

2019 Street Resurfacing Improvements

WEDNESDAY, JANUARY 16, 2019

TRANSPORTATION COMMISSION

Background & Overview

Goals & Objectives: Resurfacing improvements are intended to restore the condition of pavements to a very good or excellent condition while also enhancing the functionality and safety for both motorized and non-motorized users.

Typically these improvements:

- Are identified through a planning process utilizing the City's Pavement Asset Management data, and programmed for funding and construction through the Capital Improvement Plan process.
- May be non-structural (preservation) or structural (restoration/rehabilitation) in nature.
- Are contained within the existing footprint of the roadway, and involve very little, if any, geometric changes.
- Require very little, if any, survey data collection.
- Are less complex and involve minimal detailed design.
- Require no additional right-of way or easements.
- Involve the selection of candidate streets for inclusion in one of various types of annual projects (i.e., street resurfacing, street surface treatments or preventative maintenance, stand-alone, etc.)

Background & Overview

Typical considerations and opportunities examined during project planning:

- Method(s) required to structurally rehabilitate or restore the pavement condition, or preserve the condition, which will ultimately extend the service life of the street or roadway.
- Feasibility to incorporate improvements identified in the City's Non-motorized Transportation Plan.
- Feasibility to incorporate storm water management improvements, and other necessary drainage improvements.
- Necessary improvements to achieve compliance with current American's with Disabilities Act standards.
- Feasible and/or necessary safety improvements.

Background & Overview

Typical pavement preservation, restoration, and rehabilitation methods:

Preservation (non-structural)

- Surface treatment/seal (micro-surface or cape seal).
- Thin overlay (no removal of the existing pavement) or thin mill & fill.
- Localized and minimal pavement repairs involving partial depth removal and replacement combined with an surface treatment/seal, thin overlay, or thin mill and fill.

Restoration (structural)

- Localized and more significant pavement repairs involving partial/full depth removal and replacement combined with a thicker overlay, or mill and overlay.
- Partial depth pavement removal and replacement (mill and overlay).

Rehabilitation (structural)

- Full depth pavement removal and replacement with base repairs, as required.
- Pavement pulverization, re-grading, and overlay.

Background & Overview

Typical Non-motorized Transportation Plan near-term improvements:

- Bike lanes.
- Narrower traffic lanes.
- Reconfiguration of traffic lanes (elimination of on-street parking, road diet/4 to 3 or 3 to 2 lane conversions).
- Mid-block crossings.
- Addition of sidewalks or asphalt paths.

Background & Overview

Typical drainage and storm water management improvements:

- Removal and replacement of concrete curb and gutter.
- Removal and replacement of storm water curb inlets.
- Changing the pavement cross slope(s).
- Infiltration basins.
- Oversized storm sewer pipes and drainage control structures.

Background & Overview

Typical ADA improvements:

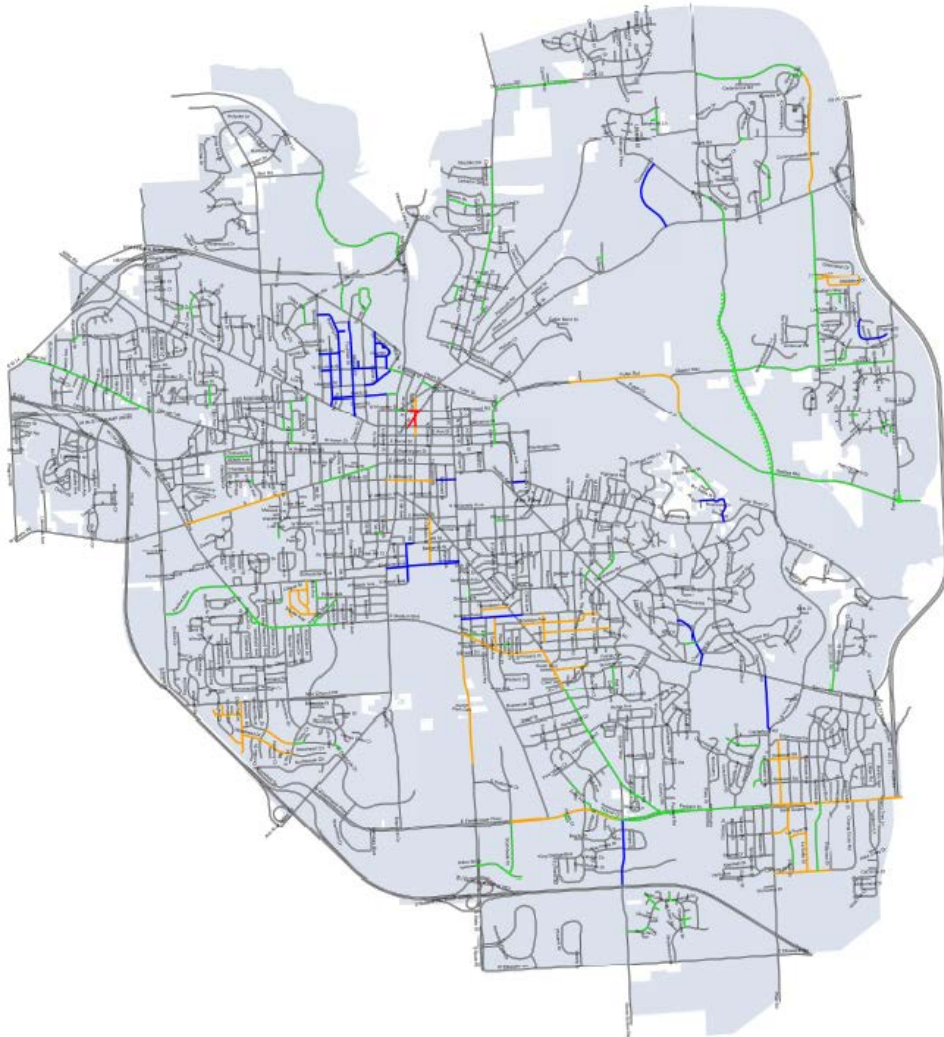
- Removal and replacement of concrete sidewalk and sidewalk ramps.
- Addition of small/missing segments of concrete sidewalk and sidewalk ramps.
- Sidewalk and sidewalk ramp repairs.

Background & Overview

Typical safety improvements:

- Shortened crosswalks using curb bump-outs at intersections and mid-block crossings.
- Enhanced pavement markings and traffic signing to provide better visibility and guidance for users.

2019 Proposed Street Improvements



Resurfacing - Major Street Network

- Preservation/Heavy Preventative Maintenance (non-structural) = 7.1 miles
- Restoration/Rehabilitation (structural) = 2.7 miles

Resurfacing - Minor (Local) Street Network

- Preservation/Heavy Preventative Maintenance (non-structural) = 6.1 miles
- Restoration/Rehabilitation (structural) = 4.3 miles

Work Activities

Preservation/Light Preventative Maintenance (Crack Filling/Sealing)



Preservation/Heavy Preventative Maintenance (Micro-Surfacing, Cape Sealing, Thin Mill & Fill)



Restoration/Rehabilitation



Reconstruction

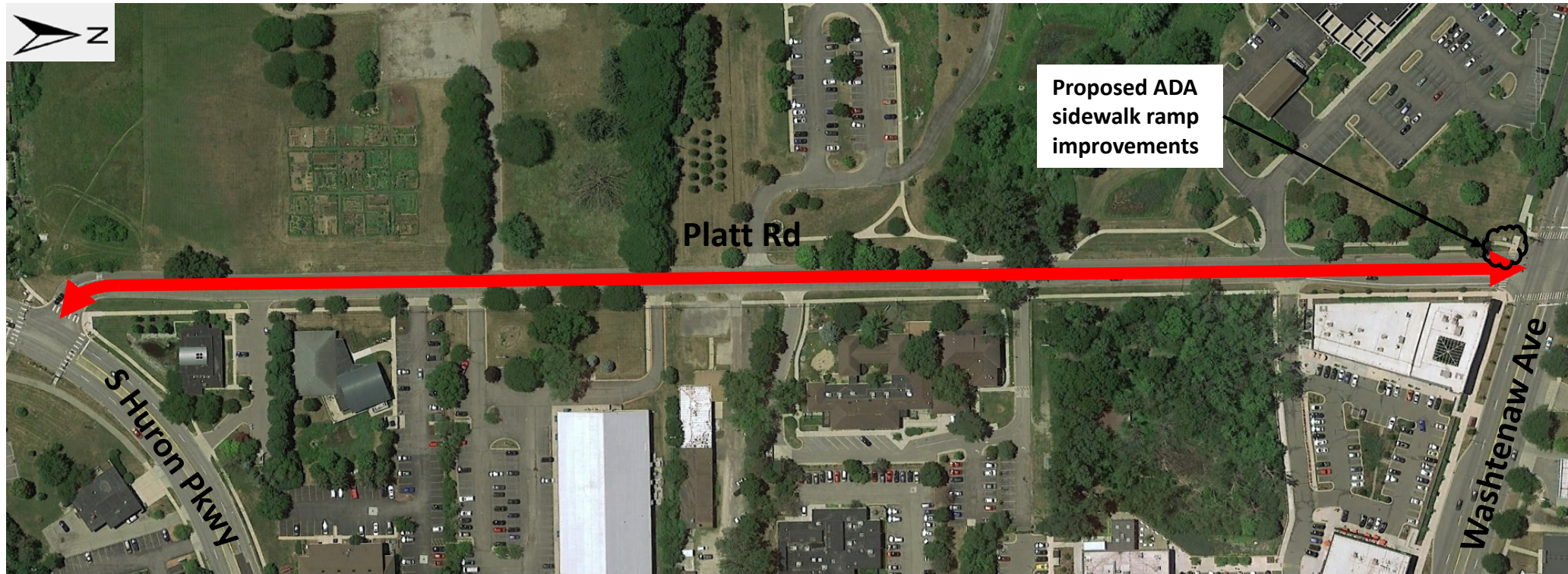


2019 Resurfacing Locations with Proposed Non-Motorized Improvements

- Platt Road (S Huron Pkwy to Washtenaw Ave) - Restoration
- South Division Street (E Hoover Ave to E Madison St) - Preservation
- Stone School Road (I-94 to E Eisenhower Pkwy) – Restoration or Rehabilitation
- Traverwood Drive (Plymouth Rd to S Huron Pkwy) - Restoration
- Green Road (N of Plymouth Rd to S of Gettysburg Rd) - Preservation
- Fuller Rd/S Huron Pkwy Shared Use Asphalt Path - Restoration

Platt Road (S Huron Pkwy to Washtenaw Ave)

←→ Project Extents



Proposed Restoration Work Activities: Mill and overlay to partially remove and replace the existing asphalt pavement; remove and replace drainage inlets, as required; remove and replace non-compliant (ADA) sidewalk ramps; remove and replace segments of concrete curb and gutter and driveway openings, as required; placement of new pavement markings; new and replacement traffic signing; and restoration of any lawn and turf areas disturbed by the construction activities.

Platt Road (S Huron Pkwy to Washtenaw Ave)

Proposed near-term opportunities identified in the City's Non-motorized Transportation Plan:

- Bike lanes (Third Tier Priority) along east and west sides of street.
- Narrower traffic lanes.

Existing Lane Configuration

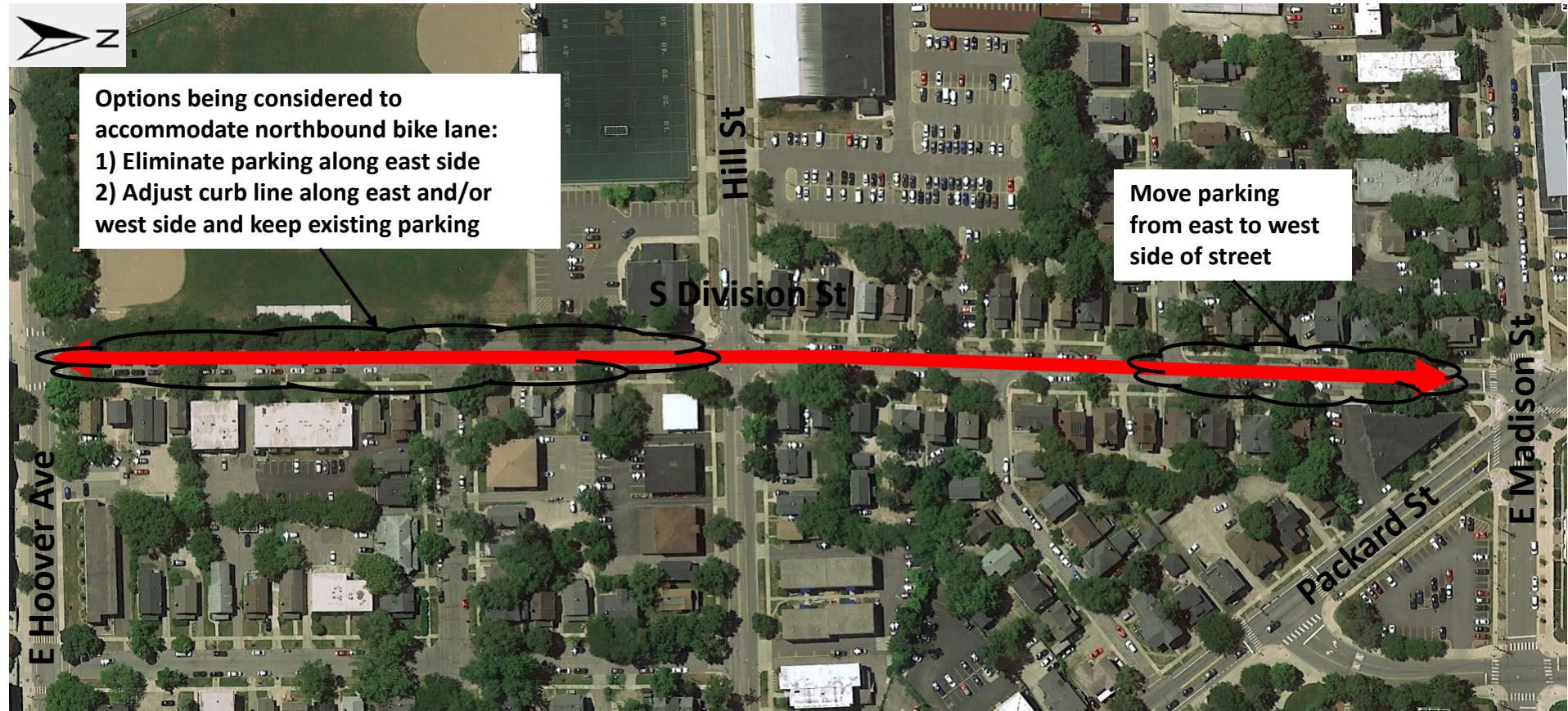


Proposed Lane Configuration



South Division Street (E Hoover Ave to E Madison St)

Project Extents



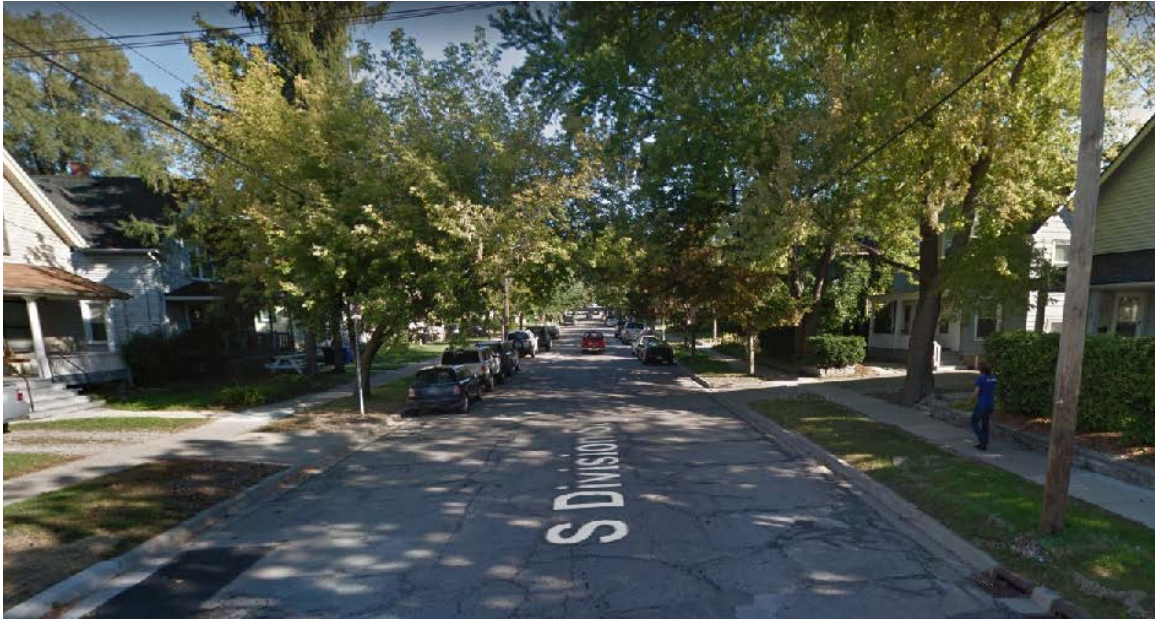
Proposed Preservation Work Activities: Thin mill and fill to remove and replace the upper most layer of existing asphalt pavement; minor removal and replacement of concrete curb and gutter segments and driveway openings, as required; minor drainage improvements, as required; placement of new pavement markings; new and replacement traffic signing; and restoration of any areas disturbed by construction.

South Division Street (E Hoover Ave to E Madison St)

Proposed near-term opportunities identified in the City's Non-motorized Transportation Plan:

- Bike lanes (First Tier Priority) along east side of street.
- Narrower traffic lane(s).

Existing Lane Configuration

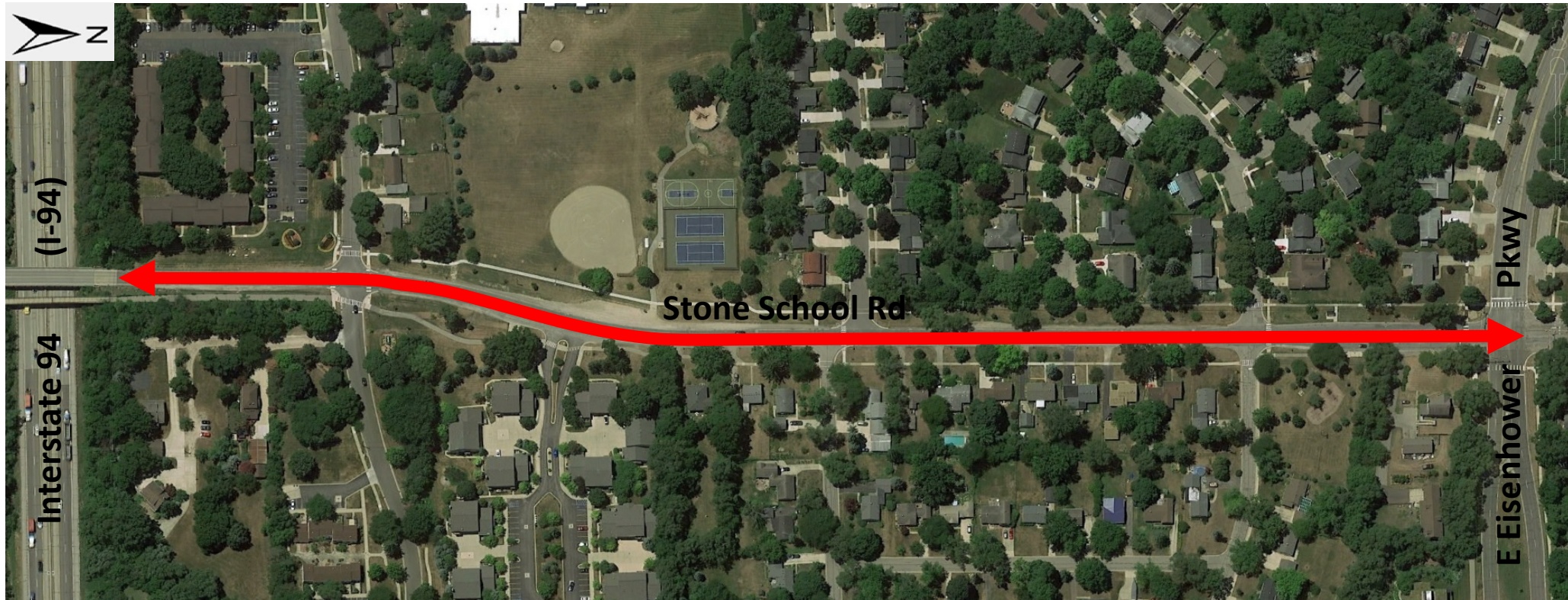


Proposed Lane Configuration



Stone School Road (I-94 to E Eisenhower Pkwy)

 Project Extents



Proposed Restoration or Rehabilitation Work Activities: Mill to partially or fully remove and replace the existing asphalt pavement; base repairs, as required; shoulder widening (asphalt and aggregate); roadside drainage work, as required; remove and replace segments of curb and gutter and sidewalk ramps, as required; driveway approach work; placement new pavement markings; new and replacement traffic signing; and restoration of areas disturbed by construction.

Stone School Road (I-94 to E Eisenhower Pkwy)

Proposed near-term opportunities identified in the City's Non-motorized Transportation Plan:

- Bike lanes (First Tier Priority) along east and west sides of street.

Existing Lane Configuration

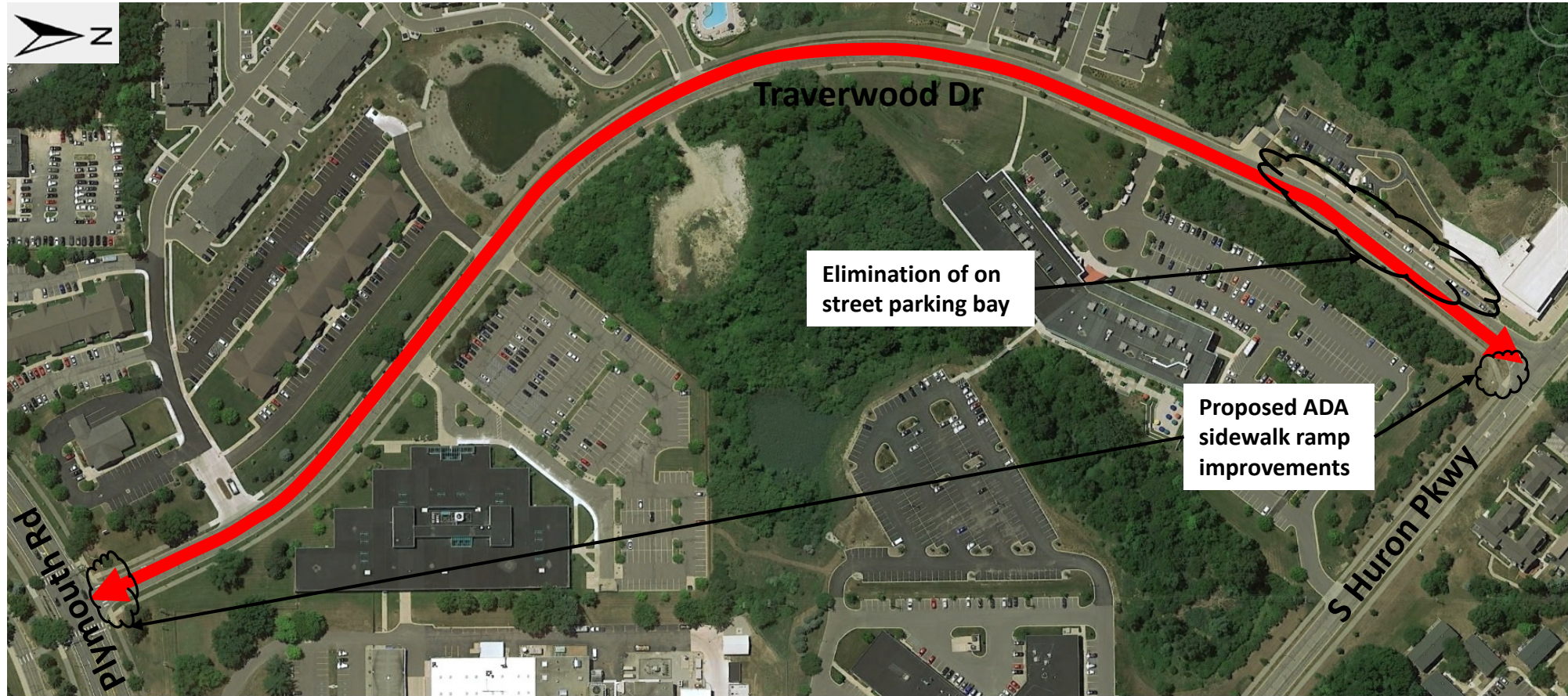


Proposed Lane Configuration



Traverwood Drive (Plymouth Rd to S Huron Pkwy)

←→ Project Extents



Proposed Restoration Work Activities: Mill and overlay to partially remove and replace the existing asphalt pavement; removal and replacement of concrete curb and gutter segments and driveway openings, as required; remove and replace non-compliant (ADA) sidewalk ramps; placement of new pavement markings; new and replacement traffic signing; and restoration of any areas disturbed by construction.

Traverwood Drive (Plymouth Rd to S Huron Pkwy)

Proposed near-term opportunities identified in the City's Non-motorized Transportation Plan:

- Bike lanes (Third Tier Priority) along east side of street.

Existing Lane Configuration



Proposed (3 to 2) Lane Configuration



Green Road (N of Plymouth Rd to S of Gettysburg Rd)

←→ Project Extents



Proposed Preservation Work Activities: Full and partial depth asphalt patching to address areas of deteriorated pavement, as required; placement of a micro-surfacing treatment; placement of new pavement markings; and the installation of new and replacement traffic signs.

Green Road (N of Plymouth Rd to S of Gettysburg Rd)

Proposed near-term opportunities identified in the City's Non-motorized Transportation Plan:

- Bike lanes (Second Tier Priority) along east and west sides of street.
- 4 to 3 lane conversion from north of Burbank Dr to north of Commonwealth Dr with lane configuration options are being evaluated for the road segment between Plymouth Rd and Commonwealth Dr.

Existing Lane Configuration



Proposed (4 to 3) Lane Configuration



Fuller Rd/S Huron Pkwy Shared Use Asphalt Path

↔ Project Extents



Proposed Restoration Work Activities: Full depth removal and asphalt patching to address areas of deteriorated pavement; concrete sidewalk and sidewalk ramp removal and replacement, as required; placement of a new asphalt overlay over the entire path; and restoration of any lawn and turf areas disturbed by the construction activities.

Next Steps

- Finalize designs: January & February 2019.
- Prepare final specifications and cost estimates: February 2019.
- Prepare final bid package for advertisement: February 2019.
- Project bid letting: March 2019.
- Construction: May – October 2019

Questions?
