

# Traffic Safety Improvements Main St. and Highland Ave.

Village Council  
June 14, 2022



# Objectives

- Brief History of Project
- Summary of Draft Preliminary Design Report (PDR)
  - Key Findings
  - Proposed Improvements
- Overview of Public Information Meeting and Feedback
- Obtain Council Direction to Submit PDR for IDOT Review and Approval



# High School Pedestrian Safety Study

- Partnership of School District 99 and VoDG
- Goal: Improve Pedestrian Safety at North & South High Schools
- Hired Sam Schwartz Consultants to Prepare the Study
- Extensive Public Engagement
- Accepted by Village Council in Feb. 2020



# High School Pedestrian Safety Study

## Study Recommendations

- Main Street
  - Reduction to one lane in each direction
  - Protected left turn lanes
  - Center refuge islands
  - Curb extensions
  - Enhanced lighting
  - Traffic signal phasing modifications
- Highland Avenue
  - Chicanes between Lincoln St. and Grant St.



# Traffic Safety Improvements – Main St.

- September 2021: Village Council approved contract with HR Green to prepare a Phase I Engineering Study (incl. PDR)
- October 2021: HR Green performed updated traffic counts
- HR Green prepared a traffic model and draft PDR
- Project was submitted for STP grant funding
  - This project is preliminarily being recommended by DMMC for funding
  - Final decision to be made around September 2022
  - Would provide \$1.47 MM of the \$2.1 MM estimated for construction



# Traffic Safety Improvements – Main St.

## Key Findings

- High Number of Vehicle and Ped Crashes
  - 99 crashes in past five years
  - Eight of these involved pedestrians or bicyclists
  - One fatality
  - Predominant crash types
    - Rear end
    - Sideswipe
    - Resulting primarily from left turns being made from inside travel lanes



# Traffic Safety Improvements – Main St.

## Key Findings

- Left Turning Vehicles Impede Traffic Flow
  - Lack of left turn lanes contributes to poor traffic flow
    - Stopping/standing
    - Weaving/merging maneuvers required
  - Southbound merges from 2 lanes to 1
    - Drivers have to merge to inside lane at Franklin
    - Wait to last minute due to left turning vehicles



# Traffic Safety Improvements – Main St.

## Key Findings

- Inefficient Traffic Signal Programming
  - Left-turners use inside through lanes
  - Signal cannot determine if vehicle is turning left
  - Signals at Prairie are programmed:
    - Northbound vehicles get left turn arrow in the A.M.
    - Southbound vehicles get left turn arrow in the P.M.
    - This occurs regardless if any vehicles are waiting to turn left





# Traffic Safety Improvements – Main St.

Proposed Improvement	Expected Results
Change to One Lane in Both Directions (with Protected Left Turn Lanes)	<p>Increased Safety</p> <ul style="list-style-type: none"><li>• Smoother traffic flow</li><li>• One, clear merge location</li><li>• Separating turning vehicles from the through vehicles</li></ul> <p>Reduction in driver confusion and delays</p> <p>Peak-hour travel time relatively unchanged</p> <ul style="list-style-type: none"><li>• Northbound increase by <math>\pm 4</math> seconds</li><li>• Southbound decrease by <math>\pm 12</math> seconds</li></ul>

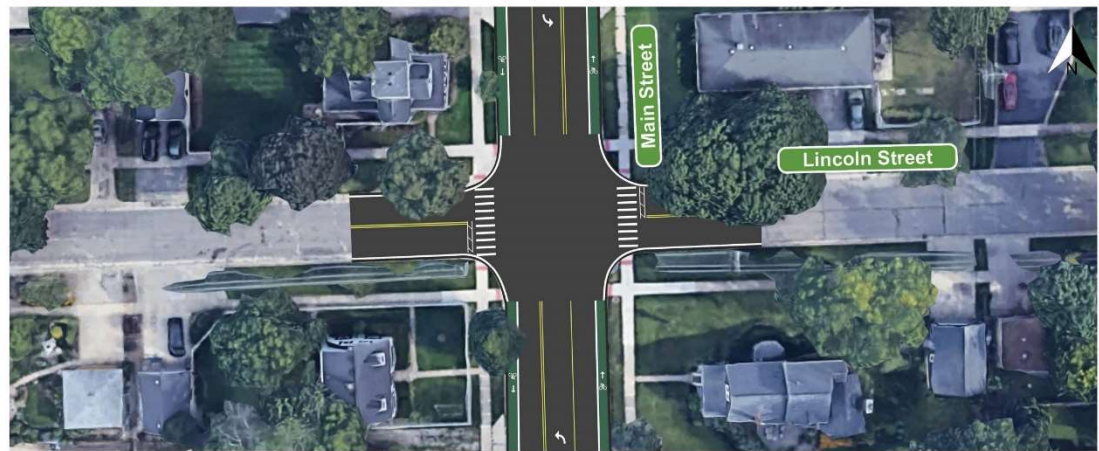
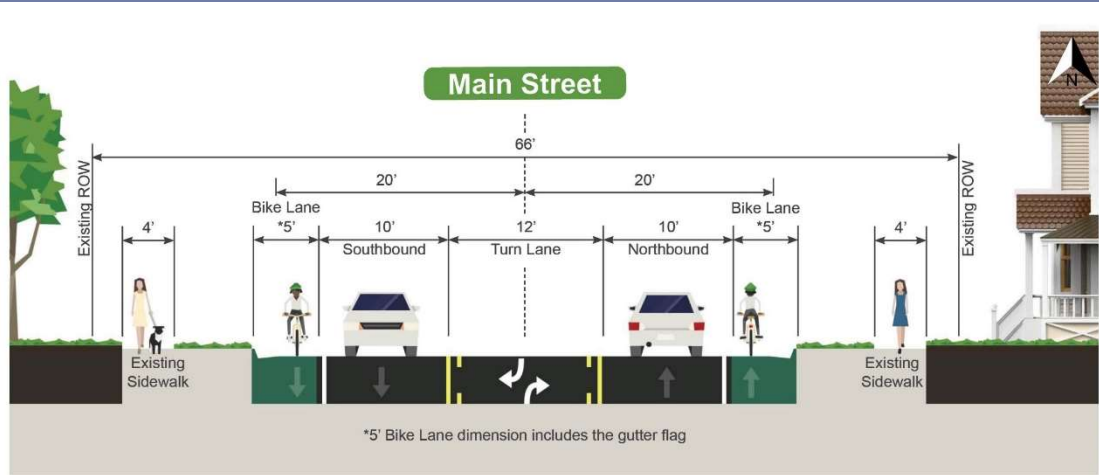


# Traffic Safety Improvements – Main St.

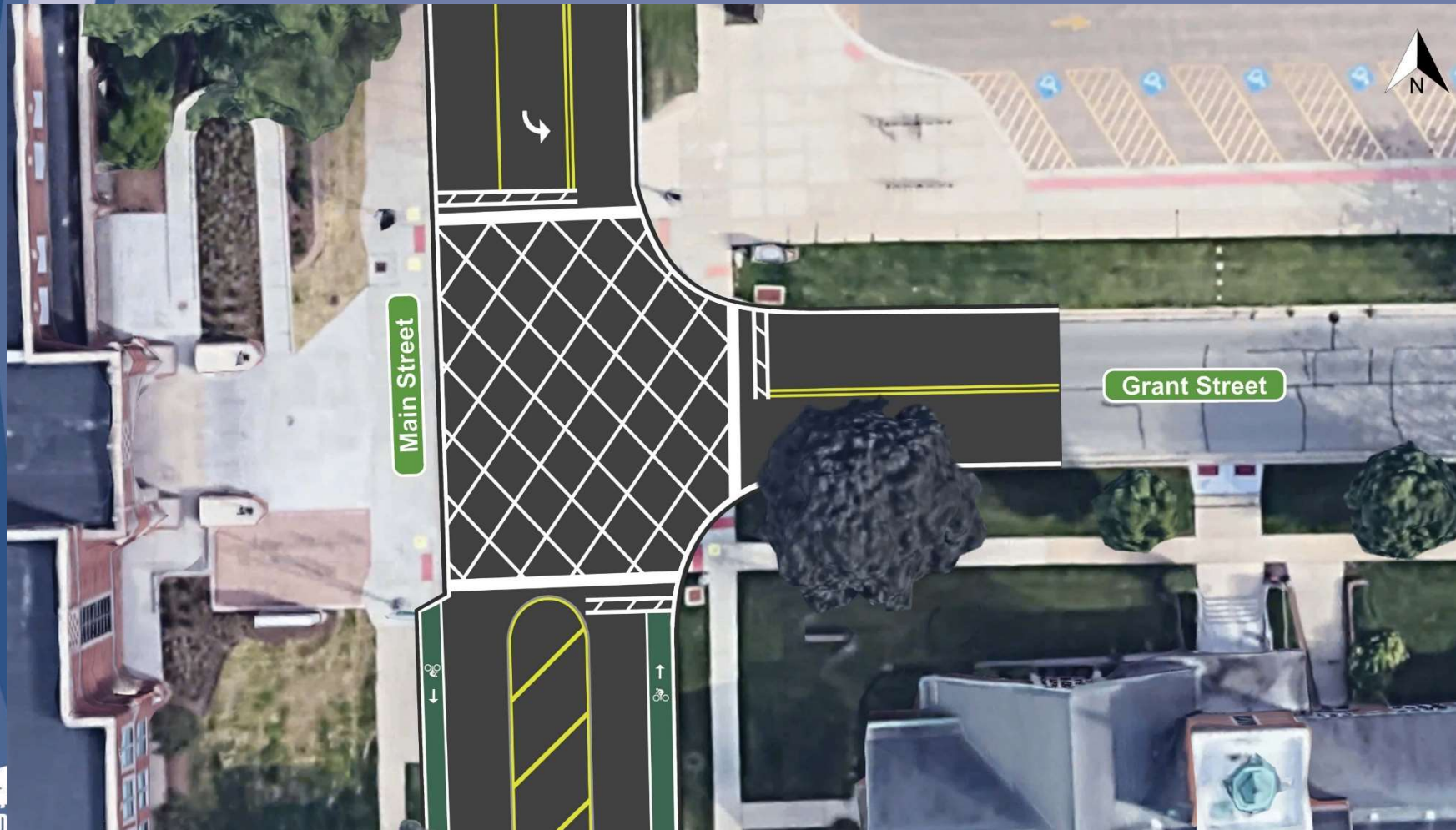
Proposed Improvement	Expected Results
Optimize Traffic Signal Timing	Provide a left turn arrow only when needed
Dedicated Bike Lanes (South of Grant)	Enhanced safety for bicyclists May reduce vehicle speeds No impacts on parkway trees Curbs to remain in current location
Construct Curb Extensions at Grant Street	Enhanced pedestrian safety Logical termination point for the bike lanes



# Traffic Safety Improvements – Main St.



# Traffic Safety Improvements – Main St.



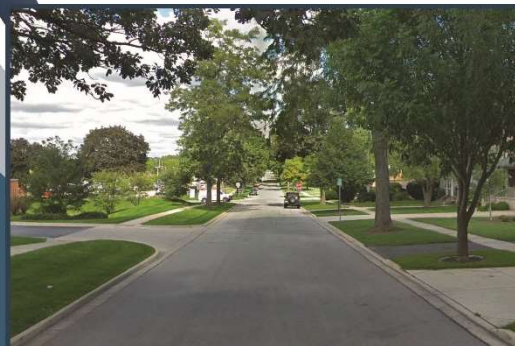
# Traffic Safety Improvements – Highland

Proposed Improvement	Expected Results
Construct Chicanes	Reduction in vehicle speeds



# Traffic Safety Improvements – Highland

## Highland Avenue Proposed Chicanes



Before



After

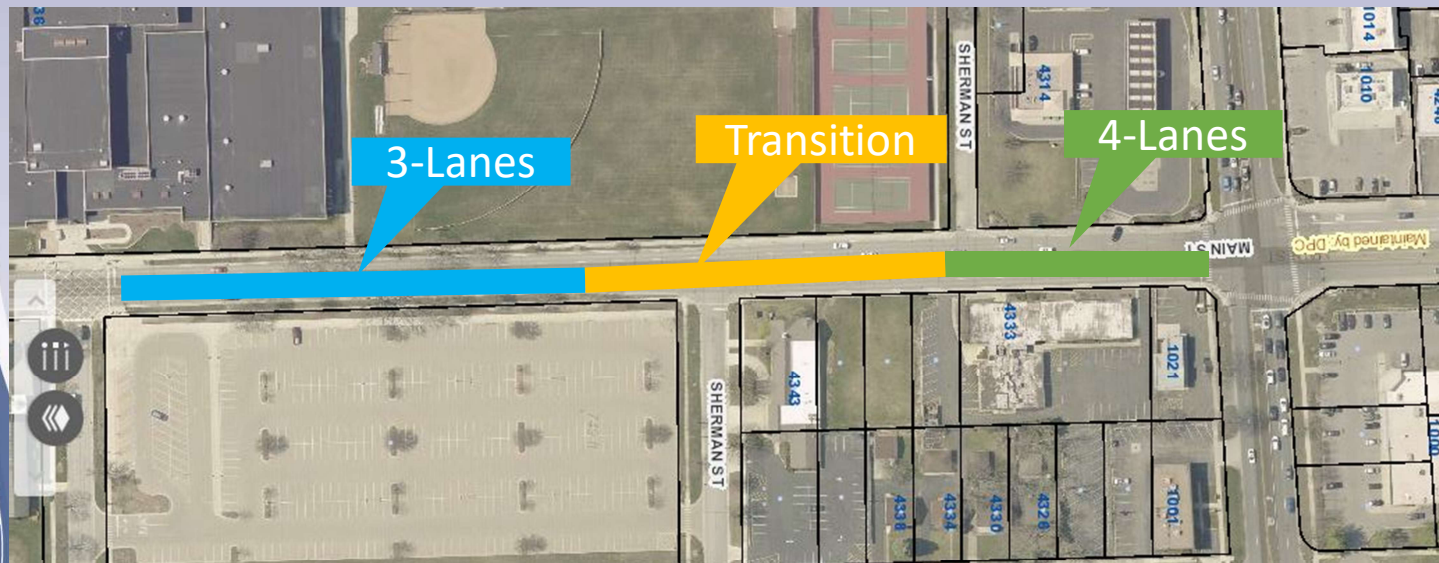
# Public Information Meeting (PIM)

- Meeting held on May 23, 2022
- Attended by approximately 15 members of the public
- Comments from attendees and additional emails received
  - Traffic Diversion
  - Merge Location Proximity to Ogden Avenue
  - Bike Lanes
  - Lighting
  - Temporary Test Case
  - Highland Avenue



# Merge Location

- The merge location can be moved south of Sherman St.
- Final design has not yet been completed, but will be reviewed and approved by IDOT





# Lighting

- Initial report called for enhanced lighting
- Options could include:
  - Enhanced LED beacon lighting at intersections
  - Pedestrian and sidewalk lighting similar to Main St. in the DBD
  - Street lighting similar to Main St. south of Maple



# Next Steps

- Obtain Council Direction
- Finalize the Preliminary Design Report (PDR) and submit to IDOT for approval
- After PDR is approved, Village will enter into a contract for final design
- Estimated construction start is 2024

