A3 – Existing Conditions Report

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Existing Conditions Summary

The enclosed Existing Conditions Summary includes the following sections:

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)**

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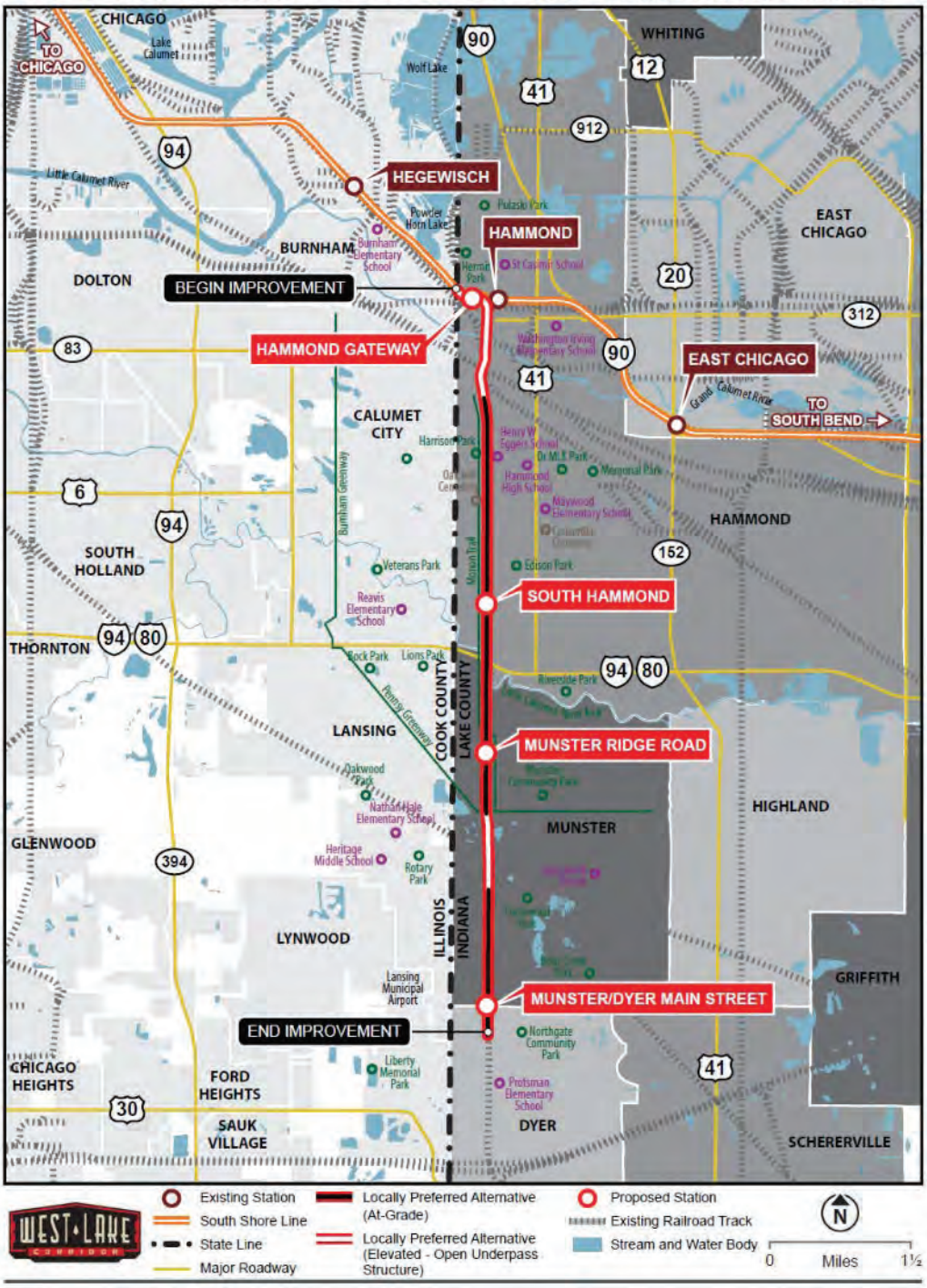
WEST LAKE CORRIDOR PROJECT MAP - HAMMOND, IN TO DYER, IN



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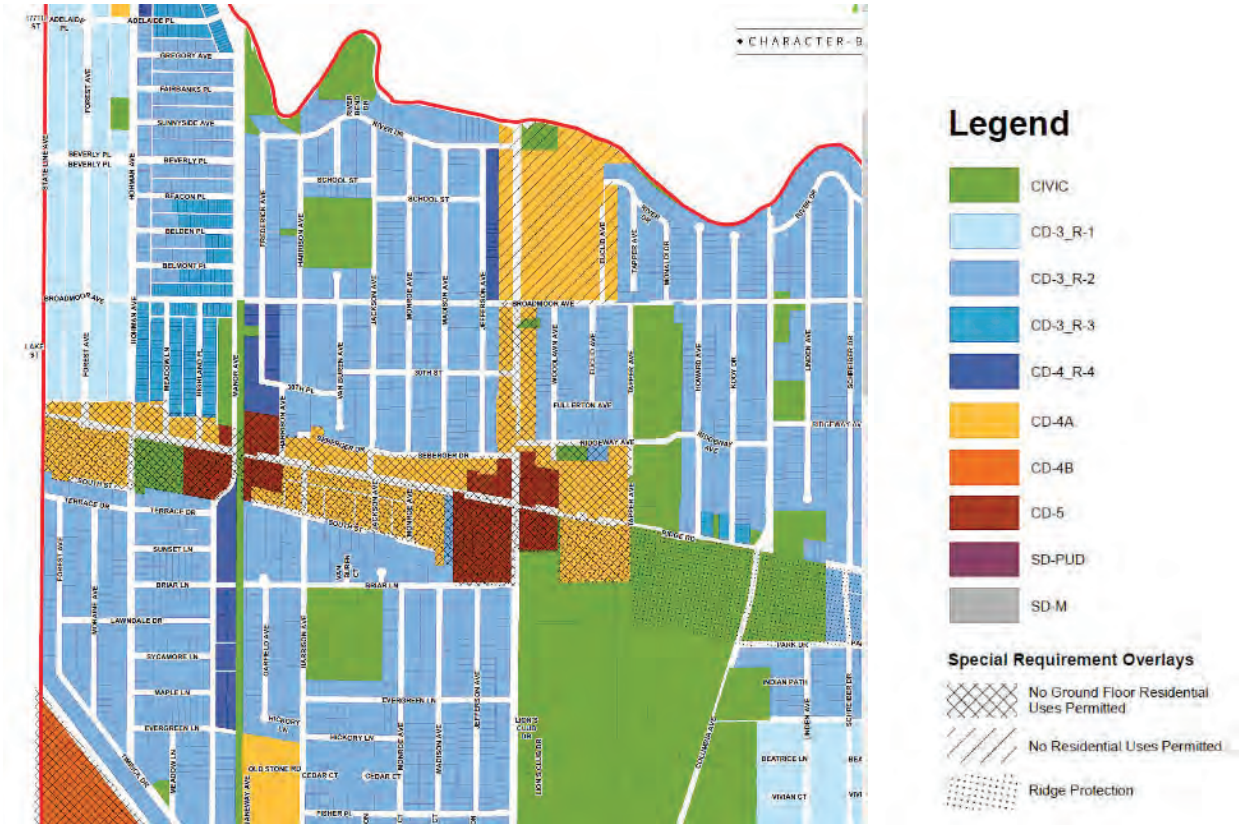
02| Livable Munster Character Based Code

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.



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.

- 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.

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

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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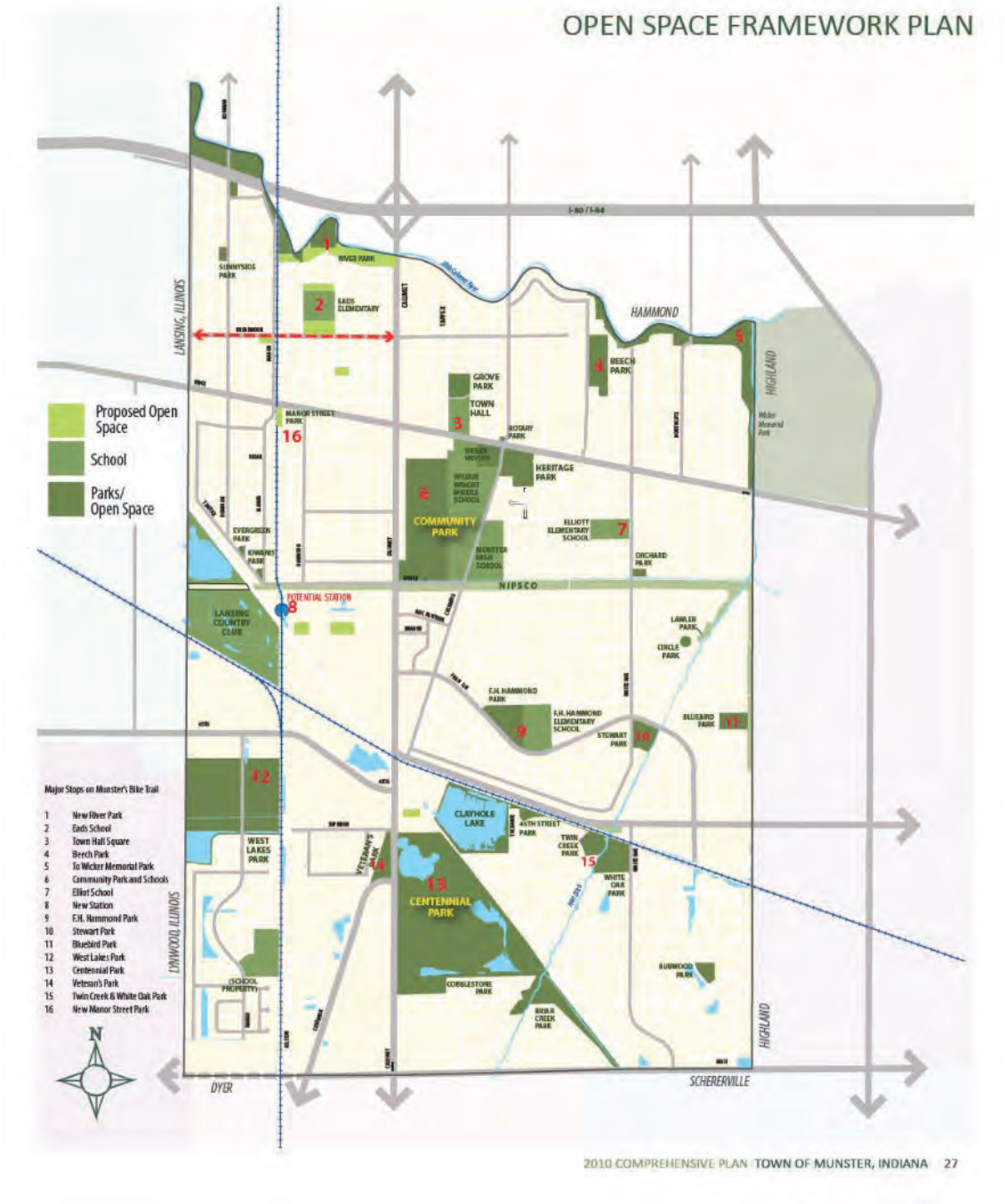

2010 COMPREHENSIVE PLAN TOWN OF MUNSTER, INDIANA 27

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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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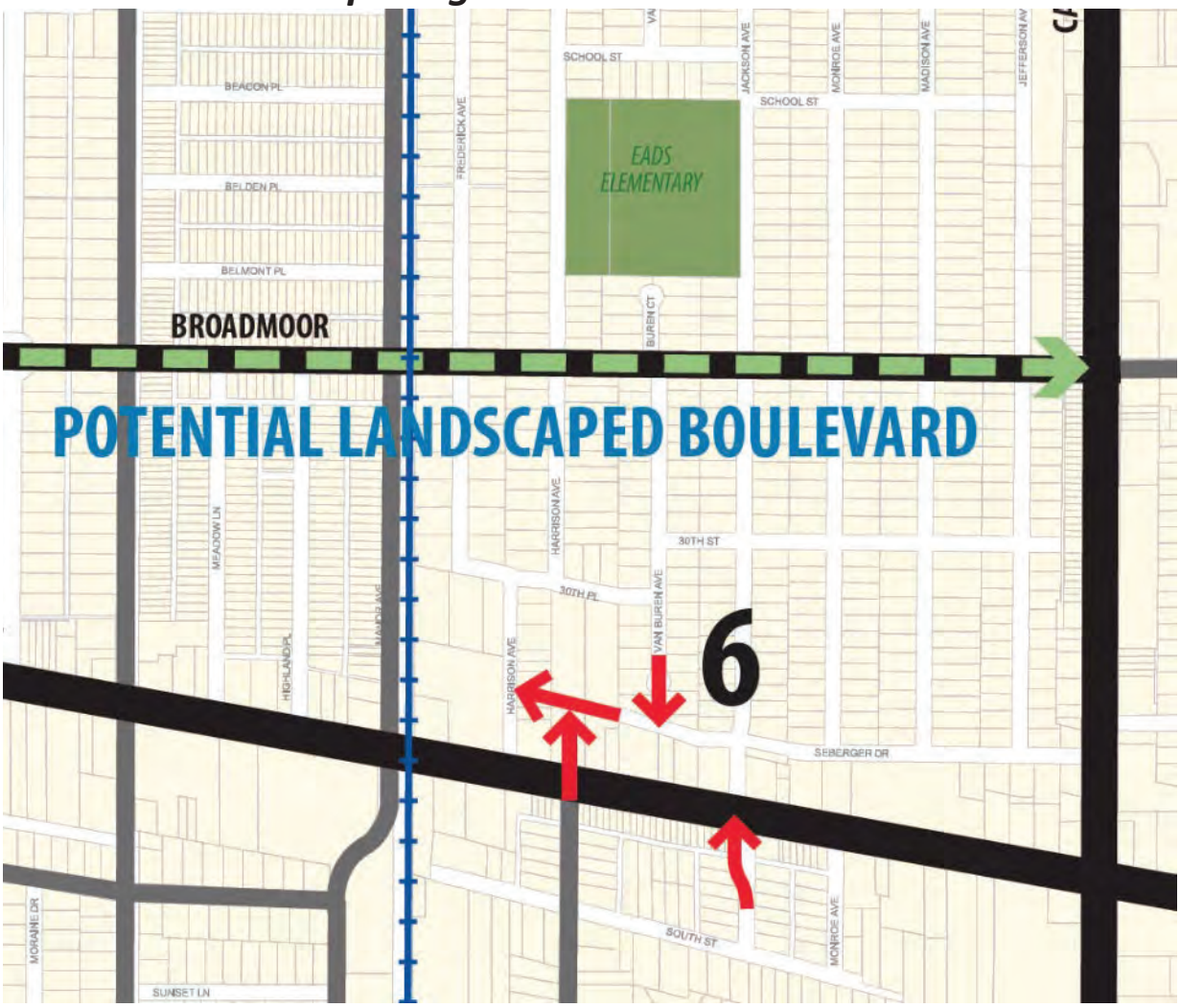

6. **Redevelop Old Areas as Walkable, Mixed Use Centers**
    a. Reinvest in under-utilized land in the older parts of town. The Redevelopment Commission (RDC) is leading these efforts to identify opportunities to redevelop older commercial and industrial areas, as well as potentials for infill developments.
    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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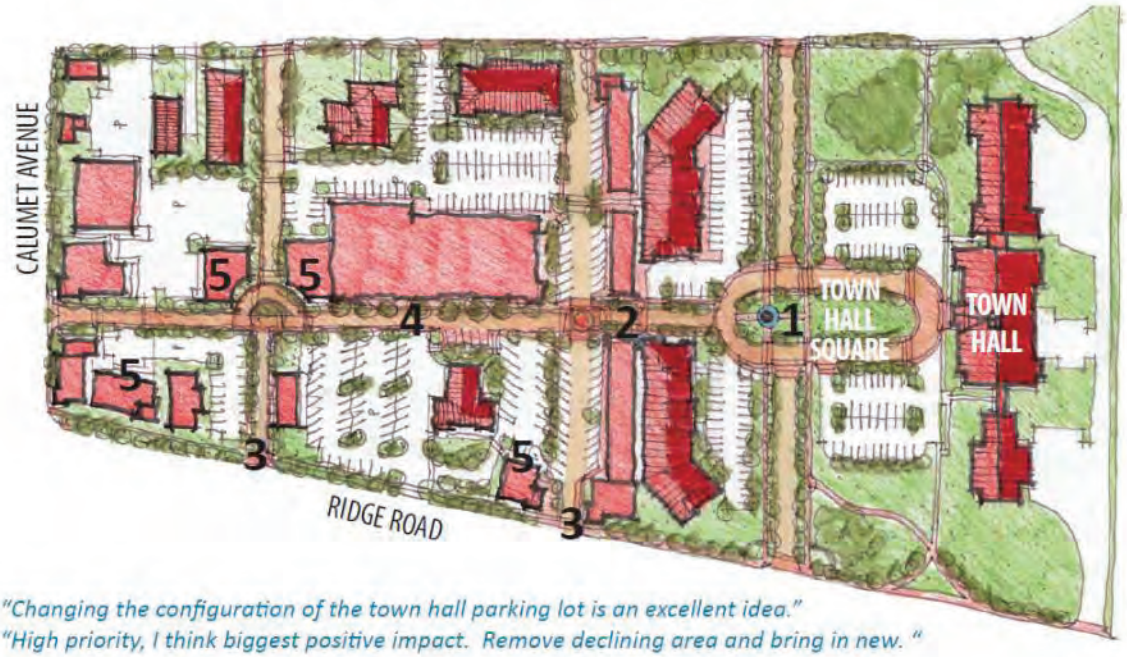
Proposed Town Hall Square



"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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2010 COMPREHENSIVE PLAN TOWN OF MUNSTER, INDIANA 65

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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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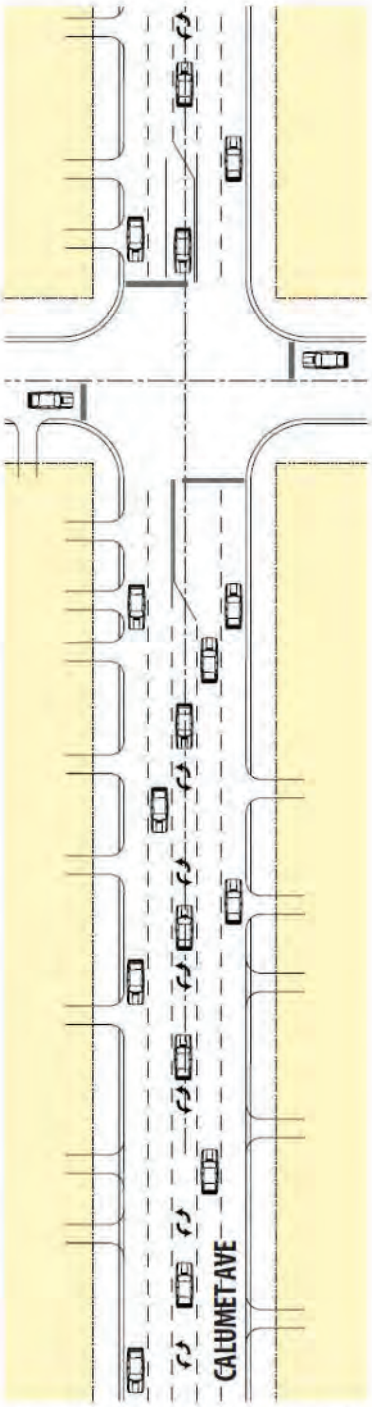
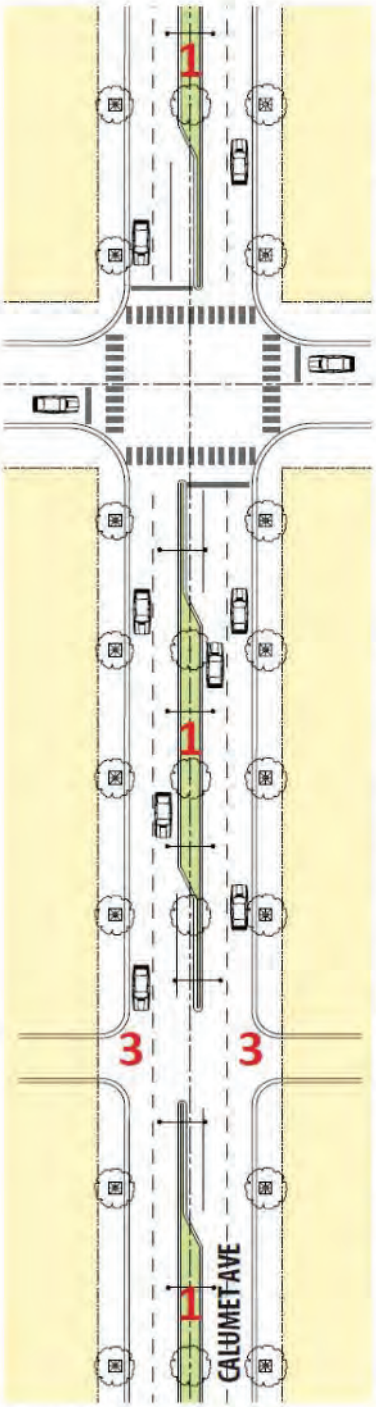


EXISTING CONDITIONS: MANY CURBCUTS AND TURN MOVEMENTS ON CENTER TURN LANE



PROPOSED: LANDSCAPED MEDIAN, CONSOLIDATED CURBCUTS AND FEWER TURNS

POTENTIAL BUILDING PLACEMENT ALONG THE CALUMET CORRIDOR

2019 COMPREHENSIVE PLAN - TOWN OF MUNSTER, INDIANA 71

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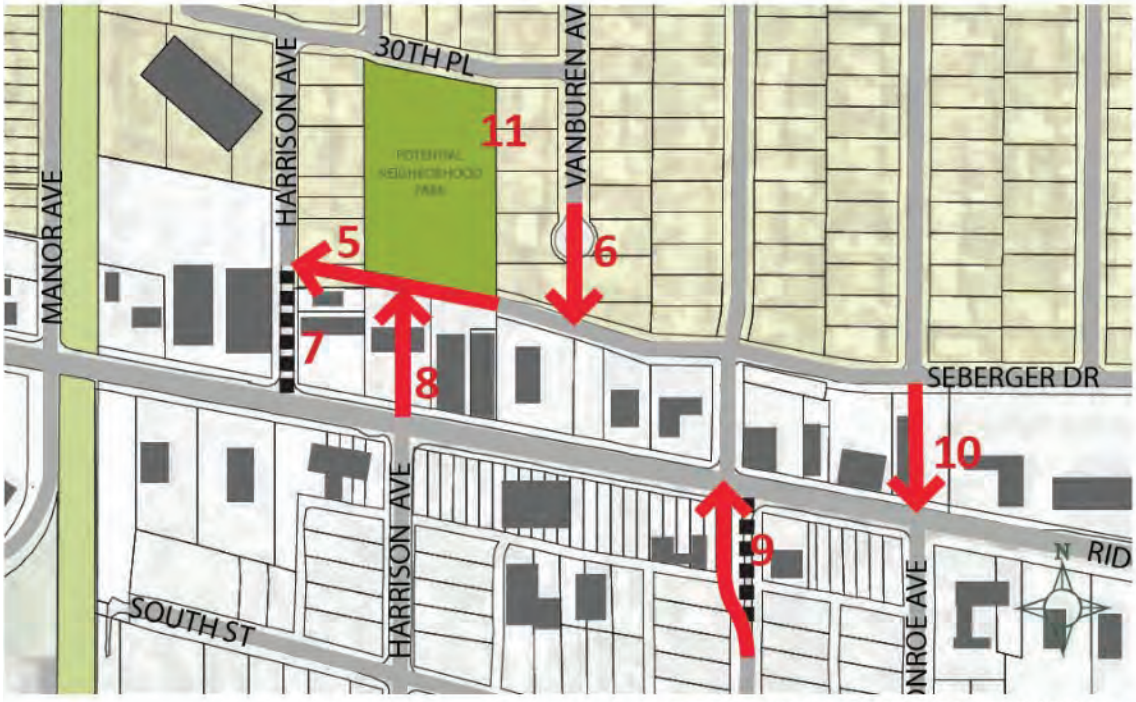
Roadway Recommendations: Ridge Road from Manor Ave To Monroe Ave



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.

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.

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

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.

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.

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

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.

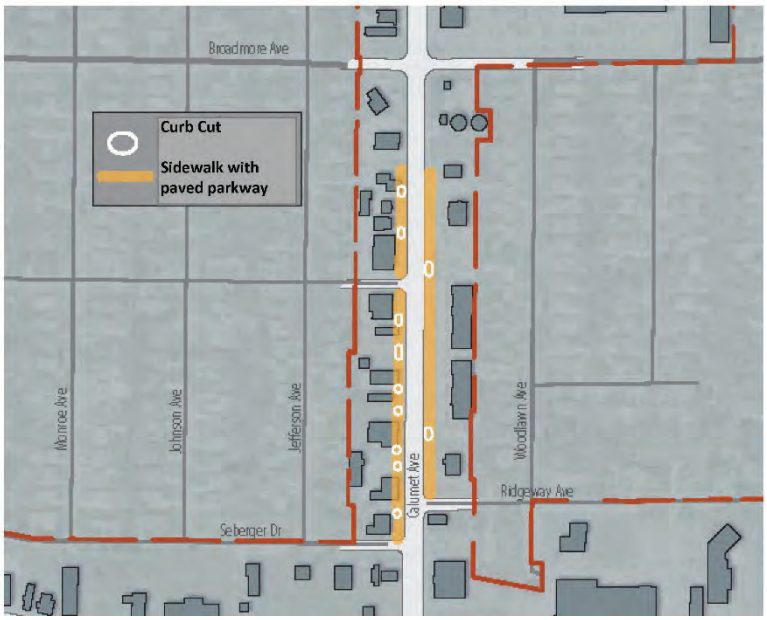
Sidewalks without paved parkways feel less comfortable for pedestrians, especially when immediately adjacent to or obstructed by physical barriers that create pinch points.

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.

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 conflicts 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.

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,

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

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

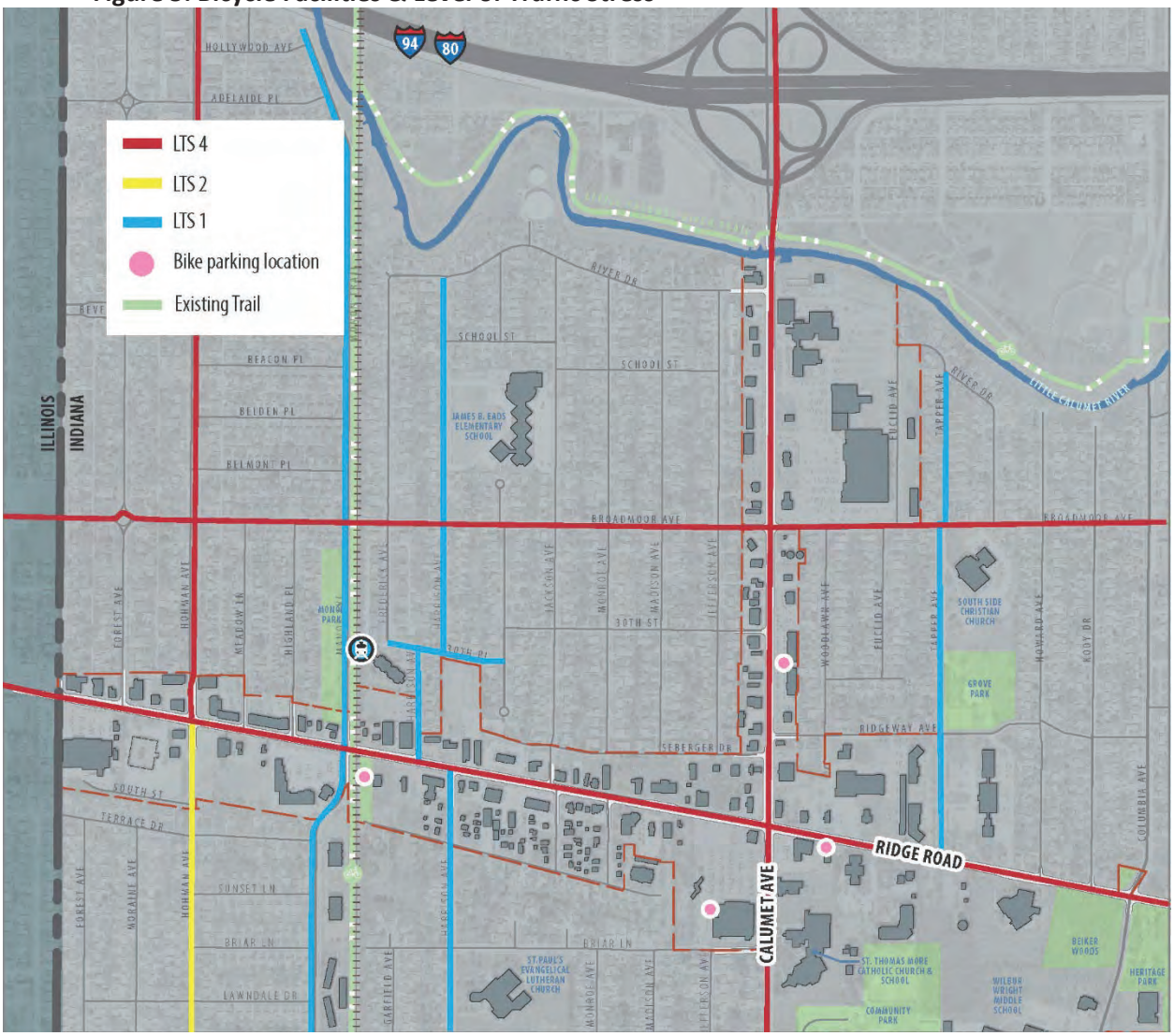
Two trail facilities are located within or near the study area: the Monon Trail (which is 4.4 miles in length and crosses Ridge Road near Manor Avenue) and the Little Calumet River Levee Trail (a six-mile trail located just outside the study area near the northern municipal boundary). Along the study 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

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

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.

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

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

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.

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)

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

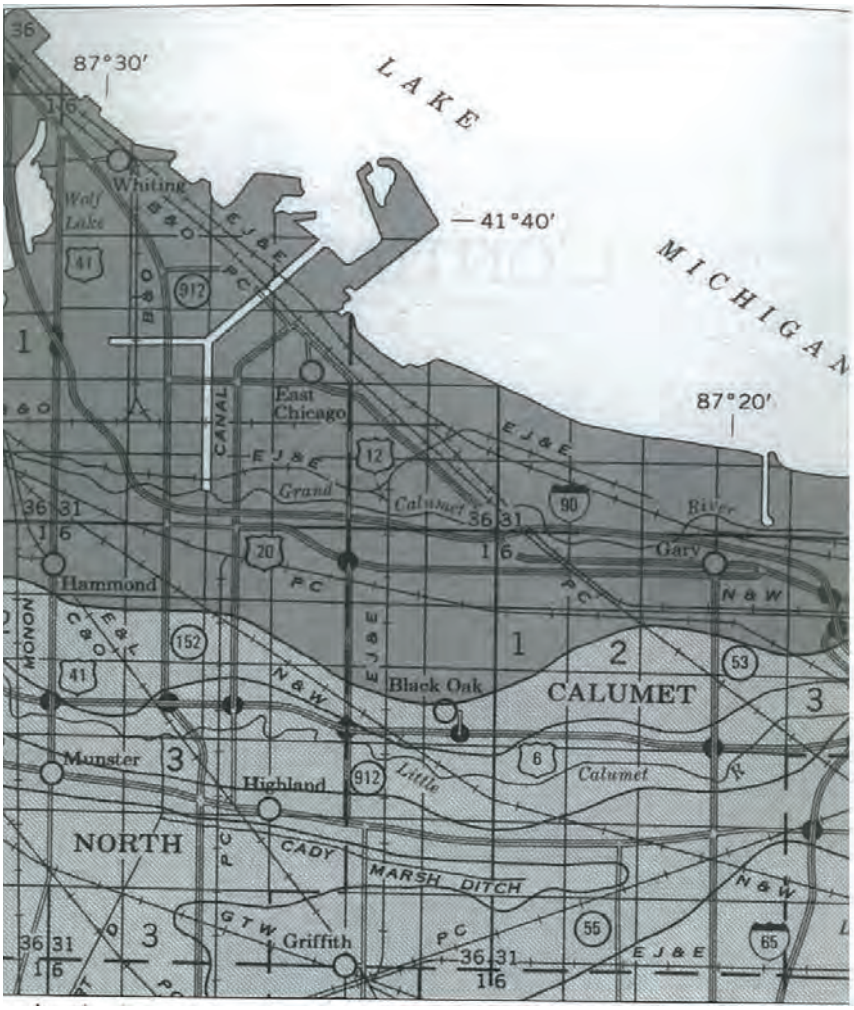


Image credit: Munster Historical Society

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

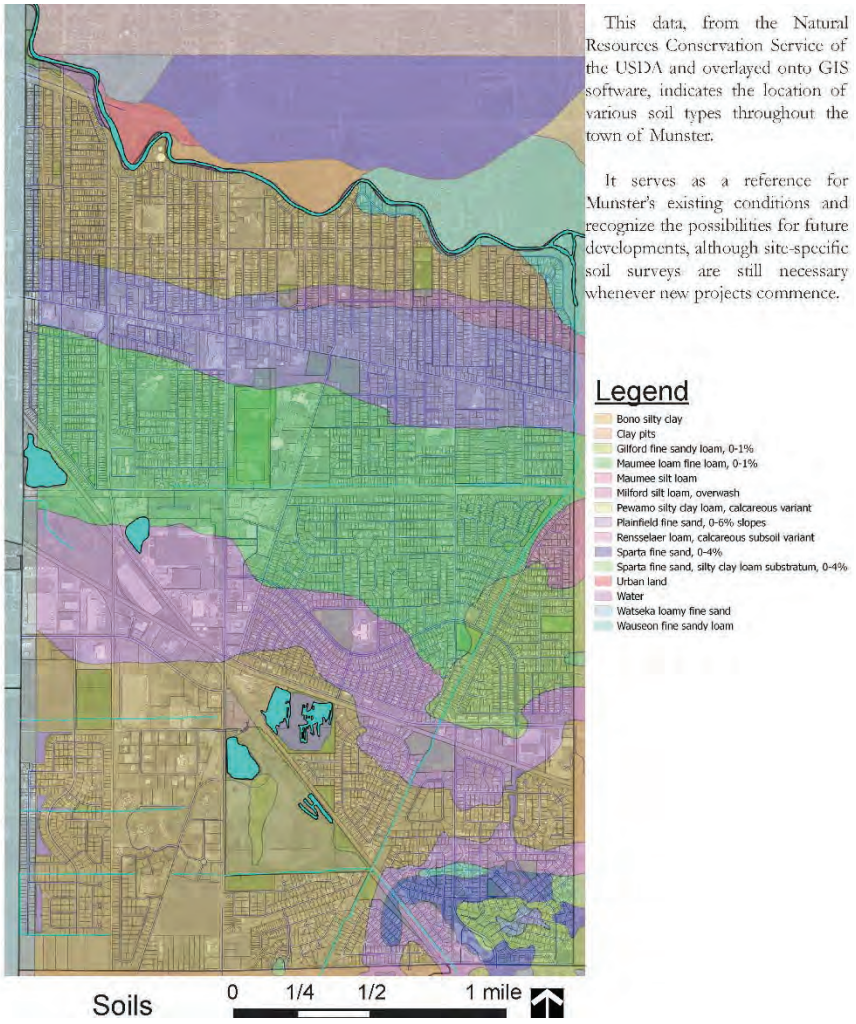


Image source: Munster Parks and Recreation 2018 Master Plan, Planning Resources, Inc.

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)

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

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

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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.

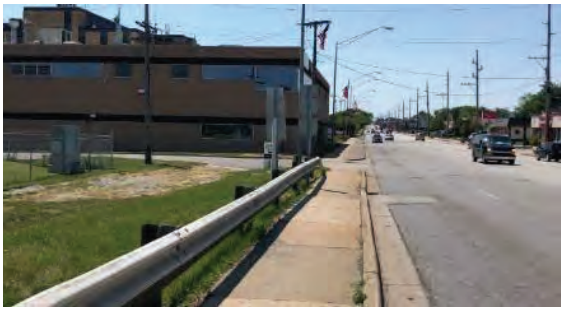
The scope of the current assignment includes recommendations for public rights of way only. The assessment considers adjacent privately owned properties for the purposes of context only.

PUBLIC RIGHTS OF WAY	**PRIVATELY OWNED PROPERTIES**
▪ Gateway Entrances ▪ Public Places ▪ Sidewalks and Parkways ▪ Intersections ▪ Streetscape Elements *(lighting, utilities, trees, and plantings)* ▪ Pervious and Impervious Surfaces ▪ Wayfinding Signage and Community Branding	▪ Building frontage typologies *(parking lot, garden, sidewalk, campus)*

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).

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.

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.

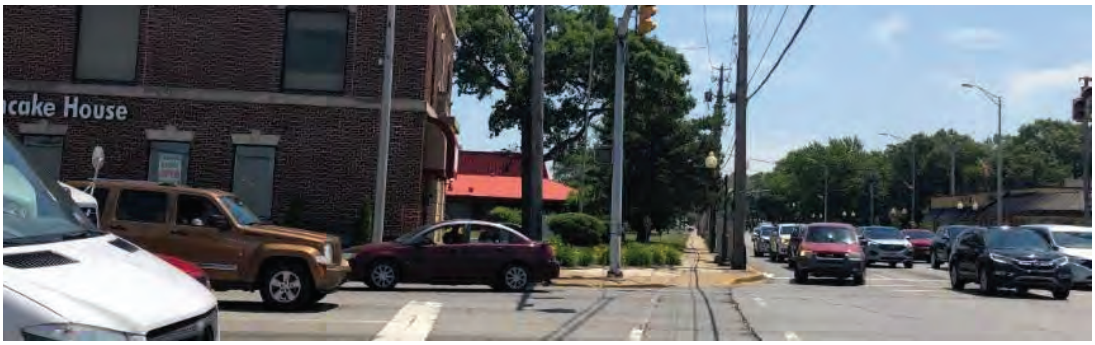
Where sidewalks abut active commercial businesses, a range of landscape treatments are present. Landscape treatments include raised concrete planters, light poles and temporary signage and sandwich boards. Where sidewalks abut parking areas, landscape treatments include plantings, masonry piers and decorative 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.

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.

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

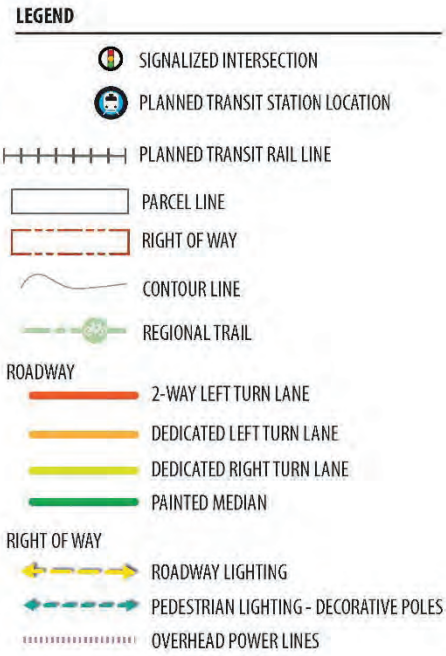

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Figure 2: Streetscape assessment enlargement 2

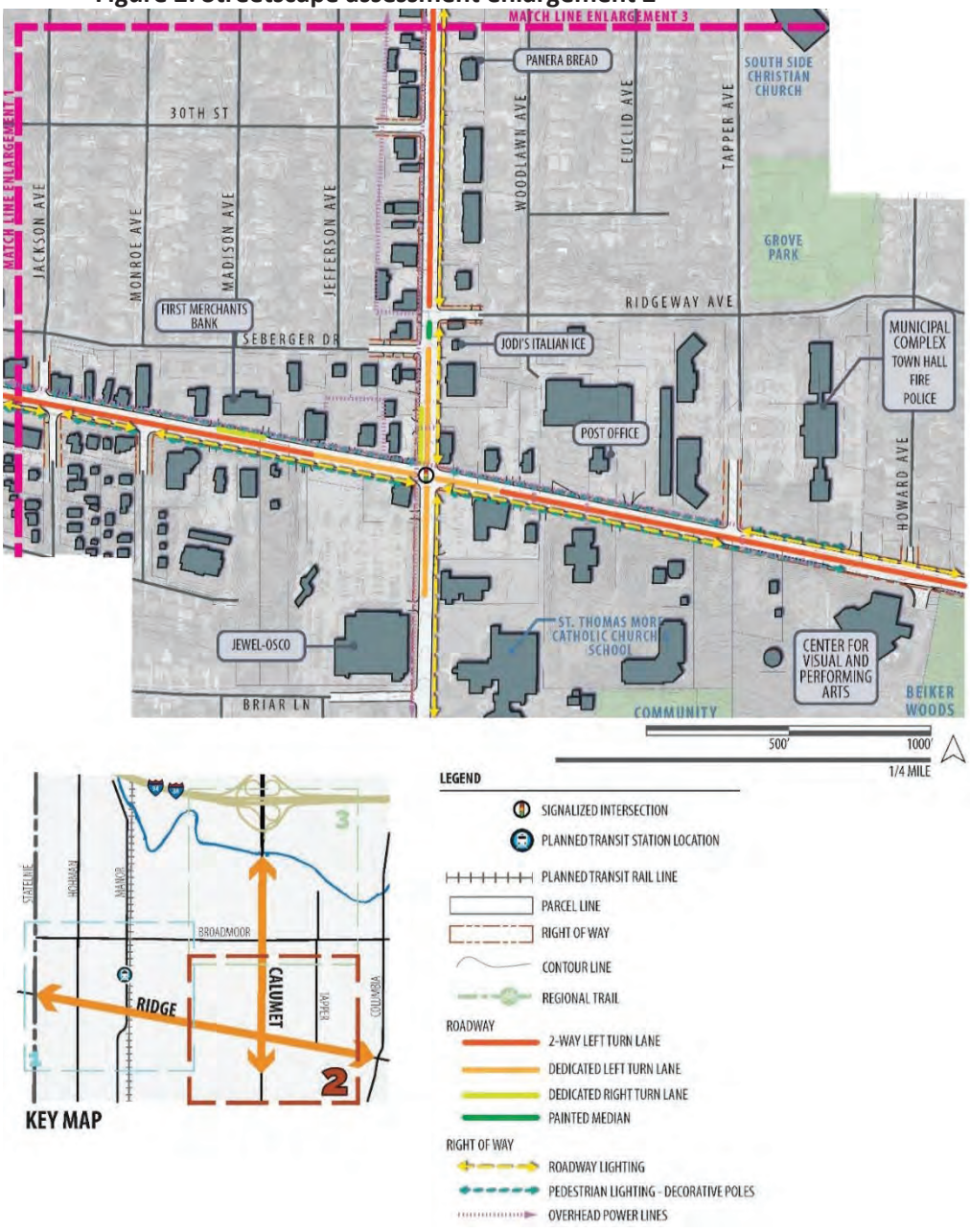

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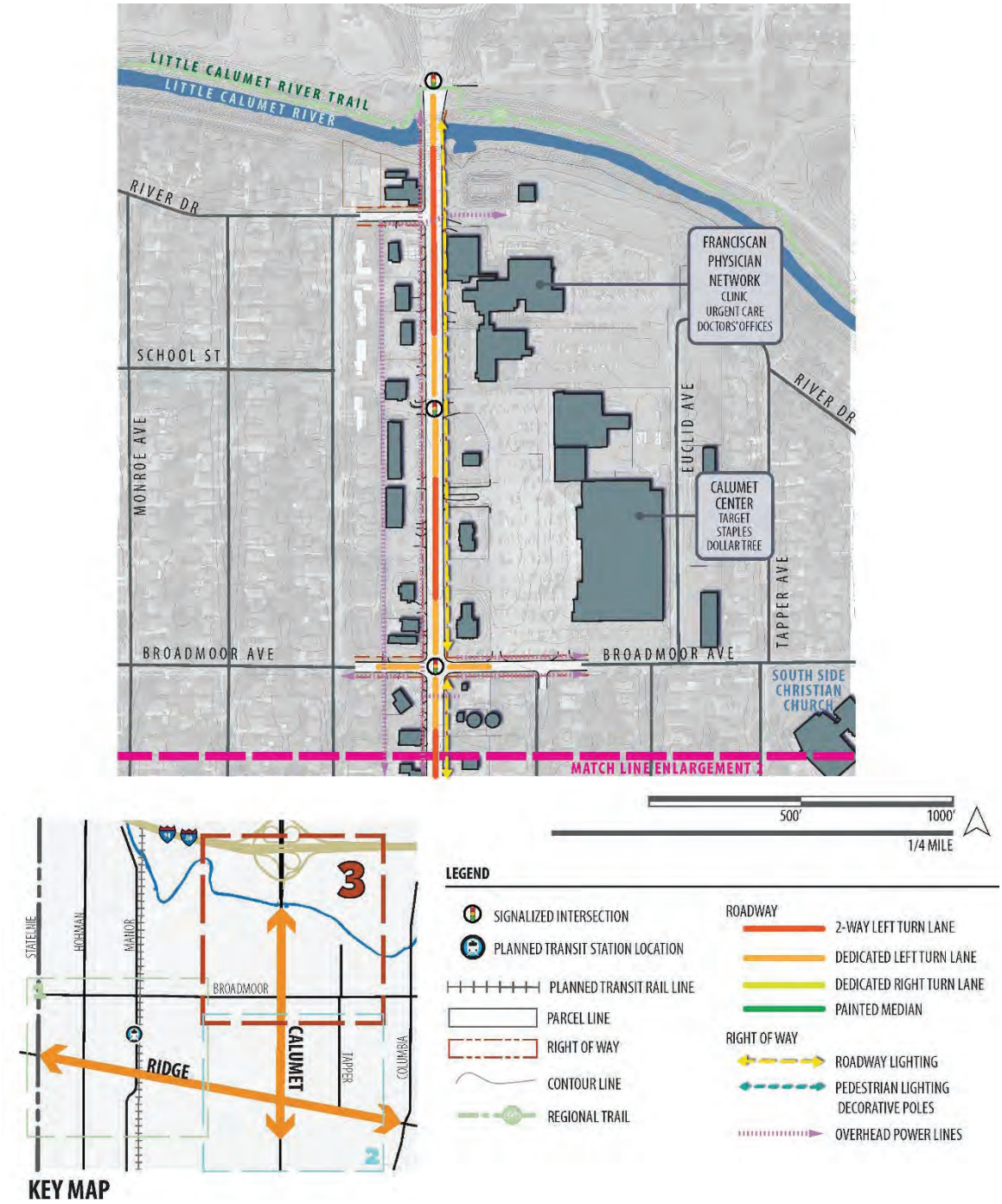
Figure 3: Streetscape assessment enlargement 3



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

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.

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.

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.

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.

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.

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

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).

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.

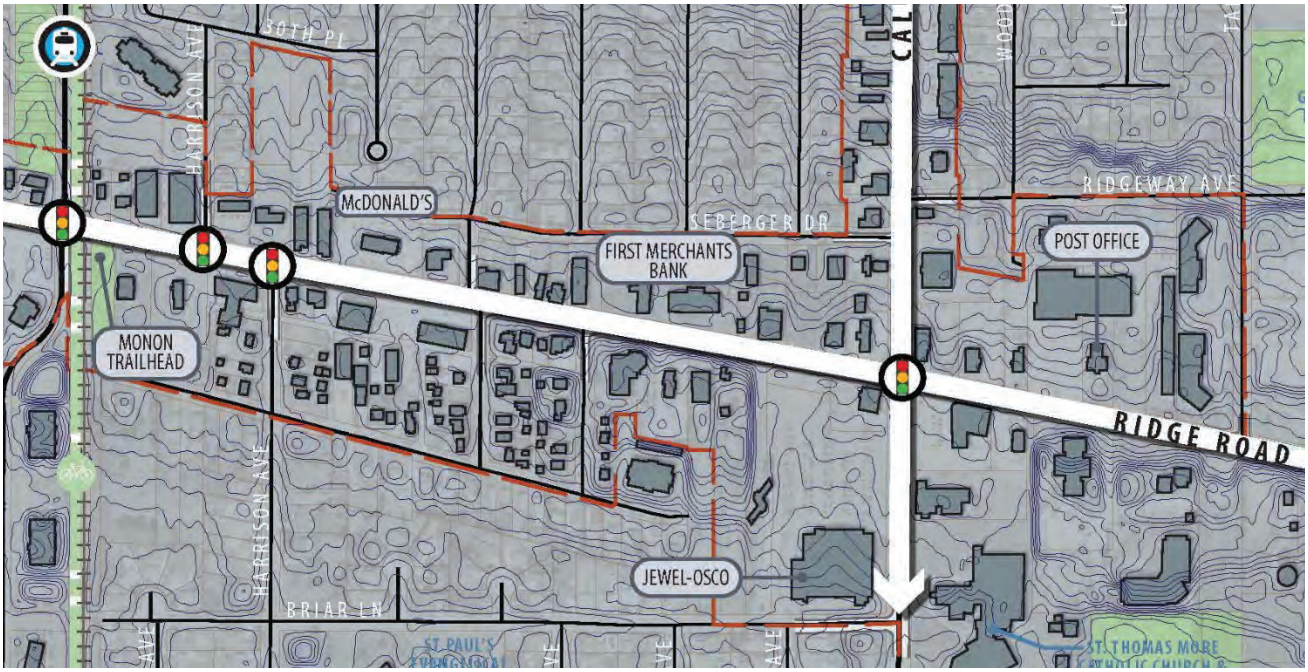
Wide sidewalks adjacent to storefronts along Ridge Road can provide opportunities for additional outdoor seating and dining.

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

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



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).

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.