

S.R. 55 at 73rd Avenue
 Intersection Improvement
 Town of Merrillville, Lake County

Indiana Department of Transportation


Thursday, October 22, 2020
 6:00 p.m.
 Merrillville High School



1

Welcome


- Purpose/explanation of public hearing
- Public hearing format
- Visit our sign-in table
- Informational handouts
- Participate during public comment session
- Submit written public comments
- Project display area



2

S.R. 55 at 73rd Avenue


- Introduction of INDOT project team
 - Project management
 - Public involvement
 - LaPorte District – INDOT Regional Office
 - Environmental services
 - Real estate
- Troyer Group
 - Engineering, design, and environmental analysis team
- Recognition of elected and local public officials
- Sign-in at attendance table to be added to project mailing list.
- A public hearing notice was mailed to known property owners in the project area.
- An announcement of this hearing was posted to INDOT's website.
- A copy of the presentation and project documentation is available online via INDOT's website.
- Legal notice publishing:
 - Times in Northwest Indiana
 - October 7, 2020 and October 14, 2020



3

Submit Public Comments

- **Submit public comments using the options described in the first page of the information packet:**
 - Public Comment Form
 - Via e-mail (cjc@trovergoup.com or thollandsworth@indot.in.gov)
 - Participating during the public comment session via microphone
 - Note that verbal comments will be recorded and transcribed for inclusion into the public hearing transcript.
- **INDOT respectfully requests comments be submitted by Thursday, November 6, 2020.**
- All comments submitted will become part of the public record, and they will be entered into a transcript, reviewed, evaluated, and given full consideration during the decision-making process.






4

Project Resource Locations

- **Lake County Public Library, Merrillville Branch**
 1919 W. 81st Ave., Merrillville, IN 46410
 Phone: (219) 769-35421

Visit the project web page: <https://www.in.gov/indot/4090.htm>


Transportation Services Call Center
 Provides citizens and business customers with a single point of contact to request transportation services, obtain information, or provide feedback through multiple channels of communication.
 855-463-8848 • INDOT4U.com • INDOT@indot.in.gov

5

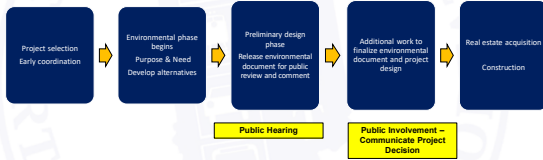
Project Stakeholders

- Indiana Department of Transportation
- Indiana Division Federal Highway Administration
- Lake County, Town of Merrillville
- Elected and local officials
- Residents and citizens
- Commuters
- Businesses
- Emergency services
- Schools
- Churches
- Community organizations



6

Project Development



7

Environmental Document

National Environmental Policy Act (NEPA)

- Requires INDOT to analyze and evaluate the impacts of a proposed project to the natural and socio-economic environments
- NEPA is a decision-making process
 - Purpose and Need
 - Alternatives Screening
 - Preferred Alternative
- Impacts are analyzed, evaluated, and described in an environmental document**
 - What are the impacts this project might have on the community?
 - How can impacts be avoided?
 - Can impacts be minimized?
 - Mitigation for impacts?
- Environmental document released for public involvement**
 - June 2020
 - Available for review via public repositories



8

Environmental Document

Environmental Process

- Establish purpose and need
- Develop possible alternatives
 - The "Do Nothing" alternative is a baseline for comparison
- Evaluate and screen alternatives
- Identify a preferred alternative
- Solicit public comment on environmental document and preliminary design plan
- Address and consider public comment as part of decision-making process
- Finalize and approve environmental document



9

Examples of Items Evaluated

- Right-of-way
- Streams, wetlands, and other waters
- Floodplains
- Endangered species
- Farmland
- Cultural resources (historic/archaeological)
- Parks and recreational lands (trails)
- Air quality
- Noise
- Community impacts
- Environmental justice
- Hazardous materials
- Permits
- Mitigation
- Public involvement
- Commercial development



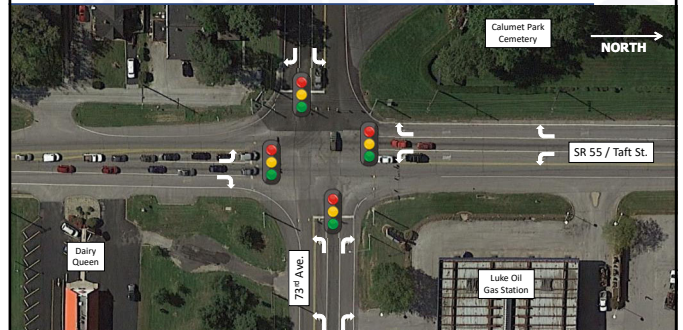
10

Existing Intersection



11

Existing Intersection



12

S.R. 55 at 73rd Ave. – Project Purpose and Need

Purpose

- Increase operational safety at the intersection by reducing the frequency and severity of vehicular accidents.
- Maintain or improve operational efficiency in the construction year and the horizon year.

Need

- Accident rate is exceedingly high
 - INDOT assesses accident rate as accidents per 1 million vehicles entering (MVE) intersection.
 - Potential operational deficiencies begin at a rate of 1.5 accidents per MVE.
 - The SR 55 at 73rd Ave. crash rate is 4.2 accidents per MVE.
- Accident data:
 - 455 total accidents from 2008 to 2019 (38/year)
 - 104 (23%) resulted in injury, 2 resulted in death
 - 249 (55%) were rear end collisions
 - 143 (31%) involved a failure to yield, typically while turning



13

S.R. 55 at 73rd Ave. – Project Purpose and Need (cont.)

Need (cont.)

- Intersection improvements must also ensure operational efficiency.
- Existing intersection operates at a intersection Level of Service (LOS) C – “Stable Flow.”
- If the area experiences a relatively low 0.3% yearly traffic growth rate, LOS will decrease to D within 20 years. It would be even sooner with higher growth.
- Higher intersection congestion leads to increased accidents.



14

Other Alternatives Considered

- **No Build (Signalized Intersection)**
 - Baseline for comparison of build alternatives
 - Does not meet purpose and need, does not enhance safety at the intersection, and operational efficiency is likely to decline with traffic growth.
- **Various Roundabout Geometries**
 - **Single-Lane Roundabout**
 - Safest roundabout geometry, but design year LOS of F “Gridlock.”
 - **Dual-Lane Roundabout**
 - Highest expected crash frequency among all roundabout alternatives, albeit fewer injury-causing accidents.
 - **Single-Lane, with Right-Turn Bypass Lanes**
 - Safest multi-lane geometry, but design year LOS of D “Approaching Unstable Flow.”
 - **Dual-Lane Roundabout with Single-Lane Exits**
 - Similar crash expectancy to preferred alternative but operated a lower expected LOS.



15

Preferred Alternative – Roundabout Intersection

- Meets purpose and need of project
- Enhances safety by:
 - Reducing the operational speed along the SR 55 and 73rd Ave. corridors
 - Reducing the number of potential vehicle conflict points
 - Significantly reducing the severity of traffic accidents
- Optimized lane configuration enhances operational efficiency at the intersection

Existing Signalized Intersection:

Construction Year
 AM LOS: C / PM LOS: C
 Horizon year (forecasted traffic)
 AM LOS: D / PM LOS: D

Roundabout:

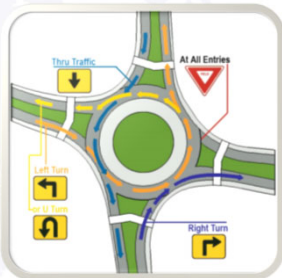
Construction Year
 AM LOS: B / PM LOS: B
 Horizon year (forecasted traffic)
 AM LOS: C / PM LOS: C



16

Roundabout – INDOT Preferred Alternative

- One-way circular intersection
- Traffic flows counter-clockwise around a center island
- Yield at entrance
- No parking
- No “activity” in center island



17

Roundabouts Enhance Safety

U.S. DOT Federal Highway Administration Statistics

- Traditional intersections account for:
- 45% of all crashes - FHWA
 - 33% of all traffic fatalities - FHWA

Compared to traditional intersections, roundabouts:

- Reduce fatalities and injuries by 82% - FHWA
- Reduce total crashes by 44% - FHWA
- Require vehicles to travel at lower speeds

For more information:
<http://safety.fhwa.dot.gov/intersection/innovative/roundabouts/>

- Collisions at traditional intersections are severe because of:
 - High speed
 - Angle of impact



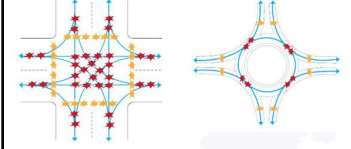
18

Benefits of Roundabouts

- Conflict points are dramatically reduced because all vehicles travel in the same direction.

REGULAR INTERSECTION MODERN ROUNDABOUT

32 Vehicle to Vehicle Conflicts 8 Vehicle to Vehicle Conflicts

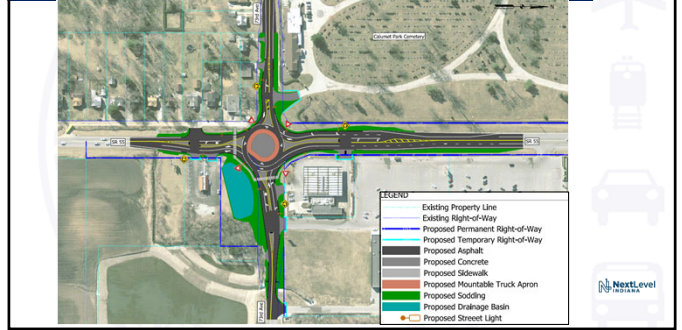


- **Enhances Safety**
 - Roundabouts reduce the number of potential accident points within an intersection.
 - 75% fewer conflict points than four-way intersections.
- **Slower vehicle speeds**
 - Reduces the severity of crashes
- **Efficient traffic flow**
 - Reduces need for turn lanes
 - Improves traffic flow
- **Community benefits**
 - Reduces congestion
 - Aesthetically pleasing landscaping



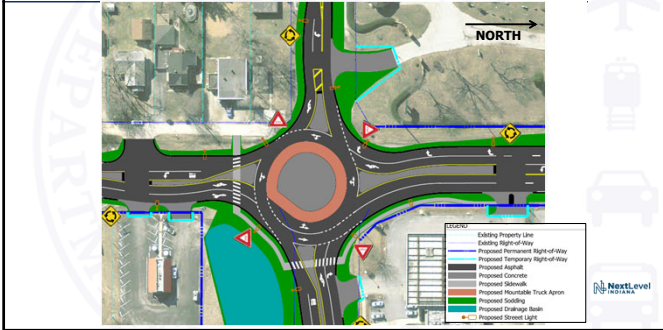
19

Proposed Roundabout Layout



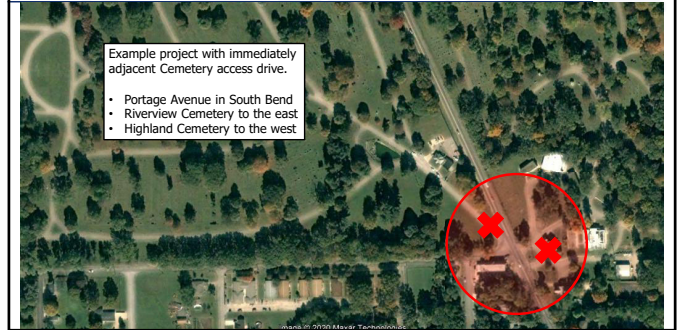
20

Proposed Roundabout Layout



21

Cemetery Access - Example



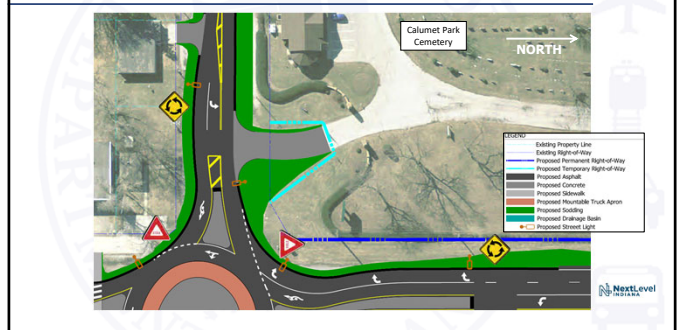
22

Cemetery Access - Example



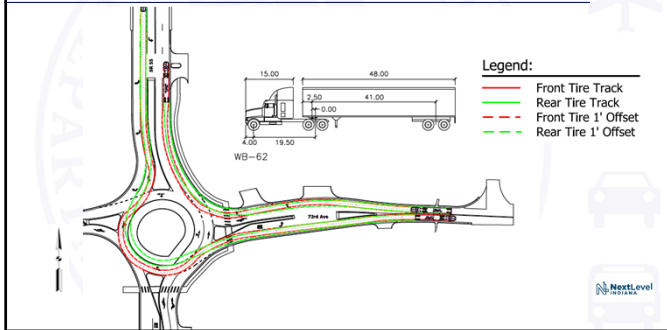
23

Cemetery Access



24

Turning Movement – Semitruck



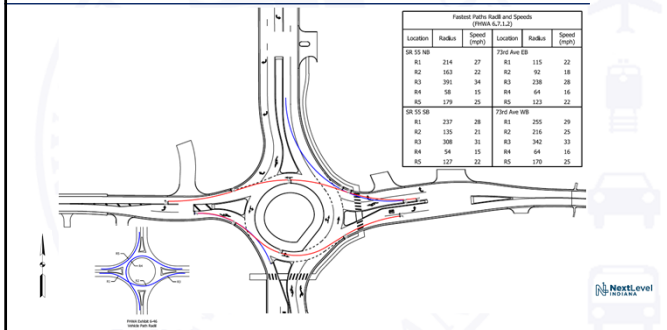
25

Turning Movement – Semitruck



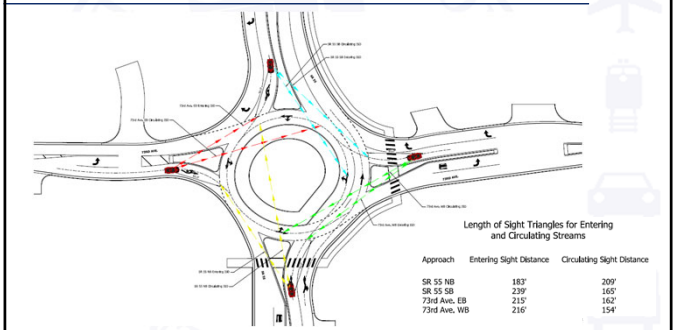
26

Fastest Path Checks



27

Sight Distance

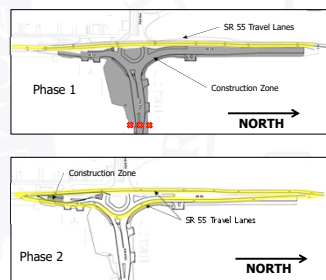


28

Maintenance of Traffic

• Phased MOT: Should not require full intersection closure.

- Phase 1:
 - Traffic on SR 55 will be maintained in two lanes.
 - 73rd Avenue will be closed east of the intersection.
 - Work will focus to eastern half of project:
 - Majority of roundabout
 - Eastern approach
 - Drainage basin
- Phase 2:
 - Open entirely with restricted turning movements.
 - Work will focus on SR 55 medians.

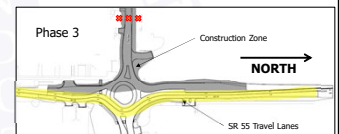


29

Maintenance of Traffic

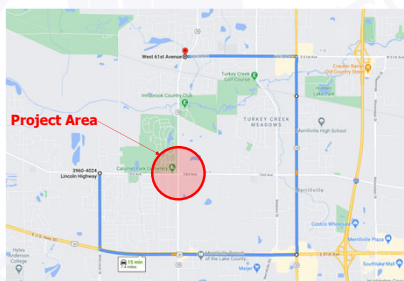
• Phased MOT: Should not require full intersection closure

- Phase 3:
 - Will mirror Phase 1.
 - Traffic on SR 55 will be maintained in two lanes.
 - 73rd Avenue will be closed west of the intersection.
 - Work will focus to western half of project:
 - Remaining roundabout
 - Western approach
 - Cemetery access drive reconstruction



30

Detour Route



31

Project Schedule

- Public Hearing: October 22, 2020
- Public comments requested by 5:00pm CT, 11/6/2020
- INDOT review and consideration of comments (Winter 2020/2021)
 - Finalize environmental document
 - Design
 - Project decision
- Real estate acquisition phase: 2021
- Construction: 2022

32

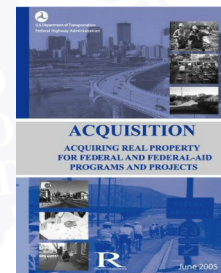
Estimated Project Cost

- Professional Engineering Fees:
 - \$247,328
- Right-of-way Acquisition Estimate:
 - \$500,000
- Estimated Construction Cost:
 - \$2,136,000

33

Real Estate Acquisition Process

- **"Uniform Act of 1970"**
 - All federal, state, and local governments must comply.
 - Requires an offer for just compensation.
 - Project proposal requires approximately 1.7 acres of new permanent right-of-way.



34

Submit Public Comments

- **Submit public comments using the options described in the first page of the information packet:**
 - Public Comment Form
 - Via e-mail (cjc@trovergoup.com or thollandsworth@indot.in.gov)
 - Participating during the public comment session via microphone
 - Note that verbal comments will be recorded and transcribed for inclusion into the public hearing transcript.
- **INDOT respectfully requests comments be submitted by Thursday, November 6, 2020.**
- All comments submitted will become part of the public record, and they will be entered into a transcript, reviewed, evaluated, and given full consideration during the decision-making process.

35

Next Steps

- **Public and project stakeholder input**
 - Submit comments via options described in the project handout.
- **INDOT review and evaluation**
 - All comments are given full consideration during the decision-making process.
 - Address comments, finalize and approve the environmental document, and complete the project design.
- **Communicate a decision**
 - INDOT will notify project stakeholders of the decision.
 - Work through local media, social media outlets; paid legal notice.
 - Make project documents accessible via repositories.
- **Questions? Contact the Public Involvement Team.**

36

Project Resource Locations

- **Lake County Public Library, Merrillville Branch**
1919 W. 81st Ave., Merrillville, IN 46410
Phone: (219) 769-35421

Visit the project web page: <https://www.in.gov/indot/4090.htm>

Transportation Services Call Center

Provides citizens and business customers with a single point of contact to request transportation services, obtain information, or provide feedback through multiple channels of communication.

855-463-6848 • INDOT4U.com • INDOT@indot.in.gov



855-463-6848



Next Level
INDIANA

37

Public Comment Session

- **Please visit with INDOT project officials following the public comment session.**
- **Project Open House**
 - Project maps, displays, real estate acquisition table, INDOT project team, and informal Q & A
 - INDOT LaPorte District page: <http://www.in.gov/indot/4090.htm>
 - INDOT LaPorte District Facebook page: <https://www.facebook.com/INDOTNorthwest/>
 - LaPorteDistrictCommunications@indot.in.gov

38