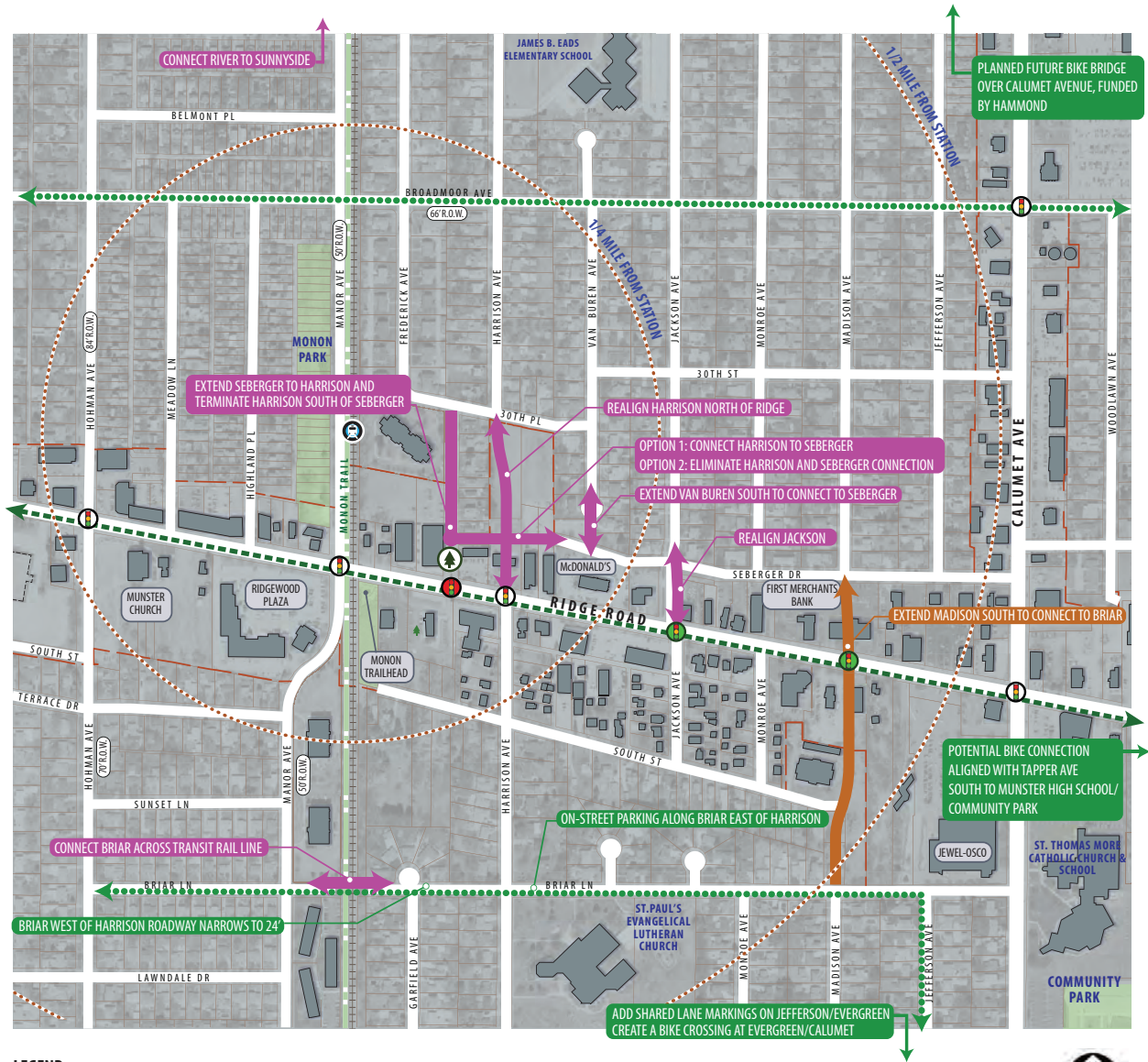


## **A4 – TOD Roadway Planning Memo**



#### 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

500' 1000'

1/4 MILE

**DRAFT**



# 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
- Braodmoor
- 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

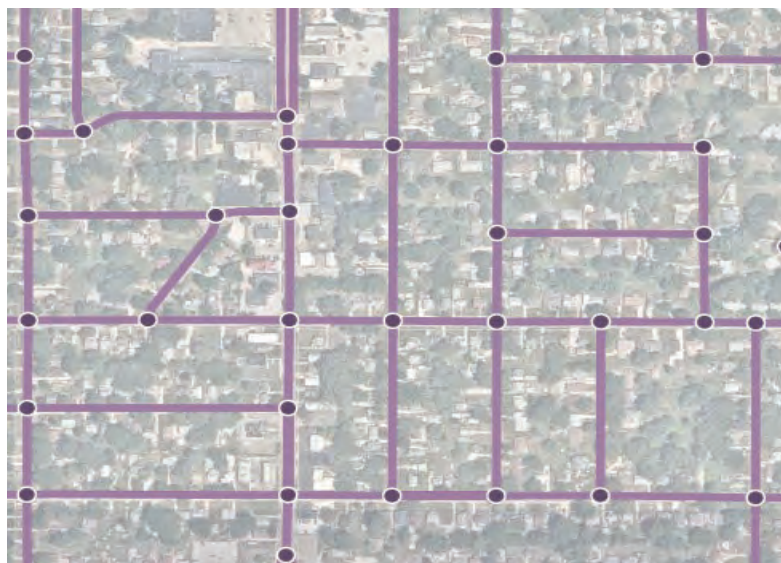
- Harrison at station entrance
- Neighborhood gateways

# 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)

# 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

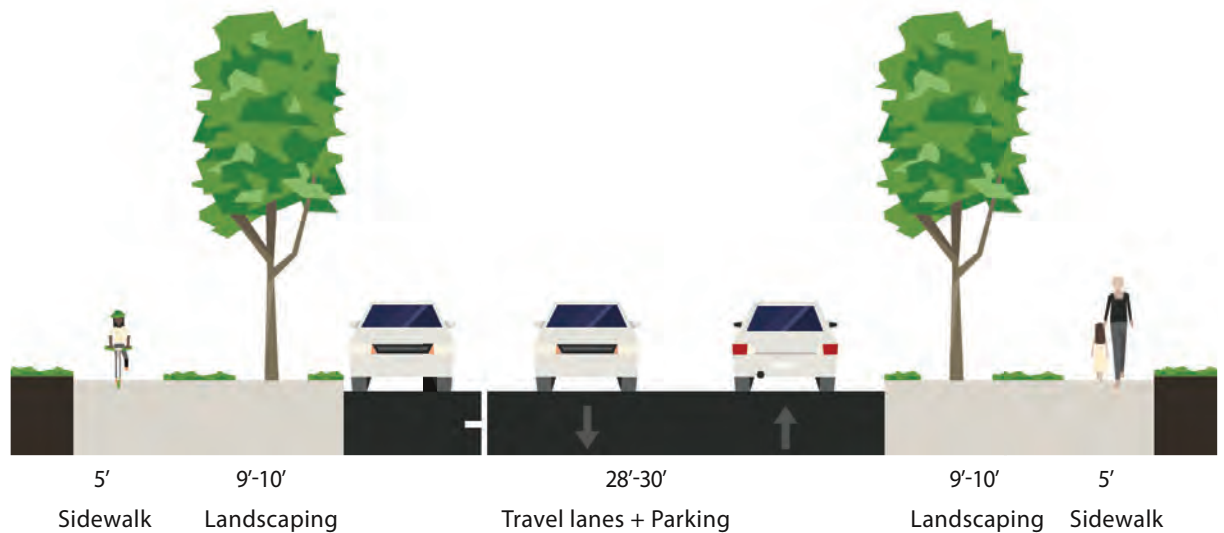
Neighborhood connectors are longer than residential streets and make important connections across barriers, such as Ridge Road or the railroad.

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

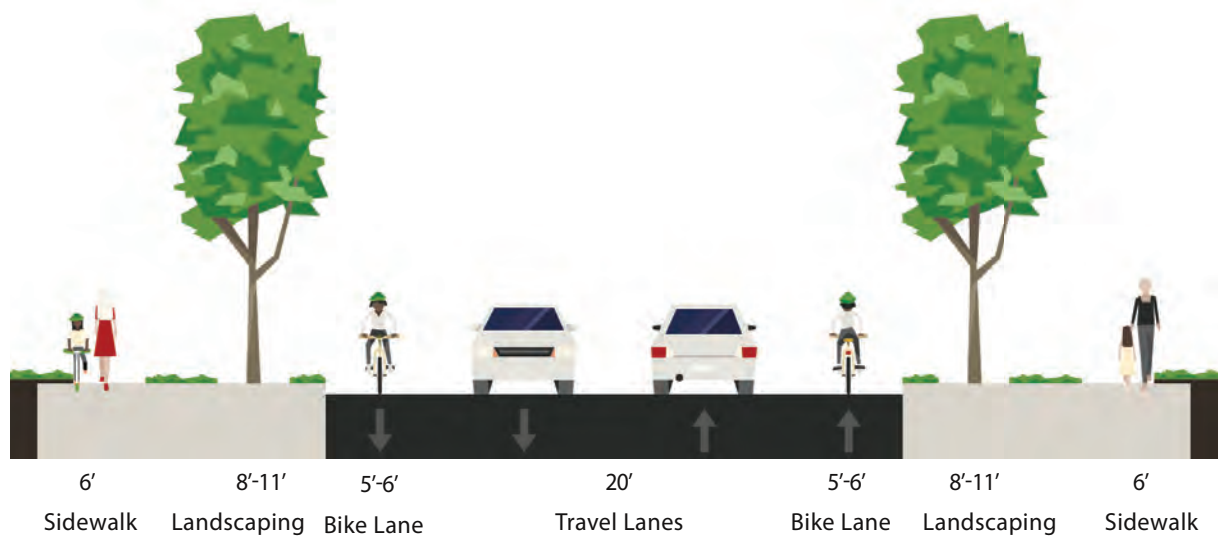
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Sidewalks are provided on both sides of the street.



# TYPOLOGY: NEIGHBORHOOD CONNECTOR



Two travel lanes with two bike lanes

ROW width: 60'-66'

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

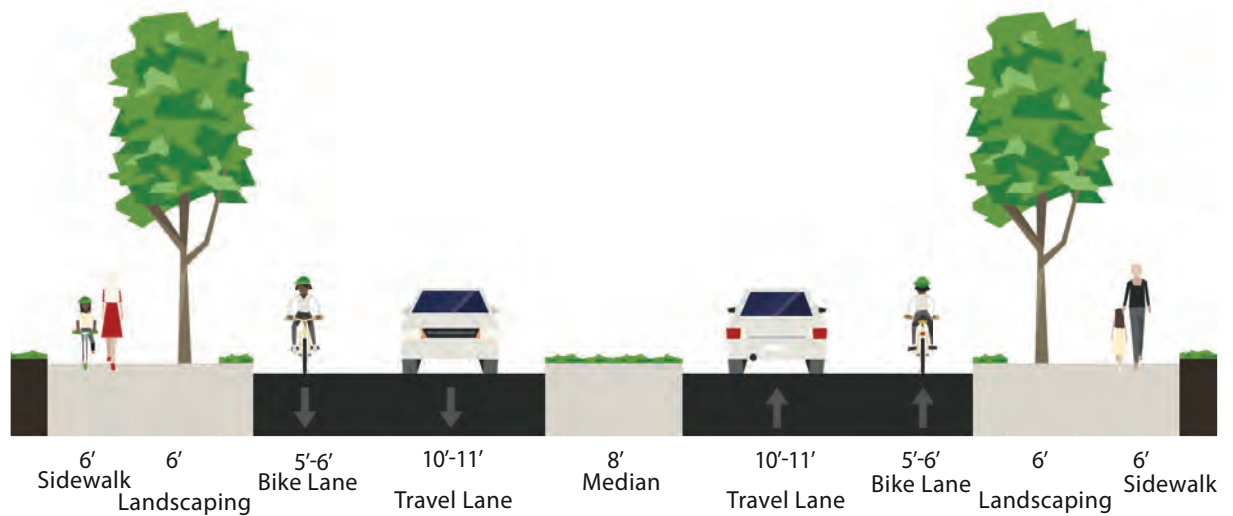
## CHARACTERISTICS

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'

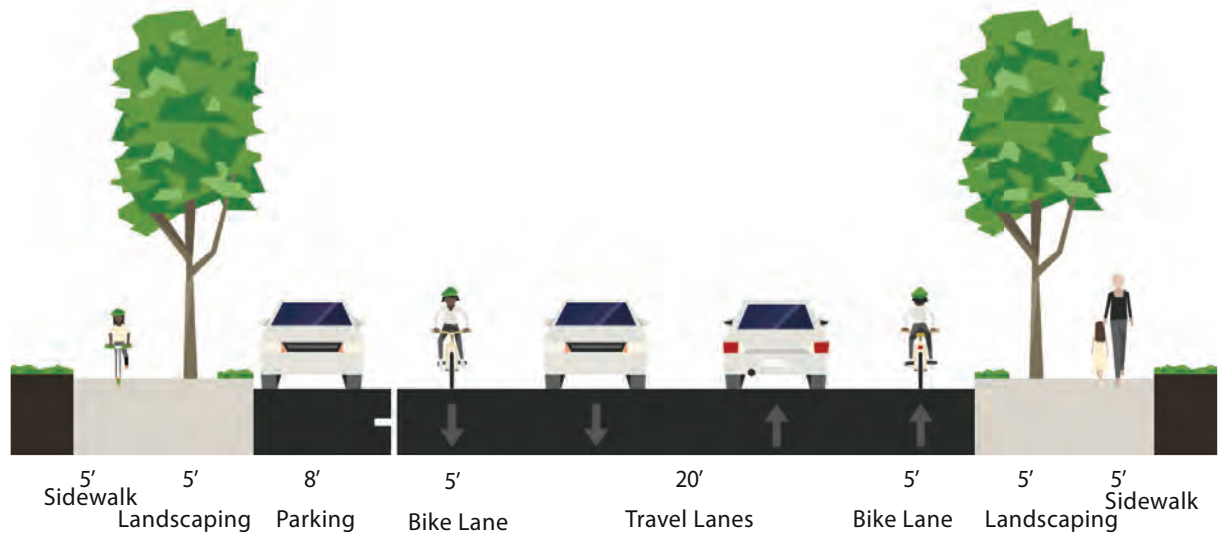
### CHARACTERISTICS

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'

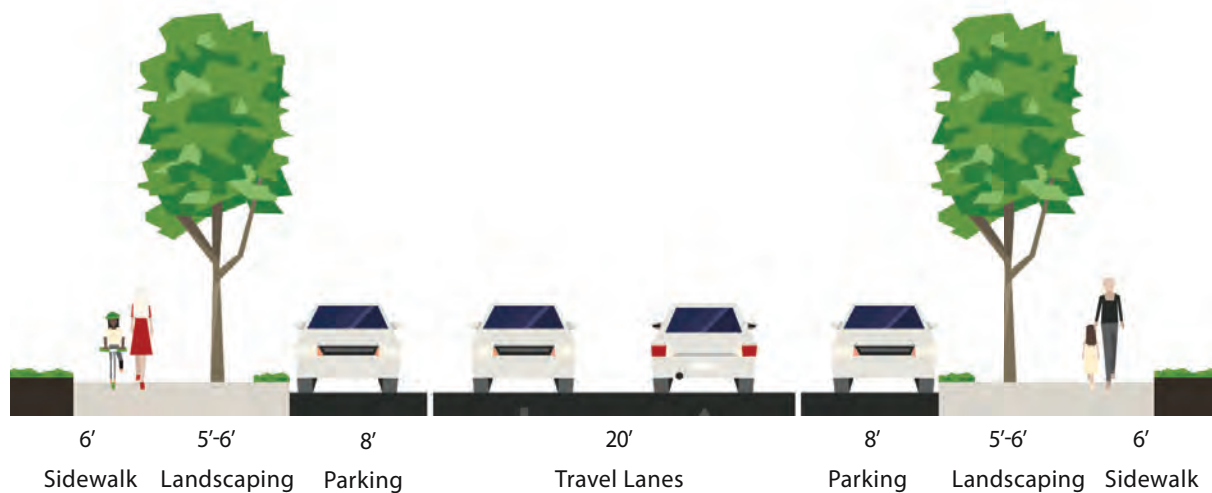
Existing curb-to-curb width: 30'-36'

### 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.