

Attachment C:

Resource Agency Coordination

EA Distribution List

Agency Coordination List	Contact for EA review	Email
Indiana Geological and Water Survey (IGWS) Director & State Geologist	Todd Thompson	tthomps@indiana.edu
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IDEM, Section Chief Wetlands and Stormwater Programs	Jay Turner	JTurner2@idem.in.gov rbraun@idem.in.gov
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United States Army Corps of Engineers (USACE) Detroit District	Aaron Damrill	Aaron.W.Damrill@usace.army.mil ; Regadmin.LRE_RegAdmin@usace.army.mil
United States Environmental Protection Agency (USEPA) Sole Source Aquifer Coordinator	Valerie Bosscher, Victoria Heather	bosscher.valerie@epa.gov ; Heath.Victoria@epa.gov
USEPA Chief NEPA Implementation Section USEPA Region 5	Elizabeth Pelloso, Kenneth Westlake	Pelloso.Elizabeth@epa.gov ; westlake.kenneth@epa.gov
Federal Highway Administration (FHWA)	Michelle Allen, Kari Carmany-George	michelle.allen@dot.gov ; k.carmanygeorge@dot.gov
INDOT Central Office Environmental Services Division	Anthony Ross, Terri Fair	aross3@indot.in.gov ; tfair@indot.in.gov
INDOT Fort Wayne District	Arianna Gill	agill@indot.in.gov

From: [Vachet, Wendy](#)
To: [tthomps@indiana.edu](#); [ATurnbow@idem.IN.gov](#); [JTurner2@idem.in.gov](#); [rbraun@idem.in.gov](#); [cstanifer@dnr.in.gov](#); [elizabeth_mccloskey@fws.gov](#); [Aaron.W.Damrill@usace.army.mil](#); [RegAdmin.LRE_RegAdmin@usace.army.mil](#); [Bosscher, Valerie](#); [Heath, Victoria](#); ["pellosa.elizabeth@epa.gov"](#); [Westlake, Kenneth](#); [Papadakis, Arianna](#)
Cc: [Carmany-George, Karstin \(FHWA\)](#); [Fair, Terri](#); [Ross, Anthony](#); [Allen, Michelle \(FHWA\)](#); [Jack, Laura](#); [Boltz, Charles](#)
Subject: INDOT Des No 1801933 E. Hively Avenue Grade Separation Project: draft Environmental Assessment for Agency Review and Comment
Date: Tuesday, August 16, 2022 3:12:24 PM
Attachments: [image001.png](#)
[image002.png](#)

Greetings,

The Indiana Department of Transportation (INDOT) and the City of Elkhart, Indiana (Elkhart), under the INDOT Local Trax Grant Program, initiated engineering and environmental studies to evaluate potential improvements associated with the at-grade crossing of East Hively Avenue and Norfolk and Southern's rail line in Elkhart (in the vicinity of Main Street and Sterling/Hammond Avenue). A city-funded feasibility study was completed in 2017 and served as the basis for the grant request. Michael Baker initiated environmental coordination via Early Coordination Letter (ECL) and prepared an Engineer's Report in 2019. In October 2020, two Public Information Meetings (PIMs) were conducted; one virtual and one in person. A third PIM was held in August of 2021.

- Public Information #1 (Virtual) October 2020: 55 people attended
- Public Information #2 (In-Person) October 2020: 67 people attended
- Public Information #3 (In-Person) August 2021: 80 people attended

Based on preliminary impacts, including property impacts, and potential community and environmental justice impacts, the level of environmental documentation was elevated to an Environmental Assessment. The draft Environmental Assessment was published on June 30, 2022. The repository locations included Zion Missionary Church (located in the Project Study Area on E. Hively Avenue) and the City of Elkhart Street Department. All pertinent documentation is also posted on the City of Elkhart's website. The public hearing was held on July 14, 2022 and approximately 82 people attended. Twelve (12) public hearing comments, eight (8) verbal and four (4) written, were received during the public comment period.

The MOT Section of the draft Environmental Assessment was updated after it was released for Public Involvement. The MOT sequencing went from three phases to four phases. This information was presented at the public hearing.

The draft Environmental Assessment is available for your review and comment. The draft Environmental Assessment (Environmental Document) is available on the City of Elkhart's website at:

<https://elkhartindiana.org/government/street-department/hively-overpass/>. The draft EA is broken into four separate links to accommodate file size/download speeds.

EA documentation is listed as Environmental Document

Please follow this link for more information: [Legal Notice of Public Hearing](#)

For additional details, please follow the link to these supporting documents:

[INDOT Hively Avenue Road Plans](#)

[Environmental Document](#)

[Environmental Document](#)

[Environmental Document](#)

[Environmental Document](#)

The public hearing presentation is also available and listed as Public Hearing Final Report [feedback that was shared at the hearing](#):

[Public Hearing Final Report](#)

The project study team respectfully requests your questions and comments no later September 18, 2022. If you have any challenges or issues downloading the pertinent documents, or require additional information, please contact me directly. My contact information is provided below. We appreciate your time and attention to this important project.

Thank you and sincerely,

Wendy L. Vachet, AICP

Regional Environmental and Planning Manager

Michael Baker International, Inc.

[757 630-2430 Cell](tel:7576302430)

wendy.vachet@mbakerintl.com



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Eric J. Holcomb
Governor

Brian C. Rockensuess
Commissioner

August 30, 2022

Michael Baker International
Attention: Laura Jack
3815 River Crossing Parkway, Suite 120
Indianapolis, IN 46240

Dear Laura Jack:

Re: Wellhead Protection Area
Proximity Determination
Des No 1801933
East Hively Avenue and Norfolk Southern
Railroad Grade Separation
Elkhart County, Indiana

Upon review of the above referenced project site, it has been determined that the proposed project area **is not located within** a Wellhead Protection Area. However, the proposed project area **is located within 40 feet** of a Wellhead Protection Area. If the contact information is needed for the WHPA, please contact the reference located at the bottom of the letter for the appropriate information. The information is accurate to the best of our knowledge; however, there are in some cases a few factors that could impact the accuracy of this determination. Some Wellhead Protection Area Delineations have not been submitted, and many have not been approved by this office. In these cases, we use a 3,000-foot fixed radius buffer to make the proximity determination. To find the status of a Public Water Supply System's (PWSS's) Wellhead Protection Area Delineation please visit our tracking database at <http://www.in.gov/idem/cleanwater/2456.htm> and scroll to the bottom of the page.

The project area **is not located within** a Source Water Assessment Area for a PWSS's surface water intake. The Source Water Assessment Area relates to the surface water drainage area that water could potentially flow and influence water quality for a PWSS's source of drinking water.

In the future, **please consider using this self-service tool** if it suits your needs. The Drinking Water Branch has a self-service tool which allows one to determine wellhead proximity without submitting the application form. Go to <https://www.in.gov/idem/cleanwater/pages/wellhead/> and use the instructions at the bottom of the page.



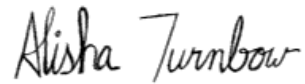
A State that Works

Please Reduce, Reuse, Recycle

Laura Jack
Page 2

If you have any additional questions, please feel free to contact me at the address above or at 317-233-9158 and aturnbow@idem.in.gov.

Sincerely,

A handwritten signature in black ink that reads "Alisha Turnbow". The signature is written in a cursive, flowing style.

Alisha Turnbow,
Environmental Manager
Ground Water Section
Drinking Water Branch
Office of Water Quality

From: [Turnbow, Alisha](#)
To: [Vachet, Wendy](#)
Cc: [Carmany-George, Karstin \(FHWA\)](#); [Fair, Terri](#); [Ross, Anthony](#); [Allen, Michelle \(FHWA\)](#); [Jack, Laura](#); [Boltz, Charles](#); laura.kolo@coei.org
Subject: EXTERNAL: RE: INDOT Des No 1801933 E. Hively Avenue Grade Separation Project: draft Environmental Assessment for Agency Review and Comment
Date: Tuesday, August 30, 2022 6:36:10 PM
Attachments: [image002.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[image006.png](#)
[image007.png](#)
[image008.png](#)
[Proximity to WPA \(1801933\)2.pdf](#)

Hi Wendy,

I have attached an updated response to the proximity request for Des No 1801933.

Des No 1801933 is within 40 feet of Elkhart Public Works and Utilities' Wellhead Protection Area. The contact for Elkhart Public Works and Utilities is Laura Kolo and they can be reached at laura.kolo@coei.org and 574-293-2572.

Let me know what questions you have.

Sincerely,



Alisha Turnbow
Environmental Manager
Office of Water Quality
Drinking Water Branch, Groundwater Section
(317) 233-9158 • aturnbow@idem.IN.gov

Indiana Department of Environmental Management



IDEM values your feedback.

Please take two minutes and complete this brief survey.



State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

DNR #: ER-21570-1

Request Received: August 16, 2022

Requestor: Michael Baker International
Wendy Vachet
3815 River Crossing Parkway, Suite 20
Indianapolis, IN 46240

Project: East Hively Avenue Grade Separation Project, Draft EA: construction of a new bridge over Norfolk Southern Railroad, Main Street, and Hammond Ave., City of Elkhart; Local TRAX, Des #1801933

County/Site info: Elkhart

The Indiana Department of Natural Resources has reviewed the above referenced project per your request. Our agency offers the following comments for your information and in accordance with the National Environmental Policy Act of 1969.

If our agency has regulatory jurisdiction over the project, the recommendations contained in this letter may become requirements of any permit issued. If we do not have permitting authority, all recommendations are voluntary.

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, unless it qualifies for a bridge exemption (see enclosure) or qualifies under the INDOT and IDNR Memorandum of Understanding for Maintenance Activity Exemption, dated March 1997. Please include a copy of this letter with the permit application, if required.

Natural Heritage Database: The Natural Heritage Program's data have been checked. To date, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur in the project vicinity. However, the Elkhart Environmental Center is located within 1/2 mile of the project area.

Fish & Wildlife Comments: Due to the presence or potential presence of wetland habitat near the project site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetland habitat should be mitigated at the appropriate ratio according to the 1991 INDOT/IDNR/USFWS Memorandum of Understanding.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:

1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.
2. Minimize and contain within the project limits all tree and brush clearing.
3. Do not cut any trees suitable for Indiana bat or Northern Long-eared bat roosting (greater than 5 inches dbh, living or dead, with loose hanging bark, or with cracks, crevices, or cavities) from April 1 through September 30.
4. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the waterbody or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
5. Seed and protect all disturbed streambanks and slopes not protected by other methods that are 3:1 or steeper with erosion control blankets that are heavy-duty,

Attachments: A - Bridge Exemption Criteria

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife
Early Coordination/Environmental Assessment

biodegradable, and net free or that use loose-woven / Leno-woven netting to minimize the entrapment and snaring of small-bodied wildlife such as snakes and turtles (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

6. Plant five trees, 1 inch to 2 inches in diameter-at-breast height, for each tree which is removed that is 10 inches or greater in diameter-at-breast height.

Contact Staff:

Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife
Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer

Date: September 14, 2022

Christie L. Stanifer
Environ. Coordinator
Division of Fish and Wildlife

Attachments: A - Bridge Exemption Criteria

The Flood Control Act (IC 14-28-1) contains a provision (Section 22), which exempts certain bridge projects from its permitting requirement. Specifically, the Act states:

A permit is not required for "a construction or reconstruction project on a state or county highway bridge in a rural area that crosses a stream having an upstream drainage area of not more than fifty (50) square miles..."

Therefore, in order for a bridge project to be exempt, it must:

- be a state or county highway department project;
- be a bridge;
- be located in a rural area; and
- cross a stream having an upstream drainage area of less than 50 square miles.

The initial criterion is very specific - the structure must be a state or county highway department project.

The second requirement mandates that the project be a bridge (for this provision, the Department of Natural Resources considers a culvert to be a bridge). Projects such as bank protection, spoil disposal, borrow pits, etc. are not automatically exempt. Anyone proposing to undertake a non-bridge related activity should consult with the Division of Water's Technical Services Section staff at 317-232-4160 (or toll free at 1-877-928-3755) regarding the applicability of the exemption prior to initiating work.

The third criterion states that the project must be located in a rural area. The phrase "rural area" is defined as an area:

- where the lowest floor elevation, including a basement, of any residential, commercial, or industrial building impacted by the project is at least 2 feet above the 100 year flood elevation with the project in place;
- located outside the corporate boundaries of a consolidated or an incorporated city or town; and
- located outside of the territorial authority for comprehensive planning (generally, a 2 mile planning buffer around a city or town).

The final criterion limits the exemption to a project crossing a stream having an upstream drainage area of less than 50 square miles. The drainage area includes all land area contributing to runoff above the project site and is determined from the United States Geological Survey 7½ minute series quadrangle maps. The Department of Natural Resources will determine the drainage area upon written request.

This exemption has been grossly misunderstood and liberally applied in the past. As a result, the Department of Natural Resources is taking a firm stance on future violations. If challenged, it will be the responsibility of the person claiming the exemption to prove to the Department that all 4 criteria have been satisfied. Failure to do so will result in the Department initiating litigation with the potential for the imposition of fines in amounts up to \$10,000 per day.

Note: This exemption only applies to the Flood Control Act. If a bridge is to be constructed over a navigable waterway, or over or near a public freshwater lake, a permit will be required.

Jack, Laura

From: Heath, Victoria <Heath.Victoria@epa.gov>
Sent: Wednesday, November 23, 2022 1:29 PM
To: Peyton, James; Jack, Laura; Vachet, Wendy
Cc: Bosscher, Valerie; Blazey, Samuel
Subject: EXTERNAL: INDOT Des No 1801933 E. Hively Avenue Grade Separation Project: draft Environmental Assessment for Agency Review and Comment

Follow Up Flag: Follow up
Flag Status: Flagged

Good afternoon Sole Source Aquifer Project Review Proponents,

This message is in response to your email sent on August 16, 2022 regarding the INDOT Des No 1801933 E. Hively Avenue Grade Separation Project in Elkhart, Indiana (original corresponds from May 23, 2019) funded by DOT and taking place in the area of the St Joseph Sole Source Aquifer (SSA).

Page 23 of CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM (Draft EA) indicates that the SSA review is not complete until the review of the Phase II Environmental Site Assessment (ESA) is complete (aka the Final EA). EPA Region 5 has completed review of the Phase II ESA and public comment period notes. Below is a summary of our past and new recommendations / comments to be incorporated into construction plans in regards to the Sole Source Aquifer federally funded project review process.

Project Location: E. Hively Avenue Grade Separation Project in Elkhart, Indiana

Description: Grade separation of E. Hively Avenue (also referred to as Hively Avenue) over the Norfolk Southern Railroad, South (S.) Main Street (also referred to as Main Street), and Hammond Avenue. The west terminus is 0.01 mile west of Burr Oak Avenue that extends approximately 0.57 mile to the east terminus approximately 0.02 west of Clayton Avenue.

Please see the following SSA Project Review Recommendations summary.

- Hydrology:** The St Joseph SSA is composed of surficial sand and gravel above a moderately thick (20 to 100 feet) clay/glacial till zone which is underlain by a sand and gravel aquifer that is extensively used by industrial and municipal wells. The aquifer is moderately susceptible to groundwater contamination. The soil in the area of construction is considered to be a fine sand which transitions to a coarse sand. Excavation is not expected to take place in the water-bearing zone (with the exception of deep piles). Contractors and engineers should be made aware that the area where work is to be performed overlies a federally recognized Sole Source Aquifer. Project specific water table information indicates that for the majority of construction, the that the water bearing zone is not likely to be penetrated. However, in an April 2021 email exchange with Juliet Port, its identified that based in a Feb 8th memo, there will be 50-85 foot pile foundations; EPA highlighted that Pile installation should be designed to limit potential for introduction (during installation) or migration (via preferential pathway if not adequately sealed around the piles) of any contaminants.
- Project Description:** The SSA Review of this project is based on the given scope of work. Should amendments to scope of work be made that change the interpretation and recommendations made here in the SSA review, please bring this to our attention so that the review can be amended as needed.
 - Any excavation requiring to be filled is to be done so with clean fill per all applicable local and state requirements. This is especially true for areas identified to have contamination present (i.e. Arsenic).

- While excavation may not always be expected to encounter the water table, sometimes deeper excavation occurs unintentionally, or the water table is present at a higher level than previously expected. In either case, contingency plans should be in place so that the project engineer and all relevant officials are made aware that contact with groundwater was made and take the proper dewatering steps that may be needed (keeping in mind that the excavation is now a conduit for pollution to the aquifer). Precautions should be taken when dewatering is conducted (e.g. to control any contaminants in the storm/groundwater prior to discharge).
 - Again, based on our understanding of the 50-85 foot pile foundations, EPA highlighted in a Feb 8th 2021 memo that Pile installation should be designed to limit potential for introduction (during installation) or migration (via preferential pathway if not adequately sealed around the piles) of any contaminants. We recommend the INDOT Geotechnical Services Division be made aware of the Sole Source Aquifer Status of the area before approval of the pile construction plans/methods.
3. **Known Wells:** Although this is not in a Well Head Protection of Source Water Protection Area, there are Private Wells present per this site ([Water Well Viewer \(arcgis.com\)](http://WaterWellViewer.arcgis.com)). The purpose of identifying mapped (and potentially unmapped) wells is to physically locate wells within the project boundary so that trucks/equipment don't damage the wells and so that contractors are aware of the potential conduits for contamination to the aquifer. The purpose is also to inspect wells both inside of and near the project boundary (within 0.25 miles) before, during, and after demolition to be sure that no unintended disturbance was caused. As part of an April 2021 email exchange with Juliet Port, EPA understands that the following recommendations have been adopted into the project: Any wells in close proximity to the project will be either properly abandoned or protected to avoid disturbance or contamination. It is anticipated that three to six wells will be abandoned, based on the current proposed relocations. The exact number will be determined during the right-of-way acquisition phase of the project. This occurs following Federal Highway Administration (FHWA) approval of the final NEPA document, which is when the preferred alternative is selected. The recommendations provided for well closure will be incorporated into the draft NEPA document including the Commitments section to ensure the wells are properly protected and closed.
4. **Hazardous sites:** We understand a gas station near the center of the construction area is undergoing proper closure at this time; Post-closure testing and/or monitoring should be considered in order to verify that the site will not impact the aquifer during the course of construction. The railroad corridor has had many different industries present over time (foundries, coal cleaning facilities, dry cleaners, and more). The original number of recommended sampling locations was 20. The Phase II SOW consisted of advancing nineteen (19) direct-push soil borings (Figure 2-1) to a maximum depth of 10 feet below ground surface. Sampling was conducted at these specific areas for local conditions which resulted in Arsenic detections near previous coal staging areas; as a result any excavation taking place in these areas will have the soil removed and properly disposed of and the soil will be replaced with clean fill material. Some slag contamination was found but concentrations fell within the guidance levels. A protective approach might be to dispose of any slag contaminated excavation soil as well and also replace it with clean fill material, considering the sensitive nature of the SSA. Contractors working on excavation should be made aware of the location of all hazardous material sites in case foul odors or oil sheens are encountered during construction. Contingency plans should be created to handle such situations should they be encountered. Based on our search using [EnviroAtlas \(epa.gov\)](http://EnviroAtlas.epa.gov) there are several active and inactive RCRA sites within the construction area, all of which had sample bore holes near them sufficing to address recommendations to sample near such areas.

In terms of excavation in these areas, the project should include measures to prevent creating new preferential pathways down to the aquifer, particularly where probable or known soil/groundwater contamination exists. Geotechnical soil sampling may be useful (e.g., to avoid puncturing clay layers that act as a barrier to vertical migration) especially where piles will be located.

5. **Presence of Wetlands:** Contractors and engineers should know the location of wetlands near the project area so that disturbances and contaminations can be avoided. Wetlands can act as a conduit for pollutants to reach the

water table. These areas should be avoided when staging for construction and should not be used for the temporary storage of any chemicals or fuels during the construction period. Although there are no nationally recognized wetlands in or near the construction area, there is an indication that a potential for wetland conditions could be present near the construction area (mainly on the West side of the railroad tracks). This is based on data retrieved from the website here ([EnviroAtlas \(epa.gov\)](http://EnviroAtlas.epa.gov)). Because of this, contractors should be prepared to encounter wetland conditions as a precaution; this may include identifying emergency dewatering equipment and being sure that procedural plans are in place in the event that dewatering is needed. Contractors should also aim to place construction staging areas outside of potential wetland zones; please consider the wetland maps available via the website above and incorporate this into site planning.

6. **Storm Water Management:** Storm Water sewers are separate from waste water sewers; storm drains go to their own sewer which then deposits directly to the River. The project proponent indicated that stormwater will be managed during construction by use of silt fence and inlet protection; check dams and sediment traps will be used in ditches and no stormwater quality treatments are proposed after construction. It is important to incorporate the routine inspection of storm water management systems including: trenches, silt fence, riprap, stone (gravel), hardware wire, sod, concrete blocks, sediment logs, straw/hay bales, swales, ditch lines, yard inlets, wire mesh, catch basins, or other mechanisms. Contractors should be instructed to inspect that the components of the stormwater management system are functioning appropriately each day of work. This includes damaged materials replacement, silt fence perimeter checks, silt fence drain cover cleaning, and debris removal as needed.

Because the groundwater in this area is susceptible to contamination, it's important to consider long-term stormwater management as well. Storm Water Drainage connections will be put into place to handle storm water run-off permanently. There will be some amount of new pavement. In terms of flow, it is gravity driven and the lowest elevation on the site would be near Eddy street. A slower bioswale infiltration rate is desirable. It is also important to encourage modern conservative road salting practices in areas where the detention basins collect water from highways to prevent chloride from reaching the aquifer. Town officials and long term maintenance contractors and engineers (Elkhart County) should be made aware that conservative salting practice recommendations were a part of the projects SSA Review process. In an April 2021 email exchange with Juliet Port, EPA recommended the following so as to minimize potential for pollution to enter groundwater from Road Salt:

- [EPA's Managing Highway Deicing to Prevent Contamination of Drinking Water \(2002\)](#) – for example, encouraging training of the DOT/local deicing personnel regarding the sensitive groundwater and potential for infiltration via the basins.
 - [De-icers that are safer for the environment](#), from EPA's Safer Choice
 - Additional EPA guidance [Application Practices](#) (1974)
 - The Northwest Water Planning Alliance's [sensible salting website](#)
 - The Minnesota Pollution Control Agency's [smart-salting website](#) and,
 - The US DOT FHA [list of references](#) regarding salting
7. **Waste Management:** Demolition and/or construction waste is to be removed from the site in compliance with relevant federal, state, and local law (i.e. legal disposal). EPA expects that this will suffice for aquifer protection based on our current understanding of the project.
 8. **Chemical use/storage:** The project proponent indicated that in terms of chemical use and storage, it will be the responsibility of the contractor to maintain anything used during construction. Because of this, it will be the responsibility of the project proponent to clearly explain the SSA circumstances of the site and include all detailed recommendations from our review into the projects siting plans and otherwise contractor maintained materials and procedures. It's important to incorporate accidental fuel/chemical release response plans into your work so that potential spills can be managed effectively in the case of an emergency. Chemicals, generators, and fuels should not be stored over potential wetlands or known areas to be vulnerable or near conduits to the aquifer. Fuel should be contained in a double walled container and placed on top of a concrete

or otherwise protective spill pad as a 3rd layer of spill prevention. Recall that the contractor must avoid placing fueling, staging and wash-out areas within the eastern residential area whenever possible. Furthermore, these activities must be covered in the SPCC Plan under IDEM's Rule 5 Permit, and BMPs including secondary containment and routine inspections will be required. The project's Material Handling and Spill Prevention Control plan (required per Section 205 of INDOT Standard Specifications) will require secondary containment for fuel storage tanks. The plan is required as part of the Rule 5 Erosion Control Permit issued by the Indiana Department of Environmental Management (IDEM). In accordance with INDOT Standard Specifications, contractors are required to abide by Indiana rules and regulations, including secondary containment (summarized here: https://www.in.gov/idem/cleanwater/files/ast_secondary_containment_guidance.pdf). This comment will be incorporated into the NEPA document including project Commitments.

9. **Environmental Impact Statement(s):** Phase I & Phase II Environmental Site Assessments (ESA) were completed for this project and reviewed as part of our SSA review process. Note that review of any additional documentation re the ESAs will not "re-open" our SSA review unless additional project information is presented which significantly changes our understanding of the project on which our recommendations/review were based. Important BMP's within the ESAs are highlighted within this summary as part of the SSA review.
10. **Citizen Concerns of Inquiry:** This work is taking place completely within a residential area. We understand this project takes place in an Environmental Justice (EJ) Community. The SSA review process aims to minimize the impact to the aquifer and therefore minimize the impact to the public that the aquifer serves. Impacts to the aquifer should be minimized through the BMP's outlined in this review summary, ideally lessening the burden on this EJ community.

In October 2020, two Public Information Meetings (PIMs) were conducted; one virtual and one in person. A third PIM was held in August of 2021. Based on preliminary impacts, including property impacts, and potential community and environmental justice impacts, the level of environmental documentation was elevated to an Environmental Assessment (public hearing was held on July 14, 2022). Notes from these public meetings were reviewed as a part of this SSA process. Please continue to provide any relevant public inquiry regarding the environmental or aquifer impacts of this project; note that review of additional Citizen Concerns would not necessarily "re-open" our SSA review unless additional project information is presented which significantly changes our understanding of the project on which our recommendations/review were based.

Based on the project proponent's response to questions, EPA's review of the materials provided, and understanding that the review points highlighted above are or will be incorporated into the project plans EPA determines that this project is not likely to contaminate the St Joseph SSA.

As discussed, EPA suggests that during the course of the work, appropriate safeguards and BMPs are in place to ensure that local ground water supplies and neighboring drinking water wells are not endangered. Again, such precautions should include notifying general contractors that the site is sensitive, using green-infrastructure practices where possible to reduce potential impacts of stormwater run-off, securing adequate precautions for fueling/servicing large equipment, and developing contingency plans to handle the release of any hazardous materials.

We appreciate the information provided and understand that these BMPs are going to be incorporated into the project. If any of the BMPs cannot be incorporated into the project, we ask that you please let us know at that time; essentially if the terms on which SSA project approval was given cannot be met. Thanks in advance for keeping this in mind as the project progresses. Let us know if any questions arise from you or your team and again, at this time, the project is deemed not likely to contaminate the St Joseph SSA.

Victoria Heath
Environmental Engineer | Wisconsin State Program Manager
US EPA | R5 | WD | Ground Water & Drinking Water Branch
77 West Jackson Boulevard, 15-076 , Chicago, IL 60604
Heath.Victoria@epa.gov
(312) 886-0703

Attachment D:

EJ Burdens & Benefits Analysis

Figure 27, Project benefits, updated since EA is noted with an *



Hively Avenue Overpass Project Environmental Justice Burdens & Benefits Analysis

Updated August 12, 2022

Prepared for:
City of Elkhart
&
Indiana Department of Transportation

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Figure 27, Project benefits, updated since EA is noted with an *

Acronyms and Abbreviations

AC	- Affected Community
ADA	- Americans with Disabilities Act
ADT	- Average Daily Traffic
CEQ	- Council on Environmental Quality
COC	- Community of Comparison
CR	- County Road
CSRS	- Conceptual Stage Relocation Study
Des.	- Designation
DVRPC	- Delaware Valley Regional Planning Commission
HUD	- U.S. Department of Housing and Urban Development
IPD	- Indicators of Potential Disadvantage
EJ	- Environmental Justice
EO	- Executive Order
EPA	- EPA
FAST	- Fixing America's Surface Transportation Act
FHWA	- Federal Highway Administration
FY	- Fiscal Year
HHS	- Department of Health and Human Services
INDOT	- Indiana Department of Transportation
KTM	- Kitchen Table Meeting
LEP	- Limited English Proficiency
LPA	- Local Public Agency
L RTP	- Long Range Transportation Plan
MACOG	- Michiana Area Council of Government
MPO	- Metropolitan Planning Organization
NEPA	- National Environmental Policy Act
No.	- Number
PIP	- Public Information Plan
REC	- Recognized Environmental Condition
ROW	- Right of Way
RR	- Railroad
SFY	- State Fiscal Year
STIP	- State Transportation Improvement Program
TIP	- Transportation Improvement Program
USDOT	- U.S. Department of Transportation

Purpose of Environmental Justice Burdens & Benefits Analysis

Executive Order (EO) 12898: Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations (59 FR 7629; 1994) directs each Federal agency to develop a strategy for identifying and addressing disproportionately high and adverse human health or environmental effects on low-income populations and minority populations. The guidance advises the Federal Highway Administration (FHWA) to address EJ during the National Environmental Policy Act (NEPA) review, including documentation. It supplements the FHWA Technical Advisory 6640.8A, which provides guidance for documenting the potential social, economic, and environmental impacts considered in the selection and implementation of highway projects.

As part of the NEPA review of the Hively Avenue Overpass Project (the Project), a review of Environmental Justice (EJ) populations of minority and low-income was conducted within the Study Area. EJ populations were identified within the Study Area, therefore requiring EJ analysis to be conducted.

FHWA advances EJ through its numerous policies, programs, and activities. It is FHWA's policy to identify and prevent discriminatory effects by actively administering its programs, policies, and activities to ensure that social impacts to communities and people are recognized early and continually throughout the transportation decision-making process from early planning through implementation and operations.

The purpose of this analysis is to determine if EJ populations will receive an equitable distribution of benefits and burdens associated with the Project. Should this not be the case, the Project team will investigate and identify options to mitigate disproportionately high and adverse effects borne by EJ populations.

(https://www.environment.fhwa.dot.gov/env_topics/ej/guidance_ejustice-nepa.aspx).

Definition and Guiding Principles of Burdens and Benefits Analysis

EJ Definitions

The U.S. Environmental Protection Agency (EPA) Office of EJ defines EJ as "The fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies." "Fair treatment" means that "No group of people, including racial, ethnic, or socio-economic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies."

FHWA carries out its EJ responsibilities through the U.S. Department of Transportation (USDOT) EJ Order 5610.2(a) and the FHWA EJ Order 6640.23A. These orders define EJ populations and the measures of effect to these populations in the text that follows.¹

Minority

A "minority" individual is a person who identifies with one or more of the following categories:

- (1) Black: a person having origins in any of the black racial groups of Africa;

¹ USDOT Federal Highway Administration. *Federal Highway Administration: Environmental Justice Reference Guide*. April 1, 2015. Pages 10-11.

- (2) Hispanic or Latino: a person of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race;
- (3) Asian American: a person having origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent;
- (4) American Indian and Alaskan Native: a person having origins in any of the original people of North America, South America (including Central America), and who maintains cultural identification through tribal affiliation or community recognition; or
- (5) Native Hawaiian and Other Pacific Islander: a person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Low Income

The FHWA and USDOT EJ Orders define a “low-income” individual as a person whose median household income is at or below the Department of Health and Human Services (HHS) poverty guidelines.²

Populations

For the terms “minority” and “low-income,” the FHWA and USDOT EJ Orders define a “population” as any readily identifiable group of minority and/or low-income persons who live in geographic proximity, and, if circumstances warrant, geographically dispersed/transient persons of those groups (such as migrant workers, homeless persons, or Native Americans) who will be similarly affected by a proposed FHWA/DOT program, policy, or activity.

Adverse Effects

The FHWA and USDOT EJ Orders state that “adverse effects” means the totality of significant individual or cumulative human health or environmental effects, including interrelated social and economic effects, which may include, but are not limited to: bodily impairment, infirmity, illness, or death; air, noise, and water pollution and soil contamination; destruction or disruption of human-made or natural resources; destruction or diminution of aesthetic values; destruction or disruption of community cohesion or a community’s economic vitality; destruction or disruption of the availability of public and private facilities and services; vibration; adverse employment effects; displacement of persons, businesses, farms, or nonprofit organizations; increased traffic congestion, isolation, exclusion, or separation of minority or low-income individuals within a given community or from the broader community; and, the denial of, reduction in, or significant delay in the receipt of benefits of FHWA/DOT programs, policies, or activities.

Disproportionately High and Adverse Effect

The FHWA and USDOT EJ Orders state that “disproportionately high and adverse” refers to a adverse effect that

- (1) is predominately borne by a minority population and/or a low-income population; or

² The USDOT’s use of HHS’s “poverty guidelines” differs from the Council on Environmental Quality (CEQ) guidance on EJ, which suggests the use of U.S. Census Bureau “poverty thresholds” when determining the presence of low income populations. Poverty *thresholds* are calculated each year by the Census Bureau and serve as the federal government’s official statistics on the number of people in poverty. Poverty *guidelines* are a simplified version of the federal poverty thresholds and are used for administrative purposes, such as determining financial eligibility for certain federal programs. HHS issues poverty guidelines for the year based, in part, on the Census Bureau’s poverty threshold statistics.

(2) will be suffered by the minority population and/or low-income population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the nonminority population and/or non-low-income population.

Project Introduction

Background

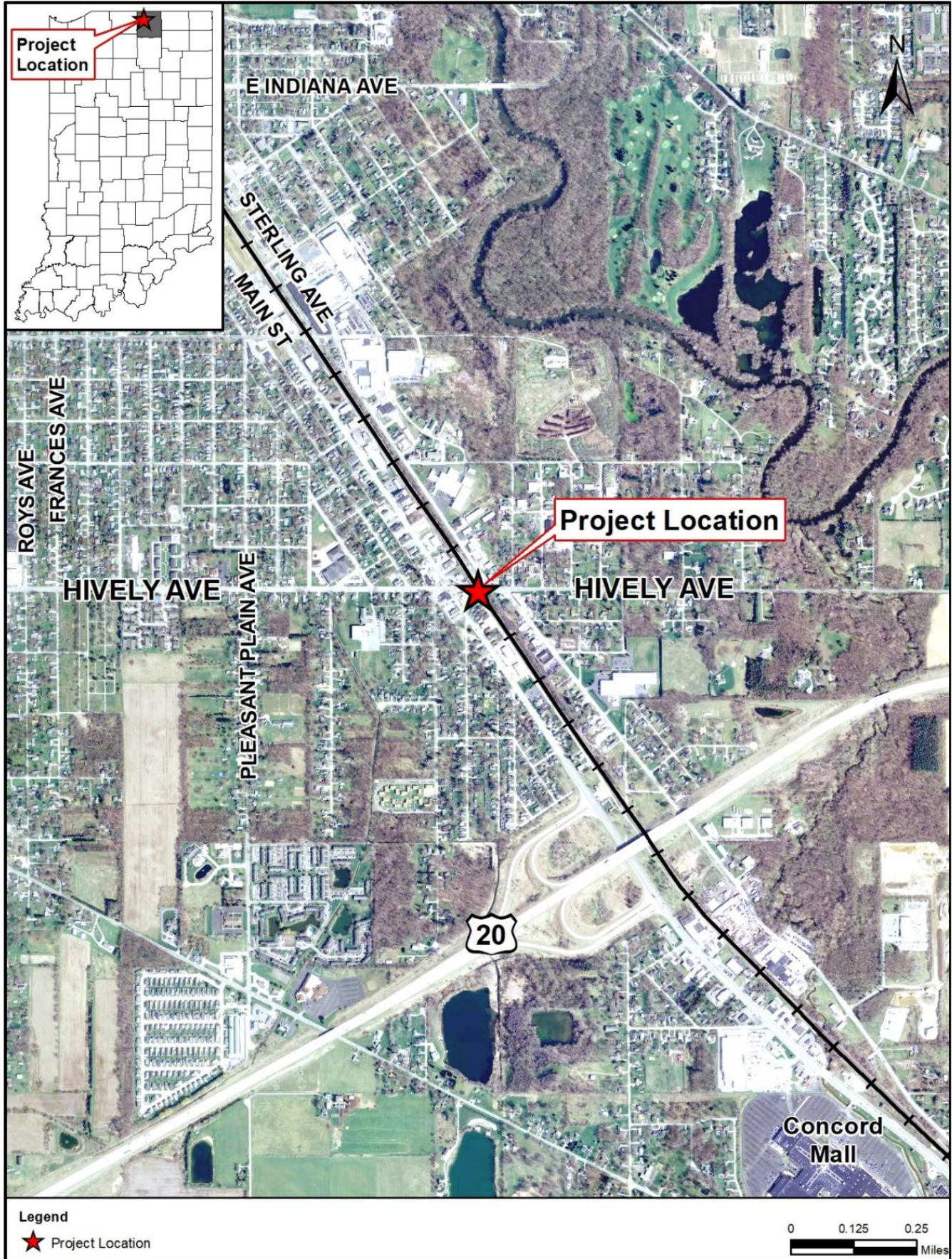
The Hively Avenue Overpass Project is part of the Indiana Department of Transportation (INDOT) Local TRAX rail overpass program. The Local TRAX program is a partnership with INDOT, local communities, businesses, industry and railroads to improve the quality of life for residents through large scale rail related transportation projects. Through the Local TRAX program, INDOT provides grants to cities, towns, and counties for grade separation, crossing closure, and other safety enhancement projects at highway-rail intersections. INDOT will fund 100% of project design fees and 80% of total project construction and right-of-way (ROW) costs. However, grant recipients are required to provide a local match of 20%; made possible through a variety of local partnerships, including funding from the host railroad.

The City of Elkhart funded a Preliminary Grade Separation Feasibility Study in 2017. The purpose of the report was to document the feasibility study phase of a grade separation of Hively Avenue at the Norfolk Southern Railway Railroad (RR) crossing (referred to as Norfolk Southern RR throughout). INDOT awarded the City of Elkhart a grant through the Local TRAX program for grade separating East (E) Hively Avenue, also referred to as Hively Avenue, and the Norfolk Southern RR crossing in Elkhart, Elkhart County, Indiana.

The Local TRAX grant was awarded in 2018. As part of the grant award, INDOT funds and manages the project development process in cooperation with the City of Elkhart. The Project team (lead by Michael Baker International) is performing preliminary engineering, environmental analysis and documentation, public outreach and engagement, final design, and ROW services. A public hearing will occur in summer 2022 with an approved environmental document to follow shortly thereafter.

The Project location map is shown in Figure 1.

Figure 1. Project Location Map



Network Area Context

Hively Avenue is a major east-west corridor connecting the west side of Elkhart to the east side of Elkhart. This roadway currently has an average daily traffic (ADT) of approximately 6,000 vehicles per day at the railroad crossing and with a 20-year horizon forecast of 10,000 at the crossing. Hively Avenue has an ADT of 9,000 vehicles per day west of the crossing, with a 20-year horizon forecast of 12,000 vehicles per day as shown in Table 1. Hively Avenue also intersects with South (S) Main Street approximately 274 feet west of the RR crossing. S Main Street runs parallel to the RR and traffic travels north into downtown Elkhart and south turning into US 33, south of US 20, and connects Elkhart to Goshen. A previous City of Elkhart project located at E Indiana Avenue created an underpass at the crossing with Norfolk Southern RR, located approximately 1.2 miles northwest of the Hively Avenue and Norfolk Southern RR crossing. The other at-grade crossings with the Norfolk Southern RR within the network include E. Lusher Avenue, Sunnyside Avenue, and County Road (CR) 13. Both Lusher Ave and CR 13 serve only local traffic.

The Norfolk Southern RR runs north and south. The Norfolk Southern rail yard is located approximately 3.8 miles northwest of Hively Avenue and Norfolk Southern RR crossing. Approximately 70-100 trains pass through the Hively Avenue crossing per day. This can cause a delay of up to 5 minutes, sometimes several time a day, when stopping for a train at the existing at-grade railroad crossing. Generally, freight movements are expected to increase, and trains continue to become longer, putting additional strain on existing transportation systems.

As a condition of the Local TRAX Program Grant Agreement, the City of Elkhart and Norfolk Southern Railway will negotiate a crossing closure. As proposed, this closure will occur at E. Lusher Avenue, however, another location could be agreed upon. Any subsequent local road (railroad crossing location on the local network) closure will be executed as a separate project with local funding per the City of Elkhart's Board of Works sometime in the future. The timing of these activities is undefined at this time. The broader network area is shown in Figure 2.

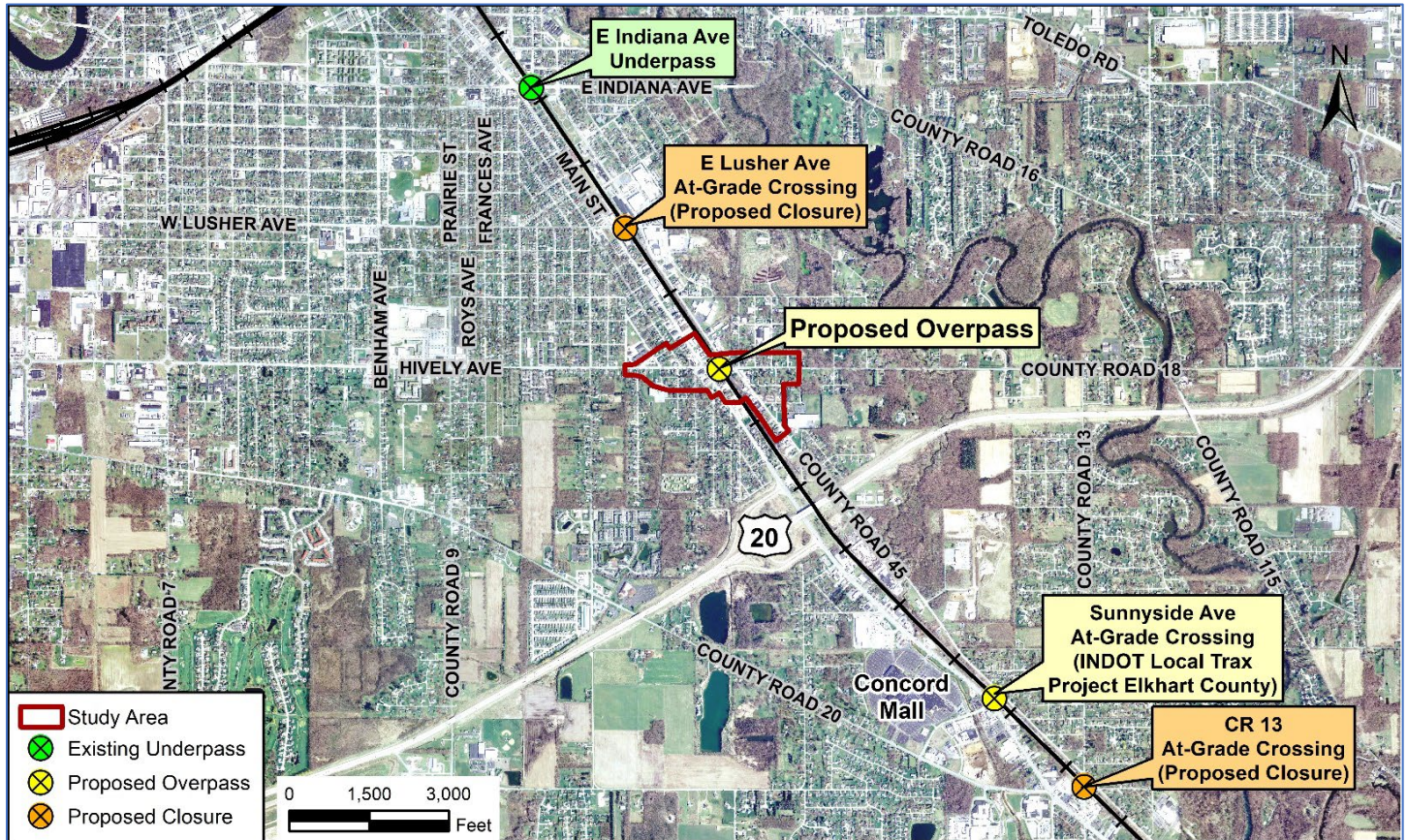
Table 1. ADT for Roadways within Study Area and associated Roadways within Network Area

Location	Current ADT (based on 2019)	Future ADT 2044 No Build	Future ADT 2044 Build
Hively Ave RR Xing	6,000	8,200	9,900 (Grade-separated)
Lusher Ave RR Xing (Network Area)	2,800	3,400	Closed*
CR 13 RR Xing (Network Area)	4,200	5,000	Closed*
Hively Ave west of Monger Ave	8,600	10,000	11,900
Main St south of Hively	14,600	16,000	17,600
Sterling Ave north of Hively	3,600	5,700	4,400
Hammond Ave south of Hively	3,600	4,300	4,300
Morton Ave north of Hively	600	600	600
Monger Ave north of Hively	300	300	900
Bismark Ave east of Main	200	200	200
Burr Oak Ave south of Hively	300	300	300
Roosevelt Ave south of Hively	300	300	1,200
Homer Ave south of Hively	800	800	---
Garden Blvd south of Main	200	200	200
Eddy St north of Hively	300	300	300

Location	Current ADT (based on 2019)	Future ADT 2044 No Build	Future ADT 2044 Build
Lowell Ave north of Hively	100	100	100
Warren St south of Hively	100	100	2,000
Dover St between Hammond and Warren	70	70	2,000
Hively Ave Connector between Hively and Main	---	---	8,500

*proposed closures as part of separate projects

Figure 2. Network Area Map



Regional and Local Planning Context

MPO

The Project is located in the City of Elkhart, Elkhart County which is part of the Michiana Area Council of Governments (MACOG) that serves as the Metropolitan Planning Organization (MPO). MACOG is responsible for producing a 20 year long-range transportation plan (LRTP) which is updated every four years. The plan, *Michiana on the Move: Transportation Plan 2045*, was adopted on October 2019. Michiana on the Move is a roadmap for implementing multimodal transportation improvements in the Michiana region through the year 2045. The regional transportation system is evaluated in order to identify and formulate the best solutions to

topic areas such as safety, congestion, highway, public transit, bike and pedestrian and multi-modal systems for the local communities.³

In 2015, the Fixing America's Surface Transportation Act (FAST Act) was signed into law by President Obama that built upon much of the former Act's (Moving Ahead for Progress in the 21st Century MAP-21) directive to address transportation infrastructure issues through performance-based planning frameworks. The FAST Act lists ten (10) Planning Factors, which MACOG took into consideration during the planning and development of the 2045 Transportation Plan. Planning factors relevant to the Project include:

- Support the economic vitality of the metropolitan area.
- Increase the safety of the transportation system for motorized and non-motorized users.
- Increase accessibility and mobility of people and freight.
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Enhance travel and tourism.

The current transportation legislation outlines seven (7) national goals for which state DOTs and transit agencies, in cooperation with MPO's should establish targets for performance measures. National goals relevant to the Project include:

- Safety - to achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- Congestion Reduction - to achieve a significant reduction in congestion on the National Highway System
- System Reliability - to improve the efficiency of the surface transportation system
- Freight Movement and Economic Vitality - to improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- Reduced Project Delivery Delays - to reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices⁴

Pedestrian Transportation

MACOG conducted a *How We Grow* survey and nearly half of people who participated identified the ability to walk, bike or take public transit to daily activities as a top reason for choosing to live in a community. Over 90% of people supported transportation investments that make streets complete and functional for all modes of transportation.⁵

³ Michiana Area Council of Governments (MACOG). *Michiana on the Move: Transportation Plan 2045*. Adopted on October 9, 2019, as confirmed in MACOG Resolution 48-19. Chapter 1, Page 2.

⁴ Michiana Area Council of Governments (MACOG). *Michiana on the Move: Transportation Plan 2045*. Adopted on October 9, 2019, as confirmed in MACOG Resolution 48-19. Chapter 5, Page 54.

⁵ Michiana Area Council of Governments (MACOG). *Michiana on the Move: Transportation Plan 2045*. Adopted on October 9, 2019, as confirmed in MACOG Resolution 48-19. Chapter 6, Page 60.

Sidewalks and accessibility sidewalks are an important component of the transportation network because no matter the destination, every trip starts and ends with pedestrian travel. Sidewalks should be connected and accessible. MACOG has worked with many Local Public Agencies (LPAs) in the region to adopt Americans with Disabilities Act (ADA) Transition Plans for the public ROW, which addresses sidewalk accessibility. The purpose of these plans is to ensure communities are creating reasonable, accessible paths of travel in the public ROW for everyone, including people with disabilities. These plans provide a schedule for communities on how they should address and improve sidewalk accessibility. As part of the plan, communities have adopted *Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way*. These guidelines suggest that whenever there is an intersection improvement project or new construction project, any affected curb ramps, sidewalks, and crosswalks will be rebuilt to these ADA design guidelines, where feasible and reasonable. MACOG has created an ADA inventory database that can be used as a guide for sidewalk improvements and a resource for creating a better pedestrian network.

Environmental Justice

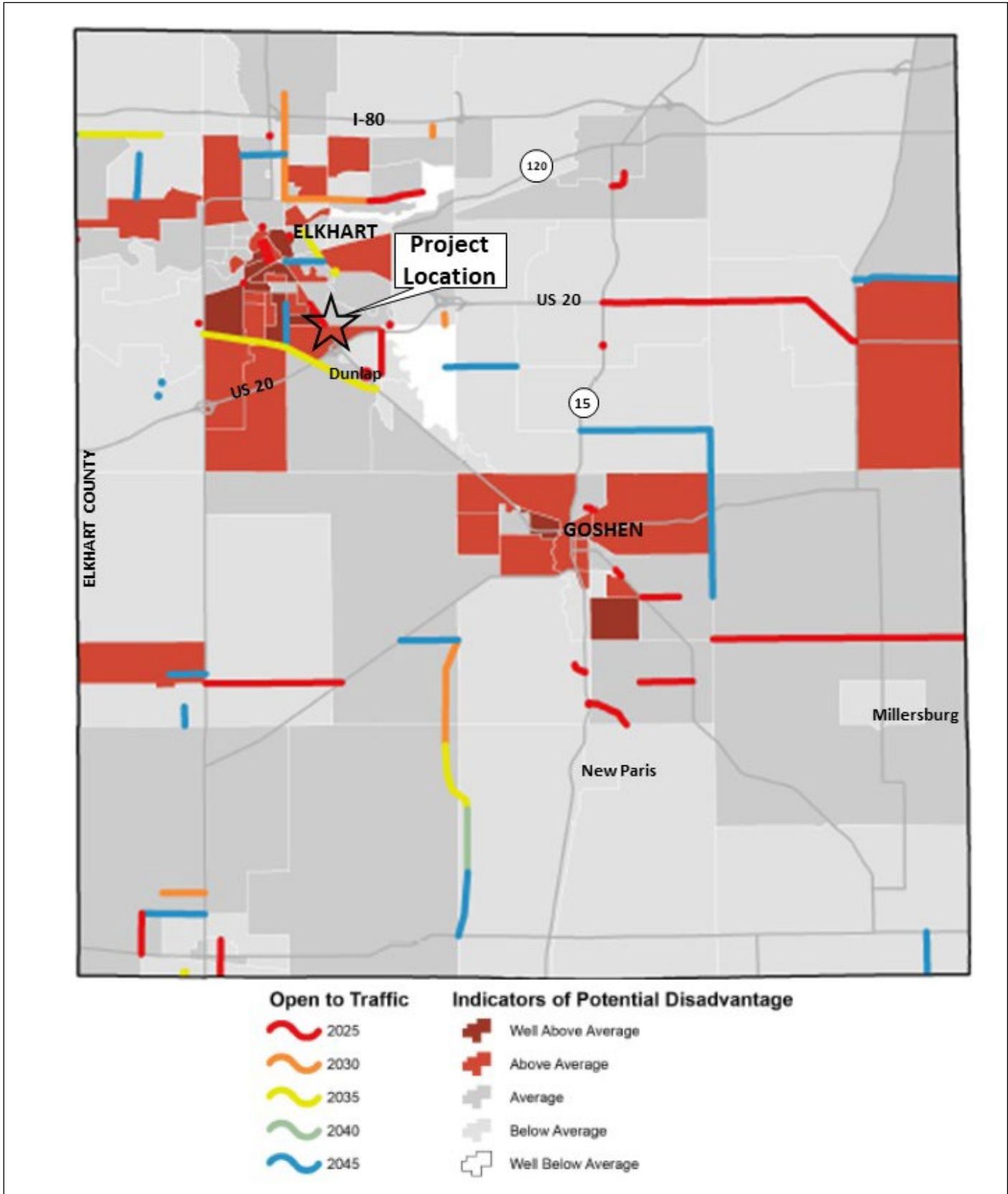
MACOG supports and models their EJ process based upon guidelines from the Delaware Valley Regional Planning Commission (DVRPC) in Pennsylvania. DVRPC developed the **Indicators of Potential Disadvantage (IPD) method**, which locates selected population groups in the region to better inform how the regional transportation system and MPO programs, policies, and investments might impact these groups. These population groups include minorities, low-income, carless households, persons with physical disabilities, elderly over age 65, Hispanic, and Limited English Proficiency (LEP).⁶

Neither Title VI, the Civil Rights Act, nor Executive Order #12898 provides specific guidance to evaluate EJ within a region's transportation planning process. Therefore, MPOs must devise their own methods for ensuring that EJ population groups and issues are represented in transportation decision-making. This is a challenging assignment, and serious consideration must be given to the available types of quantifiable data, as well as how the data is to be used and interpreted. It should be noted that while the IPD method helps ascertain population data, it is only one tool in a larger strategy involving public participation, stakeholder outreach, data sources, and other research.

The MACOG Transportation Plan identified EJ populations within Elkhart County are shown in Figure 3.

⁶ Michiana Area Council of Governments (MACOG). *Michiana on the Move: Transportation Plan 2045*. Adopted on October 9, 2019, as confirmed in MACOG Resolution 48-19. Appendix F, Page 170.

Figure 3. MACOG 2045 Transportation Plan Elkhart County Environmental Justice Map



The *Michiana on the Move: Transportation Plan 2045* can be found here:

http://www.macog.com/docs/transportation/tp/2045_TransportationPlan.pdf

Additional information about the MACOG Michiana Area Equity Analysis can be found here:

[Michiana Area Equity Analysis \(arcgis.com\)](#)

Elkhart County

The *Elkhart County Comprehensive Plan developed and adopted in 2006* by the Elkhart County Advisory Plan Commission and the Elkhart County Board of Commissioners. The plan outlines the objectives and policies for future development of Elkhart County including Goal 5, the commitment to the development of an efficient transportation network. This goal includes ensuring communities continue to achieve economic vitality, efficient movement of people and resources should be maintained. Street standards should be followed in all development to protect ROW and provide safe access to property. Road projects throughout the county should be coordinated systematically. County Highway Road construction and maintenance plans should be coordinated with those of cities and towns to build a better commuting network, maintain consistency, and add to quality of life. Alternative transportation should be encouraged and supported where safe passage can be maintained. Pedestrian and bike traffic on designated trails and sidewalks, as well as interchanges needed by horses and buggies, should be safely accommodated in transportation planning and projects.

The *Elkhart County Comprehensive Plan* is located here:

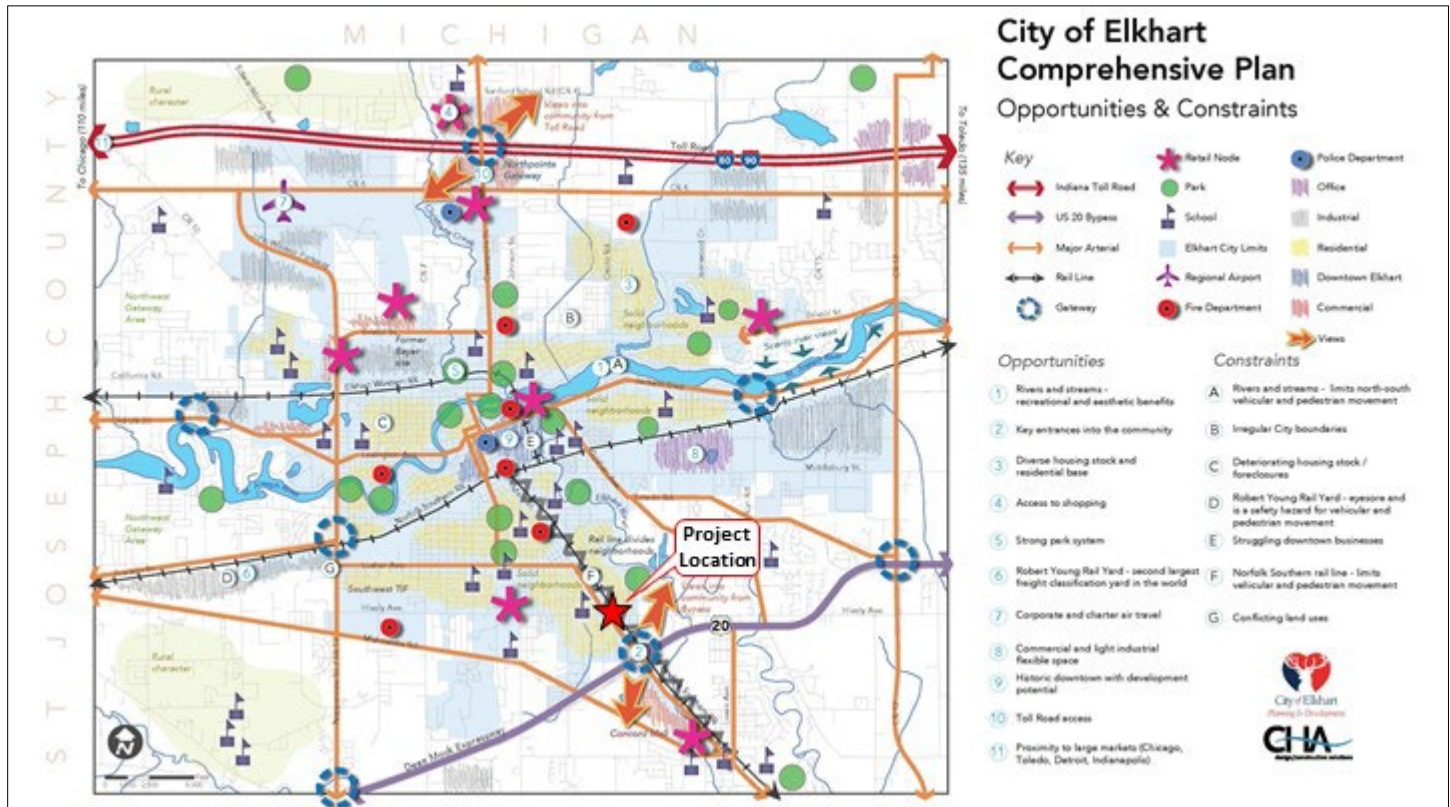
http://www.elkhartcountyplanninganddevelopment.com/doc/Planning_Webpage_files/Elkhart%20County%20Land%20Use%20Plan.pdf

Additional information can be located at the Elkhart County website: <https://elkhartcounty.com/en/> and the Elkhart County Planning and Development website: <http://elkhartcountyplanninganddevelopment.com/>.

City of Elkhart

The *City of Elkhart Comprehensive Plan adopted in 2015* by the City of Elkhart Plan Commission and City Council as required under Indiana Law. The plan serves as the basis for development and infrastructure policy related to development, redevelopment, and management of land uses. The plan identifies opportunities and constraints as shown in Figure 4.

Figure 4. City of Elkhart Comprehensive Plan Opportunities and Constraints Map



The plan also lists six goals that the City has identified to frame recommendations for their 20-year vision including a commitment to mobility and health and safety. The two goals directly relevant to the Project include the Mobility Goal and the Health and Safety Goal.

The Mobility Goal is to establish and maintain a balanced and connected system for all modes of transportation within the City and to regional networks. Mobility reinforces the importance of a transportation system that balances the needs of all potential users and the influence of transportation facilities on adjacent land uses. The recommendations to meet this goal include:

- Incorporate facilities for all modes of transportation into road resurfacing and reconstruction projects.
- Install sidewalks within all residential neighborhoods.
- Install internal sidewalk network in all new commercial, industrial, and institutional developments.
- Install multi-purpose paths along all major and minor arterials.
- Install bicycle lanes along the routes recommended by the Pedal Panel.
- Link all internal pedestrian systems (i.e. sidewalks) with the larger, citywide pedestrian/bicycle transportation network.
- Provide for seamless connections among transportation modes including bus, pedestrian facilities, and bicycle facilities.
- Create sustainable funding source for facility construction and maintenance.⁷

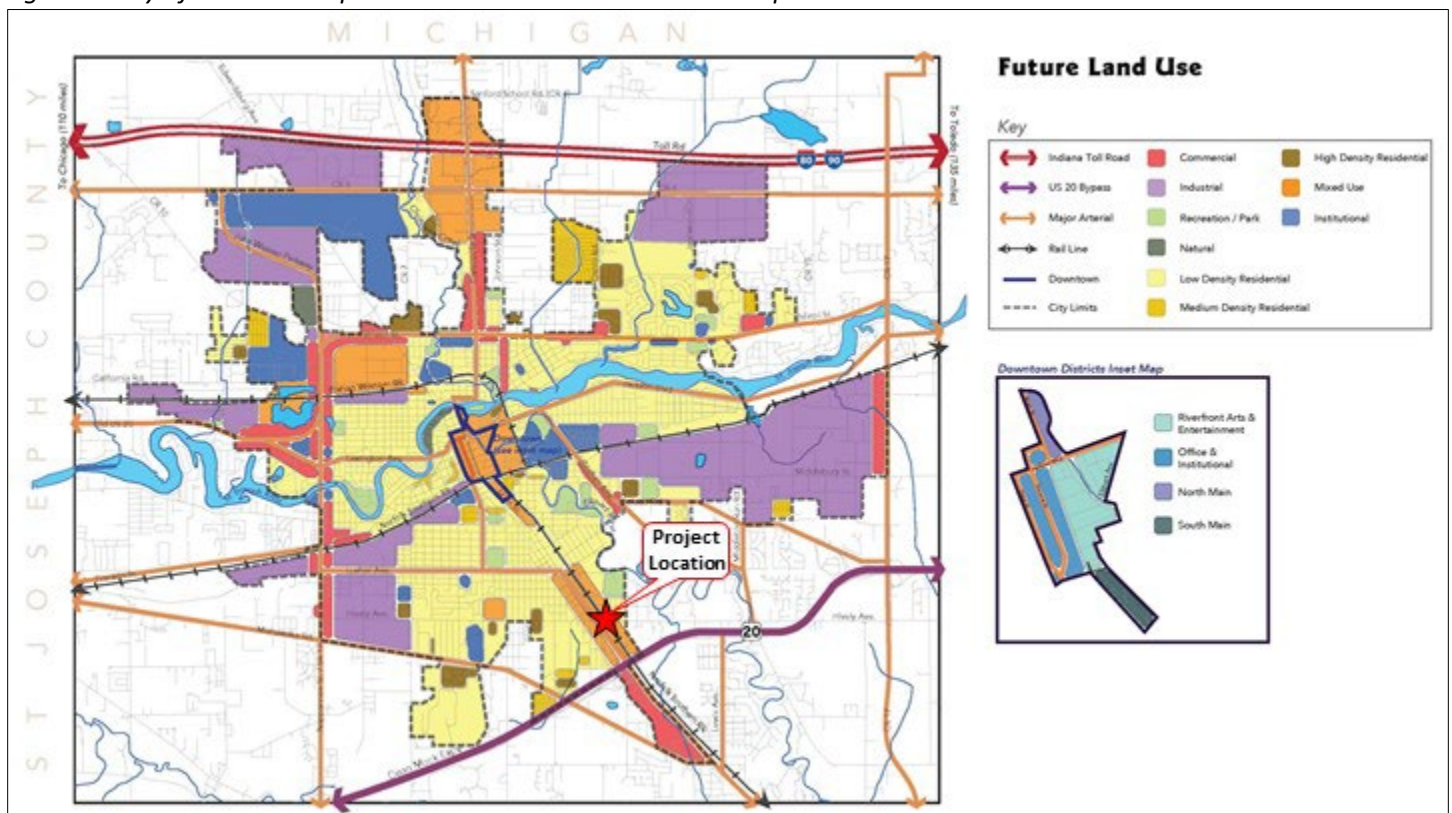
⁷ City of Elkhart. *City of Elkhart Comprehensive Plan Update*. Adopted on February 2, 2015. Chapter 3, Page 81.

The Health and Safety Goal is to coordinate public services and amenities with land use decisions to protect the well-being and quality of life of Elkhart’s citizens and its environment. The recommendations to meet this goal that are germane to the transportation network include:

- Coordinate decision-making and approval processes among City departments.
- Coordinate transportation and land use planning.
- Coordinate installation of pedestrian/bicycle facilities with programs associated with public health and community wellness.⁸

An important consideration in land use and transportation planning is the reciprocal relationship between these two functions. Transportation systems and their adjacent land uses shape the character of an area, or community, and have a direct effect on its perceived quality of life.

Figure 5. City of Elkhart Comprehensive Plan Future Land Use Map



Also of note, the Elkhart Community Schools recently increased its student walk zones to reduce busing and school district transportation costs. The walk zone for elementary and middle school students is a one-mile radius of the school. The high school walk zone is a two-mile radius of the school. There are some exceptions to these zones, especially in the less developed areas of the City. Facilities, such as sidewalks, marked crossings, and buffering from moving vehicles are fundamental components of a safe pedestrian route to school. This leads to a conclusion that pedestrian facility installation should be a priority in all designated school walk zones.

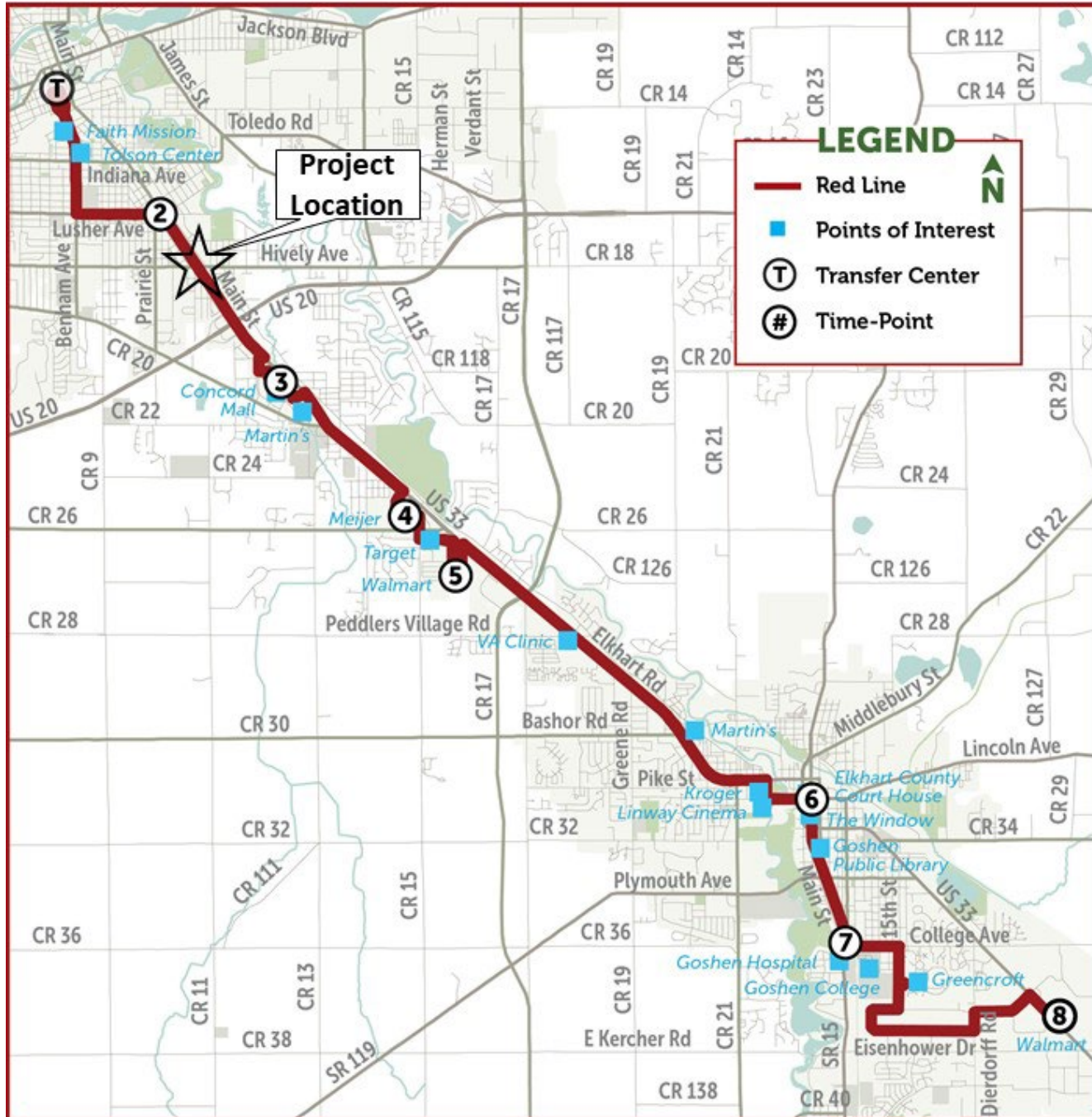
⁸ City of Elkhart. *City of Elkhart Comprehensive Plan Update*. Adopted on February 2, 2015. Chapter 3, Page 86.

The *City of Elkhart Comprehensive Plan adopted in 2015* is located here: <https://elkhartindiana.org/wp-content/uploads/Updated-Comprehensive-Plan-Adopted-February-02-2015-full-document.pdf>

Regional Public Transit and Trail Resources

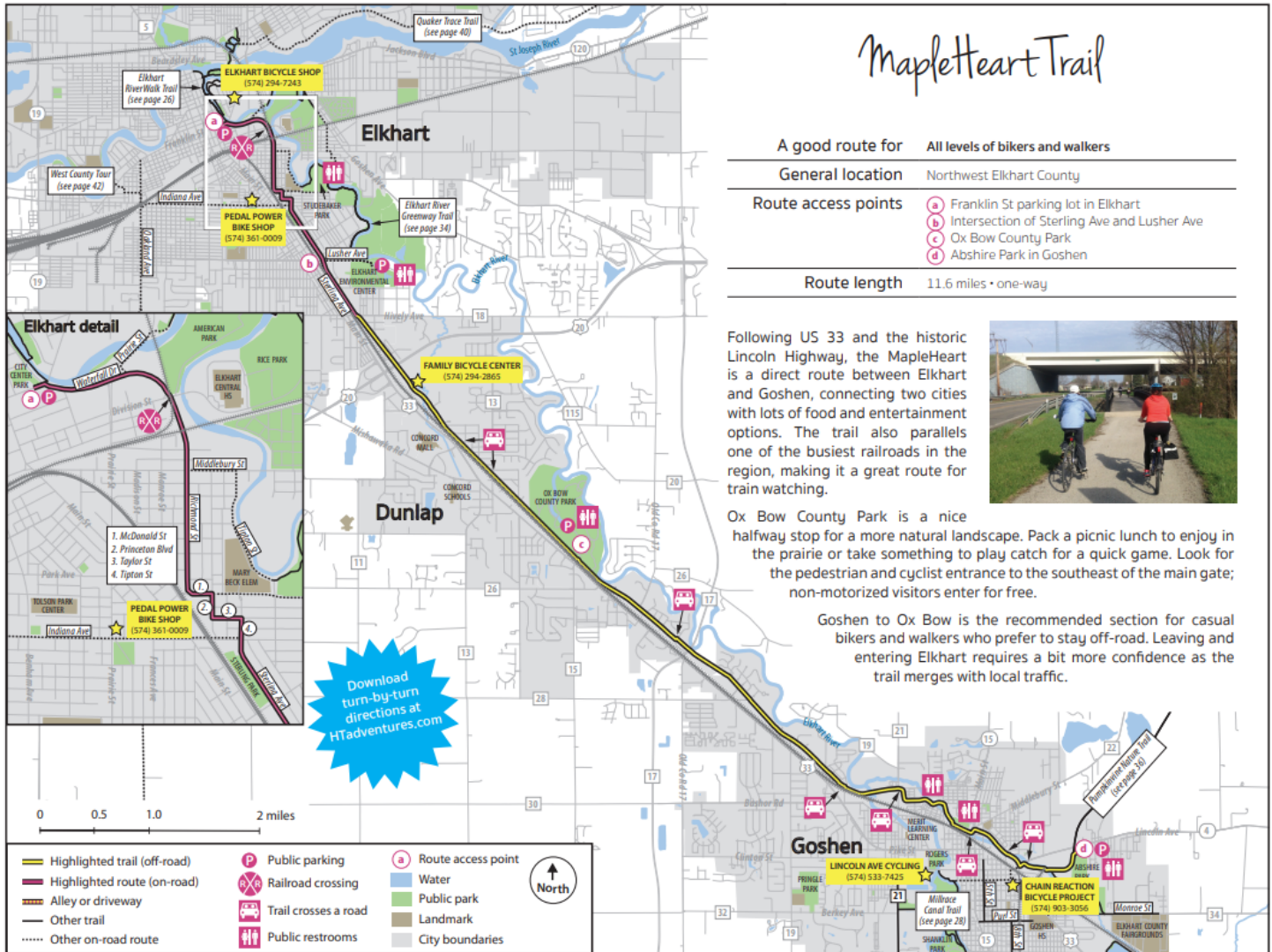
There are existing public transit services within the Network Area. The Interurban Trolley provides public transit services in Elkhart and Goshen, Indiana. It is currently a five-route system plus a complementary paratransit service called Interurban Trolley Access. The Trolley runs weekdays and on Saturdays. The Red Line map is shown in Figure 6.

Figure 6. The Interurban Trolley Elkhart/Goshen Red Line Map



MapleHeart Trail is a 11.6 mile path that connects Elkhart and Goshen as shown in Figure 7. The MapleHeart Trail runs along CR 45 from Hively Avenue in Elkhart to the Goshen City Limits. Both ends of the trail tie into local trail systems. MACOG has identified the Maple Heart Trail as a regionally significant bikeway trail.⁹

Figure 7. Elkhart County MapleHeart Trail Map



The MapleHeart Trail is an off-road trail from Hively Avenue south to Goshen. It turns into an on-road trail north of Hively Avenue along Sterling Avenue. There are currently plans to extend the trail and make the on-road portion into an off-road portion along Sterling Avenue heading north.

⁹ Michiana Area Council of Governments (MACOG). *Michiana on the Move: Transportation Plan 2045*. Adopted on October 9, 2019, as confirmed in MACOG Resolution 48-19. Chapter 3, Page 34.

Project Purpose and Need

The Project is needed to address the existing traffic congestion caused by approximately 70-100 trains that utilize the railroad tracks at Hively Avenue per day. These trains inhibit mobility for the approximate 6,000 vehicles a day that use the Hively Avenue crossing as identified in the 2019 Engineer’s Report. This causes motorist backups on Hively Avenue and adjacent local streets, along with prohibiting pedestrian and bicyclist movements.

FHWA has published guidelines to determine when converting an at-grade railroad crossing into a grade separated crossing is justified. The guidelines are published in the following document “Guidance on Traffic Control Devices at Highway-Rail Grade Crossings” (FHWA, November 2002). The guidelines list several criteria that can be used to warrant a railroad grade separated crossing. Meeting just one (1) of those criteria is enough to justify grade-separation. The Hively Avenue railroad crossing meets three (3) of those criteria. Table 2 summarizes these criteria and how the Hively Avenue and Norfolk Southern Railroad crossing exceeds the criteria.

Table 2. FHWA Warrants for Grade Separation

Category	Criteria	Hively Avenue Crossing
Number of trains	An average of 75 or more trains per day	This location has an estimated 70-100 trains, with an average of 88 trains per day, at a maximum allowable train speed of 79 mph
Expected crash frequency	The expected crash frequency exceeds 2% per year	This location has an expected crash frequency of 5.22% per year
Vehicle delay	Vehicle delay exceeds 30 vehicle-hours per day	This location has an estimated 50 to 200 vehicle-hours of delay per day

In addition to looking at FHWA warrants for grade separations, crash data was also reviewed. Seven (7) crashes have occurred over a five-year period (2015-2019) due to the railroad crossing according to MACOG crash data. These crashes occurred when the gate was down and were typically rear-ended crashes due to vehicles attempting to back-up and U-turns.

Based on observations of gate down time at a nearby intersection, there was a gate down time of four (4) minutes. It should be noted that a gate down time of 3 minutes or more would be equivalent to a level-of-service (LOS) “F” at an intersection, which would be an unacceptable capacity level-of-service for an intersection. Intersections with a vehicle delay of 1 minute or more result in a level-of-service “F”. The intersection of Hively Avenue and Main Street has a current LOS of “D”.

The purpose of the project is to improve mobility and safety within the project area by eliminating vehicle backups and congestion while maintaining access and connectivity; improve the LOS to a “C” on the new Hively Avenue alignment; and improve bike/pedestrian movements.

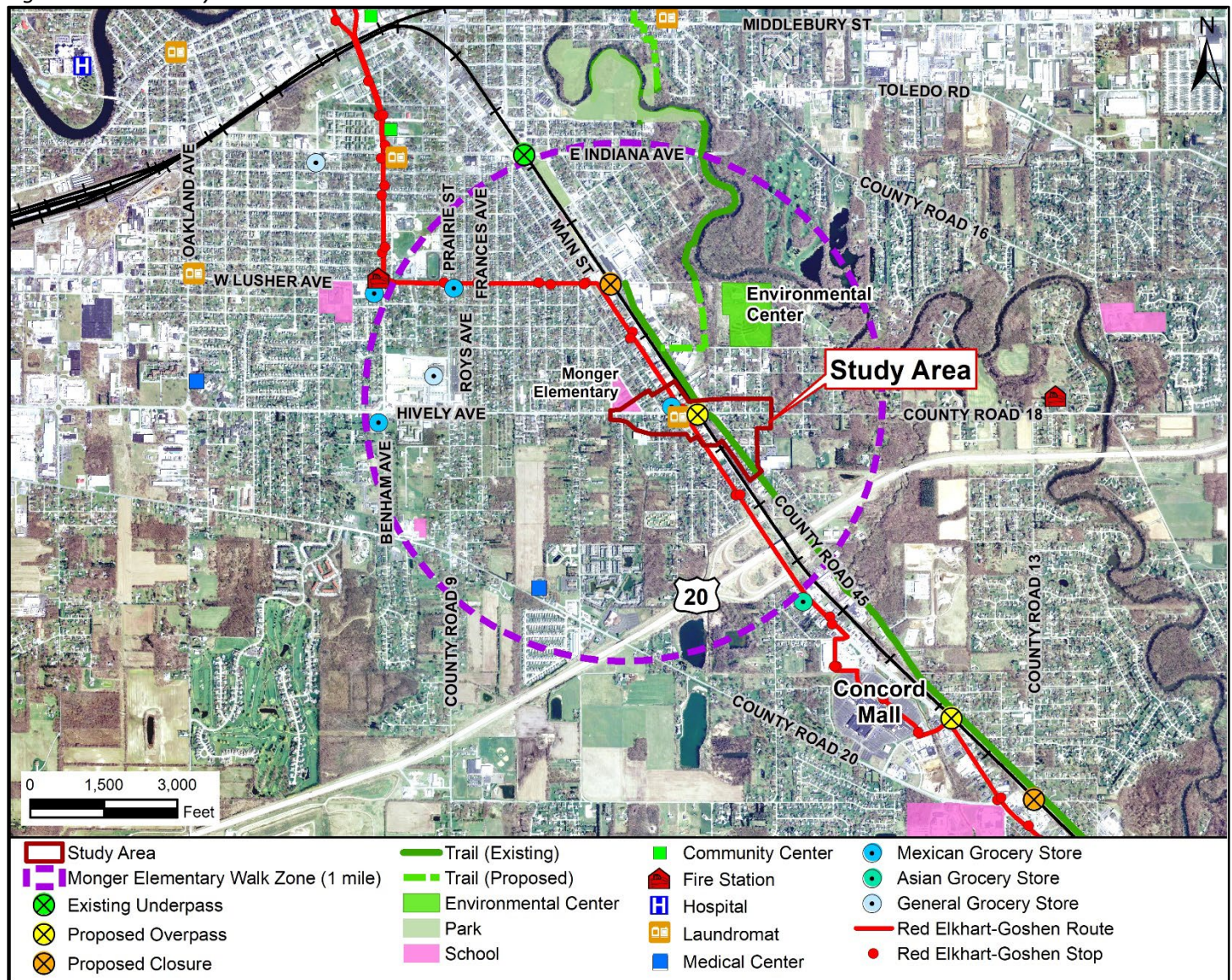
Community Context and Resources within Network Area

Generally, the Network Area is in south-east Elkhart, near the Elkhart County Line, just north of the major intersection of US 20 and US 33. The area is mostly urban and developed. Norfolk Southern’s three-tracked rail line runs parallel to S Main Street on the west and to Sterling/Hammond Avenue to the east. Industrial and commercial land-uses are located immediately adjacent to these transportation resources. To the east and west,

lie residential land-uses along with commercial and light industrial business such as gas stations, vehicle service shops, restaurants, and other service-oriented businesses. Community resources include schools, parks, public transportation, trails, grocery stores, medical facilities, law enforcement, fire stations, religious institutions, and other social services. Community Resources within the Network Area are shown in Figure 8.

The Network Area identifies important resources such as the Elkhart Fire Station located approximately 1.3 miles northwest of the Project and the Concord Township Fire Department located 1.4 miles east. The Elkhart Environmental Center, a public environmental education facility, is located approximately 0.5 mile north. The nearest hospital, Elkhart General Hospital, is located approximately 2.7 miles northwest.

Figure 8. Community Resources within Network Area

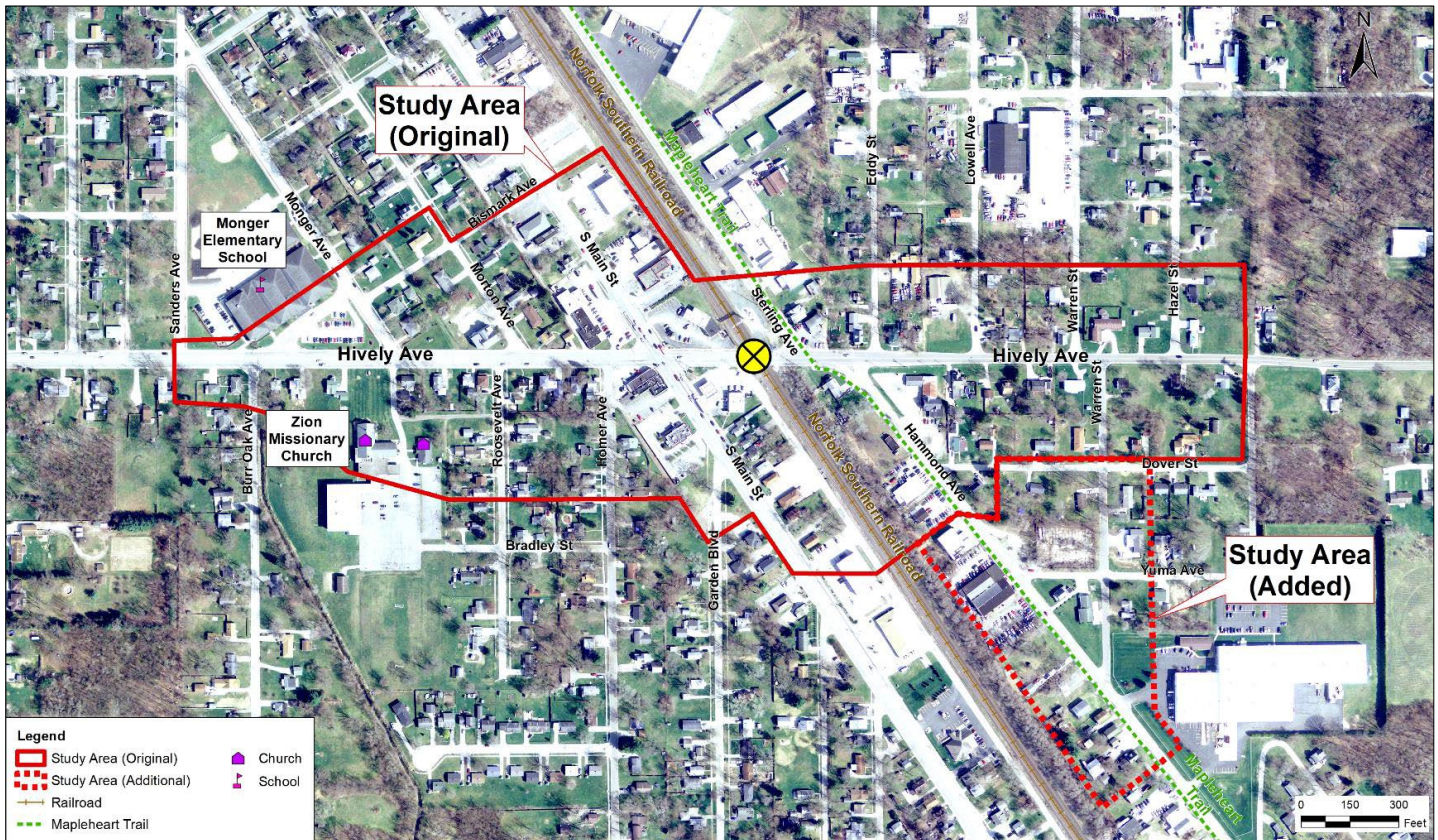


Project Study Area Context

Based on the preliminary feasibility study and community context, the Project team established a preliminary Study Area around the Hively Avenue and Norfolk Southern RR crossing to take a closer look at the community

while developing potential design solutions. The Study Area was also used to focus public outreach efforts to the community within and adjacent to the project location. The preliminary Study Area was expanded after public engagement activities in October 2020 identified the need to more closely evaluate and analyze truck movements between Hively Avenue and Hammond and Sterling Avenues. The final Study Area is shown in Figure 9.

Figure 9. Study Area Map



The Study Area is a mix of land-use: industrial and heavy commercial along the north-south roadway and rail network and more residential and light commercial along Hively Avenue, the east-west connector. The current land use pattern has developed over-time, homes and business lie immediately adjacent to the main roadways, driveways, side-street and curb cuts provide direct access to homes, business and other facilities. Monger Elementary School and Zion Missionary Church are in the western part of the Study Area, numerous businesses are located at the intersections of Hively Avenue and S Main Street and Hively and Sterling/Hammond Avenue as shown in Figure 10. The eastern portion of the Study Area is a mix of interspersed light commercial and residential uses. Sidewalks are scattered throughout the area. The Study Area is predominately built out and major changes or shifts in land-use are not anticipated or planned given historic development patterns and local and regional planning efforts. Population and demographic information provide baseline context to frame community impacts, including EJ populations.

Community Resources within Study Area

The Study Area contains several community resources, a few are shown in Figure 11, including Monger Elementary School and two churches Zion Missionary Church and El Divino Redentor. There are several food restaurants including a local restaurant Hunter’s Place. A local Hispanic grocery store, El Rosal supermarket, is

located at the corner of S Main Street and Hively Avenue. There is a local laundromat Elkhart Speedwash located adjacent to Hively Avenue and Homer Avenue.

Figure 10. Community Resources within Study Area

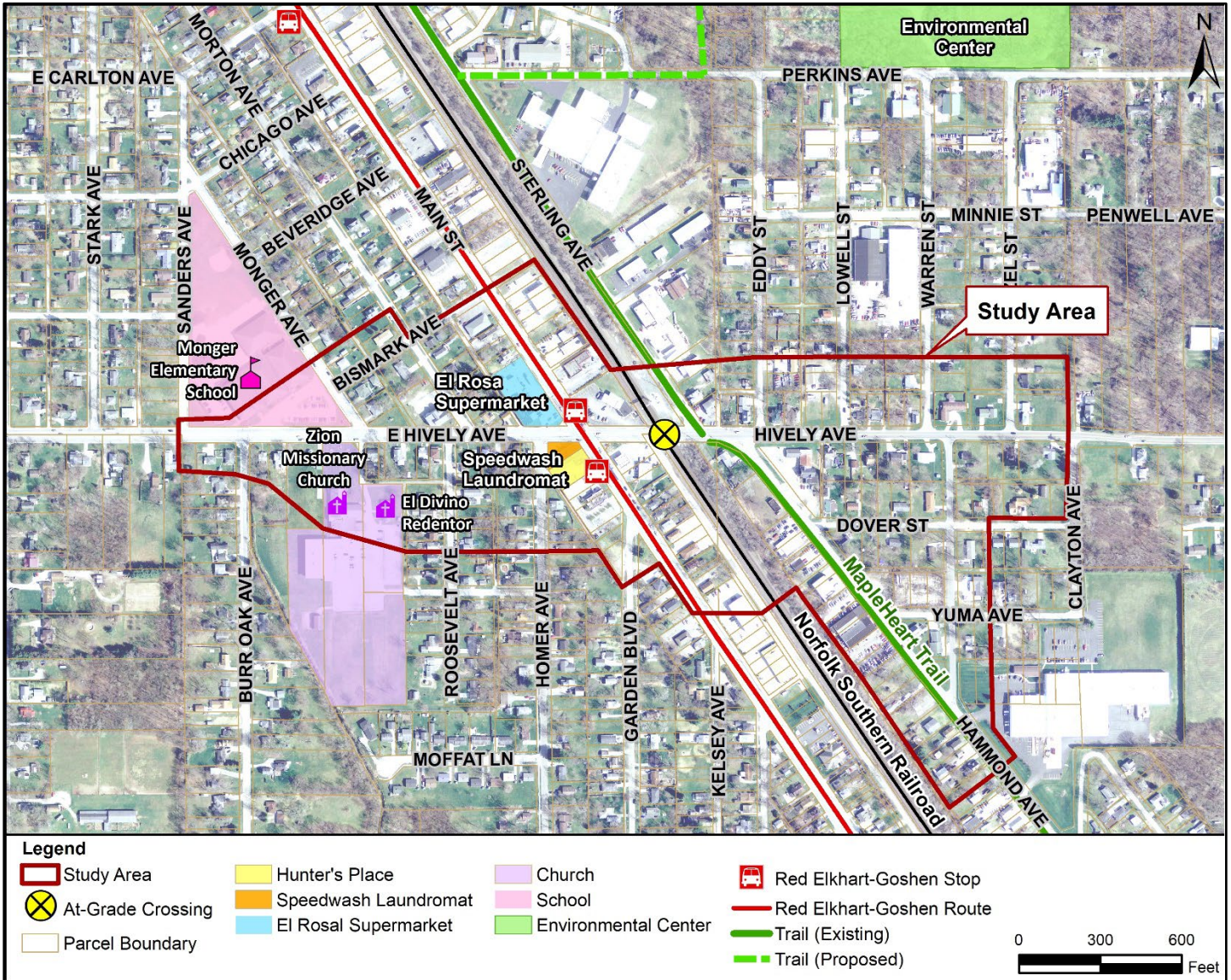


Figure 11. Shown left to right, El Rosal Supermarket, Monger Elementary School, Elkhart Speedwash, Zion Missionary Church (Baker 2020)



EJ Populations within Study Area

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA (in this case the potential for federal funding in the future), are responsible to ensure that their programs, policies, and activities do not have a disproportionately high and adverse effect on minority or low-income populations. For this initial analysis the Study Area was used.

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exists and whether there could be disproportionately high and adverse impacts to them. The reference population may be a county, city or town and is called the community of comparison (COC). In this project, the COC is Elkhart County. The community that overlaps the Study Area is called the affected community (AC). In this project, the AC is Census Tract 19.01, Block Group 5 and Census Tract 21.02, Block Group 1 and 3. AC has a population of concern for EJ if the population is more than 50% minority or low-income or if the low-income or minority population is 125% of the COC. Data from the 2019 American Community Survey (ACS) 5-Year Estimates was obtained from the US Census Bureau Website <https://data.census.gov/cedsci/> on October 18, 2021 by Michael Baker. The data collected for minority, Hispanic and low-income populations within the AC are summarized in Table 3. Michael Baker also provided

further analysis for Limited English-Speaking Households and Spanish Speaking Households within the ACs compared to the COC.

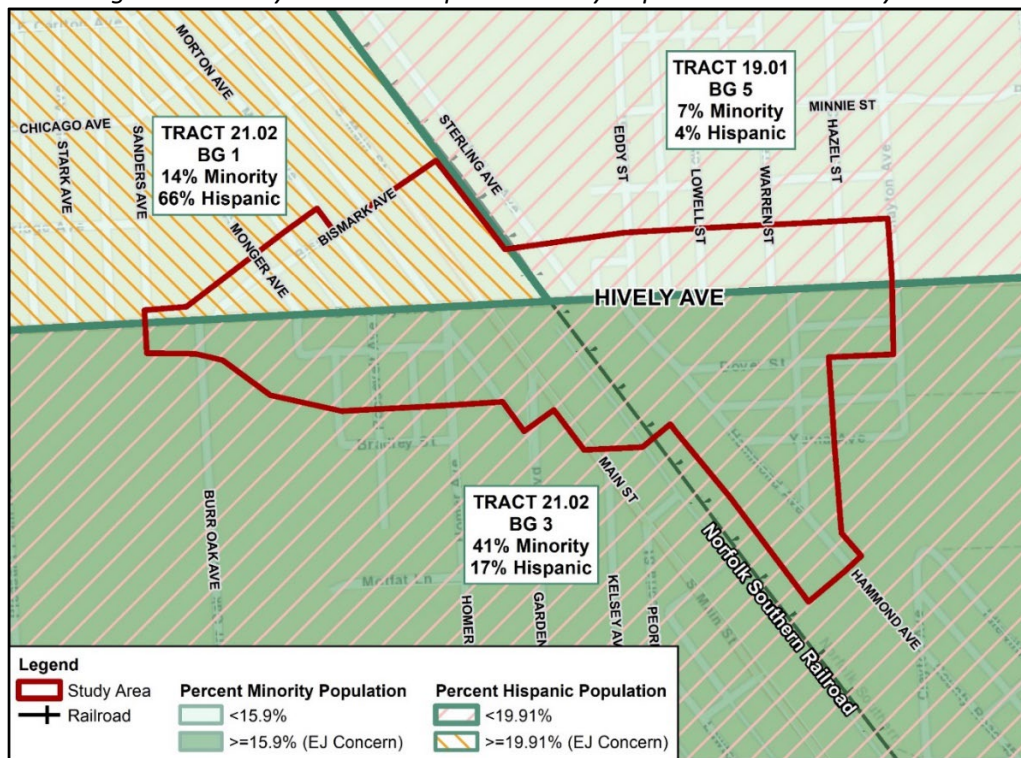
Table 3. Hively Avenue Overpass Environmental Justice AC comparison to COC

Hively Avenue Overpass EJ Analysis				
Census Bureau 2018 ACS 5-Year Estimates Information	COC Elkhart County, Indiana	AC-1 Block Group 1, Census Tract 21.02, Elkhart County, Indiana	AC-2 Block Group 3, Census Tract 21.02, Elkhart County, Indiana	AC-3 Block Group 5, Census Tract 19.01, Elkhart County, Indiana
Minority Population EJ Analysis				
Minority Population (Non-white)	26,017	177	1,145	82
Percent Minority	12.72%	13.76%	40.92%	7.35%
125% of COC	15.90%	AC > 125% COC?		
Minority Population of EJ Concern?		No	Yes	No
Hispanic Population EJ Analysis				
Hispanic Population	32,583	851	470	40
Percent Hispanic	15.93%	66.17%	16.80%	3.59%
125% of COC	19.91%	AC > 125% COC?		
Hispanic Population of EJ Concern?		Yes	No	No
Low Income Population EJ Analysis				
Total Number of Families	50,065	267	730	223
Families Below Poverty Level	4,432	0	172	37
Percent Low-Income (below poverty level)	6.18%	0.00%	14.96%	10.54%
125% of COC	7.72%	AC > 125% COC?		
Low Income Households of Concern?		No	Yes	Yes
Limited English-Speaking Households				
Total Number of Households	71,718	396	1,150	351
Limited English-Speaking Households	2,390	56	17	0
Percent Limited English Speaking	3.33%	14.14%	1.48%	0.00%
125% of COC	4.17%	AC > 125% COC?		
Limited English Households of Concern?		Yes	No	No

Spanish Speaking Households				
Households Speaking Spanish	8,086	256	96	11
Percent Spanish Speaking Households	11.27%	64.65%	8.35%	3.13%
125% of COC	14.09%	AC > 125% COC?		
Spanish Speaking Households of Concern?		Yes	No	No

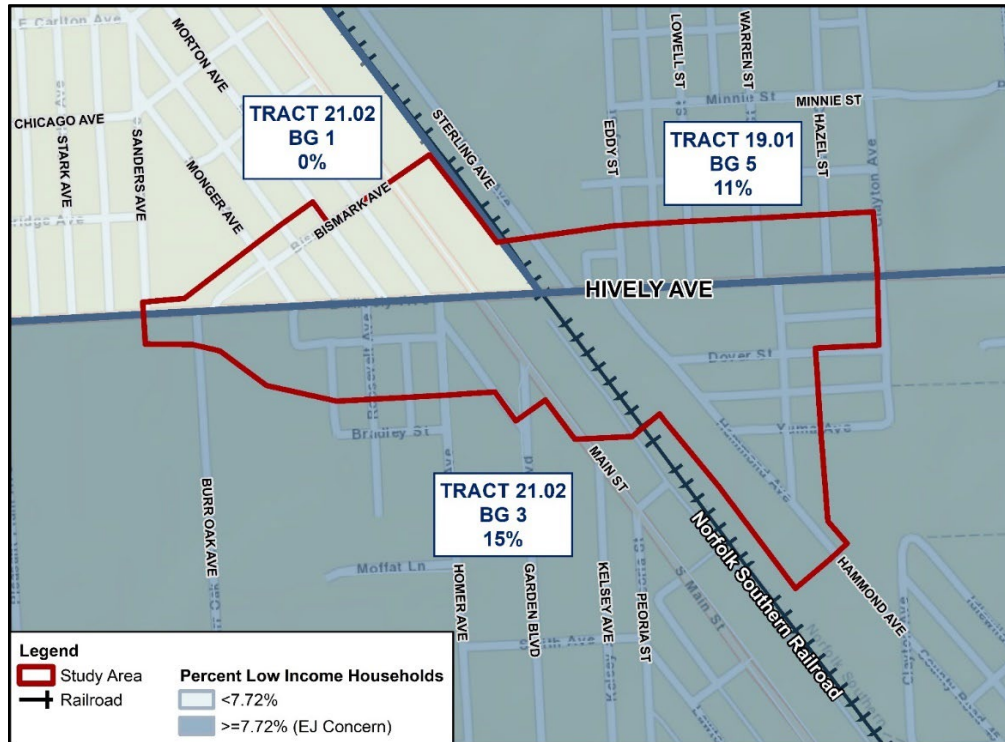
AC-1, Block Group 1, Census Tract 21.02 has a percent minority of 13.76% which is below 50% and below the 125% COC threshold. AC-1 has a percent Hispanic population of 66.17% which is above 50% and above the 125% COC threshold. AC-2, Block Group 3, Census Tract 21.02 has a percent minority of 40.92% which is below 50% but is above the 125% COC. AC-2 has a percent Hispanic population of 16.80% which is below 50% and below the 125% threshold. AC-3, Block Group 5, Census Tract 19.01 has a percent minority of 7.35% which is below 50% and is below the 125% COC. AC-3 has a percent Hispanic population of 3.59% which is below 50% and below the 125% threshold. Therefore, AC-1 and AC-2 have a minority population (non-white or Hispanic) of EJ concern as shown in Figure 12.

Figure 12. Hively Avenue Overpass Minority Population within Study Area



AC-1, Block Group 1, Census Tract 21.02 has a percent low-income of 0.00% which is below 50% and is below the 125% COC threshold. AC-2, Block Group 3, Census Tract 21.02 has a percent low-income of 14.96% which is below 50% but is above the 125% COC. AC-3, Block Group 5, Census Tract 19.01 has a percent low-income of 10.54% which is below 50% but is above the 125% COC. Therefore, AC-2 and AC-3 have a low-income population of EJ concern as shown on Figure 13.

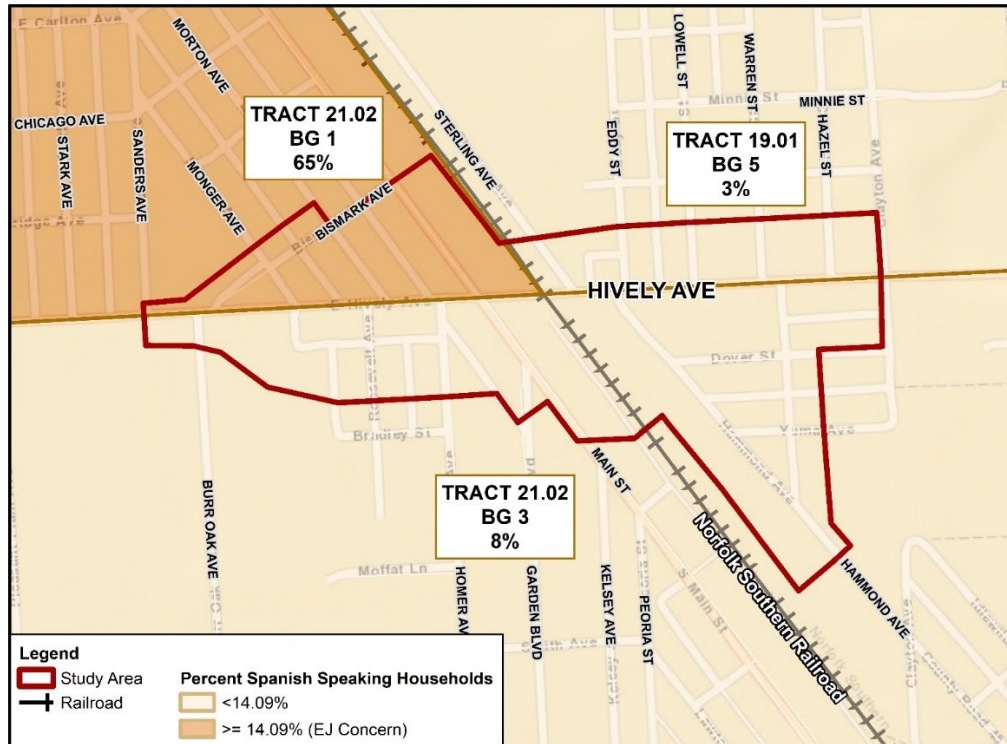
Figure 13. Hively Avenue Overpass Low Income Households within Study Area



AC-1, Block Group 1, Census Tract 21.02 has a percent limited English speaking households of 14.14% which is below 50% but is above the 125% COC threshold. AC-2, Block Group 3, Census Tract 21.02 has a percent limited English speaking households of 1.48% which is below 50% and is below the 125% COC. AC-3, Block Group 5, Census Tract 19.01 has a percent limited English speaking households of 0.00% which is below 50% and is below the 125% COC. Therefore, AC-1 has a limited English-speaking population of EJ concern as shown on Figure 11.

AC-1, Block Group 1, Census Tract 21.02 has a percent Spanish speaking households of 64.65% which is above 50% and above the 125% COC. AC-2, Block Group 3, Census Tract 21.02 has a percent Spanish speaking households of 8.35% which is below 50% and is below the 125% COC. AC-3, Block Group 5, Census Tract 19.01 has a percent Spanish speaking households of 3.13% which is below 50% and is below the 125% COC. Therefore, AC-1 has a Spanish speaking household population of EJ concern as shown on Figure 14.

Figure 14. Hively Avenue Overpass Spanish Speaking Households within Study Area



In summary it was identified that AC-1, Block Group 1, Tract 21.02 has a minority and Spanish speaking population of concern, AC-2, Block Group 3, Tract 21.02 has a low-income and minority population of concern, and AC-3, Block Group 5, Tract 19.01 has a low-income population of concern.

EJ Considerations for Public Outreach

The presence of EJ populations was established early in the project as the community context and public involvement plan were developed. MACOG’s planning document identifies EJ populations within the Network Area. Additional demographics and US Census Bureau data analysis further validate the presence of EJ populations within the Study Area. The City of Elkhart as the local agency lead continues to provide important oversight and coordination for all public outreach activities including interfacing with local stakeholders.

The Public Information Plan (PIP) continues to evolve as the project development process unfolds. There have been three public information meetings and a public hearing. Communication tools have been and will continue to be provided through a variety of channels. Based on an understanding of the community, meeting notification materials have been translated to Spanish to effectively reach as many people as possible in the community (Figure 15 Flier for Public Information Meeting #1 and #2). A Spanish translator has been used to provide translation at the public information meetings and at the public hearing to accommodate everyone who attends. The City of Elkhart provides translations services using city staff who are familiar with the community. All project materials are provided on the City of Elkhart’s website <https://elkhartindiana.org/government/street-department/hively-overpass/> and city staff continually interface with the local community regarding project details including impacts, milestones, and schedule.

Figure 15. Flier for Public Information Meeting #1 & #2



Queremos sus comentarios sobre el Proyecto Ferrocarril Local en Hively Avenue

Para conversar los problemas de seguridad y movilidad, el Departamento de Transporte de Indiana (INDOT) y la Ciudad de Elkhart se están asociando para estudiar, diseñar y construir la Separación a Nivel del Ferrocarril Local Trax en Hively Avenue.

Se están considerando varias alternativas para eliminar el cruce a nivel y reemplázelo con un puente para llevar el tráfico de la avenida Hively sobre las vías del tren.

INDOT y Elkhart están brindando a los residentes dos oportunidades para conversar sobre las propuestas alternativas y brindar comentarios antes del avance del diseño y estudio ambiental.



Una reunión virtual en Zoom
Martes 20 de octubre, 2020 5 a 7 p.m.
www.Zoom.com
ID de reunión: 923 9796 3027
contraseña: 664032

La reunión en persona
Jueves el 22 de octubre, 2020
De 5 a 7 p.m.
Iglesia Misionera de Zion
1135 E. Hively Avenue
Elkhart, IN 46517

Visite www.elkhartindiana.org para más información.

Public comment opportunities have been available throughout the project and will continue through the public hearing comment period. Public information meetings allow comments to be presented in-person and via handout comment forms. Project contact information has been provided at public information meetings and on the City of Elkhart’s website which includes representative’s phone numbers, a mailing address, and a dedicated project email. The public, including EJ populations, are able to provide comments via these different methods. The team keeps track of comments in an on-going comment response table included as part of the PIP document. The public hearing provided more opportunities for information sharing and for the public at large, and EJ populations to provide additional feedback.

More detailed information including public information meeting materials can be found in the PIP.

Existing Conditions within Study Area

Roadways/RR Crossing

Hively Avenue is classified as a Principal Arterial and traffic travels east and west. Hively Avenue, from Bismark Avenue to Main Street, consists of two (2) 11-foot wide asphalt lanes, one (1) 11-foot middle turning lane, and two (2) 5-foot wide bike lanes. Also in this location, there is sidewalk and curb on both sides of the roadway. From Main Street to Sterling Avenue, Hively Avenue consists of four (4) 11-foot wide asphalt lanes with curb on both sides of the roadway and a sidewalk with a utility strip on the north side of the roadway. From Sterling Avenue to Hazel Street, Hively Avenue consists of two (2) 15-foot wide asphalt lanes with curb on both sides. For this section, both eastbound and westbound lanes are transitioning from two travel lanes down to one travel

lane per direction. Main Street is a Minor Arterial and traffic travels northwest and southeast. Main Street, south of Hively Avenue, has four (4) 11-foot wide asphalt lanes with a 2-foot 6-inch centerline separation and curb and sidewalk on both sides. Main Street, north of Hively Avenue, consists of four (4) 11-foot asphalt lanes with curb on both sides. The west side of Main Street has a utility strip and sidewalk on both sides of the roadway at this location. Sterling Avenue is classified as a Local Agency Collector with traffic traveling northwest and southeast. Sterling Avenue consists of two (2) 11-foot asphalt travel lanes with 5-foot bike lanes in both directions. Hammond Avenue is a Local Agency Collector with traffic traveling northwest and southeast. Hammond Avenue consists of two (2) 12-foot asphalt travel lanes with a utility strip and 9-foot bike path on the west side of the road. There are also various local city streets including Monger Avenue, Morton Avenue, Roosevelt Avenue, Lowell Avenue, and Warren Street all of which consist of two (2) 10-foot to 12-foot travel lanes. Monger Avenue, Morton Avenue, and Roosevelt Avenue all have sidewalk along both sides of the road. Hively Avenue intersects with the Norfolk Southern RR as shown in Figure 16. Norfolk Southern’s three-tracked line runs parallel to S Main Street and Sterling/Hammond Avenue within the Study Area. The track is heavily used with 70-100 trains per day.

Figure 16. Hively Avenue and Norfolk Southern Railroad At-grade Crossing (Baker 2020)



Pedestrian, Bicycle, and Transit Resources

The Study Area contains pedestrian, bicyclist, and transit resources including sidewalks, crosswalks, a trail, and bus stops.

Sidewalks & Crosswalks

Existing sidewalks, as shown in Figure 17, run along Hively Avenue on both the north and south side from Monger Elementary School east to S Main Street. The sidewalk continues on the north end of Hively Avenue from S Main Street east to the Norfolk Southern RR. There are no sidewalks east of the Norfolk Southern RR tracks within the Study Area along Hively Avenue or the intersecting side streets. The existing sidewalks along Hively Avenue intersection with Burr Oak Avenue, Bismark Avenue, Monger Avenue, Roosevelt Avenue, Morton

Avenue, Homer Avenue, and S Main Street, along with residential driveways, Monger Elementary School, Zion Missionary Church, and businesses. There are existing curb ramps at these intersections, some of which are not ADA compliant. These non-ADA compliant curb ramps are located at the entrance of the Zion Missionary Church, the entrance to El Rosal, and at the intersection of S Main Street. Existing sidewalks run along S Main Street on both the west and east side, however the sidewalk ends just north of the S Main Street on the east side of the street near Midas. There are non-ADA compliant sidewalk and curb ramps at the intersection of S Main Street and Garden Boulevard and locations with no curb ramps near KFC.

Crosswalks are located in certain locations within the Study Area near Monger Elementary School. Crosswalk lines are faded at the intersection at Hively Avenue and S Main Street.

Figure 17. Existing Sidewalks and Crosswalks within Study Area (Baker 2020)



Trail

MapleHeart Trail runs north and south parallel to Hammond Avenue within the Study Area as shown in Figure 18. The off-road portion of the trail ends at Hively Avenue and currently has a cross-walk to connect to from Hammond Avenue to Sterling Avenue and becomes an on-road route. The trail serves as a connection to the Elkhart Environmental Center and other parks. Since there are no sidewalks located east of the Norfolk Southern RR there is no existing sidewalk connection to the MapleHeart Trail within the Study Area.

Figure 18. MapleHeart Trail within Study Area (Baker 2020)



Red Line Bus Flag Stops

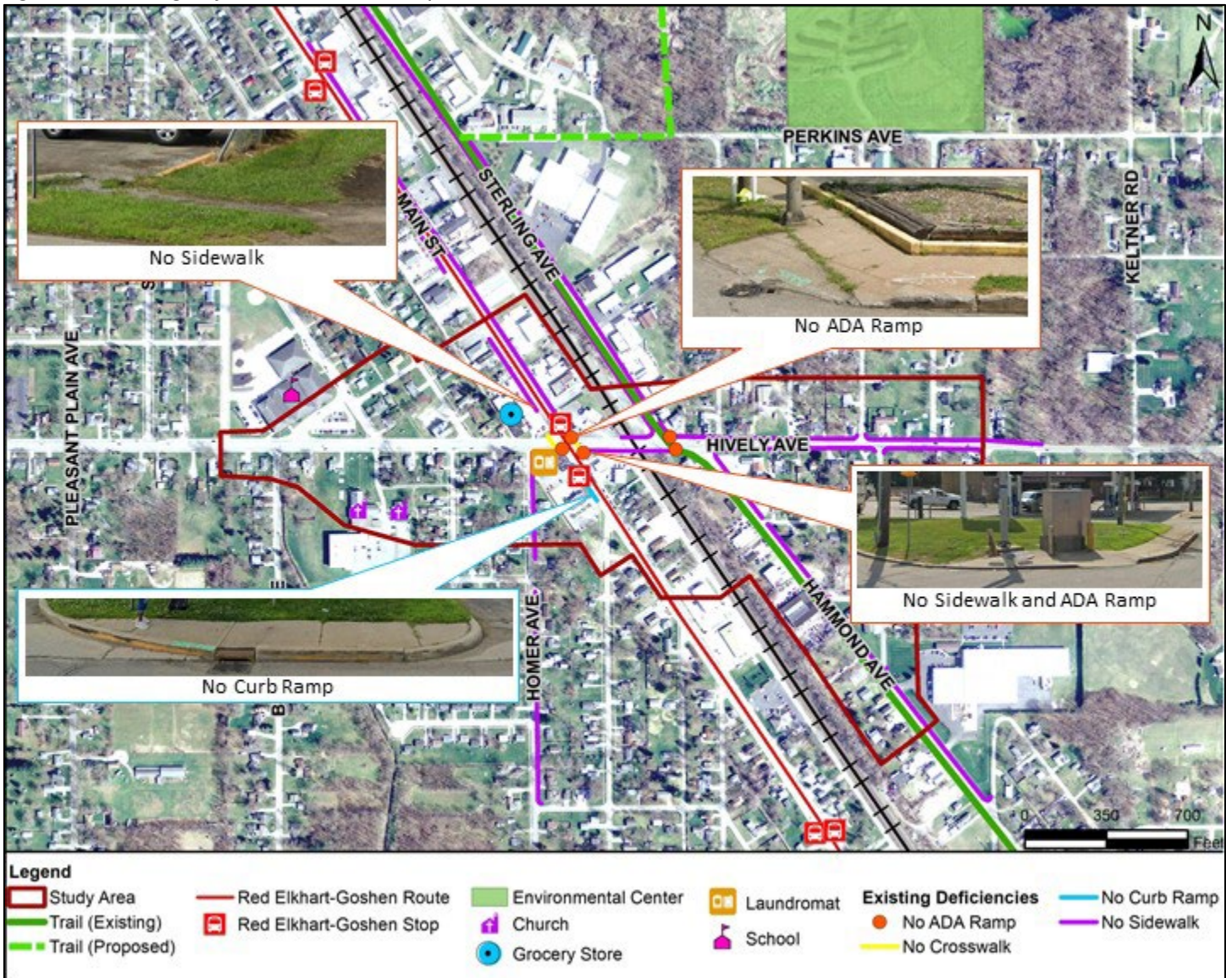
The Interurban Trolley Red Line runs through the Study Area along S Main Street. There are two flag stops, meaning the bus will only stop if someone is there waiting or someone wants to get off the bus, located within the Study Area. The two stops are Stop 43 which is an inbound stop located south of the Hively Avenue and S Main Street intersection and Stop 14 which is an outbound stop located just north of the Hively Avenue and S Main Street intersection as shown in Figure 19. There is a lack of ADA compliant sidewalk connections at the location of both flag bus stops.

Figure 19. Left to right, Inbound Bus Flag Stop 43 and Outbound Bus Flag Stop 14 (Baker 2020)



As previously identified, these resources are linked in some areas but lack connection in other areas as shown in Figure 20.

Figure 20. Existing Deficiencies within Study Area



Cultural Resources

The State Historic Architectural and Archaeological Research Database and Structures (SHAARD) map was reviewed on July 26 and based on preliminary research of existing records, no historic districts or individually listed historic properties are located within the project area.

Hazardous Materials

Based on existing and historic land-use patterns, several properties within the Study Area have current and historic hazardous materials considerations. There is an active 7-11 gas station and several vehicle service/repair shops in the area and active industrial and heavy commercial sites located along the railroad corridor.

Existing Conditions Summary

Existing condition information combined with public involvement and robust local agency coordination, forms the basis of the community context. The community context includes environmental, socio-economic, and community resources and constraints including important community identify information such as the presence of EJ populations. This information is utilized during the development and consideration of existing deficiencies and design alternatives including public involvement activities and the project Engineer's Report.

Alternatives Analysis

The Project's Engineer's Report (November 2019) builds upon the 2017 Feasibility Study, funded by the City of Elkhart, and used as the basis for the INDOT Local TRAX Grant Application. As mentioned in earlier sections, this Project has a defined planning history and is consistent with both local and regional plans. The Engineer's Report reconsidered alternatives presented in the 2017 Feasibility Study with updated information including a deeper evaluation of deficiencies and with consideration to the community context (existing conditions). This process provided an opportunity to incorporate avoidance and minimization measures during the development and analysis of alternative.

Existing Deficiencies

Building upon the existing condition and community context information, the project study identified key deficiencies within the Study Area for consideration during engineering design. These include:

- Lack of connectivity/mobility
- Traffic backups/congestion at Norfolk Southern RR crossing
- Lack of sidewalk connections in certain areas along Hively Avenue
- Lack of safe pedestrian crossing at Norfolk Southern RR
- Non-ADA compliant curb ramps and sidewalk
- Lack of crosswalk markings at intersection of Hively Avenue and S Main Street
- Lack of connection to existing MapleHeart Trail
- Flag bus stop locations near sidewalk with no curb ramps
- Within an Elementary School walk zone but does not have complete sidewalks/connection throughout

No Build

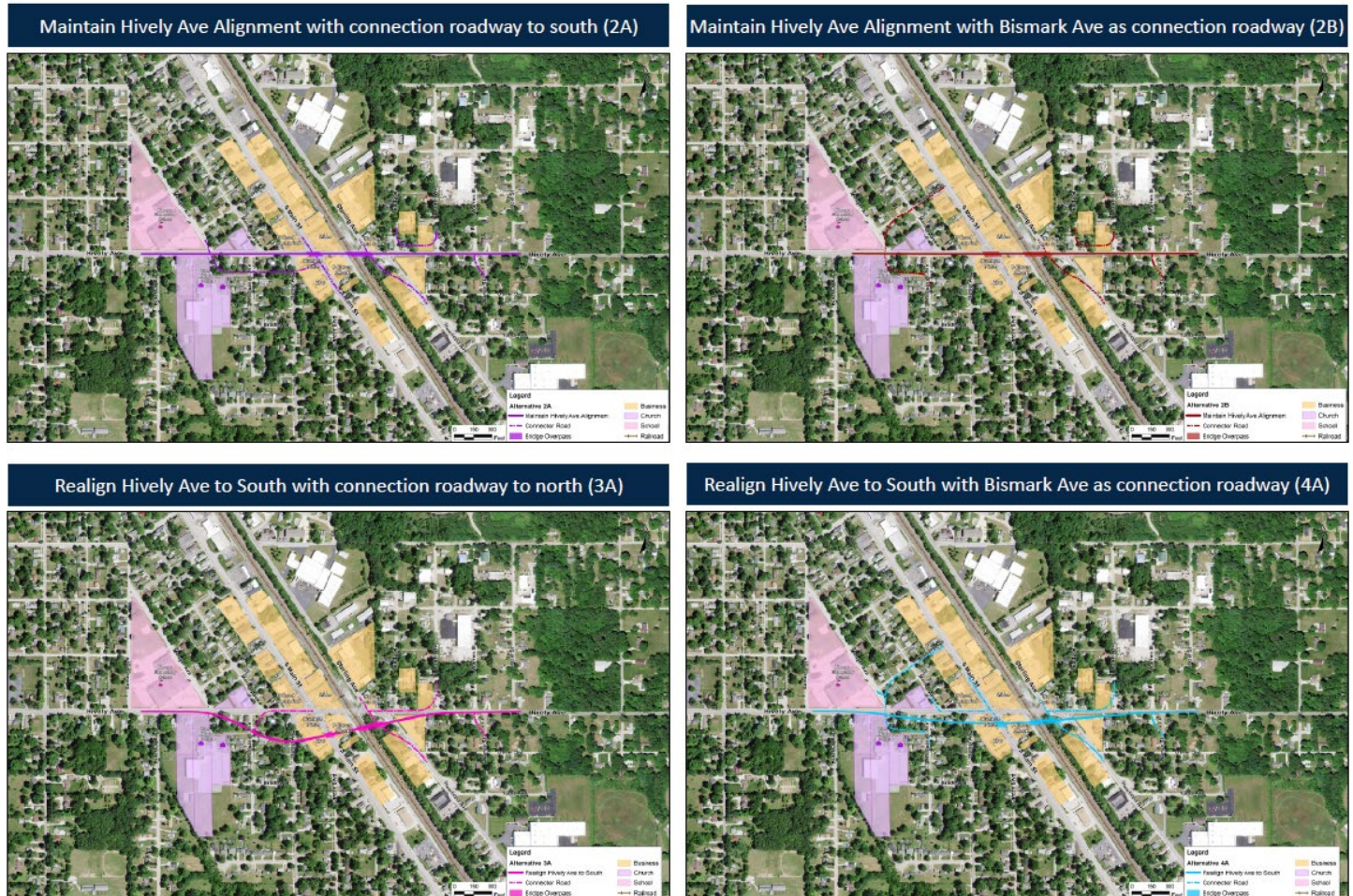
The No Build (or, do nothing) alternative would leave the existing at-grade crossing of Hively Avenue and Norfolk Southern Railroad in place, as is, with minor improvements and routine maintenance. The existing deficiencies within the Study Area would continue to cause safety concerns, limit mobility and access, and fail to meet Americans with Disability (ADA) requirements. The No Build does not meet the purpose and need. However, the No Build alternative remains an important part of project evaluation as a baseline condition.

Build

Four build alternatives were developed and considered in the 2019 Engineer's Report: Alternative 2A, 2B, 3A, and 4A as show in Figure 21. Generally, Alternative 2A and Alternative 2B would keep the grade separation (overpass) on the existing Hively Avenue alignment. This would require a long-term closure and complete traffic detour of Hively Avenue for over two (2) years during construction. Alternative 3A and 4A would shift the alignment to the south, avoiding long-term closures and complete traffic detours while providing more desirable

design components. Shifting the alignment to the north was considered but dismissed early on as it would impact the local El Rosal supermarket. The 2019 Engineer’s Report identified Alternative 3A as the preferred design alternative. The range of build alternatives considered and evaluated environmental, socio-economic and community impacts as well as design criteria and the ability to address existing deficiencies and minimize and avoid impacts, to the extent possible.

Figure 21. Range of Build Alternatives



Alternative Analysis Summary

All alternatives were evaluated for meeting the purpose and need along with benefits and potential impacts as shown in Table 4. The No Build did not provide any benefits or impacts and did not meet the purpose and need; therefore, it was eliminated from consideration. All the build alternatives provide improved safety and mobility, bike/pedestrian improvements, and are consistent with regional and local comprehensive plans. All the build alternatives meet the purpose and need and have comparable potential impacts.

Table 4. No Build and Build Benefits and Potential Impacts

Benefits/Potential Impacts (Temporary and Permanent)	No Build	Build			
		Alternative 2A	Alternative 2B	Alternative 3A	Alternative 4A
Improved Safety and Mobility	No	Yes	Yes	Yes	Yes
Bike/Pedestrian Improvements	No	Yes	Yes	Yes	Yes
Community Impacts	None	Minimum	Minimum	Minimum	Minimum
Property Impacts (by Parcel)*					
Residential	0	37	30	35	34
Commercial	0	11	7	10	8
Other/Community	0	4	5	2	4
Potential Hazardous Waste Sites (combination of high and medium potential sites)	0	4	4	4	5
Public Resources (MapleHeart Trail) Impact	None	Temporary	Temporary	Temporary	Temporary
Environmental Justice Considerations	XX	Potential	Potential	Potential	Potential
Consistent with Regional and Local Comprehensive Plans	No	Yes	Yes	Yes	Yes
Meets Purpose and Need	No	Yes	Yes	Yes	Yes

*This analysis of parcel impacts was conducted in January 2021

The build alternatives were further compared to one another for key engineering considerations as shown in Table 5. A major key consideration was the closure of Hively Avenue during construction. The long-term closure of Hively Avenue for Alternative 2A and 2B would impact access to local businesses in the immediate vicinity of the project and impact regional mobility, secondary but important impacts to consider. These secondary impacts may have long term impacts on local businesses and the community who relies on those businesses for goods and services. El Rosal is of particular concern given the community that it serves and the difficulties it may encounter due to prolonged access impacts. Shifting the alignment to the south, Alternative 3A and 4A, avoided these impacts to the local El Rosal supermarket and other businesses.

Table 5. Key Engineering Considerations for Build Alternatives

Key Engineering Considerations	Alternative 2A	Alternative 2B	Alternative 3A	Alternative 4A
Maintains Hively Ave Current Alignment	Yes	Yes	No	No
Short-term Closure of Hively During Construction	No*	No*	Yes	Yes
Desirable Intersection Geometry and Sight Distance	No	No	Yes	No
Maintains Side Street Access	No	No	Yes	Yes
Minimal Traffic Increase on Bismark Ave	Yes	No	Yes	No
Lowest Estimated Construction Cost	No	No	Yes	No

The alternatives were also evaluated for the potential impacts to residential properties relative to the EJ Census Block Groups as shown in Table 6. The alternatives were also evaluated for the potential commercial property impacts as shown in Table 7.

Table 6. Potential Residential Impacts relative to EJ Census Block Groups by Alternative

	Alternative 2A	Alternative 2B	Alternative 3A	Alternative 4A
Residential Impacts*	20	21	19	17
Tract 19.01 BG 5 (low-income)	5	5	3	2
Tract 21.02 BG 1 (minority & Spanish speaking)	2	3	1	2
Tract 21.02 BG 3 (low-income & minority)	13	13	15	13

*This analysis was conducted in January 2021

Table 7. Commercial Impacts by Alternative

	Alternative 2A	Alternative 2B	Alternative 3A	Alternative 4A
Commercial Impacts	4	3	4	5

*This analysis was conducted in January 2021

Based on the direct impacts to residential and commercial being similar for each alternative, secondary impacts to community cohesion would rule out Alternative 2A and Alternative 2B as a preferred alternative since they require a long-term closure to Hively Avenue which would cut off access to community resources. This leaves Alternative 3A and Alternative 4A, which have short-term closures (months) to Hively Avenue. In comparing the two, Alternative 3A has one less commercial impact than Alternative 4A and Alternative 4A has two less residential impacts than Alternative 3A. In terms of community and EJ impacts their impacts are almost the same. Based on engineering, Alternative 4A does not provide desirable intersection geometry and sight distances. Since one of the components of the purpose and need is safety related, this rules out Alternative 4A.

The engineering team determined there was a need to make additional engineering changes to accommodate truck movements. A dedicated Truck Route along south Warren Street was developed, analyzed, and incorporate into the project.

Alternative 3A with the Truck Route is the Preferred Alternative carried forward for additional public involvement and detailed analysis in the environmental document.

Community Engagement

The alternative analysis and preliminary preferred information was presented to the public during two (2) Public Information Meetings (PIMs), PIM #1 and PIM #2, in late October 2020 and one (1) PIM, PIM #3, on August 31, 2021. PIM #1 was held virtually via a Zoom meeting and PIM #2 and PIM #3 were in-person, open house style events held at the Zion Missionary Church, located within the Study Area. Public notices were posted for the meetings via local newspapers, including the local El Puente newspaper. Postcards were created that showed the project termini and at-grade crossing location and provided public meeting information for public

information meetings. This information was translated in Spanish on the back of the postcard. In addition, team members took mailers, which included information in both English and Spanish, to local businesses around town to distribute flier information about the public information meetings.

The PowerPoint presentation from the Zoom meeting was posted to the City of Elkhart website and the presentation was recorded. Approximately 55 people attended the Zoom meeting. Any comments asked were recorded in an on-going comment response kept for the project.

The in-person open houses included a welcome table with a sign-in sheet, comment forms, and project information sheets. Stations were set-up with exhibits that showed the project location, alternatives, and alternative comparisons. Members of the Project team were at each station to talk about the project and answer questions. The City of Elkhart provided a Spanish interpreter for anyone to use during the open house. Approximately 67 people attended the PIM #2 open house. Approximately 80 people attended the PIM #3 open house.

One important outcome of PIM #2 was the expansion of the Study Area to further consider and evaluate truck movements, particularly those desiring to go north or south from Hively Avenue, connecting to Sterling/Hammond Avenue where industrial and commercial land-uses are concentrated alongside the Norfolk Southern three-track line. A group of business owners expressed concern regarding truck movements based on firsthand experience and requested that the Project team take another look. There were also concerns that without a dedicated or formal truck route that trucks might try to use the local street network which is undesirable. Other public comments and concerns included overall concerns regarding property impacts, including ingress/egress and parking considerations for adjacent businesses particularly the elementary school and the El Rosal supermarket. Potentially impacted property owners and occupants were concerned with the timing of activities, the project schedule and when to expect land acquisition to begin.

The Project team expanded the Study Area and included the additional baseline information into the overall alternative analysis. Preliminary property impacts were further considered relative to EJ population information and more detailed analysis was conducted to further avoid and minimize impacts, where practical.

Preferred Alternative

Project Description

The Preferred Alternative, shown in Figure 22 and 23, proposes eliminating the existing Norfolk Southern Railroad at-grade-crossing at Hively Avenue by creating a new grade separation (bridge) which will carry Hively Avenue over the Norfolk Southern Railroad, Main Street, and Hammond Avenue. A bridge number will be assigned to this structure as the design progresses. The bridge will raise the Hively Avenue profile approximately 23.22 feet above the Norfolk Southern Railroad which meets the minimum 23 feet vertical clearance required for railroads. Hively Avenue will be reconstructed and shifted to the south from Monger Avenue, shifting approximately 178 feet at the Roosevelt Avenue intersection to then connect back to the existing alignment where it connects with Hazel Street. Sidewalk will be added on both sides of Hively Avenue near Bismark Avenue extending east to Roosevelt Avenue and sidewalk connections will be added on Monger Avenue, Morton Avenue, Roosevelt Avenue, and Main Street. ADA compliant curb ramps will be added where new sidewalks are constructed along all local streets shown in Table 8. An intersection modification will be added at Homer Avenue transforming the intersection into a cul-de-sac, 350 feet south of Main Street due to the closure of the Main Street intersection. Hammond and Sterling Avenue will be realigned to be directly in line with each other

allowing traffic to be directed northeast to southwest under the Hively Avenue grade separation. Lowell Avenue will be realigned approximately 200 feet north of existing Hively Avenue to extend southwest and intersect with Sterling Avenue. Roosevelt Avenue will be extended approximately 540 feet north of Hively Avenue to connect to Main Street. Eddy Street will be realigned to extend south to the new Lowell Street Alignment by 20 feet. Realignment and reconstruction of Warren Street will occur approximately 40 feet north of Hively Avenue and alignment of approximately 200 feet south of existing Hively Avenue.

Hively Avenue will have a bike path west of the bridge, 10 foot sidewalk on the bridge, and a multi-use path along the north side of the roadway east of the bridge. The multi-use path will connect to Hammond Avenue and to the MapleHeart Trail. The MapleHeart Trail will be realigned with Hammond Avenue and include a new crosswalk provided for connection to the MapleHeart Trail along Sterling Avenue. Intersecting side streets will have pavement improvements and reconstructed drive approaches where necessary. New drainage infrastructure, including curb inlets, ditch inlets, and roadside ditches, will be added as required throughout the project limits. Traffic signals will be added to the Hively Avenue and Roosevelt intersection, Hively Avenue and Warren Street intersection, and Roosevelt Avenue and Main Street intersection.

Table 8. Preferred Alternative Proposed Sidewalk/ADA Compliance Locations

Intersection	Quadrant Location
Hively Avenue & Monger Avenue	NE & NW Quadrants
Hively Avenue & Roosevelt Avenue	NE, NW, SE & SW Quadrants
Hively Avenue & Warren Street	NW Quadrant
Main Street & Roosevelt Avenue	NE, NW & SW Quadrants
Main Street & Garden Blvd	NW & SW Quadrants
Hammond Avenue & Lowell Avenue	SE & SW Quadrants
Morton Avenue & Roosevelt Avenue	NW & NE Quadrants

To accommodate a truck route, a full depth reconstruction of the pavement on Warren Street and paved shoulders will be added adjacent to each travel lane north of Hively Avenue. Curb Inlets will be provided, and drive approaches will be reconstructed where required along Warren Street. The Warren Street approach at Hammond Avenue will be reconstructed to accommodate truck turning movements.

The maintenance of traffic (MOT) plan for the project will be split into phases, Phase 1, Phase 2A & 2B, Phase 3A & 3B and Phase 4. Phase 1 will install proposed stormwater and waterline crossings across Hively Avenue, Eddy Street, Lowell Avenue and Warren Avenue. Phase 2A will keep Hively Avenue open as construction begins south of Hively Avenue. Major work to be completed during this phase includes reconstruction of Warren Street from Hively Avenue down to Hammond Avenue and the sidewalk along the west side of Hammond Avenue from just north of Yuma Avenue to Hively Avenue. Closures will be required on intersecting side streets including Roosevelt Avenue, Homer Avenue, Hammond Avenue, and Warren Street. During this time a detour route will be provided utilizing US 33 and CR 45 for the Hammond Avenue closure. Phase 2B will be the same MOT as Phase 2A with the exception that Hammond Avenue will realigned and reconstructed. Pedestrian traffic will be maintained on the sidewalk along the west side of Hammond Avenue during this phase. Phase 3A will require temporary closures on Roosevelt Avenue, Homer Avenue, Lowell Avenue and sections of Hively Avenue. During this phase of construction of the main approach roadway and MSE walls will be constructed along the new Hively Avenue alignment. Due to settlement concerns this portion of construction will require 6 months post construction to allow for natural settlement. A detour for Hively will use the newly constructed Warren Street

going south to connect to Hammond Avenue north to the original Hively Avenue. Phase 3B will be a shorter-term construction phase which ties the new Hively alignment into the existing. This will include the reconstruction of intersections at Monger and Hively, Roosevelt and Hively, Warren and Hively, and Hazel Street and Hively. Additional work will include the re-alignment to connect Lowell Avenue and Eddy Street directly to Sterling Avenue as well as modifications to the east half of Main Street. A posted detour route will be provided during this phase which incorporates the use of Pleasant Plain Avenue, Mishawaka Rd and County Road 13. Phase 4 will construct the new Roosevelt Avenue connection to Main Street, modifications to the west half of Main Street, and final modifications to Morton Avenue, Garden Blvd. and Sterling/Hammond Avenue.

After the Preferred Alternative is constructed and the new facility is open to traffic, the City of Elkhart and Norfolk Southern will negotiate the crossing closure required by the Local Grant Agreement. As proposed, this closure will occur at E. Lusher Avenue, however, another location could be agreed upon. Any subsequent local road (railroad crossing location on the local network) closure will be executed as a separate project with local funding per the City of Elkhart's Board of Works sometime in the future. The timing of these activities is undefined at this time.

The preferred alternative meets the purpose and need of the project. The construction of the overpass will alleviate the at-grade crossing of Hively Avenue and the Norfolk Southern Railroad tracks and allow vehicular traffic, bicycle and pedestrian movements and trains to move independently of one another. This will reduce congestion and improve mobility and overall travel reliability within the project area. The LOS is anticipated to be a "C". The preferred alternative also includes a truck route that was included after public comments were received at PIM #2. The sidewalk network will be greatly improved; new, connected, ADA compliant sidewalks along Hively Avenue and adjacent side streets, Main Street, Roosevelt Avenue, and Hammond Avenue allow a connection to Monger Elementary School, El Rosal supermarket, churches, residential and businesses; which is an overall benefit to the community. The sidewalk improvements in the vicinity of Monger Elementary are consistent with Safe Routes to School goals identified in local plans including the MACOG *Michiana on the Move: Transportation Plan 2045*. The improved sidewalks also provide connectivity to the MapleHeart Trail which is lacking in the existing condition; this will also improve neighborhood connectivity to the Environmental Center. Pedestrian access to the transit stop will be improved with ADA compliant sidewalk and may be further enhanced by the proposed green space located between the mainline of the new roadway and bridge and the connection back to Hively on the westside.

Figure 22. Preferred Alternative

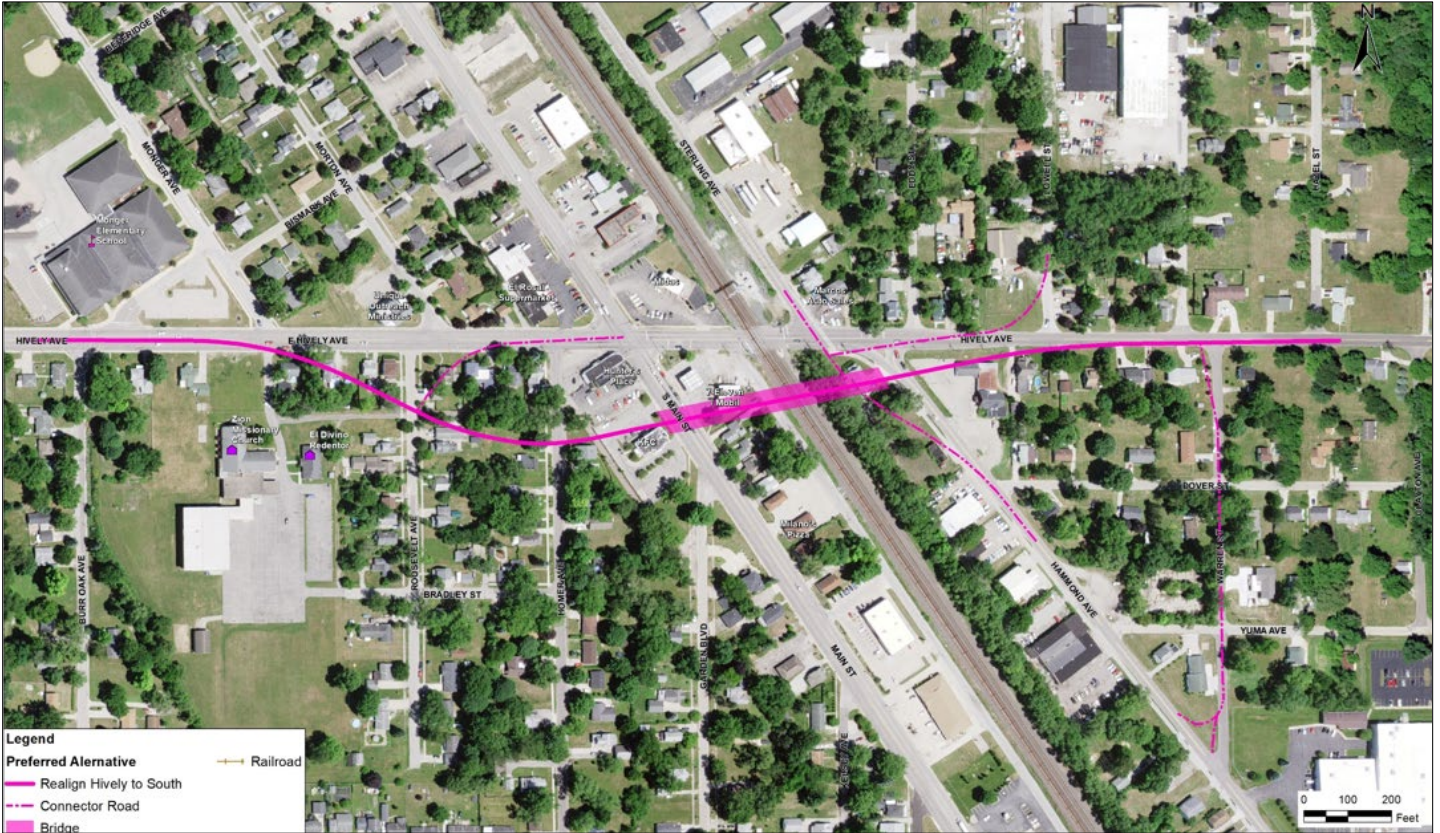
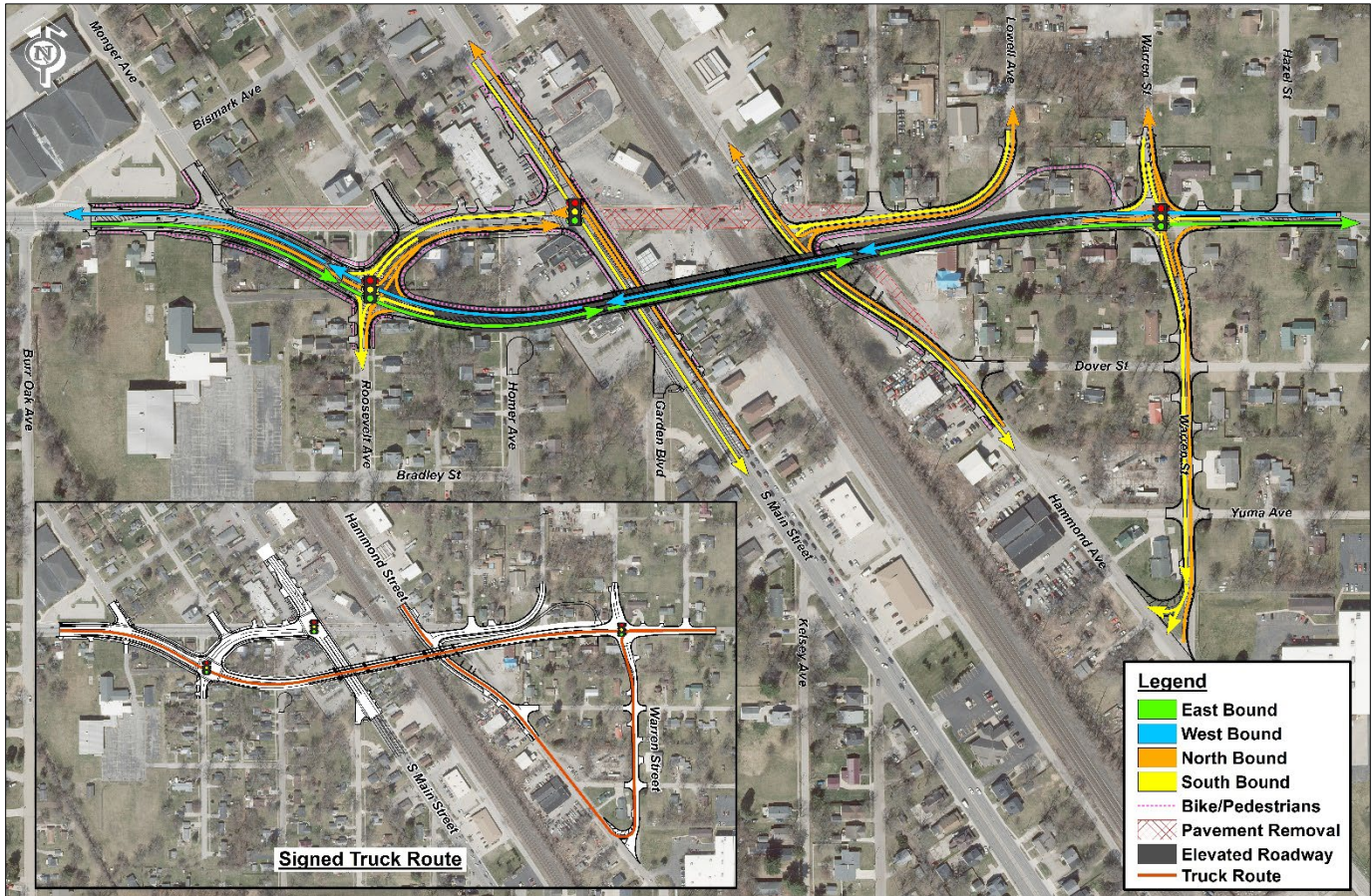


Figure 23. Preferred Traffic Flow



Preferred Alternative Impacts

Right of Way/Property Impacts

The Preferred Alternative will require the purchase of permanent and temporary ROW. The amounts of permanent and temporary ROW by land use are shown in Table 9. Attached you will find a Master Property Impact Table that breaks down the ROW by Parcel ID and Address. Approximately 10.32 acre of permanent ROW will be needed from 58 properties and 0.88 acres of temporary ROW from 14 properties. This means that a total of 72 properties will be affected directly by the project. Table 10 identifies the anticipated number of relocations and acquisitions associated with the project. An acquisition refers to a purchase of a vacant property. The anticipated impacted properties are shown in Figure 24.

Table 9. Preferred Alternative ROW Amounts

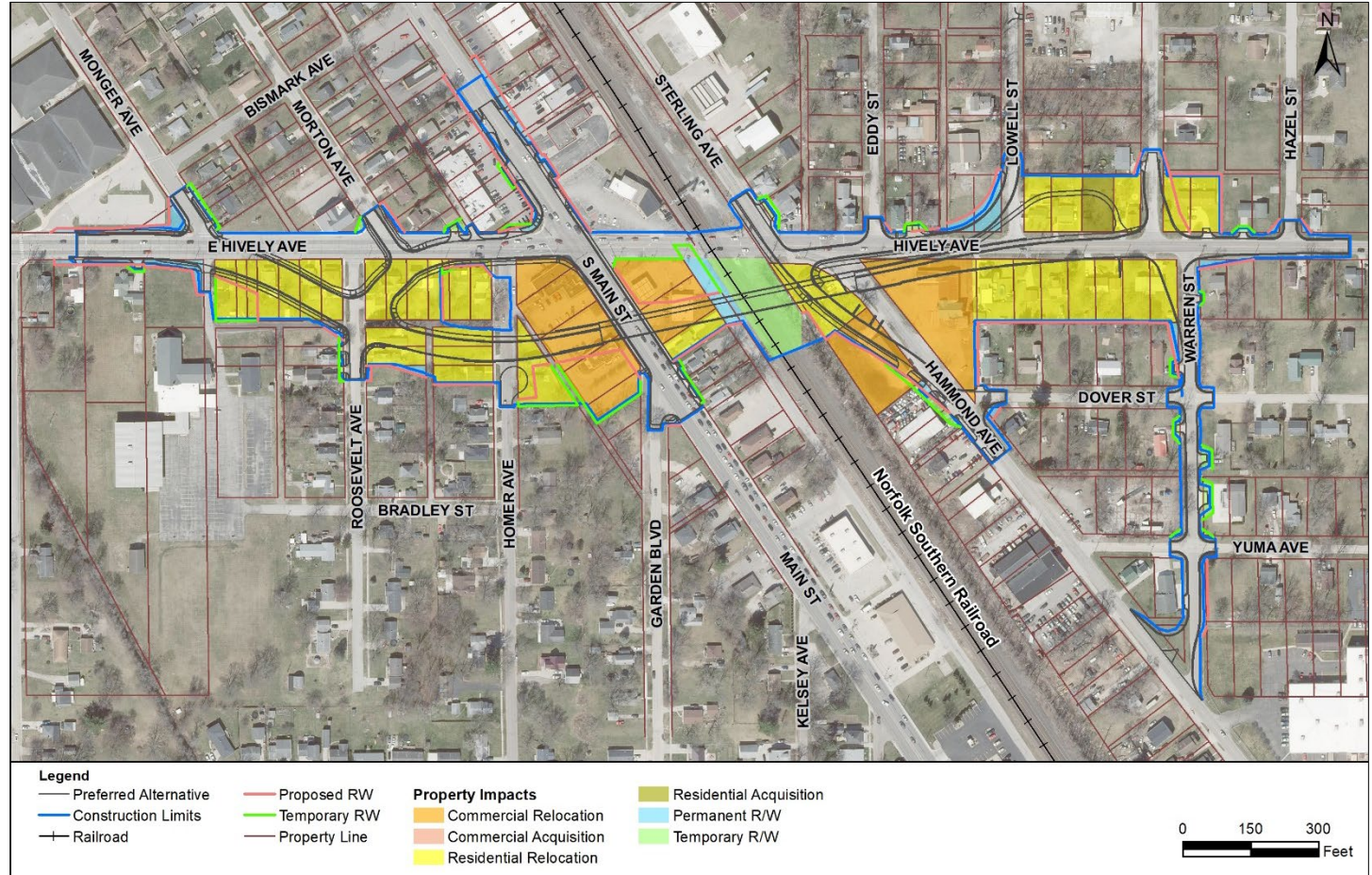
Land Use	Permanent ROW (acres)	Temporary ROW (acres)
Residential	6.23	0.17
Commercial	3.72	0.14
Other (Church, School, Utility)	0.37	0.57
Total:	10.32	0.88

Table 10. Preferred Alternative Relocations and Acquisition

Land Use	Relocation	Acquisition*
Residential	21	1
Commercial	6	0
Total:	27	1

*Purchase of vacant property

Figure 24. Preferred ROW and Property Impacts



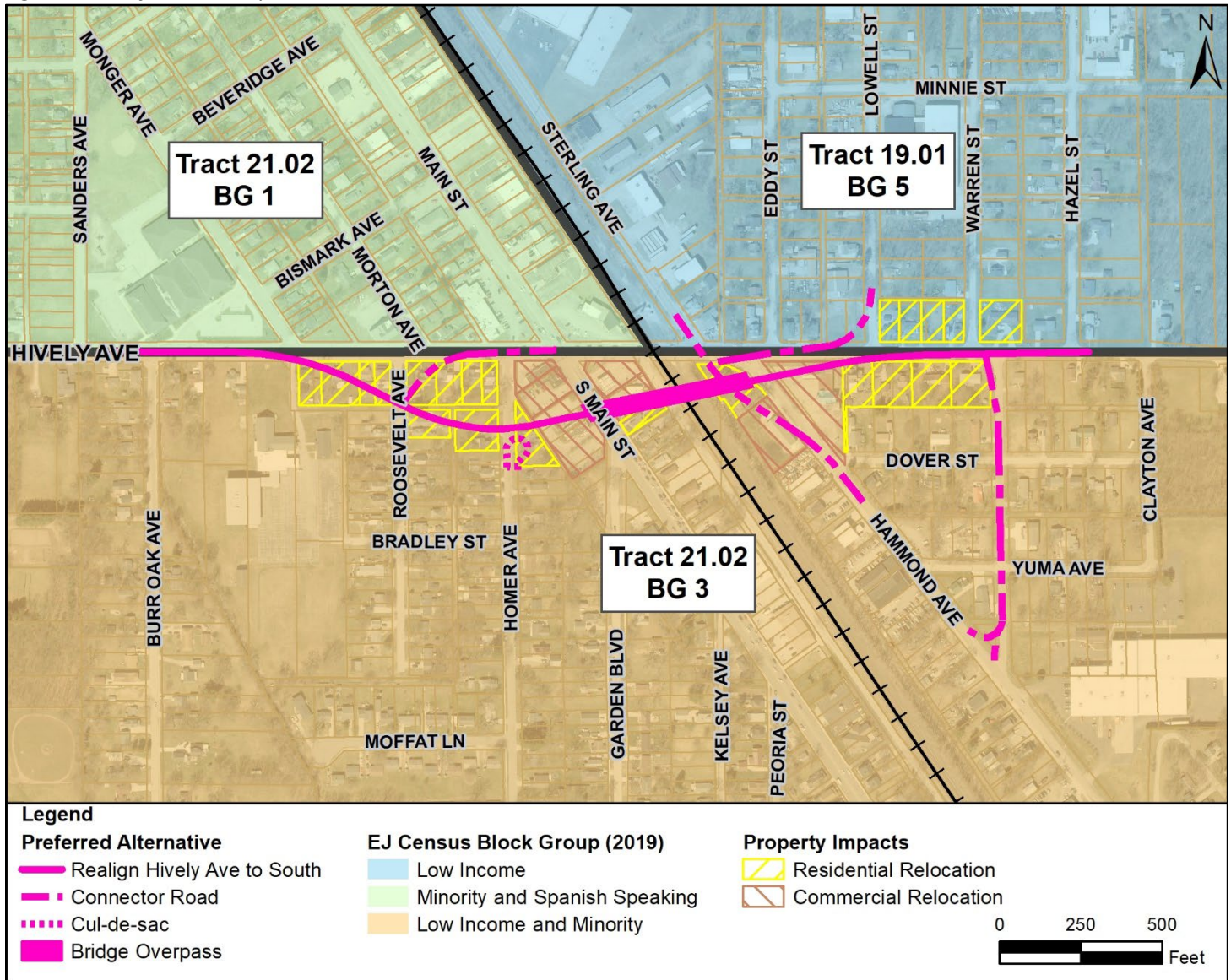
Environmental Justice

Further expanding on the anticipated property impacts, the Preferred Alternative anticipated impacts to properties within EJ Census Block Groups was identified in Table 11 and shown in Figure 25.

Table 11. Preferred EJ Block Group Residential Impacts

	Preferred Alternative
Total Residential Impacts	21
Tract 19.01 BG 5 (low-income)	5
Tract 21.02 BG 1 (minority & Spanish speaking)	0
Tract 21.02 BG 3 (low-income & minority & Spanish speaking)	16

Figure 25. Preferred EJ Impacts



Cultural Resources

An Area of Potential Effects (APE) was established and includes all properties adjacent to the project and those with a proximate viewshed of the project. The dimensions of the above-ground APE were defined by the new bridge construction over the railroad tracks, realignment of Hively Avenue, urban residential development, and mature vegetation. The APE measures approximately 0.72 mile long and 0.42 mile wide. The archaeological APE consists of all proposed new, temporary, or existing right of way as well as any additional areas investigated beyond it.

No properties within the APE are listed in or recommended eligible for listing in the National Register of Historic Places (NRHP). It has been determined that a “No Historic Properties Affected” finding is appropriate for the proposed project.

Hazardous Materials

A Modified Phase I ESA report was completed by Michael Baker and concluded that while there are 13 parcels that cannot be avoided per Stage 1 plans with either a current on-site recognized environmental condition (REC), or Historic REC in connection with past uses that pose a concern to impact worker safety and proper handling/disposal of waste (i.e., soil and/or water) generated as part of construction activities.

Further evaluation (Phase II sampling) is recommended at 13 locations and typically consists of surface soil (0-2-feet bgs), subsurface soil samples (below 2-feet to 10-feet bgs), and groundwater (if encountered); depending on the maximum excavation at a given location.

Noise

A Type I noise analysis was performed. Seven existing ambient measurements were recorded. Two of the ambient levels approached or exceeded the NAC criteria. A total of 128 location sites representing 128 receptors were modeled for the existing, design year build and no-build alternatives. Existing modeled Leq noise levels ranged from 41.6 dBA to 68.7 dBA (Interior; 29.5 dBA to 32.3 dBA). There were seven receptors that approach or exceed the applicable NAC criteria as defined in the INDOT Traffic Noise Analysis Procedure. These locations consisted of seven residential land uses. An evaluation of the design year No Build scenario resulted in the identification of 10 residences that approached or exceeded the NAC criteria.

The analysis summary predicted 14 total impacts (14 NAC and zero substantial increase impacts). There were no barriers that met INDOT's criteria for "feasibility". Therefore, no barriers are proposed to be carried forward as a result of this preliminary analysis. A final determination on noise abatement will be made during the final design phase of the project. At such time, additional noise analysis will be performed as applicable to more accurately determine barrier performance, barrier characteristics (length and height), and the optimal barrier location for any potential noise barriers that may be recommended for noise abatement.

Tax Base/Property Values

The project is located within a Tax Increment Financing (TIF) District. The condensed TIF has 2,796 parcels and the total revenue of this TIF is approximately 1.9 million. The project will impact 17 parcels which is 0.61% impact to the total parcels within the consolidated TIF. The project will create a loss of approximately \$47,671 (total tax collected from parcels) which is 2.51% loss of the total revenue. Coordination was conducted with the City of Elkhart Assistant Director for Economic Development and the TIF Infrastructure Project Supervisor. They provided the following information:

- Project has long term positive impact for both residential and commercial uses in that it reduces congestion and traffic backup in this corridor.
- The loss of residential parcels with respect to their contribution to TIF increment will be negligible.
- Local commercial businesses that are displaced have ample opportunities to relocate within the corridor.
- The short-term disruption of traffic flow is manageable and not deemed to be an impediment to economic development.

Consistency with Regional and Local Planning

The Project has been programmed in both State and Local transportation plans. In addition, the City of Elkhart has been an active participant in leading the Project and public outreach efforts.

STIP

The Project is identified as Designation (Des.) Number 1801933 in the Fiscal Year (FY) 2020-2024 Indiana State Transportation Improvement Program (STIP).

MPO TIP

The MPO, MACOG, serves Elkhart, Kosciusko, Marshall, and St. Joseph counties. The Project is listed in the State Fiscal Year (SFY) 2020-2024 Transportation Improvement Program (TIP).

MPO LRTP

MACOG is responsible for producing a 20 year long-range transportation plan (LRTP) which is updated every four years. The plan, *Michiana on the Move: Transportation Plan 2045*, was adopted on October 2019. Michiana on the Move identifies the Hively Avenue Project as a high priority project.

City of Elkhart

The *City of Elkhart Comprehensive Plan, adopted 2015* identifies MACOG's list of upcoming projects as part of the 20 year plan and includes the Hively Avenue grade separation project.

Additional Public Outreach

The Preferred Alternative including draft impact analysis was socialized with the public at Public Information Meeting #3, an in-person, open-house style meeting in late August 2021. PIM #3 provided more detailed design information and further evaluated proposed property impacts and included a station dedicated to explaining the land acquisition and relocation process. Members of the Project's ROW services team were available to answer questions about ROW and relocations and spend time speaking with individual property owners and residents. FHWA Relocation, FHWA Spanish translated Relocation, and Acquisition Brochures were also provided. The Project team presented the proposed Truck Route along south Warren Street, the extensive sidewalk improvements, intersection improvements and other design details including traffic movements. Approximately 80 people attended the Public Information Meeting #3 open house.

As expected, most public comments and concerns were focused on the proposed property impacts, the timing of activities, the project schedule and when to expect land acquisition to begin. There were also concerns and questions about traffic flow and turning movements, the location of signals, accommodations for the MapleHeart Trail extension (recently funded by a Next Level Trails Grant) which includes access to the Environmental Center (outside but adjacent to the Study Area) and the potential for 'cut-thru' traffic, particularly trucks, to the northeast of the project.

The Project team has finalized the Preferred Alternative including impact analysis and prepared the draft environmental document, EA, for release for public involvement and the public hearing. Additional public engagement activities including Kitchen Table Meetings have occurred with impacted property owners and a Conceptual Stage Relocation Study (CSRS) to inform relocation assistance.

All pertinent project information including contact information for key personnel is provided on the City of Elkhart's website <https://elkhartindiana.org/government/street-department/hively-overpass/> and city staff

continue to address local citizen inquiries. The City will also provide social media updates and continue to solicit public comments. The INDOT Fort Wayne District will also continue to support the project and provide social media updates and post pertinent information regarding the public hearing.

Burdens & Benefits Summary

Burdens Summary

As with any proposed major infrastructure improvement, the community and, specifically, adjacent property owners and occupants will experience some degree of direct, indirect, and cumulative impacts. The No Build alternative also has impacts in that the existing condition and deficiencies within the community go unaddressed.

The burden of any of the build alternatives considered and the Preferred Alternative is that there are direct impacts associated with the ROW needed to construct and maintain the new bridge and roadway. Residential property impacts will require land acquisition and relocation assistance. Relocation may be difficult given the conditions of the current real estate market and availability of replacement housing. The acquisition and relocation program will be conducted in accordance with 49 CFR 24 of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 as amended (Uniform Act). Relocation resources are available to all residential and business relocates without discrimination. No person displaced by this project will be required to move from a displaced dwelling unless comparable replacement housing is available to that person.

To further address this issue, a CSRS has been prepared. Affected owners, residents including renters, and businesses were offered the opportunity to meet with members of the team in person, by phone, or via video call for a kitchen table meeting (KTM). The purpose of the meeting was to familiarize residents with the project and members of the team, answer their questions, and address their concerns. Specific general observations from the KTM's are summarized as the following in the CSRS:

- Interactions with residents and businesses were very cordial and people were welcoming and inquisitive.
- Several residents expressed that they will be happy to move away from the high-traffic area and look forward to the day when they are no longer stopped at the railroad tracks.
- Attitudes regarding the project are generally positive. Only one resident spoke out against it, but admitted he is looking forward to a fresh start in a new home.
- Everyone interviewed is aware of and concerned about the fast-moving real estate market—whether they are looking for homes to purchase or rent, or a new business location.

The businesses being impacted include the Speedwash Laundromat, Hunter's Restaurant, Kentucky Fried Chicken, 7-11 gas station, all resources that are utilized by the community. There are also two new growing businesses, Pavel's Auto and Moreno's Roofing, that will be impacted. These businesses will most likely not be able to be relocated within the project vicinity. However, similar resources are located within the Area Network. The next nearest laundromat is approximately 2.2 miles away and there are convenient store/gas stations located north and west of the project.

Another burden includes a loss of direct access from Homer Avenue to Hively Avenue. The project will add a cul-de-sac at the north end of Homer Avenue.

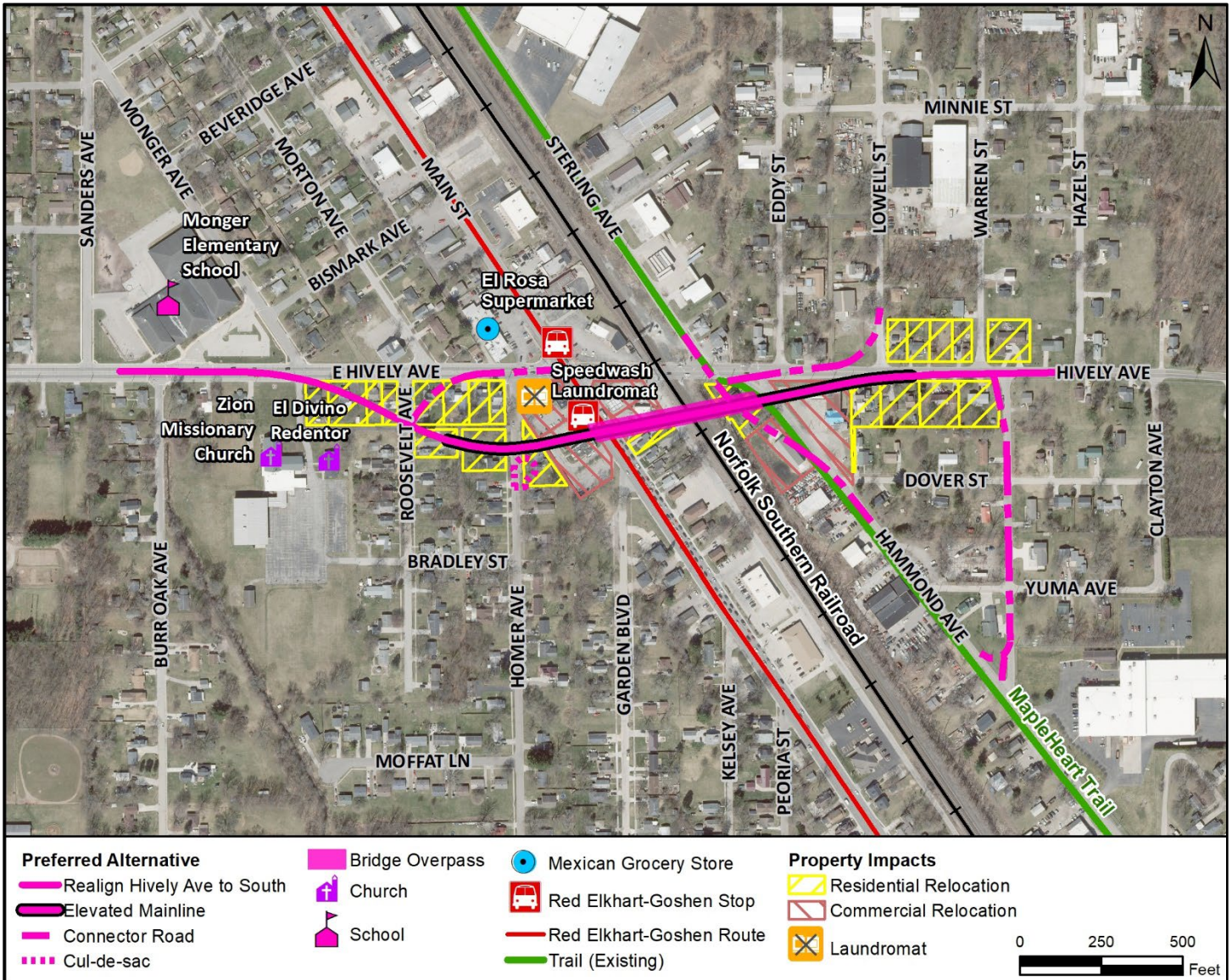
There will be temporary inconveniences during construction. The MOT plan for the project will be split into phases, Phase 1, Phase 2A & 2B, Phase 3A & 3B and Phase 4. Phase 1 will install proposed stormwater and waterline crossings across Hively Avenue, Eddy Street, Lowell Avenue and Warren Avenue. Phase 2A will keep Hively Avenue open as construction begins south of Hively Avenue. Major work to be completed during this phase includes reconstruction of Warren Street from Hively Avenue down to Hammond Avenue and the sidewalk along the west side of Hammond Avenue from just north of Yuma Avenue to Hively Avenue. Closures will be required on intersecting side streets including Roosevelt Avenue, Homer Avenue, Hammond Avenue, and Warren Street. During this time a detour route will be provided utilizing US 33 and CR 45 for the Hammond Avenue closure. Phase 2B will be the same MOT as Phase 2A with the exception that Hammond Avenue will realigned and reconstructed. Pedestrian traffic will be maintained on the sidewalk along the west side of Hammond Avenue during this phase. Phase 3A will require temporary closures on Roosevelt Avenue, Homer Avenue, Lowell Avenue and sections of Hively Avenue. During this phase of construction of the main approach roadway and MSE walls will be constructed along the new Hively Avenue alignment. Due to settlement concerns this portion of construction will require 6 months post construction to allow for natural settlement. A detour for Hively will use the newly constructed Warren Street going south to connect to Hammond Avenue north to the original Hively Avenue. Phase 3B will be a shorter-term construction phase which ties the new Hively alignment into the existing. This will include the reconstruction of intersections at Monger and Hively, Roosevelt and Hively, Warren and Hively, and Hazel Street and Hively. Additional work will include the re-alignment to connect Lowell Avenue and Eddy Street directly to Sterling Avenue as well as modifications to the east half of Main Street. A posted detour route will be provided during this phase which incorporates the use of Pleasant Plain Avenue, Mishawaka Rd and County Road 13. Phase 4 will construct the new Roosevelt Avenue connection to Main Street, modifications to the west half of Main Street, and final modifications to Morton Avenue, Garden Blvd. and Sterling/Hammond Avenue.

A Type 1 noise analysis was conducted for the project as previously discussed on page 45. The analysis summary predicted 14 total impacts (14 NAC and zero substantial increase impacts). Additional analysis concluded that there were no noise barriers that met INDOT's criteria for "feasibility". Therefore, no barriers are proposed to be carried forward into final design and construction. All pertinent technical information on the Type 1 noise analysis is provided in the Environmental Assessment documentation in Appendix I.

Detailed air quality analysis was not required because the project type is exempt under the Clean Air Act. However, the proposed project will likely result in an overall improvement to localized air quality because it removes the frequent congestion of vehicles idling waiting for trains, often several times a day.

The project is in an urban area with the appropriate utilities to manage stormwater and general water quality. These facilities will be further upgraded with the construction of the Preferred Alternative. Over an acre of greenspace is being added with the potential for more depending on ROW acquisition. Generally, this greenspace is expected to improve water quality in the immediate vicinity of the project. The City of Elkhart will continue to work within its boundaries to improve overall water quality and stormwater management within the project Study Area and beyond.

Figure 26. Preferred Alternative Burdens



Benefits Summary

The project build alternatives, and, specifically, the Preferred Alternative has numerous benefits to the community. The construct of the overpass will alleviate the at-grade crossing of Hively Avenue and the Norfolk Southern Railroad tracks and allow vehicular traffic, bicycle and pedestrian movements and trains to move independent of one another. This will reduce congestion and improve mobility and overall travel reliability within the Study Area. The sidewalk network will be greatly improved (deficiencies are detailed on pages 33 and 34); new, connected, ADA compliant sidewalks along Hively Avenue and adjacent side streets, Main Street, Roosevelt Avenue, and Hammond Avenue allow a connection to Monger Elementary School, El Rosal supermarket, churches, residential and businesses; an overall benefit to the community. The sidewalk improvements in the vicinity of Monger Elementary are consistent with Safe Routes to School goals identified in local plans. The improved sidewalks also provide connectivity to the MapleHeart Trail which is lacking in the existing condition; this will also improve neighborhood connectivity to the Environmental Center. Pedestrian access to the transit stop will be improved with ADA compliant sidewalk and may be further enhanced by green

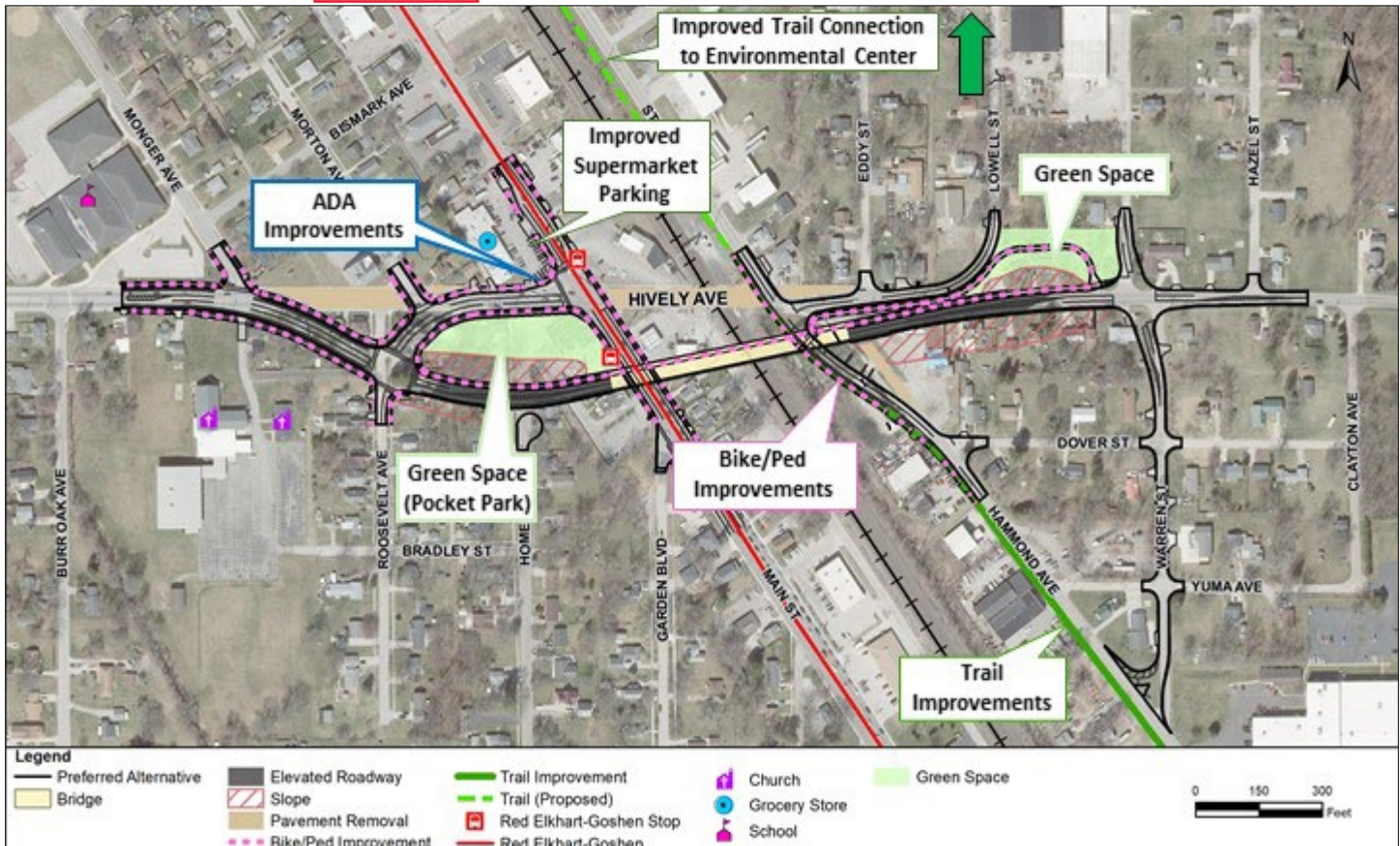
space located between the mainline of the new roadway and bridge and the connection back to Hively on the westside. The main intersections in the vicinity of the project are very urban and have been impacted over time by various levels of improvement, removing trees, shrubs, and greenspace in the study area. Specifically, the intersection of Main and Hively is predominately asphalt and pavement; including the flag bus stop location which lacks any ADA access. The City of Elkhart expressed interest in adding green space and feedback from public during public information meetings was supportive of ‘greening’ the area.

The MOT of the Preferred Alternative keeps the existing Hively Avenue roadway open throughout most of the project construction and will only be closed for a few months during construction. The No Build provides no net benefit to the community. Table 12 and Figure 27.

Table 12. Benefits of No Build versus Preferred Alternative

Benefits	No Build	Preferred Alternative
Creates connectivity/mobility	X	✓
Eliminates traffic backups/congestion at Norfolk Southern RR crossing	X	✓
Creates sidewalk connection along Hively Avenue	X	✓
Creates a safe pedestrian crossing over the Norfolk Southern RR	X	✓
ADA compliant curb ramps and sidewalk	X	✓
Improved pedestrian facilities with clear crosswalk markings and lighting signals	X	✓
Connection to existing MapleHeart Trail and proposed extension	X	✓
Improved accessibility to bus flag stop locations	X	✓
Improved Elementary School 1 mile walk zone	X	✓

Figure 27. Project Benefits *updated



Identify and Address Disproportionality High and Adverse Impacts

It is not the purpose of an EJ analysis to simply to determine whether a plan or project will have an adverse impact on an EJ community. The purpose is to explore whether the adverse effect is “disproportionately” high. An adverse effect becomes “disproportionate” when that effect

- 1) is predominantly borne by an EJ population, or
- 2) will be suffered by the EJ population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-EJ population.

Questions to consider when determining if disproportionately high and adverse human health or environmental impacts exist include:

- 1) Will the adverse effects on EJ populations exceed those borne by non-EJ populations?
 - a. Adverse effects of the Preferred Alternative do exceed the adverse effects borne by non-EJ populations. The adverse effects to EJ populations are associated with the displacements and relocations of people and businesses, twenty-one (21) residential and six (6) commercial. However, the entire Study Area is comprised of EJ populations. Similarly all build alternatives have comparable impacts and would also result in adverse effects. The No Build in its current condition has adverse effects to EJ populations associated with a lack of community cohesion. Therefore, neither the No Build or any of the build alternatives considered could avoid adverse effects.

The project does not have adverse effects associated with air, noise, water pollution, destruction of man-made and natural resources, aesthetic values, community cohesion, availability of public facilities and services, employment effects, tax and property value losses, and disruption of desirable community and regional growth.

- 2) Will cumulative or indirect effects adversely affect an EJ population?
 - a. The cumulative and indirect effects associated with the Preferred Alternative will adversely affect the EJ populations identified during the study. However, the project will provide an overall net-benefit to the community and to EJ populations in the vicinity of the improvements as discussed on page 49 and shown on Figure 27.
- 3) Will mitigation and enhancement measures be taken for EJ and non-EJ populations?
 - a. Yes, mitigation and enhancement measures will be implemented. The build alternatives, including the Preferred Alternative, were developed with an updated community context, existing conditions and deficiencies inventory and key constraints to incorporate avoidance and minimization measures into the design process. The Preferred Alternative includes the creation of dedicated green space (new pocket park), enhanced fully ADA compliant sidewalk including non-impacted sidewalk, wider sidewalk accommodations near Monger Elementary School, parking lot reconfiguration and improved access to El Rosal supermarket (Minority business), improved ADA compliant flag bus stop, and improved connectivity to the MapleHeart Trail. Additional detail is provided in the following Mitigation section.
- 4) Will there are off-setting benefits to EJ populations as compared to non-EJ populations?
 - a. Yes, there are off-setting benefits to EJ populations. Improved Emergency Services (EMS) access and response times (remove stop condition associated with train movements). Improved safety for all modes of transportation including vehicles, pedestrians, bicyclists, and those with disabilities. Improved micro air quality within the vicinity (reduced idling associated with traffic). Improved community connectivity and access to resources including the Elkhart Environmental Center, Monger Elementary, local businesses, green space and MapleHeart Trail. Improved commercial vehicle access and reliability. Emphasis on maintaining access to Hively Avenue during construction will reduce disruption to local minority business owners and EJ populations. Additional detail is provided in the following Off-set Benefit section.

Mitigation Measures

The Preferred Alternative implemented avoidance and minimization measures where possible. Since displacements and therefore an adverse effect were unavoidable, mitigation measures will be implemented for the project. The Preferred Alternative will implement the following mitigation measures:

- Creation of dedicated green space
 - A new pocket park will be created between the mainline of the new roadway and bridge and the connection back to Hively on the westside. The City of Elkhart has agreed to allow a public art installation in the pocket park and a bench that can be located near the updated ADA accessible flag bus stop.

- A green space will be created between new sidewalk and Hively Avenue on the eastside of the project.
- Enhanced ADA compliant sidewalks/signals/crosswalks
 - The City of Elkhart has not officially adopted a Complete Streets Policy. The Preferred Alternative has provided complete ADA compliant sidewalk connections including updating sidewalk not impacted by the project. The Preferred Alternative includes crosswalks with ADA compliant pedestrian push buttons and signals. The improved sidewalk will connect to Monger Elementary School and is consistent with Safe Routes to School goals identified in local plans.
- Wider sidewalk near Monger Elementary School
 - The Preferred Alternative will provide 8-foot sidewalks within the vicinity of the school for maintenance and snow removal based on coordination with Elkhart Community Schools.
- Improved access and parking lot of El Rosal
 - The Preferred Alternative avoided relocating El Rosal, the local Hispanic supermarket (Minority business). El Rosal was previously relocated due to another transportation project in the past and avoiding and minimizing impacts to this resource was a key consideration from the beginning of the project. The Preferred Alternative will provide improved access and connection to El Rosal for both vehicles and pedestrians. In addition, El Rosal parking lot will be reconfigured in coordination with El Rosal to accommodate parking spaces. These mitigation measures will benefit both the business and customers.
- Improved flag bus stop
 - Flag bus stop, Stop 43, will be relocated but still in the same vicinity of it's current location on Main Street. The flag bus stop will now be more accessible for all users with ADA compliant sidewalk connection and connection to the newly created pocket park.
- Improved connectivity to MapleHeart Trail
 - The Preferred Alternative will provide sidewalk connection to the MapleHeart Trail. The MapleHeart Trail will also be improved by connection to the proposed trail improvements to the north and provide a safer crossing across Hively Avenue.

Off-set Benefits

The Preferred Alternative has many benefits that off-set the adverse effects. The project provides benefits for those who remain within vicinity of the project (EJ) and those traveling through (Non-EJ). The Preferred Alternative off-set benefits include the following:

- Improved EMS access and response times
 - The Preferred Alternative will remove the stop condition associated with train movements. This allows EMS to travel through the Study Area with less potential delays, improved access to community resources, and improved reliability.

- Improved safety
 - The Preferred Alternative removes crossing the railroad tracks at-grade and providing an improved facility for vehicles, pedestrians, and bicylists to use.
- Improved air
 - Micro air quality will be improved within the vicinity of the project because the Preferred Alternative removes the stop condition which causes idling while waiting for trains.
- Improved connectivity and access
 - The Preferred Alternative will provide a continuous network. It will create connectivity to the Environmental Center and Monger Elementary School which provide educational programming, recreational opportunities, and improved access to the local supermarket.
- Improved aesthetics
 - The Preferred Alternative creates improved aesthetics with the addition of green space and local public art installation.
- Improved public health
 - The creation of connected sidewalks, improved crosswalks, MapleHeart Trail connection, and connection to other community resources promotes physical activity and improved public health for pedestrians and bicyclists. The reduction in idling and improved micro air quality also is a health benefit to the community.

Fair Participation

Since the Preferred Alternative does have adverse effects, it is important to ensure the project had full and fair participation by all potentially affected communities in the transportation decision-making process.

Public comment opportunities have been available throughout the project and will continue through the public hearing comment period. Public information materials and the City of Elkhart's project website have provided project specific information, exhibits, and contact information. The public, including EJ populations, can provide comments via phone, mail, or email. The Project team keeps track of comments in an on-going comment response table included as part of the PIP document.

Under the Uniform Act, there can be eligibility for multiple relocations on a single parcel of land that is to be acquired (this can include owner-occupied, tenant-occupied residence, etc); therefore, the project has an estimated total of 33 eligible relocations as further explained in the CSRS. Affected owners, residents including renters, and businesses were offered the opportunity to meet with members of the team in person, by phone, or via video call for a KTM. The purpose of the meeting was to familiarize residents with the project and members of the team, answer their questions, and address their concerns. KTM's have been conducted with 31 of 33 (94%) potential relocation parcels. One business (KFC) did not respond to the two owner contact letters that were mailed. Specific general observations from the KTM's are summarized as the following in the CSRS:

- Interactions with residents and businesses were very cordial and people were welcoming and inquisitive.
- Several residents expressed that they will be happy to move away from the high-traffic area and look forward to the day when they are no longer stopped at the railroad tracks.

- Attitudes regarding the project are generally positive. Only one resident spoke out against it, but admitted he is looking forward to a fresh start in a new home.
- Everyone interviewed is aware of and concerned about the fast-moving real estate market—whether they are looking for homes to purchase or rent, or a new business location.

In addition, the relocation assistance program provides renters the opportunity to become homeowners which is consistent with the goals of the Uniform Act. As provided in the CSRS, several renters in the project Study Area being impacted by displacement and relocation intend to use their relocation benefit package for the purpose of purchasing a home.

Conclusion

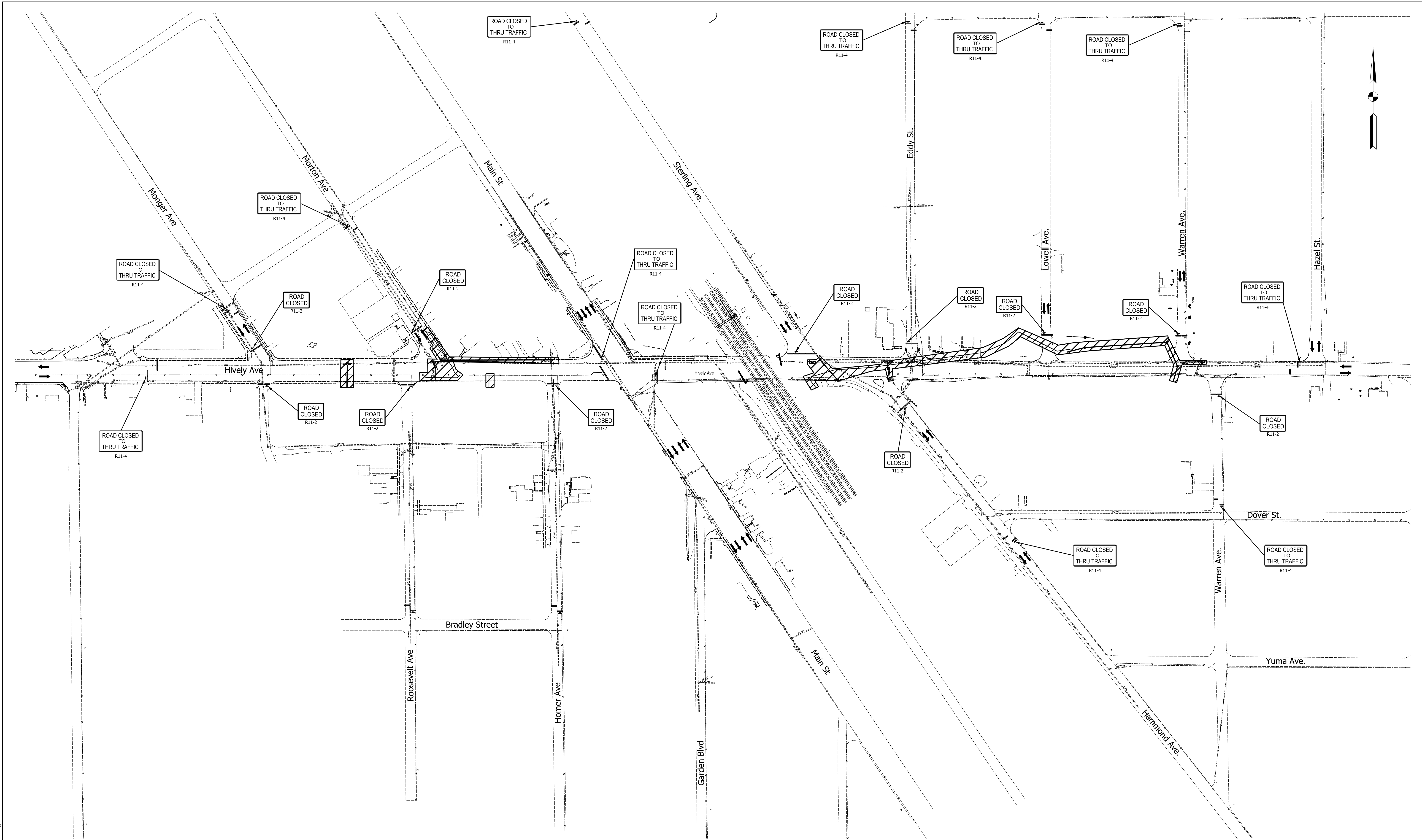
The Preferred Alternative has disproportionately high and adverse effects, in the form of displacements and relocations, but the Preferred Alternative has the least adverse effect and overall project impacts while providing the most benefit. All the build alternatives developed and considered have similar displacement impacts. However, the Preferred Alternative provided the most beneficial effects to the EJ population because it also allows Hively Avenue to remain open for most of the construction duration which avoids and minimizes travel impacts, delays, stress on adjacent business and allows for vehicular mobility during construction; this is not the case with other build alternatives considered. The No Build would leave the Study Area in its current condition continuing an existing burden to EJ populations due to the lack of connectivity of existing facilities and an unsafe crossing for pedestrians and bicyclists with the railroad. The No Build provides no net benefit to the community as a whole or EJ populations.

The Preferred Alternative provides mitigation measures including the creation of dedicated green spaces (including a new pocket park), enhanced fully ADA compliant sidewalk including non-impacted sidewalk, wider sidewalk accommodations near Monger Elementary School, parking lot reconfiguration and improved access to El Rosal supermarket (Minority business), improved ADA compliant flag bus stop, and improved connectivity to the MapleHeart Trail.

The Preferred Alternative also provides off-set benefits including improved EMS access and response times, improved safety for all modes of transportation including vehicles, pedestrians, bicyclists, and those with disabilities, improved micro air quality within the vicinity (reduced idling associated with traffic), improved community connectivity and access to resources including the Elkhart Environmental Center, Monger Elementary, local businesses, green space and MapleHeart Trail, improved aesthetics, improved public health, and improved commercial vehicle access and reliability.

Attachment E:

Project Modifications



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LEGEND

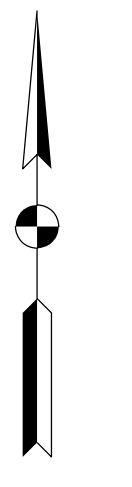
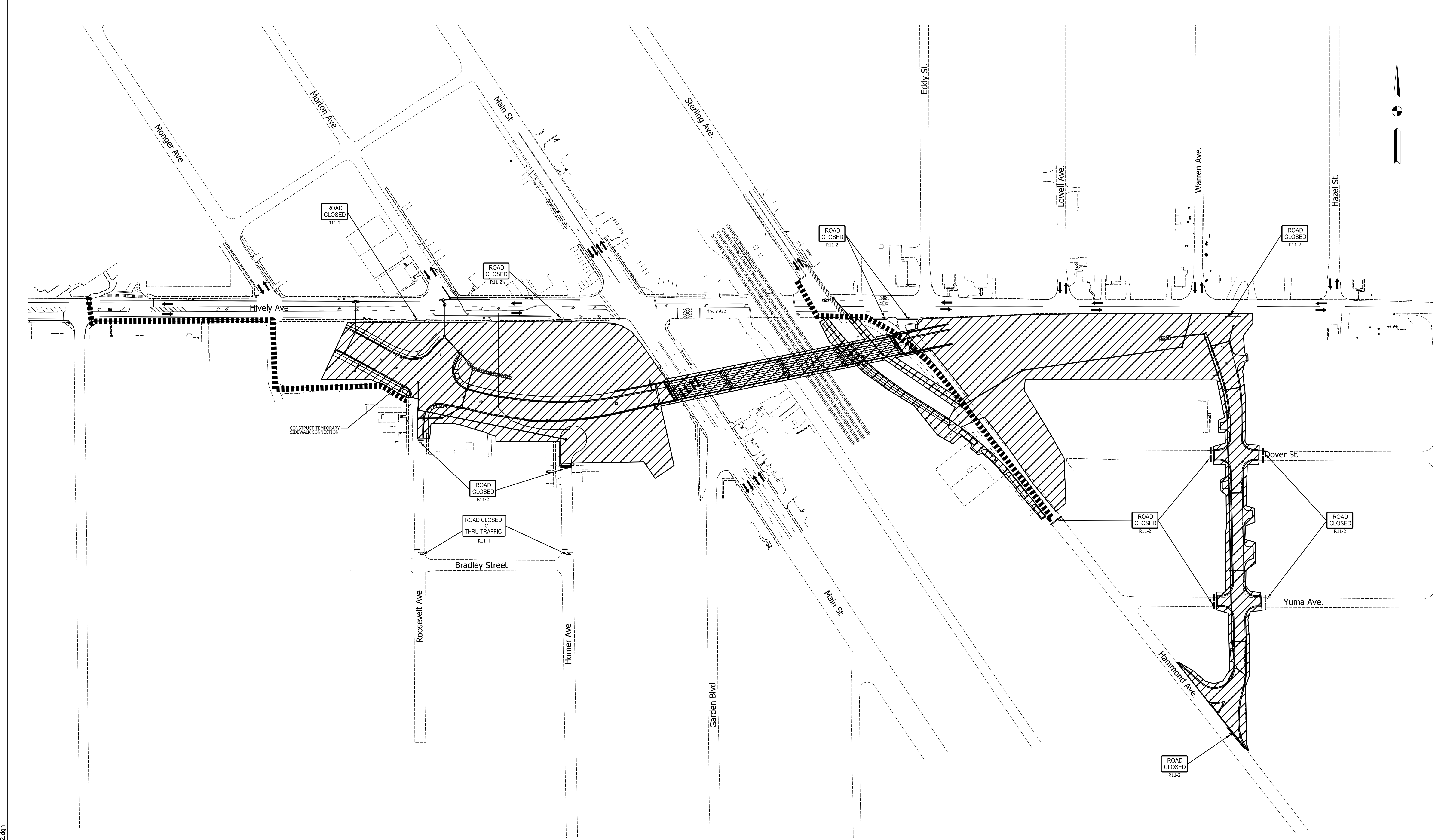
- | | | | | | | | |
|--|---|--|---|--|---|--|-------------------------|
| | CONSTRUCTION SIGN | | BARRICADE, TYPE III-A OR III-B | | TEMP. PAVEMENT MARKING, LANE INDICATION ARROW | | PEDESTRIAN DETOUR ROUTE |
| | CONSTRUCTION AREA | | DIRECTION OF TRAFFIC | | TEMP. PAVEMENT MARKING, YELLOW, 4" | | |
| | CONSTRUCTION AREA UNDER SINGLE LANE CLOSURE & FLAGGER CONTROL | | DRUM (40' SPACING IN TANGENT, 20' SPACING IN TAPER) | | TEMP. PAVEMENT MARKING, WHITE, 4" | | |
| | | | TEMPORARY TRAFFIC BARRIER, TYPE 2, ANCHORED | | TEMP. PAVEMENT MARKING, REMOVABLE, YELLOW, 4" | | |
| | | | ENERGY-ABSORBING TERMINAL, CZ, TL-2 | | TEMP. PAVEMENT MARKING, REMOVABLE, WHITE, 4" | | |

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: <u> MJS </u>	DRAWN: <u> MJS </u>	
CHECKED: <u> JMM </u>	CHECKED: <u> JMM </u>	

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 1

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1801933
SURVEY BOOK	SHEETS
N/A	14 of 168
CONTRACT	PROJECT
B-41845	1801933



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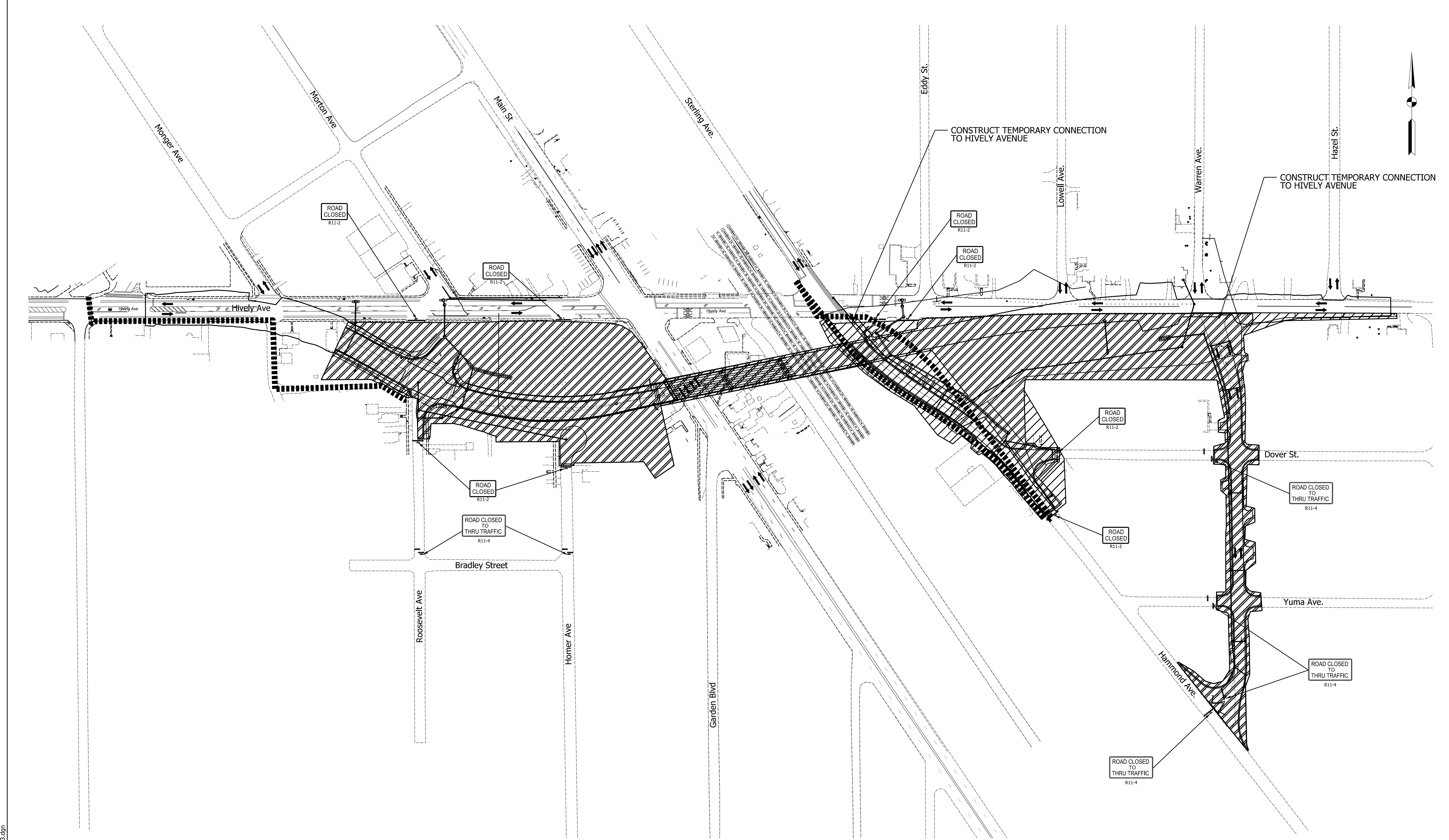
LEGEND	
	CONSTRUCTION SIGN
	CONSTRUCTION AREA
	CONSTRUCTION AREA UNDER SINGLE LANE CLOSURE & FLAGGER CONTROL
	BARRICADE, TYPE III-A OR III-B
	DIRECTION OF TRAFFIC
	DRUM (40' SPACING IN TANGENT, 20' SPACING IN TAPER)
	TEMPORARY TRAFFIC BARRIER, TYPE 2, ANCHORED
	ENERGY-ABSORBING TERMINAL, CZ, TL-2
	TEMP. PAVEMENT MARKING, LANE INDICATION ARROW
	TEMP. PAVEMENT MARKING, YELLOW, 4"
	TEMP. PAVEMENT MARKING, WHITE, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, YELLOW, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, WHITE, 4"
	PEDESTRIAN DETOUR ROUTE

RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

INDIANA
DEPARTMENT OF TRANSPORTATION

**MAINTENANCE OF TRAFFIC
PHASE 2A**

HORIZONTAL SCALE 1" = 100'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1801933
SURVEY BOOK N/A	SHEETS 15 of 168
CONTRACT B-41845	PROJECT 1801933



LEGEND	
	CONSTRUCTION SIGN
	CONSTRUCTION AREA
	CONSTRUCTION AREA UNDER SINGLE LANE CLOSURE & FLAGGER CONTROL
	BARRICADE, TYPE III-A OR III-B
	DIRECTION OF TRAFFIC
	DRUM (40' SPACING IN TANGENT, 20' SPACING IN TAPER)
	TEMPORARY TRAFFIC BARRIER, TYPE 2, ANCHORED
	ENERGY-ABSORBING TERMINAL, CZ, TL-2
	TEMP. PAVEMENT MARKING, LANE INDICATION ARROW
	TEMP. PAVEMENT MARKING, YELLOW, 4"
	TEMP. PAVEMENT MARKING, WHITE, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, YELLOW, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, WHITE, 4"
	PEDESTRIAN DETOUR ROUTE

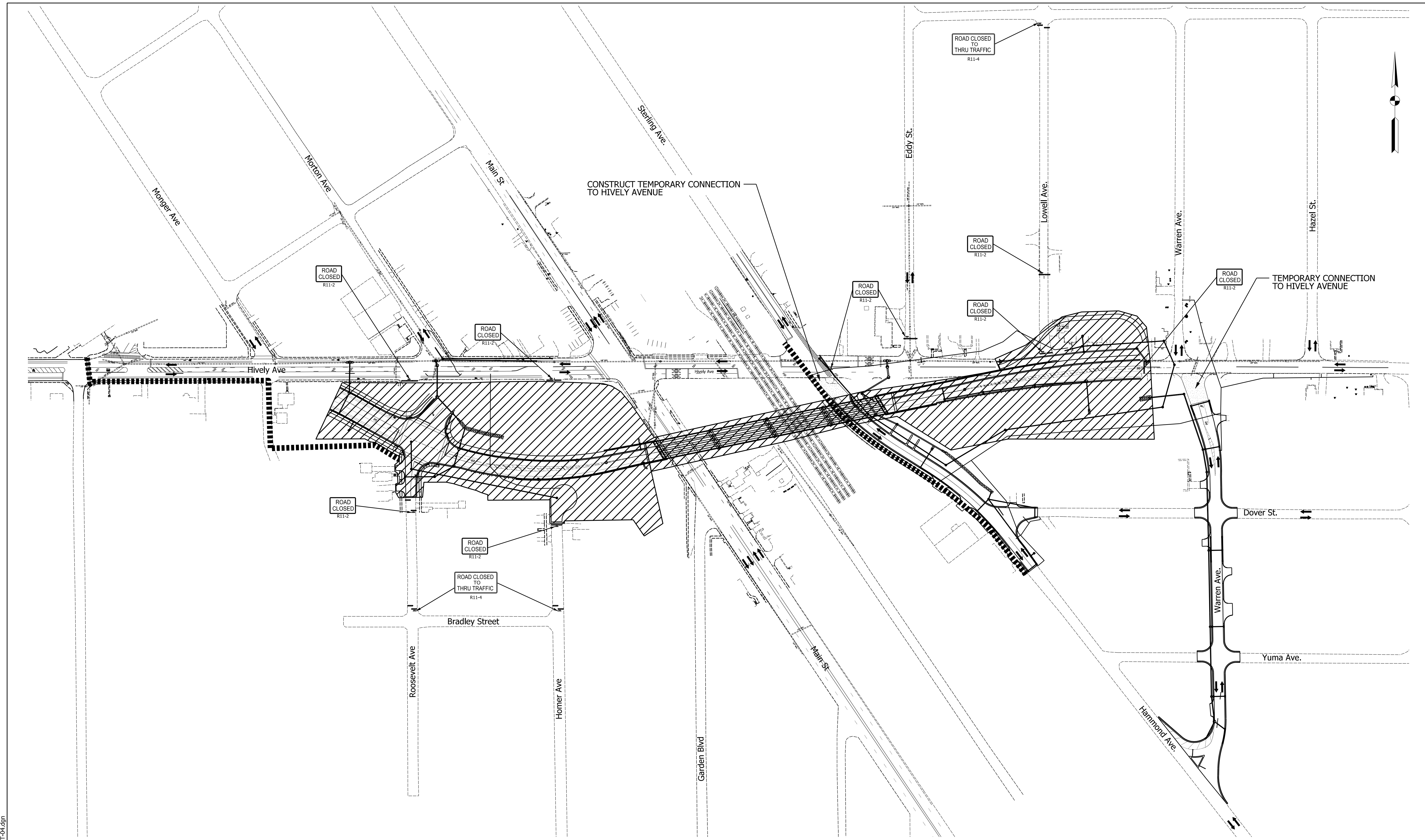
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 2B

HORIZONTAL SCALE 1" = 100'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1801933
SURVEY BOOK N/A	SHEETS 16 of 168
CONTRACT B-41845	PROJECT 1801933

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LEGEND	
	CONSTRUCTION SIGN
	CONSTRUCTION AREA
	CONSTRUCTION AREA UNDER SINGLE LANE CLOSURE & FLAGGER CONTROL
	BARRICADE, TYPE III-A OR III-B
	DIRECTION OF TRAFFIC
	DRUM (40' SPACING IN TANGENT, 20' SPACING IN TAPER)
	TEMPORARY TRAFFIC BARRIER, TYPE 2, ANCHORED
	ENERGY-ABSORBING TERMINAL, CZ, TL-2
	TEMP. PAVEMENT MARKING, LANE INDICATION ARROW
	TEMP. PAVEMENT MARKING, YELLOW, 4"
	TEMP. PAVEMENT MARKING, WHITE, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, YELLOW, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, WHITE, 4"

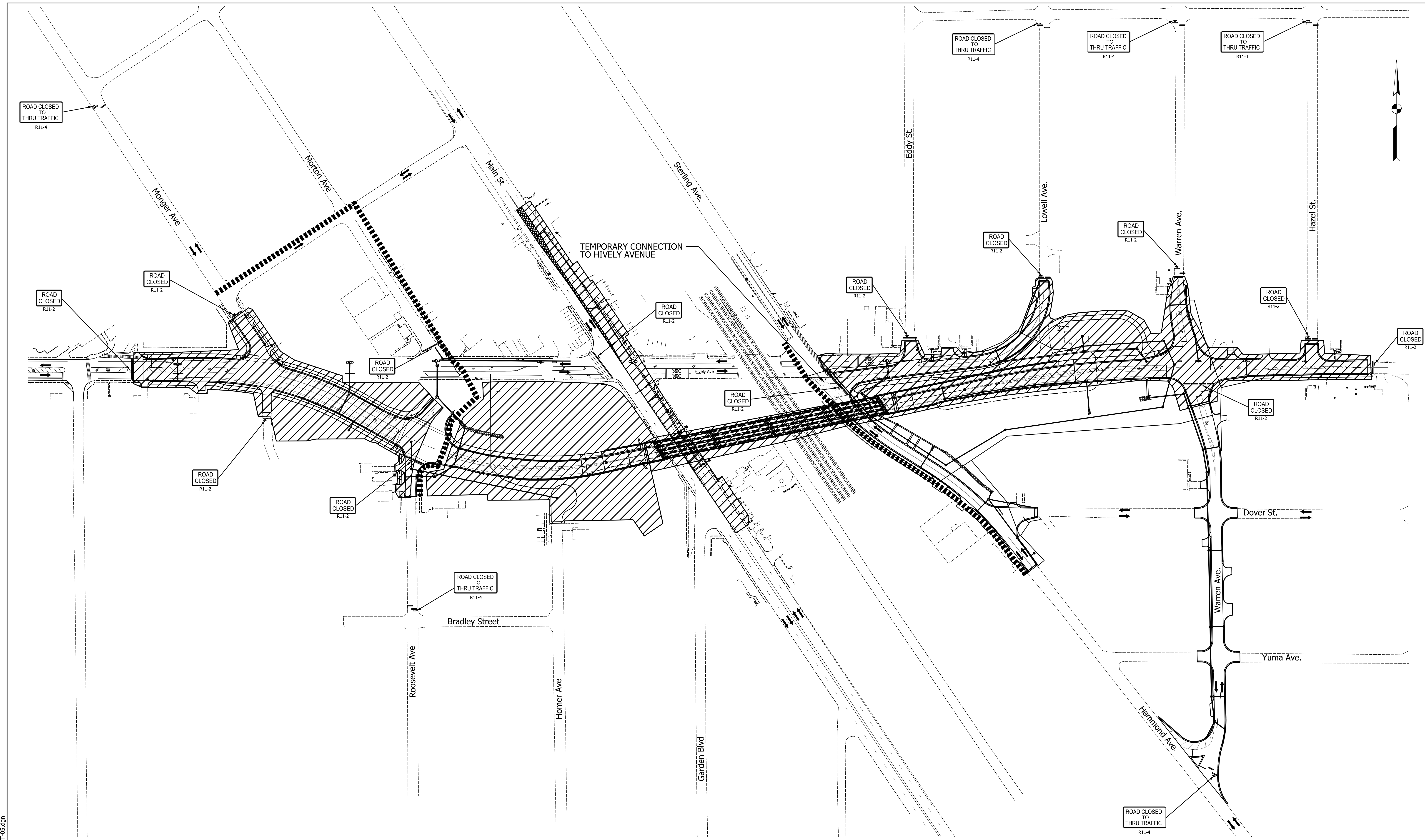
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

INDIANA
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC
PHASE 3A

HORIZONTAL SCALE 1" = 100'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1801933
SURVEY BOOK N/A	SHEETS 17 of 168
CONTRACT B-41845	PROJECT 1801933

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LEGEND			
	CONSTRUCTION SIGN		BARRICADE, TYPE III-A OR III-B
	CONSTRUCTION AREA		DIRECTION OF TRAFFIC
	CONSTRUCTION AREA UNDER SINGLE LANE CLOSURE & FLAGGER CONTROL		DRUM (40' SPACING IN TANGENT, 20' SPACING IN TAPER)
			TEMPORARY TRAFFIC BARRIER, TYPE 2, ANCHORED
			ENERGY-ABSORBING TERMINAL, CZ, TL-2
	TEMP. PAVEMENT MARKING, LANE INDICATION ARROW		TEMP. PAVEMENT MARKING, YELLOW, 4"
	TEMP. PAVEMENT MARKING, WHITE, 4"		TEMP. PAVEMENT MARKING, REMOVABLE, YELLOW, 4"
	TEMP. PAVEMENT MARKING, REMOVABLE, WHITE, 4"		

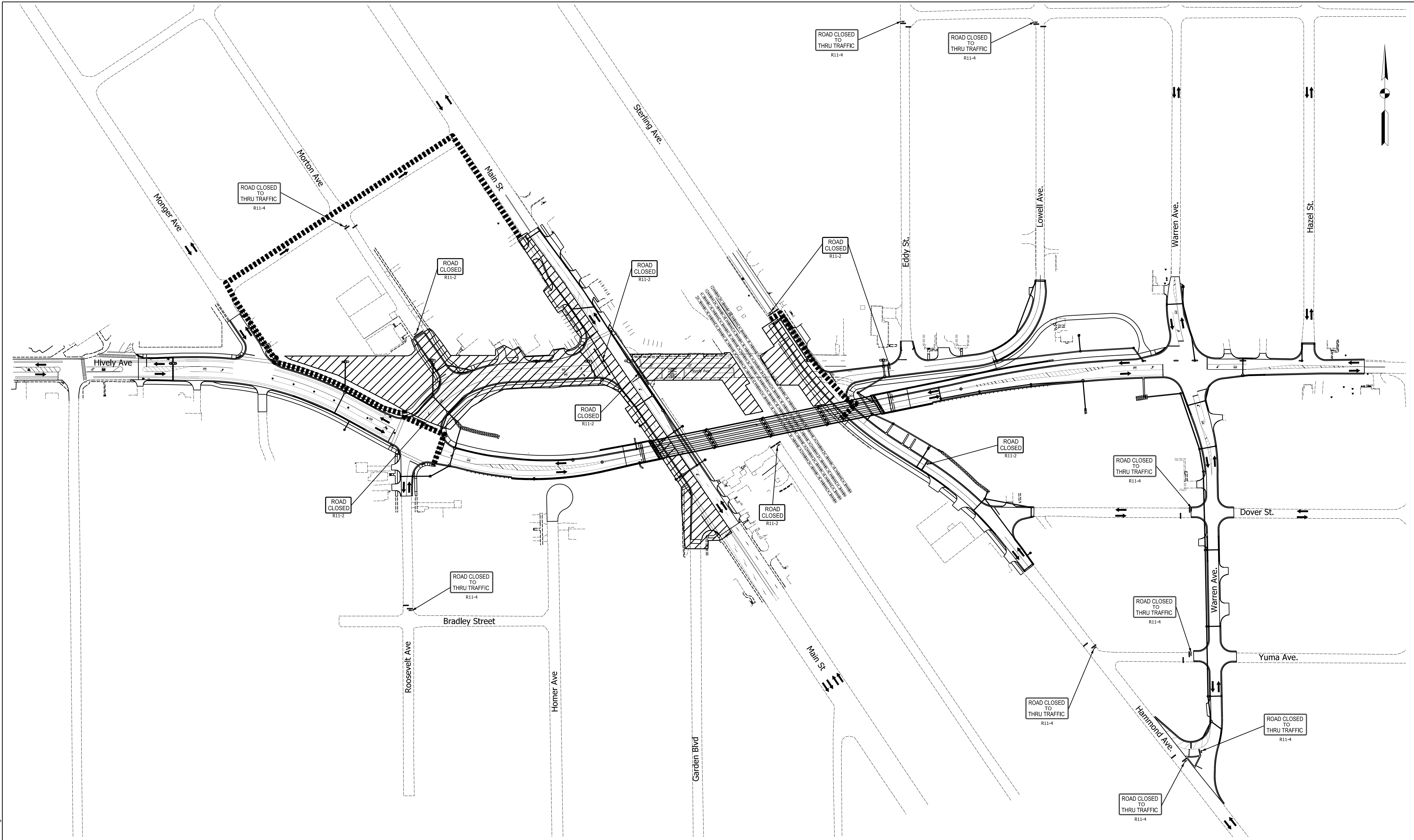
RECOMMENDED FOR APPROVAL _____	DESIGN ENGINEER _____	DATE _____
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

INDIANA
DEPARTMENT OF TRANSPORTATION

**MAINTENANCE OF TRAFFIC
PHASE 3B**

HORIZONTAL SCALE 1" = 100'	BRIDGE FILE N/A
VERTICAL SCALE N/A	DESIGNATION 1801933
SURVEY BOOK N/A	SHEETS 18 of 168
CONTRACT B-41845	PROJECT 1801933

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LEGEND

- | | | | | | | | |
|--|---|--|---|--|--|--|---|
| | CONSTRUCTION SIGN | | BARRICADE, TYPE III-A OR III-B | | 79 TEMP. PAVEMENT MARKING, LANE INDICATION ARROW | | PEDESTRIAN DETOUR ROUTE |
| | CONSTRUCTION AREA | | DIRECTION OF TRAFFIC | | 80 TEMP. PAVEMENT MARKING, YELLOW, 4" | | 81 TEMP. PAVEMENT MARKING, WHITE, 4" |
| | CONSTRUCTION AREA UNDER SINGLE LANE CLOSURE & FLAGGER CONTROL | | TEMPORARY TRAFFIC BARRIER, TYPE 2, ANCHORED | | 83 TEMP. PAVEMENT MARKING, REMOVABLE, YELLOW, 4" | | 84 TEMP. PAVEMENT MARKING, REMOVABLE, WHITE, 4" |
| | | | ENERGY-ABSORBING TERMINAL, CZ, TL-2 | | | | |

RECOMMENDED FOR APPROVAL	DESIGN ENGINEER	DATE
DESIGNED: MJS	DRAWN: MJS	
CHECKED: JMM	CHECKED: JMM	

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC PHASE 4

HORIZONTAL SCALE	BRIDGE FILE
1" = 100'	N/A
VERTICAL SCALE	DESIGNATION
N/A	1801933
SURVEY BOOK	SHEETS
N/A	19 of 168
CONTRACT	PROJECT
B-41845	1801933