

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

FHWA-Indiana Environmental Document CATEGORICAL EXCLUSION / ENVIRONMENTAL ASSESSMENT FORM GENERAL PROJECT INFORMATION

Road No./County:

I-65/I-70 North Split Interchange/Marion County

Designation Number:

1592385, 1600808 et al. (Additional Des. Nos. are listed in Appendix A, page 1)

**Project
Description/Termini:**

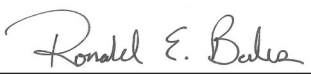
I-65/I-70 North Split Interchange Reconstruction Project (North Split Project)/ From the I-70 Valley Avenue Bridge to the east, the I-65/I-70 and Washington Street Interchange to the south (approximately 370 feet south of Washington Street), and the I-65 Alabama Street Bridge (to Illinois Street along 11th and 12th Streets) to the west

After completing this form, I conclude that this project qualifies for the following type of Categorical Exclusion (FHWA must review/approve if Level 4 CE):

	Categorical Exclusion, Level 2 – The proposed action meets the criteria for Categorical Exclusion Manual Level 2 - table 1, CE Level Thresholds. Required Signatories: ESM (Environmental Scoping Manager)
	Categorical Exclusion, Level 3 – The proposed action meets the criteria for Categorical Exclusion Manual Level 3 - table 1, CE Level Thresholds. Required Signatories: ESM, ES (Environmental Services Division)
	Categorical Exclusion, Level 4 – The proposed action meets the criteria for Categorical Exclusion Manual Level 4 - table 1, CE Level Thresholds. Required Signatories: ESM, ES, FHWA
X	Environmental Assessment (EA) – EAs require a separate FONSI. Additional research and documentation is necessary to determine the effects on the environment. Required Signatories: ES, FHWA

Note: For documents prepared by or for Environmental Services Division, it is not necessary for the ESM of the district in which the project is located to release for public involvement or sign for approval.

Release for Public Involvement

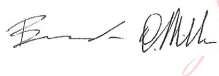
 7-13-2020
ESD Signature Date

MICHELLE B ALLEN Digitally signed by MICHELLE B ALLEN
Date: 2020.07.14 13:44:11 -04'00'
FHWA Signature Date

Certification of Public Involvement

Office of Public Involvement Date

INDOT ES/District Env.
Reviewer Signature:

 Digitally signed by Brandon Miller
Date: 2020.07.13 07:39:01 -04'00'

Date: 7/13/2020

Name and Organization of CE/EA
Preparer:

Kia Gillette/HNTB

This is page 1 of 77 Project name:

North Split Project

Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Part I - PUBLIC INVOLVEMENT

Every Federal action requires some level of public involvement, providing for early and continuous opportunities throughout the project development process. **The level of public involvement should be commensurate with the proposed action.**

	Yes	No
Does the project have a historic bridge processed under the Historic Bridges PA*?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
If No, then:		
Opportunity for a Public Hearing Required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

*A public hearing is required for all historic bridges processed under the Historic Bridges Programmatic Agreement between INDOT, FHWA, SHPO, and the ACHP.

Discuss what public involvement activities (legal notices, letters to affected property owners and residents (i.e. notice of entry), meetings, special purpose meetings, newspaper articles, etc.) have occurred for this project.

Remarks:

The I-65/I-70 North Split Interchange Project (North Split Project) has included several public involvement efforts. These efforts include *Notice of Entry* letters, a project website and email address, social media accounts, public open houses, a Community Advisory Committee (CAC), an Environmental Justice (EJ) Working Group, a public survey, neighborhood meetings, targeted stakeholder meetings, Section 106 consulting party meetings and public notice, two rounds of Context Sensitive Solutions (CSS) neighborhood meetings, and highway noise barrier meetings. Upon release of the Environmental Assessment (EA) for public involvement, a public hearing will be held as described below. Public involvement activities to date are summarized below and included in a table in Appendix G, pages 1-7.

Notice of Entry Letters

Notice of Entry letters were mailed to potentially affected property owners near the project area on June 26, 2017 notifying them about the project and that individuals responsible for land surveying and field activities may be seen in the area (Appendix G, page 8).

Project Website/Email Address

The website for the North Split Project is www.northsplit.com. The website includes project updates, meeting minutes, frequently asked questions, and project documents. Interested parties can also send questions to the project email address (info@northsplit.com) and a project team member provides a response.

Social Media Accounts

The North Split Project has social media accounts on Facebook (www.facebook.com/NorthSplit/) and Twitter (twitter.com/northsplit). These accounts are regularly updated with project information, especially related to notification of public involvement opportunities and meeting information. Accounts are also monitored for questions and comments. Finally, both accounts follow community and CAC member organizations in order to foster partnership and communication.

Public Open Houses

Five public open houses were held at key milestones of the North Split project development process. These meetings were broadly advertised to provide an opportunity for all interested parties to participate in the process. The meetings are described below:

- Public Open House #1 (May 23, 2018) – Two formal presentations provided a summary of the System-Level Analysis. Project team members staffed information boards and were available for informal questions before and after the presentations. Approximately 260 people attended Public Open House #1. Comments generally pertained to other alternative concepts for the downtown interstate system, interstate widening and tall retaining walls, requests to engage local agencies and neighborhoods in the project development process, aesthetic improvements to the interstate, safety, accuracy of the traffic modeling, and environmental impacts such as pollution and noise. Comments provided by the public influenced the Indiana Department of Transportation's (INDOT's) decision to proceed with reconstruction of the interchange while maintaining options for the remainder of downtown interstates (Appendix G, pages 134-140).

This is page 2 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- Public Open House #2 (October 10, 2018) – The Alternatives Screening Report was presented using a series of information boards and a formal presentation. Approximately 58 people attended Public Open House #2. Comments generally pertained to impacts to historic properties, considering other concepts such as a depressed interstate, improving underpasses for pedestrians, loss of interstate access, connectivity between neighborhoods and downtown, economic development, noise, and impacts of not adding more travel lanes. Comments from the public influenced the selection of a preliminary preferred alternative for the interchange (Appendix G, pages 141-146).
- Public Open House #3/CSS Workshop (August 15, 2019) – Display boards and a formal presentation were used to describe the refined preliminary preferred alternative and CSS process. Approximately nine people attended Public Open House #3. Comments generally pertained to connectivity between neighborhoods, more substantial architecture on bridges, the cost and long-term maintenance of CSS elements, road closures and increased traffic during construction, excess land at the interchange, and the loss of vehicular traffic access at the Vermont Street underpass [note, the project was changed based on public input and Vermont Street will continue to be open to vehicular traffic]. Comments at this meeting were combined with those from neighborhood workshops to define concepts for aesthetic treatments and ideas for improving connectivity (Appendix G, pages 153-165).
- Public Open Houses #4 and #5 (April 28, 2020 and April 30, 2020) – These two public open houses were held virtually via the WebEx conferencing tool. Both open houses provided the same presentation and allowed participants to ask questions via the WebEx chat feature or via the project email address. The presentation included information on public involvement, public survey, noise barrier recommendations, Section 106, traffic impacts during construction, next steps, and the Aesthetic Design Guidelines. Approximately 150 people attended Public Open House #4 and 53 people attended Public Open House #5. Comments generally pertained to traffic impacts during construction and the Aesthetic Design Guidelines (Appendix G, pages 166-177). The presentation and display exhibits were available on the project website for public comment from April 28, 2020 through May 15, 2020. Public comments and responses to public comments on this information are available at www.northsplit.com.

CAC Meetings

The North Split CAC was formed to serve as a sounding board for study information and decision-making, to facilitate collaborative problem solving and discussion of specific issues, and to serve as a link to the community by sharing project information. The 77 members of the CAC represent government, utilities, employers, event/tourism/retail, business, user groups, and special interest groups (Appendix G, pages 9-13). To date, six meetings/briefings have been held in which the CAC provided meaningful input related to public involvement efforts (including EJ outreach activities), system-level concepts, interchange alternatives, opportunities to incorporate CSS into the project, noise barrier recommendations, and traffic impacts during construction (Appendix G, pages 14-133).

EJ Working Group Meetings

The EJ Working Group was formed to focus on EJ community concerns by identifying EJ communities, determining the best outreach methods to reach those communities, and identifying possible impacts. EJ Working Group members include government representatives, low-income advocates, minority organizations, and community representatives (Appendix K, pages 51-54).

To date, four EJ Working Group meetings have been held, as described below:

- Meeting #1 (May 10, 2018) – Topics included a project overview, the role of the EJ Working Group, an overview of the System-Level Analysis, and an overview of EJ and the National Environmental Policy Act (NEPA). A breakout session was held to discuss potential additions to the EJ Working Group and how to reach EJ populations (Appendix K, pages 55-61).
- Meeting #2 (October 18, 2018) – Topics included a review of EJ and NEPA requirements, a public involvement summary, a review of the targeted EJ outreach plan, and presentation of the Alternatives Screening Report (Appendix K, pages 62-69).
- Meeting #3 (July 9, 2019) – Topics included a project update, presentation of the refined preliminary

This is page 3 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

preferred alternative, discussion of CSS, and planning for the public survey. A group exercise was conducted on how to promote the public survey (Appendix K, pages 70-80).

- Meeting #4 (April 23, 2020) – This meeting was held virtually via the WebEx conferencing tool. Topics included public involvement, public survey, noise barrier recommendations, Section 106, traffic impacts during construction, next steps, and the Aesthetic Design Guidelines (Appendix K, pages 81-93).

Public Survey

To better engage affected communities, particularly those in areas with elevated concentrations of low-income or minority populations, the North Split project team developed a public survey and launched an outreach campaign to distribute the survey throughout the EJ analysis area. The public survey could be completed online, via a printed copy, or by phone (Appendix K, pages 103-106). Over 1600 people completed the public survey. Information regarding survey results is included in the EJ Technical Memorandum (Appendix K, pages 20 and 107-224).

Neighborhood Meetings

Affected neighborhood groups were identified early in the project to support outreach efforts. Representatives of these neighborhoods participated on all project committees, including the CAC and EJ Working Group. To date, presentations have been made at 29 neighborhood association meetings, town hall meetings, and CSS workshops (Appendix G, pages 1-7).

Neighborhood groups provided comments on the System-Level Analysis, the Alternatives Screening Report, CSS ideas, and noise barriers. This input was a key factor in the development of the preferred alternative.

Targeted Stakeholder Meetings

A wide range of stakeholders have provided input during the North Split Project development process. These stakeholders include government agencies, transportation providers, emergency responders, major employers, event managers, clergy, chambers of commerce, elected officials, and many others. Many of these stakeholders are included on the project CAC, EJ Working Group, or are Section 106 consulting parties. Project-specific information has been presented at 45 individual stakeholder meetings to date (Appendix G, pages 1-7).

Stakeholder input has shaped the development of alternatives and the CSS process. These stakeholders will continue in their role during project implementation to assist with minimizing community impacts, maintaining regional mobility, and communicating with their constituents.

Section 106

Section 106 and 36 CFR 800 outline a process that requires the Federal Highway Administration (FHWA) and INDOT to evaluate the effects of undertakings on properties that are listed on or eligible for listing on the National Register of Historic Places (NRHP). Consulting parties are invited to participate in the Section 106 process. A consulting party is an individual or organization with a demonstrated legal, economic, or historic preservation interest in an undertaking. There are currently 48 consulting parties for the North Split Project (Appendix D, page 29-31). To date, eight Section 106 consulting party meetings have been held at various steps during the Section 106 process (Appendix D, pages 230-253, 435-450, and 653-851).

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of Adverse Effect was published in the *Indianapolis Star* on December 24, 2019 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4) (Appendix D, pages 451-452). The public comment period closed 30 days later on January 24, 2020. One public comment letter from the Rethink 65/70 Coalition was received (Appendix D, pages 414-429). Responses to the comments in this letter and other consulting party comments regarding the Adverse Effect finding and preliminary Section 106 mitigation ideas are in Appendix D, pages 266-299.

Section 4(f)

The public will be afforded an opportunity to review and comment on the effects of the project regarding impacts to the Monon Trail via a legal advertisement that will be placed in a local publication notifying the public of the EA's availability for review, comment and the date and venue of the public hearing, and the Section 4(f) de minimis finding.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

CSS Meetings

As part of the North Split Project, INDOT has implemented a CSS design process to help integrate the project into the surrounding communities. INDOT developed preliminary design treatments for certain components of the project and has solicited feedback from project stakeholders, including affected residents. A summary of the CSS process is included in Appendix G, pages 178-213.

Two series of neighborhood workshops were conducted in support of the CSS process (Appendix G, pages 147-165). Although the workshops were open to all, they focused on specific neighborhoods adjacent to the project to provide the opportunity for input on local issues and preferences. Neighborhood associations assisted by notifying members directly and providing group responses in addition to those provided by individuals. These comments and the feedback provided during the workshops aided in the development of details related to the appearance of the project and how it can be integrated into surrounding neighborhoods.

As a result of the CSS process, INDOT developed the North Split Aesthetic Design Guidelines which are available in Appendix G, pages 214-326. The Aesthetic Design Guidelines include treatments for the interstate infrastructure (such as underpass treatments, sidewalks, public art space, retaining walls, abutment walls, bridge columns, lighting, signage, fencing) as well as landscaping within the existing right-of-way. Also, as a result of the CSS process, INDOT will keep portions of the Monon Trail detour as a permanent feature after construction. The Aesthetic Design Guidelines were presented to the public at Public Open Houses #4 and #5.

Highway Noise Barrier Meetings

Four highway noise barrier meetings were held for the North Split Project in locations adjacent to the project area where noise barriers were being considered. The purpose of the highway noise barrier meetings was to educate neighborhood residents on INDOT's Traffic Noise Analysis Procedure, to inform the neighborhoods in regards to the impacts and overall treatment plans that are noise related, and to encourage benefited receptors to complete a survey to provide input on whether they wanted the proposed noise barrier constructed at that location (Appendix I, pages 104-116).

Public Hearing

The proposed project is being processed as an EA. Per the current *Indiana Department of Transportation (INDOT) Public Involvement Manual*, a public hearing will be conducted. Upon release of the EA for public involvement, a legal advertisement will be placed in a local publication notifying the public of the EA's availability for review and comment for a period of 30 days. The legal notice will appear in local publications of general circulation, contingent upon the release of this document for public involvement, announcing the availability of the environmental documentation, and the date and venue of the public hearing at least 15 days and again at least seven days in advance of the event. The hearing will allow the public to formally provide comments on the preferred alternative and potential effects to the social and natural environments. Comments will be accepted for a period of 15 days following the hearing. A Notice of Availability (NOA) will be advertised in the same local publications and mailed to the established mailing list compiled for the project, announcing the availability of the approved environmental document and disposition of public comments.

NEPA Determination

Subsequent to the satisfactory completion of the public involvement process, and if determined appropriate, a request for preparation of a Finding of No Significant Impact (FONSI) will be submitted to FHWA through INDOT. All comments received during this period will be listed and individually addressed in the disposition of comments attachment included in the FONSI request packet. If any comments cause a re-examination or require a change to the EA, an Additional Information (AI) document may be prepared and approved by FHWA prior to the submission of the FONSI request to FHWA. The preparation of the FONSI by FHWA will indicate the NEPA process for this project has been completed. Individuals included on the mailing list for the project, which includes the identified adjacent landowners, attendees of the public information meeting and the public hearing, as well as others who have submitted a request for project specific information, will be notified by U.S. Mail of the FONSI issuance by FHWA. In addition, a public notice announcing the availability of the FONSI will be advertised in local publications of general circulation.

INDOT will continue public outreach activities through the remainder of the North Split Project.

This is page 5 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Public Controversy on Environmental Grounds

Will the project involve substantial controversy concerning community and/or natural resource impacts?

Yes

X

No

Remarks:

There has been public controversy concerning potential community impacts of the North Split Project. After the preliminary project scope was presented in the initial kick-off meetings, several community groups submitted comments suggesting INDOT consider broadening the scope to include all downtown interstates, not just the North Split area. These comments suggested alternatives such as diverting traffic off the interstates to other routes, converting downtown interstates to boulevards, and/or depressing or tunneling the interstates below ground level.

Although not a formal step in the NEPA process, INDOT conducted a System-Level Analysis (<https://northsplit.com/wp-content/uploads/2018/05/North-Split-System-Level-Analysis.pdf>) to assess the performance, cost, and impact of seven large-scale potential changes to I-65 and I-70 through downtown Indianapolis. The purpose was to inform public dialogue about the future of the downtown interstates and to help better define the scope of the North Split Project. The System-Level Analysis determined:

- The North Split interchange should tie in with the existing interstate system;
- An environmental study for improvements to the North Split interchange study should move forward, with the scope of the project to be defined through that study process [note, this refers to the NEPA process and this EA];
- Project-level alternatives for improving the North Split interchange would be developed to best meet the project purpose and need while minimizing impacts to the surrounding environment; and
- Comments on the System-Level Analysis would be considered in developing the project-level alternatives for the North Split Project, and efforts would be made to minimize the project footprint and incorporate other measures to respond to community concerns.

The System-Level Analysis report was published on May 3, 2018 and the results were presented to project stakeholders during May 2018. A public open house was held to present the results of the System-Level Analysis on May 23, 2018, and public comments were accepted until June 14, 2018.

INDOT published a project-level Alternatives Screening Report in September 2018 (Appendix A, pages 33-133). This report identified Alternative 4c as INDOT's preliminary preferred alternative for the North Split Project. The Alternatives Screening Report was available for public comment from September 28, 2018 through November 3, 2018. INDOT made refinements to Alternative 4c regarding I-65 access to the collector-distributor (C-D) road to address the feedback received and identified the result as the preferred alternative.

INDOT has considered public feedback throughout the North Split Project development process. Public engagement has informed the selection of a preferred alternative and defined the key features of the project, including:

- Minimizing the number and height of retaining walls;
- Minimizing interstate widening by not adding through lanes;
- Reducing the interchange footprint;
- Establishing CSS design features;
- Keeping Vermont Street open to vehicular traffic under the interstates; and
- Maintaining I-65 access to the Michigan, Ohio and Fletcher exits.

INDOT will continue public outreach activities after the NEPA process is complete to inform the public of maintenance of traffic changes and provide updates during construction.

Avoidance, Minimization, and Mitigation Efforts

INDOT has made efforts throughout the North Split project development process to avoid and minimize impacts of the project on adjacent neighborhoods. As part of the alternatives screening process, Alternative 4c was identified as the preliminary preferred alternative because it met the purpose and need and did not require additional right-of-way. It addressed the top four safety concerns within the interchange, while minimizing the need for additional

This is page 6 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

width along the interstate. Alternative 4c does not add through lanes to the interstate system, which was identified as a notable public concern with the project. It also eliminates or minimizes the need for retaining walls along the interstate legs. Alternative 4c results in a more compact interchange, moving some interchange ramps further away from residential areas.

Noise has been a concern expressed by the public since the start of the North Split Project. To help address this concern, INDOT is committed to using several techniques to minimize noise. The use of continuous reinforced concrete pavement will eliminate transverse joints, which are the cause of rhythmic sound patterns with traditional concrete roadways. The North Split Project will replace most of the existing bridges with jointless concrete bridges. This design eliminates the open joints at the end of bridges, which are the cause of the loud sounds typically heard at older bridges, such as those currently existing in the project area.

The project will use “next generation grooving” on the pavement. This new paving technique is designed specifically to reduce tire noise through the use of longitudinal grooves. Although results vary based on tire manufacturer, existing pavement type and condition, and other factors, recent studies have shown next generation pavement can reduce tire noise levels by 3 to 5 decibels or more.¹

Based on the proximity of buildings to construction activities, effects from vibration are possible. Vibration impacts could occur in residential areas and at other vibration-sensitive land uses from activities associated with construction of the project, such as excavation, demolition, and vibratory compaction, as well as pile-driving at bridges, possible noise walls, and retaining walls. The potential for vibration impact would be greatest at locations near pile-driving for bridges and other structures, pavement demolition for removal, and vibratory compactor operations.

In order to address these possible effects, the design-build team will be required to prepare a construction Vibration Monitoring and Control Plan. This plan includes pre-construction surveys of historic buildings, monitoring vibration during construction, post-construction surveys, and keeping the public informed of construction activities known to be a source of vibration. The design-build team will also be required to keep vibration levels under maximum damage risk thresholds in the vicinity of historic properties. Because the design-build team will be required to keep vibration levels under the maximum damage risk thresholds, no adverse effects to historic properties are anticipated from construction-induced vibration.

CSS is a collaborative, interdisciplinary decision-making process and design approach that involves all stakeholders to develop a transportation facility that fits its physical setting. For the North Split Project, INDOT conducted a robust CSS process made up of three main parts: Visioning, Preliminary Design Treatments, and Design Guidelines Package (Appendix G, pages 178-213). During the Visioning stage, six neighborhood meetings were held in March and April 2019 to get community feedback on what types of project elements were important. During the Preliminary Design Treatments stage, six neighborhood meetings and one public open house were held in July and August 2019 to get community feedback on possible design options and additional opportunities developed in response to the Visioning stage. Possible design options included elements such as abutment walls, piers and columns, retaining walls, lighting, public art space, landscape, vegetation, and side slope treatments. Additional opportunities, including improved local connectivity and open space enhancements, were also presented for community feedback in the Preliminary Design Treatments stage.

As a result of the CSS process, INDOT developed the North Split Aesthetic Design Guidelines which are available in Appendix G, pages 214-326. The Aesthetic Design Guidelines include treatments for the interstate infrastructure (such as underpass treatments, sidewalks, public art space, retaining walls, abutment walls, bridge columns, lighting, signage, and fencing) as well as landscaping within the existing right-of-way. Also, as a result of the CSS process, INDOT will keep portions of the Monon Trail detour as a permanent feature after construction.

Specific commitments are included in *Section J – Environmental Commitments* of this document.

¹ American Concrete Pavement Association and International Grooving and Grinding Association, *Development and Implementation of the Next Generation Concrete Surface*, August 8, 2017, pp 36-37.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Part II - General Project Identification, Description, and Design Information

Sponsor of the Project: Indiana Department of Transportation (INDOT) INDOT District: Greenfield
Local Name of the Facility: I-65/I-70 North Split Interchange

Funding Source (mark all that apply): Federal ☒ State ☒ Local ☐ Other* ☐

*If other is selected, please identify the funding source: _____

PURPOSE AND NEED:

Describe the transportation problem that the project will address. The solution to the traffic problem should NOT be discussed in this section. (Refer to the CE Manual, Section IV.B.2. Purpose and Need)

Need

Four needs have been identified for the North Split Project. These project needs are summarized below. Additional information regarding the identified needs is included in the Alternatives Screening Report (Appendix A, pages 45-59).

Correct Deteriorated Bridge Conditions

All bridges in the project area are showing wear due to continuous use by large traffic volumes and weather-related deterioration over a long period of time. The concrete on many bridges is cracked, split, broken off, damaged from salt and leaking water, and patched to correct previous problems. Steel used to reinforce the concrete is often exposed and rusted. Steel bridge components – such as beams, bearing plates, and hinges – are also rusted, some so severely their function is compromised. Of the 31 bridges, 27 are estimated to have less than 10 years of remaining service life before major repairs or reconstruction are needed. Eleven bridges have fewer than five years of remaining service life.

Correct Deteriorated Pavement Conditions

When the North Split interchange was constructed in 1968, the design life of the concrete pavement was 30 years. This original pavement is still in place and is showing age-related wear. The pavement surface has become “polished” over time, which reduces friction for vehicles traveling along the roadway. Pavement friction tests indicate that project area pavement has low friction values, which can increase the likelihood of skidding during wet conditions. To evaluate how the pavement affects ride quality and to estimate design life, INDOT uses an international roughness index (IRI), which measures pavement surface deviations (irregularities or “bumpiness”). As the IRI increases, ride quality decreases. The IRI values for mainline pavement in the project area range from 166 to 201. These values exceed the threshold value of 160, which indicates the pavement is at or beyond the end of its useful life.

Frequent patching to repair cracks and holes in the mainline concrete pavement, especially along I-65/I-70 south of the North Split, requires lane closures and results in traffic delays. Asphalt shoulders are in poor condition and are starting to oxidize, which is a process where pavement becomes brittle and cracks. Water in the cracks freezes and expands during winter conditions, which causes further damage. Aggregate particles in the shoulders are coming loose, a condition referred to as raveling, which can cause the shoulders to have poor traction when wet and leaves loose debris on the roadway. INDOT testing shows the shoulder pavement has failed in some areas and requires full replacement.

Improve Safety

The project team analyzed crashes in the project area between 2012 and 2016. The analysis included crashes on mainline I-65 and I-70, the westbound I-70 to southbound I-65 C-D road, and the directional ramps in the North Split interchange. Crashes on ramps between the interstates and local roadways were not included to allow comparisons between the North Split and urban interstates statewide.

The crash rates per 100 million vehicle miles traveled were determined for fatality, injury, and property damage crashes. The North Split crash rate was higher in all categories than crash rates experienced on other urban interstates in Indiana. Property damage crashes were about 2.3 times higher, and injury crashes were 2.8 higher. Crash rates per vehicle miles traveled indicate conditions other than high traffic volumes contribute to the large number of crashes.

This is page 8 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

The project is intended to improve safety by reducing or eliminating conditions that result in crashes for traffic using I-65 and I-70. Based on roughly tenth mile location data provided by crash reports, the top four crash sites in the North Split project area between 2012 and 2016 are listed below:

1. I-65 northbound at Meridian/Pennsylvania Street exit ramp weave on the west leg of North Split
2. I-65 southbound at Meridian/Delaware Street entrance ramp weave on the west leg of North Split
3. I-65 southbound and I-70 westbound merge point on the south leg of North Split
4. I-70 eastbound, abrupt curve from the south leg to the east leg of North Split

These four sites account for approximately 20% of the total crashes in the project study area.

Improve Interchange Operations and Reduce Congestion

“Operations” is a term used to describe the intended function of an interchange to distribute traffic through the area on an appropriate path to reach an intended destination. Interchange operations are negatively affected by high traffic volumes, substandard design features (such as sharp curves), merge areas where lanes join together, and weaving areas where traffic movements cross each other. Three legs of the interstate highway system converge at the North Split, which require a series of weaves, merges, and diverging movements to make some connections. In the morning, northbound and westbound traffic experiences a breakdown in operations. In the evening, the southbound and eastbound traffic experiences congestion and on-ramp traffic backups occur. This traffic congestion increases the potential for vehicle crashes, particularly rear-end crashes, that occur during stop-and-go conditions.

Critical locations where traffic congestion occurs are referred to as “bottlenecks.” As identified in their publication “Traffic Bottlenecks: A Primer – Focus on Low-Cost Solutions,” FHWA has identified nine conditions that generally create bottlenecks in interchange areas. One of these, “freeway to freeway interchanges,” defines the North Split interchange itself. Others refer to specific conditions within the interchange. Four bottleneck conditions identified by the FHWA guidance document exist in the North Split interchange. The most severe bottlenecks in the North Split are the weaving sections at the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp.

Level of Service (LOS) provides a common “grading” scale for describing traffic congestion on roadways, from LOS A (best) to LOS F (worst) (Appendix A, page 56). LOS A represents near ideal traffic flow, while LOS F represents a breakdown of the traffic flow. LOS relates to operations, not the physical condition of the roadway. Today, many of the freeway sections in the project area operate below LOS D during one or both peak hours. Some sections currently operate at LOS E or LOS F. With no changes to the configuration of the interchange, future operations are forecasted to be worse.

INDOT’s minimum standard for peak hour operations on interstate highways is typically LOS D, with desired LOS C when practical. Deviations from this standard occur in some cases, however, when achievement is not feasible and practical due to the restrictive environment of urban areas. While improving the operations of the North Split interchange is an identified need for this project, the actual LOS to be achieved will be balanced with cost and impact.

Purpose

The purpose of the North Split Project is to rehabilitate and improve the existing interstate facilities within the North Split project area. The North Split Project must meet the following transportation needs:

- **Correct deteriorated bridge conditions.** The project is intended to correct deteriorated bridge conditions on the interstates within the North Split project area.
- **Correct deteriorated pavement conditions.** The project is intended to correct the deteriorated pavement conditions on the interstates within the North Split project area.
- **Improve safety.** The project is intended to improve safety by reducing or eliminating conditions that contribute to crashes along I-65 and I-70.
- **Improve interchange operations and reduce congestion.** The project is intended to improve operations in the North Split project area by removing weaving sections and improving level of service now and in 2041. Typically, projects are planned and designed for 20 years after the construction timeframe in order to take into account projected future conditions.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

PROJECT DESCRIPTION (PREFERRED ALTERNATIVE):

County: Marion Municipality: Indianapolis

Limits of Proposed Work: From the I-70 Valley Avenue bridge to the east, the I-65/I-70 and Washington Street interchange to the south (approximately 370 feet south of Washington Street), and the I-65 Alabama Street bridge (to Illinois Street along 11th and 12th Streets) to the west

Total Work Length: 3.1 Mile(s) Total Work Area: ~185 Acre(s)

Is an Interchange Modification Study / Interchange Justification Study (IMS/IJS) required?

If yes, when did the FHWA grant a conditional approval for this project?

Yes ¹	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
Date: <u>August 12, 2019</u>	

¹If an IMS or IJS is required; a copy of the approved CE/EA document must be submitted to the FHWA with a request for final approval of the IMS/IJS.

In the remarks box below, describe existing conditions, provide in detail the scope of work for the project, including the preferred alternative. Include a discussion of logical termini. Discuss any major issues for the project and how the project will improve safety or roadway deficiencies if these are issues.

Location

I-65 and I-70 are nationally significant corridors, serving the Midwest and United States in four directions. The North Split is the second-most heavily traveled interchange in Indiana, serving about 214,000 vehicles per day. The project limits include the North Split interchange; south along I-65/I-70 to the Washington Street interchange; the portion of I-65 west of the North Split interchange to Alabama Street (to Illinois Street along 11th and 12th Streets); and the portion of I-70 east of the North Split interchange to the bridge over Valley Avenue (west of the Keystone Avenue/Rural Street interchange) in downtown Indianapolis, Marion County, Indiana. The project is within Center Township, Beech Grove United States Geological Survey (USGS) Topographic Quadrangle, in Section 36, Township 16N, Range 3E; Sections 1 and 12, Township 15N, Range 3E; and Section 31, Township 16N, Range 4E (Appendix B, pages 1-16).

Existing Conditions

I-65 and I-70 are unofficially known as the "inner loop" where they pass through downtown Indianapolis. The inner loop is approximately 4.5 miles long and provides 25 entrance and exit ramps serving all sections of downtown. The North Split interchange was constructed in stages. The I-65 legs to the west and south were completed in 1968, and the east leg to I-70 was completed in 1976. As in many urbanized areas during the early era of interstate highways, construction of the interstates in Indianapolis had substantial community impacts, displacing residents and separating existing neighborhoods in and near downtown. The adjacent land is highly developed. The interchange was designed for an additional interstate highway to the north, called I-165 or the "Northeast Freeway." The Northeast Freeway was proposed to link the North Split interchange with I-69 near Castleton. The I-165 project was abandoned in 1980 and the spur was removed from the interstate system.

INDOT determined the North Split requires repair based on the deteriorated condition of existing infrastructure, and existing safety and traffic operation concerns of the interchange. Bridges located in or near the interchange require rehabilitation or replacement due to poor structural condition. The existing pavement also requires rehabilitation or replacement. In addition to its poor physical condition, the interchange configuration is inefficient and poorly suited for the volumes of traffic it is serving. Reconstructing the interchange will provide the opportunity to replace deteriorated infrastructure, improve safety and reduce congestion by realigning ramps and merges in the interchange area, and correcting existing weaving problems (Appendix A, pages 45-59).

Preferred Alternative

INDOT completed an Alternatives Screening Report for the North Split Project as part of the NEPA process on September 21, 2018 (Appendix A, pages 33-133), and made it available for public comment from September 28, 2018, through November 3, 2018. The Alternatives Screening Report identified Alternative 4c as INDOT's preliminary preferred alternative. Alternative 4c, as described in the Alternatives Screening Report, has been refined since that report was published and is now referred to as the preferred alternative (Appendix B, pages 3-16 and 47-109).

This is page 10 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Alternative 4c was designed to meet the project purpose and need while minimizing pavement widening and retaining walls. To accomplish this, some interstate access to and from downtown was eliminated. Westbound traffic from I-70 would no longer be able to exit at the Pennsylvania Street ramp and southbound traffic from I-65 would no longer have access to the C-D road. The C-D road provides access to North Street, Michigan Street, Vermont Street, New York Street, Ohio Street, and Fletcher Avenue.

Responding to public comment on the Alternatives Screening Report, Alternative 4c was refined in the preferred alternative to reestablish the connection of I-65 southbound to the C-D road. To maintain the minimal widening and retaining wall construction, the Delaware Street entrance ramp connection to the C-D road was eliminated instead. This is an indirect movement (going north to go south) and is used by a much smaller number of motorists. The Delaware Street entrance ramp will connect directly to I-70 eastbound. As in the original preliminary preferred alternative, I-70 access to the Pennsylvania Street exit ramp will not be available in the preferred alternative, but traffic models show most of this traffic will divert to the C-D road rather than West Street, which will minimize traffic impacts.

No new right-of-way will be required for the project. The preferred alternative includes the following project elements:

- Reconstruction of the North Split interchange to correct the top four safety concerns:
 1. I-65 northbound at Meridian/Pennsylvania Street exit ramp weave on the west leg of North Split
 2. I-65 southbound at Meridian/Delaware Street entrance ramp weave on the west leg of North Split
 3. I-65 southbound and I-70 westbound merge point on the south leg of North Split
 4. I-70 eastbound, abrupt curve from the south leg to the east leg of North Split
- Replacement or rehabilitation of the bridges throughout the project area. Bridge aesthetic treatments will be in accordance with the North Split Aesthetic Design Guidelines;
- Replacement of the interstate pavement throughout the project area with jointless continuous reinforced concrete using "Next Generation" (longitudinal) pavement grooving;
- Reconstruction of the Pennsylvania Street exit ramp, which will eliminate I-70 westbound access to this ramp. I-65 northbound traffic will still have access;
- Reconstruction of the Delaware Street entrance ramp, which will eliminate access to I-65 southbound and the C-D road. Traffic entering from the Delaware ramp will still be able to access I-70 eastbound. I-65 southbound traffic will be able to access the C-D road;
- Reconfiguration of the interchange so that northbound I-65 and eastbound I-70 traffic do not have to cross paths between the South Split and the North Split (also known as the "big weave");
- Modification of the Pine Street entrance to I-65 northbound to provide a one-lane ramp on the right of I-65, replacing the existing two-lane ramp entering I-65 on the left;
- Construction of retaining walls or vegetated slopes (or a combination of the two) along the interstate. Side slope treatments will be in accordance with the North Split Aesthetic Design Guidelines;
- Landscaping within the existing right-of-way in accordance with the North Split Aesthetic Design Guidelines;
- Possible construction of noise barriers (NB3E and NB3W) for abatement (determined in accordance with INDOT's Traffic Noise Analysis Procedure);
- Traffic signal modifications and possible installation of Americans with Disabilities Act (ADA) curb ramps at the following intersections: 12th Street and Pennsylvania Street, 12th Street and Meridian Street, 12th Street and Illinois Street, 11th Street and Delaware Street, 11th Street and Pennsylvania Street, 11th Street and Meridian Street, 11th Street and Illinois Street, I-65/I-70 at Pine Street and Michigan Street, and Ohio Street and College Avenue;
- Temporary improvements at Washington Street and the interstate exit and entrance ramps to improve traffic flow during construction. All work will be within the existing pavement area. No work to outside curbs will be completed. Portions of the concrete triangular median in the southwest quadrant will be removed to allow for an additional entrance lane to the interstate. Lanes will be re-striped and bags will be placed over traffic signal heads. These changes will be removed after construction;

This is page 11 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- Construction and installation of drainage systems (detention basins, pipes, structures, storage facilities, and ditches);
- Reconstruction of a portion of the Old Northside Trail within the O'Bannon Soccer Park and construction of a trail within existing INDOT and City of Indianapolis right-of-way to be a detour for the Monon Trail during construction with portions remaining as a permanent trail (Monon Loop) after construction;
- Reconstruction and widening (from 10 feet to 14 feet) of the Monon Trail through the interchange;
- Reconstruction and widening of sidewalks along local roads under interstate bridges;
- Replacement of light poles and high mast light towers along the interstate;
- Relocation of the Intelligent Transportation Systems (ITS) tower and possible addition of a new tower within the interchange and installation of ITS signage within the project area;
- Replacement of existing signage along the interstates and wayfinding signage along local streets;
- Relocation of overhead power lines and installation of new utility poles;
- Relocation of existing utilities and storm sewers within the existing right-of-way; and
- Installation of fiber optic conduits and access vaults within the existing right-of-way.

Design information utilized in this EA is preliminary and could change slightly during final design. Any changes are anticipated to occur within the existing right-of-way. Changes that result in new environmental impacts will be documented in an Additional Information (AI) environmental document.

Maintenance of Traffic (MOT)

During North Split construction, through traffic on I-65 and I-70 heading into Indianapolis will be directed and detoured around I-465. Access to all downtown exits and entrances outside the project area will be maintained during construction, including connections to Washington Street from I-65/I-70. Additional information on the project MOT is included in the *Maintenance of Traffic (MOT) During Construction* section below.

Fulfillment of Purpose and Need

The preferred alternative meets the project purpose of rehabilitating and improving the existing interstate facilities within the North Split project area. The preferred alternative meets the following transportation needs established for the project (Appendix A, pages 45-59):

- **Correct deteriorated bridge conditions.** With the exception of four I-70 bridges on east leg of the interchange, all existing bridges will be replaced within the North Split project area. The four bridges on I-70, located at Commerce Avenue and Valley Avenue, were reconstructed in 2007.
- **Correct deteriorated pavement conditions.** All interstate pavement in the North Split project area will be replaced.
- **Improve safety.** Reconfiguring the interchange will improve safety by reducing or eliminating unsafe movements for the four the highest crash locations and by providing other safety improvements in the interchange area. Specifically, it will improve operations by eliminating the weaving sections at the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. The curvature of I-70 will be realigned to be less abrupt, improving safety at that location, and the merge of I-65 southbound and I-70 westbound will be improved.
- **Improve interchange operations and reduce congestion.** Reconfiguring the interchange will improve operations by eliminating the weaving sections at the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. Northbound traffic flow and safety will be improved on I-65 and I-70 by eliminating the "big weave" between the South Split and North Split.

Logical Termini and Independent Utility

Logical termini are defined as rational end points for a transportation improvement and rational end points for a review of the environmental impacts. The layout and condition of connecting roadways are considered in defining the logical termini of the project. To the east, the logical terminus is where I-70 crosses over Valley Avenue, where bridge reconstruction and pavement

This is page 12 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

replacement east of the bridge was performed in 2007. To the west, the logical terminus of the project area is I-65 near Alabama Street for the mainline, and Illinois Street for the ramps on each side of I-65 to provide local access both north and south. The I-65 pavement reconstruction would terminate just short of the long bridge over several local roads (Alabama, Delaware, Pennsylvania, Meridian, Illinois Streets; Capitol and Senate Avenues). This bridge was recently repaired and does not require replacement. South of the interchange, the logical terminus is the Washington Street interchange, which allows for inclusion of improvements for a series of deteriorated bridges. The pavement was replaced south of Washington through the South Split interchange.

The North Split Project has independent utility. The project will improve deteriorated pavement and bridge conditions and correct safety and operational problems within the North Split interchange project area. It will improve existing conditions, even if no additional transportation improvements in the area are implemented.

OTHER ALTERNATIVES CONSIDERED:

Describe all discarded alternatives, including the Do-Nothing Alternative and an explanation of why each discarded alternative was not selected.

INDOT published an Alternatives Screening Report in September 2018 identifying Alternative 4c as INDOT's preliminary preferred alternative for the North Split Project (Appendix A, pages 33-133). The Alternatives Screening Report was available for public comment from September 28, 2018 through November 3, 2018. Public comments and responses to public comments on the Alternatives Screening Report are available at www.northsplit.com. As described in the Alternatives Screening Report in Appendix A, alternatives that were analyzed and eliminated from further consideration are summarized below.

Alternative 1 – No Build

With the No Build Alternative, the existing interchange would stay as it is, without replacement of pavement and bridges. The No Build Alternative would require frequent maintenance and rehabilitation projects to maintain the safety and integrity of the interstate facility and local street connections. These maintenance projects could include pavement patching or overlay, bridge reinforcement or rehabilitation, drainage improvements, and signing and lighting maintenance. No safety or operational (capacity and/or congestion or weaving) improvements would be made. The number of lanes and their locations in the system would remain the same as existing. The existing ramp connections to local streets would not change. Pavement and bridges would continue to be in poor condition and safety would not be improved. Existing safety concerns and bottlenecks would remain in place and existing congestion would continue and likely worsen over time. This alternative would not result in community or environmental impacts. Since the No Build Alternative would not meet the project purpose and need, it was eliminated from further consideration.

Alternative 2 – Transportation System Management (TSM) Alternative

Transportation System Management (TSM) alternatives include activities which maximize the efficiency of the present transportation system by changing its operation. These projects focus on improving traffic flow and reducing traveler delay. TSM alternatives are often evaluated along with Transportation Demand Management (TDM) options, which focus on changing travel behavior (trip rates, trip length, travel mode, time-of-day, etc.). Park and ride facilities, shifting/separating freight movements, and bicycle/pedestrian facilities are examples of TSM/TDM alternatives. Several potential TSM actions were reviewed for potential application in the North Split. Examples of TSM actions include traffic incident management, traffic detection and surveillance, traveler information services, driving on shoulders, ramp metering, and restriping weave areas (Appendix A, pages 65-68). Most of these actions would not be applicable to North Split conditions, and none of the actions would meet the project purpose and need with respect to pavement and bridge conditions, safety needs, or operational deficiencies. Therefore, the TSM alternative was eliminated from further consideration.

Alternative 3 – Replace Bridges and Pavement In-Kind

With Alternative 3, the existing bridges and pavement would be rehabilitated or replaced at their current locations. Alternative 3 would meet the first two project needs, to correct existing bridge deficiencies and pavement deficiencies, but it would not address needs related to safety and operations. No operational or capacity improvements would be completed. The cost to replace the bridges and pavement would be substantial, with no safety and operational benefit. Since Alternative 3 would not meet the project purpose and need, it was eliminated from further consideration.

This is page 13 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Alternative 4 – Efficient Interchange Reconstruction

With Alternative 4, bridges and pavement would be replaced within the project area, and ramps and connecting roadways would be realigned to provide more direct connections and smoother curves, which would improve safety and operations through the project area. Because the interchange would serve three legs instead of the four legs it was originally designed for, Alternative 4 would be more compact than the existing interchange. No additional through lanes would be constructed with Alternative 4.

A key criterion in defining Alternative 4 is the elimination of the existing weaves at the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. Alternative 4 included three options for correcting these weaves. Alternative 4c was identified as the preferred alternative and is discussed in the *Project Description (Preferred Alternative)* section above. The other two Alternative 4 options, 4a and 4b, are described below.

Alternative 4a

Alternative 4a would close the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. Since these movements would no longer be available, there would be no need for traffic to cross paths and the existing weaves would be eliminated.

Alternative 4a would meet the project purpose and need, but it would do so at the expense of those who currently use the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. Traffic diverted from these ramps to adjacent interchanges would result in traffic concentrations that would cause the operations of nearby intersections to fail. Based on the loss of access and the availability of another option that meets the project purpose and need with fewer traffic impacts, Alternative 4a was eliminated from further consideration.

Alternative 4b

Alternative 4b would reconfigure the interchange and the west leg to separate the movements that currently cross paths in the weave areas. This would eliminate the weaves and accommodate all movements. A two-lane exit ramp would be provided on the north, and a one-lane entrance ramp would be provided on the south side of the I-65 mainline.

Alternative 4b would meet the project purpose and need. It would provide all traffic movements that currently exist at the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. It would also require the construction of retaining walls 18 feet to 33 feet maximum height on the west leg of the interchange. Due to the need for relatively tall retaining walls adjacent to historic residential areas, and the availability of another option that meets the project purpose and need with fewer impacts, Alternative 4b was eliminated from further consideration.

Alternative 5 – Full Interchange Reconstruction

Alternative 5 would realign ramps and connecting roadways to improve safety and operations, with flexibility for accommodating predicted 2041 traffic growth with an acceptable level of service at nearly all locations in the interchange. All existing bridges and pavement would be replaced with Alternative 5, and most components including shoulders would be designed in accordance with the Indiana Design Manual. The existing weaving movements at the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp would be eliminated and all movements to and from the ramps would be accommodated. I-65 northbound and I-70 eastbound alignments would be reversed on the south leg of the interchange to eliminate the “big weave” between the North Split and South Split.

Alternative 5 would add through lanes along the interstates. On the west leg, an additional through lane would be added each way, and two lanes would be provided on the Meridian/Pennsylvania Street exit ramp and the Meridian/Delaware Street entrance ramp. The east leg would include an added westbound through lane, and one to two through lanes would be added on various segments of the south leg. Added lanes would be provided for several of the connecting ramps through the interchange. All shoulders along the mainlines would be 12 feet wide, with an additional two-foot buffer along concrete barrier walls.

Alternative 5 would provide the best service, but it would also have the greatest impacts of the alternatives with respect to right-of-way acquisition, relocations, and visual impacts. It includes elements that are deemed unacceptable to the community, with wider pavement and taller retaining walls than the other alternatives. It would potentially result in a Section 4(f) use of a historic district. Since other alternatives are available that meet the project purpose and need with fewer impacts, Alternative 5 was eliminated from further consideration.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

The Do Nothing Alternative is not feasible, prudent or practicable because (Mark all that apply):

It would not correct existing capacity deficiencies;

It would not correct existing safety hazards;

It would not correct the existing roadway geometric deficiencies;

It would not correct existing deteriorated conditions and maintenance problems; or

It would result in serious impacts to the motoring public and general welfare of the economy.

Other (Describe)

X
X
X

ROADWAY CHARACTER:

I-65 (at Central Avenue)

Functional Classification:	<u>Urban Freeway</u>			
Current ADT:	<u>53,313 SB/</u>	VPD (2021)	Design Year ADT:	<u>54,650 SB/</u>
	<u>51,774 NB</u>		<u>58,376 NB</u>	VPD (2041)
Design Hour Volume (DHV):	<u>4,372 SB / 5,429 NB</u>	Truck Percentage	<u>5% SB / 4% NB</u>	
Designed Speed (mph):	<u>55</u>	Legal Speed (mph):	<u>55</u>	

Existing		Proposed	
Number of Lanes:	4 @ 12-foot NB / 4 @ 12-foot SB	4 @ 12-foot NB / 4 @ 12-foot SB	
Type of Lanes:	3 through / 1 exit / 3 through / 1 entrance	3 through / 1 exit / 3 through / 1 entrance	
Pavement Width:	64 ft NB / 64 ft SB	82 ft NB / 82 ft SB	
Shoulder Width:	10 ft Outside / 6 ft Inside	10 ft Outside / 6 ft Inside 10 ft Outside / 8 ft Inside for ramps	
Median Width:	N/A	N/A	
Sidewalk Width:	N/A	N/A	

I-70 (at Commerce Avenue)

Functional Classification:	<u>Urban Freeway</u>			
Current ADT:	<u>93,737 WB/</u>	VPD (2021)	Design Year ADT:	<u>99,926 WB/</u>
	<u>100,568 EB</u>		<u>112,807 EB</u>	VPD (2041)
Design Hour Volume (DHV):	<u>9,493 WB / 9,927 EB</u>	Truck Percentage	<u>12% WB / 13% EB</u>	
Designed Speed (mph):	<u>55</u>	Legal Speed (mph):	<u>55</u>	

Existing		Proposed	
Number of Lanes:	5 @ 12-foot EB / 5 @ 12-foot WB	5 @ 12-ft EB & 1 lane tapering to existing / 5 @ 12-ft WB	
Type of Lanes:	5 through / 5 through	5 through & lane taper / 5 through	
Pavement Width:	88 ft EB / 88 ft WB	94 ft EB (varies, tapering from 6 to 5 lanes over bridge) / 88 ft WB	
Shoulder Width:	14 ft Outside / 14 ft Inside	14 ft Outside / 14 ft Inside	
Median Width:	N/A	N/A	
Sidewalk Width:	N/A	N/A	

I-65/I-70 (at Michigan Street) (does not include C-D road)

Functional Classification:	<u>Urban Freeway</u>			
Current ADT:	<u>58,288 SB/</u>	VPD (2021)	Design Year ADT:	<u>64,063 SB/</u>
	<u>62,989 NB</u>		<u>76,198 NB</u>	VPD (2041)
Design Hour Volume (DHV):	<u>5,125 SB / 6,553 NB</u>	Truck Percentage	<u>10% SB / 9% NB</u>	
Designed Speed (mph):	<u>55</u>	Legal Speed (mph):	<u>55</u>	

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

	Existing	Proposed
Number of Lanes:	4 @ 12-ft NB / 3 @ 12-ft SB	4 @ 12-ft NB / 3 12-ft SB
Type of Lanes:	4 through / 3 through	4 through / 3 through
Pavement Width:	68 ft NB / 56 ft SB	66 ft NB (varies due to gore over bridge) / 54 ft SB
Shoulder Width:	12 ft Outside / 8 ft Inside	12 ft Outside / 8 ft Inside NB / 11 ft Outside / 7.7 ft Inside SB
Median Width:	N/A	N/A
Sidewalk Width:	N/A	N/A

Remarks: *Roadway Character* information and tables for local roads crossing under the interstate within the project area are included in Appendix A, pages 2-5.

DESIGN CRITERIA FOR BRIDGES

Structure/NBI Number(s): See Appendix A, pages 6-32 Sufficiency Rating: See Appendix A, pages 6-32

Remarks: *Design Criteria for Bridges* information and tables for bridges within the project area are included in Appendix A, pages 6-32.

MAINTENANCE OF TRAFFIC (MOT) DURING CONSTRUCTION:

	Yes	No
Is a temporary bridge proposed?	X	
Is a temporary roadway proposed?	X	
Will the project involve the use of a detour or require a ramp closure? (describe in remarks)	X	
Provisions will be made for access by local traffic and so posted.	X	
Provisions will be made for through-traffic dependent businesses.		X
Provisions will be made to accommodate any local special events or festivals.		X
Will the proposed MOT substantially change the environmental consequences of the action?		X
Is there substantial controversy associated with the proposed method for MOT?		X

Remarks: INDOT's goal is to have the North Split Project completed within two years and open to traffic by the end of 2022 while maintaining mobility and access into and out of downtown Indianapolis during construction. Achieving this schedule while constructing a new interchange in the same location as the existing interchange presents major challenges for maintaining traffic. An MOT Task Group with members from INDOT, FHWA, City of Indianapolis, and design consultants investigated many different construction phasing alternatives and identified a conceptual MOT plan to meet INDOT's goal.

This project is being procured by INDOT through a Design-Build Best Value procurement process. The conceptual MOT plan is provided to the design-build teams for reference, but they will prepare their own MOT plans, phasing, and schedule.

The MOT Task Group considered four alternative approaches in developing the conceptual MOT plan, ranging from complete closure of the interchange to construction "under traffic" with all interstate movements available most of the time. Complete closure would result in extreme congestion and system back-ups, and the project would still take two construction seasons to complete. Maintaining all movements would extend the project timeframe to at least three years. The conceptual MOT plan developed by the MOT Task Group is a compromise approach that closes some movements, while keeping key access routes open.

During North Split construction, through traffic on I-65 and I-70 heading into Indianapolis will be detoured around I-465. This will reduce demand somewhat, but most peak period trips on I-70 and I-65 near downtown have an origin or destination inside the I-465 loop. The key to maintaining traffic during the North Split

This is page 16 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Project will be serving these locally based trips, particularly into and out of downtown.

Access to all downtown exits and entrances outside the project area will be maintained during construction, including connections to Washington Street from I-65/I-70. In addition, two primary inbound movements and two primary outbound movements will be maintained as much as possible. The conceptual MOT plan includes the following elements in the North Split Project area:

- Closure of I-65 and I-70 through movements during most of the construction period.
- Continuous operation of east-west I-65/I-70 connection across the north side of downtown, between Keystone Avenue/Rural Street and West Street interchanges. Weekend or overnight temporary closures may occur. Closure of the I-65 southbound to I-70 eastbound ramp will be allowed for up to 45 days due to overlapping bridges in this area.
- Continuous operation of two key downtown ramp connections through the North Split. Weekend or overnight temporary closures may occur.
 - On-ramp from Pine Street to eastbound I-70
 - Off-ramp to the C-D road serving Ohio Street and Michigan Street from I-70
- Phased construction of local roadway underpasses so adjacent roadways are not closed at the same time.

The MOT elements above are specified in the technical provisions provided to potential design-build teams as guidance for their preparation of a Traffic Management Plan for construction. The technical provisions also identify maximum closure periods to be provided in the design-build team's Traffic Management Plan. It must be developed in accordance with the maximum closure durations in Table 1. The Traffic Management Plan will be reviewed by the MOT Task Group and must be approved by INDOT prior to construction.

Table 1. Maximum Allowable Closure Periods

Roadway Segment or Ramp	Maximum Closure
I-65/I-70 Mainline, North Split to Washington St	540 days
Fletcher Avenue exit from Collector-Distributor Road	540 days
Ohio Street exit from Collector-Distributor Road*	240 days
Michigan Street exit from Collector-Distributor Road*	240 days
Local ramps and bridges (not adjacent)	90 days
I-65 southbound to I-70 eastbound connection	45 days

**Ohio Street and Michigan Street not to be closed at the same time.*

Access to and through downtown Indianapolis will be maintained during North Split construction by preparing and executing a coordinated plan for traffic management and communications involving a wide range of stakeholders. A Mobility Management Plan will be used to manage traffic and reduce travel demand. A Public Involvement Plan will guide the public information activities.

The Mobility Management Plan identifies an organizational structure and approach for minimizing traffic impacts, coordinating emergency response, and informing stakeholders before and during North Split construction. The role and responsibilities of Mobility Management Plan teams are described below:

- The Mobility Management Plan Leadership Team will organize and manage the process.
- The Traffic Management Plan/MOT Team will coordinate with the design-build team's Traffic Management Plan for the construction area, review the effectiveness of the design-build team's MOT processes, and consider any proposed updates to the Traffic Management Plan while the work is underway.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- The Transportation Demand Management Team will develop and implement transportation demand management strategies to reduce congestion on the roadway network by reducing the number of vehicles using the system or by shifting trip times so that peak demands are reduced. Key components are transit, ridesharing, bicycle/pedestrian enhancements, and employer programs to encourage mode shifts and non-peak travel.
- The Traffic Operations Team will develop and implement operation changes, policies, and minor improvements to minimize traffic congestion on the local roadway system during construction. These strategies include traffic signal changes, parking restrictions, Intelligent Transportation System components, and operation/enforcement actions to minimize peak hour deliveries and other restrictions to free traffic flow. A subgroup of emergency responders focuses on specific actions to maintain emergency response.

The Mobility Management Plan teams include INDOT staff, Indianapolis Department of Public Works (DPW) staff, project consultants, and key stakeholders, such as emergency response personnel. Execution of the Mobility Management Plan commenced in early 2020 and will continue throughout the construction period.

A Public Involvement Plan was developed at the beginning of the NEPA process and it continues to be updated as the project advances. Portions of this plan specific to the construction phase include the following:

- Strategies for distribution of project updates
- Identification of target audiences
- Procedures for obtaining public comments, as well as how to respond to complaints
- Techniques for use of social media outlets for specific project updates or information
- Processes and protocol for news media and elected official contacts

Direct real time information will be provided to motorists using existing Intelligent Transportation Systems and new devices supplemented by Portable Changeable Message Boards. INDOT will issue formal press releases as the project passes major milestone points and final closure dates become finalized. INDOT will also post the closures in the Condition Acquisition and Reporting System (CARS 511) which is part of the INDOT traveler information website "Trafficwise."

INDOT will inform the Indiana Motor Truck Association of the overall project plans and anticipate that they will communicate with their members, as occurred during the 2018 and 2019 interstate closures by INDOT for construction projects. INDOT will also work closely with the Indiana State Police and other emergency responders to provide current information relative to the closure periods. INDOT will facilitate coordination of construction activities with other key stakeholders through weekly public update meetings and proactive one-on-one outreach in coordination with the design-build team.

ESTIMATED PROJECT COST* AND SCHEDULE:

Engineering: \$ 0* (2020) Right-of-Way: \$ 0 (20--) Construction: \$ 240,160,243* (2020)

*Project costs are from the current STIP. The project costs are different than found in the 2019 Initial Financial Plan
[\[https://www.in.gov/dot/div/contracts/NorthSplit/documents/NorthSplit%20IFP%20certified.pdf\]](https://www.in.gov/dot/div/contracts/NorthSplit/documents/NorthSplit%20IFP%20certified.pdf)
and TIP [Appendix H, page 12]. The project costs will be updated in the TIP/STIP by INDOT as appropriate prior to Letting.

Anticipated Start Date of Construction: Winter 2020

This is page 18 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Date project incorporated into STIP July 2, 2019 (Appendix H, page 11)

Is the project in an MPO Area?

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>

If yes,

Name of MPO Indianapolis MPO

Location of Project in TIP Page 15 of 2019 List of Obligated Projects
(Appendix H, page 12)

Date of incorporation by reference into the STIP July 2, 2019

RIGHT OF WAY:

Amount (acres)		
Land Use Impacts	Permanent	Temporary
Residential	0	0
Commercial	0	0
Agricultural	0	0
Forest	0	0
Wetlands	0	0
Other:	0	0
TOTAL	0	0

Describe both Permanent and Temporary right-of-way and describe their current use. Typical and Maximum right-of-way widths (existing and proposed) should also be discussed. Any advance acquisition or reacquisition, either known or suspected, and there impacts on the environmental analysis should be discussed.

Remarks:

The existing right-of-way varies along the interstate legs leading into the North Split interchange. Along I-65, west of the interchange, the existing right-of-way varies from approximately 35 feet to 110 north of the existing pavement, and from approximately 10 feet to 105 feet south of the existing pavement. Along I-70, east of the interchange, the existing right-of-way varies from approximately 40 feet to 125 feet northwest of the existing pavement, and from approximately 35 feet to 95 feet southeast of the existing pavement. Along I-65/I-70/C-D road, south of the interchange, the existing right-of-way varies from approximately 20 feet to 80 feet west of the existing pavement, and from approximately 10 feet to 110 feet east of the existing pavement.

This project will occur within existing INDOT and city right-of-way. Work within the city right-of-way includes tying sidewalks under bridges back into the existing sidewalks. There will be no transfer of right-of-way from the City of Indianapolis to INDOT. No permanent or temporary right-of-way will be required for this project.

If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately.

This is page 19 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Part III – Identification and Evaluation of Impacts of the Proposed Action

SECTION A – ECOLOGICAL RESOURCES

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Streams, Rivers, Watercourses & Jurisdictional Ditches	X		X
Federal Wild and Scenic Rivers			
State Natural, Scenic or Recreational Rivers			
Nationwide Rivers Inventory (NRI) listed			
Outstanding Rivers List for Indiana			
Navigable Waterways			
<p>Remarks: Based on a desktop review, site visits on October 29-30, 2015; April 25-27, May 24, and October 3-5, 2016; October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by Parsons and HNTB, the aerial map of the project area (Appendix B, pages 4-16), and the water resource map in the Red Flag Investigation (RFI) report (Appendix E, page 11) there are two streams, rivers, watercourses, or jurisdictional ditches within the 0.5 mile search radius. No surface streams, rivers, watercourses, or jurisdictional ditches are present within the project area; therefore, no impacts are expected. Pogues Run is encapsulated below ground and under the project area near Ohio Street. No work will be completed on the existing pipe and there will be no impacts to Pogues Run.</p> <p>A <i>Waters of the U.S. Determination/Wetland Delineation Report</i> was approved by the INDOT Ecology and Waterway Permitting Office (EWPO) on February 1, 2018 (Appendix F, pages 1-27). An Addendum to the <i>Waters of the U.S. Determination/Wetland Delineation Report</i> was completed due to an expansion of the project area and approved by INDOT EWPO on September 5, 2019 (Appendix F, pages 28-31). Portions of the <i>Waters of the U.S. Determination/Wetland Delineation Report</i> and Addendum are included in Appendix F. The full reports are available on the North Split Project website at www.northsplit.com. It was determined that there are no likely jurisdictional streams within the project area. The U.S. Army Corps of Engineers (USACE) makes all final determinations regarding jurisdiction. An approved jurisdictional determination was received from the USACE on February 3, 2020 (Appendix F, pages 35-37). The approved jurisdictional determination did not include any streams.</p> <p>Early coordination letters were sent to the U.S. Environmental Protection Agency (USEPA), U.S. Fish and Wildlife Service (USFWS), the Indiana Department of Natural Resources Division of Fish and Wildlife (IDNR DFW), and the USACE on October 18, 2017 (Appendix C, pages 1-6).</p> <p>In their early coordination response letter dated November 20, 2017, USEPA recommended coordination with the USACE and the Indiana Department of Environmental Management (IDEM) regarding jurisdiction, a discussion of water resources in the EA, completion of stream assessments, and inclusion of draft stream mitigation plans (if needed) in the EA (Appendix C, pages 8-15).</p> <p>In their early coordination response dated November 17, 2017, IDNR DFW concurred that existing habitat features within the project area are likely low-quality features related to existing infrastructure (roadside ditches, medians, etc.) (Appendix C, pages 20-21). They did not have recommendations specific to streams but did recommend more natural approaches to storm water management.</p> <p>In their early coordination response dated October 24, 2017, USFWS indicated no objection to the project as currently proposed and also provided recommendations to avoid impacts to fish, wildlife and botanical resources (Appendix C, pages 16-17).</p> <p>An automated response was obtained from IDEM on October 19, 2017 (Appendix C, pages 28-31). The response included recommendations pertaining to coordination with USACE and IDEM for permitting of stream impacts.</p>			

This is page 20 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

No written early coordination response was received from the USACE.

Four resource agency meetings have been held during the development of the project. Representatives from FHWA, INDOT, USEPA, USACE, USFWS, IDEM, IDNR, and the City of Indianapolis attended the meetings. At the first meeting held on November 3, 2017, an introduction to the project was provided. The meeting agenda, presentation, and minutes are included in Appendix C, pages 57-71. Possible stream impacts were discussed at this meeting. It was later determined these features are not streams, rather they are stormwater features. No stream mitigation will be required for the project. USACE recommended the project team obtain an approved jurisdictional determination for water resources to determine if a Section 404 permit will be required. An approved jurisdictional determination was received from USACE on February 3, 2020 (Appendix F, pages 35-37). Pogues Run was also discussed at this meeting; however, it is encapsulated under the project area and will not be impacted by the project. At the second meeting, held on May 22, 2018, the System-Level Analysis was discussed. The meeting agenda, presentation, and minutes are included in Appendix C, pages 74-84. At the third meeting, held on October 17, 2018, the Alternatives Screening Report was discussed. The meeting agenda, presentation, and minutes are included in Appendix C, pages 93-105. Streams were not discussed at the second and third resource agency meetings. At the fourth meeting, held on April 30, 2020, public involvement activities, environmental resource impacts, public survey results, noise barrier recommendations, a Section 106 update, traffic impacts during construction, and the Aesthetic Design Guidelines were discussed. The meeting agenda, presentation, and minutes are included in Appendix C, pages 106-132.

Applicable resource agency recommendations are included in *Section J – Environmental Commitments* of this document.

Other Surface Waters

Reservoirs

Lakes

Farm Ponds

Detention Basins

Storm Water Management Facilities

Other: _____

Presence

X

Impacts

Yes	No
X	

Remarks:

Based on a desktop review, site visits on October 29-30, 2015; April 25-27, May 24, and October 3-5, 2016; October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by Parsons and HNTB, the aerial map of the project area (Appendix B, pages 4-16), and the water resource map in the RFI report (Appendix E, page 11) there are two concrete storm water management facilities within the existing right-of-way. These two features are located within the interchange area, east of College Avenue and west of I-70 westbound (Appendix B, page 7). Both structures are non-jurisdictional concrete storm water conveyance and retention structures (Appendix F, page 15). These features will be impacted by the construction of interchange ramps. Storm water will be addressed through existing and new drainage pipes and detention. No other surface waters are present within the project area; therefore, no impacts are expected.

In their early coordination response dated November 17, 2017, IDNR DFW concurred that existing habitat features within the project area are likely low-quality features related to existing infrastructure (roadside ditches, medians, etc.) (Appendix C, pages 20-21). They did not have recommendations specific to other surface waters but did recommend more natural approaches to storm water management.

In their early coordination response dated October 24, 2017, USFWS indicated they had no objection to the project as currently proposed and also provided recommendations to avoid impacts to fish, wildlife and botanical resources (Appendix C, pages 16-17).

An automated response was obtained from IDEM on October 19, 2017 (Appendix C, pages 28-31).

No written response was received from the USACE.

This is page 21 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Four resource agency meetings have been held during the development of the project. At the first meeting, held on November 3, 2017, an introduction to the project was provided (Appendix C, pages 57-71). At the second meeting, held on May 22, 2018, the System-Level Analysis was discussed (Appendix C, pages 74-84). At the third meeting, held on October 17, 2018, the Alternatives Screening Report was discussed (Appendix C, pages 93-105). At the fourth meeting, held on April 30, 2020, public involvement activities, environmental resource impacts, public survey results, noise barrier recommendations, a Section 106 update, traffic impacts during construction, and the Aesthetic Design Guidelines were discussed (Appendix C, pages 106-132). Other surface waters were not discussed at the resource agency meetings.

Applicable resource agency recommendations are included in *Section J – Environmental Commitments* of this document.

Presence **Impacts**

Yes **Yes** **No**

☒ ☒ ☐

Wetlands

Total wetland area: 0.064* acre(s) Total wetland area impacted: 0.038** acre(s)

*Includes only jurisdictional Wetlands B, C, D, E, G, H, M (USACE jurisdiction) and N (IDEM-only jurisdiction)

**Includes only Wetlands B, C, D, E, G, and H; Wetlands M and N will be avoided by all project activities

Wetland No.	Classification	Total Size (Acres)	Impacted Acres	Comments
A	Palustrine Emergent	0.008	0.008	- Vegetation dominated by <i>Phragmites australis</i> (common reed) and <i>Schedonorus arundinaceus</i> (tall false rye grass) - Located near top of roadside embankment at an underdrain outlet and continues down the roadside embankment to the lower infield area within the North Split interchange, north of EB I-65 and west of College Ave. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
B	Palustrine Emergent	0.014	0.014	- Vegetation dominated by <i>Schoenoplectus tabernaemontani</i> (soft-stem club rush) - Located near the top of roadside embankment at an underdrain outlet and continues partially down the roadside embankment in the infield area of the North Split interchange, north of WB I-65 and east of College Ave. - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act
C	Palustrine Emergent	0.001	0.001	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located near the middle of the roadside embankment at an underdrain outlet and continues partially down the roadside embankment within the infield area of the North Split interchange, north of EB I-65 and east of College Ave. - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act
D	Palustrine Emergent	0.006	0.006	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located near the top of the roadside embankment at an underdrain outlet and continues down the roadside embankment to the lower infield area within the North Split interchange, south of EB I-70, northeast of WB I-65, and west of the Monon Trail - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act
E	Palustrine Emergent	0.009	0.009	- Vegetation dominated by <i>Eleocharis obtusa</i> (blunt spike-rush) - Located at the toe-of-slope of the roadside embankment at a concrete drainage outlet within the lower infield area of the North Split interchange, south of EB I-70, northeast of WB I-65, and west of the Monon Trail - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act

This is page 22 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

F	Palustrine Emergent	0.010	0.010	- Vegetation dominated by <i>Typha sp.</i> (cattails) and <i>Rumex crispus</i> (curly dock) - Located at the toe-of-slope of the concrete-lined roadside embankment, adjacent to the Monon Trail, within the North Split interchange, south of EB I-70 and northeast of WB I-65 - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
G	Palustrine Emergent	0.001	0.001	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the riprap-lined roadside embankment and adjacent to the Monon Trail, within the North Split interchange, south of EB I-70 and northeast of WB I-65 - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act
H	Palustrine Emergent	0.007	0.007	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment and adjacent to the Monon Trail, within the North Split interchange, south of EB I-70 and east of NB I-65/I-70 - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act
I	Palustrine Emergent	0.013	0.013	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment and adjacent to the Monon Trail, within the North Split interchange, south of EB I-70 and east of NB I-65/I-70 - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
J	Palustrine Emergent	0.004	0.004	- Vegetation dominated by <i>Schedonorus arundinaceus</i> (tall false rye grass) and <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the riprap-slope roadside embankment and adjacent to 13th Street, within the North Split interchange, south of EB I-70 and east of the Monon Trail - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
K	Palustrine Emergent	0.003	0.003	- Vegetation dominated by <i>Typha sp.</i> (cattails) and <i>Schedonorus arundinaceus</i> (tall false rye grass) - Located east of the North Split interchange, north of EB I-70, and south of WB I-70 - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
L	Palustrine Emergent	0.030	0.030	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located east of the North Split interchange, north of EB I-70, and south of WB I-70 - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
M	Palustrine Emergent	0.006	0.006	- Vegetation dominated by <i>Typha sp.</i> (cattails) and <i>Eleocharis mamillata</i> (soft-stem spike-rush) - Located on the roadside embankment, east of the North Split interchange, north of WB I-70, west of Commerce Ave., and south of 16th St. - Poor quality - USACE jurisdictional wetland, regulated under the Clean Water Act
N	Palustrine Emergent	0.020	0.020	- Vegetation dominated by <i>Echinochloa crus-galli</i> (large barnyard grass) - Located at the toe-of-slope of the roadside embankment, below an underdrain, east of the North Split interchange, south of EB I-70, west of Commerce Ave., and north of Roosevelt Ave. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act - IDEM jurisdictional wetland, regulated as a Waters of the State
O	Palustrine Emergent	0.025	0.025	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment, below an underdrain, southeast of the North Split interchange, west of SB I-65/I-70, and south of 10th St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act

This is page 23 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

P	Palustrine Emergent	0.021	0.021	- Vegetation dominated by <i>Phalaris arundinacea</i> (reed canary grass) - Located at the toe-of-slope of the roadside embankment, southeast of the North Split interchange, west of SB I-65/I-70, and south of 10th St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
Q	Palustrine Emergent	0.029	0.029	- Vegetation dominated by <i>Eleocharis palustris</i> (common spike-rush) and <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment, south of the North Split interchange, west of SB I-65/I-70, and south of 10th St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
R	Palustrine Emergent	0.107	0.107	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment within the center median, south of the North Split interchange, and north of St. Clair St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
S	Palustrine Emergent	0.018	0.018	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment, south of the North Split interchange, east of NB I-65/I-70, and north of St. Clair St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
T	Palustrine Emergent	0.165	0.165	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment within the center median, south of the North Split interchange, and south of St. Clair St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
U	Palustrine Emergent	0.004	0.004	- Vegetation dominated by <i>Cyperus esculentus</i> (chufa) and <i>Phragmites australis</i> (common reed) - Located at the toe-of-slope of the roadside embankment, south of the North Split interchange, west of SB I-65/I-70, and north of Michigan St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
V	Palustrine Emergent	0.004	0.004	- Vegetation dominated by <i>Typha sp.</i> (cattails) - Located at the toe-of-slope of the roadside embankment, south of the North Split interchange, west of SB I-65/I-70, and north of New York St. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
W	Palustrine Emergent	0.019	0.019	- Vegetation dominated by <i>Typha latifolia</i> and <i>Typha angustifolia</i> (cattails) - Located at the toe-of-slope of the roadside embankment, north of WB I-70 and east of Roosevelt Ave. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
X	Palustrine Emergent	0.043	0.043	- Vegetation dominated by <i>Typha angustifolia</i> (cattails) - Located at the toe-of-slope of the roadside embankment, north of WB I-70 and east of Roosevelt Ave. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act
Y	Palustrine Emergent	0.089	0.089	- Vegetation dominated by <i>Typha angustifolia</i> (cattails) - Located at the toe-of-slope of the roadside embankment, north of WB I-70 and west of Valley Ave. - Poor quality - Man-made feature constructed in uplands, not regulated under the Clean Water Act

Documentation

ES Approval Dates

Wetlands (Mark all that apply)

Wetland Determination

Wetland Delineation

USACE Isolated Waters Determination

Mitigation Plan

X
X
X

February 1, 2018/September 5, 2019
February 1, 2018/September 5, 2019
February 3, 2020 (USACE)

This is page 24 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Improvements that will not result in any wetland impacts are not practicable because such avoidance would result in (Mark all that apply and explain):

- Substantial adverse impacts to adjacent homes, business or other improved properties;
- Substantially increased project costs;
- Unique engineering, traffic, maintenance, or safety problems;
- Substantial adverse social, economic, or environmental impacts, or
- The project not meeting the identified needs.

X
X

Measures to avoid, minimize, and mitigate wetland impacts need to be discussed in the remarks box.

Remarks:	<p>Wetlands within the project area were identified based on site visits on October 29-30, 2015; April 25-27, May 24, and October 3-5, 2016; October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by Parsons and HNTB, a review of the National Wetlands Inventory (NWI) online mapper (https://www.fws.gov/wetlands/data/Mapper.html), the USGS topographic map (Appendix B, page 2), and the RFI report (Appendix E, page 11).</p> <p>A <i>Waters of the U.S. Determination/Wetland Delineation Report</i> was approved by the INDOT EWPO on February 1, 2018 (Appendix F, pages 1-27). An Addendum to the <i>Waters of the U.S. Determination/Wetland Delineation Report</i> was completed due to an expansion of the project area. The Addendum was approved by INDOT EWPO on September 5, 2019 (Appendix F, pages 28-31). Portions of the <i>Waters of the U.S. Determination/Wetland Delineation Report</i> and Addendum are included in Appendix F. The full reports are available on the North Split Project website at www.northsplit.com.</p> <p>An approved jurisdictional determination was received from the USACE on February 3, 2020 (Appendix F, pages 35-37). USACE is taking jurisdiction over the following wetlands under the Clean Water Act: Wetlands B, C, D, E, G, H, and M. USACE has determined the following are man-made features constructed in uplands and not regulated under the Clean Water Act: Wetlands A, F, I, J, K, L, N, O, P, Q, R, S, T, U, V, W, X, and Y. IDEM is taking jurisdiction over Wetland N as an isolated Waters of the State (Appendix F, page 34).</p> <p>There are seven USACE jurisdictional wetlands, totaling 0.044 acre, within the project limits. There is one IDEM isolated wetland, totaling 0.020 acre, within the project limits. All are poor quality features that have formed within the maintained transportation right-of-way and exhibit low species diversity. Each appears to receive hydrological input from surface water runoff or sporadic roadway underdrains. IDEM classifies isolated wetlands as Class I, II, or III, with Class I being the lowest quality. Wetland N is likely a Class I wetland.</p> <p>Wetlands B, C, D, E, G, and H, totaling 0.038 acre, are anticipated to be impacted by construction of the North Split Project. Wetlands M and N will be avoided by all construction activities. Wetlands M and N will be marked as "Do Not Disturb" on design plans and temporary construction fencing shall be installed around their limits. Alternatives that avoid all wetland impacts are not practicable since the wetlands are within the existing interchange area and the interchange will be reconstructed. Avoiding all wetlands would require the acquisition of new right-of-way and substantial impacts to homes and businesses. In order to minimize community impacts, all work will remain within the existing right-of-way. Wetland mitigation will not be required because impacts do not exceed the mitigation threshold of 0.1 acre.</p> <p>In an early coordination response letter dated November 20, 2017, USEPA recommended coordination with USACE and IDEM regarding jurisdiction, a discussion of water resources in the EA, completion of wetland delineations, and inclusion of draft wetland mitigation plans (if needed) in the EA (Appendix C, pages 8-15).</p> <p>In their early coordination response dated November 17, 2017, IDNR DFW concurred that existing habitat features within the project area are likely low-quality features related to existing infrastructure (roadside ditches, medians, etc.) (Appendix C, pages 20-21).</p> <p>In their early coordination response dated October 24, 2017, USFWS indicated no objection to the project as currently proposed and also provided recommendations to avoid impacts to fish, wildlife, and botanical resources (Appendix C, pages 16-17).</p>
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This is page 25 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

An automated response was obtained from IDEM on October 19, 2017 (Appendix C, pages 28-31).

No written response was received from the USACE.

Four resource agency meetings have been held during the development of the project. At the first meeting, held on November 3, 2017, an introduction to the project was provided (Appendix C, pages 57-71). At the second meeting, held on May 22, 2018, the System-Level Analysis was discussed (Appendix C, pages 74-84). At the third meeting, held on October 17, 2018, the Alternatives Screening Report was discussed (Appendix C, pages 93-105). At the fourth meeting, held on April 30, 2020, public involvement activities, environmental resource impacts, public survey results, noise barrier recommendations, a Section 106 update, traffic impacts during construction, and the Aesthetic Design Guidelines were discussed (Appendix C, pages 106-132). Impacts to wetlands were discussed at the fourth resource agency meeting.

Applicable resource agency recommendations are included in *Section J – Environmental Commitments* of this document.

	<u>Presence</u>	<u>Impacts</u>	
		<u>Yes</u>	<u>No</u>
Terrestrial Habitat	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Unique or High Quality Habitat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Use the remarks box to identify each type of habitat and the acres impacted (i.e. forested, grassland, farmland, lawn, etc).

Remarks:	<p>Based on a desktop review, site visits on October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by HNTB, the aerial map of the project area (Appendix B, pages 4-16), and GIS files of trees planted by Keep Indianapolis Beautiful (KIB), there are maintained grasses and herbaceous plants, mature trees, and immature trees present within the existing right-of-way.</p> <p>Approximately 65.0 acres of maintained grasses and herbaceous plants are present within the existing right-of-way. Much of this is present along interstate side slopes, medians, and within the interchange infield area. The dominant species are fescue (<i>Festuca</i> sp.), common teasel (<i>Dipsacus fullonum</i>), Queen Anne's lace (<i>Daucus carota</i>), common dogbane (<i>Apocynum cannabinum</i>), birdsfoot trefoil (<i>Lotus corniculatus</i>), Kentucky blue grass (<i>Poa pratensis</i>), tall false rye grass (<i>Schedonorus arundinaceus</i>), yellow bristle grass (<i>Setaria pumila</i>), creeping wild-rye (<i>Elymus repens</i>), crownvetch (<i>Securigera varia</i>), reed canary grass (<i>Phalaris arundinacea</i>), and common reed (<i>Phragmites australis</i>). All 65.0 acres of maintained grasses and herbaceous plants could be impacted by construction. In many cases the impacts will be temporary and areas will be re-seeded with herbaceous vegetation.</p> <p>Approximately 9.1 acres of mature trees are present within the existing right-of-way. Most of these trees are along the north and south sides of I-65 west of the North Split interchange, along the right-of-way edges southwest of the interchange, and along I-70 east of the interchange. The dominant species are American sycamore (<i>Platanus occidentalis</i>), eastern redbud (<i>Cercis canadensis</i>), northern catalpa (<i>Catalpa speciosa</i>), maple (<i>Acer</i> sp.), mulberry (<i>Morus</i> sp.), and honeysuckle (<i>Lonicera</i> sp.). According to residents of the Old Northside neighborhood, many of the mature trees along the north side of I-65 west of the interchange were planted by neighborhood residents. Approximately 2.8 acres of mature trees are included in "Do Not Disturb" areas and will not be impacted by construction. Approximately 6.3 acres of mature trees are within the existing right-of-way, not within "Do Not Disturb" areas, and could be impacted by construction.</p> <p>Approximately 7.5 acres of immature trees and shrubs are present within the existing right-of-way. Many of these trees and shrubs were planted by KIB, with assistance from adjacent neighborhoods. These are largely located within the interchange area and east and west of I-65/I-70 south of the interchange. The primary trees and shrubs were planted within the right-of-way from 2007 through 2011 and included: American sycamore (<i>Platanus occidentalis</i>), Allegheny serviceberry (<i>Amelanchier laevis</i>), American hornbeam (<i>Carpinus caroliniana</i>), blackgum (<i>Nyssa sylvatica</i>), eastern redbud (<i>Cercis canadensis</i>), fringetree (<i>Chionanthus virginicus</i>), hophornbeam (<i>Ostrya virginiana</i>), nannyberry (<i>Viburnum lentago</i>), pawpaw (<i>Asimina triloba</i>),</p>
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This is page 26 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

northern catalpa (*Catalpa speciosa*), sugar maple (*Acer saccharum*), American elm cultivars (*Ulmus americana*), black oak (*Quercus velutina*), bur oak (*Quercus macrocarpa*), chinquapin oak (*Quercus muehlenbergii*), northern pin oak (*Quercus ellipsoidalis*), northern red oak (*Quercus rubra*), overcup oak (*Quercus lyrata*), scarlet oak (*Quercus coccinea*), swamp white oak (*Quercus bicolor*), staghorn sumac (*Rhus typhina*), winged sumac (*Rhus copallina*), pecan (*Carya illinoensis*), persimmon (*Diospyros virginiana*), quaking aspen (*Populus tremuloides*), Norway spruce (*Picea abies*), Ohio buckeye (*Aesculus glabra*), sweetgum (*Liquidambar styraciflua*), tulip (*Liriodendron tulipifera*), white fir (*Abies concolor*), chokecherry (*Prunus virginiana*), eastern red cedar (*Juniperus virginiana*), hackberry (*Celtis occidentalis*), and Kentucky coffeetree (*Gymnocladus dioica*). Approximately 0.9 acre of immature trees and shrubs are included in “Do Not Disturb” areas and will not be impacted by construction. Approximately 6.6 acres of immature trees and shrubs are within the existing right-of-way and could be impacted by construction.

In a letter dated October 29, 2018 [2019] (Appendix D, pages 1511-1512), KIB indicated that they conducted a study during the summer 2019 of the 433 trees they planted along Davidson Street. This study utilized iTree Eco Model developed by the U.S. Forest Service, Northern Research Station. The assessment covered vegetation structure, function, and value, which can be representative of the other trees planted within the same timeframe in this area. As stated in the KIB letter, the study highlights health benefits of these trees based on the following statistics:

- Pollution Removal: 50.22 pounds/year, including O₃, CO, NO₂, SO₂, and PM_{2.5}
- Carbon Storage: 8.335 tons and Carbon Sequestration 1,393 pounds
- Oxygen Production: 1.857 tons/year
- Avoided Runoff: 1.714 thousand cubic feet/year

KIB indicated they have a high survival rate because they plant 1-2-inch caliper trees and water them for a minimum of three years. Replanting trees of this size and guaranteeing their survival would be both expensive and difficult to accomplish. KIB recommends the preservation of as many of these maturing trees as possible to retain these environmental benefits and lessen future costs of replacement. This would also allow increased investment into expanding the green infrastructure within the project area.

Regarding tree replacement, KIB recommends basing the number of replacement trees on total existing basal area. Basal area is the average amount of an area occupied by tree stems. It is defined as the total cross-sectional area of all stems in a stand measured at breast height and expressed as per unit of land area (typically square feet per acre).

The Rethink 65/70 Coalition, neighborhood associations, and members of the public have requested tree plantings within the interstate right-of-way. The Rethink 65/70 Coalition requested “reforestation of interior landscape areas to create the sensation of passing through a dense urban forest and providing year-round tree canopy and buffering for air pollutant, noise, and stormwater mitigation.”

Complete avoidance of all trees and shrubs within the right-of-way will not be possible due to the reconfiguration of the interchange, widening of the interstates in some areas, and the need for working room and access for the design-build team. Approximately 3.7 acres of trees and shrubs are marked as “Do Not Disturb” areas and will not be impacted by construction. The remaining 12.9 acres of trees and shrubs could be impacted during construction. Trees and shrubs will be replanted within the existing right-of-way in accordance with the North Split Aesthetic Design Guidelines, which are available in Appendix G, pages 214-326.

In their early coordination response dated November 17, 2017, IDNR DFW concurred that existing habitat features within the project area are likely low-quality features related to existing infrastructure (roadside ditches, medians, etc.) (Appendix C, pages 20-21). IDNR DFW recommended programs that may provide cost-share or technical assistance for the revegetation of roadsides, medians, and areas between the various interchange elements.

In their early coordination response dated October 24, 2017, USFWS indicated no objection to the project as currently proposed and also provided recommendations to avoid impacts to fish, wildlife and botanical resources (Appendix C, pages 16-17).

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

An automated response was obtained from IDEM on October 19, 2017 (Appendix C, pages 28-31).

No written response was received from the USACE.

Four resource agency meetings have been held during the development of the project. At the first meeting, held on November 3, 2017, an introduction to the project was provided (Appendix C, pages 57-71). At the second meeting, held on May 22, 2018, the System-Level Analysis was discussed (Appendix C, pages 74-84). At the third meeting, held on October 17, 2018, the Alternatives Screening Report was discussed (Appendix C, pages 93-105). At the fourth meeting, held on April 30, 2020, public involvement activities, environmental resource impacts, public survey results, noise barrier recommendations, a Section 106 update, traffic impacts during construction, and the Aesthetic Design Guidelines were discussed (Appendix C, pages 106-132). Impacts to terrestrial habitat were discussed at the fourth resource agency meeting.

Applicable resource agency recommendations are included in *Section J – Environmental Commitments* of this document.

If there are high incidences of animal movements observed in the project area, or if bridges and other areas appear to be the sole corridor for animal movement, consideration of utilizing wildlife crossings should be taken.

Karst

Is the proposed project located within or adjacent to the potential Karst Area of Indiana?

Are karst features located within or adjacent to the footprint of the proposed project?

If yes, will the project impact any of these karst features?

Yes

No

X
X

Use the remarks box to identify any karst features within the project area. (Karst investigation must comply with the Karst MOU, dated October 13, 1993)

Remarks:

Based on a desktop review, the project is located outside the designated karst region of Indiana as outlined in the October 13, 1993 Memorandum of Understanding (MOU). According to the topo map of the project area (Appendix B, page 2) and the RFI report (Appendix E, page 3), no karst features are identified within or adjacent to the project area. In the early coordination response, the Indiana Geological Survey (IGS) did not indicate that karst features exist in the project area (Appendix C, pages 32-33). The IGS indicated the project area has a moderate liquefaction potential, is within a floodway, has high potential for bedrock, sand, and gravel resources, and may have petroleum exploration wells. The features will not be affected because the project area is within the right-of-way of an existing interstate. Additionally, Pogues Run has been piped and there is no floodway within the project area. The response from IGS was communicated with the designer on November 24, 2019. No impacts are expected.

Threatened or Endangered Species

Within the known range of any federal species

Any critical habitat identified within project area

Federal species found in project area (based upon informal consultation)

State species found in project area (based upon consultation with IDNR)

Presence

Impacts

Yes

No

X
X

X
X

Yes

No

Is Section 7 formal consultation required for this action?

--

X

Remarks:

Based on a desktop review and the RFI report (Appendix E, pages 1-57), completed by HNTB on May 17, 2019, the IDNR Marion County Endangered, Threatened and Rare (ETR) Species List has been checked and is included in Appendix E, pages 55-57. The highlighted species on the list reflect the federal and state identified ETR species located within the county. According to the IDNR DFW early coordination response letter dated November 17, 2017 (Appendix C, pages 20-21), the Natural Heritage Program's Database has been checked and the state endangered Kirtland's snake (*Clonophis kirtlandii*) has been documented near the northeast end of the project area. According to the IDNR response letter, the Kirtland's snake records are in highly developed areas. One record is over 30 years old, and the other is in an area where the snakes were

This is page 28 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

collected and relocated to avoid impacts from other development in the area. This species was not found during a recent site visit by the IDNR herpetologist; however, they could still be in the area. To minimize impacts to this species, IDNR recommends installing a silt fence around any construction areas where ground disturbance will occur. This is a firm commitment and is listed in *Section J - Environmental Commitments* at the end of this document.

Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 38-43). The project is within range of the federally endangered Indiana bat (*Myotis sodalis*) and the federally threatened northern long-eared bat (NLEB) (*Myotis septentrionalis*). No additional species were found within or adjacent to the project area other than the Indiana bat and NLEB.

The project qualifies for the Range-wide Programmatic Informal Consultation for the Indiana bat and northern long-eared bat (NLEB), dated May 2016 (revised February 2018), between FHWA, Federal Railroad Administration (FRA), Federal Transit Administration (FTA), and USFWS. An effect determination key was completed on September 16, 2019, and based on the responses provided, the project was found to have "no effect" on the Indiana bat and/or the NLEB (Appendix C, pages 44-50).

The RFI report was approved on May 21, 2019 (Appendix E, pages 1-57). Project information was submitted through the USFWS's Information for Planning and Consultation (IPaC) portal, and an official species list was generated (Appendix C, pages 38-43). This project is located outside a High Potential Zone for the Rusty Patched Bumble Bee. Therefore, no impacts are expected.

This precludes the need for further consultation on this project as required under Section 7 of the Endangered Species Act, as amended. If new information on endangered species at the site becomes available, or if project plans are changed, USFWS will be contacted for consultation.

SECTION B – OTHER RESOURCES

Drinking Water Resources

Wellhead Protection Area
Public Water System(s)
Residential Well(s)
Source Water Protection Area(s)
Sole Source Aquifer (SSA)

Presence

X

Impacts

Yes

No

X

If an SSA is present, answer the following:
Is the Project in the St. Joseph Aquifer System?
Is the FHWA/EPA SSA MOU Applicable?
Initial Groundwater Assessment Required?
Detailed Groundwater Assessment Required?

Yes

No

Remarks:

Sole Source Aquifer

The project is located in Marion County, which is not located within the area of the St. Joseph Sole Source Aquifer, the only legally designated sole source aquifer in the state of Indiana. Therefore, the FHWA/EPA Sole Source Aquifer Memorandum of Understanding (MOU) is not applicable to this project. Therefore, a detailed groundwater assessment is not needed and no impacts are expected.

Wellhead Protection Area and Source Water

In an early coordination letter dated October 24, 2017, IDEM stated the project is not located within a wellhead area (Appendix C, page 27). No impacts are expected.

Water Wells

The IDNR Water Well Record Database website (<https://www.in.gov/dnr/water/3595.htm>) was accessed on

This is page 29 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

November 24, 2019 by HNTB. Water wells are mapped within the existing interstate right-of-way. In addition, groundwater monitoring wells were identified within the project limits during hazardous material sampling efforts. Groundwater monitoring wells were identified in the following locations: east of the interstates and north of 10th Street, west of the interstates near where Massachusetts Avenue stops, and east of the interstates between New York and Ohio streets. The features could be directly affected by construction activities or by construction equipment crossing over them.

If groundwater monitoring wells are encountered in the project area, they will be maintained in place if feasible. If they cannot be maintained, the design-build team must contact the INDOT Project Manager who will notify the INDOT Right-of-way Permits Group. The INDOT Right-of-way Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Right-of-way Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the design-build team or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned.

Urban Area Boundary

Based on a desktop review of the INDOT MS4 website (<https://entapps.indot.in.gov/MS4/>) by HNTB on November 24, 2019 and the RFI report; this project is located in an Urban Area Boundary (UAB). An early notification letter was sent on October 18, 2017, to the Indianapolis Department of Public Works (DPW) (Appendix C, page 7). The Marion County Stormwater Management District (MCSWMD) responded in a letter dated October 24, 2017 (Appendix C, page 35). The MCSWMD indicated if there is additional impervious area, the project must consider the downstream capacity of the existing storm sewer system, the project must comply with the City of Indianapolis Storm Water Design and Construction Manual including Chapter 700 for post-construction water quality requirements, and the project must include temporary erosion and sediment control measures during all phases of construction.

In their early coordination response letter dated November 20, 2017, USEPA recommended coordination with Indianapolis DPW and Citizens Energy Group regarding stormwater and noted the EA should describe locations of water bodies, streams, groundwater resources, wellhead protection areas, and impacts to water quality (Appendix C, pages 8-15). There are no streams within the project area. Drainage from the project area is eventually directed to Pogues Run and the White River. Both streams are impaired. Pogues Run is impaired for *E. coli* and an impaired biotic community. The White River is impaired for *E. coli* and polychlorinated biphenyls (PCBs). The project is not anticipated to affect the impairment status of Pogues Run or the White River.

The North Split Project will comply with the Indiana Design Manual regarding stormwater considerations. Stormwater detention, both within the interchange infield and in larger-sized pipes, will be used to avoid increased flows to existing stormwater systems. Coordination has occurred with City of Indianapolis regarding project drainage design.

Public Water System

Based on a desktop review, a site visit on November 26, 2019 by HNTB, the aerial map of the project area (Appendix B, pages 4-16), and coordination with local utilities this project is located where there is a public water system. The public water system will be affected. Citizens Energy Group currently has a 6-inch water main on Davidson Street between Michigan Street and North Street. This line will be relocated and replaced with an 8-inch water main to avoid impacts from the project. A fire hydrant will be replaced as part of the relocation. In addition, a 6-inch water main on Ohio Street will be lowered to accommodate the project. As part of the utility coordination for the project, Citizens Energy Group provided information about the water main in a Work Plan dated November 1, 2019 (Appendix C, pages 51-56). Avoidance of these water mains is not practicable because all construction work is being completed within the existing right-of-way in this highly developed area. There are numerous utilities present within the existing right-of-way in this area and avoidance of all of them is not practicable.

This is page 30 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Flood Plains	Presence	Impacts	
		Yes	No
Longitudinal Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transverse Encroachment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project located within a regulated floodplain	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Homes located in floodplain within 1000' up/downstream from project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Discuss impacts according to classification system described in the "Procedural Manual for Preparing Environmental Studies"

Remarks: The IDNR Indiana Floodway Information Portal website (<http://dnrmmaps.dnr.in.gov/appsphp/fdms/>) was accessed on November 24, 2019 by HNTB. This project is not located in a regulatory floodplain as determined from approved IDNR floodplain maps (Appendix F, page 33). Therefore, it does not fall within the guidelines for the implementation of 23 CFR 650, 23 CFR 771, and 44 CFR. No impacts are expected.

Farmland	Presence	Impacts	
		Yes	No
Agricultural Lands	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prime Farmland (per NRCS)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Total Points (from Section VII of CPA-106/AD-1006* _____

*If 160 or greater, see CE Manual for guidance.

See CE Manual for guidance to determine which NRCS form is appropriate for your project.

Remarks: Based on a desktop review, site visits on October 29-30, 2015; April 25-27, May 24, and October 3-5, 2016; October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by Parsons and HNTB, and the aerial map of the project area (Appendix B, pages 4-16), there is no land that meets the definition of farmland under the Farmland Protection Policy Act (FPPA) within or adjacent to the project area. The requirements of the FPPA do not apply to this project; therefore, no impacts are expected. An early coordination letter was sent on October 18, 2017, to Natural Resources Conservation Services (NRCS) (Appendix C, pages 1-6). The NRCS responded in a letter dated October 19, 2017, that the project will not cause a conversion of prime farmland (Appendix C, page 18).

SECTION C – CULTURAL RESOURCES

Category	Type	INDOT Approval Dates	N/A
Minor Projects PA Clearance	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Eligible and/or Listed Resource Present

Results of Research

Archaeology	<input type="checkbox"/>
NRHP Buildings/Site(s)	<input checked="" type="checkbox"/>
NRHP District(s)	<input checked="" type="checkbox"/>
NRHP Bridge(s)	<input checked="" type="checkbox"/>

Project Effect

No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect ☒

This is page 31 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Documentation

Prepared

Documentation (mark all that apply)

	ES/FHWA Approval Date(s)	SHPO Approval Date(s)
Historic Properties Short Report		
Historic Property Report	X	Dec. 29, 2017 (HPR) Sept. 21, 2018 (Addendum)
Archaeological Records Check/ Review	X	Feb. 8, 2018 (HPR) Oct. 29, 2018 (Addendum)
Archaeological Phase Ia Survey Report	X	July 18, 2019 (Report) Dec. 16, 2019 (Addendum)
Archaeological Phase Ib Survey Report	X	July 18, 2019 (Report) Dec. 16, 2019 (Addendum)
Archaeological Phase II Investigation Report	X	Dec. 14, 2018
Archaeological Phase III Data Recovery		January 25, 2019
APE, Eligibility and Effect Determination	X	
800.11 Documentation	X	Dec. 19, 2019
		January 17, 2020
		January 17, 2020

MOA Signature Dates	(List all signatories)
X	FHWA – May 27, 2020 SHPO – May 27, 2020 ACHP – May 29, 2020 INDOT – May 19, 2020 Benjamin Harrison Presidential Site – May 19, 2020 Keep Indianapolis Beautiful – May 20, 2020

Describe all efforts to document cultural resources, including a detailed summary of the Section 106 process, using the categories outlined in the remarks box. The completion of the Section 106 process requires that a Legal Notice be published in local newspapers. Please indicate the publication date, name of paper(s) and the comment period deadline. Likewise include any further Section 106 work which must be completed at a later date, such as mitigation or deep trenching.

Remarks:

INDOT, acting on behalf of FHWA, is required to comply with Section 106 of the National Historic Preservation Act of 1966 as amended (Section 106), and its implementing federal regulation, 36 CFR 800. Section 106 and 36 CFR 800 outline a process that requires FHWA and INDOT to evaluate the effects of undertakings on properties that are listed on or eligible for listing on the National Register of Historic Places (NRHP).

Area of Potential Effect (APE)

The original Area of Potential Effects (APE) for the North Split Project started as a 0.25-mile buffer around the entire project area, which was increased to a 0.5-mile buffer around the existing North Split interchange to account for increases in the height of ramps within the interchange. Subsequent to the completion of the Historic Property Report (HPR), an expanded APE was developed to take into account anticipated temporary truck traffic increases on city streets during construction of the North Split Project. The segments listed below are included in the expanded APE (Appendix D, pages 546-557).

- Fall Creek Parkway Segment, from 38th Street south to College Avenue
- College Avenue Segment, from Fall Creek Parkway south to original APE
- West Street Segment, from the I-65 interchange south to the I-70 interchange
- Missouri Street Segment, from West Street south to the I-70 interchange
- Pennsylvania Street Segment, south from original APE to Madison Avenue
- Madison Avenue Segment, from Pennsylvania Street to I-70 interchange
- St. Clair Street Segment, from original APE west to West Street
- Fort Wayne Avenue Segment, from original APE south to St. Clair Street
- East Street Segment, from original APE south to original APE
- Washington Street Segment, from Rural Street west to original APE
- Rural Street Segment, from the I-70 interchange south to Washington Street
- Massachusetts Avenue Segment, from original APE east to Rural Street

This is page 32 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Coordination with Consulting Parties

There are 48 consulting parties for the North Split Project (Appendix D, pages 29-31). The Section 106 review periods and meetings for the project are listed below. Additional details, including a more detailed timeline of consultation, consulting party comments letters and emails, and responses to consulting party comments are included in Appendix D.

Early Coordination/Invitation to Section 106 Consultation

Early coordination letters and Section 106 consulting party invitations were sent to the State Historic Preservation Officer (SHPO) and 37 potential consulting parties on September 19, 2017. INDOT provided the same notification to Tribes who have accepted consulting party status on the following day. The letter discussed the proposed project location, purpose and need, initial scope of work, and proposed APE; explained the Section 106 consultation process; and included an invitation to a consulting parties meeting on October 6, 2017 (Appendix D, pages 855-867). Consulting party meeting #1 was held on October 6, 2017, at the Indiana Historical Society. Ten consulting parties attended in person or via phone. The purpose of the meeting was to discuss the project, the APE, and next steps in the Section 106 consultation process. Attendees were encouraged to provide written comments (Appendix D, pages 655-679). Written comments were received from the Miami Tribe of Oklahoma, Indianapolis Historic Preservation Commission, Chatham Arch Neighborhood Association, Holy Cross Neighborhood Association, NESCO Land Use Committee, Old Northside Neighborhood Association, SHPO, and City of Indianapolis Department of Metropolitan Development (DMD) (Appendix D, pages 868-910).

Section 106 Update Memo #1 and Historic Property Report (HPR)

Section 106 Update Memo #1 and the HPR were sent to the SHPO and consulting parties on January 8, 2018. INDOT provided the same notification to the Tribes on the same day. Update Memo #1 discussed the HPR and aboveground historic properties, upcoming archaeology report, traffic diversion and APE expansion methodology, updates to the project scope, responses to consulting party comments from the previous comment period. It also included an invitation to consulting party meeting #2 on January 26, 2018 (Appendix D, pages 912-972). Consulting party meeting #2 was held on January 26, 2018 at the Benjamin Harrison Presidential Site. Forty-four consulting parties and members of the public attended in person or via phone. The purpose of the meeting was primarily to discuss the results of the HPR, provide an update on the archaeology component of the project, and review the traffic diversion and APE expansion methodology. Attendees were encouraged to provide written comments (Appendix D, pages 681-713). Written comments were received from the North Square Neighborhood Association, Hendricks Commercial Properties, City of Indianapolis Department of Public Works (DPW), Keep Indianapolis Beautiful, Historic Urban Neighborhoods of Indianapolis, property owners, SHPO, Saint Joseph Historic Neighborhood Association, Chatham Arch Neighborhood Association, American Institute of Architects, Lockerbie Square Peoples Club, Fletcher Place Neighborhood Association, Martindale Brightwood Community Development Corporation, and Interstate Business Group (Appendix D, pages 973-1053).

System-Level Analysis Notification

Consulting parties were notified of the availability of the System-Level Analysis on the project website via email on April 24, 2018. The System-Level Analysis was not a formal step in the North Split Section 106 consultation process. The System-Level Analysis investigated a range of concepts for the entire downtown Indianapolis interstate system. INDOT initiated the System-Level Analysis to assess the performance, cost, and impact of seven concepts for I-65 and I-70 through downtown Indianapolis. The analysis did not provide a final recommendation on the downtown interstate system, but the facts informed the process moving forward for the North Split interchange. Consulting parties were also invited to a consulting party meeting #3 to learn more about the System-Level Analysis (Appendix D, pages 1055-1056). Consulting party meeting #3 was held on May 21, 2018 at the Indiana State Museum. Twenty-one consulting parties attended in person or via phone. The purpose of the meeting was primarily to discuss the results of the System-Level Analysis. Review of the System-Level Analysis and this meeting were not formal steps in the North Split Section 106 consultation process (Appendix D, pages, 715-744). They are included in this timeline for reference. Attendees were encouraged to provide written comments (Appendix D, pages 1057-1109).

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Section 106 Update Memo # 2, Alternatives Screening Report, and HPR Addendum

Section 106 Update Memo #2, Alternatives Screening Report, and HPR Addendum were sent to the SHPO and consulting parties on September 28, 2018. Update Memo #2 discussed the availability of the Alternatives Screening Report, the expanded APE and historic properties, and responses to consulting party comments from the previous comment period. It included an invitation to a consulting parties meeting #4 on October 17, 2018 (Appendix D, pages 1111-1168). Consulting party meeting #4 was held on October 17, 2018, at the Indiana Historical Society. Twenty consulting parties attended in person or via phone. The purpose of the meeting was primarily to discuss the project purpose and need, alternatives screening, and historic properties identified within the expanded APE. Attendees were encouraged to provide written comments (Appendix D, pages 746-780). Written comments were received from the Indianapolis Historic Preservation Commission, Historic Urban Neighborhoods of Indianapolis, Benjamin Harrison Presidential Site, Keep Indianapolis Beautiful, American Institute of Architects, Windsor Park Neighborhood Association, Cottage Home Neighborhood Association, Lockerbie Square Peoples Club, Interstate Business Group, Indiana Landmarks, Chatham Arch Neighborhood Association, North Square Neighborhood Association, SHPO, Massachusetts Avenue Merchants Association, and Saint Joseph Historic Neighborhood Association (Appendix D, pages 1171-1345).

Section 106 Update Memo # 3 (including Forecasted Permanent Traffic Changes)

Section 106 Update Memo #3 was sent to the SHPO and consulting parties on March 20, 2019. Update Memo #3 discussed refinements to preliminary preferred Alternative 4c, forecasted permanent traffic changes and the APE, and responses to earlier consulting party comments (Appendix D, pages 1347-1417). Written comments were received from the SHPO (Appendix D, pages 1428-1429).

Section 106 Update Memo # 4 and Phase Ia Archaeological Records Check and Survey Report

Section 106 Update Memo #4 was sent to the SHPO and consulting parties on June 18, 2019. Update Memo #4 included a review of the Section 106 consultation history, and notification that an Effects Report was in process for aboveground historic properties. It also advised the Phase Ia Archaeological Records Check and Reconnaissance Survey report was available for the Tribes' review. INDOT provided the same notification to the Tribes the following day (Appendix D, pages 1432-1437). Written comments were received from the North Square Neighborhood Association and the SHPO (Appendix D, pages 1439-1443).

Section 106 Update Memo #5 and Historic Property Assessment of Effects Report

Section 106 Update Memo #5 and the Historic Property Assessment of Effects Report were sent to the SHPO and consulting parties on August 9, 2019. INDOT provided the same notification to the Tribes on the same date. Update Memo #5 discussed the Historic Property Assessment of Effects Report, slight changes to historic district and property boundary mapping, and responses to consulting party comments from the previous comment periods. It included an invitation to consulting party meeting #5 on August 29, 2019 (Appendix D, pages 1445-1455). Consulting party meeting #5 was held on August 29, 2019 at the Ivy Tech Culinary and Conference Center. Eight consulting parties attended in person or via phone. The meeting provided updates on the status of the Section 106 consultation process, provided an update on the archaeological surveys, discussed efforts to minimize effects to historic properties, discussed the methodology of the effects report, discussed the results of the assessment of effects, and introduced the consulting parties to the idea of mitigation of adverse effects and possible mitigation options. Attendees were encouraged to provide written comments (Appendix D, pages 782-817). Written comments were received from the Indianapolis Historic Preservation Commission, Old Northside Neighborhood Association, Benjamin Harrison Presidential Site, Keep Indianapolis Beautiful, Cottage Home Neighborhood Association, Lockerbie Square Peoples Club, Indiana Landmarks, National Trust for Historic Preservation, Chatham Arch Neighborhood Association, North Square Neighborhood Association, SHPO, Massachusetts Avenue Merchants Association, Saint Joseph Historic Neighborhood Association. The following members of the public also provided written comments: Roberta Avidor, Rethink 65/70 Coalition, Nancy Schaefer, and Strong Indy (Appendix D, pages 1456-1541).

Section 106 Update Memo #6 and Traffic Noise Barrier Addendum to the Assessment of Effects Report

Section 106 Update Memo #6 and the Traffic Noise Barrier Addendum to the Assessment of Effects Report were sent to the SHPO and consulting parties on October 11, 2019. INDOT provided the same notification to

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

the Tribes on the same date. Update Memo #6 discussed the traffic noise analysis, Traffic Noise Barrier Addendum, consulting party comments and effect finding recommendations, and responses to consulting party comments from the previous comment period. It included an invitation to consulting parties meeting #6 on October 29, 2019 (Appendix D, pages 1543-1605). Consulting party meeting #6 was held on October 29, 2019 at the Ivy Tech Community College Culinary and Conference Center. Eight consulting parties attended in person or via phone. The purpose of the meeting was to review the Traffic Noise Analysis and effects to historic properties, review the responses to consulting parties comments on the Assessment of Effects Report and the Traffic Noise Barrier Addendum, and to begin discussing possible mitigation ideas. Attendees were encouraged to provide written comments (Appendix D, pages 819-851). Written comments were received from the Indianapolis Historic Preservation Commission, Historic Urban Neighborhoods of Indianapolis, Keep Indianapolis Beautiful, Windsor Park Neighborhood Association, Old Northside Neighborhood Association, Cottage Home Neighborhood Association, Interstate Business Group, Indiana Landmarks, National Trust for Historic Preservation, Chatham Arch Neighborhood Association, SHPO, Holy Cross Neighborhood Association, Luke Leising, and Saint Joseph Historic Neighborhood Association (Appendix D, pages 1606-1649).

Section 106 Update Memo #7 and Addendum to Phase Ia Archaeology Report

Section 106 Update Memo #7 and the Phase Ia archaeology report addendum were sent to the SHPO and consulting parties on November 7, 2019. INDOT provided the same notification to the Tribes on the same date. Update Memo #7 discussed one additional noise barrier (NB3W) and its potential effect to historic properties (Appendix D, pages 1651-1662). Written comments were received from the SHPO (Appendix D, pages 1664-1672).

Section 106 Update Memo #8 and Section 106 800.11(e) Finding/Document

Section 106 Update Memo #8 and the Section 106 800.11(e) finding/document were sent to the SHPO and consulting parties on December 19, 2019. INDOT provided the same notification to the Tribes on the same date. Update Memo #8 notified consulting parties of the availability of the Section 106 finding and 800.11(e) documentation, and discussed possible mitigation ideas (Appendix D, pages 453-480). Consulting party meeting #7 was held on January 16, 2020 at the Ivy Tech Community College Culinary and Conference Center. Thirteen consulting parties attended in person or via phone. The purpose of the meeting was to review the Section 106 800.11(e) documentation and effects to historic properties and discuss preliminary mitigation ideas. Attendees were encouraged to provide written comments (Appendix D, pages 435-450). Written comments were received from the Indianapolis Historic Preservation Commission, Historic Urban Neighborhoods of Indianapolis, Keep Indianapolis Beautiful, Massachusetts Avenue Merchants Association, Lockerbie Square Peoples Club, Indiana Landmarks, National Trust for Historic Preservation, Chatham Arch Neighborhood Association, SHPO, Holy Cross Neighborhood Association, and Saint Joseph Historic Neighborhood Association. The Rethink 65/70 Coalition provided public comments (Appendix D, pages 370-434).

Section 106 Update Memo #9 (regarding minor design modifications)

Section 106 Update Memo #9 was sent to the SHPO and consulting parties on November 7, 2019. INDOT provided the same notification to the Tribes on the same date. Update Memo #9 discussed minor project design modifications. No changes to effect findings were recommended (Appendix D, pages 346-369). Written comments were received from the SHPO (Appendix D, pages 344-345).

Section 106 Update Memo #10 and Draft MOA

Section 106 Update Memo #10 and the Draft MOA were sent to the SHPO and consulting parties on March 11, 2020. INDOT provided the same notification to the Tribes on the same date. Update Memo #10 notified consulting parties of the availability of the North Split Aesthetic Design Guidelines, responded to consulting party comments regarding preliminary mitigation ideas, and transmitted the draft MOA (Appendix D, pages 254-343). Consulting party meeting #8 was held virtually via the WebEx conferencing tool on March 23, 2020. Fifteen consulting parties attended. The purpose of the meeting was to review the Aesthetic Design Guidelines, discuss additional mitigation items added to the MOA, and discuss specific consulting party comments regarding mitigation ideas. Attendees were encouraged to provide written comments (Appendix D, pages 230-253). Written comments were received from the Advisory Council on Historic Preservation,

This is page 35 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Historic Urban Neighborhoods of Indianapolis, Benjamin Harrison Presidential Site, Massachusetts Avenue Merchants Association, Lockerbie Square Peoples Club, National Trust for Historic Preservation, Fletcher Place Neighborhood Association, Martindale Brightwood Community Development Corporation, Old Northside Neighborhood Association, Chatham Arch Neighborhood Association, SHPO, Cottage Home Neighborhood Association, Holy Cross Neighborhood Association, and Saint Joseph Historic Neighborhood Association. The Rethink 65/70 Coalition provided public comments (Appendix D, pages 126-229).

Section 106 Update Memo #11 and Addendum #2 to Phase Ia Archaeology Report

Section 106 Update Memo #11 and the Phase Ia archaeology report addendum #2 were sent to the SHPO and consulting parties on April 16, 2020. INDOT provided the same notification to the Tribes on April 17, 2020. Update Memo #11 discussed the results of Phase Ia archaeology report addendum #2 (Appendix D, pages 119-125). Written comments were received from the SHPO (Appendix D, pages 113-115).

Section 106 Update Memo #12 and Final MOA for Signatures

A draft Final MOA in tracked changes was sent to consulting parties for their information on May 4, 2020. INDOT provided the same notification to the Tribes on the same day (Appendix D, pages 111-112). Section 106 Update Memo #12 and the Final MOA were sent to the SHPO and consulting parties for signatures on May 18, 2020. INDOT provided the same notification to the Tribes on May 19, 2020. Update Memo #12 provided responses to consulting party comments on the Draft MOA (Appendix D, pages 69-103).

Archaeology

A Phase 1b Archaeology Work Plan (Coughlin, August 25, 2017) for excavation within the interchange infield was completed by a Qualified Professional (QP) at ASC Group who satisfies the *Secretary of the Interior's Professional Qualification Standards* and was approved by INDOT on August 28, 2017. The Phase 1b Archaeology Work Plan was hand delivered to the SHPO on August 28, 2017. The SHPO approved it in a letter dated August 29, 2017 (Appendix D, pages 853-854).

A Phase 1b archaeological reconnaissance survey was conducted for the North Split interchange infield. The Phase Ib Archaeological Records Check and Reconnaissance Survey Report was completed by a QP at ASC Group on December 3, 2018 (Coughlin and Miller, December 3, 2019) (Appendix D, pages 628-631). The Phase Ib archaeology survey found one site within the project area, which was recommended not eligible for the NRHP. No further work was recommended. INDOT approved the Phase Ib report on December 14, 2018 and it was sent to the SHPO on that day (Appendix D, page 1341). The SHPO concurred with the findings of the report in a letter dated January 25, 2019 (Appendix D, pages 1342-1343).

A Phase 1a archaeological reconnaissance survey was conducted for portions of the North Split project area that might not already be disturbed based on a review of aerial photography and the USGS topographic map. The Phase Ia Archaeological Records Check and Reconnaissance Survey Report was completed by a QP at ASC Group on June 13, 2019 (Miller and Schwarz, June 13, 2019) (Appendix D, pages 632-634). The Phase Ia archaeology survey did not identify any archaeological sites and no further work was recommended. INDOT approved the Phase Ia report on June 17, 2019 and it was sent to the SHPO on that day (Appendix D, page 1431). The SHPO concurred with the findings of the report in a letter dated July 18, 2019 (Appendix D, pages 1441-1443).

An Addendum Phase Ia Archaeological Records Check and Reconnaissance Survey Report was completed by a QP at ASC Group on November 6, 2019 (Schwarz, November 6, 2019), due to small additions to the North Split project area (Appendix D, pages 646-648). The Phase Ia archaeology survey found one site within the project area, which was recommended not eligible for the NRHP. No further work was recommended. INDOT approved the Phase Ia addendum report on November 7, 2019 and it was sent to the SHPO on that day (Appendix D, pages 1651-1655). In a letter dated December 9, 2019, the SHPO requested the report be revised to include additional information about the archaeology site (Appendix D, pages 1664-1666). The Phase Ia addendum report was revised and resubmitted to the SHPO on December 13, 2019 (Appendix D, page 1669). The SHPO concurred with the results in a letter dated December 16, 2019 and stated "...we concur with the opinion of the archaeologist, as expressed in the archaeological report, that the portions of archaeological site 12-Ma-1062 that lie within Area 8 of the proposed project area do not appear to warrant additional archaeological investigations. However, the portions of archaeological site 12-Ma-1062

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

that lie outside the proposed project area should be clearly marked so that they are avoided by all ground-disturbing project activities. If avoidance is not feasible, then a plan for subsurface archaeological investigations must be submitted to the DHPA for review and comment. Any further archaeological investigations must be done in accordance with the "Secretary of the Interior's Standards and guidelines for Archeology and Historic Preservation" (48 F.R. 44716)" (Appendix D, pages 1670-1672). This is included as a firm commitment in *Section J – Environmental Commitments* of this environmental document.

An Addendum Phase 1a Archaeological Records Check and Reconnaissance Survey Report #2 was completed by a QP at ASC Group on April 15, 2020 (Schwarz, April 15, 2020) due to small additions to the North Split project area (Appendix D, pages 122-123). The Phase 1a archaeology survey did not identify any archaeological sites and no further work was recommended. INDOT approved the Phase 1a addendum report on April 16, 2020, and it was sent to the SHPO on that day (Appendix D, pages 119-121). The SHPO concurred with the findings of the report in a letter dated May 4, 2020 (Appendix D, pages 113-115).

Historic Properties

There are 51 historic resources listed in or eligible for the NRHP in the APE (Appendix D, pages 485-488). Of these, 37 historic resources are listed in the NRHP, two are National Historic Landmarks (NHLs), and 12 have been determined eligible for the NRHP through the Section 106 consultation for this undertaking.

An HPR was completed by a QP at ASC Group (Konicki and Terpstra, December 29, 2017) and approved by INDOT on December 29, 2017 (Appendix D, pages 618-623). It was sent to the SHPO and consulting parties on January 8, 2018 (Appendix D, pages 912-917). The SHPO concurred with the findings of the report in a letter dated February 8, 2018 (Appendix D, pages 1004-1006).

An Addendum to the HPR was completed by a QP at ASC Group for the expanded APE (Konicki, September 19, 2018) and approved by INDOT on September 21, 2018 (Appendix D, pages 624-627). It was sent to the SHPO and consulting parties on September 28, 2018 (Appendix D, pages 1111-1115). The SHPO concurred with the findings of the report in a letter dated October 29, 2018 (Appendix D, pages 1191-1193).

Documentation, Findings

The project will have an Adverse Effect on the following historic properties (Appendix D, page 491):

Old Northside Historic District/Morris Butler House

The Old Northside Historic District and the Morris-Butler House are located immediately adjacent to the existing right-of-way line of the interstate west of the North Split and north of I-65. The Morris-Butler House is individually listed in the NRHP and a contributing property to the Old Northside Historic District.

As a result of the undertaking, the edge of pavement of the Pennsylvania Street exit ramp will be moved a maximum of 26 feet closer to the historic district boundary, vegetation will be removed from within the right-of-way. In order to widen the exit ramp just south of the Morris-Butler House, the present slope will be converted to a retaining wall to eliminate the need for new right-of-way to accommodate fill slopes. This retaining wall will be within the existing right-of-way of I-65 but it will be approximately 21 to 25 feet closer to the property than the existing pavement on the north side of I-65. The retaining wall will be approximately 10 to 16 feet tall.

The proposed elevation of the road at this location will be approximately six to seven feet taller than the existing road, with a 4-foot Jersey barrier on top of it. The interstate will increase in height along the portion adjacent to the Old Northside Historic District, beginning with the bridge over Alabama Street, where there is no increase, to a 14-foot increase of the I-65 northbound bridge over College Avenue. The greatest height increases will be farther from the historic district boundary because the existing bridge over College Avenue, which is for the I-70 exit to Pennsylvania Street and is closest to the district, will be removed. Overhead utility lines that cross over the interstate will likely need to be raised to add vertical clearance over I-65; this may require relocation of the utility lines and/or replacement of wood poles with steel poles. The existing 110-foot tall steel utility pole located east of the Morris-Butler House may require relocation.

Permanent traffic changes are anticipated to be minor near and within this district. The largest permanent increase in total vehicles in the peak hour is 79 on 16th Street, which equates to a density (total volume rate

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

change) increase of 0.3 vehicle/minute/lane. Temporary increases in heavy trucks during construction are anticipated to range from zero to nine heavy trucks on 16th Street in the peak hours near this property. There are no contributing features, such as brick streets or stone curbs on the streets with anticipated temporary heavy truck increases within or near the district. Adverse effects are not anticipated from temporary or permanent traffic increases.

The increased height of the interstate, removal of screening vegetation within the existing right-of-way that currently partially blocks views of the interstate, closer edge of pavement, and installation of a retaining wall will affect the characteristics that qualify the Old Northside Historic District and the Morris-Butler House for the NRHP in a manner that would diminish their integrity. A noise barrier was considered adjacent to the Old Northside Historic District and Morris-Butler House, but as described later in this document in *Section F – Noise*, the barrier is not being constructed. Not constructing this noise barrier is a minimization measure under Section 106. Although the interstate is an already existing intrusion on the integrity of the Old Northside Historic District, the project activities described above will make the intrusion more visible from within the district.

As a result, the undertaking will have an Adverse Effect on the Old Northside Historic District and the Morris-Butler House.

Saint Joseph Neighborhood Historic District

The Saint Joseph Neighborhood Historic District is six feet away from proposed sidewalk improvements along Delaware Street near the existing entrance ramp to the interstate. The proposed edge of pavement of the interstate will be located between approximately eight and 20 feet closer to the historic district. The interstate pavement will be 20 feet closer at the district's eastern edge. The proposed interstate edge of pavement will be approximately 55 feet from the historic district boundary at that location.

As a result of the undertaking, the Delaware Street entrance ramp to the interstate will be as much as four feet taller than the existing ramp at the Central Avenue bridge. Additionally, the Central Avenue bridge will be replaced. The present sideslope will be converted to a retaining wall, vegetation could be removed from within the right-of-way. Overhead utility lines that cross over the interstate will likely need to be raised to add vertical clearance over I-65; this may require relocation of the utility lines and/or replacement of wood poles with steel poles. Adverse effects are not anticipated from temporary or permanent traffic increases.

The interstate edge of pavement will be closer to the district and this increased proximity, together with the combined height of the retaining wall, results in a visual change from existing conditions. A noise barrier was considered adjacent to the Saint Joseph Neighborhood Historic District, but as described below in *Section F – Noise*, the barrier is not being constructed. Not constructing this noise barrier is a minimization measure under Section 106. Although the interstate is an already existing intrusion on the integrity of the Saint Joseph Neighborhood Historic District, the increased proximity and height of the interstate will make the interstate appear to be a more pronounced intrusion for observers within the district. As a result, the proposed undertaking will have an impact on the characteristics that qualify the Saint Joseph Neighborhood Historic District for the NRHP in a manner that will diminish its integrity.

Therefore, the undertaking will have an Adverse Effect on the historic district.

Chatham-Arch Historic District

The Chatham-Arch Historic District is approximately 67 feet from the proposed edge of pavement of the interstate at the historic district's north end. As part of the undertaking, the I-65 southbound ramp to I-70 eastbound will be reconstructed. The reconstruction will move the edge of pavement as much as 12 feet closer to the historic district, and the new ramp will be as much as approximately 22 feet taller than the existing road, supported in part by a new retaining wall from east of Alabama Street to the interchange. The reconstruction also could remove existing vegetation within the right-of-way of the interstate. The I-65/I-70 bridges over 10th Street and St. Clair Street will be replaced, with the new bridges four to nine feet taller than the existing bridges, but without a significant change in location or length. Overhead utility lines along the north side of 10th Street will need to be raised to add vertical clearance over I-65. This may require relocation of the utility lines. Adverse effects are not anticipated from temporary or permanent traffic increases.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

The proposed undertaking will result in impacts to the district's setting due to the closer distance between the undertaking and the historic district and the increased height of the bridges and the interstate. A noise barrier was considered adjacent to the Chatham-Arch Historic District, but as described later in this document in *Section F – Noise*, the barrier is not being constructed. Not constructing this noise barrier is a minimization measure under Section 106. The interstate is an already existing intrusion on the integrity of the Chatham-Arch Historic District, but the district's increased proximity to I-65 following construction and the increased height of the bridges and the interstate will make the new interstate a more pronounced intrusion from within the district. Project activities will affect the characteristics that qualify the Chatham-Arch Historic District for listing in the NRHP in a manner that will diminish the district's integrity.

As a result, the undertaking will have an Adverse Effect on the historic district.

Massachusetts Avenue Commercial Historic District (if Noise Barrier 7 is constructed)

The Massachusetts Avenue Commercial Historic District is 67 feet from the proposed edge of pavement of the interstate at its closest point. The proposed edge of pavement of the interstate will not be closer to the district boundary than the existing edge of pavement of the interstate. The I-65/I-70 bridges over 10th Street will be replaced with the closest new bridge over 10th Street approximately four feet taller than the existing bridge and shifted to the east between 70 feet at the north end to approximately 15 feet at the south end. In the vicinity of Massachusetts Avenue, the proposed interstate will range from two to four feet higher than the existing interstate. Overhead utility lines that cross over the interstate will need to be raised to add vertical clearance over I-65. This may require relocation of the utility lines and/or replacement of wood poles with steel poles. Adverse effects are not anticipated from temporary or permanent traffic increases.

The maximum increase in noise for the Massachusetts Avenue Commercial Historic District is predicted to be 3.7 dB(A). This is a busy, commercial district and noise would not be unexpected there. Because the change in noise levels would be just at the threshold of human perception and within a busy commercial area, the integrity of the historic resources would not have the potential to be diminished by the project.

The proposed undertaking will result in minor impacts to the district's setting due to the increased height of the I-65 SB to I-70 ramp, as well as the bridges over 10th and St. Clair streets. However, the interstate is an already existing intrusion on the integrity of the Massachusetts Avenue Commercial Historic District and the project activities described above will not make the intrusion more visible from within the district because the scale of the height difference will be minimal. As a result, these project activities will not have an impact on the characteristics that qualify the Massachusetts Avenue Commercial Historic District for the NRHP in a manner that would diminish its integrity, and the undertaking will have No Adverse Effect on the historic district. A noise barrier was considered adjacent to the Massachusetts Avenue Commercial Historic District, but as described later in this document in *Section F – Noise*, the barrier is not being constructed. Not constructing this noise barrier is an avoidance measure under Section 106. Constructing the noise barrier would have resulted in an Adverse Effect to the historic district.

Lockerbie Square Historic District (if Noise Barrier 7 is constructed)

The Lockerbie Square Historic District is approximately 44 feet from the proposed edge of pavement at the Michigan Street exit ramp (north of Michigan Street) at its closest point. In the area where the interstate is nearest to the historic district, the interstate edge of pavement will not be any closer to the district than it currently is now. Within the vicinity of the historic district, bridges over Michigan, Vermont, and New York streets will be replaced with taller bridges.

Minor traffic changes are anticipated along Michigan Street, which borders the northern edge of the historic district. The traffic analysis showed a density (total volume rate change) increase of 3.1 vehicles/minute/lane during the AM peak hour for Michigan Street. The increase in traffic may be perceptible during the AM peak period, but the forecasted traffic is still anticipated to be under capacity for Michigan Street. The change in traffic does not rise to a level that would diminish the district's historic integrity. Adverse effects are not anticipated from temporary or permanent traffic increases.

The project activities, including the distance between bridges and the historic district and the minimal height

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

increases of the interstate east of the district, will make the intrusion only slightly more visible from within the district. As a result, these project activities will not have an impact on the characteristics that qualify the Lockerbie Square Historic District for the NRHP in a manner that would diminish its integrity, and the undertaking will have No Adverse Effect on the historic district. A noise barrier was considered adjacent to the Lockerbie Square Historic District. As described later in this document in *Section F – Noise*, the barrier is not being constructed. Not constructing this noise barrier is an avoidance measure under Section 106. Constructing the noise barrier would have resulted in an Adverse Effect to the historic district.

The project will have No Adverse Effect on 23 historic properties and No Effect on 22 properties (Appendix D, pages 489-490).

The Section 106 Adverse Effect finding was signed by FHWA, on December 19, 2019 (Appendix D, page 491). The 800.11(e) document and finding were sent to consulting parties, including SHPO, on December 19, 2019 (Appendix D, pages 453-459). The SHPO concurred with the Section 106 Adverse Effect finding in a letter dated January 17, 2020 (Appendix D, pages 370-373).

Memorandum of Agreement

A Memorandum of Agreement (MOA) was developed between the FHWA, SHPO, and the Advisory Council on Historic Preservation (ACHP) to mitigate for the Adverse Effects on the Old Northside Historic District/Morris Butler House, Saint Joseph Neighborhood Historic District, Chatham-Arch Historic District, Massachusetts Avenue Commercial Historic District, and the Lockerbie Square Historic District. The draft MOA was sent to consulting parties, including the SHPO, on March 11, 2020. The MOA was revised per consulting party comments and a tracked changes version was sent to them so they could see the revisions on May 4, 2020. The final MOA was sent for signatures on May 18, 2020 (Appendix D, pages 69-71). The final MOA was executed on May 29, 2020 (Appendix D, pages 1-62). The mitigation stipulations of the MOA are listed in *Section J – Environmental Commitments* at the end of this document.

Public Involvement

To meet the public involvement requirements of Section 106, a legal notice of FHWA's finding of Adverse Effect was published in the *Indianapolis Star* on December 24, 2019 offering the public an opportunity to submit comment pursuant to 36 CFR 800.2(d), 800.3(e), and 800.6(a)(4) (Appendix D, pages 451-452). The public comment period closed 30 days later on January 24, 2020. One public comment letter from the Rethink 65/70 Coalition was received (Appendix D, pages 414-429). Responses to the comments in this letter and other consulting party comments regarding the Adverse Effect finding and preliminary Section 106 mitigation ideas are in Appendix D, pages 266-299.

This completes the Section 106 process and the responsibilities of the FHWA under Section 106 have been fulfilled.

SECTION D – SECTION 4(f) RESOURCES/ SECTION 6(f) RESOURCES

Section 4(f) Involvement (mark all that apply)

Parks & Other Recreational Land

Publicly owned park
Publicly owned recreation area
Other (school, state/national forest, bikeway, etc.)

Presence

X

Use

Yes	No
X	

Evaluations Prepared

Programmatic Section 4(f)*
"De minimis" Impact*
Individual Section 4(f)

X

FHWA Approval date

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This is page 40 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Wildlife & Waterfowl Refuges

National Wildlife Refuge
National Natural Landmark
State Wildlife Area
State Nature Preserve

Presence

Use

Yes	No

Evaluations

Prepared

Programmatic Section 4(f)*
"De minimis" Impact*
Individual Section 4(f)

FHWA

Approval date

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Historic Properties

Sites eligible and/or listed on the NRHP

Presence

X

Use

Yes	No
	X

Evaluations

Prepared

Programmatic Section 4(f)*
"De minimis" Impact*
Individual Section 4(f)

FHWA

Approval date

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*FHWA approval of the environmental document also serves as approval of any Section 4(f) Programmatic and/or De minimis evaluation(s) discussed below. Discuss Programmatic Section 4(f) and "de minimis" Section 4(f) impacts in the remarks box below. Individual Section 4(f) documentation must be separate Draft and Final documents. For further discussions on Programmatic, "de minimis" and Individual Section 4(f) evaluations please refer to the "Procedural Manual for the Preparation of Environmental Studies". Discuss proposed alternatives that satisfy the requirements of Section 4(f).

Remarks:

Section 4(f) of the U.S. Department of Transportation Act of 1966 prohibits the use of certain public and historic lands for federally funded transportation facilities unless there is no feasible and prudent alternative. The law applies to significant publicly owned parks, recreation areas, wildlife/waterfowl refuges, and NRHP eligible or listed historic properties regardless of ownership. Lands subject to this law are considered Section 4(f) resources.

Historic Section 4(f) Resources

There are 51 historic resources listed in or eligible for the NRHP in the APE (Appendix D, pages 485-488). Of these, 37 historic resources are listed in the NRHP, 2 are NHLs, and 12 have been determined eligible for the NRHP through the Section 106 consultation for this undertaking.

There are 12 historic Section 4(f) resources located adjacent to the project area: Old Northside Historic District, Benjamin Harrison Home/Presidential Site, Morris-Butler House, Calvin Fletcher House, Wyndham, Saint Joseph Neighborhood Historic District, Chatham-Arch Historic District, Massachusetts Avenue Commercial Historic District, Lockerbie Square Historic District, Holy Cross/Westminster Historic District, Cole Motor Car Company, and John Hope School No 26. Through consultation with SHPO, it was determined that the project will have an Adverse Effect on six of those resources: Old Northside Historic District/Morris Butler House, Saint Joseph Neighborhood Historic District, Chatham-Arch Historic District, Massachusetts Avenue Commercial Historic District, and Lockerbie Square Historic District. Adverse effects to the Massachusetts Avenue Commercial Historic District and Lockerbie Square Historic District occurred only if Noise Barrier (NB) 7 was constructed. It has since been determined NB7 will not be constructed.

This is page 41 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

No right-of-way will be acquired from any historic Section 4(f) resources, and access to all historic properties will be maintained throughout construction. Impacts of the project were evaluated for potential constructive use of historic resources. Constructive use involves no actual physical use of the Section 4(f) property via permanent incorporation of land or a temporary occupancy of land into a transportation facility. A constructive use occurs when the proximity impacts of a proposed project adjacent to, or nearby, a Section 4(f) property result in substantial impairment to the property's activities, features, or attributes that qualify the property for protection under Section 4(f). After considering factors such as noise impacts, increased traffic in surrounding areas during construction, and visual/setting impacts to the historic properties, it was determined that the project will not cause a constructive use of any historic 4(f) resources.

As part of the Section 106 evaluation for this project, FHWA has determined that this undertaking will not convert property from any Section 4(f) historic properties to a transportation use. In addition, the proximity impacts to adjacent historic properties will not result in substantial impairment to the properties' activities, features, or attributes that qualify the properties for protection under Section 4(f). Therefore, no Section 4(f) evaluation is required for the above-listed historic properties (Appendix D, page 491). The SHPO concurred with this determination on January 17, 2020 (Appendix D, pages 370-373).

Recreational 4(f) Resources

Based on a desktop review, site visits on October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by HNTB, the aerial map of the project area (Appendix B, pages 4-16), the City of Indianapolis Indy Parks and Recreation web site, the Indy Greenways web site, and the RFI report (Appendix E, pages 2-3), there are 46 potential recreational Section 4(f) resources located within 0.5 mile of the project. Four recreational Section 4(f) resources are located within or adjacent to the project area. All four are trails.

Schools

Playgrounds and other recreational areas within school properties can sometimes be considered Section 4(f) resources when certain criteria are met. None of the schools that were identified within the 0.5-mile search radius are located within the project area. Indiana Non-Public Education Association was identified in the RFI as a school adjacent to the project area. However, it is an administrative building and not a public school. It is therefore not a Section 4(f) resource. The Oaks Academy is a publicly owned, but privately-operated, school adjacent to the project area. Because it is publicly owned, it is subject to Section 4(f). No school property will be altered or incorporated into the transportation project. No constructive use of the school property will occur. The Legacy Learning Center is a privately-owned school adjacent to the project area. Because it is a private school, it is not a Section 4(f) resource. No further Section 4(f) analysis of school properties is necessary.

Parks

There is one park located adjacent to the project area. The Frank and Judy O'Bannon Old Northside Soccer Park is an INDOT-owned parcel that is managed by the Indianapolis Parks and Recreation Department. No other parks are located within or directly adjacent to the project area. A portion of the Old Northside Trail will be reconstructed and widened within the Frank and Judy O'Bannon Old Northside Soccer Park to be a detour for temporary construction impacts to the Monon Trail (described in the Monon Trail section below). A letter was sent to the Indianapolis Department of Parks and Recreation on May 4, 2020, requesting concurrence that the proposed project will not adversely affect the activities or attributes but will enhance the features of the Old Northside Trail and Frank and Judy O'Bannon Old Northside Soccer Park (Appendix M, pages 45-46). The Indianapolis Department of Parks and Recreation agreed with this assessment and signed the letter on May 4, 2020 (Appendix M, page 46).

Access to all parks in the vicinity of the project will be maintained at all times during construction. No constructive use of any park properties will occur. No further Section 4(f) analysis of park properties is necessary.

Trails

Four trails are located within or adjacent to the project area: Old Northside Trail (within the Frank and Judy O'Bannon Old Northside Soccer Park and discussed above), Indianapolis Cultural Trail, Pogues Run Trail,

This is page 42 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

and the Monon Trail. The Principal Park Planner and Greenways Manager within the City of Indianapolis Department of Public Works is the Official with Jurisdiction for the three trails not within the Frank and Judy O'Bannon Old Northside Soccer Park. For public recreation areas, the official with jurisdiction is the official of an agency or agencies that own and/or administer the property in question and who are empowered to represent the agency on matters related to the property.

Pedestrian and bicycle connectivity for trails and sidewalks under interstate bridges will be addressed in accordance with the Indiana Manual on Uniform Traffic Control Devices which requires the following: adequate pedestrian access shall be provided, temporary pedestrian facilities shall meet the applicable requirements of the ADA, access to transit stops should be maintained, the width of the existing pedestrian facility should be provided for the temporary facility if practical, construction materials and features should not intrude into the usable width of the sidewalk, and any blocked routes should be signed in advance to alert users of closures and detour routes.

Indianapolis Cultural Trail (Not a Section 4(f) Resource within Project Area)

The Indianapolis Cultural Trail (Cultural Trail) is a multi-use path located adjacent to the North Split Project area. The Cultural Trail is publicly owned and open to the public, and is considered a Section 4(f) resource. It begins 50 feet west of the project area (west of I-65 at the corner of 10th and Bellefontaine Street) and extends south toward the downtown area. The trail will remain open during construction, and access to the trail will not be impacted. No right-of-way will be acquired from the trail, and no part of the trail will be converted to a transportation use.

The pedestrian connection from the Cultural Trail west of the interstate, along 10th Street and under the interstate bridges east to the Monon Trail, is known as the Payne Connection. The Payne Connection is located along 10th Street under I-65/I-70 south of the North Split interchange. It is not considered a Section 4(f) resource. The Local Public Agency Project Coordination Contract between the INDOT and the City of Indianapolis dated June 23, 2008, excludes this pedestrian connection from the Cultural Trail to the Monon Trail along 10th Street from Section 4(f) protection (Appendix M, page 23). No further Section 4(f) evaluation of this pedestrian connection or the Cultural Trail is required.

The Payne Connection will be closed during construction of the new interstate bridges over 10th Street. Although a formal detour of the Payne Connection will not be provided, pedestrian and bicycle connectivity will be addressed in accordance with the Indiana Manual on Uniform Traffic Control Devices described in the Trails section above. The public art sculptures, lanterns, and signs that are currently located along the Payne Connection will be removed and stored during construction. They will be reinstalled once the interstate bridges have been constructed.

Pogues Run Trail (Section 4(f) Temporary Occupancy)

Pogues Run Trail is a multi-use path connecting the Monon Trail east to Spades Park along 10th Street and Brookside Avenue. It is considered a Section 4(f) resource because it is publicly owned and open to the public. The trail ends on 10th Street at the Monon Trail, approximately 75 feet east of I-65/I-70. Approximately 90 feet of the Pogues Run Trail east of the Monon Trail is within the project limits. No right-of-way will be acquired from the trail, and no part of the trail will be converted to a transportation use. When 10th Street is temporarily closed during project construction, the portion of Pogues Run Trail east of the Monon Trail along 10th Street may also be closed. The 90-foot section of trail within the project limits could be closed for several months during the two-year construction project.

Because a 90-foot section of the Pogues Run Trail may be temporarily closed during project construction, it is being evaluated for Section 4(f) temporary occupancy. Under 23 CFR 774.13(d), a temporary occupancy of protected land for a construction project will not constitute a Section 4(f) use when all of the conditions listed below are satisfied:

1. Duration must be temporary, i.e., less than the time needed for construction of the project, and there should be no change in ownership of the land;
2. Scope of the work must be minor, i.e., both the nature and the magnitude of the changes to the Section 4(f) property are minimal;

This is page 43 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

3. There are no anticipated permanent adverse physical impacts, nor will there be interference with the protected activities, features, or attributes of the property, on either a temporary or permanent basis;
4. The land being used must be fully restored, i.e., the property must be returned to a condition which is at least as good as that which existed prior to the project; and
5. There must be documented agreement of the official(s) with jurisdiction over the Section 4(f) resource regarding the above conditions.

For the proposed North Split Project, closure of a section of the Pogues Run Trail will be temporary and less than the time needed for construction of the project. There will be no permanent alterations or adverse physical impacts to the trail, and it will be re-opened in a condition which is as good as that which existed prior to the project.

Monon Trail (Section 4(f) De Minimis Use)

As a publicly owned multi-use path that is open to the public, the Monon Trail is considered to be a Section 4(f) resource. The trail travels beneath several interstate bridges within the interchange. No right-of-way will be acquired from the trail; however, temporary closure of the trail will be necessary during the construction of the project. The trail is expected to be closed intermittently for up to two years. It will also be reconstructed and widened to (from 10 feet to 14 feet) through the interchange. Because of the length of time that the Monon Trail will be closed, this would not be considered a temporary occupancy under Section 4(f), and a *de minimis* impact determination is proposed. A *de minimis* impact is one that, after taking into account any measure to minimize harm (such as avoidance, minimization, mitigation or enhancement measures), the project will not adversely affect the activities, features, or attributes qualifying a park, recreation area, or refuge for protection under Section 4(f).

MOT for the project will require that a pedestrian/bicycle detour be available when the trail is closed. The proposed detour will involve widening and enhancing a portion of the existing Old Northside Trail, which is located on an INDOT-owned parcel that is managed by the Indianapolis Parks and Recreation Department as the Frank and Judy O'Bannon Old Northside Soccer Park. The existing Old Northside Trail is approximately five feet wide and will require widening to 12 feet. The 17-acre public park includes a sports complex and the 0.7-mile paved Old Northside Trail that provides access to the Monon Trail. Access to the park will be maintained at all times during construction.

The detour will begin where the Monon Trail connects to the Old Northside Trail, along the south edge of the park. The detour will be 12 feet wide and will follow the Old Northside Trail for approximately 870 feet, then it will require construction of a trail that will continue west/southwest for approximately 600 feet within the interchange right-of-way and join College Avenue. The existing sidewalk along College Avenue will be reconstructed to a 12-foot multi-use path along the east side of College Avenue. Approximately 200 feet north of the intersection of College Avenue and 11th Street, a 12-foot multi-use path will be constructed within INDOT right-of-way east of College Avenue to connect to 10th Street and the Cultural Trail. The entire detour route will be constructed within existing INDOT or City right-of-way and will be compliant with the ADA (Appendix M, page 44).

A flagger may be used at times for the Monon Trail or the portion of the path along College Avenue if construction equipment is required to access the interchange area. The Monon Trail or the detour described above will be used to maintain bicycle and pedestrian traffic during construction. If for some reason during construction, closure of both the Monon Trail and the detour described above are required, the design-build team may provide a short-term temporary detour for bicyclists and pedestrians of no more than three consecutive days. A short-term detour can only be used two times per year and must have written approval from INDOT and the City of Indianapolis.

Coordination with Official with Jurisdiction and Public Notice

A meeting was held on December 2, 2019, with representatives from Indy Parks and Recreation, Indy Greenways, and Indianapolis DPW. The purpose of the meeting was to discuss the impact to trails and the proposed Monon Trail detour. City representatives agreed with the proposed Monon Trail detour and requested that it become a permanent trail connection. They indicated that a 10-foot trail width was the

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

minimum required, but a 12-foot width would be better. They also requested that a “node” be constructed where the trails intersect to provide safe entry and exit points (Appendix M, pages 47-50). A trail node is a circular area of pavement where trails intersect to provide safe user passing, and entry and exit points.

A follow-up meeting was held on January 31, 2020 with representatives from Indy Parks and Recreation, Indy Greenways, and Indianapolis DPW. The purpose of the meeting was to discuss the impact to trails and updates from the meeting in December 2019. INDOT agreed to keep portions of the Monon Detour as permanent trail connections, pending a maintenance agreement with the city. INDOT also agreed to make this permanent portion 12 feet wide at the city’s request and construct a node at the intersection point with the Monon Trail. INDOT did not agree to construct the sidewalk along Davidson Street because it is outside of the current project limits. At the city’s request, INDOT agreed to investigate keeping the portion of the Monon Detour southwest of the interchange a permanent feature. There may be some non-limited access right-of-way in this area that could be used for a trail. INDOT also agreed to investigate other pedestrian detour options along Davidson Street or Saint Clair Street and will follow up with the city (Appendix M, pages 51-53).

A second follow-up meeting was held on March 13, 2020 with representatives from Indy Parks and Recreation, Indy Greenways, and Indianapolis DPW. The purpose of the meeting was to discuss the impact to trails and updates from the meeting in January 2020. Discussion focused on the portion of the Monon Detour southwest of the interchange from College Avenue to 10th Street. INDOT is willing to keep this as a permanent feature if the City is willing to maintain and allow use of a portion of their right-of-way at 11th Street. The City supported using the right-of-way for the trail but would need to discuss with a developer who is planning a parking lot in this area. The City agreement is also contingent upon approval from the Department of Metropolitan Development and the Indianapolis Historic Preservation Commission. A possible pedestrian detour for 10th Street along St. Clair Street and Dorman Street was also discussed. Additional discussion regarding ADA requirements will occur (Appendix M, pages 54-56).

For FHWA to make a *de minimis* finding for Section 4(f) use of the Monon Trail, written concurrence that the proposed impacts will not affect the resource’s features, attributes, and activities is required from the party that has ownership or control of the resource (official with jurisdiction). In addition, in order for the temporary closure of Pogues Run Trail to qualify as a temporary occupancy, the official with jurisdiction is required to concur that the closure of the trail meets the five criteria for temporary occupancy. A letter was sent to the official with jurisdiction on March 24, 2020, requesting concurrence for both the temporary occupancy of Pogues Run Trail and the *de minimis* finding for the Monon Trail (Appendix M, pages 1-44). The official with jurisdiction agreed with both determinations and signed the letter on May 11, 2020 (Appendix M, page 4).

The public will be afforded an opportunity to review and comment on the effects of the proposed project regarding impacts to the Monon Trail via a legal advertisement that will be placed in a local publication notifying the public of the EA’s availability for review, comment and the date and venue of the public hearing, and the Section 4(f) *de minimis* finding. The 30-day review period for the Section 4(f) *de minimis* finding will be concurrent with the EA review period.

Conclusion

The North Split Project will not require acquisition of right-of-way from any historic or recreational Section 4(f) properties. Therefore, no Section 4(f) resources will be altered or permanently incorporated into the transportation project and an individual Section 4(f) evaluation is not required.

Pogues Run Trail will be temporarily closed during project construction. It meets the five criteria for Section 4(f) temporary occupancy. Therefore, there will be no Section 4(f) use of the Pogues Run Trail.

Closure of the Monon Trail will be intermittent for up to two years. Because of the length of time the Monon Trail will be closed, a *de minimis* impact determination is proposed. The issuance of a FONSI will constitute FHWA’s approval of the *de minimis* finding.

The following are firm project commitments and are include in in *Section J – Environmental Commitments*

This is page 45 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

of this document.:

- The Indianapolis Cultural Trail (excluding the Payne Connection) will remain open during construction, and access will not be impacted.
- A 90-foot section of Pogue's Run Trail east of the Monon Trail along 10th Street shall not be closed more than three months during construction. This will satisfy Commitment #1 for temporary occupancy.
- The Pogue's Run Trail shall be fully restored, i.e., the property shall be returned to a condition which is at least as good as that which existed prior to the project. This will satisfy Commitment #4 for temporary occupancy.
- A detour to the Monon Trail will be provided during construction. The portions of the trail from the Monon Trail to College Avenue and south along College Avenue will remain a permanent feature, pending a maintenance agreement from the City. INDOT will work the City of Indianapolis to determine if the portion from College Avenue to 10th Street could also remain as a permanent feature.
- Trail nodes shall be constructed at the intersection of the Monon Trail and the detour trail and where the portion trail along the northern side of the interchange intersects the portion of the trail along College Avenue. The trail nodes shall be constructed in accordance with the Indy Greenways Design Standards.
- If closure of both the Monon Trail and the prescribed pedestrian/bicyclist detour are required, the design-build team may provide a short-term temporary detour for bicyclists and pedestrians of no more than three consecutive days. A short-term detour can only be used two times per year and must have written approval from INDOT and the City of Indianapolis.

Section 6(f) Involvement

Presence

Use

Yes

No

Section 6(f) Property

☐
☐
☐

Discuss proposed alternatives that satisfy the requirements of Section 6(f). Discuss any Section 6(f) involvement.

Remarks:

The U.S. Land and Water Conservation Fund Act of 1965 established the Land and Water Conservation Fund (LWCF), which was created to preserve, develop, and assure accessibility to outdoor recreation resources. Section 6(f) of this Act prohibits conversion of lands purchased with LWCF monies to a non-recreation use.

A review of the LWCF list maintained by the IDNR Division of Outdoor Recreation, there are 30 properties in Marion County (Appendix M, page 57). None of these properties are located within or adjacent to the project area. Therefore, there will be no impacts to 6(f) resources as a result of this project.

SECTION E – Air Quality

Air Quality

Conformity Status of the Project

Is the project in an air quality non-attainment or maintenance area?

Yes

No

☒
☐

If YES, then:

Is the project in the most current MPO TIP?

☒
☐

Is the project exempt from conformity?

☐
☒

If the project is NOT exempt from conformity, then:

Is the project in the Transportation Plan (TP)?

☒
☐

Is a hot spot analysis required (CO/PM)?

☐
☒

This is page 46 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Level of MSAT Analysis required?

Level 1a ☐ Level 1b ☒ Level 2 ☐ Level 3 ☐ Level 4 ☐ Level 5 ☐

Remarks:

STIP/TIP

This project is included in the Fiscal Year (FY) 2020-2023 Indianapolis MPO Regional Transportation Improvement Program (TIP) (Appendix H, page 12) and the 2020-2024 Statewide Transportation Improvement Program (STIP) (Appendix H, page 11).

Attainment Status

This project is located in Marion County, which is currently in attainment for PM_{2.5} and a maintenance area for Ozone (O₃). Marion County includes a small maintenance area for Carbon Monoxide (CO) according to the IDEM County List: All Regulated Criteria Pollutants.

(https://www.in.gov/idem/airquality/files/nonattainment_county_list.pdf).

Ozone: This project is located in Marion County, which is currently a maintenance area for Ozone, under the 1997 Ozone 8-hour standard which was revoked in 2015 but is being evaluated for conformity due to the February 16, 2018, South Coast Air Quality Management District V. Environmental Protection Agency, Et. Al. Decision. The project's design concept and scope are accurately reflected in both the 2045 Long-Range Transportation Plan (LRTP) (Appendix H, page 13) and TIP and both conform to the State Implementation Plan (SIP). Therefore, the conformity requirements of 40 CFR 93 have been met.

CO: A portion of the North Split project area is within a CO maintenance area roughly bounded by 11th Street to the north, Delaware Street to the east, Georgia Street to the south, and Capitol Avenue to the west. A small portion of the North Split project area, along 11th Street from approximately Pennsylvania Street to Meridian Street, is within this maintenance area. Work in this area is limited to traffic signal modifications. Early in the project development INDOT and FHWA started interagency consultation with USEPA, IDEM, and the Indianapolis MPO to determine if a CO hot spot analysis would be required for the project. During a conference call on December 20, 2017, USEPA, IDEM, and the Indianapolis MPO concurred that a CO hot spot analysis would not be required for the project (Appendix H, pages 4-6).

Mobile Source Air Toxics

Early in the project development INDOT and FHWA started interagency consultation with USEPA, IDEM, and the Indianapolis MPO to determine if a quantitative mobile source air toxics (MSAT) analysis would be required for the project. During a conference call on December 20, 2017, USEPA indicated the concern was the projected change in traffic resulting from the project (i.e. what is the change in "new" traffic from the No Build condition to the Build condition). If the change is nominal and not significant, a quantitative MSAT analysis would not be required (Appendix H, pages 4-6). Projected traffic data for the 2041 No Build and Build conditions along with a proposed approach to the MSAT discussion were sent to USEPA and FHWA on March 5, 2020 (Appendix H, pages 7-8). Traffic data was provided for each leg of the interstate. The projected changes from the No Build to Build condition ranged from -1.6% for I-65 west of the interchange to 2.3% for I-65/I-70 south of the interchange. USEPA and FHWA concurred that the traffic changes were not significant and a quantitative MSAT analysis was not required for the project in an email dated March 5, 2020 (Appendix H, page 7). An email was sent to the interagency consultation team on March 13, 2020 summarizing the MSAT determination (Appendix H, pages 9-10).

The purpose of this project is to rehabilitate and improve the existing interstate facilities leading to and through the North Split interchange by correcting deteriorated bridge and pavement conditions, improving safety, and improving interchange operations and reducing congestion. This project has been determined to generate minimal air quality impacts for Clean Air Act criteria pollutants and has not been linked with any special MSAT concerns. As such, this project will not result in changes in traffic volumes, vehicle mix, basic project location, or any other factor that would cause a meaningful increase in MSAT impacts of the project from that of the No Build alternative.

Moreover, USEPA regulations for vehicle engines and fuels will cause overall MSAT emissions to decline significantly over the next several decades. Based on regulations now in effect, an analysis of national

This is page 47 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

trends with USEPA's MOVES2014 model forecasts a combined reduction of over 90% in the total annual emissions rate for the priority MSAT from 2010 to 2050 while vehicle-miles of travel are projected to increase by over 45%. This will both reduce the background level of MSAT as well as the possibility of even minor MSAT emissions from this project.

SECTION F – NOISE

Noise

Yes No

Is a noise analysis required in accordance with FHWA regulations and INDOT's traffic noise policy?

☒

☐

	No	Yes/ Date
ES Review of Noise Analysis		September 27, 2019 (Original Report) December 12, 2019 (Addendum) June 10, 2020 (Final Report)

Remarks:

Because this project involves notable changes to the vertical alignment of I-65, I-70, and the North Split interchange, it is considered a Type 1 project. Therefore, in accordance with 23 CFR 772 and the INDOT Traffic Noise Analysis Procedure (2017), this action requires a formal noise analysis.

INDOT approved a Final Traffic Noise Technical Report on June 10, 2020 (Appendix I, pages 1-126). The latest version of the Traffic Noise Model (TNM) was used to model existing (2017) and design year (2041) worst (noisiest) hourly traffic noise levels within the North Split study area.

The TNM predicts a reduction in noise at most locations even if no noise barriers are installed. This modeled reduction in noise levels is primarily the result of the elevation and realignment of proposed roadways and replacement of guardrail with concrete safety barriers. Even with this reduction, noise receptors at some locations would be exposed to 2041 design year noise levels approaching or exceeding the FHWA noise abatement criteria of 67 dB(A) Leq(h).

A total of 396 TNM noise receivers representing 1,083 receptors, numbered R1 through R455, were modeled for the existing and proposed condition. These receivers were selected to model representative noise impacts at 957 Activity Category B receptors, 34 Category C receptors, 34 Category C/D receptors, 47 Category D receptors, and 11 Category E receptors. Existing (2017) worst (noisiest) traffic hour noise levels range from 37.6 to 73.5 dB(A) Leq(h). Worst traffic hour noise levels in the design year (2041) range from 37.6 to 73.8 dB(A) Leq(h). There are 259 noise receptors that would be exposed to 2041 design year noise levels approaching or exceeding the FHWA noise abatement criteria of 67 dB(A) Leq(h). The noise levels at these 259 receptors would range from 66.3 to 73.8 dB(A) Leq(h).

A Draft Traffic Noise Technical Report² was completed on September 24, 2019. INDOT approved this report on September 27, 2019. It identified four locations where noise barriers are feasible and may be reasonable pending the viewpoints of the benefited residents and property owners. They are:

1. Noise Barrier (NB)3E - Westbound I-70, along the edge of the north shoulder from Commerce Avenue to Valley Avenue, near the Martindale-Brightwood neighborhood
2. NB4 - Northbound I-65, along the edge of the north shoulder between College Avenue and Alabama Street, near the Old Northside neighborhood
3. NB5 - Southbound I-65, along the edge of the south shoulder between College Avenue and Alabama Street, near the Chatham Arch and Saint Joseph neighborhoods

² <https://northsplit.com/wp-content/uploads/2019/10/FINAL-North-Split-Draft-Noise-Report.pdf>

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

4. NB7 - Southbound I-65/Westbound I-70, along the edge of the west shoulder between 10th Street and Ohio Street near Massachusetts Avenue and the Lockerbie Square neighborhood

An Addendum to the Draft Traffic Noise Technical Report³ was completed for an additional noise barrier (NB3W) on December 6, 2019 after a new planned development was approved that make the cost per benefited receptor cost-effective. INDOT approved the Addendum on December 12, 2019. NB3W is described below:

5. NB3W - Westbound I-70, along the edge of the north shoulder from approximately Lewis Street to Commerce Avenue, near the Martindale-Brightwood neighborhood

In accordance with INDOT's Traffic Noise Analysis Procedure, surveys were mailed in October 2019 to benefited receptors and businesses that could have their line-of-sight blocked for NB3E, NB3W, NB4, NB5, and NB7 asking if they were in favor of a noise barrier near their property (Appendix I, pages 117-125). A second round of surveys was mailed to benefited receptors in November 2019 who did not respond to the original survey for NB4, NB5, and NB7.

Four highway noise barrier meetings were held for the North Split Project. The highway noise barrier meetings were held in locations adjacent to the project area where noise barriers were being considered. The purpose of the highway noise barrier meetings was to educate neighborhood residents on INDOT's Traffic Noise Analysis Procedure and encourage benefited receptors to complete a survey on whether they were in favor of a noise barrier at that location or not (Appendix I, pages 104-116).

Considering the results of the noise analysis, survey response, and other considerations, NB3E and NB3W were found to be feasible and reasonable and these barriers are recommended for implementation. Forty-five percent (45%) of NB3E benefited receptors responded, with 93% expressing support. Seventy-eight percent (78%) of NB3W benefited receptors responded, with 100% expressing support.

Considering the results of the noise analysis, survey response, and other considerations, NB4, NB5, and NB7 were found to be feasible but not reasonable and these barriers are not recommended for implementation. This determination is based on the following factors.

1. Noise reduction design features

The TNM predicts a reduction in noise at most locations even if no noise barriers are installed. To reduce noise levels further, INDOT is incorporating additional design features that are not recognized in the TNM. These features include the following:

- a. *"Next Generation" Pavement.* This new paving technique is designed specifically to reduce tire noise through the use of longitudinal grooves. Although results vary based on tire manufacturer, existing pavement type and condition, and other factors, recent studies have shown that next generation pavement can reduce tire noise levels by 3 to 5 decibels or more.⁴
- b. *Continuous Reinforced Concrete Pavement.* This paving technique eliminates the need for transverse joints, which are the cause of rhythmic sound patterns of tires passing over traditional concrete roadways.
- c. *Jointless Concrete Bridges.* This design eliminates the open joints at the end of bridges, which are the cause of the "banging" sounds typically heard at older bridges such as those currently existing in the project area.

2. Survey of benefited receptors. The responses for each barrier are shown below:

³ <https://northsplit.com/wp-content/uploads/2019/12/North-Split-Noise-Technical-Report-Addendum.pdf>

⁴ American Concrete Pavement Association and International Grooving and Grinding Association, *Development and Implementation of the Next Generation Concrete Surface*, August 8, 2017, pp 36-37.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- a. *NB4*: Surveys were sent in mid-October 2019 and were sent to non-responders again early in November 2019. A majority (55%) of benefited receptors responded, with 59% expressing opposition to this barrier.
- b. *NB5*: Surveys were sent in mid-October 2019 and were sent to non-responders again early in November 2019. Despite two rounds surveys, four public meetings, social media posts, and emails, fewer than half (38%) of benefited receptors responded, with 74% expressing support for this barrier.
- c. *NB7*: Surveys were sent in mid-October 2019 and were sent to non-responders again early in November 2019. Despite two rounds surveys, four public meetings, social media posts, and emails, fewer than one-quarter (23%) of benefited receptors responded, with 62% expressing support for this barrier.

3. Other Considerations. In accordance with the INDOT Traffic Noise Analysis Procedure, which states “the concerns of opinions of the property owner and the unit occupants will be balanced with other considerations in determining whether a barrier is appropriate for a given location,” INDOT considered other reasonableness factors related to changes between existing and future build conditions in evaluating these barriers. These considerations are described below:

- a. *Effects to Historic Properties*: Six historic districts listed on the NRHP are located immediately adjacent or near the North Split Project area. INDOT, acting on behalf of FHWA, is required to comply with Section 106 of the National Historic Preservation Act of 1966 as amended (Section 106), and its implementing federal regulation, 36 CFR 800. Section 106 and 36 CFR 800 outline a process that requires FHWA and INDOT to evaluate the effects of undertakings on properties that are listed on or eligible for listing on the NRHP.

As a part of the Section 106 process, INDOT has conducted a series of meetings and reviews with consulting parties, including the SHPO, representatives from many of the adjacent historic neighborhoods, and other local historic organizations/agencies.

Following the consulting party meeting to review potential noise barriers, the SHPO provided a letter to INDOT and FHWA, dated November 1, 2019, making the following comments related to the effect of proposed noise barriers (Appendix D, pages 1639-1641):

“While we appreciate the benefit of noise reduction to the adjacent sound receptors, we remain deeply concerned about the visual effect of noise walls on the setting of historic resources, particularly within the St. Joseph Neighborhood, Chatham-Arch, and Old Northside historic districts. We also note the potential for additional adverse effects if noise barriers are constructed adjacent to the Massachusetts Avenue Commercial Historic District and Lockerbie Square Historic District.

We believe that the inclusion of noise barriers up to 19 feet above the freeway would introduce an additional and severe adverse effect to the character and setting of these resources, and greatly amplify the visual impact of the existing interstate highway intrusion within the historic districts. Construction of tall noise barriers would serve to further isolate historic districts and adjacent structures, and strengthen the perceived and actual separation between neighborhoods on either side of the highway.”

Another letter from a consulting party, provided by the Administrator for the Indianapolis Historic Preservation Commission on November 8, 2019, included the following comments (Appendix D, pages 1645-1647):

“Specifically, the construction of the following proposed noise barriers, which will be up to 19 feet above the freeway, creates a severe visual adverse effect by diminishing the above-mentioned historic areas feeling, setting and character and the properties/historic resources

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

within them: NB4, NB5, NB7A, NB7B.

While I appreciate the mitigation efforts suggested by the consulting parties, exclusion of the barriers entirely is also a possibility.”

Several of the historic neighborhoods are also represented directly as consulting parties in the Section 106 process. The following additional Section 106 consulting parties submitted written comments in opposition to NB4, NB5, and NB7:

- Saint Joseph Historic Neighborhood Association
- Chatham-Arch Neighborhood Association
- Holy Cross Neighborhood Association
- Old Northside Neighborhood Association
- Historic Urban Neighborhoods of Indianapolis

Not constructing NB4, NB5, and NB7 is considered an avoidance and minimization measure as part of the Section 106 consultation process.

- b. *Mixed-Use Developments*: The INDOT Traffic Noise Analysis Procedure recognizes the potential for conflicts in mixed-use developments, as barriers to protect residences may block line of sight to adjacent businesses. NB5 and NB7 are between the interstate highways and the Indianapolis central business district, which includes a concentration of mixed-use development.

Different views by residential and business receptors is most notable with NB7. Although the overall survey response rate along NB7 was only 23%, the survey response rate from businesses was near 50%. Of those businesses that responded, 90% were opposed to the installation of noise barriers. The responding businesses were scattered along the barrier location and not concentrated in one specific area.

Based on the studies completed to date, INDOT has identified 259 impacted receptors and has determined that noise abatement is likely, but not guaranteed, at two locations. Noise abatement at these locations is based upon preliminary design costs and design criteria. Noise abatement in these locations at this time has been estimated to cost \$690,930 and \$1,201,080 and will reduce the noise level by a minimum of 7 dB(A) at a majority of the identified impacted receptors. A reevaluation of the noise analysis will occur during final design. If during final design it has been determined that conditions have changed such that noise abatement is not feasible and reasonable, the abatement measures might not be provided.

The viewpoints of the benefited residents and property owners were sought and were considered in determining the reasonableness of highway traffic noise abatement measures for proposed highway construction projects. INDOT will incorporate highway traffic noise consideration in on-going activities for public involvement in the highway program.

SECTION G – COMMUNITY IMPACTS

Regional, Community & Neighborhood Factors

Will the proposed action comply with the local/regional development patterns for the area?

Will the proposed action result in substantial impacts to community cohesion?

Will the proposed action result in substantial impacts to local tax base or property values?

Will construction activities impact community events (festivals, fairs, etc.)?

Does the community have an approved transition plan?

If No, are steps being made to advance the community's transition plan?

Does the project comply with the transition plan? (explain in the remarks box)

Yes	No
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>

This is page 51 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Remarks:

The land use in the project area is heavily urbanized with little remaining undeveloped land. I-65, I-70, and the interchanges in the project area provide access to and from residential neighborhoods throughout the city and neighboring counties and the City of Indianapolis Central Business District. Mapping of the project area neighborhoods is provided in the Environmental Justice Technical Memorandum (Appendix K, page 9).

Community Cohesion/Neighborhood Impacts

The interactions among people within the project area neighborhoods are collectively called “community cohesion,” which is an important part of strong, vibrant, and safe communities. Community cohesion factors include whether or not there are physical barriers dividing neighborhoods, how residents know and interact with their neighbors and the level of participation in community-based activities. The project is not anticipated to negatively affect quality of life in neighborhoods, nor will it affect interactions among persons and groups or change social relationships and patterns. The project will be constructed entirely within the existing transportation right-of-way with no residential or commercial relocations.

The project will alter the visual landscape in areas immediately adjacent to the interstates, as described below:

- The roadway will be higher than the existing roadway(s) in some areas. The greatest changes in height are in the center of the North Split interchange (with a 17-foot increase over the existing interchange high point) and on the west leg of the interchange. The maximum height increase is 22 feet for the I-65 to I-70 eastbound bridge over College Avenue. In general, the change in height decreases as the distance from the center of the North Split interchange increases.
- The roadway will be closer to adjacent homes and businesses in some areas. For example, the Pennsylvania Street ramp from I-65 will be reconstructed. Although this work will occur within the existing right-of-way, the reconstruction will move the roadway approximately 26 feet closer to adjacent homes and businesses.
- The roadway will be further from homes and businesses in some areas. For example, the exit ramp from I-70 westbound to Pennsylvania Street will be removed. This will include removal of the existing northernmost bridge over College Avenue, which will move the proposed roadway approximately 175 feet further from existing homes and businesses.
- Steeper side slopes or retaining walls (ranging in height from 8 to 16 feet) will be required in some areas to avoid property impacts. During the alternatives analysis, the number and height of retaining walls was minimized to the greatest extent possible.
- Two noise barriers (NB3E and NB3W), ranging in height from 10 to 20 feet, are recommended to be built to mitigate predicted noise impacts along the north side of westbound I-70, east of the interchange.
- Landscaping within the existing right-of-way will change. In the existing condition, brush and small trees in the right-of-way provide some visual screening of the highway. Larger trees are present on the north side of I-65 northbound. “Do Not Disturb” areas have been identified to preserve existing trees where possible. It is anticipated that some of the existing vegetation will be removed from within the right-of-way, including some mature trees along the north side of I-65 near the Old Northside neighborhood. Trees and shrubs will be planted within the existing right-of-way in accordance with the North Split Aesthetic Design Guidelines, which are available in Appendix G, pages 214-326.

Traffic Impacts

The project will change interstate access at two locations:

- Westbound traffic from I-70 will no longer be able to exit at the Meridian Street/Pennsylvania Street ramp on the north side of downtown; and
- Traffic entering the interstate at Meridian Street/Delaware Street will no longer have access to I-65 southbound or the collector-distributor (C-D) road on the east side of downtown. Southbound I-65

This is page 52 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

traffic will still be able to access the C-D road.

The access changes described above are a trade-off to minimize the footprint of the roadway, which was an expressed desire of the local communities. These access changes will divert some traffic to other interchanges and local roadways. Approximately 16,800 vehicles are forecasted to exit the interstates in the downtown area during the AM peak hour in 2041. Due to the changed access conditions, the project will alter the travel patterns of approximately 6.7% of this traffic (1,130 vehicles), as it will require use of alternative exits on I-70. Likewise, 12,300 vehicles are forecasted to enter the interstates within the downtown area during the PM peak hour in 2041. The project will alter the travel patterns of approximately 3.6% of this traffic (440 vehicles). The downtown street network is well-developed, and there are multiple routes available to accommodate the diverted traffic. The resulting changes in travel patterns will increase traffic on some local streets and decrease it on others, but the total volume of traffic in the downtown area is not anticipated to substantially change from the No Build condition.

The existing Meridian Street interchange with I-65 is a split diamond with access to Illinois Street, Meridian Street, Pennsylvania Street, and Delaware Street. Eliminating the Meridian/Delaware Street entrance ramp to southbound I-65 and the C-D road will create a partial interchange, which is typically avoided by FHWA since some motorists would be unable to reenter at the same location. To address these concerns, wayfinding signage will be provided to indicate alternative routes to enter I-65. FHWA granted conditional approval of the use of a partial interchange in a Determination of Engineering and Operational Acceptability on August 12, 2019 (Appendix J, page 1). Final approval will be provided after the NEPA process has been completed.

Local travelers will benefit from improved traffic operations on the interstates. The project will eliminate the weaving sections on the west leg of the system interchange near the Pennsylvania and Delaware Street ramps, which will improve traffic flow by removing the most severe bottlenecks in the project area. Under the existing condition, traffic back-ups extend up to three miles on I-65 and I-70 in the AM peak hour. An interstate queueing analysis showed that the proposed improvements will virtually eliminate traffic back-ups in the project area. The proposed improvements will reduce total project area delay in 2041 by 20.3% in the AM peak hour and 6.8% in the PM peak hour. In addition, the proposed improvements will result in shorter, more direct trips for many motorists. Additional details regarding the permanent traffic impacts associated with the project are provided in the Traffic Technical Memorandum (Appendix J, pages 2-23).

The North Split Project will improve safety at the top four crash sites in the project area. A traffic safety analysis documented in the Traffic Technical Memorandum predicts the proposed improvements will reduce crashes at the northbound I-65 weave at the Meridian/Pennsylvania Street exit and southbound I-65 weave at the Meridian/Delaware Street entrance by 21.2%. Crashes at the eastbound I-70 curve are predicted to be 9.9% lower, and crashes at the southbound I-65/I-70 merge are predicted to be 2.8% lower. The project will be built to higher design standards for modern interstate construction, which will improve safety throughout the project area.

Americans with Disabilities Act (ADA) Compliance

In accordance with the ADA of 1990, INDOT maintains an ADA Transition Plan to guide efforts to make its programs, services, and activities accessible to individuals with disabilities. INDOT is responsible for addressing ADA compliance for projects that receive funding through INDOT. The North Split Project will be designed in accordance with INDOT's design standards, which are consistent with the Public Right-of-way Accessibility Guidelines, which have been adopted by and recommended as best practices by FHWA. The design-build team will be required to meet the requirements of the ADA Transition Plan during construction.

The most recent City of Indianapolis' ADA Implementation/Transition Plan was developed and considered effective in 2013. An annual report demonstrating continued implementation of accessibility enhancements was prepared by the City of Indianapolis on December 28, 2018. The project will be designed in accordance with the plan and all applicable ADA requirements.

The North Split Project was developed in accordance with INDOT's Title VI Nondiscrimination Policy. No groups of people have been or will be excluded from participating in public involvement activities, denied

This is page 53 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

the benefit of the project or subjected to discrimination in any way on the basis of race, age, sex, national origin, disability or religion. Public involvement activities were hosted at facilities that are accessible to persons with disabilities.

Land Use Impacts

The future land use vision for the City of Indianapolis is contained within the land use element of the city's Comprehensive Plan. The Comprehensive Plan is a collection of over 100 plans, each separately adopted by the Metropolitan Development Commission as a contributing element. These plans include specific area/neighborhood plans, as well as transit-oriented development strategic plans for the IndyGo Red and Blue Line Bus Rapid Transit projects. The project is consistent with existing and future land use plans in the City of Indianapolis and will not change existing land use or development patterns. Current plans for three bus rapid transit lines and IndyGo service improvements have been included in transportation models used for North Split planning, and coordination meetings have been held throughout the development process with IndyGo and the Indianapolis MPO to fully consider transit in the project's development. The project will not impact the local tax base through the conversion of land to transportation use, nor will it directly impact property values. The proposed improvements will benefit safety and mobility, which is expected to benefit the local economy over the long term.

Temporary Impacts

Potential temporary community impacts during construction of the project are discussed below.

Air Quality (Emissions and Dust)

Demolition and construction activities may result in short-term increases in dust and equipment-related particulate emissions in and around the project area. Equipment-related particulate matter emissions could be minimized if the equipment is well-maintained. The potential air quality impacts will be short-term, occurring only while demolition and construction work is in progress and local conditions are appropriate.

Construction vehicle activity and the disruption of normal traffic flows may result in increased motor vehicle emissions within certain areas. Air quality impacts will be minimized by following the requirements for dust control according to INDOT Standard Specifications. Additionally, the design-build team will be required to comply with all applicable air quality regulations.

Noise and Vibration

Construction of the proposed improvements will temporarily increase noise levels along I-65 and I-70 within the limits of the proposed improvements. Major construction elements of this project are expected to be demolition, hauling, grading, paving, and bridge construction. General construction noise impacts for passersby and individuals living or working near the project can be expected from these activities. Adverse effects related to construction noise are anticipated to be of a localized, temporary, and transient nature.

Ground-borne vibration from construction activities has the potential to affect nearby buildings. Blasting and pile driving are traditionally associated with high levels of vibration; however, vibration may also occur in areas of excavation, demolition, and vibratory compaction. The North Split Project will not require blasting. The potential for vibration impact will be greatest at locations near pile-driving for bridges and other structures, pavement demolition for removal, and at locations close to vibratory compactor operations. Vibration created by the movement of construction vehicles such as graders, loaders, dozers, scrapers, and trucks are generally the same order of magnitude as the vibration caused by heavy vehicles traveling on streets and highways. In general, ground-borne vibration from vehicles on streets is not sufficient to impact adjacent buildings.

To avoid vibration impacts resulting from construction activities the design-build team will be required to prepare a construction Vibration Monitoring and Control Plan. The plan will include provisions to monitor historic and other vibration-sensitive structures during construction, measures to reduce construction vibration, such as changing the location and timing of vibration operations, and methods for keeping the public informed and responding to complaints.

Economic Conditions

During construction, public funds will be spent in the project area, which may result in temporary positive

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

economic effects. These effects include direct income for construction workers who may then buy services and goods within the area. In addition, local materials suppliers may benefit from providing goods to the design-build team. Although access to businesses will be maintained during construction, it is also possible that businesses along local city streets may experience temporary negative economic impacts. Commuters, business patrons, shippers, and suppliers may experience short-term inconvenience and increased travel times.

Vehicular Traffic

To assess the potential short-term construction effects associated with changes in traffic volumes, this part of the analysis assumed the entire North Split interchange will be closed during construction. Full closure represents a worst-case scenario for additional temporary traffic on the city roadway network; however, the conceptual MOT plan allows closure of portions of the interchange while keeping other traffic movements open. See the *Maintenance of Traffic (MOT) During Construction* section above for additional details.

The North Split interchange serves more than 214,000 vehicles per day. A complete closure of the North Split interchange during construction would require this traffic to find alternative routes to access downtown. The potential range of alternative routes varies greatly and depends, in large part, on the origins and destinations of the traffic. Based on current projections, traffic increases on local streets would range from 200 to 5,000 vehicles during the AM and PM peak hours. It is anticipated the largest traffic increases will occur on the following routes:

- 10th Street
- West Street/Missouri Street
- 21st Street
- Massachusetts Avenue
- Keystone Avenue/Rural Street
- Washington Street
- 30th Street
- Pennsylvania Street
- 16th Street
- Fall Creek Parkway
- New York Street
- Michigan Street
- Delaware Street
- College Avenue
- 38th Street
- Dr. Martin Luther King Jr. Street
- Maryland Street
- Oscar Robertson Boulevard/11th Street
- Central Avenue
- Emerson Avenue

During construction, traffic will temporarily increase in some neighborhoods. Residents and businesses along detour routes will experience temporary increases in noise and vehicular emissions, as well as longer travel times due to the increased congestion. Community events will be impacted because regional travelers will also experience increased travel times and distances. These effects will be more pronounced for those who currently use the interchange for daily commuting to and from work.

INDOT is implementing a Mobility Management Plan (MMP) to address maintenance of traffic on local streets and minimize delay and disruption in the construction area. The plan is being developed in coordination with the Indianapolis DPW, IndyGo, and the Central Indiana Regional Transportation Authority. The plan will be reviewed and adjusted as necessary throughout the construction process. The MMP will address road closures, detour routes (including any required adjustments to signal timing, the number of lanes, on-street parking, or pavement conditions), coordination with other projects, optimal construction staging and sequence, and communication platforms and procedures. As part of the MMP, INDOT will also coordinate with major employers to promote strategies such as working remotely or flexible work schedules to alleviate traffic congestion during construction.

In conjunction with the MMP, a robust public information program will be carried out in advance of construction and throughout the duration of the project. A Public Information Plan (PIP) has been prepared and will be updated throughout the construction period. Frequent communication with motorists, residents, neighborhood groups, downtown employers, major event venues, and other stakeholders is a primary objective of the MMP and the PIP. Current information about construction activities, closures, and detours will also be available via social media and the project website (www.northsplit.com).

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Indirect and Cumulative Impacts

Will the proposed action result in substantial indirect or cumulative impacts?

Yes

☐

No

☒

Remarks:

Indirect impacts are effects which are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable. Indirect effects may include growth inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate. Cumulative impacts affect the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such actions.

An Indirect and Cumulative Effects Assessment (ICEA) Technical Memorandum was completed for the North Split Project (Appendix L, pages 1-17). The ICEA relied on secondary source information, such as geographic information system (GIS) databases, U.S. Census data, previous project reports, City of Indianapolis studies and planning documents, and other studies and initiatives. The study area for the ICEA included a 0.5-mile buffer around I-65 and I-70 along the project limits (Appendix L, page 5). The time horizon for the ICEA is 2041, which is consistent with the design year for the North Split Project, the 2045 LRTP, and the Comprehensive Plan for Indianapolis and Marion County (Comprehensive Plan). Notable features identified in the project area include:

- Community facilities (e.g., schools, parks, trails, religious facilities, police/fire/medical facilities);
- Other infrastructure facilities (e.g., freight railroads, public and private airports, pipelines)
- Water resources (e.g., streams, wetlands, lakes, floodplains);
- Hazardous materials sites; and
- Historic resources.

Indirect Impacts

The project is located within a densely urbanized area with limited adjacent land that could be available for development/redevelopment. The project will not add additional through travel lanes, will not substantially improve or provide new access, and will not substantially alter regional travel times. Given the scope of the proposed improvements and the existing study area trends, as well as the local land use plans and related policies, the North Split Project is not anticipated to notably influence future land use changes.

Best management practices will be used during construction activities to minimize potentially negative indirect effects to natural resources, including air and water quality. Private developments will be required to follow applicable local, state and federal laws and permitting requirements.

The project will remove the westbound I-70 exit at the Pennsylvania Street ramp and the I-65 southbound/C-D road entrance from Meridian Street/Delaware Street. Together, these access changes are anticipated to alter travel patterns on local streets leading to/from I-65 and I-70. The altered travel patterns will increase traffic on some local streets and decrease it on others, but the total volume of traffic in the ICEA study area is not anticipated to substantially change from the No Build condition. In addition, traffic increases associated with population and development growth are already occurring within the ICEA study area and are anticipated to continue regardless of the project. As a result, the permanent traffic changes resulting from the project are not anticipated to indirectly effect land use patterns or affect existing growth trends within the ICEA study area. In addition, the permanent changes in traffic volumes are not expected to diminish the long-term viability of businesses within the affected corridors.

Traffic increases on the local street network could result in localized increases in air emissions, but regional air quality is not anticipated to be negatively affected. Similarly, the changes in traffic volumes could increase noise on some local streets, while decreasing noise on others. In general, doubling the traffic volumes would produce a 3 decibel increase in the noise level – which is the noise increase that is detectable by the human ear. Anticipated traffic changes due to the North Split Project will not approach this level of growth or noise at any location in the local street network.

Given the above, the North Split Project will have minimal indirect effects to the ICEA study area resources. Additional details about the project's indirect impacts are provided in the Indirect and Cumulative Effects

This is page 56 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Assessment Technical Memorandum (Appendix L, pages 1-17).

Cumulative Impacts

The construction of the inner loop shaped the historic growth patterns in the downtown area, including the adjacent residential neighborhoods. I-69, I-70, and I-65 were originally planned as radial interstate routes which were intended serve the Indianapolis urban area. The North Split Project includes portions of I-65 and I-70 that were constructed in the 1960's and 1970's. The North Split also included accommodations for a future I-69 connection to the north, which was never constructed. Construction of the radial interstates displaced an estimated 17,000 residents (Smith, 2016). Additionally, the interstates created a barrier effect between the adjacent residential neighborhoods and the Indianapolis Central Business District.

The project will be built entirely within the existing transportation right-of-way with no residential or commercial relocations. In response to public input, INDOT modified the project scope such that the overall interchange has a smaller footprint and does not construct additional through traffic lanes. The interstate will be widened and/or shifted in some locations. It will be a maximum of 26 feet closer to neighborhoods previously impacted by the original interstate construction, specifically along I-65 west of the interchange. In addition, the project will build retaining walls and potential noise barriers adjacent to neighborhoods that were impacted by the original interstate construction. CSS design elements are incorporated into the project to help integrate the project into the surrounding neighborhoods. INDOT has solicited feedback from project stakeholders, including affected residents, regarding CSS elements. As a result of the CSS process, INDOT developed the North Split Aesthetic Design Guidelines which are available in Appendix G, pages 214-326. The Aesthetic Design Guidelines include treatments for the interstate infrastructure (such as underpass treatments, sidewalks, public art space, retaining walls, abutment walls, bridge columns, lighting, signage, fencing) as well as landscaping within the existing right-of-way.

Over the past few years, downtown Indianapolis has experienced a high level of growth and private investment. Some adjacent residential neighborhoods have also experienced growth. The growth in downtown Indianapolis is evidenced by numerous planned private development projects in the ICEA study area, which are responding to market demand. There are also large public infrastructure investments occurring in the ICEA study area, including IndyGo bus rapid transit projects and, the Citizens Energy Group deep tunnel system. It is anticipated these actions will occur regardless of the project. In some cases, notable human and natural resources within the ICEA study area could be negatively affected by the reasonably foreseeable planned development; however, there are provisions in existing local development policies and regulations that will temper potentially negative effects. These activities will also be subject to state and, in some cases, federal regulations and permitting requirements.

When considering the scope of the proposed improvements in the context of past, present and reasonably foreseeable future actions, the cumulative effect of this project on notable human and natural resources will be minimal. Additional details about the project's cumulative impacts are provided in the Indirect and Cumulative Effects Assessment Technical Memorandum (Appendix L, pages 1-17).

Public Facilities & Services

Will the proposed action result in substantial impacts on health and educational facilities, public and private utilities, emergency services, religious institutions, airports, public transportation or pedestrian and bicycle facilities? *Discuss how the maintenance of traffic will affect public facilities and services.*

Yes

☐

No

☒

Remarks:

Based on a desktop review, site visits on October 3-4, 2017; October 12, 2018; April 10 and June 26, 2019, by HNTB, the aerial map of the project area (Appendix B, pages 4-16), and the RFI report (Appendix E, page 2), there are 34 religious facilities, one hospital, 12 schools, 11 recreational facilities, 11 railroads, 11 trails, and 12 managed lands located within 0.5 mile of the project. Six airports/heliports are within 3.8 miles of the project area. The following properties or resources are adjacent to or near the project area:

Religious Facilities

The RFI report mapped 12 religious facilities adjacent to the project area. However, further investigation indicates six of those are either no longer functioning as a religious facility or are not mapped in the correct location and are not near the project area. An additional six religious facilities were identified adjacent or

This is page 57 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

near the project area via site visits and a Google Earth review. Coordination letters were sent on November 22, 2019 to the New Bethel Missionary Baptist Church, Church of God in Christ, Saints Peter and Paul Roman Catholic Cathedral, African Methodist Episcopal Church – Allen Chapel, Grace Missionary Baptist Church, Eastside New Hope Missionary Baptist Church, Traders Point Christian Church Downtown Hillside Christian Church, Upper Room Apostolic Church, Greater Bethlehem Missionary Baptist Church, Foundation of Truth Worship Center, and Church of Christ Park Avenue (Appendix C, pages 142-144). No responses from religious facilities were received. All work will take place within the existing state and city right-of-way. Access to all religious facilities will be maintained during construction. Therefore, no direct impacts are expected. Portions of the interstates and local streets will be temporarily closed during construction. This may require religious facility users to take a different route to the facility.

Schools

The RFI report mapped one school adjacent to the project area, the Indiana Non-Public Education Association. An additional two schools were identified adjacent or near the project area via site visits and a Google Earth review. Coordination letters were sent to the Indiana Non-Public Education Association, Indianapolis Public Schools, Legacy Learning Center, and The Oaks Academy on November 22, 2019 (Appendix C, pages 142-144). No responses from schools were received, but Indianapolis Public Schools and IUPUI are represented on the project CAC. All work will take place within the existing state and city right-of-way. Access to all schools will be maintained during construction. Therefore, no direct impacts are expected. Portions of the interstates and local streets will be temporarily closed during construction. This may require school attendees and staff to take a different route to the school.

Recreational Facilities/Managed Lands

The RFI report mapped one recreational facility and managed land adjacent to the project area, the Old Northside Soccer Park/Frank and Judy O'Bannon Soccer Field. This property is owned by INDOT and borders the interchange to the north. An early coordination letter was sent to Indy Parks and Recreation on October 18, 2017 (Appendix C, pages 1-6). No response was received; however, three meetings have been held with Indy Parks and Recreation as described in *Section D – Section 4(f) Resources* above. The Old Northside Trail is located with this park and will be widened and used as part of a detour for the Monon Trail during construction (Appendix M, page 44). Access to this park will be maintained during construction; however, portions of the interstates and local streets will be temporarily closed during construction. This may require park users to take a different route to the park. The road closures will cease after construction is complete.

Trails

Impacts to trails are discussed in *Section D – Section 4(f) Resources* above.

Hospitals/Emergency Services

The RFI report mapped one hospital, Methodist Hospital (now IU Health Methodist Hospital) adjacent to the 0.5-mile search radius. A coordination letter was sent to the IU Health Methodist Hospital on November 22, 2019 (Appendix C, pages 142-144). No response from the hospital was received. A meeting with emergency services providers was held on October 18, 2018, at the Indianapolis Traffic Management Center (Appendix C, pages 133-138). The presentation described the need for the project, alternatives screening process, and next steps in the process. Representatives from Indianapolis Emergency Medical Services, IMPD Homeland Security Bureau, IU Health Methodist Hospital, Indianapolis Metropolitan Police Department, Indianapolis Fire Department, and Indianapolis Traffic Management Center attended. A project update presentation was provided to the Indiana State Police on December 6, 2018 at the Indiana Government Center North Room 335 (Appendix C, pages 139-141). The presentation described the need for the project, alternatives screening process, and next steps in the process. Access to all hospitals and emergency services will be maintained during construction. Therefore, no direct impacts are expected. Portions of the interstates and local streets will be temporarily closed during construction. This may require emergency services to take a different route to their destination. Coordination will continue with emergency services as part of the MMP.

School bus travel times and emergency response times may temporarily increase during construction of the project due to increased congestion resulting from construction activities, potential access restrictions in construction zones, lane closures, and detours. The MMP and PIP include methods to proactively notify

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

public services of temporary changes in traffic patterns. In addition, the design-build team is required to develop and implement a Traffic Incident Management Plan in cooperation with law enforcement and emergency responders from throughout the region. The plan will be reviewed and adjusted as necessary throughout the construction process to minimize impacts to public services.

It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access.

Utilities/Railroads

The CSX railroad is located within the project area. The interstates cross the railroad south of Ohio and Pine Streets. The railroad parallels the interstates to the east from Ohio Street to 10th Street, where the rail line turns to the northeast to parallel I-70. Coordination with the CSX railroad has been initiated.

Coordination with utilities has also been initiated. The project will require relocation of Indianapolis Power and Light overhead power lines, Citizens Energy Group water and sanitary lines, and other utilities. Utility relocation work plans are being developed.

Airports/Heliports

The RFI report mapped four heliports within the 0.5-mile search radius. Two additional airports were identified in the 3.8-mile search radius. There will be no direct impact to any of these facilities. An early coordination letter was sent to INDOT Aviation on October 18, 2017 (Appendix C, pages 1-6). INDOT Aviation responded in a letter dated October 26, 2017, noting the Indianapolis Downtown Heliport is located 0.25 nautical miles west of the southernmost portion of the project corridor. They indicated, based upon the provided information, an Indiana Tall Structure permit would not be required unless the project involves the construction of a temporary (e.g. crane) or permanent structure that penetrates a 25:1 slope from the nearest point of the Indianapolis Downtown Heliport helipad (Appendix C, page 22). Additional coordination occurred with INDOT Aviation and it was determined an Indiana Tall Structure permit and a Federal Aviation Administration (FAA) permit will be required for the project (Appendix C, pages 23-26). A coordination letter was sent to IU Health Methodist Hospital, Pielet Brothers, and Channel 13, as owners of the heliports, on November 22, 2019 (Appendix C, pages 142-144). No responses from these facilities were received.

Public Transportation

Public transportation in Indianapolis and Marion County is provided by IndyGo. An early coordination letter was sent to IndyGo on October 18, 2017 (Appendix C, pages 1-6). IndyGo responded in an email dated November 20, 2017 (Appendix C, page 36). IndyGo stated they are happy to be a close partner with INDOT to help mitigate some of the traffic impacts during construction of the project. This is being accomplished with IndyGo's involvement in the transportation demand management component of the MMP.

Since 10 of the 30 fixed bus routes operated by IndyGo pass through at least one of the underpasses being replaced in the North Split project, temporary route detours will need to be continually managed during construction. Coordination meetings have been held with IndyGo to pre-plan the detours, and frequent real-time schedule updates will be provided to IndyGo throughout the construction process to support their implementation.

The Central Indiana Regional Transportation Authority (CIRTA) is a regional organization, with representatives from 10 Central Indiana counties. CIRTA coordinates transit planning and implementation for the region with other transit partners, such as local service providers and the MPOs. CIRTA operates multiple vanpools in the region and provides trip matching services for carpools. Coordination has occurred with CIRTA throughout the North Split development process and will continue through the transportation demand management activities of the MMP.

Bike/Pedestrian Facilities

Sidewalks are present under the interstate bridges at Pennsylvania Street, Alabama Street, Central Avenue, College Avenue, Commerce Avenue, Valley Avenue, 10th Street, St. Clair Street, Michigan Street, Vermont Street, New York Street, Market Street, and Washington Street. Bike lanes are present under the interstate bridges at 10th Street, Michigan Street, and New York Street. Construction of the local road underpasses will

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

be phased so adjacent roads are not closed at the same time. They will be closed for a maximum of 90 days. Temporary detour routes will be required for pedestrians and bicyclists during construction.

Pedestrians and bicyclists will also benefit from the construction of the project. Public comments from the Rethink 65/70 Coalition and adjacent neighborhoods requested underpasses with wider sidewalks and buffers from vehicular traffic, better lighting, deterrence of “camping”, positive drainage systems, easy maintenance, graffiti resistance finishes, and durable, long-lasting materials. The Central Avenue, College Avenue, 10th Street, St. Clair, Michigan Street, Vermont Street, New York Street, Market Street, and Washington Street bridges will be replaced by the project. Existing pedestrian and bicycle facilities under the bridges – such as greenways, sidewalk connections, and on-street bicycle lanes – will be maintained or enhanced. The project will also enhance pedestrian and bicycle safety and mobility by providing wider bridge openings, replacing or installing new lighting under the bridges, and building wider sidewalks.

Public Health

INDOT/FHWA NEPA documents are developed under two guiding regulations: (1) the Council on Environmental Quality’s National Environmental Policy Act regulations (40 CFR 1500-1508), which are applicable to all federal agencies; and (2) FHWA environmental impact and related procedures detailed under 23 CFR Part 771. Together, these regulations set forth all FHWA requirements under NEPA for the processing of highway actions, such as the North Split Project. Although these guiding regulations do not specifically require the completion of a health impact assessment, they do require the INDOT/FHWA to consider potential effects to resources that could contribute to health-related outcomes. These resources include air quality, safety, land use, parks and recreational facilities, public facilities and services, and traffic noise. The results of these analyses and the overall conclusion as it relates to their significance in the context of NEPA are detailed in the appropriate sections of this EA.

During the NEPA process, several refinements were made to the design of the preferred alternative. These changes were largely based on the feedback received from stakeholders, including potentially affected residents and businesses. These design refinements are aligned with the Centers for Disease Control and Prevention (CDC) strategies for achieving health-oriented transportation projects, including the following:⁵

- Incorporate Healthy Community Design Features
 - Designing streets to serve the needs of all transportation modes.
 - Mitigating roadway noise.
- Ensure Equitable Access to Transportation Networks
 - Ensuring public participation in transportation planning and decision-making.
 - Providing multi-modal transportation options to ensure safety and accessibility of the roadway for all users.
- Promote Active Transportation
 - Accommodating all roadway users with comprehensive street design measures such as “complete streets,” including sidewalks, bicycle lanes, and share-the-road signs that provide safe and convenient travel for all users of the roadway.
 - Providing safe and convenient bicycle and pedestrian connections to public parks and recreation areas.
 - Promoting safe roadway crossing through use of pedestrian refuge islands and crosswalks.
 - Providing streetscape amenities such as benches, landscaping, lighting, and public art.
- Improve Safety for All Users
 - Ensuring adequate lighting on roadways, along trails, and in parks.

Environmental Justice (EJ) (Presidential EO 12898)

During the development of the project were EJ issues identified?

Does the project require an EJ analysis?

If YES, then:

Are any EJ populations located within the project area?

Yes	No
X	
X	
X	

⁵ https://www.cdc.gov/healthyplaces/transportation/hia_toolkit.htm, accessed July 19, 2019.

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Will the project result in adversely high or disproportionate impacts to EJ populations?

☐☒

Remarks:

Under FHWA Order 6640.23A, FHWA and the project sponsor, as a recipient of funding from FHWA, 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. Per the current "INDOT Environmental Justice (EJ) in NEPA Documentation Process" guidance document, analysis is required for any project that requires an EA. The North Split Project requires an EA, and thus requires EJ analysis. The project will be constructed entirely within the existing transportation right-of-way, and no residential or commercial relocations will be required. Minority and low-income populations are located within and around the project area, and possible EJ concerns were identified during project development due to the length of the construction timeframe and possible closure of the interchange. The EJ analysis for the North Split Project is documented in an Environmental Justice Technical Memorandum (Appendix K, pages 1-224).

Potential EJ impacts are detected by locating minority and low-income populations relative to a reference population to determine if populations of EJ concern exist and whether they could be experience disproportionately high and adverse impacts. The reference population may be a county, city, or town and is called the community of comparison (COC). In this project, the COC is the City of Indianapolis. The EJ analysis area for the North Split Project is approximately six miles by six miles and extends east-west from the White River in the west to Emerson Avenue in the east. The north-south limits extend from 38th Street in the north to Raymond Street in the south. The EJ analysis area was established to consider potential changes in traffic and travel patterns during construction and corresponds to the project's traffic study area. The EJ analysis area contains 155 U.S. Census block groups. The EJ analysis area is shown in the Environmental Justice Technical Memorandum (Appendix K, page 5).

A population of concern for EJ exists 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 2013-2017 American Community Survey 5-Year Estimates was obtained from the US Census Bureau Website <https://factfinder.census.gov/> on September 20, 2019 by HNTB. The data collected for minority and low-income populations within the EJ analysis area are tabulated in the Environmental Justice Technical Memorandum (Appendix K, pages 37-48).

Of the 155 block groups in the EJ analysis area, 76 (49%) have concentrations of minorities above 50% (Appendix K, page 12). Furthermore, 104 (67%) of the block groups have concentrations of low-income populations that are above the 125% COC threshold of 25.1% (Appendix K, page 11). Therefore, minority and low-income populations of EJ concern are present in the EJ analysis area.

Conclusion

The characteristics of the project area are such that any project – including the proposed North Split Project – could have an impact on low-income or minority populations. Public and stakeholder engagement played a key role in assessing the project's impacts to populations of EJ concern, including:

- CAC meetings
- EJ Working Group meetings
- Presentations at neighborhood association meetings, town halls, and CSS workshops
- Individual stakeholder meetings
- Public open houses

A public survey was developed to engage affected communities, particularly those in areas with populations of EJ concern. A targeted outreach campaign was employed to distribute the survey throughout the EJ analysis area. The public survey could be completed online, via a printed copy, or by phone.

The project will permanently impact populations of EJ concern by increasing noise levels in some areas, altering the visual landscape and community cohesion; and changing travel patterns and access. Noise impacts are predicted at 201 receptors in areas with populations of EJ concern. Two noise barriers (NB3E and NB3W) may be constructed and would mitigate 48% of predicted noise impacts and provide additional benefits to 106 receptors in areas of EJ concern. Additional information regarding noise barriers and other measures used to reduce noise is earlier in this document in *Section F – Noise*.

This is page 61 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

The project will have impacts to the visual setting in some areas immediately adjacent to the interstates. Alterations to the visual landscape include changes in roadway height and location, steeper side slopes and/or retaining walls, potential noise barriers, and removal of existing vegetation (including some mature trees along the north side of I-65 near the Old Northside neighborhood). The retaining walls and noise barriers may also have minor impacts to community cohesion in areas with populations of EJ concern.

CSS design elements will be incorporated into the project to enhance the visual landscape and to help integrate the project into the surrounding communities. As a result of the CSS process, INDOT developed the North Split Aesthetic Design Guidelines which are available in Appendix G, pages 214-326. The Aesthetic Design Guidelines include treatments for the interstate infrastructure (such as underpass treatments, sidewalks, public art space, retaining walls, abutment walls, bridge columns, lighting, signage, fencing) as well as landscaping within the existing right-of-way.

The project will remove the westbound I-70 exit at the Pennsylvania Street ramp and the I-65 southbound/C-D road entrance from Meridian Street/Delaware Street. Together, these access changes are anticipated to alter travel patterns on local streets leading to/from I-65 and I-70. Traffic levels will increase on some local streets and decrease on others, but the total volume of traffic in the EJ analysis area is not anticipated to change substantially from the No Build condition.

The changes in access at Pennsylvania Street and Meridian Street/Delaware Street are a trade-off to minimize the footprint of the roadway, which was an expressed desire of the local communities. The resulting changes in travel patterns and access are expected to affect both EJ and non-EJ populations. The public survey indicated that populations of EJ concern travel on I-65, I-70, and the local street network more frequently than non-EJ populations. However, the overall impacts to travel time and access for populations of EJ concern are anticipated to be minor.

The project will eliminate the weaving sections on the west leg of the system interchange near the Pennsylvania and Delaware Street ramps, which will improve traffic flow by removing the most severe bottlenecks in the project area. The project will also improve safety by addressing the top four crash sites in the project area. Populations of EJ concern may experience greater benefits from these improvements, because the public survey indicated they travel on I-65 and I-70 more frequently than non-EJ populations.

The project will incorporate pedestrian and bicycle features that will benefit populations of EJ concern. Pedestrian and bicycle facilities under existing bridges – such as greenways, sidewalk connections, and on-street bicycle lanes – will be maintained or enhanced. The project will enhance pedestrian and bicycle safety and mobility by providing wider bridge openings, installing new lighting under the bridges, and building wider sidewalks.

The project will temporarily impact populations of EJ concern through construction-related vehicle emissions, dust, noise, and vibration. These temporary construction impacts will be mitigated by following INDOT Standard Specifications and implementing a Vibration Monitoring and Control Plan. Construction activities will also impact traffic operations for populations of EJ concern. Potential lane restrictions, closures, and detours may cause delays and/or additional travel times for local and regional travelers, school buses, emergency responders, transit buses, pedestrians, and bicycles. Temporary impacts to traffic operations will be minimized through the implementation of the MMP and a Traffic Incident Management Plan during construction.

A disproportionately high and adverse effect is defined as one that is:

- Predominantly borne by a low-income population and/or a minority population; or
- Suffered by the low-income population and/or minority population and is appreciably more severe or greater in magnitude than the adverse effect that will be suffered by the non-low-income and/or non-minority population

The temporary and permanent impacts to populations of EJ concern are not anticipated to be greater or more severe in magnitude than those borne by non-EJ populations. Populations of EJ concern have been – and will

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

continue to be – provided full and fair participation in the transportation decision-making process. Several mitigation measures will be incorporated into the project to reduce adverse effects. Therefore, the North Split Project will not result in a disproportionately high and adverse effect to low-income and/or minority populations. Additional detail regarding the EJ analysis is provided in the Environmental Justice Technical Memorandum (Appendix K, pages 1-224).

With the information provided, INDOT Environmental Services would not consider the impacts associated with this project as causing a disproportionately high and adverse effect on minority and/or low-income populations of EJ concern relative to non EJ populations in accordance with the provisions of Executive Order 12898 and FHWA Order 6640.23a. INDOT will continue public outreach activities after the NEPA process is complete to inform the public of maintenance of traffic changes and provide updates during construction.

Should the scope of work or amount of right-of-way change, INDOT ES should be contacted immediately to determine if the EJ Analysis would need to be reinitiated.

Relocation of People, Businesses or Farms

Will the proposed action result in the relocation of people, businesses or farms?

Is a Business Information Survey (BIS) required?

Is a Conceptual Stage Relocation Study (CSRS) required?

Has utility relocation coordination been initiated for this project?

Yes

No

☐☒☐☒☐☒☒☐

Number of relocations: Residences: 0 Businesses: 0 Farms: 0 Other: 0

If a BIS or CSRS is required, discuss the results in the remarks box.

Remarks: No relocations of people, businesses, or farms will take place as a result of this project. Utility coordination has started and utilities are preparing work plans for any necessary relocations.

SECTION H – HAZARDOUS MATERIALS & REGULATED SUBSTANCES

Hazardous Materials & Regulated Substances (Mark all that apply)

Red Flag Investigation

Phase I Environmental Site Assessment (Phase I ESA)

Phase II Environmental Site Assessment (Phase II ESA)

Design/Specifications for Remediation required?

Documentation

☒

☐

☒

☒

No Yes/ Date

ES Review of Investigations

RFI/IDEM VFC Review – May 21, 2019

Subsurface Investigation Report – September 3, 2019

Include a summary of findings for each investigation.

This is page 63 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Remarks:

Red Flag Investigation

Based on a review of GIS and available public records, an RFI was completed by HNTB (Appendix E, pages 1-57) and finalized on May 21, 2019. According to the RFI, the following hazardous materials sites are located within 0.5 mile of the project area:

- 33 Resource Conservation and Recovery Act (RCRA) Generator/Treatment, Storage, and Disposal (TSD) Facilities
- 20 State Cleanup Sites
- 83 Underground Storage Tank (UST) Sites
- 8 Voluntary Remediation Program sites
- 1 Infectious/Medical Waste Site
- 45 Leaking Underground Storage Tank (LUST) Sites
- 2 Manufactured Gas Plants
- 92 Brownfield Sites
- 80 Institutional Control Sites
- 22 National Pollutant Discharge Elimination System (NPDES) Facilities
- 15 NPDES Pipe Locations

IDEM VFC Review

Based on a review of the IDEM Virtual File Cabinet (VFC), 15 sites were identified that had recommendations for either additional coordination, having the potential for soil and/or groundwater contamination extending into the project area, or recommended a Phase II Environmental Site Assessment (ESA) to establish worker safety and proper handling, transport, and disposal of potentially contaminated media. The site numbers and associated details are available in Appendix E, pages 15-54. All necessary recommendations required to address worker safety and/or appropriate handling and disposal needs are included as firm project commitments in *Section J – Environmental Commitments* of this document.

- Site 109: State Cleanup Program – Greg Heendel Real Estate (1202 N. Pennsylvania Street)
- Site 115: UST Site – Collins Leasing (1011 N. Pennsylvania Street)
- Site 118: Brownfield/Institutional Control Site – Frank E. Irish Incorporated/Park Avenue Church of Christ (625 E. 11th Street and 620 E. 10th Street)
- Site 206: Brownfield Site/RCRA Generator/Institutional Control Site – Tinker Flats/Big Four Metals, Inc. (1101 E. 16th Street)
- Site 210: Brownfield Site/Institutional Control Site – Star Laundry & Drycleaners (1251/1245 Roosevelt Avenue and 1231-1245 Roosevelt Avenue)
- Site 211: State Cleanup Program/Voluntary Remediation Program/Brownfield/RCRA Generator Site – R & E Realty/Circle City Industrial Complex (1125 Brookside Avenue)
- Site 217: Brownfield Site – Precision Piston Range (1417 Commerce Avenue)
- Site 243: RCRA Generator/Brownfield Site – Zimmer Paper Products (1420 E. 20th Street)
- Site 244: Voluntary Remediation Program/Brownfield Site – Threaded Rod (1929 Columbia)
- Site 403: UST/LUST/Brownfield/Institutional Control/NPDES Facility – Plant #2, Mitchel & Scott Machining Co. (627/727 N. College Ave)
- Site 407: UST Site – Midland Arts & Antique Market (907 E. Michigan Street)
- Site 411: UST/Voluntary Remediation Program Site – Progress Linen (711 E. Vermont Street)
- Site 413: UST Site – Wholesale TV (231 N. College Avenue)
- Site 420: UST Site – Salvation Army (711 E. Washington Street)
- Site 434: Brownfield/State Cleanup Site – IPS Service Center (901 N. Carrolton Avenue)

Two meetings were held with INDOT and IDEM's Office of Land Quality regarding possible hazardous materials sites, on July 8, 2019 and July 18, 2019. The meetings occurred in order to determine if there were any additional sites or environmental concerns that were not identified in the RFI and discuss the proposed scope of work for the Phase II Environmental Site Assessment (ESA). (Appendix E, pages 58-59).

This is page 64 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

Subsurface Investigation Report

Based on the presence of hazardous material sites that could affect the project area, ATC completed a Subsurface Investigation Report for the project area on September 3, 2019 (Appendix E, pages 60-99). Areas of known contamination that were identified within the RFI were not included in this subsurface investigation. Soil and groundwater sampling were completed where construction activities are anticipated to include trenching, excavation, or drilling. The initial design concept for the roadway improvements provided zones of potential construction locations and estimated depths of excavation; however, the exact locations and depths of construction activities is not fully known at this time, due to the design-build nature of the project. A preliminary review of potential subsurface conditions was deemed necessary to assist with project and cost development. The collection of soil and groundwater data within the project area will be utilized to identify contaminants of concern (COCs) in the subsurface in order to evaluate potential worker exposure and assist in the projects needs of management of soil and/or groundwater generated during construction.

Soil Summary and Recommendations

Results of the analysis performed on soil samples collected during the subsurface investigation indicated that concentrations of cadmium were detected at a concentration above the IDEM Remediation Closure Guide (RCG) screening levels (SLs) in the temporary monitoring well DB-6 from the 78-80 feet-below ground surface (bgs) interval. Lead and mercury were detected at concentrations above the IDEM RCG SLs in the temporary monitoring well GP-19 from the 0-2 feet- bgs interval. Additionally, concentration of naphthalene was detected above the IDEM RCG SLs from samples collected from temporary monitoring wells DB-1 (0-2 feet-bgs), DB-3 (78-80 feet-bgs), and DB-6 (78-80 feet-bgs). The remaining analyses did not result in concentrations above the IDEM RCG SLs or laboratory detection limits.

Based on the results, the potential for exposure from direct contact with soil containing elevated concentrations of COCs does not appear to be greater than would be encountered during typical construction projects. The concentration of naphthalene discovered at the surface sample from temporary monitoring well DB-1 was detected at a level above the IDEM RCG SLs that requires notification of presence, but does appear to warrant further special handling, if localized. Verification of soil conditions in the vicinity of these locations should be implemented during excavation activities. A competent person should screen the soil while working in the area. Communication of the conditions, dust control, field screening, soil management, and sample collection may be required to protect workers and ensure proper handling, based on the competent person's assessment while working in this area.

Mercury and lead containing surface soil in the immediate vicinity of temporary monitoring well GP-19 was discovered in concentrations that exceed the IDEM RCG SLs (Appendix E, page 95). The concentrations identified were high enough that if the area is to be disturbed, then additional provisions, including soil sampling to delineate the extent of the elevated concentrations of mercury, will need to be implemented. The removal and disposal of the soil will need to be defined and sampled to characterize the nature and extent of the concentrations within the constraints of the roadway construction activities to be completed in that location. This data will be required to determine requirements for proper handling and disposal of the soil.

Furthermore, concentrations of lead were identified at multiple locations that exceeded 100 mg/kg, which is not above the IDEM RCG SLs; however, it is above the RCRA Toxicity Characteristic Leaching Procedure (TCLP) 20X rule. Temporary well locations DB-1, DB-8, GP-12, GP-19, and GP-20 identified lead above the criteria stated above (Appendix E, page 95). If soil is to be disposed of from the vicinity of these locations, the soil will need to be containerized and sampled for waste disposal parameters (i.e. a minimum of TCLP lead and anything additional that may be required by the selected disposal facility). Based on the limited data collected, the lead concentrations do not appear to limit the excavation and reuse of the soil in these areas. Best practices such as dust control measures should be implemented to minimize the potential of exposure to surface lead concentrations during construction activities. There was also an elevated detection of cadmium in soil from temporary monitoring well DB-6 (78-80 feet-bgs). Based on the depth of this exceedance, it is unlikely to be unearthed and become a concern; however, if soil from this depth is encountered, the above provisions should be implemented. The limited scope of this investigation does not account for all potential exposure pathways to workers nor to all contaminants. When a concern or change in condition is observed during any activity, work will stop and the situation assessed to protect against

This is page 65 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

exposure or mishandling of contaminated materials.

Groundwater Summary and Recommendations

Results of the analysis performed on groundwater samples collected during the subsurface investigation indicate elevated total metal detections in the groundwater samples collected across the project area. Based on the sampling methodology, (i.e. grab samples from within the augers and temporary monitoring wells) the collection also included the analysis of dissolved metals following laboratory filtering of the samples to remove suspended sediment (turbidity). Thus, the results indicate that levels of the metals analyzed were below the applicable IDEM RCG SLs. Uranium was not included in the filtered dissolved metals analysis, but levels are inferred to also be biased high due to sediment based on this investigation. Additionally, the remaining groundwater COCs analyzed did not result in concentrations that exceeded the IDEM RCG SLs or were below laboratory detection limits.

Several properties with environmental concerns were identified with elevated chlorinated solvent concentrations in groundwater in the RFI/IDEM VFC review. The residual concentrations, based on data reviewed on the IDEM VFC, are relatively low level, but groundwater in this area will require containerization and proper handling, if encountered. Therefore, provisions for the management of this material will need to be implemented if saturated soil or groundwater (dewatering) will be brought to the surface during construction activities in this area. A competent person should manage materials extracted from depth in this area. Communication of the conditions, containment of the liquids, controls to prevent runoff of extracted groundwater onto the surface, and sample collection at a minimum may be required to protect workers and ensure proper handling. Site conditions near the soil boring locations have been assumed to be consistent with the results of the investigation across the working area. However, if conditions are encountered during subsurface activities that appear to be a concern then, as above, a stop work and assessment of the situation should be implemented to protect against exposure or mishandling of contaminated materials.

Personnel who may be exposed to hazardous substances are required to be Hazardous Waste Operations and Emergency Response (HAZWOPER 29 CFR 1920.120) trained; if they meet any of the following conditions:

- Engaged in clean-up operations at an uncontrolled waste site (forced or voluntary),
- Implementing corrective actions covered by RCRA,
- Perform operations involving hazardous waste which are conducted at treatment, storage and disposal facilities, and
- Emergency response operations for releases of, or substantial threats of release of, hazardous substances.

Oil and Gas

An early coordination letter was sent to the IDNR Division of Oil and Gas on October 18, 2017 (Appendix C, pages 1-6). In their early coordination email dated October 20, 2017, IDNR Division of Oil and Gas indicated that there are two wells located in or near the project area (Appendix C, page 19). However, based on the RFI map (Appendix E, page 13) and well coordinates, they appear to be the same well and it is outside of the project area. According to the IDNR email, one well is mapped near Louisiana Street and Bates Street, one block west of I-65/I-70. The well cannot be seen from the surface and would only be impacted while excavating. There is a second well mapped at the southwest side of College Avenue and Bates Street. This well is mapped outside of the project area. It is presumed to be a dry hole and to be plugged. Careful excavation is recommended in/near these areas. There are also likely test holes in the area. If a metal cast iron casing sitting horizontally in the ground or metal cast iron pipes are observed during construction, the IDNR Division of Oil and Gas should be contacted immediately. This commitment is included in *Section J – Environmental Commitments* of this document.

Lead-based Paint and Asbestos on Bridges

According to INDOT inspection reports, some bridges within the project area contain asbestos. The removal, testing, transportation, or disposal of asbestos shall be in accordance with INDOT Standard Specifications and all applicable Federal, State, and local laws, regulations, and rules.

This is page 66 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

The bridges may contain lead-based paint. The removal, testing, transportation, or disposal of asbestos shall be in accordance with INDOT Standard Specifications and all applicable Federal, State, and local laws, regulations, and rules. When paint is identified on a bridge, regardless of surface (i.e. metal, concrete, etc.), the paint will be evaluated on the first day of the paint removal operation to determine if lead is present. Paint samples will be collected by a qualified environmental professional and contained in accordance with INDOT Standard Specifications. The paint samples will be analyzed for both total lead and Toxicity Characteristic Leaching Procedure (TCLP) lead using USEPA SW Method 6010. This analysis will determine if lead is present and will assist in determining proper removal and disposal methods. In general, a TCLP lead result less than 5 ppm (mg/L) indicates the material can be disposed of at a RCRA Subtitle C solid waste landfill. A TCLP result at or above 5 ppm (mg/L) is considered hazardous waste. The laboratory analytical results shall be used by the design-build team to confirm appropriate bridge paint handling, transport, and disposal methods that comply with Federal and State requirements.

In accordance with the INDOT Standard Specifications, all efforts should be made to minimize human and environmental exposure to lead-based and lead containing paint chips and dust. Construction workers will be protected in accordance with Occupational Safety and Health Administration (OSHA) requirements. The design-build team will be required to provide proper personal protective equipment to the level as determined by the sampling and monitoring requirements.

SECTION I – PERMITS CHECKLIST

Permits (mark all that apply)

Likely Required

Army Corps of Engineers (404/Section10 Permit)

Individual Permit (IP)	<input type="checkbox"/>
Nationwide Permit (NWP)	<input type="checkbox"/>
Regional General Permit (RGP)	<input checked="" type="checkbox"/>
Pre-Construction Notification (PCN)	<input type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

IDEM

Section 401 WQC	<input checked="" type="checkbox"/>
Isolated Wetlands determination	<input checked="" type="checkbox"/>
Rule 5	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>
Wetland Mitigation required	<input type="checkbox"/>
Stream Mitigation required	<input type="checkbox"/>

IDNR

Construction in a Floodway	<input type="checkbox"/>
Navigable Waterway Permit	<input type="checkbox"/>
Lake Preservation Permit	<input type="checkbox"/>
Other	<input type="checkbox"/>
Mitigation Required	<input type="checkbox"/>

US Coast Guard Section 9 Bridge Permit

Others (Please discuss in the remarks box below)

☒

Remarks:

In an email dated September 17, 2019, the INDOT Ecology and Waterway Permitting Office provided a preliminary permit determination for the project (Appendix F, page 32). The project will require an IDEM Rule 5 Notice of Intent because there will be greater than one acre of ground disturbance, and a USACE Section 404 Permit and an IDEM Section 401 Permit for impacts to wetlands. Mitigation for wetlands will not be required because impacts do not exceed the mitigation threshold of 0.1 acre.

Coordination with the INDOT Office of Aviation determined an Indiana Tall Structure permit and a FAA

This is page 67 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

permit will be required for the project (Appendix C, pages 22-26).

A City of Indianapolis Flora Permit and Right-of-Way Permit, and Indianapolis Historic Preservation Commission Certificate of Appropriateness may also be required for the project.

Applicable recommendations provided by IDEM, IDNR, and the INDOT Office of Aviation are included in *Section J - Environmental Commitments* section of this document. If permits are found to be necessary, the conditions of the permit will be requirements of the project and will supersede these recommendations.

It is the responsibility of the project sponsor to identify and obtain all required permits.

SECTION J- ENVIRONMENTAL COMMITMENTS

The following information should be provided below: List all commitments, name of agency/organization requesting the commitment(s), and indicating which are firm and which are for further consideration. The commitments should be numbered.

Remarks:

Firm:

1. If the scope of work or permanent or temporary right-of-way amounts change, the INDOT Environmental Services Division (ESD) and the INDOT District Environmental Section will be contacted immediately. (INDOT ESD)
2. It is the responsibility of the project sponsor to notify school corporations and emergency services at least two weeks prior to any construction that would block or limit access. (INDOT ESD)
3. Any work in a wetland area within right-of-way or in borrow/waste areas is prohibited unless specifically allowed in the U.S. Army Corps of Engineers permit. (INDOT ESD)
4. Wetlands M and N shall be avoided by all project activities. Wetlands M and N shall be marked as "Do Not Disturb" on the project plans. Construction fencing shall be installed and maintained around the boundaries of Wetlands M and N prior to construction. (INDOT ESD)
5. To minimize impacts to the state endangered Kirtland's snake, a silt fence shall be installed and maintained around any construction areas where ground disturbance will occur. (IDNR DFW)
6. An Indiana Tall Structure permit and FAA permit will be required for the project. James Kinder, Program Manager at the INDOT Office Aviation, shall be cc'd on all coordination with the FAA. (INDOT Aviation)
7. If a metal cast iron casing sitting horizontally in the ground or metal cast iron pipes are observed during construction, IDNR Division of Oil and Gas shall be called within 24 hours. (DNR Division of Oil & Gas)
8. The Indianapolis Cultural Trail (except the Payne Connection) shall remain open during construction, and access will not be impacted. (INDOT ESD)
9. A 90-foot section of Pogue's Run Trail east of the Monon Trail along 10th Street shall not be closed more than three months during construction. The closure duration shall be temporary, i.e., less than the time needed for construction of the project, and there shall be no change in ownership of the land. (INDOT ESD)
10. The Pogue's Run Trail shall be fully restored, i.e., the property shall be returned to a condition which is at least as good as that which existed prior to the project. (INDOT ESD)
11. A detour of the Monon Trail will be constructed. The detour will follow the Old Northside Trail for approximately 870 feet, then it will require construction of a trail that will continue west/southwest for approximately 600 feet within the interchange right-of-way and join College Avenue. The trail will continue south along the east side of College Avenue. Approximately 200 feet north of the intersection of College Avenue and 11th Street, a temporary multiuse path will be constructed within INDOT right-of-way east of College Avenue to connect to 10th Street. The entire detour route will be constructed within existing INDOT or City right-of-way, shall be 12-feet wide, and will be compliant with the ADA. Either the Monon Trail or the constructed detour must be open to trail users at all times. (INDOT ESD)
12. The portions of the trail from the Monon Trail to College Avenue and south along College Avenue

This is page 68 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- shall remain a permanent feature, pending a maintenance agreement from the City. (INDOT ESD)
13. Trail nodes shall be constructed at the intersection of the Monon Trail and the detour trail, where the detour makes a 90-degree turn at College Avenue, and where the trail turns southeast from College Avenue. The trail nodes shall be constructed in accordance with the Indy Greenways Design Standards. (INDOT ESD)
 14. Construction work within the Frank and Judy O'Bannon Old Northside Soccer Park is limited to the reconstruction of the Old Northside Trail for the Monon Trail detour and permanent trail. No other construction or staging activities will occur in the Park. (INDOT ESD)
 15. If closure of both the Monon Trail and the prescribed pedestrian/bicyclist detour are required, the design-build team shall provide a short-term temporary detour for bicyclists and pedestrians of no more than three consecutive days. A short-term detour can only be used two times per year and must have written approval from INDOT and the City of Indianapolis. (INDOT ESD)
 16. The public art sculptures, lanterns, and signs that are currently located along the Payne Connection shall be removed and stored during construction. The public art sculptures, lanterns, and signs shall be reinstalled once the interstate bridges have been constructed. Coordination with the Near East Area Renewal (NEAR) shall occur prior to re-installation of these features to determination their locations within the Payne Connection. (INDOT)
 17. The project elements shall be designed in accordance with the North Split Aesthetic Design Guidelines. (INDOT)
 18. Reconstructed bridges over local streets shall be built with a span equal to or greater than the existing span. Minimum local street requirements are listed in Table 1. (INDOT)

Table 1. Minimum Local Street Requirements

Local Street	Buffer Width	Sidewalk/Bike Path	Wall/Pier Offset
Washington Street	3 feet	12 feet	2 feet
Market Street	3 feet	10 feet	2 feet
New York Street	3 feet	10 feet	2 feet.
Vermont Street	3 feet	10 feet	2 feet
Michigan Street	3 feet	12 feet	2 feet
St. Clair Street	8 feet	10 feet	2 feet
10th Street	8 feet	12 feet	2 feet
Central Avenue	3 feet	12 feet	2 feet
College Avenue	8 feet	12 feet	2 feet

19. INDOT will develop and implement a Traffic Incident Management Plan in cooperation with law enforcement and emergency responders from throughout the region. (INDOT)
20. Eliminating the Meridian/Delaware Street entrance ramp to southbound I-65 and the C-D road will create a partial interchange, which is typically avoided by FHWA since some motorists are unable to reenter at the same location. To address these concerns, wayfinding signage will be provided to indicate alternative routes to enter I-65. (INDOT)
21. The concentration of naphthalene discovered at the surface sample from temporary monitoring well DB-1 was detected at a level above the IDEM RCG SLs that requires notification of presence, but does not appear to warrant further special handling, if localized. Verification of soil conditions in the vicinity of these locations shall be implemented during excavation activities. A competent person shall screen the soil while working in the area. Communication of the conditions, dust control, field screening, soil management, and sample collection may be required to protect workers and ensure proper handling, based on the competent person's assessment while working in this area. (INDOT SAM)
22. Mercury and lead containing surface soil in the immediate vicinity of temporary monitoring well

This is page 69 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- GP-19 was discovered in concentrations that exceed the IDEM RCG SLs. The concentrations identified were high enough that if the area is to be disturbed, then additional provisions, including soil sampling to delineate the extent of the elevated concentrations of mercury, will need to be implemented. The removal and disposal of the soil will need to be defined and sampled to characterize the nature and extent of the concentrations within the constraints of the roadway construction activities to be completed in that location. This data will be required to determine the requirements for proper handling and disposal of the soil. (INDOT SAM)
23. Concentrations of lead were identified at multiple locations that exceeded 100 mg/kg, which is not above the IDEM RCG SLs; however, it is above the RCRA Toxicity Characteristic Leaching Procedure (TCLP) 20X rule. These temporary well locations DB-1, DB-8, GP-12, GP-19, and GP-20 identified lead above the criteria stated above. If soil is to be disposed of from the vicinity of these locations, the soil will need to be containerized and sampled for waste disposal parameters (i.e. a minimum of TCLP lead and anything additional that may be required by the selected disposal facility). Based on the limited data collected, the lead concentrations do not appear to limit the excavation and reuse of the soil in these areas. Best practices such as dust control measures, etc., should be implemented to minimize the potential of exposure to surface lead concentrations during construction activities. (INDOT SAM)
 24. There was an elevated detection of cadmium in soil from temporary monitoring well DB-6 (78-80 feet-bgs). Based on the depth of this exceedance, it is unlikely to be unearthed and become a concern; however, if soil from this depth is encountered, the provisions (from commitment No. 24 above) should be implemented. (INDOT SAM)
 25. Several properties with environmental concerns were identified with elevated chlorinated solvent concentrations in groundwater in the RFI/IDEM VFC review. The residual concentrations, based on data reviewed on the IDEM VFC, are relatively low level, but groundwater in this area will require containerization and proper handling, if encountered. Therefore, provisions for the management of this material will need to be implemented if saturated soil or groundwater (dewatering) will be brought to the surface during construction activities in this area. BMPs shall be implemented for dewatering activities in this area. Communication of the conditions, containment of the liquids, controls to prevent runoff of extracted groundwater onto the surface, and sample collection at a minimum may be required to protect workers and ensure proper handling. (INDOT SAM)
 26. The limited scope of the subsurface investigation that was conducted for this project does not account for all potential exposure pathways to workers nor to all contaminants. When a concern or change in condition is observed during any activity, a stop work and assessment of the situation should be implemented to protect against exposure or mishandling of contaminated materials. (INDOT SAM)
 27. Personnel who may be exposed to hazardous substances are required to be Hazardous Waste Operations and Emergency Response (HAZWOPER 29 CFR 1920.120) trained; if they meet any of the following conditions: (1) Engaged in clean-up operations at an uncontrolled waste site (forced or voluntary), (2) Implementing corrective actions covered by RCRA, (3) Perform operations involving hazardous waste which are conducted at treatment, storage and disposal facilities, and (4) Emergency response operations for releases of, or substantial threats of release of, hazardous substances. (INDOT SAM)
 28. If groundwater monitoring wells are encountered in the project area, they will be maintained in place if feasible. If they cannot be maintained, the design-build team must contact the INDOT Project Manager who will notify the INDOT Right-of-way Permits Group. The INDOT Right-of-way Permits Group will notify the permit holder that the well must be removed prior to construction. The permit holder is responsible for coordination with IDEM and the INDOT Right-of-way Permits Group for replacement or relocation of the well. If a property owner cannot be found in connection with the monitoring well, then well abandonment will be included in the project contract. All well abandonment activities must be completed by an Indiana Licensed Well Driller in accordance with IAC 312-13-10. Regardless of whether the well is abandoned by the design-build team or the property owner, a record of well abandonment, including the well driller's license number, must be provided to the INDOT Project Manager once the well has been abandoned. (INDOT SAM)

This is page 70 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

29. The portions of archaeology site 12-Ma-1062 that lie outside the proposed project area should be clearly marked so that they are avoided by all ground-disturbing project activities. If avoidance is not feasible, then a plan for subsurface archaeological investigations must be submitted to the DHPA for review and comment. Any further archaeological investigations must be done in accordance with the "Secretary of the Interior's Standards and guidelines for Archaeology and Historic Preservation" (48 F.R. 44716). (INDOT CRO)
30. FHWA and INDOT shall ensure project elements, including tree and vegetation plantings, are designed in accordance with the North Split Project Aesthetic Design Guidelines. Minor modifications may be made if approved by FHWA and INDOT as long as they are within the spirit of the Aesthetic Design Guidelines. (INDOT CRO)
31. FHWA and INDOT and/or its consultants shall provide a draft landscape and side slope plan (including scaled cross sections for each adjacent historic district) for consulting party review and comment at two points during the design process. (INDOT CRO)
 - a. Comment periods will be 30 days.
 - b. The first comment period will be for an initial review and comment.
 - c. The second comment period will be to show how comments were addressed, allow comments on revisions, and solicit input regarding any remaining questions.
 - d. FHWA and INDOT shall make a good faith effort to address comments and shall provide responses regarding how or why comments were addressed or not addressed.
 - e. FHWA and INDOT shall have one consulting party meeting within each comment period to provide information and solicit feedback from consulting parties.
 - f. FHWA and INDOT shall have at least one neighborhood meeting within each comment period to solicit feedback from adversely affected historic districts. Residents of the Old Northside, Saint Joseph, and Chatham-Arch neighborhoods shall be the focus of the neighborhood meetings; however, the meetings will be open to the general public.
 - g. FHWA shall have the authority for final approval of actions regarding the implementation of aesthetic and landscaping measures.
32. Berms shall be included in the interchange design to provide visual shielding and noise reduction from the interchange ramps for the Old Northside and Chatham-Arch Historic Districts. (INDOT CRO)
 - a. The berms shall be located in the northwest quadrant of the interchange, extending from approximately 14th Street to College Avenue, and in the southwest quadrant of the interchange, extending from College Avenue to 10th Street.
 - b. The berms shall be sculpted into a softer, more natural shape and planted with trees such that they do not appear as abandoned "roadbeds". The proposed shape of the berms shall be included in the draft landscape and side slope plan provided to consulting parties for comment.
 - c. All other remnants of previous "roadbed" use shall be removed from areas that will no longer serve such a use, including those adjacent to the O'Bannon Soccer Park.
33. INDOT shall develop a landscape maintenance plan for three years after tree and shrub planting. (INDOT CRO)
34. INDOT shall engage Keep Indianapolis Beautiful, Inc. as a landscape advisor to provide recommendations and/or services for tree and shrub planting, monitoring, and maintenance for three years after planting. (INDOT CRO)
35. INDOT shall replace trees and shrubs that do not survive during the first three years after planting. INDOT shall monitor planted trees and shrubs annually for three years. If dead trees or shrubs are identified during each annual monitoring, they will be replaced. If the replacement plant dies, it shall be replaced with a substitute species approved by INDOT. (INDOT CRO)
36. INDOT shall identify "Do Not Disturb" areas within the project limits in order to preserve existing trees. The "Do Not Disturb" areas shall be marked with silt fence and signage. The only work that can occur in "Do Not Disturb" areas is the installation new drainage connections (to existing pipes). No clearing of trees 2-inch diameter at breast height (dbh) or greater shall be allowed in the "Do Not Disturb" areas. The "Do Not Disturb" areas shall be at the following locations: (INDOT CRO)

This is page 71 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- a. Within the existing right-of-way of northbound I-65 adjacent to the Old Northside Historic District and Morris Butler House from College Avenue to Alabama Street. INDOT shall identify a work zone, where construction can occur, which extends 15 feet north of the proposed retaining wall within this area. Vegetation within the existing right-of-way north of that shall be in the "Do Not Disturb" area.
 - b. Portions of the existing right-of-way of southbound I-65 where groups of mature trees are present, adjacent to the Saint Joseph Neighborhood and Chatham-Arch Historic Districts from College Avenue to Delaware Street.
 - c. Portions of the existing right-of-way of southbound I-65/westbound I-70 where trees have been planted, adjacent to the Lockerbie Square Historic District from Michigan Street to New York Street.
37. If trees within the "Do Not Disturb" areas do not survive within one year of the conclusion of construction activity within fifteen feet of the area, INDOT shall plant replacement trees, at 2-inch dbh or greater in size, at a ratio of three to one (three replacement trees for each tree that does not survive). The replacement trees shall be planted in the "Do Not Disturb" areas if space allows or within INDOT right-of-way within the project area. (INDOT CRO)
38. Outside of the "Do Not Disturb" areas, INDOT shall plant shrubs and trees (if appropriate for the slope and location) at the following locations: (INDOT CRO)
 - a. Within the 15-foot work zone north of I-65 northbound from College Avenue to Alabama Street.
 - b. The side slope of southbound I-65 between Alabama Street and College Avenue.
 - c. If the existing vegetation is removed during construction, along the western side slope of I-65/I-70 south of the interchange from 10th Street south to St. Clair Street.
39. INDOT shall plant trees 2-inch dbh or greater in size. This includes trees both in and out of the "Do Not Disturb" areas. (INDOT CRO)
40. FHWA and INDOT shall ensure project elements, including underpass treatments, are designed in accordance with the North Split Project Aesthetic Design Guidelines. Minor modifications may be made if approved by FHWA and INDOT as long as they are within the spirit of the Aesthetic Design Guidelines. (INDOT CRO)
41. FHWA shall have the authority for final approval of actions regarding the implementation of aesthetic and landscaping measures. (INDOT CRO)
42. To improve connectivity between adversely affected historic districts, INDOT shall make the following connectivity improvements: (INDOT CRO)
 - a. Between the Old Northside and Saint Joseph Neighborhood Historic Districts, improvements to the Alabama Street underpass shall include new lighting on the bridge, sidewalk pavers, and signage along Alabama Street identifying each neighborhood. Coordination shall occur with the Old Northside and Saint Joseph neighborhoods regarding their established logos and sign standards.
 - b. Between the Old Northside and Saint Joseph Neighborhood Historic Districts, improvements to the Central Avenue underpass shall include a wider bridge opening (65 feet to at least 76 feet), wider sidewalks, sidewalk pavers, new lighting with upgraded fixtures on the bridge, vertical bridge walls, elimination of drainage from the bridge above on to the street and sidewalks, and space for murals.
 - c. Between the Old Northside and Chatham-Arch Historic Districts, improvements to the College Avenue underpass shall include wider bridge openings (79 feet to at least 87 feet), wider sidewalks, sidewalk pavers, new lighting with upgraded fixtures on the bridge, vertical bridge walls, elimination of drainage on to the street and sidewalks, and space for murals.
43. INDOT shall provide \$190,000 to the Benjamin Harrison Presidential Site towards the construction of the Old Northside Connector, a pedestrian and bicycle path to connect the alley south of the Benjamin Harrison Presidential Site to Pennsylvania Street. This stipulation will be implemented through an agreement between INDOT and the Benjamin Harrison Presidential Site. (INDOT CRO)
44. INDOT shall construct a temporary detour for the Monon Trail during construction. The portion of

This is page 72 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- the detour within the O'Bannon Soccer Park and within INDOT right-of-way west to College Avenue and under the College Avenue bridges will remain as a permanent feature to improve connectivity between the Old Northside and Chatham-Arch Historic Districts. (INDOT CRO)
45. INDOT shall construct a temporary detour for the Monon Trail during construction. INDOT shall work with the City of Indianapolis to determine if the portion of the detour southwest of the interchange from College Avenue southeast to 10th Street can remain as a permanent feature to improve connectivity for the Chatham-Arch Historic District. Retaining this trail as a permanent feature is conditional upon INDOT reaching an agreement with the City of Indianapolis. The final decision shall be communicated to consulting parties. (INDOT CRO)
 46. INDOT shall install "No Construction Traffic" and "Local Traffic Only" signs at the entrance to the brick portion of 10th Street from Delaware Street to Central Avenue to protect the brick portion of 10th Street from construction traffic. (INDOT CRO)
 47. INDOT and its design-build team shall avoid the limestone curbs and street trees along 12th Street, north of I-65 northbound, during all construction activities. If damage occurs to the limestone curbs as a result of the North Split Project construction, INDOT shall repair the limestone curbs. (INDOT CRO)
 48. To avoid damage to historic properties, INDOT shall ensure that a Construction Vibration Monitoring and Control Plan ("Plan") is developed by the design-build team prior to beginning any construction activities. The Plan shall at least include all buildings within historic properties or districts within 140 feet of project construction activities. The Plan will include the following key elements: (INDOT CRO)
 - a. The Plan will include the following key elements:
 - i. Identifying buildings that are sensitive to vibration;
 - ii. Conducting pre-construction surveys of residences, historic buildings, and other vibration-sensitive structures in the project corridor to determine the appropriate vibration limits for the type of structure and conditions of the structure;
 - iii. Developing and implementing a vibration monitoring program for construction activities; ensuring that, whenever vibration levels exceed the maximum thresholds identified in Table 2 below, construction work causing that vibration will immediately stop until such time as qualified professionals have determined that modifications have been made in the construction activities to assure that no damage shall occur to historic properties;
 - iv. Conducting post-construction surveys;
 - v. Phasing construction activities that create vibration so that multiple sources of vibration do not occur at the same time;
 - vi. Prohibiting or limiting certain activities that create higher vibration levels during specific nighttime hours;
 - vii. Developing a method for responding to community complaints; and
 - viii. Keeping the public informed of proposed construction schedules, and identifying activities known to be a source of vibration.
 - b. Maximum thresholds for historic properties that shall not be exceeded are shown in Table 2. The values are presented in terms of peak particle velocity (PPV), the accepted method for evaluating the potential for damage.
 - c. INDOT and/or its consultants shall provide the draft Plan to the North Split consulting parties for a 30-day review period. INDOT shall respond to consulting party comments.
 - d. In the event vibration damage does occur as a result of the North Split Project construction activities (as evidenced by the pre- and post- construction surveys), INDOT shall ensure that the design-build team will be responsible for the cost and repair of any vibration damage to historic properties. Any repairs shall be coordinated with the Indiana SHPO to ensure they are carried out in accordance with the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. This will be contingent

This is page 73 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

- on property owners allowing pre and post construction surveys of their buildings.
- e. Where access to privately owned property is necessary for monitoring or damage repair, consent shall be obtained prior to entry.

Table 2. Construction Vibration Thresholds (PPV)

Type of Structure	Ground-borne Vibration Impact Level (PPV)
New Residential Structures	1.0 in/sec
Non-historic Older Residential Structures	0.5 in/sec
Fragile (non-engineered timber and masonry buildings)	0.20 in/sec
Extremely Fragile (buildings, ruins, ancient monuments)	0.12 in/sec

49. Non-highway use features not essential for highway travel in the INDOT right-of-way shall be permitted and approved (23CFR1.23(c)). The final design of the aesthetics features in the North Split Project must be submitted for final approval and permitted per INDOT's policy prior to construction. (INDOT)
50. The Construction Noise Abatement Plan will be sent to consulting parties for their information once it has been approved by INDOT. (INDOT)
51. INDOT will complete a Mobility Management Plan to manage traffic and reduce travel demand during construction of the North Split Project. (INDOT)
52. The stipulations of the Section 106 MOA shall be implemented as part of the North Split Project. (INDOT CRO)
53. Progress reports detailing implementation of the measures stipulated within this MOA and providing advanced notice of milestones, such as approval of design plans and initiation of construction activities, shall be submitted to signatories and concurring parties every six months, until all phases of the North Split Project are complete. The first progress report shall be distributed within six months following execution of this MOA. The progress reports shall identify the status of activities for each stipulation outlined in this MOA. (INDOT CRO)
54. A consulting party meeting will be held to inform consulting parties of the status of activities and evaluate compliance with the MOA within 30 days of distribution of each progress report. The consulting party meetings could be combined with those regarding review of the landscape and side slope plans. (INDOT CRO)
55. One round of four neighborhood meetings shall be held during the design process to show the results of the project design and CSS design elements. Neighborhoods invited during the CSS process will be invited to attend these meetings. (INDOT)
56. The brick portion of 10th Street from Central Avenue to Delaware Street shall not be used by construction vehicles or equipment, or signed for any local road detours by the Design-Build Team. (INDOT)
57. Between the Martindale-Brightwood and Windsor Park neighborhoods, improvements to the Commerce Avenue/Roosevelt Avenue underpass shall include new lighting on the bridge and new sidewalks. (INDOT)
58. If desired by the community, INDOT shall partner with Keep Indianapolis Beautiful to provide funding for a mural on the bridge columns at the Commerce Avenue/Roosevelt Avenue underpass. (INDOT)
59. INDOT will hold a meeting with the EJ Working Group prior to construction (after MOT plans are available from design-build team) to communicate MOT and construction impacts. Regular communications to the public will be provided while the construction work is underway. The project team will work with the EJ Working Group in developing a full and representative listing of

This is page 74 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

contacts for these communications. (INDOT)

60. Public and consulting party comments regarding the Aesthetic Design Guidelines will be provided to the design-build team for consideration during final design. (INDOT)

For Further Consideration:

1. If there is additional impervious area over what is currently there, the project must consider the downstream capacity of the existing storm sewer system. (MCSWMD)
2. The project must comply with the *City of Indianapolis Storm Water Design and Construction Manual* including Chapter 700 for post-construction water quality requirements. (MCSWMD)
3. The project shall include sufficient temporary erosion and sediment control measures during all phases of construction. (MCSWMD)
4. Consider native plantings within the right-of-way. CORRIDORS (Conservation On Rivers and Roadways Intended to Develop Opportunities for Resources and Species) is a program to develop habitats for grassland-dependent species and to foster improved pollinator habitat along roadways and waterways. Program partners include INDOT, USDA NRCS, Pheasants Forever and Quail Forever. You may contact the South Region Landscape Biologist, Erin Basiger, at Deer Creek Fish & Wildlife Area, 2001 W. CR 600 South, Greencastle, IN. The new Urban Wildlife Program has potential cost-share and technical assistance available for native plantings and other urban habitat projects. You may contact the South Urban Biologist, Megan Dillon, at Atterbury Fish & Wildlife Area, 7970 S Rowe Street, Edinburgh, IN 46124, (812) 526-4891, mdillon@dnr.IN.gov, for information regarding assistance with establishment of pollinator habitat, trees and shrubs, native plugs, wetland habitat, rain gardens, nuisance Canada goose mitigation, and/or educational signage that could enhance the project area. (IDNR DFW)
5. Most transportation corridor designers and municipalities are trending toward LED lighting. Certain types of LED lighting can have negative impacts on both human and wildlife health and safety. The Division of Fish and Wildlife strongly encourages visiting the International DarkSky Association's website to learn more about the potential negative impacts of improper impacts of improperly selected LED lighting systems, if required: <http://darksky.org/lighting/led-practical-guide/>. (IDNR DFW)
6. Consider a more sustainable approach to stormwater management. The traditional model of stormwater management aims to drain urban runoff as quickly as possible with the help of channels and pipes, which increases peak flows and costs of stormwater management. A more sustainable approach aims to rebuild the natural water cycle by using storage techniques (retention basins, constructed wetlands, raingardens, etc.), recharging groundwater using infiltration techniques (infiltration basins or trenches, pervious pavement, etc.), and reusing runoff for irrigation elsewhere in the basin. (IDNR DFW)
7. Consider strategies to reduce diesel emissions, such as project construction/demolition contracts that require the use of equipment with clean diesel engines and the use of clean diesel fuels. (USPEA)
8. Use energy efficient lighting, including the use of solar powered lights when feasible. (USEPA)
9. Incorporate native saplings and shrubs into the landscape plan for the right-of-way, to help reduce noise, and maintain air quality for nearby residences and trail users. (USEPA)

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

SECTION K- EARLY COORDINATION

Please list the date coordination was sent and all agencies that were contacted as a part of the development of this Environmental Study. Also, include the date of their response or indicate that no response was received. INDOT and FHWA are automatically considered early coordination participants and should only be listed if a response is received.

Remarks:

Early coordination letters were sent to resource agencies on October 18, 2017 (Appendix C, pages 1-6). If no response was received, it was assumed the agency did not feel the project will result in substantial impacts. Early notification letters were also sent to the City of Indianapolis MS4 Coordinators on October 19, 2017 (Appendix C, page 7).

The following agencies/individuals were contacted during the early coordination process:

	Agency	Date of Response
1.	USACE, Louisville District	No Response Received
2.	USEPA	November 20, 2017/October 24, 2018
3.	IDNR, Division of Fish and Wildlife	November 17, 2017
4.	USFWS, Bloomington Field Office	October 24, 2017
5.	USDA NRCS	October 19, 2017
6.	National Park Service, Midwest Regional Office	No Response Received
7.	U.S. Department of Housing and Urban Development	No Response Received
8.	Indiana Geological Survey (IGS) (electronic submission)	October 23, 2017
9.	INDOT, Office of Aviation	October 26, 2017
10.	IDEM (electronic submission)	October 19, 2017
11.	IDEM, Ground Water Section	October 24, 2017
12.	IDNR, Division of Outdoor Recreation	No Response Received
13.	IDNR, Division of Oil and Gas	October 20, 2017
14.	City of Indianapolis, Department of Public Works	October 24, 2017
15.	Marion County Surveyor's Office	November 1, 2017
16.	IndyGo	November 20, 2017
17.	Mayor, City of Indianapolis	No Response Received
18.	Indianapolis Department of Metropolitan Development (DMD)	No Response Received
19.	Indy Parks and Recreation	No Response Received
20.	Indianapolis Cultural Trail	No Response Received
21.	Keep Indianapolis Beautiful	No Response Received
22.	City-County Council of Marion County	No Response Received
23.	Indianapolis MPO	No Response Received
24.	City of Indianapolis, Department of Public Works (MS4)	October 24, 2017
25.	City of Indianapolis, NPDES PM (MS4)	October 24, 2017

The October 18, 2017 early coordination letter invited recipients to a resource agency meeting/WebEx on November 3, 2017, at the HNTB office. Representatives from INDOT, FHWA, USACE, USEPA, IDEM, IDNR, and Indianapolis DPW attended the meeting. The purpose of the meeting was to introduce the resource agencies to the North Split Project and identify any concerns they may have moving forward. Resource agency questions generally pertained to the design-build process, water resources, possible hazardous materials concerns, the EA schedule, air quality, MOT, pedestrian/bicycle connectivity, additional travel lanes, environmental justice, public involvement, pollinator habitat, adjacent land uses, relocations, and stormwater (Appendix C, pages 57-71).

An email was sent to regulatory agencies on April 24, 2018, informing them of the System-Level Analysis

This is page 76 of 77 Project name: North Split Project Date: July 9, 2020

Indiana Department of Transportation

County Marion County Route I-65/I-70 North Split Des. No. 1592385, 1600808 et al.

for downtown interstates and inviting them to a resource agency meeting/WebEx on May 22, 2018 at the Borshoff office (Appendix C, pages 72-73). The System-Level Analysis is not a formal step in the North Split NEPA process, but it was provided to resource agencies for informational purposes. Representatives from INDOT, FHWA, USACE, USEPA, USFWS, IDEM, IDNR, and Indianapolis DPW attended the meeting. The purpose of the meeting was to provide an overview of the System-Level Analysis. Resource agency questions generally pertained to traffic diversion, alternative concepts, stakeholder involvement, traffic modeling, and next steps with the project (Appendix C, pages 74-84).

An email was sent to regulatory agencies on September 28, 2018, providing the Alternatives Screening Report for review and inviting them to a resource agency meeting/WebEx on October 17, 2018 at the HNTB office (Appendix C, page 85). Representatives from INDOT, FHWA, USACE, USEPA, USFWS, and IDEM attended the meeting. The purpose of the meeting was to provide an overview of the purpose and need and alternative screening process. Resource agency questions generally pertained to alternative details, environmental justice, traffic impacts, transit, trails, and stormwater (Appendix C, pages 93-105). USEPA also provided comments on the Alternatives Screening Report in a letter dated October 24, 2018 (Appendix C, pages 89-92).

In addition to the resource agency meeting, a water resources field review was conducted with representatives from USACE and IDEM on October 22, 2019. The purpose of the meeting was to review water resources in the field in order to determine their jurisdictional status. IDEM provided a review of water resources from the field review on October 22, 2019 (Appendix F, page 34). USACE provided an approved jurisdictional determination for water resources on February 3, 2020 (Appendix F, pages 35-37).

A virtual resource agency meeting was held via WebEx on April 30, 2020. Representatives from INDOT, FHWA, USACE, USEPA, USFWS, IDNR, and IDEM participated in the meeting. The purpose of the meeting was to provide a project update, review possible traffic impacts during construction, and provide an overview of the Aesthetic Design Guidelines. Resource agency questions generally pertained to environmental justice, traffic impacts, landscaping, stormwater, and lighting (Appendix C, pages 106-132).

In addition to the resource agency meetings discussed above, there have been monthly meetings with the City of Indianapolis mayor's office, Indianapolis DPW, Indianapolis DMD, and the Indianapolis MPO to discuss the current project activities.

Although KIB and Indy Parks and Recreation did not provide formal early coordination responses, coordination has been ongoing with both agencies throughout the project. KIB has provided several responses as part of the Section 106 consultation process and Indy Parks and Recreation has provided input as part of the Section 4(f) evaluation process.

APPENDIX TABLE OF CONTENTS

Appendix A: Project Information

Project Additional Des. Nos. List	1
Roadway Character (Local Road) Information and Tables	2
Design Criteria for Bridges Information and Tables	6
Alternatives Screening Report.....	33

Appendix B: Graphics

Figure 1: Project Location.....	1
Figure 2: United States Geological Survey (USGS) Topographic Map	2
Figure 3: Preferred Alternative Overview Map	3
Figure 4: Environmental Features Index Map	4
Figure 5: Environmental Features Maps	5
Site Photographs	17
Preliminary Design Plans	47

Appendix C: Agency Coordination

Sample Early Coordination Letter	1
Sample MS4 Early Notification Letter	7
U.S. Environmental Protection Agency (USEPA) Early Coordination Letter	8
U.S. Fish and Wildlife Service (USFWS) Early Coordination Email	16
U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Early Coordination Letter ..	18
Indiana Department of Natural Resources (IDNR), Division of Oil and Gas Early Coordination Email.....	19
IDNR, Division of Fish and Wildlife Early Coordination Email.....	20
Indiana Department of Transportation (INDOT), Office of Aviation Early Coordination Letter.....	22
Indiana Tall Structure Permit Summary Email.....	23
Indiana Department of Environmental Management (IDEM), Ground Water Section Early Coordination Letter	27
IDEM Automated Early Coordination Letter	28
Indiana Geological Survey Automated Early Coordination Response.....	32
Marion County Surveyor's Office Early Coordination Email.....	34
Marion County Stormwater Management District (MCSWMD) Early Coordination Letter	35
IndyGo Early Coordination Email.....	36
USFWS Official Species List.....	38
USFWS Range-wide Programmatic Consultation Project Consistency Letter	44
Citizens Energy Group Water Line Utility Information	51
Resource Agency Meeting #1 Agenda (November 3, 2017).....	57
Resource Agency Meeting #1 Presentation (November 3, 2017)	58
Resource Agency Meeting #1 Minutes (November 3, 2017)	62
Resource Agency System-Level Analysis Notification Email.....	72
Resource Agency Meeting #2 Agenda (May 22, 2018)	74
Resource Agency Meeting #2 Presentation (May 22, 2018)	75
Resource Agency Meeting #2 Minutes (May 22, 2018)	82

Resource Agency Alternatives Screening Report Notification Email.....	85
USEPA Comments from Project Website	86
USEPA Follow Up Comments from Project Website	87
Project Team Response to USEPA Comments from Project Website	88
USEPA Alternatives Screening Report Comment Letter.....	89
Resource Agency Meeting #3 Agenda (October 17, 2018)	93
Resource Agency Meeting #3 Presentation (October 17, 2018)	94
Resource Agency Meeting #3 Minutes (October 17, 2018)	101
Resource Agency Meeting #4 Agenda (April 30, 2020)	106
Resource Agency Meeting #4 Presentation (April 30, 2020).....	107
Resource Agency Meeting #4 Minutes (April 30, 2020).....	119
Emergency Management Services Meeting Agenda (October 18, 2018)	133
Emergency Management Services Meeting Minutes (October 18, 2018)	134
Indiana State Police Briefing Minutes (December 6, 2018)	139
Sample Community Facility Coordination Letter	142
Community Facility Coordination Letter Mailing List	144

Appendix D: Section 106 of the NHPA

Final Executed Memorandum of Agreement (MOA)	1
Consulting Party Correspondence Regarding Final MOA	63
Section 106 Update Memo #12.....	69
Consulting Party Correspondence Regarding Revised Draft MOA	104
SHPO Concurrence with Phase Ia Archaeology Addendum #2	113
SHPO Correspondence Regarding Possible Trail	116
Section 106 Update Memo #11.....	119
Consulting Party Correspondence Regarding Draft MOA	126
Consulting Party Meeting #8 Information.....	230
Section 106 Update Memo #10 & Draft MOA.....	254
SHPO Response to Section 106 Update Memo #9	344
Section 106 Update Memo #9.....	346
SHPO Concurrence with Finding of Effect	370
Consulting Party Correspondence Regarding 800.11 Documentation and Update Memo #8	374
Consulting Party Meeting #7 Information.....	435
Section 106 Public Notice Text.....	451
Section 106 Public Notice Publisher's Affidavit.....	452
Section 106 Update Memo #8.....	453
Section 106 800.11 Documentation	481

Appendix E: Red Flag Investigation and Hazardous Materials

Red Flag Investigation	1
IDEM/INDOT Hazardous Materials Meeting Minutes (July 8, 2019)	58
Subsurface Investigation Report	60

Appendix F: Water Resources

Waters of the U.S. Report	1
Waters of the U.S. Report INDOT Approval Email	27
Waters of the U.S. Determination Addendum	28
Waters of the U.S. Determination Addendum INDOT Approval Email	31
INDOT Permit Determination Email	32
IDNR Floodplain Map	33
IDEM Water Resources Site Visit Inspection Report (October 22, 2019)	34
USACE Approved Jurisdictional Determination (February 3, 2020)	35
USACE Wetland Jurisdictional Determination Map	37

Appendix G: Public Involvement

External Meeting Summary	1
Sample Notice of Entry for Survey	8
Community Advisory Committee (CAC) Member List	9
CAC Meeting #1 Agenda (March 13, 2018)	14
CAC Meeting #1 Presentation (March 13, 2018)	15
CAC Meeting #1 Minutes (March 13, 2018)	20
CAC Briefing #2 Agenda (May 3, 2018)	32
CAC Briefing #2 Presentation (May 3, 2018)	33
CAC Briefing #2 Minutes (May 3, 2018)	41
CAC Follow Up Meeting #2 Agenda (May 21, 2018)	47
CAC Follow Up Meeting #2 Presentation (May 21, 2018)	48
CAC Follow Up Meeting #2 Minutes (May 21, 2018)	55
CAC Meeting #3 Agenda (October 9, 2018)	68
CAC Meeting #3 Presentation (October 9, 2018)	69
CAC Meeting #3 Minutes (October 9, 2018)	75
CAC Meeting #4 Agenda (August 9, 2019)	83
CAC Meeting #4 Presentation (August 9, 2019)	84
CAC Meeting #4 Minutes (August 9, 2019)	98
CAC Meeting #5 Agenda (April 21, 2020)	107
CAC Meeting #5 Presentation (April 21, 2020)	108
CAC Meeting #5 Minutes (April 21, 2020)	121
Public Open House #1 Presentation (May 23, 2018)	134
Public Open House #2 Presentation (October 10, 2018)	141
Context Sensitive Solutions (CSS) Round 1 Neighborhood Workshop Presentation	147
CSS Round 2 Neighborhood Workshop/Public Open House #3 Presentation	153

Virtual Public Open Houses #4 and #5 Presentation (April 28 and 30, 2020)	166
CSS Summary Information.....	178
Aesthetic Design Guidelines	214
Appendix H: Air Quality	
Air Quality Interagency Consultation Email	1
Air Quality Interagency Consultation Meeting Agenda (December 20, 2017)	3
Air Quality Interagency Consultation Meeting Minutes (December 20, 2017).....	4
Air Quality Interagency Consultation USEPA & FHWA MSAT Approach Concurrence Email	7
Air Quality Interagency Consultation MSAT Approach Follow Up Email.....	9
INDOT FY 2020-2024 Statewide Transportation Improvement Program Page.....	11
Indianapolis MPO Regional Transportation Improvement Program List of Obligated Projects Page	12
Indianapolis MPO 2045 Long Range Transportation Plan Page	13
Appendix I: Traffic Noise Analysis	
Final Traffic Noise Technical Report	1
Final Traffic Noise Technical Report INDOT Approval Email	126
Appendix J: Permanent Traffic Impacts	
FHWA Conditional Approval of Interstate Access Document (IAD)	1
Traffic Technical Memorandum	2
Appendix K: Environmental Justice Technical Memorandum	
Environmental Justice Technical Memorandum	1
Appendix L: Indirect and Cumulative Effects Analysis Technical Memorandum	
Indirect and Cumulative Effects Analysis Technical Memorandum	1
Appendix M: Section 4(f)/Section 6(f)	
Letter to Monon Trail and Pogues Run Trail Official with Jurisdiction	1
Letter to Indianapolis Department of Parks and Recreation.....	45
City of Indianapolis Trails Meeting Minutes (December 2, 2019)	47
City of Indianapolis Trails Meeting Minutes (January 31, 2020)	51
City of Indianapolis Trails Meeting Minutes (March 13, 2020)	54
Land and Water Conservation Fund (LWCF) Grant List.....	57