Northern Indiana Commuter Transportation District
33 East U.S. Highway 12
Chesterton, IN 46304

P 219 926 5774

Kathryn Vallis
Coastal Resources Planner
Indiana Department of Natural Resources
Division of Nature Preserves
Lake Michigan Coastal Program
Dunes State Park Annex
1600 North 25 East
Chesterton, Indiana 46304

April 6, 2021

Subject: **Coastal Zone Management Federal Consistency Review**
West Lake Corridor Project
Lake County, Indiana

Dear Ms. Vallis,

The Northern Indiana Commuter Transportation District (NICTD) is applying for a Coastal Zone Management Federal Consistency Review for the proposed West Lake Corridor Project in Lake County, Indiana (Project).

The Project is an 8-mile southern extension to the South Shore Line (SSL) commuter rail line between the Town of Dyer and the City of Hammond, Indiana (see Figures 1 and 2 in Attachment 1).

The Project is within the Lake Michigan Coastal Program's (LMCP) jurisdictional boundary. The Project complies with Indiana's approved Coastal Management Program and will be conducted in a manner consistent with such program.

Project Description

The Project will construct a new track on a north-south alignment, largely along the NICTD-owned right-of-way (ROW) of the former Monon Railroad corridor in Munster and Hammond. Traveling north from the southern project terminus in Dyer, the Project would include new track operating at-grade on new ROW adjacent to the CSX Transportation (CSX) Monon Subdivision railroad to 45th Street in Munster. The alignment would be elevated on structure from 45th Street over the Canadian National Railway (CN) Elsdon Subdivision railroad. North of the CN railroad, the new track will be elevated on embankment or at-grade to downtown Hammond. The new line will bridge over the Pennsy Greenway and the Little Calumet River, and pass under I-80. North of Sibley Street in downtown Hammond, the rail line would be elevated on structures across the Grand Calumet River and over the CSX railroad, before connecting with the existing SSL near State Line Road.

Four new stations would be constructed along the alignment: Munster/Dyer Main Street Station at the southern terminus, Munster Ridge Road Station, South Hammond Station at 173rd Street, and Hammond Gateway Station near the northern terminus. Each station would include station platforms, parking facilities, benches, trash receptacles, bicycle racks, and other site furnishings. Shelter buildings would be located at Munster/Dyer Main Street and Hammond Gateway Stations only.

A maintenance and storage facility would be constructed along west side of the new rail line and north of the Grand Calumet River. This facility would consist of a maintenance shop building, an employee welfare and

administrative area, rail car wash building, substation, yard storage tracks, and maintenance of way open storage area.

Project documents are available at the Project's website: http://www.nictdwestlake.com/resources/.

Regulatory Compliance

NICTD and the Federal Transit Administration evaluated the Project under the National Environmental Policy Act and approved the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) on March 1, 2018. The United States Army Corps of Engineers (USACE) was a cooperating agency for the FEIS/ROD. The Project would impact Waters of the United States and therefore requires a Section 404 Individual Permit from the USACE, Chicago District, and a Section 401 Water Quality Certification from Indiana Department of Environmental Management pursuant to the Clean Water Act. Additionally, Project activities would occur at a flood control levee system constructed as a USACE civil project and requires USACE review under Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408. United States Fish and Wildlife Service (USFWS) and Indiana Department of Natural Resources (INDNR) determined the Project would have no effect on federal or state protected resources.

The FEIS/ROD can be found at the Project's website: http://www.nictdwestlake.com/resources/. The Section 404 Individual Permit Application is enclosed for your reference as Attachment 2. Attachment 3 contains the Section 401 Water Quality Certification application cover letter and application form. The remainder of the Section 401 application submitted to IDEM is the same as the Section 404 application. USFWS and INDNR coordination can be found in Attachments 4 and 5 of the Section 404 application. The initial design completion package for USACE Section 408 review is included in Attachment 6 of the Section 404 application.

Schedule

The Project is funded by the FTA's New Starts program. The close-out date for the grant is 9/30/2028. Construction is anticipated to begin October 2021 and be completed by September 2024.

Additional supporting materials include the following attachments:

- Attachment 1: Figures
- Attachment 2: Section 404 Individual Permit Application
- Attachment 3: Section 401 Water Quality Certification cover letter and Indiana State Form 51821

If you have any questions or require further information, please contact me at chris.beck@nictd.com or Aimee King at aimee.king@jacobs.com.

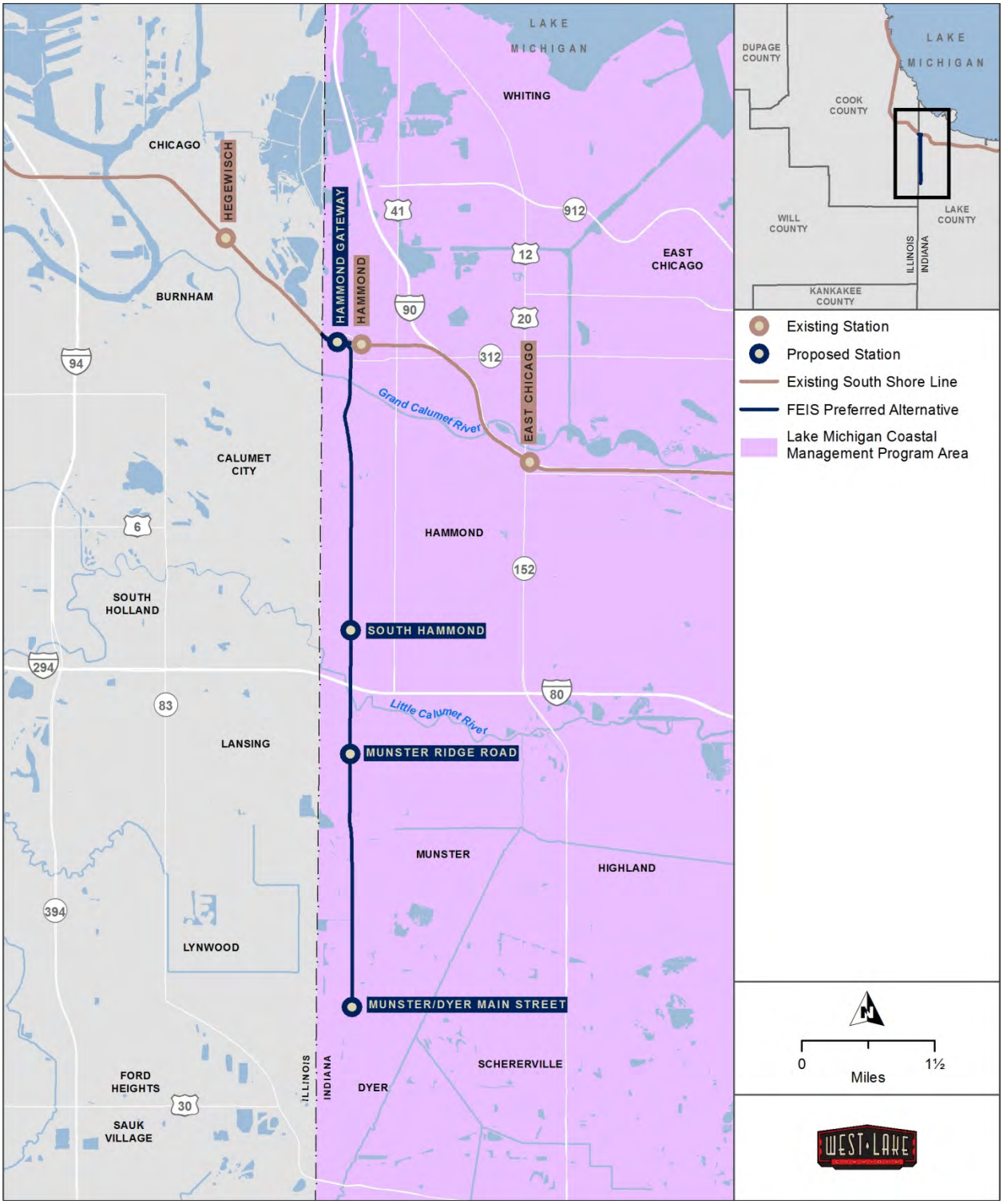
Regards,

Michael Rowe **(Deputy PM - for Chris Beck)**

Chris Beck
Project Manager

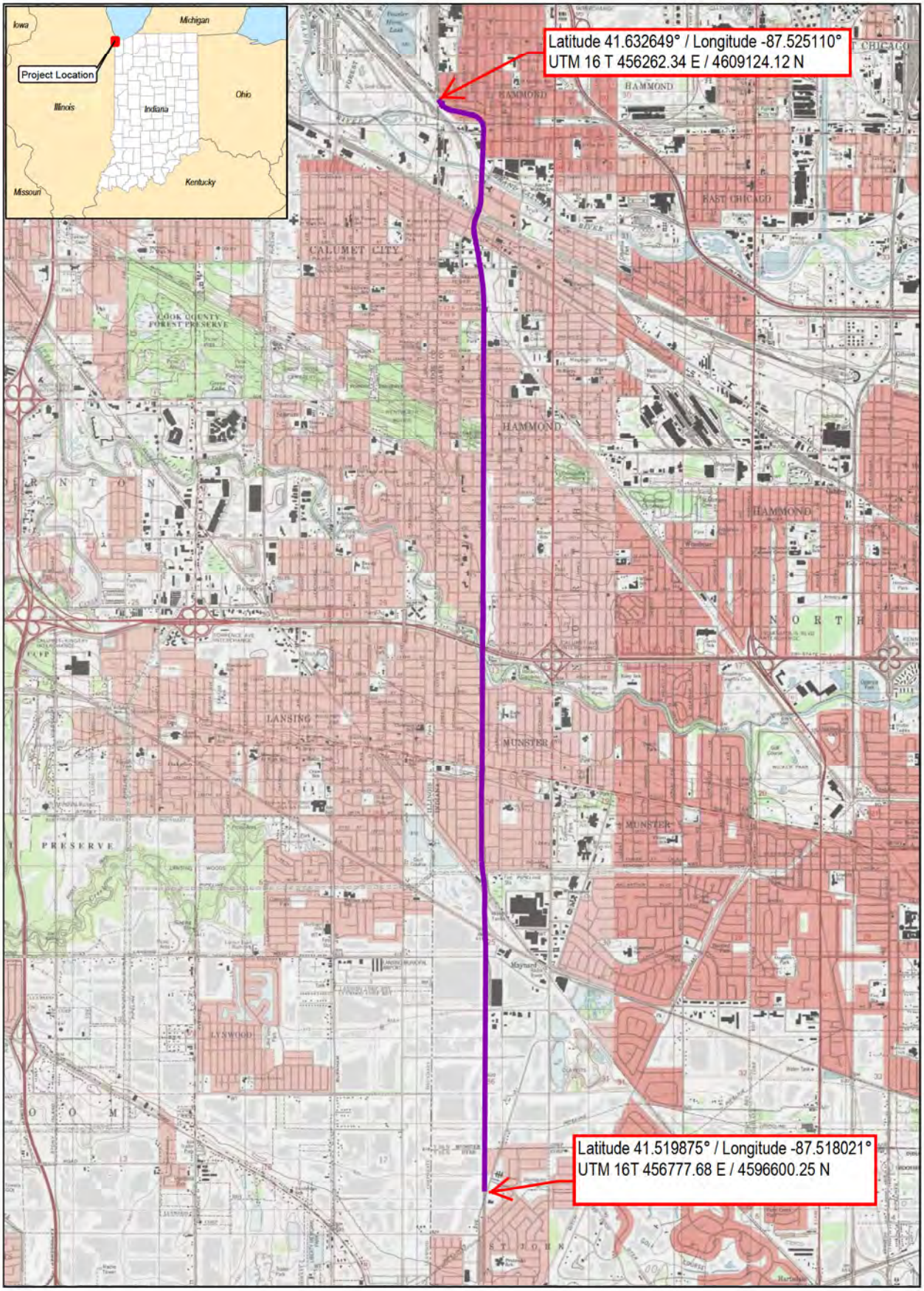
Attachment 1
Figures

Figure 5.7-2: Overview of Coastal Zones in the Environmental Survey Area



Source: HDR 2017a.

Figure 1
Project Location in the Lake Michigan Coastal Program
West Lake Corridor Project
Northern Indiana Commuter Transportation District



Legend

Proposed Alignment

N

0 1,750 3,500 7,000

Feet

Imagery Source: ESRI USA Topo Maps online mapping service
USGS 7.5 minute topographic quadrangles:
Highland, IN (published 1981)
Calumet City, IN/IL (published 1981)
Lake Calumet, IN/IL (published 1974)
Whiting, IN (published 1981)

Figure 2
Project Location Map
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Attachment 2
Section 404 Permit Application

Northern Indiana Commuter Transportation District
33 East U.S. Highway 12
Chesterton, IN 46304

P 219 926 5774

Mr. Paul Leffler
U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
Indiana Team Leader
231 South LaSalle Street, Suite 1500
Chicago, Illinois 60604

Mr. Colin Smalley
U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
Section 408 Coordinator and Regulatory Project Manager
231 South La Salle Street, Suite 1500
Chicago, Illinois 60604

December 18, 2020

Subject: Section 404 Permit Application and Section 408 Approval Request, Northern Indiana Commuter Transportation District, West Lake Corridor Project, Lake County, Indiana; LRC-2016-529

Dear Mr. Leffler and Mr. Smalley,

The Northern Indiana Commuter Transportation District (NICTD) is submitting this Individual Permit Application Package for construction activities associated with the proposed West Lake Corridor Project in Lake County, Indiana (Project), in compliance with Section 404 of the Clean Water Act. Additionally, as part of this application package, NICTD is including the initial design (base technical concept) completion milestone package for United States Army Corps of Engineers (USACE) review per the proposed Section 408 Review Plan. The Project location is shown on Figure 1 in Attachment 1.

Project Description & Schedule

NICTD proposes to construct an approximately 8-mile southern extension to the South Shore Line commuter rail line, between the Town of Dyer and the City of Hammond, Indiana. The Project includes construction of four new stations along the alignment. The purpose of the Project is to increase transportation options for central and southern Lake County residents traveling to downtown Chicago and surrounding areas, to reduce travel time and travel costs, and to promote economic development opportunities in Lake County. NICTD and the Federal Transit Administration evaluated the Project under the National Environmental Policy Act and approved the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) on March 1, 2018. The USACE was a cooperating agency for the FEIS/ROD and, in their January 9, 2018 letter, concurred with the FEIS/ROD (Attachment 2). The FEIS/ROD can be found at http://www.nictdwestlake.com/resources/.

Construction in the areas with wetland impacts is anticipated to begin October 2021 and be completed by September 2024. NICTD received funding from the Federal Transit Administration's New Starts program for the Project. The close-out date for the grant is September 30, 2028.

USACE Jurisdictional Determination

Scientists performed wetland investigations and delineations for the Project in September and October 2015 and May, June, and August 2017. The Water Resources Technical Report (WRTR), which describes the delineations, can be found in Appendix G7 of the FEIS/ROD at the Project's website http://www.nictdwestlake.com/resources/. The USACE Chicago District Regulatory Branch provided their jurisdictional determination and wetland boundary concurrence on August 25, 2017 (Attachment 2). The USACE took jurisdiction over all but seven of the delineated wetlands within the Project study area. Of the seven wetlands excluded from federal jurisdiction, two (Wetlands 12 and 17) were located along the Project's final alignment. The USACE excluded these wetlands from federal jurisdiction as they were determined to be man-made for use as stormwater retention or detention basins. Indiana's definition (as defined in Indiana Code 13-11-2-265) of waters of the state excludes "any private pond or any off-stream pond, reservoir, or facility built for reduction or control of pollution." Therefore, Wetlands 12 and 17 are not included in the federal and state permitting applications.

Water Resources Impact and Mitigation Summary

The Project will impact 15 jurisdictional wetlands resulting in a total permanent fill of 2.36 acres and temporary impact of 0.74-acre. Impacts to jurisdictional wetlands are shown on Figures 2 and 3 in Attachment 1 and detailed in Table 1 in the attached ENG Form 4345 Supplementary Responses. None of the wetlands impacted qualify as high-quality aquatic resources (see page 2-13 of the WRTR, Appendix G7 Part 1 at the Project's website: http://www.nictdwestlake.com/resources/).

As stated in the September 13, 2017, email (Attachment 2), the USACE typically requires jurisdictional palustrine emergent wetlands to be mitigated at a minimum 1.5:1 ratio, and jurisdictional palustrine forested wetlands to be mitigated at a 3:1 ratio. Using the mitigation ratios identified in the September 13 email, a total of 5.12 acres of mitigation are anticipated to be required (Table 1). NICTD will use the Indiana Department of Natural Resource's (INDNR's) In-Lieu Fee program to meet these mitigation requirements.

Table 1. Mitigation Calculation Summary

Cowardin Class	Impacted Acreage	Mitigation Ratio	Mitigated Acreage
PEM	1.31	1.5:1	1.97
PFO	1.05	3:1	3.15
Total	2.36	Total	5.12

The full summary of commitments and mitigation measures for water resources are on page A-18 of Attachment A of the FEIS/ROD, which can be found at the Project's website http://www.nictdwestlake.com/resources/. Temporarily affected areas will be restored to pre-construction contours, and the site will be reseeded and stabilized after construction in accordance with the procedures and protocols listed in Section 205 (Stormwater Management) of the Indiana Department of Transportation's 2020 Standard Specifications.[1]

[1] https://www.in.gov/dot/div/contracts/standards/book/sep19/sep.htm

Evaluation of Alternatives

Three routes were considered, each with three to four variations, for a total of 11 build alternatives. One route (Hammond Alternative 2) was identified as the preferred alternative in the Draft Environmental Impact Statement (DEIS) and the FEIS. All alternatives similarly met the project's purpose and need, but Hammond Alternative 2 performed best among the alternatives when considering the other factors of importance including freight railroad impacts, operational perspectives, and community preferences. Additionally, Hammond Alternative 2 would cause the least damage to the biological and physical environment while best protecting, preserving and enhancing cultural, historic and natural resources. A table comparing the build alternatives, plus a no-build alternative, using performance ratings on the variety of factors, is on page 10-11 of Chapter 10 of the FEIS/ROD, which can be found at the Project's website http://www.nictdwestlake.com/resources/. Hammond Alternative 2 was slightly modified between the DEIS and FEIS to further avoid or minimize impacts on the natural, developed and cultural environments, including wetlands. Pages 10-12 and 10-13 of Chapter 10 include a summary of how the modifications made between the DEIS and the FEIS further reduce environmental impacts.

Regulatory Compliance

Section 106 of the Historic Preservation Act of 1966

The Project does not adversely affect archaeological resources listed on or eligible for inclusion in the National Register of Historic Places as none were identified in the Project area. However, the Project does adversely affect one National Register of Historic Places-eligible property, the O.K. Champion building, as a result of the demolition of the building. The Indiana State Historic Preservation Office concurrence letter regarding the effects determinations on archaeological and historic properties is included in Attachment 3. The Federal Transit Administration, Indiana State Historic Preservation Office, and NICTD signed a Memorandum of Agreement in December 2017 (Attachment 3). The Memorandum of Agreement details mitigation measures NICTD is required to take to mitigate for the adverse effect on the O.K. Champion building. NICTD submitted the draft Historic American Building Survey documentation for the O.K. Champion building to the National Park Service for review on December 4, 2020.

Section 7 of the Endangered Species Act

The Project team coordinated with U.S. Fish and Wildlife Service (USFWS) to determine if the Project would affect any federally protected species. In their November 4, 2014 letter, USFWS stated that none of the species listed in Lake County are known to occur within the proposed Project corridor, and therefore, no further surveys will be necessary. An additional letter from USFWS dated September 26, 2017 confirms that no federally protected species are within the Project footprint and further surveys will not be necessary. USFWS's letters can be found in Attachment 4.

The Project team also coordinated with INDNR to determine if the Project would affect any state protected species. In their initial letter signed November 7, 2014, INDNR did not identify any state protected species in the Project corridor. INDNR again documented that there were no state protected resources in the Project corridor in their letter signed February 3, 2017. However, in their letter signed November 1, 2017, they stated that Bebb's sedge (Carex bebbii), a state threatened plant, could potentially be found in the Project area and that measures should be implemented to minimize any impacts to this species. Bebb's sedge, which can grow only in wetland habitats, was found in a ditch wetland and disturbed mesic/wetland woods in the Project corridor (see Chapter 5 and Appendix G11 of the FEIS, which can be found at the Project's website http://www.nictdwestlake.com/resources/). As noted on page A-19 of Attachment A of the FEIS/ROD, measures were taken to avoid potential impacts to

Bebb's sedge during Project design by avoiding impacts to wetlands wherever possible. INDNR's letters can be found in Attachment 5.

Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408

NICTD has requested that USACE assess and provide approval for the Project under Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408. The project includes relocating an existing pedestrian bridge and constructing a new rail bridge across the Little Calumet River. The river is bordered by a flood control levee system constructed as a USACE civil project. NICTD is requesting a multi-phased review approach in accordance with Engineer Circular 1165-2-220, "Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408" (reference paragraph 10.c in Engineer Circular 1165-2-220). Per the proposed review plan, the initial design (base technical concept) completion package for the Section 408 review is included in this Section 404 Individual Permit Application (see Attachment 6).

Adjacent Landowners

A table of landowners adjacent to the affected wetlands and waterways can be found in Attachment 7.

The USACE Engineering Form 4345 and associated supplementary responses directly follow this letter. Additional supporting materials include the following attachments:

- Attachment 1: Figures
- Attachment 2: USACE Correspondence
- Attachment 3: Section 106 of the Historic Preservation Act of 1966 Compliance
- Attachment 4: Section 7 of the Endangered Species Act Compliance
- Attachment 5: INDNR Coordination
- Attachment 6: Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408 Initial Design (Base Technical Concept) Completion Package
- Attachment 7: Adjacent Landowners

If you have any questions about this submittal, please contact me or Robert Hook, authorized agent, at the phone numbers or email addresses indicated on the application form.

Regards,

Christopher Beck

Chris Beck
Project Manager

ENG Form 4345

U.S. Army Corps of Engineers (USACE)

APPLICATION FOR DEPARTMENT OF THE ARMY PERMIT

33 CFR 325. The proponent agency is CECW-CO-R.

Form Approved - OMB No. 0710-0003 Expires: 02-28-2022

PRIVACY ACT STATEMENT

Authorities: Rivers and Harbors Act, Section 10, 33 USC 403; Clean Water Act, Section 404, 33 USC 1344; Marine Protection, Research, and Sanctuaries Act, Section 103, 33 USC 1413; Regulatory Programs of the Corps of Engineers; Final Rule 33 CFR 320-332. Principal Purpose: Information provided on this form will be used in evaluating the application for a permit. Routine Uses: This information may be shared with the Department of Justice and other federal, state, and local government agencies, and the public and may be made available as part of a public notice as required by Federal law. Submission of requested information is voluntary, however, if information is not provided the permit application cannot be evaluated nor can a permit be issued. One set of original drawings or good reproducible copies which show the location and character of the proposed activity must be attached to this application (see sample drawings and/or instructions) and be submitted to the District Engineer having jurisdiction over the location of the proposed activity. An application that is not completed in full will be returned. System of Record Notice (SORN). The information received is entered into our permit tracking database and a SORN has been completed (SORN #A1145b) and may be accessed at the following website: http://dpcld.defense.gov/Privacy/SORNsIndex/DOD-wide-SORN-Article-View/Article/570115/a1145b-ce.aspx

(ITEMS 1 THRU 4 TO BE FILLED BY THE CORPS)

1. APPLICATION NO.	2. FIELD OFFICE CODE	3. DATE RECEIVED	4. DATE APPLICATION COMPLETE

(ITEMS BELOW TO BE FILLED BY APPLICANT)

5. APPLICANT'S NAME	8. AUTHORIZED AGENT'S NAME AND TITLE (agent is not required)
First - Chris Middle - Last - Beck	First - Robert Middle - Last - Hook
Company - Northern Indiana Commuter Transportation District	Company - Jacobs Engineering Group
E-mail Address - chris.beck@nictd.com	E-mail Address - robert.hook@jacobs.com
6. APPLICANT'S ADDRESS:	9. AGENT'S ADDRESS:
Address- 33 East U.S. Highway 12	Address- 2 Crowne Point
City - Chesterton State - IN Zip - 46304 Country -	City - Cincinnati State - OH Zip - 45241 Country - USA
7. APPLICANT'S PHONE NOs. w/AREA CODE	10. AGENTS PHONE NOs. w/AREA CODE
a. Residence b. Business 219-926-5744 ext. 301 c. Fax	a. Residence 937-477-2408 b. Business c. Fax

STATEMENT OF AUTHORIZATION

11. I hereby authorize, Robert Hook/Jacobs Eng. to act in my behalf as my agent in the processing of this application and to furnish, upon request, supplemental information in support of this permit application.

Christopher Beck — SIGNATURE OF APPLICANT

01/12/2021 — DATE

NAME, LOCATION, AND DESCRIPTION OF PROJECT OR ACTIVITY

12. PROJECT NAME OR TITLE (see instructions)
West Lake Corridor Project

13. NAME OF WATERBODY, IF KNOWN (if applicable)	14. PROJECT STREET ADDRESS (if applicable)
Little Calumet River, various wetlands	Address
15. LOCATION OF PROJECT	City - State- Zip-
Latitude: ◦N 41.5782 Longitude: ◦W 87.5178	

16. OTHER LOCATION DESCRIPTIONS, IF KNOWN (see instructions)

State Tax Parcel ID Municipality Towns of Dyer and Munster; City of Hammond, IN

Section - Township - 35N, 36N, 37N Range - 10W

17. DIRECTIONS TO THE SITE

From the USACE Chicago office, head north on S LaSalle St, then turn left onto W Adams St. In 0.2 miles, turn right onto S Franklin St, then in 0.2 miles, turn left onto W Madison St. In 0.5 miles, turn left to merge onto I-90 E/I-94 E. Continue on I-90E for 19.7 miles, then take exit 5 for US-41/Calumet Ave. Continue straight onto 142nd St. In 0.5 miles, turn left onto Sheffield Ave, then take an immediate right to continue on 142nd St. Take the first left onto Wabash Ave and continue for 0.4 miles, then turn right onto Brunswick St. The northern terminus of the project is in 0.2 miles on the right.

Please see attached map for additional detail.

18. Nature of Activity (Description of project, include all features)

Please see supplementary responses.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

The overall purpose of the Project is to increase transportation options for central and southern Lake County residents traveling to downtown Chicago and surrounding areas, to reduce travel time and travel costs, and to promote economic development opportunities in Lake County.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

Please see supplementary responses.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards

Please see supplementary responses.

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres Please see supplementary responses.

or

Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Please see supplementary responses.

24. Is Any Portion of the Work Already Complete? ☐ Yes ☒ No IF YES, DESCRIBE THE COMPLETED WORK

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address- Please see Attachment 7.

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
Please see attached.					

* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

Christopher Beck — SIGNATURE OF APPLICANT

01/12/2021 — DATE

Robert A. Hess — SIGNATURE OF AGENT

12/04/2020 — DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than $10,000 or imprisoned not more than five years or both.

ENG Form 4345
Supplementary Responses

BLOCK 18. NATURE OF ACTIVITY

The Northern Indiana Commuter Transportation District (NICTD) proposes to construct an approximately 8-mile southern extension to the South Shore Line commuter rail line, between the Town of Dyer and the City of Hammond, Indiana (Project). The new rail embankment will impact 15 wetlands, resulting in a total permanent fill of 2.36 acres and temporary impact of 0.74-acre. The Project alignment crosses two waterways: the Grand Calumet River and the Little Calumet River. The bridge over the Grand Calumet River will span the waterway and will have no piers, abutments, or temporary impacts in the river channel (see Figure 3). The Project will construct two bridges at the Little Calumet River. The Project will relocate the existing Monon Trail pedestrian bridge over the river channel to new piers located to the east and build a new rail bridge at the current location of the Monon Trail pedestrian bridge. The existing Monon Trail pedestrian bridge piers will be removed. The newly constructed bridge, piers, and scour protection measures will have permanent and temporary impacts to Wetland 1 and Wetland 4 adjacent to the Little Calumet River. Retaining walls will extend between the abutments of the WLC rail bridge and the end bents of the pedestrian bridge, and wing walls will extend from the abutments and the end bents to the levees and the flood wall to minimize the embankment fill on the river side of the levees and flood wall. See additional description of the Little Calumet River crossings in Attachment 6.

BLOCK 20. REASON(S) FOR DISCHARGE

Within the constraints of rail line construction, the Project route minimizes impact to wetlands and waterways through the utilization of existing ROW and paralleling or using an existing rail line. This route also minimizes floodplain impacts and is preferred for other important factors including freight railroad impacts, transit rail operations, and community preferences, as discussed in Chapter 10 of the FEIS/ROD, Evaluation of Alternatives, which can be found at the Project's website http://www.nictdwestlake.com/resources/.

A large portion of the project will be constructed on embankment in accordance with NICTD design standards. Wetlands along the line will necessarily be filled by the embankment. Side slopes will be 2:1 in these areas to minimize wetland impacts. At some locations, such as crossings of roadways and other rail lines, the commuter rail will be elevated on structure. A long, elevated structure over another rail line will limit the amount of fill in Wetlands 32 and 37. The new rail will cross the Grand Calumet River and the Little Calumet River. The bridge will clear span the Grand Calumet River. Bridge piers for the new rail bridge and a relocated pedestrian bridge will impact wetlands adjacent to the Little Calumet River but will not be placed in the river channel.

BLOCKS 21 AND 22. TYPES OF MATERIAL BEING DISCHARGED AND THE AMOUNT OF EACH TYPE IN CUBIC YARDS AND SURFACE AREAS IN ACRES OF WETLANDS/OTHER WATERS FILLED

The Project will impact 15 wetlands resulting in a total permanent fill of 2.36 acres and temporary impact of 0.74-acre; the impact to each wetland is documented in Table 1. The detailed wetland and water resources report can be found in Appendix G7 of the FEIS/ROD at the Project's website http://www.nictdwestlake.com/resources/. Avoidance, minimization, compensatory mitigation, and restoration protocols are described in Block 23.

The only streams crossed by the Project are the Grand Calumet River and the Little Calumet River. See additional photographs of the rivers below. The track will span these waterways and will have no piers or abutments in the river channel. The relocated Monon Trail pedestrian bridge will use new support structures that will fully span the river. No abutments, piers, or sheet pile walls will be constructed in the river channel.

Table 1. Impacted Jurisdictional Wetlands

Wetland Number	Cowardin Wetland Type	Total Size (Acres)	Permanent Impact				Mitigation		Acres of Temporary Impact for Construction Access and Staging	Figure 2 Grid Number
			Impact	Fill (Material)	Fill (cy)	Acres	Ratio	Acres		
W1	PEM	0.23	Rail Bridge; Trail Bridge	Clean Earth Fill; Rock Channel Protection/Rip Rap	145	0.09	1.5:1	0.14	0.01	7
W2	PFO	0.12	Track; Trail	Clean Earth Fill	81	0.05	3:1	0.15	-	7
W3	PEM	0.11	Trail	Clean Earth Fill	177	0.11	1.5:1	0.17	-	7
W4*	PFO	0.17	Rail Bridge; Trail Bridge	Clean Earth Fill; Rock Channel Protection/Rip Rap	274	0.17	3:1	0.51	-	7
W5*	PEM	0.09	Track	Clean Earth Fill	145	0.09	1.5:1	0.14	-	7 and 8
W6	PFO	0.45	Trail	Clean Earth Fill	97	0.06	3:1	0.18	-	7 and 8
W7	PEM	0.66	-	-	-	-	-	-	0.66	8
W11	PEM	0.07	Track; Access Road	Clean Earth Fill	113	0.07	1.5:1	0.11	-	3
W32	PEM	2.67	Rail Bridge; Retaining Wall	Clean Earth Fill	1,420	0.88	1.5:1	1.32	-	5 and 6
W33	PEM	0.70	Track; Retaining Wall	Clean Earth Fill	97	0.06	1.5:1	0.09	-	6
W34	PFO	0.55	Track; Retaining Wall	Clean Earth Fill	81	0.05	3:1	0.15	0.07	6
W36	PEM	0.77	Rail Bridge	Clean Earth Fill	16	0.01	1.5:1	0.02	-	4
W37*	PFO	0.35	Rail Bridge	Clean Earth Fill	565	0.35	3:1	1.05	-	4 and 5
W38*	PFO	0.33	Station Parking Lot	Clean Earth Fill	532	0.33	3:1	0.99	-	1
W39	PFO	0.45	Station Parking Lot	Clean Earth Fill	65	0.04	3:1	0.12	-	2
Total	**-**	**7.72**	**-**	**-**	**3,808**	**2.36**	**-**	**5.12**	**0.74**	**-**

PEM = palustrine emergent, PFO = palustrine forested, cy = cubic yards

*Per Appendix G7 of the Final Environmental Impact Statement/Record of Decision, if over half a wetland was permanently impacted, it was considered a full impact.

Grand Calumet River at the proposed NICTD crossing, from the Hohman Avenue Bridge, facing west.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing north.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing northwest.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing northeast.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing south.

BLOCK 23. DESCRIPTION OF AVOIDANCE, MINIMIZATION, AND COMPENSATION

NICTD will seek to avoid and minimize impacts to the onsite wetland and waterbody resources to the extent possible. Erosion and sediment control plans will be included with the contract drawings to prevent or reduce the displacement of soil and other sediments via stormwater runoff within the land development area. The Project alignment minimizes impacts to wetlands by utilizing existing ROW and paralleling an existing rail line; between the DEIS and FEIS, design was changed to avoid 3 wetlands, including moving a storage yard and redesign of a parking lot.

In accordance with state law and Municipal Separate Storm Sewer System requirements for each of the local jurisdictions, a stormwater pollution prevention plan will be developed for the Project before the start of construction activities. The plan will include provisions for placement of sediment and erosion controls at all locations where soil disturbance activities will be conducted in and adjacent to waters of the U.S. These erosion controls will be designed to prevent sediment-laden water from flowing offsite into adjacent wetlands and waterways. NICTD is committed to the use of appropriate best management practices (BMPs) to minimize stormwater pollution and any erosion/sedimentation-related impacts at the site. As a result, there should be minimal to no adverse impact to the environment related to development and operation of the proposed Project outside of the proposed impact area. Temporarily affected areas will be restored to pre-construction contours, and the site will be reseeded and stabilized after construction in accordance with the procedures and protocols listed in Chapter 205 (Temporary Erosion and Sediment Control) of the Indiana Department of Transportation-2012 Design Manual. The Design-Builder shall manage water encountered during construction in accordance with the Stormwater Management and Clean Water Regulations Ordinance of Lake County, Indiana (Ordinance No. 1365C, revised

October 8, 2013) and the Lake County Stormwater Technical Standards Manual, and meet the requirements of Indiana Department of Environmental Management's (IDEM's) Rule 13.

This Project will result in a cumulative total of 2.36 acres of permanent unavoidable wetland impact. Because permanent impacts are greater than 0.1 acre, a compensatory mitigation plan is required for the Project. USACE stated that jurisdictional palustrine emergent wetlands would be required to be mitigated at a minimum 1.5:1 ratio, and jurisdictional palustrine forested wetlands would need to be mitigated at a 3:1 ratio, for a total of 5.12 acres of mitigated wetlands (see Attachment 2). NICTD will use the Indiana In-Lieu Fee program to meet these mitigation requirements.

BLOCK 26. OTHER AGENCIES APPROVALS/PERMITS NEEDED

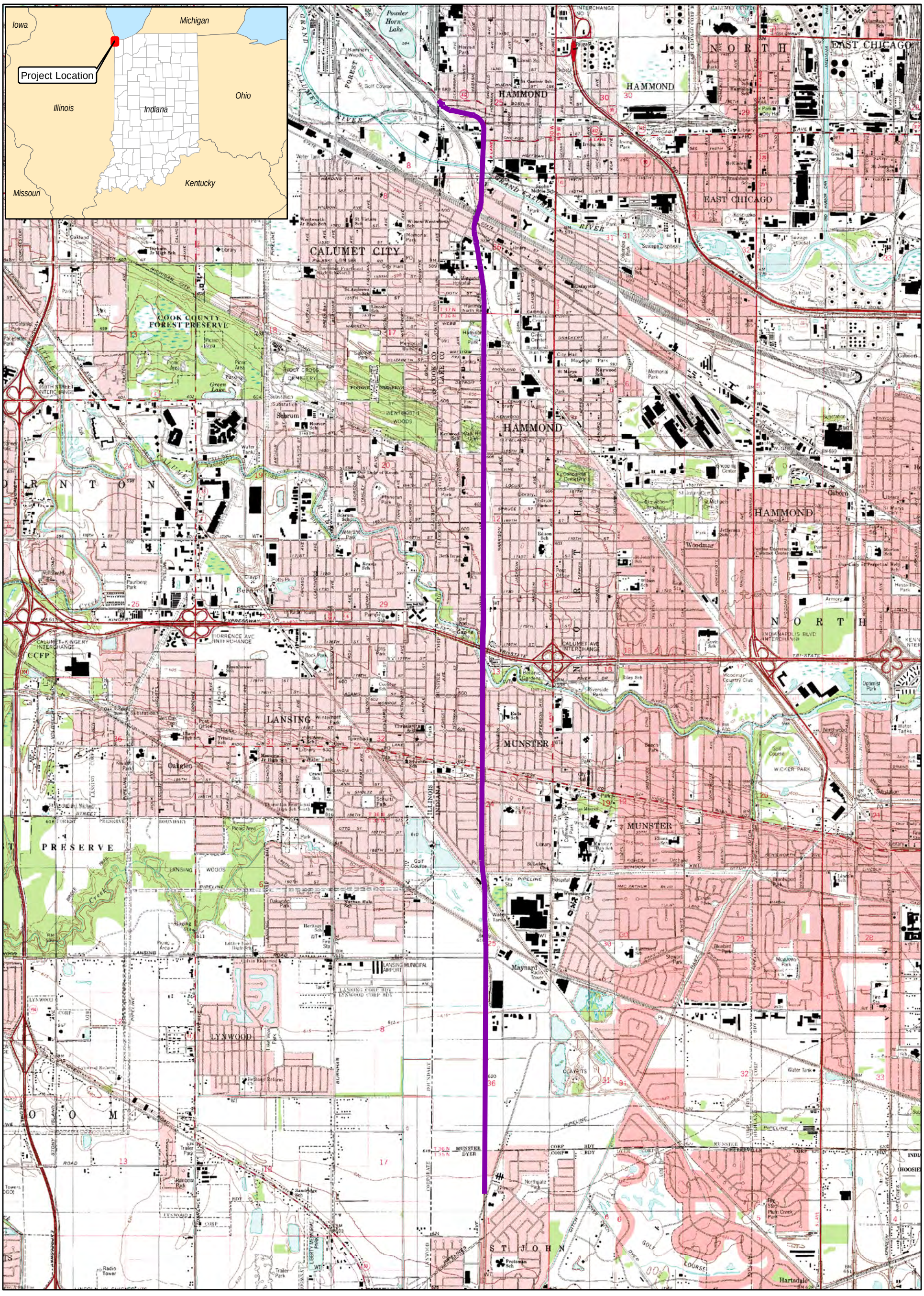
The USACE Jurisdictional Determination letter is Attachment 2; other correspondence letters are in Attachments 3 and 4. Table 2 lists the environmental permit applications or authorizations that NICTD has obtained or is in the process of obtaining.

Table 2. List of Certificates and Approvals

Agency/Permit	Type Approval	ID Number	Date Applied	Date Approved	Date Denied
USACE Section 404 Individual Permit	Permit	LRC-2016-529	12/2020	Ongoing	N/A
IDEM Section 401 Water Quality Certificate	Permit	TBD	12/2020	Ongoing	N/A
USACE Section 408	Approval	LRC-2016-529	TBD	Ongoing	N/A
U.S. Fish and Wildlife Service Section 7 of Endangered Species Act Consultation	Concurrence	N/A	9/30/2014	9/26/2017	N/A
Indiana Department of Natural Resources Early Coordination/Environmental Assessment	Concurrence	ER-17897	10/6/2014	11/1/2017	N/A
DHPA Section 106 of the National Historic Preservation Act Consultation	Concurrence	DHPA No. 16774	3/31/2016	11/7/2017	N/A
IDEM National Pollutant Discharge Elimination System General Construction Permit	Permit	TBD	TBD	TBD	N/A
INDNR Division of Nature Preserves Lake Michigan Coastal Program – Coastal Zone Management Act Federal Consistency Determination	Permit	TBD	TBD	TBD	N/A
INDNR Division of Water, Technical Services Section – Floodway Permit for Little Calumet River	Permit	TBD	TBD	TBD	N/A
INDNR Division of Water, Technical Services Section – Floodway Permit for Grand Calumet River (Possible)	Permit	TBD	TBD	TBD	N/A

DHPA = Indiana Department of Natural Resources, Division of Historic Preservation & Archaeology
INDNR = Indiana Department of Natural Resource
N/A = not applicable
TBD = to be determined

Attachment 1
Figures



Legend

Proposed Alignment

Figure 1
USGS Topographic Map
West Lake Corridor Dyer to Hammond, IN
Northern Indiana Commuter Transportation District, Chesterton, IN

N

0 1,750 3,500 7,000
Feet

Imagery Source: ESRI USA Topo Maps online mapping service
USGS 7.5 minute topographic quadrangles:
Calumet City, IN/IL (published 1996)
Lake Calumet, IN/IL (published 1996)

Jacobs

Figure 2
Wetland Impacts
Track Plans

LEGEND

- EXISTING TRACK TO REMAIN AS IS
- EXISTING TRACK TO BE REMOVED
- EXISTING TRACK TO BE SHIFTED
- EXISTING TRACK TO BE SURFACED
- SHIFTED TRACK
- 5+00 PROPOSED TRACK
- FUTURE TRACK
- PROPOSED POWER OPERATED TURNOUT
- PROPOSED HAND-THROW TURNOUT
- FUTURE HAND-THROW TURNOUT
- PROPOSED DUAL SWITCH POINT DERAIL
- PROPOSED ELECTRIC LOCK TURNOUT
- PROPOSED CULVERT EXTENSION
- CONSTRUCTION LIMITS
- 5+00 PROPOSED SHARED-USE PATH BASELINE
- COMM COMMUNICATION LINE
- OHP EXISTING OVERHEAD POWER LINE
- EXISTING FENCE
- SS EXISTING SANITARY SEWER
- SS PROPOSED SANITARY SEWER
- OHF OVERHEAD FIBER
- FO EXISTING FISER OPTIC
- FO UG EXISTING UNDERGROUND FIBER OPTIC
- FO UG PROPOSED UNDERGROUND FIBER OPTIC
- FO OH EXISTING OVERHEAD FIBER OPTIC
- FO OH PROPOSED OVERHEAD FIBER OPTIC
- G EXISTING GAS LINE
- G PROPOSED GAS LINE
- PG EXISTING PETRO GAS LINE
- PG PROPOSED PETRO GAS LINE
- W EXISTING WATER LINE
- W PROPOSED WATER LINE
- E UG EXISTING UNDERGROUND ELECTRIC
- E UG PROPOSED UNDERGROUND ELECTRIC

- E OH EXISTING OVERHEAD ELECTRIC
- OHP PROPOSED OVERHEAD ELECTRIC
- TREE/SHRUB/VEGETATION
- EDGE OF GRAVEL
- PROPOSED RIGHT OF WAY
- PARCELS
- PROPOSED RETAINING WALL
- PROPOSED CONSTRUCTION EASEMENT
- TEMPORARY EASEMENT ON NPS PROPERTY
- ACCESS ROAD/TURNOUT PAD
- HIGH QUALITY WETLAND
- NON HIGH QUALITY WETLAND/UNDETERMINED
- STREAM OR DITCH
- RIP RAP
- ELECTRIC POLE
- COMMUNICATION POLE
- EXISTING CROSSING SIGNAL
- PROPOSED CROSSING SIGNAL
- GUARDRAIL
- SIGNS (NON-RAILROAD)
- GAS WARNING SIGN
- RAILROAD SIGN
- FIBER OPTIC MARKER
- WHISTLE POST SIGN

- LIGHT POLE
- FIRE HYDRANT
- RAIL SIGNAL (DWARF SIGNAL)
- TRAFFIC SIGNAL
- FIBER OPTIC HAND HOLE
- ELECTRIC METER
- E ELECTRIC PEDESTAL
- C COMMUNICATION PEDESTAL
- CONTROL POINT
- GRADE CROSSING PAVEMENT MARKING
- PEDESTRIAN CROSSING GATE
- EXISTING CROSSBUCK
- PROPOSED FENCE
- PROPOSED NOISE BARRIER WALL (1)

ABBREVIATIONS

ALG	ALIGNMENT	NIC	NOT IN CONTRACT
APPROX	APPROXIMATE	NICTD	NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
AVE	AVENUE	NIPSCO	NORTHERN INDIANA PUBLIC SERVICE COMPANY
B/L	BASE LINE	N.T.S.	NOT TO SCALE
BLDG	BUILDING	NO., #	NUMBER
BM	BENCH MARK	NS	NORFOLK SOUTHERN
BOC	BEGINNING OF CONSTRUCTION	OCS	OVERHEAD CATENARY SYSTEM
CB	CATCH BASIN	OFF	OFFSET
℄,C/L	CENTERLINE	OHP	OVERHEAD POWER
CMP	CORRUGATED METAL PIPE	OVH	OVERHEAD
CN	CANADIAN NATIONAL	PC	POINT OF CURVE
CONC	CONCRETE	PGL	PROFILE GRADE LINE
CONSTR	CONSTRUCTION	PI	POINT OF INTERSECTION
CS	CURVE TO SPIRAL	PITO	POINT OF INTERSECTION OF TURNOUT
CSS	CHICAGO SOUTH SHORE	PL	PLACE
CSXT	CSX TRANSPORTATION	POB	POINT OF BEGINNING
CWR	CONTINUOUSLY WELDED RAIL	POE	POINT OF ENDING
CY	CUBIC YARD	POTO	POWER OPERATED TURNOUT
Dc	DEGREE OF CURVE	PR, PROP	PROPOSED
DI	DUCTILE IRON	PS	POINT OF SWITCH
DIAM.	DIAMETER	PT	POINT OF TANGENCY, POINT
DOT	DEPARTMENT OF TRANSPORTATION	PVC	POINT OF VERTICAL CURVE
DSPD	DUAL SWITCH POINT DERAILS	PVI	POINT OF VERTICAL INTERSECTION
DWG	DRAWING	PVT	POINT OF VERTICAL TANGENCY
E	EASTING	R	RADIUS
Ea	SUPERELEVATION	RCB	REINFORCED CONCRETE BOX
EA	EACH	RE	RAILWAY ENGINEERED, AREMA APPROVED RAIL SECTION
E.L.	ELECTRIC LOCK	REQ	REQUIRED
ELEC	ELECTRICAL	REV	REVISION
ELEV, EL	ELEVATION	RH	RIGHT HAND
ENGR	ENGINEER	RR	RAILROAD
EOP	END OF PLATFORM	RT	RIGHT, ROUTE
EXIST, EX	EXISTING	R/W, ROW	RIGHT-OF-WAY
FOTS	FIBER OPTIC TRANSMISSION SYSTEM	S	SOUTH
FT	FOOT, FEET	SC	SPIRAL TO CURVE
FUT	FUTURE	SD	STORM DRAIN
G	GAS	SDG	SIDING
GTLT	GAUNTLET	SDWLK	SIDEWALK
GWY	GREENWAY	SF	SQUARE FOOT
GND	GROUND	SS	SANITARY SEWER, SOUTH SHORE or SPIRAL TO SPIRAL
HDPE	HIGH DENSITY POLYETHYLENE	SSL	SOUTH SHORE LINE (1)
HORZ	HORIZONTAL	STA	STATION
HTTO	HAND THROW TURNOUT	ST	STREET, SPIRAL TO TANGENT
HMA	HOT MIX ASPHALT	STD	STANDARD
IHB	INDIANA HARBOR BELT	STM, SD	STORM SEWER, STORM DRAIN
INV	INVERT	SW	SWITCH
LB	POUND	TEMP	TEMPORARY
Lc	LENGTH OF CURVE	TF	TRACK FOOT, TRACK FEET
LH	LEFT HAND	T.O.	TURNOUT
Ls	LENGTH OF SPIRAL	TOR	TOP OF RAIL
LIN FT, LF	LINEAR FOOT	TRK	TRACK
LLT	LAST LONG TIE	TS	TANGENT TO SPIRAL
LN	LANE	TYP, TYP.	TYPICAL
LOCO	LOCOMOTIVE	UG	UNDERGROUND
LT	LEFT	V	VELOCITY
MAX	MAXIMUM	VC	VERTICAL CURVE
MH	MANHOLE	W	WATER, WEST
MIN	MINIMUM	XOVER	CROSSOVER
MISC	MISCELLANEOUS	XING	CROSSING
MOW	MAINTENANCE OF WAY	YD	YARD
MP	MILEPOST		
N	NORTHING		

GENERAL NOTES

1. THE EXISTENCE, LOCATION, AND ELEVATION OF UTILITIES AND/OR CONCEALED STRUCTURES AT THE PROJECT SITE ARE NOT GUARANTEED. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXISTENCE, LOCATION, AND ELEVATION OF ALL SUCH UTILITIES AND/OR STRUCTURES AND IS RESPONSIBLE FOR NOTIFYING THE APPROPRIATE COMPANY, DEPARTMENT, OR PERSON(S) OF ITS INTENTION TO CARRY OUT ITS OPERATIONS.

HDR Engineering, Inc.
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ISSUE	DATE	DESCRIPTION
REV1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	NKS/ENL
DRAWN:	GCD/FM
CHECKED:	AD
DATE:	12/01/17

NOT FOR CONSTRUCTION

SERIES STGN-3 OF STGN-3

NICTD - WEST LAKE CORRIDOR - MP WL 61.30 TO WL 69.18
SINGLE TRACK

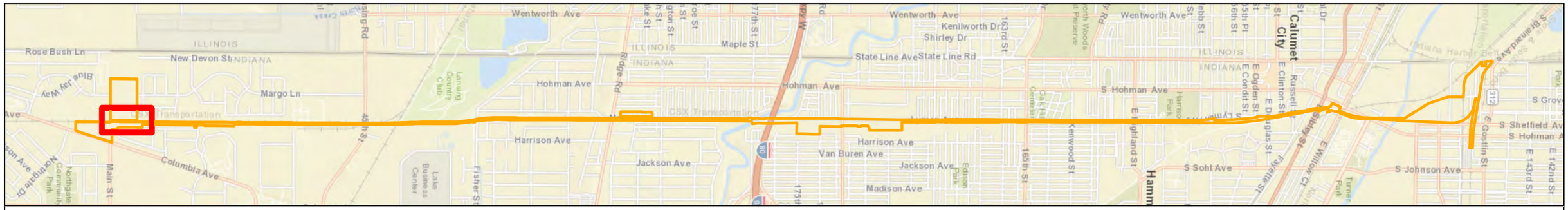
GENERAL NOTES, LEGEND, & ABBREVIATIONS TRACK

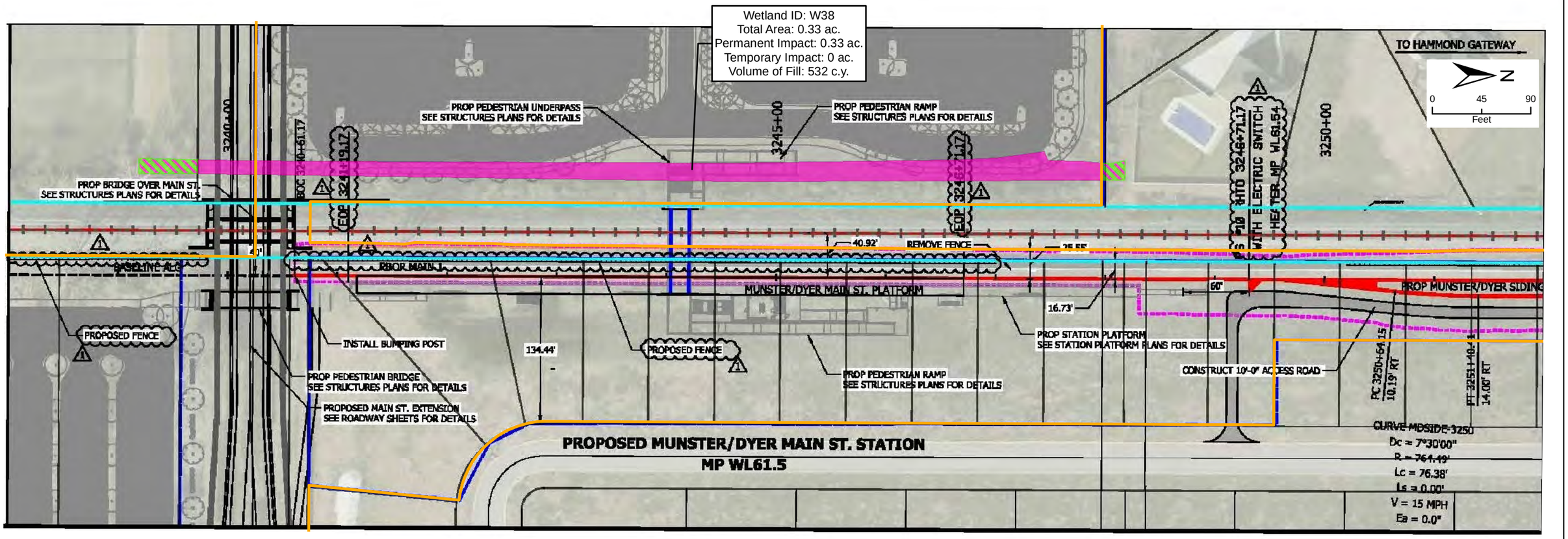
FILENAME
SCALE AS NOTED

SHEET 3 OF 117

Figure 2
General Notes, Legend, and Abbreviations
Track Plan
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source: West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019





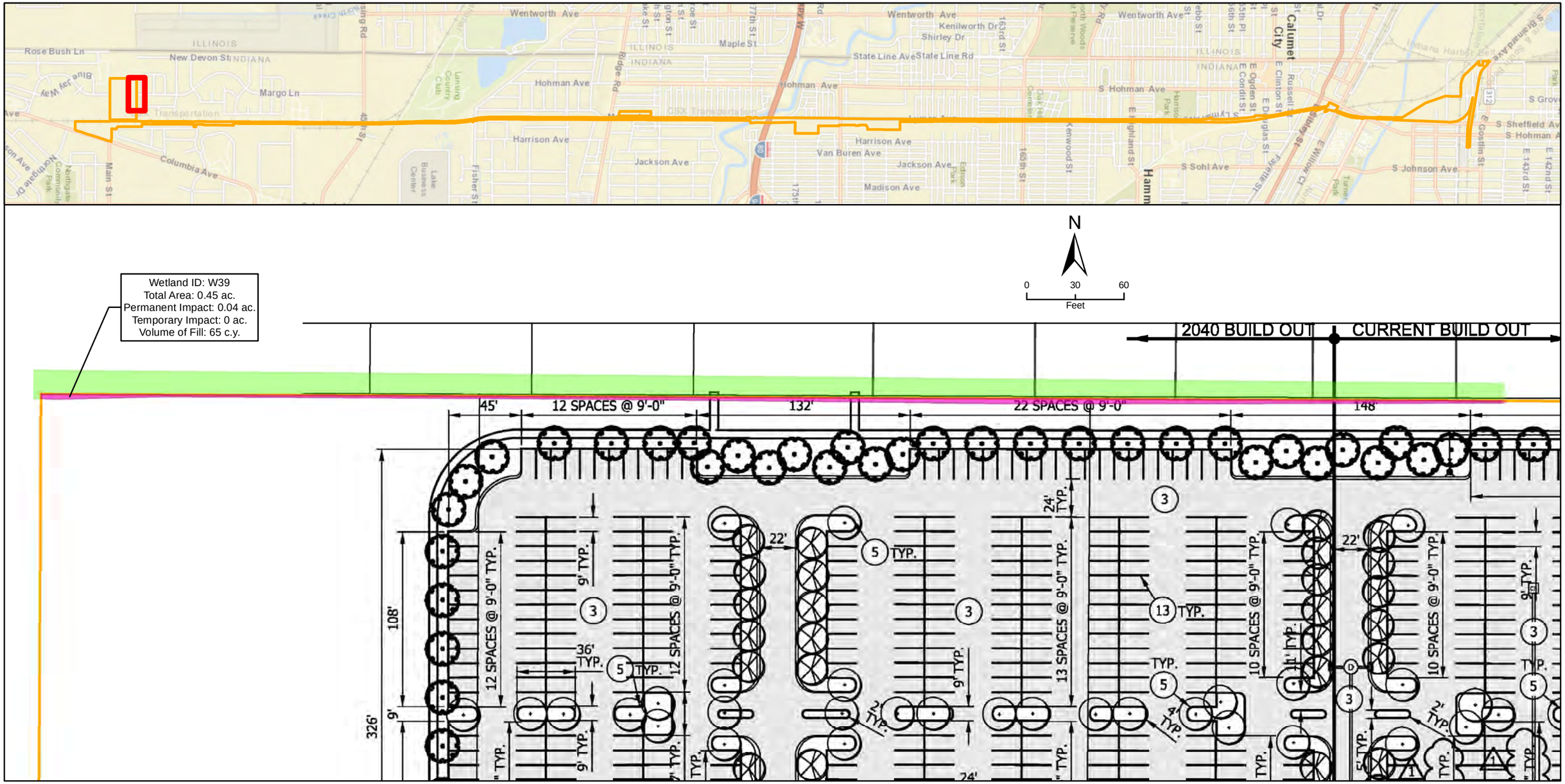
Legend

- Permanent, direct wetland impact
- Permanent, indirect wetland impact
- Project Footprint

Figure 2
(Grid 1 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019

Jacobs

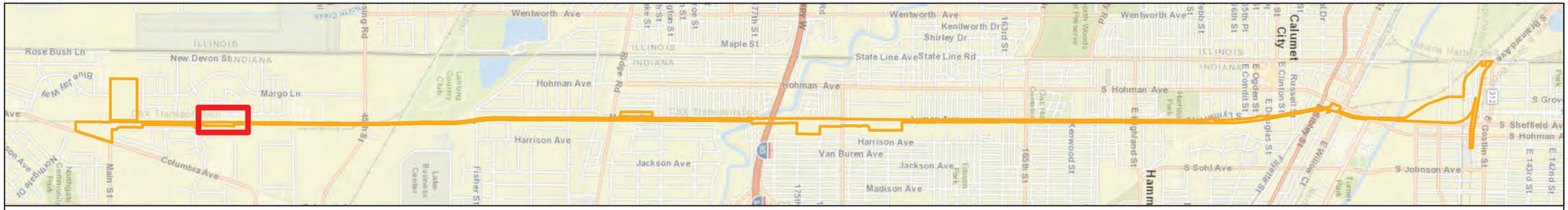


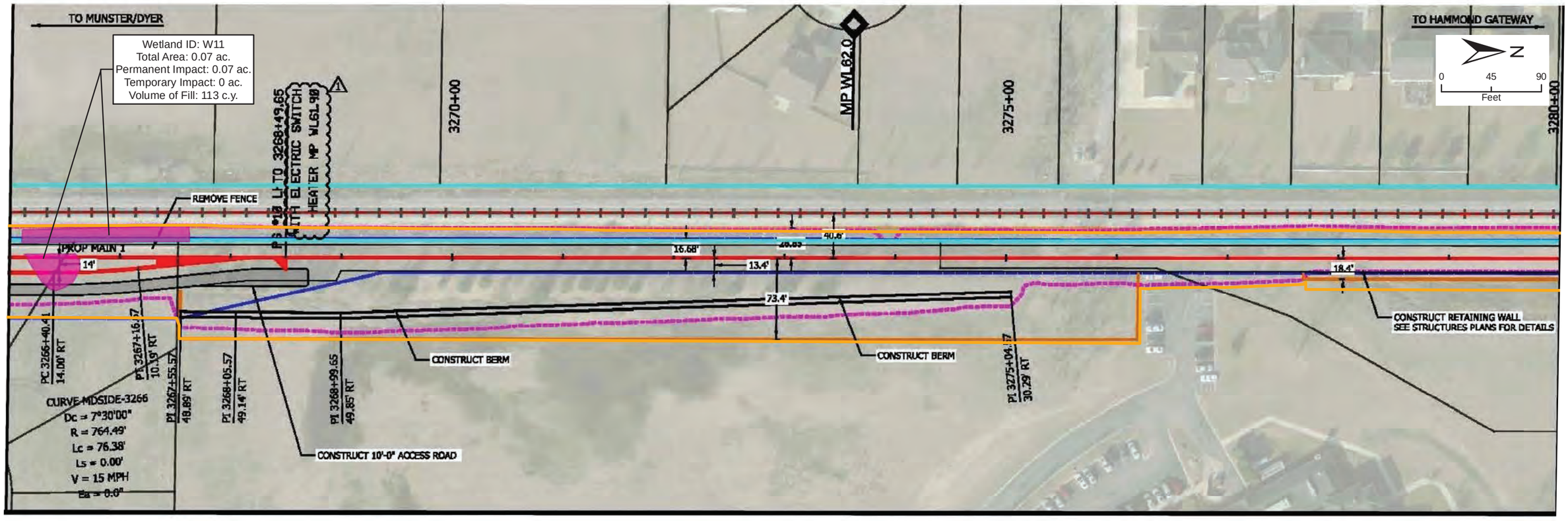
Legend

- Permanent, direct wetland impact
- No wetland impact
- Project Footprint

Figure 2
(Grid 2 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Stations Plans, Northern Indiana Commuter Transportation District, 2019





Legend

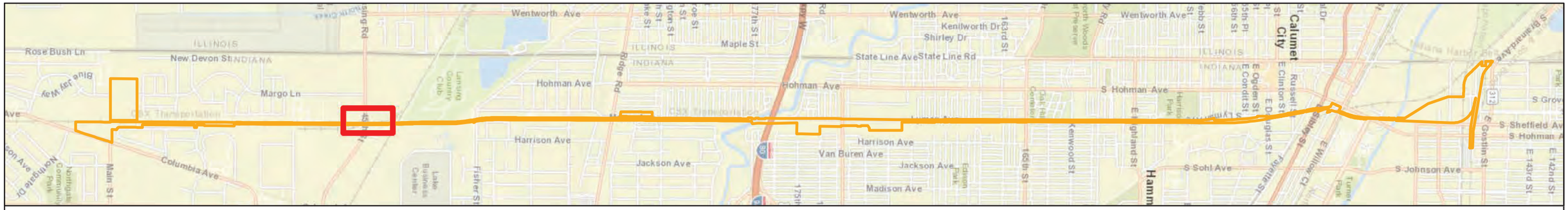
Permanent, direct wetland impact

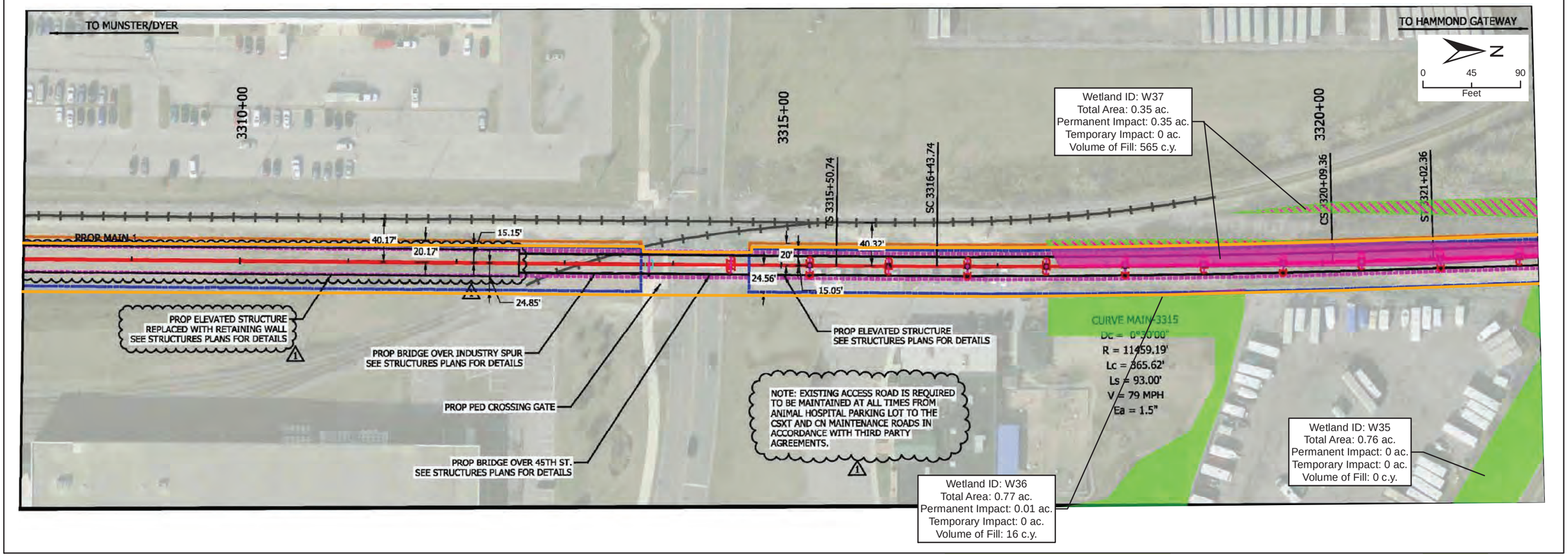
Project Footprint

Figure 2
(Grid 3 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019

Jacobs



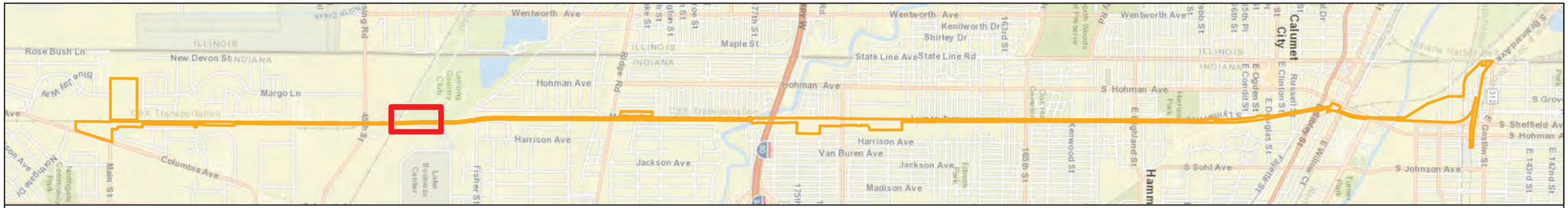


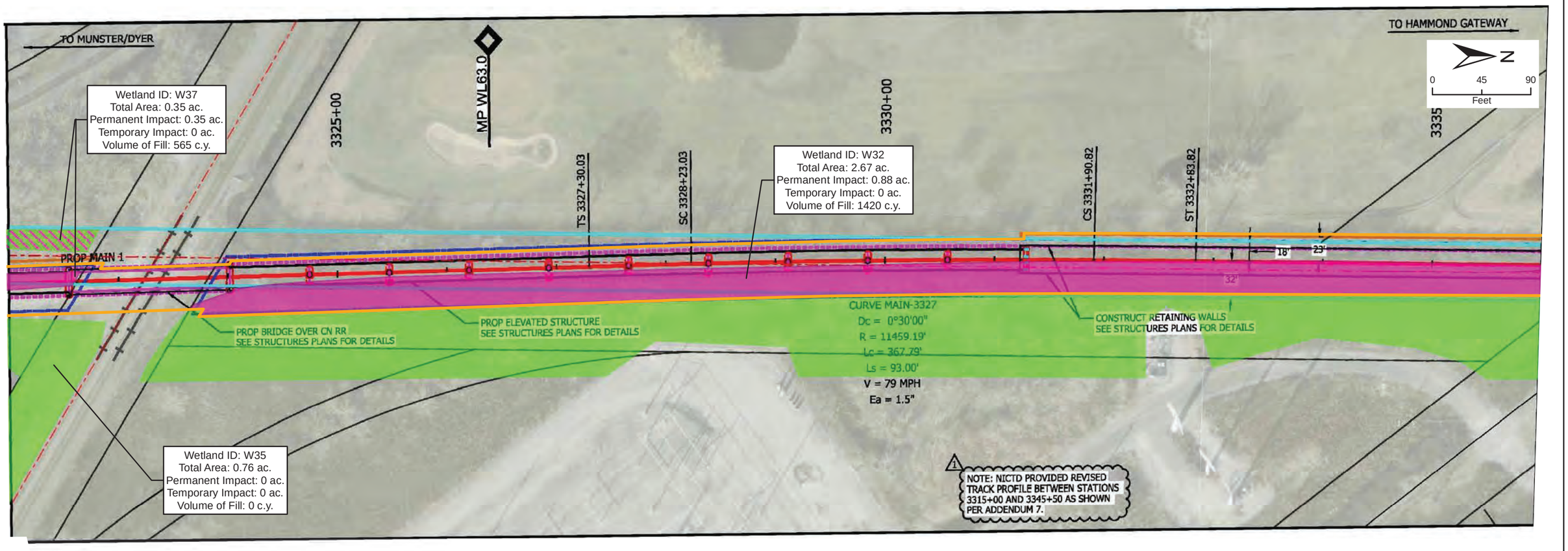
Legend

- Permanent, direct wetland Impact
- Permanent, indirect wetland impact
- No wetland impact
- Project Footprint

Figure 2
(Grid 4 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019





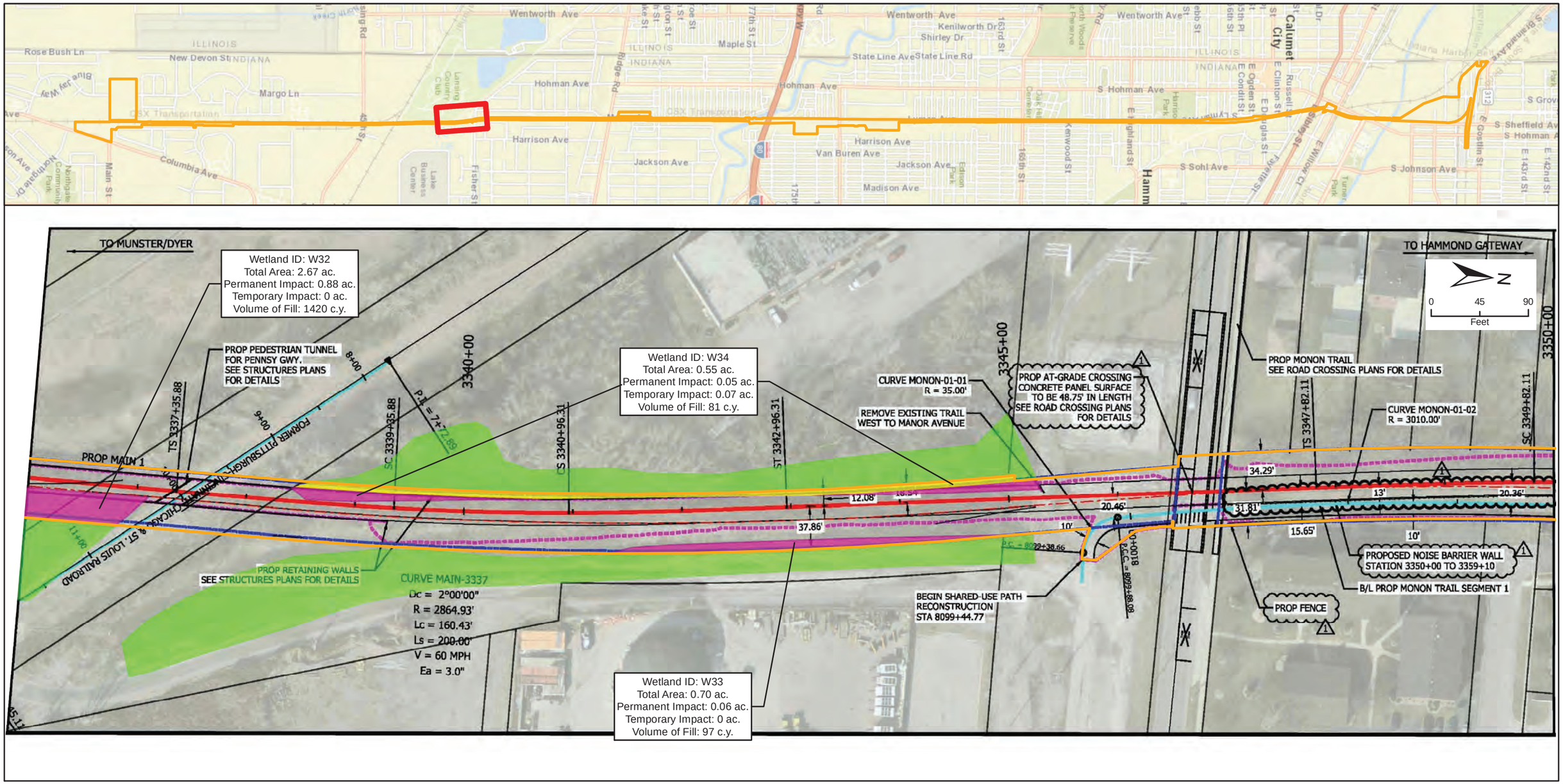
Legend

- Wetland Area of Impact
- Permanent, indirect wetland impact
- No wetland impact
- Project Footprint

Figure 2
(Grid 5 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019

Jacobs



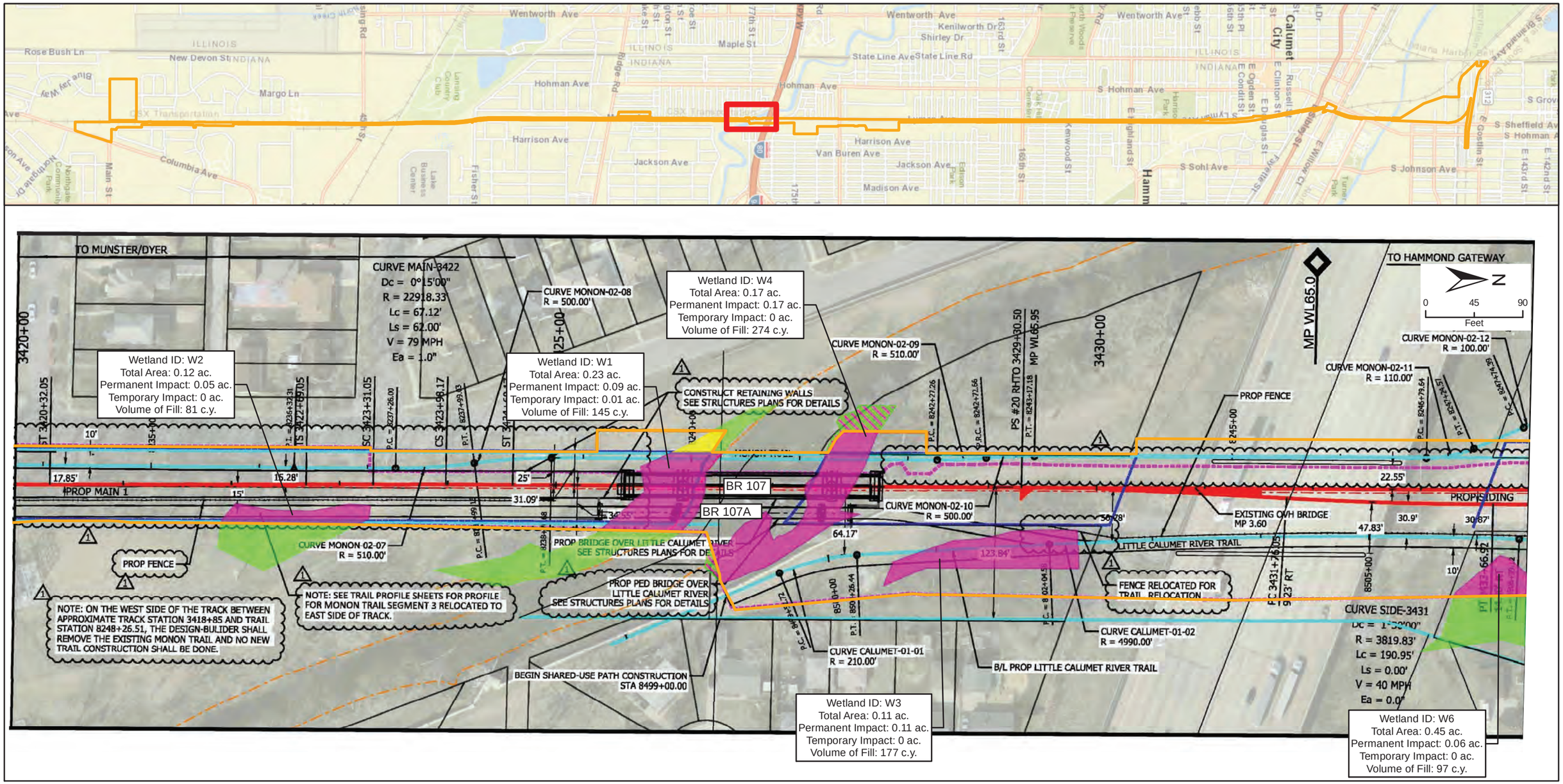
Legend

- Permanent, direct wetland impact
- Temporary, direct wetland impact
- No wetland impact
- Project Footprint

Figure 2
(Grid 6 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019

Jacobs

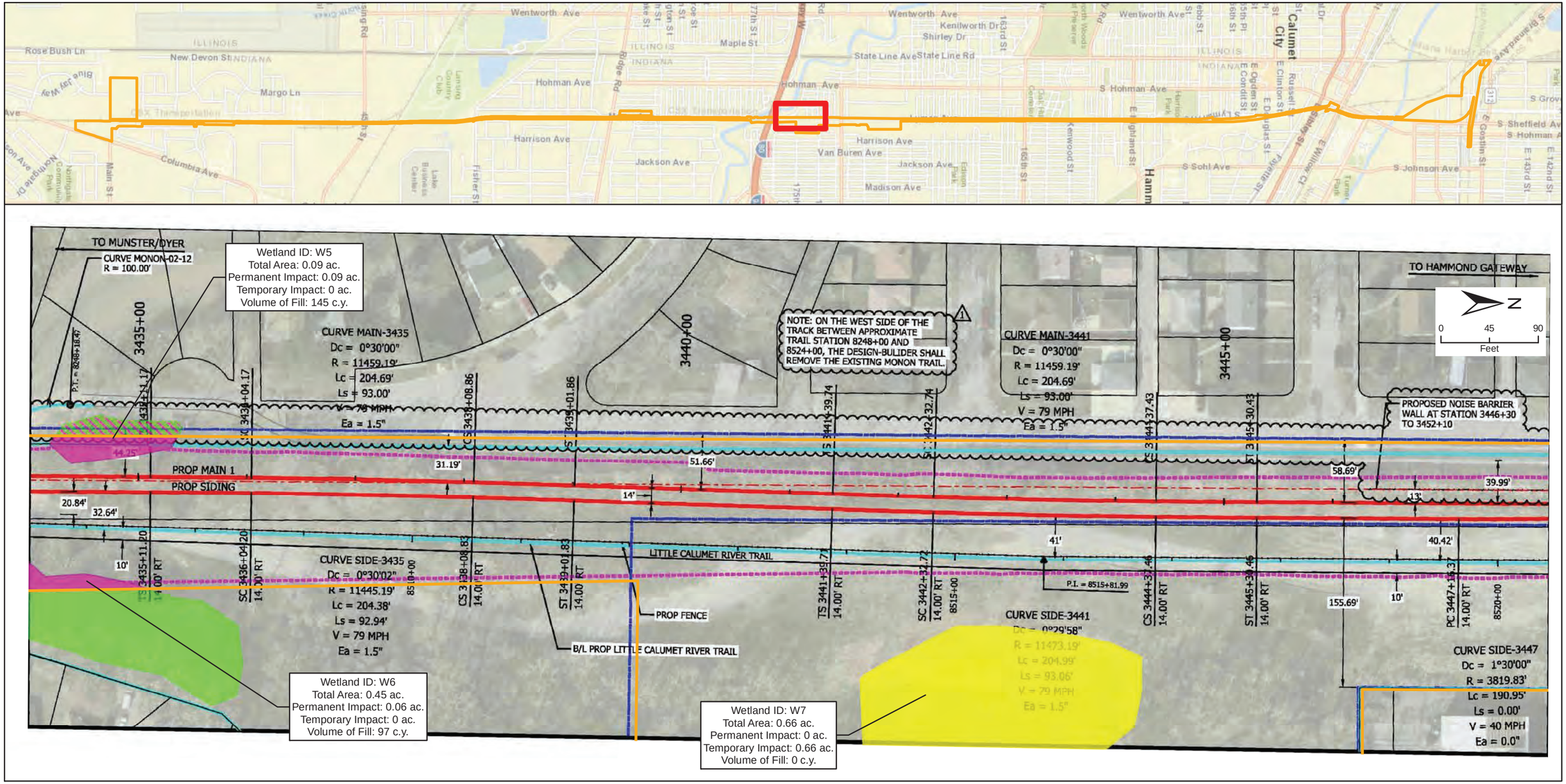


Legend

- Permanent, direct wetland impact
- Permanent, indirect wetland impact
- Temporary, direct wetland impact
- No wetland impact
- Project Footprint

Figure 2
(Grid 7 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019

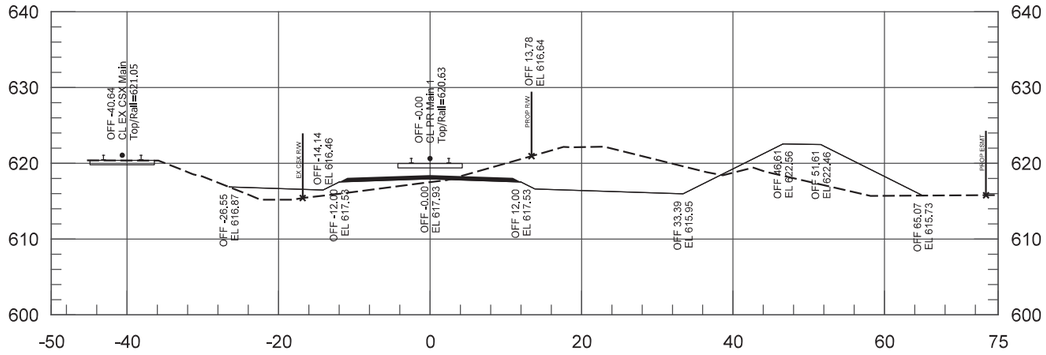


Legend

- Permanent, direct wetland impact
- Permanent, indirect wetland impact
- Temporary, direct wetland impact
- No wetland impact
- Project Footprint

Figure 2
(Grid 8 of 8)
Wetland Impacts
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Track Plans, Northern Indiana Commuter Transportation District, 2019



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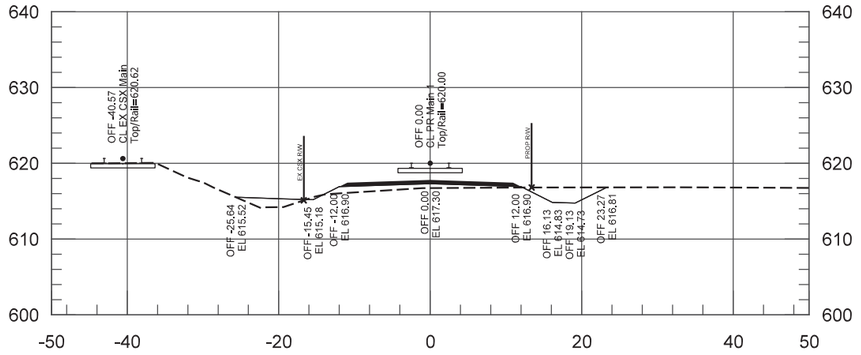

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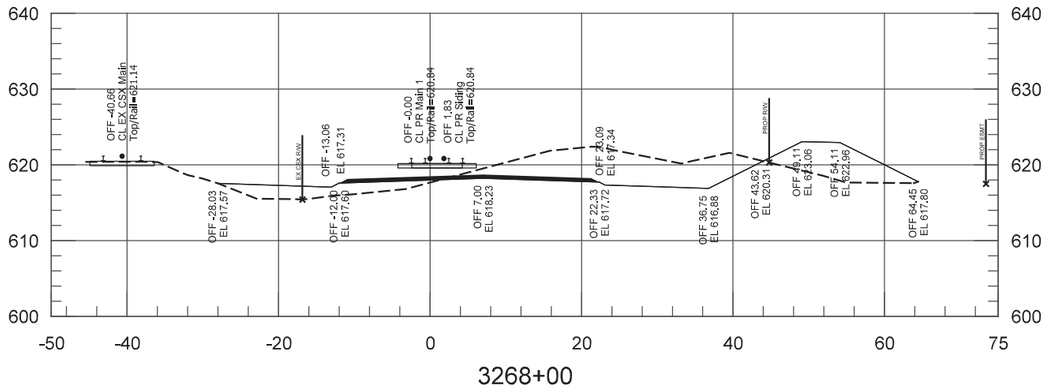

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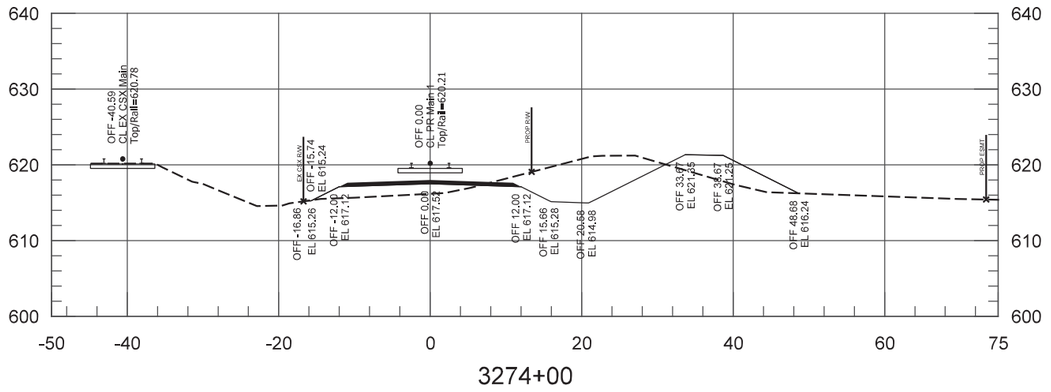

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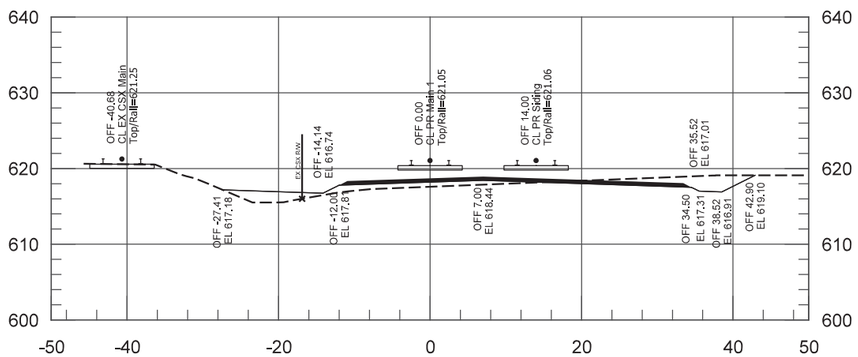
Cross Sections at W11



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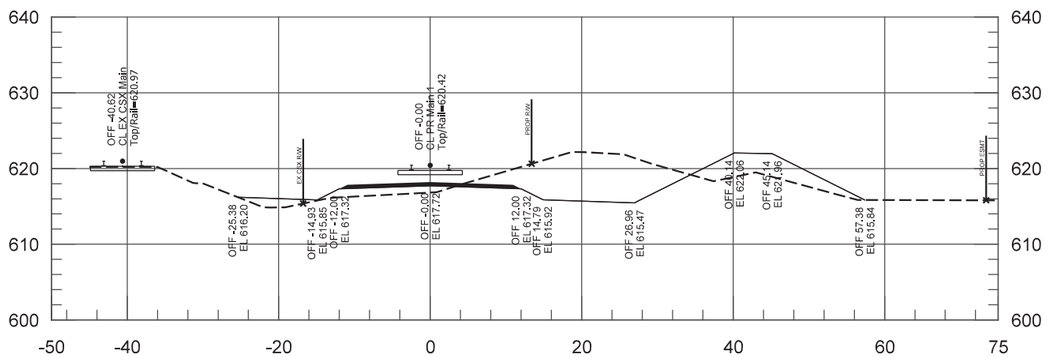


3272+00

FerranNJ

PLOT DATE: 12/10/2019 5:47:16 PM

NOT FOR CONSTRUCTION

SERIES TCKXS-3 OF TCKXS-48

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631

www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

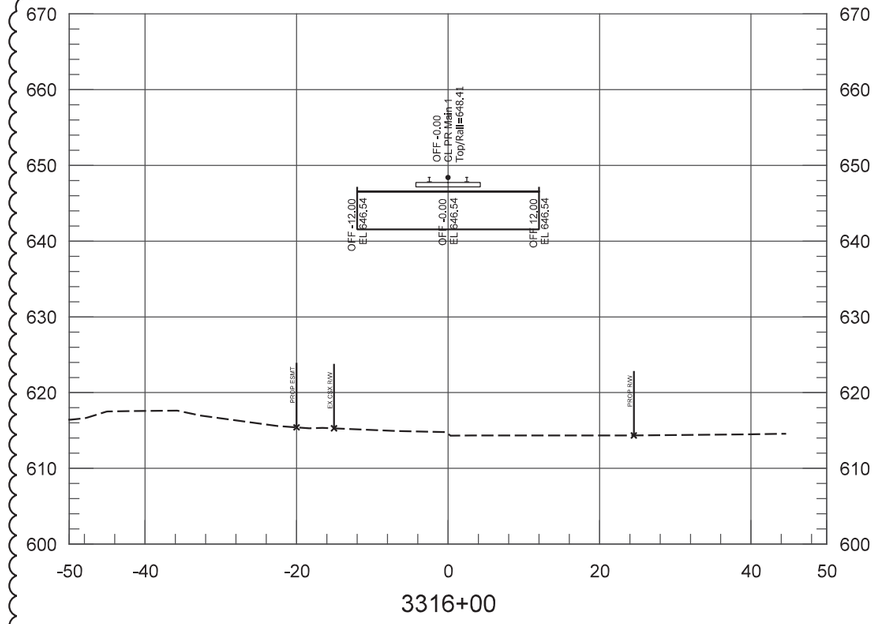
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

CROSS SECTIONS
STA 3266+00 TO STA 3276+00
TRACK

FILENAME

SCALE AS NOTED

SHEET 62 OF 117



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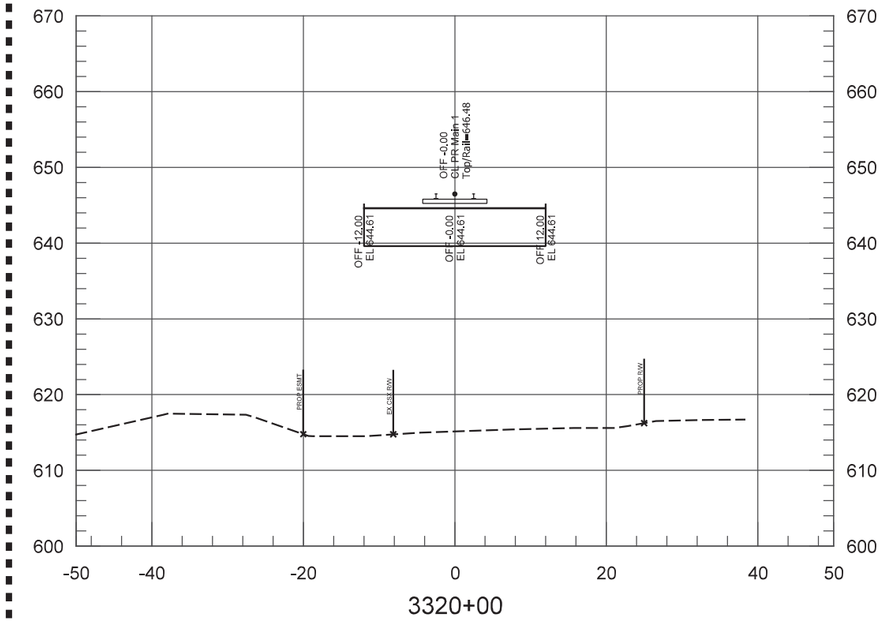

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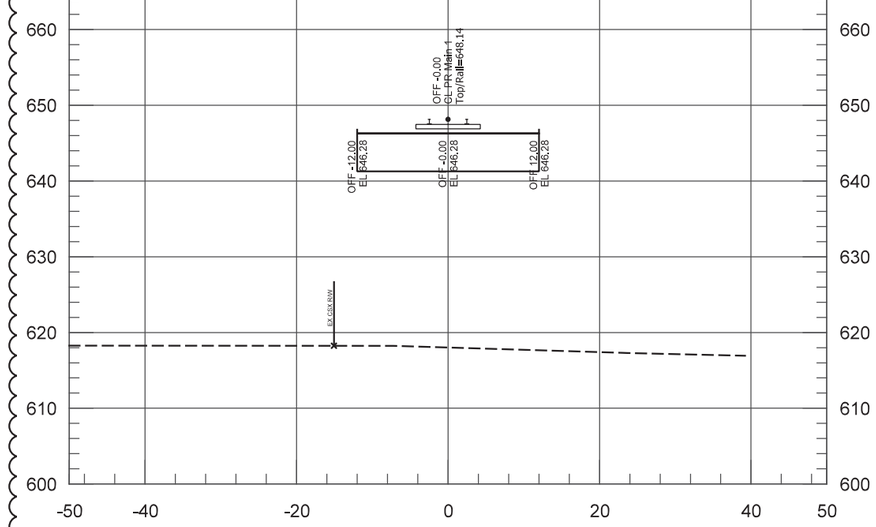

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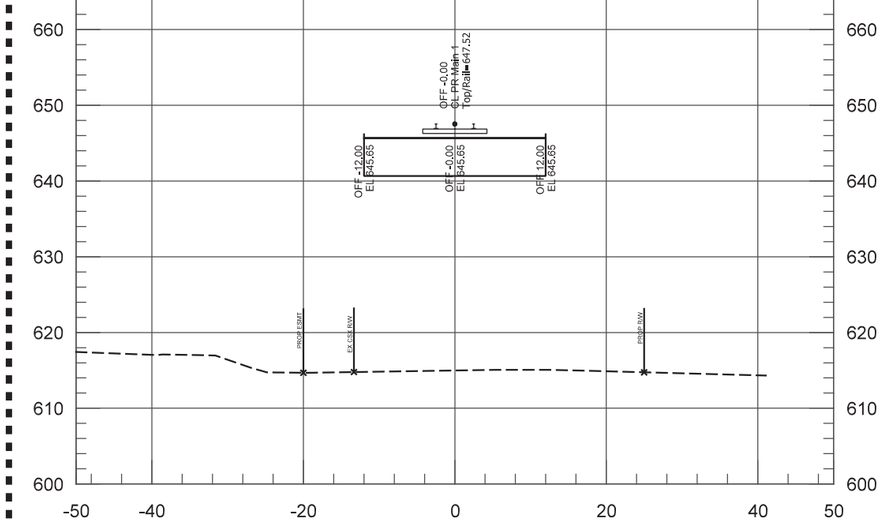

3318+00

Cross Sections at W37

NOT FOR CONSTRUCTION

SERIES TCKXS-9 OF TCKXS-48

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PLOT DATE: 12/10/2019 5:47:20 PM

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ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

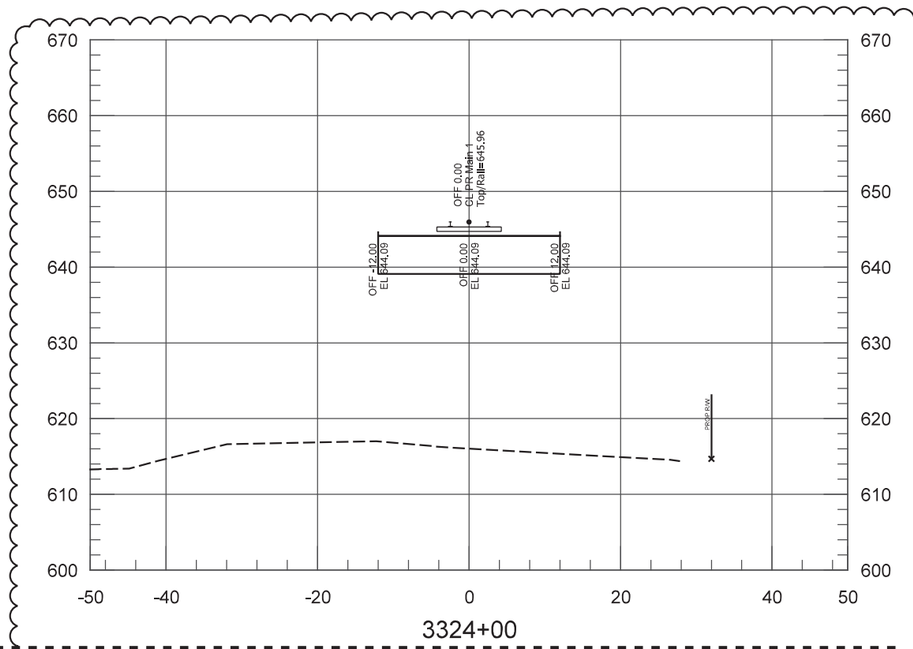
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

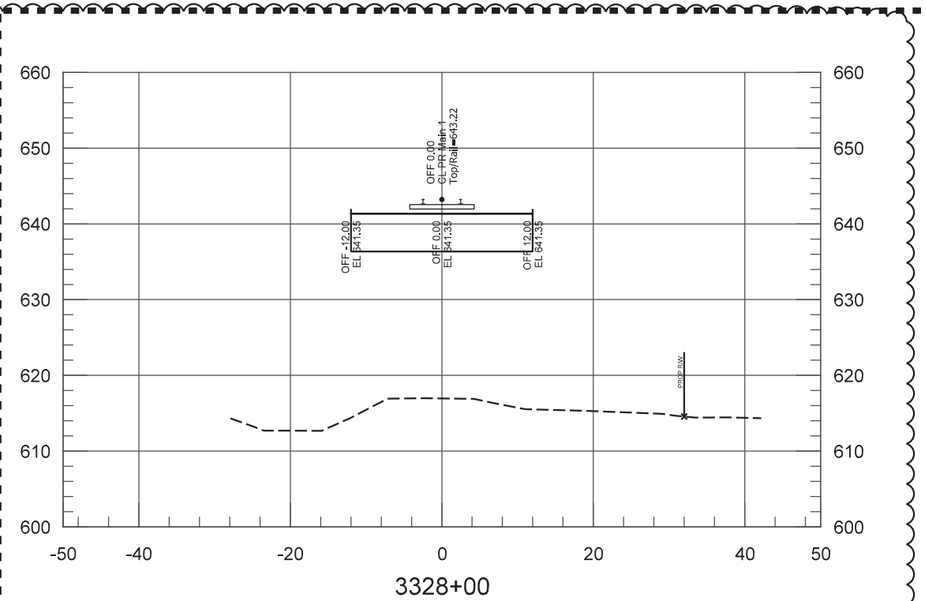
CROSS SECTIONS
STA 3314+00 TO STA 3320+00
TRACK

FILENAME

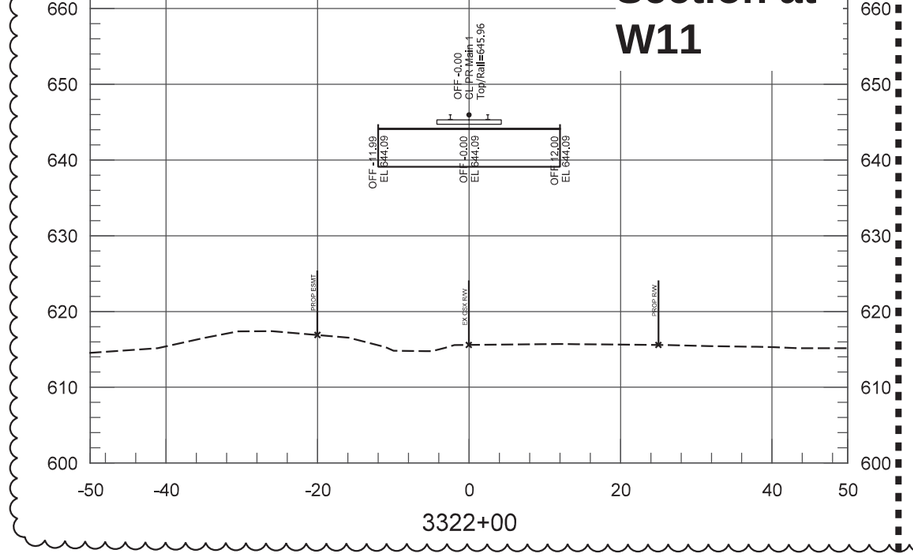
SCALE AS NOTED

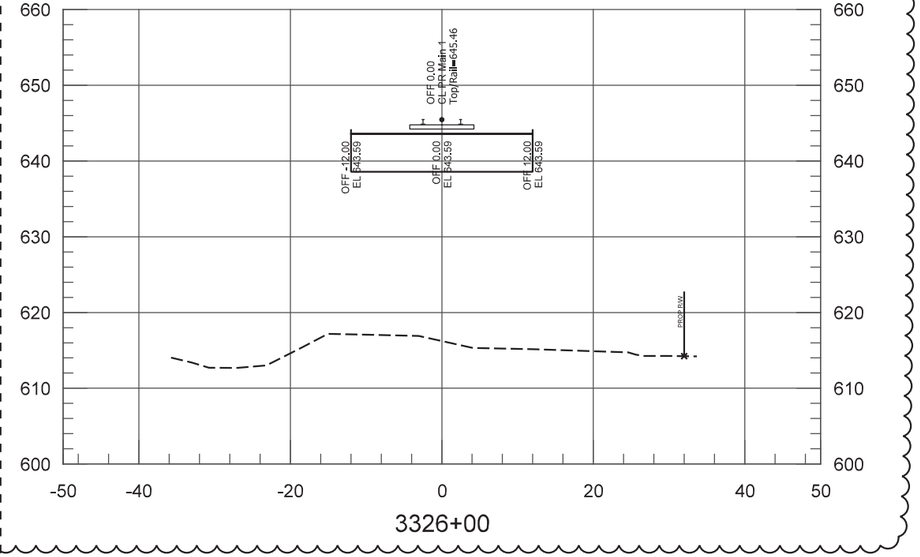
SHEET 68 OF 117





Cross Section at W11





Cross Sections at W32

NOT FOR CONSTRUCTION

SERIES TCKXS-10 OF TCKXS-48

PLOT DATE: 12/10/2019 5:47:20 PM FerranNJ

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

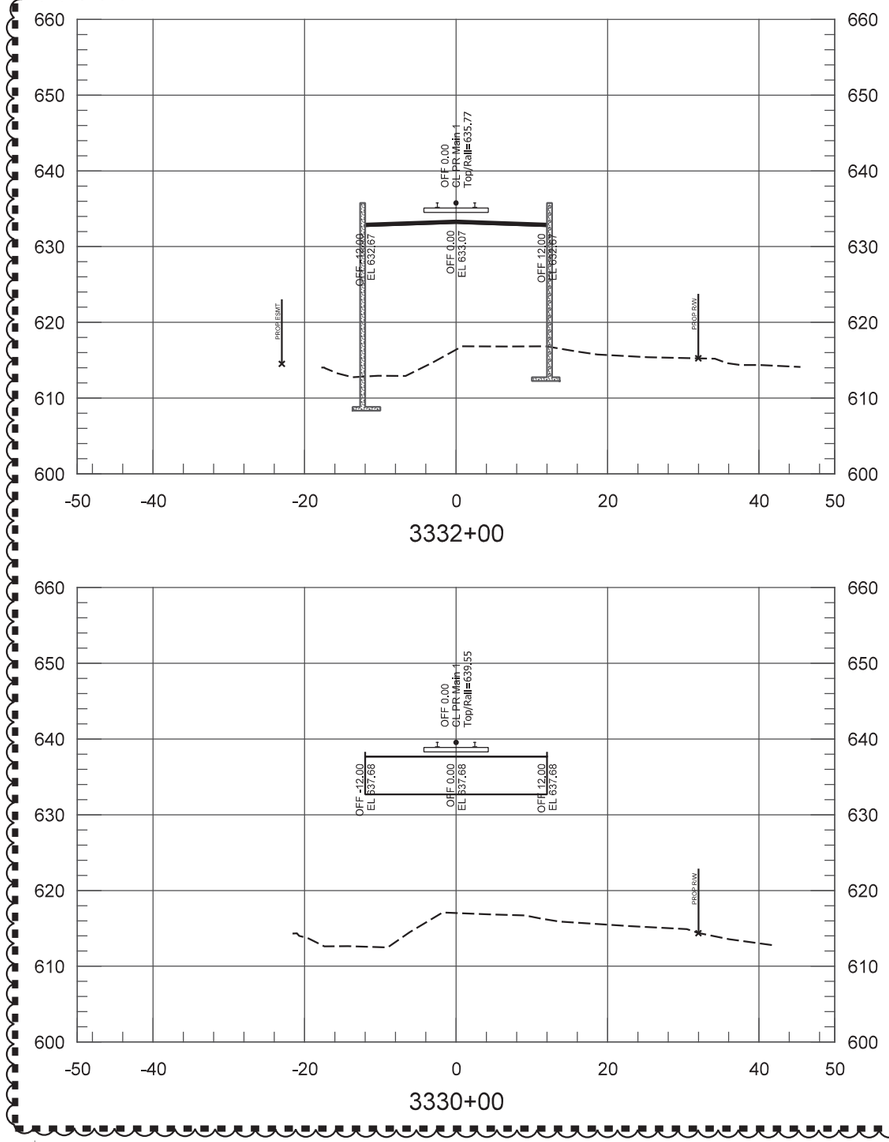
CROSS SECTIONS STA 3322+00 TO STA 3328+00 TRACK

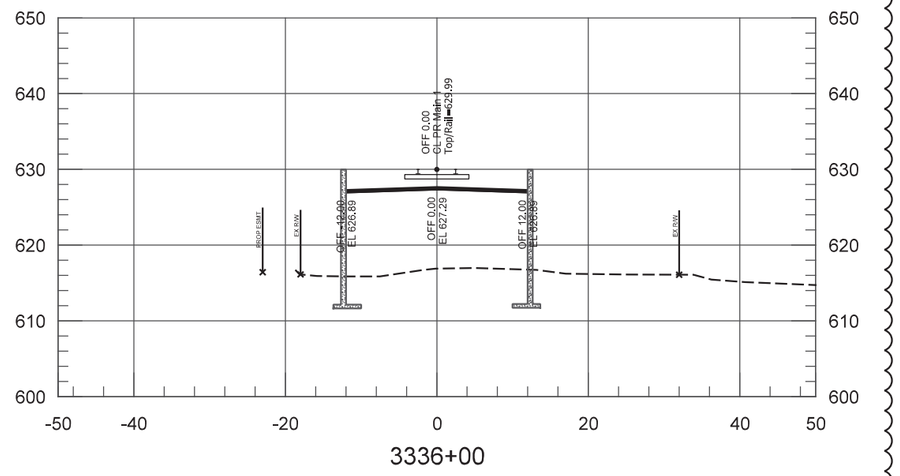
FILENAME

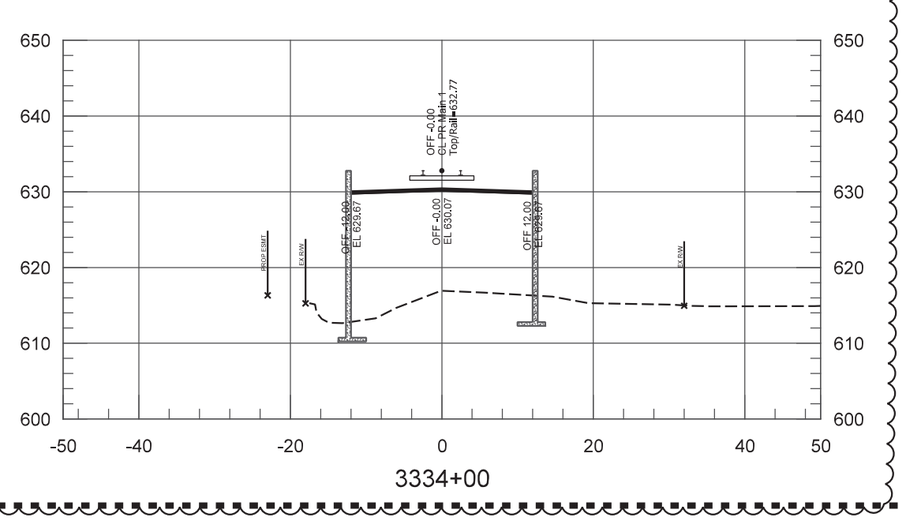
SCALE AS NOTED

SHEET 69 OF 117

Cross Sections at W32







NOT FOR CONSTRUCTION

SERIES TCKXS-11 OF TCKXS-48

PLOT DATE: 12/10/2019 5:47:20 PM FerranU

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

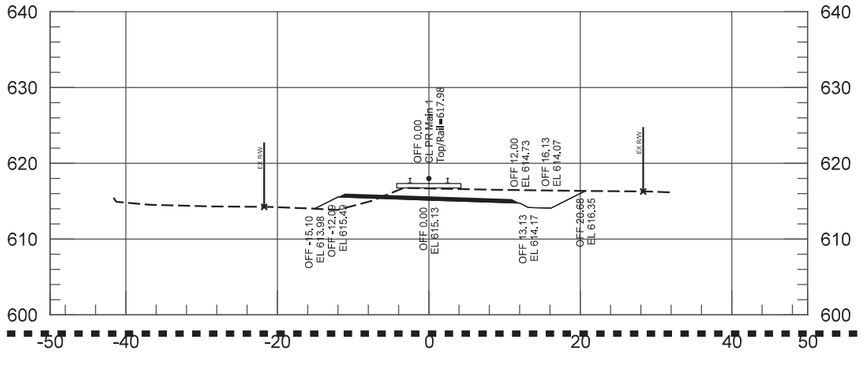
DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

CROSS SECTIONS
STA 3330+00 TO STA 3336+00
TRACK

FILENAME
SCALE AS NOTED

SHEET 70 OF 117



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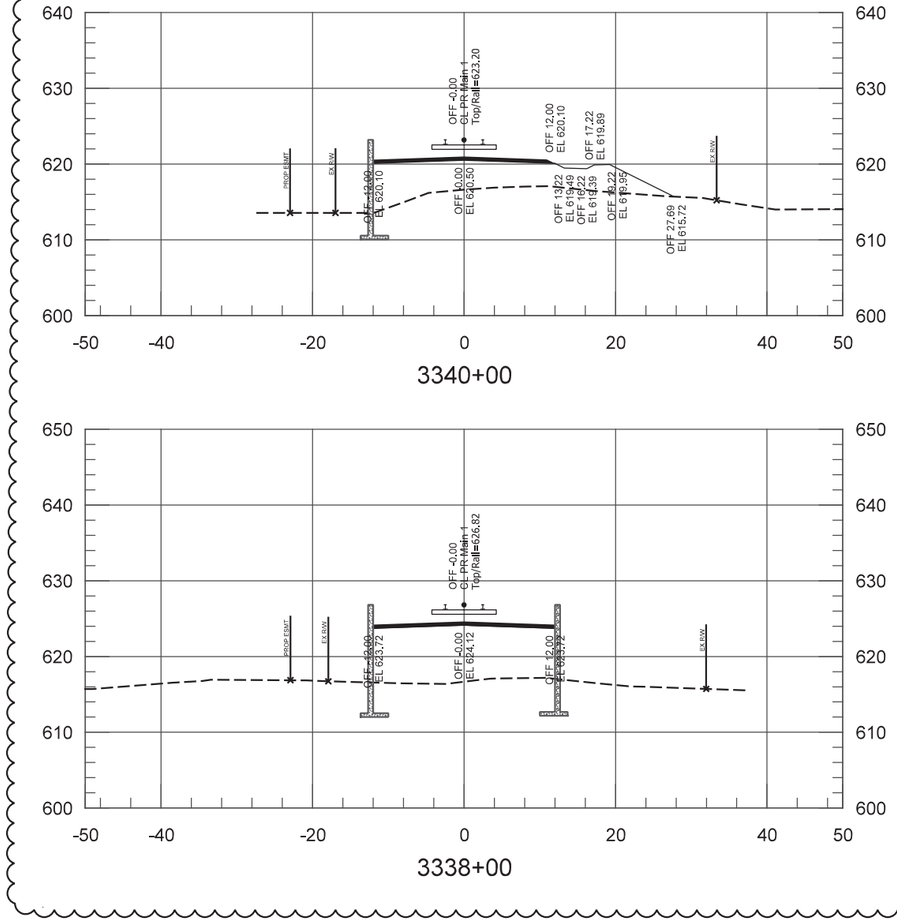
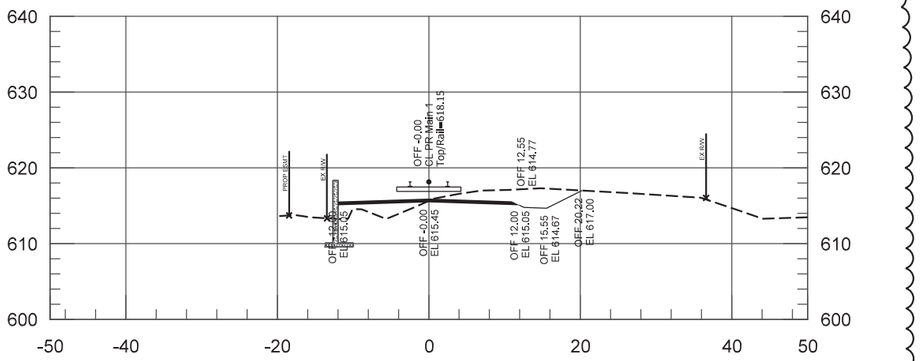
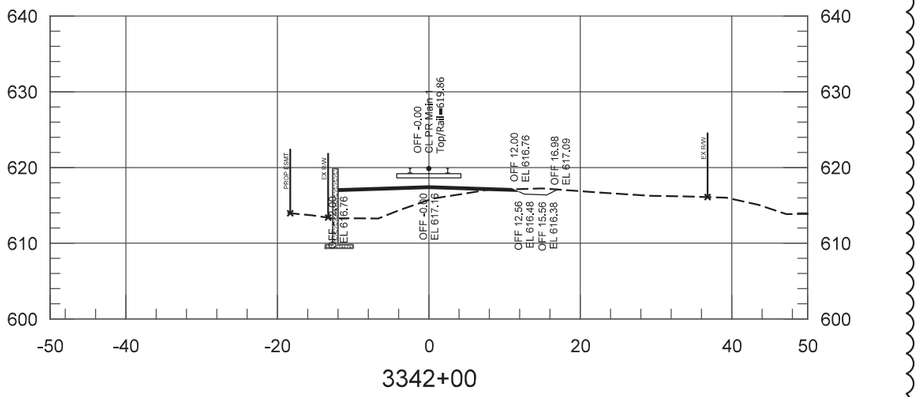


3340+00

3338+00



3344+00



3342+00

Cross Sections at W34

FerranNJ

PLOT DATE: 12/10/2019 5:47:21 PM

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

NOT FOR CONSTRUCTION

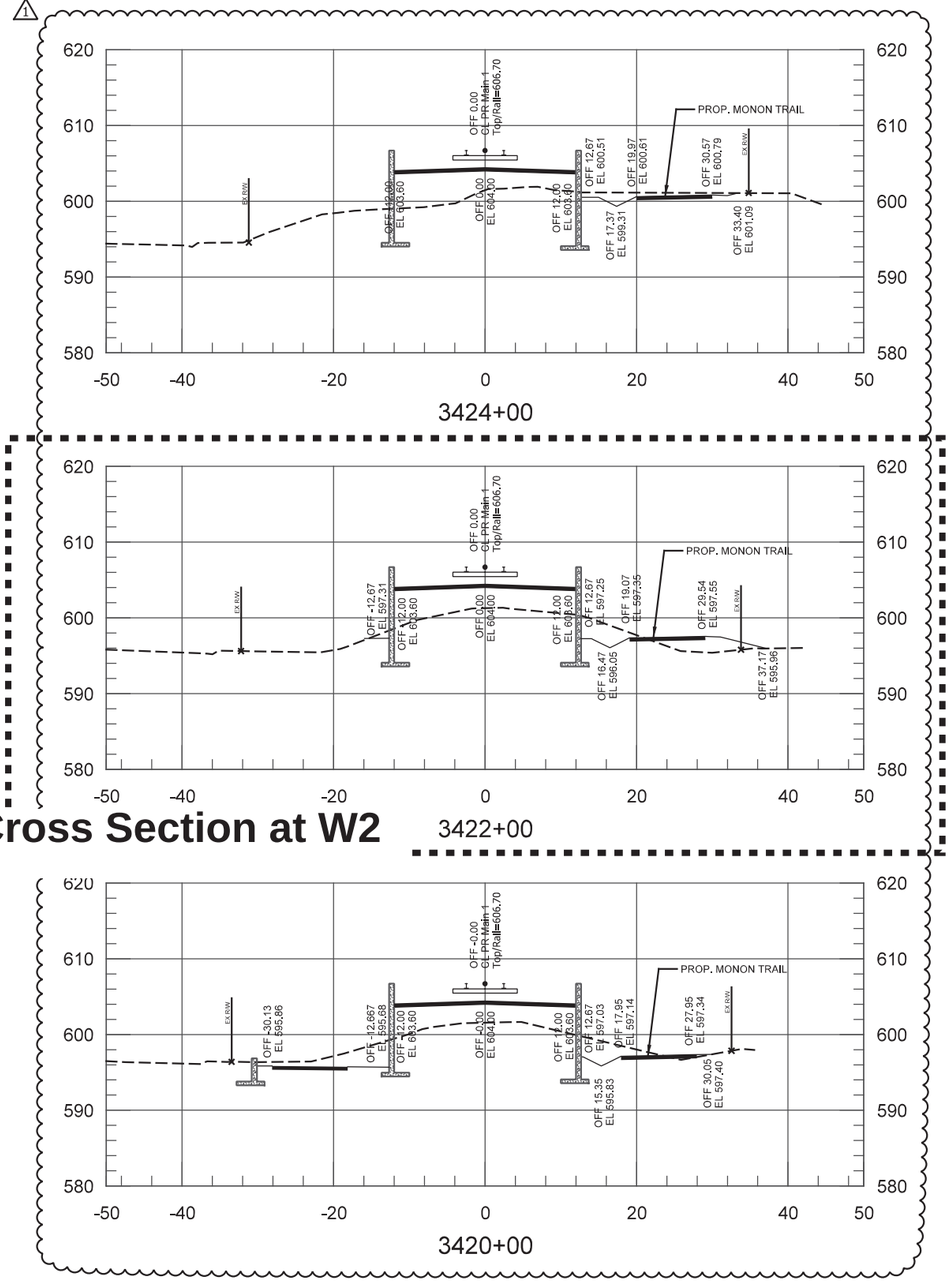
SERIES TCKXS-12 OF TCKXS-48

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

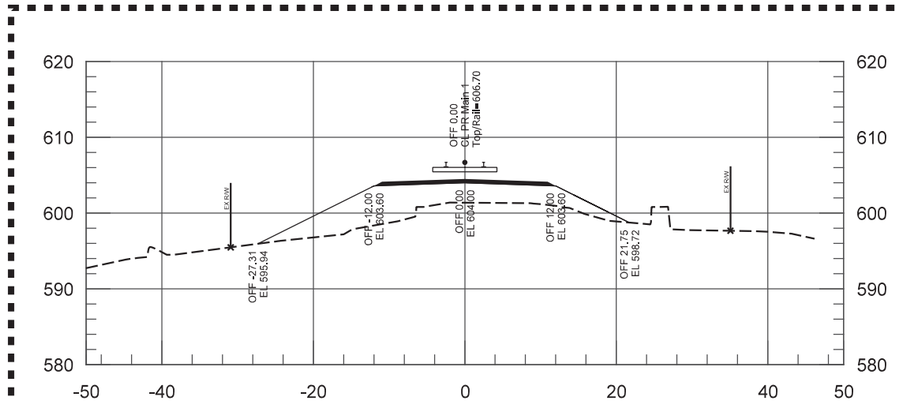
CROSS SECTIONS
STA 3338+00 TO STA 3346+00
TRACK

FILENAME
SCALE AS NOTED

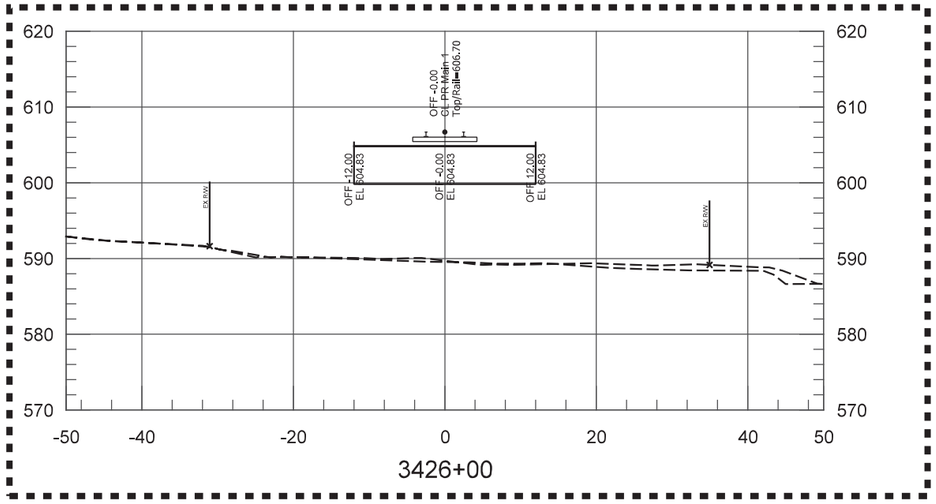
SHEET 71 OF 117



Cross Section at W2



Cross Section at W3



Cross Section at W1 and W4

NOT FOR CONSTRUCTION

SERIES TCKXS-20 OF TCKXS-48

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

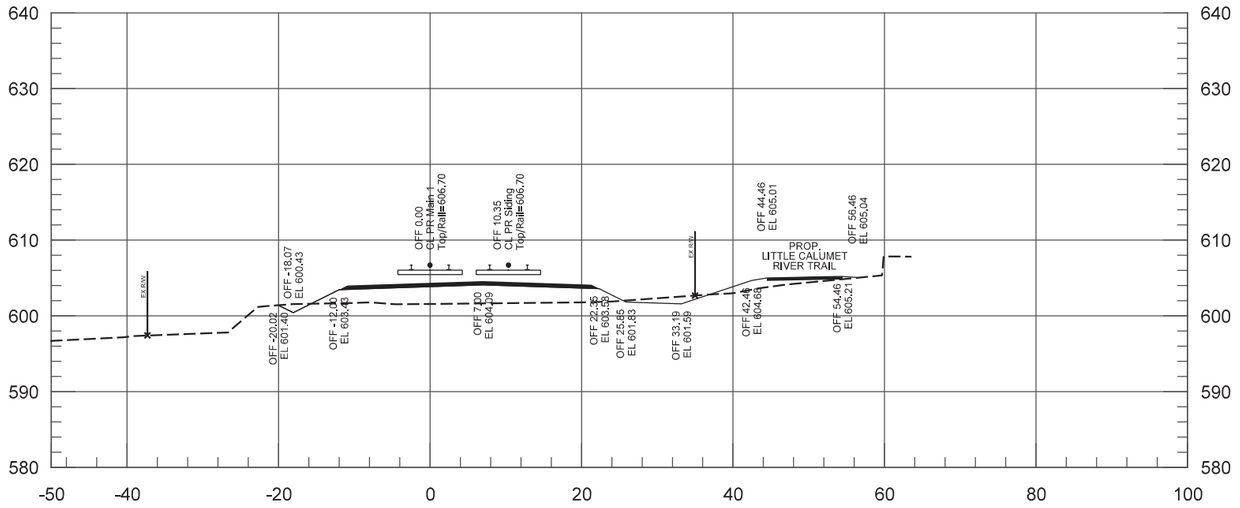
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

CROSS SECTIONS STA 3420+00 TO STA 3428+00 TRACK

FILENAME
SCALE AS NOTED

SHEET 79 OF 117

PLOT DATE: 12/10/2019 5:47:25 PM FerranNJ



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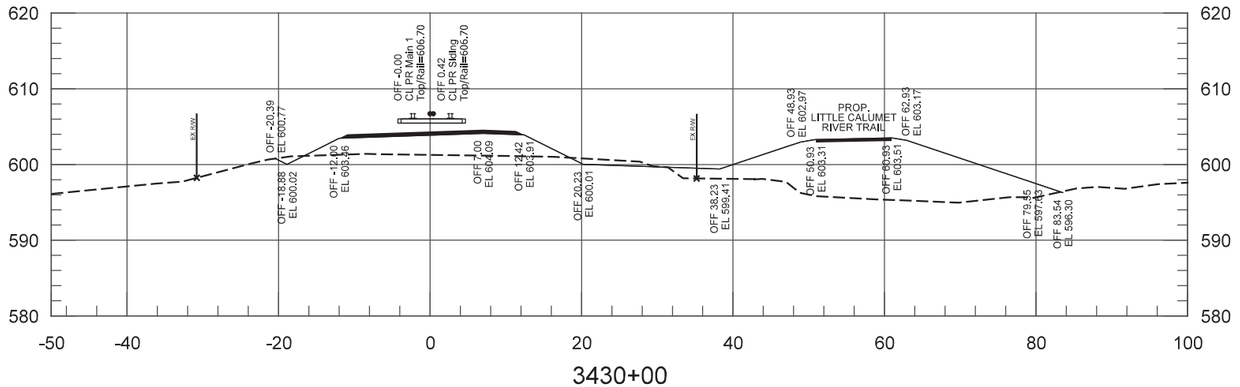


3430+00

Cross Section at W3

NOT FOR CONSTRUCTION

SERIES TCKXS-21 OF TCKXS-48

PLOT DATE: 12/10/2019 5:47:26 PM FerranNJ

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

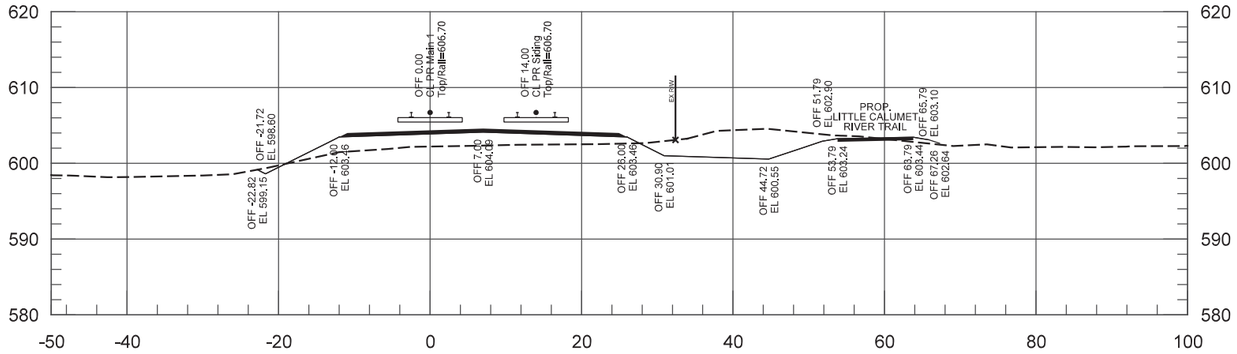
DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

CROSS SECTIONS
STA 3430+00 TO STA 3432+00
TRACK

FILENAME
SCALE AS NOTED

SHEET 80 OF 117



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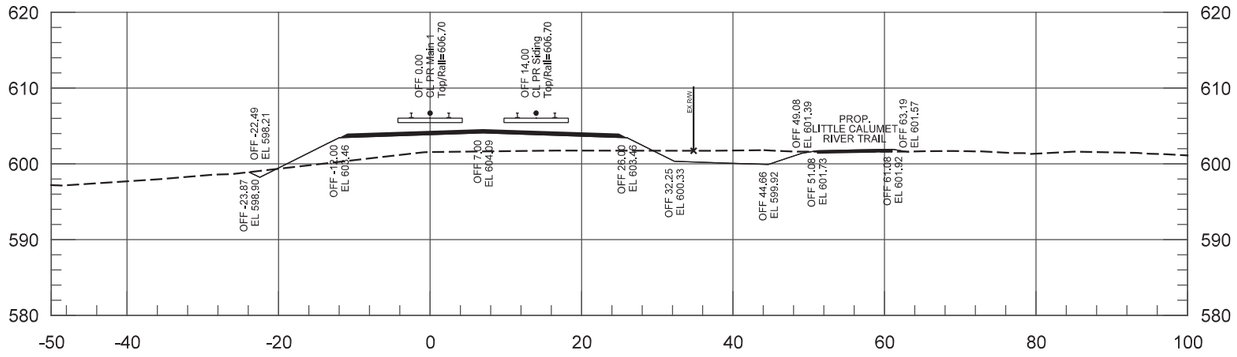

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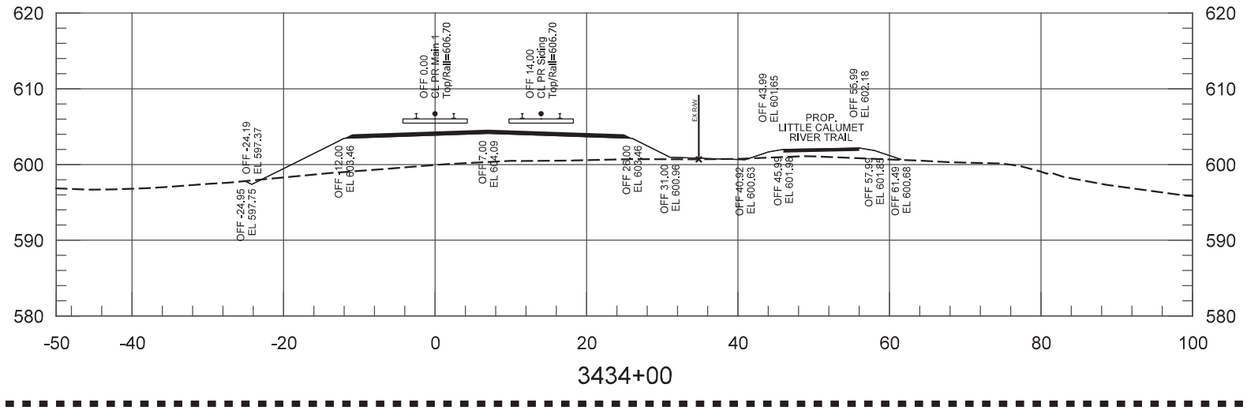


3434+00

Cross Section at W5 and W6

NOT FOR CONSTRUCTION

SERIES TCKXS-22 OF TCKXS-48

PLOT DATE: 12/10/2019 5:47:26 PM FerranNJ

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

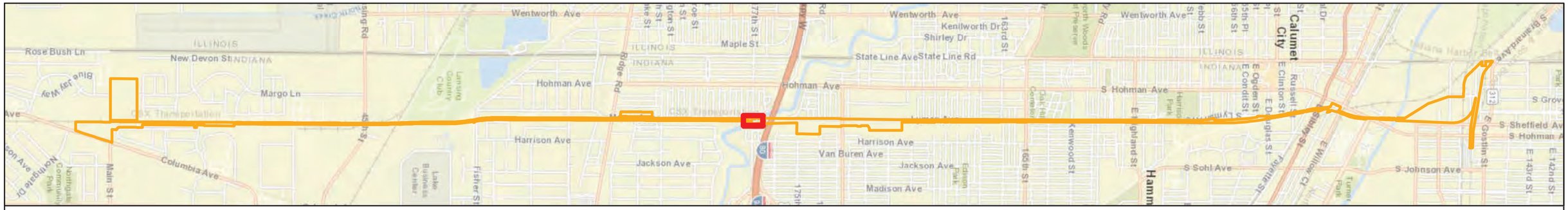
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

CROSS SECTIONS STA 3434+00 TO STA 3438+00 TRACK

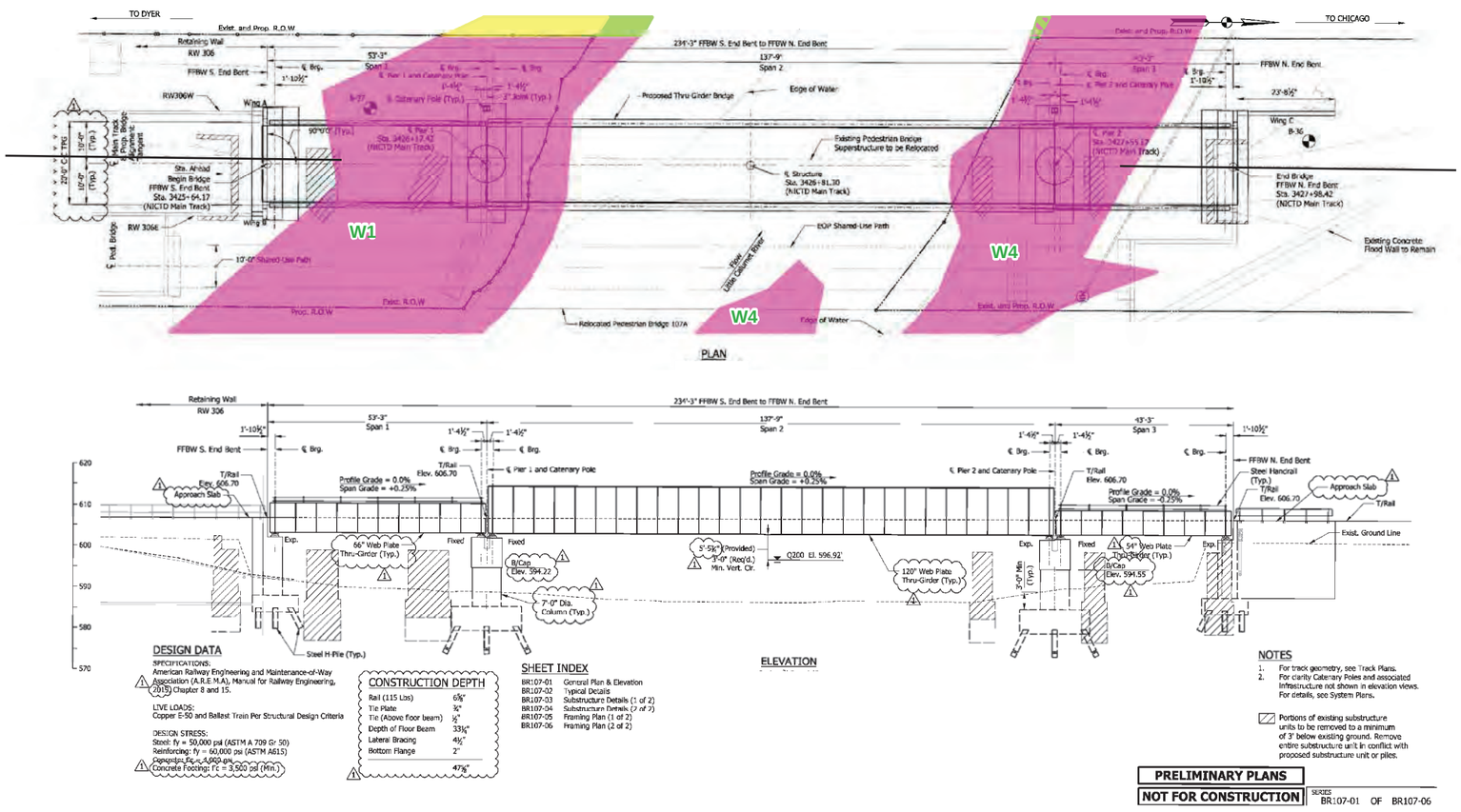
FILENAME
SCALE AS NOTED

SHEET 81 OF 117

Figure 3
Wetland Impacts
Structures Plans



Wetland ID: W1
Total Area: 0.23 ac.
Permanent Impact: 0.09 ac.
Temporary Impact: 0.01 ac.
Volume of Fill: 145 c.y.



Wetland ID: W4
Total Area: 0.17 ac.
Permanent Impact: 0.17 ac.
Temporary Impact: 0 ac.
Volume of Fill: 274 c.y.

Legend

- Permanent, direct wetland impact
- Permanent, indirect wetland impact
- Temporary, direct wetland impact
- No wetland impact

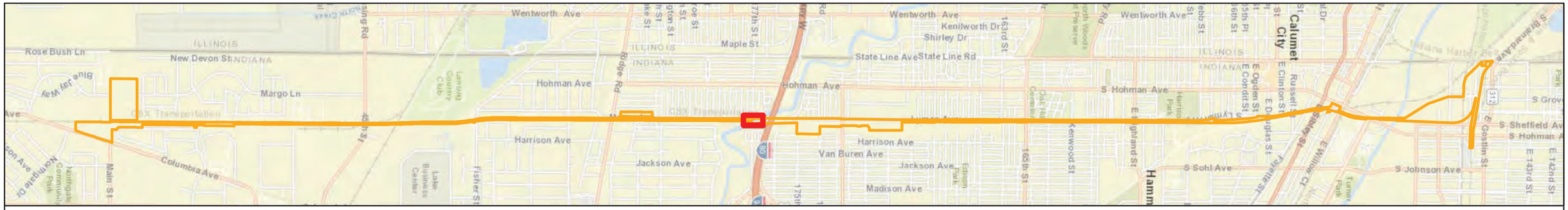
Figure 3
Wetland Impacts
BR 107 Rail Bridge over Little Calumet River
Structure Plan
West Lake Corridor Project
Northern Indiana Commuter Transportation District

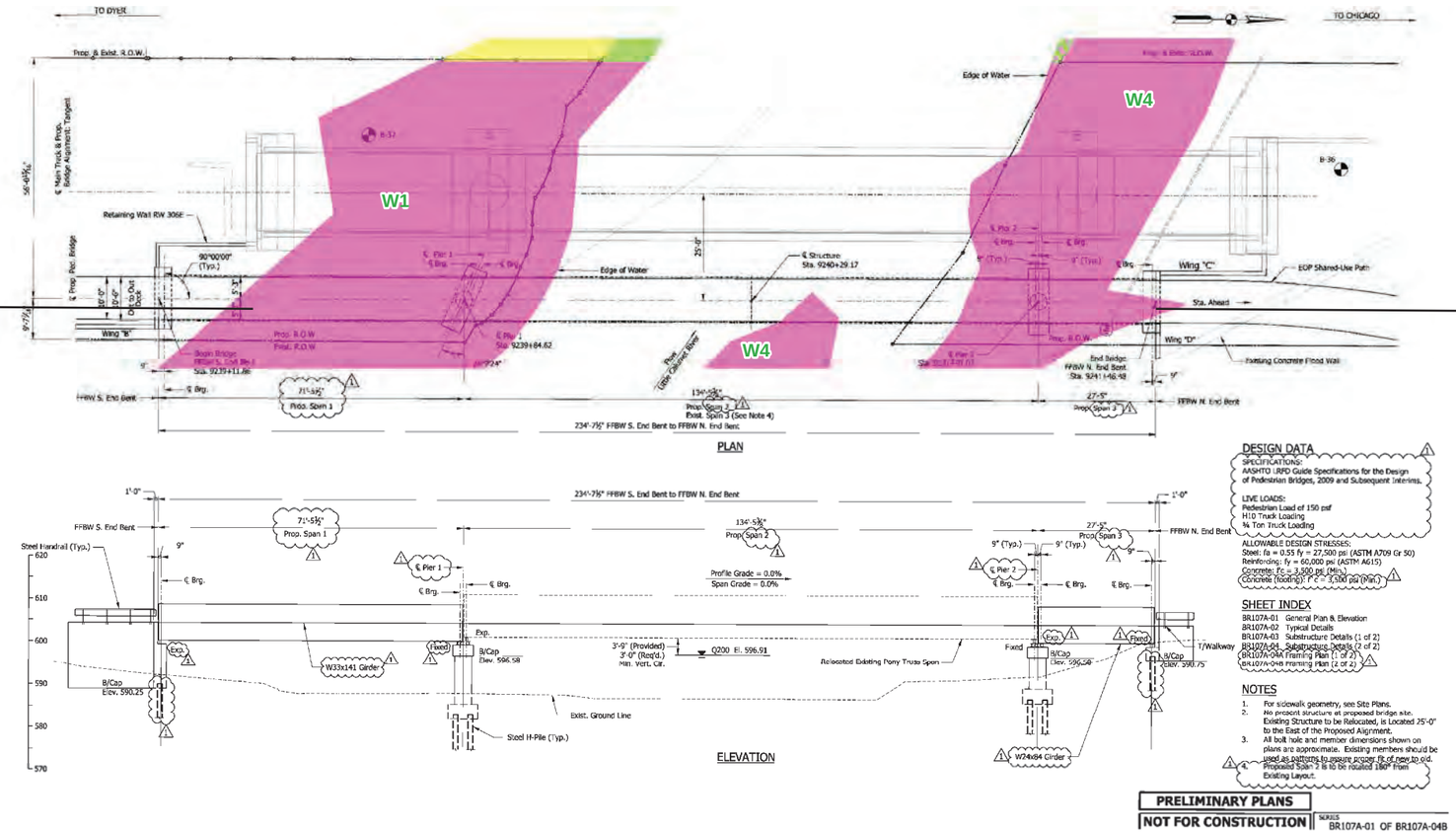
N

0 15 30 60
Feet

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Structures Plans, Northern Indiana Commuter Transportation District, 2019

Jacobs





DESIGN DATA

SPECIFICATIONS:
AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, 2009 and Subsequent Interims.

LIVE LOADS:
Pedestrian Load of 150 psf
H10 Truck Loading
¾ Ton Truck Loading

ALLOWABLE DESIGN STRESSES:
Steel: fa = 0.55 fy = 27,500 psi (ASTM A709 Gr 50)
Reinforcing: fy = 60,000 psi (ASTM A615)
Concrete: f'c = 3,500 psi (Min.)
Concrete (footings): f'c = 3,000 psi (Min.)

SHEET INDEX

NOTES

1. For sidewalk geometry, see Site Plans.
2. No present structure at proposed bridge site. Existing Structure to be Relocated, is Located 25'-0" to the East of the Proposed Alignment.
3. All bolt hole and member dimensions shown on plans are approximate. Existing members should be used as patterns to assure proper fit of new to old.
4. Proposed Span 2 is to be located 180° from Existing Layout.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION
SHEET BR107A-01 OF BR107A-04B

Wetland ID: W1
Total Area: 0.23 ac.
Permanent Impact: 0.09 ac.
Temporary Impact: 0.01 ac.
Volume of Fill: 145 c.y.

Wetland ID: W4
Total Area: 0.17 ac.
Permanent Impact: 0.17 ac.
Temporary Impact: 0 ac.
Volume of Fill: 274 c.y.

Legend

- Permanent, direct wetland impact
- Permanent, indirect wetland impact
- Temporary, direct wetland impact
- No wetland impact

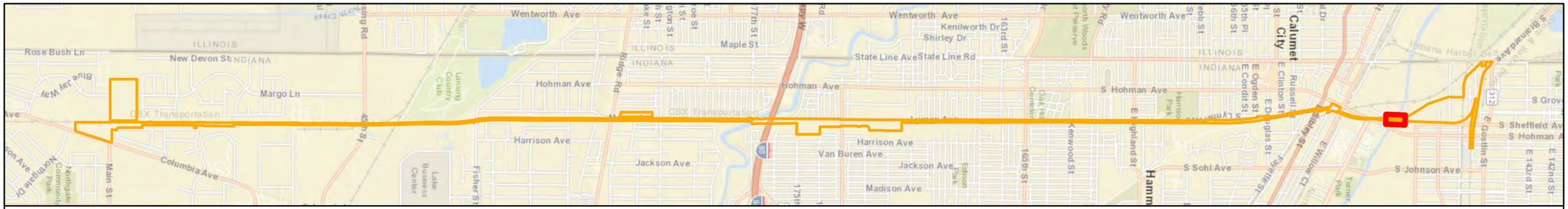
Figure 3
Wetland Impacts
BR 107A Pedestrian Bridge over Little Calumet River
Structure Plan
West Lake Corridor Project
Northern Indiana Commuter Transportation District

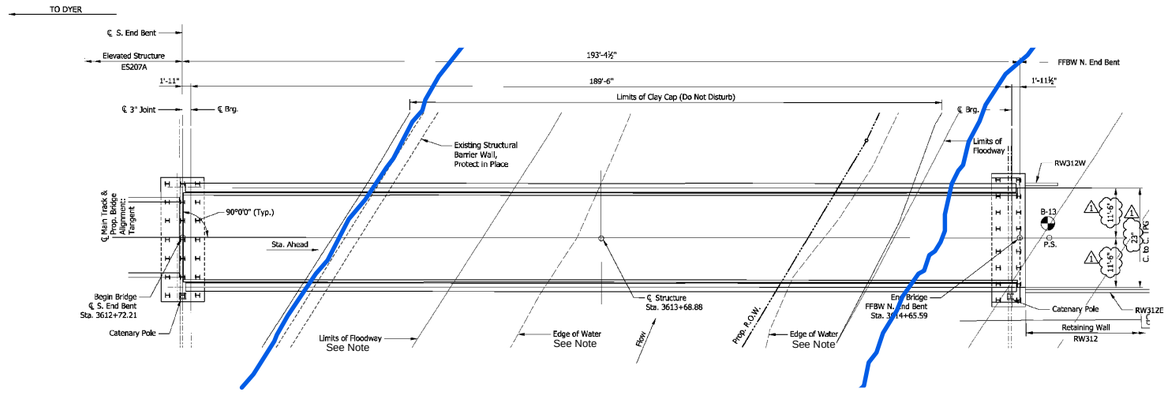
N

0 15 30 60
Feet

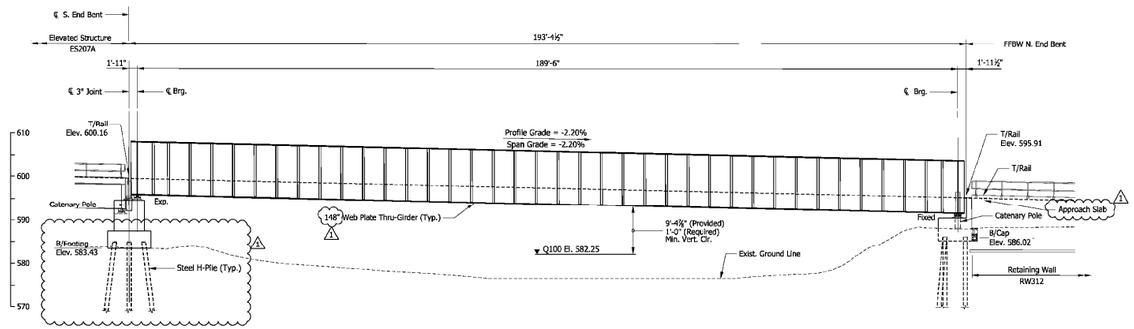
Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Structures Plans, Northern Indiana Commuter Transportation District, 2019

Jacobs





PLAN



ELEVATION

TO CHICAGO

DESIGN DATA

SPECIFICATIONS:
American Railway Engineering and Maintenance-of-Way Association (A.R.E.M.A.), Manual for Railway Engineering, 2019, Chapter 8 and 15.

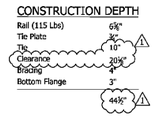
LIVE LOADS:
Cooper E-50 and Ballast Train Per Structural Design Criteria

DEAD LOADS:
Maximum Ballast Depth = 19 Inches (at High End of Span)

DESIGN STRESSES:
Steel: fy = 50,000 psi (ASTM A709 Gr 50)
Reinforcing: fy = 60,000 psi (ASTM A615)
Concrete: f'c = 4,000 psi (Min.)

SHEET INDEX

CONSTRUCTION DEPTH



NOTES

1. For track geometry, see Track Plans.

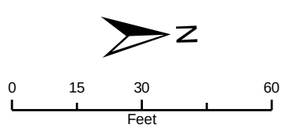
PRELIMINARY PLANS
NOT FOR CONSTRUCTION
SERIES BR115-01 OF BR115-05

Legend
Ordinary High Water Mark

Figure 3
BR 115 Bridge Over Grand Calumet River
Structure Plan
West Lake Corridor Project
Northern Indiana Commuter Transportation District

Note:
Extent of floodway and edge of water, as shown, were determined prior to 2015 USEPA sediment remediation work in the river that changed the channel configuration. The ordinary high water mark, as shown, is based on current conditions.

Imagery Source:
ESRI Street Map online mapping service
West Lake Corridor Conceptual Structures Plans, Northern Indiana Commuter Transportation District, 2019



Jacobs

Attachment 2
USACE Correspondence

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LASALLE STREET
CHICAGO, ILLINOIS 60604-1437

REPLY TO
ATTENTION OF:

August 25, 2017

Technical Services Division
Regulatory Branch
LRC-2016-529

SUBJECT: Jurisdictional Determination and wetland boundary concurrence for the NICTD West Lake Corridor Rail Project located in an existing rail corridor along the state line from Hammond to Dyer in Lake County, Indiana

Northwest Indiana Commuter Transportation District
Attn: Mr. John Parsons
33 E. US Highway 12
Chesterton, IN 46304

Dear Mr. Parsons:

This is in response to your request that the U.S. Army Corps of Engineers complete a jurisdictional determination for the above-referenced site submitted on your behalf by HDR Engineering.

Following a review of the information you submitted, this office has determined that the Indiana project corridor contains "waters of the United States". The wetlands and waters referenced in your delineation report as 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42 and 44 are adjacent to the Little Calumet River, a navigable water. The wetlands and waters referenced in your delineation report as 49, 50, 51, and 52 are adjacent to the Grand Calumet River, a navigable water. Therefore these wetlands are under the jurisdiction of this office and impacts to these areas will require a permit from our office. However the wetlands referenced in your report as 12, 17, 18, 19, 20, 21, and 43 were created as stormwater detention facilities and are exempt from our regulations.

This determination covers only your project as depicted in the Formal Boundary Concurrence Request dated June 23, 2017 and the “Addendum to Formal Boundary Concurrence Request” dated August 17, 2017 prepared by HDR Engineering. This office concurs with the submitted wetland delineation, and wetland boundaries at the subject site including the expanded boundary for Wetland 4 as represented in the addendum. This confirmation of is valid for a period of five years from the date of this letter unless new information warrants revision of the delineation prior to the expiration date.

To initiate the permit process, please submit a permit application form along with detailed plans of the proposed work. Information concerning our program, including the application form and an application checklist, can be found at and downloaded from our website:

http://www.lrc.usace.army.mil/Missions/Regulatory.aspx. If you have any questions, please contact Mr. Paul Leffler of my staff by telephone at 312-846-5529 or email at Paul.M.Leffler@usace.army.mil.

Sincerely,

MCLAURIN.DIEDRA.L.1230340362

Digitally signed by MCLAURIN.DIEDRA.L.1230340362
DN: c=US, o=U.S. Government, ou=DoD, ou=PKI, ou=USA, cn=MCLAURIN.DIEDRA.L.1230340362
Date: 2017.08.29 10:08:17 -05'00'

Diedra McLaurin
Indiana Team Leader
Regulatory Branch

Copies Furnished:

Federal Transportation Administration (Mr. Assam)
Federal Transportation Administration (Ms. Weber)
IDEM (Mr. Maupin)
NICTD (Ms. Barker)
HDR Engineering (Ms. Primer)

Merchan Paniagua, Sara

From: Leffler, Paul M CIV USARMY CELRC (US) <Paul.M.Leffler@usace.army.mil>
Sent: Wednesday, September 13, 2017 12:07 PM
To: Primer, Samantha
Cc: Armstrong, Roben; Jean, Melissa
Subject: RE: West Lake Corridor wetland mitigation ratios

Yes that is appropriate. Keep in mind those ratios could be higher if they are forested or scrub shrub or if we receive comments recommending higher ratios.

Sincerely,

Paul M. Leffler
U.S. Army Corps of Engineers
Chicago District, Regulatory Branch
(312)846-5529
http://www.lrc.usace.army.mil/missions/regulatory

-----Original Message-----
From: Primer, Samantha [mailto:Samantha.Primer@hdrinc.com]
Sent: Monday, September 11, 2017 4:51 PM
To: Leffler, Paul M CIV USARMY CELRC (US) <Paul.M.Leffler@usace.army.mil>
Cc: Armstrong, Roben <Roben.Armstrong@hdrinc.com>; Jean, Melissa <Melissa.Jean@hdrinc.com>
Subject: [EXTERNAL] West Lake Corridor wetland mitigation ratios

Hi Paul,

I realized that I don't think we've confirmed mitigation ratios for the West Lake Corridor Project. I've been working under the assumption that the mitigation ratios for West Lake and Double Track would be the same. For Double Track we are using a mitigation ratio of 1.5:1 for wetlands that are not considered a high quality aquatic resource. I wanted to confirm that we can use this same ratio for West Lake as well.

Thanks,

Samantha Primer

Environmental Scientist

HDR

8550 W. Bryn Mawr Ave., Suite 900
Chicago, IL 60631
D 773-867-7247 M 847-902-4957
samantha.primer@hdrinc.com <mailto:samantha.primer@hdrinc.com>

hdrinc.com/follow-us <Blockedhttp://hdrinc.com/follow-us>

DEPARTMENT OF THE ARMY
CHICAGO DISTRICT, CORPS OF ENGINEERS
231 SOUTH LA SALLE STREET
CHICAGO, ILLINOIS 60604-1437

REPLY TO
ATTENTION OF:

January 9, 2018

Technical Services Division
Regulatory Branch
LRC-2016-529

SUBJECT: Final Environmental Impact Statement Concurrence for the NICTD West Lake Corridor Rail Project located along the state line from Hammond to Dyer in Lake County, Indiana

Federal Transit Administration
Attn: Mr. Mark Assam
200 W. Adams Street, Suite 320
Chicago, IL 60606

Dear Mr. Assam:

This letter is in response to your request that the Department of the Army (Corps) review and provide concurrence with the Final Environmental Impact Statement (FEIS) dated November 2017, prepared by HDR. Our office concurs the FEIS appropriately defines the project Purpose and Need, provides a logical Preferred Alternative Analysis, accurately assesses the impacts to "waters of the U.S." and conceptually identifies a suitable wetland mitigation strategy.

However please note the FEIS includes some misleading language in respect to wetland mitigation. First the document, notably in "Chapter 5: Physical and Environmental Analysis" and Section 5.3 of the "Draft Record of Decision," refers to the Shirley Heinze Land Trust, Oak Ridge Prairie County Park and the DNR Indiana Stream and Wetland Mitigation Program as "Mitigation Banks." While all of these options may be acceptable, none are currently considered "Mitigation Banks." It would be more appropriate to refer to them collectively as "Offsite Mitigation Sponsors." Next, Table 5.1-1 within Chapter 5 states:

"Only fill of jurisdictional wetlands within the construction limits require mitigation. 3.43 acres of wetland mitigation would be provided to ensure no net loss."

This statement neglects to mention isolated wetland impacts may require mitigation by the Indiana Department of Environmental Management. In addition low quality emergent wetland impacts are typically mitigated at a minimum 1.5:1 ratio while forested wetland impacts are typically mitigated at a 3:1 ratio. Given the Preferred Alternative proposes 2.49 acres of jurisdictional emergent wetland impact and 0.94 acre of forested wetland impact it would be more appropriate to expect approximately 6.56 acres of wetland mitigation.

In summary all documentation to date is sufficient for this stage and from our perspective the project may now proceed to the next stage of project development. An application for an individual permit for the proposed project may be submitted to the Corps for final review and authorization. For additional information on submitting an individual permit application, please visit our website at: http://www.lrc.usace.army.mil/Missions/Regulatory .

If you have any questions, please contact Mr. Paul Leffler of my staff by telephone at 312-846-5529, or email at paul.m.leffler@usace.army.mil.

Sincerely,

Keith Wozniak
Chief, Regulatory Branch

Copy Furnished:

Congressman Visclosky's Office (Ms. Johnson)
U.S. Environmental Protection Agency (Ms. Blonn)
U.S. Fish & Wildlife Service (Ms. McCloskey)
Indiana Department of Environmental Management (Mr. Maupin)
Northern Indiana Commuter Transportation District (Ms. Barker)
HDR (Ms. Armstrong)

Attachment 3
Section 106 of the Historic Preservation Act of 1966 Compliance

DNR Indiana Department of Natural Resources

Eric Holcomb, Governor
Cameron F. Clark, Director

Division of Historic Preservation & Archaeology · 402 W. Washington Street, W274 · Indianapolis, IN 46204-2739
Phone 317-232-1646 · Fax 317-232-0693 · dhpa@dnr.IN.gov · www.IN.gov/dnr/historic

September 6, 2017

Jay Ciavarella
Director, Office of Planning & Program Development
Federal Transit Administration, Region V
200 West Adams Street, Suite 320
Chicago, Illinois 60606-5253

Federal Agency: Federal Transit Administration ("FTA")

Re: Draft "Phase Ia Archaeological Survey for the NICTD West Lake Corridor Project" (Parker et al., 08/2017), and Request for Concurrence on Eligibility Findings and Assessment of Effect for the West Lake Corridor Project in Lake County, Indiana, and Cook County, Illinois (INDNR No. ER-17897; DHPA No. 16774)

Dear Mr. Ciavarella:

Pursuant to Section 106 of the National Historic Preservation Act of 1966, as amended (54 U.S.C. § 306108), 36 C.F.R. Part 800, and the National Environmental Policy Act of 1969, as amended (42 U.S.C. § 4321, *et seq.*), the staff of the Indiana State Historic Preservation Officer has reviewed your August 1, 2017, letter, with the aforementioned enclosures, which we received on August 7. Our comments will be limited to historic properties that lie partly or entirely within Indiana.

As previously indicated, in terms of archaeological resources, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the National Register of Historic Places ("NRHP") within the previously surveyed portions of the proposed project area, as detailed in the Phase Ia Archaeological Reconnaissance Survey Report (Gierek, October 2016).

Additionally, based on the submitted information and the documentation available to the staff of the Indiana SHPO, we have not identified any currently known archaeological resources listed in or eligible for inclusion in the NRHP within the portions of the proposed project area that were subjected to the recent archaeological investigations, as detailed in the draft "Phase Ia Archaeological Survey for the NICTD West Lake Corridor Project" (Parker et al., 08/2017).

Furthermore, we concur with the opinions of the archaeologist, as expressed in the latter report, that the boundaries of archaeological site 12-La-0707 (which was identified during the former archaeological investigations, and the boundaries of which were expanded during the latter archaeological investigations) should be expanded to include the South Hammond Yard site, that site 12-La-0707 does not appear eligible for inclusion in the NRHP, and that no further archaeological investigations appear necessary at the proposed project area.

We note that the we were provided with a draft copy of the "Phase Ia Archaeological Survey for the NICTD West Lake Corridor Project" (Parker et al., 08/2017). Please provide us with a final copy of the document for the Indiana DHPA archive.

Thank you for submitting the archaeological site resurvey record form for 12-La-0707 to the Indiana DHPA SHAARD system database. It will be reviewed.

It is our understanding that a cemetery development plan will be prepared for Oak Hill Cemetery. Once we have been provided with a copy of that document, we will review it and provide our comments.

As a reminder, if the proposed project area is altered to include any areas within 100 feet of any other cemetery, then a cemetery development plan may be necessary under IC 14-21-1-26.5. The aforementioned cemetery must be avoided by all project activities, and provisions of relevant state statutes regarding cemeteries (including IC 14-21-1 and IC 23-14) must be adhered to.

If any prehistoric or historic archaeological artifacts or human remains are uncovered during construction, demolition, or earthmoving activities, state law (Indiana Code 14-21-1-27 and -29) requires that the discovery be reported to the Department of Natural Resources within two (2) business days. In that event, please call (317) 232-1646. Be advised that adherence to Indiana Code 14-21-1-27 and -29 does not obviate the need to adhere to applicable federal statutes and regulations, including but not limited to 36 C.F.R. 800.

We agree that 33 of the 34 historic properties within the area of potential effects will not be adversely affected by the Preferred Alternative for this project, Hammond Alternative Option 2, and that one National Register of Historic Places-eligible property, the O.K. Champion building at 4714 Sheffield Avenue in Hammond, Indiana, will be adversely by the Preferred Alternative as a result of the demolition of the building.

Accordingly, we concur with FTA's August 1, 2017, Section 106 finding of Adverse Effect for the NICTD West Lake Corridor Project as a whole.

If you have questions about archaeological issues, please contact Wade T. Tharp at (317) 232-1650 or wtharp1@dnr.IN.gov. Questions about buildings or structures should be directed to John Carr at (317) 232-1949 or jcarr@dnr.IN.gov.

In all future correspondence regarding the NICTD West Lake Corridor Project, please continue to refer to INDNR No. ER-17897 and DHPA No. 16774.

Very truly yours,

Chad W. Slider

Mitchell K. Zoll
Deputy State Historic Preservation Officer

MKZ:JLC:WTT:wtt

emc: Marisol Simón, Federal Transit Administration, Region V
Jay Ciavarella, Federal Transit Administration, Region V
Mark Assam, AICP, Federal Transit Administration, Region X
Susan Weber, AICP, Federal Transit Administration, Region V
Michael Noland, Northern Indiana Commuter Transportation District
John Parsons, Northern Indiana Commuter Transportation District
Nicole Barker, Northern Indiana Commuter Transportation District
Cassandra Francis, Northern Indiana Commuter Transportation District
Northern Indiana Commuter Transportation District, West Lake Corridor
Janice Reid, PTP, HDR, Inc.
Roben Armstrong, HDR, Inc.
Jeanne Barnes, HDR, Inc.
Chad Blackwell, HDR, Inc.
Brandon Gabler, Ph.D., RPA, HDR, Inc.
Rachel Leibowitz, Ph.D., Illinois Deputy State Historic Preservation Officer
Joe Phillippe, Illinois Historic Preservation Agency
David Halpin, Illinois Historic Preservation Agency
Christie Stanifer, Indiana Department of Natural Resources, Division of Fish and Wildlife
Carl Wodrich, Indiana Department of Natural Resources, Division of Land Acquisition
Bob Bronson, Indiana Department of Natural Resources, Division of Outdoor Recreation
Mitchell Zoll, Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology
Chad Slider, Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology
John Carr, Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology
Wade Tharp, Indiana Department of Natural Resources, Division of Historic Preservation and Archaeology

MEMORANDUM OF AGREEMENT

BETWEEN

THE FEDERAL TRANSIT ADMINISTRATION AND

THE INDIANA STATE HISTORIC PRESERVATION OFFICER

REGARDING

THE WEST LAKE CORRIDOR PROJECT

WHEREAS, the Federal Transit Administration (FTA) may provide federal funding to the Northern Indiana Commuter Transportation District (NICTD) for the West Lake Corridor Project (Project) in Lake County, Indiana, and Cook County, Illinois, and FTA has determined that the Project is an undertaking pursuant to 36 Code of Federal Regulations (CFR) Part 800; and

WHEREAS, the Project consists of constructing a rail-based service between the Munster/Dyer area and Metra's Millennium Station in Downtown Chicago using electric-powered trains on an approximately 9-mile southern extension of NICTD's existing South Shore Line, constructing four new stations and maintenance, parking, and layover facilities; and

WHEREAS, FTA has consulted with the State Historic Preservation Officer (SHPO) at the Indiana Department of Natural Resources, Division of Historic Preservation & Archaeology (DHPA) and the SHPO at the Illinois Department of Natural Resources, Illinois Historic Preservation Agency, in accordance with Section 106 of the National Historic Preservation Act (NHPA), as amended, (54 United States Code [USC] § 306108), and its implementing regulations (36 CFR Part 800); and

WHEREAS, NICTD has participated in consultation and has been invited to sign this Memorandum of Agreement (MOA) as an invited signatory; and

WHEREAS, FTA has defined the Project's Area of Potential Effects (APE) as depicted in Attachment A; and

WHEREAS, FTA examined several Project alternatives and design options as part of the Draft Environmental Impact Statement and has selected the Hammond Alternative Option 2 as the Preferred Alternative; and

WHEREAS, FTA has determined that the Project will have an adverse effect on the National Register of Historic Places (NRHP)-eligible O.K. Champion Building at 4714 Sheffield Avenue, Hammond, Indiana, as shown in a map in Attachment A, due to demolition of the building for the construction of new track and facilities; and

WHEREAS, FTA has determined that the Project will have no effect on any historic properties in Illinois or on any NRHP-eligible or listed archaeological resources as there are none within the Project's archaeological APE; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), FTA notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination and invited their participation in consultation on August 25, 2017, and ACHP declined on September 13, 2017; and

WHEREAS, FTA and NICTD have consulted with the consulting parties listed in Attachment B regarding effects of the Project on historic properties; and

WHEREAS, consideration was given to alternatives and refinements throughout the project development process that would avoid, minimize, or mitigate impacts to historic

properties in, or eligible for, the NRHP, while meeting the stated Project Purpose and Need; and

NOW, THEREFORE, FTA and Indiana SHPO, agree that, upon acceptance of this MOA, the Project shall be implemented in accordance with the following stipulations in order to take into account and mitigate the adverse effect of the Project on historic properties.

Stipulations

FTA shall ensure that the following stipulations of this MOA are carried out by NICTD and shall require, as a condition of any approval of federal funding for the undertaking, adherence to the stipulations set forth herein:

I. TREATMENT MEASURES

A. Prior to any demolition of the O.K. Champion Building, located at 4714 Sheffield Avenue, Hammond, Indiana, NICTD shall prepare Historic American Building Survey (HABS) documentation of the existing O.K. Champion Building. Secretary of the Interior-qualified professionals in history or architectural history (36 CFR Part 61) shall complete a HABS Short Form Report as specified in the Historic American Buildings Survey Guidelines for Historical Reports. Prior to any alteration to or demolition of the O.K. Champion Building, NICTD shall provide draft documentation to the National Park Service (NPS) to verify that it meets the specified standards and formats. Upon NPS approval, NICTD shall finalize the documentation for submittal to the HABS office. One paper copy and one electronic copy of the final HABS documentation shall be provided to the Indiana SHPO. Electronic copies shall be provided to the consulting parties and placed on file with the City of Hammond and the Hammond Public Library/Hammond Historical Society.

B. NICTD shall prepare a public exhibit discussing the history and context of the O.K. Champion Building, specifically highlighting the industrial development of Hammond. The display and/or interpretive materials for the exhibit shall be designed in consultation with a qualified historian or architectural historian who meets the Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61) and who shall assess the content and presentation to ensure that the important history and associations that contribute to the significance of the property are incorporated into the exhibit. SHPO and the consulting parties shall be offered an opportunity to review and comment on the content and plan for the exhibit prior to its finalization. The exhibit shall be displayed in a publicly accessible space within the vicinity of the site of the O.K. Champion Building and the Project area. The exhibit shall be displayed within 10 years of the execution of this MOA, or prior to the completion of Project construction, whichever is sooner.

C. NICTD shall prepare an application for nomination to the NRHP (application) for the P.H. Mueller Sons Hardware building at 416-418 Sibley Street in Hammond.

1. A Secretary of the Interior-qualified professional in history or architectural history (under 36 CFR Part 61) shall prepare the application to be consistent with the NPS standards set forth in "National Register Bulletin 16A: How to Complete the National Register Registration Form" (1997).

2. Prior to drafting the application, the qualified professional shall confer with the survey and registration staff of the Indiana SHPO to verify the NRHP eligibility of the property and its boundaries.

3. NICTD or its qualified professional shall submit the application to the Indiana SHPO prior to the completion of Project construction. The qualified professional shall

cooperate in good faith with the Indiana SHPO staff in providing information or making revisions to the application, as requested.

4. If NICTD or its qualified professional demonstrates that it has become impossible for NICTD or its qualified professional to submit or complete the application for the P.H. Mueller Sons Hardware building because of: (1) a lack of property owner consent, inability to obtain access to the property or to essential information, or other unavoidable circumstances, or (2) if the Indiana SHPO concludes that the property is not eligible for the NRHP, then NICTD, following the same procedure specified in Stipulation I.C.1 through I.C.3, shall prepare an application for a second property, selected by FTA with input from the consulting parties, which shall be submitted to the Indiana SHPO within ten (10) years from the date of execution of this MOA.
5. NICTD's commitment under this stipulation shall be considered to have been satisfied when:
    a. The Indiana SHPO advises NICTD or its qualified professional that the application for the P.H. Mueller Sons Hardware building is complete and suitable for presentation to the Indiana Historic Preservation Review Board (Review Board); or
    b. The Indiana SHPO advises NICTD or its qualified professional that the application for the second property is complete and suitable for presentation to the Review Board; or
    c. NICTD or its qualified professional demonstrates that it has become impossible for NICTD or its qualified professional to submit or complete the application for the second property because of a lack of property owner consent, inability to obtain access to the property or to essential information, or other, unavoidable circumstances, or if the Indiana SHPO concludes that the second property is not eligible for the NRHP.

II. DURATION

This MOA will expire if its terms are not carried out within ten (10) years from the date of its execution. Prior to such time, FTA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation VII below.

III. MONITORING AND REPORTING

Each year on June 1 following the date of the execution of this MOA until it expires or is terminated, whichever comes first, NICTD will provide FTA, SHPO, and the consulting parties with a summary report detailing the work undertaken throughout the previous year pursuant to the stipulations of this MOA. The last report will be submitted within three (3) months of completion of construction of the Project or at completion of this MOA's terms, if later. The summary report will include any tasks undertaken relevant to stipulations within this MOA, scheduling changes, problems encountered, and any disputes regarding implementation of these stipulated measures.

IV. COORDINATION WITH OTHER FEDERAL REVIEWS

In the event any other federal agency provides funding, permits, licenses, or other assistance to NICTD for the Project as it was planned at the time of the execution of this MOA, such funding or approving agency may comply with Section 106 by agreeing in writing to the terms of this

MOA and so notifying and consulting the Indiana SHPO. Any necessary amendments will be coordinated pursuant to Stipulation VII.

V. POST-REVIEW DISCOVERIES

If NICTD and FTA determine after any future construction has commenced that Project activities will affect a previously unidentified archaeological or historical resource that may be eligible for the NRHP, or affect a known resource in an unanticipated manner, FTA will address the discovery or unanticipated effect in accordance with 36 CFR § 800.13(b)(3). FTA, at its discretion, may assume any unanticipated discovered property to be eligible for inclusion in the NRHP, pursuant to 36 CFR § 800.13(c). If human remains or archaeological sites are inadvertently discovered, or unanticipated effects on historic properties are found, then NICTD will implement the following procedures.

Regarding the discovery of human remains, in accordance with 36 CFR § 800.13(b)(3) and Indiana Code (IC) 14-21-1-27(a), if buried human remains or burial grounds are disturbed, NICTD will immediately cease all ground-disturbing activities within 100 feet of the discovery, and human remains or possible human remains will be left undisturbed. NICTD will notify FTA, the Indiana SHPO, the County Coroner, and Indiana Department of Natural Resources, Division of Law Enforcement within 48 hours from the time of the discovery. Human remains will be treated or reburied in an appropriate manner and place in compliance with IC 23-14-57, the Native American Graves Protection and Repatriation Act, or other applicable laws.

Regarding the discovery of archaeological resources, in accordance with 36 CFR § 800.13(b)(3) and IC 14-21-1-29(a), if an archaeological resource is inadvertently discovered, NICTD will immediately cease all ground-disturbing activities within 100 feet of the discovery. NICTD will notify FTA and the Indiana SHPO within 48 hours from the time of the discovery. NICTD, in consultation with FTA and the Indiana SHPO, will conduct an on-site evaluation of the discovery. A professional archaeologist will investigate the discovery and recommend a course of action to protect the site. FTA will consider eligibility and effects, consult with the Indiana SHPO, and determine actions to take to resolve adverse effects. FTA, in consultation with the Indiana SHPO, may authorize the continuation of ground-disturbing activities, with or without conditions; or, within 10 days from the date that FTA and the Indiana SHPO receive notice of the discovery, FTA, in consultation with the Indiana SHPO, may require that continued ground disturbance activities be conducted only in accordance with an approved plan. NICTD, FTA, and the Indiana SHPO will consult on the appropriate action. If requested by FTA or the Indiana SHPO, NICTD will develop a work plan to treat the discovery and resolve adverse effects to historic properties. If agreed upon by FTA and the Indiana SHPO, any necessary archaeological investigations will be conducted in accordance with the provisions of IC 14-21-1, 312 Indiana Administrative Code (IAC) 21, 312 IAC 22, the current *Guidebook for the Indiana Historic Sites and Structure Inventory—Archaeological Sites* (DHPA 2008), and other appropriate federal and state guidelines, statutes, rules, and regulations. The Indiana SHPO will review and provide concurrence on FTA's determination of eligibility, effects, and measures to avoid or reduce harm within 10 days of receipt of the work plan. NICTD will then implement these measures accordingly and resume work.

Regarding unanticipated effects on aboveground historic properties, if any adverse effects to a historic property occur during construction, NICTD will immediately cease construction activities that could affect the historic property. NICTD will notify FTA and the Indiana SHPO within 48 hours of the time of the discovery. NICTD, in consultation with FTA and the Indiana SHPO, will assess the extent of the adverse effect and propose repairs in a brief report. If any repairs to historic properties are necessary, they shall be consistent with the Secretary of the Interior's

Standards for Rehabilitation (36 CFR § 67.7). FTA will consider eligibility and effects and will determine actions to take to resolve adverse effects. The Indiana SHPO will have 15 days to review the report and provide comments on the proposed measures to resolve adverse effects. If no response is received from the Indiana SHPO, FTA may authorize NICTD to proceed with construction. NICTD shall implement these measures prior to resuming construction activities in the location of the historic property.

VI. DISPUTE RESOLUTION

Should any signatory to this MOA object in writing at any time to any actions proposed or the manner in which the terms of this MOA are implemented, FTA will consult with such signatory to resolve any objections. If FTA determines that such objection cannot be resolved, FTA will:

A. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from ACHP and signatories, and provide them with a copy of this written response. FTA will then proceed according to its final decision.

B. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the MOA, and provide them to ACHP with a copy of such written response. The responsibility of FTA and NICTD to carry out all other actions under the terms of this MOA that are not the subject of the dispute remain unchanged.

VII. AMENDMENT

This MOA may be amended when such amendment is agreed to in writing by all signatories. The amendment will be effective on the date that a copy is signed by the last signatory.

VIII. TERMINATION

This MOA will terminate in ten (10) years or upon completion of its terms, whichever comes first. If FTA, the Indiana SHPO, or NICTD determines that the terms of this MOA will not or cannot be carried out, that party will immediately consult with the other signatories to attempt to develop an amendment per Stipulation VII above. If within thirty (30) days (or another time period agreed to by all signatories) an amendment cannot be reached, FTA or NICTD may terminate the MOA upon written notification to the other signatories.

IX. IMPLEMENTATION

A. This MOA may be implemented in counterparts, with a separate page for each signatory. This MOA will become effective on the date of the final signature by the signatories. FTA shall ensure each signatory is provided with a complete copy, and that the final MOA, any updates to attachments, and any amendments are filed with ACHP.

B. Execution of this MOA by FTA and the Indiana SHPO and implementation of its terms is evidence that FTA has taken into account the effects of its undertaking on historic properties and has afforded the ACHP an opportunity to comment pursuant to Section 106 of the NHPA.

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT

BETWEEN

THE FEDERAL TRANSIT ADMINISTRATION AND

THE INDIANA STATE HISTORIC PRESERVATION OFFICER

REGARDING

THE WEST LAKE CORRIDOR PROJECT

SIGNATORY

FEDERAL TRANSIT ADMINISTRATION

SIGNED BY: Marisol R. Simón Date: 11/7/2017

Marisol R. Simón
Regional Administrator

SIGNATURE PAGE

MEMORANDUM OF AGREEMENT

BETWEEN

THE FEDERAL TRANSIT ADMINISTRATION AND

THE INDIANA STATE HISTORIC PRESERVATION OFFICER

REGARDING

THE WEST LAKE CORRIDOR PROJECT

SIGNATORY

INDIANA STATE HISTORIC PRESERVATION OFFICER

SIGNED BY: Mitchell K. Zoll Date: 12-11-2017

Mitchell K. Zoll
Deputy State Historic Preservation Officer

SIGNATURE PAGE
MEMORANDUM OF AGREEMENT
BETWEEN
THE FEDERAL TRANSIT ADMINISTRATION AND
THE INDIANA STATE HISTORIC PRESERVATION OFFICER
REGARDING
THE WEST LAKE CORRIDOR PROJECT

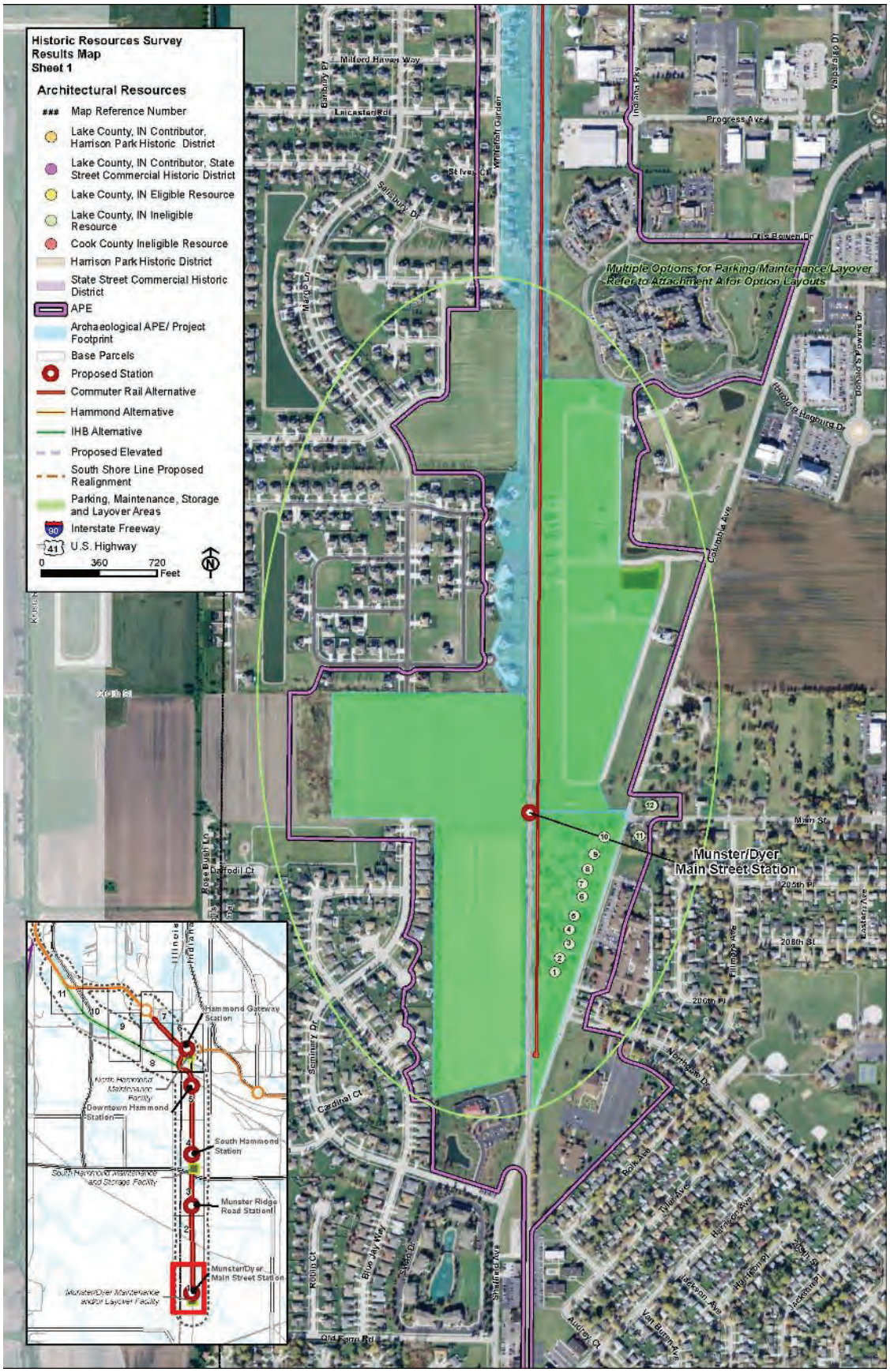
INVITED SIGNATORY

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT

SIGNED BY: _____ Date: 12/11/17
Michael Noland
President

Attachment A:

APE Maps


Historic Resources Survey
Results Map
Sheet 1
Architectural Resources
Map Reference Number
Lake County, IN Contributor, Harrison Park Historic District
Lake County, IN Contributor, State Street Commercial Historic District
Lake County, IN Eligible Resource
Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
State Street Commercial Historic District
APE
Archaeological APE/ Project Footprint
Base Parcels
Proposed Station
Commuter Rail Alternative
Hammond Alternative
IHB Alternative
Proposed Elevated
South Shore Line Proposed Realignment
Parking, Maintenance, Storage and Layover Areas
Interstate Freeway
U.S. Highway
0 360 720 Feet
Multiple Options for Parking/Maintenance/Layover
Refer to Attachment A for Option Layouts
Munster/Dyer
Main Street Station
Hammond Gateway Station
North Hammond Maintenance Facility
Downtown Hammond Station
South Hammond Station
South Hammond Maintenance and Storage Facility
Munster Ridge Road Station
Munster/Dyer Main Street Station
Munster/Dyer Maintenance and/or Layover Facility


Historic Resources Survey Results Map
Sheet 2
Architectural Resources
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Lake County, IN Contributor, State Street Commercial Historic District
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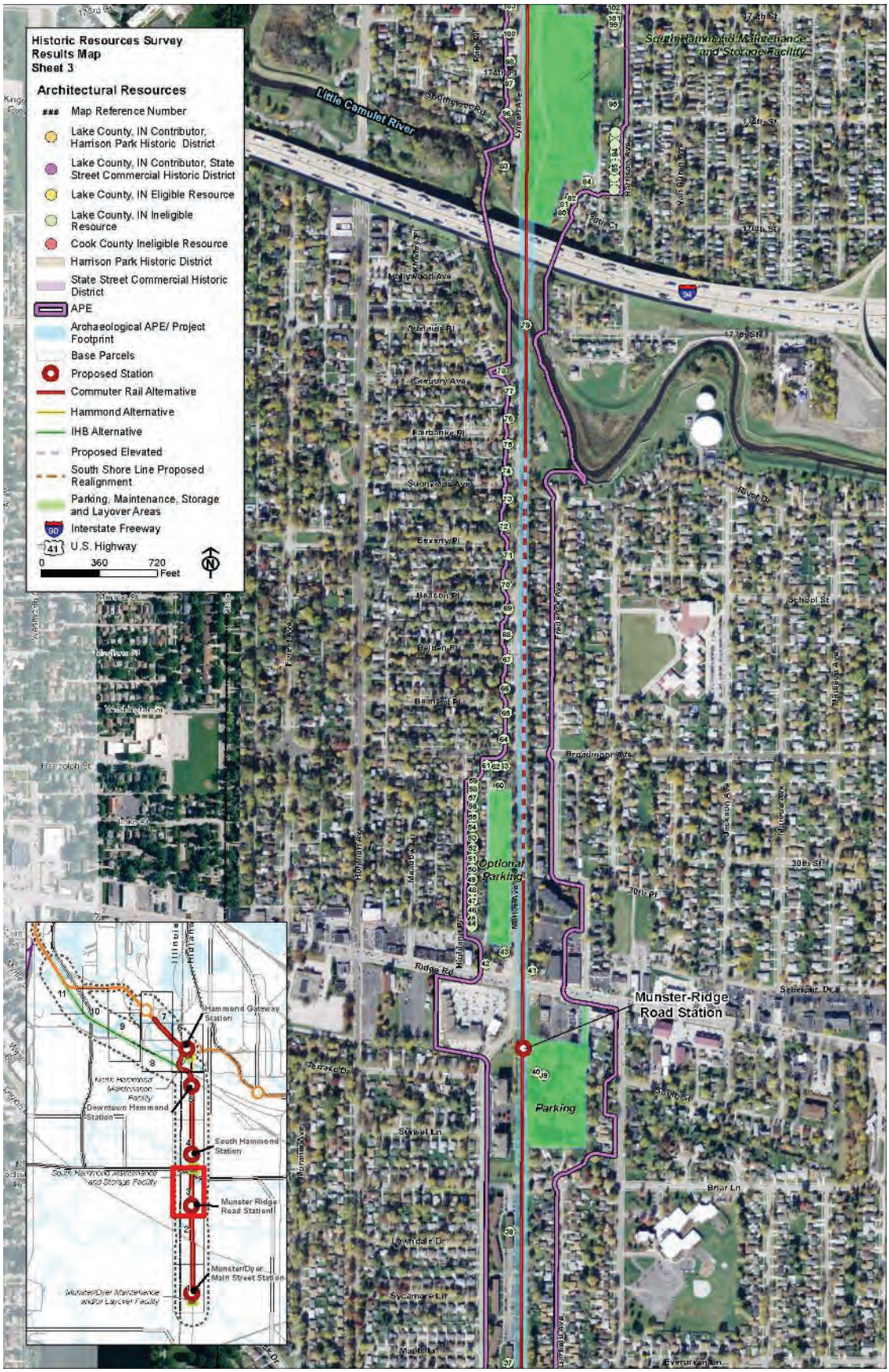
Parking, Maintenance, Storage and Layover Areas
Interstate Freeway
U.S. Highway
0 360 720 Feet
CSX Railroad
Pennsey Greenway
Glenwood Lansing Rd
45th St
Fisher St
Superior Ave
Glastonbury St
Milford Haven Way
Lancaster Rd
Hammond Gateway Station
North Hammond Maintenance Facility
Downtown Hammond Station
South Hammond Station
South Hammond Maintenance and Storage Facility
Munster Ridge Road Station
MunsterDyer Main Street Station
MunsterDyer Maintenance and/or Layover Facility
Illinois
Indiana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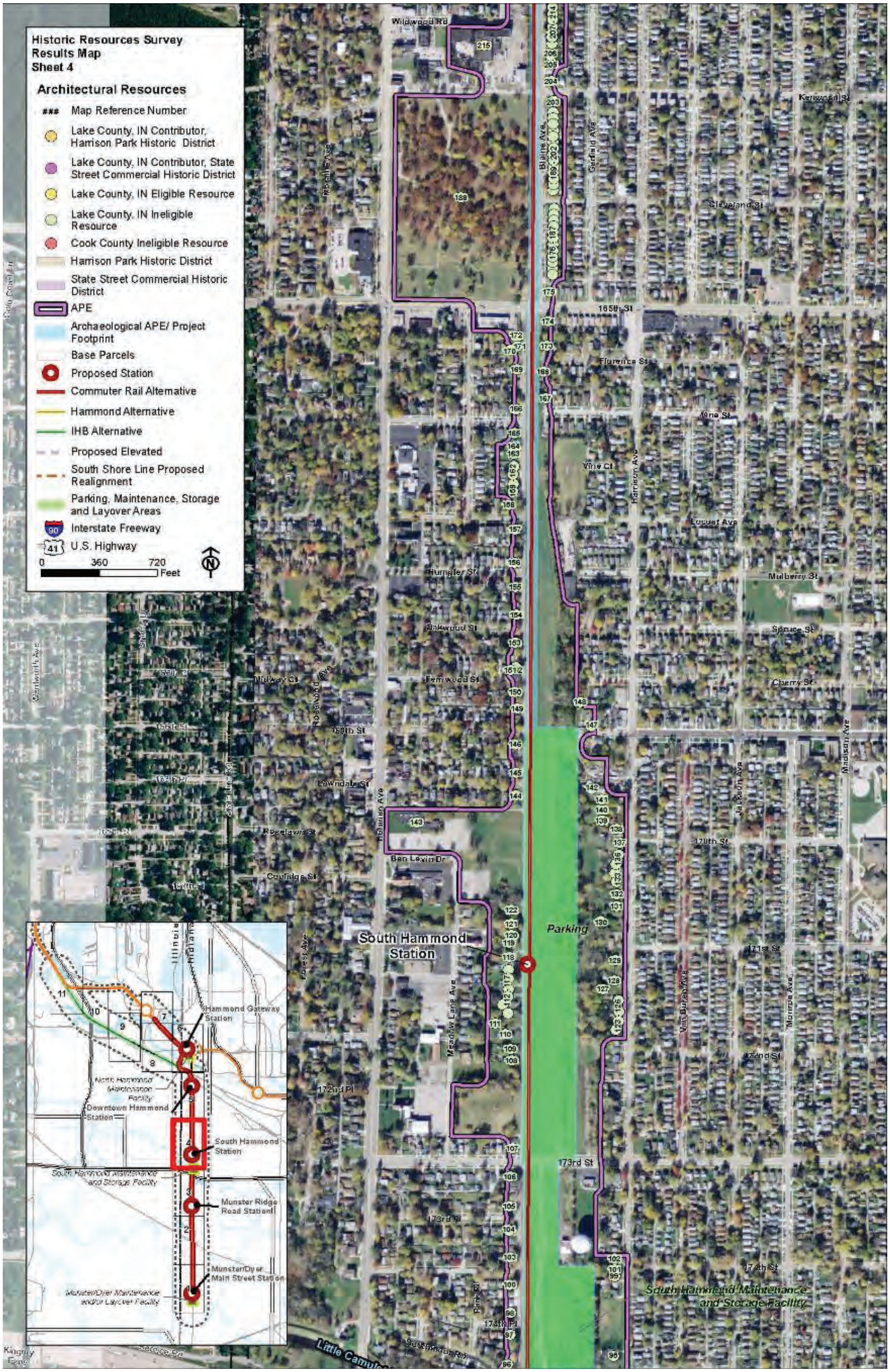
Parking, Maintenance, Storage and Layover Areas
Interstate Freeway
U.S. Highway
0 360 720 Feet
Little Calumet River
South Hammond Maintenance and Storage Facility
Optional Parking
Parking
Munster-Ridge Road Station
Hammond Gateway Station
North Hammond Maintenance Facility
Downtown Hammond Station
South Hammond Station
South Hammond Maintenance and Storage Facility
Munster Ridge Road Station
Munster/Dyer Main Street Station
Munster/Dyer Maintenance and/or Layover Facility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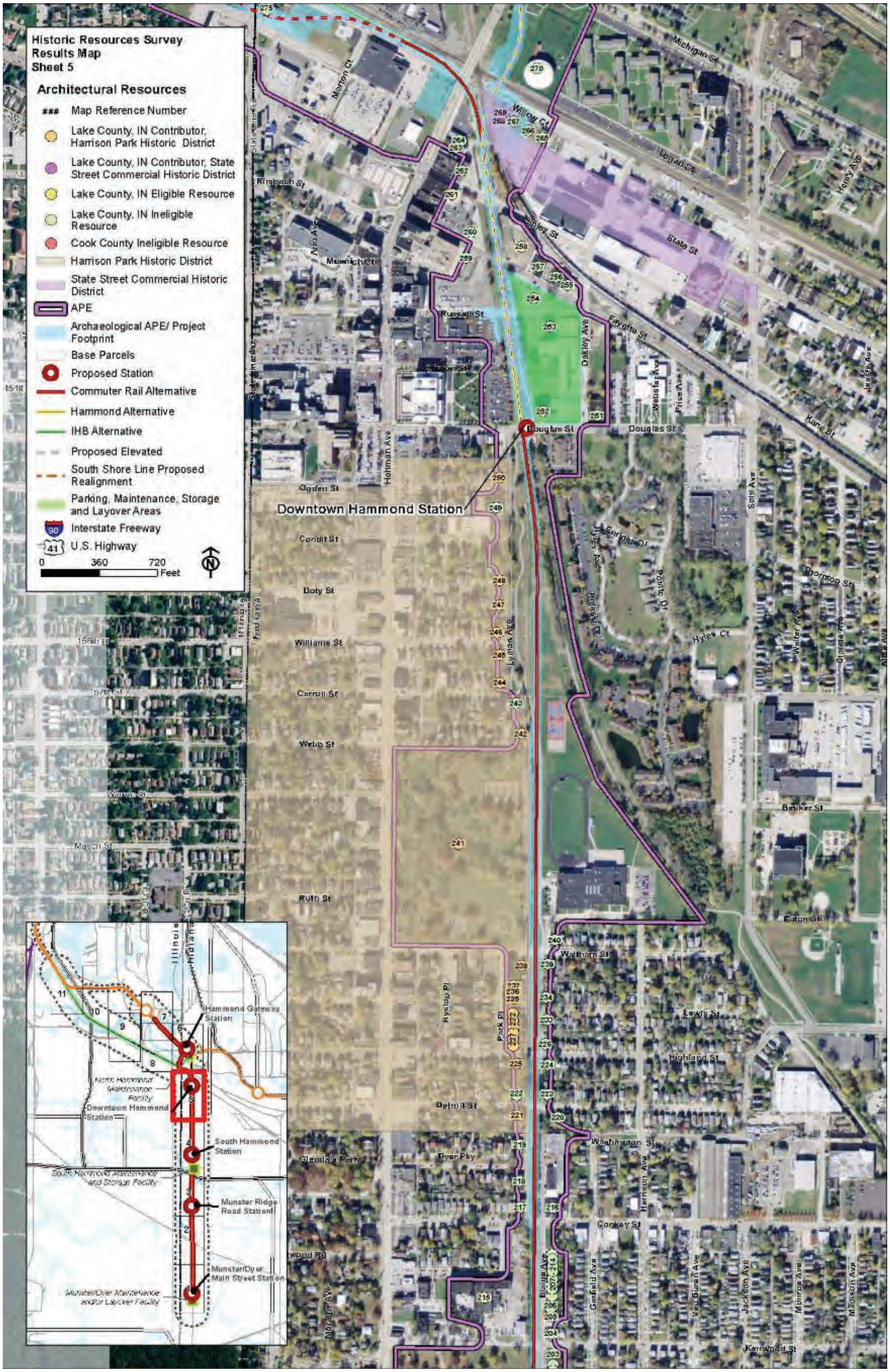
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North Hammond Maintenance Facility
Downtown Hammond Station
South Hammond Station
South Hammond Maintenance and Storage Facility
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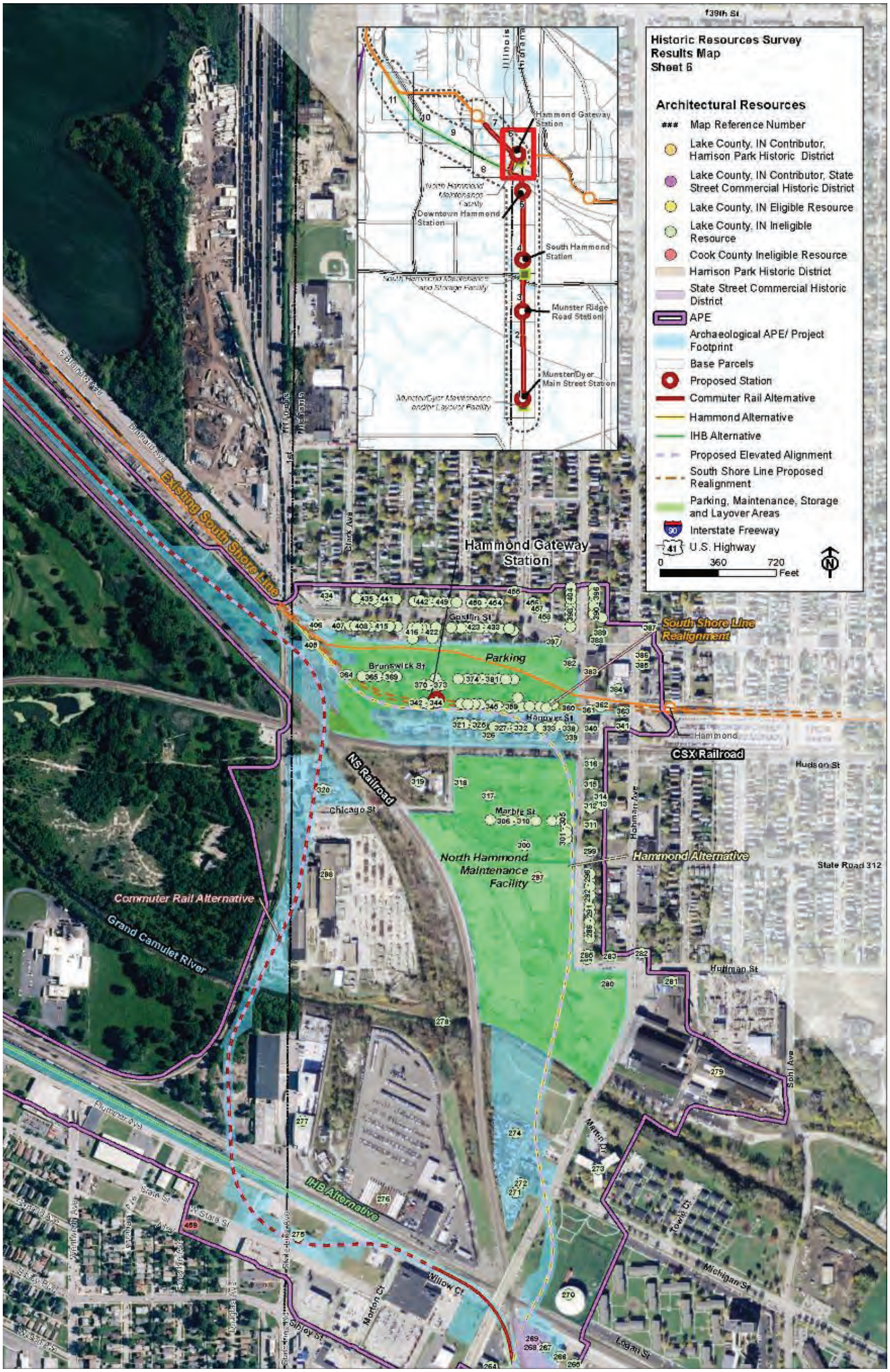
Munster/Dyer Main Street Station
Munster/Dyer Maintenance and/or Layover Facility


Historic Resources Survey
Results Map
Sheet 6
Architectural Resources
Map Reference Number
Lake County, IN Contributor, Harrison Park Historic District
Lake County, IN Contributor, State Street Commercial Historic District
Lake County, IN Eligible Resource
Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
State Street Commercial Historic District
APE
Archaeological APE/ Project Footprint
Base Parcels
Proposed Station
Commuter Rail Alternative
Hammond Alternative
IHB Alternative
Proposed Elevated Alignment
South Shore Line Proposed Realignment
Parking, Maintenance, Storage and Layover Areas
Interstate Freeway
U.S. Highway
0 360 720 Feet
Hammond Gateway Station
Downtown Hammond Station
South Hammond Station
Munster Ridge Road Station
Munster/Dyer Main Street Station
Illinois
Indiana
Existing South Shore Line
South Shore Line Realignment
Hammond Gateway Station
Parking
Brunswick St
Hanover St
Goslin St
CSX Railroad
NS Railroad
Chicago St
Marble St
North Hammond Maintenance Facility
Hammond Alternative
State Road 312
Hudson St
Hohman Ave
Huffman St
Sohl Ave
Commuter Rail Alternative
Grand Calumet River
IHB Alternative
Michigan St
Logan St
Willow Ct
Morton Ct
Sibley St
State St
Clark Ave
139th St


Historic Resources Survey
Results Map
Sheet 7
Architectural Resources
*** Map Reference Number
Lake County, IN Contributor, Harrison Park Historic District
Lake County, IN Contributor, State Street Commercial Historic District
Lake County, IN Eligible Resource
Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
State Street Commercial Historic District
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IHB Alternative
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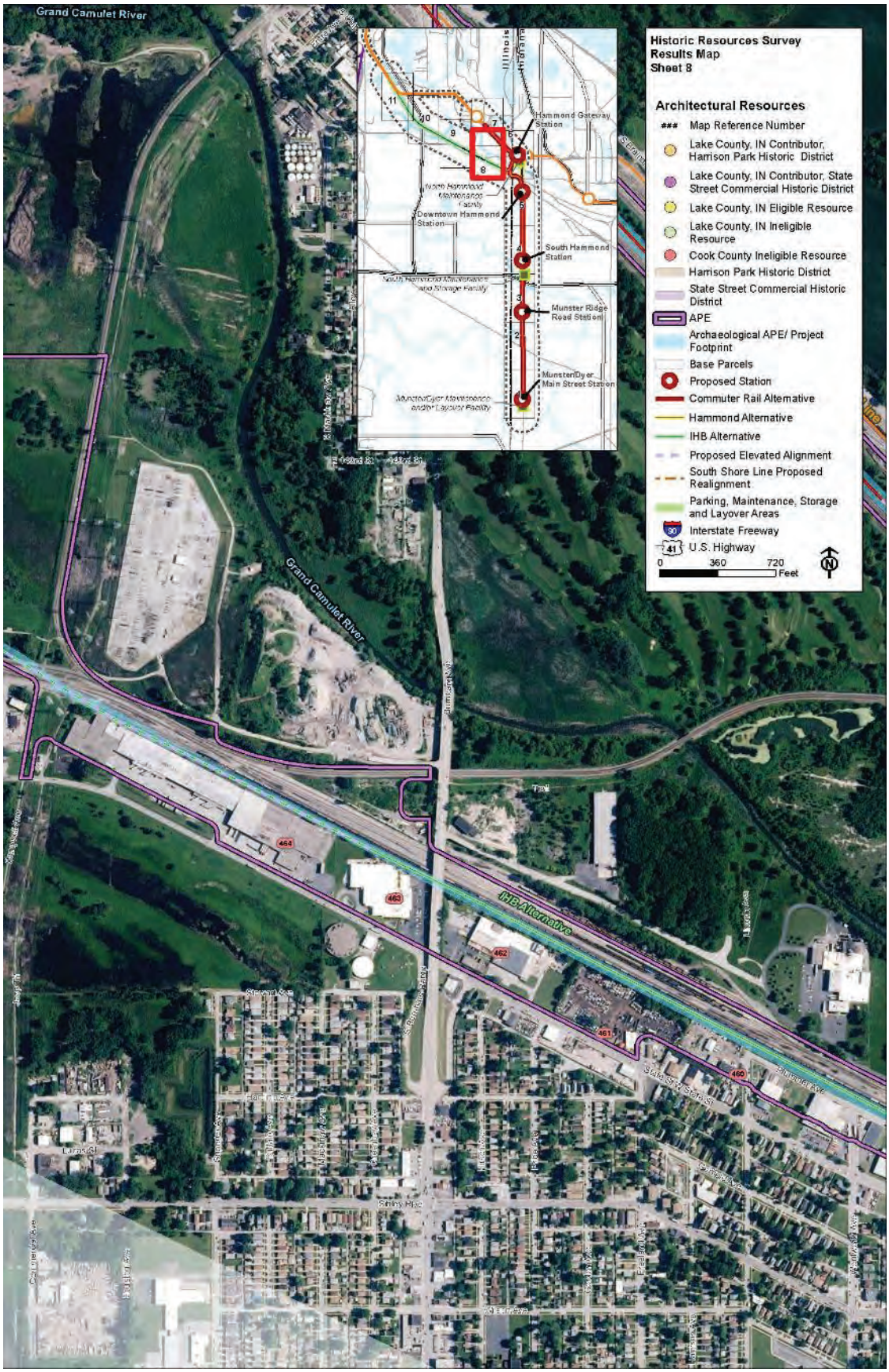
Interstate Freeway
U.S. Highway
0 360 720 Feet
Hammond Gateway Station
Downtown Hammond Station
South Hammond Station
Munster Ridge Road Station
MunsterDyer Main Street Station
Existing South Shore Line
Grand Calumet River


Grand Calumet River
Historic Resources Survey
Results Map
Sheet 8
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Lake County, IN Contributor, State Street Commercial Historic District
Lake County, IN Eligible Resource
Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
State Street Commercial Historic District
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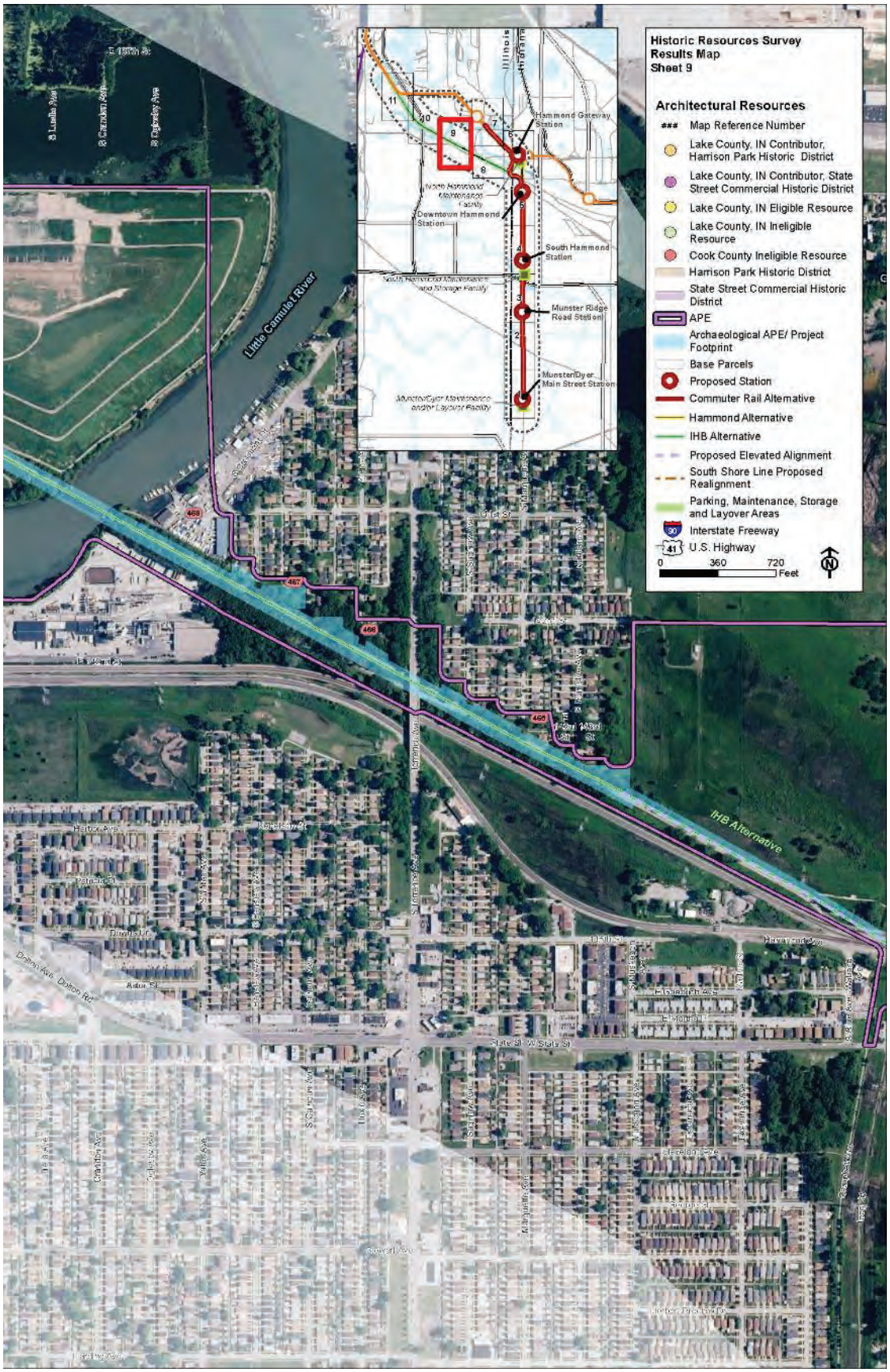
South Shore Line Proposed Realignment
Parking, Maintenance, Storage and Layover Areas
Interstate Freeway
U.S. Highway
0 360 720
Feet
Hammond Gateway Station
Downtown Hammond Station
South Hammond Station
Munster Ridge Road Station
Munster/Dyer Main Street Station
Grand Calumet River
IHB Alternative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Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
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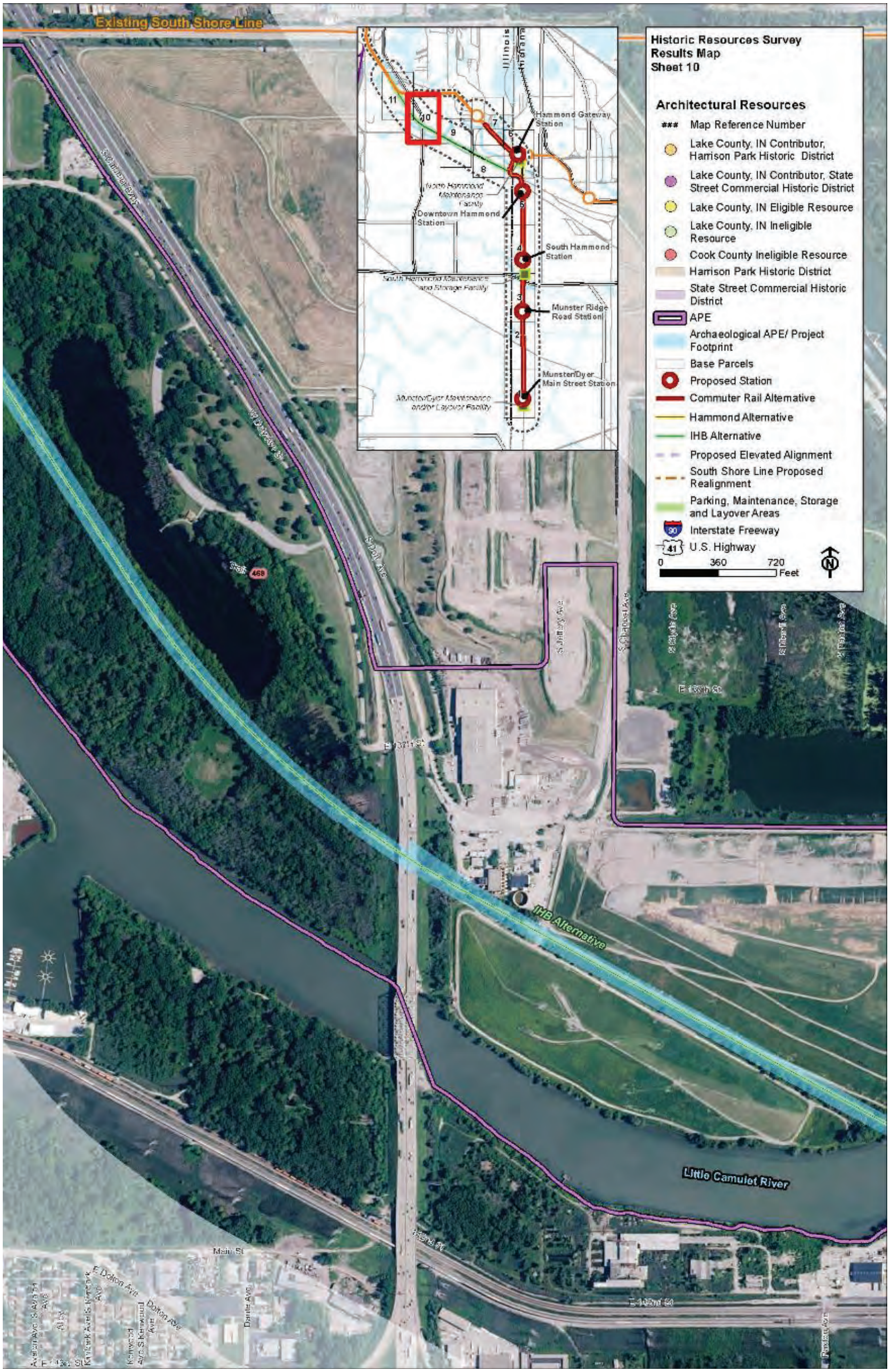
U.S. Highway
0 360 720 Feet
Hammond Gateway Station
Downtown Hammond Station
South Hammond Station
Munster Ridge Road Station
MunsterDyer Main Street Station
Little Calumet River
IHB Alternative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Historic Resources Survey
Results Map
Sheet 10
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Lake County, IN Contributor, State Street Commercial Historic District
Lake County, IN Eligible Resource
Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
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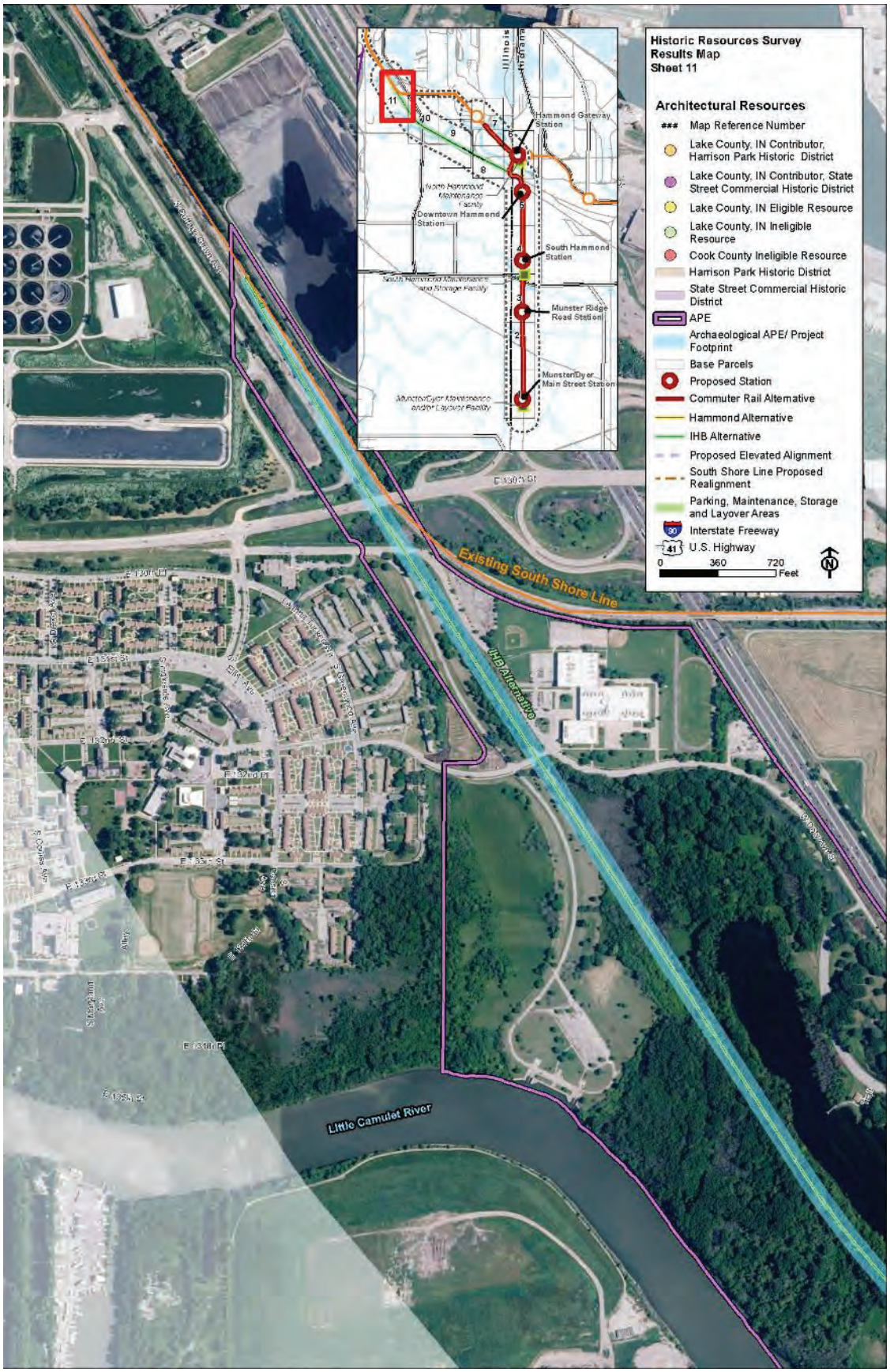
Historic Resources Survey Results Map
Sheet 11
Architectural Resources
*** Map Reference Number
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Lake County, IN Contributor, State Street Commercial Historic District
Lake County, IN Eligible Resource
Lake County, IN Ineligible Resource
Cook County Ineligible Resource
Harrison Park Historic District
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0 360 720 Feet
Hammond Gateway Station
Downtown Hammond Station
South Hammond Station
Munster Ridge Road Station
Munster/Dyer Main Street Station
Existing South Shore Line
IHB Alternative
Little Calumet River

Attachment B:
List of Consulting Parties

West Lake Corridor Project Consulting Parties

Indiana State Historic Preservation Office
Mitchell Zoll
402 W. Washington Street, W274
Indianapolis, IN 46204
mzoll@dnr.in.gov
317.232.3492

Illinois State Historic Preservation Office
Rachel Leibowitz
Preservation Services Division
#1 Old State Capitol Plaza
Springfield, IL 62701-1507
Rachel.leibowitz@illinois.gov
217.785.5031

Peoria Tribe of Indians of Oklahoma
Cynthia Stacy
THPO
PO Box 1527
Miami, OK 74355-1527
Cstacy@peoriatribe.com
918.540.2535 x31

Hammond Historical Society
Peg Evans
564 State Street
Hammond, IN 46320
pegevans@aol.com
219.931.5100

Hammond Historic Preservation Commission
Brian L. Poland, AICP
5925 Calumet Avenue Rm. G17
Hammond, IN 46320
polandb@gohammond.com
219.853.6397 x3

Indiana Landmarks – Northwest Field Office
Brad Miller
541 S. Lake Street
Gary, IN 46403
bmiller@indianalandmarks.org
219.947.2657

Lake County Historical Society
Bruce Woods
Courthouse Square, Suite 205
Crown Point, IN 46307
Bwoods_mhs@yahoo.com
219.662.3975

Attachment 4
Section 7 of the Endangered Species Act Compliance

United States Department of the Interior
Fish and Wildlife Service

Bloomington Field Office (ES)
620 South Walker Street
Bloomington, IN 47403-2121
Phone: (812) 334-4261 Fax: (812) 334-4273

November 4, 2014

NICTD
West Lake Corridor Project
33 East U.S. Highway 12
Chesterton, Indiana 46304

Dear Sir:

This is in reference to the September 30, 2014 Federal Register Notice of Intent to Prepare an Environmental Impact Statement for development of a commuter rail line within an approximate 9-mile corridor between Dyer and Hammond, with a possible extension southeast to St. John, all in Lake County, Indiana. The U.S. Fish and Wildlife Service (FWS) offers the following comments.

A coalition of the Northern Indiana Commuter Transportation District (NICTD), Town of Munster, and City of Hammond owns the abandoned right-of-way of the Monon Railroad between the 45th/Fisher Streets area in Munster and Sibley Street in Hammond and proposes using this corridor, in conjunction with the active CSX track, currently utilized by Amtrak and freight trains, south of 45th Street, as the primary route of the proposed commuter rail line. New tracks will be required beyond Sibley Street. Use of a portion of the existing South Shore Line (SSL) and Metra Electric District (MED) facilities or alternative existing rail lines between Hammond and Chicago will also be addressed. Several alternatives for a rail yard/maintenance facility will be considered, including near US 41 at St. John, near Main Street in Dyer, and at the site of the former Monon rail yard in southern Hammond.

There may be wetlands in the Fisher/45th Streets area in southern Munster because numerous other proposed developments in that area have encountered wetlands. However, we do not know what specific parcel has already been purchased by the NICTD/Munster/Hammond coalition in anticipation of a passenger station in that area, so we do not know if wetlands are involved or not. Wetland delineations will therefore be necessary in this area.

There may also be wetlands associated with the proposed crossings of the West Branch Little Calumet River, West Branch Grand Calumet River, and/or Calumet River/Calumet Sag Channel, depending upon the route chosen. The crossing of the West Branch Little Calumet will likely be at the site of the existing abandoned bridge, and a crossing of the Calumet River/Cal Sag Channel would be in the vicinity of the existing Indiana Harbor Belt (IHB) Railroad bridge in Burnham. The IHB route bisects Beaubien Woods Forest Preserve in Illinois, which contains numerous wetlands, including adjacent to the existing single railroad track; in Burnham, the IHB is also adjacent to wetlands, plus the Burnham Prairie Nature Preserve. Since entirely new tracks will be required in the downtown Hammond area to connect the old Monon right-of-way with the existing SSL tracks north of the West Branch Grand Calumet River, it is currently unknown where there may be a new crossing of the West Branch Grand Calumet.

The existing bridge over the West Branch Little Calumet River includes several piers within the river channel which are known to collect debris and contribute to flooding problems during high water events. Therefore, the DEIS needs to evaluate the impacts of leaving this bridge in place to serve the commuter line versus removing it and replacing it at the same site with a clear span bridge with no in-channel piers.

The FWS will request mitigation for wetland losses; the mitigation ratio for the loss of forested wetland is 4:1, with 2: or 3:1 for emergent and scrub-shrub wetlands. The U.S. Army Corps of Engineers, Chicago District, will have to determine whether or not a Section 404 permit would be required for the filling of wetlands due to the rail project. However, the Federal Transit Administration has an obligation to minimize the destruction, loss, or degradation of wetlands pursuant to Executive Order 11990, as amended by Executive Order 12608, concerning protection of wetlands, regardless of the need for a wetland fill permit.

Of particular concern to the FWS is the possibility of a new crossing of the West Branch Grand Calumet River in Hammond. The FWS, in conjunction with the other Natural Resources Trustees (Indiana Departments of Natural Resources and Environmental Management) has been working with the U.S. Environmental Protection Agency (EPA) to remediate the severely polluted sediments within both the West and East Branches of the Grand Calumet River in Indiana utilizing Great Lakes Legacy Act and the Great Lakes Restoration Initiative funding. This multi-year project has been proceeding along various distinct segments of the river, with the westernmost portion, Reaches 6 and 7 between Hohman Avenue and the State Line, being the last segment to be remediated within the West Branch Grand Calumet; permits have been received and work will begin shortly. The work involves dredging of some of the contaminated sediments and capping of the remaining sediments with a geosynthetic grid, organoclay, and/or granulated activiated carbon a minimum of 2 feet deep, topped with several feet of clean sand. Because of the dredging and capping, the Trustees are opposed to any construction activities that could compromise the integrity of the cap, including the placement of piers and abutments for a new railroad bridge. If it is determined by the FTA that a new bridge will be necessary to cross the West Branch Grand Calumet within Hammond, this bridge must be a clear span, with no

piers or abutments within the river channel. We are not aware of similar constraints to the construction of a new bridge over the river in Illinois, because to our knowledge the State of Illinois has not proposed to dredge and cap the river in that state.

Executive Order 13186, issued on January 10, 2001, directs each Federal agency taking actions having or likely to have a negative impact on migratory bird populations to work with the FWS to develop an agreement to conserve those birds under the Migratory Bird Treaty Act (MBTA). In addition to avoiding or minimizing impacts to migratory bird populations, agencies will be expected to take reasonable steps that include restoring and enhancing habitat and incorporating migratory bird conservation into agency planning processes whenever possible. Therefore, the DEIS you are preparing will need to address this issue. Included in the migratory bird issue is the presence of bald eagles nesting/attempting to nest within wetland and woodland habitats in the Grand Calumet/Cal-Sag Channel/Lake Calumet area in Illinois during the past 4-5 years. An adult eagle pair has attempted to nest at several locations in this area, but we do not have information about the success of the most recent nesting attempt, although the first several attempts were not successful. Bald eagles are protected by the MBTA and also by the Bald and Golden Eagle Protection Act; please refer to the National Bald Eagle Management Guidelines available on the U.S. Fish and Wildlife Service's Website.

As discussed in the Federal Transit Administration's October 1, 2014 letter to the U.S. Fish and Wildlife Service, our agency agrees to be a Participating Agency during the EIS process. Staff at our Northern Indiana Suboffice is available to attend the interagency meetings and/or field reviews and to provide early coordination comments on the proposal. Please address correspondence to Mrs. Elizabeth McCloskey, U.S. Fish and Wildlife Service, Northern Indiana Suboffice, P.O. Box 2616, Chesterton, Indiana 46304, phone (219) 983-9753, elizabeth_mccloskey@fws.gov.

ENDANGERED SPECIES

Lake County, Indiana is within the range of the Federally endangered Indiana bat (Myotis sodalis) and Karner blue butterfly (Lycaeides melissa samuelis), the proposed endangered northern long-eared bat (Myotis septentrionalis), and the threatened Pitcher's thistle (Cirsium pitcheri) and Mead's milkweed (Asclepias meadii). Cook County, Illinois is within the range of the Federally endangered piping plover (Charadrius melodus), Hine's emerald dragonfly (Somatochlora hineana), and leafy-prairie clover (Dalea foliosa), the proposed endangered northern long-eared bat, the threatened prairie bush clover (Lespedeza leptostachya), eastern prairie fringed orchid (Platanthera leucophaea), and Mead's milkweed, and the candidate eastern massasauga rattlesnake (Sistrurus catenatus) and rattlesnake-master borer moth (Papaipema eryngii). Also in Cook County there is designated Critical Habitat for the Hine's emerald dragonfly.

None of the Lake County listed species are known within the West Lake Corridor Project Study Area. Most of the Cook County listed species are also not known within the Corridor, including the Hine's emerald dragonfly and its Critical Habitat. However, we do not know the status of some of the species within the Forest Preserves, Nature Preserves, and other protected habitats within the Corridor.

We appreciate the opportunity to provide input during this environmental scoping process. If you have any questions about our comments, please contact Elizabeth McCloskey at (219) 983-9753 or elizabeth_mccloskey@fws.gov.

Sincerely yours,

Elizabeth S. McCloskey

Acting for Scott E. Pruitt
Supervisor

cc: Regional Director, FWS, Ft. Snelling, MN (HC/EC/NWI) (ER 14/0622)
USDI, Office of Environmental Policy and Compliance, Washington, DC. (PEP/NRM)
Shawn Cirton, USFWS, Chicago Field Office, Barrington, IL
Carl Wodrich, IDNR, Land Acquisition, Indianapolis, IN
Lori White, IDNR, Regional Environmental Biologist, West Lafayette, IN
Christie Stanifer, IDNR, Environmental Coordinator, Indianapolis, IN
Marty Maupin, IDEM, Office of Water Quality, Indianapolis, IN
Paul Leffler, USACE, Regulatory Branch, Chicago, IL
Kenneth Westlake, USEPA, NEPA Implementation Section, Chicago, IL

From: McCloskey, Elizabeth [mailto:elizabeth_mccloskey@fws.gov]
Sent: Tuesday, March 21, 2017 9:58 AM
To: Nicole Barker <nicole.barker@nictd.com>
Cc: Grundel, Ralph <rgrundel@usgs.gov>
Subject: Re: Rusty Patched Bumble Bee?

Good morning Nicole, I just checked on the bumble bee in relation to NICTD's 2 projects and neither one includes the species. So it won't be necessary to do surveys for it.

I still don't know exactly where it is in Lake County, but it is somewhere south of US 30.

Liz

On Wed, Mar 15, 2017 at 11:59 AM, Nicole Barker <nicole.barker@nictd.com> wrote:

> Thanks a million, Liz – this is immensely helpful news. Please let me know what you find out when that Lake County instance is up on the map so we can be sure it doesn't intersect with either project.
>
> We really appreciate the help you and Ralph have provided.

Nicole Barker

Director of Capital Investment and Implementation

South Shore Line

nicole.barker@nictd.com

O: 219.926.5744 x 313

M: 219.921-4263

Merchan Paniagua, Sara

From: McCloskey, Elizabeth <elizabeth_mccloskey@fws.gov>
Sent: Tuesday, September 26, 2017 12:42 PM
To: Merchan Paniagua, Sara
Cc: Armstrong, Roben; Primer, Samantha; Nicole Barker
Subject: Re: NICTD West Lake Corridor Project - Updated Coordination on Federally Listed Species

Good afternoon Sara,

There are no known Federally endangered species within the NICTD West Lake Corridor Project foot print in Indiana or Illinois. This was already addressed in the Draft Environmental Impact Statement (January 2017), so no additional surveys for any of the species were necessary.

The eastern massasauga is not listed in Lake County, Indiana because it hasn't been found there in many years; it was historically present. The only newly-listed species in Lake County, Indiana is the rusty patched bumble bee, but I checked its location when the listing was made and it is not in the project area; I provided that information to Nicole Barker of NICTD, so no surveys for that species were necessary.

Elizabeth McCloskey
U.S. Fish and Wildlife Service
Northern Indiana Suboffice

On Mon, Sep 25, 2017 at 10:13 AM, Merchan Paniagua, Sara <Sara.MerchanPaniagua@hdrinc.com> wrote:

> Hello Liz,
>
> I am reaching out to you in regards to the NICTD West Lake Corridor Project. The project team received a letter from USFWS dated November 4, 2014, which stated that none of the federally listed species occurring in Lake County are known within our project area. In addition, the project team checked in with you via email on June 30, 2017 in regards to the Indiana bat and northern long-eared bat maternity colonies. Your reply email confirmed the November 2014 letter statements. However, since almost 3 years have passed since that letter, we wanted to check with you to confirm there are still no federal species in our project area.
>
> The eastern massasauga rattlesnake was mentioned in the 2014 letter as being a candidate in Cook County. Because it was later listed in Lake County, the team conducted surveys for this species. Surveys concluded there is approximately 1.58 acres of low-quality habitat within the construction footprint (generally located south of Fisher Street along the east edge of the golf course in Munster). However, the team concluded that the shaded nature of this habitat limits its usefulness for this species.
>
> The team also surveyed for the Indiana bat and northern long-eared bat. For the bats, 50 candidate roost trees were identified, of which 45 are of low quality and 5 of moderate quality. The 5 moderate-quality roost trees are outside the project's construction footprint, just north and south of I-80/I-94 in Hammond.

The Karner blue butterfly was also mentioned in the 2014 letter. However, surveyors did not find any wild lupine in the construction footprint. Similarly, the floristic inventory did not yield any occurrences of the Pitcher's thistle or the Mead's milkweed.

We are finishing up the reports with our findings. Let us know if you would like to review these at this time or if you would like us to send you a mapbook of the project corridor.

I would appreciate if you could get back to me at your earliest convenience.

Thanks Liz!

Sara

Sara Merchán Paniagua

Environmental Scientist II

ONEHDRED
1917-2017

HDR

8550 W Bryn Mawr Ave, Suite 900
Chicago, IL 60631
D 773.867.7217 **O** 773.380.7900
sara.merchanpaniagua@hdrinc.com

hdrinc.com/follow-us

Attachment 5
INDNR Coordination

THIS IS NOT A PERMIT

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

DNR #: ER-17897 **Request Received:** October 6, 2014

Requestor:
US Department of Transportation
Mark Assam
Federal Transit Administration
200 West Adams Street, Suite 320
Chicago, IL 60606-5253

Project: West Lake Corridor Project, Lake Co., IN and Cook Co., IL EIS: new track improvements, four (4) new stations, and a maintenance facility along a 9 mile southern extension along the Northern Indiana Commuter Transportation District (NICTD) existing South Shore Line (SSL) between Dyer and Hammond, IN

County/Site info: Lake

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

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

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, or the Lake Preservation Act (IC 14-26-2) for any construction that will take place at or lakeward of the legal shoreline of a public freshwater lake. Please submit more detailed plans to the Division of Water's Technical Services Section if you are unsure whether or not a permit will be required.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
This project does not impact any DNR owned nature preserves. Also, no plant or animal species listed as state or federally threatened, endangered, or rare have been reported to occur within the proposed corridor. However, a historical record of the northern leopard frog (Lithobates pipiens), a state species of special concern, and a wet-mesic sand prairie "between EJE Railroad and Conrail Railroad tracks" near Dyer about 0.4 mile east of project, have been documented with 1/2 mile of the proposed corridor.

This review is based on the current proposed alignment. Once stations and maintenance sites are determined, or if the proposed alignment is changed, further review and comments may be needed.

Fish & Wildlife Comments: We do not foresee any impacts to the Northern leopard frog as a result of this project.

Avoid and minimize impacts to fish, wildlife, and botanical resources to the greatest extent possible, and compensate for impacts. The following are recommendations that address potential impacts identified in the proposed project area:

1) Stream Crossings:
Utilizing existing structures will produce fewer impacts to streams, wetlands, and surrounding habitats. If the rehabilitation of an existing structure is not feasible, consider the following:

Using a three span structure without piers within the Little Calumet River could provide benefits to the river by removing the existing structure and piers and allowing the river to flow unobstructed. Locating a new structure within the footprint of the existing structure and minimizing impacts to surrounding habitat will aid to further minimize impacts to the river, wetlands, and surrounding habitat.

For purposes of maintaining fish passage through a crossing structure, the Environmental Unit recommends bridges rather than culverts and bottomless culverts rather than box or pipe culverts. Wide culverts are better than narrow culverts, and culverts with shorter through lengths are better than culverts with longer through lengths. If box or pipe culverts are used, the bottoms should be buried a minimum of 6" (or 20% of the culvert height/pipe diameter, whichever is greater up to a maximum of 2') below the stream bed elevation to allow a natural streambed to form within or under the crossing structure. Crossings should: span the entire channel width (a minimum of 1.2 times the bankful width); maintain the natural stream substrate within the structure; have a minimum openness ratio (height x width / length) of 0.25; and have stream depth and water velocities during low-flow conditions that are approximate to those in the natural stream channel.

2) Bank Stabilization:
Establishing vegetation along the banks is critical for stabilization and erosion control. In addition to vegetation, some other form of bank stabilization may be needed. While hard armoring alone (e.g. riprap or glacial stone) may be needed in certain instances, soft armoring and bioengineering techniques should be considered first. In many instances, one or more methods are necessary to increase the likelihood of vegetation establishment. Combining vegetation with most bank stabilization methods can provide additional bank protection while not compromising the benefits to fish and wildlife. Information about bioengineering techniques can be found at http://www.in.gov/legislative/iac/20120404-IR-312120154NRA.xml.pdf. Also, the following is a USDA/NRCS document that outlines many different bioengineering techniques for streambank stabilization: http://directives.sc.egov.usda.gov/17553.wba.

The new, replacement, or rehabbed structure, and any bank stabilization under or around the structure, should not create conditions that are less favorable for wildlife passage under the structure compared to the current conditions. A level area of natural ground under the structure is ideal for wildlife passage. If hard armoring is needed, we recommend a smooth-surfaced material such as articulated concrete mats (or riprap at the toe and turf reinforcement mats above the riprap toe protection) be placed on the side-slopes instead of riprap. Such materials will not impair wildlife movement along the banks under the bridge.

Riprap must not be placed in the active thalweg channel or placed in the streambed in a manner that precludes fish or aquatic organism passage (riprap must not be placed above the existing streambed elevation). Riprap may be used only at the toe of the sideslopes up to the ordinary high water mark (OHWM). The banks above the OHWM must be restored, stabilized, and revegetated using geotextiles and a mixture of grasses, sedges, wildflowers, shrubs, and trees native to Northern Indiana and specifically for stream bank/floodway stabilization purposes as soon as possible upon completion.

3) Riparian Habitat:
We recommend a mitigation plan be developed (and submitted with the permit application, if required) if habitat impacts will occur. The DNR's Floodway Habitat Mitigation guidelines (and plant lists) can be found online at: http://www.in.gov/legislative/iac/20140806-IR-312140295NRA.xml.pdf.

Impacts to non-wetland forest over one (1) acre should be mitigated at a minimum 2:1 ratio. If less than one acre of non-wetland forest is removed in a rural setting, replacement should be at a 1:1 ratio based on area. Impacts to non-wetland forest under one (1) acre in an urban setting should be mitigated by planting five trees, at least 2 inches in diameter-at-breast height (dbh), for each tree which is removed that is 10" dbh or greater (5:1 mitigation based on the number of large trees).

Remediation efforts along the west and east branches of the Grand Calumet River under the Great Lakes Legacy Act and Great Lakes Restoration Initiative have been on-going, and the last segment of remediation work along the Grand Calumet River from Hohman Avenue to the state line will begin soon. Any work proposed within the Grand Calumet River floodway for this project should avoid impacts to any mitigation planting areas from the remediation project.

4) Wetlands:
A formal wetland delineation should be conducted in order to determine the presence of and extent of any wetland habitat within the project corridor. Impacts should be avoided and minimized to the greatest extent possible.
Due to the presence or potential presence of wetlands on site, we recommend contacting and coordinating with the Indiana Department of Environmental Management (IDEM) 401 program and also the US Army Corps of Engineers (USACE) 404 program. Impacts to wetlands should be mitigated at the appropriate ratio (see guidelines above).

5) Exposed Soils:
All exposed soil areas must be stabilized with temporary or permanent vegetation by November 1. Between November 1 and April 1, all exposed soils idle for longer than 7 days must be stabilized with erosion control blankets or with a bonded fiber matrix hydro-mulch. Sites must be protected from seasonal flooding by keeping traffic areas covered with stone and soil stockpiles seeded, stable and contained with silt fencing.

The additional measures listed below should be implemented to avoid, minimize, or compensate for impacts to fish, wildlife, and botanical resources:
1. Revegetate all bare and disturbed areas with a mixture of grasses (excluding all varieties of tall fescue), legumes, and native shrub and hardwood tree species as soon as possible upon completion.
2. Minimize and contain within the project limits inchannel disturbance and the clearing of trees and brush.
3. Do not work in the waterway from April 1 through June 30 without the prior written approval of the Division of Fish and Wildlife.
4. Do not cut any trees suitable for Indiana bat roosting (greater than 3 inches dbh, living or dead, with loose hanging bark) from April 1 through September 30.
5. Do not excavate in the low flow area except for the placement of piers, foundations, and riprap, or removal of the old structure.
6. Do not construct any temporary runarounds, causeways, or cofferdams.
7. Use minimum average 6 inch graded riprap stone extended below the normal water level to provide habitat for aquatic organisms in the voids.
8. Do not use broken concrete as riprap.
9. Minimize the movement of resuspended bottom sediment from the immediate project area.
10. Do not deposit or allow demolition materials or debris to fall or otherwise enter the waterway.
11. Appropriately designed measures for controlling erosion and sediment must be implemented to prevent sediment from entering the stream or leaving the construction site; maintain these measures until construction is complete and all disturbed areas are stabilized.
12. Seed and protect all disturbed streambanks and slopes that are 3:1 or steeper with

THIS IS NOT A PERMIT

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

erosion control blankets (follow manufacturer's recommendations for selection and installation); seed and apply mulch on all other disturbed areas.

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

Date: November 7, 2014

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

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

DNR #: ER-17897-1 **Request Received:** December 14, 2016

Requestor:
Northern Indiana Commuter Transportation District
Nicole Barker
33 East US Highway 12
Chesterton, IN 46304-3521

Project: West Lake Corridor Project, Lake Co., IN and Cook Co., IL DEIS: new track improvements, four (4) new stations, and a maintenance facility along a 9 mile southern extension along the Northern Indiana Commuter Transportation District (NICTD) existing South Shore Line (SSL) between Dyer and Hammond, IN

County/Site info: Lake

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

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

Fish & Wildlife Comments: All of the recommendations in our previous letter dated November 7, 2014, still apply; however, we offer the following additional comments:

The alternatives that were evaluated had varying levels of environmental impact. Of the proposals that were evaluated, the selected proposal seems to be the alternative that will minimize impacts to fish, wildlife, and botanical resources, while still achieving the stated goals of the project.

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

Christie L. Stanifer **Date:** February 3, 2017
Environ. Coordinator
Division of Fish and Wildlife

THIS IS NOT A PERMIT

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

DNR #: ER-17897-2 **Request Received:** October 3, 2017

Requestor:
HDR Incorporated
Sara Merchan-Paniagua
8550 West Bryn Mawr Avenue, Suite 900
Chicago, IL 60631

Project: West Lake Corridor Project, Lake Co., IN and Cook Co., IL EIS: new track improvements, four (4) new stations, and a maintenance facility along a 9 mile southern extension along the Northern Indiana Commuter Transportation District (NICTD) existing South Shore Line (SSL) between Dyer and Hammond, IN: species survey reports

County/Site info: Lake

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

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

Regulatory Assessment: This proposal may require the formal approval of our agency pursuant to the Flood Control Act (IC 14-28-1) for any proposal to construct, excavate, or fill in or on the floodway of a stream or other flowing waterbody which has a drainage area greater than one square mile, or the Lake Preservation Act (IC 14-26-2) for any construction that will take place at or lakeward of the legal shoreline of a public freshwater lake. Please submit more detailed plans to the Division of Water's Technical Services Section if you are unsure whether or not a permit will be required.

Natural Heritage Database: The Natural Heritage Program's data have been checked.
As indicated in the October 2, 2017, letter from Teresa Clark, Division of Nature Preserves, several plant species have been documented within the project corridor. The Division of Nature Preserves has the following comments regarding some of the plant species found within the project corridor:

1. Catalpa speciosa is a common tree in the area and is not of concern as it tends to be weedy.
2. Pinus strobus (MP 63.8) is likely a planted specimen and is not of concern.
3. The records for Salix serissima (MP 65.8) and Lonicera canadensis (MP 66.9) seem to be very much out of their normal habitat. Those areas should be checked for the presence of those species.
4. Carex bebbii could potentially be found in the area. Measures should be implemented to minimize any impacts to this species.

Fish & Wildlife Comments: All of the comments and recommendations in our previous letters dated November 7, 2014, and February 3, 2017, still apply.

THIS IS NOT A PERMIT

State of Indiana
DEPARTMENT OF NATURAL RESOURCES
Division of Fish and Wildlife

Early Coordination/Environmental Assessment

Contact Staff: Christie L. Stanifer, Environ. Coordinator, Fish & Wildlife

Our agency appreciates this opportunity to be of service. Please contact the above staff member at (317) 232-4080 if we can be of further assistance.

Christie L. Stanifer

Date: November 1, 2017

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

November 2, 2017

INDIANA NATURAL HERITAGE DATA within:

ER 17897-2 WestLake Corridor, NICTD SS Line, Lake County

Sci. Name	Common Name	Site	TRS	State	Fed	OBS Date
Vascular Plant						
Catalpa speciosa	Northern Catalpa	SOUTHSHORE EXT MP 65.2	036N010W 13	SR		2015-09-14
Catalpa speciosa	Northern Catalpa	SHEFFIELD RD	035N010W 1	SR		2015-10-27
Carex bebbii	Bebb's Sedge	SOUTHSHORE EXT 65.2	036N010W 13	ST		2017-06-19
Carex bebbii	Bebb's Sedge	SOUTH SHORE EXTENSION MP 61.5	036N010W 36	ST		2015-10-27

Fed: LE= Listed Federal endangered; C = Federal candidate species

State: SE = State endangered; ST= State threatened; SR = State rare; SSC = State species of special concern; SG = State significant; WL = watch list; no rank - not ranked but tracked to monitor status

Attachment 6
Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408 Initial Design (Base Technical Concept) Completion Package

1. Introduction

Northern Indiana Commuter Transportation District (NICTD) is requesting informal review of the West Lake Corridor (WLC) to identify any concerns with regards to the United States Army Corps of Engineers' (USACE's) Civil Works project at the Little Calumet River, pursuant to United States Code 33 Section 408 (Section 408). This submittal represents the Initial Design Completion Milestone Package per NICTD's Section 408 Review Plan.

NICTD requests USACE perform an informal review of this package to identify any concerns with the proposed design (e.g., conflicts with flood control features, inconsistencies with USACE design criteria). NICTD respectfully requests any concerns be accompanied by the basis for concern (applicable law, policy, guidance, or procedure), an explanation of whether the concern jeopardizes USACE's ability to approve the Section 408 request, and specific recommendations for resolving the concern so that NICTD fully understands how to adjust the design to address any USACE concerns. NICTD also requests the USACE to indicate any additional technical analyses NICTD will need to perform and if a Safety Assurance Review will be needed.

2. Project's Involvement with Federal Project at Little Calumet River

At the Little Calumet River, the WLC project proposes to shift the existing Monon Trail pedestrian bridge across the Little Calumet River to the east and construct a new three span through girder rail bridge where the existing Monon Trail pedestrian bridge is currently located to carry the WLC alignment across the Little Calumet River (Figure 1). The structures would be supported by four substructures each, including a pier and an end bent/abutment on each side of the river. The four substructure units supporting the existing pedestrian bridge would be removed. It is NICTD's understanding that the USACE flood control project, titled "LCR-S8 Little Calumet River, Indiana Local Flood Protection Stage VIII" according to the January 2012 as-built plans, located in the vicinity of the proposed WLC project includes a levee on the southern side of the Little Calumet River and a sheet pile flood wall and levee on the northern side of the river (Sheets C-06 and C-15 of the as-built plans are included as Figure 2).

The proposed WLC rail line and relocated Monon Trail would cross the levee on the south side of the Little Calumet River as they approach the river. A retaining wall would be on both sides of the rail line. The elevation of the WLC rail line and Monon Trail will ultimately be at or above existing ground level at the levee (see Figure 3). The base of the retaining walls would be installed approximately 4.5 feet below existing ground elevation. Minor earthwork would be required to install the trail and the rail line on fill atop the existing ground elevation at the south. On the river side of the levee, they would be located on embankment with retaining walls up to the southern end bents/abutments. North of the end bents/abutments, they would switch to structures supported by two piers each, one on each side of the river. At the northern end bents/abutments, they would again be on embankment with retaining walls, passing over the flood wall, until they reached at-grade level. The flood wall would be buried in place and evaluated for the increased surcharge loading. The levee on the northern side of the Little Calumet River would not be affected by the proposed improvements; the WLC rail line would be located along the eastern side of the levee.

The foundations for the piers and abutments would be driven H-steel piles with concrete pile caps. The steel piles are proposed to be driven about 74 feet deep for the bridge substructures and 40-feet deep for the pedestrian bridge substructures. A total of four new piers would be constructed, and the existing four piers for the pedestrian bridge would be removed. To minimize impacts, all piers would be located outside the riverbed. Retaining walls would extend between the abutments of the WLC rail bridge and the end bents of the pedestrian bridge, and wing walls would extend from the abutments and the end bents to the levees and the flood wall to minimize the embankment fill on the river side of the levees and flood wall.

There is an existing sewer line on the northern side of the river and drainage structures on both sides of the river. These features would be surveyed to determine their exact locations to avoid conflict with the proposed pier foundations.

WLC preliminary design plans at the Little Calumet River are included as Figure 3. Note, features shown on the January 2012 as-built plans of the LCR-S8 Little Calumet River, Indiana Local Flood Protection Stage VIII project are not shown on the preliminary plans. These features will be verified in the survey and will be shown on the plans included in the Intermediate Design Completion Milestone Package.

3. Proposed Hydrology and Hydraulics Study

Existing and proposed conditions water surface elevations will be calculated for the 10-, 50-, 100-, 200- and 500-year flood events using HEC-RAS. The report will include technical discussion on the analyses, exhibits depicting the proposed improvements as well as results and conclusions with respect to proposed water surface elevations and scour. For the 100-year event, the proposed increase in water surface must be kept below 0.14 foot. For the 200-year event, there can be no increase to the existing water surface elevation as it affects the existing levee/flood wall design.

4. Proposed Scour Analysis

Pier and contraction scour analysis will be completed using HEC-18 procedures. Any mitigation required will be in accordance with HEC-23. The hydraulic report will provide technical discussion and resultant scour depths for 100-, 200- and 500-year events.

5. Construction Sequencing, Equipment, Staging, and Schedule

Work will be scheduled when water levels in the Little Calumet River are typically at a low level to minimize the impact to surrounding area.

5.1 Construction Sequencing

Construction would begin with mobilization of the equipment needed to conduct the work across the Little Calumet River. An approximately 60-foot-long cofferdam would be installed outside of the riverbed on both banks of the river to protect the work areas for the abutments and piers. Access to the work areas would be from land on both banks of the river. There will be no fording or temporary access fill in the river. The center span of the existing pedestrian bridge would be removed and stored for re-use later in the process. The existing steel support for the pedestrian bridge approaches would then be removed, as well as the existing piers and abutments. The steel H-pile foundations to support both structures would be driven inside the protection of the cofferdams. Cast-in-place concrete piers and abutments would then be installed inside the protection of the cofferdam and backfilled with stone rip-rap for scour protection. Once the concrete has cured and the stone rip-rap installed, the cofferdam would be removed.

The rail bridge would be an open deck bridge. This design reduces the weight of the bridge and reduces the crane capacity required to set the long, center-span girders, thereby reducing potential impact to the levees during construction. The center span of the existing pedestrian bridge would then be placed on the new support piers. Once all steel support framing has been erected and successfully tested, a cast in place bridge deck would be poured utilizing stay-in-place formwork at the approaches for the pedestrian bridge. Once all work is completed, cranes and other construction equipment would be de-mobilized and the affected construction areas would be restored to their original condition.

5.2 Construction Equipment and Staging

Two large cranes, one on the northern side of the river and one on the southern side of the river, would be used to set the bridges. Locations to place the cranes are limited due to the existing terrain. The cranes would be located on the existing trail (formerly a railroad) embankment. On the southern side of the river, the crane would be about the location where trail crosses the levee. On the northern side, the crane would be located west of the flood wall. The cranes would be in use for a total of 2 days—1 day to move the existing pedestrian bridge to new piers and 1 day to place the new WLC bridge girders. Smaller mobile tough terrain equipment, including smaller cranes such as a manitou crane, would be located on the levee for longer periods.

5.3 Construction Schedule

Mobilization of equipment and materials is anticipated to begin October 1, 2021, with construction immediately following mobilization. The work is anticipated to take 6 to 7 months from start to finish.

6. Statement of No Objection from Non-Federal Sponsor

The local, non-federal sponsor responsible for operations and maintenance for the levee system is the Little Calumet River Basin Development Commission (LCRBDC). LCRBDC's statement of no objection was requested in a letter emailed December 1, 2020. LCRBDC responded that it is their policy for USACE to review the Project's plans before providing their statement of no objection. The request for LCRBDC's statement of no objection and the commission's response are attached.

7. Real Estate Requirements

Both Little Calumet River bridges would be within existing NICTD right-of-way. The rail alignment north and south of the bridge would also be within the existing NICTD right-of-way. The Monon Trail would be within the existing NICTD right-of-way south of the bridge. North of the bridge, the trail would be relocated to the east on new right-of-way NICTD is purchasing for the Project (Parcel 077 on Figure 4). NICTD is also purchasing Parcel 076 and obtaining a permanent easement from Parcel 201 for Project implementation and construction access (Figure 4). The following is the current status of NICTD's acquisition of the parcels:

- Parcel 076 (owned by the City of Hammond) – Full Take
  - Vacant land
  - Parcel acquisition is not yet complete
  - Parcel is scheduled to be available for use by February 15, 2021
- Parcel 077 (owned by CSX Railroad) – Full Take
  - Parcel acquisition is not yet complete
  - Parcel is scheduled to be available for the design-builder's use by October 23, 2020
- Parcel 201 (owned by the Town of Munster) – Permanent Easement
  - Parcel acquisition is not yet complete
  - Parcel is scheduled to be available for the design-builder's use by October 23, 2020

Parcels 077 and 201 have flood protection levee easements associated with the improvements implemented as part of the Little Calumet River Local Flood Protection Stage VIII project. These are shown on Figures 5 and 6, respectively. Research is still being conducted to identify and define any levee easements on Parcel 076 and NICTD-owned right-of-way.

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

5515 N. East River Rd.
Chicago, IL 60656
773-444-3474

Little Calumet River Basin Development Commission
900 Ridge Rd Suite H
Munster, IN 46321

ATTN: William Baker, Chairman
Dan Repay, Executive Director

Dear Sirs:
F.H. Paschen Ragnar Benson Joint Venture is under contract with the Northern Indiana Commuter Transportation District (NICTD) to construct the West Lake Corridor Project in Lake County, Indiana. The Project will be an approximately 8-mile southern extension of the NICTD existing South Shore Line between Dyer and Hammond, Indiana. The Federal Transit Administration completed a Final Environmental Impact Statement (EIS) and Record of Decision (ROD) for the Project in March 2018. The Final EIS/ROD can be found at http://www.nictdwestlake.com/resources/.

The project would relocate the existing Monon Trail pedestrian bridge over the Little Calumet River to the east and construct the new commuter rail bridge at the location of the existing bridge. The construction of these bridges will require work in the area of the flood control levee and floodwall system along the river. We recognize that the levee system was developed as a U.S. Army Corps of Engineers (Corps) civil works project, and that the Little Calumet River Basin Development Commission (LCRBDC) is the non-federal sponsor with operation and maintenance responsibilities for the levee system.

Our design partner, Jacobs Engineering Group, is preparing a request to alter a U.S. Army Corps of Engineers civil works project pursuant to 33 USC 408 (Section 408). A written "Statement of No Objection" from LCRBDC, as the non-federal sponsor, is required as part of the Corps' Section 408 review per Sections 10c(1) and 11a of Engineering Circular 1165-2-220 "Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408." The purpose of the Statement of No Objection is to document that the non-federal sponsor is aware of the scope of the Section 408 request and does not object to the request being submitted to USACE to initiate the evaluation of the request. Districts must coordinate with non-federal sponsors throughout the review process and ensure feedback from non-federal sponsors is considered prior to USACE rendering a final decision on the Section 408 request. At this time, we request a Statement of No Objection from LCRBDC for the project.

The initial Section 408 submittal to the Corps of Engineers is scheduled for the next few weeks. We would like to include the Statement of No Objection in our early submittal, if possible. The Statement should be forwarded to my attention. If LCRBDC cannot provide a Statement of No Objection at this time, we request a letter or email, for inclusion with the early submittal, that indicates you support the project and are willing to participate in the Section 408 review process.

It is also your prerogative to coordinate directly with the Corps of Engineers. The Section 408 coordinator for the project is:

Colin C. Smalley, PG Section 408 Coordinator and Regulatory Project Manager
US Army Corps of Engineers, Chicago District
231 South La Salle Street, Suite 1500
Chicago, Illinois 60604
312-846-5538 (office)
312-560-4276 (mobile)
<Colin.C.Smalley@usace.army.mil>

Thank you for your assistance in this matter.

Matthew W. Moss

Digitally signed by Matt Moss
Date: 2020.11.30 18:22:39
-06'00'

Matt Moss
Project Manager
F.H. Paschen Ragnar Benson Joint Venture
5515 N. East River Road ▪ Chicago, IL 60656
Phone 847-417-8318
mmoss@fhpaschen.com

Copy: Mike Rowe/NICTD
Mark Babinski/FHPRB
Jacques Cattan/FHPRB
Ken Monroe/FHPRB
Pablo Hernandez/FHPRB
Mark McClintock/Jacobs
Mike Shostak/Jacobs
Robert Hook/Jacobs
Aimee King/Jacobs

From: Dan Repay <drepay@littlecalumetriverbasin.org>
Sent: Tuesday, December 8, 2020 3:52 PM
To: Pablo Hernandez; William Baker
Cc: com-inbound-nictd--west-lake-corridor@procoretech.com; Michael Rowe; Mark Babinski; Jacques Cattan; Ken Monroe; McClintock, Mark; Shostak, Michael; Hook, Robert/CIN; Matt Moss; King, Aimee/CHI; Christos Alexakos
Subject: [EXTERNAL] RE: NICTD - West Lake Corridor Project

Mr. Hernandez,

Thank you for the update on the status of the project. We are very familiar with the Sec. 408 process and the need for a letter of no objection. It is the commissions policy for the USACE District office to review your plans before we issue the letter. Please keep us informed on how your 408 application is progressing and we will work with our federal partners at USACE to ensure the flood control and recreation project that we maintain continues to function as it should into the future.

Dan

From: Pablo Hernandez <Pablo.Hernandez@williamcharles.com>
Sent: Tuesday, December 1, 2020 12:18 PM
To: drepay@littlecalumetriverbasin.org; wbaker@lcrbdc.org
Cc: com-inbound-nictd--west-lake-corridor@procoretech.com; Michael Rowe <michael.rowe@nictd.com>; Mark Babinski <mbabinski@fhpaschen.com>; Jacques Cattan <JCattan@FHPaschen.com>; Ken Monroe <Ken.Monroe@williamcharles.com>; McClintock, Mark <Mark.McClintock@jacobs.com>; Shostak, Michael <Michael.Shostak@jacobs.com>; Hook, Robert/CIN <Robert.Hook@jacobs.com>; Matt Moss (MMoss@FHPaschen.com) <MMoss@FHPaschen.com>; King, Aimee/CHI <Aimee.King@jacobs.com>; Christos Alexakos <CAlexakos@FHPaschen.com>
Subject: NICTD - West Lake Corridor Project

Mr. Baker / Mr. Repay,

With respect to the above referenced project, please see the attached letter requesting a “Statement of No Objection” from the LCRBDC.

Should you have any questions or comments, please let us know.

Regards,

Pablo Hernandez ▪ Project Manager
F.H. Paschen Ragnar Benson Joint Venture
5515 N. East River Road ▪ Chicago, IL 60656
Mobile 312.919.7077
www.fhp-rb.com

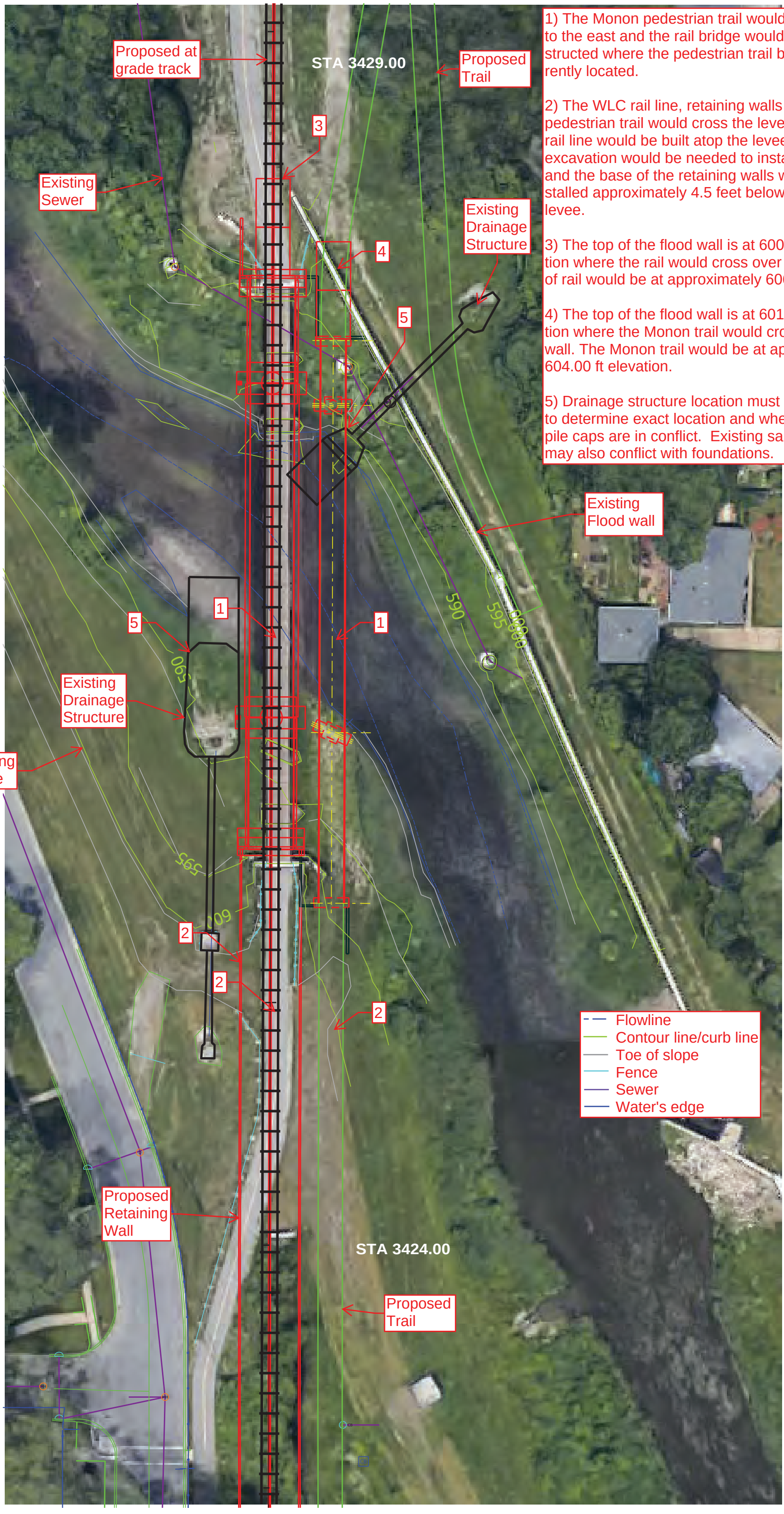

Proposed at grade track
STA 3429.00
Proposed Trail
3
Existing Sewer
Existing Drainage Structure
4
5
1) The Monon pedestrian trail would be relocated to the east and the rail bridge would be constructed where the pedestrian trail bridge is currently located.
2) The WLC rail line, retaining walls and Monon pedestrian trail would cross the levee. The WLC rail line would be built atop the levee, only minor excavation would be needed to install the trail, and the base of the retaining walls would be installed approximately 4.5 feet below grade at the levee.
3) The top of the flood wall is at 600.00 ft elevation where the rail would cross over the wall. Top of rail would be at approximately 606.70 ft.
4) The top of the flood wall is at 601.00 ft elevation where the Monon trail would cross over the wall. The Monon trail would be at approximately 604.00 ft elevation.
5) Drainage structure location must be surveyed to determine exact location and whether or not pile caps are in conflict. Existing sanitary sewer may also conflict with foundations.
Existing Flood wall
1
590
595
600
Existing Drainage Structure
Existing Levee
595
605
2
Flowline
Contour line/curb line
Toe of slope
Fence
Sewer
Water's edge
Proposed Retaining Wall
STA 3424.00
Proposed Trail

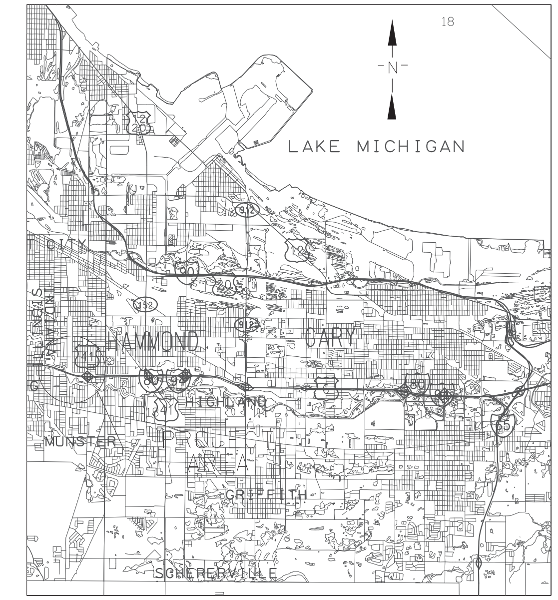
Figure 1

Figure 2
Select LCR-S8 Little Calumet River, Indiana Local Flood Protection Stage VIII
As-Built Plans

US Army Corps of Engineers Chicago District

TOP ARMY PROJECT 2003 - TOP ARMY INSTALLATION 2001 - DEPARTMENT OF DEFENSE VALUE ENGINEERING ACHIEVEMENT AWARD - CHICAGO DISTRICT

LITTLE CALUMET RIVER, INDIANA
LOCAL FLOOD PROTECTION
STAGE VIII
STATELINE TO COLUMBIA AVENUE



VICINITY MAP

0 1 2 3
SCALE IN MILES

LOCALITY MAP

N

2000 0 2000 4000 6000
SCALE IN FEET

RECORD DRAWING AS-BUILT
CONTRACTOR: WALSH CONSTRUCTION
COMPLETION DATE: 01-10-2012

SYMBOL	DESCRIPTION	DATE	APPROVED

SIGNATURE AFFIXED BELOW INDICATE OFFICAL RECOMMENDATION AND APPROVAL OF ALL DRAWINGS IN THIS SET AS INDEXED ON THIS SHEET.

Reviewed By : DAVID FORCE, P.E. — 03/20/2008
ITR Team Leader — Date

Approval Recommended : IMAD SAMARA — 3/9/2009
Project Manager — Date

Approved By : THOMAS BENDER, P.E. — 3/9/2009
Chief, Design Branch — Date

THIS PROJECT WAS DESIGNED BY U.S. ARMY CORPS OF ENGINEERS, CHICAGO DISTRICT. INDIVIDUALS WHOSE SIGNATURE AND REGISTRATION DESIGNATIONS APPEARS ON THESE DOCUMENTS ARE OPERATING WITHIN THE SCOPE OF THIER EMPLOYMENT, SIGNATURES ARE REQUIRED BY ER 1110-1-815

DATE:	JUNE 2009
SCALE:	AS SHOWN
DRAWING CODE:	G1.DGN
CONTRACT NO.: W912P6-09-C-0013	

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
CHICAGO, ILLINOIS

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
BUFFALO, NEW YORK

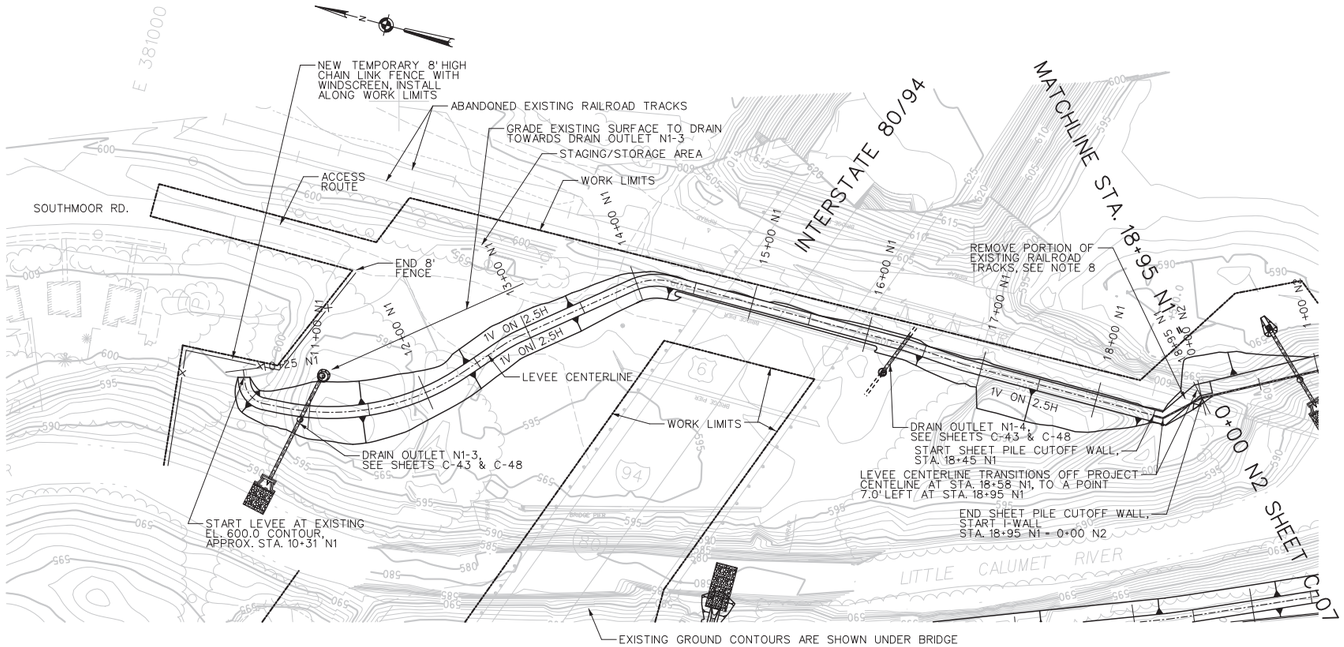
LITTLE CALUMET RIVER, INDIANA
LOCAL FLOOD PROTECTION
STAGE VIII

LOCALITY MAP AND VICINITY MAP

SHEET REFERENCE NUMBER:
G-01

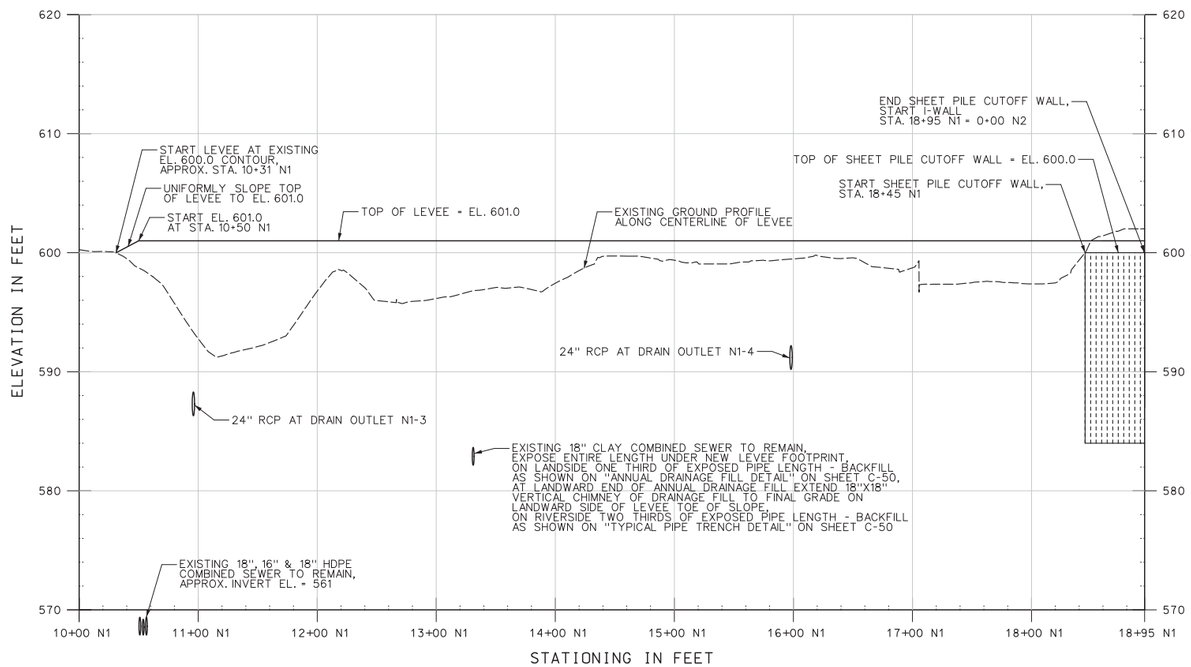
SHEET 1 OF 141

PLOT DATE: 9/24/2012
FILENAME: G1



PLAN

SCALE: 1''= 50'-0"



PROFILE 10 VERTICAL TO 1 HORIZONTAL

NOTES:

1. FOR WORK LIMITS, LEVEE AND I-WALL CONTROL POINTS, SEE SHEET C-01.
2. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET G-03.
3. FOR CROSS SECTIONS EVERY 100' ALONG THE LEVEE/I-WALL CENTERLINE, SEE SHEET C-24.
4. FOR TYPICAL LEVEE AND I-WALL EARTHWORK SECTIONS, SEE SHEET C-42.
5. FOR INFORMATION ON EXISTING STORM SEWERS, DRAINS AND OUTFALLS, SEE SHEET C-56.
6. FOR INFORMATION ON EXISTING UTILITIES OTHER THAN STORM SEWERS, SEE SHEET C-59.
7. FOR I-WALL STRUCTURAL DETAILS AND PROFILE, SEE SHEET S-02.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING ONLY THAT PORTION OF THE EXISTING RAILROAD TRACKS NECESSARY FOR CONSTRUCTION OF NEW WORK. PRIOR TO REMOVING ANY RAILROAD TRACKS, THE CONTRACTOR SHALL MARK IN THE FIELD THE LIMITS OF REMOVAL FOR THE APPROVAL OF THE CONTRACTING OFFICER.
9. NEW FILL MUST BE PLACED BELOW THE EXISTING PIPE OVER THE EXPOSED LENGTH AS SHOWN ON THE TYPICAL PIPE TRENCH DETAIL ON SHEET C-50. CONSTRUCT PRECAST CONCRETE I-WALL OVER SEWER AS SHOWN ON PROVIDED DETAIL ON S-38A.

AS-BUILT

US Army Corps of Engineers Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED
1	AS-BUILT	11/09/11			

DESIGNED BY: JL,DT,GL,FL | DATE: JUNE 2009
DRAWN BY: JL,DT,FL | SCALE: AS SHOWN
CHECKED BY: F.L | CONTRACT NUMBER: W912P6-09-C-0013
SUBMITTED BY: FRANK LEWANDOWSKI,PE | DATE: 4/14/09

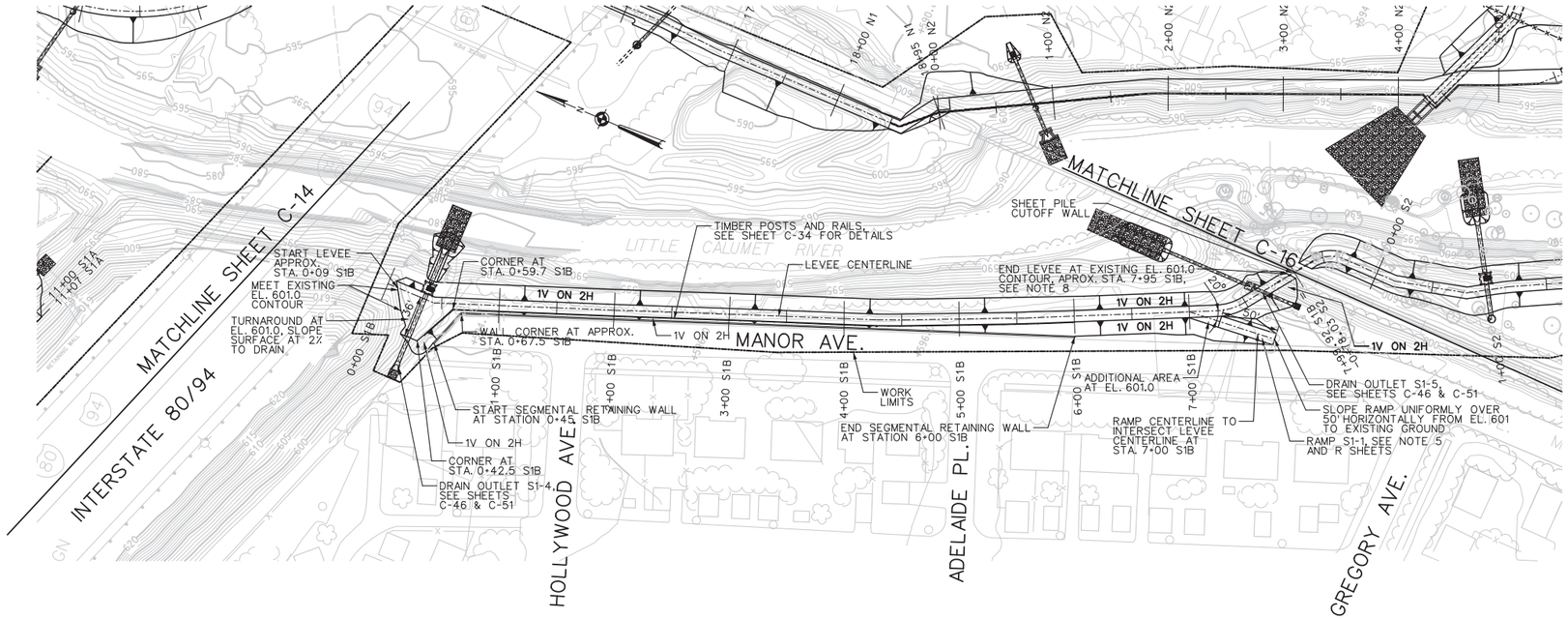
U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS CHICAGO, ILLINOIS

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS BUFFALO, NEW YORK

LITTLE CALUMET RIVER, INDIANA
LOCAL FLOOD PROTECTION
STAGE VIII
PLAN AND PROFILE
STA. 10+00 N1 TO STA 18+95 N1
NORTH REACH 1

SHEET REFERENCE NUMBER:
C-06
SHEET 9 OF 141

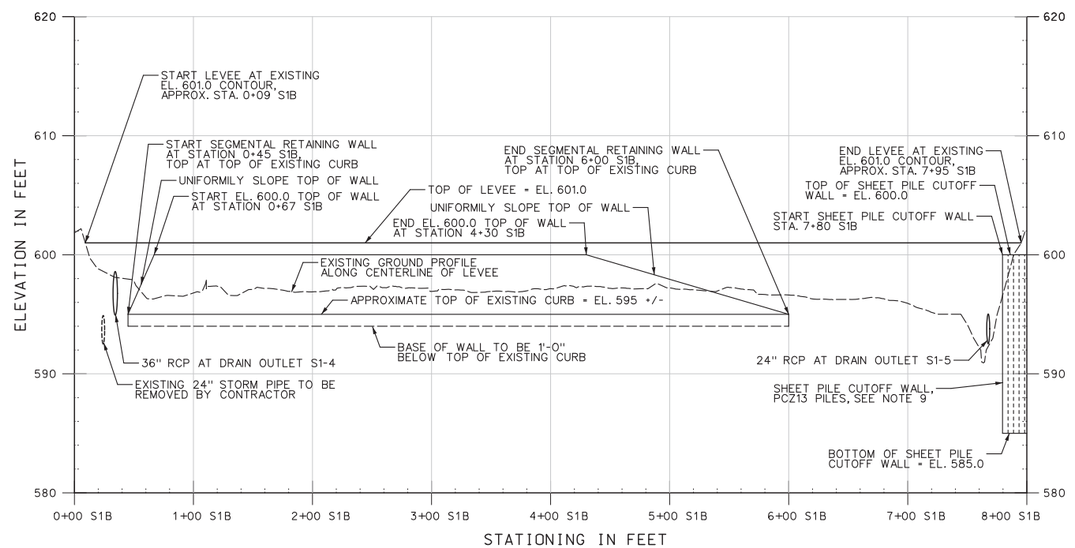
PLOT DATE: 10/3/2012
FILENAME: C06 Rev12



50′ 25′ 0 50′

SCALE: 1′′ = 50′-0″

PLAN



PROFILE 10 VERTICAL TO 1 HORIZONTAL

NOTES:

1. FOR WORK LIMITS, LEVEE AND I-WALL CONTROL POINTS, SEE SHEETS C-01 AND C-02.
2. FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES, SEE SHEET G-03.
3. FOR CROSS SECTIONS EVERY 100' ALONG THE LEVEE/I-WALL CENTERLINE, SEE SHEET C-34.
4. FOR TYPICAL LEVEE AND I-WALL EARTHWORK SECTIONS, SEE SHEET C-42.
5. RAMP S1-1 SHALL SLOPE UNIFORMILY FROM THE LEVEE CREST TO EXISTING GROUND.
6. FOR INFORMATION ON EXISTING STORM SEWERS, DRAINS AND OUTFALLS, SEE SHEETS C-56 AND C-57.
7. FOR INFORMATION ON EXISTING UTILITIES OTHER THAN STORM SEWERS, SEE SHEETS C-59 AND C-60.
8. THE CONTRACTOR SHALL USE THE CONVENTIONAL INSPECTION TRENCH FOR THE LAST 50 FEET OF THE REACH S1B LEVEE ADJACENT TO THE EXISTING RAILROAD EMBANKMENT. THE INSPECTION TRENCH IN THE ABOVE MENTIONED AREA SHALL BE BACKFILLED WITH IMPERVIOUS FILL.
9. THE SHEET PILE CUTOFF WALL SHOWN ON THE PROFILE ON THIS SHEET SHALL EXTEND THROUGH THE RAILROAD EMBANKMENT AND BE CONTINOUS WITH THE SHEET PILE CUTOFF WALL SHOWN ON THE PROFILE ON SHEET C-16. REMOVE ONLY AS MUCH EXISTING RAILROAD TRACK AS NECESSARY FOR THE INSTALLATION OF THE SHEET PILE. BACKFILL ANY EXCAVATION NECESSARY FOR THE INSTALLATION OF THE SHEET PILE THROUGH THE RAILROAD EMBANKMENT WITH EXISTING EXCAVATED MATERIALS.

AS-BUILT

US Army Corps of Engineers
Chicago District

SYMBOL	AMENDMENT DESCRIPTION	DATE	APPROVED	SYMBOL	DESCRIPTION	DATE APPROVED
1	AS-BUILT	11/15/11				

DESIGNED BY: JL,DT,GL,FL DATE: JUNE 2009
DRAWN BY: JL,DT,FL SCALE: AS SHOWN
CHECKED BY: F/L CONTRACT NUMBER: W912P6-09-C-0013
SUBMITTED BY: FRANK LEWANDOWSKI,PE 4/14/09 DATE:

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS CHICAGO, ILLINOIS

U.S. ARMY ENGINEER DISTRICT CORPS OF ENGINEERS BUFFALO, NEW YORK

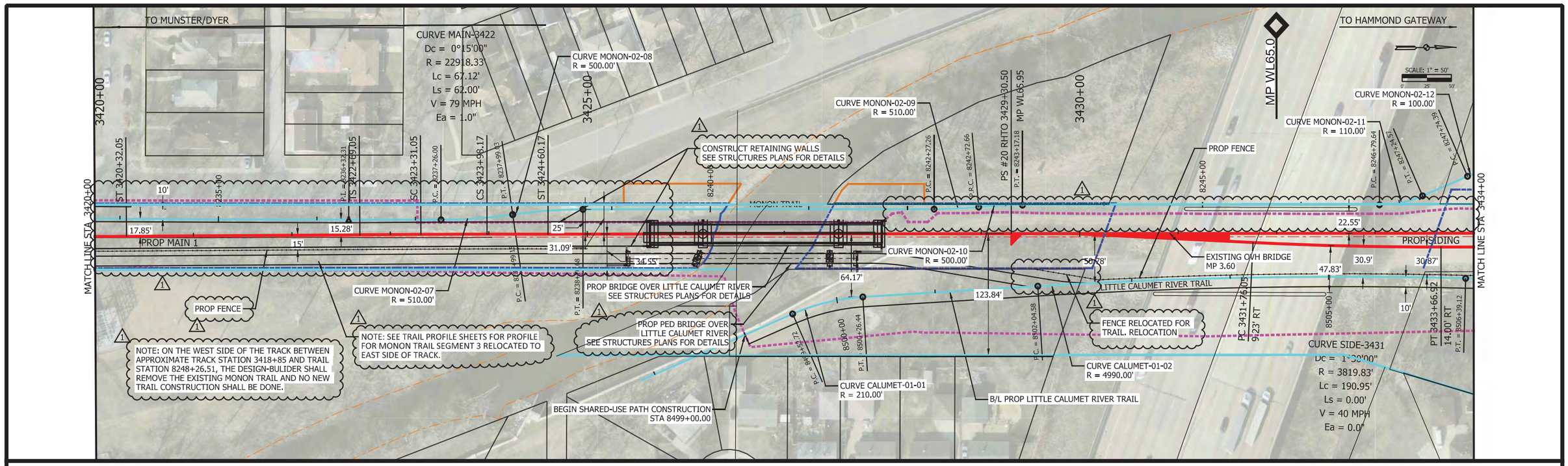
LITTLE CALUMET RIVER, INDIANA
LOCAL FLOOD PROTECTION
STAGE VIII
PLAN AND PROFILE
STA. 0+00 S1B TO STA 8+00 S1B
SOUTH REACH 1

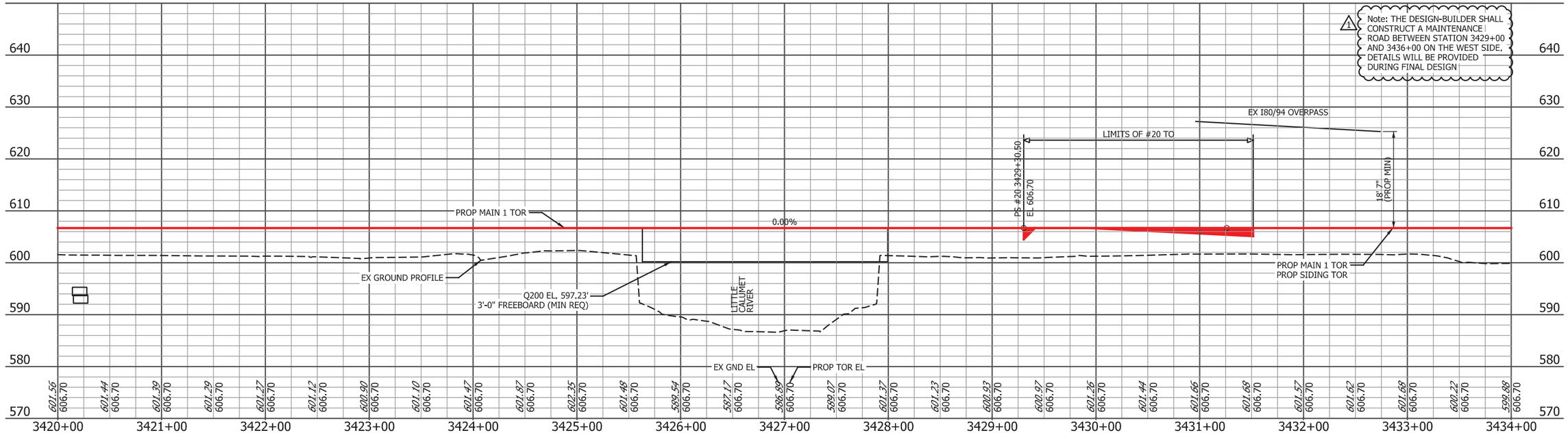
SHEET REFERENCE NUMBER:
C-15
SHEET 18 OF 141

PLOT DATE: 9/24/2012
FILENAME: C15 SSouth

Figure 3

Track Plan and Profile Sheet
and
Cross Section





NOT FOR CONSTRUCTION

SERIES TCKPP-15 OF TCKPP-48

PLOT DATE: 12/10/2019 5:23:00 PM FerrariNJ

HDR Engineering, Inc.
8550 W Bryn Mawr Ave., Suite 900
Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

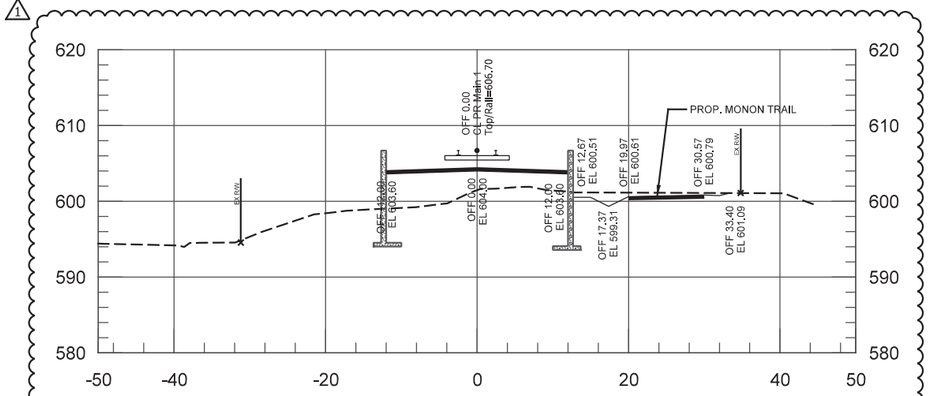
WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

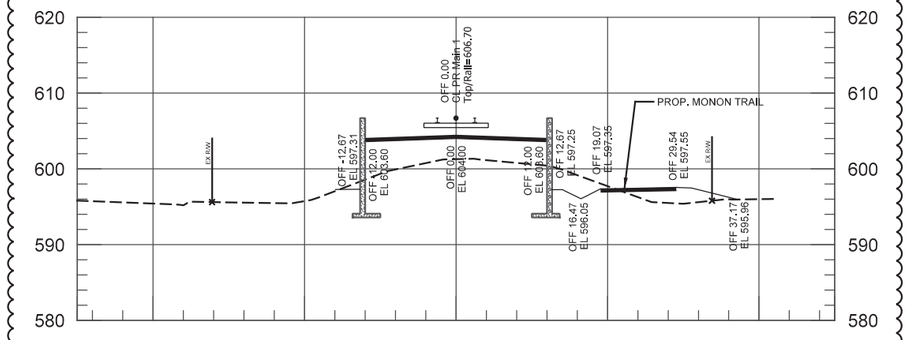
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

PLAN AND PROFILE SAT 3420+00 TO 3434+00 TRACK

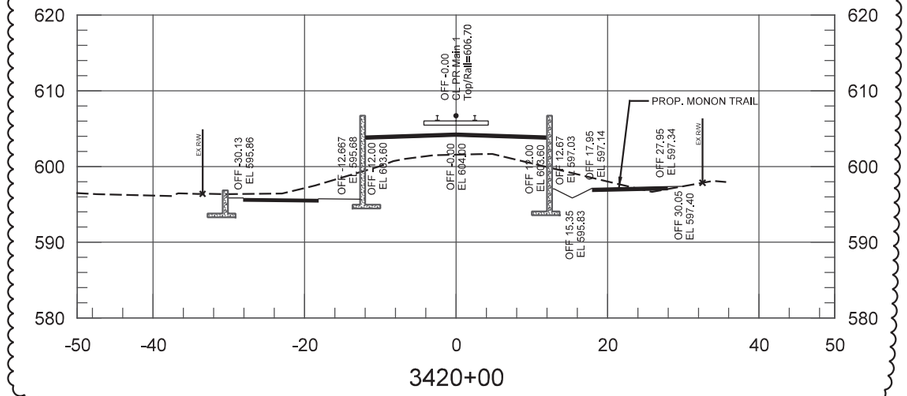
FILENAME	NICTD_WL-Sht-15.dgn	SHEET	26 OF 117
SCALE	AS NOTED		



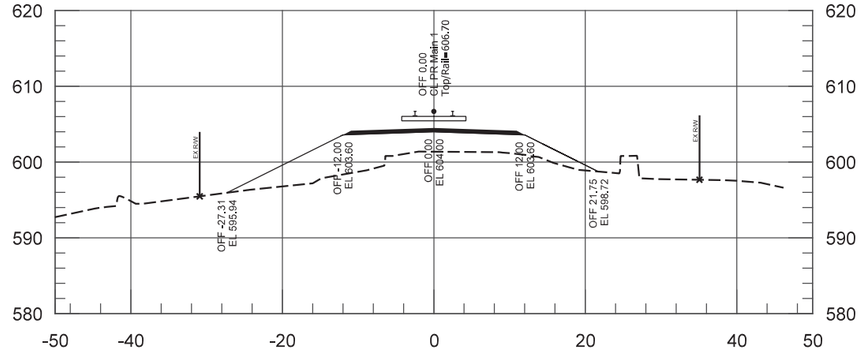
3424+00



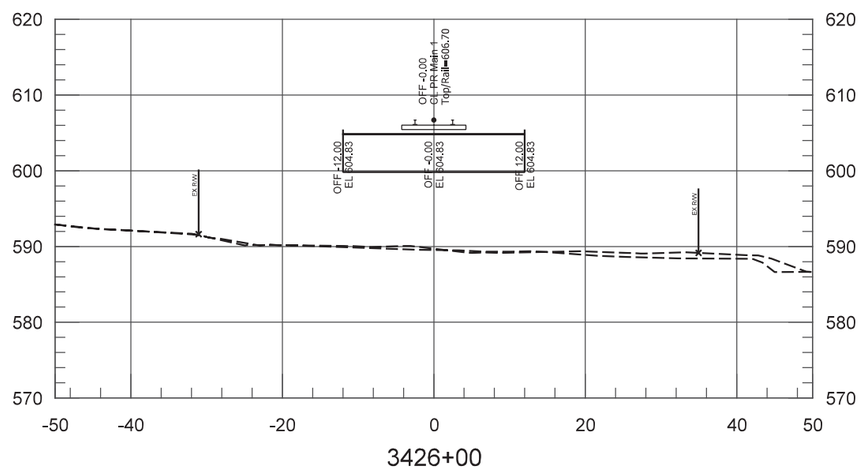
3422+00



3420+00



3428+00



3426+00

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SERIES TCKXS-20 OF TCKXS-48

PLOT DATE: 12/10/2019 5:47:25 PM FerranU

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Chicago, IL 60631
www.hdrinc.com

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

DESIGNED:	NKS
DRAWN:	GCD
CHECKED:	AD
DATE:	12/01/17

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

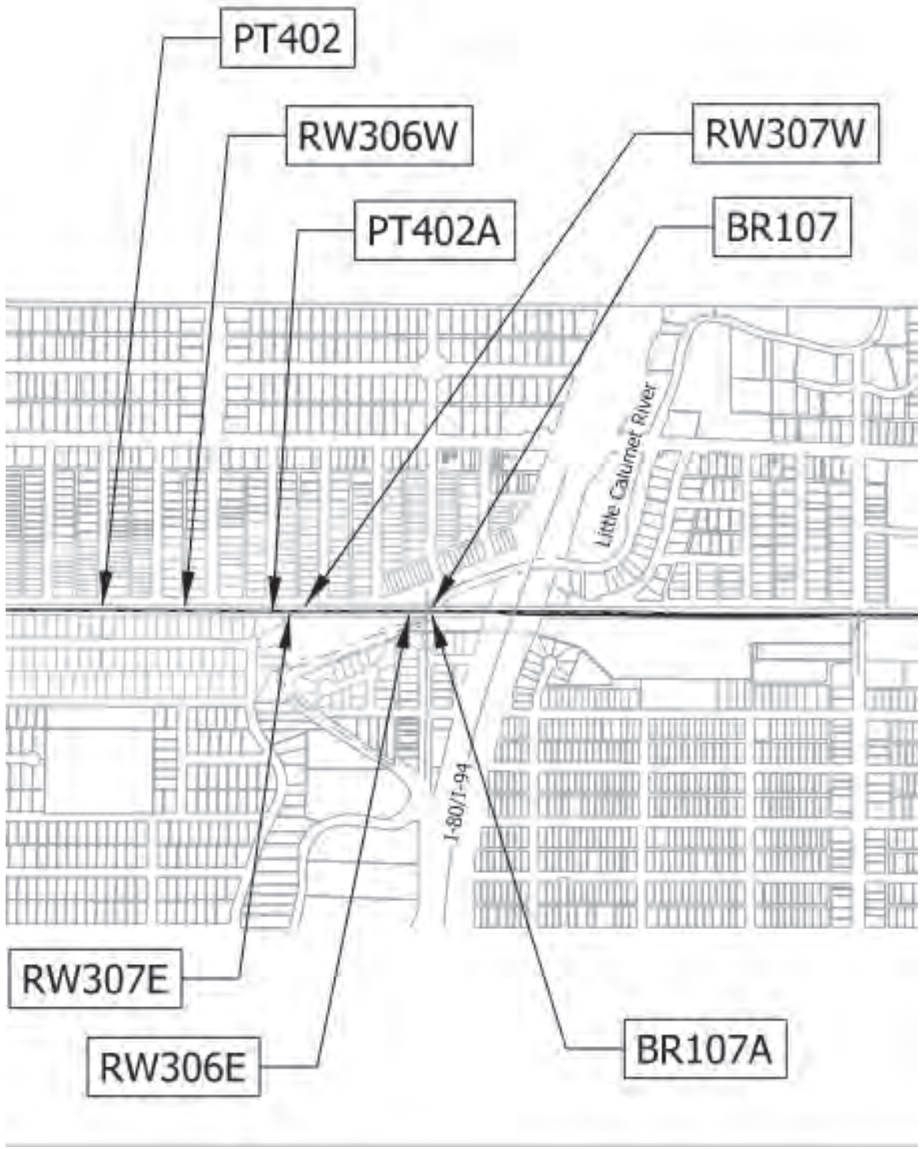
CROSS SECTIONS STA 3420+00 TO STA 3428+00 TRACK

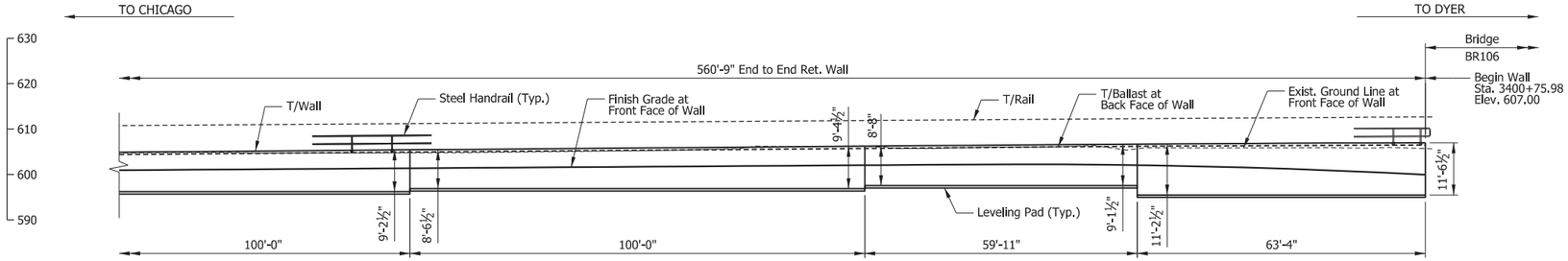
FILENAME

SCALE AS NOTED

SHEET 79 OF 117

Figure 3
Structure Plans

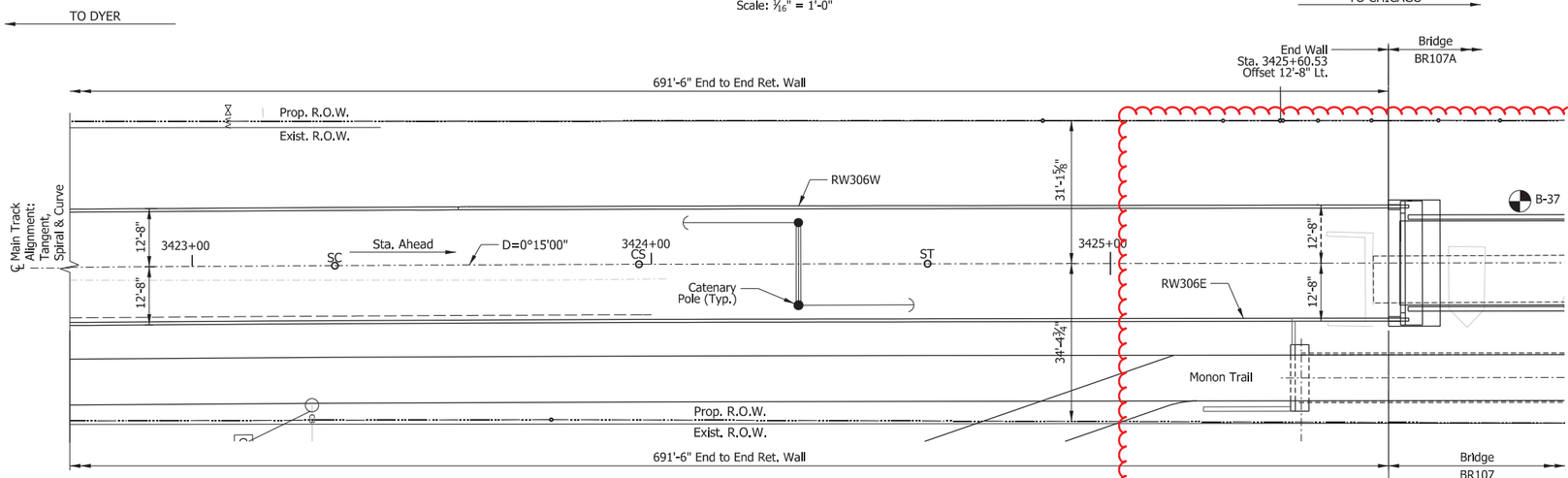




ELEVATION - RW306W

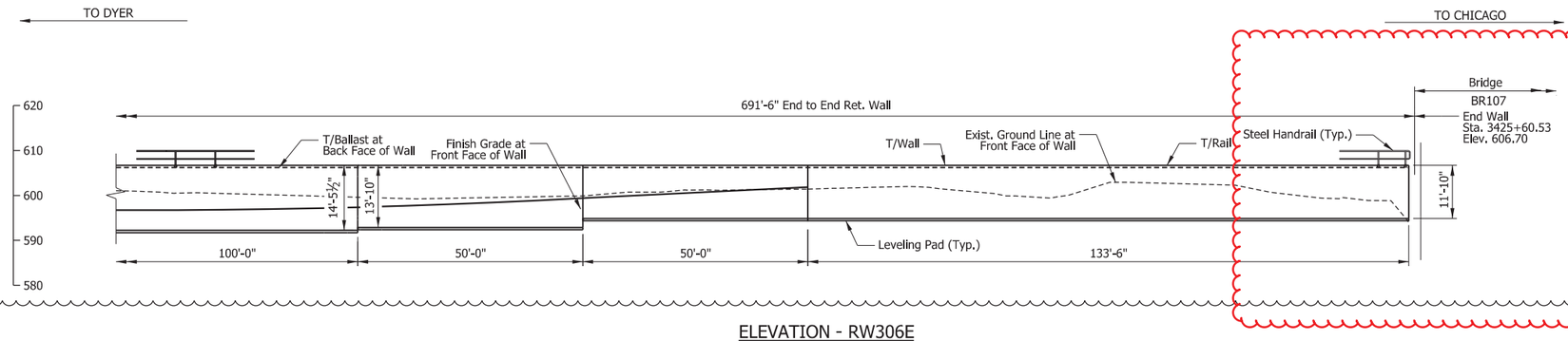
(Looking East)

Scale: 1/16" = 1'-0"



PLAN

Scale: 1/16" = 1'-0"



ELEVATION - RW306E

(Looking West)

Scale: 1/16" = 1'-0"

NOTES

1. For track geometry, see Track Plans.
2. For clarity Catenary Poles and associated infrastructure not shown in elevation views. For details, see System Plans.
3. Field Verify Limits and Depth of Existing Footing at Broadmoor Bridge.

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES RW306-06 OF RW306-11

PLOT DATE: 12/11/2019 11:50:38 AM dklancm

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

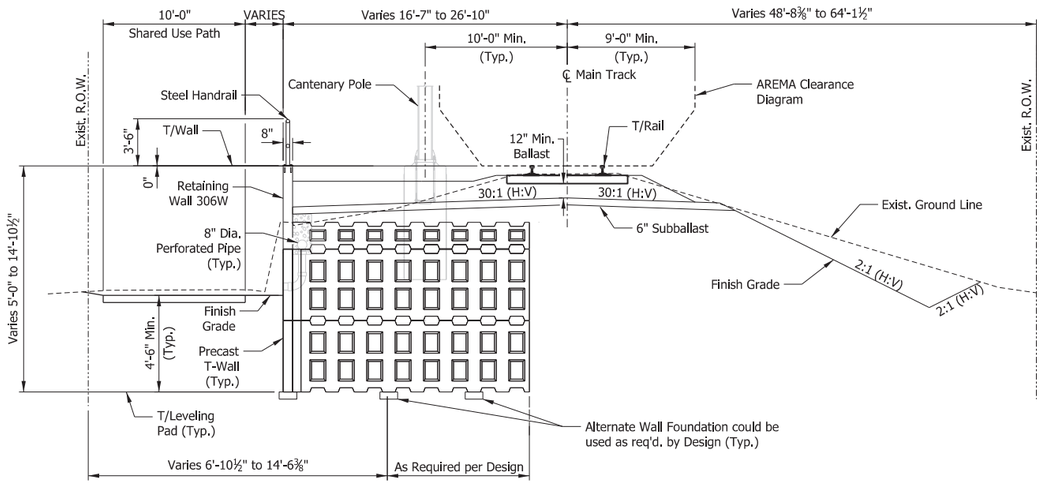
DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

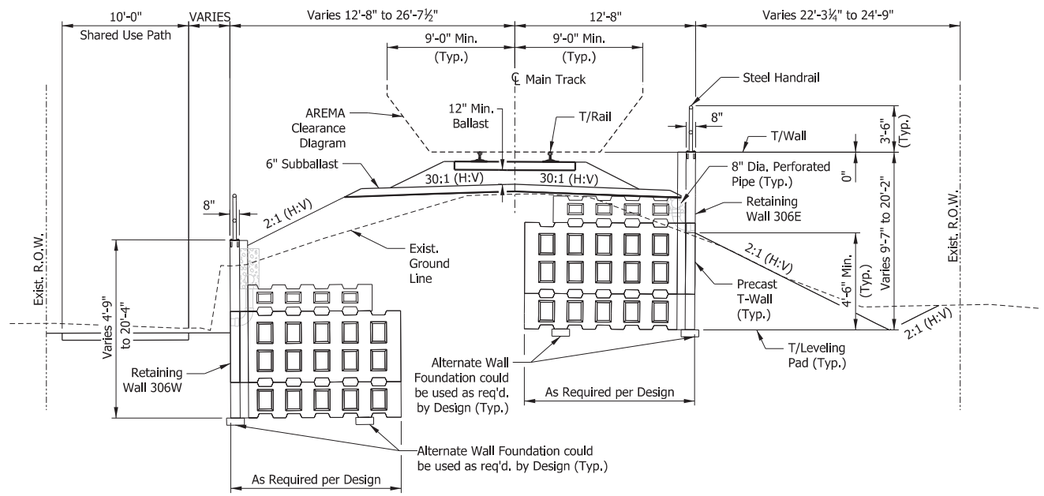
RETAINING WALLS 306W & 306E
GENERAL PLAN & ELEVATION (6 OF 6)

FILENAME	SHT_WL_ST_RW306_GenPlan_06.dgn
SCALE	AS NOTED

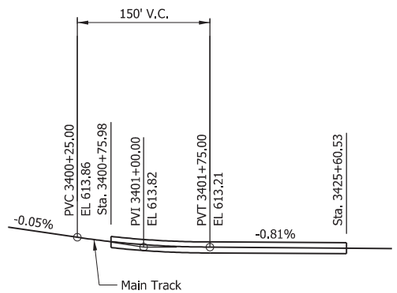
SHEET 95 OF 220



TYPICAL SINGLE WALL SECTION LEFT
(Looking Upstation)
Not to Scale



TYPICAL DOUBLE WALL SECTION
(Looking Upstation)
Not to Scale



TOP OF RAIL PROFILE
Not to Scale

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

SERIES RW306-07 OF RW306-11

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE
JACOBS

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NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

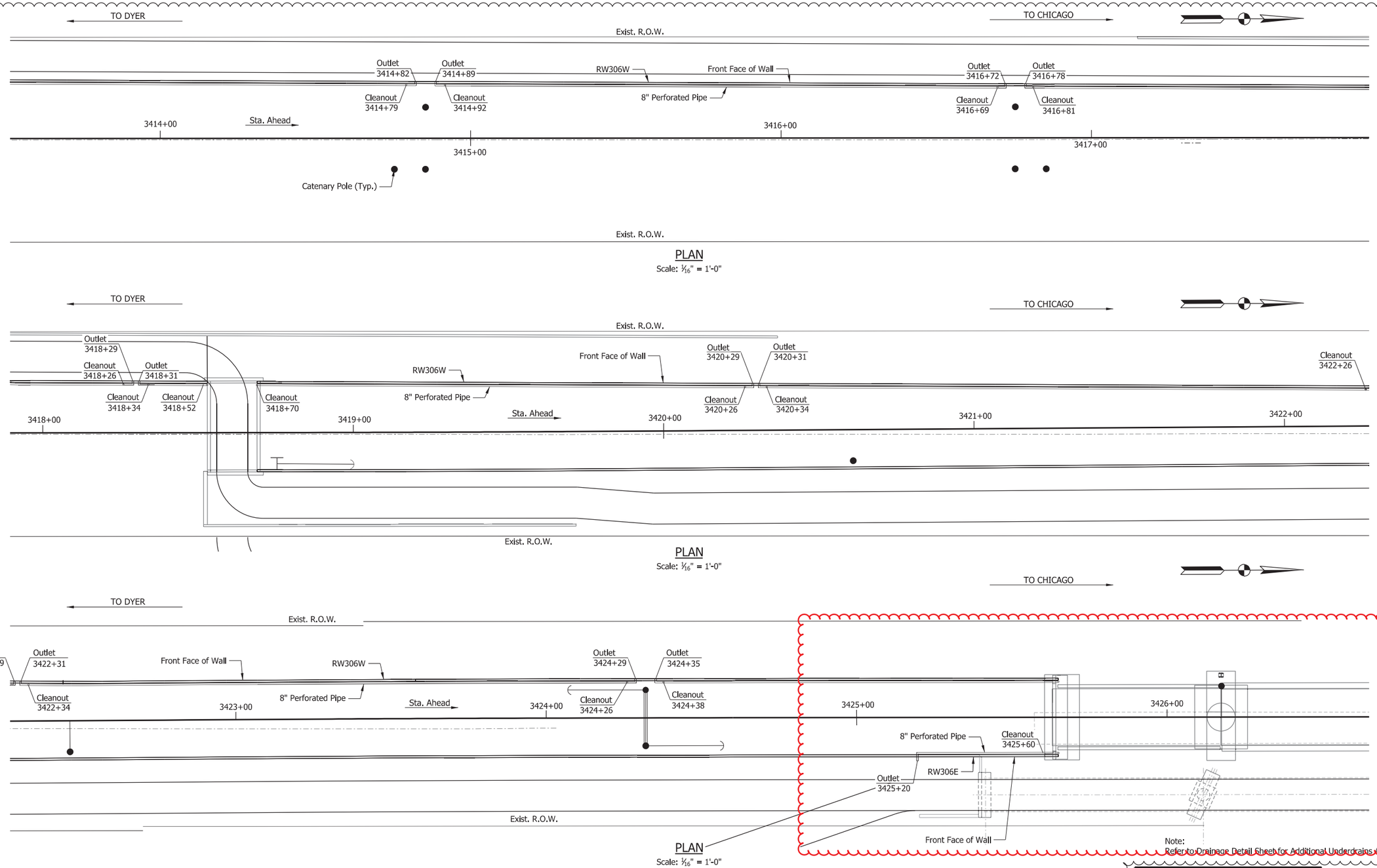
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

RETAINING WALLS 306W & 306E
TYPICAL DETAILS (1 of 2)

FILENAME	SHT_WL_ST_RW306_TypDet_01.dgn
SCALE	AS NOTED

SHEET 96 OF 220

PLOT DATE: 12/11/2019 11:50:48 AM delancm



PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES RW306-10 OF RW306-11

delancm

PLOT DATE: 12/11/2019 4:20:56 PM

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

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ISSUE	DATE	DESCRIPTION
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NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

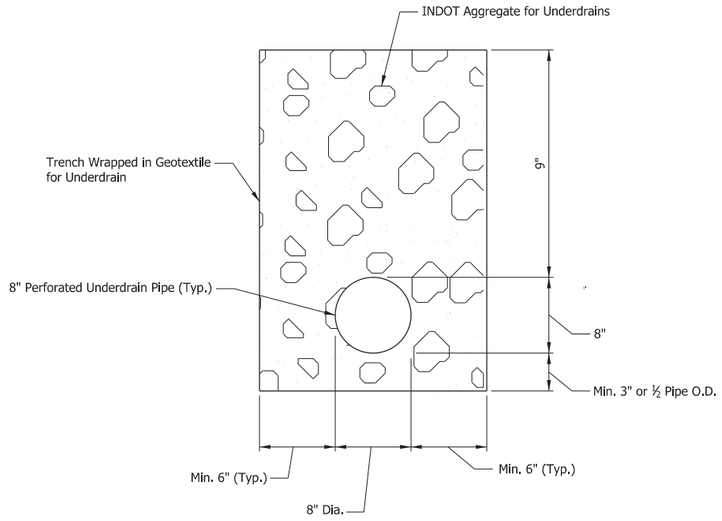
DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

RETAINING WALLS 306W & 306E
DRAINAGE PLAN (2 OF 2)

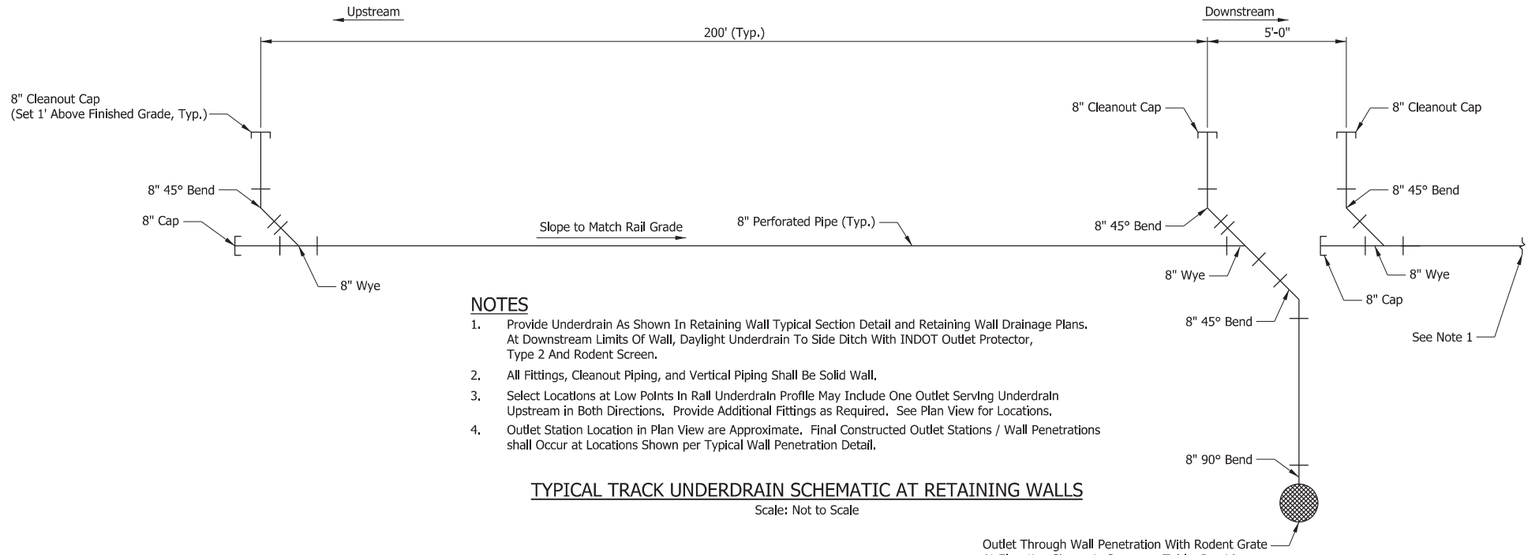
FILENAME	SHT_WL_ST_RW306_DrainPlan_02
SCALE	AS NOTED

SHEET 99 OF 220



TYPICAL UNDERDRAIN SECTION

Scale: ½" = 1'-0"

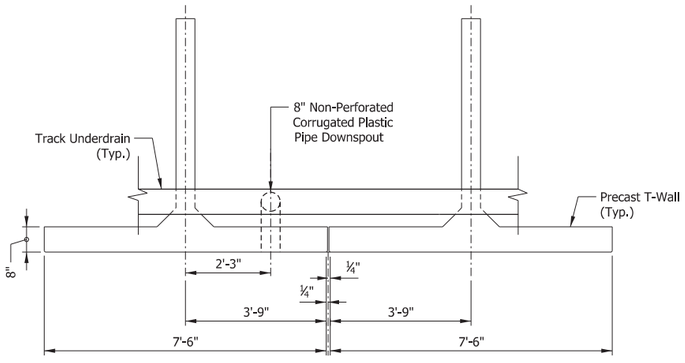


NOTES

1. Provide Underdrain As Shown In Retaining Wall Typical Section Detail and Retaining Wall Drainage Plans. At Downstream Limits Of Wall, Daylight Underdrain To Side Ditch With INDOT Outlet Protector, Type 2 And Rodent Screen.
2. All Fittings, Cleanout Piping, and Vertical Piping Shall Be Solid Wall.
3. Select Locations at Low Points In Rail Underdrain Profile May Include One Outlet Serving Underdrain Upstream in Both Directions. Provide Additional Fittings as Required. See Plan View for Locations.
4. Outlet Station Location in Plan View are Approximate. Final Constructed Outlet Stations / Wall Penetrations shall Occur at Locations Shown per Typical Wall Penetration Detail.

TYPICAL TRACK UNDERDRAIN SCHEMATIC AT RETAINING WALLS

Scale: Not to Scale

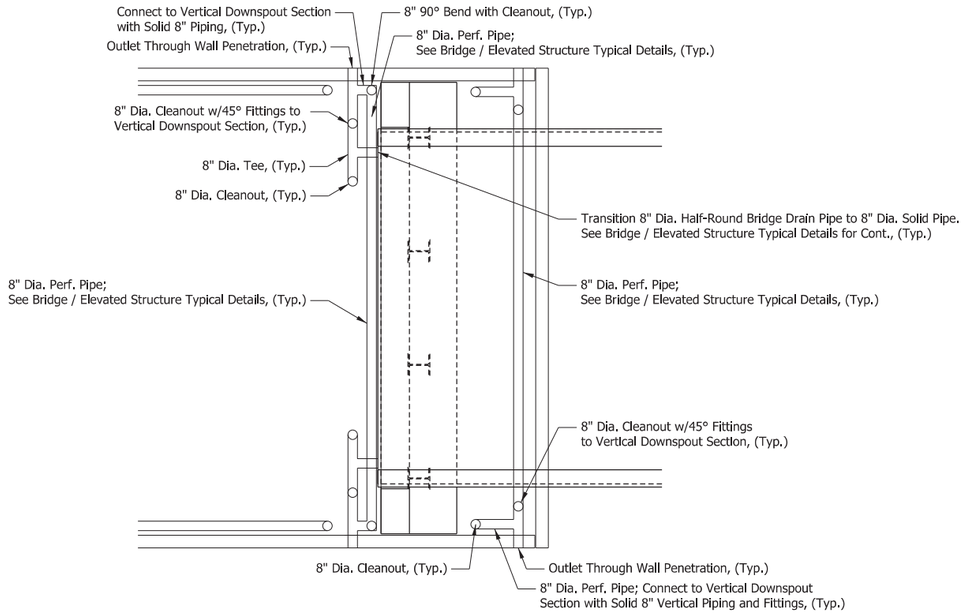


TYPICAL WALL PENETRATION DETAIL

Scale: ½" = 1'-0"

	Outlet Invert	
Outlet Station	Right	Left
3402+73		598.0
3402+73		599.0
3406+33		599.0
3408+86		599.5
3410+86		600.0
3412+85		601.0
3414+82		602.0
3416+72		603.0
3416+78		603.0
3418+29		604.0
3418+31		604.0
3420+29		605.0
3420+31		605.0
3422+29		606.0
3422+31		606.0
3424+29		607.0
3424+35		607.0
3425+20	600.0	

UNDERDRAIN OUTLET ELEVATION SUMMARY TABLE



TYPICAL UNDERDRAIN PLAN DETAIL AT RETAINING WALL INTERFACE WITH BRIDGE OR ELEVATED STRUCTURE

Scale: Not to Scale

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES RW306-11 OF RW306-11

delancm

PLOT DATE: 12/11/2019 11:51:49 AM

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

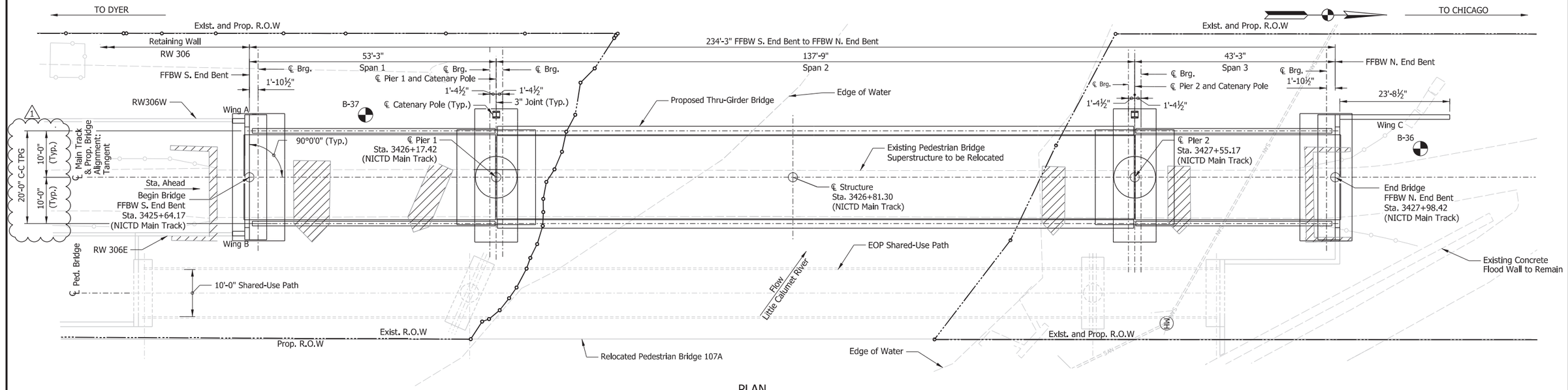
DYER TO HAMMOND, INDIANA

DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

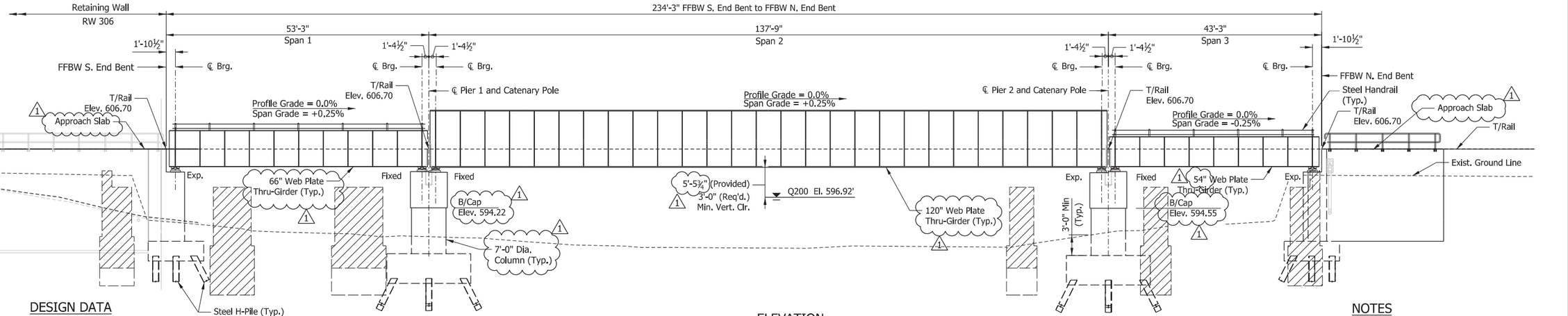
RETAINING WALLS 306W & 306E DRAINAGE DETAILS

FILENAME	SHT_WL_ST_RW306_DrainDet_01.dgn	SHEET
SCALE	AS NOTED	100 OF 220



PLAN

Scale: 3/32" = 1'-0"



ELEVATION

Scale: 3/32" = 1'-0"

DESIGN DATA

SPECIFICATIONS:
American Railway Engineering and Maintenance-of-Way Association (A.R.E.M.A), Manual for Railway Engineering, 2019) Chapter 8 and 15.

LIVE LOADS:
Copper E-50 and Ballast Train Per Structural Design Criteria

DESIGN STRESS:
Steel: fy = 50,000 psi (ASTM A 709 Gr 50)
Reinforcing: fy = 60,000 psi (ASTM A615)
Concrete: f'c = 4,000 psi
Concrete Footing: f'c = 3,500 psi (Min.)

CONSTRUCTION DEPTH

Rail (115 Lbs)	6⅝"
Tie Plate	¾"
Tie (Above floor beam)	½"
Depth of Floor Beam	33¼"
Lateral Bracing	4½"
Bottom Flange	2"
	47⅞"

SHEET INDEX

NOTES

1. For track geometry, see Track Plans.
2. For clarity Catenary Poles and associated infrastructure not shown in elevation views. For details, see System Plans.

Portions of existing substructure units to be removed to a minimum of 3' below existing ground. Remove entire substructure unit in conflict with proposed substructure unit or piles.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

SERIES BR107-01 OF BR107-06

PLOT DATE: 12/11/2019 1:24:32 PM
delancm

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE
JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

DYER TO HAMMOND, INDIANA

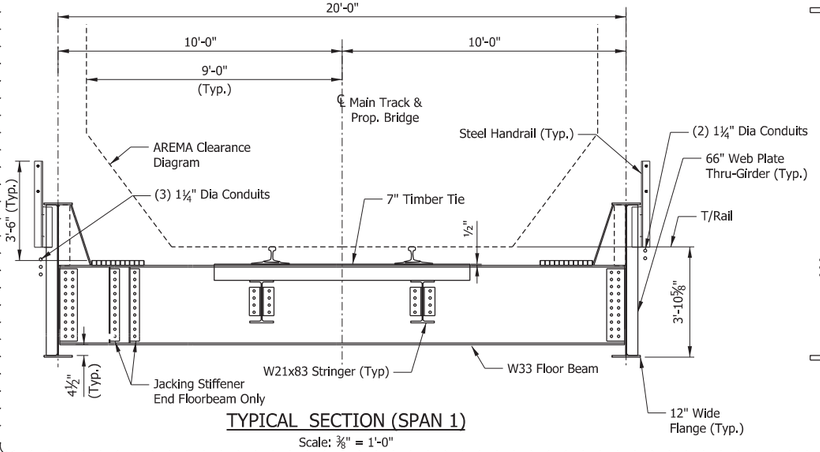
DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

BRIDGE 107 - NICTD OVER LITTLE CALUMET RIVER GENERAL PLAN & ELEVATION

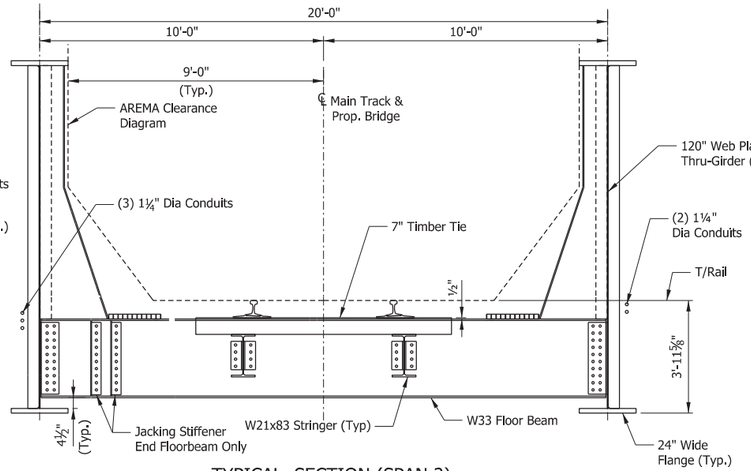
FILENAME	SHT_WL_ST_BR107_GenPlan_01.dgn
SCALE	AS NOTED

SHEET 105 OF 220



TYPICAL SECTION (SPAN 1)

Scale: ⅜" = 1'-0"



TYPICAL SECTION (SPAN 2)

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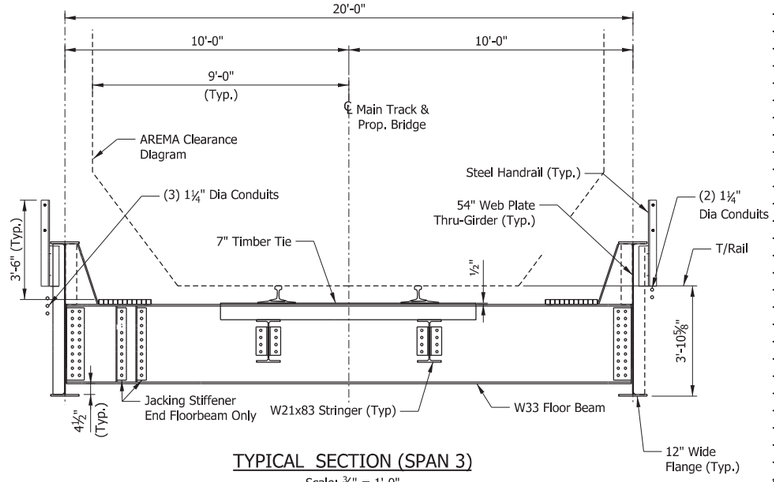
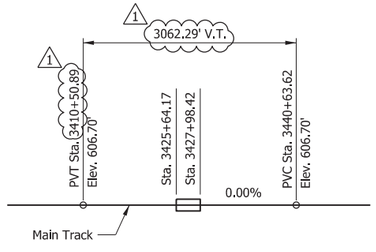


TYPICAL SECTION (SPAN 3)

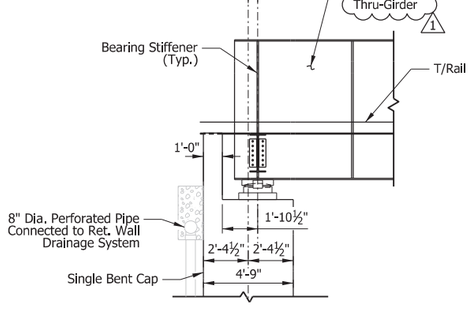
Scale: ⅜" = 1'-0"

1



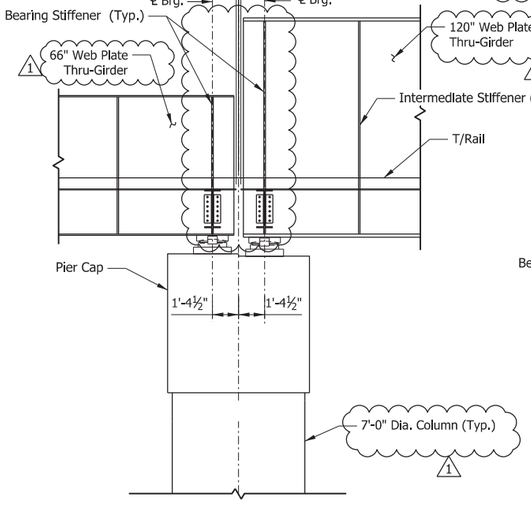
TOP OF RAIL PROFILE

Not to Scale



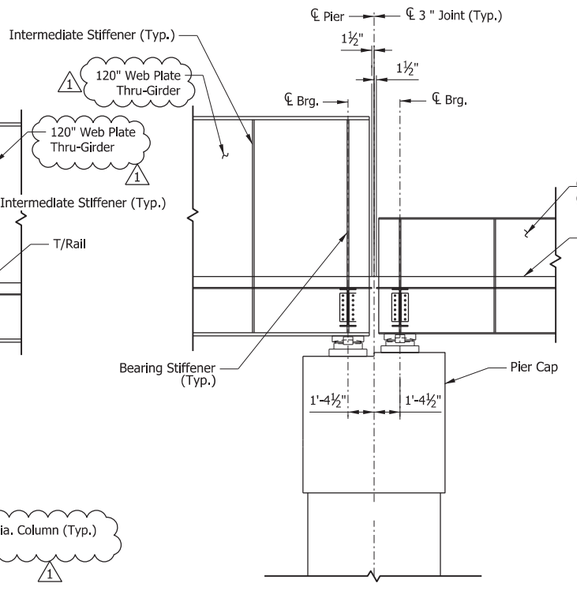
SECTION THRU S. END BENT

Scale: ¼" = 1'-0"



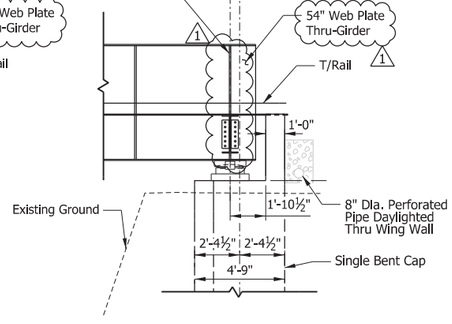
SECTION THRU PIER 1

Scale: ¼" = 1'-0"



SECTION THRU PIER 2

Scale: ¼" = 1'-0"



SECTION THRU N. END BENT

Scale: ¼" = 1'-0"

NOTES

1. Outfall from Drainage System to be routed and detailed similar to those provided for Retaining Wall Underdrains.

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES BR107-02 OF BR107-06

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

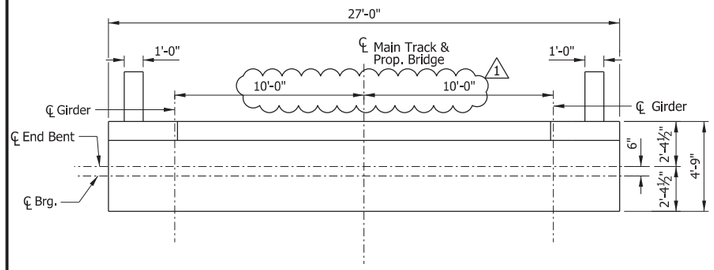
DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

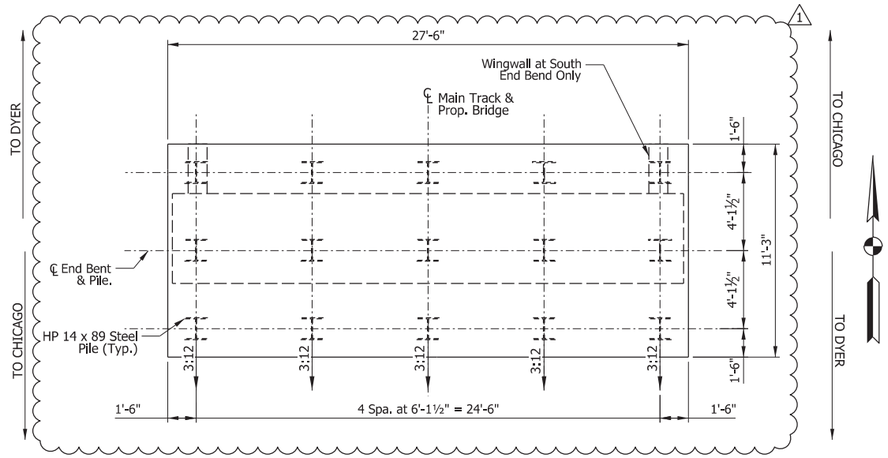
BRIDGE 107 - NICTD OVER LITTLE CALUMET RIVER TYPICAL DETAILS

FILENAME	SHT_WL_ST_BR107_TypDet_01.dgn
SCALE	AS NOTED
SHEET	106 OF 220

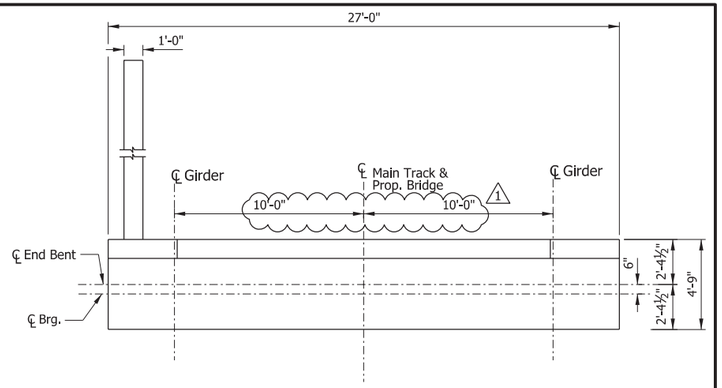
PLOT DATE: 12/11/2019 1:24:42 PM delancm



PLAN
Scale: ¼" = 1'-0"



FOOTING PLAN (TYP.)
Scale: ¼" = 1'-0"



PLAN
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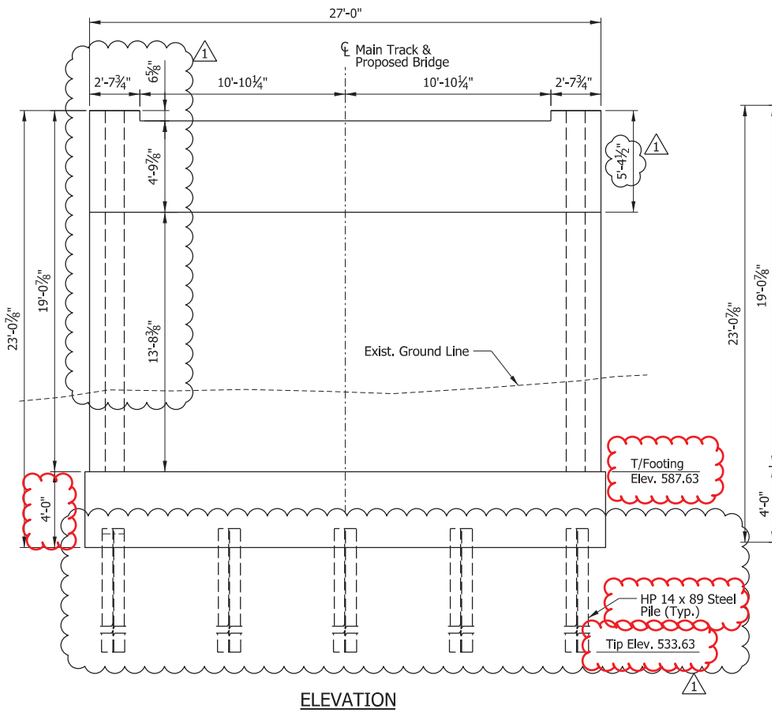

ELEVATION
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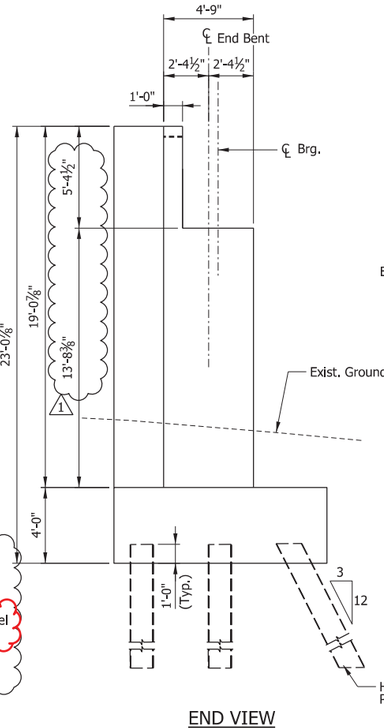
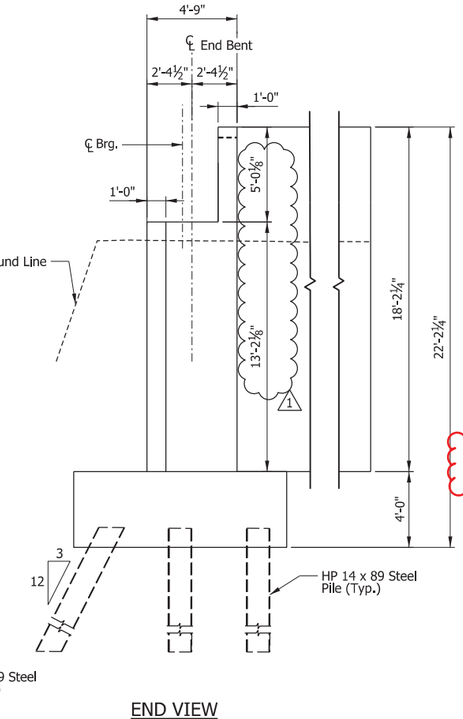
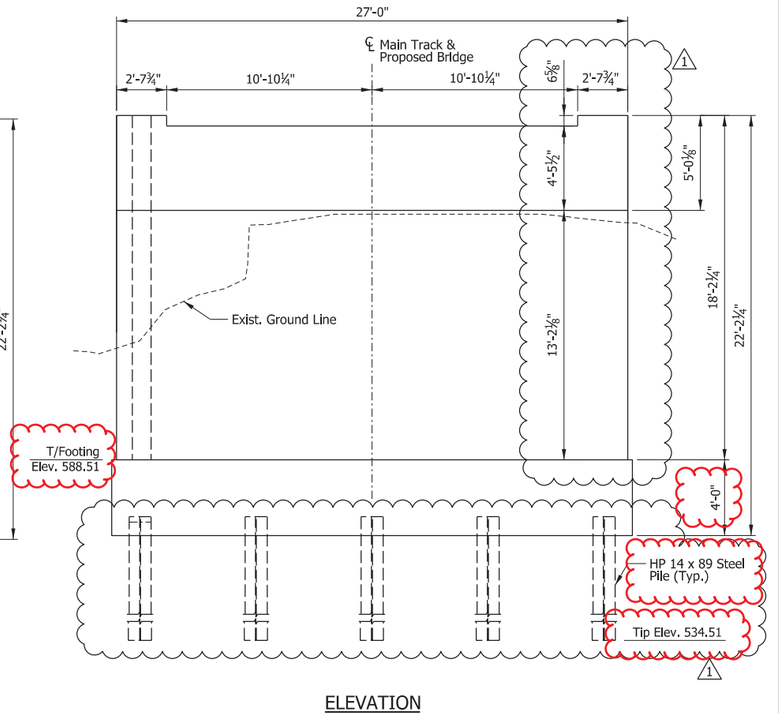


END VIEW
Scale: ¼" = 1'-0"



END VIEW
Scale: ¼" = 1'-0"



ELEVATION
Scale: ¼" = 1'-0"

SOUTH END BENT

NORTH END BENT

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES BR107-03 OF BR107-06

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA

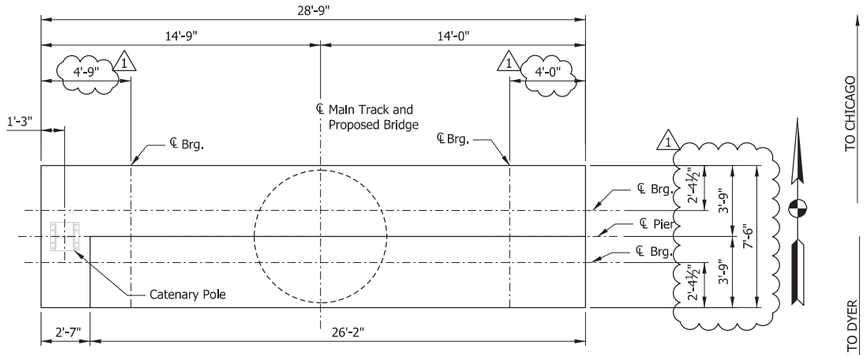
DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

BRIDGE 107 - NICTD OVER LITTLE CALUMET RIVER SUBSTRUCTURE DETAILS (1 OF 2)

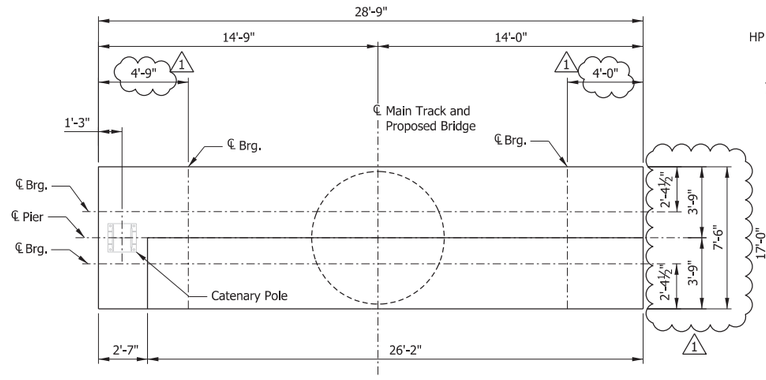
FILENAME	SHT_WL_ST_BR107_SubstrDet_01.dgn	SHEET
SCALE	AS NOTED	107 OF 220

PLOT DATE: 12/11/2019 1:24:57 PM
delancm



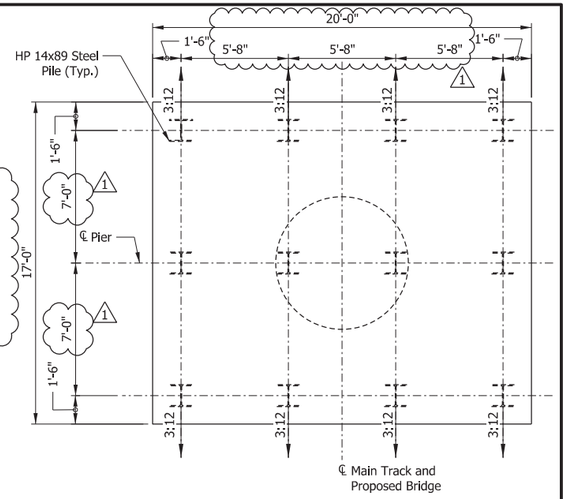
PLAN

Scale: ¼" = 1'-0"



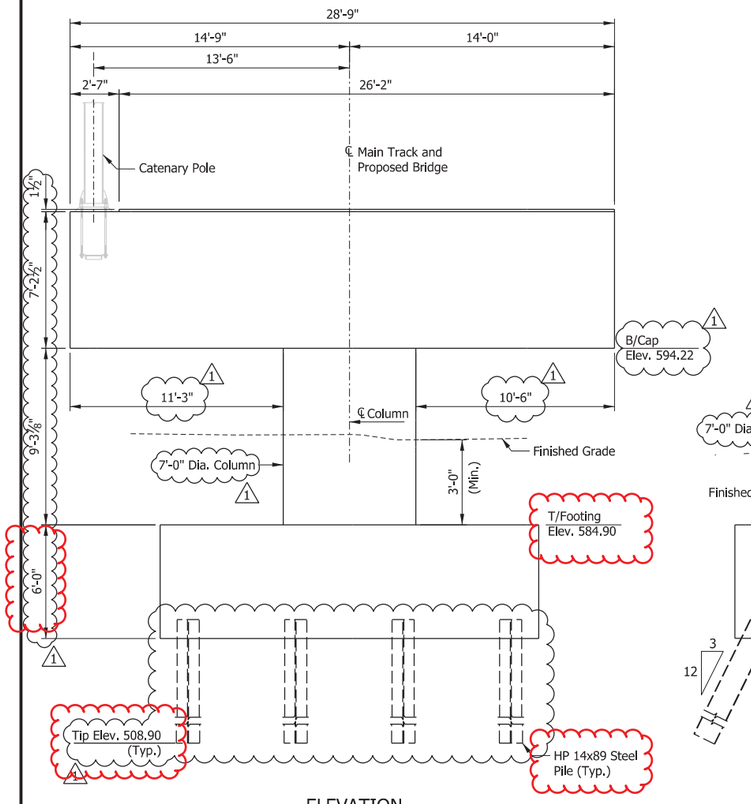
PLAN

Scale: ¼" = 1'-0"



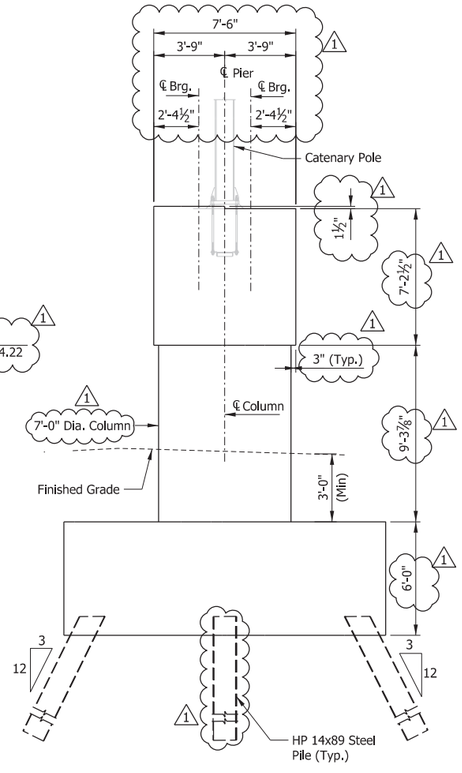
FOOTING PLAN (TYP.)

Scale: ¼" = 1'-0"



ELEVATION

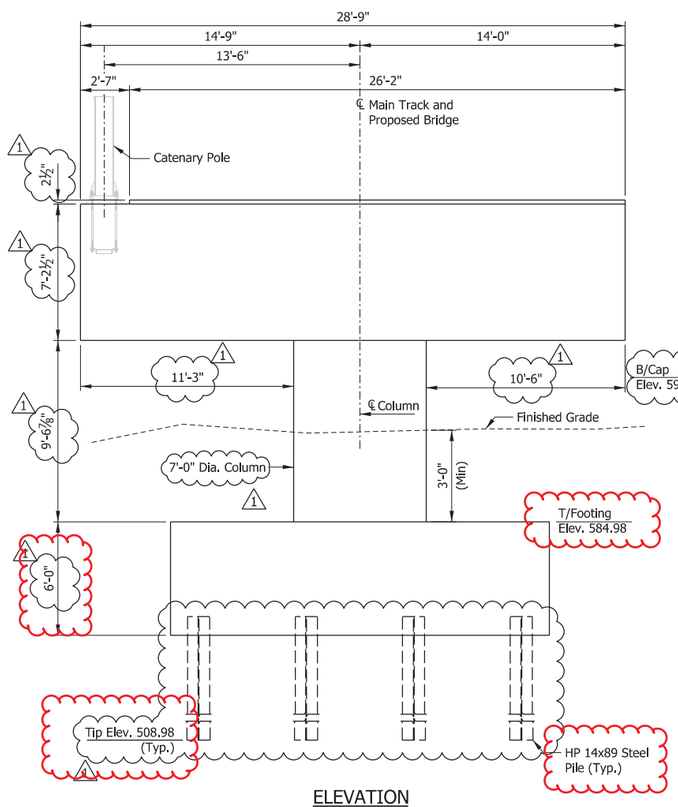
Scale: ¼" = 1'-0"



END VIEW

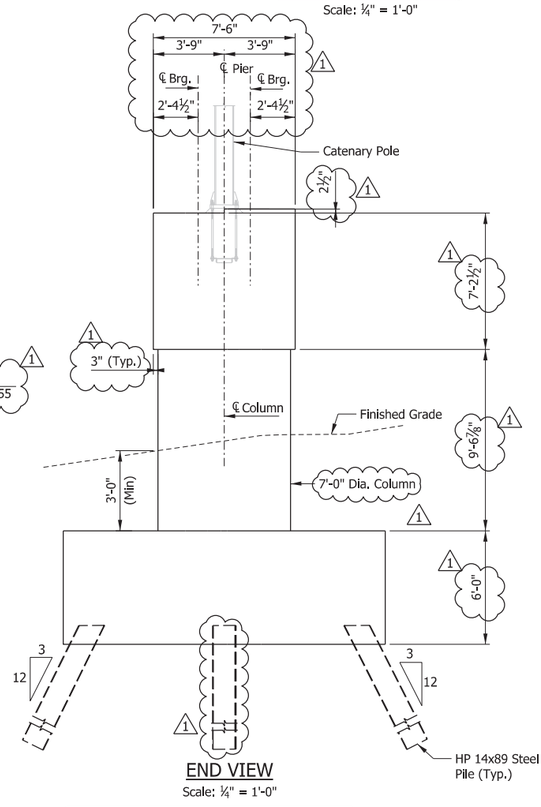
Scale: ¼" = 1'-0"

PIER 1



ELEVATION

Scale: ¼" = 1'-0"



END VIEW

Scale: ¼" = 1'-0"

PIER 2

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES BR107-04 OF BR107-06

delancm

PLOT DATE: 12/11/2019 1:25:10 PM

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

WEST LAKE CORRIDOR

DYER TO HAMMOND, INDIANA

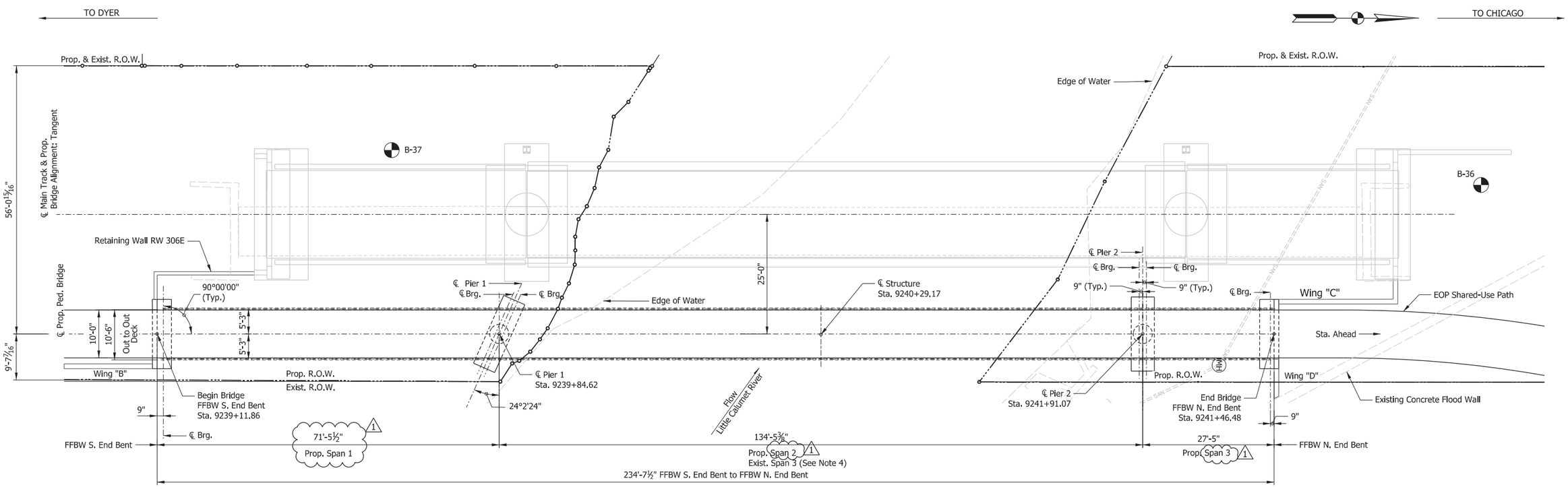
DESIGNED:	JEG
DRAWN:	JEG
CHECKED:	JEG
DATE:	12/20/19

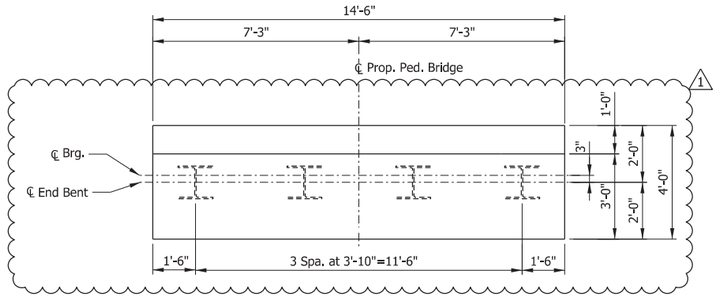
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

BRIDGE 107 - NICTD OVER LITTLE CALUMET RIVER SUBSTRUCTURE DETAILS (2 OF 2)

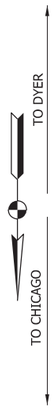
FILENAME	SHT_WL_ST_BR107_SubstrDet_02.dgn
SCALE	AS NOTED

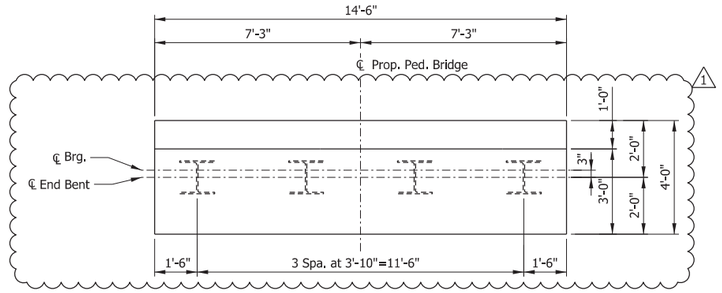
SHEET **108 OF 220**


TO DYER
TO CHICAGO
Prop. & Exist. R.O.W.
℄ Main Track & Prop. Bridge Alignment: Tangent
56'-0 15/16"
9'-7 7/16"
℄ Prop. Ped. Bridge
10'-0"
10'-6"
Out to Out Deck
5'-3"
5'-3"
B-37
B-36
Retaining Wall RW 306E
90°00'00" (Typ.)
℄ Pier 1
℄ Brg.
℄ Brg.
Edge of Water
25'-0"
℄ Structure Sta. 9240+29.17
Wing "B"
Prop. R.O.W.
Exist. R.O.W.
Begin Bridge FFBW S. End Bent Sta. 9239+11.86
9"
℄ Brg.
FFBW S. End Bent
71'-5 1/2"
Prop. Span 1
℄ Pier 1 Sta. 9239+84.62
24°2'24"
Flow Little Calumet River
134'-5 3/8"
Prop. Span 2
Exist. Span 3 (See Note 4)
234'-7 1/2" FFBW S. End Bent to FFBW N. End Bent
Edge of Water
Prop. & Exist. R.O.W.
℄ Pier 2
℄ Brg.
℄ Brg.
9" (Typ.)
9" (Typ.)
℄ Brg.
Wing "C"
EOP Shared-Use Path
Sta. Ahead
Prop. R.O.W.
Wing "D"
℄ Pier 2 Sta. 9241+91.07
End Bridge FFBW N. End Bent Sta. 9241+46.48
9"
Existing Concrete Flood Wall
27'-5"
Prop. Span 3
FFBW N. End Bent
PLAN
Scale: 3/32" = 1'-0"
1'-0"
234'-7 1/2" FFBW S. End Bent to FFBW N. End Bent
1'-0"
FFBW S. End Bent
71'-5 1/2"
Prop. Span 1
134'-5 3/8"
Prop Span 2
27'-5"
Prop Span 3
FFBW N. End Bent
Steel Handrail (Typ.)
9"
9" (Typ.)
9" (Typ.)
9"
℄ Brg.
℄ Pier 1
℄ Brg.
℄ Brg.
Profile Grade = 0.0%
Span Grade = 0.0%
℄ Pier 2
℄ Brg.
℄ Brg.
℄ Brg.
620
610
600
590
580
570
Exp.
Fixed
Exp.
B/Cap Elev. 596.58
3'-9" (Provided)
3'-0" (Req'd.)
Min. Vert. Clr.
Q200 El. 596.91
Fixed
Exp.
Fixed
B/Cap Elev. 596.58
B/Cap Elev. 590.75
T/Walkway
W33x141 Girder
B/Cap Elev. 590.25
Exist. Ground Line
Steel H-Pile (Typ.)
Relocated Existing Pony Truss Span
W24x84 Girder
ELEVATION
Scale: 3/32" = 1'-0"
DESIGN DATA
SPECIFICATIONS:
AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, 2009 and Subsequent Interims.
LIVE LOADS:
Pedestrian Load of 150 psf
H10 Truck Loading
¾ Ton Truck Loading
ALLOWABLE DESIGN STRESSES:
Steel: fa = 0.55 fy = 27,500 psi (ASTM A709 Gr 50)
Reinforcing: fy = 60,000 psi (ASTM A615)
Concrete: f'c = 3,500 psi (Min.)
Concrete (footing): f'c = 3,500 psi (Min.)
SHEET INDEX
BR107A-01 General Plan & Elevation
BR107A-02 Typical Details
BR107A-03 Substructure Details (1 of 2)
BR107A-04 Substructure Details (2 of 2)
BR107A-04A Framing Plan (1 of 2)
BR107A-04B Framing Plan (2 of 2)
NOTES
1. For sidewalk geometry, see Site Plans.
2. No present structure at proposed bridge site. Existing Structure to be Relocated, is Located 25'-0" to the East of the Proposed Alignment.
3. All bolt hole and member dimensions shown on plans are approximate. Existing members should be used as patterns to assure proper fit of new to old.
4. Proposed Span 2 is to be rotated 180° from Existing Layout.
PRELIMINARY PLANS
NOT FOR CONSTRUCTION
SERIES
BR107A-01 OF BR107A-04B
F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE
JACOBS
REV 1 12/20/19 RFP REVISIONS TO BTC
ISSUE DATE DESCRIPTION
NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304
WEST LAKE CORRIDOR
DYER TO HAMMOND, INDIANA
DESIGNED: JEG
DRAWN: JEG
CHECKED: JEG
DATE: 12/20/19
NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK
BRIDGE 107A - PEDESTRIAN BRIDGE OVER LITTLE CALUMET RIVER
GENERAL PLAN & ELEVATION
FILENAME SHT_WL_ST_BR107A_GenPlan_01.dgn
SCALE AS NOTED
SHEET 111 OF 220
PLOT DATE: 12/11/2019 1:26:22 PM
dalancm



PLAN
Scale: ⅜" = 1'-0"





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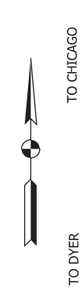
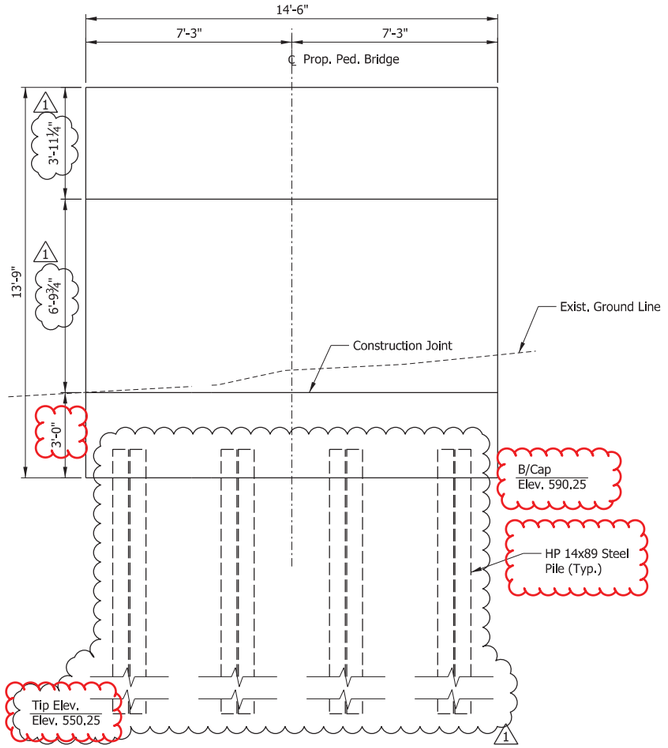
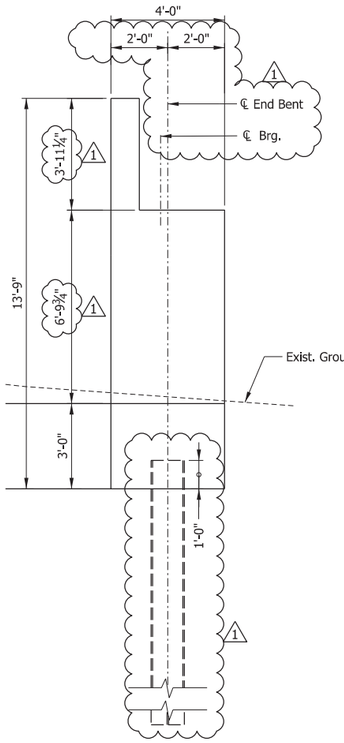


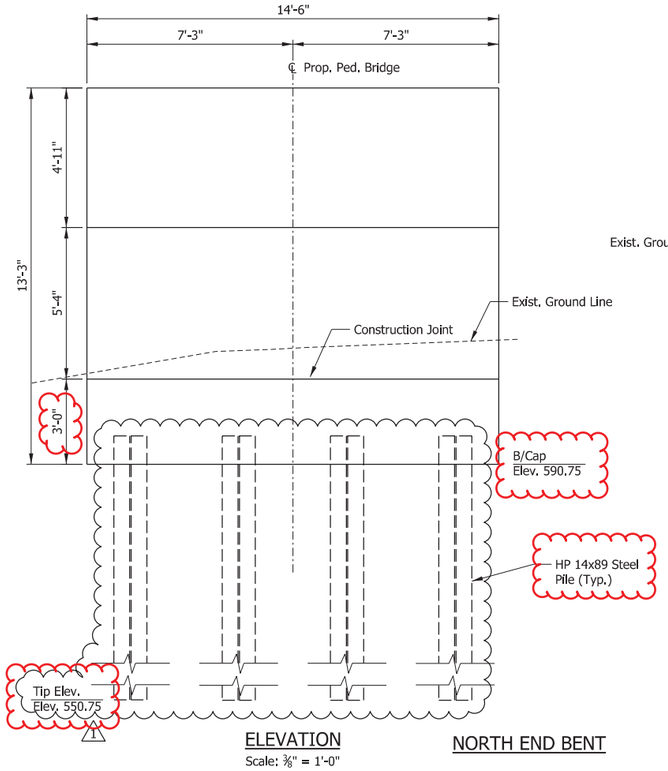


ELEVATION
Scale: ⅜" = 1'-0"



END VIEW
Scale: ⅜" = 1'-0"

SOUTH END BENT



ELEVATION
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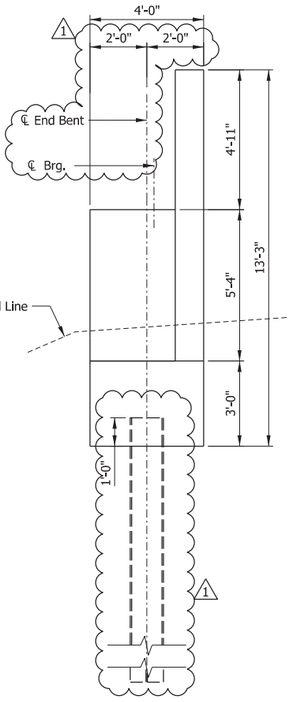

END VIEW
Scale: ⅜" = 1'-0"

NORTH END BENT

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES
BR107A-03 OF BR107A-04B

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12/11/2019
1:26:39 PM
PLOT DATE:

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER
TRANSPORTATION DISTRICT
33 East Highway 12
Chesterton, Indiana 46304

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DYER TO HAMMOND, INDIANA

DESIGNED:	JEG
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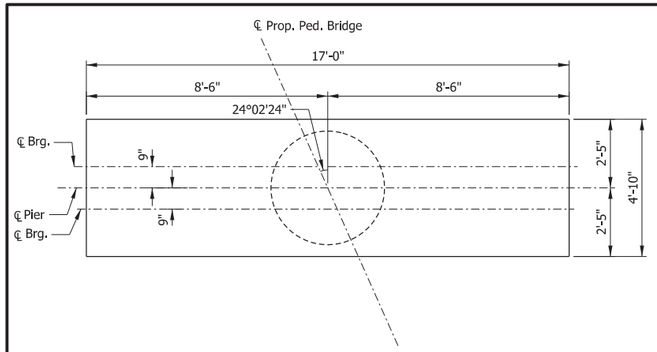
DATE:	12/20/19

NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

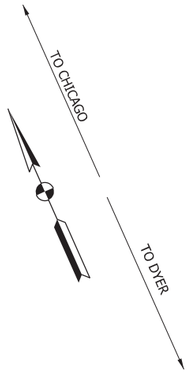
BRIDGE 107A - PEDESTRIAN BRIDGE OVER LITTLE CALUMET RIVER SUBSTRUCTURE DETAILS (1 OF 2)

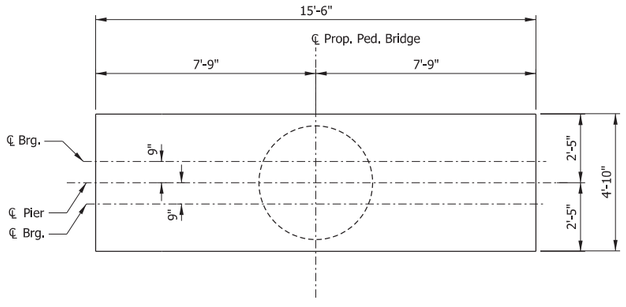
FILENAME	SHT_WL_ST_BR107A_SubstrDet_01.dgn
SCALE	AS NOTED

SHEET
113 OF 220



PLAN
Scale: ⅜" = 1'-0"





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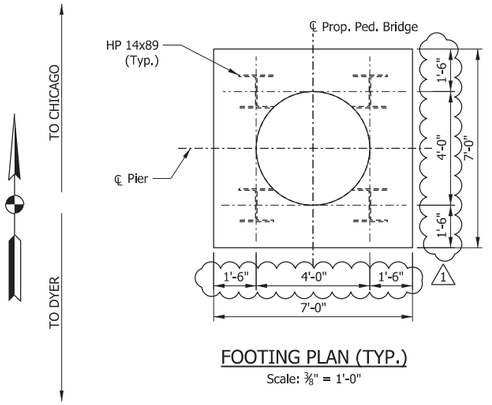
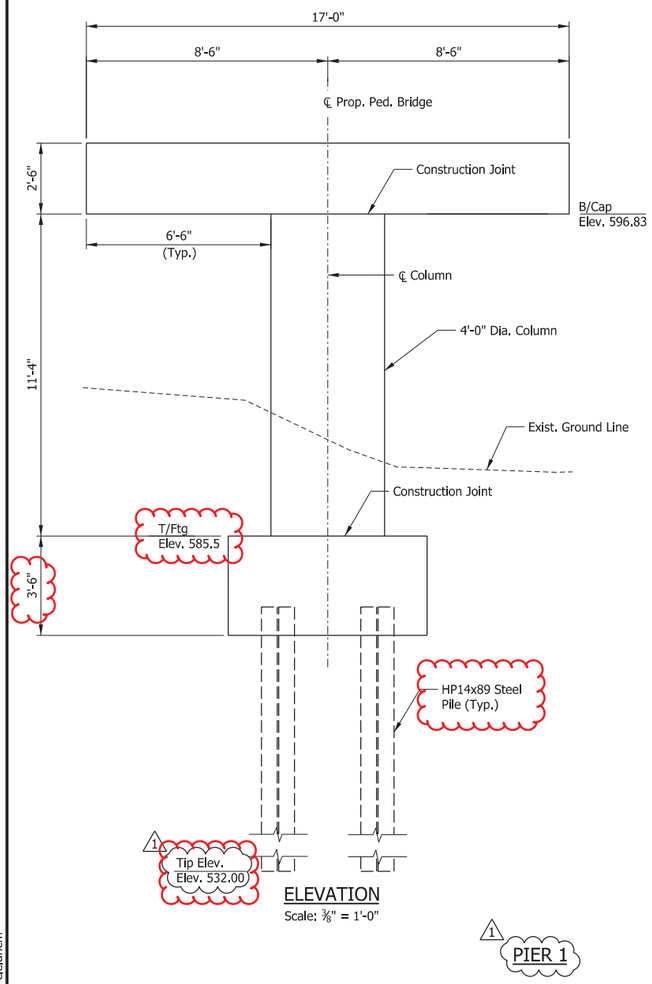


FOOTING PLAN (TYP.)
Scale: ⅜" = 1'-0"



ELEVATION
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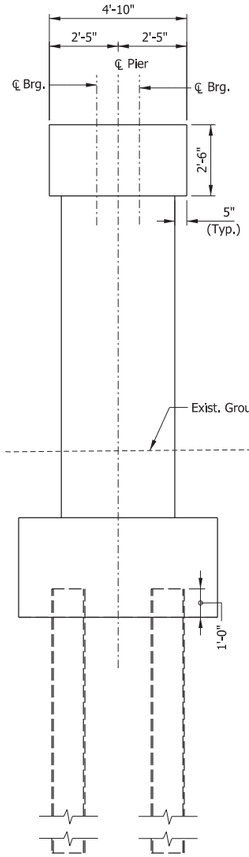
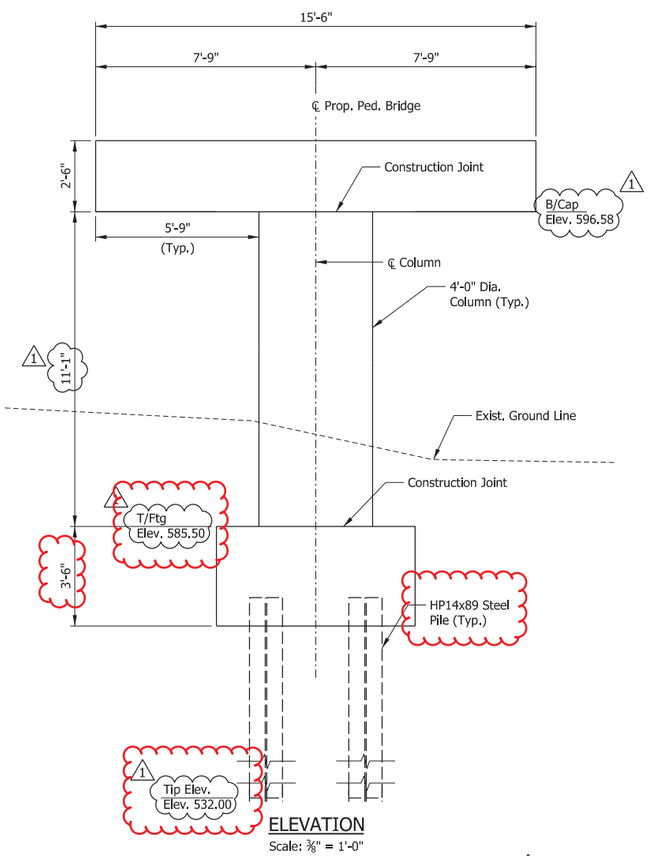


END VIEW
Scale: ⅜" = 1'-0"



ELEVATION
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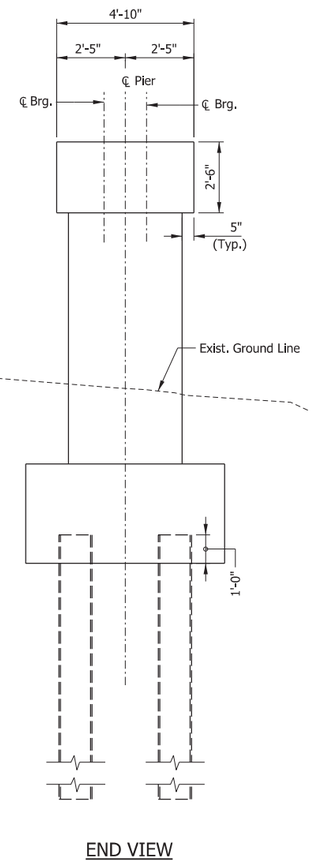

END VIEW
Scale: ⅜" = 1'-0"

1 PIER 1

1 PIER 2

PRELIMINARY PLANS

NOT FOR CONSTRUCTION

SERIES BR107A-04 OF BR107A-04B

delancm
12/11/2019 1:26:48 PM
PLOT DATE:

F.H. PASCHEN
RAGNAR BENSON
JOINT VENTURE

JACOBS

ISSUE	DATE	DESCRIPTION
REV 1	12/20/19	RFP REVISIONS TO BTC

NORTHERN INDIANA COMMUTER TRANSPORTATION DISTRICT
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NICTD - WEST LAKE CORRIDOR - MP WL 61.38 TO WL 69.18
SINGLE TRACK

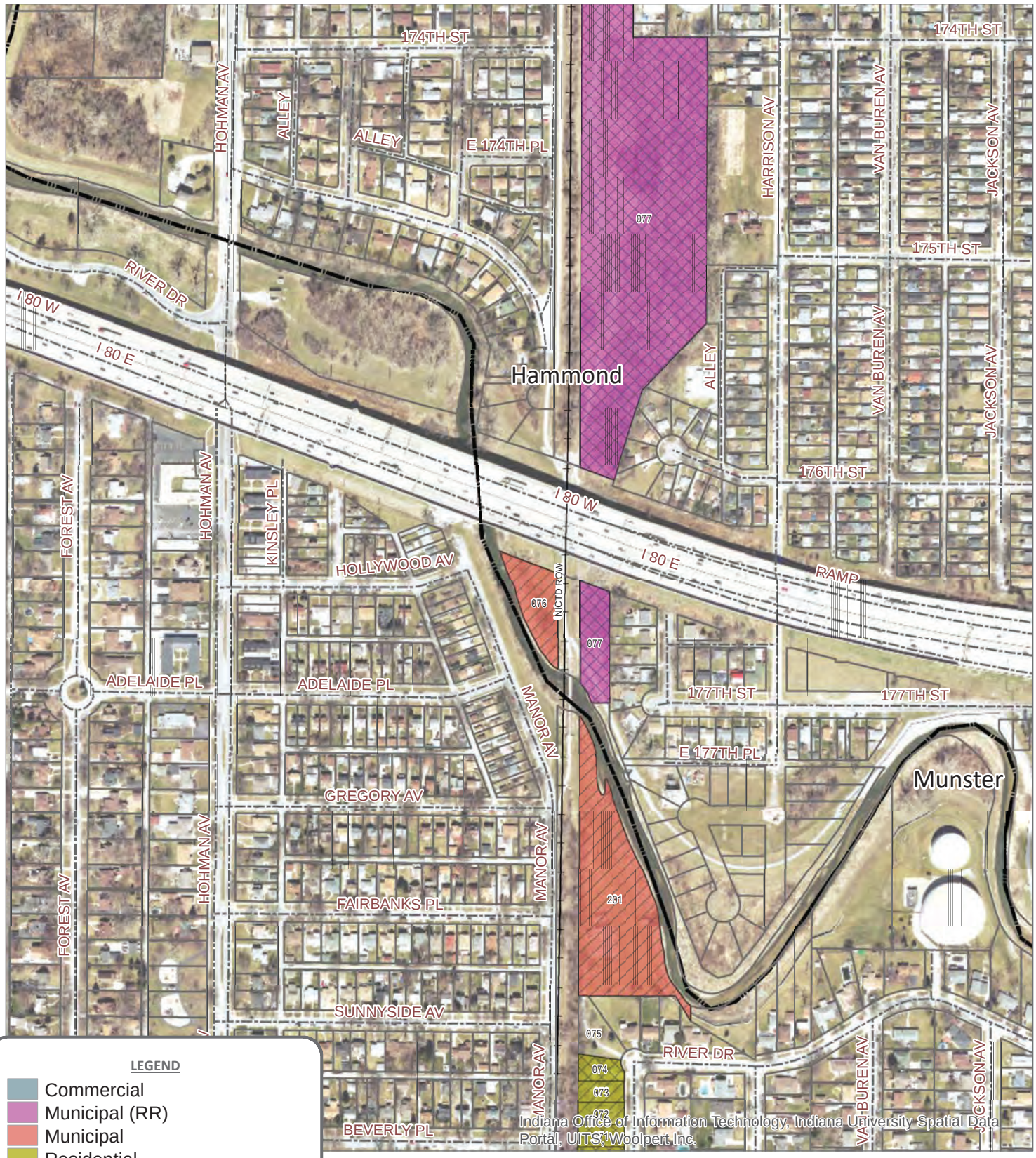
BRIDGE 107A - PEDESTRIAN BRIDGE OVER LITTLE CALUMET RIVER SUBSTRUCTURE DETAILS (2 OF 2)

FILENAME	SHT_WL_ST_BR107A_SubstrDet_02.dgn	SHEET
SCALE	AS NOTED	114 OF 220

NICTD West Lake - Project Parcels

Aerial Map

1 inch = 400 feet



LEGEND

- Commercial
- Municipal (RR)
- Municipal
- Residential
- Construction Easement
- Partial/ Construction Easement
- Partial Take
- Parcel Requires Demolition

Figure 4
Parcels Near Little Calumet River

BLN
BEAM·LONGEST·NEFF

P:\180110_NICTD\09Road\03 Eng Computations\08 - Permits\0-GIS\Parcel Map.mxd | Thursday, April 30, 2020 | 1:34:31 PM

COUNTY: LAKE
SECTION: 13
TOWNSHIP: 36 NORTH
RANGE: 10 WEST
TAX KEY: NONE

DC-1344

OWNER: CSX TRANSPORTATION INC

FLOOD PROTECTION LEVEE EASEMENT

Beginning at the northwest corner of Lot 7 of the Resubdivision of River Plaza to the City of Hammond as recorded in Lake County, Indiana, Plat Book 31, Page 66;
thence South 00°09'14" West along the west line of Lot 7 and said line extended a distance of 191.97 feet;
thence North 21°40'40" West a distance of 234.08 feet to the east line of the 66 foot wide railroad right-of-way;
thence North 00°13'57" East along said line a distance of 214.70 feet;
thence South 53°54'28" East a distance of 4.70 feet;
thence South 59°36'31" East a distance of 67.70 feet;
thence South 25°42'13" East a distance of 56.09 feet to the west line of Lot 4 of said Resubdivision of River Plaza;
thence South 00°09'14" West along said line a distance of 0.98 feet;
thence South 38°51'19" West a distance of 57.57 feet;
thence South 25°27'21" East a distance of 83.29 feet to the west line of Lot 6 of said Resubdivision of River Plaza;
thence South 00°09'14" West along said line a distance of 31.68 feet to the Point of Beginning, said parcel containing 0.53 acres, more or less.

EXHIBIT
A

Little Calumet River Basin Development Commission
6100 Southport Road Portage, Indiana 46368

GARCIA CONSULTING
7501 Indianapolis Boulevard
Hammond, IN 46324
Phone: 219.989.1954
Fax: 219.989.3321
www.garcia-consulting.com

PHASE 2

LITTLE CALUMET RIVER, INDIANA LOCAL FLOOD PROTECTION STAGE VIII - HAMMOND	
SHEET 4 OF 4	SCALE: N/A
DATE: 02/12/2008	DC-1344

...\DC-1344 CSX\DC-1344.DGN 2/18/2008 1:39:29 PM

Figure 5
Parcel 077 Levee Easement
Sheet 1 of 2

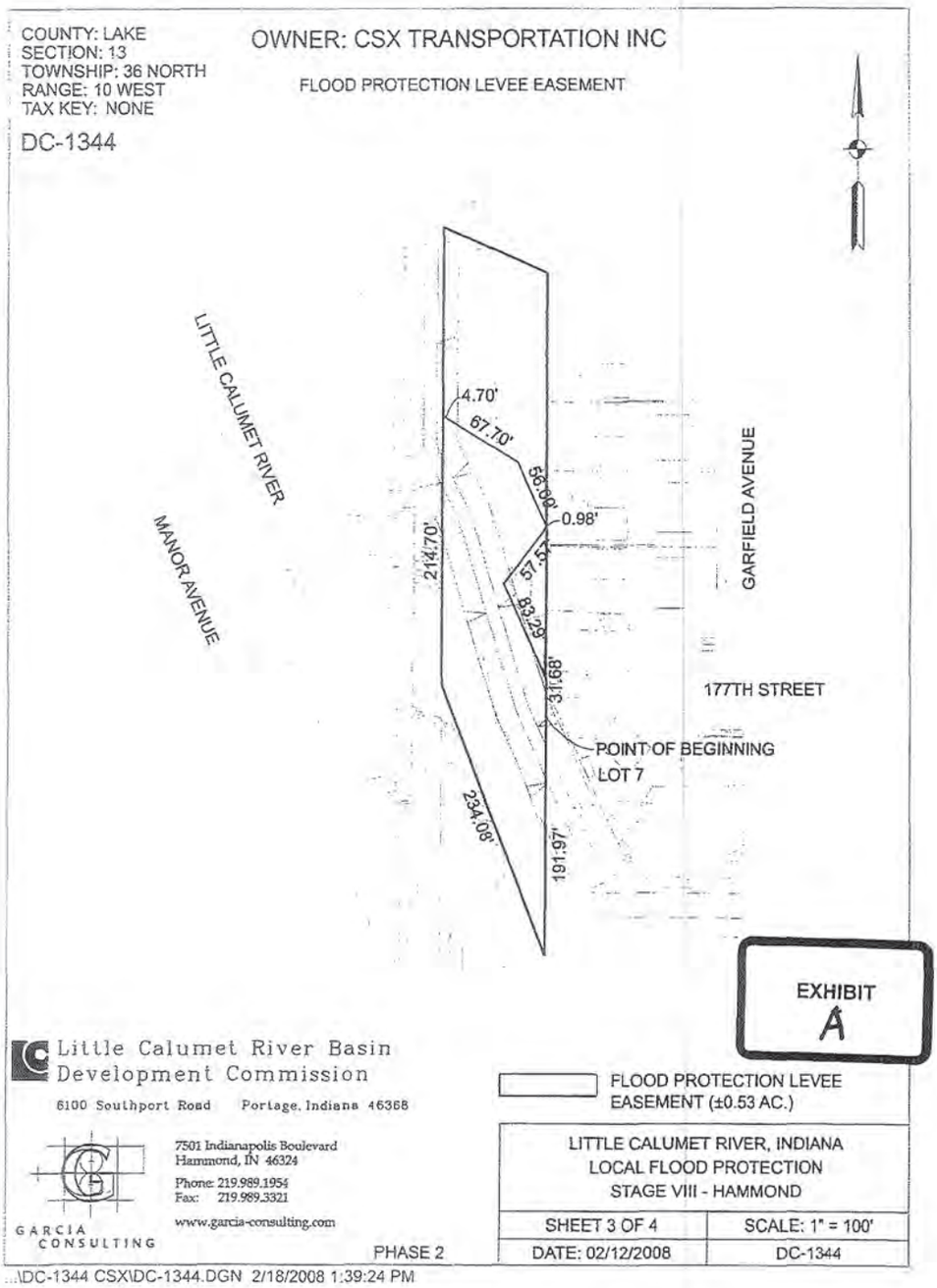
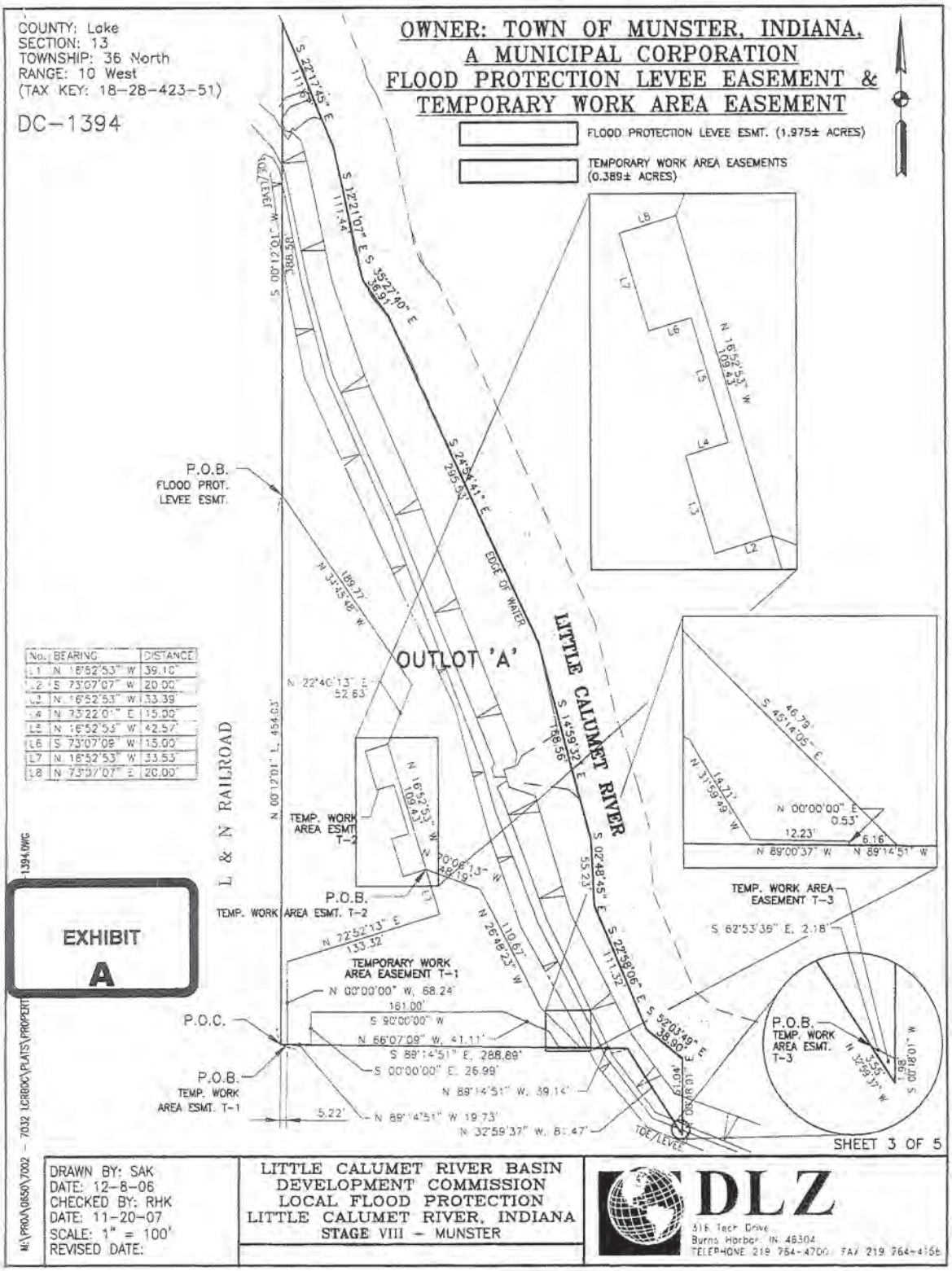


Figure 5
Parcel 077 Levee Easement
Sheet 2 of 2



No.	BEARING	DISTANCE
L1	N 16°52'53" W	39.10'
L2	S 73°07'07" W	20.00'
L3	N 16°52'53" W	33.39'
L4	N 73°22'01" E	15.00'
L5	N 16°52'53" W	42.57'
L6	S 73°07'09" W	15.00'
L7	N 16°52'53" W	33.53'
L8	N 73°07'07" E	20.00'

Figure 6
Parcel 201 Flood Levee Easement
Sheet 1 of 2

COUNTY: Lake
SECTION: 13
TOWNSHIP: 36 North
RANGE: 10 West
(TAX KEY: 18-28-423-51)

DC-1394

OWNER: TOWN OF MUNSTER, INDIANA, A MUNICIPAL CORPORATION

FLOOD PROTECTION LEVEE EASEMENT

FLOOD PROTECTION LEVEE EASEMENT AREA

That part of Outlot "A" in Olthof's Addition, to the Town of Munster, Indiana, a Municipal Corporation, Block One, as per plat thereof, recorded in Plat Book 48, Page 21, in the Office of the Recorder of Lake County, Indiana, more particularly described as follows:

Commencing at the southwest corner of said Outlot "A" thence North 00°12'01" East, 454.13 feet along the West line of said Outlot "A" to the Point of Beginning of this description; thence continuing North 00°12'01" West, 388.58 feet along said west line to the northern most corner of said Outlot "A"; thence along the northeast line of said Outlot "A" being the southwesterly edge of water of the Little Calumet River the following (8) courses and distances:
1) South 22°17'45" East, 111.67 feet;
2) South 12°21'07" East, 111.44 feet;
3) South 35°27'40" East, 36.91 feet;
4) South 24°54'41" East, 295.53 feet;
5) South 14°59'32" East, 168.56 feet;
6) South 02°48'45" East, 55.23 feet;
7) South 22°58'06" East, 111.32 feet;
8) South 52°03'49" East, 38.90 feet to the east line of said Outlot "A";
thence South 00°18'01" East, 61.04 feet along said east line;
thence North 62°53'36" West, 2.18 feet to the southwest line of said Outlot "A";
thence North 32°59'37" West, 81.47 feet along said line;
thence North 89°14'51" West, 39.14 feet along the south line of said Outlot "A";
thence North 45°14'05" West, 46.79 feet;
thence North 26°48'23" West, 110.67 feet;
thence North 70°06'13" West, 48.19 feet;
thence North 16°52'53" West, 109.43 feet
thence North 22°40'13" East, 52.63 feet;
thence North 34°45'48" West, 189.77 feet to the Point of Beginning and containing 1.975 acres, more or less.

SHEET 4 OF 5

M:\PROJ\0650\7002 - 7032 ILCRBDC\PLATS\PROPERTY OWNER FORMAT\7029PL-1394.DWG

DRAWN BY: SAK DATE: 12-8-06 CHECKED BY: RHK DATE: 11-20-07 REVISED DATE:	LITTLE CALUMET RIVER BASIN DEVELOPMENT COMMISSION LOCAL FLOOD PROTECTION LITTLE CALUMET RIVER, INDIANA STAGE VIII - MUNSTER	DLZ 316 Tech Drive Burns Harbor, IN 46304 TELEPHONE 219 764-4700 FAX 219 764-4156

Figure 6
Parcel 201 Flood Levee Easement
Sheet 2 of 2

Attachment 7
Landowners Adjacent to Affected Wetlands and Waterways

Town Of Munster	*1005 Ridge RD*	*Munster IN*	*46321-1899*
Indiana Land Trust Co Tr#2687	*9800 Connecticut Dr, Ste B2-900*	*Crown Point IN*	*46307*
Northern Indiana Public Service Co	*290 W Nationwide Blvd, PO Box 117*	*Columbus OH*	*43215*
West Creek Investments LLC	*9616 Indianapolis BLVD*	*Highland IN*	*46322*
First National Bank of Illinois Trs under Tr #6454 dtd 11/12/09	*3256 Ridge RD*	*Lansing IL*	*60438*
Wade, Ryan L & Amanda J Wade H & W	*408 Knightbridge Pl*	*Munster IN*	*46321*
Warner, James L III & Anissha L h&w	*332 Knightbridge PL*	*Munster IN*	*46321*
Feldkamp, Brian and Kelly Feldkamp H & W	*15409 Hertage DR*	*Plainfield IL*	*60544*
Shafi, Omer	*316 Knightbridge PL*	*Munster IN*	*46321*
Smith, Danette J	*308 Knightbridge DR*	*Munster IN*	*46321*
Anderson, Robert L	*PO Box 976*	*Dolton IL*	*60419*
Patel, Pravin	*216 Knightbridge PL*	*Munster IN*	*46321*
Catori, Tracy	*1275 Brandywine RD*	*Crown Point IN*	*46307*
Groen, John T & Jodi L Groen H & W	*132 Knightbridge PL*	*Munster IN*	*46321*
Mid-America Reformed Seminary Association Inc	*229 Seminary DR*	*Dyer IN*	*46311*
The Community Village Inc	*907 Ridge RD*	*Munster IN*	*46321*
Lake County Tr Co Tr 5019	*9800 Connecticut St Ste B2-900*	*Crown Point IN*	*46307*
Humane Society Calumet Area Inc	*421 45th AVE*	*Munster IN*	*46321*
Csx, Transportation	*500 Water ST*	*Jacksonville FL*	*32202*
Beck Roy L Trustee of the Beck Liv Trust	*40 Terrance Colony*	*Olympia Fields IL*	*60461*
Town Of Munster	*1005 Ridge RD*	*Munster IN*	*46321-1899*
City Of Hammond	*5925 Calumet AVE*	*Hammond IN*	*46320*
Djuric, Jim Z	*720 Saint Andrews DR*	*Schererville IN*	*46375*

Attachment 3
Section 401 Water Quality Certification Application
Cover Letter and Indiana State Form 51821

Northern Indiana Commuter Transportation District
33 East U.S. Highway 12
Chesterton, IN 46304

P 219 926 5774

Mr. Marty Maupin
Indiana Department of Environmental Management
Office of Water Quality, Wetlands and Storm Water Section
100 North Senate Avenue
Indianapolis, IN 46204

December 18, 2020

Subject: Section 401 Water Quality Certification, Northern Indiana Commuter Transportation District, West Lake Corridor Project, Lake County, Indiana

Dear Mr. Maupin,

The Northern Indiana Commuter Transportation District (NICTD) is submitting this Application for Authorization to Discharge Dredged or Fill Material to Isolated Wetlands and/or Waters of the State for construction activities associated with the proposed West Lake Corridor Project in Lake County, Indiana (Project), in compliance with Section 401 Water Quality Certification. The Project location is shown on Figure 1 in Attachment 1.

Project Description & Schedule

NICTD proposes to construct an approximately 8-mile southern extension to the South Shore Line commuter rail line, between the Town of Dyer and the City of Hammond, Indiana. The Project includes construction of four new stations along the alignment. The purpose of the Project is to increase transportation options for central and southern Lake County residents traveling to downtown Chicago and surrounding areas, to reduce travel time and travel costs, and to promote economic development opportunities in Lake County. NICTD and the Federal Transit Administration evaluated the Project under the National Environmental Policy Act and approved the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) on March 1, 2018. The United States Army Corps of Engineers (USACE) was a cooperating agency for the FEIS/ROD and in their January 9, 2018, letter, concurred with the FEIS/ROD (Attachment 2). The FEIS/ROD can be found at http://www.nictdwestlake.com/resources/. Construction in the areas with wetland impacts is anticipated to begin October 2021 and be completed by September 2024. NICTD received funding from the Federal Transit Administration's New Starts program for the Project. The close-out date for the grant is September 30, 2028.

USACE Jurisdictional Determination

Scientists performed wetland investigations and delineations for the Project in September and October 2015 and May, June, and August 2017. The Water Resources Technical Report (WRTR), which describes the delineations, can be found in Appendix G7 of the FEIS/ROD at the Project's website http://www.nictdwestlake.com/resources/. The USACE Chicago District Regulatory Branch provided their jurisdictional determination and wetland boundary concurrence on August 25, 2017 (Attachment 2). The USACE took jurisdiction over all but seven of the delineated wetlands within the Project study area. Of the seven wetlands excluded from federal jurisdiction, two (Wetlands 12 and 17) were located along the Project's final alignment. The USACE excluded these wetlands from federal jurisdiction as they were determined to be man-made for use as stormwater retention or detention basins. Indiana's definition (as defined in Indiana Code 13-11-2-265) of waters of the state excludes "any private pond or any off-stream pond, reservoir, or facility built for reduction or control of pollution." Therefore, Wetlands 12 and 17 are not included in the federal and state permitting applications.

Water Resources Impact and Mitigation Summary

The Project will impact 15 jurisdictional wetlands resulting in a total permanent fill of 2.36 acres and temporary impact of 0.74-acre. Impacts to jurisdictional wetlands are shown on Figures 2 and 3 in Attachment 1 and detailed in Worksheet A in the attached Indiana Department of Environmental Management (IDEM) Form 51821 Supplementary Responses. None of the wetlands impacted qualify as high-quality aquatic resources (see page 2-13 of the WRTR in Appendix G7 Part 1 of the FEIS/ROD at the Project's website: http://www.nictdwestlake.com/resources/).

As stated in the September 13, 2017, email (Attachment 2), the USACE typically requires jurisdictional palustrine emergent wetlands to be mitigated at a minimum 1.5:1 ratio, and jurisdictional palustrine forested wetlands to be mitigated at a 3:1 ratio. Using the mitigation ratios identified in the September 13 email, a total of 5.12 acres of mitigation are anticipated to be required (Table 1). NICTD will use the Indiana Department of Natural Resource's (INDNR's) In-Lieu Fee program to meet these mitigation requirements.

Table 1. Mitigation Calculation Summary

Cowardin Class	Impacted Acreage	Mitigation Ratio	Mitigated Acreage
PEM	1.31	1.5:1	1.97
PFO	1.05	3:1	3.15
Total	2.36	Total	5.12

The full summary of commitments and mitigation measures for water resources are on page A-18 of Attachment A of the FEIS/ROD, which can be found at the Project's website http://www.nictdwestlake.com/resources/. Temporarily affected areas will be restored to pre-construction contours, and the site will be reseeded and stabilized after construction in accordance with the procedures and protocols listed in Section 205 (Stormwater Management) of the Indiana Department of Transportation's 2020 Standard Specifications.[1]

Evaluation of Alternatives

Three routes were considered, each with three to four variations, for a total of 11 build alternatives. One route (Hammond Alternative 2) was identified as the preferred alternative in the Draft Environmental Impact Statement (DEIS) and the FEIS. All alternatives similarly met the project's purpose and need, but Hammond Alternative 2 performed best among the alternatives when considering the other factors of importance including freight railroad impacts, operational perspectives, and community preferences. Additionally, Hammond Alternative 2 would cause the least damage to the biological and physical environment while best protecting, preserving and enhancing cultural, historic and natural resources. A table comparing the build alternatives, plus a no-build alternative, using performance ratings on the variety of factors, is on page 10-11 of Chapter 10 of the FEIS/ROD, which can be found at the Project's website http://www.nictdwestlake.com/resources/. Hammond Alternative 2 was slightly modified between the DEIS and FEIS to further avoid or minimize impacts on the natural, developed and cultural environments, including wetlands. Pages 10-12 and 10-13 of Chapter 10 include a summary of how the modifications made between the DEIS and the FEIS further reduced environmental impacts.

[1] https://www.in.gov/dot/div/contracts/standards/book/sep19/sep.htm

Regulatory Compliance

Section 106 of the Historic Preservation Act of 1966

The Project does not adversely affect archaeological resources listed on or eligible for inclusion in the National Register of Historic Places as none were identified in the Project area. However, the Project does adversely affect one National Register of Historic Places-eligible property, the O.K. Champion building, as a result of the demolition of the building. The Indiana State Historic Preservation Office concurrence letter regarding the effects determinations on archaeological and historic properties is included in Attachment 3. The Federal Transit Administration, Indiana State Historic Preservation Office, and NICTD signed a Memorandum of Agreement in December 2017 (Attachment 3). The Memorandum of Agreement details mitigation measures NICTD is required to take to mitigate for the adverse effect on the O.K. Champion building. NICTD submitted the draft Historic American Building Survey documentation for the O.K. Champion building to the National Park Service for review on December 4, 2020.

Section 7 of the Endangered Species Act

The Project team coordinated with U.S. Fish and Wildlife Service (USFWS) to determine if the Project would affect any federally protected species. In their November 4, 2014 letter, USFWS stated that none of the species listed in Lake County are known to occur within the proposed Project corridor, and therefore, no further surveys will be necessary. An additional letter from USFWS dated September 26, 2017 confirms that no federally protected species are within the Project footprint and further surveys will not be necessary. USFWS's letters can be found in Attachment 4.

The Project team also coordinated with INDNR to determine if the Project would affect any state protected species. In their initial letter signed November 7, 2014, INDNR did not identify any state protected species in the Project corridor. INDNR again documented that there were no state protected resources in the Project corridor in their letter signed February 3, 2017. However, in their letter signed November 1, 2017, they stated that Bebb's sedge (Carex bebbii), a state threatened plant, could potentially be found in the Project area and that measures should be implemented to minimize any impacts to this species. Bebb's sedge, which can grow only in wetland habitats, was found in a ditch wetland and disturbed mesic/wetland woods in the Project corridor (see Chapter 5 and Appendix G11 of the FEIS, which can be found at the Project's website http://www.nictdwestlake.com/resources/). As noted on page A-19 of Attachment A of the FEIS/ROD, measures were taken to avoid potential impacts to Bebb's sedge during Project design by avoiding impacts to wetlands wherever possible. INDNR's letters can be found in Attachment 5.

Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408

NICTD has requested that USACE assess and provide approval for the Project under Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408. The project includes relocating an existing pedestrian bridge and constructing a new rail bridge across the Little Calumet River. The river is bordered by a flood control levee system constructed as a USACE civil project. NICTD is requesting a multi-phased review approach in accordance with Engineer Circular 1165-2-220, "Policy and Procedural Guidance for Processing Requests to Alter US Army Corps of Engineers Civil Works Projects Pursuant to 33 USC 408" (reference paragraph 10.c in Engineer Circular 1165-2-220). Per the proposed review plan, the initial design (base technical concept) completion package for the Section 408 review is included in this Section 401 Water Quality Certificate Application (see Attachment 6).

Adjacent Landowners

A table of landowners adjacent to the affected wetlands and waterways can be found in Attachment 7.

The IDEM Application for Authorization to Discharge Dredged or Fill Material to Isolated Wetlands and/or Waters of the State (IDEM Form 51821) and the associated supplementary responses directly follow this letter. Additional supporting materials include the following attachments:

- Attachment 1: Figures
- Attachment 2: USACE Correspondence
- Attachment 3: Section 106 of the Historic Preservation Act of 1966 Compliance
- Attachment 4: Section 7 of the Endangered Species Act Compliance
- Attachment 5: INDNR Coordination
- Attachment 6: Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408 Initial Design (Base Technical Concept) Completion Package
- Attachment 7: Adjacent Landowners

If you have any questions about this submittal, please contact me or Robert Hook, authorized agent, at the phone numbers or email addresses indicated on the application form.

Regards,

Chris Beck
Project Manager

Application for Authorization to Discharge Dredged or Fill Material to Isolated Wetlands and/or Waters of the State, IDEM Form 51821

APPLICATION FOR AUTHORIZATION TO DISCHARGE DREDGED OR FILL MATERIAL TO ISOLATED WETLANDS AND/OR WATERS OF THE STATE

State Form 51821 (R2 / 11-15)

Indiana Department of Environmental Management

INSTRUCTIONS: *1. Read the instruction sheet before filling out this form.*

2. You must complete all applicable sections of this form

1. Applicant Information	2. Agent Information
Name of Applicant Chris Beck	Name of Agent Robert Hook (Jacobs Engineering Group)
Mailing address *(Street/ PO Box/ Rural Route, City, State, ZIP Code)* Northern Indiana Commuter Transportation District 33 East U.S. Highway 12 Chesterton, IN 46304-3514	Mailing address *(Street/ PO Box/ Rural Route, City, State, ZIP Code)* 2 Crowne Point Cincinnati, Ohio, 45241
Daytime Telephone Number 219-926-5744 ext. 301	Daytime Telephone Number 937-477-2408
Fax Number	Fax Number -
E-mail address *(optional)* chris.beck@nictd.com	E-mail address *(optional)* robert.hook@jacobs.com
Contact person *(required)* Agent	Contact person Agent

3. Project / Tract Location

County Lake		Nearest city or town Dyer, IN and Hammond, IN	
U.S.G.S. Quadrangle map name *(Topographic map)* Calumet City, IL Lake Calumet, IL		Project street address *(if applicable)* N/A	
Quarter many	Section many	Township 35N, 36N, 37N	Range 10W
Type of aquatic resource(s) to be impacted *(Attach Worksheet One.)* See attached worksheet		Project name or title *(if applicable)* West Lake Corridor Project	

Other location descriptions or driving directions

From the IDEM Northwest Regional Office, turn left onto US-30W. Continue for approximately 19.8 miles, then turn right onto Calumet Ave. Continue for 2.1 miles, then turn left onto Main St. Continue for 0.3 miles; the southern terminus of the project is near the intersection of Main St and Sheffield Ave.

4. Project Purpose and Description (*Use additional sheet(s) if required.*)

Has any construction been started? ☐ Yes ☑ No	Anticipated start date *(month, day, year)* October 2021

If yes, how much work is completed?

N/A

Purpose of project and overview of activities

The Northern Indiana Commuter Transportation District (NICTD) proposes to construct an approximately 8-mile southern extension to the South Shore Line commuter rail line, between the town of Dyer and the city of Hammond, Indiana. The Project includes construction of four new stations along the alignment. The purpose of the Project is to increase transportation options for central and southern Lake County residents traveling to downtown Chicago and surrounding areas, to reduce travel time and travel costs, and to promote economic development opportunities in Lake County. NICTD and the Federal Transit Administration evaluated the Project under the National Environmental Policy Act and approved the Final Environmental Impact Statement (FEIS)/Record of Decision (ROD) on March 1, 2018. United States Army Corps of Engineers (USACE) was a cooperating agency for the FEIS/ROD and in their January 9, 2018, letter, concurred with the FEIS/ROD (Attachment 2). The FEIS/ROD can be found at http:// www.nictdwestlake.com/resources/.

Construction in the areas with wetland impacts is anticipated to begin October 2021 and be completed by September 2024. NICTD received funding from the Federal Transit Administration's New Starts program for a portion of the Project.The close-out date for the grant is September 30, 2028.

5. Avoidance, Minimization, and Mitigation Information: Applicants must answer all of the following questions
(*Use additional sheet(s) if necessary - provide a detailed response to all applicable questions.*)

A. For projects with Class II isolated wetlands –

1. Is there a reasonable alternative to the proposed activity?
   N/A

2. Is the proposed activity reasonably necessary or appropriate?
   N/A

B. For projects with Class III wetlands, adjacent wetlands, and/or streams, rivers, lakes or other water bodies –

1. Is there a practicable alternative to the proposed activity?
   Please see Supplementary Responses.

2. Have practicable and appropriate steps to minimize impacts to water resources been taken?
   Please see Supplementary Responses.

Describe all compensatory mitigation required for unavoidable impacts.
Please see Supplementary Responses.

6. Drawing / Plan Requirements *(Applicants must provide the following.)*

a. Top/aerial/overhead views of the project site showing existing conditions and proposed construction.
b. Cross sectional view of areas of fill or alterations to streams and other waters.
c. North arrow, scale, property boundaries.
d. Include wetland delineation boundary *(if applicable)*. Label all wetlands (jurisdictional, isolated and exempt) as I-1, I-2, I-3, etc. and the mitigation areas as M-1, M-2, etc.
e. Location of all surface waters, including wetlands, erosion control measures, existing and proposed structures, fill and excavation locations, disposal area for excavated material, including quantities, and wetland mitigation site *(if applicable)*.
f. Approximate water depths and bottom configurations *(if applicable)*.

7. Supplemental Application Materials *(Applicants must provide the following.)*

a. A wetland delineation of all wetlands on the project site *(for projects with wetland impacts)*.
b. At least three photographs of the project site. Indicate the photo locations on the project plans.
c. If isolated wetlands are present, a letter from the Corps of Engineers verifying this statement.
d. Wetland mitigation plan and monitoring report.
e. Classification of all isolated wetlands on the tract *(if isolated wetlands are present onsite)*.
f. Copies of all applicable local permits and/or resolutions pertaining to the project or tract.
g. Tract history *(see instructions)*.

8. Additional information that MAY be required *(IDEM will notify you if needed.)*

a. Erosion control and/or storm water management plans.
b. Sediment analysis.
c. Species surveys for fish, mussels, plants and threatened or endangered species.
d. Stream habitat assessment.
e. Any other information IDEM deems necessary to review the proposed project.

9. Permitting Requirements

a. Does this project require the issuance of a Department of the Army Section 404 Permit from the US Army Corps of Engineers? ☑ Yes ☐ No

If no, you do not need to answer Part b.

b. Have you applied for an Army Corps of Engineers Section 404 permit? ☑ Yes ☐ No

If yes, please supply the Corps of Engineers ID Number, the Corps of Engineers District, the project manager, and a copy of any correspondence with the Corps. **If no, contact** the Army Corps of Engineers regarding the possible need for a permit application.

LRC-2016-529, USACE Chicago District, Mr. Paul Leffler, see attached for USACE correspondence.

c. Have you applied for, received, or been denied a permit from the Department of Natural Resources for this project? ☐ Yes ☑ No

Please give the permit name, permit number, and date of application, issuance or denial.

d. Have you applied for, received, or been denied any other federal, state, or local permits, variances, licenses, or certifications for this project? ☑ Yes ☐ No

Please give the permit name, agency from which it was obtained, permit number, and date of issuance or denial.
Please see Supplementary Responses.

10. Adjoining Property Owners and Addresses

List the names and addresses of landowners adjacent to the property on which your project is located and the names and addresses of other persons (or entities) potentially affected by your project. Use additional sheet(s) if required.

Name Please see Attachment 6. Address *(number and street)* City State ZIP Code	Name Address *(number and street)* City State ZIP Code
Name Address *(number and street)* City State ZIP Code	Name Address *(number and street)* City State ZIP Code
Name Address *(number and street)* City State ZIP Code	Name Address *(number and street)* City State ZIP Code
Name Address *(number and street)* City State ZIP Code	Name Address *(number and street)* City State ZIP Code
Name Address *(number and street)* City State ZIP Code	Name Address *(number and street)* City State ZIP Code
Name Address *(number and street)* City State ZIP Code	Name Address *(number and street)* City State ZIP Code

11. Signature - Statement of Affirmation

I certify that I am familiar with the information contained in this application and, to the best of my knowledge and belief, such information is true and accurate. I certify that I have the authority to undertake and will undertake the activities as described in this application. I am aware that there are penalties for submitting false information. I understand that any changes in project design subsequent to IDEM's granting of authorization to discharge to a water of the state are not authorized and I may be subject to civil and criminal penalties for proceeding without proper authorization. I agree to allow representatives of the IDEM to enter and inspect the project site. I understand that the granting of other permits by local, state, or federal agencies does not release me from the requirement of obtaining the authorization requested herein before commencing the project.

Applicant's Signature: Christopher Beck Date: 01/12/2021
(mm/dd/yyyy)

Print Name: Chris Beck, Northern Indiana Commuter Transportation District Title: Project Manager

Worksheet – Summary of Onsite Water Resources and Project Impacts

A. Jurisdictional Wetlands (Existing Conditions)		Jurisdictional Wetlands (Proposed Impacts)			
Wetland Type	**Size of wetland *(acreage)***	**To be Impacted?**	**Acreage**	**Fill quantity *(cys)***	**ATF**
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			
☐ EM ☐ SS ☐ FO		☐ Yes ☐ No			

Describe the type and composition of fill material to be placed in wetlands on the project site:
Please see Supplementary Responses.

Describe the type and composition and quantity *(cubic yards)* of material proposed to be dredged or excavated from wetlands on the project site:
Topsoil within wetlands designated for permanent impact will be removed in the interest of meeting engineering specifications for construction of the proposed rail line. Topsoil within wetlands is generally comprised of muck, silt, sand, clay, or a mixture of these soil components.

B. Isolated Wetlands (Existing Conditions)			Isolated Wetlands (Proposed Impacts)			
Wetland Class	**Type**	**Size of wetland *(acreage)***	**To be Impacted?**	**Acreage**	**Fill quantity *(cys)***	**ATF**
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F	N/A	☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			
☐ 1 ☐ 2 ☐ 3	☐ NF ☐ F		☐ Yes ☐ No			

Describe the type and composition of fill material to be placed in isolated wetlands on the project site:
N/A

Describe the type and composition and quantity *(cubic yards)* of material proposed to be dredged or excavated from isolated wetlands on the project site:
NA

C. Bridges and Stream Crossings - provide the following information for EACH structure (*Use additional sheet(s) if required.*)

Stream name
Please see Supplementary Responses.

Description of impacts

Length of upstream bank impacts:
Left side: Right side:

Length of downstream bank impacts:
Left side: Right side:

Bank protection fill placed below the Ordinary High Water Mark:
Volume per running foot:

Bank protection fill placed below the Ordinary High Water Mark:
Area of coverage:

D. Bank Stabilization – provide the following information for EACH segment (*Use additional sheet(s) if required.*)
Water body name NA
Description of impacts
Length of shoreline or bank protection
Volume *(cubic yards)* of bank protection fill placed below the Ordinary High Water Mark per running foot
Area *(square feet)* of bank protection fill placed below the Ordinary High Water Mark

E. Stream Relocation	
Water body name None	
Description of impacts	
Length of existing channel to be relocated *(linear feet)*	
Length of new channel to be constructed *(linear feet)*	
Existing channel to be backfilled? ☐ Yes ☐ No	Type of relocation ☐ Piping ☐ Open ☐ Channel ☐ Other:____
Type of fill and volume *(cubic yards)*	

F. Open Water Fill
Water body name None
Description of impacts
Area of water body to be filled *(acres)*
Type of fill and volume *(cubic yards)*

IDEM Form 51821 Supplemental Responses

Block 5. Avoidance, Minimization, and Mitigation Information

NICTD will seek to avoid and minimize impacts to the onsite wetland and waterbody resources to the extent possible. Erosion and sediment control plans will be included with the contract drawings to prevent or reduce the displacement of soil and other sediments via stormwater runoff within the land development area. The Project alignment minimizes impacts to wetlands by utilizing existing ROW and paralleling an existing rail line; between the DEIS and FEIS, design was changed to avoid 3 wetlands, including moving a storage yard and redesign of a parking lot. Comprehensive analysis of alternatives is included as Chapter 10, Evaluation of Alternatives, of the FEIS which can be found at the Project's website http://www.nictdwestlake.com/resources/.

In accordance with state law and Municipal Separate Storm Sewer System requirements for each of the local jurisdictions, a stormwater pollution prevention plan will be developed for the Project before the start of construction activities. The plan will include provisions for placement of sediment and erosion controls at all locations where soil disturbance activities will be conducted in and adjacent to waters of the U.S. These erosion controls will be designed to prevent sediment-laden water from flowing offsite into adjacent wetlands and waterways. NICTD is committed to the use of appropriate best management practices to minimize stormwater pollution and any erosion/sedimentation-related impacts at the site. As a result, there should be minimal to no adverse impact to the environment related to development and operation of the proposed Project outside of the proposed impact area. Temporarily affected areas will be restored to pre-construction contours, and the site will be reseeded and stabilized after construction in accordance with the procedures and protocols listed in Chapter 205 (Temporary Erosion and Sediment Control) of the Indiana Department of Transportation-2012 Design Manual. The Design-Builder shall manage water encountered during construction in accordance with the Stormwater Management and Clean Water Regulations Ordinance of Lake County, Indiana (Ordinance No. 1365C, revised October 8, 2013) and the Lake County Stormwater Technical Standards Manual, and meet the requirements of Indiana Department of Environmental Management's (IDEM's) Rule 13.

This Project will result in a cumulative total of 2.36 acres of permanent unavoidable impacts to jurisdictional wetlands. Because permanent impacts are greater than 0.1 acre, a compensatory mitigation plan is required for the Project. During agency coordination for the FEIS, USACE stated that jurisdictional palustrine emergent wetlands would be required to be mitigated at a minimum 1.5:1 ratio, and jurisdictional palustrine forested wetlands would need to be mitigated at a 3:1 ratio, for a total of 5.12 acres of mitigated wetlands (see Attachment 2). NICTD will use the Indiana In-Lieu Fee program to meet these mitigation requirements.

Block 7. Supplemental Application Materials

Please find the Water Resources Technical Report with photos, mapping, and classification of all identified water resources within the Project Environmental Survey Area in Appendix G7 of the FEIS/ROD at the Project's website http://www.nictdwestlake.com/resources/. A Jurisdictional Determination was provided by the USACE Chicago District on August 25, 2017, and is included within Attachment 2.

Block 9. Permitting Requirements

Compliance with Section 106 of the Historic Preservation Act of 1966, Section 7 of the Endangered Species Act, and Section 14 of the Rivers and Harbors Act of 1899, United States Code (USC) 33 Section 408 is addressed within Attachments 3, 4, and 6, respectively. Table 1 lists the environmental permit applications or authorizations that NICTD has obtained or is in the process of obtaining.

Table 1. List of Certificates and Approvals

Agency/Permit	Type Approval	ID Number	Date Applied	Date Approved	Date Denied
USACE Section 404 Individual Permit	Permit	LRC-2016-529	12/2020	Ongoing	N/A
IDEM Section 401 Water Quality Certificate	Permit	TBD	12/2020	Ongoing	N/A
USACE Section 408	Approval	LRC-2016-529	TBD	Ongoing	N/A
U.S. Fish and Wildlife Service Section 7 of Endangered Species Act Consultation	Concurrence	N/A	9/30/2014	9/26/2017	N/A
Indiana Department of Natural Resources Early Coordination/Environmental Assessment	Concurrence	ER-17897	10/6/2014	11/1/2017	N/A
DHPA Section 106 of the National Historic Preservation Act Consultation	Concurrence	DHPA No. 16774	3/31/2016	11/7/2017	N/A
IDEM National Pollutant Discharge Elimination System General Construction Permit	Permit	TBD	TBD	TBD	N/A
INDNR Division of Nature Preserves Lake Michigan Coastal Program – Coastal Zone Management Act Federal Consistency Determination	Permit	TBD	TBD	TBD	N/A
INDNR Division of Water, Technical Services Section – Floodway Permit for Little Calumet River	Permit	TBD	TBD	TBD	N/A
INDNR Division of Water, Technical Services Section – Floodway Permit for Grand Calumet River (Possible)	Permit	TBD	TBD	TBD	N/A

DHPA = Indiana Department of Natural Resources, Division of Historic Preservation & Archaeology
INDNR = Indiana Department of Natural Resource
N/A = not applicable
TBD = to be determined

Worksheets

A. Impacted Wetlands

Jurisdictional Wetlands (Existing Conditions)			Jurisdictional Wetlands (Proposed Impacts)					
Wetland Number	**Wetland Type**	**Size of wetland (acres)**	**Permanent Impact (acres)**	**Impact**	**Fill (Material)**	**Fill quantity (cy)**	**Temporary Impact (acres)**	**ATF**
W1	PEM	0.23	0.09	Rail Bridge; Trail Bridge	Clean Earth Fill; Rock Channel Protection/Rip Rap	145	0.01	No
W2	PFO	0.12	0.05	Track; Trail	Clean Earth Fill	81	-	No
W3	PEM	0.11	0.11	Trail	Clean Earth Fill	177	-	No
W4*	PFO	0.17	0.17	Rail Bridge; Trail Bridge	Clean Earth Fill; Rock Channel Protection/Rip Rap	274	-	No
W5*	PEM	0.09	0.09	Track	Clean Earth Fill	145	-	No
W6	PFO	0.45	0.06	Trail	Clean Earth Fill	97	-	No
W7	PEM	0.66	0	Construction Staging	-	-	0.66	No
W11	PEM	0.07	0.07	Track; Access Road	Clean Earth Fill	113	-	No
W32	PEM	2.67	0.88	Rail Bridge; Retaining Wall	Clean Earth Fill	1,420	-	No
W33	PEM	0.70	0.06	Track; Retaining Wall	Clean Earth Fill	97	-	No
W34	PFO	0.55	0.05	Track; Retaining Wall	Clean Earth Fill	81	0.07	No
W36	PEM	0.77	0.01	Rail Bridge	Clean Earth Fill	16	-	No
W37*	PFO	0.35	0.35	Rail Bridge	Clean Earth Fill	565	-	No
W38*	PFO	0.33	0.33	Station Parking Lot	Clean Earth Fill	532	-	No
W39	PFO	0.45	0.04	Station Parking Lot	Clean Earth Fill	65	-	No

ATF = After the Fact
cy = cubic yards
PEM = Palustrine Emergent
PFO = Palustrine Forested

*Per Appendix G7 of the FEIS/ROD, if over half a wetland is permanently impacted, it is considered a full impact.

C. Bridges and Stream Crossings

The Project alignment crosses two waterways; the Grand Calumet River and the Little Calumet River. See additional photographs of the rivers below. The bridge over the Grand Calumet River will span the waterway and will have no piers, abutments, or temporary impacts in the river channel (see Figure 3).

The Project will construct two bridges at the Little Calumet River. The Project will relocate the existing Monon Trail pedestrian bridge over the river channel to new piers located to the east and build a new rail bridge at the current location of the Monon Trail pedestrian bridge. The existing Monon Trail pedestrian bridge piers will be removed. The newly constructed bridge, piers, and scour protection measures will have permanent and temporary impacts to Wetland 1 and Wetland 4 adjacent to the Little Calumet River. Retaining walls will extend between the abutments of the WLC rail bridge and the end bents of the pedestrian bridge, and wing walls will extend from the abutments and the end bents to the levees and the flood wall to minimize the embankment fill on the river side of the levees and flood wall. See additional description of the Little Calumet River crossings in Attachment 6.

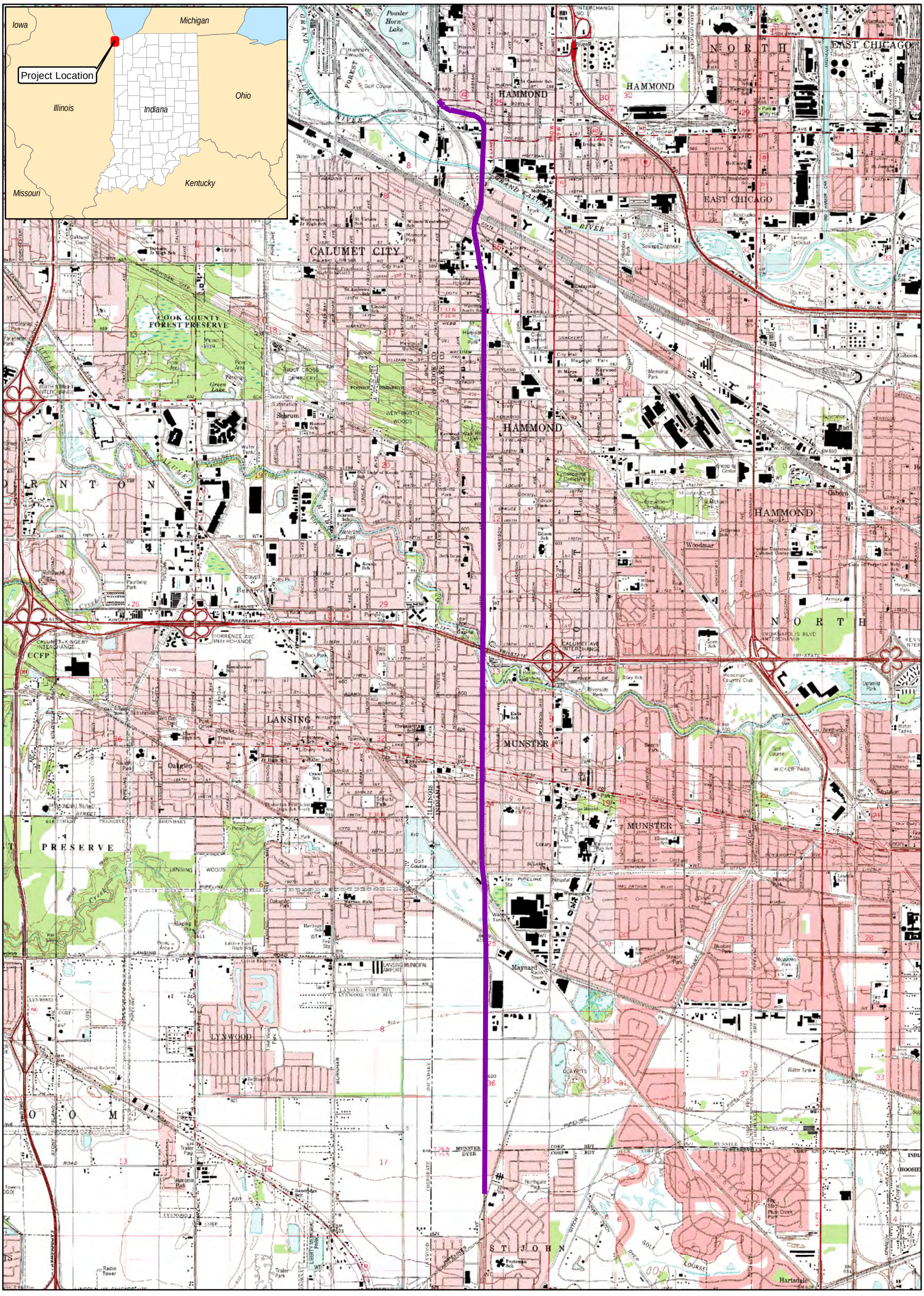
Grand Calumet River at the proposed NICTD crossing, from the Hohman Avenue Bridge, facing west.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing north.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing northwest.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing northeast.

Existing Monon Trail Pedestrian Bridge over the Little Calumet River, facing south.



Legend

Proposed Alignment

Figure 1
USGS Topographic Map
West Lake Corridor Dyer to Hammond, IN
Northern Indiana Commuter Transportation District, Chesterton, IN

N

0 1,750 3,500 7,000
Feet

Imagery Source: ESRI USA Topo Maps online mapping service
USGS 7.5 minute topographic quadrangles:
Calumet City, IN/IL (published 1996)
Lake Calumet, IN/IL (published 1996)

Jacobs