

Accessibility & Safety

In the focus groups and the survey, as well as at the design workshop, residents consistently cited the same major transportation-related concerns and desired enhancements.

Concerns focused on pedestrian accessibility and safety, from the lack of curb ramps and existing sidewalks that are too narrow and/or in disrepair throughout the community, to the lack of ADA-compliant sidewalks, safe pedestrian crossings, lighting, and shade trees along the main corridors. Desired enhancements include ADA-compliant sidewalks, pedestrian lighting, trees, benches, safe road crossings and separated recreational trails.

Gear Avenue

The Gear Avenue corridor concept shown below addresses all of the residents' concerns and desired enhancements by incorporating "Complete Street" principals. Complete streets are designed to meet the needs of all users, regardless of their age and ability, or whether they walk, bike, drive, or take public transportation.

Three options are shown for the location of a crosswalk on Gear Ave.. See board 9b for information regarding these options and the traffic calming measures that are integrated into them. Board 9b also shows examples of other types of traffic calming strategies that can be integrated into roadways within West Burlington to enhance pedestrian and motorist safety.

Gear Avenue Corridor Plan Notes

- ① Street trees enhance streetscape aesthetics, provide shade, reduce heat-island effects, assist with water and air quality, and direct views, their vertical structure and spacing can also help with traffic calming.
- ② Widened and ADA-compliant sidewalks and designated crosswalks enhance streetscape aesthetics, improve pedestrian accessibility, increase safety, strengthen connectivity to commercial businesses along Gear Avenue, and reinforce the importance of the corridor. Decorative crosswalks create a unified appearance when the hardscape materials and colors replicate those found in the entryway signage.
- ③ Raised roadway median on each side of crosswalk minimizes pedestrian and motorist interactions, increasing safety and user comfort. The median can be planted with short, salt-tolerant plants or surfaced with decorative pavement.
- ④ Landscaped seating area "pods" adjacent to the sidewalk (on pavement) provide accessible seating along walking routes, enhance user comfort, and incorporate landscape into the corridor to improve the streetscape aesthetics. The use of native plantings or hardy ornamentals and mowing edges will minimize maintenance.

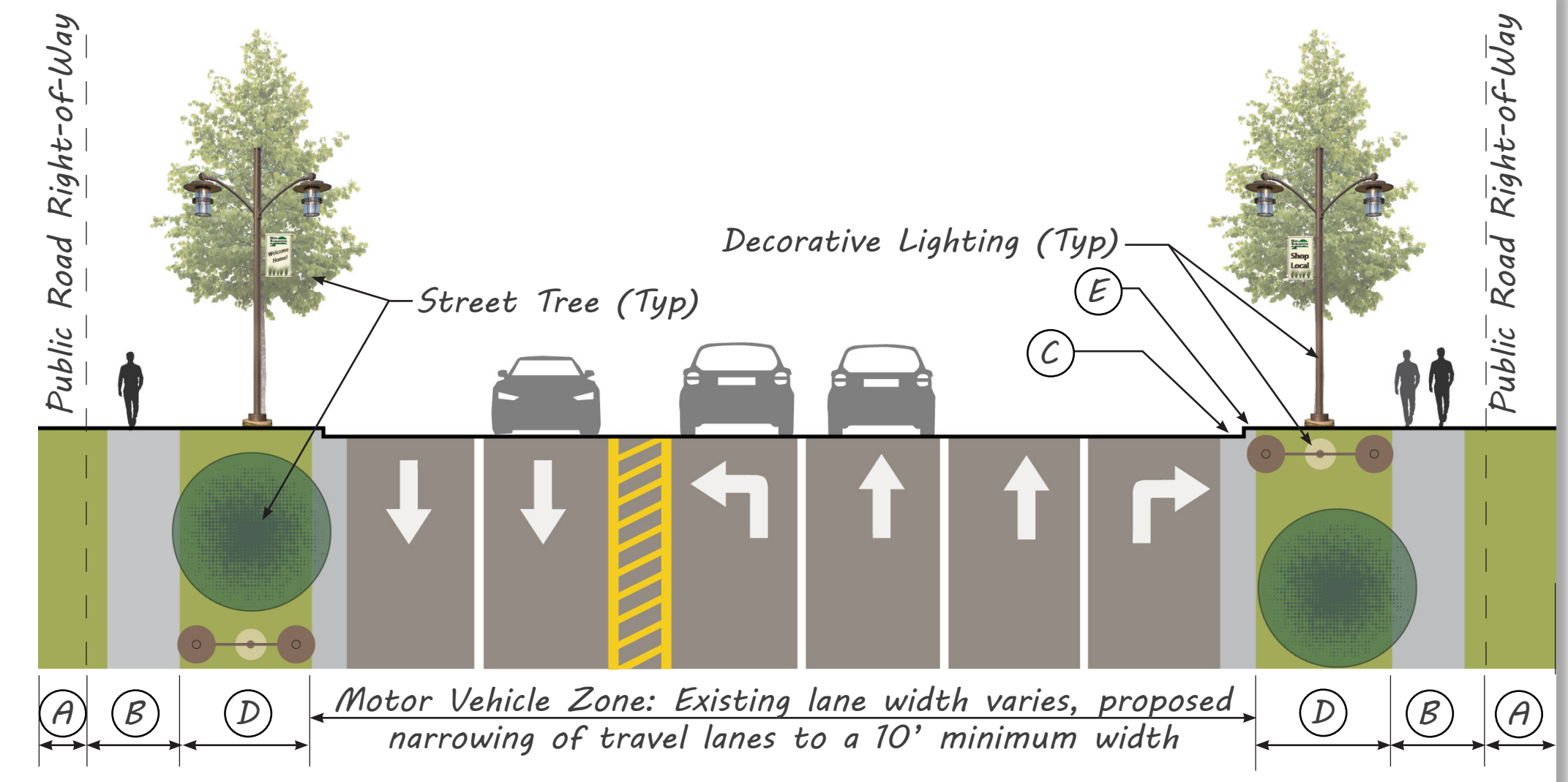
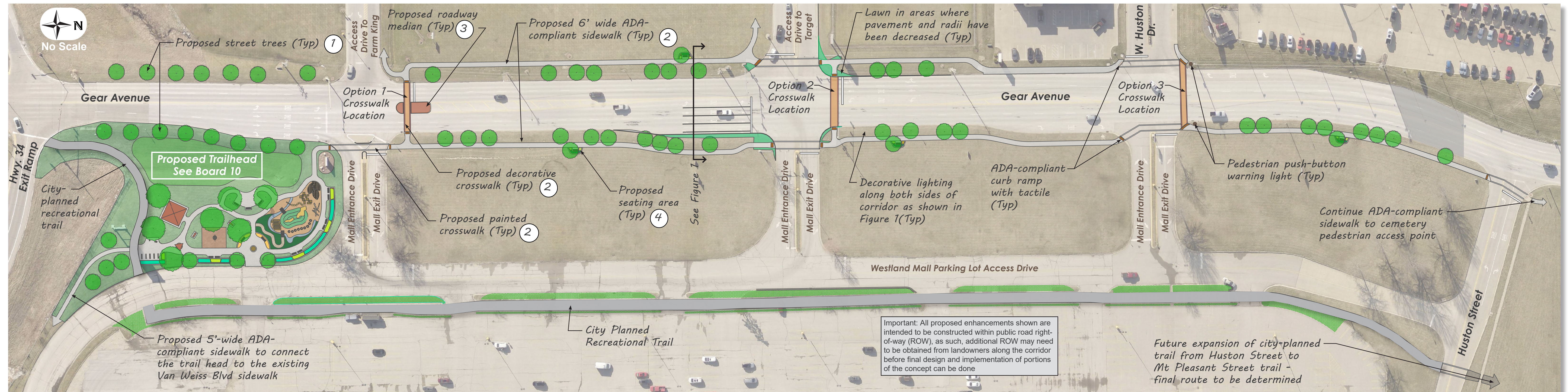


Figure 1: Proposed typical section for Gear Avenue

Typical Section Notes

- Ⓐ Commercial Zone
- Ⓑ Pedestrian Zone: Width varies from 6' wide for sidewalk to 15' wide in seating areas
- Ⓒ Gutter: Width +/- 2' wide from front of curb for storm water drainage, not part of travel lane
- Ⓓ Green Zone: Width varies (recommend 10' - 15' wide); location of decorative street lighting, street trees, traffic control signs, way-finding signs, and utilities
- Ⓔ Curb



Proposed concept plan for Gear Avenue from Hwy. 34 to Huston Street

Traffic Calming

"A variety of definitions are commonly used in the traffic calming field and although the exact wording may differ, the essence remains; traffic calming reduces automobile speeds or volumes, mainly through the use of physical measures, to improve the quality of life in both residential and commercial areas and increase the safety and comfort of walking and bicycling."

- U.S. Department of Transportation Federal Highway Administration

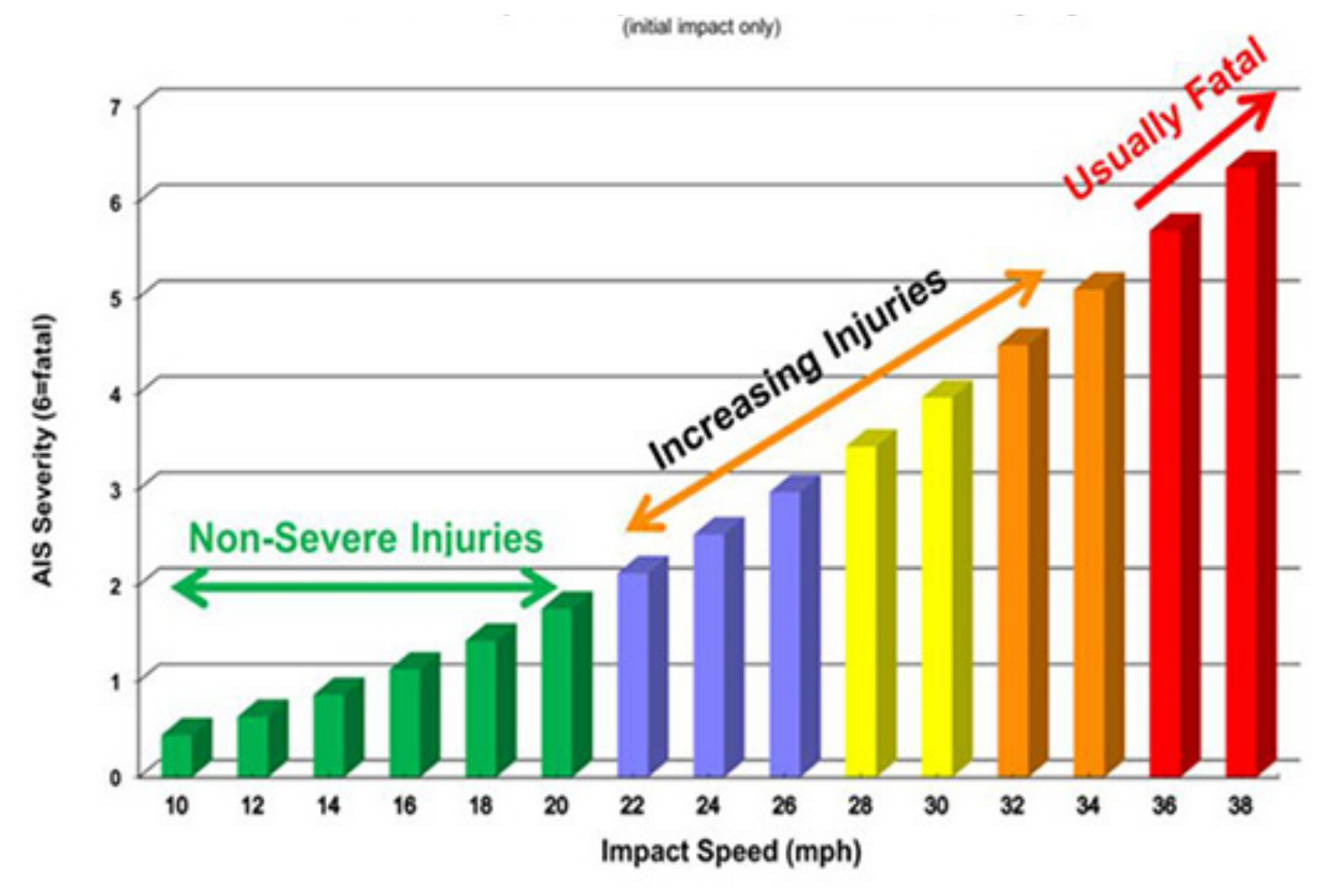


Figure A: Speed/Pedestrian Injury Severity Correlation; Source: US DOT FHWA - C.E. "Rick" Chellman

Traffic calming is an integral component of complete streets, contributing to safety and improved quality of life and creating a sense of place in a community. There are numerous design tools available for calming traffic in urban areas like West Burlington, whether it is along a primary corridor like Gear Ave., or along a residential street.

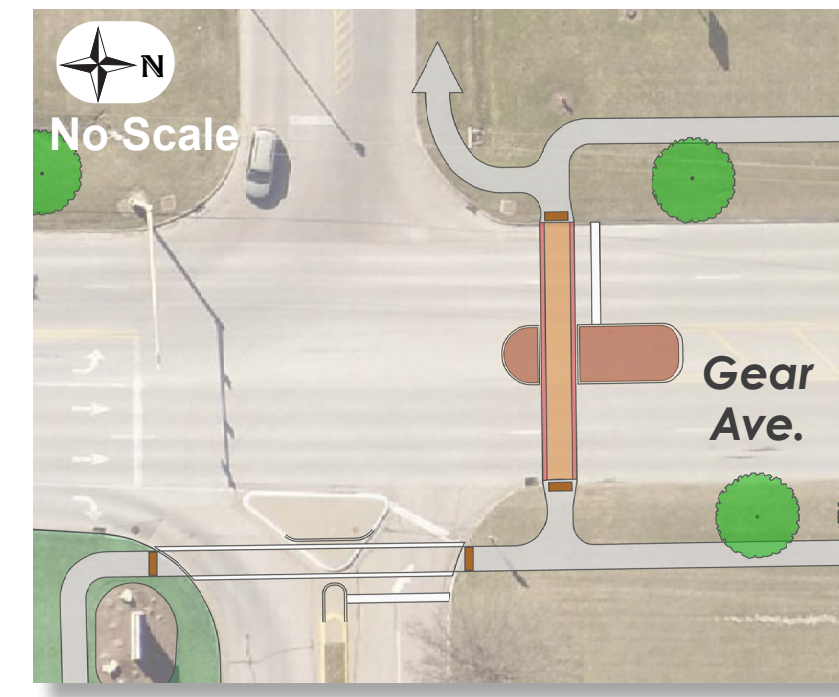
This board illustrates various types of traffic-calming treatments that are shown in the concepts, and/or if not, are still applicable to various locations within West Burlington. Some of these approaches will require little to no major modifications to the roadways, and some may require more extensive modifications that are more appropriate for new construction or street reconstruction/rehabilitation.

It is the intent that all of the pedestrian crossings support a safe, walkable environment.

West Burlington Accessibility & Safety

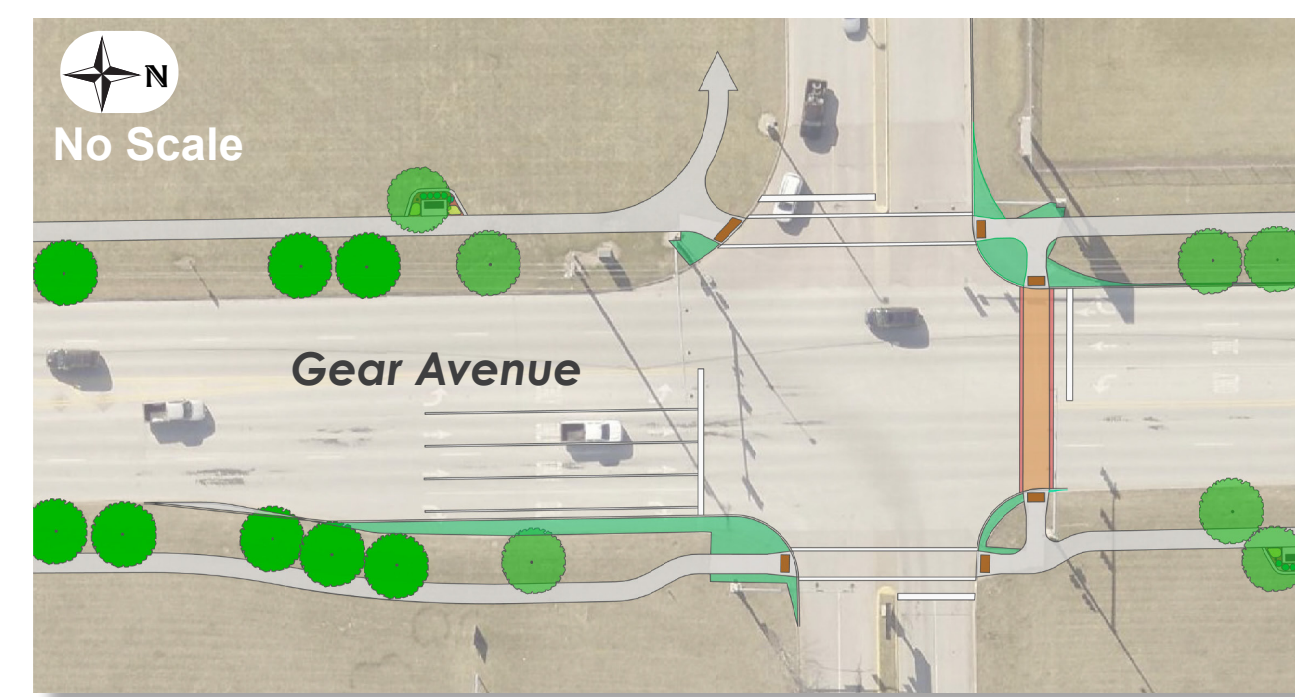
Gear Avenue Crosswalks

Following are thumbnails drawings of the three options proposed for potential crosswalks on Gear Ave.



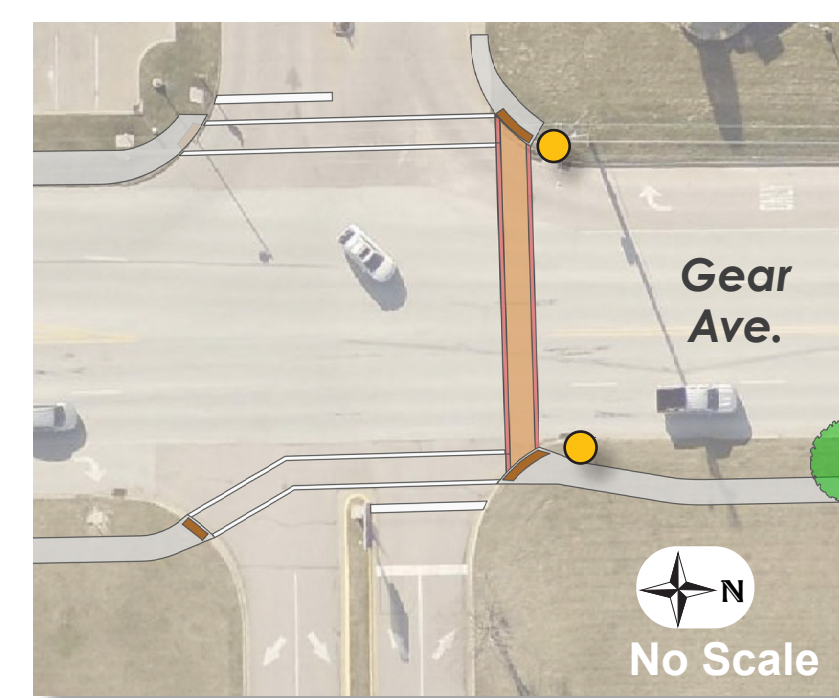
Option 1 Gear Ave. Crossing

Option 1: Having the least amount of pedestrian/motorist interaction, this crosswalk is supported by the vertical traffic calming measure of a raised median with a crosswalk cut-through, which slows traffic and increases pedestrian safety by providing a center refuge on which to wait.



Option 2 Gear Ave. Crossing

Option 2: Located at a traffic light controlled intersection, this option utilizes two traffic-calming techniques to support the crosswalk: 1) road diet (lane narrowing) which reduces speeds and minimizes accidents by making drivers more cognizant of traffic and other users, and 2) radii reduction, which decreases vehicle turning speeds and pedestrian crossing distances. The radius on the southwest corner of the intersection is not reduced to allow delivery semis to have access to Target from the south.



Option 3 Gear Ave. Crossing

Option 3: This option consists of supporting the crosswalk with pedestrian-activated signals to alert approaching vehicles on Gear Ave. of pedestrian use.



Figure B: Raised median with crosswalk cut-through (aka refuge island); Photo source: highways.dot.gov



Figure C: Curb Extension (also referred to as bulb-out or bump-out); Photo credit: Dylan Passmore



Figure D: Raised intersection; Photo source: space4cyclingbne.com



Figure E: Raised crosswalk; Photo source: sfbetterstreets.org

TRAFFIC CALMING EXAMPLES

Raised Median (Figure B)

This is a street-width reduction, traffic-calming measure. A raised curb median is installed in the center of the road where it was otherwise marked for no traffic; the walkway cuts through the median, maintaining ADA-compliant accessibility.

- Creates shorter crossings for pedestrians
- Provides a safe, protected waiting area in the middle of the four-lane road for pedestrians who can't make the full crossing in one attempt
- Provides a space to integrate plantings or decorative pavement into the streetscape to enhance the aesthetics

Curb Extension (Figure C)

This is also a street-width reduction, traffic-calming measure. Curb extensions extend the pedestrian zone farther out into the roadway (staying out of the travel-way) for the purpose of narrowing the road visually and physically.

- Creates shorter crossings for pedestrians
- Protects vehicles parked along a street when there is on-street parking and prevents parking too close to intersection
- Tightens intersection curb radii to encourage lower turning speeds
- Increases the overall visibility of pedestrians
- Serves as a visual cue to motorists that they are entering an area of slower traffic speeds
- Visually and physically narrows roadway to slow down traffic
- Provides space to incorporate plantings into the streetscape and/or stormwater management and water quality treatments

Raised Intersection (Figure D)

This traffic-calming measure is considered to be a vertical deflection. A raised intersection is flush with the sidewalk, and road (lane) approaches to intersection are gradually sloped; intersection corners are protected with bollards to keep motorists from crossing into pedestrian space.

- Tightens intersection curb radii to encourage lower turning speeds
- Increases the overall visibility of pedestrians, which helps reinforce slow speeds and encourage users to yield to pedestrians at the crosswalk
- Serves as visual and physical cue to slow down

Raised Crosswalk (Figure E)

This traffic-calming measure is also considered to be a vertical deflection and essentially functions the same as a raised intersection, except that it only spans the width of the crosswalk - the top elevated portion is generally 12' wide and centered on the the crosswalk marking.

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