 40'</p>	 <p>Kalm's St. John's wort <i>Hypericum kalmianum</i> Mature Height: 2'-3' Mature Width: 3'-4'</p>	 <p>Arctostaphylos uva-ursi <i>Bearberry</i> Mature Height: 1' Mature Width: 3'-6'</p>
 <p>Kentucky Coffinweed <i>Cypripedium flava</i> Mature Height: 50' Mature Width: 50'</p>	 <p>Yellowwood <i>Xanthoxylum</i> Mature Height: 40' Mature Width: 30'</p>	 <p>Flower Color: Yellow Pollinators: Bees</p>	 <p>Flower Color: White/Pink Pollinators: Bees, Butterflies/Moths, & Hummingbirds</p>

NOTE: Mature tree heights and widths are dependent on soil conditions and maintenance practice.

CONCEPT PLAN PRESENTATION | Plantings

 <p>Butterflyweed <i>Rudbeckia hirtella</i> Mature Height: 1' Mature Width: 2'</p>	 <p>Prairie Junegrass <i>Koeleria macrantha</i> Mature Height: 1'-2' Mature Width: 1'-2'</p>	 <p>Lance-Leaf Coreopsis <i>Coreopsis lanceolata</i> Mature Height: 2' Mature Width: 1'-2'</p>	 <p>Prairie Sedge <i>Carex bicknellii</i> Mature Height: 1'-3' Mature Width: 1'-3'</p>
 <p>Lance-Leaf Coreopsis <i>Coreopsis lanceolata</i> Mature Height: 2' Mature Width: 1'-2'</p>	 <p>Prairie Sedge <i>Carex bicknellii</i> Mature Height: 1'-3' Mature Width: 1'-3'</p>	 <p>Flower Color: Yellow Pollinators: Bees, Butterflies/Moths & Flies</p>	 <p>Smooth Blue Aster <i>Aster laevis</i> Mature Height: 2'-3' Mature Width: 2'-4'</p>
 <p>Narrow-Leaf Mountain Mint <i>Pycnanthemum tenuifolium</i> Mature Height: 2' Mature Width: 2'-2'</p>	 <p>Sideoats Grama <i>Amelichloa caryophyllacea</i> Mature Height: 1'-2' Mature Width: 1'-2'</p>	 <p>Narrow-Leaf Mountain Mint <i>Pycnanthemum tenuifolium</i> Mature Height: 2' Mature Width: 2'-3'</p>	 <p>Flower Color: White Pollinators: Bees, Butterflies/Moths, Flies, & Wasps</p>
 <p>Nodding Wild Onion <i>Allium cernuum</i> Mature Height: 1'-2' Mature Width: 1'</p>	 <p>Smooth Blue Aster <i>Aster laevis</i> Mature Height: 2'-3' Mature Width: 2'-4'</p>	 <p>Palm Sedge <i>Carex muskingumensis</i> Mature Height: 1'-3' Mature Width: 1'-3'</p>	 <p>Black-eyed Susan <i>Rudbeckia hirta</i> Mature Height: 2'-3' Mature Width: 2'-2'</p>
 <p>Palm Sedge <i>Carex muskingumensis</i> Mature Height: 1'-3' Mature Width: 1'-3'</p>	 <p>Wild Columbine <i>Apocynum androsaemina</i> Mature Height: 2' Mature Width: 1'-2'</p>	 <p>Prairie Dropseed <i>Sporobolus heterolepis</i> Mature Height: 1'-2' Mature Width: 2'-3'</p>	 <p>Flower Color: Red/Yellow Pollinators: Butterflies/Moths & Hummingbirds</p>
 <p>Prairie Dropseed <i>Sporobolus heterolepis</i> Mature Height: 1'-2' Mature Width: 2'-3'</p>	 <p>Wild Geranium <i>Geranium macranthum</i> Mature Height: 1'-2' Mature Width: 1'-2'</p>	 <p>Flower Color: Orange Pollinators: Bees, Butterflies/Moths, & Flies</p>	 <p>Flower Color: Orange Pollinators: Bees, Butterflies/Moths, & Flies</p>

PERMEABLE PAVING AT SIDEWALKS WITH RAIN GARDENS

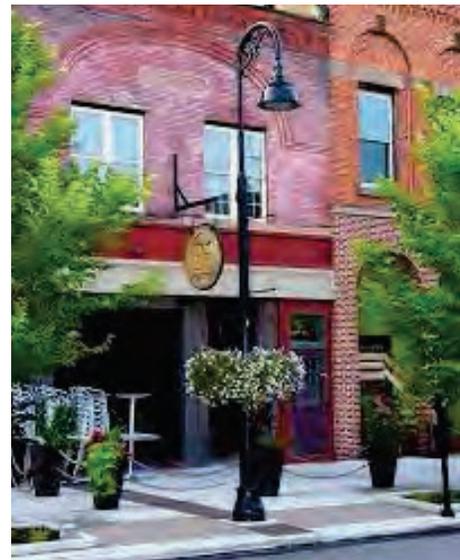


CONCEPT PLAN PRESENTATION | Roadway Lights + Signals



45th and Calumet Ave

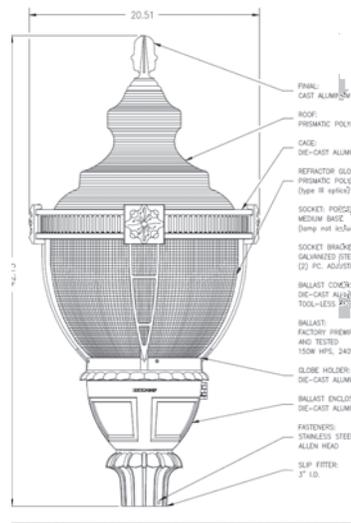
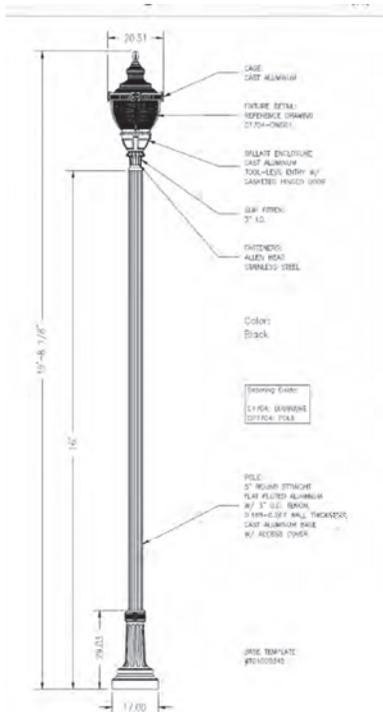
CONCEPT PLAN | Pedestrian Lights Shepherd's Hook Option



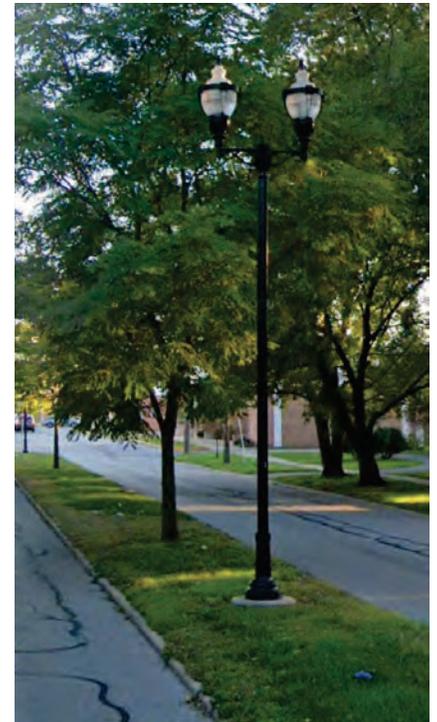
CONCEPT PLAN | Pedestrian Lights Post Top Option



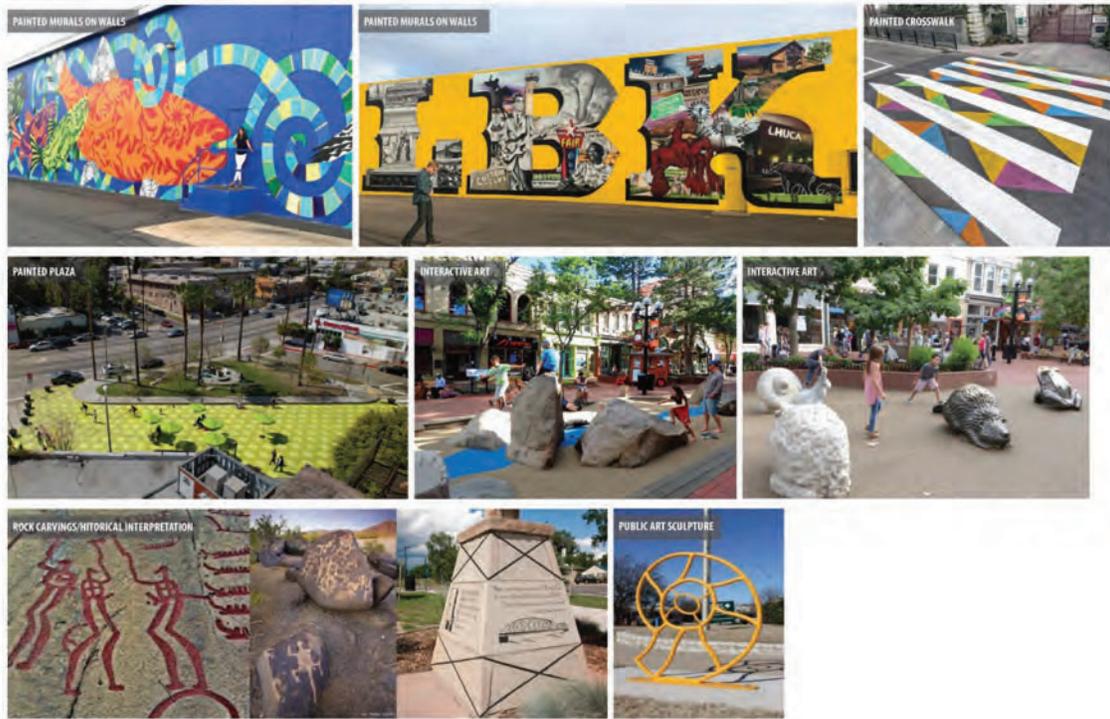
CONCEPT PLAN | Pedestrian Lights Caged Acorn Option



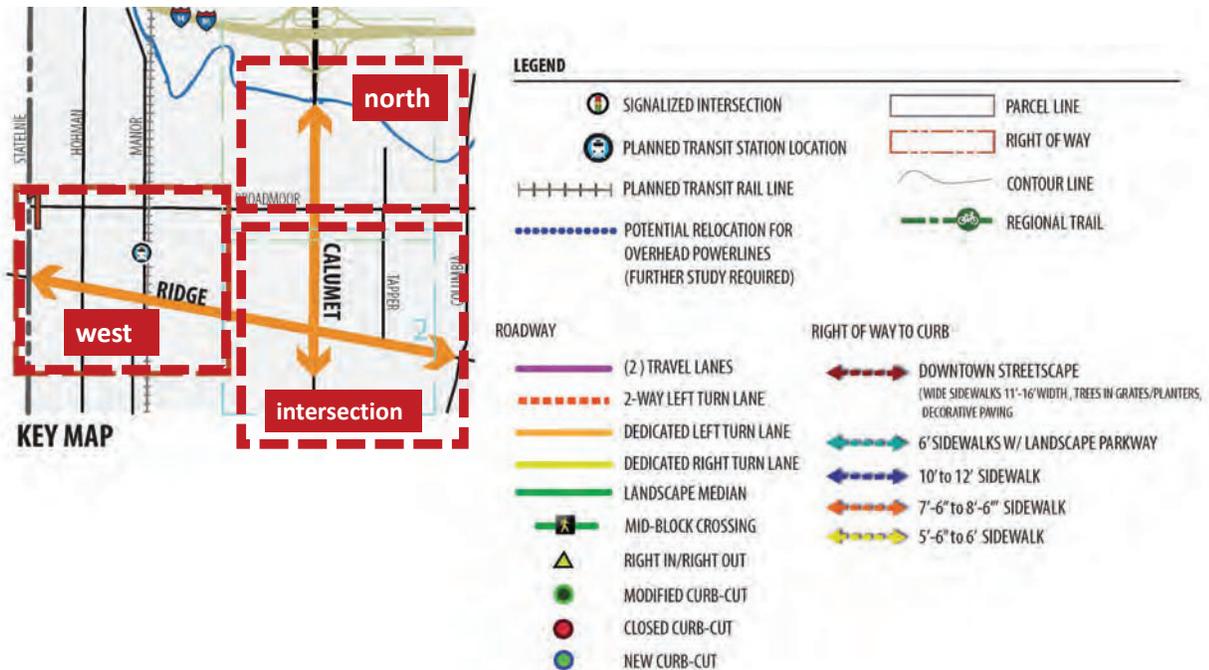
Hohman Avenue



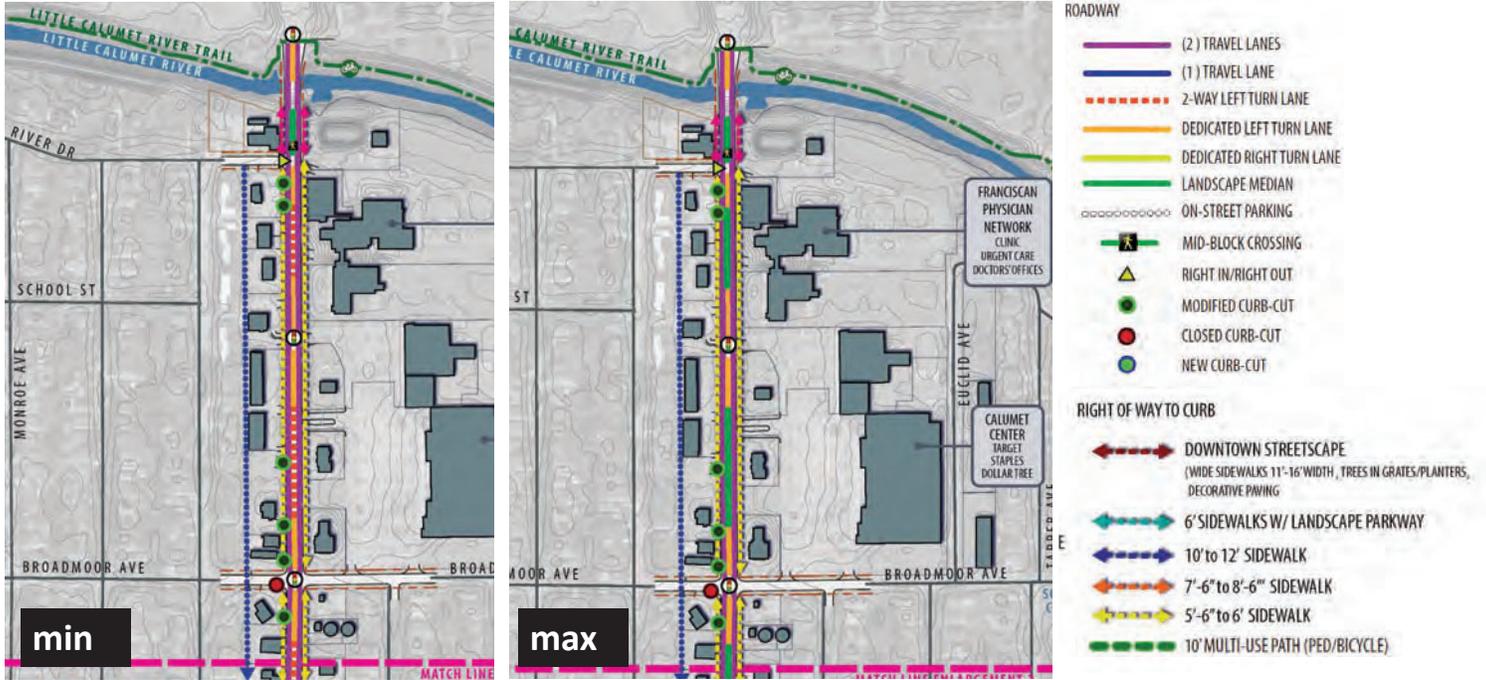
CONCEPT PLAN PRESENTATION | Public Art



CONCEPT PLAN | Min vs Max Roadway Change



CONCEPT PLAN PRESENTATION | Min vs Max - north



CONCEPT PLAN PRESENTATION | Photovisualizations

Gateway entry sign and salt tolerant trees, shrubs + grasses

Replace railing with steel-backed timber rail

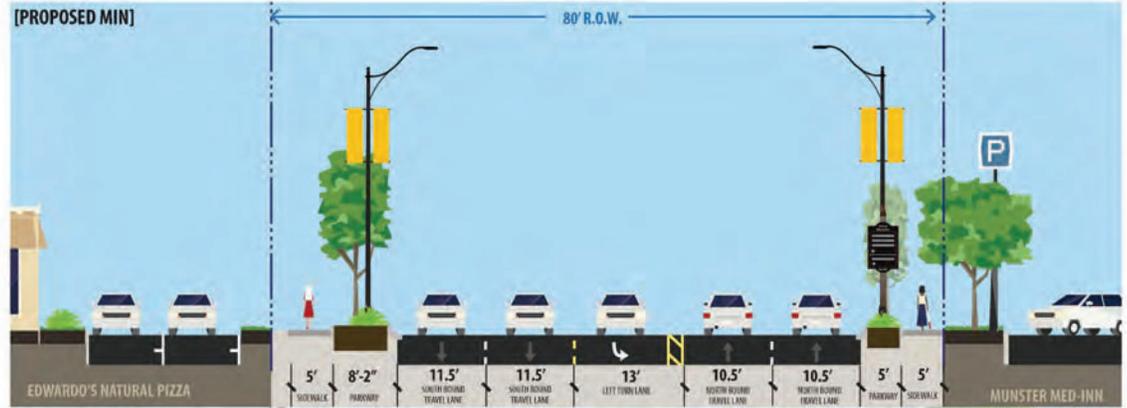
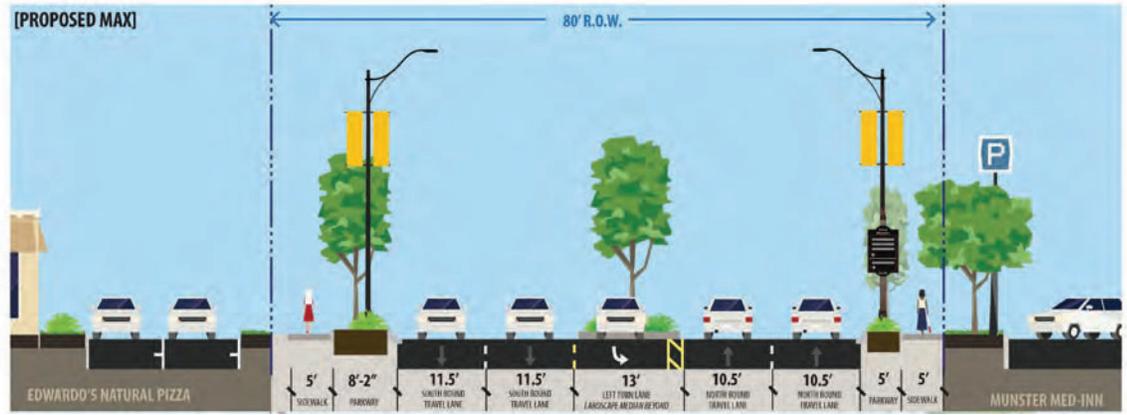
Mural (requires coordination with Hospital)

Replace railing with steel-backed timber rail



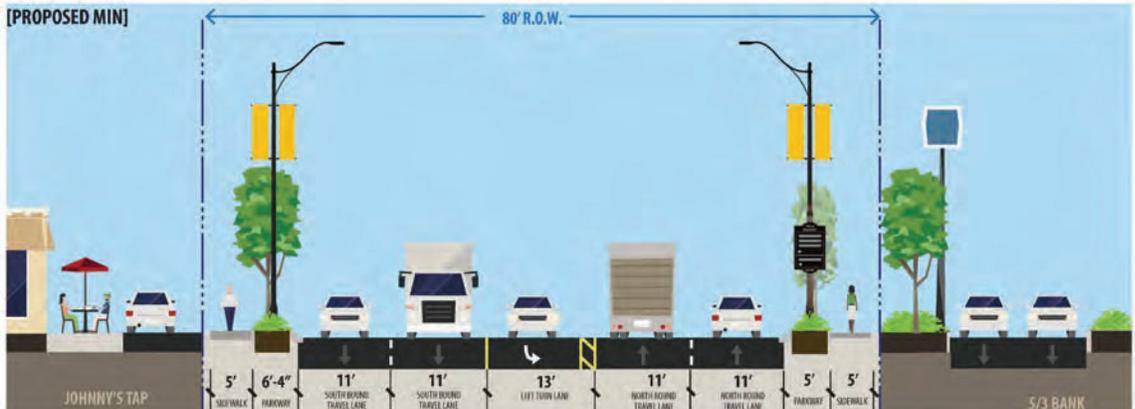
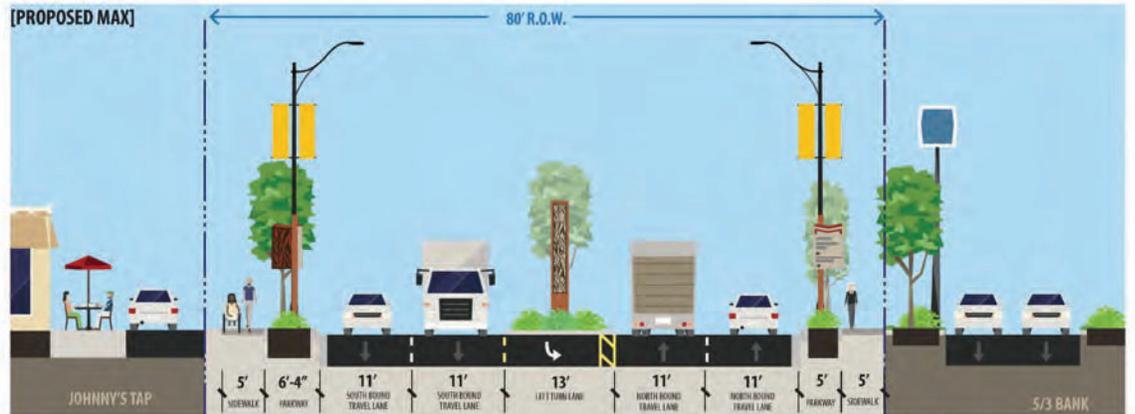
Calumet Ave Sections

South of River Drive

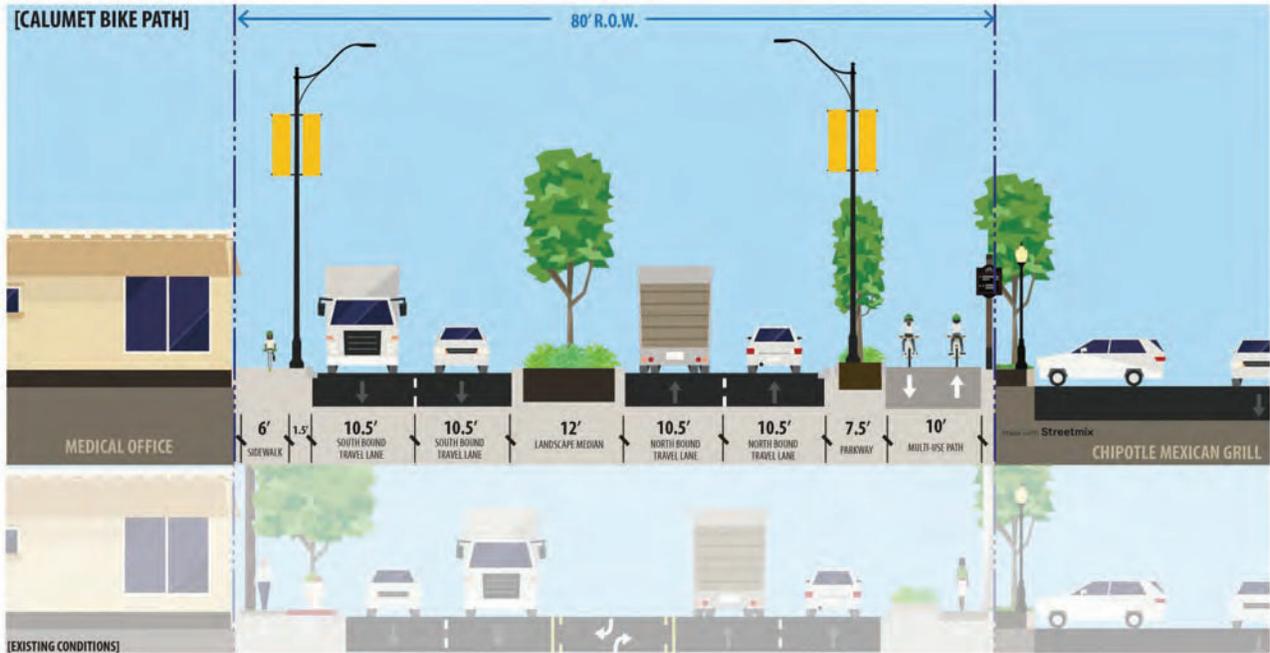


Calumet Ave Sections

North of Broadmoor Ave



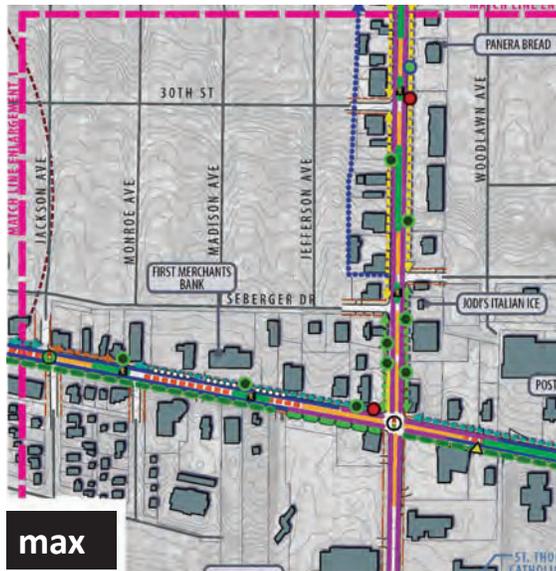
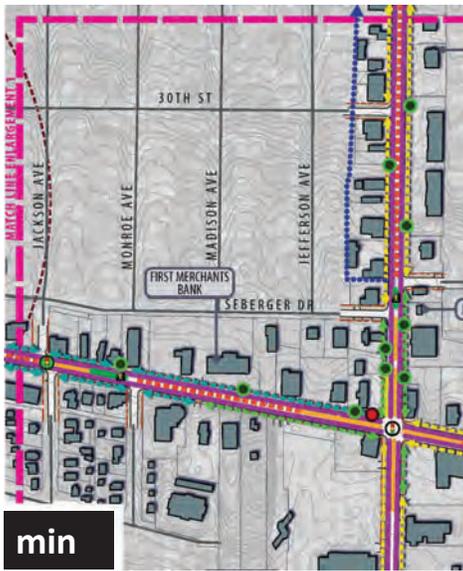
Calumet Ave Sections | Bike Path Study



CONCEPT PLAN PRESENTATION | Enlargements



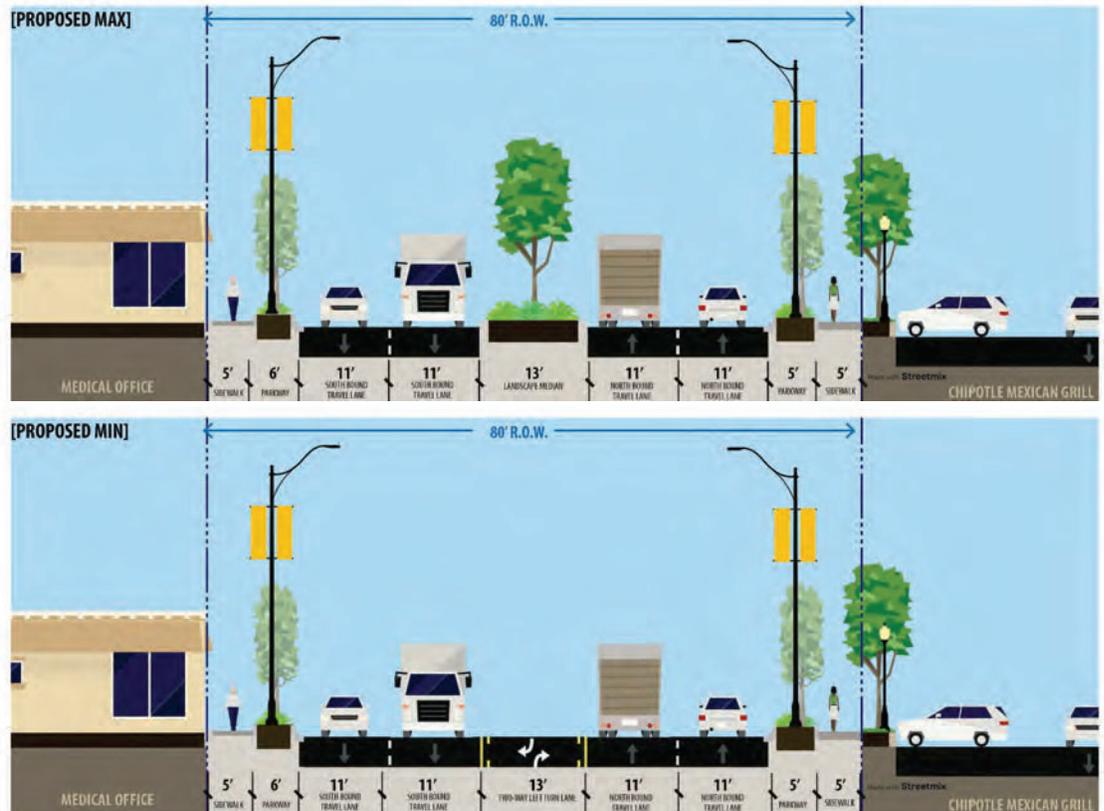
CONCEPT PLAN PRESENTATION | Min vs Max - intersection



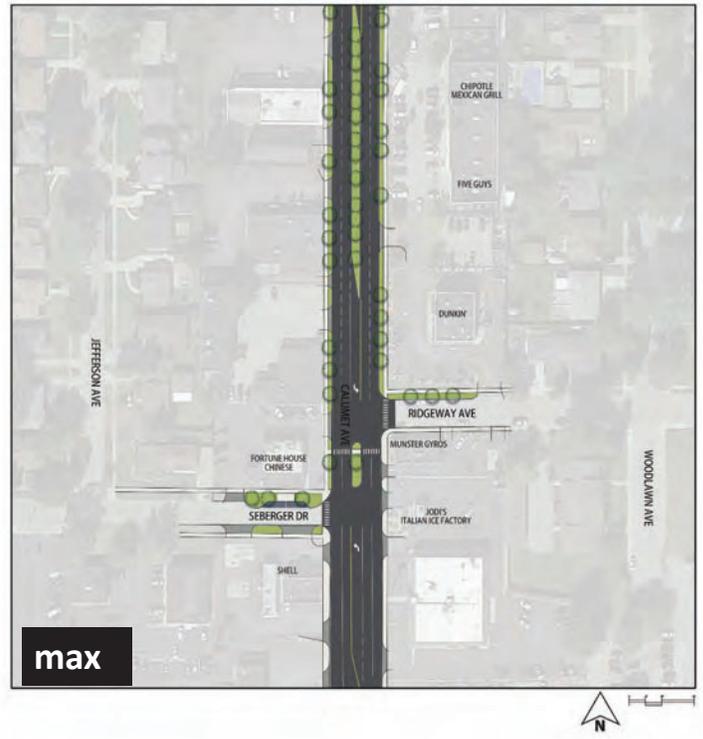
- ROADWAY**
- (2) TRAVEL LANES
 - (1) TRAVEL LANE
 - 2-WAY LEFT TURN LANE
 - DEDICATED LEFT TURN LANE
 - DEDICATED RIGHT TURN LANE
 - LANDSCAPE MEDIAN
 - ON-STREET PARKING
 - MID-BLOCK CROSSING
 - ▲ RIGHT IN/RIGHT OUT
 - MODIFIED CURB-CUT
 - CLOSED CURB-CUT
 - NEW CURB-CUT
- RIGHT OF WAY TO CURB**
- ↔ DOWNTOWN STREETSCAPE
(WIDE SIDEWALKS 11'-16" WIDTH, TREES IN GRATES/PLANTERS, DECORATIVE PAVING)
 - ↔ 6' SIDEWALKS W/ LANDSCAPE PARKWAY
 - ↔ 10' to 12' SIDEWALK
 - ↔ 7'-6" to 8'-6" SIDEWALK
 - ↔ 5'-6" to 6' SIDEWALK
 - ↔ 10' MULTI-USE PATH (PED/BICYCLE)

Calumet Ave Sections

South of 30th Street



CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Photovisualizations

Enhanced crosswalk striping

Improved traffic signal enhancements include black poles and mast arms, enhanced pedestrian signalization and timing

Accessible curb ramps with detectable warnings



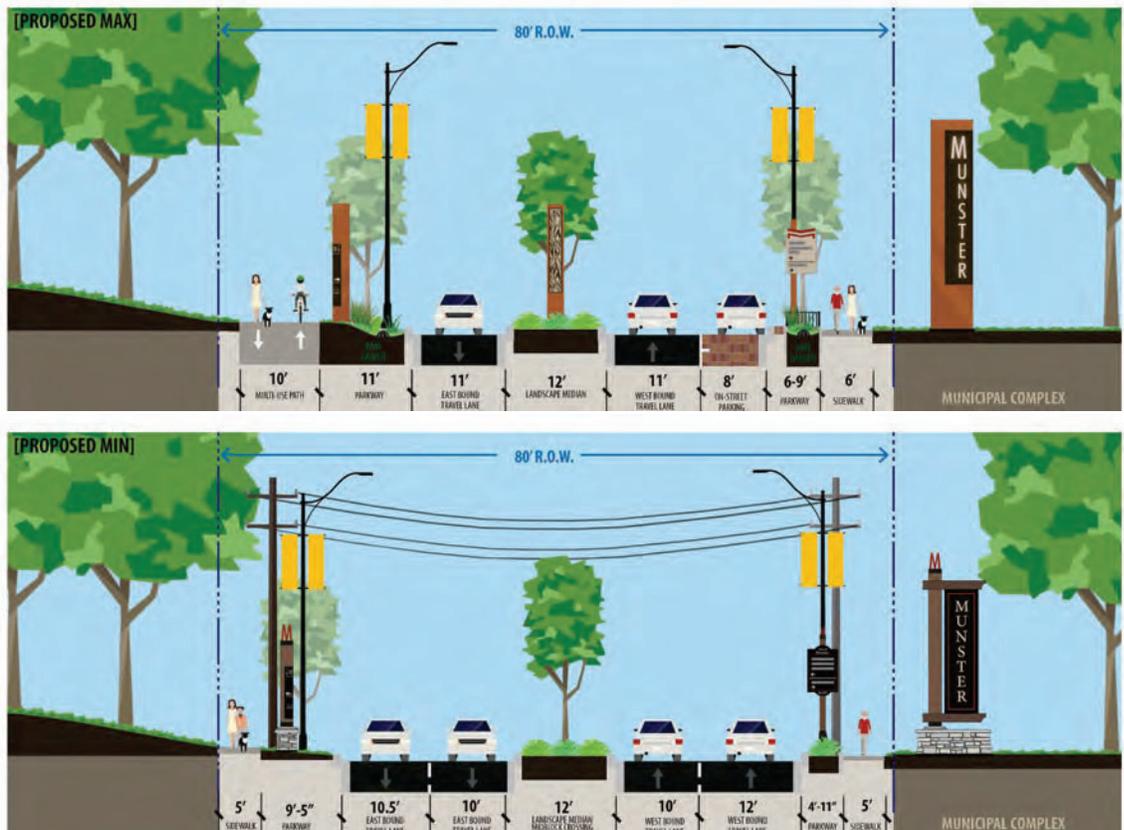
CONCEPT PLAN PRESENTATION | Min vs Max - west



- ROADWAY**
- (2) TRAVEL LANES
 - (1) TRAVEL LANE
 - 2-WAY LEFT TURN LANE
 - DEDICATED LEFT TURN LANE
 - DEDICATED RIGHT TURN LANE
 - LANDSCAPE MEDIAN
 - ON-STREET PARKING
 - MID-BLOCK CROSSING
 - ▲ RIGHT IN/RIGHT OUT
 - MODIFIED CURB-CUT
 - CLOSED CURB-CUT
 - NEW CURB-CUT
- RIGHT OF WAY TO CURB**
- ↔ DOWNTOWN STREETSCAPE (WIDE SIDEWALKS 11'-16" WIDTH, TREES IN GRATES/PLANTERS, DECORATIVE PAVING)
 - ↔ 6' SIDEWALKS W/ LANDSCAPE PARKWAY
 - ↔ 10' to 12' SIDEWALK
 - ↔ 7'-6" to 8'-6" SIDEWALK
 - ↔ 5'-6" to 6' SIDEWALK
 - ↔ 10' MULTI-USE PATH (PED/BICYCLE)

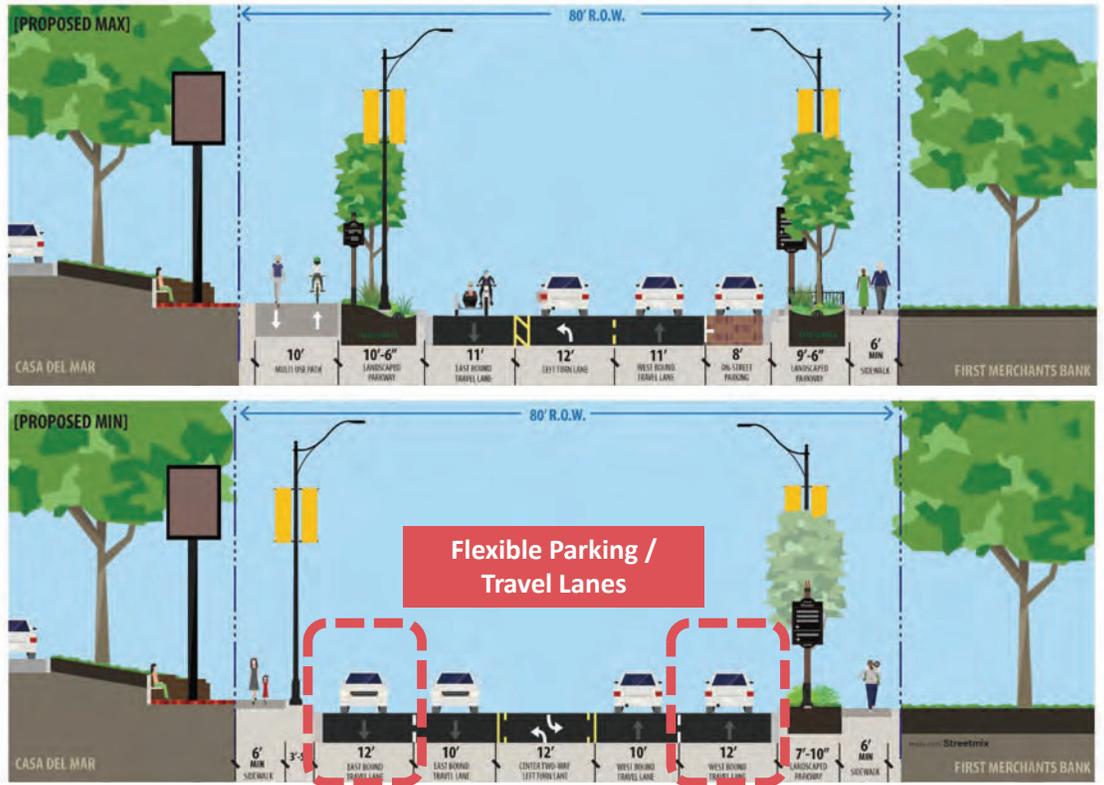
Ridge Road Sections

East of Tapper Ave (Town Hall)



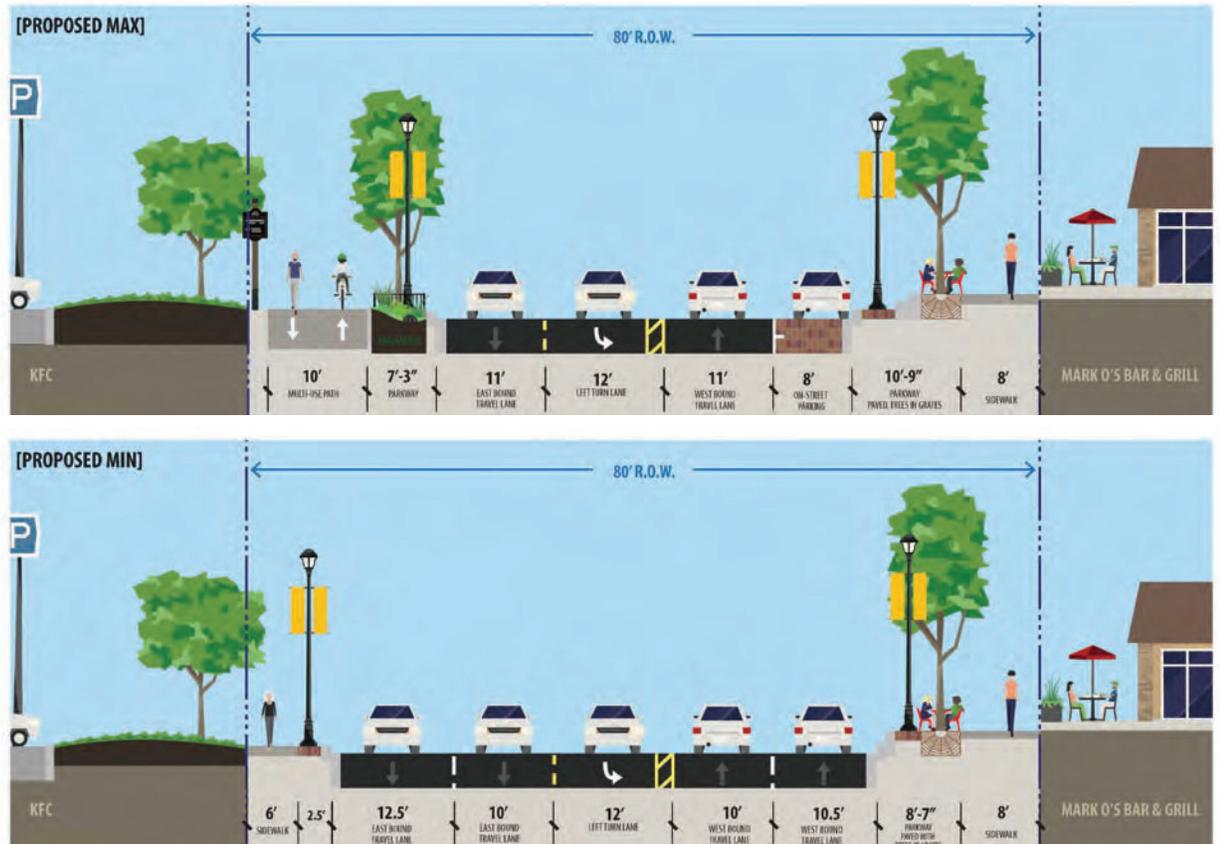
Ridge Road Sections

West of Calumet Ave



Ridge Road Sections

West of Harrison Ave (west)

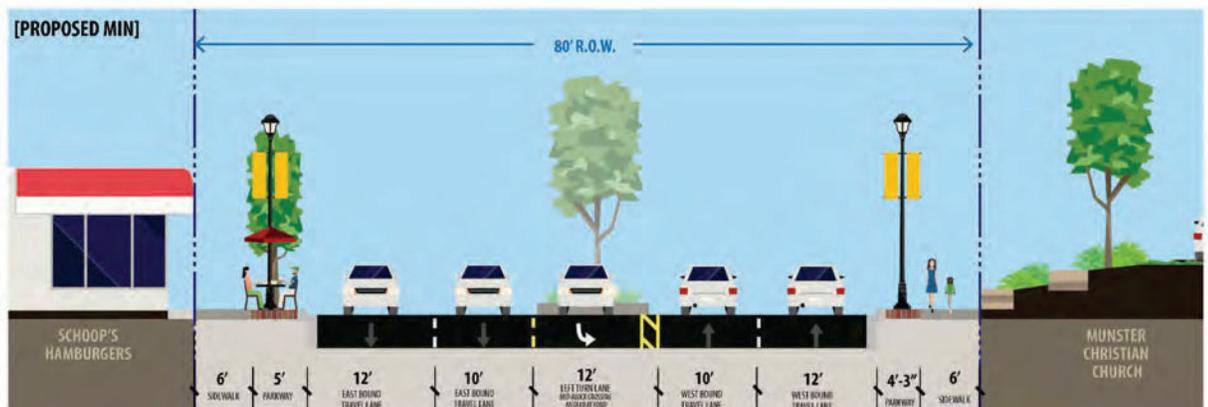
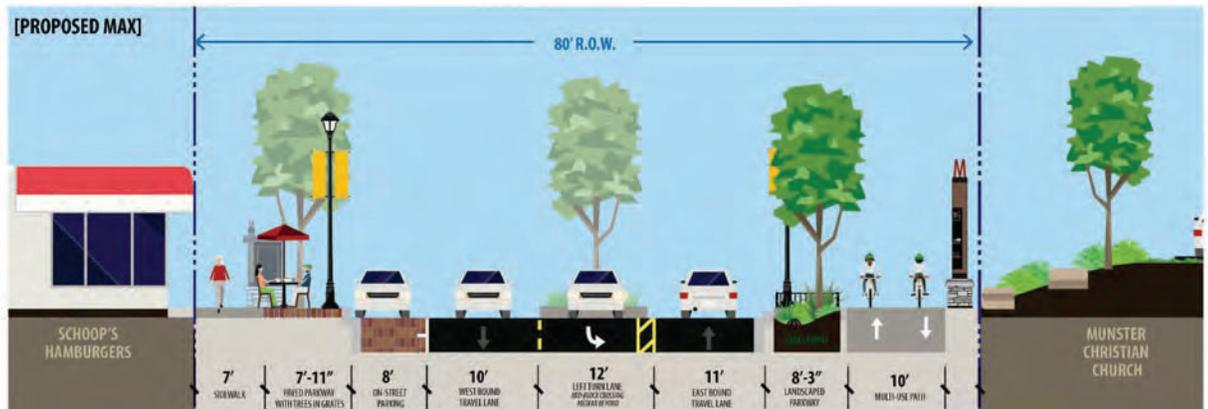


CONCEPT PLAN PRESENTATION | Photovisualizations



Ridge Road Sections

East of Hohman Ave (west of Meadow Lane)



CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Photovisualizations



PILOT PROJECTS | Options



NORTH CALUMET AVE GATEWAY

- Timber railings
- Gateway sign
- Evergreen tree screening



MEADOW LANE PARKING PLAZA

- Pavement / building wall murals
- Dedicated staff for events programming
- Electrical access, movable furnishings

METRICS | IMPERVIOUS VS PERVIOUS SPACE

RIDGE ROAD

	EXISTING	MIN	MAX
IMPERVIOUS SPACE	100%	89%	75%
PERVIOUS SPACE	0%	11%	25%

CALUMET AVENUE IMPERVIOUS VS PERVIOUS SPACE

	EXISTING	MIN	MAX
IMPERVIOUS SPACE	100%	90%	86%
PERVIOUS SPACE	0%	10%	14%

METRICS | PARKWAY WIDTHS + TREES

RIDGE ROAD

	EXISTING	MIN	MAX
PARKWAY WIDTH	4'-6" to 9'-2"	3'-0" to 9'-2"	5'-0" to 17'-0"
TREES	0	123	255

CALUMET AVENUE

	EXISTING	MIN	MAX
PARKWAY WIDTH	5'-0" - 12'-0"	3'-6" - 12'-0"	3'-6" - 12'-0"
TREES	8	132	132

METRICS | PEDESTRIAN CROSSINGS

PEDESTRIAN CROSSING DISTANCE (TYPICAL)

	EXISTING	MIN	MAX
Ridge Road	55-70'	55-70'	35-70'
Calumet Avenue	55-75'	55-75'	55-75'

SIDEWALK WIDTH (TYPICAL)

	EXISTING	MIN	MAX
Ridge Road	4'	5-6'	6-8' along north side 10' multiuse path along south side
Calumet Avenue	4'	5'	5'

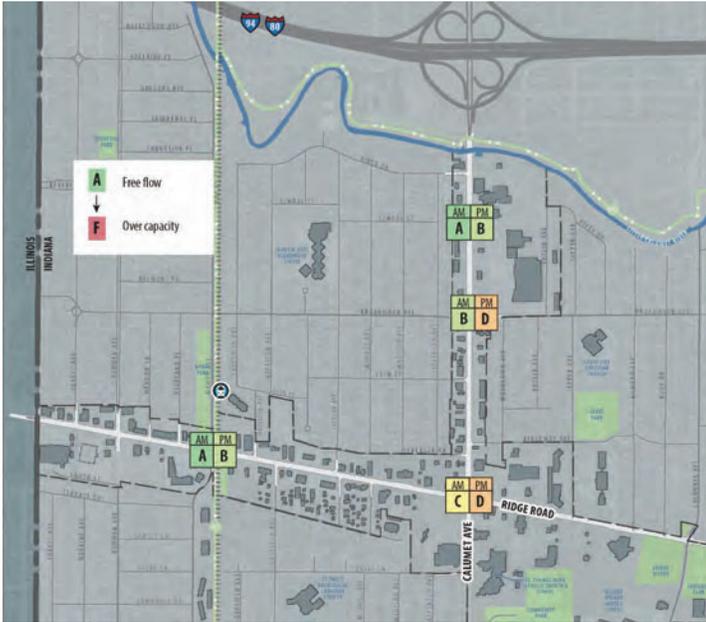
APPROACH TO FUTURE TRAFFIC ANALYSIS

- Build on 2014 conditions (Town-provided data)
- Extrapolate to 2020 based on INDOT growth trends
- Apply NIRPC projections reflecting area infrastructure improvements
- Add RDA development projections
- Further engineering study to be performed when design begins

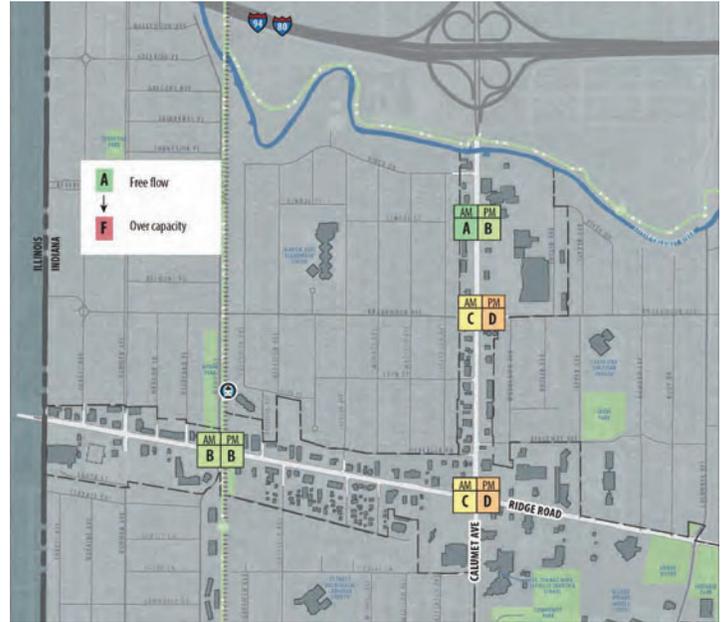


INTERSECTION LEVELS OF SERVICE

Future Min Scenario

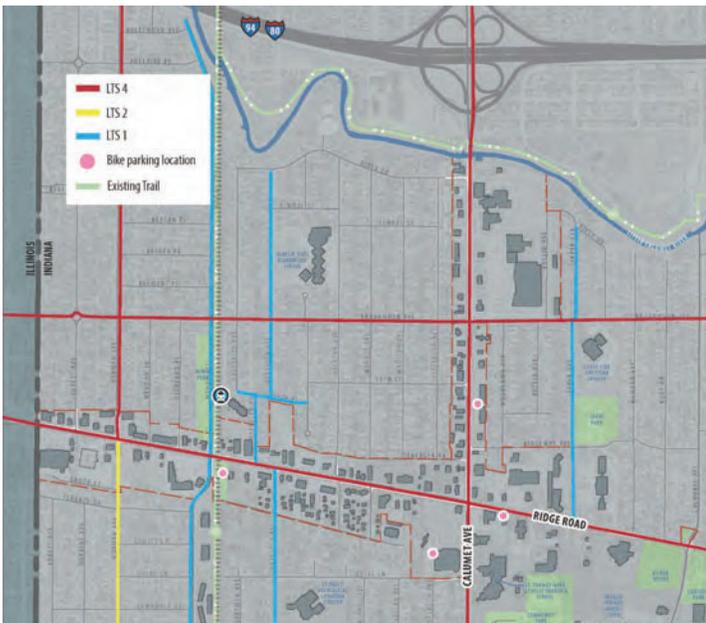


Future Max Scenario

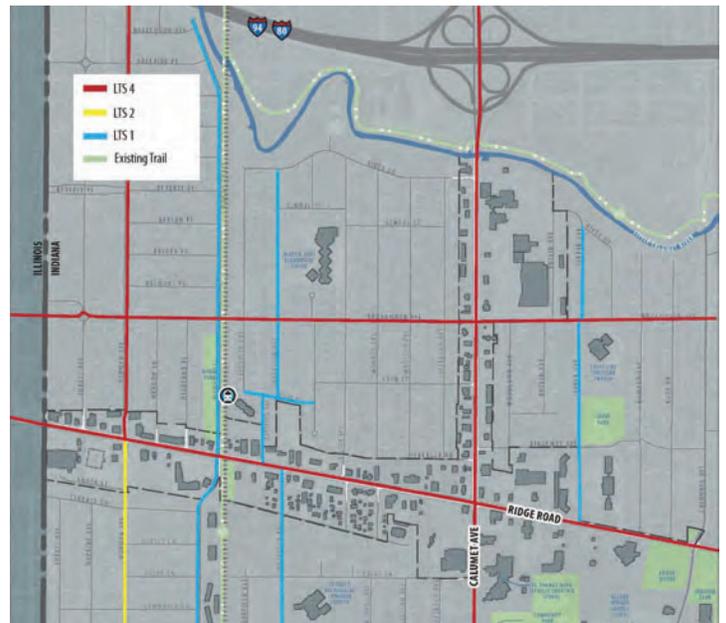


BICYCLIST LEVEL OF TRAFFIC STRESS (LTS)

Existing

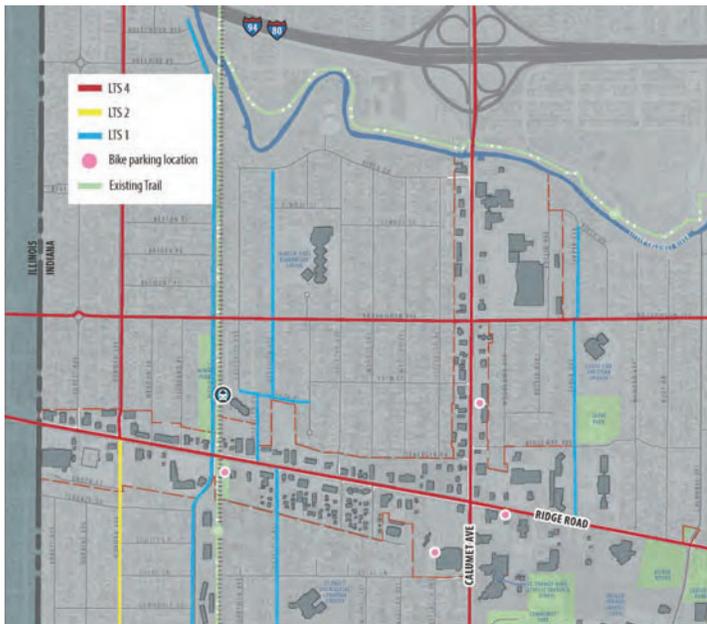


Future Min Scenario

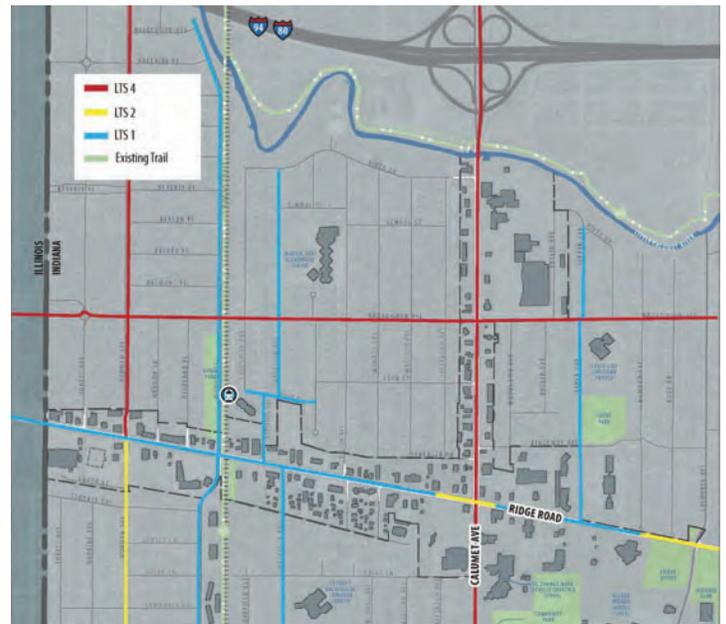


BICYCLIST LEVEL OF TRAFFIC STRESS (LTS)

Existing



Future Max Scenario



METRICS | TRAFFIC

DISTANCE BETWEEN PEDESTRIAN CROSSINGS

	EXISTING	MIN	MAX
Ridge Road	300'-2,300'	275'-1,200'	275'-1,200'
Calumet Avenue	860'-1,820'	390'-1,340'	390'-800'

NUMBER OF CURB CUTS

	EXISTING	MIN	MAX
Ridge Road	59 total (~9 per 1,000 ft) <ul style="list-style-type: none"> 58 full access 1 limited access 	56 total (~8 per 1,000 ft) <ul style="list-style-type: none"> 50 full access 6 limited access 	56 total (~8 per 1,000 ft) <ul style="list-style-type: none"> 44 full access 12 limited access
Calumet Avenue	56 total (~13 per 1,000 ft) <ul style="list-style-type: none"> 56 full access 0 limited access 	54 (~12 per 1,000 ft) <ul style="list-style-type: none"> 54 full access 0 limited access 	55 total (~13 per 1,000 ft) <ul style="list-style-type: none"> 36 full access 19 limited access

METRICS | TRAFFIC

NUMBER OF PARKING SPACES

	EXISTING	MIN	MAX
Ridge Road	0	0 during peak hours, 58 during off-peak hours	58
* Additional on-street parking at Highland Pl, Meadow Ln and Forest Ave. Approx 10 spaces per street = 30 spaces			
Calumet Avenue	0	0	0
* Additional on-street parking at Seberger Dr (2) 30 th St (4) = 6 spaces			

METRICS | TRAFFIC

VEHICLE DELAY (BY INTERSECTION)

	EXISTING	MIN	MAX
Ridge/Calumet	30.9 AM	31.3 AM	32.8 AM
	41.1 PM	45.0 PM	51.6 PM
Ridge/Manor	12.8 AM	8.9 AM	11.9 AM
	18.0 PM	10.8 PM	19.9 PM
Calumet/Broadmoor	24.5 AM	16.8 AM	24.8 AM
	42.5 PM	38.8 PM	43.8 PM

VEHICLE QUEUES

	EXISTING	MIN	MAX
Ridge Road	126-237' AM	93-229' AM	105-227' AM
	240-434' PM	83-270' PM	194-544' PM
Calumet Avenue	80-593' AM	330-706' AM	318-657' AM
	115-572' PM	453-851' PM	446-837' PM

AGENCY OUTREACH + CONSIDERATIONS

NICTD	<ul style="list-style-type: none">• Station area plans at 30%• Anticipated construction completion by 2025
NRPC	<ul style="list-style-type: none">• Support complete streets approach• Funding opportunities for streetscape: <i>Next Level Trails; Transportation Enhancement Funds (INDOT); Green Streets Funds</i>• NIRPC could fund a Transportation Master Plan
Little Calumet River Basin Development	<ul style="list-style-type: none">• Funding opportunities for streetscape: <i>The Tree Grant; Plantings associated with north Calumet gateway.</i>
Indiana DNR	<ul style="list-style-type: none">• Potential funding programs: <i>FEMA BRIC (Building Resilient Infrastructure and Communities); GLRI (Great Lakes Restoration Initiative); DNR Small Grants (wayfinding, green infrastructure)</i>
NIPSCO	<ul style="list-style-type: none">• Calumet Ave is a transmission corridor• Ridge Rd is mostly distribution• Opportunities to consolidate aerial crossings at Ridge Rd and to consolidate utilities as part of the station development.

NEXT STEPS + QUESTIONS?

1. Community Poll #2
2. Public meeting, *mid December*
3. Next Committee Meeting: Draft Streetscape Plan, *after the new year*

INPUT ACTIVITY
Log on to: MENTI.COM

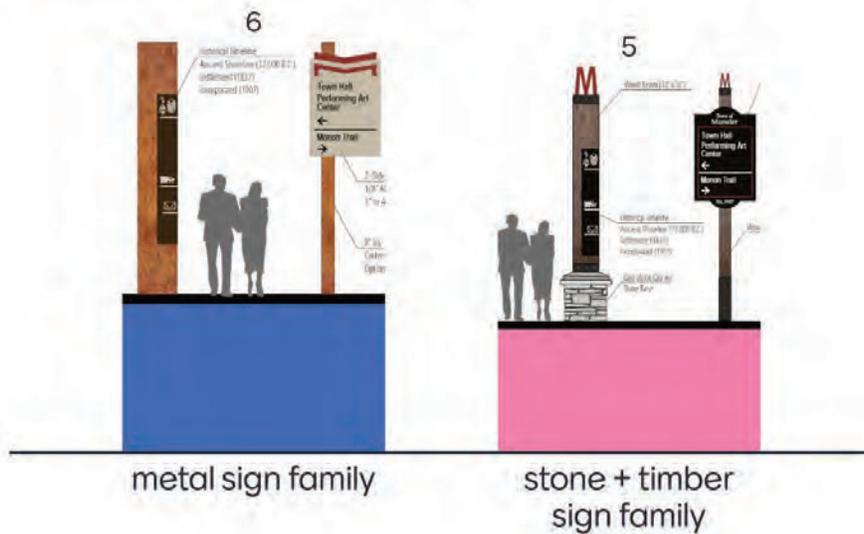


Munster Streetscape Workshop | Committee Meeting #2

November 18, 2020



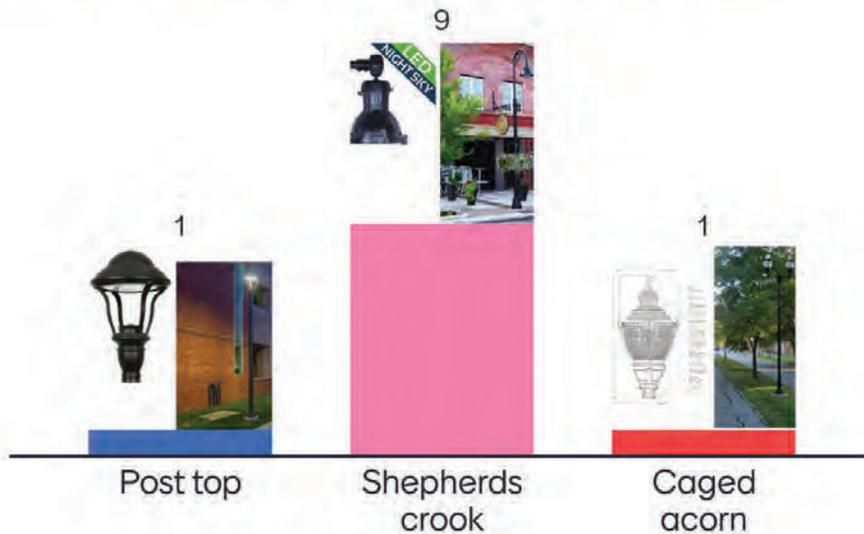
In your opinion, which signage concept best matches Munster's character and identity?



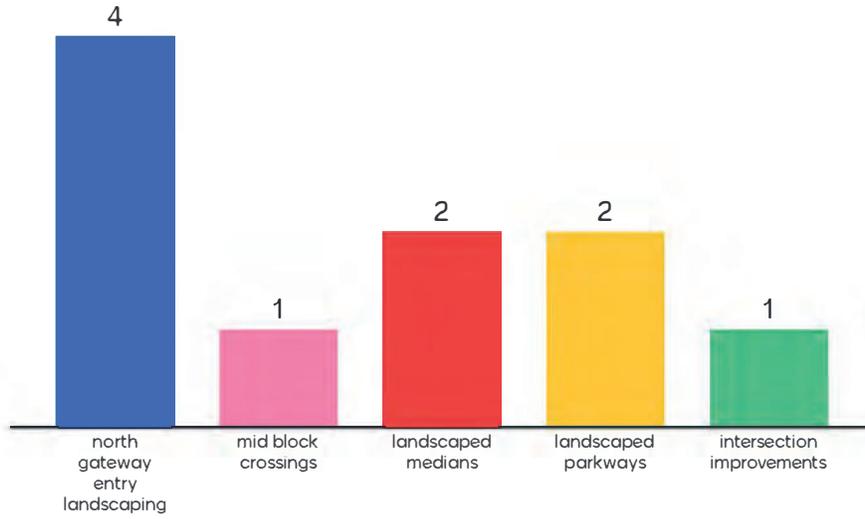
In your opinion, which furnishings family best matches Munster's character and identity?



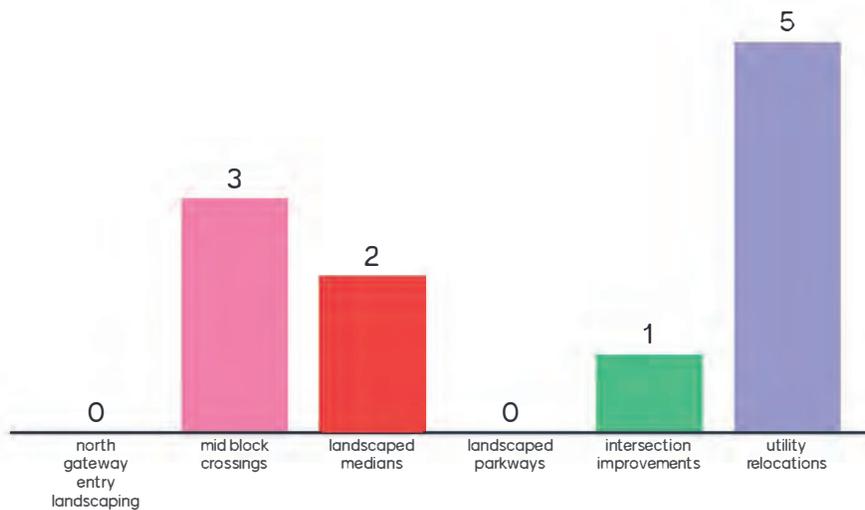
In your opinion, which pedestrian scale lighting best supports Munster's character along Ridge Road?



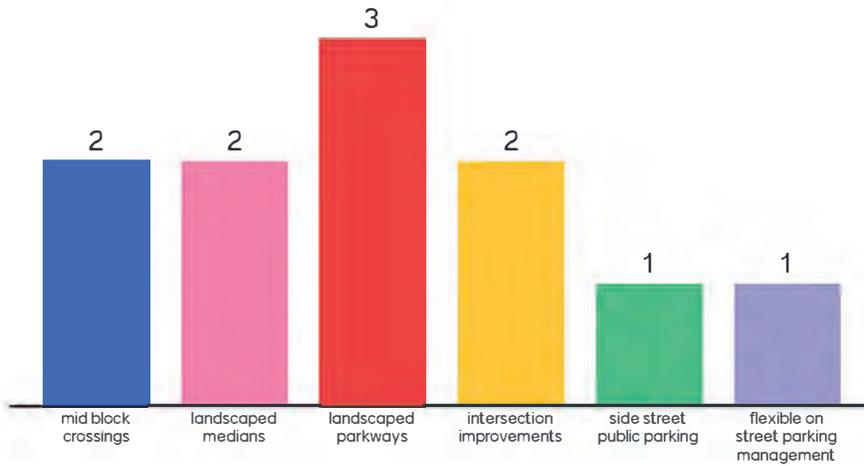
Calumet Avenue Min Concept: Select one item that represents the best value for Munster.



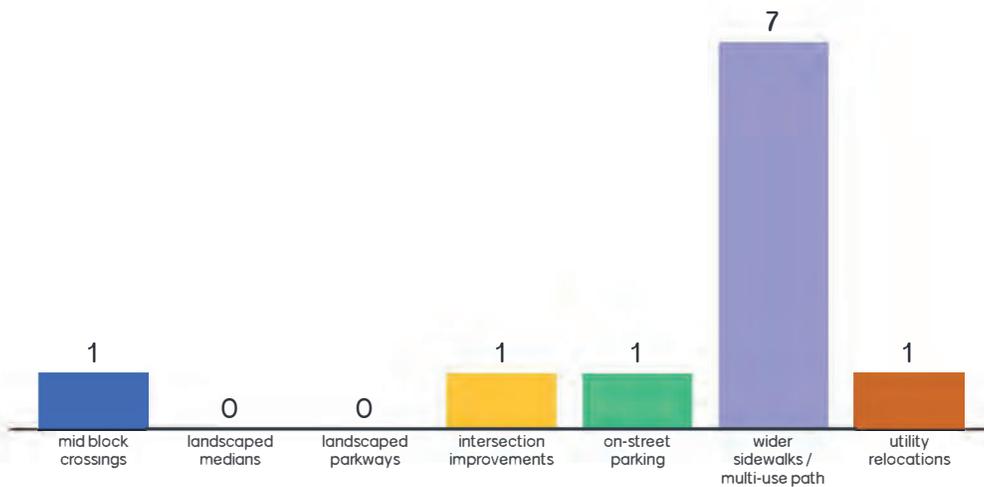
Calumet Avenue Max Concept: Select one item that represents the best value for Munster.



Ridge Road Min Concept: Select one item that represents the best value for Munster.



Ridge Road Max Concept: Select one item that represents the best value for Munster.



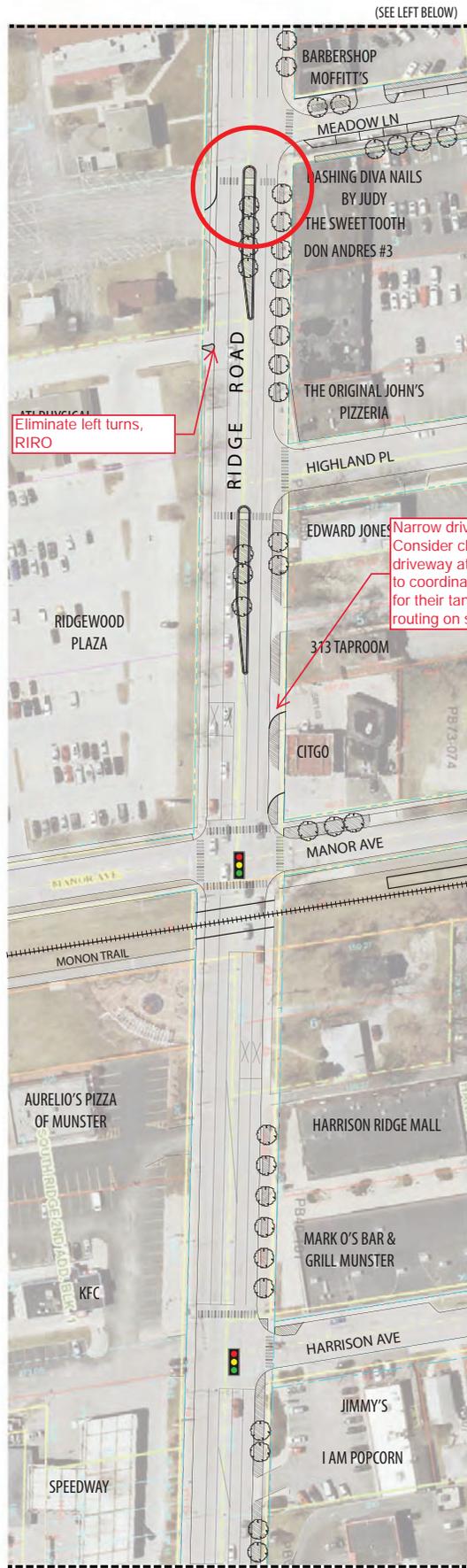
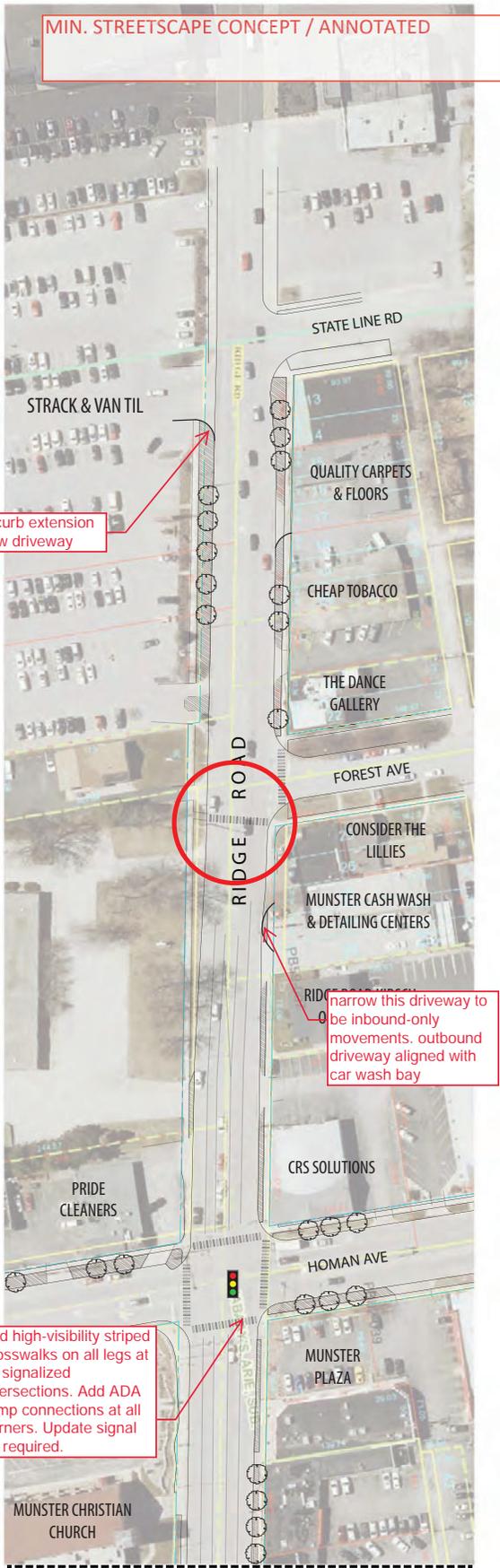
Which pilot project should Munster focus on implementing first?



What else should we be thinking about? Please list any additional comments here for the Q+A.

I really think the median landscape are the best idea





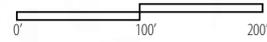
add high-visibility striped crosswalks on all legs at all signalized intersections. Add ADA ramp connections at all corners. Update signal as required.



Town of Munster, Indiana

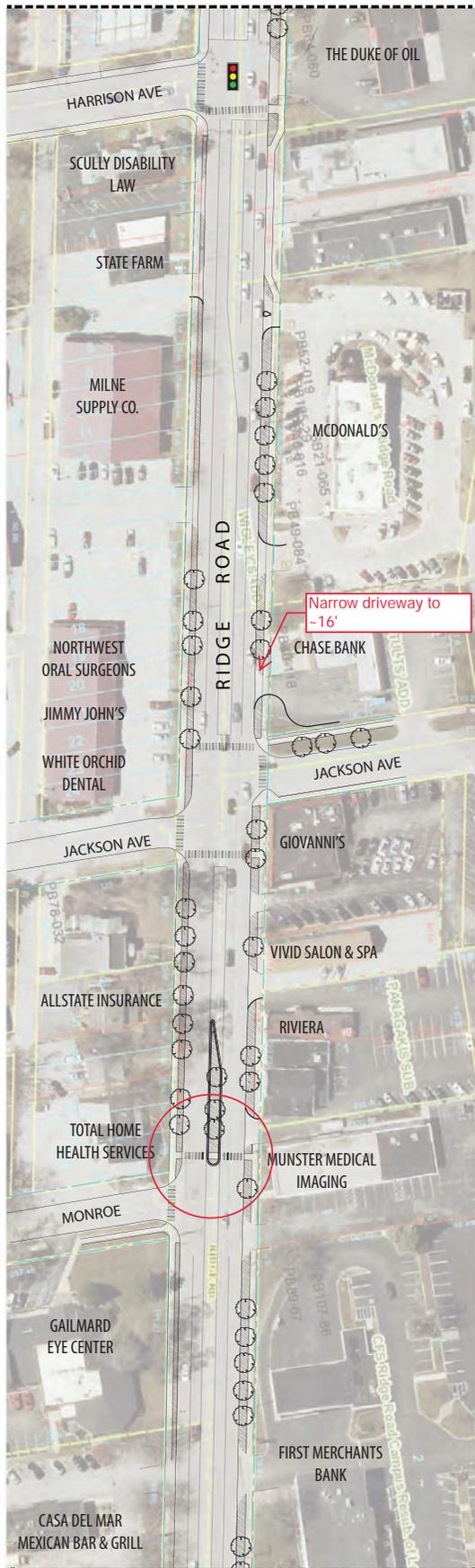
Munster Calumet-Ridge Streetscape

Draft: Min Streetscape Concept - Sheet 1 (Ridge Road)



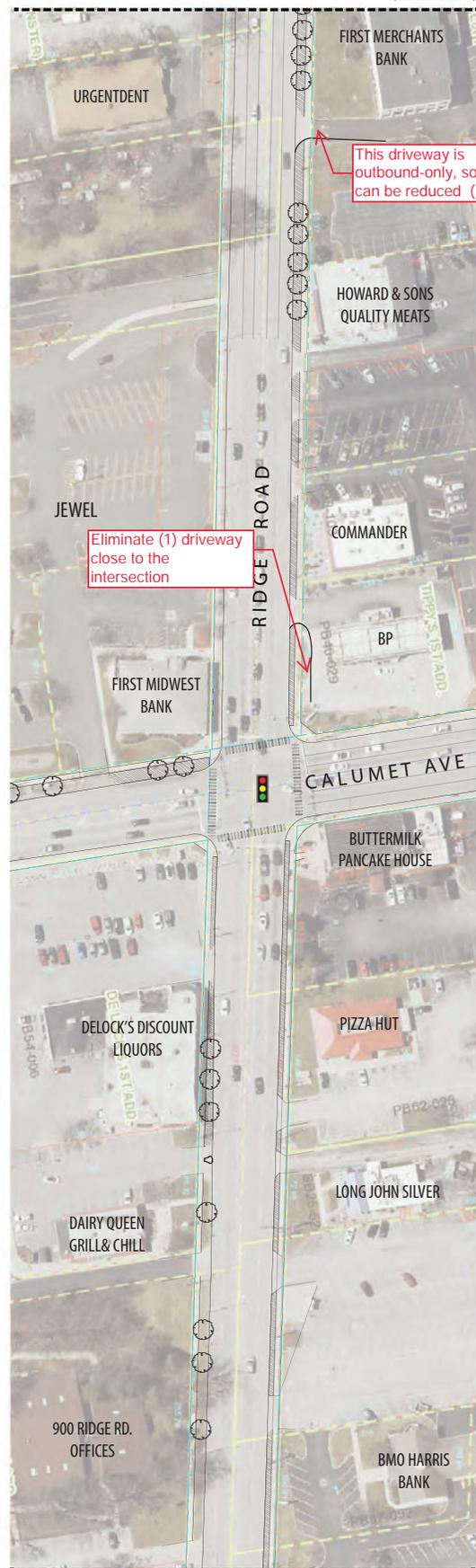
November 10, 2020

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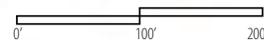


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Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

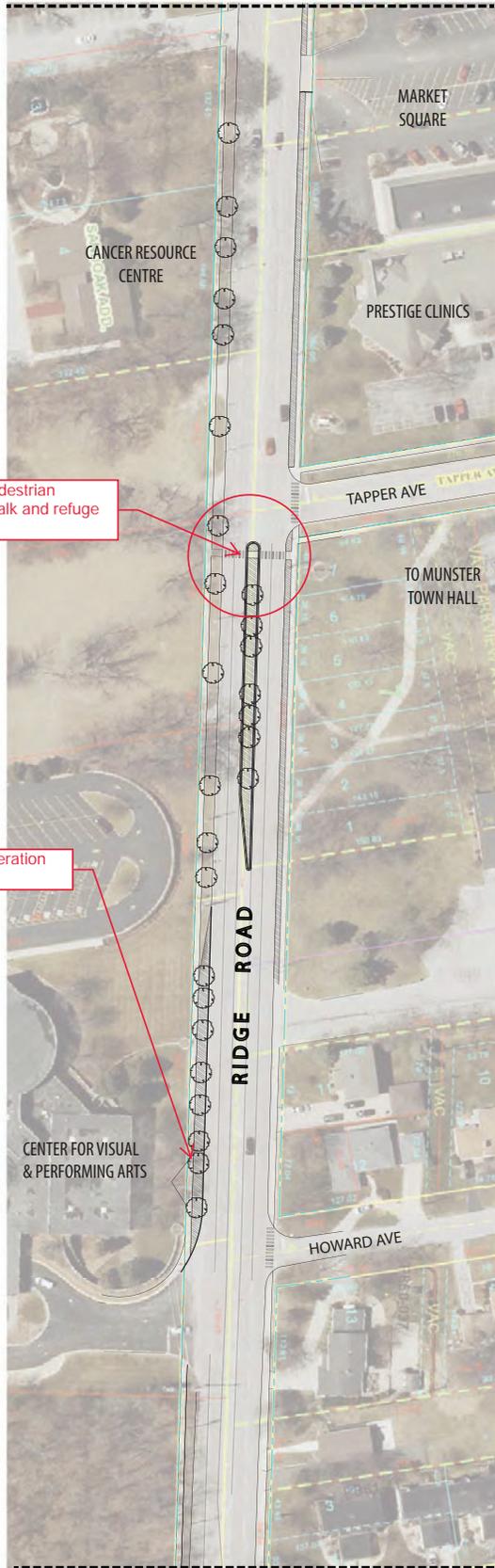
Draft: Min Streetscape Concept - Sheet 2 (Ridge Road)



November 10, 2020

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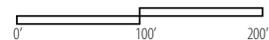
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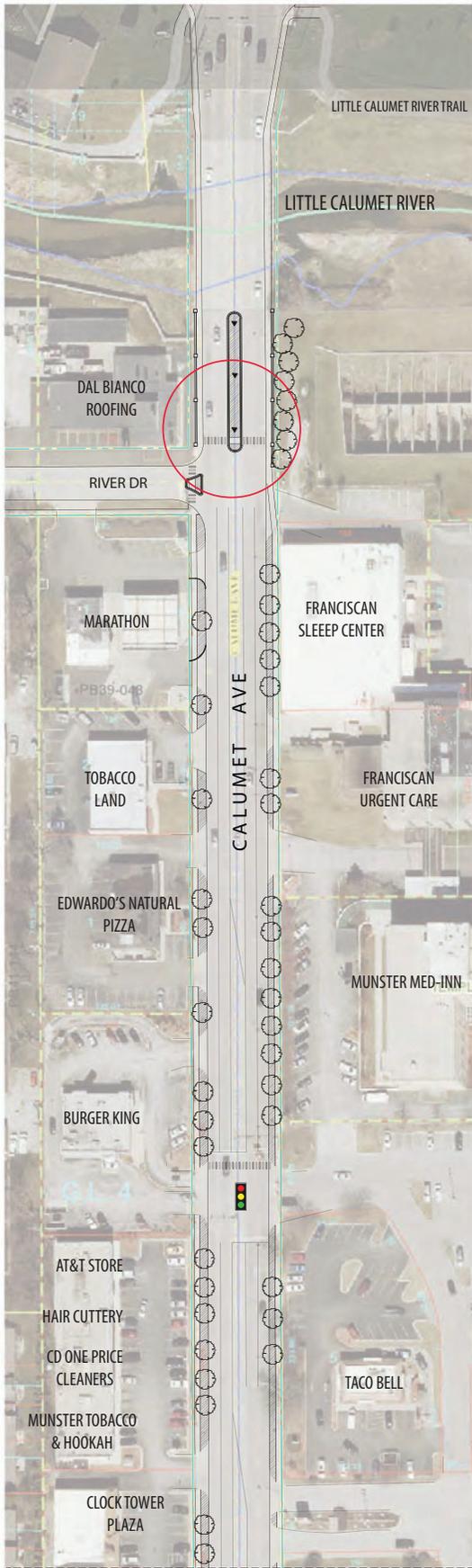
Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

Draft: Min Streetscape Concept - Sheet 3 (Ridge Road)



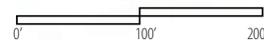
November 10, 2020



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(SEE SHEET 5)



Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

Draft: Min Streetscape Concept - Sheet 4 (Calumet Avenue)



November 10, 2020

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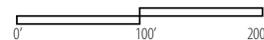
Add pedestrian crosswalk and refuge island



Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

Draft: Min Streetscape Concept - Sheet 5 (Calumet Avenue)



November 10, 2020

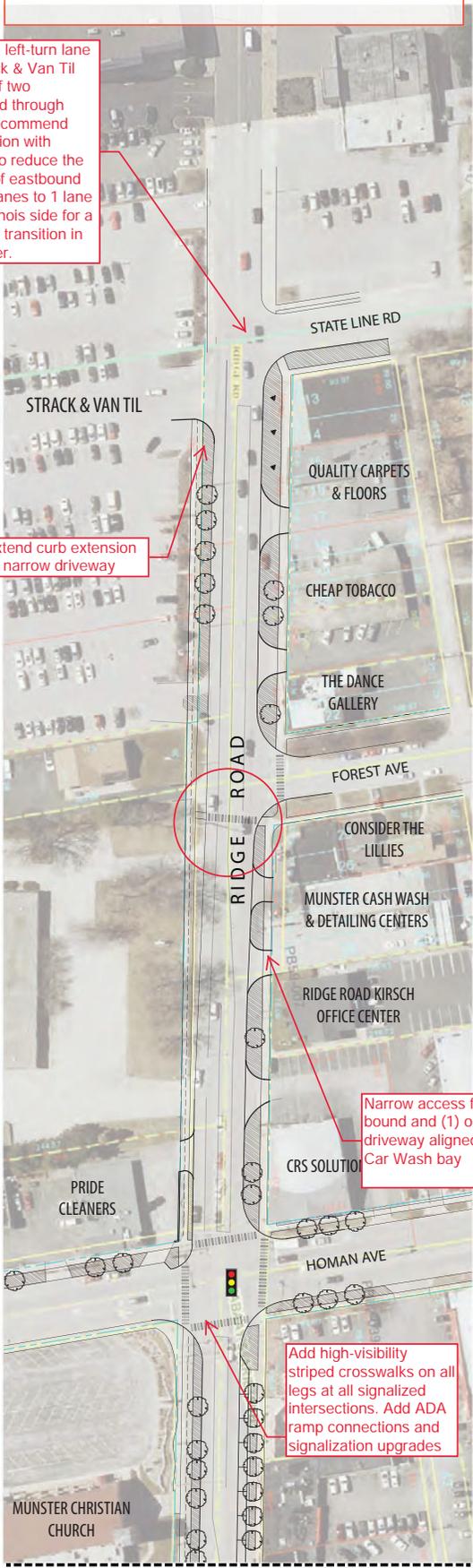
MAX. STREETSCAPE CONCEPT / ANNOTATED

Provide a left-turn lane into Strack & Van Til instead of two eastbound through lanes. Recommend coordination with Lansing to reduce the number of eastbound through lanes to 1 lane on the Illinois side for a smoother transition in to Munster.

extend curb extension to narrow driveway

Narrow access for (1) in bound and (1) outbound driveway aligned with Car Wash bay

Add high-visibility striped crosswalks on all legs at all signalized intersections. Add ADA ramp connections and signalization upgrades



(SEE RIGHT ABOVE)

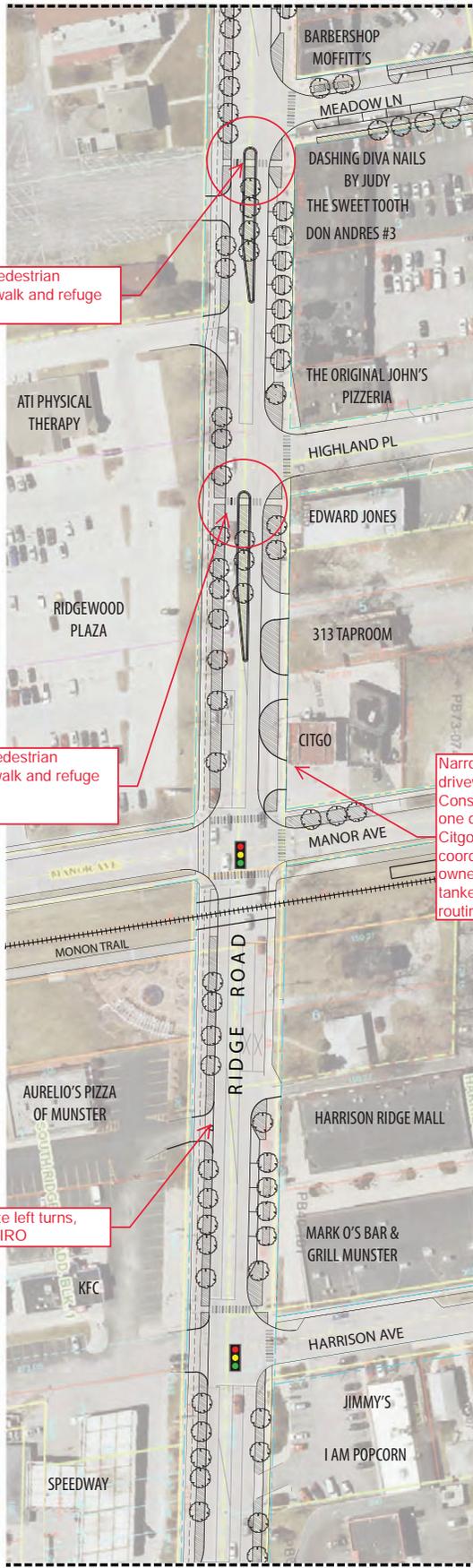
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Add pedestrian crosswalk and refuge island

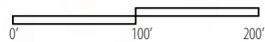
Add pedestrian crosswalk and refuge island

Eliminate left turns, make RIRO

Narrow driveways. Consider closing one driveway at Citgo, need to coordinate with owner for their tanker truck routing on site.



(SEE SHEET 2)



Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

Draft: Max Streetscape Concept - Sheet 1 (Ridge Road)



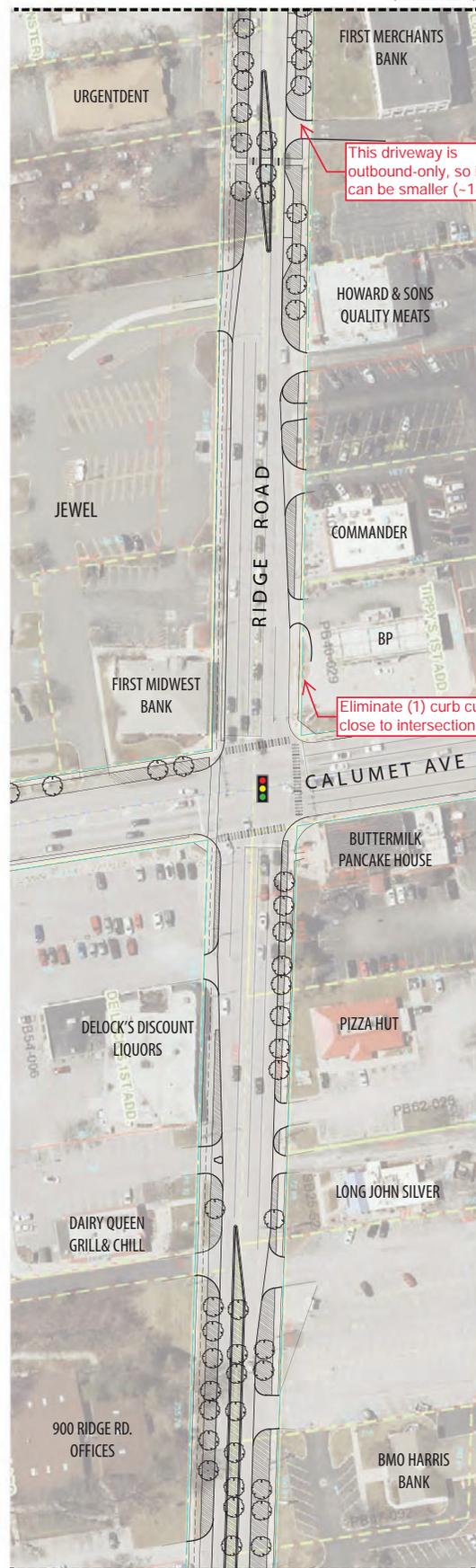
November 10, 2020

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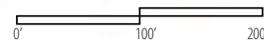
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Town of Munster, Indiana

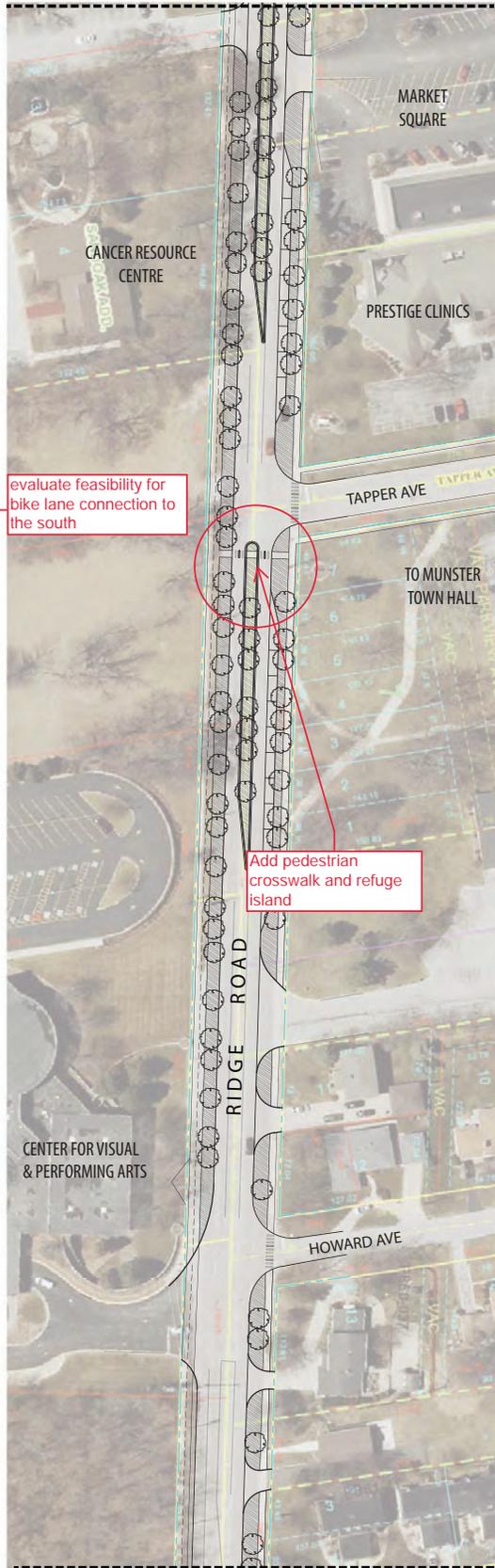
Munster Calumet-Ridge Streetscape

Draft: Max Streetscape Concept - Sheet 2 (Ridge Road)



November 10, 2020

(SEE SHEET 2)



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evaluate feasibility for bike lane connection to the south

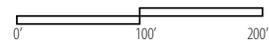
Add pedestrian crosswalk and refuge island



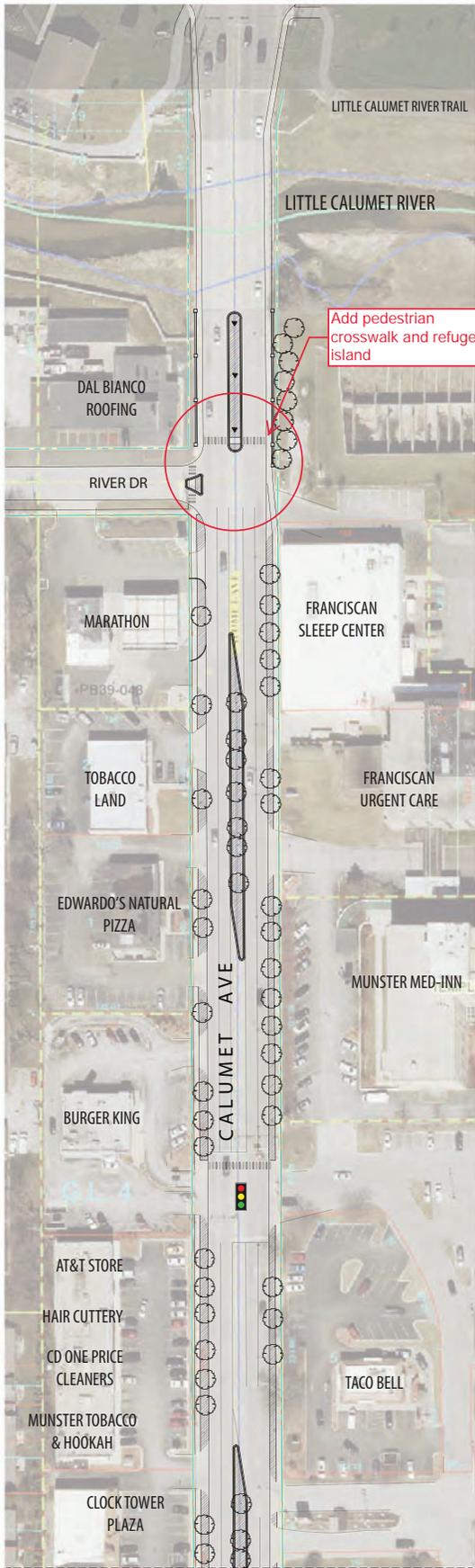
Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

Draft: Max Streetscape Concept - Sheet 3 (Ridge Road)



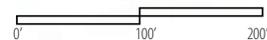
November 10, 2020



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Town of Munster, Indiana

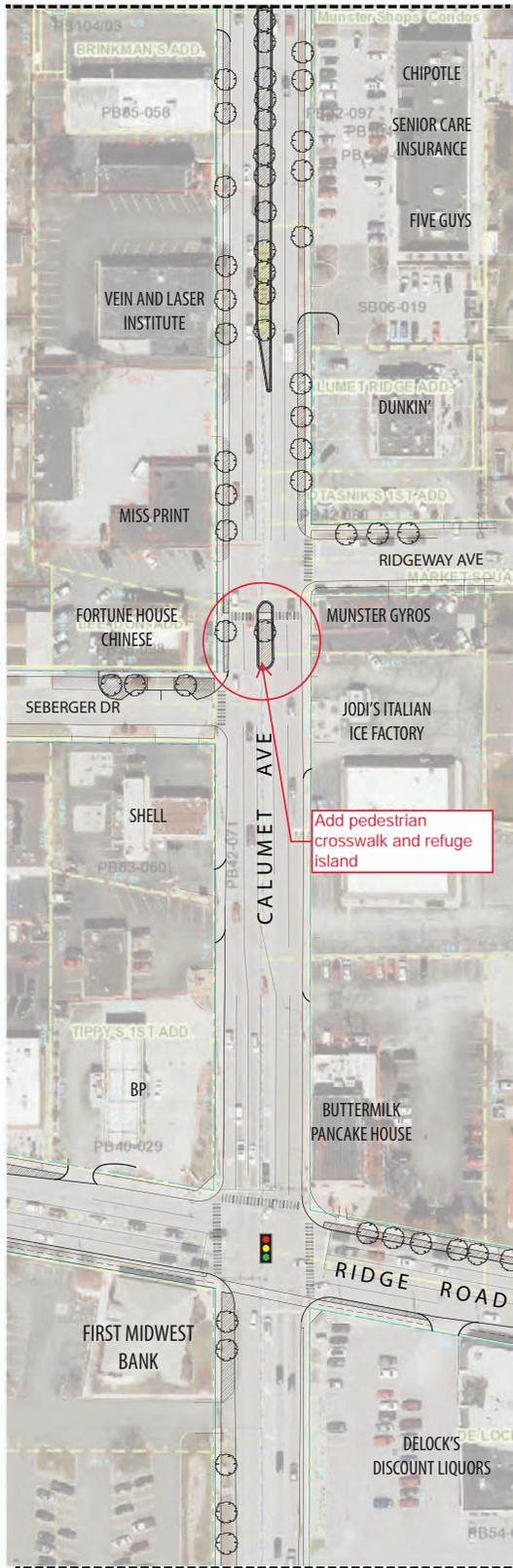
Munster Calumet-Ridge Streetscape

Draft: Max Streetscape Concept - Sheet 4 (Calumet Avenue)



November 10, 2020

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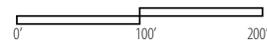
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Town of Munster, Indiana

Munster Calumet-Ridge Streetscape

Draft: Max Streetscape Concept - Sheet 5 (Calumet Avenue)



November 10, 2020



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CALUMET-RIDGE STREETScape PLAN

PUBLIC OPEN HOUSE MEETING SUMMARY

December 10, 2020 | video webinar and visioning | 7:00 pm

The purpose of the Public Open House was to present streetscape concept plans and alternatives that were developed to date. Concepts and alternatives were based on outcomes of the public outreach activities and the work of the steering committee.

Due to the current health crisis, the meeting was conducted via Zoom videoconference. Meeting invitations and announcements were communicated via the following methods:

- Project website (munster-streetscape.org).
- Project website posts sent to the project website's 250+ followers via email.
- Munster website announcements
- Facebook announcements
- Committee email announcements

The emailed communications invited community members to review project documents at the project website in advance of the meeting. <https://munster-streetscape.org/documents/>

Munster Streetscape – Public Open House Meeting Recording | Start Time: Dec 10, 2020 7:00 PM

<https://youtu.be/yFV-NGuYFfk>



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Approximately 27 people attended the public meeting. The following staff and consultant team members attended and presented.

TOWN OF MUNSTER STAFF		CONSULTANT TEAM	
<ul style="list-style-type: none"> • Tom Vander Woude, Community Development, Town of Munster • Dustin Anderson, Town Manager, Town of Munster 		<ul style="list-style-type: none"> • Jodi Mariano, Teska Associates • Heather Faivre, Teska Associates • Sara Disney-Haufe, Sam Schwartz Consulting 	
PUBLIC MEETING PARTICIPANTS			
A list of attendees identified by screen names follows:			
<ul style="list-style-type: none"> • Andrew Fentress • Lea Kilibarda • Franco • Ken • Michael G • Steven Millies • Aaron Kowalski • Jesse Cassiano 	<ul style="list-style-type: none"> • Chuck Gardiner • Lee Millies • Maureen Jones • Raquel • Jose Gutierrez • Zak Boswell • CJ • Auntie Lea 	<ul style="list-style-type: none"> • Rebecca Manellis • Kerry Meyer • Anthony Andello • Julie O'Connor • Ireen Pasia • Galaxy A51 • Jill Dito 	

The meeting agenda and presentation topics follow below:

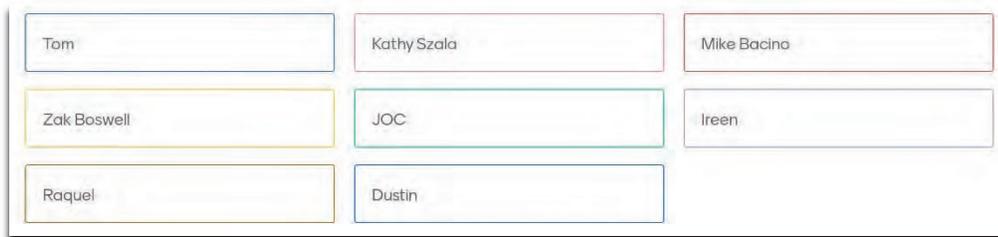
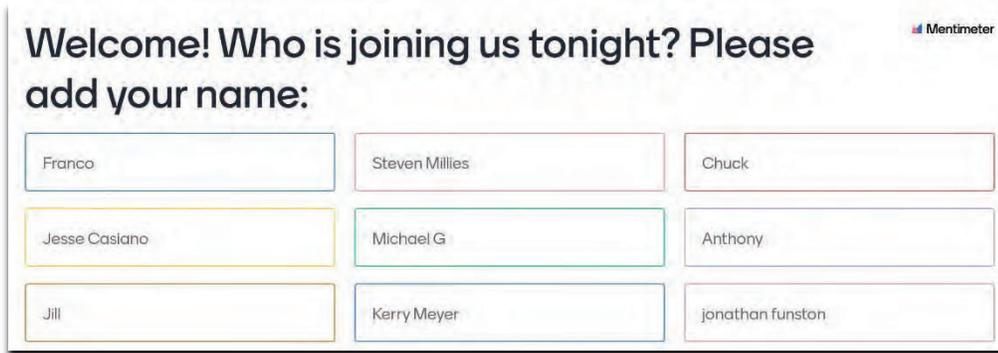
- 1. Introductions, Project Goals, Study Area, Scope and Schedule.**
- 2. Community Outreach:** *Highlights of the various outreach activities and key comments.*
- 3. Concept Plan Presentation:** *Streetscape Elements: sign families, furnishings families, plantings, roadway lights and signals, public art.*
- 4. Concept Plan Organization and Metrics:** *Minimum vs. maximum approaches to streetscape development and applications to Calumet Avenue / Ridge Road, pilot projects options. Reported metrics include: distance between pedestrian crossings, pedestrian crossing distance, sidewalk width, impervious / pervious spaces, parkway widths, tree plantings.*
- 5. Approach to Future Traffic Analysis and Traffic Considerations and Metrics:** *Intersection levels of service, traffic metrics that identify vehicle delay and queues, bicyclist level of traffic stress, curb cuts and on street parking counts.*
- 6. Mentimeter Poll Activity and Q+A**



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Following the presentation, participants participated in a web-based polling visioning activity.

Outcomes from the polling program and discussion points are provided on the following pages:





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Calumet Ave: In a few words, describe your biggest concern. Mentimeter

traffic speed, frequency, noise, safety	It's poor first impression of Munster	Pedestrian Crossing, Traffic delays at lights.
Ugly, not pedestrian friendly, crime	It's ugly	Speed of vehicles, driving in and out of businesses.
Traffic delays.	Congestion, traffic always stopping	Too little greenery

The flow of traffic and speed.	Impervious surfaces as far as the eye can see	No Munster sign, cars blocking traffic
traffic speed	signage, bicycling and walking	No pedestrian-friendly destinations
Bike lane north south	Impossible to cross as pedestrian	No Munster sign. Too busy.

No. I'm concerned about drivers running into the median and destroying the nice structure

Key Calumet Avenue concerns include:

1. Speeding traffic, congestion, and stop-and-go movements
2. Inhospitable pedestrian environment
3. Needs a welcoming entrance to the community
4. Lacks greening and pervious spaces

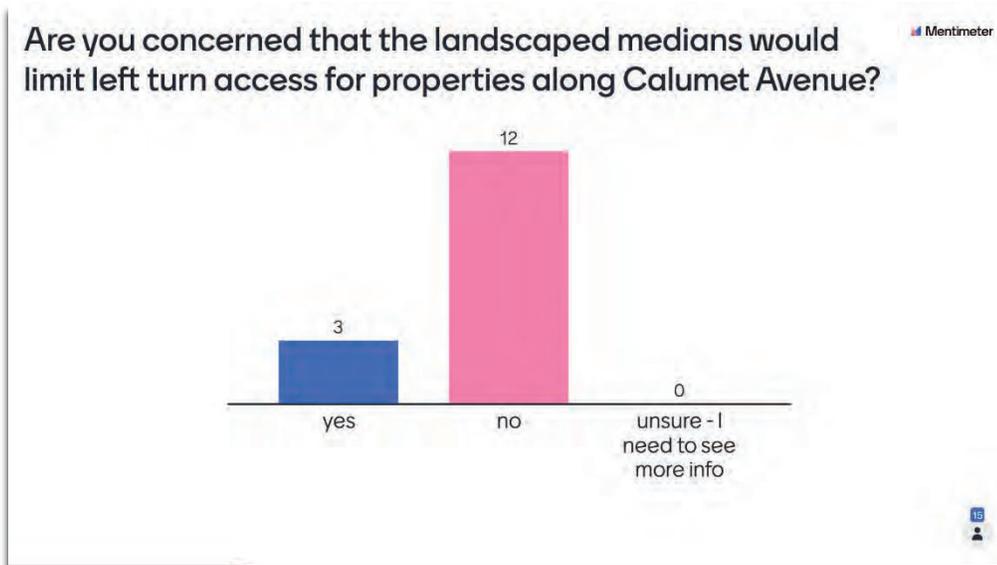


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Mentimeter

Calumet Avenue - access control considerations

During the outreach, we heard desires for traffic calming and additional landscaping. The Calumet Avenue 'Max' Concept incorporates landscaped medians in order to provide these amenities. The traffic impacts include limited left turn access for properties along Calumet Avenue. (U-turns would be permitted at intersections.)



When asked whether participants were concerned about limited left turn access for properties along Calumet Avenue as part of the streetscape Max concept, most participants responded that they were not concerned.



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Participants' top features associated with Calumet Avenue include:

- 25% Landscaped Medians
- 20% North Gateway
- 18% Intersection Improvements
- 14% Overhead Utility Relocation



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Paint us a picture of Calumet Ave: describe a scene you'd like to see in the future. Mentimeter

slower traffic, where people feel safe	More greenery with public spaces and pedestrians.	Green space, gateway, sense of "Munster"
Better flow	Families walking, small shops, biking paths, public spaces	Much better welcoming look to the town of Munster.
flowing traffic, more green space	No utility lines, full tree canopy and numerous mid-block crossings with people walking up and down the street along shops that are up to the front of lot with parking in back	Small businesses thriving, Outdoor dining, TREES, beautiful plantings, pots with large plants, Munster pride. Less crime. Bikes, nature

ability to connect with ease to trails, businesses, art center, town hall by walking or bike	Less travel time around town	Occasional street festival, bike riders, walkers, mural, cars trying to turn NOT blocking traffic opposite traffic, many people walking
A nice welcome sign and matching decor versus bandaid fixes. Matching light poles through entire town versus certain sections.	slower traffic, safe crosswalks, little calumet river cleanup and pedestrian areas	Environment that encourages spending more time instead of rushing to get through it
I love Strong Towns	Two couples go to dinner at different restaurants and take the long walk back to the car down the public and well lit greenways. They bump into neighbors they haven't seen in a while and stop to catch deciding to walk to a nearby bench to catch up	slow traffic, one lane each direction, controls to make sure traffic does not spill into neighborhoods

Murals, bikers, walkers, boutiques, coffee shops, small restaurants, landscaping	slower traffic will route to secondary streets	It's so difficult for those businesses to thrive- it's not the destination it should be- it is an eyesore. There are fabulous businesses that need our support!
--	--	---

When asked to envision a future scene along Calumet Avenue, key topics included pedestrian access and safety. Key quotes include:

- *“Much better welcoming look to the town of Munster.”*
- *“Green space, gateway, sense of ‘Munster’”*
- *“Ability to connect with ease to trails, businesses, art center, Town Hall by walking or bike.”*
- *“Two couples go to dinner at different restaurants and take the long walk back to the car down the public and well lit greenways. They bump into neighbors they haven’t seen in a while and stop to catch up deciding to walk to a nearby bench to catch up.”*



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Ridge Road: In a few words, describe your biggest concern. Mentimeter

Ridge Road has so much potential and is so underloved.	Pedestrian/bike access	People running red lights, pedestrian crossings, narrow sidewalks.
A real sense of place that draws people towards it and keeps them there	chain restaurants, gas stations, tobacco shops, doesn't have a family friendly, downtown	Lack of character and uniformity
Lacking a downtown feel that it could have.	lack of bike path	excess traffic flowing through to secondary streets

Similar to calumet example of two couples but more about storefronts where you could store hop for holidays from local stores.	The traffic speed is fast from east to west. Need to be consistent with matching light poles etc.	You never see people walking there, I would love it to be walk-inviting
agree with traffic flowing into secondary streets!	Nothing fun to do!	Needs a charm upgrade
Fabulous businesses that are not supported by the structure. An eyesore- not the destination it should be.	Walkability along ridge, more restaurants, dining. Bring a coffee shop! Street fests are a great idea	if you change cal/ridge, need to change broadmoore

We need to connect wicker to community to centennial with walking and bike paths. You could use ridge and calumet for that and lower congestion. Less throughout	Worried about traffic congestion when train station is built	More greenspace !
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Key Ridge Road concerns include:

1. Local businesses are not supported by the environment
2. Does not invite people to walk here
3. Lacks a sense of place
4. Needs greening and landscaping



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Mentimeter

Ridge Road - road diet considerations

During the outreach, we heard desires for traffic calming, wider sidewalks, a bike trail, on-street parking + landscaping. The Ridge Road Max Concept reduces travel lanes in order to reallocate space for these amenities within the right of way. The traffic metrics tell us that the road diet concept may result in approximately 1-3 minutes travel delay from Hohman Ave to Calumet Ave.

5

Mentimeter

Are you concerned that the road diet amenities could cause approximately 1-3 minutes travel delay between Hohman Ave and Calumet Ave?

Response	Count
yes	1
no	14
unsure - I need to see more info	1

16

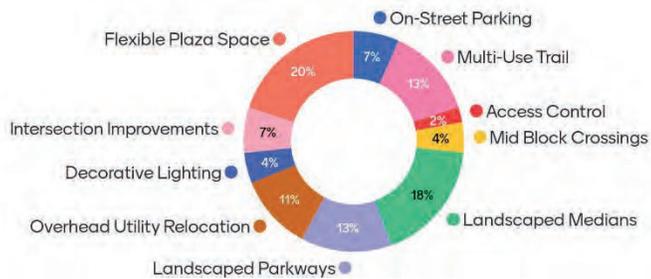
When asked whether participants were concerned that the Ridge Road road diet would cause approximately 1-3 minutes travel delay between Hohman Ave and Calumet Ave, most participants responded that they were not concerned.



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Ridge Road Improvements: select your top 3 features.

Mentimeter



15

Participants' top features associated with Ridge Road include:

- 20% Flexible Plaza Space
- 18% Landscaped Medians
- 13% Multi-Use Trail
- 13% Landscaped Parkways



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Paint us a picture of Ridge Rd: describe a scene you'd like to see in the future. Mentimeter

I place I would like to go to and not just pass through	Evening out, have dinner, walk to a few shops.	Marriage proposals
Outdoor dining, festivals, bike riders, nice lighting	Ridge Road could look like downtown Valpo, downtown Crown Point or downtown Homewood. Greenspace, nice businesses and restaurants, family friendly	Safe crossing to a variety of local businesses
Parents with kids in strollers browsing through local shops. Stop and sit.	I would love to see public art, benches, a mural.	Outdoor dining, much more of a downtown feel
Vibrant and verdant active corridor	Exactly Lansing	A lot of walking and biking activity on trail, festivals, access control, landscaping improvements
Yes, Lansing	controlled traffic, nicer businesses, more greenspace	can I connect to broader regional trails safely
Small business support, bikes, people walking, beautiful pots, trees, outdoor dining, public art	First Friday concerts at Meadow and Ridge	Street festivals, farmer's market, cafes, ice cream shops, wine bars, art, outdoor dining!
More outdoor dining areas, larger area around the fountain, plaza for art shows or live music, more lighting for walks, train station that fits the neighborhood	Matching lights from west to East. It's great to have green space but you will need to hire more staff to maintain. Ridge Road has been compromised for years. More people are walking Ridge	Photogenic space
streetfests on weekends. A new park with splashpad and gathering for events	Actually see other Munster residents besides micro-community parks	Continue what Lansing has. It works there. Not sure why it is suddenly so busy once in munster
public art; ADA	Both are nice but maintenance an issue over years	Neither
Rustic with low maintenance		

When asked to envision a future scene along Ridge Road, key topics included a vibrant, pedestrian and bicyclist friendly business district. Key quotes include:

- *“Vibrant and verdant active corridor.”*
- *“Evening out, have dinner, walk to a few shops.”*
- *“A lot of walking and biking activity on trail, festivals, access control, landscaping improvements.”*
- *“More outdoor dining areas, larger area around the fountain, plaza for art shows or live music, more lighting for walks, train station that fits the neighborhood.”*



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Which signage concept do you prefer?

Mentimeter

7

metal sign family

10

stone + timber sign family

17

Which furnishings family do you prefer?

Mentimeter

9

rustic furnishings family

9

refined furnishings family

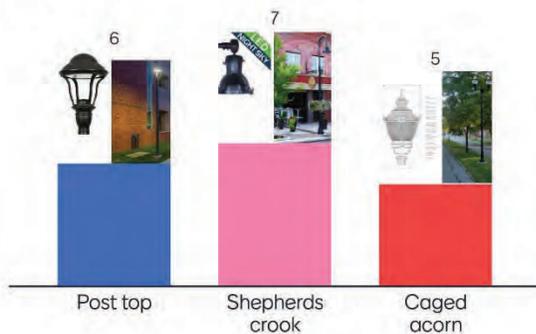
18



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Which pedestrian scale light do you prefer for Ridge Road?

Mentimeter



18

Which pilot project should Munster focus on implementing first?

Mentimeter



17



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What have we missed? Please add your suggestions + comments here:

Facade improvements?	Can we landscape the off ramp/on-ramp?	Thank you! We love your services!
Thank you!	The only comment is... we would really REALLY like to see these max improvements to happen!	Preliminary cost of project
Thank you	Max, Bobby, max!	The poor attendance might be due to lack of knowledge that this meeting was taking place

are we taking a perspective of impacts/planning for the next 10, 20, 30 years? what shifts (driving preferences, delivery truck use, aging populations, public wifi)?	Connect all parks with bike paths and walk lanes. Neighborhoods are isolated. It's a drivable town only.	What can be done to prevent the crime that has been taking place
Max for sure	what night time safety infrastructure is being considered? eg. purple light stations on university campuses	No place to have consistent outdoor, community, festival, celebratory events
This was a very well-done presentation	The planters in front of Giovanni's are an example of how not to landscape	Look at the original drawings of Munster. The green space was 10x the currently.

The original plan is on the wall at the front entrance of town hall between the two sets of doors. Really look at it and you can feel how great that community would be

The comments and questions were further addressed in the Q+A, described on the following pages.

Thank you! Please enter your comments + questions in the Zoom meeting chat.



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MEETING Q + A. Meeting participants added their questions and comments to at the end of the Mentimeter activity and in the Zoom Chat. Tom Vander Woude read questions aloud. A list of questions and responses follow below:

Q1: The corridor today seems to have patterns of crime that target local businesses and use Calumet Avenue / I80/94 access as a ‘fast getaway’. Can something be done about easy-in and easy-out in terms of crime?

A1: Addressing crime specifically is not part of the streetscape scope. However, the streetscape plan proposes improvements that may have an indirect impact on the easy-in/easy-out nature of the corridor. Streetscape features, traffic calming and an increased presence of pedestrians and bicyclists tend to result in a feeling of safer places.

Q2: We are concerned about maintenance and upkeep of the streetscape. How will this be addressed?

A2: The planning assignment began with conversations with the Town’s public works department, including existing maintenance challenges and successes. These conversations with public works are continuing as the planning proceeds. Streetscape and landscape materials should be specified to be extremely durable given the harsh environment of the roadways in all seasons. A commitment to maintaining the streetscape areas is needed to ensure success.

Q3: The presentation addresses the proposed levels of traffic service grades for the Min and Max scenarios. What are the current levels of service?

A3: Due to the current configurations and projected growth due to the anticipated station and surrounding development, the existing levels of traffic service will closely match the future max scenario.

Q4: What about larger scale roadway enhancements, such as a roundabout. Could this be considered?

A4: The current streetscape scope focuses on the available public rights of way. A roundabout would require taking private property to accommodate this type of improvement. The Town is currently taking steps to look more broadly at surrounding roadways in Munster. The Teska/Sam Schwartz team has been recently retained to study the expanded network of traffic as it connects and relates to the corridor areas. By conducting studies like these, the Town is taking proactive steps to plan for and influence the characteristics and behaviors of Munster’s roadway and public rights of way.

Q5: Are there mechanisms in place to encourage NIPSCO to move / bury overhead power lines?

A5: The consulting team and staff have discussed these topics with NIPSCO as part of the current assignment. We understand the complex nature of relocating and/or burying the various types of overhead wires along the corridors. Although it is complicated, it will ultimately come at a cost to the Town. There are some ‘low hanging fruit’ utility relocations that are less complicated to address, such as relocating the telephone lines and some aerial lines along Ridge Road.



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Q6: Is there a way to incentivize the types of businesses that come to Munster?

A6: Although economic development is not the scope of this assignment, we have seen successful examples from other community streetscape projects that demonstrate how public investment tends to influence private investment and enhancement. Improving public spaces are often catalysts for business improvements.

Q7: How does the streetscape address safety at nighttime? For instance, should we consider enhanced lighting / emergency call boxes like what is seen at college campuses?

A7: The streetscape concepts prioritize open access and clear views throughout. As such landscape plantings are either less than 3' ht or above 7' ht, maintaining an open viewshed between the top of shrubs/groundcover and the base of canopy trees. Similarly, light levels need to maintain standards for lighting at public pavement areas. openness and visibility.

Q8: Is it possible that Ridge Road traffic calming would decrease traffic to the businesses?

A8: Traffic calming along Ridge Road intends to reduce traffic speed to create a multi-modal environment. More pedestrians and bicyclists will have more exposure to businesses. Also, congestion is often an indicator of a strong business district.

Q9: Will the planted medians inhibit snow plowing?

A9: The planted median design and species selections should be developed to coexist with snow plowing operations. The species selections provided in the concept plan are tolerant of deicing salts.

Q10: The concept plans address left turning movements for businesses along Calumet Avenue. What about left turning lanes (and stacking) onto the cross streets?

A10: The intent of the concept plans is to provide continued access to cross streets throughout the corridor. The concept plans identify conceptual traffic queuing currently. Final engineering will address the exact lengths of tapers / required stacking spaces.

Q11: Does the traffic modeling anticipate future commercial and residential developments in the south part of Munster?

A11: The team worked closely with NIRPC and incorporated available traffic modeling which considers known plans and developments. If the streetscape plan is adopted, then this too will be incorporated into NIRPC's modeling for future and developments.

Q12: What about artificial plant materials? Would these be appropriate for the streetscape?

A12: Artificial turf is very engineering intensive, requiring substantial drainage infrastructure and base course layers to be installed properly. It is worth noting that the expectations of the grant and the Town include a sustainable approach to streetscape and landscape design. As such, our design direction includes the specifications of native and durable plant materials to meet those environmental benefits.



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Q13: Have any Environmental Impact Statements (EIS) been conducted for this project?

Q13: The scope of the Streetscape Master Plan is a conceptual level study which is intended to provide guidance to the Town of Munster for project implementation. As such no EIS has been completed, nor is required, as part of this planning effort.

Next steps include the following:

- Final Streetscape Plan Development. Based on inputs gathered tonight and during past activities, a final streetscape plan will be documented. This plan will be presented at a public meeting, preliminarily anticipated to take place in Spring 2021.
- Community poll #2 is out and participants are encouraged to take the poll and share with their friends and neighbors.
- All meeting materials will be saved to the project website under 'documents' for review. Any further comments may continue to be submitted through the project website.

The meeting adjourned at 9:15 pm.



CALUMET AVENUE & RIDGE ROAD STREETScape

TOWN OF MUNSTER

VIRTUAL PUBLIC OPEN HOUSE | DECEMBER 10, 2020 | VIDEO-CONFERENCE



Sam
Schwartz

INTRODUCTIONS + PROJECT TEAM



Teska Associates | Community Planning + Landscape Architecture

Jodi Mariano, PLA, Principal Landscape Architect

Heather Faivre, PLA, Associate Landscape Architect

Sam
Schwartz

Sam Schwartz Consulting | Transportation + Traffic Planning

Sara Disney Haufe, PE, PTOE, Associate + Deputy Director of Traffic Engineering

PROJECT GOAL

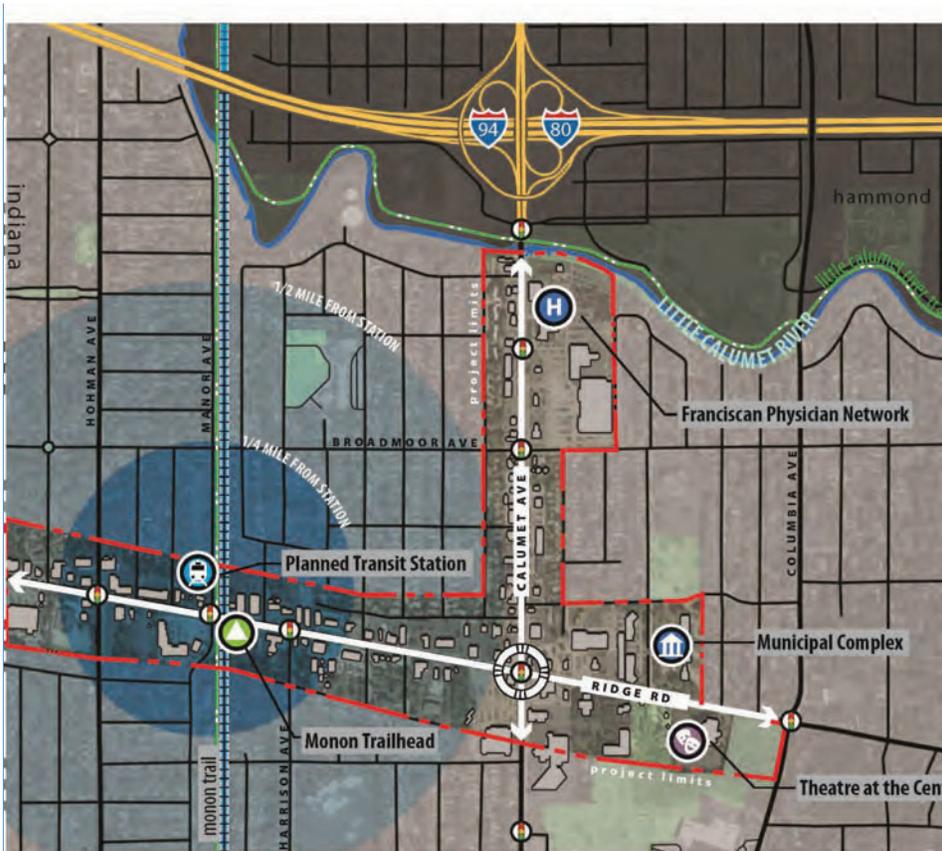
The goal of this project is to develop a **more welcoming environment for walking, biking, to reinforce a sense of place in our community, and to enhance the ability to absorb stormwater and reduce flooding.**

KEY THEMES

- A **safe and comfortable** pedestrian environment
- A functional streetscape providing **stormwater benefits**
- A consistent and **beautiful public realm**
- A **sense of arrival** and identity
- A multimodal system that balances **access and mobility**

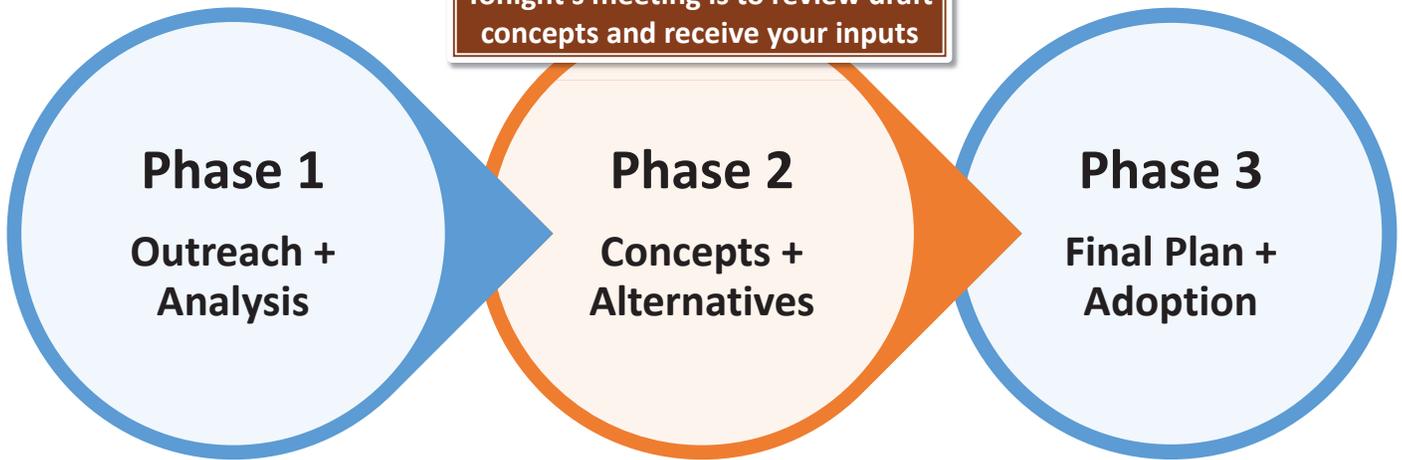
FUNDING FOR THE STREETScape PLAN

National Oceanic and Atmospheric Administration + the Indiana Department of Natural Resources Lake Michigan Coastal Program. **“The Coastal Grant”**



STUDY AREA

Tonight's meeting is to review draft concepts and receive your inputs



MAY – JULY 2020
 Analysis / project website
 Staff meeting
 Committee meeting #1
 Neighborhood poll #1
 Stakeholder interviews
 Farmers market pop up

AUG – DEC 2020
 Concept development
 Committee meeting #2
 Neighborhood poll #2
 Agency meetings
 Plan Commission mtg
 Public Open House

JAN 2020 – MARCH 2021
 Final plan + pilot project
 Committee meetings #3-4
 Public meeting
 Town Council meeting

OUTREACH | Planning Partners

FACE TO FACE MEETINGS

- Public works meeting (06/18)
- Committee meeting #1 (07/15)
- Community Market (08/04)
- Stakeholder interviews (7/27 – 9/23)
- Public works meeting (10/19)
- Agency review meetings (11/2 - 11/13)
- Committee meeting #2 (11/18)
- Plan commission meeting (12/08)
- Public open house (12/10)**

ONLINE INTERACTIONS

- Project Website (06/18 – present)
- Neighborhood Poll #1 (07/22 – 10/31)
- Neighborhood Poll #2 (12/8 – present)**



OUTREACH | Committee Members

Bill Baker	Plan Commission
Anthony Christopher	Local Business, Top Tier Nutrition
Don Erminger	Local Business, Strack + Van Til
Eman Ibrahim	NW Indiana Regional Planning Commission (NIRPC)
Hope Martin	Resident, Civil Engineer
Lee Ann Mellon	Town Council
Scott Milne	Local Business, Milne Supply
Paul Rotatori	Former President, S. Shore Trails Advocacy Group
Ken Schoon	Town Council
Dan Straka	Local Business, Sweet Tooth
Steve Tripenfeldas	School Town, Asst. Superintendent
Katie Vallis	Indiana Dept Natural Resources (IDNR), Lake Mich Coastal Program (LMCP)
Rachel Branagan	Resident, Architect

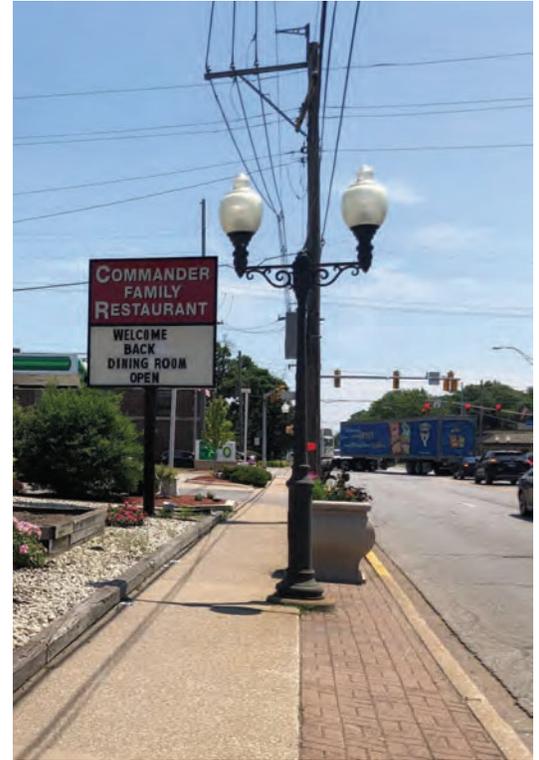
OUTREACH | Calumet Avenue key takeaways

1. Sidewalks and crossings are generally perceived as unsafe.
2. Speeding traffic should be calmed.
3. Left turning movements are perceived as challenging and unsafe.
4. Utility poles are unsightly.
5. Trees and greening are lacking.
6. The corridor needs an attractive entry to Munster.

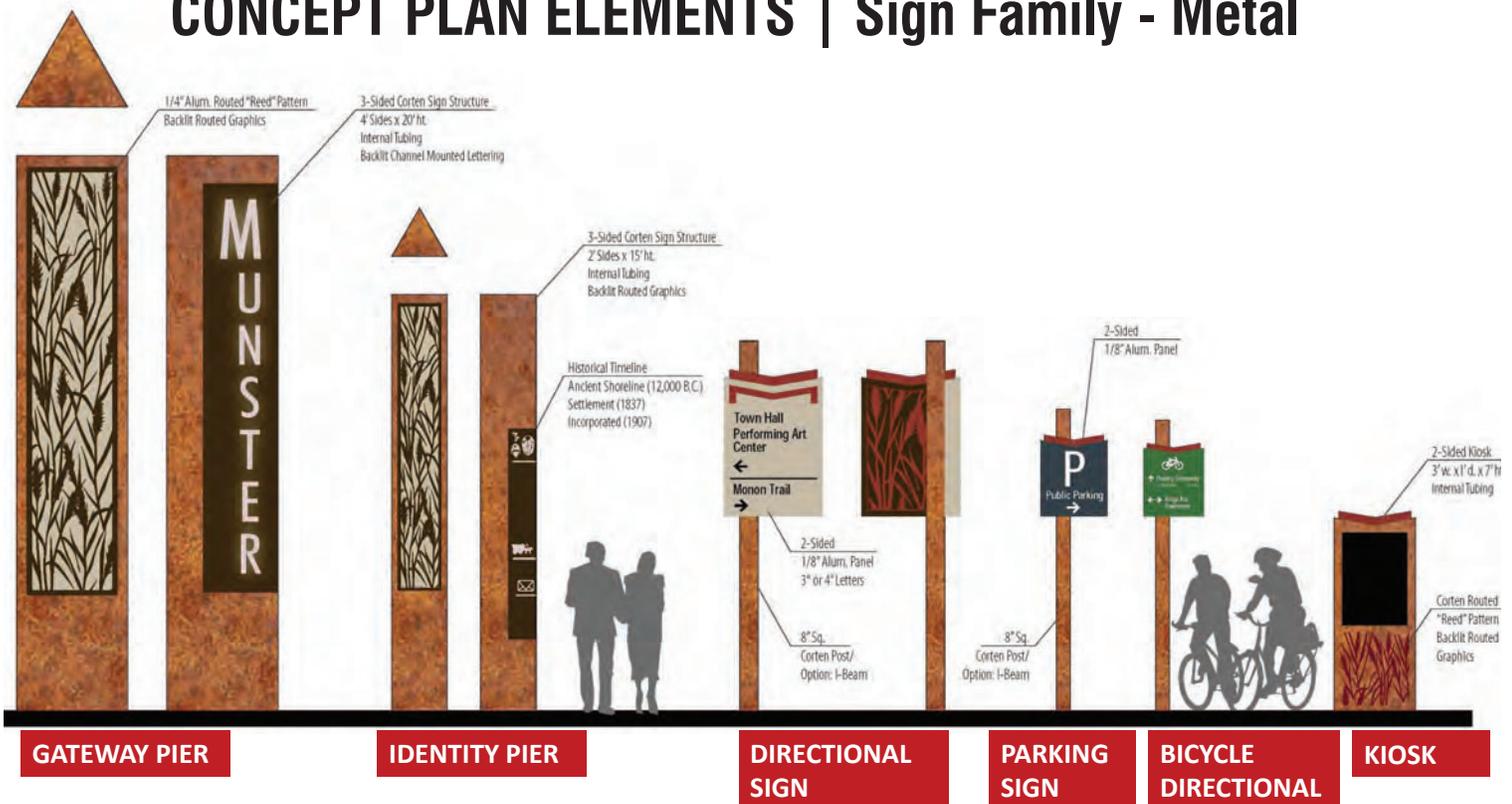


OUTREACH | Ridge Road key takeaways

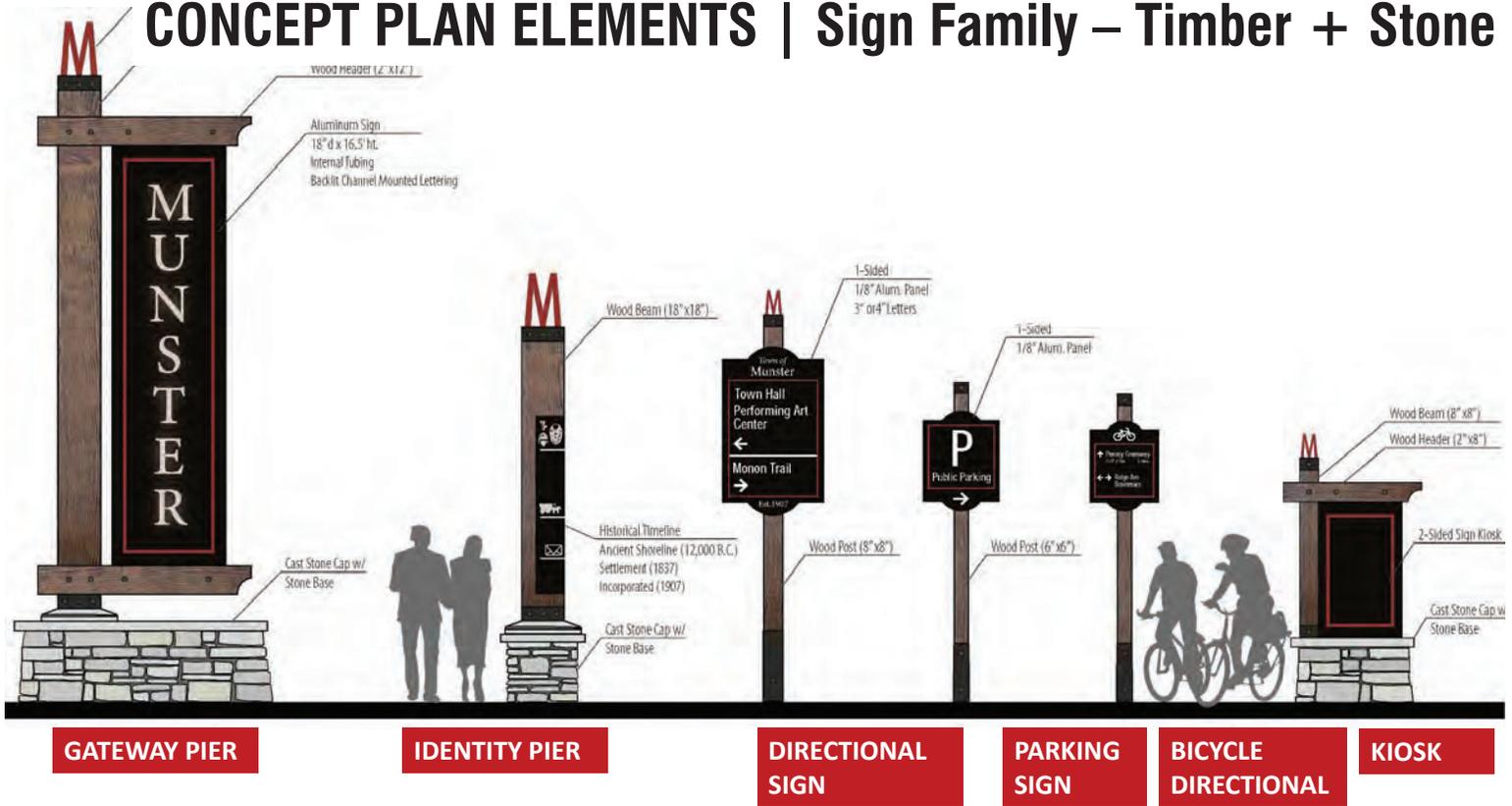
1. Sidewalks and crossings are generally perceived as unsafe.
2. Additional traffic on Ridge Road seems to coincide with I-94 backups.
3. Outdoor seating + dining are positive trends that should be supported in the public way.
4. Businesses need more parking.
5. Trees and greening are lacking.
6. The planter pots and decorative lights are mismatched and appear 'tired'.
7. The corridor has attractive features but lacks a sense of place.



CONCEPT PLAN ELEMENTS | Sign Family - Metal



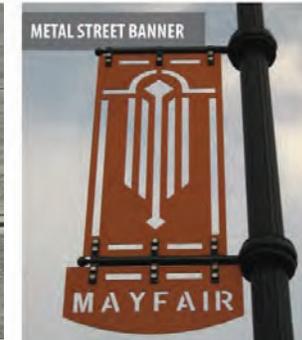
CONCEPT PLAN ELEMENTS | Sign Family – Timber + Stone



CONCEPT PLAN ELEMENTS | Furnishings - Rustic



CONCEPT PLAN ELEMENTS | Furnishings - Refined



CONCEPT PLAN ELEMENTS | Plantings



American Hornbeam
Cornus alternifolia
Mature Height: 22'
Mature Width: 33'
Pollinators: Butterflies/Birds



Ohio Buckeye
Achillea glabra
Mature Height: 33'
Mature Width: 30'
Pollinators: Bees & Hummingbirds



Black Tupelo
Nyssa sylvatica
Mature Height: 42'
Mature Width: 57'
Pollinators: Bees



Red Maple
Acer rubrum
Mature Height: 45'
Mature Width: 40'
Pollinators: Bees & Blue Monarchs



Dwarf Bush Honeysuckle
Diervilla lonicera
Mature Height: 1'-3'
Mature Width: 3'-5'
Flower Color: Red/Orange/Yellow
Pollinators: Butterflies & Hummingbirds



New Jersey Tea
Ceanothus americanus
Mature Height: 2'-3'
Mature Width: 2'-3'
Flower Color: White
Pollinators: Bees, Butterflies/Moths, & Hummingbirds



Common Hackberry
Celtis occidentalis
Mature Height: 50'
Mature Width: 50'
Pollinators: Butterflies/Birds



Swamp White Oak
Quercus bicolor
Mature Height: 50'
Mature Width: 40'
Pollinators: Butterflies



Kalm's St. John's wort
Hypericum kalmianum
Mature Height: 2'-3'
Mature Width: 3'-4'
Flower Color: Yellow
Pollinators: Bees



Kentucky Coffinweed
Oxycoccus caryocarpus
Mature Height: 50'
Mature Width: 50'
Pollinators: Butterflies/Birds



Yellowwood
Xanthoxylum
Mature Height: 40'
Mature Width: 30'
Pollinators: Butterflies/Birds



NOTE: Mature tree heights and widths are dependent on soil conditions and maintenance practices.

CONCEPT PLAN ELEMENTS | Roadway Lights, Signals + Ped Lights



45th and Calumet Ave



Shepherd's
Crook

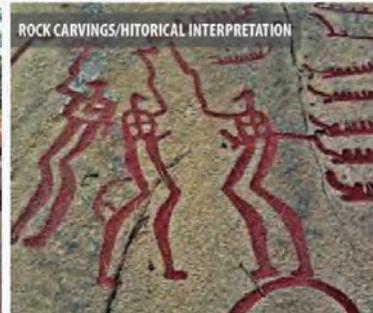
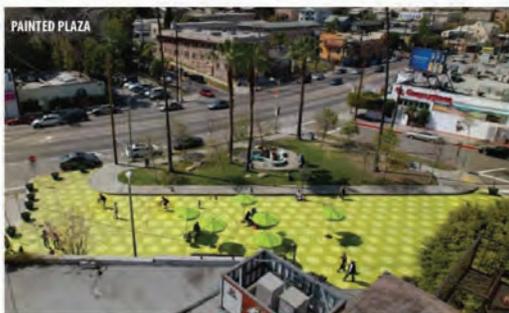


Post Top



Caged Acorn
(Hohman Ave)

CONCEPT PLAN ELEMENTS | Public Art



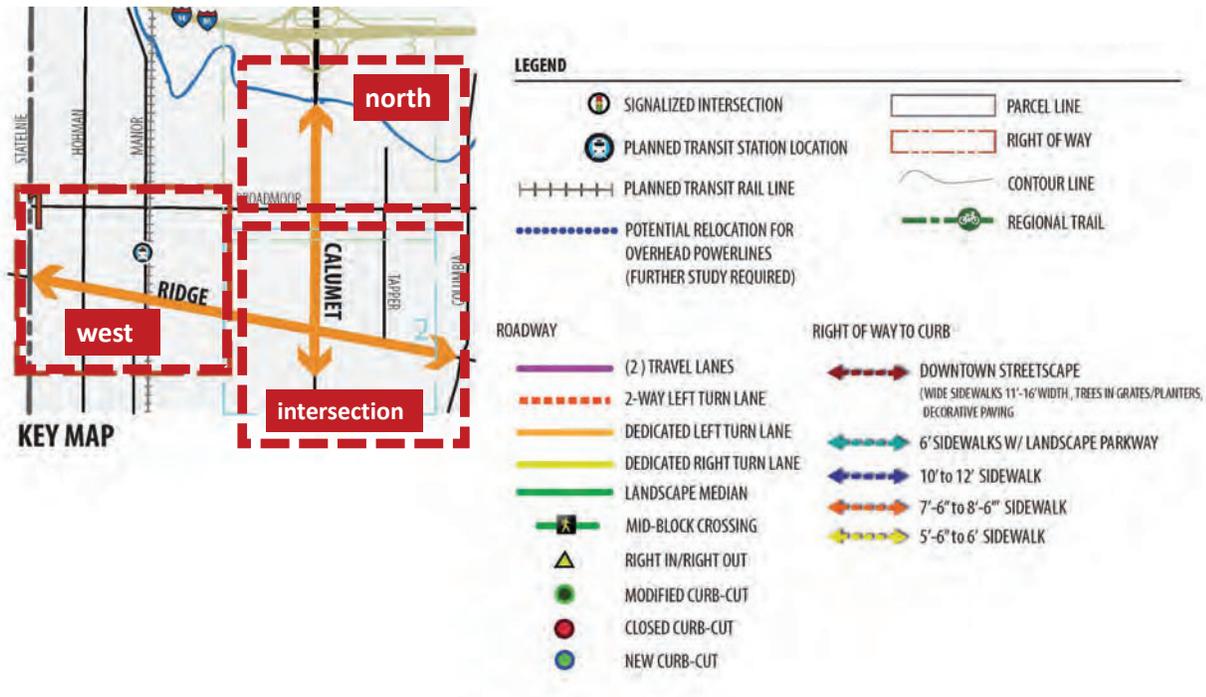
CONCEPT PLAN | Min vs Max Intro – Calumet Avenue

MAXIMUM ROADWAY CHANGE	<ul style="list-style-type: none"> Reduce frequency of left turn movements. Reallocate center turn lane for: <i>landscaped medians + traffic calming</i> 	SB lane	SB lane	center turn lane / landscaped median	NB lane	NB lane
MINIMUM ROADWAY CHANGE	<ul style="list-style-type: none"> Replace pavers + planter pots with a continuous landscaped parkway (trees + lawn) 	SB lane	SB lane	center turn lane	NB lane	NB lane

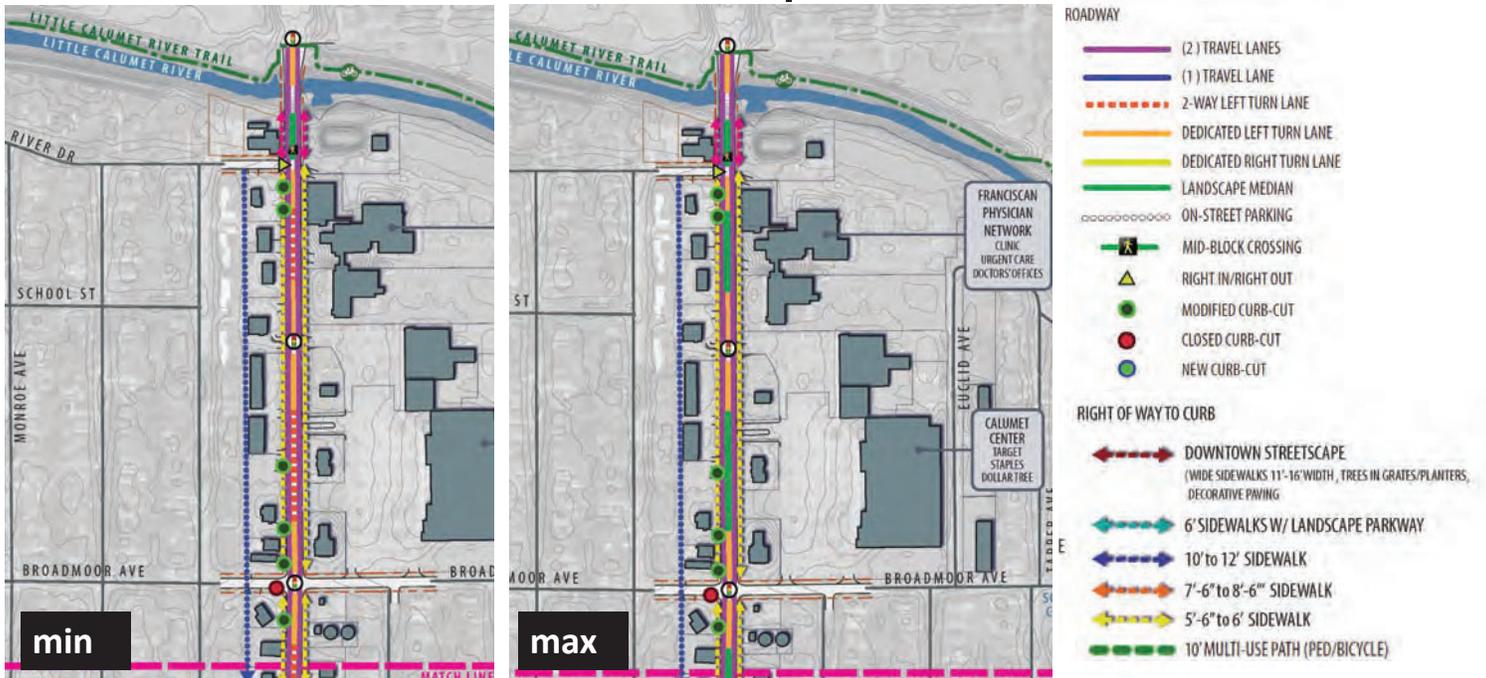
CONCEPT PLAN | Min vs Max Intro – Ridge Road

MAXIMUM ROADWAY CHANGE	<ul style="list-style-type: none"> Reduce 5 travel lanes to 3 travel lanes. Reallocate 2 travel lanes for: <i>on street parking, wider sidewalks, multi-use trail, landscaping + traffic calming</i> 	multi-use trail	EB lane	center turn lane / landscaped median	WB lane	on-street parking
MINIMUM ROADWAY CHANGE	<ul style="list-style-type: none"> Replace pavers + planter pots with continuous streetscape planting treatments Replace striped areas with landscaped medians 	EB lane	EB lane	center turn lane / landscaped median	WB lane	WB lane

CONCEPT PLAN | Min vs Max Roadway Change

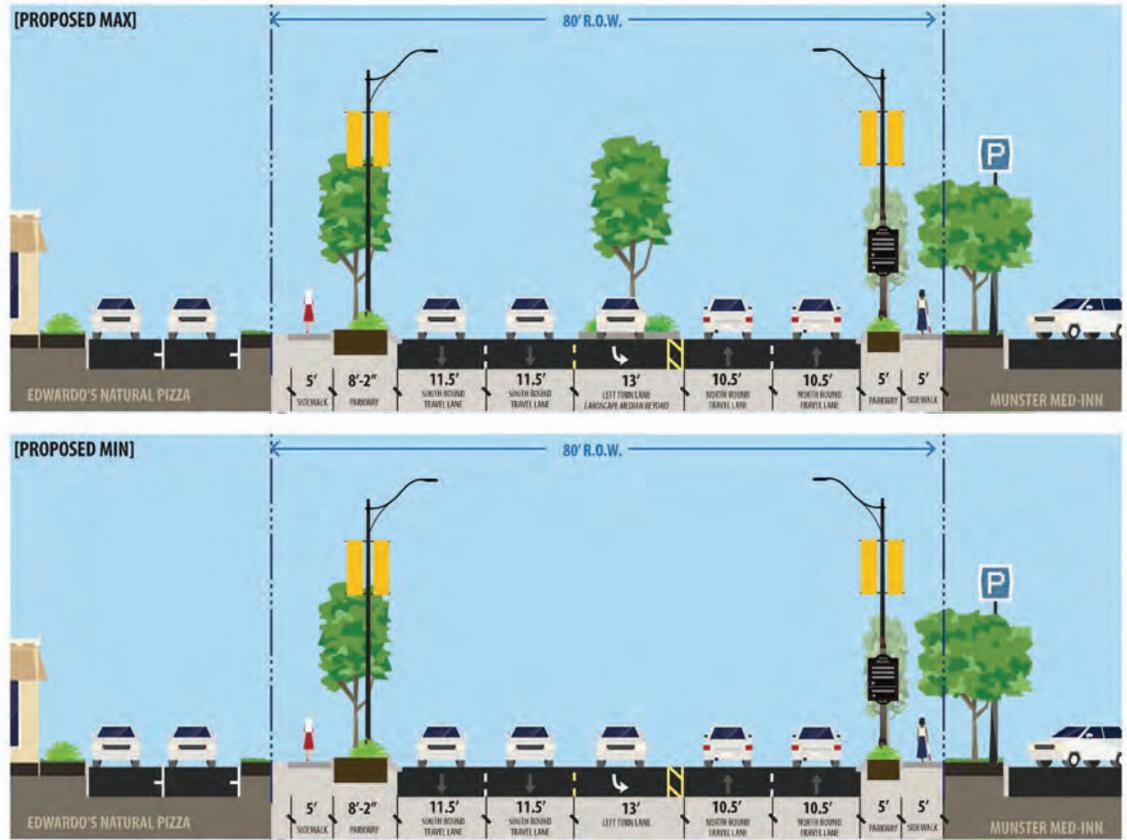


CONCEPT PLAN PRESENTATION | Min vs Max - north



Calumet Ave Sections

South of River Drive



CONCEPT PLAN PRESENTATION | Photovisualizations

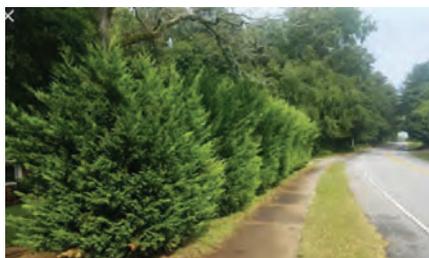
Gateway entry sign and salt tolerant trees, shrubs + grasses

Replace railing with steel-backed timber rail

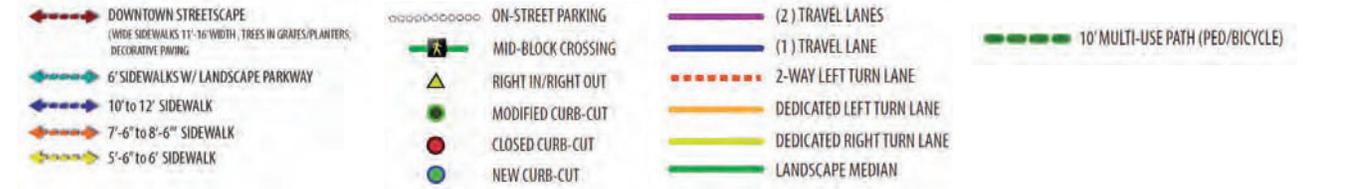
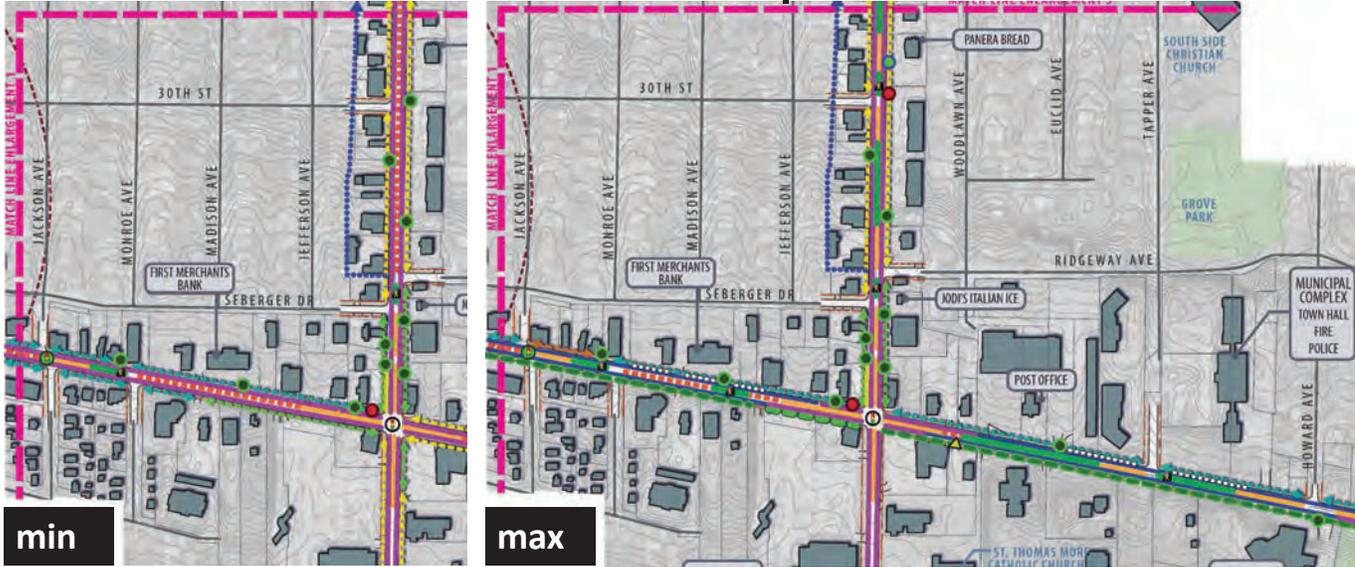
Mural (requires coordination with Hospital)

Landscaped median

Replace railing with steel-backed timber rail



CONCEPT PLAN PRESENTATION | Min vs Max - intersection



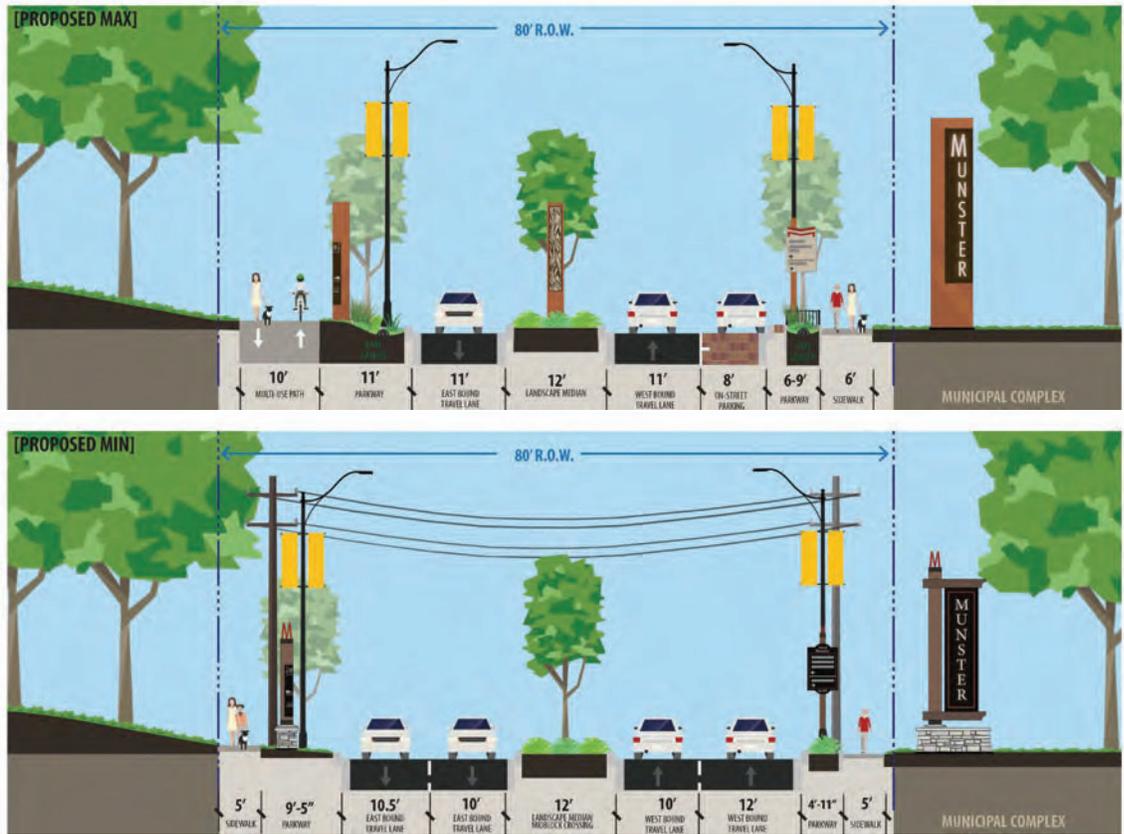
Calumet Ave Sections

South of 30th Street



Ridge Road Sections

East of Tapper Ave (Town Hall)



CONCEPT PLAN PRESENTATION | Photovisualizations

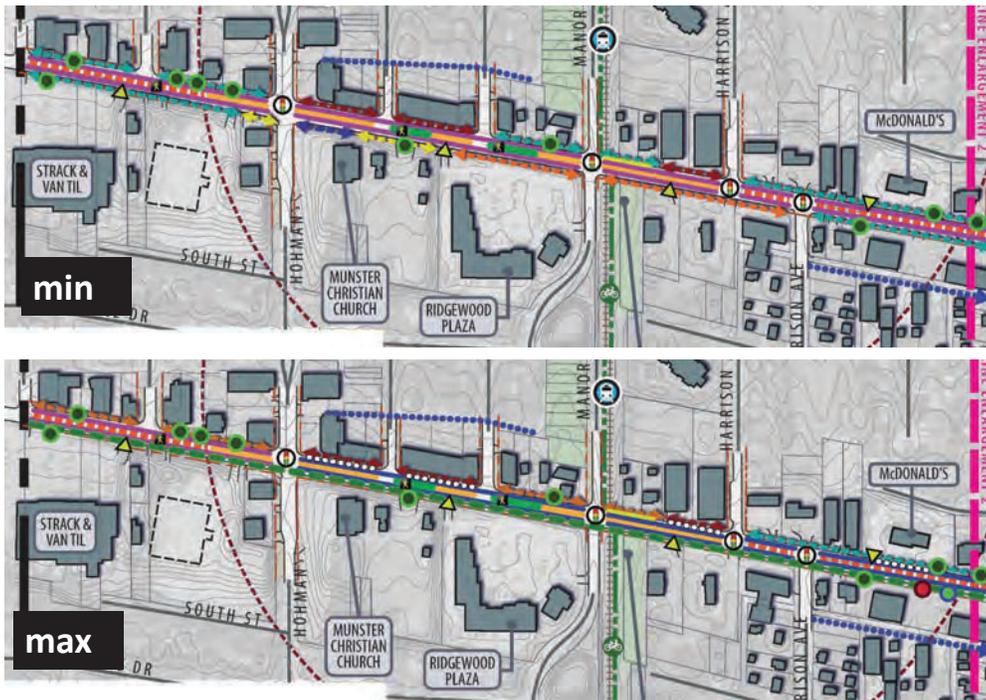
Enhanced crosswalk striping

Improved traffic signal enhancements include black poles and mast arms, enhanced pedestrian signalization and timing

Accessible curb ramps with detectable warnings



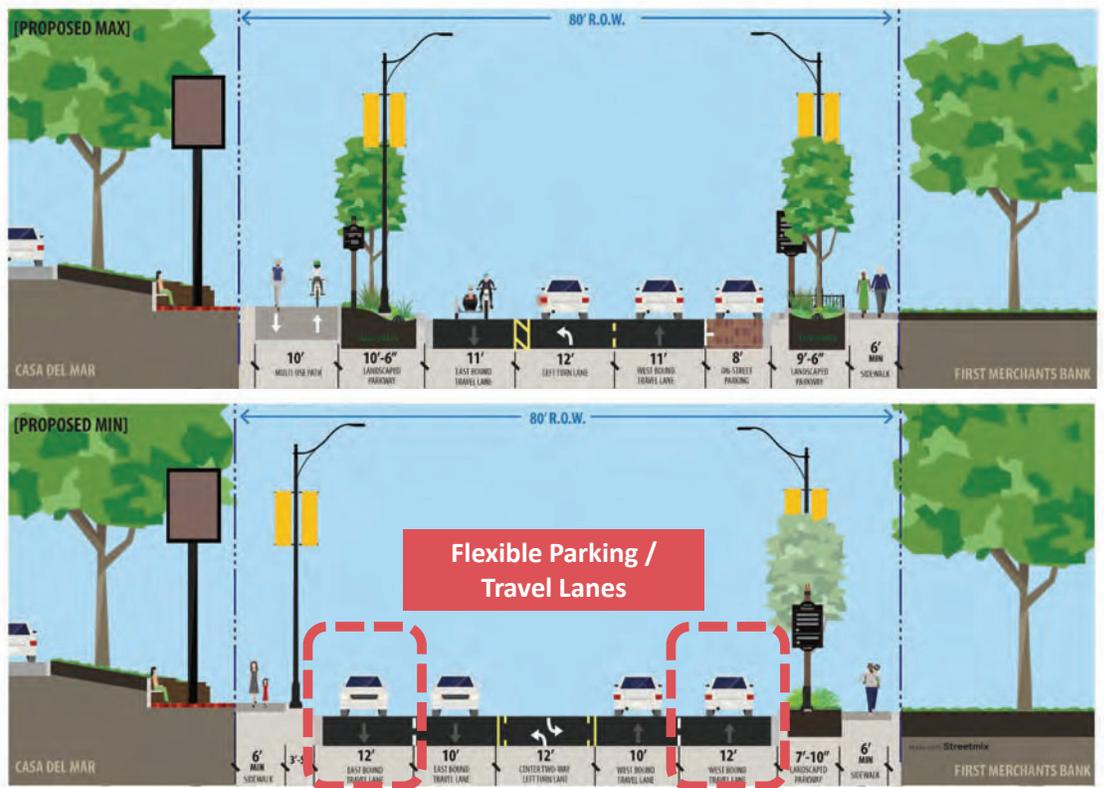
CONCEPT PLAN PRESENTATION | Min vs Max - west



- ROADWAY**
- (2) TRAVEL LANES
 - (1) TRAVEL LANE
 - 2-WAY LEFT TURN LANE
 - DEDICATED LEFT TURN LANE
 - DEDICATED RIGHT TURN LANE
 - LANDSCAPE MEDIAN
 - ON-STREET PARKING
 - MID-BLOCK CROSSING
 - ▲ RIGHT IN/RIGHT OUT
 - MODIFIED CURB-CUT
 - CLOSED CURB-CUT
 - NEW CURB-CUT
- RIGHT OF WAY TO CURB**
- DOWNTOWN STREETSCAPE (WIDE SIDEWALKS 11'-16" WIDTH, TREES IN GRATES/PLANTERS, DECORATIVE PAVING)
 - 6' SIDEWALKS W/ LANDSCAPE PARKWAY
 - 10' to 12' SIDEWALK
 - 7'-6" to 8'-6" SIDEWALK
 - 5'-6" to 6' SIDEWALK
 - 10' MULTI-USE PATH (PED/BICYCLE)

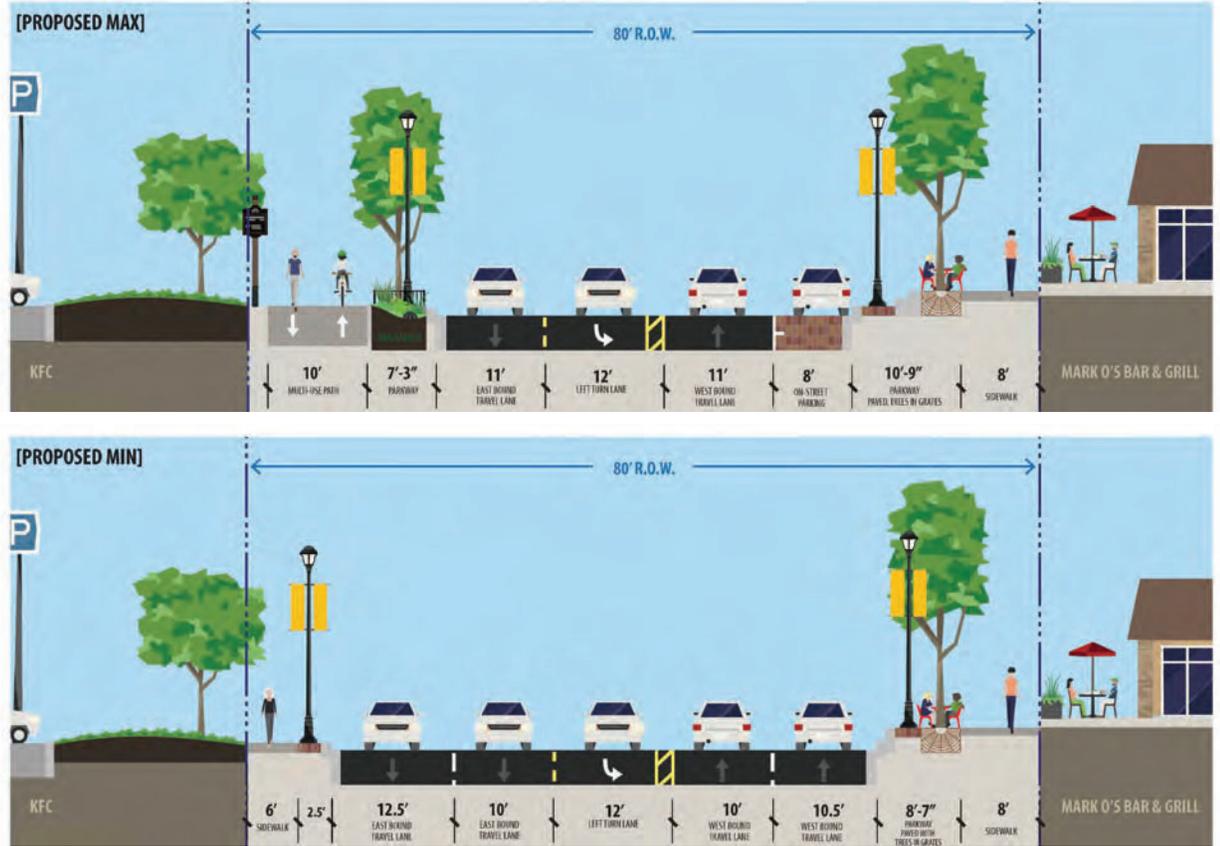
Ridge Road Sections

West of Calumet Ave



Ridge Road Sections

West of Harrison Ave (west)



CONCEPT PLAN PRESENTATION | Photovisualizations



Formalized parking with curb bump outs

Mural (requires coordination with property owner)



Streetscape enhancements

Decorative / painted pavement and access to power for fests and events



PILOT PROJECTS | Options



NORTH CALUMET AVE GATEWAY

- Timber railings
- Gateway sign
- Evergreen tree screening



MEADOW LANE PARKING PLAZA

- Pavement / building wall murals
- Events programming
- Electrical access, movable furnishings

METRICS | Pedestrian Space

PED CROSSINGS + SIDEWALK WIDTHS

RIDGE ROAD				CALUMET AVENUE		
EXISTING	MIN	MAX		EXISTING	MIN	MAX
300'-2,300'	275'-1,200'	275'-1,200'	DISTANCE BETWEEN PEDESTRIAN CROSSINGS	860'-1,820'	390'-1,340'	390'-800'
55-70'	55-70'	35-70'	PEDESTRIAN CROSSING DISTANCE	55-75'	55-75'	55-75'
4'-0"	5-6'	6-8' along north side 10' multiuse path along south side	SIDEWALK WIDTH	4'-0"	5'-0"	5'-0"

METRICS | Green Space

IMPERVIOUS VS PERVIOUS SPACE

RIDGE ROAD				CALUMET AVENUE		
EXISTING	MIN	MAX		EXISTING	MIN	MAX
100%	89%	75%	IMPERVIOUS SPACE	100%	90%	86%
0%	11%	25%	PERVIOUS SPACE	0%	10%	14%

PARKWAY WIDTH + TREES

RIDGE ROAD				CALUMET AVENUE		
EXISTING	MIN	MAX		EXISTING	MIN	MAX
4'-6" to 9'-2"	3'-0" to 9'-2"	5'-0" to 17'-0"	PARKWAY WIDTH	5'-0" to 12'-0"	3'-6" to 12'-0"	3'-6" to 12'-0"
0	123	255	TREES	8	132	132

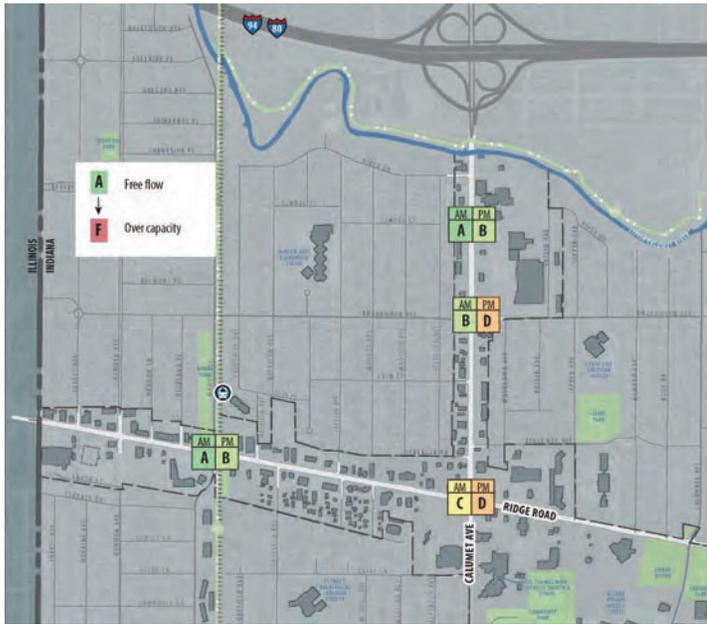
APPROACH TO FUTURE TRAFFIC ANALYSIS

- Build on 2014 conditions (Town-provided data)
- Extrapolate to 2020 based on INDOT growth trends
- Apply NIRPC projections reflecting area infrastructure improvements
- Add RDA development projections
- Further engineering study to be performed when design begins

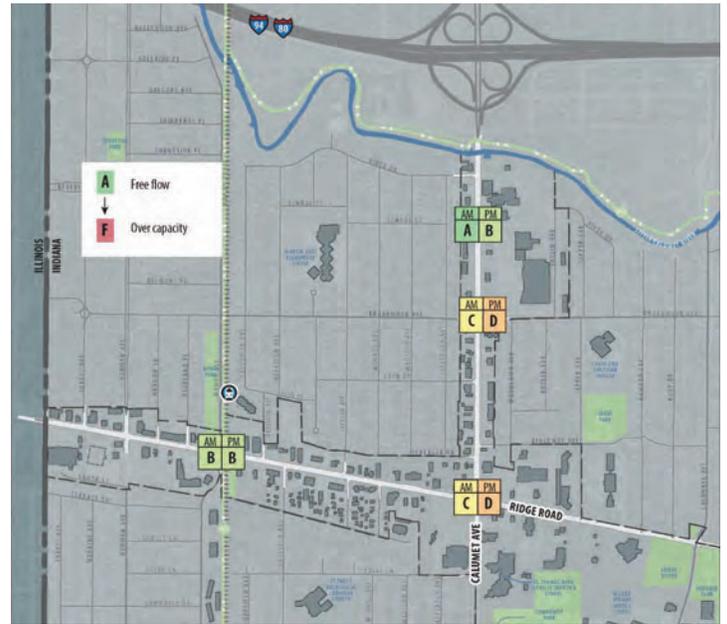


INTERSECTION LEVELS OF SERVICE

Future Min Scenario



Future Max Scenario



METRICS | TRAFFIC

VEHICLE DELAY (IN SECONDS, BY INTERSECTION)

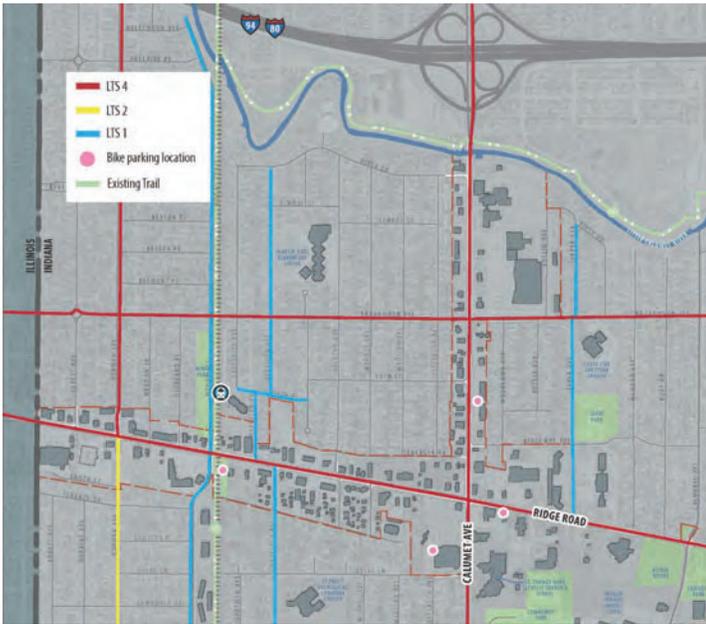
	EXISTING	MIN	MAX
Ridge/Calumet	30.9 AM	31.3 AM	32.8 AM
	41.1 PM	45.0 PM	51.6 PM
Ridge/Manor	12.8 AM	8.9 AM	11.9 AM
	18.0 PM	10.8 PM	19.9 PM
Calumet/Broadmoor	24.5 AM	16.8 AM	24.8 AM
	42.5 PM	38.8 PM	43.8 PM

VEHICLE QUEUES (IN LINEAL FEET, BY INTERSECTION)

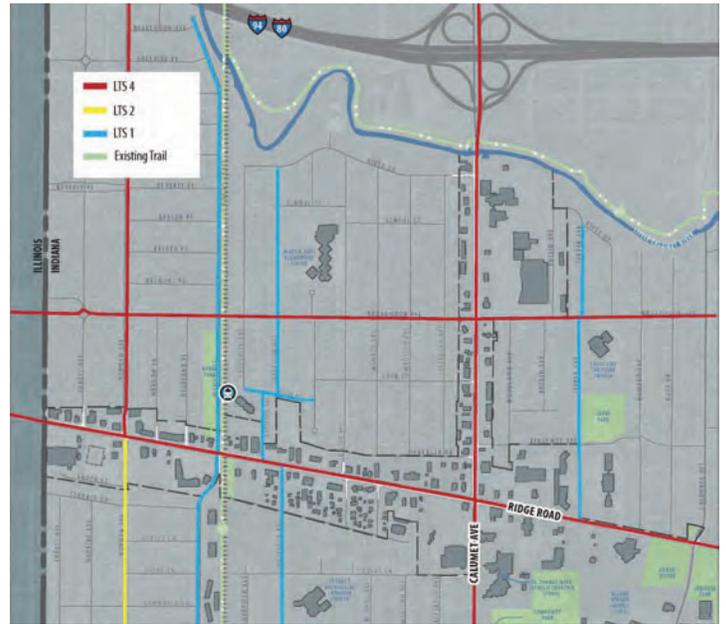
	EXISTING	MIN	MAX
Ridge Road	126-237' AM	93-229' AM	105-227' AM
	240-434' PM	83-270' PM	194-544' PM
Calumet Avenue	80-593' AM	330-706' AM	318-657' AM
	115-572' PM	453-851' PM	446-837' PM

BICYCLIST LEVEL OF TRAFFIC STRESS (LTS)

Existing

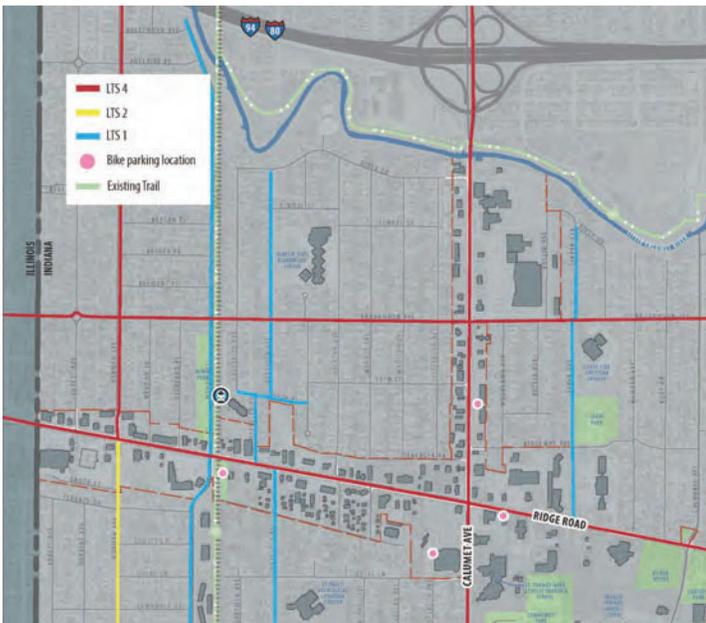


Future Min Scenario

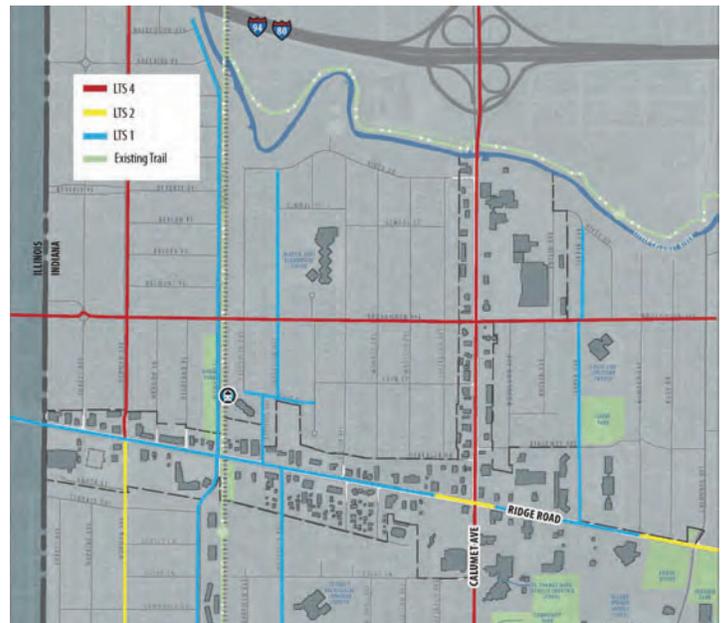


BICYCLIST LEVEL OF TRAFFIC STRESS (LTS)

Existing



Future Max Scenario



METRICS | traffic control + parking

CURB CUTS + ON STREET PARKING

RIDGE ROAD				CALUMET AVENUE		
EXISTING	MIN	MAX		EXISTING	MIN	MAX
59 total (58 full access, 1 ltd access)	56 total (50 full access, 6 ltd access)	56 total (44 full access, 12 ltd access)	NUMBER OF CURB CUTS	56 total (56 full access, 0 ltd access)	54 total (54 full access, 0 ltd access)	55 total (36 full access, 19 ltd access)
0	0 (peak hours), 58 (off-peak hrs)	58	NUMBER OF PARKING SPACES	0	0	0
* Additional on-street parking at Highland Pl, Meadow Ln and Forest Ave. Approx 10 spaces per street = 30 spaces				* Additional on-street parking at Seberger Dr (2) 30 th St (4) = 6 spaces		



OUTREACH | Stakeholder interviews

July 2020	August 2020	September 2020
Lee Ann Mellon, Committee; Town President	Dan Straka, Committee; Sweet Tooth	Steve Tripinfeldas, Asst Superintendent, School Town of Munster
Dan Buksa, Board of Zoning Appeals	Bill Baker, Chair Plan Commission; Little Cal River Basin Development	Steve Tulowitski, Council Member
Brian Specht, Plan Commission	Bruce Boyer, Local developer (Munster Shops)	
Ken Schoon, Committee; Town Council	Patrick Owens, Resident	
Don Erminger, Strack and Van Til	Ginny Dickman-Lopez, Resident, MOMs club president in Munster	
Rachel Branagan, Committee; Architect,	Joe Austin, Resident, Researcher at U of C	
Hope Martin, Committee, HWC Engineering	Joe Sinclair, Resident, Scout leader	
Chuck Gardiner, Former Parks Director; Council member and Plan Commission	Paul Nelson, Resident, What's Up Munster FB	
Eman Ibrahim, Planner, NIRPC	Paul Rotatori, Committee; South shore trails advocacy group	
Scott Milne, Milne Plumbing, property owner		
Anthony Christopher, Committee, Top Tier Nutrition		

AGENCY OUTREACH + CONSIDERATIONS

N Indiana Commuter Transportation Dist (NICTD)	<ul style="list-style-type: none"> • Station area plans at 30% • Anticipated construction completion by 2025
NW Indiana Regional Planning Commission (NIRPC)	<ul style="list-style-type: none"> • Support complete streets approach • Funding opportunities for streetscape: <i>Next Level Trails; Transportation Enhancement Funds (INDOT); Green Streets Funds</i> • NIRPC could fund a Transportation Master Plan
Little Calumet River Basin Development	<ul style="list-style-type: none"> • Funding opportunities for streetscape: <i>The Tree Grant; Plantings associated with north Calumet gateway.</i>
Indiana Dept of Natural Resources (DNR)	<ul style="list-style-type: none"> • Potential funding programs: <i>FEMA BRIC (Building Resilient Infrastructure and Communities); GLRI (Great Lakes Restoration Initiative); DNR Small Grants (wayfinding, green infrastructure)</i>
N Indiana Public Service Company (NIPSCO)	<ul style="list-style-type: none"> • Calumet Ave is a transmission corridor • Ridge Rd is mostly distribution • Opportunities to consolidate aerial crossings at Ridge Rd and to consolidate utilities as part of the station development.

CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Enlargements



CONCEPT PLAN PRESENTATION | Enlargements





munster-streetscape.org

CALUMET-RIDGE STREETScape PLAN

COMMITTEE MEETING #2 SUMMARY

February 18, 2021 | videoconference | 4:00 pm

The purpose of Committee Meeting #3 was to review the draft final streetscape plan in preparation for the public meeting (anticipated to occur Mid-March). Due to the current health crisis, the meeting was conducted via Zoom videoconference. A packet containing the draft final concept materials was emailed to the committee in advance of the meeting.

The following participants attended this meeting.

COMMITTEE MEMBERS	CONSULTANT TEAM
<ul style="list-style-type: none"> • Tom Vander Woude, Community Development, Town of Munster • Bill Baker, Plan Commission Chair • Paul Rotatori, Resident, South Shore Trails Member • Ken Schoon, Town Council • Anthony Christopher, Business Owner, Top Tier Nutrition • Steve Tripenfeldas, Assistant Superintendent • Scott Milne, Business Owner • Don Erminger, Local Business, Strack & Van Til • Dan Straka, Sweet Tooth • Leann Mellon, Town President • Eman Ibrahim, NIRPC • Rachel Branagan, local architect 	<ul style="list-style-type: none"> • Jodi Mariano, Teska Associates • Heather Faivre, Teska Associates • Stacey Meekins, Sam Schwartz Consulting



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The meeting agenda and presentation topics follow below:

- 1. Introductions, Project Goals + Scope Review**
- 2. Community Outreach:** *Public meeting recap*
- 3. Final Streetscape Plan Draft:** *Presentation*
- 4. Implementation Costs + Strategies for Development**
- 5. Next Steps: Public Meeting #2**

Following the presentation, the Committee participated in a guided discussion focused on details of the streetscape plan and implementation.

CALUMET AVENUE

The group discussed details of the streetscape and the proposed traffic modifications.

1. North of Broadmoor Ave – review median lengths and parking lot circulation for access at Clock Tower Plaza and Boston Market.
2. Review U-Turn movements and potential changes to Town policies.
3. The committee recognizes that due to some existing legal non-conforming uses (such as Johnny’s Tap), some corridor properties require curb cuts that may be considered sub-optimal.

RIDGE ROAD

1. Review emergency vehicle access with Munster Police and Fire.
2. Review maintenance requirements with Public Works.
3. Review access at Jewel / Bank west of Calumet and south of Ridge. Participants commented that turning movements associated with the Ridge / Calumet intersection causes conflicts with these curb cuts.
4. Review proposed roadway taper and access to Commander Restaurant. Consider adding a turn lane.
5. Review proposed roadway taper and access to Dairy Queen. Consider relocating the taper towards the east to maintain access for Dairy Queen.
6. Multi use trail interface with potential new developments along the south side of Ridge Road. Many participants preferred the concept that requires future developments to set buildings back 5’ from the edge of bike trail and to provide additional sidewalk adjacent to the trail. The sidewalk would provide separate walking space and a transition area between multi-use trail and business.



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IMPLEMENTATION

1. Participants reviewed the overall cost estimate and draft implementation priorities tables. Additional comments include:
 - a. Continue to work with the Lake Michigan Coastal Program towards obtaining grants for implementation. It was noted that the Coastal Program offers some construction related grants.
 - b. Consider prioritizing Ridge Road improvements in tandem with the station area development.

Next steps include the following:

- Public meeting. Present the draft final streetscape plan at a public meeting in March, date TBD.
- Prepare draft report for committee and Town Council review

The meeting adjourned at 5:30 pm.



CALUMET AVENUE & RIDGE ROAD STREETScape

TOWN OF MUNSTER

COMMITTEE MEETING #3 | FEBRUARY 18, 2021 | VIDEO-CONFERENCE



Sam
Schwartz

INTRODUCTIONS + PROJECT TEAM



Teska Associates | Community Planning + Landscape Architecture

Jodi Mariano, PLA, Principal Landscape Architect

Heather Faivre, PLA, Associate Landscape Architect

Sam
Schwartz

Sam Schwartz Consulting | Transportation + Traffic Planning

Stacey Meekins, AICP, Principal + Director of Transportation

PROJECT GOAL

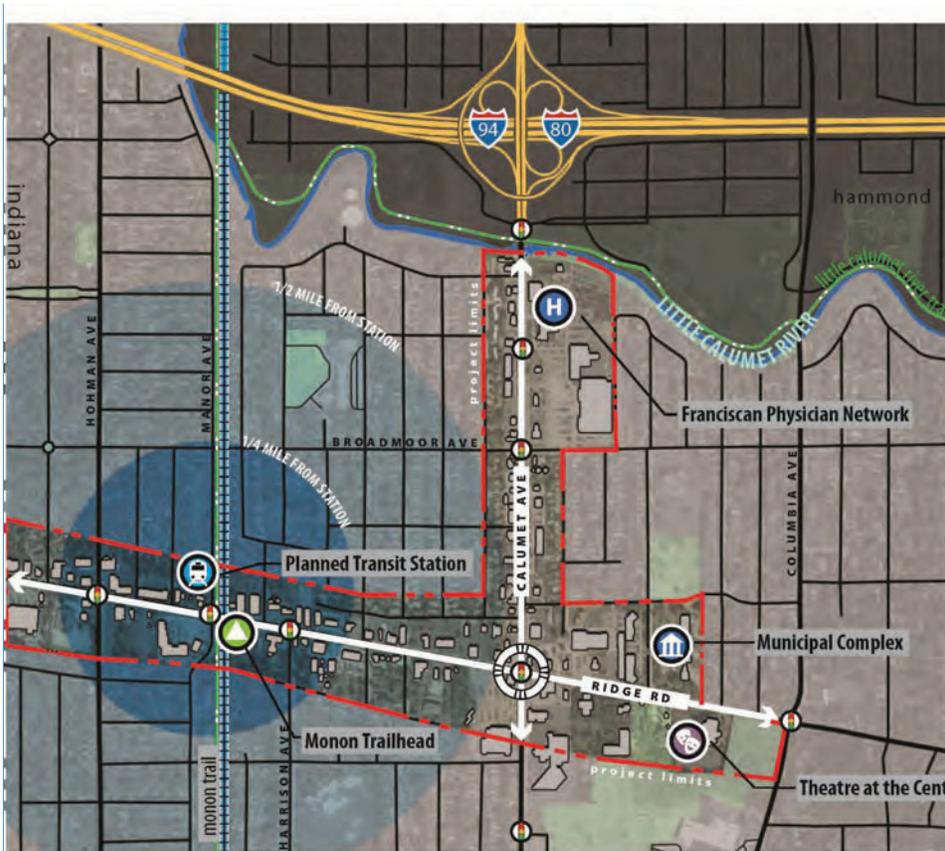
The goal of this project is to develop a **more welcoming environment for walking, biking, to reinforce a sense of place in our community, and to enhance the ability to absorb stormwater and reduce flooding.**

KEY THEMES

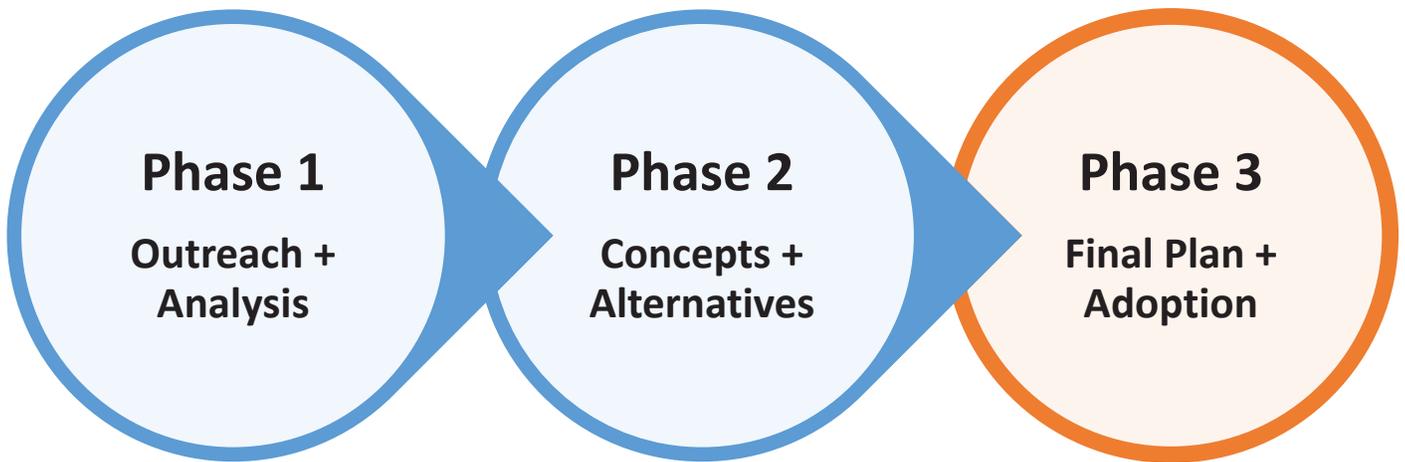
- A **safe and comfortable** pedestrian environment
- A functional streetscape providing **stormwater benefits**
- A consistent and **beautiful public realm**
- A **sense of arrival** and identity
- A multimodal system that balances **access and mobility**

FUNDING FOR THE STREETScape PLAN

National Oceanic and Atmospheric Administration + the Indiana Department of Natural Resources Lake Michigan Coastal Program. **“The Coastal Grant”**



STUDY AREA



MAY – JULY 2020
 Analysis / project website
 Staff meeting
 Committee meeting #1
 Neighborhood poll #1
 Stakeholder interviews
 Farmers market pop up

AUG – DEC 2020
 Concept development
 Committee meeting #2
 Neighborhood poll #2
 Agency meetings
 Public open house

JAN 2020 – APRIL 2021
 Final plan + pilot project
 Committee meetings #3-4
 Public meeting
 Town Council meeting

AGENDA

1. Introductions, project goals + scope review
2. Community outreach: public meeting recap
3. Draft Plan presentation
4. Implementation costs + strategies for development
5. Next Steps: public meeting



OUTREACH | recap

Steering Committee Mtg #2 (11/18/20):

- Min vs. Max Concepts + Metrics
- Guidance to proceed with the Max Concept

Public Open House Webinar (12/20/2020):

- Approx 30 attendees
- Invites: project + Town websites, Facebook, email lists
- Meeting summary + presentation posted to project website
- Guidance to proceed with the Max Concept

Open House Recap

Thank you to all who joined for our first virtual open house on December 10th! If you missed it, head to the Documents page to view meeting materials, the Zoom recording, and a summary. And scroll down for a preview of some of the concept plan imagery that was featured.

Concept Plan Imagery Presented at 12/10 Virtual Open House

CONCEPT PLAN PRESENTATION | Min vs Max - intersection



Meadow Lane Parking and Temporary Events Plaza

The Meadow Lane concept supports existing on-street parking and access between Ridge Road businesses and neighborhoods. Enhancements such as roadway and building murals, overhead string lighting, freestanding planter pots and furnishings allow the space to be temporarily used as "people-only place," supporting local events in coordination with businesses.



DRAFT PLAN PRESENTATION | CALUMET AVENUE



CONCEPT PLAN | Min vs Max Concepts – Calumet Avenue



OUTREACH | Calumet Avenue key concerns + concepts

KEY CONCERNS

- Speeding, congestion, stop + go movements
- Inhospitable pedestrian environment
- Needs a welcoming entry
- Lacks greening and pervious space

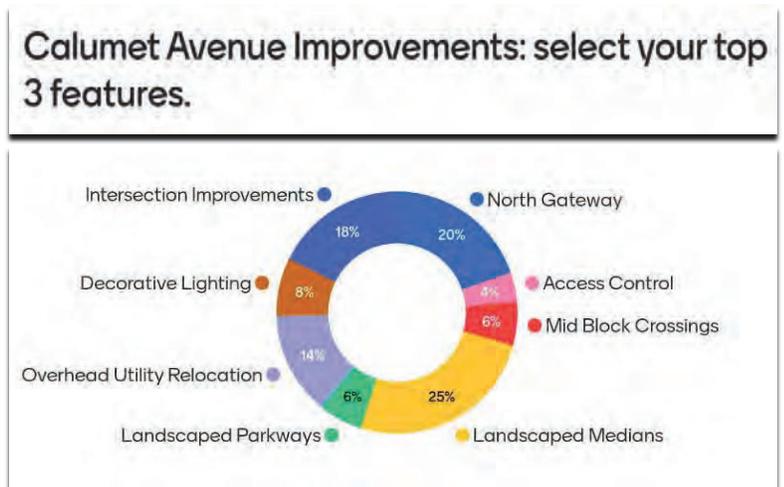
KEY OPPORTUNITIES

Access control (left turn restrictions)

- When asked whether participants were concerned about limited left turn access concepts, most responded that they were ***not*** concerned.

Top improvement preferences:

- 25% landscaped medians
- 20% north gateway
- 18% intersection improvements
- 14% overhead utility relocation



OUTREACH | "Paint us a picture along Calumet Avenue" key quotes:

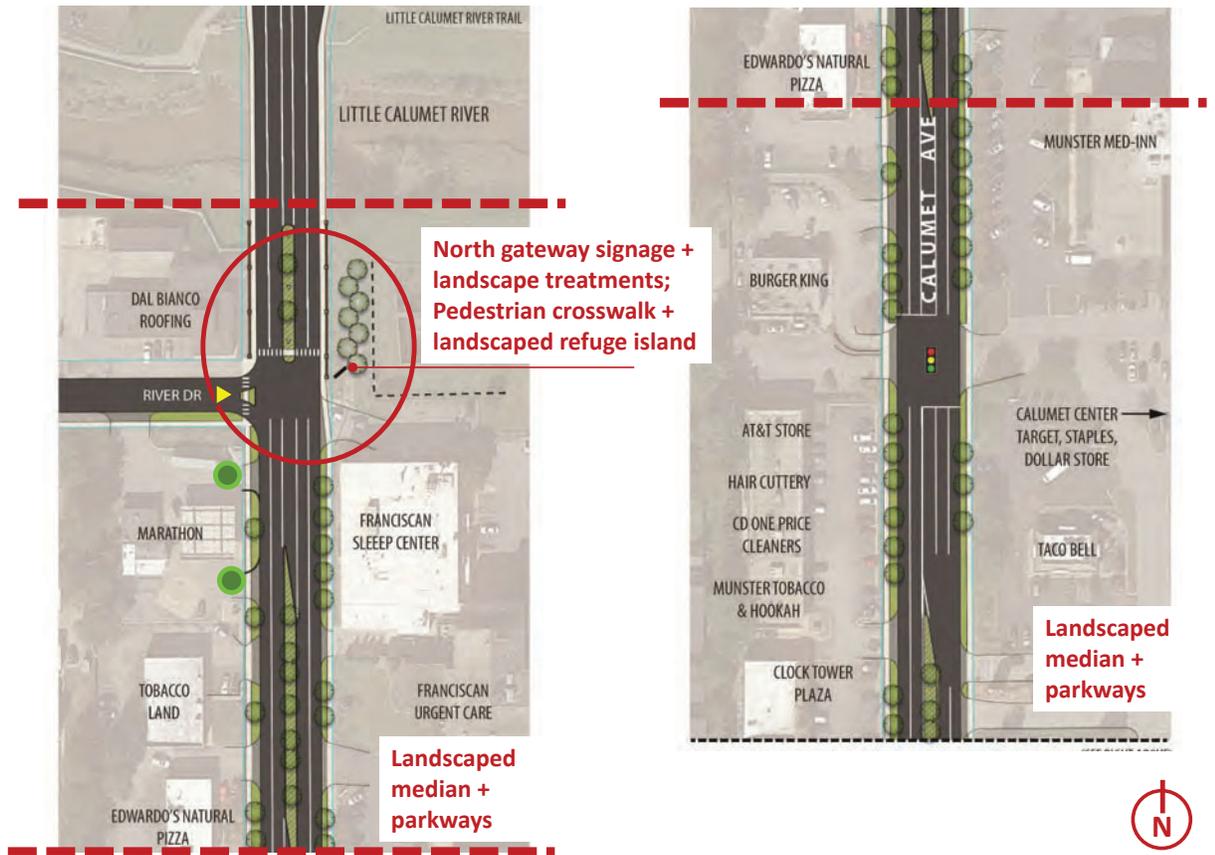
- **"Much better welcoming look to the town of Munster."**
- "Green space, gateway, sense of 'Munster'"
- **"Ability to connect with ease to trails, businesses, art center, Town Hall by walking or bike."**
- "Two couples go to dinner at different restaurants and take the long walk back to the car down the public and well-lit greenways. They bump into neighbors they haven't seen in a while and stop to catch up deciding to walk to a nearby bench to catch up."



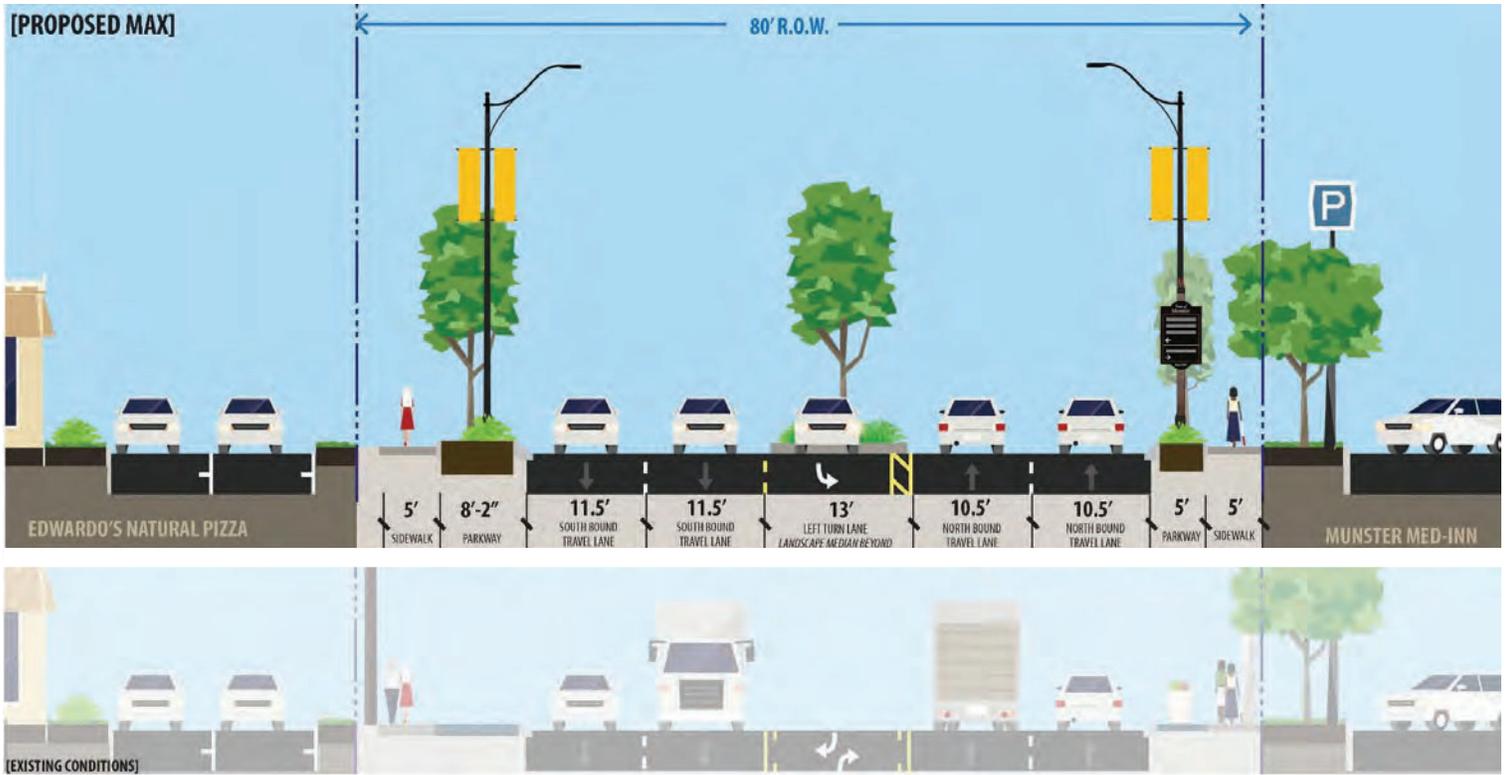


Calumet Avenue | North boundary to Calumet Center (Target)

-  RIGHT IN/RIGHT OUT
-  MODIFIED CURB-CUT
-  CLOSED CURB-CUT
-  NEW CURB CUT

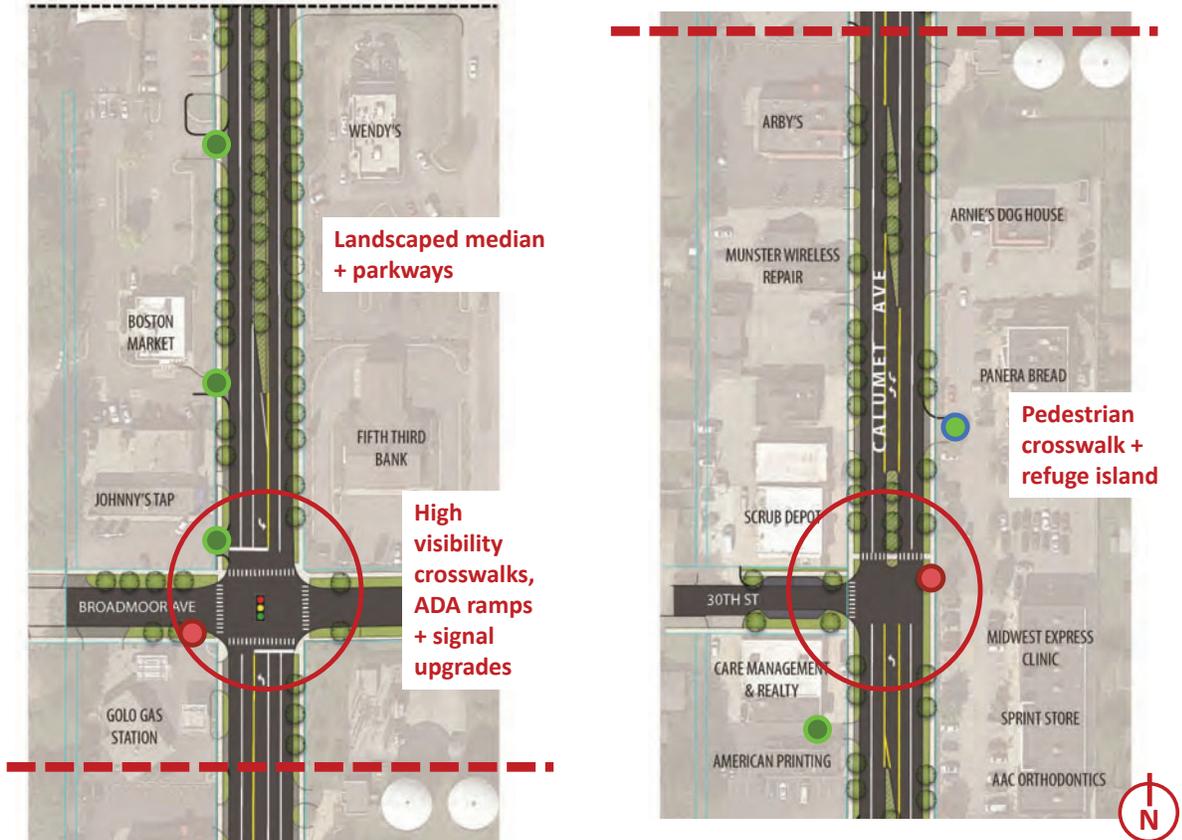


Calumet Ave Section | South of River Drive

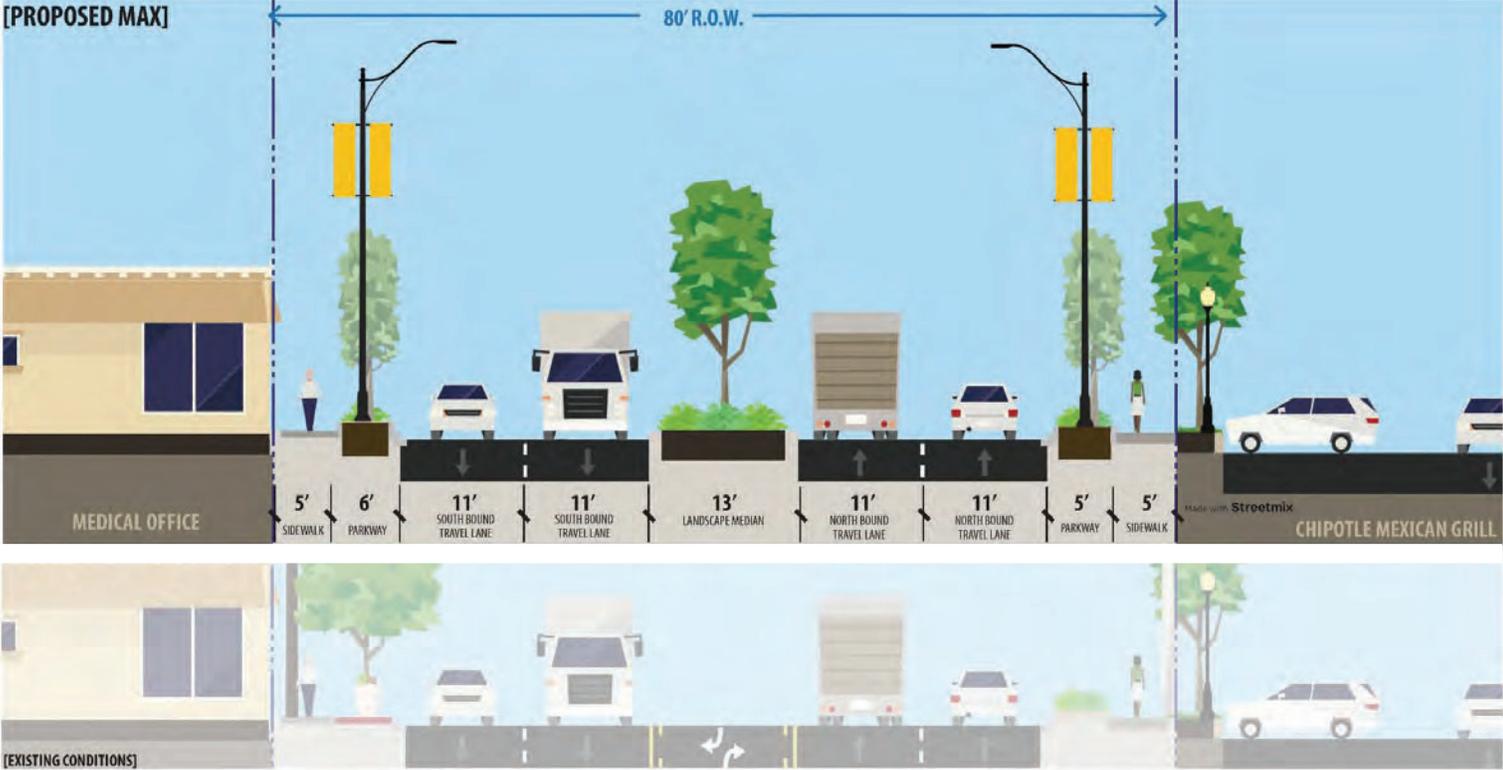


Calumet Avenue | Calumet Center (Target) to 30th Street

- ▲ RIGHT IN/RIGHT OUT
- MODIFIED CURB-CUT
- CLOSED CURB-CUT
- NEW CURB CUT



Calumet Ave Section | South of 30th Street





DRAFT PLAN PRESENTATION | RIDGE ROAD



CONCEPT PLAN | Min vs Max Concepts – Ridge Road

MAXIMUM ROADWAY CHANGE	<ul style="list-style-type: none"> Reduce 5 travel lanes to 3 travel lanes. Reallocate 2 travel lanes for: <i>on street parking, wider sidewalks, multi-use trail, landscaping + traffic calming</i> 	<div style="border: 2px solid white; padding: 5px; background-color: #4F81BD; color: white; width: fit-content; margin: 0 auto;"> MAX CONCEPT SELECTED </div> 
MINIMUM ROADWAY CHANGE	<ul style="list-style-type: none"> Replace pavers + planter pots with continuous streetscape planting treatments Replace striped areas with landscaped medians 	



OUTREACH | Ridge Road key concerns + concepts

KEY CONCERNS

- Businesses are not supported by the environment
- Does not invite people to walk here
- Lacks a sense of place
- Needs greening and landscaping

KEY OPPORTUNITIES

Road diet amenities

When asked whether participants were concerned that the road diet would cause approx. 1-3 minutes travel delay between Hohman and Calumet, most participants responded they were not concerned.

Top improvement preferences:

- 20% flexible plaza space
- 18% landscaped medians
- 13% multi-use trail
- 13% landscaped parkways

Ridge Road Improvements: select your top 3 features.



OUTREACH | “Paint us a picture along Ridge Road” key quotes:

- **“Vibrant and verdant active corridor.”**
- **“Evening out, have dinner, walk to a few shops.”**
- **“A lot of walking and biking activity on trail, festivals, access control, landscaping improvements.”**
- **“More outdoor dining areas, larger area around the fountain, plaza for art shows or live music, more lighting for walks, train station that fits the neighborhood.”**

Ridge Road | State Line Rd to east of Hohman Ave

Provide a left-turn lane into Strack + Van Til instead of two EB through lanes.

Recommend coordination with Lansing to reduce number of EB through lanes to 1 lane on the Illinois side for a smoother transition to Munster



	RIGHT IN/RIGHT OUT
	MODIFIED CURB-CUT
	CLOSED CURB-CUT
	NEW CURB CUT

West gateway sign and plantings – to be coordinated with property owner.

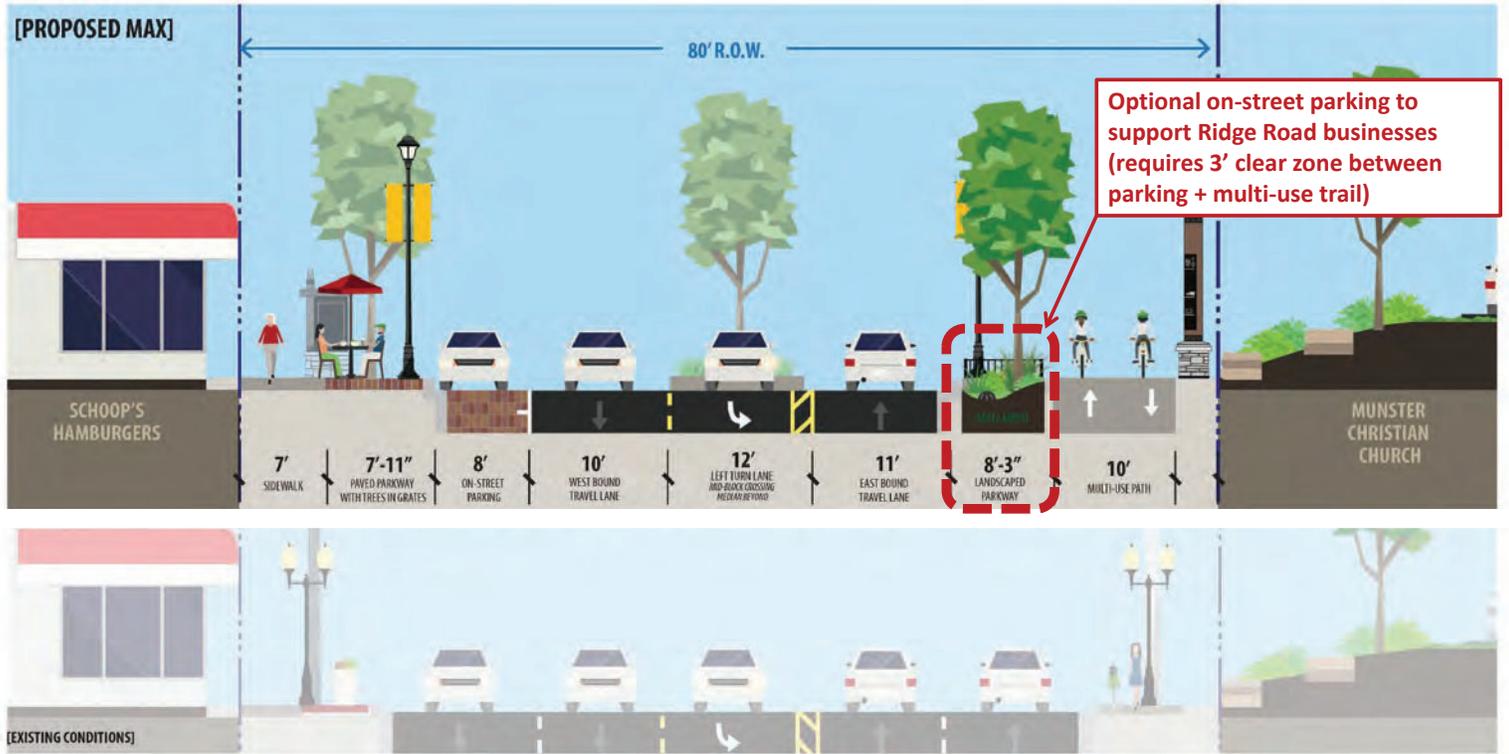
WEST GATEWAY ENTRY

WALKABLE
DOWNTOWN
CORE





Ridge Road Section | East Hohman Ave (west of Meadow Lane)



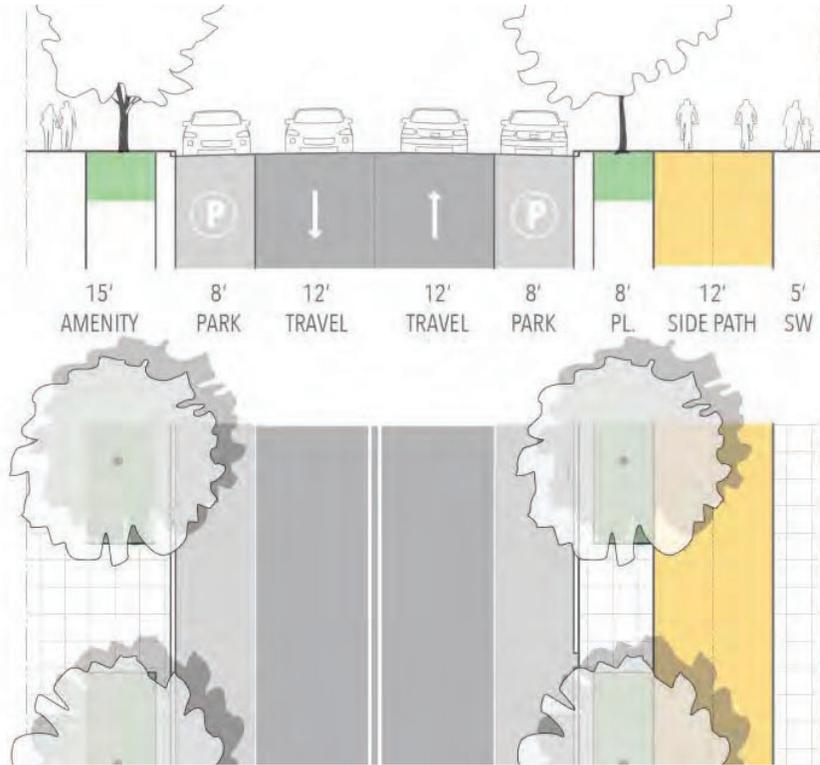
Ridge Road | west of Meadow Lane to Harrison Ave (west)



- RIGHT IN/RIGHT OUT
- MODIFIED CURB-CUT
- CLOSED CURB-CUT
- NEW CURB CUT

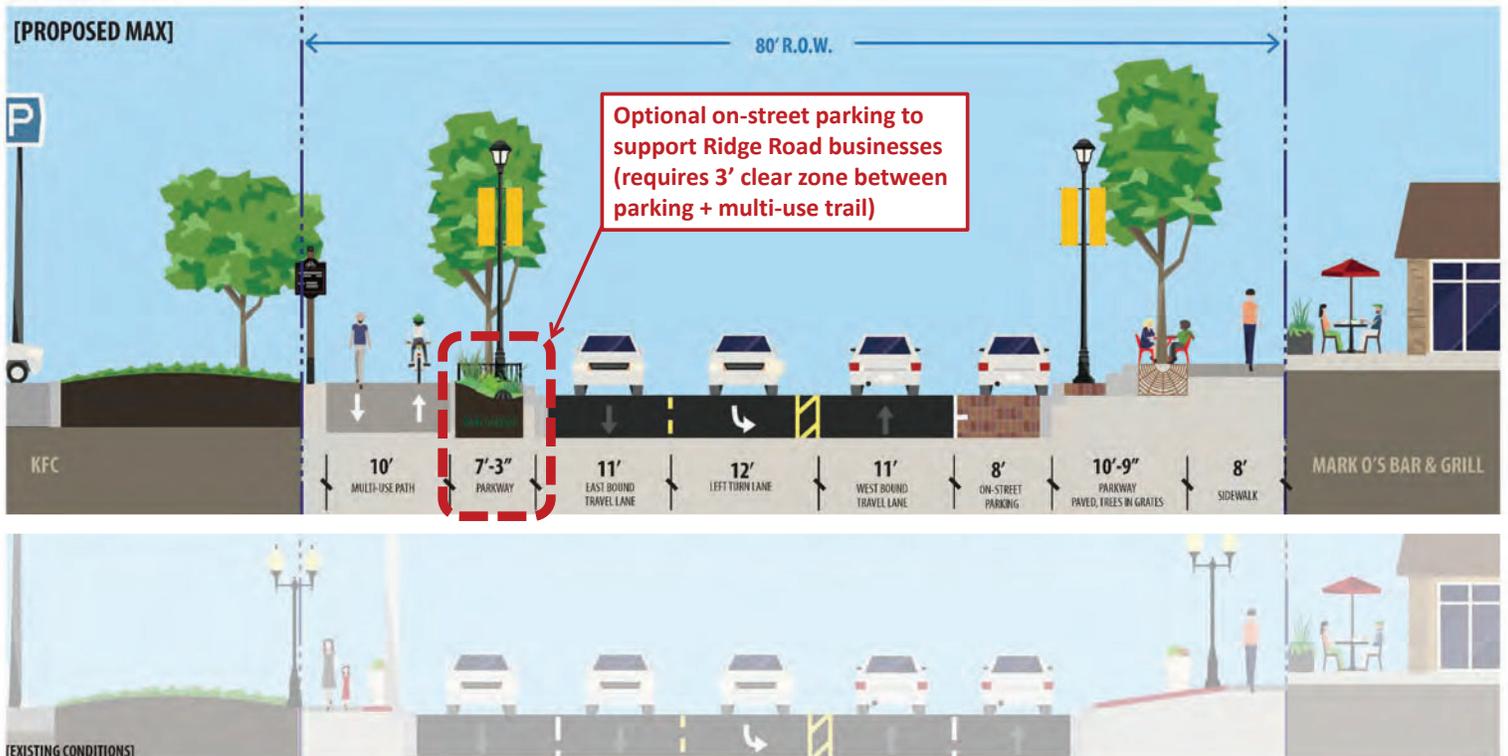


Multi-Use Path Considerations at Ridge Road

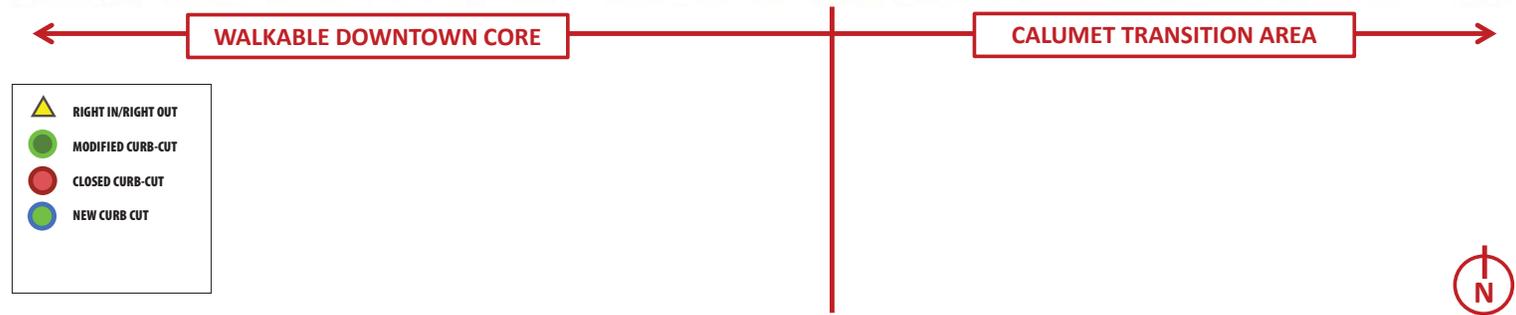




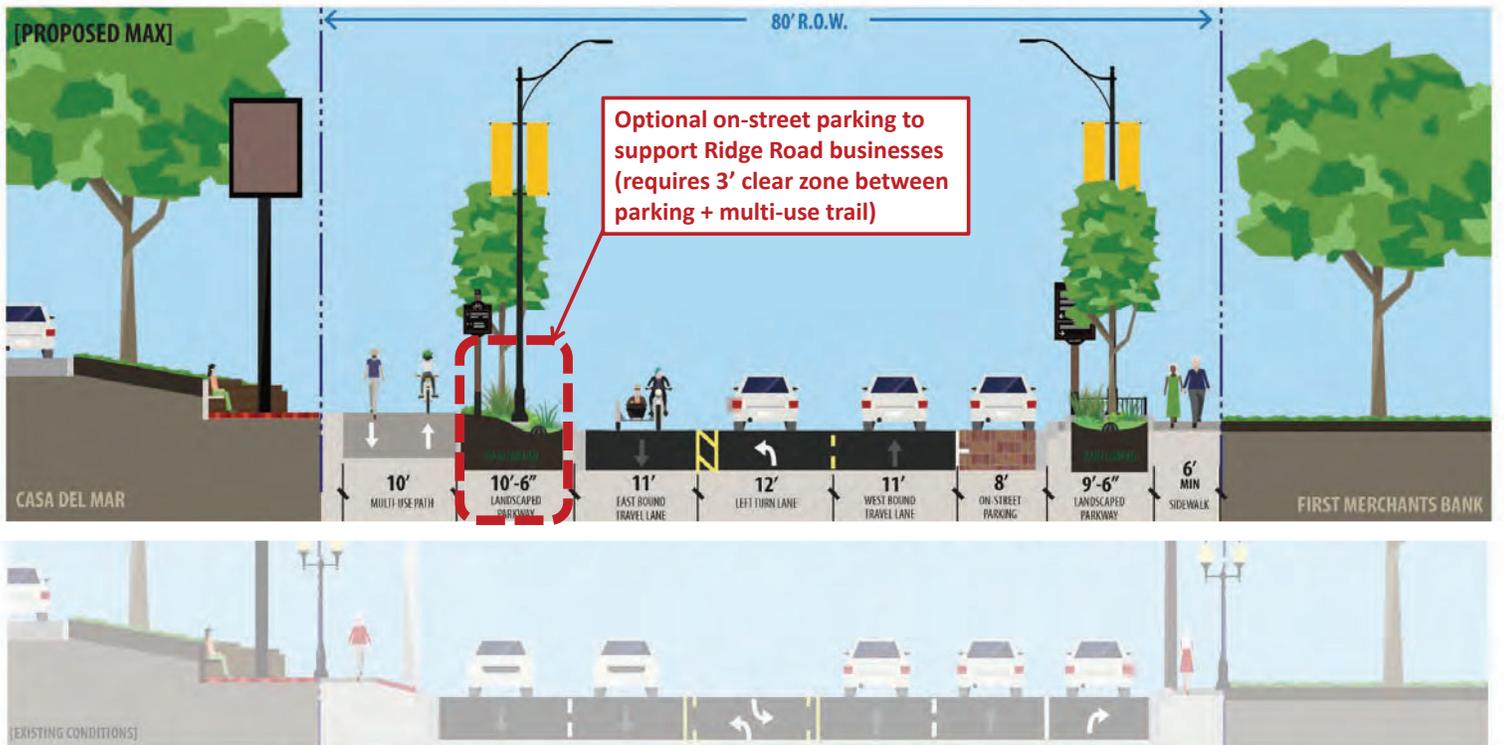
Ridge Road Section | West of Harrison Ave (west)



Ridge Road | Harrison Ave (east) to east of Monroe



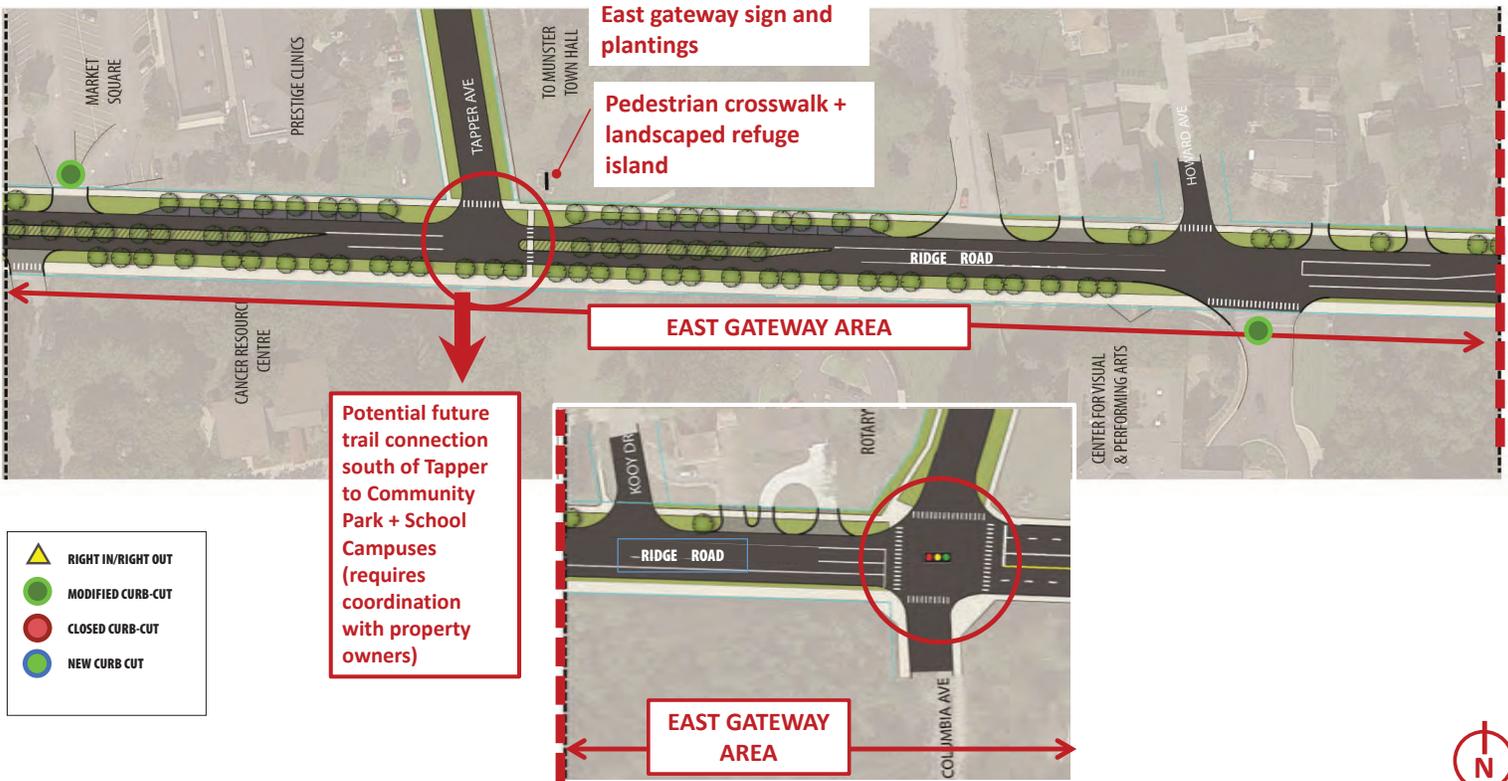
Ridge Road Section | West of Calumet Ave



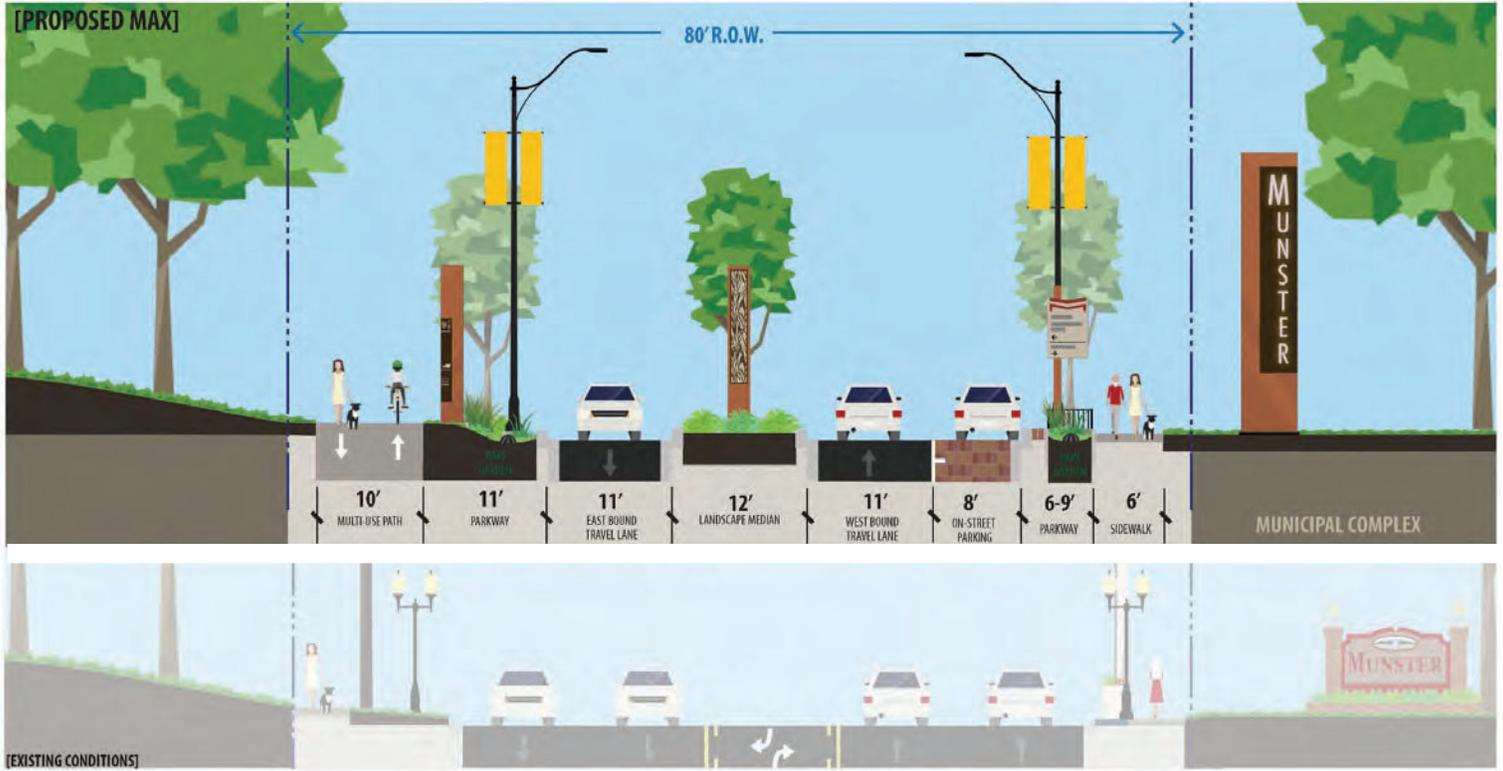
Ridge Road | Calumet Ave intersection area



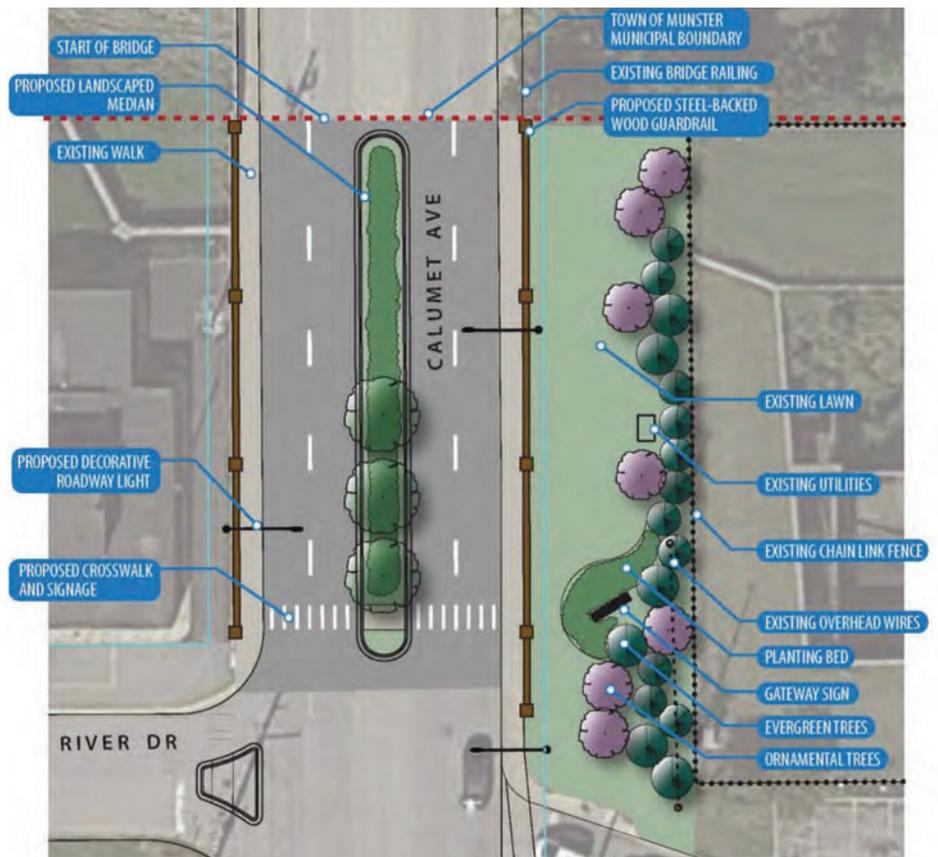
Ridge Road | west of Tapper Ave to Columbia Ave



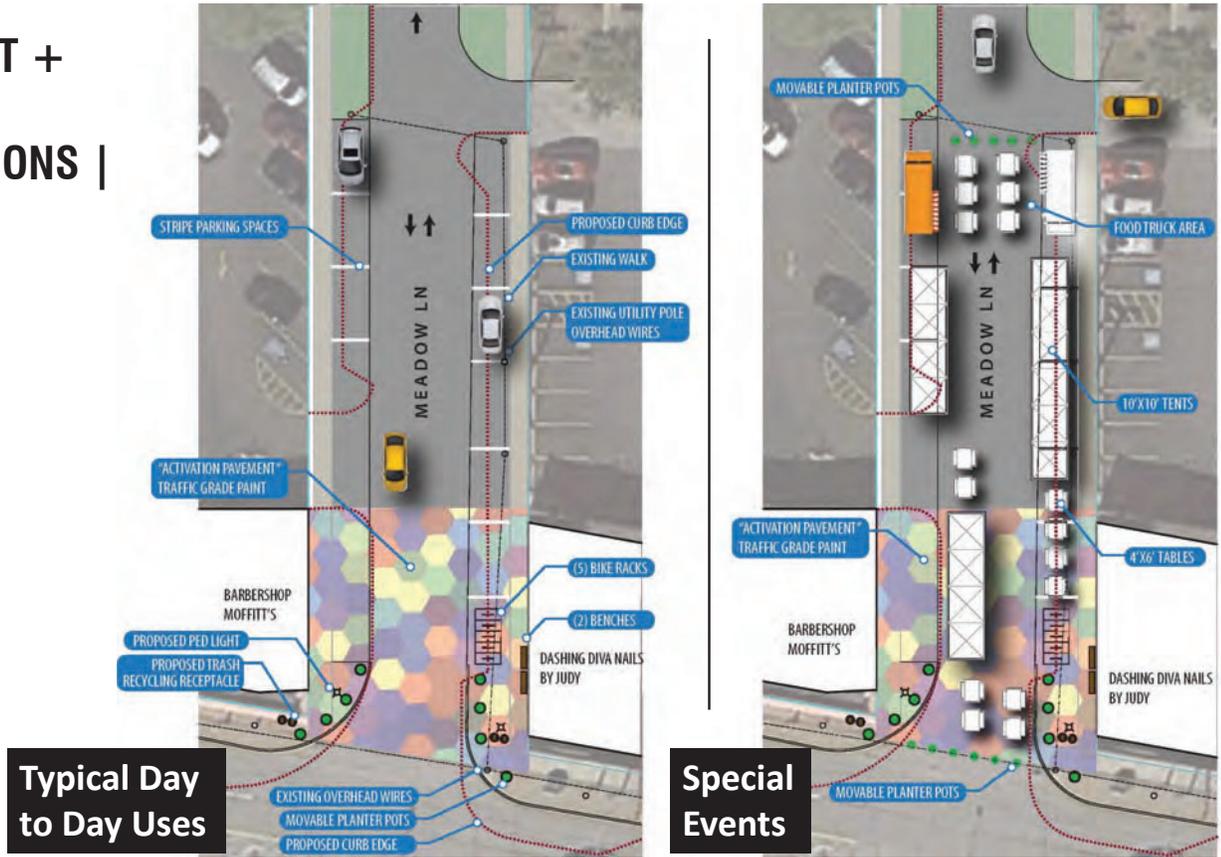
Ridge Road Section | East of Tapper Ave (Town Hall)



PILOT PROJECT | North Calumet Avenue Gateway



PILOT PROJECT + STREETSCAPE DEMONSTRATIONS | Meadow Lane



IMPLEMENTATION | concept level costs + strategies for development

OVERHEAD UTILITY TYPES	RIDGE ROAD	CALUMET AVE
OVERHEAD ELECTRICAL TRANSMISSION WIRE (LF)	0	12000
OVERHEAD ELECTRICAL DISTRIBUTION WIRE (LF)	26000	18000
OVERHEAD TELECOM WIRE (LF)	8000	5000
OVERHEAD CABLE (LF)	8000	5000

UTILITY RELOCATION CONCEPTUAL COSTS	RIDGE ROAD	CALUMET AVE
OPTION A EXISTING REMOVAL + BURIAL	\$13,650,000	\$13,000,000
OPTION B EXISTING REMOVAL + RELOCATION	\$ 3,150,000	\$ 3,000,000

**concept level costs based on INDOT unit pricing and general contractor form of project delivery. Costs provided for streetscape discussion + planning purposes.*

IMPLEMENTATION ROADWAY + STREETScape COSTS*	RIDGE ROAD 7,000 LF	CALUMET AVE 4,600 LF
UTILITY REMOVAL + RELOCATE (OPTION B)	\$ 3,150,000	\$ 3,000,000
DEMO, ROADWAY + SIGNALIZATION	\$ 9,105,295	\$ 5,458,700
HARDSCAPE	\$ 758,275	\$ 101,900
SITE FURNISHINGS	\$ 176,000	\$ 57,000
LIGHTING	\$ 1,480,000	\$ 720,000
GATEWAY + WAYFINDING SIGNAGE	\$ 371,000	\$ 313,000
PLANTINGS	\$ 1,571,175	\$ 486,609
SUBTOTAL	\$16,611,745	\$10,137,209
MAINTENANCE OF TRAFFIC (5%) + MOBILIZATION (4%)	\$ 1,495,057	\$ 912,349
DESIGN ENGINEERING: PH1 (5%), PH2 (5%), PH3 (10%)	\$ 3,322,349	\$ 2,027,442
TOTAL	\$21,429,151	\$13,077,000
<i>COST PER LF</i>	\$ 3,061	\$ 2,843

**concept level costs based on INDOT unit pricing and general contractor form of project delivery. Costs provided for streetscape discussion + planning purposes.*

CALUMET AVENUE PHASED IMPLEMENTATION – DRAFT FOR DISCUSSION + INPUT			
PHASE	PROJECT TYPES	COST	PARTNERS
NEAR TERM	North Gateway Pilot Project	\$52K (materials only)	Staff/public works/ Little Cal Development
	Roadway Restriping (landscaped medians)	\$14K (materials only)	Staff/public works
	Left Turn Controls (define prohibited left turns)	\$3K (materials only)	Staff/public works
	East side of Calumet: replace light poles, parkway plantings + trees	\$439K	Staff/public works/ Little Cal Development
	Clean up overhead cables + select aerial lines	Per NIPSCO	NIPSCO
	Phase 1 Engineering Study	\$507K	NIPSCO/ consultant
MID TERM	Signalized Intersection Improvements (Broadmoor, Calumet Shopping Cntr)	\$600K	Staff/public works
LONG TERM	Construct Calumet Ave north of Broadmoor (Broadmoor to municipal limits (1,650 lf or 0.35))	\$4M	
	Construct Calumet Ave south of Broadmoor (Broadmoor to Briar 2950 lf or 0.65)	\$7.4M	

RIDGE ROAD PHASED IMPLEMENTATION – DRAFT FOR DISCUSSION + INPUT

PHASE	PROJECT TYPES	COST	PARTNERS
NEAR TERM	Meadow Lane Pilot Project + Demonstration	\$44K (materials only)	Staff/public works/ businesses
	Roadway Restriping (define on-street parking with paint, temporary barricades and signage)	\$23K (materials only)	Staff/public works
	Left Turn Controls (define prohibited left turns via temp signage)	\$3K (materials only)	Staff/public works
	Signalized Intersection Enhancements (Calumet, Hohman + Manor – pavements, paint, signals, black poles + mast arms)	\$900K	Staff/public works
	Clean up overhead cables + select aerial lines	Per NIPSCO	NIPSCO
	Phase 1 Engineering Study	\$830K	NIPSCO/ consultant
MID TERM	Construct Ridge Road sections west of Calumet Ave (Calumet to State Line: 4,675 lf or .66)	\$13.1M	
LONG TERM	Construct Ridge Road sections east of Calumet Ave (Calumet to Columbia: 2,325 lf or .33)	\$6.5M	

NEXT STEPS + QUESTIONS?

1. Close Community Poll #2 + Host Public Meeting
2. Prepare Streetscape Plan Report
3. Present Report to Committee + Town Council



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CALUMET-RIDGE STREETScape PLAN

PUBLIC OPEN HOUSE #2 MEETING SUMMARY

March 16, 2021 | videoconference | 7:00 pm

The purpose of the Public Open House was to present the preferred streetscape concept plan. Plan materials developed to date were based on outcomes of the public outreach activities and the work of the steering committee.

Due to the current health crisis, the meeting was conducted via Zoom videoconference. Meeting invitations and announcements were communicated via the following methods:

- Project website (munster-streetscape.org).
- Project website posts sent to the project website's 250+ followers via email.
- Munster website announcements
- Facebook announcements
- Committee email announcements
- Paper flyers posted in local businesses

The emailed communications invited community members to review project documents at the project website in advance of the meeting. <https://munster-streetscape.org/documents/>

Munster Streetscape – Public Open House Meeting #2 Recording | Start Time: March 16, 2021 7:00 PM

Meeting Recording:

https://us02web.zoom.us/rec/share/AMMEt4qedRTO0XtoMgUN1x43Qg9GRnZ0Uqcni0fxyViwfJywYQCcmWoN30uyfLpz.ATi7qQrv_IOLh-M



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Approximately 38 people attended the public meeting. The following staff and consultant team members attended and presented.

TOWN OF MUNSTER STAFF	CONSULTANT TEAM
<ul style="list-style-type: none"> • Tom Vander Woude, Community Development, Town of Munster • Dustin Anderson, Town Manager, Town of Munster 	<ul style="list-style-type: none"> • Jodi Mariano, Teska Associates • Stacy Meekins, Sam Schwartz Consulting
<p>PUBLIC MEETING PARTICIPANTS A list of attendees identified by screen names follows:</p>	
<ul style="list-style-type: none"> • Aaron Kock • Andy Koultourides • Anthony Christopher • Bill Baker • Chuck Gardiner • Corey Knudsen • Daniel Straka • Erin Swinson • Ireen • Hoss • iPad 3 • Jeffery Nixon • Joseph Hemingway • Julie Fatemi • Julie O'Connor • Julie's iPhone • Karl Ackermann • Keith • Ken 	<ul style="list-style-type: none"> • Lisa Cox • Mellon • Michael G • Mike Hawkins • Nancy Konopasek • Mike Hawkins • Nikki Nyhanna • Patrick Donlon • Paul Rotatori • Rachel Branagan • Roland Raffin • Sandra Lyons • Steven Shareef • Ted Vinyard • Tom Largus • Towngal • Julie S. • Wendy Mis • Galaxy Tab



munster-streetscape.org

The meeting agenda and presentation topics follow below:

- 1. Introductions, Project Goals, Study Area, Scope and Schedule.**
- 2. Community Outreach Recap.**
- 3. Preferred Concept Plan Presentation**
- 4. Implementation Strategies**
- 5. Next Steps:** *Draft Report, Committee Review, Council Presentation*

Following the presentation, participants participated in an open discussion and Q+A.

MEETING Q + A. Meeting participants provided questions in the chat and raised their hands to ask questions of the team. A list of questions and responses follow below:

Q1: The plan appears to have a nice mix of improvements that is reminiscent of other vibrant districts, such as Austin and Seattle. How does traffic work near the 5 Guys development, which typically has a busy parking lot?

A1: The plan proposes a mixture of curb cut modifications (including right in/right outs, closed access at 30th St and a new access drive south of Panera) that are designed to limit vehicular access points and provide safer pedestrian crossings and connections.

Q2: Ridge Road looks great in the drawings, but I am concerned about traffic flow throughout the street and in the adjacent neighborhoods. How will this be addressed?

A2: Based on what we have learned throughout the outreach, Ridge Road carries a lot of cut through traffic today. The purpose of the streetscape plan is to reclaim Ridge Road for those who live in Munster and work in / support Ridge Road businesses. Reducing available traffic lanes on Ridge Road to provide for wider sidewalks, multi-use path and landscaping will strengthen Ridge Road as a walkable center.

We understand the potential impact to neighborhood streets and the Teska/SSC planning team are working with Munster on a separate, but parallel project, to evaluate the roadways surrounding the planned station area. This assignment looks at improving roadway and pedestrian route connections as well as recommended traffic calming techniques to improve neighborhood connectivity while calming traffic throughout the area.

With the upcoming train station, there is a possibility that commuters may park their cars on neighborhood streets. The Town is looking into various parking management and enforcement strategies to support parking while also protecting residents' needs to park cars on neighborhood streets.



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Q3: How will COVID and/or the new administration affect funding?

A3: To obtain funding, municipalities need to have a documented vision that is supported by the community and stakeholders. The purpose of the Streetscape Plan is to document Munster's vision. Anecdotally, the team has seen recent successes with grantors looking to fund shovel ready projects. Once Munster completes a Phase 1 Engineering study, this project would be considered shovel ready.

Q4: I am concerned about traffic that stacks up on Calumet Ave in the left turn lane, blocking access to businesses like Munster Donut. How will this be addressed?

A4: This planning study is a high-level study that is intended to document Munster's vision. When the Phase 1 Engineering study is conducted, detailed studies will be made on the traffic patterns. We expect that the solution may be a combination of modifications to geometry and signal timing to optimize automobile stacking for turning movements at intersections.

Q5: Poll #2 asked participants to select their preferred protected bike path treatment. Should we be concerned that the selected concrete path at sidewalk level is the desire of folks who may not use the bike path?

A5: Based on the inputs received to date, including the work of the committee, –some of whom are avid cyclists, the intent of the plan is to provide a facility that is comfortable for the widest cross section of trail users. SSC produced a level of stress study for bike paths. The outcome of that study shows that roadway and curb cut modifications will result in an improved environment for bikers.

Q6: What happens to the multi-use trail as it approaches and crosses Calumet Avenue?

A6: The roadway transitions back to Calumet Avenue as a 5-lane roadway section. To accommodate this, the available parkway space is reduced. The multi-use trail is intended to continue from the west side of Calumet to the intersection and then cross the intersection at the crosswalk. At the east side of Calumet Avenue, the multi-use trail continues east. The multi-use trail is designed to be a 10' wide trail. That cross section can be reduced to 8' if needed nearby to the Calumet Avenue intersection.

Next steps include the following:

- The planning team will prepare a draft report that documents the preferred plan and outreach.
- The Committee will meet to review the draft report.
- A presentation will be made to Town Council.
- All streetscape exhibits and materials have been posted to the entry hallway at Town Hall. The community is invited to review the exhibits and use the markers provided to provide comment.
- All meeting materials will be saved to the project website under 'documents' for review. Any further comments may continue to be submitted through the project website.

The meeting adjourned at 8:30 pm.



CALUMET AVENUE & RIDGE ROAD STREETScape

TOWN OF MUNSTER

PUBLIC OPEN HOUSE | MARCH 16, 2021 | VIDEO-CONFERENCE



Sam
Schwartz

PROJECT TEAM + MEETING AGENDA



Teska Associates | Community Planning + Landscape Architecture

Jodi Mariano, PLA, Principal Landscape Architect

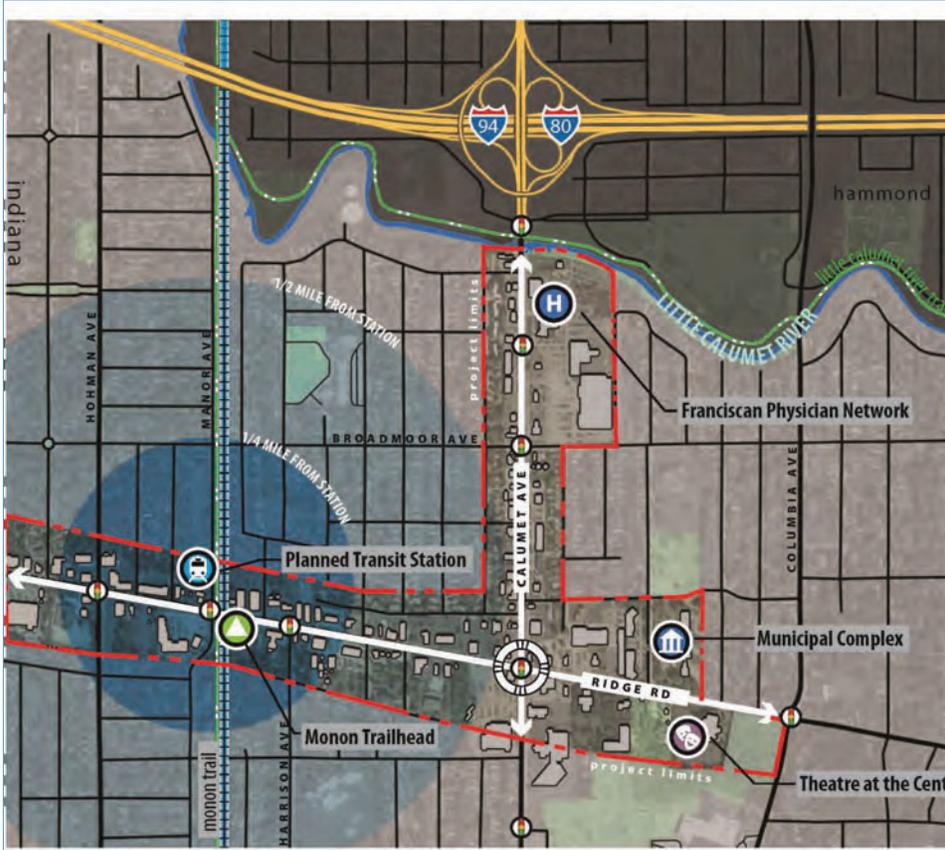
Sam
Schwartz

Sam Schwartz Consulting | Transportation + Traffic Planning

Stacey Meekins, AICP, Principal + Director of Transportation

MEETING AGENDA

1. Introductions, Project Goals + Scope Review
2. Community Outreach Recap
3. Preferred Concept Plan Presentation
4. Implementation Strategies
5. Next Steps: Draft Report, Committee Review, Council Presentation



STUDY AREA

PROJECT GOAL

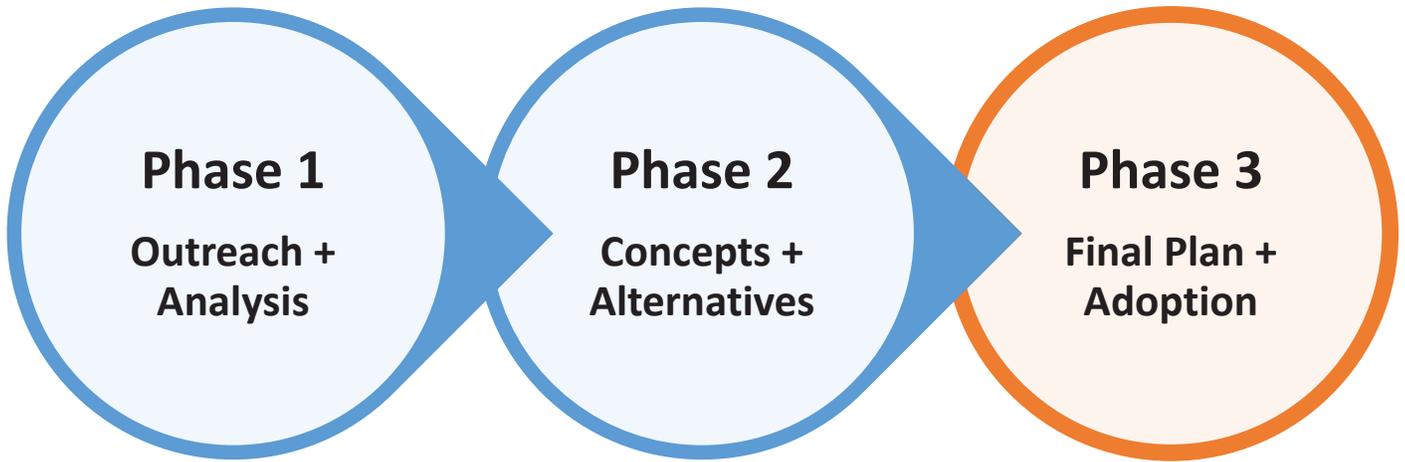
The goal of this project is to develop a **more welcoming environment for walking, biking, to reinforce a sense of place in our community, and to enhance the ability to absorb stormwater and reduce flooding.**

KEY THEMES

- A **safe and comfortable** pedestrian environment
- A functional streetscape providing **stormwater benefits**
- A consistent and **beautiful public realm**
- A **sense of arrival** and identity
- A multimodal system that balances **access and mobility**

FUNDING FOR THE STREETScape PLAN

National Oceanic and Atmospheric Administration + the Indiana Department of Natural Resources Lake Michigan Coastal Program. **“The Coastal Grant”**



MAY – JULY 2020
 Analysis / project website
 Staff meeting
 Committee meeting #1
 Neighborhood poll #1
 Stakeholder interviews
 Farmers market pop up

AUG – DEC 2020
 Concept development
 Committee meeting #2
 Neighborhood poll #2
 Agency meetings
 Public open house

JAN 2020 – JUNE 2021
 Final plan + pilot project
 Committee meetings #3-4
 Public meeting
 Town Council meeting

OUTREACH | Recap

FACE TO FACE
MEETINGS

- Public works meeting (06/18)
- Committee meeting #1 (07/15)
- Community Market (08/04)
- Stakeholder interviews (7/27 – 9/23)
- Public works meeting (10/19)
- Agency review meetings (11/2 - 11/13)
- Committee meeting #2 (11/18)
- Plan commission meeting (12/08)
- Public open house #1 (12/10)
- Public open house #2 (03/16)

ONLINE
INTERACTIONS

- Project Website (06/18 – present)
- Neighborhood Poll #1 (07/22 – 10/31)
- Neighborhood Poll #2 (12/8 – 03/05)
- Rendering Inputs (12/8 – 03/05)

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596 participants / 677 comments
 470 participants / 832 comments
 245 participants

OUTREACH | Calumet Avenue key concerns + concepts

KEY CONCERNS

- Speeding, congestion, stop + go movements
- Inhospitable pedestrian environment
- Needs a welcoming entry
- Lacks greening and pervious space

KEY OPPORTUNITIES

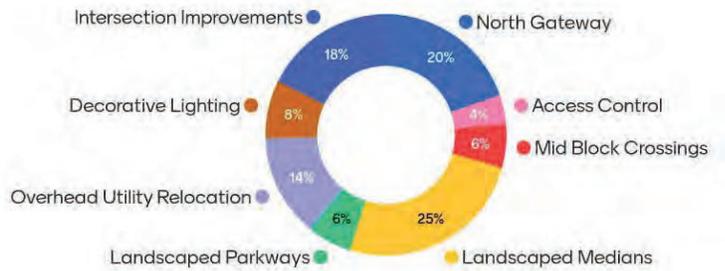
Access control (left turn restrictions)

- When asked whether participants were concerned about limited left turn access concepts, most responded that they were ***not*** concerned.

Top improvement preferences:

- 25% landscaped medians
- 20% north gateway
- 18% intersection improvements
- 14% overhead utility relocation

Calumet Avenue Improvements: select your top 3 features.



POLL #2 RESULTS | CALUMET AVENUE



Traffic calming was identified as a need along Calumet Ave. In your opinion, which type of traffic calming is most appropriate for Calumet Ave? (select one)

Landscaped center median

35%



Mid-block crossing / refuge island

33%



Parkway trees + lawn plantings

31%



POLL #2 RESULTS | CALUMET AVENUE



Trees + plantings were noted as important features of the streetscape. In your opinion, which planting treatments are the best fit for Munster? (select one)

Bioswale plantings + decorative gravel



41%

Rain gardens



36%

Native grasses + plantings



23%

POLL #2 RESULTS | CALUMET AVENUE

Paint us a picture along Calumet Avenue: Thinking ahead to the future, please describe a scene you wish to see along Calumet Avenue.

KEY THEMES

- Calmer traffic
- More pedestrian friendly
- Updated buildings
- Greening
- Munster identity

QUOTED

- *“Living in Munster for decades, it would be nice to see a more inviting atmosphere driving down Calumet Ave. I would like to see businesses that bring people in, shops, live music and more food places, living spaces like condos, and a place where you want to walk or bike there and just enjoy the atmosphere.”*
- *“Honestly, I’d just love to be able to feel protected from traffic while riding my bike with my family to get an Italian Ice.”*
- *“People from these neighborhoods should be encouraged to walk to the stores as I always have. However, it’s always stressful crossing Broadmoor and Calumet. I would definitely love to see greener spaces with native trees and wild grasses between the sidewalks and the street. No more concrete jungles pretty please! I want Munster to be more lush and inviting!”*



NORTH CALUMET AVE GATEWAY – POLL #2 INPUTS

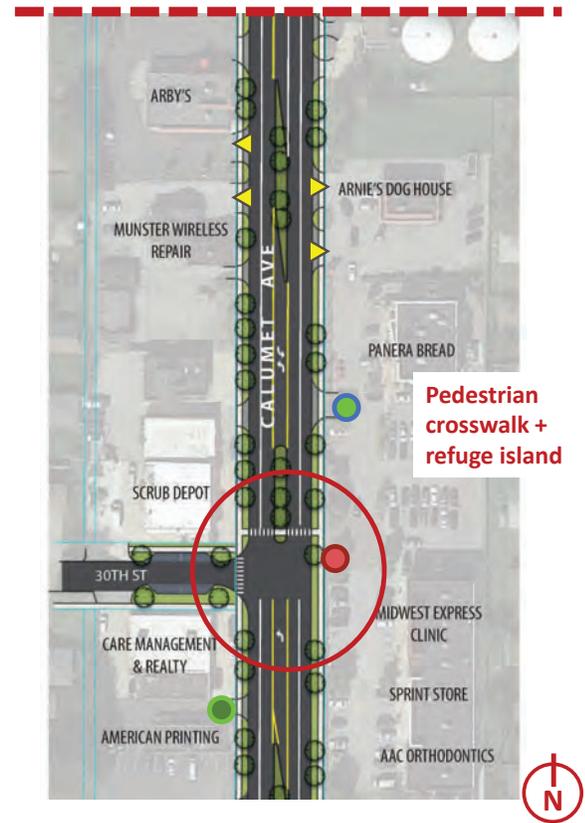
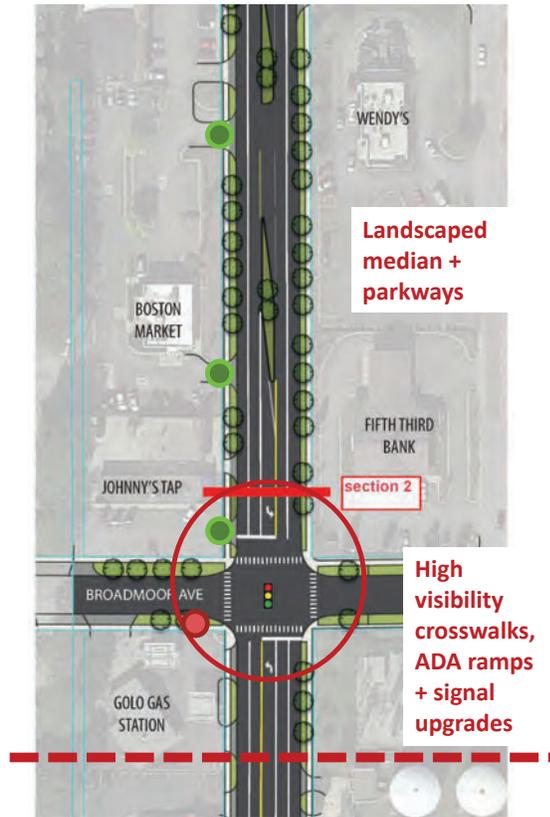
THUMBS UP: 85 // THUMBS DOWN: 24

- Maintenance
- Safety + Sight Lines
- Pedestrian Crossing North of River Drive
- Murals

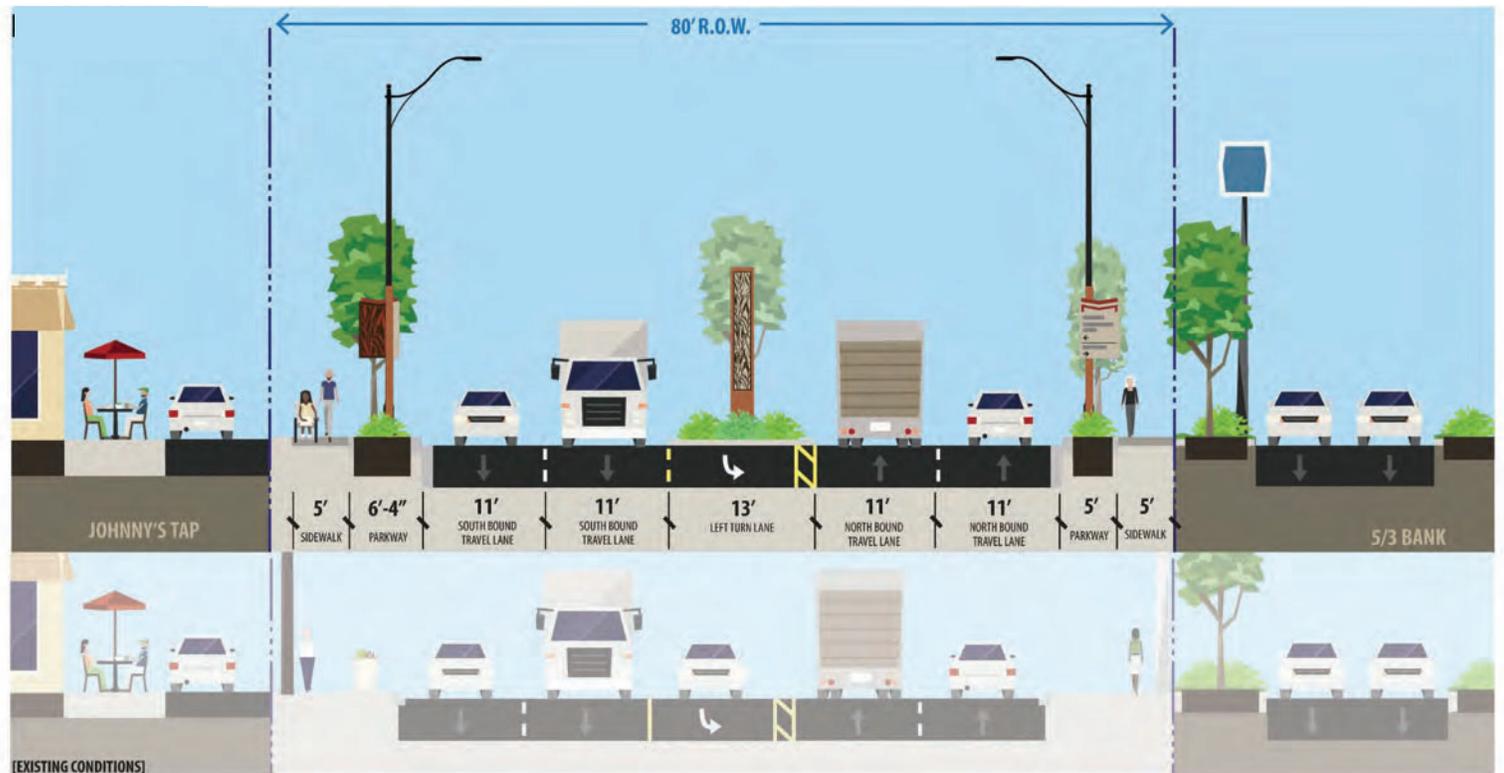
Calumet Avenue

Calumet Center (Target) to 30th Street

-  RIGHT IN/RIGHT OUT
-  MODIFIED CURB-CUT
-  CLOSED CURB-CUT
-  NEW CURB CUT



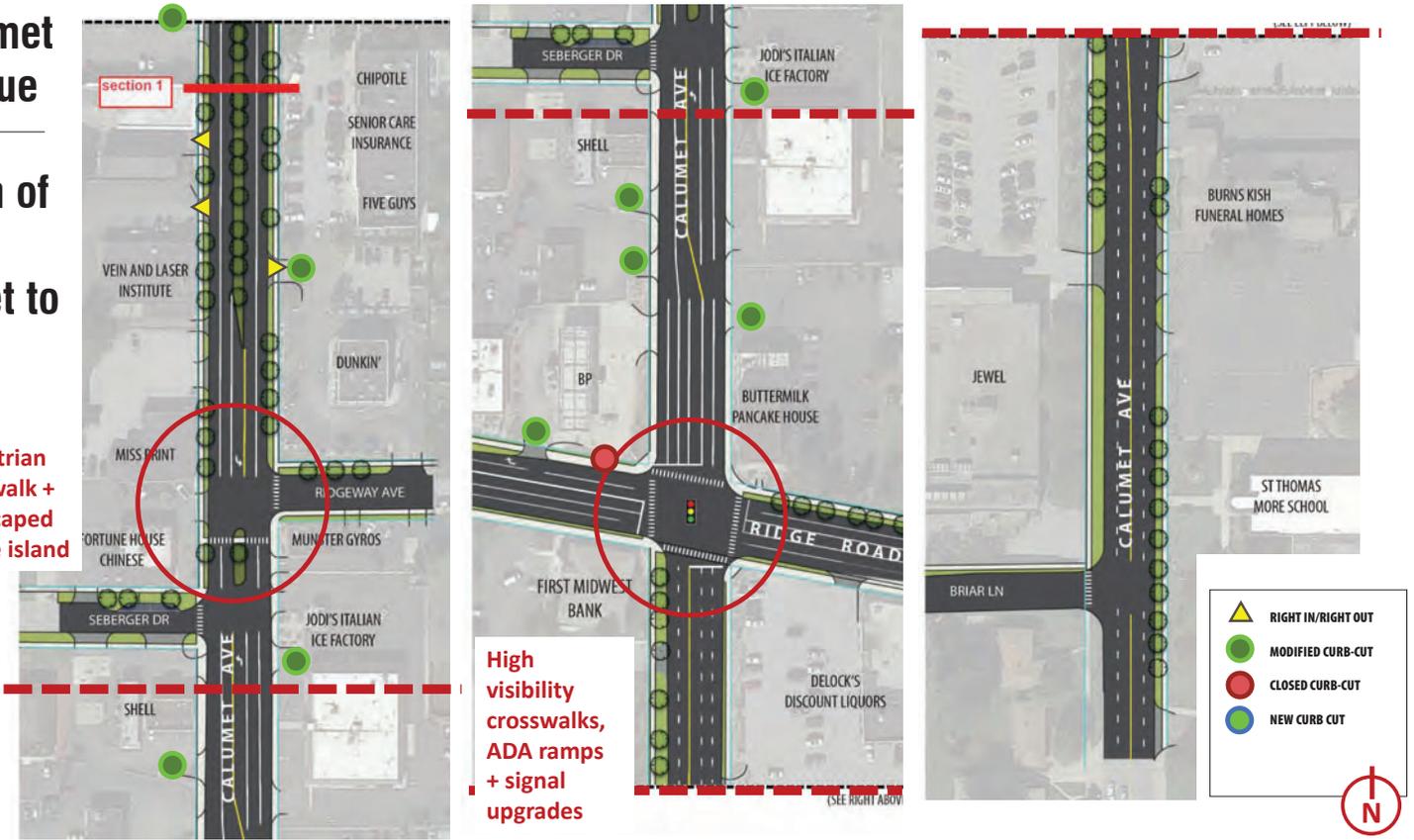
Calumet Ave Section | North of Broadmoor Ave



Calumet Avenue

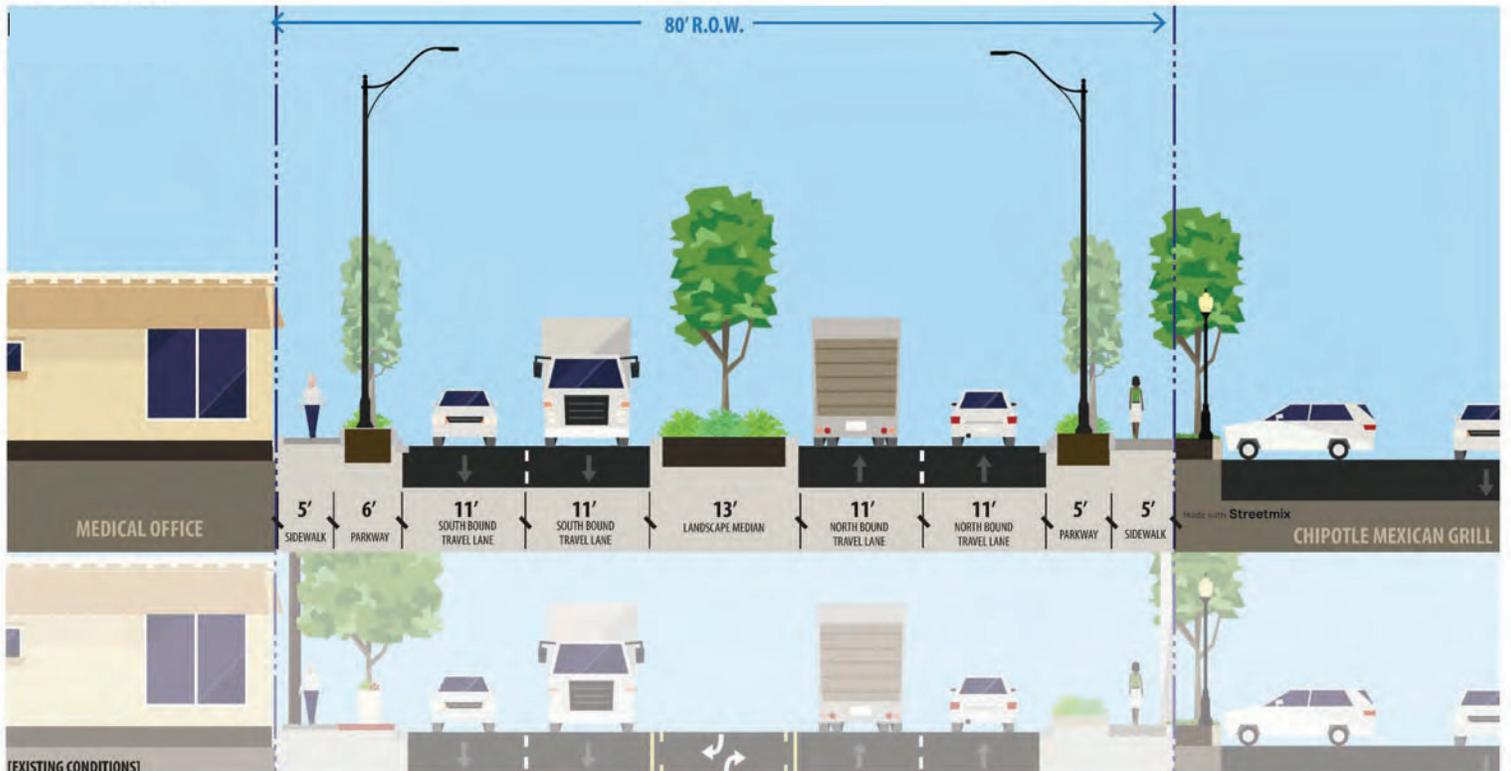
south of 30th Street to Briar Lane

Pedestrian crosswalk + landscaped refuge island



High visibility crosswalks, ADA ramps + signal upgrades

Calumet Ave Section | South of 30th Street





OUTREACH | Ridge Road key concerns + concepts

KEY CONCERNS

- Businesses are not supported by the environment
- Does not invite people to walk here
- Lacks a sense of place
- Needs greening and landscaping

KEY OPPORTUNITIES

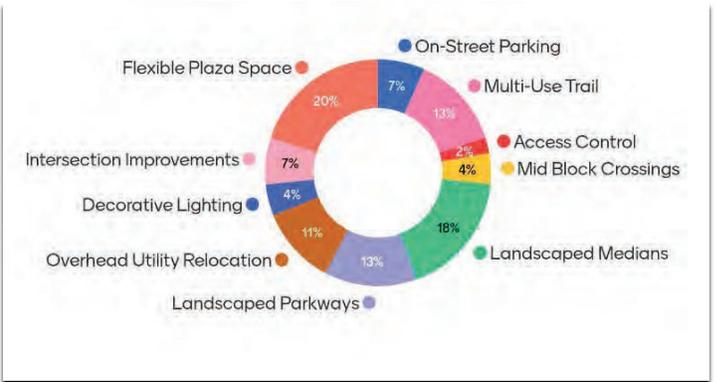
Road diet amenities

When asked whether participants were concerned that the road diet would cause approx. 1-3 minutes travel delay between Hohman and Calumet, most participants responded they were not concerned.

Top improvement preferences:

- 20% flexible plaza space
- 18% landscaped medians
- 13% multi-use trail
- 13% landscaped parkways

Ridge Road Improvements: select your top 3 features.



POLL #2 RESULTS | RIDGE ROAD



A vibrant downtown environment was noted as a key opportunity along Ridge Road. In your opinion, which streetscape treatment is the best fit for Ridge Road? (select one)

Wider sidewalks for outdoor seating + dining



Active trails + strolling



Sculptural seating + lush plantings



POLL #2 RESULTS | RIDGE ROAD



Earlier comments suggested that a bike trail should be protected. In your opinion, which trail treatment is preferred for Ridge Road? (select one)

Off-street concrete bikeway at sidewalk level



40%

On-street concrete bikeway with landscape buffer



31%

Off-street asphalt bikeway with landscape buffer



29%

POLL #2 RESULTS | RIDGE ROAD



In your opinion, which pedestrian scale light is the best fit for Ridge Road? (select one)

Shepherd's Crook

55%



Caged Acorn (Hohman Avenue)

34%



Post Top

11%



POLL #2 RESULTS | RIDGE ROAD

Paint us a picture along Ridge Road: Thinking ahead to the future, please describe a scene you wish to see along Ridge Road.

KEY THEMES

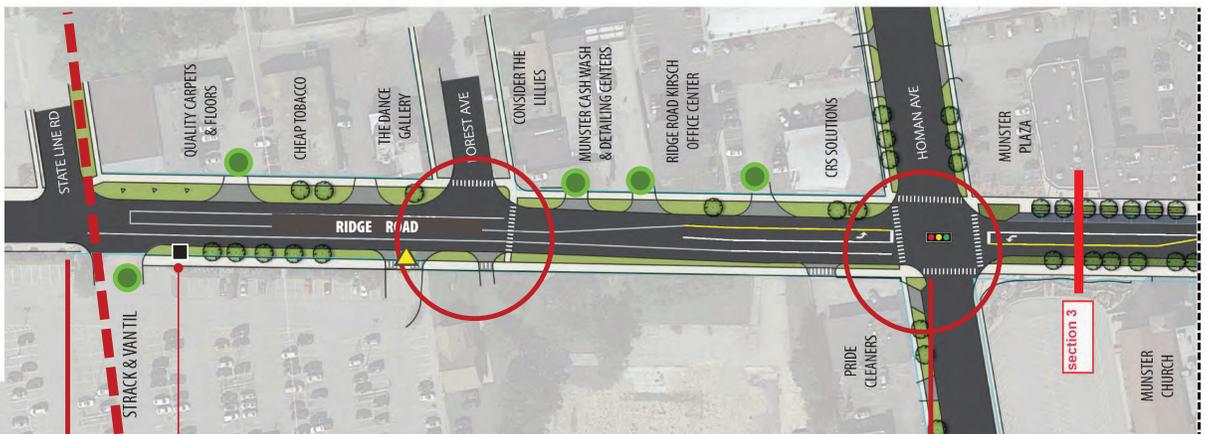
- Calm + manage traffic
- More parking
- Outdoor seating
- Bike path
- Greenery
- Family friendly, neighborhood vibe

QUOTED

- “...10 years from now I would love to feel comfortable knowing my daughters could ride their bikes east on Ridge Road from White Oak to Columbia in order to get to MHS. The bike lanes would be really nice. Also bike lanes on Ridge Road would help connect to the new bike lane on Hohman Ave.”
- “People strolling and not feeling scared to be hit by a speeding car. Areas to stop and eat outside. Love for our town to be more of a walking/biking community.”
- “Calmer, more accessibility to the businesses with wider sidewalks. Lansing, Highland and Griffith have vibrant small businesses and Munster doesn’t have that same feel.”

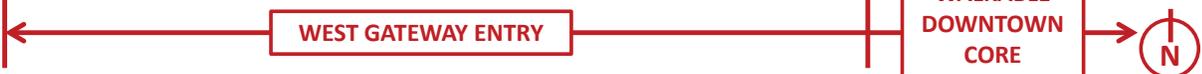
Ridge Road | State Line Rd to east of Hohman Ave

Provide a left-turn lane into Strack + Van Til instead of two EB through lanes.
 Recommend coordination with Lansing to reduce number of EB through lanes to 1 lane on the Illinois side for a smoother transition to Munster



	RIGHT IN/RIGHT OUT
	MODIFIED CURB-CUT
	CLOSED CURB-CUT
	NEW CURB CUT

West gateway sign and plantings – to be coordinated with property owner.



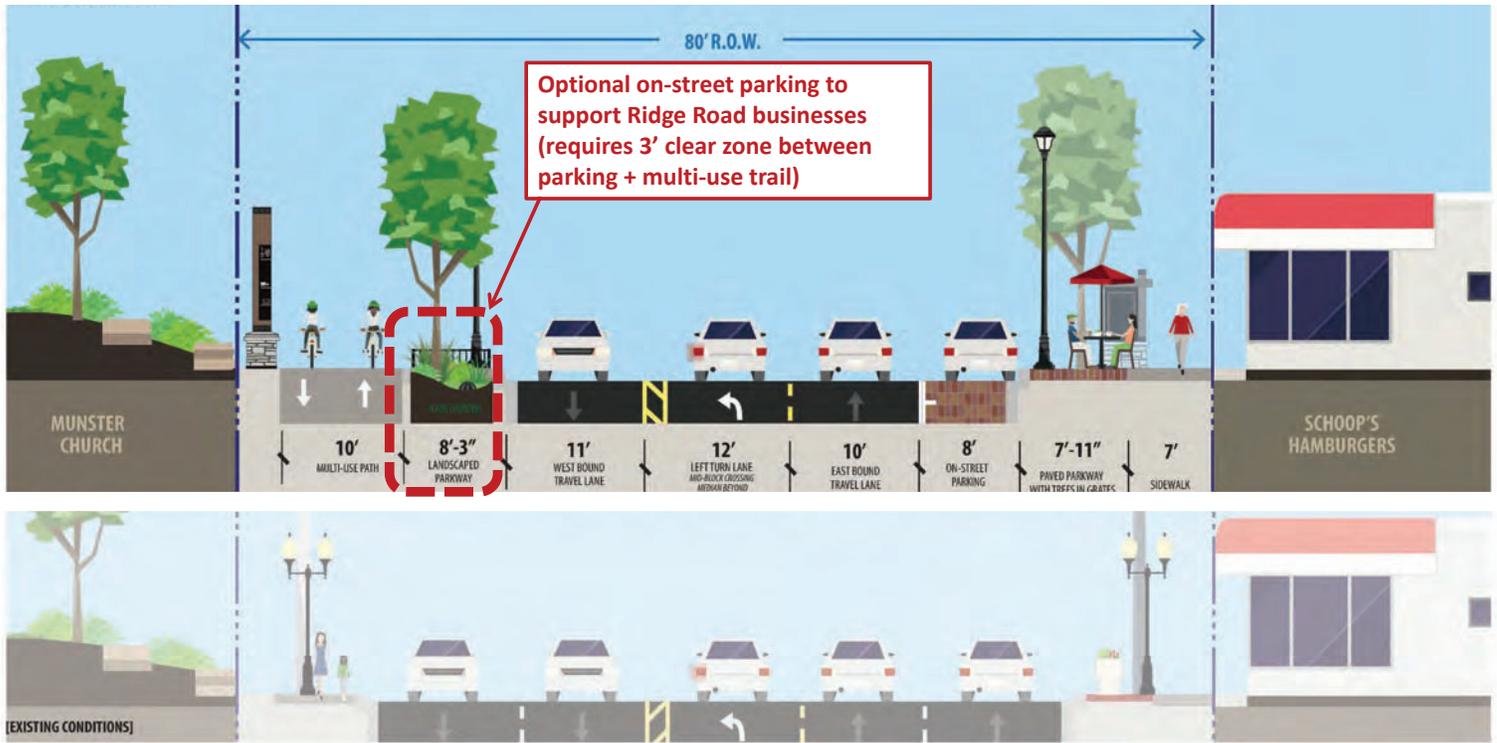


RIDGE ROAD AT MEADOW LANE – POLL #2 INPUTS
THUMBS UP: 111 // THUMBS DOWN: 25

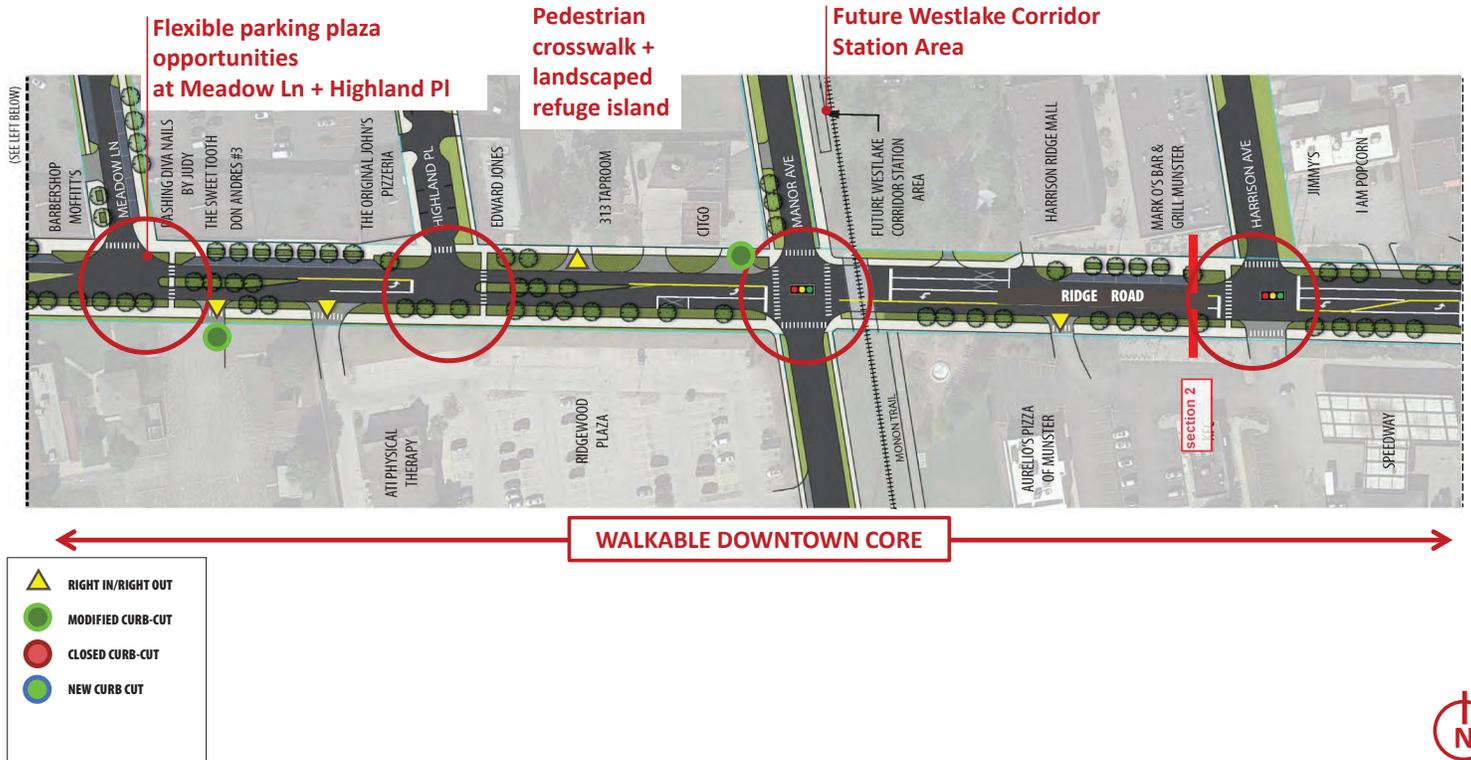
- Maintenance
- Traffic + Meadow Lane Closure
- Business Facades
- Murals



Ridge Road Section | East Hohman Ave (west of Meadow Lane)

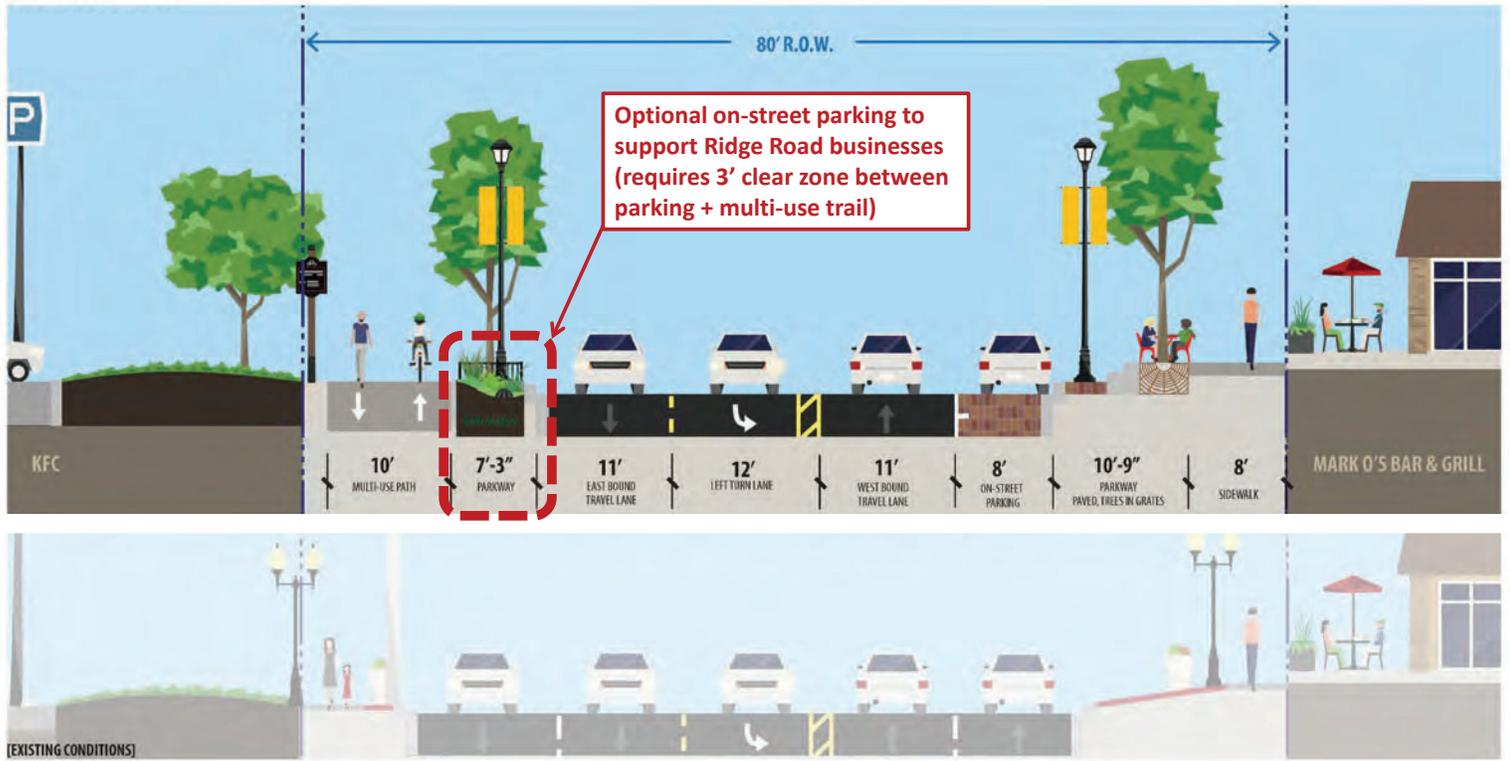


Ridge Road | west of Meadow Lane to Harrison Ave (west)

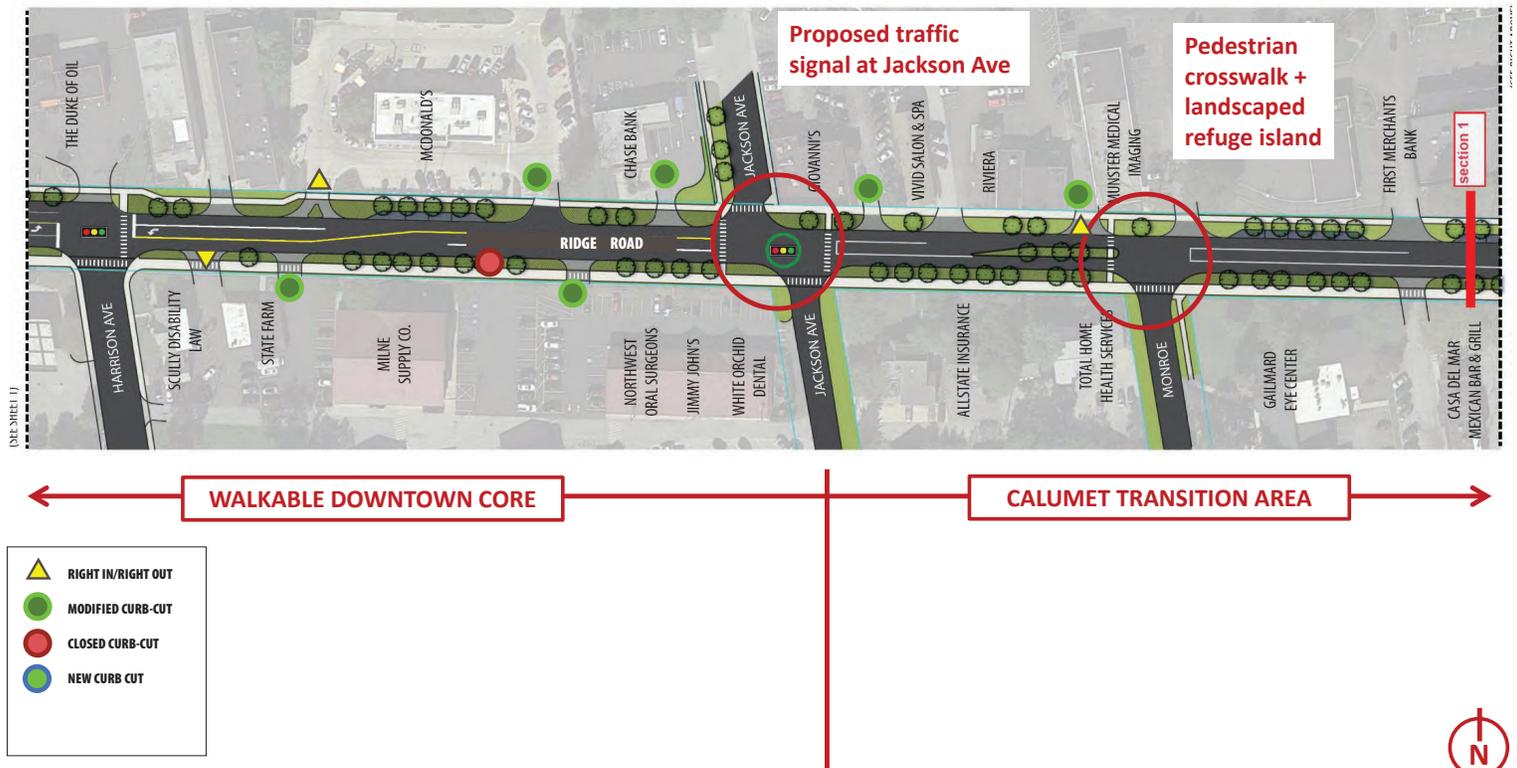




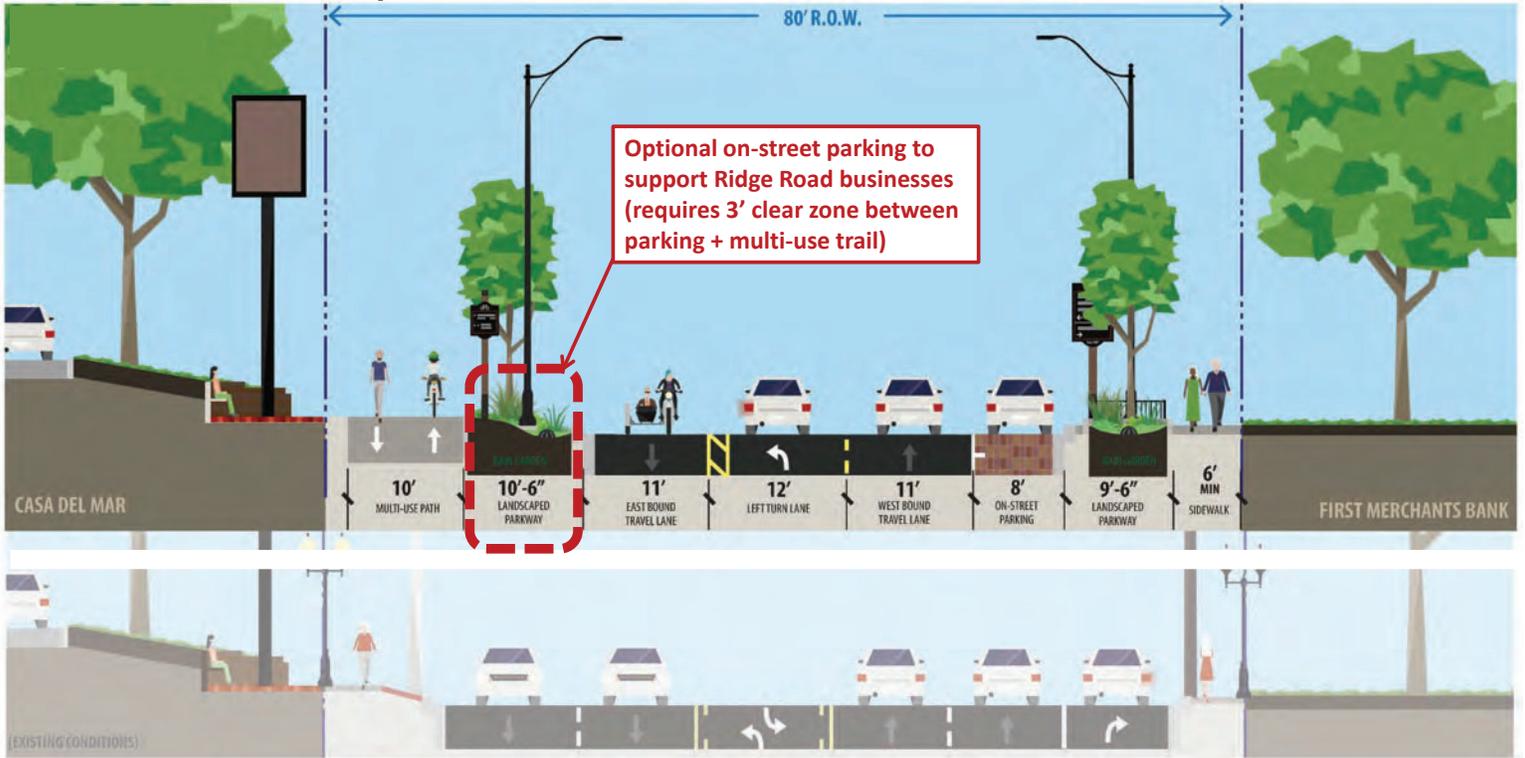
Ridge Road Section | West of Harrison Ave (west)



Ridge Road | Harrison Ave (east) to east of Monroe



Ridge Road Section | West of Calumet Ave



MIINSTER INDIANA

Ridge Road | Calumet Ave intersection area

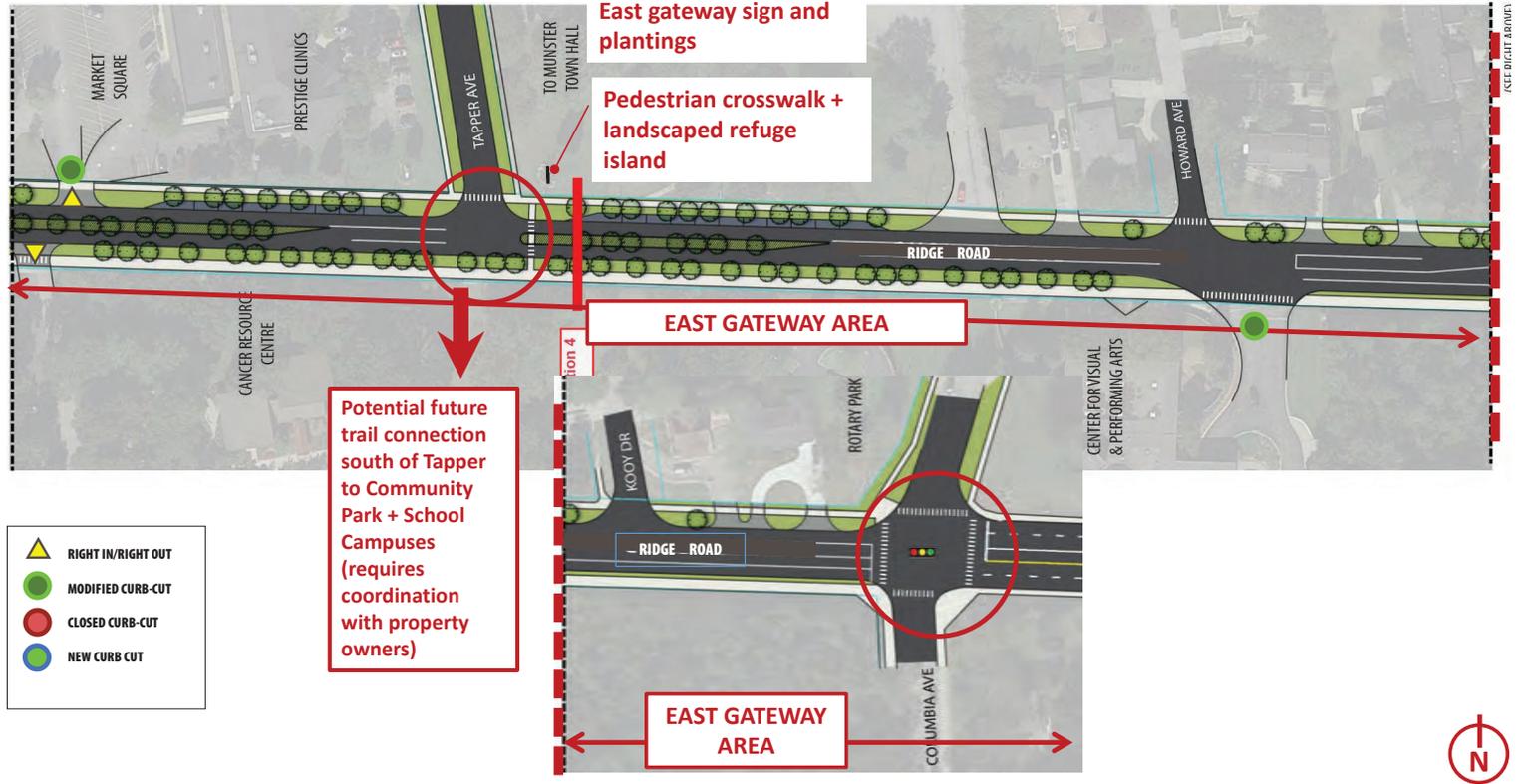


CALUMET AVE TRANSITION AREA

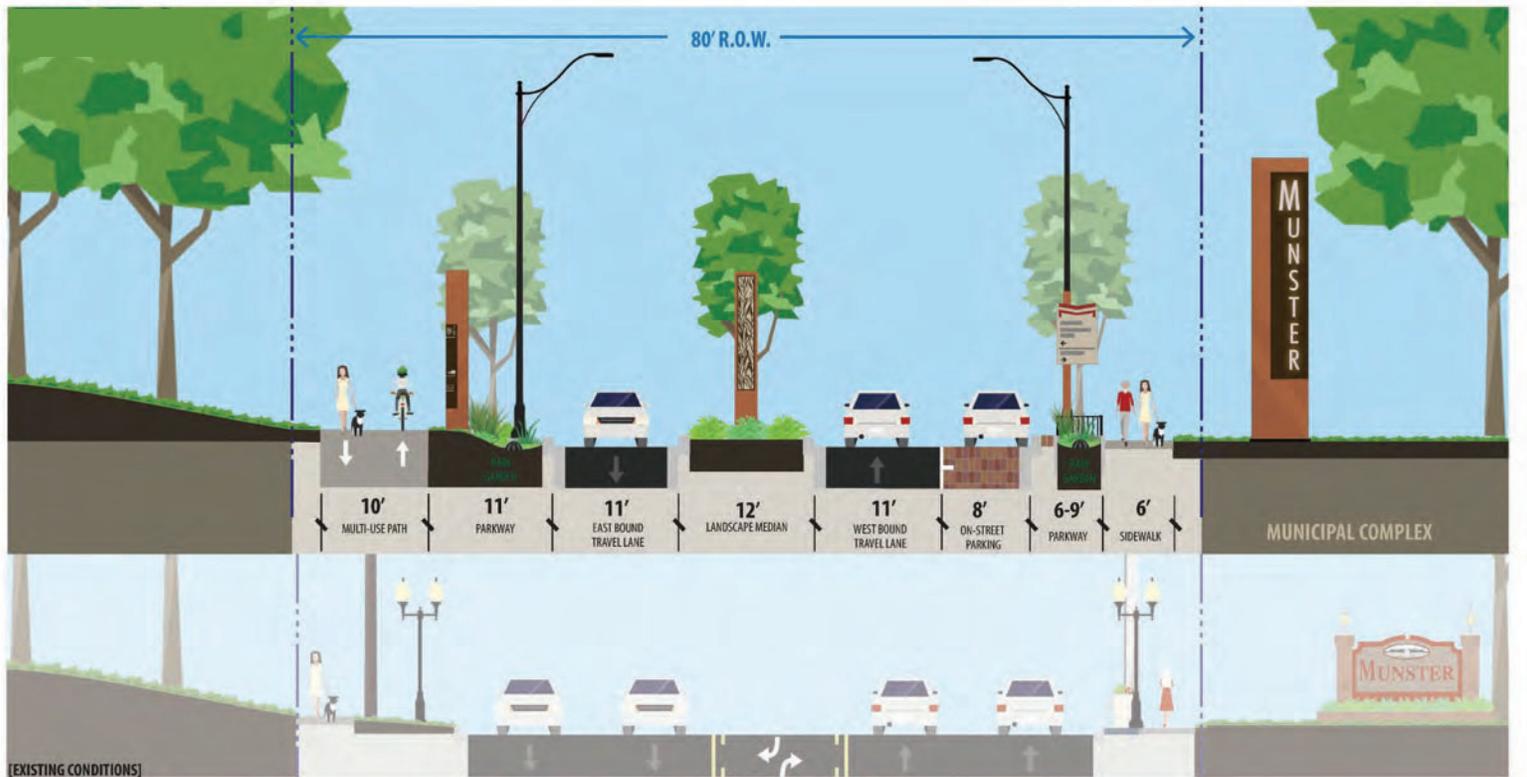
- RIGHT IN/RIGHT OUT
- MODIFIED CURB-CUT
- CLOSED CURB-CUT
- NEW CURB CUT



Ridge Road | west of Tapper Ave to Columbia Ave



Ridge Road Section | East of Tapper Ave (Town Hall)



IMPLEMENTATION | concept level costs + strategies for development

OVERHEAD UTILITY TYPES	RIDGE ROAD	CALUMET AVE
OVERHEAD ELECTRICAL TRANSMISSION WIRE (LF)	0	12000
OVERHEAD ELECTRICAL DISTRIBUTION WIRE (LF)	26000	18000
OVERHEAD TELECOM WIRE (LF)	8000	5000
OVERHEAD CABLE (LF)	8000	5000

UTILITY RELOCATION CONCEPTUAL COSTS	RIDGE ROAD	CALUMET AVE
OPTION A EXISTING REMOVAL + BURIAL	\$13,650,000	\$13,000,000
OPTION B EXISTING REMOVAL + RELOCATION	\$ 3,150,000	\$ 3,000,000

**concept level costs based on INDOT unit pricing and general contractor form of project delivery. Costs provided for streetscape discussion + planning purposes.*

IMPLEMENTATION ROADWAY + STREETScape COSTS*	RIDGE ROAD 7,000 LF	CALUMET AVE 4,600 LF
UTILITY REMOVAL + RELOCATE (OPTION B)	\$ 3,150,000	\$ 3,000,000
DEMO, ROADWAY + SIGNALIZATION	\$ 9,105,295	\$ 5,458,700
HARDSCAPE	\$ 758,275	\$ 101,900
SITE FURNISHINGS	\$ 176,000	\$ 57,000
LIGHTING	\$ 1,480,000	\$ 720,000
GATEWAY + WAYFINDING SIGNAGE	\$ 371,000	\$ 313,000
PLANTINGS	\$ 1,571,175	\$ 486,609
SUBTOTAL	\$16,611,745	\$10,137,209
MAINTENANCE OF TRAFFIC (5%) + MOBILIZATION (4%)	\$ 1,495,057	\$ 912,349
DESIGN ENGINEERING: PH1 (5%), PH2 (5%), PH3 (10%)	\$ 3,322,349	\$ 2,027,442
TOTAL	\$21,429,151	\$13,077,000
COST PER LF	\$ 3,061	\$ 2,843

**concept level costs based on INDOT unit pricing and general contractor form of project delivery. Costs provided for streetscape discussion + planning purposes.*

CALUMET AVENUE PHASED IMPLEMENTATION

PHASE	PROJECT TYPES	COST	PARTNERS
NEAR TERM	North Gateway Pilot Project	\$52K (materials only)	Staff/public works/ Little Cal Development
	Roadway Restriping (landscaped medians)	\$14K (materials only)	Staff/public works
	Left Turn Controls (define prohibited left turns)	\$3K (materials only)	Staff/public works
	East side of Calumet: replace light poles, parkway plantings + trees	\$439K	Staff/public works/ Little Cal Development
	Clean up overhead cables + select aerial lines	Per NIPSCO	NIPSCO
	Phase 1 Engineering Study	\$507K	NIPSCO/ consultant
MID TERM	Signalized Intersection Improvements (Broadmoor, Calumet Shopping Cntr)	\$600K	Staff/public works
LONG TERM	Construct Calumet Ave north of Broadmoor (Broadmoor to municipal limits (1,650 lf or 0.35))	\$4M	
	Construct Calumet Ave south of Broadmoor (Broadmoor to Briar 2950 lf or 0.65)	\$7.4M	

RIDGE ROAD PHASED IMPLEMENTATION

PHASE	PROJECT TYPES	COST	PARTNERS
NEAR TERM	Meadow Lane Pilot Project + Demonstration	\$44K (materials only)	Staff/public works/ businesses
	Roadway Restriping (define on-street parking with paint, temporary barricades and signage)	\$23K (materials only)	Staff/public works
	Left Turn Controls (define prohibited left turns via temp signage)	\$3K (materials only)	Staff/public works
	Signalized Intersection Enhancements (Calumet, Hohman + Manor – pavements, paint, signals, black poles + mast arms)	\$900K	Staff/public works
	Clean up overhead cables + select aerial lines	Per NIPSCO	NIPSCO
	Phase 1 Engineering Study	\$830K	NIPSCO/ consultant
MID TERM	Construct Ridge Road sections west of Calumet Ave (Calumet to State Line: 4,675 lf or .66)	\$13.1M	
LONG TERM	Construct Ridge Road sections east of Calumet Ave (Calumet to Columbia: 2,325 lf or .33)	\$6.5M	



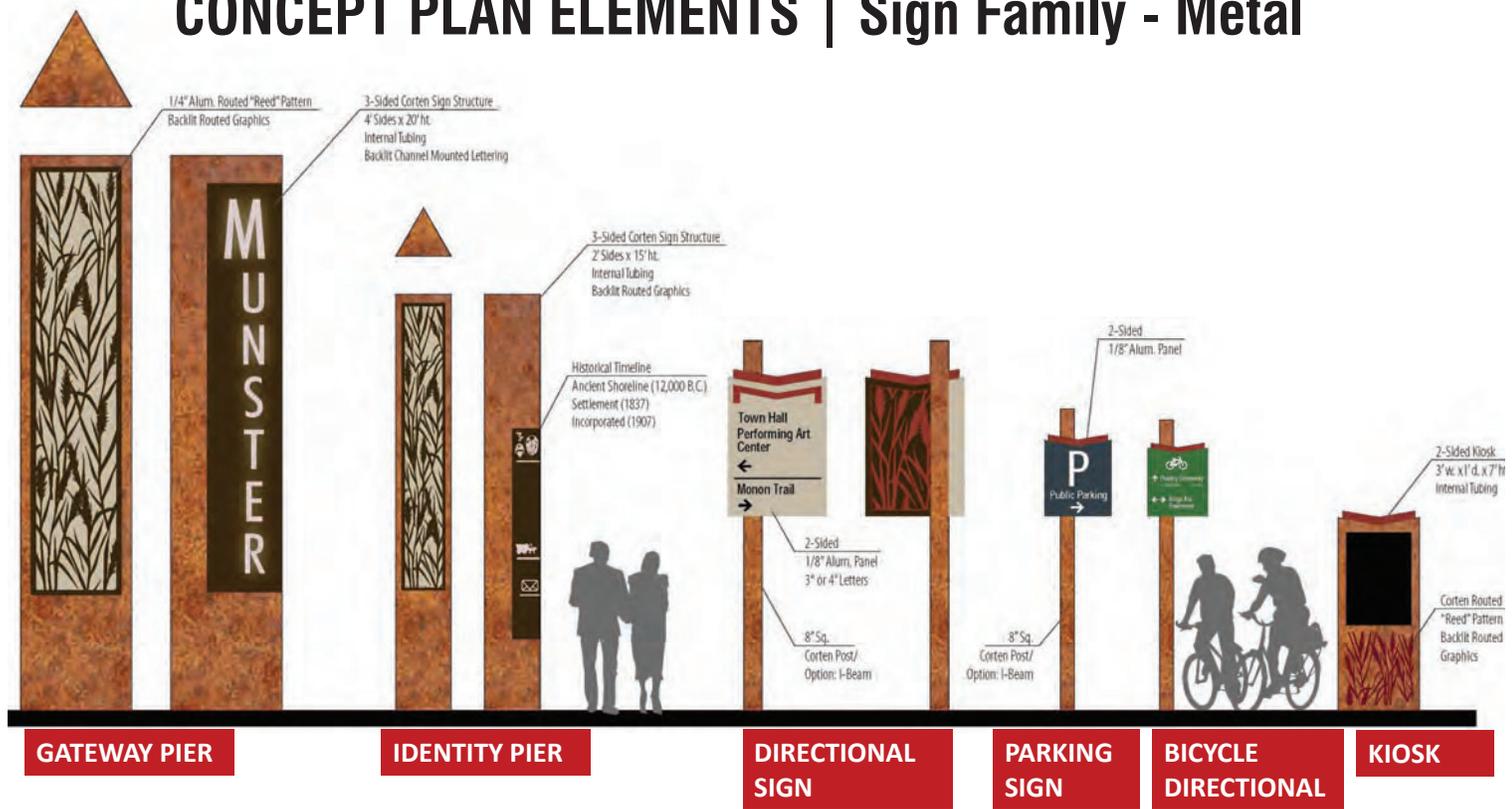
NEXT STEPS:

- **Streetscape Plan Report**
- **Present to Committee + Town Council**

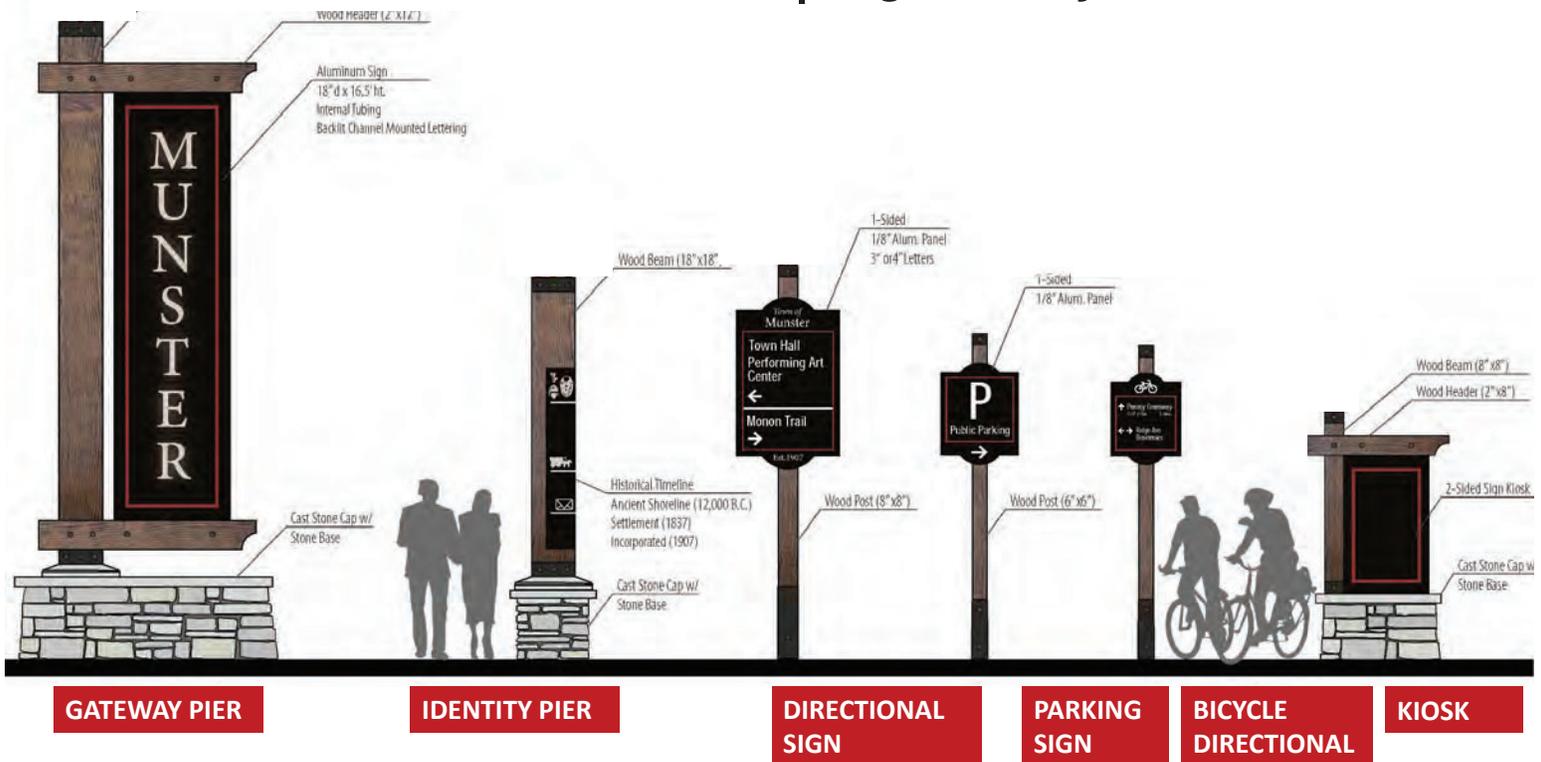
THANK YOU! WHAT QUESTIONS CAN WE ADDRESS?

Back of deck slides

CONCEPT PLAN ELEMENTS | Sign Family - Metal



CONCEPT PLAN ELEMENTS | Sign Family – Timber + Stone



CONCEPT PLAN ELEMENTS | Furnishings - Rustic



CONCEPT PLAN ELEMENTS | Furnishings - Refined



CONCEPT PLAN ELEMENTS | Plantings

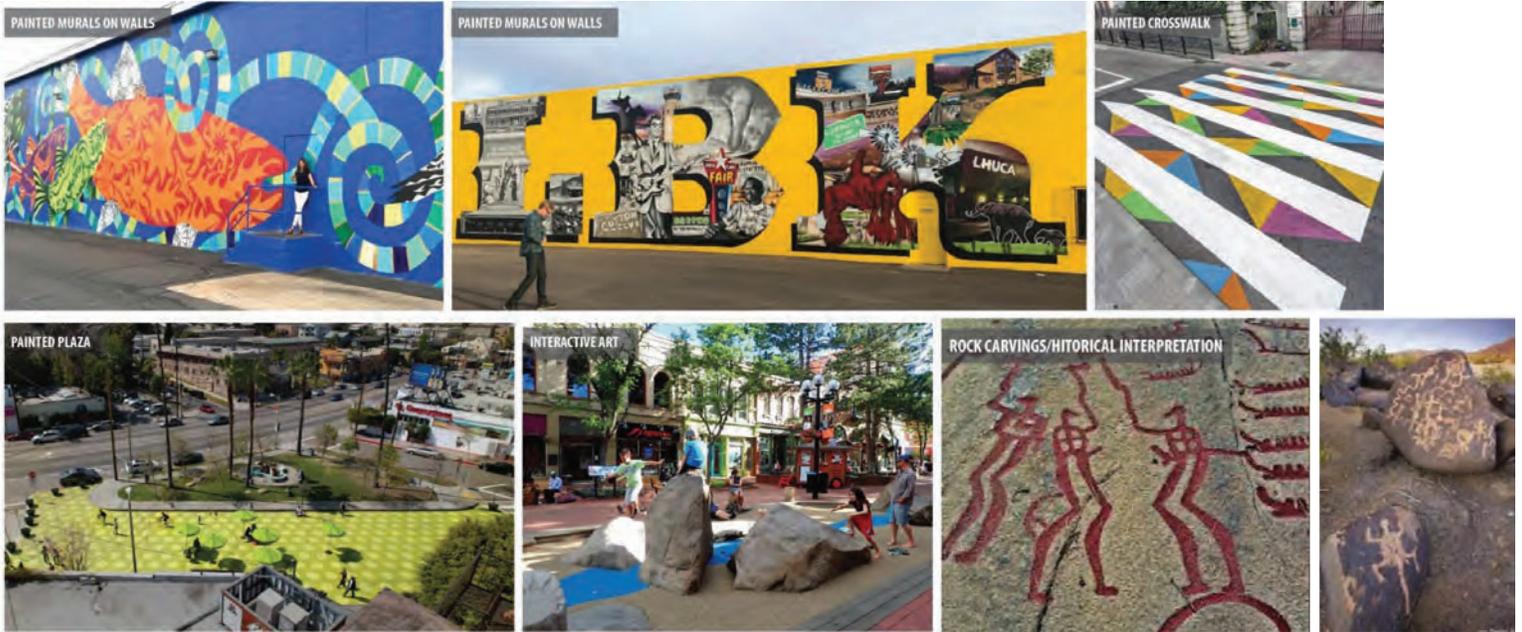
 <p>American Hornbeam <i>Cornus ovata</i> Mature Height: 22' Mature Width: 33' Pollinators: Butterflies/Moths</p>	 <p>Ohio Buckeye <i>Aesculus glabra</i> Mature Height: 33' Mature Width: 33' Pollinators: Bees & Hummingbirds</p>	 <p>Dwarf Bush Honeysuckle <i>Diervilla lonicera</i> Mature Height: 1'-3' Mature Width: 3'-5' Flower Color: Red/Orange/Yellow Pollinators: Butterflies & Hummingbirds</p>	 <p>New Jersey Tea <i>Ceanothus americanus</i> Mature Height: 2'-3' Mature Width: 2'-3' Flower Color: White Pollinators: Bees, Butterflies/Moths, & Hummingbirds</p>
 <p>Black Tupelo <i>Nyssa sylvatica</i> Mature Height: 42' Mature Width: 52' Pollinators: Bees</p>	 <p>Red Maple <i>Acer rubrum</i> Mature Height: 45' Mature Width: 42' Pollinators: Bees & Blue Moths</p>	 <p>Kalm's St. John's wort <i>Hypericum kalmianum</i> Mature Height: 2'-3' Mature Width: 3'-4' Flower Color: Yellow Pollinators: Bees</p>	 <p>PERMEABLE PAVING AT SIDEWALKS WITH RAIN GARDENS</p>
 <p>Common Hackberry <i>Celastrus occidentalis</i> Mature Height: 52' Mature Width: 52' Pollinators: Butterflies/Moths</p>	 <p>Swamp White Oak <i>Quercus bicolor</i> Mature Height: 52' Mature Width: 42' Pollinators: Butterflies</p>	 <p>Yellowwood <i>Flacourtia venusta</i> Mature Height: 42' Mature Width: 39' Pollinators: Butterflies/Moths</p>	

NOTE: Mature tree heights and widths are dependent on soil conditions and maintenance practice.

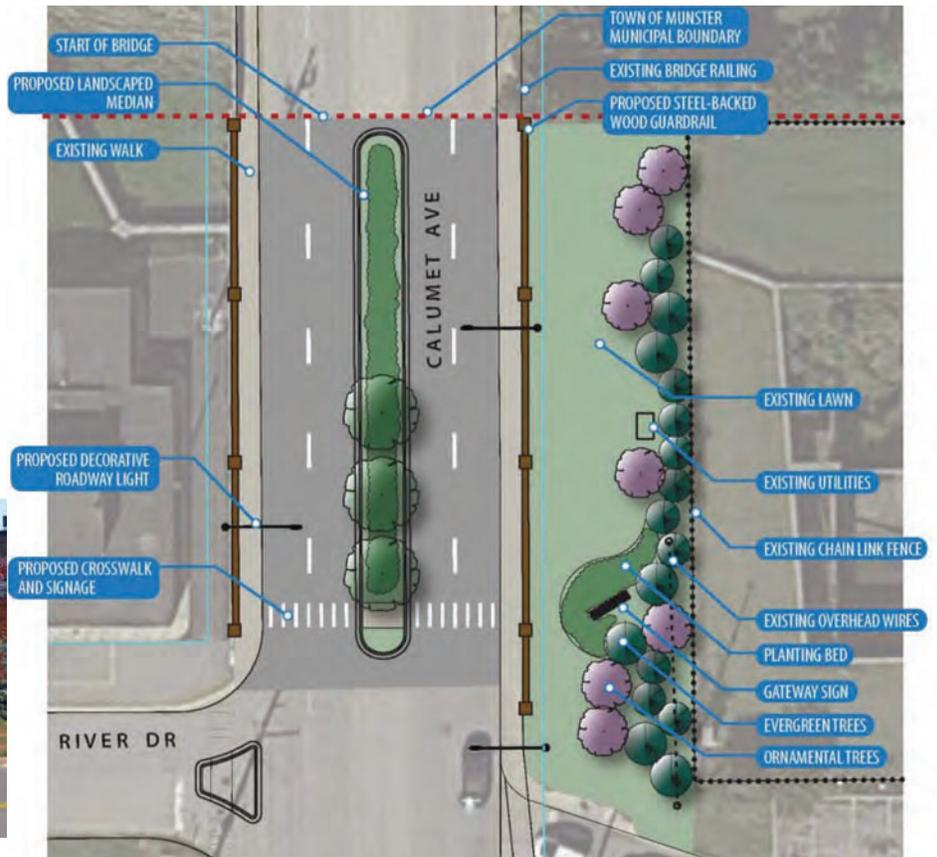
CONCEPT PLAN ELEMENTS | Roadway Lights, Signals + Ped Lights

				
<p>45th and Calumet Ave</p>		<p>Shepherd's Crook</p>	<p>Post Top</p>	<p>Caged Acorn (Hohman Ave)</p>

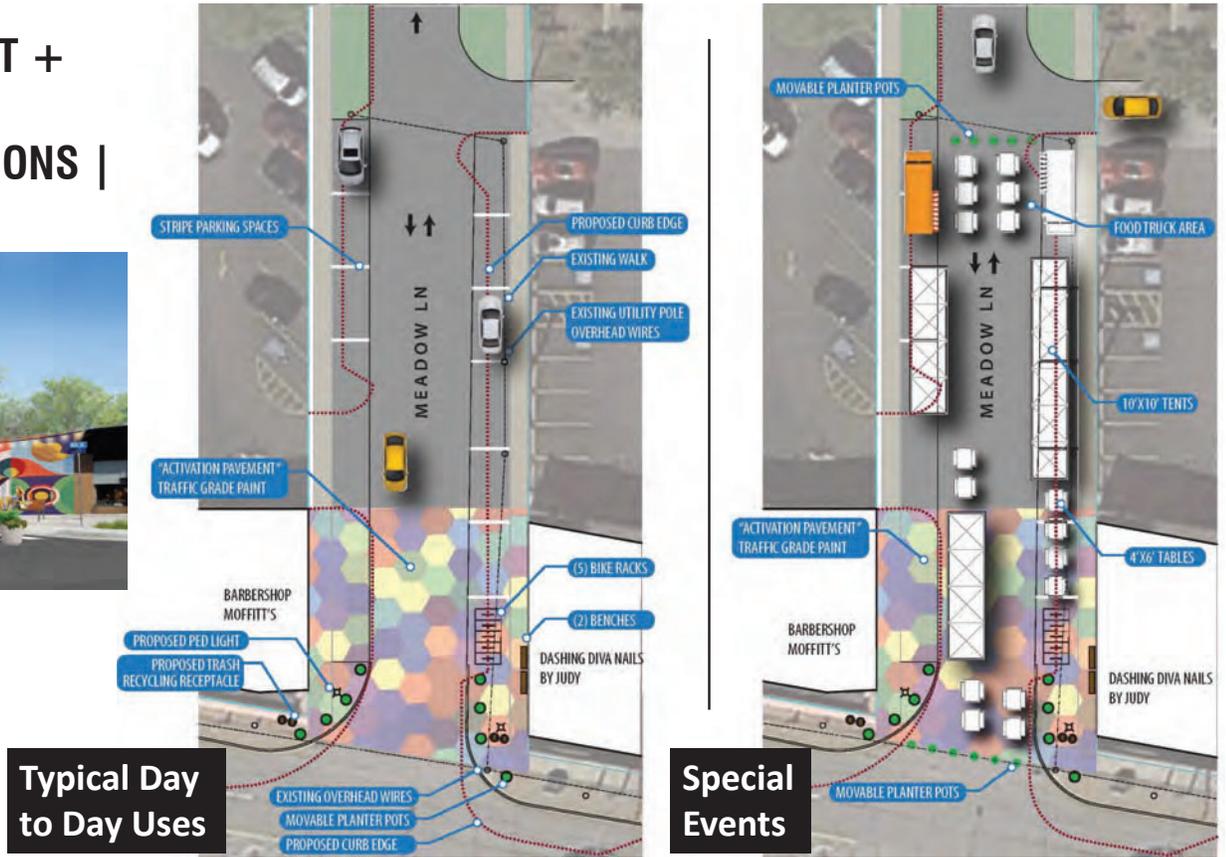
CONCEPT PLAN ELEMENTS | Public Art



PILOT PROJECT | North Calumet Avenue Gateway



**PILOT PROJECT +
STREETSCAPE
DEMONSTRATIONS |
Meadow Lane**



CONCEPT PLAN | Min vs Max

**MINIMUM
ROADWAY
CHANGE:**

**Add amenities within available
right of way areas without
modifying traffic patterns.**

**MAXIMUM
ROADWAY
CHANGE:**

**Reallocate some traffic spaces
for additional amenities.**

CONCEPT PLAN | Min vs Max Intro – Calumet Avenue

<p>MAXIMUM ROADWAY CHANGE</p>	<ul style="list-style-type: none"> • Reduce frequency of left turn movements. • Reallocate center turn lane for: <i>landscaped medians + traffic calming</i> 	SB lane	SB lane	center turn lane / landscaped median	NB lane	NB lane
<p>MINIMUM ROADWAY CHANGE</p>	<ul style="list-style-type: none"> • Replace pavers + planter pots with a continuous landscaped parkway (trees + lawn) 	SB lane	SB lane	center turn lane	NB lane	NB lane

CONCEPT PLAN | Min vs Max Intro – Ridge Road

<p>MAXIMUM ROADWAY CHANGE</p>	<ul style="list-style-type: none"> • Reduce 5 travel lanes to 3 travel lanes. • Reallocate 2 travel lanes for: <i>on street parking, wider sidewalks, multi-use trail, landscaping + traffic calming</i> 	multi-use trail	EB lane	center turn lane / landscaped median	WB lane	on-street parking
<p>MINIMUM ROADWAY CHANGE</p>	<ul style="list-style-type: none"> • Replace pavers + planter pots with continuous streetscape planting treatments • Replace striped areas with landscaped medians 	EB lane	EB lane	center turn lane / landscaped median	WB lane	WB lane

OUTREACH | Stakeholder interviews

July 2020	August 2020	September 2020
Lee Ann Mellon, Committee; Town President	Dan Straka, Committee; Sweet Tooth	Steve Tripinfeldas, Asst Superintendent, School Town of Munster
Dan Buksa, Board of Zoning Appeals	Bill Baker, Chair Plan Commission; Little Cal River Basin Development	Steve Tulowitski, Council Member
Brian Specht, Plan Commission	Bruce Boyer, Local developer (Munster Shops)	
Ken Schoon, Committee; Town Council	Patrick Owens, Resident	
Don Erminger, Strack and Van Til	Ginny Dickman-Lopez, Resident, MOMs club president in Munster	
Rachel Branagan, Committee; Architect,	Joe Austin, Resident, Researcher at U of C	
Hope Martin, Committee, HWC Engineering	Joe Sinclair, Resident, Scout leader	
Chuck Gardiner, Former Parks Director; Council member and Plan Commission	Paul Nelson, Resident, What's Up Munster FB	
Eman Ibrahim, Planner, NIRPC	Paul Rotatori, Committee; South shore trails advocacy group	
Scott Milne, Milne Plumbing, property owner		
Anthony Christopher, Committee, Top Tier Nutrition		

METRICS | IMPERVIOUS VS PERVIOUS SPACE

RIDGE ROAD

	EXISTING	MIN	MAX
IMPERVIOUS SPACE	100%	89%	75%
PERVIOUS SPACE	0%	11%	25%

CALUMET AVENUE IMPERVIOUS VS PERVIOUS SPACE

	EXISTING	MIN	MAX
IMPERVIOUS SPACE	100%	90%	86%
PERVIOUS SPACE	0%	10%	14%

METRICS | PARKWAY WIDTHS + TREES

RIDGE ROAD			
	EXISTING	MIN	MAX
PARKWAY WIDTH	4'-6" to 9'-2"	3'-0" to 9'-2"	5'-0" to 17'-0"
TREES	0	123	255

CALUMET AVENUE			
	EXISTING	MIN	MAX
PARKWAY WIDTH	5'-0" - 12'-0"	3'-6" - 12'-0"	3'-6" - 12'-0"
TREES	8	132	132

METRICS | PEDESTRIAN CROSSINGS

PEDESTRIAN CROSSING DISTANCE (TYPICAL)			
	EXISTING	MIN	MAX
Ridge Road	55-70'	55-70'	35-70'
Calumet Avenue	55-75'	55-75'	55-75'

SIDEWALK WIDTH (TYPICAL)			
	EXISTING	MIN	MAX
Ridge Road	4'	5-6'	6-8' along north side 10' multiuse path along south side
Calumet Avenue	4'	5'	5'

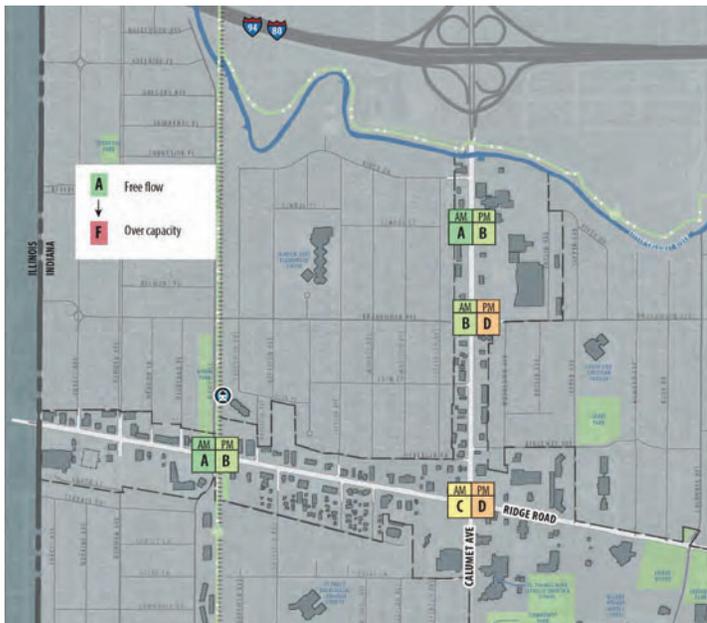
APPROACH TO FUTURE TRAFFIC ANALYSIS

- Build on 2014 conditions (Town-provided data)
- Extrapolate to 2020 based on INDOT growth trends
- Apply NIRPC projections reflecting area infrastructure improvements
- Add RDA development projections
- Further engineering study to be performed when design begins

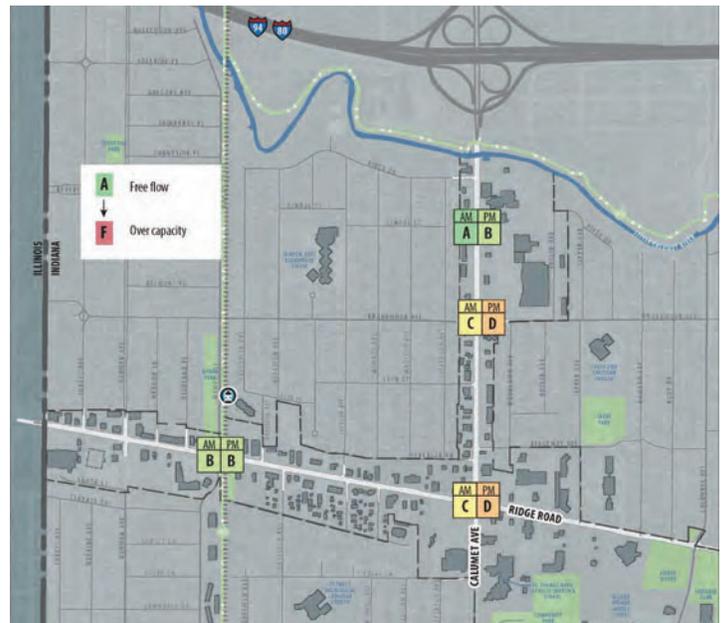


INTERSECTION LEVELS OF SERVICE

Future Min Scenario



Future Max Scenario

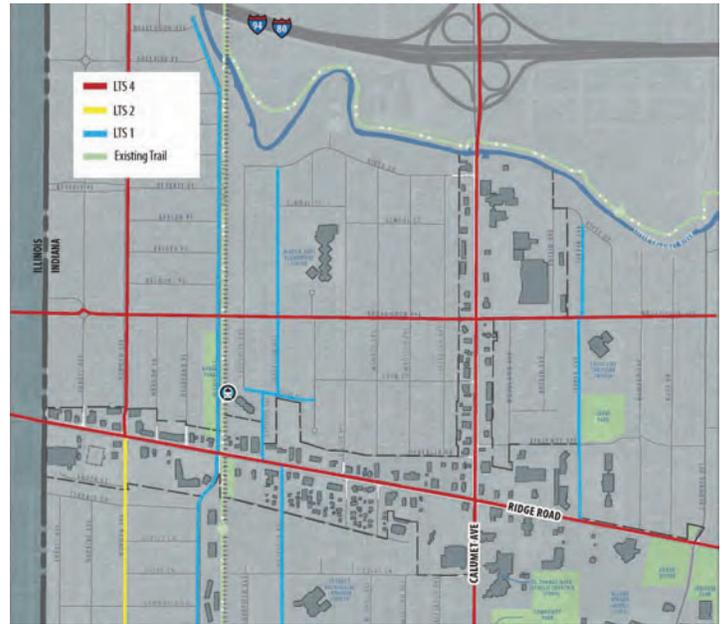


BICYCLIST LEVEL OF TRAFFIC STRESS (LTS)

Existing

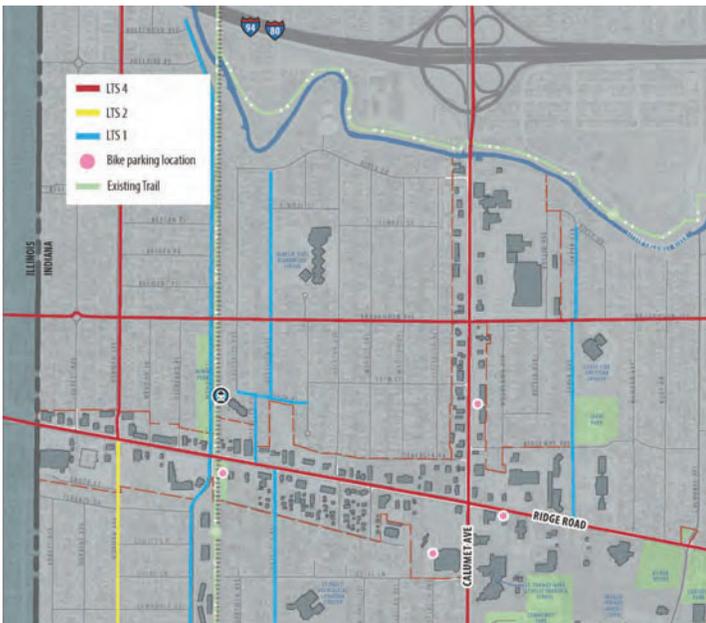


Future Min Scenario

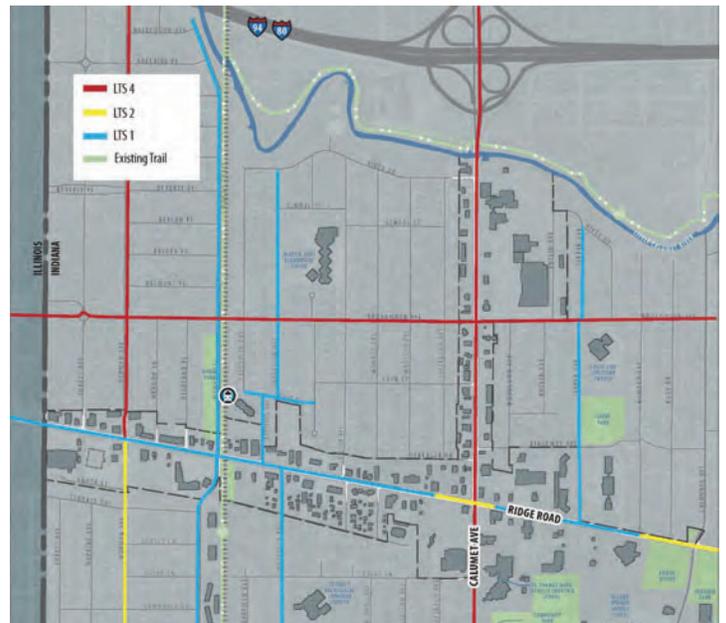


BICYCLIST LEVEL OF TRAFFIC STRESS (LTS)

Existing



Future Max Scenario



METRICS | TRAFFIC

DISTANCE BETWEEN PEDESTRIAN CROSSINGS

	EXISTING	MIN	MAX
Ridge Road	300'-2,300'	275'-1,200'	275'-1,200'
Calumet Avenue	860'-1,820'	390'-1,340'	390'-800'

NUMBER OF CURB CUTS

	EXISTING	MIN	MAX
Ridge Road	59 total (~9 per 1,000 ft) <ul style="list-style-type: none"> • 58 full access • 1 limited access 	56 total (~8 per 1,000 ft) <ul style="list-style-type: none"> • 50 full access • 6 limited access 	56 total (~8 per 1,000 ft) <ul style="list-style-type: none"> • 44 full access • 12 limited access
Calumet Avenue	56 total (~13 per 1,000 ft) <ul style="list-style-type: none"> • 56 full access • 0 limited access 	54 (~12 per 1,000 ft) <ul style="list-style-type: none"> • 54 full access • 0 limited access 	55 total (~13 per 1,000 ft) <ul style="list-style-type: none"> • 36 full access • 19 limited access

METRICS | TRAFFIC

NUMBER OF PARKING SPACES

	EXISTING	MIN	MAX
Ridge Road	0	0 during peak hours, 58 during off-peak hours	58
Calumet Avenue	0	0	0

* Additional on-street parking at Highland Pl, Meadow Ln and Forest Ave.
 Approx 10 spaces per street = 30 spaces

* Additional on-street parking at Seberger Dr (2) 30th St (4) = 6 spaces

METRICS | TRAFFIC

VEHICLE DELAY (BY INTERSECTION)

	EXISTING	MIN	MAX
Ridge/Calumet	30.9 AM	31.3 AM	32.8 AM
	41.1 PM	45.0 PM	51.6 PM
Ridge/Manor	12.8 AM	8.9 AM	11.9 AM
	18.0 PM	10.8 PM	19.9 PM
Calumet/Broadmoor	24.5 AM	16.8 AM	24.8 AM
	42.5 PM	38.8 PM	43.8 PM

VEHICLE QUEUES

	EXISTING	MIN	MAX
Ridge Road	126-237' AM	93-229' AM	105-227' AM
	240-434' PM	83-270' PM	194-544' PM
Calumet Avenue	80-593' AM	330-706' AM	318-657' AM
	115-572' PM	453-851' PM	446-837' PM

AGENCY OUTREACH + CONSIDERATIONS

NICTD	<ul style="list-style-type: none"> Station area plans at 30% Anticipated construction completion by 2025
NRPC	<ul style="list-style-type: none"> Support complete streets approach Funding opportunities for streetscape: <i>Next Level Trails; Transportation Enhancement Funds (INDOT); Green Streets Funds</i> NIRPC could fund a Transportation Master Plan
Little Calumet River Basin Development	<ul style="list-style-type: none"> Funding opportunities for streetscape: <i>The Tree Grant; Plantings associated with north Calumet gateway.</i>
Indiana DNR	<ul style="list-style-type: none"> Potential funding programs: <i>FEMA BRIC (Building Resilient Infrastructure and Communities); GLRI (Great Lakes Restoration Initiative); DNR Small Grants (wayfinding, green infrastructure)</i>
NIPSCO	<ul style="list-style-type: none"> Calumet Ave is a transmission corridor Ridge Rd is mostly distribution Opportunities to consolidate aerial crossings at Ridge Rd and to consolidate utilities as part of the station development.



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CALUMET-RIDGE STREETScape PLAN

COMMITTEE MEETING #4 SUMMARY

May 26, 2021 | videoconference | 4:30 pm

The purpose of Committee Meeting #4 was to review the draft final streetscape plan report. Due to the current health crisis, the meeting was conducted via Zoom videoconference. A link containing the draft final streetscape plan report and appendix was emailed to the committee in advance of the meeting.

The following participants attended this meeting.

COMMITTEE MEMBERS	CONSULTANT TEAM
<ul style="list-style-type: none"> • Tom Vander Woude, Community Development, Town of Munster • Dustin Anderson, Town Manager, Town of Munster • Paul Rotatori, Resident, South Shore Trails Member • Ken Schoon, Town Council • Anthony Christopher, Business Owner, Top Tier Nutrition • Steve Tripenfeldas, Assistant Superintendent • Scott Milne, Business Owner • Don Erminger, Local Business, Strack & Van Til • Dan Straka, Sweet Tooth • Eman Ibrahim, NIRPC • Rachel Branagan, local architect • Chuck Gardiner, Town Council 	<ul style="list-style-type: none"> • Jodi Mariano, Teska Associates • Heather Faivre, Teska Associates • Stacey Meekins, Sam Schwartz Consulting



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The meeting agenda and presentation topics follow below:

1. **Project scope + schedule review**
2. **Plan report organization**
3. **Plan revisions made since Committee Meeting #3**
4. **Questions / comments**
5. **Next steps:**
 - a. *Report comments and digital signatures requested by June 4.*
 - b. *Town Council Presentation and Review June 21.*

As the 4th and Final Committee Meeting scheduled for this planning effort, Tom van der Woude provided an introduction and thanked the committee for their participation in guiding the plan.

Teska provided an overview of the plan report organization and plan revisions made since the last committee meeting. Those revisions are listed below:

1. Calumet Avenue
 - a. Reduced median lengths for left turn access at Clock Tower Plaza and Boston Market
2. Ridge Road
 - a. Closed access at the Bank building located west of Calumet and south of Ridge (due to close proximity to the intersection)
 - b. Modified / lengthened conceptual roadway tapers at Commander Restaurant and Dairy Queen to allow for additional stacking.
3. It was noted that all roadway and streetscape improvements will require further study and final engineering prior to implementation.

The following comments were provided about the plan document in general:

1. It was suggested that existing light poles to be replaced in the future may be reused / relocated to the Monon Trail.
2. Some community members have expressed concerns about the proposed lane reductions at Ridge Road. It was noted that due to historic and projected traffic patterns, as well as traffic modeling, a lane can be reduced in each direction to provide for improved bike and pedestrian access. The improved bike and pedestrian amenities are supported by the community outreach and desire for a more walkable/bikable and business-friendly downtown environment, which is currently lacking in Munster.



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3. It was noted that anecdotally, congestion seems to occur at signalized intersections. The streetscape plan protects existing signalized intersection geometries as-is and recommends tapers and transitions inbetween intersections to accommodate pedestrian, bike and landscape amenities.
4. Semi-truck traffic using Ridge Road was discussed. It was noted that several businesses work with their delivery drivers to accept deliveries during non-peak times only. Other businesses are encouraged to do the same.
5. Consider adding pedestrian signals / flashing beacons at the non-signalized mid block crossings.
6. The implementation plan was reviewed. The committee generally agreed with the recommended near, mid and long term projects. A suggestion was made to continue to include committee inputs as the Town embarks upon implementation.
7. It was suggested that the crash data and ADT be highlighted in the report.

Next steps include the following:

- Committee to review the draft plan report and provide comments to staff by June 4.
- Town Council presentation: June 21

The meeting adjourned at 5:45 pm.



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CALUMET-RIDGE STREETScape PLAN

COMMITTEE MEETING 4

May 26, 2021 | Videoconference | 4:30pm

Join Zoom Meeting

<https://zoom.us/j/99731284565?pwd=Qkt0OWJBV3V2Z3RaUkISTW5aYTA0dz09>

Meeting ID: 997 3128 4565

Passcode: 403495

Find your local number: <https://zoom.us/u/acCT9qls3>

Link to the Calumet-Ridge Streetscape Plan Report draft, dated 5/19/21

https://teskaassociatesil-my.sharepoint.com/:f:/g/personal/jmariano_teskaassociates_com/EnZjm0LJGnNAjXvdYUjXPKYBN4dYClMudX9y8lfNqVePTQ?e=J6AD1f

Meeting Agenda

- 1. Project scope + schedule review**
- 2. Plan report organization**
- 3. Plan revisions made since Committee Meeting #3**
- 4. Questions / comments**
- 5. Next steps:**
 - a. Report comments and digital signatures requested by June 4.*
 - b. Town Council Presentation and Review June 21.*

For past streetscape planning documents, please visit: <https://munster-streetscape.org/documents/>

A2 – Neighborhood Poll Summaries



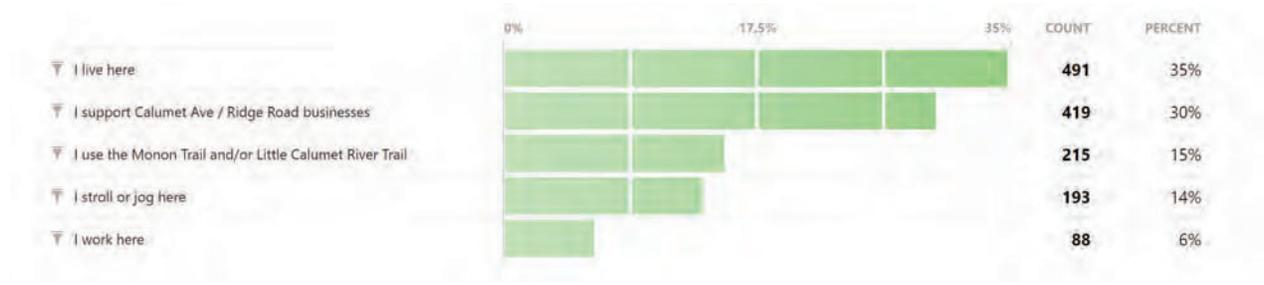
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Calumet-Ridge Streetscape Plan

Neighborhood Poll #1 Summary

Results are in! BIG thanks to the whopping **596** participants who shared input as part of the first ‘Calumet-Ridge Streetscape’ Neighborhood Poll. We received responses from people who feel a strong sense of connection to the Town of Munster. Respondents reported that they call Munster their home (35%), support Calumet Avenue / Ridge Road businesses (30%), Use the Monon Trail and/or Little Calumet River Trail (15%), Stroll or jog in the area (13%) and work in Munster (6%).

Poll #1 Participant Profile | Neighborhood Connection

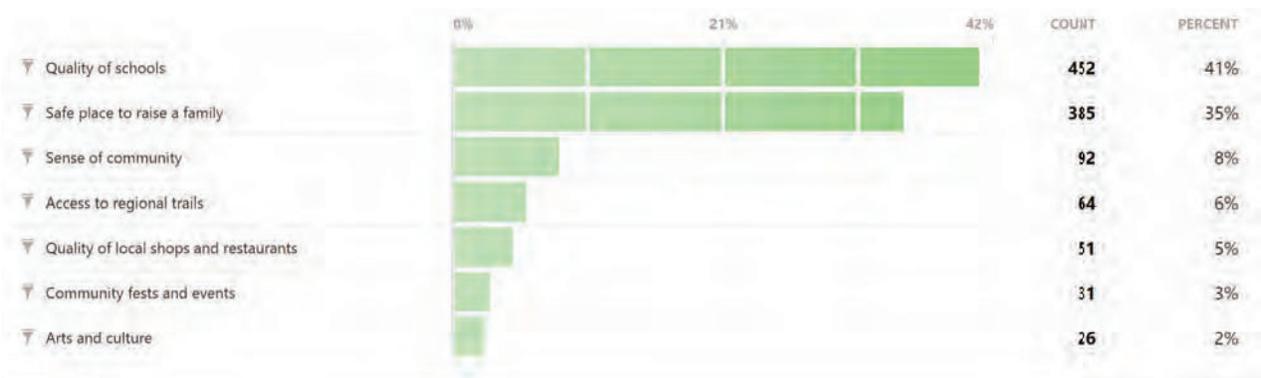




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What do you like about Munster?

When asked what folks like most about Munster, the top two responses were **'Quality of schools'** (41%) and **'Safe place to raise a family'** (35%), followed by 'Sense of community' (8%), 'Access to regional trails' (6%), 'Quality of local shops and restaurants' (5%), 'Community fests and events' (3%), and 'Arts and culture' (2%).





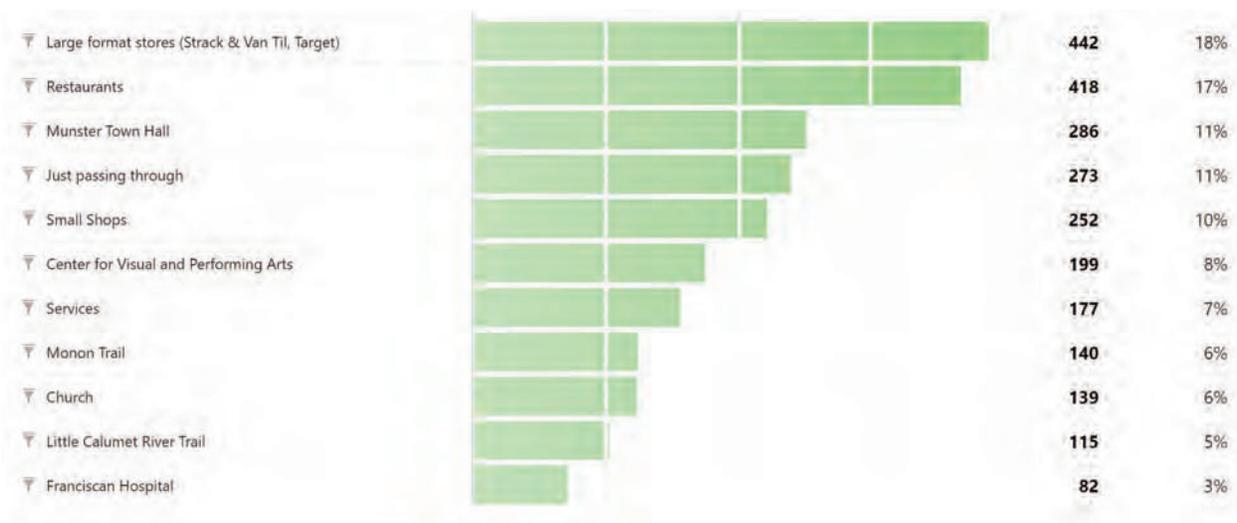
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Identify the reasons for trips to Calumet Ave / Ridge Rd during the past year.

When asked why participants visited Calumet Avenue / Ridge Road during the past year, the top four responses were **‘Large Format stores’** (18%), **‘Restaurants’** (17%), **‘Munster Town Hall’** (11%), and **‘Just passing through’** (11%). Other responses include **‘Small Shops’** (10%), **‘Center for Visual and Performing Arts’** (8%), **‘Services’** (7%), **‘Monon Trail’** (6%), **‘Church’** (6%), **‘Little Calumet River Trail’** (5%), and **‘Franciscan Hospital’** (3%).

51 individual comments were provided. Repeated responses and themes include:

- The Calumet Avenue / Ridge Road corridors are generally considered to be unattractive and unavoidable for those traveling to or from Munster.
- Other noted destinations include the Library, Schools, Post Office, Community Hospital, Gas Stations, and access to I- 80/94.
- Key quotes include:
 - *“Typically driving through. It is a heavily – trafficked area that is not necessarily a friendly environment to visit.”*
 - *“Would love to visit that area, but traffic is too fast to do anything but pass through.”*
 - *“Area is very car-centric, so visits are to stores, in and out. Would be nice to have more walkability, coffee shops, etc.”*





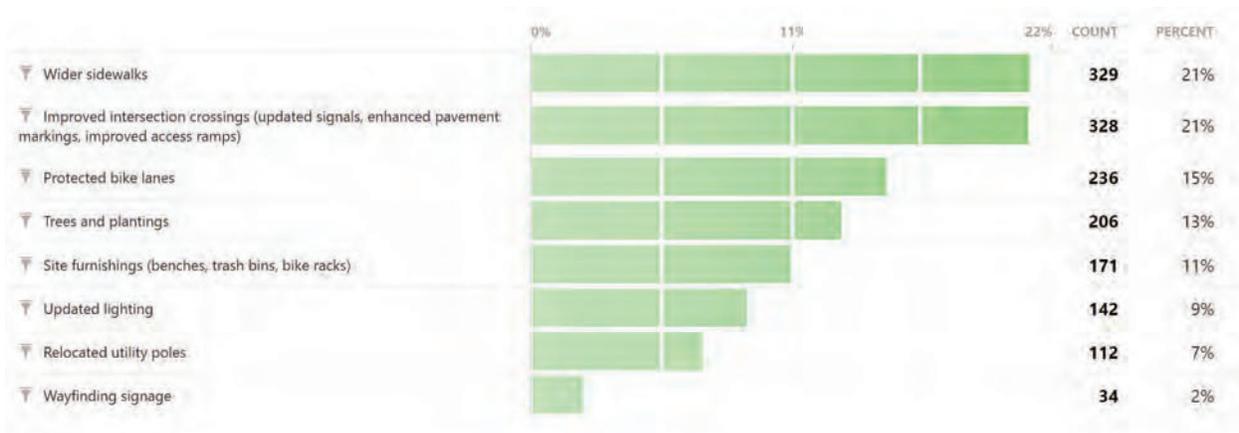
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How likely are you to bike or walk along the Calumet Ave / Ridge Road corridors if the following improvements were made?

When asked how likely participants were to bike or walk along Calumet Avenue / Ridge Road if certain improvements were made, the top three responses were **‘Wider sidewalks’** (21%), **‘Improved intersection crossings’** (21%), and **‘Protected bike lanes’** (15%). Other responses include **‘Trees and plantings’** (13%), **‘Site furnishings’** (11%), **‘Updated lighting’** (9%), **‘Relocated utility poles’** (7%), and **‘Wayfinding signage’** (2%).

92 individual comments were provided. Repeated responses and key themes include:

- Wider sidewalks and multi-use paths were noted as desirable, however channelized and dedicated on-street bike lanes were noted as undesirable.
- Streetscape furnishings (such as planter pots) should be carefully placed so as not to impede movement or motorist visibility.
- Landscape plantings should be well maintained and provide physical separation from roadway and sidewalks.
- Key quotes include:
 - *“Relocated utility poles, wider sidewalks, improved intersection crossings and protected bike lanes are all very critical.”*
 - *“I would not feel comfortable biking on the street but a bike lane on the sidewalk would be great.”*
 - *“Would be great if there was more distance between cars and where people would walk/ride bikes.”*





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If improvements were made, reorder the roadway crossing locations that would serve you best as a biker or walker.

When asked to prioritize intersections for better bike and pedestrian access, the Calumet Ave were generally ranked higher than the Ridge Road intersections. Intersections were ranked as follows:

1. **Calumet Ave at Ridge Road**
2. **Calumet Ave at the Target Development**
3. **Calumet Ave at Broadmoor Ave**
4. **Ridge Road at Columbia Ave**
5. **Ridge Road at Harrison Ave (east)**
6. **Ridge Road at Manor Ave**
7. **Ridge Road at Harrison Ave (west)**
8. **Ridge Road at Hohman Ave**





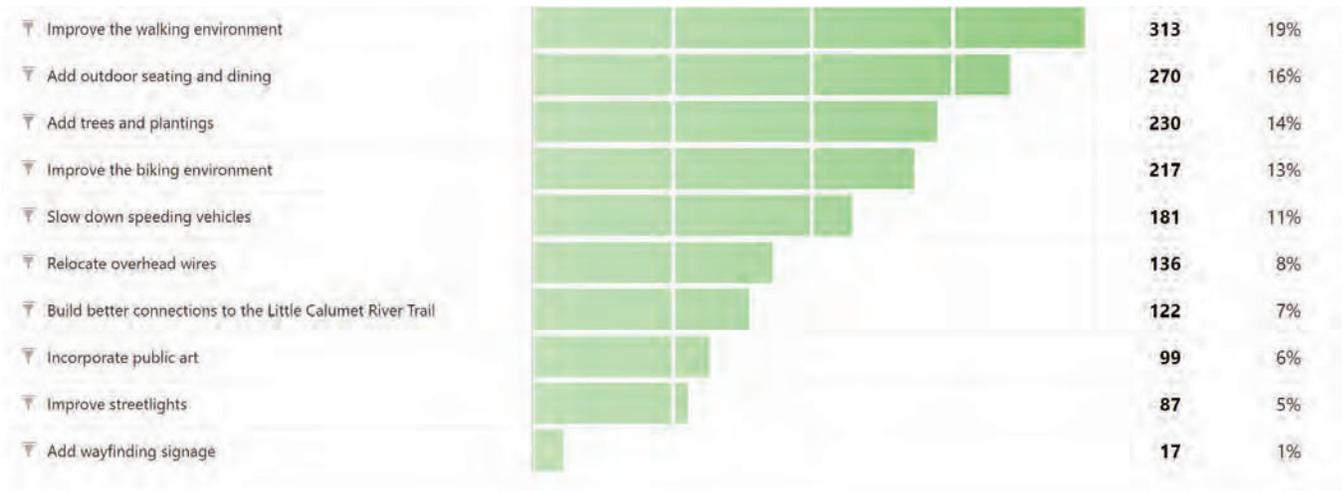
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How would you improve Calumet Avenue?

When asked to identify how participants would improve Calumet Avenue, the top four improvements include **‘Improve the walking environment’** (19%), **‘Add outdoor seating and dining’** (16%), **‘Add trees and plantings’** (14%) and **‘Improve the biking environment’** (13%). Other responses include **‘Slow down speeding vehicles’** (11%), **‘Relocate overhead wires’** (8%), **‘Build better connections to the Little Calumet River Trail’** (7%), **‘Incorporate public art’** (6%), **‘Improve streetlights’** (5%), and **‘Add wayfinding signage’** (1%).

90 individual comments were provided. Repeated comments and key themes include:

- Traffic calming, safety and functionality are of the utmost importance.
- Work with adjacent businesses to improve parking access, building facade improvements and landscaping.
- Improve the north end of Calumet Ave with an attractive gateway sign and landscaping into the community.
- Key quotes include:
 - *“The first things to do would be to improve walking/biking environment by relocating overhead wires and poles and slowing down vehicles. After that, people would feel more comfortable with outdoor seating/dining. Signage, art, trees and connections to the trail would all be great, but we must feel comfortable and safe, first.”*
 - *“It’s the first street that people see when they get off the expressway and there is nothing attractive about it at all (currently).”*





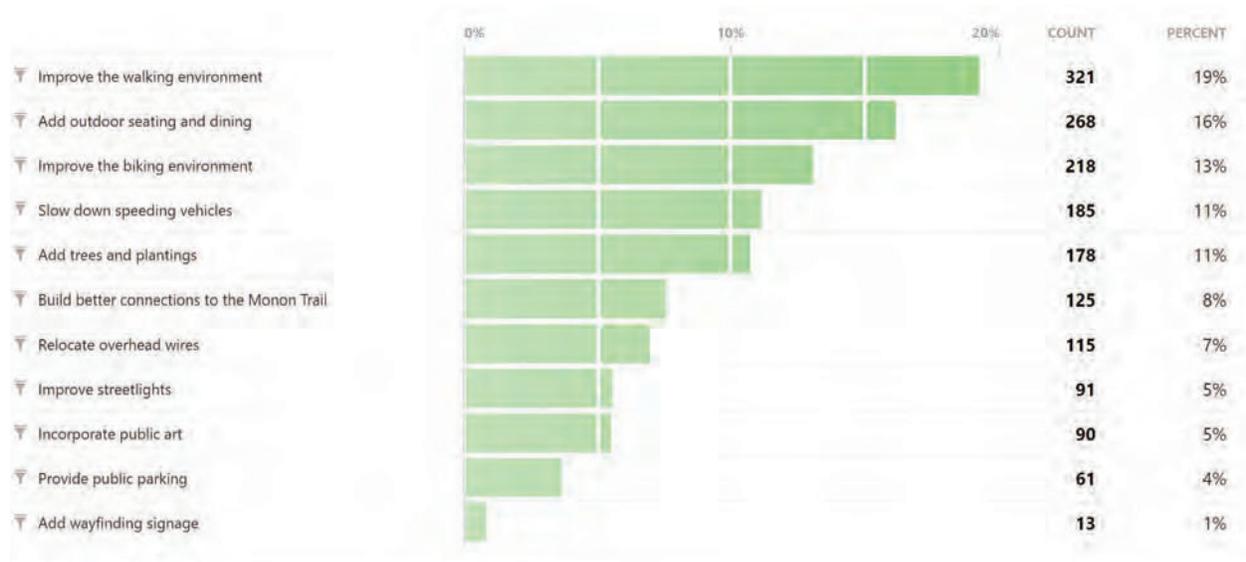
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How would you improve Ridge Road?

When asked to identify how participants would improve Ridge Road, the top three improvements include **'Improve the walking environment'** (19%), **'Add outdoor seating and dining'** (16%), and **'Improve the biking environment'** (13%). Other responses include **'Slow down speeding vehicles'** (11%), **'Add trees and plantings'** (11%), **'Build better connections to the Monon Trail'** (8%), **'Relocate overhead wires'** (7%), **'Improve streetlights'** (5%), **'Incorporate public art'** (5%), **'Provide public parking'** (4%), and **'Add wayfinding signage'** (1%).

53 individual comments were provided. Repeated comments and key themes include:

- Ridge Road has the potential to become a destination if traffic were calmed and sidewalks were better designed.
- Provide improved parking facilities on street and behind businesses as viable.
- Key quotes include:
 - *"Public street parking would be great if we could fit it – much like Lansing's downtown."*
 - *"Ridge should be seen as the best place for a walking, dining, and shopping area."*
 - *"Create a more cohesive look that signifies this is the main "business district". Make it a destination.... need adequate parking and easy access on-off Ridge."*
 - *"Start a street Munster fest once a year."*





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If you had a magic wand, what would you do to improve the Calumet Ave / Ridge Road Corridor?

When asked how participants would envision improvements to Calumet Avenue and Ridge Road, 391 individual comments were provided. Comments are grouped into themes below:

- **Safety first.** Calumet Ave and Ridge Road are generally perceived to be unsafe today – future improvements should consider safety for all modes of transportation.
- **Calm traffic.** Given the corridor’s access to I-80 / 94, and the scale of the roadways, cars tend to speed. Traffic should be calmed to support safer conditions for people.
- **Improve biking and walking.** The Monon Trail, Little Calumet River Trail, local businesses, attractive neighborhoods, and planned train station are draws for biking and walking. Improve the streetscape to support these activities in a safe manner.
- **Create an attractive atmosphere.** Build upon local positive examples of placemaking to improve corridor ambience and attract new quality businesses. Noted local examples include the Monon Trailhead, 313 Taproom, Casa Del Mar and Marko’s Bar and Grill.
- **Declutter the streetscape.** The corridors have a ‘hodge-podge’ appearance today due in part to utility poles, a mixture of historically themed lights and broken concrete planters. Make deliberate streetscape improvements while also maintaining clear views.
- **Make it greener.** The corridors are perceived to have too much asphalt and concrete today. Incorporate appropriately placed native plantings and establish pollinator habitat that connects back to the environment of the Little Calumet River.
- **Work with property owners to improve their curb appeal.** Code enforcement and incentive programs can help to improve the corridor via façade enhancements, business signage, well-organized parking, lighting, and landscaping.
- **Maintenance is key.** A commitment should be made by property owners and the Town of Munster to maintain the streetscape.



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- Key quotes follow below:
 - *“Redesign to safely accommodate people (walkers, bikers) instead of only cars.”*
 - *“Modernize the area and bring in good quality food choices to support the housing industry and shopping industry that is all in this area. Make it feel like a living, shopping, dining experience all within a convenient location. Improve ease of walking with sidewalks.”*
 - *“I would like to see the downtown used similarly to that of other communities for weekly car shows, art fairs, foodie events, community gatherings.”*
 - *“I love the idea of adding flowers and greenery but safety is absolutely #1.”*
 - *“The fact that the sidewalk is right next to the street makes it feel dangerous especially during rush hour.”*
 - *“Revise to less of a “travel through” and more of a “travel to” situation. Add greenery, landscaping and slow down the traffic so that people feel safe walking or biking.”*



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Calumet-Ridge Streetscape Plan

Neighborhood Poll #2 Summary

Many thanks to our friends in Munster for participating in Poll #2! The poll was open between February 12 and March 5, 2021. Based on the inputs received during earlier outreach activities, Poll #2 delved further into streetscape design issues, including visual preference surveys and responses to renderings at Ridge Road and Calumet Avenue. Some stats follow below:

470 folks participated in the visual preference survey and provided 832 original comments.

109 people voted and provided original comments for the Calumet Avenue rendering.

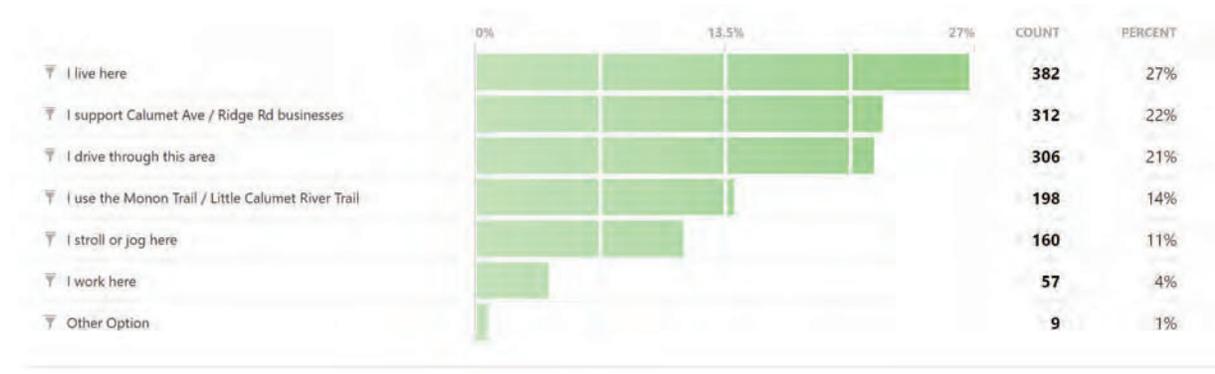
136 people voted and provided original comments for the Ridge Road rendering.



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Like the previous poll, we received responses from people who feel a strong sense of connection to the Town of Munster. Respondents reported that they call Munster their home (27%), support Calumet Avenue / Ridge Road businesses (22%), drive through the area (21%), use the Monon Trail and/or Little Calumet River Trail (14%), Stroll or jog in the area (11%) and work in Munster (4%).

Poll #2 Participant Profile | Neighborhood Connection





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Traffic calming was identified as a need along Calumet Avenue. In your opinion, which type of traffic calming is most appropriate for Calumet Avenue? (select one)

When presented with sample photos and asked which type of traffic calming is most appropriate for Calumet Avenue, the following inputs were received:

<p>35%</p>	<p>Landscaped center median</p>	
<p>33%</p>	<p>Mid-block crossings / pedestrian refuge islands</p>	
<p>31%</p>	<p>Parkway trees and lawn plantings</p>	

71 individual comments were provided. Repeated responses and themes include:

- Long term and seasonal maintenance is critical for any improvements.
- Maintain clear and open views, especially for turning vehicles.
- Some comments reflected concerns about the amount of available space for the proposed improvements. Please refer to the existing + proposed roadway sections for information.
- Key quotes include:
 - *“I think the median would help with traffic calming, especially if it limited turn movements”*
 - *“Both landscaped center medians and pedestrian refuge crossings. We need to eliminate semi trucks stopping in the middle of Calumet and parking there.”*
 - *“Because I want to see more pedestrian activity, this would encourage safer crossings on a very heavily traveled roadway.”*



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A vibrant downtown environment was noted as a key opportunity along Ridge Road. In your opinion, which streetscape treatment is the best fit for Ridge Road? (select one)

When presented with sample photos and asked which type of streetscape treatment is most appropriate for Ridge Road, the following inputs were received:

<p>54%</p>	<p>Wider sidewalks for outdoor seating + dining</p>	
<p>30%</p>	<p>Active trails + strolling</p>	
<p>15%</p>	<p>Sculptural seating + lush plantings</p>	

60 individual comments were provided. Repeated responses and themes include:

- Pedestrian use areas need to be safely buffered from Ridge Road traffic.
- Outdoor patios should be coordinated with businesses.
- Safety and visibility along Ridge Road between motorists and pedestrians is critical.
- Key quotes include:
 - *“With COVID changing the norm, I think it’s super important to allow for restaurants and cafes to have outdoor seating and the space available to do so.”*
 - *“Trails for bikes is the biggest opportunity – they need to connect to broader regional trails and should be protected from cars. Even if that means taking a lane away from drivers. With bikers, a new train and the emergence of self-driving cars in the near future, traffic demand should be curbed not expanded.”*
 - *“So many people drive down Ridge merely as commuters. I think by widening sidewalks and creating more eating/drinking plus boutique type shops, we could not only give Munster residents a reason to stay local, but we could capture people who would otherwise pass through.”*



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Earlier comments suggested that a protected bike trail is preferred over on-street bike lanes along Ridge Rd. In your opinion, which trail treatment is preferred for Ridge Rd? (select one)

When presented with sample photos and asked which type of bike trail treatment is most appropriate for Ridge Road, the following inputs were received:

<p>40%</p>	<p>Off-street concrete bikeway at sidewalk level</p>	
<p>31%</p>	<p>On-street concrete bikeway with landscape buffer</p>	
<p>29%</p>	<p>On-street asphalt bikeway with landscape buffer</p>	

44 individual comments were provided. Repeated responses and themes include:

- Some comments reflected concerns about the amount of available space for the proposed improvements. Please refer to the existing + proposed roadway sections for information.
- Asphalt is noted as more comfortable for biking and running than concrete.
- Key quotes include:
 - *“I like any of these ideas since I don’t feel safe on my bicycle and typically go another way.”*
 - *“...prefer for bikeway and sidewalk to be separated, otherwise pedestrians tend to use the bike lane inadvertently.”*
 - *“Traverse City, MI had a similar problem with congestion, and they redesigned and narrowed lanes, with landscaped medians, which resulted in less cars and happier residents. The more a road LOOKS like a highway... the more it becomes just that.”*



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Trees and plantings were noted as important features of the streetscape. In your opinion, which planting treatments are the best fit for Munster? (select one)

When presented with sample photos and asked which type of bike trail treatment is most appropriate for Ridge Road, the following inputs were received:

<p>41%</p>	<p>Bioswale plantings + decorative gravel</p>	
<p>36%</p>	<p>Rain gardens</p>	
<p>23%</p>	<p>Native grasses + plantings</p>	

42 individual comments were provided. Repeated responses and themes include:

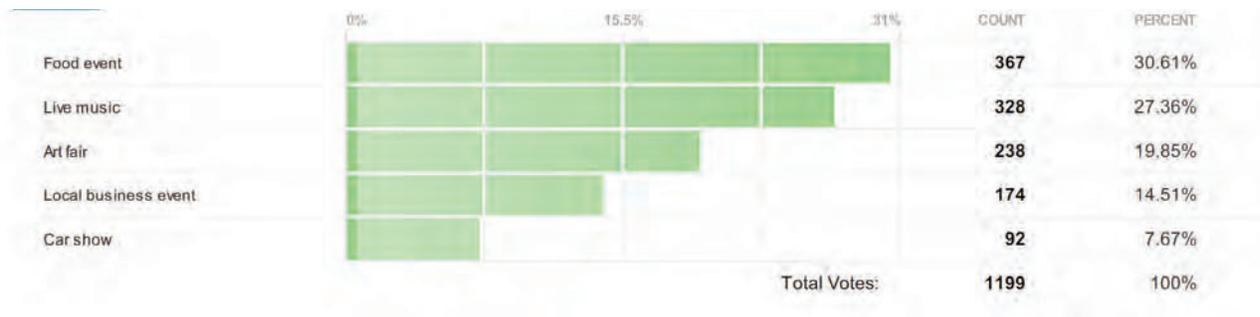
- Native plantings are preferred.
- A commitment to maintenance is needed.
- Maintain clear open views for motorists, pedestrians and bikers
- Key quotes include:
 - *“Rain gardens seem very cool. There is a great opportunity for community involvement or a community garden where neighborhoods could be encouraged to take ownership or pride in their street dressings.”*
 - *“I think managing the water run off is important.”*
 - *“Future maintenance costs must be included in any decision.”*



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A community fest and event space was noted as a desired feature of the plan. What type of community event would be most appealing to you? (select all that apply)

When asked which type of community event would be most appealing, (31%) selected Food Event, (27%) selected Live Music, (20%) selected Art Fair, (15%) selected Local Business Event, and (8%) selected Car Show.



61 individual comments were provided. Repeated responses and themes include:

- Community events should be organized in partnership with, and to support, local businesses.
- Centennial Park is an attractive local resource that should be programmed.
- Griffith (“Friday Nights”), Lansing, and Highland were noted as communities with attractive events programs that can be emulated in Munster.
- Key quotes include:
 - *“A “Taste of Ridge” event would be awesome!”*
 - *“Additional open space with events would help make the Ridge corridor a destination and greatly enhance the desirability of the area!”*
 - *“If the area was walkable, then food and local business events would be a great way to encourage small businesses in the area.”*
 - *“There is a broad range of cultures in our area which makes possible some kind of ethnic food festival showcasing a variety of foods from around the world.”*
 - *“A true farmer’s market would be so wonderful and pop-ups from local restaurants and breweries.”*



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In your opinion, which pedestrian scale light is the best fit for Ridge Road? (select one)

When presented with sample photos and asked which type of pedestrian scale light is most appropriate for Ridge Road, the following inputs were received:

Shepherd’s Crook	Caged Acorn (Hohman Avenue)	Post Top
55%	34%	11%
		

42 individual comments were provided. Repeated responses and themes include:

- Practicality is key: costs and maintenance considerations are important in the final selection.
- Minimize light pollution.
- Comments both for and against implementing Caged Acorns, which have a historic appearance.
- Considerations for light pole spacing and comments that the existing pedestrian lights appear to be too closely spaced.
- Key quotes include:
 - *“Should be consistent with what’s being done in Centennial Village and the two TOD stations.”*
 - *“I think that energy efficient lights that don’t light up the sky are best, there is too much light pollution.”*
 - *“AIIIII the charm. The details matter. Don’t be basic.”*



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Paint us a picture along Calumet Avenue: Thinking ahead to the future, please describe a scene you wish to see along Calumet Avenue.

241 individual comments were provided. Repeated responses and themes include:

- **Calmer traffic.** Calumet Ave traffic should be calmed so that it feels safer for all users.
- **More pedestrian friendly.** Street design should provide safe access for pedestrians along and across Calumet Avenue.
- **Updated buildings.** Improve building facades along Calumet Avenue and attract quality businesses.
- **Greening.** Enhance the landscape with trees and plantings.
- **Munster Identity.** Calumet Avenue is the first glimpse of Munster for many and this corridor should be improved to be a welcoming entrance to the community and to express Munster's unique identity and character.

- Key quotes include:
 - *"Clean, organized and full of families and community."*
 - *"Living in Munster for decades, it would be nice to see a more inviting atmosphere driving down Calumet Ave. I would like to see businesses that bring people in, shops, live music and more food places, living spaces like condos, and a place where you want to walk or bike there and just enjoy the atmosphere."*
 - *"Smooth moving traffic, along with lush green landscaping and pedestrian friendly walking and biking."*
 - *"Families walking and biking to restaurants or areas where they can picnic in the summer. Visit Carmel, Indiana for reference along the Monon Trail bike path."*
 - *"Not a poet, but I would like to see this area be visually, much softer with landscaping. More screening from the multiple parking fields. More pedestrian friendly at the businesses that are close to the street."*
 - *"Honestly, I'd just love to be able to feel protected from traffic while riding my bike with my family to get an Italian Ice."*
 - *"Being that I live on Jefferson Avenue parallel to Calumet Avenue, I've always wanted a more pedestrian friendly sidewalk and crosswalk. People from these neighborhoods should be encouraged to walk to the stores as I always have. However, it's always stressful crossing Broadmoor and Calumet. I would definitely love to see greener spaces with native trees and wild grasses between the sidewalks and the street. No more concrete jungles pretty please! I want Munster to be more lush and inviting!"*



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Paint us a picture along Ridge Road: Thinking ahead to the future, please describe a scene you wish to see along Ridge Road.

231 individual comments were provided. Repeated responses and themes include:

- ***Calm and manage traffic.*** Ridge Road should allow traffic to move safely and also should better accommodate pedestrians, bikers and businesses in the area. Consider better connectivity and neighborhood friendly traffic calming at surrounding streets.
- ***More parking.*** Support Ridge Road businesses with ample parking.
- ***Outdoor seating.*** Incorporate wider sidewalks to provide opportunities for businesses to expand and activate the sidewalks.
- ***Bike path.*** Maximize the nearby Monon Trail with an interconnected bike path.
- ***Greenery.*** Landscaping will provide much needed buffering to the street and serve to protect pedestrians.
- ***Family friendly, neighborhood vibe.*** Munster is a unique and welcoming community. Build off of this to establish Ridge Road as a truly unique attractive destination that is welcoming to residents and visitors.
- Key quotes include:
 - *“Coffee shops, protected bike path! 313 and Bombers are already the backbone of what Ridge could become.”*
 - *“Small town, community events, walkable, landscaped”*
 - *“A destination for more than take out or grocery shopping! I would love to see an active night life here – not bars, but a plethora of choices for dining outdoors, space to walk and ride with your family, while stopping to look at the plants and sit a while on benches – and space for our local small businesses to have shops in the main square of Cal/Ridge.”*
 - *“Having weekends in the summer where restaurants and even food trucks can sell food. It would be a place where people can eat and shop the stores on Ridge.”*
 - *“On a serious note, 10 years from now I would love to feel comfortable knowing my daughters could ride their bikes east on Ridge Road from White Oak to Columbia in order to get to MHS. The bike lanes would be really nice. Also bike lanes on Ridge Road would help connect to the new bike lane on Hohman Ave.”*
 - *“People strolling and not feeling scared to be hit by a speeding car. Areas to stop and eat outside. Love for our town to be more of a walking/biking community.”*
 - *“Calmer, more accessibility to the businesses with wider sidewalks. Lansing, Highland and Griffith have vibrant small businesses and Munster doesn’t have that same feel.”*



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North Calumet Avenue rendering. The North Calumet Avenue improvements include replacing the steel rail with a steel backed wood guardrail, gateway entry sign, light poles and plantings. A mid block pedestrian crossing and landscaped refuge island is proposed north of River Drive. Mural art may be coordinated with the hospital.

The following 'before and after' imagery was posted to the project website with an input tool that invited a 'thumbs up/thumbs down' response plus open ended comments.

The following inputs were provided: Thumbs up: 85 // Thumbs down: 24





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North Calumet Avenue rendering (*continued*)

109 individual responses were provided.

Repeated responses and themes for the North Calumet Avenue improvements include:

- **Maintenance.** Improvements to this area require additional maintenance which should be factored into the design.
- **Safety and sight lines.** Ensure that landscaping and other improvements maintain clear and open views for motorists and pedestrians.
- **Pedestrian crossing.** There were some concerns about adding a pedestrian crossing at this location due to current traffic speeds and volume. The pedestrian crossing would be reinforced by additional signage and landscaping to alert motorists of the crosswalk.
- **Murals.** There were mixed reviews about the mural graphic depicted. The purpose of the rendering is to identify the wall as a possibility for artwork. This would require coordination with the Hospital and likely would engage with a local artist to create a custom piece for Munster.
- Key quotes include:
 - *“I like that it is welcoming and shows you are entering the town.”*
 - *“I agree. The current look is not a great representation of what Munster should look like at the busiest entrance of the town. Not welcoming at all.”*
 - *“I think it looks amazing!! It enhances the positive sense of Munster as a community, whether it is a visit to a health center or restaurant or coming home. I think it would also decrease traffic issues and increase safety.”*
 - *“Love the Munster signage and more welcoming feel.”*



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Ridge Road at Meadow Lane rendering. The Ridge Road at Meadow Lane improvements include flexible improvements that support parking and traffic access between Ridge Road and the neighborhoods to the north. Periodically, the space may be closed to traffic via movable planter pots to support community fests and events. Proposed enhancements include overhead string lighting, site furnishings, signage and painted roadway. Mural art may be coordinated with the Owner.

The following 'before and after' imagery was posted to the project website with an input tool that invited a 'thumbs up/thumbs down' response plus open ended comments.

The following inputs were provided: Thumbs up: 111 // Thumbs down: 25





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Ridge Road at Meadow Lane rendering (*continued*)

136 individual responses were provided.

Repeated responses and themes for the North Calumet Avenue improvements include:

- **Maintenance.** Improvements to this area require additional maintenance which should be factored into the design.
- **Traffic and Meadow Lane Closure.** Some comments raised concerns about whether residents would permanently lose access between Ridge Road and the neighborhoods to the north. This concept considers temporary closures for specific events only and would not be a permanent closure.
- **Business facades.** Surrounding businesses should improve their facades, awnings and signage. While private site and building improvements are not part of the public streetscape project, the Town has efforts underway to assist property owners with façade enhancements.
- **Is it worth it?** Some folks wondered whether it's worth it to invest in a space like this. Many communities have found that when small pop up events are programmed in business districts like Ridge Road, they tend to attract more people to the area, benefitting businesses.
- **Murals.** There were mixed reviews about the mural graphic depicted. The purpose of the rendering is to identify the wall as a possibility for artwork. This would require coordination with the Owner and likely would engage with a local artist to create a custom piece for Munster.
- Key quotes include:
 - *"I like this. Whiting has this along 119th Street. This would help compliment the streetscape."*
 - *"Love it! Downtown Valpo is a great example. They use planters to block the intersection of Lafayette and Lincolnway and have adaptable traffic signals to close off turns during festivals."*
 - *"Yes! I work at Schoops..... we've always dreamed of having big enough sidewalks to have outdoor dining."*
 - *"Definitely for this! Especially if there was more food/music related events including a real farmer's market. Artwork by local (meaning NWI) artists would be key. Also, would like to see more non-chain restaurants and shops open up."*
 - *"Love it. Creates a space where you'd like to be. Gives teens a place to hang and be with each other. Allows for something to do in Munster. Makes it look newer/fresh, instead of old and dated."*



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Thank you again for sharing your thoughts via the second neighborhood poll. All feedback is being thoroughly recorded and reviewed. We really appreciate the practical and creative comments.

Next steps: Join us at the virtual open house!

Details on the following page and at the project website:

<https://munster-streetscape.org>

A3 – Existing Conditions Report



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Existing Conditions Summary

The enclosed Existing Conditions Summary includes the following sections:

- | | |
|--|-------|
| 1. Past Plan Summary | pg 1 |
| 2. Transportation Assessment | pg 22 |
| 3. Landscape and Hydrological Conditions | pg 36 |
| 4. Streetscape Assessment | pg 43 |

Existing conditions exhibits include the following:

1. Transportation – bicyclist level of service + bike parking
2. Transportation – existing curb cuts, sidewalk assessment
3. Transportation – traffic signal assessment, distances between pedestrian crossings
4. Zoning – including site layout typologies
5. Topography
6. Enlargements 1 - 3



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Past and Current Planning Efforts Summary

The purpose of this summary is to highlight relevant components of Munster’s past and current planning efforts for coordination with the streetscape plan.

The planning efforts reviewed include the following documents provided by the Town of Munster:

1. **WESTLAKE CORRIDOR TRANSIT-ORIENTED DEVELOPMENT (ongoing)**
 2. **LIVABLE MUNSTER CHARACTER BASED CODE (2019)**
 3. **MUNSTER PARKS AND RECREATION MASTER PLAN (2018)**
 4. **COMPREHENSIVE PLAN (2010)**
 5. **THE APPEARANCE PLAN FOR MUNSTER, INDIANA (1986)**
-



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01 | Westlake Corridor Transit – Oriented Development

The West Lake Corridor is a planning effort by the Northern Indiana Commuter Transportation District (NICTD). NICTD proposes to expand commuter rail service through an approximate eight-mile extension of the South Shore Line. This project would provide rail service three municipalities in Lake County, Indiana: Hammond, Munster and Dyer and connect via the Metra Electric District line to downtown Chicago at Millennium Station.

This project would provide a transportation link that connects northwest Indiana with Chicago, providing additional access and economic development opportunities for Lake County, Indiana.

The Munster Ridge Road transit station is planned for the area near the intersection of Ridge Avenue and the Monon Trail. This provides Munster with an opportunity to create a Transit Oriented District (TOD) close to the historic crossroads of Town. Development models under consideration include walkable mixed-use developments, landscaped rowhomes and compact high-density housing.

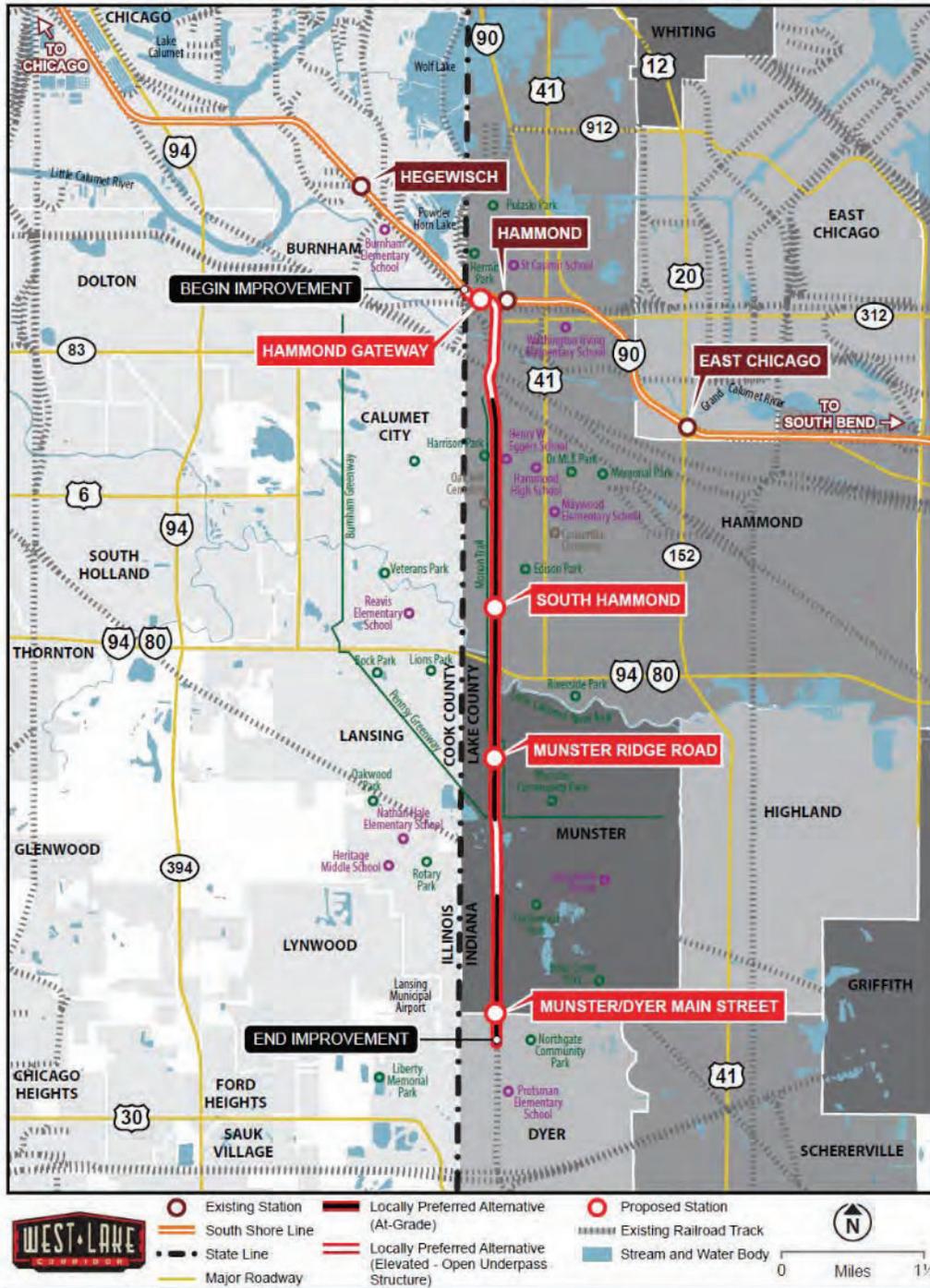
In March 2019, NICTD received a positive Medium-High rating for this project from the FTA. At the time of the Calumet-Ridge Streetscape Plan, NICTD is awaiting approval from the FTA to enter into the final engineering phase of this project. NICTD expects to award a design build contract to an Engineering/Construction team in 2020.

As new development takes shape, the surrounding streets and open spaces will be charged to adapt to a more welcoming and walkable environment.



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WEST LAKE CORRIDOR PROJECT MAP - HAMMOND, IN TO DYER, IN



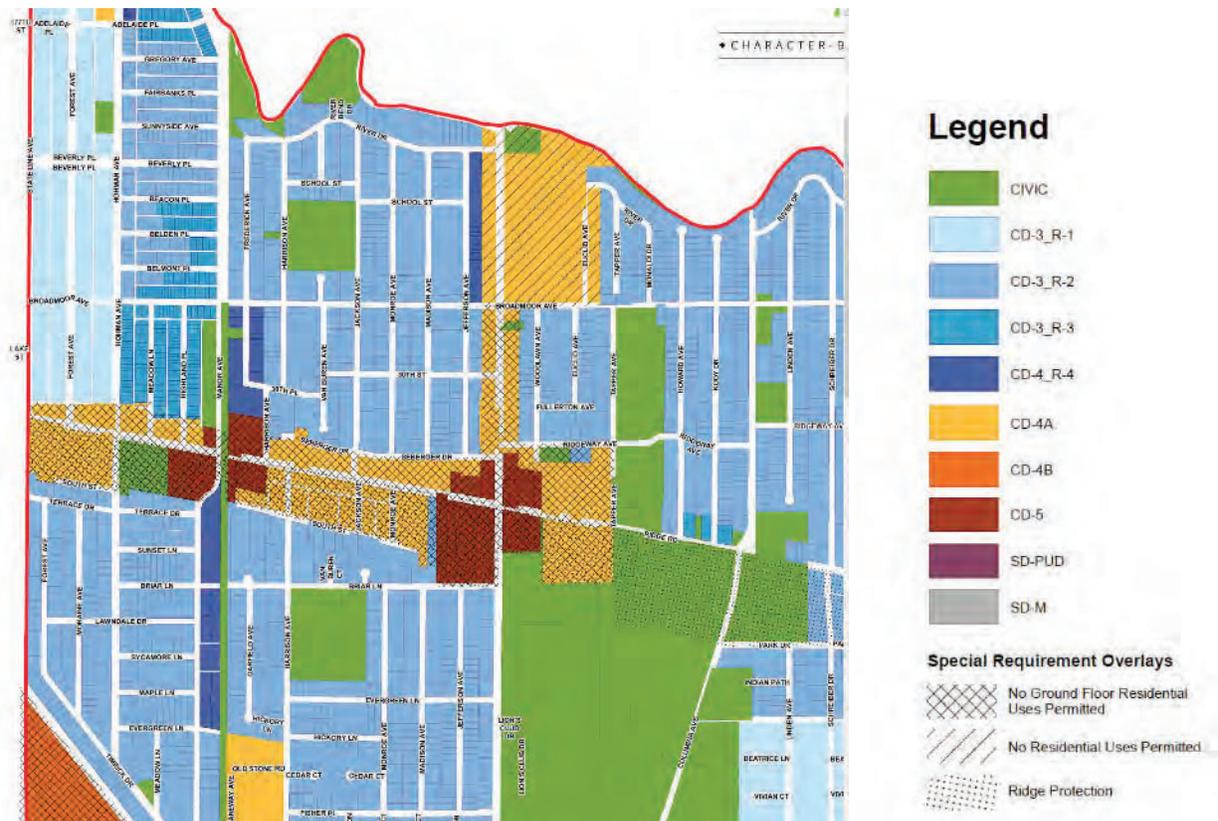


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02 | Livable Munster Character Based Code

Adopted in 2019, the Livable Munster Character-Based Code is a project of the Town of Munster. Unlike traditional zoning ordinances which focus on separation of land uses, the character-based code emphasizes relationships between buildings and the public realm towards developing more synergy within a community.

Following the work of the 2010 Comprehensive Plan, including the visioning to establish Munster as a vibrant mixed use community, it was determined that the Town’s pre-existing zoning ordinance acted as a barrier to the type of high quality development envisioned by the community. The Character-Based code is intended to act as a tool to help communicate expectations to reorient Munster from an auto-oriented bedroom community to a community of walkable, mixed-use centers linked together by complete streets.





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The established zoning classes for the Calumet – Ridge Corridor areas include:



- CD-5 (red), Urban Center Character District. This district consists of higher density Mixed Use areas. It has a tight network of Thoroughfares with sidewalks, streetlights and regular tree spacing, defining medium-sized blocks. Buildings are set close to the sidewalks.



- CD-4A (yellow), General Urban – A Character District. This district consists of a medium density area that has a mix of Building Types and primarily Residential, Retail, Personal Service and Office Uses. There are medium, shallow or no front Setbacks and narrow to medium side Setbacks. It has variable private Landscaping; and it has Thoroughfares with Curbs, Sidewalks and trees that define medium-sized Blocks.



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- CIVIC (green), Civic Zone is assigned to areas designated for Civic purposes. These may be Open Space of one or more Civic Space Types allowed within or Adjacent to any specific Character District or Special District, as well as sites dedicated to significant Buildings to be used for Civic purposes, such as town halls, post offices, Libraries, Places of Assembly, Places of Worship and community centers.



- CD-3_R-1 (light blue), This district consists of primarily a low density Single-Family Detached Residential area in which Houses are the predominant Building Type. It has medium to deep front Setbacks and medium to wide side Setbacks. Some Thoroughfares have Sidewalks and Curbs, and from medium to large Blocks



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The following overlay districts are also included within the Calumet-Ridge corridor areas:

- No Ground Floor Residential Uses Permitted. This occurs along Ridge and; on Calumet, south of Broadmoor.
 - Associated streetscapes should be designed to accommodate active commercial areas, including outdoor seating and dining and maximized sidewalk spaces.
- No Residential Uses Permitted. This occurs on Calumet, north of Broadmoor Ave.
- Ridge (topographical) Protection. This occurs along Ridge.
 - Associated streetscapes should include creative uses for sloped and retaining areas. Built in seating, decorative retaining structures and public art may be considered.

03 | Munster Parks and Recreation Master Plan (2018)

The product of a robust outreach process including coordination with the Town of Munster Parks and Recreation Department, staff, consultant team, community leaders and the community, the Parks and Recreation Master Plan was adopted in 2018. The plan's intent is to articulate a vision for parks and recreation within the Department. The plan functions as the Department's long-term action plan, providing guidance to the Department, establishing goals and recommendations, and identifying needs related to existing and future park facilities.

The Parks and Recreation Master Plan identifies the following facilities and recommendations as they pertain to the Streetscape study area:

1. Monon Trailhead. Classified as Mini-Park, the Monon Trailhead includes universal access, overhead shade trellis, drinking fountain, memorial brick plaza. It serves as a trailhead for the Monon Trail which is a former railroad right-of-way. The trail is part of the northwest Indiana regional trail network. Future plans include connections to a trail network in Illinois and continue south to a spur of the Pennsy Path and the Burnham Greenway. The trail would also parallel the proposed right-of-way of the West Lake Line of the NICTD South Shore Line extension project. This park is considered to set the standard for high quality and accessible parks facilities by the Department. Recommendations for this park include: screening the electrical utility structures and replacement of bike racks.



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2. Monon Park. Classified as Mini-Park, the Monon Park (also referred to as the Manor Avenue Greenspace) is approximately 3.2 acres and located at the northwest corner of Ridge Road and Manor Avenue (behind the Citgo gas station). This site was formerly occupied by 16-single family residences that were purchased by the Town and razed between 2013 – 2015. In some locations, remnants of building foundations remain visible. Mature trees and parkways trees are present. Recommendations for this area include: removal of building foundation remnants, naturalization of the landscape and a potential for a small playground.

3. Bike Paths and Trails connections. Recommendations for Munster’s bike paths reference the Comprehensive Plan. Recommendations include partnership between the Department and Town of Munster to continue expanding bike path and trail access throughout the community. Key recommendations that pertain to the Calumet Avenue and Ridge Road Streetscape Plan include:
 - a. Where bike paths and trails cross public streets, signage and/or markings should be installed to alert motorists, bicyclists and pedestrians of the crossings. Implement safety treatments at these crossings.
 - b. Where appropriate, consider sidewalk connections that may double as bike paths / trails.
 - c. Develop trailheads for trail users as appropriate.
 - d. Generate branded bike path/trail signage throughout Munster. These signage types may include wayfinding signs and interpretive maps.
 - e. Consider retrofitting certain busy intersections for enhanced cyclist protection, including clearly marked lanes, crossings, accessible pavements and signage.

A recommended Trails and Bike Lanes Map is provided. Within the Streetscape study area, bike lanes are proposed along Ridge Road, Calumet Avenue and Broadmoor Avenue. These items will be considered as appropriate to the Streetscape Planning study.



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Existing Bike Trail

The *trails* are separated from the roads and clearly marked as paths on which vehicles cannot travel. The Penny Path and NIPSCO Trails are the most prominent ones in Munster.



Existing Bike Lane

The *lanes* are shared with the existing roadways, and are separated by painted white lines. Often, there are signs that alert drivers of cyclists in advanced, to optimize safety.

Legend

- Existing Bike Lanes
- - - Proposed Bike Lanes
- Existing Bike Paths
- - - Proposed Bike Paths

Recommended Trails and Bike Lanes Map 0 1/4 1/2 1 mile



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04 | Comprehensive Plan (2010)

The Comprehensive Plan was adopted in 2010 and identified six guiding principles for future development. Each guiding principal – and items related to the streetscape plan – are listed below:

1. Promote Sustainable Growth

- a. Acknowledge that population growth is expected for the communities south of Munster and there is little undeveloped land remaining in Town. Munster must work to attract new growth while also maintaining high quality of life. The plan focuses on protecting the livability of established areas and focusing new sustainable redevelopment at strategic areas.

2. Support Transit as Critical to a Prosperous Town

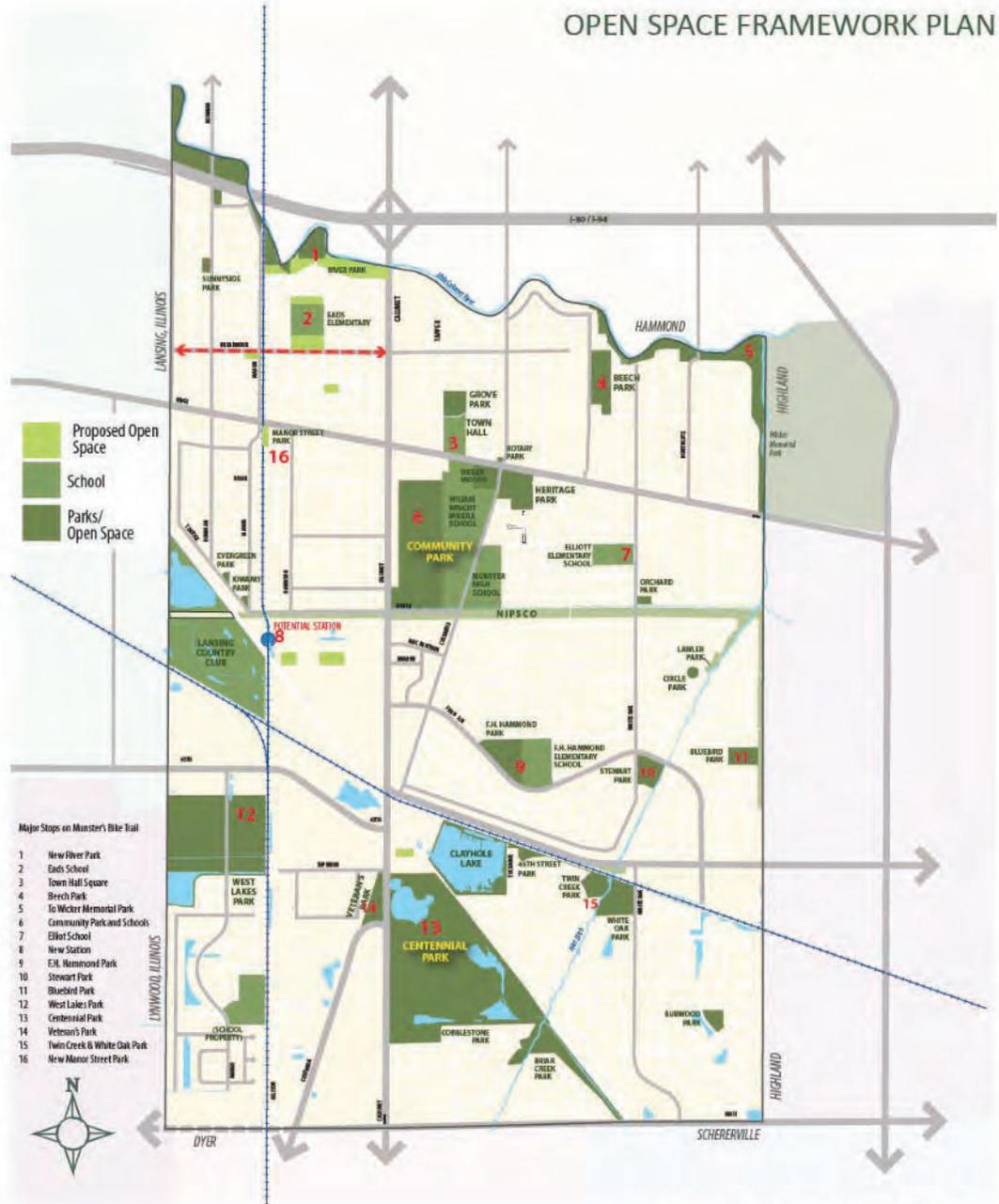
- a. Build upon the West Lake Line development from Chicago to Lowell. The station development in Munster is anticipated to be a catalyst for economic development, including mixed use developments and compact walkable housing options nearby to the historic center of Munster.

3. Create a Legacy of Unique Parks and Open Spaces

- a. Recognize the successes of regional trails and Centennial Park. The plan proposes commitment to providing the community with a variety of parks and open spaces throughout Munster.
- b. The community areas located along Ridge Road, between Calumet Avenue and the State Line are identified as underserved open space areas.
- c. Proposed Open Spaces.
 - i. “Manor Street Park” is identified along the east side of the Monon Trail, south of Ridge Road, as an opportunity. This aligns with the Monon Trailhead area containing a fountain, pergola and seating area.
 - ii. River Park is indicated for expansion at the Little Calumet River at the west side of Calumet Ave.



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4. Grow as a Hub of the Regional Trail System

- a. Work to connect Munster’s existing trail system to planned regional trails in Indiana and Illinois, including the Pennsy Greenway, the Burnham Greenway and the Erie Lackawanna Trail. Focus on enhancements to the Little Calumet River as a linear park and riverfront trail.
- b. Munster is surrounded by regional trails, including the Monon Trail, Little Calumet Trail, Erie-Lackawanna Trail and Pennsy Trail. The existing bike network generally circumvents the Ridge and Calumet Corridors. The Comprehensive Plan addresses additional trail crossings, access points and trail sections that support the existing pattern of bike trails. (see below)



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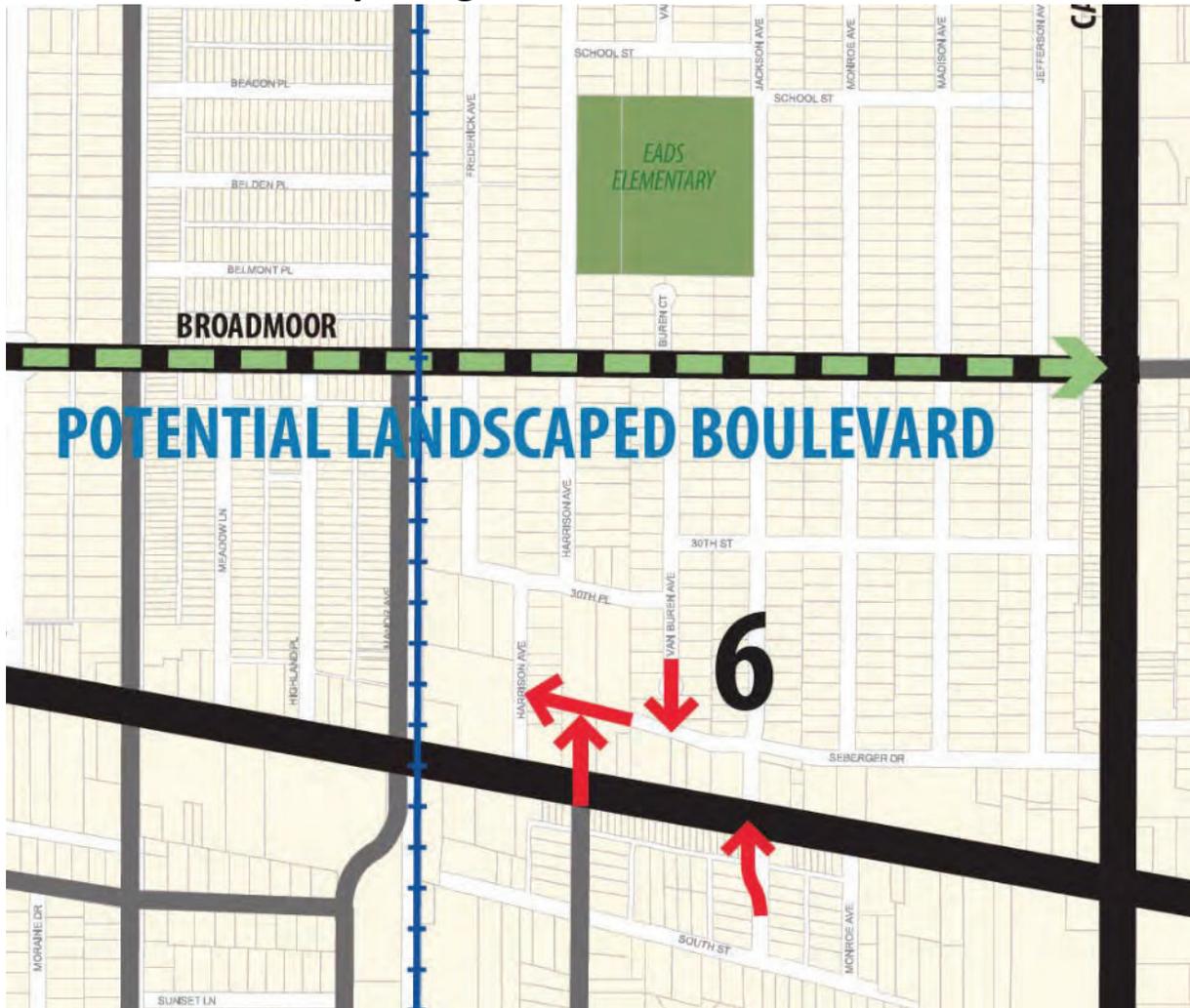


5. Strengthen Infrastructure to Meet Future Needs

- a. Improve existing major roadways, with a special focus on Calumet Avenue and 45th Street. Incorporate new roadway connections to serve redevelopments. Efforts are underway to alleviate traffic congestion on Calumet Ave at 45th Street and at the Canadian National Railroad Tracks.
- b. Reduce traffic conflicts by consolidating burb cuts along Ridge and Calumet.
- c. Create consolidated shared parking areas for Ridge and Calumet corridors to eliminate the need for individual cuts.
- d. Align roadway intersections along Ridge Rd at Jackson, Van Buren and Harrison (see below)



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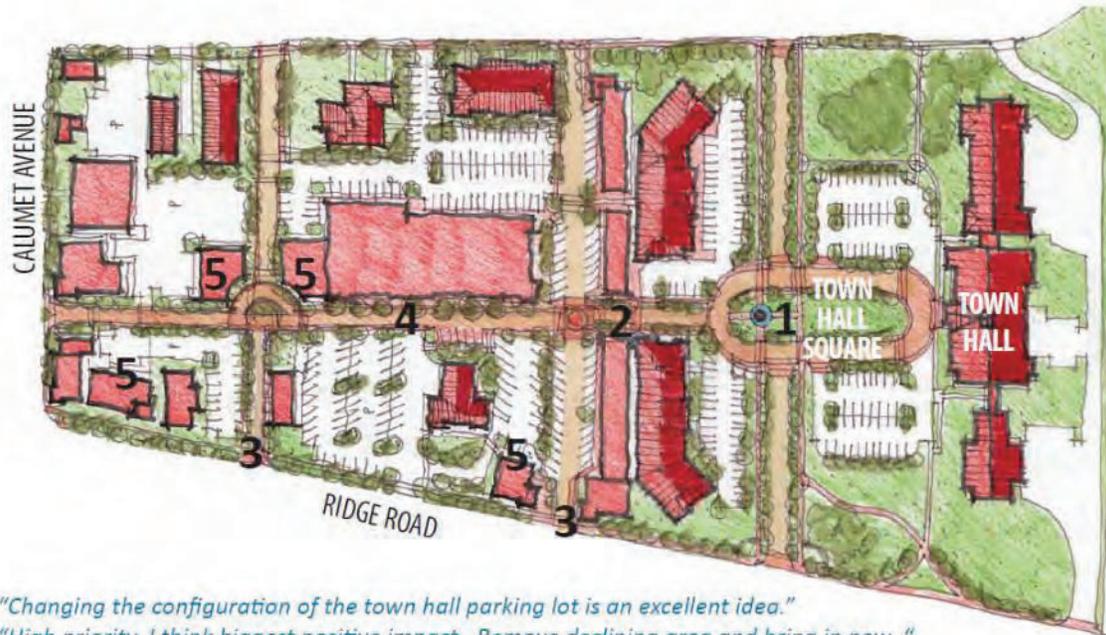
6. Redevelop Old Areas as Walkable, Mixed Use Centers

- a. Reinvest in under-utilized land in the older parts of town. The Redevelopment Commission (RDC) is leading these efforts to identify opportunities to redevelop older commercial and industrial areas, as well as potentials for infill developments.
- b. Develop the area around Town Hall to be a classic town square configuration. Access points to the existing and future Town Hall area may be reinforced with gateway and signage features along Calumet and Ridge (see below)



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Proposed Town Hall Square



"Changing the configuration of the town hall parking lot is an excellent idea."

"High priority, I think biggest positive impact. Remove declining area and bring in new."

Community Feedback, Public Workshop

- c. Establish a long term green framework for Northwest Munster. The green framework establishes a network of park expansions, boulevards and connections that link the community to green spaces. (see below)
- d. The streetscape can support these connections with landscaping, gateways and signage at the following areas:
 - i. Calumet Ave (River Drive, Broadmoor, 30th)
 - ii. Ridge Road (Jackson, Hohman)



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LONG TERM OPPORTUNITIES

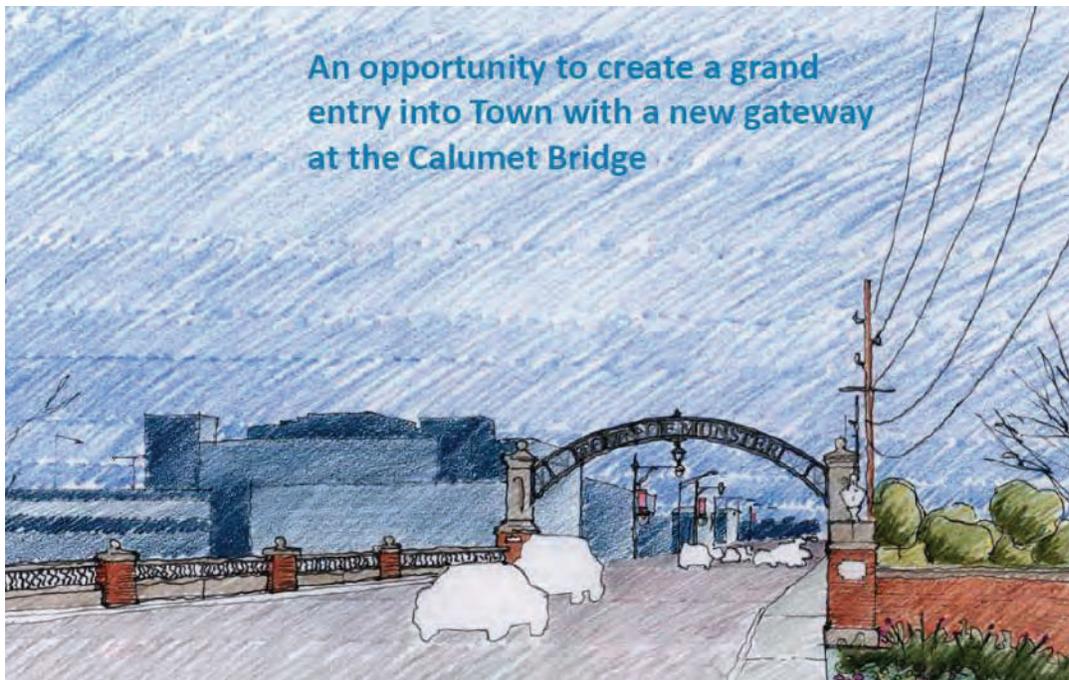
1. RIVERFRONT PARK AND TRAILS
2. OPPORTUNITY TO EXPAND SCHOOL & PARK
3. PEDESTRIAN TUNNEL CONNECTION
4. POTENTIAL NEW PARK (LOCATION TO BE DETERMINED)
5. POTENTIAL NEW PARKS
6. BROADMOOR AS A BOULEVARD

FIVE MINUTE WALK FROM PARK



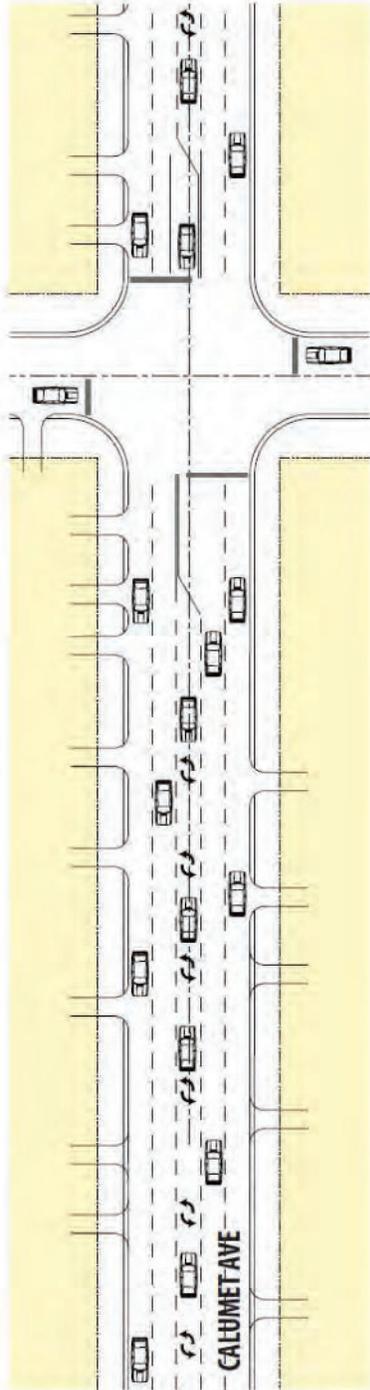
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- e. Calumet and Ridge is defined as a Main Street Crossroads. Recommendations include roadway realignment at Ridge, consolidating curb cuts throughout, incorporating landscaped medians at Calumet and redeveloping new buildings close to the street to promote a more walkable environment. (see below)

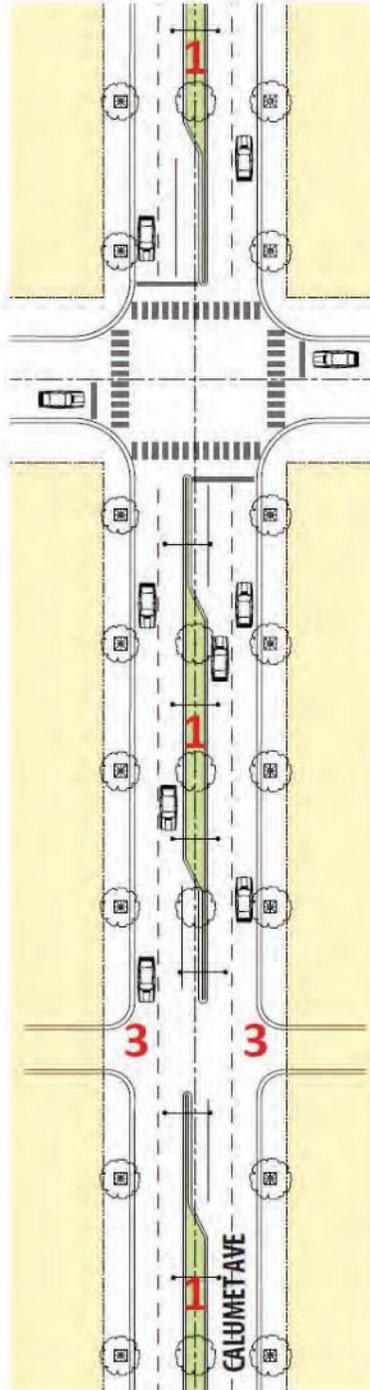




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EXISTING CONDITIONS: MANY CURBCUTS AND TURN MOVEMENTS ON CENTER TURN LANE



PROPOSED: LANDSCAPED MEDIAN, CONSOLIDATED CURBCUTS AND FEWER TURNS



POTENTIAL BUILDING PLACEMENT ALONG THE CALUMET CORRIDOR



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Roadway Recommendations: Ridge Road from Manor Ave To Monroe Ave



2010 COMPREHENSIVE PLAN TOWN OF MUNSTER, INDIANA 73

The guiding principles set forth in the Comprehensive Plan establish a new direction for Munster from an auto-oriented community to a community of walkable, mixed use centers, connected by complete streets.

Since the adoption of the Comprehensive Plan, the Town has made progress on key development projects, including Centennial Village, a mixed-use walkable community located at the intersection of Calumet Avenue and 45th Street.



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05 | The Appearance Plan for Munster, Indiana (1986)

Issued by the Town of Munster Planning and Development Service, this document identifies the following Goals and Objectives:

Goals

1. To promote the health, safety, and general welfare of all citizens.
2. To enhance property values throughout Munster.
3. To increase the attractiveness of Munster to present residents and businesses, as well as to potential residents and investors.

Objectives

1. To improve the general appearance of buildings, structures, streetscapes, landscaping and open areas.
2. To encourage and promote acceptability, attractiveness, cohesiveness and compatibility of new buildings, development, remodeling, and additions.

Munster's physical assets and natural heritage are highlighted as character giving themes:

1. The Ridge is a major topographical feature and should be emphasized with low plantings at the base and large trees at the crest. The ridge should be protected.
2. The Little Calumet River should provide recreation, flood control and scenic beauty.
3. Wetlands and associated wildlife once occupied much of the Munster landscape. Southward water flow was blocked by a sandy ridge along present Route 30.
4. Woodlands comprised of Oak Trees and other natives were found in upland areas and along waterways.
5. Agriculture drained the wetlands and farms were once found throughout Munster.

Areas that would most benefit from improvements are identified at the following highly visible locations: Entrances to town, Interchanges, Commercial Districts and Shopping Centers, Institutions and Parks.



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The Appearance Plan identifies short term and long term projects. Projects relevant to the Calumet-Ridge Streetscape Plan are listed below:

Short Term

1. Landscaped gateway entrances at Calumet Avenue, Ridge Road, 45th Street and Columbia Avenue. (Note a landscaped entry sign exists at the west entrance to Munster along Ridge Road)
2. Work with Hammond and InDOT to improve the Calumet Avenue/I80 Interchange
3. Relocate above-ground utility poles and enhance the streetscape with trees, pavers, signage, and awnings.
4. Landscape commercial setback areas, parking lots and railroad ROW areas.

Long Term

1. Work with private development to incorporate high quality development.
2. Encourage landscaping at parks and institutions.
3. Establish a trail along the NIPSCO ROW.
4. Incorporate native landscape plantings including Oak and Hawthorne species.
5. Acquire floodplain and incorporate native landscaping at the Little Calumet River, Plum and Schoon Creeks.



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Existing Transportation Assessment

Current transportation conditions were reviewed along both corridors with respect to vehicular, pedestrian, and bicycle infrastructure and connectivity. Due to the substantial influence of the COVID-19 public health crisis on travel behavior (including reductions in daily commutes, journeys to and from school, and trips for errands and recreational activities), the study team was unable to collect reliable data on the volume and routing patterns of these modes as originally planned. Instead, historical data was obtained through Town staff at intersections previously studied for signal retiming projects in 2014. The remainder of this assessment then focused on such factors as infrastructure characteristics and condition, comfort level, and best practices. The results of these data collection efforts and subsequent technical analyses are summarized below.

Vehicular Infrastructure & Operations

Both Ridge Road and Calumet Avenue feature a five-lane cross-section throughout the study area, with two travel lanes in each direction and a striped median that provides left-turn lanes at major intersections. Between dedicated left-turn lanes, a two-way left-turn lane is provided to serve minor roadways and access driveways. Both roadways provide an 80-foot right-of-way (ROW), and no on-street parking is provided along either corridor. The study segment of Calumet Avenue is approximately three-quarters of a mile long and features three signalized intersections: at Ridge Road, at Broadmoor Avenue, and at the Munster Med Inn/Burger King Access. Ridge Road is roughly 1.1 miles in length within the study area, and signalized intersections are located along this corridor at Hohman Avenue, Manor Avenue, and Harrison Avenue (which is offset by approximately 220 feet between its north and south legs and therefore operates with two signals on a single controller). Ridge Road and Calumet Avenue are both posted with 35 MPH speed limit signs. According to the Northwest Indiana Regional Planning Commission (NIRPC), Calumet Avenue is categorized as a Principal Arterial roadway throughout the study area. Ridge Road has this same designation east of Calumet Avenue and is classified as a Minor Arterial roadway between Calumet Avenue and the Illinois State Line.

Annual Average Daily Traffic (AADT) data from the Indiana Department of Transportation (INDOT) website shows that Ridge Road was last counted in 2018, with approximately 16,600 vehicles per day at the west end of the study corridor and roughly 17,600 vehicles per day east of Calumet Avenue. Compared to the previous count completed in 2012, these AADT values reveal a decrease in daily traffic volumes of 10 to



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21 percent. The 2018 AADT on Calumet Avenue was approximately 37,200, an increase of 13 percent over the previous count in 2009.

Intersecting side streets along the Ridge Road and Calumet Avenue corridors provide additional access for adjacent commercial properties and connect to the residential neighborhoods beyond the business districts that line the two study roadways. In some cases, these side streets provide on-street parking for public use—the only public parking provided within the study area. It can be noted that some of these parallel parking spaces were created by paving over parkway area (including on Meadow Lane, Highland Place, and Harrison Avenue north of Ridge Road). Most intersecting side streets provide a 60-foot ROW, with the following exceptions: Forest Avenue (80-foot ROW), Hohman Avenue (84-foot ROW north of Ridge Road and 70-foot ROW south of Ridge Road), Manor Avenue (50-foot ROW), and Broadmoor Avenue (66-foot ROW). Public alleys are also present in some locations along Ridge Road west of Calumet Avenue, as will be discussed further in the corridor plan development as part of potential access management strategies.

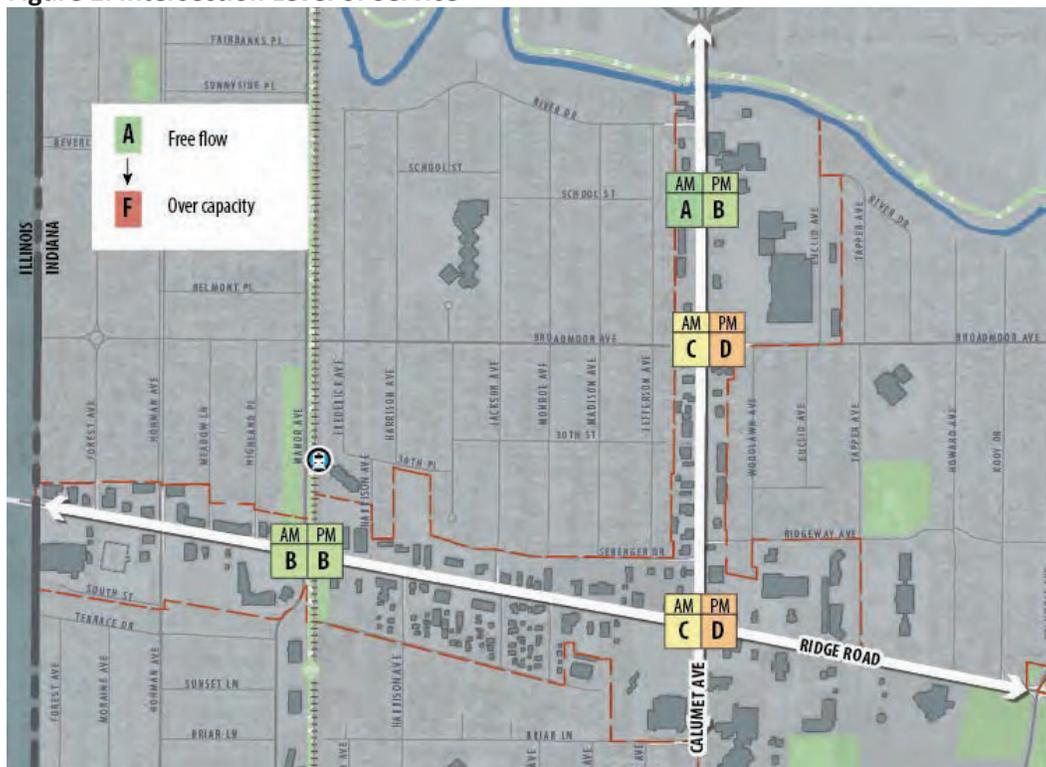
As noted previously, historical (Year 2014) turning movement counts were provided by Town staff where available; this data included the Calumet Avenue intersections with the Munster Med Inn/Burger King Access, Broadmoor Avenue, and Ridge Road, as well as the Ridge Road intersection with Manor Avenue. Count data documented vehicular traffic only and was used to prepare a Synchro model for the weekday morning and evening peak hours. Based on this model, the intersections were shown to operate acceptably overall during the morning and evening peak hours (7:00-8:00 AM and 4:45-5:45 PM, respectively). These results are illustrated in **Figure 1**, which presents intersection Levels of Service (LOS) at each studied location. During the evening peak hour, however, some areas of potential congestion were noted on minor street approaches, including:

- The east leg at Calumet Avenue/Munster Med Inn due to a heavy outbound left-turning movement. This may relate to the end of a shift change at the Franciscan health care center.
- Broadmoor Avenue at Calumet Avenue due to high volumes of traffic in both directions on this minor street. On the west leg in particular, the volume of traffic is unusually high for vehicles exiting a residential neighborhood in the evening, when most people are returning home for the day.



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Figure 1: Intersection Level of Service



In addition to the above operational findings, the provided turning movement counts highlighted some noteworthy area travel patterns. Along Calumet Avenue, volumes showed a commuting pattern with heavier northbound travel towards the Interstate during the morning peak and heavier southbound traffic in the evening. Ridge Road demonstrates heavier westbound demand in the morning, but evening traffic volumes are fairly balanced in the eastbound and westbound directions. It should also be noted that westbound traffic on Ridge Road is over 50 percent higher at Manor Avenue than it is immediately west of Calumet Avenue. This significant change in volume may be indicative of a southbound-to-westbound cut-through pattern via Seberger Drive to avoid the busy intersection of Calumet Avenue and Ridge Road.

The results of these analyses suggest that both corridors provide adequate capacity for vehicular traffic, reinforcing field observations that vehicle travel is the most highly prioritized mode of transportation on Calumet Avenue and Ridge Road. Based on these results, there may be opportunities in the future to increase minor-street green time to address congestion and also to provide sufficient time for pedestrians to cross the two study corridors comfortably.



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Pedestrian Environment & Amenities

Sidewalks create safety and comfort for pedestrians to travel along the study corridors, connect parkers to stores and other destinations, and link the Town of Munster to the surrounding trail network. Ensuring that the pedestrians have facilities that are consistent, convenient, and comfortable will help to create a more vibrant corridor for both Ridge Road and Calumet Avenue by providing an environment where people feel comfortable congregating and traveling on foot.

Figure 2: Pedestrian Facilities

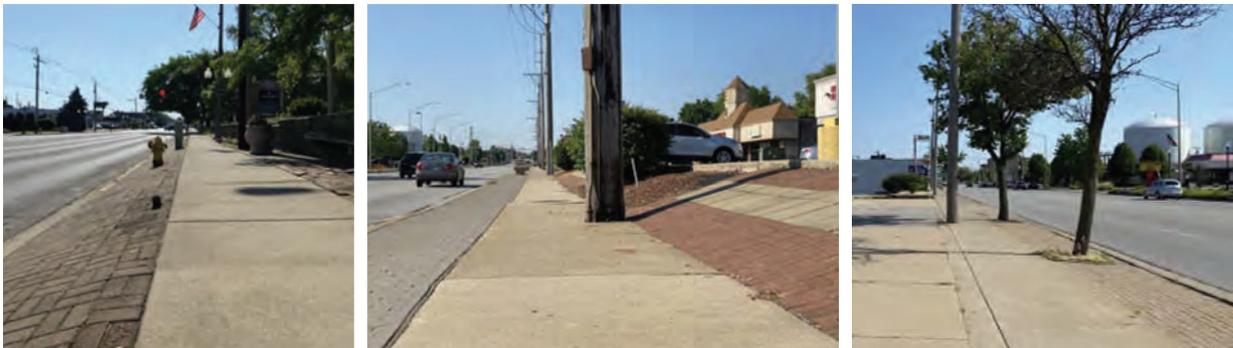


Pedestrian Facilities. The majority of sidewalks along Ridge Road and Calumet Avenue are four to six feet wide, conforming to the minimum four feet required by the Americans with Disabilities Act (ADA). It is notable, however, that wider sidewalks are preferred in locations where a vibrant pedestrian environment is desired (such as the business districts that run along the study roadways) as these areas benefit greatly from foot traffic and cross-shopping. Additionally, for sidewalks along arterial roadways, it



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is advisable to provide wider sidewalks with buffers along the travel lanes to enhance pedestrian comfort and allow people to fully utilize the available sidewalk width. As shown in **Figure 2**, paved parkways are present between the sidewalk and the travel lanes throughout the majority of the study area. These paved parkways are primarily comprised of brick pavers, often decorated with stone planters and (along Calumet Avenue) occasionally feature planted trees or fully landscaped buffers. In many cases, however, the buffers enable a transition in elevation between the street, sidewalk, and adjacent land uses. As a result, these slanted parkways are often unable to be used for pedestrian travel or passing or to install pedestrian amenities like public seating or robust landscaping and trees. Although individual amenities are unlikely to alter the character of a corridor, their impact can be substantial when planned and grouped together in a consistent and cohesive manner.



In several locations along the study corridors, the clear width available to pedestrians is reduced due to slanted parkways and/or the presence of utility poles.

In the locations where no paved parkway is present between the sidewalk and adjacent travel lanes, the pedestrian environment feels less comfortable and safe. The absence of a parkway also limits space, particularly when obstructions are present—such as utility features or light poles—ultimately creating pinch points that may not be ADA compliant.



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Sidewalks without paved parkways feel less comfortable for pedestrians, especially when immediately adjacent to or obstructed by physical barriers that create pinch points.

The sidewalk network not only allows pedestrians to travel along the study corridors, but also facilitates access to adjacent land uses. Many existing businesses along Ridge Road and Calumet Avenue are situated in close proximity to the street, providing pedestrians with a short distance between the sidewalk and the front door of their final destination. Other businesses, however, feature large parking lots between the building and the street with no direct connection between the parking lot and the sidewalk and no marked pedestrian routes through the parking lot. A recent redevelopment along the east side of Calumet Avenue (Munster Shops) provides an example of how pedestrians can successfully be invited into the property with a dedicated connection and landscaping that lead to a courtyard with comfortable seating.



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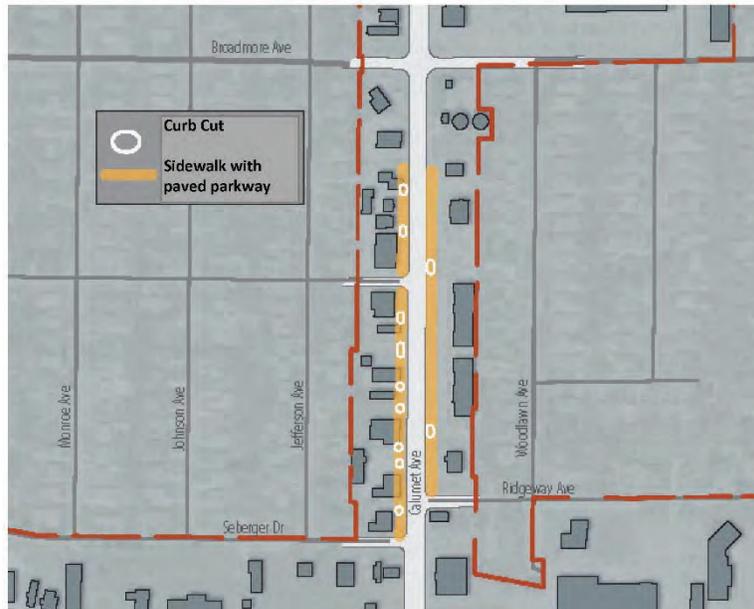
Munster Shops on Calumet Avenue features dedicated pedestrian access from the street with landscaping and brick pavers.

Curb cuts. The pedestrian environment can also be influenced significantly by the presence of curb cuts, which provide vehicles with access to alleys, buildings, or shopping centers. A higher number of curb cuts increases conflict points between motorists and active transportation users, and a lack of access management creates a fractured and unpleasant pedestrian environment. **Figure 3** shows an example of the disparity of curb cuts along a 1,000-foot stretch of Calumet Avenue north of Ridgeway Avenue/Seberger Drive. Because of a recent redevelopment that was designed with appropriate access management practices, the east side of the street has two curb cuts, resulting in minimal interruption to the pedestrian path. The west side, on the other hand, has nine. When a sidewalk has such a high number of curb cuts, it is an indication that the roadway is prioritizing the ease of vehicular access over pedestrian comfort—though it is also notable that a lack of access management can adversely impact vehicular safety by creating more points of conflict between vehicles. As these corridors continue to develop, it will be important to consider how curb cuts affect the pedestrian experience and the transportation environment.



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Figure 3: Curb Cut Frequency along Calumet Avenue



Large curb cuts with large corner radii increase the crossing distance for pedestrians and, therefore, the potential for conflicts with vehicles in a manner that reduces pedestrian comfort and walkability.

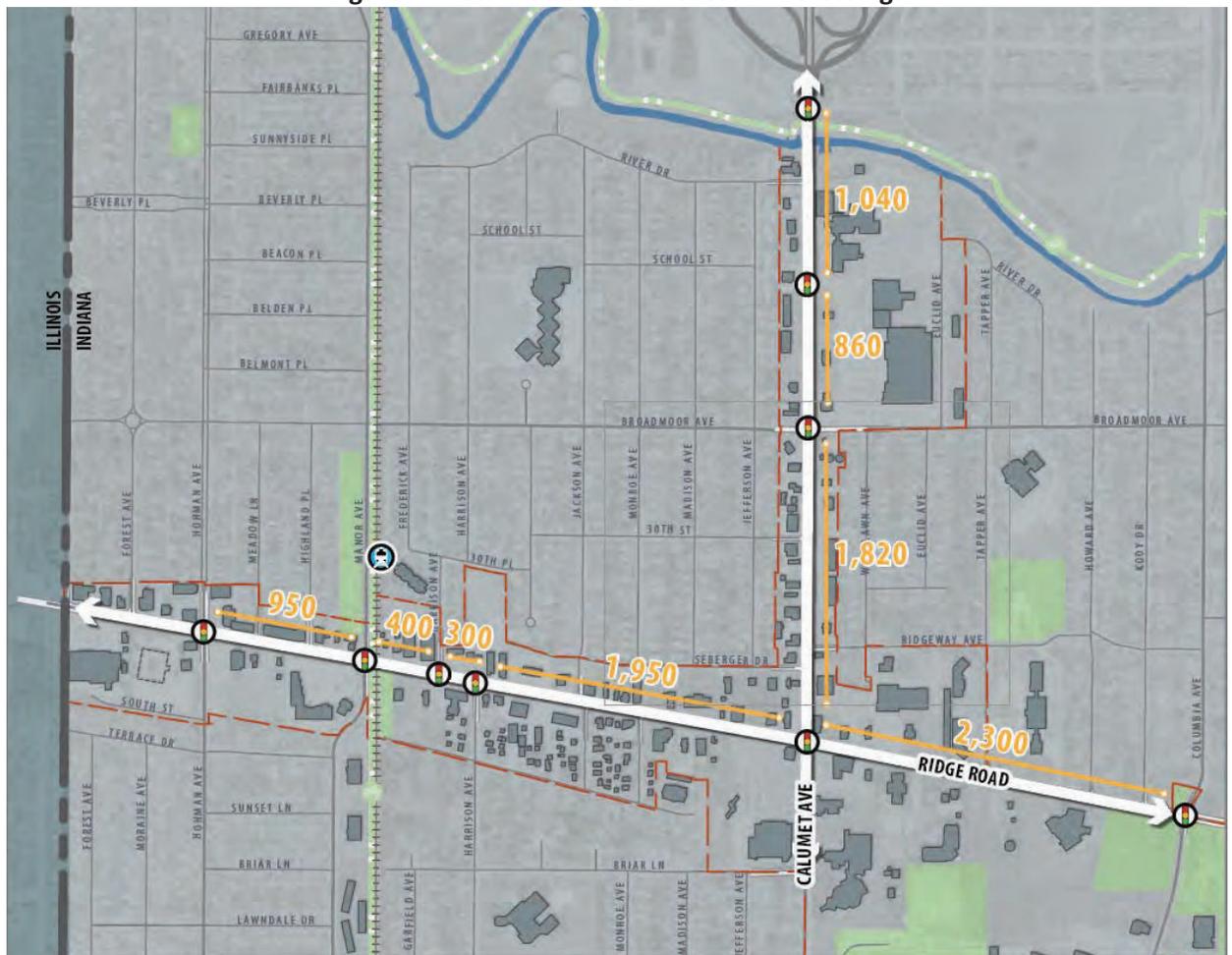
Distance between Crossings. Across both Ridge Road and Calumet Avenue, marked pedestrian crossings are provided only at signalized intersections. As a result, the distance between signalized intersections (illustrated on **Figure 4**) defines the length pedestrians must walk between destinations on opposite sides of the street. Pedestrians typically feel comfortable walking between 200 and 600 feet in length, after which point the walking distance can become strenuous and time consuming and may therefore encourage travel by car instead. While there are three intersections on Ridge Road that fall within the preferred distance (at Manor Avenue and the two signals at Harrison Avenue), the majority are closer to 1,000 to 2,000 feet in length, nearly double the preferred distance. Requiring pedestrians to walk a long distance to cross, discourages walking and can increase the frequency of auto travel for short trips,



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particularly if the pedestrian environment does not have proper amenities to foster a sense of comfort and safety. It can be noted that all signalized intersections within the study area feature pedestrian countdown timers, but the marked crosswalks at these locations have faded throughout the corridor. High-visibility crosswalk striping should be considered at all crossings in the future to make pedestrians more visible to drivers and make the striping more resilient against wear.

Figure 4: Distance between Pedestrian Crossings





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Pedestrian amenities in the study area are in need of repair (including fresh and more visible crosswalk striping) and increased proximity to the sidewalk for greater utility.

Bicycle Facilities

Two trail facilities are located within or near the study area: the Monon Trail (which is 4.4 miles in length and crosses Ridge Road near Manor Avenue) and the Little Calumet River Levee Trail (a six-mile trail located just outside the study area near the northern municipal boundary). Along the study roadways themselves, no dedicated bicycle infrastructure is provided, and so a Level of Traffic Stress (LTS) analysis was completed to better understand how bicyclists experience the study area roadways today. LTS is an objective, data-driven rating applied to roadways indicating the stress it imposes on bicyclists. The LTS rating ranges from 1 to 4 (1 being the least stressful) and is based upon such roadway metrics as the number of lanes, traffic volume, and speed limit to assess the level of stress experienced by cyclists and, in turn, help determine the appropriate bicycle facility for that street segment. The four ratings are listed and described below:

- LTS 1: Acceptable for people of all ages. Except in cases of low speed and traffic volume, the bicycle facility is typically separated from the roadway.
- LTS 2: Acceptable for most adults, aligning with an “interested but concerned” disposition toward cycling. Except in cases of low speed and traffic volume or at formal crossings, there is generally a designated space for bicyclists that limits interaction with vehicles.
- LTS 3: Acceptable for “enthused and confident” riders. There is interaction with moderate speed or multi-lane traffic, or close proximity to higher speed traffic.
- LTS 4: Acceptable only for bicycle riders who are “strong and fearless”. These roadways typically involves interaction with or proximity to higher speed traffic.

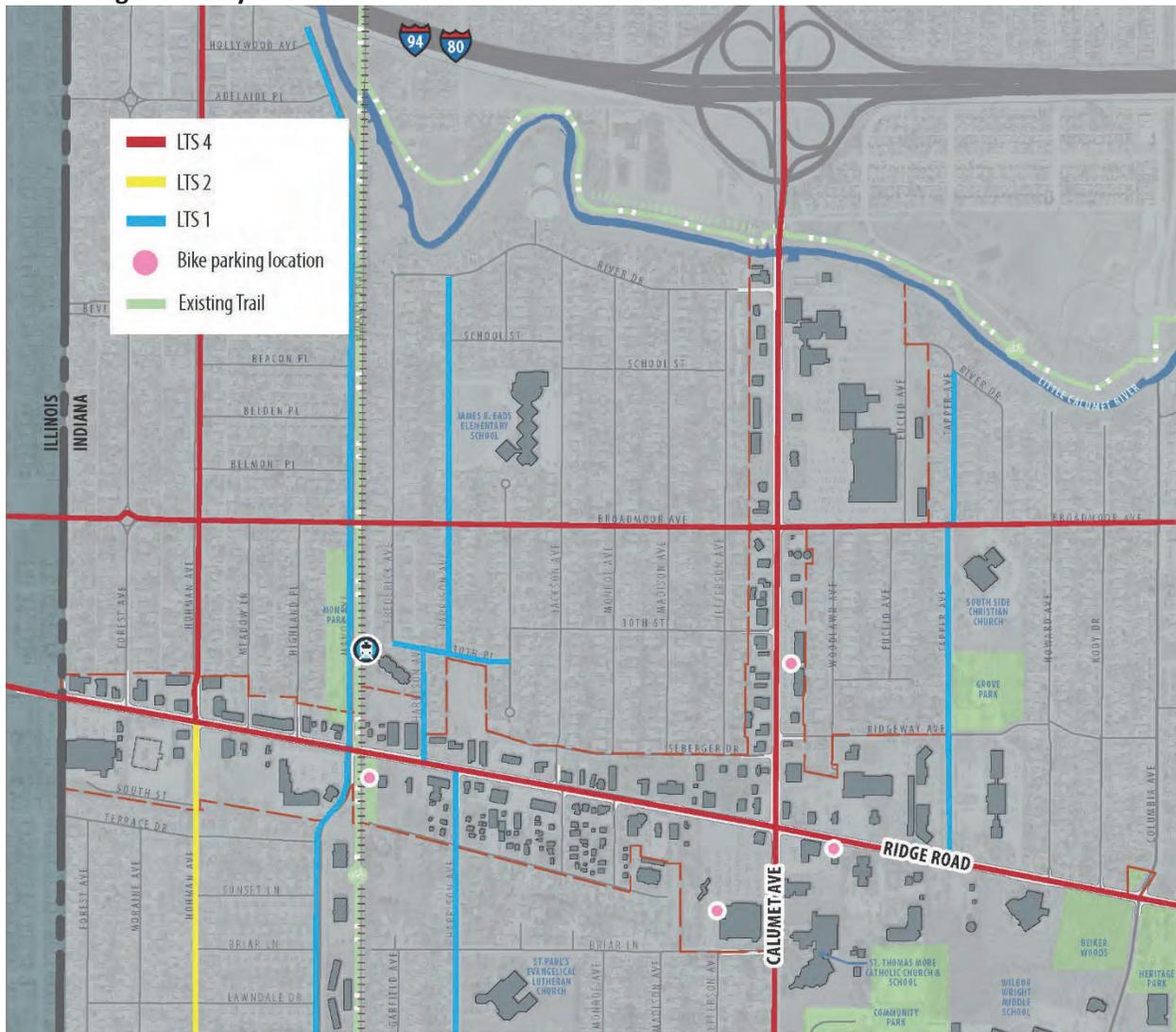
The wide cross-sections and high traffic volumes along Ridge Road and Calumet Avenue led these corridors to each receive an LTS score of 4, creating a highly stressful environment for cyclists, particularly those who are less familiar or comfortable biking. Harrison Avenue, 30th Place, and Tapper Avenue



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displayed an LTS 1, indicating that bicycle users of all ages would be able to use these roadways to access the Ridge Road and Calumet Avenue corridors in a safe and comfortable manner.

Figure 5: Bicycle Facilities & Level of Traffic Stress



The map in **Figure 5** also shows bike parking, which included four locations: one adjacent to the Monon Trailhead near Ridge Road and Manor Avenue and three others within commercial developments (Munster Shops along Calumet Avenue, Dairy Queen on the southeast corner of Calumet and Ridge, and Jewel on the southwest corner of Calumet and Ridge). Considering that these corridors connect to major regional trail networks, there is an opportunity to attract cyclists to visit and shop in Munster more



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frequently, and increased bike parking would provide the infrastructure necessary for cyclists to safely store their bicycles while patronizing area businesses.



Area bike amenities include bike parking, the Monon Trail (pictured above), and the Little Calumet River Trail.

Safety Assessment

Traffic crashes are not “accidents,” but rather predictable and avoidable events that can be prevented given proper infrastructure, amenities, and educational awareness. In analyzing crash data from 2016 to 2019 within roughly a half mile of the Ridge Road and Calumet Avenue intersection, patterns begin to emerge that can assist safety solutions for individual roadways and the corridor as a whole. **Table 1** summarizes the number of crashes at intersections along the Calumet Avenue and Ridge Road corridor. Of the 473 crashes recorded, 161 (34 percent) occurred at the intersection of Calumet Avenue and Ridge Road, by far the highest number of crashes observed at a single intersection. While none of these—nor any of the crashes recorded—involved pedestrians or cyclists, two of the crashes at this intersection were incapacitating. The intersection with the second highest number of crashes (and the only other incapacitating crash site) was Ridge Road and Columbia Avenue. With the exception of Calumet Avenue and Broadmoor Avenue, the remaining intersections exhibited no more than 27 crashes, and many had fewer than 20.



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Table 1: Number of Crashes per Intersection (2016-2019)

Major Street	Minor Street	Number of Crashes
<i>Calumet</i>	<i>Ridge</i>	<i>161</i>
Calumet	Broadmoor	65
Calumet	30th	15
Calumet	Ridgeway	23
Calumet	Seberger	18
Calumet	Briar	15
Calumet	Evergreen	8
<i>Total crashes – Calumet</i>		<i>144</i>
Ridge	Manor	25
Ridge	Harrison	27
Ridge	Jackson	6
Ridge	Monroe	6
Ridge	Tapper	9
Ridge	Columbia	95
<i>Total crashes – Ridge</i>		<i>168</i>
Grand Total		473

Rear-end crashes were the most frequently documented, making up 55 percent of the 473 intersection crashes recorded. Roadway elements like intersection control, signal timing, and access management practices can have a significant influence on the occurrence of rear-end crashes; while the signal systems along Calumet Avenue and Ridge Road have been retimed in recent years to promote progression between signalized intersections, there are significant opportunities to improve access management within the study area and potentially reduce the incidence of rear-end crashes. The second most common crash type seen was right-angle crashes (114 total, or 24 percent), coinciding with three of the six incapacitating crashes recorded. Right-angle crashes can occur when drivers encounter poor sight lines or unexpected speeds from opposing vehicles. Design elements that can positively influence these factors and others that contribute to a safe roadway environment should be considered as the project moves forward.

A map with the location of these crashes is shown in **Figure 6**.



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Figure 6: Crash Analysis by Type



While many crashes occurred at intersections, an additional 103 crashes also occurred midblock along the Ridge Road and Calumet Avenue corridors. Additionally, 52 crashes were documented along nearby side streets (including Broadmoor Avenue, Manor Avenue, and Columbia Avenue). Overall, this suggests that larger traffic volumes and higher speeds along these roadways make them more susceptible to crashes and that additional traffic management and safety strategies may improve safety conditions.



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Landscape and Hydrological Conditions Summary

Ridge Road and the Little Calumet River are two significant landscape features in Munster. Ridge Road is the location of Munster’s earliest settlements. Prior to early settlements, Ridge Road was the location of the Calumet Shoreline, an ancient shoreline of Lake Michigan located in the Lake Michigan Basin. This ridge is visible in the form of topographical ridges at the south side of Ridge Road. From Ridge Road, the elevation descends until it reaches the Little Calumet River.

The Little Calumet River is the northern boundary of Munster. It runs west from the Hart Ditch, a stream located along the east boundary of Munster. The Little Calumet River has seen numerous flooding events over the years, including a substantial flood in 2008 after rains associated with Hurricane Ike. The river has also been polluted due to nearby industrial uses. Flood mitigation and improvement initiatives are underway, including efforts by the US Army Corps of Engineers, the Little Calumet River Basin Development Commission, and the Indiana Lake Michigan Coastal Program.

The name Calumet is believed to be derived from one of two origins:

1. The French interpretation of the Potawatomi name for the Calumet River (“low body of deep, still water”) (1) or:
2. A reinterpretation of the Old French term Chalemel, which translates to “reed” (2)



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Approximately 14,000 years ago, during glacial retreat, Lake Michigan’s water level was nearly 60 feet higher than it is today. The southern shoreline that formed was a sandy ridge that extended east – west along Ridge Road in Munster. The areas between this southern shoreline and the current shoreline were comprised of marshlands. Over time, the Little Calumet River formed on the northern border of today’s Town of Munster. **Figure 1** below depicts the location of the historic shoreline.

Figure 1



Image credit: Munster Historical Society



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The soils map below in **Figure 2** below illustrates the soils distribution between Ridge Road and the Little Calumet River. The east-west soils distribution of “Sparta Fine Sand, 0-4%” (in purple) is located along Ridge Road and highlights the location of the ancient shoreline. Silty loam and silty clay loam soils are distributed between Ridge Road and the Little Calumet River, referencing the historic marshlands of the area.

Figure 2

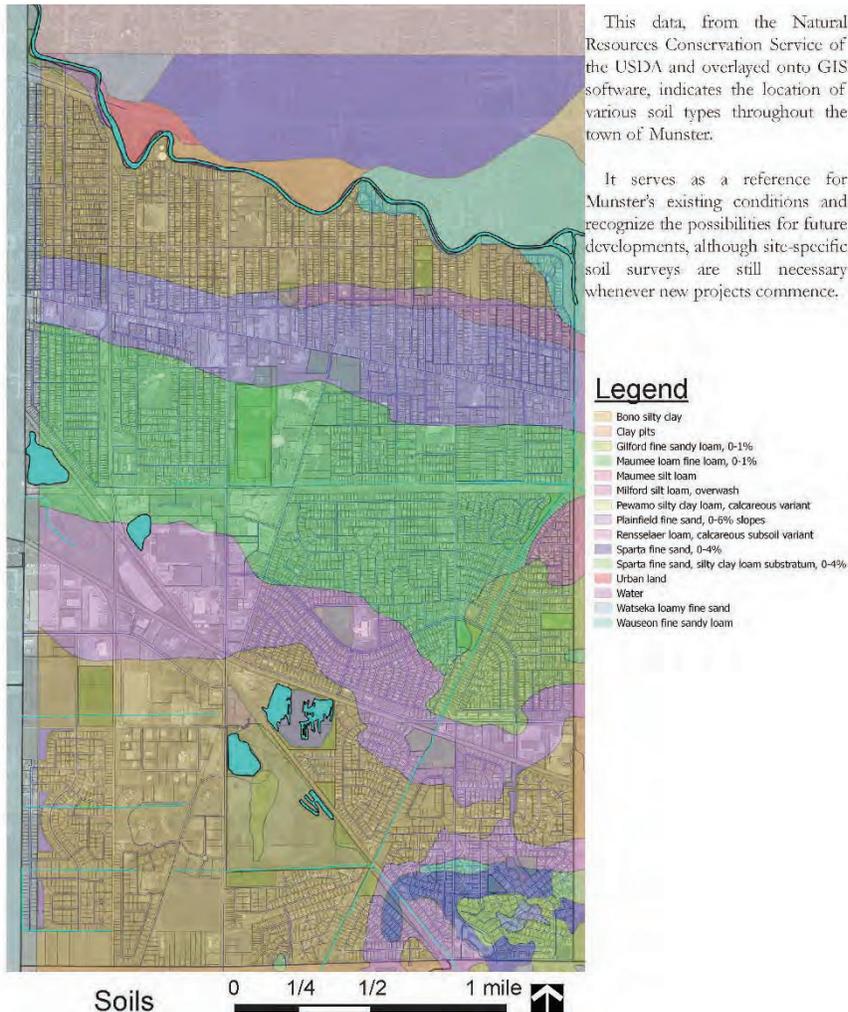


Image source: *Munster Parks and Recreation 2018 Master Plan, Planning Resources, Inc.*



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Photo examples of Munster’s native landscape habitats may have resembled some of the examples below, including the restoration of the East Branch of the Little Calumet River (**Figure 3**), Oak Savannah (**Figure 4**), and Upland Prairie (**Figure 5**).

Figure 3



Image credit: Shirley Heinze Land Trust: East Branch, Little Calumet River Conservation Corridor

Figure 4



Figure 5



Image credits: Dig the Dunes website (digthedunes.com)



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A list of Northwest Indiana Native Plants, organized by plant type, follows below (3)

<p>Native Trees - Evergreen</p> <p><u>Eastern Arborvitae</u>, Thuja occidentalis <u>Eastern Red Cedar</u>, Juniperus virginiana <u>White Cedar</u>, Thuja occidentalis <u>Hemlock</u>, Tsuga canadensis <u>White Pine</u>, Pinus strobus <u>Jack Pine</u>, Pinus banksiana <u>Virginia Pine</u>, Pinus virginiana</p>	
<p>Native Trees - Deciduous</p> <p><u>Black Ash</u>, Fraxinus nigra <u>Blue Ash</u>, Fraxinus quadrangulata <u>Green Ash</u>, Fraxinus pennsylvanica <u>Pumpkin Ash</u>, Fraxinus profunda <u>White Ash</u>, Fraxinus americana <u>Bigtooth Aspen</u>, Populus grandidentata <u>American Beech</u>, Fagus grandifolia <u>Gray Birch</u>, Betula populifolia <u>Paper Birch</u>, Betula papyrifera <u>River Birch</u>, Betula nigra <u>Yellow Birch</u>, Betula alleghaniensis <u>Blue Beech</u>, Carpinus caroliniana <u>Box Elder</u>, Acer negundo <u>Ohio Buckeye</u>, Aesculus glabra <u>Yellow Buckeye</u>, Aesculus flava <u>Butternut or White Walnut</u>, Juglans cinerea <u>Northern Catalpa</u>, Catalpa speciosa <u>Black Cherry</u>, Prunus serotina <u>American Chestnut</u>, Castanea dentata <u>Kentucky Coffeetree</u>, Gymnocladus dioicus <u>Eastern Cottonwood</u>, Populus deltoides <u>Swamp Cottonwood</u>, Populus heterophylla <u>Prairie Crabapple</u>, Malus ioensis <u>Sweet Crabapple</u>, Malus coronaria <u>Devil's Walking Stick</u>, Aralia spinosa <u>Flowering Dogwood</u>, Cornus florida <u>Pagoda Dogwood</u>, Cornus alternifolia <u>American Elm</u>, Ulmus americana <u>Cork Elm</u>, Ulmus thomasii <u>Slippery Elm</u>, Ulmus rubra <u>Winged Elm</u>, Ulmus alata</p>	<p>Native Trees - Deciduous</p> <p><u>Black Tupelo or Black Gum</u>, Nyssa sylvatica <u>Black Walnut</u>, Juglans nigra <u>Black Willow</u>, Salix nigra <u>Peachleaf Willow</u>, Salix amigdaloides <u>Yellowwood</u>, Cladrastis kentukea <u>Common Hackberry</u>, Celtis occidentalis <u>Cockspur Hawthorn</u>, Crataegus crus-galli <u>Dotted Hawthorn</u>, Crataegus punctata <u>Downy Hawthorn</u>, Crataegus mollis <u>Green Hawthorn</u>, Crataegus viridis <u>Eastern/Canadian Hemlock</u>, Tsuga canadensis <u>Bitternut Hickory</u>, Carya cordiformis <u>Black Hickory</u>, Carya texana <u>Mockernut Hickory</u>, Carya tomentosa <u>Pignut Hickory</u>, Carya glabra <u>Sand Hickory</u>, Carya pallida <u>Shagbark Hickory</u>, Carya ovata <u>Shellbark Hickory</u>, Carya laciniosa <u>Honey Locust</u>, Gleditsia triacanthos <u>American Hop-hornbeam</u>, Ostrya virginiana <u>Hoptree</u>, Ptelea trifoliata <u>American Hornbeam</u>, Carpinus caroliniana <u>American Larch</u>, Larix laricina <u>Black Locust</u>, Robinia pseudoacacia <u>Water Locust</u>, Gleditsia aquatica <u>Cucumber Tree (Magnolia)</u>, Magnolia acuminata <u>Umbrella Magnolia</u>, Magnolia tripetala <u>Black Maple</u>, Acer nigrum <u>Red Maple</u>, Acer rubrum</p>



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<p><u>Shumard Oak</u>, Quercus shumardii <u>Swamp Chestnut Oak</u>, Quercus michauxii <u>Swamp White Oak</u>, Quercus bicolor <u>White Oak</u>, Quercus alba <u>Pawpaw</u>, Asimina triloba <u>Pecan</u>, Carya illinoensis <u>Persimmon</u>, Diospyros virginiana <u>American Plum</u>, Prunus americana <u>Balsam Poplar</u>, Populus balsamifera <u>Tulip Poplar</u>, Liriodendron tulipifera <u>Eastern Redbud</u>, Cercis canadensis <u>Sassafras</u>, Sassafras albidum <u>Allegheny Serviceberry</u>, Amelanchier laevis <u>Downy Serviceberry</u>, Amelanchier arborea <u>Sourwood</u>, Oxydendrum arboreum <u>Sugarberry</u>, Celtis laevigata <u>Sweetgum</u>, Liquidambar styraciflua <u>Sycamore</u>, Platanus occidentalis <u>Tamarack</u>, Larix laricina</p>	<p><u>Silver Maple</u>, Acer saccharinum <u>Sugar Maple</u>, Acer saccharum <u>Showy Mountain-ash</u>, Sorbus decora <u>Red Mulberry</u>, Morus rubra <u>Black Oak</u>, Quercus velutina <u>Blackjack Oak</u>, Quercus marilandica <u>Bur Oak</u>, Quercus macrocarpa <u>Cherrybark Oak</u>, Quercus pagoda <u>Chestnut Oak</u>, Quercus montana <u>Chinkapin Oak</u>, Quercus muehlenbergii <u>Northern Pin or Hill's Oak</u>, Quercus ellipsoidalis <u>Overcup Oak</u>, Quercus lyrata <u>Pin Oak</u>, Quercus palustris <u>Post Oak</u>, Quercus stellata <u>Red Oak</u>, Quercus rubra <u>Scarlet Oak</u>, Quercus coccinea <u>Shingle Oak</u>, Quercus imbricaria</p>
<p>Native Shrubs</p>	<p>Native Shrubs</p>
<p><u>Southern Arrowwood</u>, Viburnum dentatum <u>Prickly Ash</u>, Zanthoxylum americanum <u>Buttonbush</u>, Cephalanthus occidentalis <u>Black Chokeberry</u>, Aronia melanocarpa <u>Gray Dogwood</u>, Cornus racemosa <u>Silky Dogwood</u>, Cornus amomum <u>Elderberry</u>, Sambucus Canadensis <u>Blackhaw</u>, Viburnum prunifolium <u>American Hazelnut</u>, Corylus americana <u>Nannyberry</u>, Viburnum lentago <u>Common Ninebark</u>, Physocarpus opulifolius</p>	<p><u>New Jersey Tea</u>, Ceanothus americanus <u>Common Serviceberry</u>, Amelanchier arborea <u>Spicebush</u>, Lindera benzoin <u>Fragrant Sumac</u>, Rhus aromatic <u>Smooth Sumac</u>, Rhus glabra <u>Staghorn Sumac</u>, Rhus typhina <u>Virginia Sweetspire</u>, Itea virginica <u>Eastern Wahoo</u>, Euonymus atropurpureus <u>Common Winterberry</u>, Ilex verticillata</p>
<p>Native Grasses</p>	<p>Native Grasses</p>
<p><u>Switch Grass</u>, Panicum virgatum <u>Indian Grass</u>, Sorghastrum nutans <u>Little Bluestem</u>, Schizachyrium scoparium <u>Big Bluestem</u>, Andropogon gerardii <u>Side-Oats Grama</u>, Bouteloua curtipendula</p>	<p><u>Junegrass</u>, Koeleria macrantha <u>Indian Seaoats</u>, Chasmanthium latifolium <u>Virginia Wild Rye</u>, Elymus virginicus <u>Bottlebrush Grass</u>, Elymus hystrix <u>Prairie Dropseed</u>, Sporobolus heterolepis</p>



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Sources:

- (1) *Calumet River-Frontal Lake Michigan Archived 2015-10-21 at the Wayback Machine*, Watershed Central Wiki, U.S. EPA, quoting from the "City of Chicago Calumet Land Use Plan"
- (2) Moore, Powell A. (1959). *The Calumet Region: Indiana's Last Frontier*. Indiana Historical Bureau. Retrieved 20 August 2015.
- (3) Indiana Wildlife Federation website. Indianawildlife.org/wildlife/native-plants



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Existing streetscape assessment

Historically the crossroads of the Town of Munster, the Calumet Avenue and Ridge Road Corridors are currently perceived as automobile-oriented corridors. Although these thoroughfares are effective at conveying traffic, they lack character giving elements that can contribute to a sense of place, such as pedestrian friendly features, landscape plantings, and gateway and wayfinding signage. Community image, pedestrian/bike comfort and connectivity are generally lacking for those non-motorists who travel along and across the Calumet Avenue and Ridge Road corridors.

In addition to the items set forth in the Existing Transportation Assessment, the following Streetscape Assessment focuses on items which contribute to corridor character, including physical conditions within the public rights of way and adjacent privately owned properties as described below.

The scope of the current assignment includes recommendations for public rights of way only. The assessment considers adjacent privately owned properties for the purposes of context only.

PUBLIC RIGHTS OF WAY	PRIVATELY OWNED PROPERTIES
<ul style="list-style-type: none"> ▪ Gateway Entrances ▪ Public Places ▪ Sidewalks and Parkways ▪ Intersections ▪ Streetscape Elements (<i>lighting, utilities, trees, and plantings</i>) ▪ Pervious and Impervious Surfaces ▪ Wayfinding Signage and Community Branding 	<ul style="list-style-type: none"> ▪ Building frontage typologies (<i>parking lot, garden, sidewalk, campus</i>)



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PUBLIC RIGHTS OF WAY

Gateway entrances

South of the I94/I80 bridge and interchange, the Calumet Avenue entrance into the Town does not announce the entrance to Munster. This area includes long views of the 5-lane roadway, metal barrier railings, overhead utilities, and a range of institutional and commercial building types. The Little Calumet River and trail are significant and picturesque regional landscape features that are easily overlooked amidst this high traffic area.



The north entrance along Calumet Avenue lacks a pronounced gateway to Munster.

Town of Munster gateway signs are located along Ridge Road, east and west of Calumet Ave. These gateway areas include a mix of commercial and institutional buildings flanking a five-lane roadway.



The west entrance along Ridge Road includes signage at Strack N Van Til (at left) and private property landscaping (at right).



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Public places

The Monon Trailhead serves as an attractive visual gateway along Ridge Road as well as a cyclist gateway into Munster from this north-south regional trail. The Monon Trailhead includes fixed benches, tables and chairs, decorative fountain, and pergola structure. Although the trailhead does not directly abut active land uses, it does provide an attractive and comfortable public gathering space adjacent to the Monon Trail and Ridge Road.



The Monon Trailhead Park provides an attractive public place along the Monon Trail.



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Sidewalks and Parkways

The sidewalks along Calumet Avenue generally include 4'-6' wide concrete walks. In some locations, concrete walks are interrupted by utilities which reduce sidewalk widths, resulting in public walks that do not meet accessibility standards. In many locations, parkway areas are paved with unit pavers. This type of parkway treatment lacks the greening and buffering required to provide pedestrian comfort along high traffic roadways.



Calumet Avenue sidewalks lack parkway plantings that could provide greening and buffering between sidewalks and the roadway.



Sidewalks are interrupted by utilities which reduce sidewalk widths, resulting in public walks that do not meet accessibility standards.



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Where sidewalks abut active commercial businesses, a range of landscape treatments are present. Landscape treatments include raised concrete planters, light poles and temporary signage and sandwich boards. Where sidewalks abut parking areas, landscape treatments include plantings, masonry piers and decorative metal fencing. Landscape treatments are useful tools to provide a defined edge along the corridor as well as landscape buffering between the sidewalk and adjacent parking lot, such as the McDonald's parking lot landscape pictured below.



The spaces between sidewalks and private properties include landscaped green spaces (at left) and enlarged sidewalks (at right).



Private property landscaping includes masonry piers and ornamental fencing.



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Intersections

Signalized intersection areas throughout the corridor are generally perceived as large expanses of pavements that prioritize automobile uses over pedestrian uses because they lack well-defined crosswalks, code compliant accessible pavements and signage. These intersections can continue to support traffic as well as safer pedestrian crossings if improvements like these are made.



The Calumet Avenue / Ridge Road intersection lacks pedestrian amenities such as defined crosswalks and code compliant pavements.



The Ridge Road / Harrison Avenue intersections lack pedestrian amenities such as defined crosswalks and code compliant pavements.



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Streetscape elements (*lighting, utilities, trees, and plantings*)

Lighting and utilities. Corridor character is influenced by the composition of visible vertical elements, such as lighting and utilities, within the public rights of way. Generally, davit arm roadway poles exist along Calumet Avenue. A combination of davit arm roadway poles and ornamental dual fixture pedestrian poles exist along Ridge Road. Ornamental light poles are not consistently spaced along Ridge Road. Additionally, ornamental poles that have required replacement have been replaced by similar, but not identical poles due to product availability. As reported by Town staff, the pedestrian poles, manufactured by Lumec, are no longer available by that manufacturer. Both light pole types are reported by staff to be High Pressure Sodium (HPS). The roadway pole is a utilitarian design and the pedestrian pole is a decorative design. Staff reports that the light emitted by the roadway poles are sufficient for roadway and sidewalk lighting. The pedestrian poles were installed for aesthetic purposes only. The locations and selections of lighting and utilities contribute to the overall character and identity of the corridor. The combination of utilitarian roadway poles, overhead utilities and decorative pedestrian poles can contribute to a cluttered appearance along the corridors. **Figures 1, 2 and 3** on the following pages identify locations of overhead utilities and lighting.

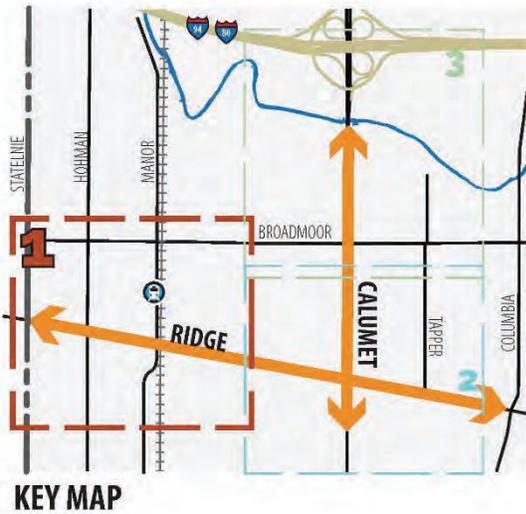


Preexisting ornamental light poles (at left) and replacement poles (at right) do not match due to availability of originally specified poles.



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Figure 1: Streetscape assessment enlargement 1



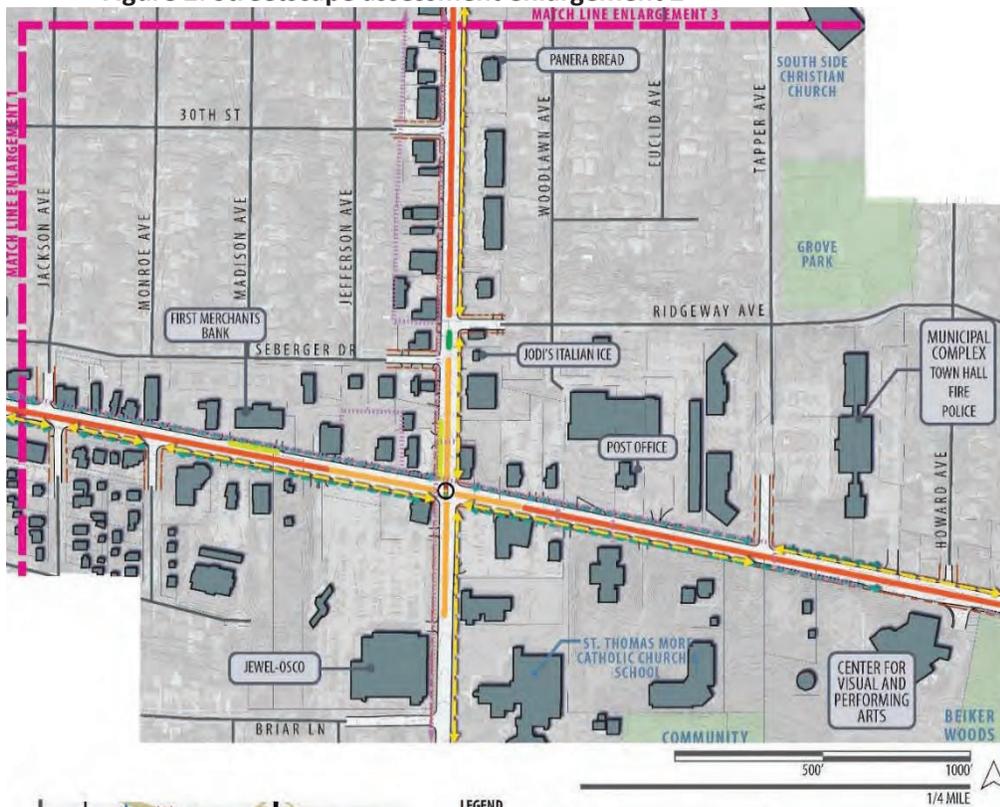
LEGEND

- SIGNALIZED INTERSECTION
- PLANNED TRANSIT STATION LOCATION
- PLANNED TRANSIT RAIL LINE
- PARCEL LINE
- RIGHT OF WAY
- CONTOUR LINE
- REGIONAL TRAIL
- ROADWAY**
 - 2-WAY LEFT TURN LANE
 - DEDICATED LEFT TURN LANE
 - DEDICATED RIGHT TURN LANE
 - PAINTED MEDIAN
- RIGHT OF WAY**
 - ROADWAY LIGHTING
 - PEDESTRIAN LIGHTING - DECORATIVE POLES
 - OVERHEAD POWER LINES



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Figure 2: Streetscape assessment enlargement 2

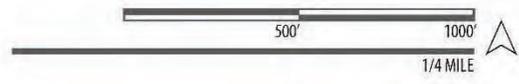
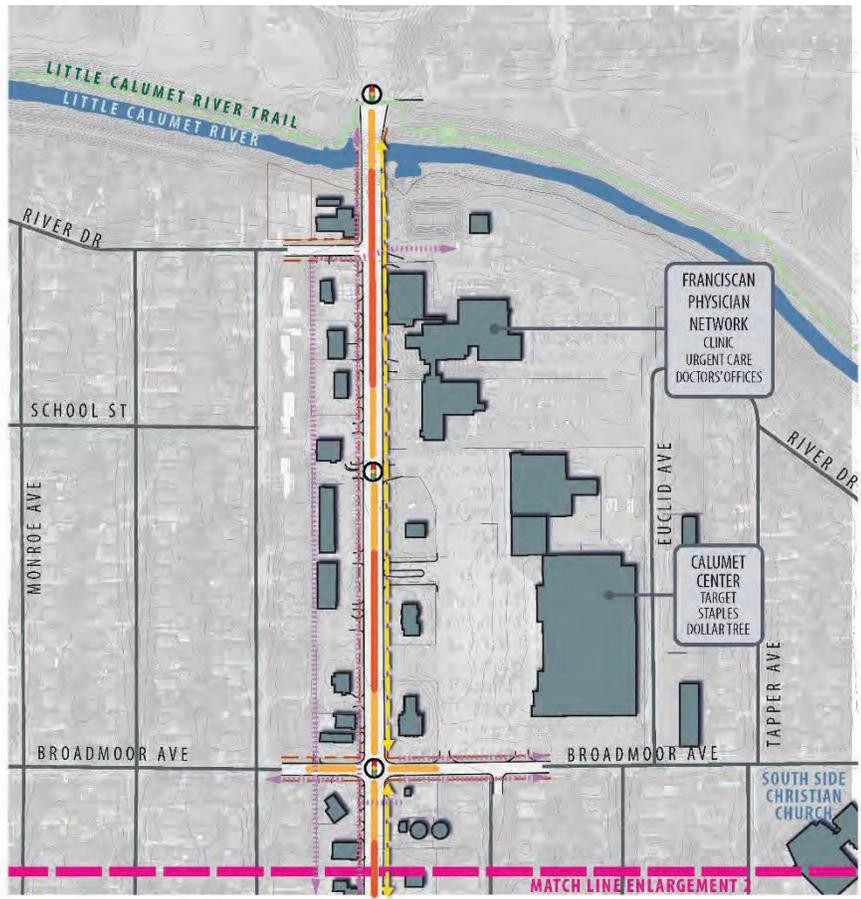


- LEGEND**
- SIGNALIZED INTERSECTION
 - PLANNED TRANSIT STATION LOCATION
 - PLANNED TRANSIT RAIL LINE
 - PARCEL LINE
 - RIGHT OF WAY
 - CONTOUR LINE
 - REGIONAL TRAIL
 - ROADWAY**
 - 2-WAY LEFT TURN LANE
 - DEDICATED LEFT TURN LANE
 - DEDICATED RIGHT TURN LANE
 - PAINTED MEDIAN
 - RIGHT OF WAY**
 - ROADWAY LIGHTING
 - PEDESTRIAN LIGHTING - DECORATIVE POLES
 - OVERHEAD POWER LINES



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Figure 3: Streetscape assessment enlargement 3



LEGEND

	SIGNALIZED INTERSECTION		ROADWAY 2-WAY LEFT TURN LANE
	PLANNED TRANSIT STATION LOCATION		DEDICATED LEFT TURN LANE
	PLANNED TRANSIT RAIL LINE		DEDICATED RIGHT TURN LANE
	PARCEL LINE		PAINTED MEDIAN
	RIGHT OF WAY		RIGHT OF WAY ROADWAY LIGHTING
	CONTOUR LINE		PEDESTRIAN LIGHTING
	REGIONAL TRAIL		DECORATIVE POLES
			OVERHEAD POWER LINES



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Overhead utilities and wood utility poles are present throughout the corridor, contributing to visual clutter, reducing available sidewalk widths, and limiting opportunities for canopy tree plantings. In many cases, utility pole locations encroach into existing sidewalks, reducing the clear zones to be less than the required 4'-0" widths for ADA access. Overhead utilities limit the available aerial space for canopy tree growth. When planting trees beneath overhead utilities, generally species should be selected so that tree canopies do not conflict with overhead power lines. Appropriate tree species generally are limited to small ornamental trees.

While burying overhead utilities comes with significant expense, many communities have relocated overhead utilities to the rears of businesses as feasible.



Overhead utilities and wood utility poles along Ridge Road contribute to visual clutter, reducing available sidewalk widths, and limiting opportunities for canopy tree plantings



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Underground utilities and utility markers are present throughout the corridor. These items are evident as handholes and fiber optic marker posts located in the sidewalks and parkway areas. While access to underground utilities is necessary, the materials and placement of these items contribute to clutter in the streetscape. Consistent handhole material and color would help to streamline their appearance in the streetscape. In addition, working with fiber optic companies to limit the utility markers may be considered.



Handhole (at grade) and fiber optic marker posts contribute to visual clutter along the corridors.



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Pervious and Impervious Surfaces

The Calumet Avenue and Ridge Road corridor areas include roadway, sidewalk, and parkway spaces. The parkway areas along Calumet Avenue and Ridge Road have been treated with unit pavers. Per public works, the preexisting landscaped parkway areas were replaced with unit pavers to respond to maintenance capabilities. If the unit paved parkways were replaced with landscaping, the amount of pervious surfacing would be increased substantially along the corridors. Select roadway and sidewalk pavement may be considered for permeable pavements as appropriate.



The parkway areas along Calumet Avenue and Ridge Road are the areas between curb and sidewalk. Once landscaped areas, the parkways have since been treated with unit pavers, which reduces the amount of pervious area along the corridors.



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Parkway trees. Few trees exist within the public right of way. Existing parkway trees include canopy shade trees, including Maple and Pear species. Some of these trees are planted in small tree pits beneath overhead wires. Many trees appear to be struggling in the streetscape and appear to be root bound by the size of the tree pits, in conflict with small tree grate openings and have lost upper canopy limbs due to conflict with overhead wires. If planting beneath overhead wires, tree species should be selected to minimize conflicts between tree canopy and overhead wires. Appropriate tree installation measures should be considered when installing trees in urban roadway conditions, including tree pit sizes, available planting medium and subsoil conditions.



Of the few canopy trees in the corridors, most are struggling to survive, due to inappropriate tree species selection, undersized root growth area and lack of maintenance.



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Planter Pots. Some paved parkways include precast concrete planters with annuals plantings. Precast concrete planters were manufactured by Wausau. In many cases planters are cracked. Staff reports this manufacturer no longer offers this planter style. While planter pots and annuals are attractive features, best practices suggest that these elements be used as accents and as buffers to pedestrian areas.



Many precast concrete planter pots are cracked and the planter pot model has been discontinued.



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Wayfinding Signage and Community Branding

Community entry signs and wayfinding signs are found in some corridor locations. Gateway and wayfinding sign programs are effective when municipal destinations are signed and coordinated from multiple locations and conform to the Manual of Uniform Traffic Control Device (MUTCD) standards. Signage to the Monon and Little Calumet Trails appear to be lacking. The corridor could benefit from a full gateway and wayfinding sign program that reinforces Munster’s brand identity and provides direction to other municipal destinations, such as community parks, regional trails, and the future Westlake Station area.



Wayfinding sign



Gateway sign



Bike directional sign



Bike directional signs at Little Calumet Trail

The corridor areas lack a cohesive gateway and wayfinding sign program that serves to inform visitors of community destinations as well as a cohesive community identity.



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PRIVATELY OWNED PROPERTIES

The corridor landscape is comprised of a variety of private land uses and site formats that contribute to the corridor's character and identity. Although the scope of the streetscape assignment is focused on public rights of way areas, adjacent land use treatments are considered for context. The land use formats and treatments may be organized by the following typologies as further described in **Figure 4** on the following page:

- Parking lot frontage
- Garden frontage
- Sidewalk frontage
- Campus



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Figure 4: Zoning and Typical Site Layout Typologies



LEGEND

- SIGNALIZED INTERSECTION
- PLANNED TRANSIT STATION LOCATION
- PLANNED TRANSIT RAIL LINE
- PARCEL LINE
- TIF DISTRICT
- REGIONAL TRAIL

- CD-3.R1 - One Fam Res.
- CD-3.R2 - One Fam Res.
- CD-4.A - General Urban
- CD-4.B - General Urban
- CD-4.R4 General Urban
- CD-5 - Urban Center
- SD-M - Special District Manufacturing
- SD-PUD - Planned Unit Development
- Civic
- Parks

- TYPICAL SITE LAYOUTS**
- PARKING LOT FRONTAGE
 - GARDEN FRONTAGE
 - SIDEWALK FRONTAGE
 - CAMPUS



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Parking lot frontage. Where parking lots and auto oriented uses abut the public rights of way, these spaces typically include a modest landscaped buffer area, including a combination of lawn, trees, and shrubs. In some cases, such as the McDonald’s along Ridge, a decorative fence with masonry piers separates the sidewalk from auto uses. In some locations, single story commercial buildings include an access drive and parking area which directly abuts the public sidewalk without any landscape buffer.



Private property landscape treatments between the sidewalk and vehicular use areas include shrub plantings and masonry piers with ornamental fencing. (Ridge Road)



Private property landscape treatments between the sidewalk and vehicular use areas include pavements (at left) and a mixture of trees, shrubs and planter walls (at right).



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Sidewalk frontage. Many locations along Ridge Road and select locations along Calumet Ave include commercial buildings that are located close to or abutting the lot line. In some cases, outdoor seating and dining are separated from the public sidewalk with a landscape buffer and railing. This orientation allows for comfortable outdoor dining while also activating the street with group seating and gathering. Opportunities exist to incorporate similar outdoor seating and dining in other configurations throughout the corridor.



Wide sidewalks adjacent to storefronts along Ridge Road can provide opportunities for additional outdoor seating and dining.



Pavement areas adjacent to storefronts along Calumet Avenue lack buffering and greening.

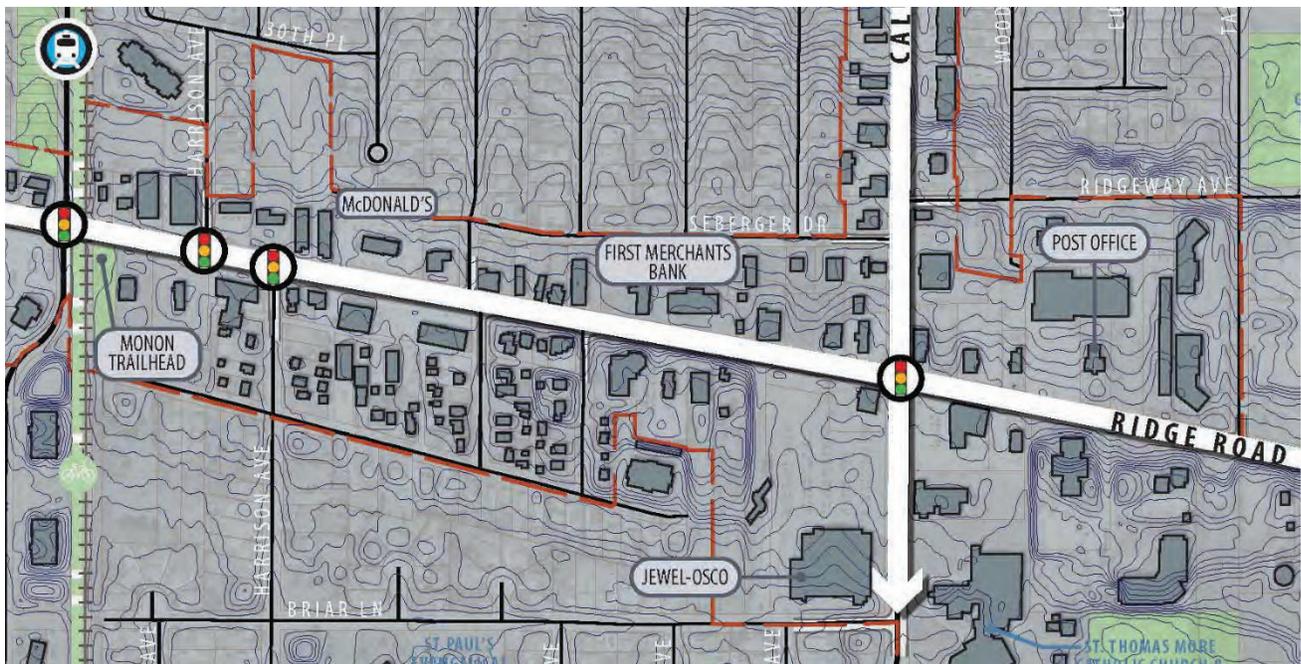


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Garden frontage. Ridge Road is located along the topographical ridge of Munster. As such, many properties located along the south side of Ridge Road are sloped. These properties may be redeveloped but must be done in a way that does not alter the grade. The sloped conditions have been treated with a variety of landscape design forms and materials, ranging from elaborately landscaped plantings with terraced retaining walls to timber retaining walls and integrated benches to simple sloped lawn areas.

The following topographical map, **Figure 5**, identifies the sloped conditions along the south side of Ridge Road.

Figure 5: Ridge Road topography





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Sloped landscape treatments along Ridge Road include a variety of landscape treatments, including retaining walls (top left), sloped lawn and trees (top right) and timber retaining walls with integrated benches (immediately above).



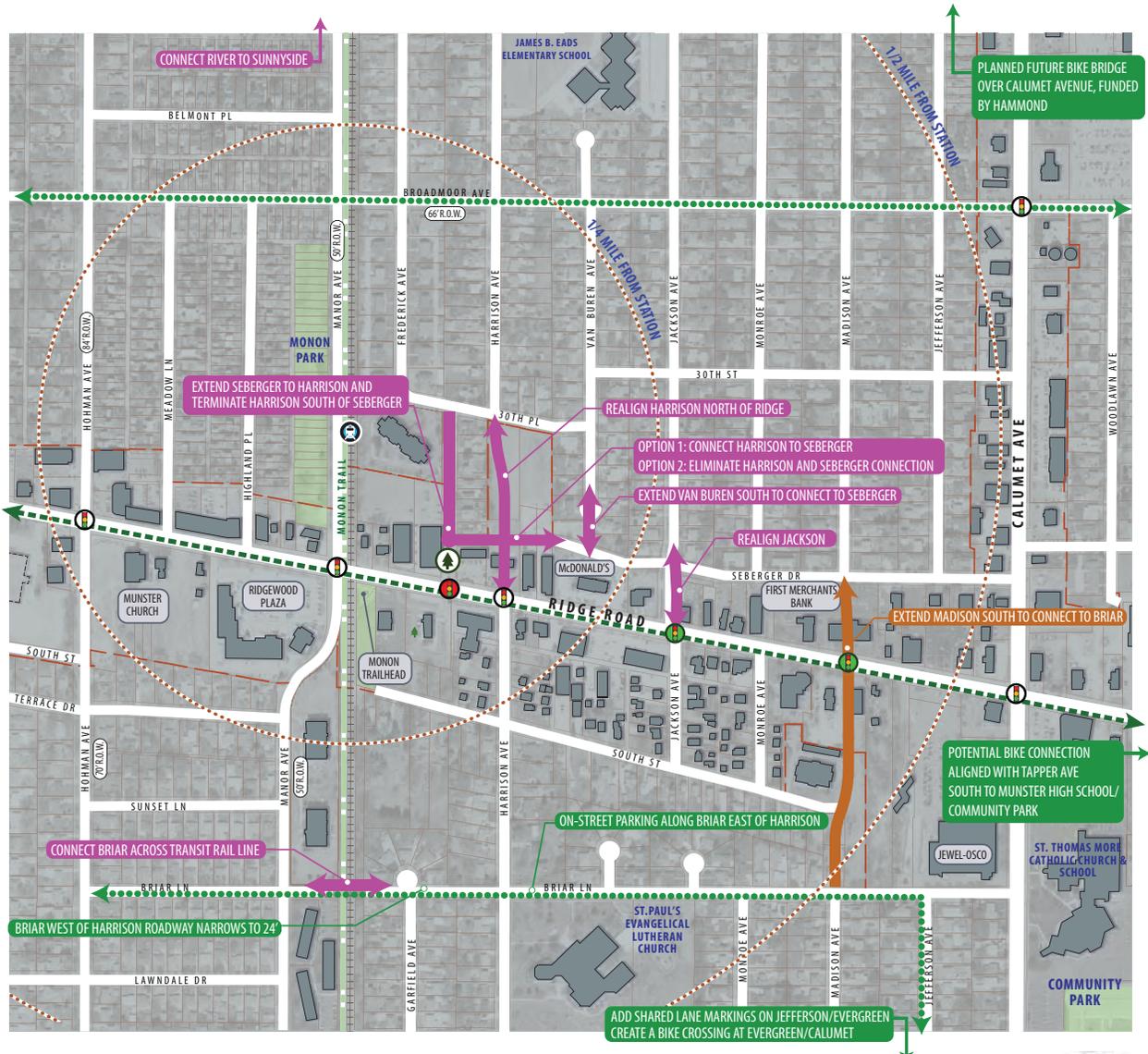
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Campus. The Center for Visual and Performing Arts and Town Hall are examples of larger campus areas which are accessed from the corridor. Where these properties abut the corridor, buildings and parking areas are separated from the street with wide landscape setbacks filled with trees, shrubs and lawns. Walkways, access drives and landscape treatments relate to the campus areas. Signage and landscape treatments are visible from the corridor.



The Center for Visual and Performing Arts and Town Hall areas are examples of campus areas that abut the corridor areas, including monument style signage, wide lawn setback areas and mature trees.

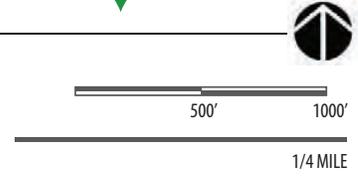
A4 – TOD Roadway Planning Memo



LEGEND

- SIGNALIZED INTERSECTION
- PROPOSED SIGNALIZED INTERSECTION
- ELIMINATE SIGNALIZED INTERSECTION
- PROPOSED PUBLIC PLAZA
- PLANNED TRANSIT STATION LOCATION
- PLANNED TRANSIT RAIL LINE
- PARCEL LINE
- TIF DISTRICT

- VEHICULAR CONNECTIONS**
- NEW ROADWAY CONNECTION
 - NEW SIGNALIZED ROADWAY OR SIGNALIZED PEDESTRIAN/BIKE CONNECTION
- BIKE CONNECTIONS**
- EXISTING REGIONAL TRAIL
 - OFF-STREET 10' MULTI-USE PATH (PED/BICYCLE) SOUTH SIDE OF RIDGE ROAD
 - ON-STREET BIKE LANES



DRAFT



TYPOLOGIES

RESIDENTIAL STREET

EXAMPLES

- Frederick
- Jefferson
- Madison
- Monroe
- Jackson
- Van Buren
- Meadow
- Highland
- 30th
- South

NEIGHBORHOOD CONNECTOR

EXAMPLES

- Broadmoor
- Briar
- Hohmann

STATION ADJACENT

EXAMPLES

- Harrison
- Manor

CHARACTERISTICS

Residential streets are designed to serve traffic and parking for local residential uses. Parking is unmarked and people may park on either side of the street; however, the street is typically not wide enough for parking on both sides at the same location. Parking may be permitted to restrict to local use only.

Sidewalks are provided on both sides of the street.

CHARACTERISTICS

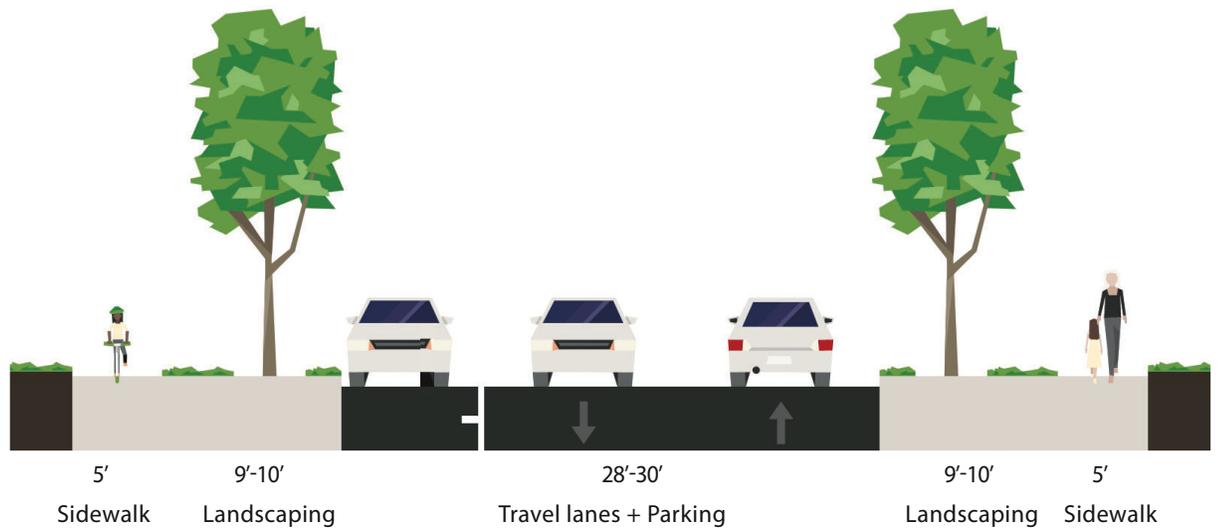
Neighborhood connectors are longer than residential streets and make important connections across barriers, such as Ridge Road or the railroad.

These characteristics make these streets important for bicycle connectivity and provide good opportunities for placemaking.

CHARACTERISTICS

Station adjacent streets are similar to residential streets in character. However, being adjacent to the station, will likely experience more parking and therefore should include marked on-street parking lanes.

TYPOLOGY: RESIDENTIAL STREET



Two travel lanes, flexible parking*

ROW width: 60'

Existing curb-to-curb width: 28'-30'

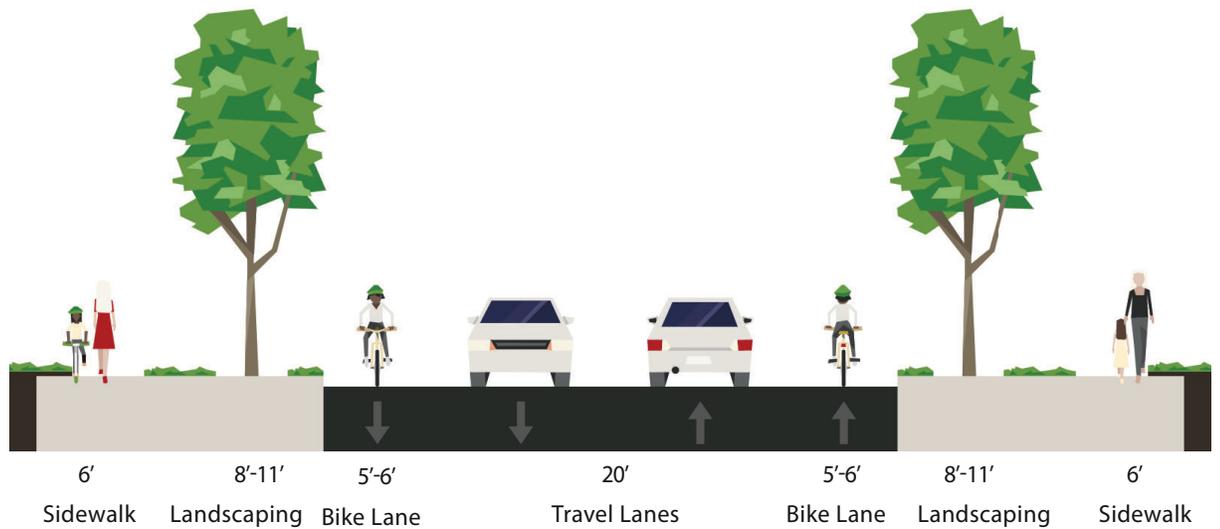
*parking is allowed, but not striped

CHARACTERISTICS

Residential streets are designed to serve traffic and parking for local residential uses. Parking is unmarked and people may park on either side of the street; however, the street is typically not wide enough for parking on both sides at the same location. Parking may be permitted to restrict to local use only.

Sidewalks are provided on both sides of the street.

TYPOLOGY: NEIGHBORHOOD CONNECTOR



Two travel lanes with two bike lanes
ROW width: 60'-66'
Existing curb-to-curb width: 30'-36'

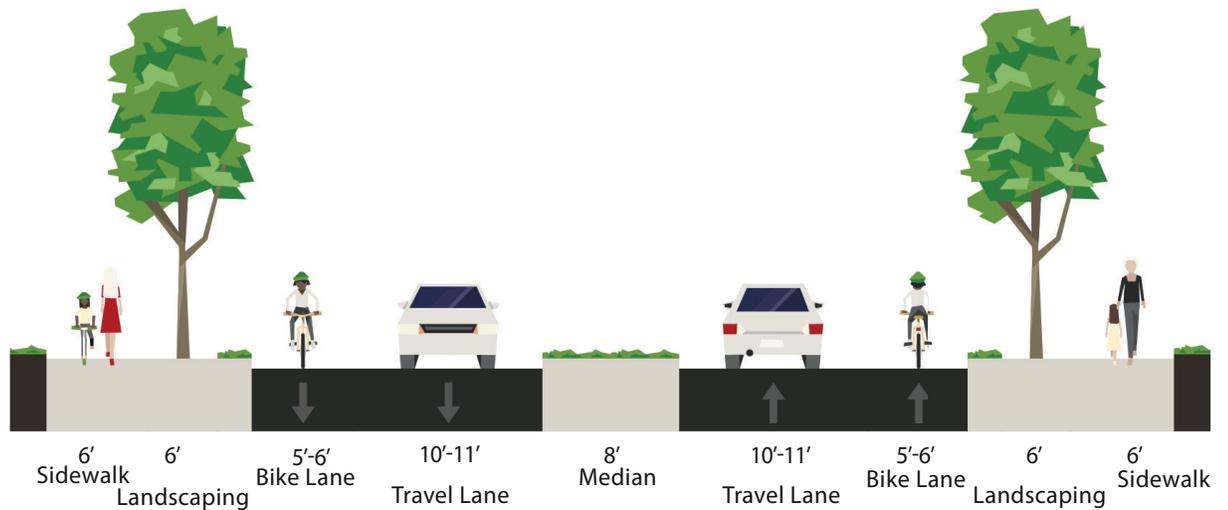
CHARACTERISTICS

Neighborhood connectors are longer than residential streets and make important connections across barriers, such as Ridge Road or the railroad.

These characteristics make these streets important for bicycle connectivity and provide good opportunities for placemaking.

TYPOLOGY: NEIGHBORHOOD CONNECTOR

ALTERNATIVE CROSS-SECTION



Two travel lanes with two bike lanes and median
ROW width: 60'-66'
Existing curb-to-curb width: 30'-36'

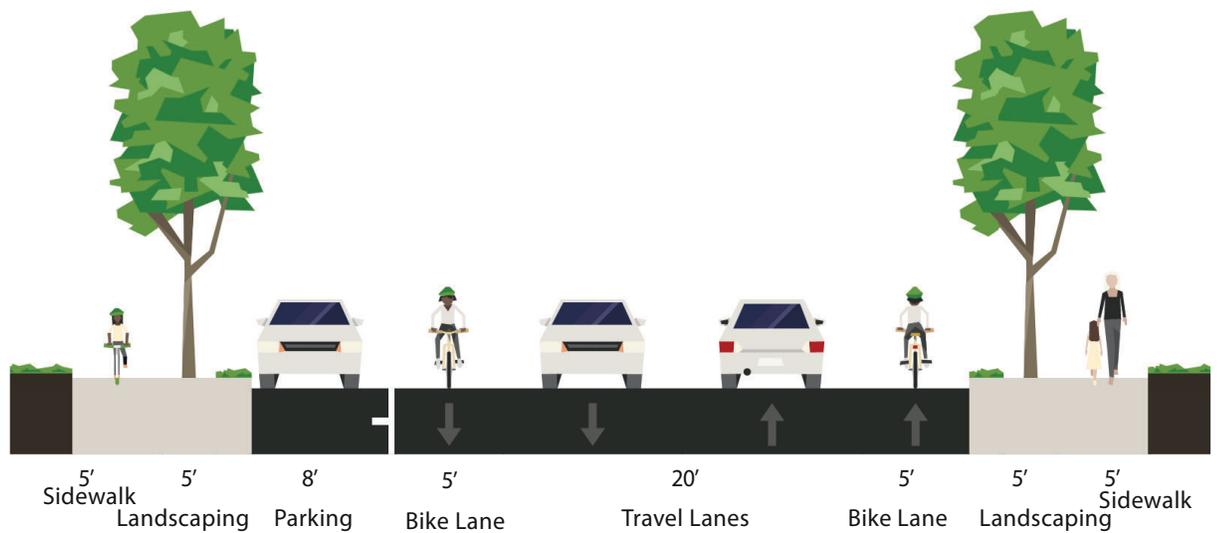
CHARACTERISTICS

Neighborhood connectors are longer than residential streets and make important connections across barriers, such as Ridge Road or the railroad.

These characteristics make these streets important for bicycle connectivity and provide good opportunities for placemaking.

TYPOLOGY: NEIGHBORHOOD CONNECTOR

ALTERNATIVE CROSS-SECTION



Two travel lanes with two bike lanes with parking on one side

ROW width: 60'

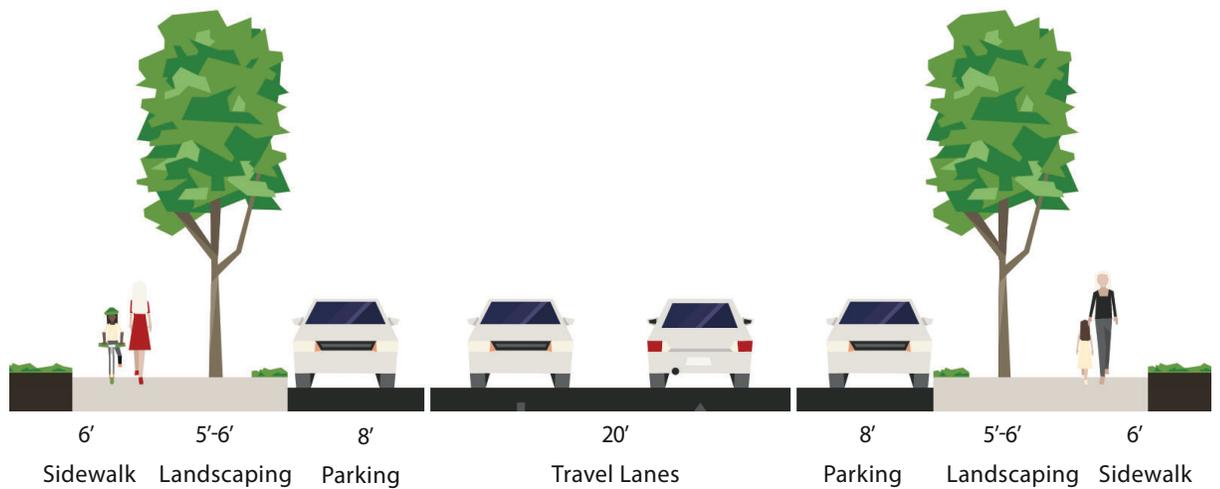
Existing curb-to-curb width: 30'-36'

CHARACTERISTICS

Neighborhood connectors are longer than residential streets and make important connections across barriers, such as Ridge Road or the railroad.

These characteristics make these streets important for bicycle connectivity and provide good opportunities for placemaking.

TYPOLOGY: STATION ADJACENT



Two travel lanes with striped on-street parking lanes*
ROW width: 50'-60'
Existing curb-to-curb width: 28'-30'

*Eliminate parking on one side along Manor.

CHARACTERISTICS

Station adjacent streets are similar to residential streets in character. However, being adjacent to the station, will likely experience more parking and therefore should include marked on-street parking lanes.

MINI TRAFFIC CIRCLES

Mini traffic circles are built in the direct center of an intersection and act as an impediment to traveling straight through, forcing the driver to slow in order to move around the circle.

EXPECTED OUTCOMES

- Deter cut-through traffic
- Slow speeds
- Increase safety
- Allow more time for drivers to make decisions, act, and react.

CONSIDERATIONS

- Not ideal for school crossings
- Adds aesthetic value when landscaped
- Landscaping needs to be maintained
- 15' or more of clearance is needed from the center of the circle to corner
- Ideal for spaces where approaching traffic is less than 30 MPH



APPLICATION CHARACTERISTICS

STREET TYPE: Local

SPEED LIMIT: 20 - 30 MPH

LOCATION: Uncontrolled intersection
(where two local streets meet)

POTENTIAL APPLICATIONS

- Jefferson Ave & 30th St
- Madison Ave & 30th St
- Monroe Ave & 30th St
- Jackson Ave & 30th St
- Harrison Ave & South

CURB EXTENSIONS

Curb extensions (bump-outs) extend the curb into the street, narrowing the street at a spot location. Usually installed at corners, curb extensions reduce crossing distances, slow turning vehicles, and improve pedestrian visibility.

EXPECTED OUTCOMES

- Enhance pedestrian comfort and safety
- Visually and physically narrow the street
- Reduces pedestrian crossing distance
- Slow turning vehicles
- Encourage pedestrians to cross at designated locations
- Prevents obscured visibility of pedestrians

CONSIDERATIONS

- Typically used on streets with on-street parking so curb does not extend into traveled way
- Typically used at corners; an exception is when used to create a chicane or enhance a midblock crossing
- Often requires rebuilding the sidewalk but can be effective with floating curbs or using paint, bollards, and planters



APPLICATION CHARACTERISTICS

STREET TYPE: Any

SPEED LIMIT: Any

LOCATION: Intersections or midblock as part of other traffic calming treatments (see additional tools for more guidance)

POTENTIAL APPLICATIONS

- Manor
- Harrison

CHICANES

Chicanes introduce a non-linear path into a straight street, often featuring offset curb extensions on alternating sides of a street. Chicanes force drivers to slow down to navigate the curves and grab their attention. Chicanes can also be created by offsetting on-street parking on alternate sides of a street.

EXPECTED OUTCOMES

- Slow speeds
- Deter cut-through traffic
- Gentle or restrictive traffic diversions created by shifting parking lanes or landscaped islands

CONSIDERATIONS

- Curb extensions should be paired with delineators to draw attention to the bump-outs and prevent collisions with the curb, particularly for snow plows
- Curb extensions could be landscaped to increase the aesthetic quality; landscaping would then need to be maintained



APPLICATION CHARACTERISTICS

STREET TYPE: Local

SPEED LIMIT: 20 - 30 mph

LOCATION: Midblock

POTENTIAL APPLICATIONS

- Jackson
- Harrison
- Seberger

NEIGHBORHOOD GATEWAY TREATMENTS

Neighborhood gateway treatments mark the entrance of a residential street or neighborhood. They signal to drivers a change in environment to a slower speed area. Gateway treatments could be designated through curb extensions, raised crosswalks, and neighborhood identifiers.

EXPECTED OUTCOMES

- Slow turning vehicles
- Deter cut-through traffic
- Marks the transition to a lower speed street
- Reduces pedestrian crossing distance

CONSIDERATIONS

- Combine with a raised crosswalk from greater impact
- Bump-outs are best paired with on-street parking
- Distance between bump-outs must maintain minimum clearance to comply with local emergency vehicle codes



APPLICATION CHARACTERISTICS

STREET TYPE: Local

SPEED LIMIT: Any

LOCATION: At the intersection of local streets with collector or arterial streets

POTENTIAL APPLICATIONS

- Forest
- Meadow
- Highland
- Manor
- Harrison
- Jackson
- Monroe

SPEED HUMPS AND TABLES

Speed humps and tables are raised deflections of the roadway. Speed tables are longer than speed humps and have a flat top. They are used as traffic control devices that span the entire width of a street.

EXPECTED OUTCOMES

- Slow speeds
- Deter cut-through traffic
- Requires drivers to slow down to avoid discomfort
- Raises vehicle wheelbase approximately 3 to 4 inches high at the center of the table



CONSIDERATIONS

- Speed humps slow vehicles more than speed tables
- Speed tables are more appropriate on emergency vehicle routes; the long profile of speed tables prevents damage to long vehicles like buses and fire trucks
- Should not be applied on streets wider than 50 feet
- Speed tables can be paired with a crosswalk to create a raised crosswalk

APPLICATION CHARACTERISTICS

STREET TYPE: Local and collector

SPEED LIMIT: 25 - 45 mph

LOCATION: Midblock

POTENTIAL APPLICATIONS

- Jefferson
- Madison
- Monroe
- Jackson
- 30th
- South
- Meadow
- Highland

RAISED CROSSINGS

Raised crossings are speed tables paired with a crosswalk. They maintain the level of the sidewalk through the intersection and slow vehicles where pedestrians are most vulnerable, prioritizing pedestrian traffic.

EXPECTED OUTCOMES

- Slow speeds
- Enhance pedestrian comfort and safety
- Encourages drivers to yield to pedestrians at crosswalks
- Reinforces pedestrian priority

CONSIDERATIONS

- Similar to speed tables but align with a marked pedestrian crossing
- Effective on streets with low to moderate traffic volumes
- Tends to be most predictable in reducing vehicle speeds
- Appropriate in areas with high pedestrian demand like universities and shopping districts.



APPLICATION CHARACTERISTICS

STREET TYPE: Local and collector

SPEED LIMIT: 25 - 45 mph

LOCATION: Prominent pedestrian crossings at intersections or marked midblock crossings

POTENTIAL APPLICATIONS

- Broadmoor & Manor (trail crossing)
- Harrison at station entrance
- Neighborhood gateways

SPEED FEEDBACK SIGNS

Speed feedback signs display the speed a driver is traveling alongside a speed limit sign. The immediate and public feedback is effective at slowing drivers, particularly near destinations with high pedestrian activity.

EXPECTED OUTCOMES

- Slow speeds
- Increase driver awareness of speeds and compliance with the posted speed limit

CONSIDERATIONS

- Most effective in spot locations, such as near a school or major destinations
- Signs can be installed as a permanent feature or on a temporary basis using a mobile unit
- Low cost



APPLICATION CHARACTERISTICS

STREET TYPE: Any

SPEED LIMIT: Any

LOCATION: Midblock

POTENTIAL APPLICATIONS

- Manor
- Broadmoor
- Briar

ON-STREET PARKING

On-street parking helps reduce effective curb-to-curb widths, provides a buffer between the travel way and sidewalk. On-street parking encourages drivers to pay attention to the street and driving.

EXPECTED OUTCOMES

- Slow speeds
- Enhance pedestrian comfort and safety
- Narrow effective crossing width
- Foster a more vibrant commercial corridor

CONSIDERATIONS

- Residential streets may allow on-street parking without marking a parking lane
- Consistent, marked parking lanes should be installed near commercial uses, near transit, or other key destinations



APPLICATION CHARACTERISTICS

STREET TYPE: Any; street width must accommodate 8' parking lanes and clearance for emergency vehicles

SPEED LIMIT: Any

LOCATION: Midblock

POTENTIAL APPLICATIONS

- Manor
- Harrison

MEDIANS

Medians are painted or raised buffers placed between opposing lanes of traffic. When placed at crosswalks, they reduce the effective crossing distance and provide a refuge between crossing different directions of traffic. The separation between vehicles traveling in opposite directions can reduce head-on collisions.

EXPECTED OUTCOMES

- Slow speeds
- Safer pedestrian crossings at midblock or intersections
- Minimizes pedestrian exposure

CONSIDERATIONS

- Can be raised or striped with only pavement markings
- Adds aesthetic value when landscaped
- Landscaping needs to be maintained
- Encouraged to be used in front of high pedestrian generators like schools



APPLICATION CHARACTERISTICS

STREET TYPE: Any street where width accommodates it

SPEED LIMIT: Any

LOCATION: Midblock or intersections

POTENTIAL APPLICATIONS

- Broadmoor
- Briar

MIDBLOCK CROSSINGS

Midblock crossings are marked crossings that occur outside of an intersection. They are appropriate along long blocks or blocks with high pedestrian activity.

EXPECTED OUTCOMES

- Enhance pedestrian and bicyclist comfort, safety, and walkability/bikeability
- Enhance pedestrian network
- Channels pedestrians to best locations
- Reduces conflict due to increased frequency of acceptable gaps

CONSIDERATIONS

- On streets with more than two travel lanes, a midblock crossing should be paired with a pedestrian refuge island
- On streets with higher traffic volumes, a beacon is also recommended



APPLICATION CHARACTERISTICS

STREET TYPE: Collector and arterial; additional measures are necessary where average daily traffic volumes are above 12,000 vehicles per day

SPEED LIMIT: 20 - 30 mph

LOCATION: At major pedestrian generators where existing signal or pedestrian crossing is more than 600' away

POTENTIAL APPLICATIONS

- Ridge Road between Jackson and Calumet (pending additional street connection decisions)

PEDESTRIAN REFUGE ISLANDS

Pedestrian refuge islands are similar to medians, but are short segments rather than continuous for all or most of a block. Refuge islands provide a protected space in the middle of the street to help people safely cross the street.

EXPECTED OUTCOMES

- Enhance pedestrian and bicyclist comfort, safety, and walkability/bikeability
- Decreased pedestrian exposure to motor vehicles
- Allows pedestrians to focus on one direction of travel at a time
- Enhanced protection for people waiting

CONSIDERATIONS

- Islands should be at least 6' wide for compliance with the ADA
- Planted medians or two-way left turn lanes can become pedestrian refuge islands where a left turn is not needed
- Islands should be illuminated with street lights, signs, or reflectors to ensure visibility to motorists



APPLICATION CHARACTERISTICS

STREET TYPE: Collectors and arterials

SPEED LIMIT: Any

LOCATION: Between directions of travel, at crossings and signalized crossings. On streets with 3 or more lanes

POTENTIAL APPLICATIONS

- Unsignalized crossings along Ridge Road and Calumet Avenue

RECTANGULAR RAPID FLASH BEACONS

Rectangular rapid flash beacons are user-activated warning beacons. The unique flashing pattern of the RRFBs have been shown to increase driver yielding to a much higher rate than traditional warning lights or no treatment.

EXPECTED OUTCOMES

- Enhance pedestrian and bicyclist comfort, safety, and walkability/bikeability
- Alert drivers to yield where bicyclists or pedestrians have the right of way
- Increase driver yield behavior

CONSIDERATIONS

- Combine with other treatments, such as a pedestrian refuge island for greater impact
- RRFBs alone may not be sufficient for roadways with more than 15,000 vehicles per day
- RRFBs are useful devices where a crossing is desired but a full traffic signal is not warranted



APPLICATION CHARACTERISTICS

STREET TYPE: Collectors and arterials

SPEED LIMIT: 35 MPH or less

LOCATION: Uncontrolled crossings

POTENTIAL APPLICATIONS

- Uncontrolled crossings of Ridge Road or Calumet Avenue (i.e. Evergreen at Calumet)

PAINTED CROSSINGS

Painted crossings use unique designs to mark the pedestrian crossing. The designs can reflect the character or brand of the community and draw attention to the crossing, prioritizing pedestrians.

EXPECTED OUTCOMES

- Slow speeds
- Enhance pedestrian comfort and safety
- Enhance aesthetics and a sense of place



CONSIDERATIONS

- Can be combined with a neighborhood gateway treatment to enhance its impact

APPLICATION CHARACTERISTICS

STREET TYPE: Any

SPEED LIMIT: Any

LOCATION: Commercial districts or key destinations; anywhere placemaking is desired

POTENTIAL APPLICATIONS

- Harrison at station entrance
- Neighborhood gateways

GRID CONNECTIVITY

Grid connectivity forming a regular street pattern benefits all street users, especially people walking and biking. Grid connectivity and shorter block lengths give people walking and bicycling more route choices and safer opportunities to cross the street and decrease the overall distance of trips.

EXPECTED OUTCOMES

- Enhanced connectivity and increased route options for all modes of transportation
- Decreased travel time
- Reduced vehicle congestion
- Improved emergency response



CONSIDERATIONS

- Where the grid network cannot be completed with streets and vehicular access, opportunities to provide paths for walking and biking should be considered to increase connectivity for those modes.

APPLICATION CHARACTERISTICS

STREET TYPE: Any

SPEED LIMIT: Any

LOCATION: Neighborhood-wide

POTENTIAL APPLICATIONS

- Harrison
- Seberger
- Van Buren
- Madison
- Briar

BIKE LANES

Bike lanes designate a portion of the roadway for bicycle travel. They denote a preferred route for bicyclists and organize the cross-section to provide a safer space to bike and alert drivers to expect bicycle traffic.

EXPECTED OUTCOMES

- Slow speeds
- Enhance bicyclist comfort and safety
- Alert drivers to bicycle traffic
- Enable bicyclists to travel at their preferred speed
- Facilitate predictable behavior and movements
- Increase total capacity of the street

CONSIDERATIONS

- Bike lanes should be striped at 5' in width
- Where traffic volumes are higher, a striped buffer or barrier (such as a curb) should be added between the bike lane and travel lane



APPLICATION CHARACTERISTICS

STREET TYPE: Local; collector; traffic volumes with less than 10,000 vehicles per day

SPEED LIMIT: 30 MPH or less

LOCATION: Along dedicated or desired bike routes

POTENTIAL APPLICATIONS

- Broadmoor
- Briar

MARKED SHARED LANES

Marked shared lanes designate a travel lane as a shared space for bikes and vehicles through a shared lane symbol. They denote a preferred route for bicyclists and alert drivers to expect bicycle traffic.

EXPECTED OUTCOMES

- Slow speeds
- Enhance bicyclist comfort and safety
- Signify to motorist and bicyclists that bicycles can share the lane
- Indicate proper riding position for bicyclists
- Help raise driver awareness
- Designate a preferred route for bicyclists and provide a wayfinding element along bike routes

CONSIDERATIONS

- Shared laned markings should be marked at least 4' from the face of curb if no on-street parking exists or 12' from the face of curb where on-street parking exists



APPLICATION CHARACTERISTICS

STREET TYPE: Local; traffic volumes ideally less than 5,000 vehicles per day

SPEED LIMIT: 25 MPH or less

LOCATION: Along dedicated or desired bike routes

POTENTIAL APPLICATIONS

- Hohman (recommend speed limit reduction)

A5 – Calumet Ave Bridge Concepts



Memorandum

To: Dustin Anderson, Town of Munster, danderson@munster.org
Tom van der Woude, Town of Muster, tvanderwoude@muntser.org

Cc: Dean Button, City of Hammond, buttond@gohammond.com
Bill Baker, Little Calumet River Basin Development Commission, castleridge@sbcglobal.net

From: Jodi Mariano, Principal, Teska Associates

Date: May 28, 2021

RE: Calumet Avenue Bike and Pedestrian Bridge – Preferred Concept Design

The purpose of this memorandum is to document the conceptual level design process and outcomes for aesthetic improvements to the planned Calumet Avenue bike bridge within the City of Hammond. Teska was engaged by the Town of Munster to collaborate with representatives from the Town of Munster, City of Hammond, and Little Calumet River Basin Development Commission on the development of aesthetic enhancements to the planned bike and pedestrian bridge over Calumet Avenue near the Little Calumet River Trail.

The following representatives participated in this design effort:

Town of Munster	Dustin Anderson, Town of Munster, danderson@munster.org Tom VanDer Woude, Town of Muster, tvanderwoude@muntser.org
City of Hammond	Dean Button, City of Hammond, buttond@gohammond.com Phil Taillon City of Hammond, taillonp@gohammond.com Kevin Smith, Smith Sersic, ksmith@smithsersic.com Adam Clauss, BLN Engineering, aclauss@b-l-n.com
Little Calumet River Development Commission	Bill Baker, Little Calumet River Basin Development Commission, castleridge@sbcglobal.net Dan Repay, Little Calumet River Basin Development Commission, drepay@littlecalumetriverbasin.org

A summary of meeting activities and key outcomes follows below:

Meeting #1, April 8th, 2021

During the kickoff meeting, the group reviewed concept level and engineering bridge design work prepared to date as well as built photos of the *Calumet Conkey Bridge*, a recently constructed bridge which is the basis of design for the Calumet Avenue Bike Bridge. Following a review of comparable photographs from other bridge aesthetic projects, the group agreed upon the following enhancements for the Calumet Avenue bridge.

1. *Railing*. Railing design
2. *Columns*. Hammer head columns and MSE retaining walls – formliner design (within available INDOT standards)
3. *Fabric Wrap*. Wrap fabric banners to space between trusses, attached to WWM 2x2 grid
4. *Signage*. Signage options (3 options: Hammond, Little Calumet River Trail, no sign)
5. *Trailhead*. Trailhead plazas (Hammond standard signage with Munster destinations, benches, bike repair station)

Meeting #2, May 6th, 2021

During the preliminary concept and alternatives review, the group reviewed conceptual bridge aesthetic enhancements prepared by Teska. The enhancements included railing options, column formliner treatment options, fabric banner wrapping options, signage options and enhancements to the trailhead area. Upon review and discussion, the group agreed to the following items:

1. *Overall Theme*. The group generally liked the idea to pull design cues from the planned Munster Streetscape efforts, including an emphasis on natural materials, riverine landscaping and native plantings.
2. *Railing*. The reed pattern in a painted bronze color was preferred
3. *Columns*. Random ashlar stone pattern formliner with no integrated color was preferred; no logo was preferred for the columns.
4. *Fabric Wrap*. The stylized river option (Option 'B') was preferred; consider alternative color options
5. *Signage*. The group was interested in seeing options that identified the bridge as a City of Hammond Bridge.
6. *Trailhead*. Eliminate trees and crushed stone due to proximity to the levee.

Meeting #3, May 20th, 2021

During the preferred concept review, the group reviewed refined aesthetic plan materials based on inputs from the May 6th meeting. Upon review and discussion, the collective feedback from the group included the following items:

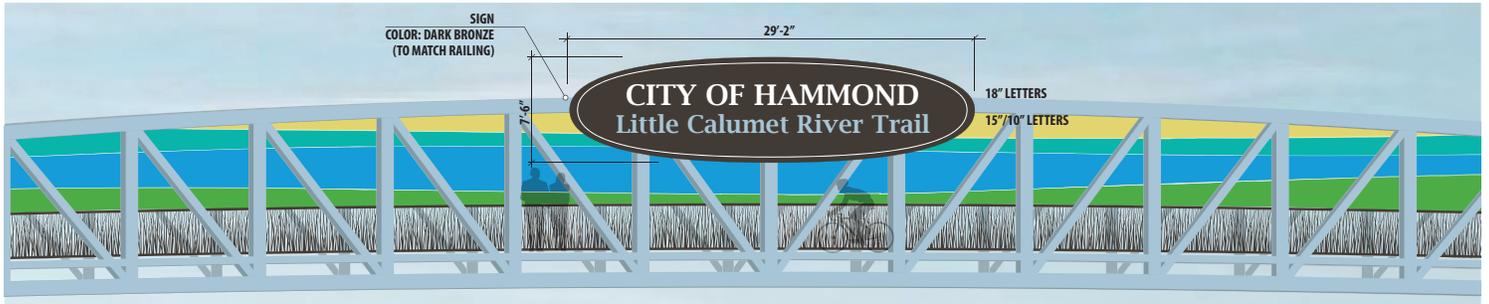
1. Provide additional materials for elected officials, staff, and community review.
2. Provide additional bridge elevations that depict all signage options with the preferred fabric wrap option.
3. Provide additional fabric wrap elevations with no sign shown.
4. Revise signage colors.

Final Deliverable, May 26, 2021

Based on the inputs gathered above, the final preferred plan was provided to the group via email. That plan is attached to this memo.

Encl: Calumet Avenue Bike and Pedestrian Bridge Preferred Concept Package

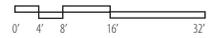
- *Pages 1-6: Sign Options S1-S6*
- *Page 7: Fabric Wrap Options F1-F3*
- *Pages 8-10: Materials + Products*
- *Page 11: Trailhead Plaza*



OPTION S1
 FONT: Corbel (Demi-Bold "City of Hammond")
 Corbel (Regular "Little Calumet River Trail")



CALUMET AVENUE

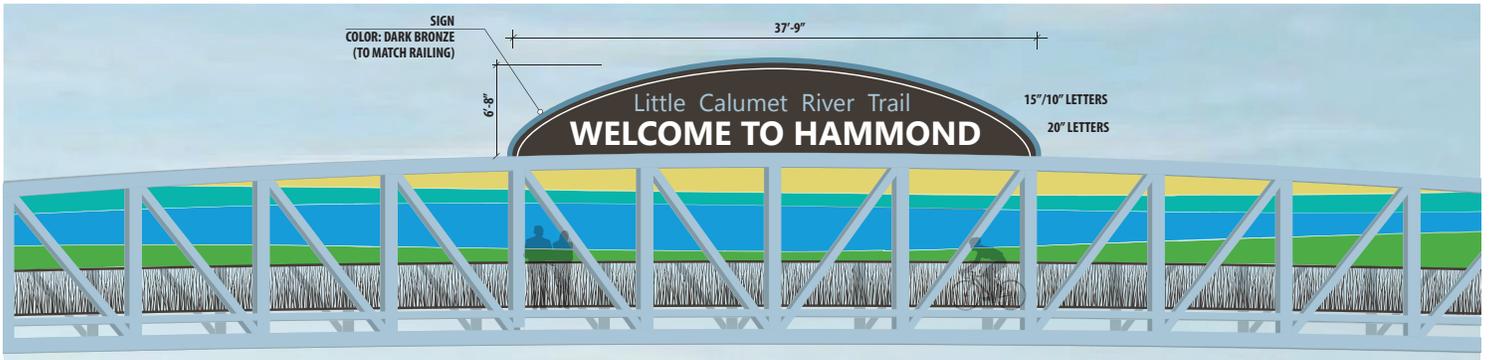


Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Preferred Concept (Option S1)



May 25, 2021

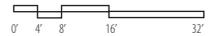


OPTION S2

FONT: Leelawadee UI (Bold "Welcome of Hammond")
 Leelawadee UI (Regular "Little Calumet River Trail")



CALUMET AVENUE

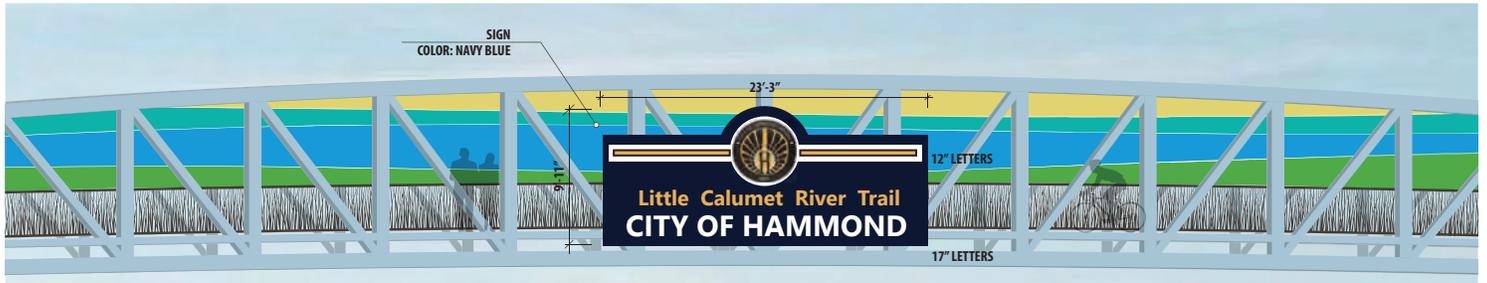


Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Preferred Concept (Option S2)



May 25, 2021

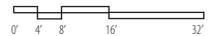


OPTION S3

FONT: Leelawadee UI (Bold)



CALUMET AVENUE



Joint Project Between the Town of Munster and the City of Hammond, Indiana

Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Preferred Concept (Option S3)



May 25, 2021



OPTION S4

FONT: Leelawadee UI (Bold)



Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Preferred Concept (Option S4)



May 25, 2021



OPTION S5

FONT: Leelawadee UI (Bold "Welcome of Hammond")
 Leelawadee UI (Regular "Little Calumet River Trail")



Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Preferred Concept (Option S5)



May 25, 2021



OPTION S6
 FONT: Leelawadee UI (Bold)

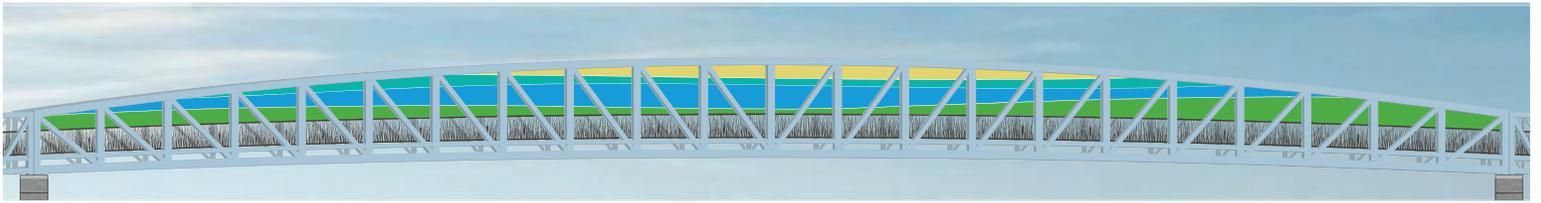


Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Preferred Concept (Option S6)



May 25, 2021



OPTION F1



OPTION F2



OPTION F3

Joint Project Between the Town of Munster and the City of Hammond, Indiana

Calumet Avenue Bike and Pedestrian Bridge

Pedestrian Bridge: Fabric Bannet Color Options



May 25, 2021



CALUMET CONKEY BRIDGE PIER



SAMPLE PHOTO OF A STONE PATTERN FORMLINER
COLOR: GREY CONCRETE
FORMLINER SHOWN IS #1208 DRYSTACK BY CUSTOMROCK FORMLINER OR EQUAL
FINAL FORMLINER TO BE DETERMINED



PREFERRED COLUMN SHAPE

Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Character Images: Preferred Hammerhead Column Treatments



May 25, 2021



CALUMET CONKEY BRIDGE RAILING



PREFERRED RAILING: "REED" METAL RAILING WITH PAINTED FINISH



OPTIONAL LASER CUT "REED" METAL RAILING



AVAILABLE FABRIC OPTIONS TO BE TESTED FOR TRANSPARENCY / OPACITY

Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Character Images: Preferred Railing / Fabric Banner Treatments



May 25, 2021



CALUMET CONKEY BRIDGE



CALUMET CONKEY BRIDGE LIGHTING



Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Calumet Conkey Bridge Existing Photos



May 25, 2021



OUTCROPPING SEAT OPPORTUNITIES



HAMMOND BIKE DIRECTIONAL SIGN



HAMMOND BIKE AREA MAP SIGN - CONSIDER INCORPORATING MUNSTER DESTINATIONS AS APPROPRIATE TO THE SIGNAGE

Joint Project Between the Town of Munster and the City of Hammond, Indiana
Calumet Avenue Bike and Pedestrian Bridge

Calumet Avenue Pedestrian Bridge Bike Plaza



May 25, 2021

A6 – Traffic Signals + Vehicular Lighting Specs

B36229
 QTY 52 / ITEM#0214
 VERD-M-D-U-T3-4N7-BK-0A1RA013

DESCRIPTION

The Verdeon LED roadway luminaire combines optical performance, energy efficiency, and outstanding versatility to meet the requirements of any roadway application. Advanced optical technology delivers unparalleled uniformity, scalability, and budget-beating operating costs for municipal streets and highways. UL/cUL listed for wet locations with an optional IP66 enclosure rating available.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Heavy-duty die-cast aluminum housing and door. Tool-less entry, hinged removable door for easy maintenance. 3G vibration rated.

Optics

Optics are precisely designed to shape the distribution maximizing efficiency and fixture spacing. Offered standard in 4000K (+/- 275K) CCT and 70 CRI. Optional 5000K CCT and 3000K CCT are available.

Electrical

120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 10kV/10kA common and differential mode surge protection available. Thermal

management transfers heat away from the LED source for optimal efficiency, light output and lumen maintenance. Operates in ambient temperatures from -40°C to 40°C. 50°C HA (high ambient) option available. Standard three-position tunnel type terminal block. LED modules are IP66 rated.

Mounting

Four-bolt slipfitter with cast-in pipe stop and 2.5° leveling steps. Fixed-in-place bird guard seals around 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) mounting arms. Optional 15" pole mount arm available with round pole adapter and mounting hardware included.

Finish

Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear. Consult your lighting representative at Eaton for a complete selection of standard colors.

Warranty

Five-year warranty.

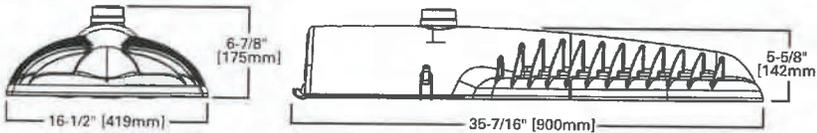


**VERD-M
 VERDEON**

ROADWAY LUMINAIRE

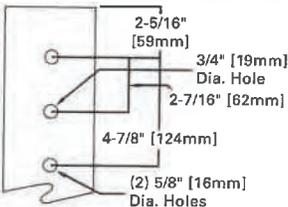
DIMENSIONS

VERD-M



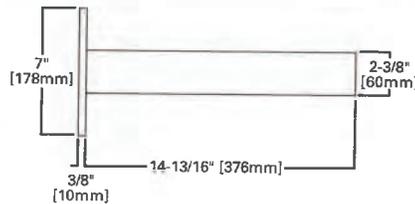
ARM DRILLING

TYPE "M"



OPTIONAL ARM

15" Straight Arm



SHOP DRAWING / SUBMITTAL REVIEW STAMP

This review is for general conformance with the design concept and contract documents. Making corrections or comments shall not be construed as relieving the Contractor from compliance with the project plans and specifications nor departures there from. Contractor remains solely responsible for the quantities and dimensions, for selecting fabrication processes, techniques of assembly, and to coordinate the various items into a working system as specified.

- No Exceptions Taken
 - Comments as Noted
 - Review and Resubmit
 - Rejected - See Remarks
- Robinson Engineering, LTD.
 By: David W. Shilling
 Date: 9/13/2019
 Project No.: B-36229-A



CERTIFICATION DATA
 UL and cUL Wet Location Listed
 IP66-Rated Optics
 3G Vibration Rated
 ISO 9001
 DesignLights Consortium® Qualified*

ENERGY DATA
 Electronic LED Driver
 0.9 Power Factor
 <20% Total Harmonic Distortion
 120-277V/50 and 60Hz,
 347V 60Hz, 480V 60Hz
 -40°C Minimum Temperature Rating
 +40°C Ambient Temperature Rating

EPA
 Effective Projected Area (Sq. Ft.): 0.8

SHIPPING DATA
 Approximate Net Weight:
 35 lbs. (15.9 kgs.)



POWER AND LUMENS

Light Engine	M-A0385	M-A03	M-A0485	M-A04	
Power (Watts)	152	182	210	247	
Current (a) @ 120V	1.41	1.69	1.95	2.29	
Current (a) @ 277V	0.61	0.74	0.85	1.00	
Power (Watts)	167	197	211	255	
Current (a) @ 347V	0.49	0.58	0.62	0.75	
Current (a) @ 480V	0.36	0.41	0.45	0.54	
Optics					
Type II	Lumens	19,571	22,456	26,419	29,829
	BUG Rating	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4
Type III	Lumens	19,380	22,236	26,161	29,537
	BUG Rating	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
Type IV	Lumens	19,377	22,233	26,157	29,533
	BUG Rating	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
Type V	Lumens	19,690	22,592	26,579	30,010
	BUG Rating	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G5

NOTE: Lumen output for AP Grey fixture color, 120-277V.

LUMEN MAINTENANCE

M-A03, M-A0385, M-A04, M-A485		
Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (Hours)
25°C	>92%	>259,000
40°C	>82%	>259,000

* A01 Not available in 347V or 480V.

LUMEN MULTIPLIER

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

ORDERING INFORMATION

Sample Number: VERD-M-A04-D-U-T2-4N7-AP

Product Family ^{1,2}	Light Engine ³	Driver ⁴	Voltage	Distribution
VERD=Verdeon	M-A03=3 LEDs, Full Output M-A0385=3 LEDs, Approximately 85% Output M-A04=4 LEDs, Full Output M-A0485=4 LEDs, Approximately 85% Output	E=Non-Dimming D=Dimming (0-10V) SLTD=DALI	U=Universal (120-277V) 8=480V 9=347V	T2=Type II T3=Type III T4=Type IV T5=Type V
Options (Add as Suffix)			Color ¹⁵	Accessories (Order Separately)
7030=70 CRI / 3000K CCT ⁸ 7050=70 CRI / 5000K CCT ⁸ 4=NEMA Twistlock Photocontrol Receptacle 4N7=NEMA 7-PIN Twistlock Photocontrol Receptacle ⁷ 10K=10KV UL 1449 Surge Protective Device 10MSP=10kV MOV Surge Protective Device IP66=IP66 Rated Housing HA=50°C High Ambient Temperature ⁸ MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{7,9,10} MS/DIM-L20=Motion Sensor for Dimming Operation, Maximum 9' - 20' Mounting Height ^{7,9,10} MS/DIM-L40=Motion Sensor for Dimming Operation, Maximum 21' - 40' Mounting Height ^{7,9,10} LWR-LN=Factory Installed LumaWatt RF Dimming Control System (Mounting Height 16' and Up) ^{10,11} LWR-LW=Factory Installed LumaWatt RF Dimming Control System (Mounting Height below 16') ^{10,11} K=Level Indicator A15=Arm Included (15" Straight Arm) ¹² HSS=House Side Shield ¹⁵			AP=Grey (Standard) B7=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	OA1223=10kV UL 1449 Surge Module Replacement OA/RA1013=Photocontrol Shorting Cap OA/BA1014=NEMA Photocontrol - 120V OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V FSIR-100=Wireless Configuration Tool for Motion Sensor ¹⁴ HS/VERD=Verdeon House Side Shield ¹⁵ VGS-F/B=Vertical Glare Shield, Front/Back VGS-SIDE=Vertical Glare Shield, Side

NOTES:

- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper.
- DesignLights Consortium[®] Qualified. Refer to www.designlights.org qualified products list under family model details.
- Standard 4000K CCT and 70 CRI.
- Consult factory for driver surge protection values.
- Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems).
- Extended lead times apply. Use dedicated IES files for 3000K and 5000K when performing layouts. These files are published on the VERD-M Verdeon Luminaire product page on the website.
- Must specify dimming driver.
- HA option not available for M-A04 light engines.
- The FSIR-100 accessory is required to adjust parameters.
- Not available with photocontrol receptacle (not required).
- LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See website for LumaWatt application information.
- Round pole adapter and mounting hardware included. "M" drill pattern.
- Standard photometry based on grey housing. Consult web for alternate color data.
- This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
- Option will come factory-installed. Must order one per optic as an accessory. House Side Shield not suitable for T5 distribution.

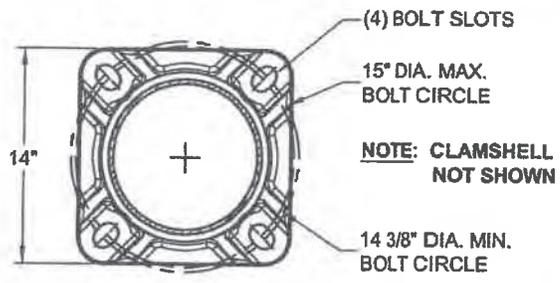
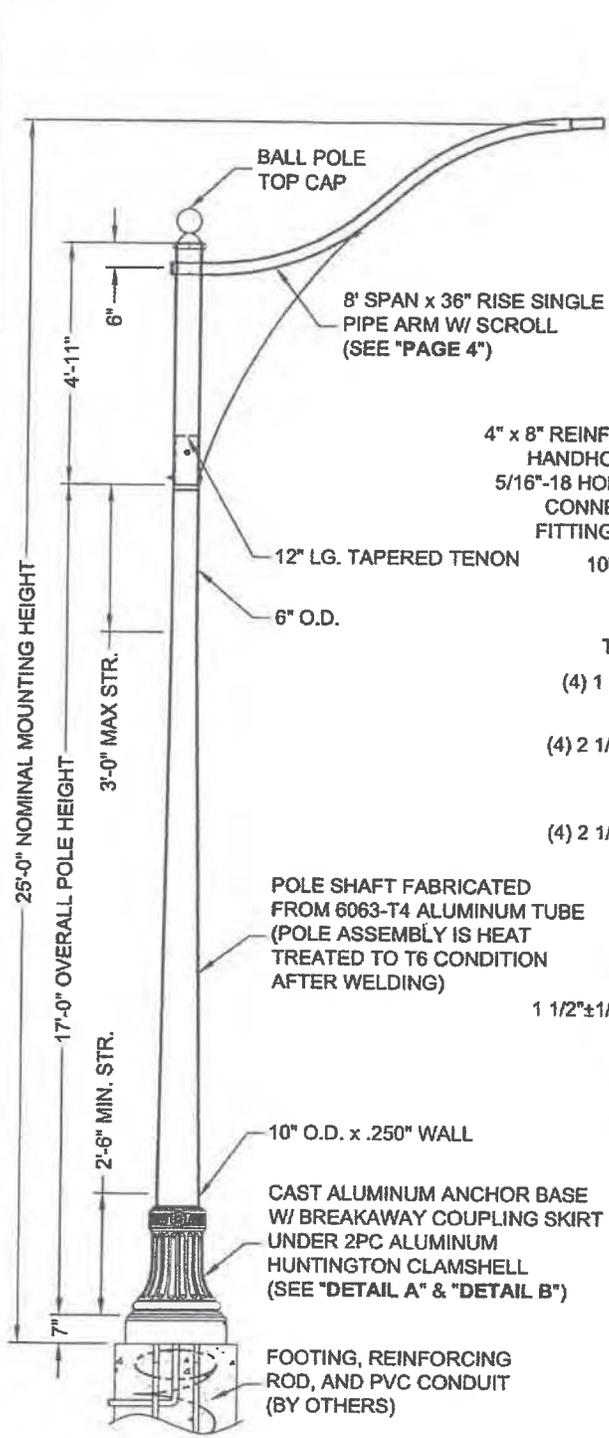
SHOP DRAWING / SUBMITTAL REVIEW STAMP

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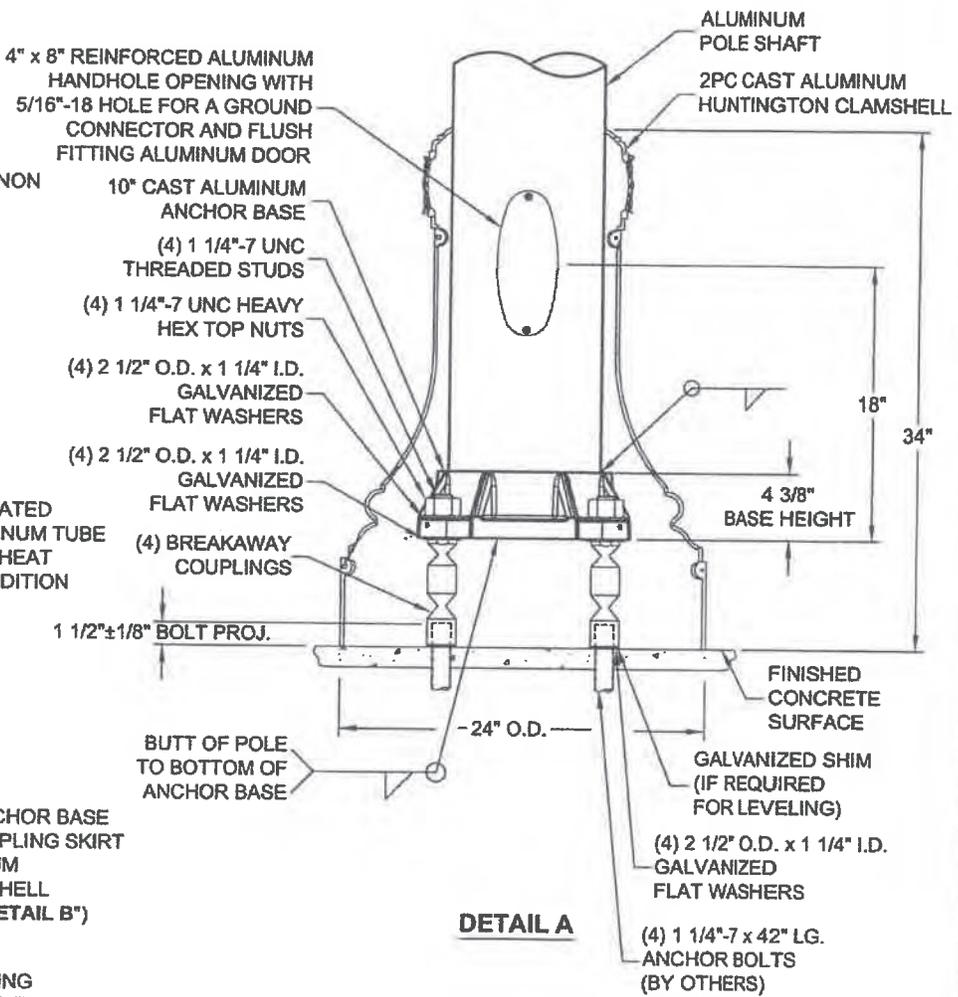
No Exceptions Taken
 Comments as Noted
 Review and Resubmit
 Rejected - See Remarks

Robinson Engineering, LTD.
 By: David W. Shilling
 Date: 9/13/2019
 Project No.: B-36229-A

Ensure driver has 10kV minimum surge protection per plans. If not, please include one of the surge protection options.



DETAIL B



DETAIL A

POLE RATING (PER AASHTO 2013):
 3-SEC GUST WIND SPEED: 90 MPH MAX
 EPA (LUMINAIRE): 2.4 SQ. FT. MAX
 WEIGHT (LUMINAIRE): 53 LBS MAX

DO NOT SCALE



Valmont Industries, Inc. Structures Division
 20805 Eaton Ave Farmington, Minnesota 55024-7932
 Phone: (651) 463-8990 (800) 899-7577
 Fax: (651) 463-3349

TITLE:	S	BREAKAWAY COUPLING ANCHOR BASE POLE	QTY:	8
MODEL NO.:			OWN BY:	PTP
MATERIAL:	ALUMINUM ALLOY		CHKD BY:	
FINISH:	POWDER PAINT - DBL SMOOTH BLACK		APPR BY:	JEB
PROJECT:	B36229		DATE:	08-01-19
SOLD TO:	FIRST ELEC		DWG NO.:	A435996
SHIP TO:			PAGE:	3 / 5
P.O. NO.:	19642			
REP.:	TECHLITE CORP			

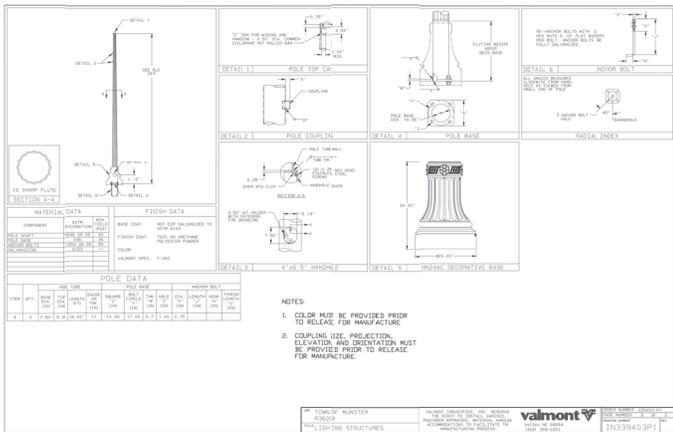
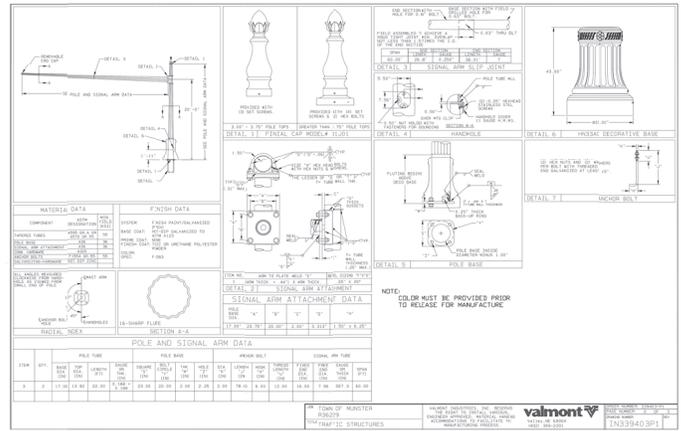
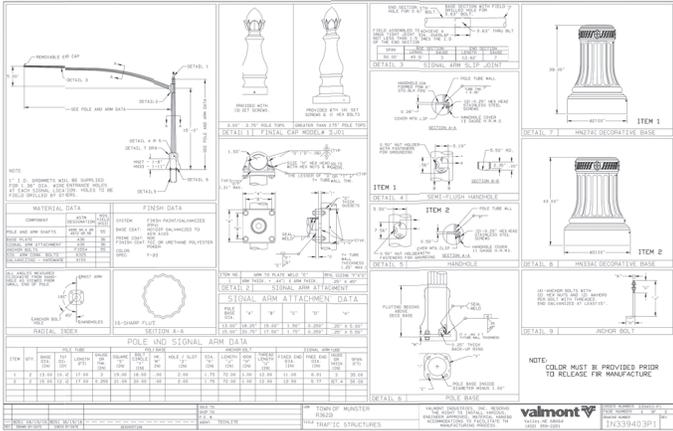
SHOP DRAWING / SUBMITTAL REVIEW STAMP

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<input type="checkbox"/> No Exceptions Taken	Johnson Engineering, Ltd.
<input type="checkbox"/> Comments as Noted	By: David W. Shilling
<input type="checkbox"/> Review and Rebuild	Date: 8/2/2019
<input type="checkbox"/> Rejected - See Remarks	Project No.: B-36229-A

****CONFIDENTIAL****

The information contained in this drawing is privileged and confidential, and may be protected from disclosure. Please be aware that any use or dissemination of this drawing may be subject to legal restriction or sanction.



RECOMMENDED FOR APPROVAL
 DESIGN ENGINEER
 DATE: 11/20/18
 DESIGNED: JB
 DRAWN: RS
 CHECKED: JMN
 CHECKED: AS

INDIANA
 DEPARTMENT OF TRANSPORTATION
 TRAFFIC SIGNAL INSTALLATION
 TRAFFIC SIGNAL DETAILS

HORIZONTAL SCALE	ROAD FILE
NONE	N/A
VERTICAL SCALE	DESIGNATION
NONE	0718059
SURVEY BOOK	SHEETS
N/A	157 of 360
CONTRACT	PROJECT
S-35204	0718059